APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELLI
C-33128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

1345 S. TEMPERANCE AVE, SANGER, CA

SANGER UNIFIED SCHOOL DISTRICT

1905 SEVENTH STREET, SANGER, CA 93657 | PROJECT TRACKING NUMBER: 62414-206

ABBREVIATIONS

ABBREVIATIONS WHEN USED IN THESE DOCUMENTS SHALL CONFORM TO THE FOLLOWING LIST UNLESS OTHERWISE NOTED. INDIVIDUAL DRAWINGS(SUCH AS CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL) MAY CONTAIN SPECIFIC REFERENCES AND LEGENDS WITH INTERPRETATIONS INTENDED ONLY FOR THOSE DRAWINGS.

&	AND	E.	EAST	JAN.	JANITOR	R.	RADIUS
L.,	ANGLE	EA.	EACH	JB.	JAMB	R.A.	RETURN AIR
@	AT	E.J.	EXPANSION JOINT	JT.	JOINT	R.B.	RUBBER BASE
C	CENTERLINE	ELEV.	ELEVATION	JST	JOIST	R.D.	ROOF DRAIN
	DIAMETER	ELEC.	ELECTRICAL			REF.	REFERENCE
#	POUND OR NUMBER	EMBED.	EMBEDMENT	K.	KITCHEN	REFR.	REFRIGERATOR
(E)	EXISTING	ENCL.	ENCLOSURE			REINF.	REINFORCED
(N)	NEW	ENGR.	ENGINEER	L.	LONG	REQ.	REQUIRED
		EQ.	EQUAL	LAB.	LABORATORY	RESIL.	RESILIENT
A.B.	ANCHOR BOLT	EQUIP.	EQUIPMENT	LAM.	LAMINATE	RM.	ROOM
A/C	AIR CONDITIONING	EXP.	EXPANSION	LAV.	LAVATORY	R.O.	ROUGH OPENING
A.C.	ASPHALT CONCRETE	EXIST.	EXISTING	LKR.	LOCKER	R.O.W.	RIGHT-OF-WAY
ACOUST.	ACOUSTICAL	EXT.	EXTERIOR	LT.	LIGHT	RDWD.	REDWOOD
ADJ.	ADJUSTABLE					RWL.	RAIN WATER LEADER
AGG.	AGGREGATE	F.A.	FIRE ALARM	MAX.	MAXIMUM		
ALUM.	ALUMINUM	F.D.	FLOOR DRAIN	M.B.	MACHINE BOLT	S.	SOUTH
ALT.	ALTERNATE	FDN.	FOUNDATION	MATL.	MATERIAL	S.A.	SUPPLY AIR
APPROX.	APPROXIMATE	F.E.	FIRE EXTINGUISHER	MECH.	MECHANICAL	S.C.	SOLID CORE
ARCH.	ARCHITECTURAL	F.E.C.	FIRE EXTINGUISHER	MET./MTL.	METAL	SCHED.	SCHEDULE
	(OR ARCHITECT)		AND CABINET	MFR.	MANUFACTURER	S.D.	STORM DRAIN
AUTO.	AUTOMATIC	F.F.E.	FINISH FLOOR ELEVATION	MH.	MANHOLE	SECT.	SECTION
		F.H.C.	FIRE HOSE CABINET	MIN.	MINIMUM	S.F.	SQUARE FOOT (FEET)
BEL.	BELOW	F.H.M.S.	FLAT HEAD MACHINE SCREW	MISC.	MISCELLANEOUS	SH.	SHELF
BET./BTWN.	BETWEEN	F.H.W.S.	FLAT HEAD WOOD SCREW	M.O.	MASONRY OPENING	SHR./SHWR.	SHOWER
BD.	BOARD	FIN.	FINISH	MOD.	MODULE, MODULAR	SHT.	SHEET
BLDG.	BUILDING	FL.	FLOOR	MTD.	MOUNTED	SHTG.	SHEATHING
BLK./BLKG.	BLOCKING	FLSHG.	FLASHING	MUL.	MULLION	SIM.	SIMILAR
BM.	BEAM	F.O.C.	FACE OF CONCRETE			S.M.S.	SHEET METAL SCREW
B.O.	BOTTOM OF	F.O.F.	FACE OF FINISH	N.	NORTH	S.N.D.	SANITARY NAPKIN DISPOSAL
BOT./BTM.	BOTTOM	F.O.M.	FACE OF MASONRY	N.I.C.	NOT IN CONTRACT	S.N.V.	SANITARY NAPKIN VENDOR
B.U.R.	BUILT-UP ROOF	F.O.P.	FACE OF PLYWOOD		(N.I.C. ITEMS NOT PART	S.O.V.	SHUT OFF VALVE
		F.O.S.	FACE OF STUDS		OF THIS APPROVAL)	SPEC.	SPECIFICATIONS
CAB.	CABINET	F.R.P.	FIBER REINFORCED PANEL	NO.	NUMBER	SQ.	SQUARE
C.I.	CAST IRON	F.R.T.	FIRE RETARDANT TREATED	NOM.	NOMINAL	ST.STL.	STAINLESS STEEL
C.J.	CONTROL JOINT	FT.	FOOT OR FEET	N.T.S.	NOT TO SCALE	S.S.	SERVICE SINK
CLG.	CEILING	FTG.	FOOTING			S.T.	SELF TAPPING
CLR.	CLEAR	FUT.	FUTURE	O/	OVER	STA.	STATION
CNTR.	COUNTER			O.C.	ON CENTER	STD.	STANDARD
COL.	COLUMN	G.	GAS	O.D.	OUTSIDE DIAMETER	STL.	STEEL
C.M.U.	CONCRETE MASONRY UNIT	GA.	GAGE	OFF.	OFFICE	STOR.	STORAGE
CONC.	CONCRETE	GALV.	GALVANIZED	O.H.	OPPOSITE HAND	STRUCT.	STRUCTURAL
CONN.	CONNECTION	G.B.	GRAB BAR	O.H.M.S.	OVAL HEAD MACHINE SCREW	SUSP.	SUSPENDED
CONSTR.	CONSTRUCTION	G.I.	GALVANIZED IRON	O.H.W.S.	OVAL HEAD WOOD SCREW	S.V.	SHEET VINYL
CONT.	CONTINUOUS	GND.	GROUND	OPNG.	OPENING	S.Y.	SQUARE YARD
CONTR.	CONTRACTOR	GR.	GRADE	OPP.	OPPOSITE	SYM.	SYMMETRICAL
CORR.	CORRIDOR	GYP.	GYPSUM				
CTR.	CENTER			PART.	PARTITION	T.C.	TERMINAL CABINET
CTSK.	COUNTERSUNK	H.B.	HOSE BIB	P.E.N.	PLYWOOD EDGE NAILING	TEL.	TELEPHONE
C.Y.	CUBIC YARD	HD.	HEAD	PL.	PLATE	TEMP.	TEMPERED
		HDWD.	HARDWOOD	P. LAM.	PLASTIC LAMINATE	T&G	TONGUE AND GROOVE
DBL.	DOUBLE	HGT./HT.	HEIGHT	PL.	PLATE	THK.	THICK
DEPT.	DEPARTMENT	H.M.	HOLLOW METAL	PLAS.	PLASTER	T.P.	TOILET PAPER DISPENSER
DET.	DETAIL	HORIZ.	HORIZONTAL	PLUMB.	PLUMBING	T.O.M.	TOP OF MASONRY
D.F.	DRINKING FOUNTAIN	HR.	HOUR	PLYWD.	PLYWOOD	T.PL.	TOP OF PLATE
D.I.	DROP INLET	H.V.A.C.	HEATING VENTILATING, AND	P.O.C.	POINT OF CONNECTION	T.O.S.	TOP OF STEEL
DIA.	DIAMETER		AIR CONDITIONING	PR.	PAIR	TRD.	TREAD
DIAG.	DIAGONAL			PRCST.	PRECAST	T.S.C.	TOILET SEAT COVER DISPENSER
DIM.	DIMENSION	I.D.	INSIDE DIAMETER	PREFIN.	PREFINISHED	T.V.	TELEVISION
DISP.	DISPENSER	IN.	INCHES	PROJ.	PROJECT	T.W.	TOP OF WALL
DN.	DOWN	INCL.	INCLUDING, INCLUDES	PT.	POINT	TYP.	TYPICAL
DP.	DEEP	INSUL.	INSULATION	P.T.	PAPER TOWEL DISPENSER		
DR.	DOOR	INT.	INTERIOR			UNF.	UNFINISHED
DS.	DOWNSPOUT	INV.	INVERT	Q.T.	QUARRY TILE	U.O.N.	UNLESS OTHERWISE NOTED
DW.	DOMESTIC WATER					UR.	URINAL
DWG.	DRAWING						
DWR.	DRAWER						

V.B.	VINYL BASE		
V.C.T.	VINYL COMPOSITION TILE		
VCTB	VINYL COVERED TACKBOARD		
VWC	VINYL WALLCOVERING		
VERT.	VERTICAL		
VEST.	VESTIBULE		
W.	WEST		
W/	WITH		
W.C.	WATER CLOSET		
WD.	WOOD		
W.H.	WATER HEATER		
W/O	WITHOUT		
WP.	WATERPROOF		
W.R.	WATER RESISTANT		
W.S.	WOOD SCREW		
WSCT.	WAINSCOT		
WT.	WEIGHT		
WWF	WELDED WIRE FABRIC		

CONSULTANTS

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APPLICABLE CODES

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND THE FOLLOWING REGULATIONS :

1. 2025 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 CCR.
2. 2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR.
3. 2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR.
4. 2022 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 CCR.
5. 2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR.
6. 2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR.
7. 2022 CALIFORNIA FIRE CODE, PART 9, TITLE 24 CCR.
8. 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR.
9. 2022 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 CCR.
10. TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
11. 2022 NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE, (CA AMENDED)
12. 2019 NFPA 80 STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES.
13. 2022 NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, (CA AMENDED)
14. 2021 NFPA 17A STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS.
15. 2019 NFPA 14 STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS, (CA AMENDED)
16. 2019 NFPA 20 STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION.
17. 2019 NFPA 24 STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES, (CA AMENDED)
18. 2018 NFPA 2001 STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS, (CA AMENDED)

REFERENCE CODE SECTION FOR NFPA STANDARDS - 2022 CBC (SFM) CHAPTER 35.
SEE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

PROJECT SCOPE

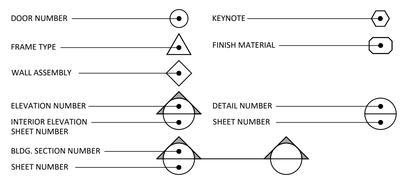
THE WORK INCLUDES A NEW ELEMENTARY SCHOOL CAMPUS, CONSISTING OF:
(7) WOOD FRAMED, SLAB ON GRADE BUILDINGS,
(1) CONCRETE MASONRY UNIT, SLAB ON GRADE BUILDING,
(2) PC PLAY STRUCTURES,
(1) PC PLAY STRUCTURE SHADE CANOPY,
(1) PC PHOTOVOLTAIC SUPPORT STRUCTURE & RELATED EQUIPMENT,
AND RELATED ON-SITE AND OFF-SITE DEVELOPMENT

DEFERRED APPROVALS

INSTALLATION OF DEFERRED APPROVAL ITEMS SHALL NOT BE STARTED UNTIL THE CONTRACTOR'S DRAWINGS SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCTURAL ENGINEER AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT.

1. ALL WINDOW FRAME SYSTEMS AT BUILDINGS 300, 400 & 500.

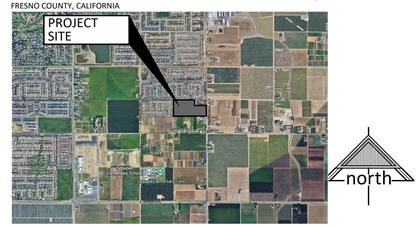
SYMBOL LEGEND



VICINITY MAP

TEMPERANCE ELEMENTARY SCHOOL
WEST SIDE OF TEMPERANCE AVENUE BETWEEN CALIFORNIA AND CHURCH AVENUES, FRESNO COUNTY, CALIFORNIA

N.T.S.



LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS EXEMPTIONS

THE ITEMS IDENTIFIED BELOW ARE EXEMPT FROM TEST AND SPECIAL INSPECTION REQUIREMENTS PER DSA 103-22 LIST OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS. THE PROJECT INSPECTOR SHALL VERIFY ALL CONSTRUCTION COMPLIES WITH THE APPROVED CONSTRUCTION DOCUMENTS.

- WELDING: ELIGIBLE RAILING AND RAMPS | HANDRAILS, GUARDRAILS AND MODULAR OR RELOCATABLE RAMPS ASSOCIATED WITH WALKING SURFACES LESS THAN 30" ABOVE ADJACENT GRADE; FILLET WELDS SHALL NOT BE GROUND FLUSH.
- WELDING: ELIGIBLE EQUIPMENT CURBS | MANUFACTURED SUPPORT FRAMES AND CURBS USING HOT ROLLED OR COLD-FORMED STEEL (I.E., LIGHT GAUGE) FOR MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT WEIGHING LESS THAN 2000 LBS (EQUIPMENT ONLY) (CONNECTIONS OF SUCH FRAMES TO SUPERSTRUCTURE ELEMENTS USING WELDING WILL REQUIRE SPECIAL INSPECTION.)
- WELDING: ELIGIBLE COMPONENTS SUPPORTING MEP DISTRIBUTION SYSTEMS | MANUFACTURED COMPONENTS FOR MECHANICAL, ELECTRICAL OR PLUMBING HANGER SUPPORT BRACING. (CONNECTIONS OF SUCH COMPONENTS TO THE SUPERSTRUCTURE ELEMENTS USING WELDING WILL REQUIRE SPECIAL INSPECTION)
- WELDING: ELIGIBLE MOUNTS AND RECREATIONAL EQUIPMENT | TV BRACKETS, PROJECTOR MOUNTS WITH VALID LISTING AND RECREATIONAL EQUIPMENT (PLAYGROUND STRUCTURES, BASKETBALL BACKSTOPS, ETC.) (CONNECTIONS OF SUCH ELEMENTS TO SUPERSTRUCTURE ELEMENTS USING WELDING WILL REQUIRE SPECIAL INSPECTION.)

GENERAL NOTES

1. CUTTING, BORING, SAW CUTTING, OR DRILLING THROUGH NEW OR EXISTING STRUCTURAL MEMBERS WILL BE PERMITTED ONLY WHERE INDICATED ON THE DRAWINGS, OR WHEN ACCEPTED BY THE ARCHITECT.
2. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGED DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
3. A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR. A MINIMUM CLASS 2 INSPECTOR IS REQUIRED FOR THE PROJECT.
4. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
5. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS, AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
6. THE STORAGE OF MATERIAL AND EFFECTS OF WORK SHALL BE APPROVED BY LOCAL FIRE AUTHORITY. COMPLY WITH CALIF. FIRE CODE CHAPTER 33 - FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION. COMPLY WITH CBC CHAPTER 33, SAFETY DURING CONSTRUCTION.
7. THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE. LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT). MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE PER FORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021. ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ ARCHITECT OF RECORD OF THE OWNER'S AGENT. A LISTING OF CERTIFIED ATT CAN BE FOUND AT: https://www.energy.ca.gov/programs-and-topics/programs -and-topics /programs/acceptance-test-technician-certification- provider-program/acceptance. THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA. PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.
8. NEW BUILDINGS SHALL BE PROVIDED WITH EMERGENCY RESPONDER RADIO COVERAGE IN ACCORDANCE WITH CALIFORNIA FIRE CODE SECTION 510. THE PROJECT ARCHITECT (AOR) SHALL CONTACT THE LOCAL FIRE DEPARTMENT AND/OR EMERGENCY COMMUNICATIONS AUTHORITY TO OBTAIN DESIGN, EQUIPMENT SPECIFICATIONS, TESTING AND ACCEPTANCE CRITERIA. PLANS AND REQUESTED DOCUMENTATION SHALL BE SUBMITTED TO THE LOCAL AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL. UPON COMPLETION, COPIES OF THE APPROVED PLANS, EQUIPMENT DATA SHEETS, TESTING AND ACCEPTANCE DOCUMENTATION SHALL BE PROVIDED TO THE SCHOOL DISTRICT.
9. SUBSTITUTIONS AFFECTING ITEMS REGULATED BY THE DIVISION OF THE STATE ARCHITECT (DSA) REQUIRE DSA APPROVAL AS AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT (CCD). DSA APPROVAL SHALL BE OBTAINED PRIOR TO FABRICATION AND/OR INSTALLATION PER SECTION 4-338, PART 1, TITLE 24, CCR.

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
COVER SHEET, GENERAL INFORMATION & VICINITY MAP

G1

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_G1 - Cover Sheet.dwg Sep 16 2026 4:52pm

SHEET INDEX (542 SHEETS TOTAL)

GENERAL INFORMATION

G1	COVER SHEET, GENERAL INFORMATION & VICINITY MAP
G2	SHEET INDEX
FC1	FIRE CODE, SITE PLAN & CODE SUMMARY
FC2	ENLARGED FIRE CODE SITE PLAN
FC3	FIRE FLOW TEST RESULTS

CIVIL

G-1	COVER SHEET
G-2	NOTES AND LEGEND SHEET
G-3	CROSS SECTIONS SHEET
D-1	DEMOLITION SHEET
D-2	DEMOLITION SHEET
SP-1	SITE PLAN SHEET
SP-2	SITE PLAN SHEET
GP-1	GRADING SHEET
GP-2	GRADING SHEET
GP-3	GRADING SHEET
GP-4	GRADING SHEET
GP-5	GRADING SHEET
GP-6	GRADING DETAILS
GP-7	GRADING DETAILS
GP-8	DRAINAGE SHEET
GP-9	DRAINAGE SHEET
GP-10	DRAINAGE SHEET
GP-11	DRAINAGE SHEET
UT-1	UTILITY PLAN SHEET
BK-1	BLOCK WALL PLAN SHEET
BK-2	BLOCK WALL PLAN SHEET
BK-3	BLOCK WALL PLAN SHEET
BK-4	BLOCK WALL STRUCTURAL DETAILS
BK-5	BLOCK WALL STRUCTURAL DETAILS
DT-1	DETAILS SHEET
DT-2	DETAILS SHEET
DT-3	DETAILS SHEET
DT-4	DETAILS SHEET
DT-5	DETAILS SHEET

LANDSCAPING

LO-1	OVERALL PLAN SHEET LAYOUT PLAN
LM-1	LANDSCAPE MULCHING PLAN
LM-2	LANDSCAPE MULCHING PLAN
LM-3	LANDSCAPE MULCHING PLAN
LM-4	LANDSCAPE MULCHING PLAN
LM-5	LANDSCAPE MULCHING PLAN
LM-6	LANDSCAPE MULCHING PLAN
LM-7	LANDSCAPE MULCHING LEGEND & DETAILS
LP-1	LANDSCAPE PLANTING PLAN
LP-2	LANDSCAPE PLANTING PLAN
LP-3	LANDSCAPE PLANTING PLAN
LP-4	LANDSCAPE PLANTING PLAN
LP-5	LANDSCAPE PLANTING PLAN
LP-6	LANDSCAPE PLANTING PLAN
LP-7	LANDSCAPE PLANTING PLAN LEGEND & DETAILS
LI-1	LANDSCAPE IRRIGATION PLAN
LI-2	LANDSCAPE IRRIGATION PLAN
LI-3	LANDSCAPE IRRIGATION PLAN
LI-4	LANDSCAPE IRRIGATION PLAN
LI-5	LANDSCAPE IRRIGATION PLAN
LI-6	LANDSCAPE IRRIGATION PLAN
LI-7	LANDSCAPE IRRIGATION LEGEND
LI-8	LANDSCAPE IRRIGATION DETAILS
LI-9	LANDSCAPE IRRIGATION DETAILS
LI-10	LANDSCAPE IRRIGATION DETAILS
LI-11	LANDSCAPE IRRIGATION DETAILS
LI-12	LANDSCAPE IRRIGATION DETAILS AND NOTES

SITE DEVELOPMENT

SD1	OVERALL SITE PLAN
SD2	DEMOLITION SITE PLAN
SD3	ENLARGED SITE PLAN
SD4	ENLARGED SITE PLAN
SD5	ENLARGED SITE PLAN
SD6	ENLARGED SITE PLANS AND DETAILS
SD7	ENLARGED SITE PLANS AND DETAILS
SD8	ENLARGED SITE PLANS AND DETAILS
SD9	ENLARGED SITE PLANS AND DETAILS
SD10	ENLARGED SITE PLANS AND DETAILS
SD11	SITE DETAILS
SD12	ENLARGED SITE PLANS AND DETAILS
SD13	SITE FENCING DETAILS
SD14	SITE DETAILS
SD15	SITE DETAILS
SD16	PARTIAL SITE PLAN PLAYFIELDS DIMENSION PLAN
SD17	BACKSTOP DETAILS
SD18	PLAY STRUCTURE LAYOUTS
SD19	SITE DETAILS
SD20	SITE DETAILS

ARCHITECTURAL

A1	BUILDING '100' FLOOR PLAN & CLERESTORY PLAN
A2	BUILDING '100' ENLARGED FLOOR PLANS & MILLWORK
A3	BUILDING '100' EXIT ANALYSIS
A4	BUILDING '100' EXTERIOR ELEVATIONS
A5	BUILDING '100' REFLECTED CEILING PLAN
A6	BUILDING '100' ROOF PLAN
A7	BUILDING '100' SECTIONS
A8	BUILDING '100' SECTIONS
A9	BUILDING '100' SECTIONS
A10	BUILDING '100' AIR BARRIER SECTIONS
A11	BUILDING '100' INTERIOR ELEVATIONS
A12	BUILDING '100' INTERIOR ELEVATIONS
A13	BUILDING '100' INTERIOR ELEVATIONS
A14	BUILDING '100' INTERIOR ELEVATIONS
A15	BUILDING '100' INTERIOR ELEVATIONS
A16	BUILDING '100' INTERIOR ELEVATIONS
A17	BUILDING '100' INTERIOR ELEVATIONS
A18	BUILDING '100' INTERIOR ELEVATIONS
A19	BUILDING '200' FLOOR PLAN
A20	BUILDING '200' ENLARGED FLOOR PLANS
A21	BUILDING '200' ENLARGED FLOOR PLANS
A22	BUILDING '200' EXIT ANALYSIS
A23	BUILDING '200' EXTERIOR ELEVATIONS
A24	BUILDING '200' REFLECTED CEILING PLAN
A25	BUILDING '200' ROOF PLAN
A26	BUILDING '200' SECTIONS
A27	BUILDING '200' SECTIONS
A28	BUILDING '200' SECTIONS
A29	BUILDING '200' AIR BARRIER SECTIONS
A30	BUILDING '200' INTERIOR ELEVATIONS
A31	BUILDING '200' INTERIOR ELEVATIONS
A32	BUILDING '200' INTERIOR ELEVATIONS
A33	BUILDING '200' INTERIOR ELEVATIONS
A34	BUILDING '200' INTERIOR ELEVATIONS
A35	BUILDING '200' INTERIOR ELEVATIONS
A36	BUILDING '200' INTERIOR ELEVATIONS
A37	BUILDING '200' INTERIOR ELEVATIONS
A38	BUILDINGS '300' '400' '500' FLOOR PLANS
A39	BUILDINGS '300' '400' '500' ENLARGED FLOOR PLANS
A40	BUILDINGS '300' '400' '500' EXIT ANAYLSIS
A41	BUILDINGS '300' '400' '500' EXTERIOR ELEVATIONS
A42	BUILDINGS '300' '400' '500' REFLECTED CEILING PLAN
A43	BUILDINGS '300' '400' '500' ROOF PLANS & RCP AT HIGH ROOF
A44	BUILDINGS '300' '400' '500' SECTIONS
A45	BUILDINGS '300' '400' '500' SECTIONS
A46	BUILDINGS '300' '400' '500' AIR BARRIER SECTIONS
A47	BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS
A48	BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS
A49	BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS
A50	BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS
A51	BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS
A52	BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS
A53	BUILDING '600' FLOOR PLAN & ENLARGED FLOOR PLANS
A54	BUILDING '600' EXIT ANALYSIS
A55	BUILDING '600' EXTERIOR ELEVATIONS
A56	BUILDING '600' REFLECTED CEILING PLAN & ROOF PLAN
A57	BUILDING '600' SECTIONS
A58	BUILDING '600' SECTIONS
A59	BUILDING '600' SECTIONS
A60	BUILDING '600' INTERIOR ELEVATIONS
A61	BUILDING '600' INTERIOR ELEVATIONS
A62	BUILDING '700' FLOOR PLAN & ENLARGED FLOOR PLANS
A63	BUILDING '700' EXIT ANALYSIS
A64	BUILDING '700' EXTERIOR ELEVATIONS
A65	BUILDING '700' REFLECTED CEILING PLAN & ROOF PLAN
A66	BUILDING '700' SECTIONS
A67	BUILDING '700' SECTIONS
A68	BUILDING '700' INTERIOR ELEVATIONS
A69	BUILDING '700' INTERIOR ELEVATIONS
A70	BUILDING '800' FLOOR PLAN, CEILING PLAN, ROOF PLAN & EXIT ANALYSIS
A71	BUILDING '800' SECTION, EXTERIOR ELEVATIONS, & DETAILS
A72	FINISH SCHEDULE
A73	FINISH SCHEDULE
A74	FINISH SCHEDULE
A75	FINISH SCHEDULE
A76	FINISH SCHEDULE
A77	BUILDING '100' WALL ASSEMBLY KEY PLAN
A78	BUILDING '200' WALL ASSEMBLY KEY PLAN
A79	BUILDINGS '300' '400' '500' WALL ASSEMBLY KEY PLAN
A80	BUILDINGS '600' '700' '800' WALL ASSEMBLY KEY PLAN
A81	WALL ASSEMBLY DETAILS
A82	WALL ASSEMBLY DETAILS
A83	DOOR SCHEDULE
A84	DOOR SCHEDULE
A85	DOOR SCHEDULE
A86	DOOR SCHEDULE
A87	FRAME TYPE SCHEDULE
A88	FRAME TYPE SCHEDULE
A89	FRAME DETAILS
A90	FRAME DETAILS
A91	WALL AT BASE DETAILS
A92	WALL AT BASE DETAILS
A93	WALL AT CEILING DETAILS
A94	WALL AT CEILING DETAILS
A95	WALL AT CEILING DETAILS
A96	MILLWORK DETAILS
A97	TYPICAL DETAILS
A98	SUSPENDED CEILING DETAILS
A99	SUSPENDED CEILING DETAILS
A100	DETAILS
A101	DETAILS
A102	DETAILS
A103	DETAILS
A104	DETAILS

STRUCTURAL

S1.1	TYPICAL NOTES AND DETAILS
S1.2	TYPICAL NOTES AND DETAILS
S1.3	TYPICAL NOTES AND DETAILS
S1.4	TYPICAL NOTES AND DETAILS
S1.5	TYPICAL NOTES AND DETAILS
S1.6	TYPICAL NOTES AND DETAILS
S1.7	TYPICAL NOTES AND DETAILS
S2.1	BUILDING 100 FOUNDATION PLAN
S2.2	BUILDING 200 FOUNDATION PLAN
S2.3	BUILDINGS 300-400-500 FOUNDATION PLAN
S2.4	BUILDING 600 FOUNDATION PLAN
S2.5	BUILDING 700 FOUNDATION PLAN
S2.6	FOOTING DETAILS
S2.7	FOOTING DETAILS
S2.8	FOOTING DETAILS
S3.1	BUILDING 100 ROOF FRAMING PLAN
S3.2	BUILDING 200 ROOF FRAMING PLAN
S3.3	BUILDINGS 300-400-500 ROOF FRAMING PLAN
S3.4	BUILDING 600 ROOF FRAMING PLAN
S3.5	BUILDING 700 ROOF FRAMING PLAN
S4.1	BUILDINGS 100 CEILING FRAMING PLAN
S4.2	BUILDINGS 200 CEILING FRAMING PLAN
S4.3	BUILDINGS 300-400-500 CANOPY & CEILING FRAMING PLAN
S4.4	BUILDING 600 CEILING FRAMING PLAN
S4.5	BUILDING 700 CEILING FRAMING PLAN
S5.1	BUILDINGS 100 SECTIONS
S5.2	BUILDINGS 100 SECTIONS
S5.3	BUILDINGS 100 SECTIONS
S5.4	BUILDINGS 200 SECTIONS
S5.5	BUILDINGS 300-400-500 CANOPY & CEILING SECTIONS
S5.6	BUILDINGS 300-400-500 CLASSROOM SECTIONS
S5.7	BUILDINGS 600 & 700 SECTIONS
S5.8	BUILDING 600 SECTIONS
S5.9	BUILDING 700 SECTIONS
S6.1	BUILDINGS 100 SHEAR WALL ELEVATIONS
S6.2	BUILDINGS 100 SHEAR WALL ELEVATIONS
S6.3	BUILDINGS 200 SHEAR WALL ELEVATIONS
S6.4	BUILDINGS 200 SHEAR WALL ELEVATIONS
S6.5	BUILDINGS 200 SHEAR WALL ELEVATIONS
S6.6	BUILDINGS 300-400-500 CLASSROOM SHEAR WALL ELEVATIONS
S6.7	BUILDINGS 300-400-500 CLASSROOM SHEAR WALL ELEVATIONS
S6.8	BUILDING 600 SHEAR WALL ELEVATIONS
S6.9	BUILDING 700 SHEAR WALL ELEVATIONS
S7.1	FRAMING DETAILS
S7.2	FRAMING DETAILS
S7.3	FRAMING DETAILS
S7.4	FRAMING DETAILS
S7.5	FRAMING DETAILS
S7.6	FRAMING DETAILS
S7.7	FRAMING DETAILS
S7.8	FRAMING DETAILS
S7.9	FRAMING DETAILS
S7.10	FRAMING DETAILS
S8.1	BUILDING 800 FDN PLAN, ROOF FRMG PLAN, SECTION & WALL ELEVS
S8.2	BUILDING 800 DETAILS

PLUMBING

P0.01	PLUMBING NOTES AND LEGENDS
P0.02	PLUMBING SITE PLAN
P1.00	BUILDING 100 - OVERALL PLUMBING PLAN
P1.01U	BUILDING 100 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P1.02U	BUILDING 100 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P1.01	BUILDING 100 - PARTIAL "TOP-OUT" PLUMBING PLAN
P1.02	BUILDING 100 - PARTIAL "TOP-OUT" PLUMBING PLAN
P1.10	BUILDING 100 - PLUMBING ROOF PLAN
P2.00	BUILDING 200 & 800 - OVERALL PLUMBING PLAN
P2.01U	BUILDING 200 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P2.02U	BUILDING 200 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P2.03U	BUILDING 200 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P2.04U	BUILDING 800 - "UNDER-SLAB" PLUMBING PLAN
P2.01	BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN
P2.02	BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN
P2.03	BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN
P2.04	BUILDING 800 - "TOP-OUT" PLUMBING PLAN
P2.05	BUILDING 200 - EQUIPMENT PLATFORMS - PLUMBING
P2.10	BUILDING 200 & 800 - PLUMBING ROOF PLAN
P3.00	BUILDING 300 - OVERALL PLUMBING PLAN
P3.01U	BUILDING 300 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P3.02U	BUILDING 300 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P3.01	BUILDING 300 - PARTIAL "TOP-OUT" PLUMBING PLAN
P3.02	BUILDING 300 - PARTIAL "TOP-OUT" PLUMBING PLAN
P3.03	BUILDING 300 - EQUIPMENT PLATFORMS - PLUMBING
P3.10	BUILDING 300 - PLUMBING ROOF PLAN
P4.01	BUILDING 400 - PARTIAL PLUMBING PLAN
P6.00	BUILDING 600 - OVERALL PLUMBING PLAN
P6.01U	BUILDING 600 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P6.02U	BUILDING 600 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P6.01	BUILDING 600 - PARTIAL "TOP-OUT" PLUMBING PLAN
P6.02	BUILDING 600 - PARTIAL "TOP-OUT" PLUMBING PLAN
P6.03	BUILDING 600 - EQUIPMENT PLATFORMS - PLUMBING
P6.10	BUILDING 600 - PLUMBING ROOF PLAN
P7.01U	BUILDING 700 - "UNDER-SLAB" PLUMBING PLAN
P7.01	BUILDING 700 - "TOP-OUT" PLUMBING PLAN
P7.02	BUILDING 700 - EQUIPMENT PLATFORMS - PLUMBING
P7.10	BUILDING 700 - PLUMBING ROOF PLAN
P8.00	PLUMBING CALCULATIONS
P8.01	PLUMBING CALCULATIONS
P8.02	PLUMBING CALCULATIONS
P9.00	PLUMBING DETAILS
P9.01	PLUMBING DETAILS
P9.02	PLUMBING DETAILS
P9.03	PLUMBING DETAILS
P9.04	PLUMBING DETAILS
P9.05	PLUMBING DETAILS
P9.06	PLUMBING DETAILS
P9.07	PLUMBING DETAILS
P9.08	PLUMBING DETAILS
P10.00	PLUMBING SUPPORTS & SEISMIC ATTACHMENT DETAILS
P11.00	PLUMBING SCHEDULES
P11.01	PLUMBING SCHEDULES
P11.02	PLUMBING SCHEDULES
P11.03	PLUMBING SCHEDULES
P11.04	PLUMBING SCHEDULES
P11.05	PLUMBING SCHEDULES
P11.06	PLUMBING KITCHEN EQUIPMENT SCHEDULES

FIRE PROTECTION

F0.01	FIRE PROTECTION SITE PLAN
F1.00	BUILDING 100 FIRE PROTECTION PIPING PLAN
F1.01	FIRE PROTECTION PIPING SECTIONS BLDG. 100
F1.02	FIRE PROTECTION PIPING SECTIONS BLDG. 100
F2.00	BUILDING 200 FIRE PROTECTION PIPING PLAN
F2.01	FIRE PROTECTION PIPING SECTIONS BLDG. 200
F2.02	FIRE PROTECTION PIPING SECTIONS BLDG. 200
F3.00	BUILDING 300 FIRE PROTECTION PIPING PLAN
F3.01	FIRE PROTECTION PIPING SECTIONS BLDGS. 300-500
F4.00	BUILDING 400 FIRE PROTECTION PIPING PLAN
F5.00	BUILDING 500 FIRE PROTECTION PIPING PLAN
F6.00	BUILDING 600 FIRE PROTECTION PIPING PLAN
F6.01	FIRE PROTECTION PIPING SECTIONS BLDG 600
F7.00	BUILDING 700 FIRE PROTECTION PIPING PLAN
F7.01	FIRE PROTECTION PIPING SECTIONS BLDG 700 & 800
F8.0A	BUILDING 800 FIRE PROTECTION PIPING PLAN
F8.00	FIRE PROTECTION RISER DETAILS
F8.01	FIRE PROTECTION RISER DETAILS
F8.02	FIRE PROTECTION RISER DETAILS
F8.03	FIRE PROTECTION RISER INSTALLATION DETAILS
F8.04	FIRE PROTECTION STRUCTURAL DETAILS
F8.05	FIRE PROTECTION STRUCTURAL DETAILS
F8.06	FIRE PROTECTION CITY UG DETAILS
F8.07	FIRE PROTECTION CITY UG DETAILS

MECHANICAL

M0.01	MECHANICAL NOTES AND LEGENDS
M0.02	OVERALL MECHANICAL SITE PLAN
M0.03	MECHANICAL PIPING & EMS SITE PLAN
M0.10	OVERALL CENTRAL PLANT
M1.00	BUILDING 100 - OVERALL MECHANICAL PLAN
M1.01	BUILDING 100 - MECHANICAL ROOF PLAN
M1.02	BUILDING 100 - PARTIAL MECHANICAL PLAN
M1.03	BUILDING 100 - PARTIAL MECHANICAL PLAN
M2.00	BUILDING 200 - OVERALL MECHANICAL PLAN
M2.01	BUILDING 200 - MECHANICAL ROOF PLAN
M2.02	BUILDING 200 - PARTIAL MECHANICAL PLAN
M2.03	BUILDING 200 - PARTIAL MECHANICAL PLAN
M2.04	BUILDING 200 - PARTIAL MECHANICAL PLAN
M2.05	BUILDING 200 - MECHANICAL MEZZANINE PLAN
M2.06	BUILDING 200 - MECHANICAL SECTIONS
M3.00	BUILDING 300, 400, 500 OVERALL MECHANICAL PLAN
M3.01	BUILDING 300, 400, 500 MECHANICAL ROOF PLAN
M3.02	BUILDING 300, 400, 500 PARTIAL MECHANICAL PLAN
M3.03	BUILDING 300, 400, 500 PARTIAL MECHANICAL PLAN
M3.04	BUILDING 300, 400, 500 MECHANICAL SECTIONS
M4.00	BUILDING 600 - OVERALL MECHANICAL PLAN
M4.01	BUILDING 600 - MECHANICAL ROOF PLAN
M4.02	BUILDING 600 - PARTIAL MECHANICAL PLAN
M4.03	BUILDING 600 - PARTIAL MECHANICAL PLAN
M4.04	BUILDING 600 MECHANICAL SECTIONS
M5.00	BUILDING 700 - ENLARGED MECHANICAL PLAN
M5.01	BUILDING 700 - MECHANICAL ROOF PLAN
M5.02	BUILDING 700 - MECHANICAL SECTIONS
M6.00	MECHANICAL DETAILS
M6.01	MECHANICAL DETAILS
M6.02	MECHANICAL DETAILS
M6.03	MECHANICAL DETAILS
M6.04	MECHANICAL DETAILS
M6.05	MECHANICAL DETAILS
M6.06	MECHANICAL DETAILS
M7.00	MECHANICAL SCHEDULES
M7.01	MECHANICAL SCHEDULES
M7.02	MECHANICAL SCHEDULES
M7.03	MECHANICAL SCHEDULES
M7.04	MECHANICAL SCHEDULES
M7.05	MECHANICAL SCHEDULES
M7.06	MECHANICAL SCHEDULES
M7.07	KITCHEN HOOD SHOP DRAWINGS
M7.08	KITCHEN HOOD SHOP DRAWINGS
M7.09	KITCHEN HOOD SHOP DRAWINGS
M7.10	KITCHEN HOOD SHOP DRAWINGS
M8.00	MECHANICAL CONTROL DETAILS
M8.01	MECHANICAL CONTROL DETAILS
M8.02	MECHANICAL CONTROL DETAILS
M8.03	MECHANICAL CONTROL DETAILS
M8.04	MECHANICAL CONTROL DETAILS
M8.05	MECHANICAL CONTROL DETAILS
M8.06	MECHANICAL CONTROL DETAILS
M8.07	MECHANICAL CONTROL DETAILS
M8.08	MECHANICAL CONTROL DETAILS
M8.09	MECHANICAL CONTROL DETAILS
M8.10	MECHANICAL CONTROL DETAILS
M8.11	MECHANICAL CONTROL DETAILS
M8.12	MECHANICAL CONTROL DETAILS
M8.13	MECHANICAL CONTROL DETAILS
M8.14	MECHANICAL CONTROL DETAILS
M8.15	MECHANICAL CONTROL DETAILS
M8.16	MECHANICAL CONTROL DETAILS
M8.17	MECHANICAL CONTROL DETAILS
M9.00	TITLE 24 BUILDING 100
M9.01	TITLE 24 BUILDING 100
M9.02	TITLE 24 BUILDING 100
M9.03	TITLE 24 BUILDING 200
M9.04	TITLE 24 BUILDING 200
M9.05	TITLE 24 BUILDING 200
M9.06	TITLE 24 BUILDING 300
M9.07	TITLE 24 BUILDING 300
M9.08	TITLE 24 BUILDING 300
M9.09	TITLE 24 BUILDING 400
M9.10	TITLE 24 BUILDING 400
M9.11	TITLE 24 BUILDING 400
M9.12	TITLE 24 BUILDING 500
M9.13	TITLE 24 BUILDING 500
M9.14	TITLE 24 BUILDING 500
M9.15	TITLE 24 BUILDING 600
M9.16	TITLE 24 BUILDING 600
M9.17	TITLE 24 BUILDING 600
M9.18	TITLE 24 BUILDING 700
M9.19	TITLE 24 BUILDING 700
M9.20	TITLE 24 BUILDING 700
M10.00	COMMISSIONING DOCUMENTS BUILDING 100
M10.01	COMMISSIONING DOCUMENTS BUILDING 200
M10.02	COMMISSIONING DOCUMENTS BUILDING 200
M10.03	COMMISSIONING DOCUMENTS BUILDING 300
M10.04	COMMISSIONING DOCUMENTS BUILDING 400
M10.05	COMMISSIONING DOCUMENTS BUILDING 500
M10.06	COMMISSIONING DOCUMENTS BUILDING 600
M10.07	COMMISSIONING DOCUMENTS BUILDING 700

ELECTRICAL

EG1.1	ELECTRICAL CODES, NOTES AND SYMBOLS SCHEDULE
EG1.2	FIXTURE SCHEDULE
EG1.3	BUILDING 100 INDOOR LIGHTING COMPLIANCE
EG1.4	BUILDING 200 INDOOR LIGHTING COMPLIANCE
EG1.5	BLDGS 300/400/500 INDOOR LIGHTING COMPLIANCE
EG1.6	BUILDING 600 INDOOR LIGHTING COMPLIANCE
EG1.7	BUILDING 700 INDOOR LIGHTING COMPLIANCE
EG1.8	BUILDING 800 INDOOR LIGHTING COMPLIANCE
EG1.9	OUTDOOR LIGHTING COMPLIANCE
EG1.10	POWER COMPLIANCE
EG1.11	SOLAR AND BATTERY STORAGE COMPLIANCE
ES1.1	OVERALL SITE ELECTRICAL PLAN
ES1.2	PARTIAL ENLARGED SITE ELECTRICAL PLAN
ES1.3	PARTIAL ENLARGED SITE ELECTRICAL PLANS - EQUIPMENT YARD & CENTRAL PLANT
ES1.4	PARTIAL ENLARGED SITE FIRE ALARM PLAN
ES1.5	PARTIAL ENLARGED SITE ELECTRICAL PLAN
ES1.6	SITE ILLUMINATION PLAN
E1.1	BUILDING 100 POWER PLAN AND ROOF ELECTRICAL PLAN
E1.2	BUILDING 100 LIGHTING PLANS
E1.3	BUILDING 100 AUTOMATED DEMAND RESPONSE PLAN
E1.4	BUILDING 100 FIRE ALARM PLANS
E2.1	BUILDING 200 POWER PLAN
E2.2	BUILDING 200 ENLARGED POWER PLAN
E2.3	BUILDING 200 ROOF ELECTRICAL PLAN
E2.4	BUILDING 200 LIGHTING PLAN
E2.5	BUILDING 200 LIGHTING CONTROLS PLAN
E2.6	BUILDING 200 AUTOMATED DEMAND RESPONSE AND STAGE LIGHTING PLAN
E2.7	BUILDING 200 FIRE ALARM INITIATION PLAN
E2.8	BUILDING 200 FIRE ALARM NOTIFICATION PLAN
E2.9	BUILDING 200 MEZZANINE PLANS
E3.1	BUILDING 300 POWER PLAN AND ROOF ELECTRICAL PLAN
E3.2	BUILDING 300 LIGHTING PLANS
E3.3	BUILDING 300 AUTOMATED DEMAND RESPONSE PLAN
E3.4	BUILDING 300 FIRE ALARM PLANS
E3.5	BUILDING 300 MEZZANINE PLANS
E4.1	BUILDING 400 POWER PLAN AND ROOF ELECTRICAL PLAN
E4.2	BUILDING 400 LIGHTING PLANS
E4.3	BUILDING 400 AUTOMATED DEMAND RESPONSE PLAN
E4.4	BUILDING 400 FIRE ALARM PLANS
E4.5	BUILDING 400 MEZZANINE PLANS
E5.1	BUILDING 500 POWER PLAN AND ROOF ELECTRICAL PLAN
E5.2	BUILDING 500 LIGHTING PLANS
E5.3	BUILDING 500 AUTOMATED DEMAND RESPONSE PLAN
E5.4	BUILDING 500 FIRE ALARM PLANS
E5.5	BUILDING 500 MEZZANINE PLANS
E6.1	BUILDING 600 POWER PLANS
E6.2	BUILDING 600 LIGHTING PLANS
E6.3	BUILDING 600 FIRE ALARM PLANS
E6.4	BUILDING 600 MEZZANINE PLANS
E7.1	BUILDING 700 POWER PLANS
E7.2	BUILDING 700 LIGHTING PLANS
E7.3	BUILDING 700 FIRE ALARM PLANS
E7.4	BUILDING 700 MEZZANINE PLANS
E8.1	FIRE ALARM SYSTEM EQUIPMENT SPECIFICATIONS, CODES AND NOTES
E8.2	MAIN FIRE ALARM SYSTEM EQUIPMENT RISER DIAGRAM
E8.3	BLDGS. 100 & 200 FIRE ALARM SYSTEM EQUIPMENT RISER DIAGRAM
E8.4	BLDGS. 300-500 FIRE ALARM SYSTEM EQUIPMENT RISER DIAGRAM
E8.5	BLDGS. 600 & 700 FIRE ALARM SYSTEM EQUIPMENT RISER
E8.6	FIRE ALARM CALCULATIONS
E8.7	FIRE ALARM CALCULATIONS
E8.8	FIRE ALARM DETAILS
E9.1	ONE LINE DIAGRAM
E9.2	DETAILS
E9.3	DETAILS
E9.4	DETAILS
E9.5	DETAILS
E9.6	DETAILS
E9.7	SOLAR ONE LINE DIAGRAM, CODES AND NOTES
E9.8	ENLARGED PV ELECTRICAL PLAN
E9.9	SOLAR CUTSHEETS
E9.10	SOLAR NOTES AND DETAILS
E10.1	BUILDING 100 PANEL SCHEDULES
E10.2	BUILDING 200 PANEL SCHEDULES
E10.3	BUILDING 300 PANEL SCHEDULES
E10.4	BUILDING 400 PANEL SCHEDULES
E10.5	BUILDING 500 PANEL SCHEDULES
E10.6	BUILDING 600/700/800 PANEL SCHEDULES
E10.7	CALCULATIONS

TELECOM

TG1.1	SIGNALS CODES, NOTES, SYMBOLS AND DETAILS
TG1.2	SIGNALS DETAILS
TG1.3	SIGNALS DETAILS
TS1.1	OVERALL SITE SIGNALS PLAN
T1.1	BUILDING 100 SIGNALS PLANS
T2.1	BUILDING 200 SIGNALS PLAN
T2.2	BUILDING 200 SIGNALS CEILING PLAN
T3.1	BUILDING 300 SIGNALS PLANS
T4.1	BUILDING 400 SIGNALS PLANS
T5.1	BUILDING 500 SIGNALS PLANS
T6.1	BUILDING 600 SIGNALS PLANS
T7.1	BUILDING 700 SIGNALS PLANS

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

☒ The drawings or sheets listed on the cover or index sheet below
☐ This drawing, page of specifications/calculations

have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. it has been examined by me for:

1) design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2) coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341 AND 4-344" OF TITLE 24, PART 1 (TITLE 24, PART 1, SECTION 4-317 (b))

I find that: ☒ All drawings or sheets listed on the cover or index sheet below ☐ This drawing or page

☒ is/are in general conformance with the project design intent, and
☒ has/have been coordinated with the project plans and specifications

J. Morrelli — 9.17.2026
SIGNATURE OF THE ARCHITECT/ ENGINEER — DATE

ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE

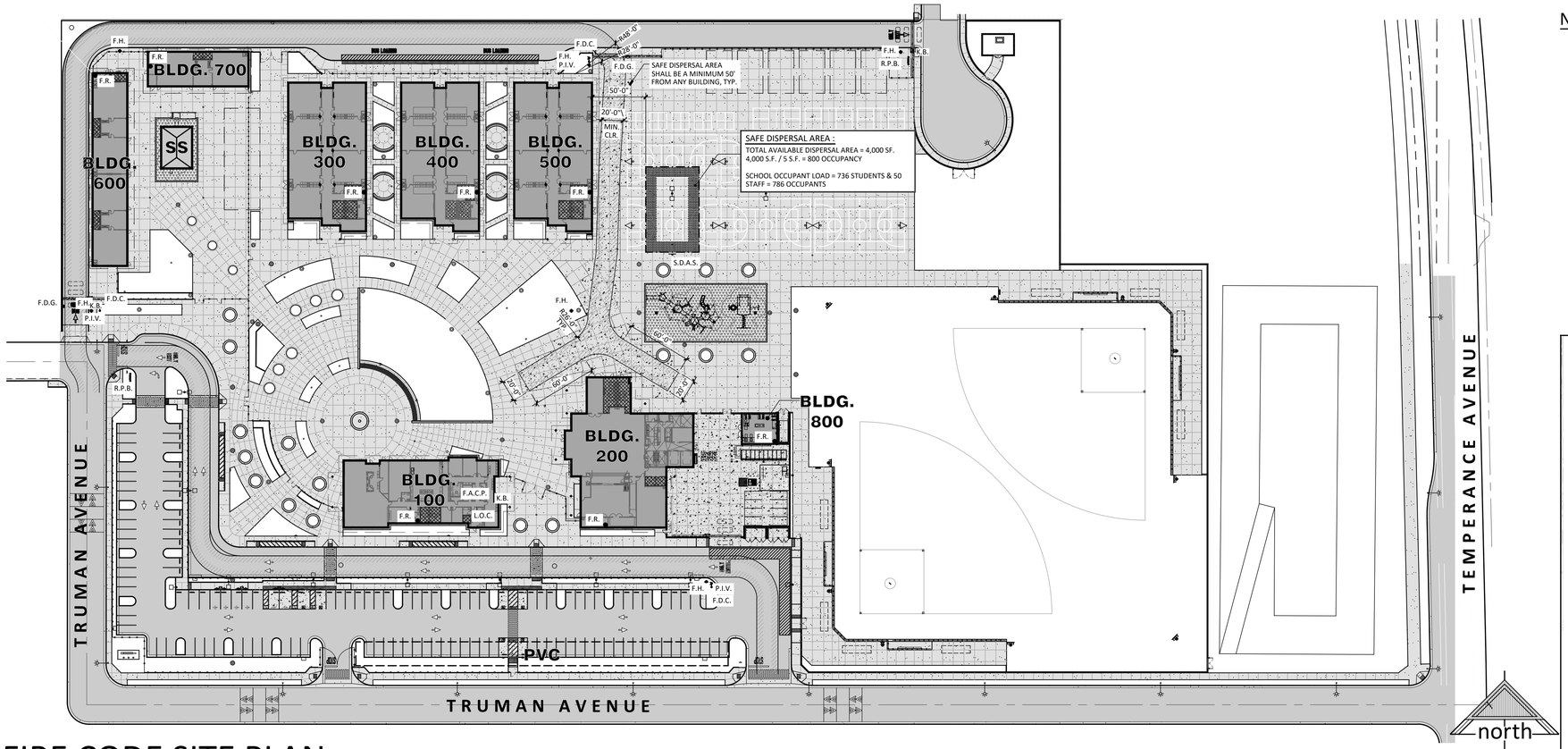
J. Ryan Morrelli
PRINT NAME

C-33128 — 5.31.27
LICENSE NUMBER — EXPIRATION DATE

PV SUPPORT STRUCTURE

MBAAC CONSTRUCTION INC.
DSA PC #04-123080

NT-S1.1	COLUMN PLAN
NT-S2.1	3 PANEL OT-STRUCTURE SIMPLE SPAN SITE SPECIFIC
S-1	COVER SHEET 1
S-2	COVER SHEET 2
S-3	GENERAL NOTES
S-4	SAMPLE DSA-103 FORMS
S-5	SECTION PROPERTIES & REBAR DETAILS
S-11	OT-STRUCTURE FRAMING PLAN & ELEVATIONS



FIRE CODE SITE PLAN

SCALE: 1" = 60'-0"

NOTES AND LEGEND :

- NEW BUILDING
- ACCESSIBLE RESTROOMS, SEE FLOOR PLANS FOR GENDER
- 20'-0" WIDE FIRE LANE
- SAFE DISPERSAL AREA
- PAINT CURB RED AS INDICATED w/ DASHED LINE AT FIRE LANE. PAINT THE WORDS "FIRE LANE NO PARKING" USING 4" HIGH WHITE LETTERS AT 30'-0" O.C., TYP.
- PROPERTY LINE
- F.H. FIRE HYDRANT SHUT-OFF VALVE
- P.I.V. POST INDICATOR VALVE
- F.R. FIRE SPRINKLER RISER
- R.P.B. REDUCED PRESSURE BACKFLOW
- K.B. LOCATION OF KNOX BOX, SEE 14 & 15 / SD14
- F.D.C. LOCATION OF FIRE DEPARTMENT CONNECTION
- S.D.A.S. SAFE DISPERSAL AREA SIGN ON POLE, SEE 9 / SD14
- F.D.G. FIRE DEPARTMENT ACCESS GATE, SEE 11 & 14 / SD15
- L.O.C. LOCATION OF LOCAL OPERATING CONSOLE

BUILDING CODE SUMMARY

BUILDING DESIGNATION	BUILDING NAME	OCCUPANCY CLASSIFICATION CBC CHAPTER 3	ACTUAL BUILDING HEIGHT	ALLOWABLE BUILDING HEIGHT CBC TABLE 504.3	ACTUAL # OF STORIES	ALLOWABLE # OF STORIES CBC TABLE 504.4	ACTUAL BUILDING AREA CBC 202: BUILDING AREA	OVERHANG AREA	(BLDG + O.H.) TOTAL AREA	ALLOWABLE BUILDING AREA CBC TABLE 506.2	FRONTAGE INCREASE I_f = [F / P - 0.25] W / 30 CBC 506.2	TOTAL ALLOWABLE AREA CALCULATION		AREA	SEPARATION OF OCCUPANCIES CBC 508.4	CONSTRUCTION TYPE CBC 602	FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS) CBC TABLE 601		FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE CBC TABLE 705.5	BUILDING SEPARATION (FIRE WALLS) CBC 706.1	AUTOMATIC FIRE SPRINKLER SYSTEM CBC 903	MINIMUM REQUIRED FIRE FLOW CFC APPENDIX BB105.1	REMARKS
100	ADMINISTRATION LIBRARY	B A-3	24'-0"	60'-0"	1	2 BASED ON MOST RESTRICTIVE A-3 OCCUPANCY	8,981 SF	2,874 SF	11,855 SF	24,000 SF BASED ON MOST RESTRICTIVE A-3 OCCUPANCY	N/A	TABULAR BUILDING AREA-CBC TABLE 506.2 FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	A_t I_f A_a	24,000 SF N/A 24,000 SF	NON-SEPARATED OCCUPANCIES BASED ON MOST RESTRICTIVE A-3 OCCUPANCY	V-B	PRIMARY STRUCTURAL FRAME 0 EXTERIOR BEARING WALLS 0 INTERIOR BEARING WALLS 0 INTERIOR NONBEARING WALLS & PARTITIONS 0 FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT. 0	CONSTRUCTION TYPE: V-B OCCUPANCY: B/A-3 SEPARATION DIST.: ≥ 30' FIRE RATING: 0	N/A	YES	CONST. TYPE: V-B TOTAL AREA: 11,855 SF FLOW: 3,000 GPM 25% = 750 GPM MIN. FLOW: 1,500 GPM DURATION: 3 HOURS	
200	MULTI-USE	A-2 (CAFETERIA/KITCHEN) E (FLEXIBLE CLASSROOM)	25-0"	60'-0"	1	2 BASED ON MOST RESTRICTIVE A-2 OCCUPANCY	12,221 SF	2,664 SF	14,885 SF	24,000 SF BASED ON MOST RESTRICTIVE A-2 OCCUPANCY	N/A	TABULAR BUILDING AREA-CBC TABLE 506.2 FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	A_t I_f A_a	24,000 SF N/A 24,000 SF	NON-SEPARATED OCCUPANCIES BASED ON MOST RESTRICTIVE A-2 OCCUPANCY	V-B	PRIMARY STRUCTURAL FRAME 0 EXTERIOR BEARING WALLS 0 INTERIOR BEARING WALLS 0 INTERIOR NONBEARING WALLS & PARTITIONS 0 FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT. 0	CONSTRUCTION TYPE: V-B OCCUPANCY: E/A-2 SEPARATION DIST.: 10'≤ X < 30' FIRE RATING: 0	N/A	YES	CONST. TYPE: V-B TOTAL AREA: 14,885 SF FLOW: 3,250 GPM 25% = 813 GPM MIN. FLOW: 1,500 GPM DURATION: 3 HOURS	
300	CLASSROOM	E	27'-0"	60'-0"	1	2	9,874 SF	2,258 SF	12,132 SF	38,000 SF	N/A	TABULAR BUILDING AREA-CBC TABLE 506.2 FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	A_t I_f A_a	38,000 SF N/A 38,000 SF	N/A	V-B	PRIMARY STRUCTURAL FRAME 0 EXTERIOR BEARING WALLS 0 INTERIOR BEARING WALLS 0 INTERIOR NONBEARING WALLS & PARTITIONS 0 FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT.	CONSTRUCTION TYPE: V-B OCCUPANCY: E SEPARATION DIST.: ≥ 30' FIRE RATING: 0	N/A	YES	CONST. TYPE: V-B TOTAL AREA: 12,132 SF FLOW: 3,000 GPM 25% = 750 GPM MIN. FLOW: 1,500 GPM DURATION: 3 HOURS	
400	CLASSROOM	E	27'-0"	60'-0"	1	2	9,874 SF	2,258 SF	12,132 SF	38,000 SF	N/A	TABULAR BUILDING AREA-CBC TABLE 506.2 FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	A_t I_f A_a	38,000 SF N/A 38,000 SF	N/A	V-B	PRIMARY STRUCTURAL FRAME 0 EXTERIOR BEARING WALLS 0 INTERIOR BEARING WALLS 0 INTERIOR NONBEARING WALLS & PARTITIONS 0 FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT.	CONSTRUCTION TYPE: V-B OCCUPANCY: E SEPARATION DIST.: ≥ 30' FIRE RATING: 0	N/A	YES	CONST. TYPE: V-B TOTAL AREA: 12,132 SF FLOW: 3,000 GPM 25% = 750 GPM MIN. FLOW: 1,500 GPM DURATION: 3 HOURS	
500	CLASSROOM	E	27'-0"	60'-0"	1	2	9,874 SF	2,258 SF	12,132 SF	38,000 SF	N/A	TABULAR BUILDING AREA-CBC TABLE 506.2 FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	A_t I_f A_a	38,000 SF N/A 38,000 SF	N/A	V-B	PRIMARY STRUCTURAL FRAME 0 EXTERIOR BEARING WALLS 0 INTERIOR BEARING WALLS 0 INTERIOR NONBEARING WALLS & PARTITIONS 0 FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT. 0	CONSTRUCTION TYPE: V-B OCCUPANCY: E SEPARATION DIST.: ≥ 30' FIRE RATING: 0	N/A	YES	CONST. TYPE: V-B TOTAL AREA: 12,132 SF FLOW: 3,000 GPM 25% = 750 GPM MIN. FLOW: 1,500 GPM DURATION: 3 HOURS	
600	CLASSROOM	E (CLASSROOM) B (TEACHER WORK ROOM)	21'-0"	60'-0"	1	3	6,097 SF	1,705 SF	7,802 SF	36,000 SF BASED ON MOST RESTRICTIVE B OCCUPANCY	N/A	TABULAR BUILDING AREA-CBC TABLE 506.2 FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	A_t I_f A_a	36,000 SF N/A 36,000 SF	N/A	V-B	PRIMARY STRUCTURAL FRAME 0 EXTERIOR BEARING WALLS 0 INTERIOR BEARING WALLS 0 INTERIOR NONBEARING WALLS & PARTITIONS 0 FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT. 0	CONSTRUCTION TYPE: V-B OCCUPANCY: B/E SEPARATION DIST.: 10'≤ X < 30' FIRE RATING: 0	N/A	YES	CONST. TYPE: V-B TOTAL AREA: 7,802 SF FLOW: 2,500 GPM 25% = 625 GPM MIN. FLOW: 1,500 GPM DURATION: 2 HOURS	
700	CLASSROOM	E (CLASSROOM) B (TEACHER WORK ROOM)	21'-0"	60'-0"	1	3	3,199 SF	1,013 SF	4,212 SF	36,000 SF BASED ON MOST RESTRICTIVE B OCCUPANCY	N/A	TABULAR BUILDING AREA-CBC TABLE 506.2 FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	A_t I_f A_a	36,000 SF N/A 36,000 SF	N/A	V-B	PRIMARY STRUCTURAL FRAME 0 EXTERIOR BEARING WALLS 0 INTERIOR BEARING WALLS 0 INTERIOR NONBEARING WALLS & PARTITIONS 0 FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT. 0	CONSTRUCTION TYPE: V-B OCCUPANCY: B/E SEPARATION DIST.: 10'≤ X < 30' FIRE RATING: 0	N/A	YES	CONST. TYPE: V-B TOTAL AREA: 4,212 SF FLOW: 1,750 GPM 25% = 438 GPM MIN. FLOW: 1,500 GPM DURATION: 2 HOURS	
800	CENTRAL PLANT	U	13'-6"	60'-0"	1	2	1,020 SF	0 SF	1,020 SF	22,000 SF	N/A	TABULAR BUILDING AREA-CBC TABLE 506.2 FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	A_t I_f A_a	22,000 SF N/A 22,000 SF	N/A	V-B	PRIMARY STRUCTURAL FRAME 0 EXTERIOR BEARING WALLS 0 INTERIOR BEARING WALLS 0 INTERIOR NONBEARING WALLS & PARTITIONS 0 FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT. 0	CONSTRUCTION TYPE: V-B OCCUPANCY: U SEPARATION DIST.: 10'≤ X < 30' FIRE RATING: 0	N/A	YES	CONST. TYPE: V-B TOTAL AREA: 1,020 SF FLOW: 2,750 GPM 25% = 688 GPM MIN. FLOW: 1,500 GPM DURATION: 2 HOURS	
SS	SHADE STRUCTURE	E	16'-9"	60'-0"	1	2	1,200 SF	--	1,200 SF	9,500 SF	N/A	FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	I_f A_a	N/A 9,500 SF	N/A	V-B	FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT. 0	CONSTRUCTION TYPE: V-B OCCUPANCY: E SEPARATION DIST.: 10'≤ X < 30' FIRE RATING: 0	N/A	NO	N/A	
PVC	PV CANOPY	U	--	55'-0"	1	2	--	--	7,856 SF	8,500 SF	N/A	FRONTAGE INCREASE-CBC 506.2 TOTAL ALLOWABLE AREA	I_f A_a	N/A 8,500 SF	N/A	II-B	FLOOR CONST. & ASSOC. SECONDARY STRUCT. 0 ROOF CONST. & ASSOC. SECONDARY STRUCT. 0	CONSTRUCTION TYPE: II-B OCCUPANCY: U SEPARATION DIST.: X ≥ 30' FIRE RATING: 0	N/A	NO	N/A	

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1 through 3 below is to be provided for all project types indicated above. Information associated with items 4 through 7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the Local Fire Authority (LFA) is only required when an alternate design means is being requested.

The Project Information and Fire & Life Safety Information sections are to be completed for all projects and imaged onto the fire access site plan. When an alternate design/means is proposed, all sections on pages 1 and 2 are to be completed and imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy *PL 09-01: Fire Flow for Buildings*.

PROJECT INFORMATION	
School District/Owner:	Sanger Unified School District
Project Name/School:	New Elementary School (S. Temperance Ave.)
Project Address:	1345 S. Temperance Ave.

FIRE & LIFE SAFETY INFORMATION				
1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☑		No ☐
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☑		No ☐
3.	Is the project located within a designated fire hazard severity zone (FHSZ) as established by Cal-Fire? *(If yes, indicate FHSZ classification below.)*	Yes ☐		No ☑
	Refer to the following website for FHSZ locations: Fire Hazard Severity Zones in State Responsibility Area	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements.			✔	
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.				
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.			✔	
5a.	**Acceptable Alternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.				
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.				
6a.	**Acceptable Alternate:** The available flow and pressure is acceptable for providing fire suppression and protection of life and property.	✔			
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.			✔	
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.				

School District Acceptance of Acceptable Design Alternates

By signing this form, the school district acknowledges and accepts the proposed design as an alternative to California Building Code (CBC) and California Fire Code (CFC) minimum requirements, as indicated by one or more of the conditions indicated at items 4a, 5a, 6a or 7a, for providing fire and life safety protection of life and property.

Accepted by: Jimmy Robles Title: Chief Operations Officer

Signature: Date: 07/07/26

LOCAL FIRE AUTHORITY (LFA) INFORMATION			
LFA Agency Name:	FRESNO FIRE DEPARTMENT		
LFA Review Official:	STEVEN ROBINSON		
Title:	SENIOR FIRE PREVENTION INSPECTOR	Work Phone:	(559) 621-4181
Work Email:	steven.robinson@fresno.gov		

LFA Reviewer's Signature: STEVENRO Date: 07/03/2026

FIRE NOTE:
LFA is aware of the distance of the buildings from the hydrant locations and the number of hydrants proposed. LFA has the means of suppressing fires and protecting life and property utilizing access and connections as shown on this site plan.
Provide approved police/fire bypass lock ("Best" padlock model 21B700 series or electric cylinder switch model 1W7B2) on drive access gate(s). All electrified gates shall be equipped with the Best electric cylinder lock 1W7B2. A Knox padlock may not be used in place of the Best padlock model 21B700. These locks can be purchased only through Sierra Lock & Glass, 1560 N. Palm Avenue, Fresno, CA 93728.

Electric gates shall be provided with battery back-up. 2025 CFC Section 503.6.

SRR 7/3/2026

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

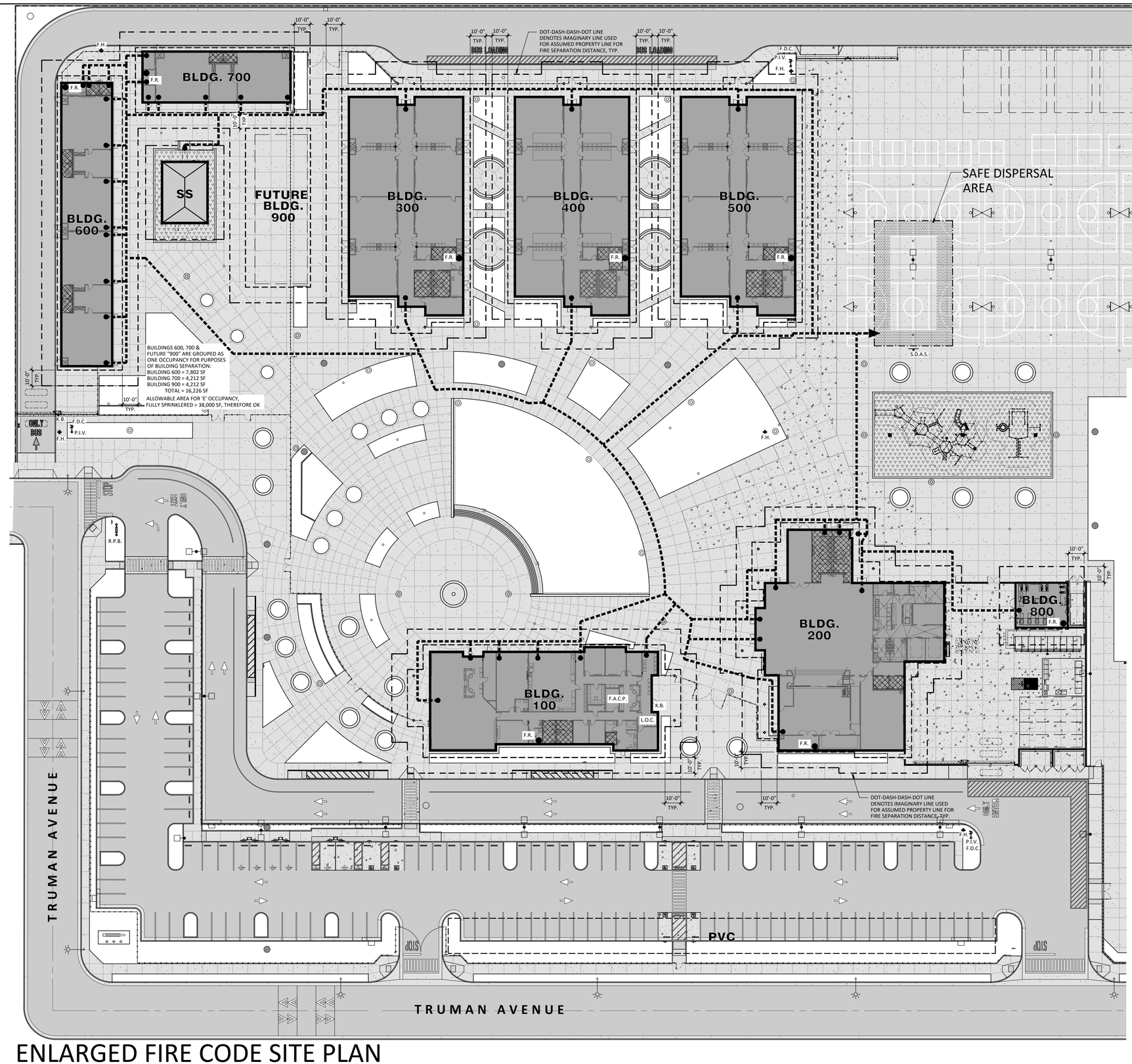
REVISIONS

MANGINI ARCHITECTURE + INGENUITY
MANGINI ASSOCIATES INC
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-3535 Office
(559) 627-1926 Fax

TITLE
FIRE CODE, SITE PLAN, & CODE SUMMARY

FC1

PROJECT 24042



ENLARGED FIRE CODE SITE PLAN

SCALE: 1" = 30'-0"

FIRE CODE SITE PLAN LEGEND :

- NEW BUILDING
- ACCESSIBLE RESTROOMS, SEE FLOOR PLANS FOR GENDER
- CONCRETE PAVING
- REINFORCED CONCRETE PAVING
- ASPHALT PAVING
- SAFE DISPERSAL AREA
- EXTENT OF BUILDING PERIMETER WITH OVERHANG
- ASSUMED PROPERTY LINE FOR FIRE SEPARATION DISTANCE
- EGRESS PATH OF TRAVEL TO SAFE DISPERSAL AREA
- F.R. LOCATION OF FIRE RISER
- F.H. LOCATION OF FIRE HYDRANT
- F.D.C. LOCATION OF FIRE DEPARTMENT CONNECTION
- K.B. LOCATION OF KNOX BOX, SEE 14 & 15 / SD14
- P.I.V. LOCATION OF POST INDICATOR VALVE
- R.P.B. LOCATION OF REDUCED PRESSURE BACKFLOW
- S.D.A.S. SAFE DISPERSAL AREA SIGN ON POLE, SEE 9 / SD14
- F.D.G. FIRE DEPARTMENT ACCESS GATE, SEE 11 & 14 / SD19
- L.O.C. LOCATION OF LOCAL OPERATING CONSOLE

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
ENLARGED FIRE CODE SITE PLAN

FC2

PROJECT 24042

APPLICATION NEW [illegible]

City of FRESNO PUBLIC UTILITIES

Utilities Planning & Engineering Division

DRAFT Hydraulic Modeling Request Form for Fire Flow Data

1. Applicant Information (by Applicant)

Applicant Name(s):	ED LONG	**Date:**	6/15/26
Company:	LAWRENCE ENGINEERING GROUP		
Email Address:	ed@legfresno.com	**Phone Number:**	559-431-0101

2. Project Information (by Applicant)

Project Name:	NEW TEMPERENCE ELEMENTARY SCHOOL		
Project Description:	NEW FIRE SPRINKLER SYSTEM(S) & NEW FIRE UG LOOP FOR CAMPUS		
Location Address:		**Location APN:**	
Construction Type:	V-B	**Building Square Footage:** VARIES	**Number of Stories:** 1

As noted on next sheet

3. Fire Flow Information (by Applicant)

Fill out fields below once DPU returns form with exhibit

Test Hydrant Number:	~~5563718~~	**Fire Flow:**	1,500 gpm

Note: Fire flow shall be approved by the Fresno Fire Department (FFD). The applicant shall be responsible for verifying fire flow with FFD.

4. Fire Flow Results (By City/Modeler)

Water Main Street:	S Arroyo Ave	**Water Main Size:**	8-inch
Static Pressure:	51.3 psi	**Residual Pressure:**	40.8 psi
Approved by Modeling Engineer:	BK	**Signature:** Brad Kooiman	**Date:** 06/25/26

Notes:

1. Residual pressures are calculated at the public main. Residual pressures accounts for pressure losses with fire flow applied and do not include other system losses (losses from meters, backflow prevention device, valves, pipes, etc.)

APPLICATION NEW [illegible]

City of FRESNO PUBLIC UTILITIES

Utilities Planning & Engineering Division

DRAFT Hydraulic Modeling Request Form for Fire Flow Data

1. Applicant Information (by Applicant)

Applicant Name(s):	ED LONG	**Date:**	6/15/26
Company:	LAWRENCE ENGINEERING GROUP		
Email Address:	ed@legfresno.com	**Phone Number:**	559-431-0101

2. Project Information (by Applicant)

Project Name:	NEW TEMPERENCE ELEMENTARY SCHOOL		
Project Description:	NEW FIRE SPRINKLER SYSTEM(S) & NEW FIRE UG LOOP FOR CAMPUS		
Location Address:		**Location APN:**	
Construction Type:	V-B	**Building Square Footage:** VARIES	**Number of Stories:** 1

As noted on next sheet

3. Fire Flow Information (by Applicant)

Fill out fields below once DPU returns form with exhibit

Test Hydrant Number:	~~5563718~~	**Fire Flow:**	1,500 gpm

Note: Fire flow shall be approved by the Fresno Fire Department (FFD). The applicant shall be responsible for verifying fire flow with FFD.

4. Fire Flow Results (By City/Modeler)

Water Main Street:	S Apricot Ave	**Water Main Size:**	8-inch
Static Pressure:	50.2 psi	**Residual Pressure:**	39.2 psi
Approved by Modeling Engineer:	BK	**Signature:** Brad Kooiman	**Date:** 06/25/26

Notes:

1. Residual pressures are calculated at the public main. Residual pressures accounts for pressure losses with fire flow applied and do not include other system losses (losses from meters, backflow prevention device, valves, pipes, etc.)

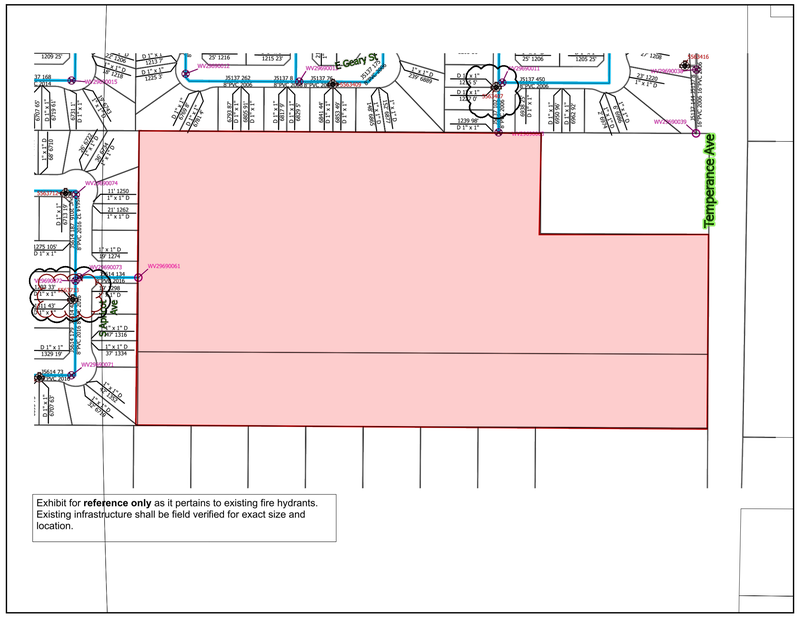


Exhibit for **reference only** as it pertains to existing fire hydrants. Existing infrastructure shall be field verified for exact size and location.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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SS ☑ FLS ☑ ACS ☑
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(559) 627-1926 Fax

TITLE
FIRE FLOW TEST RESULTS

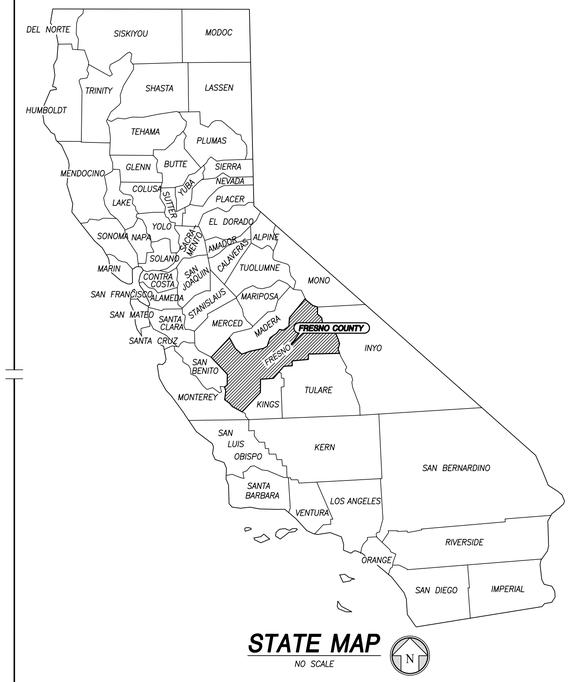
FC3

PROJECT 24042

Sanger Unified School District

County of Fresno — State of California

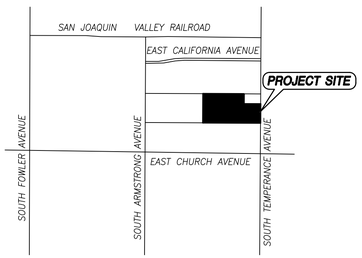
TEMPERANCE ELEMENTARY SCHOOL
CIVIL IMPROVEMENT PLANS



STATE MAP
NO SCALE



AREA MAP
NO SCALE



VICINITY MAP
NOT TO SCALE

CIVIL

COVER
G-1 COVER SHEET
G-2 NOTES AND LEGEND SHEET
G-3 CROSS SECTIONS SHEET

DEMOLITION
D-1 DEMOLITION SHEET
D-2 DEMOLITION SHEET

SITE PLAN
SP-1 SITE PLAN SHEET
SP-2 SITE PLAN SHEET

GRADING AND DRAINAGE PLAN
GP-1 GRADING SHEET
GP-2 GRADING SHEET
GP-3 GRADING SHEET
GP-4 GRADING SHEET
GP-5 GRADING SHEET
GP-6 GRADING DETAILS
GP-7 GRADING DETAILS
GP-8 DRAINAGE SHEET
GP-9 DRAINAGE SHEET
GP-10 DRAINAGE SHEET
GP-11 DRAINAGE SHEET

UTILITY PLAN
UT-1 UTILITY PLAN SHEET

BLOCK WALLS
BK-1 BLOCK WALL PLAN SHEET
BK-2 BLOCK WALL PLAN SHEET
BK-3 BLOCK WALL PLAN SHEET
BK-4 BLOCK WALL STRUCTURAL DETAILS
BK-5 BLOCK WALL STRUCTURAL DETAILS

DETAILS
DT-1 DETAILS SHEET
DT-2 DETAILS SHEET
DT-3 DETAILS SHEET
DT-4 DETAILS SHEET
DT-5 DETAILS SHEET

BENCHMARK

ELEVATIONS ARE ON THE CITY OF FRESNO DATUM.
BENCHMARK: NGS PASSIVE CONTROL STATION DESIGNATION "D287", PID "GT1443" BEING A 3" USGS BRASS CAP MARKED "D 287", UP 6" IN CONCRETE MONUMENT ON THE NORTH SIDE OF CALIFORNIA AVENUE ALIGNMENT, 30' NORTH OF RAILROAD AND 535' EAST OF TEMPERANCE AVENUE.

ELEVATION: 329.23'

BASIS OF BEARINGS AND COORDINATES

THE BASIS OF BEARINGS FOR THIS SURVEY IS CCS83(2017.50), ZONE 4, SHOWN LOCALLY BY THE EAST LINE OF THE NORTHEAST QUARTER OF SECTION 15-14/21, M.D.B&M. BEARING NORTH 0019'56" EAST AND IS BASED UPON GPS OBSERVATIONS FROM CSRN STATIONS CHOW AND MULN, BOTH HAVING PUBLISHED ACCURACIES OF LESS THAN 1 CM.

UNLESS OTHERWISE STATED, ALL DISTANCES SHOWN HEREON ARE GROUND DATA. TO OBTAIN GRID DATA, MULTIPLY GROUND DATA BY THE PROJECT SPECIFIC COMBINATION FACTOR OF .9999315. GEIOD18 WAS USED TO OBTAINED ELEVATION DATA PERTAINING SCALE FACTORS.

UTILITY CONTACTS

PG&E:
Joel Ybarra:
Industrial Power Engineer
C: 559-417-1065

Frontier:
Socrates Luna
1359 "G" Street, Reedley, CA 93654
O: 559-637-0666
C: 559-426-7837
Socrates.Luna@ftr.com

AT&T
Manuel Alvarez
Senior OSP Design Engineer
1250 E Ashlan Avenue
Fresno, CA 93704
C: 559-304-8118

Comcast:
Michael Sue
O: 2441 N. Industrial Grove
E: Fresno CA 93727
F: 559 217-8937
559-455-4221
Michael_sue@cable.comcast.com

Fresno Department of Public Utilities:
John Martin
1626 E Street
Fresno, CA 93706
O: 559-621-1634
john.martin@fresno.gov

Fresno Metropolitan Flood Control District:
Antonio Tolentino, Engineer 1
Development Review
5469 E. Olive Avenue
Fresno, CA 93727
O: 559-456-3292
F: 559-456-2013
antonio@fresnofloodcontrol.org

Fresno County Department of Public Works and Planning
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APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
COVER SHEET

G-1

PROJECT 24042

CONSTRUCTION GENERAL NOTES:

1. ALL LABOR, MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THESE PLANS AND THE CURRENT VERSION OF ALL APPLICABLE LOCAL AND STATE CODES, ORDINANCES AND STANDARDS OR AS REQUIRED BY PERMITS FROM OTHER AGENCIES AND/OR UTILITY COMPANIES INVOLVED IN THE WORK.
2. THE TYPE, LOCATIONS AND SIZES OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES HAVE BEEN LOCATED IN THE FIELD OR OBTAINED FROM AVAILABLE RECORDS, RESPONSIBLE DILIGENCE HAS BEEN EXERCISED IN LOCATING ALL LINES, BUT THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION NOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES ENCOUNTERED BUT NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL ASSUME THE SOLE RESPONSIBILITY FOR DETERMINING OR CONFIRMING THE EXACT LOCATIONS OF THESE FACILITIES AND PROTECTING SAME FROM DAMAGE. ALL UTILITY SERVICES AND FACILITIES DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SAID UTILITY.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY AND ALL CONFLICTS BETWEEN THE CONTRACT DOCUMENT AND THE ACTUAL SITE CONDITIONS PRIOR TO COMMENCING WORK IN ANY GIVEN AREA AND ALLOW TIME FOR THE ENGINEER TO ISSUE RESOLUTION TO ANY DISCOVERED CONFLICT. THE CONTRACTOR SHALL CONTINUE WORK IN OTHER AREAS OF THE PROJECT WITHOUT SUCH CONFLICTS UNTIL THE ENGINEER HAS ISSUED RESOLUTION BY CHANGE ORDER OR OTHER PROJECT APPROVED LINES OF COMMUNICATION.
4. UNAUTHORIZED CHANGES AND USES: THE ENGINEER PREPARING THESE PLANS SHALL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS BY OTHERS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER ANY PROPOSED MODIFICATIONS AND/OR CHANGES TO THE PLANS AND SPECIFICATIONS IN WRITING WITH SUFFICIENT DETAILED INFORMATION AND TIME TO ALLOW THE ENGINEER TO CONDUCT AN ANALYSIS OF THE PROPOSED CHANGE AND PREPARE A WRITTEN RESPONSE TO THE CONTRACTOR. APPROVED CHANGES AND/OR MODIFICATIONS TO THE PLANS AND SPECIFICATIONS SHALL BE ISSUED BY THE ENGINEER AS CHANGE ORDERS.
5. CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY; THAT THE REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY WORK ON THIS PROJECT, EXCEPTING THE LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER/ENGINEER.
6. THESE PLANS ARE THE PROPERTY AND COPYRIGHT OF THE ENGINEER AND SHALL NOT BE USED ON ANY OTHER WORK EXCEPT BY WRITTEN AGREEMENT WITH THE ENGINEER.
7. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND FIELD DIMENSIONS SHALL BE VERIFIED AT THE PROJECT SITE. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY WORK.
8. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AT 811, A MINIMUM OF 2 WORKING DAYS PRIOR TO ANY EXCAVATION OR WORK WITHIN THE PROJECT AREA.

NOTE TO OWNER AND CONTRACTOR:

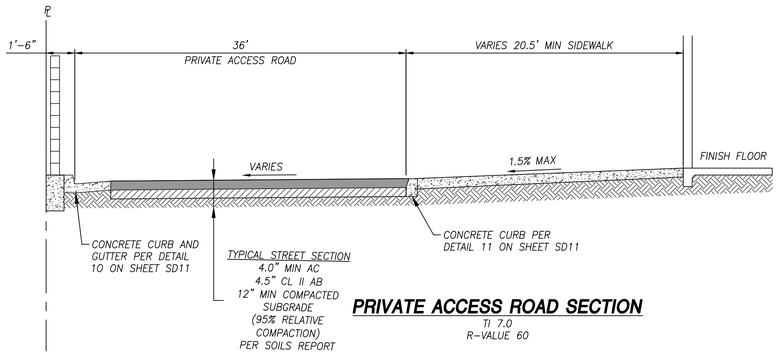
THIS PLAN HAS BEEN PREPARED WITH THE INTENT THAT QK WILL BE PERFORMING THE CONSTRUCTION STAKING FOR THE COMPLETE PROJECT. IF, HOWEVER ANOTHER ENGINEERING AND/OR SURVEYING FIRM SHOULD BE EMPLOYED TO USE THESE PLANS FOR THE PURPOSE OF CONSTRUCTION STAKING, NOTICE IS HEREBY GIVEN THAT THE FIRM OF QK WILL NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED, CORRECTED OR MITIGATED IF QK HAD PERFORMED THE STAKING WORK.

SEWER AND WATER GENERAL NOTES:

1. THE WORK EMBRACED HEREIN SHALL BE DONE IN ACCORDANCE WITH THE APPROPRIATE PROVISIONS OF THE SPECIFICATIONS ENTITLED CITY OF FRESNO, STANDARD SPECIFICATIONS, DEPARTMENT OF PUBLIC WORKS, LATEST EDITION, AND ANY AMENDMENTS THERETO, INSOFAR AS THE SAME MAY APPLY, WHICH SPECIFICATION HEREINAFTER ARE REFERRED TO AS THE STANDARD SPECIFICATION.
2. INITIAL COMPACTION TESTS REQUIRED BY THE CITY SHALL BE PAID FOR BY THE DEVELOPER. ANY RETESTS REQUIRED BY THE CITY SHALL BE PAID FOR BY THE CONTRACTOR.
3. ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE REQUIREMENTS OF THE CONSTRUCTION SAFETY ORDER, ISSUED BY THE DIVISION OF INDUSTRIAL SAFETY, FOR TRENCHES AND EXCAVATION. THE CONTRACTOR SHALL COMPLY WITH THE CALIFORNIA CODE OF REGULATIONS, SECTION 64572 TITLE 22, REGARDING REQUIRED SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER.
4. TRENCH BACKFILL AND SURFACE RESTORATION SHALL CONFORM TO THE CITY OF FRESNO STANDARD AND FRESNO CITY STREET WORK PERMIT. BACKFILL SHALL BE 95% RELATIVE COMPACTION OF THE TOP TWO FEET FROM FINISH GRADE. ANY SEWER CUT IN EXISTING PAVEMENT SHALL REQUIRE IMMEDIATE TEMPORARY TRENCH RESURFACING. ANY EXISTING STREETS CUT FOR THE INSTALLATION OF SEWER AND WATER SERVICES SHALL RECEIVE A 1 INCH OVERLAY IN ADDITION TO THE REQUIREMENTS OF PUBLIC WORKS STANDARD DRAWING P-48.
5. SEWER NOTES:
   ALL WORK SHALL BE DONE IN ACCORDANCE WITH CITY OF FRESNO, STANDARD SPECIFICATIONS, DEPARTMENT OF PUBLIC WORKS, LATEST EDITION AND ANY AMENDMENT THERETO, WITH THE FOLLOWING:
   a. TRENCH BACKFILL SHALL HAVE A RELATIVE COMPACTION OF 90% TO WITHIN 24 INCHES OF FINISH GRADE AND THE TOP 24 INCHES SHALL BE 95%.
   b. HOUSE BRANCH LOCATION SHALL BE MARKED BY STAMPING AN "S" SYMBOL ON THE FACE OF THE CONCRETE CURB.
6. SEWER PIPE MAY BE SDR 35 PVC SOLID WALL PLASTIC SEWER PIPE AND PVC LINED DUCTILE IRON PIPE, OR APPROVED EQUAL. BAND SEAL IS ACCEPTABLE ONLY WITH PLASTIC SLEEVES AT ALL JOINTS 6 INCH AND LARGER.
7. USE OF ANY OTHER TYPE OF PIPE OR FITTINGS SHALL REQUIRE THE WRITTEN APPROVAL OF THE CITY ENGINEER PRIOR TO INSTALLATION.
8. SDR 35 PVC SOLID WALL PLASTIC SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH PUBLIC WORKS STANDARD DRAWING S-10.
9. AIR TEST OF THE SEWER MAINS AND HOUSE SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER OF UNIBELL PLASTIC PIPE ASSOCIATION, AIR TESTING MANUAL. THE AIR TEST IS TO BE MADE ON THE PIPE INSTALLATION WITHOUT THE ADDITION OF SEALERS TO THE PIPE INTERIOR. THE APPLICATION OF MORTAR, EPOXY, CAULKING COMPOUNDS, OR OTHER MATERIAL TO THE PIPE WILL BE PROHIBITED. FAILURE TO MEET THE AIR TEST WILL REQUIRE THE CONTRACTOR TO REPLACE SECTIONS AS REQUIRED. THE CONTRACTOR MAY ELECT IN LIEU OF EXPOSING THE ENTIRE LINE, THE OPTION TO SELECT AN APPROVED PIPELINE PHOTOGRAPHIC CONTRACTOR TO DETERMINE DEFECTIVE PORTIONS OF THE PIPELINE, OR ISOLATE THE MAIN IN MINIMUM OF 5 FOOT SECTIONS, AND RETEST EACH SECTION UNTIL THE FAILURE IS LOCATED, AND THEN REPLACE AS NECESSARY. ALL COSTS, (INCLUDING PHOTOGRAPHER'S WORK ASSOCIATED WITH THE FINAL REPAIR WILL BE THE CONTRACTOR'S). AIR TEST IS TO BE PERFORMED UPON COMPLETION OF COMPACTION.
10. IN ADDITION TO AIR TEST, THE CITY OF FRESNO SHALL INSPECT THE SEWER INSTALLATION WITH A CLOSED CIRCUIT TELEVISION CAMERA. ANY BROKEN PIPE, SEPARATION OF JOINTS, OR ANY PIPE NOT LAID TO TRUE LINE AND GRADE, EXCEPT FOR THE VARIATIONS IN SECTIONS 17, PARAGRAPH 4 OF THE CITY STANDARD SPECIFICATIONS SHALL BE REPLACED. ALL COSTS ASSOCIATED WITH THE FINAL REPAIR WILL BE THE CONTRACTOR'S.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE ACCESS TO THE MANHOLES AND A WATER SUPPLY TO FACILITATE FINAL CAMERA INSPECTION AND ONE INSPECTION AFTER REPAIRS ARE SUCCESSFULLY MADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CAMERA INSPECTIONS.
12. FINAL AIR TEST OF THE SEWER SYSTEM SHALL BE MADE AFTER ALL UNDERGROUND UTILITIES HAVE BEEN INSTALLED AND COMPACTED IN THE AREA. T.V. CAMERA CHECK OF THE SEWER SYSTEM SHALL BE MADE AFTER AIR TEST AND PRIOR TO PLACING OF FINAL PAVEMENT IN STREETS.
13. THE CONSTRUCTION OF SEWER MAINS SHALL COMMENCE AT THE LOWEST POINT OF THE SYSTEM (I.E. AT A MANHOLE OR AT THE END OF EXISTING MAIN). THE INSTALLATION OF SEWER MAINS SHALL ALWAYS PROCEED UPSTREAM IN ALL LOCATIONS.
14. SLOPE AND ALIGNMENT CONTROL SHALL BE MAINTAINED USING AN APPROVED LASER BEAM INSTRUMENT.
15. LOCATION AND FLOW LINE ELEVATIONS OF ALL HOUSE BRANCHES SHALL BE STAKED BY DEVELOPER'S ENGINEER PRIOR TO CONSTRUCTION.
16. SEWER AIR TEST, CAMERA CHECK AND WATER PRESSURE TEST SHALL BE MADE AFTER ALL UNDERGROUND UTILITIES ARE INSTALLED AND COMPACTED.
17. WATER NOTES:
   17.1. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FRESNO, STANDARD SPECIFICATIONS, DEPARTMENT OF PUBLIC WORKS, LATEST EDITION, AND ANY AMENDMENT THERETO.
   17.2. FIRE HYDRANT AND VALVE SHALL BE INSTALLED PER PUBLIC WORKS STANDARD DRAWING W-3.
   17.3. ALL WORK SHOWN ON THESE PLANS SHALL BE INSPECTED BY THE CITY OF FRESNO. NOTIFY WATER SYSTEMS MANAGER AND CONSTRUCTION MANAGEMENT 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
   17.4. SANITARY SEWERS MUST BE COMPLETE BEFORE WATER MAIN CONSTRUCTIO IS STARTED.
   17.5. WATER MAIN CONSTRUCTION MUST BE COMPLETE BEFORE P.G.&E. STARTS THE GAS AND ELECTRICAL UNDERGROUND INSTALLATION.
   17.6. MAXIMUM LENGTH OF RISER. TO BRING FIRE HYDRANTS TO GRADE, SHALL BE INSTALLED PER PUBLIC WORKS STANDARD DRAWINGS W-3.
   17.7. WATER SERVICES AND METER BOXES SHALL BE INSTALLED AS PER PUBLIC WORKDS STANDARD DRAWINGS W-1 AND/OR W-2.
   17.8. PIPE RESTRAINT FITTINGS SHALL BE PROVIDED AT ALL TEES, CROSSES, REDUCERS, BENDS, CAPS, PLUGS, AND VALVES IN ACCORDANCE WITH THE CITY OF FRESNO, DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS, LATEST EDITION.
   17.9. THE USE OF CONCRETE THRUST BLOCKS MAY BE APPROVED IN SPECIAL SITUATIONS, BUT WILL ONLY BE USED WHEN SPECIFICALLY APPROCED IN WRITING BY THE CITY ENGINEER.
18. POLYVINYL CHLORIDE (PVC) WATER MAIN IS TO BE INSTALLED IN ACCORDANCE WITH CITY OF FRESNO, DEPARTMENT OF PUBLIC WORKS, STANDARD DRAWING W-29, LATEST EDITION.
19. TWO DAYS BEFORE EXCAVATION, CALL UNDERGROUND SERVICE ALERT TOLL FREE AT 811.
20. POT-HOLE WATER MAIN AT ALL CITY WET-TIE CONNECTION LOCATIONS TO FACILITATE WET-TIE CONNECTIONS TO LINE AND GRADE.
21. WATER SERVICES AND METER BOXES LOCATED WITHIN DRIVEWAY APPROACHES SHALL BE RELOCATED AT THE DEVELOPERS EXPENSE.
22. TRACER WIRE SHALL BE INSTALLED ALONG ALL PVC WATER MAINS PER SECTION 22-3.3 OF CITY OF FRESNO STANDARD SPECIFICATIONS.

GRADING NOTES:

1. ALL GRADING SHALL COMPLY WITH THE CURRENT CALIFORNIA BUILDING CODE AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT (PROJECT 1-220-0695) PREPARED FOR THIS PROJECT BY SALEM ENGINEERING GROUP DATED SEPTEMBER 29, 2020 INCLUDING SUPPLEMENTAL REPORT DATED MAY 10, 2021 AND ANY ADDENDUM LETTER DATED MAY 20, 2025.
2. THE GROUNDS IMMEDIATELY ADJACENT TO FOUNDATIONS SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN 5 PERCENT FOR A MINIMUM DISTANCE OF 10 FEET. IMPERVIOUS SURFACES WITHIN 10 FEET OF BUILDING FOUNDATIONS SHALL BE SLOPED A MINIMUM OF 2 PERCENT AWAY FROM THE BUILDING AND DRAINAGE GRADIENTS MAINTAINED TO CARRY ALL SURFACE WATER TO COLLECTION FACILITIES AND OFFSITE. THESE GRADES SHOULD BE MAINTAINED FOR THE LIFE OF THE PROJECT. PONDING OF WATER SHOULD NOT BE ALLOWED ADJACENT TO THE STRUCTURES. OVER-IRRIGATION WITHIN LANDSCAPED AREAS ADJACENT TO THE STRUCTURES SHOULD NOT BE PERFORMED.
3. ROOF DRAINES SHOULD BE INSTALLED WITH APPROPRIATE DOWNSPOUT EXTENSIONS OUT-FALLING ON SPLASH BLOCKS SO AS TO DIRECT WATER A MINIMUM OF 5 FEET AWAY FROM THE STRUCTURES OR BE CONNECTED TO THE STROM DRAIN SYSTEM FOR THE DEVELOPMENT.
4. A REPRESENTATIVE OF OUR FIRM SHOULD BE PRESENT DURING ALL SITE CLEARING AND GRADING OPERATIONS TO TEST AND/OR TO OBSERVE EARTHWORK CONSTRUCTION. THIS TESTING AND OBSERVATION IS AN INTEGRAL PART OF OUR SERVICE AS ACCEPTANCE OF EARTHWORK CONSTRUCTION IS DEPENDENT UPON COMPACTION OF THE MATERIAL AND STABILITY OF THE MATERIAL. FURTHER RECOMMENDATIONS OF THIS REPORT ARE PREDICATED UPON. THE ASSUMPTION THAT EARTHWORK CONSTRUCTION WILL CONFORM TO RECOMMENDATIONS SET FORTH IN THIS SECTION AS WELL AS OTHER PORTIONS OF THIS REPORT.
5. A PRECONSTRUCTION CONFERENCE SHOULD BE HELD AT THE SITE PRIOR TO THE BEGINNING OF GRADING OPERATIONS WITH THE OWNER, CONTRACTOR, CIVIL ENGINEER AND GEOTECHNICAL ENGINEER IN ATTENDANCE.
6. SITE DEMOLITION ACTIVITIES SHALL INCLUDE REMOVAL OF ALL SURFACE OBSTRUCTIONS NOT INTENDED TO BE INCORPORATED INTO FINAL SITE DESIGN. IN ADDITION, UNDOCUMENTED FILL, UNDERGROUND BURIED STRUCTURES, AND/OR UTILITY LINES ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION SHOULD BE PROPERLY REMOVED AND THE RESULTING EXCAVATIONS BACKFILLED WITH ENGINEERED FILL. AFTER DEMOLITION ACTIVITIES, IT IS RECOMMENDED THAT DISTURBED SOILS BE REMOVED AND/OR REPLACED WITH COMPACTED ENGINEERED FILL SOILS.
7. SITE PREPARATION SHOULD BEGIN WITH REMOVAL OF EXISTING SURFACE/SUBSURFACE STRUCTURES, UNDERGROUND UTILITIES (AS REQUIRED), DISTURBED SOIL, ANY EXISTING UNCERTIFIED/UNDOCUMENTED FILL,AND DEBRIS. EXCAVATIONS OR DEPRESSIONS RESULTING FROM SITE CLEARING OPERATIONS, OR OTHER EXISTING EXCAVATIONS OR DEPRESSIONS, SHOULD BE RESTORED WITH ENGINEERED FILL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THIS REPORT. ANY DISTURBED SUBGRADE, UNDOCUMENTED FILL MATERIALS OR LOOSE UNSUITABLE MATERIALS ENCOUNTERED DURING GRADING SHOULD BE REMOVED AND REPLACED WITHENGINEERED FILL. THE ACTUAL DEPTH OF THE OVER-EXCAVATION SHOULD BE DETERMINED BY OUR FIELD REPRESENTATIVE DURING CONSTRUCTION
8. SURFACE VEGETATION CONSISTING OF GRASSES AND OTHER SIMILAR VEGETATION SHOULD BE REMOVED BY STRIPPING TO A SUFFICIENT DEPTH TO REMOVE ORGANIC-RICH TOPSOIL. THE UPPER 2 TO 4 INCHES OF THE SOILS CONTAINING, VEGETATION, ROOTS AND OTHER OBJECTIONABLE ORGANIC MATTER ENCOUNTERED AT THE TIME OF GRADING SHOULD BE STRIPPED AND REMOVED FROM THE SURFACE. DEEPER STRIPPING MAY BE REQUIRED IN GRADING SHOULD BE STRIPPED AND REMOVED FROM THE SURFACE. DEEPER STRIPPING MAY BE REQUIRED IN LOCALIZED AREAS. THE STRIPPED VEGETATION WILL NOT BE SUITABLE FOR USE AS ENGINEERED FILL OR WITHIN 5 LOCALIZED AREAS. THE STRIPPED VEGETATION WILL NOT BE SUITABLE FOR USE AS ENGINEERED FILL OR WITHIN 5 FEET OF BUILDING PADS. HOWEVER STRIPPED TOP SOIL MAY BE ADOPTED AND REUSED IN LANDSCAPE OR NON-STRUCTURAL AREAS OR EXPORTED FROM THE SITE.
9. REMOVAL OF TREES AND LOOSE DISTURBED SOILS FROM EXISTING SITE CONDITIONS WILL BE AN INTEGRAL PART OF THE SITE PREPARATION. EXISTING TREES SHOULD BE REMOVED AND THEIR ROOT SYSTEMS SHOULD BE THOROUGHLY CLEARED OF ROOT BALLS AS WELL AS ISOLATED ROOTS GREATER THAN ¼-INCH IN DIAMETER. THE ROOT SYSTEM REMOVAL MAY DISTURB A SIGNIFICANT QUANTITY OF SOIL. FOLLOWING TREE REMOVAL, ALL LOOSE AND DISTURBED SOIL SHOULD BE REMOVED FROM THE TREE WELLS. AREAS OR POCKETS OF SOFT OR LOOSE SOILS, VOID SPACES MADE BY BURROWING ANIMALS, UNDOCUMENTED FILL, OR OTHER DISTURBED SOIL (I.E. SOIL DISTURBED BY ROOT REMOVAL) THAT ARE ENCOUNTERED, SHOULD BEEXCAVATED TO EXPOSE APPROVED FIRM NATIVE MATERIAL. CARE SHOULD BE TAKEN DURING SITE GRADING TO MITIGATE (E.G. EXCAVATE AND COMPACT AS ENGINEERED FILL) ALL SOIL DISTURBED BY DEMOLITION AND TREE REMOVAL ACTIVITIES
10. STRUCTURAL BUILDING PAD AREAS AND OVER-BUILD ZONE SHOULD BE CONSIDERED AS AREAS EXTENDING A MINIMUM OF 5 FEET HORIZONTALLY BEYOND THE OUTSIDE DIMENSIONS OF BUILDINGS, INCLUDING FOOTINGS AND NON-CANTILEVERED OVERHANGS CARRYING STRUCTURAL LOADS, TO PROVIDE UNIFORM SUPPORT FOR THE PROPOSED BUILDING, IT IS RECOMMENDED THAT OVER-EXCAVATION THE DEPTH REQUIRED TO REMOVE ANY UNDOCUMENTED FILLS. THE RESULTING BOTTOM OF EXCAVATION SHALL BE SCARIFIED TO A MINIMUM DEPTH OF AT LEAST 12INCHES, WORKED UNTIL UNIFORM AND FREE FROM LARGE CLODS, MOISTURE CONDITIONED TO SLIGHTLY ABOVE OPTIMUM MOISTURE, AND COMPACTED TO 92 PERCENT OF THE MAXIMUM DENSITY. THE HORIZONTAL LIMITS OF THE OVER-EXCAVATION SHOULD EXTEND THROUGHOUT THE BUILDING PAD AND OVER-BUILD ZONE,EXTENDINGLATERALLY TO A MINIMUM OF 5 FEET BEYOND THE OUTER EDGES OF THE PROPOSED FOOTINGS
11. INTERIOR SLABS ON GRADE SHOULD BE SUPPORTED ON A MINIMUM OF 4 INCHES OF CLASS 2 AGGREGATE BASE COMPACTED TO 95 PERCENT RELATIVE COMPACTION, OVER THE DEPTH OF ENGINEERED FILL RECOMMENDED BELOW FOUNDATIONS.
12. AREAS OF PROPOSED LIGHTLY LOADED SHALLOW SPREAD FOUNDATIONS (I.E. RETAINING WALLS, SCREENWALLS, ETC.) SHOULD BE OVER-EXCAVATED TO MINIMUM DEPTHS OF ONE (1) FOOT BELOW EXISTING GRADE,TO THE BOTTOM OF PROPOSED FOOTING BOTTOM, OR DEPTH REQUIRED TO REMOVE UNDOCUMENTED FILLS, WHICHEVER IS DEEPER. THE OVER-EXCAVATION SHOULD ALSO EXTEND LATERALLY TO A MINIMUM OF 3FEET BEYOND THE OUTER EDGES OF THE PROPOSED FOOTINGS. THE RESULTING BOTTOM OF EXCAVATION SHALL BE SCARIFIED TO A MINIMUM DEPTH OF AT LEAST 8 INCHES, WORKED UNTIL UNIFORM AND FREE FROM LARGE CLODS, MOISTURE-CONDITIONED TO SLIGHTLY ABOVE OPTIMUM MOISTURE, AND COMPACTED TO A MINIMUM OF 92 PERCENT OF THE MAXIMUM DENSITY.
13. AREAS OF EXTERIOR CONCRETE SLABS ON GRADE LOCATED OUTSIDE THE BUILDING PAD OVER-BUILD ZONE, SHOULD BE PREPARED BY SCARIFICATION OF THE UPPER 12 INCHES BELOW EXISTING GRADE OR 12 INCHES BELOW THE BOTTOM OF THE RECOMMENDED AGGREGATE BASE SECTION, WHICHEVER IS GREATER.THE ZONE OF SUBGRADE PREPARATION SHOULD EXTEND A MINIMUM OF 3 FEET BEYOND THESE IMPROVEMENTS. THESE SOILS SHOULD BE MOISTURE CONDITIONED TO SLIGHTLY ABOVE OPTIMUM AND COMPACTED AS ENGINEERED FILL. EXTERIOR SLABS ON GRADE SHOULD BE SUPPORTED ON A MINIMUM OF 4 INCHES OF CLASS 2 AGGREGATE BASE COMPACTED TO 95 PERCENT RELATIVE COMPACTION OVER SUBGRADE SOILS PREPARED AS RECOMMENDED ABOVE. AS AN ALTERNATIVE, IF THE SCHOOL DISTRICT IS WILLING TO ACCEPT ADDITIONAL RISK FOR DISTRESS TO EXTERIOR SUBGRADE SOILS AS RECOMMENDED ABOVE.
14. AREAS OF PROPOSED ASPHALTIC CONCRETE AND PORTLAND CEMENT CONCRETE COVERED PLAYCOURTS SHOULD BE PREPARED BY OVER-EXCAVATION TO 12 INCHES BELOW PRECONSTRUCTION SITE GRADE OR 12 INCHES BELOW BOTTOM OF PROPOSED AGGREGATE BASE SECTION, WHICHEVER PROVIDES GREATER FILL. THE ZONE OF SUBGRADE PREPARATION SHOULD EXTEND A MINIMUM OF 3 FEET BEYOND THESE IMPROVEMENTS. THE RESULTING BOTTOM OF EXCAVATION SHOULD BE SCARIFIED A MINIMUM OF 8 INCHES, WORKED UNTIL UNIFORM FREE FROM LARGE CLODS, MOISTURE CONDITIONED TO SLIGHTLY ABOVE OPTIMUM AND COMPACTED TO A MINIMUM OF 92 PERCENT OF THE MAXIMUM DRY DENSITY (EXCEPT WHERE PLAYCOURT AREAS WILL ACCOMMODATE VEHICULAR TRAFFIC LOADS WHERE THE MINIMUM COMPACT REQUIREMENT SHOULD BE 90 PERCENT OF THE MAXIMUM DENSITY AS ENGINEERED FILL. THE HORIZONTAL LIMITS OF THE OVER-EXCAVATION SHOULD EXTEND A MINIMUM OF 3 FEET BEYOND THESE IMPROVEMENTS. THE UPPER 12 INCHES BELOW BOTTOM OF PAVEMENT SECTIONS SHOULD BE COMPACTED TO A MINIMUM OF 95 PERCENT RELATIVE COMPACTION. ASPHALTIC CONCRETE PLAYCOURT AREAS WHICH WILL ACCOMODATE VEHICULAR TRAFFIC LOADS SHOULD BE SUPPORTED ON A MINIMUM OF 4 INCHES OF CLASS 2 AGGREGATE BASE COMPACTED TO 95 PERCENT RELATIVE COMPACTION OVER SUBGRADE SOILS PREPARED AS RECOMMENDED ABOVE. IN THE EVENT THAT PLAYCOURTS ARE NOT DESIGNED FOR VEHICULAR TRAFFIC LOADS, PLAYCOURTS MAY BE SUPPORTED DIRECTLY OVER COMPACTED SUBGRADE SOILS AS RECOMMENDED ABOVE. HOWEVER, IT SHOULD BE NOTED THAT VEHICULAR TRAFFIC ON PLAYCOURTS NOT DESIGNED FOR TRAFFIC LOADS COULD RESULT IN PLAYCOURT DISTRESS (CRACKING, RUTTING, ETC).
15. AREAS TO RECEIVE ENGINEERED FILL OUTSIDE THE BUILDING PAD OVER-BUILD ZONE, SHOULD BE PREPARED BY SCARIFICATION OF THE UPPER 12 INCHES BELOW EXISTING GRADE OR 12 INCHES BELOW THE RECOMMENDED BASE SECTION, WHICHEVER IS GREATER.THESE SOILS SHOULD BE MOISTURE CONDITIONED TO SLIGHTLY ABOVE OPTIMUM AND COMPACTED AS ENGINEERED FILL.
16. AN INTEGRAL PART OF SATISFACTORY FILL PLACEMENT IS THE STABILITY OF THE PLACED LIFT OF SOIL. IF PLACED MATERIALS EXHIBIT EXCESSIVE INSTABILITY AS DETERMINED BY A SALEM FIELD REPRESENTATIVE, THE LIFT WILL BE CONSIDERED UNACCEPTABLE AND SHALL BE REMEDIED PRIOR TO PLACEMENT OF ADDITIONAL FILL MATERIAL. BE CONSIDERED UNACCEPTABLE AND SHALL BE REMEDIED PRIOR TO PLACEMENT OF ADDITIONAL FILL MATERIAL. ADDITIONAL LIFTS SHOULD NOT BE PLACED IF THE PREVIOUS LIFT DID NOT MEET THE REQUIRED DRY DENSITY OR IF SOIL CONDITIONS ARE NOT STABLE.
17. THE MOST EFFECTIVE SITE PREPARATION ALTERNATIVES WILL DEPEND ON SITE CONDITIONS PRIOR TO GRADING. WE SHOULD EVALUATE SITE CONDITIONS AND PROVIDE SUPPLEMENTAL RECOMMENDATIONS IMMEDIATELY PRIOR TO GRADING, IF NECESSARY.
18. WE DO NOT ANTICIPATE GROUNDWATER OR SEEPAGE TO ADVERSELY AFFECT CONSTRUCTION IF CONDUCTED DURING THE DRIER MONTHS OF THE YEAR (TYPICALLY SUMMER AND FALL). HOWEVER, GROUNDWATER AND SOIL MOISTURE CONDITIONS COULD BE SIGNIFICANTLY DIFFERENT DURING THE WET SEASON (TYPICALLY WINTER AND SPRING) AS SURFACE SOIL BECOMES WET. PERCHED GROUNDWATER CONDITIONS MAY DEVELOP. LOCKUP DURING THIS TIME PERIOD WILL LIKELY ENCOUNTER WET MATERIALS RESULTING IN POSSIBLE EXCAVATION AND FILL PLACEMENT DIFFICULTIES. PROJECT SITE WINTERIZATION CONSISTING OF PLACEMENT OF AGGREGATE BASE AND PROTECTING DIFFICULTIES. PROJECT SITE WINTERIZATION CONSISTING OF PLACEMENT OF AGGREGATE BASE AND PROTECTING EXPOSED SOILS DURING CONSTRUCTION SHOULD BE PERFORMED. IF THE CONSTRUCTION SCHEDULE REQUIRES GRADING OPERATIONS DURING THE WET SEASON, WE CAN PROVIDE ADDITIONAL RECOMMENDATIONS AS CONDITIONS WARRANT.
19. TYPICAL REMEDIAL MEASURES INCLUDE: DISCING AND AERATING THE SOIL DURING DRY WEATHER; MIXING THE SOIL WITH DRYER MATERIALS; REMOVING AND REPLACING THE SOIL WITH AN APPROVED FILL MATERIAL OR PLACEMENT OF CRUSHED ROCKS OR AGGREGATE BASE MATERIAL; OR MIXING THE SOIL WITH AN APPROVED LIME OR CEMENT PRODUCT.
20. THE MOST COMMON REMEDIAL MEASURE OF STABILIZING THE BOTTOM OF THE EXCAVATION DUE TO WET SOIL CONDITION IS TO REDUCE THE MOISTURE OF THE SOIL TO NEAR THE OPTIMUM MOISTURE CONTENT BY HAVING THE SUBGRADE SOILS SCARIFIED AND AERATED OR MIXED WITH DRIER SOILS PRIOR TO COMPACTING. HOWEVER, THE DRYING PROCESS MAY REQUIRE AN EXTENDED PERIOD OF TIME AND DELAY THE CONSTRUCTION OPERATION. TO EXPEDITE THE STABILIZING PROCESS, CRUSHED ROCK MAY BE UTILIZED FOR STABILIZATION PROVIDED THIS METHOD IS APPROVED BY THE OWNER FOR THE COST PURPOSE. IF THE USE OF CRUSHED ROCK IS CONSIDERED, IT IS RECOMMENDED THAT THE UPPER SOFT AND WET SOILS BE REPLACED BY 6 TO 24 INCHES OF ½-INCH TO 1-INCH CRUSHED ROCKS.THE THICKNESS OF THE ROCK LAYER DEPENDS ON THE SEVERITY OF THE SOIL INSTABILITY.THE RECOMMENDED 6 TO 24 INCHES OF CRUSHED ROCK MATERIAL WILL PROVIDE A STABLE PLATFORM.IT IS FURTHER RECOMMENDED THAT LIGHTER COMPACTION EQUIPMENT BE UTILIZED FOR COMPACTING THE CRUSHED ROCK.ALL OPEN GRADED CRUSHED ROCK/GRAVEL SHOULD BE FULLY ENCAPSULATED WITH A GEOTEXTILE FABRIC (SUCH AS MIRAFI 140N) TO MINIMIZE MIGRATION OF SOIL PARTICLES INTO THE VOIDS OF THE CRUSHED ROCK.ALTHOUGH IT IS NOT REQUIRED, THE USE OF GEOGRID TENSAR BX 1100, BX 1200 OR TX 160) BELOW THE CRUSHED ROCK WILL ENHANCE STABILITY AND REDUCE THE REQUIRED THICKNESS OF CRUSHED ROCK NECESSARY FOR STABILIZATION. OUR FIRM SHOULD BE CONSULTED PRIOR TO IMPLEMENTING REMEDIAL MEASURES TO PROVIDE APPROPRIATE RECOMMENDATIONS.
21. BASED ON THE SOIL CONDITIONS ENCOUNTERED IN OUR BORINGS, THE ONSITE SOILS CAN BE EXCAVATED WITH MODERATE EXCAVATION EQUIPMENT, PARTICULARLY FOR TRENCHES.AS NOTED, HARDPAN SOILS WERE ENCOUNTERED AT DEPTHS GREATER THAN ABOUT 1 FOOTBSG. WHERE ENCOUNTERED, THE CONTRACTOR SHOULD ANTICIPATE INCREASED EXCAVATION EFFORT WILL BE REQUIRED. IN ADDITION, HARDPAN FRAGMENTS WILL REQUIRE PROCESSING AND BLENDING WITH ON-SITE SOILS PRIOR TO USE AS ENGINEERED FILL.
22. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL EXCAVATIONS AND TRENCHES ARE PROPERLY SHORED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS TO MAINTAIN SAFETY AND MAINTAIN THE STABILITY OF ADJACENT EXISTING IMPROVEMENTS.TEMPORARY EXCAVATIONS ARE FURTHER DISCUSSED IN A LATER SECTION OF THIS REPORT.
23. THE NEAR SURFACE SOILS IDENTIFIED AS PART OF OUR INVESTIGATION ARE, GENERALLY,DAMP TO MOIST DUE TO THE ABSORPTION CHARACTERISTICS OF THE SOIL.SEASONAL PERCHED WATER CONDITIONS MAY OCCUR DUE TO THE SHALLOW DEPTH TO HARDPAN ENCOUNTERED. EARTHWORK OPERATIONS MAY ENCOUNTER VERY MOIST UNSTABLE SOILS WHICH MAY REQUIRE REMOVAL TO A STABLE BOTTOM.EXPOSED NATIVE SOILS EXPOSED AS PART OF SIT

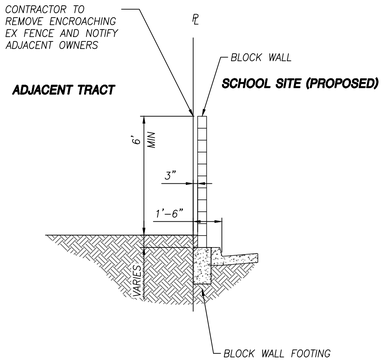


PRIVATE ACCESS ROAD SECTION

TI 7.0
R–VALUE 60

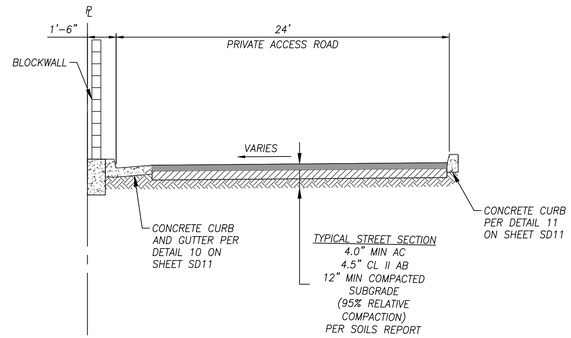
A SECTION A

N.T.S



B SECTION B

N.T.S

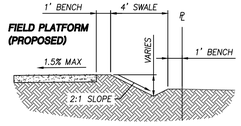


PRIVATE ACCESS ROAD SECTION

TI 7.0
R–VALUE 60

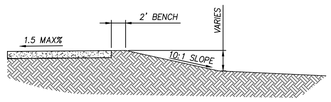
C SECTION C

N.T.S



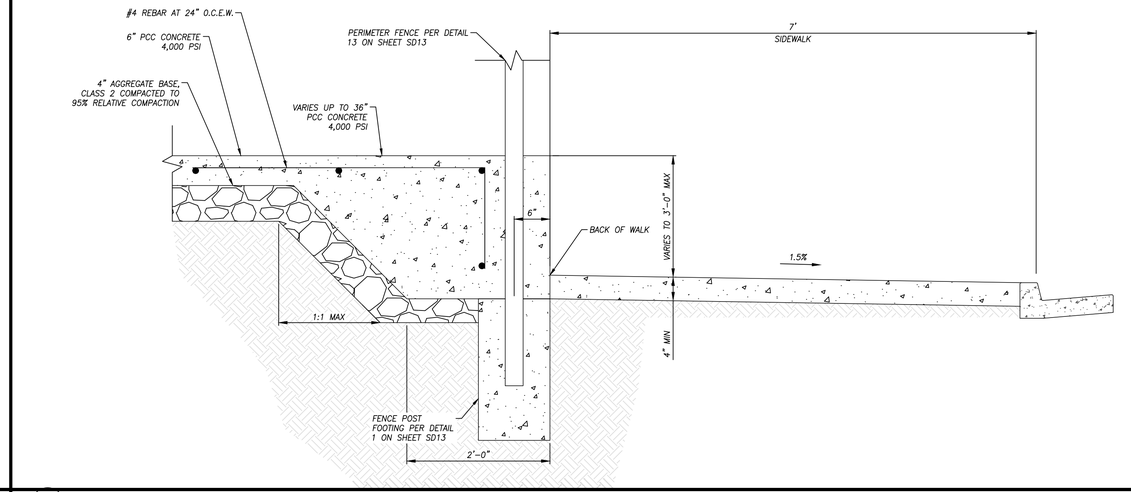
D SECTION D

N.T.S



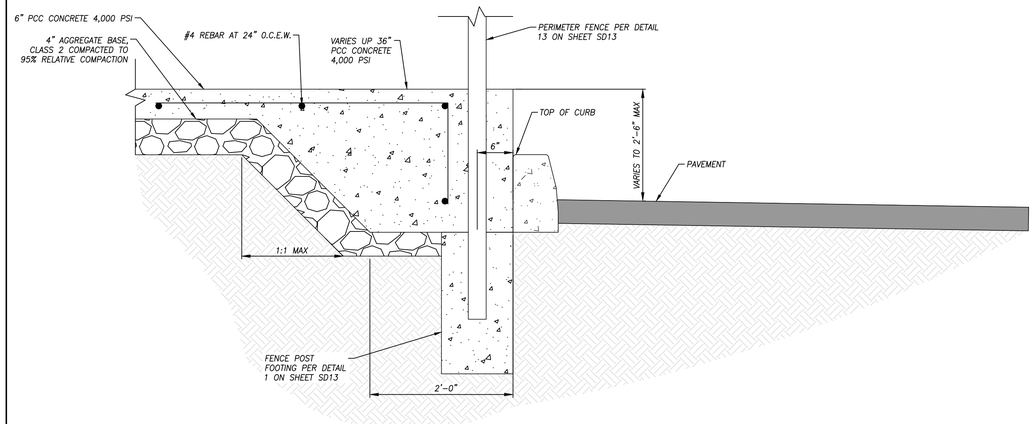
E SECTION E

N.T.S



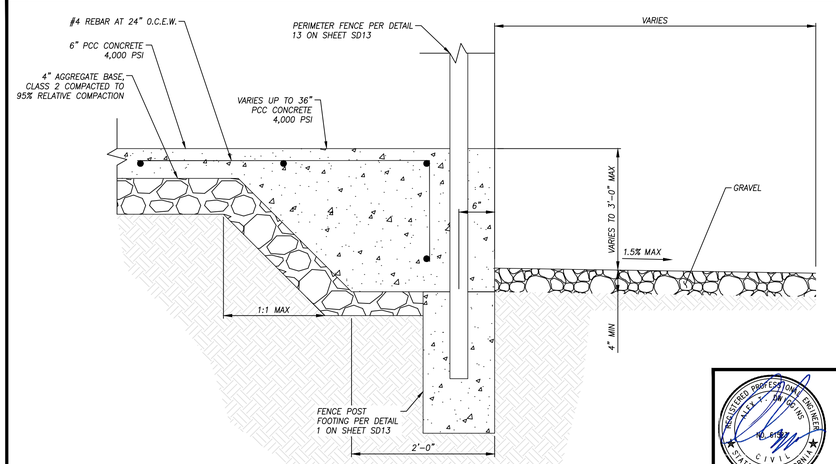
F SECTION F

N.T.S



G SECTION G

N.T.S



H SECTION H

N.T.S

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ASSOCIATES INC.
ARCHITECTURE
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

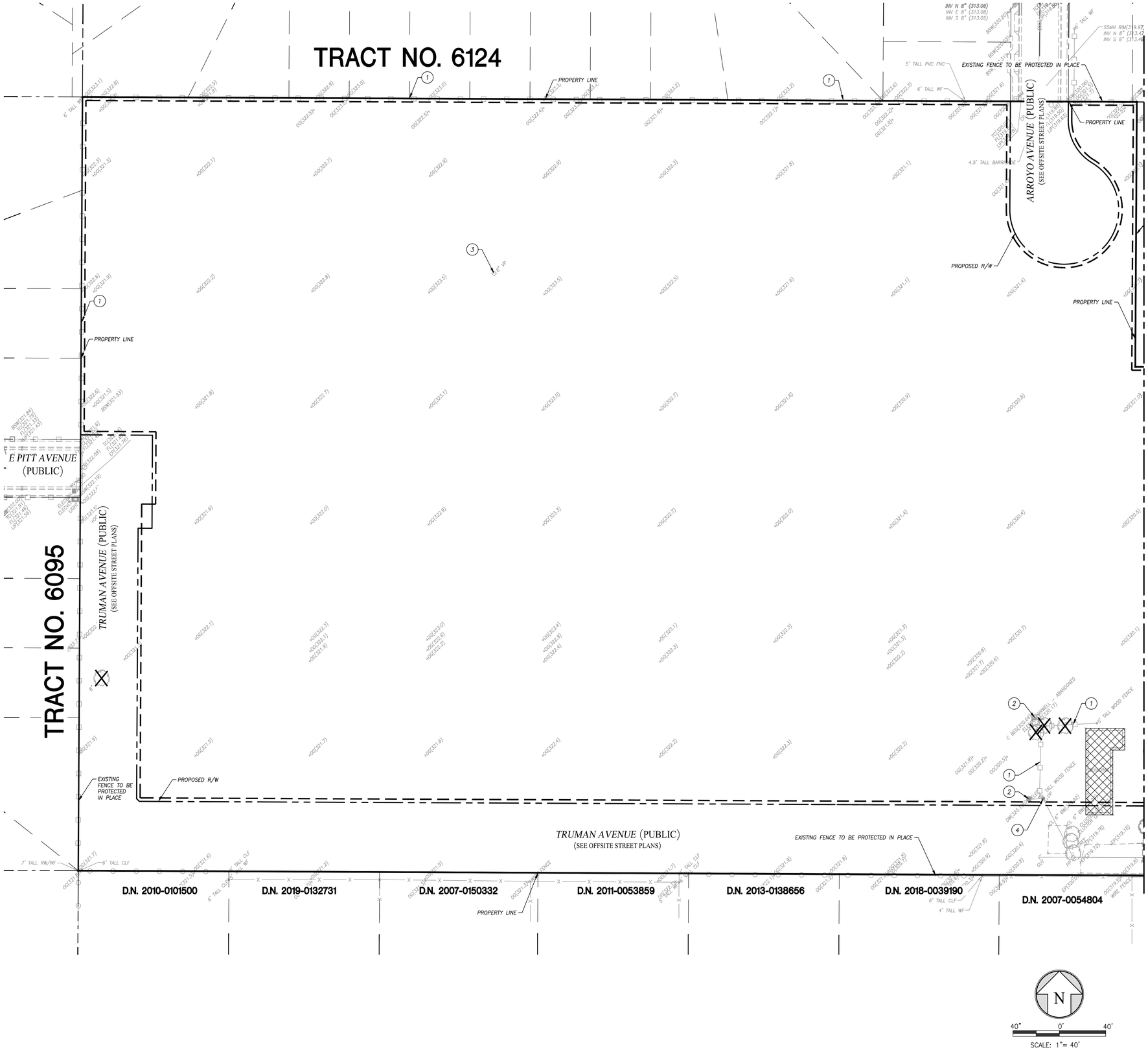
TITLE
CROSS SECTIONS SHEET

G-3

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
ALEX J. VANDERPOEL
No. 84781
CIVIL
STATE OF CALIFORNIA
09/16/2026

BY:
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WWW.QKINC.COM
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

LEGEND

- DEMOLITION LIMIT LINE
- EXISTING CONCRETE TO BE REMOVED
- EXISTING TREE TO BE REMOVED

DEMOLITION KEYNOTES

1. EXISTING FENCE TO BE REMOVED
2. THE EXISTING AG WELL SHALL BE REMOVED BY CONTRACTOR TO CITY OF FRESNO STD W-45. IF THE EXISTING AG WELL HAS BEEN REMOVED THE CONTRACTOR TO VERIFY IF THAT CITY STD W-45 WAS FOLLOWED
3. EXISTING VENT PIPE AND ANY ASSOCIATED UTILITIES TO BE REMOVED BY CONTRACTOR
4. EXISTING POWERPOLE TO BE REMOVED BY CONTRACTOR

DEMOLITION NOTE

1. CONTRACTOR SHALL VERIFY ALL WELLS ARE ABANDONED
2. CONTRACTOR SHALL VERIFY EXISTING HOME WAS REMOVED PER SOILS REPORT REQUIREMENT AND ALL UTILITIES WERE ABANDONED.
3. CONTRACTOR TO MAKE REASONABLE SEARCH FOR ANY ADDITIONAL IRRIGATION LINES AND REMOVE THEM
4. PER DEMO KEYNOTE #1, CONTRACTOR TO CONTACT ADJACENT PROPERTY OWNERS, PRIOR TO REMOVING FENCE, TO COORDINATE.
5. REFER TO OFFSITE IMPROVEMENT PLANS FOR DEMOLITION WORK WITHIN THE PROPOSED R/W.

REGISTERED PROFESSIONAL ENGINEER
ALEX T. OLIVAS
No. 94128
CIVIL
STATE OF CALIFORNIA

09/16/2026

BY:

QK
WWW.QKINC.COM
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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
DEMOLITION SHEET

D-1

PROJECT 24042

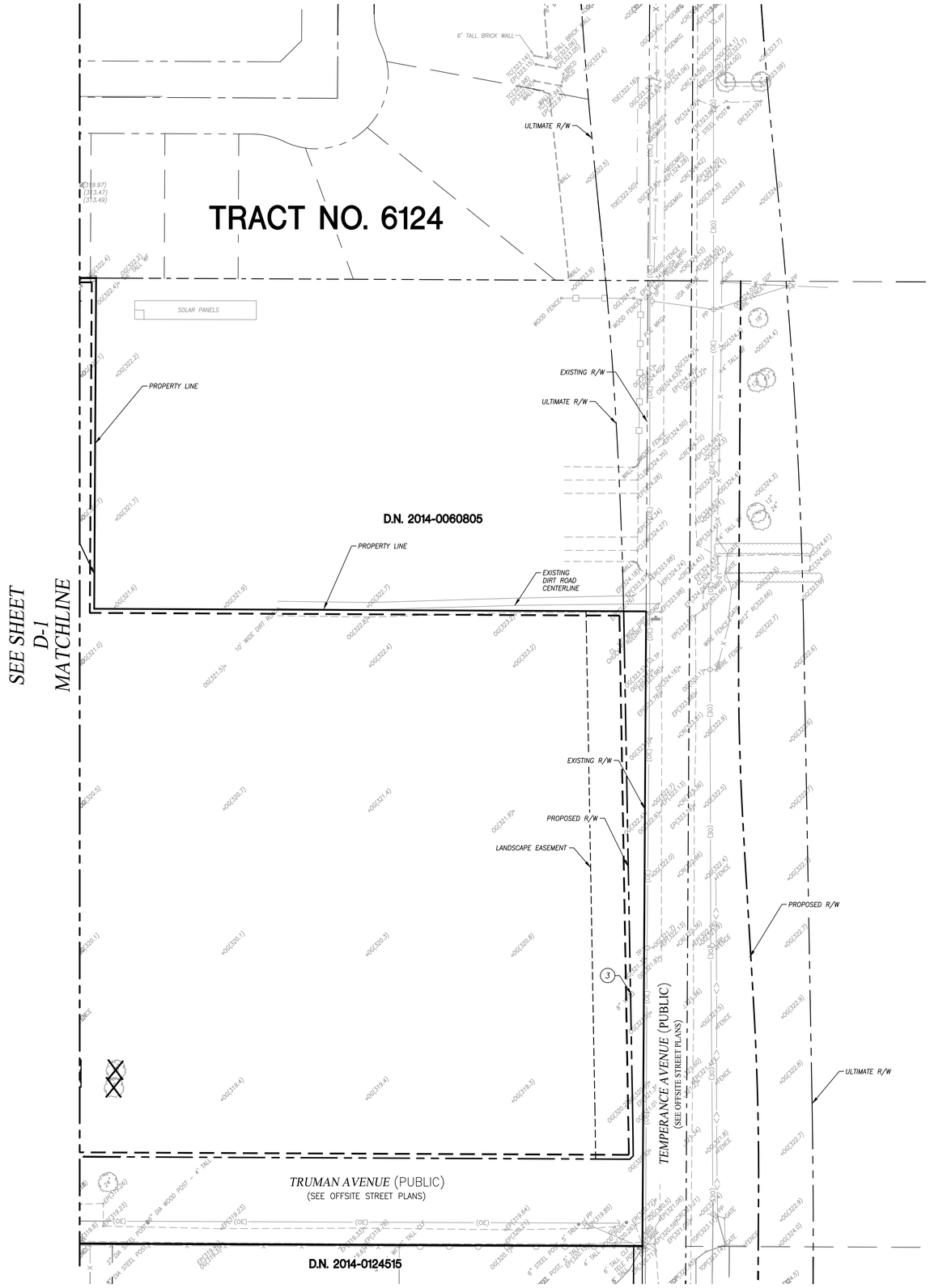
APPROVALS

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



LEGEND

- DEMOLITION LIMIT LINE
- EXISTING CONCRETE TO BE REMOVED
- EXISTING TREE TO BE REMOVED

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4. PER DEMO KEYNOTE #1, CONTRACTOR TO CONTACT ADJACENT PROPERTY OWNERS, PRIOR TO REMOVING FENCE, TO COORDINATE.

N

40" 0' 40'

SCALE: 1"= 40'

REGISTERED PROFESSIONAL ENGINEER
ALAN J. TITUS
No. 47178
CIVIL
STATE OF CALIFORNIA

09/16/2026

BY:
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(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
DEMOLITION SHEET

D-2

PROJECT 24042

TRACT NO. 6124

TRACT NO. 6095

PRIVATE ACCESS DRIVE

PRIVATE ACCESS DRIVE

E PITT AVENUE (PUBLIC)

TRUMAN AVENUE (PUBLIC)
(SEE OFFSITE STREET PLANS)

ARROYO AVENUE (PUBLIC)
(SEE OFFSITE STREET PLANS)

TRUMAN AVENUE (PUBLIC)
(SEE OFFSITE STREET PLANS)

BLDG 100
BLDG 200
BLDG 300
BLDG 400
BLDG 500
BLDG 600
BLDG 700
BLDG 800
FUTURE BLDG
FUTURE CLASSROOMS
PLAY AREA
PLAY AREA
BASKETBALL COURTS

PAVEMENT MARKING PER DETAIL ON SHEET SD14
LIMIT OF ON-SITE IMPROVEMENTS
BEGIN THICKENED EDGE
ROLLING GATE, WITH CURB, PER DETAIL 21 ON SHEET SD13
5' TALL PVC FNC
INV N 8' (313.49)
INV S 8' (313.49)
PROPERTY LINE
LIMIT OF ON-SITE IMPROVEMENTS
PLAY AREA PER DETAILS ON SHEET SD7
CHAINLINK FENCING PER DETAIL 8 ON SD13
ONSITE PAVEMENT MARKING PER DETAIL 11 ON SD14
ROLLING GATE, PER DETAIL 21 ON SHEET SD13
DECORATIVE METAL FENCING PER DETAIL 18 ON SD13
CONCRETE PLANTER CURB PER DETAIL 15 ON SHEET SD11
CONCRETE BENCH PER DETAIL 1 ON SHEET SD9
PLAY AREA PER DETAILS 13 & 23 ON SHEET SD8
PROPOSED R/W
LIMIT OF ON-SITE IMPROVEMENTS
SEE SHEET SP-2 MATCHLINE
SIGN PER DETAIL 18 ON SD14
ADA PARKING AND ACCESSIBLE CROSSING PER DETAIL 23 ON SHEET SD6
STEPS PER DETAIL 3 ON SHEET SD9
CONCRETE BENCH PER DETAIL 1 ON SHEET SD9
8" MIN CONCRETE PER PLUMBING PLAN DETAIL B/P9.06
CONCRETE PLANTER CURB PER DETAIL 15 ON SHEET SD11
TREE WELLS PER DETAIL 13 ON SHEET SD11
ACCESSIBLE CROSSING PER DETAIL 25 ON SD6
4" STRIPING PER SITE PLAN KEYNOTE 13 ON SHEET SD5
ARROW MARKING PER DETAIL 11 ON SD14
TRASH ENCLOSURE PER DETAIL 16 ON SHEET SD 12
ONSITE PAVEMENT MARKING PER DETAIL 11 ON SD14
PROPOSED R/W LIMIT OF ON-SITE IMPROVEMENTS
ACCESSIBLE CROSSING PER DETAIL 21 ON SD6
ADA PARKING AND ACCESSIBLE CROSSING PER DETAIL 7 ON SD6
ROLLING GATE, PER DETAIL 23 ON SHEET SD13
VEHICULAR CONCRETE WALK PER DETAIL 5 ON SD11
ADA PARKING AND ACCESSIBLE CROSSING PER DETAIL 6 ON SD6
SOLAR CANOPY PER DETAILS 6 AND 11 ON SHEET SD6
EV PARKING AND ADA STRIPING PER DETAIL 21 ON SD6
PROPERTY LINE
SIGN PER DETAIL 1B ON SD14
PROPOSED R/W LIMIT OF ON-SITE IMPROVEMENTS
BUILDING
(OE)
WIRE FENCE
TALL CLEAR CHAIN LINK
TALL WIRE FENCE CLF
TYP
4 TYP

D.N. 2010-0101500 | D.N. 2019-0132731 | D.N. 2007-0150332 | D.N. 2011-0053859 | D.N. 2013-0138656 | D.N. 2018-0039190 | D.N. 2007-0054804

LEGEND

- PROPOSED ON-SITE LIGHT DUTY CONCRETE SECTION PER DETAIL D ON THIS SHEET
- PROPOSED ON-SITE CONCRETE SECTION FOR VEHICULAR ACCESS PER DETAIL C ON THIS SHEET
- PROPOSED ON-SITE LIGHT DUTY AC PAVEMENT SECTION PER DETAIL A ON THIS SHEET
- PROPOSED ON-SITE HEAVY DUTY AC PAVEMENT SECTION PER DETAIL B ON THIS SHEET
- PROPOSED LANDSCAPE PER LANDSCAPING PLANS
- PROPOSED GRAVEL
- THICKENED EDGE 2' FROM CURB OR SIDEWALK, SEE SECTIONS F AND G ON SHEET G-3
- ON-SITE LIGHTING PER SEPARATE PLAN

PAVEMENT DELINEATION STRIPING AND SIGNAGE KEYNOTE

1. PROPOSED STOP MARKING PER 2025 CALTRANS STANDARD PLAN A24D
2. PROPOSED STOP SIGN (R1-1) PER CALTRANS MUTCD
3. PROPOSED 12" WIDE WHITE STOP LINE PER 2025 CALTRANS STANDARD PLAN A24G
4. PROPOSED 4" WHITE PARKING STALL STRIPING

N

40' 0' 40'

SCALE: 1"= 40'

WARNING POWERLINES OVERHEAD

811 Know what's below. Call before you dig.

09/16/2026

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

2.5" MIN HOT MIX ASPHALT (HMA) TYPE "A" AS SPECIFIED IN STATE STANDARD SPECIFICATIONS UTILIZING 1/2" MAX. AGGREGATE TO 95% RELATIVE COMPACTION. ASPHALT BINDER SHALL CONFORM TO PG 64-10 AS SPECIFIED IN STATE STANDARD SPECIFICATIONS.

4.0" MIN CLASS 2 AGGREGATE BASE AS SPECIFIED IN STATE STANDARD SPECIFICATIONS TO 95% RELATIVE COMPACTION.

12" MIN SUBGRADE TO 95% RELATIVE COMPACTION.

T.I. = 5.0, R-VALUE = 60

A LIGHT DUTY PAVEMENT SECTION

NO SCALE

4" MIN HOT MIX ASPHALT (HMA) TYPE "A" AS SPECIFIED IN STATE STANDARD SPECIFICATIONS UTILIZING 1/2" MAX. AGGREGATE TO 95% RELATIVE COMPACTION. ASPHALT BINDER SHALL CONFORM TO PG 64-10 AS SPECIFIED IN STATE STANDARD SPECIFICATIONS.

4.5" MIN CLASS 2 AGGREGATE BASE AS SPECIFIED IN STATE STANDARD SPECIFICATIONS TO 95% RELATIVE COMPACTION.

12" MIN SUBGRADE TO 95% RELATIVE COMPACTION.

T.I. = 7.0, R-VALUE = 60

B HEAVY DUTY PAVEMENT SECTION

NO SCALE

#4 REBAR AT 12" O.C.E.W

6.5" MIN PORTLAND CEMENT CONCRETE (PCC) WITH 28-DAY COMPRESSIVE STRENGTH = 4,000 PSI, 12' MAX CONTROL JOINT SPACING (UNLESS OTHERWISE NOTED) AS SPECIFIED IN STATE STANDARD SPECIFICATIONS

4" MIN CLASS 2 AGGREGATE BASE AS SPECIFIED IN STATE STANDARD SPECIFICATIONS TO 95% RELATIVE COMPACTION

12" MIN SUBGRADE TO 95% RELATIVE COMPACTION

T.I. = 7.0, R-VALUE = 60

NOTE: CONCRETE 28-DAY COMPRESSIVE STRENGTH SHOL BE 4,000 PSI. TRAFFIC INDEX OF 7.

C CONCRETE WALK SECTION FOR VEHICULAR ACCESS

NO SCALE

#4 REBAR AT 24" O.C.E.W

4" MIN PORTLAND CEMENT CONCRETE (PCC) WITH 28-DAY COMPRESSIVE STRENGTH = 4,000 PSI, 12' MAX CONTROL JOINT SPACING (UNLESS OTHERWISE NOTED) AS SPECIFIED IN STATE STANDARD SPECIFICATIONS

4" MIN CLASS 2 AGGREGATE BASE AS SPECIFIED IN STATE STANDARD SPECIFICATIONS TO 95% RELATIVE COMPACTION

12" MIN SUBGRADE TO 95% RELATIVE COMPACTION

NOTE: CONCRETE 28-DAY COMPRESSIVE STRENGTH SHOULD BE 4,000 PSI. FOR PEDESTRIAN WALKS ONLY.

D LIGHT DUTY CONCRETE

NO SCALE

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

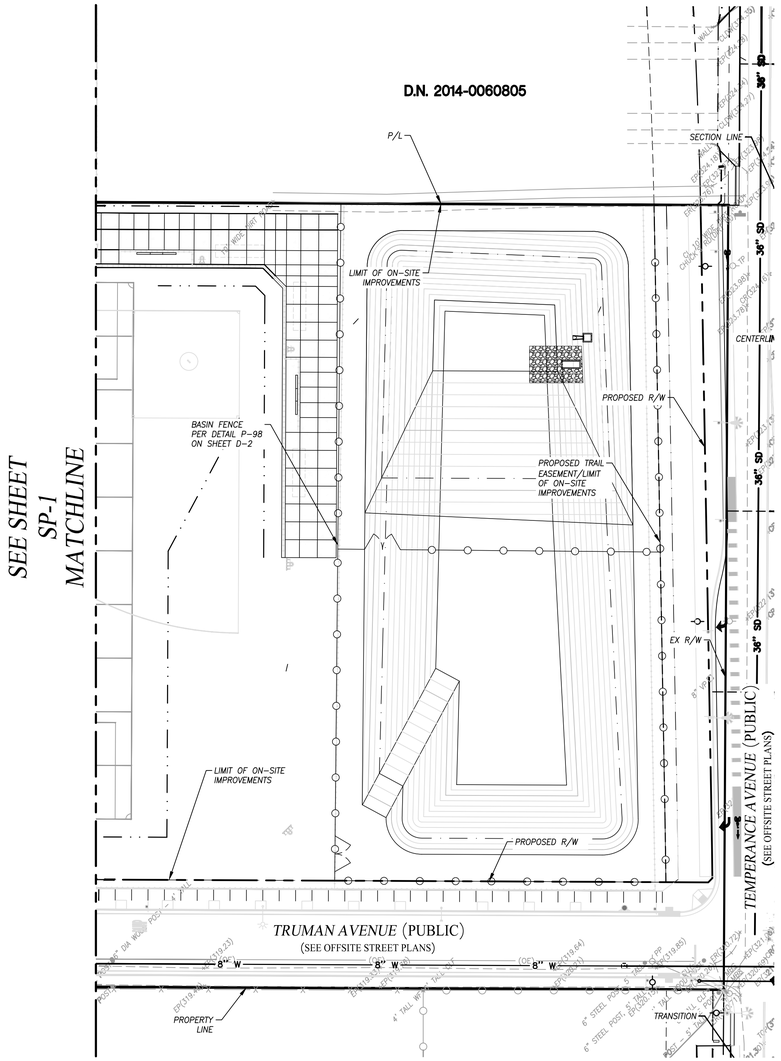
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4320 West Mineral King Avenue
Visalia, California 93291
www.manginiai.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
SITE PLAN SHEET

SP-1

PROJECT 24042

L:\Projects\2025\250125\ACAD\Improvements\250125 On-Site Improvement Plans\250125-SP.dwg Sep 16 2026 3:56pm

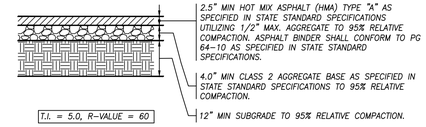


LEGEND

- PROPOSED ON-SITE LIGHT DUTY CONCRETE SECTION PER DETAIL D ON THIS SHEET
- PROPOSED ON-SITE CONCRETE SECTION FOR VEHICULAR ACCESS PER DETAIL C ON THIS SHEET
- PROPOSED ON-SITE LIGHT DUTY AC PAVEMENT SECTION PER DETAIL A ON THIS SHEET
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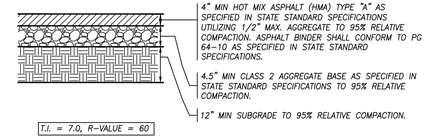
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4. PROPOSED 4" WHITE PARKING STALL STRIPING



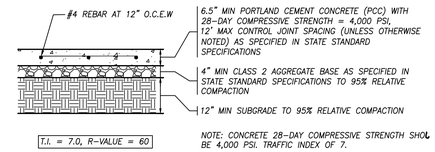
A LIGHT DUTY PAVEMENT SECTION

NO SCALE



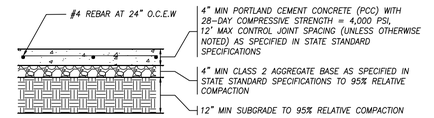
B HEAVY DUTY PAVEMENT SECTION

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C CONCRETE WALK SECTION FOR VEHICULAR ACCESS

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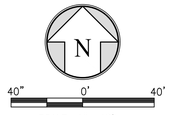


D LIGHT DUTY CONCRETE

NO SCALE

WARNING
POWERLINES OVERHEAD

811 Know what's below. Call before you dig.



APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ASSOCIATES INC.
ARCHITECTURE
4320 West Mineral King Avenue
Visalia, California 93291
(559) 627.0530 Office
(559) 627.1926 Fax
www.mangini.us

TITLE
SITE PLAN SHEET

SP-2

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JAMES A. QUADY
No. 61779
CIVIL
STATE OF CALIFORNIA

09/16/2026

BY:
QK
WWW.QKINC.COM
559-582-1056
BAKERSFIELD, CLOVIS, HANFORD, MERCED, PORTERVILLE, VISALIA

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TRACT NO. 6124

TRACT NO. 6095

PRIVATE ACCESS DRIVE

LIMIT OF ON-SITE IMPROVEMENTS

BUS LOADING

BUS LOADING

BLDG 700
FF 323.70

BLDG 600
FF 323.70

FUTURE BLDG

BLDG 300
FF 323.90

BLDG 400
FF 323.90

BLDG 500
FF 323.90

PRIVATE ACCESS DRIVE

E PITT AVENUE (PUBLIC)

TRUMAN AVENUE (PUBLIC)
(SEE OFFSITE STREET PLANS)

ONLY BUS

ONLY

SEE SHEET GP-3 MATCHLINE

LEGEND

- PROPOSED ON-SITE LIGHT DUTY CONCRETE
- PROPOSED ON-SITE HEAVY DUTY CONCRETE
- PROPOSED ON-SITE LIGHT DUTY AC PAVEMENT
- PROPOSED ON-SITE HEAVY DUTY AC PAVEMENT
- PROPOSED DETECTABLE WARNING SURFACE
- PROPOSED LANDSCAPE
- GRADE BREAK LINE

KEYNOTE

1. PROPOSED PARALLEL CURB RAMP PER DETAIL 1 ON SHEET GP-6
2. PROPOSED ACCESSIBLE DROP-OFF PER DETAIL 2 ON SHEET GP-6
3. PROPOSED PARALLEL CURB RAMP PER DETAIL 3 ON SHEET GP-6
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12. PROPOSED CURB RAMP (CASE F) PER 2025 STANDARD PLAN A88A SHEET DT-5

MATCHLINE SEE SHEET GP-2

N

20" 0' 20'

SCALE: 1"= 20'

KEY PLAN

09/16/2026

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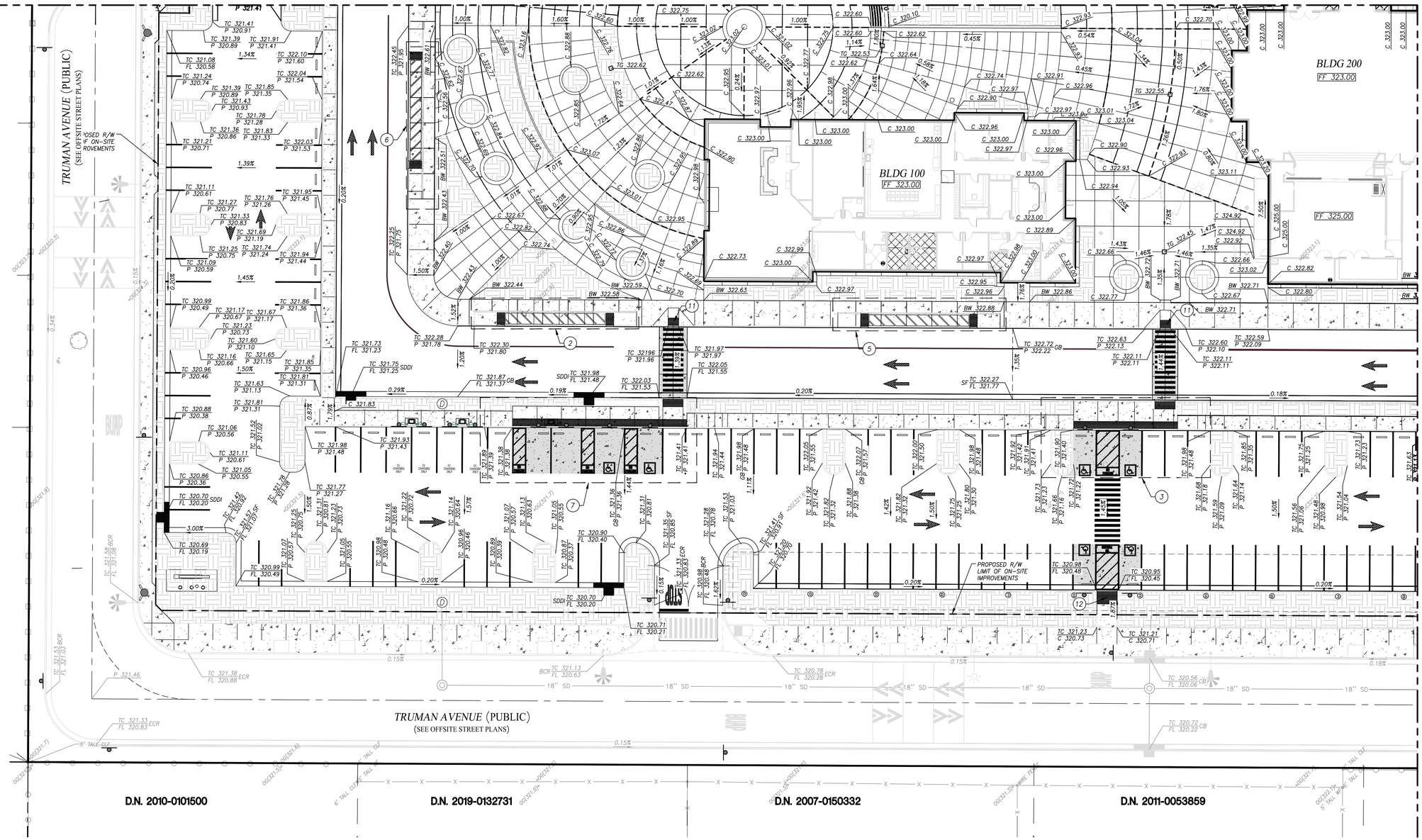
TITLE
GRADING SHEET

GP-1

PROJECT 24042

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SEE SHEET GP-1 MATCHLINE



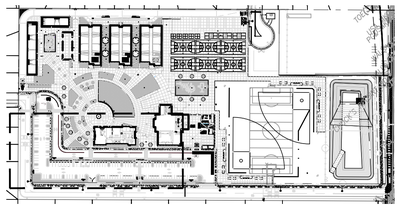
MATCHLINE SEE SHEET GP-4

LEGEND

- PROPOSED ON-SITE LIGHT DUTY CONCRETE
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KEY PLAN

N

20" 0' 20'

SCALE: 1"= 20'

09/16/2026

BY:

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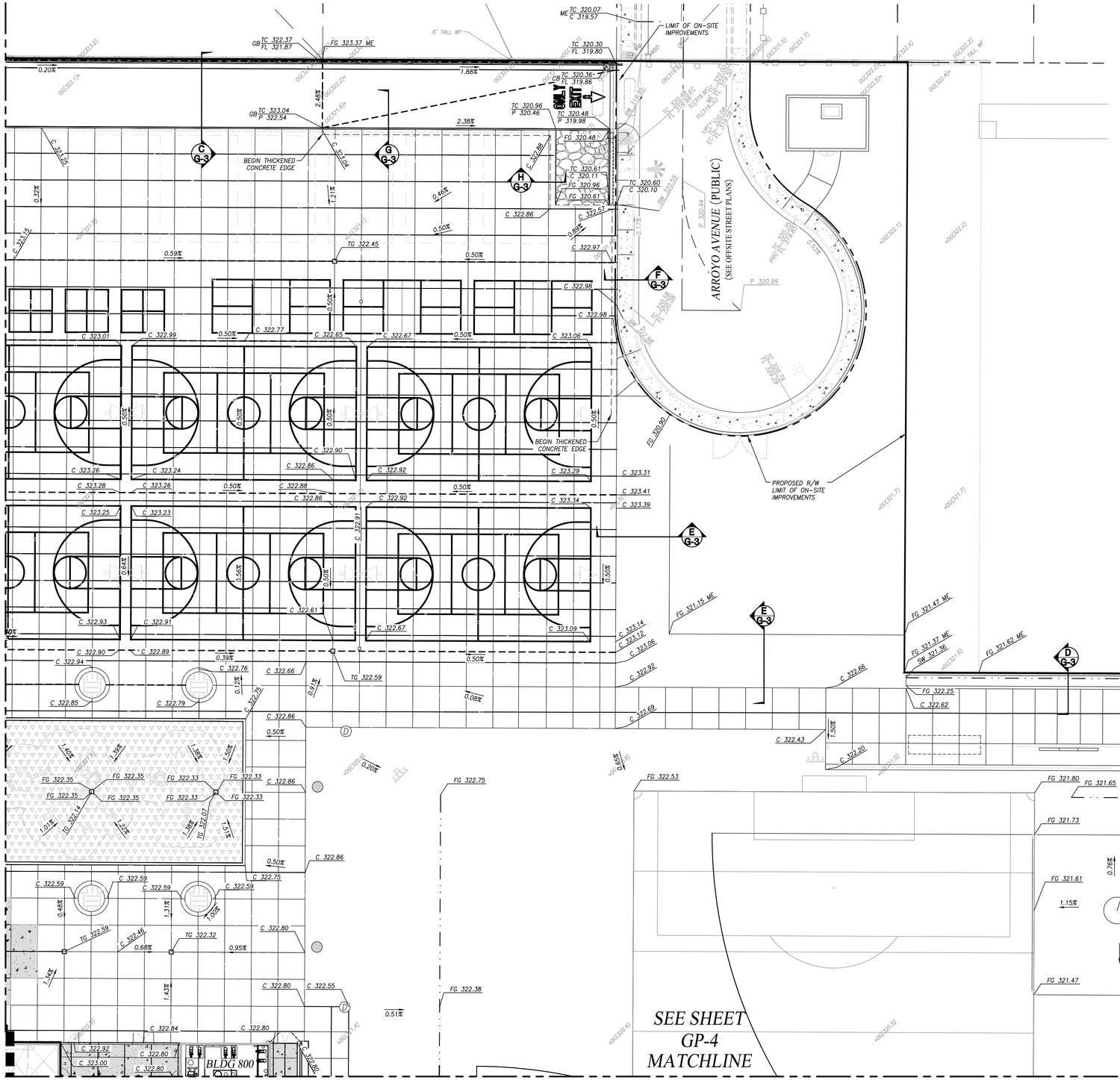
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TITLE
GRADING SHEET

GP-2

PROJECT 24042

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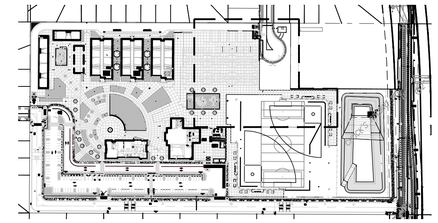


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KEY PLAN

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No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

BY:

QK
WWW.QKINC.COM
559-582-1056
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REVISIONS

LICENSED PROFESSIONAL ENGINEER
No. 61745
CIVIL
STATE OF CALIFORNIA
09/16/2026

MANGINI ARCHITECTURE INC.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.manginiai.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
GRADING SHEET

N

20" 0' 20'
SCALE: 1"= 20'

GP-3

PROJECT 24042

APPROVALS

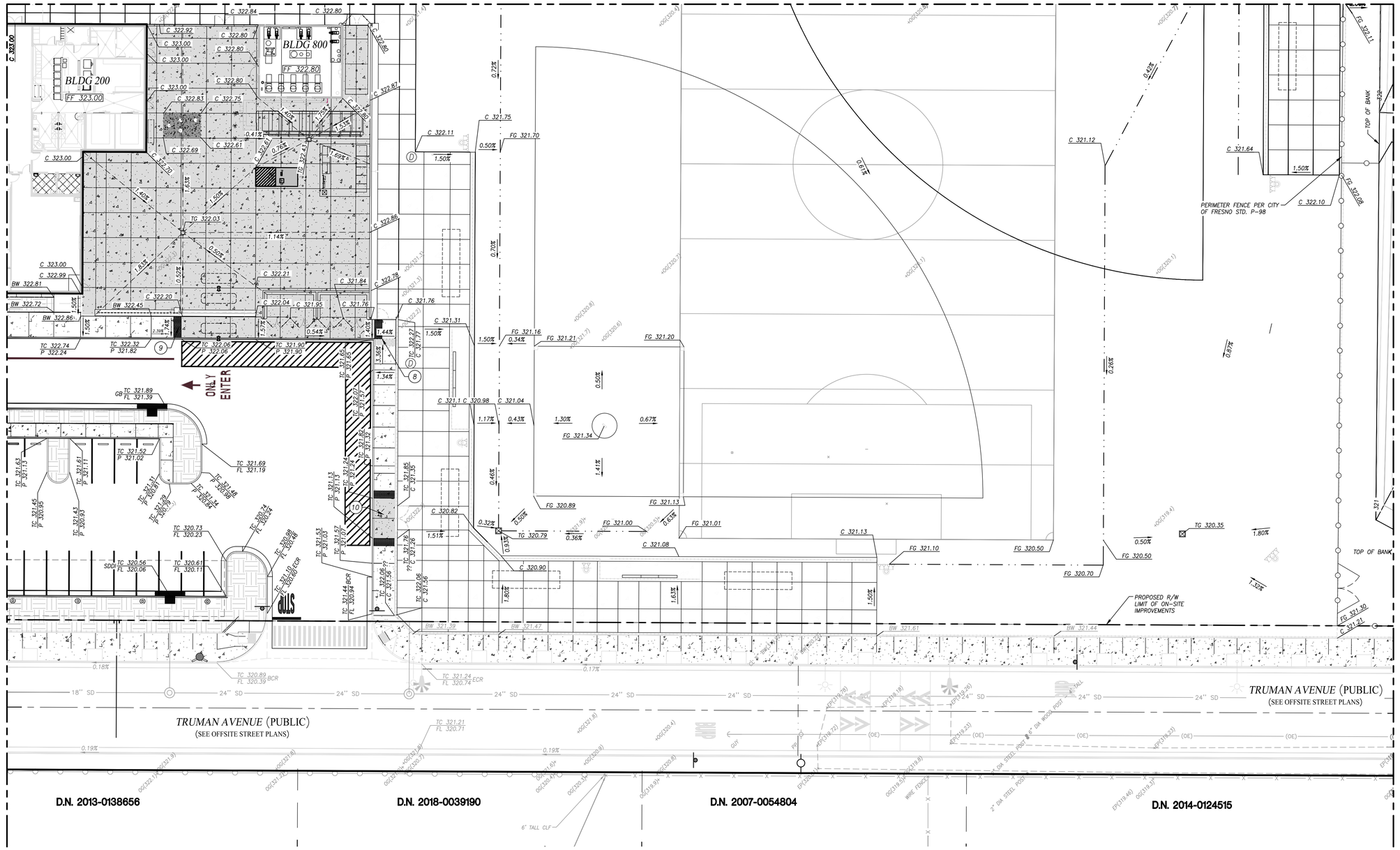
FILE # 10-126 | APPLICATION # 02-123774

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JAMES R. MORRELL
No. C-41128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

SEE SHEET GP-3 MATCHLINE



SEE SHEET GP-2 MATCHLINE

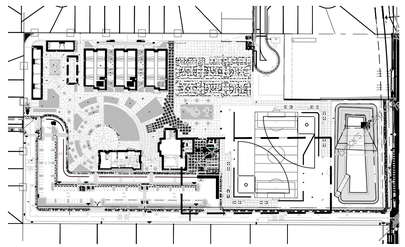
MATCHLINE SEE SHEET GP-5

LEGEND

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12. PROPOSED CURB RAMP (CASE F) PER 2025 STANDARD PLAN A88A SHEET DT-5



KEY PLAN

REGISTERED PROFESSIONAL ENGINEER
ALLEN D. KNOPF
No. 55135
CIVIL
STATE OF CALIFORNIA

09/16/2026

BY:

QK
WWW.QKINC.COM
559-582-1056
BAKERSFIELD, CLOVIS, HANFORD, MERCED, PORTERVILLE, VISALIA

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N

20" 0' 20'

SCALE: 1"= 20'

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

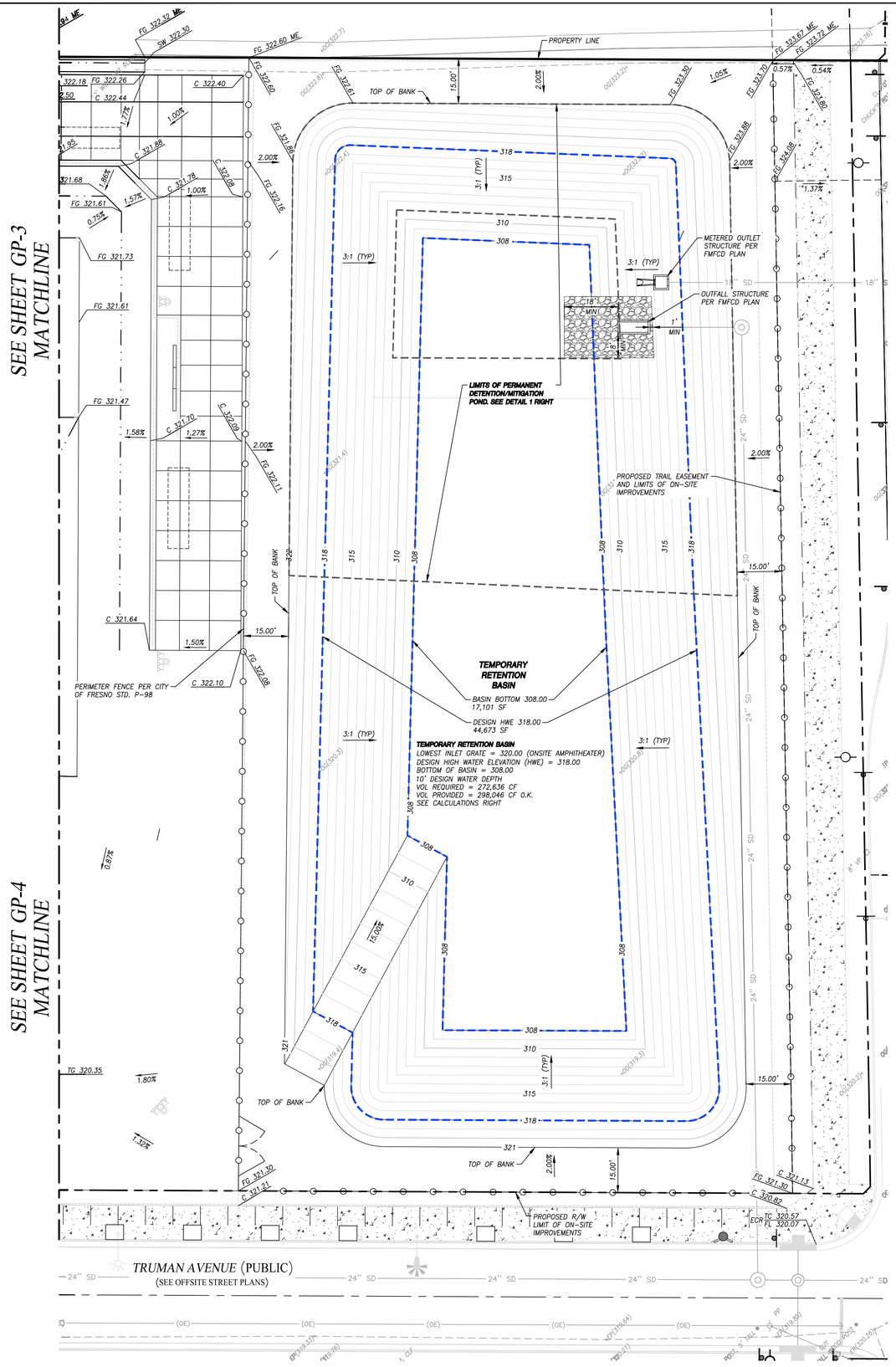
MANGINI ARCHITECTURE INC.
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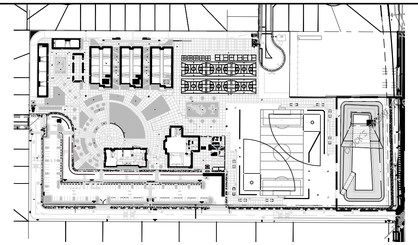
TITLE
GRADING SHEET

GP-4

PROJECT 24042

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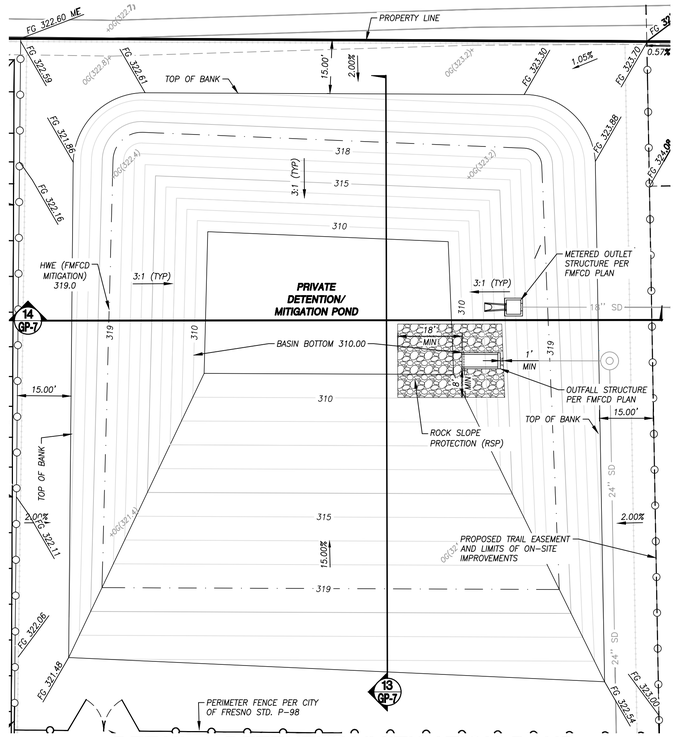




KEY PLAN

LEGEND

- PROPOSED ON-SITE LIGHT DUTY CONCRETE
- PROPOSED ON-SITE HEAVY DUTY CONCRETE
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- PROPOSED ON-SITE HEAVY DUTY AC PAVEMENT
- PROPOSED DETECTABLE WARNING SURFACE
- PROPOSED LANDSCAPE
- GRADE BREAK LINE



DETAIL 1: DETENTION/MITIGATION POND

TEMPORARY RETENTION BASIN:

TRIBUTARY AREA "A" IS A SUMMATION OF ONSITE AND OFFSITE DRAINAGE AREAS DRAINING TOWARDS TEMPERANCE AVENUE AT TRUMAN AVENUE. THE INLET BOUNDARY EXHIBIT INCLUDED IN THE SEPARATE FMFCD DRAINAGE REPORT, AS FOLLOWS:

INLET AREA #1.1:	5.52 AC
INLET AREA #1.2:	0.71 AC
INLET AREA #1.3:	1.28 AC
INLET AREA #1.4:	6.40 AC
INLET AREA #1.5:	0.85 AC
INLET AREA #1.6:	0.68 AC
INLET AREA #1.7:	6.72 AC (0.25 AC ONSITE + 6.47 AC OFFSITE)
INLET AREA #1.8:	3.33 AC (0.30 AC ONSITE + 3.03 AC OFFSITE)
TOTAL AREA:	26.30 AC

A = 26.30 AC
i = 4.2" = 0.35' (PER CITY STDS)
C = 0.68 (PER FMFCD C-VALUE FOR HIGH DENSITY LAND USE)

REQUIRED VOLUME = CiA = (0.68)(0.35')(26.30 AC) = 6.26 AC-FT (272,636 CF)

THE TEMPORARY BASIN DESIGN VOLUME IS DETERMINED AS FOLLOWS:
-- SIDE SLOPE = 2:1 MAX (PER CITY STDS.)
-- DESIGN WATER DEPTH "D" = 10'
-- BASIN FREEBOARD IS 2' (PER CITY STDS.)
-- LOWEST GUTTER FL = 320.00 (ONSITE AMPHITHEATER)
-- DESIGN HIGH WATER ELEVATION (HWE) = 318.00 (2' BELOW LOWEST INLET FL)
-- BOTTOM OF BASIN (BOTT) = 308.00

AREA HWE = AREA OF HWE CONTOUR 318.0= 44,673 SF
AREA BOTT = AREA OF BOTTOM CONTOUR 308.0 = 17,101 SF

DETERMINE BASIN DESIGN VOLUME USING THE FOLLOWING EQUATION:

DESIGN VOLUME = ((AREA HWE) + (AREA BOTT) + SQRT((AREA HW) X (AREA BOTT))X(D/3)
= ((44,673) + (17,101) + SQRT((40,795) X (17,101)) X (10/3)
= 298,046 CF O.K.

TEMPORARY BASIN NOTES:

1. *ALL TEMP BASINS MUST BE COMPLETED AT TIME OF AS-GRADE PLAN SUBMITTAL.*
2. *HYDROSEED BASIN SIDE SLOPE AND TOP AREAS PER CALTRANS 21-1.03E AND MAINTAIN EROSION CONTROL MEASURES UNTIL SEEDING IS ESTABLISHED.*
3. *ALL TEMP BASINS TO BE FENCED WITHIN 7 DAYS TIME AFTER THEY BECOME OPERATIONAL OR WHEN REQUIRED BY ENGINEER.*
4. *TEMPORARY RETENTION BASIN TO BE CONSTRUCTED PRIOR TO THE DOWNSTREAM FMFCD STORM DRAIN COMPLETED.*
5. *UPON COMPLETION OF DOWNSTREAM FMFCD STORM DRAIN SYSTEM TO BASIN BM, BACKFILL AND GRADE PERMANENT DETENTION/MITIGATION POND PER DETAIL 1*

N

20" 0' 20'

SCALE: 1"= 20'

09/16/2026

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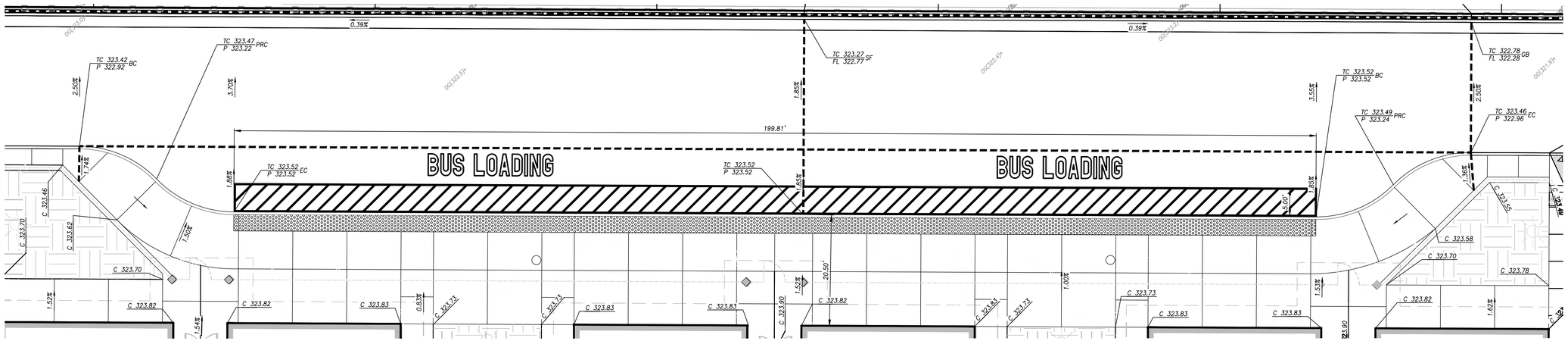
GP-5

PROJECT 24042

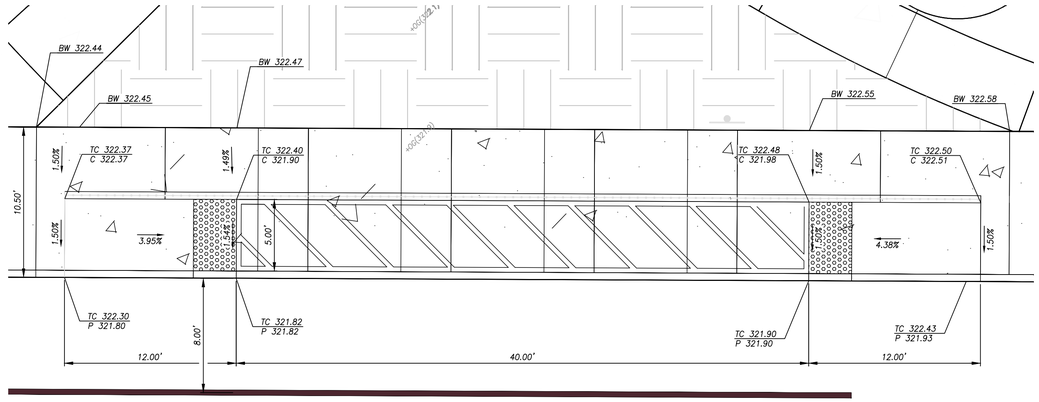
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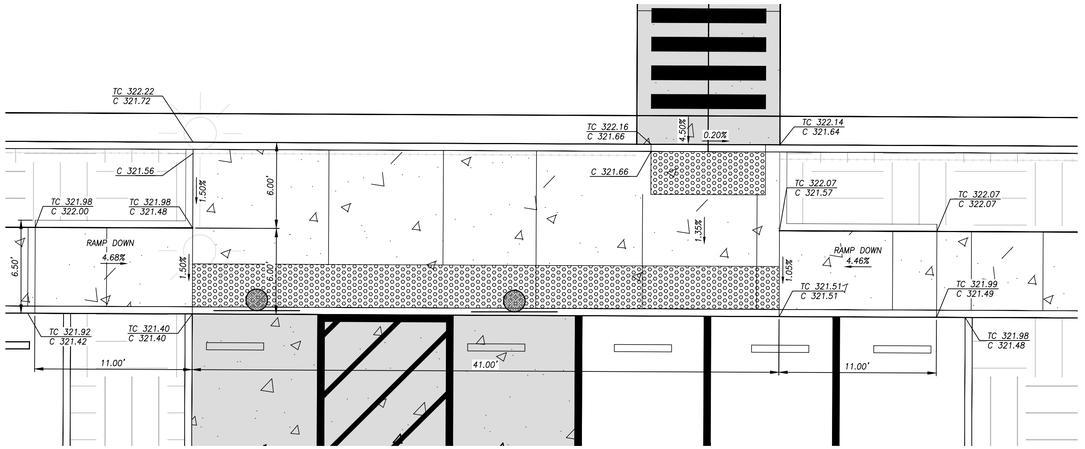
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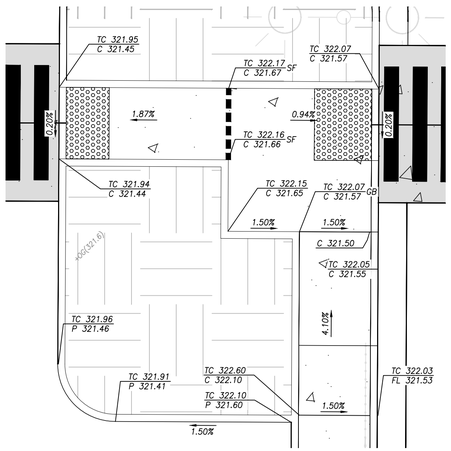
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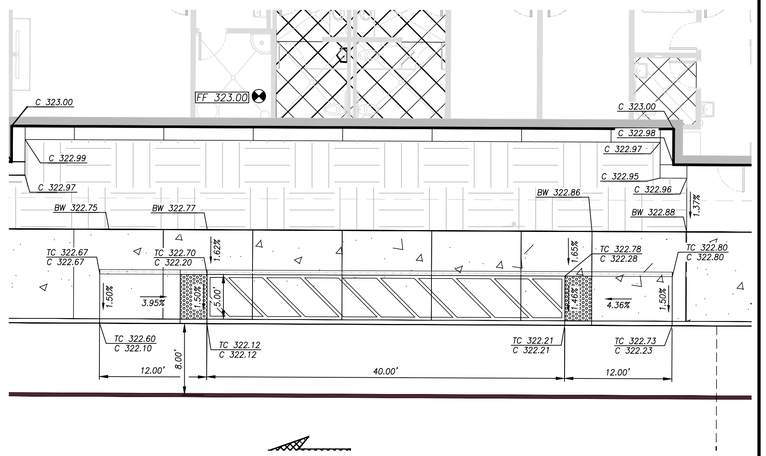
2 ACCESSIBLE DROP-OFF N.T.S



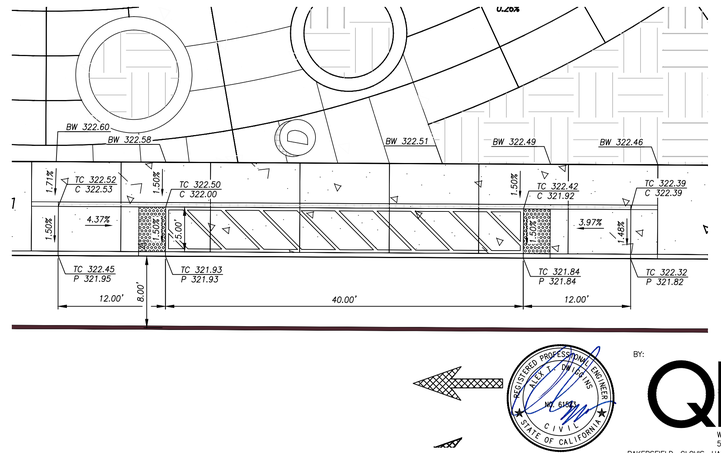
3 PARALLEL CURB RAMP N.T.S



4 CROSSWALK CUT THROUGH N.T.S



5 ACCESSIBLE DROP-OFF N.T.S



6 ACCESSIBLE DROP-OFF N.T.S

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE

MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
GRADING DETAILS

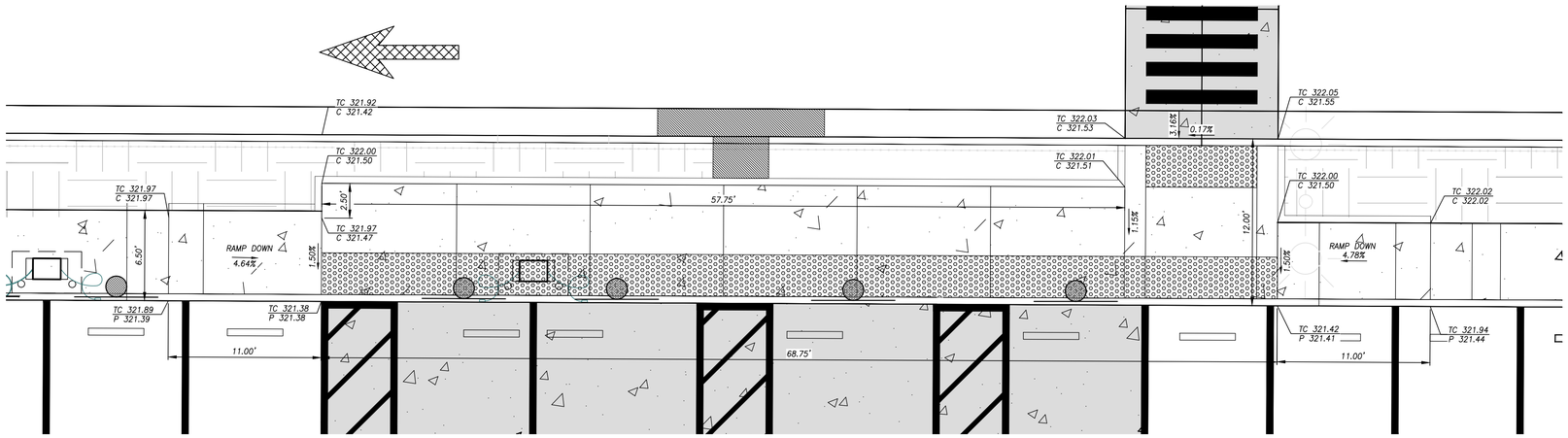
GP-6

PROJECT 24042

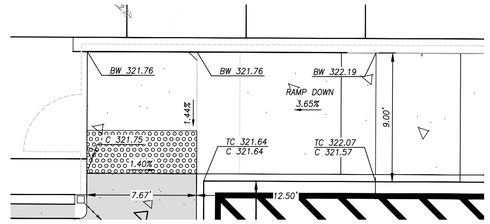
REGISTERED PROFESSIONAL ENGINEER
ALEX J. QUIJADA
No. 91952
CIVIL
STATE OF CALIFORNIA
09/16/2026

BY:
QK
WWW.QKINC.COM
559-582-1056
BAKERSFIELD, CLOVIS, HANFORD, MERCED, PORTERVILLE, VISALIA

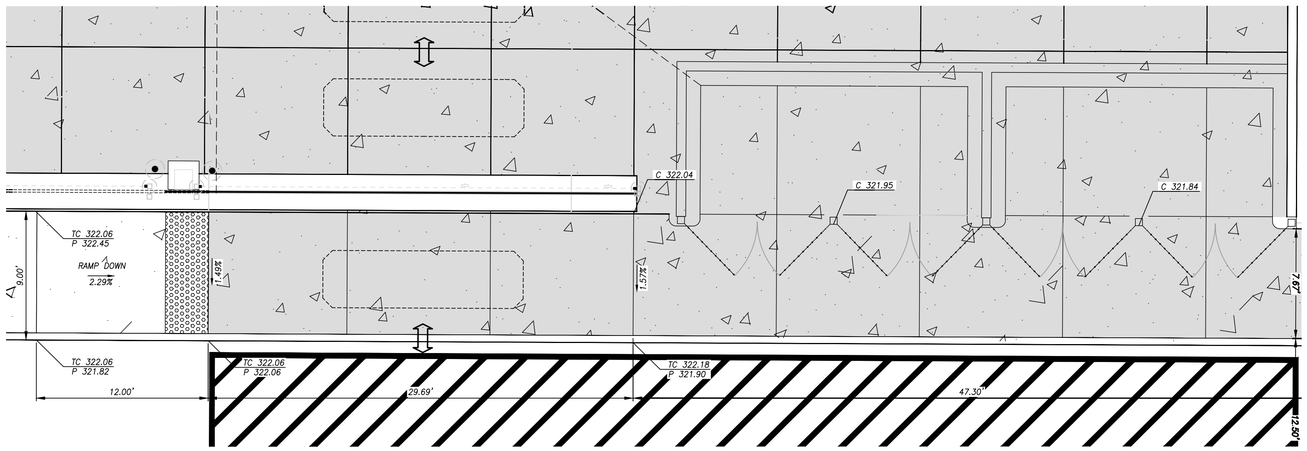
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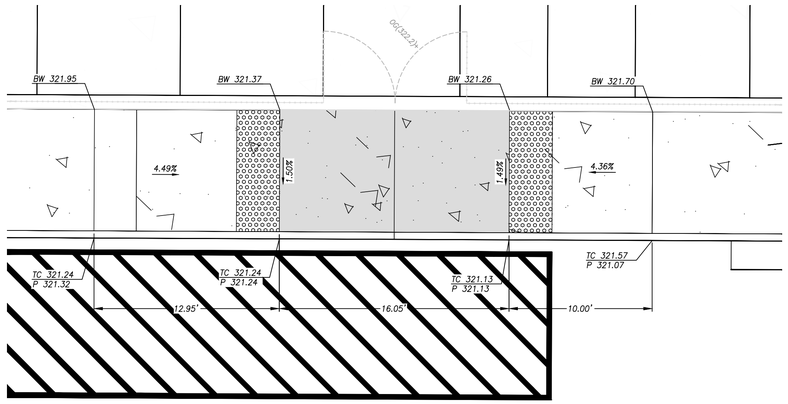
7 PARALLEL CURB RAMP N.T.S



8 PARALLEL CURB RAMP N.T.S



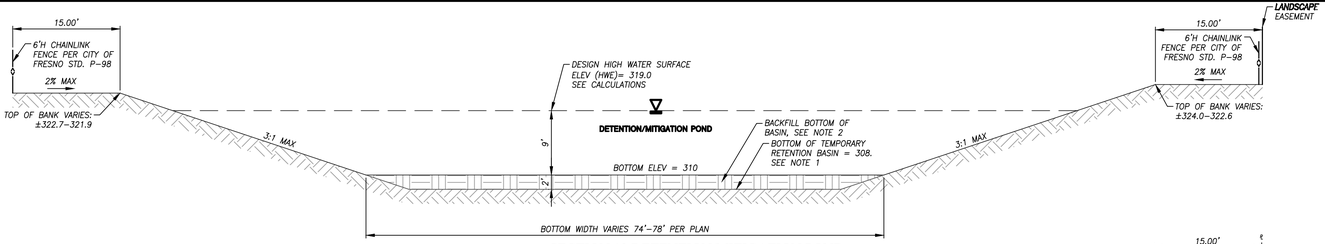
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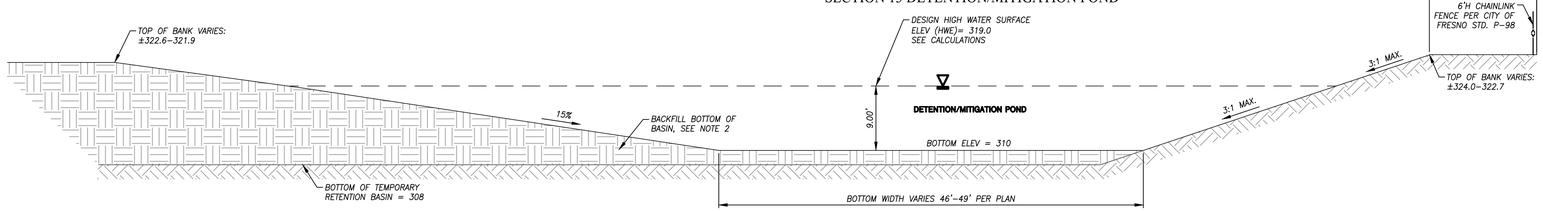
10 PARALLEL CURB RAMP N.T.S

DETENTION MITIGATION POND NOTE

1. TEMPORARY RETENTION BASIN TO BE CONSTRUCTED PRIOR TO THE DOWNSTREAM FMFCD STORM DRAIN COMPLETED.
2. UPON COMPLETION OF DOWNSTREAM FMFCD STORM DRAIN SYSTEM TO BASIN BM, BACKFILL AND GRADE PERMANENT DETENTION/MITIGATION POND PER DETAIL 1 ON SHEET GP-5



SECTION 13 DETENTION/MITIGATION POND



SECTION 14 DETENTION/MITIGATION POND

13 14 DETENTION/MITIGATION POND SECTIONS N.T.S

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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SANGER, FRESNO COUNTY, CA

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Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
GRADING DETAILS

GP-7

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
ALEX J. SMITH
No. 91587
CIVIL
STATE OF CALIFORNIA
09/16/2026

BY:

WWW.QKINC.COM
559-582-1056
BAKERSFIELD, CLOVIS, HANFORD, MERCED, PORTERVILLE, VISALIA

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TRACT NO. 6124

TRACT NO. 6095

BLDG 700 | BLDG 600 | BLDG 300 | FUTURE BLDG | BLDG 400 | BLDG 500

BUS LOADING | BUS LOADING

ONLY BUS | ONLY EXIT

SEE SHEET GP-10 MATCHLINE

MATCHLINE SEE SHEET GP-9

STORM DRAIN LEGEND

SD	PROPOSED STORM DRAIN, AS NOTED
SD	STORM DRAIN MAIN PER SEPARATE OFFSITE PLAN
	CLEANOUT PER CITY OF FRESNO STD S-6
	PROPOSED PIPE END
D	48" STORM DRAIN MANHOLE, PER FMFCD STD B-1
	STORM DRAIN TYPE D INLET PER CITY OF FRESNO STD A-1
	V12 DRAIN BOX 12"X12"
	U SERIES CATCH BASIN 24" X 24"

STORM DRAIN KEYNOTES:

1. CONNECT TO EXISTING STUB
2. BUILDING CONNECTION CAP AS REQUIRED
3. WYE CONNECTION
4. CLEANOUT
5. TREE WELL CONNECTION

KEY PLAN

N

20" 0' 20'

SCALE: 1"= 20'

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

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JAMES R. MORRELL
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REN. 05-31-27
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(559) 627-1926 Fax

TITLE
DRAINAGE SHEET

GP-8

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
ALEX T. MANGINI
No. 81787
CIVIL
STATE OF CALIFORNIA

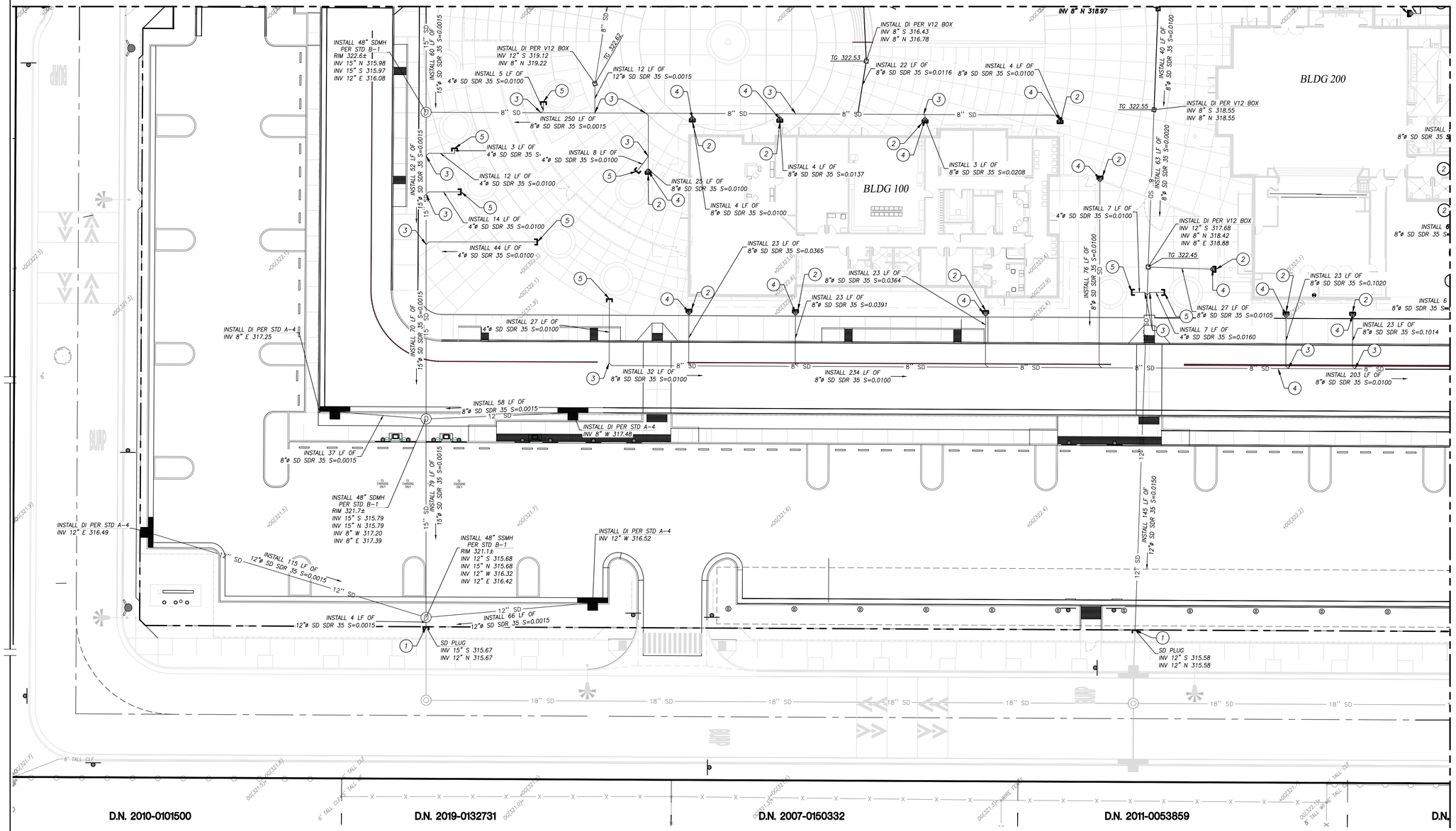
09/16/2026

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SEE SHEET GP-8
MATCHLINE



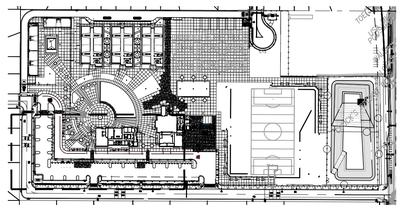
MATCHLINE
SEE SHEET GP-11

STORM DRAIN LEGEND

- SD — PROPOSED STORM DRAIN, AS NOTED
- SD — STORM DRAIN MAIN PER SEPARATE OFFSITE PLAN
- CLEANOUT PER CITY OF FRESNO STD S-6
- PROPOSED PIPE END
- (D) 48" STORM DRAIN MANHOLE, PER FMFCD STD B-1
- STORM DRAIN TYPE D INLET PER CITY OF FRESNO STD A-1
- V12 DRAIN BOX 12"X12"
- U SERIES CATCH BASIN 24" X 24"

STORM DRAIN KEYNOTES:

1. CONNECT TO EXISTING STUB
2. BUILDING CONNECTION CAP AS REQUIRED
3. WYE CONNECTION
4. CLEANOUT
5. TREE WELL CONNECTION



KEY PLAN

N

20" 0' 20'

SCALE: 1"= 20'

09/16/2026

BY:

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JAMES R. MORRELL
No. C-28128
REN. 05-31-27
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DATE: DECEMBER 18, 2025

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(559) 627-1926 Fax

TITLE
DRAINAGE SHEET

GP-9

PROJECT 24042

L:\Projects\2025\250125\ACAD\Improvements\250125 On-Site Improvement Plans\250125-GP 2.dwg Sep 16 2026 3:55pm

SEE SHEET GP-8
MATCHLINE

INSTALL DI PER U23 BOX
INV 12" SW 316.22

ONLY EXIT

TG 319.91

12" SD

INSTALL 126 LF OF
12"ø SD SDR 35 S=0.0015

INSTALL DI PER V12 BOX
INV 12" S 315.82
INV 12" NE 316.03

TG 322.45

12" SD

INSTALL 146 LF OF
12"ø SD SDR 35 S=0.0015

12" SD

INSTALL DI PER V12 BOX
INV 12" S 315.60
INV 12" N 315.60

TG 322.59

INSTALL 40 LF OF
8"ø SD SDR 35 S=0.0100

INSTALL 9 LF OF
4"ø SD SDR 35 S=0.0158

INSTALL 31 LF OF
12"ø SD SDR 35 S=0.0015

INSTALL 9 LF OF
4"ø SD SDR 35 S=0.0118

INSTALL 7 LF OF
8"ø SD SDR 35 S=0.0100

8" SD

INSTALL 41 LF OF
8"ø SD SDR 35 S=0.0100

INSTALL 47 LF OF
8"ø SD SDR 35 S=0.0316

INSTALL 48" SSMH
PER STD B-1
RIM 322.8±
INV 12" N 315.55
INV 12" S 315.45

INSTALL 23 LF OF
4"ø SD SDR 35 S=0.0800

TG 322.14

INSTALL 24 LF OF
4"ø SD SDR 35 S=0.0100

TG 322.07

INSTALL DI PER V12 BOX
INV 4" N 318.77

INSTALL DI PER V12 BOX
INV 4" N 318.76

INSTALL 3 LF OF
4"ø SD SDR 35 S=0.0100

INSTALL 40 LF OF
4"ø SD SDR 35 S=0.0100

INSTALL 3 LF OF
4"ø SD SDR 35 S=0.0100

4" SD

INSTALL 21 LF OF
4"ø SD SDR 35 S=0.1128

INSTALL DI PER V12 BOX
INV 8" W 317.39
INV 8" S 317.39

INSTALL DI PER V12 BOX
INV 8" E 319.45

INSTALL 51 LF OF
4"ø SD SDR 35 S=0.0015

12" SD

INSTALL 104 LF OF
12"ø SD SDR 35 S=0.0015

TG 322.59

INSTALL 40 LF OF
8"ø SD SDR 35 S=0.0515

TG 322.32

INSTALL 48" SSMH
PER STD B-1
RIM 322.6±
INV 12" N 315.30
INV 12" S 315.30
INV 8" W 316.16

INSTALL 9 LF OF
8"ø SD SDR 35 S=0.3652

INSTALL 21 LF OF
8"ø SD SDR 35 S=0.0015

INSTALL 146 LF OF
8"ø SD SDR 35 S=0.0015

INSTALL 36 LF OF
8"ø SD SDR 35 S=0.0015

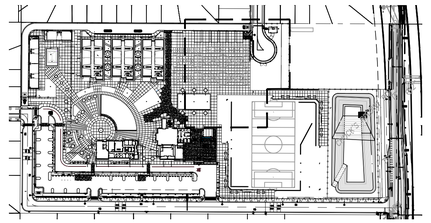
8" SD

INSTALL 9 LF OF
8"ø SD SDR 35 S=0.3552

INSTALL 9 LF OF
4"ø SD SDR 35 S=0.3867

10' WIDE DIRT ROAD

MATCHLINE
SEE SHEET GP-11



KEY PLAN

N

20" 0' 20'

SCALE: 1"= 20'

LEGEND

- PROPOSED ON-SITE LIGHT DUTY CONCRETE
- PROPOSED ON-SITE HEAVY DUTY CONCRETE
- PROPOSED ON-SITE LIGHT DUTY AC PAVEMENT
- PROPOSED ON-SITE HEAVY DUTY AC PAVEMENT
- PROPOSED DETECTABLE WARNING SURFACE
- PROPOSED LANDSCAPE
- GRADE BREAK LINE

STORM DRAIN LEGEND

- SD — PROPOSED STORM DRAIN, AS NOTED
- SD — STORM DRAIN MAIN PER SEPARATE OFFSITE PLAN
- CLEANOUT PER CITY OF FRESNO STD S-6
- PROPOSED PIPE END
- (D) 48" STORM DRAIN MANHOLE, PER FMFCD STD B-1
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- V12 DRAIN BOX 12"X12"
- U SERIES CATCH BASIN 24" X 24"

STORM DRAIN KEYNOTES:

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3. WYE CONNECTION
4. CLEANOUT
5. TREE WELL CONNECTION

PROFESSIONAL ENGINEER — JAMES R. MORRELL — No. 84128 — CIVIL — STATE OF CALIFORNIA
09/16/2026

BY:
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APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. 28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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TITLE
DRAINAGE SHEET

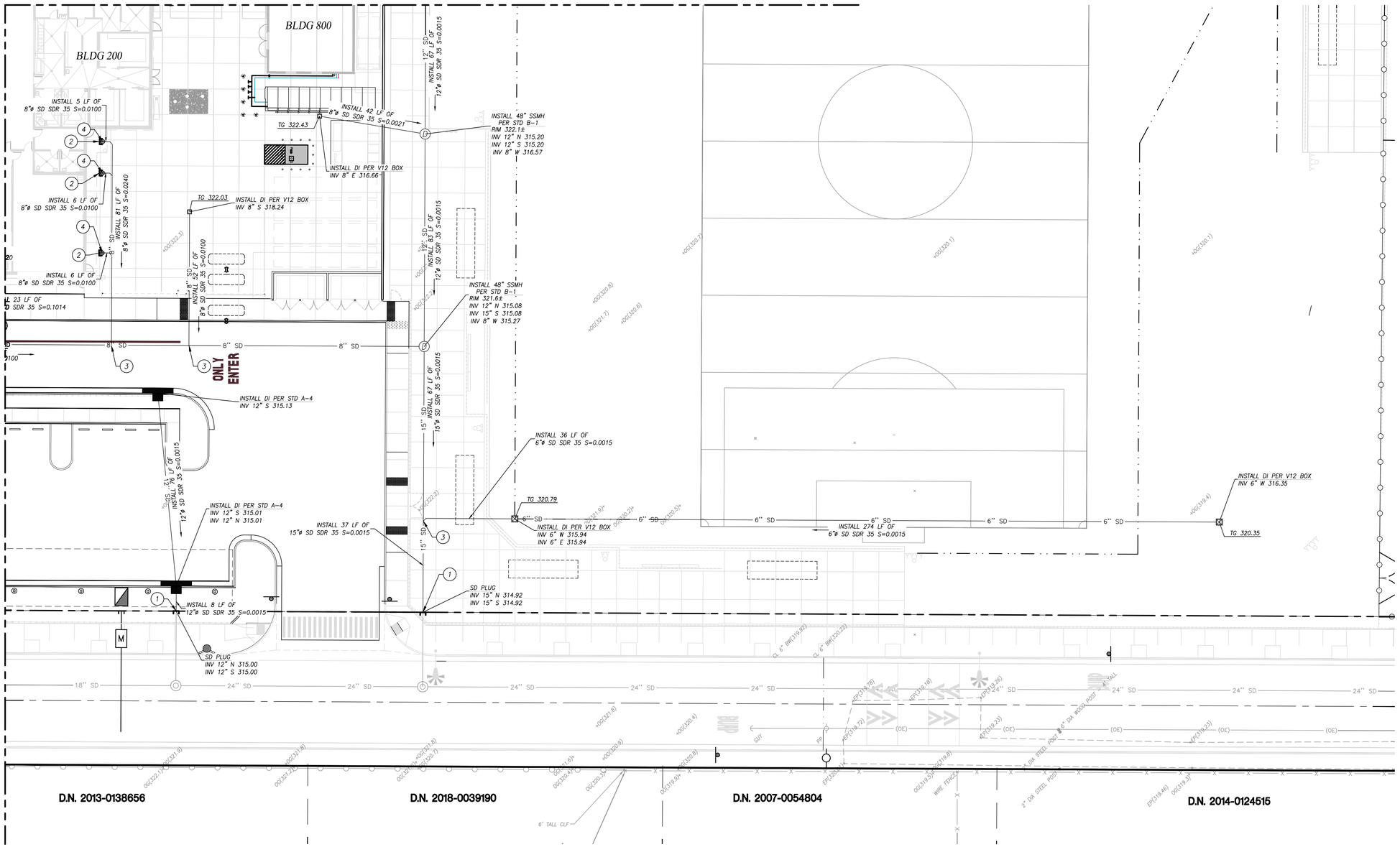
GP-10

PROJECT 24042

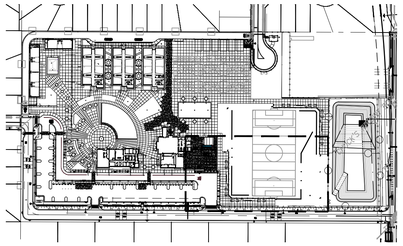
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SEE SHEET GP-3 MATCHLINE

SEE SHEET GP-2 MATCHLINE



D.N. 2013-0138656 D.N. 2018-0039190 D.N. 2007-0054804 D.N. 2014-0124515



KEY PLAN

STORM DRAIN LEGEND

- SD — PROPOSED STORM DRAIN, AS NOTED
- SD — STORM DRAIN MAIN PER SEPARATE OFFSITE PLAN
- CLEANOUT PER CITY OF FRESNO STD S-6
- PROPOSED PIPE END
- (D) 48" STORM DRAIN MANHOLE, PER FMFCD STD B-1
- STORM DRAIN TYPE D INLET PER CITY OF FRESNO STD A-1
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STORM DRAIN KEYNOTES:

1. CONNECT TO EXISTING STUB
2. BUILDING CONNECTION CAP AS REQUIRED
3. WYE CONNECTION
4. CLEANOUT
5. TREE WELL CONNECTION

N

20" 0' 20'

SCALE: 1"= 20'

09/16/2026

BY:

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STATE OF CALIFORNIA

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

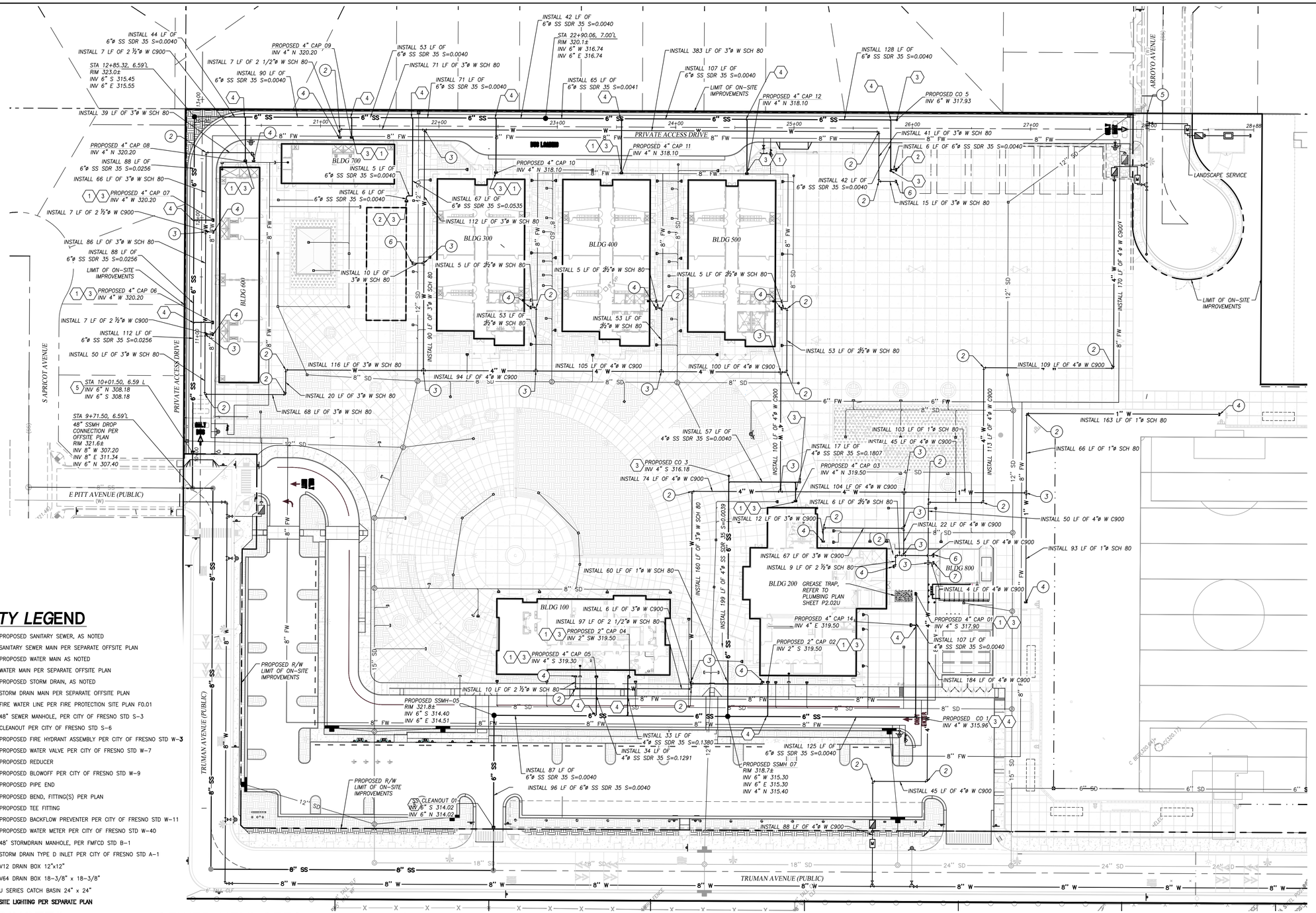
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TITLE
DRAINAGE SHEET

GP-11

PROJECT 24042

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INSTALL 44 LF OF 6"ø SS SDR 35 S=0.0040
INSTALL 7 LF OF 2 ½"ø W C900
STA 12+85.32, 6.59'L
RIM 323.0±
INV 6" S 315.45
INV 6" E 315.55
INSTALL 39 LF OF 3"ø W SCH 80
PROPOSED 4" CAP 08
INV 4" N 320.20
INSTALL 88 LF OF
6"ø SS SDR 35 S=0.0256
INSTALL 66 LF OF 3"ø W SCH 80
PROPOSED 4" CAP 07
INV 4" W 320.20
INSTALL 7 LF OF 2 ½"ø W C900
INSTALL 86 LF OF 3"ø W SCH 80
INSTALL 88 LF OF
6"ø SS SDR 35 S=0.0256
LIMIT OF ON-SITE IMPROVEMENTS
PROPOSED 4" CAP 06
INV 4" W 320.20
INSTALL 7 LF OF 2 ½"ø W C900
INSTALL 112 LF OF
6"ø SS SDR 35 S=0.0256
INSTALL 50 LF OF 3"ø W SCH 80
STA 10+01.50, 6.59' L
INV 6" N 308.18
INV 6" S 308.18
STA 9+71.50, 6.59'L
48" SSMH DROP
CONNECTION PER
OFFSITE PLAN
RIM 321.6±
INV 8" W 307.20
INV 8" E 311.34
INV 6" N 307.40
PROPOSED 4" CAP 09
INV 4" N 320.20
INSTALL 7 LF OF 2 1/2"ø W SCH 80
INSTALL 90 LF OF
6"ø SS SDR 35 S=0.0040
INSTALL 53 LF OF
6"ø SS SDR 35 S=0.0040
INSTALL 71 LF OF 3"ø W SCH 80
INSTALL 71 LF OF
6"ø SS SDR 35 S=0.0040
INSTALL 42 LF OF
6"ø SS SDR 35 S=0.0040
STA 22+90.06, 7.00'L
RIM 320.1±
INV 6" W 316.74
INV 6" E 316.74
INSTALL 65 LF OF
6"ø SS SDR 35 S=0.0041
INSTALL 383 LF OF 3"ø W SCH 80
INSTALL 107 LF OF
6"ø SS SDR 35 S=0.0040
LIMIT OF ON-SITE IMPROVEMENTS
PROPOSED 4" CAP 12
INV 4" N 318.10
INSTALL 128 LF OF
6"ø SS SDR 35 S=0.0040
PROPOSED CO 5
INV 6" W 317.93
ARROYO AVENUE (PUBLIC)
PRIVATE ACCESS DRIVE
DRY UTILITY
BLDG 700
BLDG 600
BLDG 300
BLDG 400
BLDG 500
BLDG 800
BLDG 100
BLDG 200
GREASE TRAP, REFER TO PLUMBING PLAN SHEET P2.02U
PROPOSED 4" CAP 11
INV 4" N 318.10
PROPOSED 4" CAP 10
INV 4" N 318.10
INSTALL 5 LF OF
6"ø SS SDR 35 S=0.0040
INSTALL 6 LF OF
6"ø SS SDR 35 S=0.0040
INSTALL 67 LF OF
6"ø SS SDR 35 S=0.0535
INSTALL 112 LF OF 3"ø W SCH 80
INSTALL 10 LF OF
3"ø W SCH 80
INSTALL 5 LF OF 2½"ø W SCH 80
INSTALL 53 LF OF
2½"ø W SCH 80
INSTALL 80 LF OF 3"ø W SCH 80
INSTALL 41 LF OF 3"ø W SCH 80
INSTALL 6 LF OF 6"ø SS SDR 35 S=0.0040
INSTALL 42 LF OF
6"ø SS SDR 35 S=0.0040
INSTALL 15 LF OF 3"ø W SCH 80
LANDSCAPE SERVICE
LIMIT OF ON-SITE IMPROVEMENTS
INSTALL 116 LF OF 3"ø W SCH 80
INSTALL 94 LF OF 4"ø W C900
INSTALL 105 LF OF 4"ø W C900
INSTALL 100 LF OF 4"ø W C900
INSTALL 53 LF OF 2½"ø W SCH 80
INSTALL 109 LF OF 4"ø W C900
INSTALL 20 LF OF 3"ø W SCH 80
INSTALL 68 LF OF 3"ø W SCH 80
INSTALL 57 LF OF
4"ø SS SDR 35 S=0.0040
INSTALL 103 LF OF 1"ø SCH 80
INSTALL 45 LF OF 4"ø W C900
INSTALL 163 LF OF 1"ø SCH 80
INSTALL 66 LF OF 1"ø SCH 80
INSTALL 17 LF OF
4"ø SS SDR 35 S=0.1807
PROPOSED CO 3
INV 4" S 316.18
INSTALL 74 LF OF 4"ø W C900
PROPOSED 4" CAP 03
INV 4" N 319.50
INSTALL 104 LF OF 4"ø W C900
INSTALL 6 LF OF 2½"ø SCH 80
INSTALL 12 LF OF 3"ø W C900
INSTALL 22 LF OF 4"ø W C900
INSTALL 50 LF OF 4"ø W C900
INSTALL 5 LF OF 4"ø W C900
INSTALL 93 LF OF 1"ø SCH 80
INSTALL 67 LF OF 3"ø W C900
INSTALL 9 LF OF 2 ½"ø SCH 80
INSTALL 4 LF OF 4"ø W C900
PROPOSED 4" CAP 14
INV 4" E 319.50
PROPOSED 2" CAP 02
INV 2" S 319.50
PROPOSED 4" CAP 01
INV 4" S 317.90
INSTALL 107 LF OF
4"ø SS SDR 35 S=0.0040
INSTALL 184 LF OF 4"ø W C900
INSTALL 60 LF OF 1"ø W SCH 80
INSTALL 6 LF OF 3"ø W C900
INSTALL 97 LF OF 2 1/2"ø W SCH 80
PROPOSED 2" CAP 04
INV 2" SW 319.50
PROPOSED 4" CAP 05
INV 4" S 319.30
INSTALL 160 LF OF 3"ø W SCH 80
INSTALL 199 LF OF 4"ø SS SDR 35 S=0.0039
PROPOSED R/W LIMIT OF ON-SITE IMPROVEMENTS
INSTALL 10 LF OF 2 ½"ø W SCH 80
PROPOSED SSMH-05
RIM 321.8±
INV 6" S 314.40
INV 6" E 314.51
INSTALL 33 LF OF
4"ø SS SDR 35 S=0.1380
INSTALL 34 LF OF
4"ø SS SDR 35 S=0.1291
INSTALL 87 LF OF
6"ø SS SDR 35 S=0.0040
INSTALL 96 LF OF 6"ø SS SDR 35 S=0.0040
INSTALL 125 LF OF
6"ø SS SDR 35 S=0.0040
PROPOSED SSMH 07
RIM 318.7±
INV 6" W 315.30
INV 6" E 315.30
INV 4" N 315.40
PROPOSED CO 1
INV 4" W 315.96
INSTALL 45 LF OF 4"ø W C900
INSTALL 88 LF OF 4"ø W C900
CLEANOUT 01
RIM 321.6" S 314.02
INV 6" N 314.02
INSTALL 53 LF OF 2½"ø W SCH 80
INSTALL 170 LF OF 4"ø W C900
S APRICOT AVENUE
PRIVATE ACCESS DRIVE
E PITT AVENUE (PUBLIC)
TRUMAN AVENUE (PUBLIC)
LIMIT OF ON-SITE IMPROVEMENTS
PROPOSED R/W LIMIT OF ON-SITE IMPROVEMENTS
PROPOSED 4" CAP 14
INV 4" E 319.50
PROPOSED 2" CAP 02
INV 2" S 319.50
PROPOSED 4" CAP 01
INV 4" S 317.90
INSTALL 107 LF OF
4"ø SS SDR 35 S=0.0040
INSTALL 184 LF OF 4"ø W C900
PROPOSED CO 1
INV 4" W 315.96
INSTALL 45 LF OF 4"ø W C900
INSTALL 88 LF OF 4"ø W C900
INSTALL 53 LF OF 2½"ø W SCH 80
INSTALL 109 LF OF 4"ø W C900
INSTALL 163 LF OF 1"ø SCH 80
INSTALL 66 LF OF 1"ø SCH 80
INSTALL 50 LF OF 4"ø W C900
INSTALL 93 LF OF 1"ø SCH 80
INSTALL 4 LF OF 4"ø W C900
INSTALL 5 LF OF 4"ø W C900
INSTALL 67 LF OF 3"ø W C900
INSTALL 9 LF OF 2 ½"ø SCH 80
INSTALL 6 LF OF 2½"ø SCH 80
INSTALL 12 LF OF 3"ø W C900
INSTALL 22 LF OF 4"ø W C900

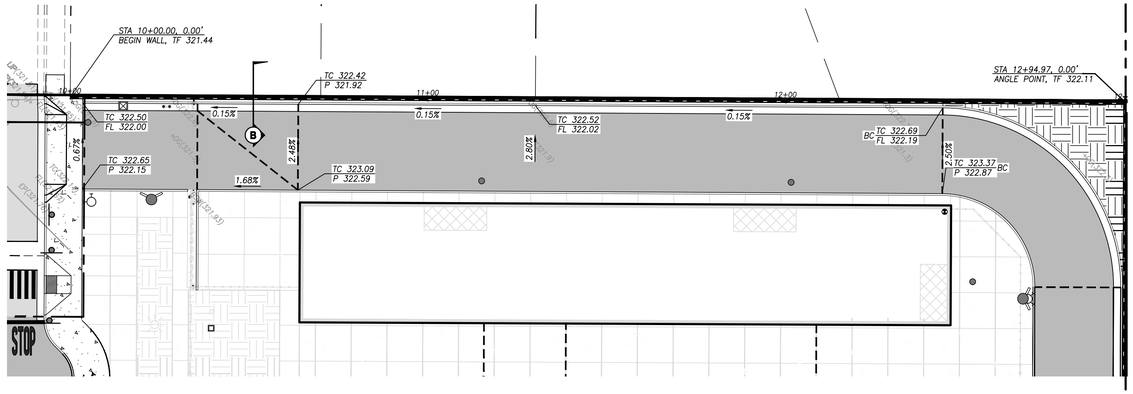
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

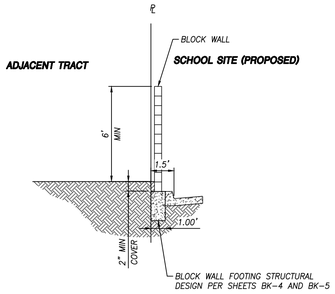
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



PRIVATE ACCESS ROAD

STA 10+00 – 12+95.47



SECTION B

MATCHLINE STA 12+95.47
SEE SHEET BK-2

N

20" 0' 20'
SCALE: 1"= 20'

WARNING
POWERLINES OVERHEAD

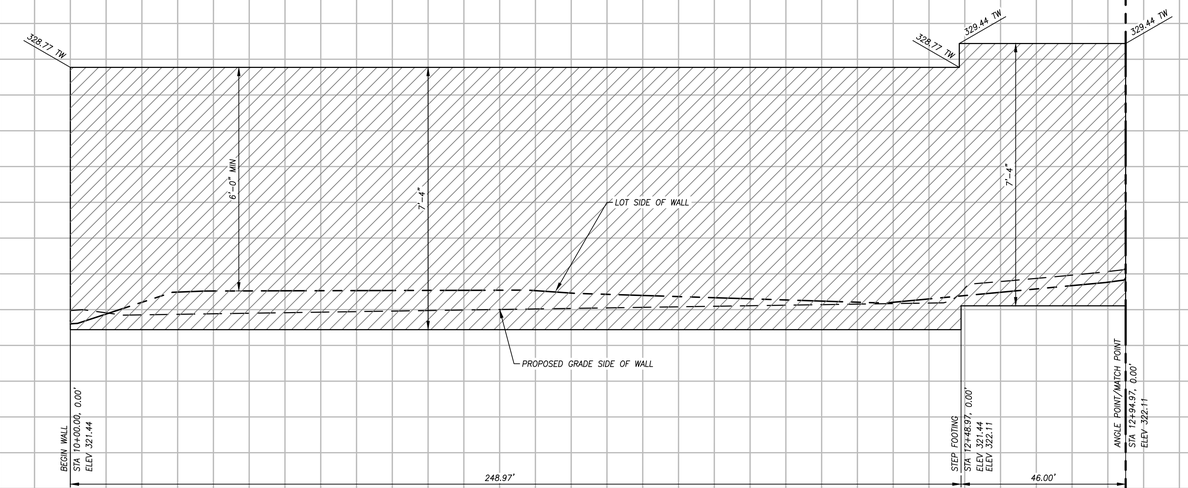
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RESPONSIBLE PROFESSIONAL ENGINEER
KEVIN M. SMITH
No. 84611
CIVIL
STATE OF CALIFORNIA

09/16/2026

BY:
QK
WWW.QKINC.COM
559-582-1056
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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA



REVISIONS

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ARCHITECTURE
4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BLOCK WALL PLAN SHEET

BK-1

PROJECT 24042

GRID SCALE:
HORIZONTAL: 1"= 20'
VERTICAL: 1"= 2'

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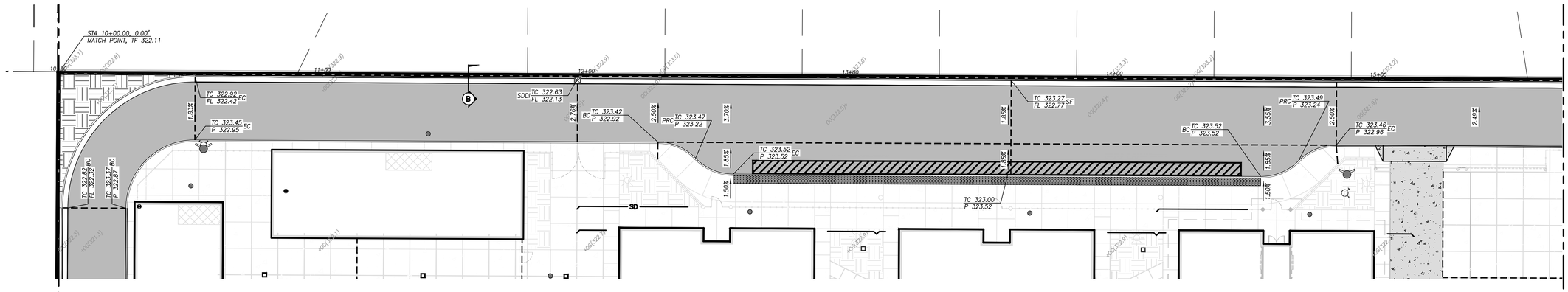
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

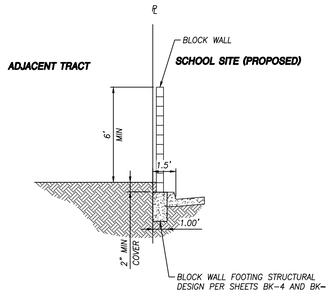
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



PRIVATE ACCESS ROAD

STA 10+00 – 15+70.00



SECTION B

SEE SHEET BK-1 MATCHLINE STA 10+00

MATCHLINE STA 15+70 SEE SHEET BK-3

N

20' 0' 20'

SCALE: 1"= 20'

WARNING
POWERLINES OVERHEAD

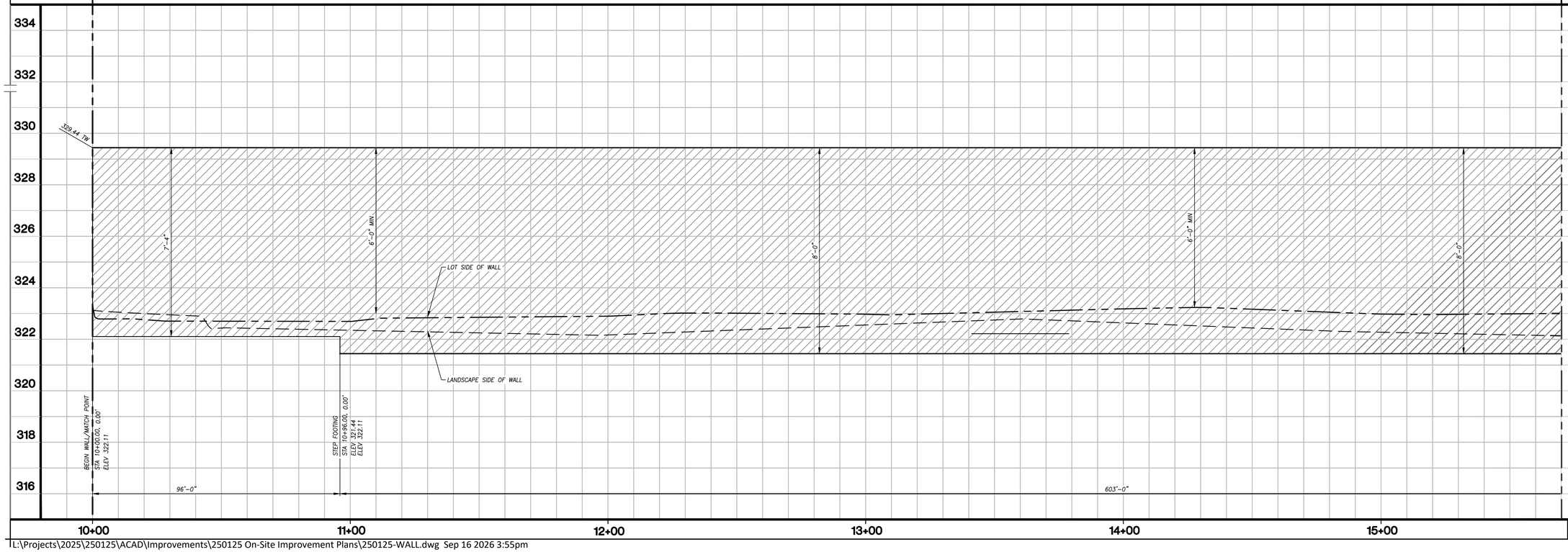
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REGISTERED PROFESSIONAL ENGINEER
KEET CHI YEUNG
No. 93116
CIVIL
STATE OF CALIFORNIA
09/16/2026

BY:

QK
WWW.QKINC.COM
559-582-1056
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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA



GRID SCALE:
HORIZONTAL: 1"= 20'
VERTICAL: 1"= 2'

REVISIONS

MANGINI ARCHITECTURE INC.
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www.mangini.us
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(559) 627-1926 Fax

TITLE
BLOCK WALL PLAN SHEET

BK-2

PROJECT 24042

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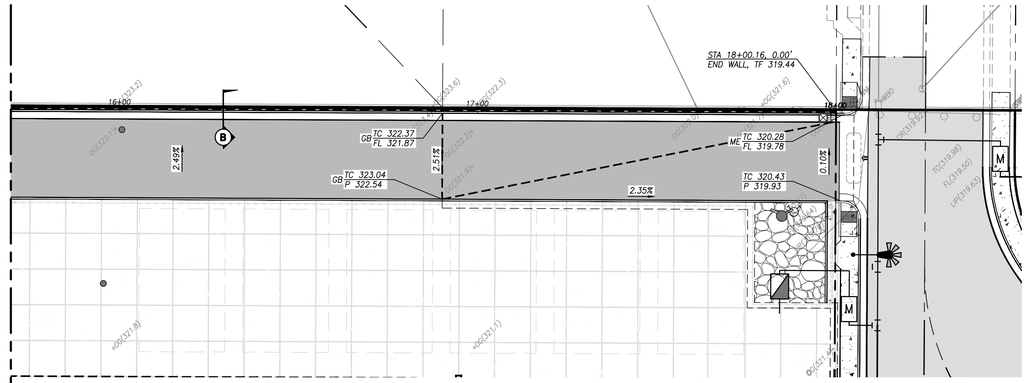
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

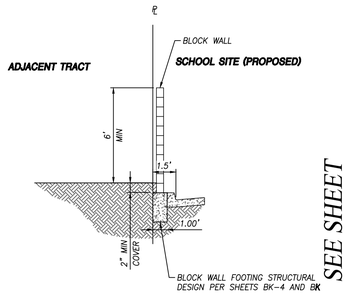
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



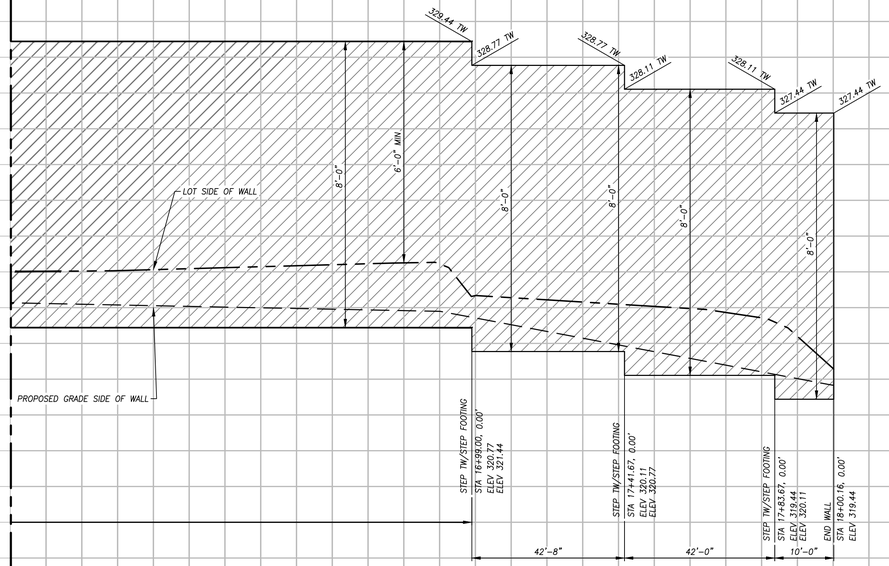
PRIVATE ACCESS ROAD

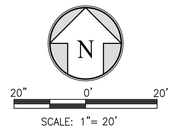
STA 15+70 – 18+00.66



SECTION B

SEE SHEET BK-2 MATCHLINE STA 15+70







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PROFESSIONAL ENGINEER
ANDREW J. HASTINGS
No. 61
CIVIL
STATE OF CALIFORNIA

09/16/2026

BY:
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REVISIONS

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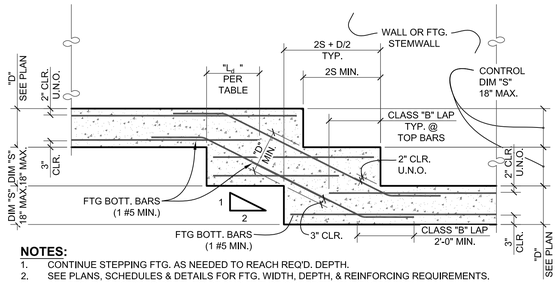
TITLE
BLOCK WALL PLAN SHEET

BK-3

PROJECT 24042

GRID SCALE:
HORIZONTAL: 1"= 20'
VERTICAL: 1"= 2'

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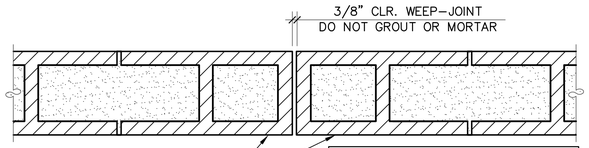


NOTES:

1. CONTINUE STEPPING FTG. AS NEEDED TO REACH REQ'D. DEPTH.
2. SEE PLANS, SCHEDULES & DETAILS FOR FTG. WIDTH, DEPTH, & REINFORCING REQUIREMENTS.
3. ALL FTG. REINFORCING STEEL TO BE 3" CLEAR OF CONCRETE SURFACES, TYP.
4. "D" = FTG. DEPTH.
5. "S" = STEP DIMENSION.
6. SEE DETAIL A2/- FOR REBAR LAP & DEVELOPMENT LENTGHS.

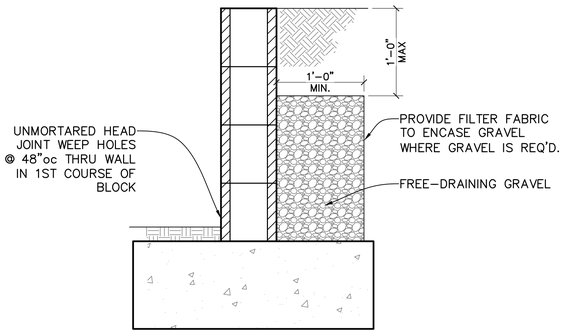
B1 STEPPED CONCRETE FOOTING

FOOTING w/OUT STIRRUPS OR TIES



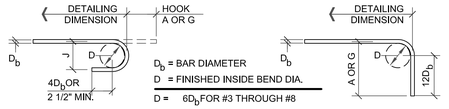
B2 WEEP-JOINT DETAIL

1 1/2" = 1'-0"



B3 ALTERNATE DRAINAGE SYSTEM

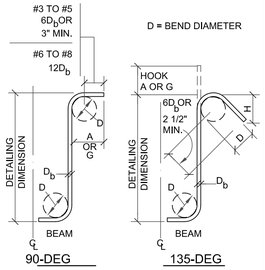
1" = 1'-0"



D_b = BAR DIAMETER
D = FINISHED INSIDE BEND DIA.
D = $6D_b$ FOR #3 THROUGH #8
D = $8D_b$ FOR #9, #10, AND #11
D = $10D_b$ FOR #14 AND #18

BAR SIZE	DIMENSION OF STANDARD 180-DEG HOOKS, ALL GRADES		
	A OR G	J	D
#3	5"	3"	2 1/4"
#4	6"	4"	3"
#5	7"	5"	3 3/4"
#6	8"	6"	4 1/2"
#7	10"	7"	5 1/4"
#8	11"	8"	6"
#9	1'-3"	11 3/4"	9 1/2"
#10	1'-5"	1'-1 1/4"	10 3/4"
#11	1'-7"	1'-2 3/4"	12"
#14	2'-3"	1'-9 3/4"	18 1/4"
#18	3'-0"	2'-4 1/2"	24"

BAR SIZE	DIMENSION OF STANDARD 90-DEG HOOKS, ALL GRADES	
	A OR G	D
6"		2 1/4"
8"		3"
10"		3 3/4"
1'-0"		4 1/2"
1'-2"		5 1/4"
1'-4"		6"
1'-7"		9 1/2"
1'-10"		10 3/4"
2'-0"		12"
2'-7"		18 1/4"
3'-5"		24"



STIRRUP HOOKS
(TIE BENDS SIMILAR)

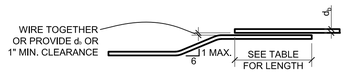
SEISMIC STIRRUP/TIE

BAR SIZE	D	90°	135°	
		A OR G	A OR G	APPROX. H
#3	1 1/2"	4"	4"	2 1/2"
#4	2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"
#6	4 1/2"	1'-0"	8"	4 1/2"
#7	5 1/4"	1'-2"	9"	5 1/4"
#8	6"	1'-4"	10 1/2"	6"

135° SEISMIC HOOK			
SIZE	D	A OR G	APPROX. H
#3	1 1/2"	5"	3 1/2"
#4	2"	6 1/2"	4 1/2"
#5	2 1/2"	8"	5 1/2"
#6	4 1/2"	11"	6 1/2"
#7	5 1/4"	1'-0 1/2"	7 3/4"
#8	6"	1'-2 1/2"	9"

A1 STANDARD HOOK DETAILS

LAP LENGTH (F'c = 2,500 psi)									
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11
BOTTOM BAR	23"	32"	39"	47"	68"	78"	88"	94"	104"
TOP BAR	30"	42"	51"	61"	88"	101"	114"	122"	135"



NOTES:

1. SPLICES ARE SHOWN IN INCHES AND SHALL CONFORM TO CLASS "B" SPLICES AS PER ACI 318-19.
2. SPLICE LENGTHS ASSUME THE MODIFICATION FACTORS OF ACI 318 SECTIONS 25.4 ARE 1.0. FOR OTHER CONDITIONS PROVIDE SPLICE LENGTHS IN ACCORDANCE WITH ACI 318-19.
3. USE THE SPLICE LENGTH GIVEN FOR TOP BARS WHEN MORE THAN 12" OF CONCRETE IS CAST BELOW HORIZONTAL BARS IN MEMBER. USE THE SPLICE LENGTH GIVEN FOR BOTTOM BARS FOR ALL OTHER CONDITIONS.

A2 REINFORCING BAR LAP LENGTHS

Division 2.0 - Foundations

2.0.1 All foundation work shall be done in accordance with the provisions of the 2022 California Building Code.
2.0.2 Foundations shall bear a minimum of 12" below lowest adjacent grade on compacted native soil.
2.0.3 All filling, backfilling, and compaction shall be done under the direction of a Registered Civil Engineer and must be compacted to a minimum density of 92% in accordance with ASTM D1557-12.
2.0.4 Prior to placement of fill beneath foundations, soils engineer shall inspect subgrade to confirm that suitable native soils have been exposed, Geotechnical engineer shall also inspect prepared grades for footings and foundations, prior to placement of reinforcing or forms.
2.0.5 Tops and bottoms of all foundations shall be parallel to maintain the footing thickness detailed and slope no more than 0.5%, as required to conform to top of footing elevations shown on the plans.
2.0.6 Foundations shall be cast in neat excavations of minimum dimensions shown and shall be increased 2 inches in width where excavations are loose. Use 2x12 plank or other suitable form at edge to protect against sloughing, as required.
2.0.7 Notify the Structural Engineer 48 hours before casting foundations.

Division 3.1 - Cast-In-Place Concrete

3.1.1 All concrete construction shall conform to ACI 318-19, "Building Code Requirements for Reinforced Concrete".
3.1.2 Cement shall conform to ASTM C-150, Type II.
3.1.3 Aggregates for normal-weight concrete shall be hard rock and shall conform to ASTM-C33. Maximum aggregate size shall be ¾" for elements that are 12 inches or smaller in the least direction and 1-1/2 inches for all other elements.
3.1.4 Ready-mix concrete shall be delivered and mixed in accordance with ASTM C-94. Maximum slump for all concrete at the point of placement shall be 4 inches, or the design placement (as submitted with the trial design) plus one inch, except where superplasticising agents are used, as approved by the Engineer.
3.1.5 All concrete shall conform to one of the following classes, as required.

Exposure Classes	Application	28-Day Strength	W/C Ratio	Agg. Size
F0, S0, W0, C1	Foundations	3000 psi	0.55	1" Min.

3.1.6 Concrete mixes shall be designed by a qualified Testing Laboratory and reviewed by the Engineer prior to use. The Contractor may propose use of mixes successfully incorporated on past projects. Submit certified test data and batch proportions for such mixes.
3.1.7 Air-entraining and water-reducing admixtures may be used with prior approval of the Engineer. Admixtures containing calcium chloride will not be approved.
3.1.8 All reinforcing steel, anchor bolts, dowels and other inserts shall be well secured in position prior to placement of concrete.
3.1.9 Exposed corners of all beams, columns, walls, etc. shall be provided with a ¾ inch chamfer, U.N.O.
3.1.10 Side forms for concrete elements, shall not be removed sooner than three days after concrete placement, except as approved by the Engineer. Approval will not be given unless the concrete has attained a compressive strength of at least 2000 psi, as demonstrated by test cylinders.
3.1.11 Bottom forms of concrete elements, including forms for slabs and beam soffits, shall not be removed until the concrete has attained at least 75% of its specified concrete strength, as demonstrated by test cylinders.
3.1.12 Upper surfaces on concrete elements and all surfaces with forms stripped sooner than 7 - days following placement of concrete shall be coated with a liquid membrane curing compound. Other curing methods may be used, if approved by the Engineer prior to application.
3.1.13 Refer to architectural, mechanical and electrical drawings for the sizes and locations of openings in concrete slabs. All penetrations larger than 12 inches shall be formed.
3.1.14 Concrete volumes may vary from those implied by these drawings or due to overexcavation or form flexibility. The Contractor shall include costs for overfill of concrete volume as appropriate.
3.1.15 Non-shrink grout shall be Sika Grout 212", manufactured by Sika Corporation, or approved equal.

Division 3.2 - Reinforcement for Concrete and Masonry

3.2.1 Reinforcement shall be deformed bars conforming to ASTM A-615, Grade 60, or ASTM A-706, Grade 60, for reinforcing bars to be welded.
3.2.2 Detailing, bending, and placing of reinforcing shall conform to the Concrete Reinforcing Steel Institute "Manual of Standard Practice" and ACI Detailing manual 315.
3.2.3 Suitable devices shall be used to hold all reinforcing and embedment's in their proper positions during concrete placement.
3.2.4 Reinforcing steel shall be provided with the following amounts of concrete cover.

Concrete Description	Cover
Concrete Deposited Against Earth	3"
Concrete Exposed to Earth or Weather	
#6 Bar and Larger:	2"
#5 Bar and Smaller:	1 ½"
Concrete Not Exposed to Earth or Weather	
Slabs, Walls and Joists -	
#11 Bar and Smaller:	3/4"
Column Verticals, Ties, Stirrups, Spirals	1 1/2"

3.2.5 Any reinforcing bars may be spliced with mechanical couplers. Couplers shall conform to the requirements for type 2 per UBC 1921.2.6.1.2. Couplers shall be of uni-axial type. See specifications for data and approval requirements.
3.2.6 The minimum lap length for contact lap splices in cast-in-place concrete shall be per detail A2/-.
3.2.7 A minimum clearance of 2-bar diameters shall be maintained between adjacent bars, except at contact lap splices.

Division 4.0 - Masonry

4.0.1 Design F'm = 1500 psi for this project. F'm shall be verified in accordance with Section 2105A.2 of the 2022 California Building Code using either the unit strength method or prism test method as required.
4.0.2 Concrete masonry units shall conform to ASTM C-90 Type I units. Net Area Compressive strength of units shall be 1900 psi as tested in accordance with ASTM C 140.
4.0.3 Mortar shall be Type S and be proportioned in accordance with ASTM C270 to attain a 28 day compressive strength of 1800 psi as tested using two-inch cubes in accordance with ASTM C 109.
4.0.4 Grout shall be proportioned to attain a 28-day compressive strength of 2000 psi as tested in accordance with ASTM C 1019. Use a minimum of 1 part Portland cement to 3 parts sand. Add 1 pound of Sika Grout Aide Type II, or equal per 100 lbs. of cementitious material. One to two parts of pea gravel shall be used where the least clear dimension exceeds 2 inches. Not more than 5% of the pea gravel shall pass the No. 8 sieve and 100% shall pass the 3/8 inch sieve.
4.0.5 Reinforcing steel shall conform to ASTM A-615, Grade 60.
4.0.6 Lap all bars 72-bar diameters.
4.0.7 Minimum reinforcement clearance to face shell shall be one bar diameter or ½ inch, whichever is greater.
4.0.8 Before block is placed on concrete, thoroughly clean concrete of all laitance and loose material. Roughen as in a concrete construction joint.
4.0.9 Concrete block masonry shall be built to preserve unobstructed vertical continuity of cells. All head and end joints shall be solidly filled with mortar for a distance from the face of the wall (or unit) inward not less than the thickness of the face shell. Bond shall be provided by lapping successive courses or by equivalent mechanical anchorage.
4.0.10 Both low-lift and/or high-lift grouted construction shall conform to CBC Section 2104A. Cleanout openings hall be provided at the bottom of all reinforced cells where grout lift exceeds 4'-0". Any overhanging mortar or other obstruction or debris shall be removed from the inside of such cells. The cleanouts shall be sealed after inspection and before grouting. Mechanically vibrate all grout pours.
4.0.11 Vertical reinforcing shall be held in position at top and bottom and at intervals not exceeding 192-bar diameters.
4.0.12 All cells shall be filled solidly with grout. All grouting shall be done under the continuous observation of a qualified Inspector as indicated on plans.
4.0.13 When grouting is stopped for one hour or longer, horizontal construction joints shall be formed by stopping the pour of grout ½ inch below the top of the uppermost unit.
4.0.14 Every vertical bar in walls shall lap 48-bar diameters with a dowel of the same size and spacing extending from the foundation. Locate vertical reinforcing at centerline of wall unless shown or noted otherwise. Carry each dowel to within 3-inches of the bottom of the foundation and terminate with a standard hook. Alternate orientation of dowels. Dowels shall be straight and plumb.
4.0.15 Place all horizontal bars in bond beam units. When two bars are used, stagger laps a minimum of 5'-0".
4.0.16 Provide (2) #5 bars with matching footing dowels (full-height of the wall at jambs and extending a minimum of 2'-0" past edges of openings at head and sill) each side of all openings and each end of all walls, unless noted otherwise on plans.
4.0.17 All embedded items (bolts, straps, etc.) shall be secured in place prior to grouting. Cut a hole in the face shell to attain a minimum of one-inch grout around all embedded items.
4.0.18 All bolts in masonry shall be ASTM A307 headed anchor bolts.
4.0.19 Use open-end block for all stock bond construction.

General Notes:

Division 1.0 - General

1.0.1 All construction shall conform to the requirements of the 2022 California Building Code.
1.0.2 The design is based on the following live load information:
Roof Loads:
N.A.
Floor Loads:
N.A.
1.0.3 The foundation design is based on Geotechnical investigation Report #1-220-0695 dated September 29, 2020, Supplemental Geotechnical Report of same # dated May 10, 2021 & CMU Wall Addendum Letter dated July 15, 2026.all prepared by Salem Engineering Group, Inc. ,
Earth Design Pressures:
Bearing: DL+LL = 2,500 psf *
Active Pressure = 29 psf/ft
Passive Pressure = 250 psf/ft *
*A 1/3 increase may be used for Short Term, Wind, or Seismic loads.
1.0.4 Wind Design is based on the following criteria:
Basic Wind Speed, V_{ULT} = 90 mph, V_{asd} = 70 mph
Risk Category = II
Exposure = C = K_z = 0.85 (0-15 ft)
K_{zt} = 1.0 , I = 1.0, K_d = 0.85, K_e = 1.0
q_s = 0.00256*K_z*K_{zt}*K_d*K_e*V^2 = 17.63 psf (USD),
F = q_s* K_p*G*C_f*A_n, G = 0.85, K_p = 0.85 (SOLID FREE-STANDING WALLS)
Typical Wall: C_f = 1.96, q_z = q_s*G*C_f = 25 psf (USD), 15 psf (ASD)
Corner/End Return Region: C_f = 2.06 , q_z = q_s*G*C_f = 26 psf (USD), 16 (ASD)
End Region: C_f = 3.44, q_z = q_s*G*C_f = 44 psf (USD), 26 psf (ASD)
1.0.5 Seismic design is based on the following criteria:
Risk Category = II, I = 1.0, Seismic Design Category = D
Latitude = 36.718, Longitude = -119.667, Soil Site Class = D
S_s = 0.559g : S_1 = 0.220g : S_{DS} = 0.504g, S_{D1} = 0.317g
R = 1.25, Ground Supported Cantilevered Walls or Fences
Cs = S_{DS}/[R*I] * W_p = 0.403*W_p = W_p = Weight of Element (ELF Procedure)
1.0.6 All omissions and conflicts between the various elements of the drawings and/or specifications shall be brought to the attention of the Engineer before proceeding with any work so involved.
1.0.7 The contractor shall verify all dimensions and conditions prior to the start of any construction or fabrication. Any discrepancies between conditions found and those shown on the plans shall be brought to the attention of the Engineer for clarification before work proceeds.
1.0.8 Where a construction detail is not shown or noted, the detail shall be the same as for similar work.
1.0.9 Details labeled as "typical" along with notes and details on the structural drawings indicate the method of work, and are to be used where they apply. Unless the condition is specifically detailed or reinforced, use typical details whether or not they are cross-referenced elsewhere.
1.0.10 All structural members and elements shown on the drawings are new, unless noted "(E)" for existing work.
1.0.11 Dimensions, unless noted otherwise, are to centerline of steel framing, to the face of concrete surfaces, to the face of masonry surfaces, to the face of wood framing, or to the top of slab.
1.0.12 The structure is designed to be self-supporting when complete. Temporary bracing of structural members may be required during construction when support of such members in the final configuration will be provided by elements that are to be constructed later in the project schedule. It is the Contractor's sole responsibility to design and provide adequate shoring, bracing and formwork, etc., as required for the protection of life and property during construction.

Division 1.4 - Quality Control & Inspections

1.4.1 All required inspections and test shall be performed by a Testing and Inspection Agency. All inspectors shall be ICC certified for the type of inspection being performed. A list of inspectors to be assigned to the project shall be provided to the presiding building department for approval prior to issue of permit.
1.4.2 Special inspections in accordance with 2022 california building code section 1704A are required for the following, unless specifically noted otherwise:
A. SOILS - Reference section 1705A.6 to be performed under the direction of soils report design professional. See DSA form 103-22 for additional requirements.
1. Verify excations are extended to proper depth and have reached proper material - periodic insp.
2. Verify exposed material in footing excavations complies w/ soils report requirements prior to placement of reinforcing steel - periodic inspection.
B. CONCRETE CONSTRUCTION - Reference section 1705A.3, see DSA form 103-22 for additional requirements.
1. Verify use of approved mix design - periodic inspection
2. Reinforcing steel placement - continuous inspection
3. Preparation of concrete test specimens & testing of slump for f'_c > 2,500psi -continuous inspection
C. MASONRY CONSTRUCTION - Reference section 1705A.4, see DSA form 103-22 for additional requirements.
1. Proportions of site mixed mortar prior to construction - periodinc inspection.
2. Reinforcing steel placement, size & grade - continuous inspection.
3. Unit layup and joints - periodic inspection.
4. Cold / Hot weather work - periodic Inspection.
5. Verify use of approved Grout mix design - periodic inspection.
6. Placement of grout - continuous inspection.
7. Preparation of grout specimens, mortar specimens, &/or prisms - continuous inspection.
1.4.3 Copies of all inspection reports shall be furnished to the engineer and the presiding bulilding department.
1.4.4 Contractor shall be responsible for removing and replacing all work that is determined by testing and inspection not to comply with specified standards, at no cost to the owner.

Division 1.5 - Materials Testing & Reports

1.5.1 All concrete with a specified compressive strength of 3000 psi or greater shall be tested in accordance with the 2022 california building code, section 1905A.1.17 as follows:
A. Testing agent shall prepare a set of five 6x12 test cylinders for each class of concrete placed each day for each 50 cubic yards of concrete placed or portion there of, nor less than one set for each 2000 sq. ft. of wall or slab surface area.
B. From each set, test one cylinder at seven days, two cylinders at twenty-eight days and hold two for testing at fifty-six days if requested by engineer of record following submittal of twenty-eight day results.
1.5.2 All masonry materials shall be tested in accordance with the 2022 california building code, section 2105A.3 as follows:
C. Testing agent shall prepare a set of seven test specimens for grout placed each day for each 2000 sq. ft. of wall grouted or portion there of.
D. Testing agent shall prepare a set of seven test specimens of mortar placed each day for each 3 successive working days and at least 1 week intervals thereafter.
E. From each set of grout & mortar specimens, test one speciment at seven days, three specimens at twenty-eight days, and hold three specimens for testing at fifty-six days, if requested by engineer of record following submittal of twenty-eight day test results.
1.5.3 Test reports shall be submitted to the engineer of record and the presiding building department for review, all deficiencies in work indicated by the test reports to not comply with the contract documents shall be corrected at the contractor's expense.

Division 1.6 - Submittals

1.6.1 Prior to proceeding with the work, the Contractor shall submit the following to the Engineer for review:
A. Mix designs for all grades of concrete and masonry grout, including certified test data on strength of sample batches.
B. Masonry materials data.
1.6.2 Review of submittals by the Engineer is only for general compliance with design intent. Review of the drawings does not relieve the Contractor of responsibility for completing work in accordance with the drawings and specifications. Contractor will allow a minimum of 10 working days for review of all submittals, following receipt by the Engineer.

REGISTERED PROFESSIONAL ENGINEER — BRENT D. CLINE — No. 23139 — EXP. 06-30-26 — STRUCTURAL — STATE OF CALIFORNIA

SKYLINE
Structural Engineering, Inc
412 Park Creek Dr., Ste 101 · Oakdale, CA 95361
Phone: 559-298-6308 · Fax: 559-298-6308
www.skse.com

APPROVALS

FILE # 10-126 · APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-22128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

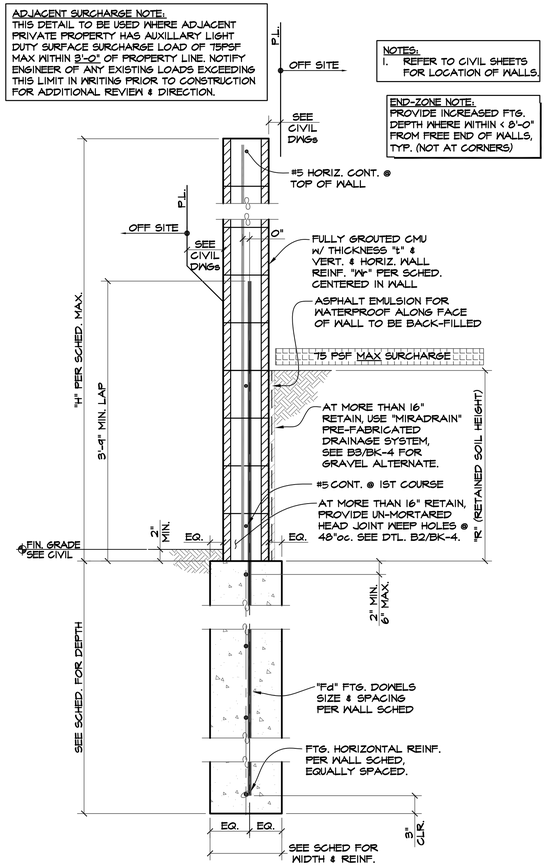
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0633 Office
(559) 627.1926 Fax

TITLE
BLOCK WALL
STRUCTURAL DETAILS

BK-4

PROJECT 24042

ADJACENT SURCHARGE NOTE:
THIS DETAIL TO BE USED WHERE ADJACENT PRIVATE PROPERTY HAS AUXILLARY LIGHT DUTY SURFACE SURCHARGE LOAD OF 75PSF MAX WITHIN 8'-0" OF PROPERTY LINE. NOTIFY ENGINEER OF ANY EXISTING LOADS EXCEEDING THIS LIMIT IN WRITING PRIOR TO CONSTRUCTION FOR ADDITIONAL REVIEW & DIRECTION.



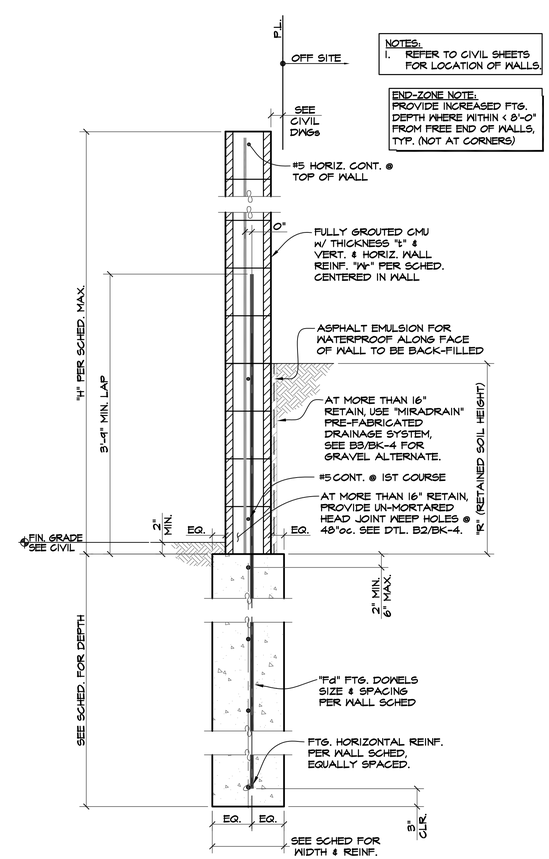
NOTES:
1. REFER TO CIVIL SHEETS FOR LOCATION OF WALLS.

END-ZONE NOTE:
PROVIDE INCREASED FTG. DEPTH WHERE WITHIN < 8'-0" FROM FREE END OF WALLS, TYP. (NOT AT CORNERS)

SITE RETAINING WALL SCHEDULE

"H"	"R"	TYPICAL FOOTING SIZE & REINF.	FTG. DEPTH REQ'D. @ "END-ZONE"	"Fd"	WALL THICK. "t"	"W" VERT.	"W" HORIZ
7'-4" MAX.	UP TO 1'-4" MAX.	1'-0" W x 4'-8" DEEP (4) #5 CONT. HORIZ. (USE (6) #4 CONT. HORIZ. @ CONTR's. OPTION)	N/A	#5 @ 16" oc	8"	#5 @ 16" oc	#5 @ 16" oc
8'-8" MAX.	1'-4" TO 2'-9" MAX.	1'-0" W x 6'-9" DEEP (6) #5 CONT. HORIZ. (USE (9) #4 CONT. HORIZ. @ CONTR's. OPTION)	N/A	#5 @ 16" oc	8"	#5 @ 16" oc	#5 @ 16"oc

B1 *8'-8" MAX. WALL - UP TO 2'-9" MAX RETAIN.*
1" = 1'-0"
FOR WALLS WITH DRAINAGE SYSTEMS PROVIDED ABOVE 16" RETAINING (75 PSF SURCHARGE)



NOTES:
1. REFER TO CIVIL SHEETS FOR LOCATION OF WALLS.

END-ZONE NOTE:
PROVIDE INCREASED FTG. DEPTH WHERE WITHIN < 8'-0" FROM FREE END OF WALLS, TYP. (NOT AT CORNERS)

SITE RETAINING WALL SCHEDULE

"H"	"R"	TYPICAL FOOTING SIZE & REINF.	FTG. DEPTH REQ'D. @ "END-ZONE"	"Fd"	WALL THICK. "t"	"W" VERT.	"W" HORIZ
7'-4" MAX.	UP TO 1'-4" MAX.	1'-0" W x 4'-4" DEEP (4) #5 CONT. HORIZ. (USE (6) #4 CONT. HORIZ. @ CONTR's. OPTION)	N/A	#5 @ 16" oc	8"	#5 @ 16" oc	#5 @ 16" oc
8'-8" MAX.	1'-4" TO 2'-9" MAX.	1'-0" W x 5'-10" DEEP (5) #5 CONT. HORIZ. (USE (7) #4 CONT. HORIZ. @ CONTR's. OPTION)	N/A	#5 @ 16" oc	8"	#5 @ 16" oc	#5 @ 16"oc

A1 *8'-8" MAX. WALL - UP TO 2'-9" MAX RETAIN.*
1" = 1'-0"
FOR WALLS WITH DRAINAGE SYSTEMS PROVIDED ABOVE 16" RETAINING (SURCHARGE)

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
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Visalia, California 93291
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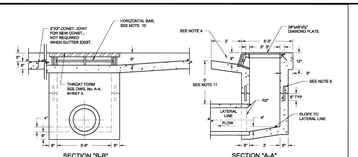
TITLE
BLOCK WALL
STRUCTURAL DETAILS

BK-5

PROJECT 24042

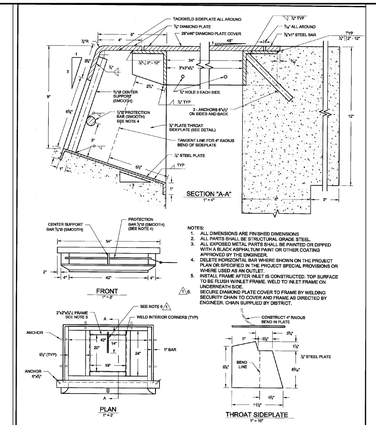
REGISTERED PROFESSIONAL ENGINEER
BRENT D. CLINE
No. S7398
EXP. 12-31-26
STRUCTURAL
STATE OF CALIFORNIA

SKYLINE
Structural Engineering, Inc.
412 Park Creek Dr., Ste 101 Clovis, CA 93611
Phone: 559-298-9338 Fax: 559-298-9308



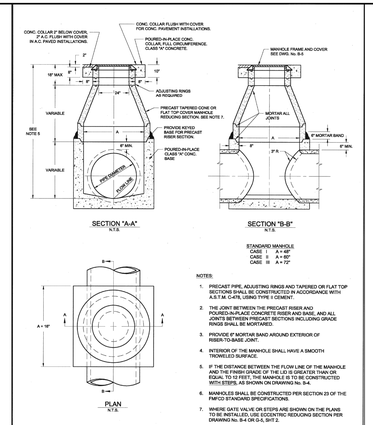
NOTES:
1. THE INLET MAY BE MODIFIED SLIGHTLY TO MATCH EXISTING IMPROVEMENTS, AS DIRECTED BY THE ENGINEER.
2. STRUCTURE SHALL BE CLASS "A" CONCRETE. EXPOSED SURFACES SHALL BE FINISHED AS PER CURB SPECIFICATIONS.
3. COST OF FRAME AND GRATE AND THROAT FORM SHALL BE INCLUDED IN PRICE OF INLET OR OUTLET.
4. CURB AND GUTTER WINGS SHALL BE INCLUDED IN THE PRICE OF THE INLET/OUTLET.
5. 4 CURB AND GUTTER WINGS SHALL BE INCLUDED IN THE PRICE OF THE INLET/OUTLET.
6. ADDITIONAL CURB AND GUTTER SHALL BE CONSTRUCTED OR RECONSTRUCTED ON EACH SIDE OF BOX AS INDICATED ON THE PLANS AND COST THEREOF SHALL BE INCLUDED IN PRICE OF INLET OR OUTLET.
7. FLOOR OF THE INLET SHALL SLOPE FROM ALL WALLS TO THE LATERAL LINE AND SHALL BE GIVEN A STEEL TROWELED FINISH.
8. THE CONSTRUCTION POINT BETWEEN THE LATERAL LINE AND THE INLET WALL A SMOOTH 7" RADIUS CURVE SHALL BE CONSTRUCTED.
9. IF INLET IS CONSTRUCTED IN A TWO STAGE POUR, PROVIDE A ROUGHENED CONSTRUCTION JOINT AND PLACE ONE No. 4 BAR DOWEL AT EACH CORNER OF THE BOX.
10. DELETE HORIZONTAL BAR WHERE SHOWN ON THE PROJECT PLANS OR SPECIFIED IN THE PROJECT SPECIAL PROVISIONS, OR WHERE USED AS AN OUTLET.
11. PIPE MINIMUM DEPTH MAY BE ADJUSTED BY THE DESIGNER OR ENGINEER. MAY REQUIRE PIPE CLASS CHANGE OR SPECIAL BACKFILL.

REVISIONS MARK	DATE	DESCRIPTION	FRESNO METROPOLITAN FLOOD CONTROL DISTRICT	TYPE "D" INLET/OUTLET FOR 6" CURB & GUTTER
			APPROVED BY:	
ADOPTED	4/1/2011			SCALE AS SHOWN / DRAWING No. A-4 / SHEET 1 OF 2



NOTES:
1. ALL DIMENSIONS ARE FINISHED DIMENSIONS.
2. ALL PARTS SHALL BE STRUCTURAL GRADE STEEL.
3. ALL EXPOSED METAL PARTS SHALL BE PAINTED OR DIPPED WITH A BLACK ASPHALTUM PAINT OR OTHER COATING APPROVED BY THE ENGINEER.
4. DELETE HORIZONTAL BAR WHERE SHOWN ON THE PROJECT PLAN OR SPECIFIED IN THE PROJECT SPECIAL PROVISIONS OR WHERE USED AS AN OUTLET.
5. INSTALL FRAME AFTER INLET IS CONSTRUCTED. TOP SURFACE OF INLET THROAT, INLET FRAME, WELD TO INLET FRAME ON UNDERSIDE EACH SIDE.
6. SECURE DIAMOND PLATE COVER TO FRAME BY WELDING SECURITY CHAIN TO COVER AND FRAME AS DIRECTED BY ENGINEER. CHAIN SUPPLIED BY DISTRICT.

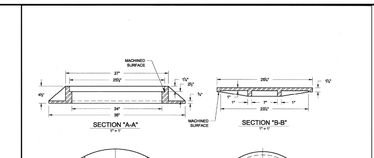
REVISIONS MARK	DATE	DESCRIPTION	FRESNO METROPOLITAN FLOOD CONTROL DISTRICT	TYPE "D" INLET THROAT FORM & FRAME FOR 6" CURB & GUTTER
1	5-11-12	NOTE ADDED	APPROVED BY:	
ADOPTED	4/1/2011			SCALE AS SHOWN / DRAWING No. A-4 / SHEET 2 OF 2



STANDARD MANHOLE
CASE I A = 48"
CASE II A = 60"
CASE III A = 72"

NOTES:
1. PRECAST PIPE, ADJUSTING RINGS AND TAPERED OR FLAT TOP SECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH A.S.T.M. C-478, USING TYPE II CEMENT.
2. THE JOINT BETWEEN THE PRECAST RISER AND POURED-IN-PLACE CONCRETE RISER AND BASE, AND ALL JOINTS BETWEEN PRECAST SECTIONS INCLUDING GRADE RINGS SHALL BE MORTARED.
3. PROVIDE 8" MORTAR BAND AROUND EXTERIOR OF RISER-TO-BASE JOINT.
4. INTERIOR OF THE MANHOLE SHALL HAVE A SMOOTH TROWELED SURFACE.
5. IF THE DISTANCE BETWEEN THE FLOW LINE OF THE MANHOLE AND THE FINISH GRADE OF THE LID IS GREATER THAN OR EQUAL TO 12 FEET, THE MANHOLE IS TO BE CONSTRUCTED WITH STEPS, AS SHOWN ON DRAWING No. B-4.
6. MANHOLES SHALL BE CONSTRUCTED PER SECTION 23 OF THE FMFCD STANDARD SPECIFICATIONS.
7. WHERE GATE VALVE OR STEPS ARE SHOWN ON THE PLANS TO BE INSTALLED, USE SOOSTRTRC REDUCING SECTION PER DRAWING No. B-4 OR D-5, SHT 2.

REVISIONS MARK	DATE	DESCRIPTION	FRESNO METROPOLITAN FLOOD CONTROL DISTRICT	TYPE "A" MANHOLE CASES I, II & III
			APPROVED BY:	
ADOPTED	4/1/2011			SCALE AS SHOWN / DRAWING No. B-1 / SHEET 1 OF 3



NOTES:
1. ALL DIMENSIONS ARE FINISHED DIMENSIONS.
2. MATERIAL SHALL BE CAST IRON.
3. FRAME AND COVER TO BE CONSTRUCTED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A48, CLASS 30.
4. MANHOLE COVER DESIGN, AS A MINIMUM, IS TO HAVE THE WORDS "STORM SEWER" OR "STORM DRAIN" MOLDED INTO THE COVER.

REVISIONS MARK	DATE	DESCRIPTION	FRESNO METROPOLITAN FLOOD CONTROL DISTRICT	MANHOLE FRAME & COVER
			APPROVED BY:	
ADOPTED	4/1/2011			SCALE AS SHOWN / DRAWING No. B-2 / SHEET 1 OF 1

OUTFALL STRUCTURES
DESIGN TABLE I (TYPES "A"-"G")

TYPE	MAX. PIPE SIZE	DESIGN (C.F.S)	A	B	C	D	E*	M	DWG. NO.
A	18"	0-5	4'-6"	2'-9"	2'-6½"	3'-6"	2½"	1	D-2
B	18"	5-8	6'-0"	3'-3½"	3'-0½"	3'-0"	2½"	2	D-2
C	24"	8-12	7'-0"	3'-10½"	3'-6½"	3'-6"	3"	2	D-2
D	30"	12-16	8'-0"	-	-	4'-0"	3½"	2	D-3, D-5
E	36"	16-21	9'-0"	-	-	4'-6"	4"	2	D-3, D-5
F	42"	21-28	10'-0"	-	-	5'-0"	4½"	2	D-3, D-5
G	48"	28-38	11'-0"	-	-	6'-0"	5"	2	D-3, D-6, D-8

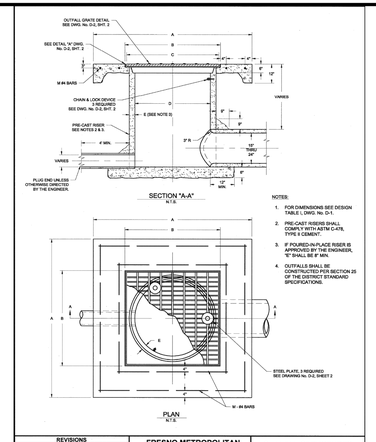
* IF POURED-IN-PLACE RISER IS APPROVED BY THE ENGINEER, "E" SHALL BE 8" MIN.

OUTFALL STRUCTURES
DESIGN TABLE II (TYPES "M"-"Q")

TYPE	MAX. PIPE SIZE	DESIGN (C.F.S)	A	D	F	M	N	W***	R*	DWG. NO.	G**
M	48"	38-50	11'-0"	5'-0"	2'-6"	3	3	8"	#4 AT 12"	D-4, D-6, D-8	72"
N	60"	50-65	12'-0"	6'-0"	3'-0"	3	4	8"	#4 AT 12"	D-4, D-6, D-8	84"
O	66"	65-85	14'-0"	7'-0"	3'-6"	3	5	8"	#4 AT 12"	D-4, D-6, D-8	96"
P	72"	85-110	16'-0"	8'-0"	4'-0"	3	6	10"	#5 AT 10"	D-4, D-6, D-8	114"
Q	84"	110-140	18'-0"	9'-0"	4'-6"	4	8	10"	#5 AT 10"	D-4, D-6, D-8	126"

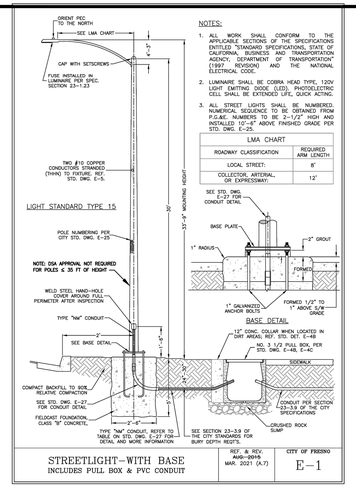
* REINFORCEMENT SHALL CONSIST OF A DOUBLE CIRCULAR CAGE WITH BARS AT THE SPECIFIED SPACING NOTED. SEE DWG NO. D-4, SHEET 2.
** CIRCULAR RISER SECTIONS MAY BE USED IN PLACE OF THE SQUARE SECTIONS SHOWN ON DRAWING D-4. THE CIRCULAR DIAMETER TO BE USED IS GIVEN AS DIMENSION G.
*** IF POURED-IN-PLACE RISER IS APPROVED BY THE ENGINEER, "W" SHALL BE 12" MIN.

REVISIONS MARK	DATE	DESCRIPTION	FRESNO METROPOLITAN FLOOD CONTROL DISTRICT	OUTFALL STRUCTURES DESIGN TABLES
			APPROVED BY:	
ADOPTED	4/1/2011			SCALE NO SCALE / DRAWING No. D-1 / SHEET 1 OF 1



NOTES:
1. FOR DIMENSIONS SEE DESIGN TABLE I, DWG No. D-1.
2. PRE-CAST RISERS SHALL COMPLY WITH ASTM C-478, TYPE II CEMENT.
3. IF POURED-IN-PLACE RISER IS APPROVED BY THE ENGINEER, "E" SHALL BE 8" MIN.
4. OUTFALLS SHALL BE CONSTRUCTED PER SECTION 25 OF THE DISTRICT STANDARD SPECIFICATIONS.

REVISIONS MARK	DATE	DESCRIPTION	FRESNO METROPOLITAN FLOOD CONTROL DISTRICT	OUTFALL STRUCTURES TYPES A, B & C
			APPROVED BY:	
ADOPTED	4/1/2011			SCALE AS SHOWN / DRAWING No. D-2 / SHEET 1 OF 2



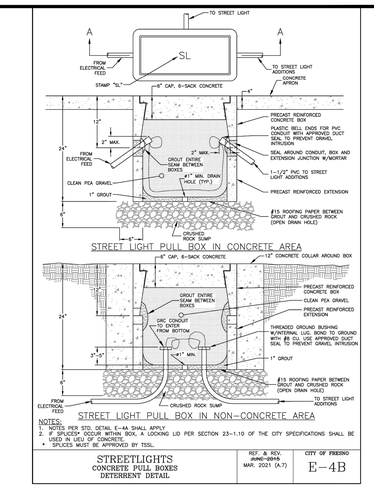
NOTES:
1. ALL WORK SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE SPECIFICATIONS ENTITLED "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, BUSINESS AND TRANSPORTATION AGENCY, DEPARTMENT OF TRANSPORTATION" (LATEST REVISION) AND THE NATIONAL ELECTRICAL CODE.
2. LUMINAIRE SHALL BE COBRA HEAD TYPE, 120V LIGHT EMITTING DIODE (LED) PHOTOELECTRIC CELL SHALL BE EXTENDED LIFE, QUICK ACTING.
3. ALL STREET LIGHTS SHALL BE NUMBERED. NUMERICAL SEQUENCE TO BE OBTAINED FROM P.G.&E. NUMBERS TO BE 2-1/2" HIGH AND INSTALLED 10'-6" ABOVE FINISHED GRADE PER STD. DWG. E-25.

LMA CHART	
ROADWAY CLASSIFICATION	REQUIRED ARM LENGTH
LOCAL STREET:	8'
COLLECTOR, ARTERIAL, OR EXPRESSWAY:	12'

SEE STD. DWG. E-27 FOR CONDUIT DETAIL

REF. & REV. Aug-2015 MAR. 2021 (A.7)	CITY OF FRESNO E-1

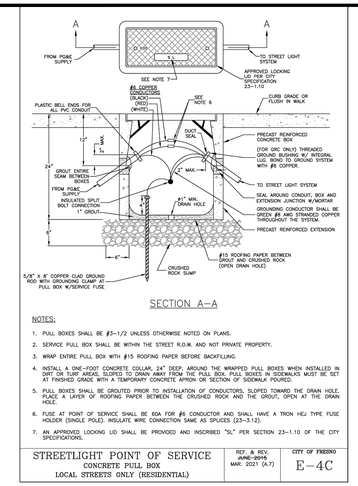
STREETLIGHT—WITH BASE
INCLUDES PULL BOX & PVC CONDUIT



NOTES:
1. NOTES PER STD. DETAIL E-4A SHALL APPLY.
2. SPLICES* OCCUR WITHIN BOX. A LOCKING LID PER SECTION 23-1.10 OF THE CITY SPECIFICATIONS SHALL BE USED IN LIEU OF CONCRETE.
* SPLICES MUST BE APPROVED BY TSSL.

REF. & REV. JUNE-2015 MAR. 2021 (A.7)	CITY OF FRESNO E-4B

STREETLIGHTS
CONCRETE PULL BOXES
DETERRENT DETAIL

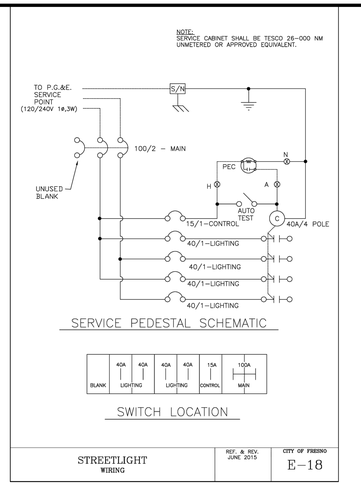


SECTION A–A

NOTES:
1. PULL BOXES SHALL BE #3–1/2 UNLESS OTHERWISE NOTED ON PLANS.
2. SERVICE PULL BOX SHALL BE WITHIN THE STREET R.O.W. AND NOT PRIVATE PROPERTY.
3. WRAP ENTIRE PULL BOX WITH #15 ROOFING PAPER BEFORE BACKFILLING.
4. INSTALL A ONE–FOOT CONCRETE COLLAR, 24" DEEP, AROUND THE WRAPPED PULL BOXES WHEN INSTALLED IN DIRT OR TURF AREAS, SLOPED TO DRAIN AWAY FROM THE PULL BOX. PULL BOXES IN SIDEWALKS MUST BE SET AT FINISHED GRADE WITH A TEMPORARY CONCRETE APRON OR SECTION OF SIDEWALK POURED.
5. PULL BOXES SHALL BE GROUTED PRIOR TO INSTALLATION OF CONDUCTORS, SLOPED TOWARD THE DRAIN HOLE. PLACE A LAYER OF ROOFING PAPER BETWEEN THE CRUSHED ROCK AND THE GROUT, OPEN AT THE DRAIN HOLE.
6. FUSE AT POINT OF SERVICE SHALL BE 60A FOR #6 CONDUCTOR AND SHALL HAVE A TRON HEJ TYPE FUSE HOLDER (SINGLE POLE). INSULATE WIRE CONNECTION SAME AS SPLICES (23–3.12).
7. AN APPROVED LOCKING LID SHALL BE PROVIDED AND INSCRIBED "SL" PER SECTION 23–1.10 OF THE CITY SPECIFICATIONS.

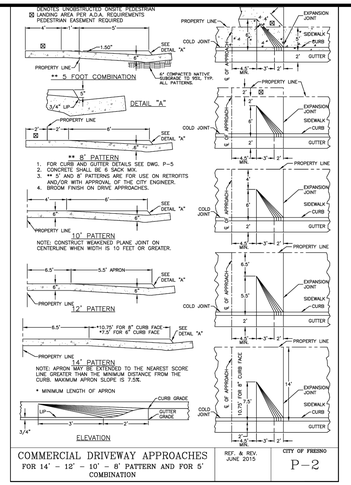
REF. & REV. JUNE-2015 MAR. 2021 (A.7)	CITY OF FRESNO E-4C

STREETLIGHT POINT OF SERVICE
CONCRETE PULL BOX
LOCAL STREETS ONLY (RESIDENTIAL)



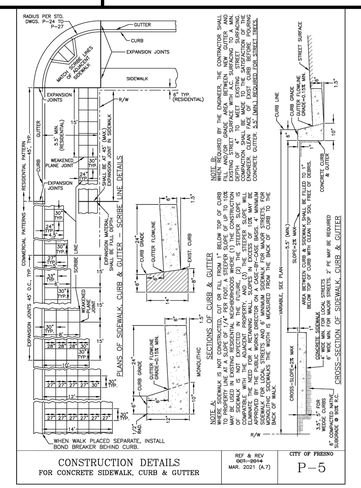
REF. & REV. JUNE 2015	CITY OF FRESNO E–18

STREETLIGHT
WIRING



REF. & REV. JUNE 2015	CITY OF FRESNO P–2

COMMERCIAL DRIVEWAY APPROACHES
FOR 14' – 12' – 10' – 8' PATTERN AND FOR 5' COMBINATION



REF. & REV. 007–2014 MAR. 2021 (A.7)	CITY OF FRESNO P–5

CONSTRUCTION DETAILS
FOR CONCRETE SIDEWALK, CURB & GUTTER

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-21128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INC.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

REGISTERED PROFESSIONAL ENGINEER
KALEB J. QUADE
No. 93267
CIVIL
STATE OF CALIFORNIA
09/16/2026

BY:

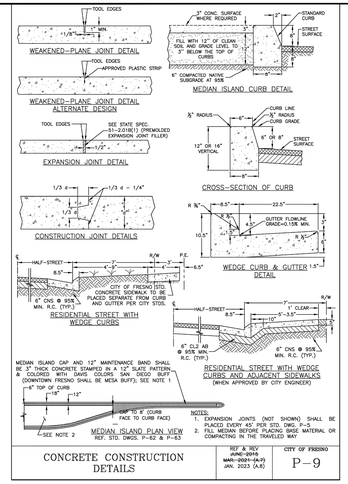
QK
WWW.QKINC.COM
559–582–1056
BAKERSFIELD, CLOVIS, HANFORD, MERCED, PORTERVILLE, VISALIA

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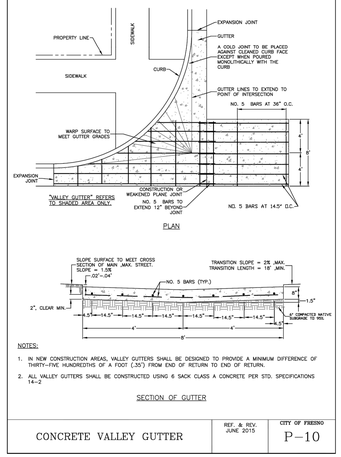
TITLE
DETAILS SHEET

DT-1

PROJECT 24042

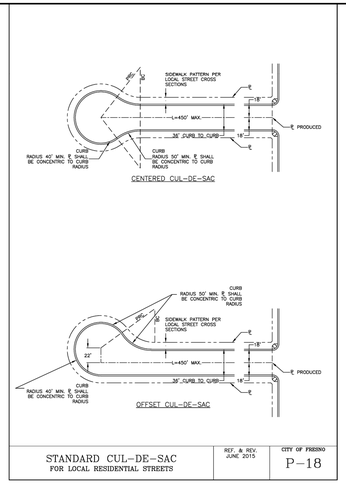


CONCRETE CONSTRUCTION DETAILS	REF. & REV. JUNE-2015 MAR.-2021-(A.2) JAN. 2023 (A.3)	CITY OF FRESNO P-9

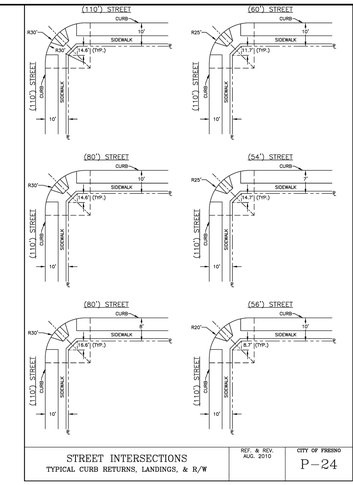


NOTES:
1. IN NEW CONSTRUCTION AREAS, VALLEY GUTTERS SHALL BE DESIGNED TO PROVIDE A MINIMUM DIFFERENCE OF THIRTY-FIVE HUNDREDTHS OF A FOOT (.35') FROM END OF RETURN TO END OF RETURN.
2. ALL VALLEY GUTTERS SHALL BE CONSTRUCTED USING 6 SACK CLASS A CONCRETE PER STD. SPECIFICATIONS 14-.2

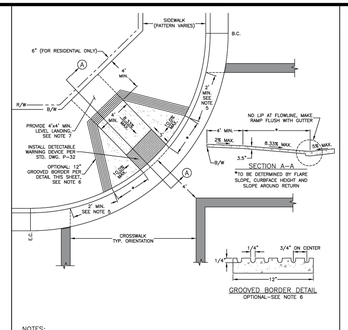
CONCRETE VALLEY GUTTER	REF. & REV. JUNE 2015	CITY OF FRESNO P-10



STANDARD CUL-DE-SAC FOR LOCAL RESIDENTIAL STREETS	REF. & REV. JUNE 2015	CITY OF FRESNO P-18

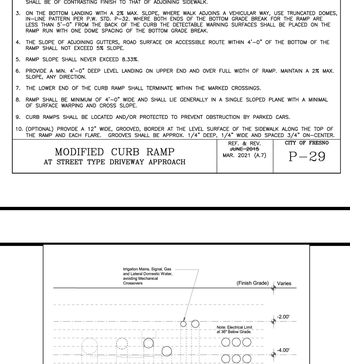


STREET INTERSECTIONS TYPICAL CURB RETURNS, LANDINGS, & R/W	REF. & REV. AUG. 2010	CITY OF FRESNO P-24



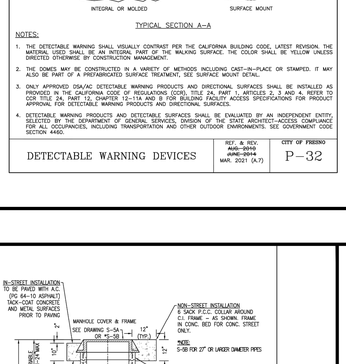
NOTES:
1. TRANSITIONS FROM RAMPS AND LANDING TO WALK, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
2. SURFACE OF CURB RAMP AND FLARED SIDES SHALL HAVE A MEDIUM BROOM FINISH TRANSVERSE TO PATH OF TRAVEL AND SHALL BE OF CONTRASTING FINISH TO THAT OF ADJOINING SIDEWALK.
3. RAMP SLOPE SHALL NEVER EXCEED 8.33% AND THE FLARED SIDES SHALL NOT EXCEED 10%.
4. THE SLOPE OF ADJOINING GUTTERS, ROAD SURFACE OR ACCESSIBLE ROUTE WITHIN 4' OF THE BOTTOM OF THE RAMP SHALL NOT EXCEED 5% SLOPE.
5. THERE SHALL BE A SEGMENT OF STRAIGHT CURB, AT LEAST 2.0' FEET LONG, ON EACH SIDE OF THE CURB RAMP, AS MEASURED FROM WITHIN THE MARKED CROSSWALK.
6. (OPTIONAL) PROVIDE A 12" WIDE, GROOVED, BORDER AT THE LEVEL SURFACE OF THE SIDEWALK ALONG THE TOP OF THE RAMP AND EACH FLARE. GROOVES SHALL BE APPROX. 1/4" DEEP, 1/4" WIDE AND SPACED 3/4" ON CENTER.
7. PROVIDE A MINIMUM 4' DEEP LEVEL LANDING ON UPPER END AND OVER FULL WIDTH OF RAMP. MAINTAIN A 2% MAX. SLOPE, ANY DIRECTION.
8. THE 4' CLEAR SPACE AT BOTTOM OF RAMP SHALL BE WITHIN THE MARKED CROSSINGS.
9. RAMP SHALL BE MINIMUM OF 4' WIDE AND SHALL LIE GENERALLY IN A SINGLE SLOPED PLANE WITH A MINIMUM OF SURFACE WARPING AND CROSS SLOPE.
10. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED CARS.

DIAGONAL CURB RAMP (USE ONLY WHEN NECESSARY)	REF. & REV. AUG.-2010 MAR. 2021 (A.7)	CITY OF FRESNO P-28



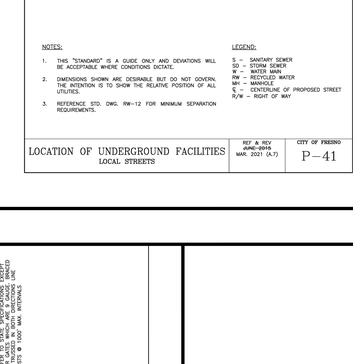
NOTES:
1. USE DETAIL "A" UNLESS DIMENSION "X" IS GREATER THAN 5'-0", IN WHICH CASE DETAIL "B" SHALL BE USED.
2. SURFACE OF CURB RAMP AND FLARED SIDE SHALL HAVE BROOM FINISH TRANSVERSE WITH THE PATH OF TRAVEL AND SHALL BE OF CONTRASTING FINISH TO THAT OF ADJOINING SIDEWALK.
3. ON THE BOTTOM LANDING WITH A 2% MAX. SLOPE, WHERE WALK ADJOINS A VEHICULAR WAY, USE TRUNCATED DOMES, IN-LINE PATTERN PER P.W. STD. P-32. WHERE BOTH ENDS OF THE BOTTOM GRADE BREAK FOR THE RAMP ARE LESS THAN 5'-0" FROM THE BACK OF THE CURB THE DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE RAMP RUN WITH ONE DOME SPACING OF THE BOTTOM GRADE BREAK.
4. THE SLOPE OF ADJOINING GUTTERS, ROAD SURFACE OR ACCESSIBLE ROUTE WITHIN 4'-0" OF THE BOTTOM OF THE RAMP SHALL NOT EXCEED 5% SLOPE.
5. RAMP SLOPE SHALL NEVER EXCEED 8.33%.
6. PROVIDE A MIN. 4'-0" DEEP LEVEL LANDING ON UPPER END AND OVER FULL WIDTH OF RAMP. MAINTAIN A 2% MAX. SLOPE, ANY DIRECTION.
7. THE LOWER END OF THE CURB RAMP SHALL TERMINATE WITHIN THE MARKED CROSSINGS.
8. RAMP SHALL BE MINIMUM OF 4'-0" WIDE AND SHALL LIE GENERALLY IN A SINGLE SLOPED PLANE WITH A MINIMAL OF SURFACE WARPING AND CROSS SLOPE.
9. CURB RAMPS SHALL BE LOCATED AND/OR PROTECTED TO PREVENT OBSTRUCTION BY PARKED CARS.
10. (OPTIONAL) PROVIDE A 12" WIDE, GROOVED, BORDER AT THE LEVEL SURFACE OF THE SIDEWALK ALONG THE TOP OF THE RAMP AND EACH FLARE. GROOVES SHALL BE APPROX. 1/4" DEEP, 1/4" WIDE AND SPACED 3/4" ON-CENTER.

MODIFIED CURB RAMP AT STREET TYPE DRIVEWAY APPROACH	REF. & REV. JUNE-2015 MAR. 2021 (A.7)	CITY OF FRESNO P-29



NOTES:
1. THE DETECTABLE WARNING SHALL VISUALLY CONTRAST PER THE CALIFORNIA BUILDING CODE, LATEST REVISION. THE MATERIAL USED SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. THE COLOR SHALL BE YELLOW UNLESS DIRECTED OTHERWISE BY CONSTRUCTION MANAGEMENT.
2. THE DOMES MAY BE CONSTRUCTED IN A VARIETY OF METHODS INCLUDING CAST-IN-PLACE OR STAMPED. IT MAY ALSO BE PART OF A PREFABRICATED SURFACE TREATMENT, SEE SURFACE MOUNT DETAIL.
3. ONLY APPROVED DSA/AC DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACES SHALL BE INSTALLED AS PROVIDED IN THE CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 24, PART 1, ARTICLES 2, 3 AND 4, REFER TO CCR TITLE 24, PART 12, CHAPTER 12-11A AND B FOR BUILDING FACILITY ACCESS SPECIFICATIONS FOR PRODUCT APPROVAL FOR DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACES.
4. DETECTABLE WARNING PRODUCTS AND DETECTABLE SURFACES SHALL BE EVALUATED BY AN INDEPENDENT ENTITY, SELECTED BY THE DEPARTMENT OF GENERAL SERVICES, DIVISION OF THE STATE ARCHITECT--ACCESS COMPLIANCE FOR ALL OCCUPANCIES, INCLUDING TRANSPORTATION AND OTHER OUTDOOR ENVIRONMENTS. SEE GOVERNMENT CODE SECTION 4450.

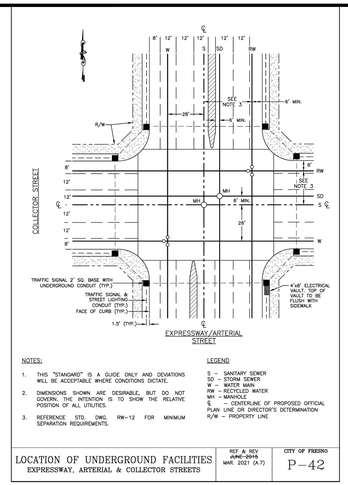
DETECTABLE WARNING DEVICES	REF. & REV. AUG.-2010 MAR. 2021 (A.7)	CITY OF FRESNO P-32



NOTES:
1. THIS "STANDARD" IS A GUIDE ONLY AND DEVIATIONS WILL BE ACCEPTABLE WHERE CONDITIONS DICTATE.
2. DIMENSIONS SHOWN ARE DESIRABLE BUT DO NOT GOVERN. THE INTENTION IS TO SHOW THE RELATIVE POSITION OF ALL UTILITIES.
3. REFERENCE STD. DWG. RW-12 FOR MINIMUM SEPARATION REQUIREMENTS.

LEGEND:
S — SANITARY SEWER
SD = STORM SEWER
W — WATER MAIN
WV = WATER VALVE
MH = MANHOLE
℄ — CENTERLINE OF PROPOSED STREET
R/W = RIGHT OF WAY

LOCATION OF UNDERGROUND FACILITIES LOCAL STREETS	REF & REV JUNE-2015 MAR. 2021 (A.7)	CITY OF FRESNO P-41

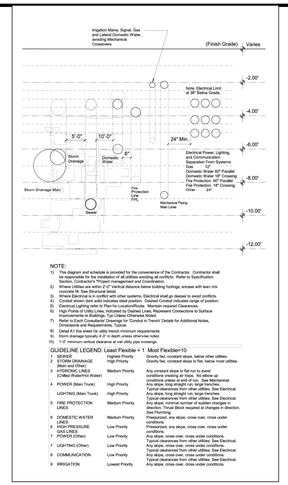


EXPRESSWAY/ARTERIAL STREET

NOTES:
1. THIS "STANDARD" IS A GUIDE ONLY AND DEVIATIONS WILL BE ACCEPTABLE WHERE CONDITIONS DICTATE.
2. DIMENSIONS SHOWN ARE DESIRABLE, BUT DO NOT GOVERN. THE INTENTION IS TO SHOW THE RELATIVE POSITION OF ALL UTILITIES.
3. REFERENCE STD. DWG. RW-12 FOR MINIMUM SEPARATION REQUIREMENTS.

LEGEND
S — SANITARY SEWER
SD — STORM SEWER
W — WATER MAIN
WV = WATER VALVE
MH — MANHOLE
℄ — CENTERLINE OF PROPOSED OFFICIAL PLAN LINE OR DIRECTOR'S DETERMINATION
R/W — PROPERTY LINE

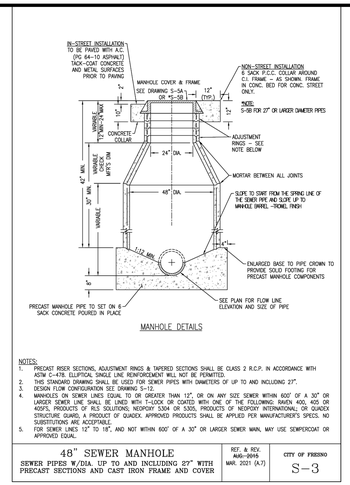
LOCATION OF UNDERGROUND FACILITIES EXPRESSWAY, ARTERIAL & COLLECTOR STREETS	REF & REV JUNE-2015 MAR. 2021 (A.7)	CITY OF FRESNO P-42



NOTE:
1) This diagram and schedule is provided for the convenience of the Contractor. Contractor shall be responsible for the installation of all utilities avoiding all conflicts. Refer to Specification Section, Contractor's "Project management and Coordination.
2) Where Electrical is in conflict with other systems, Electrical shall be deeper to avoid conflicts.
3) Where Electrical is in conflict with other systems, Electrical shall go deeper to avoid conflicts.
4) Electrical Lighting refer to Plan for Location/Routes. Maintain required Clearances.
5) High Points of Utility Lines, Indicated by Dashed Lines, Represent Connections to Surface Mounted Equipment, Refer to Plan for Location/Routes.
7) Refer to Each Consultants' Drawings for "Conduit in Trench" Details for Additional Notes, Dimensions and Requirements, Typical.
8) Detail A1 this sheet for utility trench minimum requirements.
9) Storm drainage typically 4'-0" in depth unless otherwise noted.
10) 1'-0" minimum vertical clearance at vert utility ajax crossings.

GUIDELINE LEGEND: Least Flexible = 1 Most Flexible=15

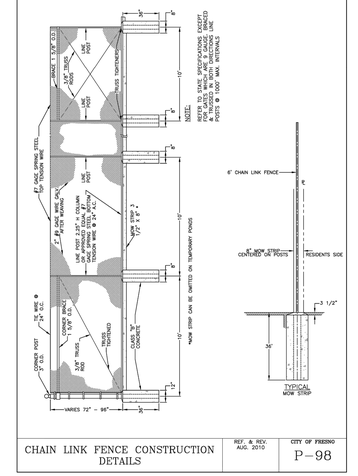
1	SANITARY SEWER	Highest Priority	Gravity flow, constant slope to flat, below most utilities.
2	STORM DRAINAGE (Main and Other)	High Priority	Gravity flow, constant slope to flat, below most utilities.
3	WATER LINES (Other) Domestic/Fire/Irr (Future)	Medium Priority	Any constant slope to flat run to avoid conditions creating air traps. Preference up conditions unless at end of run. See Mechanical.
4	POWER (Main Trunk)	High Priority	Any slope, cross over, cross under conditions. Typical clearances from other utilities. See Electrical.
	LIGHTING (Main Trunk)	High Priority	Any slope, long straight run, large trenches. Typical clearances from other utilities. See Electrical.
5	FIRE PROTECTION LINES	Medium Priority	Any slope, minimal number of sudden changes in direction. Thrust Block required at changes in direction. See Civil.
6	DOMESTIC WATER LINES	Medium Priority	Pressurized, any slope, cross over, cross under conditions.
8	GAS PRESSURE GAS LINES	Low Priority	Pressurized, any slope, cross over, cross under conditions.
7	POWER (Other)	Low Priority	Any slope, cross over, cross under conditions. Typical clearances from other utilities. See Electrical.
	LIGHTING (Other)	Low Priority	Any slope, cross over, cross under conditions. Typical clearances from other utilities. See Electrical.
8	COMMUNICATION	Low Priority	Any slope, cross over, cross under conditions. Typical clearances from other utilities. See Electrical.
9	IRRIGATION	Lowest Priority	Any slope, cross over, cross under conditions.



MANHOLE DETAILS

NOTES:
1. PRECAST RISER SECTIONS, ADJUSTMENT RINGS & TAPERED SECTIONS SHALL BE CLASS 2 R.C.P. IN ACCORDANCE WITH ACW C-478. ELLIPTICAL SINGLE LINE REINFORCEMENT WILL NOT BE PERMITTED.
2. THIS STANDARD DRAWING SHALL BE USED FOR SEWER PIPES WITH DIAMETERS OF UP TO AND INCLUDING 27".
3. DESIGN FLOW CONFIGURATION SEE DRAWING S-12.
4. MANHOLES ON SEWER LINES EQUAL TO OR GREATER THAN 12", OR ON ANY SIZE SEWER WITHIN 600' OF A 30" OR LARGER SEWER LINE SHALL BE LINED WITH T-LOCK OR COATED WITH ONE OF THE FOLLOWING: RAVEN 405, 405 OR 405FS, PRODUCTS OF RLS SOLUTIONS; NEOPOXY 5304 OR 5305, PRODUCTS OF NEOPOXY INTERNATIONAL; OR QUADEX STRUCTURE GUARD, A PRODUCT OF QUADEX. APPROVED PRODUCTS SHALL BE APPLIED PER MANUFACTURER'S SPECS. NO SUBSTITUTIONS ARE ACCEPTABLE.
5. FOR SEWER LINES 12" TO 18", AND NOT WITHIN 600' OF A 30" OR LARGER SEWER MAIN, MAY USE SEMIPERCOAT OR APPROVED EQUAL.

48" SEWER MANHOLE SEWER PIPES W/DIA. UP TO AND INCLUDING 27" WITH PRECAST SECTIONS AND CAST IRON FRAME AND COVER	REF. & REV. AUG.-2015 MAR. 2021 (A.7)	CITY OF FRESNO S-3



NOTE:
REFER TO STATE SPECIFICATIONS EXCEPT AS MODIFIED BY THE CITY STANDARDS & TRUSSED AT NON-DIRECTIONAL ENDS POSTS & MOW STRIP MATERIALS

CHAIN LINK FENCE CONSTRUCTION DETAILS	REF. & REV. AUG. 2010	CITY OF FRESNO P-98

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.2630 Office
(559) 627.1926 Fax

REGISTERED PROFESSIONAL ENGINEER JAMES R. MORRELL No. C-31128 CIVIL STATE OF CALIFORNIA

BY: 09/16/2026

QK
WWW.QKINC.COM
559-582-1056
BAKERSFIELD, CLOVIS, HANFORD, MERCED, PORTERVILLE, VISALIA

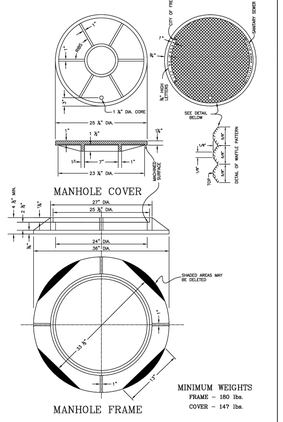
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TITLE
DETAILS SHEET

DT-2

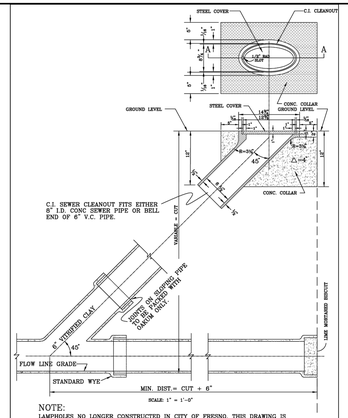
PROJECT 24042

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CAST IRON MANHOLE
FRAME AND COVER

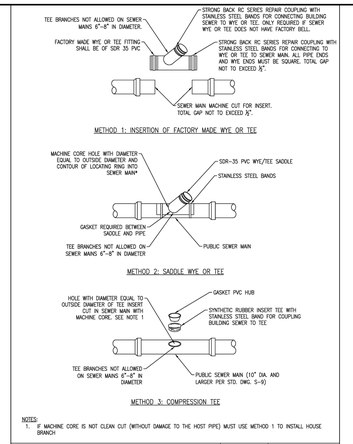
REF. & REV.	CITY OF FRESNO
JUNE 2014	S-5A



NOTE:
LAMPHOLES NO LONGER CONSTRUCTED IN CITY OF FRESNO. THIS DRAWING IS RETAINED FOR INFORMATIONAL PURPOSES TO SHOW CONSTRUCTION OF EXISTING LAMPHOLES.

SLOPING LAMPHOLE
WITH C.I. CLEANOUT & COVER

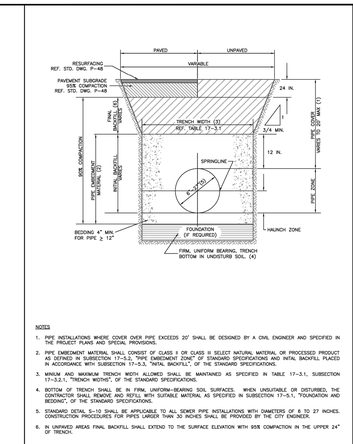
REF. & REV.	CITY OF FRESNO
AUG. 2002	S-6



NOTES:
1. 8" MACHINE CORE IS NOT CLEAN CUT (WITHOUT DAMAGE TO THE HOST PIPE) MUST USE METHOD 1 TO INSTALL HOUSE BRANCH

HOUSE BRANCH CONNECTIONS

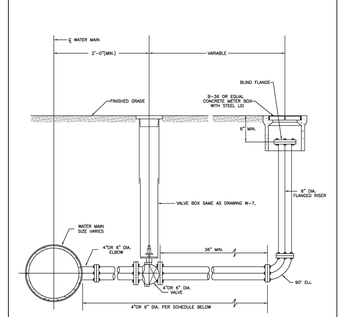
REF. & REV.	CITY OF FRESNO
AUG-0919 MAR. 2021 (A.7)	S-8



NOTES
1. PIPE INSTALLATIONS WHERE COVER OVER PIPE EXCEEDS 20' SHALL BE DESIGNED BY A CIVIL ENGINEER AND SPECIFIED IN THE PROJECT PLANS AND SPECIAL PROVISIONS.
2. PIPE EMBEDMENT MATERIAL SHALL CONSIST OF CLASS I OR CLASS III SELECT NATURAL MATERIAL OR PROCESSED PRODUCT AS DEFINED IN SUBSECTION 17-5.2, "PIPE EMBEDMENT ZONE" OF STANDARD SPECIFICATIONS AND INITIAL BACKFILL PLACED IN ACCORDANCE WITH SUBSECTION 17-5.3, "INITIAL BACKFILL", OF THE STANDARD SPECIFICATIONS.
3. MINIUM AND MAXIMUM TRENCH WIDTH ALLOWED SHALL BE MAINTAINED AS SPECIFIED IN TABLE 17-3.1, SUBSECTION 17-3.2.1, "TRENCH WIDTHS", OF THE STANDARD SPECIFICATIONS.
4. BOTTOM OF TRENCH SHALL BE IN FIRM, UNIFORM-BEARING SOIL SURFACES. WHEN UNSUITABLE OR DISTURBED, THE TRENCH BOTTOM SHALL BE OVER-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL AS SPECIFIED IN SUBSECTION 17-5.1, "FOUNDATION AND BEDDING", OF THE STANDARD SPECIFICATIONS.
5. STANDARD DETAIL S-10 SHALL BE APPLICABLE TO ALL SEWER PIPE INSTALLATIONS WITH DIAMETERS OF 6 TO 27 INCHES. CONSTRUCTION PROCEDURES FOR PIPES LARGER THAN 30 INCHES SHALL BE PROVIDED BY THE CITY ENGINEER.
6. IN UNPAVED AREAS FINAL BACKFILL SHALL EXTEND TO THE SURFACE ELEVATION WITH 95% COMPACTION IN THE UPPER 24" OF TRENCH.

SEWER MAIN TRENCH, BEDDING, AND BACKFILL DETAIL

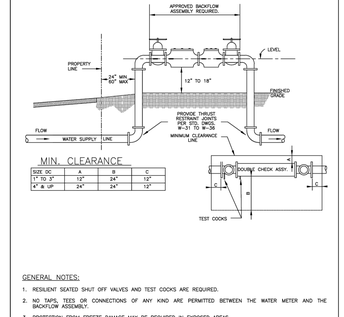
REF. & REV.	CITY OF FRESNO
NOV-0907 MAR. 2021 (A.7)	S-10



NOTES:
1. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWER SHALL USE THE DROP BOWL AS PRODUCED BY:
RELINER-DURAN, INC.
53 MT. ARCHER RD.
LYME, CT 06371
(860)434-0277 FAX: (860)434-3195 OR APPROVAL EQUAL
2. DROP BOWL MODEL "A-8" SHALL BE USED FOR ALL LINES UP THROUGH FULL 8" INLETS. DROP BOWLS MODEL "B-8" SHALL BE USED FOR ALL 8" INLETS. DROP BOWLS MODEL "B-10" SHALL BE USED FOR ALL 10" INLETS.
8" ONLY ALLOWABLE FOR REPLACING EXISTING 8" DROP. LINES LARGER THAN 10" SHALL BE AS DIRECTED BY THE ENGINEER.
3. SECURE DROP PIPE TO MANHOLE WALL WITH RELINER-DURAN, INC STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS OR APPROVED EQUAL (SEE DETAIL S-11B).
4. ATTACH THE DROP BOWL & EACH CLAMPING BRACKET TO THE MANHOLE WALL WITH 2" X 3 ¾" RAWSET/RED HEAD BOLTS. PRE-ROTO DRILL AND SET BOLTS IN PLACE WITH EPOXY PASTE. EPOXY SHALL MEET THE FOLLOWING REQUIREMENTS:
A. EPOXY PASTE SHALL BE A TWO COMPONENT, 100% SOLID SYSTEM. EPOXY SHALL BE SIKADUR 31 HI-MOD GEL BY SIKA CORPORATION (PHONE 592/941-0231) OR EQUAL.
B. THE EPOXY PASTE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI IN 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM D695 AT 73 DEGREES.
C. THE EPOXY PASTE SHALL DEVELOP A MINIMUM TENSILE STRENGTH OF 3,000 PSI IN 14 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM D638.
D. THE EPOXY PASTE SHALL DEVELOP A MINIMUM BOND STRENGTH OF 2,000 PSI IN 2 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C882 (HARDENED CONCRETE TO HARDENED CONCRETE).

DROP CONNECTIONS

REF. & REV.	CITY OF FRESNO
AUG. 2015	S-11A 1 OF 2



STAINLESS STEEL ADJUSTABLE CLAMPING BRACKED AS MANUFACTURED BY:

RELINER-DURAN, INC.
53 MT. ARCHER RD.
LYME, CT 06371
(860)434-0277 FAX: (860)434-3195
OR APPROVAL EQUAL

SPECIFICATIONS:
1) CLAMP AND BRACKETS IS TYPE 304 STAINLESS STEEL, 11 GAUGE (.1196").
2) 3/8" ø PINCH BOLT AND NUTS IS TYPE 18-8 STAINLESS STEEL.

STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS

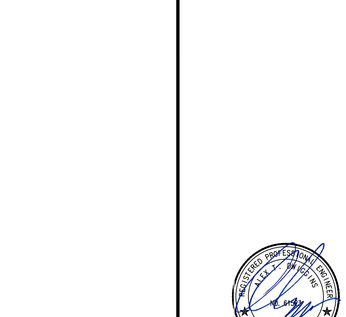
REF. & REV.	CITY OF FRESNO
JUNE 2014	S-11B 2 OF 2

① ALL STRAIGHT PIPE TO BE LAID THROUGH MANHOLES WITH TOP HALF REMOVED TO PROVIDE AT LEAST A 44" OR 56" LONG OPENING. ROUGH BROKEN EDGES SHALL BE MORTARED SMOOTH. THIS INCLUDES UPPER ENDS OF LINE MANHOLE.
② ALL TURNS MUST BE MADE SUCH THAT THE CENTER LINE OF THE FLOW CHANNEL BEND RADIUS IS MINIMUM 24" IN A 48" MANHOLE AND MINIMUM 30" IN A 60" MANHOLE. TURNS TO BE CONSTRUCTED TO FORM A SMOOTH FLOW LINE OF SAME SHAPE AND PATTERN AS BOTTOM WALL PIPE.

NOTE:
WHEN PIPE IS CUT, ALL EXPOSED REINFORCING STEEL TO BE COATED WITH 2" OF CONCRETE.

MANHOLE BASE DESIGN FLOW CONFIGURATION SUPPLEMENT TO S-3 & S-4

REF. & REV.	CITY OF FRESNO
AUG. 2015	S-12



VALVE LID & PAVING RING
WITH GALVANIZED CASING

REF. & REV.	CITY OF FRESNO
AUG-0902 MAR. 2021 (A.7)	W-7

NOTE:
1. ALL FITTINGS SHALL BE SECURED WITH RETAINING GLANDS, HARNESSES OR TIE-RODS AS APPLICABLE.
2. PLACE VALVES AND BLOW-OFFS OUTSIDE SIDEWALK AND DRIVEWAY AREAS.
3. ALL PUMP DISCHARGES SHALL BE FLANGED STEEL
4. ALL RISERS SHALL BE FLANGED, 6" DIAMETER.

BLOW-OFF SCHEDULE	
PIPE SIZE MAIN	BLOW-OFF
6"	4"
8"	4"
10"	4"
12"	6"
14"	6"
16"	6"

BLOW-OFF ASSEMBLY
TYPE A

REF. & REV.	CITY OF FRESNO
AUG. 2002	W-9

MIN. CLEARANCE

SIZE OC	A	B	C
1" TO 3"	12"	24"	12"
4" & UP	24"	24"	12"

GENERAL NOTES:
1. RESILIENT SEATED SHUT OFF VALVES AND TEST COCKS ARE REQUIRED.
2. NO TAPS, TEES OR CONNECTIONS OF ANY KIND ARE PERMITTED BETWEEN THE WATER METER AND THE BACKFLOW ASSEMBLY.
3. PROTECTION FROM FREEZE DAMAGE MAY BE REQUIRED IN EXPOSED AREAS.
4. ASSEMBLY MUST BE ACCESSIBLE FOR TESTING AND MAINTENANCE PER FRESNO MUNICIPAL CODE.
5. ASSEMBLY TO BE THE SAME SIZE AS THE WATER SUPPLY LINE PER UNIFORM PLUMBING CODE.
6. PRESSURE LOSS THROUGH ASSEMBLY MUST BE INCLUDED IN PRESSURE LOSS CALCULATIONS FOR SIZING OF THE WATER SYSTEM PER UNIFORM PLUMBING CODE.
7. MINIMUM CLEARANCES AROUND ASSEMBLY MUST BE MAINTAINED. REFER TO MINIMUM CLEARANCE CHART ON THIS PAGE.
8. INSTALL A MINIMUM OF ONE UNION IN THE PIPING SYSTEM WITHIN 12 INCHES OF THE ASSEMBLY – 3/4 THRU 2" SIZES.
9. DRAINAGE TO EXTERIOR OF THE BUILDING IS REQUIRED WHEN ASSEMBLY IS INSTALLED INSIDE.
10. ANY DEVIATION FROM THESE REQUIREMENTS SHALL BE APPROVED BY THE WATER SYSTEM MANAGER PRIOR TO INSTALLATION.

DOUBLE CHECK VALVE INSTALLATION

REF. & REV.	CITY OF FRESNO
AUG-0902 MAR. 2021 (A.7)	W-12

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INC.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.manginiai.us
(559) 627-2630 Office
(559) 627-1926 Fax

REGISTERED PROFESSIONAL ENGINEER
ALEX J. QUIROS
No. 84541
CIVIL
STATE OF CALIFORNIA

BY: 09/16/2026

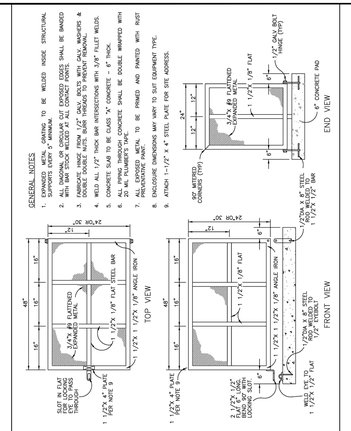
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TITLE
DETAILS SHEET

DT-3

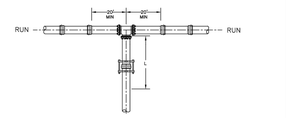
PROJECT 24042

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TYPICAL ENCLOSURE
FOR BACKFLOW PREVENTION DEVICES

REF. & REV.	CITY OF FRESNO
AUG. 2002	W-15



RUN SIZE

BRANCH SIZE	4	6	8	10	12	14	16	18	20	24
4	*	*	*	*	*	*	*	*	*	*
6		*	*	*	*	*	*	*	*	*
8			*	*	*	*	*	*	*	*
10				*	*	*	*	*	*	*
12					13	*	*	*	*	*
14						24	13	*	*	*
16							36	25	14	*
18								47	37	16
20									58	39
24										79

* FOR THIS CONDITION NEED ONLY RESTRAIN THE BRANCH OUTLET OF THE TEE.

RESTRAINED LENGTHS, "L" (IN FEET)

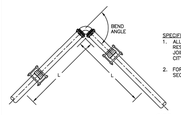
SPECIFICATIONS:

1. RESTRAIN THE TWO MECHANICAL JOINTS ON THE RUN SIDES OF THE TEE. WHEN LESS THAN A FULL 20' LENGTH OF PIPE IS INSTALLED ON EACH SIDE OF THE RUN.
2. ALL JOINTS WITHIN THE LENGTH "L" ON THE BRANCH MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS ON PUSH-ON PIPE PER CITY SPECIFICATION.
3. FOR TEST PRESSURES AND LAYING CONDITIONS SEE SECTION 22 OF GENERAL CONDITIONS.

PVC TEE RESTRAINTS

REF. & REV.	CITY OF FRESNO
MAR. 2008	W-31

HORIZONTAL BEND



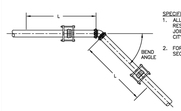
SPECIFICATIONS:

1. ALL JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUSH-ON PIPE PER CITY STD. SPECIFICATIONS.
2. FOR TEST PRESSURES AND LAYING CONDITIONS SEE SECTION 22 OF GENERAL CONDITIONS.

BEND ANGLE \ SIZE	4	6	8	10	12	14	16
11.25	3	3	3	4	4	5	5
22.5	3	5	7	7	9	10	11
45	7	11	13	15	18	20	23
90	17	24	31	37	43	49	55

RESTRAINED LENGTHS, "L" (IN FEET)

VERTICAL BEND



SPECIFICATIONS:

1. ALL JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUSH-ON PIPE PER CITY STD. SPECIFICATIONS.
2. FOR TEST PRESSURES AND LAYING CONDITIONS SEE SECTION 22 OF GENERAL CONDITIONS.

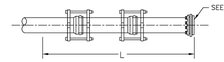
BEND ANGLE \ SIZE	4	6	8	10	12	14	16
11.25	5	7	9	11	13	15	17
22.5	11	15	19	23	27	31	35
45	23	31	40	48	56	64	72

RESTRAINED LENGTHS, "L" (IN FEET)

PVC BEND RESTRAINTS

REF. & REV.	CITY OF FRESNO
MAR. 2008	W-32

DEAD END FOR PVC PIPE



NOTES:

1. ALL JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUSH-ON PIPE PER CITY STANDARD SPECIFICATIONS.
2. FOR TEST PRESSURES AND LAYING CONDITIONS, SEE SECTION 22 OF GENERAL CONDITIONS.
3. WHEN APPROVED, CONCRETE THRUST BLOCK MAY BE USED AS SHOWN ON STANDARD DRAWING W-6.

PIPE SIZE

4	6	8	10	12	14	16
52	73	96	115	136	155	174

RESTRAINED LENGTHS, "L" (IN FEET)

GENERAL NOTES ON USE OF RESTRAINED JOINT LENGTHS

THESE RESTRAINED LENGTH CALCULATIONS ARE BASED ON THE FOLLOWING DESIGN CRITERIA:

1. THREE (3) FEET MINIMUM DEPTH OF COVER
2. A SAFETY FACTOR OF 1.5
3. SOIL TYPE OF SM—SILTY GRAVEL AND SILTY SANDS AS DEFINED BY ASTM D-2487
4. TRENCH COMPACTION OF TYPE 5 — PIPE BEDDED IN COMPACTED GRANULAR MATERIAL TO THE CENTER LINE OF PIPE, 4 INCHES MINIMUM UNDER PIPE. COMPACTED GRANULAR MATERIAL OR SELECT MATERIAL TO TOP OF THE PIPE (APPROXIMATELY 90 PERCENT STANDARD PROCTOR DENSITY, AASHTO T-99).
5. TEST PRESSURES OF 200 PSI FOR THE 4 THROUGH 16 INCH SIZES.

IF ACTUAL CONDITIONS DIFFER FROM THOSE LISTED ABOVE OR THE REQUIRED RESTRAINED LENGTH CANNOT BE MET, CONSULT THE DESIGN ENGINEER FOR MODIFICATIONS TO THE RESTRAINED LENGTHS OR DESIGN.

PVC PIPE RESTRAINTS

REF. & REV.	CITY OF FRESNO
MAR. 2008	W-33

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

PROFESSIONAL ENGINEER
KEVIN L. QUIGLEY
No. 70745
CIVIL
STATE OF CALIFORNIA

BY: 09/16/2026

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WWW.QKINC.COM
559-582-1056
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4320 West Mineral King Avenue
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TITLE
DETAILS SHEET

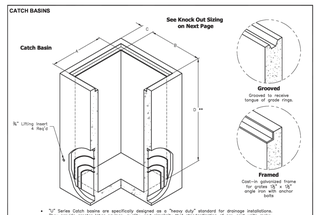
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PROJECT 24042

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PITS, VAULTS & CATCH BASINS

CATCH BASINS



- "U" Series Catch Basins are specifically designed as a "heavy duty" standard for drainage installations. They provide greater load savings, quality and versatility that standardization of pre-cast units make possible over pour-in-place installations.
- Cast iron grates are available for most of our catch basins.
- No knock-outs on 6" and 12" wall thickness.
- Openings, locations, and sizes to job specifications.
- Weights approximate.
- Progressive welded knock-outs provide a maximum flexibility, permitting pipe of any size to be neatly and quickly grouted in at jobsite.
- Sump depths are normally available in 6" increments up to 4' high. Customer specified top edge choices over this basin type on grade only.
- "U" Series Catch Basins are available in special heights upon request.
- Approximate dimensions and weight shown.

PRODUCT NO.	A	B	C	D	Approx. Wt.
U21 CATCH BASIN	2'	2'-4"	4"	4" DEEP 48" DEEP	1675 lbs.
	3'	3'-4"	6"		
U23 CATCH BASIN	2'-4"	2'-4"	6"	4" DEEP 48" DEEP	2825 lbs.
	3'	3'	6"		
U32 CATCH BASIN	2'-4"	3'-4"	6"	4" DEEP 48" DEEP	3300 lbs.
U36 CATCH BASIN	3'	4'	6"	4" DEEP 48" DEEP	3300 lbs.
	3'-4"	4'-8"	6"		
U43 CATCH BASIN	3'-4"	4'-8"	6"	4" DEEP 48" DEEP	4220 lbs.
	36"	36"	6"		
U52 CATCH BASIN	3'-4"	4'-8"	6"	4" DEEP 48" DEEP	4930 lbs.
	36"	48"	6"		

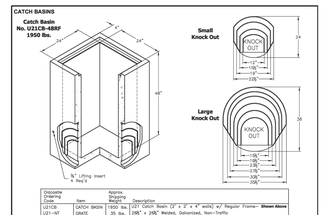
Oldcastle Infrastructure

U SERIES	"U" SERIES CATCH BASINS
FILE NAME: U-SERIES-CATCH-BASINS	CHRISTY
ISSUE DATE: January, 2011	
www.oldcastleinfrastructure.com	

PITS, VAULTS & CATCH BASINS

CATCH BASINS

Catch Basin No. U21CB-4BSF 1950 lbs.



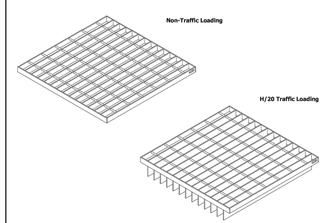
Oldcastle Ordering Code	Item	Approx. Shipping Weight	Description
U21CB	CATCH BASIN	1950 lbs.	U21 Catch Basin (2' x 2' x 4" wall) w/ Regular Frame- **Shown Above**
U21-HT	GRATE	35 lbs.	28lb" x 28lb" Welded, Galvanized, Non-Traffic
U21-HT	GRATE	75 lbs.	28lb" x 28lb" Welded, Galvanized, H/20 Traffic
U21T	CATCH BASIN		U21 Sectional Catch Basin (2' x 2' x 4" wall) w/ Regular Frame
U21ST12RF	TOP SECTION	384 lbs.	12" Reinforced Concrete w/ Regular Frame
U21ST18RF	TOP SECTION	192 lbs.	18" Reinforced Concrete w/ Regular Frame
U21SX12RF	EXTENSION	231 lbs.	12" Reinforced Concrete w/ Knock Outs, No Frame
U21-HAB	GRATE	35 lbs.	28lb" x 28lb" Welded, Galvanized, Non-Traffic
U21-HAB	GRATE	75 lbs.	28lb" x 28lb" Welded, Galvanized, H/20 Traffic
U21-NT	GRATE	75 lbs.	28lb" x 28lb" Welded, Galvanized, Non-Traffic
U23CB	CATCH BASIN	3200 lbs.	U23 Catch Basin (2' x 3' x 4" wall) w/ Regular Frame
U21-NT	GRATE	35 lbs.	28lb" x 28lb" Welded, Galvanized, Non-Traffic
U21-HT	GRATE	75 lbs.	28lb" x 28lb" Welded, Galvanized, H/20 Traffic
U32CB	CATCH BASIN	4100 lbs.	U32 Catch Basin (2' x 3' x 6" wall) w/ Regular Frame
U32-NT	GRATE	46 lbs.	28lb" x 36" Welded, Galvanized, Non-Traffic
U32-HT	GRATE	140 lbs.	28lb" x 36" Welded, Galvanized, H/20 Traffic
U36CB	CATCH BASIN	4300 lbs.	U36 Catch Basin (3' x 3' x 6" wall) w/ Regular Frame
U36-NT	GRATE	67 lbs.	28lb" x 50" Welded, Galvanized, Non-Traffic
U36-HT	GRATE	153 lbs.	28lb" x 50" Welded, Galvanized, H/20 Traffic
U43CB	CATCH BASIN	4400 lbs.	U43 Catch Basin (3' x 4' 6" wall) w/ Regular Frame
U43-NT	GRATE	70 lbs.	30lb" x 40" Welded, Galvanized, Non-Traffic
U43-HT	GRATE	232 lbs.	30lb" x 40" Welded, Galvanized, H/20 Traffic
U52CB	CATCH BASIN	5300 lbs.	U52 Catch Basin (3' x 4' x 8" wall) w/ Regular Frame
U52-NT	GRATE	94 lbs.	40" x 47¾" Welded, Galvanized, Non-Traffic
U52-HT	GRATE	280 lbs.	40" x 47¾" Welded, Galvanized, H/20 Traffic

Oldcastle Infrastructure

U SERIES	"U" SERIES CATCH BASINS
FILE NAME: U-SERIES-CATCH-BASINS-UST	CHRISTY
ISSUE DATE: January, 2011	

PITS, VAULTS & CATCH BASINS

Welded Steel Grates with Cross Bars 77% Open Flow Area



- Welded steel grates for "U" series catch basins to meet job specifications.
- Individual city, county, district or state requirement information available on request.
- Special sizes available on request.
- ADA availability for all sizes.

Oldcastle Ordering Code	Item	Approx. Shipping Weight	Description
U21-HT	GRATE	35 lbs.	28lb" x 28lb" Welded, Galvanized, Non-Traffic- Fits U23 Catch Basin
U21-HT	GRATE	75 lbs.	28lb" x 28lb" Welded, Galvanized, H/20 Traffic- Fits U23 Catch Basin
U32-NT	GRATE	46 lbs.	28lb" x 36" Welded, Galvanized, Non-Traffic
U32-HT	GRATE	112 lbs.	28lb" x 36" Welded, Galvanized, H/20 Traffic
U36-NT	GRATE	67 lbs.	28lb" x 50" Welded, Galvanized, Non-Traffic
U36-HT	GRATE	153 lbs.	28lb" x 50" Welded, Galvanized, H/20 Traffic
U43-NT	GRATE	70 lbs.	30lb" x 40" Welded, Galvanized, Non-Traffic
U43-HT	GRATE	232 lbs.	30lb" x 40" Welded, Galvanized, H/20 Traffic
U52-NT	GRATE	94 lbs.	40" x 47¾" Welded, Galvanized, Non-Traffic
U52-HT	GRATE	280 lbs.	40" x 47¾" Welded, Galvanized, H/20 Traffic

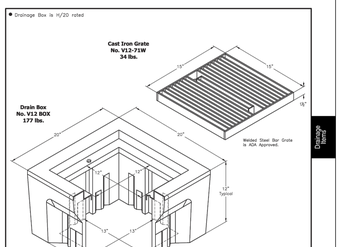
All grates are galvanized, bicycle proof, and bolt down.

Oldcastle Infrastructure

STEEL GRATES	WELDED STEEL GRATES
FILE NAME: WELDED-STEEL-GRATES_ISD	CHRISTY
ISSUE DATE: January, 2011	

Drainage Items

● Drainage Box is H/20 rated



A high density reinforced concrete box with cast in galvanized frame, specifically engineered for heavy traffic areas. Approximate dimensions and weight shown.

Oldcastle Ordering Code	Item	Approx. Shipping Weight	Description
V12BOX	BOX	177 lbs.	V12 Drain Box (12" x 12") - H/20 Loading, Bolt Down, Interchangeable with Grates #1212 Box- 12 per pallet
V12-71W	LID	34 lbs.	Welded, Steel Cross Bars, H/20 Loading, Galvanized, ADA Approved
V12X12	EXTENSION	120 lbs.	12" Reinforced Concrete - 12 per pallet

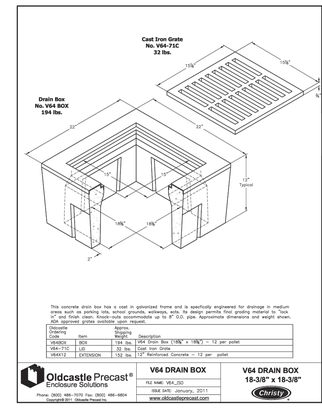
Oldcastle Precast® Enclosure Solutions

Phone: (800) 486-7070 Fax: (800) 486-4804
Copyright 2011 Oldcastle Precast Inc.

V12 BOX	V12 DRAIN BOX 12" x 12"
FILE NAME: V12_ISD	Christy
ISSUE DATE: January, 2011	
www.oldcastleprecast.com	

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Drainage Items



This concrete drain box has a cast in galvanized frame and is specifically engineered for drainage in medium areas such as parking lots, school grounds, walkways, exits. Its design permits final grading material to "lock in" around the frame, thus eliminating unsightly gaps up to 8" (12) plus. Approximate dimensions and weight shown. ADA approved grates available upon request.

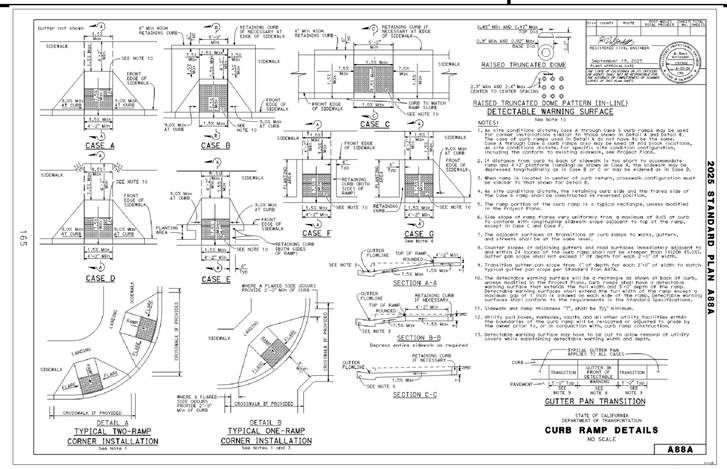
Oldcastle Ordering Code	Item	Approx. Shipping Weight	Description
V64BOX	BOX	194 lbs.	V64 Drain Box (1'0¾" x 1'0¾") – 12 per pallet
V64-72C	LID	32 lbs.	Cast Iron Grate
V64X12	EXTENSION	152 lbs.	12" Reinforced Concrete – 12 per pallet

Oldcastle Precast® Enclosure Solutions

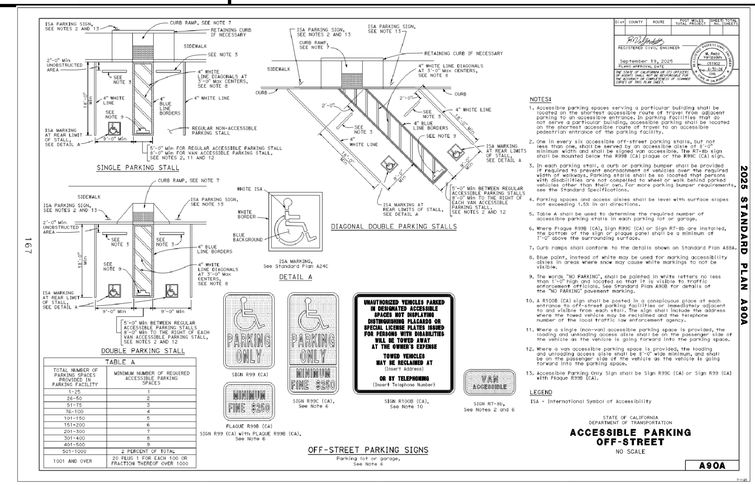
Phone: (800) 486-7070 Fax: (800) 486-4804
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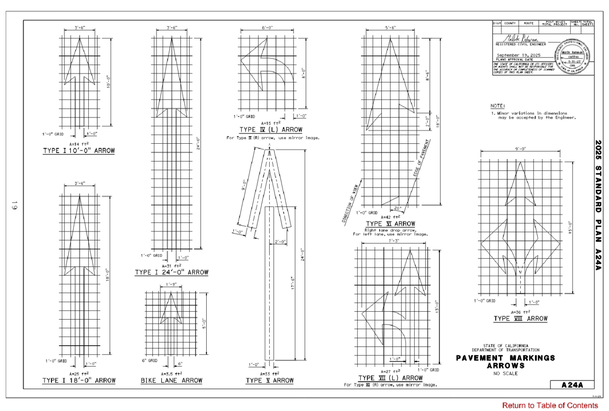
V64 DRAIN BOX	V64 DRAIN BOX 18-3/8" x 18-3/8"
FILE NAME: V64_ISD	Christy
ISSUE DATE: January, 2011	
www.oldcastleprecast.com	

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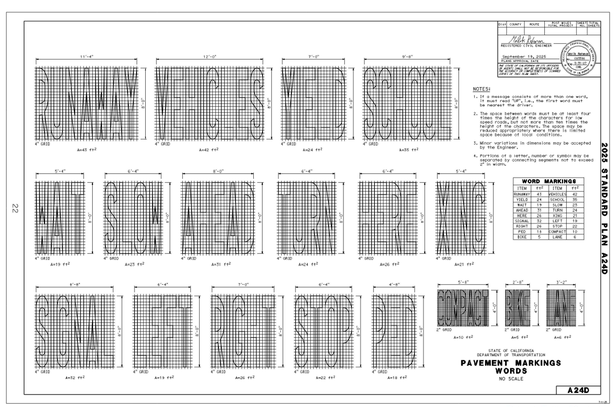


Return to Table of Contents

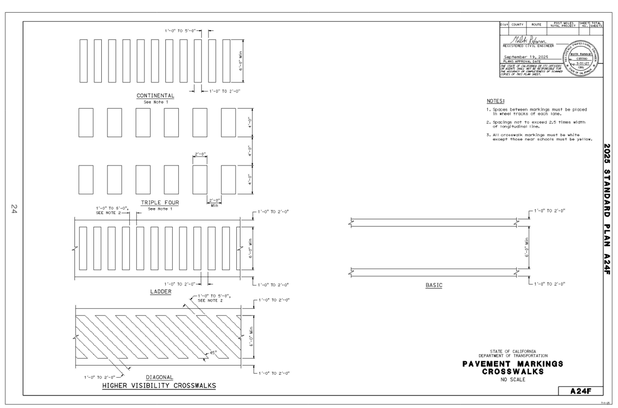




Return to Table of Contents



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Return to Table of Contents

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-21128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | PLANNING

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www.mangini.us
(559) 627-7636 Office
(559) 627-1926 Fax

REGISTERED PROFESSIONAL ENGINEER KEVIN C. KNOPF No. 81526 CIVIL STATE OF CALIFORNIA

BY: 09/16/2026

QK
WWW.QKINC.COM
559-582-1056
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TITLE
DETAILS SHEET

DT-5

PROJECT 24042

L:\Projects\2025\250125\ACAD\Improvements\250125 On-Site Improvement Plans\250125-DET.dwg Sep 16 2026 3:55pm

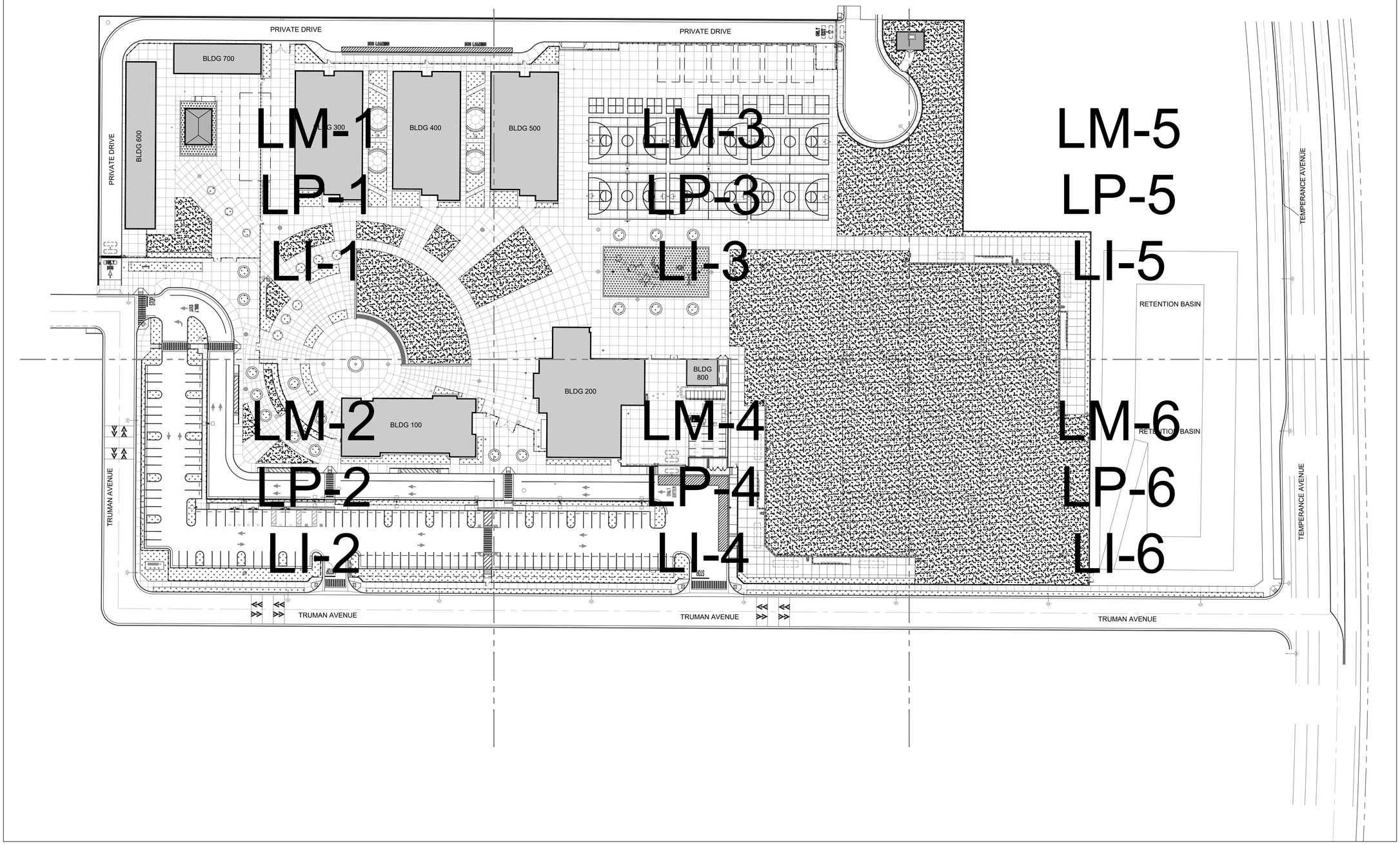
APPROVALS

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TITLE
OVERALL PLAN
SHEET LAYOUT
PLAN

L0-1

PROJECT 24042

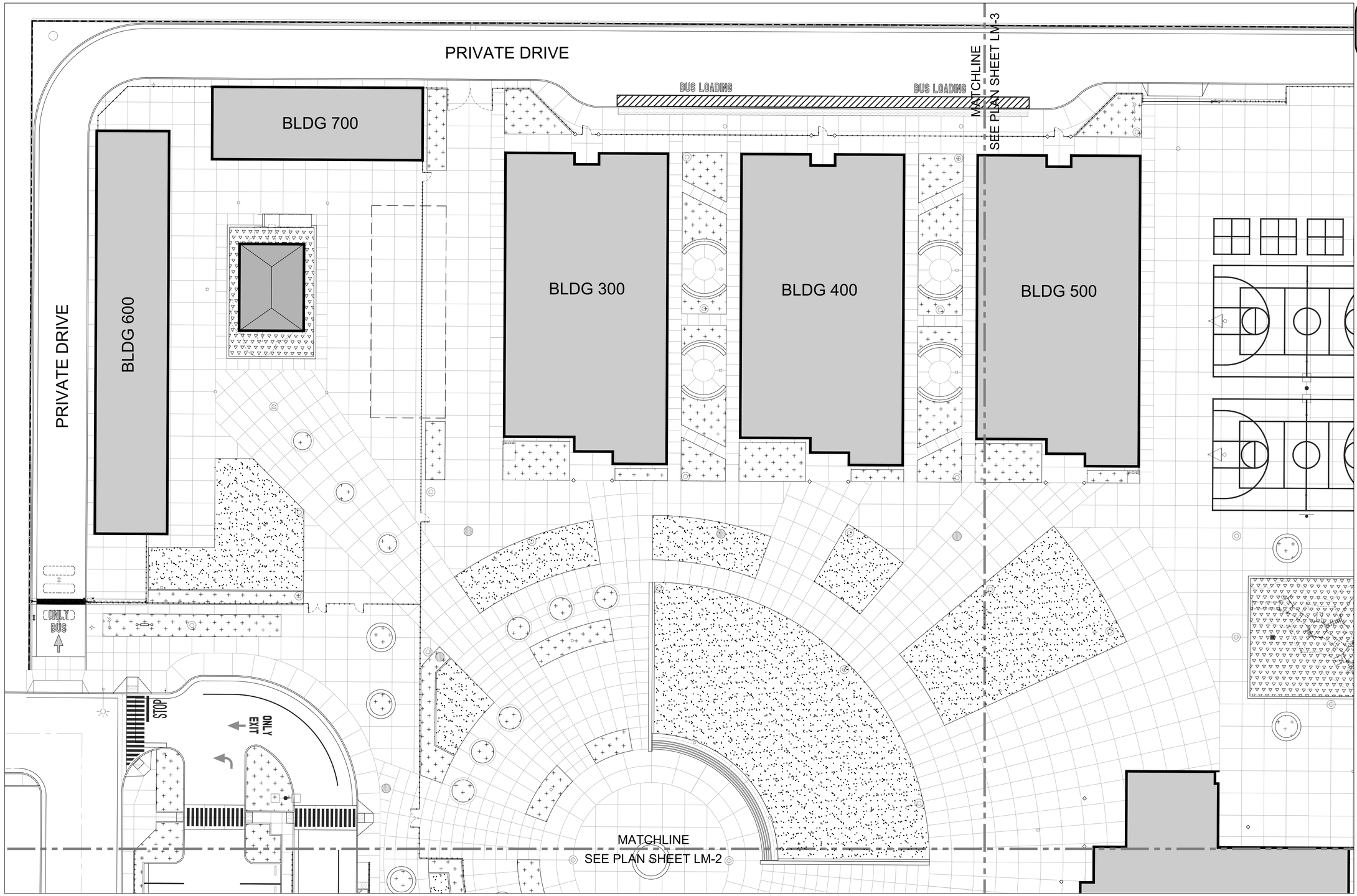
NORTH

1" = 50'-0"

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 26
RENEWAL DATE
STATE OF CALIFORNIA

David Bigler Associates
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Fresno, California 93711
E Mail: davebigler @aol.com
Tel: (559) 276-9495
Fax: (559) 276-9497

OVERALL PLAN SHEET LAYOUT PLAN



SEE LANDSCAPE MULCHING LEGEND ON PLAN SHEET LM-7

NORTH

1" = 20'-0"

LANDSCAPE MULCHING PLAN

APPROVALS

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31 JULY 28
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TITLE
LANDSCAPE
MULCHING
PLAN

LM-1

PROJECT 24042

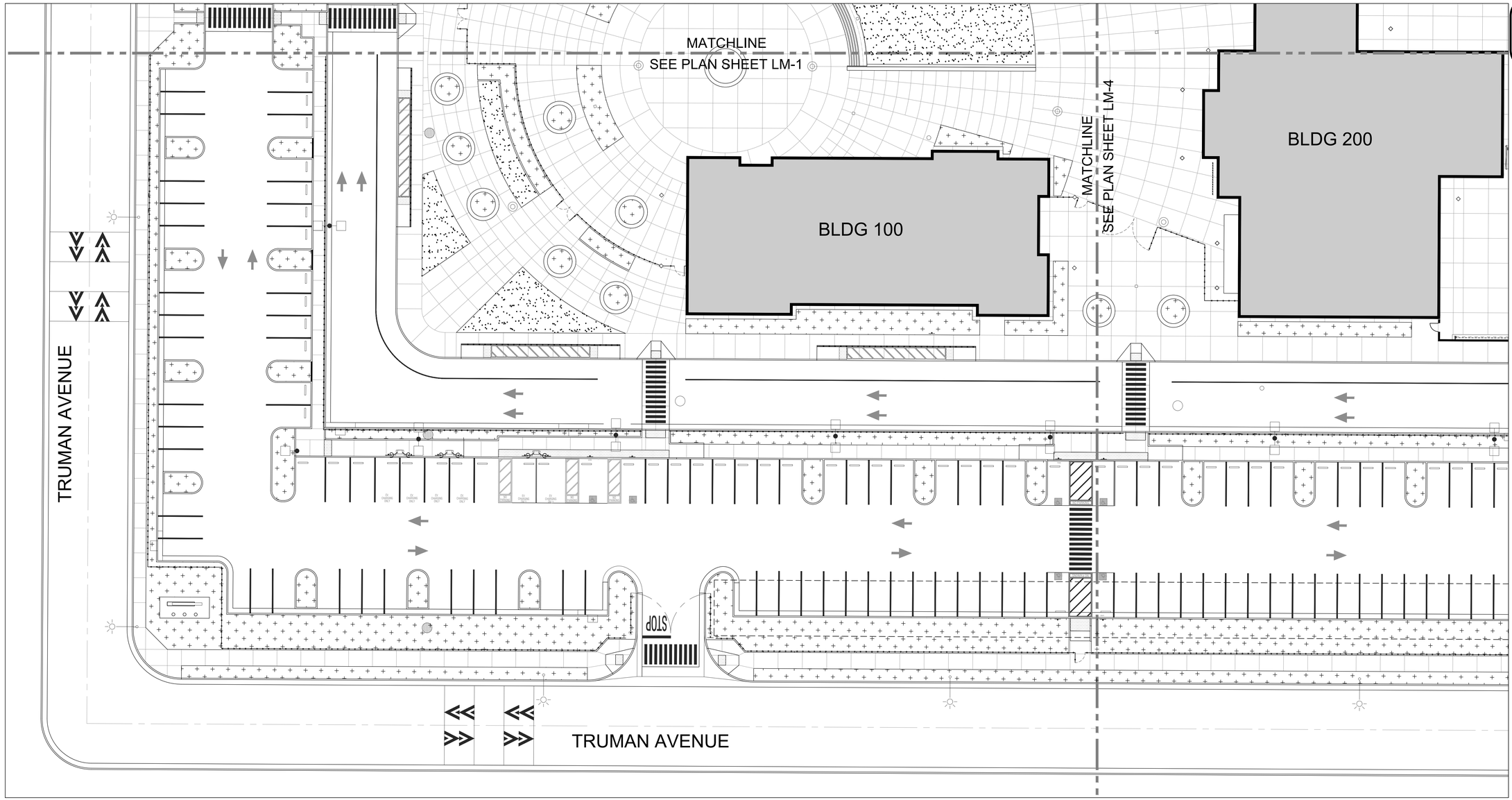
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REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



SEE LANDSCAPE MULCHING LEGEND ON PLAN SHEET LM-7

LANDSCAPE MULCHING PLAN

NORTH

1" = 20'-0"

LICENSED LANDSCAPE ARCHITECT
DAVID R. BIGLER
RLA # 3887
31 JULY 28
RENEWAL
STATE OF CALIFORNIA

Landscape architect #3887
DB associates

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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

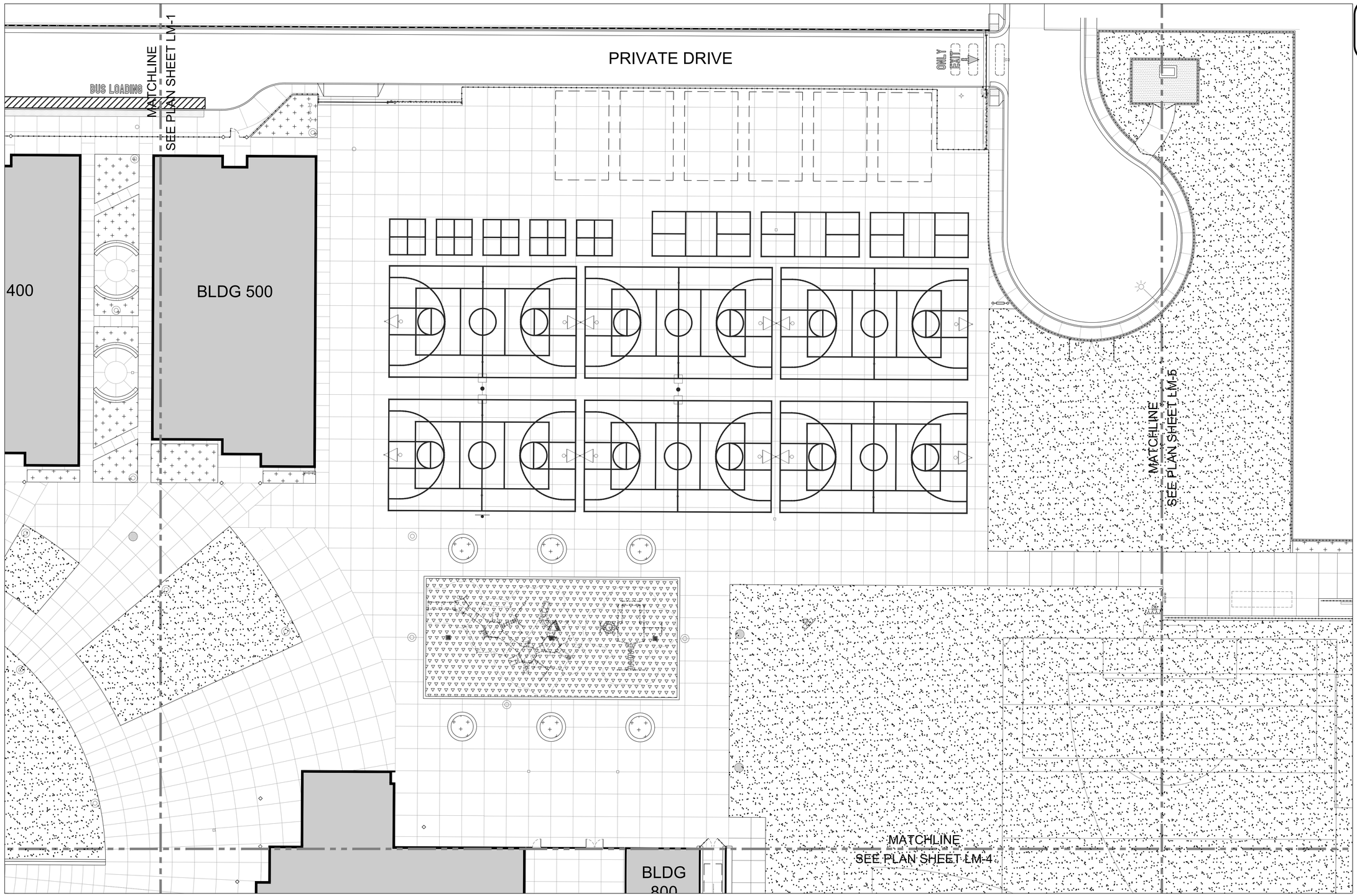
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(559) 627.1926 Fax

TITLE
LANDSCAPE MULCHING PLAN

LM-2

PROJECT 24042



SEE LANDSCAPE MULCHING LEGEND ON PLAN SHEET LM-7

NORTH

1" = 20'-0"

LANDSCAPE MULCHING PLAN

APPROVALS

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JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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TITLE
LANDSCAPE MULCHING PLAN

LM-3

PROJECT 24042

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL DATE
STATE OF CALIFORNIA

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DB associates

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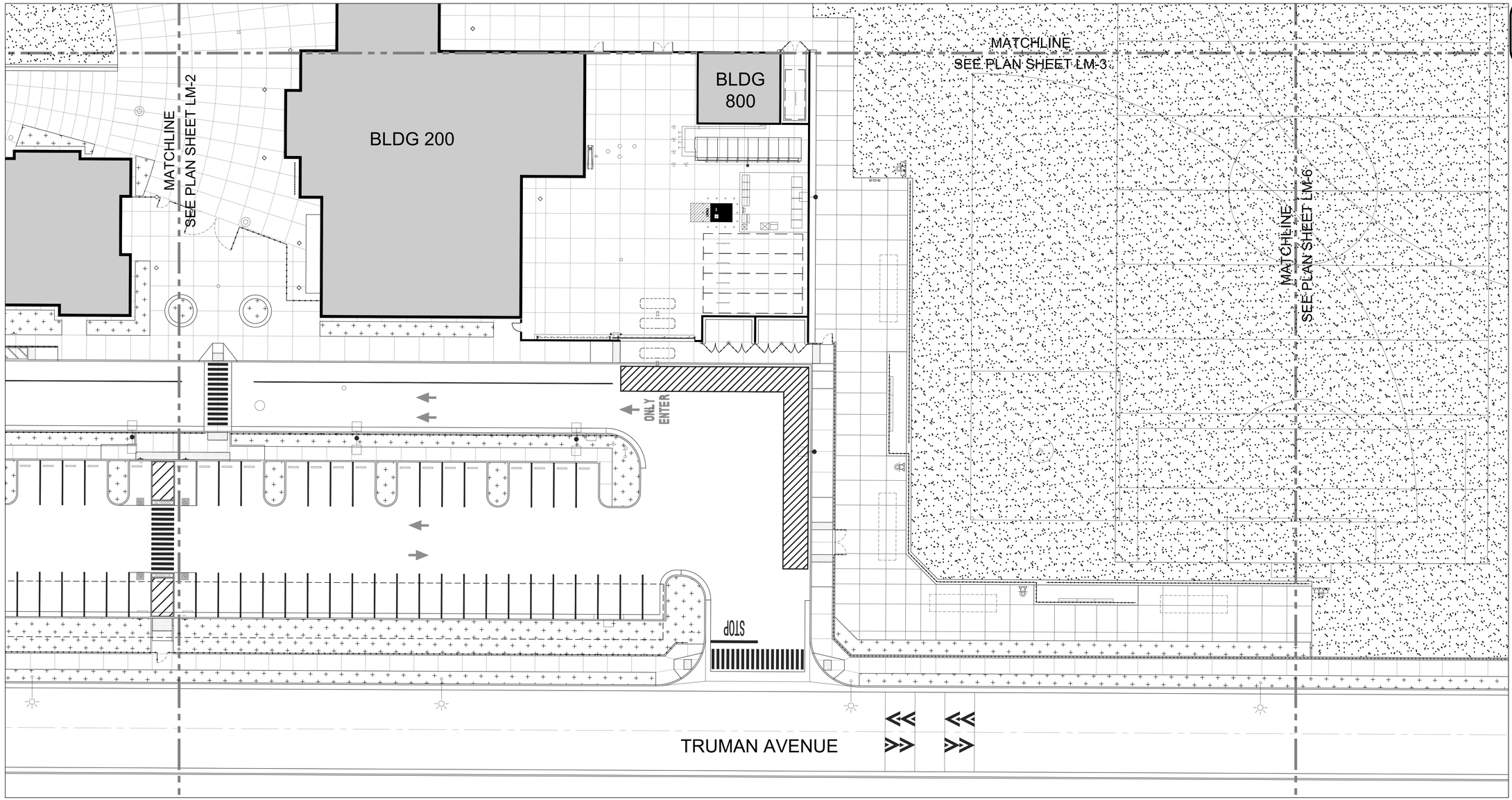
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FILE # 10-126 | APPLICATION # 02-123774

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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

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JAMES R. MORRELL
No. C31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



SEE LANDSCAPE MULCHING LEGEND ON PLAN SHEET LM-7

NORTH

1" = 20'-0"

LANDSCAPE MULCHING PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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TITLE
LANDSCAPE
MULCHING
PLAN

LM-4

PROJECT 24042

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEW
STATE OF CALIFORNIA

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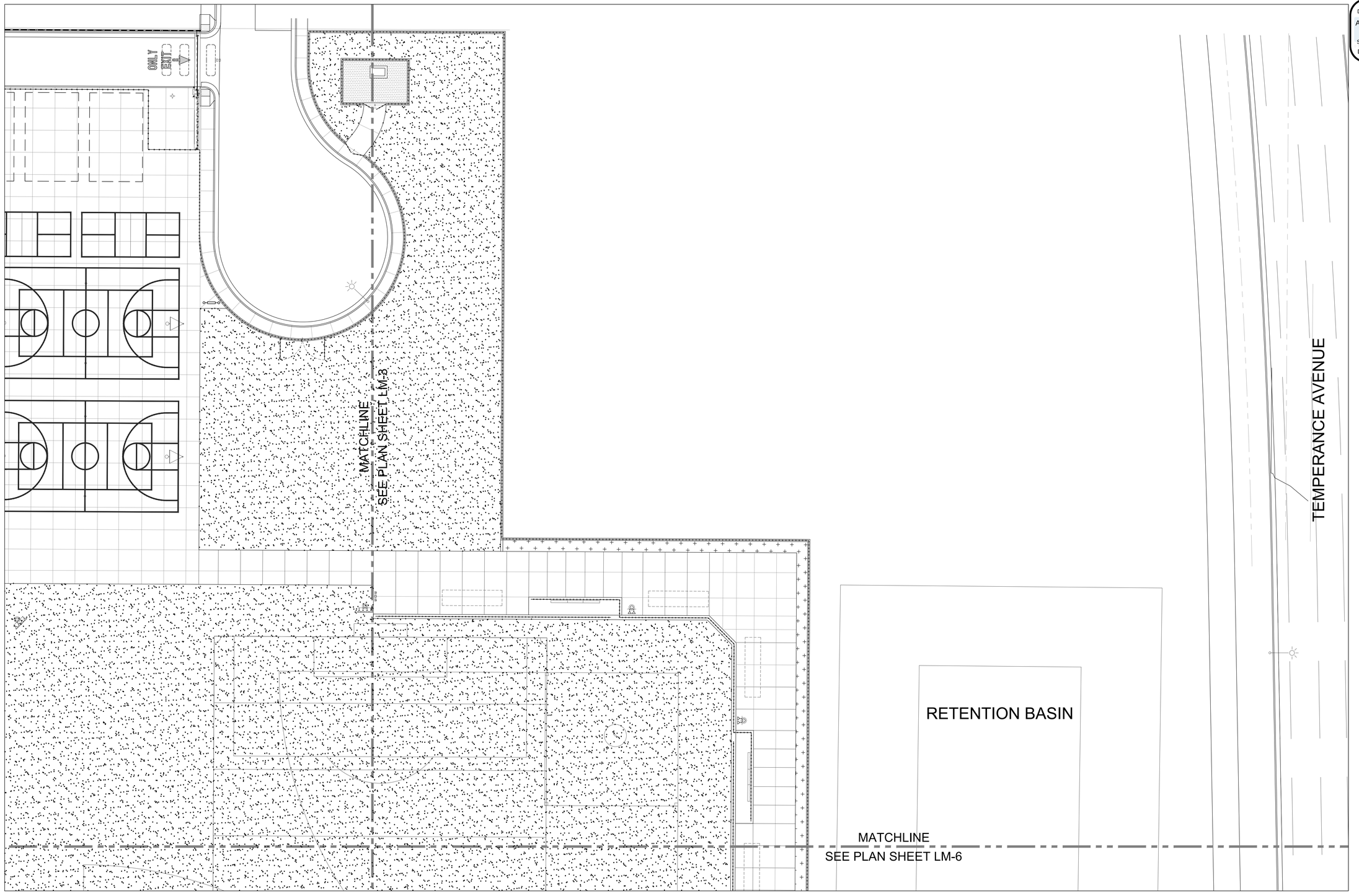
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JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



SEE LANDSCAPE MULCHING LEGEND ON PLAN SHEET LM-7

NORTH

1" = 20'-0"

RLA # 3887
31 JULY 28
RENEWAL DATE

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LANDSCAPE MULCHING PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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Visalia, California 93291
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(559) 627-0530 *Office*
(559) 627-1926 *Fax*

TITLE
LANDSCAPE
MULCHING
PLAN

LM-5

PROJECT 24042

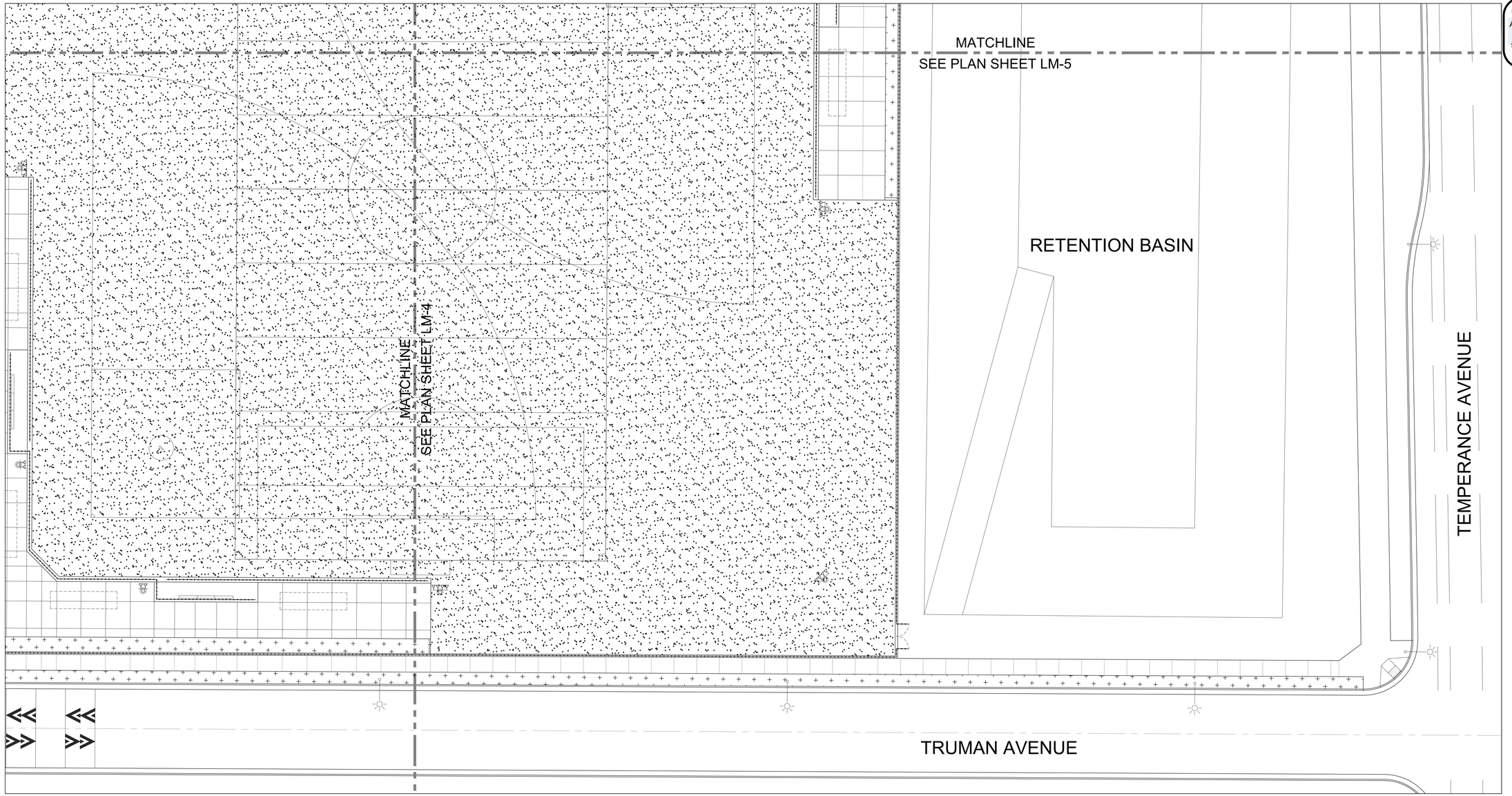
APPROVALS

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JAMES R. MORRELL
No. C-31128
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STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



SEE LANDSCAPE MULCHING LEGEND ON PLAN SHEET LM-7

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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(559) 627.0530 Office
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TITLE
LANDSCAPE MULCHING PLAN

LM-6

PROJECT 24042

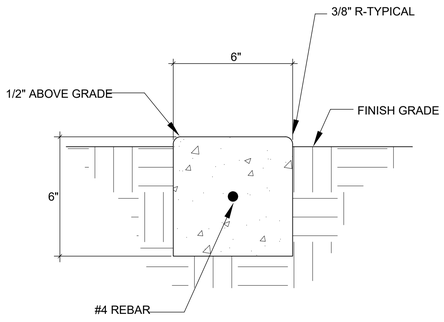
NORTH

1" = 20'-0"

LANDSCAPE MULCHING PLAN

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL DATE
STATE OF CALIFORNIA

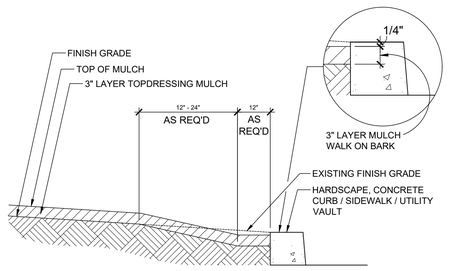
David Bigler Associates
Landscape Architect #3887
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Tel: (559) 276-9495
Fax: (559) 276-9497



NOTES:

INSTALL EXPANSION JOINTS 10'-0" O.C.

01 CONCRETE MOW STRIP NTS



NOTES:
1. CONTRACTOR IS TO MODIFY EXISTING FINISH GRADE SOIL AS REQUIRED TO INSTALL / CONSTRUCT PERIMETER "LOCK TRENCH" FOR TOPDRESSING MULCH.

2. CONTRACTOR IS TO REMOVE SOIL EXCAVATED FROM "LOCK TRENCH" AREAS OFF SITE AS PART OF THE BID, OR USE IT IN OVERALL GRADING SCHEME OR HAUL IT OFF SITE AT NO ADDITIONAL COST TO THE DISTRICT.

02 PERIMETER LOCK TRENCH NTS

1. CONTRACTOR IS TO FINE GRADE THE ENTIRE SITE AND INSURE THE SITE IS FREE DRAINING.
2. CONTRACTOR IS TO EXCAVATE THE NATIVE SOIL TO A DEPTH OF THREE (3") INCHES WITH CLEAN EDGES. CONTRACTOR IS TO REMOVE SPOILS FROM THE SITE AT NO ADDITIONAL COST TO THE DISTRICT, OR INCORPORATE THEM INTO THE OVERALL GRADING SCHEME. CONTRACTOR IS TO COMPACT THE NATIVE SOIL BELOW THE DECOMPOSED GRANITE AREAS TO 90% RELATIVE DENSITY AND INSTALL DEWITT PRO 5 LANDSCAPE FABRIC OVER COMPACTED SUBGRADE AND PIN TO SUBGRADE 16" ON CENTER.
3. CONTRACTOR IS TO IMPORT CLEAN HIGH QUALITY STABILIZED DECOMPOSED GRANITE (GRAY) AND PLACE IT IN WIND ROWS WITHIN THE DESIGNATED AREAS. THE DECOMPOSED GRANITE IS TO BE CAREFULLY SPREAD (DO NOT MIX WITH ADJACENT SOILS), GRADED AND COMPACTED TO A FINAL THICKNESS OF THREE (3"). SEE LANDSCAPE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. AREA IS TO BE GRADED SO IT DOES NOT IMPEDE SITE DRAINAGE (SITE IS TO BE FREE DRAINING) AND NO WATER IS TO COLLECT OR PUDDLE ON ANY AREA OF THE DECOMPOSED GRANITE.

03 STABILIZED DECOMPOSED GRANITE NTS

LANDSCAPE MULCHING LEGEND

SYMBOL	DESCRIPTION
	Sodded Turfgrass - Celebration Hybrid Bermudagrass Big Roll Sod as supplied by AG Sod, Jose Tamayo, (559) 478-9435, or approved equal. See specifications. Contractor is to maintain sodded turfgrass until fully established and weed free. Grade turf areas 1" below adjacent concrete sidewalks and contour grades to insure positive drainage. All landscape areas are to have a positive slope away from buildings (min. 2% slope).
	3" compacted layer of Walk On Bark Topdressing Mulch to be supplied by Superior Soil Supplements. Topdressing mulch to be placed in all non turf landscape areas. Topdressing mulch thickness is to be evaluated at the end of maintenance period and areas that do not have 3" compacted thickness are to have additional mulch added to have specified depth prior to project closeout.
	3" Compacted Layer of Stabilized Grey Decomposed Granite as supplied by Rosenbalm's Rockery, Fresno, CA, or approved equal, installed over a compacted (90% relative compaction) subgrade. Excavate existing soil as required to achieve the design finish grade (top of DG) per site grading plans and slope to drain. Contractor is to install landscape weed control fabric below the decomposed granite. See Installation Detail #03 on Plan Sheet LM-7 and landscape specifications for additional information.
	6" x 6" Concrete Mow Strip with one(1) #4 rebar and deep groove expansion joints installed ten feet (10'-0") on center. See Installation Detail #01 on Plan Sheet LM-7 for additional information.
	Playground Equipment Area with Fall Surface. See Architectural and Civil Site Plans for additional information.
NOT SHOWN	Topdressing Mulch Installation Note: Perimeter "Lock Trench" for topdressing mulch areas - Contractor is to lower the existing grade at all perimeter areas where designated topdressing mulch areas are adjacent to perimeter curb, sidewalk or utility vaults or any other hardscaped surface: Walk on bark areas (3") below the top of adjacent hardscape surface over one foot (1'-0" width) and then taper to existing grade in a gentle manner over a one to two foot area (1'-0" - 2'-0") as required. Edge grading work is to "lock" the topdressing mulch in place to eliminate mulch migration and loss. Contractor is to remove "Lock Trench" spoils and extra soil off site as part of the bid or incorporate into site grading. Contractor is to field verify. See Installation Detail #02 on Plan Sheet LM-7 for additional information.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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TITLE
LANDSCAPE MULCHING LEGEND & DETAILS

LM-7

PROJECT 24042

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL DATE
STATE OF CALIFORNIA

Landscape Architect #3887
DB associates

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No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PRIVATE DRIVE

BUS LOADING

BUS LOADING

MATCHLINE
SEE PLAN SHEET LP-3

BLDG 700

BLDG 600

BLDG 300

BLDG 400

BLDG 500

PRIVATE DRIVE

ONLY BUS

STOP

ONLY EXIT

MATCHLINE
SEE PLAN SHEET LP-2

SEE LANDSCAPE PLANTING LEGEND ON PLAN SHEET LP-7

NORTH

1" = 20'-0"

LANDSCAPE PLANTING PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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RLA # 3887
31 JULY 28
RENEWAL DATE

TITLE
LANDSCAPE PLANTING PLAN

LP-1

PROJECT 24042

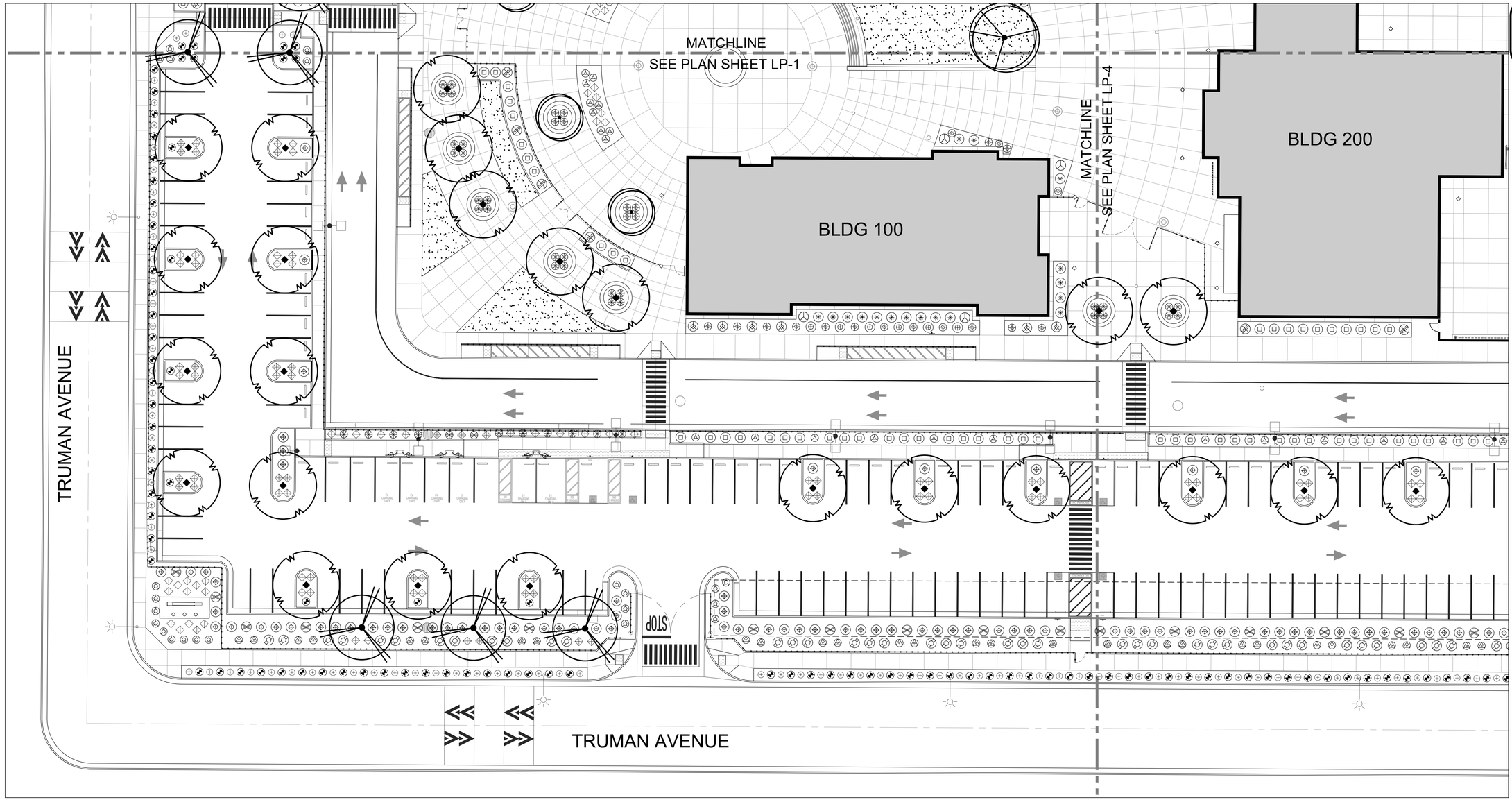
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



SEE LANDSCAPE PLANTING LEGEND ON PLAN SHEET LP-7

LANDSCAPE IRRIGATION NOTES

1. GENERALLY, CONTRACTOR IS TO INSTALL IRRIGATION MAINLINE IN PERIMETER AREAS WITHIN THREE FEET (3'-0") OF THE PERIMETER SIDEWALK, FENCE OR WALL, EXCEPT WHERE IT WOULD INTERFERE WITH OTHER IMPROVEMENTS. ALL VALVE BOXES ARE TO BE NEATLY ORGANIZED AND LOCATED AWAY FROM TREES (12 FT MIN. CLEARANCE FOR VALVES AND MAINLINE) AND ARE NOT TO INTERFERE WITH SHRUB LAYOUT. NO SHRUBS ARE TO BE DELETED DUE TO THE INSTALLATION LOCATION OF VALVE BOXES. CONTRACTOR IS TO FIELD STAKE PLANTS AND TREES PRIOR TO STAKING THE ROUTING OF IRRIGATION MAINLINE AND REMOTE CONTROL VALVE LOCATIONS TO AVOID CONFLICTS. CONTRACTOR IS TO PLAN TO PROVIDE MAXIMUM SEPARATION FROM IRRIGATION MAINLINE PIPE AND TREES AS REQUIRED.

LANDSCAPE PLANTING PLAN

NORTH

1" = 20'-0"

LICENSED LANDSCAPE ARCHITECT
DAVID R. BIGLER
RLA # 3887
31 JULY 28
RENEWAL
STATE OF CALIFORNIA

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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
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TITLE
LANDSCAPE PLANTING PLAN

LP-2

PROJECT 24042

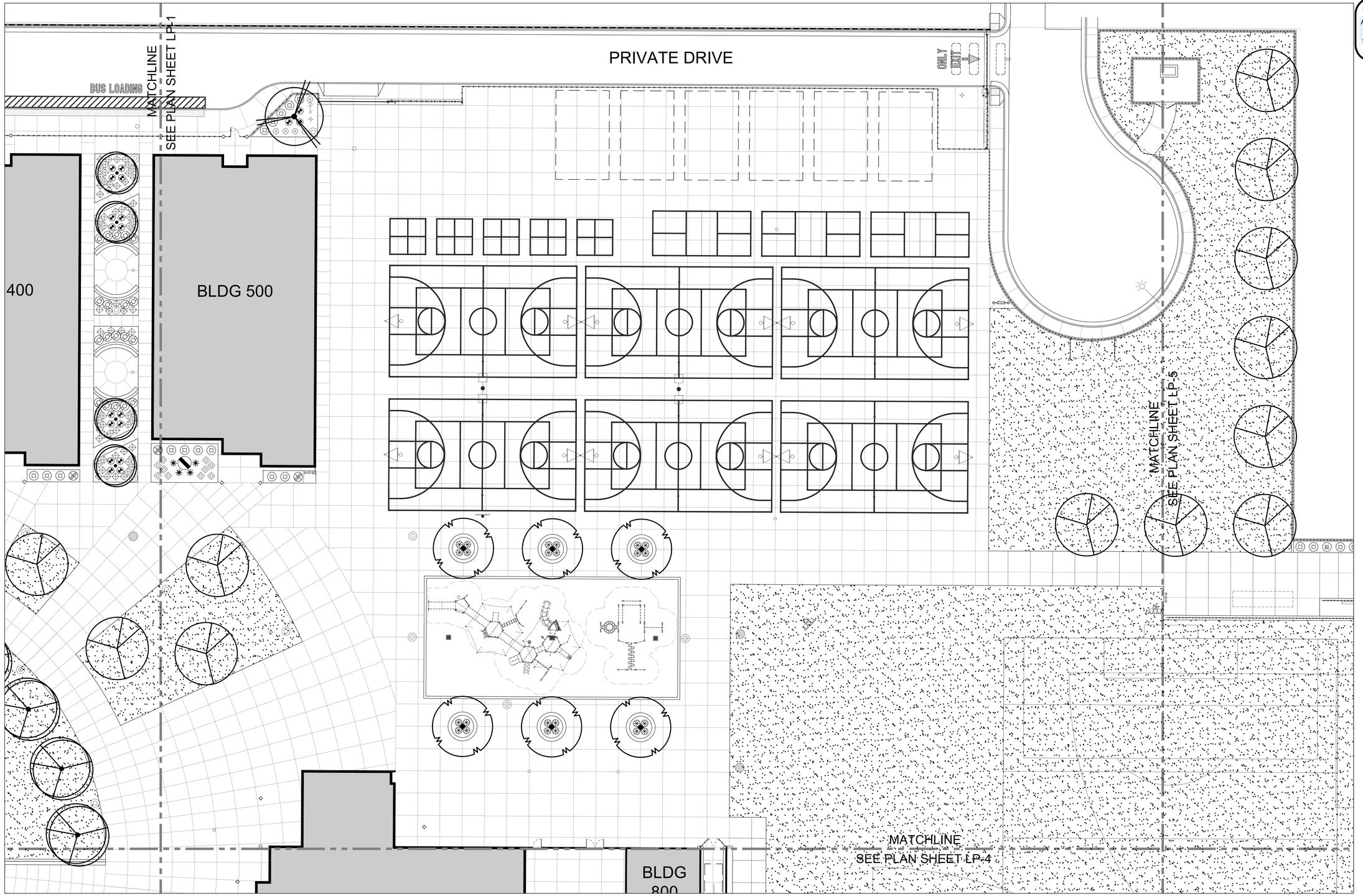
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SEE LANDSCAPE PLANTING LEGEND ON PLAN SHEET LP-7

NORTH

1" = 20'-0"

LANDSCAPE PLANTING PLAN

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL
STATE OF CALIFORNIA

Professional Architect #3887
DB associates

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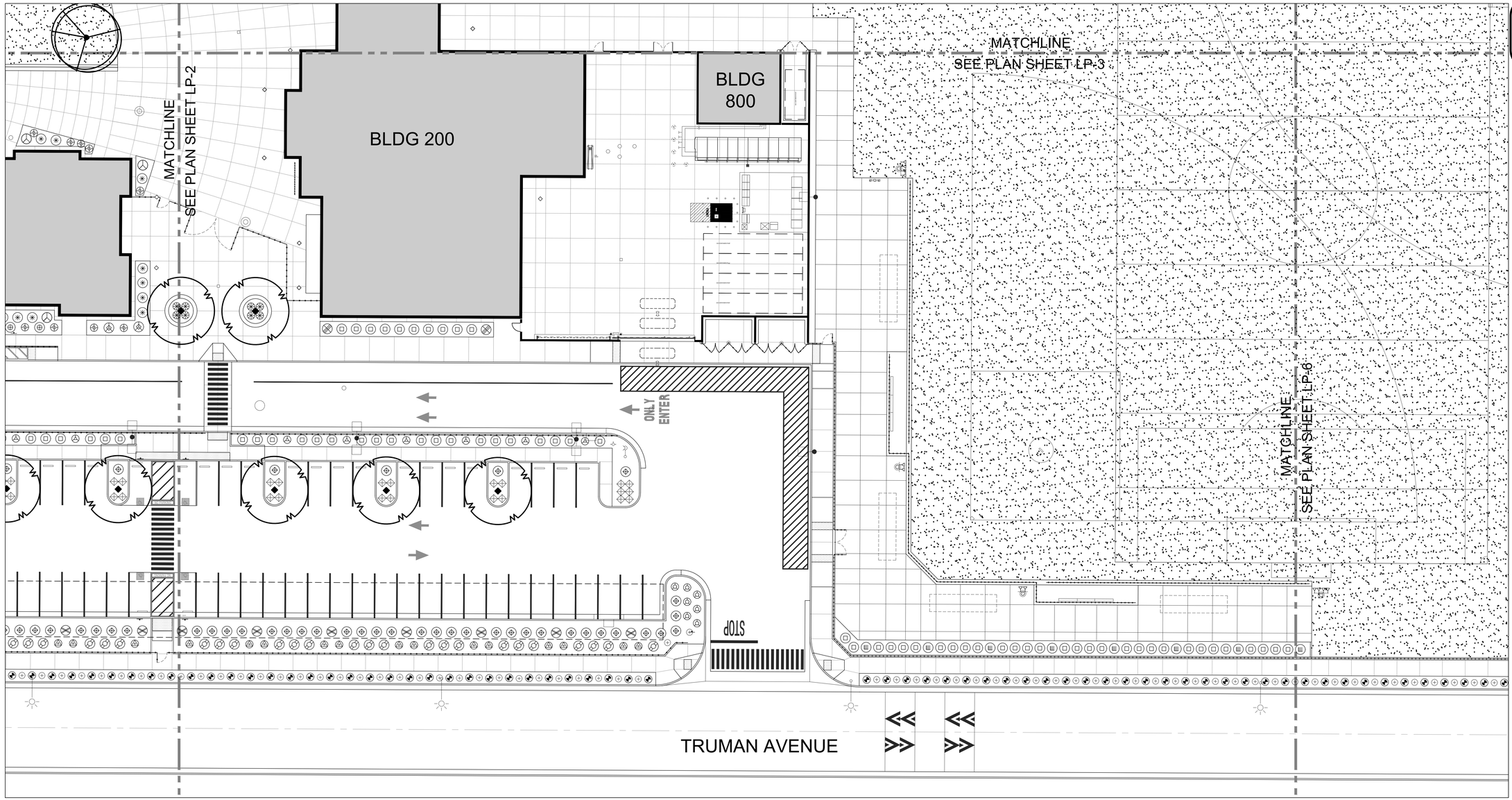
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TITLE
LANDSCAPE PLANTING PLAN

LP-3

PROJECT 24042



SEE LANDSCAPE PLANTING LEGEND ON PLAN SHEET LP-7

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LANDSCAPE PLANTING PLAN

NORTH

1" = 20'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
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TITLE
LANDSCAPE PLANTING PLAN

LP-4

PROJECT 24042

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEW
STATE OF CALIFORNIA

Landscape Architect #3887

David Bigler Associates
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

ONLY EXIT

MATCHLINE
SEE PLAN SHEET LP-3

TEMPERANCE AVENUE

RETENTION BASIN

MATCHLINE
SEE PLAN SHEET LP-6

SEE LANDSCAPE PLANTING LEGEND ON PLAN SHEET LP-7

NORTH

1" = 20'-0"

LANDSCAPE PLANTING PLAN

RLA # 3887
31 JULY 28
RENEWAL DATE
REGISTERED LANDSCAPE ARCHITECT
DAVID B. BIGLER
STATE OF CALIFORNIA

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NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
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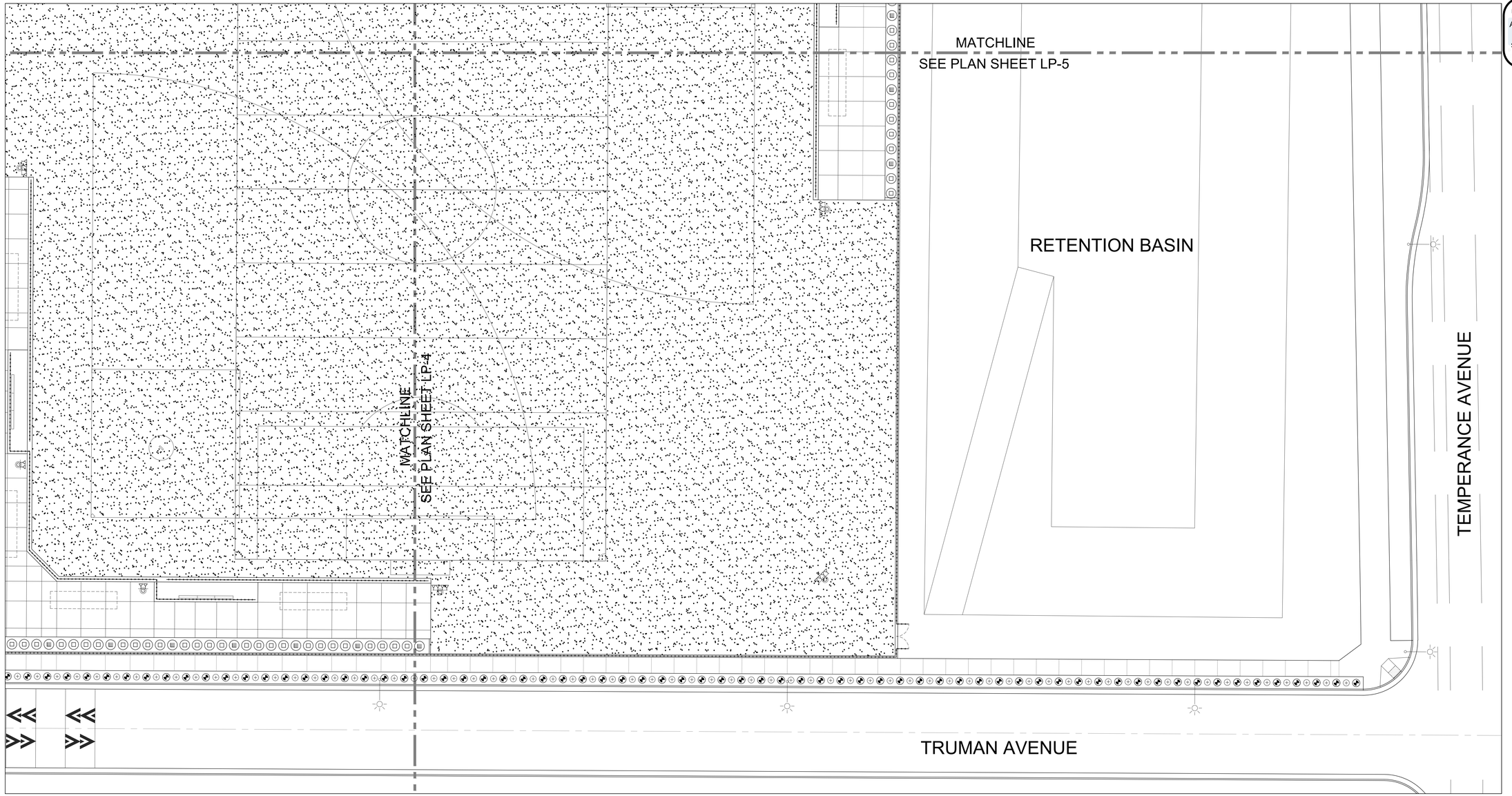
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TITLE
LANDSCAPE
PLANTING
PLAN

LP-5

PROJECT 24042



SEE LANDSCAPE PLANTING LEGEND ON PLAN SHEET LP-7

LANDSCAPE IRRIGATION NOTES

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LANDSCAPE MULCHING PLAN

NORTH

1" = 20'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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JAMES R. MORRELL
No. C-31128
REN. 05-31-27
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DATE: DECEMBER 18, 2025

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TITLE
LANDSCAPE PLANTING PLAN

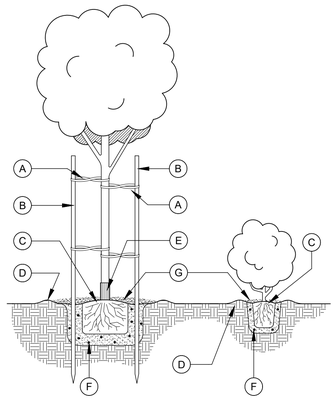
LP-6

PROJECT 24042

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL DATE
STATE OF CALIFORNIA

landscape architect #3887
DB associates

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KEY NOTES

A. TREE TIES TO BE APPROVED RUBBER OR PLASTIC STRAPS NAILED TO STAKES

B. TREATED 2"x10' LODGE POLE STAKE TO BE SET VERTICAL

C. TOP OF ROOT BALL IS TO BE SET SLIGHTLY ABOVE FINISH GRADE

D. CONSTRUCT WATER BASIN TO THE DIAMETER NOTED BELOW WITH 3" BERM AROUND PERIMETER. SOFTEN BERM IN TURF AREAS. REMOVE ALL TURF WITHIN BERM AREA IN TURF AREAS

BERM DIAMETER	SIZE OF PLANT
30"	15 GALLON PLANT
36"	24" BOX
16"	5 GALLON PLANT
12"	1 GALLON PLANT

E. EXPANDABLE STRING TRIMMER TREE BOOT. USE ON TREES INSTALLED IN TURF AREAS ONLY

F. AGRIFORM PLANT FERTILIZER TABLETS

G. MULCH AS TOP DRESSING ALL NON TURF LANDSCAPE AREAS WITH WALK ON BARK AS SUPPLIED BY SUPERIOR SOIL SUPPLEMENTS. INSTALL TO A COMPACTED DEPTH OF THREE INCHES (3"). DO NOT ENGULF THE STEMS OR TRUNKS OF SHRUBS AND TREES.

PLANTING NOTES

1. ONE DRAINAGE HOLE, MIN. DIAMETER 18", SHALL BE DRILLED FOR EACH TREE TO A MIN. DEPTH OF TEN FEET (10') BACKFILL WITH ORIGINAL SOIL. DRAINAGE HOLE IS TO BE OFF SET FROM THE PLANTING HOLE TO PREVENT SETTLEMENT OF THE TREE OR SHRUB.
2. PLANTING HOLE IS TO BE TWICE THE DIAMETER OF CONTAINER WITH DEPTH EQUAL TO ROOT BALL, PLUS FOUR INCHES. BACKFILL WITH 85% CLEAN NATIVE SOIL MIXED WITH 15% NITRIFIED AGED FIR BARK HUMUS. APPLY AGRIFORM PLANT FERTILIZER TABS TO BACKFILL AS FOLLOWS.

# OF TABS	SIZE OF PLANT
2	1 GALLON SIZE
4	5 GALLON SIZE
6	15 GALLON SIZE
8	24" BOX SIZE
10	36" BOX SIZE

3. PLACE TREE OR SHRUB IN CENTER OF PLANTING HOLE.
4. TAMP BACKFILL TO FORCE OUT ALL AIR POCKETS. FOOT TAMP BACKFILL BELOW ROOT BALL TO PREVENT SETTLEMENT.
5. WATER TREE OR SHRUB IMMEDIATELY AFTER PLANTING
6. DOUBLE STAKE, WITH ONE STAKE TO BE PLACED ON THE WINDWARD SIDE AND THE OTHER PLACED ON THE LEEWARD SIDE OF THE TYPICAL PREVAILING WIND. TOP OF STAKE IS TO BE SIX INCHES BELOW THE BRANCHING POINT OF THE CROWN.

01 TREE AND SHRUB PLANTING DETAIL — NTS

PARKING LOT AREA
TREE SHADING CALCULATION

	100%	85%	50%	25%	Total
LARGE TREE (35' - 40')	962 SF	818 SF	481 SF	241 SF	
1. LAURUS nobilis 'Saratoga'.	0	0	5	0	
2. PISTACIA chinensis 'Keith Davey'.	0	17	0	0	
	0	0	0	0	
	0	0	0	0	
SHADE QUANTITY (SF)	0 SF	13,906 SF	2,405 SF	0 SF	16,311 SF
MEDIUM TREE (30' - 35')	707 SF	530 SF	354 SF	177 SF	
	0	0	0	0	
SHADE QUANTITY (SF)	0 SF	0 SF	0 SF	0 SF	0 SF
SMALL TREE (20' - 25')	452 SF	339 SF	226 SF	113 SF	
	0	0	0	0	
SHADE QUANTITY (SF)	0 SF	0 SF	0 SF	0 SF	0 SF
TREE SHADING PROVIDED FOR PARKING LOT AREAS					16,311 SF
SOLAR ARRAY SHADING PROVIDED FOR PARKING LOT AREAS					7,830 SF
TOTAL SHADING PROVIDED FOR PARKING LOT AREAS					24,141 SF
TOTAL PARKING LOT AREA					40,391 SF
PARKING LOT SHADING PERCENTAGE (MIN. 50% REQ'D)					59%

CAMPUS LANDSCAPE & HARDSCAPE AREA
TREE SHADING CALCULATION

	100%	85%	50%	25%	Total
LARGE TREE (35' - 40')	962 SF	818 SF	481 SF	241 SF	
1. LAURUS nobilis 'Saratoga'.	2	0	0	0	
2. PISTACIA chinensis 'Keith Davey'.	23	0	0	0	
3. ELAEOCARPUS decipiens.	9	0	0	0	
4. ACER rubrum 'October Glory'.	6	0	0	0	
	0	0	0	0	
SHADE QUANTITY (SF)	38,480 SF	0 SF	0 SF	0 SF	38,480 SF
MEDIUM TREE (30' - 35')	707 SF	530 SF	354 SF	177 SF	
6. GINKGO biloba 'Princeton Sentry'.	17	0	0	0	
	0	0	0	0	
	0	0	0	0	
SHADE QUANTITY (SF)	12,019 SF	0 SF	0 SF	0 SF	12,019 SF
SMALL TREE (20' - 25')	452 SF	339 SF	226 SF	113 SF	
9. SEQUOIA sempervirens 'Aptos Blue'.	0	0	0	0	
10. LAGERSTROEMIA x 'Muskogee'.	0	0	0	0	
SHADE QUANTITY (SF)	0 SF	0 SF	0 SF	0 SF	0 SF
TREE SHADING PROVIDED FOR PROJECT LANDSCAPE AND HARDSCAPE AREAS					50,499 SF
CANOPY / OVERHANG SHADING PROVIDED FOR PROJECT LANDSCAPE AND HARDSCAPE AREAS					15,774 SF
TOTAL SHADING PROVIDED FOR PROJECT LANDSCAPE AND HARDSCAPE AREAS					66,273 SF
TOTAL PROJECT LANDSCAPE AND HARDSCAPE AREAS					246,840 SF
PROJECT LANDSCAPE / HARDSCAPE TREE SHADING PERCENTAGE (MIN. 20% REQ'D)					26%

LANDSCAPE PLANTING LEGEND

SYMBOL	WATER USE	SIZE	DESCRIPTION
	Low	1 Gal	TEUCRIUM cossonii, Gray Creeping Germander.
	Low	1 Gal	LANTANA Lemon Zest 'Bandana', Lemon Lantana.
	Low	1 Gal	BULBINE frutescens 'Tiny Tangerine', Dwarf Orange Bulbine.
	Low	1 Gal	LANTANA montevidensis 'Trailing Lavender', Trailing Lavender Lantana.
	Low	5 Gal	LEUCOPHYLLUM zygophyllum 'Cimarron', Blue Ranger.
	Low	1 Gal	LANTANA 'New Gold', Golden Yellow Lantana.
	Low	1 Gal	DIETES iridioides 'Lemon Drops', Hybrid Fortnight Lily.
	Low	1 Gal	DIANELLA revoluta, Little Rev Flax.
	Low	5 Gal	SALVIA microphylla 'Hot Lips', Hot Lips Salvia.
	Mod	1 Gal	DIANELLA caerulea 'Cassa Blue', Flax.
	Low	5 Gal	ERIGERON karvinskianus, Santa Barbara Daisy.
	Low	1 Gal	MUHLENBERGIA capillaris 'Regal Mist', Regal Mist Grass.
	Mod	5 Gal	COLEONEMA pulchellum 'Sunset Gold', Breath of Heaven.
	Mod	5 Gal	SPIRAEA japonica 'Neon Flash', Anthony Neon Flash Spiraea.
	Mod	5 Gal	PITTOSPORUM tobira 'Varigata', Variagated Tobira.
	Low	5 Gal	CALLISTEMON viminalis 'Little John', Dwarf Bottle Brush.
	Mod	5 Gal	LOROPETALUM chinense 'Burgundy', Loropetelum.
	Low	5 Gal	LEUCOPHYLLUM frutescens,'Compacta', Texas Ranger.
	Low	5 Gal	OLEA 'Little Ollie', Dwarf Olive.
	Low	5 Gal	RHAPHIOLEPIS umbellata 'Minor', Yeddo Hawthorn.
	Low	5 Gal	TECOMA x 'Solar Flare', Solar Flare Tecoma.
	Low	5 Gal	RUSSELIA x 'St. Elmo's Fire', Red Firecracker Plant.
	Low	24" Box	COTINUS coggygria 'Royal Purple', Smoke Tree, multi trunk form.
	Mod	24" Box	GINKGO biloba 'Princeton Sentry', Maidenhair Tree.
	Mod	24" Box	LAURUS nobilis 'Saratoga', Bay Tree.
	Low	24" Box	PISTACIA chinensis 'Keith Davey', Chinese Pistache Tree.
	Mod	24" Box	ACER rubrum 'October Glory', October Glory Red Maple Tree.
	Mod	24" Box	ELAEOCARPUS decipiens, Japanese Blueberry Tree, (Evergreen)

SEE TREE & SHRUB PLANTING DETAIL #01 ON PLAN SHEET LP-7

APPROVALS

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TITLE
LANDSCAPE PLANTING PLAN LEGEND & DETAILS

LP-7

PROJECT 24042

LANDSCAPE PLANTING PLAN LEGEND AND DETAILS

NTS

REGISTERED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
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REN. 05-31-27
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DATE: DECEMBER 18, 2025

PRIVATE DRIVE

BUS LOADING

BUS LOADING

MATCHLINE
SEE PLAN SHEET LI-3

BLDG 700

BLDG 600

BLDG 300

BLDG 400

BLDG 500

PRIVATE DRIVE

ONLY BUS

STOP

ONLY EXIT

A-48 24.0
A-47 4.0
A-46 2.0
A-45 5.0
A-44 5.0
A-43 32.0
A-42 4.0
A-35 1.0
A-36 3.0
A-37 4.5
A-38 1.0
A-34 32.0
A-33 4.0
A-32 4.3
A-31 4.5
A-30 5.0
A-29 23.3
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A-07 16.0
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A-09 4.0
A-10 20.0
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A-12 30.3
A-13 30.3
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A-17 50.7
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A-21 1.3
A-77 8.0
A-78 22.1
A-51 3.3
A-50 2.0
A-49 5.5
A-39 2.0
A-40 1.3
A-41 1.0

MATCHLINE
SEE PLAN SHEET LI-2

SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET LI-7

NORTH

1" = 20'-0"

LANDSCAPE IRRIGATION PLAN

RLA # 3887
31 JULY 28
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TITLE
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LI-1

PROJECT 24042

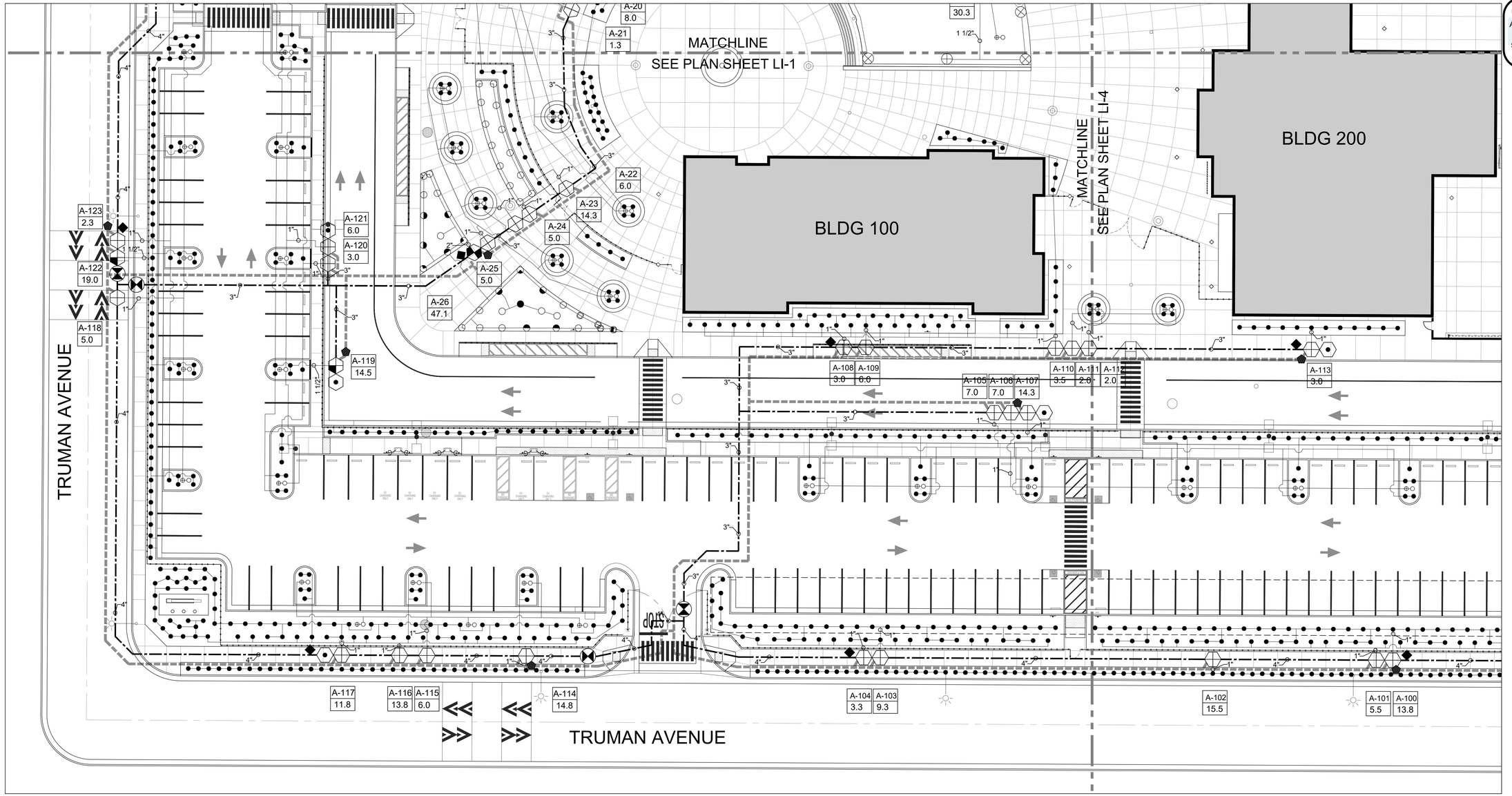
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SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET LI-7

LANDSCAPE IRRIGATION NOTES

1. GENERALLY, CONTRACTOR IS TO INSTALL IRRIGATION MAINLINE IN PERIMETER AREAS WITHIN THREE FEET (3'-0") OF THE PERIMETER SIDEWALK, FENCE OR WALL, EXCEPT WHERE IT WOULD INTERFERE WITH OTHER IMPROVEMENTS. ALL VALVE BOXES ARE TO BE NEATLY ORGANIZED AND LOCATED AWAY FROM TREES (12 FT MIN. CLEARANCE FOR VALVES AND MAINLINE) AND ARE NOT TO INTERFERE WITH SHRUB LAYOUT. NO SHRUBS ARE TO BE DELETED DUE TO THE INSTALLATION LOCATION OF VALVE BOXES. CONTRACTOR IS TO FIELD STAKE PLANTS AND TREES PRIOR TO STAKING THE ROUTING OF IRRIGATION MAINLINE AND REMOTE CONTROL VALVE LOCATIONS TO AVOID CONFLICTS. CONTRACTOR IS TO PLAN TO PROVIDE MAXIMUM SEPARATION FROM IRRIGATION MAINLINE PIPE AND TREES AS REQUIRED.

LANDSCAPE IRRIGATION PLAN

NORTH

1" = 20'-0"

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL DATE
STATE OF CALIFORNIA

David Bigler Associates
Landscape Architect #3887
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Fresno, California 93711
E Mail: davebigler @aol.com
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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
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(559) 627.1926 Fax

TITLE
LANDSCAPE IRRIGATION PLAN

LI-2

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

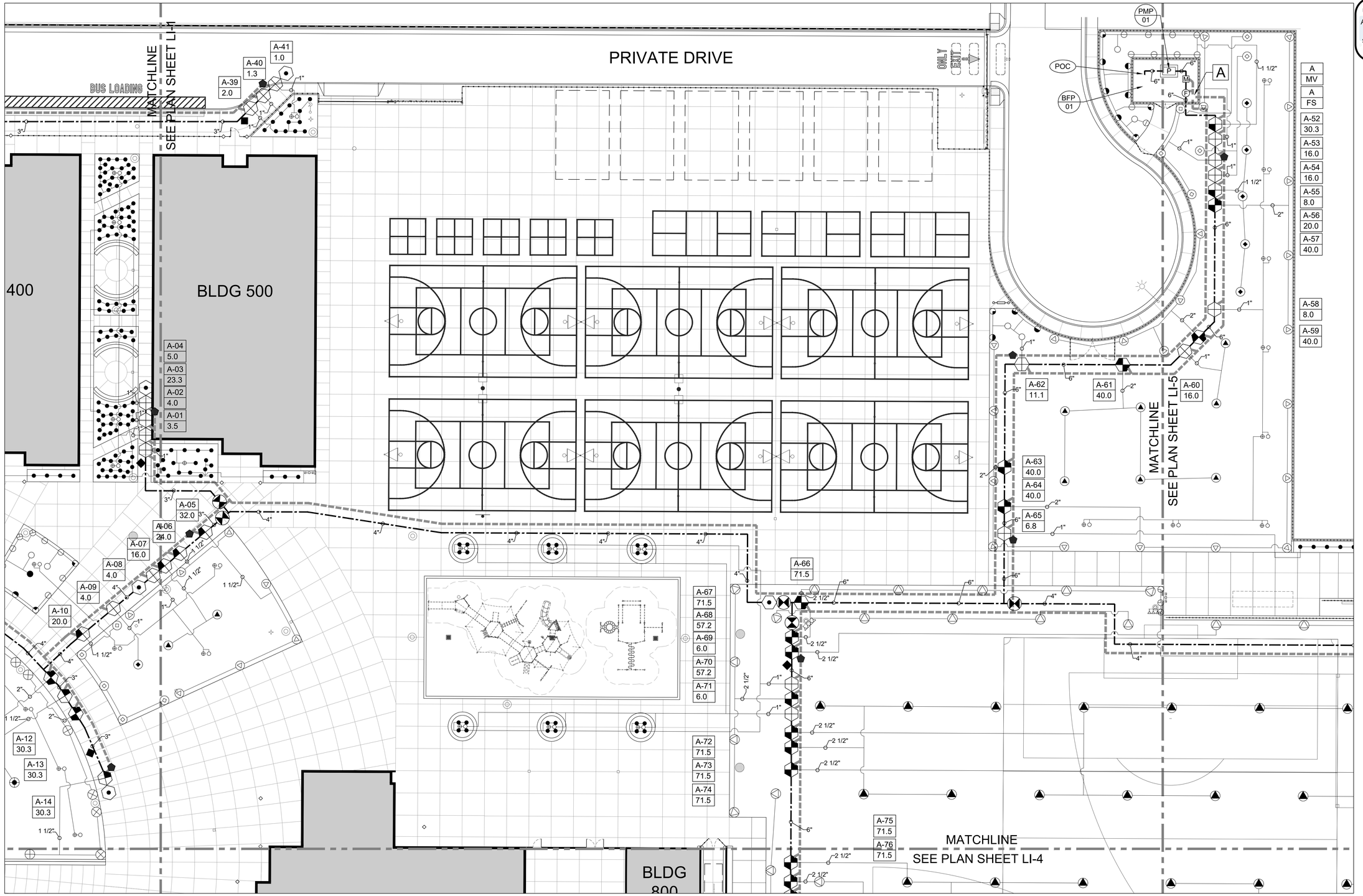
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TITLE
LANDSCAPE IRRIGATION PLAN

LI-3

PROJECT 24042



SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET LI-7

NORTH

1" = 20'-0"

REGISTERED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
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LANDSCAPE IRRIGATION PLAN

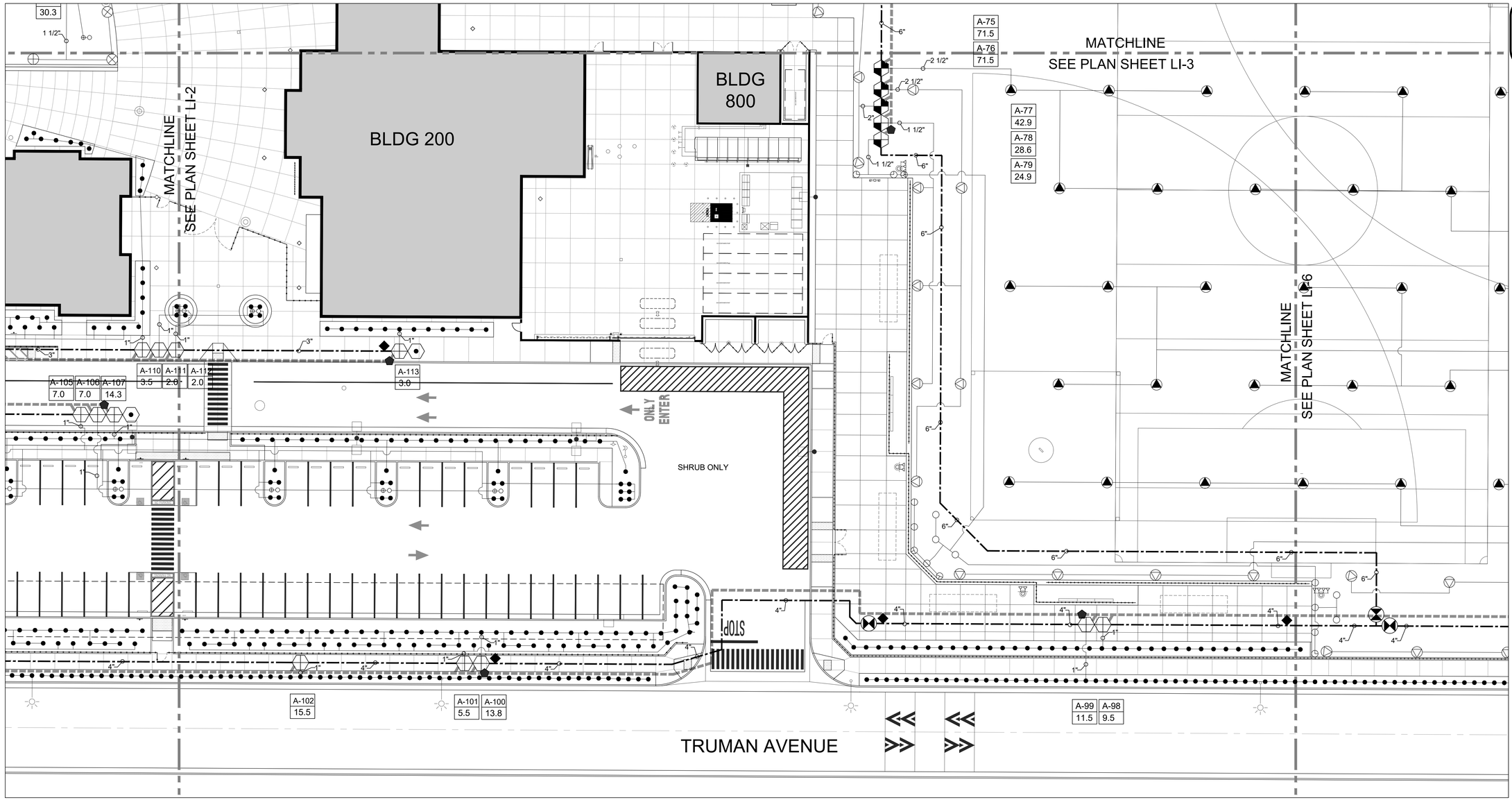
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STATE OF CALIFORNIA

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SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET LI-7

LANDSCAPE IRRIGATION NOTES

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LANDSCAPE IRRIGATION PLAN

NORTH

1" = 20'-0"

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TITLE
LANDSCAPE IRRIGATION PLAN

LI-4

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

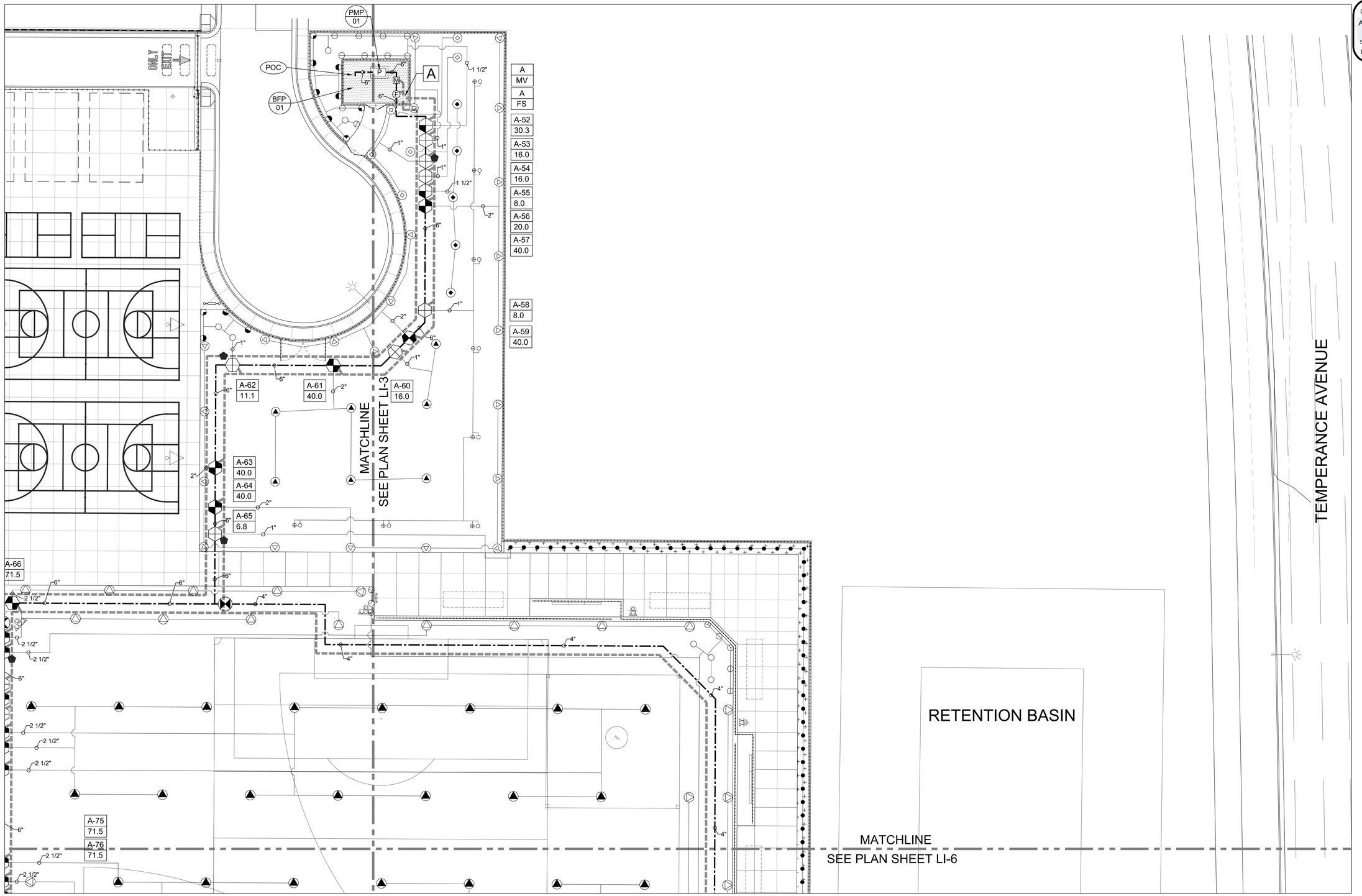
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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
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REVISIONS



SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET LI-7

NORTH

1" = 20'-0"

LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL DATE
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TITLE
LANDSCAPE IRRIGATION PLAN

LI-5

PROJECT 24042

LANDSCAPE IRRIGATION PLAN

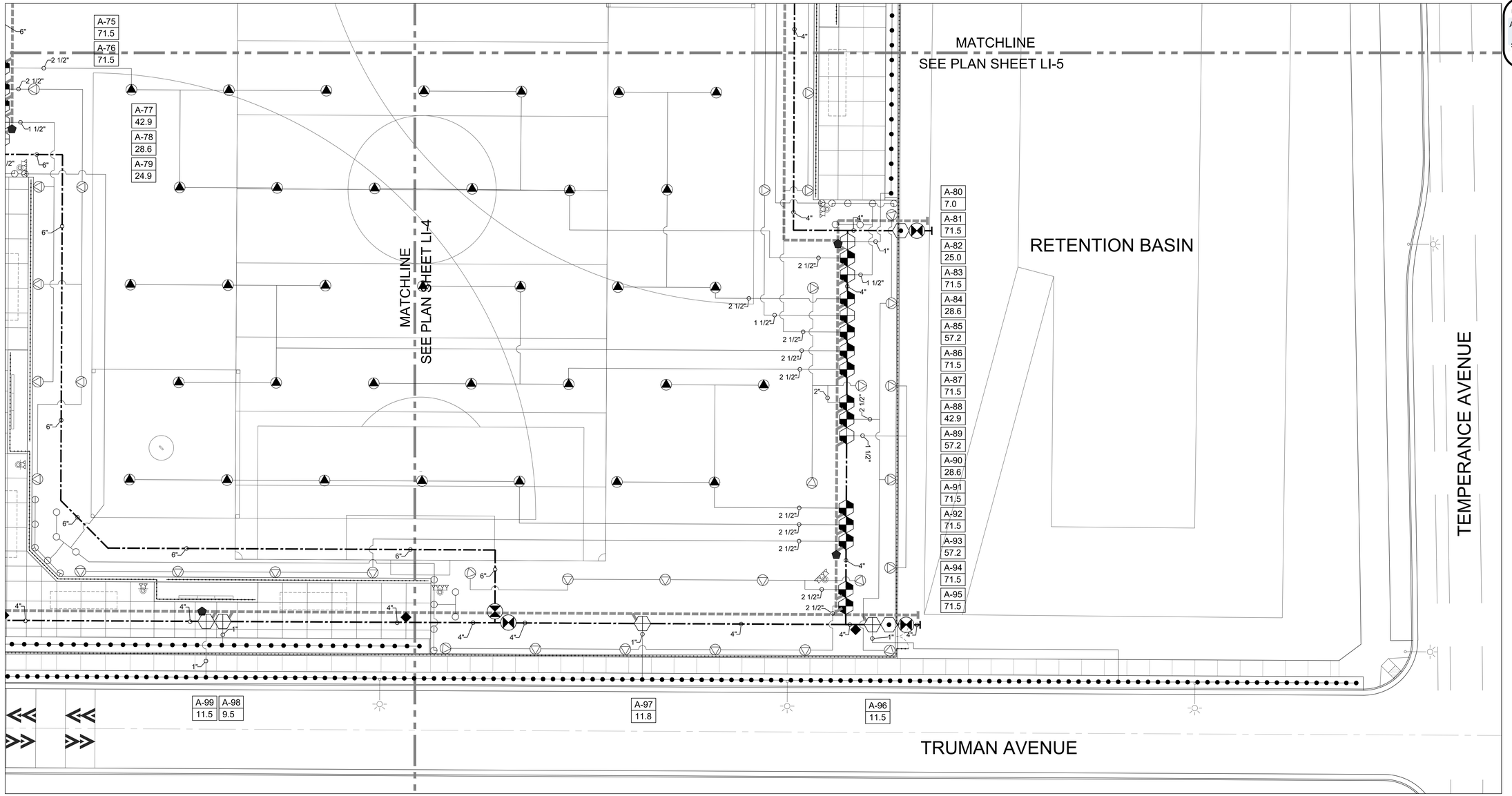
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



SEE LANDSCAPE IRRIGATION LEGEND ON PLAN SHEET LI-7

LANDSCAPE IRRIGATION NOTES

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LANDSCAPE MULCHING PLAN

NORTH

1" = 20'-0"

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL DATE
STATE OF CALIFORNIA

Landscape architect #3887
DB associates

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TITLE
LANDSCAPE IRRIGATION PLAN

LI-6

PROJECT 24042

LANDSCAPE IRRIGATION LEGEND

SYMBOL	DESCRIPTION
⊕	Rainbird #1804-SAM-PRS-MSBN-50Q, 1800 Series pressure regulating, seal-a-matic, 4" pop-up sprinkler with Hunter PC Multi Stream Bubbler Nozzle. (½" inlet: 0.50 gpm @ 30 psi). Install 24" from center of tree. Install on uphill side of plant or tree. See Installation Detail #01 on Plan Sheet LI-8 for additional information.
○	Rainbird #RWS-B-C-1402 with #1402 (0.5 gpm) bubbler Root Watering System. Install 24" from center of tree. Install on uphill side of plant or tree. See Installation Detail #11 on Plan Sheet LI-8 for additional information.
●	Rainbird #1804-SAM-PRS-MSBN-25Q 1800 Series pressure regulating, seal-a-matic, 4" pop-up sprinkler with Hunter PC Multi Stream Bubbler Nozzle. (½" inlet: 0.25 gpm @ 30 psi). Install on uphill side of plant or tree. See Installation Detail #01 on Plan Sheet LI-8 for additional information.
	Rainbird #1806-SAM-PRS, 6" Pop-up Sprinkler with pressure regulation and check valve with Rainbird U-Series 12' radius nozzles, U-12Q, U-12H and U-12F for 90, 180 & 360 arcs and Rainbird HE-VAN Series 12' radius nozzles, HE-VAN-12 for 120, 240 & 270 arcs. Contractor is to use as few HE-VAN nozzles as possible. Contractor is to adjust arc and radius to prevent overspray onto buildings and other hardscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the Contractor is to substitute nozzle with 8', 10' or specialty pattern nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #02 on Plan Sheet LI-8 for additional information.
	Rainbird #1806-SAM-PRS, 6" Pop-up Sprinkler with pressure regulation and check valve with Rainbird U-Series 15' radius nozzles, U-15Q, U-15H and U-15F for 90, 180 & 360 arcs and Rainbird HE-VAN Series 15' radius nozzles, HE-VAN-15 for 120, 240 & 270 arcs. Contractor is to use as few HE-VAN nozzles as possible. Contractor is to adjust arc and radius to prevent overspray onto buildings and other hardscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the Contractor is to substitute nozzle with 12', 10' or specialty pattern nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #02 on Plan Sheet LI-8 for additional information.
	Rainbird #1806-SAM-PRS, 1800 Series pressure regulating, seal-a-matic, 4" pop-up spray sprinkler with Rainbird MPR Special Pattern nozzles, 15EST, 15SST patterns. See Installation Detail #02 on Plan Sheet LI-8 for additional information.
	Hunter # I-20-06-SS-4.0, 6" pop up I-20 Ultra Series Rotor Sprinkler with part/full circle arc, stainless steel riser and check valve with #4.0 nozzle. (3/4" inlet: 4.0 gpm @ 45 psi). See Installation Detail #03 on Plan Sheet LI-8 for additional information.
	Hunter # I-20-06-SS-8.0, 6" pop up I-20 Ultra Series Rotor Sprinkler with part/full circle arc, stainless steel riser and check valve with #8.0 nozzle. (3/4" inlet: 8.0 gpm @ 45 psi). See Installation Detail #03 on Plan Sheet LI-8 for additional information.
	Hunter # I-25-06-SS-10, 6" pop up I-25 Series Rotor Sprinkler with part / full circle arcs, stainless steel riser and check valve with #10.0 nozzle. (1" inlet: 10.1 gpm @ 50 psi). See Installation Detail #04 on plan sheet LI-8 for additional information.
	Hunter # I-25-06-SS-15.0, 6" pop up I-25 Series rotor sprinkler with part circle & full circle arc, stainless steel riser and check valve with #15.0 nozzle. (1" inlet: 14.3 gpm @ 60 psi). See Installation Detail #04 on Plan Sheet LI-8 for additional information.
	1" Rainbird #100-PESB-PRS-D, PESB Series Electric Remote Control Scrubber Valve w/ pressure regulation (PRS-D). Install one valve per standard rectangular valve box. Mainline schedule 80 nipple entering the valve is to be the same size as the lateral exiting the valve. Install line size filter on pop up spray and bubbler valves. See Installation Details #13 on Plan Sheet LI-9 for additional information.
	1 1/2" Rainbird #150-PESB-PRS-D, PESB Series Electric Remote Control Scrubber Valve w/ pressure regulation (PRS-D). Install one valve per standard rectangular valve box. Mainline schedule 80 nipple entering the valve is to be the same size as the lateral exiting the valve. Install line size filter on pop up spray and bubbler valves. See Installation Details #15 on Plan Sheet LI-9 for additional information.
	2" Rainbird #200-PESB-PRS-D, PESB Series Electric Remote Control Scrubber Valve w/ pressure regulation (PRS-D). Install one valve per standard rectangular valve box. Mainline schedule 80 nipple entering the valve is to be the same size as the lateral exiting the valve. Install line size filter on pop up spray and bubbler valves. See Installation Details #14 & #16 on Plan Sheet LI-9 for additional information.
	3" Nibco #T-113 IRR BHW, Bronze Gate Valve with Non-Rising Stem. 4" thru 6": Nibco # P619-RW, Resilient Seat Gasketed Joint Gate Valve, 200 psi. Gate Valves are to be line size and installed in a 10" round valve box. Provide two (2) square operating nut handles (4' min. length) for each type required to the District. See Installation Details #07 & #08 on Plan Sheet LI-8 for additional information.
	1" Crispin #IC-10, Air and Vacuum Release Valve to be installed at high points and dead end runs of the mainline piping system. Install in a standard rectangular valve box. Contractor to field locate. See Installation Detail #12 on Plan Sheet LI-8 for additional information.
◆	Rainbird #44LRC, Quick Coupling Valve. Provide Maintenance Personnel with three (3) quick coupler keys with hose swivels. Install in separate 10" round valve box. See Installation Detail #09 on Plan Sheet LI-8 for additional information.

LATERAL PIPE SIZING CHART

SPRINKLER FLOW RATE CHART	
SYMBOL	RESPECTIVE FLOW RATE (GPM)
⊕ ○	0.5 GPM, 0.5 GPM
●	0.25 GPM
	0.61 GPM, 1.21 GPM
	0.65 GPM, 0.79 GPM, 1.3 GPM, 1.58 GPM, 1.77 GPM, 2.6 GPM
	0.92 GPM, 1.24 GPM, 1.85 GPM, 2.48 GPM, 2.79 GPM, 3.7 GPM
	4.0 GPM, 4.0 GPM
	8.3 GPM, 8.3 GPM
	10.1 GPM, 10.1 GPM
	14.3 GPM, 14.3 GPM

LATERAL PIPE SIZING CHART	PIPE SIZE	ALLOWABLE FLOW (GPM)
	3/4"	NOT USED
	1"	0.0 - 16.0
	1 1/2"	16.1 - 36.0
	2"	36.1 - 55.0
	2 1/2"	551 - 89.0

NOTE: CONTRACTOR TO USE SPECIFIED NOZZLE RATING (GPM) FOR LATERAL PIPE SIZE CALCULATIONS AS SHOWN IN THE SPRINKLER FLOW RATE CHART. FLOW RATINGS (GPM) ARE TO BE USED AT THE 50 PSI PRESSURE. FLOW VELOCITIES OF FIVE FEET PER SECOND SHALL NOT BE EXCEEDED. PIPE SIZES NOTED ON THE PLAN SHALL SUPERCEDE CALCULATED PIPE SIZES BY THE CONTRACTOR. LANDSCAPE ARCHITECT TO REVIEW ALL PIPE SIZING IN THE FIELD PRIOR TO BACKFILL OF ANY TRENCHES. CONTRACTOR TO SUBMIT A SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO TRENCHING.

SYMBOL	DESCRIPTION
	1" thru 2 1/2": PVC Class 200 Solvent Weld lateral pipe. Sleeve all pipe under paved surfaces over eight feet wide with PVC Class 200 pipe a minimum of two times larger than the pipe being sleeved. One pipe per sleeve only. Minimum sleeve size is 2". Wires are to be sleeved separately from pipe. Size lateral piping as noted on the Lateral Pipe Sizing Chart below on this plan sheet LI-7 for additional information. Pipe sizing is not to exceed 5.0 feet per second flow velocity. Install all pipe in strict accordance with manufacturers instructions, using appropriate cement and primer for the various pipe sizes and prevailing site conditions. (Note: 1/2", 3/4" & 1 1/4" pipes are not allowed to be used on the project.) See Installation Detail #05 on Plan Sheet LI-8 & Detail #24 on Plan Sheet LI-11 for additional information.
	2" thru 3": PVC Schedule 40 SW Mainline Pipe. Mainline pipe fittings are to be PVC Schedule 80 solvent weld or threaded. 4" thru 6": PVC Class 200 Gasketed Mainline Pipe. Mainline pipe fittings are to be ductile iron Leemco gasketed fittings or Romac #202NS service saddle with double stainless steel straps, except where the irrigation details call for a specific fitting. Size Mainline Piping as noted on the plan. Install all pipe in strict accordance with manufacturers instructions with concrete thrust blocks at all changes in direction. No bending, or curving of the pipe will be allowed, except as permitted by the pipe manufacturer. Pipe manufacturer must be approved prior to installation. Use mechanical joint restraints where concrete thrust blocks are not applicable, such as vertical changes in direction, or when two pipelines are side by side. See Installation Detail #05 on Plan Sheet LI-8 & Details #23 & #24 on Plan Sheet LI-11 for additional information.
	Mainline Pipe Stub for future use. Contractor is to mark the end of the pipe stub with 12" standard rectangular valve box and mark on as built plans. Install end cap thrust block on pipe stub cap as called for on the Thrust Block detail #23 on Plan Sheet LI-11 for additional information.
POC	POC - Point of Connection: 6" Irrigation Backflow Prevention Device installed by Site Utility Contractor. See Civil Utility Plans for additional information. Contractor to connect to discharge side of the Irrigation Backflow Prevention Device using ductile iron Leemco gasketed fittings, MegaLug mechanical joint fittings or approved coated ductile iron mechanical joint fittings. Landscape Contractor to coordinate all work as required.
	IRRIGATION COMMUNICATION CABLES: BASELINE 2-WIRE COMMUNICATION CABLE BILINE 14-2 (PAIGE 7072D Black & Red) installed in 1 1/2" electrical conduit along mainline pipe. See Installation Details #13, #14, #15 & #16 on Plan Sheet LI-9 and Detail #21 on Plan Sheet LI-10 for additional information.
	IRRIGATION COMMUNICATION CABLE: BASELINE 2-WIRE COMMUNICATION CABLE BILINE 14-2 (PAIGE 7072D Black & Red) Stub for future use installed in 1 1/2" PVC schedule 40 electrical conduit with sweep ells entering and exiting all splice / valve boxes. Contractor is to mark the end of the 2-wire path stub with 12" standard rectangular valve box and mark on as built plans. Contractor is to install waterproof splice kits 3M DBY-6 / DBR-6 on the ends of the 2-wire path to prevent corrosion. Contractor to leave a five foot (5'-0") loop of extra 2-wire path at each stub location.
⬟	Baseline #BL-LA01 Lightning Arrestor, Two Wire Path Grounding. See Installation Detail #06 on Plan Sheet LI-8 for additional information.
M	6" Bermad #IR-6"-410-G-I-A1-PG-4RC-CB-XZ, Solenoid Controlled Irrigation Master Valve with flange ends, normally closed. Contractor is to install with Baseline Decoder #BL-5201MV one station decoder for Master Valve on dedicated 2-wire path between master valve and controller. Contractor is to install dedicated Baseline two wire path, Paige #7072D REV 15, communication cable installed in 1 1/2" PVC electrical conduit betweeen the Master Valve vault and the Irrigation Controller 'A'. Install per manufacturers recommendations and make all wire splices with DBY-6/DBR-6 splice kits. Master Valve is to have a solenoid compatible with Baseline Irrigation Controller System. See Installation Detail #19 on Plan Sheet LI-10 for additional information.
F	4" FLOMEC #QS200-40 Ultra Sonic Flowmeter with PVC Tee. Contractor is to install Baseline 2-wire path, Paige #7072D REV 15, communication cable installed in 1 1/2" PVC electrical conduit betweeen the Flowmeter vault and the Irrigation Controller 'A' with Baseline Flow Sensor Decoder #BL-5308. Install per manufacturers recommendations and make all wire splices with DBY-6/DBR-6 splice kits. Flowmeter is to have a output signal compatible with Baseline Irrigation Controller System. See Installation Detail #20 on Plan Sheet LI-10 for additional information.
A	Baseline #BL-3200PSS, 2-Wire Controller (200 stations), stainless steel pedestal mount (VIT 16SS), ethernet ready port. Contractor is to install Hunter #WR-CLIK wireless rain sensor kit on building eave or light pole (min. 12'-0" above grade) with Baseline #BL-5402 Event bi coder. Rain sensor is to be installed in District approved location. Contractor is to install 120 volt electrical power and data cable (CAT-6) improvements as required for the new irrigation controller with all improvements installed to code in conduit. Contractor is to install enhanced controller grounding with up to three (3) grounding rods as required to meet Baseline Certification requirements. Authorized Baseline Distributor is to certify installation for a 10 year warranty with field inspection by authorized personnel from Distributor. Contractor to pay any associated fees with the Distributor to conduct field inspection for 10 year warranty. Contractor to complete corrective work as required to comply with Baseline certification requirements at no additional cost to District. Contractor is to provide one (1) ten (10) year Service Contracts with Base Manager Plus #BL-BMW2-Plus-10Y for a total of eleven (11) years. Contractor to coordinate all work with other trades for a complete installation. See Installation Details #17 and #18 on Plan Sheet LI-10 for additional information.
PMP 01 P	Irrigation Booster Pump: Watertronics #WMBV-7000-7A-25/5VMS-480-3-400-75, Irrigation booster pump capable of 400 gpm at 60 - 70 psi boost with a minimum dynamic inlet pressure of 15 psi. Pump station is to feature VFD controls with a regulated set point discharge pressure of 75 psi. Pressure set point may be adjusted within a 10 psi range by user input. Pump station is to have a marine grade aluminum enclosure and base, installed on a 8" thick concrete slab with #4 rebar reinforcement installed in a 12 inch (12") square grid. Pump station concrete slab is to be a minimum of 12" larger than the pump station enclosure footprint on each side. See Installation Detail #22 on Plan Sheet LI-11 for additional information.
BFP 01	6" Reduced Pressure Backflow Prevention Device to be installed by the Site Utility Contractor. See Civil Utility plans for additional information. Contractor is to coordinate all work with all other trades on the project.
A MV	Controller Designation Master Valve Input - Contractor is to provide 2-Wire path installed in conduit and Baseline Decoder #BL-5201MV for the Master Valve.
A FS	Controller Designation Flow Sensor Input - Contractor is to provide 2-Wire path installed in conduit and Baseline Decoder #BL-5308 for the Flow Sensor.
A-01 6.0	Controller # / Station # Gallons per minute
NOT SHOWN	Baseline Central Computer: Contractor is responsible for all set up, data collecting for new irrigation improvements controlled by new Baseline Controller 'A', to include data input and programming by an authorized Baseline programmer for a fully automatic and operational system using active weather control with evapotranspiration (Et) weather data at the District's option. Contractor is responsible to establish internet connection for the new Baseline Controller 'A'. Contractor is responsible for all work and programming required for a complete and operational system utilizing all available options and services.

SEE LANDSCAPE & IRRIGATION NOTES ON PLAN SHEET LI-12

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

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LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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REVISIONS

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TITLE
LANDSCAPE IRRIGATION LEGEND

LI-7

PROJECT 24042

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 28 RENEWAL STATE OF CALIFORNIA

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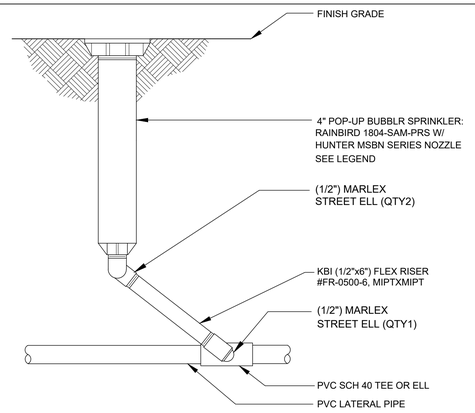
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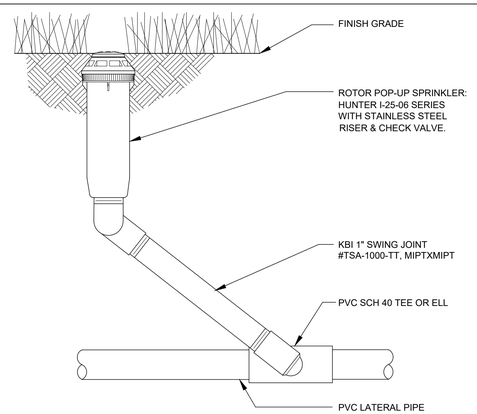
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



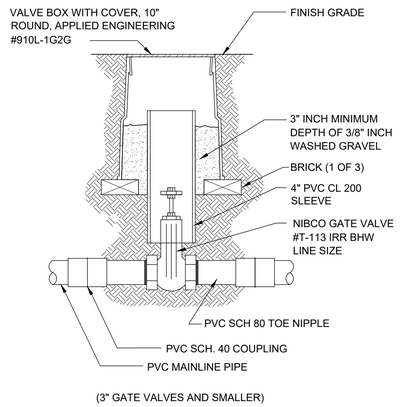
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

01 4" POP-UP BUBBLER SPRINKLER NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

04 ROTOR SPRINKLER NTS



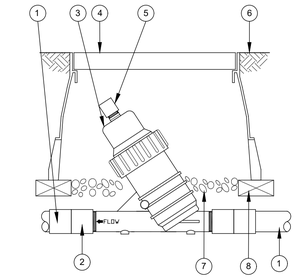
(3" GATE VALVES AND SMALLER)

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

07 MAINLINE GATE VALVE NTS

FILTER SIZE CHART

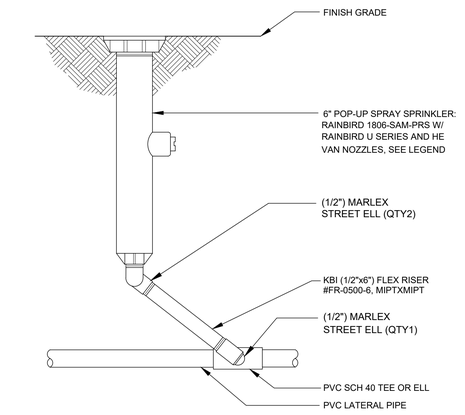
VALVE SIZE	FILTER SIZE	FILTER MODEL
1"	1"	HY-100
1 1/2"	1 1/2"	HY-151
2"	2"	HY-201



1. PVC LATERAL PIPE
2. PVC SCH 40 FEMALE ADAPTER (1 OF 2), LINE SIZE
3. HUNTER Y-FILTER WITH 150 MESH ELEMENT FILTER, SAME SIZE AS VALVE.
4. VALVE BOX W/ COVER: 12" SIZE, APPLIED ENGINEERING #1015-1G2G.
5. 3/4" PVC CAP
6. FINISH GRADE
7. 3" MIN DEPTH OF 3/8" WASHED GRAVEL
8. BRICK (1 OF 4)

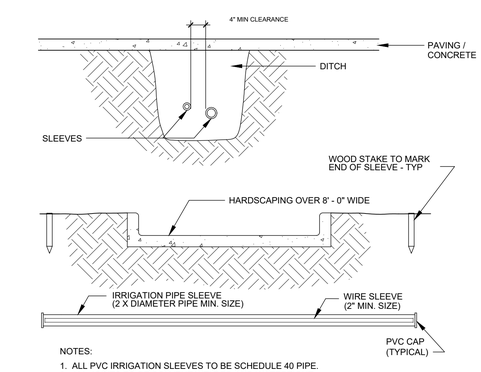
NOTE: INSTALL LINE SIZE FILTER (SEE FILTER SIZE CHART) ON PRECISION SPRAY AND BUBBLER VALVES IN SEPARATE VALVE BOXES - ADJACENT TO REMOTE CONTROL VALVE. FILTERS ARE TO BE INSTALLED ON DISCHARGE SIDE OF VALVE.

10 1" / 1 1/2" / 2" 'Y' FILTER DETAIL NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

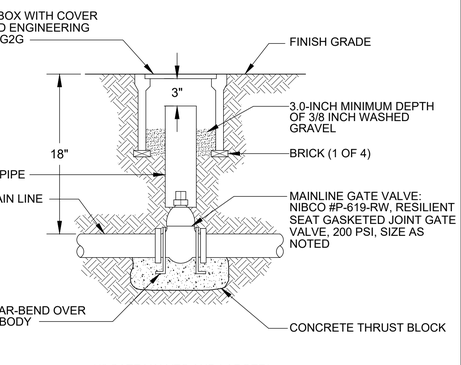
02 6" POP-UP SPRAY SPRINKLER NTS



NOTES:
1. ALL PVC IRRIGATION SLEEVES TO BE SCHEDULE 40 PIPE.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. IRRIGATION PIPES AND LOW VOLTAGE WIRES ARE TO BE SLEEVED SEPARATELY.
4. ALL PIPES & WIRES ARE TO BE SLEEVED UNDER PAVED/CONC. 8'-0" WIDE OR WIDER. MECHANICALLY COMPACT TO 95% PROCTOR.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

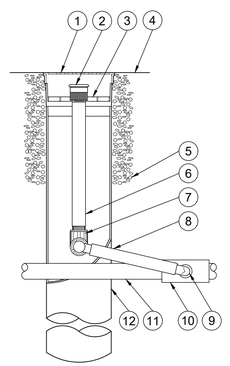
05 SLEEVING DETAIL NTS



(4" GATE VALVES AND LARGER)

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

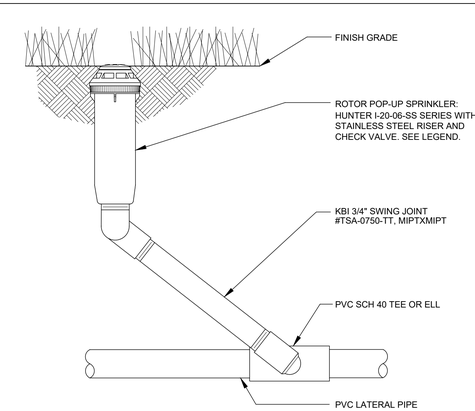
08 MAINLINE GATE VALVE NTS



1. 4-INCH GRATE
2. BUBBLER: RAIN BIRD 1402 - 0.5 GPM
3. ROOT WATERING SYSTEM: RAIN BIRD RWS-B-C-1402 (INCLUDES 1402 0.5 GPM BUBBLER WITH RISER, GRATE, SWING ASSEMBLY, 1/2" MALE NPT INLET, AND BASKET CANISTER)
4. FINISH GRADE
5. PEA GRAVEL - 1.0 cu. ft.
6. 1/2-INCH PVC SCH 80 NIPPLE
7. 1/2-INCH 90-DEGREE ELBOW
8. 12-INCH SWING ASSEMBLY
9. 1/2-INCH MALE NPT INLET
10. PVC SCH 40 TEE OR EL
11. LATERAL PIPE
12. 4-INCH BASKET WEAVE CANISTER

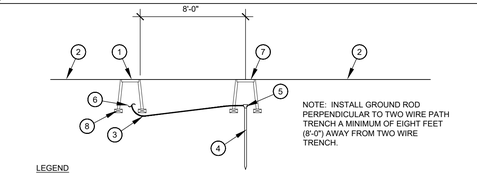
NOTE: INSTALL ROOT WATERING SYSTEM WITH BUBBLER INSIDE THE TREE WATERING BASIN AND INSIDE THE TREE ROOT BARRIER ON THE UPHILL SIDE OF TREE, IF FINISH GRADE IS SLOPED INSTALL RWS-90CK IN SANDY SOILS.

11 ROOT WATERING TREE BUBBLER NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

03 ROTOR POP-UP SPRINKLER NTS



NOTE: INSTALL GROUND ROD PERPENDICULAR TO TWO WIRE PATH TRENCH A MINIMUM OF EIGHT FEET (8'-0") AWAY FROM TWO WIRE TRENCH.

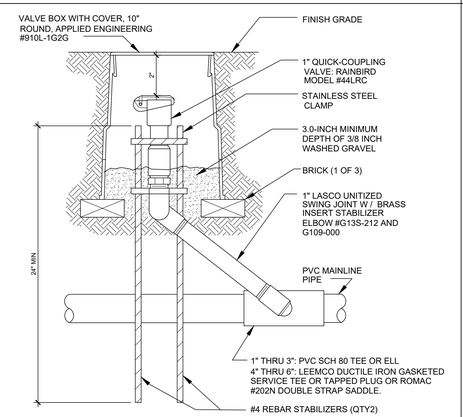
LEGEND

1. REMOTE CONTROL VALVE BOX OR COMMUNICATION CABLE SPLICE VALVE BOX WITH TWO WIRE PATH LIGHTNING ARRESTOR, #BL-LA01, SEE DETAILS #13, #14, #15, #16 & #21.
2. FINISH GRADE
3. SOLID BARE COPPER GROUNDING WIRE (#6 AWG) FROM TWO WIRE PATH LIGHTNING ARRESTOR #BL-LA01 TO COPPER GROUNDING ROD. MAKE WIRE RUNS AS STRAIGHT AS POSSIBLE
4. 5/8" X 8' LONG COPPER CLAD GROUNDING ROD.
5. CADWELD PLUS "ONE SHOT" - CADWELD CONNECTION #GT1161GPLUS, PERMANENT WELD OF BARE COPPER WIRES TO GROUNDING ROD.
6. CONNECT TO TWO WIRE PATH LIGHTNING ARRESTOR, #BL-LA01 WITH 3M DBY-6 / DBR-6 AS REQUIRED.
7. 10" ROUND VALVE BOX WITH LID, APPLIED ENGINEERING #910L-1G2G
8. BRICKS (TYP), THREE (3) REQUIRED PER VALVE BOX.

NOTES:
1. INSTALL ONE #BL-LA01 LIGHTNING ARRESTOR NO FURTHER THAN 300 FT FROM ANY DECODER, OR AS SHOWN ON PLAN.
2. INSTALL THE TWO WIRE PATH GROUNDING ROD A MINIMUM OF EIGHT FEET (8'-0") FROM #BL-LA01 LINE SURGE PROTECTOR, DO NOT INSTALL IN THE SAME TRENCH AS THE TWO WIRE PATH COMMUNICATION CABLE BILINE (PAIGE P7072D BLACK & RED). GROUND ROD IS TO BE INSTALLED MIN. EIGHT FEET FROM 2-WIRE PATH TRENCH IN A PERPENDICULAR DIRECTION.

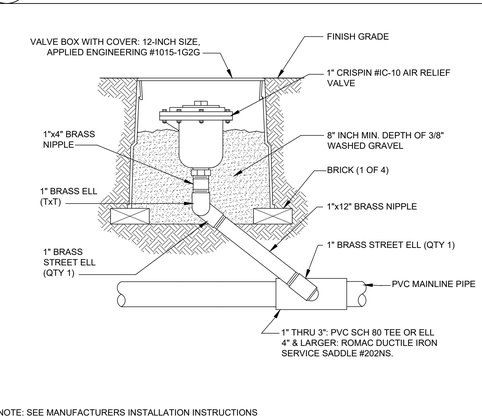
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

06 DECODER & 2-WIRE PATH GRNDING NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

09 QUICK-COUPLING VALVE NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

NOTE: INSTALL AT HIGH ELEVATION POINTS & MAINLINE DEAD END RUNS. SEE PLAN SHEETS.

12 AIR RELIEF VALVE NTS

LANDSCAPE IRRIGATION DETAILS

NTS

LICENSED LANDSCAPE ARCHITECT
DAVID B. BIGLER
RLA # 3887
31 JULY 28
RENEWAL DATE
STATE OF CALIFORNIA

Landscape Architect #3887
DB associates

David Bigler Associates
Landscape Architect #3887
1589 W Shaw Ave. #5
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Fax: (559) 276-9497

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

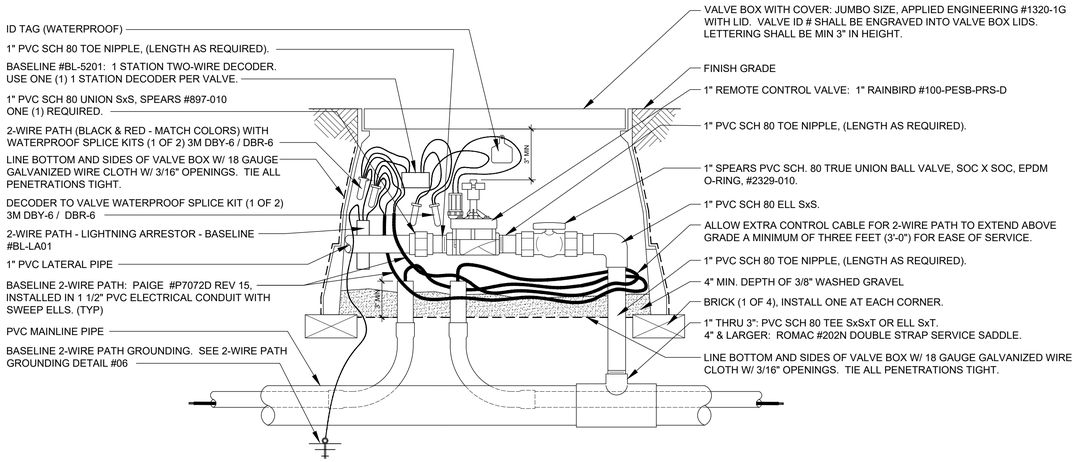
REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
LANDSCAPE IRRIGATION DETAILS

LI-8

PROJECT 24042



NOTES:

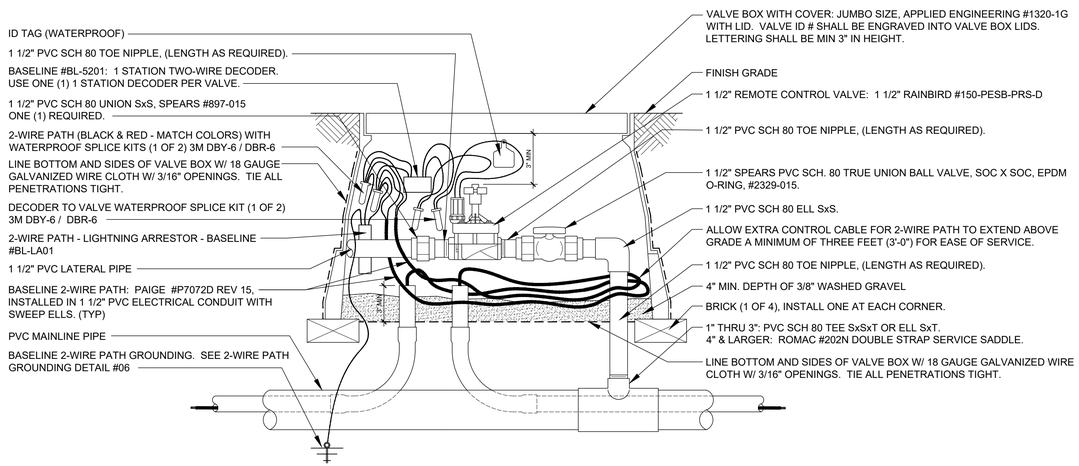
1. INSTALL A MAXIMUM OF ONE REMOTE CONTROL VALVE PER VALVE BOX.
2. CONTRACTOR TO INSTALL RAINBIRD PRESSURE REGULATING MODULE FOR ALL VALVES.
3. INSTALL LINE SIZE HUNTER 150 MESH FILTER AND PRESSURE REGULATOR FOR ALL BUBBLER VALVES IN SEPARATE VALVE BOX. SEE DETAIL #10 FOR ADDITIONAL INFORMATION.

NOTES:

4. INSTALL BASELINE #BL-LA01 LIGHTNING ARRESTOR DEVICE NO FURTHER THAN 500 FEET FROM ANY DECODER. SEE DETAIL #06 FOR ADDITIONAL INFORMATION.
5. INSTALL THE 2-WIRE PATH GROUNDING ROD PERPENDICULAR AND A MINIMUM OF EIGHT FEET (8'-0") FROM #BL-LA01 LIGHTNING ARRESTOR AND 2-WIRE COMMUNICATION CABLE. DO NOT INSTALL IN THE SAME TRENCH AS THE 2-WIRE PATH COMMUNICATION CABLE (#P7072D REV 15). SEE DETAIL #06 FOR ADDITIONAL INFORMATION.

SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

13 1" REMOTE CONTROL VALVE WITH BASELINE DECODER : NTS



NOTES:

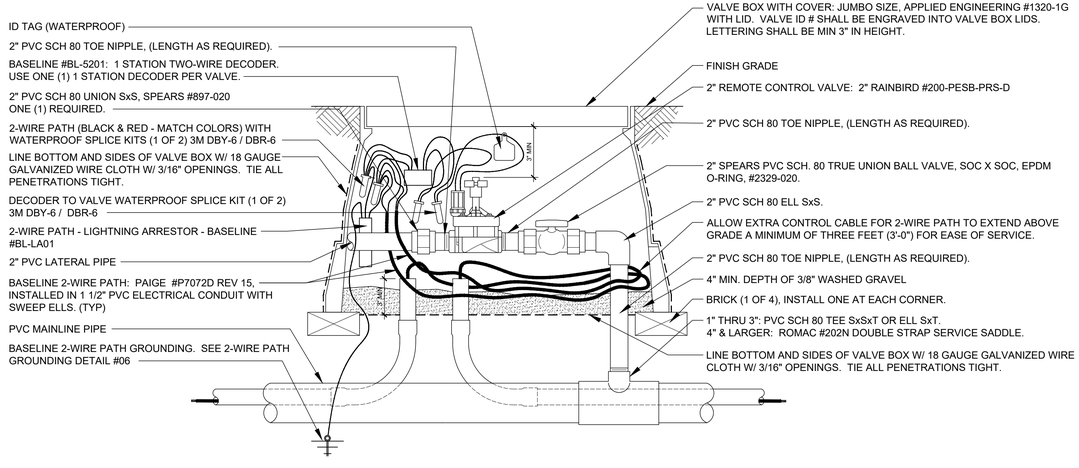
1. INSTALL A MAXIMUM OF ONE REMOTE CONTROL VALVE PER VALVE BOX.
2. CONTRACTOR TO INSTALL RAINBIRD PRESSURE REGULATING MODULE FOR ALL VALVES.
3. INSTALL LINE SIZE HUNTER 150 MESH FILTER AND PRESSURE REGULATOR FOR ALL BUBBLER VALVES IN SEPARATE VALVE BOX. SEE DETAIL #10 FOR ADDITIONAL INFORMATION.

NOTES:

4. INSTALL BASELINE #BL-LA01 LIGHTNING ARRESTOR DEVICE NO FURTHER THAN 500 FEET FROM ANY DECODER. SEE DETAIL #06 FOR ADDITIONAL INFORMATION.
5. INSTALL THE 2-WIRE PATH GROUNDING ROD PERPENDICULAR AND A MINIMUM OF EIGHT FEET (8'-0") FROM #BL-LA01 LIGHTNING ARRESTOR AND 2-WIRE COMMUNICATION CABLE. DO NOT INSTALL IN THE SAME TRENCH AS THE 2-WIRE PATH COMMUNICATION CABLE (#P7072D REV 15). SEE DETAIL #06 FOR ADDITIONAL INFORMATION.

SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

15 1 1/2" REMOTE CONTROL VALVE WITH BASELINE DECODER NTS



NOTES:

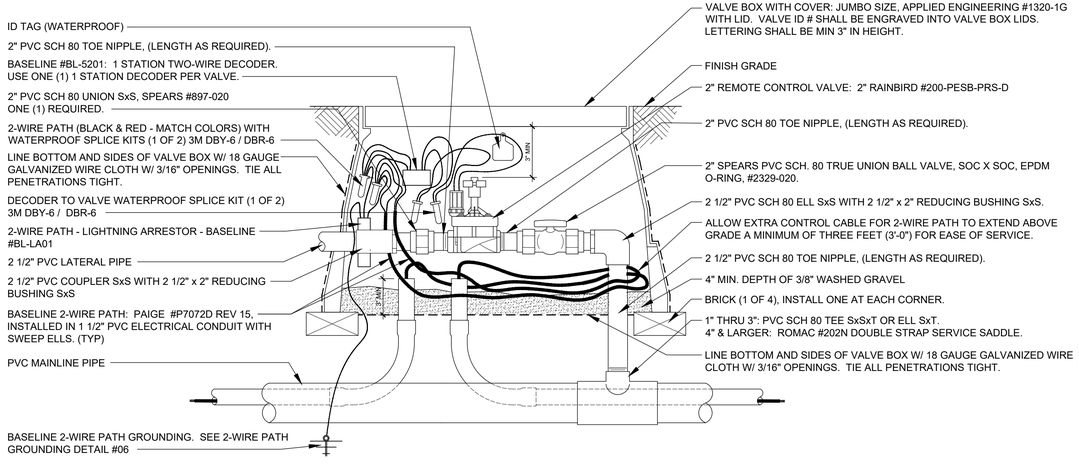
1. INSTALL A MAXIMUM OF ONE REMOTE CONTROL VALVE PER VALVE BOX.
2. CONTRACTOR TO INSTALL RAINBIRD PRESSURE REGULATING MODULE FOR ALL VALVES.
3. INSTALL LINE SIZE HUNTER 150 MESH FILTER AND PRESSURE REGULATOR FOR ALL BUBBLER VALVES IN SEPARATE VALVE BOX. SEE DETAIL #10 FOR ADDITIONAL INFORMATION.

NOTES:

4. INSTALL BASELINE #BL-LA01 LIGHTNING ARRESTOR DEVICE NO FURTHER THAN 500 FEET FROM ANY DECODER. SEE DETAIL #06 FOR ADDITIONAL INFORMATION.
5. INSTALL THE 2-WIRE PATH GROUNDING ROD PERPENDICULAR AND A MINIMUM OF EIGHT FEET (8'-0") FROM #BL-LA01 LIGHTNING ARRESTOR AND 2-WIRE COMMUNICATION CABLE. DO NOT INSTALL IN THE SAME TRENCH AS THE 2-WIRE PATH COMMUNICATION CABLE (#P7072D REV 15). SEE DETAIL #06 FOR ADDITIONAL INFORMATION.

SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

14 2" REMOTE CONTROL VALVE WITH BASELINE DECODER : NTS



NOTES:

1. INSTALL A MAXIMUM OF ONE REMOTE CONTROL VALVE PER VALVE BOX.
2. CONTRACTOR TO INSTALL RAINBIRD PRESSURE REGULATING MODULE FOR ALL VALVES.
3. INSTALL LINE SIZE HUNTER 150 MESH FILTER AND PRESSURE REGULATOR FOR ALL BUBBLER VALVES IN SEPARATE VALVE BOX. SEE DETAIL #10 FOR ADDITIONAL INFORMATION.

NOTES:

4. INSTALL BASELINE #BL-LA01 LIGHTNING ARRESTOR DEVICE NO FURTHER THAN 500 FEET FROM ANY DECODER. SEE DETAIL #06 FOR ADDITIONAL INFORMATION.
5. INSTALL THE 2-WIRE PATH GROUNDING ROD PERPENDICULAR AND A MINIMUM OF EIGHT FEET (8'-0") FROM #BL-LA01 LIGHTNING ARRESTOR AND 2-WIRE COMMUNICATION CABLE. DO NOT INSTALL IN THE SAME TRENCH AS THE 2-WIRE PATH COMMUNICATION CABLE (#P7072D REV 15). SEE DETAIL #06 FOR ADDITIONAL INFORMATION.

SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

16 2" REMOTE CONTROL VALVE WITH 2 1/2" LATERAL PIPE WITH BASELINE DECODER : NTS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
LANDSCAPE
IRRIGATION
DETAILS

LI-9

PROJECT 24042

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 28 RENEWAL DATE STATE OF CALIFORNIA
Landscape architect #3887
David Bigler Associates
Landscape Architect #3887
1589 W Shaw Ave. #5
Fresno, California 93711
E Mail: davebigler @aol.com
Tel: (559) 276-9495
Fax: (559) 276-9497

NTS

LANDSCAPE IRRIGATION DETAILS

APPROVALS

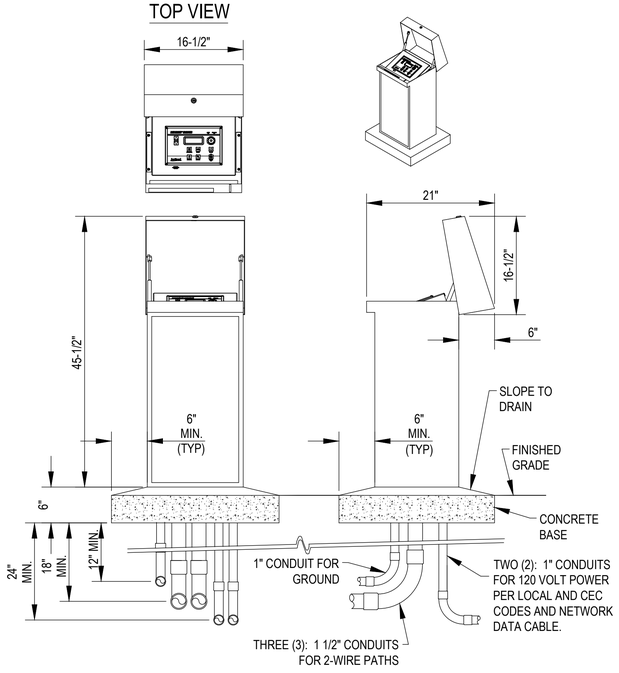
FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

TOP VIEW



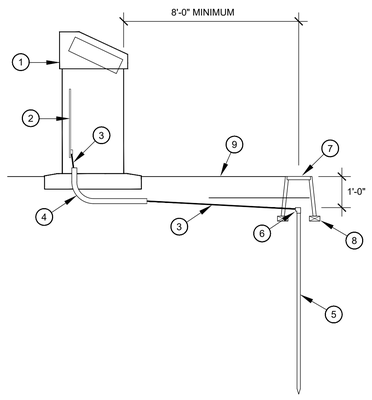
FRONT VIEW SIDE VIEW

NOTES:

1. CONTROLLER PEDESTAL ANCHORAGE: CONTRACTOR IS TO ANCHOR THE SPECIFIED PEDESTAL TO THE CONCRETE BASE WITH FOUR (4) 1/4" DIA HILTI #KB-TZ2 ANCHOR BOLTS WITH 1 3/4" NOMINAL EMBEDMENT. SEE DETAIL #1 ON PLAN SHEET S1.2 FOR ADDITIONAL INFORMATION.

2. EQUIPMENT IS SUPPORTED ON GRADE AND IS LESS THAN 400 LBS AND LESS THAN FOUR (4'-0") FEET ABOVE FINISH GRADE. NOT PART OF DSA APPROVAL.

17 IRRIGATION CONTROLLER 'A', PEDESTAL MOUNT — NTS



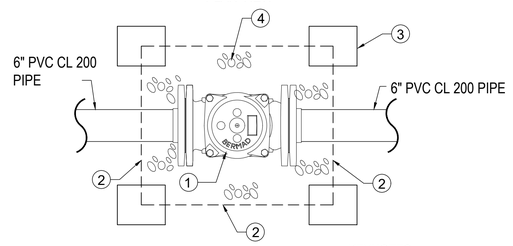
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

LEGEND

1. SATELLITE CONTROLLER ASSEMBLY
2. SATELLITE CONTROLLER BACK BOARD OR CONTROLLER SUB ASSEMBLY
3. SOLID BARE COPPER GROUNDING WIRE (#6 AWG) FROM SATELLITE CONTROLLER TO GROUNDING ROD. MAKE WIRE RUNS AS STRAIGHT AS POSSIBLE.
4. 1" ELECTRICAL CONDUIT LONG SWEEP ELL
5. 5/8" X 8' LONG COPPER CLAD GROUNDING ROD.
6. CADWELD PLUS "ONE SHOT" - CADWELD CONNECTION # GT1161GPLUS, PERMANENT WELD OF BARE COPPER WIRES TO GROUNDING ROD.
7. CHRISTY #G3BOX ROUND CONCRETE TRAFFIC RATED VALVE BOX WITH #G3C CAST IRON LID.
8. BRICKS, THREE (3) REQUIRED PER VALVE BOX.
9. FINISH GRADE

18 CONTROLLER 'A' GROUNDING DETAIL — NTS

PLAN VIEW



KEYNOTES

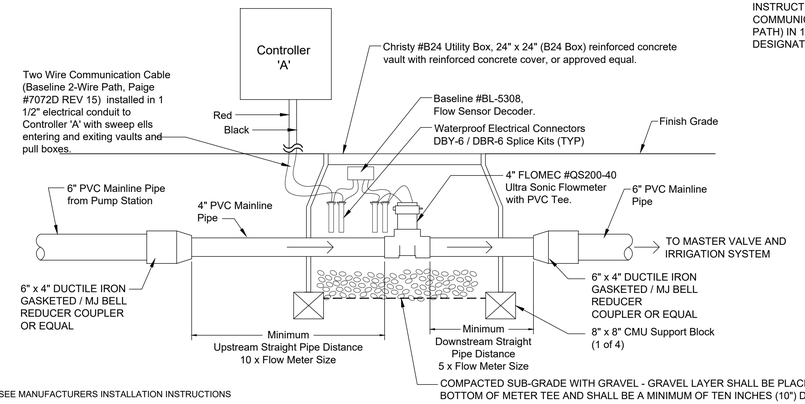
1. 6" Bermad #IR-6"-410-G-I-A1-PG-4RC-CB-XZ, Solenoid Controlled Irrigation Master Valve with iron flange, normally closed. Contractor is to install with Baseline decoder #BL-5201MV decoder for Master Valve on dedicated 2-wire path. Contractor is to install Baseline two wire path, Paige #P7072D REV 15, communication cable installed in 1 1/2" PVC electrical conduit between the Master Valve vault and the Irrigation Controller 'A'. Install per manufacturers recommendations and make all wire splices with DBY-6/DBR-6 splice kits.

KEYNOTES

2. Christy #B48 Utility Box, 30" x 48" (B48 Box) reinforced concrete vault with 2 piece reinforced concrete cover (B48D2), or approved equal.
3. 16" x 8" CMU Support Block (1 of 4)
4. 6" Layer 1 1/2" Gravel in bottom of vault.

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

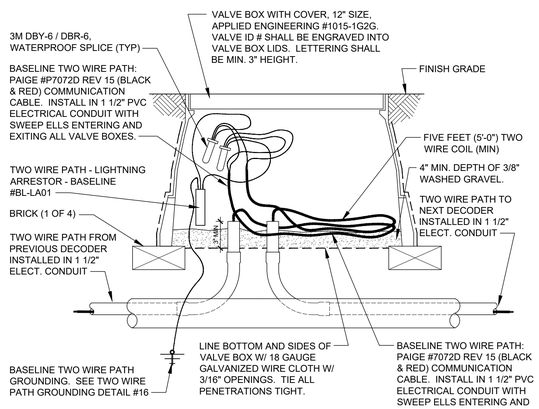
19 6" MASTER VALVE DETAIL — NTS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS. INSTALL TWO WIRE COMMUNICATION CABLE (BASELINE 2-WIRE PATH) IN 1 1/2" ELECTRICAL CONDUIT TO DESIGNATED CONTROLLER

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

20 4" FLOW METER DETAIL — NTS



NOTE: LOCATE J BOXES A MAXIMUM OF 150 FEET ON CENTER OR AT ALL CHANGES IN DIRECTION OF NINETY DEGREES OR MORE, AT ALL SPLICES (NOT IN REMOTE CONTROL VALVE BOX) AND AT DEAD END STUBS.

NOTE: ALL COMMUNICATION CABLE (TWO WIRE PATH) IS TO BE INSTALLED IN 1 1/2" PVC SCH. 40 ELECTRICAL CONDUIT WITH LONG SWEEP ELBOWS ENTERING AND EXITING ALL VALVE BOXES AND PULL BOXES AS REQUIRED.

SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

21 2-WIRE PATH SPLICE / J-BOX — NTS

LANDSCAPE IRRIGATION DETAILS

NTS

RLA # 3887
31 JULY 28
RENEWAL DATE
LANDSCAPE ARCHITECT
DAVID B. BIGLER
STATE OF CALIFORNIA

David Bigler Associates
Landscape Architect #3887
1589 W Shaw Ave, #5
Fresno, California 93711
E Mail: davebigler @aol.com
Tel: (559) 276-9495
Fax: (559) 276-9497

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
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REVISIONS

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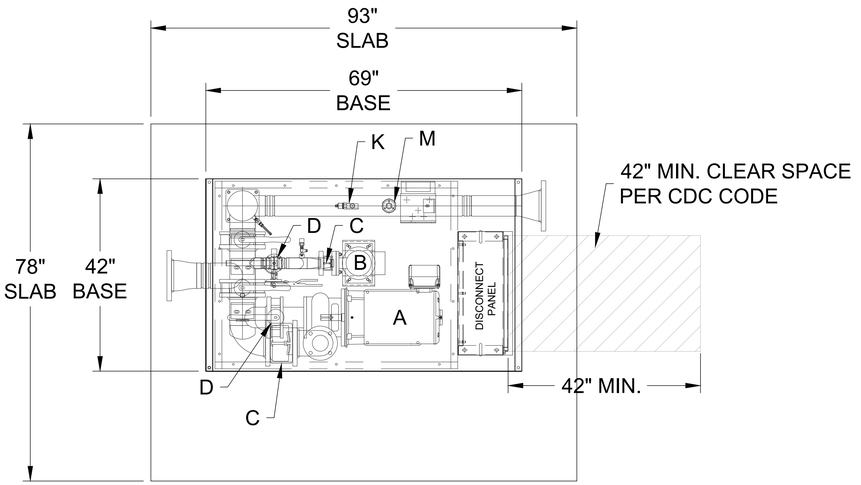
TITLE
LANDSCAPE IRRIGATION DETAILS

LI-10

PROJECT 24042

PUMP STATION SPECIFICATIONS:
NAME: TEMPERANCE ELEMENTARY SCHOOL
STATION MODEL: WMBV-7000-7A-25/5VMS-480-3-400-75
STATION TOTAL PERFORMANCE: 400 GPM @ 75 PSI
DYNAMIC INLET PRESSURE: 15 PSI
BOOST PRESSURE: 60 PSI
REGULATED DISCHARGE PRESSURE: 75 PSI
PUMP HORSEPOWER:
SUSTAIN PUMP: 5HP (3600RPM)
PUMP NO.1: 25HP (3600RPM)
CHECK VALVE SIZES:
SUSTAIN PUMP: 2"
PUMP NO.1 4"
ISOLATION VALVE SIZES:
SUSTAIN PUMP: 2"
PUMP NO.1: 4"
DISCHARGE ISOLATION VALVE SIZE: 4"
DISCHARGE MANIFOLD SIZE: 4"

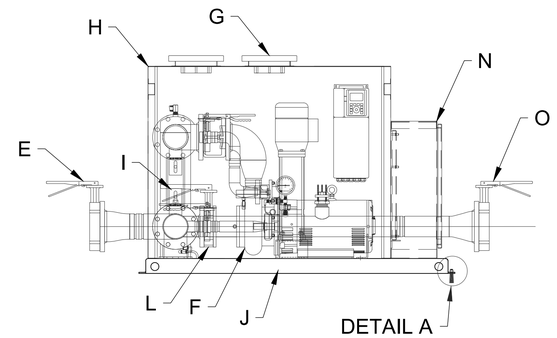
POWER REQUIREMENTS: 480V, 60 HZ, 3PHZ, 38FLA (EST.)
EXHAUST FAN REQUIREMENTS: STD FAN



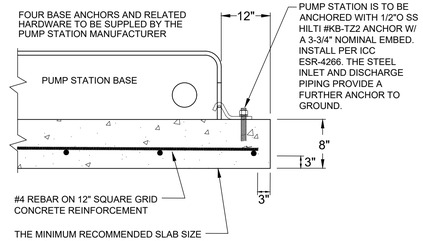
IRRIGATION BOOSTER PUMP STATION IS LOCATED IN THE NE CORNER OF THE SITE JUST EAST OF THE S. ARROYO AVENUE CUL-D-SAC EXTENSION. SEE LANDSCAPE IRRIGATION LEGEND FOR BOOSTER PUMP STATION SYMBOL AND DESCRIPTION ON PLAN SHEET LI-7 FOR ADDITIONAL INFORMATION.

STATION COMPONENTS:
A MAIN PUMP AND MOTOR
B VERTICAL MULTI-STAGE SUSTAIN PUMP
C CHECK VALVE
D PUMP ISO VALVE
E 6" FLG INTAKE ISOLATION VALVE
F TEMP SENSOR
G STATION FAN HOOD MOUNTED
H MARINE GRADE ALUMINUM ENCLOSURE (UNPAINTED)
I INLET PRESSURE GAUGE
J STAINLESS STEEL BASE (UNPAINTED)
K PRESSURE TRANSDUCER AND GAUGE
L PUMP INLET ISO VALVE
M FLOW SENSOR
N DEAD-FRONT DISCONNECT PANEL
O 6" FLG DISCHARGE ISOLATION VALVE

NOT SHOWN: LINE REACTOR REQUIRED

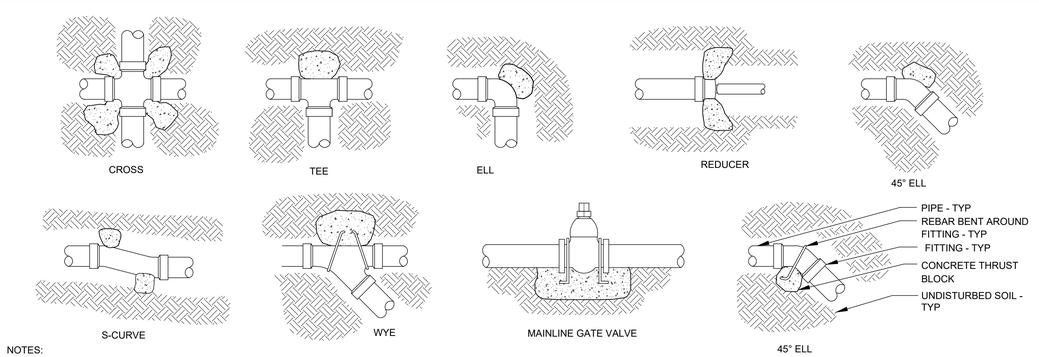


DETAIL "A"
CONCRETE ANCHOR
REQUIRED AT 4 LOCATIONS



22 IRRIGATION BOOSTER PUMP DETAIL — NTS

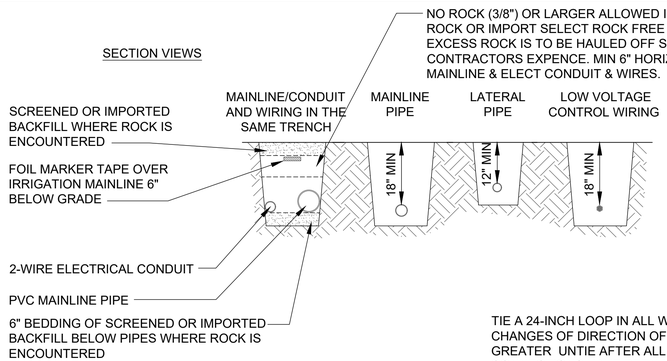
23 THRUST BLOCKS — NTS



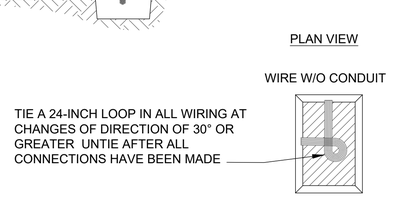
NOTES:
1. SUPPLY LINES 3-INCHES IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
2. SEE PIPE MANUFACTURERS SPECIFICATIONS FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK.
3. INSTALL ALL PIPE IN STRICT ACCORDANCE W/ PIPE MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS

NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

24 TRENCHING DETAIL — NTS



NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCHEDULE 40 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN, MIN SLEEVE SIZE IS 2".
2. INSTALL ALL PIPE AND WIRE IN STRICT CONFORMANCE WITH MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS



NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

LANDSCAPE IRRIGATION DETAILS

NTS

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
LANDSCAPE IRRIGATION DETAILS

LI-11

PROJECT 24042

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 28 RENEW STATE OF CALIFORNIA
David Bigler Associates
Landscape Architect #3887
1589 W Shaw Ave, #5
Fresno, California 93711
E Mail: davebigler@aol.com
Tel: (559) 276-9495
Fax: (559) 276-9497

LANDSCAPE & IRRIGATION NOTES

1. PRODUCT "OR APPROVED EQUAL" SPECIFICATION NOTE: ALL SPECIFIED MATERIALS, PRODUCTS AND MANUFACTURERS ARE RELEVANT TO DESCRIBE THE REQUIRED QUALITY AND FEATURES OF A PARTICULAR COMPONENT OF THE PROJECT, HOWEVER, THE SPECIFIC PRODUCT OR MANUFACTURER NOTED IS TO BE CONSTRUED TO BE FOLLOWED BY THE WORDS, "OR APPROVED EQUAL".

2. GENERAL NOTE: THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT, MATERIALS AND LABOR TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. ADDITIONAL EQUIPMENT AND MATERIALS IN ADDITION TO THE SYSTEM COMPONENTS LISTED IN THE LEGEND MAY BE REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

3. CONTRACTOR IS TO INSTALL 120 VOLT ELECTRICAL AND DATA CABLE WITH INTERNET ACCESS TO NEW IRRIGATION CONTROLLER WITH ALL IMPROVEMENTS CONSTRUCTED IN COMPLIANCE WITH CEC AND LOCAL CODES. CONTRACTOR IS TO FIELD VERIFY.

4. SPRINKLER ADJUSTMENT NOTE: CONTRACTOR SHALL MAKE ANY ADJUSTMENTS OR CHANGES TO SPRINKLERS, NOZZLES, RADIUS AND ARCS AS REQUIRED TO PROVIDE 100% COVERAGE TO ALL LANDSCAPE AREAS AND PREVENT OVER SPRAY ONTO BUILDINGS, OAK TREES OR HARDSCAPED SURFACES.

Water Usage Chart - MAWA vs. ETWU

MAWA= (Et_o) x (0.62) x [(0.45 x LA) + (1.0 - 0.45) x SLA)]
= (53.3) x (0.62) x [(0.45 x 176,118) + (1.0 - 0.45) x 139,865)]
= 5,161,086 gallons per year

ETWU (**Hydrozone #1 - Low - Bubblers**)
ETWU= (Et_o) x (0.62) x [((PF) x (HA)) / (IE)]
= (53.3) x (0.62) x [((0.2) x (33,908)) / (0.81)]
= 276,673 gallons per year

ETWU (**Hydrozone #2 - Moderate - Bubblers**)
ETWU= (Et_o) x (0.62) x [((PF) x (HA)) / (IE)]
= (53.3) x (0.62) x [((0.5) x (2,345)) / (0.81)]
= 47,835 gallons per year

Hydrozone #3 - SLA
MAWA= (Et_o) x (0.62) x (SLA)
= (53.3) x (0.62) x (139,865)
= 4,621,979 gallons per year

TOTAL ETWU (Sum of Hydrozones 1, 2 & 3) = 4,946,487 gallons per year

MAWA > ETWU
5,161,086 gallons > 4,946,487 gallons ✓

Hydrozone (HZ)	Plant Water Use Req.	Plant Factor (PF)	Hydrozone Area (sq ft) (HA)	Zone or Valve Numbers	Irrigation Method	Percent of Landscape Area	Irrigation Efficiency (IE)
1	Low	0.2	33,908	SEE PLANS	Bubblers	19%	0.81
2	Mod	0.5	2,345	SEE PLANS	Bubblers	1%	0.81
3	SLA	N/A	139,865	SEE PLANS	Sprays	80%	N/A
		Sum	176,118				

APPROVALS
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TITLE
LANDSCAPE IRRIGATION DETAILS AND NOTES

LI-12

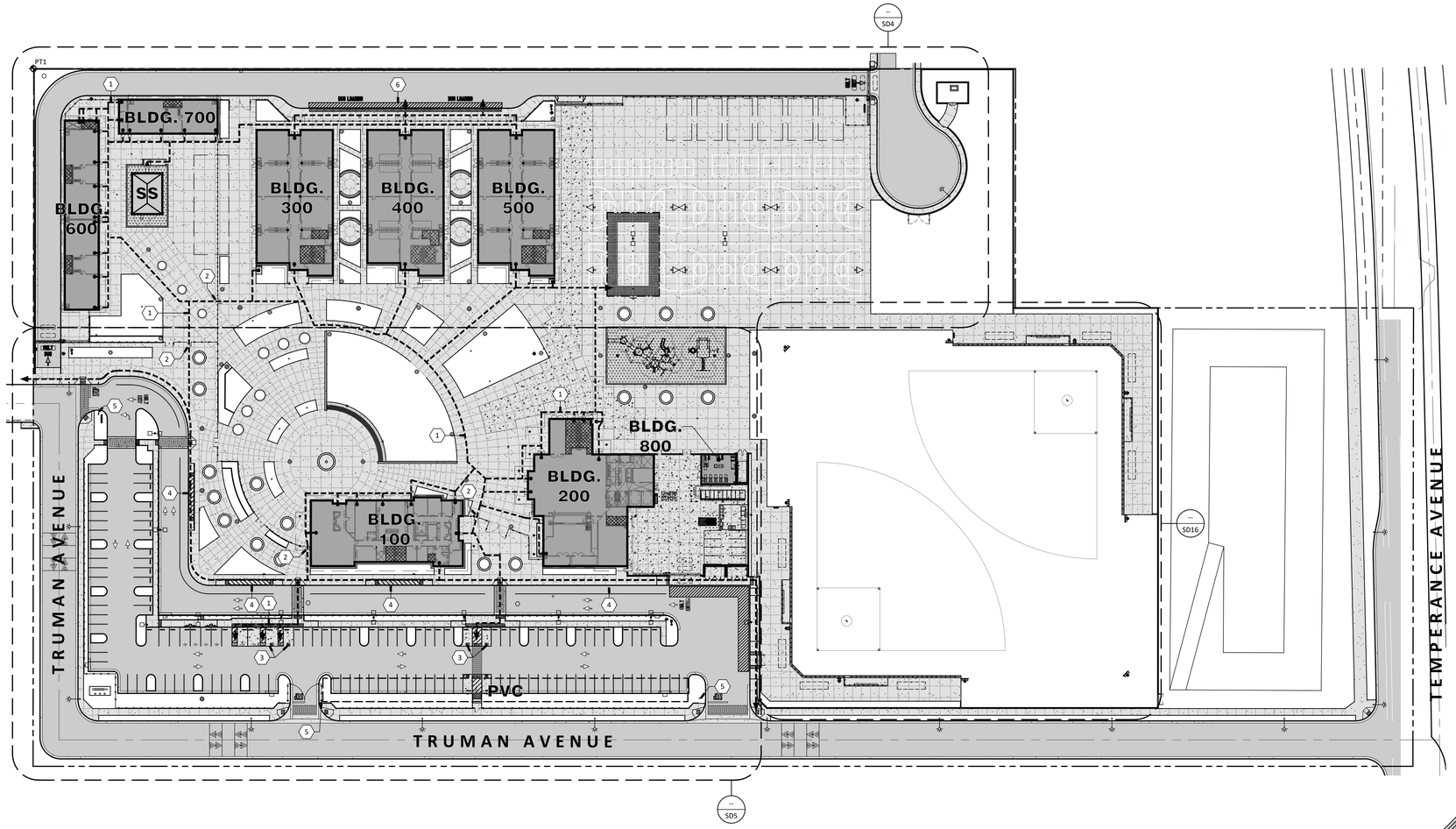
PROJECT 24042

LANDSCAPE IRRIGATION DETAILS AND NOTES

NTS

LICENSED LANDSCAPE ARCHITECT DAVID B. BIGLER RLA # 3887 31 JULY 26 RENEWAL DATE STATE OF CALIFORNIA

David Bigler Associates
Landscape Architect #3887
1589 W Shaw Ave, #5
Fresno, California 93711
E Mail: davebigler @aol.com
Tel: (559) 276-9495
Fax: (559) 276-9497



OVERALL SITE PLAN

SCALE: 1" = 60'-0"

SITE PLAN LEGEND :

- NEW BUILDING
- ACCESSIBLE RESTROOMS, SEE FLOOR PLANS FOR GENDER
- CONCRETE PAVING
- REINFORCED CONCRETE PAVING
- ASPHALT PAVING
- SAFE DISPERSAL AREA
- PROPERTY LINE
- ACCESSIBLE PATH OF TRAVEL
- CONTROL POINT

SITE PLAN NOTES :

1 ACCESSIBLE PATH OF TRAVEL :

PATH OF TRAVEL (P.O.T.) AS VERIFIED BY THE ARCHITECT IS:
- A COMMON BARRIER FREE ACCESSIBLE ROUTE AT LEAST 48" WIDE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL.
- THE PATH SURFACE IS SLIP RESISTANT, STABLE, FIRM, AND SMOOTH.
- PASSING SPACES AT LEAST 60" x 60" ARE LOCATED NOT MORE THAN 200' APART (11B-403.5.3).
- CONTINUOUS GRADIENTS HAVE 60" LEVEL AREAS NOT MORE THAN 400' APART (11B-403.7)
- CROSS-SLOPE DOES NOT EXCEED 2%.
- SLOPE IN THE DIRECTION OF TRAVEL IS 5% OR LESS UNLESS OTHERWISE INDICATED AS A RAMP.
- MAINTAIN P.O.T. FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL OR EDGE AND 27" ABOVE FINISH GRADE (11B-307.2).
- GRATING LOCATED IN THE SURFACE OF ANY PEDESTRIAN WAY IN THE P.O.T. SHALL HAVE GRID/OPENINGS IN GRATING LIMITED TO 1/2" MAXIMUM CLEAR IN THE DIRECTION OF TRAVEL FLOW
- FOR TYPICAL EXTERIOR DOOR LANDINGS, SEE DETAIL 13/SD14

2 GATE ACCESS NOTE :

ALL C.L. AND DECORATIVE METAL 4'-0" WIDE GATES IN THE PATH OF TRAVEL SHALL HAVE LEVER-TYPE LATCH AND 10" HIGH KICKPLATES SECURE TO C.L. MESH BOTH SIDES, 5LBS MAX FORCE TO PUSH OR PULL OPEN (11B-404.2.9) AND 5BLS MAX TO ACTIVATE OPERABLE PARTS (11B-304.9) AND STRIKE SIDE (MANEUVERING) CLEARANCE PER. CBC 11B-404.2.4.1.

3 ACCESSIBLE PARKING :

ACCESSIBLE PARKING, SEE SHEET SD5

122 PARKING STALLS PER THIS APPLICATION.
5 ACCESSIBLE PARKING STALLS REQUIRED PER C.B.C. 11B-208.2
MINIMUM 1 VAN ACCESSIBLE STALL REQUIRED
MINIMUM 4 ACCESSIBLE STALLS REQUIRED
2 VAN ACCESSIBLE STALLS AND 4 ACCESSIBLE PARKING STALLS PROVIDED
6 > 5 THEREFORE OK.

SEE EV PARKING CHART BELOW FOR ADDITIONAL INFORMATION.

4 PASSENGER LOADING ZONES :

DROP-OFF ZONES SHALL PROVIDE AN ACCESS AISLE AT LEAST 60" WIDE AND 20'-0" LONG ADJACENT AND PARALLEL TO THE VEHICLE PULL UP SPACE. SUCH ZONES SHALL BE LOCATED ON A SURFACE WITH A SLOPE NOT OVER 2%.
TOTAL LENGTH OF PASSENGER DROP-OFF AND LOADING ZONE IS 600 LINEAR FEET, THUS 120 LINEAR FEET OF ACCESSIBLE DROP-OFF AND LOADING ZONES IS REQUIRED.
(3), THREE, 40 LINEAR FOOT AREAS OF ACCESSIBLE PASSENGER DROP-OFF AND LOADING ZONE ARE PROVIDED, TOTALING THE REQUIRED 120 LINEAR FEET, THEREFORE OK.

5 ACCESSIBLE ENTRANCE SIGN, SEE 1B/SD14

6 BUS LOADING ZONE

EV CHARGING

# OF STALLS	EV CAPABLE REQ'D	# OF EV CAPABLE	EV CHARGERS REQ'D	# OF EV CHARGERS
122	25	25	6	6

25 EV CAPABLE SPACES PROVIDED, INCLUDES 6 EVCS, THEREFORE OK

PER C.B.C. 11B-228.3.2.1, 6 EVCS REQUIRES MINIMUM 1 VAN ACCESSIBLE AND MINIMUM 1 STANDARD ACCESSIBLE AND 0 AMBULATORY STALLS

1 VAN ACCESSIBLE EVCS AND 1 STANDARD ACCESSIBLE EVCS PROVIDED, THEREFORE OK

REFER TO SHEETS SD5 AND SD6 FOR LOCATION OF EV CAPABLE STALLS AND EV CHARGERS.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NON-COMPLIANT WITH THE CBC HAVE BEEN IDENTIFIED AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THE ITEMS SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

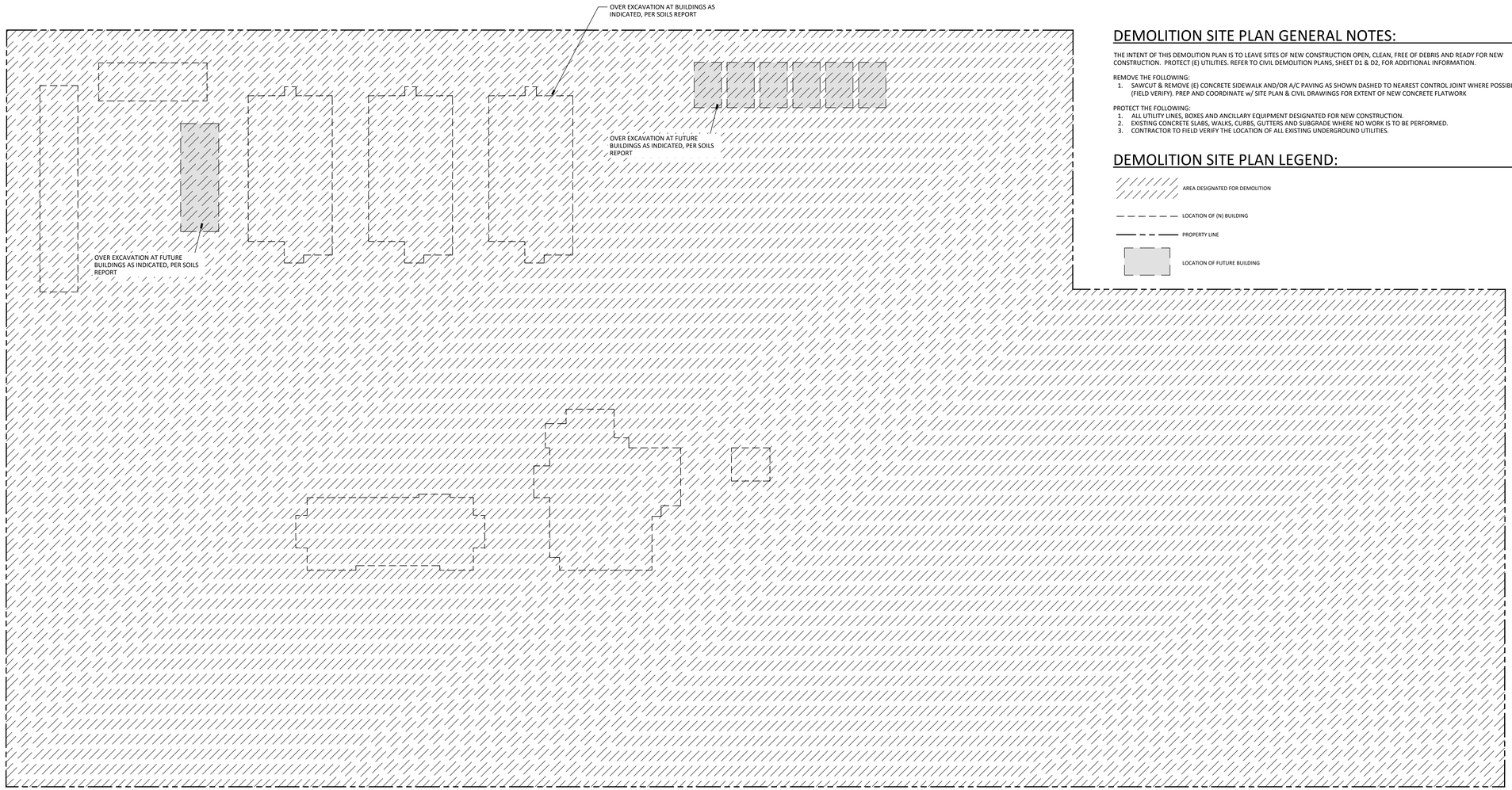
MANGINI ARCHITECTURE | INGENUITY
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TITLE
OVERALL
SITE PLAN

SD1

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\SD1 Overall Site Plan.dwg Sep 16 2026 4:53pm



DEMOLITION SITE PLAN GENERAL NOTES:

THE INTENT OF THIS DEMOLITION PLAN IS TO LEAVE SITES OF NEW CONSTRUCTION OPEN, CLEAN, FREE OF DEBRIS AND READY FOR NEW CONSTRUCTION. PROTECT (E) UTILITIES. REFER TO CIVIL DEMOLITION PLANS, SHEET D1 & D2, FOR ADDITIONAL INFORMATION.

REMOVE THE FOLLOWING:
1. SAWCUT & REMOVE (E) CONCRETE SIDEWALK AND/OR A/C PAVING AS SHOWN DASHED TO NEAREST CONTROL JOINT WHERE POSSIBLE, (FIELD VERIFY). PREP AND COORDINATE w/ SITE PLAN & CIVIL DRAWINGS FOR EXTENT OF NEW CONCRETE FLATWORK

PROTECT THE FOLLOWING:
1. ALL UTILITY LINES, BOXES AND ANCILLARY EQUIPMENT DESIGNATED FOR NEW CONSTRUCTION.
2. EXISTING CONCRETE SLABS, WALKS, CURBS, GUTTERS AND SUBGRADE WHERE NO WORK IS TO BE PERFORMED.
3. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES.

DEMOLITION SITE PLAN LEGEND:

AREA DESIGNATED FOR DEMOLITION

LOCATION OF (N) BUILDING

PROPERTY LINE

LOCATION OF FUTURE BUILDING

north

DEMOLITION SITE PLAN

SCALE: 1" = 50'-0"

APPROVALS

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TITLE
DEMOLITION SITE PLAN

SD2

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DATE: 09/22/26

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JAMES R. MORRELL
No. 28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

CURVE TABLE

CURVE	RADIUS	CURVE	RADIUS	CURVE	RADIUS
C1	4'-6"	C12	28'-0"	C23	110'-0"
C2	5'-0"	C13	30'-6"	C24	120'-0"
C3	6'-0"	C14	35'-0"	C25	125'-0"
C4	8'-0"	C15	40'-0"	C26	135'-0"
C5	8'-6"	C16	50'-0"	C27	145'-0"
C6	9'-0"	C17	56'-0"	C28	155'-0"
C7	10'-0"	C18	57'-0"	C29	175'-0"
C8	13'-6"	C19	60'-0"	C30	235'-0"
C9	14'-0"	C20	85'-0"		
C10	20'-0"	C21	90'-0"		
C11	26'-0"	C22	100'-0"		

*RADII ARE TO FACE OF CURB OR EDGE OF SIDWALK

SITE PLAN LEGEND :

- NEW BUILDING
- ACCESSIBLE RESTROOMS, SEE FLOOR PLANS FOR GENDER
- CONCRETE PAVING
- REINFORCED CONCRETE PAVING
- ASPHALT PAVING
- PROPERTY LINE
- CHAIN LINK FENCE
- DECORATIVE METAL FENCE
- CONTROL POINT

GATE SCHEDULE

GATE #	WIDTH	HEIGHT	DETAIL	HDWR GROUP	DESCRIPTION
G1	PAIR 10'-0"	7'-0"	17/SD13	G08	DECORATIVE METAL SWING GATE
G2	4'-0"	7'-0"	16/SD13	G01	DECORATIVE METAL SWING GATE
G3	4'-0"	7'-0"	16/SD13	G03	DECORATIVE METAL SWING GATE
G4	PAIR 4'-0"	7'-0"	17/SD13	G08	DECORATIVE METAL SWING GATE
G5	PAIR 4'-0"	7'-0"	17/SD13	G08	DECORATIVE METAL SWING GATE
G6	4'-0"	7'-0"	16/SD13	G03	DECORATIVE METAL SWING GATE
G7	PAIR 4'-0"	7'-0"	17/SD13	G08	DECORATIVE METAL SWING GATE
G8	27'-0"	7'-0"	11/SD19	G07	DECORATIVE METAL ROLLING GATE (MOTORIZED)
G9	4'-0"	4'-0"	6/SD13	G02	CHAIN LINK SWING GATE w/ PANIC HARDWARE (BLACK VINYL COATED)
G10	4'-0"	4'-0"	6/SD13	G02	CHAIN LINK SWING GATE w/ PANIC HARDWARE (BLACK VINYL COATED)
G11	PAIR 10'-0"	7'-0"	17/SD13	G05	DECORATIVE METAL SWING GATE
G12	4'-0"	7'-0"	16/SD13	G03	DECORATIVE METAL SWING GATE
G13	4'-0"	7'-0"	16/SD13	G03	DECORATIVE METAL SWING GATE
G14	4'-0"	7'-0"	16/SD13	G03	DECORATIVE METAL SWING GATE
G15	33'-7"	7'-0"	14/SD19	G05	DECORATIVE METAL ROLLING GATE
G16	27'-0"	7'-0"	11/SD20	G07	DECORATIVE METAL ROLLING GATE (MOTORIZED)
G17	PAIR 5'-0"	6'-0"	7/SD13	G04	CHAIN LINK SWING GATE
G18	PAIR 5'-0"	6'-0"	7/SD13	G04	CHAIN LINK SWING GATE
G19	PAIR 5'-0"	6'-0"	7/SD13	G04	CHAIN LINK SWING GATE
G20	33'-0"	7'-0"	24/SD13	G05	DECORATIVE METAL ROLLING GATE (MOTORIZED)
G21	4'-0"	4'-0"	21/SD13	G06	DECORATIVE METAL SWING GATE
G22	4'-0"	6'-0"	6/SD13	G06	CHAIN LINK SWING GATE
G23	PAIR 16'-0"	4'-0"	14/SD12	G04	ACCESS CONTROL GATE
G24	PAIR 10'-0"	6'-0"	7/SD13	G04	CHAIN LINK SWING GATE

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TITLE
ENLARGED SITE PLAN

SD3

PROJECT 24042

ENLARGED SITE DIMENSION PLAN

SCALE: 1" = 30'-0"

north

APPROVALS

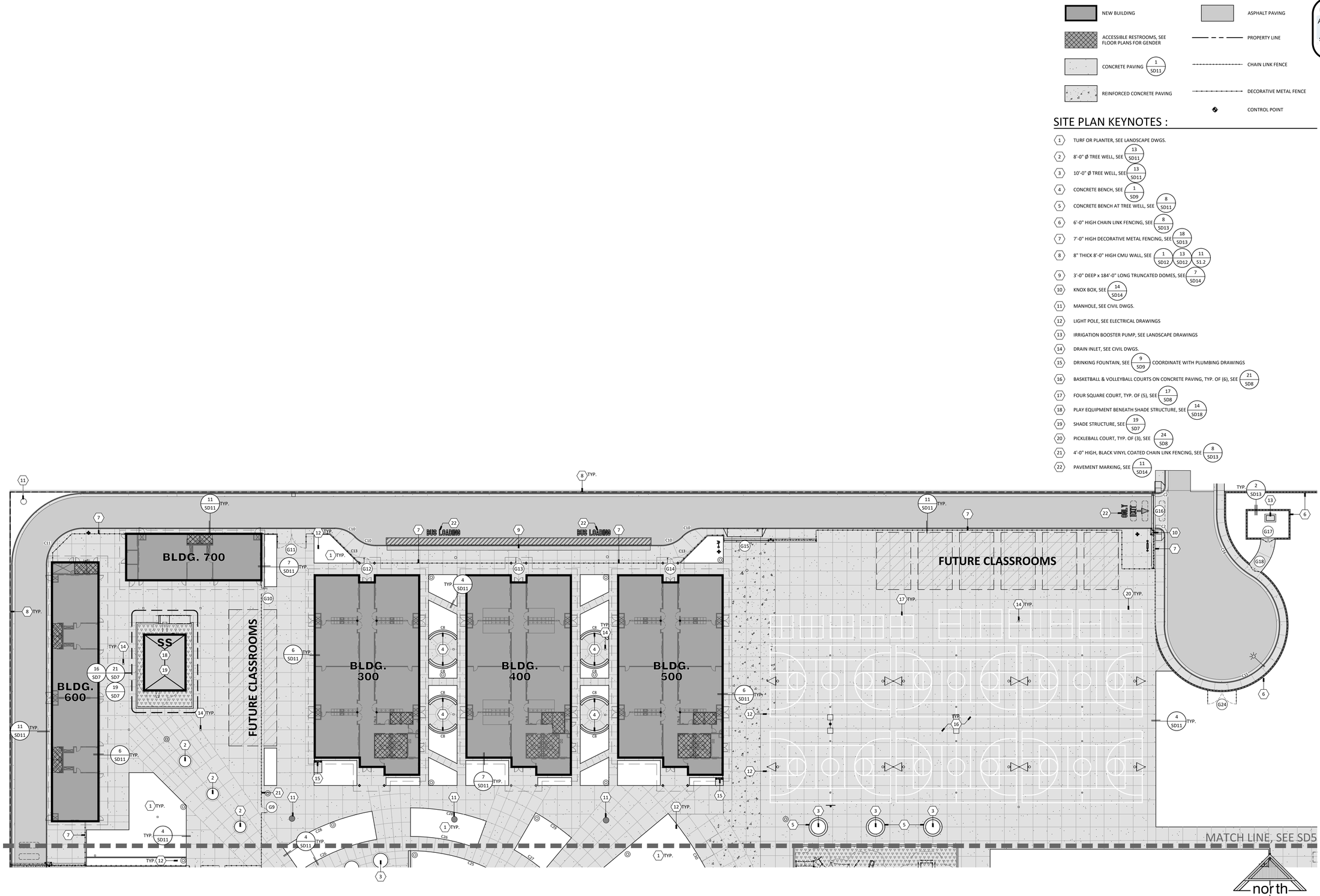
FILE # 10-126 | APPLICATION # 02-123774

SITE PLAN LEGEND :

- NEW BUILDING
- ACCESSIBLE RESTROOMS, SEE FLOOR PLANS FOR GENDER
- CONCRETE PAVING (1 / SD11)
- REINFORCED CONCRETE PAVING
- ASPHALT PAVING
- PROPERTY LINE
- CHAIN LINK FENCE
- DECORATIVE METAL FENCE
- CONTROL POINT

SITE PLAN KEYNOTES :

1. TURF OR PLANTER, SEE LANDSCAPE DWGS.
2. 8'-0" Ø TREE WELL, SEE (13 / SD11)
3. 10'-0" Ø TREE WELL, SEE (13 / SD11)
4. CONCRETE BENCH, SEE (1 / SD9)
5. CONCRETE BENCH AT TREE WELL, SEE (8 / SD11)
6. 6'-0" HIGH CHAIN LINK FENCING, SEE (8 / SD13)
7. 7'-0" HIGH DECORATIVE METAL FENCING, SEE (18 / SD13)
8. 8" THICK 8'-0" HIGH CMU WALL, SEE (1 / SD12) (13 / SD12) (11 / S1.2)
9. 3'-0" DEEP x 184'-0" LONG TRUNCATED DOMES, SEE (7 / SD14)
10. KNOX BOX, SEE (14 / SD14)
11. MANHOLE, SEE CIVIL DWGS.
12. LIGHT POLE, SEE ELECTRICAL DRAWINGS
13. IRRIGATION BOOSTER PUMP, SEE LANDSCAPE DRAWINGS
14. DRAIN INLET, SEE CIVIL DWGS.
15. DRINKING FOUNTAIN, SEE (9 / SD9) COORDINATE WITH PLUMBING DRAWINGS
16. BASKETBALL & VOLLEYBALL COURTS ON CONCRETE PAVING, TYP. OF (6), SEE (21 / SD8)
17. FOUR SQUARE COURT, TYP. OF (5), SEE (17 / SD8)
18. PLAY EQUIPMENT BENEATH SHADE STRUCTURE, SEE (14 / SD18)
19. SHADE STRUCTURE, SEE (19 / SD7)
20. PICKLEBALL COURT, TYP. OF (3), SEE (24 / SD8)
21. 4'-0" HIGH, BLACK VINYL COATED CHAIN LINK FENCING, SEE (8 / SD13)
22. PAVEMENT MARKING, SEE (11 / SD14)



PARTIAL ENLARGED SITE PLAN

SCALE: 1" = 30'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

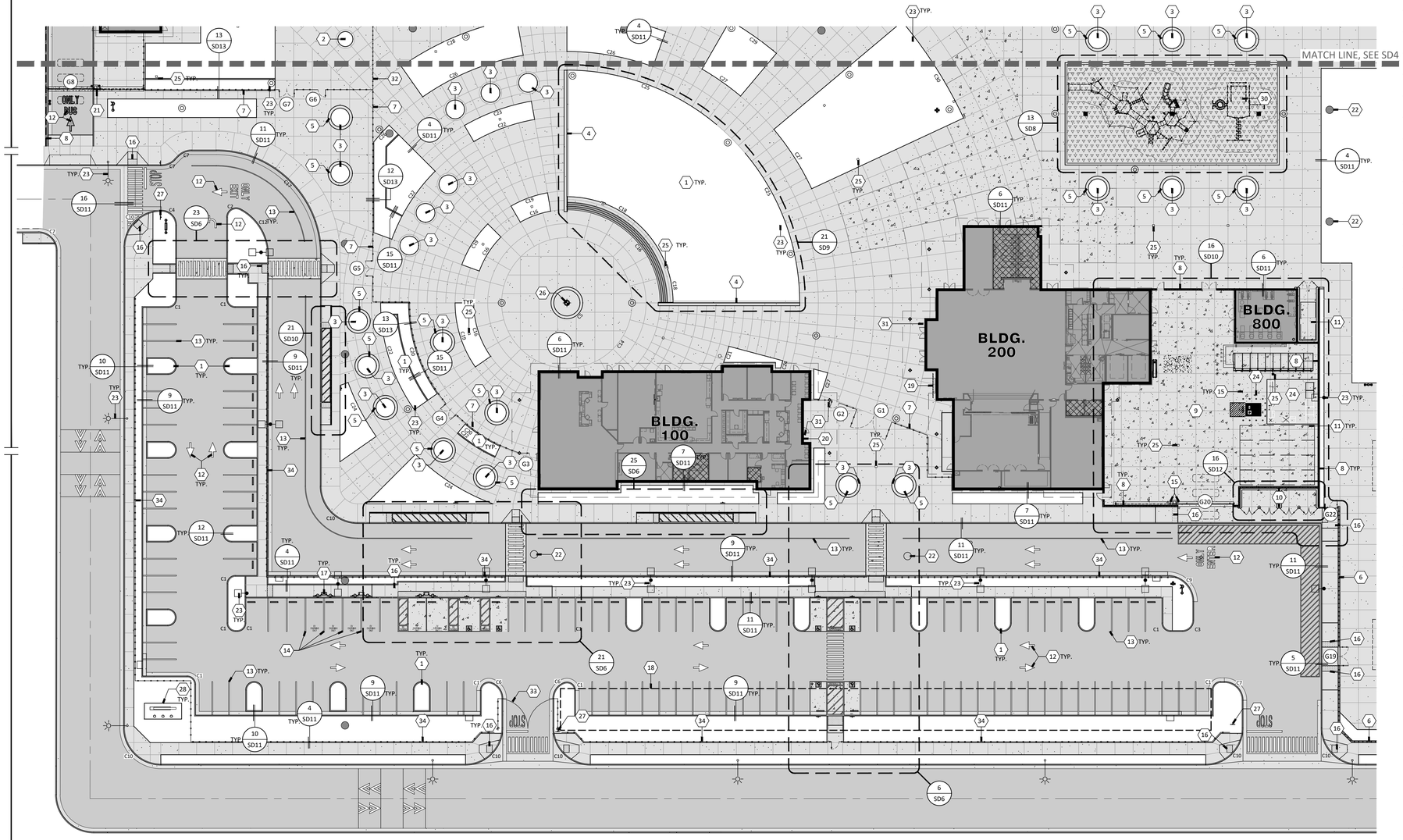
MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0539 Office
(559) 627.1926 Fax

TITLE
ENLARGED SITE PLAN

SD4

PROJECT 24042

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ENLARGED SITE PLAN

SCALE: 1" = 30'-0"

SITE PLAN LEGEND :

- NEW BUILDING
- ACCESSIBLE RESTROOMS, SEE FLOOR PLANS FOR GENDER
- CONCRETE PAVING, SEE 1/SD11
- REINFORCED CONCRETE PAVING
- ASPHALT PAVING
- PROPERTY LINE
- CHAIN LINK FENCE
- DECORATIVE METAL FENCE
- CONTROL POINT

SITE PLAN KEYNOTES :

1. TURF OR PLANTER, SEE LANDSCAPE DWGS.
2. 8'-0" Ø TREE WELL, SEE 13/SD11
3. 10'-0" Ø TREE WELL, SEE 13/SD11
4. CONCRETE BENCH, SEE 1/SD9
5. CONCRETE BENCH AT TREE WELL, SEE 8/SD11
6. 6'-0" HIGH CHAIN LINK FENCING, SEE 8/SD13
7. 7'-0" HIGH DECORATIVE METAL FENCING, SEE 18/SD13
8. 8" THICK 8'-0" HIGH CMU WALL, SEE 1/SD12, 13/SD12, 11/S1.2
9. SERVICE YARD ENCLOSURE, SEE 16/SD10
10. TRASH ENCLOSURE, SEE 16/SD12
11. 'C' TRAIN, TYPICAL (N.I.C.)
12. PAVEMENT MARKING, SEE 11/SD14
13. 4" WIDE STRIPING PAINTED WHITE
14. 4" WIDE STRIPING PAINTED EMERALD GREEN (FEDERAL STANDARD 595)
15. BOLLARD, SEE 4/SD10
16. TRUNCATED DOMES, SEE 7/SD14
17. TWO CONNECTION EV CHARGING STATION AND SIGNAGE, SEE ELECTRICAL AND 1E/SD14
18. SOLAR CANOPY SHOWN DASHED FOR CLARITY, SEE 16/SD15 FOR LAYOUT
19. BIKE RACK, SEE SPEC.
20. RECESSED KNOX BOX, SEE 15/SD14
21. KNOX BOX, SEE 14/SD14
22. MANHOLE, SEE CIVIL DWGS.
23. LIGHT POLE, SEE ELECTRICAL DRAWINGS
24. ELECTRICAL EQUIPMENT, SEE ELECTRICAL DRAWINGS
25. DRAIN INLET, SEE CIVIL DWGS.
26. FLAG POLE, SEE 6/SD9
27. ENTRANCE SIGN, SEE 1B/SD14
28. MONUMENT SIGN, SEE 1/SD15
29. NOT USED
30. PLAY EQUIPMENT, SEE 11/SD18
31. CARD READER/INTERCOM, SEE 21/SD19
32. 4'-0" HIGH, BLACK VINYL COATED CHAIN LINK FENCING, SEE 8/SD13
33. ACCESS CONTROL GATE, SEE DETAILS 14/SD12
34. 4'-0" HIGH DECORATIVE METAL FENCING, SEE 18/SD13

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

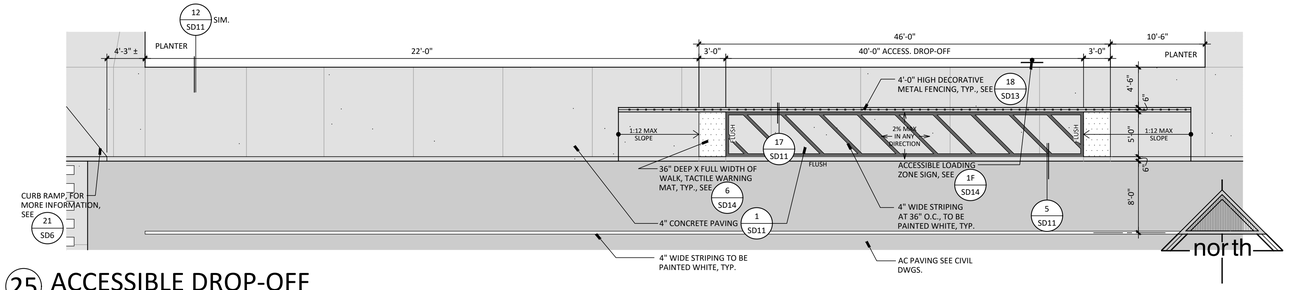
REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
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(559) 627.7030 Office
(559) 627.1926 Fax

TITLE
ENLARGED SITE PLAN

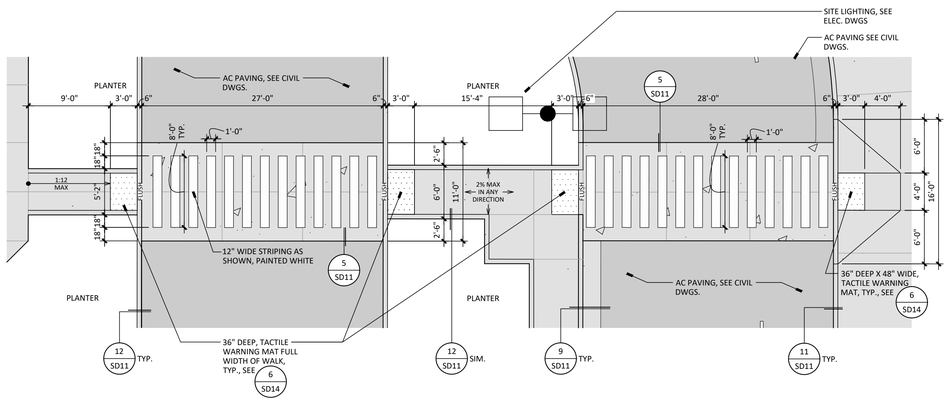
SD5

PROJECT 24042



25 ACCESSIBLE DROP-OFF

SCALE: 1/8" = 1'-0"



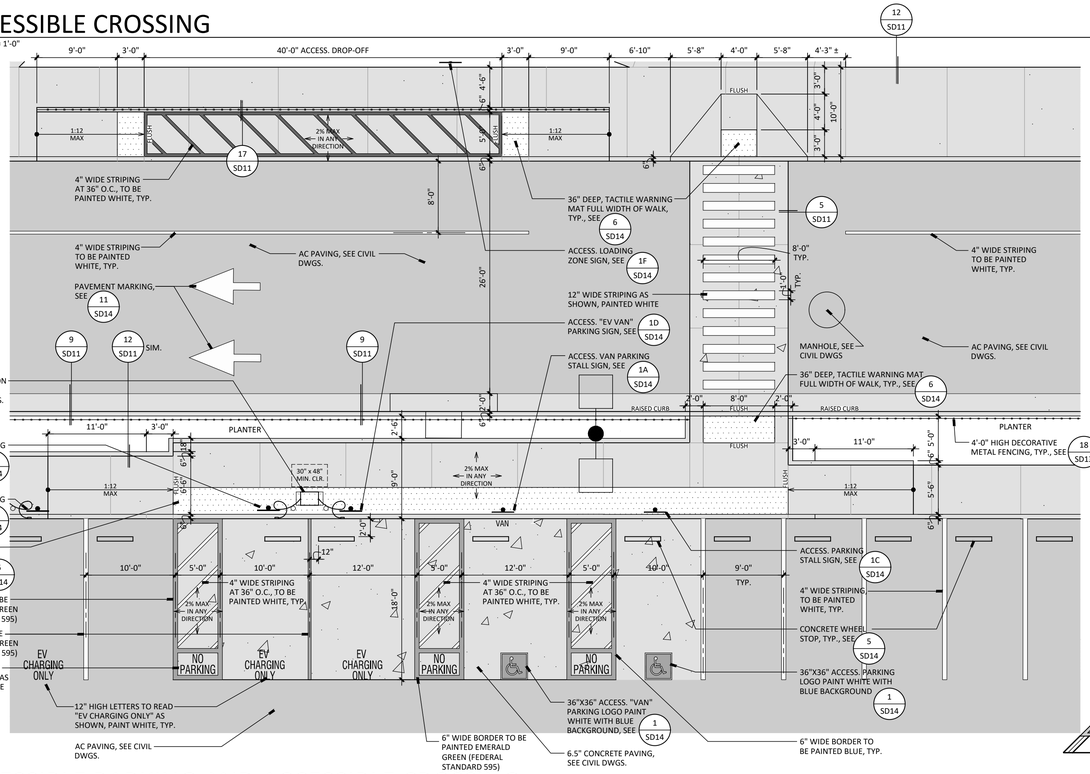
SITE PLAN LEGEND :

- ASPHALT PAVING
- CONCRETE PAVING, SEE 1 SD11
- REINFORCED CONCRETE PAVING
- CHAIN LINK FENCE
- DECORATIVE METAL FENCE

north

23 ACCESSIBLE CROSSING

SCALE: 1/8" = 1'-0"

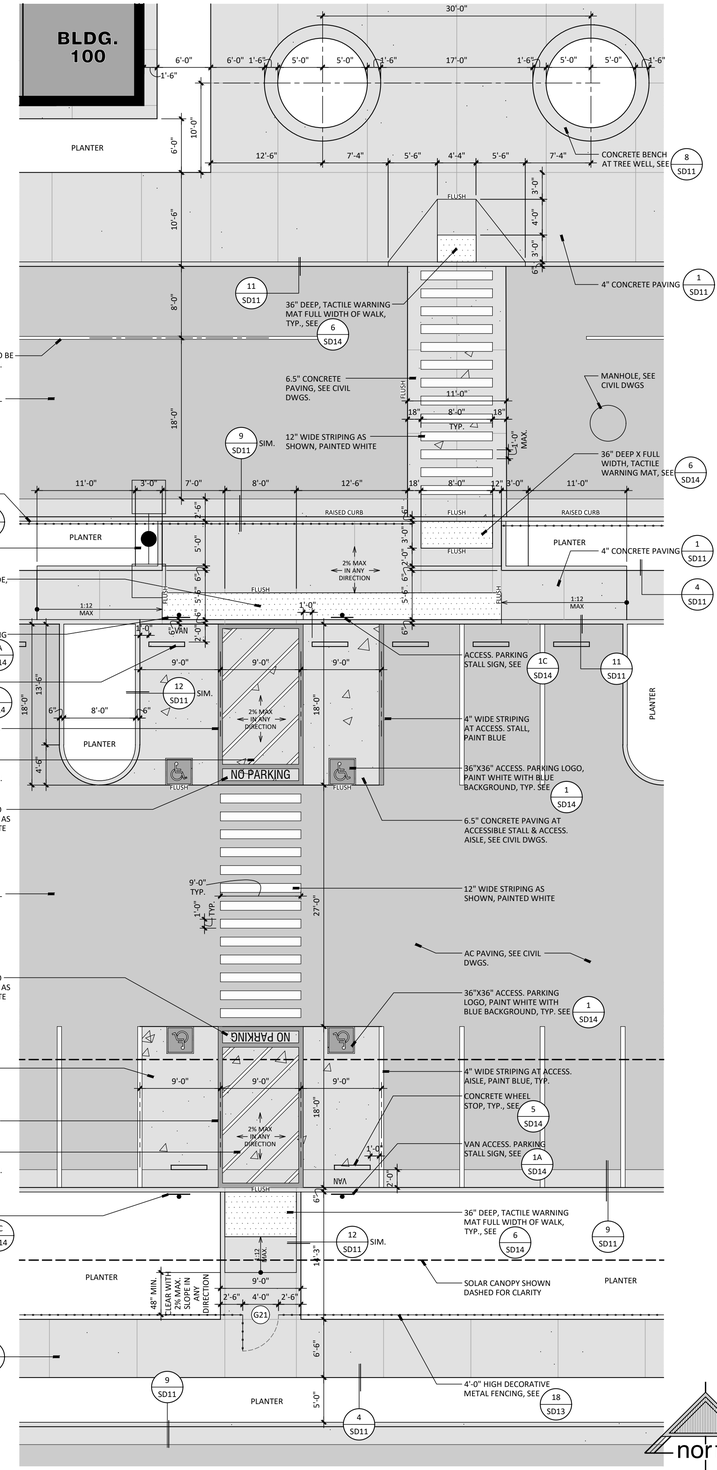


ACCESSIBLE PARKING SPACES AND ACCESS. AISLES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION

north

21 ACCESSIBLE PARKING AND ACCESSIBLE CROSSING

SCALE: 1/8" = 1'-0"



ACCESSIBLE PARKING SPACES AND ACCESS. AISLES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION

north

6 ACCESSIBLE PARKING AND ACCESSIBLE CROSSING

SCALE: 1/8" = 1'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. 18128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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MANGINI ASSOCIATES INC.
4370 West Minaret Way Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
ENLARGED SITE PLANS AND DETAILS

SD6

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PLAYGROUND AREA

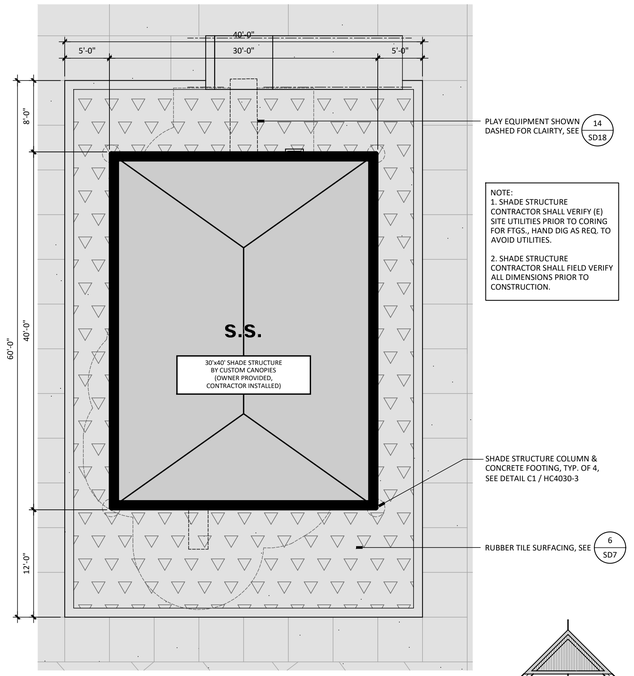
1). PLAYGROUND EQUIPMENT SHALL COMPLY WITH SECTIONS IIB-240 AND IIB-1008.

2). IIB-1108.2.6 GROUND SURFACES. GROUND SURFACES ON ACCESSIBLE ROUTES, CLEAR FLOOR OR GROUND SPACES, AND TURNING SPACES SHALL COMPLY WITH SECTION IIB-1008.2.6

3). IIB-1008.2.6.1 ACCESSIBILITY. GROUND SURFACES SHALL COMPLY WITH ASTM F 1951. GROUND SURFACES SHALL BE INSPECTED AND MAINTAINED REGULARLY AND FREQUENTLY TO ENSURE CONTINUED COMPLIANCE WITH ASTM F 1951.

4). IIB-1008.2.6.2 USE ZONES. GROUND SURFACES LOCATED WITHIN USE ZONES SHALL COMPLY WITH ASM F 1292 (1999 EDITION OR 2004 EDITION).

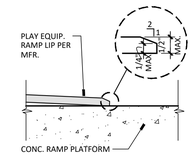
5). FOR DRAIN AT PLAYGROUND, SEE 3/SD7



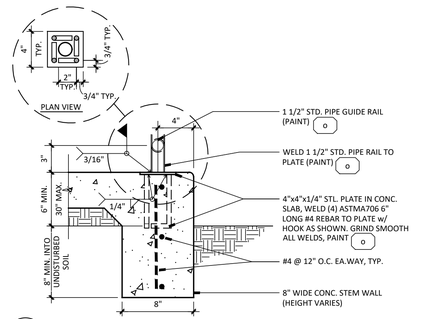
NOTE:
1. SHADE STRUCTURE CONTRACTOR SHALL VERIFY (E) SITE UTILITIES PRIOR TO CORING FOR FTGS., HAND DIG AS REQ. TO AVOID UTILITIES.

2. SHADE STRUCTURE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

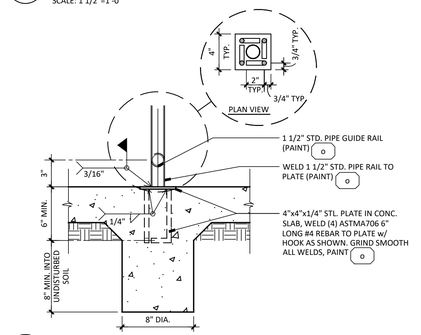
19 ENLARGED SHADE STRUCTURE LAYOUT
SCALE: 1/8" = 1'-0"



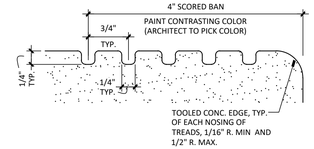
TRANSITION AT 10 PLAY EQUIP./CONC. PLATFORM
SCALE: 3"=1'-0"



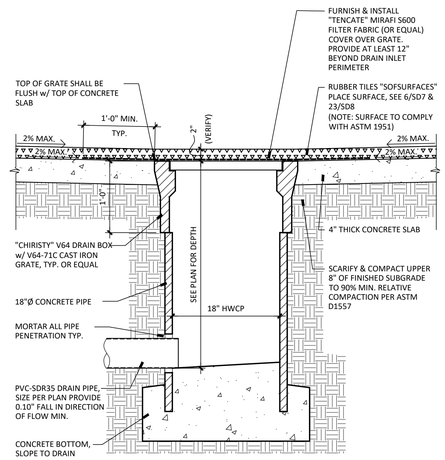
9 POST ANCHORAGE
SCALE: 1 1/2"=1'-0"



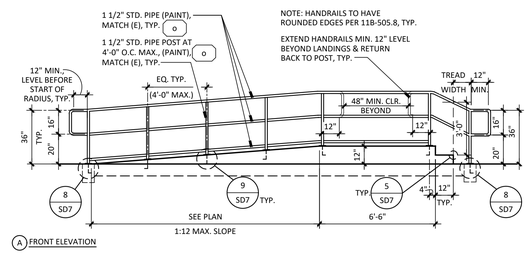
8 POST ANCHORAGE
SCALE: 1 1/2"=1'-0"



5 TREAD AT STAIRS
SCALE: 1 1/2" = 1'-0"

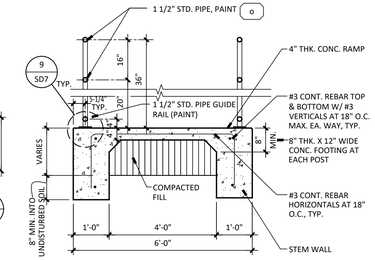


3 DRAIN INLET
SCALE: 1"=1'-0"

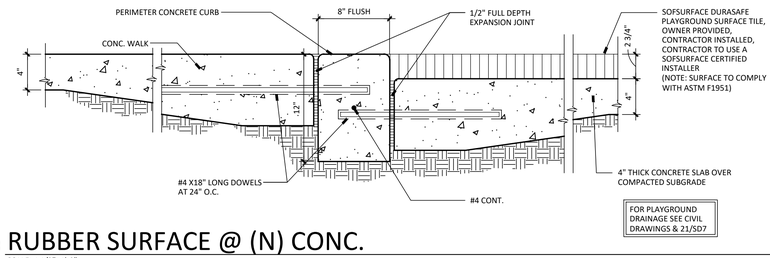


A FRONT ELEVATION

7 HANDRAIL ELEVATION
SCALE: 1/4"=1'-0"

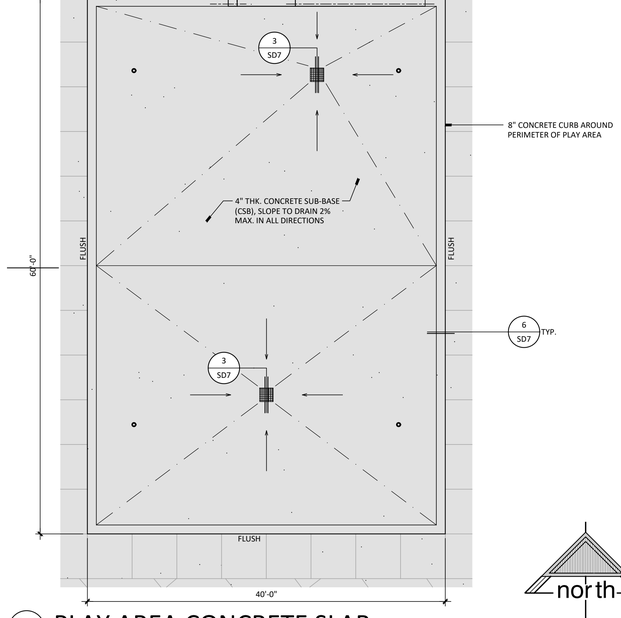


2 SECTION AT CONC. RAMP
SCALE: 1/2"=1'-0"

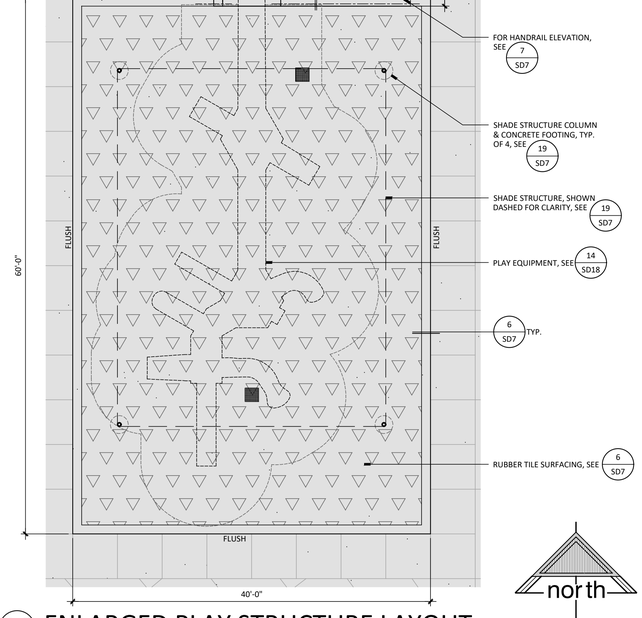


FOR PLAYGROUND DRAINAGE SEE CIVIL DRAWINGS & 21/SD7

6 RUBBER SURFACE @ (N) CONC.
SCALE: 1 1/2"=1'-0"



21 PLAY AREA CONCRETE SLAB
SCALE: 1/8" = 1'-0"



16 ENLARGED PLAY STRUCTURE LAYOUT
SCALE: 1/8" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
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(559) 627.0530 Office
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TITLE
ENLARGED SITE PLANS AND DETAILS

SD7

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PLAYGROUND AREA

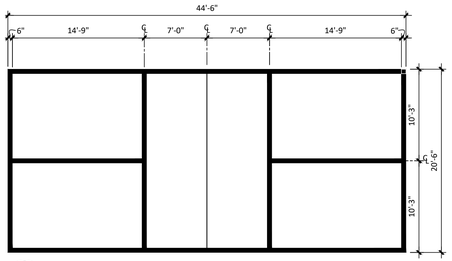
1). PLAYGROUND EQUIPMENT SHALL COMPLY WITH SECTIONS IIB-240 AND IIB-1008.

2). IIB-1108.2.6 GROUND SURFACES. GROUND SURFACES ON ACCESSIBLE ROUTES, CLEAR FLOOR OR GROUND SPACES, AND TURNING SPACES SHALL COMPLY WITH SECTION IIB-1008.2.6

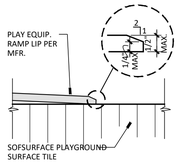
3). IIB-1008.2.6.1 ACCESSIBILITY. GROUND SURFACES SHALL COMPLY WITH ASTM F 1951. GROUND SURFACES SHALL BE INSPECTED AND MAINTAINED REGULARLY AND FREQUENTLY TO ENSURE CONTINUED COMPLIANCE WITH ASTM F 1951.

4). IIB-1008.2.6.2 USE ZONES. GROUND SURFACES LOCATED WITHIN USE ZONES SHALL COMPLY WITH ASM F 1292 (1999 EDITION OR 2004 EDITION).

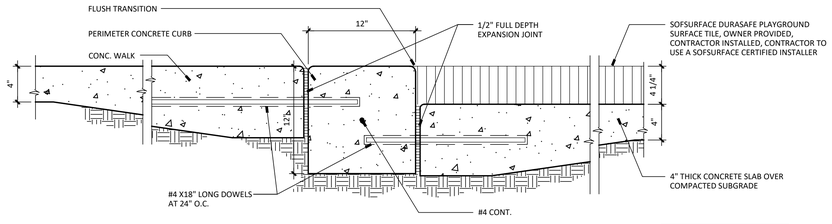
5). FOR DRAIN AT PLAYGROUND, SEE 3/SD7



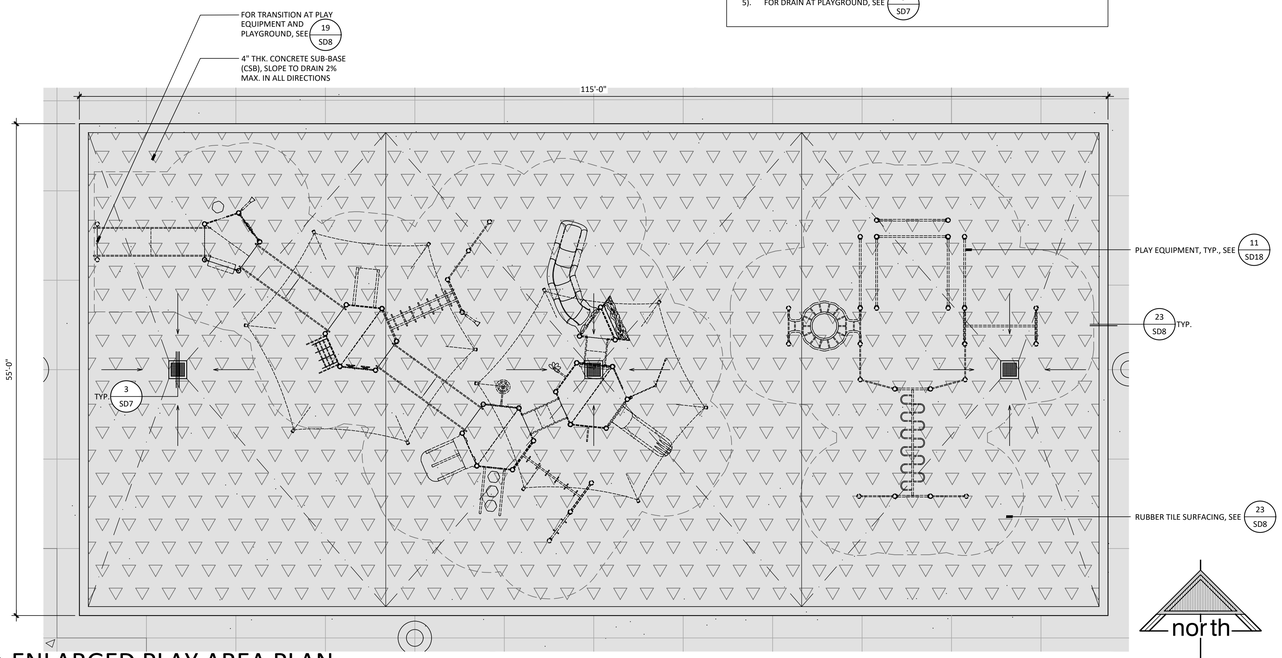
24 PICKLEBALL COURT
SCALE: 1/8" = 1'-0"



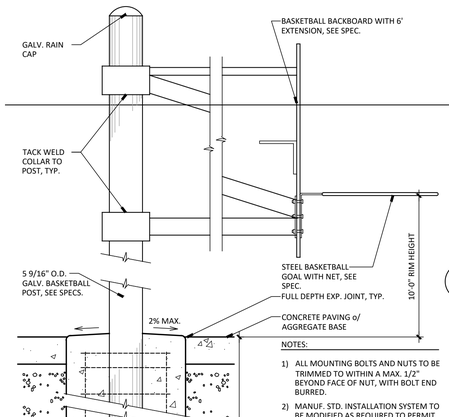
19 TRANSITION AT PLAY EQUIP./PLAYGROUND
SCALE: 3"=1'-0"



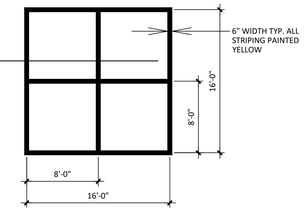
23 PLAYGROUND SURFACE
SCALE: 1 1/2"=1'-0"



13 ENLARGED PLAY AREA PLAN
SCALE: 1/8" = 1'-0"

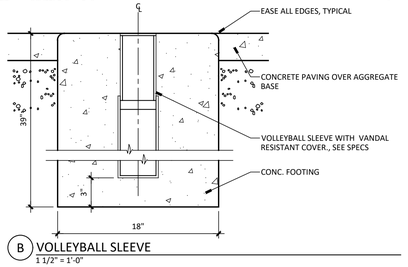


A BASKETBALL BACKBOARD & POST FOOTING
1" = 1'-0"

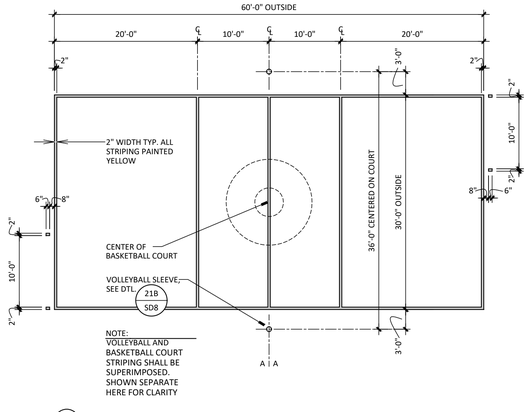


17 FOUR-SQUARE COURT
SCALE: 1/8" = 1'-0"

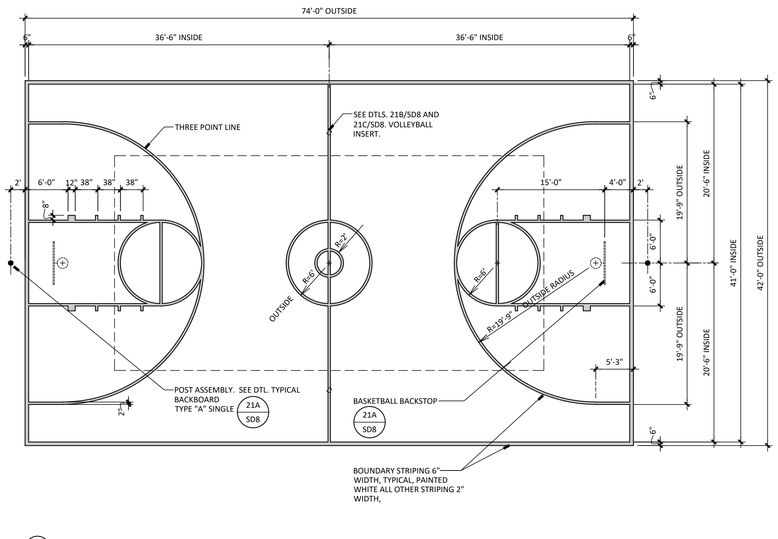
S: 10 - REV. - 25_06.10



B VOLLEYBALL SLEEVE
1 1/2" = 1'-0"



C STRIPING AT VOLLEYBALL COURT
1" = 10'-0"



D STRIPING AT BASKETBALL HARDCOURTS
10" = 1'-0"

21 VOLLEYBALL AND BASKETBALL COURT DETAILS
SCALE: SCALE AS SHOWN

S: 08 - REV. - 25_06.10

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

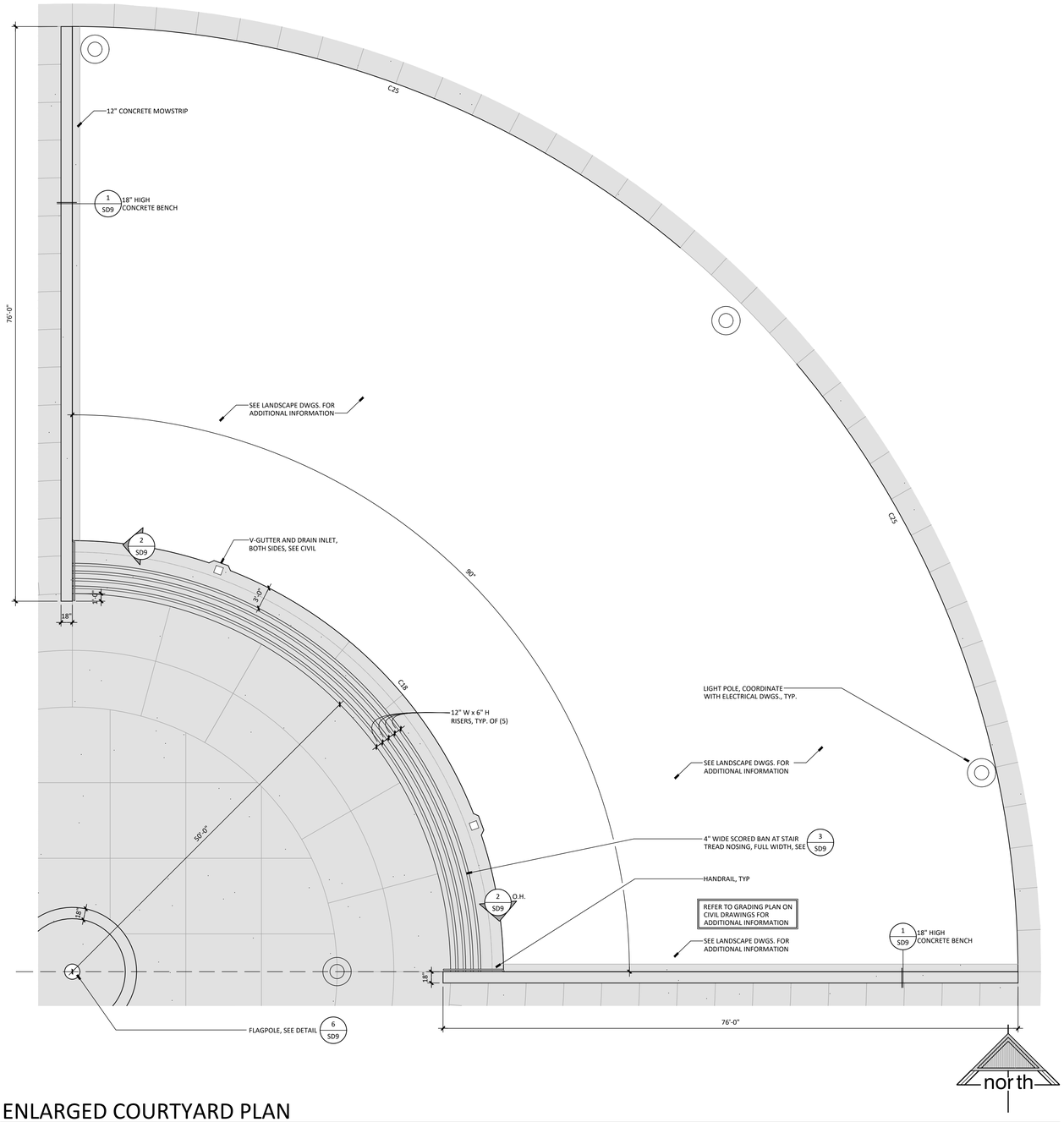
MANGINI ARCHITECTURE | INGENUITY
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(559) 627.0630 Office
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TITLE
ENLARGED SITE PLANS AND DETAILS

SD8

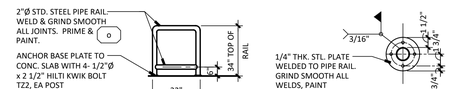
PROJECT 24042

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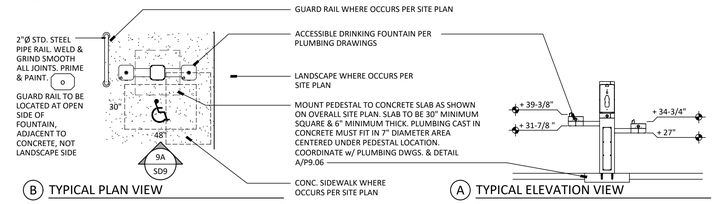


21 ENLARGED COURTYARD PLAN

SCALE: 1/8" = 1'-0"



C GUARDRAIL ELEVATION

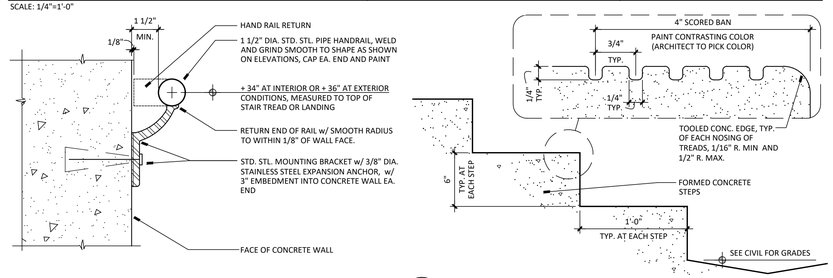


B TYPICAL PLAN VIEW

A TYPICAL ELEVATION VIEW

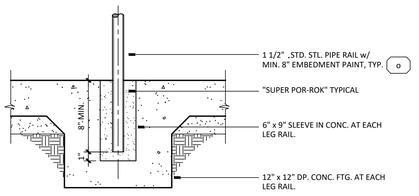
9 ACCESS. DRINKING FOUNTAIN (SIM. AT 2 LOCATIONS)

SCALE: 1/4"=1'-0"



8 HANDRAIL ANCHORAGE

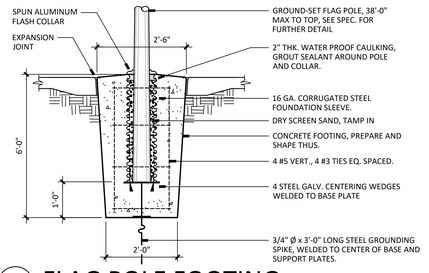
SCALE: 3" = 1'-0"



7 RAIL FOOTING

SCALE: 1 1/2" = 1'-0"

S: 19 - REV. - 25_06.10



6 FLAG POLE FOOTING

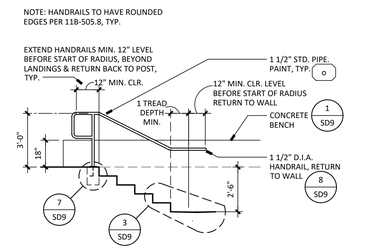
(34'-0" MAX HEIGHT)

SCALE: 1/2" = 1'-0"

S: 11 - REV. - 25_09.04

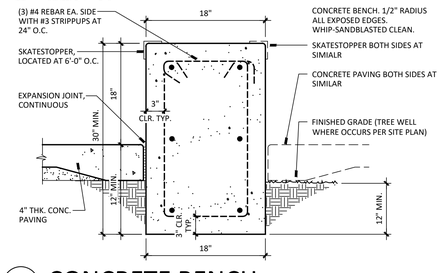
3 STAIRS AT COURTYARD

SCALE: 1 1/2" = 1'-0"



2 COURTYARD STAIR ELEVATION

SCALE: 1/4" = 1'-0"



1 CONCRETE BENCH

SCALE: 1 1/2" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
ENLARGED SITE PLANS AND DETAILS

SD9

PROJECT 24042

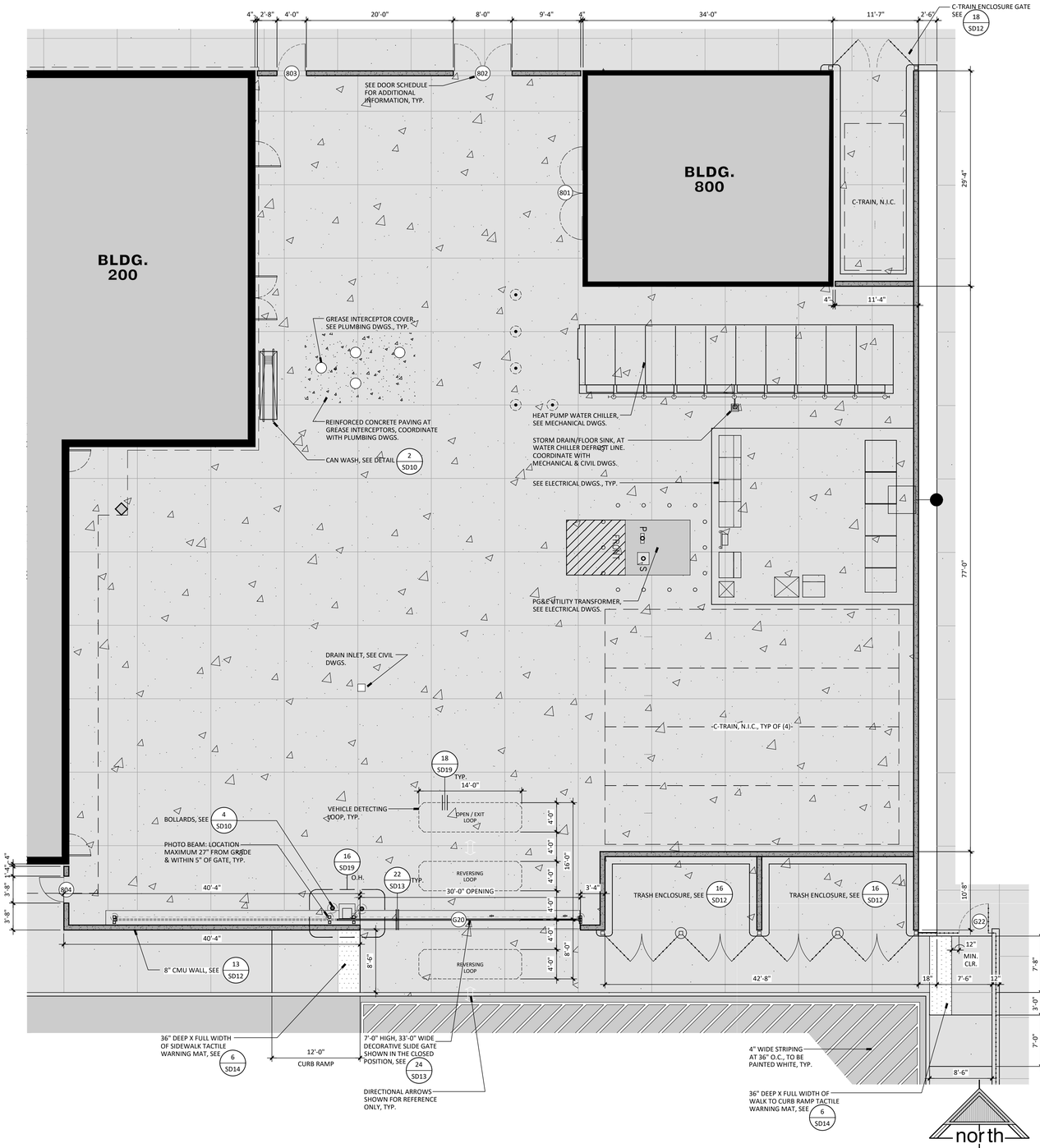
APPROVALS

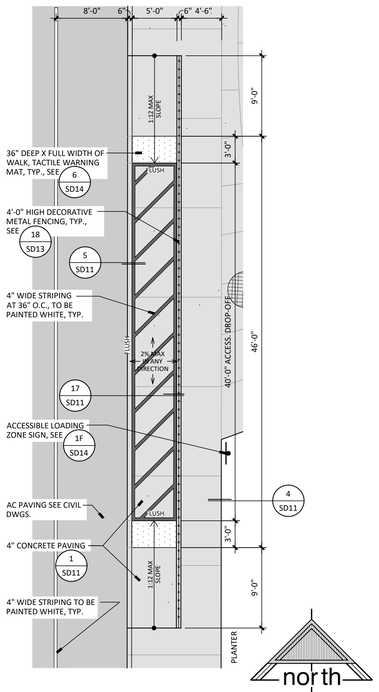
FILE # 10-126 | APPLICATION # 02-123774

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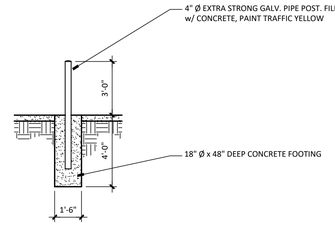
DATE: DECEMBER 18, 2025



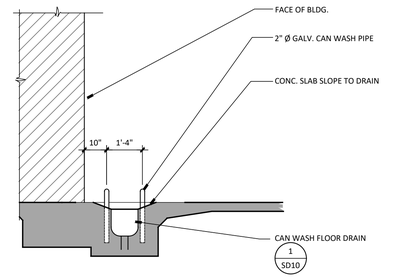


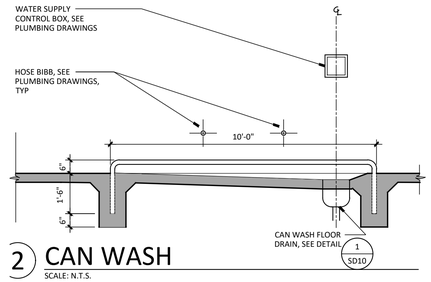
21 ACCESSIBLE DROP-OFF
SCALE: 1/8" = 1'-0"

16 SERVICE YARD AND TRASH ENCLOSURE
SCALE: 1/8" = 1'-0"

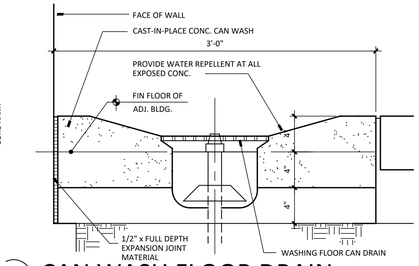


4 BOLLARD
SCALE: 1/4" = 1'-0"





2 CAN WASH
SCALE: N.T.S.



1 CAN WASH FLOOR DRAIN
SCALE: 1 1/2" = 1'-0"

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SD10

PROJECT 24042

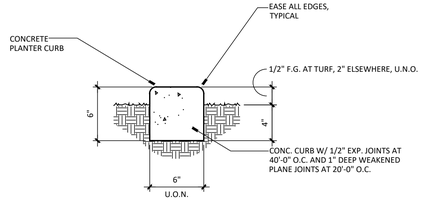
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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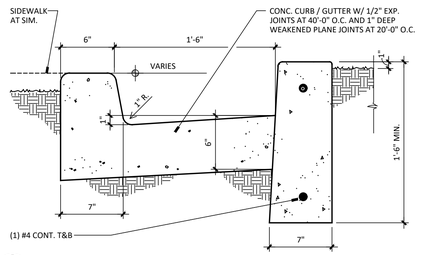
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



15 CONCRETE PLANTER CURB

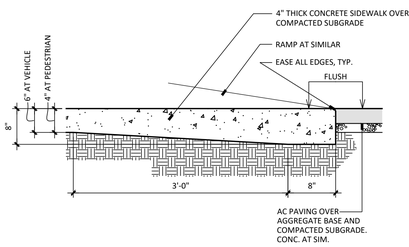
SCALE: 1 1/2" = 1'-0"



10 CONC. CURB / GUTTER

SCALE: 1 1/2" = 1'-0"

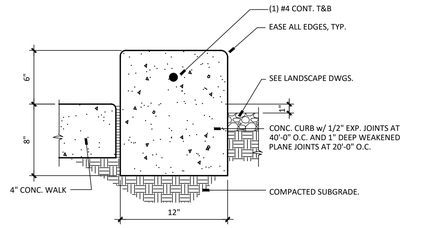
SC: 12 - REV. - 25_09.09



5 CONC. WALK AT AC PAVING

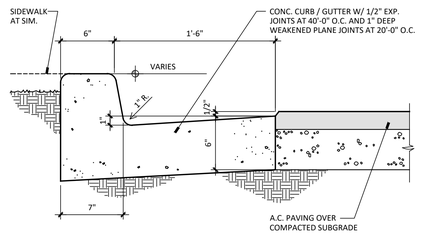
SCALE: 1" = 1'-0"

SC: 21 - REV. - 25_06.10



14 CONC. CURB AT TREE WELL

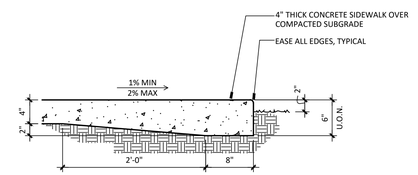
SCALE: 1 1/2" = 1'-0"



9 CONC. CURB / GUTTER

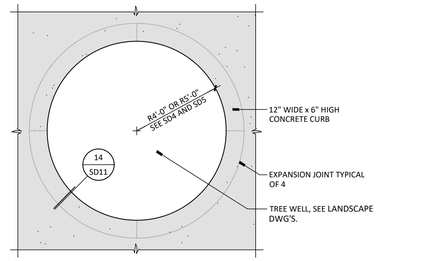
SCALE: 1 1/2" = 1'-0"

SC: 12 - REV. - 25_09.09



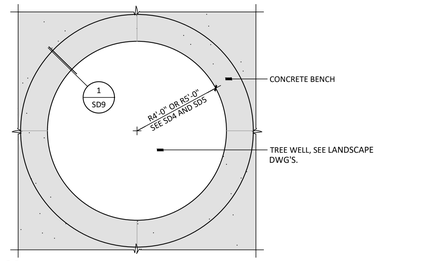
4 CONCRETE SIDEWALK

SCALE: 1" = 1'-0"



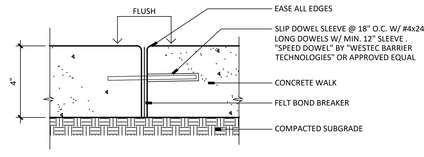
13 TREE WELL

SCALE: 1/4" = 1'-0"



8 CONC. BENCH AT TREE WELL

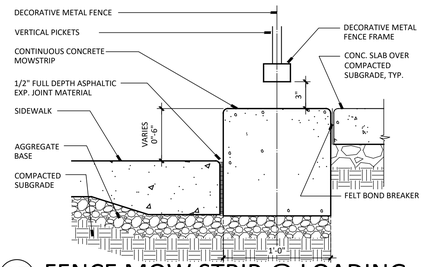
SCALE: 1/4" = 1'-0"



3 CONSTRUCTION JOINT (CJ)

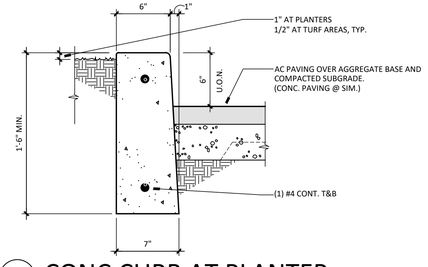
SCALE: 3" = 1'-0"

SC: 22 - REV. - 25_09.04



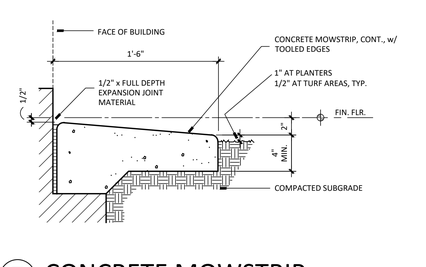
17 FENCE MOW STRIP @ LOADING

SCALE: 1 1/2" = 1'-0"



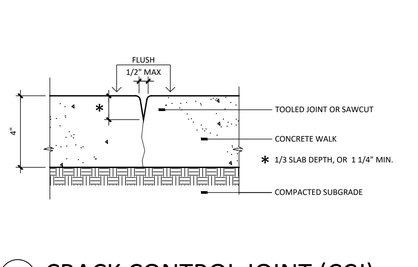
12 CONC.CURB AT PLANTER

SCALE: 1 1/2" = 1'-0"



7 CONCRETE MOWSTRIP

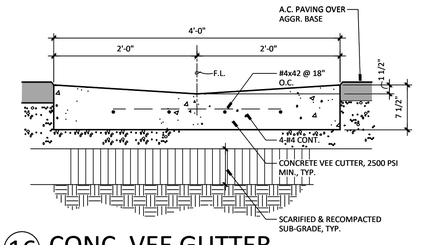
SCALE: 1 1/2" = 1'-0"



2 CRACK CONTROL JOINT (CCJ)

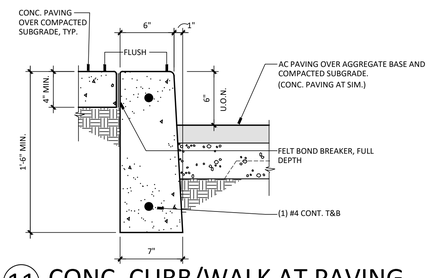
SCALE: 3" = 1'-0"

SC: 18 - REV. - 25_09.04



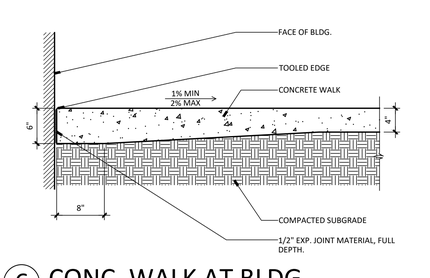
16 CONC. VEE GUTTER

SCALE: 1" = 1'-0"



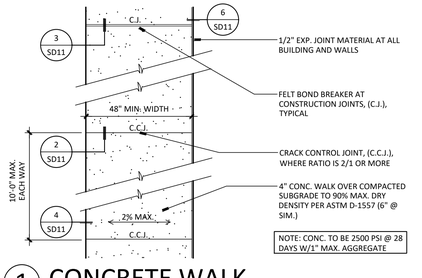
11 CONC. CURB/WALK AT PAVING

SCALE: 1 1/2" = 1'-0"



6 CONC. WALK AT BLDG.

SCALE: 1" = 1'-0"



1 CONCRETE SIDEWALK

SCALE: 1/4" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

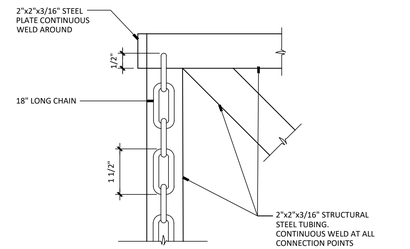
MANGINI ARCHITECTURE INGENUITY
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(559) 627 2630 Office
(559) 627 1926 Fax

TITLE
SITE DETAILS

SD11

PROJECT 24042

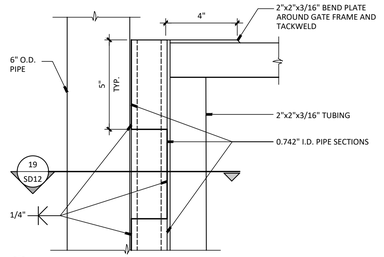
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20 18" LONG CHAIN

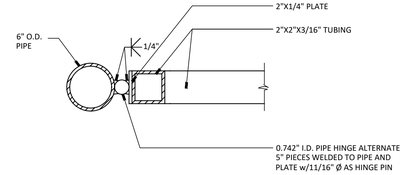
SCALE: N.T.S.

SF: 30 - REV. - 26_03.18



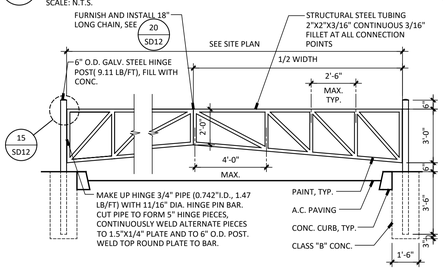
15 GATE POST SECTION

SCALE: N.T.S.



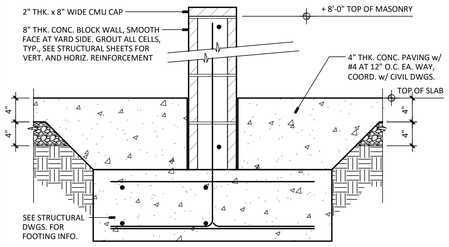
19 HINGE SECTION

SCALE: N.T.S.



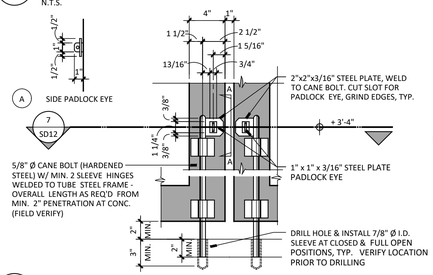
14 ACCESS CONTROL GATE

SCALE: 1/4" = 1'-0"



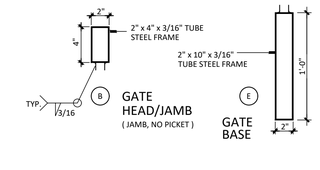
10 NOT USED

N.T.S.



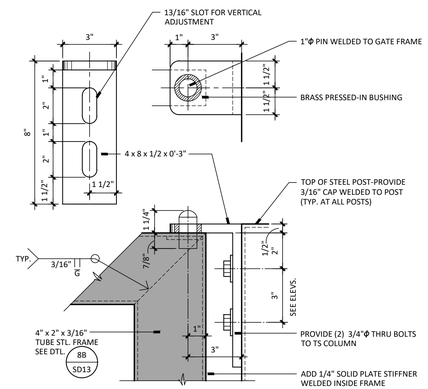
9 CANE BOLT LOCK ASSEMBLY

SCALE: 1 1/2" = 1'-0"



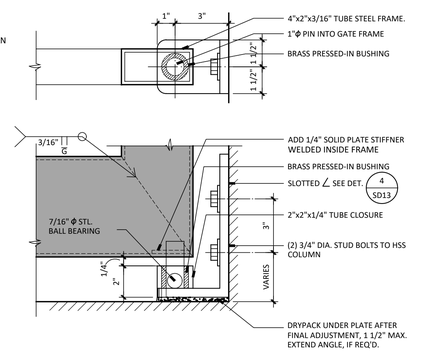
4 GATE UPPER CONNECTION

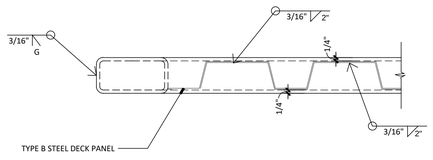
SCALE: 3" = 1'-0"



3 GATE LOWER CONNECTION

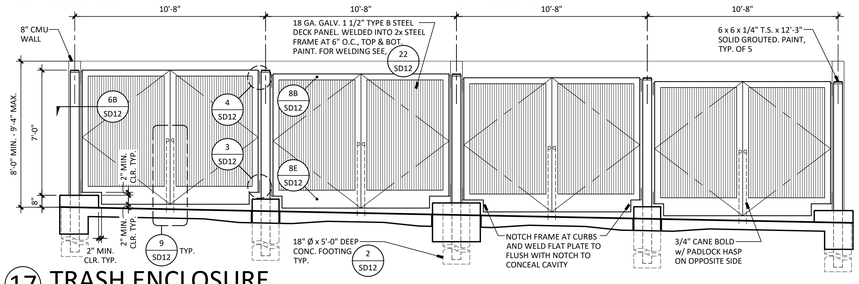
SCALE: 3" = 1'-0"





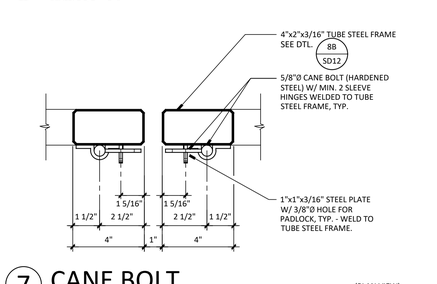
22 STEEL DECK TO FRAME WELDING

SCALE: 3" = 1'-0"



17 TRASH ENCLOSURE

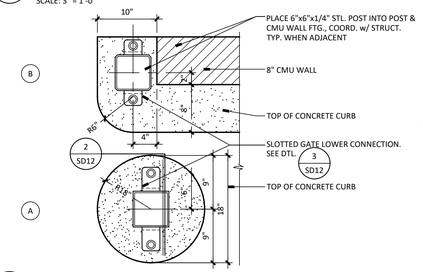
SCALE: 1/4" = 1'-0"



7 CANE BOLT

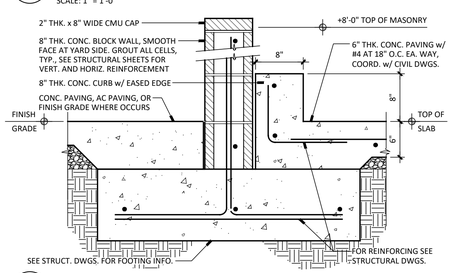
SCALE: 3" = 1'-0"

(PLAN VIEW)



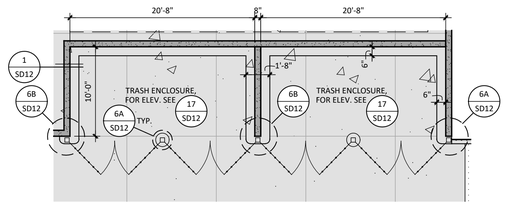
6 GATE POST AT CURB

SCALE: 1" - 1'-0"



1 CMU WALL AT TRASH ENCLOSURE

SCALE: 1" = 1'-0"



16 TRASH ENCLOSURE PLAN

SCALE: 1/8" = 1'-0"

APPROVALS

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SD12

PROJECT 24042

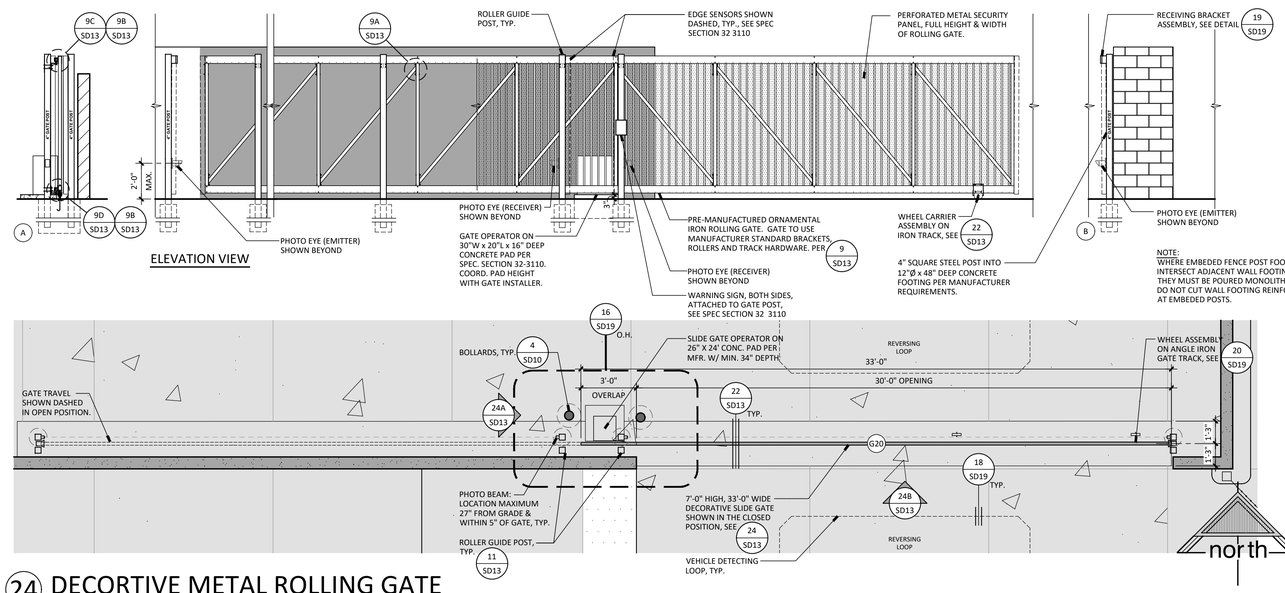
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

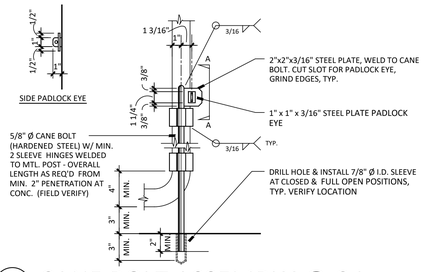
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-21128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



ELEVATION VIEW

NOTE:
WHERE EMBEDED FENCE POST FOOTINGS INTERSECT ADJACENT WALL FOOTINGS THEY MUST BE POURED MONOLITHICALLY. DO NOT CUT WALL FOOTING REINFORCING AT EMBEDED POSTS.

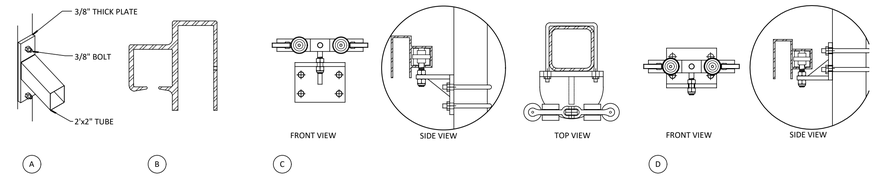


10 CANE BOLT ASSEMBLY @ C.L.

SCALE: 1 1/2" = 1'-0"

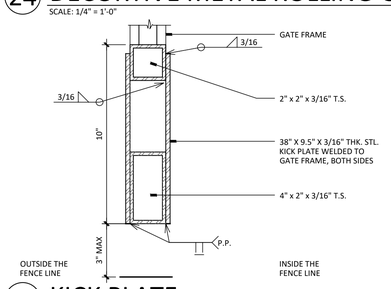
5 NOT USED

SCALE: N.T.S.



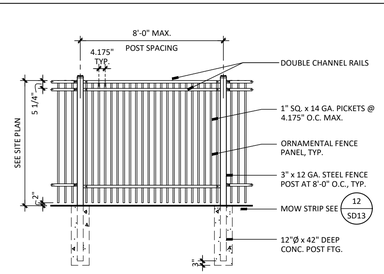
24 DECORTIVE METAL ROLLING GATE

SCALE: 1/4" = 1'-0"



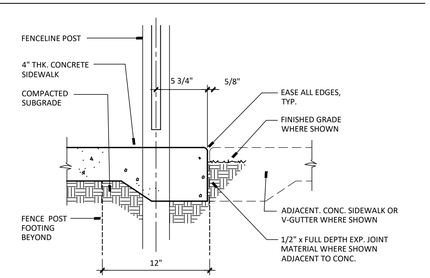
23 KICK PLATE

3" = 1'-0"



18 TYP. DECORATIVE FENCE ELEVATION

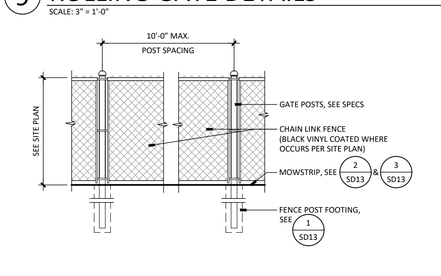
SCALE: 1/4" = 1'-0"



13 FENCE AT SIDEWALK

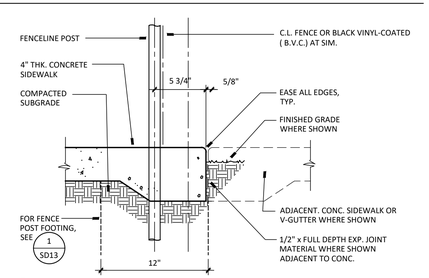
SCALE: 1 1/2" = 1'-0"

SF: 02 - REV. - 25_06.11



8 TYP. C.L. FENCE ELEVATION

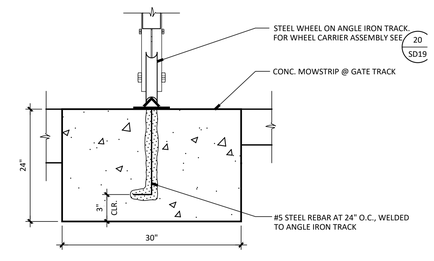
SCALE: 1/4" = 1'-0"



3 C.L. FENCE AT SIDEWALK

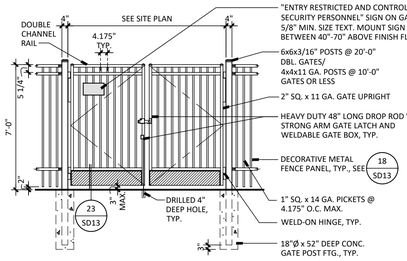
SCALE: 1 1/2" = 1'-0"

SF: 02 - REV. - 25_06.11



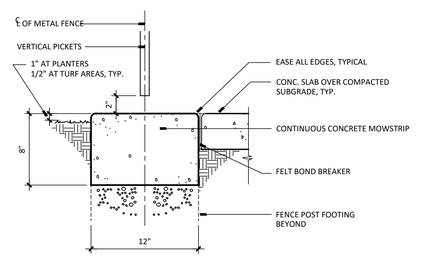
22 GATE TRACK

N.T.S.



17 DECORATIVE DOUBLE LEAF GATE

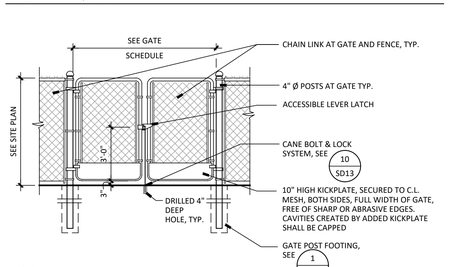
SCALE: 1/4" = 1'-0"



12 DECORATIVE FENCE MOW STRIP

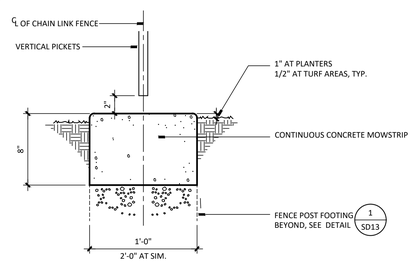
SCALE: 1 1/2" = 1'-0"

SF: 14 - REV. - 25_06.11



7 C.L. DOUBLE GATES

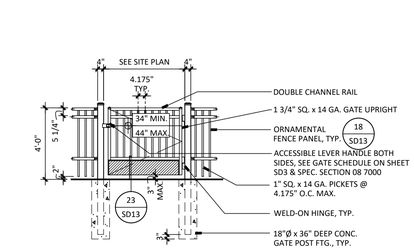
SCALE: 1/4" = 1'-0"



2 C.L. FENCE MOW STRIP

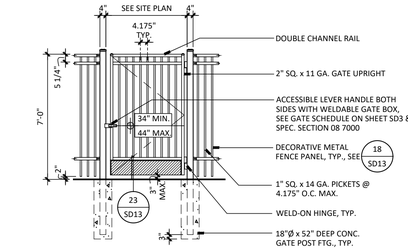
SCALE: 1 1/2" = 1'-0"

SF: 05 - REV. - 25_06.11



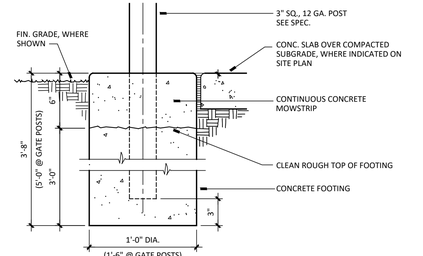
21 DECORATIVE SINGLE LEAF GATE

SCALE: 1/4" = 1'-0"



16 DECORATIVE SINGLE LEAF GATE

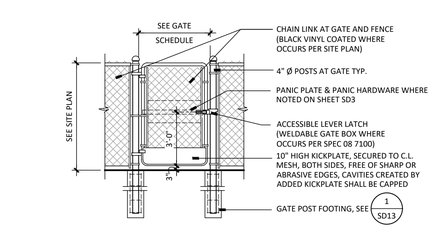
SCALE: 1/4" = 1'-0"



11 DECORATIVE GUIDE POST FTG.

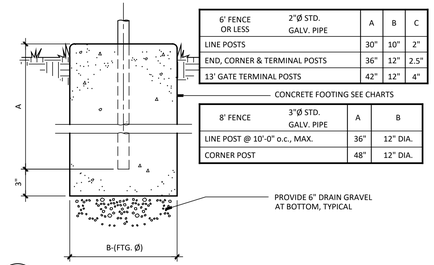
SCALE: 1 1/2" = 1'-0"

SF: 12 - REV. - 25_06.11



6 ACCESSIBLE C.L. GATE

SCALE: 1/4" = 1'-0"



6' FENCE OR LESS	2"Ø STD. GALV. PIPE	A	B	C
LINE POSTS		30"	10"	2"
END, CORNER & TERMINAL POSTS		36"	12"	2.5"
13' GATE TERMINAL POSTS		42"	12"	4"

CONCRETE FOOTING SEE CHARTS

8' FENCE	3"Ø STD. GALV. PIPE	A	B
LINE POST @ 10'-0" o.c., MAX.		36"	12" DIA.
CORNER POST		48"	12" DIA.

1 C.L. FENCE POST FOOTING

SCALE: 1 1/2" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
SITE FENCING DETAILS

SD13

PROJECT 24042

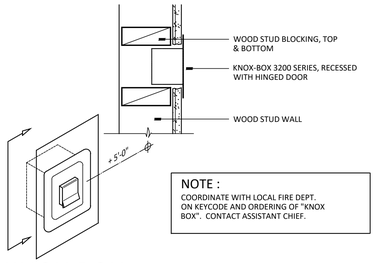
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

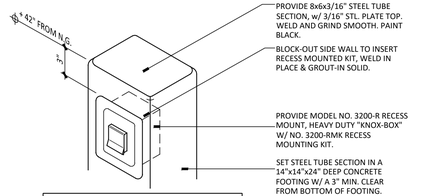
DATE: DECEMBER 18, 2025



NOTE :
COORDINATE WITH LOCAL FIRE DEPT. ON KEYCODE AND ORDERING OF "KNOX BOX". CONTACT ASSISTANT CHIEF.

15 KNOX BOX

SCALE: N.T.S. S: 13 - REV. - 25_06.10

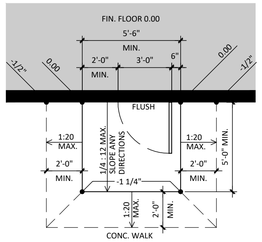


NOTE :
COORDINATE WITH LOCAL FIRE DEPT. ON KEYCODE AND ORDERING OF "KNOX BOX". CONTACT ASSISTANT CHIEF.

"THE KNOX COMPANY"
17672 ARMSTRONG AVE.
IRVINE, CA 92614 (800)
552-5669
(714) 252-8181

14 KNOX BOX

SCALE: N.T.S. S: 12 - REV. - 25_06.10

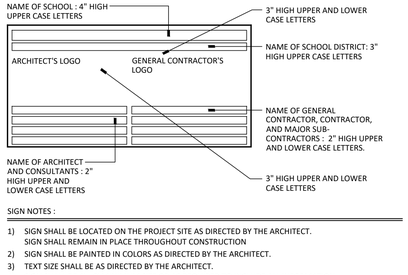


NOTE:
DOES NOT APPLY TO EXTERIOR DOORS AT RAMP LANDINGS

NOTE:
SLOPE IN DIRECTION OF TRAVEL SHALL NOT EXCEED 1:20 MAX.
CROSS SLOPE IN ANY DIRECTION SHALL NOT EXCEED 1:48 MAX., TYP.

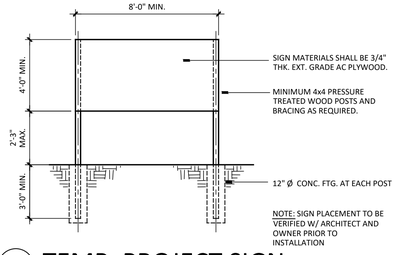
13 ACCESS. LANDING @ EXT. DOORS

SCALE: 1/4" = 1'-0"



SIGN NOTES :

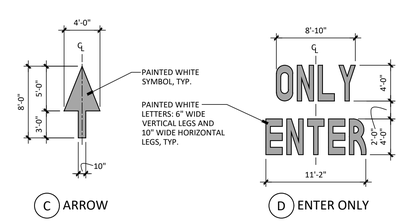
1) SIGN SHALL BE LOCATED ON THE PROJECT SITE AS DIRECTED BY THE ARCHITECT. SIGN SHALL REMAIN IN PLACE THROUGHOUT CONSTRUCTION
2) SIGN SHALL BE PAINTED IN COLORS AS DIRECTED BY THE ARCHITECT.
3) TEXT SIZE SHALL BE AS DIRECTED BY THE ARCHITECT.
4) SIGN SHALL BE 4' x 8' MINIMUM SIZE OR AS REQUIRED TO INCLUDE ALL INFORMATION AS DIRECTED BY THE ARCHITECT.



NOTE: SIGN PLACEMENT TO BE VERIFIED W/ ARCHITECT AND OWNER PRIOR TO INSTALLATION

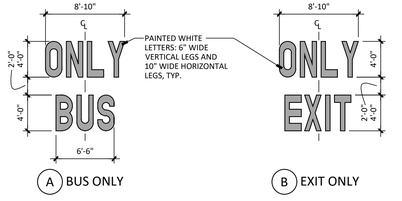
16 TEMP. PROJECT SIGN

SCALE: 1-1/2"=1'-0" S: 20 - REV. - 25_08.07



C ARROW

D ENTER ONLY



A BUS ONLY

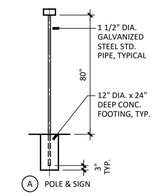
B EXIT ONLY

11 ON-SITE PAVEMENT MARKING

SCALE: N.T.S. S: 01 - REV. - 25_08.07

10 NOT USED

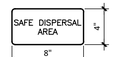
SCALE: 1 1/2" = 1'-0"



A POLE & SIGN

GENERAL NOTES :

1) SIGNS TO BE RELECTORIZED AND EQUAL TO PORCELAIN ON STEEL WITH BEADED TEXT.
2) TEXT SHALL BE PROPORTIONED TO GIVEN OVERALL SIGN DIMENSIONS. SEE SIGN DESCRIPTION BELOW FOR SYMBOL OR TEXT.



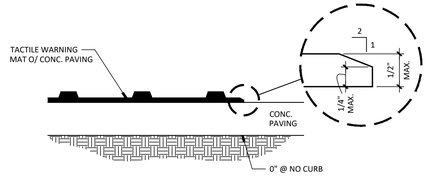
A SAFE DISPERSAL AREA

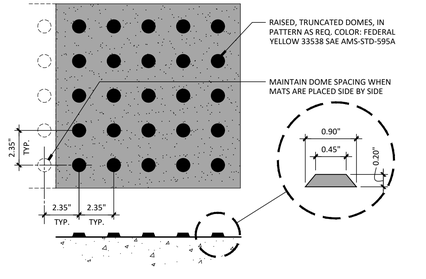
PER CBC 1028.5.3, THE SAFE DISPERSAL AREA SHALL BE MAINTAINED & IDENTIFIED AS A SAFE DISPERSAL AREA. SIGN TO READ AS NOTED ABOVE:
"SAFE DISPERSAL AREA"

NOTE : THE CONTRACTOR SHALL PROVIDE THE RECLAIM INFORMATION PRIOR TO FABRICATION OF THE PROPOSED SIGN. SIGN WILL NOT BE INSTALLED WITHOUT THE APPROPRIATE INFORMATION.

9 POLE & SIGN

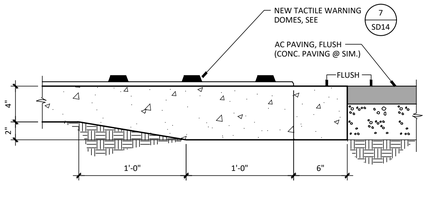
SCALE: 1/4" = 1'-0"





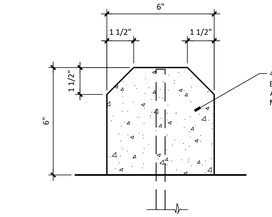
7 TACTILE WARNING MAT

SCALE: 1 1/2" = 1'-0" S: 03 - REV. - 25_09.05



6 TACTILE WARNING MAT

SCALE: 1 1/2" = 1'-0" S: 02 - REV. - 25_09.05



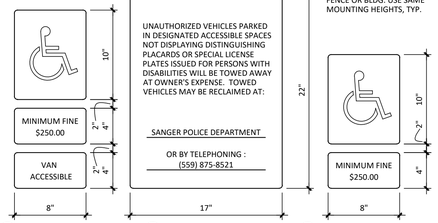
5 CONC. WHEELSTOP

SCALE: 3" = 1'-0" S: 07 - REV. - 25_09.04

GENERAL NOTES:

1. SIGNS TO BE REFLECTORIZED AND EQUAL TO PORCELAIN ON STEEL WITH BEADED TEXT.
2. TEXT SHALL BE PROPORTIONED TO GIVEN OVERALL SIGN DIMENSIONS, SEE SIGN DESCRIPTIONS BELOW FOR SYMBOL OR TEXT.

SIGN DESCRIPTIONS:



NOTE:
WHERE SIGNAGE IS HUNG ON FENCE OR BLDG. USE SAME MOUNTING HEIGHTS, TYP.

A VAN PARKING STALL SIGN

TOP SIGN TO BE TYPE Ⓒ WITH SYMBOL OF ACCESSIBILITY & BOTTOM SIGN SHALL READ AS NOTED ABOVE:

B ENTRANCE SIGN

PER CBC 11B 502.8.2, SIGN TO READ AS NOTED ABOVE:

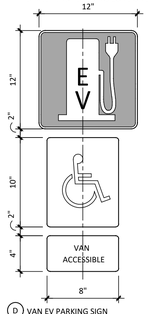
NOTE : THE CONTRACTOR SHALL PROVIDE THE RECLAIM INFORMATION PRIOR TO FABRICATION OF THE PROPOSED SIGN. SIGN WILL NOT BE INSTALLED WITHOUT THE APPROPRIATE INFORMATION.

C CAR PARKING STALL SIGN

SIGN TO SHOW SYMBOL OF ACCESSIBILITY & TEXT SHALL READ "MINIMUM FINE $250"

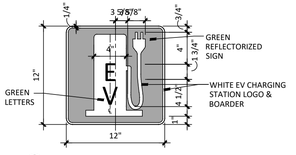
F LOADING ZONE SIGN

TOP SIGN TO BE TYPE Ⓐ WITH SYMBOL OF ACCESSIBILITY & BOTTOM SIGN SHALL READ "LOADING ZONE ONLY"



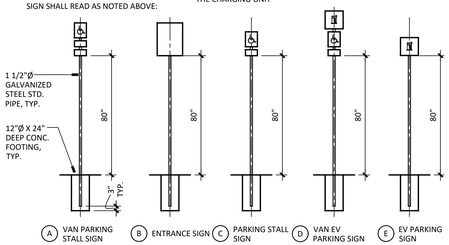
D VAN EV PARKING SIGN

TOP SIGN TO BE TYPE Ⓔ WITH SYMBOL OF ACCESSIBILITY & BOTTOM SIGN SHALL READ AS NOTED ABOVE:

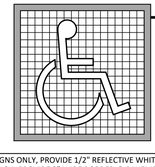


E EV PARKING SIGN

OPTICALLY SPACE THE "EV" LETTERS VERTICALLY w/ THE CHARGING UNIT



A VAN PARKING STALL SIGN
F LOADING ZONE SIGN
B ENTRANCE SIGN
C PARKING STALL SIGN
D VAN EV PARKING SIGN
E EV PARKING SIGN



BORDER

ALL SIGNS USING THIS SYMBOL SHALL BE PROPORTIONED TO THIS GRID BACKGROUND.

VAN PARKING SIGN: 8" X 10"
PARKING STALL SIGN: 8" X 10"
PAVEMENT LOGO: 36" X 36" TO INSIDE EDGE OF BLUE FIELD

NOTE :
FOR PARKING SIGNS ONLY, PROVIDE 1/2" REFLECTIVE WHITE BAND AROUND PERIMETER OF SIGN. PROVIDE 3" WIDE BORDER @ PAVEMENT LOGO.

1 SITE SIGNAGE WITH EV PARKING

SCALE: 1/4" = 1'-0" ACC: 07 - REV-25_09.03

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
SITE DETAILS

SD14

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_SD14 - Site Details.dwg Sep 16 2026 4:55pm

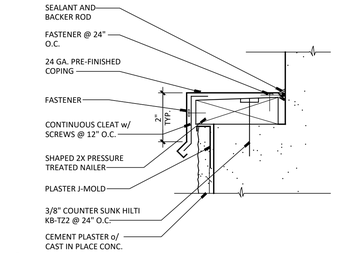
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

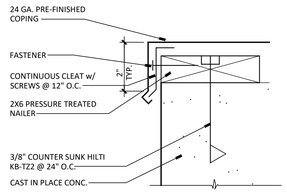
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

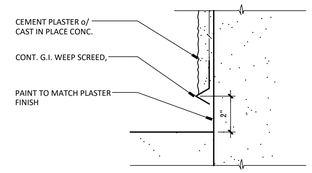
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

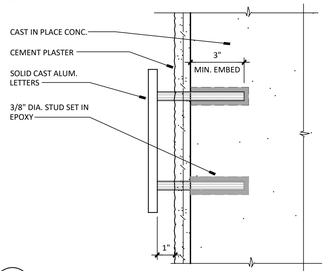


5 COPING
SCALE: 3" = 1'-0"



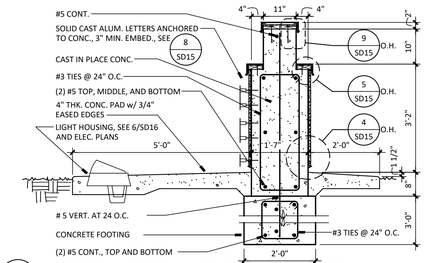


9 CONCRETE MONUMENT CAP
SCALE: 3" = 1'-0"

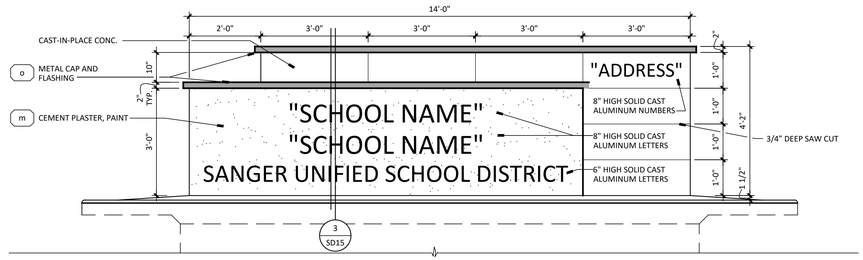


8 ALUMINUM LETTER MOUNTS
SCALE: 3" = 1'-0"

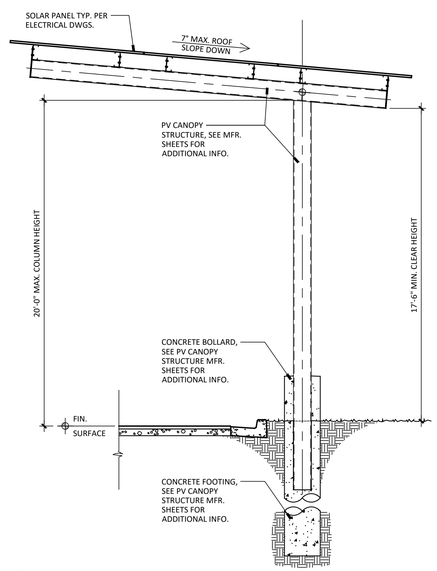
4 WEEP SCREED
SCALE: 3" = 1'-0"



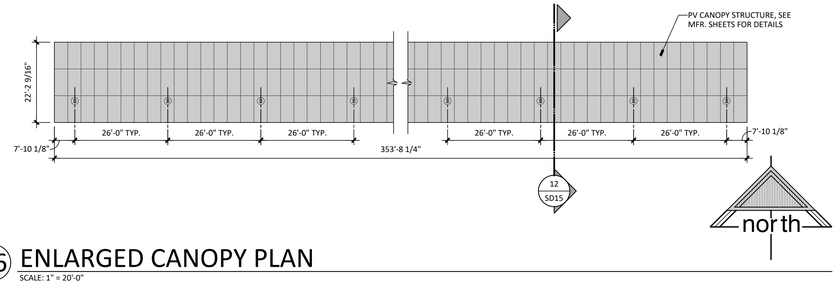
3 MONUMENT SIGN SECTION
SCALE: 1 1/2" = 1'-0"



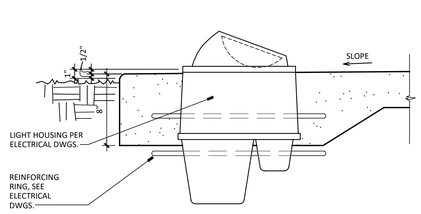
7 MONUMENT SIGN ELEVATION
SCALE: 1 1/2" = 1'-0"



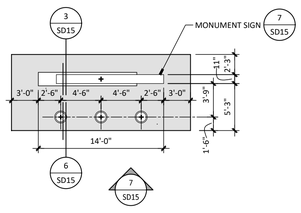
12 SOLAR CANOPY SECTION
SCALE: 1/4" = 1'-0"



16 ENLARGED CANOPY PLAN
SCALE: 1" = 20'-0"



6 GROUND LIGHTING
SCALE: 1/2" = 1'-0"



1 MONUMENT SIGN PLAN
SCALE: 1/8" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

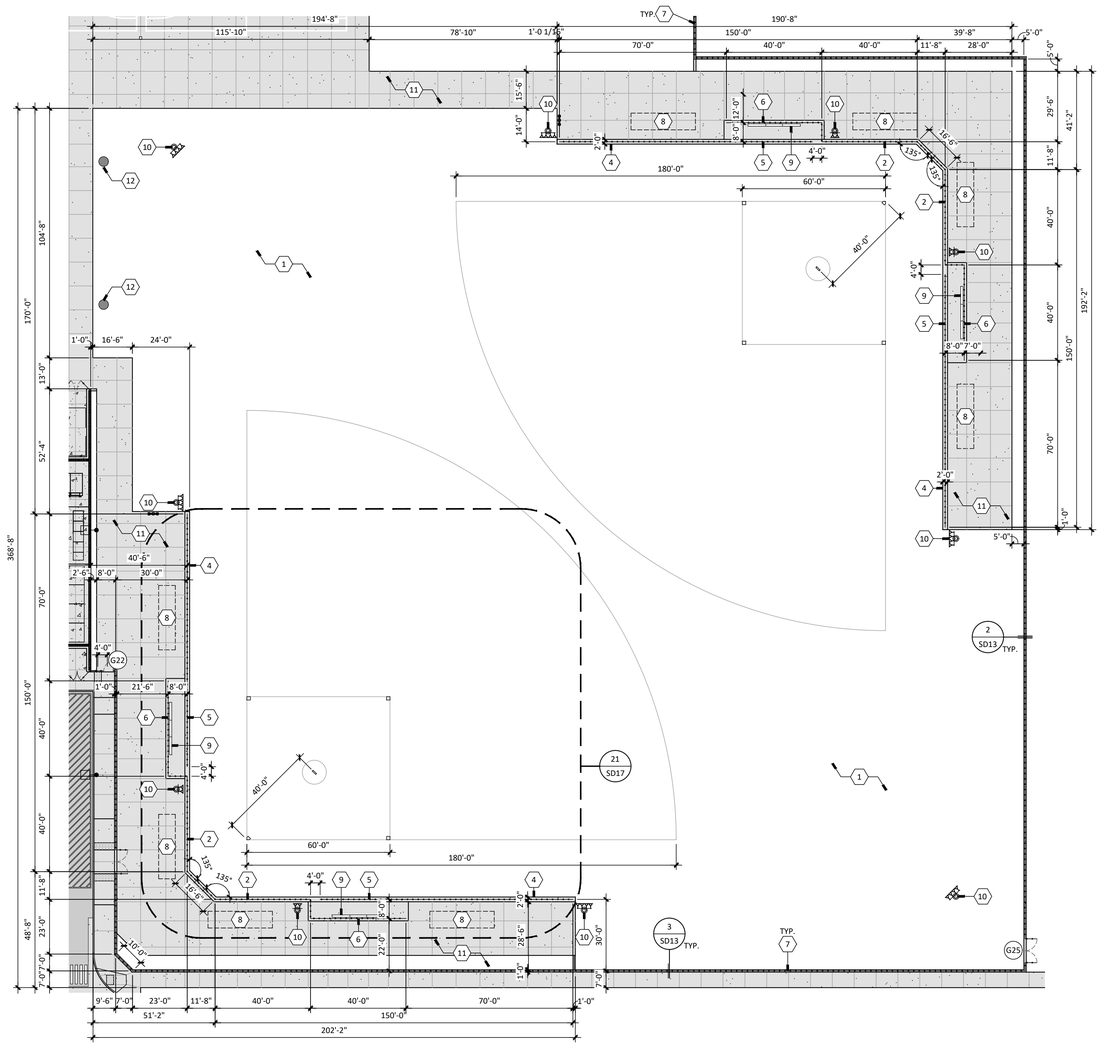
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
SITE DETAILS

SD15

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_SD15 - Site Details.dwg Sep 16 2026 4:55pm



PARTIAL SITE PLAN - PLAYFIELDS DIMENSION PLAN

SCALE: 1" = 30'-0"

north

SITE PLAN LEGEND :

- ASPHALT PAVING
- CONCRETE PAVING, SEE 1 / SD11
- PROPERTY LINE
- CHAIN LINK FENCE

SITE PLAN KEYNOTES :

1. TURF OR PLANTER, SEE LANDSCAPE DWGS.
2. 24'-0" HIGH BACKSTOPS, SEE 21 / SD17
3. 24" WIDE CONCRETE MOWSTRIP, MIN. 2800 PSI AT 28 DAYS, SEE 2 / SD13 SIM.
4. 24'-0" HIGH C.L. FENCING (4'-6" HIGH PANELS OF FABRIC), SEE 25 / SD17
5. 12'-0" HIGH C.L. FENCING (2'-6" HIGH PANELS OF FABRIC), SEE 25 / SD17
6. 6'-0" HIGH C.L. FENCING (1'-6" HIGH PANELS OF FABRIC), SEE 25 / SD17
7. 6'-0" HIGH CHAIN LINK FENCING, SEE 8 / SD13
8. BLEACHERS NOT A PART OF THIS APPLICATION (4 ROWS MAX.) SHOWN DASHED FOR REFERENCE ONLY
9. 22'-6" LONG ANODIZED ALUMINUM TEAM BENCH, 3 EACH OF 7'-6" LONG LA STEELCRAFT PRODUCT MODEL NO. LBA-8PFC.
10. LIGHT POLE, SEE ELECTRICAL DRAWINGS
11. 4" CONCRETE PAVING, SEE SITE PLAN
12. DRAIN INLET, SEE CIVIL DWGS.
13. STORM DRAIN CATCH BASIN, SEE CIVIL DWGS.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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(559) 627-1926 Fax

TITLE
PARTIAL
SITE PLAN
PLAYFIELDS
DIMENSION PLAN

SD16

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

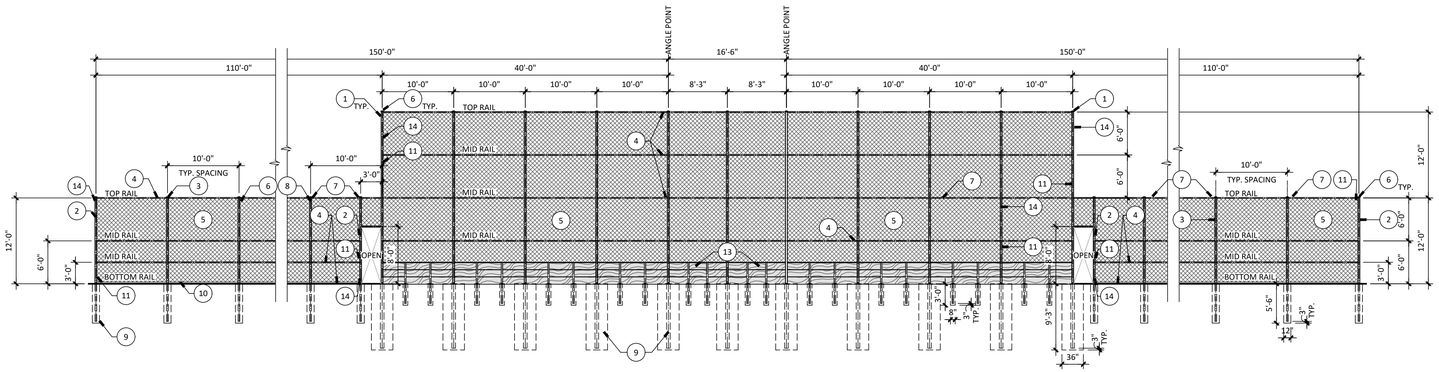
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DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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LICENSED ARCHITECT
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No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

BACKSTOP ELEVATION NOTES:

1. 6 5/8" O.D. GALVANIZED STEEL POST (18.97 LB/FT). FOR ALL POSTS OF 24' HIGH FENCE
2. 2 7/8" O.D. GALVANIZED STEEL POST (5.79 LB/FT). END POST FOR 12' HIGH FENCE OF MID-BRACE POST
3. 2 3/8" O.D. GALVANIZED STEEL POST (3.65 LB/FT). LINE POST FOR 12' HIGH FENCE.
4. 1 5/8" O.D. GALVANIZED HORIZONTAL RAIL (2.27 LB/FT). FOR ALL FENCE
5. 2" MESH x 9 GAUGE GALVANIZED FABRIC WT. KNUCKLED TOP AND BOTTOM SELVAGE. FABRIC TO BE GALVANIZED BEFORE WEAVING (GBW)
6. RAIN-PROOF POST CAP
7. 9 GAUGE (0.148" DIAMETER) GALVANIZED STEEL TIE WIRES AT 14" MAXIMUM SPACING (MINIMUM OF 8 TIES BETWEEN 10' SPACED POST). TYPICAL FOR ALL HORIZONTAL RAILS.
8. 6 GAUGE (0.192" DIAMETER) GALVANIZED STEEL POST CLIPS AT 14" MAXIMUM SPACING
9. CONCRETE POST FOOTING. POUR AGAINST UNDISTURBED SOIL
10. 24" WIDE CONCRETE MOWSTRIP, SEE 2/SD13 SIM.
11. 1/4" x 3/4" GALVANIZED STEEL STRETCHER BAR
12. 4" CONCRETE PAVING, SEE SITE PLAN
13. 2"x12" HDPE BACKBOARD, PROVIDE 1 3/8" GAP BETWEEN BOARDS, ROUND ALL EDGES
14. GALVANIXED STRETCHER BAR BAND AT 12" MAXIMUM SPACING (MINIMUM OF 6 BANDS PER EACH 6' POST SECTION)
15. 24'-0" HIGH C.L. FENCING (4'-6' HIGH PANELS OF FABRIC)
16. 12'-0" HIGH C.L. FENCING (2'-6' HIGH PANELS OF FABRIC)
17. 6'-0" HIGH C.L. FENCING (1'-6' HIGH PANELS OF FABRIC)
18. 22'-6" LONG ANODIZED ALUMINUM TEAM BENCH, 3 EA. OF 7'-6" LONG LA STEELCRAFT PRODUCT MODEL NO. LBA-8PFC.



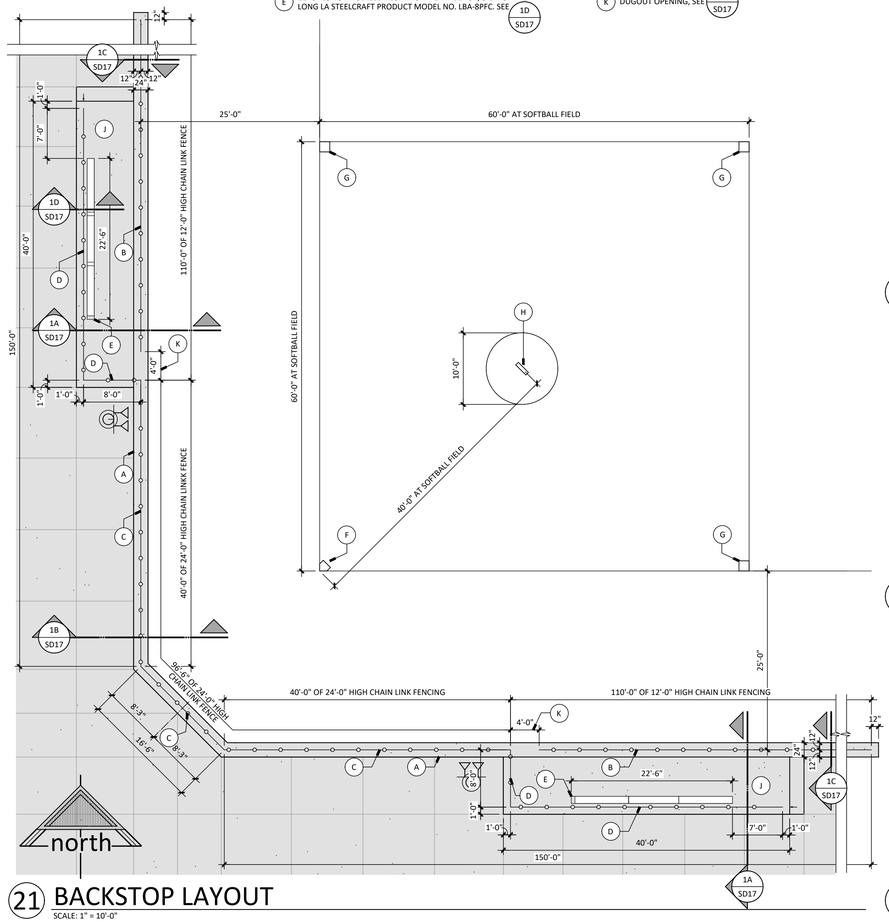
25 ELEVATION VIEW OF BACKSTOP

SCALE: 1" = 10'-0"

(BACKSTOPS LESS THAN 35'-0" TALL ARE NOT PART OF DSA REVIEW)

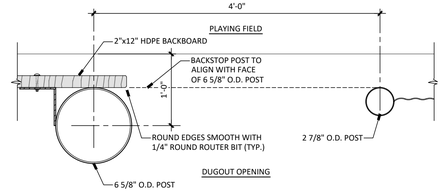
BACKSTOP PLAN NOTES:

A. 24" WIDE CONCRETE MOWSTRIP, MIN. 2800 PSI AT 28 DAYS, SEE 13/SD17 SIM.
B. 12'-0" HIGH C.L. FENCING (2'-6' HIGH PANELS OF FABRIC)
C. 24'-0" HIGH C.L. FENCING (4'-6' HIGH PANELS OF FABRIC)
D. 6'-0" HIGH C.L. FENCING (1'-6' HIGH PANELS OF FABRIC), SIMILAR TO 12'-0" HIGH FENCE WITH MID RAILS
E. 22'-6" LONG ANODIZED ALUMINUM TEAM BENCH, 3 EA. OF 7'-6" LONG LA STEELCRAFT PRODUCT MODEL NO. LBA-8PFC. SEE 1D/SD17
F. ADAMS HOME PLATE MODEL 300AS
G. ADAMS MODEL 170-WTD WAFFLE THROW DOWN BASES (TOTAL OF 3)
H. ADAMS MODEL 6450CI PITCHER'S PLATE TO THE DISTRICT
J. 4" CONCRETE PAVING, SEE SITE PLAN
K. DUGOUT OPENING, SEE 13/SD17



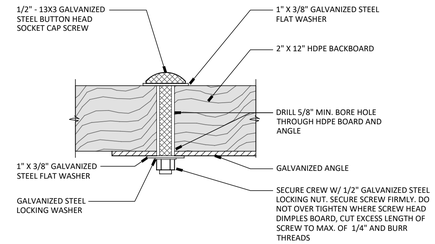
21 BACKSTOP LAYOUT

SCALE: 1" = 10'-0"



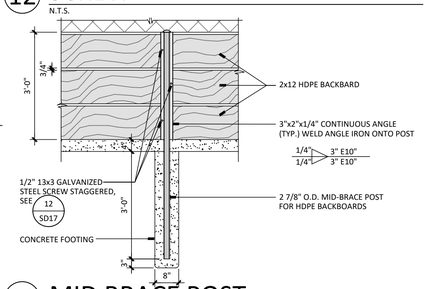
13 DUGOUT OPENING

N.T.S.



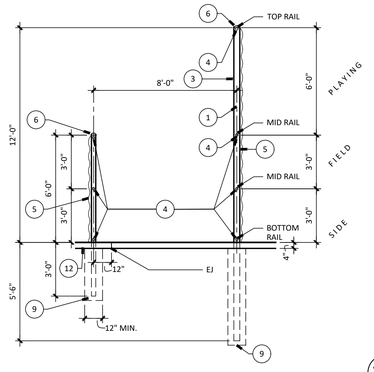
12 SCREW

N.T.S.



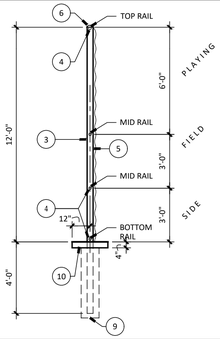
11 MID BRACE POST

SCALE: 1/2" = 1'-0"



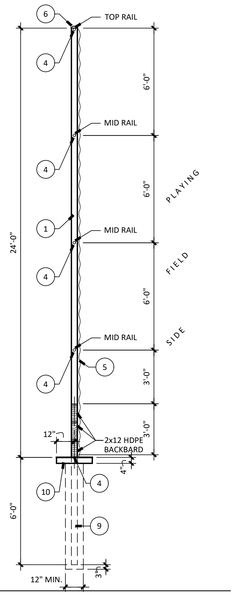
1A SECTION

SCALE: 1/4" = 1'-0"



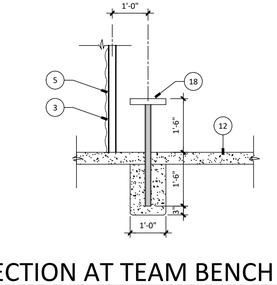
1C NOT USED

N.T.S.



1B SECTION

SCALE: 1/4" = 1'-0"



1D SECTION AT TEAM BENCH

SCALE: 1/2" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

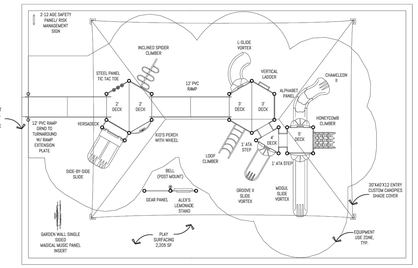
REVISIONS

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
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(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BACKSTOP DETAILS

SD17

PROJECT 24042



PLAY AREA - AGE APPROPRIATE 2-12 YEARS	CAPACITY: 87 / 111 CHILDREN
ELEVATED PLAY ACTIVITIES (TOTAL)	12
ELEVATED PLAY ACTIVITIES ACCESSIBLE BY TRANSFER:	1 REQ'D: 0
ELEVATED PLAY ACTIVITIES ACCESSIBLE BY RAMP:	7 REQ'D: 6
GROUND LEVEL ACTIVITY TYPE:	3 REQ'D: 0
GROUND LEVEL ACTIVITY QUANTITY:	8 REQ'D: 0

NOTES:
1. TRANSFER STEPS TO BE STRIPED PER 11B-504.4.1.
2. USE ZONES FINISH SURFACE OF PLAYGROUND COMPLIES WITH ASTM F1292-99.
3. GROUND SURFACING COMPLIES WITH ASTM F 1951-99
4. PLAYGROUND EQUIPMENT SHALL COMPLY WITH ASTM F1487-98.
5. THIS PLAY AREA MEETS CBC SECTION 11B-1008.

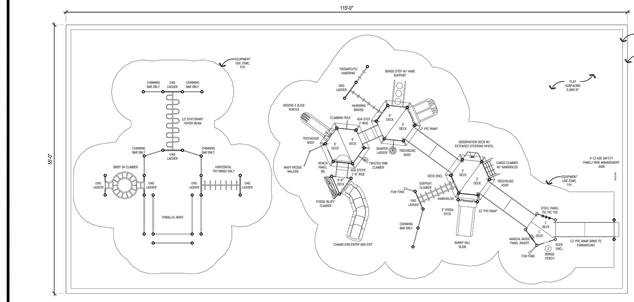
NEW TEMPERANCE ELEMENTARY SCHOOL 2-5	PERIMETER:	192'-0"	VERSION 5
	SITE AREA:	2,205 SF	DATE: 04/30/26
SANGER, CA	CRITICAL FALL HEIGHT:	5'-0"	DRAWN BY: LDL
	DESIGN CONCEPT		FILE: 25_8113_NEWTEMPERANCEELEMENTARYSCHOOL_005.DWG

miracle playSystems
ALL DRAWINGS ARE SUBJECT TO CHANGE AND SHOULD BE REVIEWED BEFORE FINAL SALE. ALL SITE DIMENSIONS WILL NEED TO BE VERIFIED PRIOR TO SALE AND INSTALLATION.

PLAY EQUIPMENT BY MIRACLE PLAY SYSTEMS, OWNER PROVIDED, CONTRACTOR INSTALLED

NOTE:
PLAY STRUCTURES ARE NOT PART OF DSA STRUCTURAL APPROVAL PER DSA IR A-22. PLAYGROUND EQUIPMENT COMPLIES WITH ASTM F1487-98 & CBC SECTION 11B-1008. ANY TRANSFER STEPS TO BE STRIPED PER 11B-504.4.1

14 PLAY STRUCTURE LAYOUT
N.T.S.



PLAY AREA - AGE APPROPRIATE 5-12 YEARS	CAPACITY: 108-203 CHILDREN
ELEVATED PLAY ACTIVITIES (TOTAL)	19
ELEVATED PLAY ACTIVITIES ACCESSIBLE BY TRANSFER:	1 REQ'D: 0
ELEVATED PLAY ACTIVITIES ACCESSIBLE BY RAMP:	14 REQ'D: 10
GROUND LEVEL ACTIVITY TYPE:	3 REQ'D: 3
GROUND LEVEL ACTIVITY QUANTITY:	14 REQ'D: 8

NOTES:
1. TRANSFER STEPS TO BE STRIPED PER 11B-504.4.1.
2. USE ZONES FINISH SURFACE OF PLAYGROUND COMPLIES WITH ASTM F1292-99.
3. GROUND SURFACING COMPLIES WITH ASTM 1951-99
4. PLAYGROUND EQUIPMENT SHALL COMPLY WITH ASTM F1487-98.
5. THIS PLAY AREA MEETS CBC SECTION 11B-1008.

NEW TEMPERANCE ELEMENTARY SCHOOL 5-12	PERIMETER:	340'-0"	VERSION 5
	SITE AREA:	5,989 SF	DATE: 04/30/26
SANGER, CA	CRITICAL FALL HEIGHT:	8'-0"	DRAWN BY: LDL
	DESIGN CONCEPT		FILE: 25_8113_NEWTEMPERANCEELEMENTARYSCHOOL_005.DWG

miracle playSystems
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PLAY EQUIPMENT BY MIRACLE PLAY SYSTEMS, OWNER PROVIDED, CONTRACTOR INSTALLED

NOTE:
PLAY STRUCTURES ARE NOT PART OF DSA STRUCTURAL APPROVAL PER DSA IR A-22. PLAYGROUND EQUIPMENT COMPLIES WITH ASTM F1487-98 & CBC SECTION 11B-1008. ANY TRANSFER STEPS TO BE STRIPED PER 11B-504.4.1

11 PLAY STRUCTURE LAYOUT
N.T.S.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DATE: DECEMBER 18, 2025

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SANGER UNIFIED SCHOOL DISTRICT
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TITLE
PLAY STRUCTURE LAYOUTS

SD18

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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No. 18128
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DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

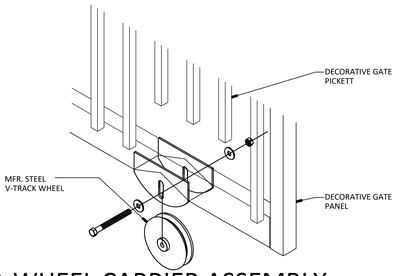
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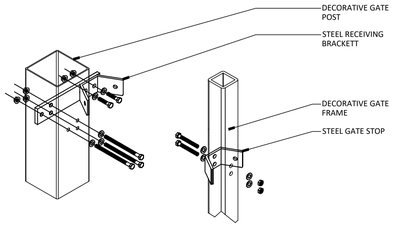
TITLE
SITE DETAILS

SD19

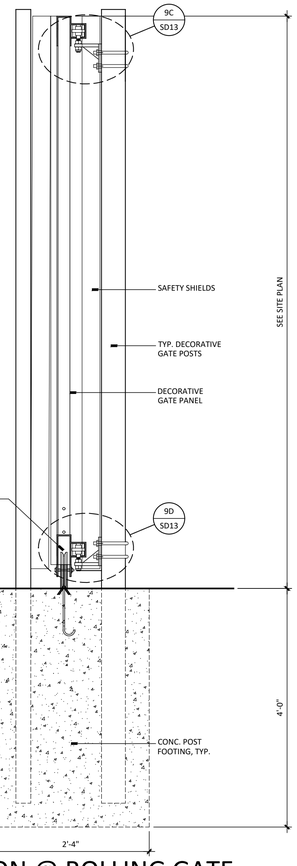
PROJECT 24042



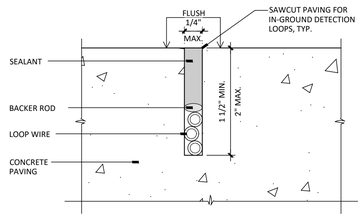
20 WHEEL CARRIER ASSEMBLY
N.T.S.



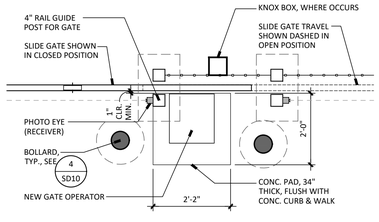
19 RECEIVING BRACKETT ASSEMBLY
N.T.S.



22 SECTION @ ROLLING GATE
SCALE: 1" = 1'-0"



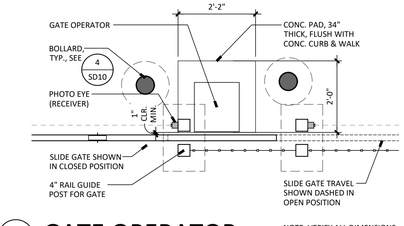
18 DETECTION LOOP AT PAVING
SCALE: 3" = 1'-0"



17 GATE OPERATOR
1/2" = 1'-0"

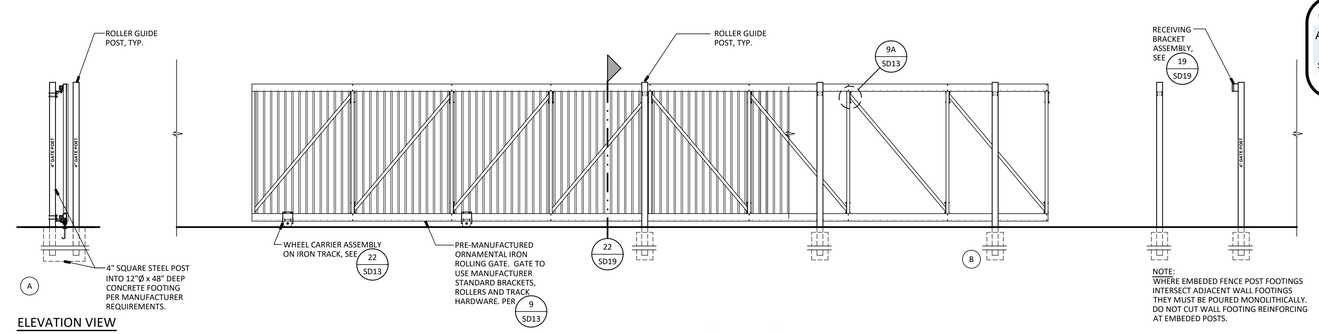
NOTE: VERIFY ALL DIMENSIONS WITH GATE OPERATOR MFR.

21 TYP. DUAL HT. PEDESTAL
1/2" = 1'-0"

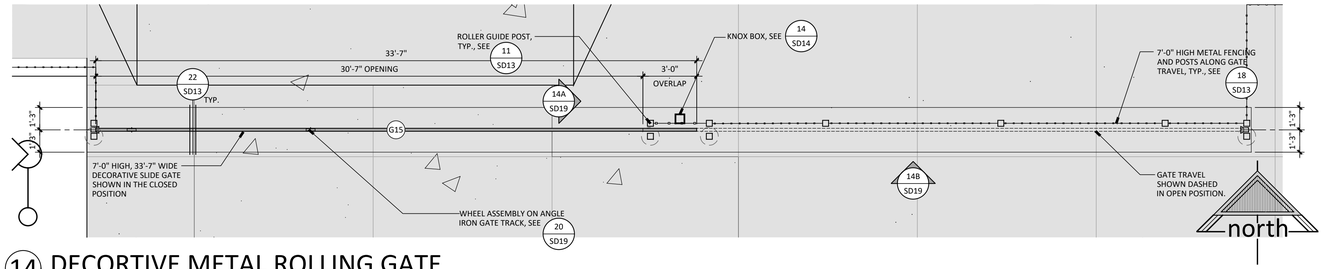


16 GATE OPERATOR
1/2" = 1'-0"

NOTE: VERIFY ALL DIMENSIONS WITH GATE OPERATOR MFR.

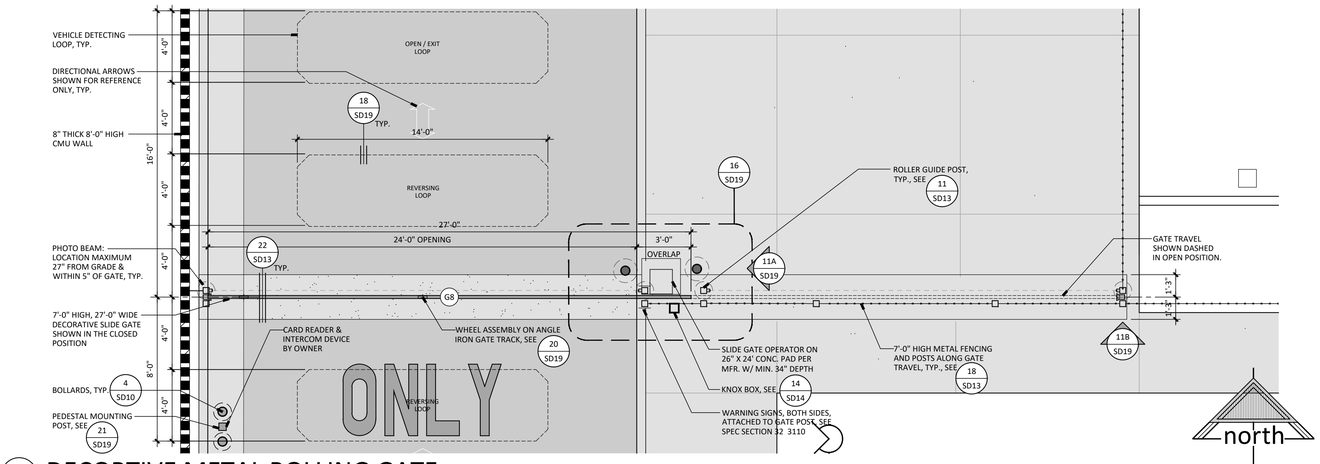


ELEVATION VIEW



14 DECORTIVE METAL ROLLING GATE
SCALE: 1/4" = 1'-0"

ELEVATION VIEW



11 DECORTIVE METAL ROLLING GATE
SCALE: 1/4" = 1'-0"

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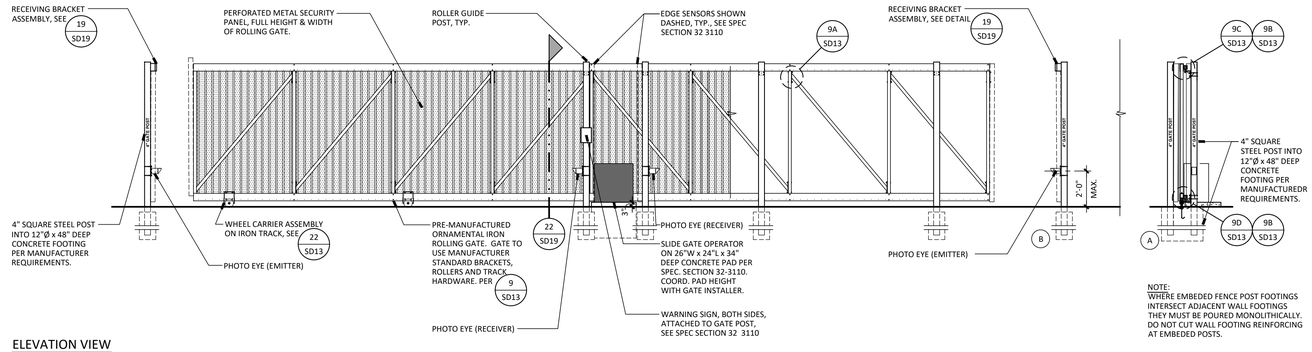
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

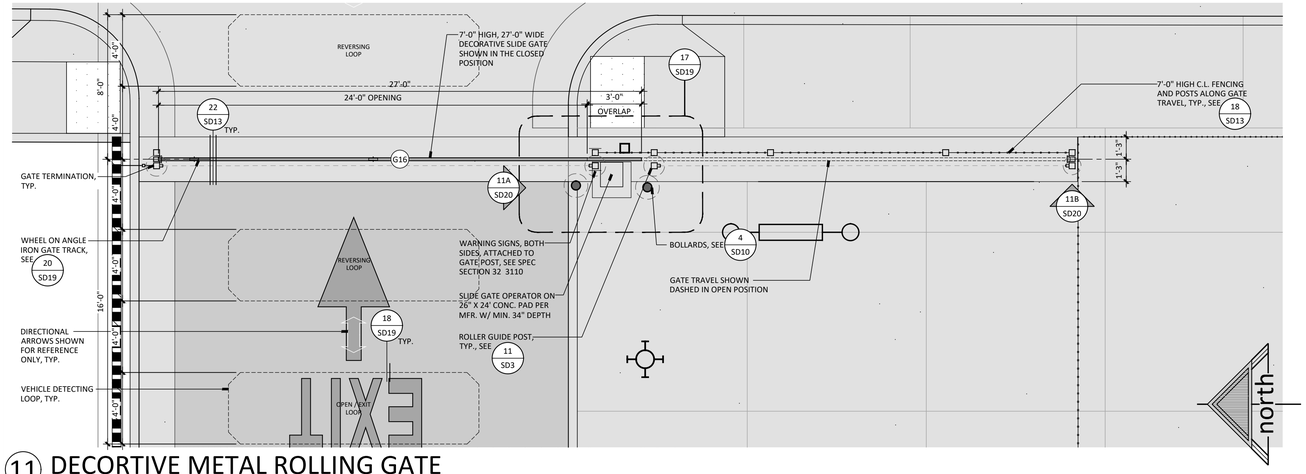
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



ELEVATION VIEW



11 DECORTIVE METAL ROLLING GATE

SCALE: 1/4" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

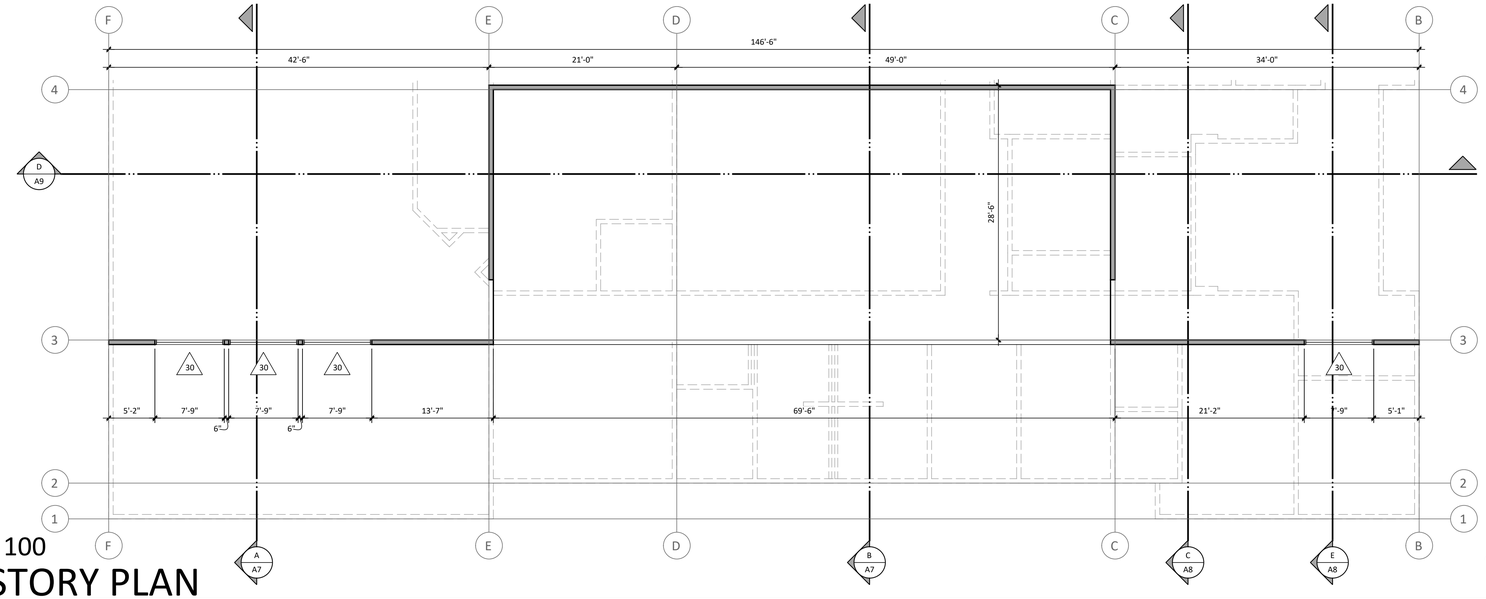
REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0510 Office
(559) 627.1926 Fax

TITLE SITE DETAILS

SD20

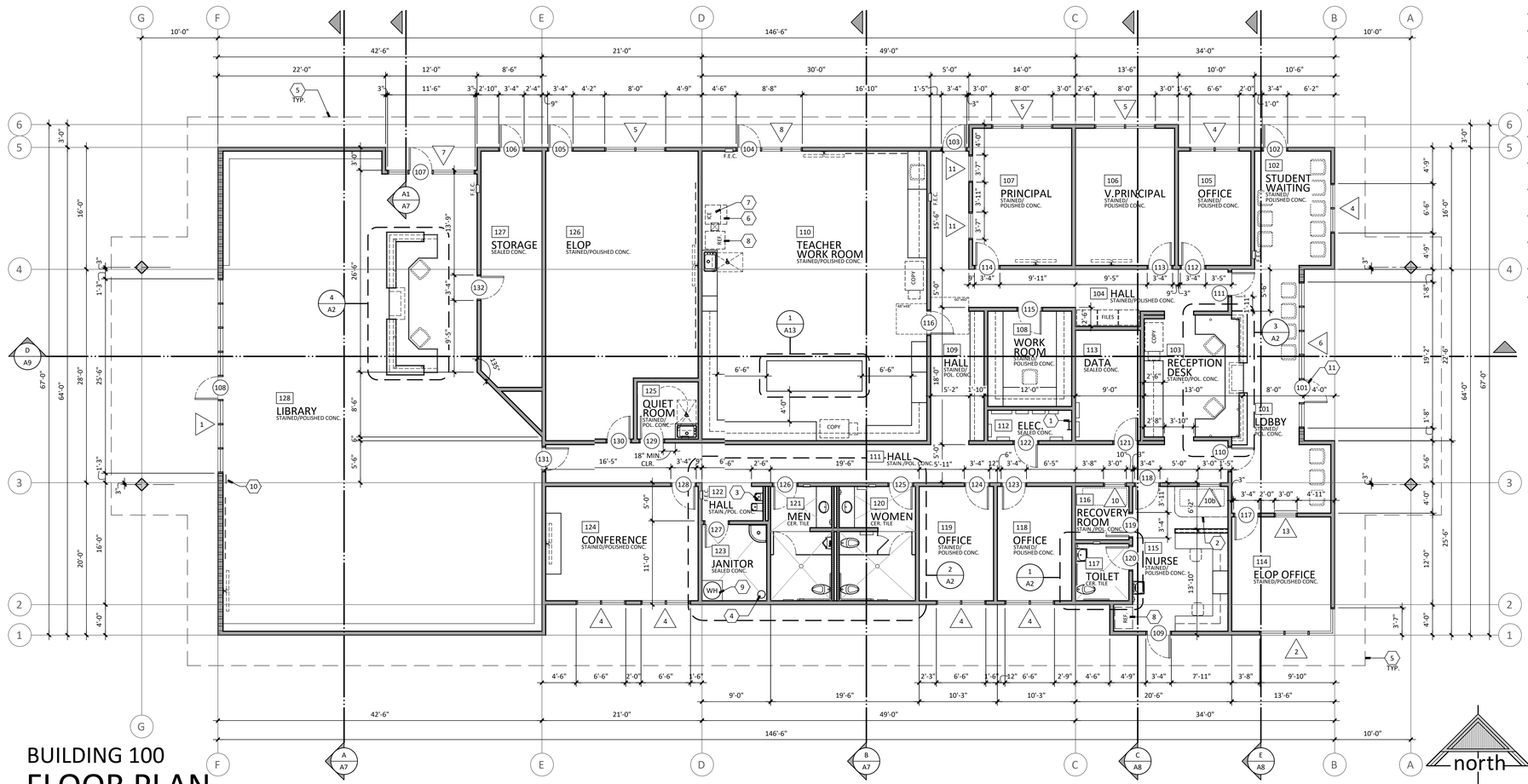
PROJECT 24042



BUILDING 100

CLERESTORY PLAN

SCALE: 1/8" = 1'-0"



BUILDING 100

FLOOR PLAN

SCALE: 1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES:

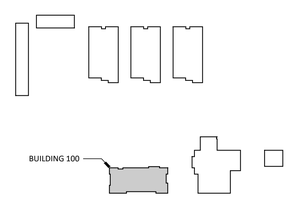
1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A77
3. WHERE SOUND INSULATION OR THERMAL INSULATION IS SHOWN ON WALL ASSEMBLY, INSULATION SHALL BE INSTALLED FULL HEIGHT OF WALL. REFER TO SPEC SECTION 07 2100
4. FINISH ALL GYPSUM BOARD EDGES PER DETAIL 1/A97
5. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS, SEE INTERIOR ELEVATIONS AND DETAILS 17/A97 18/A97
6. REFER TO ELEVATIONS AND DOOR SCHEDULE FOR ALL ROOM AND BUILDING SIGNAGE.
7. REFER TO SHEET A3 FOR EXIT ANALYSIS
8. FIRE BLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUDS AND PARTITIONS, INCLUDING FURRED SPACES, AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
   1. VERTICALLY AT CEILING AND FLOOR LEVELS.
   2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
9. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23/A100 24/A100

FLOOR PLAN LEGEND:

- 2X8 WOOD STUDS @ 16" O.C.
- 2X6 WOOD STUDS @ 16" O.C.
- 2X4 WOOD STUDS @ 16" O.C.
- 14" X 14" ARCHITECTUALLY EXPOSED STRUCTURAL STEEL COLUMN INFILLED W/ PEA GRAVEL TO TOP OF COLUMN. COORDINATE WITH STRUCTURAL DWGS.
- INDICATES 30"X48" CLEAR SPACE
- Ø5'-0" INDICATES 5' DIAMETER FLOOR ROTATION SPACE
- # FRAME TYPE, SEE FRAME TYPE SCHEDULE REFER TO SHEETS A87 & A88
- # ROOM NUMBER, FLOOR FINISH MATERIAL
- F.E.C. FIRE EXTINGUISHER AND CABINET, REFER TO INTERIOR ELEVATIONS

FLOOR PLAN KEY NOTES THIS SHEET ONLY:

1. ROOF ACCESS LADDER, SEE 1/A101
2. CURTAIN & TRACK, SEE SPECS.
3. HI-LO DRINKING FOUNTAIN w/ BOTTLE FILLER, SEE 13/A100
4. FIRE SPRINKLER RISER, SEE FIRE PROTECTION DWGS.
5. ROOF OVERHANG SHOWN DASHED
6. "MANITOWOC" MODEL B-570 ICE STORAGE BIN (O.P.C.I.)
7. "MANITOWOC" MODEL ID-2176C ICE CUBE MACHINE WITH MODEL ICVD-2096 REMOTE CONDENSING UNIT (MOUNTED ON ROOF CURB, SEE DETAIL K/M6.01 SIM.) WITH ASSOCIATED LINE SET, ETC. (O.P.C.I.)
8. REFRIGERATOR, N.I.C., COMBINATION REFRIGERATORS AND FREEZERS SHALL HAVE AT LEAST 50% OF THE FREEZER SPACE 54" MAX. ABOVE FINISH FLOOR
9. WATER HEATER
10. TYPE 'D' SIGN, THE SIGN SHALL BE WORDED AS FOLLOWS: "THE NUMBER OF PEOPLE PERMITTED IN THIS ROOM SHALL NOT EXCEED 114 FOR ASSEMBLY BY ORDER OF THE STATE FIRE MARSHALL."
11. REMOTE ACCESS CONTROL AT THIS DOOR, COORDINATE WITH SIGNALS DRAWINGS



KEY PLAN

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-2630 Office
(559) 627-1926 Fax

TITLE
BUILDING '100'
FLOOR PLAN &
CLERESTORY PLAN

A1

PROJECT 24042

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APPROVALS

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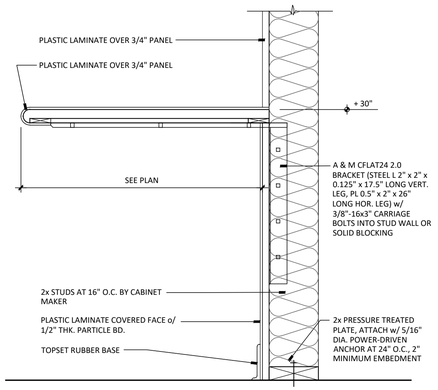
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No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

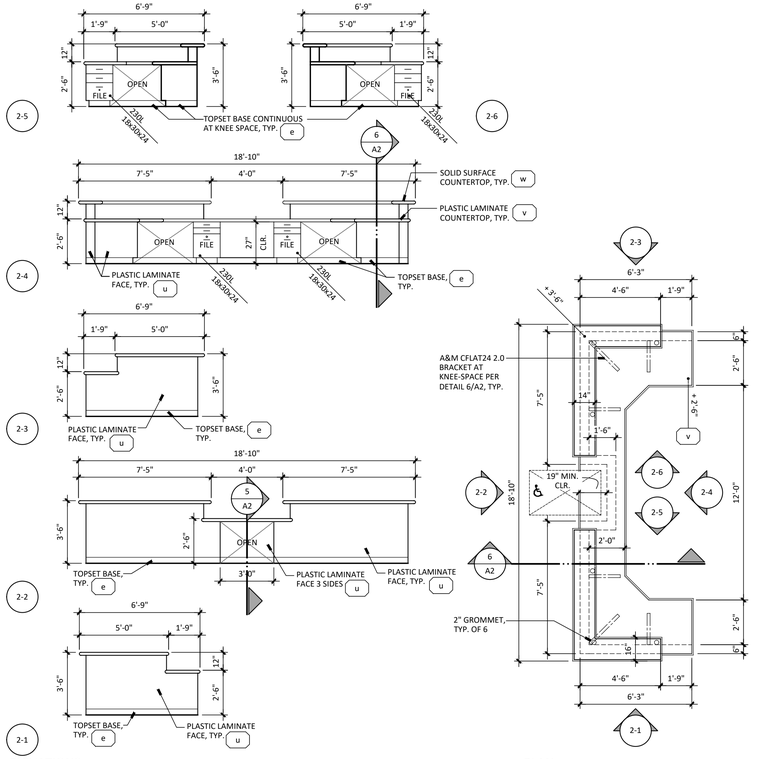
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS



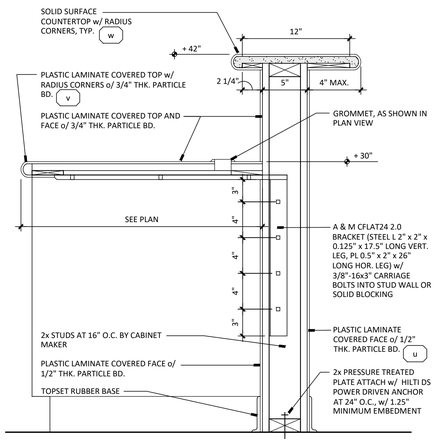
7 DESK SECTION

SCALE: 1 1/2" = 1'-0"



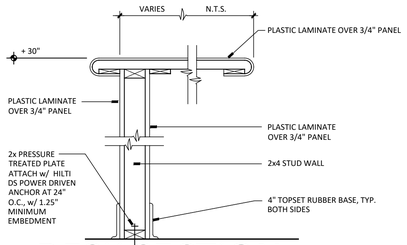
4 LIBRARIAN DESK (BUILDING 100)

SCALE: 1/4" = 1'-0"



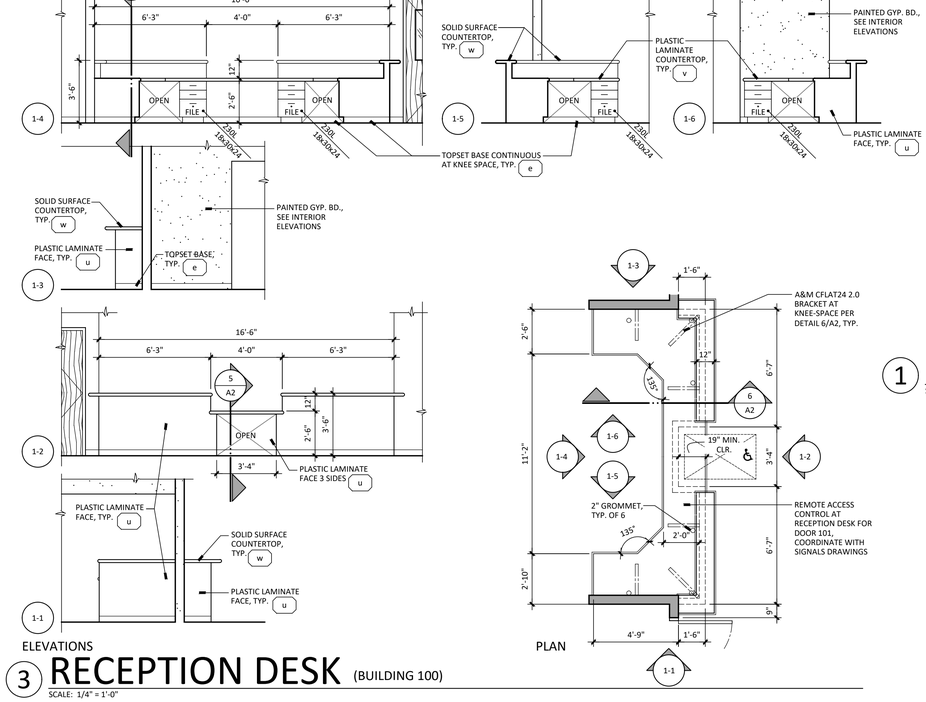
6 DESK SECTION

SCALE: 1 1/2" = 1'-0"



5 DESK SECTION

SCALE: 1 1/2" = 1'-0"



3 RECEPTION DESK (BUILDING 100)

SCALE: 1/4" = 1'-0"

ENLARGED FLOOR PLAN NOTES:

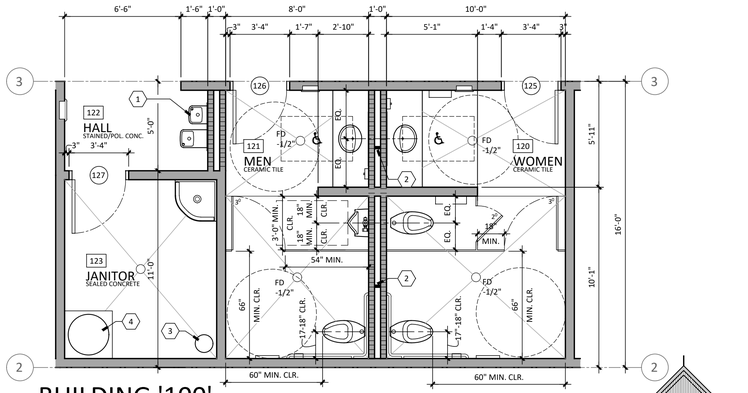
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   2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
9. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23/A100 24/A100

ENLARGED FLOOR PLAN LEGEND

- 2x6 WOOD STUDS @ 16" O.C.
- 2x4 WOOD STUDS @ 16" O.C.
- 48" / 30" — INDICATES 30"x48" CLEAR FL. SPACE
- Ø5'-0" — INDICATES 5' DIAMETER FLOOR ROTATION SPACE

ENLARGED FLOOR PLAN KEY NOTES

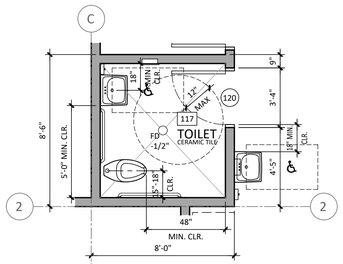
1. HI-LO DRINKING FOUNTAIN w/ BOTTLE FILLER, SEE 13/A100
2. 5/8" TYPE 'X' FIRE BLOCKING, SEE 9/A96
3. FIRE SPRINKLER RISER, SEE FIRE PROTECTION DWGS.
4. WATER HEATER, COORDINATE WITH PLUMBING & ELECTRICAL DWGS.



BUILDING '100'

2 ENLARGED FLOOR PLAN

SCALE: 1/4" = 1'-0"

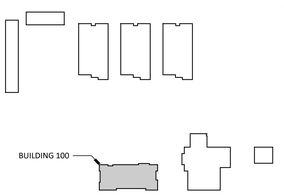


BUILDING '100'

1 ENLARGED FLOOR PLAN

SCALE: 1/4" = 1'-0"

north



KEY PLAN

MANGINI | ARCHITECTURE | INGENUITY

MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627 2630 Office
(559) 627 1926 Fax

TITLE
BUILDING '100'
ENLARGED
FLOOR PLANS
& MILLWORK

A2

PROJECT 24042

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

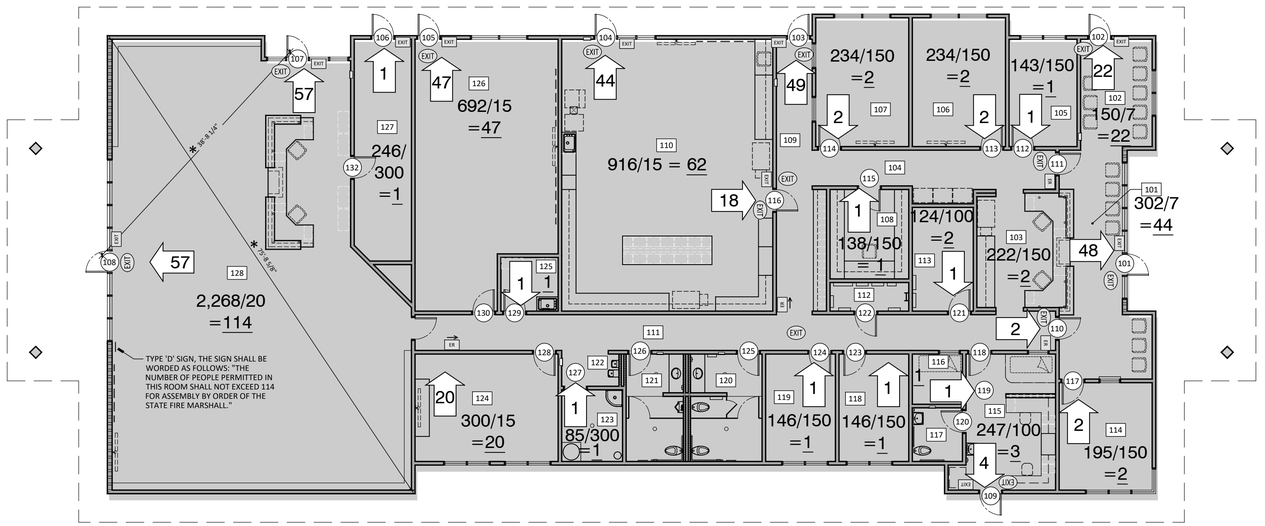
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

EXIT ANALYSIS

BLDG.	ROOM #	NAME	OCCUP. GROUP	AREA (SF)	SQ FT. / OCCUP.	# OCCUPANTS	TOTAL # OCCUPANTS	NUMBER OF REQUIRED EXITS CBC TABLE 1006.2.1	NUMBER OF PROVIDED EXITS CBC TABLE 1006.2.1	EGRESS WIDTH PER OCCUPANT SERVED CBC 1005.1	EXIT #	# OF OCC. THROUGH EXIT	REQ. EXIT WIDTH CALCULATION	EXIT WIDTH PROVIDED	DOOR ID #
BUILDING '100'	101	LOBBY	B	302	7	44	48	48 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	48	48 X 0.15" = 7.2"	34"	(101)
	102	STUDENT WAITING	B	150	7	22	22	22 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	22	22 X 0.15" = 3.3"	34"	(102)
	103	RECEPTION DESK	B	222	150	2	2	2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (110) OR (111) TO ROOM 101				
	104	HALL	-	189	ANCILLARY	6	6	-	-	-	EXIT THROUGH ROOM 109				
	105	OFFICE	B	143	150	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (112) TO ROOM 104				
	106	V. PRINCIPAL	B	234	150	2	2	2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (113) TO ROOM 104				
	107	PRINCIPAL	B	234	150	2	2	2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (114) TO ROOM 104				
	108	WORK ROOM	B	138	150	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (115) TO ROOM 104				
	109	HALL	-	224	ANCILLARY	31	31	31 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	49	49 X 0.15" = 7.35"	34"	(103)
	110	TEACHER WORK ROOM	B	916	15	62	62	62 > 50 = 2 EXIT REQ.	2 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	44	44 X 0.15" = 6.6	34"	(104)
											EXIT 2	18 EXIT THROUGH DOOR 116 TO ROOM 109	DOOR 116 18 X 0.15" = 2.7"	34"	(103) SEE CALC FOR ROOM 109
	111	HALL	-	393	ANCILLARY	24	24	-	-	-	EXIT THROUGH ROOM 109				
	112	ELEC.	B	44	300 ACCESSORY	1	-	-	-	-	EXIT THROUGH ROOM 111				
	113	DATA	B	124	100 ACCESSORY	1	2	2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (121) TO ROOM 111				
	114	ELOP OFFICE	B	195	150	2	2	2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (117) TO ROOM 101				
	115	NURSE	B	247	100	3	4	4 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	4	4 X 0.15" = 0.6"	34"	(109)
	116	RECOVERY ROOM	B	49	100	1	1	1< 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (119) TO ROOM 115				
	117	TOILET	-	53	ANCILLARY	-	-	-	-	-	EXIT THROUGH DOOR (120) TO ROOM 115				
	118	OFFICE	B	146	150	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (123) TO ROOM 111				
	119	OFFICE	B	146	150	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (124) TO ROOM 111				
	120	WOMEN	-	148	ANCILLARY	-	-	-	-	-	EXIT THROUGH ROOM 111				
	121	MEN	-	119	ANCILLARY	-	-	-	-	-	EXIT THROUGH ROOM 111				
	122	HALL	-	40	ANCILLARY	1	-	-	-	-	EXIT THROUGH ROOM 111				
	123	JANITOR	B	85	300 ACCESSORY	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (127) TO ROOM 122				
	124	CONFERENCE	B	300	15	20	20	20 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (128) TO ROOM 111				
	125	QUIET ROOM	B	60	100	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (129) TO ROOM 111				
	126	ELOP	B	692	15	47	47	47< 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	47	47 X 0.15" = 7.05"	34"	(105)
	127	STORAGE	S-1	246	300 ACCESSORY	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	1	1 X 0.15" = 0.15"	34"	(106)
	128	LIBRARY	A-3	2,268	20	114	114	114 > 50 = 2 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	57	57 X 0.15" = 8.55"	34"	(107)
											EXIT 2	57	57 X 0.15" = 8.55"	34"	(108)



* DIMENSION ONLY SHOWN TO DEMONSTRATE EXIT ACCESS COMPLIANCE

EXIT TACTILE EXIT SIGN, SEE DOOR SCHEDULE FOR ADDITIONAL INFO

(EXIT) ILLUMINATED OVERHEAD EXIT SIGN, SEE ELECTRICAL DWGS. FOR ADDITIONAL INFO

ER TACTILE EXIT ROUTE SIGN, SEE DOOR SCHEDULE FOR ADDITIONAL INFO

CALCULATION JUSTIFICATION FOR AGGREGATE ACCESSORY OCCUPANCIES NOT EXCEEDING 10% OF MAIN OCCUPANCY (CBC 508.2.3)

BUILDING 100 IS A MIXED-USE NON-SEPARATED OCCUPANCY, GROUPS 'B' & 'A-3'.

BUILDING 100 = 8,981 S.F.

BUILDING 100 AGGREGATE ACCESSORY OCCUPANCIES = 499 S.F.

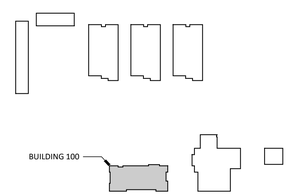
10% OF 8,981 S.F. = 898.1 S.F.

TOTAL AGGREGATE ACCESSORY OCCUPANCY OF 499 S.F. < 898.1 S.F., THEREFORE OK.

BUILDING 100

EXIT ANALYSIS

SCALE: 1" = 10'-0"



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
BUILDING '100'
EXIT ANALYSIS

A3

PROJECT 24042

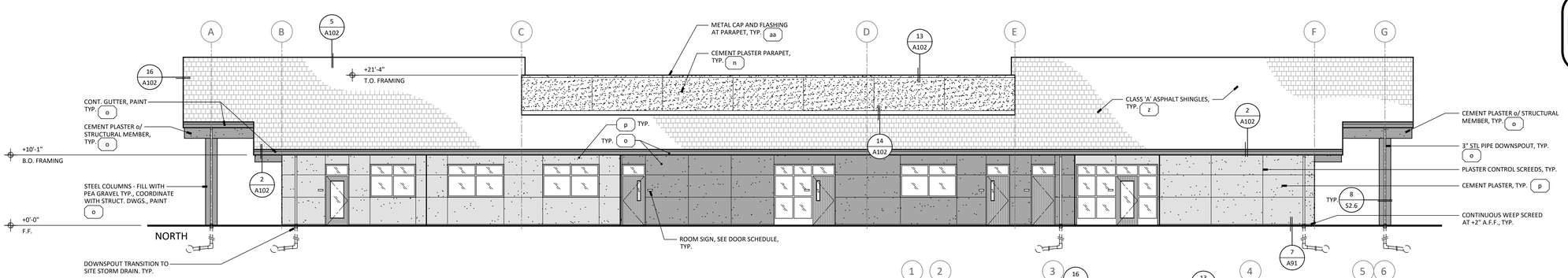
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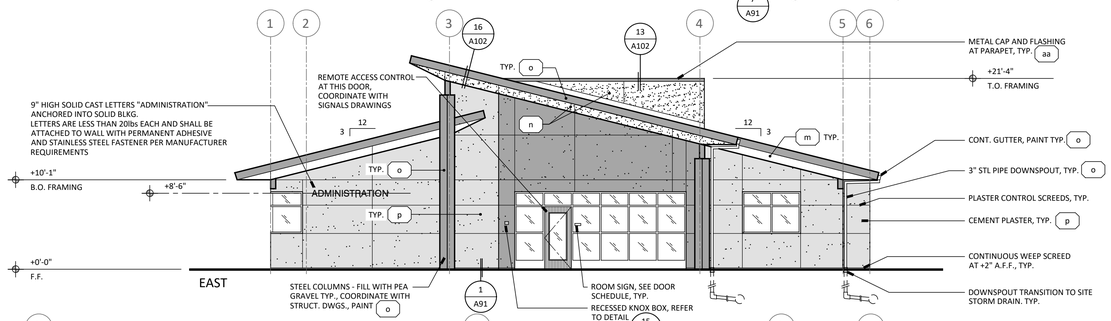
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FILE # 10-126 APPLICATION # 02-123774

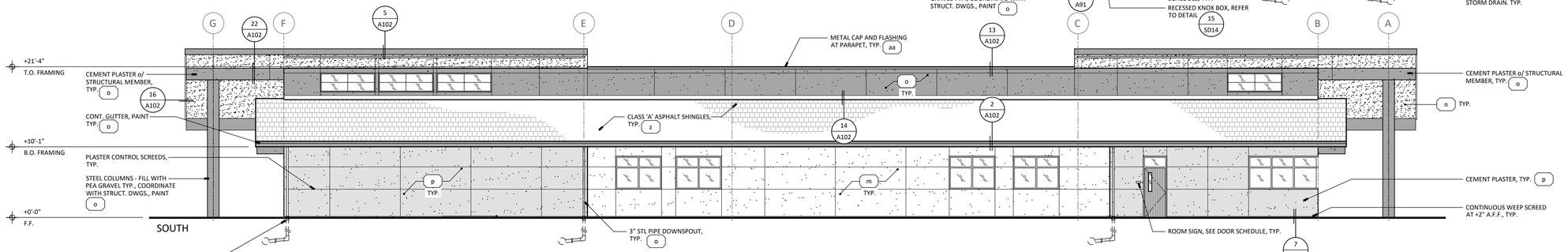
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APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

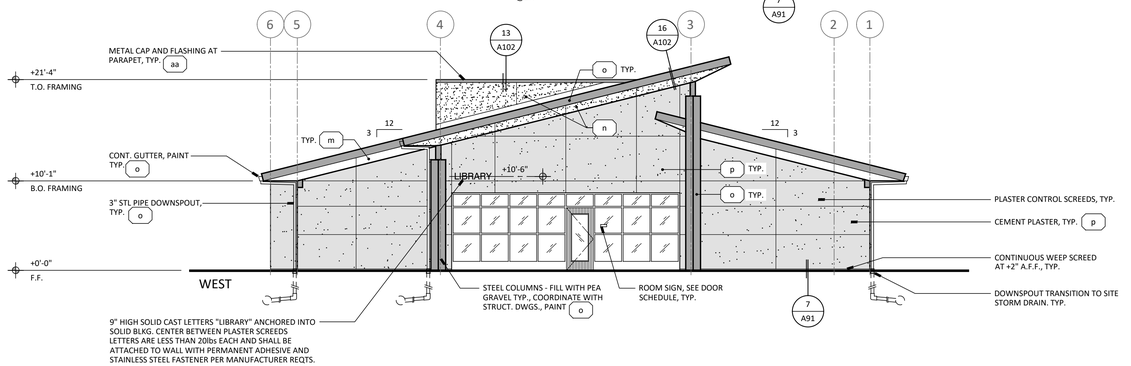
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-21128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025







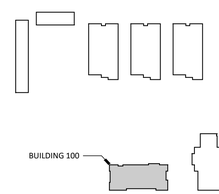


EXTERIOR ELEVATION NOTES:

1. FOR DOOR SIGNAGE, REFER TO DOOR SCHEDULE & DETAIL 1 / A84
2. FOR ALL WALL ASSEMBLIES REFER TO SHEET A77
3. FOR TYPICAL CEMENT PLASTER CONTROL SCREED, REFER TO DETAIL 3 / A97
4. FOR TYPICAL DOWNSPOUT TO WALL ANCHORAGE, REFER TO DETAIL 10 / A103, 15 / A103
5. FOR TYPICAL DOWNSPOUT TO STORM DRAIN CONNECTION, REFER TO DETAIL 9 / A103, 14 / A103
6. FOR TYPICAL PARAPET FLASHING, REFER TO DETAILS 19 / A102, 20 / A102, 24 / A102

BUILDING '100'
EXTERIOR ELEVATIONS

SCALE: 1/8" = 1'-0"



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

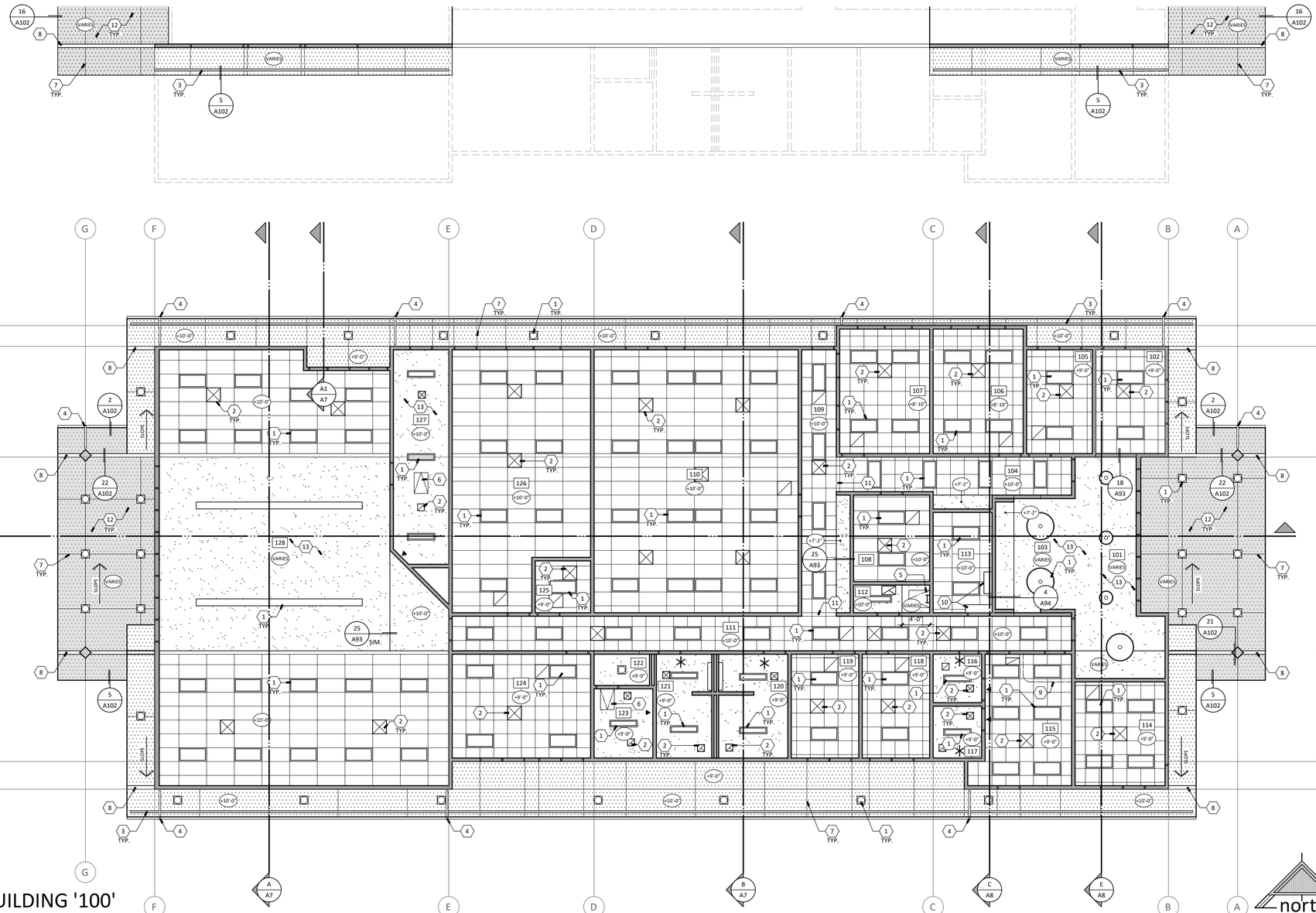
REVISIONS

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(559) 627.1926 Fax

TITLE
BUILDING '100'
EXTERIOR ELEVATIONS

A4

PROJECT 24042



BUILDING '100'

REFLECTED CEILING PLAN

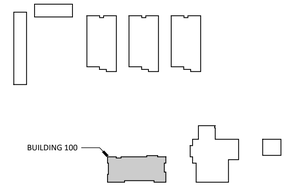
SCALE: 1/8" = 1'-0"

REFLECTED CEILING PLAN LEGEND:

- CEMENT PLASTER SOFFIT/ OVERHANG SYSTEM
- TAPED, TEXTURED AND PAINTED 5/8" THICK GYP. BD.
- 24" x 48" SUSP. LAY-IN CEILING SYSTEM (SECOND LOOK). SEE FINISH SCHEDULE - A98 & - A99
- 24" x 48" SUSP. LAY-IN CEILING SYSTEM, SEE FINISH SCHEDULE - A98 & - A99
- +X'-X" ELEVATION ABOVE FINISH FLOOR LEVEL.
- ASTERISK INDICATES 3 1/2" SOUND ATTENUATION BATT INSULATION ABOVE CEILING
- INDICATES 20" x 30" FRAMED OPENING ATTIC ACCESS FROM SUSPENDED LAY-IN CEILING SYSTEM

REFLECTED CEILING PLAN KEY NOTES THIS SHEET ONLY:

1. LIGHT FIXTURE AS SHOWN, SEE ELECTRICAL DWGS.
2. AIR REGISTER AS SHOWN, SEE MECHANICAL DWGS.
3. 4" CONTINUOUS SOFFIT VENT, TYP. PAINT TO MATCH ADJACENT SOFFIT
4. ROOF GUTTER SYSTEM AND DOWNSPOUT o
5. 30" x 36" ROOF ACCESS HATCH, SEE 20 / A101
6. 22" x 36" CEILING ACCESS DOOR, SEE 3 / A101
7. CEMENT PLASTER CONTROL SCREED, SEE 3 / A97 ALIGN SOFFIT SCREEDS w/ WALL AND FASCIA SCREEDS
8. CEMENT PLASTER o/ STRUCTURAL MEMBER
9. CURTAIN & TRACK, SEE SPECS. AND DETAIL 25 / A97
10. IDU, COORDINATE WITH MECHANICAL DWGS.
11. SUSPENDED CEILING EXPANSION JOINT AT INTERSECTION OF CORRIDORS AND JUNCTIONS OF CORRIDORS, SEE DETAILS 2.30 / A98 & 2.40 / A99
12. FILL CONCEALED SPACE w/ NONCOMBUSTIBLE INSULATION, TYP. SHOWN SHADED
13. ROOF ASSEMBLY ABOVE CEILING IN THIS ROOM SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. FOR ADDITIONAL INFORMATION, SEE ROOF PLAN AND DETAIL 24 / A104



KEY PLAN

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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SANGER, FRESNO COUNTY, CA

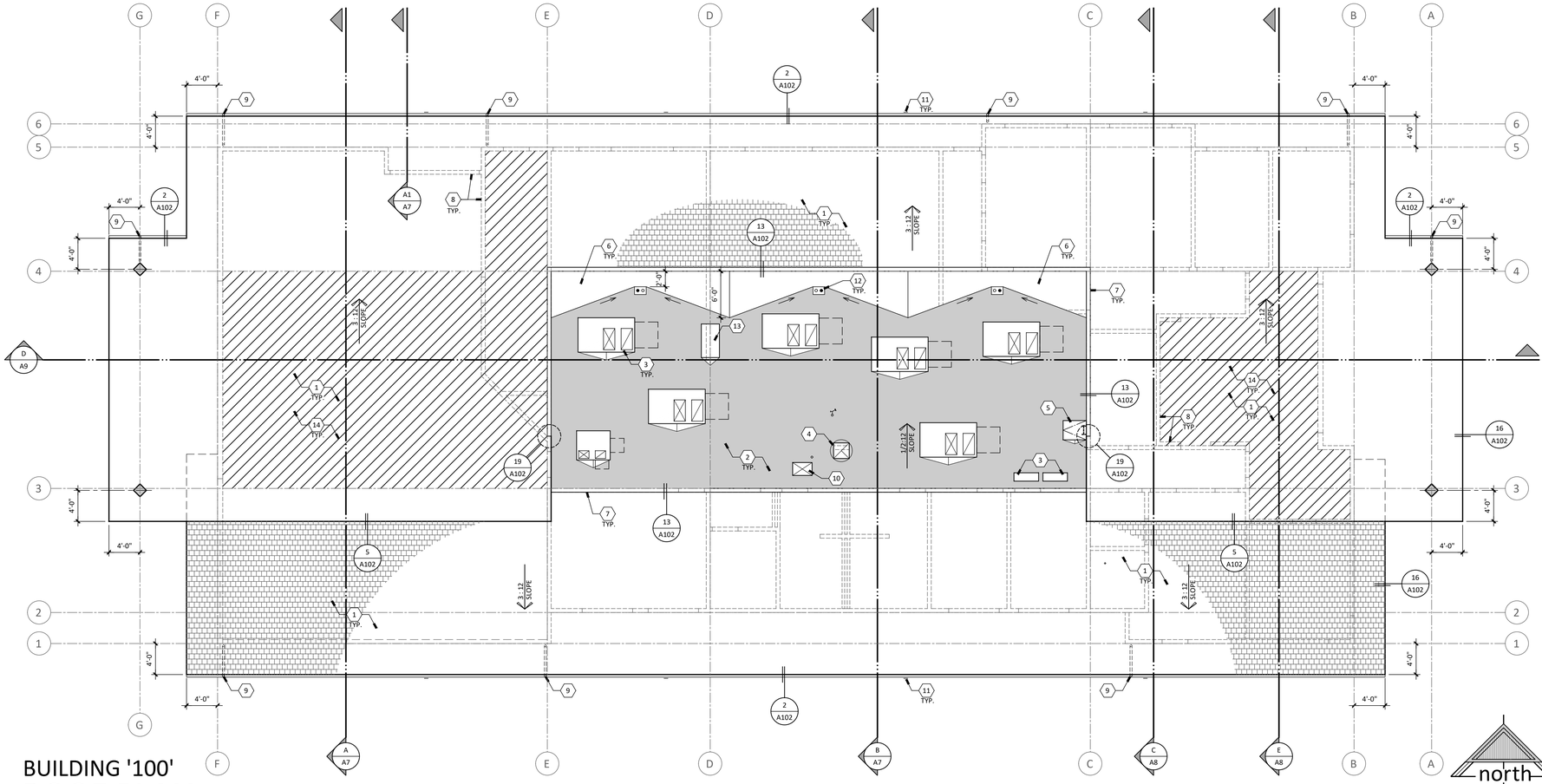
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TITLE
BUILDING '100'
REFLECTED CEILING PLAN

A5

PROJECT 24042



BUILDING '100'
ROOF PLAN

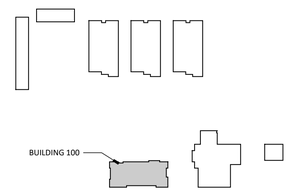
SCALE: 1/8" = 1'-0"

ROOF PLAN NOTES:

1. CRICKETS INDICATED SHALL BE CONSTRUCTED OF RIGID INSULATION, ACCORDING TO THE DIMENSIONS INDICATED. SLOPE OF TAPERED INSULATION SHALL BE 1/2" IN 12".
2. ROOF DRAINS SHALL BE LOCATED 12" AWAY FROM THE PARAPET.
3. AT ASPHALT SHINGLE ROOFS WITH LESS THAN 4:12 SLOPE, PROVIDE A SECOND LAYER OF UNDERLAYMENT. SEE SPEC. SECTION 07 3100 FOR ADDITIONAL INFO.

ROOF PLAN KEY NOTES THIS SHEET ONLY:

1. CLASS 'A' ASPHALT SHINGLES (25 A104)
2. CLASS 'A' BUILT-UP ROOFING SYSTEM, ENTIRE SLOPED ROOF TO BE WALKING SURFACE
3. MECHANICAL UNIT & CURB , COORDINATE WITH MECHANICAL & STRUCTURAL DWGS.
4. ROOF EXHAUST FANS, COORDINATE w/ MECHANICAL DWGS.
5. 30" x 36" ROOF ACCESS HATCH, SEE (20 A101)
6. SLOPING FORMED CRICKET
7. METAL CAP AND FLASHING, TYP. AT PARAPETS
8. WALL LINE BELOW SHOWN DASHED FOR CLARITY
9. ROOF GUTTER SYSTEM AND DOWNSPOUT (o)
10. ELECTRICAL TRANSFORMER, COORDINATE w/ ELECTRICAL DWGS.
11. GUTTER EXPANSION JOINT
12. ROOF DRAIN AND OVERFLOW, SEE (11 A103)
13. CONDENSING UNIT COORDINATE w/ MECHANICAL DWGS.
14. ROOF ASSEMBLY BELOW (SHOWN CROSS HATCHED) SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OR R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. FOR ADDITIONAL INFORMATION REFER TO DETAIL (24 A104)



KEY PLAN

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TITLE
BUILDING '100'
ROOF PLAN

A6

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

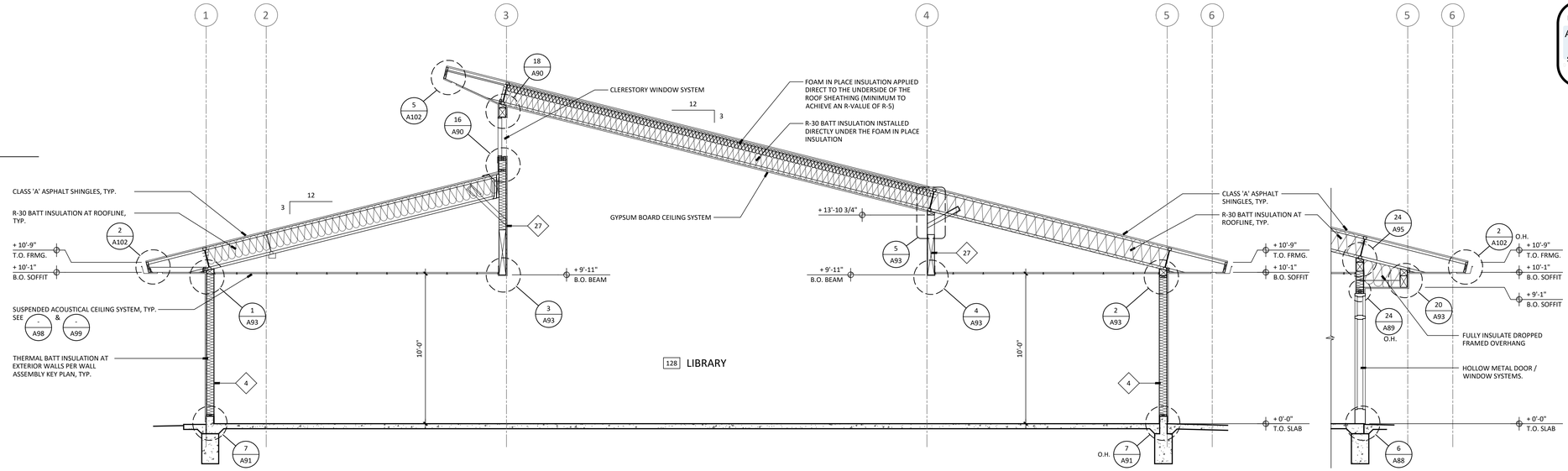
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BUILDING SECTION LEGEND

X — WALL ASSEMBLY CALLOUT, REFER TO SHEET A77

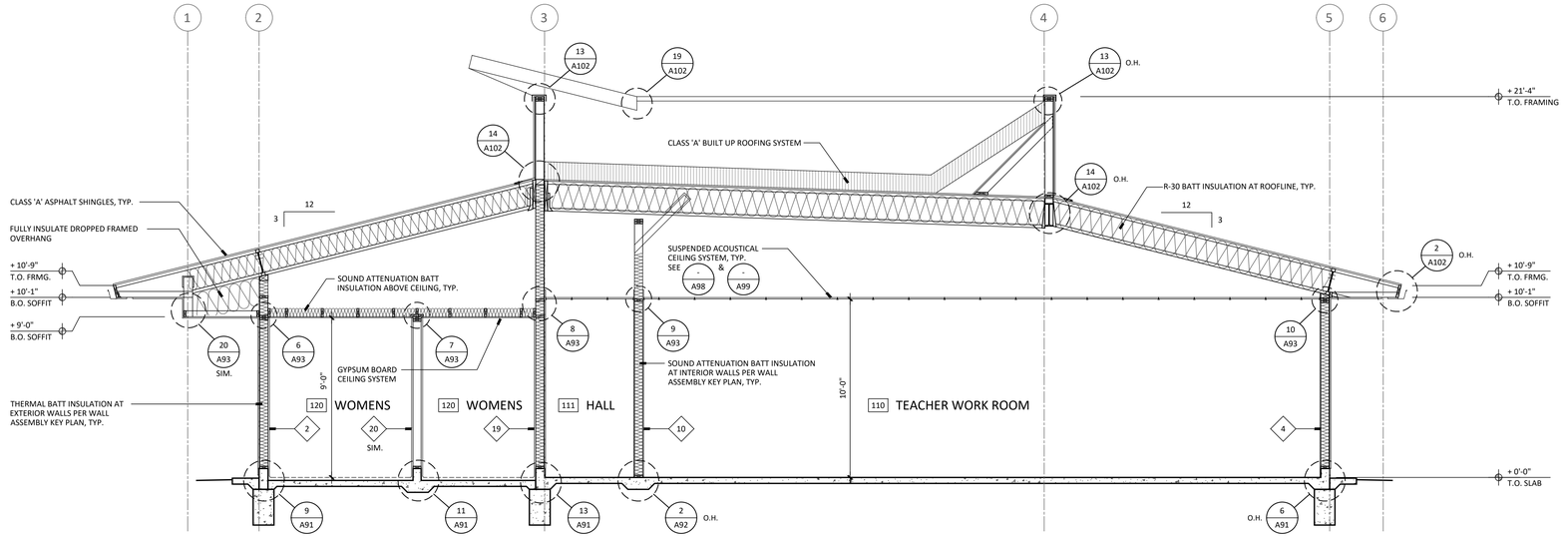


A BUILDING '100' SECTION

SCALE: 1/4" = 1'-0"

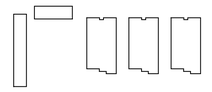
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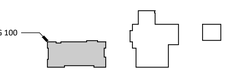


B BUILDING '100' SECTION

SCALE: 1/4" = 1'-0"



BUILDING 100



KEY PLAN

BUILDING '100'
SECTIONS

SCALE: 1/4" = 1'-0"

REVISIONS

NEW TEMPERANCE ELEMENTARY SCHOOL
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SANGER, FRESNO COUNTY, CA

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(559) 627 1926 Fax

TITLE
BUILDING '100' SECTIONS

A7

PROJECT 24042

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

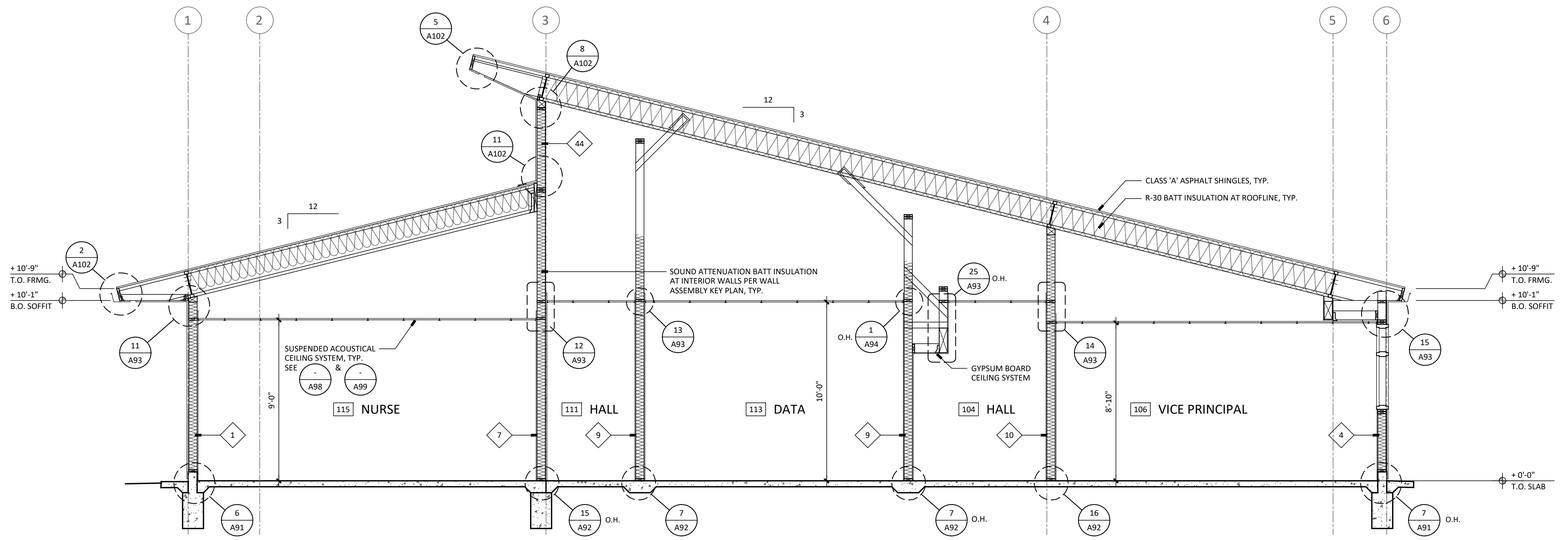
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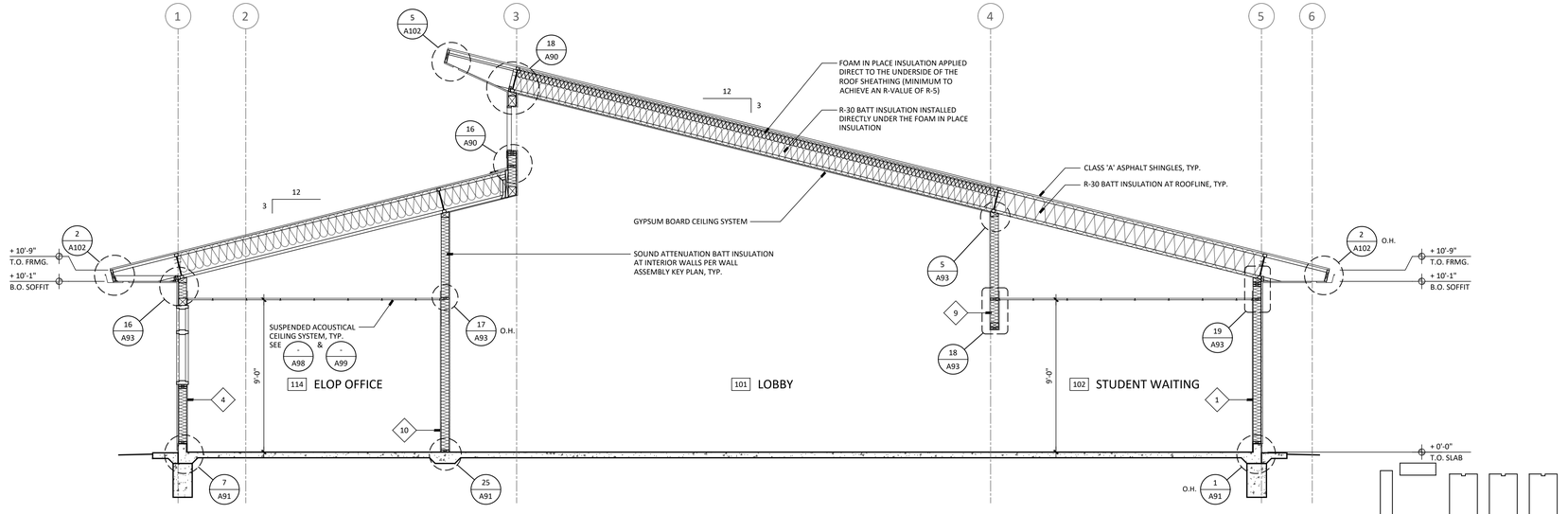
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X — WALL ASSEMBLY CALLOUT, REFER TO SHEET A77



© BUILDING '100' SECTION

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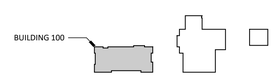


© BUILDING '100' SECTION

SCALE: 1/4" = 1'-0"

BUILDING '100'
SECTIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

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NEW TEMPERANCE ELEMENTARY SCHOOL
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TITLE
BUILDING '100' SECTIONS

A8

PROJECT 24042

APPROVALS

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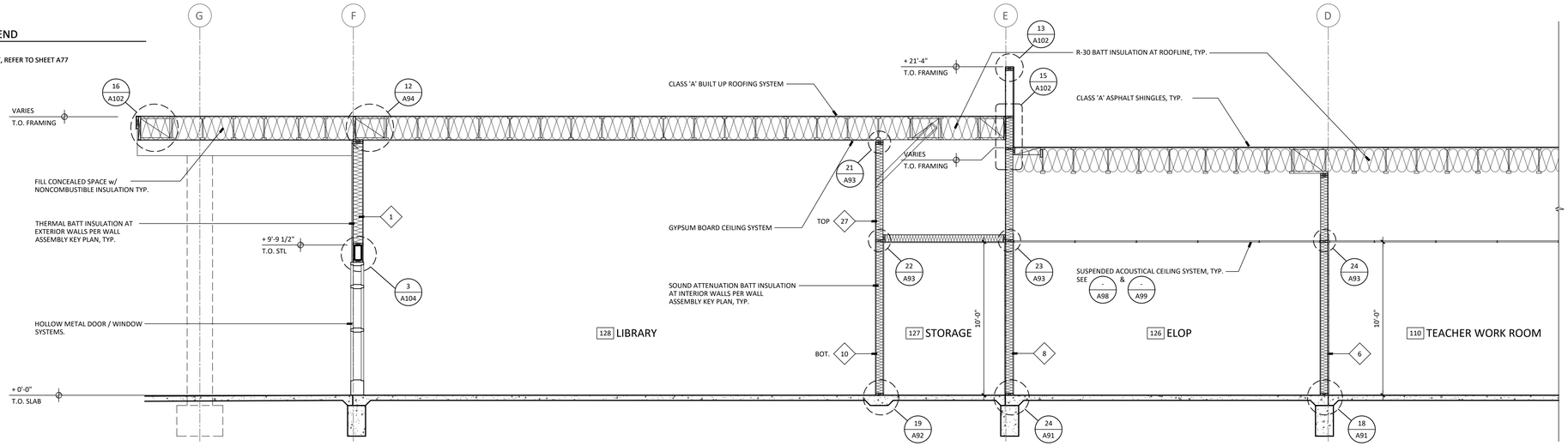
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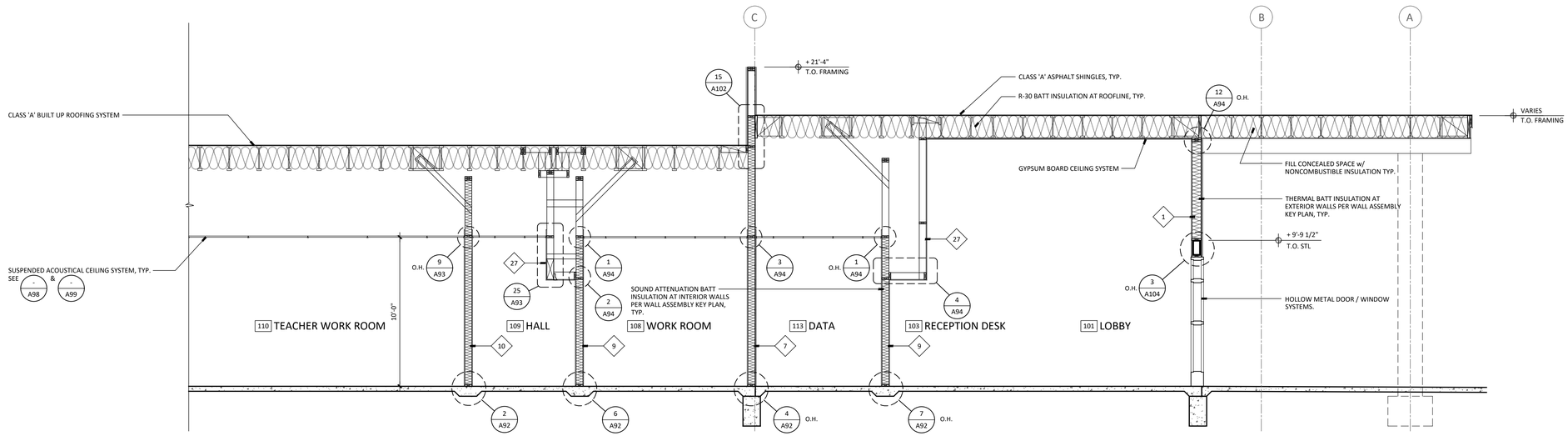
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BUILDING SECTION LEGEND

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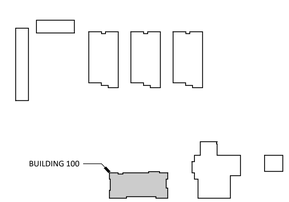


D BUILDING '100' SECTION

SCALE: 1/4" = 1'-0"

BUILDING '100'
SECTIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

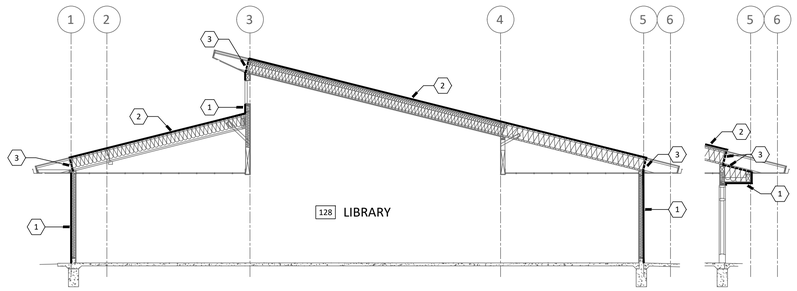
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TITLE
BUILDING '100' SECTIONS

A9

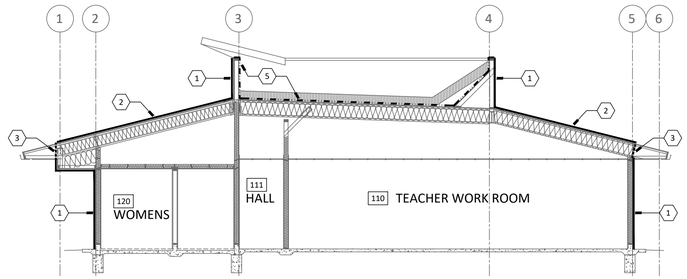
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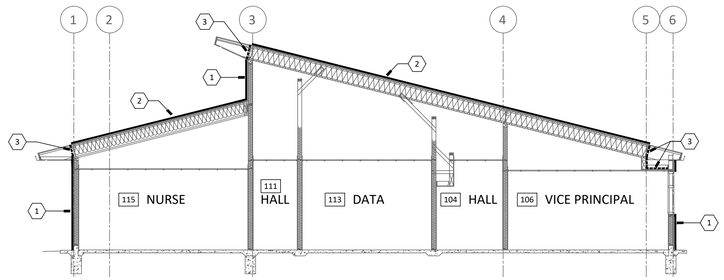
A BUILDING '100' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



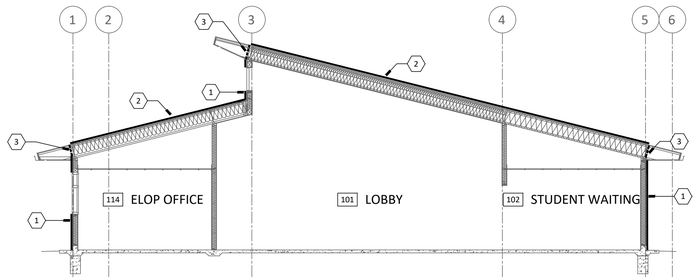
B BUILDING '100' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



C BUILDING '100' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



E BUILDING '100' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"

D BUILDING '100' AIR BARRIER SECTION

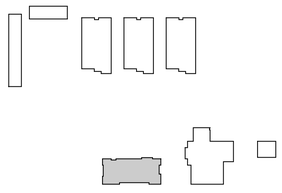
SCALE: 1/8" = 1'-0"

AIR BARRIER SECTION NOTES

1. BRIDGE AND SEAL AIR LEAKAGE PATHWAYS AND GAPS, INCLUDING, BUT NOT LIMITED TO:
   - -CONNECTIONS OF THE WALLS TO THE ROOF AND AIR BARRIER
   - -CONNECTIONS TO THE WALLS TO THE FOUNDATIONS
   - -SEISMIC AND EXPANSION JOINTS
   - -OPENINGS AND PENETRATIONS OF WINDOW AND DOOR FRAMES, STORE FRONT, CURTAIN WALL
   - -PIPING, CONDUIT, DUCT, AND SIMILAR PENETRATIONS
   - -MASONRY TIES, SCREWS, BOLTS, AND SIMILAR PENETRATIONS
   - -FLASHING AND SHEET METAL ASSEMBLIES
   - -ALL OTHER AIR LEAKAGE PATHWAYS IN THE BUILDING ENVELOPE
   - -PLYWOOD JOINTS
2. REFER TO 07 2700 AIR BARRIER SYSTEM FOR ADDITIONAL INFORMATION

AIR BARRIER SECTION KEYNOTES

1. CEMENT PLASTER & PLYWOOD AS AIR BARRIER WHERE SHOWN
2. ASPHALT SHINGLE ROOFING SYSTEM & PLYWOOD AS AIR BARRIER WHERE SHOWN
3. FOAM-IN-PLACE TO COMPLETE AIR BARRIER
4. BUILT-UP ROOFING SYSTEM AS AIR BARRIER



KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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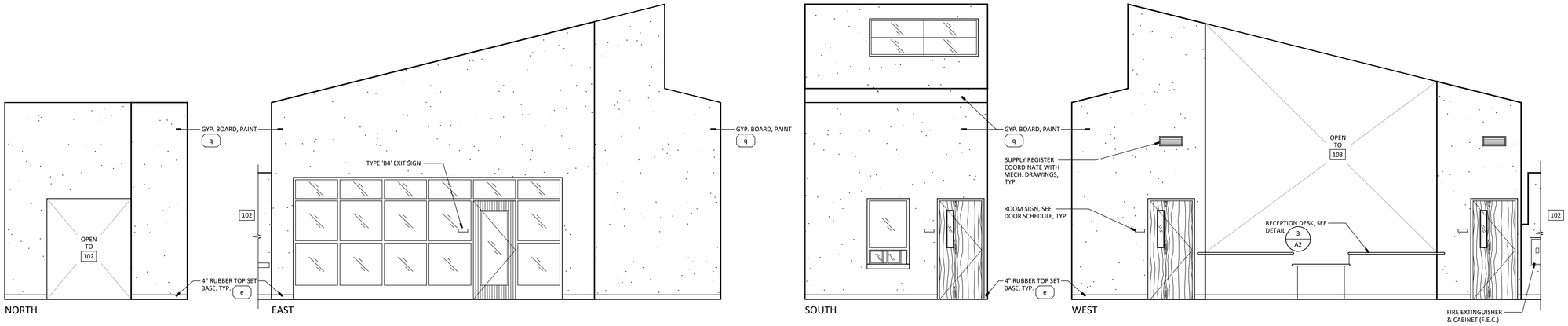
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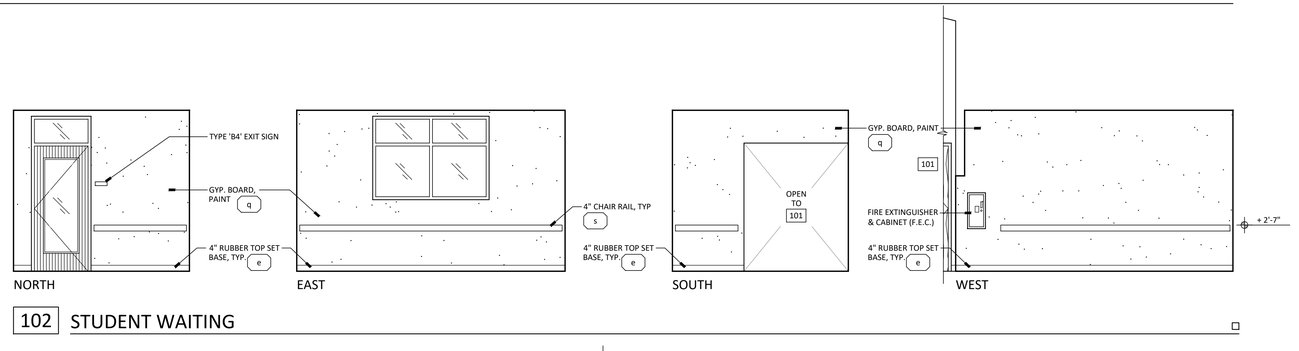
TITLE
BUILDING '100'
AIR BARRIER
SECTIONS

A10

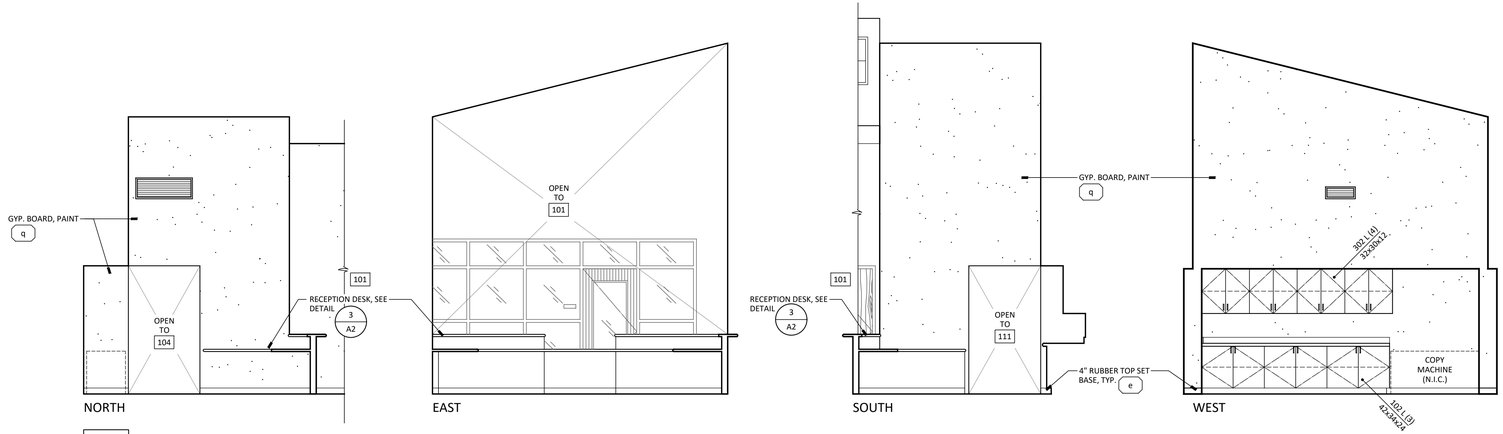
PROJECT 24042



101 LOBBY



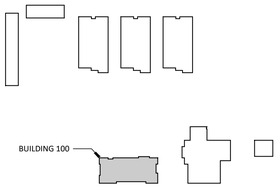
102 STUDENT WAITING



103 RECEPTION

INTERIOR ELEVATION NOTES

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20. REFER TO DETAIL FOR TILE PATTERN 1 A73



KEY PLAN

BUILDING '100'
INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

F:\01 projects\24042\Drawings\01 architectural\03 sheets\Bldg. '100' Interior Elevations (6).dwg Sep 16 2026 4:57pm

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

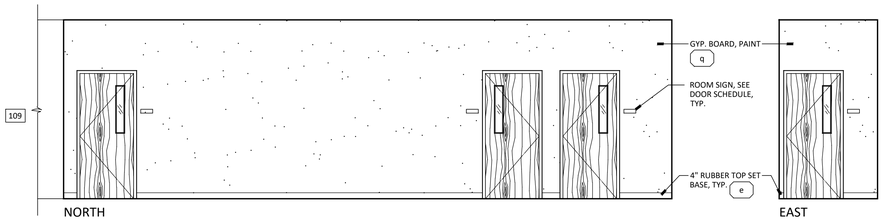
REVISIONS

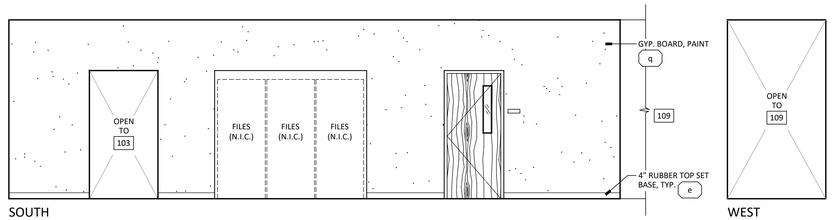
MANGINI ARCHITECTURE INGENUITY
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4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
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TITLE
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INTERIOR ELEVATIONS

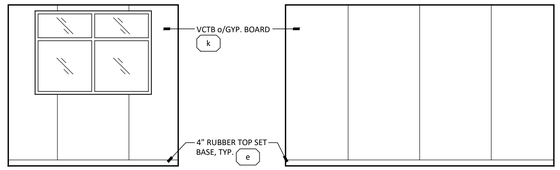
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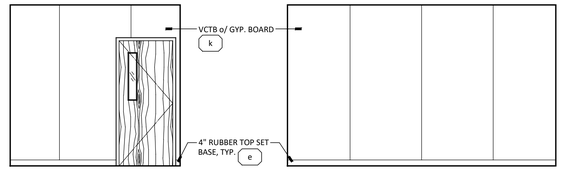
PROJECT 24042



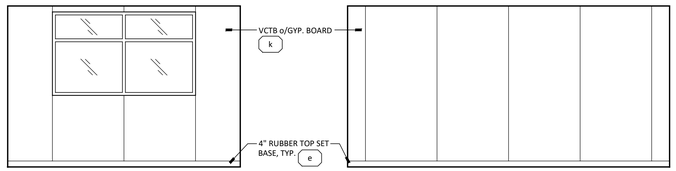


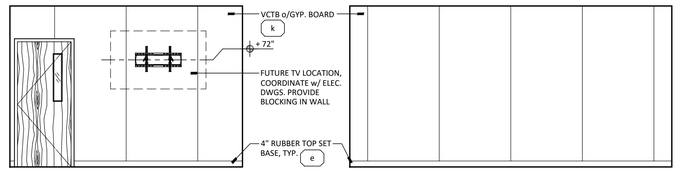
104 HALL



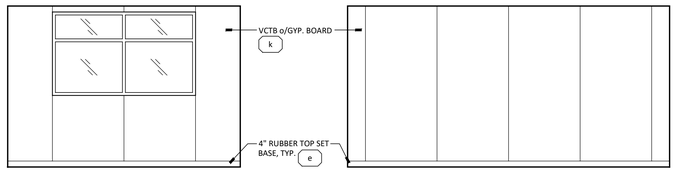


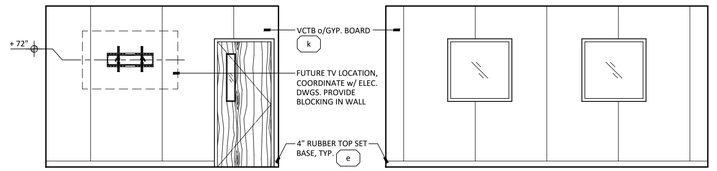
105 OFFICE





106 VICE PRINCIPAL





107 PRINCIPAL

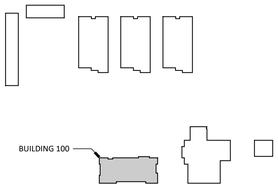
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BUILDING '100'

INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

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REVISIONS

ARCHITECTURE ENGENUITY
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TITLE
BUILDING '100'
INTERIOR ELEVATIONS

A12

PROJECT 24042

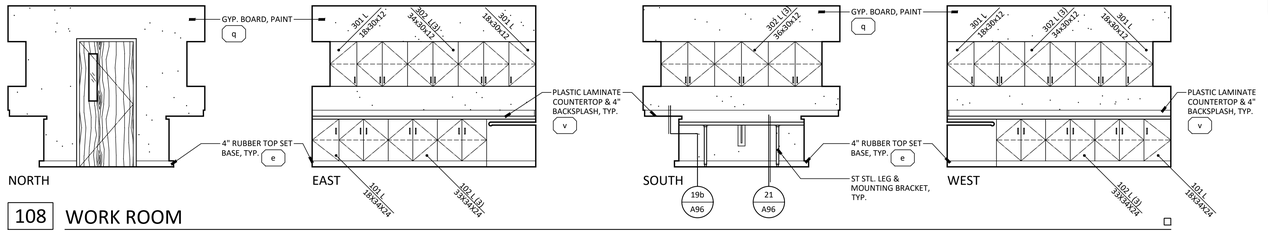
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

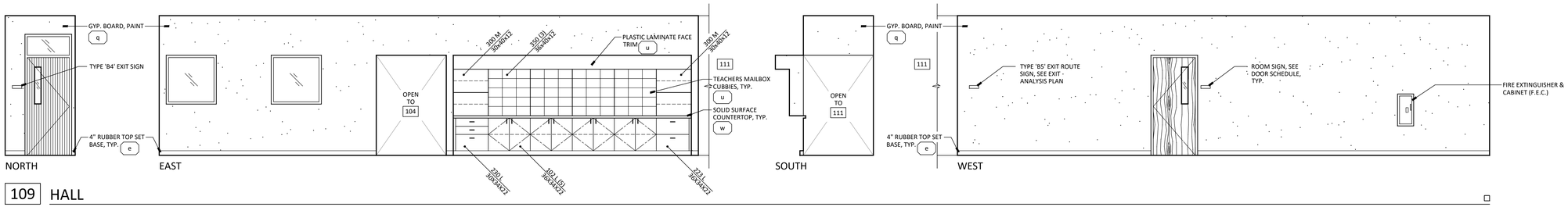
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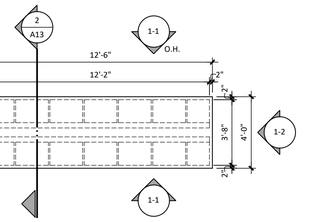
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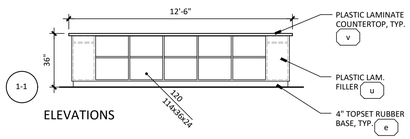


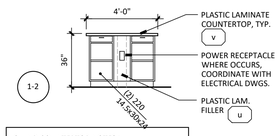
108 WORK ROOM



109 HALL





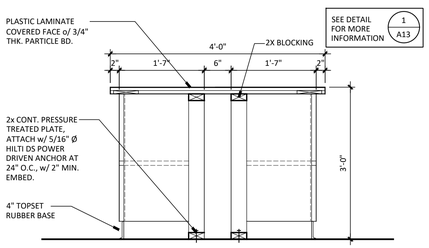


ISLAND COUNTERTOP NOTES :

1) VERIFY ALL DIMENSIONS IN FIELD FOR ACCURACY OF LAYOUT AND DETAILS.

1 ISLAND COUNTERTOP

SCALE 1/4" = 1'-0"



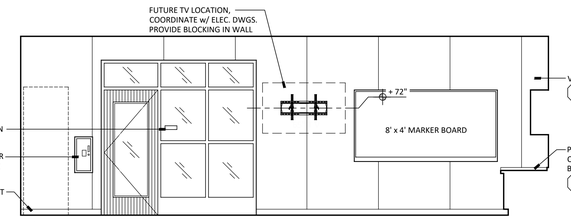
2 SECTION @ ISLAND COUNTERTOP

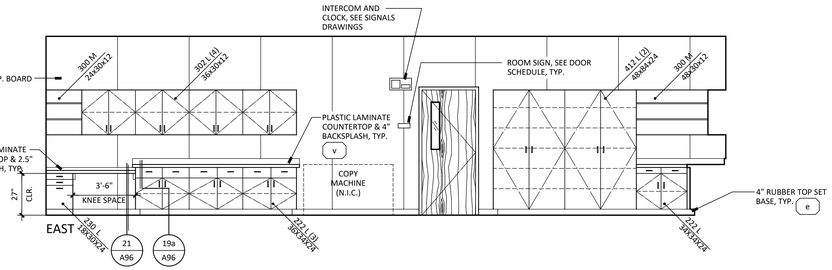
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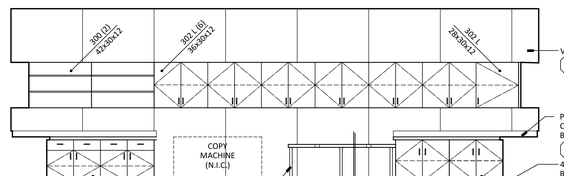
BUILDING '100'

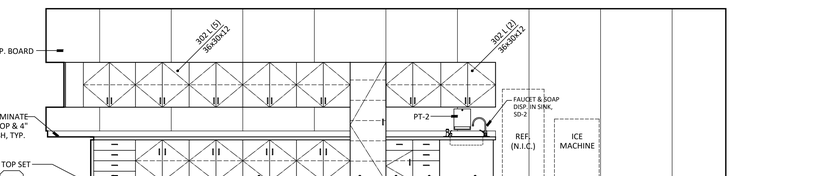
INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"





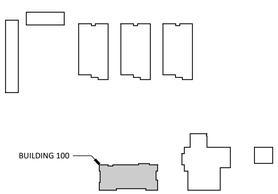




110 TEACHER WORK ROOM

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KEY PLAN

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SANGER UNIFIED SCHOOL DISTRICT

SANGER, FRESNO COUNTY, CA

REVISIONS

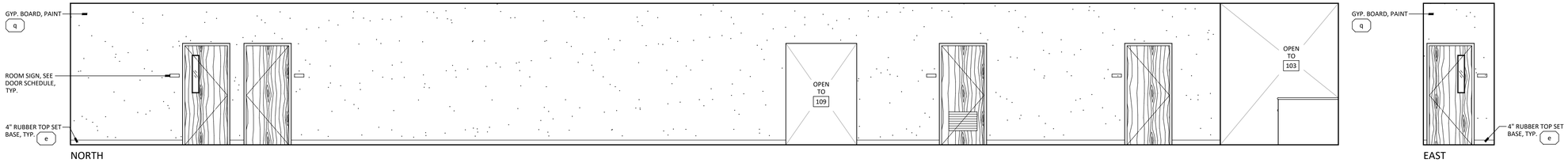
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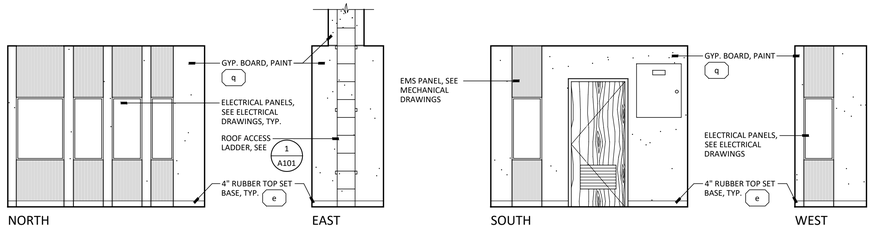
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PROJECT 24042

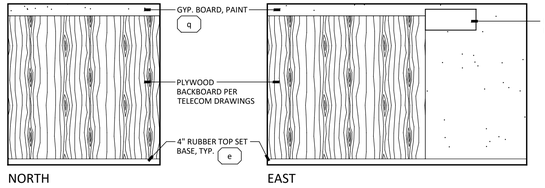
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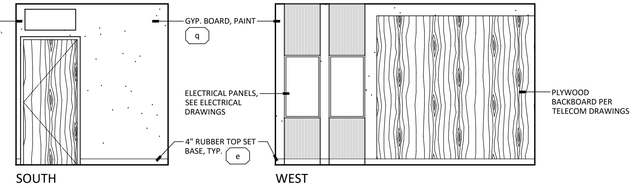


111 HALL

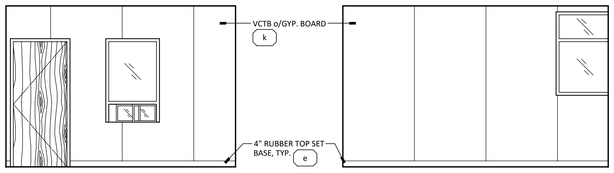


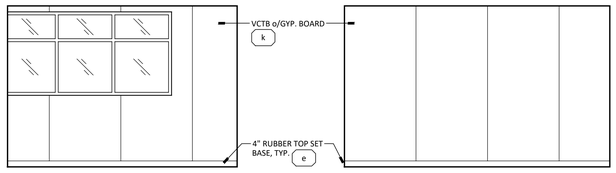
112 ELEC.





113 DATA





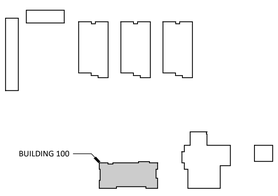
114 ELOP OFFICE

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BUILDING '100' INTERIOR ELEVATIONS

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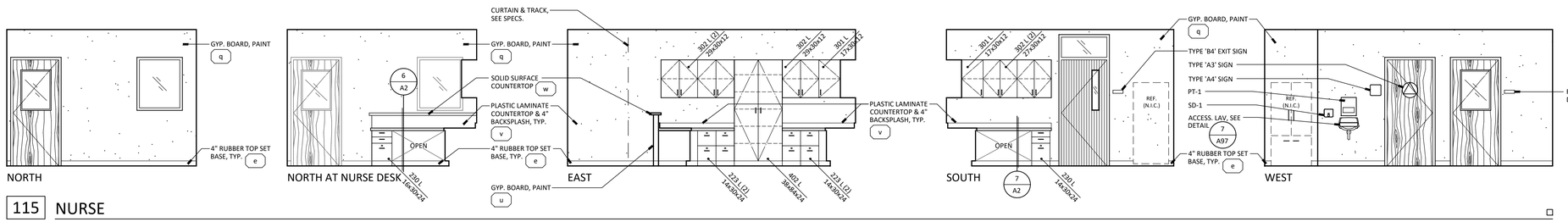
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Visalia, California 93291
www.mangini.us
(559) 627 2639 Office
(559) 627 1926 Fax

TITLE
BUILDING '100'
INTERIOR ELEVATIONS

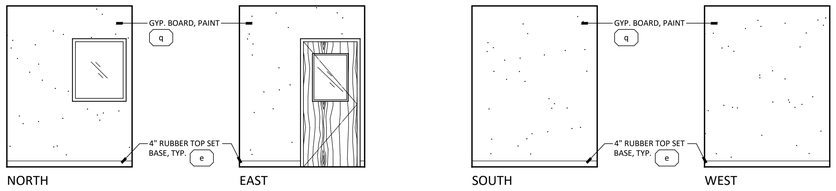
A14

PROJECT 24042

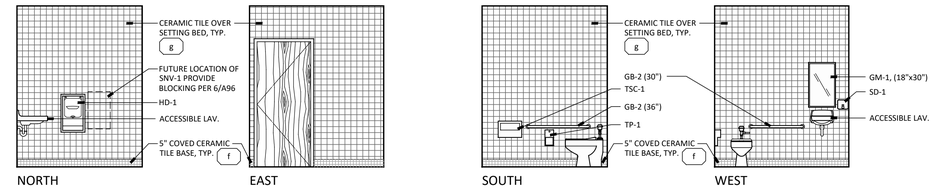
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115 NURSE

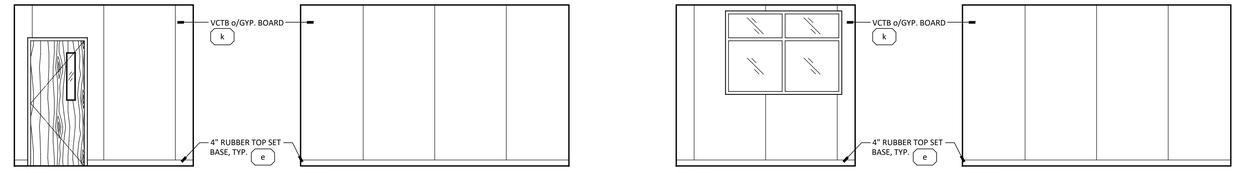


116 RECOVERY ROOM

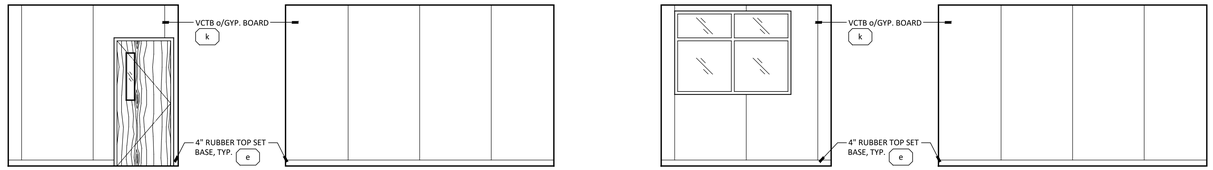


117 TOILET

REFER TO 17/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - AGES 9-12



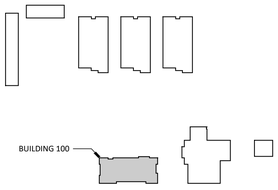
118 OFFICE



119 SPEECH

INTERIOR ELEVATION NOTES

1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13/A96 U.O.N.
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17. FOR ACCESSIBLE LAVATORY, SEE DETAILS 6/A97 7/A97
18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
19. FOR TYPICAL RUBBER TOPSET BASE AND CERAMIC TILE BASE, SEE DETAILS 21/A97 22/A97
20. REFER TO DETAIL FOR TILE PATTERN 1/A73



KEY PLAN

BUILDING '100'
INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

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APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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APP: 02-123774 INC:
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

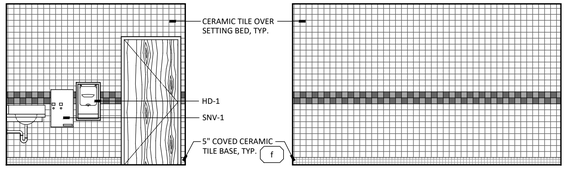
REVISIONS

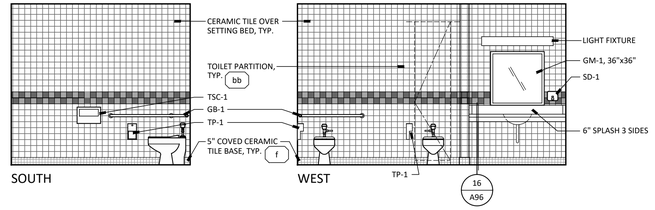
MANGINI ARCHITECTURE INGENUITY
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(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING '100'
INTERIOR ELEVATIONS

A15

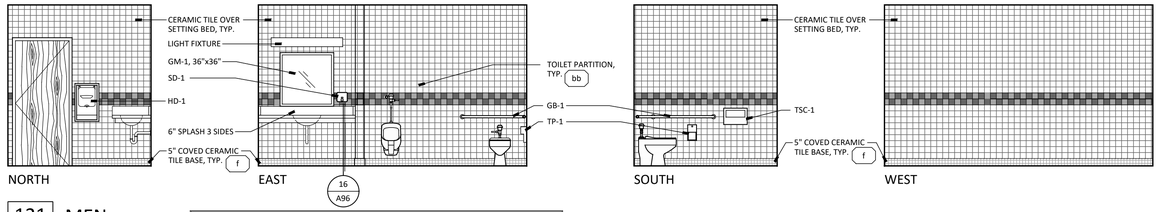
PROJECT 24042





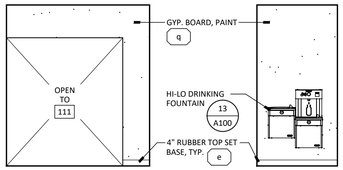
120 WOMEN

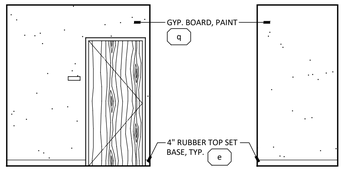
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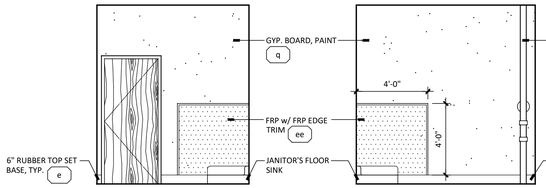
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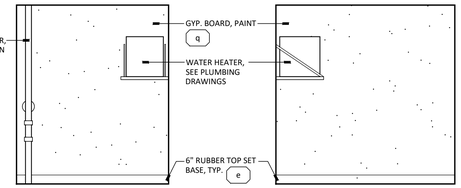
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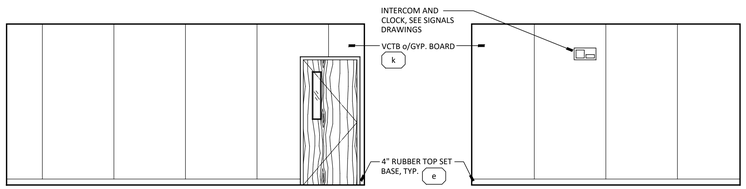


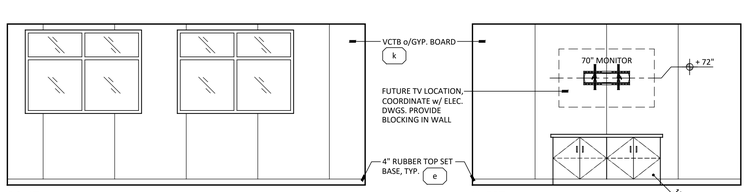
122 HALL





123 JANITOR





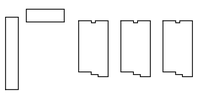
124 CONFERENCE

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BUILDING '100' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



BUILDING 100

KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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REN. 05-31-27
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SANGER, FRESNO COUNTY, CA

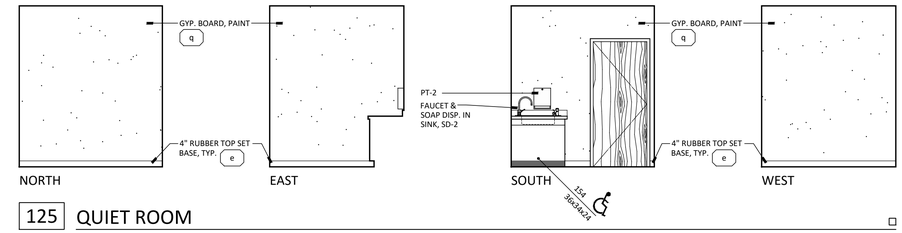
REVISIONS

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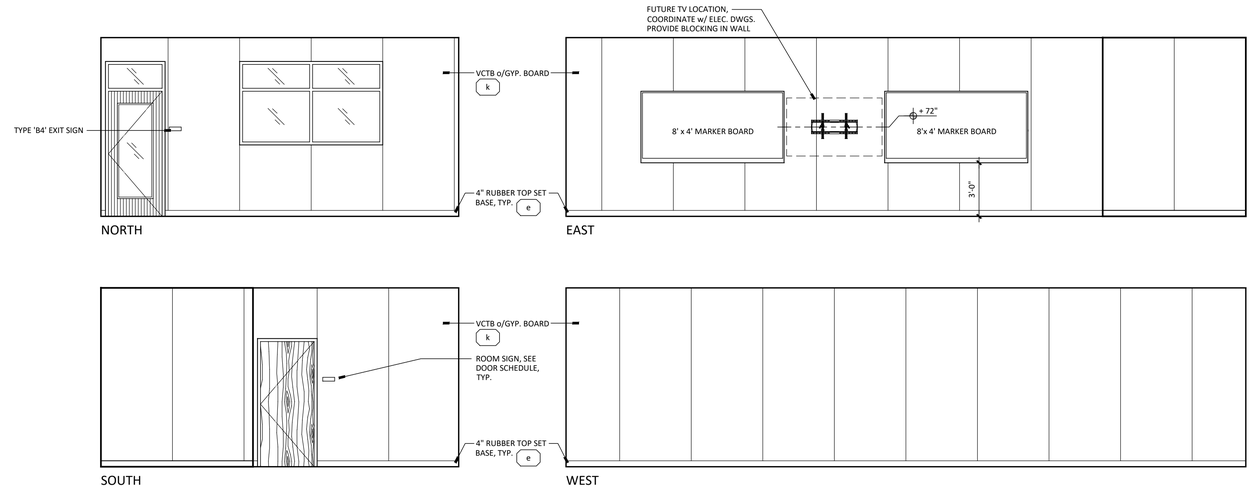
TITLE
BUILDING '100'
INTERIOR ELEVATIONS

A16

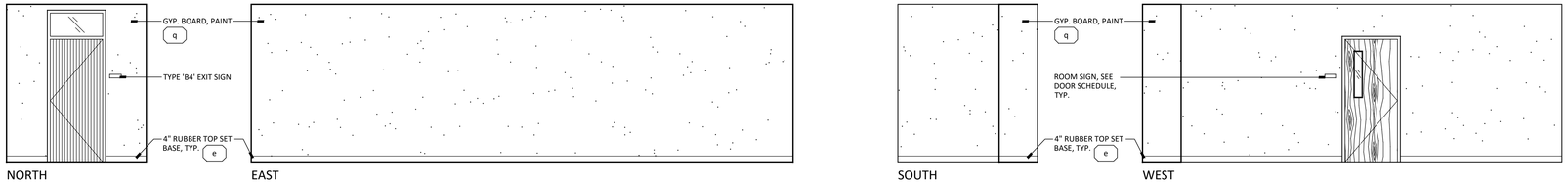
PROJECT 24042



125 QUIET ROOM



126 ELOP



127 STORAGE

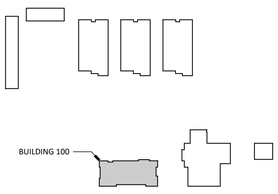
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BUILDING '100'

INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

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TITLE
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INTERIOR ELEVATIONS

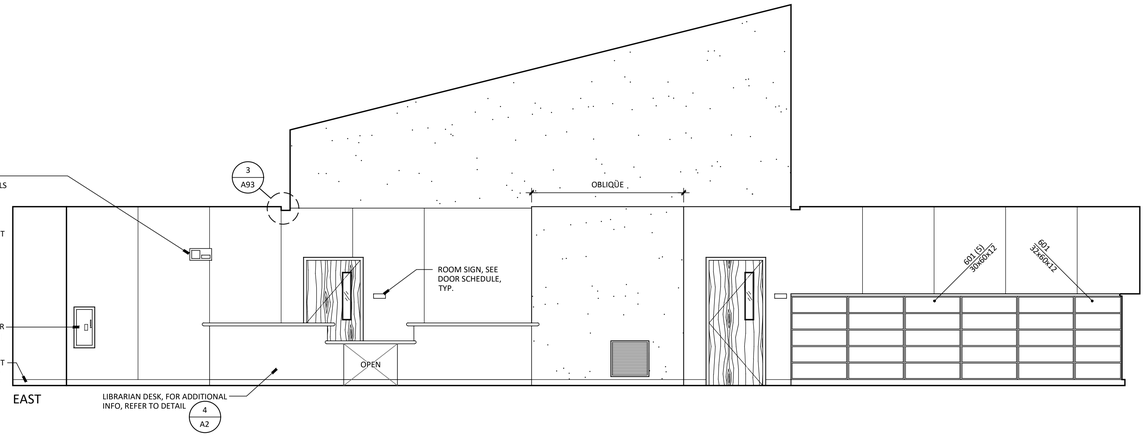
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PROJECT 24042

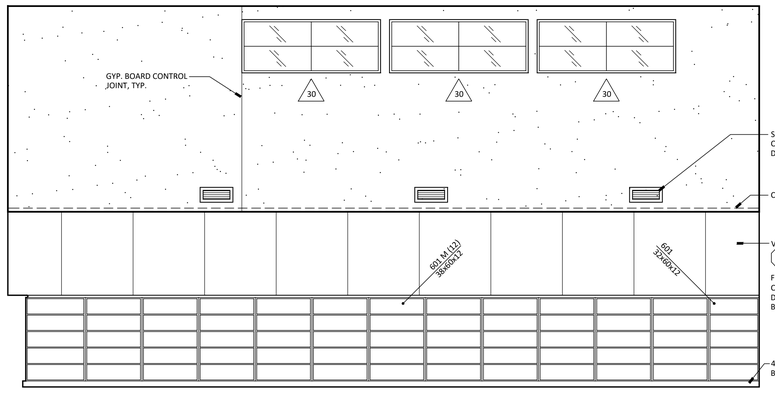
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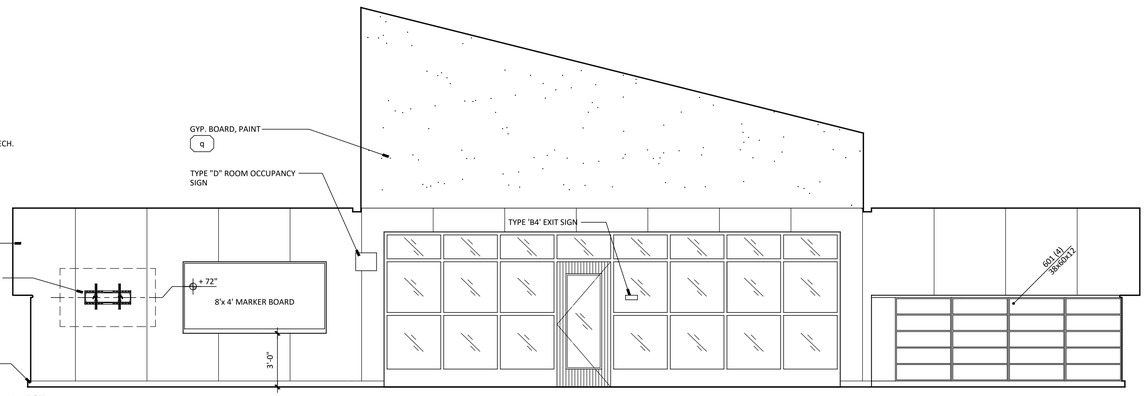
NORTH



EAST



SOUTH



WEST

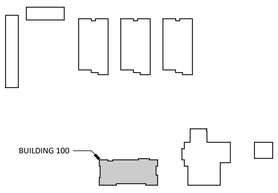
128 LIBRARY

INTERIOR ELEVATION NOTES

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BUILDING '100'
INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



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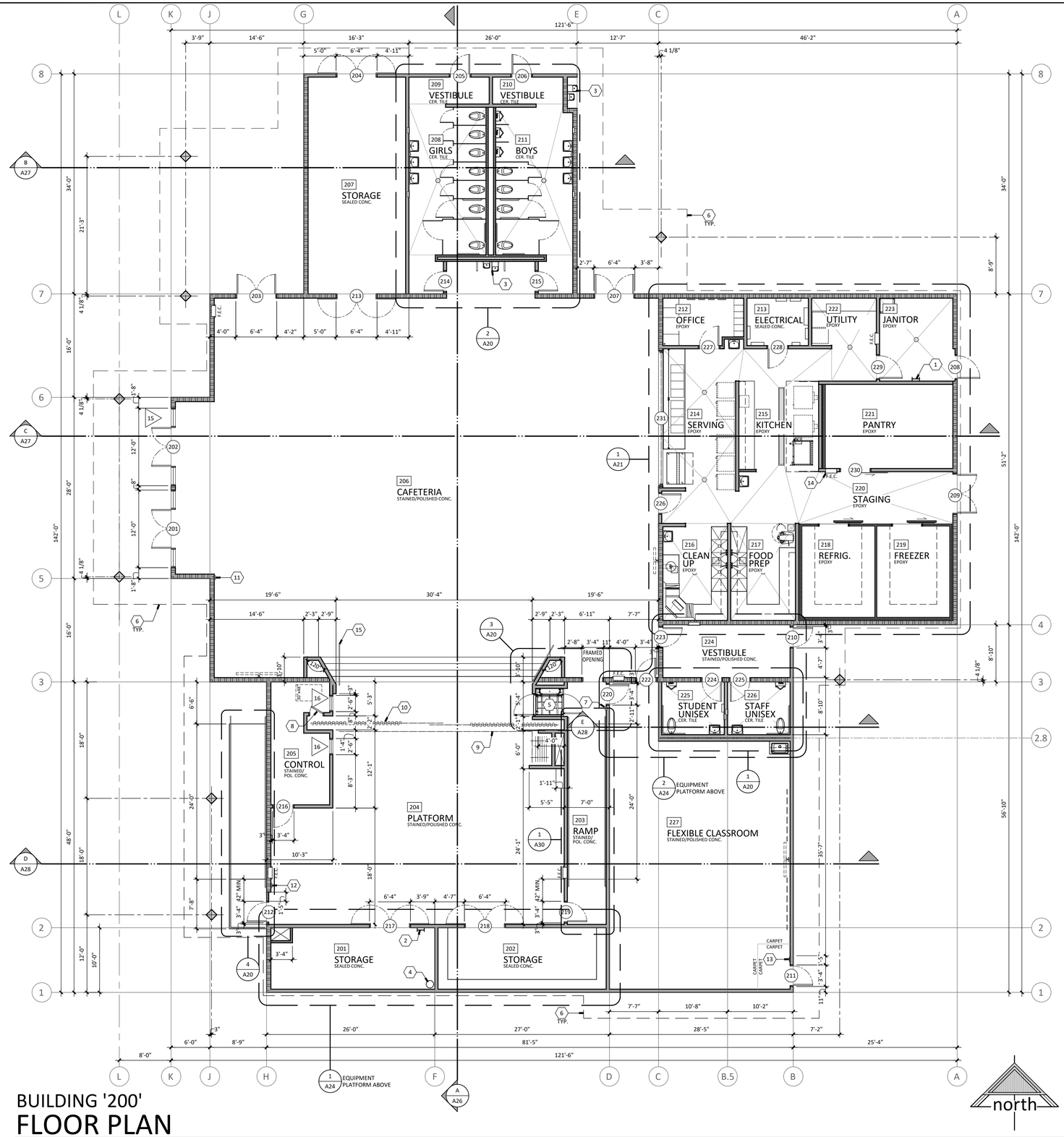
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TITLE
BUILDING '100'
INTERIOR ELEVATIONS

A18

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\Bldg. '100' Interior Elevations (6).dwg Sep 16 2026 4:57pm



BUILDING '200'

FLOOR PLAN

SCALE: 1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES:

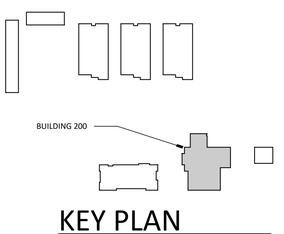
1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A78
3. WHERE SOUND INSULATION OR THERMAL INSULATION IS SHOWN ON WALL ASSEMBLY, INSULATION SHALL BE INSTALLED FULL HEIGHT OF WALL. REFER TO SPEC SECTION 07 2100
4. FINISH ALL GYPSUM BOARD EDGES PER DETAIL 1/A97
5. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS, SEE INTERIOR ELEVATIONS AND DETAILS 16/A97 17/A97 18/A97
6. REFER TO ELEVATIONS AND DOOR SCHEDULE FOR ALL ROOM AND BUILDING SIGNAGE.
7. SEAL PENETRATIONS IN RATED WALLS PER DETAIL 15/A97
8. REFER TO SHEET A22 FOR EXIT ANALYSIS
9. FIRE BLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUDS AND PARTITIONS, INCLUDING FURRED SPACES, AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
   1. VERTICALLY AT CEILING AND FLOOR LEVELS.
   2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
10. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23/A100 24/A100

FLOOR PLAN LEGEND

- 2x8 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.
- 2x6 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.
- 2x4 WOOD STUDS @ 16" O.C.
- 14" X 14" ARCHITECTUALLY EXPOSED STRUCTURAL STEEL COLUMN INFILLED W/ PEA GRAVEL TO TOP OF COLUMN. COORDINATE WITH STRUCTURAL DWGS.
- # FRAME TYPE, SEE FRAME TYPE SCHEDULE REFER TO SHEETS A87 & A88
- # ROOM NUMBER FLOOR FINISH MATERIAL
- F.E.C. FIRE EXTINGUISHER AND CABINET, REFER TO INTERIOR ELEVATIONS

FLOOR PLAN KEY NOTES THIS SHEET ONLY:

1. ROOF ACCESS LADDER, SEE 1/A101 SIM.
2. ATTIC ACCESS LADDER 8/A101
3. HI-LO DRINKING FOUNTAIN w/ BOTTLE FILLER, SEE 13/A100
4. FIRE SPRINKLER RISER, SEE FIRE PROTECTION DWGS.
5. WHEEL CHAIR LIFT
6. ROOF OVERHANG SHOWN DASHED
7. LIFT CONTROLS AND DISCONNECT, RECESSED IN WALL
8. ACCESS DOOR, SEE INTERIOR ELEVATIONS
9. OPERABLE PARTITION
10. CURTAIN & TRACK, SEE SPECS.
11. TYPE 'D' SIGN, THE SIGN SHALL BE WORDED AS FOLLOWS: "THE NUMBER OF PEOPLE PERMITTED IN THIS ROOM SHALL NOT EXCEED 673 FOR ASSEMBLY NOR 355 FOR DINING BY ORDER OF THE STATE FIRE MARSHALL."
12. TYPE 'D' SIGN, THE SIGN SHALL BE WORDED AS FOLLOWS: "THE NUMBER OF PEOPLE PERMITTED IN THIS ROOM SHALL NOT EXCEED 114 FOR ASSEMBLY BY ORDER OF THE STATE FIRE MARSHALL."
13. TYPE 'D' SIGN, THE SIGN SHALL BE WORDED AS FOLLOWS: "THE NUMBER OF PEOPLE PERMITTED IN THIS ROOM SHALL NOT EXCEED 57 FOR ASSEMBLY BY ORDER OF THE STATE FIRE MARSHALL."
14. FIRE EXTINGUISHER CABINET WITH TYPE 'K' EXTINGUISHER, SEE SPECS.
15. PLATFORM HANDRAIL, REFER TO DETAIL 2/A32



KEY PLAN

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

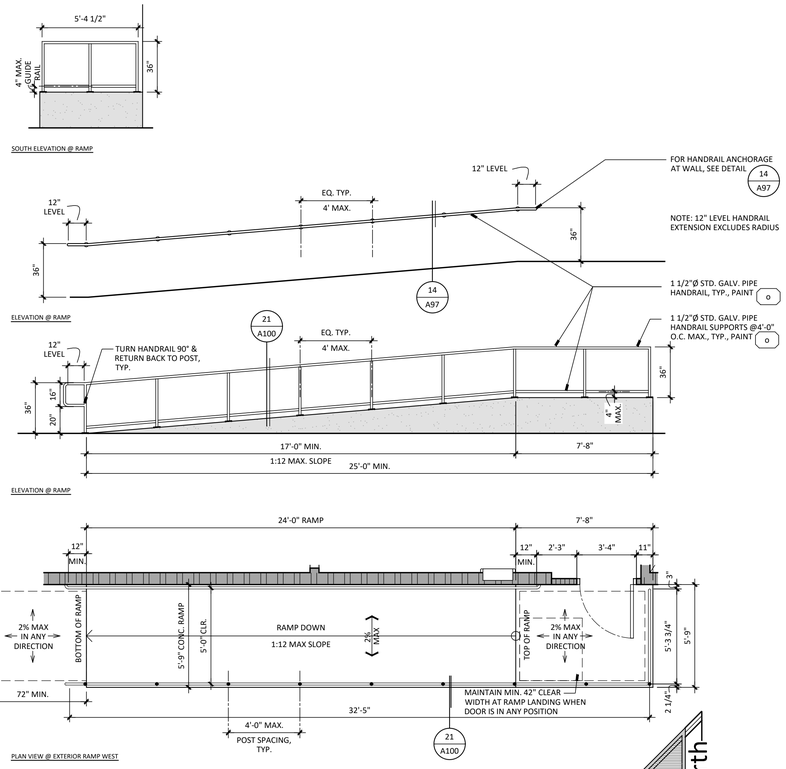
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING '200'
FLOOR PLAN

A19

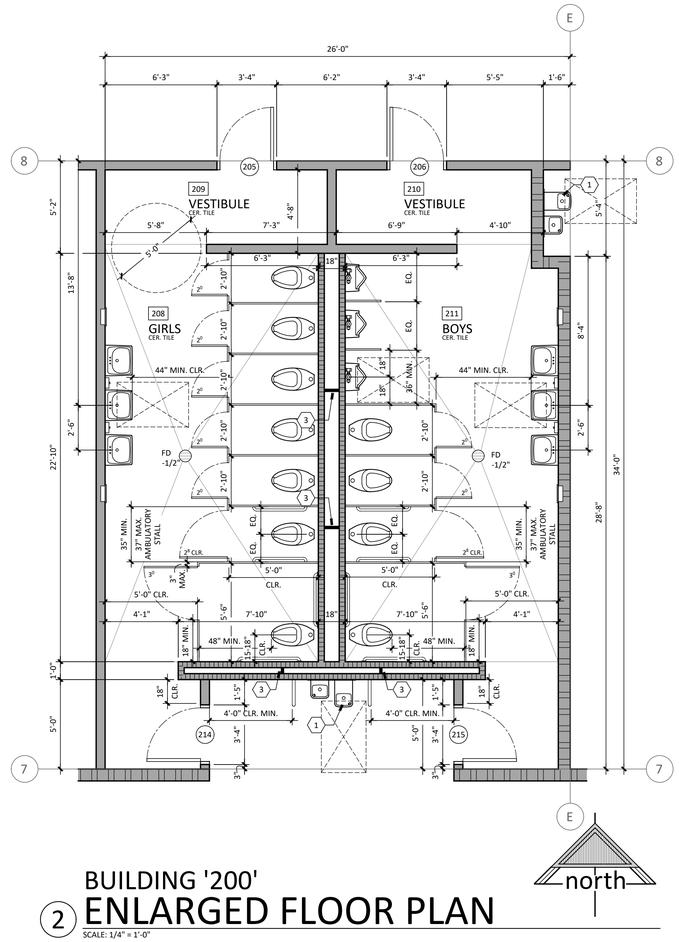
PROJECT 24042

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4 ENLARGED ACCESSIBLE RAMP

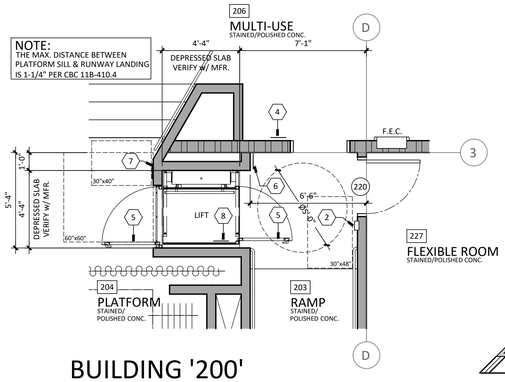
SCALE: 1/4" = 1'-0"



BUILDING '200'

2 ENLARGED FLOOR PLAN

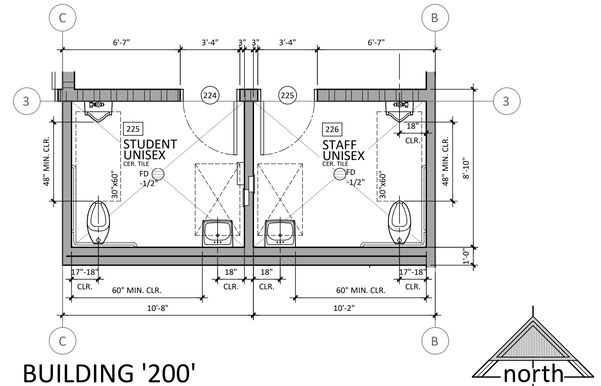
SCALE: 1/4" = 1'-0"



BUILDING '200'

3 ENLARGED LIFT PLAN

SCALE: 1/4" = 1'-0"



BUILDING '200'

1 ENLARGED FLOOR PLAN

SCALE: 1/4" = 1'-0"

ENLARGED FLOOR PLAN NOTES:

1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A78
3. WHERE SOUND INSULATION OR THERMAL INSULATION IS SHOWN ON WALL ASSEMBLY, INSULATION SHALL BE INSTALLED FULL HEIGHT OF WALL. REFER TO SPEC SECTION 07 2100
4. FINISH ALL GYPSUM BOARD EDGES PER DETAIL 4 / A97
5. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS, SEE INTERIOR ELEVATIONS AND DETAILS 17 / A97 18 / A97
6. REFER TO ELEVATIONS AND DOOR SCHEDULE FOR ALL ROOM AND BUILDING SIGNAGE.
7. SEAL PENETRATIONS IN RATED WALLS PER DETAIL 15 / A97
8. REFER TO SHEET A22 FOR EXIT ANALYSIS
9. FIRE BLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUDS AND PARTITIONS, INCLUDING FURRED SPACES, AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
   1. VERTICALLY AT CEILING AND FLOOR LEVELS.
   2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
10. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23 / A100 24 / A100

FLOOR PLAN LEGEND

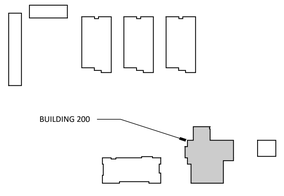
- 2x8 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.
- 2x6 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.
- 2x4 WOOD STUDS @ 16" O.C.

INDICATES 30"X48" CLEAR W.C. SPACE

INDICATES 5' DIAMETER FLOOR ROTATION SPACE

ENLARGED FLOOR PLAN KEY NOTES THIS SHEET ONLY

1. HI-LO DRINKING FOUNTAIN w/ BOTTLE FILLER, SEE 13 / A100
2. LIFT CONTROLS AND DISCONNECT, RECESSED IN WALL
3. 5/8" TYPE 'X' FIRE BLOCKING, SEE 9 / A96
4. TYPE 'E' SIGNAGE, SEE DETAIL 1 / A84
5. MANUAL GATE DOOR OPENS AND CLOSES UNDER BATTERY POWER FROM LIFT CONTROLS MOUNTED ON GATE
6. TYPE 'E1' SIGNAGE, AT BOTTOM LANDING OF PLATFORM LIFT, SEE DETAIL 1 / A84
7. TYPE 'E1' SIGNAGE, AT TOP LANDING OF PLATFORM LIFT, SEE DETAIL 1 / A84
8. TYPE 'E1' SIGNAGE, WITHIN PLATFORM LIFT ENCLOSURE, SEE DETAIL 1 / A84



KEY PLAN

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-21128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-1926 Office
(559) 627-1926 Fax

TITLE
BUILDING '200'
ENLARGED
FLOOR PLANS

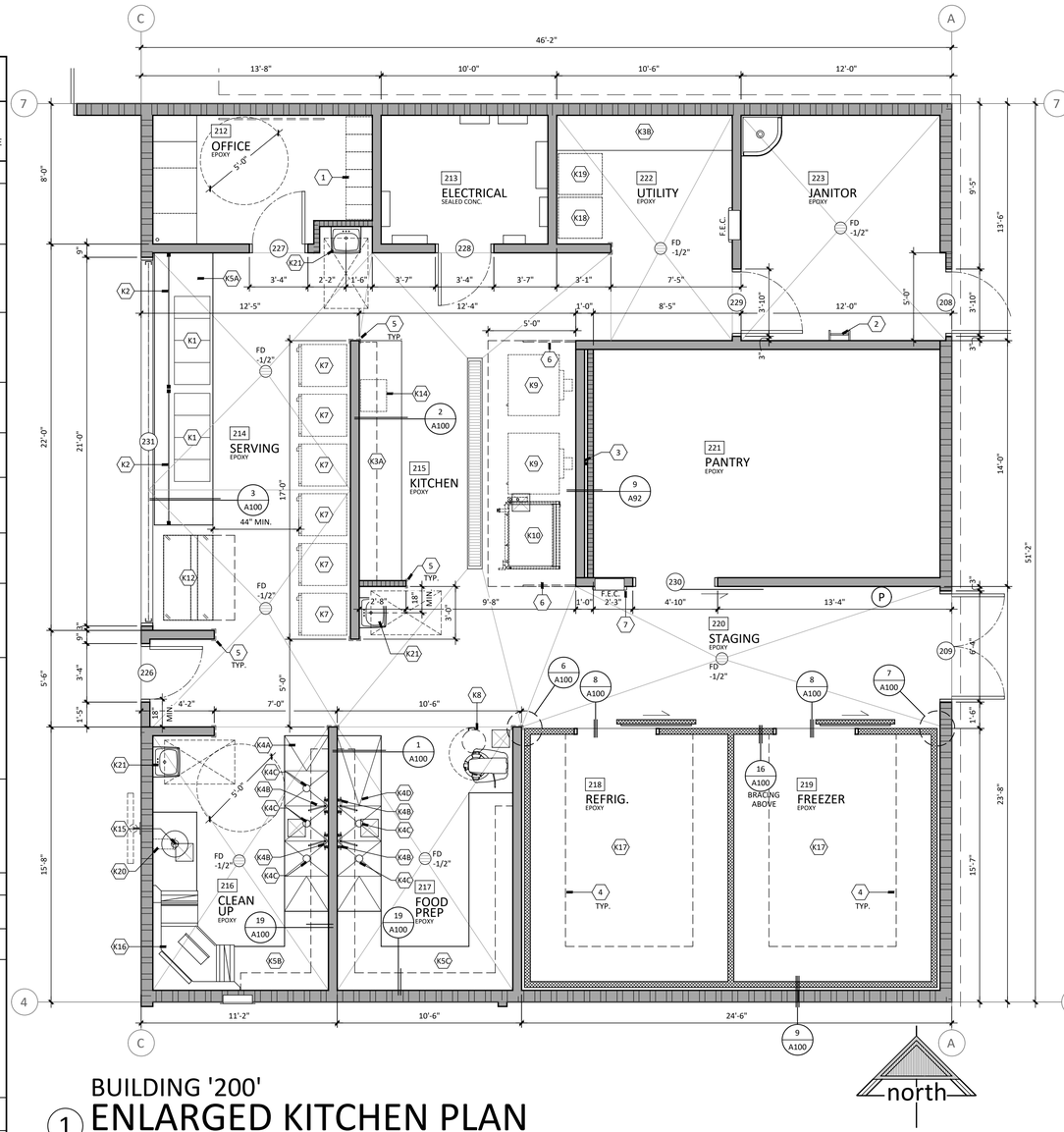
A20

PROJECT 24042

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KITCHEN EQUIPMENT SCHEDULE

ITEM	QTY.	DESCRIPTION	MODEL	NOTES	ELECTRICAL VOLTS	ELECTRICAL PHASE	ELECTRICAL AMPS	ELECTRICAL CONN.	ELECTRICAL HT.	WATER HOT	WATER COLD	WATER HT.	WASTE INDIRECT	WASTE DIRECT	WASTE HT.	BY CONTR.	O.P.C.I.	N.I.C.	ANCHORAGE DETAIL
K1	2	DROP-IN HOT/COLD COMBINATION FOOD WELL	"RANDELL" MODEL 9580-4A	12" X 20" PAN CAP, QTY. OF (4)	120V 208V	1PH 1PH	5.3A 15.9A	JBOX	+15"	-	1/2"	-	1"	-	FS	●	-	-	-
K2	2	FRANKLIN SNEEZE GAURD	CUSTOM	CONSTRUCTED WITH 1/4" THICK SAFETY GLASS, WITH STAINLESS STEEL EDGES, NO. 135 STAINLESS STEEL POSTS, AND NO. 135-1014 STAINLESS STEEL CONCEALED MOUNTING BASE. COVER ENTIRE WIDTH OF DROP-IN FOOD WELLS. SNEEZE GUARD TO BE A MIN. 60" HIGH MEASURED FROM THE FLOOR. COORDINATE WITH SERVING COUNTER ITEM K5A.	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-
K3A	1	WORK TABLE	CUSTOM	CUSTOM FABRICATED STAINLESS STEEL WORK TABLE, APPROXIMATELY 13'-8" LONG BY 2'-6" DEEP, INCLUDING 14 GAGE STAINLESS STEEL TOP, 10" REAR RISER WITH 2" RETURN TO WALL, STAINLESS STEEL UNDER SHELVES, AND 1-5/8" O.D. STAINLESS STEEL LEGS AND FEET WITH 2" VERTICAL ADJUSTMENT CONNECTED TO BOTTOM OF TABLE WITH STAINLESS STEEL CLOSED TYPE GUSSETS	-	-	-	-	-	-	-	-	-	-	-	●	-	-	4 A100
K3B	1	WORK TABLE	CUSTOM	CUSTOM FABRICATED STAINLESS STEEL WORK TABLE, APPROXIMATELY 10'-0" LONG BY 2'-0" DEEP, INCLUDING 14 GAGE STAINLESS STEEL TOP, 10" REAR AND SIDE RISER WITH 2" RETURN TO WALL, STAINLESS STEEL UNDER SHELVES, AND 1-5/8" O.D. STAINLESS STEEL LEGS AND FEET WITH 2" VERTICAL ADJUSTMENT CONNECTED TO BOTTOM OF TABLE WITH STAINLESS STEEL CLOSED TYPE GUSSETS	-	-	-	-	-	-	-	-	-	-	-	●	-	-	4 A100
K4A	1	SS 3-COMPARTMENT SINK	CUSTOM	14 GAGE, STAINLESS STEEL 3-COMPARTMENT SINK & INTEGRAL 12" HIGH BACK SPLASH WITH ROLLED EDGES AND 1-5/8" OUTSIDE DIAMETER TUBULAR STAINLESS STEEL ADJUSTABLE LEGS. BASINS TO BE 23"W. X 26"L. X 12"D., L&R DRAINBOARDS	-	-	-	-	-	1/2"	1/2"	-	2"	-	FS	●	-	-	4 A100
K4B	3	FAUCET	"T&S BRASS ". MODEL B-0231 WITH INSTALLATION KIT MODEL B-0230K	SINK MIXING FAUCET, WALL MOUNT, 8" CENTERS, 12" SWING NOZZLE, LEVER HANDLES, QUARTER-TURN ETERNA CARTRIDGES, 1/2" NPT FEMALE INLETS, LOW LEAD, ADA COMPLIANT	-	-	-	-	-	1/2"	1/2"	+18"	-	-	-	●	-	-	-
K4C	5	ROTARY WASTE VALVE	"T&S BRASS " MODEL B-3952	ROTARY WASTE VALVE FOR 3-1/2" SINK OPENING WITH ROUGH CHROME PLATED BODY, 2" NPT MALE OUTLET / 1-1/2" FEMALE OUTLET, TWIST HANDLE WITH HEAT RESISTANT PLASTIC GRIP, 3-1/2" SNAP-IN REMOVABLE STRAINER AND OVERFLOW OUTLET WITH CAP	-	-	-	-	-	-	-	-	2"	-	FS	●	-	-	-
K4D	1	SS 2-COMPARTMENT SINK	CUSTOM	14 GAGE, STAINLESS STEEL 2-COMPARTMENT SINK & INTEGRAL 12" HIGH BACK SPLASH WITH ROLLED EDGES AND 1-5/8" OUTSIDE DIAMETER TUBULAR STAINLESS STEEL ADJUSTABLE LEGS. BASINS TO BE 23"W. X 26"L. X 12"D., L&R DRAINBOARDS	-	-	-	-	-	1/2"	1/2"	-	2"	-	FS	●	-	-	4 A100
K5A	1	SERVING COUNTER	CUSTOM	CUSTOM FABRICATED STAINLESS STEEL SERVING COUNTER, APPROXIMATELY 15'-6" LONG BY 3'-0" DEEP, WITH CUT-OUT FOR DROP-IN FOOD WELL; INCLUDING 14 GAGE STAINLESS STEEL TOP, 14 GAGE STAINLESS STEEL FRONT FACE PANEL, 14 GAGE STAINLESS STEEL REAR FACE PANEL FACING PUBLIC, AND STAINLESS STEEL BOTTOM AND INTERMEDIATE SHELVES; AND 1-5/8" O.D. STAINLESS STEEL LEGS AND FEET WITH 2" VERTICAL ADJUSTMENT CONNECTED TO BOTTOM OF TABLE WITH STAINLESS STEEL CLOSED TYPE GUSSETS. COORDINATE WITH ROLL-UP DOOR.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4 A100
K5B	1	DISH CLEAN-UP TABLE	CUSTOM	DISH CLEAN-UP TABLE: U-SHAPED CUSTOM FABRICATED STAINLESS STEEL WORK TABLE, AND STAINLESS STEEL UNDER SHELVES; DIMENSIONS AS INDICATED ON THE DRAWINGS, 2'-6" DEEP (COORDINATE WITH ITEM #K16); INCLUDING 14 GAGE STAINLESS STEEL TOP WITH MARINE EDGE ON 3 SIDES, 10" REAR RISER WITH 2" RETURN TO WALL. PROVIDE 18" PRE-RINSE CONE WITH HOLE FOR GARBAGE DISPOSAL WITH DRAINING SIDEBOARD ON WEST WALL. PROVIDE THREE 24" WIDE BY 26" LONG BY 12" DEEP NSF-CERTIFIED TUBS WITH CENTER DRAINS AND TWO SETS OF RISER-MOUNTED FAUCET HOLES ON EAST WALL. PROVIDE 1-5/8" O.D. STAINLESS STEEL LEGS AND FEET WITH 2" VERTICAL ADJUSTMENT CONNECTED TO BOTTOM OF TABLE WITH STAINLESS STEEL CLOSED TYPE GUSSETS. CONNECT TO DISH WASHER ITEM K16 WITH SEAMLESS STAINLESS STEEL WELDS, COORDINATE CONFIGURATION WITH MANUFACTURER.	-	-	-	-	-	1/2"	1/2"	-	2"	1-1/2"	-	●	-	-	4 A100
K5C	1	FOOD PREPARATION TABLE	CUSTOM	FOOD PREPARATION TABLE: U-SHAPED CUSTOM FABRICATED STAINLESS STEEL WORK TABLE, AND STAINLESS STEEL UNDER SHELVES; DIMENSIONS AS INDICATED ON THE DRAWINGS, 2'-6" DEEP; INCLUDING 14 GAGE STAINLESS STEEL TOP WITH MARINE EDGE ON 3 SIDES, 10" REAR RISER WITH 2" RETURN TO WALL. PROVIDE THREE 24" WIDE BY 26" LONG BY 12" DEEP NSF-CERTIFIED TUBS WITH CENTER DRAINS AND TWO SETS OF RISER-MOUNTED FAUCET HOLES WITH DRAINING SIDEBOARDS ON BOTH SIDES ON WEST WALL. PROVIDE 1-5/8" O.D. STAINLESS STEEL LEGS AND FEET WITH 2" VERTICAL ADJUSTMENT CONNECTED TO BOTTOM OF TABLE WITH STAINLESS STEEL CLOSED TYPE GUSSETS	-	-	-	-	-	1/2"	1/2"	-	2"	-	-	●	-	-	4 A100
K6	-	"NOT USED"	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K7	6	INSULATED HOT CABINET	"CRES-COR" MODEL H-137-UA-12D	"CRES-COR" MODEL H-137-UA-12D INSULATED HOT CABINET WITH CORNER BUMPERS, FLOOR LOCK & FOOD SAFE DIGITAL THERMOMETER (O.P.C.I.)	120V	1PH	1500 WATTS	-	-	-	-	-	-	-	-	●	-	-	20 A100
K8	1	MIXER WITH DELUXE ACCESSORY PACKAGE	"HOBART" LEGACY MODEL HL600 WITH HL600-1STD ACCESSORY PACKAGE		208V	3PH	10A	-	-	-	-	-	-	-	-	●	-	-	5 A100
K9	2	DOUBLE COMBINATION STEAMER-OVEN	"VULCAN" MODEL CHEF-62E-208 WITH CHEF-STACK2E, CHEF-HOOD2 AND CHEF-HOODHEPA2, AND CHEF-6NCAST2 CASTERS, FILTRATION: CB30K-SYSTEM, WS80-NOINSTALL, HOSEWTR-3/4BBV.	FOR STACKED MOBILE OVENS, 62E + 62E, PROVIDE CHEF-6NCAST2 6 INCH LOCKABLE CASTERS. NOTE, STACKED DOUBLES (2x) THE NUMBER OF CONNECTIONS. ***CB30K-SYSTEM**: HOLLOW CARBON FILTER SYSTEM 30,000 GAL. (ONE PER STACK, UPSTREAM OF THE UNFILTERED/SOFTENED SPLIT).* ***WS80-NOINSTALL**: WATER SOFTENING, 80 LB CAPACITY (ONE PER STACK, SOFTENED BRANCH ONLY)* ***HOSEWTR-3/4BBV**: FLEX STAINLESS STEEL WATER CONNECTION 72", 3/4" GHT-F (FEMALE GARDEN HOSE) ON BOTH ENDS (4 PER STACK — UNFILTERED + SOFTENED, EACH OVEN)* *REFER TO PLUMBING PLANS FOR ADDITIONAL COMPONENTS AND REQUIREMENTS.* ***IMPORTANT**: ACTIVATE "CONDENSATE COOLING" FUNCTION, TO REDUCE DRAIN TEMPERATURE TO 140°F. MAX.*	208V	3PH	63A	-	-	-	3/4" 3/4"	-	1-1/2"	-	FS	●	-	-	20 A100
K10	1	TILTING BRAISING PAN	"VULCAN" ELECTRIC TILTING BRAISING PAN MODEL VE40 WITH ACCESSORY CASTERS		208V	3PH	46A	-	-	-	-	-	-	-	-	●	-	-	5 A100
K11	-	"NOT USED"	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K12	1	MILK COOLER	"BEVERAGE AIR" MODEL SMF58	SELF-SERVICE SHELVES INSIDE MILK COLLER TO BE MIN 15" TO BOTTOM OF COOLER TO COMPLY WITH REACH RANGE	120V	1PH	8.2A	-	-	-	-	-	-	-	-	●	-	-	-
K13	-	"NOT USED"	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K14	1	COMMERCIAL MICROWAVE OVEN	"AWANA" MODEL RCS10MPA		120V	1PH	1500 WATTS	-	-	-	-	-	-	-	-	●	-	-	-
K15	2	COMMERCIAL FOOD WASTE DISPOSER	"WASTE KING COMMERCIAL" MODEL 1000-H BY ANAHEIM MANUFACTURING		208V	3PH	4.8A	-	-	-	1/2"	12"	-	2"	10"	●	-	-	-
K16	1	DISHWASHER	STERO SC-2-4	STERO SC-24 DISHWASHER, MODULAR CONVEYER TYPE, HIGH TEMP SINGLE 16 GA. S/S TANK, RIGHT TO LEFT OPERATION, TABLE LIMIT SWITCH, SET OF 4 FLANGED FEET, 20" RACK, AUTOMATIC CONVEYOR MODULES. ELECTRIC TANK HEAT. KIT 55. AUTO FILL. LOAD & UNLOAD VENT COWLS. 3" RAISED HOOD (20.5") DRAIN WATER TEMPERING. STAINLESS STEEL FRAME, LEGS AND FEET. STAINLESS STEEL FRONT PANELS. MOUNTED CIRCUIT BREAKERS. AUTO SHUTDOWN. 57KW BOOSTER, INTERPLUMB. ADDITIONAL 5KW WASH TANK HEATER.	480V 480V	3PH 3PH	21.4A 68.6A	JBOX -	+73" +8"	- 3/4"	3/4" -	12" -	2" -	- -	FS -	● ●	- -	- -	4 A100
K17	2	WALK-IN REFRIGERATOR/FREEZER	SEE SPECIFICATION	CONTRACTOR TO PROVIDE SLEEVE THRU WALL AT 9" A.F.F TO ACCOMODATE DRAIN LINE INTO FLOOR SINK NEXT TO ITEM K8	-	-	-	-	-	-	-	-	1"	-	FS	●	-	-	-
K18	1	WASHER	MAKE/MODEL BY OWNER		-	-	-	-	-	-	-	-	-	-	-	-	●	-	-
K19	1	DRYER	MAKE/MODEL BY OWNER		-	-	-	-	-	-	-	-	-	-	-	-	●	-	-
K20	1	HOSE REEL	"FISHER" HOSE REEL MODEL 2985 WITH RECESSED REEL RINSE CONTROL UNIT MODEL 1801 AND (2) VACUUM BREAKERS MODEL 14540	STAINLESS STEEL COVERED REEL RINSE UNIT WITH SPRAY VALVE AND 30' HOSE, WITH RECESSED REEL RINSE CONTROL UNIT & (2) VACUUM BREAKERS	-	-	-	-	-	1/2"	1/2"	16"	-	-	-	●	-	-	10 A100
K21	3	HAND SINK	"ADVANCE TABCO" MODEL 7-PS-25	ADA COMPLIANT HAND SINK, WALL MOUNTED, 14" WIDE x 16" FRONT-TO-BACK x 5" DEEP BOWL, 18 GAUGE 304 STAINLESS STEEL, HEAVY DUTY DECK MOUNTED FAUCET WITH WRIST HANDLES, DECK MOUNTED SOAP DISPENSER (PUMP), DRAIN WITH CRUMB BASKET, WALL BRACKETS, NSF, cCsaUS						1/2"	1/2"	-	-	1-1/2"	-	●	-	-	-



BUILDING '200'
1 ENLARGED KITCHEN PLAN

SCALE: 1/4" = 1'-0"

ENLARGED FLOOR PLAN NOTES:

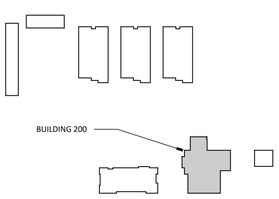
1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A78
3. WHERE SOUND INSULATION OR THERMAL INSULATION IS SHOWN ON WALL ASSEMBLY, INSULATION SHALL BE INSTALLED FULL HEIGHT OF WALL. REFER TO SPEC SECTION 07 2100
4. FINISH ALL GYPSUM BOARD EDGES PER DETAIL (1 / A97)
5. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS, SEE INTERIOR ELEVATIONS AND DETAILS (17 / A97) (18 / A97)
6. REFER TO ELEVATIONS AND DOOR SCHEDULE FOR ALL ROOM AND BUILDING SIGNAGE.
7. SEAL PENETRATIONS IN RATED WALLS PER DETAIL (15 / A97)
8. REFER TO SHEET A22 FOR EXIT ANALYSIS
9. FIRE BLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUDS AND PARTITIONS, INCLUDING FURRED SPACES, AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
   1. VERTICALLY AT CEILING AND FLOOR LEVELS.
   2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
10. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS (23 / A100) (24 / A100)

ENLARGED FLOOR PLAN KEY NOTES THIS SHEET ONLY

1. LOCKERS, N.I.C.
2. ROOF ACCESS LADDER (1 / A101) SIM.
3. 5/8" TYPE 'X' FIRE BLOCKING, SEE (9 / A96)
4. WIRE SHELVING, SEE (25 / A100)
5. 16 GAGE STAINLESS STEEL CORNER GUARD, EXTENDING FROM TOP OF BASE TO CEILING. SECURE WITHOUT USE OF EXPOSED FASTENERS
6. EXHAUST HOOD FULL VERTICAL END PANEL. FOR ADDITIONAL INFORMATION OF HOOD SYSTEM, SEE MECHANICAL DWGS.
7. FIRE EXTINGUISHER CABINET WITH TYPE 'K' EXTINGUISHER, SEE SPECS.

FLOOR PLAN LEGEND

- 2x8 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.
- 2x6 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.
- 2x4 WOOD STUDS @ 16" O.C.
- F.E.C. FIRE EXTINGUISHER AND CABINET, REFER TO INTERIOR ELEVATIONS
- (P) MANUAL PULL STATION FOR KITCHEN HOOD ANSUL FIRE SUPPRESSION SYSTEM, COORDINATE WITH MECHANICAL DWGS.
- INDICATES 30"X48" CLEAR W.C. SPACE
- INDICATES 5' DIAMETER FLOOR ROTATION SPACE



KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-21128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE + INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDING '200'
ENLARGED
FLOOR PLANS

A21

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

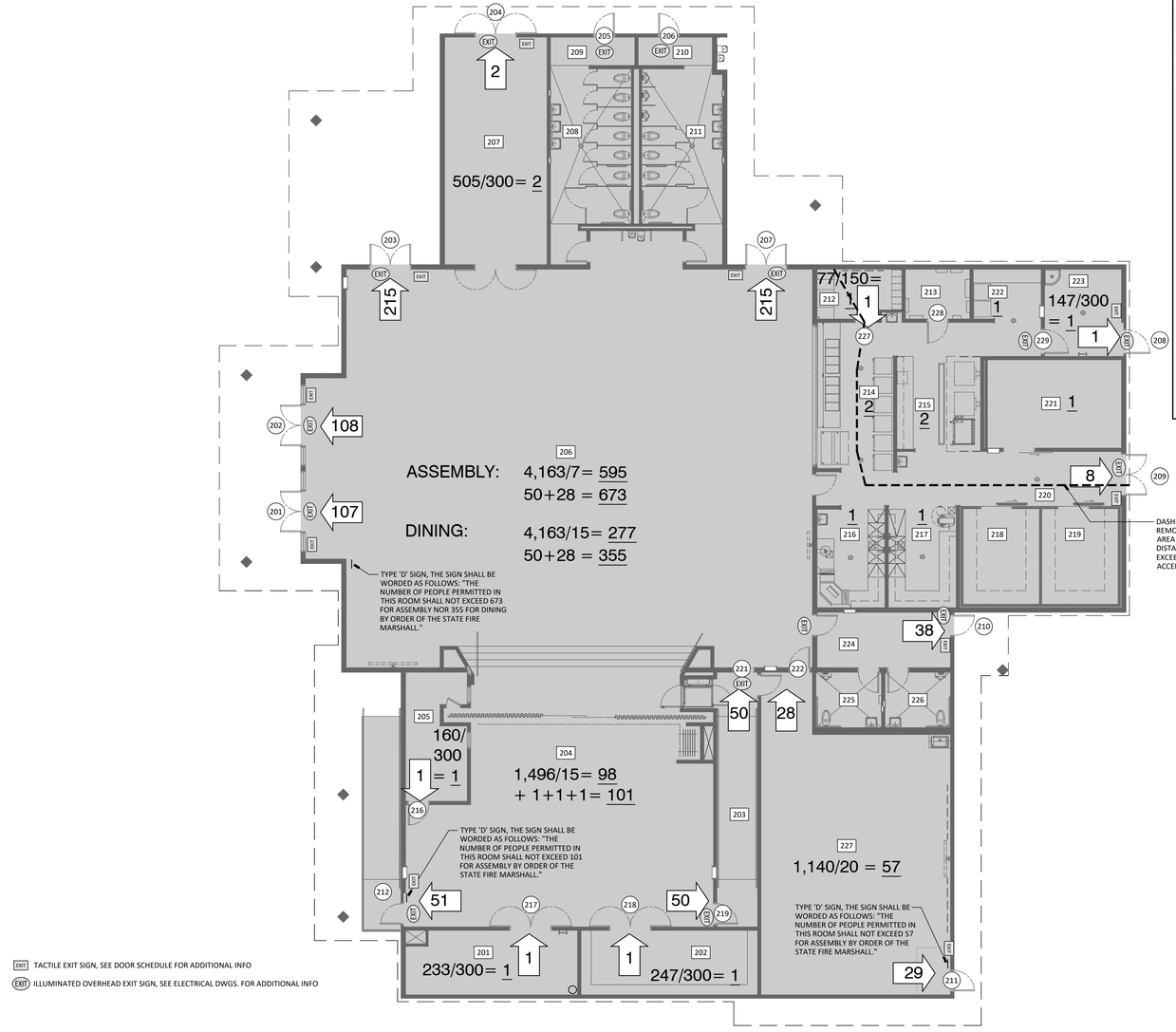
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EXIT ANALYSIS

BLDG.	ROOM #	NAME	OCCUP. GROUP	AREA (SF)	SQ.FT. / OCCUP.	# OCCUPANTS	TOTAL # OCCUPANTS	NUMBER OF REQUIRED EXITS CBC TABLE 1006.2.1	NUMBER OF PROVIDED EXITS CBC TABLE 1006.2.1	EGRESS WIDTH PER OCCUPANT SERVED CBC 1005.1	EXIT #	# OF OCC. THROUGH EXIT	REQ. EXIT WIDTH CALCULATION	EXIT WIDTH PROVIDED	DOOR ID #
BUILDING '200'	201	STORAGE	S-1	233	ACCESSORY 300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (217) TO ROOM 204				
	202	STORAGE	S-1	247	ACCESSORY 300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (218) TO ROOM 204				
	203	RAMP	-	215	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (221) TO ROOM 206				
	204	PLATFORM	A2	1,496	15	98	101	101 > 50 = 2 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	51	51 X 0.15" = 7.65"	34"	(212)
											EXIT 2	50	50 X 0.15" = 7.5"	34"	(219)
	205	CONTROL	A-2	160	100	2	2	2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (216) TO ROOM 204				
	206	CAFETERIA	A-2	4,163	7	595	673	673> 500 = 3 EXIT REQ.	4 EXITS PROVIDED		EXIT 1	215	215 X 0.15" = 32.25"	68"	(201) & (202)
											EXIT 2	215	215 X 0.15" = 32.25"	68"	(203)
											EXIT 3	215	215 X 0.15" = 32.25"	68"	(207)
											EXIT 4	38	38 X 0.15" = 5.7"	34"	(223) THEN (210)
	207	STORAGE	S-1	505	ACCESSORY 300	2	2	2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	2	2 X 0.15" = 0.3"	34"	(204)
	208	GIRLS	-	301	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (205)				
	209	VESTIBULE	-	57	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (205)				
	210	VESTIBULE	-	49	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (206)				
	211	BOYS	-	300	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (206)				
	212	OFFICE	A-2	87	150	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (227) TO ROOM 215				
	213	ELECTRICAL	B	67	ACCESSORY 300	1	-	-	-	-	EXIT THROUGH DOOR (228) TO ROOM 215				
	214	SERVING	A-2	304				2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (209)				
	215	KITCHEN	A-2	216				2 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (209)				
	216	CLEAN-UP	A-2	149				1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (209)				
	217	FOOD PREP	A-2	150				1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (209)				
	218	REFRIG.	A-2	160	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (209)				
	219	FREEZER	A-2	160	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (209)				
	220	STAGING	A-2	190	ANCILLARY		9	9 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	8	9 X 0.15" = 1.35"	68"	(209)
	221	PANTRY	A-2	259	300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (209)				
	222	UTILITY	A-2	137	300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR (209)				
	223	JANITOR	B	150	ACCESSORY 300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	1	1 X 0.15" = 0.15"	42"	(208)
	224	VESTIBULE	-	160	ANCILLARY		38	38 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	38	38 X 0.15" = 5.7"	34"	(210)
	225	WOMEN	-	79	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (224) TO ROOM 224				
	226	MEN	-	78	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (225) TO ROOM 224				
	227	FLEXIBLE CLASSROOM	E	1,140	20	57	57	57 > 50 = 2 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	29	29 X 0.15" = 4.35"	34"	(211)
											EXIT 2	28	28 X 0.15" = 4.2"	34"	(222)



EXIT TACTILE EXIT SIGN, SEE DOOR SCHEDULE FOR ADDITIONAL INFO

(EXIT) ILLUMINATED OVERHEAD EXIT SIGN, SEE ELECTRICAL DWGS. FOR ADDITIONAL INFO

CALCULATION JUSTIFICATION FOR AGGREGATE ACCESSORY OCCUPANCIES NOT EXCEEDING 10% OF MAIN OCCUPANCY (CBC 508.2.3)

BUILDING 200 IS A MIXED-USE NON-SEPARATED OCCUPANCY, GROUPS 'A-2' & 'E'.

BUILDING 200 = 12,221 S.F.

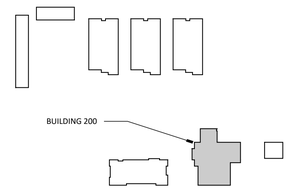
BUILDING 200 AGGREGATE ACCESSORY OCCUPANCIES = 1,202 S.F.

10% OF 12,221 S.F. = 1,222.1 S.F.

TOTAL AGGREGATE ACCESSORY OCCUPANCY OF 1,202 S.F. < 1,222.1 S.F., THEREFORE OK.

BUILDING 200
EXIT ANALYSIS
SCALE: 1" = 10'-0"

north



KEY PLAN

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TITLE
BUILDING '200'
EXIT ANALYSIS

A22

PROJECT 24042

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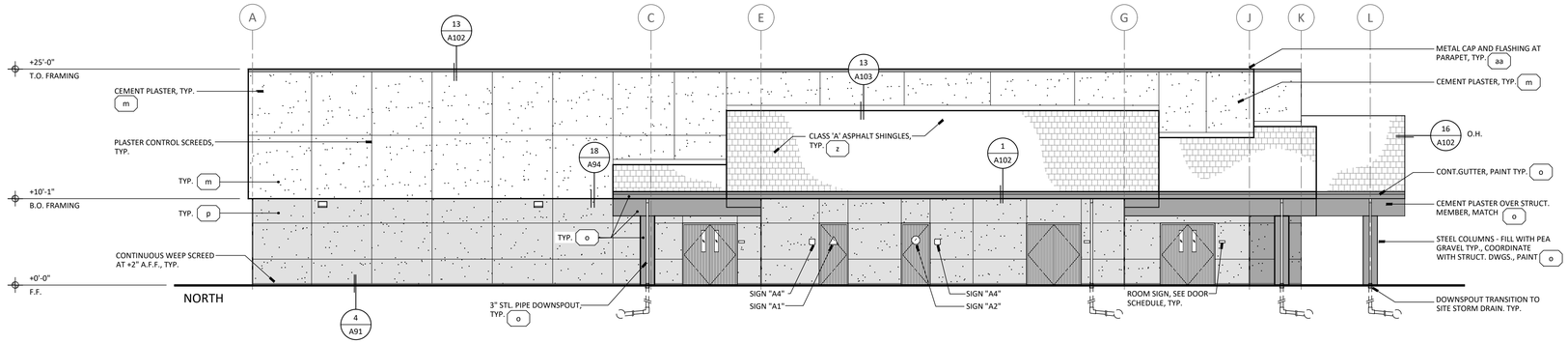
APPROVALS

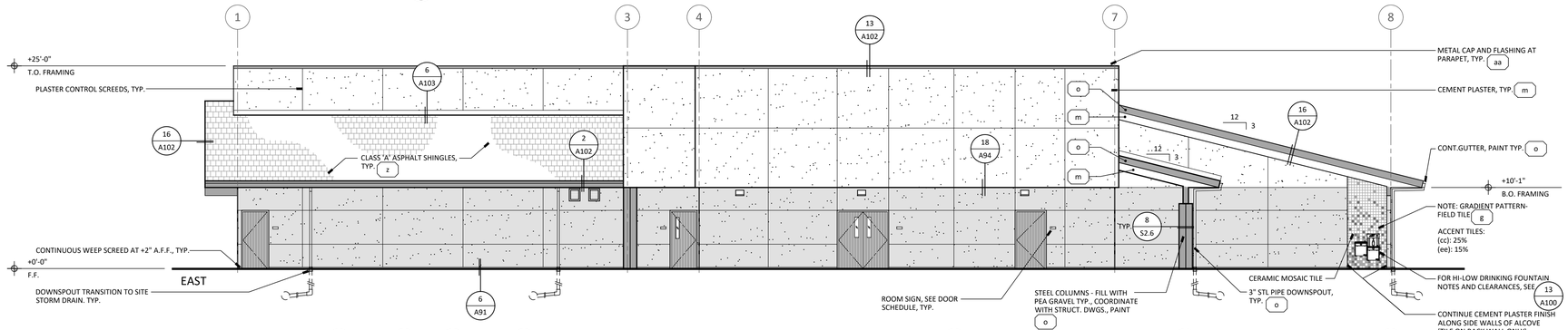
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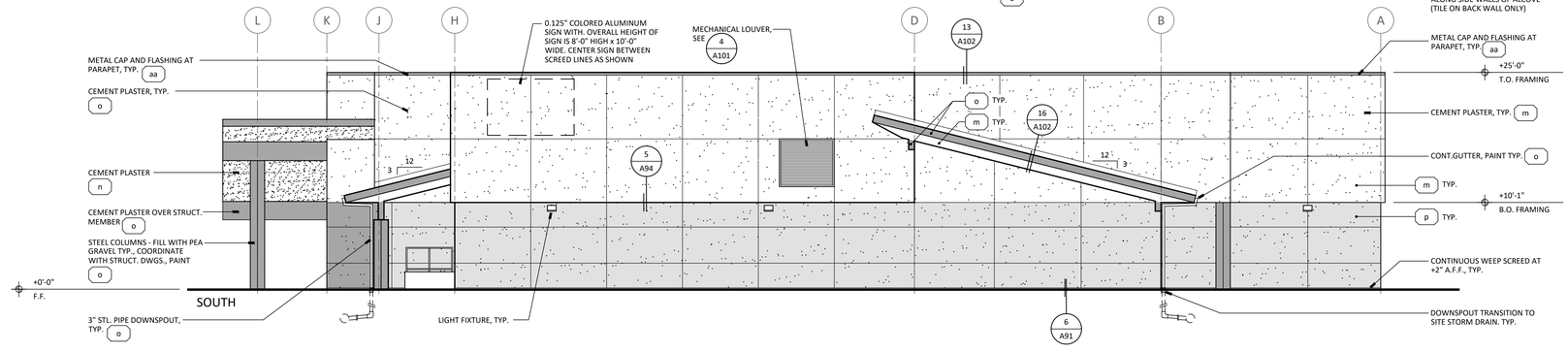
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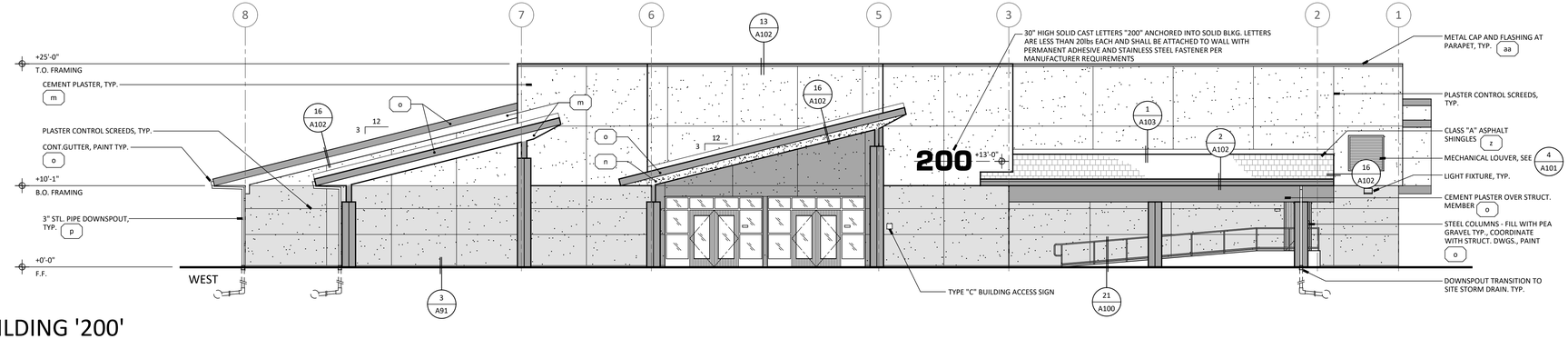






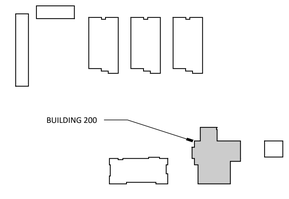
EXTERIOR ELEVATION NOTES:

1. FOR DOOR SIGNAGE, REFER TO DOOR SCHEDULE & DETAIL 1 A84
2. FOR ALL WALL ASSEMBLIES REFER TO SHEETS A78
3. FOR TYPICAL CEMENT PLASTER CONTROL SCREED, REFER TO DETAIL 3 A97
4. FOR TYPICAL DOWNSPOUT TO WALL ANCHORAGE, REFER TO DETAIL 10 A103, 15 A103
5. FOR TYPICAL DOWNSPOUT TO STORM DRAIN CONNECTION, REFER TO DETAIL 9 A103, 14 A103
6. FOR TYPICAL PARAPET FLASHING, REFER TO DETAILS 19 A102, 20 A102, 24 A102



BUILDING '200'
EXTERIOR ELEVATIONS

SCALE: 1/8" = 1'-0"



KEY PLAN

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TITLE
BUILDING '200'
EXTERIOR ELEVATIONS

A23

PROJECT 24042

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SANGER, FRESNO COUNTY, CA

REFLECTED CEILING PLAN LEGEND:

- CEMENT PLASTER SYSTEM
- TAPED, TEXTURED AND PAINTED 5/8" THICK TYPE 'X' GYP. BD.
- 24" x 48" SUSP. LAY-IN CEILING SYSTEM, SEE FINISH SCHEDULE (- A98 & - A99)
- ASTERISK INDICATES 3 1/2" SOUND ATTENUATION BATT INSULATION ABOVE CEILING
- (+X'-X") ELEVATION ABOVE FINISH FLOOR IN ROOM 206
- ▲ INDICATES 20" x 30" FRAMED OPENING ATTIC ACCESS FROM SUSPENDED LAY-IN CEILING SYSTEM

REFLECTED CEILING PLAN KEY NOTES THIS SHEET ONLY:

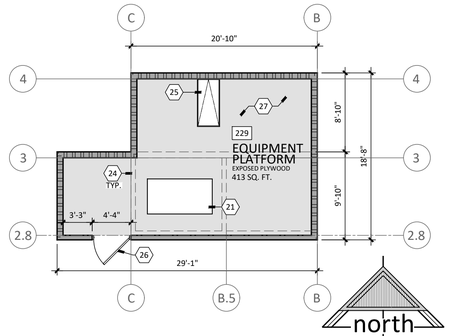
1. LIGHT FIXTURE AS SHOWN, SEE ELECTRICAL DWGS.
2. AIR REGISTER AS SHOWN, SEE MECHANICAL DWGS.
3. 4" CONTINUOUS SOFFIT VENT, TYP. PAINT TO MATCH ADJACENT SOFFIT
4. ROOF GUTTER SYSTEM AND DOWNSPOUT o
5. 30" x 36" ROOF ACCESS HATCH, SEE 20/A101
6. FLOOR ACCESS DOOR & LADDER, SEE 8/A101
7. 30" x 54" ATTIC ACCESS w/ DROP DOWN LADDER, SEE 16/A101
8. PROJECTOR SCREEN
9. CEMENT PLASTER CONTROL SCREED, SEE 3/A97 ALIGN SOFFIT SCREEDS w/ WALL AND FASCIA SCREEDS
10. FIRE SPRINKLER RISER, SEE FIRE PROTECTION DWGS.
11. CURTAIN & TRACK, SEE SPECS.
12. CEMENT PLASTER o/ STRUCTURAL MEMBER
13. IDU, COORDINATE w/ MECHANICAL DWGS.
14. EVAPORATOR UNIT, COORDINATE w/ MECHANICAL DWGS.
15. FLY FAN ABOVE DOOR, COORDINATE w/ MECHANICAL DWGS.
16. SUSPENDED CEILING EXPANSION JOINT AT INTERSECTION OF CORRIDORS AND JUNCTIONS OF CORRIDORS, SEE DETAIL 2.40/A99
17. SUSPENDED CEILING SEISMIC SEPERATION JOINT AT CONTINOUS CEILING EXCEEDING 2500 SQ. FT., SEE DETAIL 2.45/A98
18. FILL CONCEALED SPACE w/ NONCOMBUSTIBLE INSULATION, TYP. SHOWN SHADED
19. ROOF ASSEMBLY ABOVE CEILING IN THIS ROOM SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. FOR ADDITIONAL INFORMATION REFER TO DETAIL 24/A104

EQUIPMENT PLATFORM PLAN KEY NOTES THIS SHEET ONLY:

21. AIR HANDLER, SEE MECHANICAL DWGS.
22. FLOOR ACCESS DOOR & LADDER, SEE 8/A101
23. 20" x 30" WALL ACCESS DOOR
24. WALL LINE BELOW SHOWN DASHED
25. 30" x 54" ATTIC ACCESS w/ DROP DOWN LADDER, SEE 16/A101
26. 48" x 48" WALL ACCESS DOOR
27. PLYWOOD DECK o/ CEILING FRAMING, SHOWN SHADED, SEE STRUCTURAL DWGS.
28. DUCT DROP

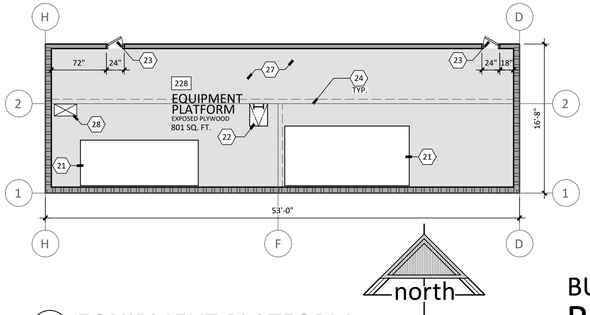
FLOOR PLAN LEGEND

- 2x8 / 3X8 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.
- 2x6 / 3x6 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.



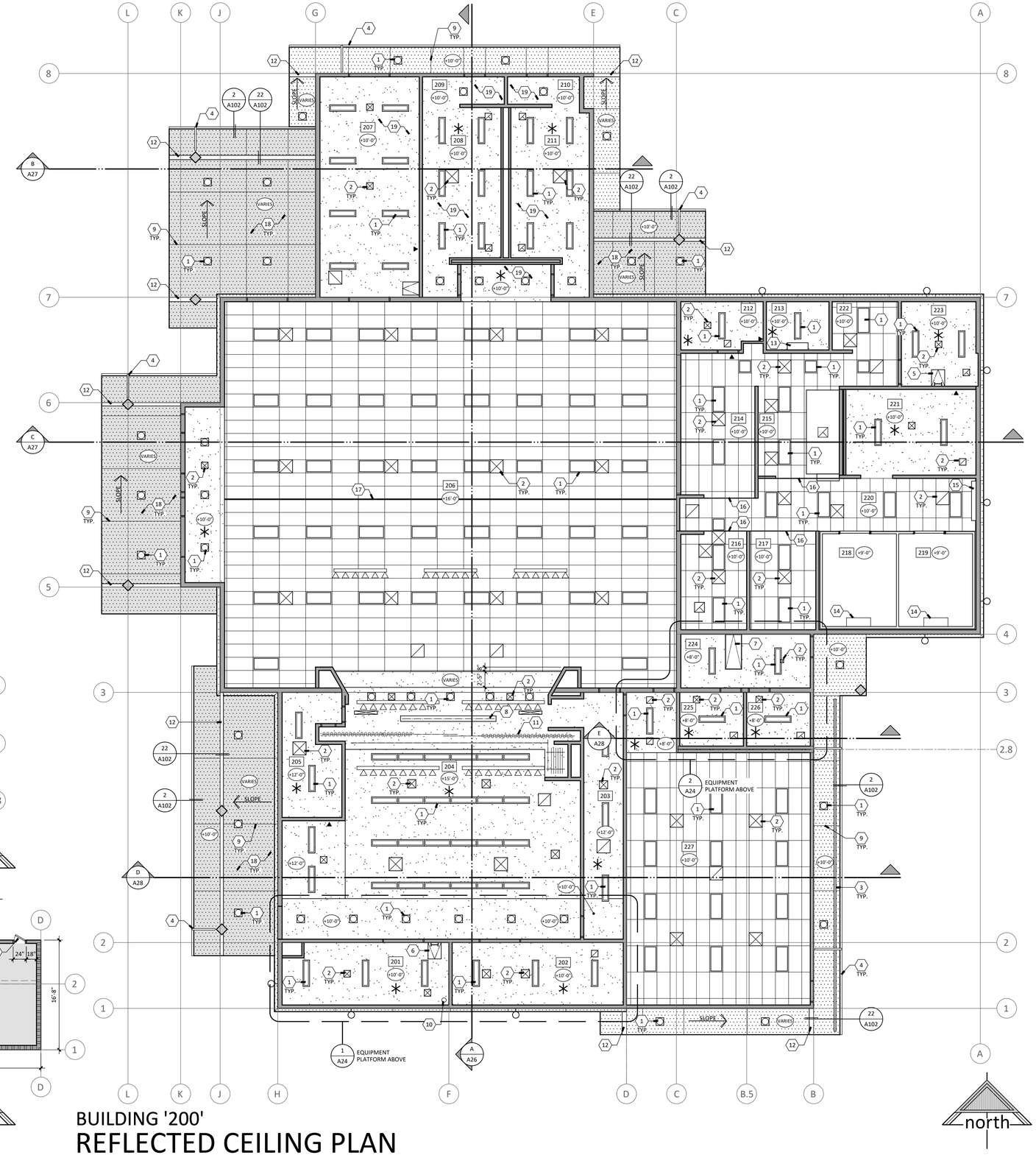
2 EQUIPMENT PLATFORM

SCALE: 1/8" = 1'-0"



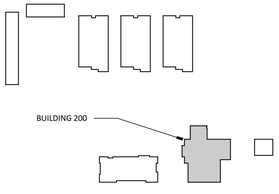
1 EQUIPMENT PLATFORM

SCALE: 1/8" = 1'-0"



BUILDING '200' REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"



KEY PLAN

REVISIONS

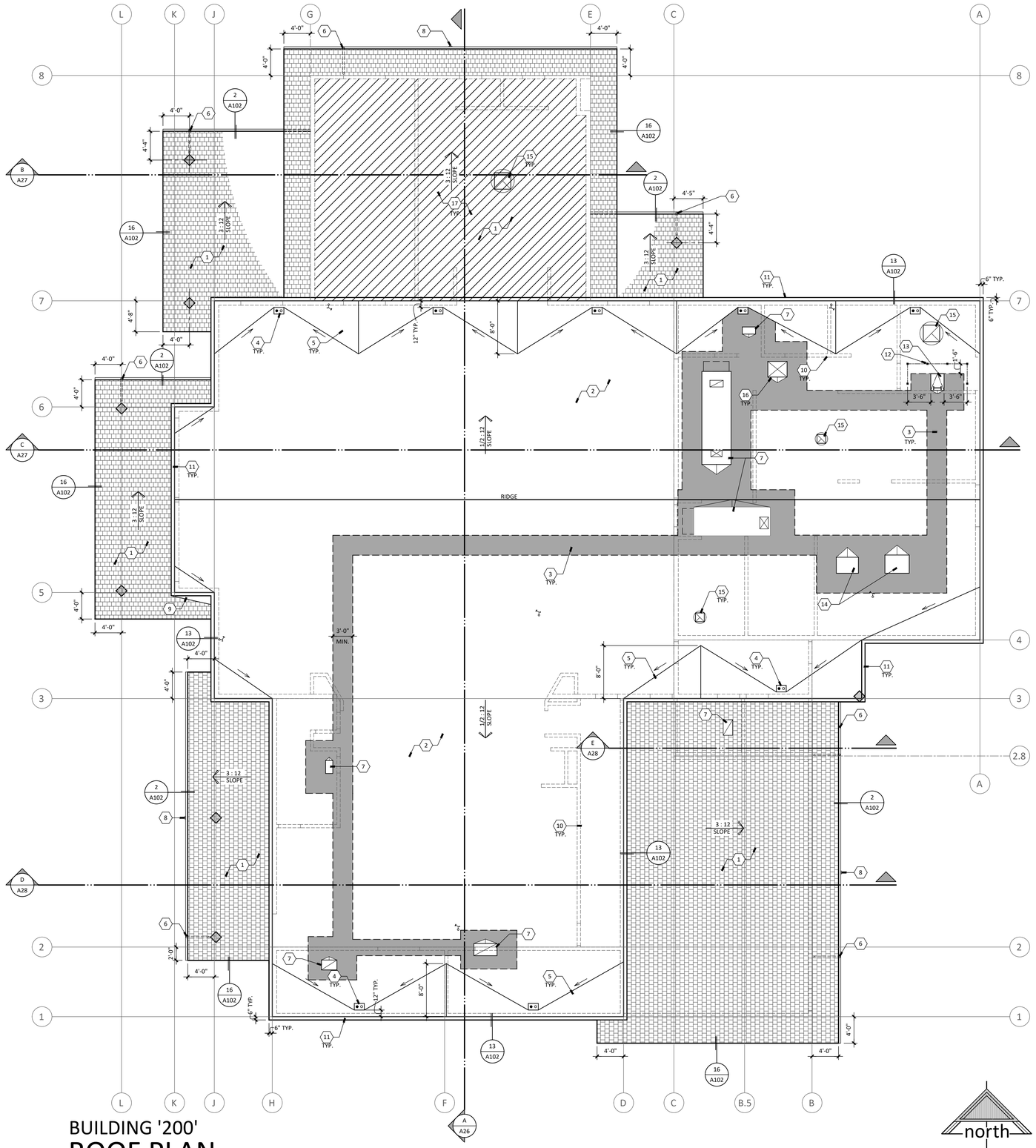
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TITLE
BUILDING '200'
REFLECTED CEILING
PLAN

A24

PROJECT 24042

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BUILDING '200'

ROOF PLAN

SCALE: 1/8" = 1'-0"

ROOF PLAN NOTES:

1. CRICKETS INDICATED SHALL BE CONSTRUCTED OF RIGID INSULATION, ACCORDING TO THE DIMENSIONS INDICATED. SLOPE OF TAPERED INSULATION SHALL BE 1/2" IN 12".
2. ROOF DRAINS SHALL BE LOCATED 12" AWAY FROM THE PARAPET.
3. AT ASPHALT SHINGLE ROOFS WITH LESS THAN 4:12 SLOPE, PROVIDE A SECOND LAYER OF UNDERLAYMENT. SEE SPEC. SECTION 07 3100 FOR ADDITIONAL INFO.

ROOF PLAN KEY NOTES THIS SHEET ONLY:

1. CLASS 'A' ASPHALT SHINGLES (25 / A104)
2. CLASS 'A' BUILT-UP ROOFING SYSTEM
3. ROOF WALK PADS SHOWN SHADED, EXTEND FROM ROOF ACCESS TO EQUIPMENT
4. ROOF DRAIN AND OVERFLOW, SEE (11 / A103)
5. SLOPING FORMED CRICKET
6. ROOF GUTTER SYSTEM AND DOWNSPOUT (O)
7. MECHANICAL UNITS AND CURB, COORDINATE w/ MECHANICAL & STRUCTURAL DWGS.
8. GUTTER EXPANSION JOINT
9. WATER DIVERSION CRICKET
10. WALL LINE BELOW, SHOWN DASHED
11. METAL CAP AND FLASHING, TYP. AT PARAPETS
12. 1 1/2" PIPE GUARD RAIL, SEE (11 / A101)
13. 30" x 36" ROOF ACCESS HATCH , SEE (20 / A101)
14. ROOF MOUNTED REFRIGERATION UNITS, ON WOOD CURBS, SEE (13 / A101) (15 / A101)
15. EXHAUST FAN, SEE MECHANICAL DWGS.
16. ELECTRICAL TRANSFORMER, SEE ELECTRICAL DWGS.
17. ROOF ASSEMBLY BELOW (SHOWN CROSS HATCHED) SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL (24 / A104) FOR ADDITIONAL INFORMATION

north

BUILDING 200

KEY PLAN

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ROOF PLAN

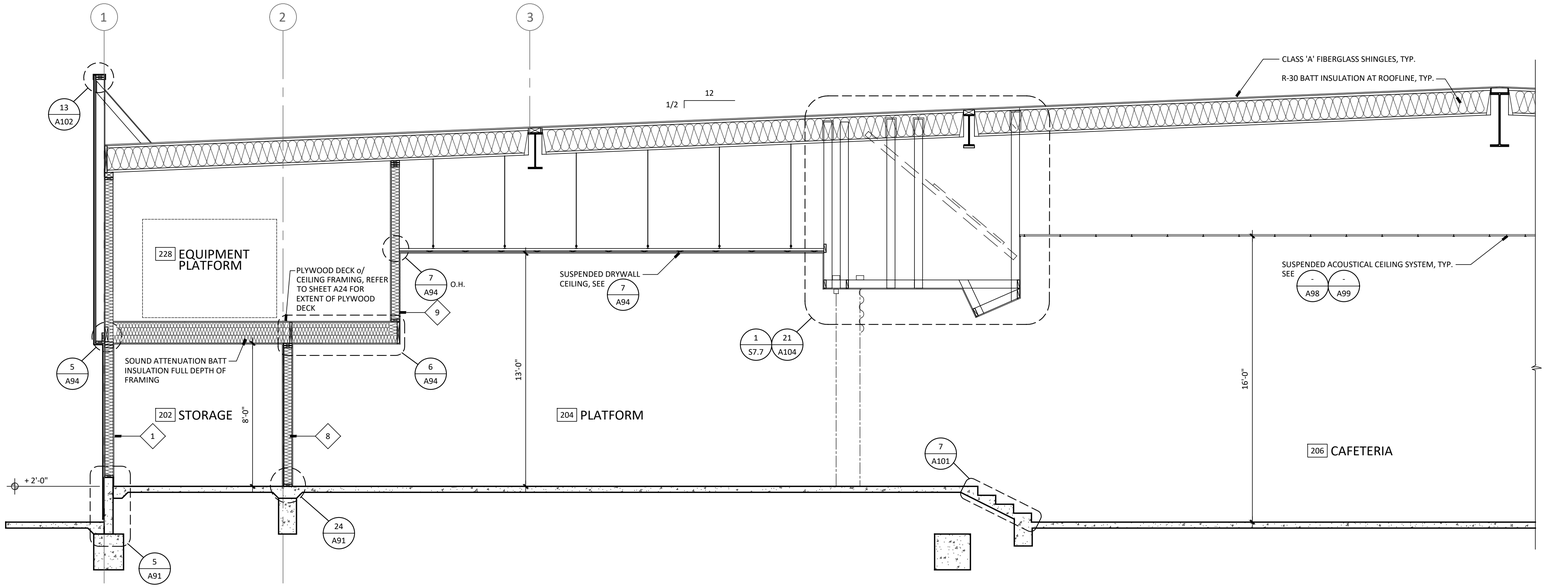
A25

PROJECT 24042

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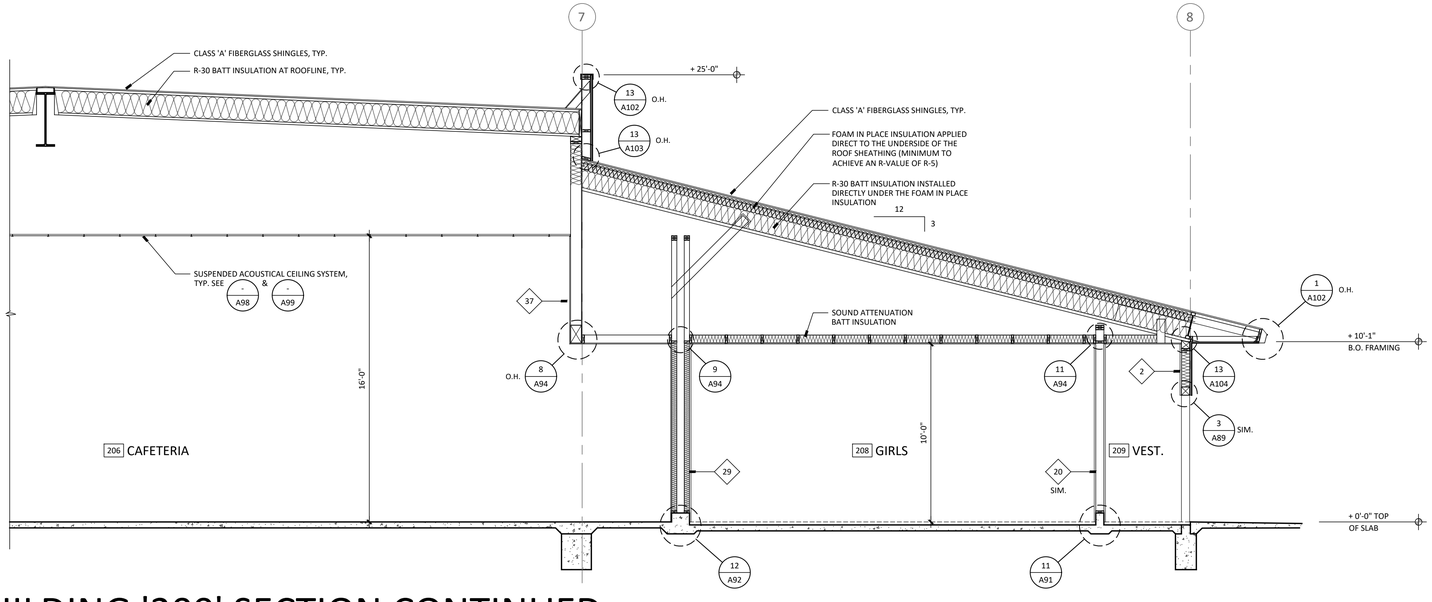
BUILDING SECTION LEGEND

x — WALL ASSEMBLY CALLOUT, REFER TO SHEET A78



A BUILDING '200' SECTION

SCALE: 1/4" = 1'-0"

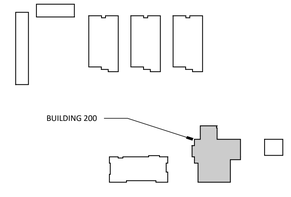


A BUILDING '200' SECTION CONTINUED

SCALE: 1/4" = 1'-0"

BUILDING '200'
SECTIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

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TITLE
BUILDING '200' SECTIONS

A26

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FILE # 10-126 | APPLICATION # 02-123774

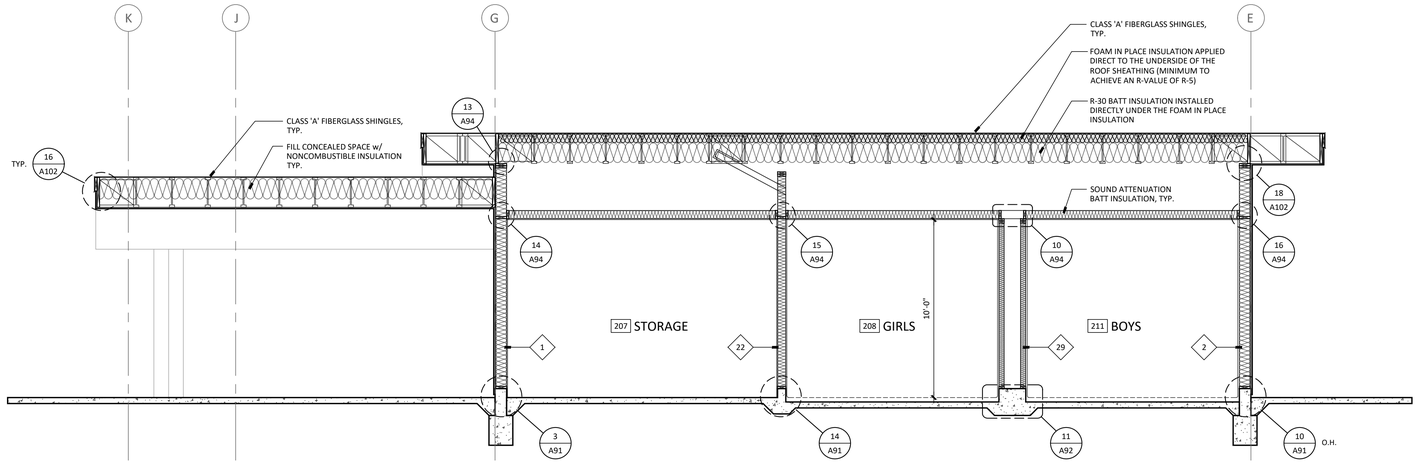
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

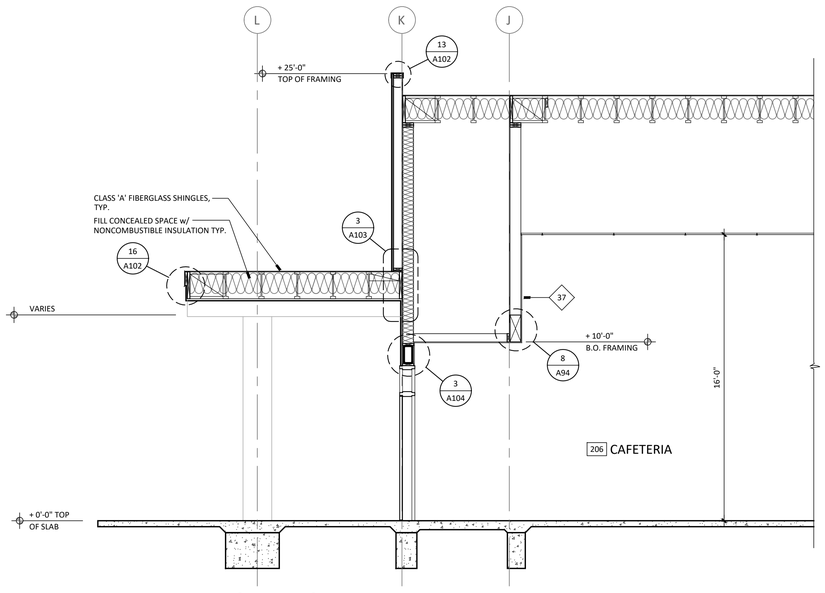
BUILDING SECTION LEGEND

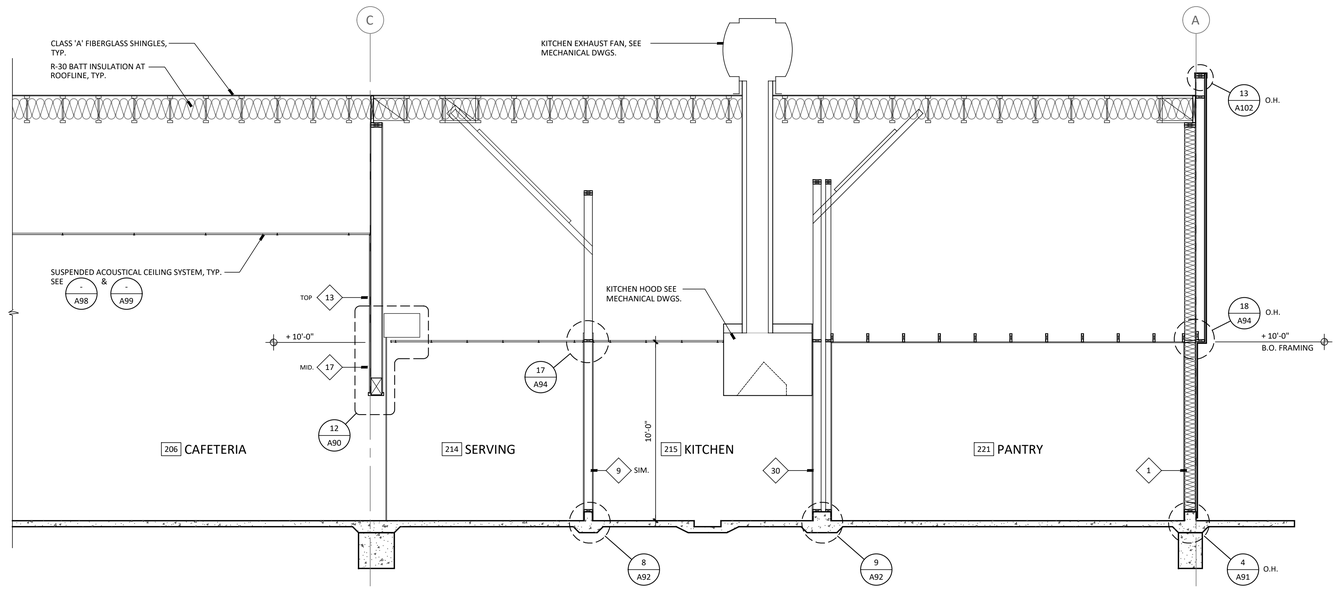
x — WALL ASSEMBLY CALLOUT, REFER TO SHEET A78



B BUILDING '200' SECTION

SCALE: 1/4" = 1'-0"



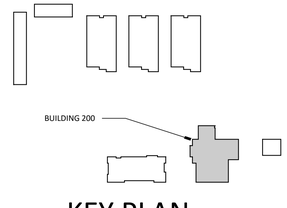


C BUILDING '200' SECTION

SCALE: 1/4" = 1'-0"

BUILDING '200'
SECTIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0510 Office
(559) 627-1926 Fax

TITLE
BUILDING '200' SECTIONS

A27

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

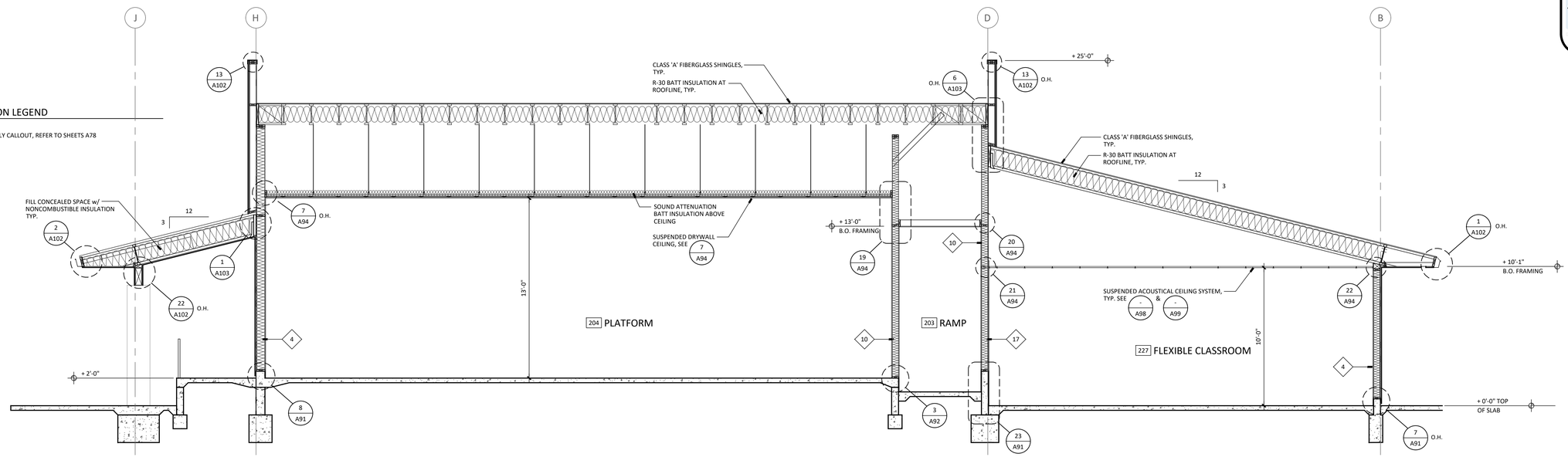
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No. C-21128
REN. 05-31-27
STATE OF CALIFORNIA

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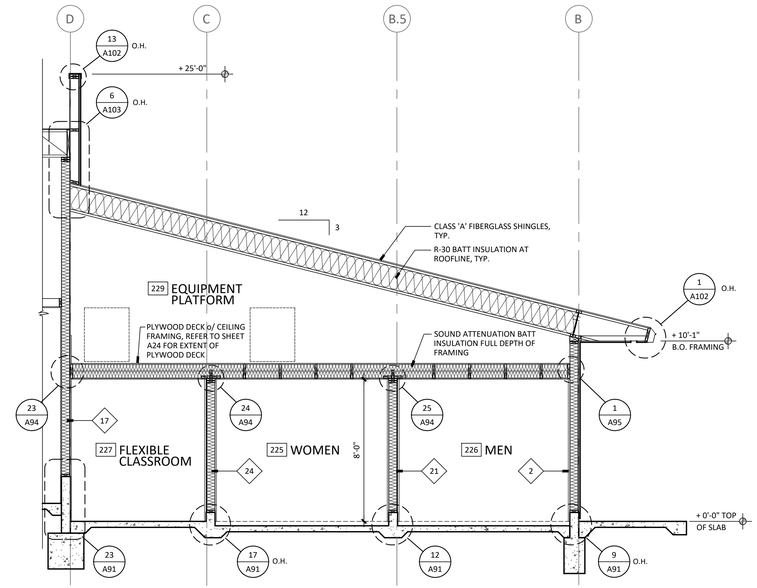
BUILDING SECTION LEGEND

x WALL ASSEMBLY CALLOUT, REFER TO SHEETS A78



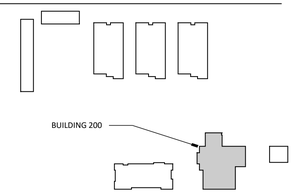
D BUILDING '200' SECTION

SCALE: 1/4" = 1'-0"



E BUILDING '200' SECTION

SCALE: 1/4" = 1'-0"



KEY PLAN

BUILDING '200'
SECTIONS

SCALE: 1/4" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

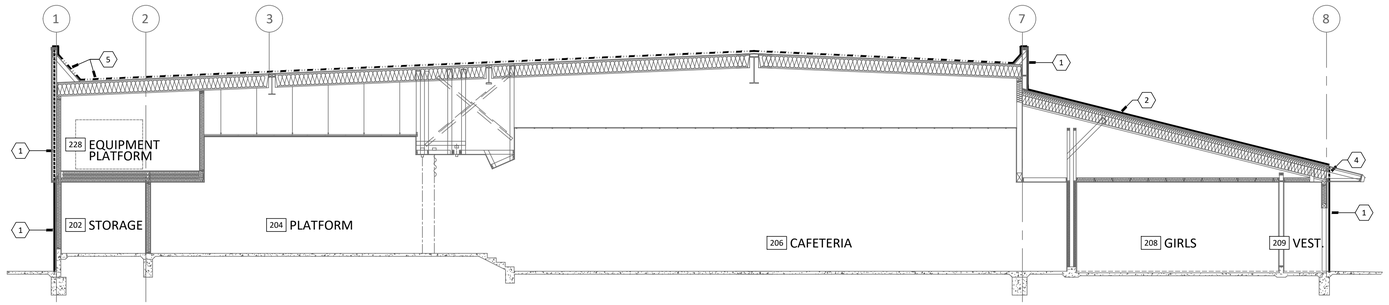
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TITLE
BUILDING '200'
SECTIONS

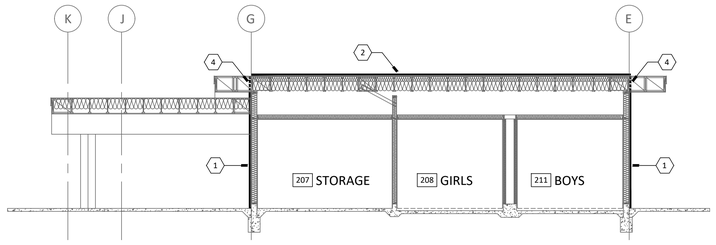
A28

PROJECT 24042



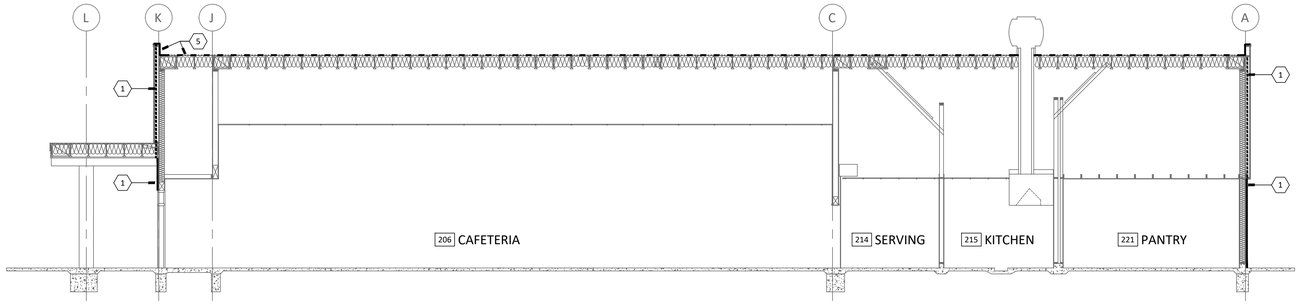
A BUILDING '200' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



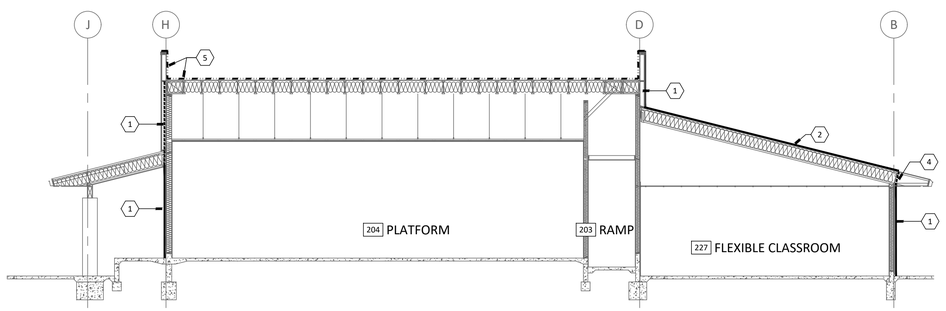
B BUILDING '200' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



C BUILDING '200' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



D BUILDING '200' AIR BARRIER SECTION

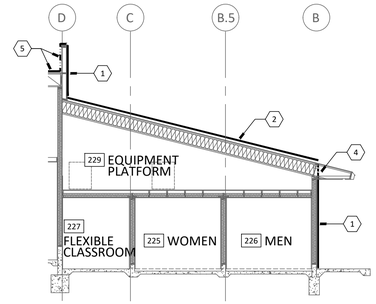
SCALE: 1/8" = 1'-0"

AIR BARRIER SECTION NOTES

1. BRIDGE AND SEAL AIR LEAKAGE PATHWAYS AND GAPS, INCLUDING, BUT NOT LIMITED TO:
   -CONNECTIONS OF THE WALLS TO THE ROOF AND AIR BARRIER
   -CONNECTIONS TO THE WALLS TO THE FOUNDATIONS
   -SEISMIC AND EXPANSION JOINTS
   -OPENINGS AND PENETRATIONS OF WINDOW AND DOOR FRAMES, STORE FRONT, CURTAIN WALL
   -PIPING, CONDUIT, DUCT, AND SIMILAR PENETRATIONS
   -MASONRY TIES, SCREWS, BOLTS, AND SIMILAR PENETRATIONS
   -FLASHING AND SHEET METAL ASSEMBLIES
   -ALL OTHER AIR LEAKAGE PATHWAYS IN THE BUILDING ENVELOPE
   -PLYWOOD JOINTS
2. REFER TO 07 2700 AIR BARRIER SYSTEM FOR ADDITIONAL INFORMATION

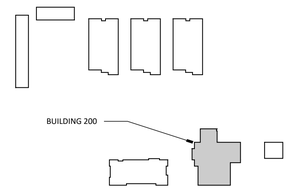
AIR BARRIER SECTION KEYNOTES

1. CEMENT PLASTER & PLYWOOD AS AIR BARRIER WHERE SHOWN
2. ASPHALT SHINGLE ROOFING SYSTEM & PLYWOOD AS AIR BARRIER WHERE SHOWN
3. NOT USED
4. FOAM-IN-PLACE TO COMPLETE AIR BARRIER
5. BUILT-UP ROOFING SYSTEM AS AIR BARRIER



E BUILDING '200' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



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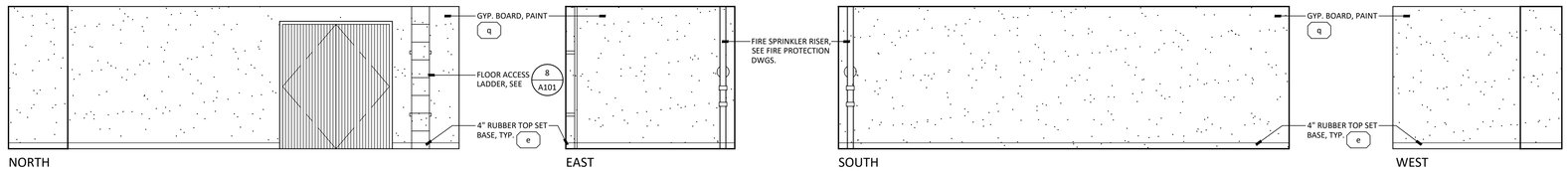
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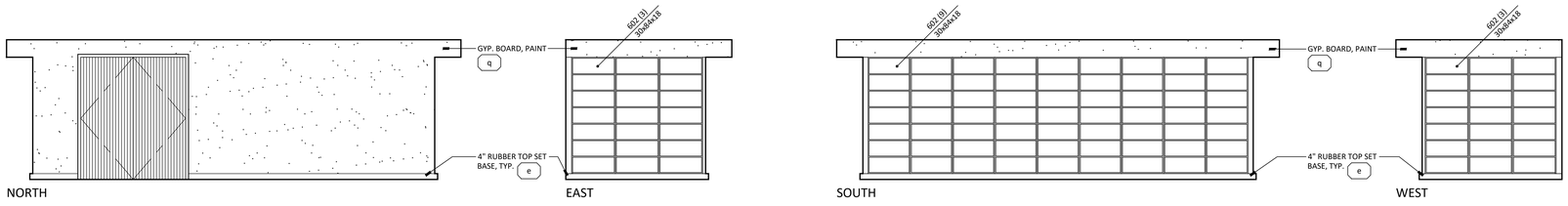
TITLE
BUILDING '200'
AIR BARRIER
SECTIONS

A29

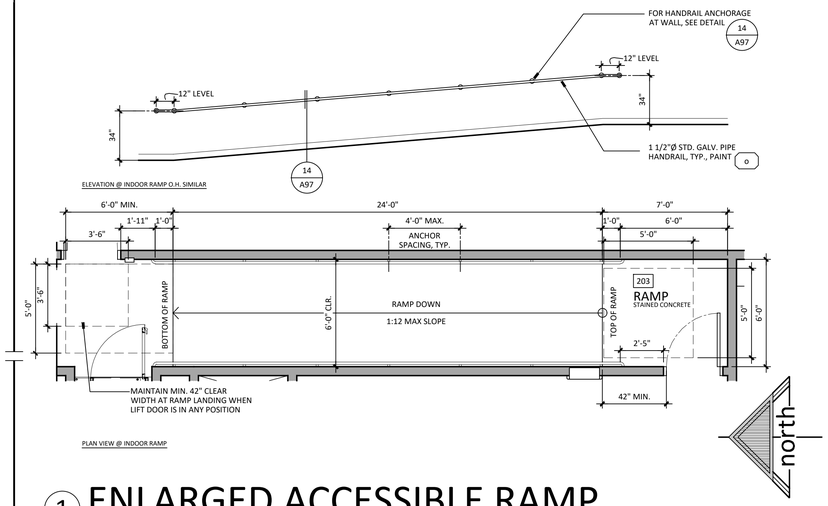
PROJECT 24042



201 STORAGE

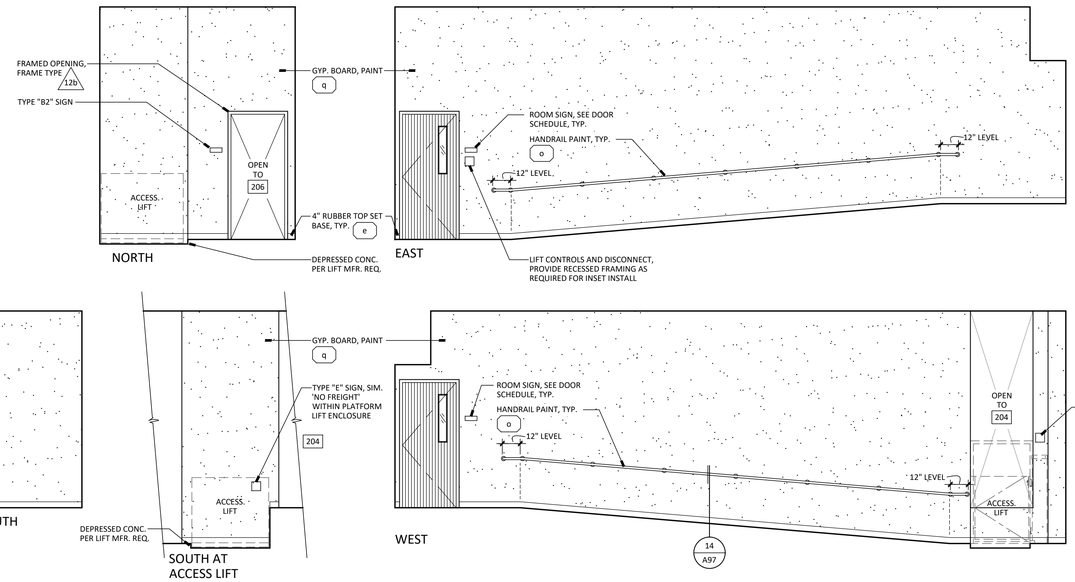


202 STORAGE



1 ENLARGED ACCESSIBLE RAMP

SCALE: 1/4" = 1'-0"



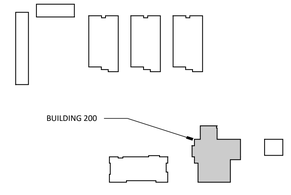
203 RAMP

INTERIOR ELEVATION NOTES

1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13/A96 U.O.N.
2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS 17/A97 18/A97 U.O.N.
3. FOR TYPICAL CABINET ANCHORAGE SEE DETAIL 1/A96
4. REFER TO SPECIFICATIONS FOR TOILET ACCESSORY ABBREVIATIONS.
5. ANY ACCESSORIES SHOWN N.I.C. SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR TO PROVIDE SOLID BLOCKING & INSTALLATION AT LOCATION SHOWN AS REQUIRED.
6. REFER TO FINISH SCHEDULE SHEETS FOR DESIGNATION OF WALL FINISHES.
7. ( ) = MATERIAL DEFINITION, REFER TO SHEETS A72
8. FOR TYPICAL GYPSUM BOARD EDGE SEE DETAIL 1/A97
9. ANY DISCREPANCY BETWEEN THE LOCATION OF DEVICES, FIXTURES, ETC., SHOWN HERE AND ON ANY PLUMBING, ELECTRICAL OR MECHANICAL SHEETS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO LAYOUT.
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11. FOR SIGN TEXT REFER TO DOOR SCHEDULE. FOR TYPES AND LOCATION SEE DETAIL 1/A84
12. FOR MARKER BOARD BLOCKING & ATTACHMENT SEE DETAIL 17/A96
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14. FOR TYPICAL FIRE EXTINGUISHER CABINET (F.E.C.) MOUNTING, SEE DETAIL 10/A97
15. FOR GRAB BAR ANCHORAGE AT TOILETS, SEE DETAIL 8/A97
16. FOR TYPICAL TOILET PARTITION ANCHORAGE, SEE DETAIL 9A/A97 9B/A97
17. FOR ACCESSIBLE LAVATORY, SEE DETAILS 6/A97 7/A97
18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
19. FOR TYPICAL COVED EPOXY BASE, RUBBER TOPSET BASE, AND CERAMIC TILE BASE, SEE DETAILS 20/A97 21/A97 22/A97
20. REFER TO DETAIL FOR TILE PATTERN 1/A73

BUILDING '200' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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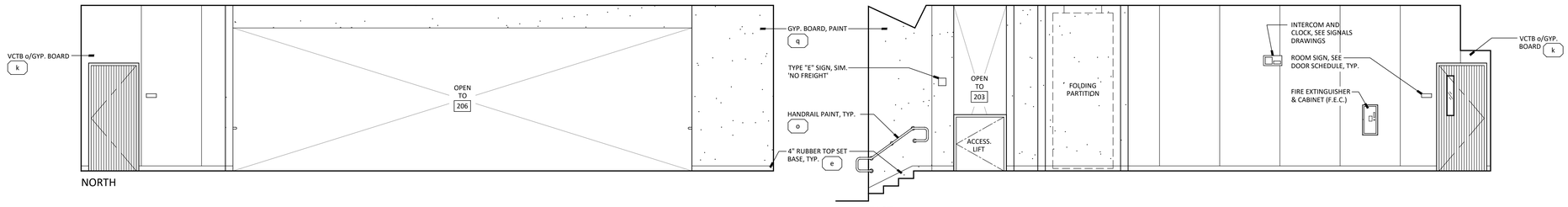
REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
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Visalia, California 93291
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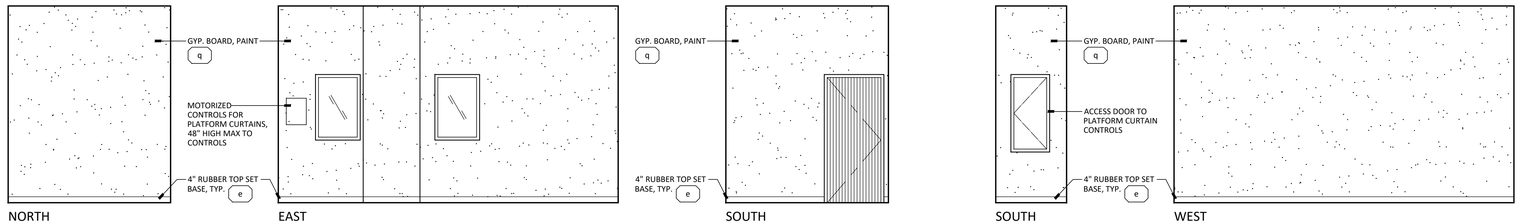
TITLE
BUILDING '200'
INTERIOR ELEVATIONS

A30

PROJECT 24042



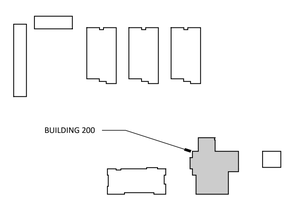
204 PLATFORM



205 CONTROL

INTERIOR ELEVATION NOTES

1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13/A96 U.O.N.
2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS 16/A97, 17/A97, 18/A97 U.O.N.
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10. ♿ = A.D.A. ACCESSIBLE, SEE CABINET DETAIL 12/A96
11. FOR SIGN TEXT REFER TO DOOR SCHEDULE. FOR TYPES AND LOCATION SEE DETAIL 1/A84
12. FOR MARKER BOARD BLOCKING & ATTACHMENT SEE DETAIL 17/A96
13. FOR TV & SMART BOARD MONITOR BRACKET BLOCKING & ATTACHMENT SEE DETAIL 18/A96
14. FOR TYPICAL FIRE EXTINGUISHER CABINET (F.E.C.) MOUNTING, SEE DETAIL 10/A97
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16. FOR TYPICAL TOILET PARTITION ANCHORAGE, SEE DETAIL 9A/A97, 9B/A97
17. FOR ACCESSIBLE LAVATORY, SEE DETAILS 6/A97, 7/A97
18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
19. FOR TYPICAL COVED EPOXY BASE, RUBBER TOPSET BASE, AND CERAMIC TILE BASE, SEE DETAILS 20/A97, 21/A97, 22/A97
20. REFER TO DETAIL FOR TILE PATTERN 1/A73



KEY PLAN

BUILDING '200' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

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APPROVALS

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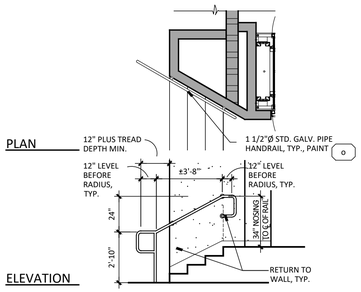
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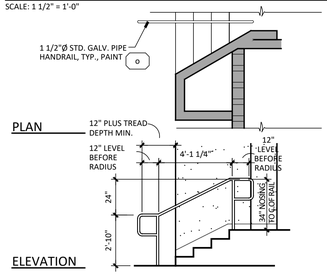
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PROJECT 24042



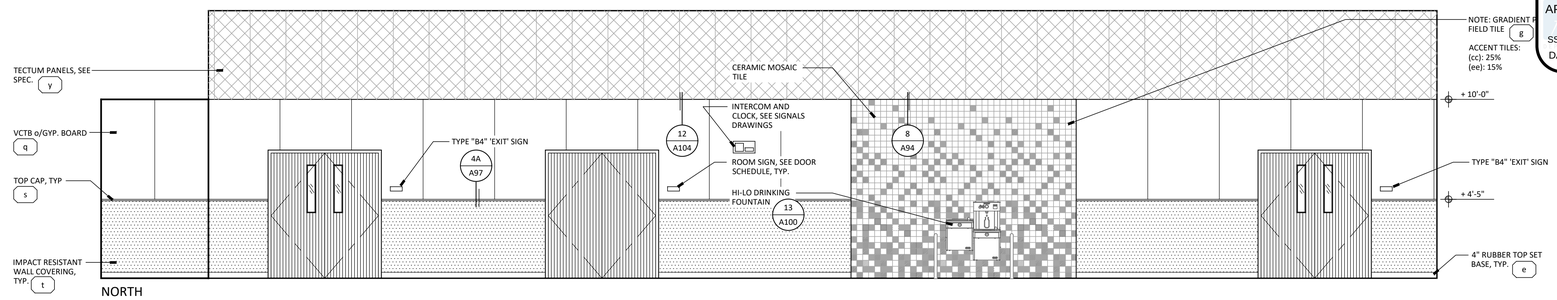
1 RAIL AT PLATFORM

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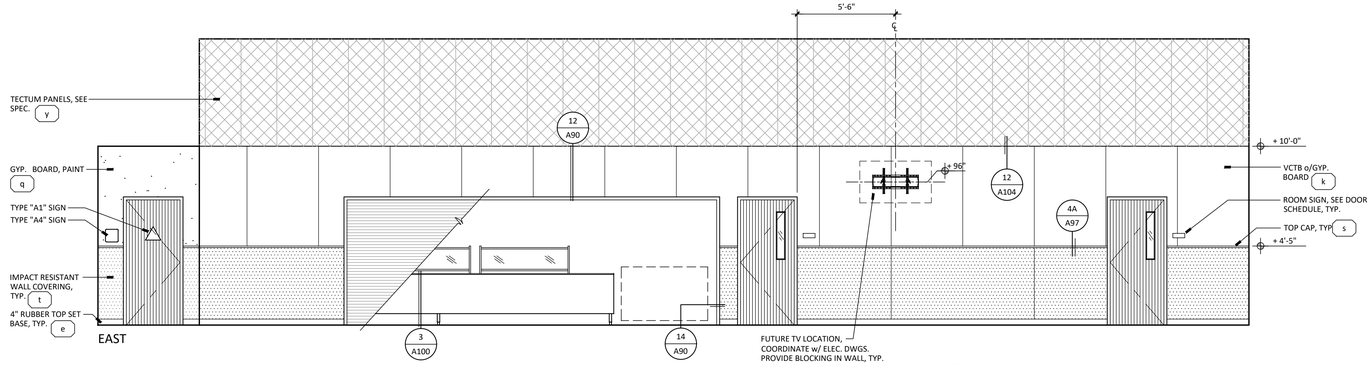


2 RAIL AT PLATFORM

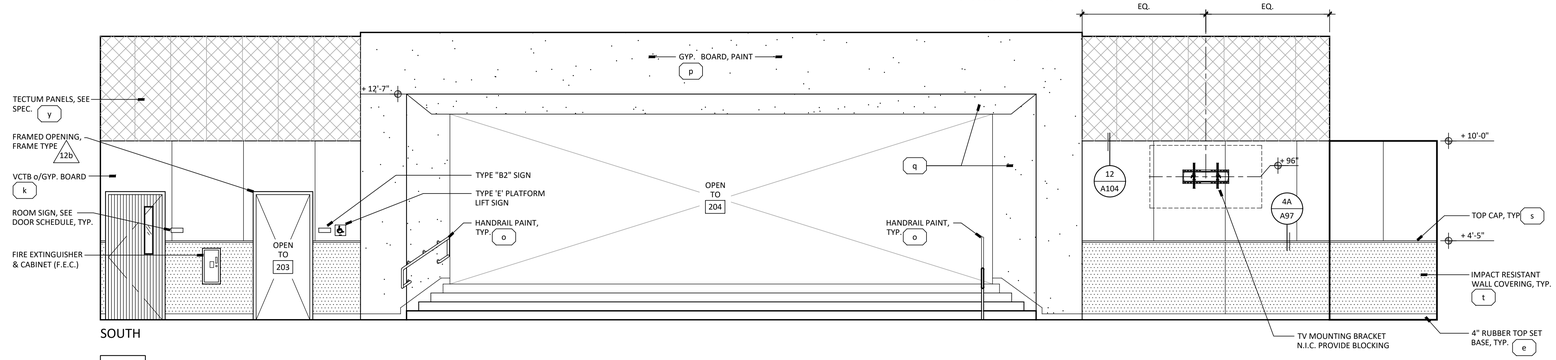
SCALE: 1 1/2" = 1'-0"



NORTH



EAST



SOUTH

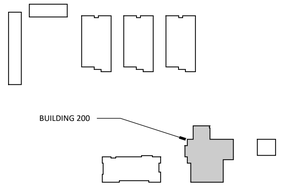
206 CAFETERIA

INTERIOR ELEVATION NOTES

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BUILDING '200' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



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LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDING '200'
INTERIOR ELEVATIONS

A32

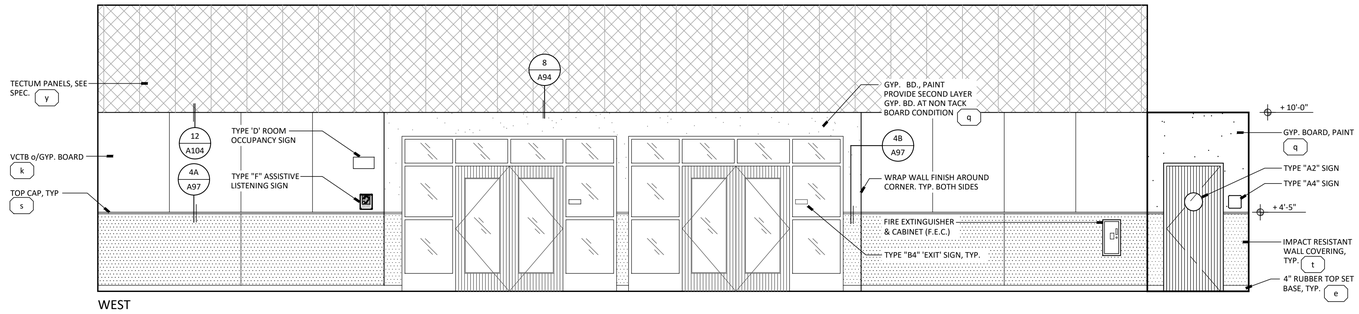
PROJECT 24042

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
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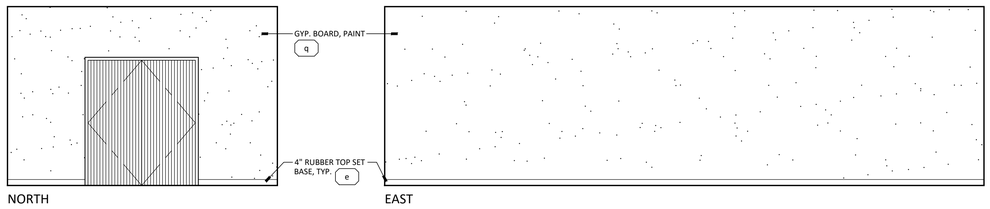
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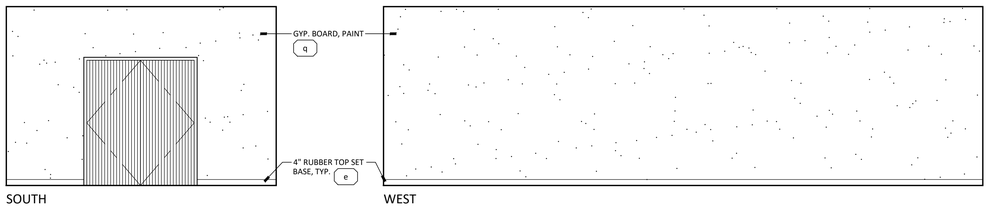


WEST

206 CAFETERIA (CONT'D)

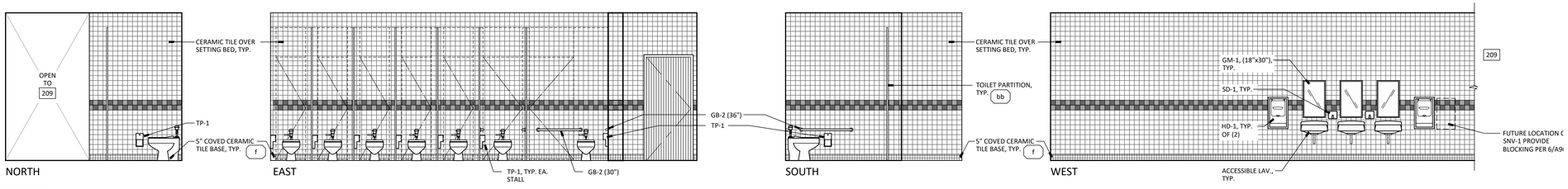


NORTH EAST



SOUTH WEST

207 STORAGE



NORTH EAST SOUTH WEST

208 GIRLS

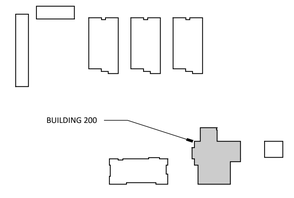
REFER TO 17/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - AGES 9-12

INTERIOR ELEVATION NOTES

1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13/A96 U.O.N.
2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS 17/A97 18/A97 U.O.N.
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18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
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20. REFER TO DETAIL FOR TILE PATTERN 1/A73

BUILDING '200'
INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
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A33

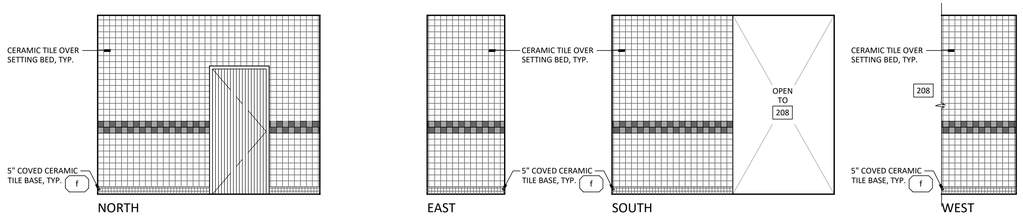
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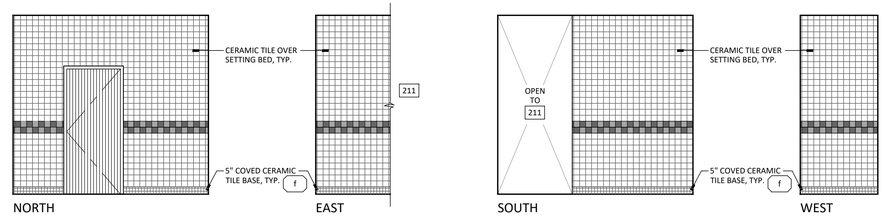
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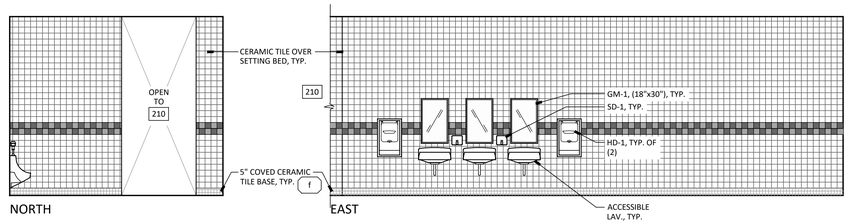
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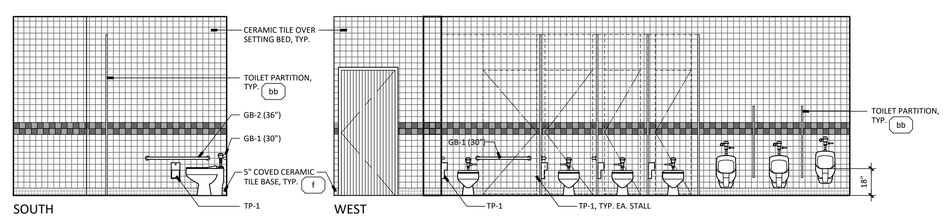


209 VESTIBULE



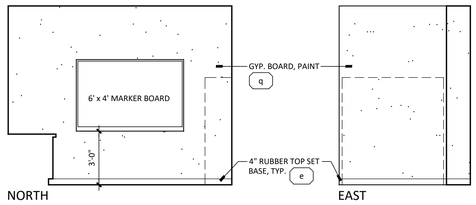
210 VESTIBULE

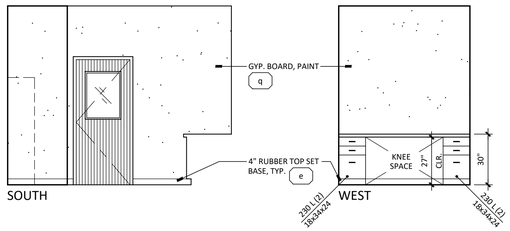




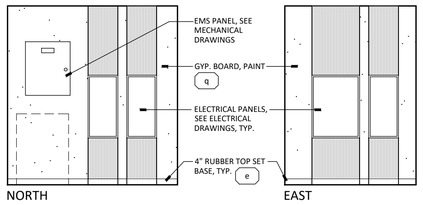
211 BOYS

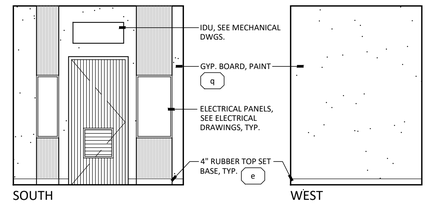
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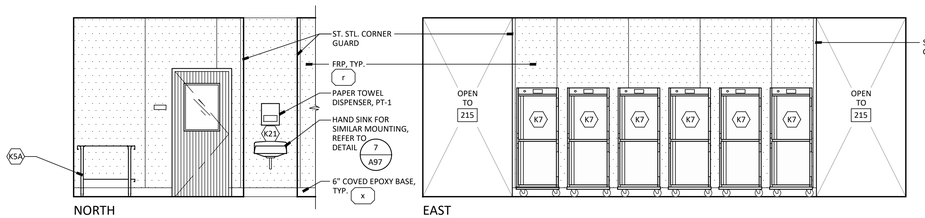


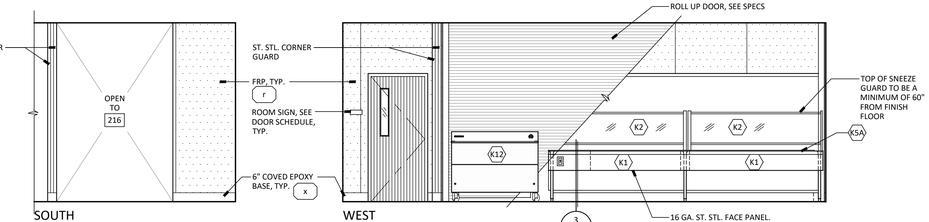
212 KITCHEN OFFICE





213 ELECTRICAL





214 SERVING

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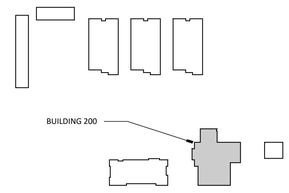
KITCHEN EQUIPMENT

FOR ADDITIONAL INFORMATION ON KITCHEN EQUIPMENT, REFER TO SHEET A21

- K1 DROP-IN HOT/COLD COMBINATION FOOD WELL
- K2 FRANKLIN SNEEZE GUARD
- K5A SERVING COUNTER
- K7 INSULATED HOT CABINET
- K12 MILK COOLER

BUILDING '200' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

ONE PIECE ST. STL. HOOD +7'-0" TO CLG &

NEW TEMPERANCE ELEMENTARY SCHOOL
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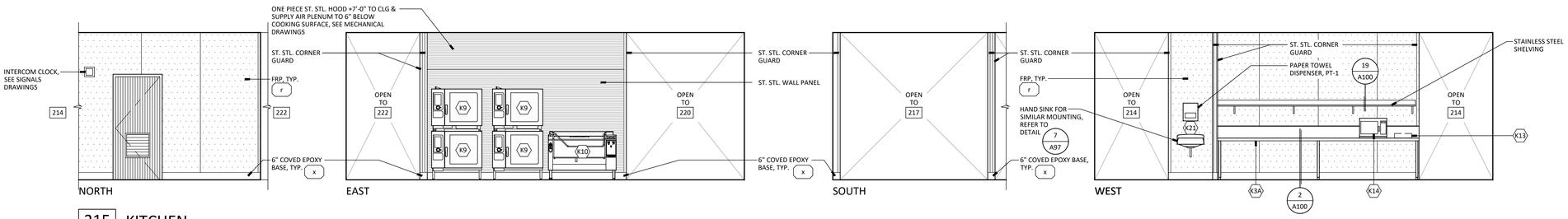
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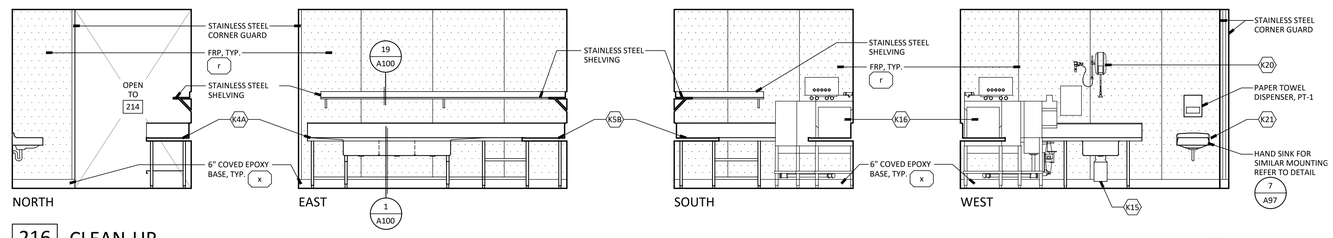
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BUILDING '200'
INTERIOR ELEVATIONS

A34

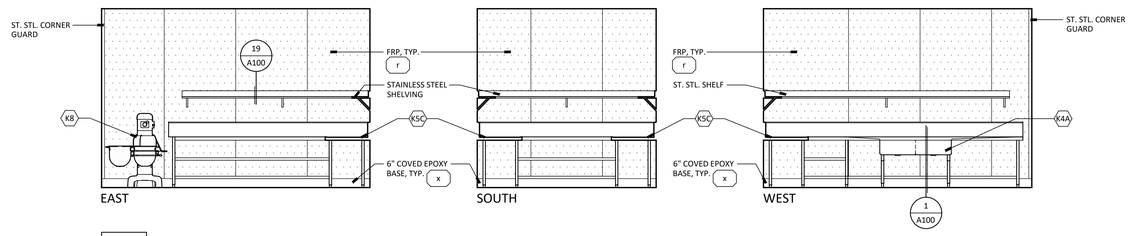
PROJECT 24042



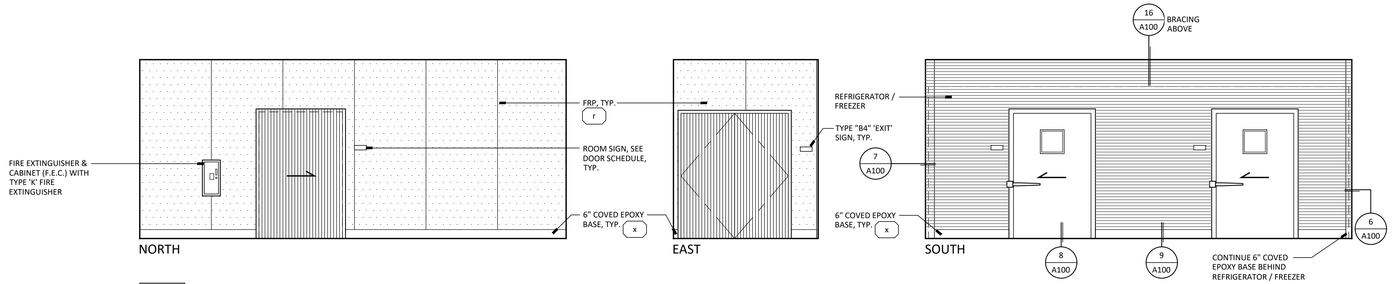
215 KITCHEN



216 CLEAN-UP



217 FOOD PREP



220 STAGING

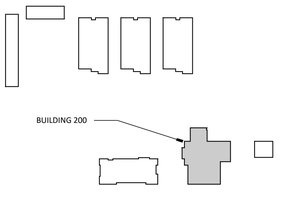
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KITCHEN EQUIPMENT

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- X3A WORK TABLE
- X4A SS 3-COMPARTMENT SINK
- X5B DISH CLEAN-UP TABLE
- X5C FOOD PREPARATION TABLE
- X8 MIXER WITH DELUXE ACCESSORY PACKAGE
- X9 DOUBLE COMBINATION STEAMER-OVEN
- X10 TILTING BRAISING PAN
- X13 FREE STANDING INDUCTION COOKTOP
- X14 COMMERCIAL MICROWAVE OVEN
- X15 COMMERCIAL FOOD WASTE DISPOSER
- X16 DISHWASHER
- X20 HOSE REEL
- X21 HAND SINK



KEY PLAN

BUILDING '200' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

APPROVALS

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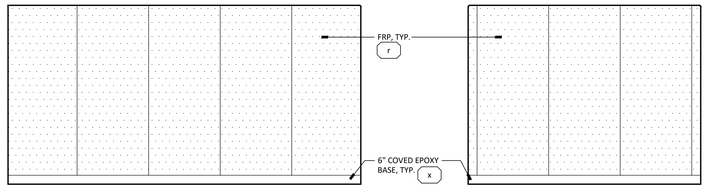
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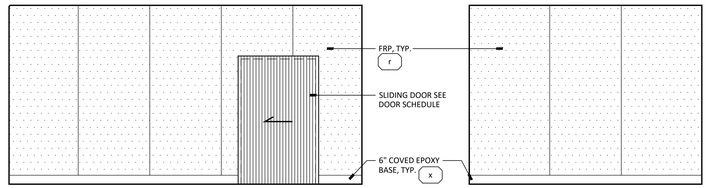
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A35

PROJECT 24042

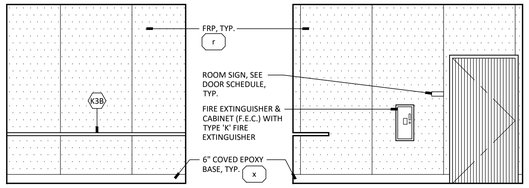


NORTH EAST

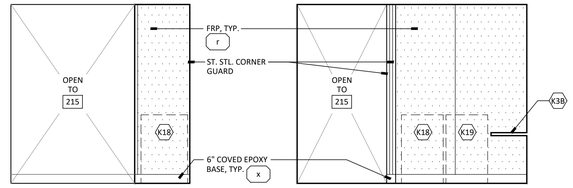


SOUTH WEST

221 PANTRY

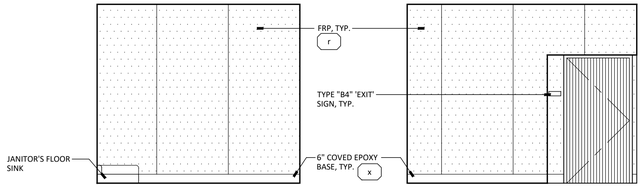


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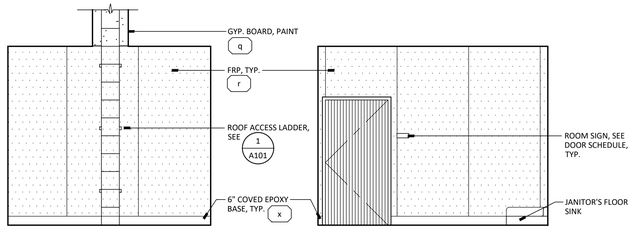


SOUTH WEST

222 UTILITY

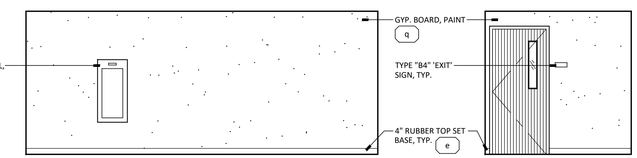


NORTH EAST

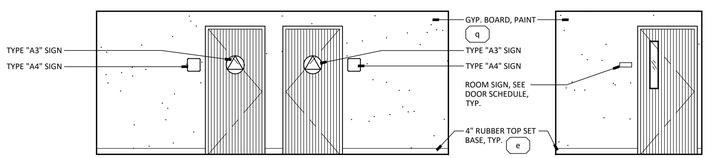


SOUTH WEST

223 JANITOR



NORTH EAST



SOUTH WEST

224 VESTIBULE

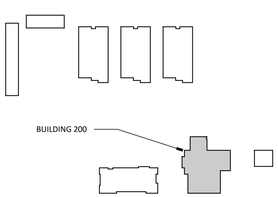
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9. ANY DISCREPANCY BETWEEN THE LOCATION OF DEVICES, FIXTURES, ETC., SHOWN HERE AND ON ANY PLUMBING, ELECTRICAL OR MECHANICAL SHEETS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO LAYOUT.
10. = A.D.A. ACCESSIBLE, SEE CABINET DETAIL 12/A96
11. FOR SIGN TEXT REFER TO DOOR SCHEDULE. FOR TYPES AND LOCATION SEE DETAIL 1/A84
12. FOR MARKER BOARD BLOCKING & ATTACHMENT SEE DETAIL 17/A96
13. FOR TV & SMART BOARD MONITOR BRACKET BLOCKING & ATTACHMENT SEE DETAIL 18/A96
14. FOR TYPICAL FIRE EXTINGUISHER CABINET (F.E.C.) MOUNTING, SEE DETAIL 10/A97
15. FOR GRAB BAR ANCHORAGE AT TOILETS, SEE DETAIL 8/A97
16. FOR TYPICAL TOILET PARTITION ANCHORAGE, SEE DETAIL 9A/A97 9B/A97
17. FOR ACCESSIBLE LAVATORY, SEE DETAILS 6/A97 7/A97
18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
19. FOR TYPICAL COVED EPOXY BASE, RUBBER TOPSET BASE, AND CERAMIC TILE BASE, SEE DETAILS 20/A97 21/A97 22/A97
20. REFER TO DETAIL FOR TILE PATTERN 1/A73

KITCHEN EQUIPMENT

FOR ADDITIONAL INFORMATION ON KITCHEN EQUIPMENT, REFER TO SHEET A21

- X38 WORK TABLE
- X18 WASHER
- X19 DRYER



KEY PLAN

BUILDING '200'
INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

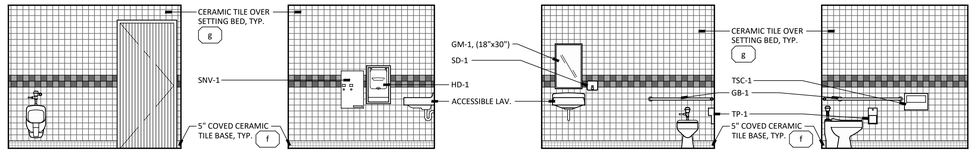
REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING '200'
INTERIOR ELEVATIONS

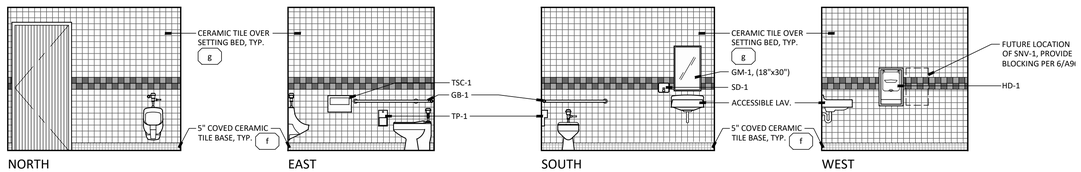
A36

PROJECT 24042



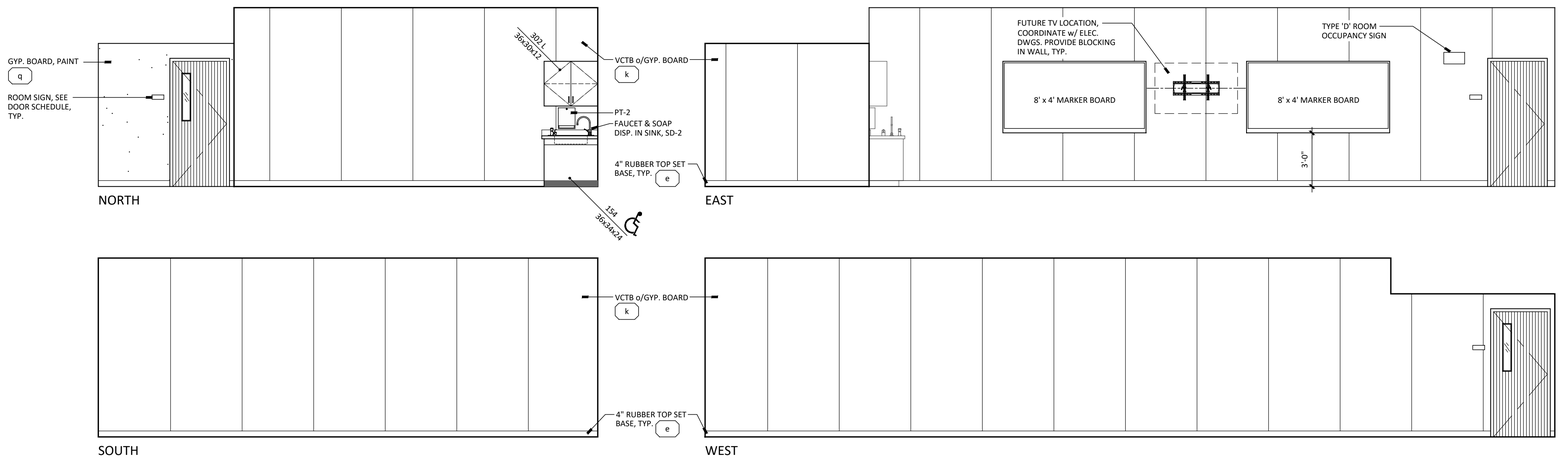
225 STUDENT UNISEX

REFER TO 17/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - ADULT



226 STAFF UNISEX

REFER TO 18/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - ADULT



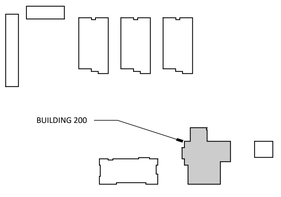
227 FLEXIBLE CLASSROOM

INTERIOR ELEVATION NOTES

1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13/A96 U.O.N.
2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS 17/A97 18/A97 U.O.N.
3. FOR TYPICAL CABINET ANCHORAGE SEE DETAIL 1/A96
4. REFER TO SPECIFICATIONS FOR TOILET ACCESSORY ABBREVIATIONS.
5. ANY ACCESSORIES SHOWN N.I.C. SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR TO PROVIDE SOLID BLOCKING & INSTALLATION AT LOCATION SHOWN AS REQUIRED.
6. REFER TO FINISH SCHEDULE SHEETS FOR DESIGNATION OF WALL FINISHES.
7. ( ) = MATERIAL DEFINITION, REFER TO SHEETS A72
8. FOR TYPICAL GYPSUM BOARD EDGE SEE DETAIL 1/A97
9. ANY DISCREPANCY BETWEEN THE LOCATION OF DEVICES, FIXTURES, ETC., SHOWN HERE AND ON ANY PLUMBING, ELECTRICAL OR MECHANICAL SHEETS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO LAYOUT.
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20. REFER TO DETAIL FOR TILE PATTERN 1/A73

BUILDING '200' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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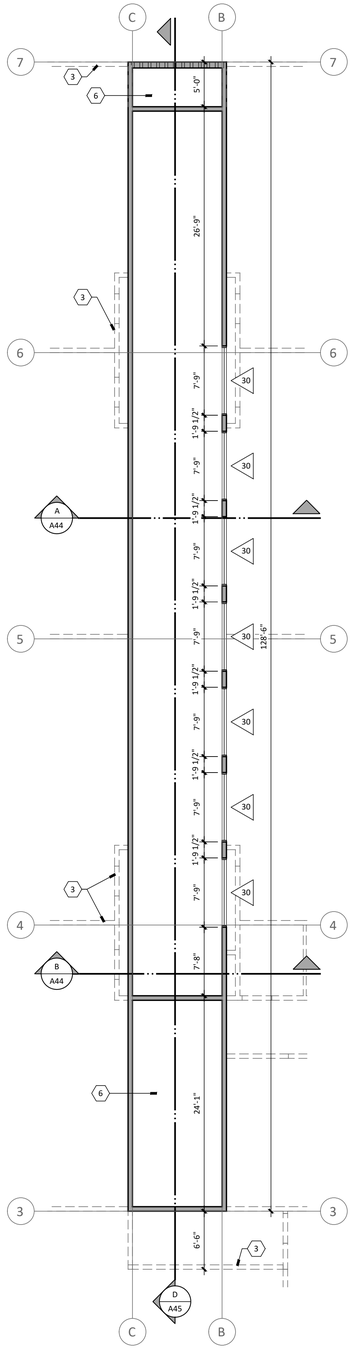
REVISIONS

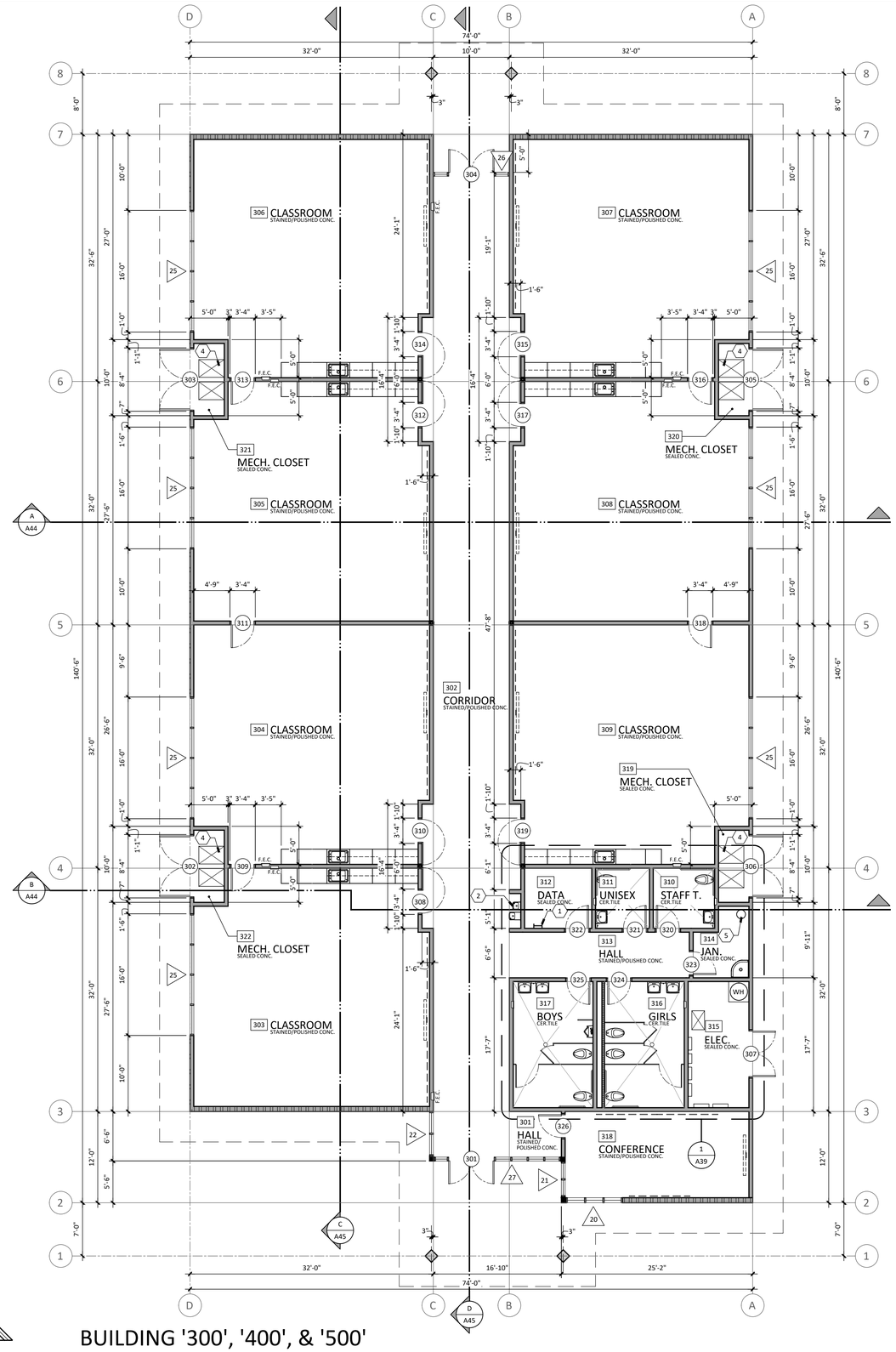
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TITLE
BUILDING '200'
INTERIOR ELEVATIONS

A37

PROJECT 24042





GENERAL FLOOR PLAN NOTES:

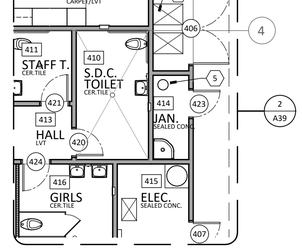
1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A79
3. WHERE SOUND INSULATION OR THERMAL INSULATION IS SHOWN ON WALL ASSEMBLY, INSULATION SHALL BE INSTALLED FULL HEIGHT OF WALL. REFER TO SPEC SECTION 07 2100
4. FINISH ALL GYPSUM BOARD EDGES PER DETAIL 1 / A97
5. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS, SEE INTERIOR ELEVATIONS AND DETAILS 17 / A97, 18 / A97
6. REFER TO ELEVATIONS AND DOOR SCHEDULE FOR ALL ROOM AND BUILDING SIGNAGE.
7. SEAL PENETRATIONS IN RATED WALLS PER DETAIL 15 / A97
8. REFER TO SHEET A40 FOR EXIT ANALYSIS
9. FIRE BLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUDS AND PARTITIONS, INCLUDING FURRED SPACES, AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
   1. VERTICALLY AT CEILING AND FLOOR LEVELS.
   2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
10. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23 / A100, 24 / A100

FLOOR PLAN LEGEND

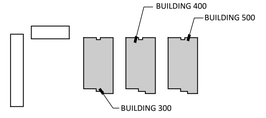
- 2X8 WOOD STUDS @ 16" O.C.
- 2X6 WOOD STUDS @ 16" O.C.
- 2X4 WOOD STUDS @ 16" O.C.
- 14" X 14" ARCHITECTUALLY EXPOSED STRUCTURAL STEEL COLUMN INFILLED W/ PEA GRAVEL TO TOP OF COLUMN. COORDINATE WITH STRUCTURAL DWGS.
- # FRAME TYPE, SEE FRAME TYPE SCHEDULE ON SHEETS A87 & A88
- # ROOM NUMBER, FLOOR FINISH MATERIAL
- F.E.C. FIRE EXTINGUISHER AND CABINET, REFER TO INTERIOR ELEVATIONS

FLOOR PLAN KEY NOTES THIS SHEET ONLY:

1. ATTIC ACCESS LADDER, SEE 1 / A101
2. HI-LO DRINKING FOUNTAIN w/ BOTTLE FILLER, SEE 13 / A100
3. WALL BELOW SHOWN DASHED FOR CLARITY
4. MECHANICAL UNITS, COORDINATE WITH MECHANICAL & ELECTRICAL DWGS.
5. FIRE SPRINKLER RISER, SEE FIRE PROTECTION DWGS.
6. OPEN ATTIC, SEE REFLECTED CEILING PLAN



BUILDING '400'
PARTIAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



KEY PLAN

BUILDING '300', '400', & '500'
CLERESTORY FLOOR PLAN
SCALE: 1/8" = 1'-0"

BUILDING '300', '400', & '500'
FLOOR PLAN (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)
SCALE: 1/8" = 1'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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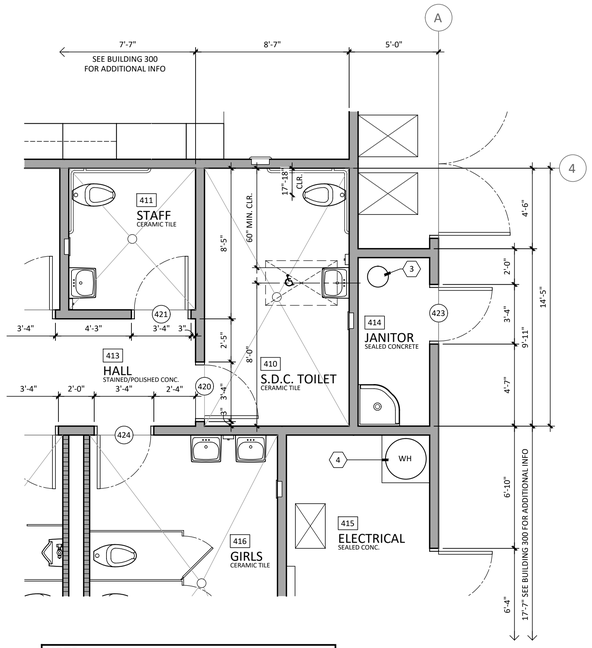
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TITLE
BUILDINGS '300' '400' '500' FLOOR PLANS

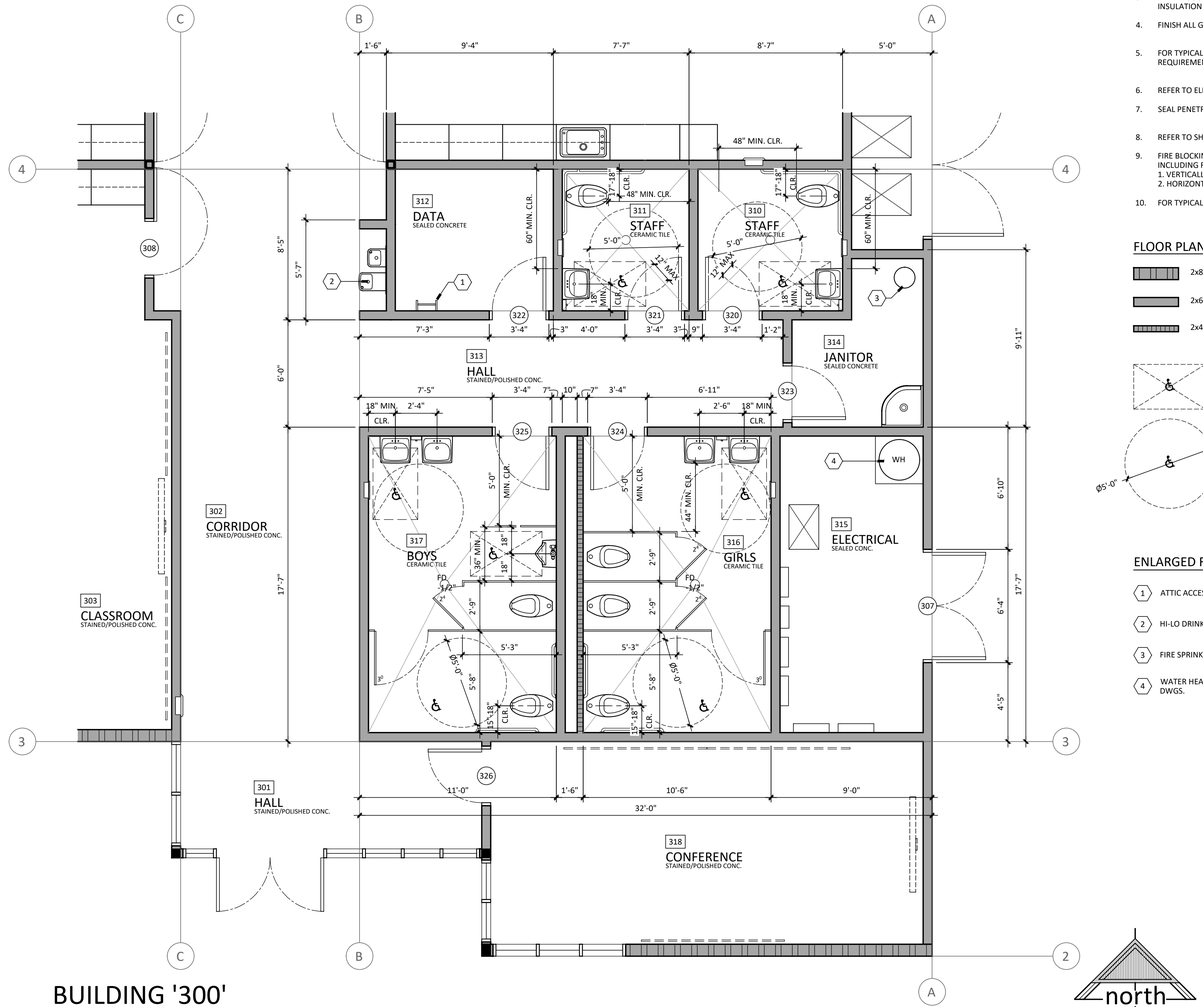
A38

PROJECT 24042



NOTE:
FOR ADDITIONAL INFORMATION NOT SPECIFICALLY SHOWN IN THIS PARTIAL FLOOR PLAN, REFER TO BUILDING 300.
THIS PARTIAL FLOOR PLAN IS ONLY FOR S.D.C. TOILET ROOM LAYOUT AND ADJUSTED JANITOR ROOM, UNIQUE TO BUILDING 400 ONLY.

BUILDING '400' PARTIAL
2 ENLARGED FLOOR PLAN
SCALE: 1/4" = 1'-0"



BUILDING '300'
1 ENLARGED FLOOR PLAN (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)
SCALE: 1/4" = 1'-0"

ENLARGED FLOOR PLAN NOTES:

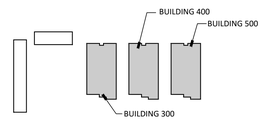
1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A79
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4. FINISH ALL GYPSUM BOARD EDGES PER DETAIL 1/A97
5. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS, SEE INTERIOR ELEVATIONS AND DETAILS 17/A97 18/A97
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   2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
10. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23/A100 24/A100

FLOOR PLAN LEGEND

- 2x8 WOOD STUDS @ 16" O.C.
- 2x6 WOOD STUDS @ 16" O.C.
- 2x4 WOOD STUDS @ 16" O.C.
- INDICATES 30"X48" CLEAR SPACE
- INDICATES 5' DIAMETER FLOOR ROTATION SPACE

ENLARGED FLOOR PLAN KEY NOTES, THIS SHEET ONLY:

1. ATTIC ACCESS LADDER, SEE 1/A101
2. HI-LO DRINKING FOUNTAIN w/ BOTTLE FILLER, SEE 13/A100
3. FIRE SPRINKLER RISER, SEE FIRE PROTECTION DWGS.
4. WATER HEATER, COORDINATE WITH PLUMBING & ELECTRICAL DWGS.



KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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REN. 05-31-27
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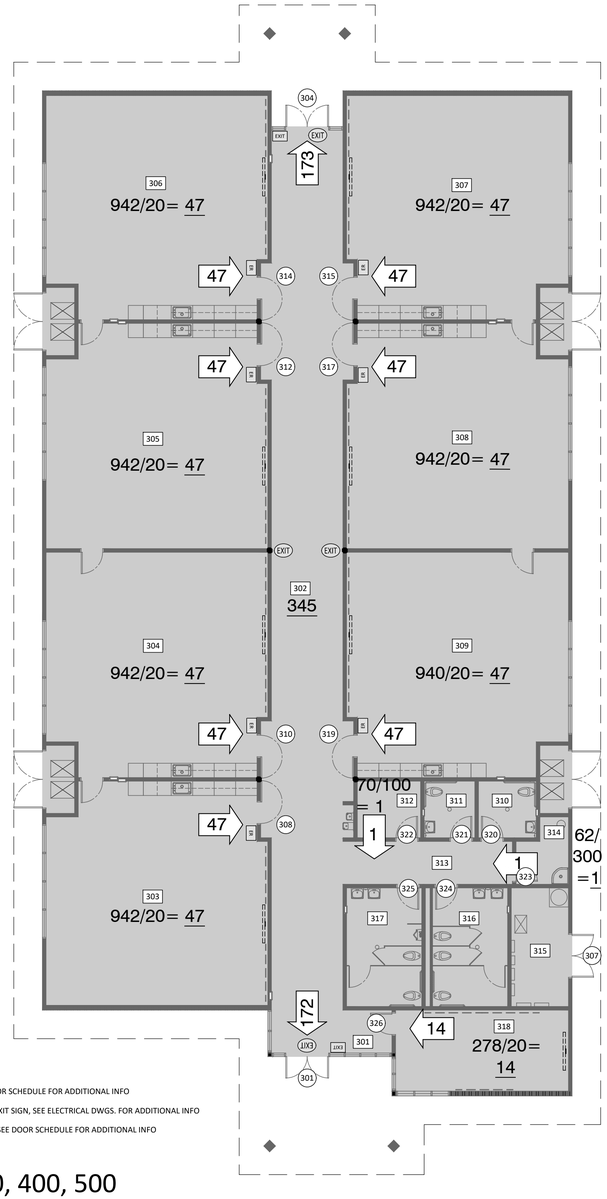
REVISIONS

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TITLE
BUILDINGS '300' '400' '500' ENLARGED FLOOR PLANS

A39

PROJECT 24042



EXIT TACTILE EXIT SIGN, SEE DOOR SCHEDULE FOR ADDITIONAL INFO

EXIT ILLUMINATED OVERHEAD EXIT SIGN, SEE ELECTRICAL DWGS. FOR ADDITIONAL INFO

ER TACTILE EXIT ROUTE SIGN, SEE DOOR SCHEDULE FOR ADDITIONAL INFO

BUILDING 300, 400, 500

EXIT ANALYSIS (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

SCALE: 1" = 10'-0"

EXIT ANALYSIS

BLDG.	ROOM #	NAME	OCCUP. GROUP	AREA (SF)	SQ.FT. / OCCUP.	# OCCUPANTS	TOTAL # OCCUPANTS	NUMBER OF REQUIRED EXITS CBC TABLE 1006.2.1	NUMBER OF PROVIDED EXITS CBC TABLE 1006.2.1	EGRESS WIDTH PER OCCUPANT SERVED CBC 1005.1	EXIT #	# OF OCC. THROUGH EXIT	REQ. EXIT WIDTH CALCULATION	EXIT WIDTH PROVIDED	DOOR ID #
BUILDING '300' (400 & 500 SIMILAR)	301	HALL	-	101	ANCILLARY		-	-	-	-	EXIT THROUGH ROOM 302				
	302	CORRIDOR	-	1,318	ANCILLARY		350	350 > 50 = 2 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	173	173 X 0.15" = 25.95"	68"	301
											EXIT 2	172	172 X 0.15" = 25.8"	68"	304
	303	CLASSROOM	E	942	20	47	47	47 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 308 TO ROOM 302				
	304	CLASSROOM	E	942	20	47	47	47 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 310 TO ROOM 302				
	305	CLASSROOM	E	942	20	47	47	47 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 312 TO ROOM 302				
	306	CLASSROOM	E	942	20	47	47	47 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 314 TO ROOM 302				
	307	CLASSROOM	E	942	20	47	47	47 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 315 TO ROOM 302				
	308	CLASSROOM	E	942	20	47	47	47 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 317 TO ROOM 302				
	309	CLASSROOM	E	940	20	47	47	47 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 319 TO ROOM 302				
	310	STAFF T.	-	64	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 320 TO ROOM 302				
	311	STAFF T.	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 321 TO ROOM 302				
	312	DATA	B	70	ACCESSORY 100	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 322 TO ROOM 302				
	313	HALL	-	115	ANCILLARY		-	-	-	-	EXIT THROUGH ROOM 302				
	314	JANITOR	B	68	ACCESSORY 300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 323 TO ROOM 302				
	315	ELECTRICAL	B	133	ACCESSORY 300	1	1	-	-	-	EXIT THROUGH DOOR 307				
	316	GIRLS	-	175	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 324 TO ROOM 302				
	317	BOYS	-	175	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 325 TO ROOM 302				
	318	CONFERENCE	E	278	20	14	14	14 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT THROUGH DOOR 326 TO ROOM 302				

CALCULATION JUSTIFICATION FOR AGGREGATE ACCESSORY OCCUPANCIES NOT EXCEEDING 10% OF MAIN OCCUPANCY (CBC 508.2.3)

BUILDING 300 (400 & 500 SIMILAR) IS A SINGLE-USE OCCUPANCY, GROUP 'E'.

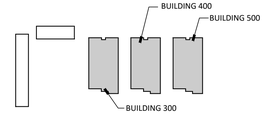
BUILDING 300 = 9,874 S.F.

BUILDING 300 AGGREGATE ACCESSORY OCCUPANCIES = 271 S.F.

10% OF 9,874 S.F. = 987.4 S.F.

TOTAL AGGREGATE ACCESSORY OCCUPANCY OF 271 S.F. < 987.4 S.F., THEREFORE OK.

north



KEY PLAN

APPROVALS

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TITLE
BUILDINGS '300' '400' '500' EXIT ANALYSIS

A40

PROJECT 24042

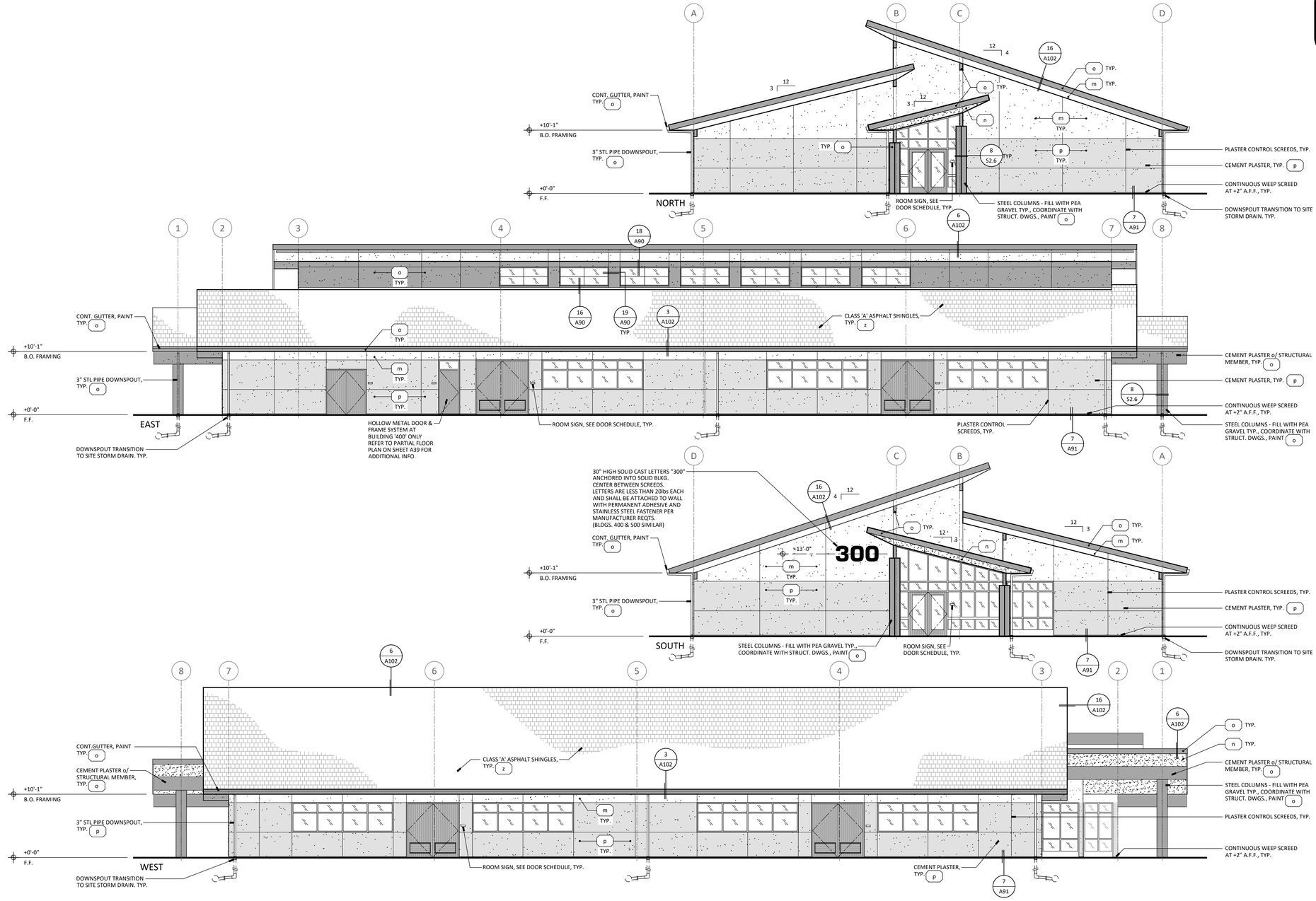
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EXTERIOR ELEVATION NOTES:

1. FOR DOOR SIGNAGE, REFER TO DOOR SCHEDULE & DETAIL 1/A84
2. FOR ALL WALL ASSEMBLIES REFER TO SHEET A79
3. FOR TYPICAL CEMENT PLASTER CONTROL SCREED, REFER TO DETAIL 3/A97
4. FOR TYPICAL DOWNSPOUT TO WALL ANCHORAGE, REFER TO DETAIL 10/A103 15/A103
5. FOR TYPICAL DOWNSPOUT TO STORM DRAIN CONNECTION, REFER TO DETAIL 9/A103 14/A103

BUILDING '300' '400' '500'

EXTERIOR ELEVATIONS (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

SCALE: 1/8" = 1'-0"

KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDINGS '300' '400' '500' EXTERIOR ELEVATIONS

A41

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_Building '300' '400' '500' Exterior Elevations.dwg Sep 16 2026 4:59pm

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

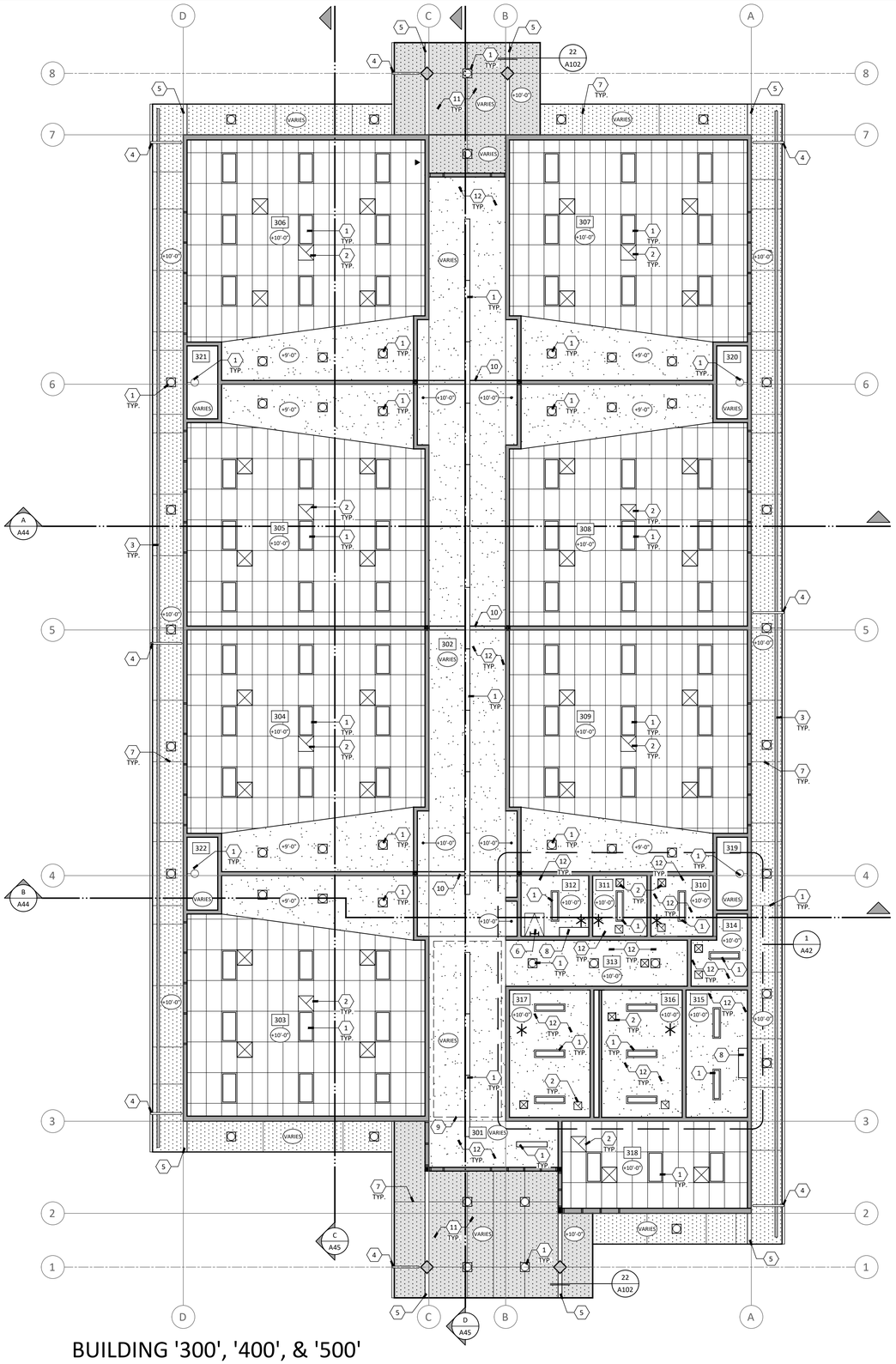
DATE: DECEMBER 18, 2025

REFLECTED CEILING PLAN LEGEND:

- CEMENT PLASTER SOFFIT/ OVERHANG SYSTEM SEE, 2/A97
- ELEVATION ABOVE FINISH FLOOR LEVEL. +X'-X"
- TAPED, TEXTURED AND PAINTED 5/8" THICK GYP. BD.
- ASTERISK INDICATES 3 1/2" SOUND ATTENUATION BATT INSULATION ABOVE CEILING
- 24" x 48" SUSP. LAY-IN CEILING SYSTEM, SEE FINISH SCHEDULE & -/A98 -/A99
- INDICATES 20" x 30" FRAMED OPENING ATTIC ACCESS FROM SUSPENDED LAY-IN CEILING SYSTEM

REFLECTED CEILING PLAN KEY NOTES THIS SHEET ONLY:

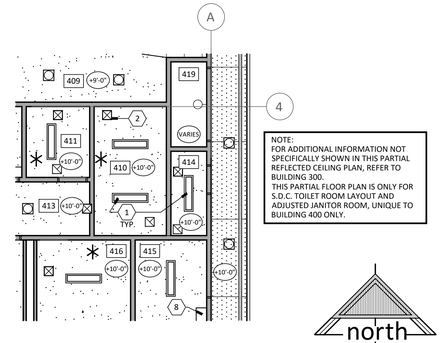
1. LIGHT FIXTURE AS SHOWN, SEE ELECTRICAL DWGS.
2. AIR REGISTER AS SHOWN, SEE MECHANICAL DWGS.
3. 4" CONTINUOUS SOFFIT VENT, TYP. PAINT TO MATCH ADJACENT SOFFIT
4. ROOF GUTTER SYSTEM AND DOWNSPOUT o
5. CEMENT PLASTER o/ STRUCTURAL MEMBER
6. 22" x 36" ATTIC ACCESS DOOR, SEE 3/A101
7. CEMENT PLASTER CONTROL SCREED, SEE 3/A97 ALIGN SOFFIT SCREEDS w/ WALL AND FASCIA SCREEDS
8. IDU, COORDINATE WITH MECHANICAL DWGS.
9. ROUTE ALL OVERHEAD CONDUIT AND PIPING THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA
10. BEAM PER STRUCTURAL DWGS., PAINT g
11. FILL CONCEALED SPACE w/ NONCOMBUSTIBLE INSULATION, TYP. SHOWN SHADED
12. ROOF ASSEMBLY ABOVE CEILING IN THIS ROOM SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL 24/A104 FOR ADDITIONAL INFORMATION



BUILDING '300', '400', & '500'

REFLECTED CEILING PLAN (BUILDING '300' SHOWN, BUILDINGS '400' & '500' SIMILAR)

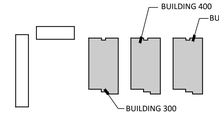
SCALE: 1/8" = 1'-0"



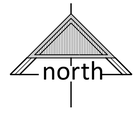
BUILDING '400' PARTIAL

REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"



KEY PLAN

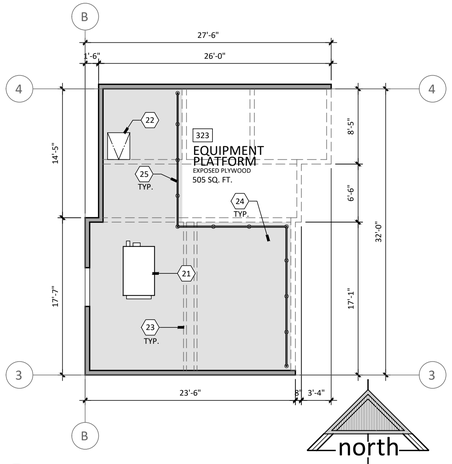


EQUIPMENT PLATFORM PLAN KEY NOTES THIS SHEET ONLY:

21. AIR HANDLER, SEE MECHANICAL DWGS.
22. 22" x 36" ATTIC ACCESS DOOR, SEE 3/A101
23. WALL LINE BELOW SHOWN DASHED
24. PLYWOOD DECK o/ CEILING FRAMING, SHOWN SHADED, SEE STRUCTURAL DWGS.
25. 42" HIGH GUARDRAIL, FOR ANCHORAGE SEE 14/A101

FLOOR PLAN LEGEND

2x6 / 3x6 WOOD STUDS @ 16" O.C., SEE STRUCTURAL DWGS.



1 EQUIPMENT PLATFORM

SCALE: 1/8" = 1'-0"

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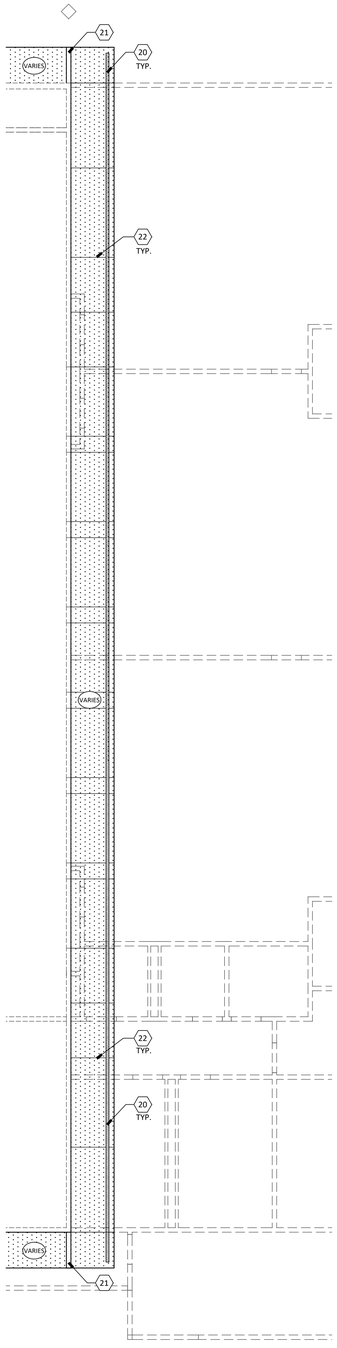
MANGINI ASSOCIATES INC.
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TITLE
BUILDINGS '300' '400' '500' REFLECTED CEILING PLAN

A42

PROJECT 24042



REFLECTED CEILING PLAN LEGEND:

CEMENT PLASTER SOFFIT/ OVERHANG SYSTEM SEE, 2 / A97

"X'-X"" ELEVATION ABOVE FINISH FLOOR LEVEL.

REFLECTED CEILING PLAN KEY NOTES THIS SHEET ONLY:

20 4" CONTINUOUS SOFFIT VENT, TYP.

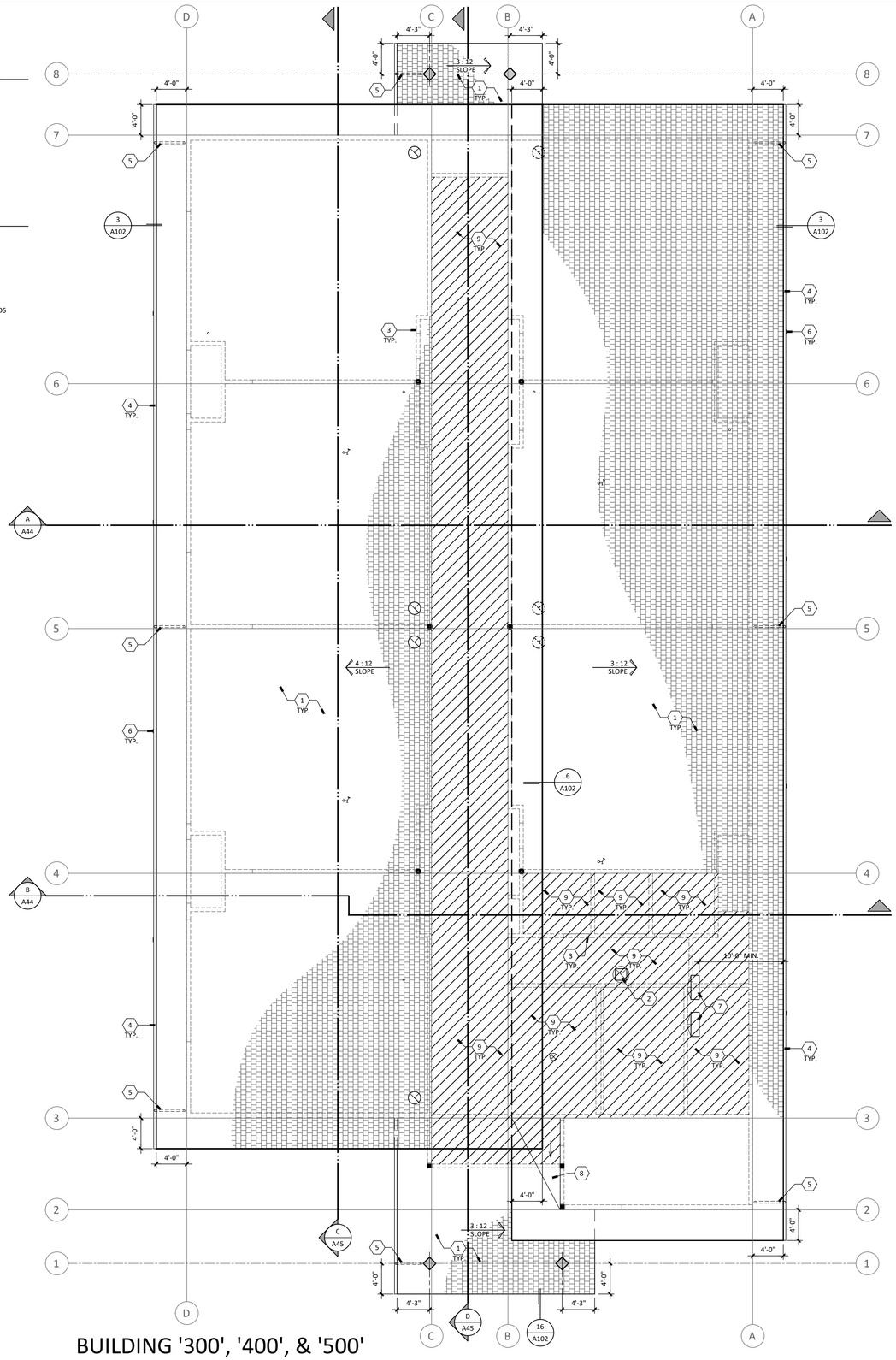
21 CEMENT PLASTER o/ STRUCTURAL MEMBER

22 CEMENT PLASTER CONTROL SCREED, SEE 3 / A97 ALIGN SOFFIT SCREEDS w/ WALL AND FASCIA SCREEDS

BUILDING '300', '400', & '500'

REFLECTED CEILING AT HIGH ROOF

SCALE: 1/8" = 1'-0"



ROOF PLAN NOTES:

1. AT ASPHALT SHINGLE ROOFS WITH LESS THAN 4:12 SLOPE, PROVIDE A SECOND LAYER OF UNDERLAYMENT. SEE SPEC. SECTION 07 3100 FOR ADDITIONAL INFO.

ROOF PLAN KEY NOTES THIS SHEET ONLY:

1 CLASS 'A' ASPHALT SHINGLES 25 / A104

2 ROOF EXHAUST FANS, COORDINATE w/ MECHANICAL DWGS.

3 WALL LINE BELOW SHOWN DASHED FOR CLARITY

4 24 GA. CONT. PREFINISHED GUTTER SYSTEM

5 3" STL. PIPE DOWNSPOUT, COORDINATE w/ CIVIL DWGS.

6 GUTTER EXPANSION JOINT

7 MECHANICAL UNIT & CURB , COORDINATE WITH MECHANICAL & STRUCTURAL DWGS.

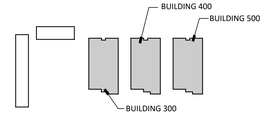
8 WATER DIVERSION CRICKET, SEE DETAIL 23 / A103

9 ROOF ASSEMBLY BELOW (SHOWN CROSS HATCHED) SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL 24 / A104 FOR ADDITIONAL INFORMATION

BUILDING '300', '400', & '500'

ROOF PLAN (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

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KEY PLAN

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TITLE
BUILDINGS '300' '400' '500' ROOF PLANS & RCP AT HIGH ROOF

A43

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_Building '300' '400' '500' Roof Plan.dwg Sep 16 2026 4:59pm

APPROVALS

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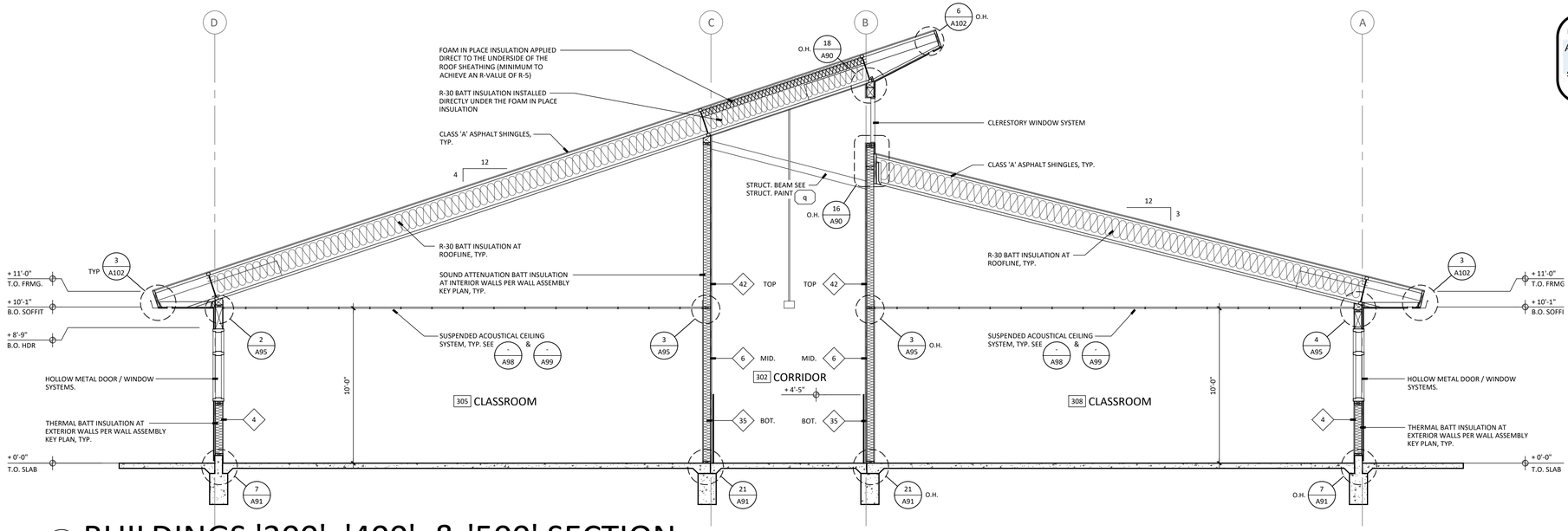
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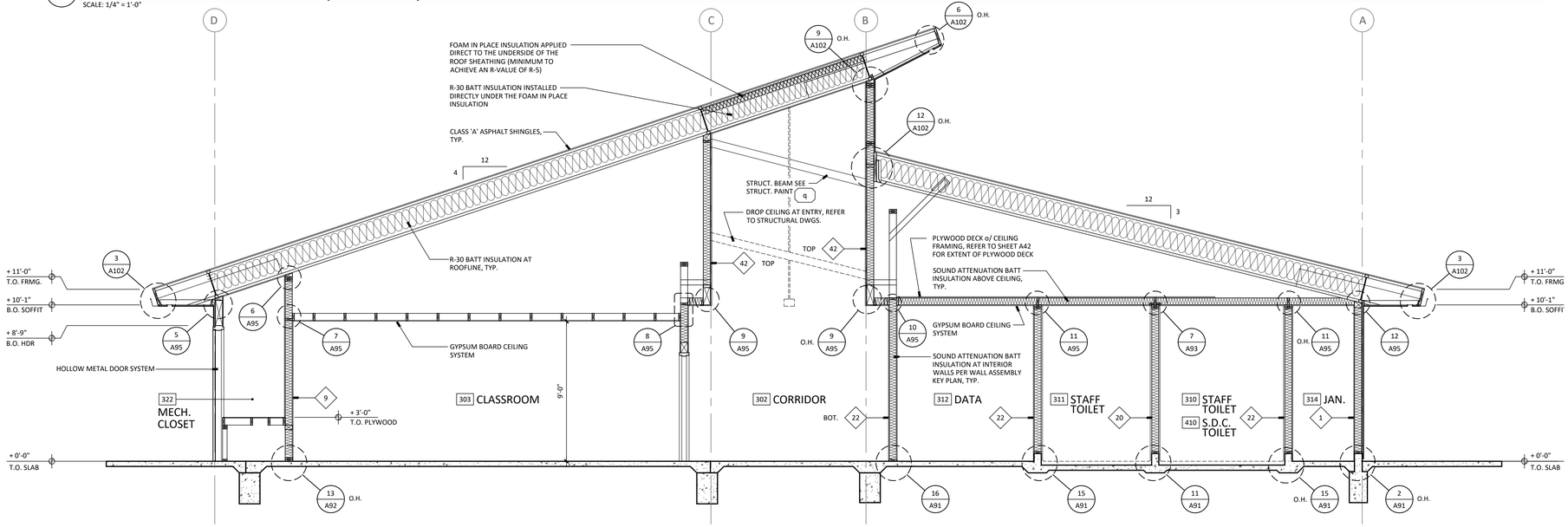
BUILDING SECTION LEGEND

X — WALL ASSEMBLY CALLOUT, REFER TO SHEET A79



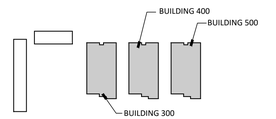
A BUILDINGS '300', '400', & '500' SECTION

SCALE: 1/4" = 1'-0"



B BUILDINGS '300', '400', & '500' SECTION

SCALE: 1/4" = 1'-0"



KEY PLAN

BUILDING '300', '400', & '500'

SECTIONS (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

SCALE: 1/4" = 1'-0"

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TITLE
BUILDINGS '300' '400' '500' SECTIONS

A44

PROJECT 24042

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APPROVALS

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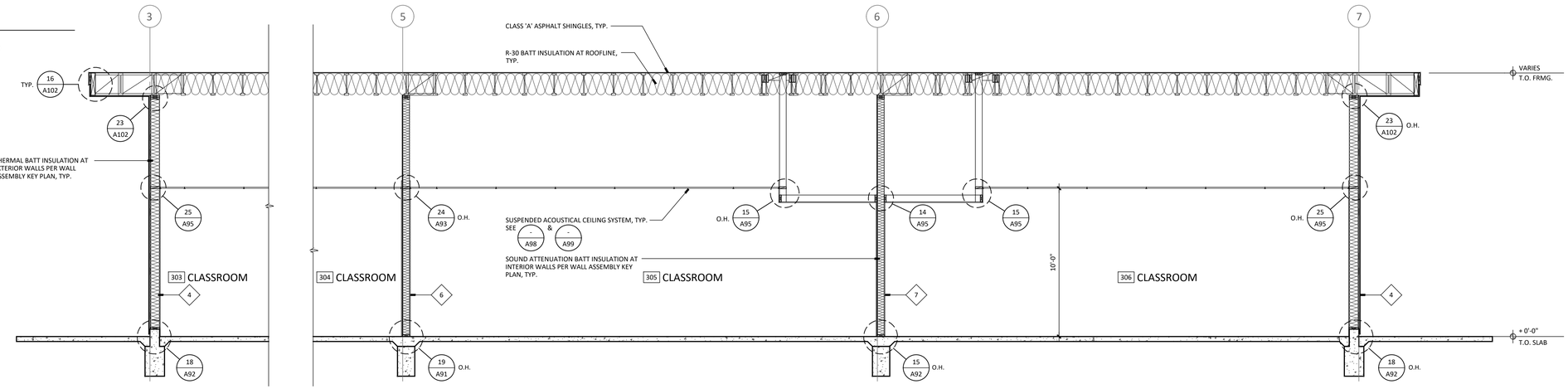
TITLE
BUILDINGS '300' '400' '500' SECTIONS

A45

PROJECT 24042

BUILDING SECTION LEGEND

X WALL ASSEMBLY CALLOUT, REFER TO SHEET A79



C BUILDINGS '300', '400', & '500' SECTION

SCALE: 1/4" = 1'-0"

D BUILDINGS '300', '400', & '500' SECTION

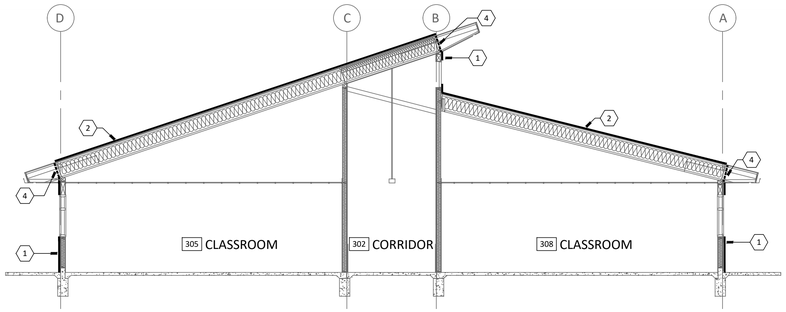
SCALE: 1/4" = 1'-0"

KEY PLAN

BUILDING '300', '400', & '500'

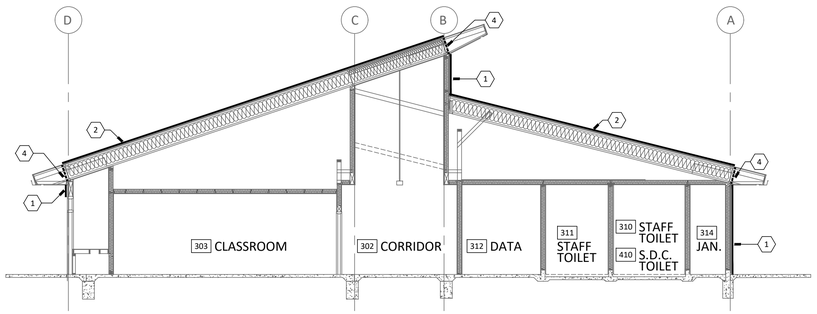
SECTIONS (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

SCALE: 1/4" = 1'-0"



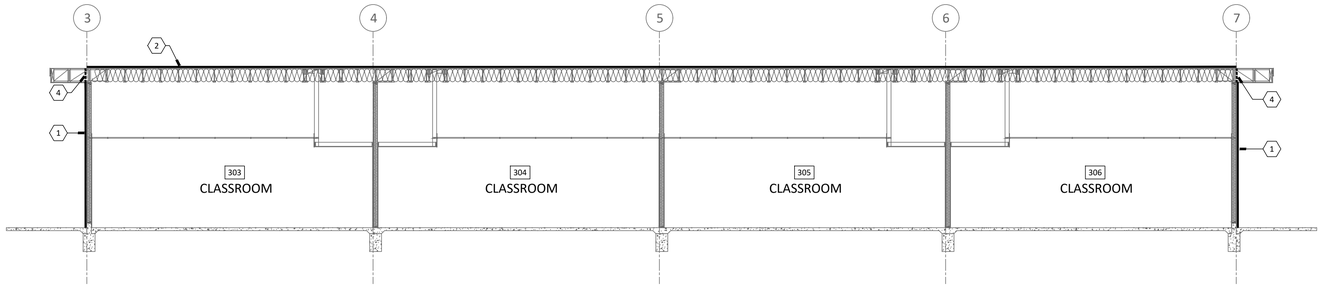
A BUILDINGS '300', '400', & '500' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



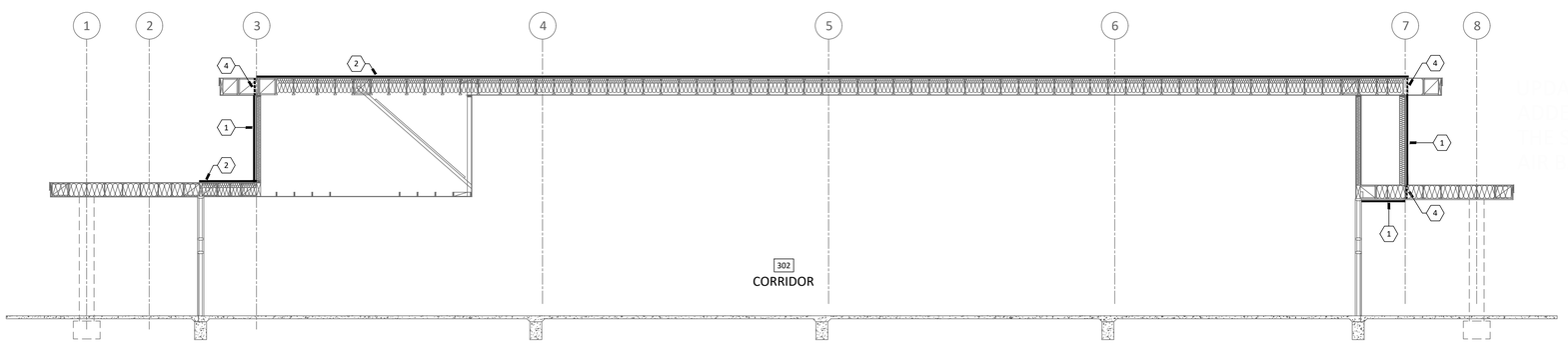
B BUILDINGS '300', '400', & '500' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



C BUILDINGS '300', '400', & '500' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



D BUILDINGS '300', '400', & '500' AIR BARRIER SECTION

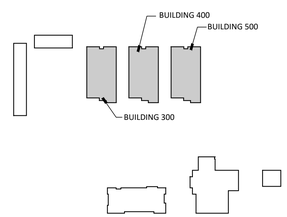
SCALE: 1/8" = 1' 0"

AIR BARRIER SECTION NOTES

1. BRIDGE AND SEAL AIR LEAKAGE PATHWAYS AND GAPS, INCLUDING, BUT NOT LIMITED TO:
   -CONNECTIONS OF THE WALLS TO THE ROOF AND AIR BARRIER
   -CONNECTIONS TO THE WALLS TO THE FOUNDATIONS
   -SEISMIC AND EXPANSION JOINTS
   -OPENINGS AND PENETRATIONS OF WINDOW AND DOOR FRAMES, STORE FRONT, CURTAIN WALL
   -PIPING, CONDUIT, DUCT, AND SIMILAR PENETRATIONS
   -MASONRY TIES, SCREWS, BOLTS, AND SIMILAR PENETRATIONS
   -FLASHING AND SHEET METAL ASSEMBLIES
   -ALL OTHER AIR LEAKAGE PATHWAYS IN THE BUILDING ENVELOPE
   -PLYWOOD JOINTS
2. REFER TO 07 2700 AIR BARRIER SYSTEM FOR ADDITIONAL INFORMATION

AIR BARRIER SECTION KEYNOTES

1. CEMENT PLASTER & PLYWOOD AS AIR BARRIER WHERE SHOWN
2. ASPHALT SHINGLE ROOFING SYSTEM & PLYWOOD AS AIR BARRIER WHERE SHOWN
3. NOT USED
4. FOAM-IN-PLACE TO COMPLETE AIR BARRIER
5. BUILT-UP ROOFING SYSTEM AS AIR BARRIER



KEY PLAN

APPROVALS

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REVISIONS

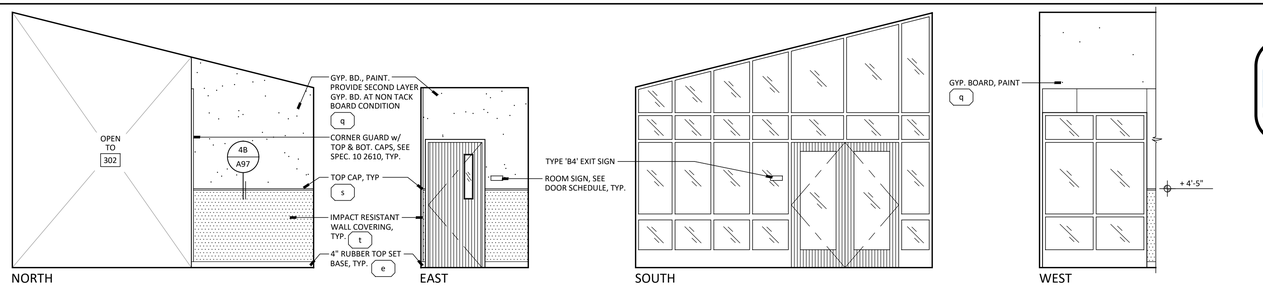
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TITLE
BUILDINGS '300' '400' '500' AIR BARRIER SECTIONS

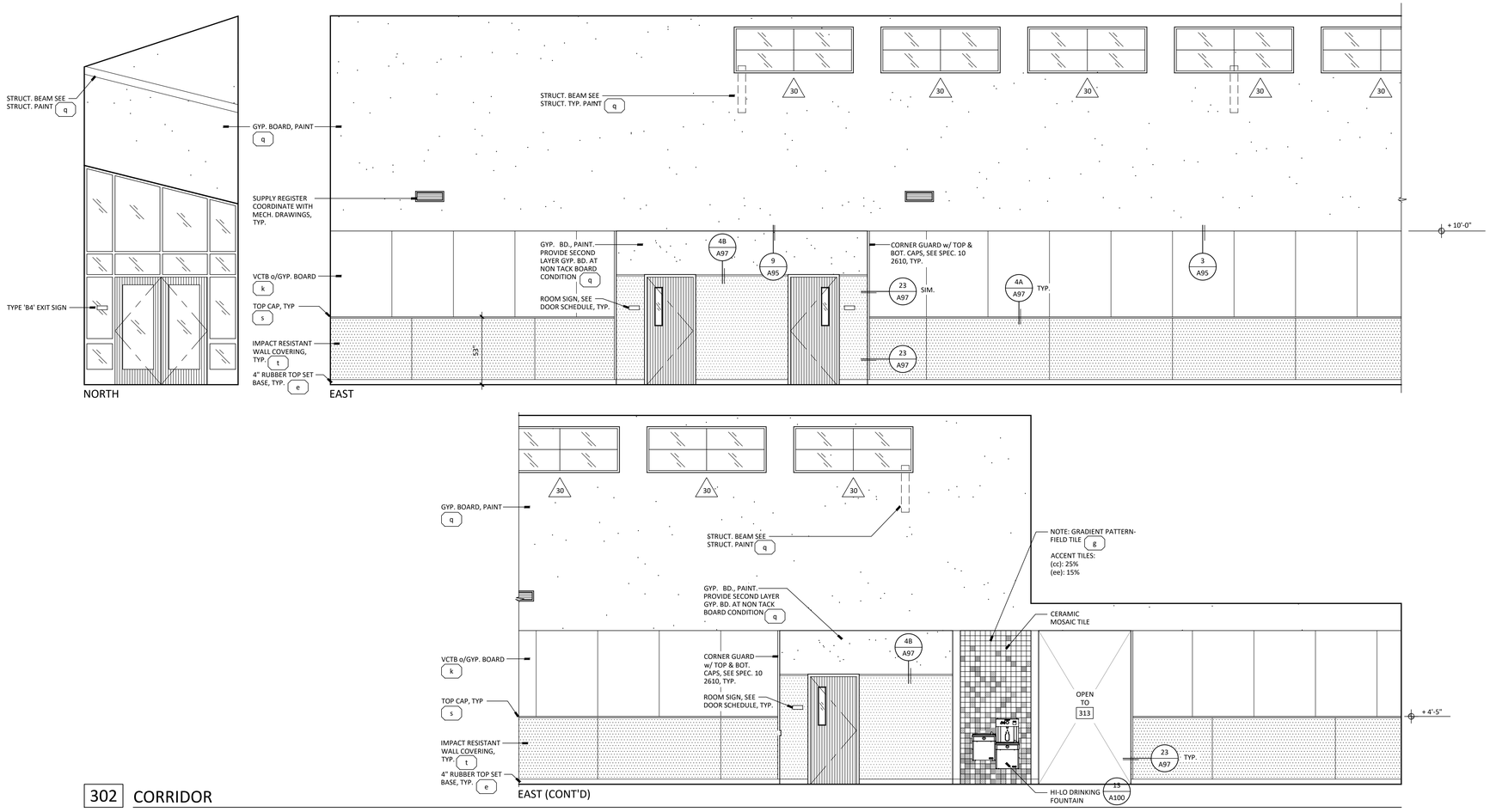
A46

PROJECT 24042

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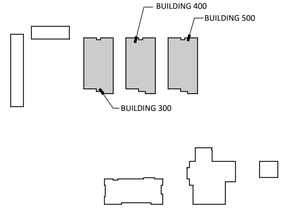
301 HALL



302 CORRIDOR

INTERIOR ELEVATION NOTES

1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13 A96 U.O.N.
2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS 17 A97, 18 A97 U.O.N.
3. FOR TYPICAL CABINET ANCHORAGE SEE DETAIL 1 A96
4. REFER TO SPECIFICATIONS FOR TOILET ACCESSORY ABBREVIATIONS.
5. ANY ACCESSORIES SHOWN N.I.C. SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR TO PROVIDE SOLID BLOCKING & INSTALLATION AT LOCATION SHOWN AS REQUIRED.
6. REFER TO FINISH SCHEDULE SHEETS FOR DESIGNATION OF WALL FINISHES.
7. ( ) = MATERIAL DEFINITION, REFER TO SHEETS A72
8. FOR TYPICAL GYPSUM BOARD EDGE SEE DETAIL 1 A97
9. ANY DISCREPANCY BETWEEN THE LOCATION OF DEVICES, FIXTURES, ETC., SHOWN HERE AND ON ANY PLUMBING, ELECTRICAL OR MECHANICAL SHEETS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO LAYOUT.
10. = A.D.A. ACCESSIBLE, SEE CABINET DETAIL 12 A96
11. FOR SIGN TEXT REFER TO DOOR SCHEDULE. FOR TYPES AND LOCATION SEE DETAIL 1 A84
12. FOR MARKER BOARD BLOCKING & ATTACHMENT SEE DETAIL 17 A96
13. FOR TV & SMART BOARD MONITOR BRACKET BLOCKING & ATTACHMENT SEE DETAIL 18 A96
14. FOR TYPICAL FIRE EXTINGUISHER CABINET (F.E.C.) MOUNTING, SEE DETAIL 10 A97
15. FOR GRAB BAR ANCHORAGE AT TOILETS, SEE DETAIL 8 A97
16. FOR TYPICAL TOILET PARTITION ANCHORAGE, SEE DETAIL 9A A97, 9B A97
17. FOR ACCESSIBLE LAVATORY, SEE DETAILS 6 A97, 7 A97
18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
19. FOR TYPICAL RUBBER TOPSET BASE AND CERAMIC TILE BASE, SEE DETAILS 21 A97, 22 A97
20. REFER TO DETAIL FOR TILE PATTERN 1 A73



KEY PLAN

BUILDINGS '300', '400', & '500'
INTERIOR ELEVATIONS (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

SCALE: 1/4" = 1'-0"

APPROVALS

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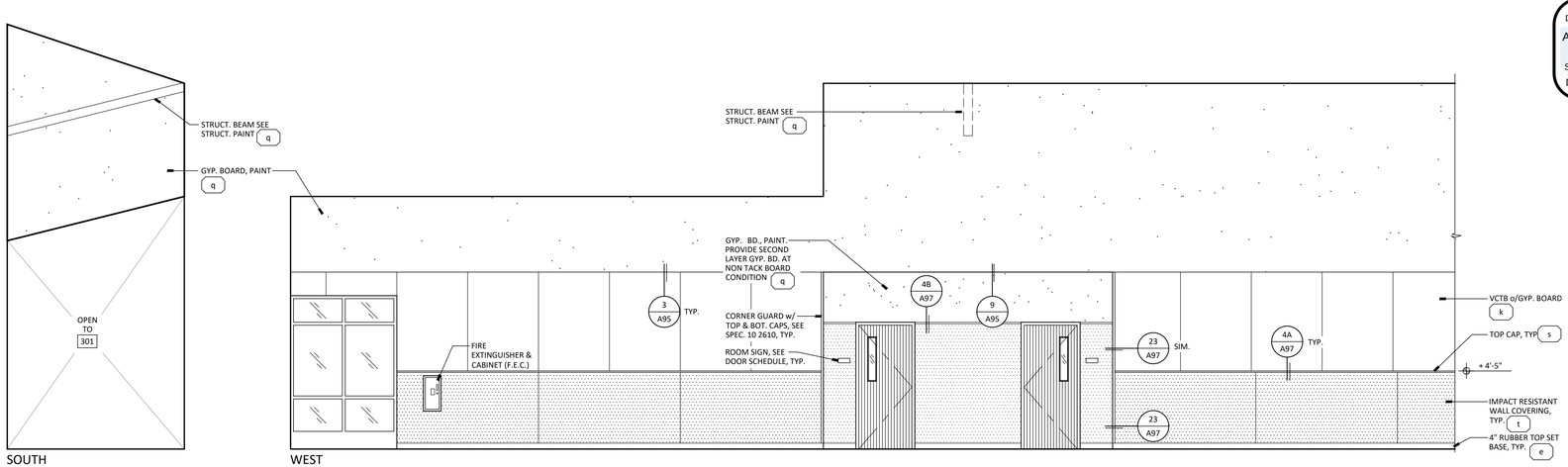
REVISIONS

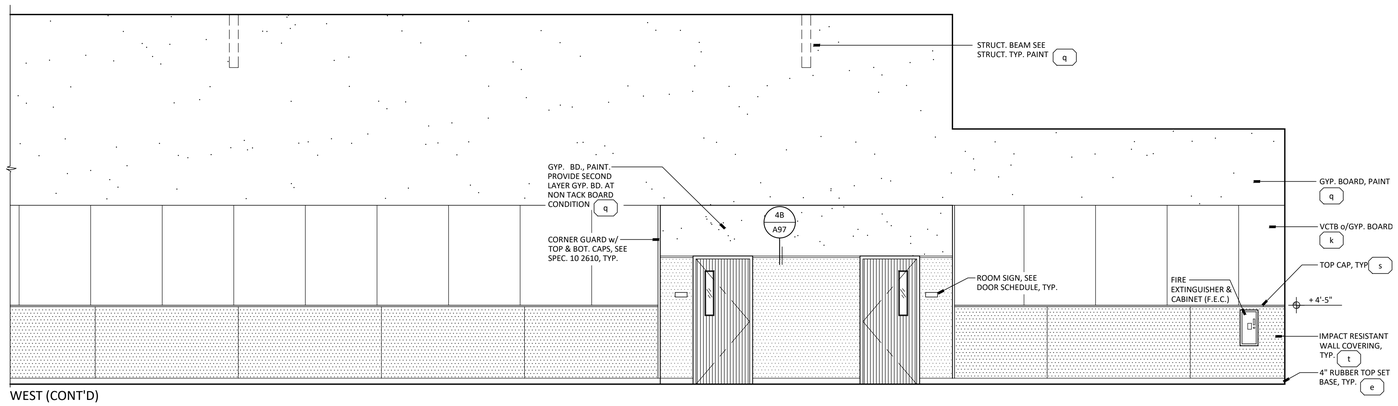
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INTERIOR ELEVATIONS

A47

PROJECT 24042

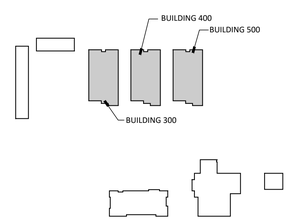




302 CORRIDOR (CONT'D)

INTERIOR ELEVATION NOTES

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2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS U.O.N. 17/A97 18/A97
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KEY PLAN

BUILDINGS '300', '400', & '500'

INTERIOR ELEVATIONS (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

SCALE: 1/4" = 1'-0"

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_Building '300' '400' '500' Interior Elevations.dwg Sep 16 2026 5:00pm

APPROVALS

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APP: 02-123774 INC:
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
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(559) 627.1926 Fax

TITLE
BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS

A48

PROJECT 24042

CLASSROOM TECHNOLOGY STANDARDS

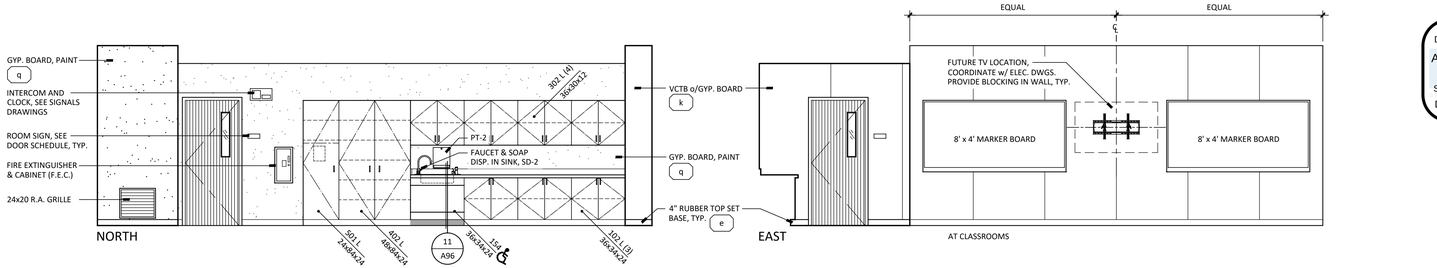
PER SANGER UNIFIED SCHOOL DISTRICT STANDARDS:

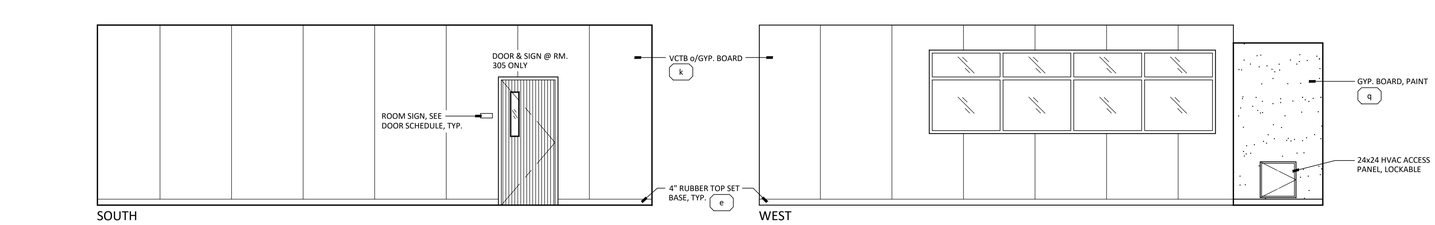
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35" FLOOR TO BOTTOM OF MOUNT
29" FLOOR TO BOTTOM OF SCREEN

GRADES: 3-6 SHALL HAVE 65" TVs
64" FLOOR TO BOTTOM OF MOUNT
48"-50" FLOOR TO BOTTOM OF TV SCREEN

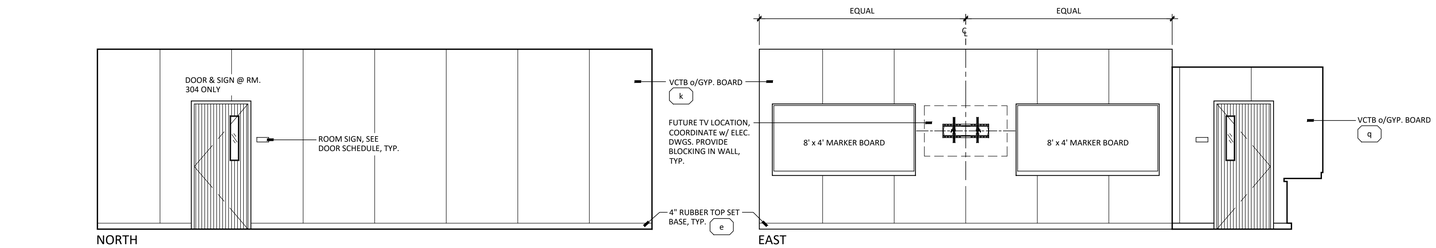
TOP OF MARKER BOARDS TO BE FLUSH WITH TOP OF INTERACTIVE SMART BOARD / TV

CLASSROOM #	GRADE
303	1
304	1
305	1
306	1
307	2
308	2
309	1
403	3
404	2
405	2
406	2
407	3
408	3
409	3
503	4
504	4
505	4
506	5
507	5
508	6
509	6





303 305 CLASSROOM



304 306 CLASSROOM

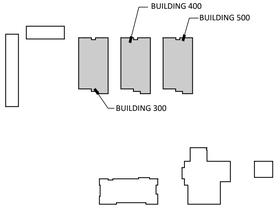
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BUILDINGS '300', '400', & '500'
INTERIOR ELEVATIONS (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

SCALE: 1/4" = 1'-0"

KEY PLAN



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A49

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_Building '300' '400' '500' Interior Elevations.dwg Sep 16 2026 5:00pm

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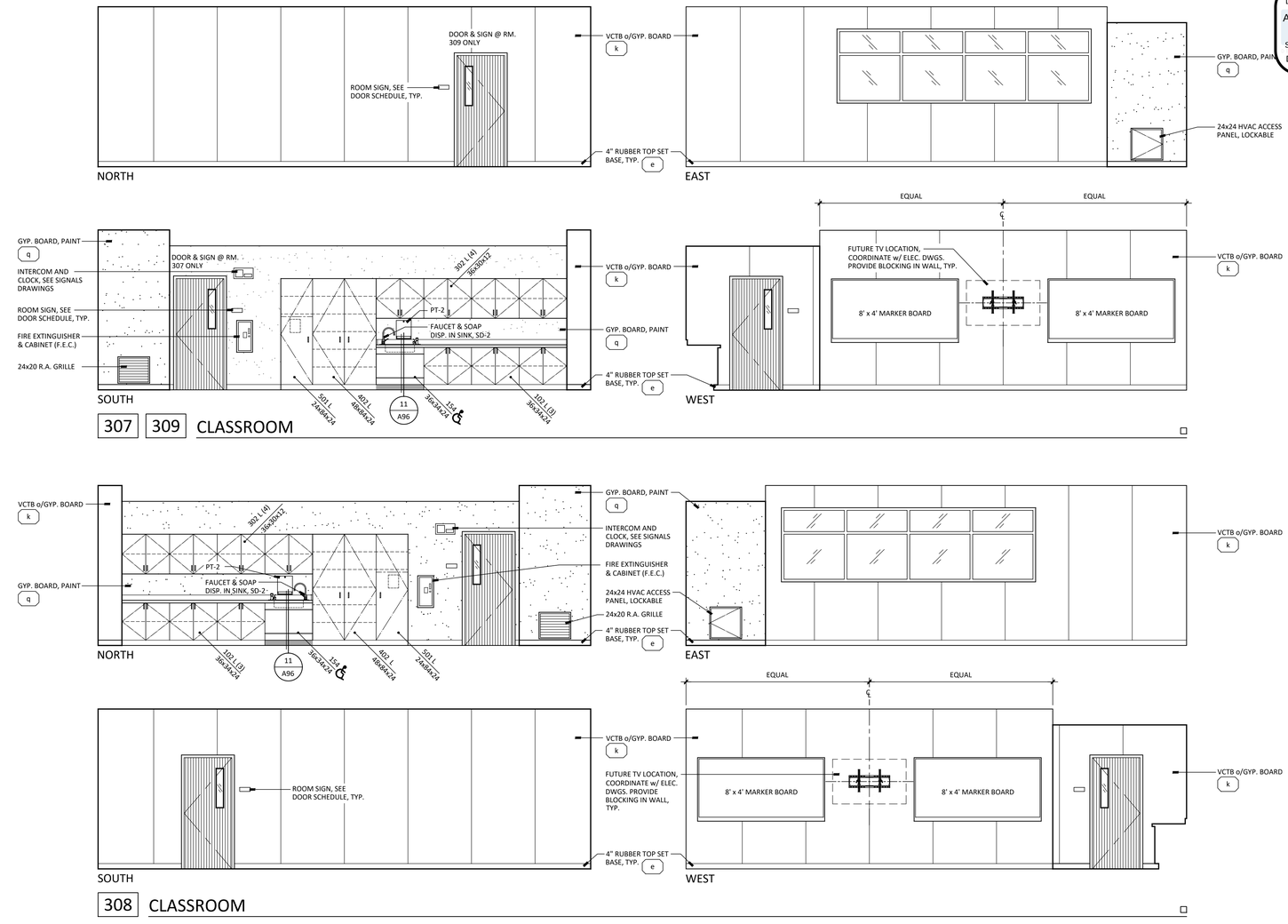
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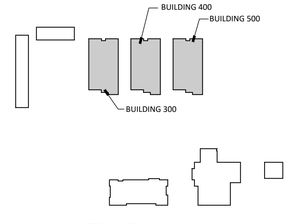
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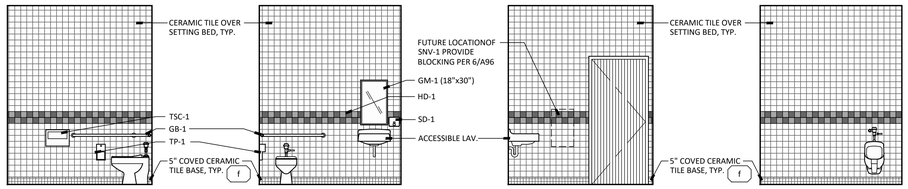
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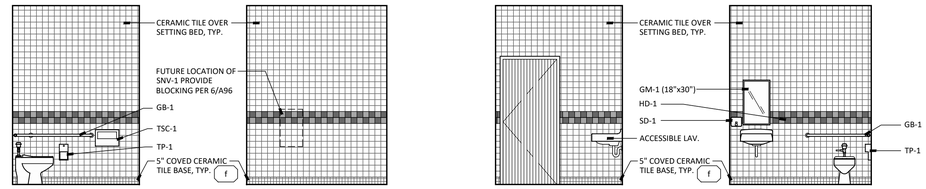
TITLE
BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS

A50

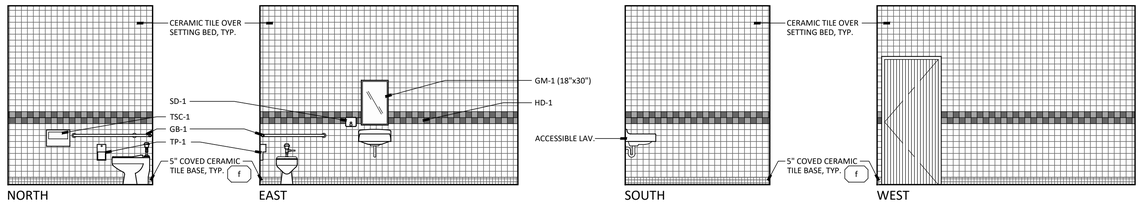
PROJECT 24042



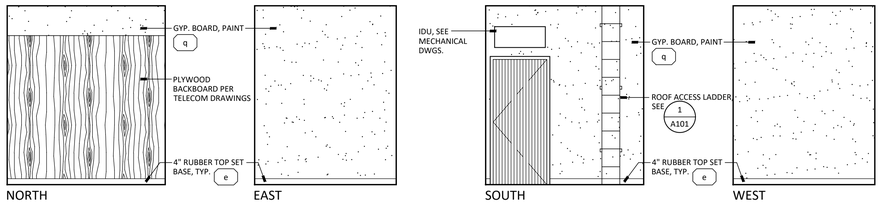
310 STAFF TOILET REFER TO 18/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - ADULT



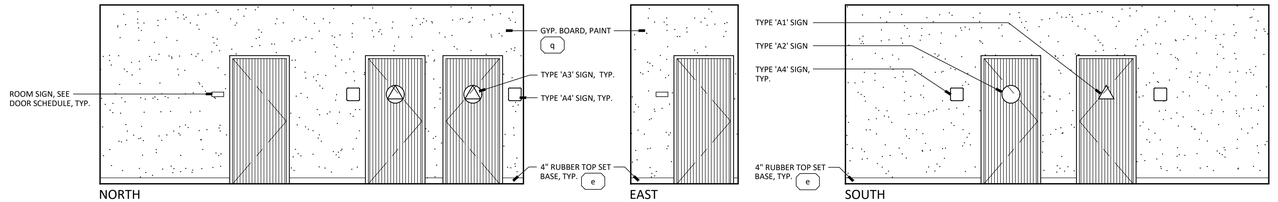
311 UNISEX REFER TO 17/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - AGES 9-12



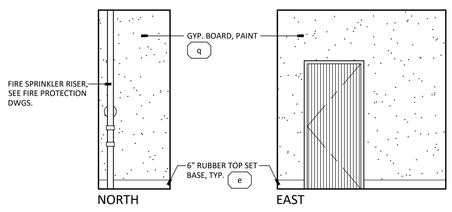
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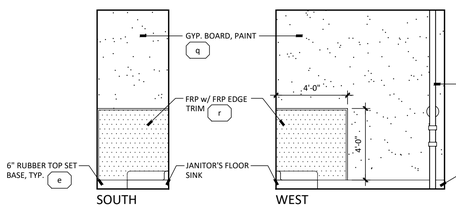


312 DATA

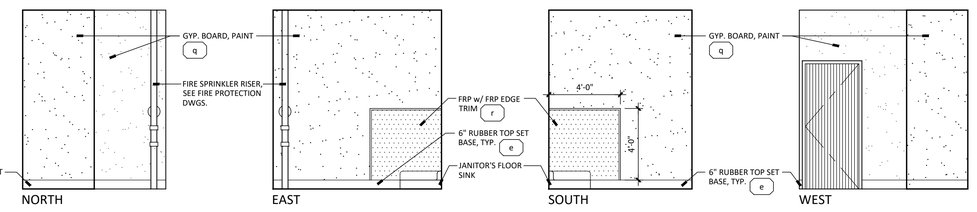


313 HALL





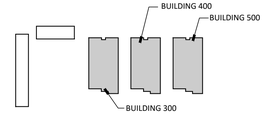
414 JANITOR



314 JANITOR

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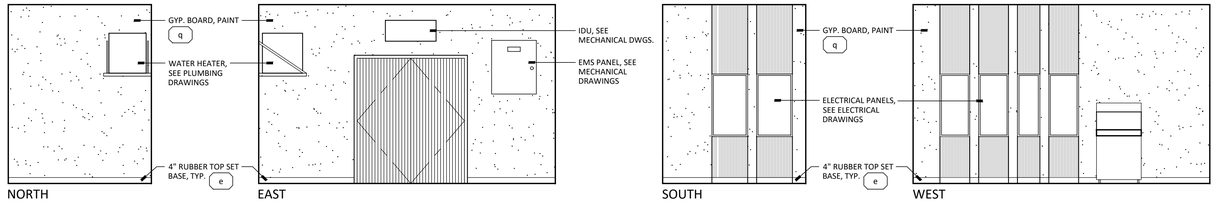
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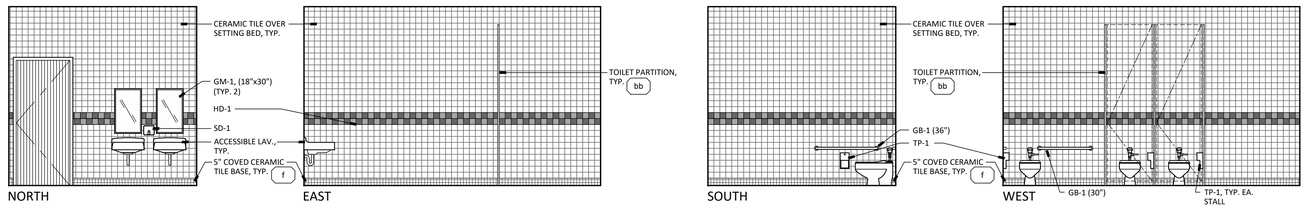
TITLE
BUILDINGS '300' '400' '500'
INTERIOR ELEVATIONS

A51

PROJECT 24042

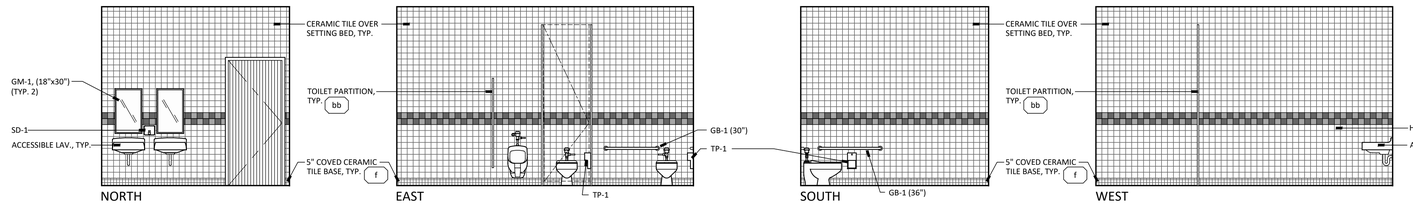


315 ELECTRICAL



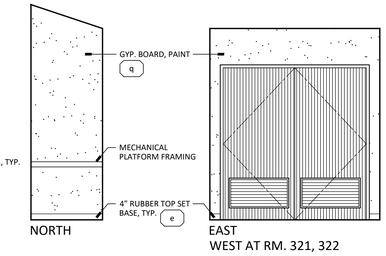
316 GIRLS

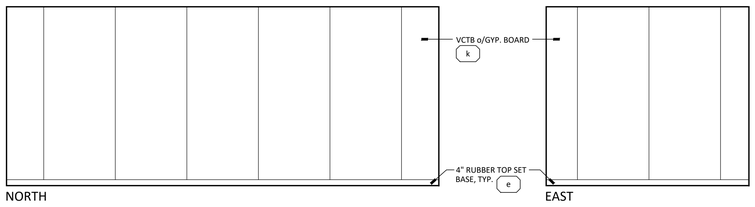
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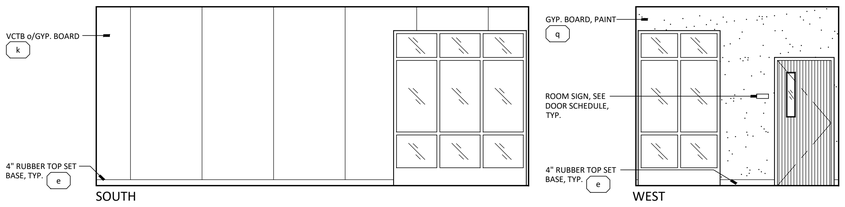


317 BOYS

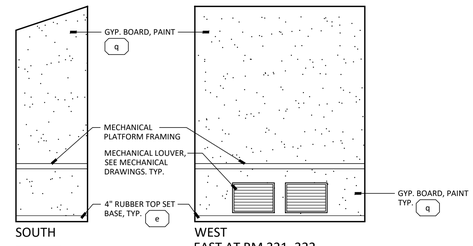
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318 CONFERENCE ROOM



319 MECH. CLOSET

RM. 320 SIM.
RM. 321, 322 O.H.

INTERIOR ELEVATION NOTES

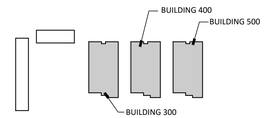
1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13/A96 U.O.N.
2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS 17/A97 18/A97 U.O.N.
3. FOR TYPICAL CABINET ANCHORAGE SEE DETAIL 1/A96
4. REFER TO SPECIFICATIONS FOR TOILET ACCESSORY ABBREVIATIONS.
5. ANY ACCESSORIES SHOWN N.I.C. SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR TO PROVIDE SOLID BLOCKING & INSTALLATION AT LOCATION SHOWN AS REQUIRED.
6. REFER TO FINISH SCHEDULE SHEETS FOR DESIGNATION OF WALL FINISHES.
7. ( ) = MATERIAL DEFINITION, REFER TO SHEETS A72
8. FOR TYPICAL GYPSUM BOARD EDGE SEE DETAIL 1/A97
9. ANY DISCREPANCY BETWEEN THE LOCATION OF DEVICES, FIXTURES, ETC., SHOWN HERE AND ON ANY PLUMBING, ELECTRICAL OR MECHANICAL SHEETS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO LAYOUT.
10. = A.D.A. ACCESSIBLE, SEE CABINET DETAIL 12/A96
11. FOR SIGN TEXT REFER TO DOOR SCHEDULE. FOR TYPES AND LOCATION SEE DETAIL 1/A84
12. FOR MARKER BOARD BLOCKING & ATTACHMENT SEE DETAIL 17/A96
13. FOR TV & SMART BOARD MONITOR BRACKET BLOCKING & ATTACHMENT SEE DETAIL 18/A96
14. FOR TYPICAL FIRE EXTINGUISHER CABINET (F.E.C.) MOUNTING, SEE DETAIL 10/A97
15. FOR GRAB BAR ANCHORAGE AT TOILETS, SEE DETAIL 8/A97
16. FOR TYPICAL TOILET PARTITION ANCHORAGE, SEE DETAIL 9A/A97 9B/A97
17. FOR ACCESSIBLE LAVATORY, SEE DETAILS 6/A97 7/A97
18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
19. FOR TYPICAL RUBBER TOPSET BASE AND CERAMIC TILE BASE, SEE DETAILS 21/A97 22/A97
20. REFER TO DETAIL FOR TILE PATTERN 1/A73

BUILDINGS '300', '400', & '500'

INTERIOR ELEVATIONS (BUILDING '300' SHOWN, BUILDINGS '400'& '500' SIMILAR)

SCALE: 1/4" = 1'-0"

KEY PLAN



APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

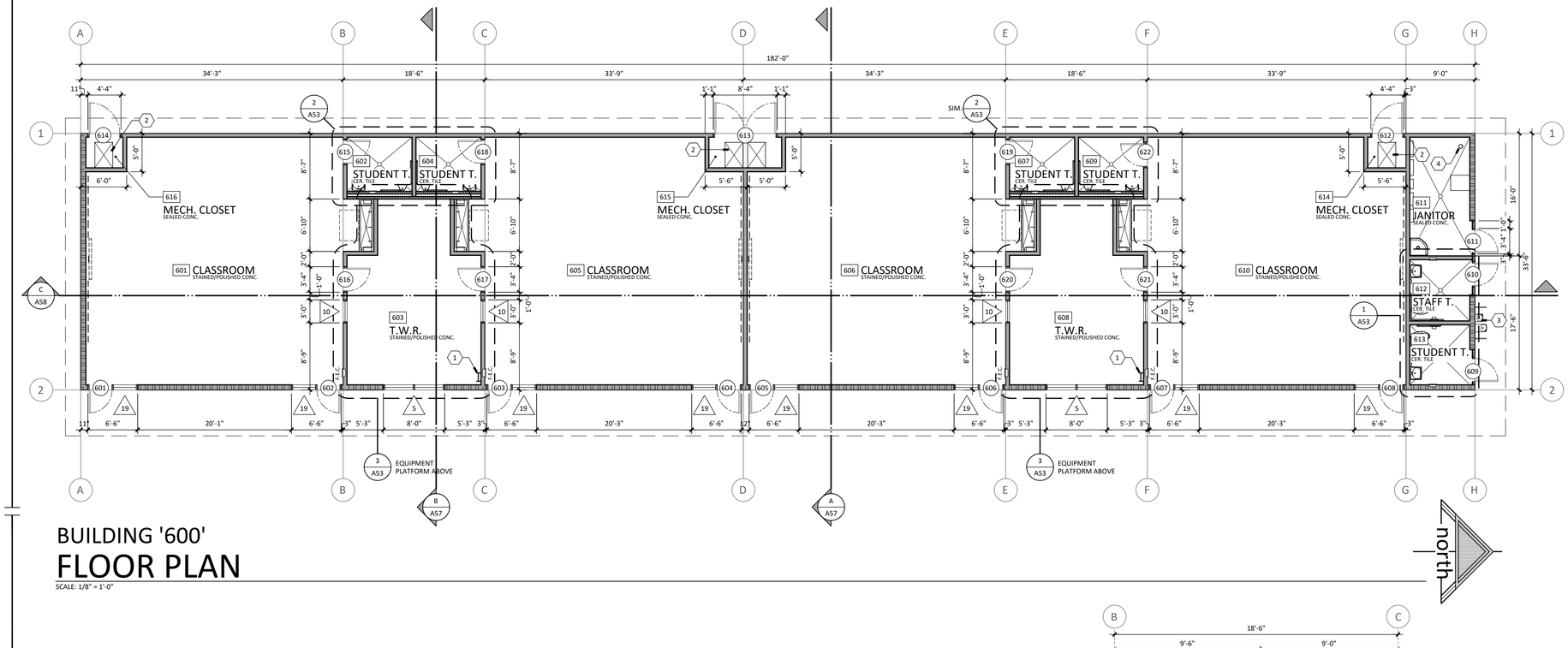
REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDINGS '300' '400' '500' INTERIOR ELEVATIONS

A52

PROJECT 24042



BUILDING '600'

FLOOR PLAN

SCALE: 1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES:

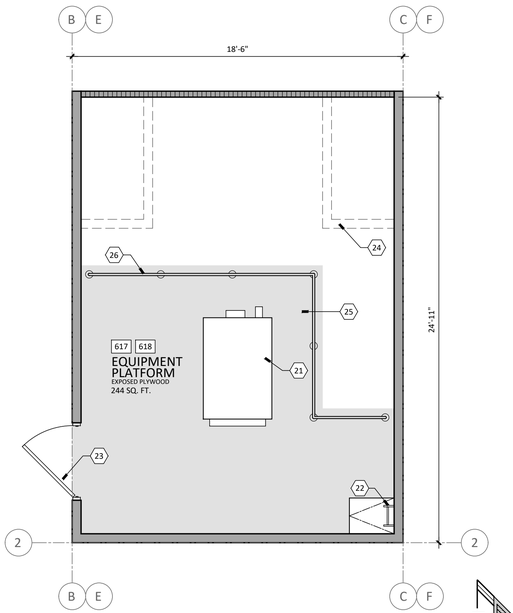
1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A80
3. WHERE SOUND INSULATION OR THERMAL INSULATION IS SHOWN ON WALL ASSEMBLY, INSULATION SHALL BE INSTALLED FULL HEIGHT OF WALL. REFER TO SPEC SECTION 07 2100
4. FINISH ALL GYPSUM BOARD EDGES PER DETAIL 1/A97
5. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS, SEE INTERIOR ELEVATIONS AND DETAILS 16/A97 18/A97
6. REFER TO ELEVATIONS AND DOOR SCHEDULE FOR ALL ROOM AND BUILDING SIGNAGE.
7. SEAL PENETRATIONS IN RATED WALLS PER DETAIL 15/A97
8. REFER TO SHEET A54 FOR EXIT ANALYSIS
9. FIREBLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUDS AND PARTITIONS, INCLUDING FURRED SPACES, AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS: 1. VERTICALLY AT CEILING AND FLOOR LEVELS. 2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
10. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23/A100 24/A100

FLOOR PLAN LEGEND:

- 2X8 WOOD STUDS @ 16" O.C.
- 2X6 WOOD STUDS @ 16" O.C.
- 2X4 WOOD STUDS @ 16" O.C.
- # FRAME TYPE, SEE FRAME TYPE SCHEDULE REFER TO SHEETS A87 & A88
- # ROOM NUMBER, FLOOR FINISH MATERIAL
- F.E.C. FIRE EXTINGUISHER AND CABINET, REFER TO INTERIOR ELEVATIONS

FLOOR PLAN KEY NOTES, THIS SHEET ONLY:

1. ATTIC ACCESS LADDER, SEE 1/A101
2. MECHANICAL UNITS, COORDINATE WITH MECHANICAL & ELECTRICAL DWGS.
3. HI-LO DRINKING FOUNTAIN w/ BOTTLE FILLER, SEE 13/A100
4. FIRE SPRINKLER RISER, SEE FIRE PROTECTION DWGS.



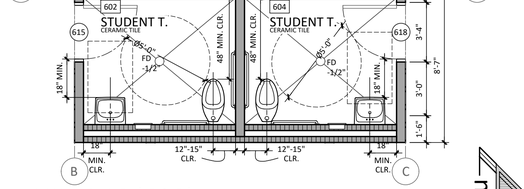
BUILDING '600'

3 EQUIPMENT PLATFORM

SCALE: 1/4" = 1'-0"

EQUIPMENT PLATFORM PLAN KEY NOTES, THIS SHEET ONLY:

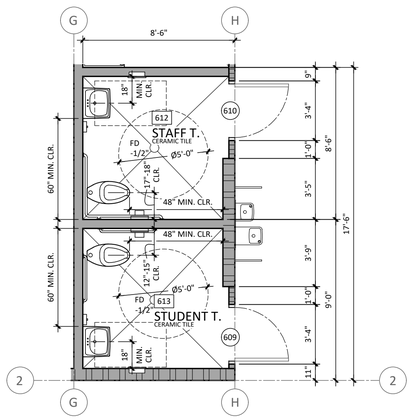
21. AIR HANDLER, SEE MECHANICAL DWGS.
22. FLOOR ACCESS DOOR & LADDER, SEE 8/A101
23. 48" x 48" WALL ACCESS DOOR
24. WALL LINE BELOW SHOWN DASHED
25. PLYWOOD DECK o/ CEILING FRAMING, SHOWN SHADED, SEE STRUCTURAL DWGS.
26. 42" HIGH GUARDRAIL, FOR ANCHORAGE SEE 14/A101



BUILDING '600'

2 ENLARGED FLOOR PLAN

SCALE: 1/4" = 1'-0"



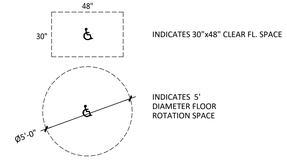
BUILDING '600'

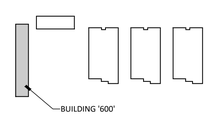
1 ENLARGED FLOOR PLAN

SCALE: 1/4" = 1'-0"

ENLARGED FLOOR PLAN LEGEND

- 2x8 WOOD STUDS @ 16" O.C.
- 2x6 WOOD STUDS @ 16" O.C.
- 2x4 WOOD STUDS @ 16" O.C.





KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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SANGER, FRESNO COUNTY, CA

REVISIONS

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4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
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(559) 627-1926 Fax

TITLE
BUILDING '600'
FLOOR PLAN &
ENLARGED FLOOR
PLANS

A53

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

EXIT ANALYSIS

BLDG.	ROOM #	NAME	OCCUP. GROUP	AREA (SF)	SQ FT. / OCCUP.	# OCCUPANTS	TOTAL # OCCUPANTS	NUMBER OF REQUIRED EXITS CBC TABLE 1006.2.1	NUMBER OF PROVIDED EXITS CBC TABLE 1006.2.1	EGRESS WIDTH PER OCCUPANT SERVED CBC 1005.1	EXIT #	# OF OCC. THROUGH EXIT	REQ. EXIT WIDTH CALCULATION	EXIT WIDTH PROVIDED	DOOR ID #
BUILDING '600'	601	CLASSROOM	E	1074	20	54	55	55 > 50 = 2 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	27	27 X 0.15" = 4.05"	36"	601
											EXIT 2	28	28 X 0.15" = 4.20"	36"	602
	602	STUDENT TOILET	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 615 TO ROOM 601				
	603	TEACHER WORK ROOM	B	366	150	2	2	2 < 50 = 1 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	EXIT THROUGH DOOR 616 TO ROOM 601			
											EXIT 2	EXIT THROUGH DOOR 617 TO ROOM 605			
	604	STUDENT TOILET	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 618 TO ROOM 605				
	605	CLASSROOM	E	1074	20	54	55	55 > 50 = 2 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	28	28 X 0.15" = 4.20"	36"	603
											EXIT 2	27	27 X 0.15" = 4.05"	36"	604
	606	CLASSROOM	E	1074	20	54	55	55 > 50 = 2 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	27	27 X 0.15" = 4.05"	36"	605
											EXIT 2	28	28 X 0.15" = 4.20"	36"	606
	607	STUDENT TOILET	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 619 TO ROOM 606				
	608	TEACHER WORK ROOM	B	366	150	2	2	2 < 50 = 1 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	EXIT THROUGH DOOR 620 TO ROOM 606			
											EXIT 2	EXIT THROUGH DOOR 621 TO ROOM 610			
	609	STUDENT TOILET	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 622 TO ROOM 610				
	610	CLASSROOM	E	1074	20	54	55	55 > 50 = 2 EXIT REQ.	2 EXITS PROVIDED	0.15" PER OCC.	EXIT 1	28	28 X 0.15" = 4.20"	36"	607
											EXIT 2	27	27 X 0.15" = 4.05"	36"	608
	611	JANITOR	B	123	ACCESSORY 300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	1	1 X 0.15" = 0.15"	36"	611
	612	STAFF TOILET	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 610				
	613	STUDENT TOILET	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR 609				

CALCULATION JUSTIFICATION FOR AGGREGATE ACCESSORY OCCUPANCIES NOT EXCEEDING 10% OF MAIN OCCUPANCY (CBC 508.2.3)

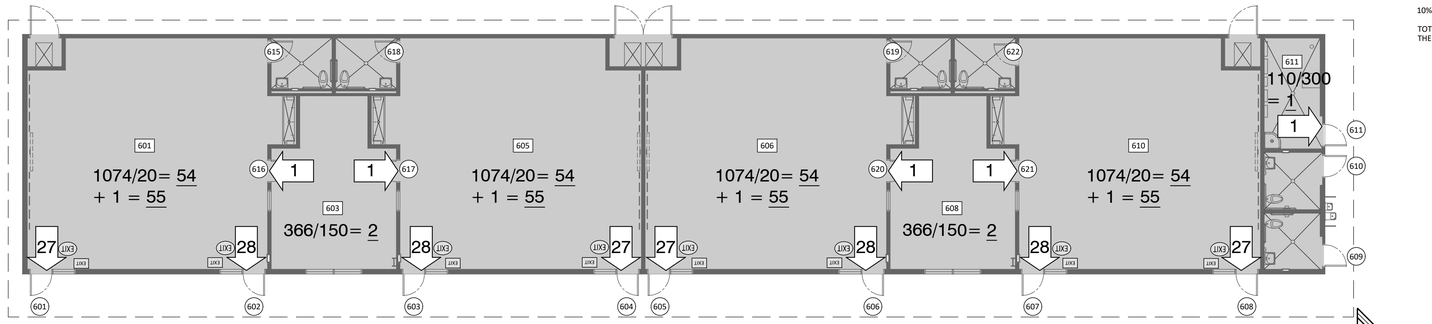
BUILDING 600 IS A MIXED-USE NON-SEPARATED OCCUPANCY, GROUPS 'E' & 'B'.

BUILDING 600 = 6,097 S.F.

BUILDING 600 AGGREGATE ACCESSORY OCCUPANCIES = 123 S.F.

10% OF 6,097 S.F. = 609.7 S.F.

TOTAL AGGREGATE ACCESSORY OCCUPANCY OF 123 S.F. < 609.7 S.F., THEREFORE OK.

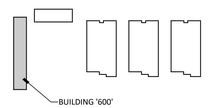


EXIT TACTILE EXIT SIGN, SEE DOOR SCHEDULE FOR ADDITIONAL INFO

EXIT ILLUMINATED OVERHEAD EXIT SIGN, SEE ELECTRICAL DWGS. FOR ADDITIONAL INFO

BUILDING '600'
EXIT ANALYSIS

SCALE: 1" = 10'-0"



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.1926 Office
(559) 627.1926 Fax

TITLE
BUILDING '600'
EXIT ANALYSIS

A54

PROJECT 24042

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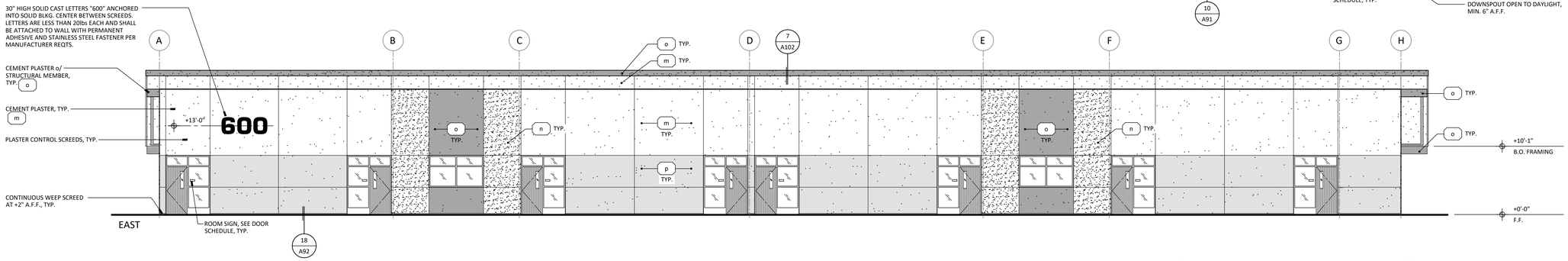
APPROVALS

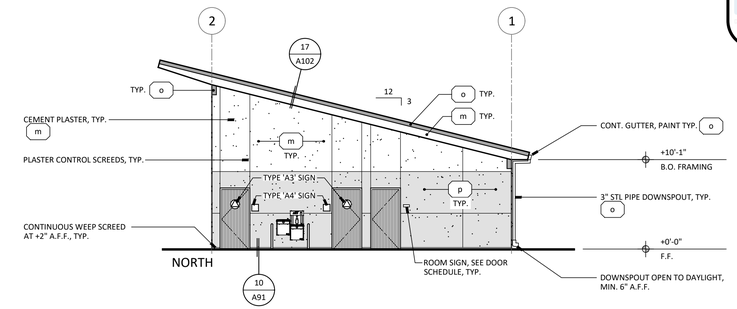
FILE # 10-126 | APPLICATION # 02-123774

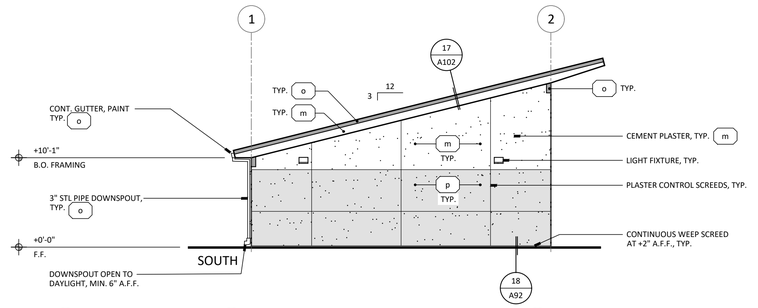
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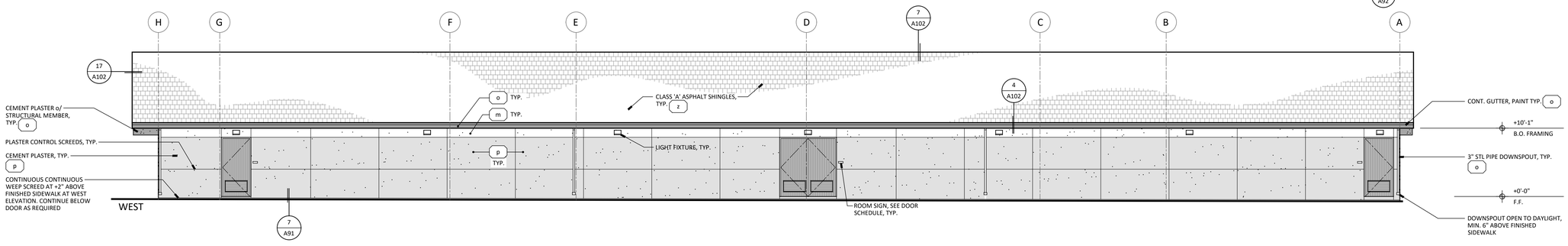
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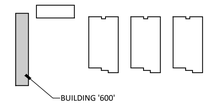






EXTERIOR ELEVATION NOTES:

1. FOR DOOR SIGNAGE, REFER TO DOOR SCHEDULE & DETAIL 1 / A84
2. FOR ALL WALL ASSEMBLIES REFER TO SHEET A80
3. FOR TYPICAL CEMENT PLASTER CONTROL SCREED, REFER TO DETAIL 3 / A97
4. FOR TYPICAL DOWNSPOUT TO WALL ANCHORAGE, REFER TO DETAIL 10 / A103
5. FOR TYPICAL DOWNSPOUT TO STORM DRAIN CONNECTION, REFER TO DETAIL 9 / A103



KEY PLAN

BUILDING '600'
EXTERIOR ELEVATIONS

SCALE: 1/8" = 1'-0"

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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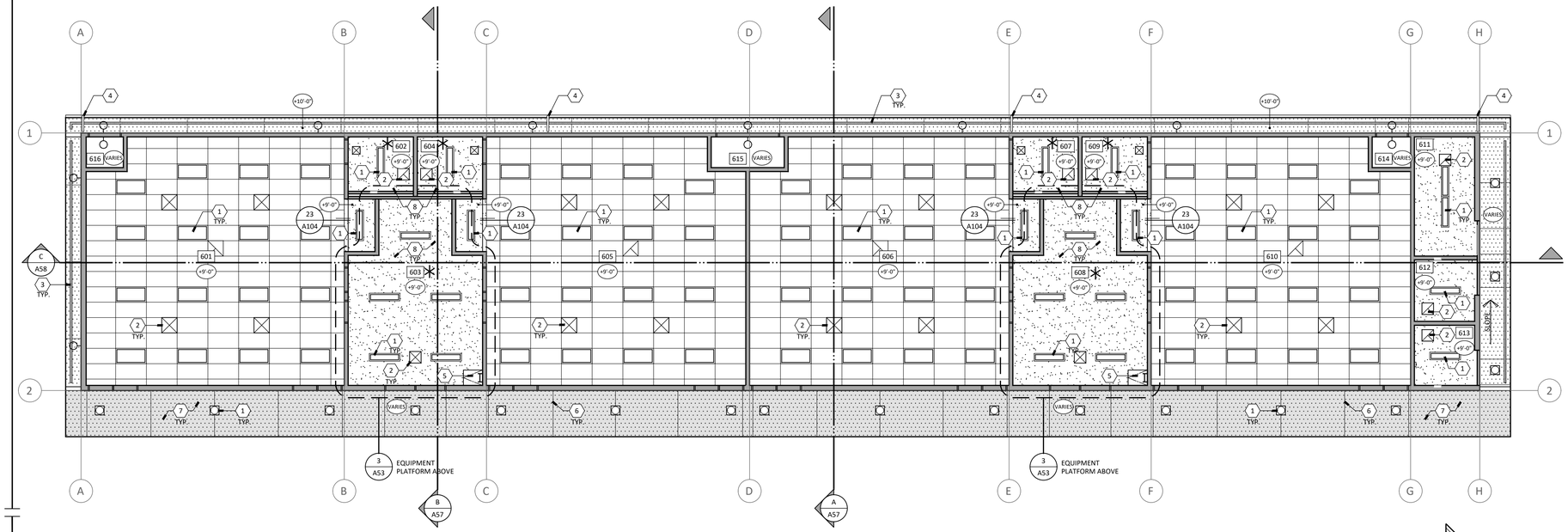
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TITLE
BUILDING '600'
EXTERIOR ELEVATIONS

A55

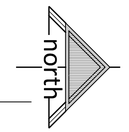
PROJECT 24042

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BUILDING '600'
REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"

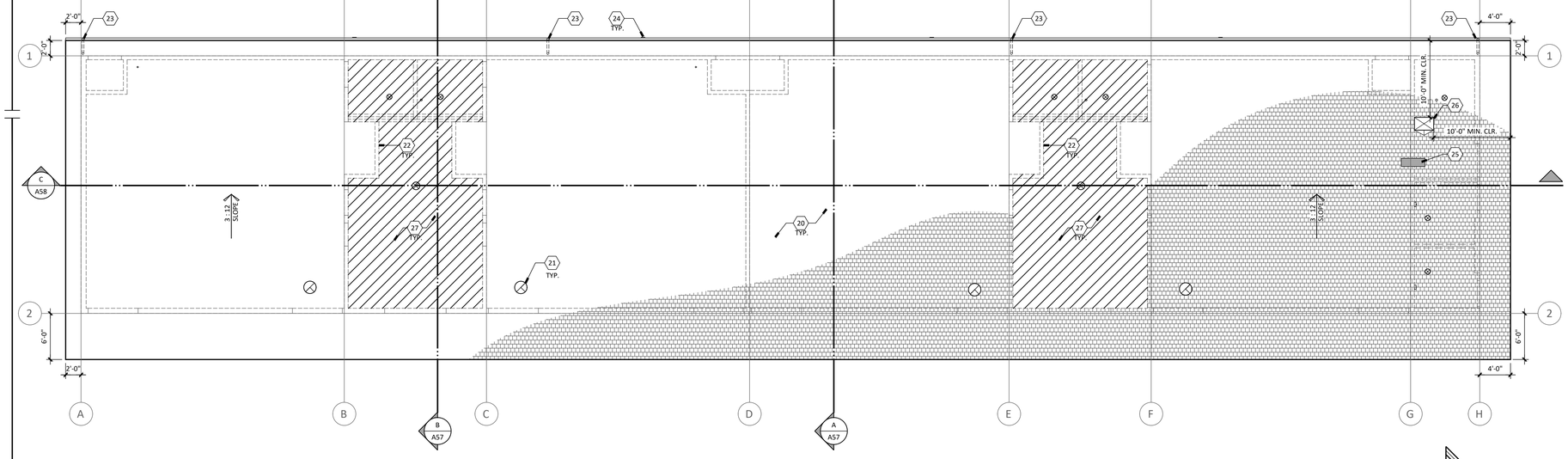


REFLECTED CEILING PLAN LEGEND:

- CEMENT PLASTER SOFFIT/ OVERHANG SYSTEM SEE. (2 / A97)
- +X'-X" ELEVATION ABOVE FINISH FLOOR LEVEL.
- TAPED, TEXTURED AND PAINTED 5/8" THICK GYP. BD.
- ASTERISK INDICATES 3 1/2" SOUND ATTENUATION BATT INSULATION ABOVE CEILING
- 24" x 48" SUSP. LAY-IN CEILING SYSTEM, SEE FINISH SCHEDULE (- / A98) & (- / A99)

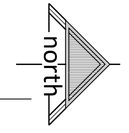
REFLECTED CEILING PLAN KEY NOTES THIS SHEET ONLY:

1. LIGHT FIXTURE AS SHOWN, SEE ELECTRICAL DWGS.
2. AIR REGISTER AS SHOWN, SEE MECHANICAL DWGS.
3. 4" CONTINUOUS SOFFIT VENT, TYP. PAINT TO MATCH ADJACENT SOFFIT
4. ROOF GUTTER SYSTEM AND DOWNSPOUT o
5. 22" x 36" ATTIC ACCESS DOOR, SEE (3 / A101)
6. CEMENT PLASTER CONTROL SCREED, SEE ALIGN SOFFIT SCREEDS w/ WALL AND FASCIA SCREEDS (3 / A97)
7. FILL CONCEALED SPACE w/ NONCOMBUSTIBLE INSULATION, TYP. SHOWN SHADED
8. ROOF ASSEMBLY ABOVE CEILING IN THIS ROOM SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL (24 / A104) FOR ADDITIONAL INFORMATION



BUILDING '600'
ROOF PLAN

SCALE: 1/8" = 1'-0"

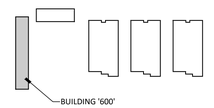


ROOF PLAN NOTES:

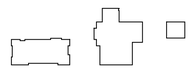
1. AT ASPHALT SHINGLE ROOFS WITH LESS THAN 4:12 SLOPE, PROVIDE A SECOND LAYER OF UNDERLAYMENT. SEE SPEC. SECTION 07 3100 FOR ADDITIONAL INFO.

ROOF PLAN KEY NOTES THIS SHEET ONLY:

20. CLASS 'A' ASPHALT SHINGLES (25 / A104)
21. ROOF EXHAUST FANS, COORDINATE w/ MECHANICAL DWGS.
22. WALL LINE BELOW SHOWN DASHED FOR CLARITY
23. ROOF GUTTER SYSTEM AND DOWNSPOUT o
24. GUTTER EXPANSION JOINT
25. MECHANICAL UNIT & CURB , COORDINATE WITH MECHANICAL & STRUCTURAL DWGS.
26. ELECTRICAL TRANSFORMER, COORDINATE w/ ELECTRICAL DWGS.
27. ROOF ASSEMBLY BELOW (SHOWN CROSS HATCHED) SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL (24 / A104) FOR ADDITIONAL INFORMATION



KEY PLAN



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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING '600'
REFLECTED CEILING
PLAN & ROOF
PLAN

A56

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

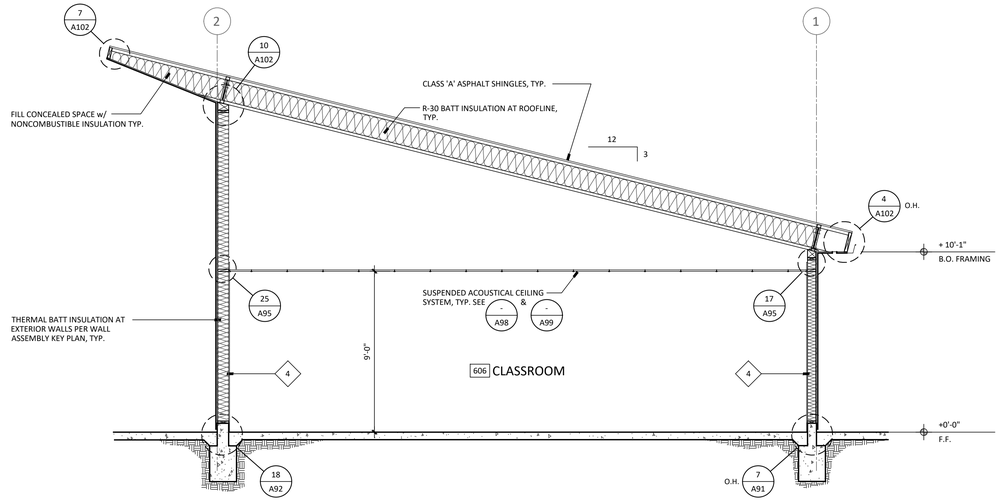
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

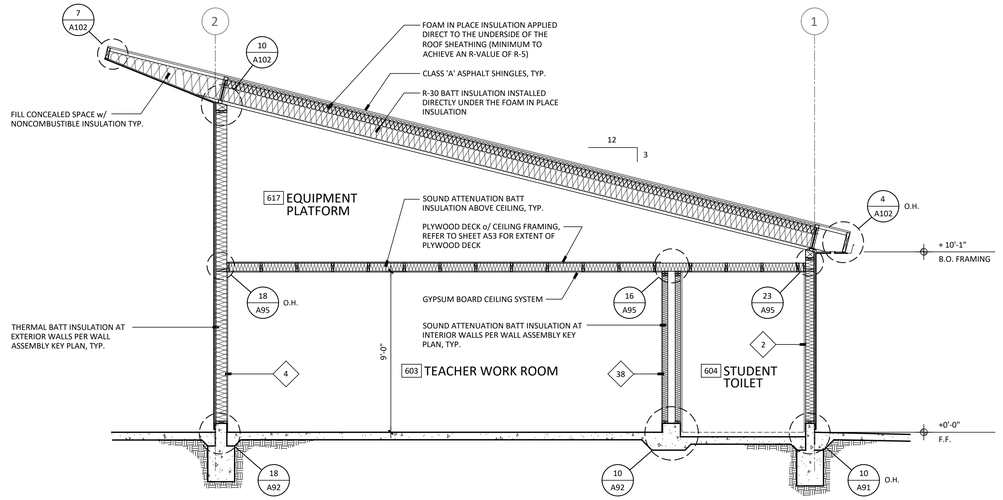
BUILDING SECTION LEGEND

X — WALL ASSEMBLY CALLOUT, REFER TO SHEET A80



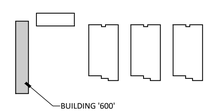
A BUILDING '600' SECTION

SCALE: 1/4" = 1'-0"



B BUILDING '600' SECTION

SCALE: 1/4" = 1'-0"



KEY PLAN

BUILDING '600' SECTIONS

SCALE: 1/4" = 1'-0"

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TITLE
BUILDING '600' SECTIONS

A57

PROJECT 24042

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APPROVALS

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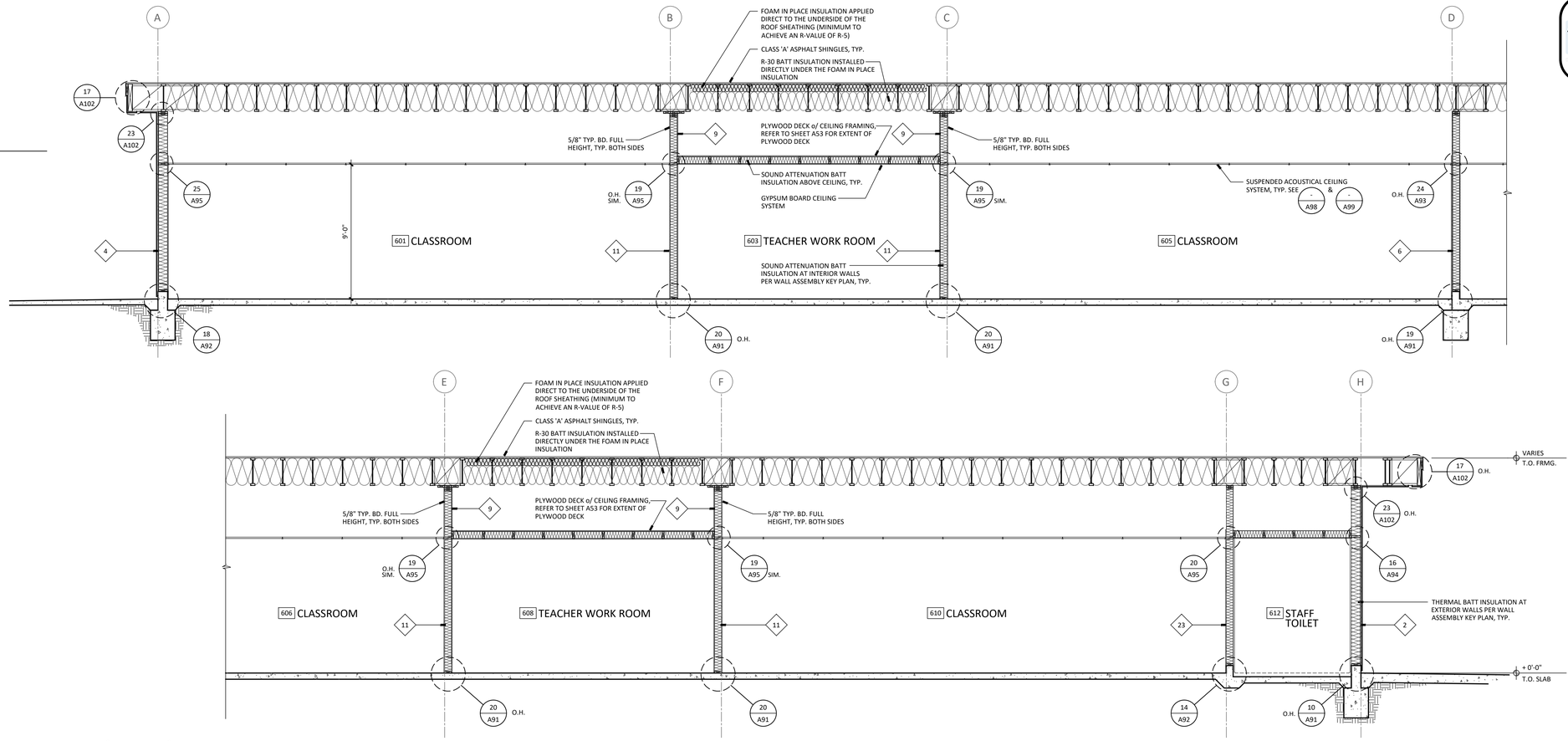
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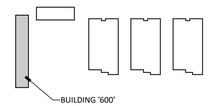
BUILDING SECTION LEGEND

x — WALL ASSEMBLY CALLOUT, REFER TO SHEET A80



Ⓒ BUILDING '600' SECTION

SCALE: 1/4" = 1'-0"



KEY PLAN

BUILDING '600'
SECTIONS

SCALE: 1/4" = 1'-0"

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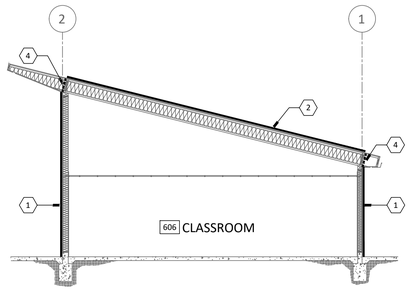
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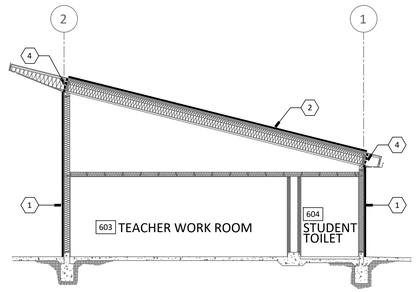
A58

PROJECT 24042

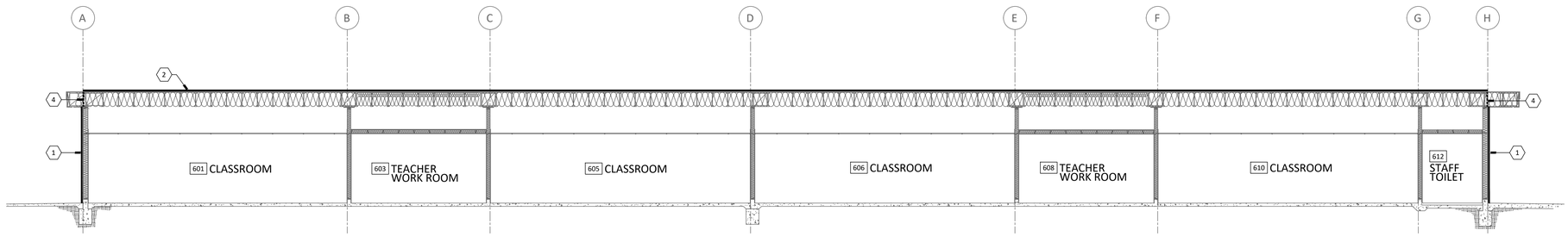
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A BUILDINGS '600' AIR BARRIER SECTION
SCALE: 1/8" = 1'-0"



B BUILDINGS '600' AIR BARRIER SECTION
SCALE: 1/8" = 1'-0"



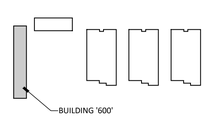
C BUILDINGS '600' AIR BARRIER SECTION
SCALE: 1/8" = 1'-0"

AIR BARRIER SECTION NOTES

1. BRIDGE AND SEAL AIR LEAKAGE PATHWAYS AND GAPS, INCLUDING, BUT NOT LIMITED TO:
   -CONNECTIONS OF THE WALLS TO THE ROOF AND AIR BARRIER
   -CONNECTIONS TO THE WALLS TO THE FOUNDATIONS
   -SEISMIC AND EXPANSION JOINTS
   -OPENINGS AND PENETRATIONS OF WINDOW AND DOOR FRAMES, STORE FRONT, CURTAIN WALL
   -PIPING, CONDUIT, DUCT, AND SIMILAR PENETRATIONS
   -MASONRY TIES, SCREWS, BOLTS, AND SIMILAR PENETRATIONS
   -FLASHING AND SHEET METAL ASSEMBLIES
   -ALL OTHER AIR LEAKAGE PATHWAYS IN THE BUILDING ENVELOPE
   -PLYWOOD JOINTS
2. REFER TO 07 2700 AIR BARRIER SYSTEM FOR ADDITIONAL INFORMATION

AIR BARRIER SECTION KEYNOTES

1. CEMENT PLASTER & PLYWOOD AS AIR BARRIER WHERE SHOWN
2. ASPHALT SHINGLE ROOFING SYSTEM & PLYWOOD AS AIR BARRIER WHERE SHOWN
3. NOT USED
4. FOAM-IN-PLACE TO COMPLETE AIR BARRIER
5. BUILT-UP ROOFING SYSTEM AS AIR BARRIER



KEY PLAN

BUILDING '600'
AIR BARRIER SECTIONS

SCALE: 1/8" = 1'-0"

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A59

PROJECT 24042

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CLASSROOM TECHNOLOGY STANDARDS

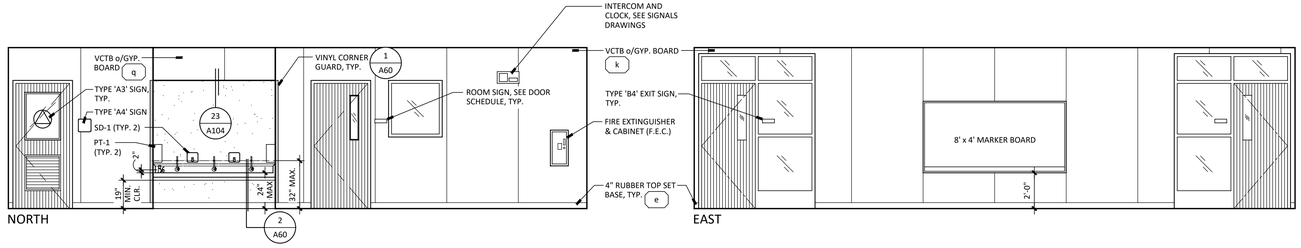
PER SANGER UNIFIED SCHOOL DISTRICT STANDARDS:

GRADES: TK-2 SHALL HAVE INTERACTIVE SMART BOARDS
35" FLOOR TO BOTTOM OF MOUNT
29" FLOOR TO BOTTOM OF SCREEN

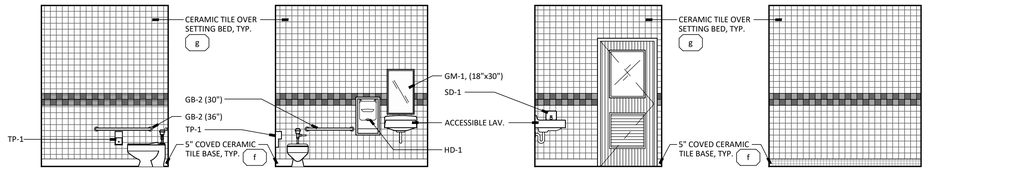
GRADES: 3-6 SHALL HAVE 65" TVs
64" FLOOR TO BOTTOM OF MOUNT
48"-50" FLOOR TO BOTTOM OF TV SCREEN

TOP OF MARKER BOARDS TO BE FLUSH WITH TOP OF INTERACTIVE SMART BOARD / TV

CLASSROOM #	GRADE
601	K
605	K
606	K
610	K
704	TK
708	TK

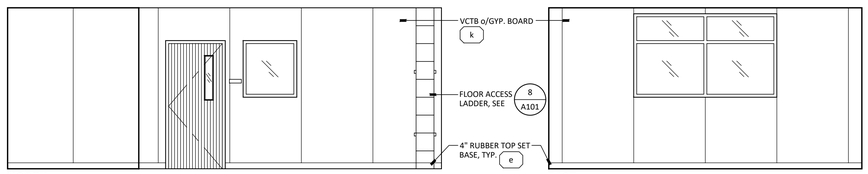


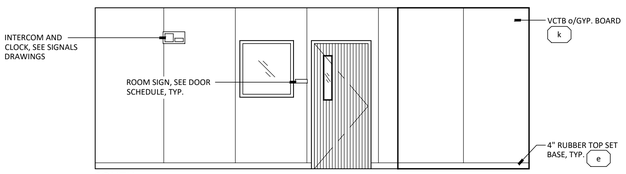
601 CLASSROOM RM. 606 SIM. - RM. 605 AND 610 O.H.



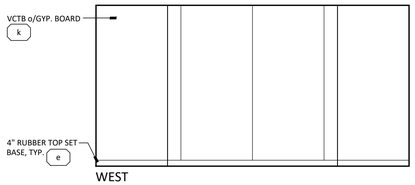
602 STUDENT TOILET RM. 607 SIM. - RM. 604 AND 609 O.H.

REFER TO 16/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - AGES 5-8

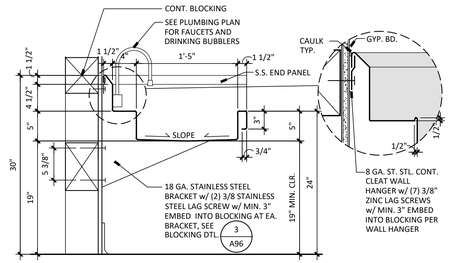




603 TEACHER WORK ROOM RM. 608 SIM.

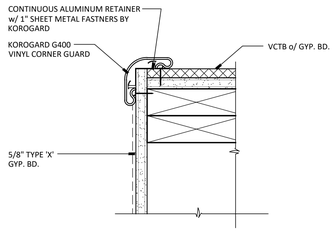


603 TEACHER WORK ROOM



2 STAINLESS STEEL LAV.

SCALE: 1" = 1'-0" FOR KINDERGARTEN OR YOUNGER USE

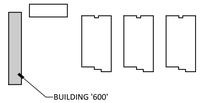


1 VINYL CORNER GUARD

SCALE: 3" = 1'-0"

INTERIOR ELEVATION NOTES

1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13/A96 U.O.N.
2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS 16/A97 18/A97 U.O.N.
3. FOR TYPICAL CABINET ANCHORAGE SEE DETAIL 1/A96
4. REFER TO SPECIFICATIONS FOR TOILET ACCESSORY ABBREVIATIONS.
5. ANY ACCESSORIES SHOWN N.I.C. SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR TO PROVIDE SOLID BLOCKING & INSTALLATION AT LOCATION SHOWN AS REQUIRED.
6. REFER TO FINISH SCHEDULE SHEETS FOR DESIGNATION OF WALL FINISHES.
7. ⬭ = MATERIAL DEFINITION, REFER TO SHEETS A72
8. FOR TYPICAL GYPSUM BOARD EDGE SEE DETAIL 1/A97
9. ANY DISCREPANCY BETWEEN THE LOCATION OF DEVICES, FIXTURES, ETC., SHOWN HERE AND ON ANY PLUMBING, ELECTRICAL OR MECHANICAL SHEETS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO LAYOUT.
10. ♿ = A.D.A. ACCESSIBLE, SEE CABINET DETAIL 12/A96
11. FOR SIGN TEXT REFER TO DOOR SCHEDULE. FOR TYPES AND LOCATION SEE DETAIL 1/A84
12. FOR MARKER BOARD BLOCKING & ATTACHMENT SEE DETAIL 17/A96
13. FOR TV & SMART BOARD MONITOR BRACKET BLOCKING & ATTACHMENT SEE DETAIL 18/A96
14. FOR TYPICAL FIRE EXTINGUISHER CABINET (F.E.C.) MOUNTING, SEE DETAIL 10/A97
15. FOR GRAB BAR ANCHORAGE AT TOILETS, SEE DETAIL 8/A97
16. FOR TYPICAL TOILET PARTITION ANCHORAGE, SEE DETAIL 9A/A97 9B/A97
17. FOR ACCESSIBLE LAVATORY, SEE DETAILS 6/A97 7/A97
18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
19. FOR TYPICAL RUBBER TOPSET BASE AND CERAMIC TILE BASE, SEE DETAILS 21/A97 22/A97
20. REFER TO DETAIL FOR TILE PATTERN 1/A73



KEY PLAN

BUILDING '600'
INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

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APPROVALS

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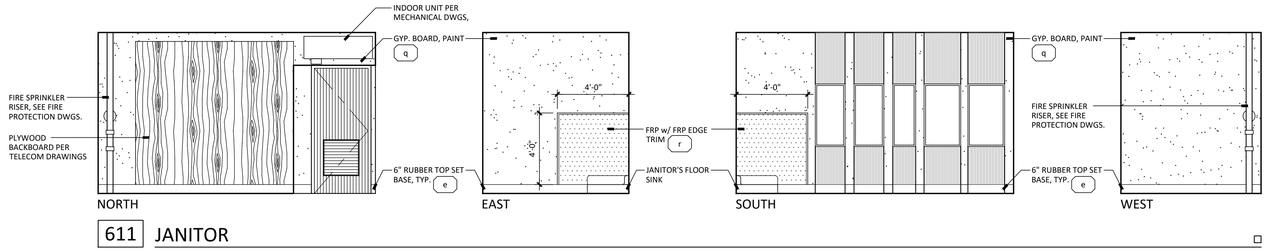
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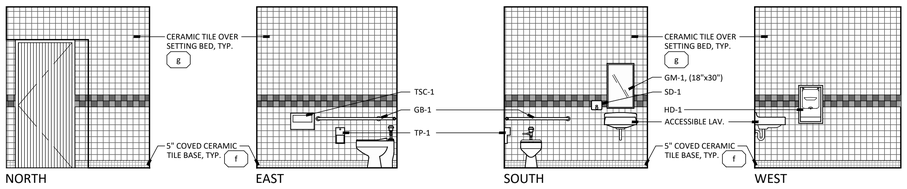
TITLE
BUILDING '600'
INTERIOR ELEVATIONS

A60

PROJECT 24042

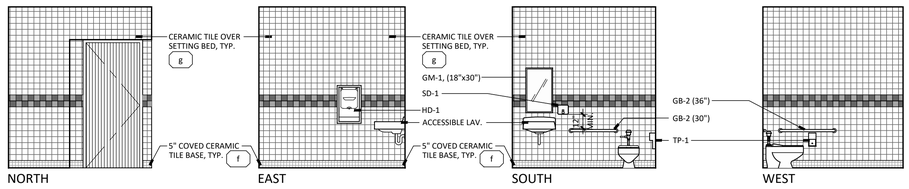


611 JANITOR



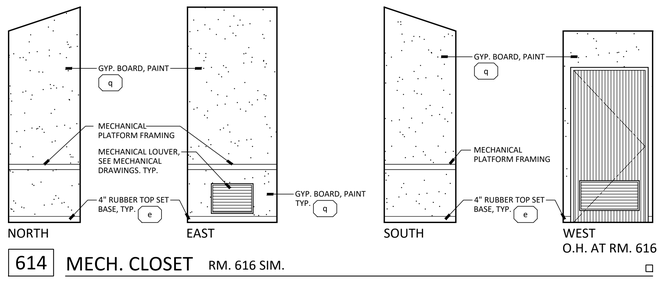
612 STAFF T.

REFER TO 18/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - ADULT

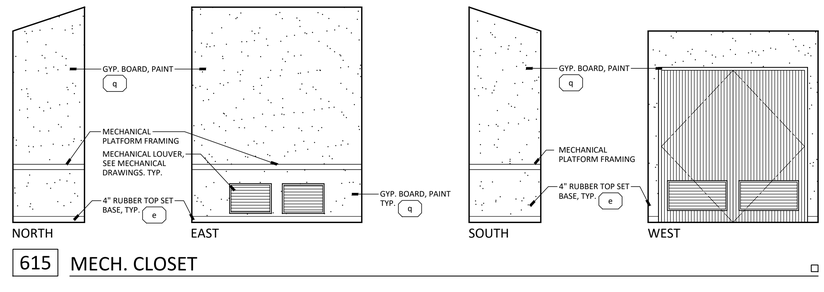


613 STUDENT T.

REFER TO 16/A97 FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS U.O.N. - AGES 5-8



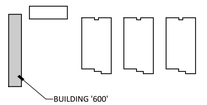
614 MECH. CLOSET RM. 616 SIM.



615 MECH. CLOSET

INTERIOR ELEVATION NOTES

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20. REFER TO DETAIL FOR TILE PATTERN 1/A73



KEY PLAN

BUILDING '600' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

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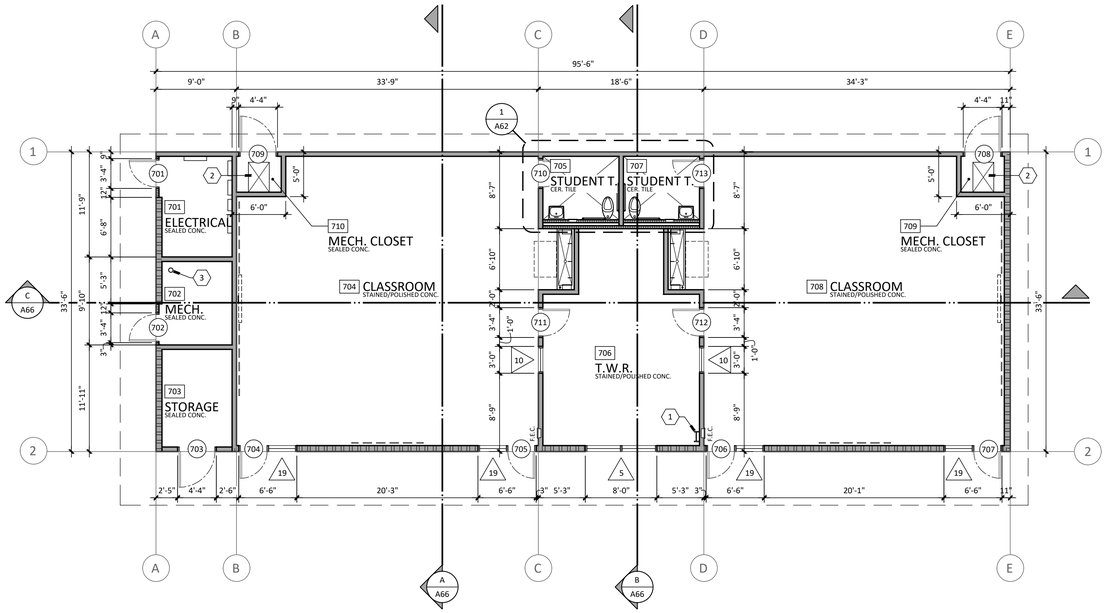
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INTERIOR ELEVATIONS

A61

PROJECT 24042



BUILDING '700'

FLOOR PLAN

SCALE: 1/8" = 1'-0"

north

GENERAL FLOOR PLAN NOTES:

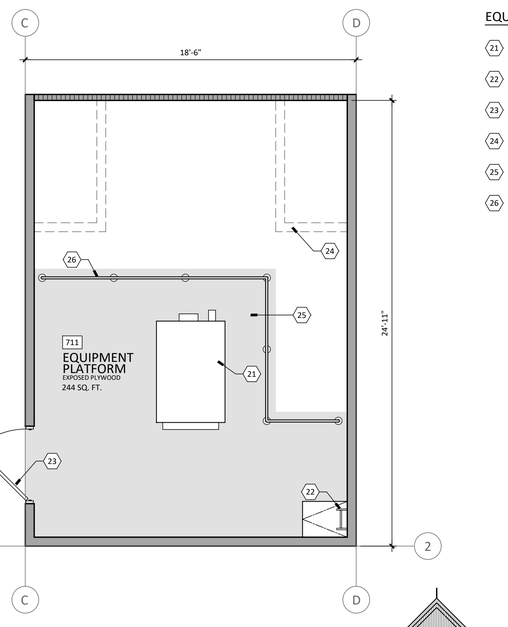
1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A80
3. WHERE SOUND INSULATION OR THERMAL INSULATION IS SHOWN ON WALL ASSEMBLY, INSULATION SHALL BE INSTALLED FULL HEIGHT OF WALL. REFER TO SPEC SECTION 07 2100
4. FINISH ALL GYPSUM BOARD EDGES PER DETAIL 1/A97
5. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS, SEE INTERIOR ELEVATIONS
6. REFER TO ELEVATIONS AND DOOR SCHEDULE FOR ALL ROOM AND BUILDING SIGNAGE.
7. SEAL PENETRATIONS IN RATED WALLS PER DETAIL 15/A97
8. REFER TO SHEET A63 FOR EXIT ANALYSIS
9. FIRE BLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUDS AND PARTITIONS, INCLUDING FURRED SPACES, AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
   1. VERTICALLY AT CEILING AND FLOOR LEVELS.
   2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
10. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23/A100 24/A100

FLOOR PLAN LEGEND:

- 2X8 WOOD STUDS @ 16" O.C.
- 2X6 WOOD STUDS @ 16" O.C.
- 2X4 WOOD STUDS @ 16" O.C.
- # FRAME TYPE, SEE FRAME TYPE SCHEDULE REFER TO SHEETS A87 & A88
- # ROOM NUMBER FLOOR FINISH MATERIAL
- F.E.C. FIRE EXTINGUISHER AND CABINET, REFER TO INTERIOR ELEVATIONS

FLOOR PLAN KEY NOTES, THIS SHEET ONLY:

1. ATTIC ACCESS LADDER, SEE 1/A101
2. MECHANICAL UNITS, COORDINATE WITH MECHANICAL & ELECTRICAL DWGS.
3. FIRE SPRINKLER RISER, SEE FIRE PROTECTION DWGS.



BUILDING '700'

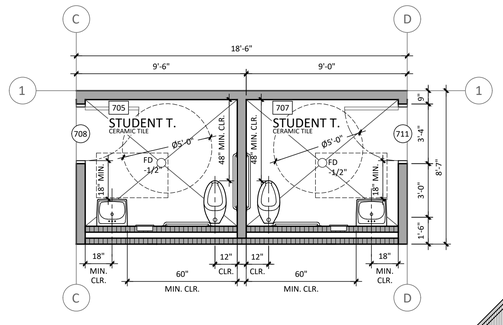
2 EQUIPMENT PLATFORM

SCALE: 1/4" = 1'-0"

north

EQUIPMENT PLATFORM PLAN KEY NOTES, THIS SHEET ONLY:

21. AIR HANDLER, SEE MECHANICAL DWGS.
22. FLOOR ACCESS DOOR & LADDER, SEE 8/A101
23. 48" x 48" WALL ACCESS DOOR
24. WALL LINE BELOW SHOWN DASHED
25. PLYWOOD DECK o/ CEILING FRAMING, SHOWN SHADED, SEE STRUCTURAL DWGS.
26. 42" HIGH GUARDRAIL, FOR ANCHORAGE SEE 14/A101



BUILDING '700'

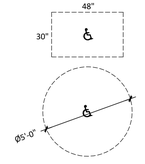
1 ENLARGED FLOOR PLAN

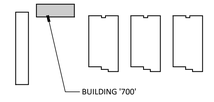
SCALE: 1/4" = 1'-0"

north

ENLARGED FLOOR PLAN LEGEND

- 2x8 WOOD STUDS @ 16" O.C.
- 2x6 WOOD STUDS @ 16" O.C.
- 2x4 WOOD STUDS @ 16" O.C.





KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING '700'
FLOOR PLAN &
ENLARGED
FLOOR PLANS

A62

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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JAMES R. MORRELL
No. C-28
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

EXIT ANALYSIS

BLDG.	ROOM #	NAME	OCCUP. GROUP	AREA (SF)	SQ FT. / OCCUP.	# OCCUPANTS	TOTAL # OCCUPANTS	NUMBER OF REQUIRED EXITS CBC TABLE 1006.2.1	NUMBER OF PROVIDED EXITS CBC TABLE 1006.2.1	EGRESS WIDTH PER OCCUPANT SERVED CBC 1005.1	EXIT #	# OF OCC. THROUGH EXIT	REQ. EXIT WIDTH CALCULATION	EXIT WIDTH PROVIDED	DOOR ID #
BUILDING '700'	701	ELECTRICAL	B	92	ACCESSORY 300	1	-	-	-	-	EXIT THROUGH DOOR (701)				
	702	MECHANICAL	B	73	ACCESSORY 300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	1	1 X 0.15" = 0.15"	36"	(702)
	703	STORAGE	S-1	85	ACCESSORY 300	1	1	1 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	1	1 X 0.15" = 0.15"	36"	(703)
	704	CLASSROOM	E	1074	20	54	55	55 > 50 = 2 EXIT REQ.	2 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	27	27 X 0.15" = 4.05"	36"	(704)
											EXIT 2	28	28 X 0.15" = 4.20"	36"	(705)
	705	STUDENT TOILET	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (710) TO ROOM 704				
	706	TEACHER WORK ROOM	B	366	150	2	2	2 < 50 = 1 EXIT REQ.	2 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	EXIT THROUGH DOOR (711) TO ROOM 704			
											EXIT 2	EXIT THROUGH DOOR (712) TO ROOM 708			
	707	STUDENT TOILET	-	56	ANCILLARY		-	-	-	-	EXIT THROUGH DOOR (713) TO ROOM 708				
	708	CLASSROOM	E	1074	20	54	55	55 > 50 = 2 EXIT REQ.	2 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	28	28 X 0.15" = 4.20"	36"	(706)
											EXIT 2	27	27 X 0.15" = 4.05"	36"	(707)

CALCULATION JUSTIFICATION FOR AGGREGATE ACCESSORY OCCUPANCIES NOT EXCEEDING 10% OF MAIN OCCUPANCY (CBC 508.2.3)

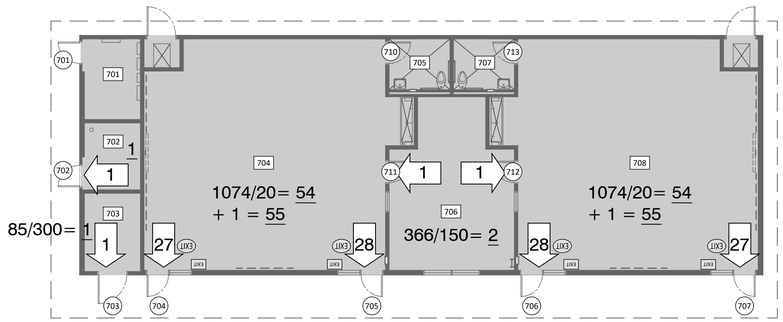
BUILDING 700 IS A MIXED-USE NON-SEPARATED OCCUPANCY, GROUPS 'E' & 'B'.

BUILDING 700 = 3,199 S.F.

BUILDING 700 AGGREGATE ACCESSORY OCCUPANCIES = 250 S.F.

10% OF 3,199 S.F. = 319.9 S.F.

TOTAL AGGREGATE ACCESSORY OCCUPANCY OF 250 S.F. < 319.9 S.F., THEREFORE OK.



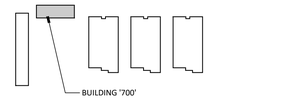
EXIT TACTILE EXIT SIGN, SEE DOOR SCHEDULE FOR ADDITIONAL INFO

EXIT ILLUMINATED OVERHEAD EXIT SIGN, SEE ELECTRICAL DWGS. FOR ADDITIONAL INFO

north

BUILDING '700'
EXIT ANALYSIS

SCALE: 1" = 10'-0"



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

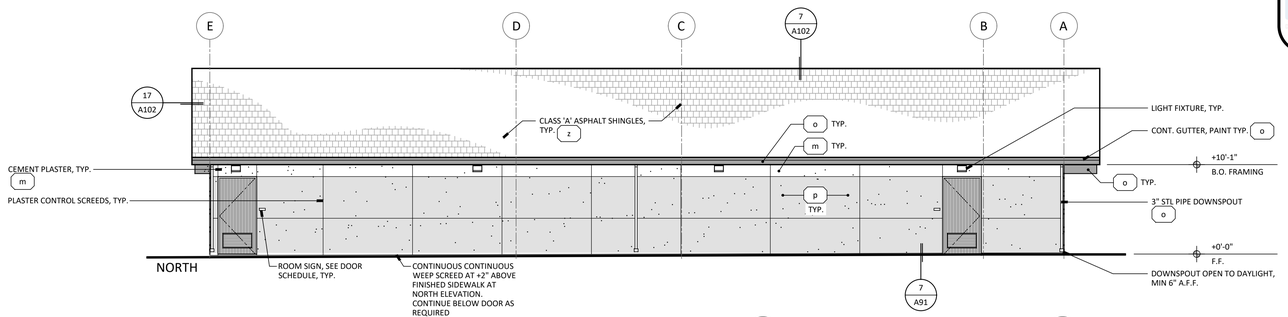
REVISIONS

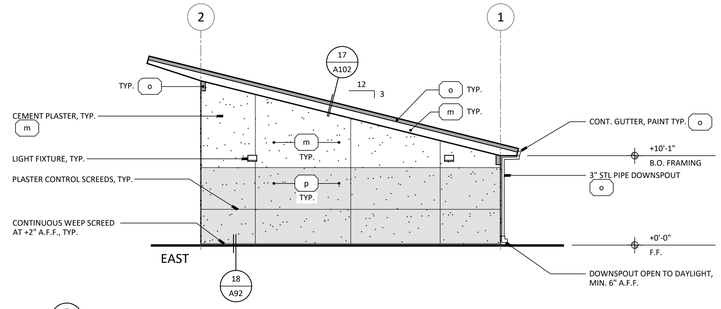
MANGINI ARCHITECTURE | INGENUITY
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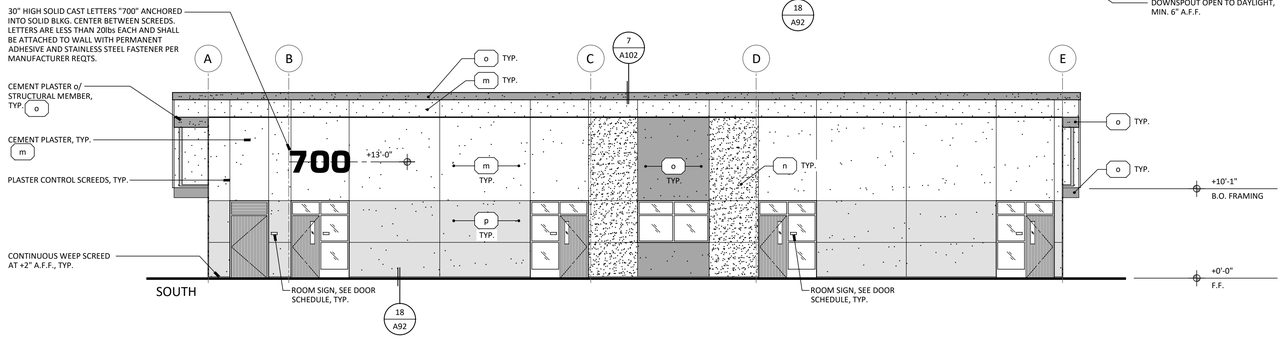
TITLE
BUILDING '700'
EXIT ANALYSIS

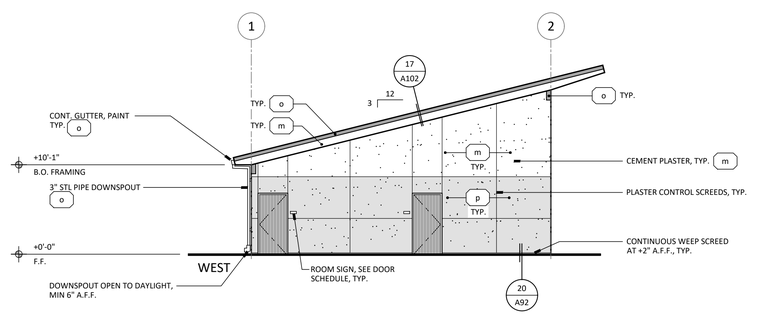
A63

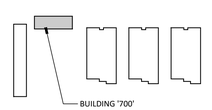
PROJECT 24042

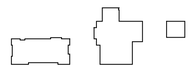












KEY PLAN

EXTERIOR ELEVATION NOTES:

1. FOR DOOR SIGNAGE, REFER TO DOOR SCHEDULE & DETAIL 1/A84
2. FOR ALL WALL ASSEMBLIES REFER TO SHEET A80
3. FOR TYPICAL CEMENT PLASTER CONTROL SCREED, REFER TO DETAIL 3/A97
4. FOR TYPICAL DOWNSPOUT TO WALL ANCHORAGE, REFER TO DETAIL 10/A103
5. FOR TYPICAL DOWNSPOUT TO STORM DRAIN CONNECTION, REFER TO DETAIL 9/A103

BUILDING '700'

EXTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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DIV. OF THE STATE ARCHITECT
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LICENSED ARCHITECT
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REN. 05-31-27
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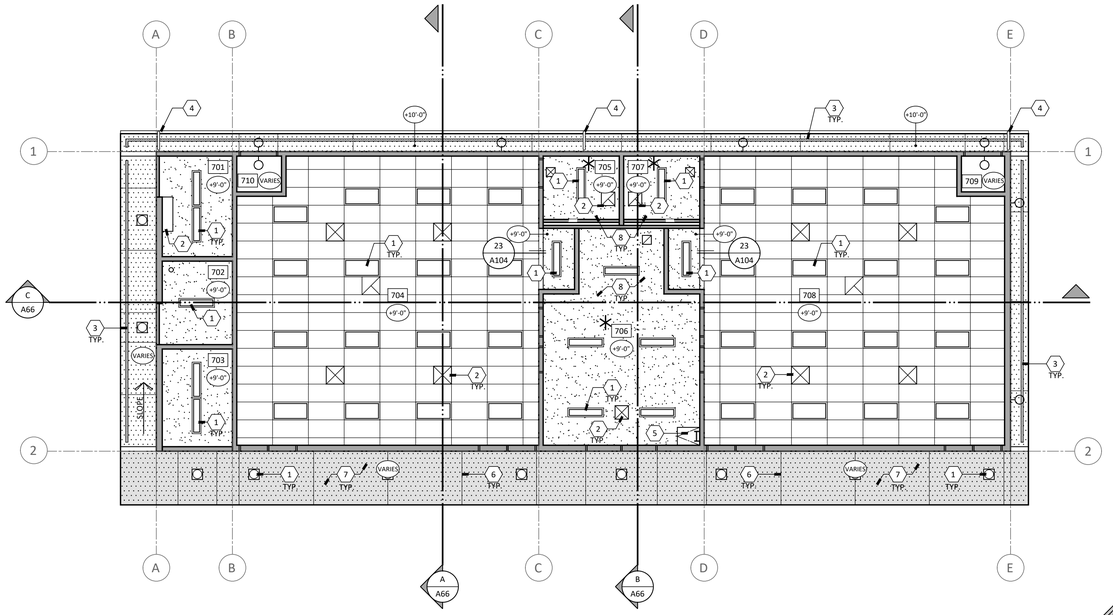
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TITLE
BUILDING '700'
EXTERIOR ELEVATIONS

A64

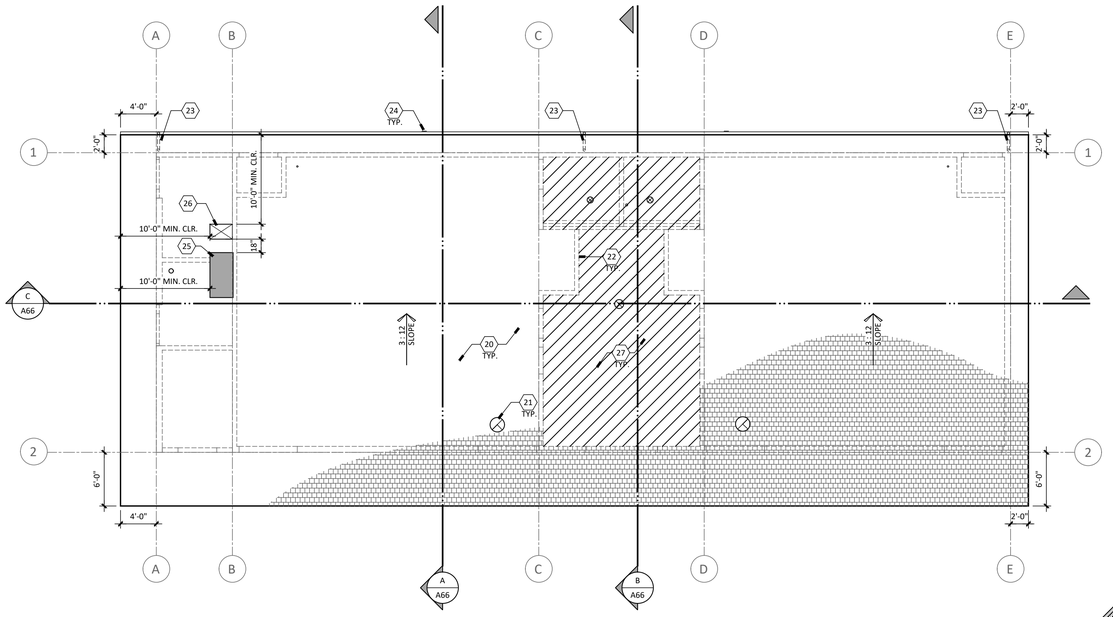
PROJECT 24042



BUILDING '700'

REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"



BUILDING '700'

ROOF PLAN

SCALE: 1/8" = 1'-0"

REFLECTED CEILING PLAN LEGEND:

- CEMENT PLASTER SOFFIT/ OVERHANG SYSTEM SEE, 2 / A97
- +X'-X" ELEVATION ABOVE FINISH FLOOR LEVEL.
- TAPED, TEXTURED AND PAINTED 5/8" THICK GYP. BD.
- ASTERISK INDICATES 3 1/2" SOUND ATTENUATION BATT INSULATION ABOVE CEILING
- 24" x 48" SUSP. LAY-IN CEILING SYSTEM, SEE FINISH SCHEDULE - / A98 & - / A99

REFLECTED CEILING PLAN KEY NOTES THIS SHEET ONLY:

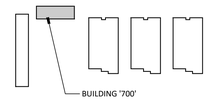
1. LIGHT FIXTURE AS SHOWN, SEE ELECTRICAL DWGS.
2. AIR REGISTER AS SHOWN, SEE MECHANICAL DWGS.
3. 4" CONTINUOUS SOFFIT VENT, TYP. PAINT TO MATCH ADJACENT SOFFIT
4. ROOF GUTTER SYSTEM AND DOWNSPOUT o
5. 22" x 36" ATTIC ACCESS DOOR, SEE 3 / A101
6. CEMENT PLASTER CONTROL SCREED, SEE 3 / A97 ALIGN SOFFIT SCREEDS w/ WALL AND FASCIA SCREEDS
7. FILL CONCEALED SPACE w/ NONCOMBUSTIBLE INSULATION, TYP. SHOWN SHADED
8. ROOF ASSEMBLY ABOVE CEILING IN THIS ROOM SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL 24 / A104 FOR ADDITIONAL INFORMATION

ROOF PLAN NOTES:

1. AT ASPHALT SHINGLE ROOFS WITH LESS THAN 4:12 SLOPE, PROVIDE A SECOND LAYER OF UNDERLAYMENT. SEE SPEC. SECTION 07 3100 FOR ADDITIONAL INFO.

ROOF PLAN KEY NOTES THIS SHEET ONLY:

20. CLASS 'A' ASPHALT SHINGLES 25 / A104
21. ROOF EXHAUST FANS, COORDINATE w/ MECHANICAL DWGS.
22. WALL LINE BELOW SHOWN DASHED FOR CLARITY
23. ROOF GUTTER SYSTEM AND DOWNSPOUT o
24. GUTTER EXPANSION JOINT
25. MECHANICAL UNIT & CURB , COORDINATE WITH MECHANICAL & STRUCTURAL DWGS.
26. ELECTRICAL TRANSFORMER, COORDINATE w/ ELECTRICAL DWGS.
27. ROOF ASSEMBLY BELOW (SHOWN CROSS HATCHED) SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL 24 / A104 FOR ADDITIONAL INFORMATION



KEY PLAN

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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SANGER, FRESNO COUNTY, CA

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TITLE
BUILDING '700'
REFLECTED CEILING
PLAN & ROOF
PLAN

A65

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

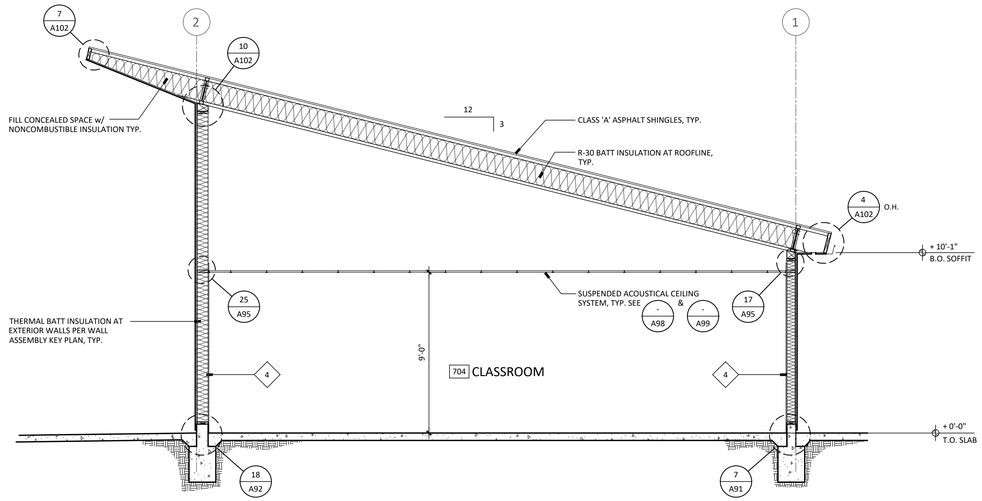
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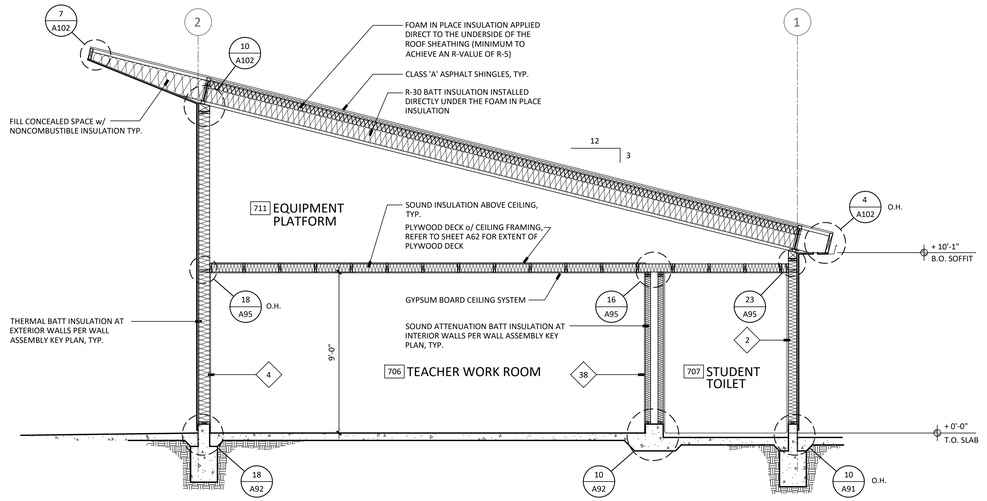
BUILDING SECTION LEGEND

x WALL ASSEMBLY CALLOUT, REFER TO SHEET A80



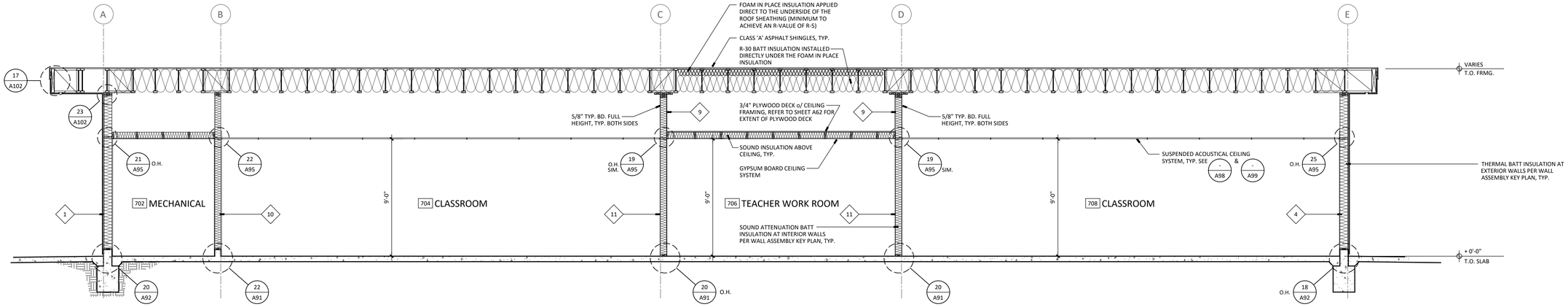
A BUILDING '700' SECTION

SCALE: 1/4" = 1'-0"



B BUILDING '700' SECTION

SCALE: 1/4" = 1'-0"

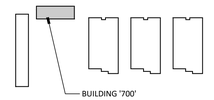


C BUILDING '700' SECTION

SCALE: 1/4" = 1'-0"

BUILDING '700'
SECTIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

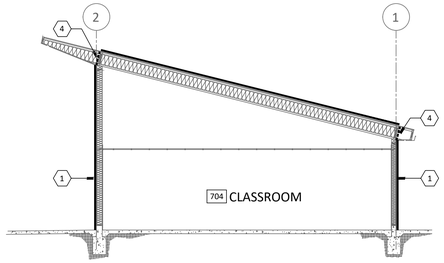
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TITLE
BUILDING '700'
SECTIONS

A66

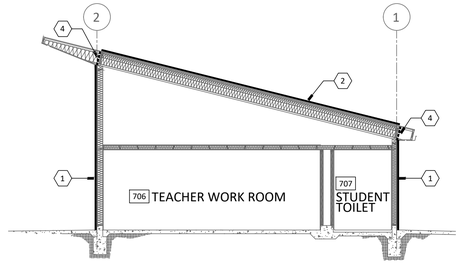
PROJECT 24042

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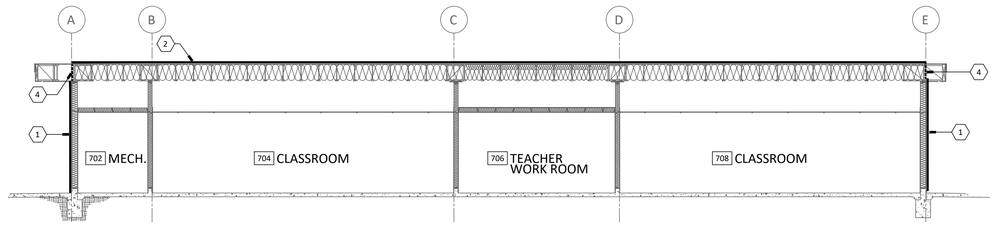
A BUILDINGS '700' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



B BUILDINGS '700' AIR BARRIER SECTION

SCALE: 1/8" = 1'-0"



C BUILDINGS '700' AIR BARRIER SECTION

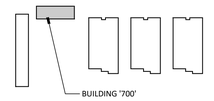
SCALE: 1/8" = 1'-0"

AIR BARRIER SECTION NOTES

1. BRIDGE AND SEAL AIR LEAKAGE PATHWAYS AND GAPS, INCLUDING, BUT NOT LIMITED TO:
   -CONNECTIONS OF THE WALLS TO THE ROOF AND AIR BARRIER
   -CONNECTIONS TO THE WALLS TO THE FOUNDATIONS
   -SEISMIC AND EXPANSION JOINTS
   -OPENINGS AND PENETRATIONS OF WINDOW AND DOOR FRAMES, STORE FRONT, CURTAIN WALL
   -PIPING, CONDUIT, DUCT, AND SIMILAR PENETRATIONS
   -MASONRY TIES, SCREWS, BOLTS, AND SIMILAR PENETRATIONS
   -FLASHING AND SHEET METAL ASSEMBLIES
   -ALL OTHER AIR LEAKAGE PATHWAYS IN THE BUILDING ENVELOPE
   -PLYWOOD JOINTS
2. REFER TO 07 2700 AIR BARRIER SYSTEM FOR ADDITIONAL INFORMATION

AIR BARRIER SECTION KEYNOTES

1. CEMENT PLASTER & PLYWOOD AS AIR BARRIER WHERE SHOWN
2. ASPHALT SHINGLE ROOFING SYSTEM & PLYWOOD AS AIR BARRIER WHERE SHOWN
3. NOT USED
4. FOAM-IN-PLACE TO COMPLETE AIR BARRIER
5. BUILT-UP ROOFING SYSTEM AS AIR BARRIER



KEY PLAN

APPROVALS

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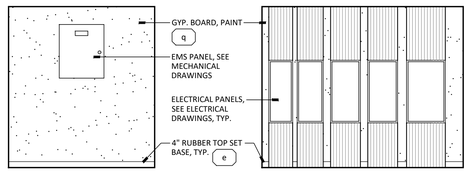
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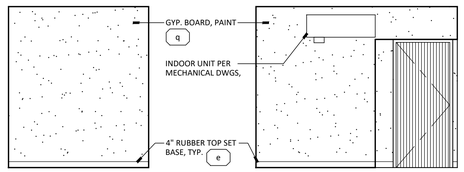
TITLE
BUILDING '700' SECTIONS

A67

PROJECT 24042

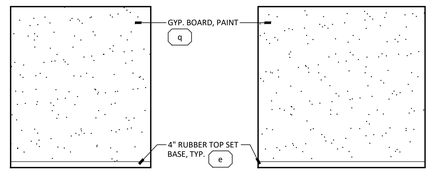


NORTH EAST

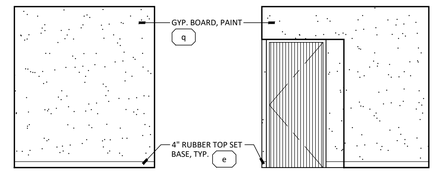


SOUTH WEST

701 ELECTRICAL

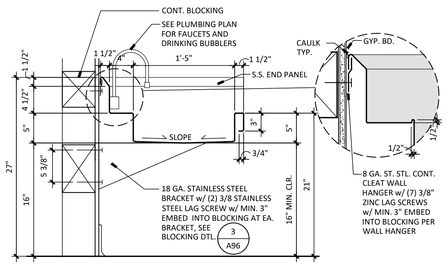


NORTH EAST



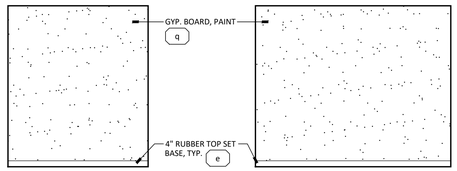
SOUTH WEST

702 MECH.

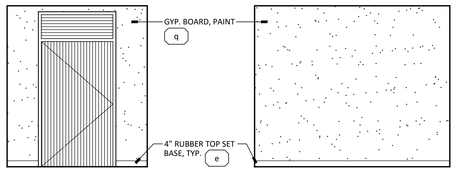


1 STAINLESS STEEL LAV.

SCALE: 1" = 1'-0" FOR TRANSITIONAL KINDERGARTEN OR YOUNGER USE

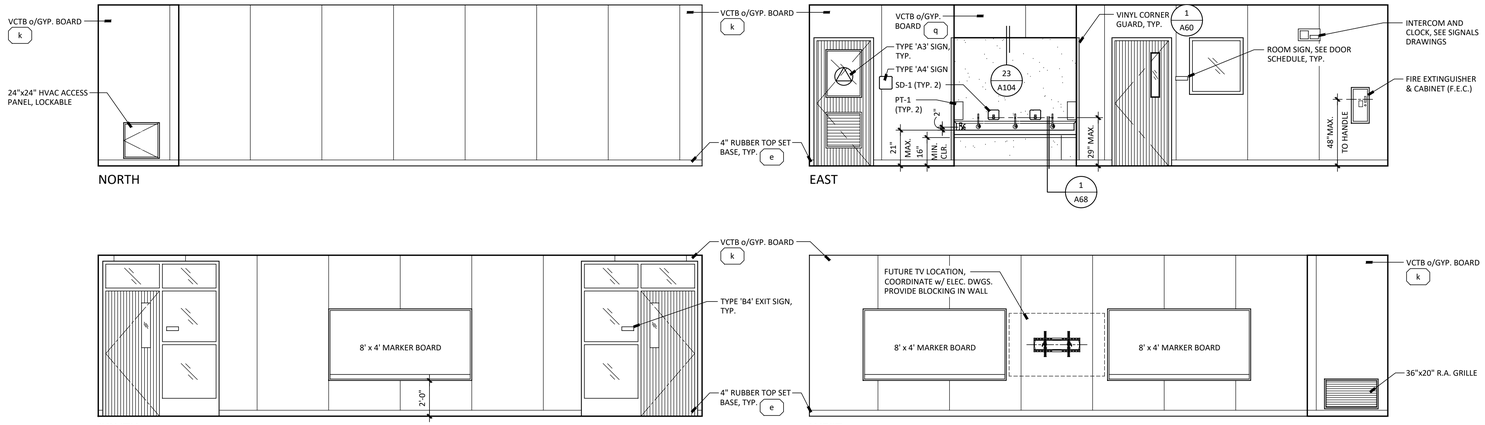


NORTH EAST



SOUTH WEST

703 STORAGE

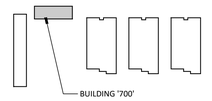


NORTH EAST SOUTH WEST

704 CLASSROOM RM. 708 O.H.

INTERIOR ELEVATION NOTES

1. FOR TYPICAL COUNTERTOP AND BACKSPLASH SEE DETAIL 13/A96 U.O.N.
2. FOR TYPICAL ACCESSIBLE MOUNTING HEIGHTS AND REQUIREMENTS ON ELEVATIONS SEE DETAILS 16/A97 18/A97 U.O.N.
3. FOR TYPICAL CABINET ANCHORAGE SEE DETAIL 1/A96
4. REFER TO SPECIFICATIONS FOR TOILET ACCESSORY ABBREVIATIONS.
5. ANY ACCESSORIES SHOWN N.I.C. SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR TO PROVIDE SOLID BLOCKING & INSTALLATION AT LOCATION SHOWN AS REQUIRED.
6. REFER TO FINISH SCHEDULE SHEETS FOR DESIGNATION OF WALL FINISHES.
7. ( ) = MATERIAL DEFINITION, REFER TO SHEETS A72
8. FOR TYPICAL GYPSUM BOARD EDGE SEE DETAIL 1/A97
9. ANY DISCREPANCY BETWEEN THE LOCATION OF DEVICES, FIXTURES, ETC., SHOWN HERE AND ON ANY PLUMBING, ELECTRICAL OR MECHANICAL SHEETS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO LAYOUT.
10. = A.D.A. ACCESSIBLE, SEE CABINET DETAIL 12/A96
11. FOR SIGN TEXT REFER TO DOOR SCHEDULE. FOR TYPES AND LOCATION SEE DETAIL 1/A84
12. FOR MARKER BOARD BLOCKING & ATTACHMENT SEE DETAIL 17/A96
13. FOR TV & SMART BOARD MONITOR BRACKET BLOCKING & ATTACHMENT SEE DETAIL 18/A96
14. FOR TYPICAL FIRE EXTINGUISHER CABINET (F.E.C.) MOUNTING, SEE DETAIL 10/A97
15. FOR GRAB BAR ANCHORAGE AT TOILETS, SEE DETAIL 8/A97
16. FOR TYPICAL TOILET PARTITION ANCHORAGE, SEE DETAIL 9A/A97 9B/A97
17. FOR ACCESSIBLE LAVATORY, SEE DETAILS 6/A97 7/A97
18. OPEN KNEE SPACE AT WORK STATIONS TO HAVE NO SHARP OR ABRASIVE EDGES UNDER COUNTER
19. FOR TYPICAL RUBBER TOPSET BASE AND CERAMIC TILE BASE, SEE DETAILS 21/A97 22/A97
20. REFER TO DETAIL FOR TILE PATTERN 1/A73



KEY PLAN

BUILDING '700' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

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APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING '700'
INTERIOR ELEVATIONS

A68

PROJECT 24042

CLASSROOM TECHNOLOGY STANDARDS

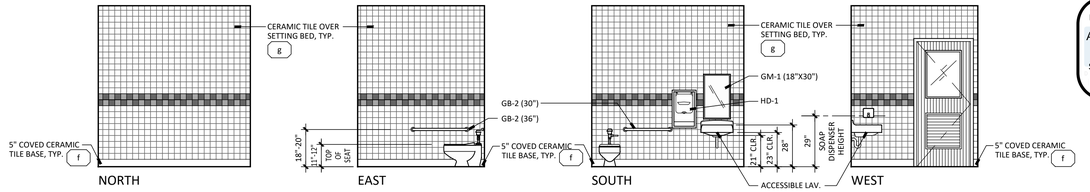
PER SANGER UNIFIED SCHOOL DISTRICT STANDARDS:

GRADES: TK-2 SHALL HAVE INTERACTIVE SMART BOARDS
35" FLOOR TO BOTTOM OF MOUNT
29" FLOOR TO BOTTOM OF SCREEN

GRADES: 3-6 SHALL HAVE 65" TVs
64" FLOOR TO BOTTOM OF MOUNT
48"-50" FLOOR TO BOTTOM OF TV SCREEN

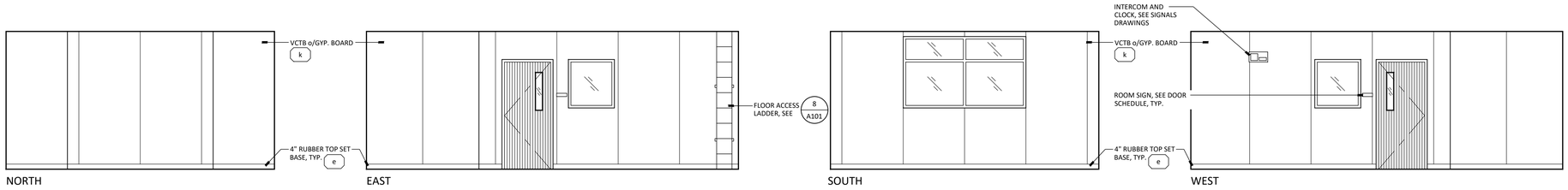
TOP OF MARKER BOARDS TO BE FLUSH WITH TOP OF INTERACTIVE SMART BOARD / TV

CLASSROOM #	GRADE
704	TK
708	TK

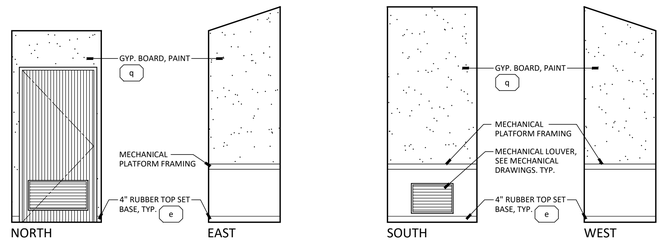


705 STUDENT TOILET RM. 707 O.H.

MOUNTING HEIGHTS FOR AGES 3-4



706 TEACHER WORK ROOM



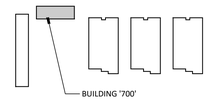
709 MECH. CLOSET RM. 710 SIM.

INTERIOR ELEVATION NOTES

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20. REFER TO DETAIL FOR TILE PATTERN 1/A73

BUILDING '700' INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



KEY PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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TITLE
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INTERIOR ELEVATIONS

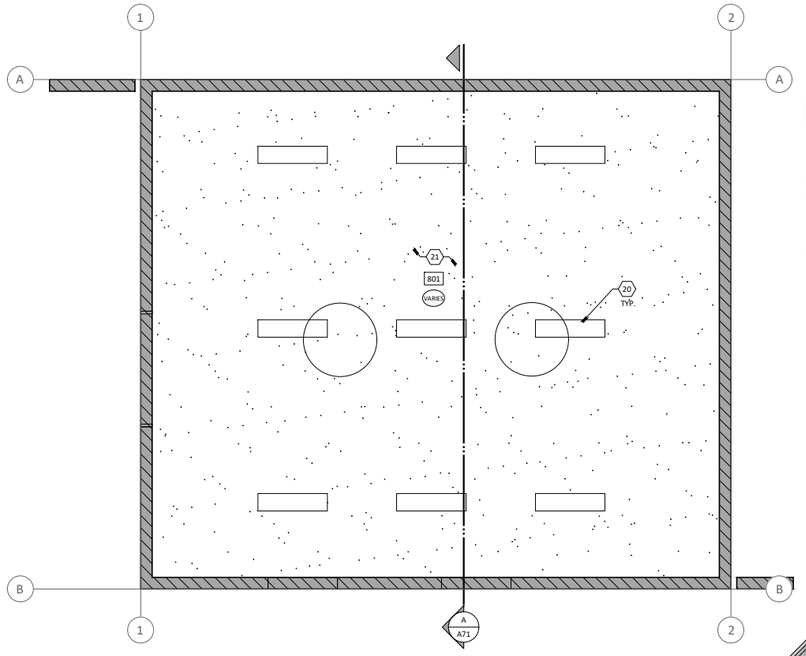
A69

PROJECT 24042

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774



REFLECTED CEILING PLAN LEGEND:

TAPED, TEXTURED AND PAINTED 5/8" THICK GYP. BD.

+X'-X" ELEVATION ABOVE FINISHED FLOOR

REFLECTED CEILING PLAN KEY NOTES,THIS SHEET ONLY:

20 LIGHT FIXTURE AS SHOWN, SEE ELECTRICAL DWGS.

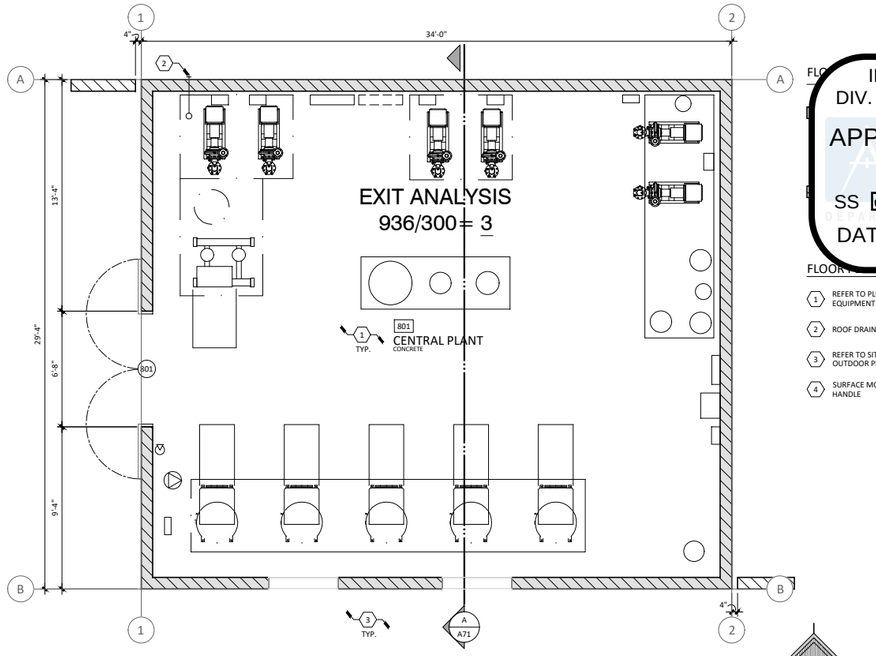
21 ROOF ASSEMBLY ABOVE CEILING IN THIS ROOM SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL 24/A104 SIM. FOR ADDITIONAL INFORMATION

BUILDING '800'

REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0"

north



FLOOR PLAN NOTES:

1 REFER TO PLUMBING & MECHANICAL DRAWINGS FOR EQUIPMENT LAYOUT AND ADDITIONAL INFORMATION

2 ROOF DRAIN OUTSPOUT THROUGH WALL

3 REFER TO SITE PLAN AND MECHANICAL DRAWINGS FOR OUTDOOR PIPING AND EQUIPMENT

4 SURFACE MOUNTED FIRE EXTINGUISHER, 42" MAX TO HANDLE

BUILDING '800'

FLOOR PLAN

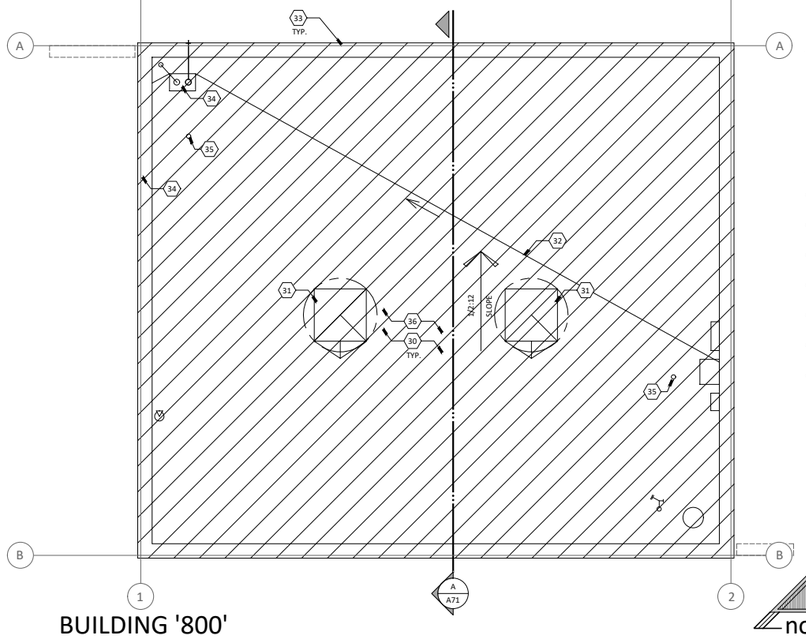
SCALE: 1/4" = 1'-0"

IDENTIFICATION STAMP
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

DEPARTMENT OF GENERAL SERVICES

ARCHITECT MORRELLI 33128 5-31-27 CALIFORNIA

BER 18, 2025



ROOF PLAN NOTES

1. CRICKETS INDICATED SHALL BE CONSTRUCTED OF RIGID INSULATION, ACCORDING TO THE DIMENSIONS INDICATED. SLOPE OF TAPERED INSULATION SHALL BE 1/2" IN 12".
2. ROOF DRAINS SHALL BE LOCATED 12" AWAY FROM THE PARAPET.

ROOF PLAN KEY NOTES, THIS SHEET ONLY:

30 CLASS 'A' BUILT-UP ROOFING SYSTEM, ENTIRE SLOPED ROOF TO BE WALKING SURFACE

31 ROOF EXHAUST FANS, COORDINATE w/ MECHANICAL DWGS.

32 SLOPING FORMED CRICKET

33 METAL CAP AND FLASHING, TYP. AT PARAPETS, SEE 24/A71

34 ROOF DRAIN AND OVERFLOW, SEE 11/A103

35 VTR PER PLUMBING DWGS. WHERE OCCURS, TYP.

36 ROOF ASSEMBLY BELOW (SHOWN CROSS HATCHED) SHALL CONTAIN FOAM IN PLACE INSULATION APPLIED DIRECT TO THE UNDERSIDE OF THE ROOF SHEATHING (MINIMUM TO ACHIEVE AN R-VALUE OF R-5) AND R-30 BATT INSULATION INSTALLED DIRECTLY UNDER THE FOAM IN PLACE INSULATION. REFER TO DETAIL 24/A104 SIM. FOR ADDITIONAL INFORMATION

BUILDING '800'

ROOF PLAN

SCALE: 1/4" = 1'-0"

north

EXIT ANALYSIS

BLDG. '800' ROOM #	NAME	AREA (SF)	SQ FT. / OCCUP.	# OCCUPANTS	TOTAL # OCCUPANTS	NUMBER OF REQUIRED EXITS CBC TABLE 1006.2.1	NUMBER OF PROVIDED EXITS CBC TABLE 1006.2.1	EGRESS WIDTH PER OCCUPANT SERVED CBC 1005.1	EXIT #	# OF OCC. THROUGH EXIT	REQ. EXIT WIDTH CALCULATION	EXIT WIDTH PROVIDED	DOOR ID #
	CALCULATED OCCUPANTS OF PRIMARY SPACES WITH ACCESSORY OCCUPANTS EXITING THROUGH CBC 1004.1					EXITING CALCULATIONS OF SPACES			EGRESS WIDTH CALCULATIONS				
801	CENTRAL PLANT	936	300	3	3	3 < 50 = 1 EXIT REQ.	1 EXIT PROVIDED	0.15" PER OCC.	EXIT 1	3	3 X 0.15" = 0.45"	72"	801

GENERAL FLOOR PLAN NOTES:

1. ALL PLAN DIMENSIONS ARE TO COLUMN CENTERLINE, EXTERIOR FACE OF SHEATHING, OR INTERIOR FACE OF STUD, U.O.N
2. CONSTRUCT ALL WALLS PER WALL ASSEMBLY KEY PLAN ON SHEET A80
3. WHERE SOUND INSULATION OR THERMAL INSULATION IS SHOWN ON WALL ASSEMBLY, INSULATION SHALL BE INSTALLED FULL HEIGHT OF WALL. REFER TO SPEC SECTION 07 2100
4. REFER TO ELEVATIONS AND DOOR SCHEDULE FOR ALL ROOM AND BUILDING SIGNAGE
5. SEAL PENETRATIONS IN RATED WALLS PER DETAIL 15/A97
6. FOR TYPICAL VAPOR BARRIER AT CONCRETE SLAB CONDITIONS, REFER TO DETAILS 23/A100 24/A100

NEW TEMPERANCE ELEMENTARY SCHOOL
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SANGER, FRESNO COUNTY, CA

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(559) 627 1309 Fax

TITLE
BUILDING '800'
FLOOR PLAN, CEILING PLAN, ROOF PLAN & EXIT ANALYSIS

A70

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_Building '800' Floor,Ceiling,&Roof Plan.dwg Sep 16 2026 5:02pm

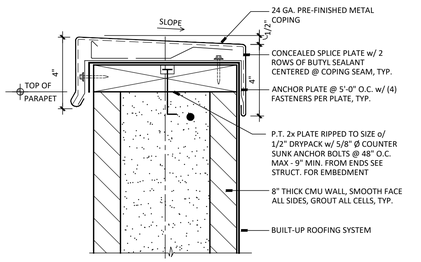
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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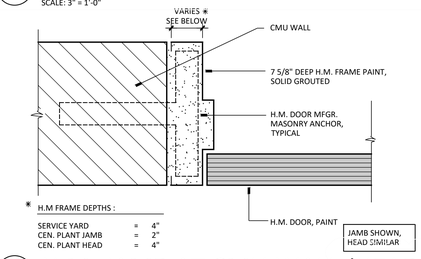
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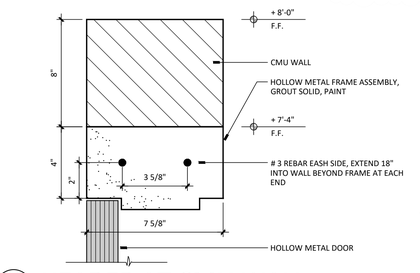
24 PARAPET CAP AT CMU WALL

SCALE: 3" = 1'-0"



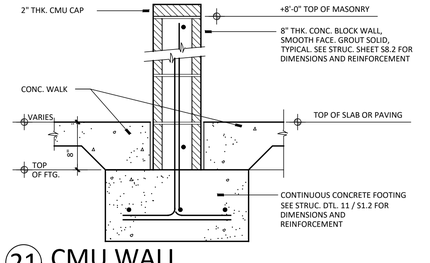
23 H.M. JAMB AT CMU WALL (HEAD SII

SCALE: 3" = 1'-0"



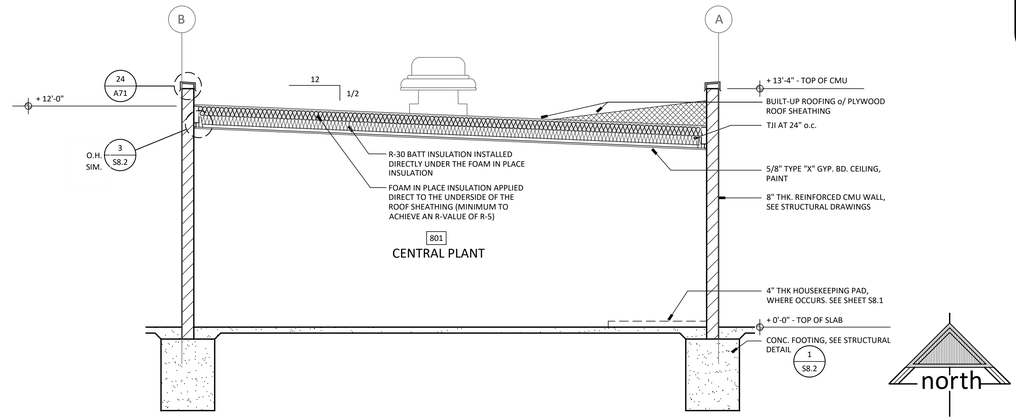
22 HEADER AT CMU WALL

SCALE: 3" = 1'-0"



21 CMU WALL

SCALE: 1 1/2" = 1'-0"



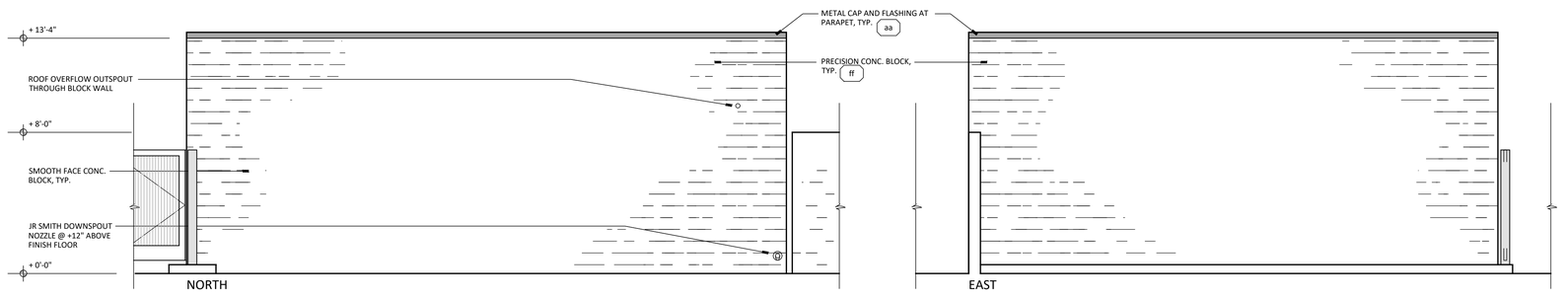
BUILDING '800'

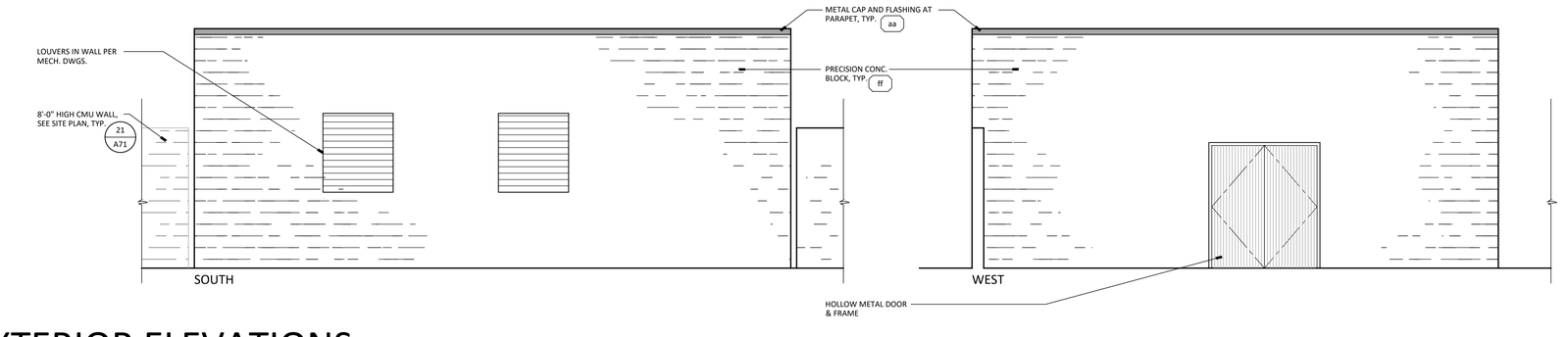
A CENTRAL PLANT SECTION

SCALE: 1/4" = 1'-0"

EXTERIOR ELEVATION NOTES:

1. FOR DOOR SIGNAGE, REFER TO DOOR SCHEDULE & DETAIL 1 A84
2. FOR ALL WALL ASSEMBLIES REFER TO SHEETS A80





EXTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"

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TITLE
BUILDING '800' SECTION, EXTERIOR ELEVATIONS, & DETAILS

A71

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

FINISHES

- a — REFER TO SPECIFICATIONS FOR MATERIAL / COLOR DESIGNATION
- b — 'TARKETT' PRIMARY COLOR 11906-STORMTROOPER 55317 CARPET TILE POWER BOND
- c — 'SHAW CONTRACT' TERRAIN II-20MIL 5MM #4110V- 00775 ECHO- 0075 ECHO- 6" X 48" TILE- INSTALL STAGGERED
- d — 'TARKETT' ABRASIVE ACTION IIN02578- 19103 WINTER GRAY - 24 X 24
- e — 'ROPPE' | #192 JET GRAY
- f — 'DAL TILE' KEYSTONE 2X2 MOSAIC | #D208 SUEDE GRAY SPECKLE WITH CUSTOM BUILD GROUT # 370 DOVE GRAY WITH COVED BASE #MBSA
- g — 'DAL TILE' COLOR WHEEL CLASSIC 4X4 WALL TILE | #0190 ARCTIC WHITE WITH CUSTOM BUILD. GROUT # 640 ARTIC WHITE
- h — 'DAL TILE' COLOR WHEEL CLASSIC 4X4 WALL TILE | #0182 SUEDE GRAY WITH CUSTOM BUILD. GROUT # 640 ARTIC WHITE
- j — 'DAL TILE' COLOR WHEEL CLASSIC 4X4 WALL TILE | #K189 NAVY WITH CUSTOM BUILD. GROUT # 640 ARTIC WHITE
- k — 'WESTERN BUILDING MATERIALS' SACKCLOTH - MISTY GRAY
- m — 'SHERWIN WILLIAMS' #SW7006 EXTRA WHITE
- n — 'SHERWIN WILLIAMS' #SW6719 GECKO
- o — 'SHERWIN WILLIAMS' #SW6510 LOYAL BLUE
- p — 'SHERWIN WILLIAMS' #SW9143 CADET
- q — 'SHERWIN WILLIAMS' #SW7004 SNOWBOUND
- r — 'CRANE' GLASBORD #85 WHITE - PEBBLED EMBOSSED FINISH
- s — 'INPRO' 800 HANDRAIL- # 0387 PEBBLE GRAY
- t — 'INRPO' WALL PROTECTION SHEETS- #0565 SMOKED STRATUS
- u — 'WILSONART' PREMIUM LAMINATE- #7991K-28 NEO WALNUT
- v — 'WILSONART' STD LAMINATE- #5033-38 HANDSPUN PEARL
- w — 'CORIAN' SOLID SURFACE -LAGUNA
- x — 'EPOXY' LIGHT GRAY
- y — 'TECTUM' FINISH: WHITE
- z — 'TIMBERLINE' COOL SERIES SHINGLES- FINISH: STONE GRAY
- aa — 'METAL SALES' KYNAR -REGAL BLUE (W35)
- bb — 'SCRANTON' - BLUEBERRY
- cc — 'DAL TILE' GLASS MOSAIC- #CL68 CITY LIGHTS/ 1'X1' SHEET WITH CUSTOM BUILD. GROUT #640 ARTIC WHITE
- dd — 'AMERIPOLISH CONCRETE'- BLACK
- ee — 'DAL TILE' GLASS MOSAIC- #CL75 FIJI / 1'X1' SHEET WITH CUSTOM BUILD. GROUT #640 ARTIC WHITE
- ff — 'BASALITE' PRECISION- COLOR: S-225(P)

EXTERIOR FINISHES

CEMENT PLASTER	o/p/m	METAL COPING / TRIM	o
CEMENT PLASTER SOFFIT	n/m	HOLLOW METAL DOOR	p
WINDOW & DOOR FRAME	p		

MATERIALS

FLOOR
0 CONCRETE, SEALED
10 CONCRETE, STAINED & POLISHED
11 EPOXY
12 CARPET
13 LUXURY VINYL TILE
14 2" SQ. CERAMIC MOSAIC TILE
15 EXPOSED PLYWOOD

BASE
20 4" RUBBER TOPSET
21 6" RUBBER TOPSET
22 5" HIGH - 2" SQ. COVED CERAMIC MOSAIC TILE
23 COVED EPOXY

WAINSCOT
30 IMPACT RESISTANT WALL COVERING
31 FIBERGLASS REINFORCED PANELING
32 4" CHAIR RAIL

WALLS
40 EGG SHELL ENAMEL o/ GYPSUM BOARD
41 SEMI-GLOSS ENAMEL o/ GYPSUM BOARD
42 VINYL COVERED TACKBOARD o/ GYPSUM BOARD
43 FIBERGLASS REINFORCED PANELING o/ GYPSUM BOARD
44 4 1/4" SQ. CERAMIC TILE o/ SETTING BED
45 STAINLESS STEEL PANEL o/ GYPSUM BOARD
46 TECTUM WALL PANEL
47 CERAMIC MOSAIC WALL TILE
48 CMU, SEALED

CEILINGS
50 24"x48" LAY-IN ACOUSTICAL CEILING, TYPE 'A' (SECOND LOOK)
51 24"x48" LAY-IN ACOUSTICAL CEILING, TYPE 'B'
52 24"x48" CLEAN ROOM LAY-IN ACOUSTICAL CEILING, TYPE 'E'
53 EGGSHELL ENAMEL o/ GYPSUM BOARD
54 SEMIGLOSS ENAMEL o/ GYPSUM BOARD
55 EXPOSED ROOF FRAMING
56 24"x48" LAY-IN ACOUSTICAL CEILING, TYPE 'F'

COUNTERTOPS
60 PLASTIC LAMINATE
61 SOLID SURFACE
62 STAINLESS STEEL

MILLWORK
70 PLASTIC LAMINATE
71 STAINLESS STEEL

FINISH SCHEDULE NOTES

1. CEILING HEIGHTS NOTED ON THIS SCHEDULE ARE FROM THE FLOOR BELOW IN THAT ROOM. THIS IS FOR THE PURPOSE OF ESTIMATING & DETERMINING INSTALLATION REQUIREMENTS.
2. REFER TO FLOOR PLANS, REFLECTED CEILING PLANS AND INTERIOR ELEVATIONS FOR EXTENT AND LOCATION OF INTERIOR FINISHES.
3. REFER TO EXTERIOR ELEVATIONS FOR EXTENT AND LOCATION OF EXTERIOR FINISHES.
4. REFER TO SPECIFICATIONS FOR METHOD OF APPLICATION AND MATERIALS DESCRIPTION.
5. WHERE MORE THAN ONE FINISH OR COLOR DESIGNATION OCCURS IN A BOX REFER TO THE APPROPRIATE PLAN OR INTERIOR ELEVATION FOR THE EXTENT AND DESIGNATION OF FINISH.
6. ALL GYP. BD. SHALL BE 5/8" THICK TYPE "X" UNLESS OTHERWISE NOTED.
7. REFER TO "INTERIOR ELEVATION NOTES" ON INTERIOR ELEVATION SHEETS FOR LOCATION IN THE DRAWINGS OF TYPICAL DETAILS.
8. FOR CABINET LAYOUT, VERIFY DIMENSIONS IN FIELD. DIMENSIONS NOTED ON DRAWINGS ARE NOMINAL - PROVIDE FILLERS @ END UNITS INCLUDING TOP OF CABINET AS REQUIRED FOR PROPER OPERATION AND CLOSING OF VOID SPACES.
9. PAINT METAL DOOR AND WINDOW FRAMES. PAINT METAL DOOR INTERIOR FACE, EXTERNAL FACE, AND ALL EDGES. WHERE INTERIOR AND EXTERIOR COLORS ARE DIFFERENT, PAINT EDGES TO MATCH THE SIDE TO WHICH THE DOOR OPENS.
10. PROTECT UNFINISHED CONCRETE FLOORS FROM DAMAGE DURING CONSTRUCTION . PREPARE FOR FINISH / SEALING BY HIGH PRESSURE WATER OR BEAD BLASTING AS REQUIRED TO REMOVE STAINS AND RESIDUE. GET APPROVAL OF ARCHITECT OR OWNER BEFORE SEALING. (TAKE EXTRA CARE WITH OCCUPIABLE ROOMS)
11. FINISH COLORS ARE SHOWN THUS:
12. WHERE MORE THAN ONE COLOR IS SHOWN THE DESIGNATION IS: — INTERIOR / EXTERIOR
13. AT ALL VINYL COVERED TACKBOARD EDGES, PROVIDE TACKBOARD MANUFACTURED TRIM

INTERIOR ROOM FINISH SCHEDULE - BLDG. 100

BUILDING "100"

BLDG.	ROOM NUMBER & NAME		FLOOR MAT'L	FLOOR FIN.	BASE MAT'L	BASE FIN.	WAINSCOT MAT'L	WAINSCOT FIN.	N. WALL MAT'L	N. WALL FIN.	E. WALL MAT'L	E. WALL FIN.	S. WALL MAT'L	S. WALL FIN.	W. WALL MAT'L	W. WALL FIN.	CEILING MAT'L	CEILING FIN.	CEILING HGT.	COUNTER MAT'L	COUNTER FIN.	LOWER MAT'L	LOWER FIN.	UPPER MAT'L	UPPER FIN.	REMARKS
	101	LOBBY	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	VARIES	-	-	-	-	-	-	
	102	STUDENT WAITING	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	50	a	9'-0"	-	-	-	-	-	-	
	103	RECEPTION DESK	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	VARIES	60 / 61	v / w	70	u	70	u	
	104	HALL	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	50 / 54	a / m	10'-0" / 7'-2"	-	-	-	-	-	-	
	105	OFFICE	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	50	a	9'-0"	-	-	-	-	-	-	
	106	PRINCIPAL	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	50	a	8'-10"	-	-	-	-	-	-	
	107	V. PRINCIPAL	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	50	a	8'-10"	-	-	-	-	-	-	
	108	WORK ROOM	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	51	a	10'-0"	60	v	70	u	70	u	
	109	HALL	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	50	a	10'-0"	61	w	70	u	70	u	
	110	TEACHER WORK ROOM	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	51	a	10'-0"	60	v	70	u	70	u	
	111	HALL	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	50	a	10'-0"	-	-	-	-	-	-	
	112	ELEC.	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	113	DATA	0	-	20	e	-	-	41	q	41	q	41	q	41	q	51	a	10'-0"	-	-	-	-	-	-	
	114	ELOP OFFICE	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	50	a	9'-0"	-	-	-	-	-	-	
	115	NURSE	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	50	a	9'-0"	60 / 61	v / w	70	u	70	u	
	116	RECOVERY ROOM	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	9'-0"	-	-	-	-	-	-	
	117	TOILET	14	f	22	f	-	-	47	g	47	g	47	g	47	g	54	m	9'-0"	-	-	-	-	-	-	
	118	OFFICE	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	50	a	9'-0"	-	-	-	-	-	-	
	119	OFFICE	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	50	a	9'-0"	-	-	-	-	-	-	
	120	WOMEN	14	f	22	f	-	-	47	h / g / j	47	h / g / j	47	h / g / j	47	h / g / j	54	m	9'-0"	61	w	70	u	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	121	MEN	14	f	22	f	-	-	47	h / g / j	47	h / g / j	47	h / g / j	47	h / g / j	54	m	9'-0"	61	w	70	u	-	-	
	122	HALL	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	50	a	9'-0"	-	-	-	-	-	-	
	123	JANITOR	0	-	21	e	31	cc	41	q	41	q	41	q	41	q	54	m	9'-0"	-	-	-	-	-	-	
	124	CONFERENCE	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	50	a	9'-0"	60	v	70	u	-	-	
	125	QUIET ROOM	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	51	a	9'-0"	60	v	70	u	-	-	
	126	ELOP	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	51	a	10'-0"	-	-	-	-	-	-	
	127	STORAGE	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	128	LIBRARY	10	dd	20	e	-	-	41 / 42	q / k	41 / 42	q / k	41 / 42	q / k	41 / 42	q / k	51 / 54	a / m	VARIES	60 / 61	v / w	70	u	70	u	

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

DEPARTMENT OF GENERAL SERVICES

ARCHITECT MORRELLI 33128 5-31-27 CALIFORNIA

BER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
www.mangini.us
(559) 627 0530 Office
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MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
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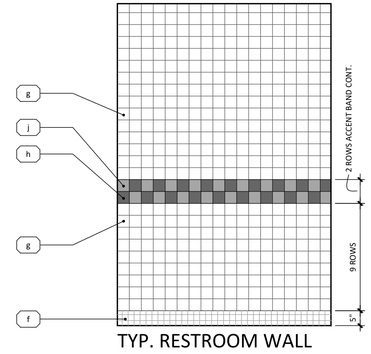
TITLE
FINISH SCHEDULE

A72

PROJECT 24042

INTERIOR ROOM FINISH SCHEDULE - BLDG. 200

BLDG.	ROOM NUMBER & NAME		FLOOR		BASE		WAINSCOT		N. WALL		E. WALL		S. WALL		W. WALL		CEILING			COUNTER		LOWER		UPPER		REMARKS:
			MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	HGT.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	
BUILDING "200"	201	STORAGE	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	8'-0"	-	-	-	-	-	-	
	202	STORAGE	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	8'-0"	-	-	70	u	-	-	SEE INTERIOR ELEVATIONS
	203	RAMP	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	VARIES	-	-	-	-	-	-	
	204	PLATFORM	10	dd	20	e	-	-	41/42	q/k	41/42	q/k	41/42	q/k	41/42	q/k	54	m	VARIES	-	-	-	-	-	-	
	205	CONTROL	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	11'-0"	-	-	-	-	-	-	
	206	CAFETERIA	10	dd	20	e	30	t	46/42 y/47 k g		42/41 k/46 q y		42/41 k/46 q y		42/41 k/46 q y		56	a	16'-0"	-	-	-	-	-	-	
	207	STORAGE	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	208	GIRLS	14	f	22	f	-	-	44	h/g j	44	h/g j	44	h/g j	44	h/g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	209	VESTIBULE	14	f	22	f	-	-	44	h/g j	44	h/g j	44	h/g j	44	h/g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	210	VESTIBULE	14	f	22	f	-	-	44	h/g j	44	h/g j	44	h/g j	44	h/g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	211	BOYS	14	f	22	f	-	-	44	h/g j	44	h/g j	44	h/g j	44	h/g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	212	OFFICE	11	x	23	x	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	60	v	70	u	-	-	
	213	ELECTRICAL	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	214	SERVING	11	x	23	x	-	-	43	r	43	r	43	r	43	r	52	a	10'-0"	62	a	71	a	-	-	
	215	KITCHEN	11	x	23	x	-	-	43	r	43/45	r/a	43	r	43	r	52	a	10'-0"	62	a	71	a	71	a	
	216	CLEAN-UP	11	x	23	x	-	-	43	r	43	r	43	r	43	r	52	a	10'-0"	62	a	71	a	71	a	
	217	FOOD PREP	11	x	23	x	-	-	-	-	43	r	43	r	43	r	52	a	10'-0"	62	a	71	a	71	a	
	218	REFRIG.	11	x	23	x	-	-	STAINLESS STEEL INSULATED WALL PANEL, SEE SPEC.										9'-0"	-	-	-	-	-	-	
	219	FREEZER	11	x	23	x	-	-	STAINLESS STEEL INSULATED WALL PANEL, SEE SPEC.										9'-0"	-	-	-	-	-	-	
	220	STAGING	11	x	23	x	-	-	43	r	43	r					52	a	10'-0"	-	-	-	-	-	-	
	221	PANTRY	11	x	23	x	-	-	43	r	43	r	43	r	43	r	54	m	10'-0"	-	-	-	-	-	-	
	222	UTILITY	11	x	23	x	-	-	43	r	43	r	43	r	43	r	52	a	10'-0"	62	a	-	-	-	-	
	223	JANITOR	11	x	23	x	-	-	43	r	43	r	43	r	43	r	54	m	10'-0"	-	-	-	-	-	-	
	224	VESTIBULE	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	8'-0"	-	-	-	-	-	-	
	225	WOMEN	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	8'-0"	-	-	-	-	-	-	
	226	MEN	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	8'-0"	-	-	-	-	-	-	
	227	FLEXIBLE CLASSROOM	10	dd	20	e	-	-	41/42	q/k	42	k	42	k	42	k	51	a	10'-0"	60		70	u	70	u	
	228	EQUIPMENT PLATFORM	15	-	-	-	-	-	41	-	41	-	41	-	41	-	55	-	VARIES	-	-	-	-	-	-	
	229	EQUIPMENT PLATFORM	15	-	-	-	-	-	41	-	41	-	41	-	41	-	55	-	VARIES	-	-	-	-	-	-	



TYP. RESTROOM WALL

1 TILE WALL PATTERNS

SCALE: 1/2" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0510 Office
(559) 627-1926 Fax

TITLE
FINISH SCHEDULE

A73

PROJECT 24042

INTERIOR ROOM FINISH SCHEDULE - BLDG. 300

BLDG.	ROOM NUMBER & NAME		FLOOR		BASE		WAINSCOT		N. WALL		E. WALL		S. WALL		W. WALL		CEILING			COUNTER		LOWER		UPPER		REMARKS:
			MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	HGT.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	
BUILDING "300"	301	HALL	10	dd	20	e	30	t	41 q		41	q	-	-	41/42	q/k	54	m	VARIES	-	-	-	-	-	-	
	302	CORRIDOR	10	dd	20	e	30	t	41	q	42 / 41 47 k/q g		41	q	41/42	q/k	54	m	VARIES	-	-	-	-	-	-	
	303	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	42	k	42	k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	304	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	41/42	q/k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	305	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	42	k	42	k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	306	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	41/42	q/k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	307	CLASSROOM	10	dd	20	e	-	-	42	k	41/42	q/k	41/42	q/k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	308	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	41/42	q/k	42	k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	309	CLASSROOM	10	dd	20	e	-	-	42	k	41/42	q/k	41/42	q/k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	310	STAFF T.	14	f	22	f	-	-	44	h / g j	44	h / g j	44	h / g j	44	h / g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	311	STAFF T.	14	f	22	f	-	-	44	h / g j	44	h / g j	44	h / g j	44	h / g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	312	DATA	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	313	HALL	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	314	JAN.	0	-	21	e	31	r	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	315	ELEC.	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	316	GIRLS	14	f	22	f	-	-	44	h / g j	44	h / g j	44	h / g j	44	h / g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	317	BOYS	14	f	22	f	-	-	44	h / g j	44	h / g j	44	h / g j	44	h / g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	318	CONFERENCE	10	dd	20	e	-	-	42	k	42	k	42	k	41	q	51	a	10'-0"	-	-	-	-	-	-	
	319	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	320	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	321	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	322	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	323	EQUIPMENT PLATFORM	15	-	-	-	-	-	41	-	41	-	41	-	41	-	55	-	VARIES	-	-	-	-	-	-	

INTERIOR ROOM FINISH SCHEDULE - BLDG. 400

BLDG.	ROOM NUMBER & NAME		FLOOR		BASE		WAINSCOT		N. WALL		E. WALL		S. WALL		W. WALL		CEILING			COUNTER		LOWER		UPPER		REMARKS:
			MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	HGT.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	
BUILDING "400"	401	HALL	10	dd	20	e	30	t	41	q	41	q	-	-	41/42	q/k	54	m	VARIES	-	-	-	-	-	-	
	402	CORRIDOR	10	dd	20	e	30	t	41	q	42 / 41 47 k/q g		41	q	41/42	q/k	54	m	VARIES	-	-	-	-	-	-	
	403	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	42	k	42	k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	404	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	41/42	q/k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	405	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	42	k	42	k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	406	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	41/42	q/k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	407	CLASSROOM	10	dd	20	e	-	-	42	k	41/42	q/k	41/42	q/k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	408	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	41/42	q/k	42	k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	409	CLASSROOM	10	dd	20	e	-	-	42	k	41/42	q/k	41/42	q/k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	410	S.D.C. TOILET	14	f	22	f	-	-	44	h / g j	44	h / g j	44	h / g j	44	h / g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	411	STAFF T.	14	f	22	f	-	-	44	h / g j	44	h / g j	44	h / g j	44	h / g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	412	DATA	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	413	HALL	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	414	JAN.	0	-	21	e	31	r	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	415	ELEC.	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	416	GIRLS	14	f	22	f	-	-	44	h / g j	44	h / g j	44	h / g j	44	h / g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	417	BOYS	14	f	22	f	-	-	44	h / g j	44	h / g j	44	h / g j	44	h / g j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	418	CONFERENCE	10	dd	20	e	-	-	42	k	42	k	42	k	41	q	51	a	10'-0"	-	-	-	-	-	-	
	419	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	420	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	421	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	422	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	423	EQUIPMENT PLATFORM	15	-	-	-	-	-	41	-	41	-	41	-	41	-	55	a	VARIES	-	-	-	-	-	-	

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
FINISH SCHEDULE

A74

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_Finish Schedule.dwg Sep 16 2026 5:02pm

INTERIOR ROOM FINISH SCHEDULE - BLDG. 500

BLDG.	ROOM NUMBER & NAME		FLOOR		BASE		WAINSCOT		N. WALL		E. WALL		S. WALL		W. WALL		CEILING			COUNTER		LOWER		UPPER		REMARKS:
			MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	HGT.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	
BUILDING "500"	501	HALL	10	dd	20	e	30	t	41	q	41	q	-	-	41/42	q/k	54	m	VARIES	-	-	-	-	-	-	
	502	CORRIDOR	10	dd	20	e	30	t	41	q	41/42	q/k	41	q	41/42	q/k	54	m	VARIES	-	-	-	-	-	-	
	503	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	42	k	42	k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	504	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	41/42	q/k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	505	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	42	k	42	k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	506	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	41/42	q/k	41/42	q/k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	507	CLASSROOM	10	dd	20	e	-	-	42	k	41/42	q/k	41/42	q/k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	508	CLASSROOM	10	dd	20	e	-	-	41/42	q/k	41/42	q/k	42	k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	509	CLASSROOM	10	dd	20	e	-	-	42	k	41/42	q/k	41/42	q/k	42	k	51/54	a/m	10'-0"/9'-0"	60	v	70	u	70	u	
	510	STAFF T.	14	f	22	f	-	-	44	h/g/j	44	h/g/j	44	h/g/j	44	h/g/j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	511	STAFF T.	14	f	22	f	-	-	44	h/g/j	44	h/g/j	44	h/g/j	44	h/g/j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	512	DATA	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	513	HALL	10	dd	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	514	JAN.	0	-	21	e	31	r	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	515	ELEC.	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	10'-0"	-	-	-	-	-	-	
	516	GIRLS	14	f	22	f	-	-	44	h/g/j	44	h/g/j	44	h/g/j	44	h/g/j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	517	BOYS	14	f	22	f	-	-	44	h/g/j	44	h/g/j	44	h/g/j	44	h/g/j	54	m	10'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	518	CONFERENCE	10	dd	20	e	-	-	42	k	42	k	42	k	41	q	51	a	10'-0"	-	-	-	-	-	-	
	519	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	520	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	521	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	522	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	523	EQUIPMENT PLATFORM	15	-	-	-	-	-	41	-	41	-	41	-	41	-	55	-	VARIES	-	-	-	-	-	-	

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
FINISH SCHEDULE

A75

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\24042_Finish Schedule.dwg Sep 16 2026 5:02pm

INTERIOR ROOM FINISH SCHEDULE - BLDG. 600

BLDG.	ROOM NUMBER & NAME		FLOOR		BASE		WAINSCOT		N. WALL		E. WALL		S. WALL		W. WALL		CEILING			COUNTER		LOWER		UPPER		REMARKS:
			MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	HGT.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	
BUILDING '600'	601	CLASSROOM	10	dd	20	e	-	-	41 / 42	q / k	42	k	42	k	42	k	51 / 54	a / m	9'-0" / 9'-0"	-	-	-	-	-	-	
	602	STUDENT TOILET	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	9'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	603	TEACHER WORK ROOM	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	54	m	9'-0"	-	-	-	-	-	-	
	604	STUDENT TOILET	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	9'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	605	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	41 / 42	q / k	42	k	51 / 54	a / m	9'-0" / 9'-0"	-	-	-	-	-	-	
	606	CLASSROOM	10	dd	20	e	-	-	41 / 42	q / k	42	k	42	k	42	k	51 / 54	a / m	9'-0" / 9'-0"	-	-	-	-	-	-	
	607	STUDENT TOILET	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	9'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	608	TEACHER WORK ROOM	10	dd	20	e	-	-	42	k	42	k	42	k	42	k	54	m	9'-0"	-	-	-	-	-	-	
	609	STUDENT TOILET	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	9'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	610	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	41 / 42	q / k	42	k	51 / 54	a / m	9'-0" / 9'-0"	-	-	-	-	-	-	
	611	JANITOR	0	-	21	e	31	r	41	q	41	q	41	q	41	q	54	m	9'-0"	-	-	-	-	-	-	
	612	STAFF TOILET	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	9'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	613	STUDENT TOILET	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	9'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	614	MECHANICAL CLOSET	0	-	21	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	615	MECHANICAL CLOSET	0	-	21	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	616	MECHANICAL CLOSET	0	-	21	e	-	-	41	q	41	q	41	q	41	q	55	a	VARIES	-	-	-	-	-	-	
	617	EQUIPMENT PLATFORM	15	-	-	-	-	-	41	-	41	-	41	-	41	-	55	-	VARIES	-	-	-	-	-	-	
	618	EQUIPMENT PLATFORM	15	-	-	-	-	-	41	-	41	-	41	-	41	-	55	-	VARIES	-	-	-	-	-	-	

INTERIOR ROOM FINISH SCHEDULE - BLDG. 700

BLDG.	ROOM NUMBER & NAME		FLOOR		BASE		WAINSCOT		N. WALL		E. WALL		S. WALL		W. WALL		CEILING			COUNTER		LOWER		UPPER		REMARKS:
			MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	HGT.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	
BUILDING '700'	701	ELECTRICAL	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	9'-0"	-	-	-	-	-	-	
	702	DATA	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	9'-0"	-	-	-	-	-	-	
	703	STORAGE	0	-	20	e	-	-	41	q	41	q	41	q	41	q	54	m	9'-0"	-	-	-	-	-	-	
	704	CLASSROOM	10	dd	20	e	-	-	42	k	41 / 42	q / k	42	k	42	k	51 / 54	a / m	9'-0" / 9'-0"	-	-	-	-	-	-	
	705	STUDENT TOILET	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	9'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	706	TEACHER WORK ROOM	10	dd	20	f	-	-	42	k	42	k	42	k	42	k	54	m	9'-0"	-	-	-	-	-	-	
	707	STUDENT TOILET	14	f	22	f	-	-	44	g	44	g	44	g	44	g	54	m	9'-0"	-	-	-	-	-	-	SEE TILE PATTERN ON DETAIL 1/A73
	708	CLASSROOM	10	dd	20	e	-	-	42	k	42	k	42	k	41 / 42	q / k	51 / 54	a / m	9'-0" / 9'-0"	-	-	-	-	-	-	
	709	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	x	VARIES	-	-	-	-	-	-	
	710	MECHANICAL CLOSET	0	-	20	e	-	-	41	q	41	q	41	q	41	q	55	x	VARIES	-	-	-	-	-	-	
	711	EQUIPMENT PLATFORM	15	-	-	-	-	-	41	-	41	-	41	-	41	-	55	-	VARIES	-	-	-	-	-	-	

INTERIOR ROOM FINISH SCHEDULE - BLDG. 800

BLDG.	ROOM NUMBER & NAME		FLOOR		BASE		WAINSCOT		N. WALL		E. WALL		S. WALL		W. WALL		CEILING			COUNTER		LOWER		UPPER		REMARKS:
			MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	HGT.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	
BLDG '800'	801	CENTRAL PLANT	0	-	-	-	-	-	48	a	48	a	48	a	48	a	54	m	VARIES	-	-	-	-	-	-	

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

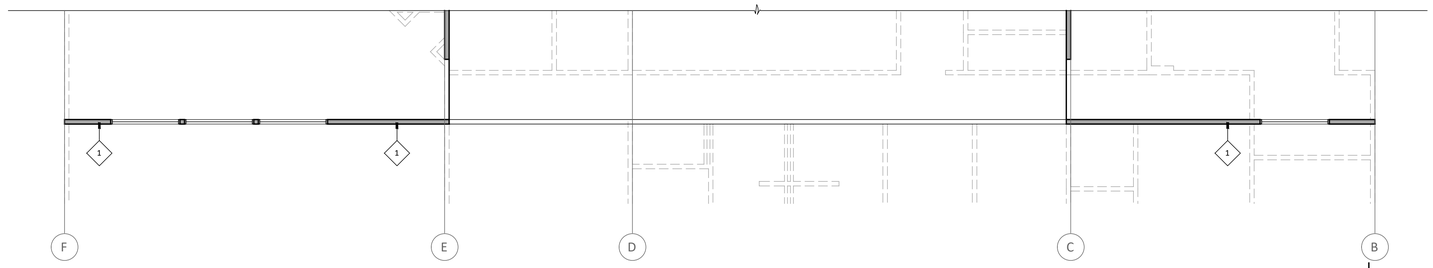
REVISIONS

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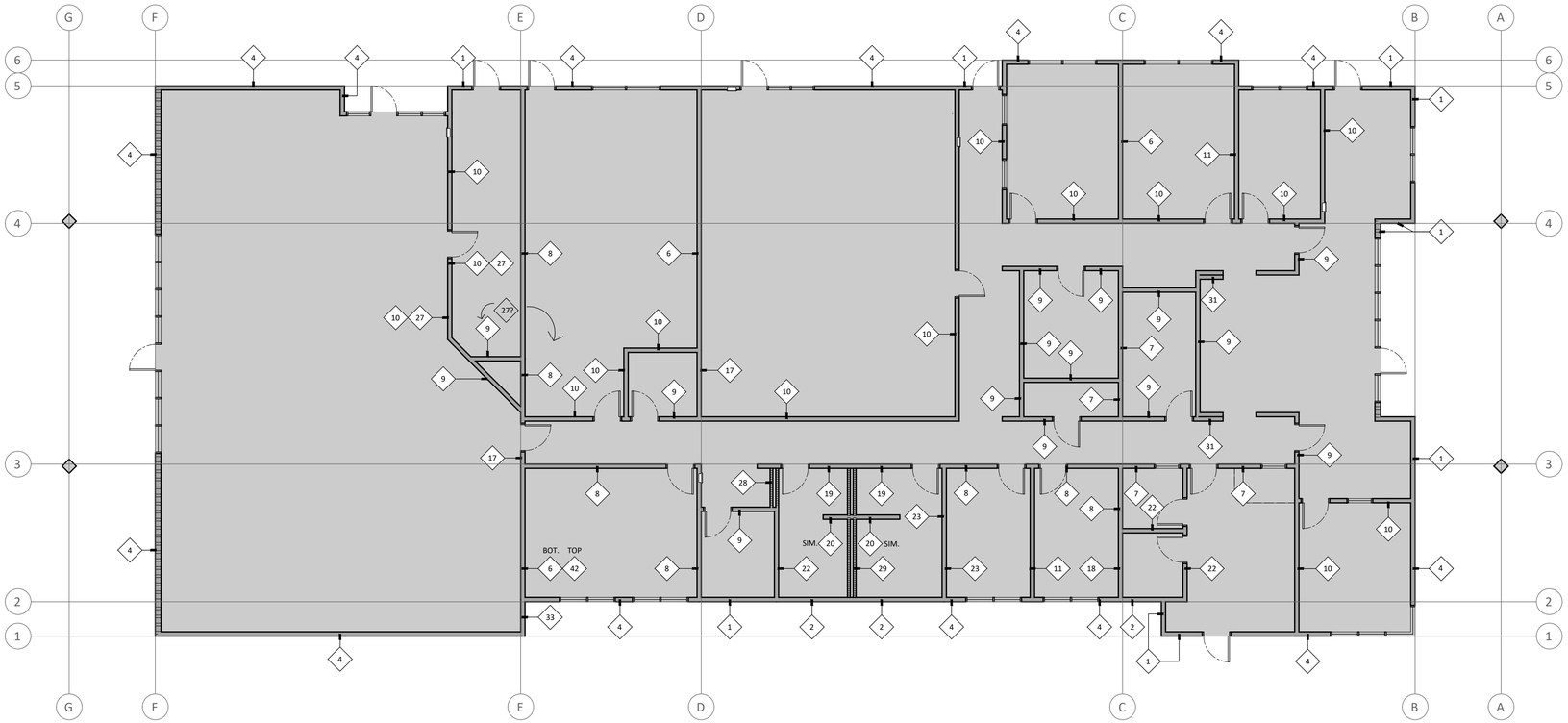
TITLE
FINISH SCHEDULE

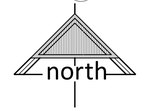
A76

PROJECT 24042

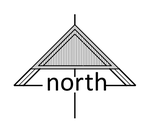


BUILDING '100'
WALL ASSEMBLY KEY PLAN AT CLERESTORY
SCALE: 1/8" = 1'-0"





BUILDING '100'
WALL ASSEMBLY KEY PLAN
SCALE: 1/8" = 1'-0"



LEGEND

- WALL ASSEMBLY CALLOUT, REFER TO SHEETS A81 & A82
- 2X8 WOOD STUDS @ 16" O.C.
- 2X6 WOOD STUDS @ 16" O.C.
- 2X4 WOOD STUDS @ 16" O.C.
- 14" X 14" ARCHITECTUALLY EXPOSED STRUCTURAL STEEL COLUMN INFILLED W/ PEA GRAVEL TO TOP OF COLUMN. COORDINATE WITH STRUCTURAL DWGS.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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DATE: 09/22/26

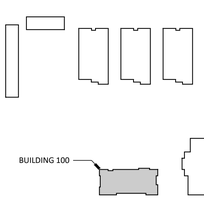
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

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KEY PLAN

TITLE
BUILDING '100'
WALL ASSEMBLY
KEY PLAN

A77

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

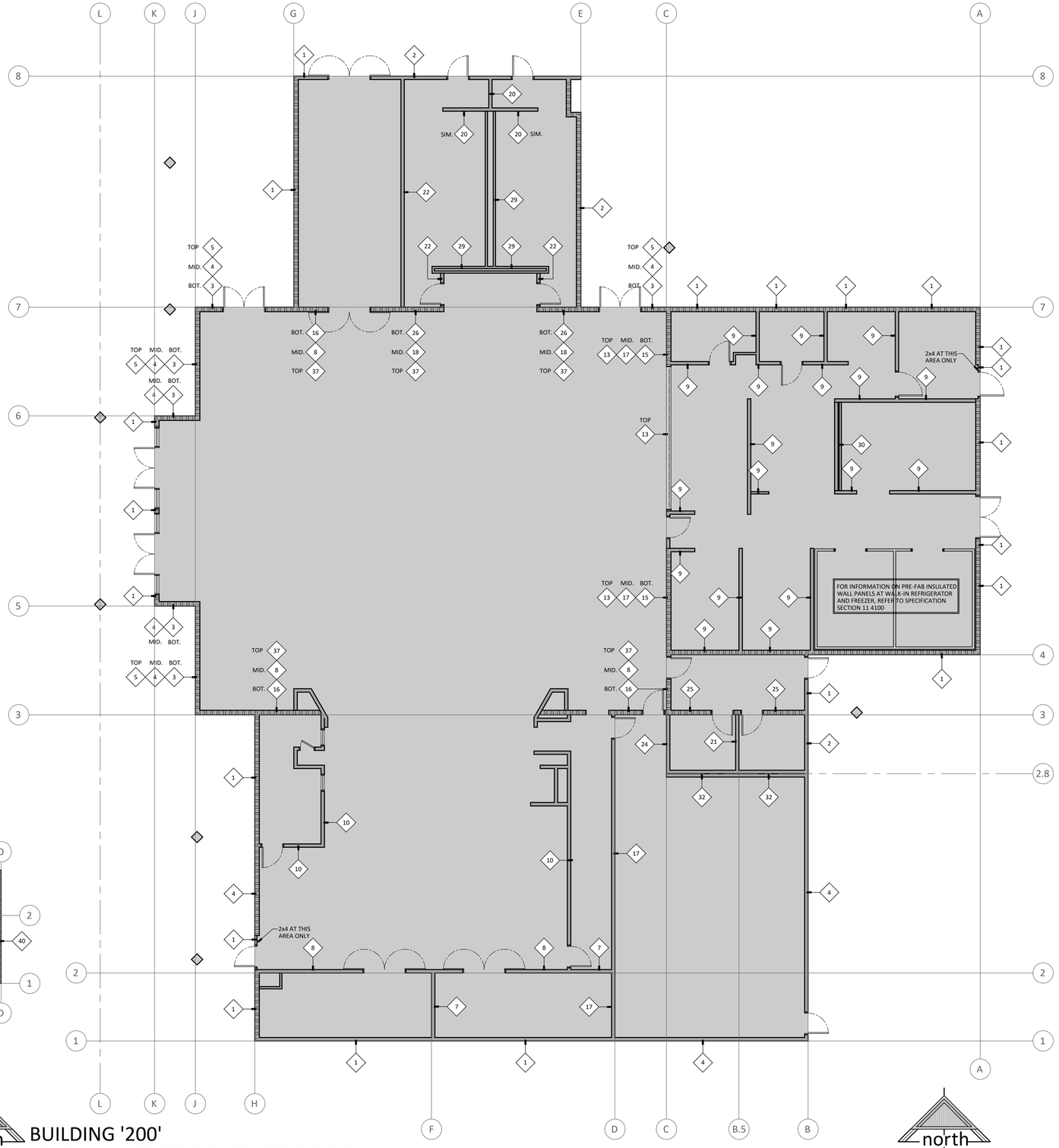
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

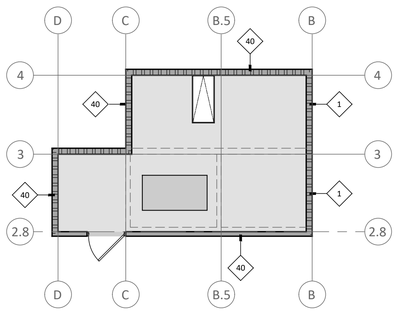
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

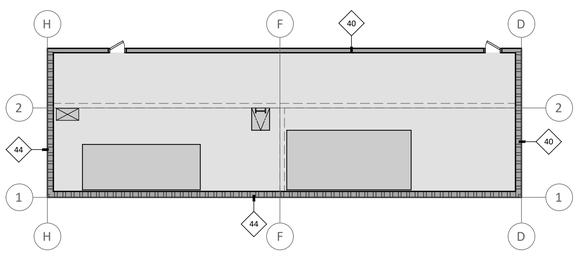
DATE: DECEMBER 18, 2025

LEGEND

- WALL ASSEMBLY CALLOUT, REFER TO SHEETS A81 & A82
- 2X8 WOOD STUDS @ 16" O.C.
- 2X6 WOOD STUDS @ 16" O.C.
- 2X4 WOOD STUDS @ 16" O.C.
- 14" X 14" ARCHITECTUALLY EXPOSED STRUCTURAL STEEL COLUMN INFILLED W/ PEA GRAVEL TO TOP OF COLUMN. COORDINATE WITH STRUCTURAL DWGS.







BUILDING '200' EQUIPMENT PLATFORMS

WALL ASSEMBLY KEY PLAN

SCALE: 1/8" = 1'-0"

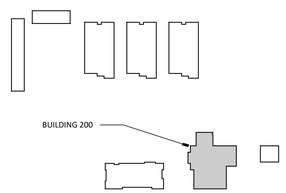
north

BUILDING '200'

WALL ASSEMBLY KEY PLAN

SCALE: 1/8" = 1'-0"

north



KEY PLAN

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING '200'
WALL ASSEMBLY
KEY PLAN

A78

PROJECT 24042

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

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JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

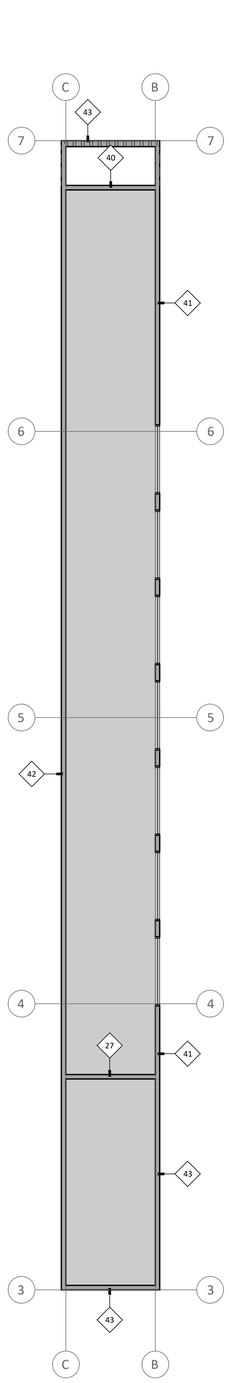
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

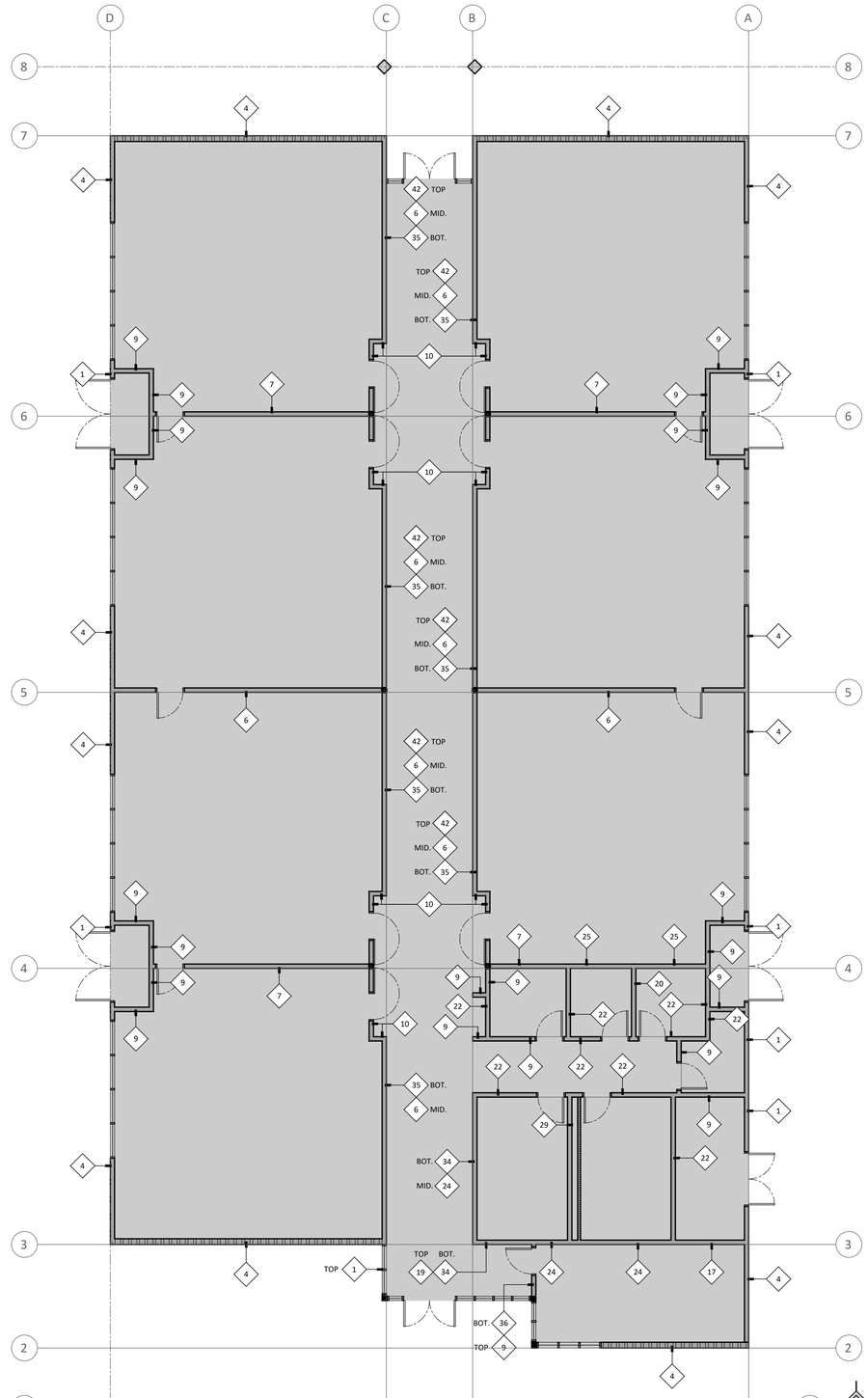
REVISIONS



BUILDING '300' '400' '500'
EQUIPMENT PLATFORMS
WALL ASSEMBLY KEY PLAN
SCALE: 1/8" = 1'-0"

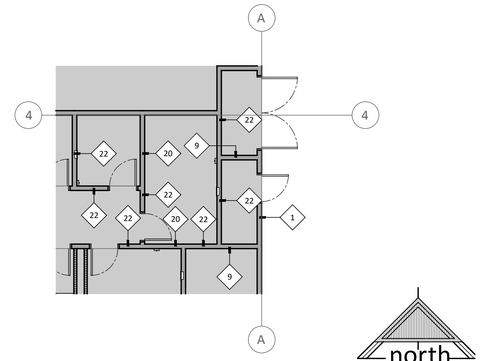
north





BUILDINGS '300' '400' '500'
WALL ASSEMBLY KEY PLAN (BLDG. '300' SHOWN, BLDG'S '400'& '500' SIMILAR)
SCALE: 1/8" = 1'-0"

north

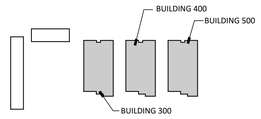


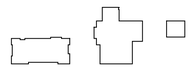
north

BUILDING '400' PARTIAL
WALL ASSEMBLY KEY PLAN
SCALE: 1/8" = 1'-0"

LEGEND

- X — WALL ASSEMBLY CALLOUT, REFER TO SHEETS A81 & A82
- 2X8 WOOD STUDS @ 16" O.C.
- 2X6 WOOD STUDS @ 16" O.C.
- 2X4 WOOD STUDS @ 16" O.C.
- 14" X 14" ARCHITECTUALLY EXPOSED STRUCTURAL STEEL COLUMN INFILLED W/ PEA GRAVEL TO TOP OF COLUMN. COORDINATE WITH STRUCTURAL DWGS.





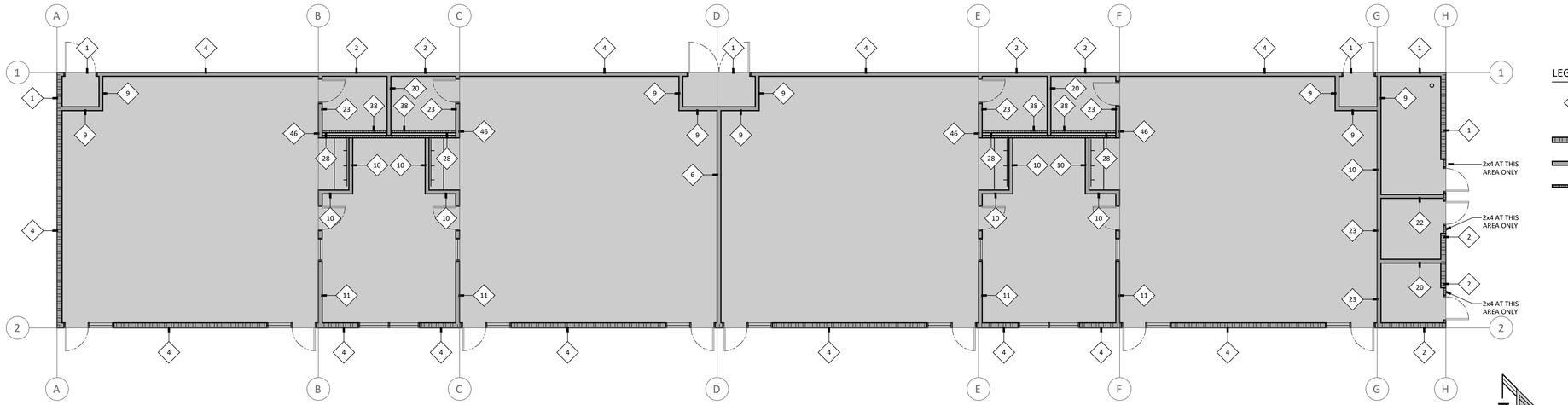
KEY PLAN

MANGINI | ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.1926 Office
(559) 627.1926 Fax

TITLE
BUILDINGS '300' '400' '500' WALL ASSEMBLY KEY PLAN

A79

PROJECT 24042



BUILDING '600'

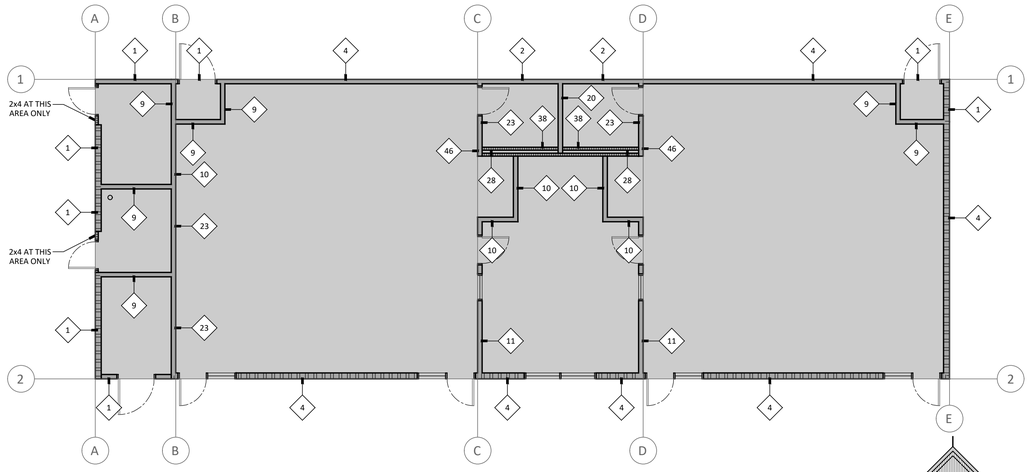
WALL ASSEMBLY KEY PLAN

SCALE: 1/8" = 1'-0"

north

LEGEND

- WALL ASSEMBLY CALLOUT, REFER TO SHEETS A81 & A82
- 2X8 WOOD STUDS @ 16" O.C.
- 2X6 WOOD STUDS @ 16" O.C.
- 2X4 WOOD STUDS @ 16" O.C.

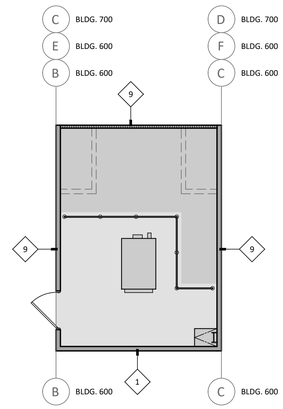


BUILDING '700'

WALL ASSEMBLY KEY PLAN

SCALE: 1/8" = 1'-0"

north

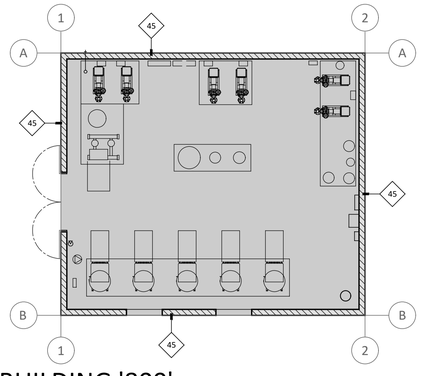


BUILDING '600' & '700'
EQUIPMENT PLATFORM

WALL ASSEMBLY KEY PLAN

SCALE: 1/8" = 1'-0"

north

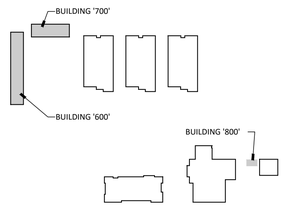


BUILDING '800'

WALL ASSEMBLY KEY PLAN

SCALE: 1/8" = 1'-0"

north



KEY PLAN

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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REN. 05-31-27
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SANGER, FRESNO COUNTY, CA

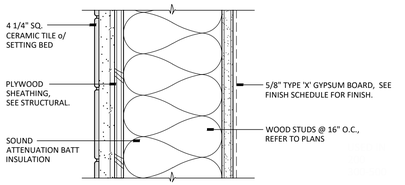
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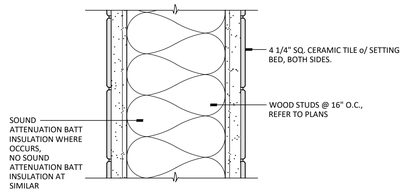
TITLE
BUILDINGS
'600' '700' '800'
WALL ASSEMBLY
KEY PLAN

A80

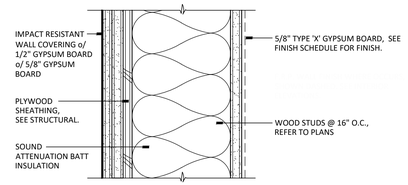
PROJECT 24042



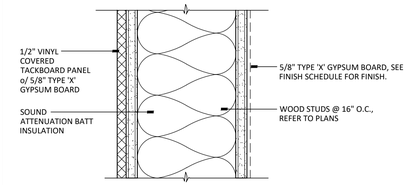
25 WALL ASSEMBLY
SCALE: 3" = 1'-0"



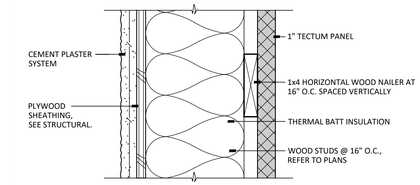
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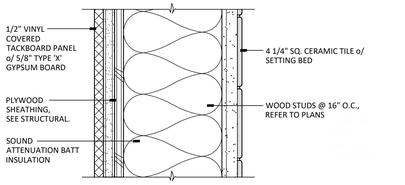
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SCALE: 3" = 1'-0"



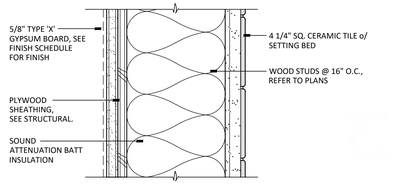
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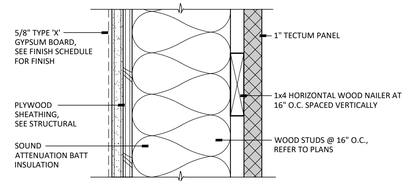
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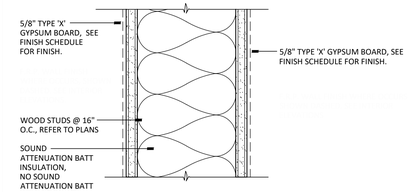
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SCALE: 3" = 1'-0"



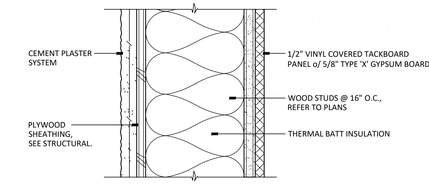
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SCALE: 3" = 1'-0"



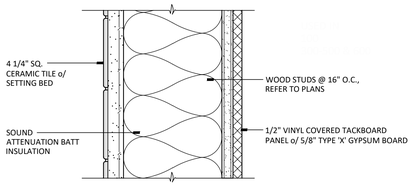
14 WALL ASSEMBLY
SCALE: 3" = 1'-0"



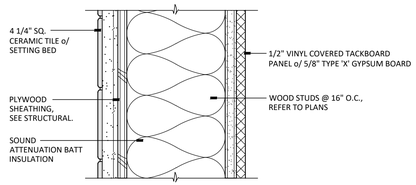
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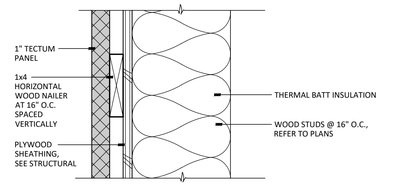
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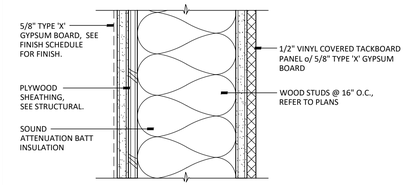
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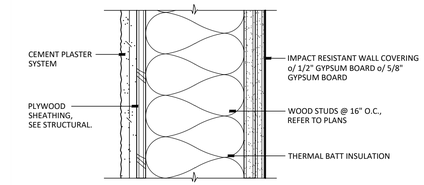
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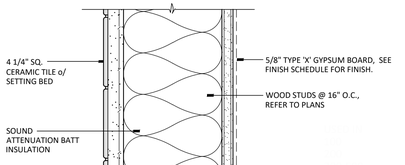
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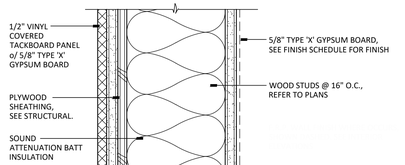
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SCALE: 3" = 1'-0"



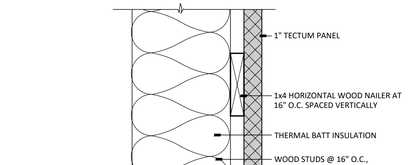
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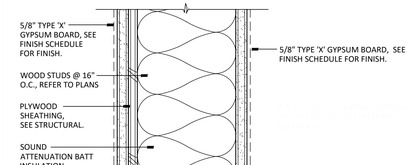
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SCALE: 3" = 1'-0"



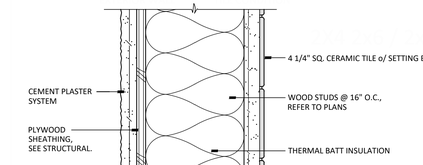
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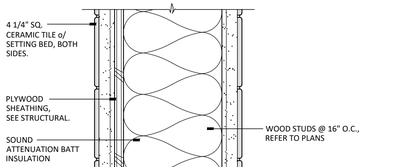
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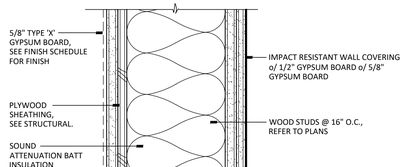
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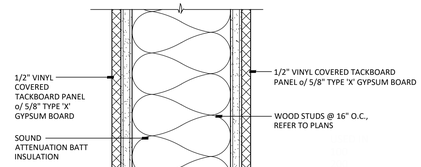
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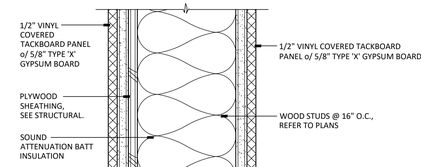
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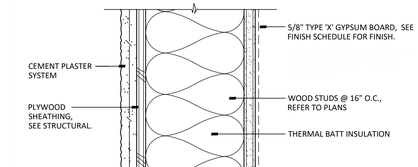
16 WALL ASSEMBLY
SCALE: 3" = 1'-0"



11 WALL ASSEMBLY
SCALE: 3" = 1'-0"



6 WALL ASSEMBLY
SCALE: 3" = 1'-0"



1 WALL ASSEMBLY
SCALE: 3" = 1'-0"

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APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. 21128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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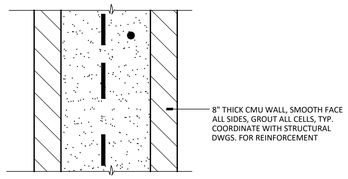
REVISIONS

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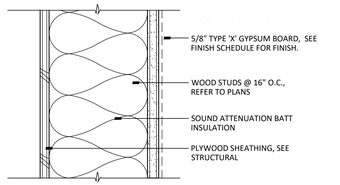
TITLE
WALL ASSEMBLY DETAILS

A81

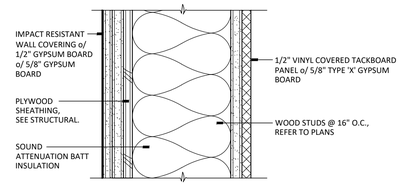
PROJECT 24042



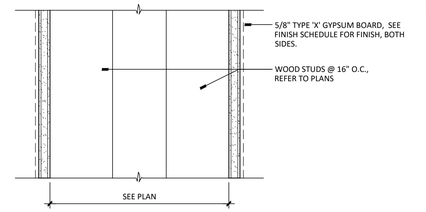
45 CMU WALL ASSEMBLY
SCALE: 3" = 1'-0"



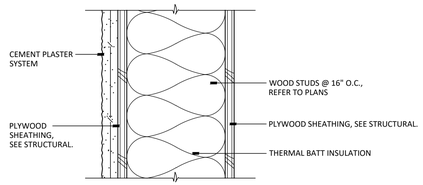
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SCALE: 3" = 1'-0"



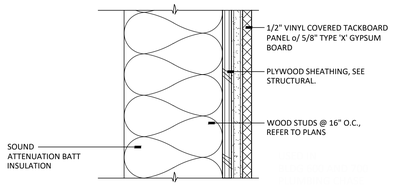
35 WALL ASSEMBLY
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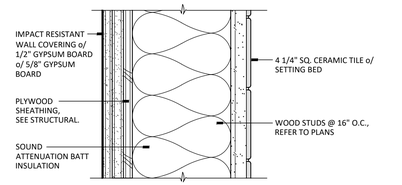
30 WALL ASSEMBLY
SCALE: 3" = 1'-0"



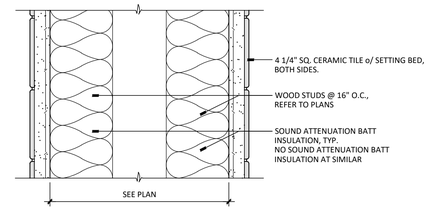
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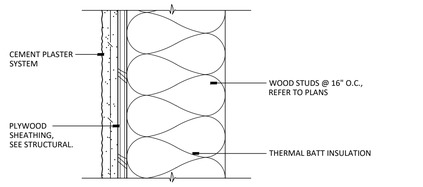
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SCALE: 3" = 1'-0"



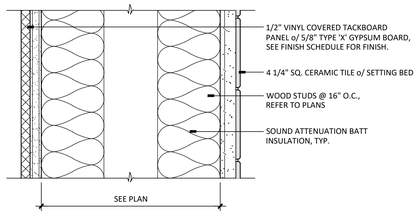
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SCALE: 3" = 1'-0"



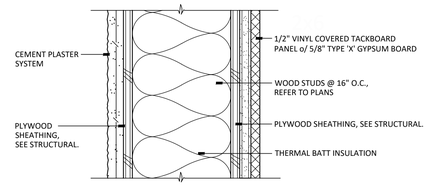
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SCALE: 3" = 1'-0"



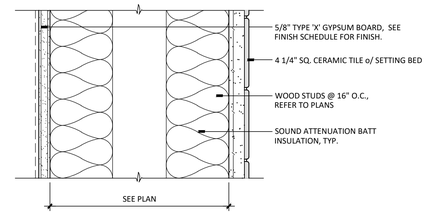
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SCALE: 3" = 1'-0"



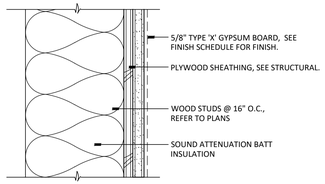
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SCALE: 3" = 1'-0"



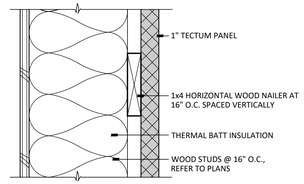
33 WALL ASSEMBLY
SCALE: 3" = 1'-0"



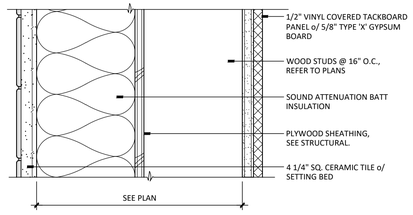
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SCALE: 3" = 1'-0"



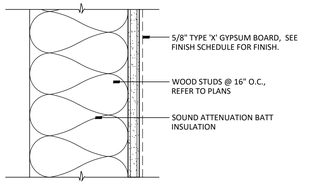
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SCALE: 3" = 1'-0"



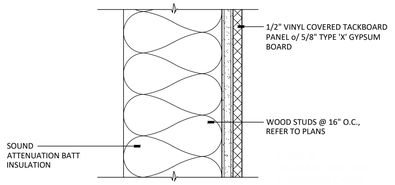
37 WALL ASSEMBLY
SCALE: 3" = 1'-0"



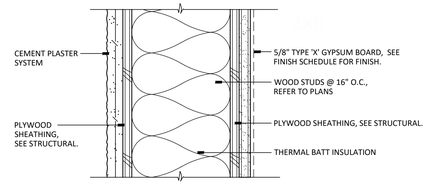
32 WALL ASSEMBLY
SCALE: 3" = 1'-0"



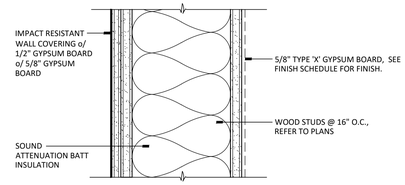
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SCALE: 3" = 1'-0"



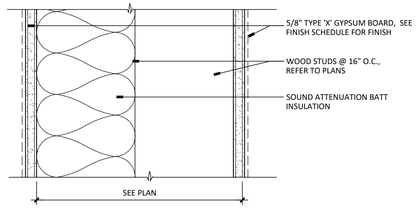
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SCALE: 3" = 1'-0"



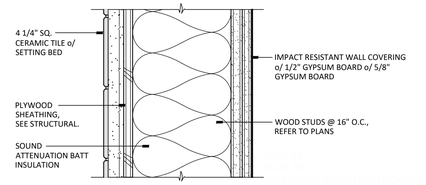
41 WALL ASSEMBLY
SCALE: 3" = 1'-0"



36 WALL ASSEMBLY
SCALE: 3" = 1'-0"



31 WALL ASSEMBLY
SCALE: 3" = 1'-0"



26 WALL ASSEMBLY
SCALE: 3" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

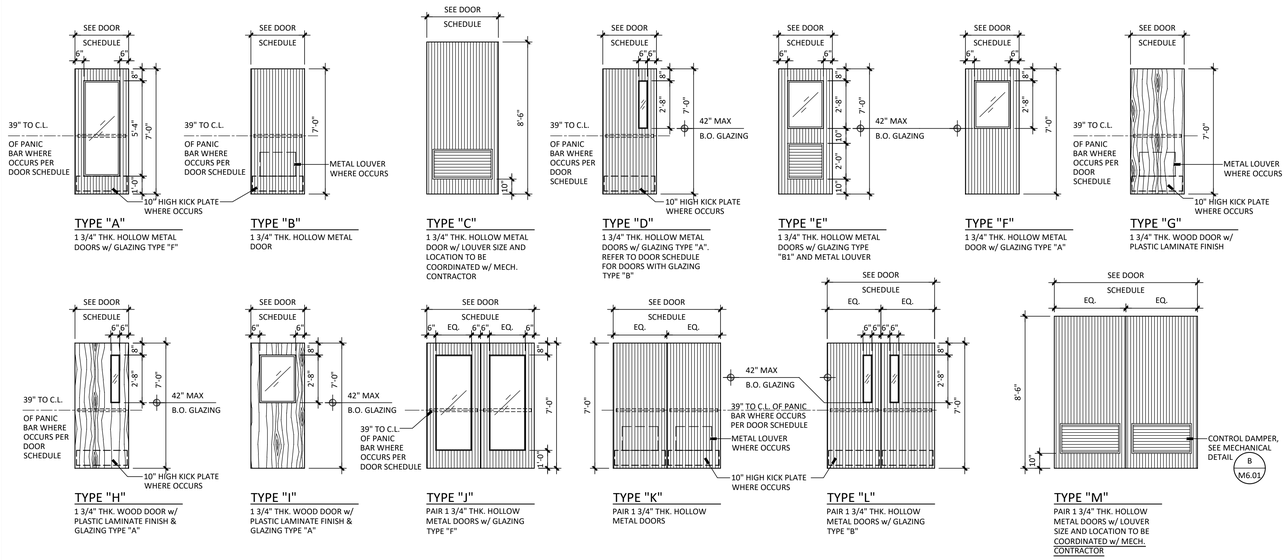
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
WALL ASSEMBLY DETAILS

A82

PROJECT 24042

DOOR TYPES



TYPE "A" — 1 3/4" THK. HOLLOW METAL DOORS w/ GLAZING TYPE "F"

TYPE "B" — 1 3/4" THK. HOLLOW METAL DOOR

TYPE "C" — 1 3/4" THK. HOLLOW METAL DOOR w/ LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR

TYPE "D" — 1 3/4" THK. HOLLOW METAL DOORS w/ GLAZING TYPE "A". REFER TO DOOR SCHEDULE FOR DOORS WITH GLAZING TYPE "B"

TYPE "E" — 1 3/4" THK. HOLLOW METAL DOORS w/ GLAZING TYPE "B1" AND METAL LOUVER

TYPE "F" — 1 3/4" THK. HOLLOW METAL DOOR w/ GLAZING TYPE "A"

TYPE "G" — 1 3/4" THK. WOOD DOOR w/ PLASTIC LAMINATE FINISH

TYPE "H" — 1 3/4" THK. WOOD DOOR w/ PLASTIC LAMINATE FINISH & GLAZING TYPE "A"

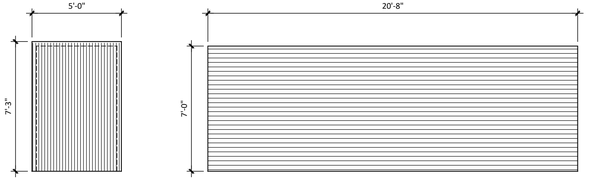
TYPE "I" — 1 3/4" THK. WOOD DOOR w/ PLASTIC LAMINATE FINISH & GLAZING TYPE "A"

TYPE "J" — PAIR 1 3/4" THK. HOLLOW METAL DOORS w/ GLAZING TYPE "F"

TYPE "K" — PAIR 1 3/4" THK. HOLLOW METAL DOORS

TYPE "L" — PAIR 1 3/4" THK. HOLLOW METAL DOORS w/ GLAZING TYPE "B"

TYPE "M" — PAIR 1 3/4" THK. HOLLOW METAL DOORS w/ LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR



TYPE "N" — 1 3/4" THK. HOLLOW METAL SLIDING DOOR

TYPE "O" — ROLL-UP MOTORIZED DOOR WITH INTEGRAL FRAME.

DOOR SCHEDULE

BLDG. NO.	DOOR NO.	TYPE	DIMENSIONS WIDTH	HGT.	THK.	HDWR. GROUP	FINISH	FIRE RATING	FRAME TYPE	FRAME DEPTH	FRAME FINISH	DETAILS HEAD	JAMB	JAMB	SILL	SIGNAGE TYPE	SIGNAGE TEXT	REMARKS:
BUILDING '100'	101	A	3'-0"	7'-0"	1 3/4"	01	p	-	6	10 1/8"	p	2	2	2	1	B2	**	** INDICATES VERIFY RM. NAME & NUMBER WITH OWNER PRIOR TO FABRICATION, TYP.
												A88	A88	A88	A89	B4	EXIT	
	102	A	3'-0"	7'-0"	1 3/4"	02	p	-	9	8 3/8"	p	7	23	23	1	B3	**	
												A88	A89	A89	A89	B4	EXIT	
	103	D	3'-0"	7'-0"	1 3/4"	02	p	-	9	8 3/8"	p	7	23	23	1	B2	**	PROVIDE TYPE 'B' GLAZING
												A88	A89	A89	A89	B4	EXIT	
	104	D	3'-0"	7'-0"	1 3/4"	02	p	-	8	8 3/8"	p	7	6	6	1	B3	**	PROVIDE TYPE 'B' GLAZING
												A88	A90	A90	A89	B4	EXIT	
	105	D	3'-0"	7'-0"	1 3/4"	02	p	-	9	8 3/8"	p	7	6	6	1	B2	**	PROVIDE TYPE 'B' GLAZING
												A88	A90	A90	A89	B4	EXIT	
	106	B	3'-0"	7'-0"	1 3/4"	06	p	-	9	8 3/8"	p	7	23	23	1 SIM.	B2	**	
												A88	A89	A89	A89	B4	EXIT	
	107	A	3'-0"	7'-0"	1 3/4"	02	p	-	7	8 3/8"	p	7	7	7	1	B2	**	
												A88	A88	A88	A89	B4	EXIT	
	108	A	3'-0"	7'-0"	1 3/4"	02	p	-	1	10 1/8"	p	2	2	2	1	B2	**	
												A88	A88	A88	A89	B4	EXIT	
	109	D	3'-0"	7'-0"	1 3/4"	06	p	-	9	8 3/8"	p	7	23	23	1	B2	**	PROVIDE TYPE 'B' GLAZING
												A88	A89	A89	A89	B4	EXIT	
	110	H	3'-0"	7'-0"	1 3/4"	14	u	-	12	8"	p	9 SIM.	9	9	2	B2	**	
												A89	A89	A89	A89	B5	EXIT ROUTE	
	111	H	3'-0"	7'-0"	1 3/4"	14	u	-	12	8"	p	9 SIM.	9	9	2	B2	**	
												A89	A89	A89	A89	B5	EXIT ROUTE	
	112	H	3'-0"	7'-0"	1 3/4"	19	u	-	12	8"	p	8 SIM.	8	8	2	B3	**	
												A89	A89	A89	A89	-	-	
	113	H	3'-0"	7'-0"	1 3/4"	19	u	-	12	8"	p	8 SIM.	8	8	2	B3	**	
												A89	A89	A89	A89	-	-	
	114	H	3'-0"	7'-0"	1 3/4"	19	u	-	12	8"	p	8 SIM.	8	8	2	B3	**	
												A89	A89	A89	A89	-	-	
	115	H	3'-0"	7'-0"	1 3/4"	20	u	-	12	8"	p	9 SIM.	9	9	2	B2	**	
												A89	A89	A89	A89	-	-	
	116	H	3'-0"	7'-0"	1 3/4"	13	u	-	12	8"	p	8 SIM.	8	8	2	B2	**	
												A89	A89	A89	A89	B2	**	
	117	H	3'-0"	7'-0"	1 3/4"	19	u	-	12	8"	p	8 SIM.	8	8	2	B2	**	
												A89	A89	A89	A89	-	-	
	118	I	3'-0"	7'-0"	1 3/4"	19	u	-	12b	8 1/2"	p	25 SIM.	25	25	2	B2	NURSE	
												A89	A89	A89	A89	-	-	
	119	I	3'-0"	7'-0"	1 3/4"	19	u	-	12	8"	p	9 SIM.	9	9	2	B2	**	
												A89	A89	A89	A89	-	-	
	120	G	3'-0"	7'-0"	1 3/4"	21	u	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	UNISEX	
												A90	A90	A90	A89	-	-	
	121	G	3'-0"	7'-0"	1 3/4"	22	u	-	12	8"	p	9 SIM.	9	9	22	B2	**	
												A89	A89	A89	A89	-	-	
	122	G	3'-0"	7'-0"	1 3/4"	28	u	-	12	8"	p	9 SIM.	9	9	21	B2	**	24"x30" LOUVER
												A89	A89	A89	A89	-	-	
	123	H	3'-0"	7'-0"	1 3/4"	19	u	-	12b	8 1/2"	p	13 SIM.	13	13	2	B2	**	
												A89	A89	A89	A89	-	-	
	124	H	3'-0"	7'-0"	1 3/4"	19	u	-	12b	8 1/2"	p	13 SIM.	13	13	2	B2	**	
												A89	A89	A89	A89	-	-	
	125	G	3'-0"	7'-0"	1 3/4"	15	u	-	12b	8 1/2"	p	1 SIM.	1	1	6	A2 / A4	WOMEN	
												A90	A90	A90	A89	-	-	
	126	G	3'-0"	7'-0"	1 3/4"	15	u	-	12b	8 1/2"	p	1 SIM.	1	1	6	A1 / A4	MEN	
												A90	A90	A90	A89	-	-	
	127	G	3'-0"	7'-0"	1 3/4"	22	u	-	12	8"	p	9 SIM.	9	9	22	B2	**	
												A89	A89	A89	A89	-	-	
	128	H	3'-0"	7'-0"	1 3/4"	19	u	-	12b	8 1/2"	p	13 SIM.	13	13	2	B2	**	
												A89	A89	A89	A89	-	-	
	129	G	3'-0"	7'-0"	1 3/4"	17	u	-	12	8"	p	9 SIM.	9	9	2	B3	**	
												A89	A89	A89	A89	-	-	
	130	H	3'-0"	7'-0"	1 3/4"	14	u	-	12	8"	p	8 SIM.	8	8	2	B2	**	
												A89	A89	A89	A89	B2	**	
	131	H	3'-0"	7'-0"	1 3/4"	14	u	-	12b	8 1/2"	p	15 SIM.	15	15	2	B2	**	
												A89	A89	A89	A89	B2	**	
	132	H	3'-0"	7'-0"	1 3/4"	22	u	-	12	8"	p	8 SIM.	8	8	22	B2		
												A89	A89	A89	A89	-	-	

DOOR SCHEDULE NOTES:

1. VERIFY DOOR SWINGS WITH FLOOR PLAN.
2. METAL FRAMES SHALL FIT TIGHT TO WALL. SHIM GYP. BD. AS REQUIRED FOR PLUMB TOLERANCE AT FRAME AND GYP. BD.
3. PAINT H.M. DOORS AND FRAMES SEMI-GLOSS ENAMEL IN ACCORDANCE WITH SPECIFICATIONS. REFER TO FINISH COLORS FOR DESIGNATION.
4. PAINT DOORS AND FRAMES SEMI-GLOSS IN ACCORDANCE WITH SPECIFICATIONS. DO NOT PAINT OR ALTER FIRE RESISTANCE RATING LABELS, WHERE OCCURS.
5. PAINT DOORS THE SAME COLOR ON BOTH SIDES UNLESS OTHERWISE NOTED THUS:
   INTERIOR
   EXTERIOR
   WHEN INTERIOR AND EXTERIOR COLORS ARE DIFFERENT, LATCH EDGE SHALL MATCH EXTERIOR COLOR AND HINGE EDGE SHALL MATCH INTERIOR COLOR. FINISH ALL EDGES.
6. REFER TO SPECIFICATIONS FOR DOOR SIGNAGE TYPES. ALL SIGNS SHALL INCLUDE BRAILLE IDENTIFICATION IN ACCORDANCE WITH CBC. FOR TYPICAL SIGNAGE / MOUNTING, SEE DETAIL 1/A84
7. VERIFY ALL ROOM SIGNAGE TEXT WITH OWNER PRIOR TO LAYOUT.
8. REFER TO SPECIFICATIONS FOR DOOR HARDWARE AND SCHEDULES.
9. # SEE SHEET A87 & A88 FOR FRAME TYPES
10. REFER TO GLAZING SCHEDULE ON SHEET A87 AND THE SPECIFICATIONS FOR TYPES OF GLAZING NOTED.
11. ALL CLASSROOM AND ROOMS WITH AN OCCUPANT LOAD OF 5 OR MORE MUST BE LOCKABLE FROM THE INTERIOR.
12. ALL DIMENSIONS ARE +/-, VERIFY IN THE FIELD (OR WITH FLOOR PLAN FOR APPROXIMATE AS INDICATED).
13. FOLDING DOORS TO BE PROVIDED AND INSTALLED BY MANUFACTURER / SUPPLIER.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
DOOR SCHEDULE

A83

PROJECT **24042**

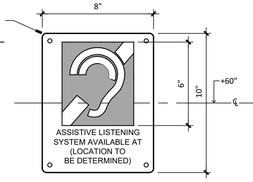
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DOOR SCHEDULE

BLDG. NO.	DOOR NO.	TYPE	DIMENSIONS			HDWR. GROUP	FINISH	FIRE RATING	FRAME			DETAILS				SIGNAGE		REMARKS:
			WIDTH	HGT.	THK.				TYPE	DEPTH	FINISH	HEAD	JAMB	JAMB	SILL	TYPE	TEXT	** INDICATES VERIFY RM. NAME & NUMBER WITH OWNER PRIOR TO FABRICATION, TYP.
BUILDING '200'	201	J	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	15	10 1/8"	p	2	2	2	1	B2	**	
												A88	A88	A88	A89	B4	EXIT	
	202	J	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	15	10 1/8"	p	2	2	2	1	B2	**	
												A88	A88	A88	A89	B4	EXIT	
	203	L	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	14	10 1/8"	p	4 SIM.	4	4	1	B2	**	
												A89	A89	A89	A89	B4	EXIT	
	204	K	PAIR 3'-0"	7'-0"	1 3/4"	11	p	-	14b	8 3/8"	p	23 SIM.	23	23	1 SIM.	B2	**	
												A89	A89	A89	A89	B4	EXIT	
	205	B	3'-0"	7'-0"	1 3/4"	09	p	-	12c	8 3/8"	p	3 SIM.	3	3	7	A2 / A4	GIRLS	
												A89	A89	A89	A89	-	-	
	206	B	3'-0"	7'-0"	1 3/4"	09	p	-	12c	8 3/8"	p	3 SIM.	3	3	7	A1 / A4	BOYS	
												A89	A89	A89	A89	-	-	
	207	L	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	14	10 1/8"	p	4 SIM.	4	4	1	B2	**	
												A89	A89	A89	A89	B4	EXIT	
	208	B	3'-6"	7'-0"	1 3/4"	06	p	-	17	6 3/8"	p	2 SIM.	2	2	11	B2	**	
												A90	A90	A90	A89	B4	EXIT	
	209	L	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	14c	8 1/2"	p	5 SIM.	5	5	11	B2	**	
												A89	A89	A89	A89	B4	EXIT	
	210	D	3'-0"	7'-0"	1 3/4"	02	p	-	12c	8 3/8"	p	23 SIM.	23	23	1	B2	**	
												A89	A89	A89	A89	B4	EXIT	
	211	B	3'-0"	7'-0"	1 3/4"	03	p	-	12c	8 3/8"	p	6 SIM.	6	6	1	B2	**	
												A90	A90	A90	A89	B4	EXIT	
	212	D	3'-0"	7'-0"	1 3/4"	02	p	-	12d	6 3/8"	p	2 SIM.	2	2	1	B2	**	
												A90	A90	A90	A89	B4	EXIT	
	213	K	PAIR 3'-0"	7'-0"	1 3/4"	23	p	-	12e	10 1/4"	p	14 SIM.	14	14	21	B2	**	
												A89	A89	A89	A89	B2	**	
	214	B	3'-0"	7'-0"	1 3/4"	15	p	-	12	8"	p	10 SIM.	10	10	6	A2 / A4	GIRLS	
												A90	A90	A90	A89	-	-	
	215	B	3'-0"	7'-0"	1 3/4"	15	p	-	12	8"	p	10 SIM.	10	10	6	A1 / A4	BOYS	
												A90	A90	A90	A89	-	-	
	216	B	3'-0"	7'-0"	1 3/4"	22	p	-	12	8"	p	8 SIM.	8	8	2	B2	**	
												A89	A89	A89	A89	-	-	
	217	K	PAIR 3'-0"	7'-0"	1 3/4"	23	p	-	14c	8 1/2"	p	13 SIM.	13	13	21	B2	**	
												A89	A89	A89	A89	-	-	
	218	K	PAIR 3'-0"	7'-0"	1 3/4"	23	p	-	14c	8 1/2"	p	13 SIM.	13	13	21	B2	**	
												A89	A89	A89	A89	-	-	
	219	D	3'-0"	7'-0"	1 3/4"	13	p	-	12	8"	p	7 SIM.	7	7	2	B2	**	
												A90	A90	A90	A89	B2	**	
	220	D	3'-0"	7'-0"	1 3/4"	14	p	-	12b	8 1/2"	p	15 SIM.	15	15	2	B2	**	
												A89	A89	A89	A89	B2	**	
	221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
												-	-	-	-	-	-	
	222	D	3'-0"	7'-0"	1 3/4"	13	p	-	12b	8 1/2"	p	19 SIM.	19	19	2	B2	**	
												A89	A89	A89	A89	B2	**	
	223	D	3'-0"	7'-0"	1 3/4"	13	p	-	12b	8 1/2"	p	24 SIM.	24	24	2	B2	**	
												A90	A90	A90	A89	B2	**	
	224	B	3'-0"	7'-0"	1 3/4"	17	p	-	12e	10 1/4"	p	20 SIM.	20	20	6	A2 / A4	WOMEN	
												A89	A89	A89	A89	-		
	225	B	3'-0"	7'-0"	1 3/4"	17	p	-	12e	10 1/4"	p	20 SIM.	20	20	6	A1 / A4	MEN	
												A89	A89	A89	A89	-	-	
	226	D	3'-0"	7'-0"	1 3/4"	14	p	-	12b	8 1/2"	p	15 SIM.	15	15	16	B2	**	
												A89	A89	A89	A89	B2	**	
	227	F	3'-0"	7'-0"	1 3/4"	20	p	-	12	8"	p	9 SIM.	9	9	12	B2	**	
												A90	A90	A90	A89	-	-	
	228	B	3'-0"	7'-0"	1 3/4"	28	p	-	12	8"	p	9 SIM.	9	9	16 SIM.	B2	**	18"x18" LOUVER
												A90	A90	A90	A89	-	-	
	229	B	3'-6"	7'-0"	1 3/4"	22	p	-	17b	8"	p	9 SIM.	9	9	12	B2	**	
												A90	A90	A90	A89	B2	**	
	230	N	5'-0"	7'-3"	1 3/4"	26	p	-	18	8"	p	18 SIM.	18	18	12	B2	**	
												A89	A89	A89	A89	-	-	
	231	O	20'-8"	7'-0"	-	27	p	-	32	10 1/4"	p	12	14	14	11	-	-	ROLL-UP DOOR
												A90	A90	A90	A90	-	-	

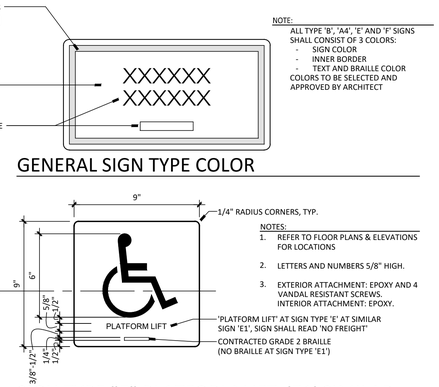
ASSISTIVE LISTENING

PORTABLE SYSTEM.
TOTAL OCCUPANT LOAD FOR CAMPUS = 786
786 OCCUPANTS x 4% = 31.44 = 32 DEVICES TOTAL.
32 x 25% = 8 = 8 DEVICES HEARING-AID COMPATIBLE.
PORTABLE ALS SYSTEM ALLOWED PER 2022 CBC 11B-219.5
PORTABLE ALS SYSTEM PROVIDED PER SPEC. 27-5126.
MINIMUM 32 RECEIVERS REQUIRED WITH 8 OF THOSE HEARING-AID COMPATIBLE.



NOTES:
1. REFER TO FLOOR PLANS & ELEVATIONS FOR LOCATIONS
2. LETTERS AND NUMBERS 5/8" HIGH.
3. EXTERIOR ATTACHMENT: EPOXY AND 4 VANDAL RESISTANT SCREWS.
   INTERIOR ATTACHMENT: EPOXY.
4. INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS, FIGURE CBC 11B-703.7.2.4
   COORDINATE EQUIPMENT LOCATION
5. DESCRIPTION WITH ARCHITECT

TYPE "F" ASSISTIVE LISTENING SIGN



NOTE:
ALL TYPE 'B', 'A4', 'E' AND 'F' SIGNS SHALL CONSIST OF 3 COLORS:
- SIGN COLOR
- INNER BORDER
- TEXT AND BRAILLE COLOR

COLORS TO BE SELECTED AND APPROVED BY ARCHITECT

GENERAL SIGN TYPE COLOR

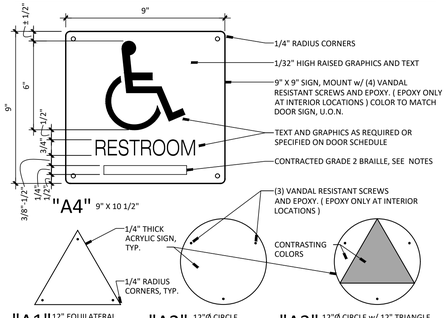
NOTES:
1. REFER TO FLOOR PLANS & ELEVATIONS FOR LOCATIONS
2. LETTERS AND NUMBERS 5/8" HIGH.
3. EXTERIOR ATTACHMENT: EPOXY AND 4 VANDAL RESISTANT SCREWS.
   INTERIOR ATTACHMENT: EPOXY.

'PLATFORM LIFT' AT SIGN TYPE 'E' AT SIMILAR SIGN 'E1', SIGN SHALL READ 'NO FREIGHT'
CONTRACTED GRADE 2 BRAILLE (NO BRAILLE AT SIGN TYPE 'E1')

SIGN TYPE "E" PLATFORM LIFT, 'E1' SIMILAR



"A4" GRAPHICS OPTIONS

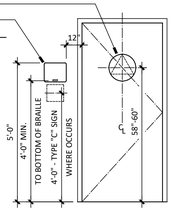


"A1" 12" EQUILATERAL TRIANGLE (MEN'S)
"A2" 12"Ø CIRCLE (WOMEN'S)
"A3" 12"Ø CIRCLE w/ 12" TRIANGLE SUPERIMPOSED (UNISEX)

TYPE "A" SIGNS

SIGN TYPES "A1, A2, OR A3"
SIGN TYPE "A4" OR "B" ROOM I.D.

NOTES:
1. IN ADDITION TO SIGN TYPES "A1, A2, AND A3" MOUNTED ON RESTROOM DOORS, PROVIDE SIGN TYPE "A4", LOCATED AS SHOWN.
2. TYPE "B" SIGNS TO BE MOUNTED ON LATCH SIDE OF SINGLE DOOR. AT DOUBLE DOORS, MOUNT SIGN ON INACTIVE LEAF. IF BOTH LEAVES ARE ACTIVE MOUNT SIGN ON RIGHT SIDE OF DOUBLE DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL.
3. REFER TO DOOR SCHED. & ELEVATIONS FOR LOCATIONS.
4. USE 60" TO TOP OF THE UPPER SIGN TO SET SIGNS. CBC ALLOWS 60" MAX. TO BASELINE OF RAISED CHARACTERS & 48" MIN. TO BASELINE OF LOWEST LINE OF BRAILLE.



SIGN LOCATIONS

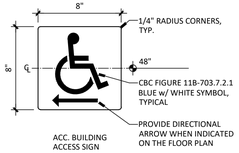
NOTES:

1. CONSTRUCT SIGNS OF 1/8" THK. PLASTIC UNLESS OTHERWISE NOTED. ALL CHARACTERS AND PICTOGRAMS SHALL BE RAISED 1/32".
2. COLOR TO BE SELECTED BY ARCHITECT. (SIGN BACKGROUND COLORS TO CONTRAST WITH DOOR COLOR) 70% CONTRAST BETWEEN CHARACTERS AND BACKGROUND. CIRCLE COLOR TO CONTRAST WITH TRIANGLE. SEE GENERAL SIGN TYPE COLOR DETAIL ABOVE FOR ADDITIONAL INFORMATION.
3. ALL EDGES SHALL BE EASED OR ROUNDED AT 1/16".
4. AT LOCATIONS WHERE AN EXIT SIGN AND A ROOM I.D. SIGN ARE BACK TO BACK ON GLASS, ALIGN & MAKE SIGNS THE SAME SIZE. WHEN SIGN IS MOUNTED ON GLASS WITH NO SIGN ON BACK SIDE, PROVIDE BLANK SIGN THE SAME SIZE ON THE BACK SIDE.
5. ROOM. I.D. SIGNAGE : RAISED CHARACTERS (LETTERS) (RAISED 1/32", ALL UPPER CASE CALIBRI) SHALL BE PROVIDED & SHALL BE ACCOMPANIED BY CONTRACTED (GRADE 2) BRAILLE.
6. RAISED CHARACTERS (LETTERS) SHALL COMPLY WITH CBC 11B-703.2.
7. CONTRACTED (GRADE 2) BRAILLE SHALL COMPLY WITH CBC 11B-703.3.

1 SIGN TYPES

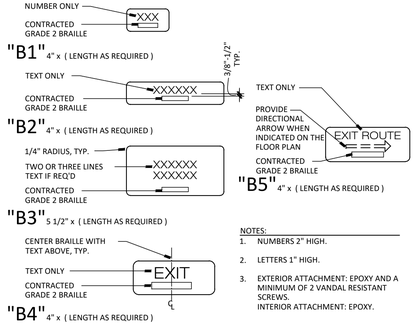
N.T.S.

SIGN TYPE "D" OCCUPANCY SIGNS



NOTES:
1. REFER TO FLOOR PLANS & ELEVATIONS FOR LOCATIONS
2. EXTERIOR ATTACHMENT: EPOXY AND 4 VANDAL RESISTANT SCREWS.
   INTERIOR ATTACHMENT: EPOXY.

TYPE "C" SIGNS



NOTES:
1. NUMBERS 2" HIGH.
2. LETTERS 1" HIGH.
3. EXTERIOR ATTACHMENT: EPOXY AND A MINIMUM OF 2 VANDAL RESISTANT SCREWS.
   INTERIOR ATTACHMENT: EPOXY.

TYPE "B" SIGNS

NOTES:
1. REFER TO FLOOR PLANS & ELEVATIONS FOR LOCATIONS
2. LETTERS AND NUMBERS 5/8" HIGH.
3. EXTERIOR ATTACHMENT: EPOXY AND 4 VANDAL RESISTANT SCREWS.
   INTERIOR ATTACHMENT: EPOXY.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
DOOR SCHEDULE

A84

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

DOOR SCHEDULE

BLDG. NO.	DOOR NO.	TYPE	DIMENSIONS WIDTH	HGT.	THK.	HDWR. GROUP	FINISH	FIRE RATING	FRAME TYPE	FRAME DEPTH	FRAME FINISH	DETAILS HEAD	JAMB	JAMB	SILL	SIGNAGE TYPE	SIGNAGE TEXT	REMARKS: ** INDICATES VERIFY RM. NAME & NUMBER WITH OWNER PRIOR TO FABRICATION, TYP.
BUILDING '300'	301	J	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	27	8 3/8"	p	7	7	7	1	B3	**	
												A88	A88	A88	A89	B4	EXIT	
	302	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	303	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	304	J	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	26	8 3/8"	p	7	7	7	1	B3	**	
												A88	A88	A88	A89	B4	EXIT	
	305	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	306	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	307	K	PAIR 3'-0"	7'-0"	1 3/4"	11	p	-	14b	8 3/8"	p	23 SIM.	23	23	1 SIM.	B2	ELECTRICAL	
												A89	A89	A89	A89	-	-	
	308	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	309	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	310	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	311	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	8 SIM.	8	8	2	B1	-	
												A90	A90	A90	A89	B1	-	
	312	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	313	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	314	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	315	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	316	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	317	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	318	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	8 SIM.	8	8	2	B1	-	
												A90	A90	A90	A89	B1	-	
	319	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	320	B	3'-0"	7'-0"	1 3/4"	16	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STAFF RESTROOM	
												A90	A90	A90	A89	-	-	
	321	B	3'-0"	7'-0"	1 3/4"	16	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STAFF RESTROOM	
												A90	A90	A90	A89	-	-	
	322	B	3'-0"	7'-0"	1 3/4"	22	p	-	12	8"	p	9 SIM.	9	9	22	B2	DATA	
												A89	A89	A89	A89	-	-	
	323	B	3'-0"	7'-0"	1 3/4"	22	p	-	12	8"	p	9 SIM.	9	9	22	B2	CUSTODIAL	
												A89	A89	A89	A89	-	-	
	324	B	3'-0"	7'-0"	1 3/4"	15	p	-	12	8"	p	10 SIM.	10	10	6	A2 / A4	GIRLS	
												A90	A90	A90	A89	-	-	
	325	B	3'-0"	7'-0"	1 3/4"	15	p	-	12	8"	p	10 SIM.	10	10	6	A1 / A4	BOYS	
												A90	A90	A90	A89	-	-	
	326	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	9 SIM.	21	21	2	B3	**	
												A89	A90	A90	A89	-	-	
BUILDING '400'	401	J	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	27	8 3/8"	p	7	7	7	1	B3	**	
												A88	A88	A88	A89	B4	EXIT	
	402	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	403	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	404	J	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	26	8 3/8"	p	7	7	7	1	B3	**	
												A88	A88	A88	A89	B4	EXIT	
	405	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	406	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	407	K	PAIR 3'-0"	7'-0"	1 3/4"	11	p	-	14b	8 3/8"	p	23 SIM.	23	23	1 SIM.	B2	ELECTRICAL	
												A89	A89	A89	A89	-	-	
	408	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	409	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	410	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	411	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	8 SIM.	8	8	2	B1	-	
												A90	A90	A90	A89	B1	-	
	412	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	413	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	414	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	415	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	416	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	417	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	418	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	8 SIM.	8	8	2	B1	-	
												A90	A90	A90	A89	B1	-	
	419	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	420	B	3'-0"	7'-0"	1 3/4"	16	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	**	
												A90	A90	A90	A89	-	-	
	421	B	3'-0"	7'-0"	1 3/4"	16	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STAFF RESTROOM	
												A90	A90	A90	A89	-	-	
	422	B	3'-0"	7'-0"	1 3/4"	22	p	-	12	8"	p	9 SIM.	9	9	22	B2	DATA	
												A89	A89	A89	A89	-	-	
	423	B	3'-0"	7'-0"	1 3/4"	07	p	-	9b	8 3/8"	p	16	23	23	22	B2	CUSTODIAL	
												A88	A89	A89	A89	-	-	
	424	B	3'-0"	7'-0"	1 3/4"	15	p	-	12	8"	p	10 SIM.	10	10	6	A2 / A4	GIRLS	
												A90	A90	A90	A89	-	-	
	425	B	3'-0"	7'-0"	1 3/4"	15	p	-	12	8"	p	10 SIM.	10	10	6	A1 / A4	BOYS	
												A90	A90	A90	A89	-	-	
	426	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	9 SIM.	21	21	2	B3	**	
												A89	A90	A90	A89	-	-	

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
DOOR SCHEDULE

A85

PROJECT 24042

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DOOR SCHEDULE

BLDG. NO.	DOOR NO.	TYPE	DIMENSIONS WIDTH	DIMENSIONS HGT.	DIMENSIONS THK.	HDWR. GROUP	FINISH	FIRE RATING	FRAME TYPE	FRAME DEPTH	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS JAMB	DETAILS SILL	SIGNAGE TYPE	SIGNAGE TEXT	REMARKS: ** INDICATES VERIFY RM. NAME & NUMBER WITH OWNER PRIOR TO FABRICATION, TYP.
BUILDING '500'	501	J	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	27	8 3/8"	p	7	7	7	1	B3	**	
												A88	A88	A88	A89	B4	EXIT	
	502	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	503	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	504	J	PAIR 3'-0"	7'-0"	1 3/4"	05	p	-	26	8 3/8"	p	7	7	7	1	B3	**	
												A88	A88	A88	A89	B4	EXIT	
	505	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	506	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	507	K	PAIR 3'-0"	7'-0"	1 3/4"	11	p	-	14b	8 3/8"	p	23 SIM.	23	23	1 SIM.	B2	ELECTRICAL	
												A89	A89	A89	A89	-	-	
	508	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	509	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	510	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	511	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	8 SIM.	8	8	2	B1	-	
												A90	A90	A90	A89	B1	-	
	512	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	513	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	514	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	515	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	516	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	20 SIM.	20	20	2	B1	-	
												A90	A90	A90	A89	B1	-	
	517	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	518	D	3'-0"	7'-0"	1 3/4"	18	p	-	12b	8 1/2"	p	8 SIM.	8	8	2	B1	-	
												A90	A90	A90	A89	B1	-	
	519	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	7 SIM.	7	7	2	B1	**	
												A90	A90	A90	A89	B5	EXIT ROUTE	
	520	B	3'-0"	7'-0"	1 3/4"	16	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STAFF RESTROOM	
												A90	A90	A90	A89	-	-	
	521	B	3'-0"	7'-0"	1 3/4"	16	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STAFF RESTROOM	
												A90	A90	A90	A89	-	-	
	522	B	3'-0"	7'-0"	1 3/4"	22	p	-	12	8"	p	9 SIM.	9	9	22	B2	DATA	
												A89	A89	A89	A89	-	-	
	523	B	3'-0"	7'-0"	1 3/4"	22	p	-	12	8"	p	9 SIM.	9	9	22	B2	CUSTODIAL	
												A89	A89	A89	A89	-	-	
	524	B	3'-0"	7'-0"	1 3/4"	15	p	-	12	8"	p	10 SIM.	10	10	6	A2 / A4	GIRLS	
												A90	A90	A90	A89	-	-	
	525	B	3'-0"	7'-0"	1 3/4"	15	p	-	12	8"	p	10 SIM.	10	10	6	A1 / A4	BOYS	
												A90	A90	A90	A89	-	-	
	526	D	3'-0"	7'-0"	1 3/4"	14	p	-	12	8"	p	9 SIM.	21	21	2	B3	**	
												A89	A90	A90	A89	-	-	

DOOR SCHEDULE

BLDG. NO.	DOOR NO.	TYPE	DIMENSIONS WIDTH	DIMENSIONS HGT.	DIMENSIONS THK.	HDWR. GROUP	FINISH	FIRE RATING	FRAME TYPE	FRAME DEPTH	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS JAMB	DETAILS SILL	SIGNAGE TYPE	SIGNAGE TEXT	REMARKS: ** INDICATES VERIFY RM. NAME & NUMBER WITH OWNER PRIOR TO FABRICATION, TYP.
BUILDING '600'	601	D	3'-0"	7'-0"	1 3/4"	03	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	602	D	3'-0"	7'-0"	1 3/4"	02	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	603	D	3'-0"	7'-0"	1 3/4"	02	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	604	D	3'-0"	7'-0"	1 3/4"	03	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	605	D	3'-0"	7'-0"	1 3/4"	03	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	606	D	3'-0"	7'-0"	1 3/4"	02	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	607	D	3'-0"	7'-0"	1 3/4"	02	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	608	D	3'-0"	7'-0"	1 3/4"	02	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	609	B	3'-0"	7'-0"	1 3/4"	10	p	-	12d	6 3/8"	p	23 SIM.	23	23	7	A3 / A4	STUDENT	
												A90	A90	A90	A89	-	-	
	610	B	3'-0"	7'-0"	1 3/4"	10	p	-	12d	6 3/8"	p	23 SIM.	23	23	7	A3 / A4	STAFF	
												A90	A90	A90	A89	-	-	
	611	B	3'-0"	7'-0"	1 3/4"	07	p	-	12d	6 3/8"	p	2 SIM.	2	2	1 SIM.	B2	CUSTODIAL	
												A90	A90	A90	A89	-	-	
	612	C	4'-0"	8'-6"	1 3/4"	08	p	-	29	8 3/8"	p	23	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	613	M	PAIR 4'-0"	8'-6"	1 3/4"	12	p	-	24	8 3/8"	p	23	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	614	C	4'-0"	8'-6"	1 3/4"	08	p	-	29	8 3/8"	p	23	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	615	E	3'-0"	7'-0"	1 3/4"	21	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STUDENT	24"x24" LOUVER
												A89	A89	A89	A89	-	-	
	616	D	3'-0"	7'-0"	1 3/4"	19	p	-	12	8"	p	22 SIM.	22	22	2	B2	**	
												A90	A90	A90	A89	B1	**	
	617	D	3'-0"	7'-0"	1 3/4"	19	p	-	12	8"	p	22 SIM.	22	22	2	B2	**	
												A90	A90	A90	A89	B1	**	
	618	E	3'-0"	7'-0"	1 3/4"	21	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STUDENT	24"x24" LOUVER
												A89	A89	A89	A89	-	-	
	619	E	3'-0"	7'-0"	1 3/4"	21	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STUDENT	24"x24" LOUVER
												A89	A89	A89	A89	-	-	
	620	D	3'-0"	7'-0"	1 3/4"	19	p	-	12	8"	p	22 SIM.	22	22	2	B2	**	
												A90	A90	A90	A89	B1	**	
	621	D	3'-0"	7'-0"	1 3/4"	19	p	-	12	8"	p	22 SIM.	22	22	2	B2	**	
												A90	A90	A90	A89	B1	**	
	622	E	3'-0"	7'-0"	1 3/4"	21	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STUDENT	24"x24" LOUVER
												A89	A89	A89	A89	-	-	
BUILDING '700'	701	B	3'-0"	7'-0"	1 3/4"	07	p	-	12d	6 3/8"	p	2 SIM.	2	2	1 SIM.	B2	ELECTRICAL	
												A90	A90	A90	A89	-	-	
	702	B	3'-0"	7'-0"	1 3/4"	06	p	-	12d	6 3/8"	p	2 SIM.	2	2	1 SIM.	B3	**	
												A90	A90	A90	A89	-	-	
	703	B	4'-0"	7'-0"	1 3/4"	08	p	-	29	8 3/8"	p	23 SIM.	23	23	1 SIM.	B3	**	
												A89	A89	A89	A89	-	-	
	704	D	3'-0"	7'-0"	1 3/4"	03	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	705	D	3'-0"	7'-0"	1 3/4"	02	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	706	D	3'-0"	7'-0"	1 3/4"	02	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	707	D	3'-0"	7'-0"	1 3/4"	03	p	-	19	10 1/8"	p	2	2	4	1	B1	**	
												A88	A88	A89	A89	B4	EXIT	
	708	C	4'-0"	8'-6"	1 3/4"	08	p	-	29	8 3/8"	p	23	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	709	C	4'-0"	8'-6"	1 3/4"	08	p	-	29	8 3/8"	p	23	23	23	1 SIM.	B3	**	LOUVER SIZE AND LOCATION TO BE COORDINATED w/ MECH. CONTRACTOR
												A89	A89	A89	A89	-	-	
	710	E	3'-0"	7'-0"	1 3/4"	21	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STUDENT	24"x24" LOUVER
												A89	A89	A89	A89	-		
	711	D	3'-0"	7'-0"	1 3/4"	19	p	-	12	8"	p	22 SIM.	22	22	2	B2	**	
												A90	A90	A90	A89	B1	**	
	712	D	3'-0"	7'-0"	1 3/4"	19	p	-	12	8"	p	22 SIM.	22	22	2	B2	**	
												A90	A90	A90	A89	B1	**	
	713	E	3'-0"	7'-0"	1 3/4"	21	p	-	12	8"	p	10 SIM.	10	10	6	A3 / A4	STUDENT	24"x24" LOUVER
												A89	A89	A89	A89	-		
BLDG. 800	801	K	PAIR 3'-2"	7'-0"	1 3/4"	05	p	-	33	7 5/8"	p	22	23	23	1	B2	CENTRAL PLANT	
												A71	A71	A71	A89	-	-	
	802	K	PAIR 3'-10"	7'-0"	1 3/4"	24	p	-	31	7 5/8"	p	22	23	23	-	B2	SERVICE YARD	
												A71	A71	A71		-	-	
	803	B	3'-4"	7'-0"	1 3/4"	25	p	-	34	7 5/8"	p	22	23	23	-	B2	SERVICE YARD	
												A71	A71	A71		-	-	
	804	B	3'-4"	7'-0"	1 3/4"	25	p	-	34	7 5/8"	p	22	23	23	-	B2	SERVICE YARD	
												A71	A71	A71		-	-	

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-21128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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www.mangini.us
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(559) 627 1926 Fax

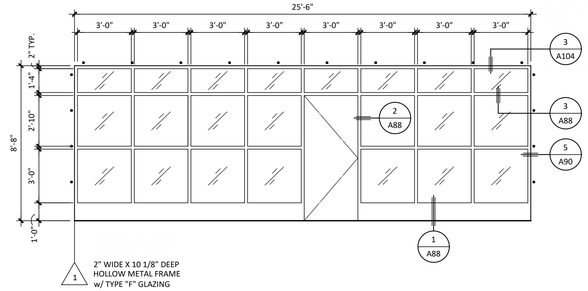
TITLE
DOOR SCHEDULE

A86

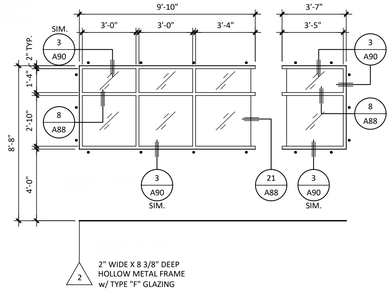
PROJECT 24042

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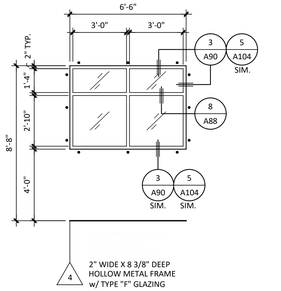
FRAME TYPES



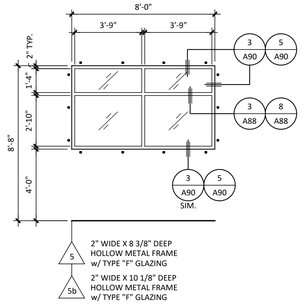
1 2" WIDE X 10 1/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING



2 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING

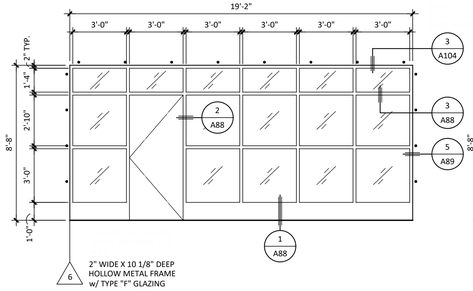


4 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING

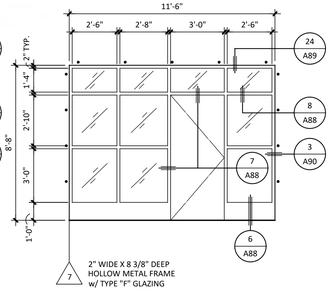


5 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING

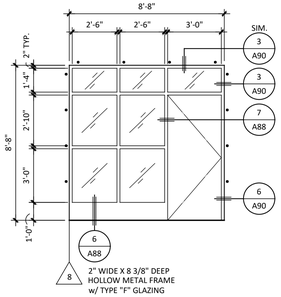
5b 2" WIDE X 10 1/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING



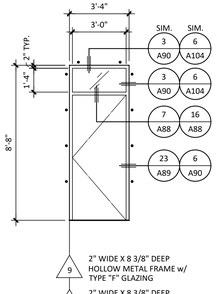
6 2" WIDE X 10 1/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING



7 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING

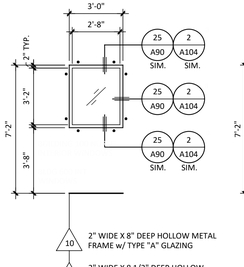


8 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING



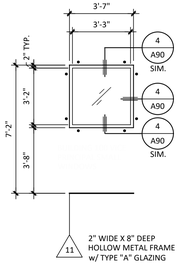
9 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING

9b 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "B" GLAZING

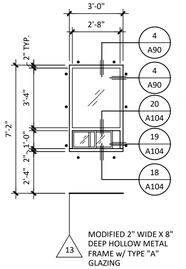


10 2" WIDE X 8" DEEP HOLLOW METAL FRAME w/ TYPE "A" GLAZING

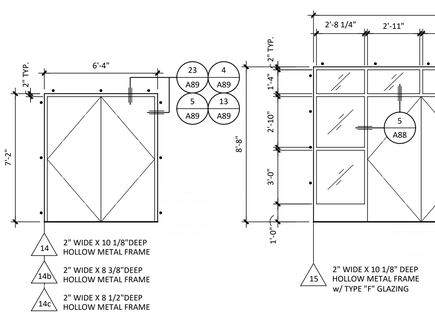
10b 2" WIDE X 8 1/2" DEEP HOLLOW METAL FRAME w/ TYPE "A" GLAZING



11 2" WIDE X 8" DEEP HOLLOW METAL FRAME w/ TYPE "A" GLAZING



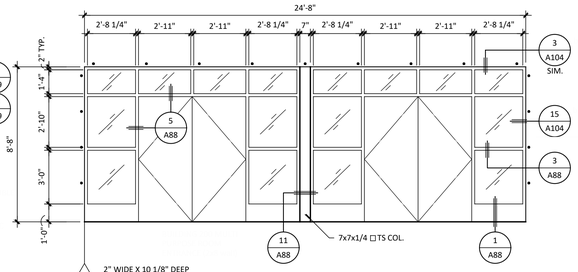
13 MODIFIED 2" WIDE X 8" DEEP HOLLOW METAL FRAME w/ TYPE "A" GLAZING



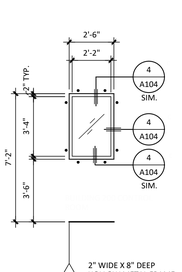
14 2" WIDE X 10 1/8"DEEP HOLLOW METAL FRAME

14b 2" WIDE X 8 3/8"DEEP HOLLOW METAL FRAME

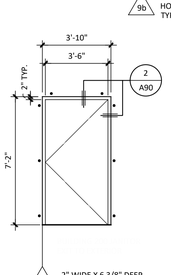
14c 2" WIDE X 8 1/2"DEEP HOLLOW METAL FRAME



15 2" WIDE X 10 1/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING

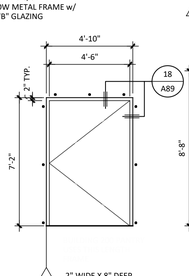


16 2" WIDE X 8" DEEP HOLLOW METAL FRAME w/ TYPE "A" GLAZING

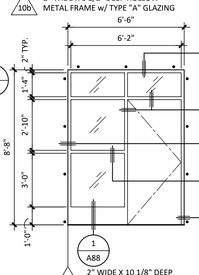


17 2" WIDE X 6 3/8" DEEP HOLLOW METAL FRAME

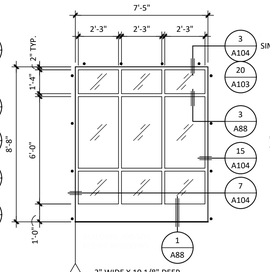
17b 2" WIDE X 8"DEEP HOLLOW METAL FRAME



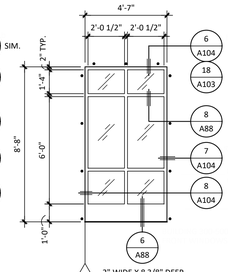
18 2" WIDE X 8" DEEP HOLLOW METAL FRAME



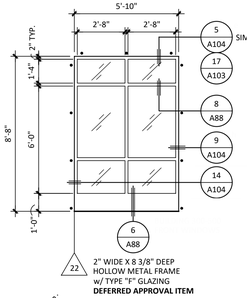
19 2" WIDE X 10 1/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING



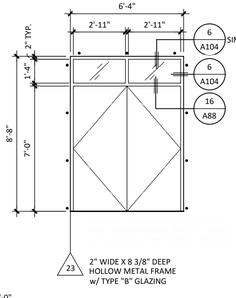
20 2" WIDE X 10 1/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING
DEFERRED APPROVAL ITEM



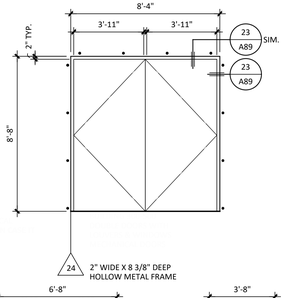
21 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING
DEFERRED APPROVAL ITEM



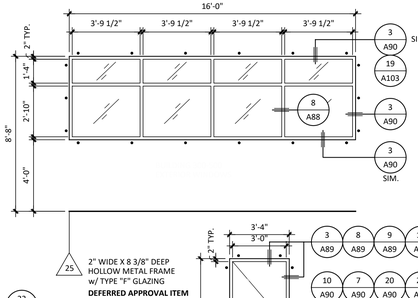
22 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING
DEFERRED APPROVAL ITEM



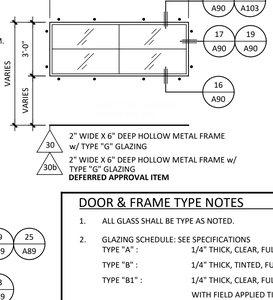
23 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "B" GLAZING



24 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME

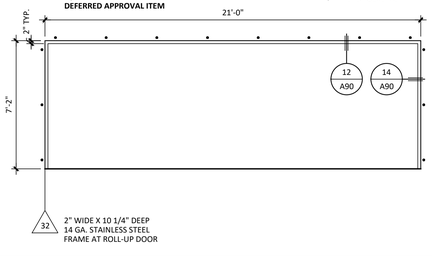


25 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME w/ TYPE "F" GLAZING
DEFERRED APPROVAL ITEM

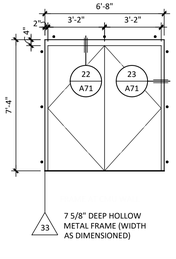


30 2" WIDE X 6" DEEP HOLLOW METAL FRAME w/ TYPE "G" GLAZING

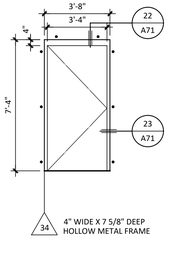
30b 2" WIDE X 6" DEEP HOLLOW METAL FRAME w/ TYPE "G" GLAZING
DEFERRED APPROVAL ITEM



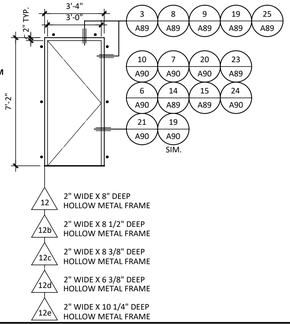
32 2" WIDE X 10 1/4" DEEP 14 GA. STAINLESS STEEL FRAME AT ROLL-UP DOOR



33 7 5/8" DEEP HOLLOW METAL FRAME (WIDTH AS DIMENSIONED)



34 4" WIDE X 7 5/8" DEEP HOLLOW METAL FRAME



12 2" WIDE X 8" DEEP HOLLOW METAL FRAME

12b 2" WIDE X 8 1/2" DEEP HOLLOW METAL FRAME

12c 2" WIDE X 8 3/8" DEEP HOLLOW METAL FRAME

12d 2" WIDE X 6 3/8" DEEP HOLLOW METAL FRAME

12e 2" WIDE X 10 1/4" DEEP HOLLOW METAL FRAME

DOOR & FRAME TYPE NOTES

1. ALL GLASS SHALL BE TYPE AS NOTED.
2. GLAZING SCHEDULE: SEE SPECIFICATIONS
   TYPE "A" : 1/4" THICK, CLEAR, FULLY TEMPERED GLASS
   TYPE "B" : 1/4" THICK, TINTED, FULLY TEMPERED GLASS
   TYPE "B1" : 1/4" THICK, CLEAR, FULLY TEMPERED GLASS WITH FIELD APPLIED TINT FILM
   TYPE "F" : 1" THICK, TINTED, FULLY TEMPERED, INSULATING GLASS UNIT
   TYPE "G" : 1" THICK, CLEAR, FULLY TEMPERED, INSULATING GLASS UNIT
   NOTE: ALL TEMPERED GLASS IS TO BE SAFETY GLASS & MEET HUMAN IMPACT LOADS LISTED IN SPECIFICATIONS.
3. METAL FRAMES SHALL FIT TIGHT TO WALL. CENTER FRAME THROAT OPENING BETWEEN OUTSIDE FACE OF MATERIALS BEING WARPED BY FRAME. SHIM GYPSUM BOARD AS REQUIRED FOR PLUMB TOLERANCE AT FRAME / GYPSUM BOARD.
4. PAINT WINDOW FRAMES (P) BOTH SIDES, UNLESS OTHERWISE NOTED ON THE INTERIOR ELEVATIONS
5. PAINT FRAMES AND DOORS SEMI-GLOSS ENAMEL IN ACCORDANCE WITH SPECIFICATION SECTION 09900, AS NOTED ON THE DOOR SCHEDULE. REFER TO FINISH COLORS FOR DESTINATION. PAINT BOTH SIDES THE SAME COLOR U.O.N. DO NOT PAINT FRAME LABELS
6. ALL DIMENSIONS ARE +/-, VERIFY IN THE FIELD (OR WITH FLOOR PLAN FOR APPROXIMATE AS INDICATED).
7. VERIFY DOOR SWINGS WITH FLOOR PLAN.
8. MINIMUM ANCHOR REQUIREMENTS, (U.O.N.) :
   FRAME HEIGHTS UP TO 4'-0" : 2 JAMB ANCHORS
   FRAME HEIGHTS UP TO 7'-4" : 3 JAMB ANCHORS
   FRAME HEIGHTS UP TO 10'-0" : 4 JAMB ANCHORS
   FRAME HEIGHTS UP TO 10'-0" : 1 ADDITIONAL ANCHOR PER 3'-0" OR PORTION OF THEREOF
   FRAME HEIGHTS UP TO 7'-4" : 3 HEAD ANCHORS
   FRAME HEIGHTS UP TO 10'-0" : 4 HEAD ANCHORS
   FRAME HEIGHTS UP TO 10'-0" : 1 ADDITIONAL ANCHOR PER 3'-0" OR PORTION OF THEREOF
   PROVIDE 6" EDGE DISTANCE AT FIRST HEAD ANCHOR.
9. FRAMES SHALL BE ANCHORED AT THE FLOOR WITH MANUFACTURER'S STANDARD FLOOR ANCHORS AS REQ'D
10. ALL FRAME ANCHORS SHALL BE MANUFACTURER'S STANDARD CONCEALED ANCHORS, UL LISTED WHERE REQUIRED BY THE DOOR SCHEDULE.
11. EXPOSED DIMPLE FASTENERS WILL ONLY BE ALLOWED UPON PRIOR WRITTEN ACCEPTANCE BY THE ARCHITECT.
12. WHERE FRAMES ARE ALLOWED TO BE DIMPLED FOR ANCHORAGE, COUNTERSINK SCREW HEADS.
13. TYPICAL FRAME ANCHOR FASTENERS:
    a. WOOD STUDS : 2-8d EACH SIDE.
    b. DIMPLED FRAME : 3/8" DIA. SCREW OR EXPOSED ANCHOR
    c. CONC. SLAB : (2) 1/4" Ø x 2 1/2" EXP. ANCHOR AT 24" O.C. MIN. PROVIDE MIN. 2 SETS
14. VERTICAL AND HORIZONTAL FRAMING MEMBERS ARE 2"THICK UNLESS OTHERWISE NOTED.
15. FOR TYP. SIGNAGE / MOUNTING SEE DTL (1 / A84)
16. FOR HOLLOW METAL FRAMES AT CONCRETE CURBS, SEE DETAIL (13 / A88)
17. AT DEFERRED APPROVAL ITEMS, USE FRAME ANCHOR WITH 7/8" SLOT FOR VERTICAL DEFLECTION PER DETAIL (23 / A88)

LEGEND

DOT INDICATES ANCHOR LOCATION, TYPICAL EQUALLY SPACED PER FRAME ELEVATIONS. FOR ADDITIONAL ANCHORAGE INFORMATION. SEE (22 / A88)

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

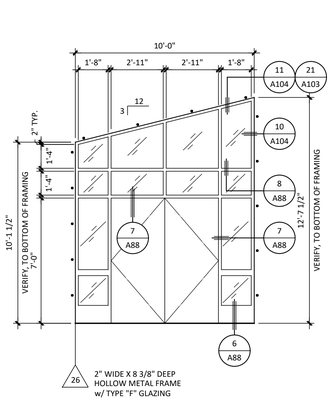
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

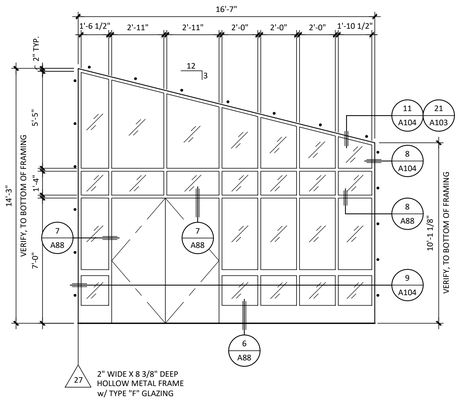
TITLE
FRAME TYPE SCHEDULE

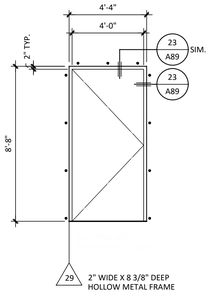
A87

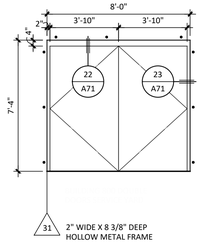
PROJECT 24042

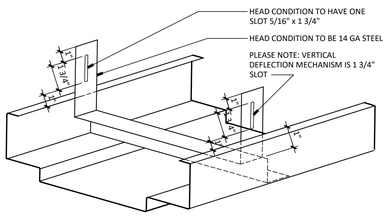
FRAME TYPES





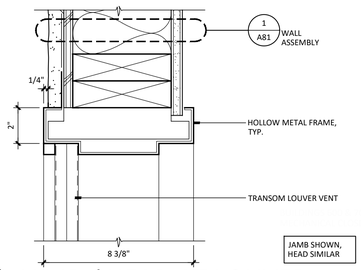






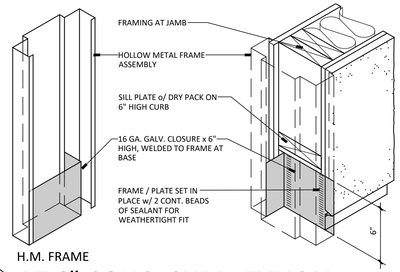
23 TYP. ANCHOR ISO. VIEW HEAD

SCALE: 3" = 1'-0"



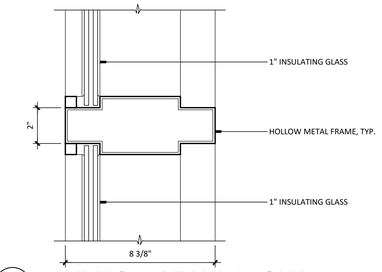
18 JAMB / HEAD AT LOUVER

SCALE: 3" = 1'-0"



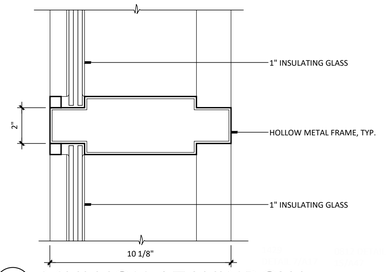
13 AT 6" CONC. CURB, TYPICAL

SCALE: 1 1/2" = 1'-0"



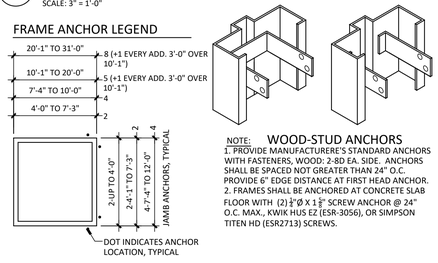
8 MULLION AT WINDOW

SCALE: 3" = 1'-0"



3 MULLION AT WINDOW

SCALE: 3" = 1'-0"

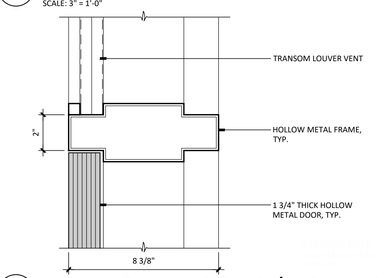


NOTE: WOOD-STUD ANCHORS

1. PROVIDE MANUFACTURERE'S STANDARD ANCHORS WITH FASTENERS, WOOD: 2-8D EA. SIDE. ANCHORS SHALL BE SPACED NOT GREATER THAN 24" O.C. PROVIDE 6" EDGE DISTANCE AT FIRST HEAD ANCHOR.
2. FRAMES SHALL BE ANCHORED AT CONCRETE SLAB FLOOR WITH (2) $\frac{1}{2}$"Ø X 1$\frac{3}{4}$" SCREW ANCHOR @ 24" O.C. MAX., KWIK HUS EZ (ESR-3056), OR SIMPSON TITEN HD (ESR2713) SCREWS.

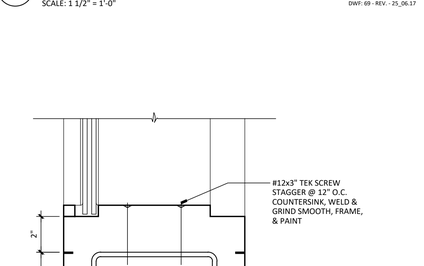
22 FRAME ANCHORS

SCALE: N.T.S.



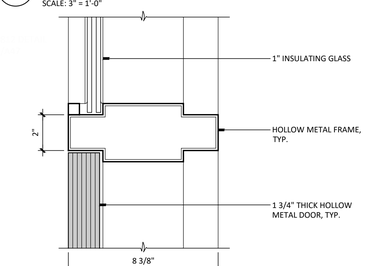
17 MULLION AT DOOR / LOUVER

SCALE: 3" = 1'-0"



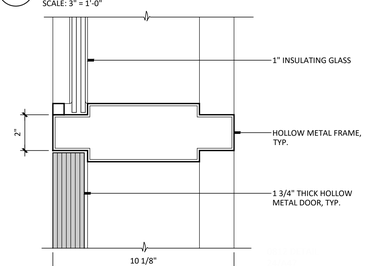
11 MULLION AT WINDOW

SCALE: 3" = 1'-0"



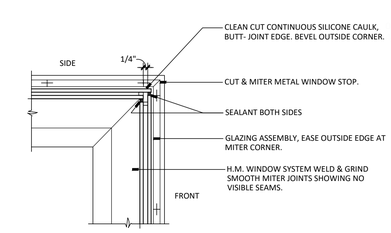
7 MULLION AT DOOR

SCALE: 3" = 1'-0"



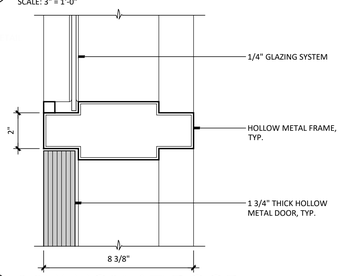
2 MULLION AT DOOR

SCALE: 3" = 1'-0"



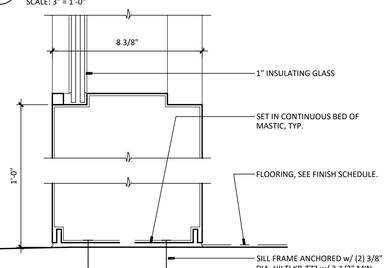
21 MILTZER GLAZING

SCALE: 3" = 1'-0"



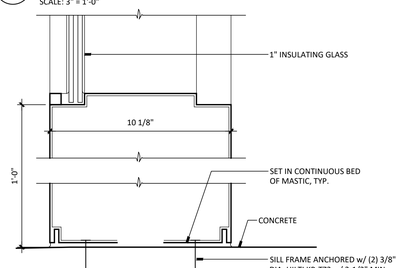
16 MULLION AT DOOR

SCALE: 3" = 1'-0"



6 SILL AT WINDOW

SCALE: 3" = 1'-0"



1 SILL AT WINDOW

SCALE: 3" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0633 Office
(559) 627.1926 Fax

TITLE
FRAME TYPE SCHEDULE

A88

PROJECT 24042

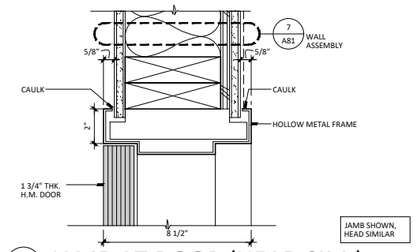
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

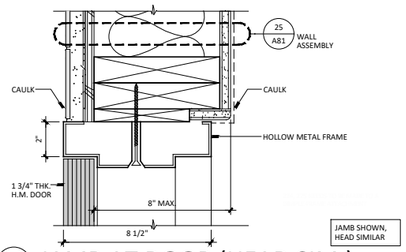
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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DEPARTMENT OF GENERAL SERVICES

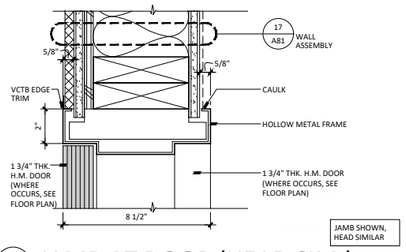
BER 18, 2025



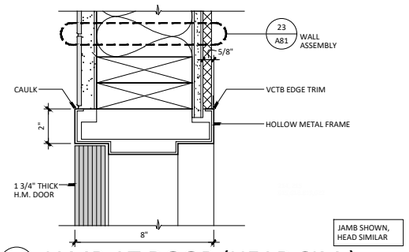
25 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



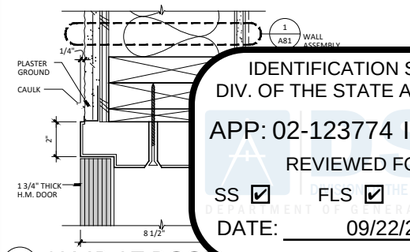
20 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



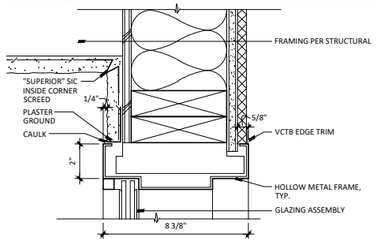
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SCALE: 3" = 1'-0"



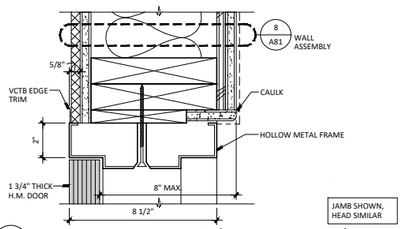
10 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



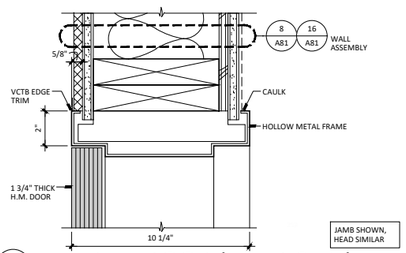
5 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



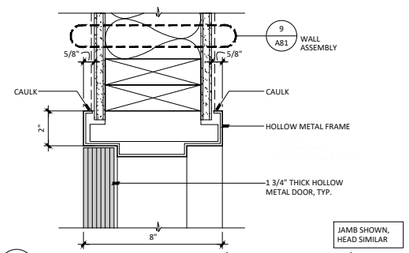
24 HEAD AT WINDOW
SCALE: 3" = 1'-0"



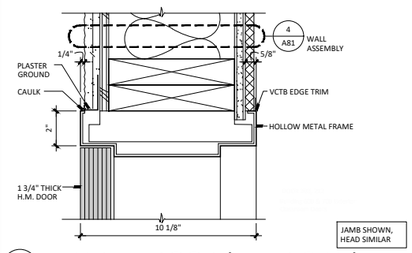
19 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



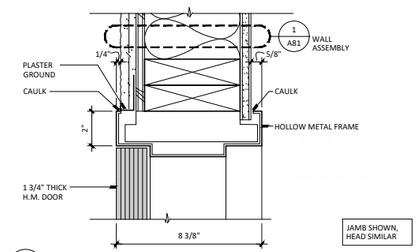
14 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



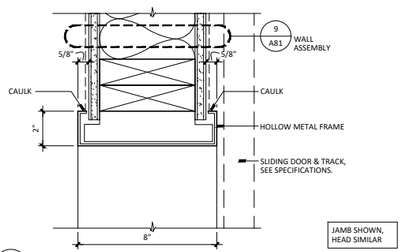
9 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



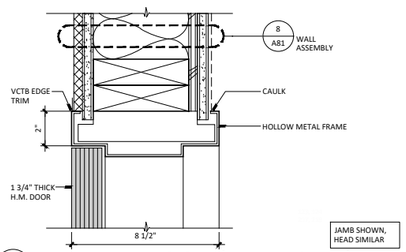
4 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



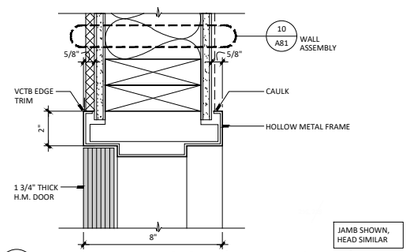
23 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



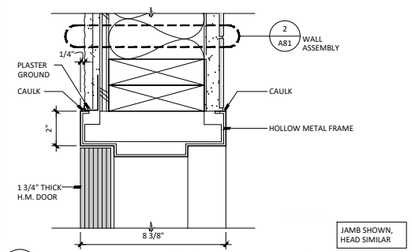
18 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



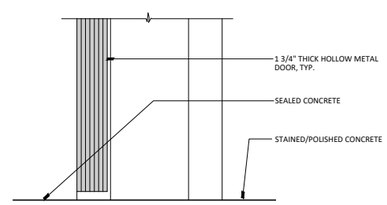
13 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"



8 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"

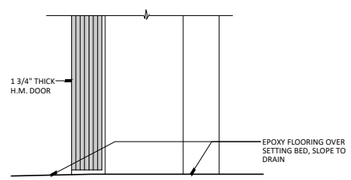


3 JAMB AT DOOR (HEAD SIM.)
SCALE: 3" = 1'-0"

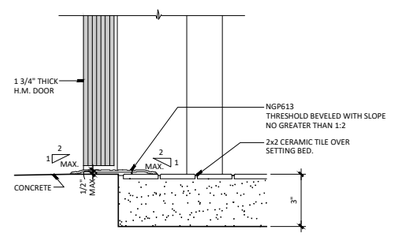


22 SILL AT DOOR
SCALE: 3" = 1'-0"

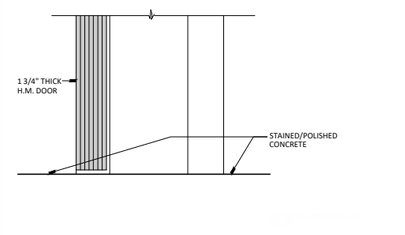
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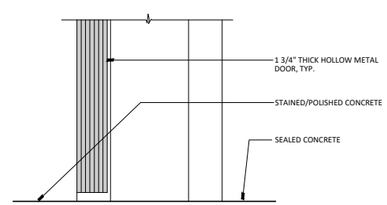
12 SILL AT DOOR
SCALE: 3" = 1'-0"



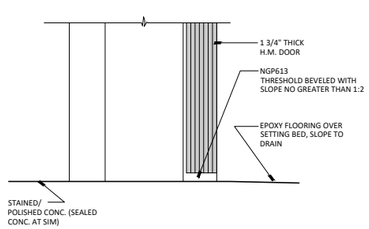
7 SILL AT DOOR
SCALE: 3" = 1'-0"



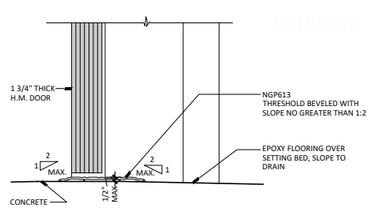
2 SILL AT DOOR
SCALE: 3" = 1'-0"



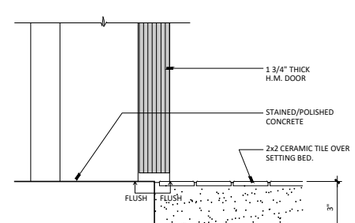
21 SILL AT DOOR
SCALE: 3" = 1'-0"



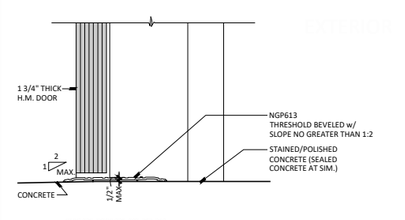
16 SILL AT DOOR
SCALE: 3" = 1'-0"



11 SILL AT DOOR
SCALE: 3" = 1'-0"



6 SILL AT DOOR
SCALE: 3" = 1'-0"



1 SILL AT DOOR
SCALE: 3" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0350 Office
(559) 627.1360 Fax

TITLE
FRAME DETAILS

A89

PROJECT 24042

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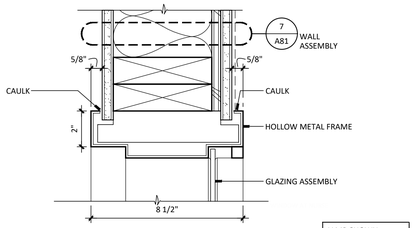
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

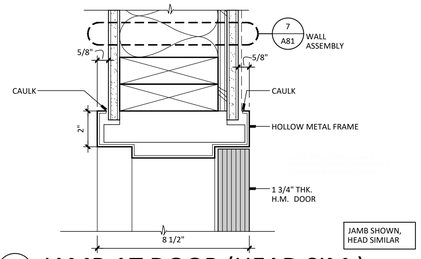
DATE: DECEMBER 18, 2025



JAMB SHOWN, HEAD & SILL SIMILAR

25 JAMB AT WINDOW (HEAD & SILL SIM.)

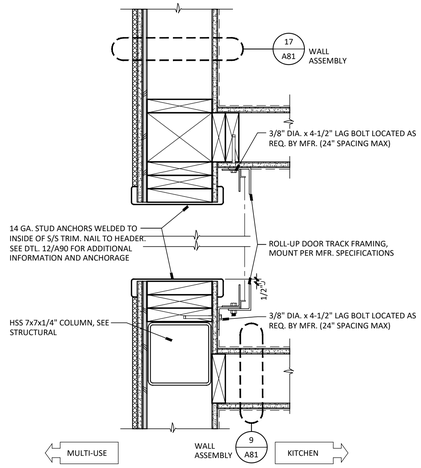
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JAMB SHOWN, HEAD SIMILAR

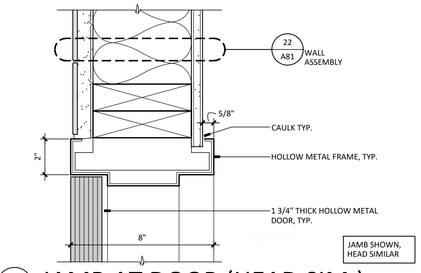
20 JAMB AT DOOR (HEAD SIM.)

SCALE: 3" = 1'-0"



14 JAMB AT ROLL-UP DOOR

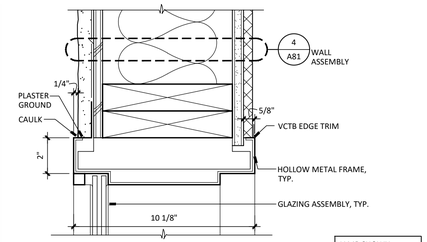
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JAMB SHOWN, HEAD SIMILAR

10 JAMB AT DOOR (HEAD SIM.)

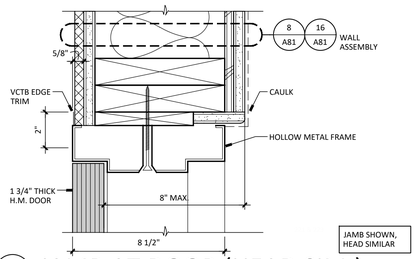
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JAMB SHOWN, HEAD & SILL SIMILAR

5 JAMB AT WINDOW (HEAD & SILL SIM.)

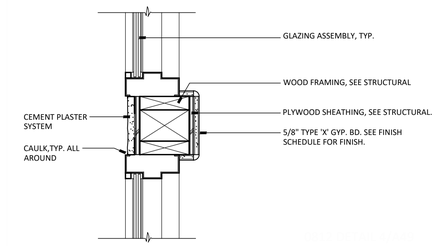
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JAMB SHOWN, HEAD SIMILAR

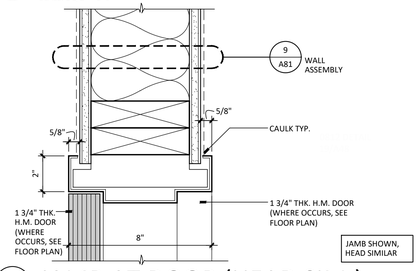
24 JAMB AT DOOR (HEAD SIM.)

SCALE: 3" = 1'-0"



19 CLERESTORY AT MULLION

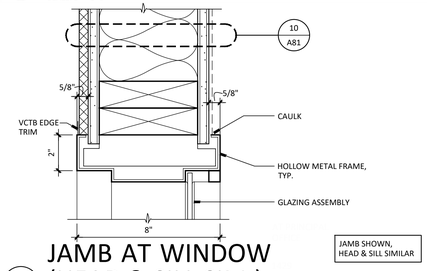
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JAMB SHOWN, HEAD SIMILAR

9 JAMB AT DOOR (HEAD SIM.)

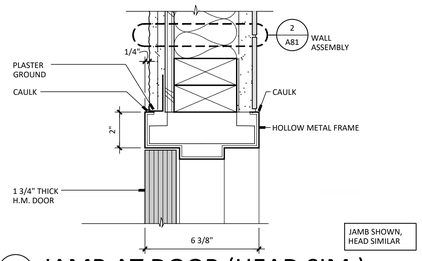
SCALE: 1 1/2" = 1'-0"



JAMB SHOWN, HEAD & SILL SIMILAR

4 JAMB AT WINDOW (HEAD & SILL SIM.)

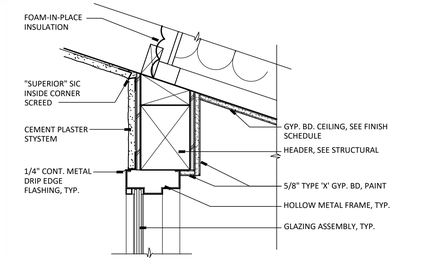
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JAMB SHOWN, HEAD SIMILAR

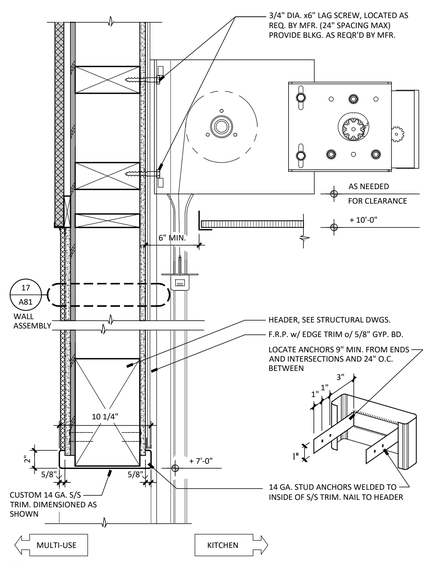
23 JAMB AT DOOR (HEAD SIM.)

SCALE: 3" = 1'-0"



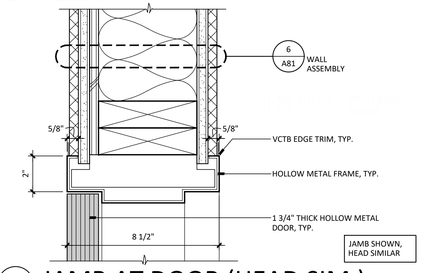
18 CLERESTORY AT HEAD

SCALE: 1 1/2" = 1'-0"



12 HEAD AT ROLL-UP DOOR

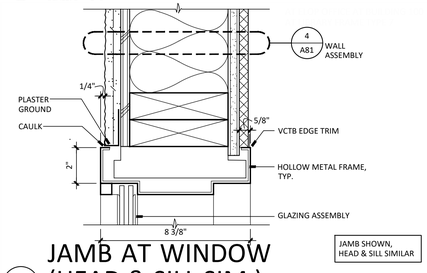
SCALE: 1 1/2" = 1'-0"



JAMB SHOWN, HEAD SIMILAR

8 JAMB AT DOOR (HEAD SIM.)

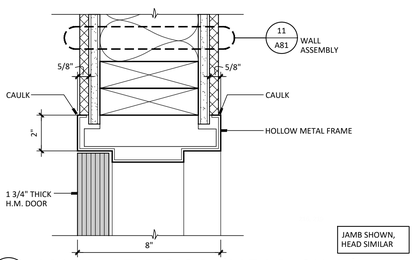
SCALE: 1 1/2" = 1'-0"



JAMB SHOWN, HEAD & SILL SIMILAR

3 JAMB AT WINDOW (HEAD & SILL SIM.)

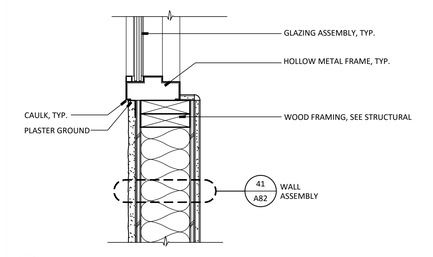
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JAMB SHOWN, HEAD SIMILAR

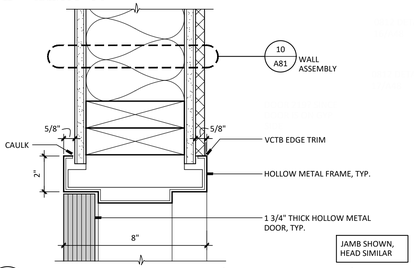
22 JAMB AT DOOR (HEAD SIM.)

SCALE: 3" = 1'-0"



17 CLERESTORY AT JAMB

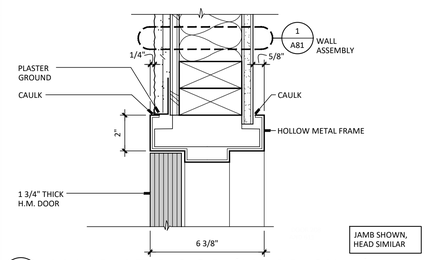
SCALE: 1 1/2" = 1'-0"



JAMB SHOWN, HEAD SIMILAR

7 JAMB AT DOOR (HEAD SIM.)

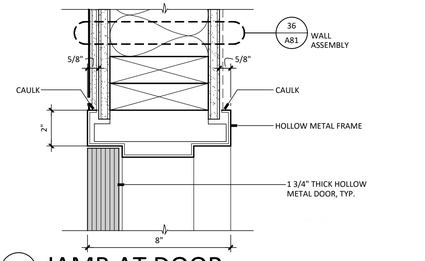
SCALE: 1 1/2" = 1'-0"



JAMB SHOWN, HEAD SIMILAR

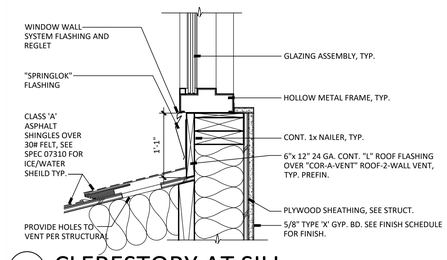
2 JAMB AT DOOR (HEAD SIM.)

SCALE: 3" = 1'-0"



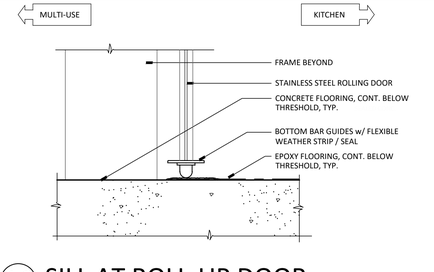
21 JAMB AT DOOR

SCALE: 3" = 1'-0"



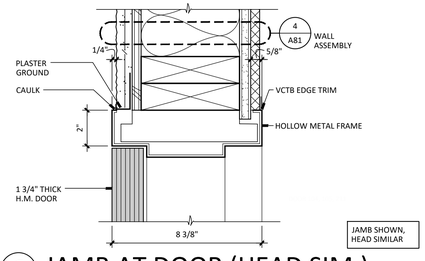
16 CLERESTORY AT SILL

SCALE: 1 1/2" = 1'-0"



11 SILL AT ROLL-UP DOOR

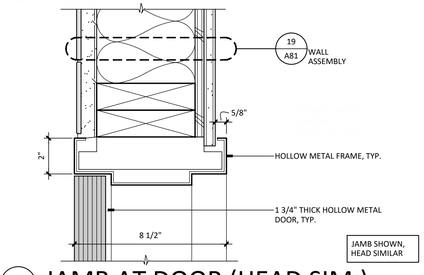
SCALE: 1 1/2" = 1'-0"



JAMB SHOWN, HEAD SIMILAR

6 JAMB AT DOOR (HEAD SIM.)

SCALE: 3" = 1'-0"



JAMB SHOWN, HEAD SIMILAR

1 JAMB AT DOOR (HEAD SIM.)

SCALE: 1 1/2" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

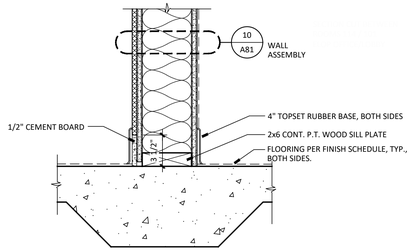
REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4310 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
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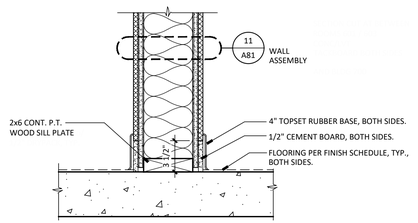
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FRAME DETAILS

A90

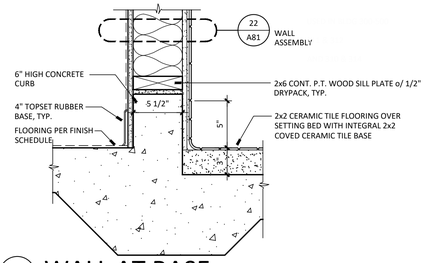
PROJECT 24042



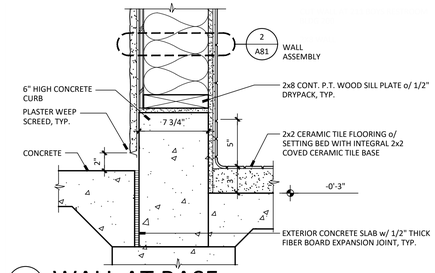
25 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



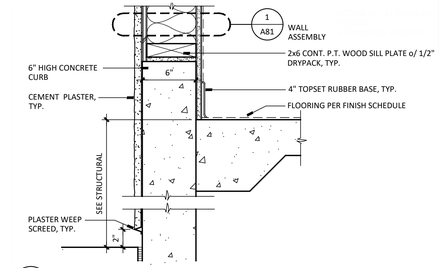
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SCALE: 1 1/2" = 1'-0"



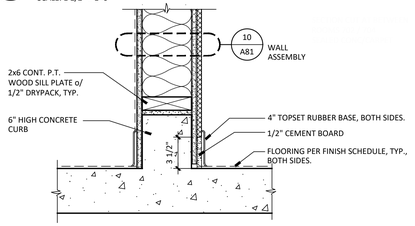
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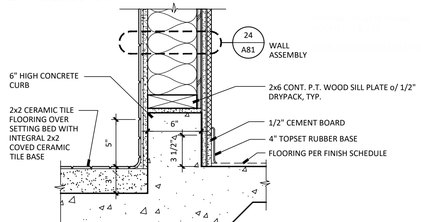
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SCALE: 1 1/2" = 1'-0"



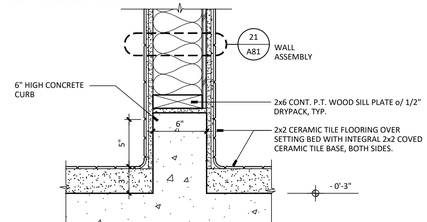
5 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



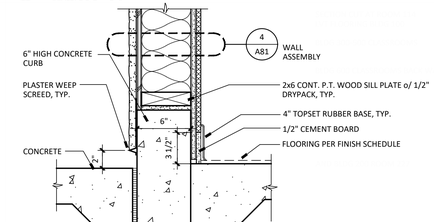
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SCALE: 1 1/2" = 1'-0"



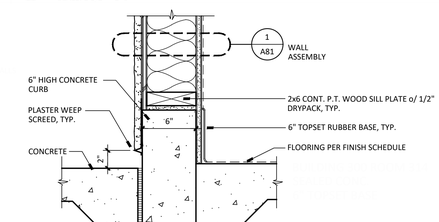
19 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



14 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



9 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



4 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

23 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

18 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

13 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

8 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

3 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

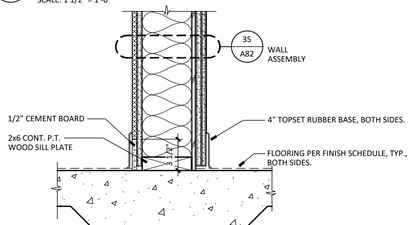
22 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

17 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

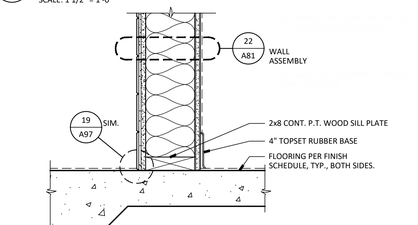
12 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

7 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

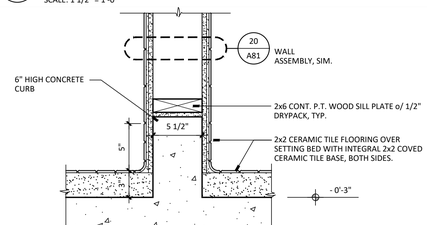
2 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



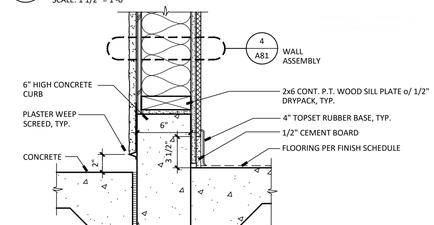
21 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



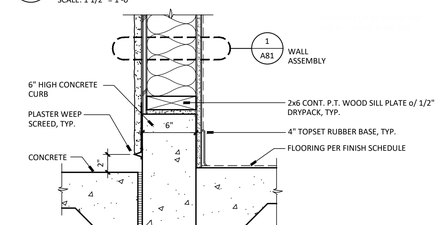
16 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



11 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



6 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



1 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

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APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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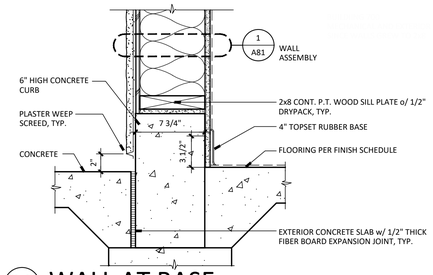
REVISIONS

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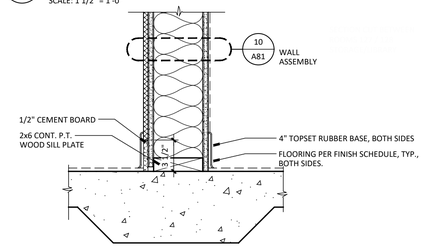
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WALL AT
BASE DETAILS

A91

PROJECT 24042

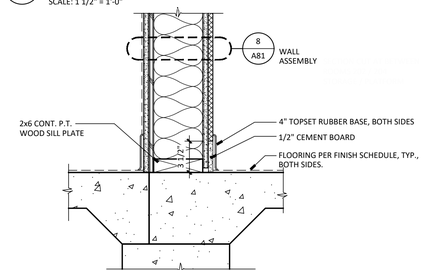


20 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

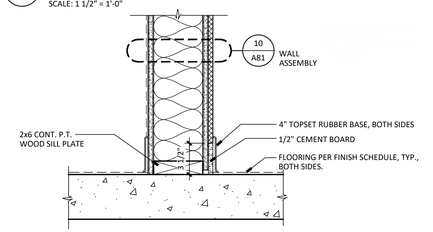


19 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

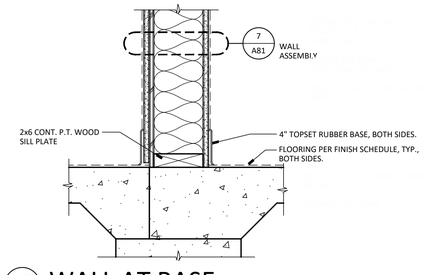
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SCALE: 1 1/2" = 1'-0"



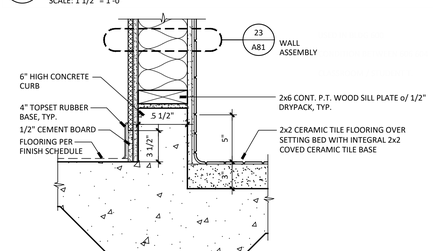
17 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



16 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

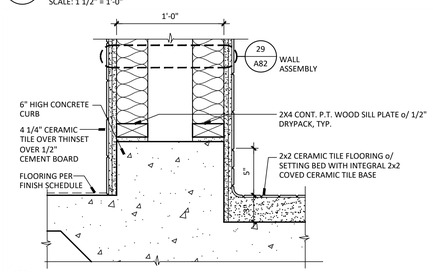


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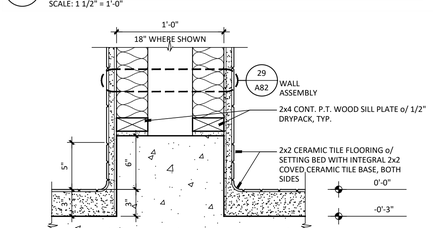


14 WALL AT BASE
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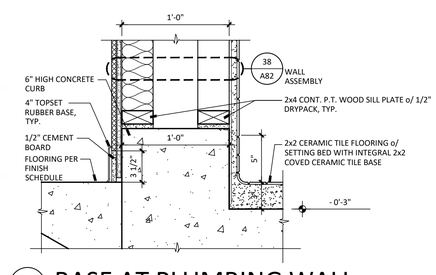
13 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



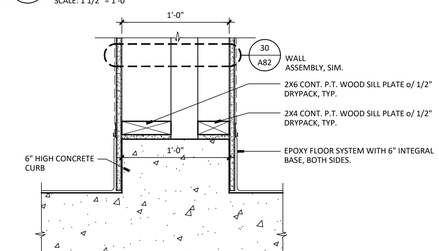
12 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



11 BASE AT PLUMBING WALL
SCALE: 1 1/2" = 1'-0"

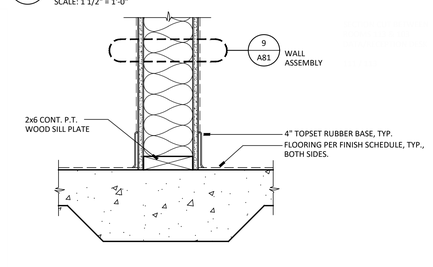


10 BASE AT PLUMBING WALL
SCALE: 1 1/2" = 1'-0"

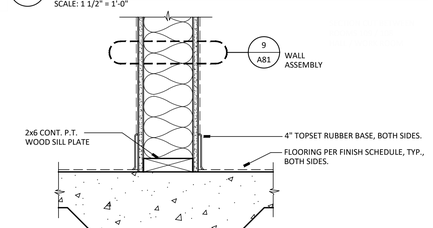


9 BASE AT PLUMBING WALL
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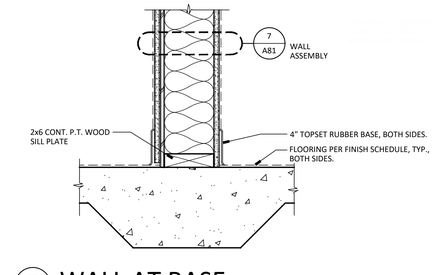
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SCALE: 1 1/2" = 1'-0"



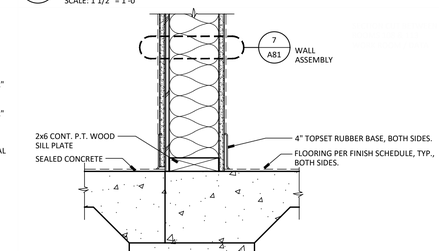
7 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



6 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

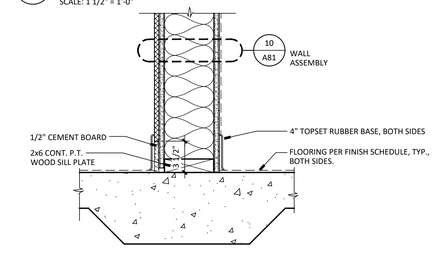


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SCALE: 1 1/2" = 1'-0"

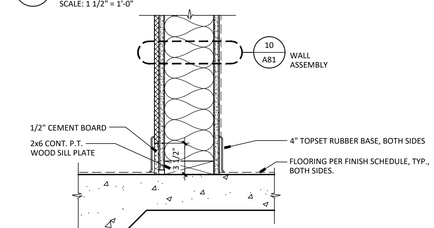


4 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

3 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



2 WALL AT BASE
SCALE: 1 1/2" = 1'-0"



1 WALL AT BASE
SCALE: 1 1/2" = 1'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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APP: 02-123774 INC:
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SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
WALL AT BASE DETAILS

A92

PROJECT 24042

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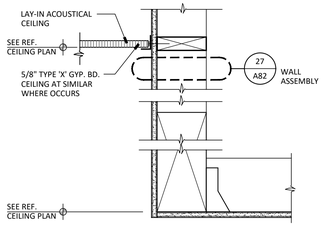
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

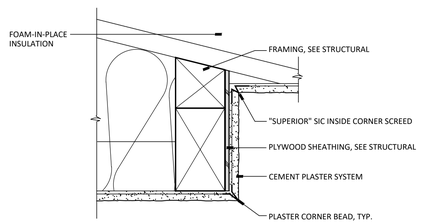
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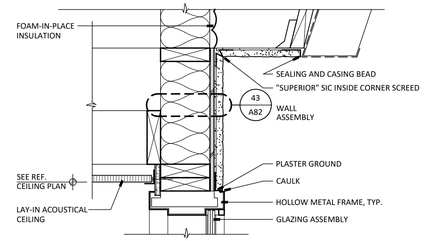
DATE: DECEMBER 18, 2025



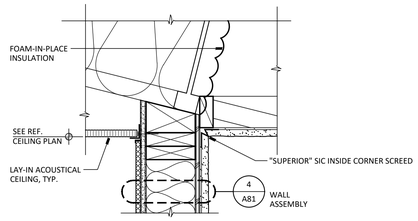
25 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



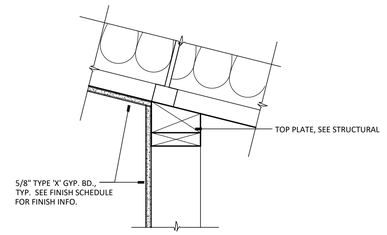
20 WALL AT SOFFIT
SCALE: 1 1/2" = 1'-0"



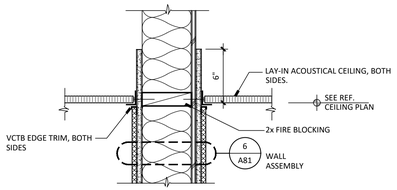
15 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



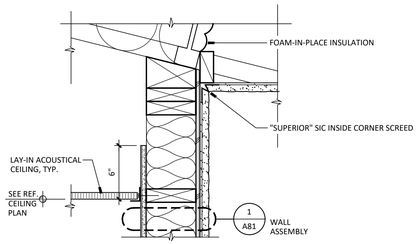
10 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



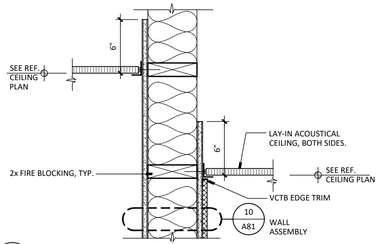
5 CEILING AT BEAM
SCALE: 1 1/2" = 1'-0"



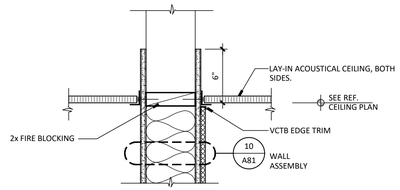
24 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



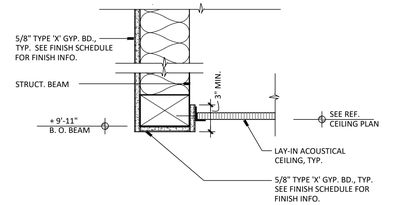
19 CEILING AT TILE WALL
SCALE: 1 1/2" = 1'-0"



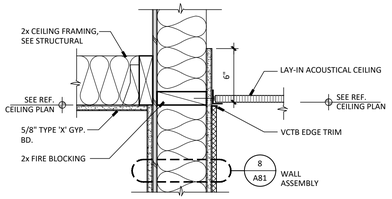
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SCALE: 1 1/2" = 1'-0"



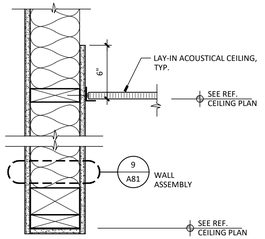
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SCALE: 1 1/2" = 1'-0"



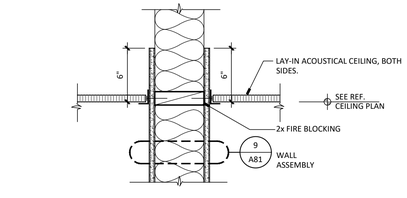
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SCALE: 1 1/2" = 1'-0"



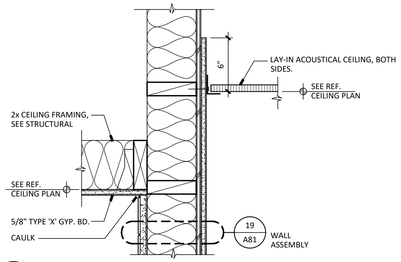
23 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



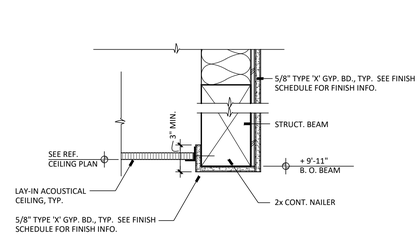
18 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



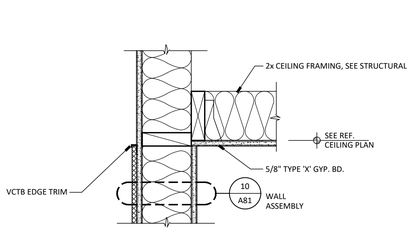
13 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



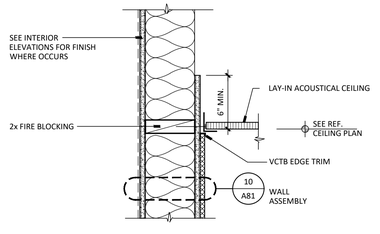
8 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



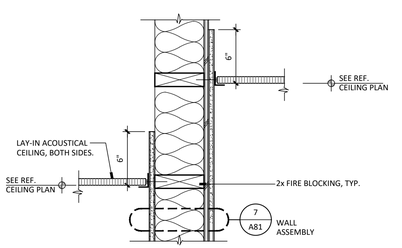
3 CEILING AT BEAM
SCALE: 1 1/2" = 1'-0"



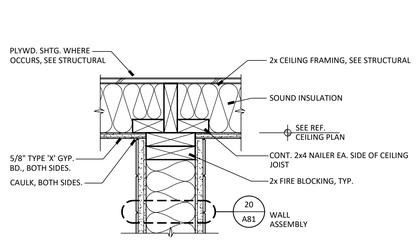
22 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



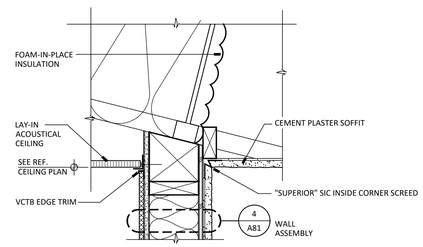
17 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



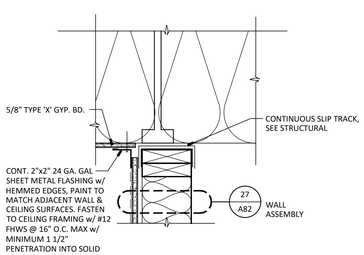
12 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



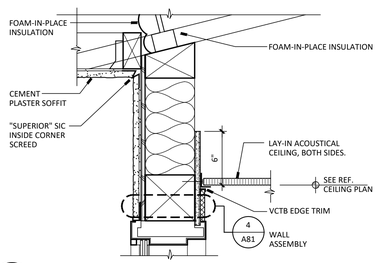
7 CEILING AT TILE WALL
SCALE: 1 1/2" = 1'-0"



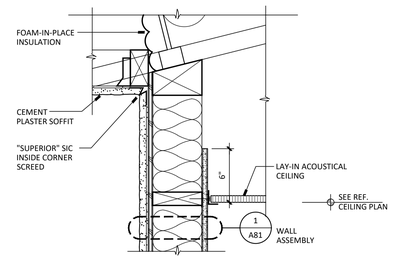
2 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



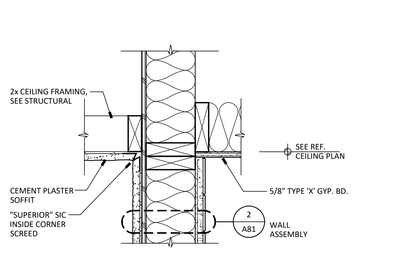
21 CEILING AT WALL
SCALE: 1 1/2" = 1'-0"



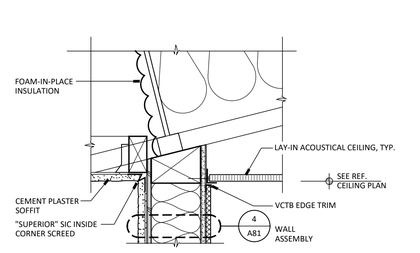
16 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



11 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



6 CEILING AT TILE WALL
SCALE: 1 1/2" = 1'-0"



1 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

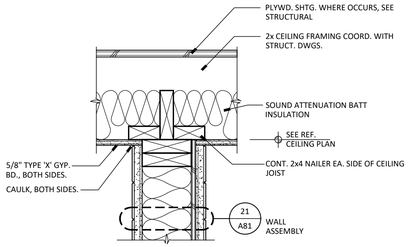
REVISIONS

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
WALL AT CEILING DETAILS

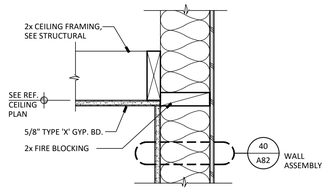
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PROJECT 24042



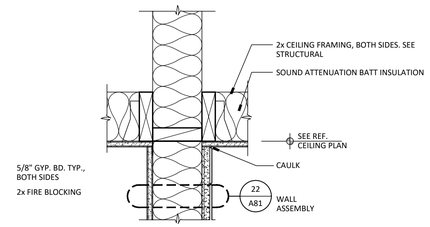
25 CEILING AT TILE WALL

SCALE: 1 1/2" = 1'-0"



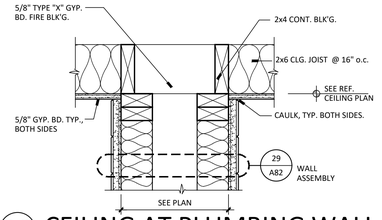
20 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"



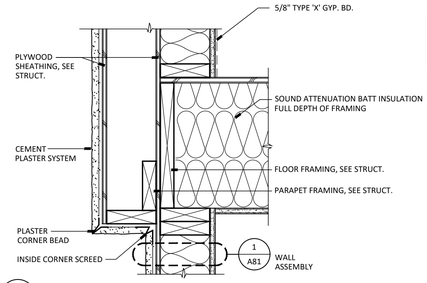
15 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"



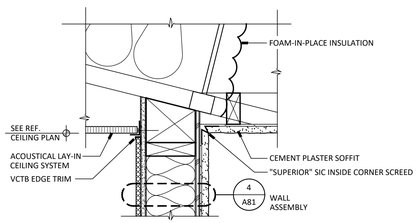
10 CEILING AT PLUMBING WALL

SCALE: 1 1/2" = 1'-0"



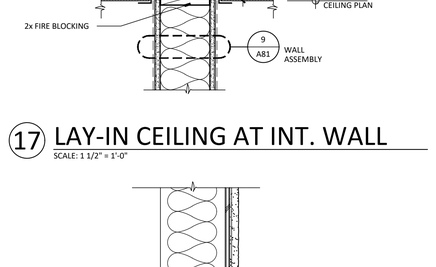
5 WALL AT PARAPET BASE

SCALE: 1 1/2" = 1'-0"



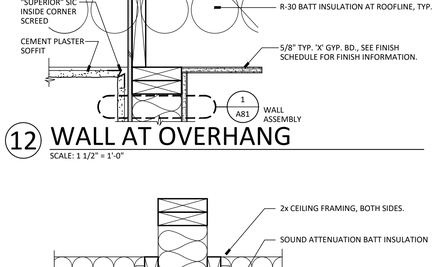
24 HARD CEILING AT TILE WALL

SCALE: 1 1/2" = 1'-0"



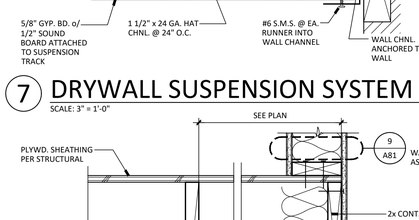
19 HARD CEILING AT INT. WALL

SCALE: 1 1/2" = 1'-0"



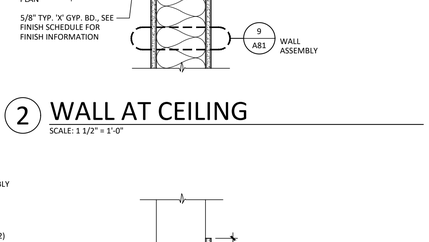
14 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"



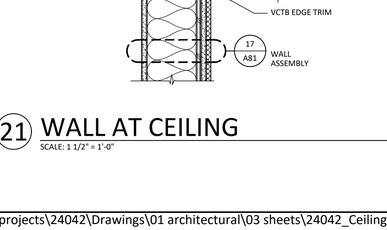
9 CEILING AT PLUMBING WALL

SCALE: 1 1/2" = 1'-0"



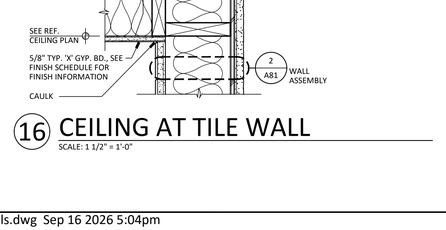
4 INTERIOR SOFFIT

SCALE: 1 1/2" = 1'-0"



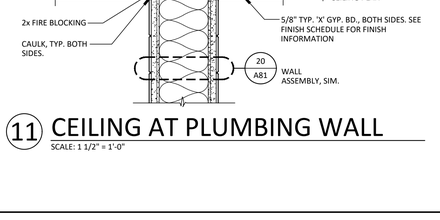
23 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"



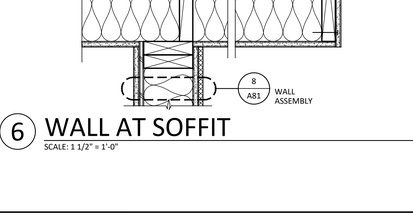
18 WALL AT PARAPET BASE

SCALE: 1 1/2" = 1'-0"



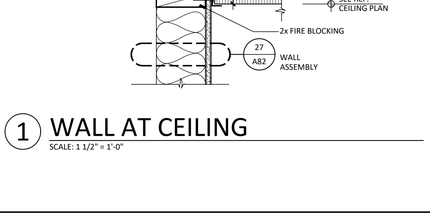
13 WALL AT OVERHANG

SCALE: 1 1/2" = 1'-0"



8 INTERIOR SOFFIT

SCALE: 1 1/2" = 1'-0"



3 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"

22 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"

17 LAY-IN CEILING AT INT. WALL

SCALE: 1 1/2" = 1'-0"

12 WALL AT OVERHANG

SCALE: 1 1/2" = 1'-0"

7 DRYWALL SUSPENSION SYSTEM

SCALE: 3" = 1'-0"

2 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"

21 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"

16 CEILING AT TILE WALL

SCALE: 1 1/2" = 1'-0"

11 CEILING AT PLUMBING WALL

SCALE: 1 1/2" = 1'-0"

6 WALL AT SOFFIT

SCALE: 1 1/2" = 1'-0"

1 WALL AT CEILING

SCALE: 1 1/2" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

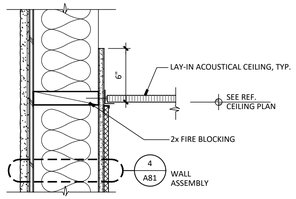
MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.7030 Office
(559) 627.1926 Fax

TITLE
WALL AT CEILING DETAILS

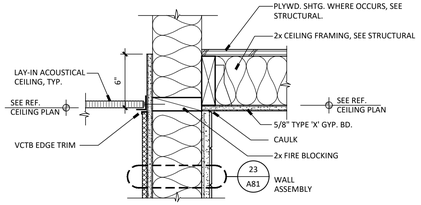
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PROJECT 24042

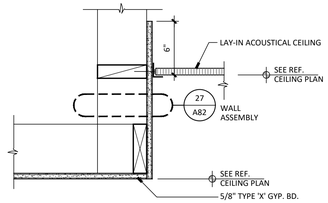
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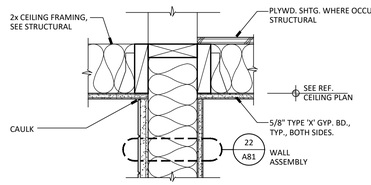
25 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



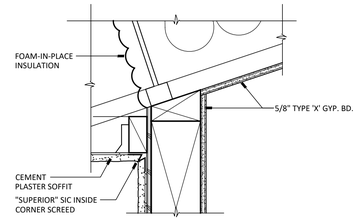
20 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



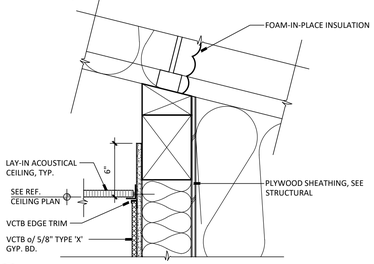
15 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



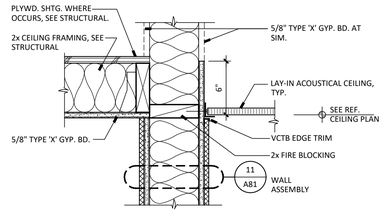
10 WALL AT CEILING
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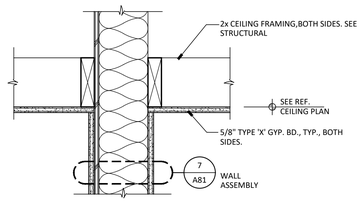
5 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



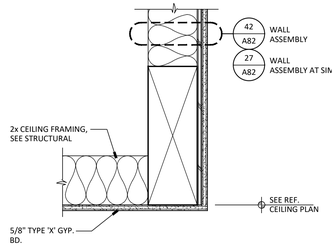
24 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



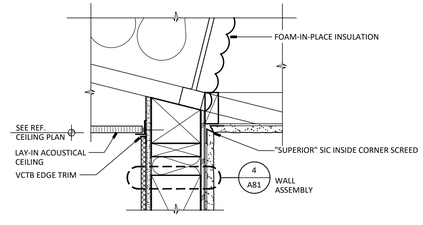
19 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



14 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



9 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



4 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"

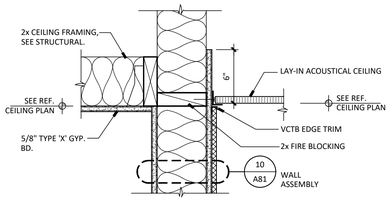
23 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"

18 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"

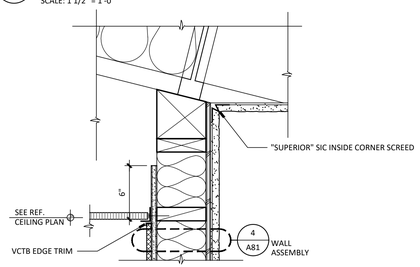
13 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"

8 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"

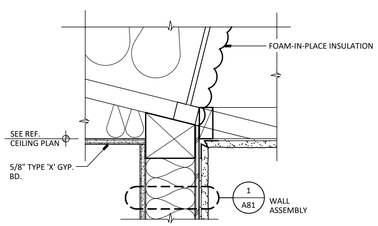
3 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



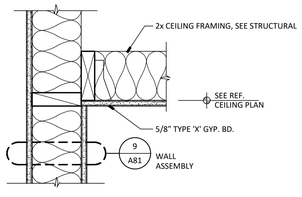
22 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



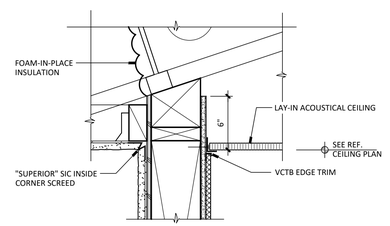
17 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



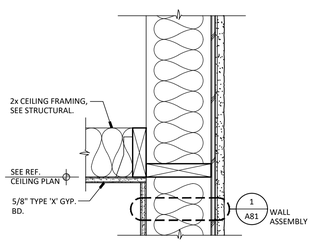
12 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



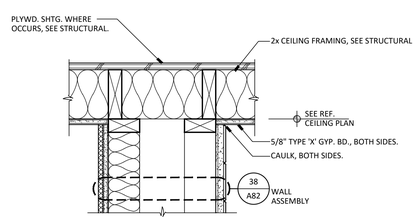
7 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



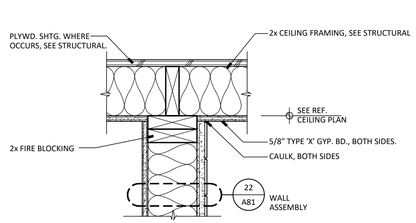
2 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



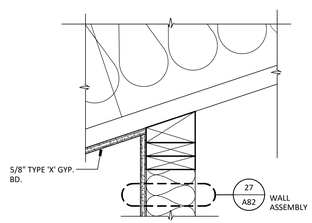
21 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



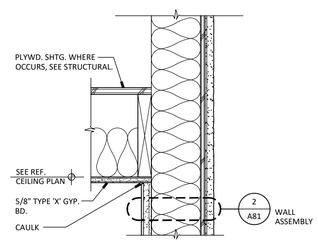
16 CEILING AT PLUMBING WALL
SCALE: 1 1/2" = 1'-0"



11 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



6 CEILING AT WALL
SCALE: 1 1/2" = 1'-0"



1 CEILING AT TILE WALL
SCALE: 1 1/2" = 1'-0"

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-7636 Office
(559) 627-1926 Fax

TITLE
WALL AT CEILING DETAILS

A95

PROJECT 24042

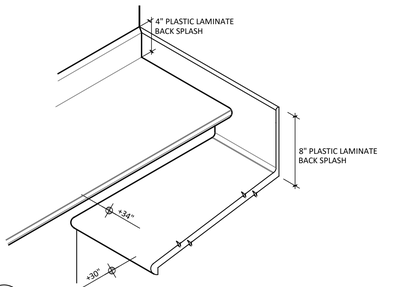
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

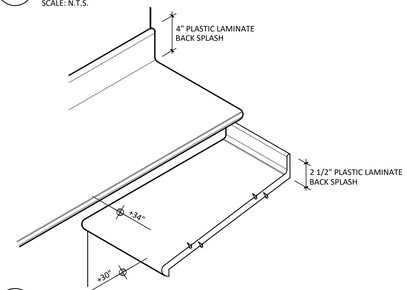
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-21128
REN. 05-31-27
STATE OF CALIFORNIA

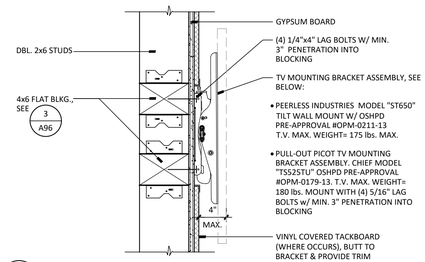
DATE: DECEMBER 18, 2025



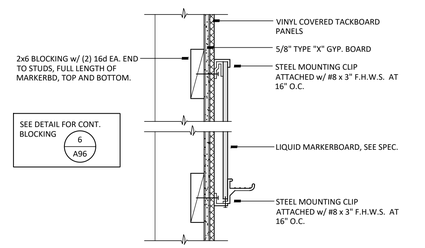
19b BACKSPLASH
SCALE: N.T.S.



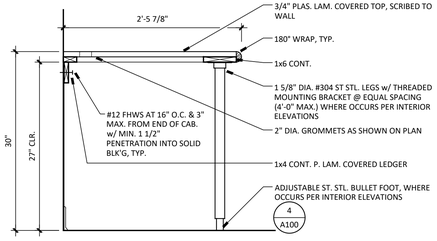
19a BACKSPLASH
SCALE: N.T.S.



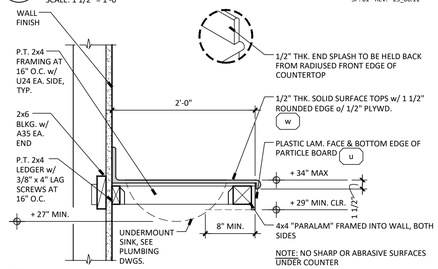
18 T.V. MOUNTING BRACKET
SCALE: 1 1/2" = 1'-0" EQ: 07 - REV. - 25_09.05



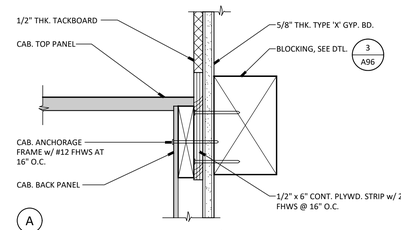
17 MARKERBD. ATTACHMENT
SCALE: 1 1/2" = 1'-0" SP: 01 - REV. - 25_06.11

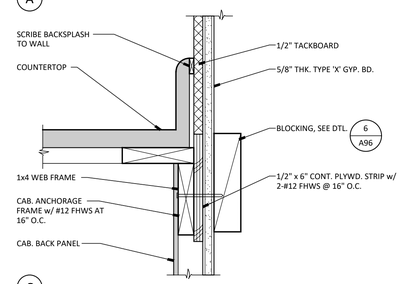


21 COMPUTER DESK
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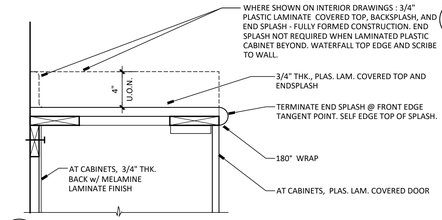


16 RESTROOM COUNTER
SCALE: 1" = 1'-0" MW: 14 - REV. - 25_06.10

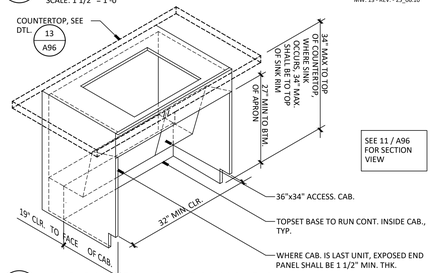




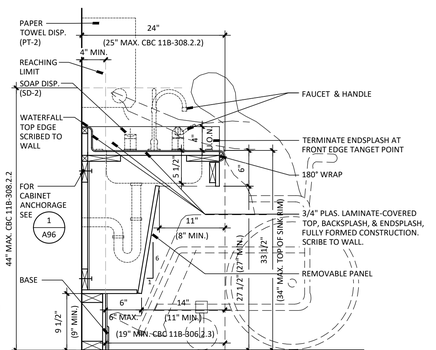
14 CAB. ANCHORAGE AT TACKBOARD
SCALE: 3" = 1'-0" MW: 06 - REV. - 25_06.10



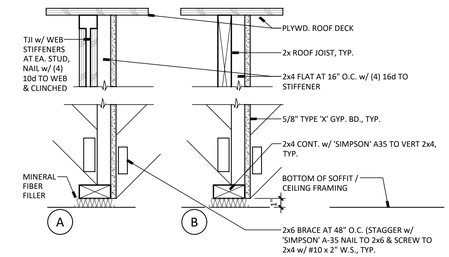
13 COUNTERTOP WITH SPLASH
SCALE: 1 1/2" = 1'-0" MW: 13 - REV. - 25_06.10



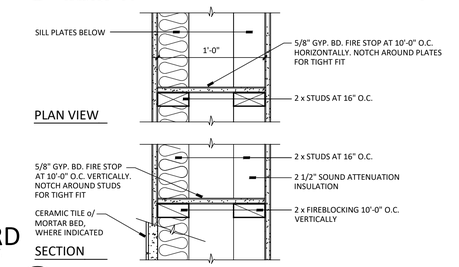
12 ACCESSIBLE SINK CAB.
SCALE: 1 1/2" = 1'-0" MW: 04 - REV. - 25_06.19



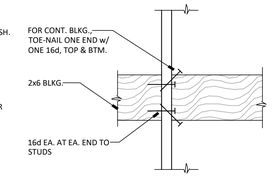
11 ACCESS. SINK SECTION (ADULT)
SCALE: 1" = 1'-0"

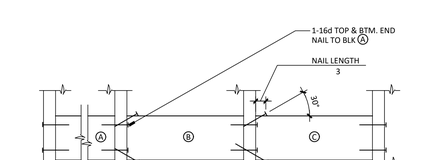


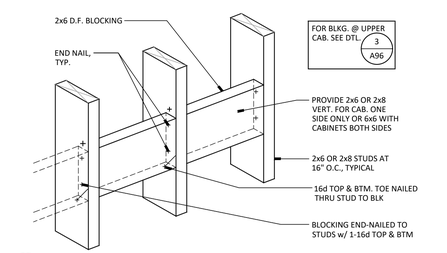
10 DRAFT STOP - WOOD STUDS
SCALE: 1 1/2" = 1'-0" FR: 01 - REV. - 25_09.08



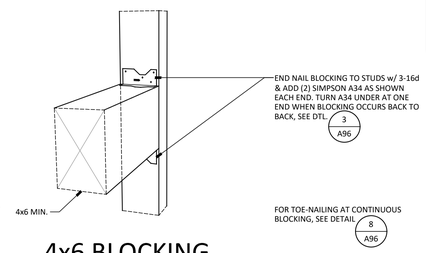
9 FIRE STOP AT IN. CHASE
SCALE: 1 1/2" = 1'-0"



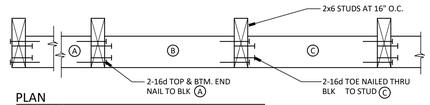


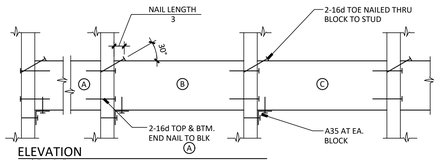


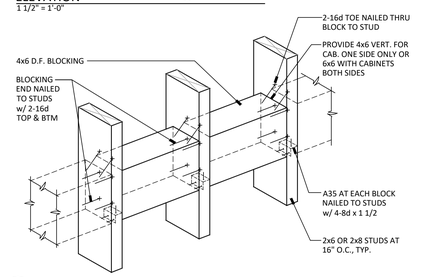
8 TOE-NAILING AT CONT. BLKG.
SCALE: N.T.S. FR: 06 - REV. - 25_09.08



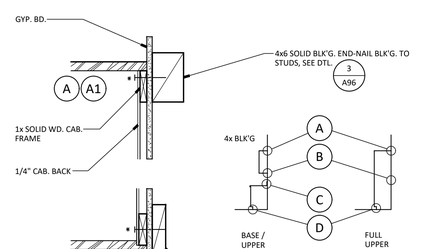
5 4x6 BLOCKING ATTACHMENT WOOD STUDS
SCALE: 1 1/2" 1'-0" FR: 03 - REV. - 25_09.08







3 4x6 BLKG. AT WALL
SCALE: N.T.S. FR: 05 - REV. - 25_09.08



1 CAB. ANCHORAGE (AT WOOD)
SCALE: 1 1/2" = 1'-0" MW: 05 - REV. - 25_06.10

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627 2639 Office
(559) 627 1926 Fax

TITLE
MILLWORK DETAILS

A96

PROJECT 24042

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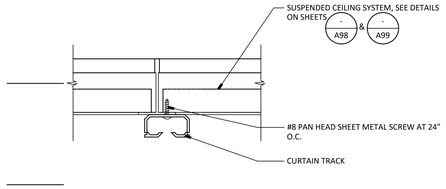
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

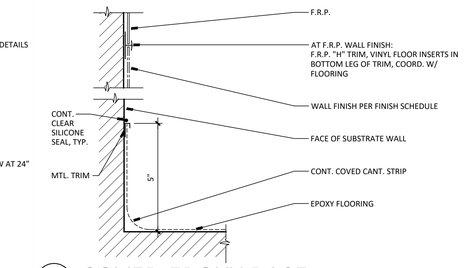
LICENSED ARCHITECT
JAMES R. MORRELL
No. 28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



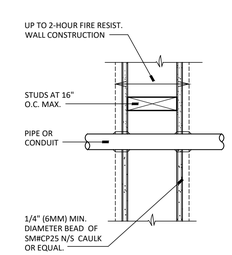
25 CURTAIN TRACK

SCALE: 3" = 1'-0"



20 COVED EPOXY BASE

SCALE: 3" = 1'-0"

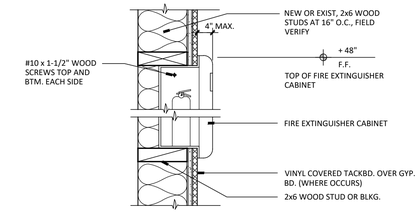


WALL PENETRATION NOTES :

1. CAULK IS TO BE FORCED INTO THE ANNULAR SPACE TO THE MAX. EXTENT POSSIBLE FLUSH W/ EXTERIOR OF THE PENETRATION SURFACE.
2. FINISH CAULKING W/ A 1/4" (6MM) MIN. BEAD OF 3M #CP25 N/S CAULK APPLIED TO PERIMETER OF CONDUIT PIPE AT ITS EGRESS FROM THE WALL.
3. THE MAX. ANNULAR SPACE IS NOT TO EXCEED 3/16" (5MM).
4. INSTALL FIRESTOP ON BOTH SIDES OF THE WALL.
5. THESE RECOMMENDATIONS ARE BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL WL1001) FIRE TEST AND UL THROUGH PENETR. FIRESTOP SYSTEM #147.

15 PENTRATIONS THRU WALL

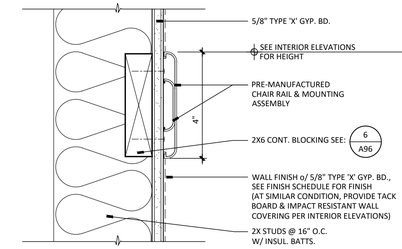
SCALE: 1 1/2" = 1'-0"



10 RECESSED F.E.C.

SCALE: 1 1/2" = 1'-0"

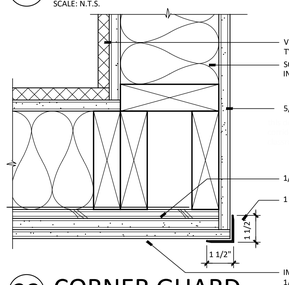
SP: 06 - REV. - 25_08.07



5 CHAIR RAIL

SCALE: 3" = 1'-0"

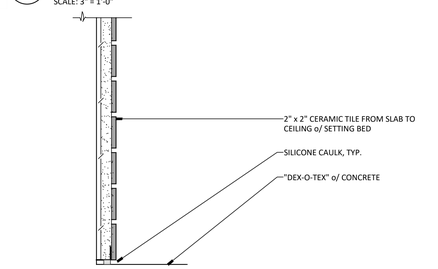
SP: 11 - REV. - 25_06.11



24 NOT USED

SCALE: N.T.S.

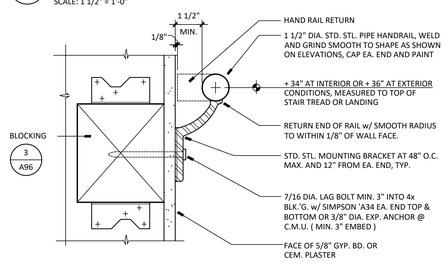
F: 14 - REV. - 25_09.08



19 BASE DETAIL AT D.F.

SCALE: 3" = 1'-0"

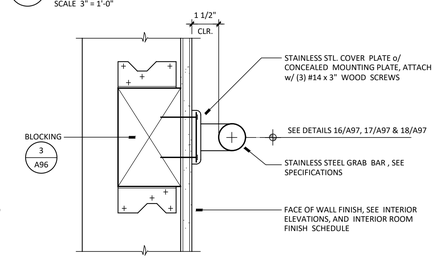
F: 07 - REV. - 25_09.08



14 HANDRAIL ANCHORAGE

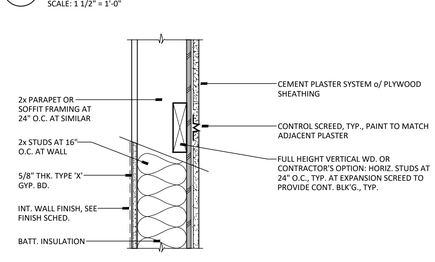
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ML: 10 - REV - 25_06.09



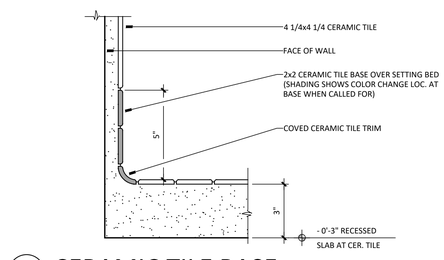
9 TOILET PARTITION ANCHORAGE

SCALE: 3" = 1'-0"



4 TOP CAP @ TRANSITION

SCALE: 1 1/2" = 1'-0"



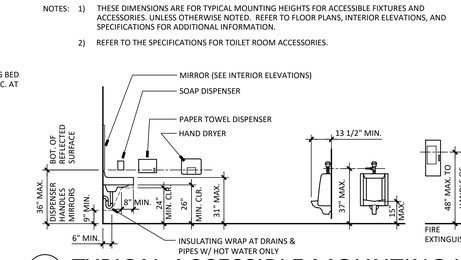
22 CERAMIC TILE BASE

SCALE: 3" = 1'-0"

F: 03 - REV. - 25_09.08

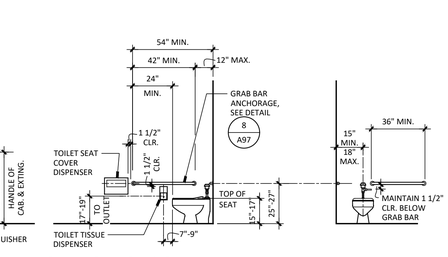
NOTES: 1) THESE DIMENSIONS ARE FOR TYPICAL MOUNTING HEIGHTS FOR ACCESSIBLE FIXTURES AND ACCESSORIES. UNLESS OTHERWISE NOTED. REFER TO FLOOR PLANS, INTERIOR ELEVATIONS, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

2) REFER TO THE SPECIFICATIONS FOR TOILET ROOM ACCESSORIES.



18 TYPICAL ACCESSIBLE MOUNTING HEIGHTS - ADULT

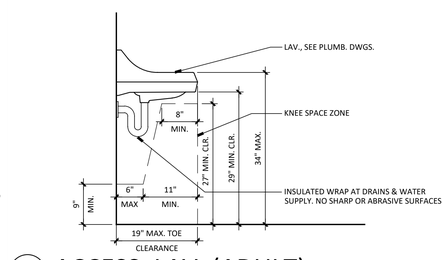
SCALE: 1/4" - 1'-0"



8 GRAB BAR ANCHORAGE

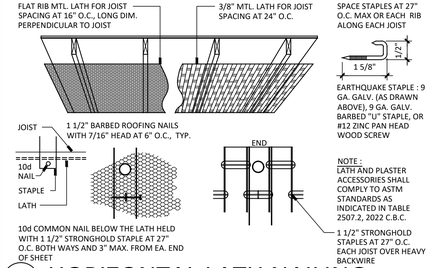
SCALE: 3" = 1'-0"

SP: 12 - REV. - 25_06.11



7 ACCESS. LAV. (ADULT)

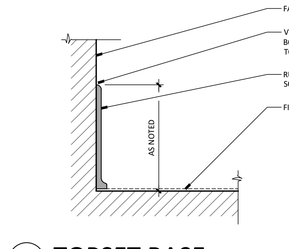
SCALE: 1/4" - 1'-0"



2 HORIZONTAL LATH NAILING

SCALE: 1 1/2" = 1'-0"

C: 11 - REV-25_09.04



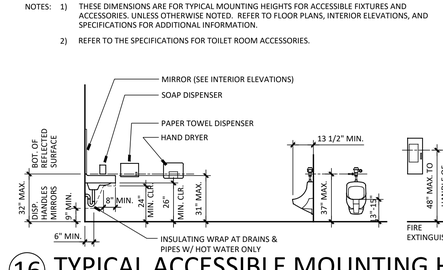
21 TOPSET BASE

SCALE: 3" = 1'-0"

F: 10 - REV. - 25_09.08

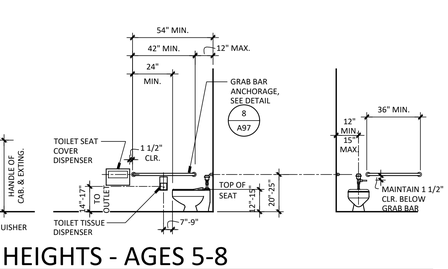
NOTES: 1) THESE DIMENSIONS ARE FOR TYPICAL MOUNTING HEIGHTS FOR ACCESSIBLE FIXTURES AND ACCESSORIES. UNLESS OTHERWISE NOTED. REFER TO FLOOR PLANS, INTERIOR ELEVATIONS, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

2) REFER TO THE SPECIFICATIONS FOR TOILET ROOM ACCESSORIES.



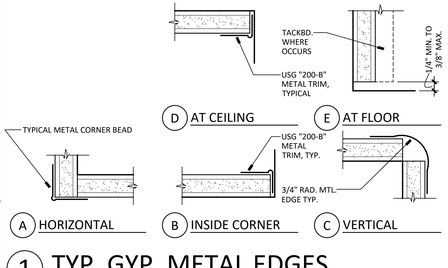
17 TYPICAL ACCESSIBLE MOUNTING HEIGHTS - 9-12

SCALE: 1/4" - 1'-0"



6 ACCESS. LAV. (AGES 9-12)

SCALE: 1/4" - 1'-0"



1 TYP. GYP. METAL EDGES

SCALE: N.T.S.

DW: 01 - REV-25_09.04

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

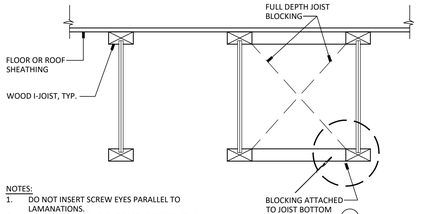
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627-1926 Fax

TITLE: TYPICAL DETAILS

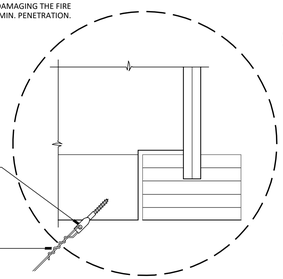
A97

PROJECT 24042

ACC: 01 - REV-25_06.06



NOTES:
1. DO NOT INSERT SCREW EYES PARALLEL TO LAMANATIONS.
2. WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES WITH SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MIN. PENETRATION.

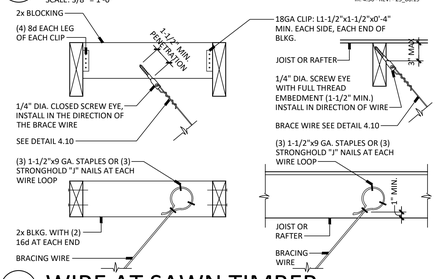


A ENLARGED BLOCKING
SCALE: 1 1/2" = 1'-0"

4.36 WIRE AT WOOD I-JOIST

SCALE: 3/8" = 1'-0"

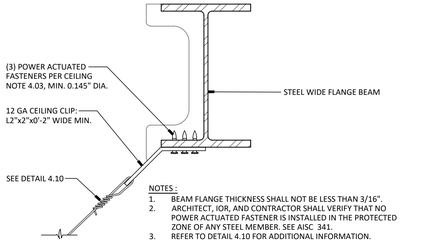
IR: 4.36 - REV. - 25_06.19



4.35 WIRE AT SAWN TIMBER

SCALE: 1" = 1'-0"

IR: 4.35 - REV. - 25_06.19

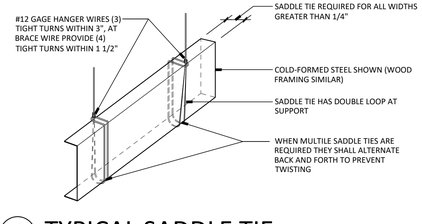


NOTES :
1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16".
2. ARCHITECT, IOR, AND CONTRACTOR SHALL VERIFY THAT NO POWER ACTUATED FASTENER IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER. SEE AISC 341.
3. REFER TO DETAIL 4.10 FOR ADDITIONAL INFORMATION.

4.33 WIRE AT STRUCTURAL STEEL

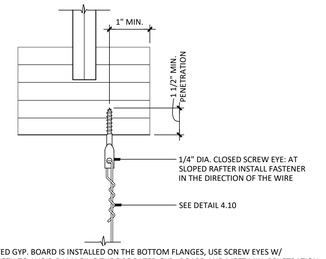
SCALE: N.T.S.

IR: 4.33 - REV. - 25_06.19



4.29 TYPICAL SADDLE TIE

SCALE: N.T.S.

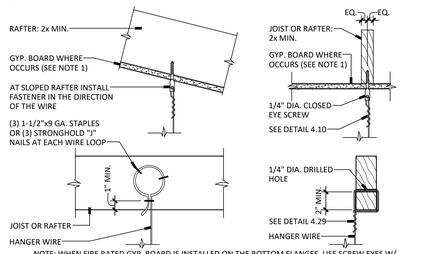


NOTE:
WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES W/ SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MIN. PENETRATION.

4.26 WIRE AT WOOD I-JOIST

SCALE: 3" = 1'-0"

IR: 4.26 - REV. - 25_06.19

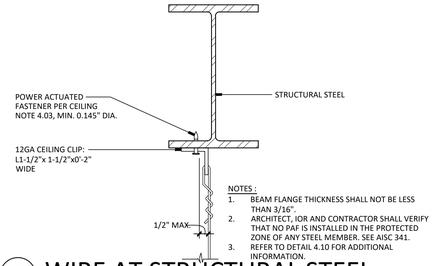


NOTE: WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES W/ SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MIN. PENETRATION.

4.25 WIRE AT SAWN TIMBER

SCALE: 1 1/2" = 1'-0"

IR: 4.25 - REV. - 25_06.19

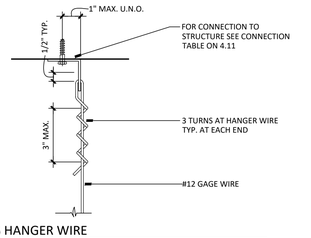


NOTES :
1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16".
2. ARCHITECT, IOR AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER. SEE AISC 341.
3. REFER TO DETAIL 4.10 FOR ADDITIONAL INFORMATION.

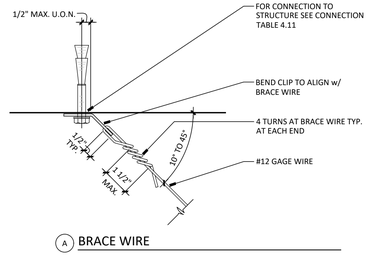
4.23 WIRE AT STRUCTURAL STEEL

SCALE: N.T.S.

IR: 4.23 - REV. - 25_06.19



B HANGER WIRE

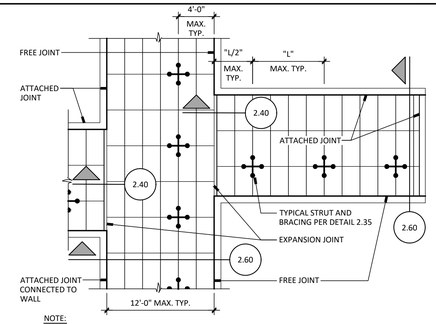


A BRACE WIRE

4.10 TYP. WIRE CONNECTION TURNS

SCALE: 3" = 1'-0"

IR: 4.10 - REV. - 25_06.19



NOTE:
"L" IS MAX. BRACE ASSEMBLY SPACING PER CEILING PLAN DETAIL, FOR EXAMPLE, WHERE 8' x 12' SPACING IS SPECIFIED, USE "L" = 8'.

2.30 CORRIDOR CEILING PLAN

SCALE: 1/8" = 1'-0"

IR: 2.30 - REV. - 25_09.08

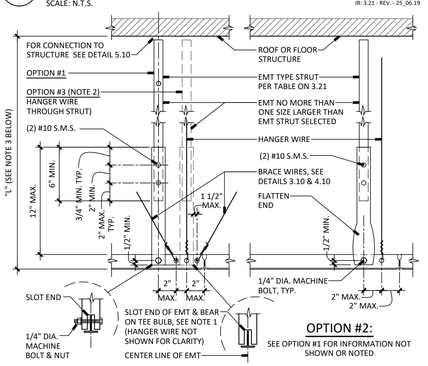
COMPRESSION STRUT EMT SECTION	MAXIMUM LENGTH
1/2" DIAMETER EMT (0.042" WALL THICKNESS)	3'-11"
3/4" DIAMETER EMT (0.049" WALL THICKNESS)	6' - 4"
1" DIAMETER EMT (0.057" WALL THICKNESS)	9' - 9"
1 1/4" DIAMETER EMT (0.065" WALL THICKNESS)	12' - 9"
1 1/2" DIAMETER EMT (0.065" WALL THICKNESS)	14' - 9"
2" DIAMETER EMT (0.065" WALL THICKNESS)	18' - 10"

COMPRESSION STRUT CHANNEL SECTION	MAXIMUM LENGTH
250S125-33	5' - 10"
250S137-33	6' - 10"
362S137-33	8' - 0"
250S137-43	8' - 10"
400S137-43	10' - 10"

3.21 COMPRESSION STRUT TABLE

SCALE: N.T.S.

IR: 3.21 - REV. - 25_06.19



OPTION #1 & #3:

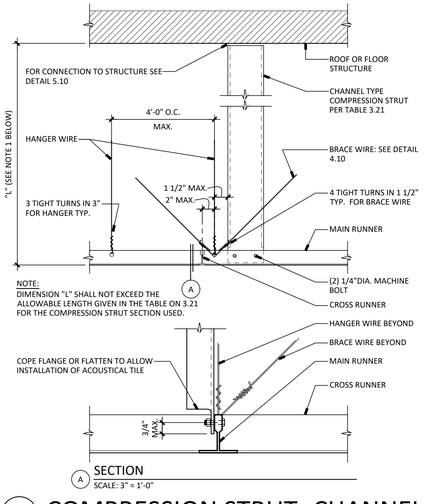
OPTION #2:
SEE OPTION #1 FOR INFORMATION NOT SHOWN OR NOTED

NOTES:
1. MACHINE BOLT IS NOT REQUIRED ON OPTION 3
2. OPTION 3 IS PERMITTED ONLY WHERE THE ROOF OR FLOOR STRUCTURE IS SAWN TIMBER WITHOUT GYPSUM BOARD.
3. LENGTH GIVEN IN THE TABLE ON 3.21 FOR THE COMPRESSION STRUT IS USED

3.20 COMPRESSION STRUT - EMT

SCALE: 1 1/2" = 1'-0"

IR: 3.20 - REV. - 25_06.19



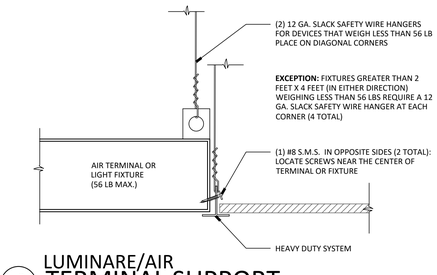
NOTE:
DIMENSION "L" SHALL NOT EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON 3.21 FOR THE COMPRESSION STRUT SECTION USED.

A SECTION
SCALE: 3" = 1'-0"

3.10 COMPRESSION STRUT- CHANNEL

SCALE: 1 1/2" = 1'-0"

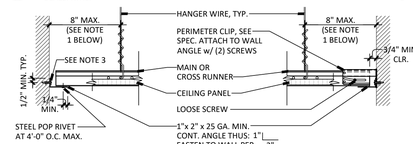
IR: 3.10 - REV. - 25_06.19



2.80 LUMINARE/AIR TERMINAL SUPPORT

SCALE: N.T.S.

IR: 2.80 - REV. - 25_06.19

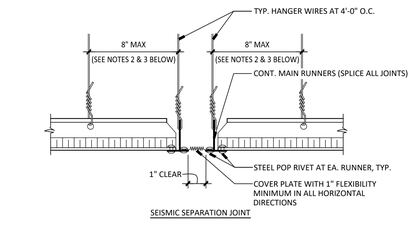


NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. NOT USED.
3. FASTEN ANGLE TO WALL STUD OR BLOCKING AS FOLLOWS:
   A. METAL STUD (20 GA. MIN.) WALL: (1) #10 SMS AT 24" O.C. MAX.
   B. WOOD STUD WALL: #10x2" LONG WOOD SCREW AT 16" O.C. MAX.

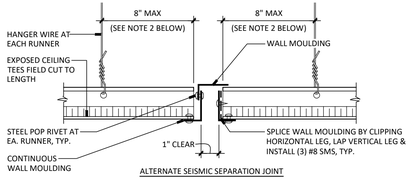
2.60 CEILING PERIMETER

SCALE: 1 1/2" = 1'-0"

IR: 2.60 - REV. - 25_06.19



SEISMIC SEPARATION JOINT



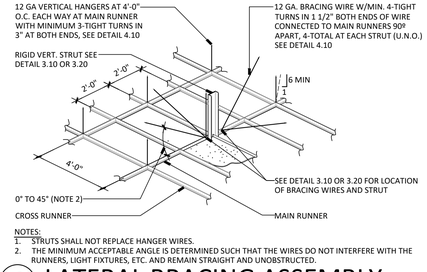
ALTERNATE SEISMIC SEPARATION JOINT

NOTES:
1. DETAILS APPLIES TO SEISMIC SEPARATION JOINT AT CONTINUOUS CEILING AREAS EXCEEDING 2500 SQ. FT. SEE CEILING PLANS FOR LOCATION.
2. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA.
3. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

2.45 SEISMIC SEPARATION JOINT

SCALE: 3" = 1'-0"

IR: 2.45 - REV. - 25_06.19

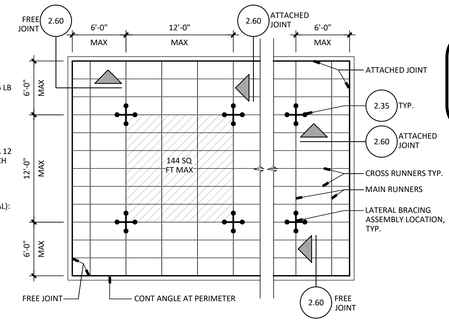


NOTES:
1. STRUTS SHALL NOT REPLACE HANGER WIRES.
2. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC. AND REMAIN STRAIGHT AND UNOBSTRUCTED.

2.35 LATERAL BRACING ASSEMBLY

SCALE: 1/4" = 1'-0"

IR: 2.35 - REV. - 25_09.08



NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 144 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

2.12 12'-0" x 12'-0" BRACE ASSEMBLY

SCALE: 1/8" = 1'-0"

IR: 2.12 - REV. - 25_09.08

1. CEILING SYSTEM GENERAL NOTES PER DA IR25-2:
1.01 Ceiling system components shall comply with ASTM C635 and Section 5.1 of ASTM E580.
1.02 The ceiling grid system shall be rated heavy duty as defined by ASTM C635.
1.03 Ceiling systems. The following ceiling system(s) is/are part of the scope of this project:

Manufacturer's Name:	Chicago Metallic Corp.	Armstrong Prelude XL
	Series 1250	Heavy Duty
Product Evaluation Report Type and Number:	ESR-2631	ESR-1308
Manufacturer's Model Number - Main Runner:	No. 270	No. 7301
Manufacturer's Catalog Number - Cross Runner:	No. 1254 or 1274	No. XL-7342

1.04 Seismic Wall Clip:
Manufacturer's Model: No. 1496 BERC-2
1.05 Ceiling panels shall not support any light fixtures, air terminals or devices.
1.06 For ceiling installations utilizing acoustical tile panels of mineral or glass fiber, it is not mandatory to provide 3/4" clearance between the acoustical tile panels and the wall on the sides of the ceiling which are free to slip. For all other ceiling panel types, provide 3/4" clearance between the ceiling panel and the wall on the sides of the ceiling free to slip.

2. MATERIALS:
2.01 Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641. Wire shall be #12 gage (0.106 diameter) with soft temper and minimum tensile strength = 70 ksi.
2.02 Galvanized sheet steel (including that used for metal stud and track compression struts/post) shall conform to ASTM A653, or other equivalent sheet steel listed in Section A3.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members, (AISS100).Material 43 mil (18 gage) and lighter shall have minimum yield strength of 33 ksi. Material 54 mil (16 gage) and heavier shall have a minimum yield strength of 50 ksi.
2.03 Electrical metallic tube (EMT) shall conform to ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength of 30 ksi and minimum ultimate strength of 48 ksi.

3. ATTACHMENT OF HANGER AND BRACING WIRES:
3.01 Separate all ceiling hanger and bracing wires at least six (6) inches from all unbraced ducts, pipes, conduit, etc.
3.02 Hanger and bracing wires shall not attach to or bend around obstructions including but not limited to: piping, ductwork, conduit and equipment.
3.03 Hanger wires that are more than one (horizontal) in six (vertical) out of plumb shall have counter-sloping wires.
3.04 Slack safety wires shall be considered hanger wires for installation and testing requirements.
3.05 Hanger and bracing wire anchorage to the structure shall be installed in such a manner that the direction of the anchorage aligns closely with the direction of the wire. (e.g. bracing wire ceiling clips must be bent as shown in the details and rotated as required to align closely with the direction of the wire, screw eyes in wood must be installed so they align closely with the direction of the wire, etc.)

4. FASTENERS AND WELDING:
4.01 Sheet metal screws shall comply with ASTM C1513 and ASME B18.6.3. Penetration of screws through joined material shall not be less than three exposed threads.
4.02 Expansion anchors shall be: "HILTI" KB-TZ2 (ESR-4266)
4.03 Power-Actuated Fasteners shall be: "HILTI" X-U (ESR-2269)
4.04 If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel member.
4.05 Power-actuated fasteners in concrete are not permitted for bracing wires.
4.06 Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post - installed anchor.
4.07 Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING: All field testing must be performed in the presence of the project inspector.

5.01 Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power actuated fasteners in concrete shall be field tested for 200 lbs. in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1913A.7.
5.02 Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent in accordance with CBC Section 1913A.7.

6. LIGHT FIXTURES:
6.01 All light fixtures shall be positively attached to the ceiling suspension systems by mechanical means to resist a horizontal force equal to the weight of the fixture. A minimum of two screws or approved fasteners are required at each light fixture, per ASTM E580, Section 5.3.1.
6.02 Surface-mounted light fixtures shall be attached to the main runner with at least two positive clamping devices. The clamping device shall completely surround the supporting ceiling runner and be made of steel with a minimum thickness of #14 gage. Rotational spring catches do not comply. A #12 gage slack safety wire shall be connected from each clamping device to the structure above. Provide additionalsupports when light fixtures are eight (8) feet or longer or exceed 56 lb. Maximum spacing between supports shall not exceed eight (8) feet.
6.03 Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above. 6.04 Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.
6.05 Light fixtures weighing greater than 10 lb. but less than or equal to 56 lbs. may be supported directly on the ceiling runners, but they shall have a minimum of two (2) #12 gage slack safety wires connected from the fixture housing at diagonal corners to the structure above. Exception: All light fixtures greater than two by four feet weighing less than 56 lbs. shall have a #12 gage slack safety wire at each corner.
6.06 All Light fixtures weighing greater than 56 lb. shall be independently supported by not less than four (4) taut #12 gage hanger wires (one at each corner) attached from the fixture housing to the structure above or other approved hangers. The four (4) taut #12 gage wires or other approved hangers, including their attachment to the structure above, shall be capable of supporting four (4) times the weight of the fixture.

7. SERVICES WITHIN THE CEILING:
7.01 All flexible sprinkler hose fitting mounting brackets, ceiling-mounted air terminals or other services shall be positively attached to the ceiling suspension systems by mechanical means. Screws or approved fasteners are required. A minimum of two attachments are required at each component.
7.02 Ceiling-mounted air terminals or other services weighing less than or equal to 20 lb. shall have one (1) #12 gage slack safety wire attached from the terminal or service to the structure above.
7.03 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 20 lb. but less than or equal to 56 lb. shall have two (2) #12 gage slack safety wires (at diagonal corners) connected from the terminal or service to the structure above.
7.04 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 56 lb. shall be supported directly from the structure above by not less than four (4) taut #12 gage hanger wires attached from the terminal or service to the structure above or other approved hangers.

8. OTHER DEVICES WITHIN THE CEILING:
8.01 All lightweight miscellaneous devices, such as strobe lights, occupancy sensors, speakers, exit signs, etc., shall be attached to the ceiling grid. In addition, devices weighing more than 10 lbs. shall have a #12 gage slack safety wire anchored to the structure above. Devices weighing more than 20 lb. shall be supported independently from the structure above.

1.0 CELING NOTES

SCALE: N.T.S.

IR: 1.0 - REV. - 25_09.08

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-41128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
SUSPENDED CEILING DETAILS

A98

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\Suspended Ceiling Details.dwg Sep 16 2026 5:04pm

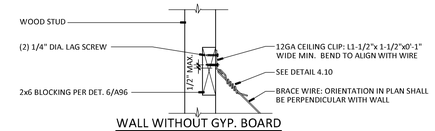
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

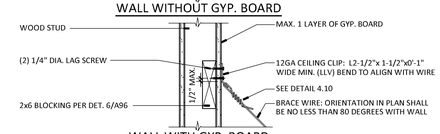
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



WALL WITHOUT GYP. BOARD



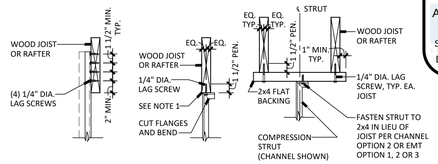
WALL WITH GYP. BOARD

4.34 WIRE AT STUD WALL

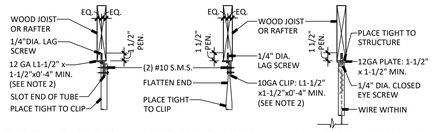
SCALE: 1 1/2" = 1'-0"

1/4" LAG SCREW MIN EMBEDMENT OF 1", TYP.

IR: 4.34 - REV. - 25_06.19



CHANNEL STRUT: OPTION 1 | CHANNEL STRUT: OPTION 2 | CHANNEL OR EMT STRUT: BETWEEN JOIST



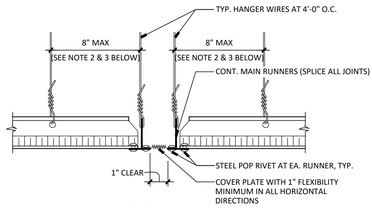
EMT STRUT: OPTION 1 | EMT STRUT: OPTION 2 | EMT STRUT: OPTION 3

NOTES:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. VERTICAL LEG OF MEMBER TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER.
3. SEE DETAIL 5.50 FOR ADDITIONAL INFORMATION.
4. PEN. = MINIMUM PENETRATION OF LAG SCREW THREADS INTO THE WOOD MEMBER.
5. NO. 14 WOOD SCREW MAY BE USED IN LIEU OF 1/4" LAG SCREW.

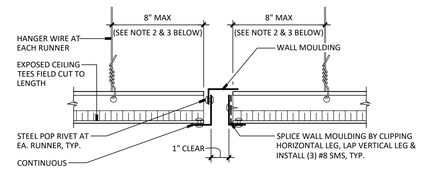
5.51 STRUT AT TIMBER W/O GYP.

SCALE: 1" = 1'-0"

IR: 5.51 - REV. - 25_06.20

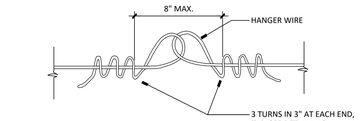


EXPANSION JOINT

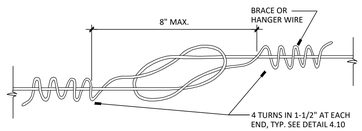


EXPANSION JOINT ALTERNATE

NOTES:
1. DETAIL APPLIES TO EXPANSION JOINTS AT THE INTERSECTION OF CORRIDORS AND AT THE JUNCTIONS OF CORRIDORS AT LOBBIES AND OTHER SIMILAR AREAS.
2. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA.
3. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.



HANGER WIRE ONLY

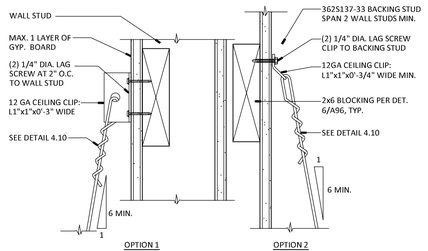


HANGER OR BRACE WIRE

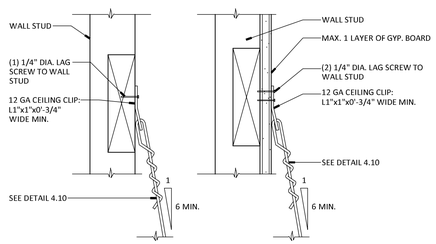
NOTE:
1. WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTED.
2. WIRE LOOPS SHALL BE TIGHTLY WRAPPED AND SHARPLY BENT TO PREVENT ANY VERTICAL MOVEMENT OR ROTATION WITHIN THE LOOPS.
3. EACH HANGER AND BRACE WIRE SHALL BE SPLICED NO MORE THAN ONCE ALONG ITS LENGTH

6.10 CEILING WIRE SPLICES

SCALE: 3" = 1'-0"



OPTION 1 | OPTION 2



OPTION 3A: DIRECT | OPTION 3B: AT GYP

NOTE:
THIS DETAIL APPLIES AT PERIMETER WIRE ATTACHMENT OR WHERE OBSTRUCTION PREVENTS ATTACHMENT TO THE STRUCTURE ABOVE.

4.24 WIRE AT STUD WALL

SCALE: 3" = 1'-0"

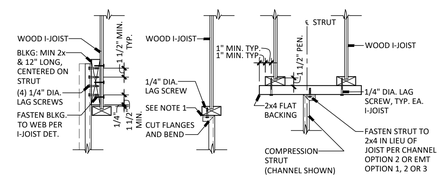
1/4" LAG SCREW MIN EMBEDMENT OF 1", TYP.

IR: 4.24 - REV. - 25_06.19

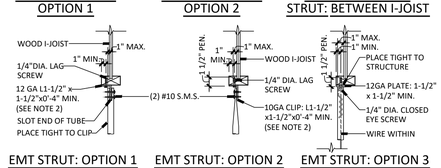
2.40 EXPANSION JOINT

SCALE: 3" = 1'-0"

IR: 2.40 - REV. - 25_06.19



CHANNEL STRUT: OPTION 1 | CHANNEL STRUT: OPTION 2 | CHANNEL OR EMT STRUT: BETWEEN I-JOIST



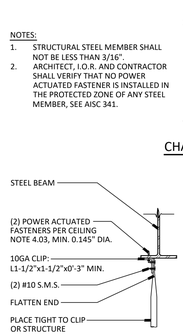
EMT STRUT: OPTION 1 | EMT STRUT: OPTION 2 | EMT STRUT: OPTION 3

NOTES:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. VERTICAL LEG OF MEMBER TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER.
3. SEE DETAIL 5.50 FOR ADDITIONAL INFORMATION.
4. PEN. = MINIMUM PENETRATION OF LAG SCREW THREADS INTO THE WOOD MEMBER.
5. NO. 14 WOOD SCREW MAY BE USED IN LIEU OF 1/4" LAG SCREW.

5.52 STRUT AT I-JOIST

SCALE: 1" = 1'-0"

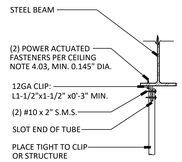
IR: 5.52 - REV. - 25_06.20



CHANNEL STRUT

NOTES:
1. STRUCTURAL STEEL MEMBER SHALL NOT BE LESS THAN 3/16".
2. ARCHITECT, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO POWER ACTUATED FASTENER IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE AISC 341.

EMT STRUT: OPTION 1

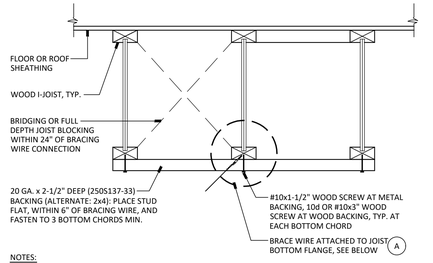


EMT STRUT: OPTION 2

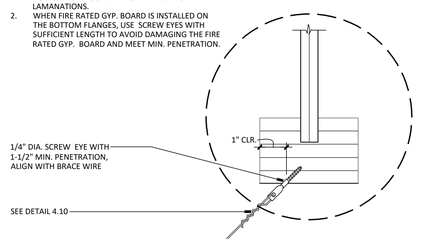
5.40 STRUT AT STRUCTURAL STEEL

SCALE: 1" = 1'-0"

IR: 5.40 - REV. - 25_06.20



NOTES:
1. DO NOT INSERT SCREW EYES PARALLEL TO LAMANATIONS.
2. WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES WITH SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MIN. PENETRATION.



A ENLARGED BLOCKING

SCALE: 1 1/2" = 1'-0"

4.37 WIRE AT WOOD I-JOIST

SCALE: 3/8" = 1'-0"

IR: 4.37 - REV. - 25_06.19

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Visalia, California 93291
www.mangini.us
(559) 627 2539 Office
(559) 627 1926 Fax

TITLE
SUSPENDED CEILING DETAILS

A99

PROJECT 24042

F:\01 projects\24042\Drawings\01 architectural\03 sheets\Suspended Ceiling Details.dwg Sep 16 2026 5:04pm

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. 16128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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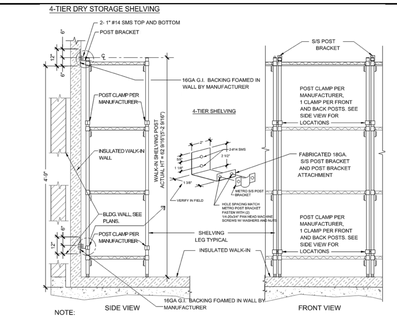
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A100

PROJECT 24042

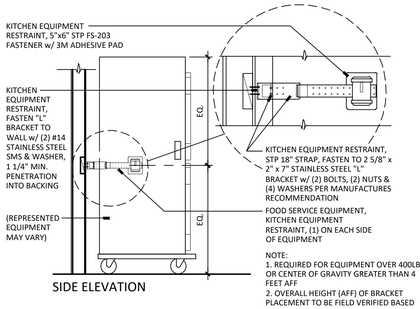
25 STORAGE SHELVING ATTACHMENT

SCALE: N.T.S.



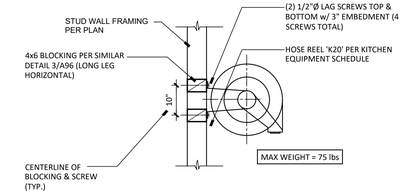
20 MOBILE EQUIPMENT ANCHORAGE

SCALE: N.T.S.



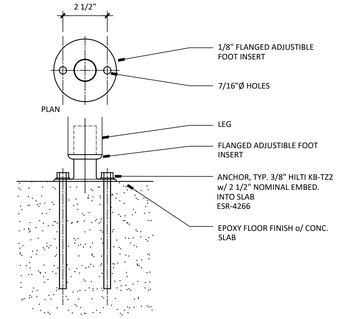
10 HOSE REEL ATTACHMENT

SCALE: N.T.S.



5 FLANGED FOOT ANCHORAGE

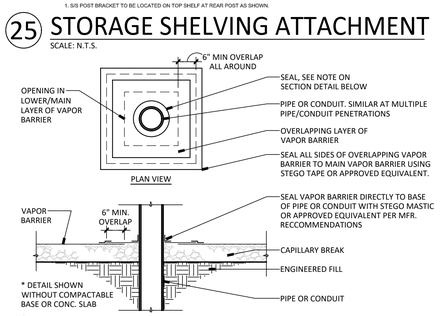
SCALE" 3" = 1'-0"



24 VAPOR BAR. AT PENETRATION

SCALE: N.T.S.

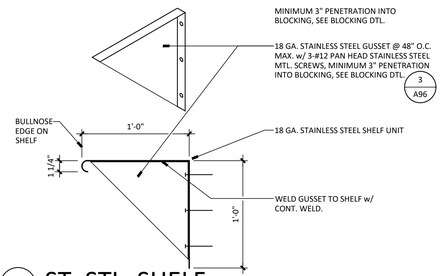
ML: 12 - REV. - 26_03.20



19 ST. STL. SHELF

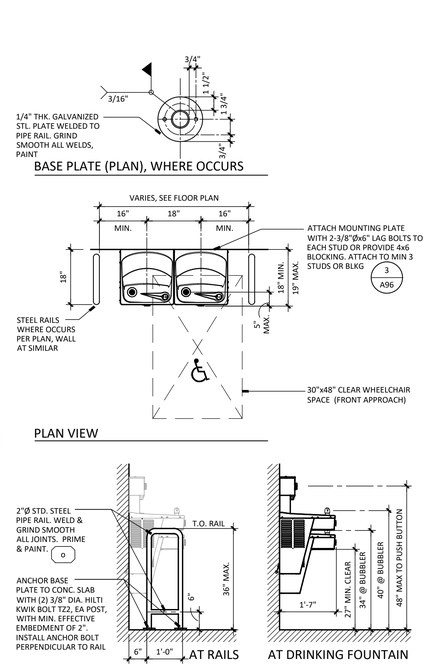
SCALE: 1 1/2" = 1'-0"

EQ: 08 - REV. - 25_09.05



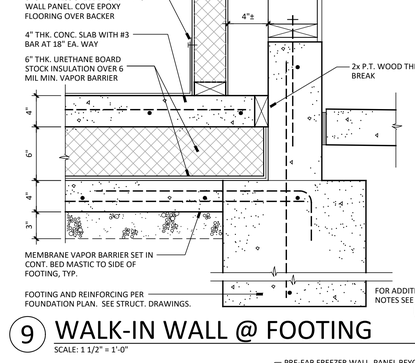
13 HI-LO DRINKING FOUNTAIN

SCALE: 1/2" = 1'-0"



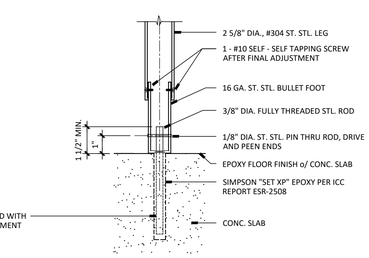
9 WALK-IN WALL @ FOOTING

SCALE: 1 1/2" = 1'-0"



4 BULLET FOOT

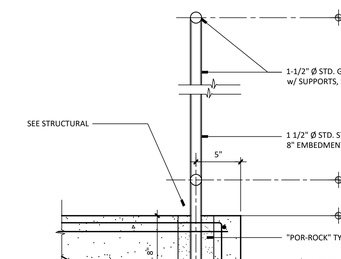
SCALE" 3" = 1'-0"



23 VAPOR BARRIER AT PERIMETER

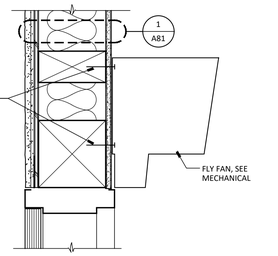
SCALE: 1 1/2" = 1'-0"

ML: 13 - REV. - 26_03.20



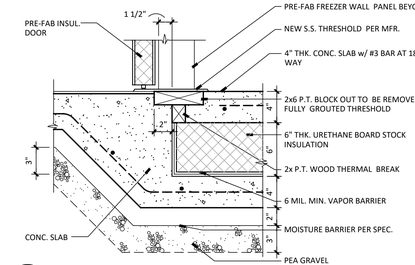
18 FLY FAN

SCALE: 1 1/2" = 1'-0"



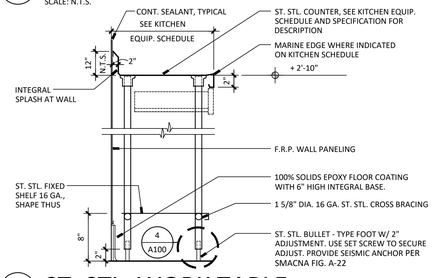
8 THRESHOLD @ WALK-IN DR.

SCALE: 1 1/2" = 1'-0"



3 COUNTERTOP @ SERVING

SCALE: N.T.S.

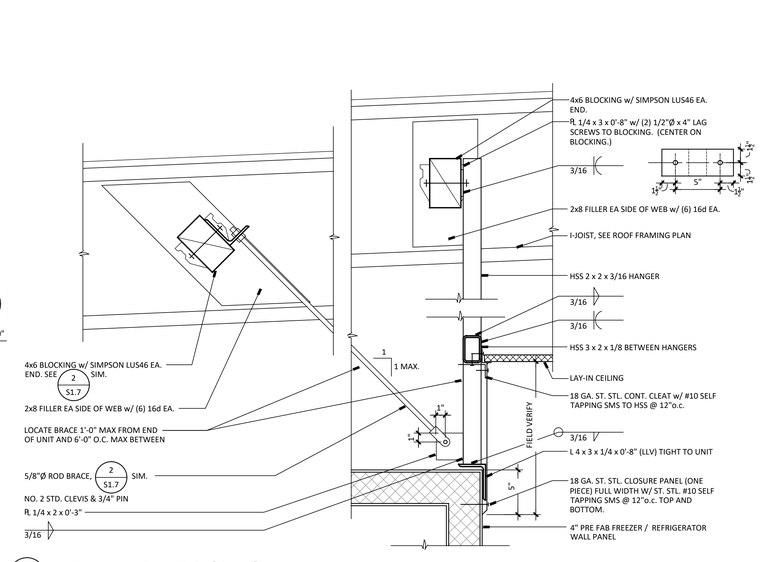


21 HANDRAIL

SCALE: 1 1/2" = 1'-0"

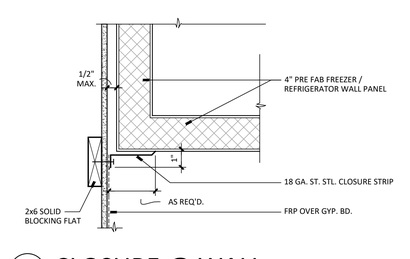
16 FREEZER BRACING

SCALE: 1 1/2" = 1'-0"



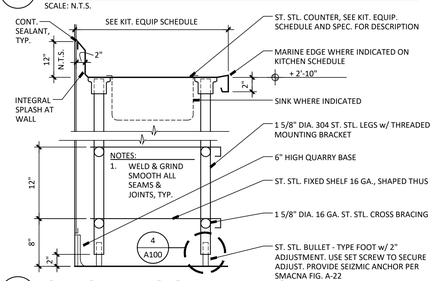
7 CLOSURE @ WALL

SCALE: 1 1/2" = 1'-0"



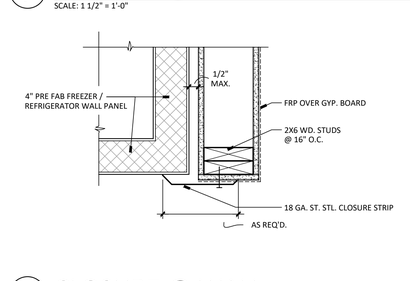
2 ST. STL. WORK TABLE

SCALE: N.T.S.



6 CLOSURE @ WALL

SCALE: 1 1/2" = 1'-0"

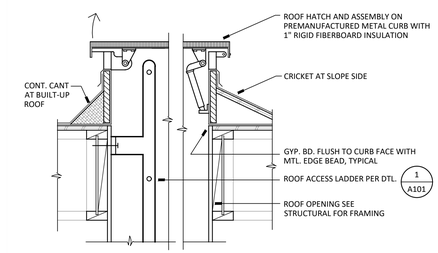


1 ST. STL. FOOD PREP SINK

SCALE: 1" = 1'-0"

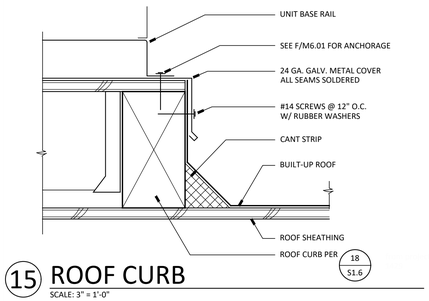
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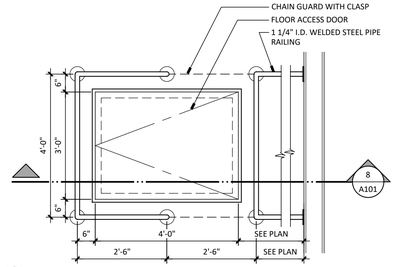
20 ROOF ACCESS HATCH

SCALE: 1" = 1'-0"



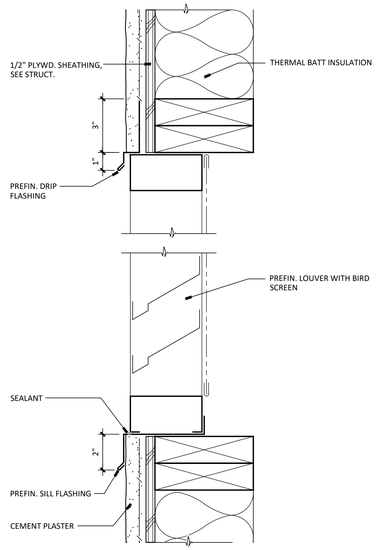
15 ROOF CURB

SCALE: 3" = 1'-0"



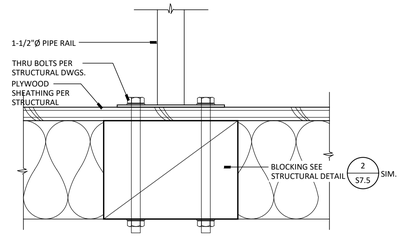
10 FLOOR ACCESS RAIL

SCALE: 1/2" - 1'-0"



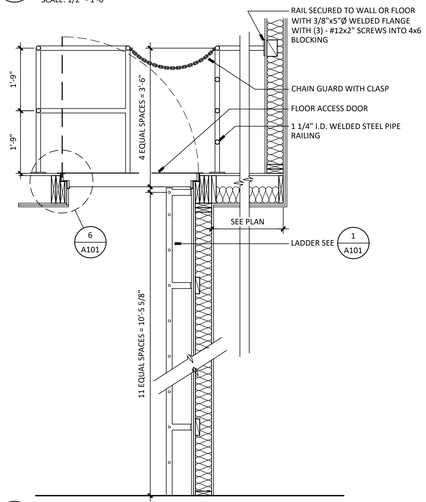
4 LOUVERS AT EXT. WALL

SCALE: 3" = 1'-0"



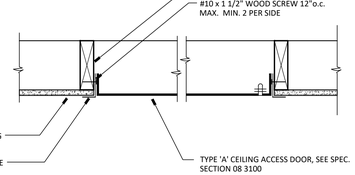
14 GUARDRAIL AT EQUIP. PLATFORM

SCALE: 3" = 1'-0"



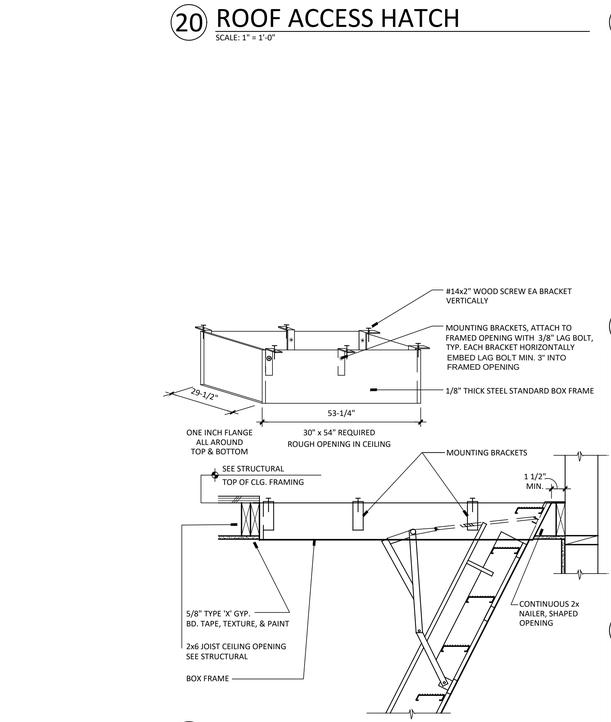
8 FLOOR ACCESS

SCALE: 1/2" - 1'-0"



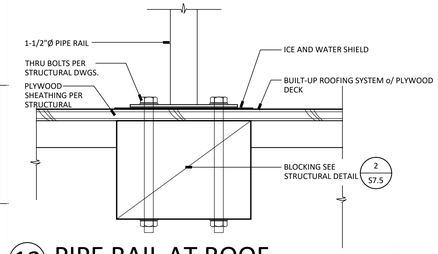
3 ATTIC/CEILING ACCESS DOOR

SCALE: 1 1/2" = 1'-0"



18 CEILING ACCESS HATCH

SCALE: 1" = 1'-0"

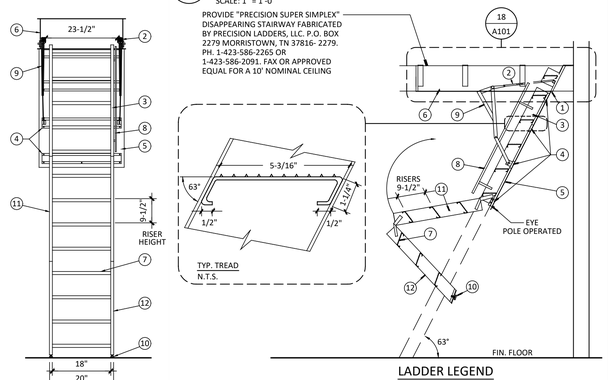


13 PIPE RAIL AT ROOF

SCALE: 3" = 1'-0"

7 STAIRS AT PLATFORM

SCALE: 1 1/2" = 1'-0"



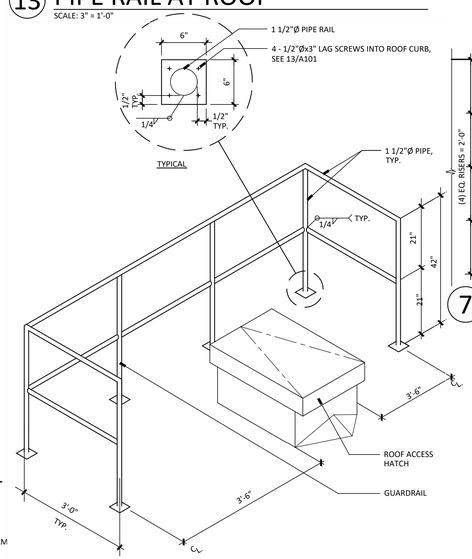
LADDER LEGEND

CEILING HEIGHT	X (CLEARANCE)
7'-1" to 8'-0"	13"
8'-1" to 8'-9"	14-1/2"
8'-10" to 9'-9"	22"

1. STEEL PIANO DOOR HINGE
2. DOUBLE SPRING ACTION
3. SIDE RUNNER 5" ALUM.
4. BATTEN 1/8" ALUM.
5. DOOR PANEL 1/8" ALUM.
6. STEEL ANGLE FRAME
7. TREAD (SERRATED ALUM.)
8. HANDRAIL BOTH SIDES
9. EXTRA HEAVY OPERATING ARM
10. ADJUSTABLE FOOT
11. MIDDLE SECTION
12. BOTTOM SECTION

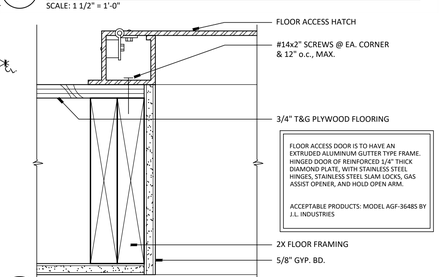
16 CEILING ACCESS STAIRS

SCALE: NO SCALE



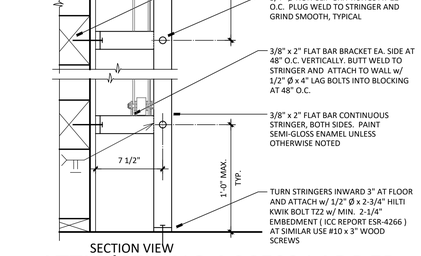
11 GUARDRAIL AT ROOF ACCESS

SCALE: 1/2" - 1'-0"



6 FLOOR ACCESS DOOR

SCALE: 3" = 1'-0"



1 ATTIC/CEILING ACCESS LADDER (ROOF ACCESS LADDER @ SIM.)

SCALE: 1 1/2" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL RCE 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-2630 Office
(559) 627-1926 Fax

TITLE DETAILS

A101

PROJECT 24042

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

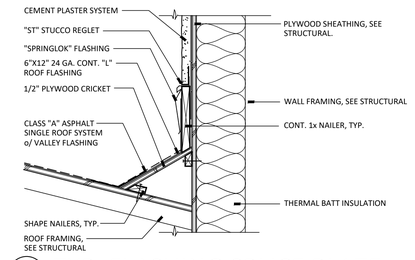
REVISIONS

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4320 West Mineral King Avenue
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TITLE DETAILS

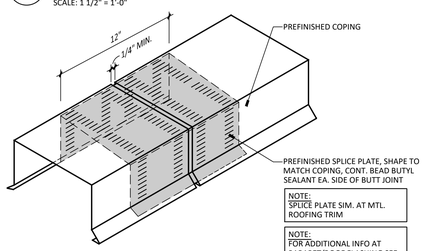
A102

PROJECT 24042



25 TYP. FLASHING SPLICE PLATE

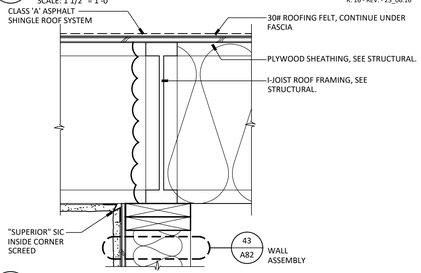
SCALE: 1 1/2" = 1'-0"



24 TYP. FLASHING SPLICE PLATE

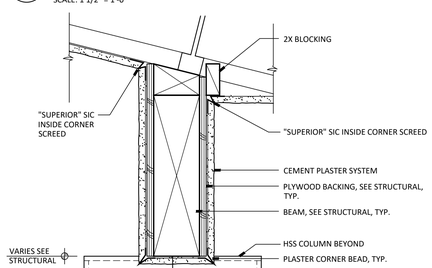
SCALE: 1 1/2" = 1'-0"

R: 16 - REV. - 25_06.16



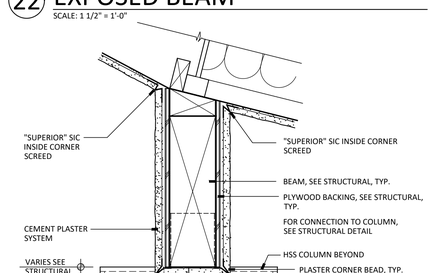
23 WALL AT OVERHANG

SCALE: 1 1/2" = 1'-0"



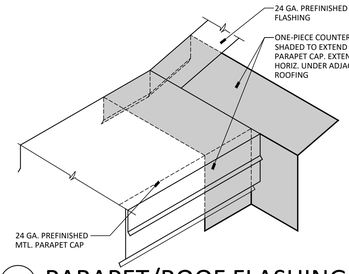
22 EXPOSED BEAM

SCALE: 1 1/2" = 1'-0"



21 BEAM AT COLUMN

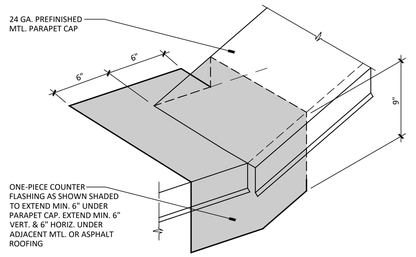
SCALE: 1 1/2" = 1'-0"



20 PARAPET/ROOF FLASHING

SCALE: 1 1/2" = 1'-0"

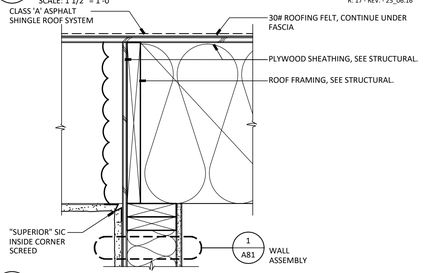
R: 18 - REV. - 24_03.21



19 PARAPET/ROOF FLASHING

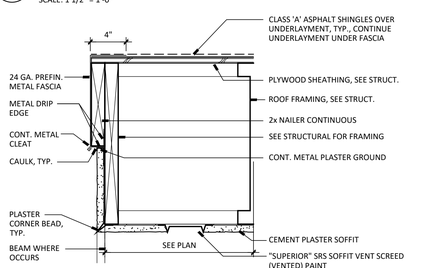
SCALE: 1 1/2" = 1'-0"

R: 17 - REV. - 25_06.16



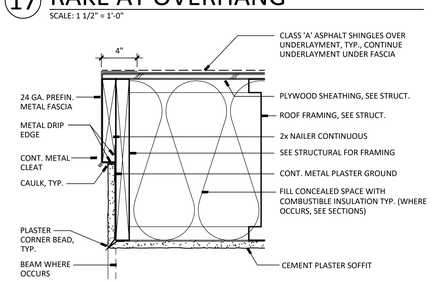
18 WALL AT OVERHANG

SCALE: 1 1/2" = 1'-0"



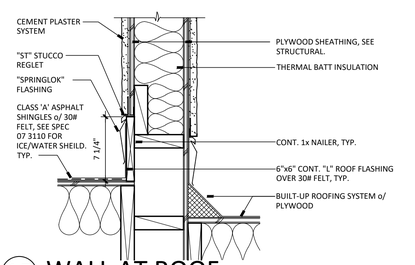
17 RAKE AT OVERHANG

SCALE: 1 1/2" = 1'-0"



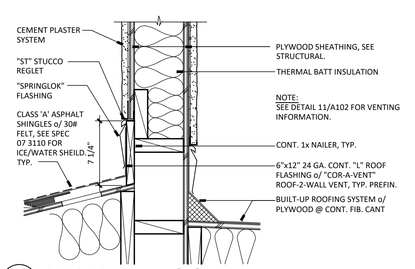
16 RAKE AT OVERHANG

SCALE: 1 1/2" = 1'-0"



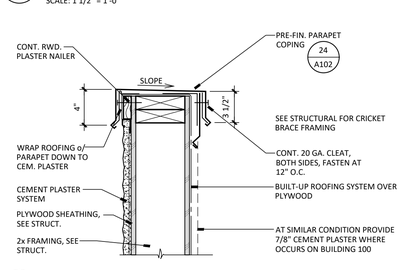
15 WALL AT ROOF

SCALE: 1 1/2" = 1'-0"



14 WALL AT ROOF

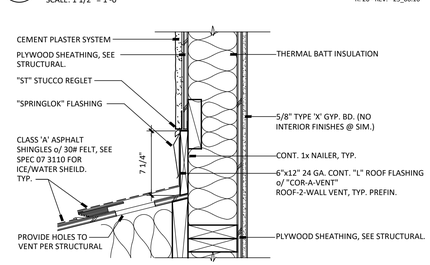
SCALE: 1 1/2" = 1'-0"



13 PARAPET

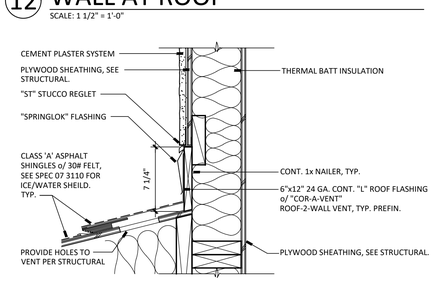
SCALE: 1 1/2" = 1'-0"

R: 20 - REV. - 25_06.16



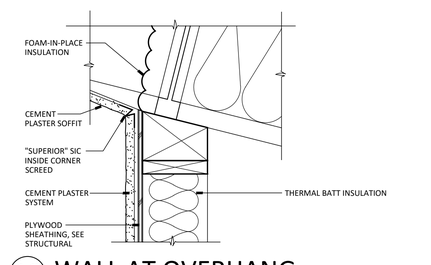
12 WALL AT ROOF

SCALE: 1 1/2" = 1'-0"



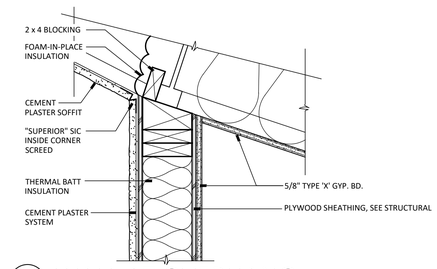
11 WALL AT ROOF

SCALE: 1 1/2" = 1'-0"



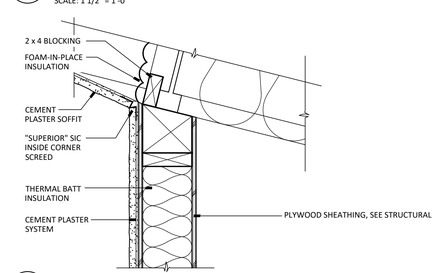
10 WALL AT OVERHANG

SCALE: 1 1/2" = 1'-0"



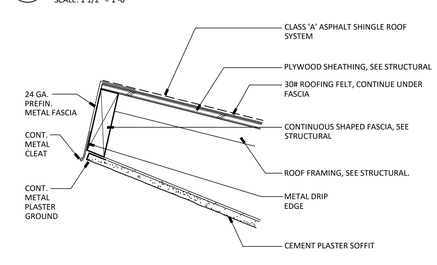
9 WALL AT OVERHANG

SCALE: 1 1/2" = 1'-0"



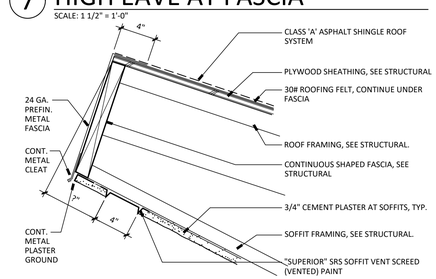
8 WALL AT OVERHANG

SCALE: 1 1/2" = 1'-0"



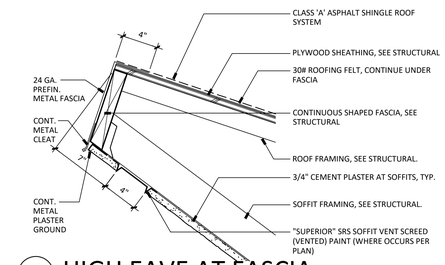
7 HIGH EAVE AT FASCIA

SCALE: 1 1/2" = 1'-0"



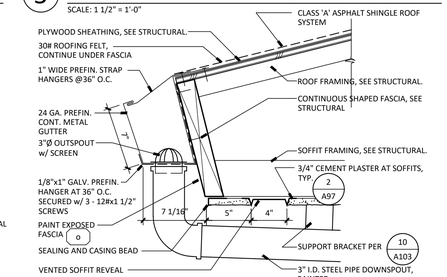
6 HIGH EAVE AT FASCIA

SCALE: 1 1/2" = 1'-0"



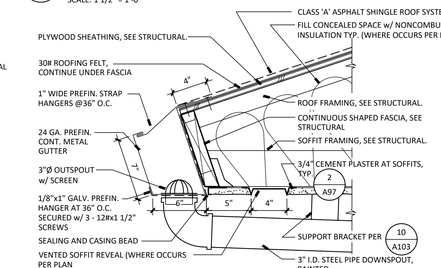
5 HIGH EAVE AT FASCIA

SCALE: 1 1/2" = 1'-0"



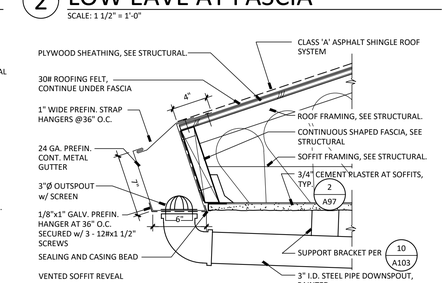
4 LOW EAVE AT FASCIA

SCALE: 1 1/2" = 1'-0"



3 LOW EAVE AT FASCIA

SCALE: 1 1/2" = 1'-0"



2 LOW EAVE AT FASCIA

SCALE: 1 1/2" = 1'-0"

1 LOW EAVE AT FASCIA

SCALE: 1 1/2" = 1'-0"

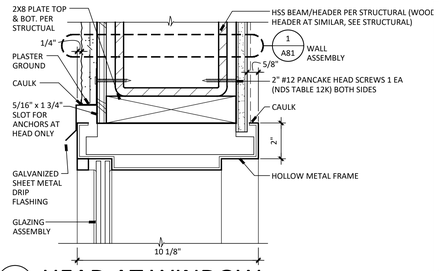
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

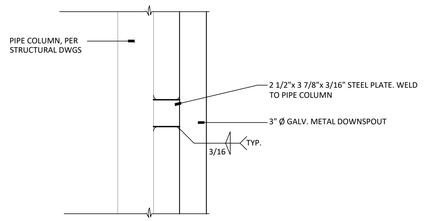
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

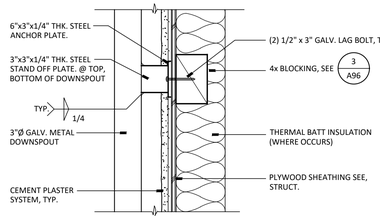
DATE: DECEMBER 18, 2025



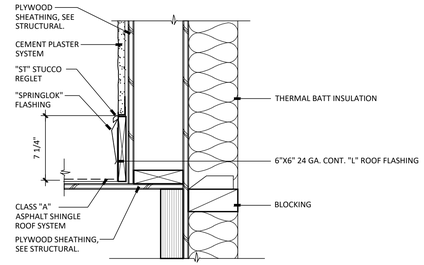
20 HEAD AT WINDOW
SCALE: 3" = 1'-0"



15 DOWNSPOUT ANCHORAGE
SCALE: 1 1/2" = 1'-0"

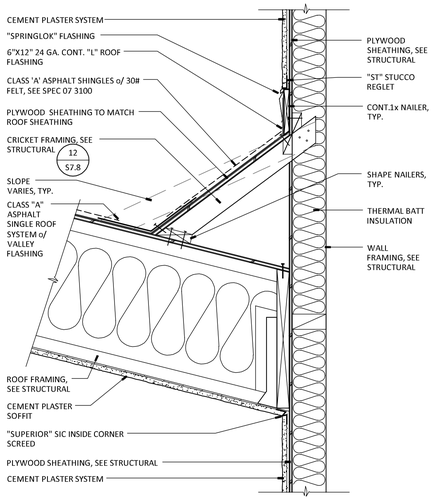


10 DOWN SPOUT ANCHORAGE
SCALE: 1 1/2" = 1'-0"

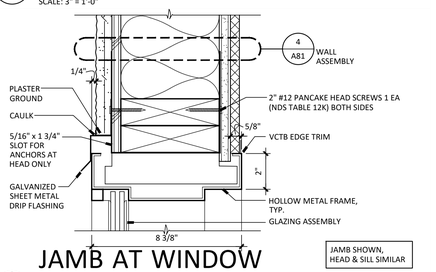


5 WALL AT ROOF
SCALE: 1 1/2" = 1'-0"

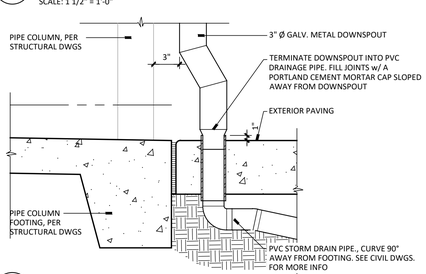
NOTE:
FOR ADDITIONAL INFO AT CRICKET, SEE DETAIL 12/S7.8



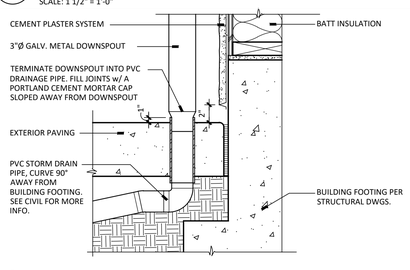
23 CRICKET DETAIL
SCALE: 1 1/2" = 1'-0"



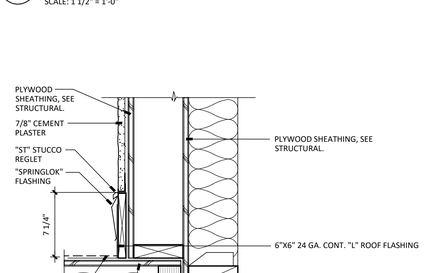
JAMB AT WINDOW (HEAD & SILL SIM.) 19
SCALE: 3" = 1'-0"



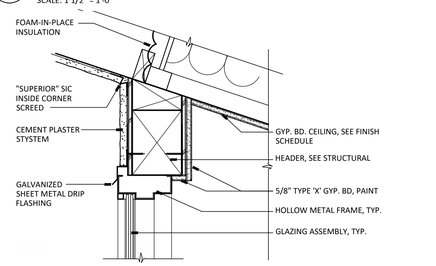
14 DOWNSPOUT AT BASE
SCALE: 1 1/2" = 1'-0"



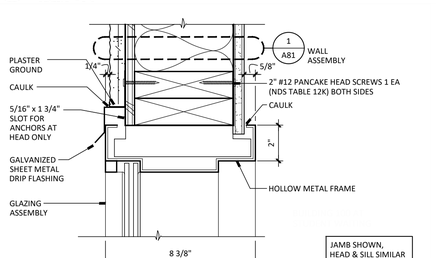
9 LEADER THRU SLAB
SCALE: 1 1/2" = 1'-0"



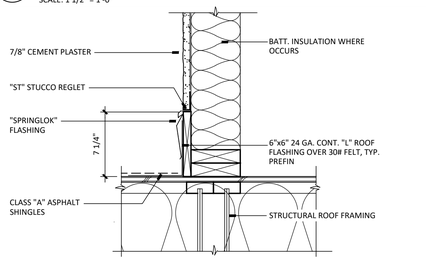
3 WALL AT ROOF
SCALE: 1 1/2" = 1'-0"



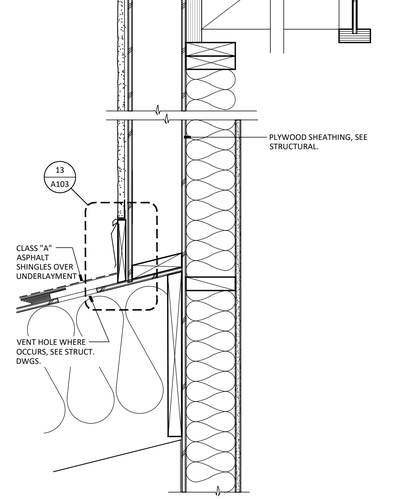
22 CLERESTORY AT HEAD
SCALE: 1 1/2" = 1'-0"



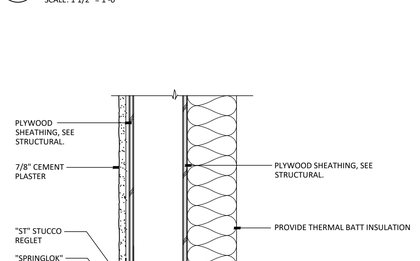
17 JAMB AT WINDOW (HEAD/SILL SIM.)
SCALE: 3" = 1'-0"



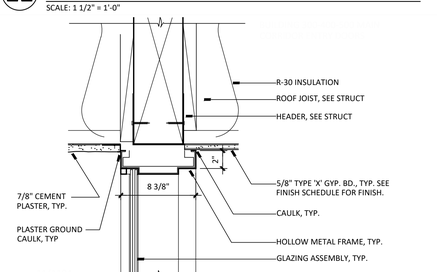
12 ROOF AT WALL
SCALE: N.T.S.



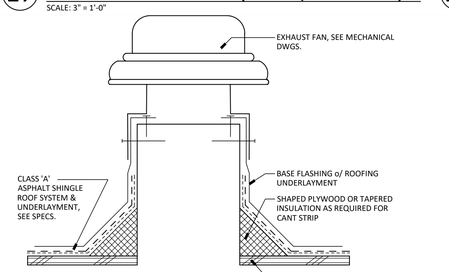
6 WALL AT ROOF
SCALE: 1 1/2" = 1'-0"



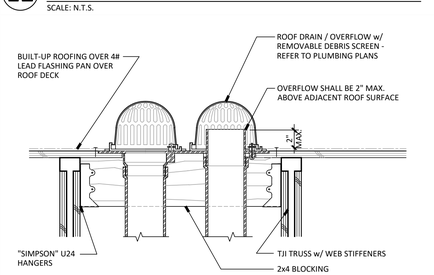
1 WALL AT ROOF
SCALE: 1 1/2" = 1'-0"



21 HEAD AT WINDOW
SCALE: 1 1/2" = 1'-0"



16 EXHAUST FAN FLASHING
SCALE: 3" = 1'-0"



11 ROOF DRAIN / OVERFLOW
SCALE: 1 1/2" = 1'-0"

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
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(559) 627 7839 Office
(559) 627 1926 Fax

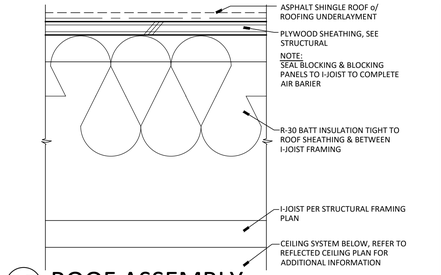
NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

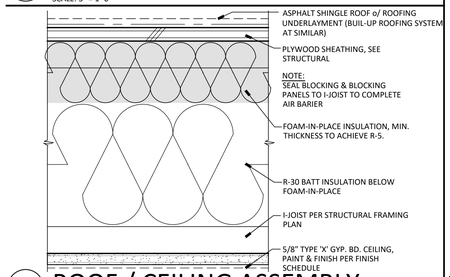
TITLE: DETAILS

A103

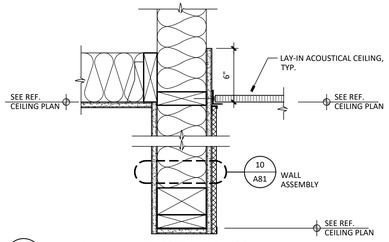
PROJECT 24042



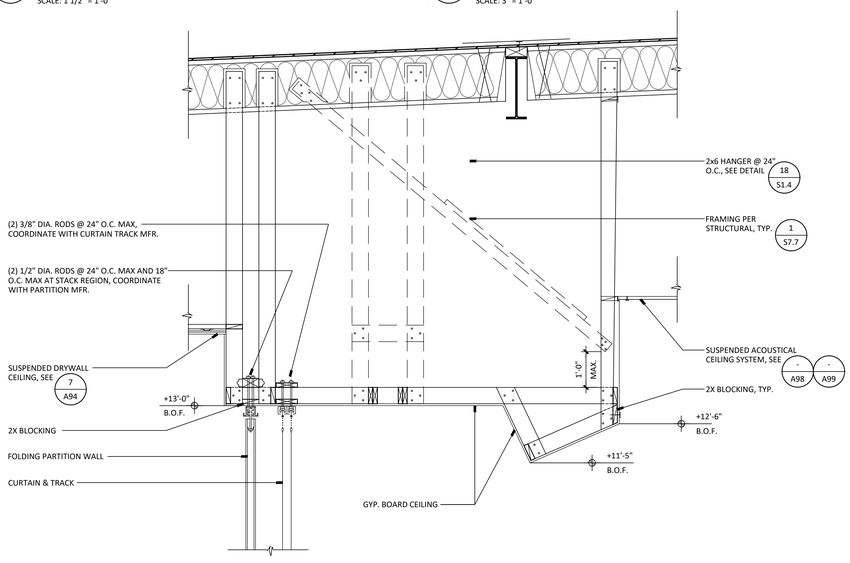
25 ROOF ASSEMBLY
SCALE: 3" = 1'-0"



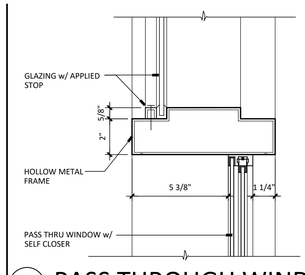
24 ROOF / CEILING ASSEMBLY
SCALE: 3" = 1'-0"



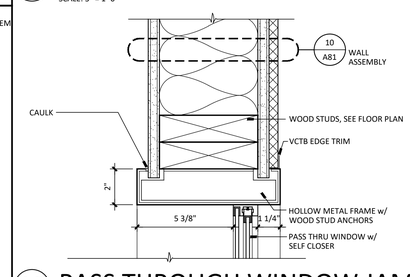
23 WALL AT CEILING
SCALE: 1 1/2" = 1'-0"



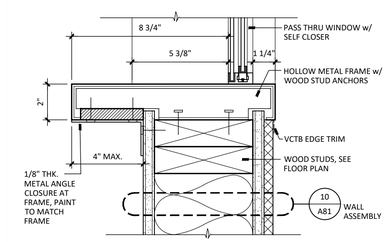
21 PLATFORM SOFFIT
SCALE: 1/2"=1'-0"



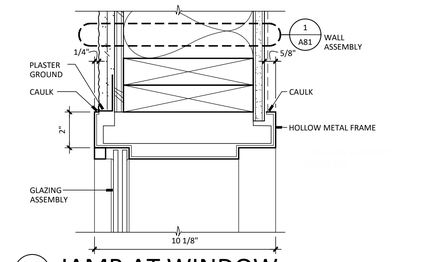
20 PASS THROUGH WINDOW HEAD
SCALE: 3" = 1'-0"



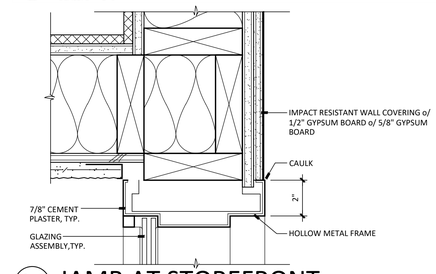
19 PASS THROUGH WINDOW JAMB
SCALE: 3" = 1'-0"



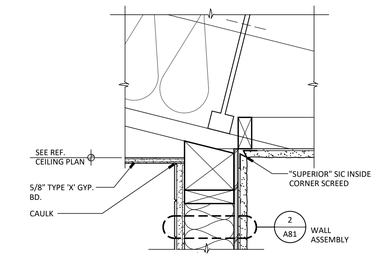
18 PASS THROUGH WINDOW SILL
SCALE: 3" = 1'-0"



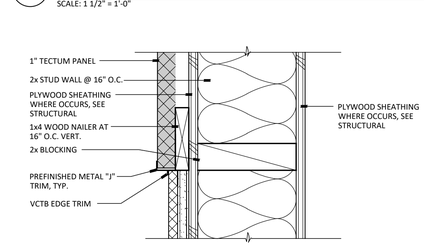
15 JAMB AT WINDOW
SCALE: 3" = 1'-0"



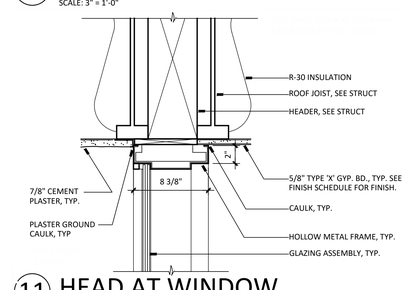
14 JAMB AT STOREFRONT
SCALE: 3" = 1'-0"



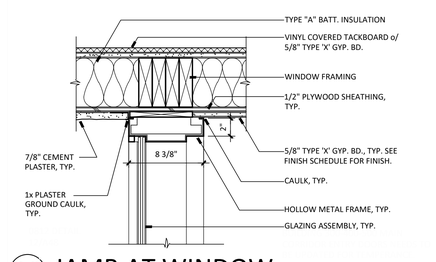
13 CEILING AT TILE WALL
SCALE: 1 1/2" = 1'-0"



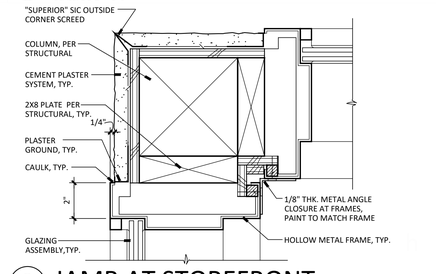
12 VCTB TRANSITION TO TECTUM
SCALE: 3" = 1'-0"



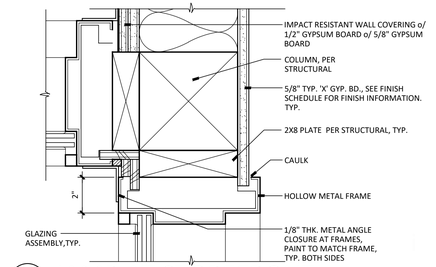
11 HEAD AT WINDOW
SCALE: 1 1/2" = 1'-0"



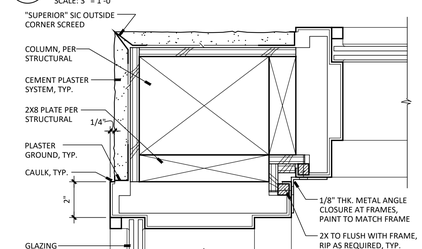
10 JAMB AT WINDOW
SCALE: 1 1/2" = 1'-0"



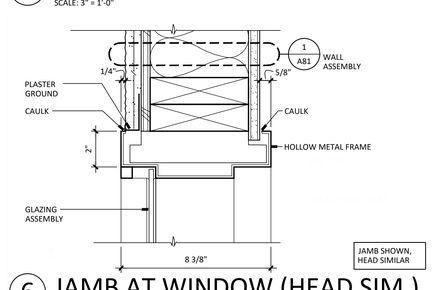
9 JAMB AT STOREFRONT
SCALE: 3" = 1'-0"



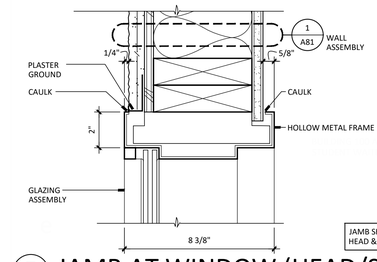
8 JAMB AT STOREFRONT
SCALE: 3" = 1'-0"



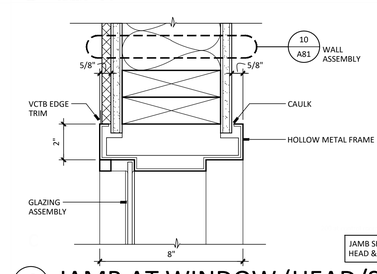
7 JAMB AT STOREFRONT
SCALE: 3" = 1'-0"



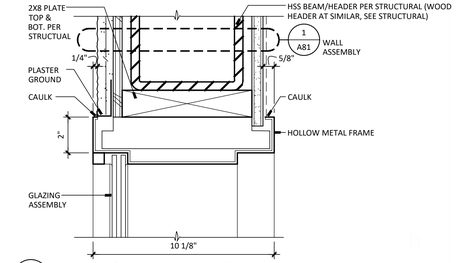
6 JAMB AT WINDOW (HEAD SIM.)
SCALE: 3" = 1'-0"



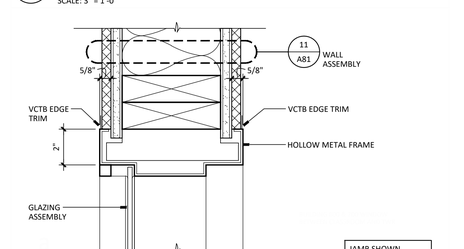
5 JAMB AT WINDOW (HEAD/SILL SIM.
SCALE: 3" = 1'-0"



4 JAMB AT WINDOW (HEAD/SILL SIM.
SCALE: 3" = 1'-0"



3 HEAD AT WINDOW
SCALE: 3" = 1'-0"



2 JAMB AT WINDOW (HEAD/SILL SIM.
SCALE: 3" = 1'-0"

6 JAMB AT WINDOW (HEAD SIM.)
SCALE: 3" = 1'-0"

1 NOT USED
SCALE: 1 1/2" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

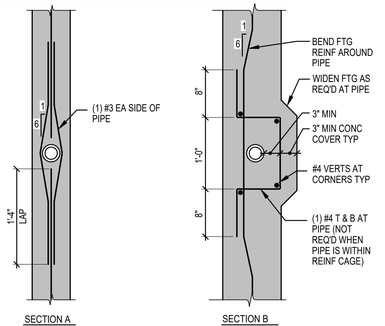
MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4120 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE DETAILS

A104

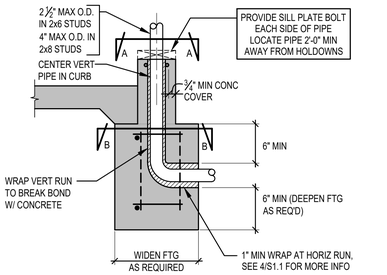
PROJECT 24042

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SECTION A
AT CURB

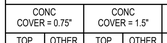
SECTION B
AT FOOTING



DRAIN PIPE AT FOOTING

NTS 3008-04 — 11 / S1.1

BAR SIZE	CONCRETE f'c = 3000 psi TENSION LAP SPLICE LENGTH (INCHES) CONC COVER = 0.75"		CONC COVER = 1.5"		CONC COVER = 2"	
	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	17	13	17	13	17	13
#4	28	22	23	18	23	18
#5	41	32	28	22	28	22
#6	56	43	34	26	34	26
#7	90	69	55	43	49	38
#8	112	86	70	54	56	43
#9	135	104	86	66	69	53
#10	162	125	105	81	85	66
#11	190	146	126	97	102	79

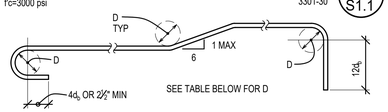


NOTES:

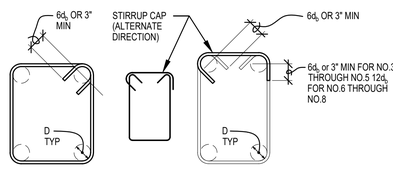
1. LAP SPLICES SHOWN CONFORM TO CLASS "B" SPLICES FOR NORMAL WEIGHT CONCRETE PER ACI 318-19.
2. USE THE SPLICE LENGTH GIVEN FOR TOP BARS WHEN MORE THAN 12" OF CONCRETE IS CAST BELOW HORIZONTAL BARS IN THE MEMBER. USE THE SPLICE LENGTH FOR BOTTOM BARS FOR ALL OTHER CONDITIONS.
3. SPLICES IN FOOTINGS, WALLS, AND SLABS ON GRADE SHALL BE STAGGERED AT LEAST 24". SPLICE IN BEAMS, COLUMNS, AND ELEVATED SLABS SHALL BE AS SHOWN ON DRAWINGS.

REBAR SPLICE LENGTH

f'c=3000 psi 3301-30 — 12 / S1.1



180 DEGREE HOOK BEND 90 DEGREE HOOK



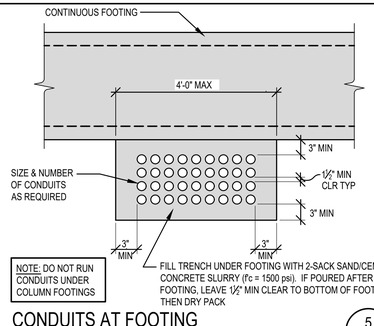
COLUMN TIE BEAM STIRRUP

SIZE	MINIMUM DIAMETERS OF BEND TIES & STIRRUPS D	BARS OTHER THAN TIES & STIRRUPS D
NO. 3 THROUGH NO. 5	4 d_b	6 d_b
NO. 6 THROUGH NO. 8	6 d_b	6 d_b
NO. 9 THROUGH NO. 11	8 d_b	8 d_b
NO. 14 THROUGH NO. 18	10 d_b	10 d_b

d_b = BAR DIAMETER
D = MINIMUM INSIDE BEND DIAMETER

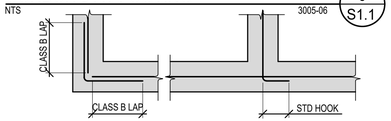
TYP REINFORCING BENDS

NTS 3303-03 — 13 / S1.1

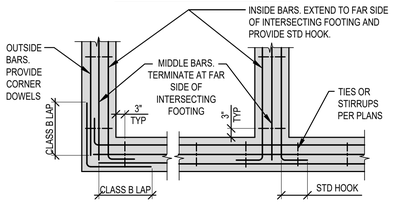


CONDUITS AT FOOTING

NTS 3005-06 — 5 / S1.1



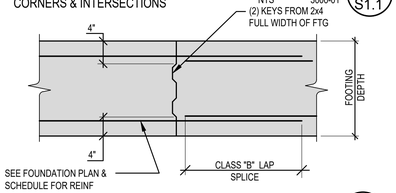
SINGLE CURTAIN REINFORCING



MULTIPLE CURTAIN REINFORCING

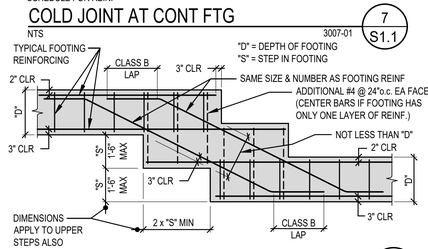
TYPICAL REINF AT FTG

CORNERS & INTERSECTIONS NTS 3006-01 — 6 / S1.1



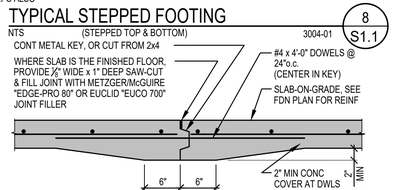
COLD JOINT AT CONT FTG

NTS 3007-01 — 7 / S1.1



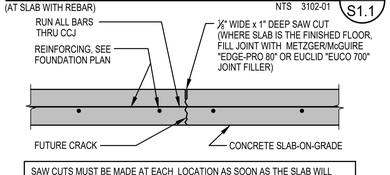
TYPICAL STEPPED FOOTING

NTS (STEPPED TOP & BOTTOM) 3004-01 — 8 / S1.1



TYP CONSTRUCTION JOINT (CJ)

(AT SLAB WITH REBAR) NTS 3102-01 — 9 / S1.1



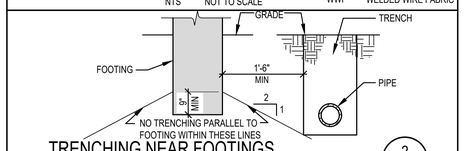
SAW CUTS MUST BE MADE AT EACH LOCATION AS SOON AS THE SLAB WILL SUPPORT THE WEIGHT OF THE SAW AND THE OPERATOR, NORMALLY WITHIN 2 HOURS AFTER FINISHING. USE A SAW WHICH IS SPECIALLY DESIGNED FOR CUTTING FRESH CONCRETE, SUCH AS "SOFF-CUT" OR EQUAL.

CRACK CONTROL JOINT (CCJ)

(AT SLAB WITH REBAR) NTS 3102-02 — 10 / S1.1

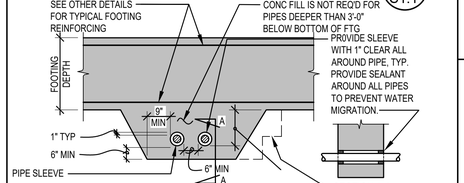
ABBREVIATIONS

AB	ANCHOR BOLT	(E)	EXISTING	O.C.	ON CENTER
ACI	AMERICAN CONCRETE INSTITUTE	EA	EACH	O.D.	OUTSIDE DIAMETER
		EJ	EXPANSION JOINT	O.H.	OPPOSITE HAND
ADD'L	ADDITIONAL	ELEV	ELEVATION	OPNG	OPENING
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	EN	EDGE NAILING	OPP	OPPOSITE
		ENGR	ENGINEER	PC	PRE-CAST
		EQ	EQUAL	PERP	PERPENDICULAR
ALT	ALTERNATE	EQUIP	EQUIPMENT	PJP	PARTIAL JOINT PENETRATION
ARCH	ARCHITECTURAL	EXIST	EXISTING		
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	EXP	EXPOSED	PL	PLATE
		EXT	EXTERIOR	PLYWD	PLYWOOD
		FDN	FOUNDATION	PSF	POUNDS PER SQUARE FOOT
BEV	BEVELED	FHWS	FLAT HEAD WOOD SCREW	PSI	POUNDS PER SQUARE INCH
BLDG	BUILDING	FIN	FINISH, FINISHED		
BLK	BLOCK	FLG	FLANGE	PT	PRESSURE TREATED
BLKG	BLOCKING	FLR	FLOOR	R	RADIUS
BLT	BOLT	F.O.	FACE OF	REF	REFERENCE
BM	BEAM	FOB	FACE OF BLOCK	REINF	REINFORCING
BN	BOUNDARY NAILING	FOC	FACE OF CONCRETE	REQD	REQUIRED
B.O.	BOTTOM OF, BY OTHERS	FOS	FACE OF STUDS, FACE OF STEEL	RND	ROUND
				RHWS	ROUND HEAD WOOD SCREW
BOT	BOTTOM	FRMG	FRAMING		
BP	BASE PLATE	FS	FAR SIDE	SCHED	SCHEDULE
BRG	BEARING	FT (')	FEET, FOOT	SDS	SELF-DRILLING SCREW
BTWN	BETWEEN	FTG	FOOTING		
CBC	CALIFORNIA BUILDING CODE	GA	GAGE, GAUGE	SECT	SECTION
		GALV	GALVANIZED	SHT	SHEET
C.C.	CENTER TO CENTER	GC	GENERAL CONTRACTOR	SHTG	SHEATHING
CCJ	CRACK CONTROL JOINT	GL	GLU-LAM	SIM	SIMILAR
		GLB	GLU-LAM BEAM	SIMP	SIMPSON (BRAND NAME)
CIP	CAST IN PLACE	GR	GRADE		
CJ	CONSTRUCTION JOINT	GSM	GAUGE SHEET METAL	SLRS	SEISMIC LOAD RESISTING
CJP	COMPLETE JOINT PENETRATION	GYP BD	GYPSUM BOARD		
		HD	HOLDOWN	SMS	SHEET METAL SCREW
CL	CENTER LINE	HDR	HEADER	SPEC	SPECIFICATION
CLG	CEILING	HORIZ	HORIZONTAL	SPECS	SPECIFICATIONS
CLR	CLEAR	HSS	HOLLOW STEEL SECTIONS	SQ	SQUARE
CMU	CONCRETE MASONRY UNIT			STAGG	STAGGER
		HT	HEIGHT	STAGG'D	STAGGERED
COL	COLUMN	I.D.	INSIDE DIAMETER	STD	STANDARD
CONC	CONCRETE	IN. (")	INCH	STL	STEEL
COND	CONDITION	INFO	INFORMATION	STIFF	STIFFENER
CONN	CONNECTION	INT	INTERIOR	STRUCT	STRUCTURAL
COORD	COORDINATE	LAM	LAMINATED	SUSP	SUSPENDED
CONSTR	CONSTRUCTION	LBS (#)	POUNDS	SYMM	SYMMETRICAL
CONT	CONTINUOUS	LLH	LONG LEG HORIZONTAL	T & B	TOP AND BOTTOM
CONT'D	CONTINUED	LLV	LONG LEG VERTICAL	TEMP	TEMPORARY
CONTR	CONTRACTOR	LOC	LOCATION	THK	THICK
CSK	COUNTER SINK	LONGIT	LONGITUDINAL	T.O.	TOP OF
DBL	DOUBLE	LT	LIGHT	TOS	TOP OF STEEL
DEMO	DEMOLITION	LT WT	LIGHT WEIGHT	TRANS	TRANSVERSE
DET	DETAIL	MAS	MASONRY	TYP	TYPICAL
DETS	DETAILS	MAX	MAXIMUM	UBC	UNIFORM BUILDING CODE
DF	DOUGLAS FIR	MB	MACHINE BOLT		
DIA (Ø)	DIAMETER	MCJ	MASONRY CONTROL JOINT	UON	UNLESS OTHERWISE NOTED
DIAG	DIAGONAL	MECH	MECHANICAL		
DIM	DIMENSION	MFR	MANUFACTURER	VERT	VERTICAL
DIST	DISTANCE	MIN	MINIMUM	W/	WITH
DO	DITTO	MTL	METAL	WD	WOOD
DP	DEEP	(N)	NEW	WF	WIDE FLANGE
DWG	DRAWING	NS	NEAR SIDE, NON-SHRINK	WP	WORK POINT
DWGS	DRAWINGS	NSA	NELSON STUD ANCHOR	WT	WEIGHT
DWL	DOWEL	NTS	NOT TO SCALE	WWF	WELDED WIRE FABRIC



TRENCHING NEAR FOOTINGS

NTS 3005-03 — 2 / S1.1

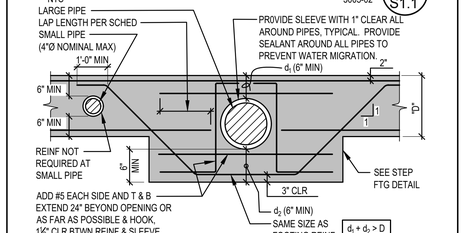


STEP FOOTING IF PIPE IS MORE THAN 24" BELOW BOTTOM OF FOOTING

NOTE: ALL PENETRATIONS SHALL BE PERPENDICULAR TO THE LINE OF THE FOOTING, TYP. NO PIPES ALLOWED AT COLUMN FOOTINGS.

PIPES BELOW FOOTING

NTS 3005-02 — 3 / S1.1



NOTES:

1. ALL PENETRATIONS SHALL BE PERPENDICULAR TO THE LINE OF THE FOOTING, TYPICAL.
2. NO PIPES ALLOWED THRU COLUMN PADS.
3. PIPES OR CONDUITS IN FOOTINGS SHALL NOT BE LOCATED WITHIN "C" DISTANCE OF HOLDOWN ANCHORS AS SHOWN ON 19/S1.6
4. SLEEVES FOR ADJACENT PIPES SHALL BE SPACED NO CLOSER THAN THREE DIAMETERS, CENTER LINE TO CENTER LINE, BASED ON DIAMETER OF LARGER SLEEVE.
5. ADDITIONAL REINFORCING SHOWN AROUND LARGE PIPES IS REQ'D FOR ALL PIPES LARGER THAN 4'Ø EVEN IF PIPE DOES NOT INTERRUPT REINFORCING

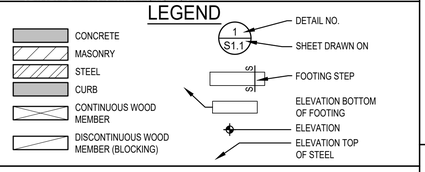
PIPES THRU FOOTINGS

NTS 3005-04 — 4 / S1.1

CONCRETE NOTES

1. FORMWORK: ALL MOLDS, ORNAMENTS, GROOVES ETC. SHOWN ON THE ARCHITECTURAL DRAWINGS SHALL BE PROVIDED FOR IN THE FORMWORK BEFORE THE CONCRETE IS POURED.
2. EMBEDDED ITEMS: ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND OTHER EMBEDS SHALL BE IN PLACE AND SECURED TO FORMWORK PRIOR TO POURING OF CONCRETE.
3. PLUMBING: REFER TO BOTH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATION OF PLUMBING FIXTURES.
4. PIPES: NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE WALLS OR STRUCTURAL SLABS UNLESS SPECIFICALLY DETAILED.
5. CONSTRUCTION JOINTS: CONSTRUCTION JOINTS NOT INDICATED ON THE DRAWINGS SHALL BE SO MADE AND LOCATED AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE. PROVISION SHALL BE MADE FOR THE TRANSFER OF SHEAR AND OTHER FORCES THROUGH THE JOINTS. THE CONTRACTOR SHALL OBTAIN THE ARCHITECT'S APPROVAL OF CONSTRUCTION JOINT LOCATION IN ALL STRUCTURAL SLABS, BEAMS, AND SHEAR WALLS.
6. HORIZONTAL JOINTS: THE SURFACE OF ALL HORIZONTAL CONSTRUCTION JOINTS, INCLUDING JOINTS BETWEEN FOOTINGS AND SLABS ON GRADE, SHALL BE CLEANED AND ROUGHENED BY SANDBLASTING OR OTHER PRE-APPROVED MEANS, IN ORDER TO REMOVE THE ENTIRE SURFACE AND EXPOSE CLEAN AGGREGATE SOLIDLY EMBEDDED IN MORTAR MATRIX. IN THE EVENT THAT THE CONTACT SURFACE BECOMES COATED WITH EARTH, SAWDUST, ETC, AFTER BEING CLEANED, THE ENTIRE SURFACE SO COATED SHALL BE RECLEANED.
7. QUALITY: THE QUALITY AND DESIGN OF CONCRETE SHALL BE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE EXCEPT ITEMS NOT SPECIFICALLY COVERED THEREIN SHALL ALSO CONFORM WITH ACI 318.
8. REINFORCING: ALL REINFORCING SHALL BE NEW STOCK DEFORMED BARS CONFORMING TO ASTM A615, EXCEPT STEEL TO BE WELDED SHALL BE ASTM A706.
   a.) #3 BARS AND SMALLER.....GRADE 40
   b.) #4 BARS AND LARGER.....GRADE 60
   (EXCEPT THAT TIES & STIRRUPS MAY BE GRADE 40)
   c.) COLUMN SPIRALS, IF USED, SHALL CONFORM TO "STANDARD SPECIFICATION FOR CARBON-STEEL WIRE AND WELDED WIRE REINFORCEMENT, PLAIN AND DEFORMED, FOR CONCRETE" ASTM A1064 WITH A MINIMUM YIELD STRENGTH OF 70,000 psi. FABRICATION SHALL CONFORM TO ACI MANUAL OF STANDARD PRACTICE.
   d.) SEPARATE BARS ½ DIAMETERS CLEAR OR ½" CLEAR OR ⅓ TIMES THE MAX AGGREGATE SIZE CLEAR WHICHEVER IS LARGER.
9. SPLICES: SPLICES FOR REINFORCING STEEL SHALL BE "CLASS B" AS DEFINED BY THE CBC AND ACI CODES UNLESS SPECIFICALLY SHOWN OTHERWISE. THE LENGTH OF LAP SHALL BE BASED ON GRADE 60 STEEL AND THE CONCRETE STRENGTH SHOWN BELOW. SEE REBAR SPLICE DETAIL.
10. FIELD SPLICES: FIELD SPLICES NOT ORIGINALLY SHOWN ON SHOP DRAWINGS WILL BE PERMITTED ONLY WITH APPROVAL FROM THE ARCHITECT. SUCH SPLICES SHALL BE MADE WITH FULL PENETRATION BUTT WELDING UNLESS OTHERWISE NOTED OR DETAILED.
11. WELDING OF REINFORCING: ALL WELDING OF REINFORCING STEEL SHALL BE WITH LOW HYDROGEN ELECTRODES AND SHALL COMPLY WITH ANSI/AWS D1.4. WELDING IS ALLOWED ONLY WHERE INDICATED ON DRAWINGS. REINFORCING SHALL COMPLY WITH ASTM A706. SHOP FUSION WELDED STIRRUP/TIE CAGES (OR SPIRAL ASSEMBLIES) CONSISTING OF ASTM A706 REINFORCING STIRRUPS/TIES AND LONGITUDINAL HOLDING WIRES OF MAXIMUM SIZE W5 AND CONFORMING TO ASTM A1064 SHALL BE PERMITTED.
12. CONCRETE COVER: MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE AS FOLLOWS:
    CAST AGAINST EARTH (EXCEPT SLABS ON GRADE).....3"
    SLABS ON GRADE (TO BOTTOM).....2"
    EXPOSED TO EARTH OR WEATHER:
    #5 BARS AND SMALLER.....1½"
    #6 BARS AND LARGER.....2"
    NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:
    SLABS, WALLS, JOISTS:
    #11 BARS AND SMALLER.....¾"
    #14 AND #18 BARS.....1½"
    BEAMS, GIRDERS, AND COLUMNS: PRINCIPLE REINFORCING, TIES, STIRRUPS, OR SPIRALS.....1½"
    SHELLS AND FOLDED PLATE MEMBERS:
    #5 BARS AND SMALLER.....½"
    #6 BARS AND LARGER.....¾"
13. WIRE MESH: WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A1064.
14. ANCHOR BOLTS: ALL ANCHOR BOLTS SHALL BE HEADED BOLTS AND SHALL COMPLY WITH ASTM A307 OR ASTM F1554 Gr. 36, UON. NO UPSET THREADS ALLOWED.
15. AGGREGATE SIZE: MAXIMUM AGGREGATE SIZE SHALL BE:
    ½" AT INTERIOR SLABS ON GRADE
    1" AT ALL OTHER CONCRETE
    SEE PROJECT SPECIFICATIONS FOR COMBINED GRADATION LIMITS.
16. MIX DESIGN: CONCRETE SHALL HAVE ⅚ SACKS MINIMUM (6 SACKS MIN AT LIGHTWEIGHT CONC) TYPE-I/II PORTLAND CEMENT PER CUBIC YARD AND SHALL CONTAIN 15% TO 20% FLY ASH PER ASTM C-618 CLASS F. EXCEPTION: FLY ASH IS NOT PERMITTED IN CONCRETE TO BE POLISHED.
17. CONCRETE STRENGTH: CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS:
    f'_c = 3,000 psi AT INTERIOR SLABS ON GRADE
    f'_c = 3,500 psi AT POLISHED CONCRETE
    f'_c = 3,000 psi AT ALL OTHER CONCRETE
18. WATER/CEMENT RATIO: MAXIMUM WATER/CEMENT RATIO SHALL BE:
    0.50 AT INTERIOR SLABS ON GRADE
    0.56 AT ALL OTHER CONCRETE
19. EXPOSURE CLASSES: CONCRETE SHALL CONFORM TO THE FOLLOWING EXPOSURE CLASSES PER ACI 318 19.3.1: F0, S0, W0, C0

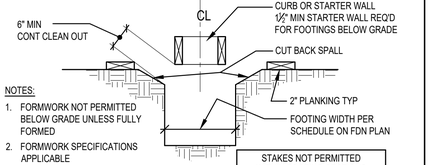
LEGEND



FOUNDATIONS: MANDATORY MINIMUM FORMWORK

(UNLESS FULLY FORMED)

FOUNDATION CONCRETE MAY BE PLACED DIRECTLY INTO NEAT EXCAVATIONS PROVIDED THE FOUNDATION TRENCH WALLS ARE STABLE AS DETERMINED BY THE ARCHITECT (STRUCTURAL ENGINEER) SUBJECT TO THE APPROVAL OF THE DIVISION OF THE STATE ARCHITECT, IN SUCH CASE THE MINIMUM FORMWORK SHOWN ON THE DRAWINGS IS MANDATORY TO INSURE CLEAN EXCAVATIONS IMMEDIATELY PRIOR TO AND DURING THE PLACING OF THE CONCRETE.



NOTES:

1. FORMWORK NOT PERMITTED BELOW GRADE UNLESS FULLY FORMED
2. FORMWORK SPECIFICATIONS APPLICABLE
3. AFTER CONCRETE HAS SET, REMOVE LAITANCE AND SCUM

STAKES NOT PERMITTED WITHIN FOOTING SECTIONS

STARTER WALL REQUIRED FOR ALL MASONRY OR CONCRETE WALLS WHEN BELOW GRADE

FOUNDATION TRENCHING AND FORMING DETAIL

NTS (CCR TITLE 24) 3001-02 — 1 / S1.1

GENERAL NOTES

1. DISCREPANCIES: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS BEFORE STARTING WORK; AND SHALL NOTIFY THE ARCHITECT IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
2. TYPICAL DETAILS: THE TYPICAL DETAILS AND NOTES SHOWN ON THESE SHEETS SHALL APPLY IN ALL CASES UNLESS SHOWN OTHERWISE. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL BE AS SHOWN FOR OTHER SIMILAR WORK. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. ALL WORK AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE BUILDING CODES, REGULATIONS, AND SAFETY REQUIREMENTS.
3. OTHER TRADES: SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF PIPE, VENT, DUCT, AND OTHER OPENINGS AND DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. VERIFY ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS.
4. SHORING AND BRACING: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING, AND FORMWORK AS REQUIRED FOR THE CONSTRUCTION OF THIS BUILDING. PROVIDE TEMPORARY BRACING AS REQUIRED TO HOLD THE VARIOUS ELEMENTS IN PLACE UNTIL FINAL SUPPORT IS SECURELY ANCHORED.
5. EXCAVATION: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION PROCEDURES AND FOR PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT.
6. BACKFILL: DO NOT BACKFILL AROUND THE EXTERIOR PERIMETER WALLS UNTIL AFTER THE WALLS ARE SUPPORTED BY THE COMPLETION OF INTERIOR FLOOR SYSTEMS. IF THE FLOOR SLABS ARE CONCRETE, DO NOT BACKFILL UNTIL 7 DAYS MINIMUM AFTER COMPLETION OF THE FLOOR SLABS. DO NOT BACKFILL UNTIL AFTER COMPLETION AND INSPECTION OF DAMPPROOFING.
7. DESIGN INTENT: IT IS THE INTENTION OF THESE DRAWINGS TO PROVIDE THE FOLLOWING CONTINUITIES IN THE STRUCTURE:
   a.) ALL ROOF AND FLOOR MEMBERS LABELED AS STRUTS SHALL BE CONTINUOUSLY CONNECTED FOR THE FULL LENGTH OF THE ROOF OR FLOOR SYSTEM UNLESS OTHERWISE NOTED.
   b.) ALL WALL BRACING AND/OR SHEAR PANELS SHALL BE CONNECTED TO THE ROOF AND/OR FLOOR STRUTS.
   c.) ALL MASONRY AND CONCRETE WALLS SHALL BE POSITIVELY ANCHORED TO THE ROOF AND FLOOR SYSTEMS AT MAXIMUM INTERVALS OF 4'-0"o.c. UON.
   IF DETAILS REQUIRED TO PROVIDE THE ABOVE CONTINUITIES ARE NOT EVIDENT ON THE DRAWINGS, THE CONTRACTOR SHALL CONTACT THE ARCHITECT FOR CLARIFICATION.
8. REGARDING SCHEDULES: NOT ALL ITEMS SHOWN ON SCHEDULES ARE NECESSARILY USED ON EACH SHEET WHERE SCHEDULE APPEARS.

DESIGN DATA

GOVERNING CODE: ..... 2022 CALIFORNIA BUILDING CODE (CBC) (PART II TITLE 24 CCR)

DESIGN LOADS:	UNIFORM:		CONCENTRATED:
ROOF LIVE LOAD:	20 psf	*	300 lbs.
PLATFORM LIVE LOAD:	60 psf	**	N/A
GROUND SNOW LOAD:	0 psf		

* LIVE LOAD REDUCTION PER CBC 1607A.14.2
** LIVE LOAD REDUCTION PER CBC 1607A.12.1 FOR LOADS LESS THAN 100 psf.

FLOOD DESIGN DATA:
THIS PROJECT DOES NOT FALL WITHIN A FLOOD HAZARD ZONE.
RAIN INTENSITY: ..... 2.81 in/h (15 MINUTES)
1.27 in/h (60 MINUTES)

WIND DESIGN:

ANALYSIS PROCEDURE	DIRECTIONAL PROCEDURE (ASCE7-16, CH 27)					
BUILDING	100	200	300/400/500	600	700	800
EXPOSURE CATEGORY	C	C	C	C	C	C
BASIC WIND SPEED, V (mph)	101	101	101	101	94	94
ASD WIND SPEED, Vasd (mph)	78	78	78	78	73	73
PRESSURE COEFF, GCpi	+/-0.18	+/-0.18	+/-0.18	+/-0.18	+/-0.18	+/-0.18
RISK CATEGORY	III	III	III	III	II	II
"a" DIMENSION PER ASCE 7-16 FIGURES 30.3-1 THRU 30.3-6	6'-9"	9'-3"	7'-5"	4'-2"	4'-2"	3'-0"

DESIGN WIND PRESSURE TO BE USED FOR EXTERIOR COMPONENT AND CLADDING MATERIALS NOT SPECIFICALLY DESIGNED BY THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE. BASED ON RISK CATEGORY III AND EXPOSURE C (ASCE 7-16 CHAPTER 30). FOR EXTENT/DIMENSIONS OF ZONES, REFER TO FIGURES 30.3-1 THRU 30.3-6 AND THE "a" DIMESION LISTED IN TABLE ABOVE.

DESIGN WIND PRESSURE = p (psf)

h (ft)	WALLS		PARAPETS		ROOFS		OVERHANGS
	+ZONE 5	-ZONE 5	+ZONE 5	-ZONE 5	+ZONE 3	-ZONE 3	-ZONE 3
0-15	21.1	-27.5	48.0	-31.8	16.0	-58.1	-56.2
20	22.4	-29.2	50.8	-33.7	16.0	-61.5	-59.5
25	23.4	-30.5	53.1	-35.2	16.0	-64.3	-62.2
30	24.4	-31.8	55.3	-36.7	16.0	-67.0	-64.8

SEISMIC DESIGN DATA:
S_S ..... 0.559 S_1 ..... 0.220 S_{DS} ..... 0.504 S_{D1} 0.475

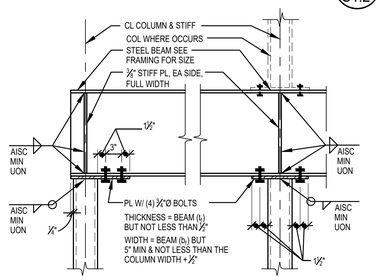
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE					
BUILDING	100	200	300/400/500	600	700	800
IMPORTANCE FACTOR, I_e	1.25	1.25	1.25	1.25	1.00	1.00
RISK CATEGORY	III	III	III	III	II	II
SEISMIC DESIGN CATEGORY	D	D	D	D	D	D
SYSTEM, R	6.5 WOOD SW	6.5 WOOD SW	6.5 WOOD SW	6.5 WOOD SW	6.5 WOOD SW	5.0 SPECIAL RMSW
C_S	0.097	0.097	0.097	0.097	0.097	0.101
BASE SHEAR V = C_SW	36 KIPS	48 KIPS	32 KIPS	30 KIPS	20 KIPS	185 KIPS
IRREGULARITIES (PER ASCE 7-16)	HORIZ: N/A VERT: N/A	HORIZ: N/A VERT: N/A	HORIZ: N/A VERT: N/A	HORIZ: N/A VERT: N/A	HORIZ: N/A VERT: N/A	HORIZ: N/A VERT: N/A
BASE LEVEL	+0'-0"	+0'-0"	+0'-0"	+0'-0"	+0'-0"	+0'-0"

SOIL DATA:
CHARACTER OF SOIL: ..... SILTY SAND
SITE CLASS: ..... D
DESIGN SOIL PRESSURE: ..... 3,000 psf (D+L)
4,000 psf (TOTA

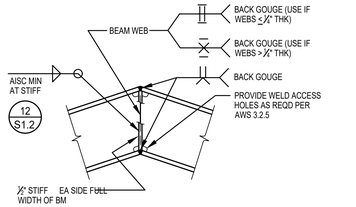
SCHEDULE A						
SINGLE-PLATE SHEAR CONNECTION (NON-MOMENT)						
BEAM SIZE	BOLTS	TYPE	SHEAR PLATE			CAPACITY
			MIN L	t	WELD "S"	
W8,W10	(2) ¾"Ø	A325N	6"	¼"	5/16"	16.3K
W12,W14	(3) ¾"Ø	A325N	9"	3/16"	¼"	28.8K
W16	(4) ¾"Ø	A325N	12"	3/16"	¼"	41.5K
W18	(5) ¾"Ø	A325N	15"	5/16"	¼"	54.1K
W21	(6) ¾"Ø	A325N	18"	3/16"	¼"	59.3K
W24,W27	(7) ¾"Ø	A325N	21"	3/16"	¼"	72.1K
W36	(10) ¾"Ø	A325N	30"	5/16"	¼"	105.0K

NOTE:
1. THE ABOVE LOAD CAPACITY IS BASED ON VALUES FROM "TABLE 10-10a" OF THE AISC DESIGN MANUAL (ASD), 14th EDITION, USING E70XX ELECTRODES.
2. BOLT HOLES SHALL BE STANDARD UON.
3. WHERE SLOTTED HOLES ARE SHOWN IN AN OUTER PLY, A FLAT HARDENED WASHER OR COMMON PLATE WASHER SHALL BE INSTALLED OVER THE SLOT.
4. JOINT ASSEMBLY AND TIGHTENING SHALL BE PER AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." BOLTS IN BEARING TYPE CONNECTIONS (A325N), NEED ONLY BE TIGHTENED TO THE SNUG TIGHT CONDITION AND PAINT IS PERMITTED ON THE FAYING SURFACES. ALL BOLTS ARE IN BEARING TYPE CONNECTIONS UNLESS SPECIFICALLY NOTED AS SLIP-CRITICAL (SC).

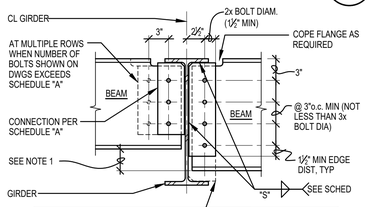
BEAM CONN SCHEDULE
¾"Ø A325N — 5206-06 — 15 S1.2



BEAM TO HSS/PIPE COLUMN
NTS — 5203-01 — 16 S1.2

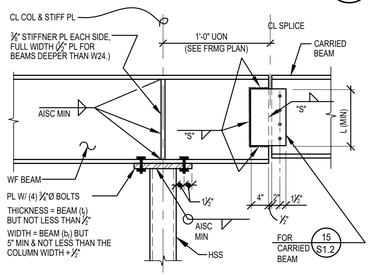


BENT BEAM SPLICE
NTS — 5201-03 — 17 S1.2



PROVIDE FULL DEPTH CONN PLATE:
1. AT DEEPER BEAM, WHERE DIFFERENCE IN BEAM DEPTH EXCEEDS 6".
2. AT EACH BEAM, WHERE BEAMS ARE OFFSET MORE THAN 1'-0" IN PLAN.
3. WHERE BEAM OCCURS ON ONE SIDE ONLY.

BEAMS TO GIRDER CONN
NTS — 5207-01 — 18 S1.2



BEAM TO COLUMN & SPLICE
NTS — 5211-02 — 19 S1.2

STRUCTURAL STEEL NOTES

1. GRADES: STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING (UNLESS OTHERWISE NOTED):

STRUCTURAL SHAPE	ASTM SPECIFICATION	Fy (MIN)
W-SHAPES, WT-SHAPES	ASTM A992	50 ksi
CHANNELS, PLATES, AND ANGLES	ASTM A36	36 ksi
STEEL PIPE	ASTM A53 GRADE B	35 ksi
ROUND HSS	ASTM A500 GRADE B	46 ksi
SQUARE AND RECTANGULAR HSS	ASTM A500 GRADE C	50 ksi

2. NATURAL CAMBER: WHEN FABRICATING BEAMS, PLACE NATURAL CAMBER UP.
3. FABRICATION AND ERECTION: FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED BEFORE FABRICATION.
4. BOLTS: ALL UNFINISHED BOLTS FOR WOOD TO STEEL SHALL BE ASTM A307 UNLESS OTHERWISE NOTED. BOLTS FOR STEEL TO STEEL CONNECTIONS SHALL BE A307 UON, EXCEPT THAT BOLTS FOR BEAM CONNECTIONS SHALL BE PER BEAM CONNECTION SCHEDULE. BOLT HOLES SHALL BE STANDARD SIZE UON.
5. HIGH STRENGTH BOLTS: HIGH STRENGTH (HS) BOLTS, IN SLIP CRITICAL CONNECTIONS (SC), SHALL BE ASTM A325. ASSEMBLY SHALL COMPLY WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS AND SHALL COMPLY WITH THE REQUIREMENTS FOR SLIP CRITICAL TYPE CONNECTION, CLASS A SURFACE. INSTALLATION SHALL BE BY EITHER "CALIBRATED WRENCH TIGHTENING", "TURN OF THE NUT TIGHTENING METHOD", OR "TIGHTENING BY USE OF A DIRECT TENSION INDICATOR". HIGH STRENGTH BOLTS IN NON-SLIP CRITICAL CONNECTIONS (A325N) REQUIRE TIGHTENING TO THE SNUG TIGHT CONDITION ONLY.
6. MINIMUM CONNECTION: IF DETAILS ARE NOT SHOWN, BEAMS SHALL BE CONNECTED USING ¾"Ø A325N BOLTS PER PART 7, TABLE 7-1 OF AISC MANUAL OF STEEL CONSTRUCTION 15th EDITION. THE NUMBER OF BOLTS SHALL BE THE MAXIMUM POSSIBLE FOR THE PARTICULAR BEAM DEPTH. NO CONNECTION SHALL HAVE LESS THAN 2 BOLTS.
7. WELDING:
   a.) ALL WELDS SHALL BE MADE WITH PREQUALIFIED JOINTS PER AISC, USING THE ELECTRIC ARC PROCESS AND E-70XX ELECTRODES IN ACCORDANCE WITH AWS STANDARDS.
   b.) ALL WELDING SHALL BE DONE BY APPROVED CERTIFIED WELDERS.
   c.) NO WELDING IS PERMITTED ON MEMBERS SUPPORTING LOADS.
   d.) ALL SHOP AND FIELD WELDING SHALL HAVE SPECIAL INSPECTION. ALL COMPLETE PENETRATION WELDS SHALL BE TESTED BY NON-DESTRUCTIVE TESTING (NDT PROCEDURES IN ACCORDANCE WITH AWS STANDARDS).
   e.) ALL WELDS USED IN MEMBERS AND CONNECTIONS IN THE SFRS (SEISMIC FORCE RESISTING SYSTEM) SHALL BE MADE WITH A FILLER METALS MEETING THE REQUIREMENTS SPECIFIED IN CLAUSE 6.3 OF "STRUCTURAL WELDING CODE - SEISMIC SUPPLEMENT" (AWS D1.8 / D1.8M).
8. TEMPORARY BRACING: THE STEEL FABRICATOR SHALL PROVIDE ADEQUATE TEMPORARY BRACING FOR ERECTION.
9. SLOTTED AND OVERSIZED HOLES: WHERE SLOTTED OR OVERSIZED HOLES ARE SPECIFIED IN THE DRAWINGS, PROVIDE WASHERS PER AISC UNDER BOLT THREADS AND NUTS WHICH ARE IN CONTACT WITH SLOTTED AND OVERSIZED HOLES.
10. SHIMS: PROVIDE STEEL SHIMS AT SPLICES OF PARTS HAVING MORE THAN ⅛" DIFFERENCE IN THICKNESS.
11. BEVELED WASHERS: PROVIDE BEVELED WASHERS ON ALL CONNECTIONS TO SLOPING FLANGES OF WIDE FLANGE SECTIONS AND CHANNELS.
12. STITCH BOLTS: PROVIDE ¾"Ø STITCH BOLTS AND FILL PLATE (OR EQUIVALENT WELDED FILL PLATES) CONNECTING ALL DOUBLE ANGLE MEMBERS AT 2'-0"o.c. MAX.
13. MINIMUM WELDS: WHERE MINIMUM AISC FILLET WELD THICKNESS REQUIREMENT EXCEEDS WELDS SHOWN ON DETAILS, PROVIDE MINIMUM AISC WELD.
14. OPENINGS IN STEEL MEMBERS: OPENINGS SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED. STEEL MEMBERS SHALL BE SHORED WHEN PERMISSIBLE HOLES ARE CUT WITH TORCH AFTER STEEL IS ERECTED. THE SHORES SHALL REMAIN IN PLACE UNTIL STEEL TEMPERATURE HAS RETURNED TO AIR TEMPERATURE.
15. STUD BOLTS: ALL STUD BOLTS SHALL BE NELSON STUDS OR EQUIV PER ESR 2856 AND SHALL BE INSTALLED BY A LICENSED FABRICATOR.
16. STEEL EXPOSED TO EARTH: ALL STEEL EXPOSED TO EARTH SHALL HAVE A MINIMUM CONCRETE COVER OF 3" UON.
17. LIGHT GAGE STEEL: LIGHT GAGE COLD-FORMED STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS OF THE AISI MANUAL UNLESS OTHERWISE NOTED.
18. SHEAR CONNECTORS: SHEAR CONNECTORS SHALL BE ASTM A108 WITH Fu = 65 KSI.

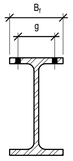
UNLESS LARGER SIZES ARE SHOWN, THE MINIMUM SIZE OF FILLET WELDS SHALL BE AS SHOWN IN TABLE J2.4. THESE PROVISIONS DO NOT APPLY TO FILLET WELD REINFORCEMENTS OF PARTIAL-OR COMPLETE-JOINT-PENETRATION GROOVE WELDS.

TABLE J2.4 AISC MINIMUM SIZE OF FILLET WELDS	
MATERIAL THICKNESS OF THINNER PART JOINED (IN)	MINIMUM SIZE OF FILLET WELD (IN) *
TO ¼ INCLUSIVE	USE 5/16 MIN
OVER ¼ TO ½	3/16
OVER ½ TO ¾	¼
OVER ¾ TO 1½"	5/16

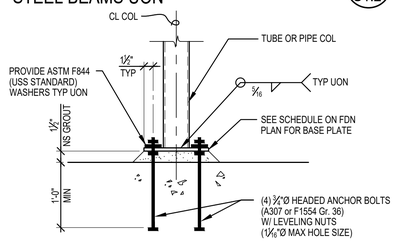
* LEG DIMENSION OF FILLET WELDS. SINGLE-PASS WELDS MUST BE USED.

FILLET WELDS
NTS — 5001-02 — 12 S1.2

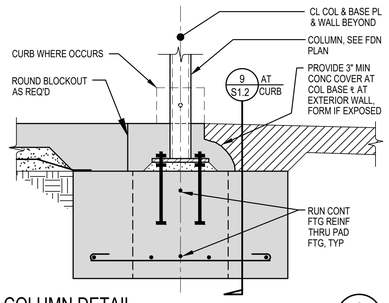
B_f (IN)	g (IN)
$4 \le B_f < 5$	2¼"
$5 \le B_f < 6$	2½"
$6 \le B_f < 8$	3¼"
$8 \le B_f < 15$	5½"



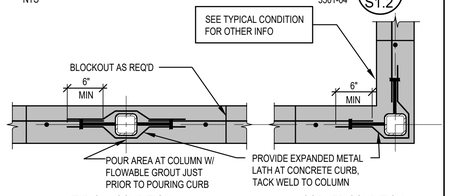
USUAL BOLT GAGE FOR STEEL BEAMS UON
NTS 5206-00 — 13 S1.2



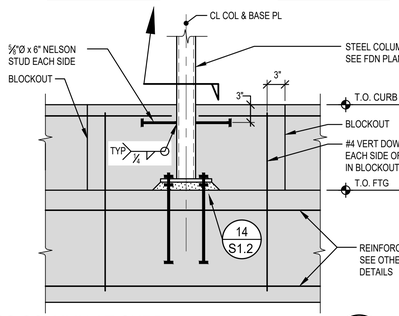
BASE PLATE DETAIL
TUBE OR PIPE COLUMN — NTS 5101-01 — 14 S1.2



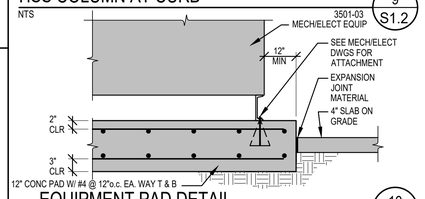
COLUMN DETAIL
NTS — 3501-04 — 8 S1.2



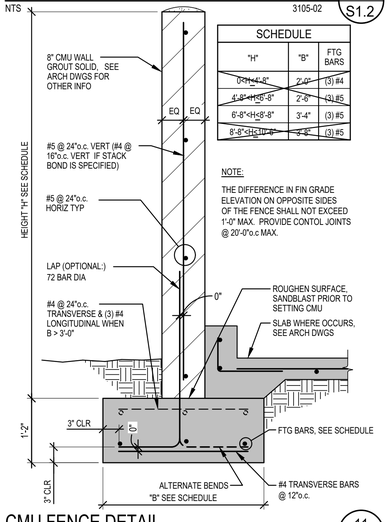
TYPICAL CONDITION — CORNER CONDITION



HSS COLUMN AT CURB
NTS — 9 S1.2



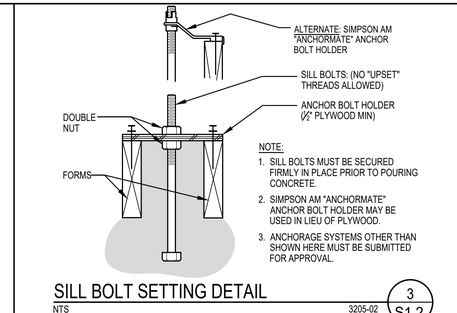
EQUIPMENT PAD DETAIL
NTS — 3105-02 — 10 S1.2



SCHEDULE		
"H"	"B"	FTG BARS
0'-0"<H≤4'-8"	2'-0"	(3) #4
4'-8"<H≤6'-8"	2'-6"	(3) #5
6'-8"<H≤8'-8"	3'-4"	(3) #5
8'-8"<H≤10'-8"	4'-0"	(3) #5

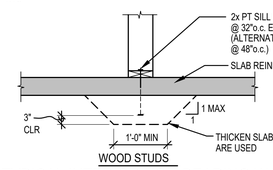
NOTE:
THE DIFFERENCE IN FIN GRADE ELEVATION ON OPPOSITE SIDES OF THE FENCE SHALL NOT EXCEED 1'-0" MAX. PROVIDE CONTOL JOINTS @ 20'-0"o.c MAX.

CMU FENCE DETAIL
NTS — 4500-00a — 11 S1.2

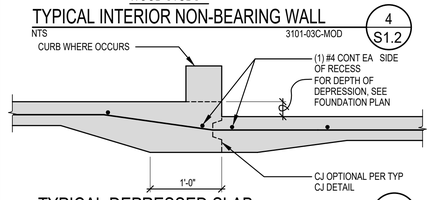


NOTE:
1. SILL BOLTS MUST BE SECURED FIRMLY IN PLACE PRIOR TO POURING CONCRETE.
2. SIMPSON AM "ANCHORMATE" ANCHOR BOLT HOLDER MAY BE USED IN LIEU OF PLYWOOD.
3. ANCHORAGE SYSTEMS OTHER THAN SHOWN HERE MUST BE SUBMITTED FOR APPROVAL.

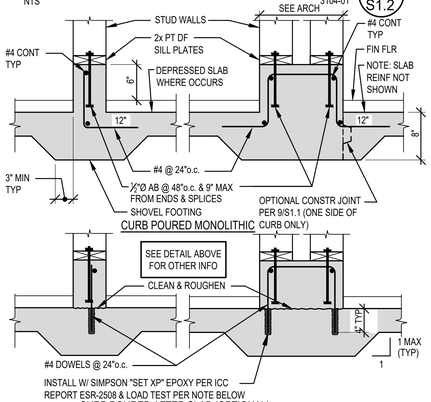
SILL BOLT SETTING DETAIL
NTS — 3205-02 — 3 S1.2



TYPICAL INTERIOR NON-BEARING WALL
NTS — 3101-03C-MOD — 4 S1.2

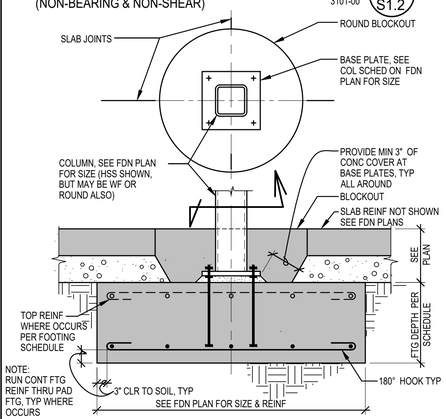


TYPICAL DEPRESSED SLAB
NTS — SEE ARCH 3104-01 — 5 S1.2



TESTING: TENSION TEST 25% OF ANCHORS TO 2400 LBS. IF ANY ANCHOR FAILS TEST ALL ANCHORS NOT PREVIOUSLY TESTED UNTIL 20 CONSECUTIVE ANCHORS PASS, THEN RESUME THE 25% TEST FREQUENCY.

CURBS AT INTERIOR WALLS
(NON-BEARING & NON-SHEAR) — 3101-00 — 6 S1.2



COLUMN FOOTING
NTS — 3501-02 — 7 S1.2

INSTALLATION REQUIREMENTS										
ANCHOR DIAMETER	HILTI KB-TZ2		SIMPSON STRONG-BOLT 2		DEWALT POWER-STUD+ SD2		SIMPSON TITEN HD	HILTI KH-EZ	DEWALT SCREW-BOLT+	
	MINIMUM NOMINAL EMBED	INSTALL TORQUE (FT-LBS)	MINIMUM NOMINAL EMBED	INSTALL TORQUE (FT-LBS)	MINIMUM NOMINAL EMBED	INSTALL TORQUE (FT-LBS)	MINIMUM NOMINAL EMBED	MINIMUM NOMINAL EMBED	MINIMUM NOMINAL EMBED	
¼"	1¾"	4	1¾"	4	-	-	1⅝"	1¾"	1¾"	
⅜"	3"	30	2½"	30	2½"	20	2⅝"	2½"	2⅝"	
½"	3¼"	50	3¼"	60	3¼"	40	3⅜"	3"	3⅝"	
⅝"	4⅛"	40	5⅛"	90	4⅛"	60	4"	3¼"	3¾"	
¾"	5⅛"	110	5⅝"	150	5⅛"	110	5⅛"	4"	4¼"	
1"	6¾"	185	9⅝"	230	-	-	-	-	-	

GENERAL NOTES:

1. THE TESTING OF POST-INSTALLED ANCHORS SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY. TEST ANCHORS, AS FOLLOWS:
   10% OF SILL PLATE BOLTS
   50% OF EQUIPMENT ANCHORAGE BOLTS
   100% OF ALL OTHER STRUCTURAL ANCHORS
   IF ANY ANCHOR FAILS, TEST ALL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL 20 CONSECUTIVE ANCHORS PASS THE TEST REQUIREMENTS. THE INITIAL TESTING FREQUENCY SHALL THEN BE RESUMED.
2. TEST PROCEDURE SHALL BE AS PERMITTED BY AN APPROVED TEST REPORT USING CRITERIA ADOPTED IN THE CALIFORNIA BUILDING CODE (CBC). TORQUE CONTROLLED POST-INSTALLED ANCHORS SHALL BE PERMITTED TO BE TESTED USING TORQUE BASED ON APPROVED TEST REPORT AS SHOWN IN TABLE ABOVE.
3. HOLES FOR ANCHORS SHALL BE DRILLED USING A CARBIDE-TIPPED DRILL BIT CONFORMING TO ANSI B212.15 W/ THE SAME NOMINAL DIAMETER AS THE ANCHOR.
4. TESTING IS NOT REQUIRED FOR POWER ACTUATED FASTENERS USED TO ATTACH TRACKS OF INTERIOR NON-SHEAR WALL PARTITIONS FOR SHEAR ONLY, WHERE THERE ARE AT LEAST THREE FASTENERS PER SEGMENT OF TRACK.
5. USE POST-INSTALLED ANCHORS ONLY WHERE SHOWN ON DRAWINGS.

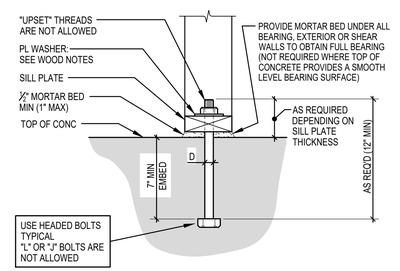
REQUIREMENTS FOR TORQUE CONTROLLED ANCHORS:

1. ACCEPTANCE CRITERIA FOR POST-INSTALLED ANCHORS SHALL BE BASED ON APPROVED TEST REPORT USING CRITERIA ADOPTED IN THE CBC. FIELD TORQUE TESTS SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:
   TORQUE WRENCH METHOD: ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH MUST ATTAIN THE SPECIFIED TORQUE WITHIN ½ TURN OF THE NUT.
   EXCEPTIONS:
   a. WEDGE OR SLEEVE TYPE:
      ONE-QUARTER (¼) TURN OF THE NUT FOR A ⅜" DIAMETER SLEEVE ANCHOR ONLY.
   b. THREADED (SCREW) TYPE:
      ONE-QUARTER (¼) TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.
2. TORQUE CONTROLLED ANCHORS MUST BE LISTED IN A CURRENT APPROVED TEST REPORT INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   a. HILTI KB-TZ2 (ESR-4266)
   b. SIMPSON STRONG BOLT 2 (ESR-3037)
   c. DEWALT\POWERS POWER-STUD+ SD2 (ESR-2502)
   d. HILTI KH-EZ SCREW ANCHOR (ESR-3027)
   e. SIMPSON TITEN HD SCREW ANCHOR (ESR-2713)
   f. DEWALT\POWERS SCREWBOLT+ SCREW ANCHOR (ESR-3889)
3. INSTALL SCREW ANCHORS PER MANUFACTURER'S APPROVED TEST REPORT. DO NOT EXCEED MAXIMUM INSTALLATION TORQUE VALUES LISTED IN REPORT.

REQUIREMENTS FOR ADHESIVE ANCHORS:

1. FIELD TENSION TESTS SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:
   HYDRAULIC RAM METHOD:
   ANCHORS TESTED WITH A HYDRAULIC JACK OR SPRING LOADED DEVICES SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO DISCERNIBLE MOVEMENT DURING THE TENSION TEST, E.G., AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT.
2. TESTING OF SHEAR DOWELS ACROSS COLD JOINTS IN SLABS ON GRADE, WHERE THE SLAB IS NOT PART OF THE LATERAL FORCE-RESISTING SYSTEM SHALL NOT BE REQUIRED.
3. TENSION TEST LOAD SHALL BE AS INDICATED ON DETAILS.
4. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI AND IN ACCORDANCE WITH ACI 318-19 (SECTION 17.2.3). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ARCHITECT & SEOR PRIOR TO INSTALLATION.
5. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT THE TIME OF ANCHOR INSTALLATION PER ACI 318-19 (SECTION 26.7.2(f)).

POST-INSTALLED ANCHORS IN CONCRETE
NTS — 3305-01(14) — 1 S1.2



SILL BOLT DETAIL
NTS — 3205-01 — 2 S1.2

APPROVALS

FILE # 10-126 — APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-31128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

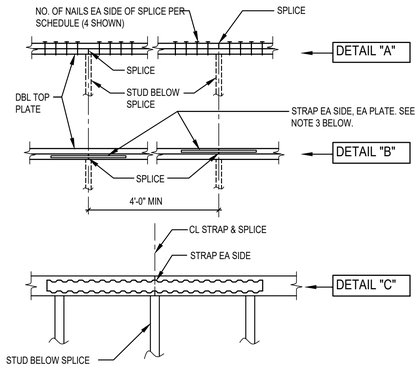
TITLE
TYPICAL NOTES AND DETAILS

S1.2

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER — JACK D. BREWER — No. S5792 — Exp. 6-30-27 — STRUCTURAL — STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

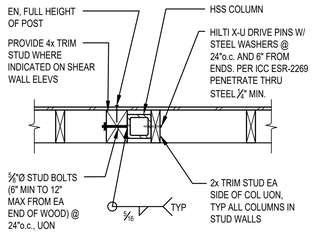


DETAIL "A" (NAILS)		DETAIL "B" (STRAPS)		DETAIL "C" (STRAPS AT 4x OR 6x)	
TYPE	NAIL SIZE	TYPE	SIMP STRAP	TYPE	SIMP STRAP
1	(4) - 16d	4	MSTA18	7	ST6236
2	(6) - 16d	5	MSTA24	8	MSTC52
3	(8) - 16d	6	MSTA30	9	-

NOTES:
1. BOTH TOP AND BOTTOM PLATES MUST BE SPLICED.
2. ALL SPLICES ARE TO OCCUR OVER A STUD.
3. USE 10d x 1½" NAILS WHEN STRAPS ARE APPLIED DIRECTLY TO TOP PLATES.
   USE 10d x 2½" MIN NAILS WHEN STRAPS ARE APPLIED OVER PLYWOOD.

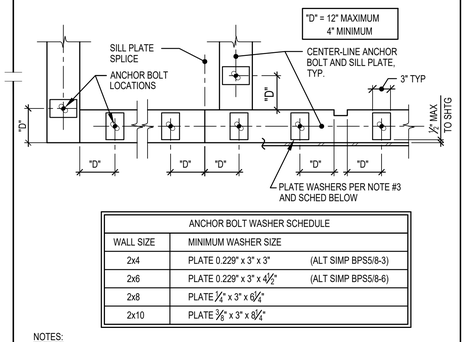
TOP PLATE SPLICE DETAIL

NTS 6301-04 — 9 / S1.3



TYP COL IN STUD WALL

NTS 6309-02 — 10 / S1.3

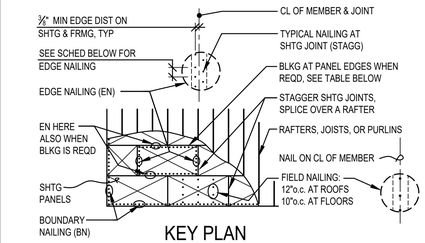


ANCHOR BOLT WASHER SCHEDULE		
WALL SIZE	MINIMUM WASHER SIZE	
2x4	PLATE 0.229" x 3" x 3"	(ALT SIMP BPS5/8-3)
2x6	PLATE 0.229" x 3" x 4½"	(ALT SIMP BPS5/8-6)
2x8	PLATE ¼" x 3" x 6¼"	
2x10	PLATE ¼" x 3" x 8¼"	

NOTES:
1. WHERE SILL PLATE IS NOTCHED OR DRILLED MORE THAN ½ OF ITS WIDTH, A BOLT SHALL BE PLACED ON EACH SIDE OF THE NOTCH.
2. PROVIDE 2 BOLTS MINIMUM EACH PIECE OF SILL PLATE. FOR WALL LESS THAN 2'-0" LONG, THE MINIMUM END DISTANCE MAY BE REDUCED TO 4x BOLT DIAMETER.
3. PROVIDE PLATE WASHERS PER SCHEDULE AT ALL SILL BOLTS. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO ⅝" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1¾", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE WASHER PLATE SHALL EXTEND TO WITHIN ½" OF THE EDGE OF THE SILL PLATE ON THE SIDES WITH SHEATHING. ANCHOR BOLTS SHALL BE CENTERED ON THE SILL PLATE, TYP UON.
4. STANDARD CUT WASHERS MAY BE USED AT INTERIOR NON-BRG, NON-SHEAR WALLS.

TYPICAL SILL FRAMING

NTS 6304-01 — 11 / S1.3



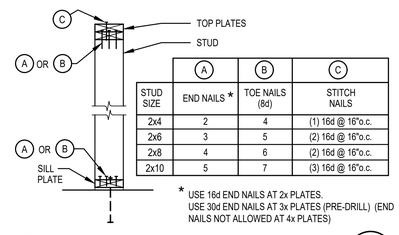
KEY PLAN

SHEATHING PANEL SCHEDULE						
TYPE	THICK	INDEX	BN	EN	EDGE BLOCKING	USE
A	⅞"	40/20	10d @ 6"o.c.	10d @ 6"o.c.	3x4 FLAT	ROOF
B	23/32" T&G	48/24	10d @ 6"o.c.	10d @ 6"o.c.	UNBLOCKED	MECH WELL

NOTES:
1. ALL NAILS SHALL BE COMMON WIRE NAILS. NAILS DRIVEN INTO PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 CLASS D.
2. ALL SHEATHING SHALL BE MARKED "APA RATED GROUP 1 DF, C-D, EXPOSURE".
3. INDIVIDUAL PIECES OF SHEATHING SHALL NOT BE LESS THAN 24" IN THE LEAST DIMENSION NOR LESS THAN 8 SQ-FT IN AREA.
4. EDGE BLOCKING, IF CALLED FOR ABOVE, IS FOR DIAPHRAGM SHEAR REQUIREMENTS ONLY. IF BLOCKING IS NOT REQUIRED FOR SHEAR, VERIFY ADEQUACY OF UNBLOCKED EDGES WITH ROOF INSTALLER BEFORE APPLYING SHEATHING. USE T & G SHTG ON ALL FLOORS.
5. PROVIDE EDGE NAILING ALONG ALL SHEAR WALL LINES AND MEMBERS LABELED AS STRUTS. USE TWO ROWS OF EDGE NAILING AT ALL INTERIOR SHEAR WALL LINES AND STRUTS.
6. PREDRILL HOLES WHERE WOOD TENDS TO SPLIT.
7. USE DEFORMED SHANK NAILS FOR ALL FLOOR SHEATHING USED AS COMBINATION SUBFLOOR-UNDERLAYMENT.
8. FLOOR SHEATHING SHALL BE GLUED TO ALL FRAMING MEMBERS.

ROOF / FLOOR SHEATHING

NTS 6002-01 — 6 / S1.3

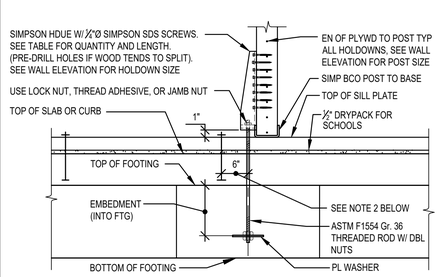


STUD SIZE	A — END NAILS *	B — TOE NAILS (8d)	C — STITCH NAILS
2x4	2	4	(1) 16d @ 16"o.c.
2x6	3	5	(2) 16d @ 16"o.c.
2x8	4	6	(2) 16d @ 16"o.c.
2x10	5	7	(3) 16d @ 16"o.c.

* USE 16d END NAILS AT 2x PLATES.
USE 30d END NAILS AT 3x PLATES (PRE-DRILL) (END NAILS NOT ALLOWED AT 4x PLATES)

STUD NAILING

NTS 6403-01A — 7 / S1.3

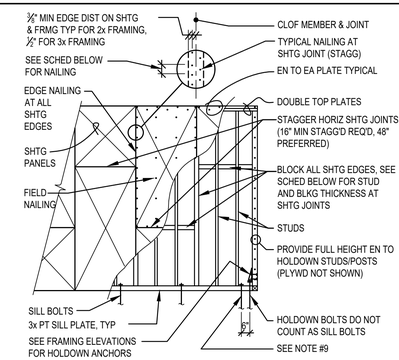


HOLDOWN SIZE	NO. OF SCREWS TO POST	ANCHOR DIA	MIN EMBED DEPTH	WASHER SIZE
HDUE3	(7) ¼"Ø x 3"	⅝"	20"	3"x3" SQ
HDUE5	(10) ¼"Ø x 3"			
HDUE7	(13) ¼"Ø x 3"			
HDUE9	(16) ¼"Ø x 3 ½"	½"	20"	2½"x3½" SQ
HDUE13	(23) ¼"Ø x 3 ½"	1"	20"	2½"x3½" SQ
HDUE17	(28) ¼"Ø x 3 ½"	1"	20"	2½"x3½" SQ

NOTES:
1. DEEPEN FTG AS REQUIRED TO PROVIDE 3" MIN CONCRETE COVER AT ANCHOR BOLT & PLATE WASHER, AND WIDEN FTG AS REQ'D AT ANCHORS PER 1/S1.7.
2. WHEN HOLDOWN (HD) OCCURS NEAR END OF SILL PLATE, LOCATE A SILL BOLT 6" MAX FROM HD BOLT.
3. PIPES OR CONDUITS IN FOOTINGS SHALL NOT BE LOCATED WITHIN "C" DISTANCE OF HOLDOWN ANCHORS AS SHOWN ON 19/S1.6.

HOLDOWN DETAIL

NTS 6310-02B — 8 / S1.3

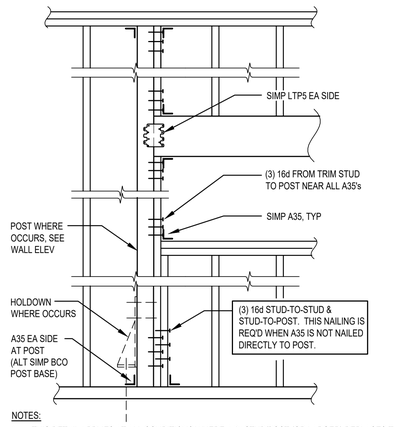


SHEATHING PANEL SCHEDULE			
TYPE	EDGE NAILING (EN)	NOMINAL THICKNESS STUDS & BLKG AT PLYWD JOINTS	SILL BOLTS *
1	10d @ 6"o.c.	2x	⅝"Ø x12" @ 48"o.c.
2	10d @ 4" o.c.	3x	⅝"Ø x 12" @ 32" o.c.
3	10d @ 3" o.c.	3x	⅝"Ø x 12" @ 24" o.c.
4	10d @ 2" o.c.	3x	⅝"Ø x 12" @ 16" o.c.

NOTE: * ANCHOR BOLTS WITH UPSET THREADS ARE NOT ALLOWED.
1. ALL NAILS SHALL BE COMMON WIRE NAILS. NAILS DRIVEN INTO PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 CLASS D.
2. ALL SHEATHING SHALL BE MARKED "A.P.A. RATED SHEATHING, STRUCT I, EXPOSURE 1".
3. INDIVIDUAL PIECES OF SHEATHING SHALL NOT BE LESS THAN 16" IN THE LEAST DIMENSION NOR LESS THAN 8 SQ-FT IN AREA.
4. ALL SHEATHING SHALL BE ½" OR 15/32" THICK UNLESS OTHERWISE NOTED.
5. SPACE NAILS AT 12"o.c. ALONG INTERMEDIATE FRAMING MEMBERS (FIELD NAILING).
6. PROVIDE EDGE NAILS FULL HEIGHT OF JAMB STUDS, TYPICAL AT WALL OPENINGS AND ALL STUDS WITH HOLDOWNS.
7. PREDRILL HOLES WHERE WOOD TENDS TO SPLIT.
8. STAGGER NAILS WHERE SPACED @ 3"o.c. OR LESS.
9. WHEN HOLDOWN (HD) BOLT OCCURS NEAR END OF SILL PLATE, LOCATE SILL BOLT 6" FROM HD BOLT.

SHEAR WALL DETAIL

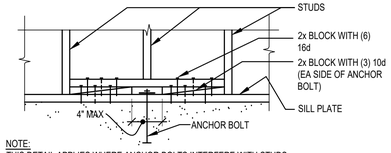
NTS 6309-01 — 3 / S1.3



NOTES:
1. THIS DETAIL APPLIES AT ALL CONDITIONS WHERE A 3x STUD/POST (OR LARGER) REPLACES THE 2x FULL HEIGHT KING STUDS SHOWN ON DETAIL 2/S1.3, TYP UON.
2. SEE DETAIL 2/S1.3 FOR OTHER INFO.
3. USE SIMPSON LS70 IN LIEU OF A35 AT 8" WALLS. PROVIDE (4) 16d FROM TRIM STUDS TO POSTS AT LS70 CLIPS , IN LIEU OF THE (3) 16d SHOWN.

TYP POST AT OPNG

NTS 6303-01C — 4 / S1.3



NOTE:
THIS DETAIL APPLIES WHERE ANCHOR BOLTS INTERFERE WITH STUDS.
(NOT ALLOWED UNDER KING STUDS OR JAMB STUDS)

SILL BOLT FALLS AT STUD

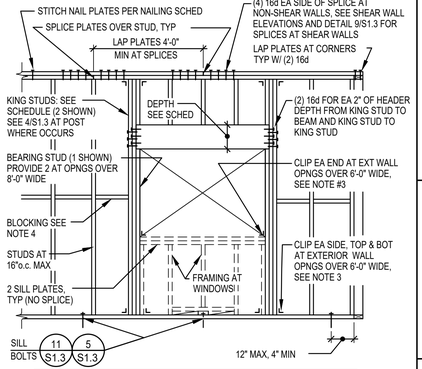
NTS 6304-02 — 5 / S1.3

NAILING SCHEDULE

2022 CBC

NOTE: NAILING SHOWN BELOW IS MINIMUM PERMISSIBLE. DETAILS SHALL GOVERN WHEN THEIR NAILING IS MORE STRINGENT. ALL NAILS SHALL BE COMMON WIRE NAILS AND THEY SHALL BE DRIVEN PERPENDICULAR TO THE GRAIN INSTEAD OF TOENAILED IF POSSIBLE.

	CONNECTION	NAILING	LOCATION
1.	JOISTS TO SILL OR GIRDER:	(3) 8d	TOENAIL
2.	BRIDGING TO JOIST	(2) 8d	TOENAIL EACH END
3.	1"x6" SUBFLOOR OR LESS TO EACH JOIST	(2) 8d	FACE NAIL
4.	WIDER THAN 1"x6" SUBFLOOR TO EA. JOIST	(3) 8d	FACE NAIL
5.	2" SUBFLOOR TO JOIST OR GIRDER	(2) 16d	BLIND AND FACE NAIL
6.	SOLE PLATE TO JOIST OR BLOCKING	16d @ 16"o.c.	TYPICAL FACE NAIL
	SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL	(3) 16d @ 16"o.c.	BRACED WALL PANELS
7.	TOP PLATE TO STUD	SEE STUD NAILING DETAIL 7/S1.3	
8.	STUD TO SILL (SOLE PLATE)		
9.	DOUBLE STUDS	16d @ 24"o.c.	FACE NAIL
10.	DOUBLE TOP PLATES DOUBLE TOP PLATES	16d @ 16"o.c. (8) 16d	TYPICAL FACE NAIL LAP SPLICE, UON
11.	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	(3) 8d	TOENAIL
12.	RIM JOIST TO TOP PLATE	8d @ 6"o.c.	TOENAIL
13.	TOP PLATE, LAPS AND INTERSECTIONS	(2) 16d	FACE NAIL
14.	CONTINUOUS HEADER, TWO PIECES	16d @ 16"o.c.	ALONG EACH EDGE
15.	CEILING JOISTS TO PLATE	(3) 8d	TOENAIL
16.	CONTINUOUS HEADER TO STUD	(4) 8d	TOENAIL
17.	CEILING JOISTS, LAPS OVER PARTITIONS	(3) 16d	FACE NAIL
18.	CEILING JOISTS TO PARALLEL RAFTERS	(3) 16d	FACE NAIL
19.	RAFTERS TO PLATE	(3) 8d	TOENAIL
20.	1" DIAGONAL BRACE TO EACH STUD AND PLATE	(2) 8d	FACE NAIL
21.	1"x8" SHEATHING, OR LESS TO EA BEARING	(3) 8d	FACE NAIL
22.	WIDER THAN 1"x8" SHTG TO EA BEARING	(3) 8d	FACE NAIL
23.	BUILT-UP CORNER STUDS	16d @ 24"o.c.	FACE NAIL
24.	BUILT-UP GIRDER AND BEAMS	20d @ 32"o.c. 10d @ 24"o.c. (2) 20d (3) 10d	FACE NAIL AT TOP AND BOTTOM, STAGG'D ON OPPOSITE SIDES FACE NAIL AT ENDS AND AT EACH SPLICE
25.	2" PLANKS	(2) 16d	EACH BEARING
26.	COLLAR TIE TO RAFTER	(3) 10d	FACE NAIL
27.	JACK RAFTER TO HIP	(3) 10d (2) 16d	TOENAIL FACE NAIL
28.	ROOF RAFTER TO 2x RIDGE BEAM	(2) 16d (2) 16d	TOENAIL FACE NAIL
29.	JOIST TO BAND JOIST	(3) 16d	FACE NAIL
30.	LEDGER STRIP	(3) 16d	FACE NAIL AT EA JOIST
31.	BLOCKING BTWN STUDS	(2) 8d	TOENAIL EA END



HEADER SPAN	NOMINAL HEADER DEPTH — BEARING WALL	NOMINAL HEADER DEPTH — NON-BRG WALL	NO. OF KING STUDS — EXTERIOR WALL	NO. OF KING STUDS — INTERIOR WALL
UP TO 4'-0"	6"	4"	1	1
OVER 4' TO 8'-0"	8"	6"	2	1
OVER 8' TO 10'-0"	12"	8"	3	2
OVER 10' TO 13'-0"	14"	10"	3	2

NOTES:
1. UNLESS OTHERWISE NOTED, HEADERS SHALL BE THE SAME WIDTH AS STUDS. FUR GLU-LAM HEADERS WITH PLYWOOD TO FLUSH WITH WALL STUDS.
2. SEE NAILING SCHEDULE FOR TYPICAL NAILING. STITCH NAIL ALL MULTIPLE STUDS PER SCHEDULE.
3. UNLESS OTHERWISE NOTED: USE SIMPSON LS30 OR A34 @ 2x4 STUDS, LS50 OR A35 @ 2x6 STUDS, LS70 @ 2x8 STUDS. SEE DET 4/S1.3 FOR ADD'L NAILS REQ'D WHERE CLIP IS NOT NAILED DIRECTLY TO KING STUDS
4. BLOCKING REQUIRED AT ALL PLYWOOD SPLICES. (10'-0"o.c. MAX FOR FIRE BLOCKING.)
5. SEE DET 4/S1.3 WHERE POST OCCURS AT OPNG.

TYP WALL AND OPENING FRAMING (UON)

NTS 6303-01 — 2 / S1.3

WOOD NOTES

1. LUMBER GRADES: ALL FRAMING LUMBER INCLUDING JOISTS, RAFTERS, BEAMS, STUDS, POSTS, PLATES AND BLOCKING SHALL BE GRADE MARKED DOUGLAS FIR NO. 1, UNLESS OTHERWISE NOTED. ALL FRAMING LUMBER 3x AND LARGER SHALL BE FREE OF HEART CENTER.
2. GRADE MARKS: ALL GRADE MARKS ON FRAMING LUMBER AND PLYWOOD SHEATHING SHALL BE LEGIBLE.
3. SILL PLATES: SILL PLATES SHALL BE PRESSURE TREATED DOUGLAS FIR NO. 1 UNLESS OTHERWISE NOTED. EACH PIECE SHALL BEAR THE STAMP OF AN APPROVED INDEPENDENT AGENCY OPERATING UNDER ALSC OVERVIEW. TREATED WOOD, WHERE CUT, DRILLED OR NOTCHED, SHALL BE FIELD TREATED WITH PRESERVATIVE.
4. FASTENERS AND CONNECTORS FOR PRESERVATIVE-TREATED AND FIRE-RETARDANT-TREATED WOOD: FASTENERS, INCLUDING NUTS AND WASHERS, SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL COMPLYING WITH ASTM A153. FASTENERS OTHER THAN NAILS, WOOD SCREWS, AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B 695, CLASS 55 MINIMUM. CONNECTORS USED IN EXTERIOR APPLICATIONS AND IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL HAVE COATING TYPES AND WEIGHTS IN ACCORDANCE WITH THE TREATED WOOD OR CONNECTOR MANUFACTURERS RECOMMENDATIONS. IN THE ABSENCE OF MANUFACTURES RECOMMENDATIONS, A MIN OF ASTM A653, TYPE G185 ZINC-COATED GALVANIZED STEEL, OR EQUIVALENT, SHALL BE USED.
5. SILL BOLTS/PLATE WASHERS: PROVIDE PLATE WASHERS NOT LESS THAN 0.229"x3"x3" AT ALL SILL BOLTS - USE A LARGER PLATE AS REQ'D BY STUD SIZE (SEE DETAIL 1/S1.3). THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO ⅜" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1¾", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN ½" OF THE EDGE OF THE SILL PL ON THE SIDE(S) WITH SHEATHING. STANDARD WASHERS MAY BE USED AT INTERIOR NON-BEARING, NON-SHEAR WALLS. SEE TYPICAL SILL FRAMING DETAIL. BOLTS AND PLATE WASHERS SHALL BE GALVANIZED AS REQUIRED BY NOTE #4 ABOVE.
6. HANGERS: ALL JOISTS AND BEAMS WHICH DO NOT BEAR DIRECTLY ON A SUPPORT SHALL BE PROVIDED WITH SIMPSON 'LU' AND 'HU' TYPE HANGERS, RESPECTIVELY, OF MATCHING SIZE OR EQUIVALENT, UNLESS HEAVIER CONNECTIONS ARE SHOWN. USE MAXIMUM NAILS POSSIBLE UON. PROVIDE SLOPED AND/OR SKEWED HANGERS AT SLOPED AND/OR SKEWED MEMBERS. JOISTS SHALL BEAR COMPLETELY ON THE CONNECTOR SEATS, AND THE GAP BETWEEN THE JOIST END AND THE HEADER SHALL NOT EXCEED ½".
7. POST CAPS/BASES: ALL POSTS SHALL HAVE SIMPSON 'PCZ' POST CAPS AND 'BC' POST BASES AS APPLICABLE, OR EQUIVALENT, UNLESS HEAVIER CONNECTIONS ARE SHOWN.
8. NAILS: ALL NAILS, INCLUDING MACHINE NAILS, SHALL BE COMMON NAILS WITH FULL SIZE HEAD PER ASTM F1667. ALL NAILS FOR PRESSURE TREATED OR FIRE-RETARDANT LUMBER SHALL BE HOT-DIP GALVANIZED PER ASTM A153, CLASS D. NAILS WITH OTHER TYPES OF GALVANIZING MAY BE USED IF PRE-APPROVED BY THE ENFORCEMENT AGENCY. PROVIDE SUFFICIENT EDGE DISTANCE, END DISTANCE, AND SPACING TO PREVENT SPLITTING. REPLACE MEMBER IF SPLITTING OCCURS.
9. PREDRILLING: PREDRILL NAIL HOLES WHERE WOOD TENDS TO SPLIT. PREDRILL HOLES FOR ALL SCREWS AND LAG BOLTS.
10. BOLTS: ALL BOLTS, INCLUDING SILL ANCHOR BOLTS, SHALL BE FULL-DIAMETER CUT-THREAD BOLTS PRODUCED BY AN AMERICAN MANUFACTURER. NO "UPSET" THREADS ARE ALLOWED.
11. BOLT HOLES: ALL BOLT HOLES IN WOOD, INCLUDING SILL PLATES, SHALL BE ⅛" MAX OVERSIZE.
12. BOLT SPACING: SPACE ALL BOLTS IN WOOD 4 DIAMETERS MINIMUM WITH 7 DIAMETERS MINIMUM END DISTANCE UNLESS OTHERWISE NOTED.
13. STANDARD WASHERS: PROVIDE STANDARD CUT WASHERS UNDER ALL BOLT HEADS AND NUTS BEARING ON WOOD UNLESS OTHERWISE NOTED. PROVIDE WASHERS UNDER ALL LAG SCREW HEADS.
14. BOLT RETIGHTENING: RETIGHTEN ALL BOLTS PRIOR TO APPLICATION OF SHEATHING, PLASTER, ETC.
15. LAG SCREWS: ALL LAG SCREWS SHALL BE FULL BODY DIAMETER CUT THREAD LAG SCREWS WITH STANDARD HEX HEAD. "REDUCED BODY DIAMETER" SCREWS ARE NOT ALLOWED.
16. WOOD SCREWS: ALL WOOD SCREWS SHALL BE CUT THREAD WOOD SCREWS WITH FULL BODY DIAMETER.
17. BLOCKING AT BEARINGS: PLACE 2x SOLID BLOCKING BETWEEN JOISTS OR RAFTERS OVER ALL SUPPORTS. BLOCKING SHALL BE FULL DEPTH OF JOISTS.
18. BLOCKING/BRIDGING AT JOISTS AND RAFTERS: PROVIDE 2x FULL DEPTH SOLID BLOCKING FOR ROOF RAFTERS OVER 8" DEEP AND FLOOR JOISTS OVER 4" DEEP AT 8'-0"o.c. MAXIMUM. APPROVED METAL BRIDGING OR 2x3 CROSS BRIDGING MAY BE USED AT SAME SPACING. WHERE CROSS BRIDGING IS USED, THE LOWER ENDS SHALL BE DRIVEN UP AND NAILED AFTER THE FLOOR, SUBFLOOR, OR ROOF HAS BEEN NAILED.
19. BLOCKING IN WALLS: PROVIDE 2x BLOCKING SAME WIDTH AS WALL STUDS AT 10'-0"o.c. MAXIMUM IN STUD WALLS. PROVIDE 2x MINIMUM BLOCKING AT ALL EDGES OF PLYWOOD APPLIED TO STUD WALLS, UON. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SOLID BLOCKING AT 48"o.c. MAX, OR OTHER MEANS OF LATERAL SUPPORT FOR STUDS IN BEARING WALLS WHICH ARE LOADED PRIOR TO RECEIVING SHEATHING OR GYP BOARD.
20. BLOCKING AT UNSHEATHED REGIONS OF WALLS: ALL BEARING WALLS REQUIRE SHEATHING OR GYP BOARD FULL HEIGHT TO PREVENT BUCKLING OF STUDS. REGIONS OF WALLS WHICH DO NOT RECEIVE PERMANENT SHEATHING OR GYP BOARD ON AT LEAST ONE FACE SHALL BE PROVIDED WITH ROWS OF SOLID BLOCKING SPACED AT 48"o.c. MAX.
21. MISC. BLOCKING: IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW BLOCKING REQUIRED FOR FINISHES, FIRE BLOCKING, OR BLOCKING FOR THE ATTACHMENT OF NON-STRUCTURAL ITEMS. CONTRACTOR SHALL PROVIDE ALL REQUIRED BLOCKING. SEE ARCHITECTURAL DWGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
22. HOLES IN JOISTS AND BEAMS: HOLES OR NOTCHES ARE NOT ALLOWED IN JOISTS OR BEAMS UNLESS SPECIFICALLY SHOWN AND DETAILED ON DRAWINGS.
23. HOLES IN STUDS: HOLES IN STUDS SHALL COMPLY WITH DETAIL 3/S1.4. HOLES IN POSTS ARE NOT ALLOWED UNLESS SHOWN ON STRUCTURAL DRAWINGS. NOTCHES ARE NOT ALLOWED.
24. HOLES IN TOP PLATES: HOLES ARE NOT ALLOWED IN TOP PLATES OF BEARING WALLS OR SHEAR WALLS. HOLES IN TOP PLATES OF NON-BEARING NON-SHEAR WALLS SHALL COMPLY WITH DETAIL 1/S1.4.
25. STRAPS THROUGH SHEATHING: STRAPS PASSING THROUGH PLYWOOD SHEATHING SHALL PASS THROUGH NEATLY DRILLED ROUND HOLES, OR NEATLY SLOTTED HOLES. THE DIAMETER OF HOLES OR THE LENGTH OF SLOTS SHALL NOT EXCEED THE STRAP WIDTH PLUS ½". WIDTH OF SLOTS SHALL NOT EXCEED ½".
26. TIMBER CONNECTORS: ALL TIMBER CONNECTORS SPECIFIED ON THESE DRAWINGS REFERS TO SIMPSON STRONG TIE CATALOG NO. C-C 2026. ALL CONNECTORS SHALL BE STAMPED AT THE FACTORY WITH AN IDENTIFYING MARK. ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE COATED WITH ZMAX (G-180) OR HOT DIPPED GALVANIZED.
27. MOISTURE CONTENT: THE MAXIMUM MOISTURE CONTENT OF ALL FRAMING LUMBER SHALL NOT EXCEED 19% AT THE TIME OF INSTALLATION.
28. HARD CEILINGS: IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW FRAMING PLANS OR SECTION CUTS AT ALL HARD CEILINGS AND SUSPENDED SOFFITS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF HARD (GYP) CEILINGS AND SOFFITS. FRAME CEILINGS PER TYPICAL CEILING FRAMING DETAILS UON FRAME SOFFITS PER TYPICAL SOFFIT FRAMING DETAILS OR OTHER SIMILAR SOFFIT DETAILS SHOWN ON DRAWINGS.

MACHINE NAILING OF PLYWOOD

USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE ACCEPTED IN ⅝" PLYWOOD. IF NAIL HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY, AND MACHINE NAILING SHALL BE DISCONTINUED.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
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Visalia, California 93291
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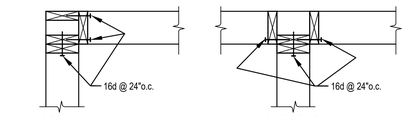
TITLE
TYPICAL NOTES AND DETAILS

S1.3

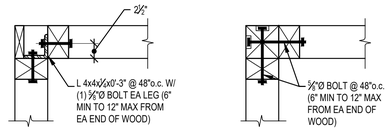
PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER — JACK D. BREWER — No. S5792 — Exp: 6-30-27 — STRUCTURAL — STATE OF CALIFORNIA

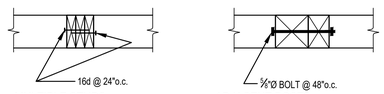
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asdi@asdiengr.com



CORNER | INTERSECTIONS



POSTS AT CORNERS | POSTS AT CORNERS

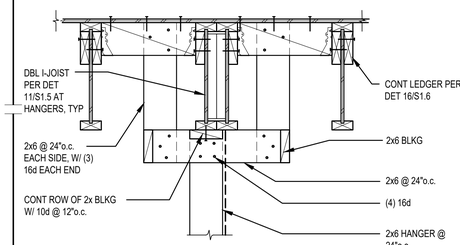


MULTIPLE STUDS | ADJACENT POSTS

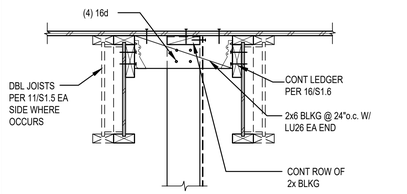
NOTE: USE THESE DETAILS AS A MINIMUM UNLESS MORE STRINGENT CONDITIONS ARE SHOWN ELSEWHERE ON THESE DRAWINGS.

TYPICAL FRAMING DETAILS

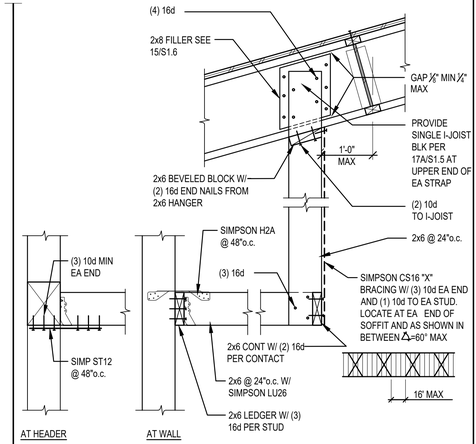
NTS 6306-04 — 17 / S1.4



HANGER AT I-JOIST

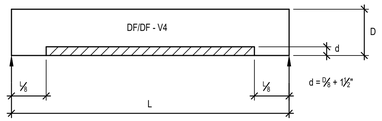


HANGER BETWEEN I-JOISTS

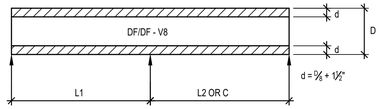


SOFFIT DETAIL

1" ~ 1'-0" 6018-02 — 18 / S1.4



SIMPLE SPAN BEAM

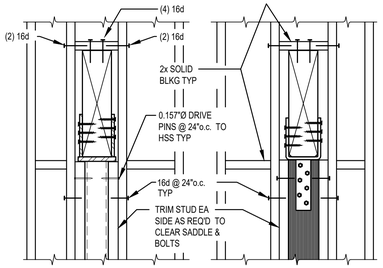


CONT OR CANTILEVER BEAM

CROSS HATCHING INDICATES TENSION ZONE WHERE MINIMUM SPACING OF END JOINTS IN ADJACENT LAMINATIONS SHALL BE 6"

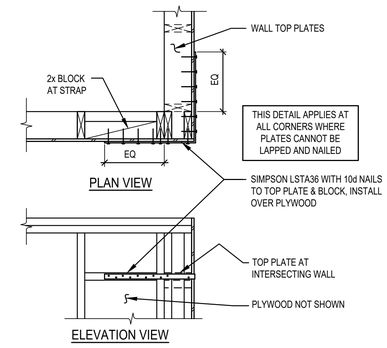
GLU-LAM BEAM DETAIL

NTS 6205-01 — 13 / S1.4



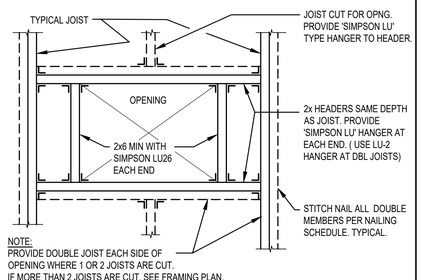
TYP GL INTO STUD WALL

NTS 6306-06A — 14 / S1.4



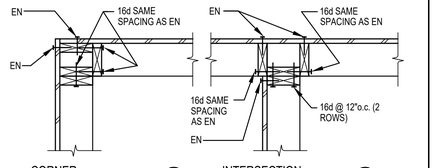
TYPICAL CORNER SPLICE

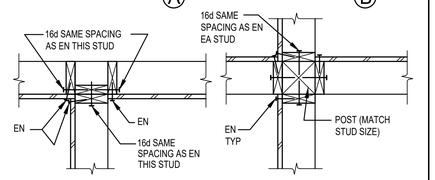
(WALL PLATES AT DIFFERENT HT) NTS 6401-01 — 15 / S1.4

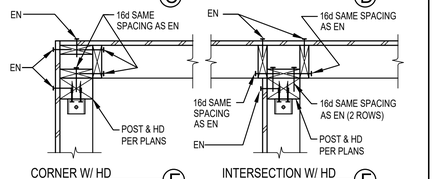


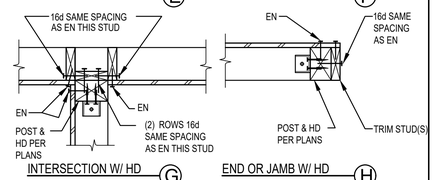
TYP FRMG AT CLG OPENINGS

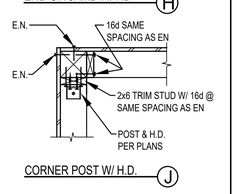
N.T.S. 6011-02 — 16 / S1.4





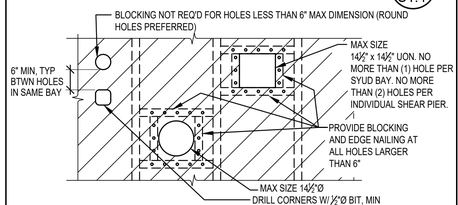






PLAN VIEW OF SHEAR WALL DETAILS

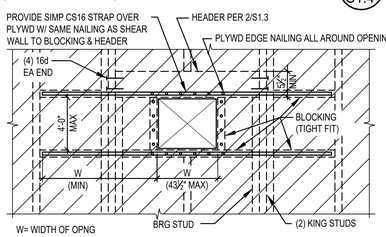
NTS 6306-00 — 10 / S1.4



NOTE: THIS DETAIL APPLIES TO ALL HOLES THRU SHEAR WALLS UON. SEE DETAIL 12/S1.4 FOR HOLES WHICH CUT THRU STUDS OR EXCEED THESE DIMENSIONS.

HOLES AT SHEAR WALLS

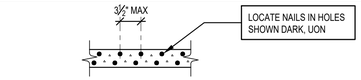
(HOLES DO NOT CUT STUDS) NTS 6404-01 — 11 / S1.4

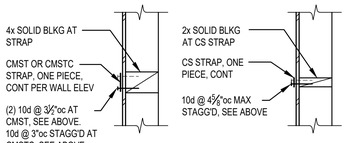


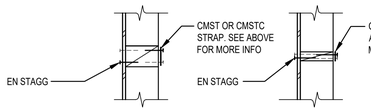
NOTE: THIS DETAIL APPLIES TO ALL HOLES THRU SHEAR WALLS UON. SEE DETAIL 11/S1.4 FOR HOLES WHICH DO NOT CUT THRU STUDS.

HOLES AT SHEAR WALLS

(HOLES CUT 1 OR 2 STUDS) N.T.S. 6404-02 — 12 / S1.4





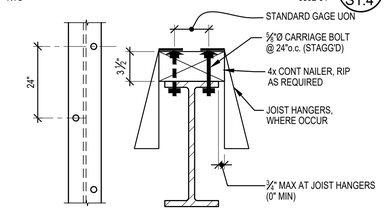


"CMST" OR "CMSTC" STRAP ON OPP SIDE OF WALL AS PLYWD

"CS" STRAP ON OPP SIDE OF WALL AS PLYWD

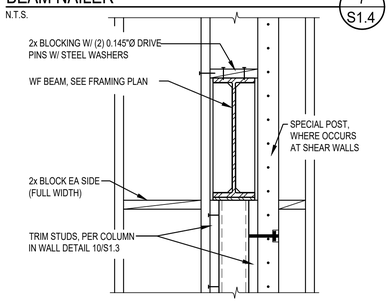
STRAP DETAIL

NTS 6302-01 — 6 / S1.4



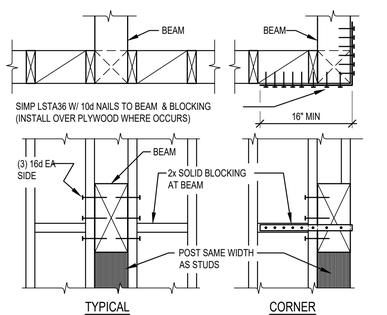
BEAM NAILER

N.T.S. — 7 / S1.4



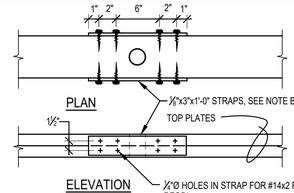
TYP. WF BEAM TO STUD WALL

NTS 6306-07 — 8 / S1.4



TYP BEAM INTO STUD WALL

NTS 6306-05 — 9 / S1.4

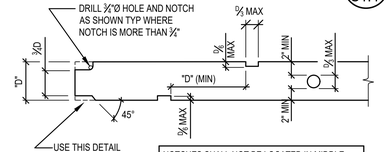


NOTE:
½"x3"x1'-0" STRAPS REQUIRED FOR HOLE DIAMETERS OF ¼ TO ½ THE WIDTH OF WOOD PLATES. HOLES HAVING DIAMETERS GREATER THAN ½ OF THE PLATE WIDTH ARE NOT PERMITTED. NO HOLES PERMITTED IN TOP PLATES LESS THAN 5½" WIDE.

THIS DETAIL APPLIES AT NON-BEARING, NON-SHEAR WALLS ONLY. NO HOLES PERMITTED IN BEARING WALLS OR SHEAR WALLS.

HOLES IN TOP PLATES

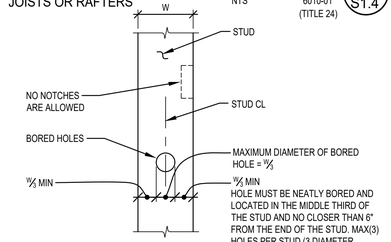
NTS 6307-01 — 1 / S1.4



NOTCHES SHALL NOT BE LOCATED IN MIDDLE THIRD OF SPAN. NOTCHES OR HOLES ARE NOT PERMITTED EXCEPT WHERE SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.

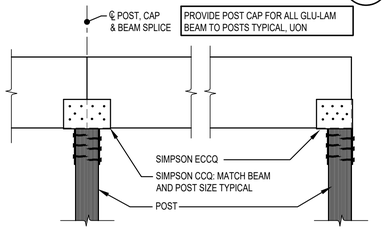
NOTCHES & HOLES AT

JOISTS OR RAFTERS NTS 6010-01 (TITLE 24) — 2 / S1.4



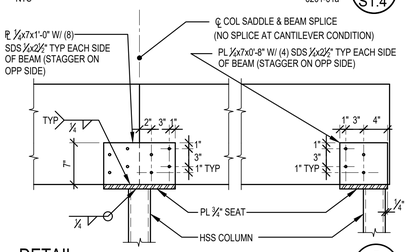
NOTCHES AND HOLES

IN STUDS (CBC) NTS 6010-03 — 3 / S1.4



GLU-LAM TO POST CONN

NTS 6201-01a — 4 / S1.4



DETAIL

NTS 6202-01B — 5 / S1.4

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI — ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
(559) 627-0530 Office
(559) 627-1926 Fax
www.mangini.us

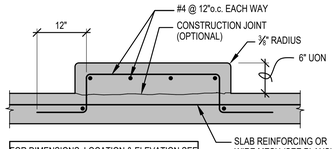
TITLE
TYPICAL NOTES AND DETAILS

S1.4

PROJECT 24042

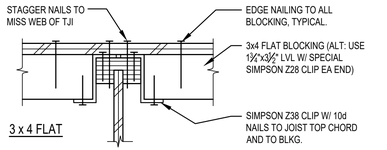
REGISTERED PROFESSIONAL ENGINEER — JACK D. BRENEMAN — No. S5792 — Exp: 6-30-27 — STRUCTURAL — STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



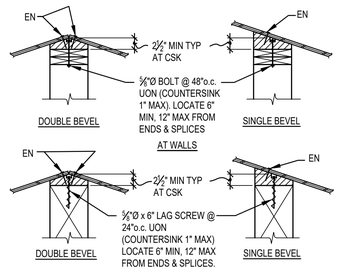
HOUSEKEEPING PAD

NTS 3105-01 — 13 / S1.5



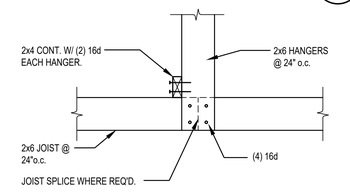
PLYWOOD BLOCKING DETAIL

NTS 6006-02 — 14 / S1.5



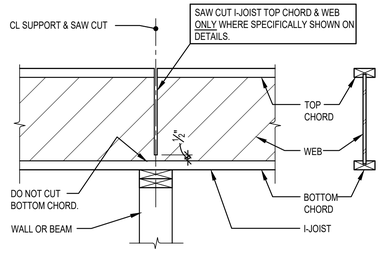
BEVEL NAILER CONN.

NTS 6005-02 — 15 / S1.5



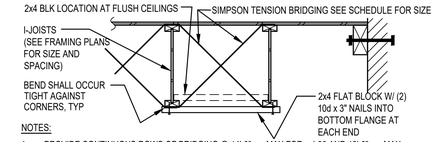
HANGER STRONGBACK DETAIL

NTS — 16 / S1.5



I-JOIST SAW CUT DETAIL

NTS 6022-01i — 17 / S1.5



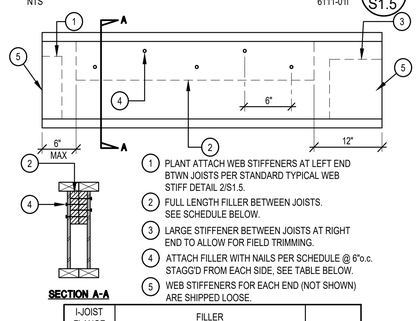
NOTES:

1. PROVIDE CONTINUOUS ROWS OF BRIDGING @ 14'-0"o.c. MAX FOR I -65. PROVIDE ONE ROW WITHIN 1'-0" OF ENDS OF JOISTS SUPPORTED BY TOP FLANGE HANGERS.
2. APPLY BRIDGING BETWEEN JOISTS W/ (2) 10d x 1½" NAILS EA END.
3. LOWER ENDS OF CROSS BRIDGING SHALL BE DRIVEN UP AND NAILED AFTER THE ROOF SHEATHING HAS BEEN NAILED, TYPICAL.
4. BRIDGING SHALL BE STRAIGHT. NO BOWING OR KINKS ALLOWED, TYPICAL.

JOIST HEIGHT	JOIST SPACING (INCHES)								
	12	16	19.2	24	30	32	36	42	48
9½	TB20	TB27	TB27	TB30	TB36	TB36	TB42	TB48	TB54
10	TB20	TB27	TB27	TB30	TB36	TB36	TB42	TB48	TB54
11⅞	TB20	TB27	TB27	TB30	TB36	TB36	TB42	TB48	TB54
12	TB20	TB27	TB27	TB30	TB36	TB36	TB42	TB48	TB54
14	TB27	TB27	TB27	TB36	TB36	TB42	TB42	TB48	TB54
16	TB27	TB27	TB30	TB36	TB42	TB42	TB42	TB48	TB54
18	TB27	TB30	TB30	TB36	TB42	TB42	TB48	TB54	TB56
20	TB30	TB30	TB36	TB36	TB42	TB42	TB48	TB54	TB56
22	TB30	TB36	TB36	TB36	TB42	TB42	TB48	TB54	TB56
24	TB36	TB36	TB36	TB42	TB42	TB48	TB48	TB54	TB56

I-JOIST BRIDGING DETAIL

NTS 6111-01i — 10 / S1.5

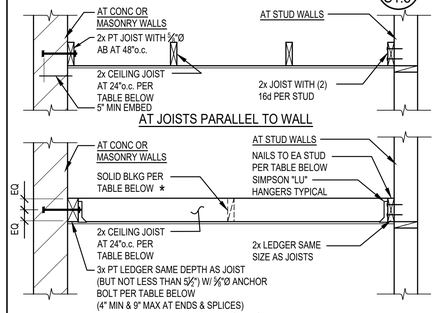


1. PLANT ATTACH WEB STIFFENERS AT LEFT END BTWN JOISTS PER STANDARD TYPICAL WEB STIFF DETAIL 2/S1.5.
2. FULL LENGTH FILLER BETWEEN JOISTS. SEE SCHEDULE BELOW.
3. LARGE STIFFENER BETWEEN JOISTS AT RIGHT END TO ALLOW FOR FIELD TRIMMING.
4. ATTACH FILLER WITH NAILS PER SCHEDULE @ 6"o.c. STAGG'D FROM EACH SIDE, SEE TABLE BELOW.
5. WEB STIFFENERS FOR EACH END (NOT SHOWN) ARE SHIPPED LOOSE.

I-JOIST FLANGE WIDTH (IN)	FILLER				
	DEPTH	THICKNESS	MATERIAL	FASTENER
3½"	5½"	2-1½"	LSL OR LVL	16d
2½"	5½"	2-1"	LSL OR LVL	8d

DOUBLE I-JOIST DETAIL

NTS 6014-03 — 11 / S1.5



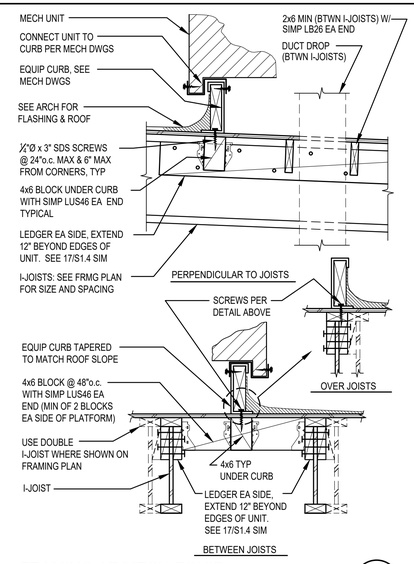
JOIST SIZE	MAX SPAN		LEDGER NAILS	BOLT SPACING	BLOCKING (NOTE #5)
	GYP BD	PLASTER			
2x4	6'-0"	4'-0"	(2) 16d	48"o.c.	NOT REQ'D
2x6	12'-0"	8'-0"	(2) 16d	48"o.c.	MID-SPAN
2x8	16'-0"	12'-0"	(3) 16d	32"o.c.	MID-SPAN

NOTES:

1. DESIGN LOADS: DL=6psf AT GYP BD; 10psf AT PLASTER LL=10psf
2. AT CONTRACTOR'S OPTION, 10d x 1½" NAILS MAY BE USED FOR ATTACHMENT OF JOIST HANGERS TO LEDGERS.
3. SPACE CEILING JOISTS @ 16"o.c. AT FIRE RATED CONSTRUCTION, WHERE REQ'D PER ARCH DWGS.
4. SEE "TYPICAL FRAMING AT OPENINGS" FOR FRAMING AT OPENINGS OR RECESSED FIXTURES
5. ROWS OF BLOCKING TO BE EQUALLY SPACED BETWEEN SUPPORTS.
6. DOUBLE JOISTS SHALL CONNECT TO LEDGER W/ LU-2 JOIST HANGER.

TYPICAL CEILING FRAMING

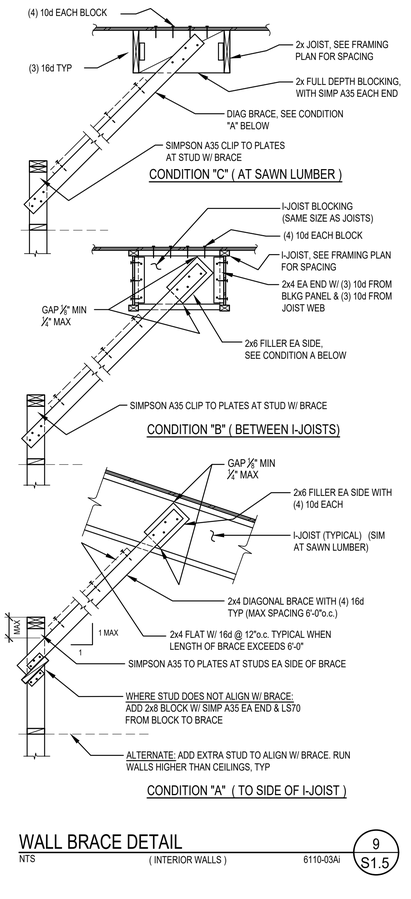
NTS 6009-03 — 12 / S1.5



FRAMING AT MECH EQUIP

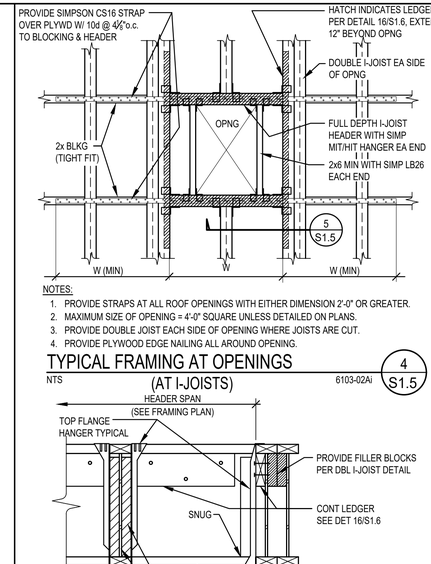
(AT I-JOIST FRAMING)

NTS 6102-01i — 8 / S1.5



WALL BRACE DETAIL

NTS (INTERIOR WALLS) 6110-03Ai — 9 / S1.5



NOTES:

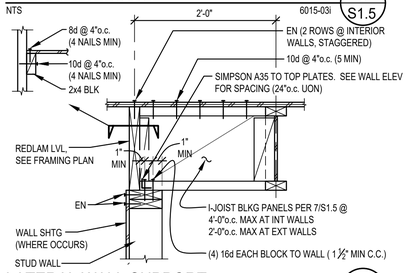
1. PROVIDE STRAPS AT ALL ROOF OPENINGS WITH EITHER DIMENSION 2'-0" OR GREATER.
2. MAXIMUM SIZE OF OPENING = 4'-0" SQUARE UNLESS DETAILED ON PLANS.
3. PROVIDE DOUBLE JOIST EACH SIDE OF OPENING WHERE JOISTS ARE CUT.
4. PROVIDE PLYWOOD EDGE NAILING ALL AROUND OPENING.

TYPICAL FRAMING AT OPENINGS

NTS (AT I-JOISTS) 6103-02Ai — 4 / S1.5

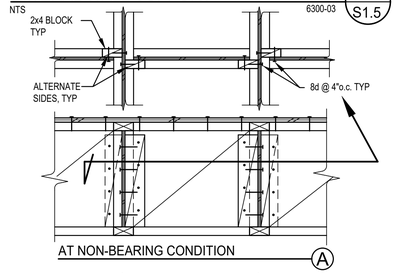
HEADER AT I-JOIST

NTS 6015-03i — 5 / S1.5



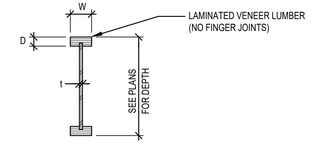
LATERAL WALL SUPPORT

NTS 6300-03 — 6 / S1.5



I-JOIST BLOCKING DETAIL

NTS 6013-01Ai — 7 / S1.5



I-JOIST	FLANGE		WEB	
	W	D	THICK "t"	MATERIAL
18" RED-I90	3½"	1½"	⅞"	OSB
20" RED-I90	3½"	1½"	⅞"	OSB
22" RED-I90	3½"	1½"	⅞"	OSB

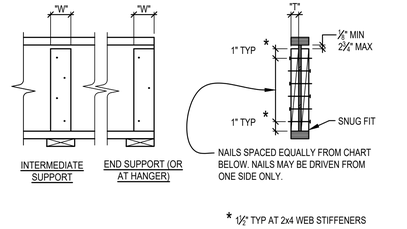
MINIMUM SECTION PROPERTIES			
I-JOIST	M allow (#-ft) AT 100%	V allow (#) AT 100%	EI (10^6#-in^2)
18" RED-I90	14,785	3,080	1,635
20" RED-I90	16,435	3,345	2,085
22" RED-I90	18,075	3,615	2,597

NOTES:

1. RED-I JOISTS ARE MANUFACTURED BY RED BUILT, LLC. THE RED-I SECTION PROPERTIES ARE BASED ON ICC ESR-2994.

I-JOIST PROPERTIES

NTS 6016-01A — 1 / S1.5



★ ½" TYP AT 2x4 WEB STIFFENERS

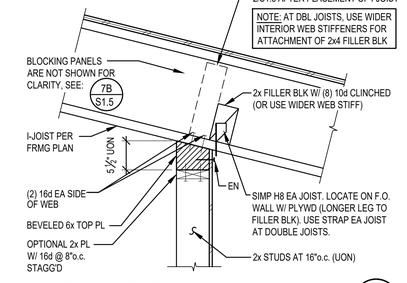
I-JOIST DEPTH/SERIES	NO. OF NAILS REQUIRED		MIN WEB STIFFENER WIDTH "W"	MIN WEB STIFFENER THICK "T"
	END OR HANGER	INTERMEDIATE		
18" RED-I90	(4) 0.135"x3½"	(4) 0.135"x3½"	3½"	1½"
20" RED-I90	(5) 0.135"x3½"	(5) 0.135"x3½"	3½"	1½"
22" RED-I90	(6) 0.135"x3½"	(11) 0.135"x3½"	3½"	1½"

NOTES:

1. ALL STIFFENERS ARE TO BE SUPPLIED BY MFR.
2. WEB STIFFENERS ARE REQUIRED AT ALL BEARINGS AND AT HANGERS.
3. GAP MUST BE AT THE TOP FOR ALL BEARING CONDITIONS. STIFFENER MUST BE SNUG TO BOTTOM CHORD.
4. WEB STIFFENER MATERIAL FOR RED-I90 SHALL BE 2x4 CONSTR GRADE OR LVL.

I-JOIST WEB STIFFENERS

NTS 6013-02i — 2 / S1.5



I-JOIST CONNECTION

NTS 6017-01i — 3 / S1.5

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

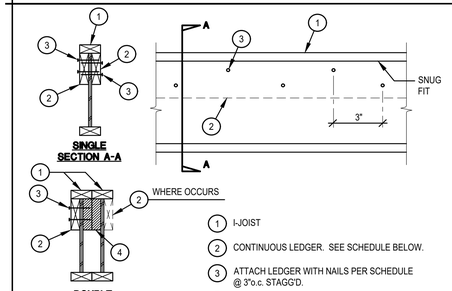
TITLE
TYPICAL NOTES AND DETAILS

S1.5

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER JACK D. BREWER No. S5792 Exp. 6-30-27 STRUCTURAL STATE OF CALIFORNIA

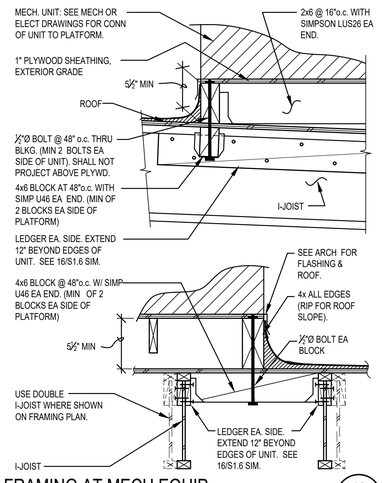
ASD advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



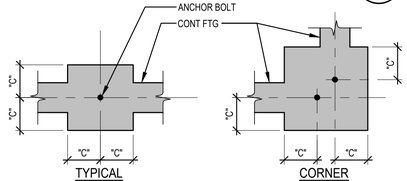
I-JOIST FLANGE WIDTH (IN)	LEDGER			FASTENER
	DEPTH	THICKNESS	MATERIAL	
3½"	5½"	1½"	LVL (RED-LAM) OR DOUG FIR	16d
2x"	5½"	1"	LVL, PWD	8d

CONTINUOUS LEDGER AT I-JOIST
NTS 6110-05 — 16 / S1.6

NOT USED
NTS — 17 / S1.6



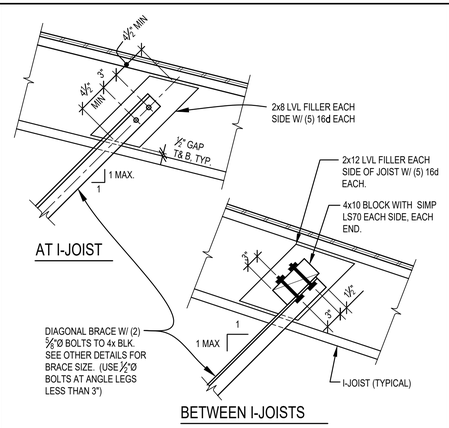
FRAMING AT MECH EQUIP
(AT I-JOIST FRAMING) NTS 6102-02i — 18 / S1.6



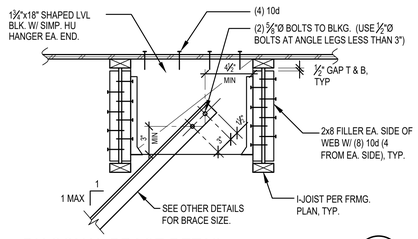
HOLDOWN	"C"
HDUE3	8"
HDUE5	8"
HDUE7	8"
HDUE9	12"
HDUE13	16"
HDUE17	16"

NOTES:
1. WIDEN FOOTINGS AS REQUIRED TO PROVIDE MINIMUM CONCRETE COVER "C" AT EACH ANCHOR BOLT.
2. WIDENED FOOTINGS ARE NOT SHOWN ON FOUNDATON PLANS.
3. NO ADDITIONAL REINF IS REQUIRED UON.

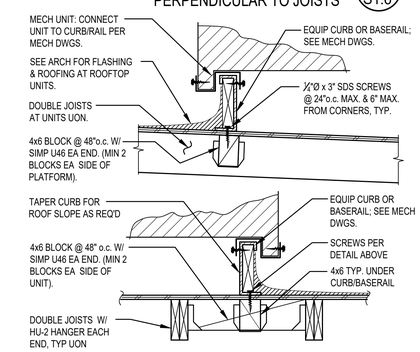
CONC COVER AT HD ANCHORS
NTS 3206-01 — 19 / S1.6



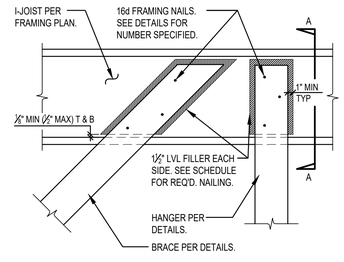
DIAGONAL BRACE DETAIL
NTS — PARALLEL TO JOISTS — 12 / S1.6



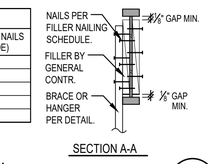
DIAGONAL BRACE DETAIL
1" ~ 1'-0" — PERPENDICULAR TO JOISTS — 13 / S1.6



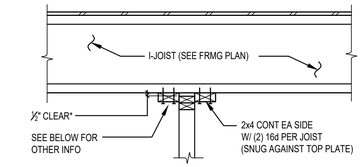
FRAMING AT MECH EQUIP
(AT STICK FRAMING) NTS 6107-04 — 14 / S1.6



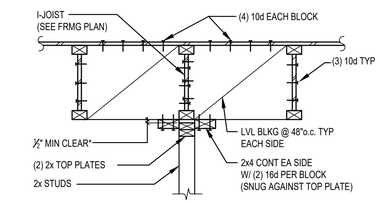
FILLER NAILING SCHEDULE	
FRAMING NAILS PER DETAILS	REQ'D. FILLER NAILS (EACH SIDE)
(2) - 16d	(2) - 16d
(3) - 16d	(2) - 16d
(4) - 16d	(3) - 16d
(5) - 16d	(4) - 16d
(6) - 16d	(5) - 16d



FILLER BLOCK DETAIL
NTS 6110-04 — 15 / S1.6

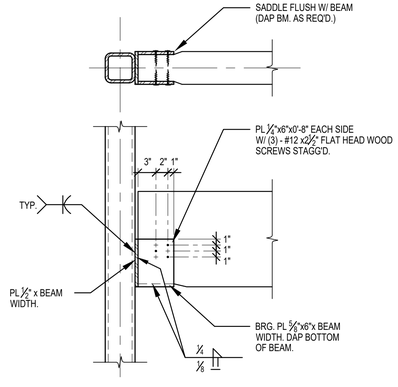


WALL PERPENDICULAR TO JOISTS



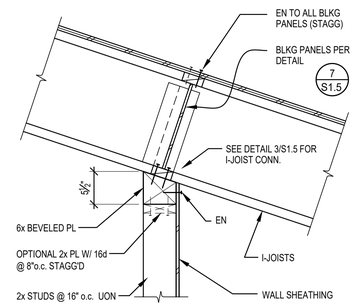
WALL PARALLEL TO JOISTS
* AFTER ROOFING INSTALLED

NON-BEARING WALL
TOP PLATE DETAIL NTS — 9 / S1.6



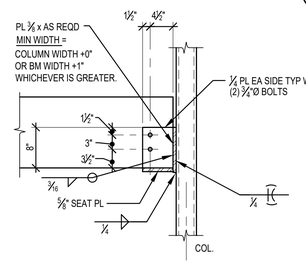
FLUSH BEAM SADDLE
NTS — 10 / S1.6

NOT USED
NTS — 11 / S1.6

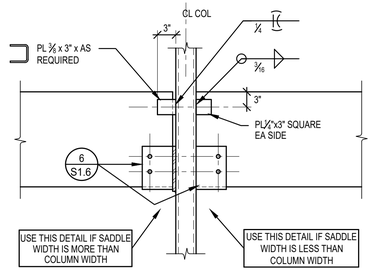


SHEAR BLOCKING AT I-JOIST
NTS 6012-01i — 4 / S1.6

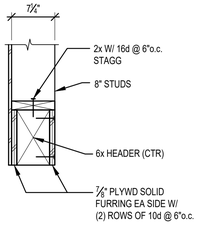
NOT USED
NTS — 5 / S1.6



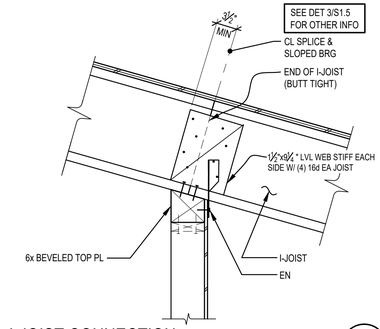
BEAM SADDLE TO COLUMN
BEAMS 18" DEEP OR LESS NTS — 6 / S1.6



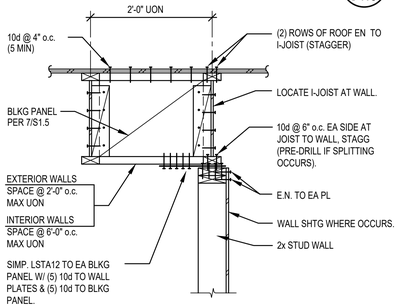
BEAM SADDLE TO COLUMN
BEAMS OVER 18" DEEP NTS 5204-02 — 7 / S1.6



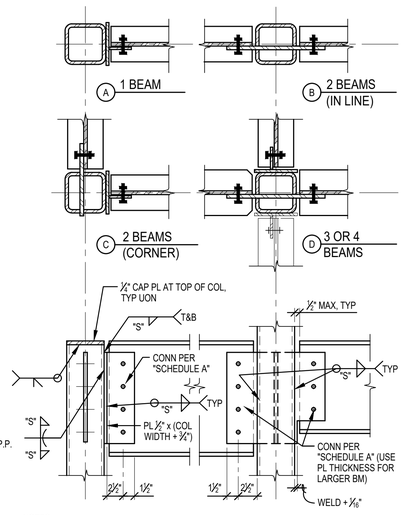
HEADERS AT 8" WALLS
1" ~ 1'-0" 6303-02 — 8 / S1.6



I-JOIST CONNECTION
NTS 6017-01i — 1 / S1.6



LATERAL WALL SUPPORT
NTS 6300-02i — 2 / S1.6



NOTES:
1. ALSO REFER TO "SCHEDULE A" ON 15/S1.2 & TYP BEAM CONNECTIONS.
2. SLOT COLUMN FOR CONN PLATE. FILL ALL OVERCUTS WITH WELD.
3. CROP BEAM FLANGES AS REQ'D. AT INTERFERENCES.
4. AT DETAIL C, USE WELDED "T" AT THE LIGHTER BEAM.
5. AT DETAIL D, WHEN 4 BEAMS OCCUR, USE WELDED "T" AT THE LIGHTER BEAMS.

BEAM TO TUBE COLUMN
NTS 5205-013 — 3 / S1.6

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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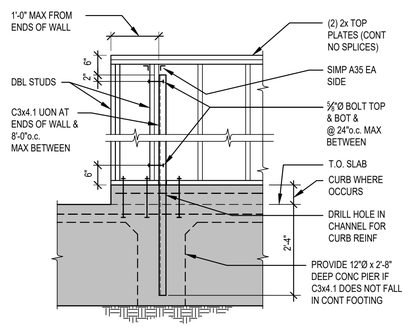
TITLE
TYPICAL NOTES AND DETAILS

S1.6

PROJECT 24042

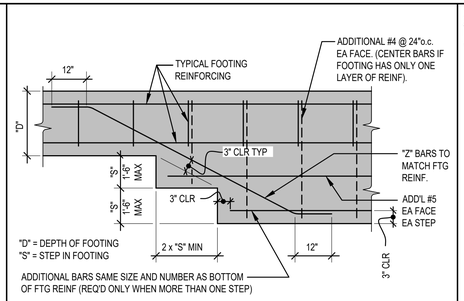
REGISTERED PROFESSIONAL ENGINEER — JACK D. BRENGLE — No. S5792 — Exp. 6-30-27 — STRUCTURAL — STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



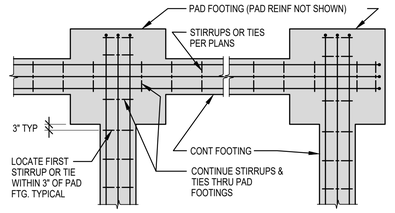
WING WALL DETAIL

NTS 6311-02 — 6 / S1.7



TYP STEP IN FTG WALL

NTS (STEPPED BOTTOM ONLY) 3003-01 — 3 / S1.7

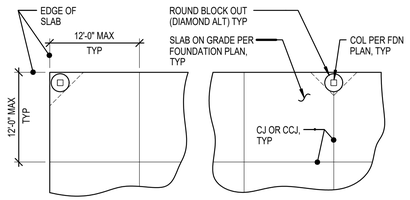


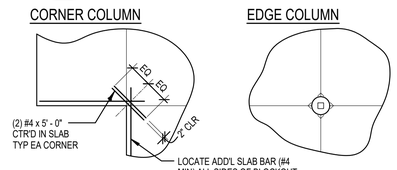
NOTES:

1. EXTEND GRADE BEAM BARS TO FAR SIDE OF PAD FOOTING AND PROVIDE STD HOOK. (TURN UP/DOWN)
2. PROVIDE SLAB DOWELS AND WALL DOWELS SHOWN ON CONT FOOTING DETAILS IN PAD FOOTING REGION ALSO.

CONT FTG REINF AT PAD FTGS

NTS 3006-03 — 4 / S1.7



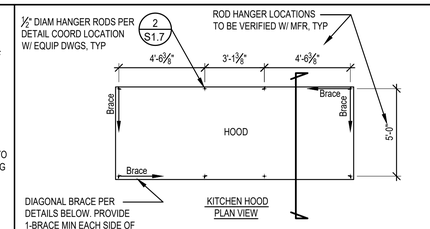


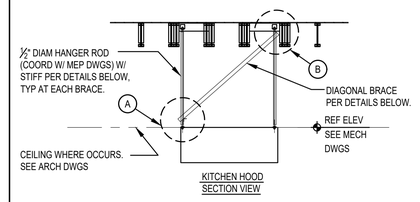
NOTES:

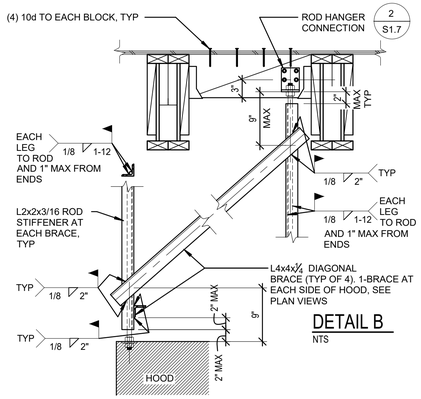
1. PANELS SHALL BE RECTANGULAR IN SHAPE UON.
2. PANEL LENGTH SHALL NOT EXCEED 1.5 TIMES THE WIDTH.
3. SEE FOUNDATION PLANS FOR CJ/CCJ LAYOUT
4. SEE 9/S1.1 & 10/S1.1 FOR CONSTRUCTION JOINT & CRACK CONTROL JOINT DETAILS.

CONC SLAB CRACK CONTROL

NTS — 5 / S1.7







DETAIL B

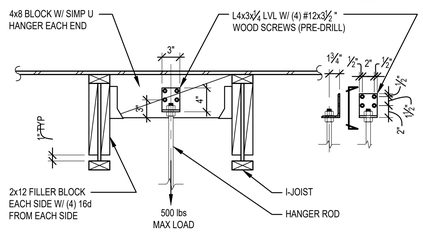
NTS

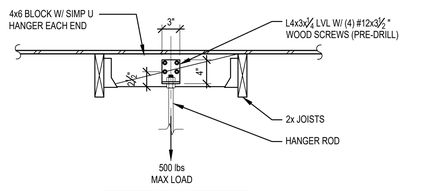
DETAIL A

NTS

ROD HANGER DETAIL

NTS — 1 / S1.7





SEE MEP DWGS FOR OTHER INFO

ROD HANGER DETAIL

NTS — 2 / S1.7

REGISTERED PROFESSIONAL ENGINEER JACK D. BRENEMAN No. S5792 Exp: 6-30-27 STRUCTURAL STATE OF CALIFORNIA

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APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

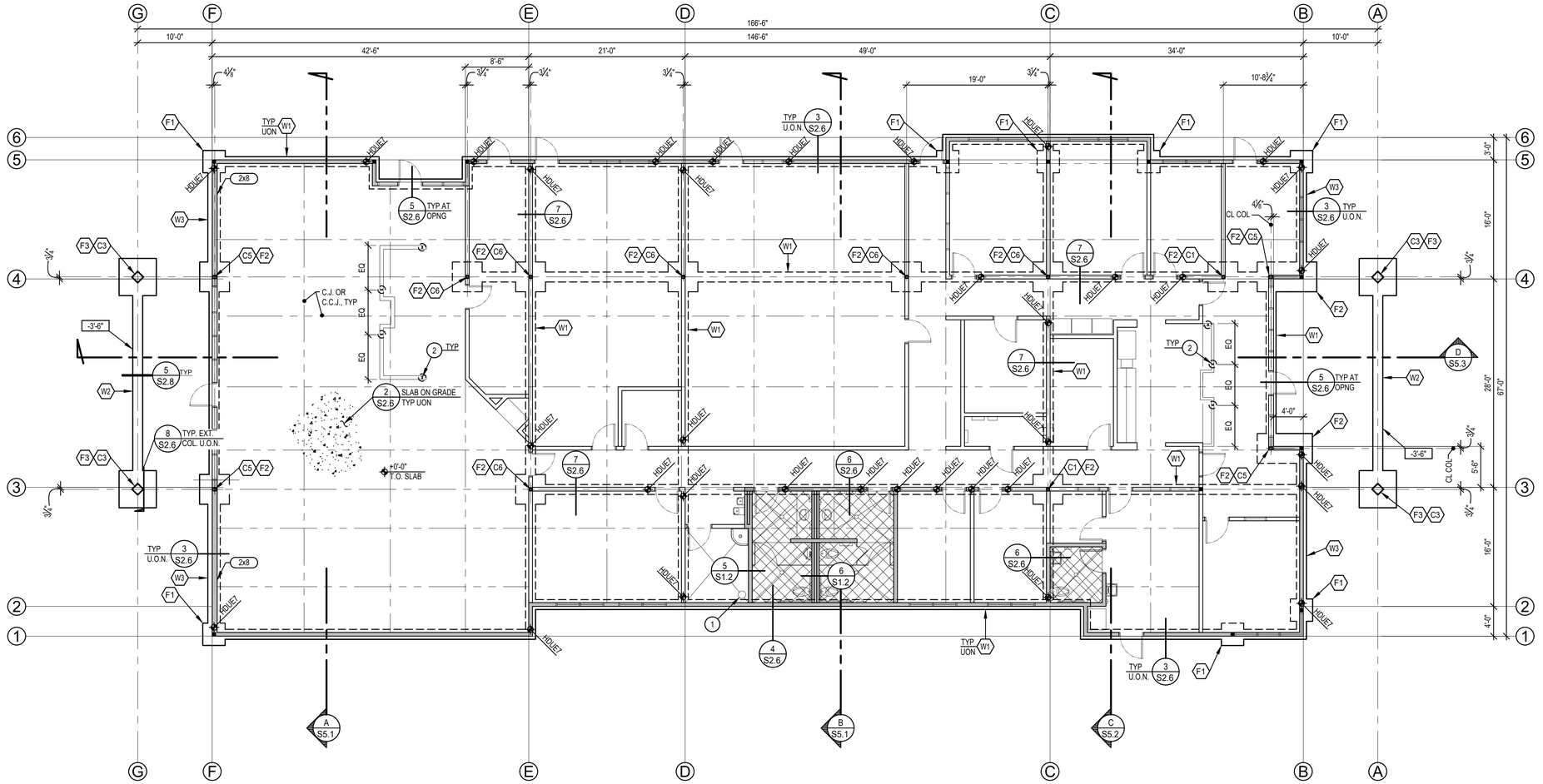
MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
TYPICAL NOTES AND DETAILS

S1.7

PROJECT 24042

P:\M62503 Temperance Elem\Struct\S1.7.TYPICAL DETAILS.dwg Sep 15 2026 11:41am



FOUNDATION PLAN - BLDG. 100

1/4" = 1'-0"

BOTTOM OF FOOTING ELEVATION = -3'-0" U.O.N.

north

FOUNDATION NOTES

1. SEE SHEET S1.1 FOR GENERAL NOTES AND FOUNDATION NOTES.
2. REVIEW ALL DETAILS RELATED TO FOUNDATIONS ON THE TYPICAL DETAIL SHEETS PRIOR TO STARTING ANY WORK. TYPICAL DETAILS APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE.
3. ALL REINFORCING AT CONTINUOUS FOOTINGS, INCLUDING TIES OR STIRRUPS, SHALL CONTINUE THRU PAD FOOTINGS.
4. SEE ARCHITECTURAL DRAWINGS AND/OR CIVIL DRAWINGS FOR LOCATIONS OF SIDEWALKS, PLANTERS, AND MOW STRIPS AROUND THE BUILDING PERIMETER.
5. PROVIDE SLIP DOWELS AT BUILDING SLAB TO EXTERIOR SLABS AND SIDEWALKS AT ALL DOOR OPENINGS.
6. SEE ARCHITECTURAL AND PLUMBING DRAWINGS FOR FLOOR DRAIN LOCATIONS WHICH MAY NOT NECESSARILY BE SHOWN ON FOUNDATION PLANS. SLOPE SLABS TO DRAINS.
7. COORDINATE LOCATION AND DEPTH OF ALL DEPRESSED SLABS WITH ARCHITECTURAL DRAWINGS.
8. SEE SHEETS S6.1-S6.9 FOR SHEAR WALL ELEVATIONS .
9. DIMENSIONS AND GRID LINES ARE FROM F.O. PLYWD OR CL OF COLUMNS, TYP UON.
10. SEE ARCH DWGS FOR DOOR OPNGS IN 8" WALLS THAT REQUIRE ADD'L OPNG WIDTH AND SMALLER INFILL STUDS FOR ADA COMPLIANCE. WALL OPNGS SHALL BE FRAMED PER DETAIL 2/S1.3 (BASED ON THE OPNG SIZE IN THE 8" WALL).

LEGEND

CCJ = CRACK CONTROL JOINT PER DET 10/S1.1

CJ = CONSTRUCTION JOINT PER DET 9/S1.1

= COLUMN / FOOTING TYPE

= BOTTOM OF FOOTING ELEVATION

HDU4Z = SIMPSON HOLDOWN PER DET 8/S1.3

= 6" HIGH CONC CURB

= DEPRESSED SLAB AREA (-3" UON), SEE DET 5/S1.2

XxX = NOMINAL SIZE OF STUDS WHEN OTHER THAN 2x6. SEE ALSO SHEAR WALL ELEVATIONS.

■ = WOOD POST CARRYING BEAM ABOVE, SEE FRMG PLAN FOR SIZE

S- - -S = STEPPED BOTTOM OF FOOTING PER DETAIL 3/S1.7

SS- - -SS = STEPPED TOP & BOT FOOTING PER DETAIL 8/S1.1

= RAISED SLAB ON GRADE (+2'-0")

FOOTING SCHEDULE

MARK	PLAN DIMENSION	DEPTH	REINFORCEMENT
W1	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W2	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 10"o.c.
W3	1'-8" WIDE	2'-0"	2 - #6 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W4	2'-0" WIDE	2'-0"	3 - #7 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
F1	3'-0" SQ.	2'-0"	(4) #6 EACH WAY T&B
F2	4'-0" SQ.	2'-0"	(5) #6 EACH WAY T&B
F3	5'-0" SQ.	2'-0"	(7) #6 EACH WAY T&B
F4	6'-0" SQ.	2'-0"	(8) #6 EACH WAY T&B

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	REF DET
C1	HSS 5x5x¼	⅝" x 11" x 0'-11"	14/S1.2
C2	HSS 7x7x¼	1" x 13" x 1'-1"	14/S1.2
C3	HSS 14x14x⅜	¾" x 20" x 1'-8"	8/S2.6
C4	HSS 12x12x⅜	¾" x 18" x 1'-6"	8/S2.6
C5	HSS 7x5x5/16	¾" x 11" x 1'-1"	14/S1.2
C6	HSS 5x5x½	1" x 11" x 0'-11"	14/S1.2

*ALL EXTERIOR COLUMNS SHALL MEET REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)

KEY NOTES

1. FIRE RISER: KEEP PIPES OUT OF FOOTING
2. C3x4.1 WALL SUPPORT PER DETAIL 6/S1.7

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-41128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627 2630 Office
(559) 627 1926 Fax

TITLE
BUILDING 100
FOUNDATION PLAN

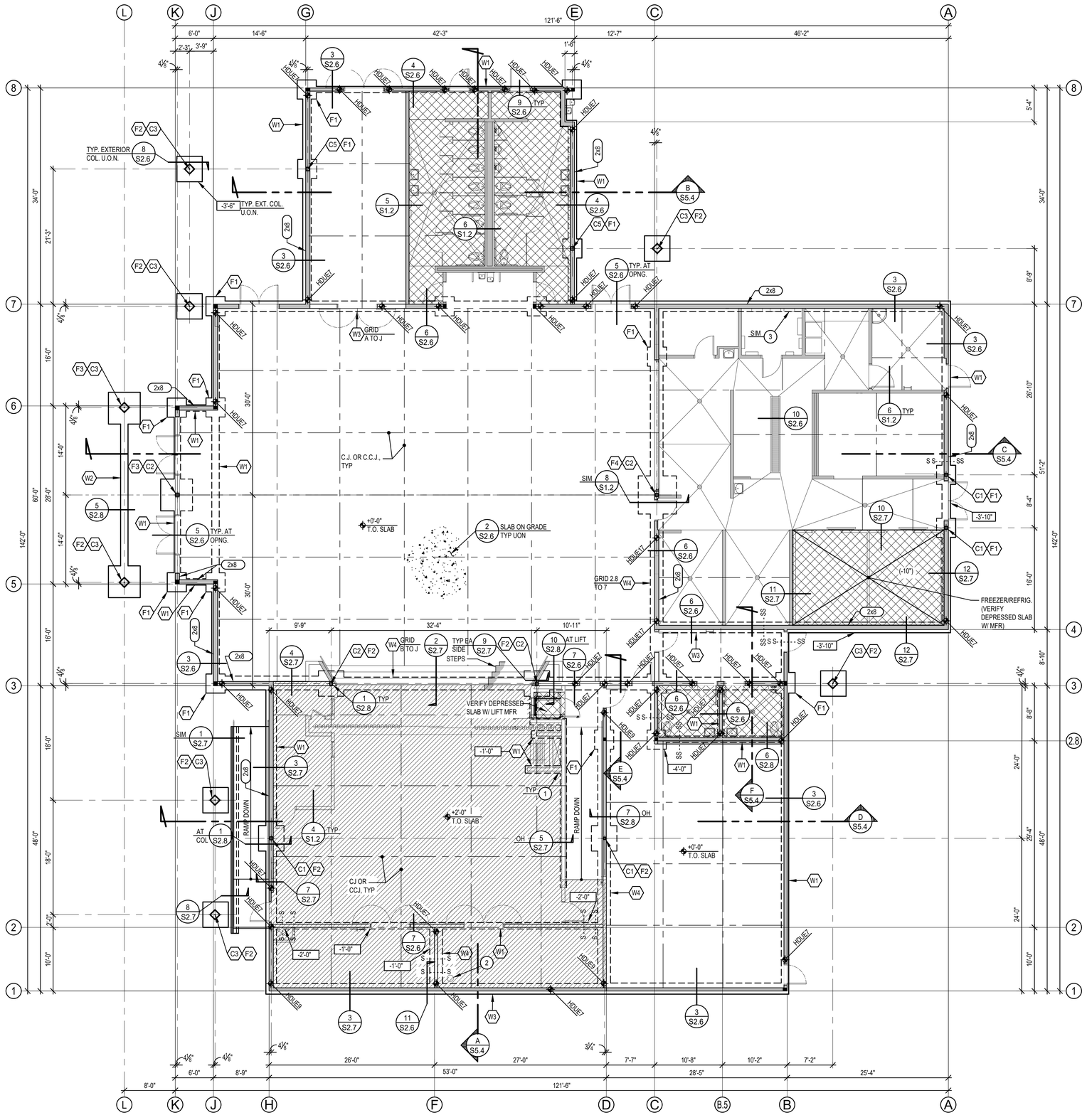
S2.1

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5732
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

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FOUNDATION NOTES

1. SEE SHEET S2.1 FOR NOTES

LEGEND

CCJ = CRACK CONTROL JOINT PER DET 10/S1.1

CJ = CONSTRUCTION JOINT PER DET 9/S1.1

= COLUMN / FOOTING TYPE

= BOTTOM OF FOOTING ELEVATION

HDU4E2 = SIMPSON HOLDOWN PER DET 8/S1.3

= 6" HIGH CONC CURB

= DEPRESSED SLAB AREA (-3" UON), SEE DET 5/S1.2

XxX = NOMINAL SIZE OF STUDS WHEN OTHER THAN 2x6. SEE ALSO SHEAR WALL ELEVATIONS.

■ = WOOD POST CARRYING BEAM ABOVE, SEE FRMG PLAN FOR SIZE

S- - -S = STEPPED BOTTOM OF FOOTING PER DETAIL 3/S1.7

SS- - -SS = STEPPED TOP & BOT FOOTING PER DETAIL 8/S1.1

= RAISED SLAB ON GRADE (+2'-0")

FOOTING SCHEDULE

MARK	PLAN DIMENSION	DEPTH	REINFORCEMENT
W1	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W2	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 10"o.c.
W3	1'-8" WIDE	2'-0"	2 - #6 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W4	2'-0" WIDE	2'-0"	3 - #7 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
F1	3'-0" SQ.	2'-0"	(4) #6 EACH WAY T&B
F2	4'-0" SQ.	2'-0"	(5) #6 EACH WAY T&B
F3	5'-0" SQ.	2'-0"	(7) #6 EACH WAY T&B
F4	6'-0" SQ.	2'-0"	(8) #6 EACH WAY T&B

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	REF DET
C1	HSS 5x5x¼	⅜" x 11" x 0'-11"	14/S1.2
C2	HSS 7x7x¼	1" x 13" x 1'-1"	14/S1.2
C3	HSS 14x14x⅜	¾" x 20" x 1'-8"	8/S2.6
C4	HSS 12x12x⅜	¾" x 18" x 1'-6"	8/S2.6
C5	HSS 7x5x5/16	¾" x 11" x 1'-1"	14/S1.2
C6	HSS 5x5x½	1" x 11" x 0'-11"	14/S1.2

*ALL EXTERIOR COLUMNS SHALL MEET REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)

KEY NOTES

1. EXTEND CONT FTG REINF INTO STEM WALL W/ 90° HORIZ HOOK.
2. FIRE RISER: KEEP PIPES OUT OF FOOTING
3. ELECTRICAL PANEL: KEEP CONDUITS OUT OF FOOTING

FOUNDATION PLAN - BLDG. 200

1/4" ~ 1'-0"

BOTTOM OF FOOTING ELEVATION IS -3'-0" U.O.N.

north

APPROVALS

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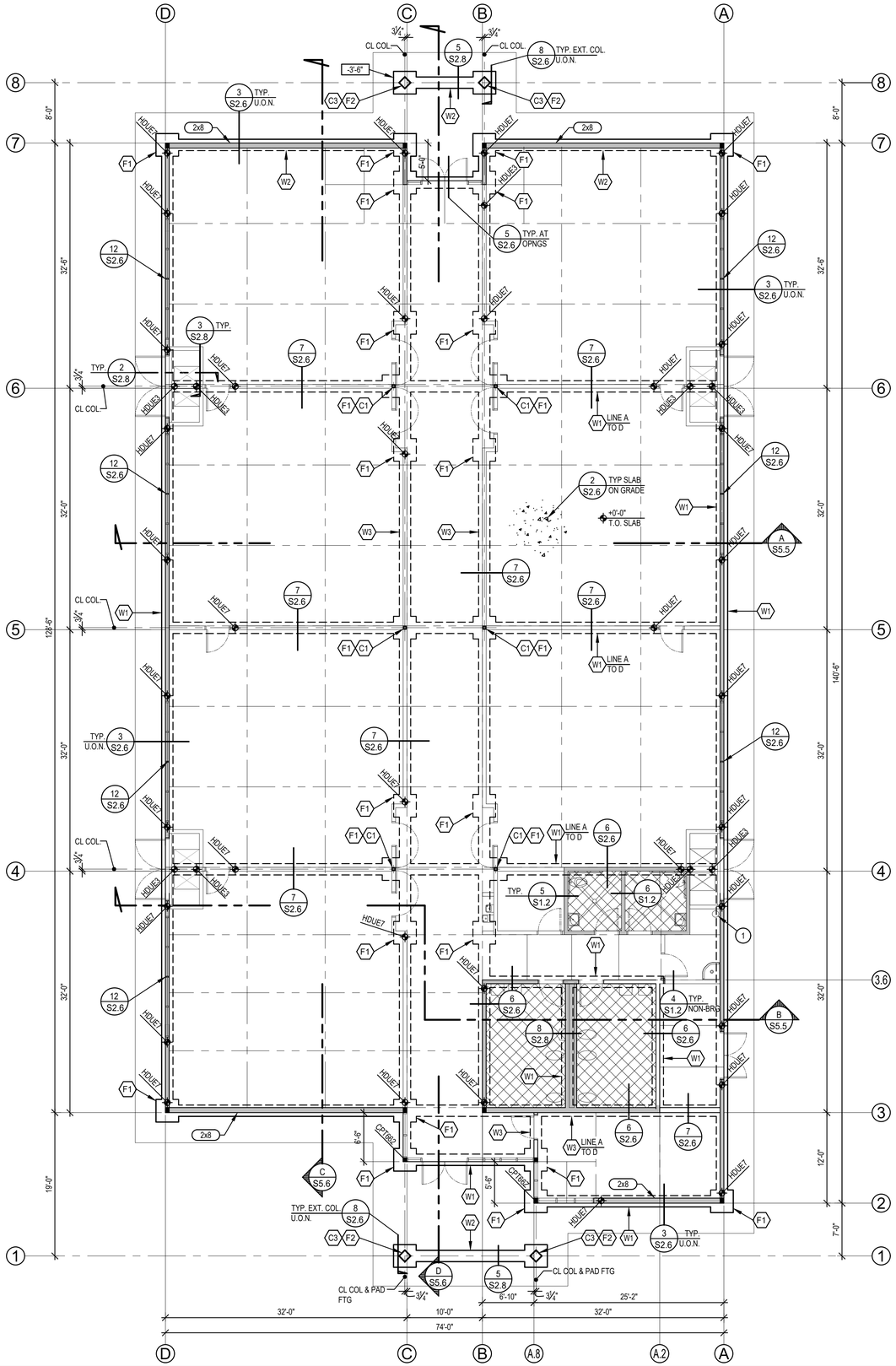
TITLE
BUILDING 200
FOUNDATION PLAN

S2.2

PROJECT 24042

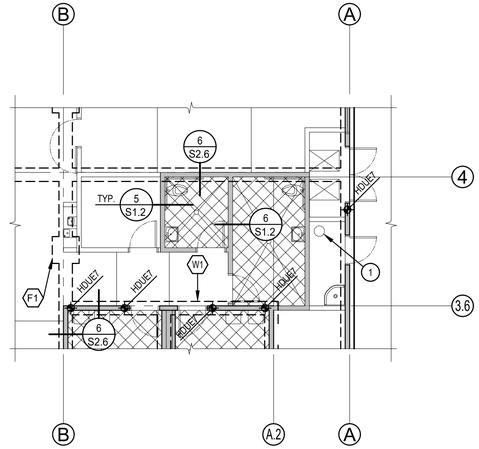
REGISTERED PROFESSIONAL ENGINEER
JACK D. BREMER
No. S5792
Exp: 6-30-27
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STATE OF CALIFORNIA

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7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



PARTIAL FOUNDATION PLAN - BLDG. 400

⅛" ~ 1'-0"
BOTTOM OF FOOTING ELEVATION = -3'-0" U.O.N.



FOUNDATION PLAN - BLDG. 300, 400, 500

⅛" ~ 1'-0"
BOTTOM OF FOOTING ELEVATION = -3'-0" U.O.N.

FOUNDATION NOTES

1. SEE SHEET S2.1 FOR NOTES

LEGEND

CCJ = CRACK CONTROL JOINT PER DET 10/S1.1

CJ = CONSTRUCTION JOINT PER DET 9/S1.1

= COLUMN / FOOTING TYPE

= BOTTOM OF FOOTING ELEVATION

HDUE = SIMPSON HOLDOWN PER DET 8/S1.3

= 6" HIGH CONC CURB

= DEPRESSED SLAB AREA (-3" UON), SEE DET 5/S1.2

XxX = NOMINAL SIZE OF STUDS WHEN OTHER THAN 2x6. SEE ALSO SHEAR WALL ELEVATIONS.

■ = WOOD POST CARRYING BEAM ABOVE, SEE FRMG PLAN FOR SIZE

SS- - -SS = STEPPED BOTTOM OF FOOTING PER DETAIL 3/S1.7

S- - -S = STEPPED TOP & BOT FOOTING PER DETAIL 8/S1.1

= RAISED SLAB ON GRADE (+2'-0")

FOOTING SCHEDULE

MARK	PLAN DIMENSION	DEPTH	REINFORCEMENT
W1	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W2	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 10"o.c.
W3	1'-8" WIDE	2'-0"	2 - #6 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W4	2'-0" WIDE	2'-0"	3 - #7 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
F1	3'-0" SQ.	2'-0"	(4) #6 EACH WAY T&B
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F3	5'-0" SQ.	2'-0"	(7) #6 EACH WAY T&B
F4	6'-0" SQ.	2'-0"	(8) #6 EACH WAY T&B

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	REF DET
C1	HSS 5x5x¼	⅝" x 11" x 0'-11"	14/S1.2
C2	HSS 7x7x¼	1" x 13" x 1'-1"	14/S1.2
C3	HSS 14x14x⅜	¾" x 20" x 1'-8"	8/S2.6
C4	HSS 12x12x⅜	¾" x 18" x 1'-6"	8/S2.6
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C6	HSS 5x5x¼	1" x 11" x 0'-11"	14/S1.2

*ALL EXTERIOR COLUMNS SHALL MEET REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)

KEY NOTES

1. FIRE SPRINKLER RISER: KEEP PIPES BELOW AND OUTSIDE OF FOOTING.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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(559) 627 1926 Fax

TITLE
BUILDINGS
300-400-500
FOUNDATION PLAN

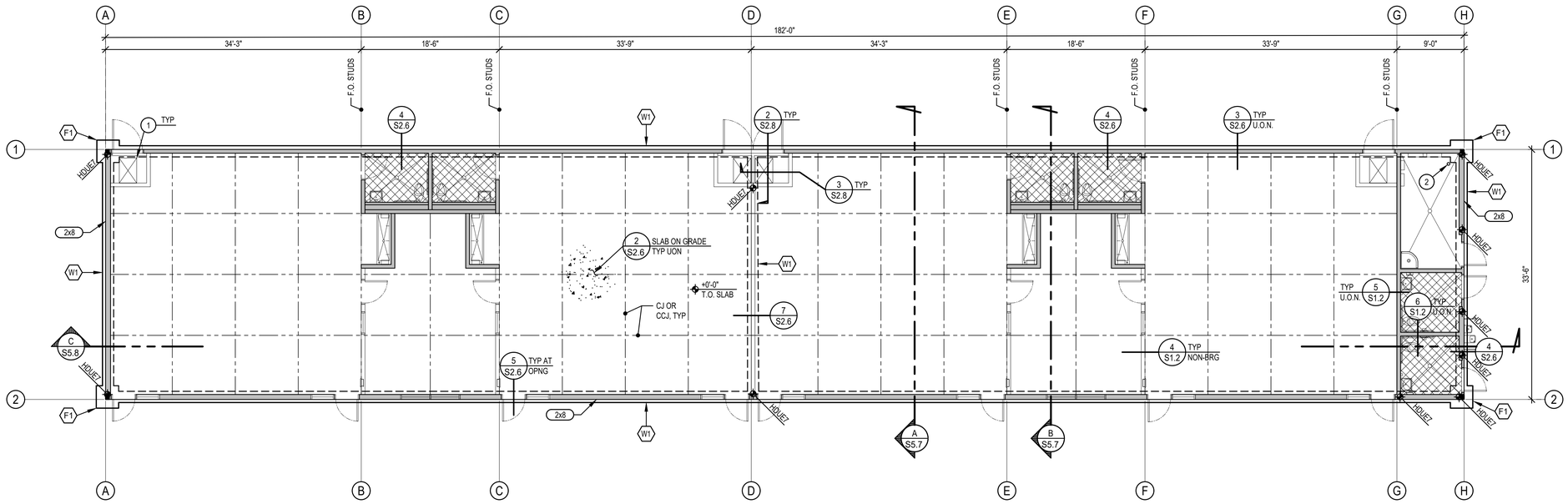
S2.3

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5732
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
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STRUCTURAL ENGINEERS
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asdi@asdiengr.com

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FOUNDATION PLAN - BLDG. 600

1/4" ~ 1'-0"

BOTTOM OF FOOTING ELEVATION = -3'-0" U.O.N.

north

LEGEND

- CCJ = CRACK CONTROL JOINT PER DET 10/S1.1
- CJ = CONSTRUCTION JOINT PER DET 9/S1.1
- = COLUMN / FOOTING TYPE
- = BOTTOM OF FOOTING ELEVATION
- HDU4E2 = SIMPSON HOLDOWN PER DET 8/S1.3
- = 6" HIGH CONC CURB
- = DEPRESSED SLAB AREA (-3" UON), SEE DET 5/S1.2
- XxX = NOMINAL SIZE OF STUDS WHEN OTHER THAN 2x6. SEE ALSO SHEAR WALL ELEVATIONS.
- ■ = WOOD POST CARRYING BEAM ABOVE, SEE FRMG PLAN FOR SIZE
- S- - -S = STEPPED BOTTOM OF FOOTING PER DETAIL 3/S1.7
- SS- - -SS = STEPPED TOP & BOT FOOTING PER DETAIL 8/S1.1
- = RAISED SLAB ON GRADE (+2'-0")

KEY NOTES

1. MECH EQUIPMENT ON FRAMED PLATFORM, SEE MECH DWGS.
2. FIRE SPRINKLER RISER. KEEP PIPES OUT OF FOOTINGS

FOUNDATION NOTES

1. SEE SHEET S2.1 FOR FOUNDATION NOTES.

FOOTING SCHEDULE

MARK	PLAN DIMENSION	DEPTH	REINFORCEMENT
W1	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W2	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 10"o.c.
W3	1'-8" WIDE	2'-0"	2 - #6 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W4	2'-0" WIDE	2'-0"	3 - #7 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
F1	3'-0" SQ.	2'-0"	(4) #6 EACH WAY T&B
F2	4'-0" SQ.	2'-0"	(5) #6 EACH WAY T&B
F3	5'-0" SQ.	2'-0"	(7) #6 EACH WAY T&B
F4	6'-0" SQ.	2'-0"	(8) #6 EACH WAY T&B

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	REF DET
C1	HSS 5x5x1/4	5/8" x 11" x 0'-11"	14/S1.2
C2	HSS 7x7x1/4	1" x 13" x 1'-1"	14/S1.2
C3	HSS 14x14x3/8	3/4" x 20" x 1'-8"	8/S2.6
C4	HSS 12x12x3/8	3/4" x 18" x 1'-6"	8/S2.6
C5	HSS 7x5x5/16	3/4" x 11" x 1'-1"	14/S1.2
C6	HSS 5x5x1/2	1" x 11" x 0'-11"	14/S1.2

ALL EXTERIOR COLUMNS SHALL MEET REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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DATE: 09/22/26

LICENSED ARCHITECT
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No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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REVISIONS

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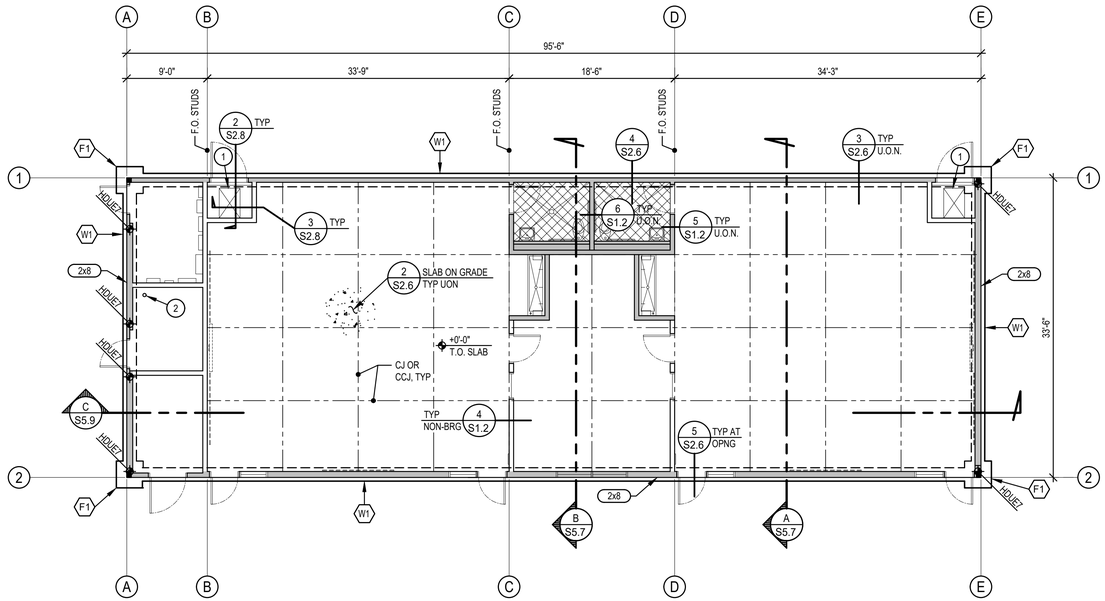
TITLE
BUILDING 600
FOUNDATION PLAN

S2.4

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N. Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



FOUNDATION PLAN - BLDG. 700

1/4" = 1'-0"

BOTTOM OF FOOTING ELEVATION = -3'-0" U.O.N.

north

LEGEND

CCJ = CRACK CONTROL JOINT PER DET 10/S1.1

CJ = CONSTRUCTION JOINT PER DET 9/S1.1

= COLUMN / FOOTING TYPE

= BOTTOM OF FOOTING ELEVATION

= SIMPSON HOLDOWN PER DET 8/S1.3

= 6" HIGH CONC CURB

= DEPRESSED SLAB AREA (-3" UON), SEE DET 5/S1.2

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= WOOD POST CARRYING BEAM ABOVE, SEE FRMG PLAN FOR SIZE

S- - -S = STEPPED BOTTOM OF FOOTING PER DETAIL 3/S1.7

SS- - -SS = STEPPED TOP & BOT FOOTING PER DETAIL 8/S1.1

= RAISED SLAB ON GRADE (+2'-0")

KEY NOTES

1. MECH EQUIPMENT ON FRAMED PLATFORM, SEE MECH DWGS.
2. FIRE SPRINKLER RISER. KEEP PIPES OUT OF FOOTINGS

FOUNDATION NOTES

1. SEE SHEET S2.1 FOR FOUNDATION NOTES.

FOOTING SCHEDULE

MARK	PLAN DIMENSION	DEPTH	REINFORCEMENT
W1	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
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COLUMN SCHEDULE

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C3	HSS 14x14x3/8	3/4" x 20" x 1'-8"	8/S2.6
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ALL EXTERIOR COLUMNS SHALL MEET REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)

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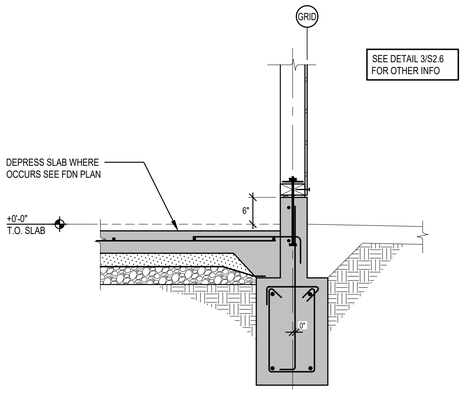
TITLE
BUILDING 700
FOUNDATION PLAN

S2.5

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

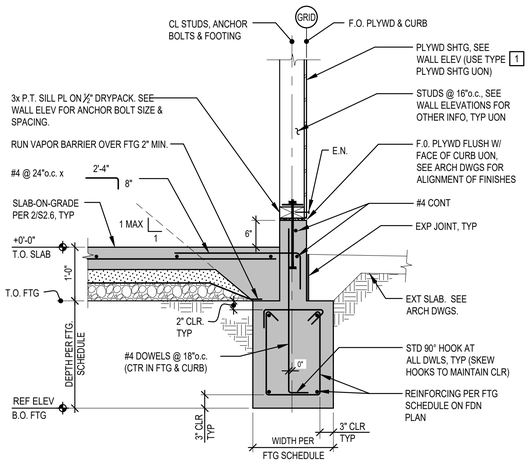
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asdi@asdiengr.com



EXTERIOR FOOTING DETAIL

3/4" ~ 1'-0"

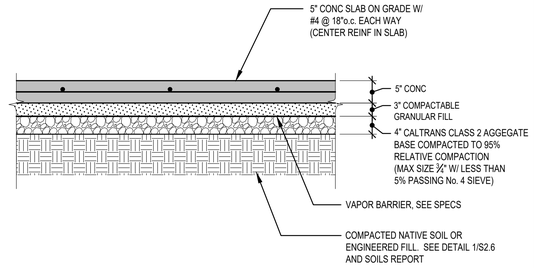
4 / S2.6



TYPICAL EXTERIOR FOOTING DETAIL

3/4" ~ 1'-0"

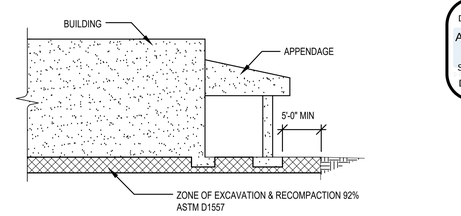
3 / S2.6



SLAB ON GRADE DETAIL

NTS

2 / S2.6



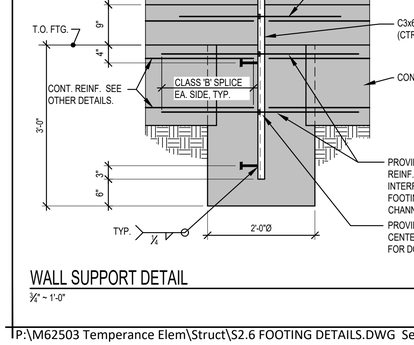
NOTES:

1. AFTER THE CLEARING AND STRIPPING OPERATIONS, THE BUILDING SITES SHALL BE OVER-EXCAVATED TO AT LEAST 24 INCHES BELOW PRECONSTRUCTION SITE GRADE, 12 INCHES BELOW FOUNDATIONS, OR TO THE DEPTH REQUIRED TO REMOVE ANY UNDOCUMENTED FILLS. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE BOTTOM OF ALL EXCAVATIONS TO DETERMINE IF ADDITIONAL EXCAVATION IS NECESSARY.
2. EXTEND THE ZONE OF SCARIFICATION AND COMPACTION A MINIMUM OF 5 FEET BEYOND THE PERIMETER OF BUILDING FOUNDATIONS.
3. UPON COMPLETION OF THE OVER-EXCAVATION PROCEDURES, THE BOTTOM OF THE EXPOSED SOIL SURFACES SHALL BE SCARIFIED TO A DEPTH OF AT LEAST 12 INCHES, WORKED UNTIL UNIFORM AND FREE FROM LARGE CLODS, MOISTURE CONDITIONED TO SLIGHTLY ABOVE OPTIMUM MOISTURE CONTENT AND COMPACTED TO 92 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.
4. ALL FILLS SHALL BE PLACED UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER AND SHALL BE IN ACCORDANCE TO THE GEOTECHNICAL INVESTIGATION REPORT SPECIFIC TO THIS PROJECT.
5. SEE SPECIFICATIONS AND SOILS REPORT FOR OTHER INFO.

EXCAVATION AND COMPACTION

NTS 3000-00

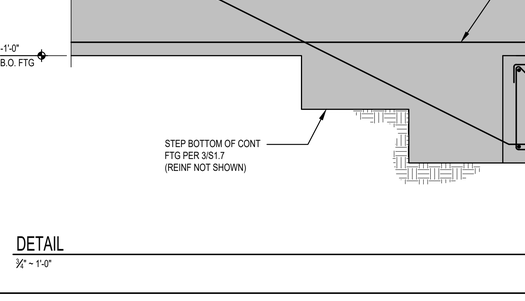
1 / S2.6



DETAIL

3/4" ~ 1'-0"

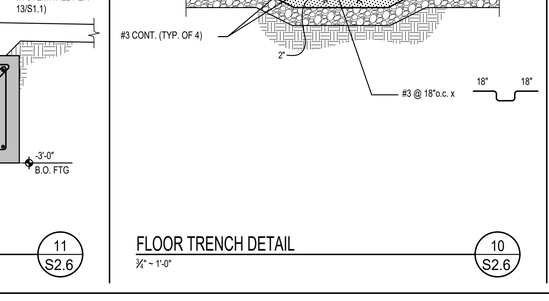
8 / S2.6



INTERIOR WALL FOOTING

3/4" ~ 1'-0"

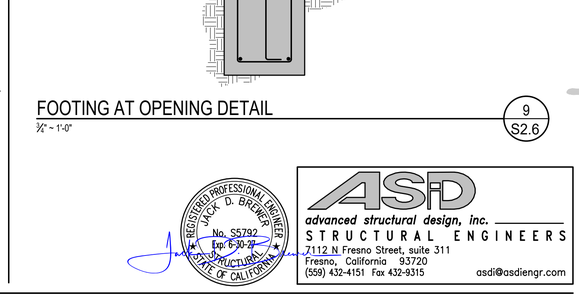
7 / S2.6



INTERIOR WALL FOOTING

3/4" ~ 1'-0" (WITH CURB)

6 / S2.6



FOOTING AT OPENING DETAIL

3/4" ~ 1'-0"

5 / S2.6

WALL SUPPORT DETAIL

3/4" ~ 1'-0"

12 / S2.6

DETAIL

3/4" ~ 1'-0"

11 / S2.6

FLOOR TRENCH DETAIL

3/4" ~ 1'-0"

10 / S2.6

FOOTING AT OPENING DETAIL

3/4" ~ 1'-0"

9 / S2.6

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

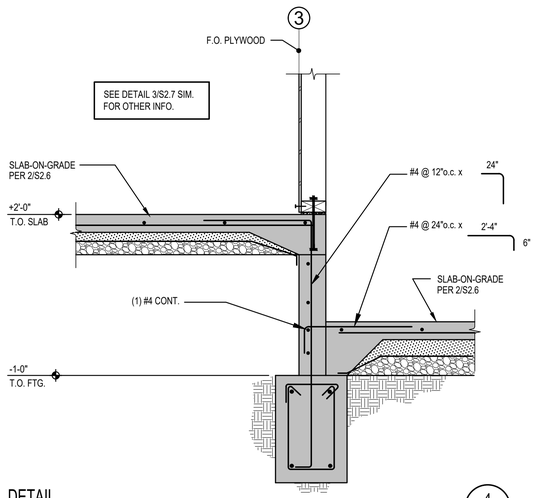
TITLE
FOOTING DETAILS

S2.6

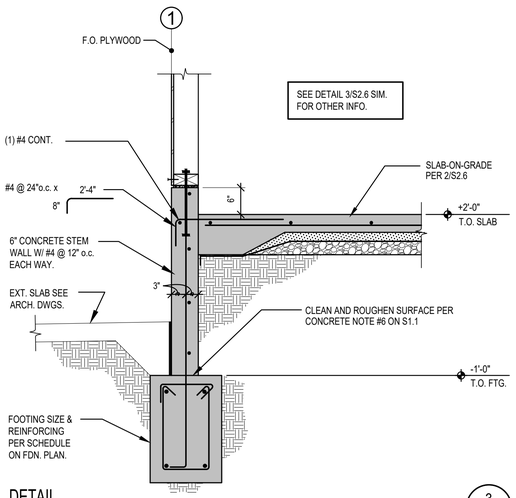
PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENNER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

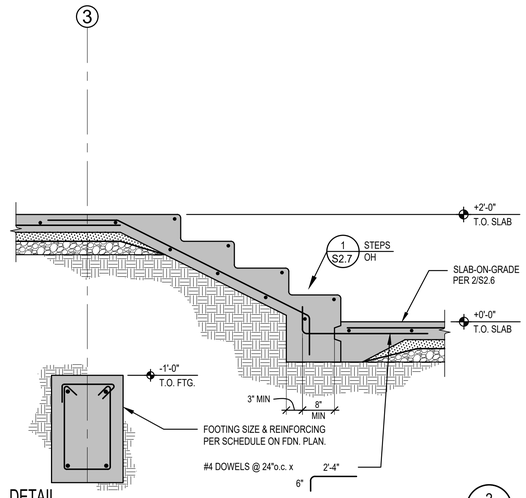
ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



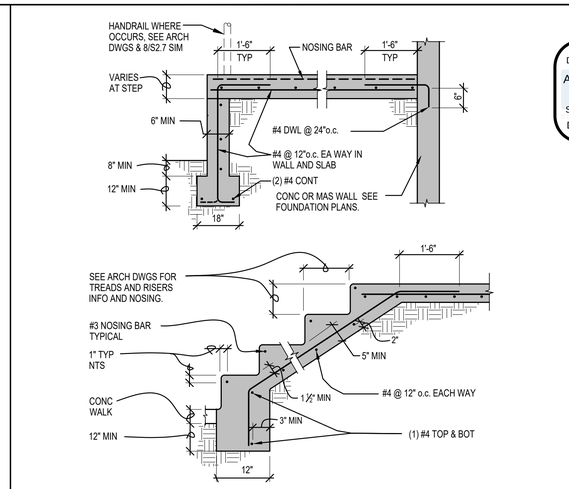
DETAIL
¾" ~ 1'-0"
4 S2.7



DETAIL
¾" ~ 1'-0"
3 S2.7



DETAIL
¾" ~ 1'-0"
2 S2.7



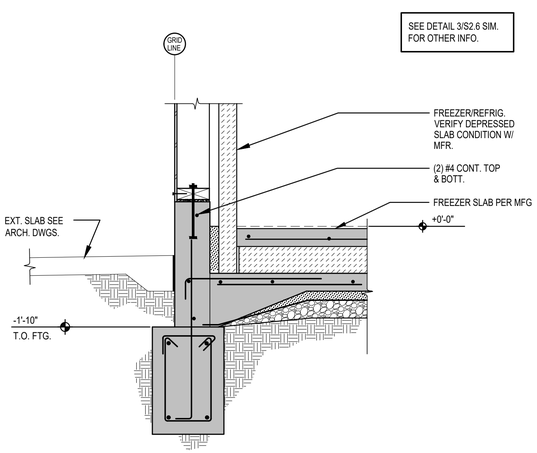
CONC STEP ON GRADE
NTS 3106-01
1 S2.7

EXTERIOR LANDING DETAIL
¾" ~ 1'-0"
8 S2.7

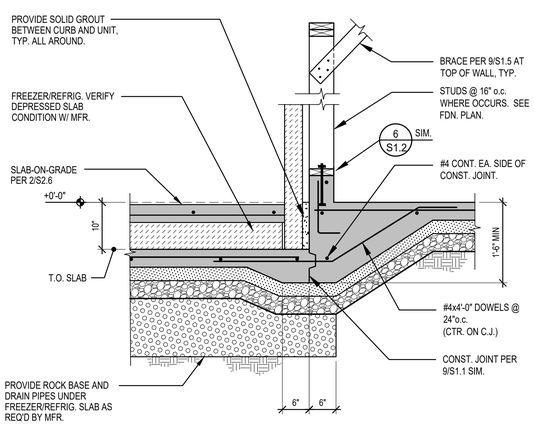
OPENING AT EXTERIOR LANDING
¾" ~ 1'-0"
7 S2.7

NOT USED
¾" ~ 1'-0"
6 S2.7

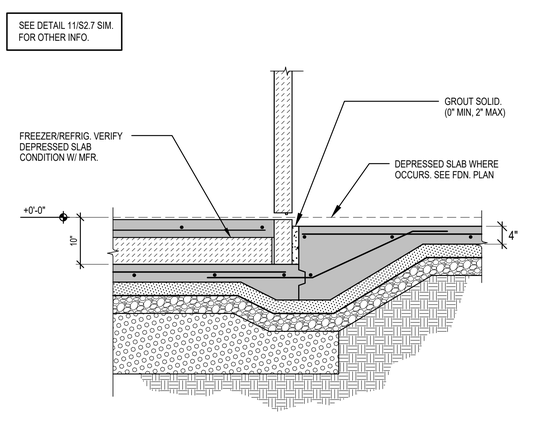
CONC. RAMP ON GRADE
¾" ~ 1'-0"
5 S2.7



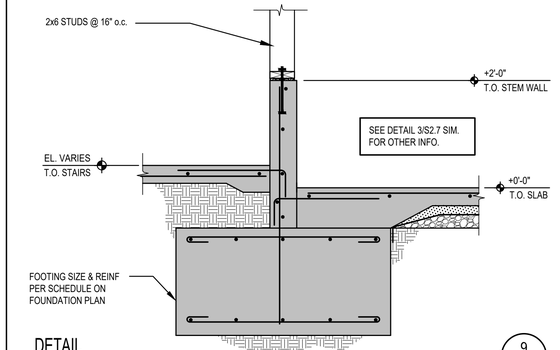
FREEZER/REFRIG. SLAB
¾" ~ 1'-0"
12 S2.7



FREEZER/REFRIG. SLAB
¾" ~ 1'-0"
11 S2.7



FREEZER/REFRIG. SLAB
¾" ~ 1'-0"
10 S2.7



DETAIL
¾" ~ 1'-0"
9 S2.7

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

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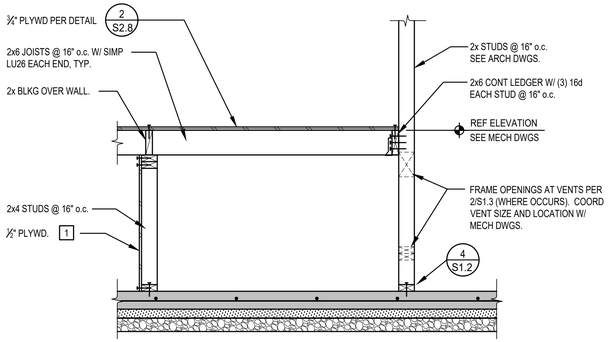
TITLE
FOOTING DETAILS

S2.7

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREMER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

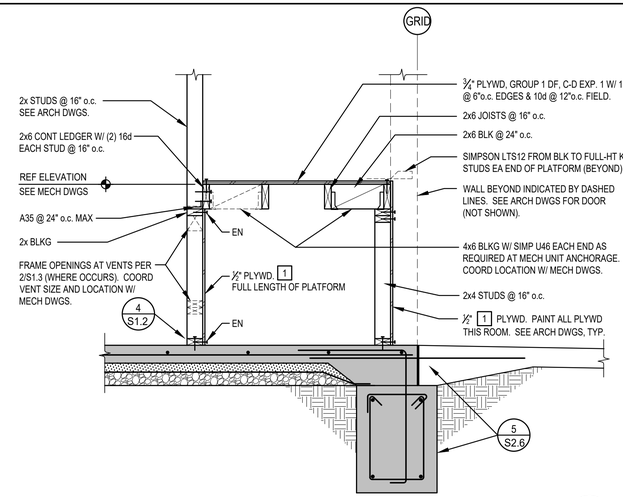
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(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



PLATFORM DETAIL AT AIR HANDLER

¾" ~ 1'-0"

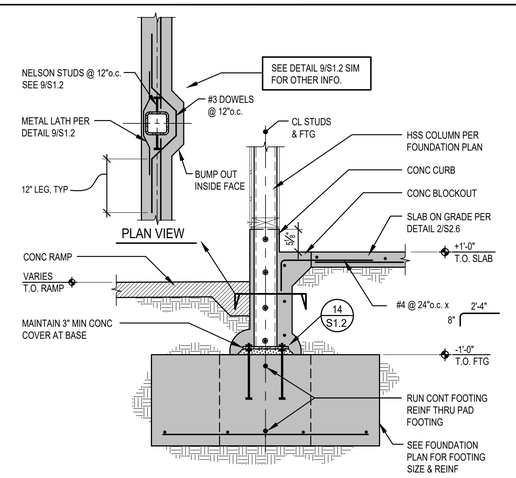
3 S2.8



PLATFORM DETAIL AT AIR HANDLER

½" ~ 1'-0"

2 S2.8



DETAIL

NTS

1 S2.8

DETAIL

½" ~ 1'-0"

8 S2.8

CONC. RAMP ON GRADE

½" ~ 1'-0"

7 S2.8

FOOTING AT PLUMBING WALL

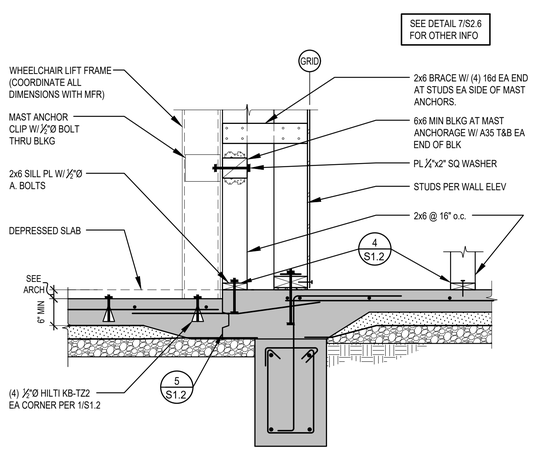
½" ~ 1'-0"

6 S2.8

GRADE BEAM AT EXTERIOR

½" ~ 1'-0"

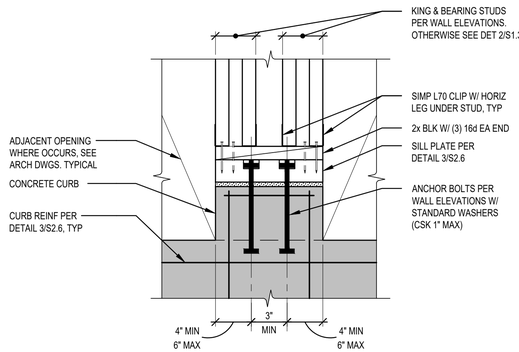
5 S2.8



DETAIL AT LIFT

½" ~ 1'-0"

10 S2.8



DETAIL AT SILL PLATE

1½" ~ 1'-0"

9 S2.8

REGISTERED PROFESSIONAL ENGINEER JACK D. BRENGER No. S5792 Exp. 6-30-27 STRUCTURAL STATE OF CALIFORNIA

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advanced structural design, inc.
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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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APP: 02-123774 INC:
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DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

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SANGER, FRESNO COUNTY, CA

REVISIONS

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(559) 627-1926 Fax

TITLE
FOOTING DETAILS

S2.8

PROJECT 24042

I-JOIST SCHEDULE

MARK	SIZE	CAMBER	SPACING
J1	NOT USED	-	-
J2	18" RED-I90	NONE	24"o.c.
J3	20" RED-I90	NONE	24"o.c.
J4	22" RED-I90	NONE	24"o.c.

BEAM SCHEDULE

MARK	SIZE	MARK	SIZE
B1	4x6	B6	6x6
B2	4x8	B7	6x8
B3	4x10	B8	6x10
B4	4x12	B9	6x12
B5	4x14	B10	6x14

GLU-LAM BEAM SCHEDULE

MARK	SIZE	CAMBER
G1	5⅛" x 12"	R=2000'
G2	5⅛" x 15"	R=2000'
G3	5⅛" x 18"	R=2000'
G4	6¾" x 18"	R=2000'
G5	5⅛" x 13½"	R=2000'
G6	6¾" x 12"	R=2000'
G8	5⅛" x 30"	R=2000'
G9	6¾" x 36"	R=2000'
G10	5⅛"x19½"	R=2000'
G11	6 ¾"x39"	R=2000'

FRAMING NOTES

1. SEE TYPICAL DETAIL SHEETS FOR GENERAL NOTES, SCHEDULES, AND TYPICAL DETAILS. WHERE SPECIFIC DETAILS ARE NOT SHOWN, THE TYPICAL DETAILS SHALL APPLY.
2. VERIFY SIZE AND LOCATION OF OPENINGS FOR EQUIPMENT WITH MECHANICAL AND ELECTRICAL DRAWINGS. LOCATE UNITS SO DUCT DROPS FALL BETWEEN JOISTS AS SHOWN. DO NOT CUT JOISTS EXCEPT WHERE SHOWN ON DRAWINGS. UNIT WEIGHTS SHOWN ARE THE WEIGHTS USED FOR DESIGN OF THE FRAMING. WEIGHTS OF UNITS SHALL NOT EXCEED THESE WEIGHTS WITHOUT THE ADVANCE APPROVAL OF THE STRUCTURAL ENGINEER.
3. SEE TYPICAL DETAILS FOR FRAMING AT ROOF OPENINGS, UON.
4. SEE TYPICAL DETAILS FOR FRAMING OF EQUIPMENT PLATFORMS.
5. PROVIDE POSTS UNDER ALL BEAMS UNLESS DETAILS SHOW OTHERWISE. POSTS SHALL BE AT LEAST AS WIDE AS THE BEAMS AND AS DEEP AS THE WALL STUDS.
6. PROVIDE PLYWOOD EDGE NAILING (EN) ALONG ALL RAFTERS, BLOCKING, AND STRUTS ALONG SHEAR WALL LINES.
7. ALL SIMPSON CONNECTORS ARE TAKEN FROM CATALOG C-2024 BY SIMPSON STRONGTIE INC.
8. IT IS NOT THE INTENT OF THESE DRAWINGS TO SHOW FIRE BLOCKING OR BLOCKING REQUIRED FOR FINISHES OR OTHER NON-STRUCTURAL ELEMENTS. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
9. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATIONS OF ROOF ACCESSES. PROVIDE FRAMING AND BLOCKING AROUND OPENINGS PER TYPICAL DETAILS UON WHERE APPLICABLE, FRAME OPENING IN CEILING FRAMING ALSO.
10. PROVIDE FRAMING AT ALL HARD CEILINGS PER DET 12/S1.5 UON. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF HARD CEILINGS.

BEAM SIZE PER PLAN.
W18x35 c= 3/4"
CAMBER

I-JOIST NOTES

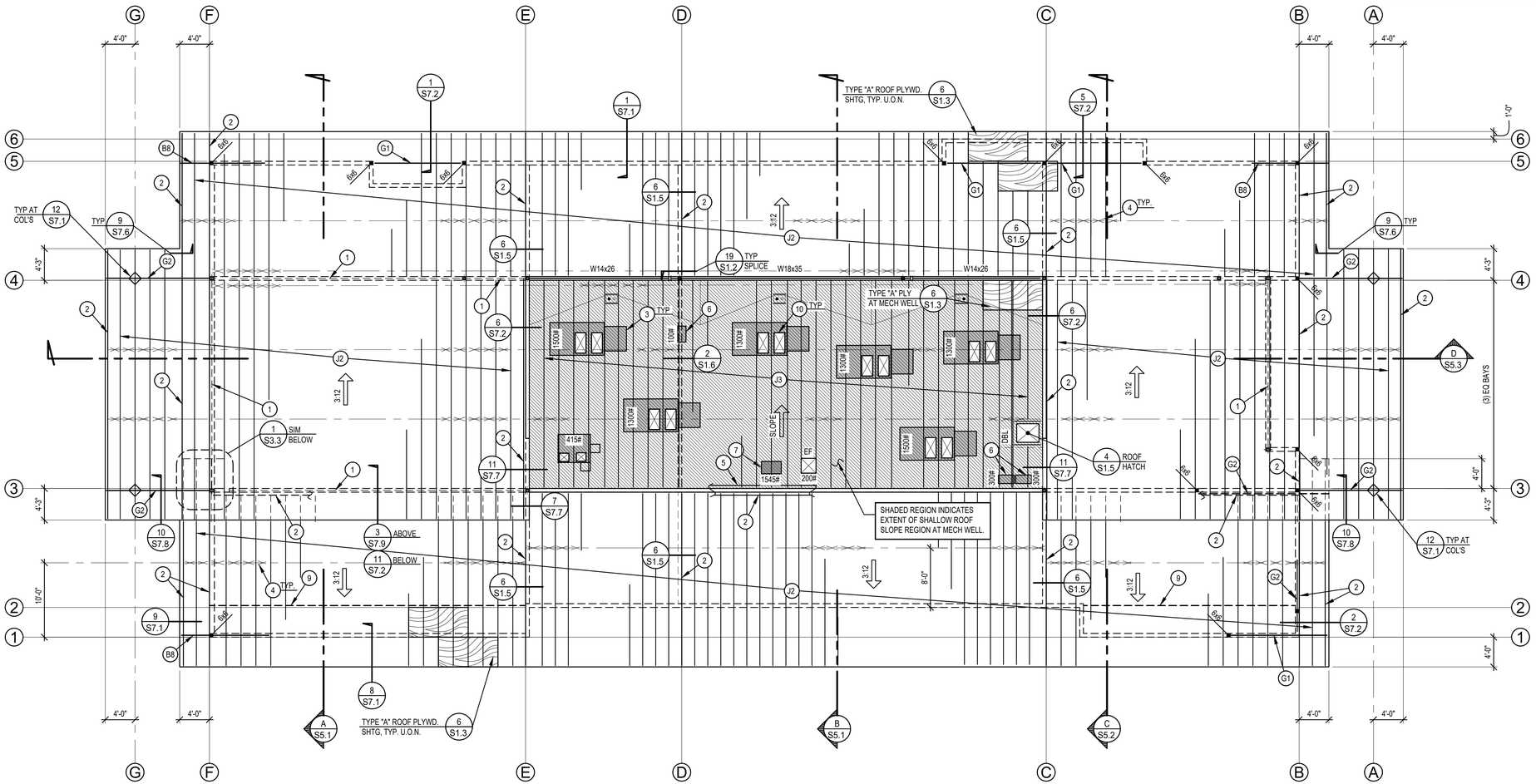
1. SEE DETAIL 1/S1.5 FOR I-JOIST PROPERTIES.
2. SEE DETAIL 7/S1.5 FOR I-JOIST BLOCKING.
3. SEE DETAIL 3/S1.5 & 1/S1.6 FOR ATTACHMENT OF I-JOIST TO BEARINGS.
4. PROVIDE X-BRIDGING AT 12'-0"o.c. OF ALL I-JOIST'S, SEE DETAIL 10/S1.5.
5. SEE DETAIL 11/S1.5 FOR DOUBLE I-JOIST'S. PROVIDE SPECIAL HANGER MADE FOR DOUBLE JOISTS.
6. EACH I-JOIST SHALL BE IDENTIFIED BY A STAMP INDICATING THE JOIST TYPE, ESR REPORT NUMBER, MANUFACTURER'S NAME, PLANT NUMBER, AND PFS CORPORATION LOGO AND THEIR REPORT NUMBER.

GLU-LAM BEAM NOTES

1. ALL GLU-LAM BEAMS SHALL MEET THE FOLLOWING REQUIREMENTS AND SHALL BE COMB 24F-V4 OR V-8 AS NOTED ON DRAWINGS. SEE DETAIL 13/S1.4 AND GLU-LAM SCHEDULE FOR OTHER INFORMATION.
   CONDITION OF USE- DRY
   SPECIES- DOUGLAS FIR
   STANDARDS- ANSI/AITC A190.1, ASTM D3737, AITC 200, ASTM D905, AND TITLE 24.
   Fb=2400psi Fv=165 psi Fcp=650 psi
   E=1,800,000 psi
   SERVICE TEMPERATURE--LESS THAN 150° F.
2. PROVIDE POSITIVE CAMBER AT MID-SPAN AS INDICATED ON THE GLU-LAM SCHEDULE.
3. ADHESIVES MUST BE "WET-USE" ADHESIVES. "DRY-USE" ADHESIVES SHALL NOT BE USED.
4. MOISTURE CONTENT AT TIME OF GLUING SHALL NOT EXCEED 12%. THE MINIMUM MOISTURE CONTENT SHALL NOT BE LESS THAN 7%.

KEY NOTES

1. BEAM BELOW. SEE CEILING FRAMING PLAN FOR SIZE.
2. 1¾" x 18" REDLAM LVL (2.0E)
3. MECH UNIT ON FACTORY METAL CURB. SEE MECH. DWGS. AND DETAIL 8/S1.5.
4. X-BRIDGING PER DETAIL 10/S1.5.
5. 1 1/2x20" REDBUILT LSL LEDGER (1.3E)
6. ROOF-MOUNTED MECH. EQUIP ON WOOD PLATFORM. SEE MECH DWGS & DETAIL 18/S1.6 FOR PLATFORM.
7. XFMR. SEE ELECT. DWGS & PLATFORM DET 18/S1.6
8. NOT USED
9. BEV 6x6 STRUT BELOW I-JOIST, SEE WALL ELEV
10. DUCT DROPS SHALL FIT BETWEEN I-JOISTS AT TYPICAL SPACING. DO NOT INTERRUPT I-JOISTS.



ROOF FRAMING PLAN - BLDG. 100

⅛" = 1'-0"

north

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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TITLE
BUILDING 100 ROOF FRAMING PLAN

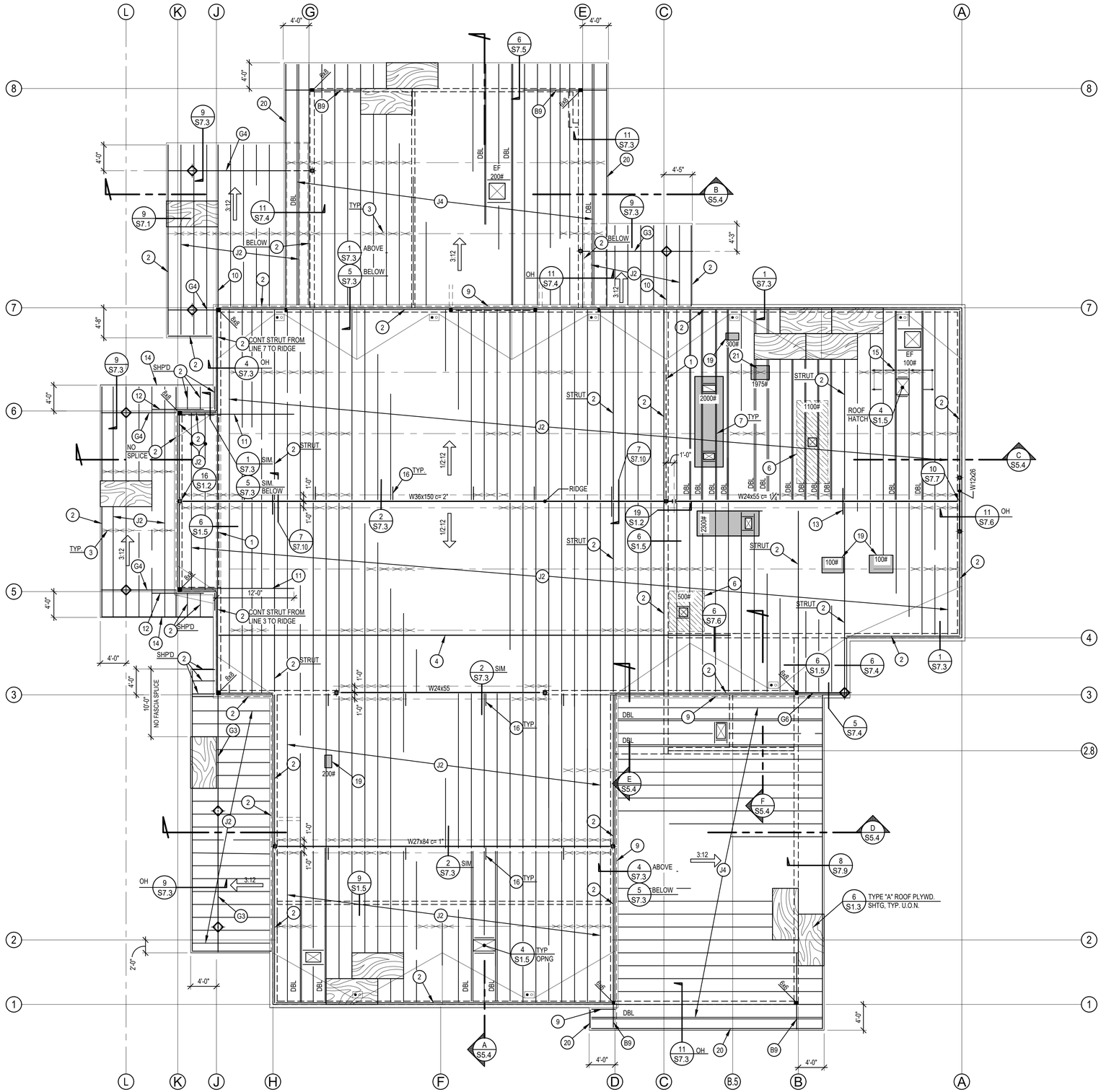
S3.1

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREMER
No. S5792
Exp: 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
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P:\M62503 Temperance Elem\Struct\S3.1.ROOF.100.DWG Sep 15 2026 11:41am



ROOF FRAMING PLAN - BLDG. "200"

1/8" = 1'-0"

north

FRAMING NOTES

1. SEE SHEET S3.1 FOR COMPLETE FRAMING NOTES.

GLU-LAM BEAM NOTES

1. SEE SHEET S3.' FOR GLU-LAM BEAM NOTES.

I-JOIST NOTES

1. SEE SHEET S3.1 FOR I-JOIST NOTES.

BEAM SCHEDULE

MARK	SIZE	MARK	SIZE
B1	4x6	B6	6x6
B2	4x8	B7	6x8
B3	4x10	B8	6x10
B4	4x12	B9	6x12
B5	4x14	B10	6x14

GLU-LAM BEAM SCHEDULE

MARK	SIZE	CAMBER
G1	5⅛" x 12"	R=2000'
G2	5⅛" x 15"	R=2000'
G3	5⅛" x 18"	R=2000'
G4	6¾" x 18"	R=2000'
G5	5⅛" x 13½"	R=2000'
G6	6¾" x 12"	R=2000'
G8	5⅛" x 30"	R=2000'
G9	6¾" x 36"	R=2000'
G10	5⅛"x19½"	R=2000'
G11	6 ¾"x39"	R=2000'

I-JOIST SCHEDULE

MARK	SIZE	CAMBER	SPACING
J1	NOT USED	-	-
J2	18" RED-I90	NONE	24"o.c.
J3	20" RED-I90	NONE	24"o.c.
J4	22" RED-I90	NONE	24"o.c.

KEY NOTES

1. BEAM BELOW. SEE CEILING FRAMING PLAN FOR SIZE.
2. 1¾"x18" REDLAM LVL (2.0E)
3. I-JOIST X-BRIDGING PER DETAIL 10/S1.5.
4. SIMPSON STRAP OVER ROOF PLYWD. SEE WALL ELEVATION FOR SIZE & NAILING.
5. NOT USED
6. KITCHEN HOOD PER MECH. DWG'S & DET 1/S1.7
7. MECH UNIT ON FACTORY METAL CURB. SEE MECHANICAL DRAWINGS AND DETAIL 8/S1.5
8. NOT USED
9. 1½"x22" REDBUILT LSL (1.3E)
10. PROVIDE ADD'L I-JOIST AS REQ'D TO ALIGN W/ WALL PER DETAIL 11/S7.8.
11. SIMP CS16 STRAP OVER ROOF PLYWD W/ 10d @ 4⅚ "o.c. TO LVL RIM & TO 3x4 FLAT BLKG AT ROOF. AVOID NAILING ON TOP OF WEB.
12. SIMP. CS16 STRAP x 8'-0" LONG OVER WALL PLYWD W/ 10d @ 4⅚"o.c. SEE DETAIL 6/S1.4.
13. SIMP MSTA36 STRAP OVER ROOF PLYWD (CENTER ON RIDGE)
14. 2x FASCIA SHALL BE ONE PIECE CONTINUOUS (NO SPLICE)
15. ROOF-MOUNTED GUARD RAIL, SEE ARCH DWGS AND DETAIL 2/S7.5.
16. L 3x3x¼ BRACE @ 12'-0"o.c. MAX. SEE DETAIL 12/S7.7.
17. NOT USED
18. NOT USED
19. MECH UNIT ON LEVEL WOOD PERFORM. SEE MECHANICAL DRAWINGS AND DETAIL 18/S1.6
20. 3½"x22" REDLAM LVL (2.0E)
21. ROOF-MOUNTED XFMR: SEE ELEC DWGS & PLATFORM DETAIL 18/S1.6

APPROVALS

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TITLE
BUILDING 200 ROOF FRAMING PLAN

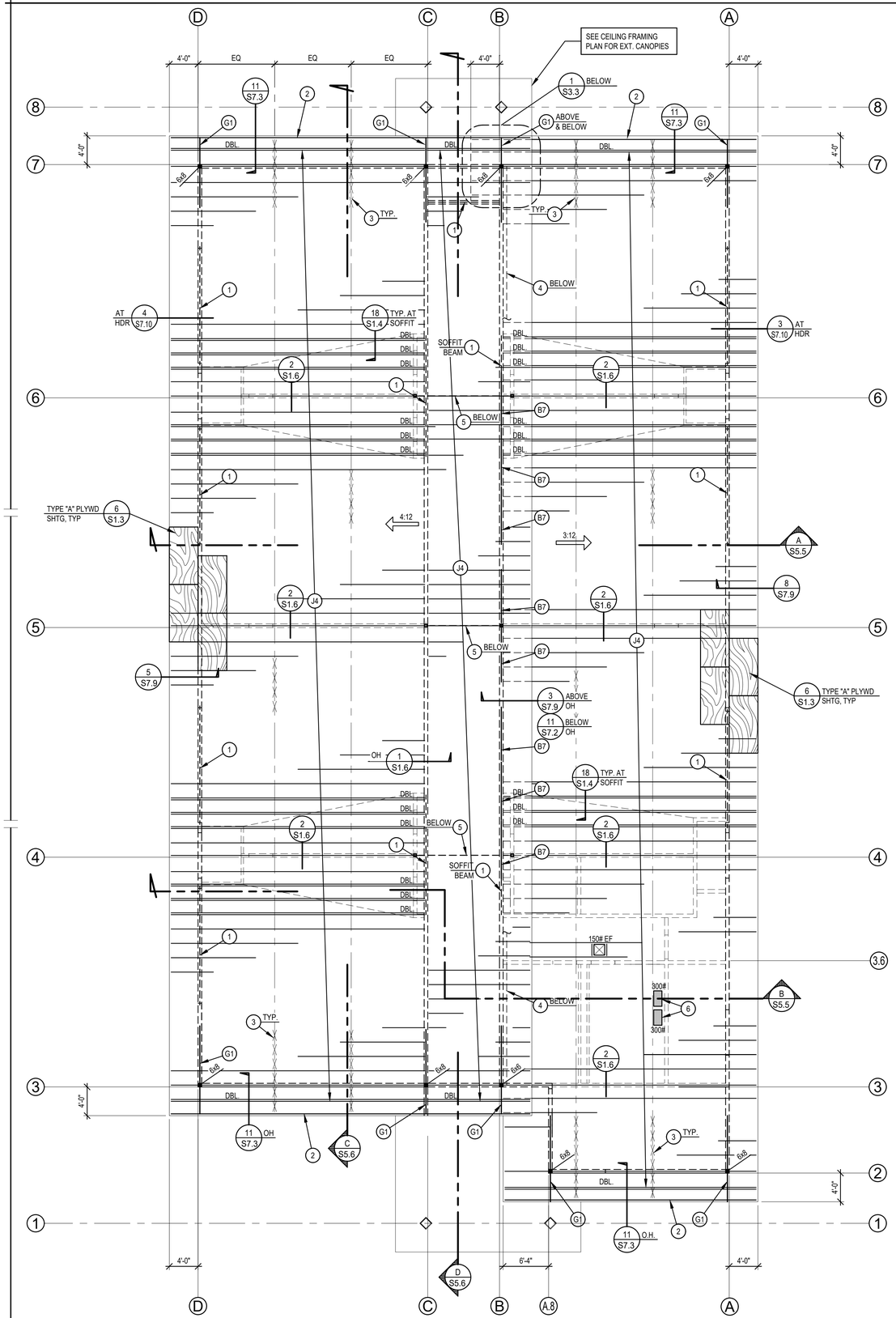
S3.2

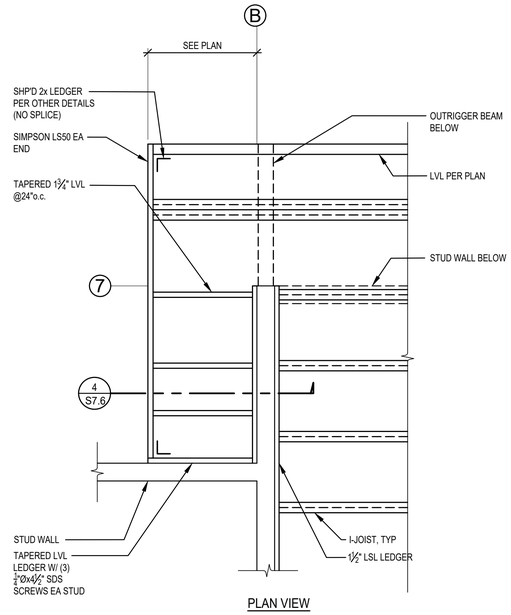
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asdi@asdiengr.com

P:\M62503 Temperance Elem\Struct\S3.2.ROOF.200.DWG Sep 15 2026 11:41am





PLAN VIEW

PARTIAL PLAN AT LOW ROOF 1 S3.3

1/8" = 1'-0"

ROOF FRAMING PLAN - BLDG. 300, 400, 500

1/8" = 1'-0"

north

FRAMING NOTES

1. SEE SHEET S3.1 FOR COMPLETE FRAMING NOTES.

GLU-LAM BEAM NOTES

1. SEE SHEET S3.1 FOR GLU-LAM BEAM NOTES.

I-JOIST NOTES

1. SEE SHEET S3.1 FOR I-JOIST NOTES.

BEAM SCHEDULE

MARK	SIZE	MARK	SIZE
B1	4x6	B6	6x6
B2	4x8	B7	6x8
B3	4x10	B8	6x10
B4	4x12	B9	6x12
B5	4x14	B10	6x14

I-JOIST SCHEDULE

MARK	SIZE	CAMBER	SPACING
J1	NOT USED	-	-
J2	18" RED-I90	NONE	24"o.c.
J3	20" RED-I90	NONE	24"o.c.
J4	22" RED-I90	NONE	24"o.c.

GLU-LAM BEAM SCHEDULE

MARK	SIZE	CAMBER
G1	5½" x 12"	R=2000'
G2	5½" x 15"	R=2000'
G3	5½" x 18"	R=2000'
G4	6½" x 18"	R=2000'
G5	5½" x 13½"	R=2000'
G6	6½" x 12"	R=2000'
G8	5½" x 30"	R=2000'
G9	6½" x 36"	R=2000'
G10	5½"x19½"	R=2000'
G11	6 ¾"x39"	R=2000'

KEY NOTES

1. BEAM BELOW. SEE CEILING FRAMING PLAN FOR SIZE.
2. 3½"x22" REDLAM LVL (2.0E)
3. X-BRIDGING PER DETAIL 10/S1.5
4. 1½"x22" REDBUILT LSL (1.3E)
5. HSS 5x5x¼ STRUT, SEE ELEVATIONS
6. MECH UNIT ON LEVEL WOOD PERFORM. SEE MECHANICAL DRAWINGS AND DETAIL 18/S1.6

NOTE: NOT ALL MEMBERS SHOWN ON SCHEDULES ARE USED ON EVERY SHEET.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDINGS
300-400-500
ROOF FRAMING PLAN

S3.3

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER JACK D. BROWER No. S5792 Exp: 6-30-27 STRUCTURAL STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
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asdi@asdiengr.com

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I-JOIST SCHEDULE			
MARK	SIZE	CAMBER	SPACING
J1	NOT USED	-	-
J2	18" RED-I90	NONE	24"o.c.
J3	20" RED-I90	NONE	24"o.c.
J4	22" RED-I90	NONE	24"o.c.

GLU-LAM BEAM SCHEDULE		
MARK	SIZE	CAMBER
G1	5⅛" x 12"	R=2000'
G2	5⅛" x 15"	R=2000'
G3	5⅛" x 18"	R=2000'
G4	6¾" x 18"	R=2000'
G5	5⅛" x 13½"	R=2000'
G6	6¾" x 12"	R=2000'
G8	5⅛" x 30"	R=2000'
G9	6¾" x 36"	R=2000'
G10	5⅛"x19½"	R=2000'
G11	6 ¾"x39"	R=2000'

FRAMING NOTES

1. SEE SHEET S3.1 FOR WOOD FRAMING NOTES.

I-JOIST NOTES

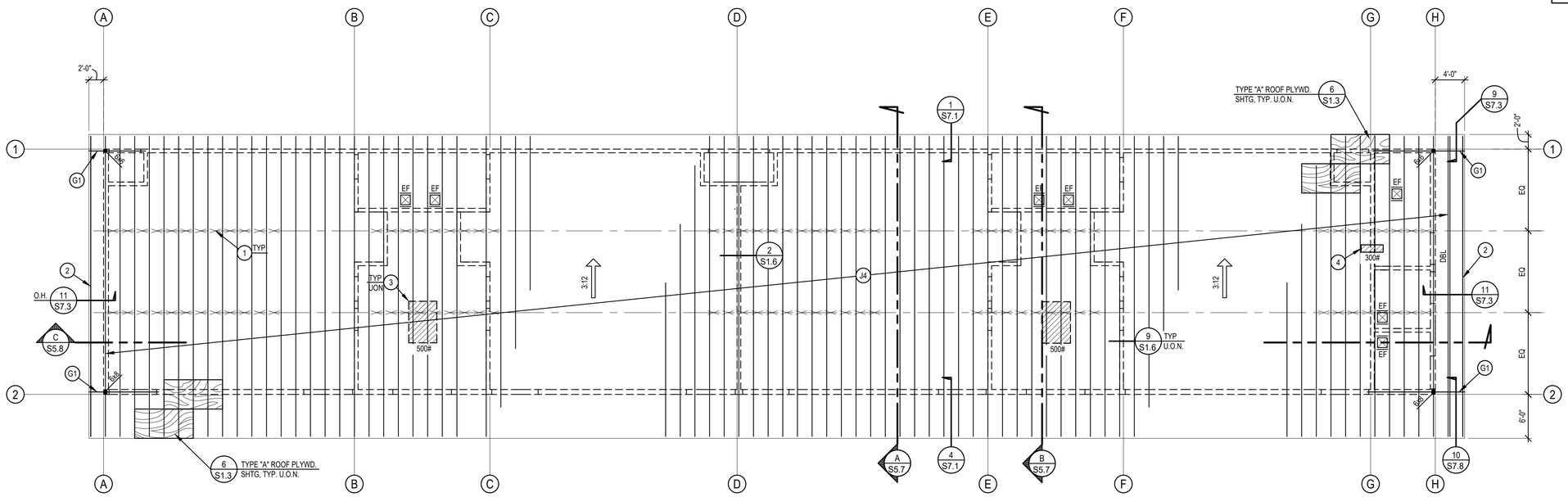
1. SEE SHEET S3.1 FOR I-JOIST NOTES.

GLU-LAM BEAM NOTES

1. SEE SHEET S3.1 FOR GLU-LAM BEAM NOTES.

KEY NOTES

1. I-JOIST X-BRIDGING PER DET 10/S1.5
2. 3½"x22" REDLAM LVL (2.0E)
3. SUSPENDED MECH EQUIPMENT IN ATTIC BELOW, SEE MECH DWGS & DET 2/S1.7 FOR HANGER ATTACHMENT
4. ROOF MOUNTED MECH UNIT, SEE MECHANICAL DRAWINGS AND DETAIL 18/S1.6



ROOF FRAMING PLAN - BLDG. 600

1/8" = 1'-0"

north

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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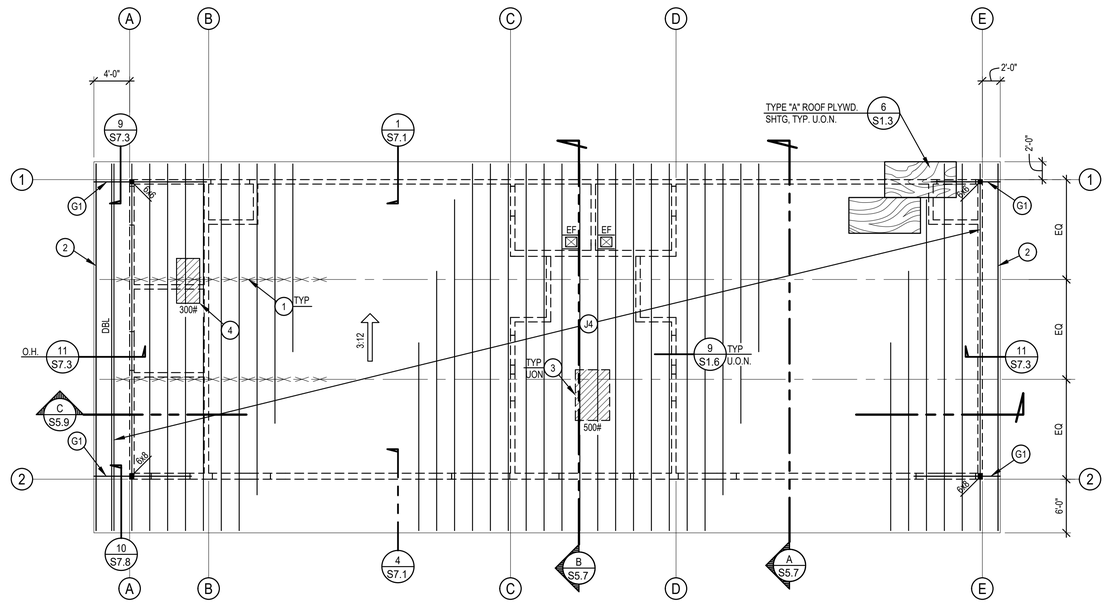
TITLE
BUILDING 600
ROOF FRAMING PLAN

S3.4

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREMER
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ROOF FRAMING PLAN - BLDG. 700

1/8" = 1'-0"

north

I-JOIST SCHEDULE

MARK	SIZE	CAMBER	SPACING
J1	NOT USED	-	-
J2	18" RED-I90	NONE	24"o.c.
J3	20" RED-I90	NONE	24"o.c.
J4	22" RED-I90	NONE	24"o.c.

GLU-LAM BEAM SCHEDULE

MARK	SIZE	CAMBER
G1	5⅛" x 12"	R=2000'
G2	5⅛" x 15"	R=2000'
G3	5⅛" x 18"	R=2000'
G4	6¾" x 18"	R=2000'
G5	5⅛" x 13½"	R=2000'
G6	6¾" x 12"	R=2000'
G8	5⅛" x 30"	R=2000'
G9	6¾" x 36"	R=2000'
G10	5⅛"x18½"	R=2000'
G11	6 ¾"x39"	R=2000'

FRAMING NOTES

1. SEE SHEET S3.1 FOR WOOD FRAMING NOTES.

I-JOIST NOTES

1. SEE SHEET S3.1 FOR I-JOIST NOTES.

GLU-LAM BEAM NOTES

1. SEE SHEET S3.1 FOR GLU-LAM BEAM NOTES.

KEY NOTES

1. I-JOIST X-BRIDGING PER DET 10/S1.5
2. 3½"x22" REDLAM LVL (2.0E)
3. SUSPENDED MECH EQUIPMENT IN ATTIC BELOW, SEE MECH DWGS & DET 2/S1.7 FOR HANGER ATTACHMENT
4. ROOF MOUNTED MECH UNIT, SEE MECHANICAL DRAWINGS AND DETAIL 18/S1.6

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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SANGER, FRESNO COUNTY, CA

REVISIONS

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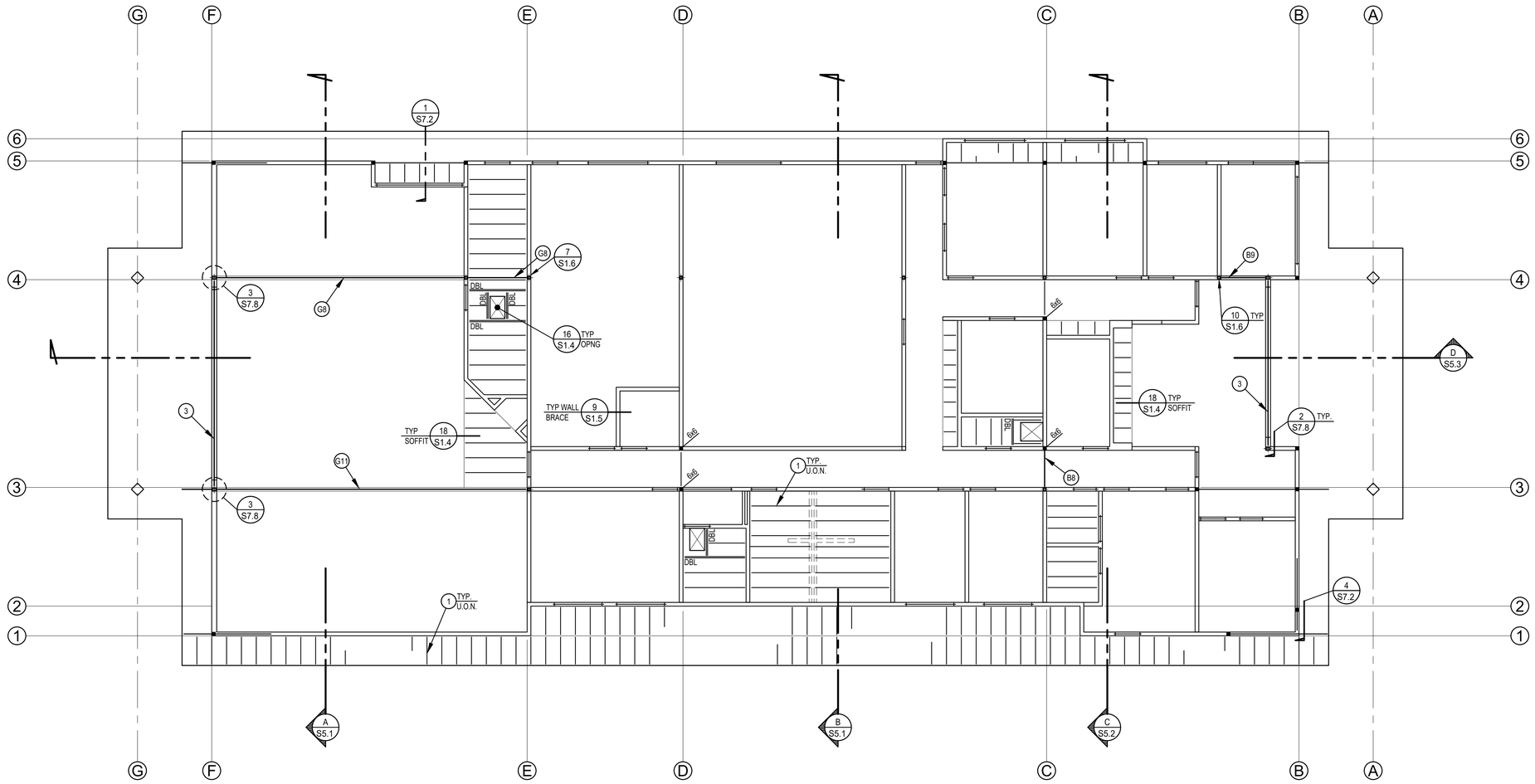
TITLE
BUILDING 700
ROOF FRAMING PLAN

S3.5

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

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CEILING FRAMING PLAN - BLDG. 100

1/8" = 1'-0"

north

CEILING FRAMING NOTES

1. SEE FRAMING NOTES ON SHEET S3.1.
2. SEE GLU-LAM BEAM NOTES ON SHEET S3.1.
3. COORDINATE FIXTURE LOCATIONS WITH ARCH AND ELECTRICAL DRAWINGS.
4. FOR TYPICAL CEILING FRAMING SEE DETAIL 12/S1.5.
5. PROVIDE 2x SOLID BLOCKING AS REQUIRED PER DETAIL 12/S1.5.
6. SEE ROOF FRAMING PLANS FOR BEAM SIZES TYPICAL UON.
7. FOR TYPICAL HEADER SIZES NOT SPECIFICALLY CALLED OUT ON PLANS SEE DETAIL 2/S1.3

GLU-LAM BEAM SCHEDULE

MARK	SIZE	CAMBER
G1	5⅛" x 12"	R=2000'
G2	5⅛" x 15"	R=2000'
G3	5⅛" x 18"	R=2000'
G4	6¾" x 18"	R=2000'
G5	5⅛" x 13½"	R=2000'
G6	6¾" x 12"	R=2000'
G8	5⅛" x 30"	R=2000'
G9	6¾" x 36"	R=2000'
G10	5⅛"x19½"	R=2000'
G11	6 ¾"x39"	R=2000'

BEAM SCHEDULE

MARK	SIZE	MARK	SIZE
B1	4x6	B6	6x6
B2	4x8	B7	6x8
B3	4x10	B8	6x10
B4	4x12	B9	6x12
B5	4x14	B10	6x14

KEY NOTES

1. 2x CEILING JOISTS @ 24"o.c., U.O.N. SEE DETAIL 12/S1.5
2. 2x6 HANGERS @ 24"o.c. PER DETAIL 18/S1.4 AND 16/S1.5
3. HSS 12x6x⅜ HEADER

NOTE: NOT ALL MEMBERS SHOWN ON SCHEDULES ARE USED ON EVERY SHEET.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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(559) 627.1926 Fax

TITLE
BUILDING 100
CEILING FRAMING PLAN

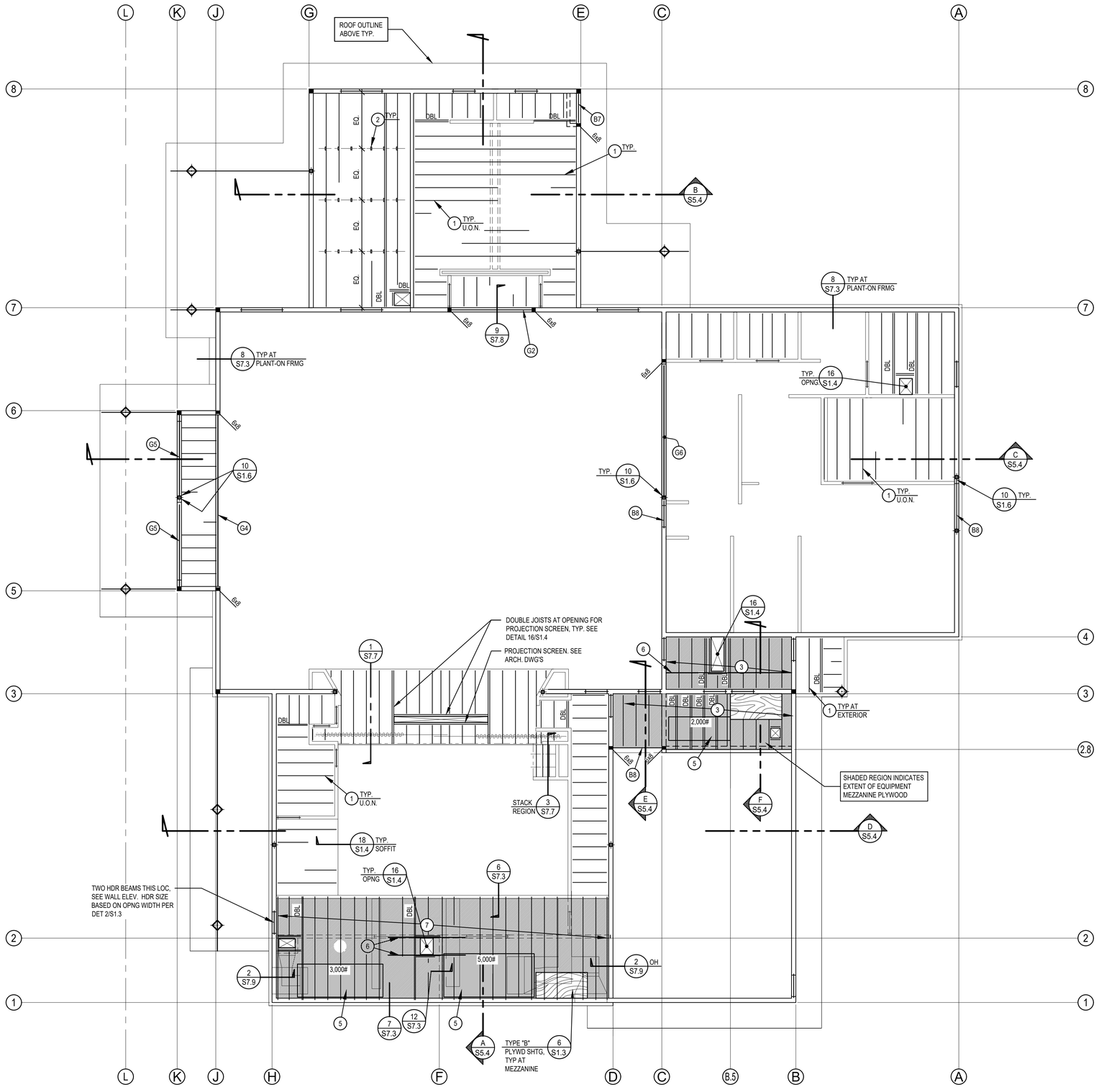
S4.1

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5732
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

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CEILING FRAMING NOTES

1. SEE SHEET S4.1 FOR CEILING FRAMING NOTES.

BEAM SCHEDULE

MARK	SIZE	MARK	SIZE
B1	4x6	B6	6x6
B2	4x8	B7	6x8
B3	4x10	B8	6x10
B4	4x12	B9	6x12
B5	4x14	B10	6x14

GLU-LAM BEAM SCHEDULE

MARK	SIZE	CAMBER
G1	5⅛" x 12"	R=2000'
G2	5⅛" x 15"	R=2000'
G3	5⅛" x 18"	R=2000'
G4	6¾" x 18"	R=2000'
G5	5⅛" x 13½"	R=2000'
G6	6¾" x 12"	R=2000'
G8	5⅛" x 30"	R=2000'
G9	6¾" x 36"	R=2000'
G10	5⅛"x19½"	R=2000'
G11	6 ¾"x39"	R=2000'

KEY NOTES

1. 2x CEILING JOISTS @ 24"o.c., U.O.N. SEE DETAIL 12/S1.5
2. 2x6 HANGERS @ 24"o.c. PER DETAIL 18/S1.4 AND 16/S1.5
3. 2x10 @ 24"o.c.
4. NOT USED
5. MECH UNIT W/ FACTORY CURB. SEE MECH. DWGS. & DETAIL 14/S1.6 SIM.
6. SIMP CS16 STRAP x 12'-0" LONG W/ 10d @ 4 ⅛" o.c. EA SIDE OF OPENING.
7. 1¾"x14" REDLAM LVL (2.0E) @ 24"o.c.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
BUILDING 200
CEILING FRAMING
PLAN

S4.2

PROJECT 24042

CEILING FRAMING PLAN - BLDG. 200

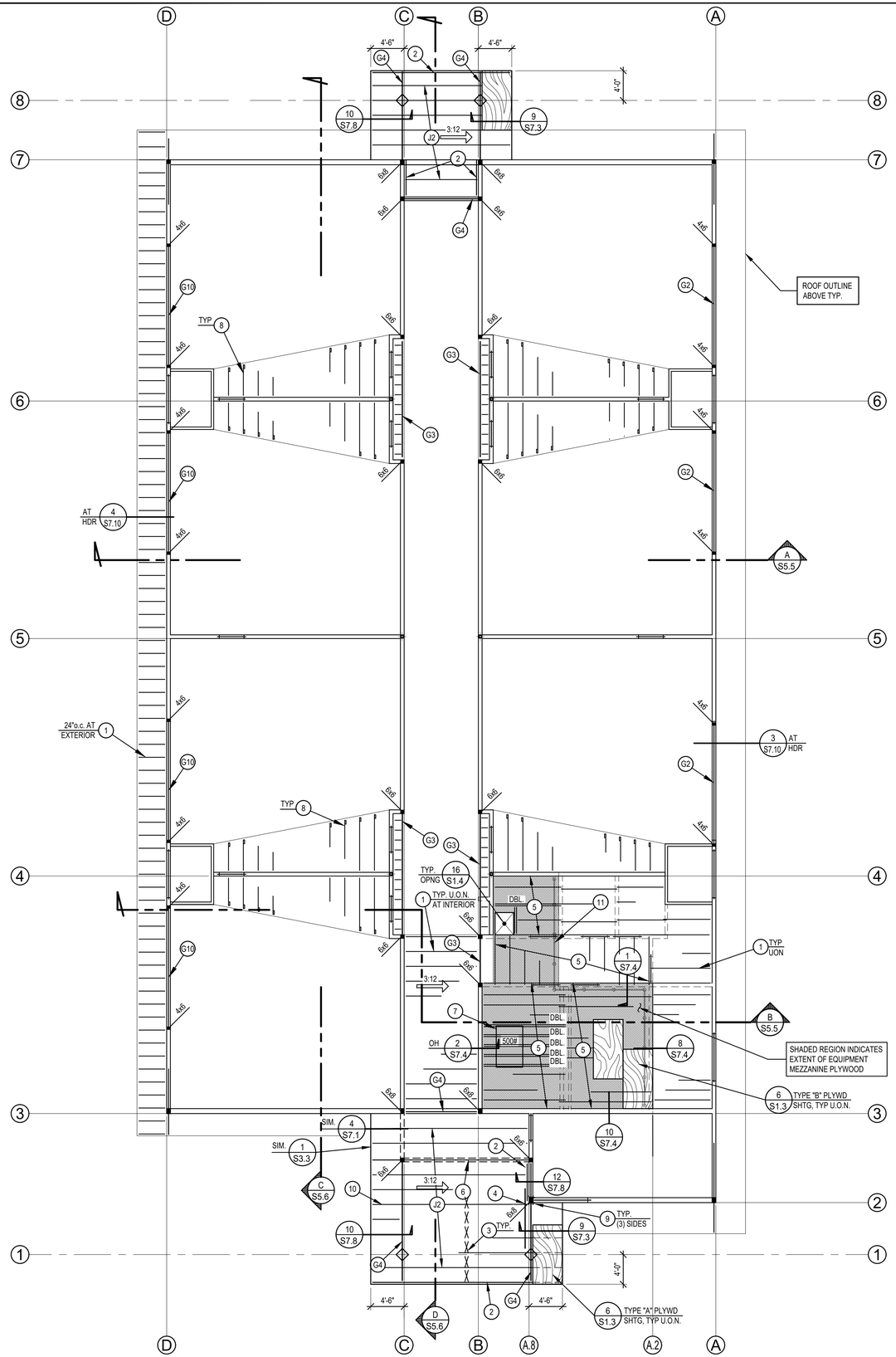
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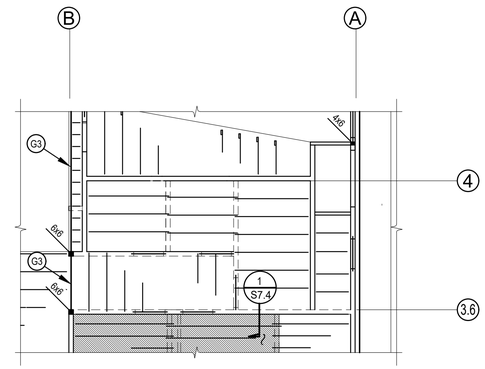
north

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENEN
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

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PARTIAL CANOPY AND CEILING FRAMING PLAN - BLDG. 400

1/8" ~ 1'-0"

CANOPY AND CEILING FRAMING PLAN - BLDG. 300, 400, 500

1/8" ~ 1'-0"

north

north

CEILING FRAMING NOTES

1. SEE SHEET S4.1 FOR CEILING FRAMING NOTES.

GLU-LAM BEAM SCHEDULE

MARK	SIZE	CAMBER
G1	5⅛" x 12"	R=2000'
G2	5⅛" x 15"	R=2000'
G3	5⅛" x 18"	R=2000'
G4	6¾" x 18"	R=2000'
G5	5⅛" x 13½"	R=2000'
G6	6¾" x 12"	R=2000'
G8	5⅛" x 30"	R=2000'
G9	6¾" x 36"	R=2000'
G10	5⅛"x18½"	R=2000'
G11	6 ¾"x39"	R=2000'

BEAM SCHEDULE

MARK	SIZE	MARK	SIZE
B1	4x6	B6	6x6
B2	4x8	B7	6x8
B3	4x10	B8	6x10
B4	4x12	B9	6x12
B5	4x14	B10	6x14

I-JOIST SCHEDULE

MARK	SIZE	CAMBER	SPACING
J1	NOT USED	-	-
J2	18" RED-I90	NONE	24"o.c.
J3	20" RED-I90	NONE	24"o.c.
J4	22" RED-I90	NONE	24"o.c.

KEY NOTES

1. 2x CEILING JOISTS @ 24"o.c., U.O.N. SEE DETAIL 12/S1.5
2. 1¾"x18" REDLAM LVL (2.0E)
3. X-BRIDGING PER DETAIL 10/S1.5
4. SIMPSON CS16 STRAP x 8'-0" LONG OVER ROOF PLYWD W/ (10) 10d TO LEDGER & 10d @ 4⅛"o.c. TO 3x4 FLAT BLKG REMAINDER. SEE DETAIL 6/S1.4 SIM.
5. 2x10 @16"o.c.
6. 3½"x18" REDLAM LVL (2.0E)
7. MECHANICAL EQUIPMENT. SEE MECH DWGS AND DETAIL 14/S1.6 SIM.
8. 2x6 @ 24"o.c.
9. SIMP HUC HANGER
10. PROVIDE ADD'L I-JOIST AS REQ'D TO ALIGN W/ WALL PER DETAIL 11/S7.8
11. GUARDRAIL PER ARCH DWGS & DET 2/S7.5

NOTE: NOT ALL MEMBERS SHOWN ON SCHEDULES ARE USED ON EVERY SHEET.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-41128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
BUILDINGS
300-400-500
CANOPY & CEILING
FRAMING PLAN

S4.3

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENNER
No. S5792
Exp. 6-30-27
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STATE OF CALIFORNIA

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advanced structural design, inc.
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APPROVALS

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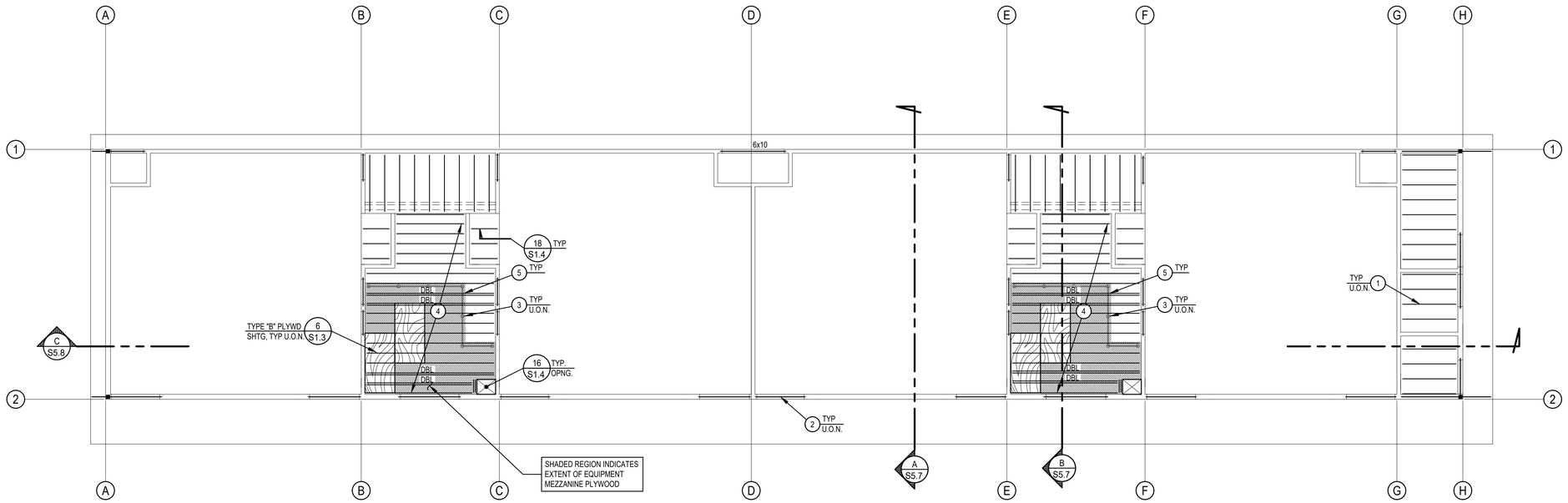
DATE: DECEMBER 18, 2025

CEILING FRAMING NOTES

1. SEE SHEET S4.1 FOR CEILING FRAMING NOTES.

KEY NOTES

1. 2x CEILING JOISTS @ 24" o.c., SEE DETAIL 12/S1.5
2. HEADER PER DETAIL 2/S1.3
3. GUARDRAIL PER ARCH DWGS & DET 2/S7.5 SIM
4. 2x12 @ 16" o.c. (SELECT STRUCTURAL)
5. DBL JOISTS AT FIRE SPRINKLERS



CEILING FRAMING PLAN - BLDG. 600

1/8" = 1'-0"

north

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT

SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY

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TITLE

BUILDING 600
CEILING FRAMING
PLAN

S4.4

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

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STRUCTURAL ENGINEERS
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Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

CEILING FRAMING NOTES

1. SEE SHEET S4.1 FOR CEILING FRAMING NOTES.

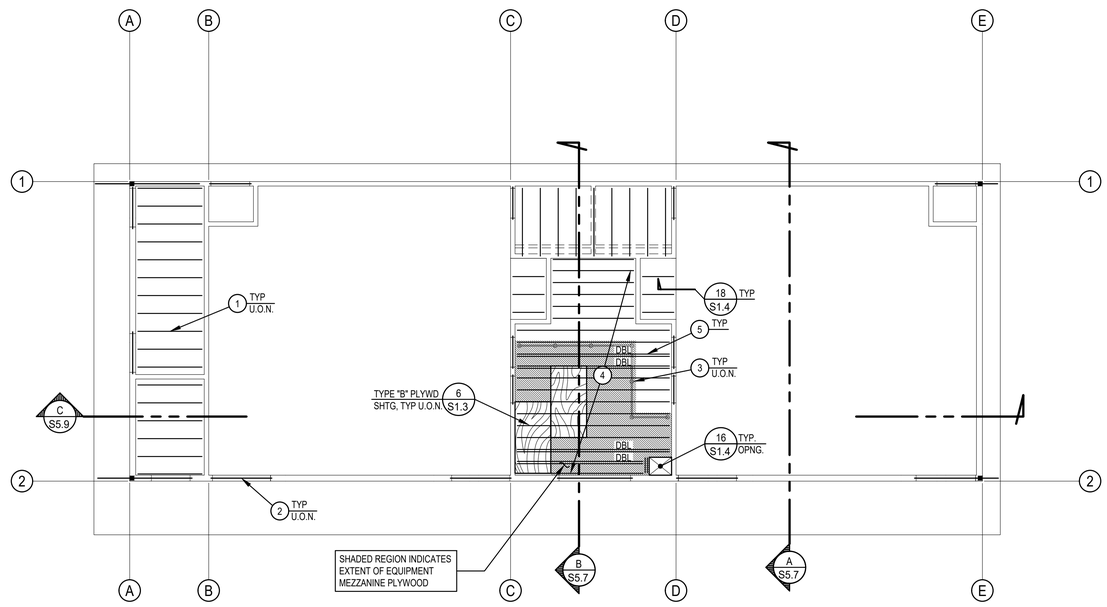
KEY NOTES

1. 2x CEILING JOISTS @ 24" o.c., SEE DETAIL 12/S1.5
2. HEADER PER DETAIL 2/S1.3
3. GUARDRAIL PER ARCH DWGS & DET 2/S7.5 SIM
4. 2x12 @ 16" o.c. (SELECT STRUCTURAL)
5. DBL JOISTS AT FIRE SPRINKLERS

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REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



CEILING FRAMING PLAN - BLDG. 700

1/8" = 1'-0"

north

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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4320 West Mineral King Avenue
Visalia, California 93291
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(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 700
CEILING FRAMING
PLAN

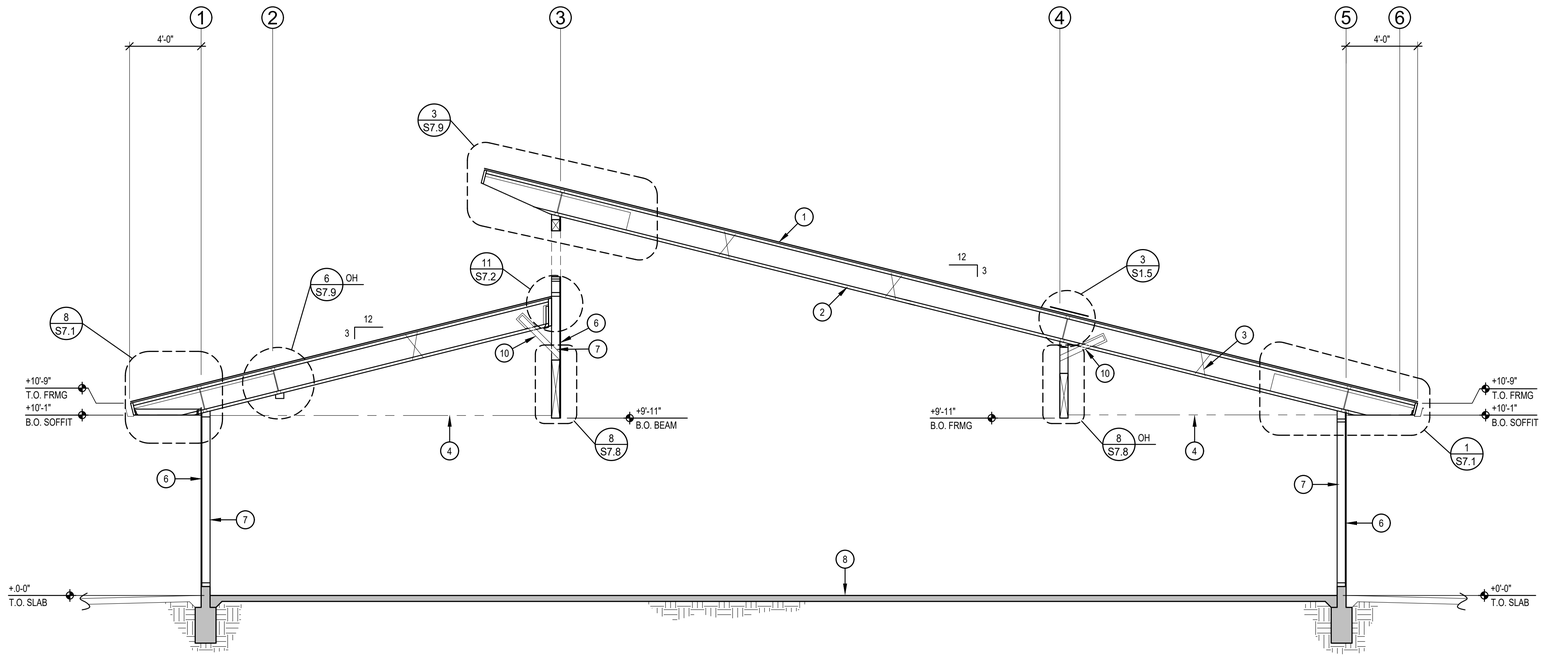
S4.5

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENNER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

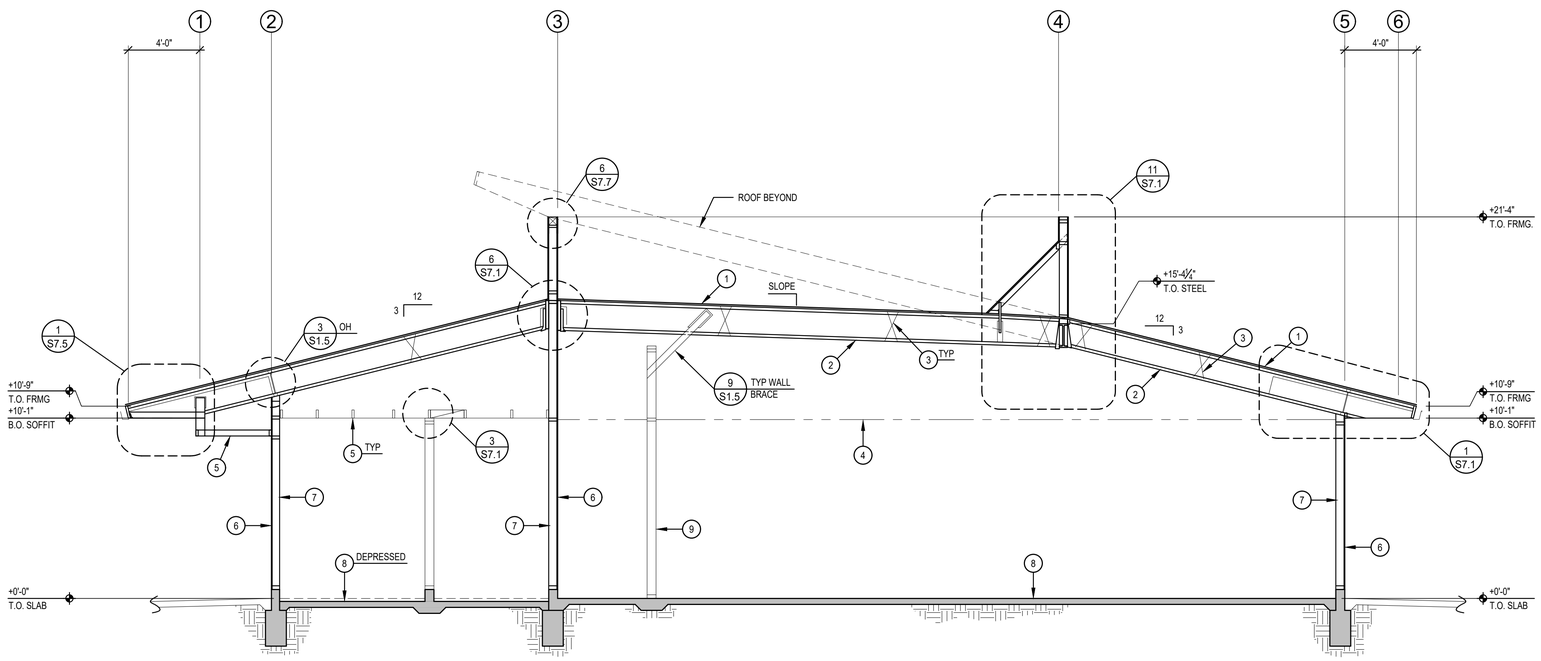
P:\M62503 Temperance Elem\Struct\S4.5.CEILING.700.dwg Sep 15 2026 11:42am



SECTION - BUILDING 100

1/4" = 1'-0"

A S5.1



SECTION - BUILDING 100

1/4" = 1'-0"

B S5.1

KEY NOTES

1. PLYWOOD ROOF SHEATHING PER 6/S1.3.
2. I-JOISTS @ 24"o.c. PER FRAMING PLANS.
3. X-BRIDGING PER FRAMING PLAN & DET. 10/S1.5.
4. SUSPENDED CEILING, SEE ARCH. DWG'S.
5. CEILING FRAMING. SEE DETAIL 12/S1.5.
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS.
7. STUDS @ 16"o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. CONC. SLAB ON GRADE PER 2/S2.6.
9. 2x6 @ 16"o.c.
10. 2x4 BRACE @ 48"o.c. PER DETAIL 9/S1.5 SIM.
11. NOT USED
12. TYPE 1 PLYWD WALL SHTG PER 3/S1.3.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
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www.mangini.us
(559) 627-1926 Office
(559) 627-1926 Fax

TITLE
BUILDING 100
SECTIONS

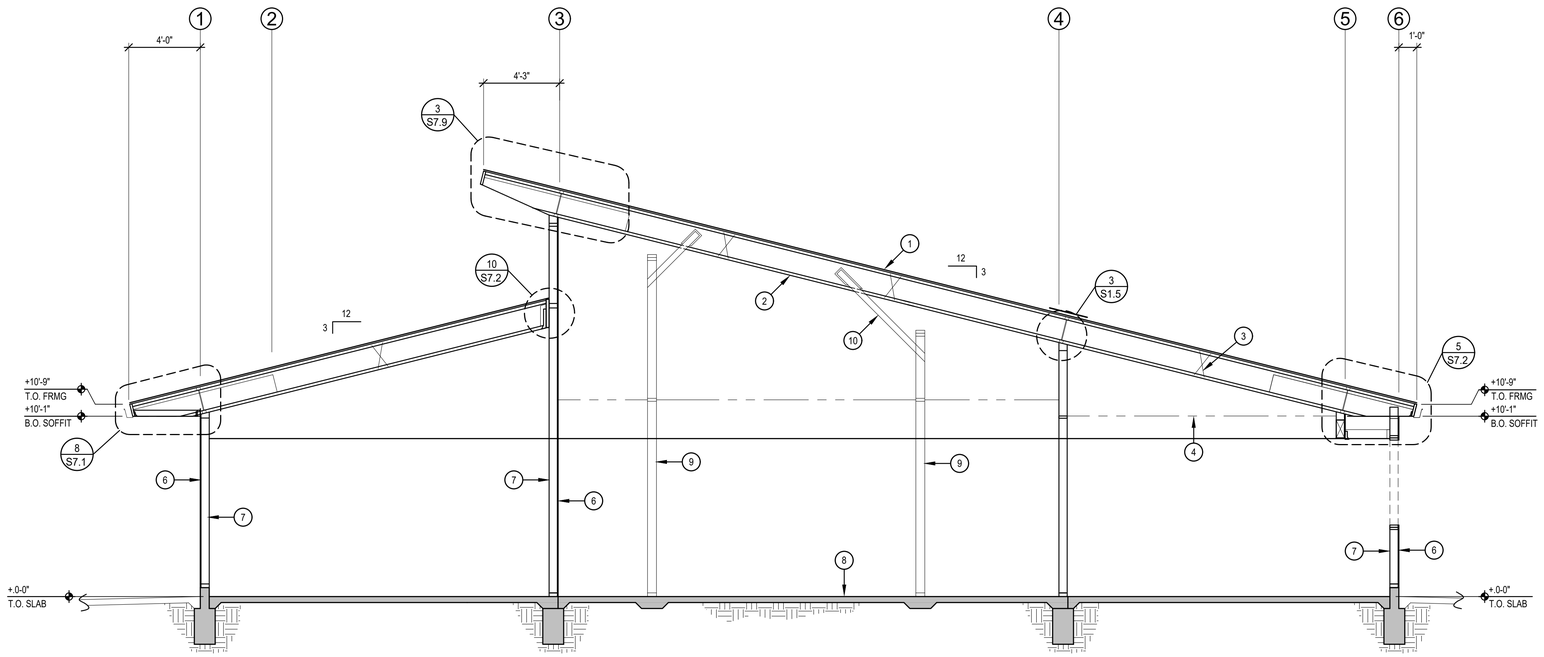
S5.1

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5732
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

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asdi@asdiengr.com

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SECTION - BUILDING 100

1/4" ~ 1'-0"

C
S5.2

KEY NOTES

1. PLYWOOD ROOF SHEATHING PER 6/S1.3.
2. I-JOISTS @ 24"o.c. PER FRAMING PLANS.
3. X-BRIDGING PER FRAMING PLAN & DET. 10/S1.5.
4. SUSPENDED CEILING, SEE ARCH. DWG'S.
5. CEILING FRAMING. SEE DETAIL 12/S1.5.
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS.
7. STUDS @ 16"o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. CONC. SLAB ON GRADE PER 2/S2.6.
9. 2x6 @ 16"o.c.
10. 2x4 BRACE @ 48"o.c. PER DETAIL 9/S1.5 SIM.
11. NOT USED.
12. TYPE [1] PLYWD WALL SHTG PER 3/S1.3.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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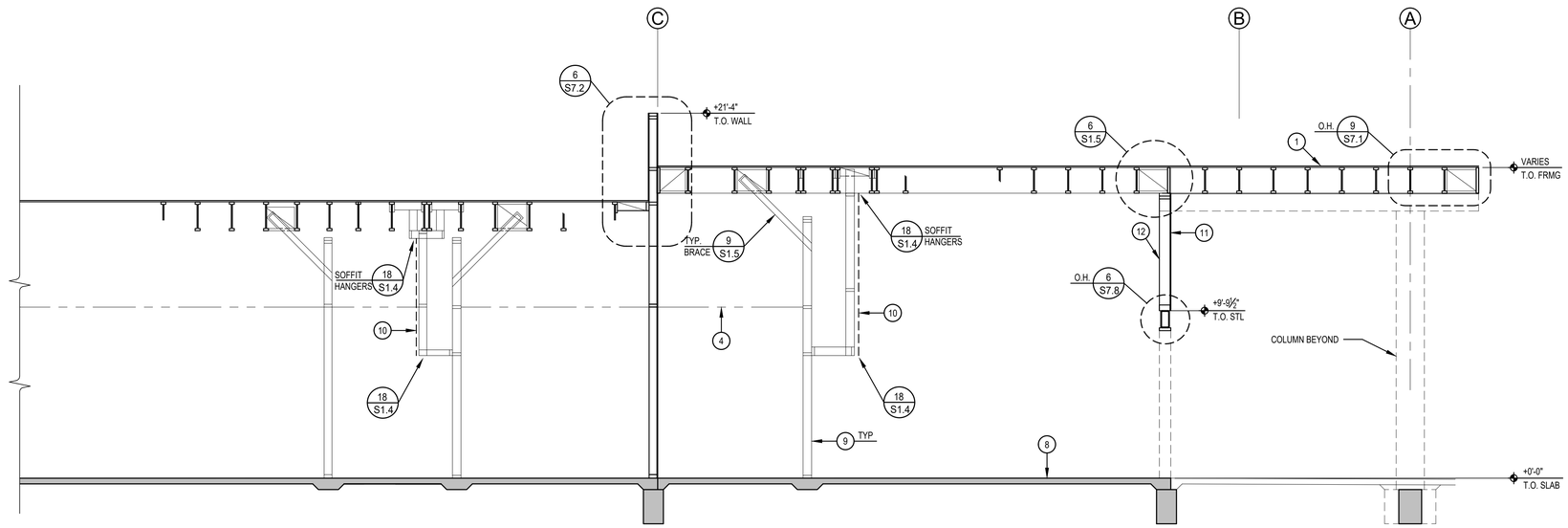
TITLE
BUILDING 100
SECTIONS

S5.2

PROJECT 24042

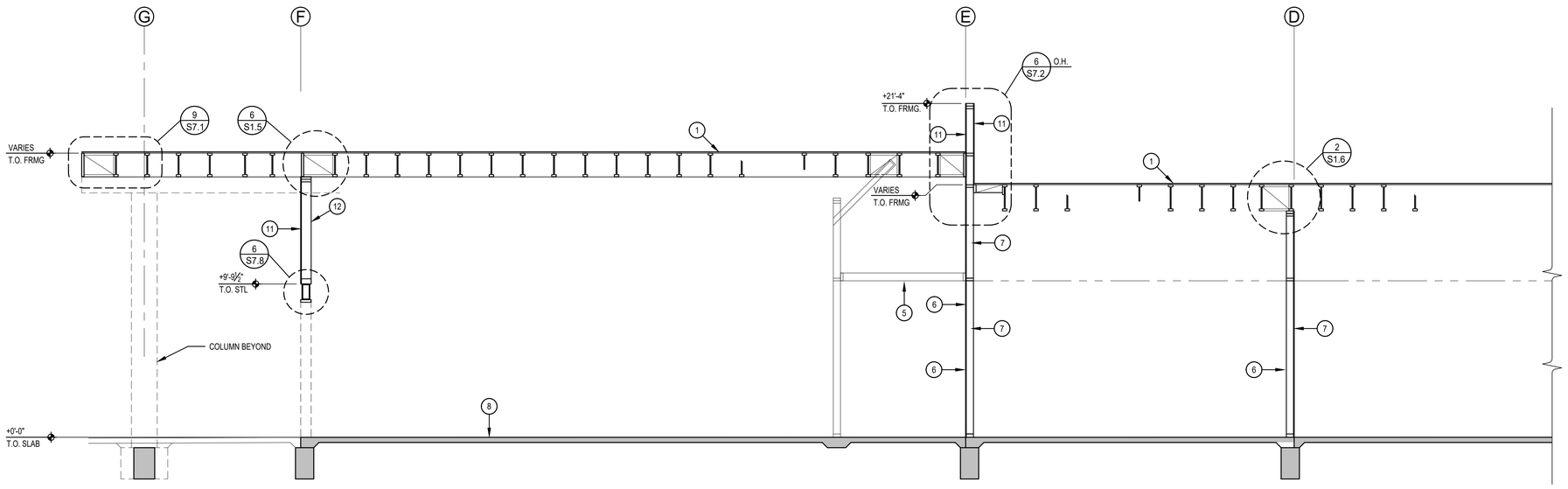
REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENES
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
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(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



PARTIAL SECTION - BUILDING 100 — D S5.3

3/4" = 1'-0"



PARTIAL SECTION - BUILDING 100 (CONTINUED) — D S5.3

3/4" = 1'-0"

KEY NOTES

1. PLYWOOD ROOF SHEATHING PER 6/S1.3.
2. I-JOISTS @ 24"o.c. PER FRAMING PLANS.
3. X-BRIDGING PER FRAMING PLAN & DET. 10/S1.5.
4. SUSPENDED CEILING, SEE ARCH. DWG'S.
5. CEILING FRAMING. SEE DETAIL 12/S1.5.
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS.
7. STUDS @ 16"o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. CONC. SLAB ON GRADE PER 2/S2.6.
9. 2x6 @ 16"o.c.
10. SOFFIT STRAP BRACING PER DETAIL 18/S1.4.
11. TYPE [1] PLYWOOD WALL SHTG. PER 3/S1.3.
12. 2x8 STUDS @ 16"o.c.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-31128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI — ARCHITECTURE | INGENUITY
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4320 West Mineral King Avenue
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(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 100 SECTIONS

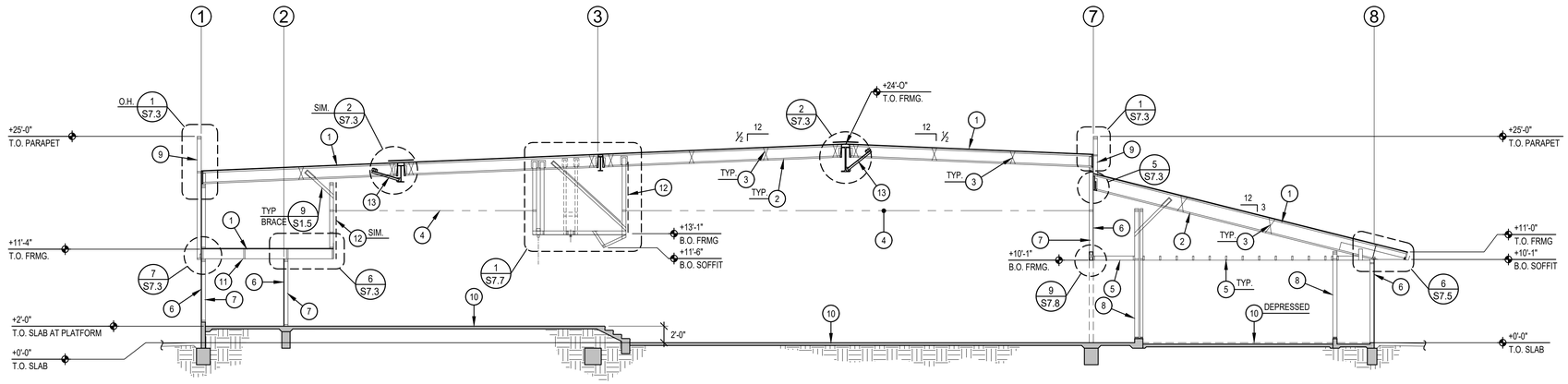
S5.3

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER — JACK D. BRENES — No. S5792 — Exp. 6-30-27 — STRUCTURAL — STATE OF CALIFORNIA

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advanced structural design, inc.
STRUCTURAL ENGINEERS
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asdi@asdiengr.com

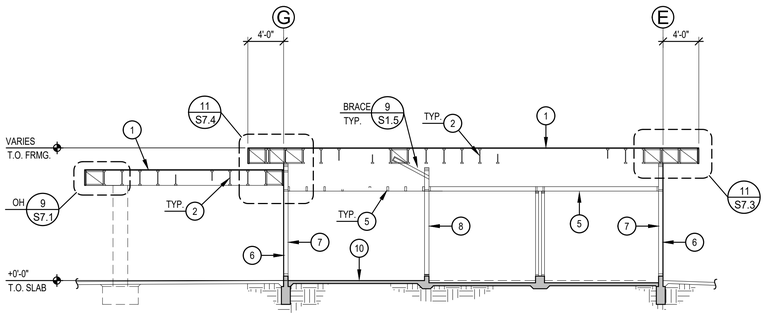
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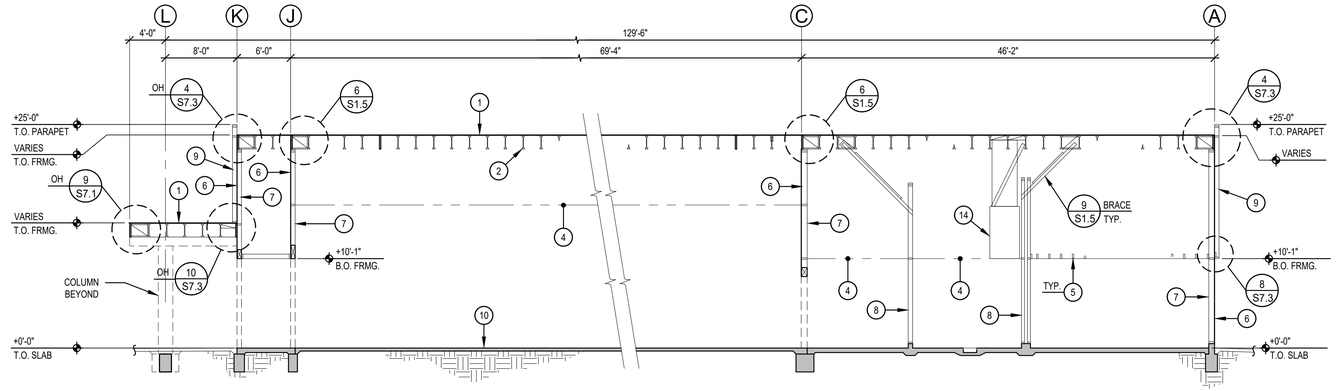
SECTION A S5.4
1/8" ~ 1'-0"

KEY NOTES

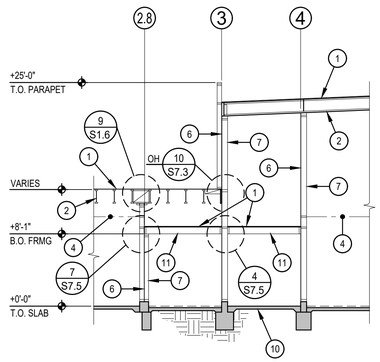
1. PLYWOOD ROOF / FLOOR SHEATHING PER 6/S1.3.
2. I-JOISTS @ 24"o.c. PER FRAMING PLANS.
3. X-BRIDGING PER FRAMING PLAN & DET. 10/S1.5.
4. SUSPENDED CEILING, SEE ARCH. DWG'S.
5. CEILING FRAMING. SEE DETAIL 12/S1.5 & 16/S1.5.
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS.
7. STUDS @ 16"o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. 2x6 @ 16"o.c.
9. 2x6 @ 24"o.c.
10. CONC. SLAB ON GRADE PER 2/S2.6.
11. FLOOR JOIST PER CEILING FRAMING PLAN.
12. SOFFIT STRAP BRACING PER DETAIL 18/S1.4.
13. L3x3x¼ FLANGE BRACE PER DETAILS 12/S1.6 & 12/S7.7.
14. SUSPENDED KITCHEN HOOD. SEE MECH DWGS & DETAIL 1/S1.7



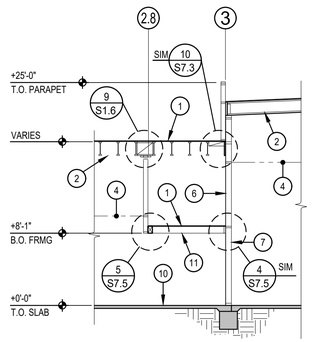
SECTION B S5.4
1/8" ~ 1'-0"



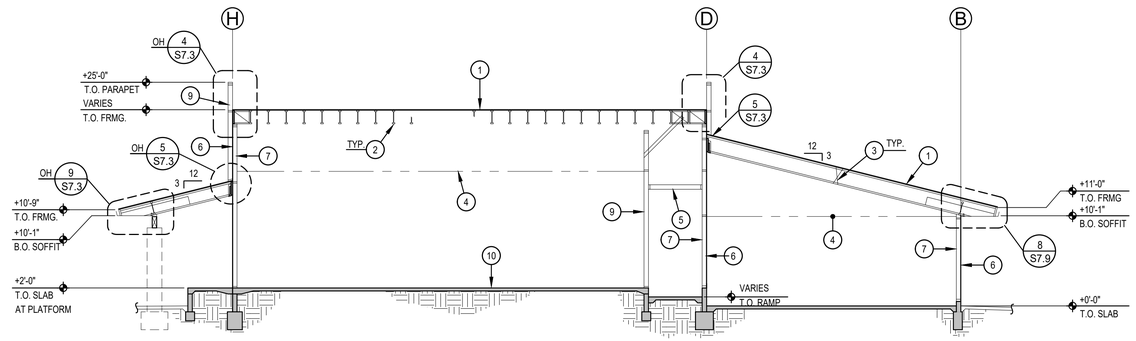
SECTION C S5.4
1/8" ~ 1'-0"



SECTION F S5.4
1/8" ~ 1'-0"



SECTION E S5.4
1/8" ~ 1'-0"



SECTION D S5.4
1/8" ~ 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
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4320 West Mineral King Avenue
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www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDING 200
SECTIONS

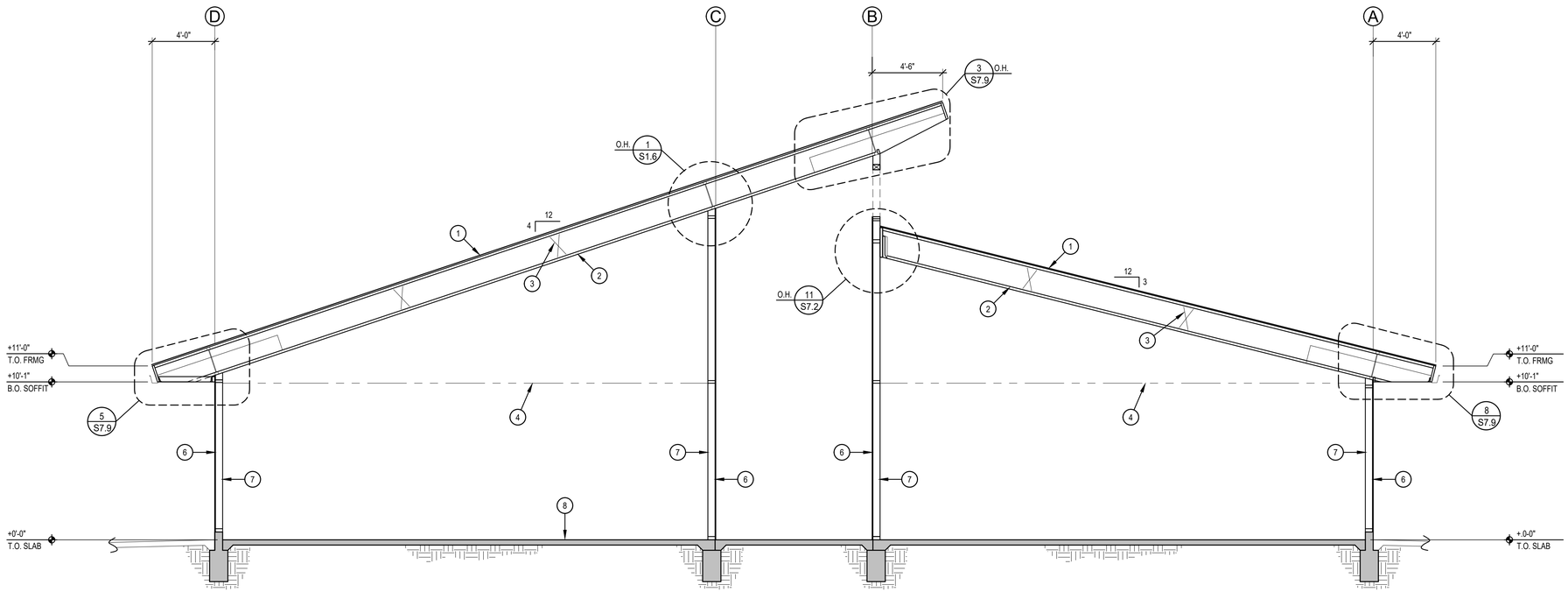
S5.4

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

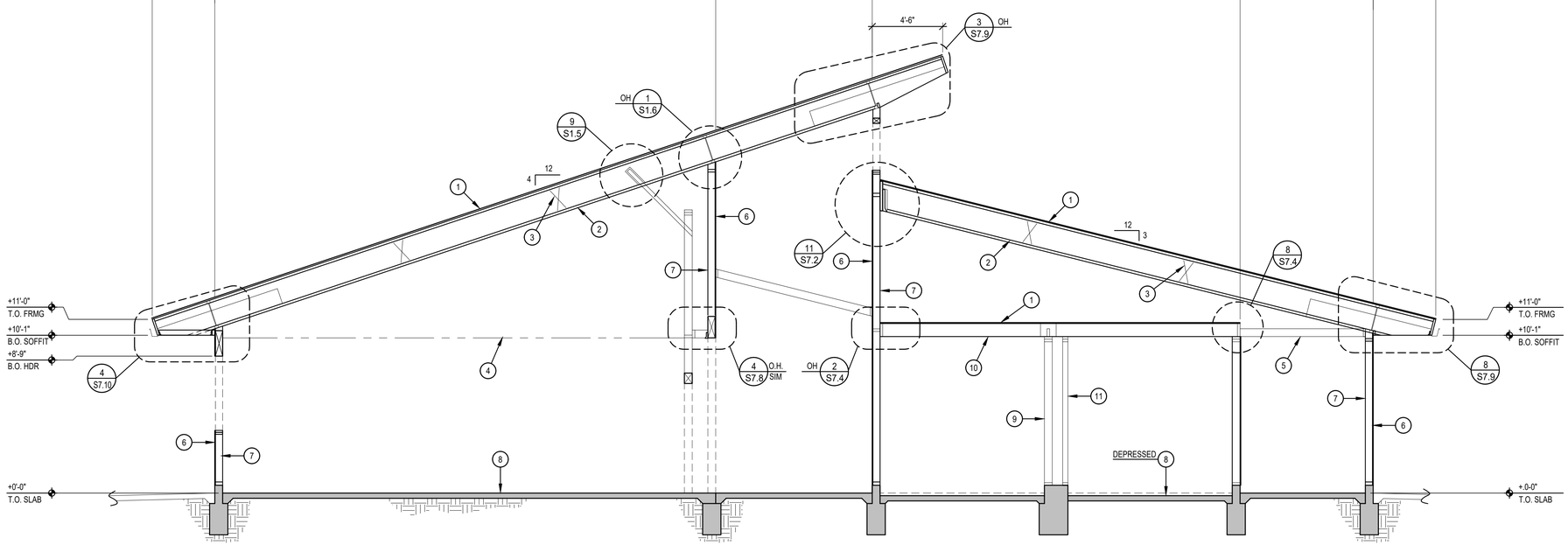
ASD
advanced structural design, inc.
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Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

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SECTION - BLDG. 300, 400, 500 — A S5.5

1/4" ~ 1'-0"



SECTION - BLDG. 300, 400, 500 — B S5.5

1/4" ~ 1'-0"

KEY NOTES

1. PLYWOOD ROOF OR FLOOR SHEATHING PER 6/S1.3.
2. I-JOIST @ 24"o.c. PER FRAMING PLANS.
3. X-BRIDGING PER FRAMING PLAN & DET. 10/S1.5.
4. SUSPENDED CEILING, SEE ARCH. DWG'S.
5. CEILING FRAMING. SEE DETAIL 12/S1.5.
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS.
7. STUDS @ 16"o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. CONC. SLAB ON GRADE PER 2/S2.6.
9. 2x6 @ 16"o.c.
10. MEZZANINE JOISTS @ 24"o.c. PER FRMG PLAN
11. STUDS @ 16"o.c. PER ARCH DWGS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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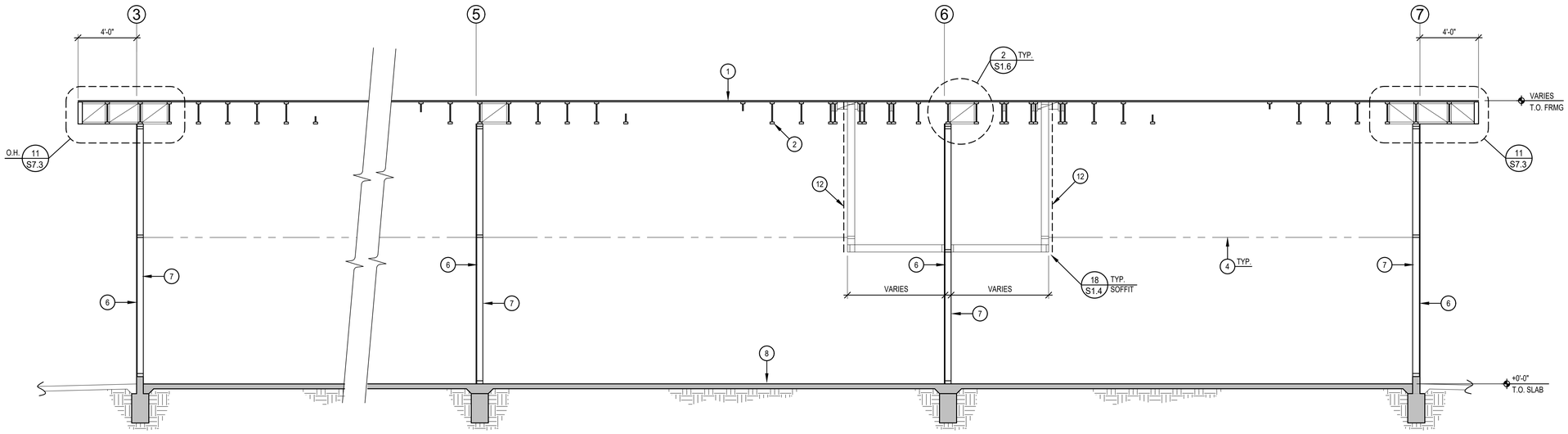
TITLE
BUILDINGS
300-400-500
CANOPY & CEILING
SECTIONS

S5.5

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENES
No. S5792
Exp: 6-30-27
STRUCTURAL
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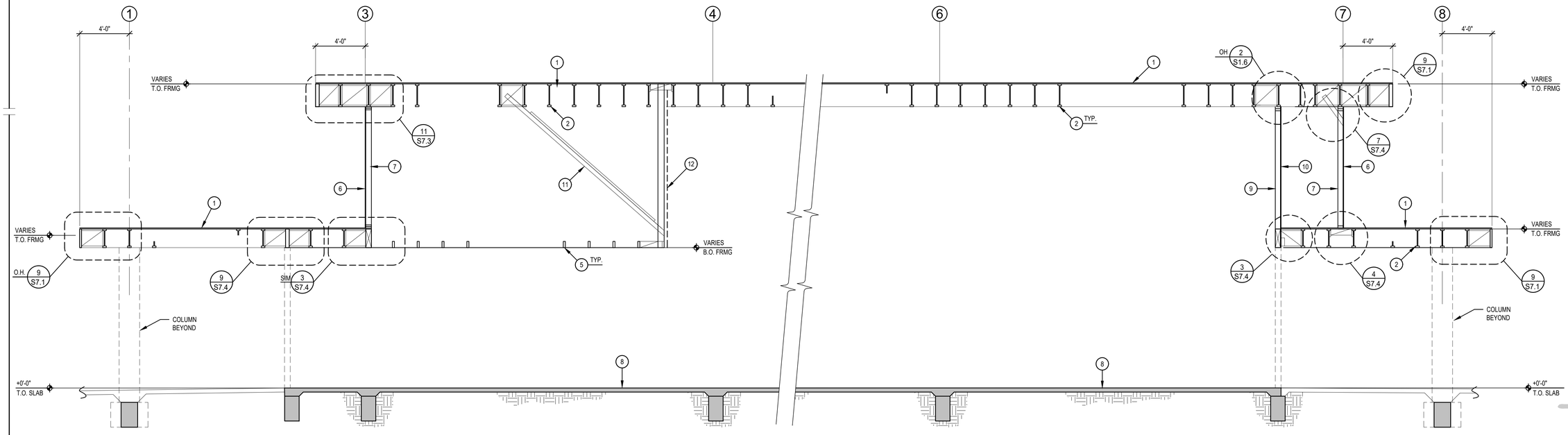
SECTION - BLDG. 300, 400, 500

C
S5.6

1/4" = 1'-0"

KEY NOTES

1. PLYWOOD ROOF SHEATHING PER 6/S1.3.
2. I-JOIST @ 24"o.c. PER FRAMING PLANS.
3. X-BRIDGING PER FRAMING PLAN & DET. 10/S1.5.
4. SUSPENDED CEILING, SEE ARCH. DWG'S.
5. CEILING FRAMING. SEE DETAIL 11/S1.3.
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS.
7. STUDS @ 16"o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. CONC. SLAB ON GRADE PER 2/S2.6.
9. 2x6 @ 16"o.c.
10. TYPE [1] PLYWOOD WALL SHTG. PER DETAIL 3/S1.3.
11. 2x6 BRACE @48"o.c. MAX PER DET 9/S1.5 SIM.
12. SOFFIT X-BRACING PER DET 18/S1.4



SECTION - BLDG. 300, 400, 500

D
S5.6

1/4" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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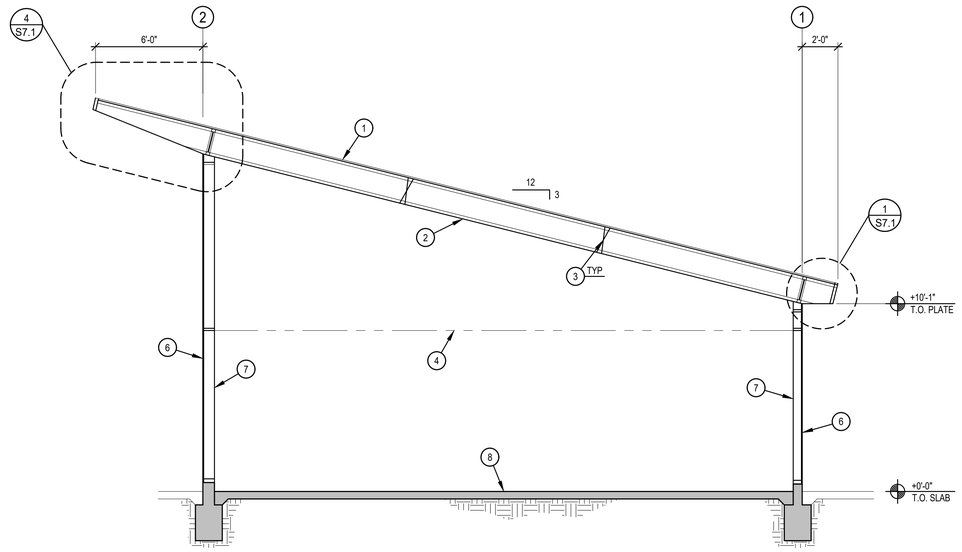
TITLE
BUILDINGS
300-400-500
CLASSROOM
SECTIONS

S5.6

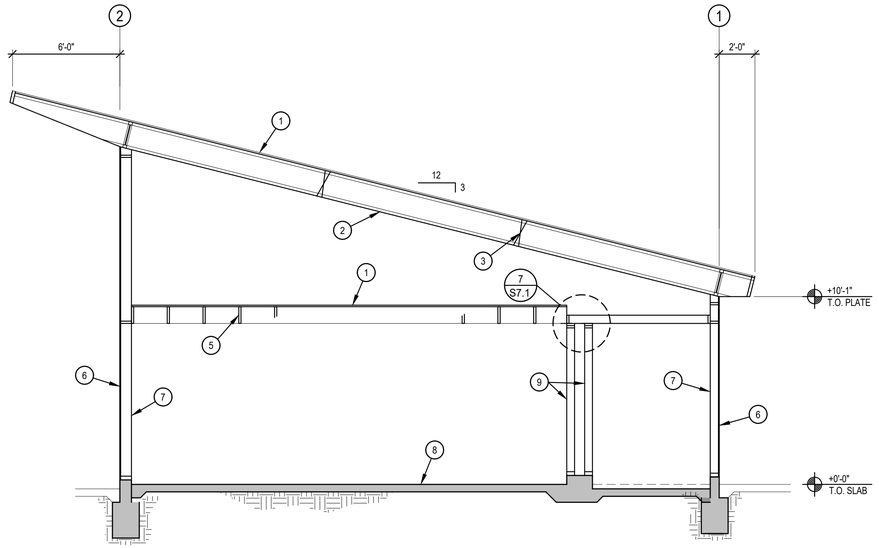
PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENNER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
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SECTION
1/4" = 1'-0"
A
S5.7



SECTION
1/4" = 1'-0"
B
S5.7

KEY NOTES

1. PLYWOOD ROOF / FLOOR SHEATHING PER 6/S1.3
2. I-JOISTS @ 24" o.c. PER FRAMING PLANS
3. X-BRIDGING PER FRAMING PLAN & DET 10/S1.5
4. SUSPENDED CEILING, SEE ARCH. DWGS
5. CEILING FRAMING, SEE CEILING FRAMING PLAN
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS
7. STUDS @ 16" o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. CONC. SLAB ON GRADE PER 2/S2.6
9. 2x6 STUDS @ 16" o.c.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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DATE: DECEMBER 18, 2025

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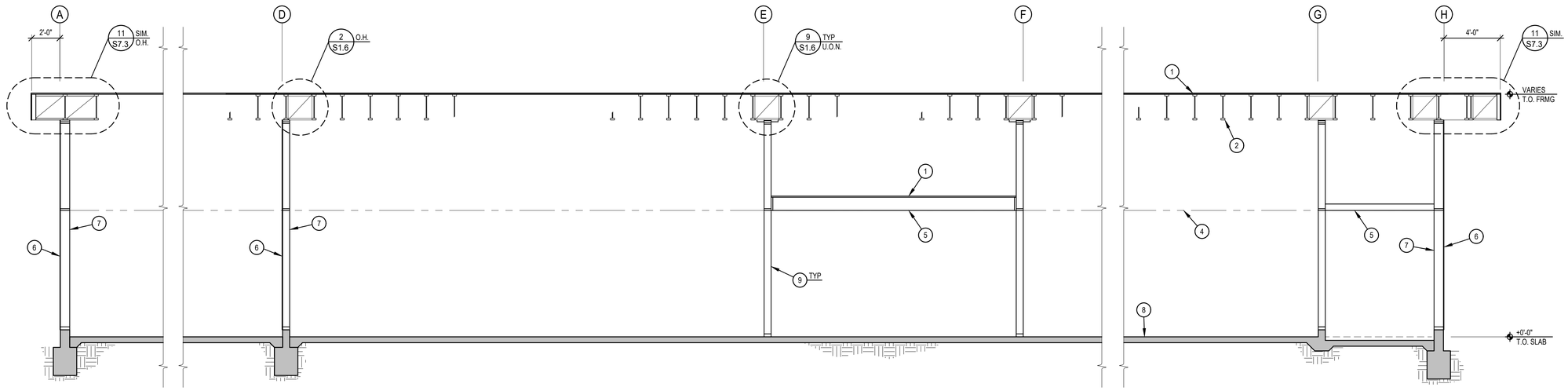
TITLE
BUILDINGS 600 & 700
SECTIONS

S5.7

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5732
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

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SECTION C S5.8
1/4" = 1'-0"

KEY NOTES

1. PLYWOOD ROOF / FLOOR SHEATHING PER 6/S1.3
2. I-JOISTS @ 24" o.c. PER FRAMING PLANS
3. NOT USED
4. SUSPENDED CEILING, SEE ARCH. DWGS
5. CEILING FRAMING, SEE CEILING FRAMING PLAN
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS
7. STUDS @ 16" o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. CONC. SLAB ON GRADE PER 2/S2.6
9. 2x6 STUDS @ 16" o.c.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 600
SECTIONS

S5.8

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENGER
No. S5792
Exp: 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

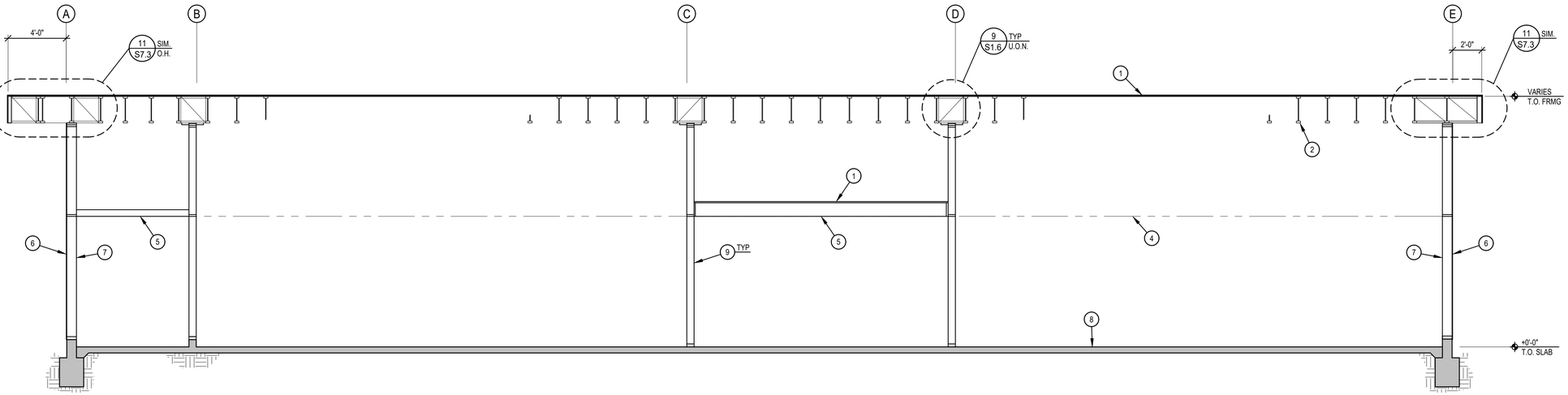
KEY NOTES

1. PLYWOOD ROOF / FLOOR SHEATHING PER 6/S1.3
2. I-JOISTS @ 24" o.c. PER FRAMING PLANS
3. X-BRIDGING PER FRAMING PLAN & DET 10/S1.5
4. SUSPENDED CEILING, SEE ARCH. DWGS
5. CEILING FRAMING, SEE CEILING FRAMING PLAN
6. PLYWOOD WALL SHEATHING PER WALL ELEVATIONS
7. STUDS @ 16" o.c. U.O.N. SEE WALL ELEV. FOR SIZE, TYP.
8. CONC. SLAB ON GRADE PER 2/S2.6
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SECTION C
1/4" = 1'-0" S5.9

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(559) 627-1926 Fax

TITLE
BUILDING 700
SECTIONS

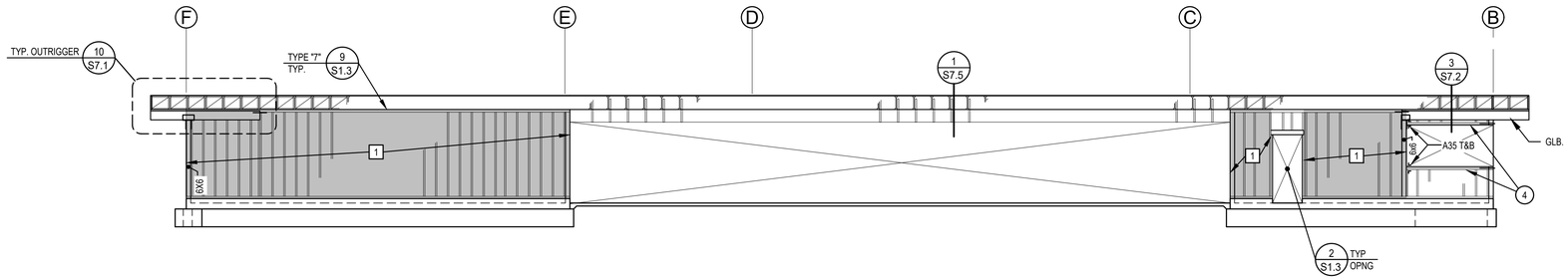
S5.9

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BIRENES
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

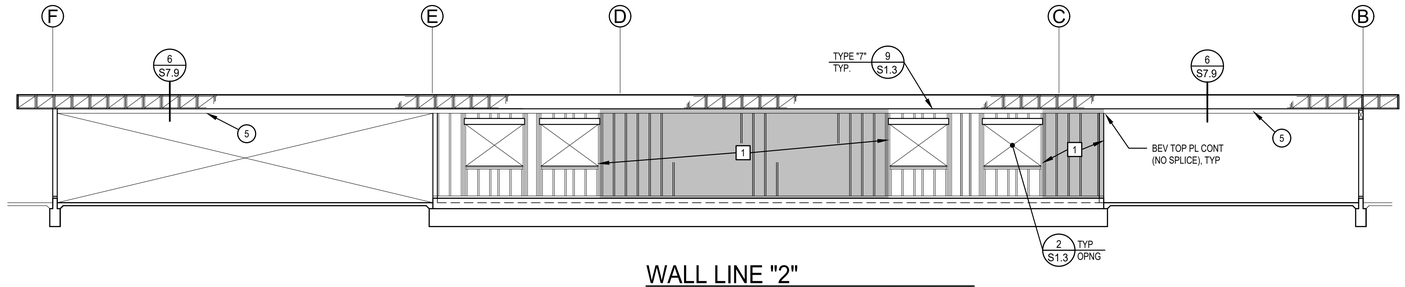
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Fresno, California 93720
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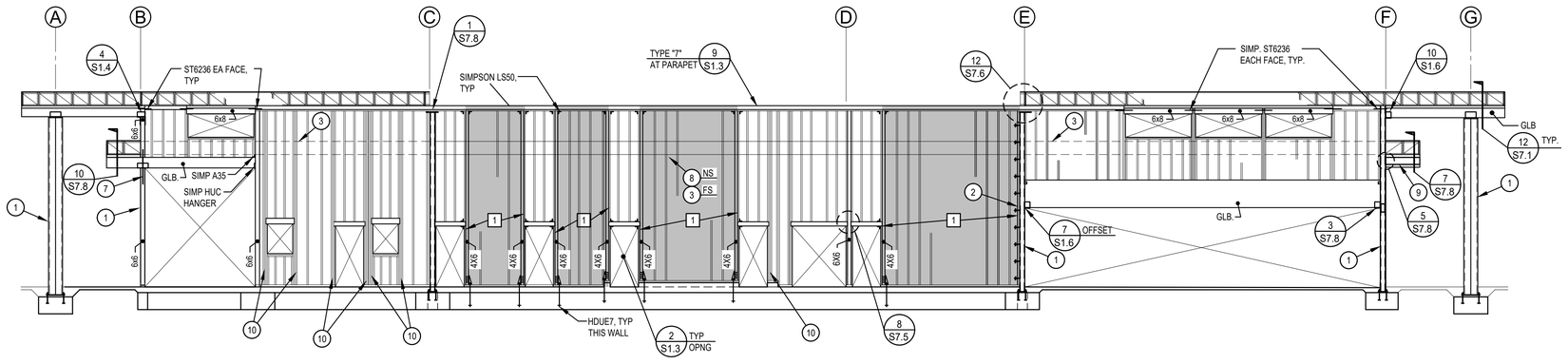
WALL LINE "1"

1/8" ~ 1'-0" — 2x6 STUDS @ 16"o.c. U.O.N.



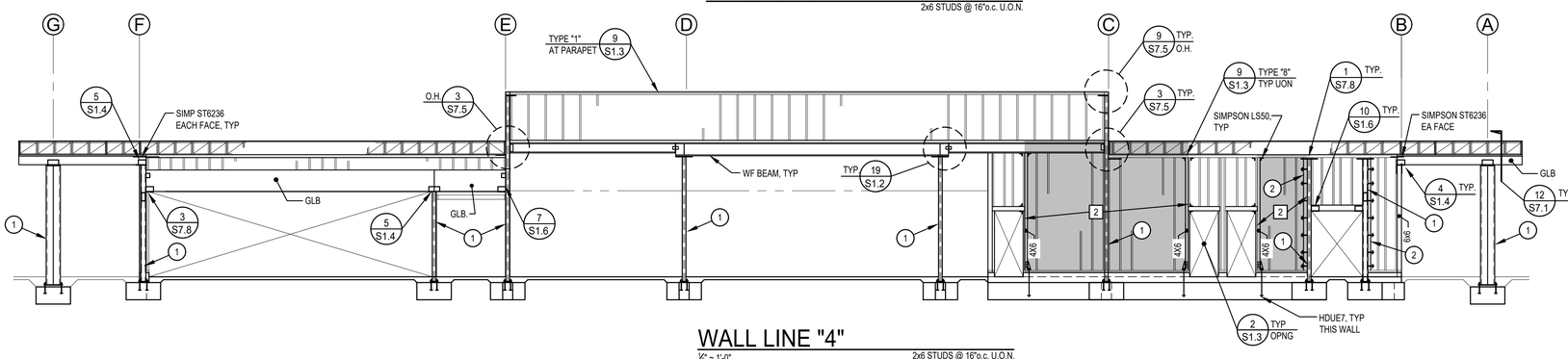
WALL LINE "2"

1/8" ~ 1'-0" — 2x6 STUDS @ 16"o.c. U.O.N.



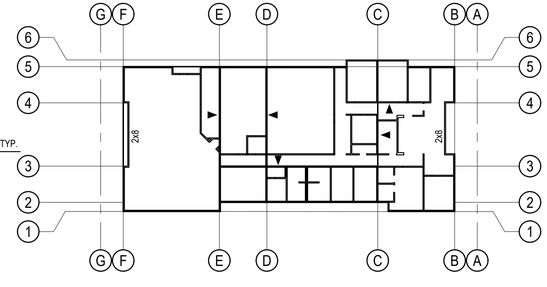
WALL LINE "3"

2x6 STUDS @ 16"o.c. U.O.N.



WALL LINE "4"

1/8" ~ 1'-0" — 2x6 STUDS @ 16"o.c. U.O.N. (3x STUDS & BLKG AT TYPE 2 PLYWD JOINTS)



KEY PLAN

NO SCALE

◀ - INDICATES FACE TO RECEIVE SHEAR WALL PLYWOOD AT INTERIOR WALLS. ALL EXTERIOR WALLS HAVE PLYWOOD ON THE OUTSIDE FACE U.O.N. STUD SIZES INDICATED ON KEY PLAN ARE THE NOMINAL STUD SIZE. ALL WALLS NOT LABELED SHALL BE 2x6 U.O.N.

SHEAR WALL NOTES

1. SHADED AREAS ON WALLS INDICATE REGIONS OF STRUCTURAL SHEAR PANELS. OTHER REGIONS ON WALL SHALL HAVE THE SAME SHEATHING WITH NAILS AT 6"o.c AT EDGES AND 12"o.c. FIELD.
2. PROVIDE PLYWOOD ON ALL EXTERIOR SURFACES OF FASCIAS AND EXTERIOR WALLS PER NOTE #1: "OTHER REGIONS", EVEN IF WALL ELEVATIONS ARE NOT DRAWN.
3. (E.N.) "EDGE NAILING" SPACE NAILS AS REQUIRED FOR SHEAR PANEL EDGES EVEN IF NOT AT AN EDGE.
4. [#] - INDICATES SHEATHING TYPE AND ANCHOR BOLT SPACING PER SCHEDULE ON DETAIL 3/S1.3.
5. SILL PL BOLTS AT NON-SHEAR REGIONS OF WALLS MAY BE ½"Ø x 12" SPACED AT 48" o.c. MAXIMUM.
6. STUDS OR POSTS AT EDGES OF SHEAR PANELS AND AT HOLD DOWNS SHALL BE ONE PIECE FULL HEIGHT OF WALL AND SHALL RECEIVE EDGE NAILING FULL HEIGHT.
7. PROVIDE EDGE NAILING TO EACH TOP PLATE OF WALL. SEE DETAIL 9/S1.3 FOR SCHEDULE OF PLATE SPLICES.
8. ALL MEMBERS DESIGNATED AS "STRUTS" SHALL RECEIVE E.N. FOR THEIR ENTIRE LENGTH.
9. SEE DETAIL 8/S1.3 FOR HOLD DOWNS, UNLESS OTHERWISE NOTED.
10. FRAME WALLS AND OPENINGS PER 2/S1.3 UNLESS OTHERWISE NOTED.
11. FRAME ALL HOLES THRU SHEAR WALLS PER DETAILS 11 & 12/S1.4 U.O.N.
12. PROVIDE SOLID CONTINUOUS BLOCKING AT 48"o.c. AT ALL WALL REGIONS WHICH DO NOT HAVE PLYWOOD OR GYP BOARD ON AT LEAST ONE SIDE.
13. STUD SIZES INDICATED ON THE WALL ELEVATIONS ARE FOR THE TYPICAL STUDS. REFER TO THE SHEATHING PANEL SCHEDULE ON THE TYPICAL SHEAR WALL DETAIL FOR REGIONS REQUIRING 3x STUDS AND BLOCKING AT PANEL JOINTS.

KEY NOTES

1. HSS COL. SEE FDN PLAN.
2. 4x TRIM STUD W/ ⅝"Ø STUD BOLTS @ 24"o.c. PER DETAIL 10/S1.3
3. REDLAM LVL LEDGER. SPLICE PER DETAIL 8/S7.6.
4. (2) 2x6 PL'S (NO SPLICES) LAP AT CORNER W/ (3) 16d & PROVIDE LSTA36 CORNER STRAP PER 9/S1.4.
5. BEV 6x6 STRUT BELOW I-JOISTS. SEE DET 6/S7.9. SPLICE UNDER I-JOISTS W/ SIMP ST6236 EA FACE.
6. NOT USED
7. SIMPSON CS14 STRAP W/ (16) 10d TO EA POST.
8. REDBUILT LSL LEDGER : SPLICE PER DET 8/S7.6
9. HSS10x5x¼ STUB BEAM
10. (2) 2X6 KING STUDS

REGISTERED PROFESSIONAL ENGINEER JACK D. BRAGNER No. S5792 Exp: 6-30-27 STRUCTURAL STATE OF CALIFORNIA

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DATE: DECEMBER 18, 2025

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

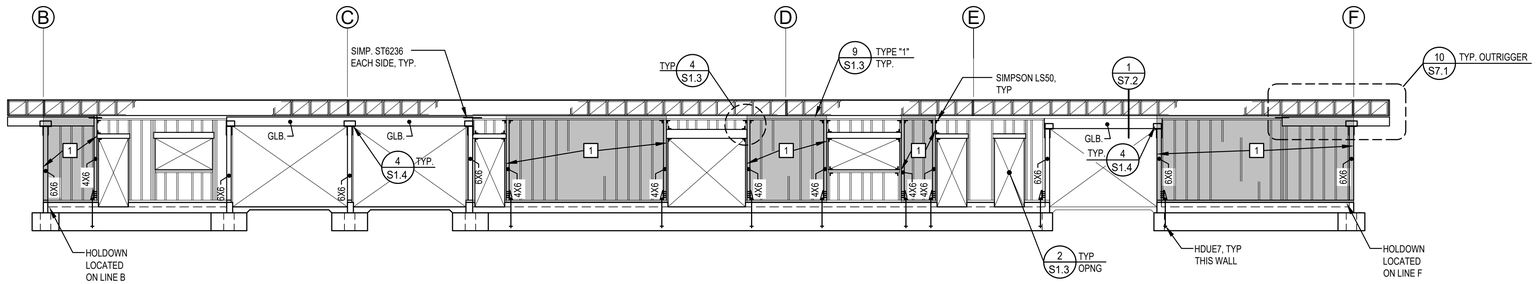
REVISIONS

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TITLE
BUILDING 100 SHEAR WALL ELEVATIONS

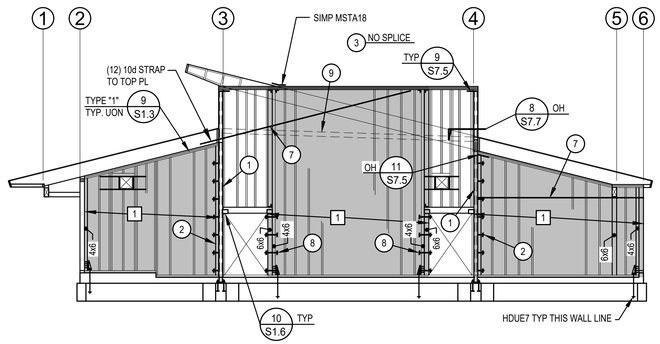
S6.1

PROJECT 24042



WALL LINE "5"

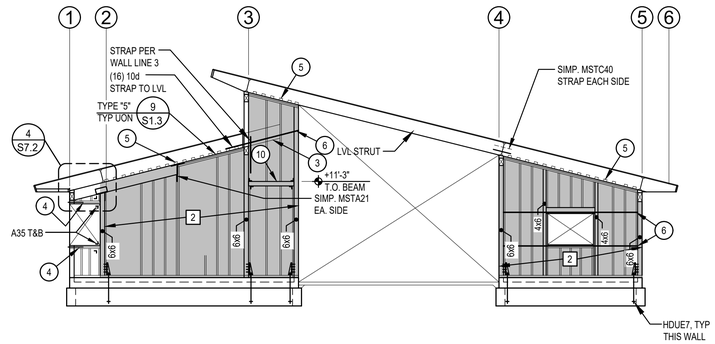
2x6 STUDS @ 16"o.c. U.O.N.



WALL LINE "C"

2x6 STUDS @ 16"o.c. U.O.N.

1/8" ~ 1'-0"

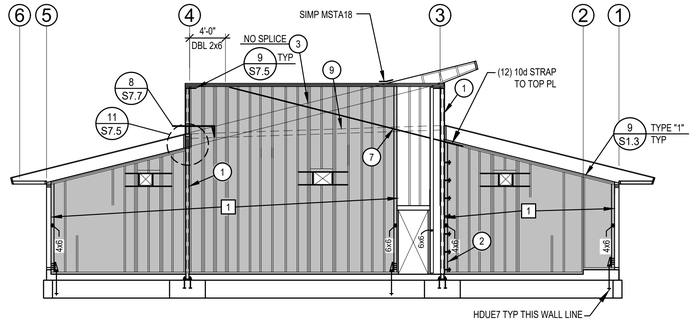


WALL LINE "B"

2x6 STUDS @ 16"o.c. U.O.N.

(3x STUDS & BLKG AT TYPE 2 PLYWD EDGES)

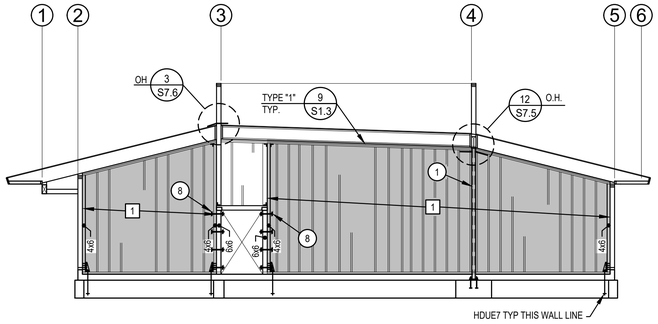
1/8" ~ 1'-0"



WALL LINE "E"

2x6 STUDS @ 16"o.c. U.O.N.

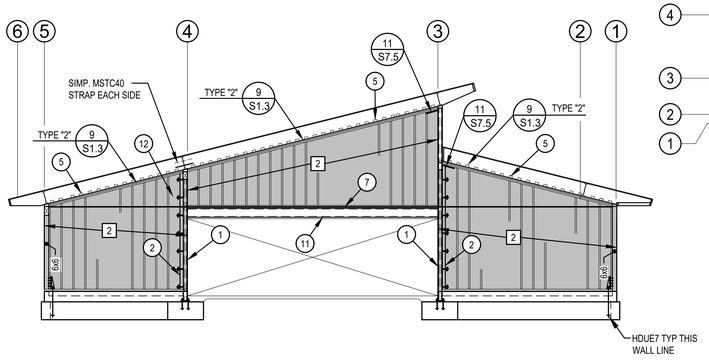
1/8" ~ 1'-0"



WALL LINE "D"

2x6 STUDS @ 16"o.c. U.O.N.

1/8" ~ 1'-0"

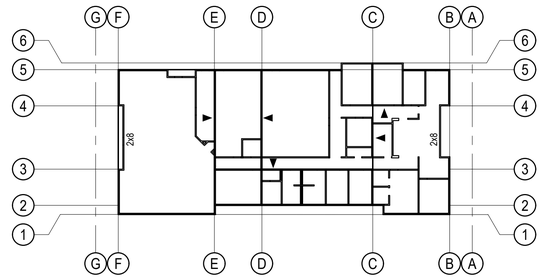


WALL LINE "F"

2x8 STUDS @ 16"o.c. U.O.N.

(3x STUDS & BLKG AT TYPE 2 PLYWD EDGES)

1/8" ~ 1'-0"



KEY PLAN

NO SCALE

NOTE: ALL WALL STUDS SHALL BE 2x6 @ 16"o.c. U.O.N.

◄ - INDICATES FACE TO RECEIVE SHEAR WALL PLYWOOD AT INTERIOR WALLS. ALL EXTERIOR WALLS HAVE PLYWOOD ON THE OUTSIDE FACE U.O.N.

SHEAR WALL NOTES

1. SEE SHET S6.1 FOR SHEAR WALL NOTES.

KEY NOTES

1. HSS COL. SEE FDN PLAN.
2. 4x TRIM STUD W/ 5/8"Ø STUD BOLTS @ 24"o.c. PER DETAIL 10/S1.3
3. REDLAM LVL LEDGER. SPLICE PER DETAIL 8/S7.6.
4. (2) 2x6 PL'S (NO SPLICES) LAP AT CORNER W/ (3) 16d & PROVIDE LSTA36 CORNER STRAP PER 9/S1.4.
5. SIMPSON A35 @ 12"o.c
6. SIMPSON CS14 STRAP OVER PLYWD W/ 10d @ 4½"o.c. TO BLKG PER DET 6/S1.4
7. SIMPSON CS16 STRAP OVER PLYWD W/ 10d @ 4½"o.c. TO BLKG PER DET 6/S1.4
8. 5/8" Ø STITCH BOLTS @ 24"o.c. PER 17/S1.4, TYP
9. 2x LEDGER, SPLICE OVER STUD W/ (2) MSTA18 STRAPS
10. 6x6 WIND GIRT W/ A35 EA END T&B
11. HSS HEADER PER CEILING FRAMING PLAN

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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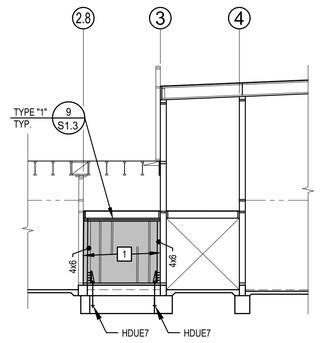
TITLE
BUILDING 100 SHEAR WALL ELEVATIONS

S6.2

PROJECT 24042

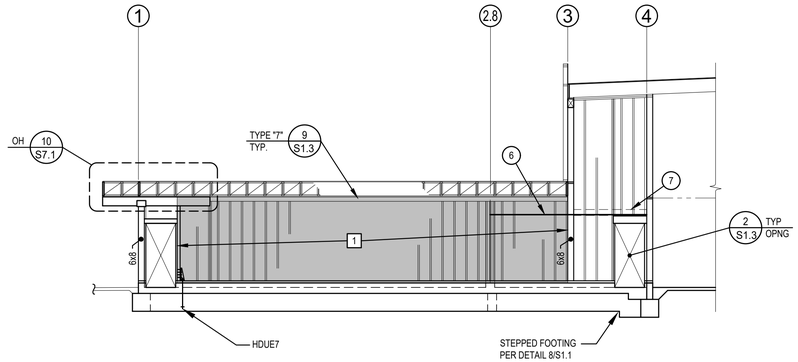
REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5732
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

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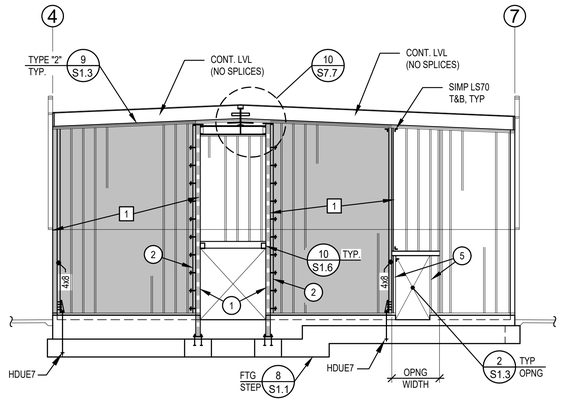
WALL LINE "B.5"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



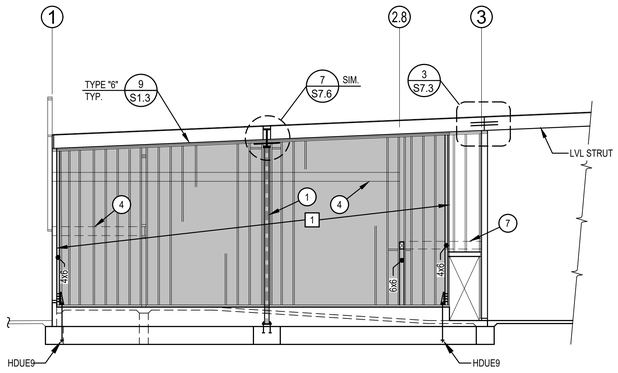
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1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



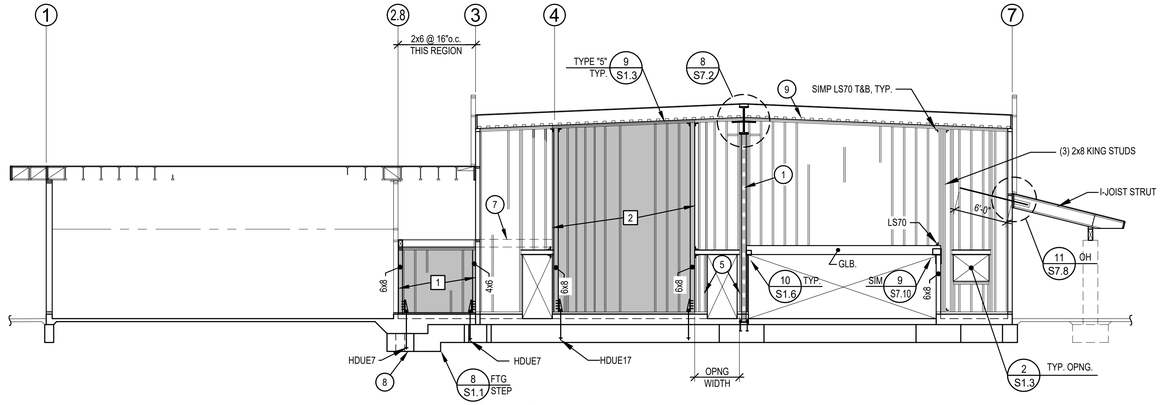
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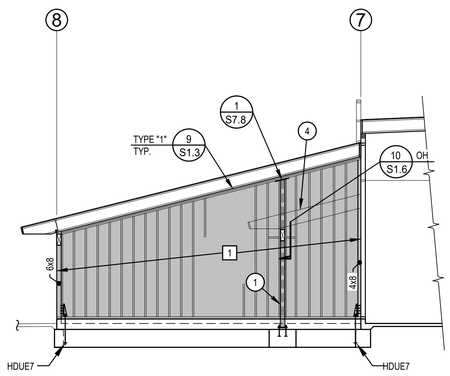
WALL LINE "D"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



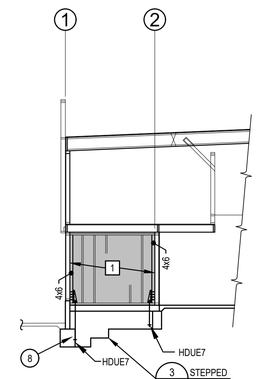
WALL LINE "C"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N. (3x STUDS & BLKG AT TYPE 2 PLYWD JOINTS)



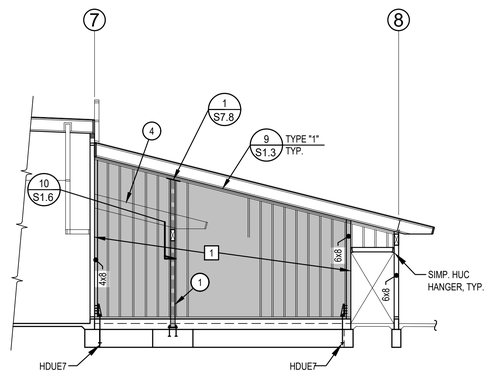
WALL LINE "G"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



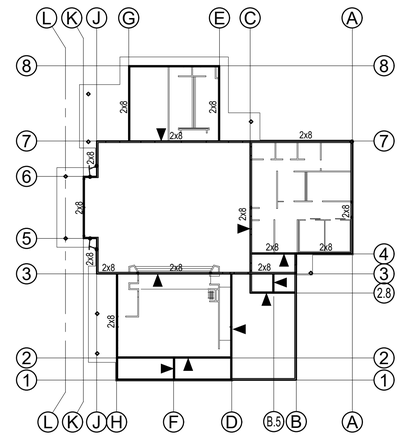
WALL LINE "F"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



WALL LINE "E"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



KEY PLAN

NO SCALE

◀ - INDICATES FACE TO RECEIVE SHEAR WALL PLYWOOD AT INTERIOR WALLS. ALL EXTERIOR WALLS HAVE PLYWOOD ON THE OUTSIDE FACE U.O.N. STUD SIZES INDICATED ON KEY PLAN ARE THE NOMINAL STUD SIZE. ALL WALLS NOT LABELED SHALL BE 2x6 U.O.N.

SHEAR WALL NOTES

1. SEE SHET S6.1 FOR SHEAR WALL NOTES.

KEY NOTES

1. HSS COL. SEE FDN PLAN.
2. 4x TRIM STUD W/ 5/8"Ø STUD BOLTS @ 24"o.c. PER DETAIL 10/S1.3.
3. HSS 5x5x1/4" W/ SIMP. CCO TO GLU-LAM BEAM BELOW.
4. MICROLLAM LVL LEDGER. SPLICE PER DETAIL 8/S7.6.
5. INFILL STUDS AT ADA DOORS PER ARCH DWGS. WALL OPNG FRAMED PER 2/S1.3 BASED ON FULL WIDTH OF OPNG IN 2x8 WALL.
6. SIMPSON CS14 STRAP OVER PLYWD W/ 10d @ 4"o.c. TO BLKG PER DET 6/S1.4
7. 2x LEDGER, SPLICE OVER STUD W/ (2) MSTA18 STRAPS
8. HOLDOWN ANCHOR EMBEDMENT MEASURED FROM T.O. THE LOWERED PAD FTG
9. SIMP. A35 @ 12"o.c.

APPROVALS

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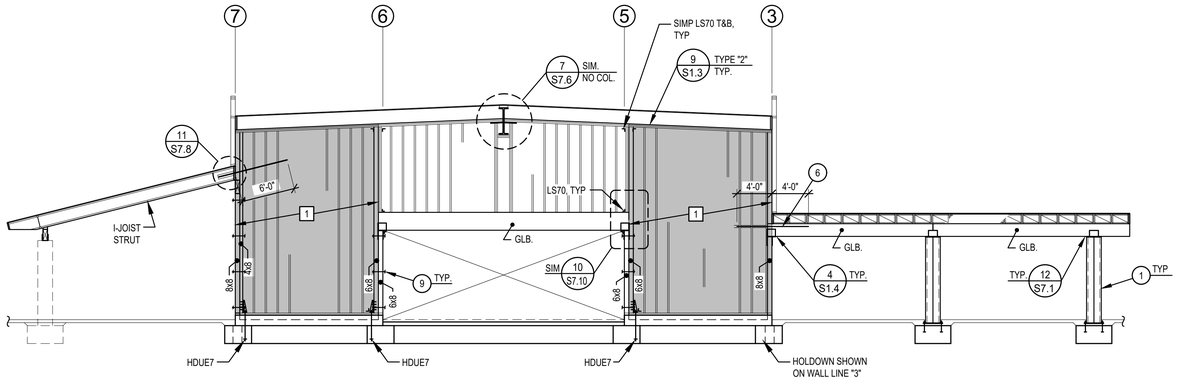
TITLE
BUILDING 200 SHEAR WALL ELEVATIONS

S6.3

PROJECT 24042

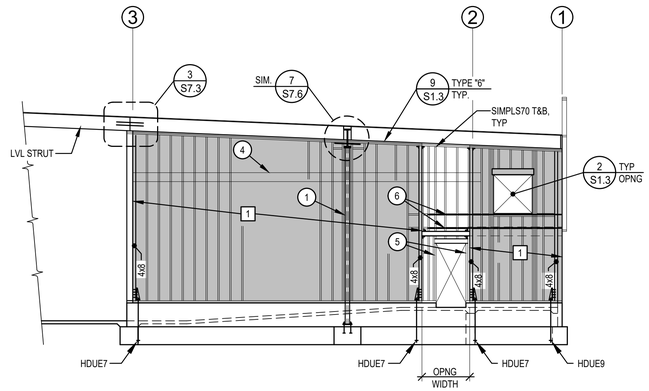
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STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com



WALL LINE "J"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



WALL LINE "H"

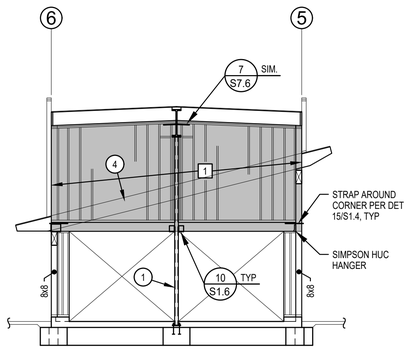
1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.

SHEAR WALL NOTES

1. SEE SHET S6.1 FOR SHEAR WALL NOTES.

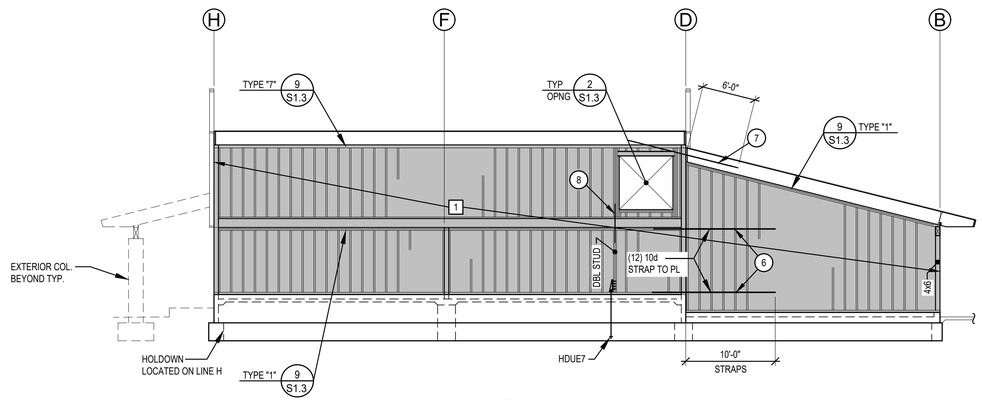
KEY NOTES

1. HSS COL. SEE FDN PLAN.
2. 4x TRIM STUD W/ 5/8"Ø STUD BOLTS @ 24"o.c. PER DETAIL 10/S1.3
3. SIMPSON STRAP PER DETAIL 6/S1.4
4. LVL LEDGER. SPLICE PER DETAIL 8/S7.6.
5. SIMP. A35 @ 12"o.c.
6. SIMPSON CS16 STRAP W/ 10d @ 4 1/2"o.c. SEE DETAIL 6/S1.4.
7. CMST14 x12'-0" W/ 10d @ 3 1/2"o.c. (2 ROWS)
8. MSTC52 W/ (42) 16d SINKERS
9. STITCH BOLTS @ 24"o.c. PER 17/S1.4



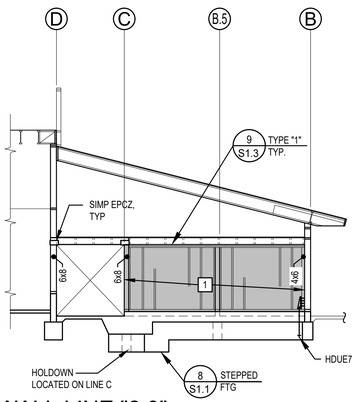
WALL LINE "K"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



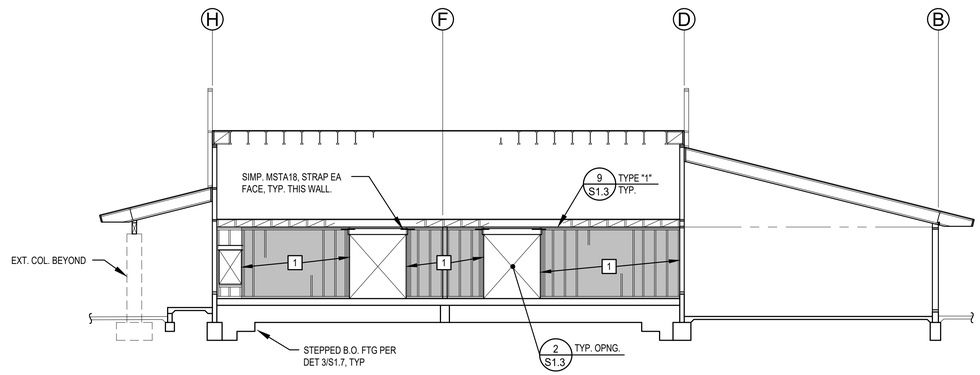
WALL LINE "1"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



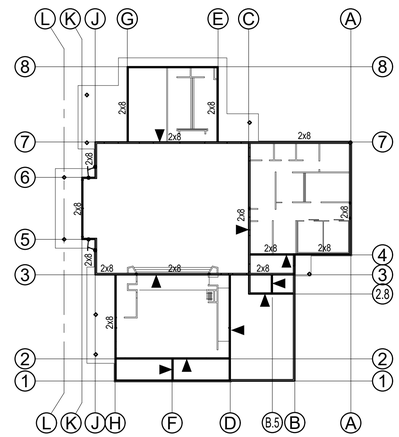
WALL LINE "2.8"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



WALL LINE "2"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



KEY PLAN

NO SCALE

◀ - INDICATES FACE TO RECEIVE SHEAR WALL PLYWOOD AT INTERIOR WALLS. ALL EXTERIOR WALLS HAVE PLYWOOD ON THE OUTSIDE FACE U.O.N. STUD SIZES INDICATED ON KEY PLAN ARE THE NOMINAL STUD SIZE. ALL WALLS NOT LABELED SHALL BE 2x6 U.O.N.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-41128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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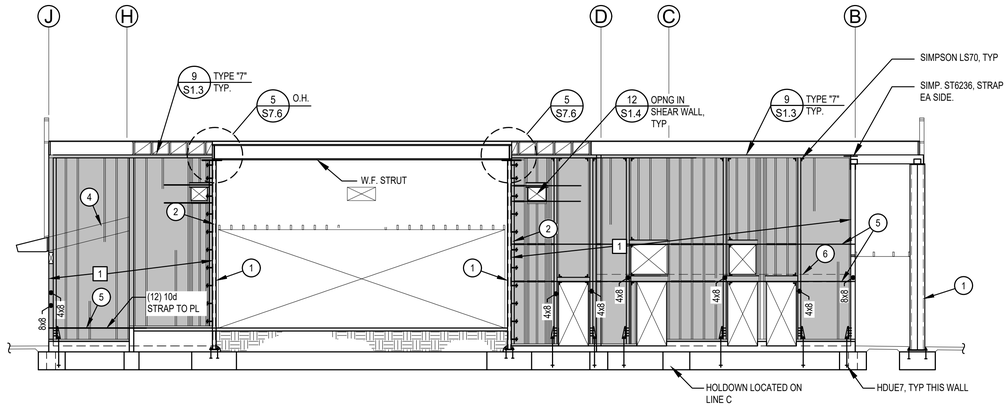
TITLE
BUILDING 200 SHEAR WALL ELEVATIONS

S6.4

PROJECT 24042

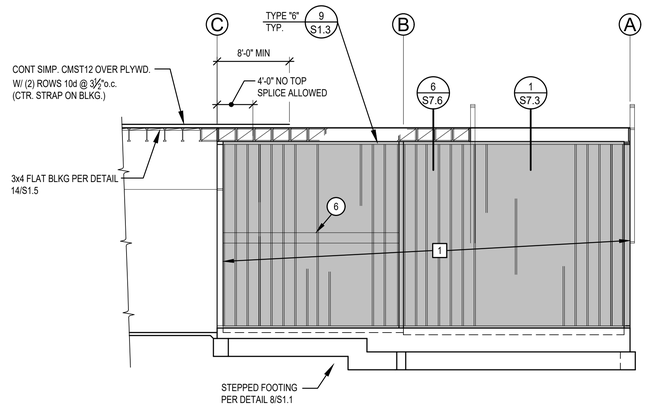
REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENGER
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WALL LINE "3"

1/8" ~ 1'-0" — 2x8 STUDS @ 16"o.c. U.O.N.



WALL LINE "4"

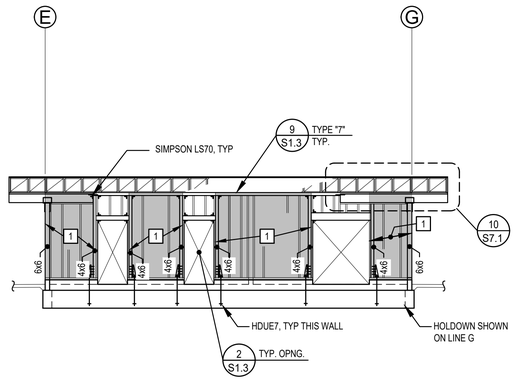
1/8" ~ 1'-0" — 2x8 STUDS @ 16"o.c. U.O.N.

SHEAR WALL NOTES

1. SEE SHET S6.1 FOR SHEAR WALL NOTES.

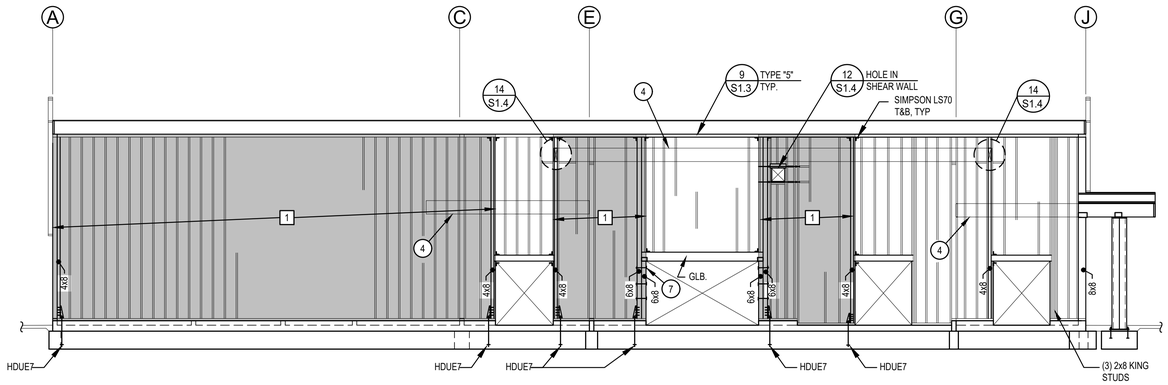
KEY NOTES

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2. 4x TRIM STUD W/ ⅝Ø STUD BOLTS @ 24"o.c. PER DETAIL 10/S1.3
3. SIMPSON STRAP PER DETAIL 6/S1.4
4. LVL LEDGER. SPLICE PER DETAIL 8/S7.6.
5. SIMPSON CS16 STRAP OVER WALL PLYWD PER DET 6/S1.4
6. 2x LEDGER, SPLICE OVER STUD W/ (2) MSTA18 STRAPS
7. STITCH BOLTS @ 24"o.c PER 17/S1.4



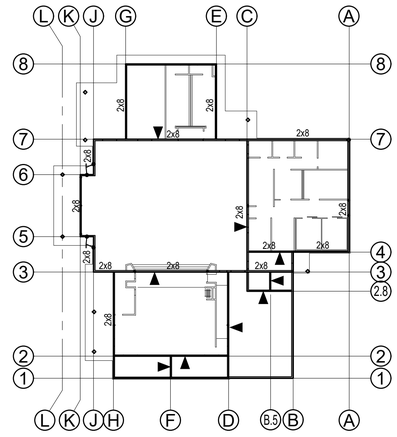
WALL LINE "8"

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WALL LINE "7"

1/8" ~ 1'-0" — 2x8 STUDS @ 16"o.c. U.O.N.



KEY PLAN

NO SCALE

◀ - INDICATES FACE TO RECEIVE SHEAR WALL PLYWOOD AT INTERIOR WALLS. ALL EXTERIOR WALLS HAVE PLYWOOD ON THE OUTSIDE FACE U.O.N. STUD SIZES INDICATED ON KEY PLAN ARE THE NOMINAL STUD SIZE. ALL WALLS NOT LABELED SHALL BE 2x6 U.O.N.

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

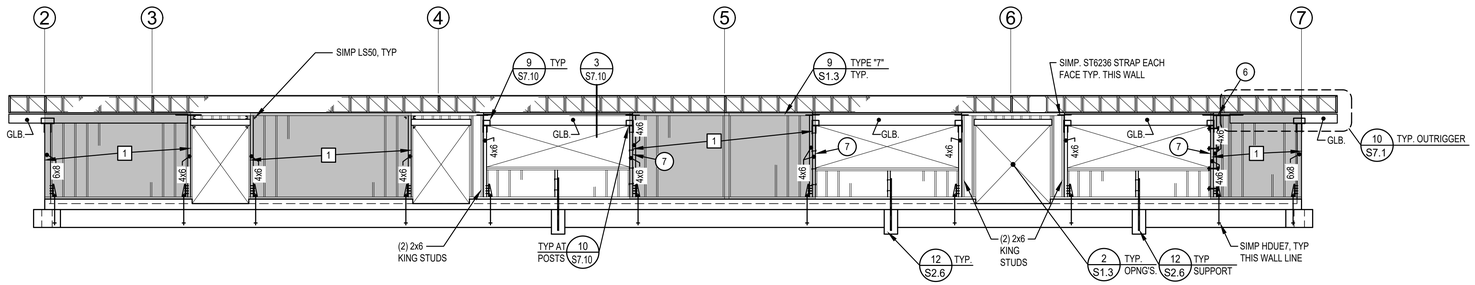
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TITLE
BUILDING 200 SHEAR WALL ELEVATIONS

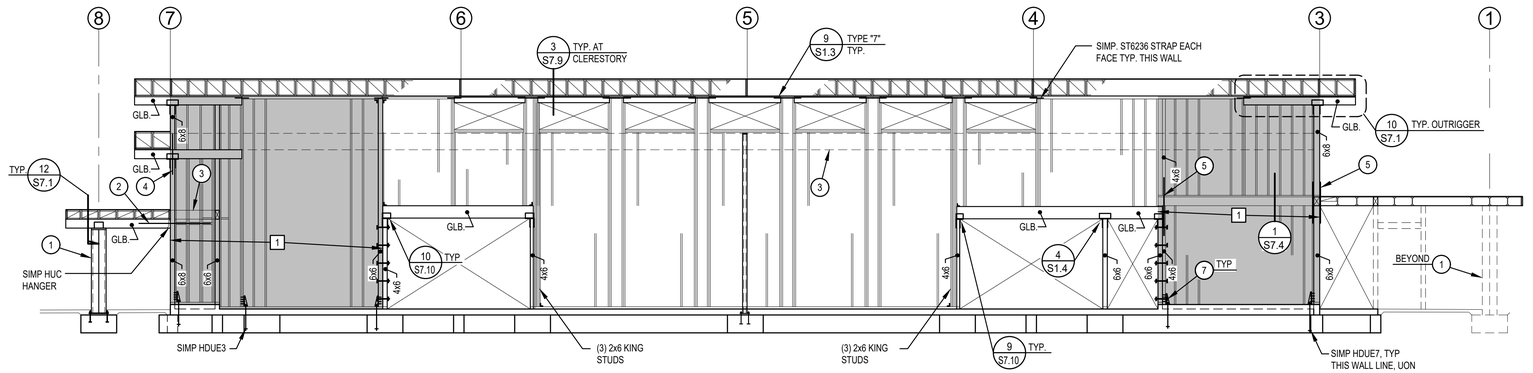
S6.5

PROJECT 24042



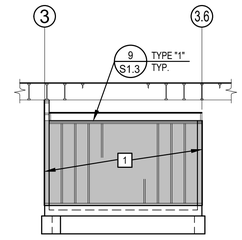
WALL LINE "A"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



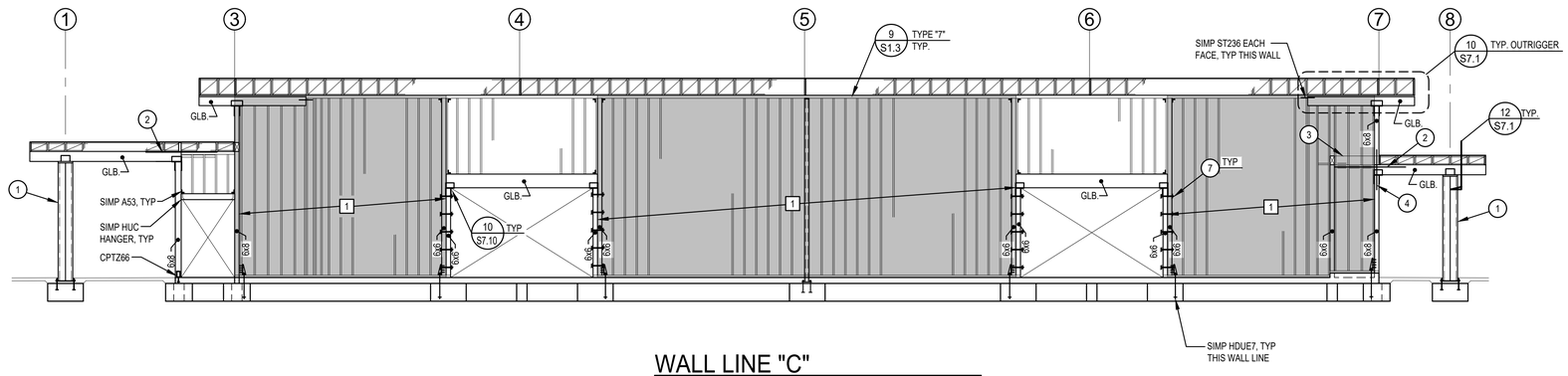
WALL LINE "B"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



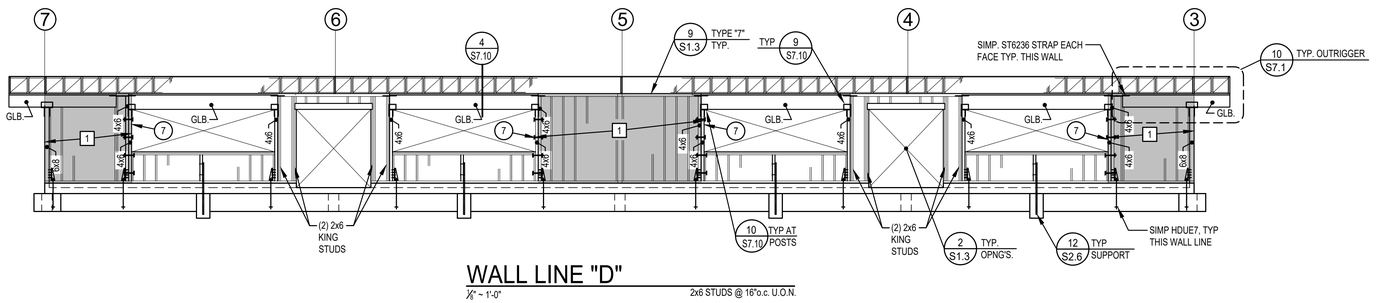
WALL LINE "A.2"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



WALL LINE "C"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



WALL LINE "D"

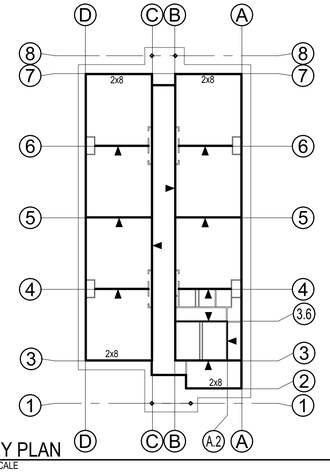
1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.

SHEAR WALL NOTES

1. SEE SHEET S6.1 FOR SHEAR WALL NOTES.

KEY NOTES

1. HSS COL. SEE FDN PLAN.
2. SIMP. CS16 STRAP x 8'-0" LONG OVER WALL PLYWD W/ 10d @ 4½"o.c. SEE DETAIL 6/S1.4. CTR STRAP ON END OF BEAM.
3. REDLAM LVL LEDGER. SPLICE PER DETAIL 8/S7.6.
4. SIMP. CMST14 STRAP W/ (16) 10d TO EA POST.
5. SIMP. CMSTC16 STRAP EA. SIDE OF POST TO GLB W/ (20) 10d TO EA. MEMBER. KEEP NOTCH TRHU PLYWD SHTG AS SMALL AS POSSIBLE.
6. SIMPSON CS14 STRAP EA FACE W/ (16) 10d TO BEAM EA END. PROVIDE 10d @ 4½"o.c. TO WALL/ BLKG BTWN BEAMS PER 6/S1.4
7. ⅝" Ø STITCH BOLTS @ 24"o.c. PER 17/S1.4



KEY PLAN

NO SCALE

◀ - INDICATES FACE TO RECEIVE SHEAR WALL PLYWOOD AT INTERIOR WALLS. ALL EXTERIOR WALLS HAVE PLYWOOD ON THE OUTSIDE FACE U.O.N. STUD SIZES INDICATED ON KEY PLAN ARE THE NOMINAL STUD SIZE. ALL WALLS NOT LABELED SHALL BE 2x6 U.O.N.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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SANGER, FRESNO COUNTY, CA

REVISIONS

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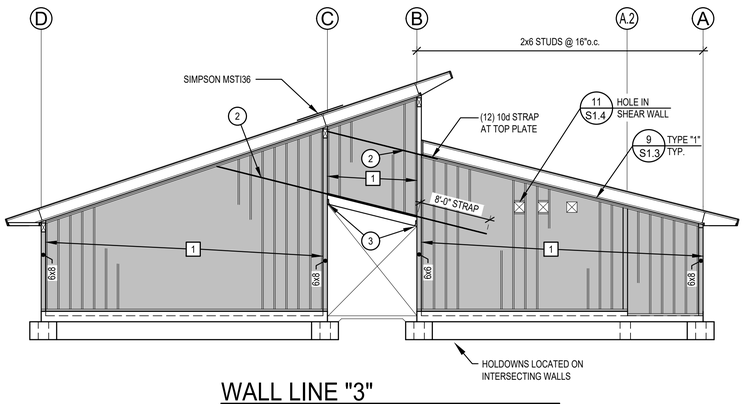
TITLE
BUILDINGS
300-400-500
CLASSROOM SHEAR WALL ELEVATIONS

S6.6

PROJECT 24042

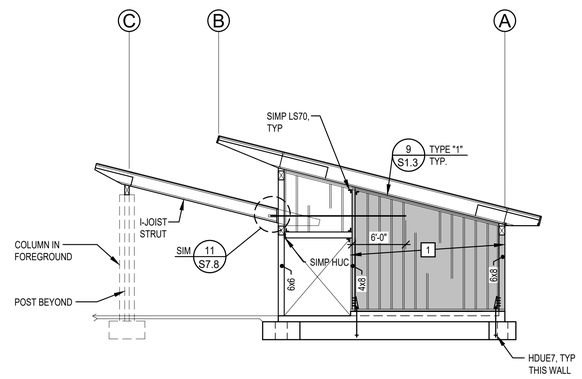
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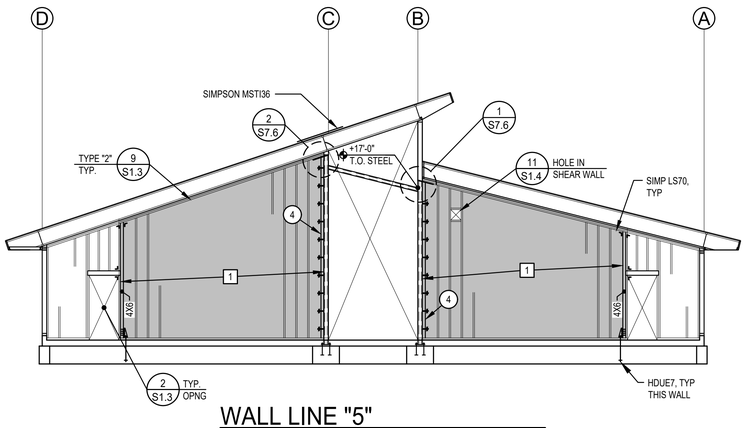
WALL LINE "3"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



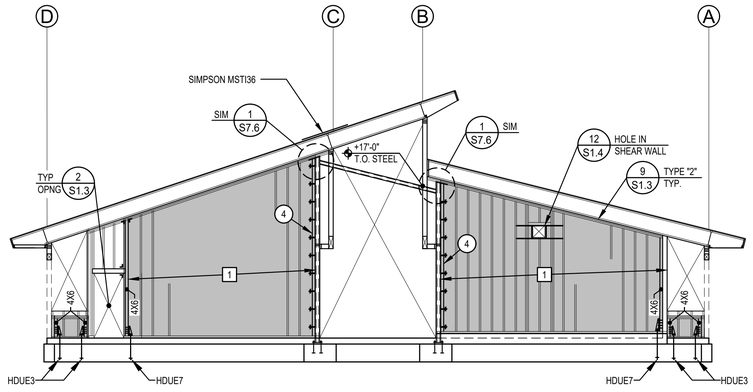
WALL LINE "2"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



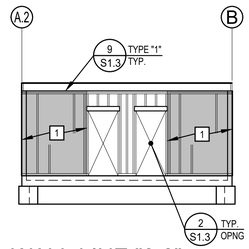
WALL LINE "5"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



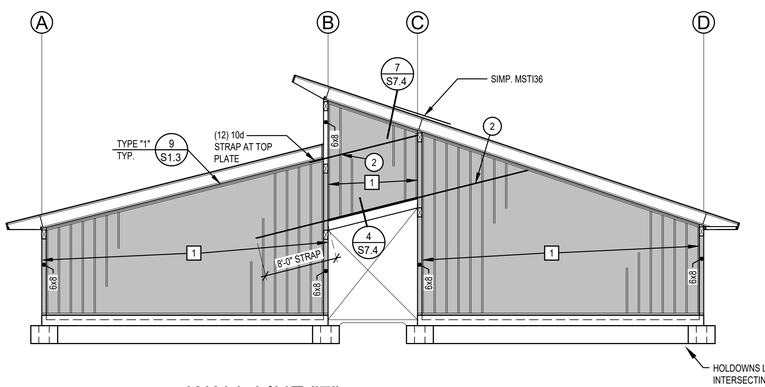
WALL LINE "4"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



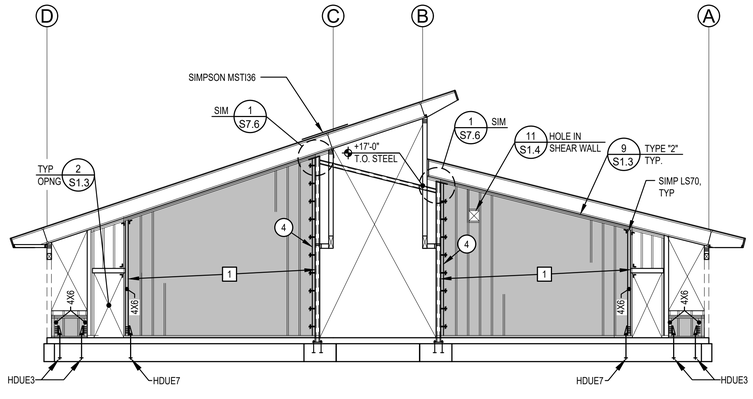
WALL LINE "3.6"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



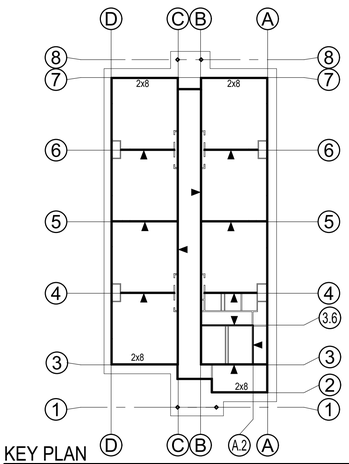
WALL LINE "7"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



WALL LINE "6"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



KEY PLAN

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SHEAR WALL NOTES

1. SEE SHEET S6.1 FOR SHEAR WALL NOTES.

KEY NOTES

1. SIMP. A35 @16"o.c.
2. SIMPSON CS16 STRAP OVER WALL SHTG W/ 10d @ 4½"o.c. TO BLKG PER DET 6/S1.4
3. SIMP HUC HANGER W/ SLOPED SEAT
4. 2x NAILER

APPROVALS

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S6.7

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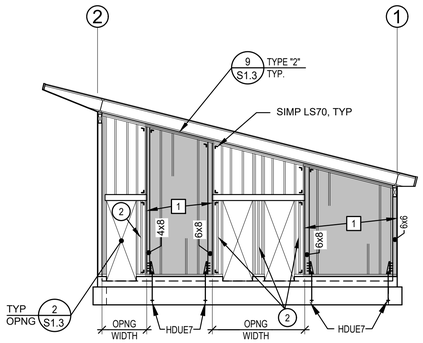
KEY NOTES

1. DBL 2x6 PL'S W/ SIMP A35 T&B EA END
2. INFILL STUDS AT ADA DOORS PER ARCH DWGS

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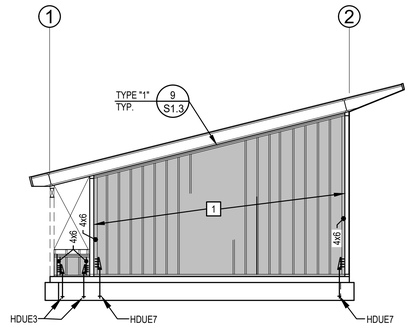
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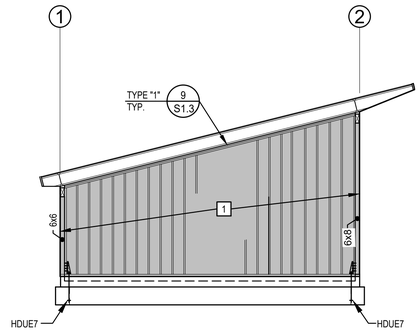
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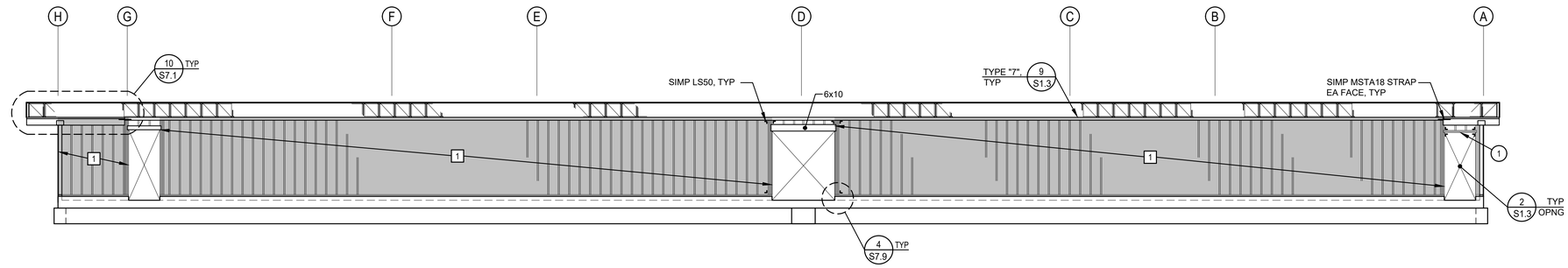
WALL LINE "D"

1/8" ~ 1'-0" 2x6 STUDS @ 16"o.c. U.O.N.



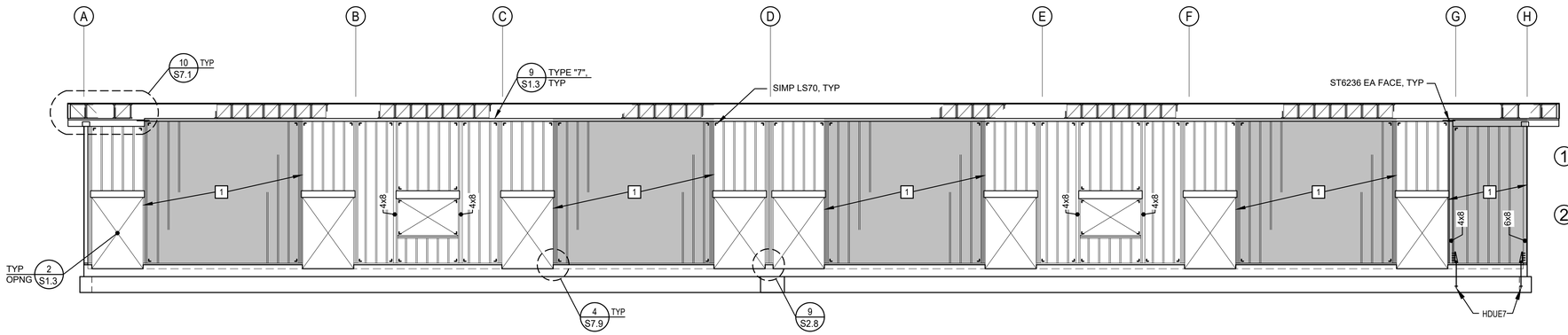
WALL LINE "A"

1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



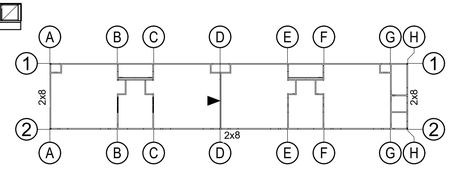
WALL LINE "1"

1/8" ~ 1'-0" 2x6 @ 16"o.c.



WALL LINE "2"

1/8" ~ 1'-0" 2x8 @ 16"o.c.



KEY PLAN

NO SCALE

◀ - INDICATES FACE TO RECEIVE SHEAR WALL PLYWOOD AT INTERIOR WALLS.
ALL EXTERIOR WALLS HAVE PLYWOOD ON THE OUTSIDE FACE U.O.N.
STUD SIZES INDICATED ON KEY PLAN ARE THE NOMINAL STUD SIZE.
ALL WALLS NOT LABELED SHALL BE 2x6 U.O.N.

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5732
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

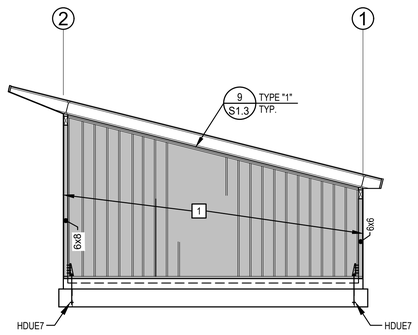
MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-1930 Office
(559) 627-1926 Fax

TITLE
BUILDING 600
SHEAR WALL
ELEVATIONS

S6.8

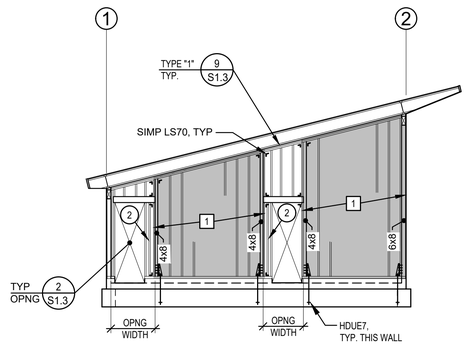
PROJECT 24042

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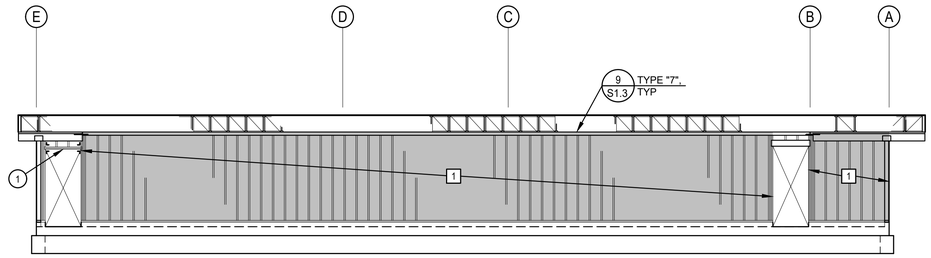
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1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



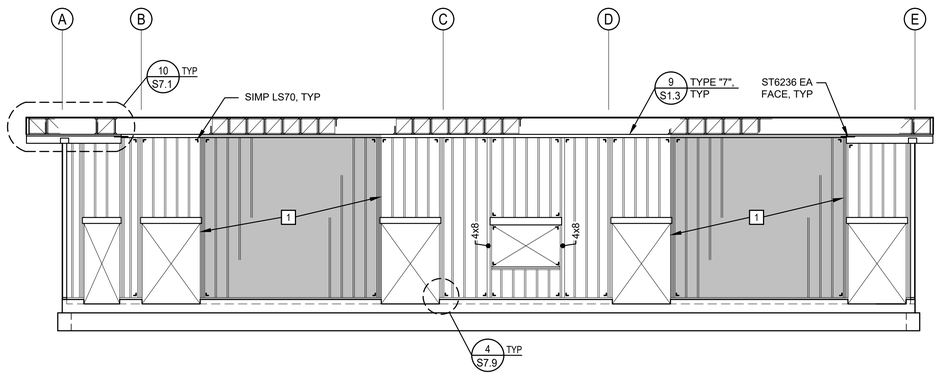
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1/8" ~ 1'-0" 2x8 STUDS @ 16"o.c. U.O.N.



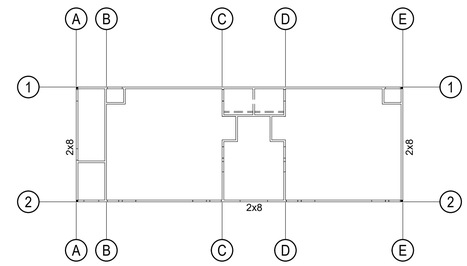
WALL LINE "1"

1/8" ~ 1'-0" 2x6 @ 16"o.c.



WALL LINE "2"

1/8" ~ 1'-0" 2x8 @ 16"o.c.



KEY PLAN

NO SCALE

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SHEAR WALL NOTES

1. SEE SHEET S6.1 FOR SHEAR WALL NOTES.

KEY NOTES

1. DBL 2x6 PL'S W/ SIMP A35 T&B EA END
2. INFILL STUDS AT ADA DOORS PER ARCH DWGS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-41128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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www.mangini.us
(559) 627.1926 Office
(559) 627.1926 Fax

TITLE
BUILDING 700
SHEAR WALL
ELEVATIONS

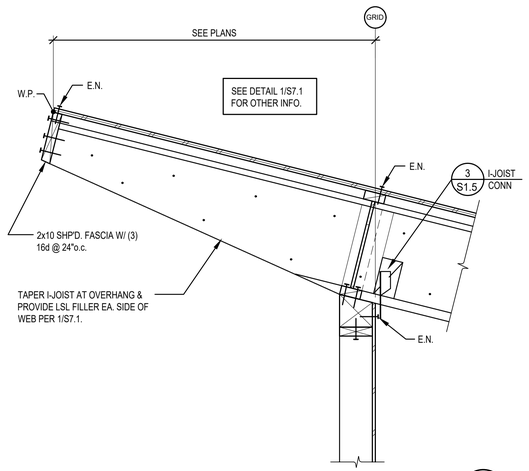
S6.9

PROJECT 24042

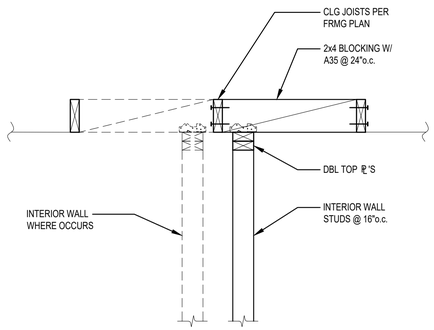
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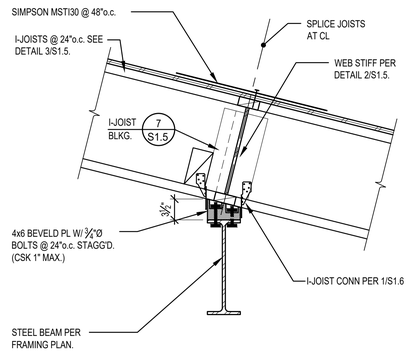
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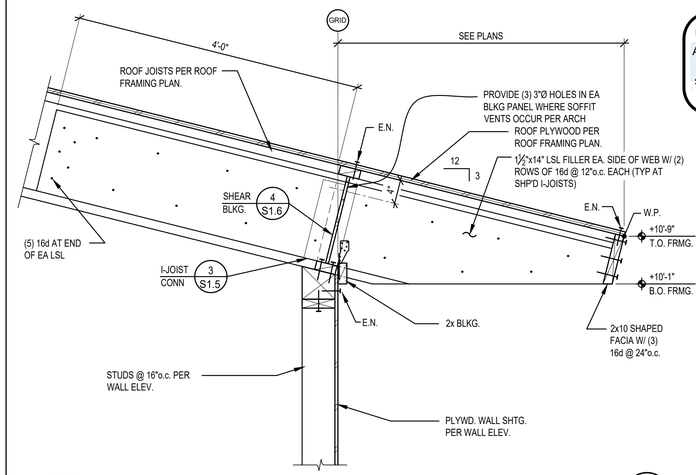
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4 S7.1



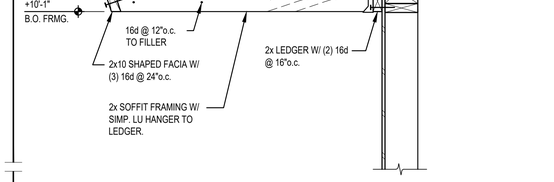
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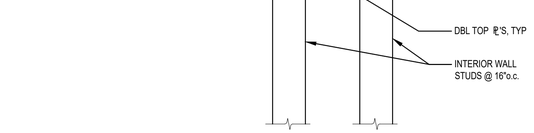
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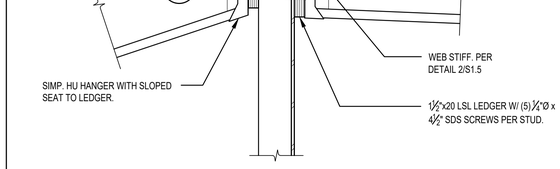
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1 S7.1



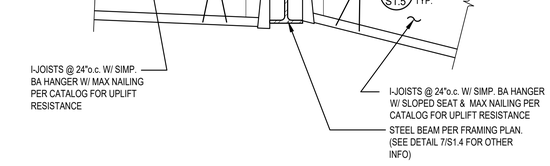
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8 S7.1



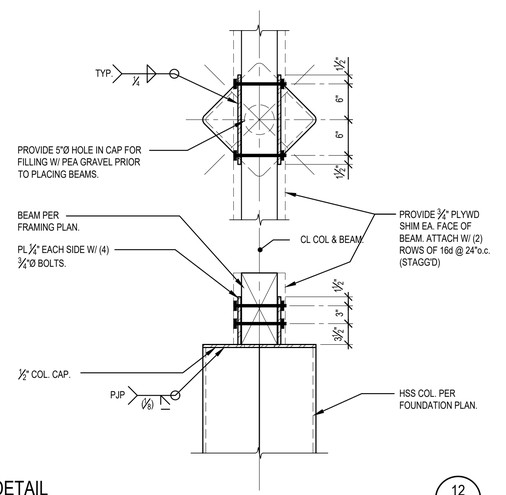
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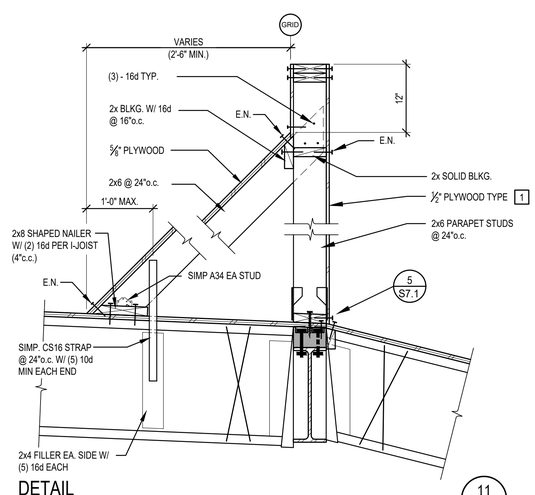
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6 S7.1



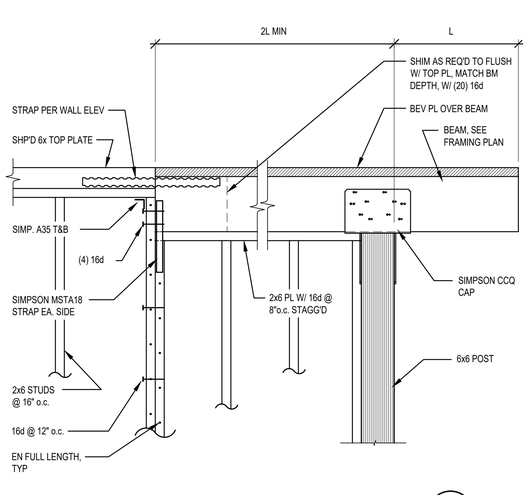
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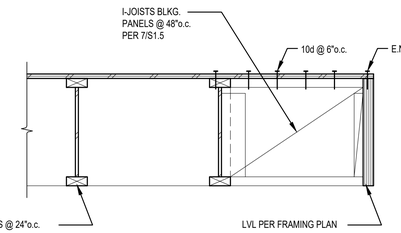
DETAIL
1" ~ 1'-0"
12 S7.1



DETAIL
1" ~ 1'-0"
11 S7.1



OUTRIGGER DETAIL
1" ~ 1'-0"
10 S7.1



DETAIL
1" ~ 1'-0"
9 S7.1

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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TITLE
FRAMING DETAILS

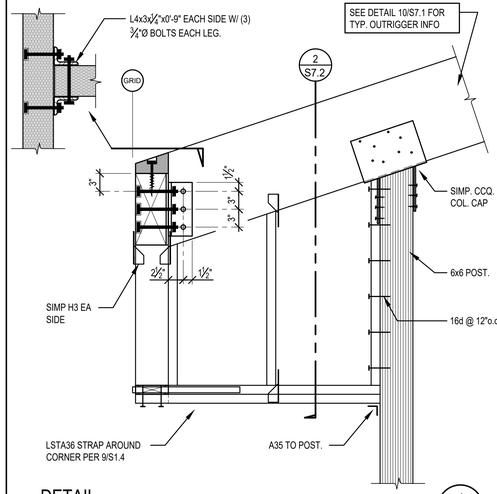
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PROJECT 24042

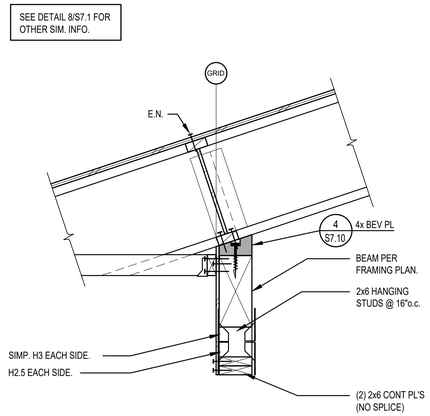
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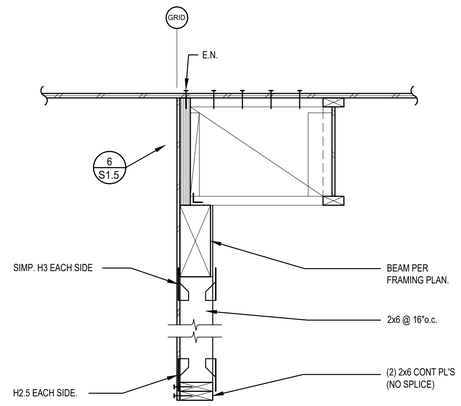
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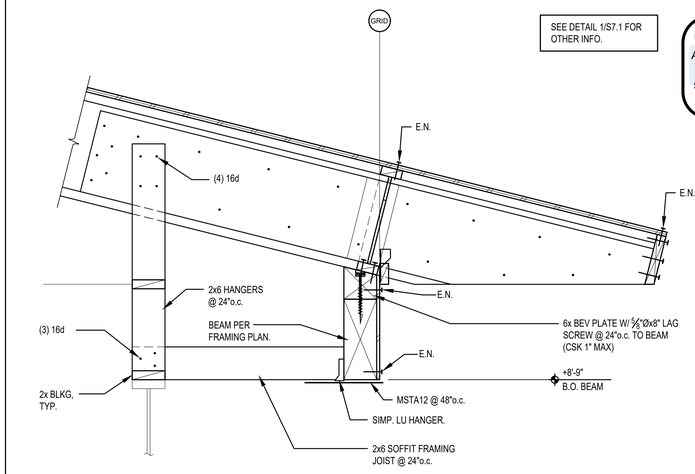
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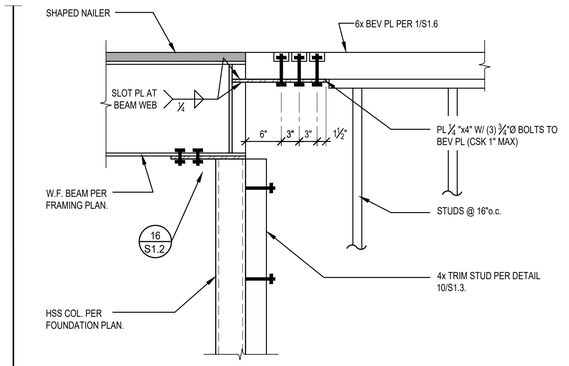
DETAIL
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3
S7.2



DETAIL
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S7.2

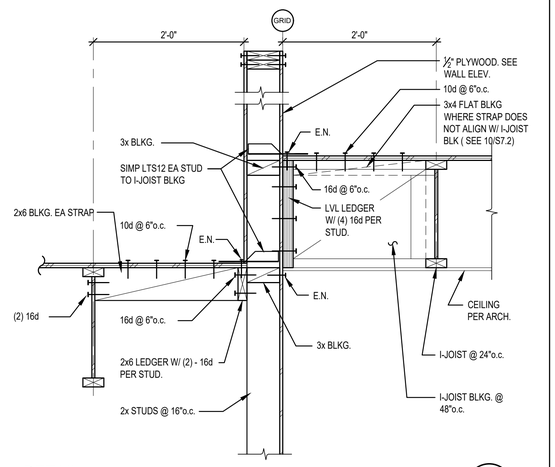


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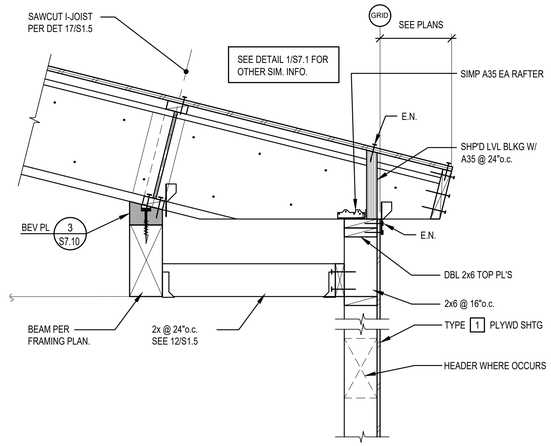


DETAIL
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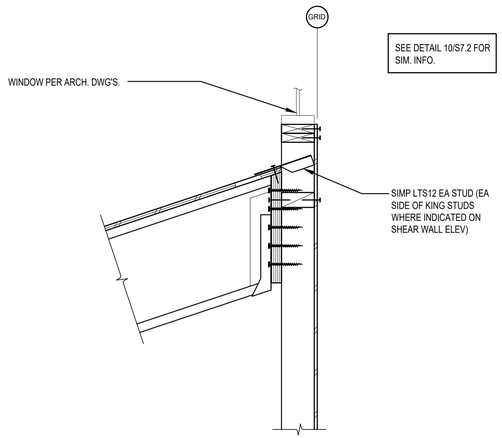


DETAIL
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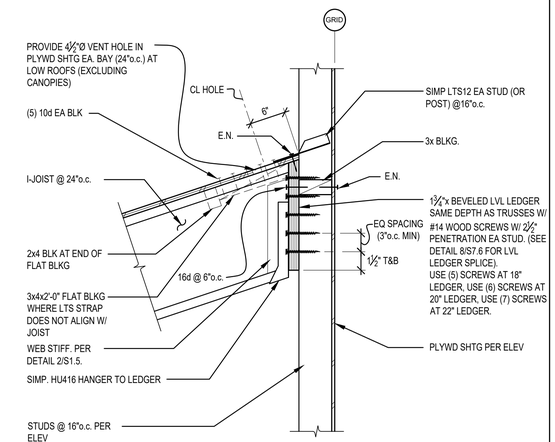


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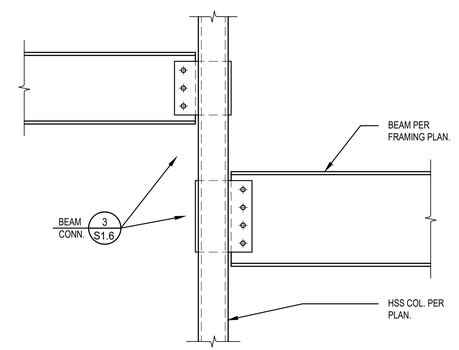
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S7.2



DETAIL
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11
S7.2



DETAIL
1" ~ 1'-0"
10
S7.2



DETAIL
1" ~ 1'-0"
9
S7.2

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
FRAMING DETAILS

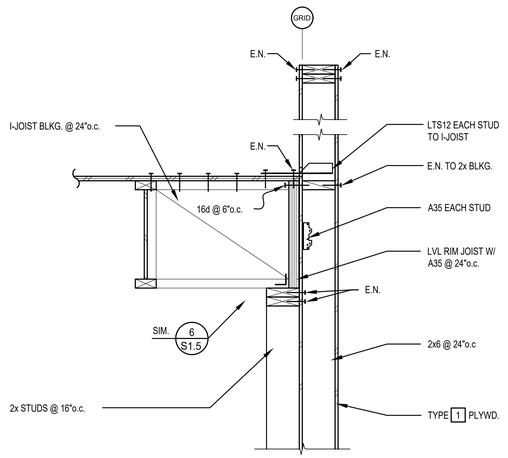
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PROJECT 24042

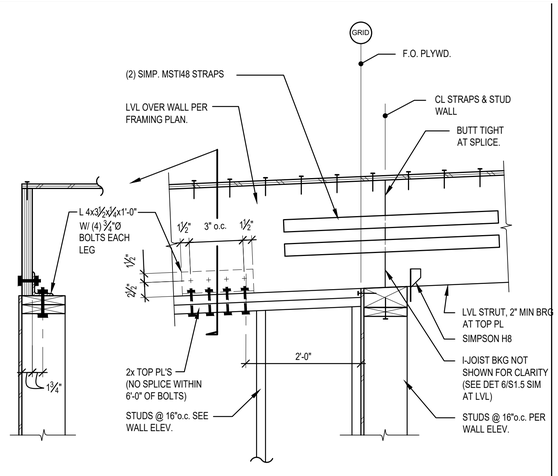
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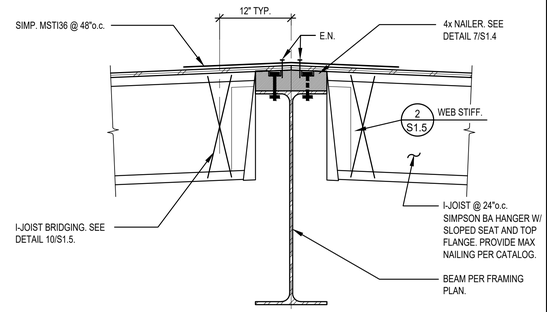
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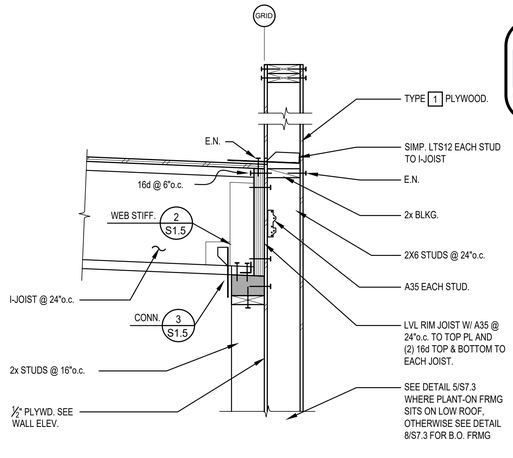
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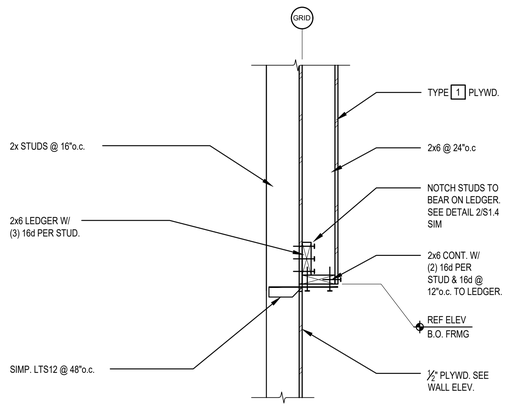
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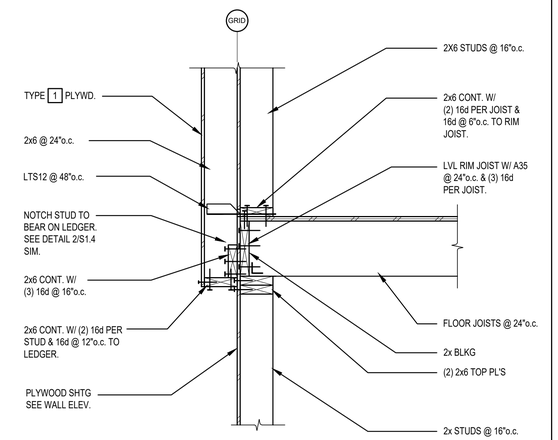
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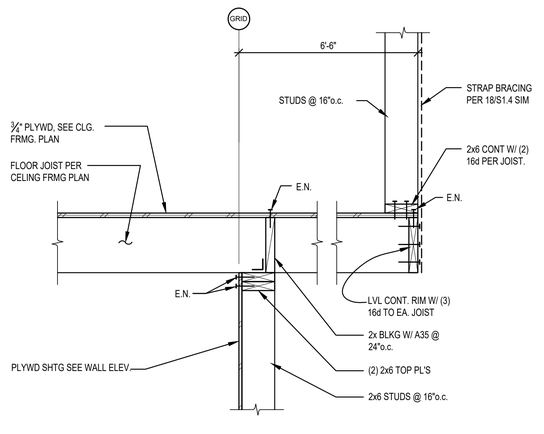
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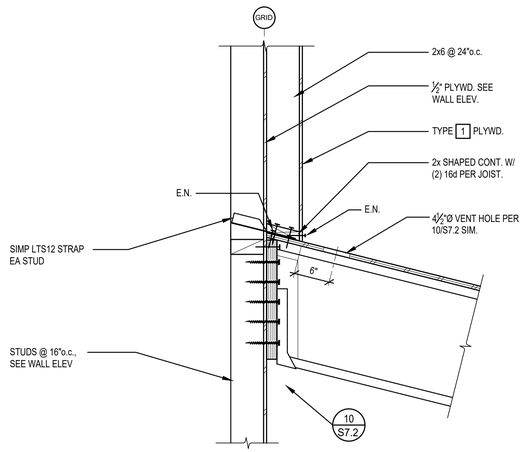
DETAIL
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8 S7.3



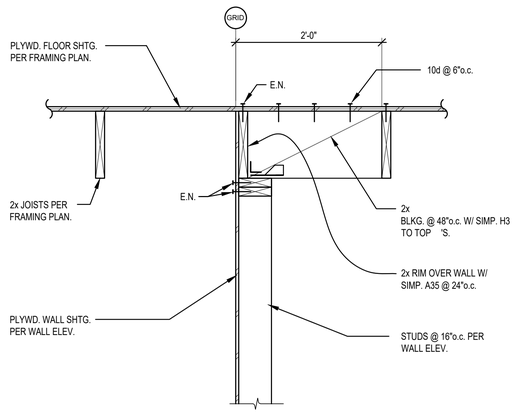
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7 S7.3



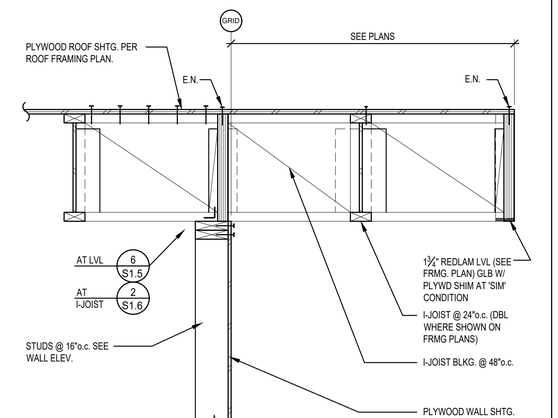
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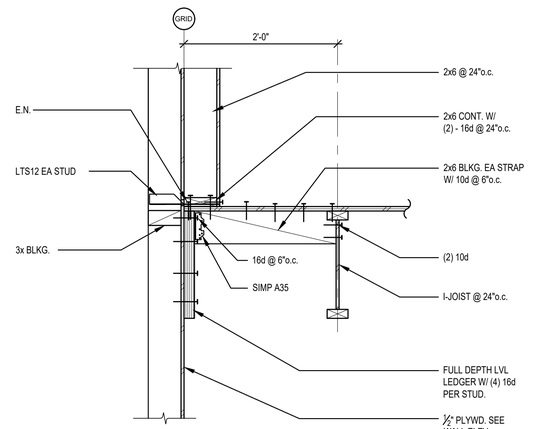
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5 S7.3



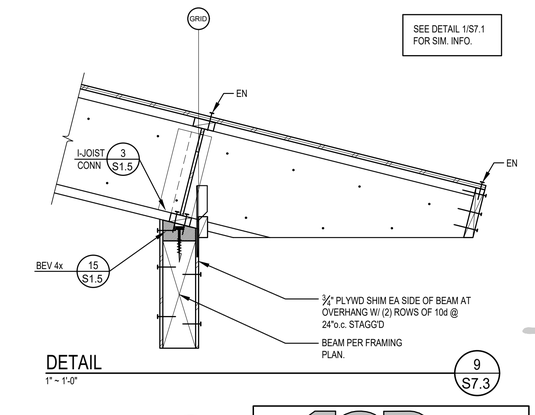
DETAIL
1" ~ 1'-0"
12 S7.3



DETAIL
1" ~ 1'-0"
11 S7.3



DETAIL
1" ~ 1'-0"
10 S7.3



DETAIL
1" ~ 1'-0"
9 S7.3

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
FRAMING DETAILS

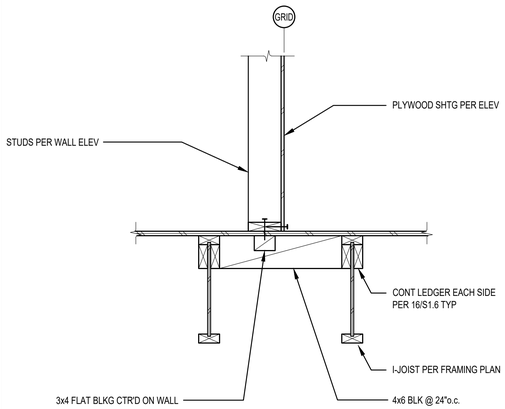
S7.3

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENEGAR
No. S5792
Exp: 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
Fresno, California 93720
(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

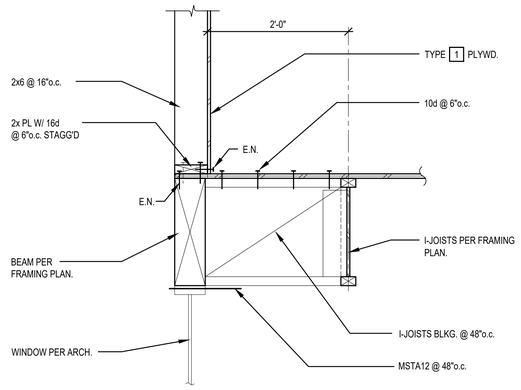
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EXTERIOR WALL AT LOW ROOF DETAIL

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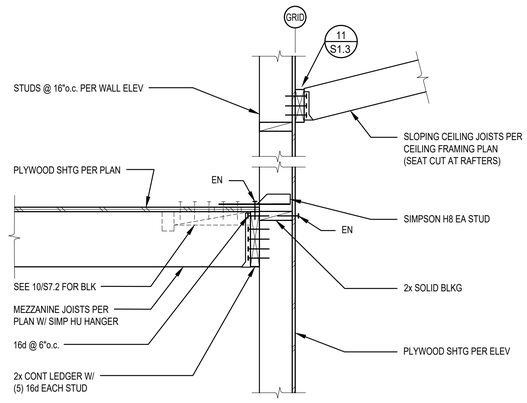
4 / S7.4



DETAIL

1" ~ 1'-0"

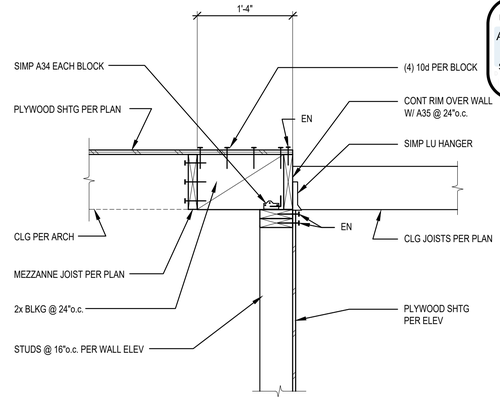
3 / S7.4



DETAIL

1" ~ 1'-0"

2 / S7.4



MEZZANINE DETAIL

1" ~ 1'-0"

1 / S7.4

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

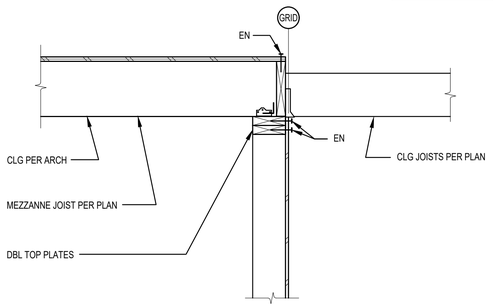
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

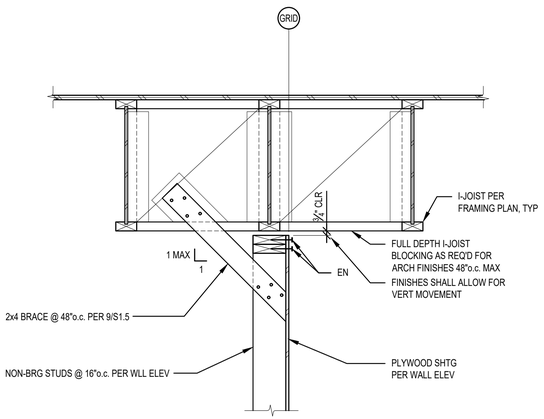
SEE DETAIL 1/S7.4 SIM FOR OTHER INFO



MEZZANINE DETAIL

1" ~ 1'-0"

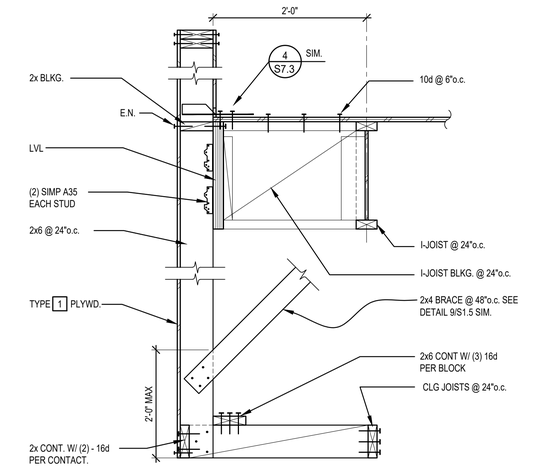
8 / S7.4



EXTRIOR NON-BRG WALL DETAIL

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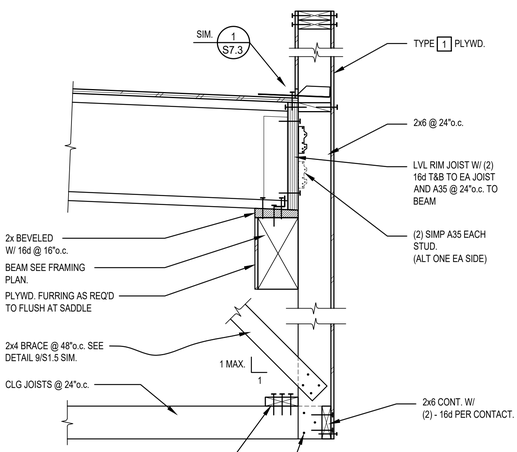
7 / S7.4



DETAIL

1" ~ 1'-0"

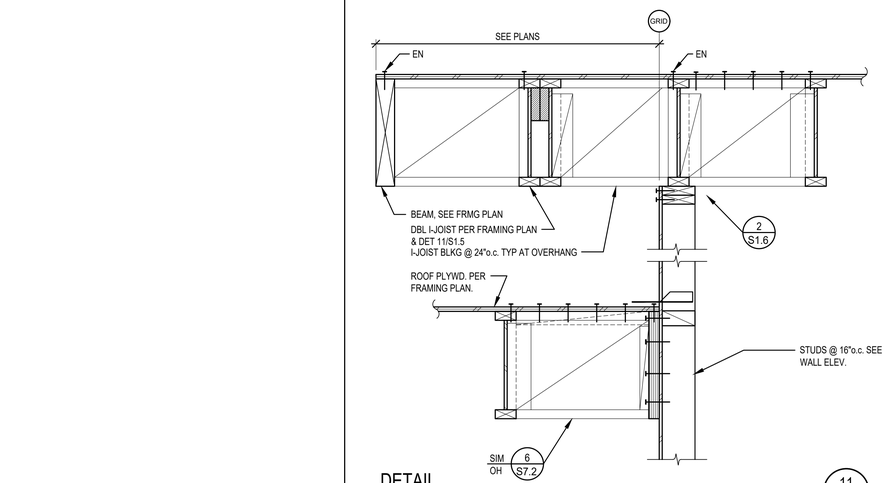
6 / S7.4



DETAIL

1" ~ 1'-0"

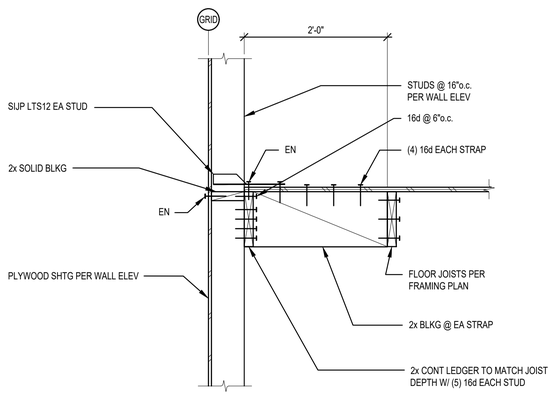
5 / S7.4



DETAIL

1" ~ 1'-0"

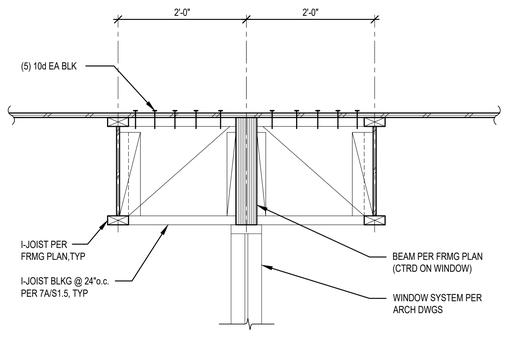
11 / S7.4



DETAIL

1" ~ 1'-0"

10 / S7.4



DETAIL

1" ~ 1'-0"

9 / S7.4

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5792
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
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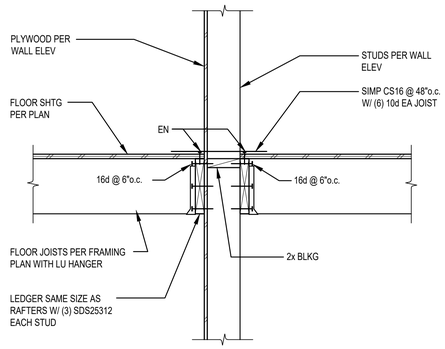
MANGINI | ARCHITECTURE INGENUITY
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Visalia, California 93291
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TITLE
FRAMING
DETAILS

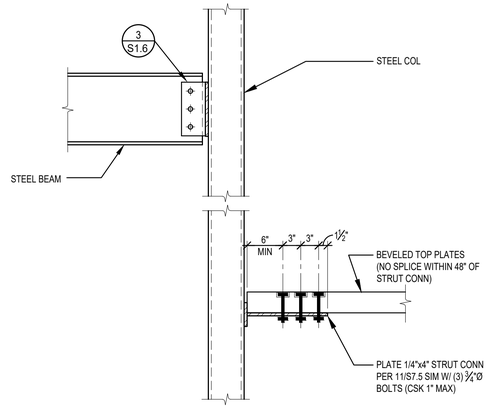
S7.4

PROJECT 24042

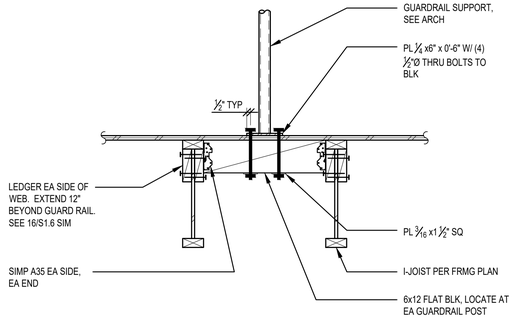
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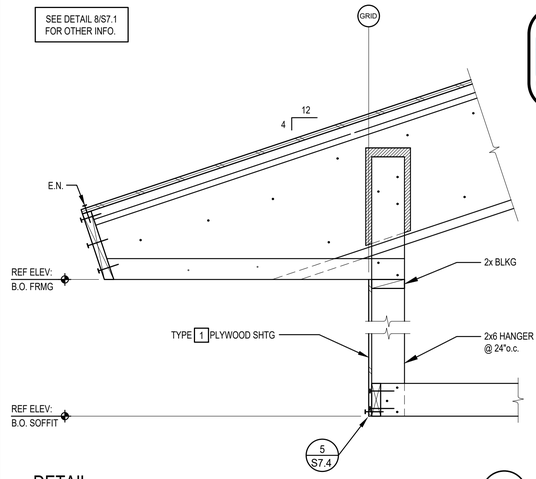
DETAIL 4 / S7.5
1" ~ 1'-0"



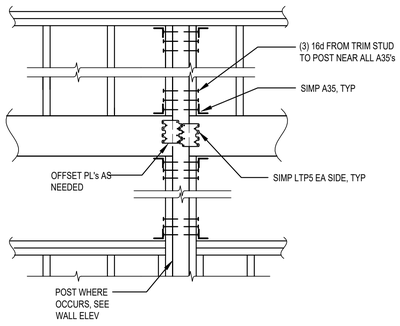
DETAIL 3 / S7.5
1" ~ 1'-0"



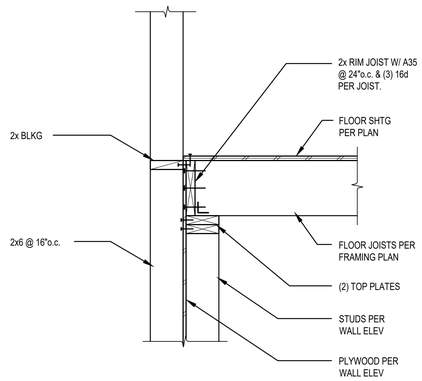
DETAIL 2 / S7.5
1" ~ 1'-0"



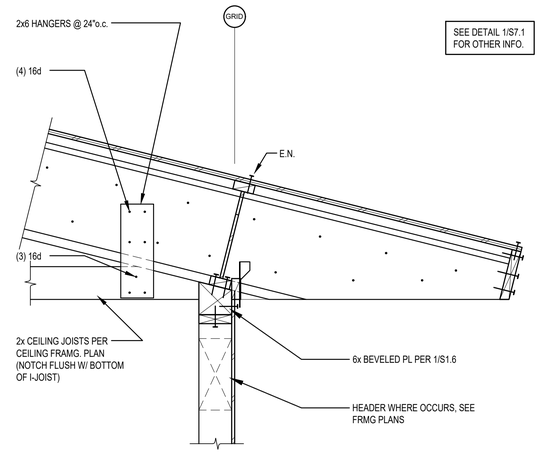
DETAIL 1 / S7.5
1" ~ 1'-0"



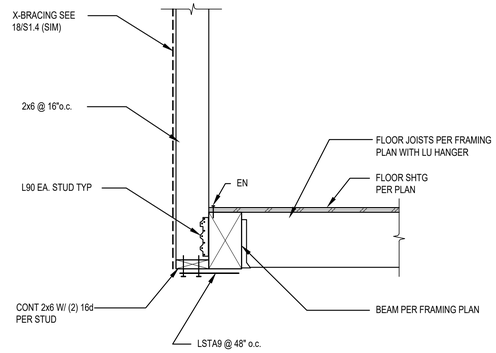
DETAIL 8 / S7.5
1" ~ 1'-0"



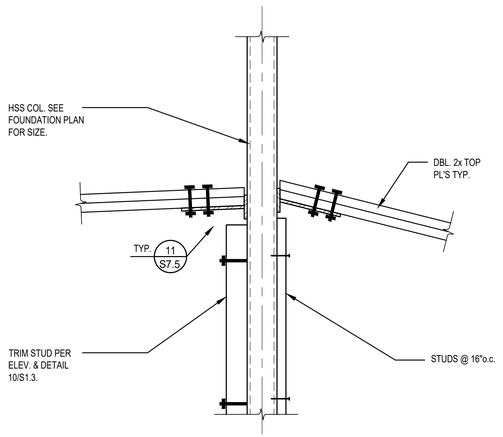
DETAIL 7 / S7.5
1" ~ 1'-0"



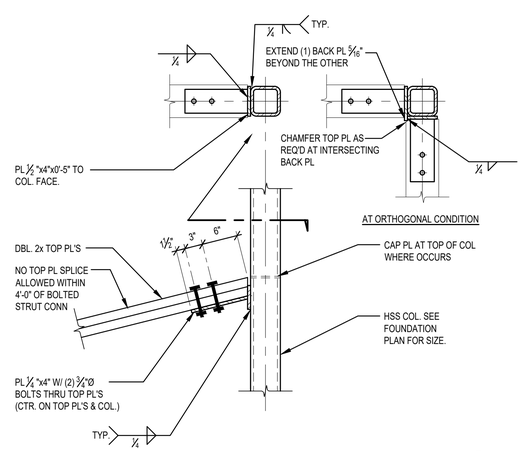
DETAIL 6 / S7.5
1" ~ 1'-0"



DETAIL 5 / S7.5
1" ~ 1'-0"

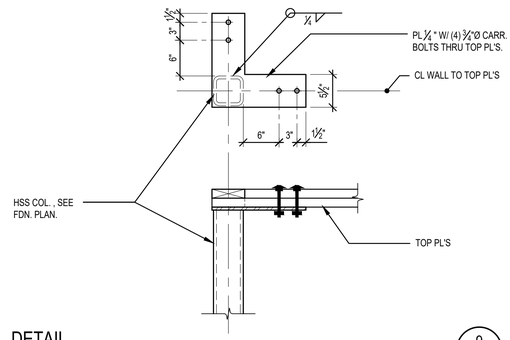


DETAIL 12 / S7.5
1" ~ 1'-0"



DETAIL 11 / S7.5
1" ~ 1'-0"

NOT USED
1" ~ 1'-0"
10
S7.5



DETAIL 9 / S7.5
1" ~ 1'-0"

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
FRAMING DETAILS

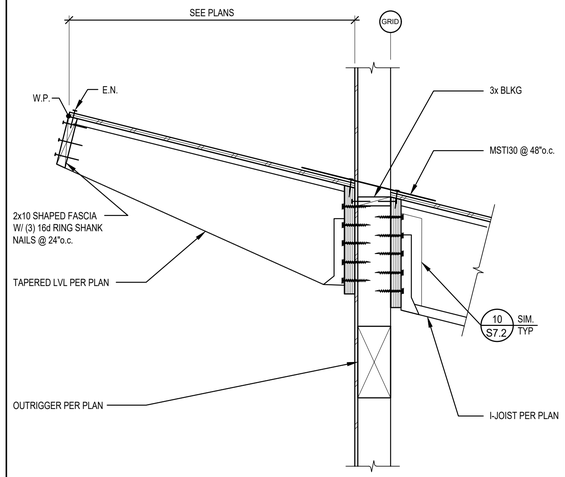
S7.5

PROJECT 24042

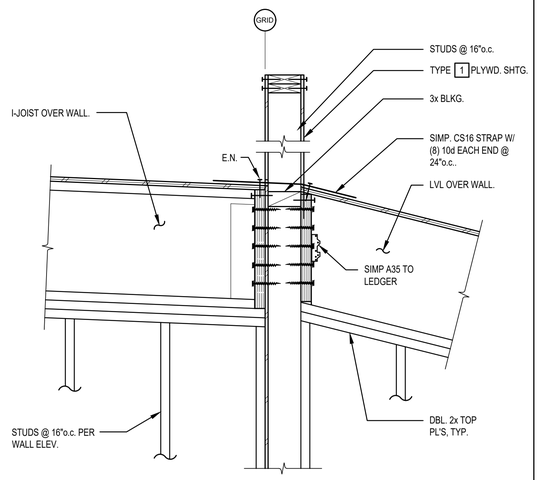
REGISTERED PROFESSIONAL ENGINEER JACK D. BREWER No. S5792 Exp. 6-30-27 STRUCTURAL INSTITUTE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
7112 N Fresno Street, suite 311
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(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

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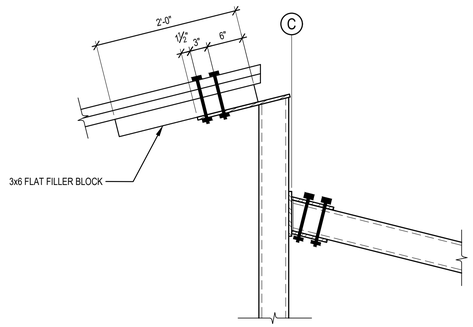


DETAIL
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4 S7.6

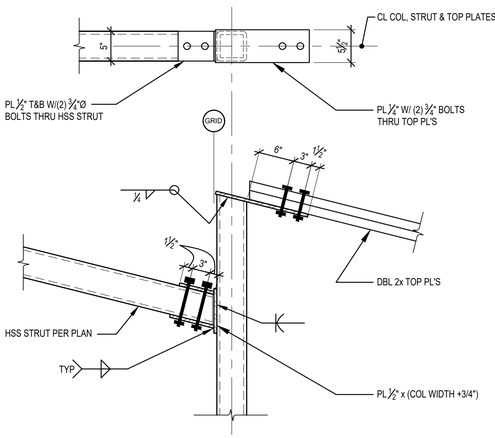


DETAIL
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3 S7.6

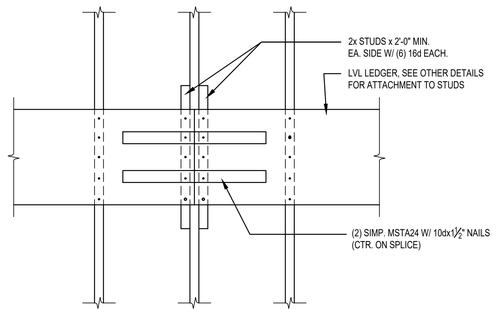
SEE DETAIL 1/S7.6
FOR OTHER INFO



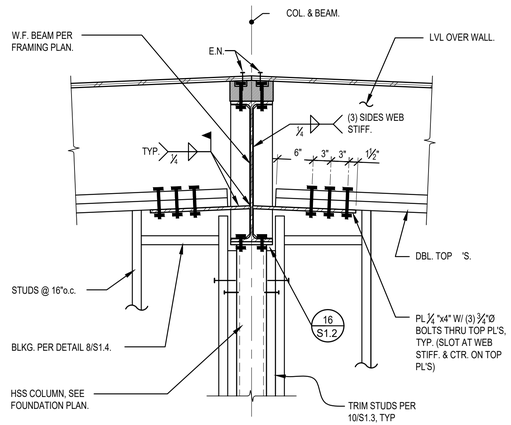
DETAIL
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2 S7.6



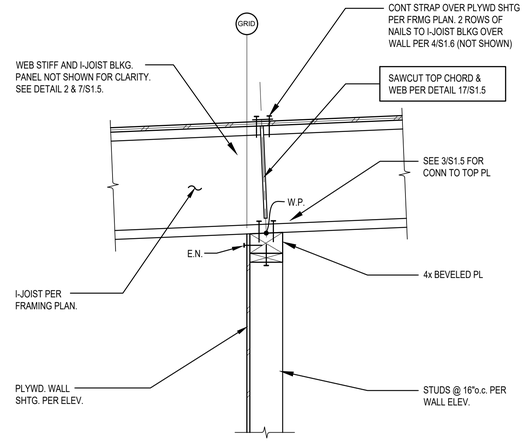
DETAIL
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1 S7.6



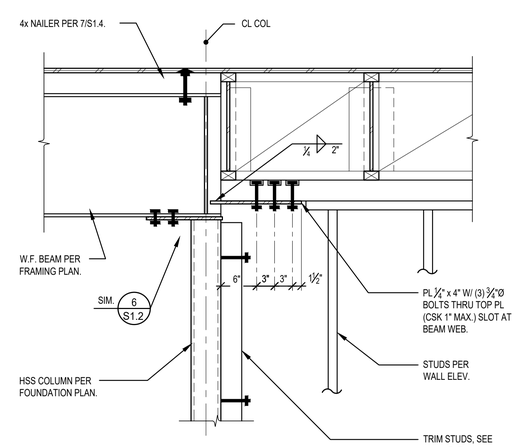
LVL LEDGER SPLICE DETAIL
1" ~ 1'-0"
8 S7.6



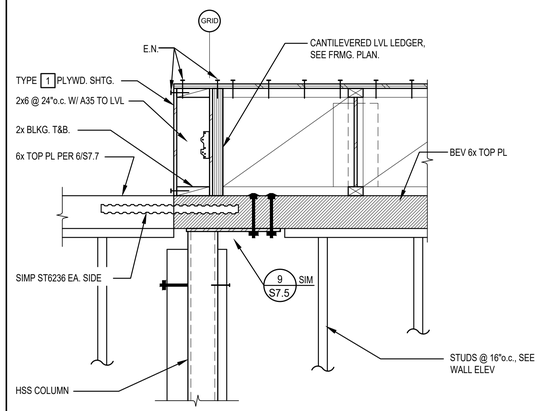
DETAIL
1" ~ 1'-0"
7 S7.6



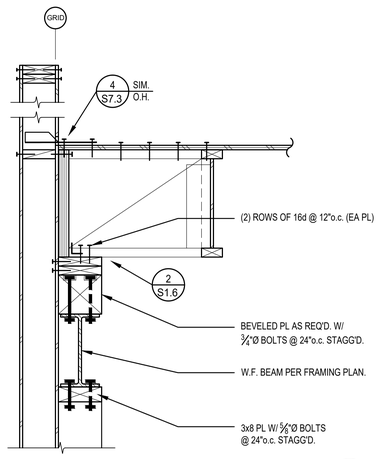
DETAIL
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6 S7.6



DETAIL
1" ~ 1'-0"
5 S7.6

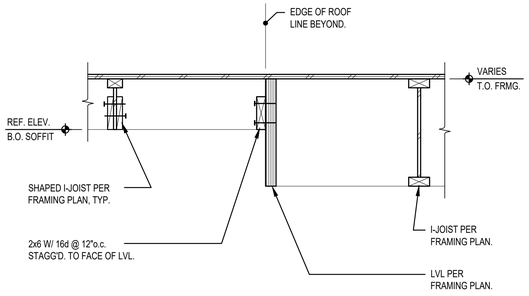


DETAIL
1" ~ 1'-0"
12 S7.6



DETAIL
1" ~ 1'-0"
11 S7.6

NOT USED
1" ~ 1'-0"
10 S7.6



DETAIL
1" ~ 1'-0"
9 S7.6

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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TITLE
FRAMING
DETAILS

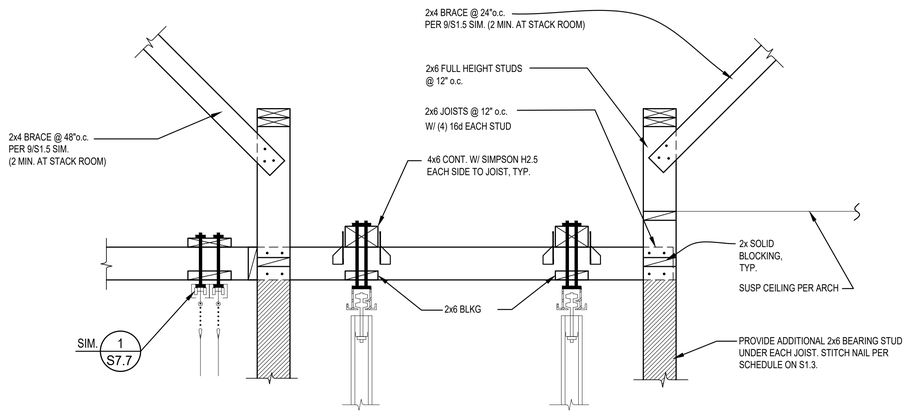
S7.6

PROJECT 24042

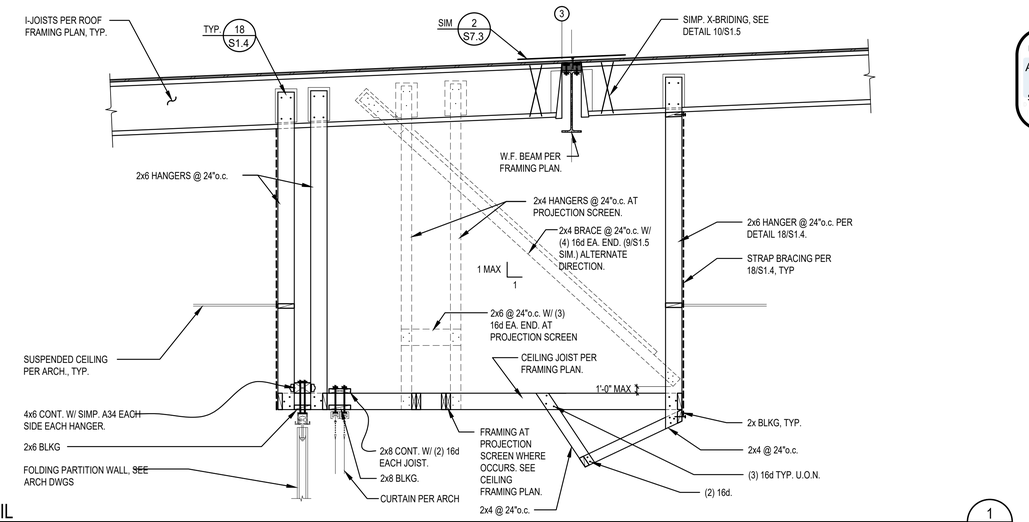
REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5782
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
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(559) 432-4151 Fax 432-9315
asdi@asdiengr.com

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DETAIL AT STACK ROOM
1" ~ 1'-0"
3 S7.7



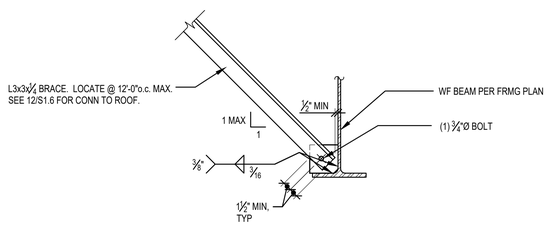
DETAIL
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1 S7.7

DETAIL
1" ~ 1'-0"
8 S7.7

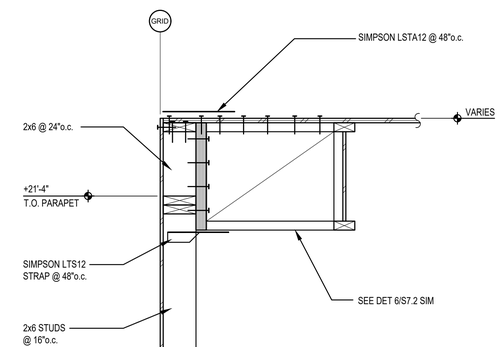
DETAIL
1" ~ 1'-0"
7 S7.7

DETAIL
1" ~ 1'-0"
6 S7.7

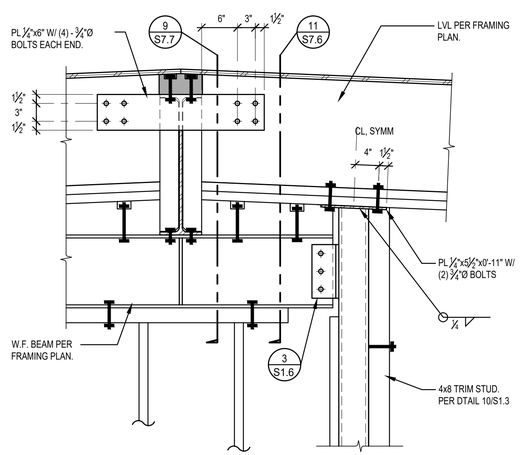
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1" ~ 1'-0"
5 S7.7



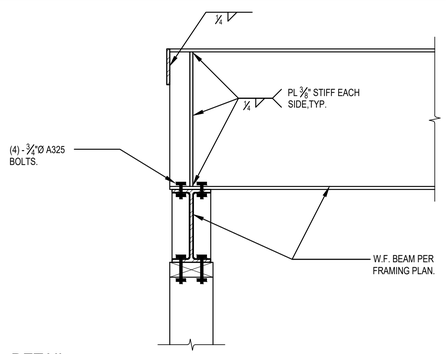
FLANGE BRACE DETAIL
1" ~ 1'-0"
12 S7.7



DETAIL
1" ~ 1'-0"
11 S7.7



DETAIL
1" ~ 1'-0"
10 S7.7



DETAIL
1" ~ 1'-0"
9 S7.7

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
FRAMING
DETAILS

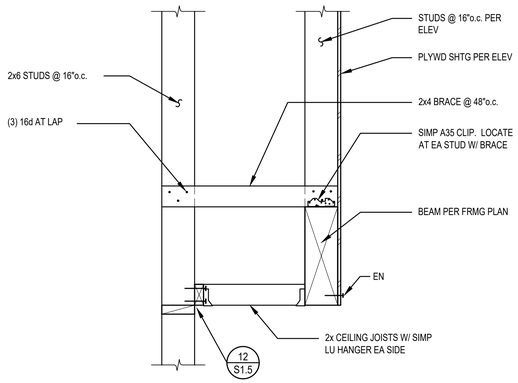
S7.7

PROJECT 24042

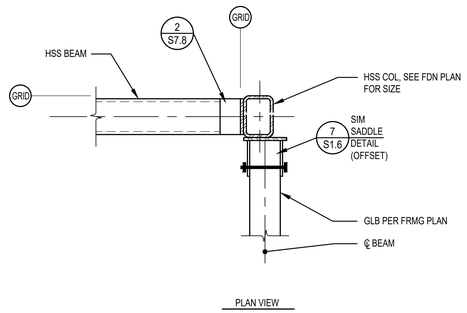
REGISTERED PROFESSIONAL ENGINEER
JACK D. BREWER
No. S5782
Exp. 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

ASD
advanced structural design, inc.
STRUCTURAL ENGINEERS
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asdi@asdiengr.com

P:\M62503 Temperance Elem\Struct\S7.7.FRMG DET.dwg Sep 15 2026 11:41am

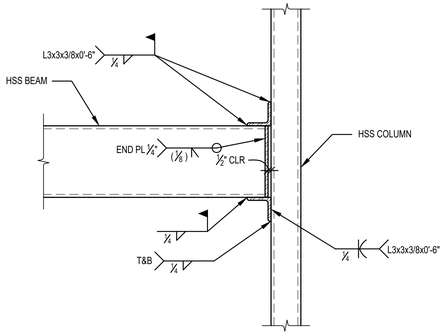


DETAIL 4
1" ~ 1'-0" S7.8

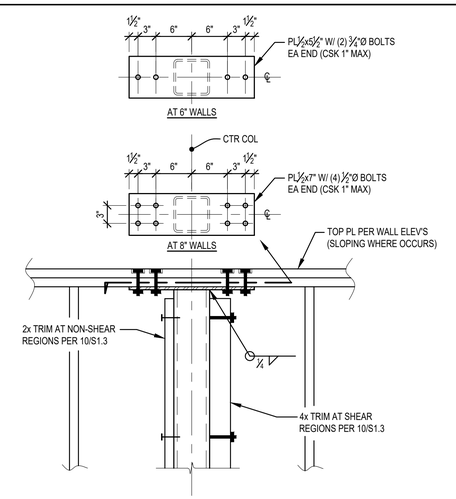


PLAN VIEW

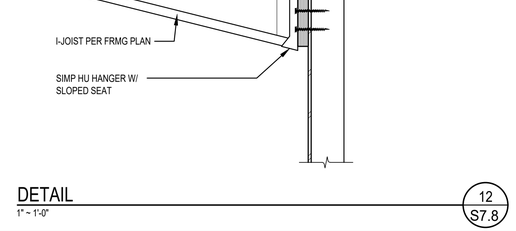
DETAIL 3
1" ~ 1'-0" S7.8



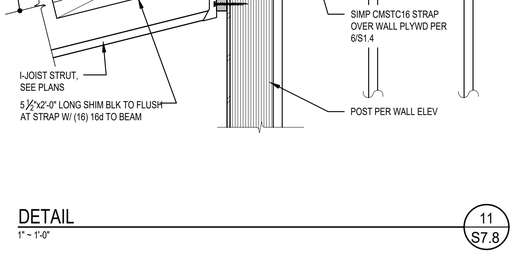
DETAIL 2
1" ~ 1'-0" S7.8



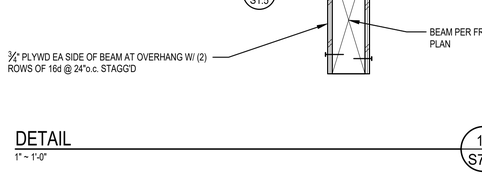
DETAIL 1
1" ~ 1'-0" S7.8



DETAIL 8
1" ~ 1'-0" S7.8



DETAIL 7
1" ~ 1'-0" S7.8



DETAIL 6
1" ~ 1'-0" S7.8

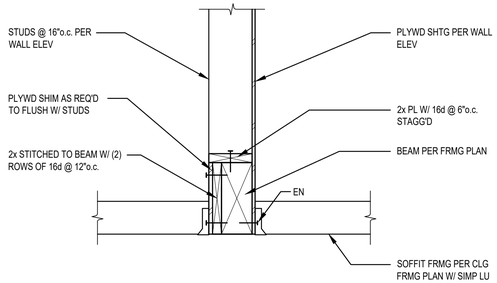


DETAIL 5
1" ~ 1'-0" S7.8

DETAIL 12
1" ~ 1'-0" S7.8

DETAIL 11
1" ~ 1'-0" S7.8

DETAIL 10
1" ~ 1'-0" S7.8



DETAIL 9
1" ~ 1'-0" S7.8

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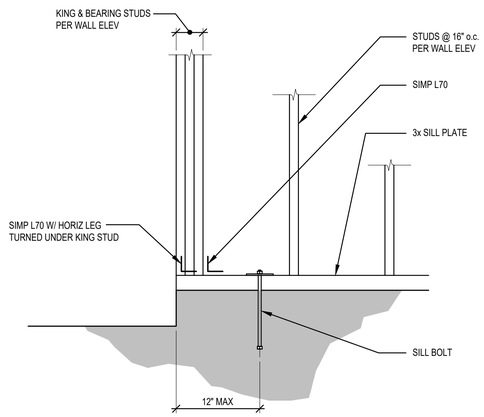
S7.8

PROJECT 24042

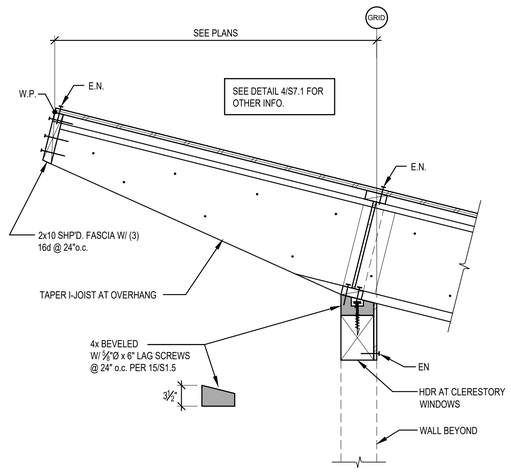
REGISTERED PROFESSIONAL ENGINEER
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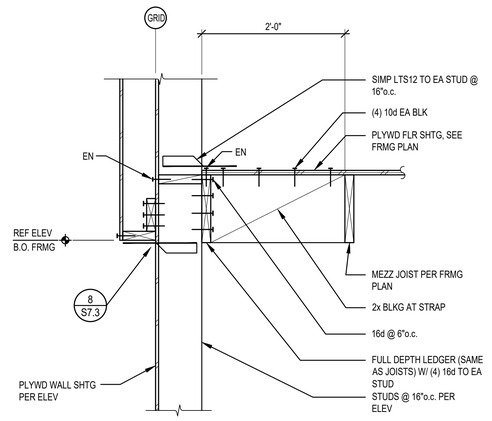
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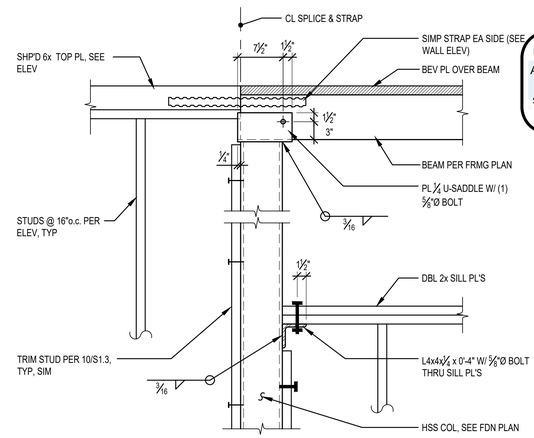
DETAIL 4 / S7.9
1" ~ 1'-0"



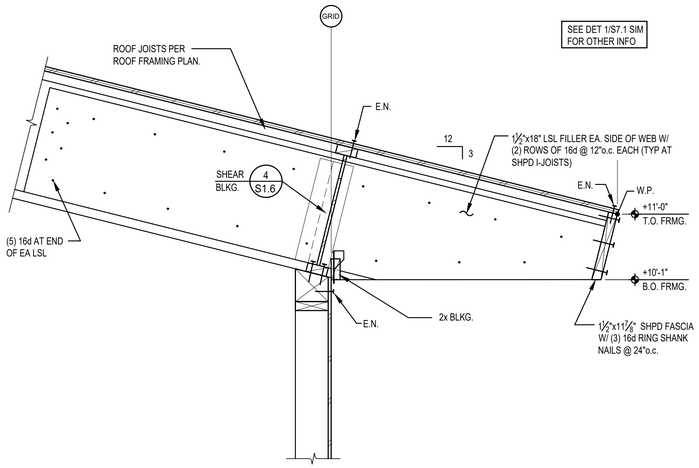
DETAIL AT CLERESTORY 3 / S7.9
1" ~ 1'-0"



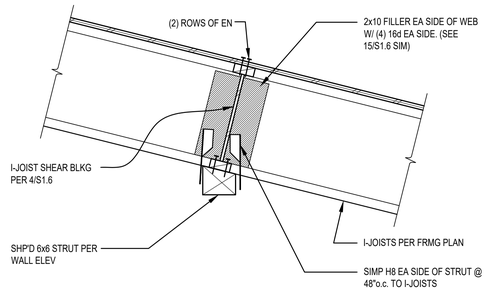
DETAIL 2 / S7.9
1" ~ 1'-0"



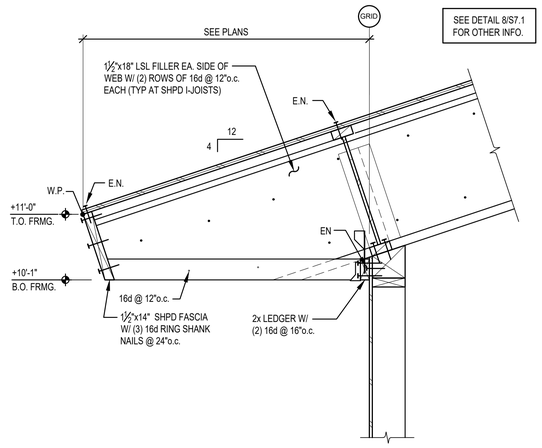
DETAIL 1 / S7.9
1" ~ 1'-0"



DETAIL 8 / S7.9
1" ~ 1'-0"



DETAIL 6 / S7.9
1" ~ 1'-0"



DETAIL 5 / S7.9
1" ~ 1'-0"

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FILE # 10-126 APPLICATION # 02-123774

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REVISIONS

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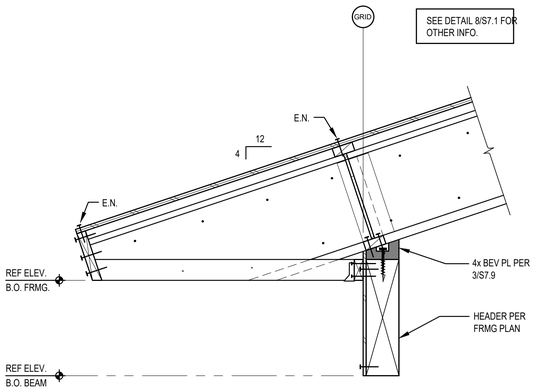
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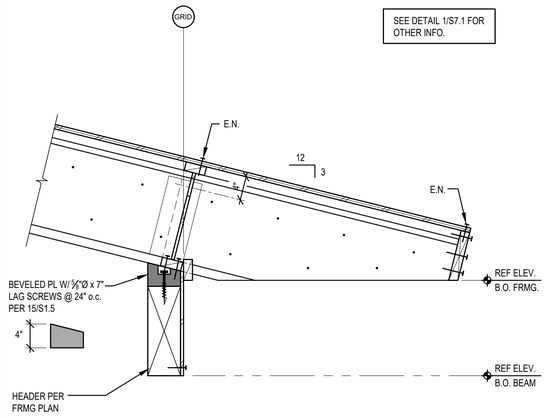
S7.9

PROJECT 24042

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DETAIL
1" ~ 1'-0"
4 S7.10

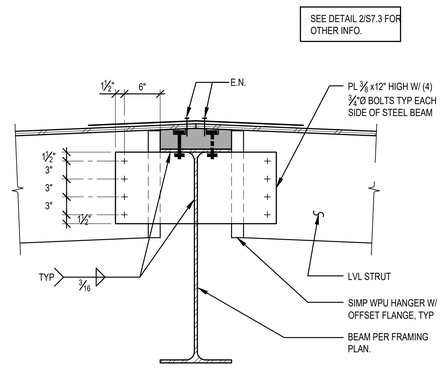


DETAIL
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3 S7.10

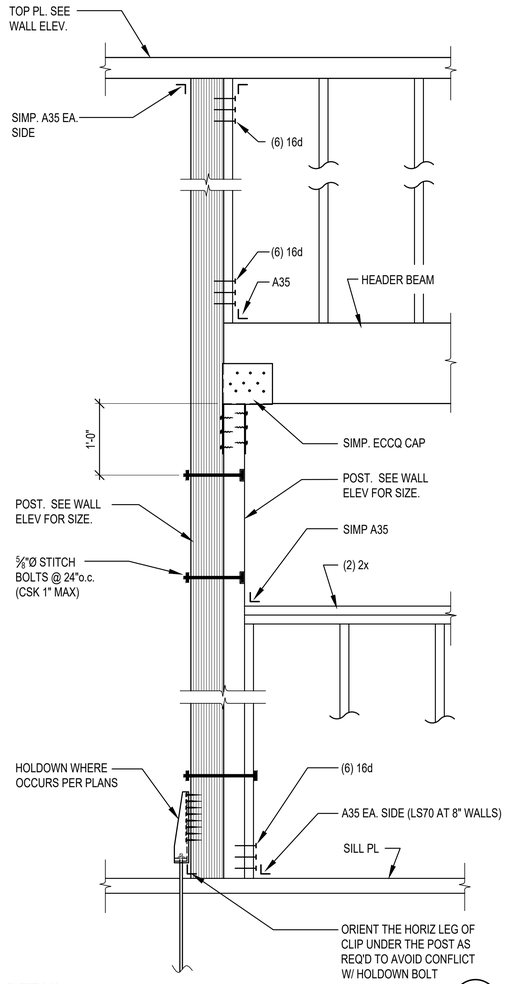
NOT USED
1" ~ 1'-0"
2 S7.10

NOT USED
1" ~ 1'-0"
1 S7.10

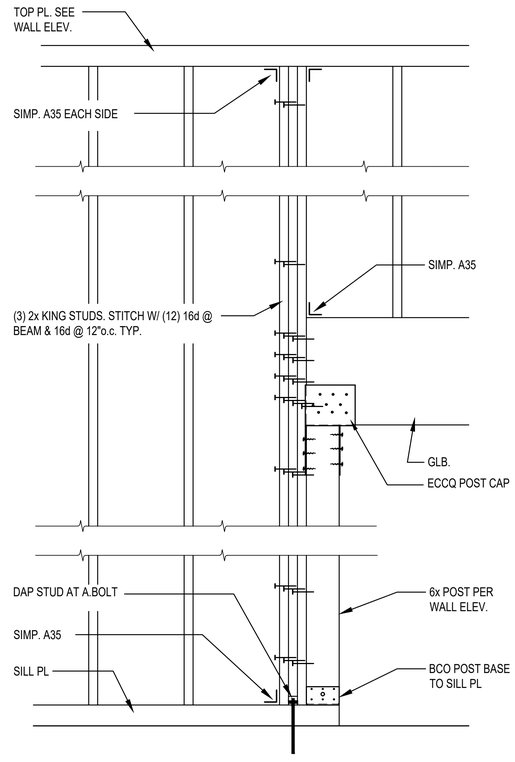
NOT USED
1" ~ 1'-0"
8 S7.10



DETAIL
1" ~ 1'-0"
7 S7.10



DETAIL
1" ~ 1'-0"
10 S7.10



DETAIL
1" ~ 1'-0"
9 S7.10

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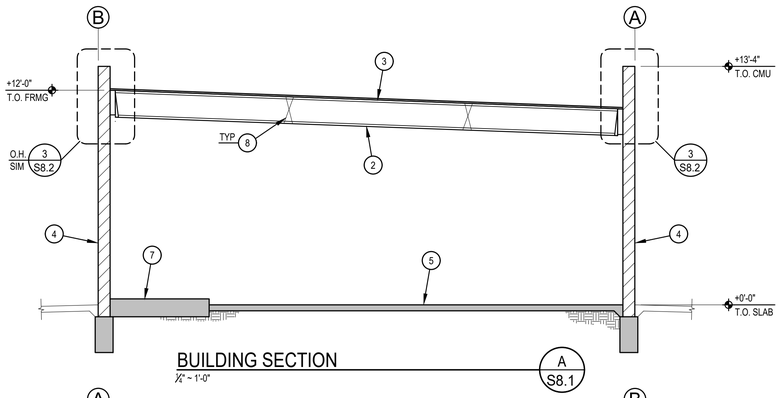
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FRAMING DETAILS

S7.10

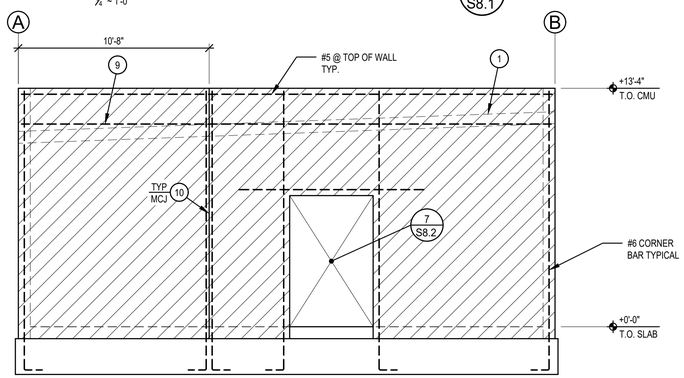
PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BRENEMAN
No. S5792
Exp: 6-30-27
STRUCTURAL
STATE OF CALIFORNIA

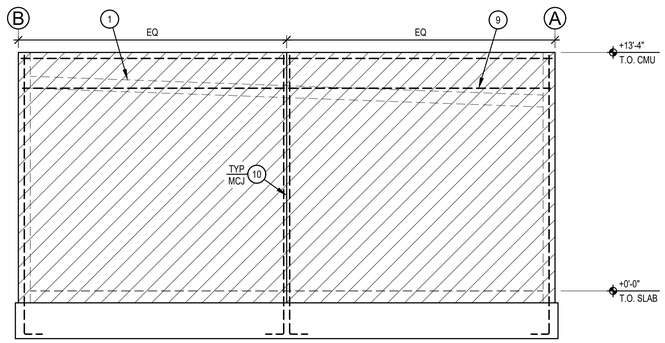
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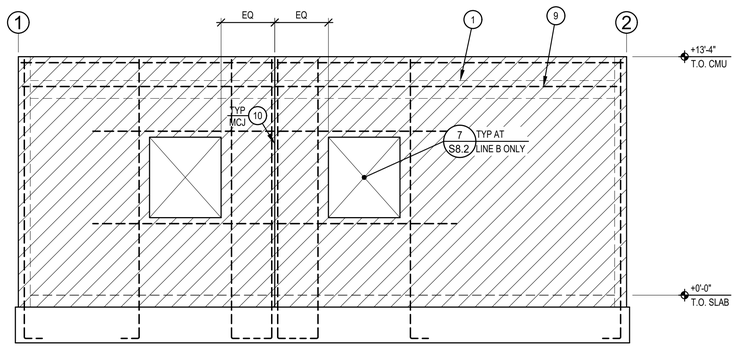
BUILDING SECTION
A
S8.1
1/4" ~ 1'-0"



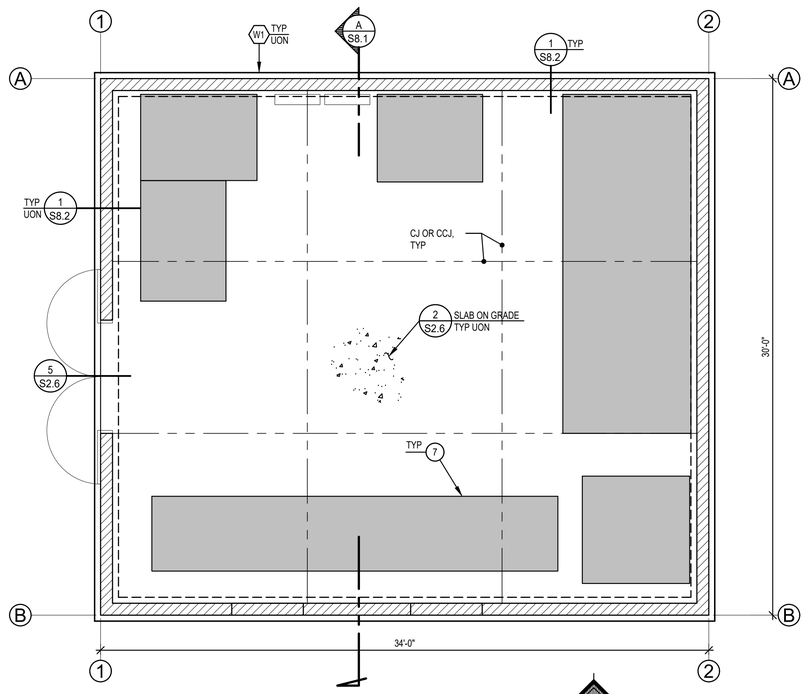
WALL LINE "1"
1/4" ~ 1'-0"



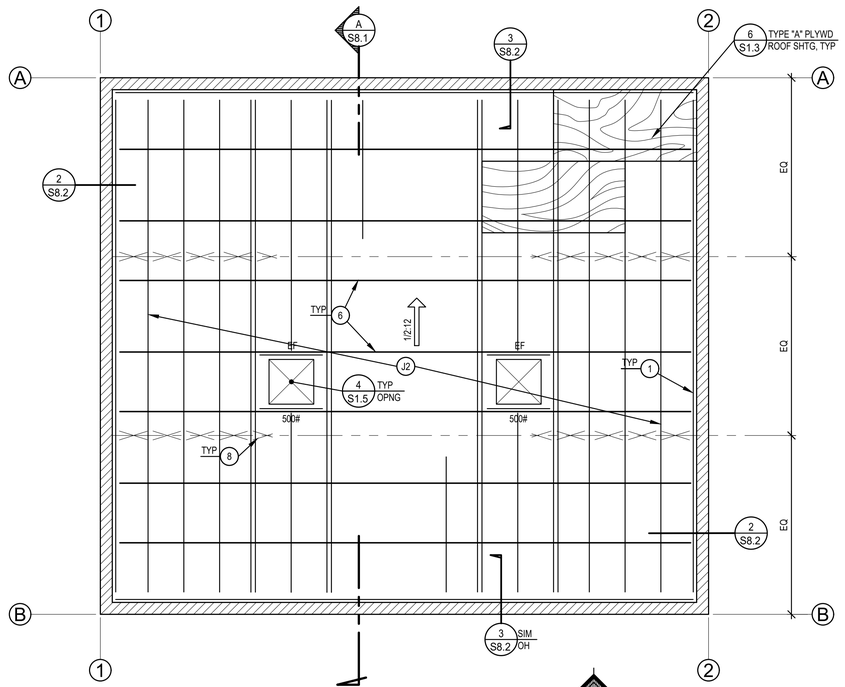
WALL LINE "2"
1/4" ~ 1'-0"



WALL LINE "B" ("A" SIM)
1/4" ~ 1'-0"



FOUNDATION PLAN
1/4" ~ 1'-0"



ROOF FRAMING PLAN
1/4" ~ 1'-0"

CMU WALL NOTES

1. SEE CONCRETE BLOCK NOTES ON S8.2.
2. SEE DET 7/S8.2 FOR TYP REINF AT WALL OPENINGS WHEN NOT SPECIFICALLY SHOWN.
3. SEE DET 5/S8.2 FOR BOLTS IN CMU WALLS.
4. SEE DET 4/S8.2 FOR TYPICAL REINFORCING AT CORNERS AND INTERSECTIONS.
5. SEE DET 6/S8.2 WHERE CONDUIT OCCURS IN CMU WALL.
6. ALL WALLS, INCLUDING WALLS WHOSE ELEVATIONS ARE NOT DRAWN, ARE 8" THICK AND REINFORCED W/ #5 BARS @ 24"o.c. EA. WAY TYP. U.O.N. (CENTER VERT. BARS.)

FOUNDATION NOTES

1. SEE SHEET S2.1 FOR FOUNDATION NOTES.

C.C.J. = CRACK CONTROL JOINT PER DET. 4/S3.1
C.J. = CONSTRUCTION JOINT PER DET. 3/S3.1
= 8" CMU WALL

I-JOIST NOTES

1. SEE SHEET S3.1 FOR I-JOIST NOTES.

FOOTING SCHEDULE

MARK	PLAN DIMENSION	DEPTH	REINFORCEMENT
W1	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W2	1'-6" WIDE	2'-0"	2 - #5 CONT. T. & B. #3 STIRRUPS @ 10"o.c.
W3	1'-8" WIDE	2'-0"	2 - #6 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
W4	2'-0" WIDE	2'-0"	3 - #7 CONT. T. & B. #3 STIRRUPS @ 24"o.c.
F1	3'-0" SQ.	2'-0"	(4) #6 EACH WAY T&B
F2	4'-0" SQ.	2'-0"	(5) #6 EACH WAY T&B
F3	5'-0" SQ.	2'-0"	(7) #6 EACH WAY T&B
F4	6'-0" SQ.	2'-0"	(8) #6 EACH WAY T&B

I-JOIST SCHEDULE

MARK	SIZE	CAMBER	SPACING
J1	NOT USED	-	-
J2	18" RED-I90	NONE	24"o.c.
J3	20" RED-I90	NONE	24"o.c.
J4	22" RED-I90	NONE	24"o.c.

KEYNOTES

1. 4x12 LEDGER
2. I-JOIST PER ROOF FRMG PLAN
3. PLYWD ROOF SHTG PER FRMG PLAN
4. 8" CMU WALL, SEE CMU WALL NOTES FOR REINFORCING, TYP.
5. CONCRETE SLAB ON GRADE PER 2/S2.6
6. CS16 STRAP @ 48"o.c. W/ (10) 10d TO 4x END BLK AND 10d @ 6"o.c. TO 3x4 FLAT BLK BTWN JOISTS.
7. EQUIPMENT PAD. SEE MECH AND PLUMBING DWGS AND DET 10/S1.2
8. X-BRIDGING PER DETAIL 10/S1.5
9. #5 CONT CHORD BAR
10. MASONRY CONTROL JOINT (MCJ) PER DETAIL 8/S8.2

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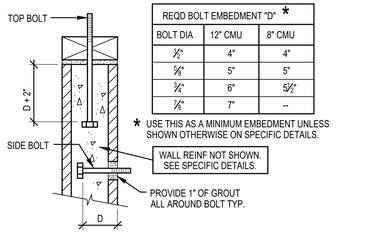
TITLE
BUILDING 800
FDN PLAN, ROOF
FRMG PLAN, SECTION
& WALL ELEVS

S8.1

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
JACK D. BREMER
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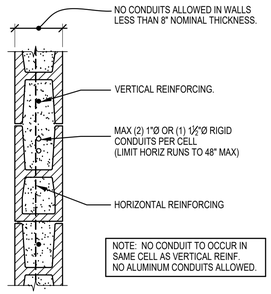


REQD BOLT EMBEDMENT "D" *		
BOLT DIA	12" CMU	8" CMU
½"	4"	4"
⅝"	5"	5"
¾"	6"	5½"
⅞"	7"	--

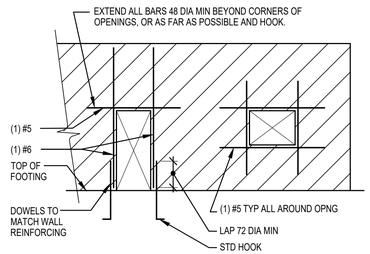
* USE THIS AS A MINIMUM EMBEDMENT UNLESS SHOWN OTHERWISE ON SPECIFIC DETAILS.

NOTE: ALL ANCHOR BOLTS IN CMU SHALL BE HEX HEADED BOLTS CONFORMING TO ASTM A307 WITH THE DIMENSIONS OF THE HEX HEAD CONFORMING TO ANSI/ASME B18.2.1, OR PLAIN ROD CONFORMING TO ASTM A36 WITH THREADED ENDS AND DOUBLE NUTS AT THE ANCHORED END. BENT BAR ANCHOR BOLTS SHALL NOT BE USED.

BOLTS IN CMU WALL
NTS 4004-01 — 5 / S8.2

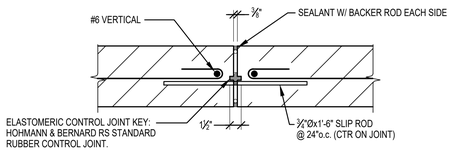


CONDUITS IN CMU WALLS
NTS 4201-01 — 6 / S8.2



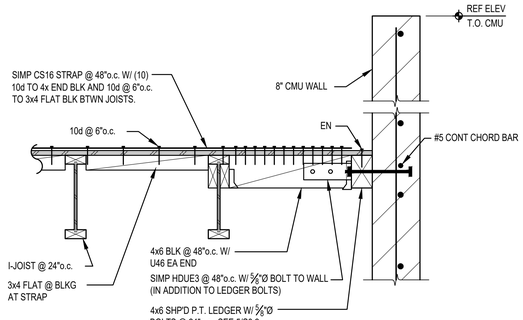
NOTES:
REINFORCING SHOWN HERE IS A MINIMUM.
PROVIDE GREATER REINF WHERE SHOWN ON WALL ELEVATIONS OR DETAILS. FOR WALLS WITH DOUBLE REINFORCING PROVIDE ADDITIONAL REINFORCING TO EACH CURTAIN.

TYP REINF AROUND OPENINGS (MASONRY WALLS)
NTS 4401-01 — 7 / S8.2

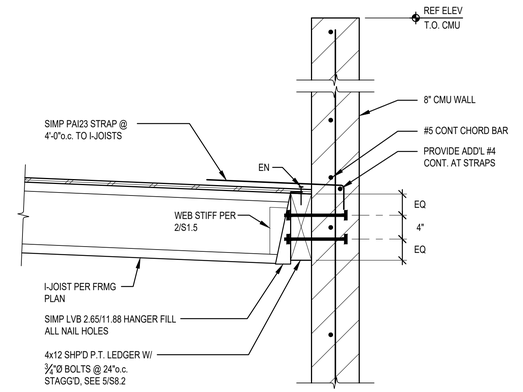


NOTE: SEE WALL ELEVATIONS FOR JOINT LOCATIONS. STOP HORIZONTAL REINFORCING EACH SIDE OF JOINT, EXCEPT CHORD BARS AT ROOF AND FLOORS SHALL RUN CONTINUOUS THROUGH JOINT, TYPICAL UON.

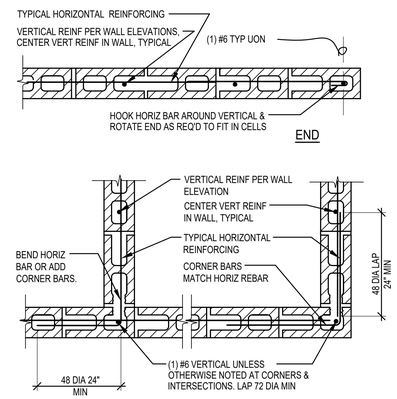
TYPICAL MASONRY WALL CONTROL JOINT
NTS 4003-01A — 8 / S8.2



DETAIL
1" ~ 1'-0" — 2 / S8.2



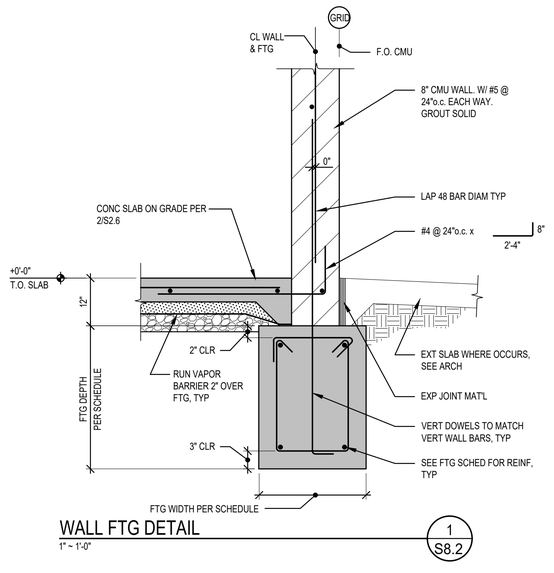
DETAIL
1" ~ 1'-0" — 3 / S8.2



CMU WALL REINFORCING (SINGLE CURTAIN)
NTS 4001-01 — 4 / S8.2

CONCRETE BLOCK NOTES
(TITLE 24)

1. BLOCK UNITS: ALL CONCRETE BLOCK UNITS SHALL BE LIGHT WEIGHT OR MEDIUM WEIGHT, AND SHALL BE MANUFACTURED IN COMPLIANCE WITH ASTM C-90, GRADE N, AND UNITS SHALL BE PLACED IN A RUNNING BOND PATTERN. TYPICAL UNLESS NOTED OTHERWISE. VERTICAL BARS SHALL BE SPACED @ 16"o.c. MAX FOR STACKED BOND.
2. GROUTING: ALL CELLS SHALL BE SOLIDLY FILLED WITH GROUT. GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION DURING PLACING & RECONSOLIDATED AFTER EXCESS MOISTURE HAS BEEN ABSORBED, BUT BEFORE WORKABILITY IS LOST. THE GROUTING OF ANY SECTION OF A WALL SHALL BE COMPLETED IN ONE DAY, WITH NO INTERRUPTIONS GREATER THAN ONE HOUR.
3. WEBS & CELLS: WEBS OF EACH COURSE SHALL BE CENTERED ON WEBS BELOW. VERTICAL CELLS SHALL HAVE VERTICAL ALIGNMENT TO MAINTAIN A CLEAN UNOBSTRUCTED VERTICAL FLUE MEASURING NOT LESS THAN 3" x 3".
4. OPEN END UNITS: OPEN END UNITS SHALL BE USED WITH ALL REINFORCED CELLS EXCEPT AT JAMBS. ALL CELLS, REINFORCED OR NOT, SHALL BE FILLED WITH GROUT. HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAM UNITS WITH A MINIMUM GROUT COVER OF 1" ABOVE THE STEEL FOR EACH GROUT POUR.
5. FOOTING DOWELS: FOOTING DOWELS TO MATCH VERTICAL WALL REINFORCING SHALL BE PROVIDED AT ALL POINTS WHERE CELLS ARE TO BE REINFORCED.
6. REINFORCING: SEE CONCRETE NOTES FOR REINFORCING STEEL GRADES. MAXIMUM SIZE OF REINFORCING IN 8" WALLS IS #6. MAX SIZE IN 12" CMU IS #8.
7. REINFORCING POSITIONERS: REINFORCING SHALL BE STRAIGHT AND PLACED ACCURATELY IN POSITION. VERTICAL BARS IN CELLS SHALL BE HELD IN PLACE BY AN APPROVED MECHANICAL DEVICE AT TOP AND BOTTOM AND AT INTERVALS NOT TO EXCEED 192 BAR DIAMETERS NOR 10 FEET.
8. SPLICES: SPLICES IN REINFORCING STEEL SHALL BE 48 BAR DIAMETERS FOR #5 AND SMALLER BARS AND 62 BAR DIAMETERS FOR #6 AND LARGER BARS UNLESS NOTED OTHERWISE. WHEN ADJACENT SPLICES ARE SEPARATED BY 3" OR LESS, INCREASE THE LAP LENGTH TO 72 DIAMETERS. IF SPLICES ARE STAGGERED AT LEAST 24 BAR DIAMETERS, NO INCREASE IS REQUIRED. PILASTER BARS SHALL BE ONE PIECE FULL HEIGHT UNLESS DETAILED OTHERWISE.
9. CHORD BARS: PROVIDE (2) #5 HORIZONTAL BARS MINIMUM IN WALLS AT ALL ROOFS AND FLOORS IN ADDITION TO TYPICAL HORIZONTAL REINFORCING. LAP BARS 72 BAR DIAMETERS AT SPLICES. RUN BARS CONTINUOUS THROUGH MCJ's.
10. CLEANOUTS: WHERE BLOCK IS LAID TO A MAXIMUM OF FOUR FEET BEFORE GROUTING, NO CLEANOUTS SHALL BE REQUIRED. WHERE THE BLOCK IS LAID TO HEIGHTS GREATER THAN FOUR FEET BEFORE GROUTING, CLEANOUTS SHALL BE PROVIDED AT THE BOTTOM OF ALL CELLS. CLEANOUTS SHALL BE OF SUFFICIENT SIZE AND LOCATION TO ALLOW THOROUGH FLUSHING AWAY OF ALL MORTAR DROPPINGS AND DEBRIS.
11. HIGH LIFT: THE MAXIMUM HEIGHT OF POURS FOR HIGH LIFT SHALL BE LIMITED TO 12 FEET FOR 8" CMU AND 16 FEET FOR 12" CMU. BETWEEN GROUT POURS, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING ALL MASONRY UNITS AT THE SAME ELEVATION AND WITH THE GROUT STOPPING A MINIMUM OF ½" BELOW THE MORTAR JOINT, EXCEPT AT THE TOP OF THE WALL. WHERE BOND BEAMS OCCUR, THE GROUT SHALL BE STOPPED A MINIMUM OF ½" BELOW THE TOP OF THE MASONRY.
12. REINFORCING IN WALLS: SEE TYPICAL DETAILS FOR MIN REINFORCING AT ENDS, CORNERS, INTERSECTIONS AND OPENINGS IN WALLS, UNLESS OTHERWISE NOTED.
13. EMBEDDED ITEMS: ALL REINFORCING AND EMBEDDED ITEMS SHALL BE PLACED AND SECURELY ANCHORED AGAINST MOVING PRIOR TO GROUTING. BOLTS SHALL BE ACCURATELY SET WITH TEMPLATES OR APPROVED EQUIVALENT MEANS AND HELD IN PLACE TO PREVENT DISLOCATION DURING GROUTING. ALL BOLTS AND ANCHORS SHALL BE GROUTED IN PLACE WITH AT LEAST 1 INCH OF GROUT ALL AROUND BETWEEN THE BOLT AND THE MASONRY.
14. GROUT: CEMENT GROUT SHALL CONSIST OF ONE PART PORTLAND CEMENT, 2¼ TO 3 PARTS SAND, AND 1 TO 2 PARTS OF ⅜" PEA GRAVEL. CEMENT CONTENT SHALL CONTAIN 15% TO 20% FLY ASH PER ASTM C-618 CLASS F. ALL GROUT SHALL CONTAIN "SIKA GROUT AID" TO COUNTERACT GROUT SHRINKAGE.
15. GROUT STRENGTH: GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2000 psi AT 28 DAYS AND TEST SPECIMENS SHALL BE PREPARED PER ASTM C-1019.
16. MORTAR (TYPE S): CEMENT MORTAR SHALL CONSIST OF ONE PART PORTLAND CEMENT, OVER ¼ TO ½ PARTS LIME PUTTY, AND 2¼ TO 3 TIMES THE SUM OF THE SEPARATE VOLUMES OF CEMENTITIOUS MATERIALS OF SAND. LIME SHALL BE THE LAST MATERIAL ADDED TO THE MIXER.
17. MORTAR STRENGTH: MORTAR SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 1800 psi AT 28 DAYS AND TEST SPECIMENS SHALL BE PREPARED PER ASTM C 1586 AND ASTM C-270.
18. PIPES/CONDUITS: PIPE OR CONDUIT SHALL NOT BE EMBEDDED IN ANY MASONRY UNLESS SPECIFICALLY DETAILED. ANY PIPE OR CONDUIT MAY PASS PERPENDICULAR THROUGH ANY MASONRY BY MEANS OF A SLEEVE AT LEAST LARGE ENOUGH TO PASS ANY HUB OR COUPLING ON THE PIPE LINE. SUCH SLEEVES SHALL BE PLACED NOT CLOSER THAN THREE DIAMETERS, CENTER TO CENTER.
19. CODES: ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CBC, TITLE 24 AND IR 21-2.13
20. MASONRY STRENGTH: MINIMUM ULTIMATE COMPRESSIVE STRENGTH IN 28 DAYS: f'm = 2000 psi



WALL FTG DETAIL
1" ~ 1'-0" — 1 / S8.2

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REGISTERED PROFESSIONAL ENGINEER — JACK D. BREDNER — No. S5792 — Exp: 6-30-27 — STRUCTURAL — STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 — APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-31128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 800 DETAILS

S8.2

PROJECT 24042

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

TYPICAL KITCHEN EQUIPMENT PLUMBING NOTES:

1. REFER TO KITCHEN LAYOUT PLANS FOR EXACT LOCATIONS AND HEIGHTS OF ALL PLUMBING CONNECTIONS TO EQUIPMENT AND FOR ADDITIONAL PLUMBING REQUIREMENTS.
2. ALL FAUCETS, STRAINERS AND TAILPIECES FOR KITCHEN SINKS SHALL BE FURNISHED BY THE KITCHEN EQUIPMENT SUPPLIER, INSTALLED BY THE PLUMBING CONT'R UNLESS OTHERWISE NOTED.
3. PLUMBING CONT'R. TO CONNECT ALL INDIRECT WASTE (I.W.) PIPING FULL SIZE TO KITCHEN EQUIPMENT AS REQUIRED AND PIPE TO THE NEAREST FLOOR SINK. INSULATE DRAIN LINES FROM ICE BINS OR ICE MAKERS, REFRIGERATED OR FREEZER EQUIPMENT, ETC.
4. ALL FINAL CONNECTIONS TO EQUIPMENT TO BE DONE BY THE PLUMBING CONT'R.
5. INSTALL J.R. SMITH #5005 (OR EQUAL) SHOCK ABSORBER IN CW LINE TO GARBAGE DISPOSER AND IN CW & HW LINES TO PRERINSE FAUCET AND QUICK CLOSING VALVES.
6. PROVIDE S.O.V.'S AT ALL CONNECTIONS TO KITCHEN EQUIPMENT. S.O.V.'S SHALL BE IN A READILY ACCESSIBLE LOCATION.
7. PROVIDE CW & HW STOPS FOR ALL FAUCET CONNECTIONS.
8. EACH PLUMBING FIXTURE DISCHARGING INTO GREASE INTERCEPTOR SHALL BE INDIVIDUALLY TRAPPED AND VENTED.
9. ALL KITCHEN EQUIPMENT AND SINKS HAVING INDIRECT WASTES DISCHARGING TO A FLOOR SINK SHALL HAVE MINIMUM 1" AIR GAP. REFER TO DETAIL F/P9.01.
10. ALL PLUMBING, CONDUITS AND GAS LINES SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE TO AS GREAT AN EXTENT AS POSSIBLE. OTHERWISE INSTALL AT LEAST 6" OFF FLOOR AND 1/2" FROM WALLS USING STANDOFF BRACKETS AND NOT ACROSS ANY AISLE, TRAFFIC AREA OR DOOR OPENING. MULTIPLE RUNS OR CLUSTERS INCLUDING BEVERAGE LINES SHALL BE ENCASED IN AN APPROVED SEALED ENCLOSURE.
11. ALL LIQUID WASTE SHALL BE DRAINED BY MEANS OF INDIRECT WASTE PIPES INTO A FLOOR SINK. FLOOR SINKS ARE TO BE INSTALLED FLUSH WITH THE FINISHED FLOOR SURFACE AND HAVE SUITABLE EASILY REMOVABLE SAFETY COVER GRATES. FLOOR SINK TO BE 50% EXPOSED WHEN NO ACCESS IS PROVIDED FOR CLEANING OR BE IN LINE WITH THE FRONT FACE OF ELEVATED FREESTANDING EQUIPMENT.
12. APPROVED BACKFLOW PREVENTION DEVICES SHALL BE PROPERLY INSTALLED UPSTREAM OF ANY POTENTIAL HAZARD BETWEEN THE POTABLE WATER SUPPLY AND A SOURCE OF CONTAMINATION. HOSES SHALL NOT BE ATTACHED TO A FAUCET OR HOSE BIBB UNLESS AN APPROVED BACKFLOW ASSEMBLY IS PROVIDED.
13. PROVIDE ESCUTCHEON COVERS, RINGS, ETC. AT ALL FLOOR WALL & CEILING PIPE PENETRATIONS. ALL FLOOR GAPS, HOLES, ETC. AROUND LINES AT PENETRATIONS SHALL BE SEALED AND CAULKED PER HEALTH DEPARTMENT REQUIREMENTS.

GENERAL MECHANICAL AND PLUMBING NOTES:

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO CONSTRUCT THE BUILDING IN ACCORDANCE WITH THE 2022 EDITION OF TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WOULD NOT COMPLY WITH SAID TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUESTED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
2. THE APPLICABLE CODES AND REGULATIONS FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

   CALIFORNIA CODE OF REGULATIONS
   TITLE 8, INDUSTRIAL RELATIONS
   TITLE 19, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
   TITLE 24, PART 1, ADMINISTRATIVE REGULATIONS
   2022 CALIFORNIA BUILDING CODE, PART 2, TITLE 24 CCR
   2022 CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24 CCR
   2022 CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 CCR
   2022 CALIFORNIA PLUMBING CODE, PART 5, TITLE 24 CCR
   2022 CALIFORNIA FIRE CODE, PART 9, TITLE 24 CCR

   NFPA 101 2021 EDITION
   OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT

3. LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE PLUMBING BUILDING PLANS HAVE BEEN PREPARED TO MATCH THE ARCHITECTURAL PLANS. IF DIFFERENCES OCCUR, THE ARCHITECTURAL PLANS ARE TO TAKE PRECEDENCE. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED, PRIOR TO INSTALLATION OF ANY WORK, TO AVOID ALL INTERFERENCE WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL, OR OTHER ELEMENTS. ALL PIPE OFFSET ELBOWS FOR COORDINATION BETWEEN TRADES ARE NOT SHOWN. CONTRACTOR SHALL INCLUDE SUFFICIENT FUNDS FOR THE COORDINATION OFFSETS IN THE BID. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
4. WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER-DRIVEN PINS IN EXISTING NON-PRESTRESSED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRE-STRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.
5. MEP COMPONENT ANCHORAGE NOTE:

   ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE THERE IS NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

   1. ALL PERMANENT EQUIPMENT AND COMPONENTS.

   2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.

   3. TEMPORARY, MOVABLE, OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

   THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE. BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.

   A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

   B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

   THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.
6. MEP DISTRIBUTION SYSTEM BRACING NOTE FOR PIPING, DUCTWORK, AND ELECTRICAL CONDUIT:

   PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7 SECTION 13.3 AS DEFINED IN ASCE 7 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25, 1617A.1.26.

   THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEMS ARE AS NOTED BELOW. THE MEP DESIGN PROFESSIONAL ENGINEER RESPONSIBLE FOR THE CONTENT ON THESE SHEETS HAS VERIFIED THAT THE DESIGN METHODS IDENTIFIED BELOW ARE IN ACCORDANCE WITH DSA IR 16-13.

   MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

   MP☐ MD☐ PP☒ E☐ OPTION 1: PROJECT-SPECIFIC DESIGN.

   MP☐ MD☐ PP☐ E☐ OPTION 2: DESIGN BASED ON OSHPD OPM, WITHIN PROJECT SUBMITTAL.

   MP☐ MD☐ PP☐ E☐ OPTION 3: DESIGN BASED ON OSHPD OPM, DEFERRED SUBMITTAL.

   BRACE ALL PIPING GREATER THAN 3" DIAMETER; USE IP=1.0 FOR SEISMIC DESIGN CALCULATIONS. EXCEPTION: NATURAL GAS PIPING GREATER THAN 1" DIAMETER, USE IP=1.5 FOR SEISMIC DESIGN CALCULATIONS.
7. PENETRATIONS THROUGH FIRE RATED WALLS, FLOOR/CEILING, AND ROOF/CEILING ASSEMBLIES SHALL BE SEALED USING AN APPROVED SYSTEM CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN SUBJECTED TO THE REQUIREMENTS OF THE TEST STANDARD SPECIFIC TO FIRE STOPS PER 2022 CBC SECTION 714. THIS INCLUDES EXISTING PIPE AND CONDUIT THROUGH NEW ASSEMBLIES. CUSTOM DESIGNED SYSTEMS WHICH COMBINE COMPONENTS FROM DIFFERENT APPROVED SYSTEMS BUT HAVE NOT BEEN TESTED AS A COMPLETE ASSEMBLY WILL NOT BE ACCEPTABLE. FOR FIRE STOPS FOR PIPE PENETRATIONS REFER TO SPECIFICATIONS AND ARCHITECTURAL DRAWINGS.
8. ALL DOMESTIC WATER PIPING SHALL BE A MINIMUM OF 1/2" SIZE UNLESS NOTED OTHERWISE. USE A REDUCING DROP ELL AT FIXTURE CONNECTION WHEN APPLICABLE.
9. VERIFY AND COORDINATE FINISH FLOOR (FF) ELEVATIONS, INVERT ELEVATIONS, AND ALL UNDERGROUND PIPING AND UTILITIES WITH CIVIL, STRUCTURAL, AND ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION. DO NOT INSTALL UNDERGROUND PIPING WITHIN THE FOUNDATION ZONE OF INFLUENCE OR REQUIRED STRUCTURAL CLEARANCES. WHERE PIPING CROSSES OR PENETRATES STRUCTURAL ELEMENTS, PROVIDE SLEEVES AND CORE DRILLING AS REQUIRED BY THE STRUCTURAL DRAWINGS. COORDINATE LOWERING OF FOOTINGS WHERE REQUIRED TO AVOID CONISTRUCTABILITY CONFLICTS. COORDINATE ALL REQUIRED ROUTING ADJUSTMENTS, SLEEVES, BLOCKOUTS, AND STRUCTURAL MODIFICATIONS WITH THE STRUCTURAL ENGINEER OF RECORD PRIOR TO INSTALLATION. REFER TO STRUCTURAL SHEET S1.1.
10. RUN A BLUE 18 GAUGE TRACE WIRE WITH NON-METALLIC DOMESTIC WATER SERVICE. TERMINATE ABOVE GRADE AT EACH END.
11. ALL PIPE PENETRATIONS THROUGH SHEAR WALLS SHALL BE COORDINATED WITH STRUCTURAL DRAWINGS, INCLUDING PENETRATIONS TO AND FROM BELOW GRADE. MAINTAIN MINIMUM CLEARANCES FROM HOLDOWN ANCHORS. REFER TO STRUCTURAL DETAILS 4/S1.1, 11/S1.1, 3/S1.3, 8/S1.3, & 19/S1.6 FOR ADDITIONAL REQUIREMENTS.
12. PROVIDE CEILING OR WALL ACCESS PANELS AT ALL CONCEALED TRAP PRIMERS, VALVES, WATER HAMMER ARRESTORS, AND OTHER COMPONENTS REQUIRING INSPECTION, TESTING, OR MAINTENANCE. ACCESS PANELS SHALL BE OF SUFFICIENT SIZE TO PERMIT INSPECTION, TESTING, MAINTENANCE, AND REPLACEMENT OF THE COMPONENTS.
13. TEST ALL PLUMBING SYSTEMS IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2022 CALIFORNIA PLUMBING CODE AND PROJECT SPECIFICATIONS. DEFECTIVE WORK SHALL BE REPAIRED AND RETESTED UNTIL ACCEPTABLE RESULTS ARE OBTAINED. FLUSHING, DISINFECTION, BACTERIOLOGICAL TESTING, AND PLACEMENT INTO SERVICE OF NEW OR MODIFIED DOMESTIC WATER SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITY HAVING JURISDICTION AND PROJECT SPECIFICATIONS.
14. ALL PIPING SHALL BE INSTALLED TO ACCOMMODATE THERMAL EXPANSION AND CONTRACTION WITHOUT IMPOSING STRESS ON PIPING, JOINTS, OR CONNECTED EQUIPMENT. PROVIDE EXPANSION COMPENSATION (EXPANSION LOOPS, EXPANSION JOINTS, OR OTHER APPROVED MEANS) WHERE REQUIRED BY PIPE MATERIAL, SYSTEM TEMPERATURE, AND INSTALLATION CONDITIONS.
15. PRIOR TO ANY EXCAVATION OR TRENCHING OPERATIONS, CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (811) AND ALL AFFECTED UTILITY OWNERS TO REQUEST LOCATION AND MARKING OF EXISTING UNDERGROUND FACILITIES. CONTRACTOR SHALL VERIFY THE LOCATION OF PUBLIC AND PRIVATE UTILITIES THROUGH FIELD INVESTIGATION, GROUND PENETRATING RADAR (GPR), AND OTHER APPROPRIATE METHODS AS REQUIRED. ANY CONFLICTS OR DISCREPANCIES BETWEEN EXISTING FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF WORK. DAMAGE TO EXISTING UTILITIES RESULTING FROM CONTRACTOR ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

PLUMBING LEGEND

SYMBOL	ITEM	ABBR
———	SOIL or WASTE	S or W
- - - -	VENT	V
	VENT RISER	VR
	VENT THRU ROOF	VTR
—— - ——	DOMESTIC COLD WATER	CW
—— -- ——	DOMESTIC HOT WATER	HW
—— - - ——	DOMESTIC HOT WATER RETURN	HWR
—C—	CONDENSATE DRAIN	CD
—RWL—	RAIN WATER LEADER	RWL
—OD—	OVERFLOW DRAIN	OD
—GW—	GREASE WASTE	GW
—— ——	EXISTING PIPING	(E)
(E)	EXISTING	
(N)	NEW	
	REFERENCE	REF.
	SLOPE	SL
	BELOW FINISH GRADE	BFG
	BELOW FINISH FLOOR	BFF
	UNLESS NOTED OTHERWISE	UNO
	UNLESS OTHERWISE NOTED	UON
	WATER COLUMN	W.C.
	ABOVE CEILING	ABV CLG
	BELOW FLOOR	BEL FLR
	BELOW GRADE	BEL GR
	TYPICAL	TYP
	CONTINUATION	CONT
	DOWN	DN
	FLOOR CLEANOUT	FCO
	CLEANOUT TO GRADE	COTG
	WALL CLEANOUT	WCO
	PIPING TURN UP	
	PIPING TURN DOWN	
	POINT OF CONNECTION	POC
	SHUT-OFF VALVE IN BOX	SOV
	SHUT-OFF VALVE	SOV
	SHUT-OFF VALVE IN RISER	-
	SHUT-OFF VALVE IN DROP	-
	GATE VALVE	-
	BUTTERFLY VALVE	-
	GLOBE VALVE	-
	CHECK VALVE	-
	PLUG VALVE	-
	BALL VALVE	-
	REDUCER	-
	MANHOLE	MH
	FLEXIBLE CONNECTOR	-
	UNION	-
	RELIEF VALVE	-
	BALANCING VALVE	-
	PRESSURE GAUGE	-
	THERMOMETER	-
	ACCESS PANEL IN CEILING	AP
	ACCESS PANEL ON WALL	AP
F	FLOW METER	-
##	SYMBOL DENOTES KITCHEN EQUIPMENT PER ARCH. SHEET A21. FOR KITCHEN EQUIPMENT PLUMBING SCHEDULE AND INTERCONNECTIONS BETWEEN KITCHEN EQUIPMENT AND PLUMBING. REFER TO SHEET P11.06. REFER TO ARCHITECTURAL PLANS, AND SPECIFICATIONS FOR ADDITIONAL PLUMBING REQUIREMENTS, AND EQUIPMENT DETAILS.	

WALL LEGEND

- 2x8 WOOD STUDS @ 16" O.C.
- 2x6 WOOD STUDS @ 16" O.C.
- 2x4 WOOD STUDS @ 16" O.C.

NOTE: REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

PLUMBING SHEET INDEX

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P0.02 - PLUMBING SITE PLAN

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P1.01U - BUILDING 100 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P1.02U - BUILDING 100 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
P1.01 - BUILDING 100 - PARTIAL "TOP-OUT" PLUMBING PLAN
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VICINITY MAP

SCALE: NONE

north

IMPORTANT

CALL **811** BEFORE YOU DIG

CONTRACTOR SHALL COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216 AND CONTACT UNDERGROUND SERVICE ALERT (**811**) PRIOR TO ANY EXCAVATION ACTIVITIES. FOR ADDITIONAL INFO, REFER TO GENERAL MECHANICAL AND PLUMBING NOTES, KEYNOTE #15, SHEET P0.01.

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

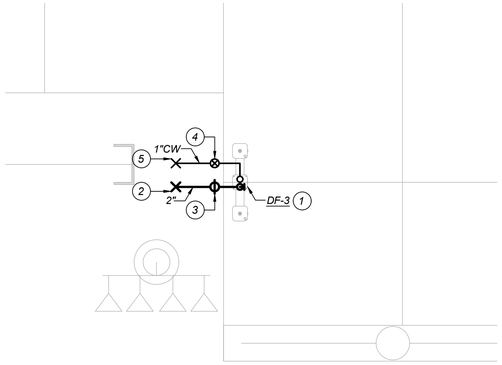
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TITLE
PLUMBING NOTES AND LEGENDS

P0.01

PROJECT 24042

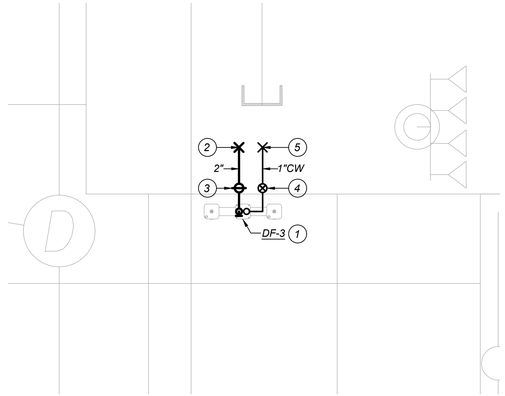
16 September 2026 8:17 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P0.01 - Plumbing Notes & Legends.dwg ryanf



ENLARGED PLUMBING SITE PLAN

B P0.02

SCALE: 1/4"=1'-0"



ENLARGED PLUMBING SITE PLAN

A P0.02

SCALE: 1/4"=1'-0"

PLUMBING KEYNOTES (THIS SHEET ONLY)

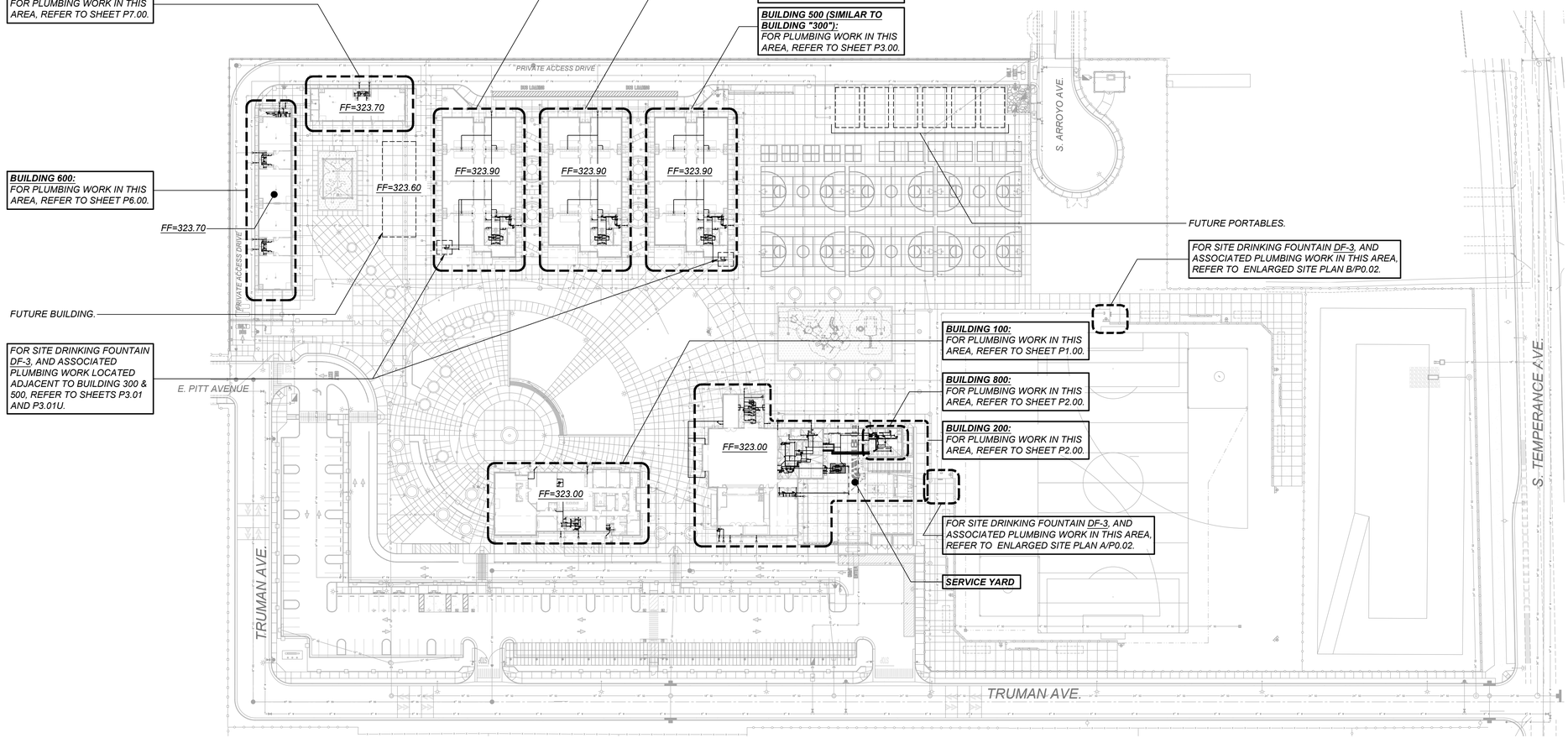
1. *1"CW, 2"WASTE WITH CLEANOUT, TO & FROM DRINKING FOUNTAIN WITH BOTTLE FILLER AND FILTER. REFER TO DETAIL A/P9.06.*
2. *OFFSET AND DISCHARGE 2" WASTE TO DRYWELL. REFER TO CIVIL DRAWINGS FOR CONTINUATION.*
3. *2" TWO-WAY COTG. REFER TO DETAIL C/P9.00.*
4. *1"CW SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00.*
5. *1"CW. REFER TO CIVIL DRAWINGS FOR CONTINUATION.*

NOTE:
CONFIRM/COORDINATE FINISH FLOOR (FF) ELEVATIONS AND UNDERGROUND PIPING UTILITY CONNECTIONS WITH CIVIL PRIOR TO INSTALLATION. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #9, SHEET P0.01.

IMPORTANT

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PLUMBING SITE PLAN

SCALE: 1" = 60'-0"

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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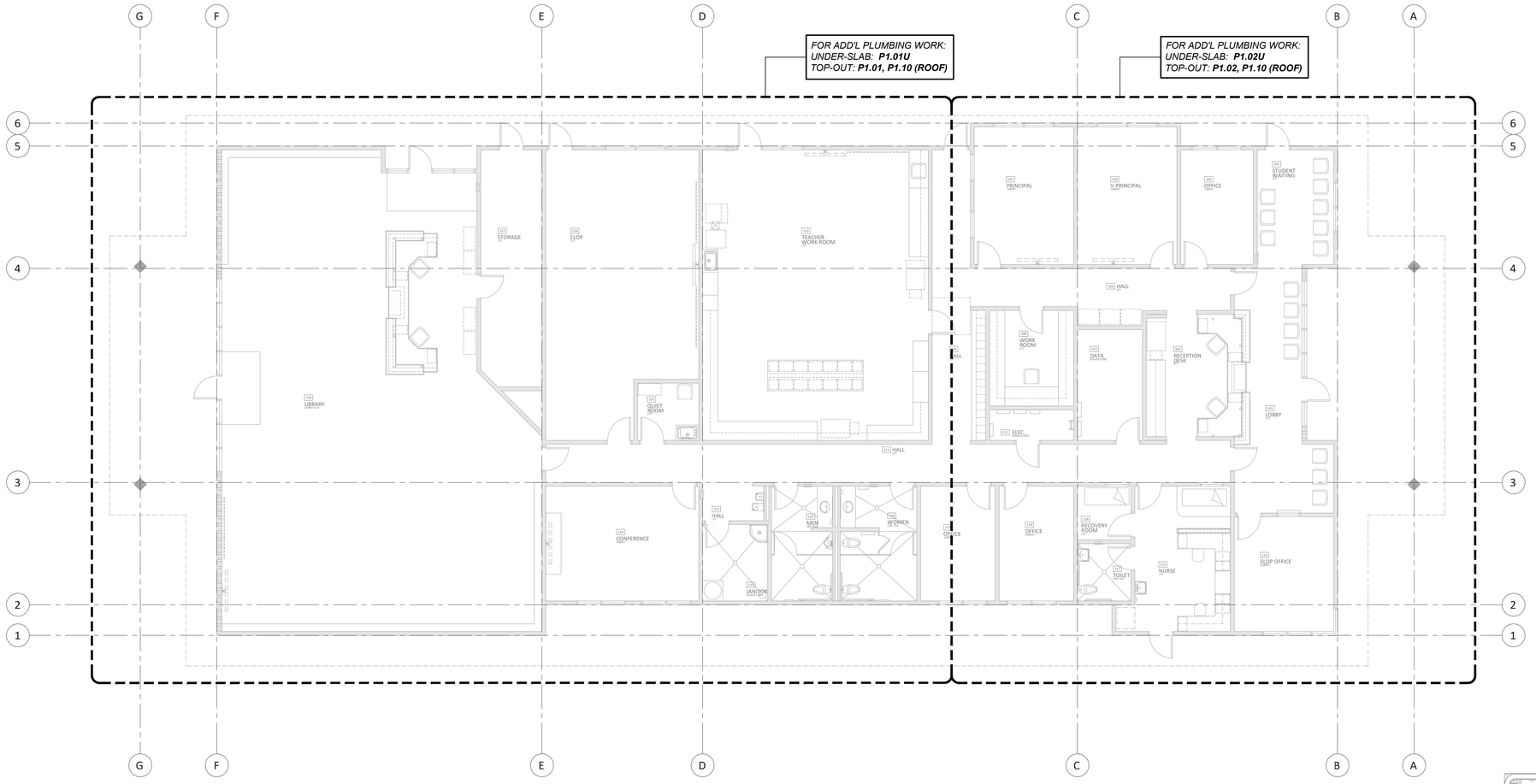
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STATE OF CALIFORNIA

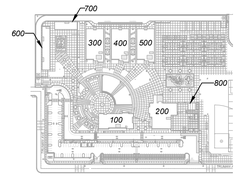
TITLE
PLUMBING SITE PLAN

P0.02

PROJECT 24042

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PLUMBING KEY PLAN

SCALE: NONE

north

BUILDING 100 - OVERALL PLUMBING PLAN

SCALE: 1/8" = 1'-0"

north

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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TITLE
BUILDING 100 - OVERALL PLUMBING PLAN

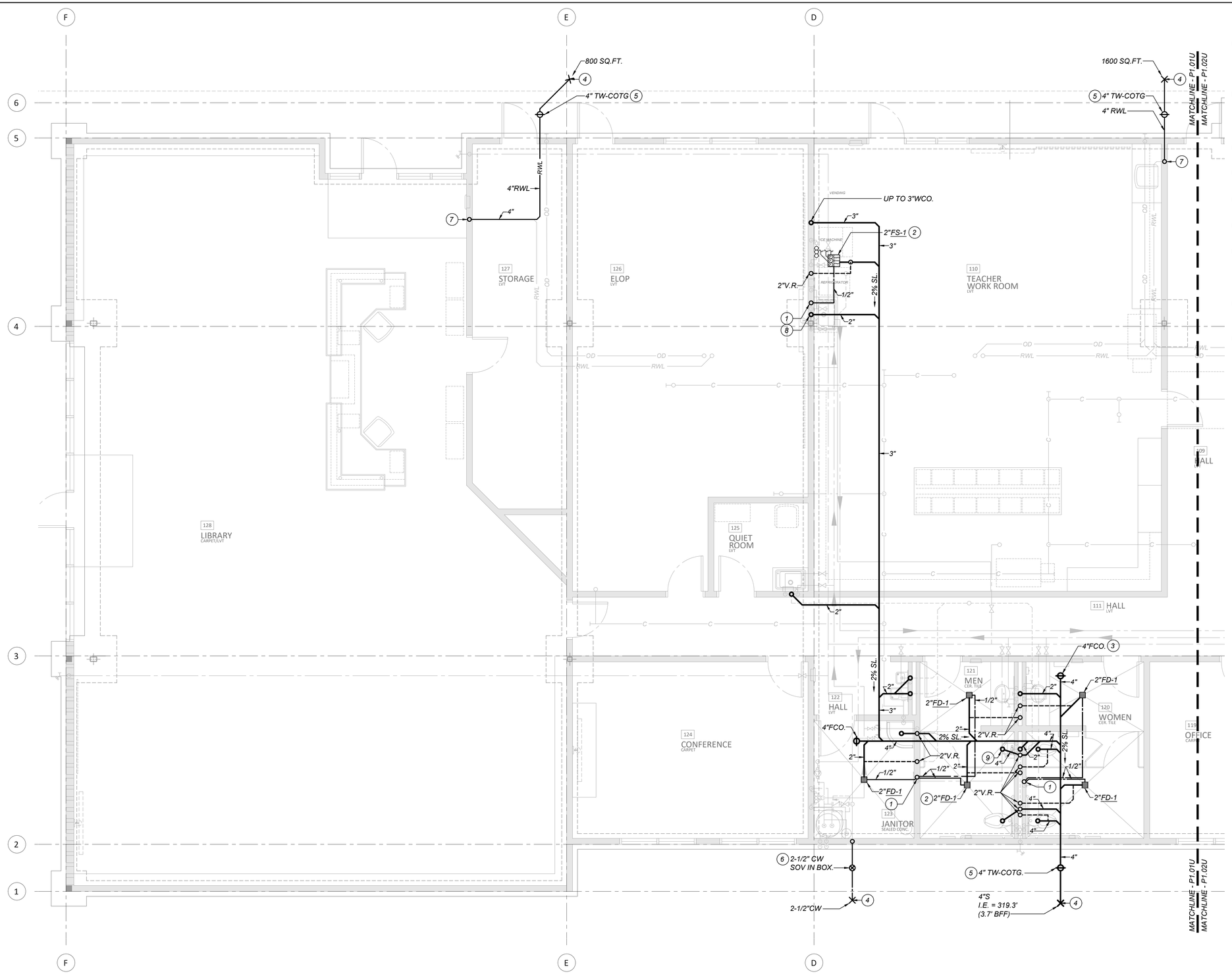
P1.00

PROJECT 24042

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BUILDING 100 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

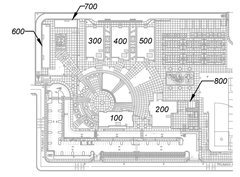
SCALE: 1/4" = 1'-0"

north

PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONLY)

1. 1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIME TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. REFER TO ABOVE GROUND PLA FOR TP MARK #. TYPICAL.
2. WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.
3. FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.
4. EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.
5. TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.
6. SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.
7. RWL DOWN IN WALL TO BELOW GRADE, TRANSITION TO SIZE INDICATED (WHERE APPLICABLE) BELOW GRADE AND EXTEND RWL +5'-0" OUTSIDE BUILDING WALL. REFER "TOP-OUT" PLAN AND CIVIL DRAWINGS FOR CONT., TYP.
8. COORDINATE WASTE WITH COLUMN AND TOP OF FTG. DEPTH. REFER TO SHEETS S1.1 (DETAILS 2, 3, 4, & 11), S1.2 (DETAIL 8), AND BLDG 100 FOUNDATION S2.1.
9. PROVIDE ROUGH-IN FOR FUTURE FLOOR-MOUNTED WATER CLOSET AT LOCATIONS INDICATED. PROVIDE CLOSET BEND AND 4"S CAPPED RISER BELOW FINISH SLAB, LOCATED 12" ℄ FROM FINISHED REAR WALL. CONFIGURE ROUGH-IN TO MINIMIZE FUTURE SAWCUTTING FOR CLOSET FLANGE INSTALLATION. PROVIDE 2" VENT, AND CAPPED 1-1/2"CW PIPING CONCEALED WITHIN WALL, BEHIND FINISHED SURFACES.

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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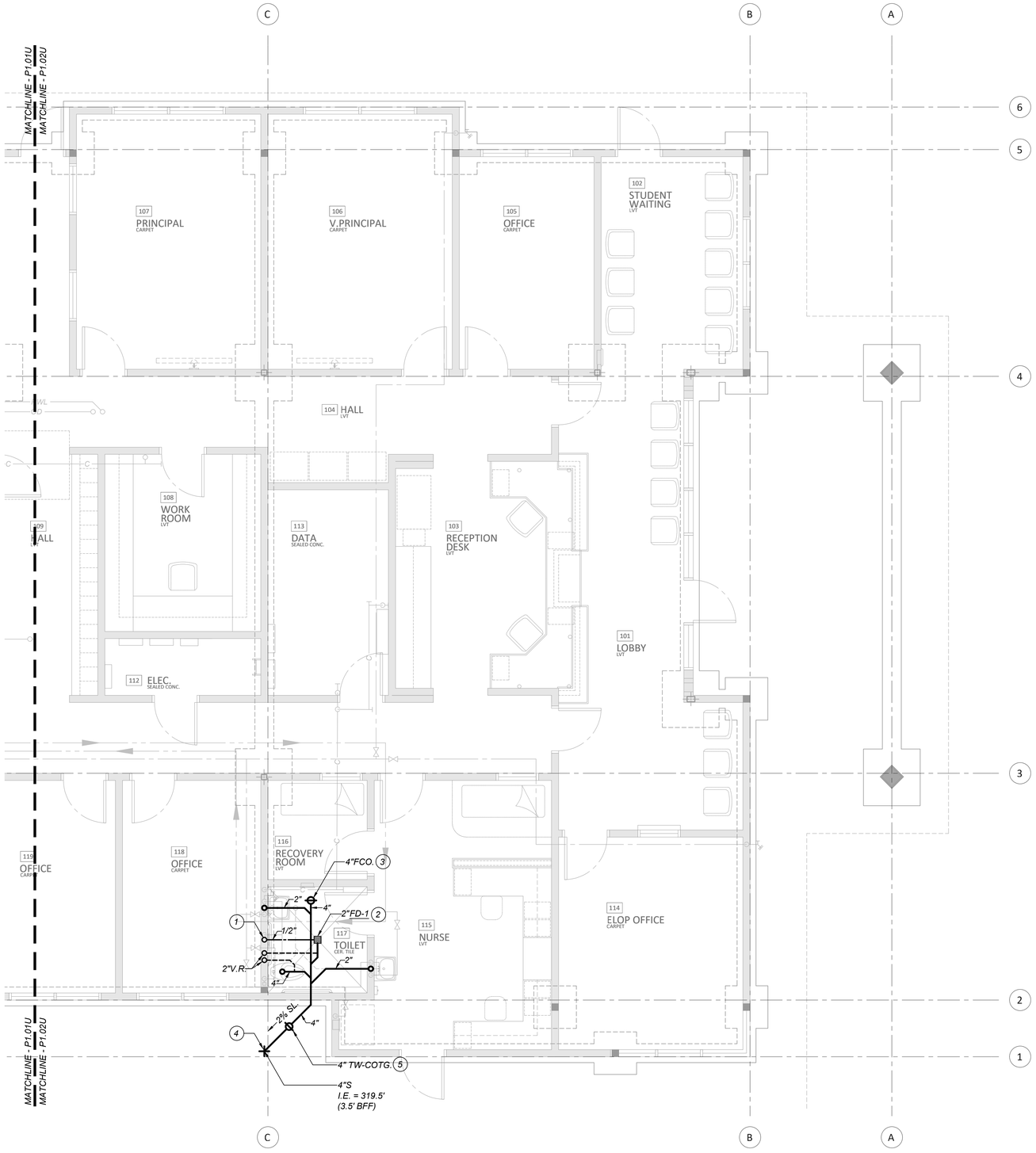
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TITLE
BUILDING 100 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

P1.01U

PROJECT 24042

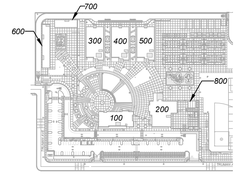
16 September 2026 8:17 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P1.01U - P102U - Building 100 - Partial Under-Slab Plan.dwg ryanf



PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM TP TRAP PRIMER TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. REFER TO ABOVE GROUND PLAN FOR TP MARK #. TYPICAL.*
2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.*
4. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
5. *TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.*

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN

SCALE: NONE

north

BUILDING 100 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

APPROVALS

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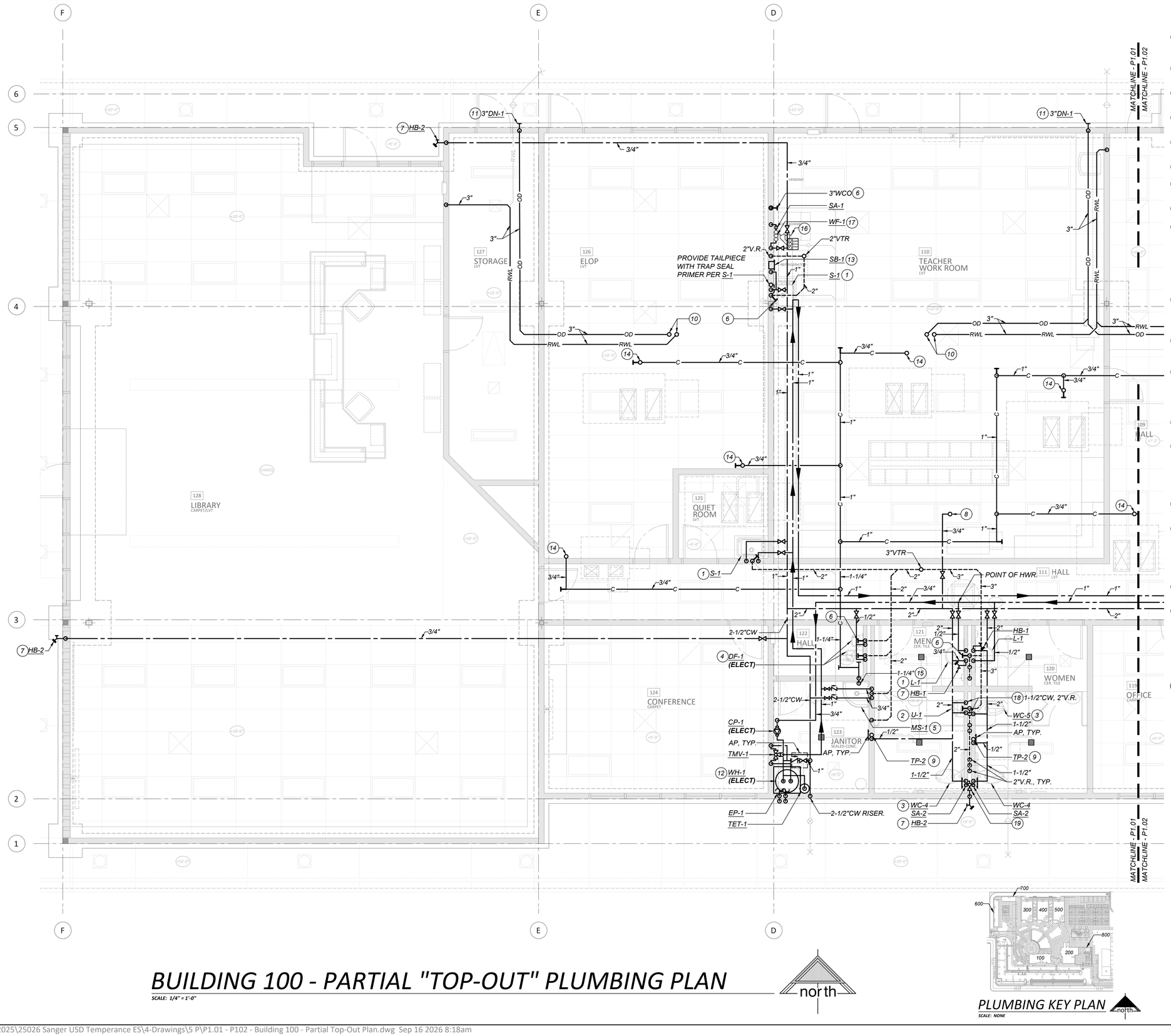
TITLE
BUILDING 100 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

P1.02U

PROJECT 24042

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BUILDING 100 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

PLUMBING KEY PLAN

SCALE: NONE

north

PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW, 1/2"HW, 2"W, 2"V.R. TO AND FROM LAVATORY OR SINK. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
2. *1"CW DN., 2"S. DN., & 2"V.R. WITH WCO TO AND FROM URINAL. TYPICAL.*
3. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
4. *1/2"CW, 2"W DN., WITH WCO, 2"V.R. TO AND FROM DRINKING FOUNTAIN. REFER TO DETAIL A/P9.04.*
5. *3/4"CW, 3/4"HW, 3"W DN. WITH WCO, 2"V.R. TO AND FROM MOP SINK.*
6. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00, TYP.*
7. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
8. *3/4"CW UP TO HOSE BIBB ON ROOF PER DETAIL H/P9.01.*
9. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
10. *RWL AND OD PIPING DOWN FROM ROOF DRAIN TO CEILING SPACE IMMEDIATELY BELOW ROOF. ROUTE TO WALL OR COLUMN AS INDICATED. REFER TO PLUMBING ROOF PLAN AND UNDER-SLAB PLAN FOR CONT. TYPICAL.*
11. *OVERFLOW DRAIN DN. IN WALL & DAYLIGHT THROUGH FACE OF FINISH WALL WITH DOWNSPOUT NOZZLE, DN-1, +12" ABV. FIN. GR. REFER TO PLAN FOR SIZE. TYPICAL.*
12. *WATER HEATER ASSEMBLY. SET EQUIPMENT PLATFORM EP-1 AT +4'-6" AFF. MAINTAIN MIN. 18" CLEAR FROM TOP OF WATER HEATER TO CEILING FOR MAINTENANCE. REFER TO PLAN FOR MARK #'s. REFER TO DETAIL A/P9.05.*
13. *1/2"CW DN IN WALL TO RECESSED WATER SUPPLY BOX. CONFIRM MOUNTING HEIGHT WITH ARCH., TYPICAL.*
14. *CONDENSATE PIPING DOWN FROM ROOF MOUNTED MECHANICAL HEAT PUMP UNIT. OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO MECHANICAL DRAWINGS AND ROOF PLAN P1.10.*
15. *CONDENSATE DOWN IN WALL, ELBOW OUT, TURN DOWN AND DISCHARGE TO MOP SINK PER F/P9.01.*
16. *PROVIDE FULL-SIZE, INSULATED DRAIN PIPING FROM THE ICE BIN BOTTOM OUTLET, ICE MACHINE REAR WATER DRAIN, AND ICE MACHINE BASE AUXILIARY DRAIN PER DETAIL B/P9.04. ROUTE EACH DRAIN INDIVIDUALLY TO A FLOOR SINK AND DISCHARGE WITH AN AIR GAP PER DETAIL F/P9.01.*
17. *3/4"CW PIPING DOWN IN WALL TO WATER FILTER ASSEMBLY AND ICE MACHINE. REFER TO DETAIL B/P9.04.*
18. *PROVIDE ROUGH-IN FOR FUTURE FLOOR-MOUNTED WATER CLOSET AT LOCATIONS INDICATED. PROVIDE CLOSET BEND AND 4"S CAPPED RISER BELOW FINISH SLAB, LOCATED 12" ℄ FROM FINISHED REAR WALL. CONFIGURE ROUGH-IN TO MINIMIZE FUTURE SAWCUTTING FOR CLOSET FLANGE INSTALLATION. PROVIDE 2" VENT, AND CAPPED 1-1/2"CW PIPING CONCEALED WITHIN WALL, BEHIND FINISHED SURFACES.*
19. *PROVIDE SHUT-OFF VALVE UPSTREAM OF HOSE BIBB BEHIND ACCESS PANEL.*

NOTES:
1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.
2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
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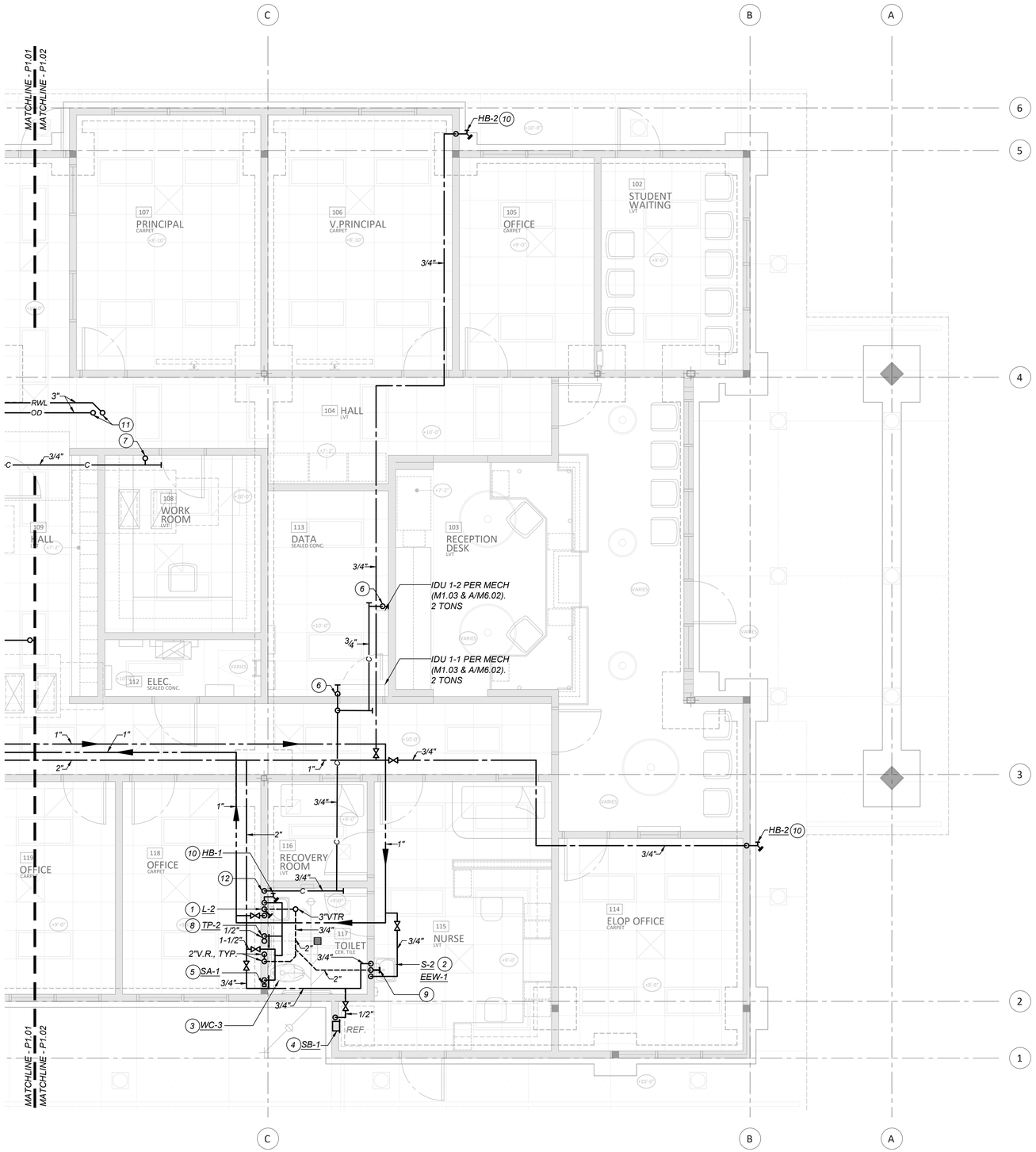
REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

TITLE
BUILDING 100 - PARTIAL "TOP-OUT" PLUMBING PLAN

P1.01

PROJECT 24042

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



BUILDING 100 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

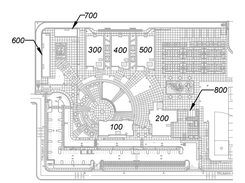
PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW, 1/2"HW, 2"W, 2"V.R. TO AND FROM LAVATORY. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
2. *3/4"CW, 3/4"HW, 2"W, 2"V.R. TO AND FROM SINK WITH EMERGENCY EYEWASH. REFER TO DETAIL A/P9.08. PROVIDE WCO PER E/P9.00.*
3. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
4. *1/2"CW DN IN WALL TO RECESSED WATER SUPPLY BOX. CONFIRM MOUNTING HEIGHT WITH ARCH., TYPICAL.*
5. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
6. *MECHANICAL INDOOR UNIT. CONNECT CONDENSATE PIPING TO CONDENSATE PUMP INTEGRAL TO MECH. UNIT. OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO AND CONNECTION LOCATION. REFER TO DETAIL E/P9.01 AND/OR J/P9.01 FOR IDU COND. CONNECTION.*
7. *CONDENSATE PIPING DOWN FROM ROOF MOUNTED MECHANICAL HEAT PUMP UNIT. OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO MECHANICAL DRAWINGS AND ROOF PLAN P1.10.*
8. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
9. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00, TYP.*
10. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
11. *RWL AND OD PIPING DOWN FROM ROOF DRAIN TO CEILING SPACE IMMEDIATELY BELOW ROOF. ROUTE TO WALL OR COLUMN AS INDICATED. REFER TO PLUMBING ROOF PLAN AND UNDER-SLAB PLAN FOR CONT. TYPICAL.*
12. *CONDENSATE PIPING DOWN IN WALL TO LAV/SINK TAILPIECE AND DISCHARGE PER C/P9.02.*

NOTES:

1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

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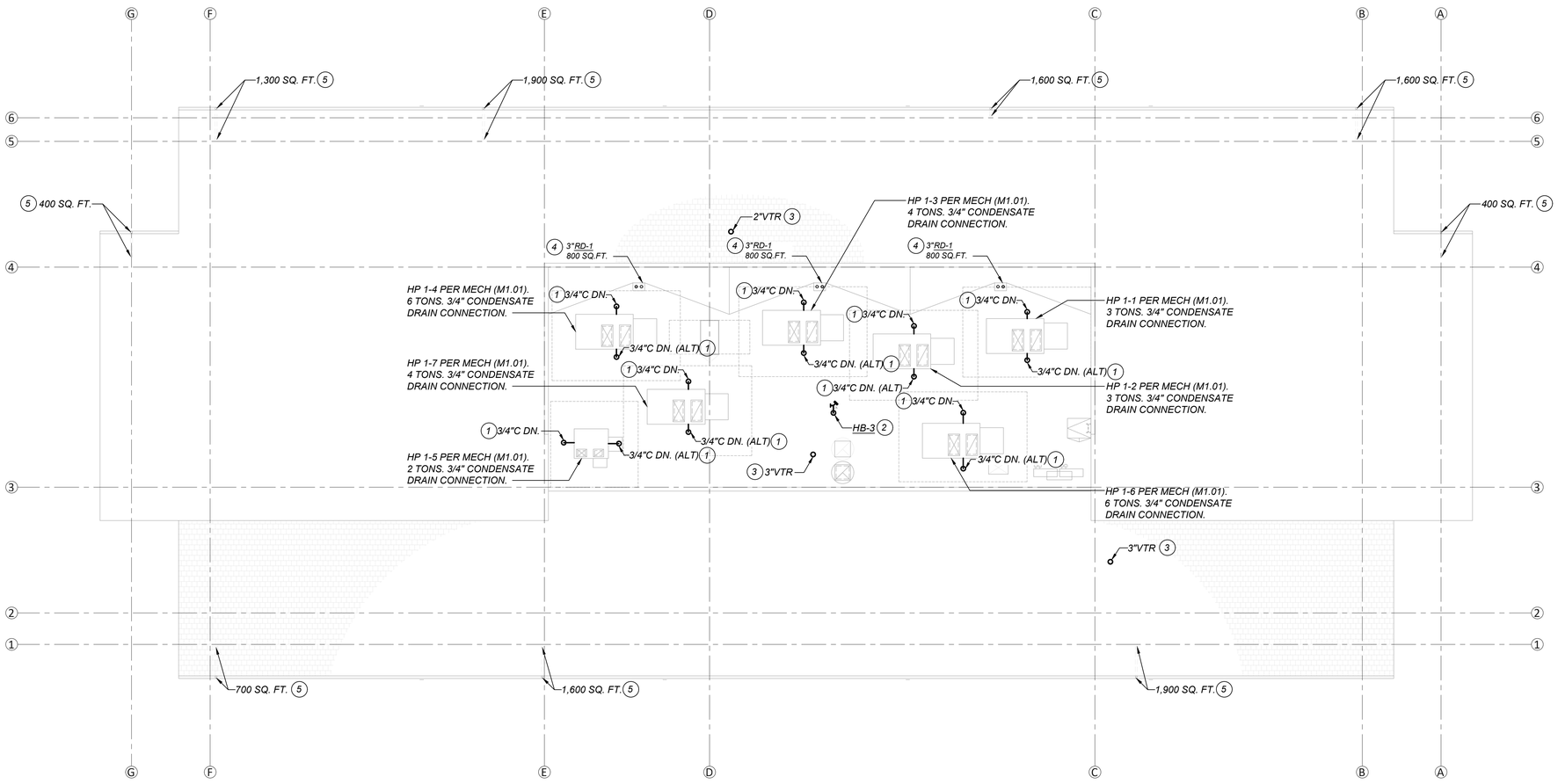
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TITLE
BUILDING 100 - PARTIAL "TOP-OUT" PLUMBING PLAN

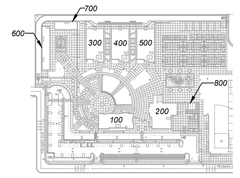
P1.02

PROJECT 24042



PLUMBING "ROOF" KEYNOTES (THIS SHEET ONLY)

1. CONNECT CONDENSATE TO MECHANICAL HEAT PUMP UNIT. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO CONDENSATE INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01. DROP DOWN THRU ROOF. REFER TO ENLARGED FLOOR PLANS FOR CONTINUATION. TYPICAL.
2. 3/4"CW UP THRU ROOF TO HOSE BIBB, HB-3 AT +12" ABV. FIN. ROOF. REFER TO DETAIL H/P9.01, TYP.
3. VENT THRU ROOF. MAINTAIN MINIMUM 10'-0" CLEARANCE FROM OUTSIDE AIR INTAKE, +1'-0" FROM VERTICAL SURFACES. FOR PIPE THRU ROOF, REFER TO DETAIL G/P9.01 OR D/P9.02 TYPICAL.
4. ROOF & OVERFLOW DRAIN. REFER TO FLOOR PLAN FOR CONTINUATION. REFER TO ARCHITECTURAL DETAIL 11/A103, TYPICAL.
5. ROOF GUTTER, CONDUCTOR HEAD, AND DOWNSPOUTS PER ARCH. PLANS. REFER TO CIVIL PLANS FOR CONNECTION AND ROUTING ON SITE.



PLUMBING KEY PLAN

SCALE: NONE

north

BUILDING 100 - PLUMBING ROOF PLAN

SCALE: 1/8" = 1'-0"

north

APPROVALS

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TITLE
BUILDING 100 - PLUMBING ROOF PLAN

P1.10

PROJECT 24042

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16 September 2026 8:18 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P1.10 - Building 100 - Plumbing Roof Plan.dwg ryanf

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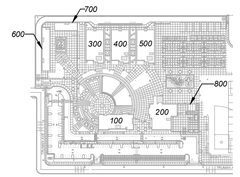
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STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



PLUMBING KEY PLAN

SCALE: NONE

north

FOR ADD'L PLUMBING WORK:
UNDER-SLAB: ***P2.01U***
TOP-OUT: ***P2.01, P2.10 (ROOF)***

FOR ADD'L PLUMBING WORK:
UNDER-SLAB: ***P2.02U***
TOP-OUT: ***P2.02, P2.10 (ROOF)***
EQUIPMENT PLATFORMS: ***P2.05***

FOR ADD'L PLUMBING WORK:
UNDER-SLAB: ***P2.04U***
TOP-OUT: ***P2.04, P2.10 (ROOF)***

FOR ADD'L PLUMBING WORK:
UNDER-SLAB: ***P2.03U***
TOP-OUT: ***P2.03, P2.10 (ROOF)***
EQUIPMENT PLATFORMS: ***P2.05***

209 VESTIBULE CER. TILE
210 VESTIBULE CER. TILE
208 GIRLS CER. TILE
211 BOYS CER. TILE
207 STORAGE SEALED CONC.
206 CAFETERIA STAINED CONC.
205 CONTROL LVT
204 PLATFORM LVT
203 RAMP STAINED CONC.
201 STORAGE SEALED CONC.
202 STORAGE SEALED CONC.
227 FLEXIBLE ROOM LVT
212 OFFICE EPOXY
213 ELECTRICAL SEALED CONC.
222 UTILITY EPOXY
223 JANITOR EPOXY
215 KITCHEN EPOXY
214 SERVING EPOXY
221 PANTRY EPOXY
220 STAGING EPOXY
218 REFRIG. EPOXY
219 FREEZER EPOXY
216 CLEAN UP EPOXY
217 FOOD PREP EPOXY
224 VESTIBULE STAINED CONC.
225 UNISEX STUDENT CER. TILE
226 UNISEX STAFF CER. TILE

BUILDING 200

BUILDING 800

SERVICE YARD

BUILDING 200 & 800 - OVERALL PLUMBING PLAN

SCALE: 1/8" = 1'-0"

north

BRYAN W. CARLOW
No. M34846
Exp. 6-30-28
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NEW TEMPERANCE ELEMENTARY SCHOOL
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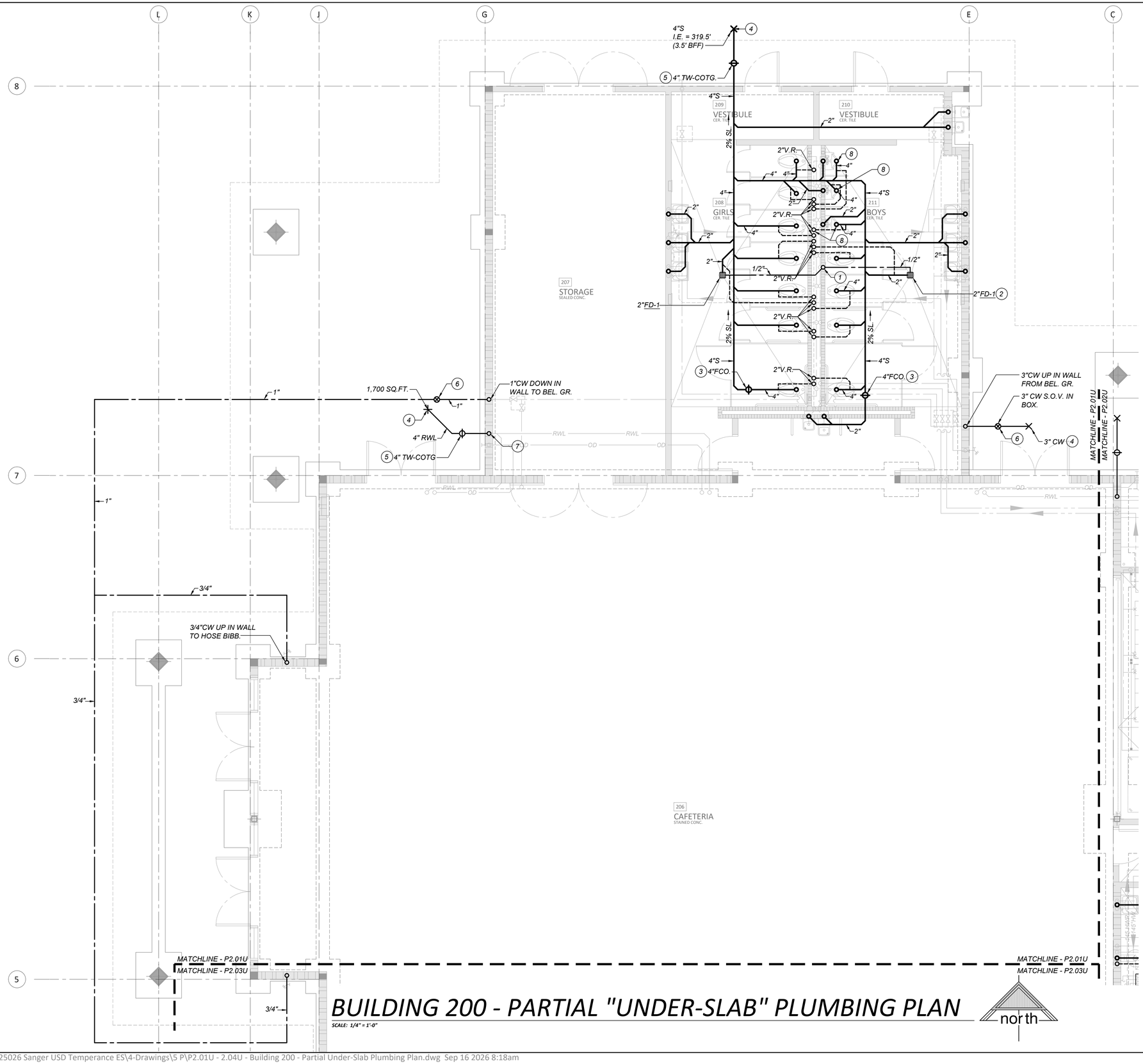
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TITLE
BUILDING 200 & 800 - OVERALL PLUMBING PLAN

P2.00

PROJECT 24042

16 September 2026 8:18 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P2.00 - Building 200 - Overall Plumbing Plan.dwg ryanf



BUILDING 200 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

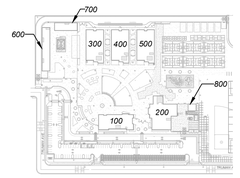
SCALE: 1/4" = 1'-0"

north

PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIME TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. REFER TO ABOVE GROUND PLA FOR TP MARK #. TYPICAL.*
2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.*
4. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
5. *TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.*
6. *SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.*
7. *RWL DOWN IN WALL TO BELOW GRADE, TRANSITION TO SIZE INDICATED (WHERE APPLICABLE) BELOW GRADE AND EXTEND RWL +5'-0" OUTSIDE BUILDING WALL. REFER "TOP-OUT" PLAN AND CIVIL DRAWINGS FOR CONT., TYP.*
8. *PROVIDE ROUGH-IN FOR FUTURE FLOOR-MOUNTED WATER CLOSET AT LOCATIONS INDICATED. PROVIDE CLOSET BEND AND 4"S CAPPED RISER BELOW FINISH SLAB, LOCATED 12" ℄ FROM FINISHED REAR WALL. CONFIGURE ROUGH-IN TO MINIMIZE FUTURE SAWCUTTING FOR CLOSET FLANGE INSTALLATION. PROVIDE 2" VENT, AND CAPPED 1-1/2"CW PIPING CONCEALED WITHIN WALL, BEHIND FINISHED SURFACES.*

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

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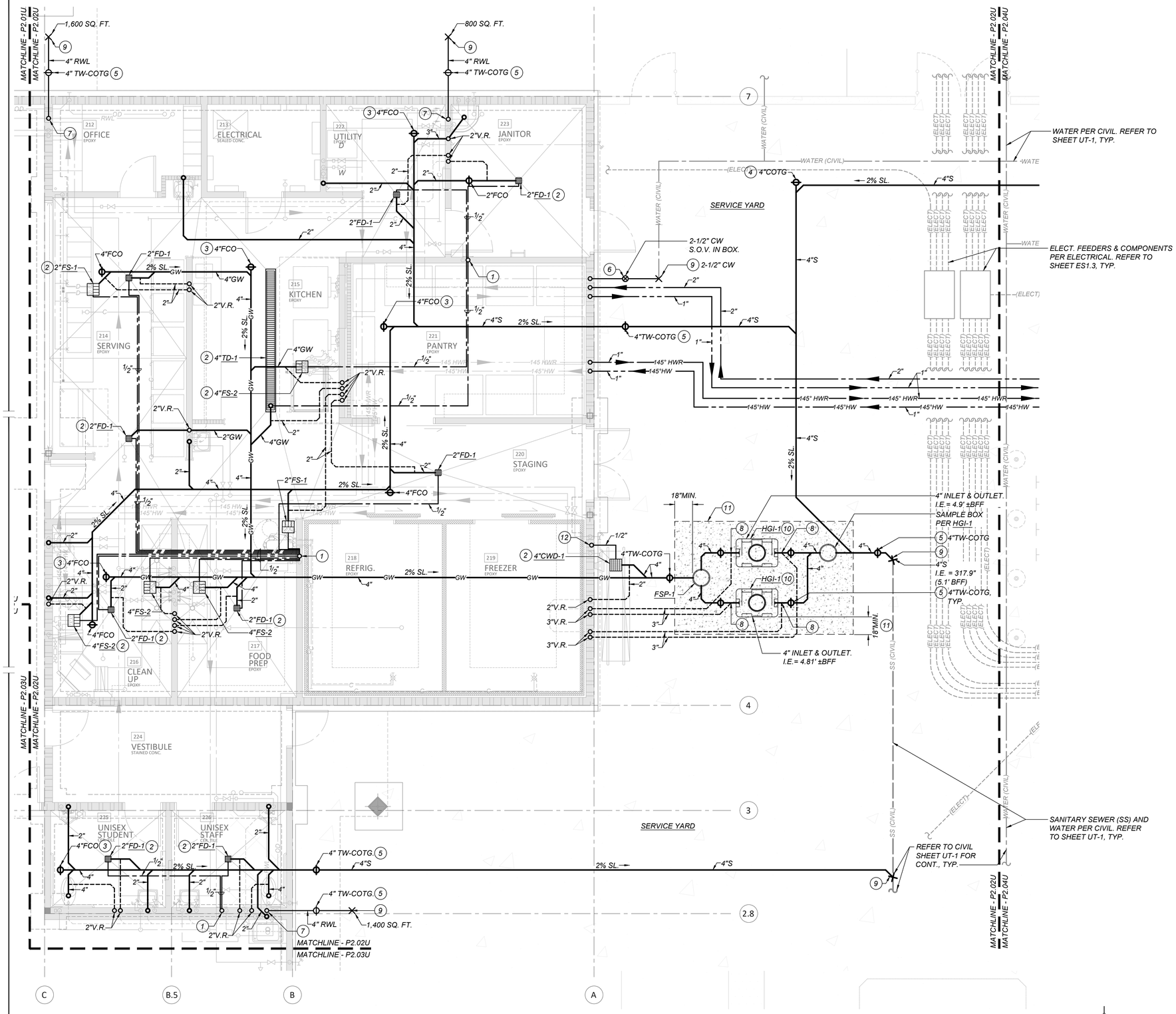
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TITLE
BUILDING 200 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

P2.01U

PROJECT 24042



BUILDING 200 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

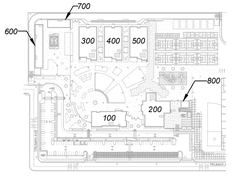
PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONLY)

1. 1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIME TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. REFER TO ABOVE GROUND PLA FOR TP MARK #. TYPICAL.
2. WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN, OR TRENCH DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.
3. FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.
4. CLEANOUT-TO-GRADE (COTG) PER DETAIL B/P9.00. REFER TO PLAN FOR SIZE.
5. TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.
6. SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.
7. RWL DOWN IN WALL TO BELOW GRADE, TRANSITION TO SIZE INDICATED (WHERE APPLICABLE) BELOW GRADE AND EXTEND RWL +5'-0" OUTSIDE BUILDING WALL. REFER "TOP-OUT" PLAN AND CIVIL DRAWINGS FOR CONT., TYP.
8. 3" AIR RELIEF VENT (GREASE INTERCEPTOR INLET & OUTLET).
9. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.
10. HGI-1, 4" INLET & 4" OUTLET, HYDROMECHANICAL GREASE INTERCEPTOR WITH INTEGRAL FLOW CONTROL AND TRAFFIC RATED H20 24" DIA. WATERTIGHT DUCTILE IRON LID AND COLLAR. PICKABLE LID FOR GREASE TRAP SHALL BE FLUSH WITH FINISH GRADE. REFER TO DETAIL B/P9.06.
11. PROVIDE REINFORCED 8" MIN. THICK STRUCTURAL SLAB +18" BEYOND FOOTPRINT EDGE OF INTERCEPTOR, SAMPLE BOX, AND FLOW SPLITTER (FSP-1). TOP OF REINFORCED STRUCTURAL SLAB SHALL BE FLUSH WITH ADJACENT FINISH GRADE. COORDINATE EXACT SIZE WITH SITE CONTRACTOR. REFER TO DETAIL B/P9.06.
12. 1/2" TEMPERED WATER DOWN FROM CAN WASH CONTROL BOX, CWB-1, EXTEND BELOW GRADE TO CWD-1.

NOTES:

1. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.
2. PROVIDE TRAFFIC RATED CLEANOUTS, AND VALVE BOXES WITHIN SERVICE YARD AREA, PER DETAILS A/P9.00, B/P9.00, AND C/P9.00. TYPICAL.

(##)	SYMBOL DENOTES KITCHEN EQUIPMENT PER ARCH. SHEET A21. FOR KITCHEN EQUIPMENT PLUMBING SCHEDULE AND INTERCONNECTIONS BETWEEN KITCHEN EQUIPMENT AND PLUMBING, REFER TO SHEET P11.06. REFER TO ARCHITECTURAL PLANS, AND SPECIFICATIONS FOR ADDITIONAL PLUMBING REQUIREMENTS, AND EQUIPMENT DETAILS.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

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P2.02U

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2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.*
4. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
5. *TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.*
6. *SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.*
7. *RWL DOWN IN WALL TO BELOW GRADE, TRANSITION TO SIZE INDICATED (WHERE APPLICABLE) BELOW GRADE AND EXTEND RWL +5'-0" OUTSIDE BUILDING WALL. REFER "TOP-OUT" PLAN AND CIVIL DRAWINGS FOR CONT., TYP.*

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.

MATCHLINE - P2.01U
MATCHLINE - P2.03U

3/4" CW UP IN WALL TO HOSE BIBB.

3/4"

205 CONTROL LVT

204 PLATFORM LVT

203 RAMP STAINED CONC.

227 FLEXIBLE ROOM LVT

MATCHLINE - P2.03U
MATCHLINE - P2.02U

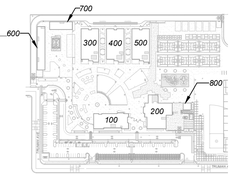
MATCHLINE - P2.02U
MATCHLINE - P2.03U

201 STORAGE SEALED CONC.

202 STORAGE SEALED CONC.

2"FS-1 (2)
2"FCO (3)
1/2"CW
(1)
3/4"CW RISER
2"V.R.
2"
2"
3/4"
2% SL.
1"CW RISER
1"CW S.O.V. IN BOX (6)
1"CW
(4)
2" TW-COTG. (5)
2"S
(4)
2"S
I.E. = 319.5'
(3.5' BFF)
(7)
4" TW-COTG. (5)
4"RWL
(4)
2,700 SQ. FT.

(5) 4" TW-COTG.
(7)
4"RWL
2,700 SQ. FT.
(4)



PLUMBING KEY PLAN
SCALE: NONE
north

3 2 1

K J H F D C B.5 B

BUILDING 200 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CARLOW
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

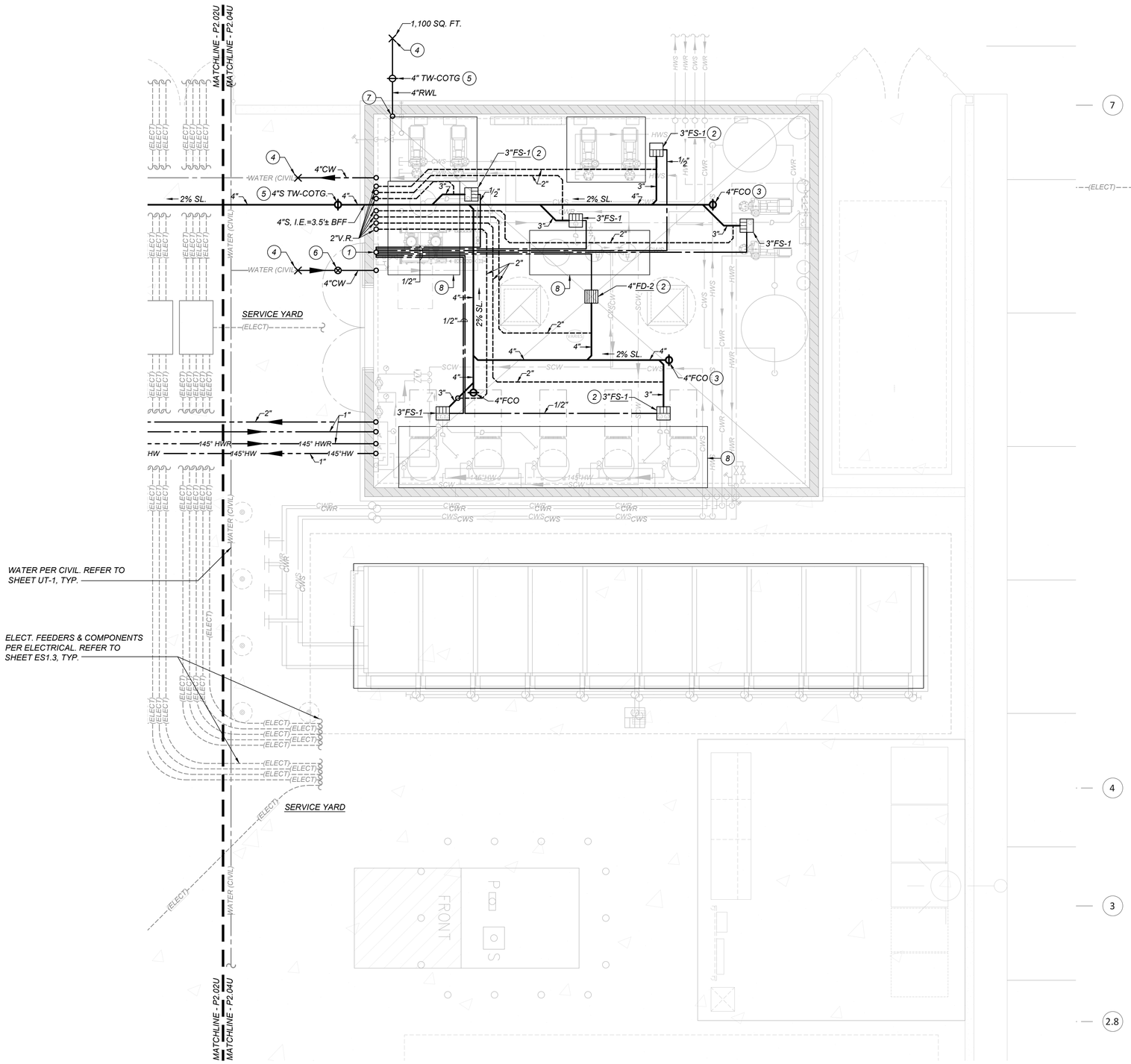
MANGINI ARCHITECTURE | INGENUITY.
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(559) 627 7639 Office
(559) 627 1926 Fax

TITLE
BUILDING 200 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

P2.03U

PROJECT 24042

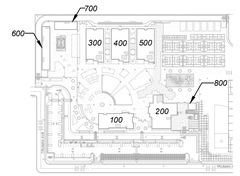
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIME TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. REFER TO ABOVE GROUND PLA FOR TP MARK #.*
2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID HOUSEKEEPING PADS, EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE. TYPICAL.*
4. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION.*
5. *TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.*
6. *SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.*
7. *RWL DOWN IN WALL TO BELOW GRADE, TRANSITION TO SIZE INDICATED (WHERE APPLICABLE) BELOW GRADE AND EXTEND RWL +5'-0" OUTSIDE BUILDING WALL. REFER "TOP-OUT" PLAN AND CIVIL DRAWINGS FOR CONT., TYP.*
8. *DENOTES 6" TALL CONCRETE HOUSEKEEPING PAD. REFER TO STRUCTURAL DETAIL 13/S1.5. REFER TO SHEET P2.04 FOR PAD INFORMATION. COORDINATE EXACT SIZE WITH EQUIPMENT PER P2.0I, P2.04U AND MECH. DRAWINGS. MAINTAIN MINIMUM EDGE DISTANCE FROM ANCHOR BOLT(S) TO SIDE OF HOUSEKEEPING PAD PER ESR-4266. TYPICAL.*

NOTES:
1. PROVIDE TRAFFIC RATED CLEANOUTS, AND VALVE BOXES WITHIN SERVICE YARD AREA, PER DETAILS A/P9.00, B/P9.00, AND C/P9.00. TYPICAL.



PLUMBING KEY PLAN
SCALE: NONE

BUILDING 800 - "UNDER-SLAB" PLUMBING PLAN
SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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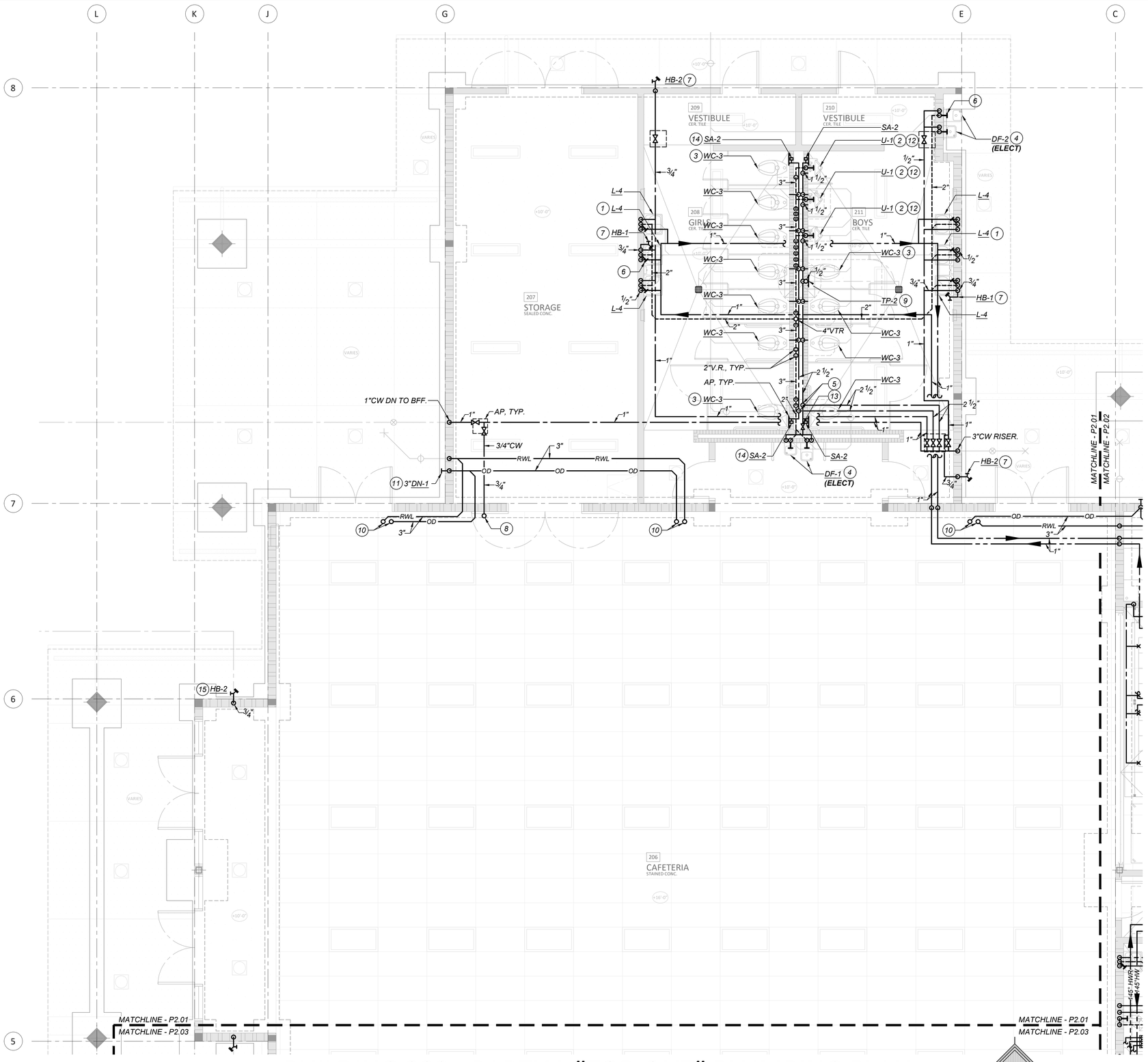
TITLE
BUILDING 800 - "UNDER-SLAB" PLUMBING PLAN

P2.04U

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
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BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

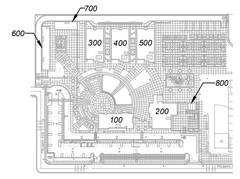
PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW, 1/2"HW, 2"W, 2"V.R. TO AND FROM LAVATORY OR SINK. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
2. *1"CW DN., 2"S. DN., & 2"V.R. WITH WCO TO AND FROM URINAL. TYPICAL.*
3. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
4. *1/2"CW, 2"W DN., WITH WCO, 2"V.R. TO AND FROM DRINKING FOUNTAIN. REFER TO DETAIL A/P9.04.*
5. *CW PIPING DOWN IN WALL. RUN FULL SIZE HEADER TO FIXTURES. REFER TO PLAN FOR SIZE.*
6. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00, TYP.*
7. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
8. *3/4"CW UP TO HOSE BIBB ON ROOF PER DETAIL H/P9.01.*
9. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
10. *RWL AND OD PIPING DOWN FROM ROOF DRAIN TO CEILING SPACE IMMEDIATELY BELOW ROOF. ROUTE TO WALL OR COLUMN AS INDICATED. REFER TO PLUMBING ROOF PLAN AND UNDER-SLAB PLAN FOR CONT. TYPICAL.*
11. *OVERFLOW DRAIN DN. IN WALL & DAYLIGHT THROUGH FACE OF FINISH WALL WITH DOWNSPOUT NOZZLE, DN-1, +12" ABV. FIN. GR. REFER TO PLAN FOR SIZE. TYPICAL.*
12. *PROVIDE ROUGH-IN FOR FUTURE FLOOR-MOUNTED WATER CLOSET AT LOCATIONS INDICATED. PROVIDE CLOSET BEND AND 4"S CAPPED RISER BELOW FINISH SLAB, LOCATED 12" ℄ FROM FINISHED REAR WALL. CONFIGURE ROUGH-IN TO MINIMIZE FUTURE SAWCUTTING FOR CLOSET FLANGE INSTALLATION. PROVIDE 2" VENT, AND CAPPED 1-1/2"CW PIPING CONCEALED WITHIN WALL, BEHIND FINISHED SURFACES.*
13. *PROVIDE SHUT-OFF VALVE UPSTREAM OF FIXTURE BEHIND ACCESS PANEL, TYPICAL.*
14. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
15. *3/4"CW UP IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*

NOTES:

1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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APP: 02-123774 INC:
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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TITLE
BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN

P2.01

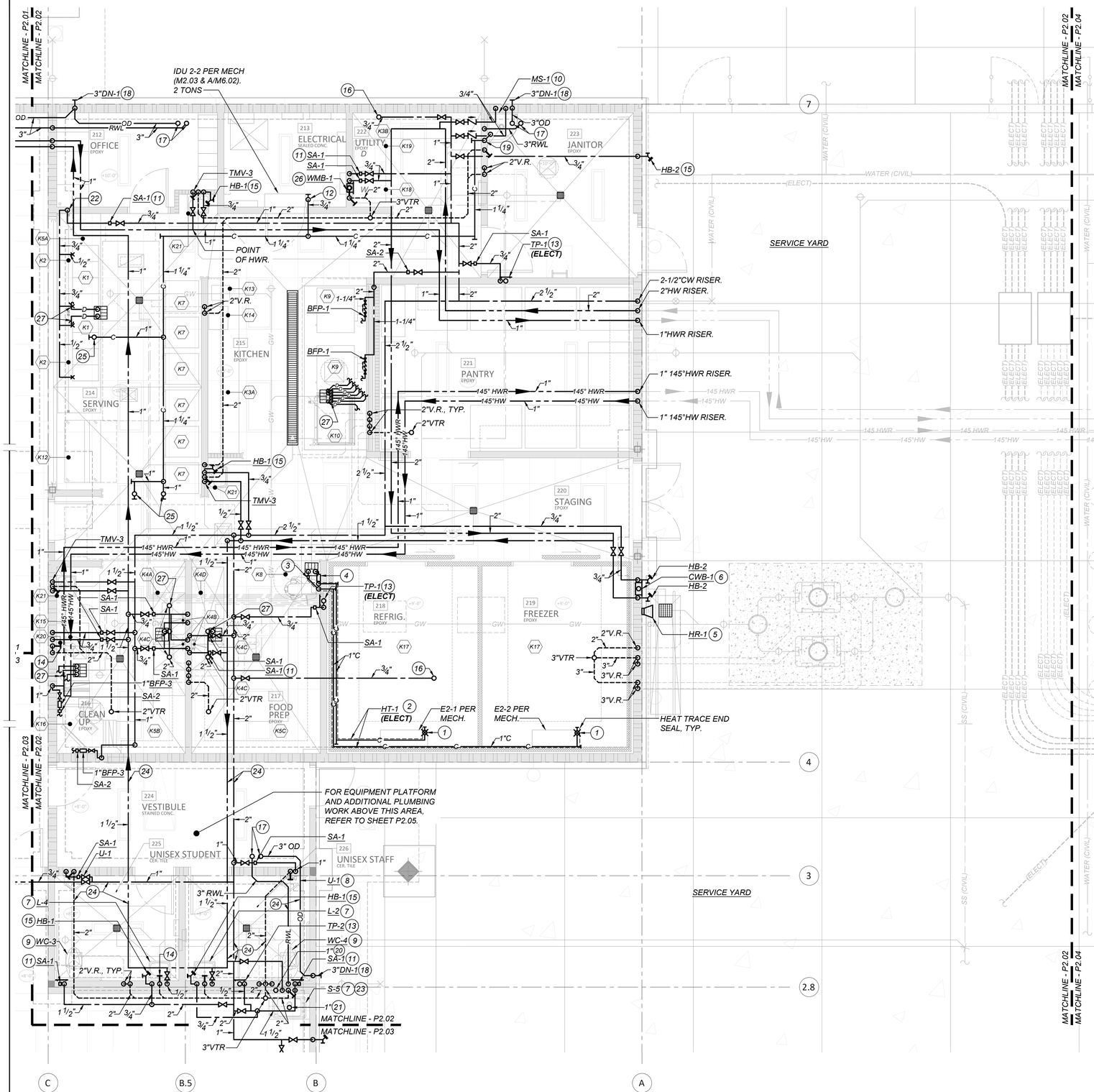
PROJECT 24042

BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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FAX (559) 431-1342

16 September 2026 8:19 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P2.01 - 2.04 - Building 200 - Partial Top-Out Plumbing Plan.dwg ryanf

P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P2.01 - 2.04 - Building 200 - Partial Top-Out Plumbing Plan.dwg Sep 16 2026 8:19am



BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

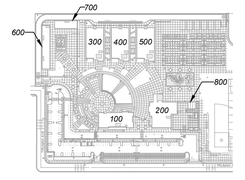
PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *CONNECT 1"COND. TO EVAPORATOR UNIT E2-1 & E2-2 PER MECH (M2.00). CONFIRM CONNECTION LOCATION AND PREFERRED ROUTING WITH EQUIPMENT LAYOUT AND MFG. INSTALLATION GUIDELINES. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION. PROVIDE COND. TRAP ON OUTSIDE WALL OF COOLER BOX AND DISCHARGE TO FLOOR SINK WITH FULL AIR GAP. PROVIDE STAINLESS STEEL SCREEN AT DISCHARGE OUTLET. REFER TO DETAIL D/P9.01 AND F/P9.01, TYP.*
2. *HT-1, HEAT TRACE CABLE SYSTEM. PROVIDE FOR CONDENSATE DRAIN PIPING IN FREEZER AND COOLER, TYP.*
3. *POWERED SPLICE CONNECTION KIT "RAYCLIC-PS" PER HT-1, FOR (2) HEATING CABLES.*
4. *ELECT. CONTROLLER "ECW-GF" PER HT-1, MOUNTED ON WALL. COORD. LOC. WITH EQ. ITEM #K8.*
5. *HOSE RACK, HR-1, MOUNT AT FIN. GR. +60".*
6. *3/4"CW AND 3/4"HW DOWN IN WALL TO HOSE BIBB HB-2. BRANCH 3/4"CW AND 3/4"HW TO CAN WASH CONTROL BOX CWB-1. EXTEND 1/2" TEMPERED WATER FROM CONTROL BOX BELOW GRADE TO CAN WASH DRAIN CWD-1. REFER TO ARCH. SHEETS FOR EXACT LOCATION AND MOUNTING HEIGHTS. REFER TO SHEET P2.02U FOR CONT. OF TEMPERED WATER. REFER TO DETAIL F/P9.00.*
7. *1/2"CW, 1/2"HW, 2"W, 2"V.R. TO AND FROM LAVATORY OR SINK. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
8. *1"CW DN., 2"S. DN., & 2"V.R. W/WCO TO AND FROM URINAL. TYPICAL.*
9. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
10. *3/4"CW, 3/4"HW, 3"W DN. WITH WCO, 2"V.R. TO AND FROM MOP SINK.*
11. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
12. *MECHANICAL INDOOR UNIT. CONNECT CONDENSATE PIPING TO CONDENSATE PUMP INTEGRAL TO MECH. UNIT. OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO AND CONNECTION LOCATION. REFER TO DETAIL E/P9.01 AND/OR J/P9.01 FOR IDU COND. CONNECTION.*
13. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK OR TRENCH DRAIN. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
14. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00, TYPICAL.*
15. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
16. *3/4"CW UP TO HOSE BIBB ON ROOF PER DETAIL H/P9.01.*
17. *RWL AND OD PIPING DOWN FROM ROOF DRAIN TO CEILING SPACE IMMEDIATELY BELOW ROOF. ROUTE TO WALL OR COLUMN AS INDICATED. REFER TO PLUMBING ROOF PLAN AND UNDER-SLAB PLAN FOR CONT. TYPICAL.*
18. *OVERFLOW DRAIN DN. IN WALL & DAYLIGHT THROUGH FACE OF FINISH WALL WITH DOWNSPOUT NOZZLE, DN-1, +12" ABV. FIN. GR. REFER TO PLAN FOR SIZE. TYPICAL.*
19. *CONDENSATE DOWN IN WALL, ELBOW OUT, TURN DOWN AND DISCHARGE TO MOP SINK PER F/P9.01.*
20. *CONDENSATE PIPING DOWN IN WALL FROM EQUIPMENT PLATFORM TO SINK TAILPIECE AND DISCHARGE PER C/P9.02. REFER TO P2.05 FOR CONT.*
21. *AUXILIARY (OVERFLOW) DRAIN PIPING DOWN FROM PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE SINK BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. REFER TO P2.05 FOR CONT.*
22. *3/4"CW DOWN IN WALL TO FOOD WELL(S). MOUNT PIPING ON WALL BEHIND EQUIPMENT, BELOW SERVING COUNTER. BRANCH 1/2"CW TO EACH AUTOFILL CONNECTION AT EQUIPMENT. MOUNT ON WALL PER SIMILAR DETAIL A/P9.07.*
23. *PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER.*
24. *PIPING LOCATED TIGHT TO UNDERSIDE OF ROOF, ABOVE EQUIPMENT PLATFORM. REFER TO ARCH DRAWINGS AND P2.05. COORDINATE PIPE ROUTING WITH MECH, ELECT., AND FIRE SPRINK TO MAINTAIN REQUIRED CLEARANCES AND SERVICE ACCESS.*
25. *CONDENSATE PIPING DOWN FROM ROOF MOUNTED MECHANICAL UNIT. OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO MECHANICAL DRAWINGS AND ROOF PLAN P2.10.*
26. *3/4"CW, 3/4"HW, 3"W DN. WITH WCO, 2"V.R. TO AND FROM WASHING MACHINE BOX, WMB-1.*
27. *EXTEND FULL SIZE DRAIN PIPING TO FLOOR SINK AND DISCHARGE PER DETAIL F/P9.01, TYPICAL.*

NOTES:
1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.

##	*SYMBOL DENOTES KITCHEN EQUIPMENT PER ARCH. SHEET A21. FOR KITCHEN EQUIPMENT PLUMBING SCHEDULE AND INTERCONNECTIONS BETWEEN KITCHEN EQUIPMENT AND PLUMBING, REFER TO SHEET P11.06. REFER TO ARCHITECTURAL PLANS, AND SPECIFICATIONS FOR ADDITIONAL PLUMBING REQUIREMENTS, AND EQUIPMENT DETAILS.*



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
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LICENSED ARCHITECT
JAMES R. MORRELL
C-18128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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TITLE
BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN

P2.02

PROJECT 24042

16 September 2026 8:19 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P2.01 - 2.04 - Building 200 - Partial Top-Out Plumbing Plan.dwg ryanf

APPROVALS

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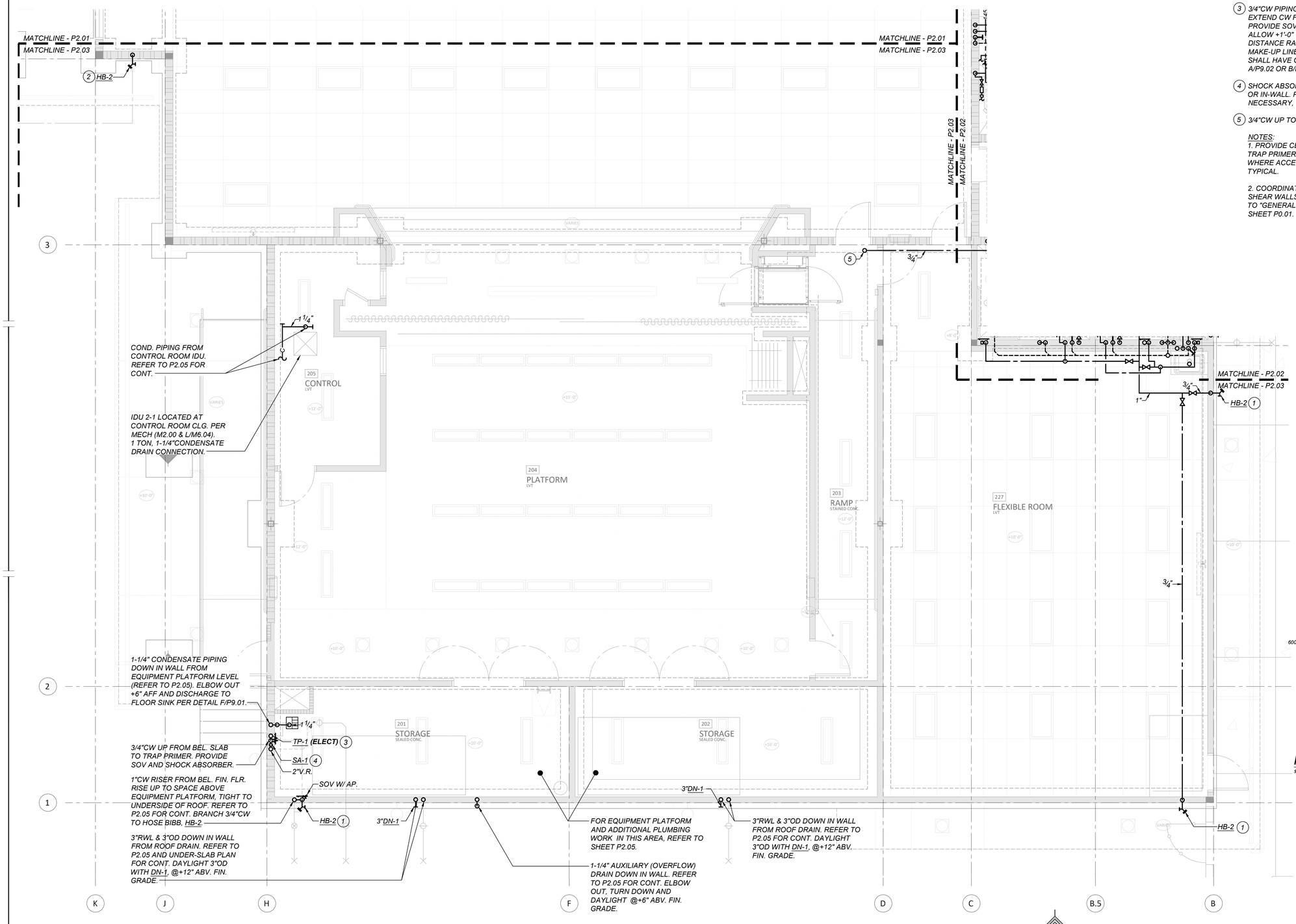
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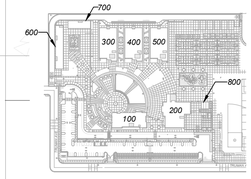
PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
2. *3/4"CW UP IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
3. *3/4"CW PIPING TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
4. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
5. *3/4"CW UP TO HOSE BIBB ON ROOF PER DETAIL H/P9.01.*

NOTES:
1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.





PLUMBING KEY PLAN
SCALE: NONE
north

BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

CERTIFIED PROFESSIONAL ENGINEER
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REVISIONS

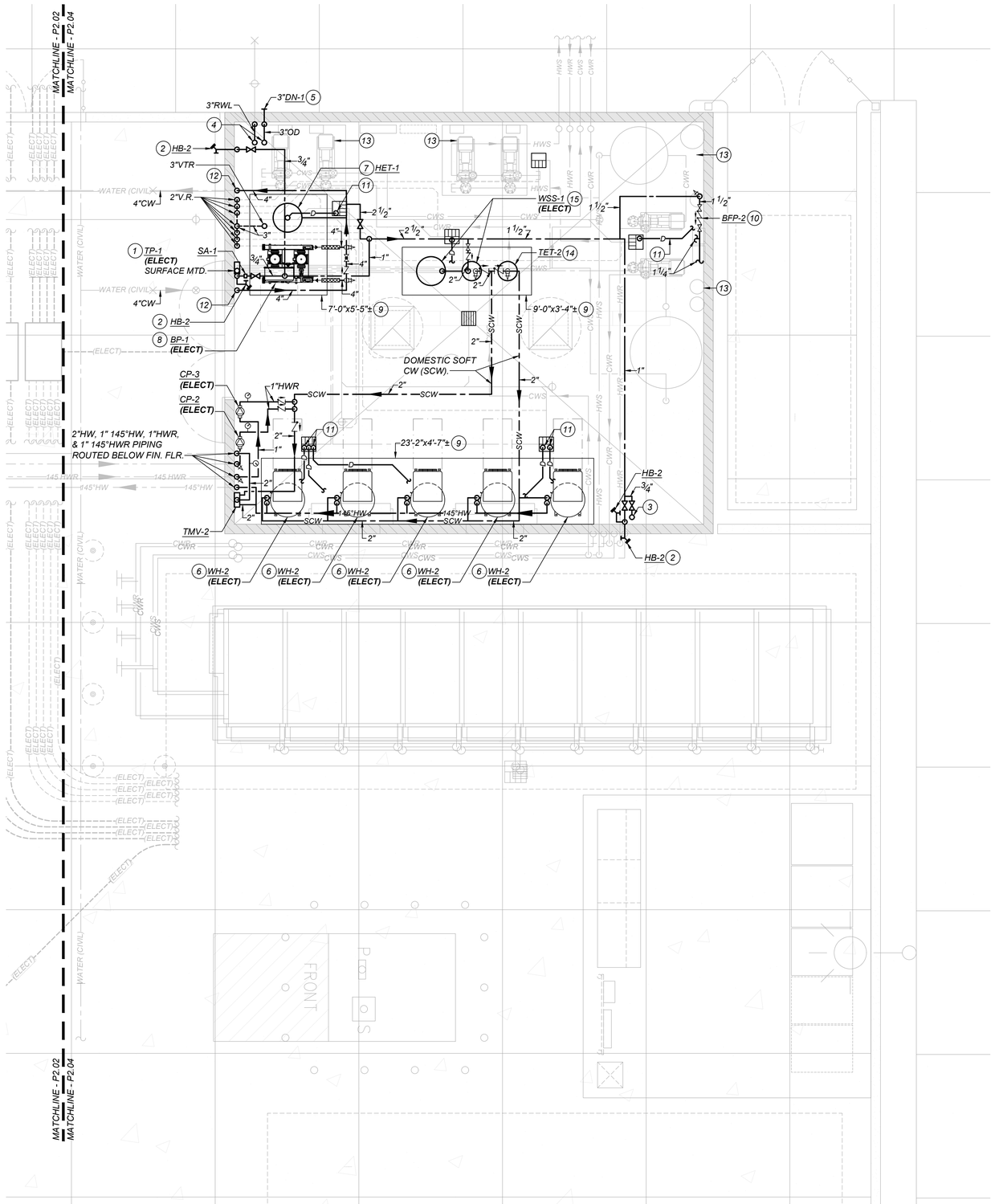
MANGINI ARCHITECTURE INGENUITY
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(559) 627-0530 Office
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TITLE
BUILDING 200 - PARTIAL "TOP-OUT" PLUMBING PLAN

P2.03

PROJECT 24042

16 September 2026 8:19 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P2.01 - 2.04 - Building 200 - Partial Top-Out Plumbing Plan.dwg ryanf



BUILDING 800 - "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

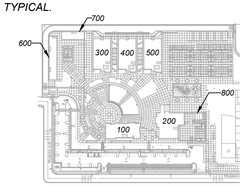
north

PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *CW PIPING DOWN WALL TO SURFACE MOUNTED TRAP PRIMER BOX WITH ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SA-1, AND SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO SIMILAR DETAIL A/P9.02.*
2. *3/4"CW DN ON-WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
3. *3/4"CW UP TO HOSE BIBB ON ROOF PER DETAIL H/P9.01.*
4. *RWL AND OD PIPING DOWN FROM ROOF DRAIN TO CEILING SPACE IMMEDIATELY BELOW ROOF. ROUTE TO WALL AS INDICATED. REFER TO PLUMBING ROOF PLAN AND UNDER-SLAB PLAN FOR CONT. TYPICAL.*
5. *OVERFLOW DRAIN DN., ELBOW OUT & DAYLIGHT THROUGH FACE OF WALL WITH DOWNSPOUT NOZZLE, DN-1, +12" ABV. FIN. GR. REFER TO PLAN FOR SIZE. TYPICAL.*
6. *WATER HEATER SYSTEM. REFER TO PLAN FOR MARK #'S. REFER TO DETAIL D/P9.05, FOR WATER HEATER SCHEMATIC AND ADDITIONAL COMPONENTS.*
7. *HYDRO-PNEUMATIC TANK. REFER TO DETAILS C/P9.07, AND B/P9.08.*
8. *DOMESTIC CW BOOSTER PUMP AND CONTROL PANEL ASSEMBLY LOCATED ON HOUSEKEEPING PAD. 3"CW INLET AND OUTLET WITH METRAFLEX STAINLESS STEEL FLEXIBLE SUCTION AND DISCHARGE CONNECTORS. PROVIDE 4"CW PUMP BYPASS WITH S.O.V. AND CHECK VALVE. REFER TO DETAIL B/P9.08. REFER TO SHEETS P8.00, P8.01, & P8.02 FOR PLUMBING CALCULATIONS.*
9. *6" TALL CONCRETE HOUSEKEEPING PAD. REFER TO STRUCTURAL DETAIL 13/S1.5. COORDINATE EXACT SIZE WITH EQUIPMENT PER P2.04, P2.04U, AND MECH. DRAWINGS. MAINTAIN MINIMUM EDGE DISTANCE FROM ANCHOR BOLT(S) TO SIDE OF HOUSEKEEPING PAD PER ESR-4266. TYPICAL. REFER TO MECHANICAL PLANS FOR ADDITIONAL PADS.*
10. *1-1/2"CW DOWN TO BFP-2. OFFSET AND EXTEND 1-1/2" MAKE-UP WATER FROM BACKFLOW ASSEMBLY TO MECHANICAL EQUIPMENT. REFER TO MECHANICAL PLANS FOR CONTINUATION. BACKFLOW PREVENTER MOUNTED ON WALL AT +36" AFF TO CENTERLINE OF VALVE. SECURE PIPING WITHIN 12" OF EACH SIDE OF BFP-2 TO WALL PER SIMILAR DETAIL B/P9.07 WITH STRUT AND PIPE CLAMP. PROVIDE DRAIN PIPING FROM BFP-2 DRAIN KIT, AND DISCHARGE TO FLOOR SINK WITH AIR GAP PER F/P9.01.*
11. *EXTEND FULL SIZE DRAIN PIPING TO FLOOR SINK AND DISCHARGE PER DETAIL F/P9.01. PROVIDE FLOOR PIPE SUPPORT, "**PIPE PROP**" RUB-3 PIPE SUPPORT (OR EQUAL), OR UNISTRUT WITH POST BASE AND PIPE CLAMP AS NECESSARY. WOOD BLOCKS NOT ALLOWED. SLOPE DRAIN PIPING AT MIN. 1% OR PER MFG. RECOMMENDED GUIDELINES. TYPICAL.*
12. *DOMESTIC CW PIPING ROUTED DOWN TO & FROM BELOW FINISH FLOOR. REFER TO UNDER-SLAB AND CIVIL PLAN FOR CONT.*
13. *FOR ADDITIONAL EQUIPMENT, REFER TO MECHANICAL SHEET M0.10. TYPICAL.*
14. *DOMESTIC WATER THERMAL EXPANSION TANK FOR WATER HEATER SYSTEM. REFER TO DETAIL E/P9.07 AND D/P9.05.*
15. *WATER SOFTENER ASSEMBLY. REFER TO DETAIL F/P9.07.*

NOTES:
1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. REFER TO DETAIL B/P9.07 FOR PIPE SUPPORT ON CMU WALL. TYPICAL.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
BUILDING 800 - "TOP-OUT" PLUMBING PLAN

P2.04

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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APPROVALS

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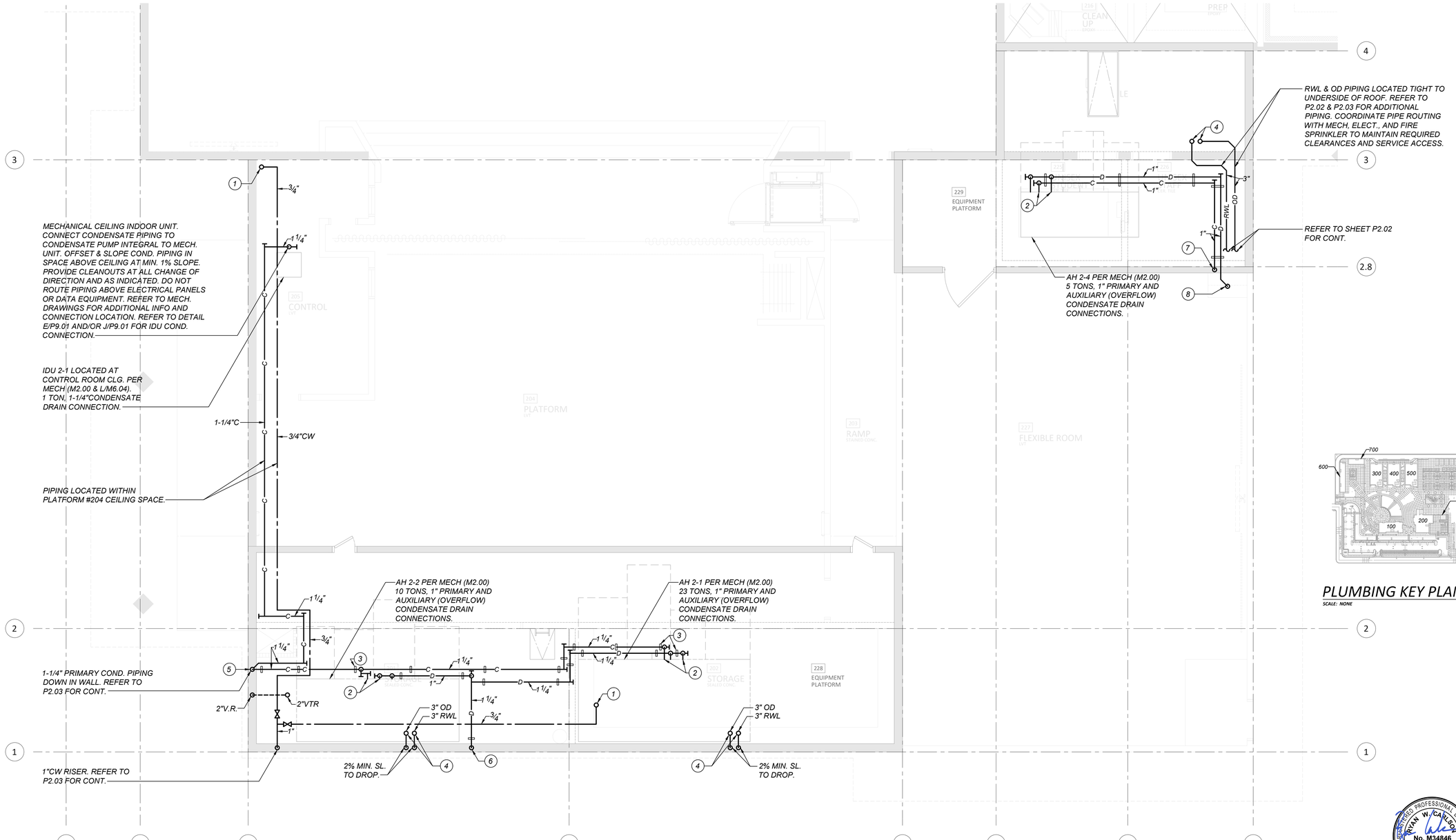
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *3/4"CW UP TO HOSE BIBB ON ROOF PER DETAIL H/P9.01.*
2. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
3. *PROVIDE FLOOR PIPE SUPPORT, "**PIPE PROP**" RUB-3 PIPE SUPPORT (OR EQUAL), OR UNISTRUT WITH POST BASE AND PIPE CLAMP. WOOD BLOCKS NOT ALLOWED. SLOPE CONDENSATE & DRAIN PIPING AT MIN. 1%. TYPICAL.*
4. *RWL AND OD PIPING DOWN FROM ROOF DRAIN TO CEILING SPACE IMMEDIATELY BELOW ROOF. ROUTE TO WALL OR COLUMN AS INDICATED. REFER TO PLUMBING ROOF PLAN, FLOOR PLAN, AND UNDER-SLAB PLAN FOR CONT. TYPICAL.*
5. *OFFSET & EXTEND PRIMARY CONDENSATE DRAIN PIPING DOWN IN WALL TO FLOOR SINK AND DISCHARGE PER DETAIL F/P9.01. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*
6. *OFFSET & EXTEND AUXILIARY DRAIN PIPING DOWN IN WALL. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*
7. *OFFSET & EXTEND PRIMARY CONDENSATE DRAIN PIPING DOWN THROUGH PLATFORM IN WALL TO SINK AND CONNECT TO TAILPIECE PER DETAIL C/P9.02. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*
8. *OFFSET & EXTEND AUXILIARY DRAIN PIPING DOWN THROUGH PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE SINK BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. PROVIDE CLEANOUTS AT ALL CHANG OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*

NOTES:
1. *PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.*
2. *COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.*



PLUMBING KEY PLAN
SCALE: NONE
north

BUILDING 200 - EQUIPMENT PLATFORMS - PLUMBING
SCALE: 1/4" = 1'-0"

north

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

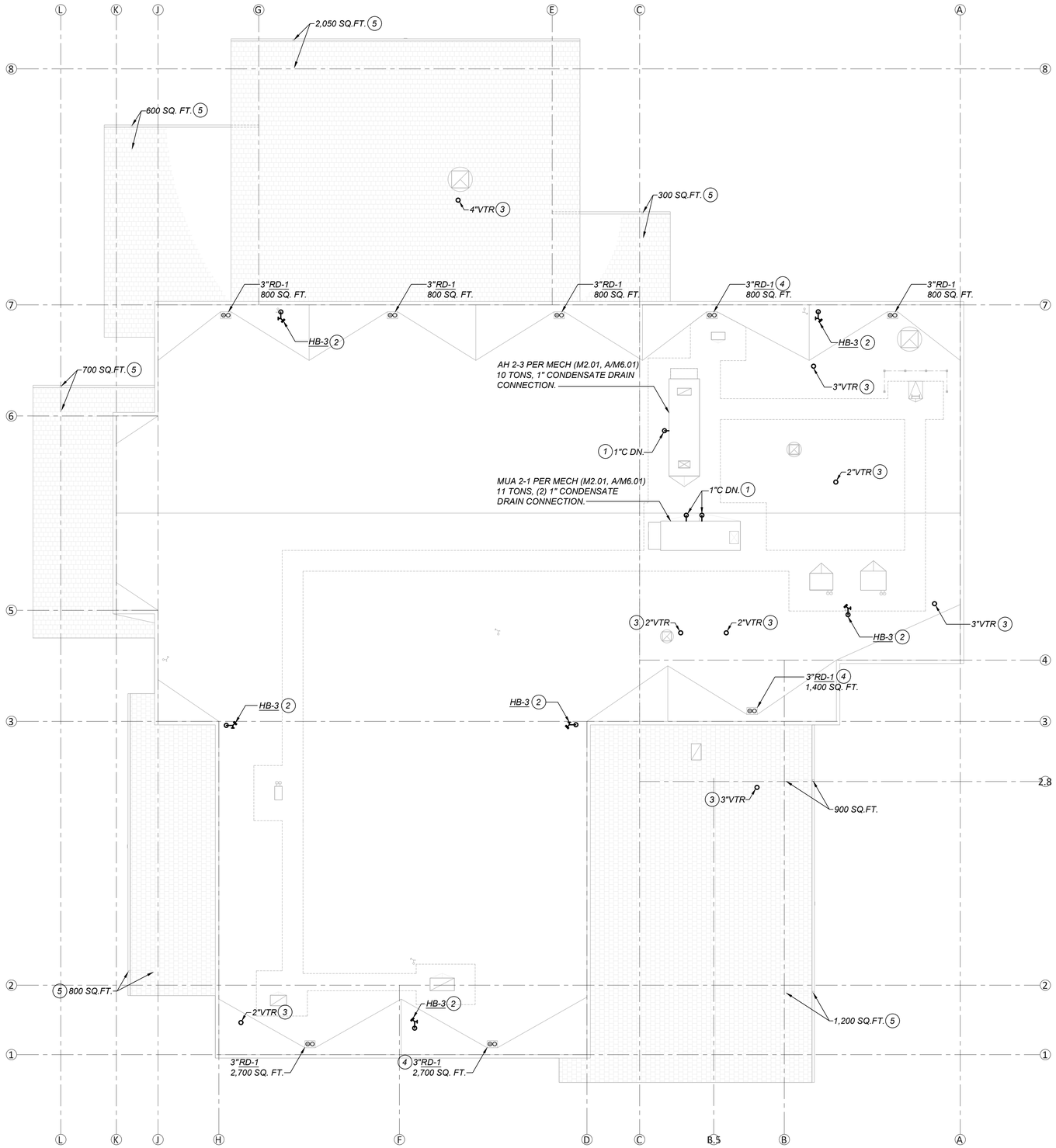
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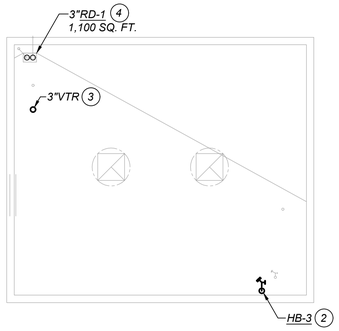
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TITLE
BUILDING 200 - EQUIPMENT PLATFORMS - PLUMBING

P2.05

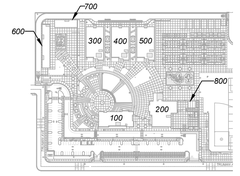
PROJECT 24042





PLUMBING "ROOF" KEYNOTES (THIS SHEET ONLY)

1. *CONNECT CONDENSATE TO MECHANICAL AIR HANDLER UNIT. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO CONDENSATE INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01. DROP DOWN THRU ROOF. REFER TO ENLARGED FLOOR PLANS FOR CONTINUATION. TYPICAL.*
2. *3/4"CW UP THRU ROOF TO HOSE BIBB, HB-3 AT +12" ABV. FIN. ROOF. REFER TO DETAIL H/P9.01, TYP.*
3. *VENT THRU ROOF. MAINTAIN MINIMUM 10'-0" CLEARANCE FROM OUTSIDE AIR INTAKE, +1'-0" FROM VERTICAL SURFACES. FOR PIPE THRU ROOF, REFER TO DETAIL G/P9.01 OR D/P9.02. TYPICAL.*
4. *ROOF & OVERFLOW DRAIN. REFER TO SHEET P2.01 THRU P2.05 FOR CONTINUATION. REFER TO ARCHITECTURAL DETAIL 11/A103, TYPICAL.*
5. *ROOF GUTTER, CONDUCTOR HEAD, AND DOWNSPOUTS PER ARCH. PLANS. REFER TO CIVIL PLANS FOR CONNECTION AND ROUTING ON SITE.*



PLUMBING KEY PLAN
SCALE: NONE

BUILDING 200 & 800 - PLUMBING ROOF PLAN
SCALE: 1/8" = 1'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
BUILDING 200 & 800 - PLUMBING ROOF PLAN

P2.10

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
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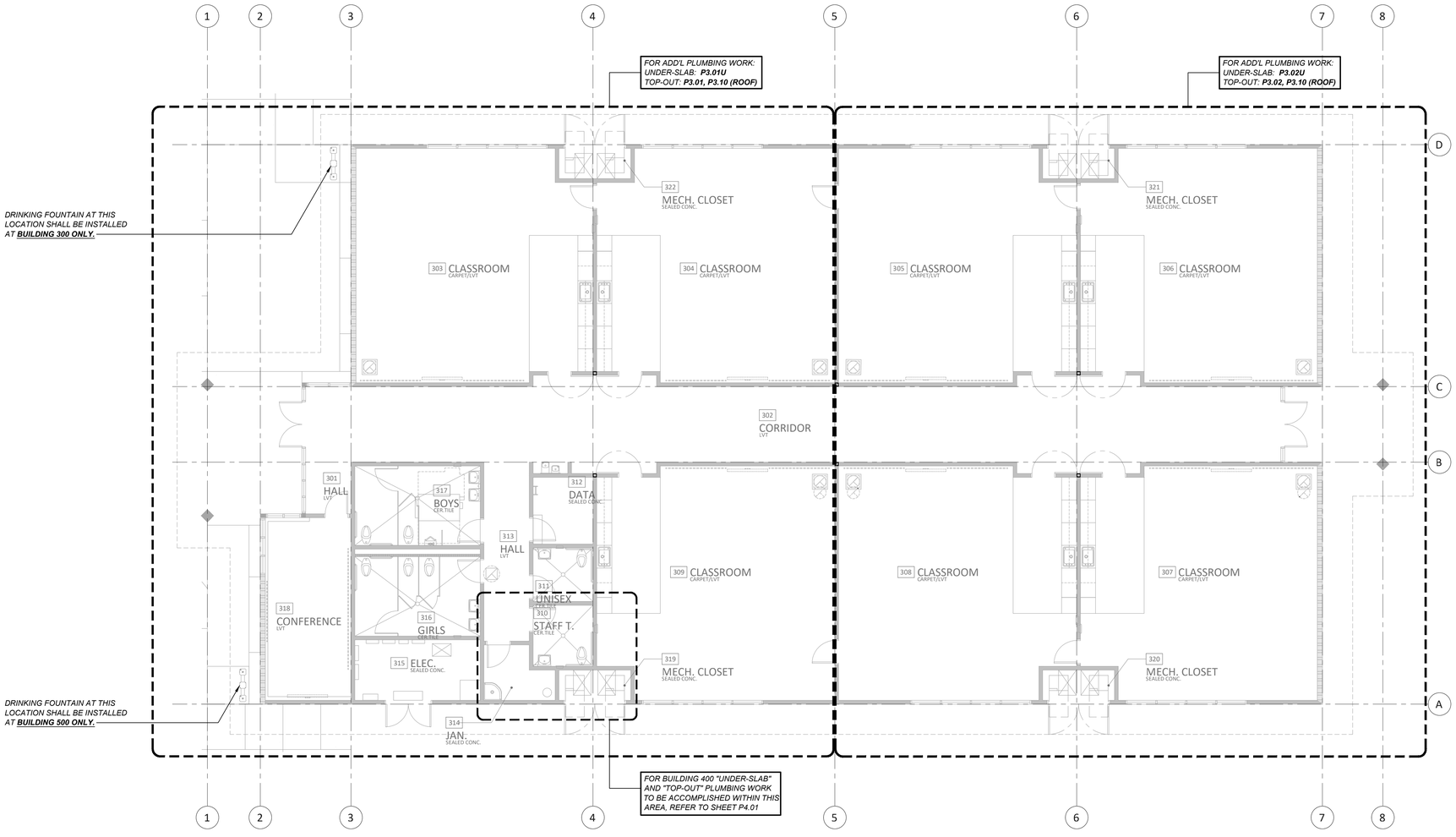
APPROVALS

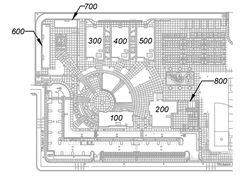
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No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025





PLUMBING KEY PLAN
SCALE: NONE

BUILDING 300 - OVERALL PLUMBING PLAN

SCALE: 1/8" = 1'-0"

NOTE: BUILDING "400" & "500" SIMILAR TO BUILDING "300," EXCEPT FOR THE POSITIONING OF THE SITE FOOTPRINT, AND UNLESS NOTED OTHERWISE.

north

CERTIFIED PROFESSIONAL ENGINEER
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NEW TEMPERANCE ELEMENTARY SCHOOL
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REVISIONS

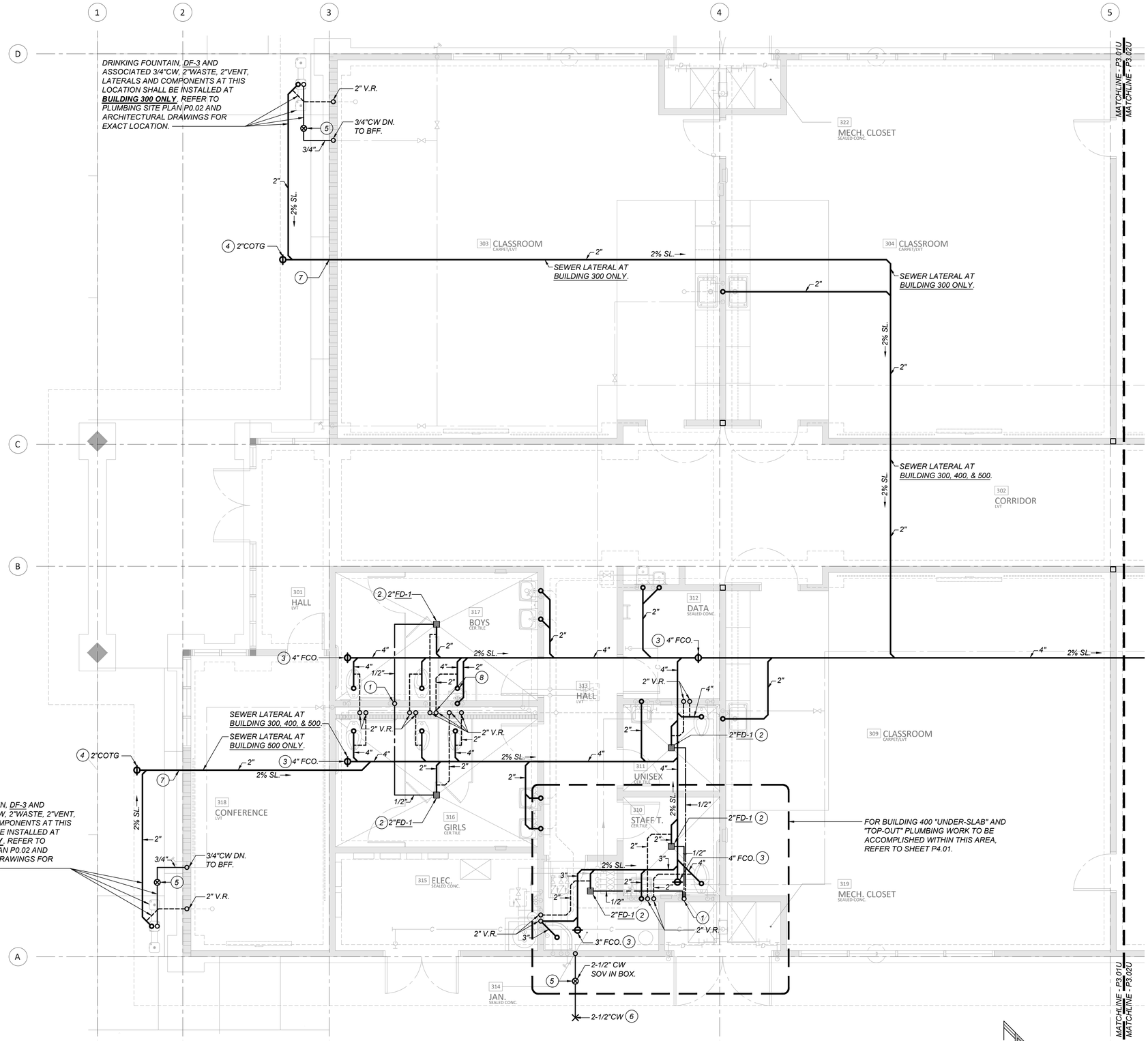
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TITLE
BUILDING 300 - OVERALL PLUMBING PLAN

P3.00

PROJECT 24042

16 September 2026 8:19 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P3.00 - Building 300 - Overall Plumbing Plan.dwg ryanf



BUILDING 300 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

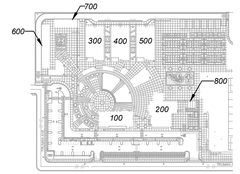
SCALE: 1/4" = 1'-0"

NOTE: BUILDING "400" & "500" SIMILAR TO BUILDING "300," EXCEPT FOR THE POSITIONING OF THE SITE FOOTPRINT, AND UNLESS NOTED OTHERWISE.

PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. REFER TO ABOVE GROUND PLAN FOR TP MARK #. TYPICAL.*
2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.*
4. *CLEANOUT-TO-GRADE (COTG) PER DETAIL B/P9.00. REFER TO PLAN FOR SIZE.*
5. *SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.*
6. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
7. *PIPE & SLEEVE AT FOOTING AS NECESSARY, PER STRUCTURAL DETAIL 4/S1.1. TYPICAL.*
8. *PROVIDE ROUGH-IN FOR FUTURE FLOOR-MOUNTED WATER CLOSET AT LOCATIONS INDICATED. PROVIDE CLOSET BEND AND 4"S CAPPED RISER BELOW FINISH SLAB, LOCATED 12" ℄ FROM FINISHED REAR WALL. CONFIGURE ROUGH-IN TO MINIMIZE FUTURE SAWCUTTING FOR CLOSET FLANGE INSTALLATION. PROVIDE 2" VENT, AND CAPPED 1-1/2"CW PIPING CONCEALED WITHIN WALL, BEHIND FINISHED SURFACES.*

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
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LICENSED ARCHITECT
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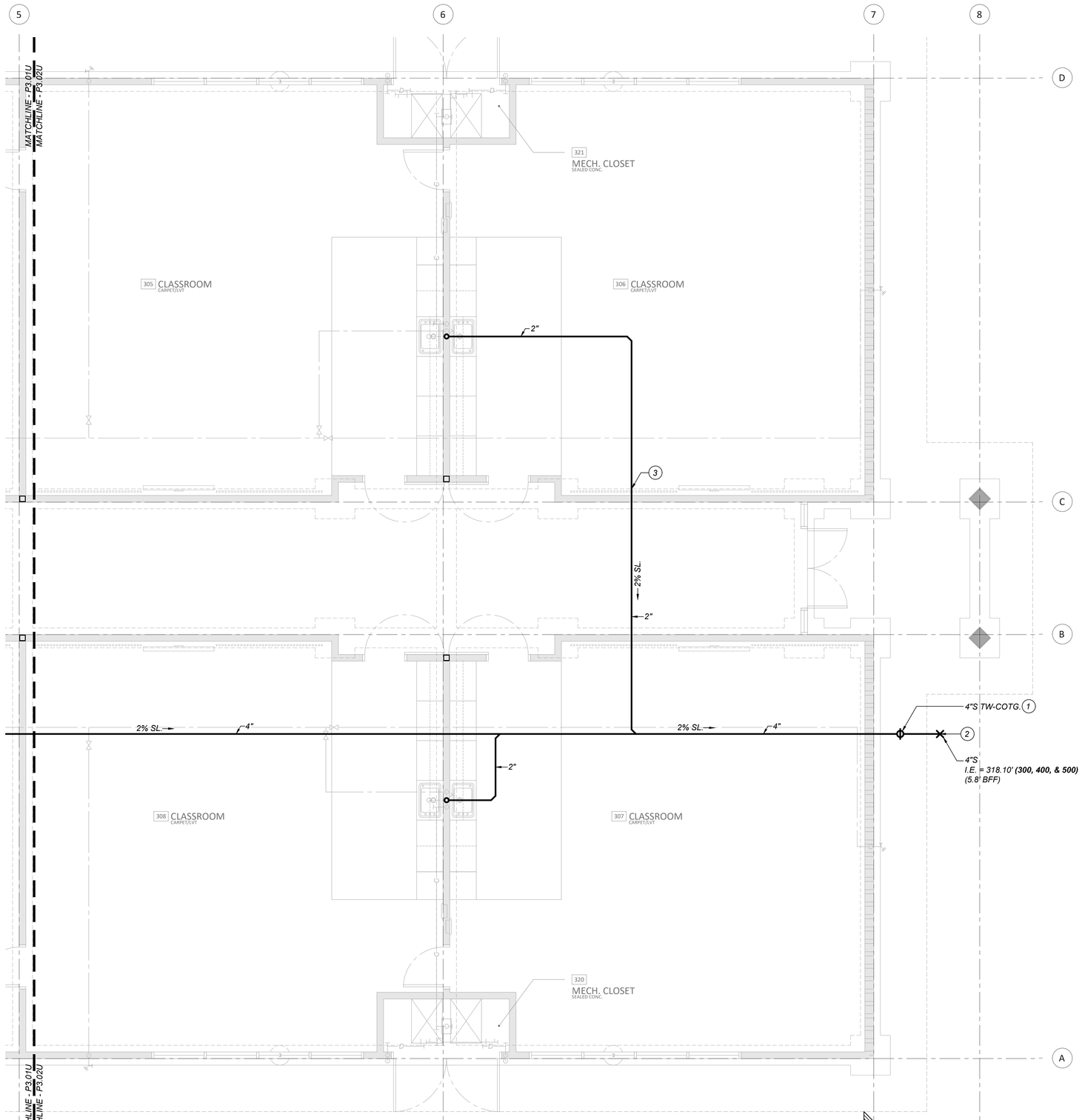
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TITLE
BUILDING 300 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

P3.01U

PROJECT 24042

16 September 2026 8:19 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P3.01U - 3.02U - Building 300 - Partial Under-Slab Plumbing Plan.dwg pairf



BUILDING 300 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

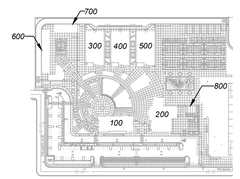
NOTE: BUILDING "400" & "500" SIMILAR TO BUILDING "300," EXCEPT FOR THE POSITIONING OF THE SITE FOOTPRINT, AND UNLESS NOTED OTHERWISE.

north

PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONLY)

1. *TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DET. C/P9.00. REFER TO PLAN FOR SIZE.*
2. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
3. *PIPE & SLEEVE AT FOOTING AS NECESSARY, PER STRUCTURAL DETAIL 4/S1.1. TYPICAL.*

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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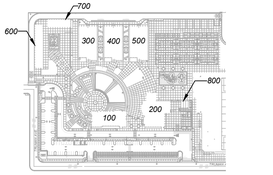
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FAX (559) 431-1342

TITLE
BUILDING 300 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

P3.02U

PROJECT 24042

16 September 2026 8:20 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P3.01U - 3.02U - Building 300 - Partial Under-Slab Plumbing Plan.dwg ryanf



PLUMBING KEY PLAN

SCALE: NONE

north

3/4"CW, 2"WASTE WITH CLEANOUT, 2"VENT, TO & FROM DRINKING FOUNTAIN WITH BOTTLE FILLER AND FILTER REFER TO DETAIL A/P9.06.

*DRINKING FOUNTAIN, DF-3 AND ASSOCIATED WATER, WASTE, & VENT LATERALS AND COMPONENTS AT THIS LOCATION SHALL BE INSTALLED AT **BUILDING 300 ONLY**. REFER TO PLUMBING SITE PLAN P0.02 AND ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.*

FOR EQUIPMENT PLATFORM ABOVE THIS AREA, REFER TO SHEET P3.03.

3/4"CW, 2"WASTE WITH CLEANOUT, 2"VENT, TO & FROM DRINKING FOUNTAIN WITH BOTTLE FILLER AND FILTER REFER TO DETAIL A/P9.06.

*DRINKING FOUNTAIN, DF-3 AND ASSOCIATED WATER, WASTE, & VENT LATERALS AND COMPONENTS AT THIS LOCATION SHALL BE INSTALLED AT **BUILDING 500 ONLY**. REFER TO PLUMBING SITE PLAN P0.02 AND ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.*

AIR HANDLER PER MECH (M3.02 & SIM. DET. B/M6.01) 4 TONS, 3/4" PRIMARY AND AUXILIARY (OVERFLOW) CONDENSATE DRAIN CONNECTIONS.

IDU PER MECH (M3.02 & A/M6.02). 2 TONS

FOR BUILDING 400 "UNDER-SLAB" AND "TOP-OUT" PLUMBING WORK TO BE ACCOMPLISHED WITHIN THIS AREA, REFER TO SHEET P4.01.

MATCHLINE - P3.01
MATCHLINE - P3.02

BUILDING 300 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

NOTE: BUILDING "400" & "500" SIMILAR TO BUILDING "300," EXCEPT FOR THE POSITIONING OF THE SITE FOOTPRINT, AND UNLESS NOTED OTHERWISE.

PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW, 2"W, 2"V.R. TO AND FROM LAVATORY OR SINK. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
2. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
3. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
4. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT LOCATED IN CLOSET. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
5. *CONNECT PRIMARY CONDENSATE PIPING FROM EACH UNIT TO CONDENSATE PUMP (PER MECH). OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO. REFER TO SIMILAR DETAIL E/P9.01 AND/OR J/P9.01 FOR COND. PUMP CONNECTION.*
6. *EXTEND AUXILIARY DRAIN TO EXTERIOR WALL, ELBOW OUT, TURN DOWN, AND DAYLIGHT +6" ABV. FIN. GRADE. TYPICAL.*
7. *CONDENSATE DOWN IN WALL, ELBOW OUT, TURN DOWN AND DISCHARGE TO MOP SINK PER F/P9.01.*
8. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
9. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00. TYPICAL.*
10. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
11. *CONDENSATE PIPING DOWN IN WALL FROM EQUIPMENT PLATFORM TO LAVATORY TAILPIECE AND DISCHARGE PER C/P9.02. REFER TO P3.03 FOR CONT.*
12. *AUXILIARY (OVERFLOW) DRAIN PIPING DOWN FROM PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE LAVATORY BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. REFER TO P3.03 FOR CONT.*
13. *WATER HEATER ASSEMBLY. SET EQUIPMENT PLATFORM EP-1 AT +4'-6" AFF. MAINTAIN MIN. 18" CLEAR FROM TOP OF WATER HEATER TO CEILING FOR MAINTENANCE. REFER TO PLAN FOR MARK #'s. REFER TO DETAIL B/P9.05.*
14. *3/4"CW, 3/4"HW, 3"W DN. WITH WCO, 2"V.R. TO AND FROM MOP SINK.*
15. *1/2"CW, 1/2"HW, 2"W, 2"V.R. TO AND FROM LAVATORY. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB.*
16. *1/2"CW, 2"W DN., WITH WCO, 2"V.R. TO AND FROM DRINKING FOUNTAIN. REFER TO DETAIL A/P9.04.*
17. *MECHANICAL INDOOR UNIT. CONNECT CONDENSATE PIPING TO CONDENSATE PUMP INTEGRAL TO MECH. UNIT. OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO AND CONNECTION LOCATION. REFER TO DETAIL E/P9.01 AND/OR J/P9.01 FOR IDU COND. CONNECTION.*
18. *1"CW DN., 2"S. DN., & 2"V.R. W/WCO TO AND FROM URINAL. TYPICAL.*
19. *PROVIDE ROUGH-IN FOR FUTURE FLOOR-MOUNTED WATER CLOSET AT LOCATIONS INDICATED. PROVIDE CLOSET BEND AND 4"S CAPPED RISER BELOW FINISH SLAB, LOCATED 12" ± FROM FINISHED REAR WALL. CONFIGURE ROUGH-IN TO MINIMIZE FUTURE SAWCUTTING FOR CLOSET FLANGE INSTALLATION. PROVIDE 2" VENT, AND CAPPED 1-1/2"CW PIPING CONCEALED WITHIN WALL, BEHIND FINISHED SURFACES.*
20. *PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER.*
21. *PIPING LOCATED TIGHT TO UNDERSIDE OF ROOF, ABOVE EQUIPMENT PLATFORM. REFER TO ARCH DRAWINGS AND P3.03. COORDINATE PIPE ROUTING WITH MECH, ELECT., AND FIRE SPRINK. TO MAINTAIN REQUIRED CLEARANCES AND SERVICE ACCESS.*
22. *CONDENSATE PIPING DOWN IN WALL TO SINK TAILPIECE AND DISCHARGE PER C/P9.02.*
23. *CW PIPING DOWN IN WALL. RUN FULL SIZE HEADER TO FIXTURES. REFER TO PLAN FOR SIZE.*

NOTES:
1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

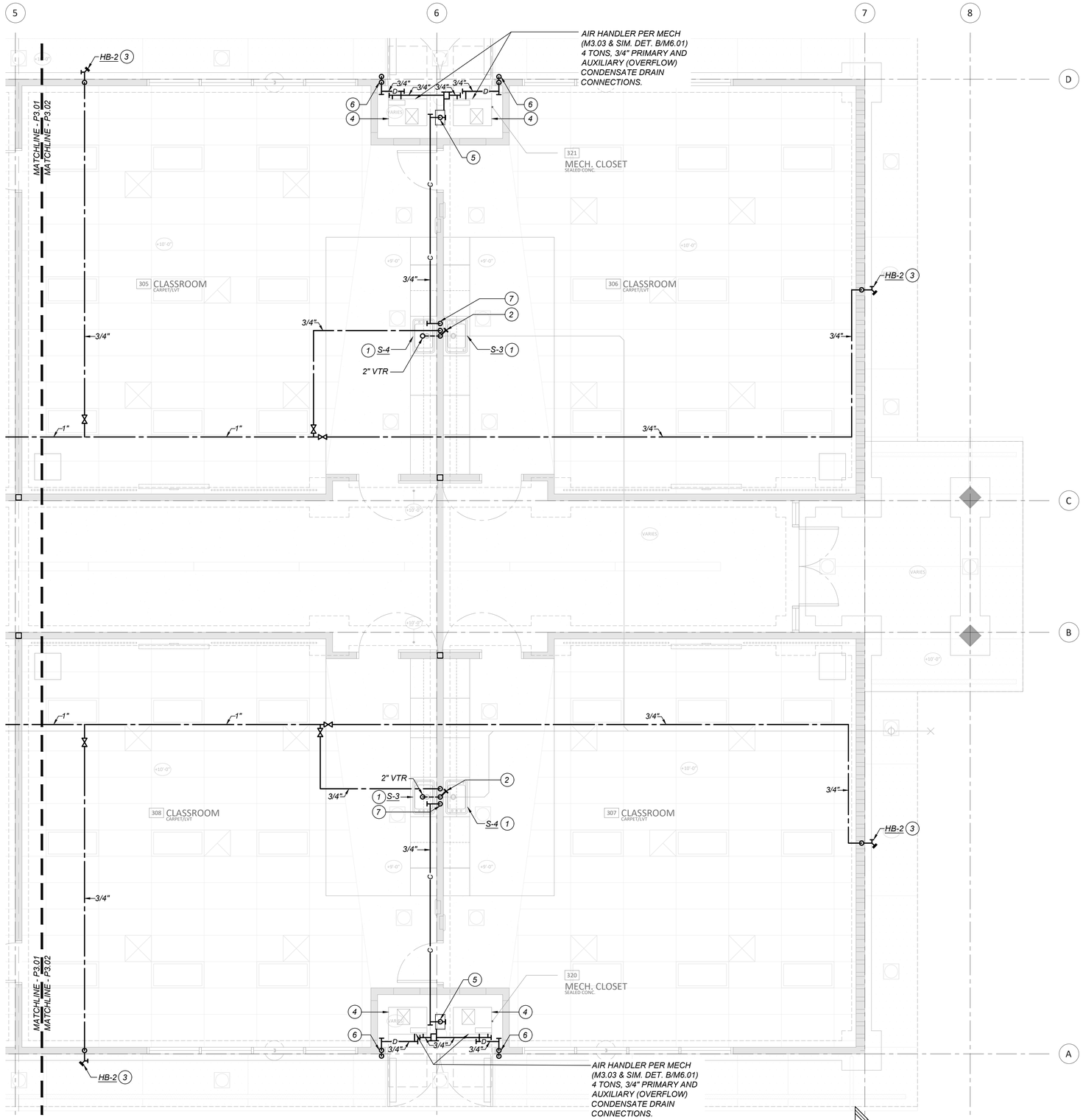
REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

TITLE
BUILDING 300 - PARTIAL "TOP-OUT" PLUMBING PLAN

P3.01

PROJECT 24042

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



BUILDING 300 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

NOTE: BUILDING "400" & "500" SIMILAR TO BUILDING "300," EXCEPT FOR THE POSITIONING OF THE SITE FOOTPRINT, AND UNLESS NOTED OTHERWISE.

north

APPROVALS

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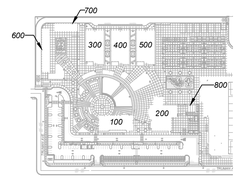
DATE: DECEMBER 18, 2025

PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW, 2"W, 2"V.R. TO AND FROM SINK. PROVIDE WCO PER E/P9.00. PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER. TYPICAL.*
2. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00. TYPICAL.*
3. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
4. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT LOCATED IN CLOSET. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
5. *CONNECT PRIMARY CONDENSATE PIPING FROM EACH UNIT TO CONDENSATE PUMP (PER MECH). OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO. REFER TO SIMILAR DETAIL E/P9.01 AND/OR J/P9.01 FOR COND. PUMP CONNECTION.*
6. *EXTEND AUXILIARY DRAIN TO EXTERIOR WALL, ELBOW OUT, TURN DOWN, AND DAYLIGHT +6" ABV. FIN. GRADE. TYPICAL.*
7. *CONDENSATE PIPING DOWN IN WALL TO SINK TAILPIECE AND DISCHARGE PER C/P9.02.*

NOTES:
1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN
SCALE: NONE

north

CERTIFIED PROFESSIONAL ENGINEER
BRYAN W. CARLOS
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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NEW TEMPERANCE ELEMENTARY SCHOOL
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REVISIONS

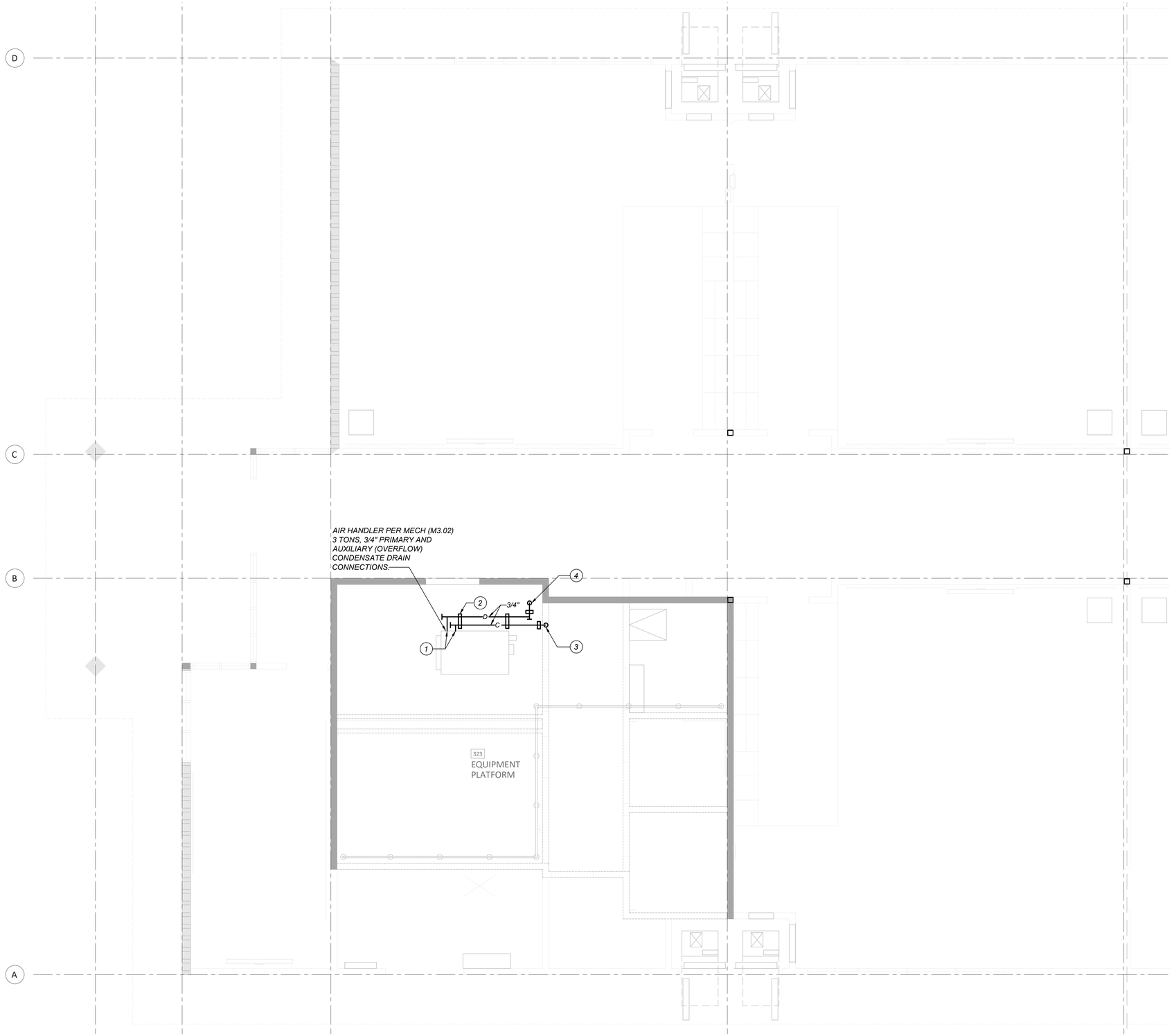
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TITLE
BUILDING 300 - PARTIAL "TOP-OUT" PLUMBING PLAN

P3.02

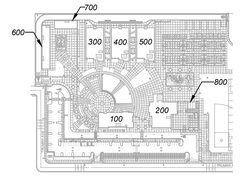
PROJECT 24042

16 September 2026 8:20 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P3.01 - 3.02 - Building 300 - Partial Top-Out Plumbing Plan.dwg ryanf



PLUMBING KEYNOTES (THIS SHEET ONLY)

1. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
2. *PROVIDE FLOOR PIPE SUPPORT, "**PIPE PROP**" RUB-3 PIPE SUPPORT (OR EQUAL), OR UNISTRUT WITH POST BASE AND PIPE CLAMP. WOOD BLOCKS NOT ALLOWED. SLOPE CONDENSATE PIPING AT MIN. 1%. TYPICAL.*
3. *OFFSET & EXTEND PRIMARY CONDENSATE DRAIN PIPING DOWN THROUGH PLATFORM IN WALL TO LAVATORY AND CONNECT TO TAILPIECE PER DETAIL C/P9.02. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*
4. *OFFSET & EXTEND AUXILIARY (OVERFLOW) DRAIN PIPING DOWN THROUGH PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE LAVATORY BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*



PLUMBING KEY PLAN
SCALE: NONE

BUILDING 300 - EQUIPMENT PLATFORMS - PLUMBING

SCALE: 1/4" = 1'-0"

***NOTE:** BUILDING "400" & "500" SIMILAR TO BUILDING "300," EXCEPT FOR THE POSITIONING OF THE SITE FOOTPRINT, AND UNLESS NOTED OTHERWISE.*

APPROVALS

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TITLE
BUILDING 300 - EQUIPMENT PLATFORMS - PLUMBING

P3.03

PROJECT 24042

16 September 2026 8:20 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P3.03 - Building 300 - Equipment Platforms.dwg ryanf

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

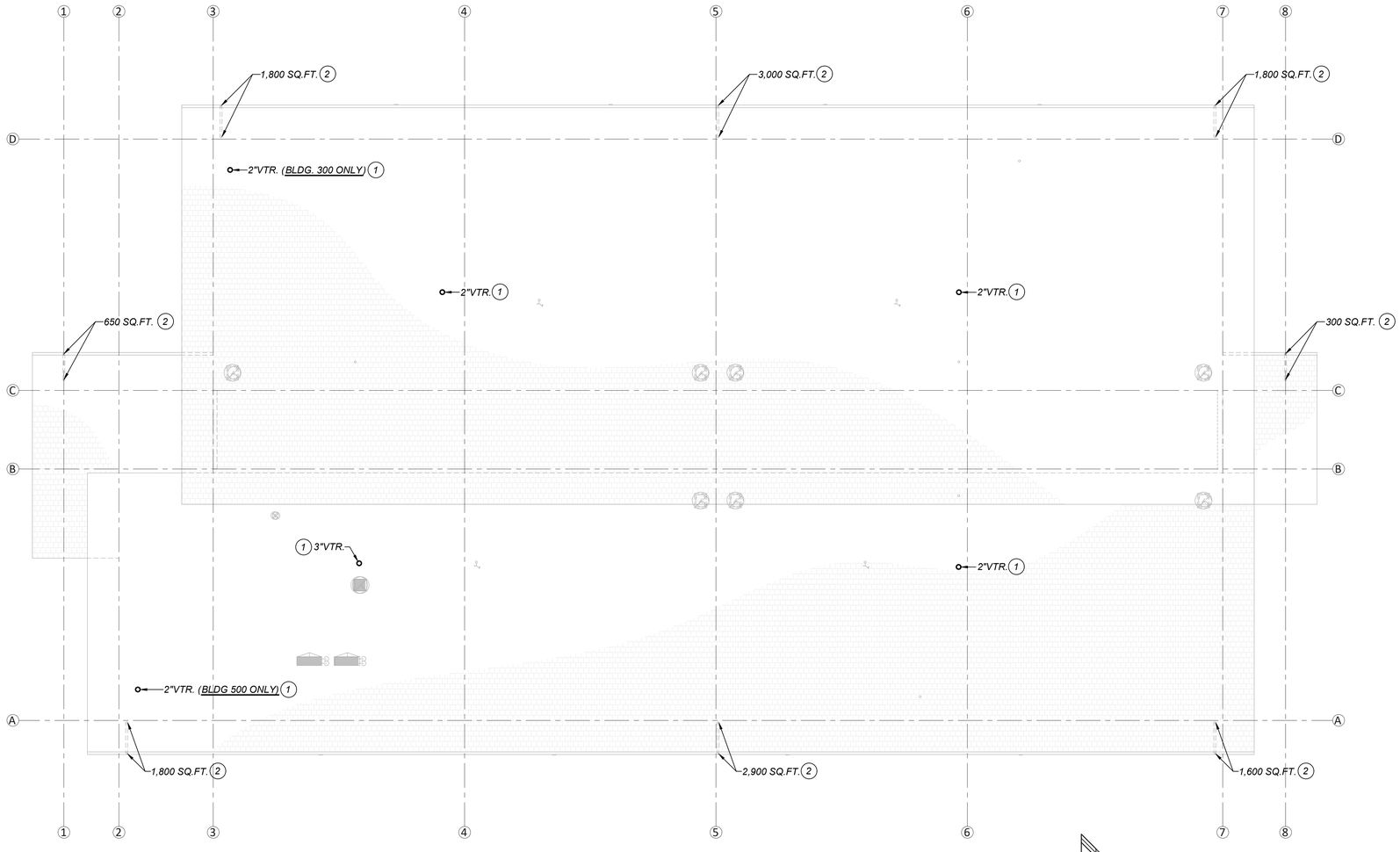
PLUMBING "ROOF" KEYNOTES (THIS SHEET ONLY)

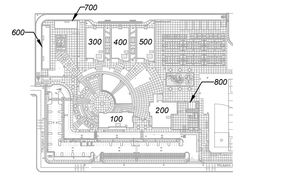
1. *VENT THRU ROOF. MAINTAIN MINIMUM 10'-0" CLEARANCE FROM OUTSIDE AIR INTAKE, +1'-0" FROM VERTICAL SURFACES. FOR PIPE THRU ROOF, REFER TO DETAIL G/P9.01 OR D/P9.02.*
2. *ROOF GUTTER, CONDUCTOR HEAD, AND DOWNSPOUTS PER ARCH. PLANS. REFER TO CIVIL PLANS FOR CONNECTION AND ROUTING ON SITE.*

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No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025





PLUMBING KEY PLAN
SCALE: NONE
north

BUILDING 300 - PLUMBING ROOF PLAN

SCALE: 1/8" = 1'-0"

***NOTE:** BUILDING "400" & "500" SIMILAR TO BUILDING "300," EXCEPT FOR THE POSITIONING OF THE SITE FOOTPRINT, AND UNLESS NOTED OTHERWISE.*

north

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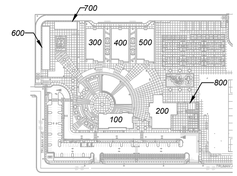
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TITLE
BUILDING 300 - PLUMBING ROOF PLAN

P3.10

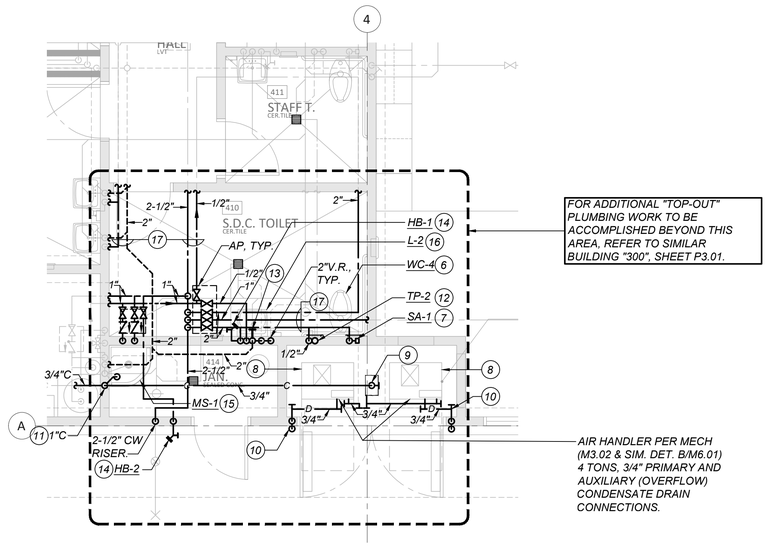
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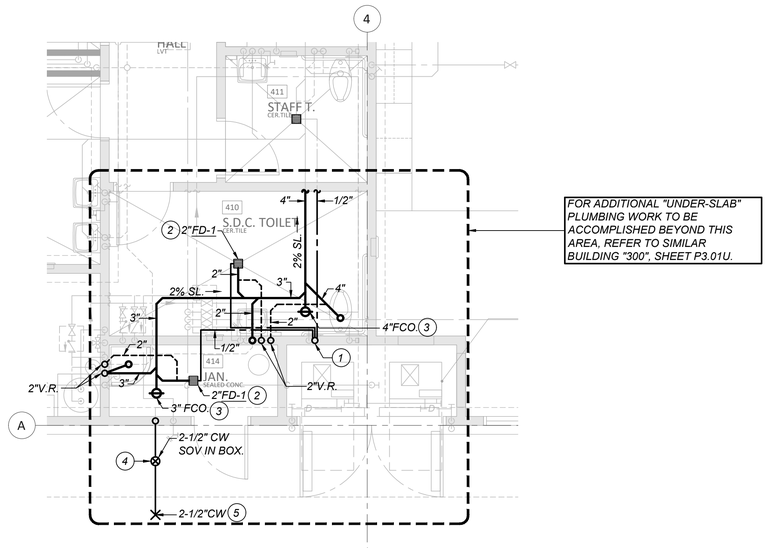
PLUMBING KEY PLAN

SCALE: NONE



BUILDING 400 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"



BUILDING 400 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

PLUMBING KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. REFER TO ABOVE GROUND PLAN FOR TP MARK #. TYPICAL.*
2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.*
4. *SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.*
5. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
6. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
7. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
8. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT LOCATED IN CLOSET. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
9. *CONNECT PRIMARY CONDENSATE PIPING FROM EACH UNIT TO CONDENSATE PUMP (PER MECH). OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO. REFER TO SIMILAR DETAIL E/P9.01 AND/OR J/P9.01 FOR COND. PUMP CONNECTION.*
10. *EXTEND AUXILIARY DRAIN TO EXTERIOR WALL, ELBOW OUT, TURN DOWN, AND DAYLIGHT +6" ABV. FIN. GRADE. TYPICAL.*
11. *CONDENSATE DOWN IN WALL, ELBOW OUT, TURN DOWN AND DISCHARGE TO MOP SINK PER F/P9.01.*
12. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
13. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00. TYPICAL.*
14. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
15. *3/4"CW, 3/4"HW, 3"W DN. WITH WCO, 2"V.R. TO AND FROM MOP SINK.*
16. *1/2"CW, 1/2"HW, 2"W, 2"V.R. TO AND FROM LAVATORY. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB.*
17. *PIPING LOCATED TIGHT TO UNDERSIDE OF ROOF, ABOVE EQUIPMENT PLATFORM. REFER TO ARCH DRAWINGS AND P3.03. COORDINATE PIPE ROUTING WITH MECH, ELECT., AND FIRE SPRINK. TO MAINTAIN REQUIRED CLEARANCES AND SERVICE ACCESS.*

NOTES:
1. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.

2. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

TITLE
BUILDING 400 - PARTIAL PLUMBING PLAN

P4.01

PROJECT 24042

16 September 2026 8:20 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P4.01 - Building 400 - Partial Plumbing Plan.dwg ryanf
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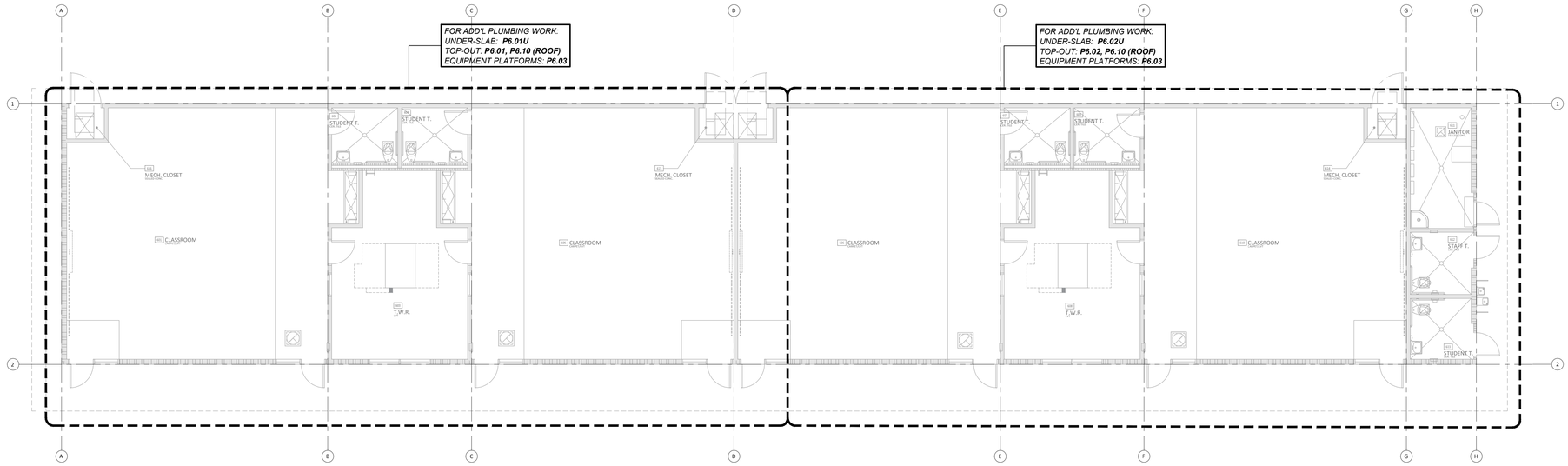
APPROVALS

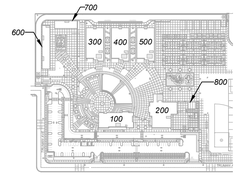
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025





PLUMBING KEY PLAN
SCALE: NONE
north

BUILDING 600 - OVERALL PLUMBING PLAN

SCALE: 1/8" = 1'-0"

north

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
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STATE OF CALIFORNIA

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(559) 627.1926 Fax

TITLE
BUILDING 600 - OVERALL PLUMBING PLAN

P6.00

PROJECT 24042

16 September 2026 8:20 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P6.00 - Building 600 - Overall Plumbing Plan.dwg ryanf

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

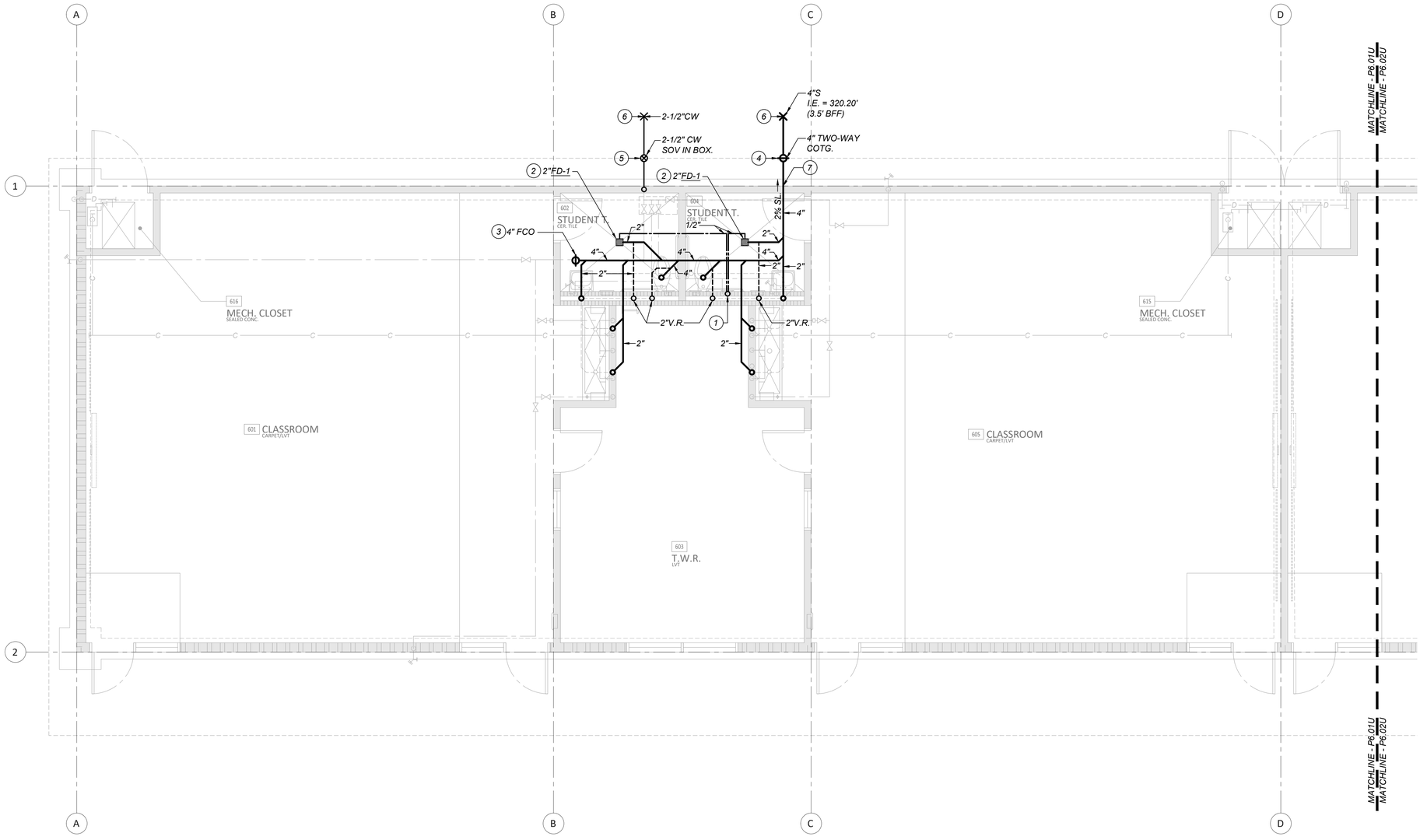
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STATE OF CALIFORNIA

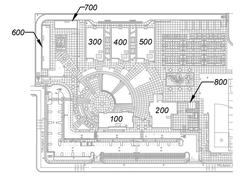
DATE: DECEMBER 18, 2025

PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. REFER TO ABOVE GROUND PLAN FOR TP MARK #. TYPICAL.*
2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.*
4. *TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.*
5. *SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.*
6. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
7. *PIPE & SLEEVE AT FOOTING AS NECESSARY, PER STRUCTURAL DETAIL 4/S1.1. TYPICAL.*

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.





PLUMBING KEY PLAN
SCALE: NONE
north

BUILDING 600 - PARTIAL "UNDER-SLAB" PLUMBING PLAN
SCALE: 1/4" = 1'-0"

north

CERTIFIED PROFESSIONAL ENGINEER
RYAN W. CARLSON
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TITLE
BUILDING 600 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

P6.01U

PROJECT 24042

16 September 2026 8:21 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P6.01U - 6.03U - Building 600 - Partial Under-Slab Plumbing Plan.dwg ryanf

P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P6.01U - 6.03U - Building 600 - Partial Under-Slab Plumbing Plan.dwg Sep 16 2026 8:21am

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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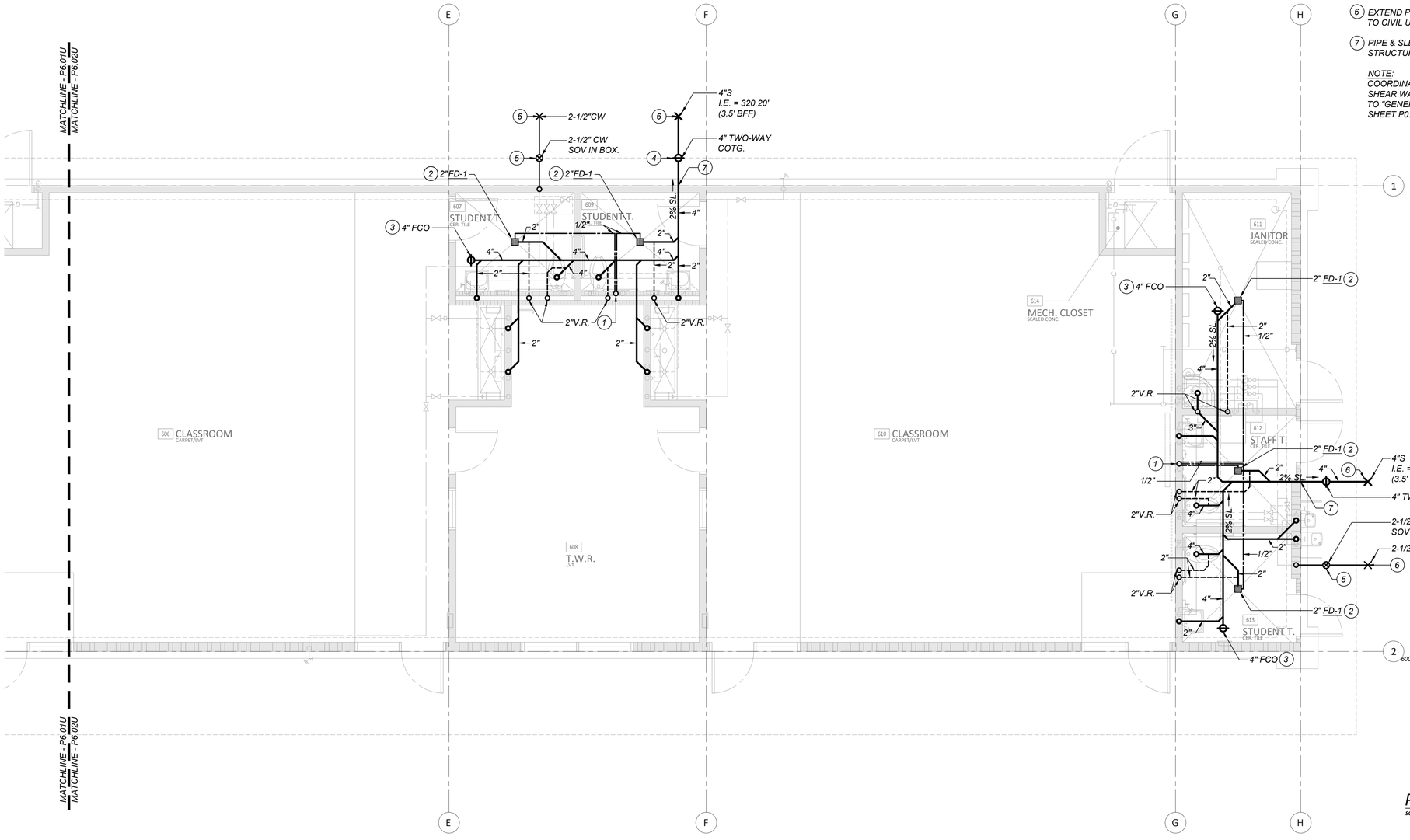
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

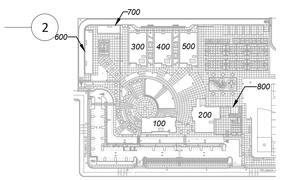
DATE: DECEMBER 18, 2025

PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONL

1. *1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUO SLOPE. REFER TO ABOVE GROUND PLAN FOR TP MARK TYPICAL.*
2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.*
4. *TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.*
5. *SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.*
6. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
7. *PIPE & SLEEVE AT FOOTING AS NECESSARY, PER STRUCTURAL DETAIL 4/S1.1. TYPICAL.*

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.





PLUMBING KEY PLAN

SCALE: NONE

north

BUILDING 600 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

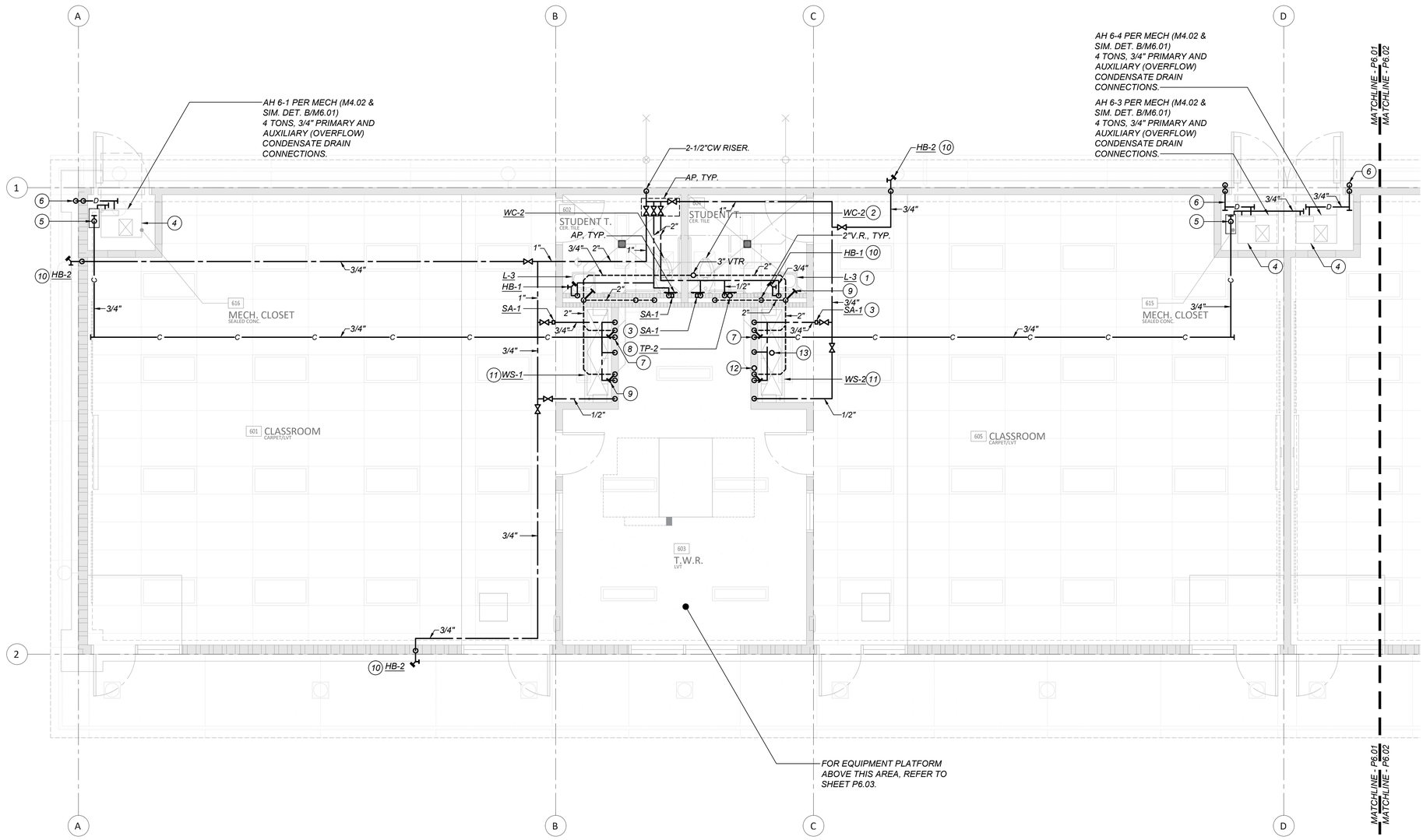
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TITLE
BUILDING 600 - PARTIAL "UNDER-SLAB" PLUMBING PLAN

P6.02U

PROJECT 24042

16 September 2026 8:21 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P6.01U - 6.03U - Building 600 - Partial Under-Slab Plumbing Plan.dwg ryanf



BUILDING 600 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

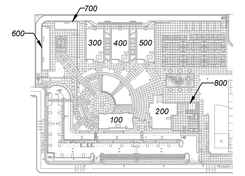
PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW, 2"W, 2"V.R. TO AND FROM LAVATORY OR SINK. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
2. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
3. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
4. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT LOCATED IN CLOSET. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
5. *CONNECT PRIMARY CONDENSATE PIPING FROM EACH UNIT TO CONDENSATE PUMP (PER MECH). OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO. REFER TO SIMILAR DETAIL E/P9.01 AND/OR J/P9.01 FOR COND. PUMP CONNECTION.*
6. *EXTEND AUXILIARY DRAIN TO EXTERIOR WALL, ELBOW OUT, TURN DOWN, AND DAYLIGHT +6" ABV. FIN. GRADE. TYPICAL.*
7. *CONDENSATE PIPING DOWN IN WALL TO SINK TAILPIECE AND DISCHARGE PER C/P9.02.*
8. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
9. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00. TYPICAL.*
10. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
11. *(4) 1/2"CW DN., (2) 2"W, (2) 2"V.R. TO AND FROM WASH SINK. PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER. PROVIDE WCO FOR EACH DRAIN PER E/P9.00. REFER TO WASH SINK DETAIL D/P9.07 AND PLUMBING FIXTURE SCHEDULE FOR CUSTOM WASH SINK SIZE. TYPICAL.*
12. *CONDENSATE PIPING DOWN IN WALL FROM EQUIPMENT PLATFORM TO SINK TAILPIECE AND DISCHARGE PER C/P9.02. REFER TO P6.03 FOR CONT.*
13. *AUXILIARY (OVERFLOW) DRAIN PIPING DOWN FROM PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE WASH SINK BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. REFER TO P6.03 FOR CONT.*

NOTES:

1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.



PLUMBING KEY PLAN

SCALE: NONE

north

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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REVISIONS

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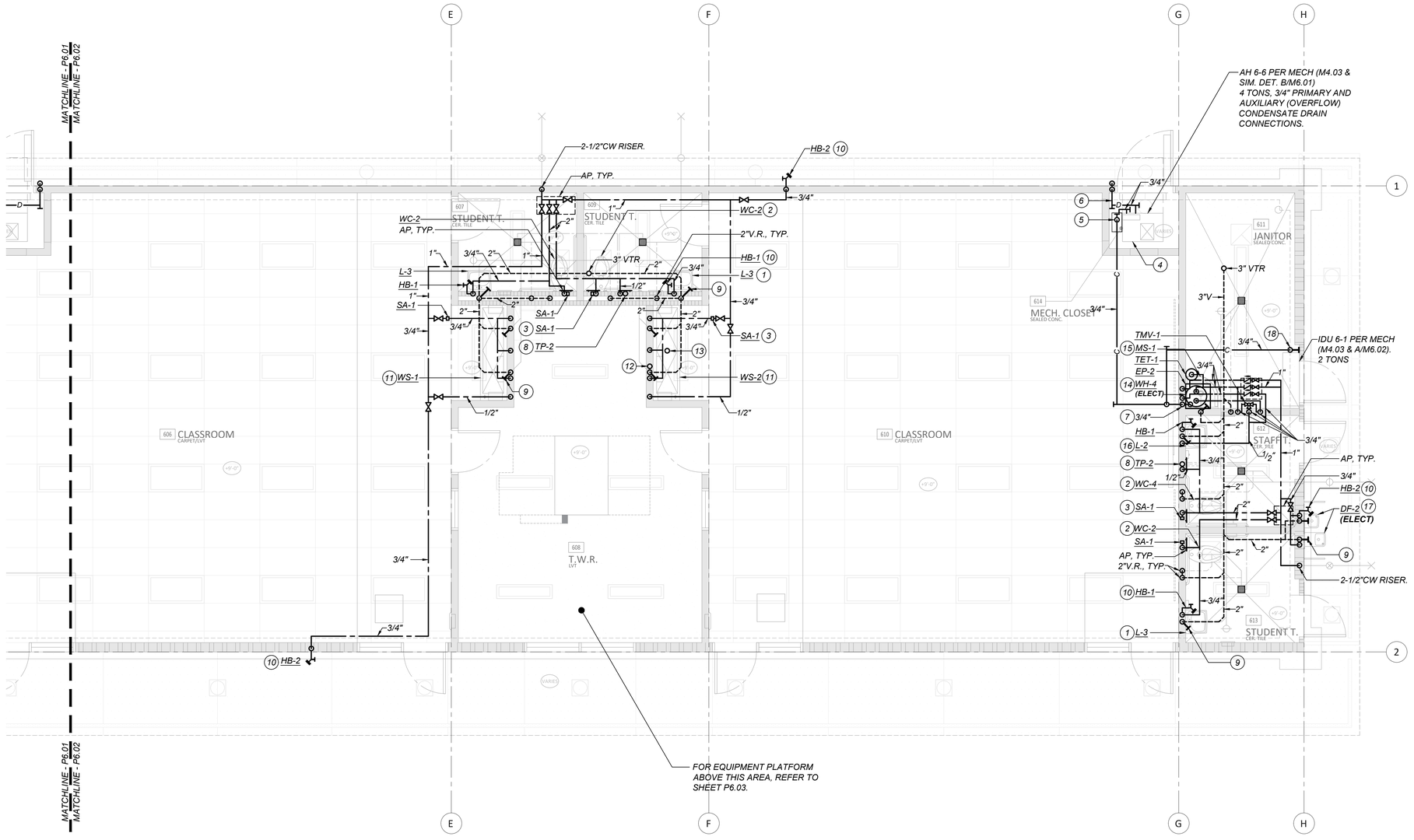
BRYAN W. CARLOW
No. M34846
Exp. 6-30-28
MECHANICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
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TITLE
BUILDING 600 - PARTIAL "TOP-OUT" PLUMBING PLAN

P6.01

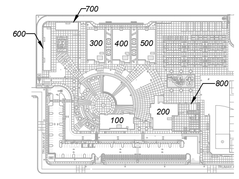
PROJECT 24042



BUILDING 600 - PARTIAL "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north



PLUMBING KEY PLAN north

SCALE: NONE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW, 2"W, 2"V.R. TO AND FROM LAVATORY OR SINK. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
2. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
3. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
4. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT LOCATED IN CLOSET. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
5. *CONNECT PRIMARY CONDENSATE PIPING FROM EACH UNIT TO CONDENSATE PUMP (PER MECH). OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO. REFER TO SIMILAR DETAIL E/P9.01 AND/OR J/P9.01 FOR COND. PUMP CONNECTION.*
6. *EXTEND AUXILIARY DRAIN TO EXTERIOR WALL, ELBOW OUT, TURN DOWN, AND DAYLIGHT +6" ABV. FIN. GRADE. TYPICAL.*
7. *CONDENSATE DOWN IN WALL, ELBOW OUT, TURN DOWN AND DISCHARGE TO MOP SINK PER F/P9.01.*
8. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
9. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00. TYPICAL.*
10. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
11. *(4) 1/2"CW DN., (2) 2"W, (2) 2"V.R. TO AND FROM WASH SINK. PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER. PROVIDE WCO FOR EACH DRAIN PER E/P9.00. REFER TO WASH SINK DETAIL D/P9.07 AND PLUMBING FIXTURE SCHEDULE FOR CUSTOM WASH SINK SIZE. TYPICAL.*
12. *CONDENSATE PIPING DOWN IN WALL FROM EQUIPMENT PLATFORM TO SINK TAILPIECE AND DISCHARGE PER C/P9.02. REFER TO P6.03 FOR CONT.*
13. *AUXILIARY (OVERFLOW) DRAIN PIPING DOWN FROM PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE WASH SINK BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. REFER TO P6.03 FOR CONT.*
14. *WATER HEATER ASSEMBLY. SET EQUIPMENT PLATFORM EP-2 AT +6'-0" AFF. REFER TO PLAN FOR MARK #'S. REFER TO DETAIL C/P9.05.*
15. *3/4"CW, 3/4"HW, 3"W DN. WITH WCO, 2"V.R. TO AND FROM MOP SINK.*
16. *1/2"CW, 1/2"HW, 2"W, 2"V.R. TO AND FROM LAVATORY OR SINK. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
17. *1/2"CW, 2"W DN., WITH WCO, 2"V.R. TO AND FROM DRINKING FOUNTAIN. REFER TO DETAIL A/P9.04. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB.*
18. *MECHANICAL INDOOR UNIT. CONNECT CONDENSATE PIPING TO CONDENSATE PUMP INTEGRAL TO MECH. UNIT. OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO AND CONNECTION LOCATION. REFER TO DETAIL E/P9.01 AND/OR J/P9.01 FOR IDU COND. CONNECTION.*

NOTES:

1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.

REGISTERED PROFESSIONAL ENGINEER JUSTIN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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Fresno, CA 93727 FAX (559) 431-1362

NEW TEMPERANCE ELEMENTARY SCHOOL
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REVISIONS

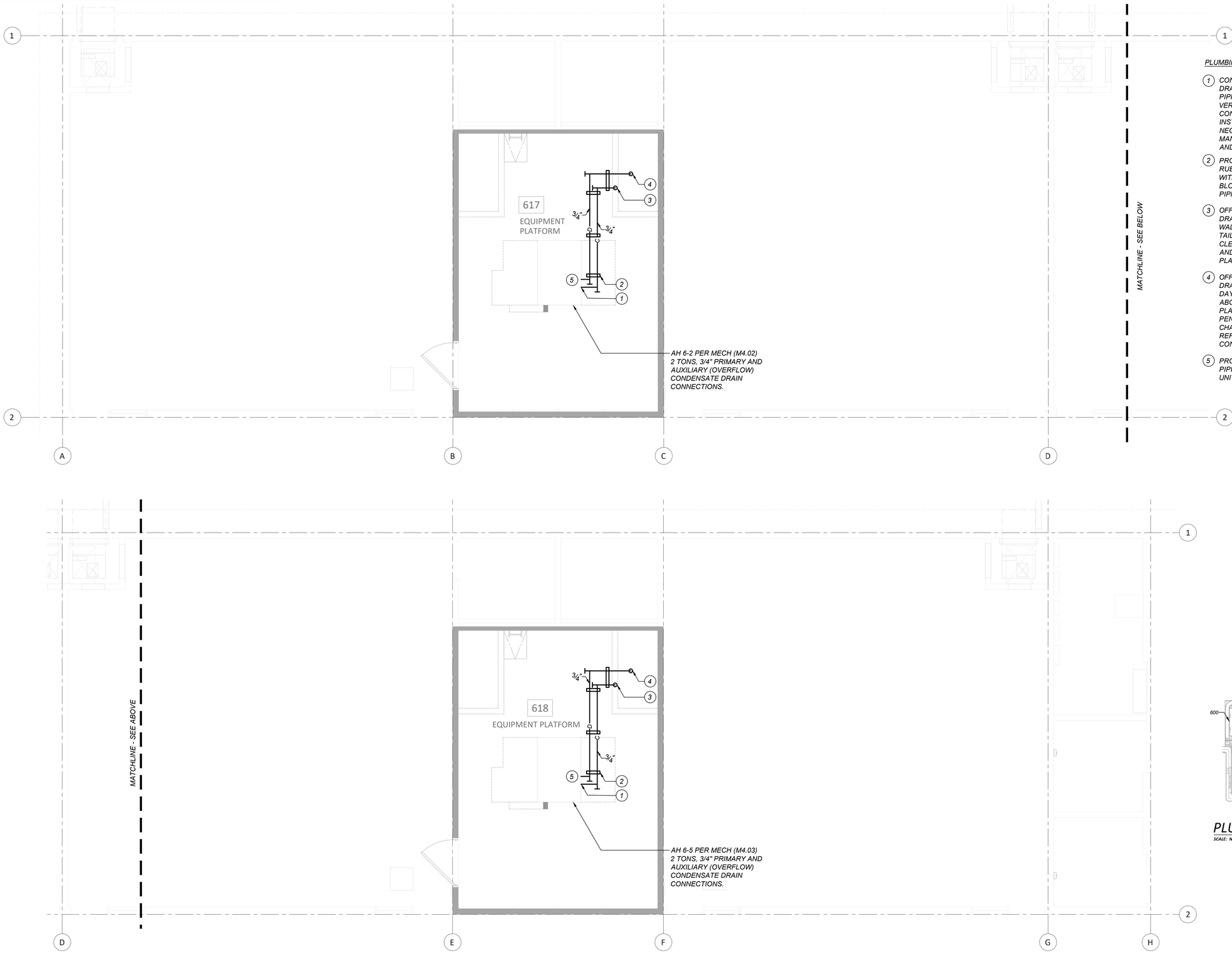
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TITLE
BUILDING 600 - PARTIAL "TOP-OUT" PLUMBING PLAN

P6.02

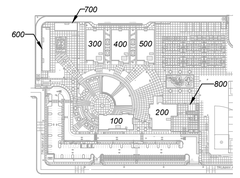
PROJECT 24042

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PLUMBING KEYNOTES (THIS SHEET ONLY)

1. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
2. *PROVIDE FLOOR PIPE SUPPORT, **"PIPE PROP"** RUB-3 PIPE SUPPORT (OR EQUAL), OR UNISTRUT WITH POST BASE AND PIPE CLAMP. WOOD BLOCKS NOT ALLOWED. SLOPE CONDENSATE PIPING AT MIN. 1%. TYPICAL.*
3. *OFFSET & EXTEND PRIMARY CONDENSATE DRAIN PIPING DOWN THROUGH PLATFORM IN WALL TO WASH SINK AND CONNECT TO TAILPIECE PER DETAIL C/P9.02. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*
4. *OFFSET & EXTEND AUXILIARY (OVERFLOW) DRAIN PIPING DOWN THROUGH PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE WASH SINK BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*
5. *PROVIDE FLEX CONNECTIONS OF DUCT AND PIPING AND OR CONDUIT TO THE MECHANICAL UNIT. (TYP.)*



PLUMBING KEY PLAN
SCALE: NONE

BUILDING 600 - EQUIPMENT PLATFORMS - PLUMBING
SCALE: 1/4" = 1'-0"

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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TITLE
BUILDING 600 - EQUIPMENT PLATFORMS - PLUMBING

P6.03

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

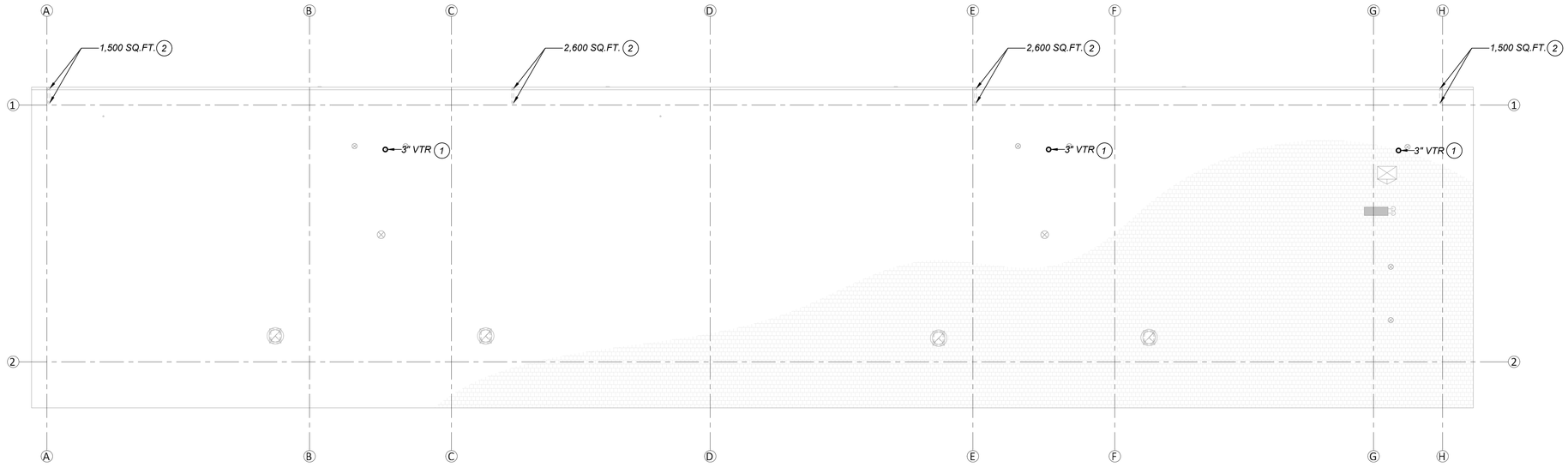
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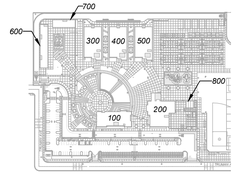
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PLUMBING "ROOF" KEYNOTES (THIS SHEET ONLY)

1. *VENT THRU ROOF. MAINTAIN MINIMUM 10'-0" CLEARANCE FROM OUTSIDE AIR INTAKE, +1'-0" FROM VERTICAL SURFACES. FOR PIPE THRU ROOF, REFER TO DETAIL G/P9.01 OR D/P9.02.*
2. *ROOF GUTTER, CONDUCTOR HEAD, AND DOWNSPOUTS PER ARCH. PLANS. REFER TO CIVIL PLANS FOR CONNECTION AND ROUTING ON SITE.*





PLUMBING KEY PLAN
SCALE: NONE

north

BUILDING 600 - PLUMBING ROOF PLAN

SCALE: 1/8" = 1'-0"

north

REGISTERED PROFESSIONAL ENGINEER
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TITLE
BUILDING 600 - PLUMBING ROOF PLAN

P6.10

PROJECT 24042

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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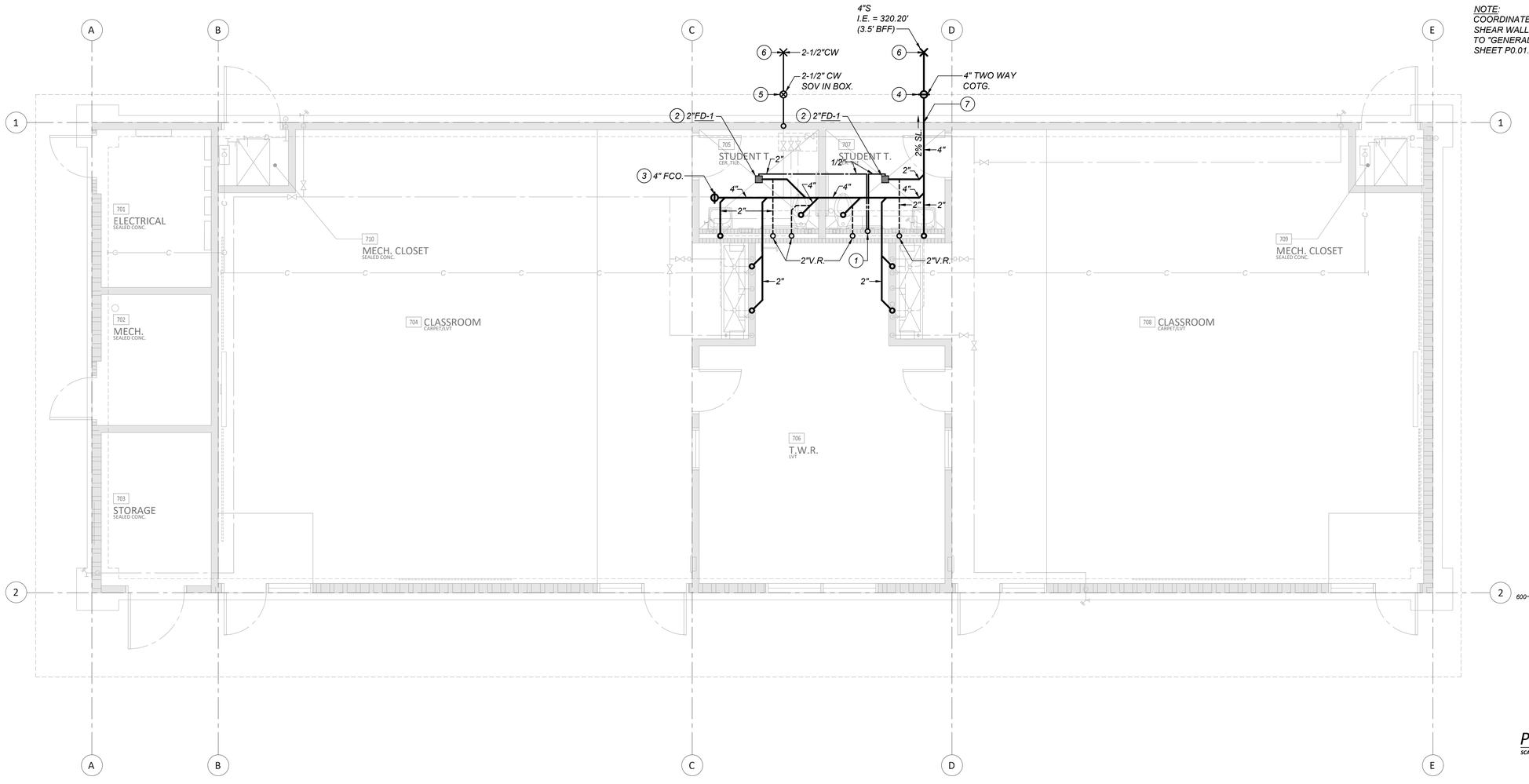
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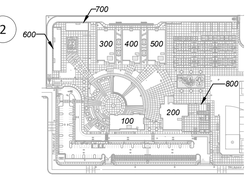
DATE: DECEMBER 18, 2025

PLUMBING "UNDER-SLAB" KEYNOTES (THIS SHEET ONL

1. *1/2"CW DOWN FROM TRAP PRIMER TO BELOW FINISH FLOOR. 1/2"CW MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUO SLOPE. REFER TO ABOVE GROUND PLAN FOR TP MARK TYPICAL.*
2. *WASTE, 2"VENT AND 1/2"CW TRAP PRIMER TO AND FROM FLOOR SINK/DRAIN. REFER TO PLAN FOR OUTLET SIZE AND SYSTEM TYPE. COORDINATE FLOOR SINK/DRAIN LOCATION TO AVOID EQUIPMENT FLOOR AND TABLE LEG SUPPORTS. TYPICAL.*
3. *FLOOR CLEANOUT (FCO), PER DETAIL D/P9.00, TYP. REFER TO PLAN FOR SIZE.*
4. *TWO-WAY CLEANOUT-TO-GRADE (TW-COTG) PER DETAIL C/P9.00. REFER TO PLAN FOR SIZE.*
5. *SHUT-OFF VALVE IN BOX PER DETAIL A/P9.00. REFER TO PLAN FOR SIZE.*
6. *EXTEND PIPING +5'-0" OUTSIDE BUILDING WALL. REFER TO CIVIL UTILITY PLAN FOR CONTINUATION. TYPICAL.*
7. *PIPE & SLEEVE AT FOOTING AS NECESSARY, PER STRUCTURAL DETAIL 4/S1.1. TYPICAL.*

NOTE:
COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.





PLUMBING KEY PLAN
SCALE: NONE
north

BUILDING 700 - "UNDER-SLAB" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north

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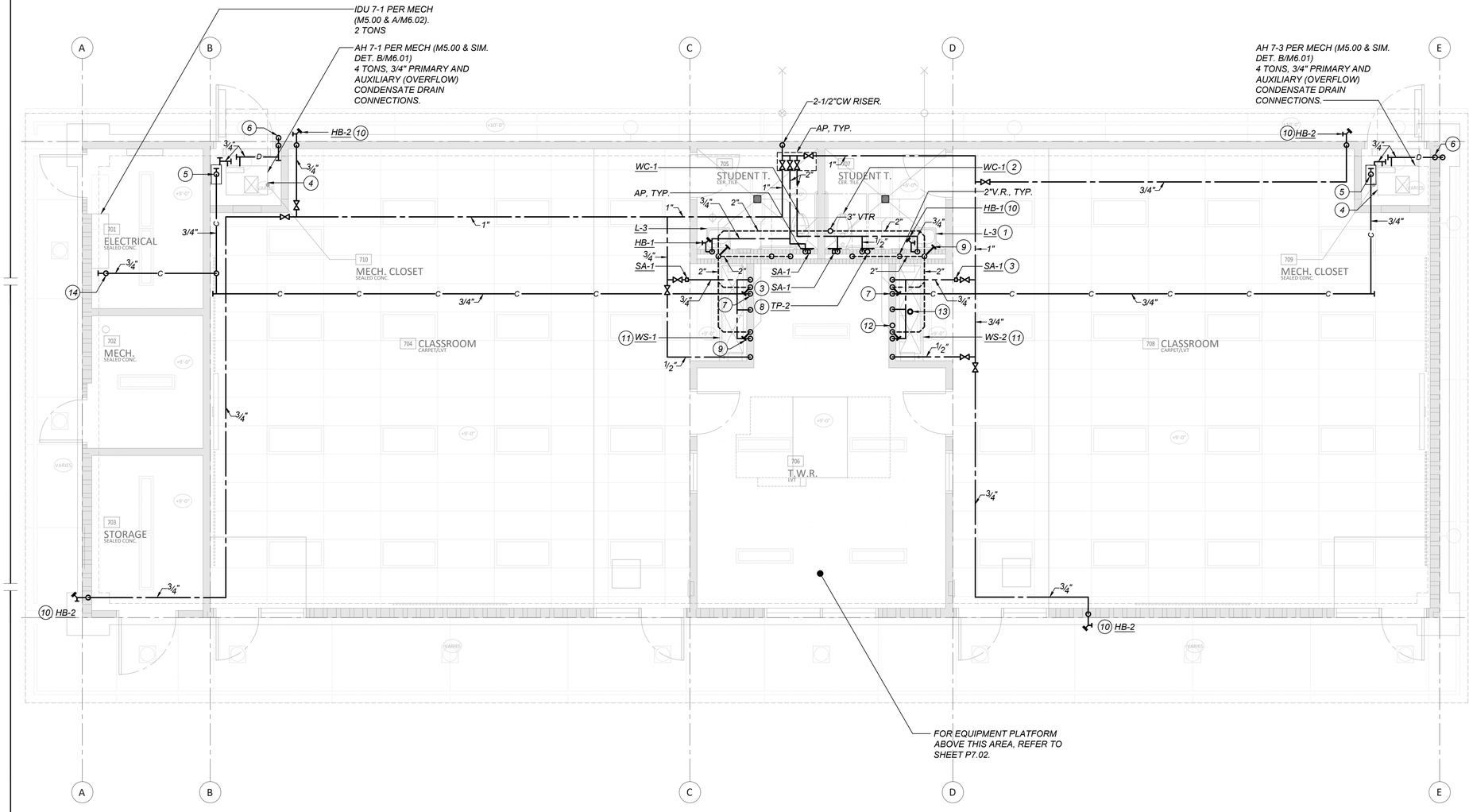
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TITLE
BUILDING 700 - "UNDER-SLAB" PLUMBING PLAN

P7.01U

PROJECT 24042

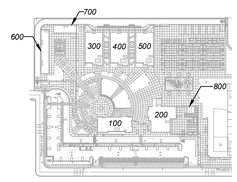
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BUILDING 700 - "TOP-OUT" PLUMBING PLAN

SCALE: 1/4" = 1'-0"

north



PLUMBING KEY PLAN

SCALE: NONE

north

PLUMBING "TOP-OUT" KEYNOTES (THIS SHEET ONLY)

1. *1/2"CW, 2"W, 2"V.R. TO AND FROM LAVATORY OR SINK. PROVIDE WCO PER E/P9.00. PROVIDE 3/4"CW DROP TO FIXTURE WHEN ADJACENT TO HOSE BIBB. TYPICAL.*
2. *1-1/2"CW, 4"S DN., 2"V.R. TO AND FROM WATER CLOSET, TYP.*
3. *SHOCK ABSORBER LOCATED IN SPACE ABOVE CEILING OR IN-WALL. PROVIDE ACCESS DOOR/PANEL AS NECESSARY, TYP.*
4. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT LOCATED IN CLOSET. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
5. *CONNECT PRIMARY CONDENSATE PIPING FROM EACH UNIT TO CONDENSATE PUMP (PER MECH). OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO. REFER TO SIMILAR DETAIL E/P9.01 AND/OR J/P9.01 FOR COND. PUMP CONNECTION.*
6. *EXTEND AUXILIARY DRAIN TO EXTERIOR WALL, ELBOW OUT, TURN DOWN, AND DAYLIGHT +6" ABV. FIN. GRADE. TYPICAL.*
7. *CONDENSATE PIPING DOWN IN WALL TO SINK TAILPIECE AND DISCHARGE PER C/P9.02.*
8. *CW PIPING DOWN IN WALL TO TRAP PRIMER BEHIND ACCESS PANEL. EXTEND CW FROM TRAP PRIMER TO FLOOR DRAIN/SINK. PROVIDE SOV FOR SERVICING ON THE INLET SIDE. ALLOW +1'-0" OF ELEVATION FOR EVERY 20'-0" OF DISTANCE RAN FOR 1/2"CW PRIMER MAKE-UP LINE. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE SHALL HAVE CONTINUOUS SLOPE. REFER TO DETAIL A/P9.02 OR B/P9.02.*
9. *WALL CLEANOUT (WCO), PER DETAIL E/P9.00. TYPICAL.*
10. *3/4"CW DN IN WALL TO HOSE BIBB AT +12" ABV. FIN. FLR./GR., TYP.*
11. *(4) 1/2"CW DN., (2) 2"W, (2) 2"V.R. TO AND FROM WASH SINK. PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER. PROVIDE WCO FOR EACH DRAIN PER E/P9.00. REFER TO WASH SINK DETAIL D/P9.07 AND PLUMBING FIXTURE SCHEDULE FOR CUSTOM WASH SINK SIZE. TYPICAL.*
12. *CONDENSATE PIPING DOWN IN WALL FROM EQUIPMENT PLATFORM TO SINK TAILPIECE AND DISCHARGE PER C/P9.02. REFER TO P7.02 FOR CONT.*
13. *AUXILIARY (OVERFLOW) DRAIN PIPING DOWN FROM PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE WASH SINK BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. REFER TO P7.02 FOR CONT.*
14. *MECHANICAL INDOOR UNIT. CONNECT CONDENSATE PIPING TO CONDENSATE PUMP INTEGRAL TO MECH. UNIT. OFFSET & SLOPE COND. PIPING IN SPACE ABOVE CEILING AT MIN. 1% SLOPE. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION AND AS INDICATED. DO NOT ROUTE PIPING ABOVE ELECTRICAL PANELS OR DATA EQUIPMENT. REFER TO MECH. DRAWINGS FOR ADDITIONAL INFO AND CONNECTION LOCATION. REFER TO DETAIL E/P9.01 AND/OR J/P9.01 FOR IDU COND. CONNECTION.*

NOTES:

1. PROVIDE CEILING OR WALL ACCESS PANEL/DOOR FOR TRAP PRIMERS, VALVES, SHOCK ABSORBERS, ETC. WHERE ACCESS IS NOT IMMEDIATELY AVAILABLE, TYPICAL.

2. COORDINATE ALL PIPE DROPS AND RISERS WITHIN SHEAR WALLS TO AND/OR FROM BELOW GRADE. REFER TO "GENERAL MECHANICAL & PLUMBING NOTES" #11, SHEET P0.01.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

CERTIFIED PROFESSIONAL ENGINEER
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TITLE
BUILDING 700 - "TOP-OUT" PLUMBING PLAN

P7.01

PROJECT 24042

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APPROVALS

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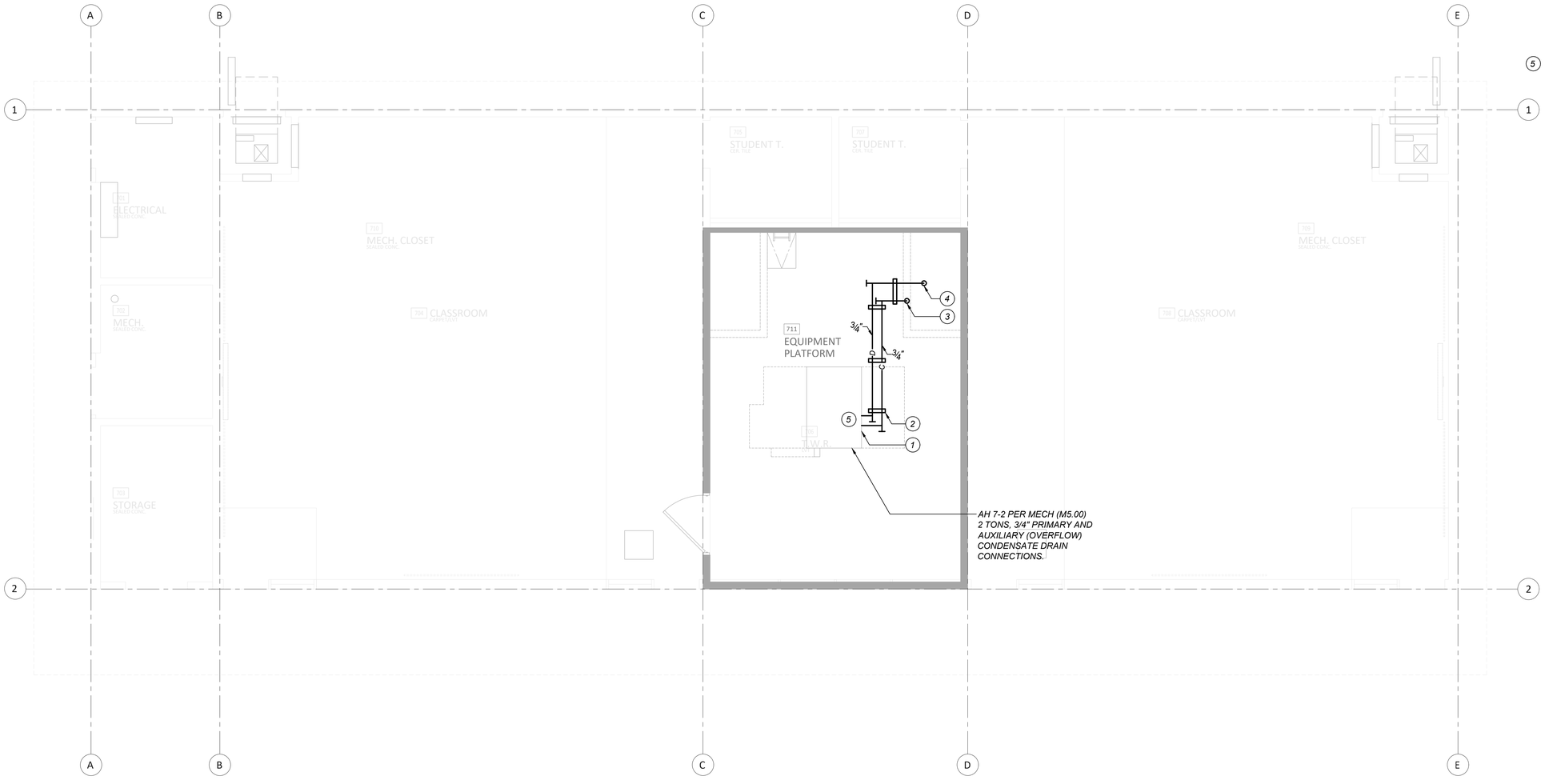
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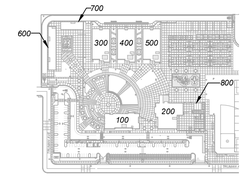
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REN. 05-31-27
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PLUMBING KEYNOTES (THIS SHEET ONLY)

1. *CONNECT PRIMARY (MAIN, LOWEST POINT OF DRAIN PAN) AND AUXILIARY CONDENSATE DRAIN PIPING TO MECHANICAL AIR HANDLER UNIT. VERIFY UNIT LOCATION, ROTATION, AND CONDENSATE CONNECTION PRIOR TO INSTALLATION. PROVIDE DRAIN PAN TRAP (FOR NEGATIVE PRESSURE APPLICATION), PER MANUFACTURERS INSTALLATION GUIDELINES AND DETAIL D/P9.01.*
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4. *OFFSET & EXTEND AUXILIARY (OVERFLOW) DRAIN PIPING DOWN THROUGH PLATFORM AND DAYLIGHT 1" BELOW BOTTOM OF CEILING ABOVE WASH SINK BOWL. PROVIDE CHROME PLATED ESCUTCHEON AT CEILING PENETRATION. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTIONS AND AS INDICATED. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.*
5. *PROVIDE FLEX CONNECTIONS OF DUCT AND PIPING AND OR CONDUIT TO THE MECHANICAL UNIT. (TYP.)*





PLUMBING KEY PLAN
SCALE: NONE
north

BUILDING 700 - EQUIPMENT PLATFORMS - PLUMBING

SCALE: 1/4" = 1'-0"

north

REGISTERED PROFESSIONAL ENGINEER
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Exp. 6-30-28
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TITLE
BUILDING 700 - EQUIPMENT PLATFORMS - PLUMBING

P7.02

PROJECT 24042

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

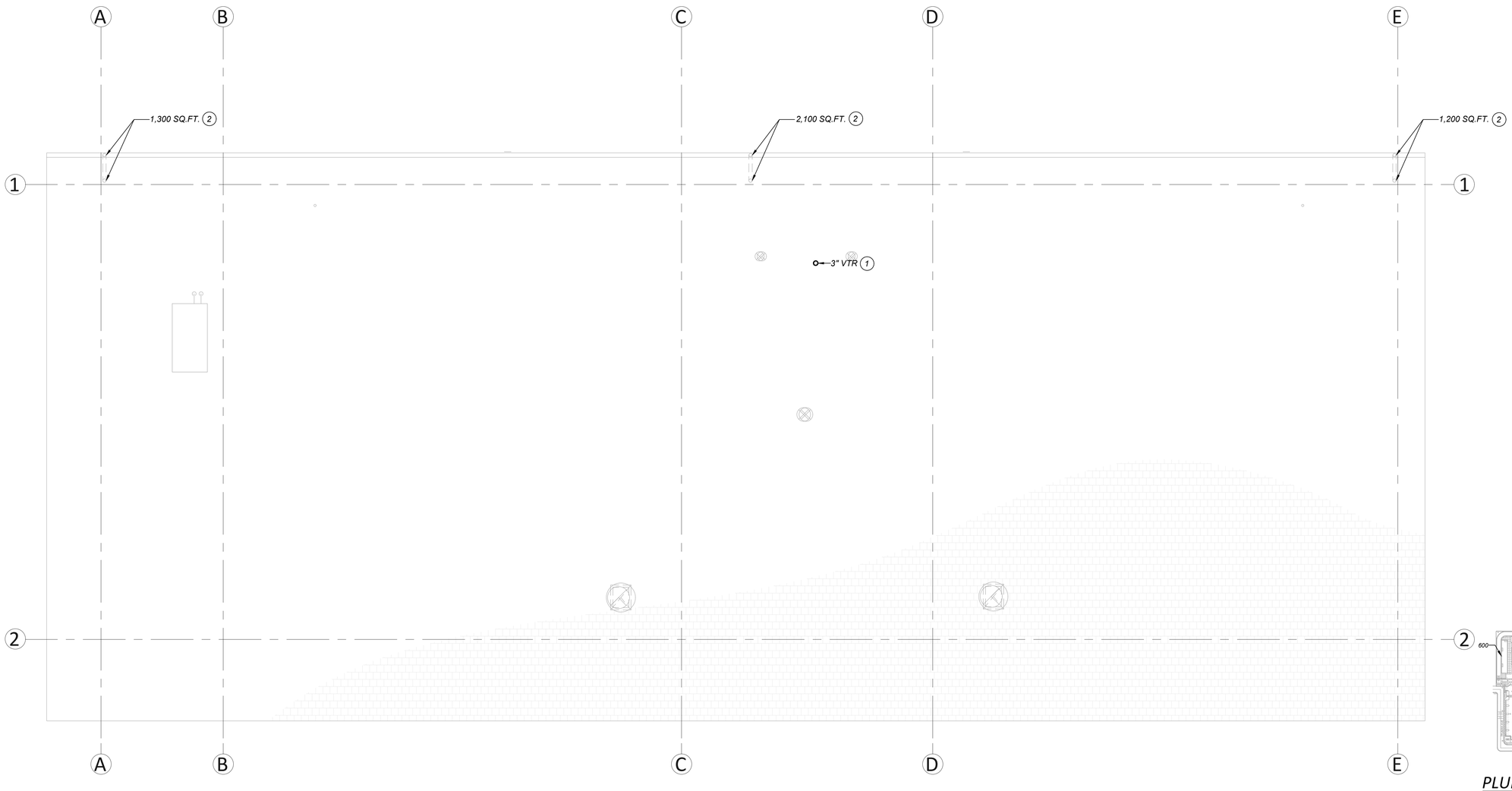
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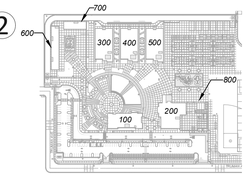
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REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PLUMBING "ROOF" KEYNOTES (THIS SHEET ONLY)

1. *VENT THRU ROOF. MAINTAIN MINIMUM 10'-0" CLEARANCE FROM OUTSIDE AIR INTAKE, +1'-0" FROM VERTICAL SURFACES. FOR PIPE THRU ROOF, REFER TO DETAIL G/P9.01 OR D/P9.02.*
2. *ROOF GUTTER, CONDUCTOR HEAD, AND DOWNSPOUTS PER ARCH. PLANS. REFER TO CIVIL PLANS FOR CONNECTION AND ROUTING ON SITE.*





PLUMBING KEY PLAN
SCALE: NONE

north

BUILDING 700 - PLUMBING ROOF PLAN
SCALE: 1/4" = 1'-0"

north

LICENSED PROFESSIONAL ENGINEER
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TITLE
BUILDING 700 - PLUMBING ROOF PLAN

P7.10

PROJECT 24042

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APPROVALS

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-21128
EXP. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PLUMBING FIXTURE CALCULATIONS - BUILDING 400

ROOM	FIXTURE	NO.	CW WSFU		HW WSFU		SEWER DFU		HOT WATER	HOT WATER	Grease Interceptor Sizing - DFU	
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	GPH	TOTAL GPH	UNIT	TOTAL
	WC - FV	8	5.0	40.0	-	-	4.0	32.00	-	-		
	Lav	2	1.0	2.0	1.0	2.0	1.0	2.00	-	-		
	Lav - CW only	4	1.0	4.0	-	-	1.0	4.00	-	-		
	Urinal - FV	1	4.0	4.0	-	-	2.0	2.00	-	-		
	DF	2	0.5	1.0	-	-	0.5	1.00	-	-		
	Sink	-	1.5	-	1.5	-	2.0	-	-	-		
	Sink - CW only	7	1.5	10.5	-	-	2.0	14.00	-	-		
	Nurse Sink & Eyewash	-	2.0	-	2.0	-	2.0	-	-	-		
	Mop Sink	1	3.0	3.0	3.0	3.0	3.0	3.00	-	-		
	Water Supply Box	-	0.5	-	-	-	-	-	-	-		
	FD	5	-	-	-	-	2.0	10.00	-	-		
	FS 2	-	-	-	-	-	2.0	-	-	-		
	FS 3	-	-	-	-	-	3.0	-	-	-		
	FS 4	-	-	-	-	-	4.0	-	-	-		
	HB 1ST	3	2.5	7.5	-	-	-	-	-	-		
	HB 2ND	13	1.0	13.0	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
KITCHEN	Kitchen Equipment	-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL / TOTAL				85.0		5.0		68.0		-		-
GPM FLOW				63		5						

DOMESTIC WATER DEMAND AND PIPE SIZING - BUILDING 400

WATER METER SIZE	WATER METER USED?	YES	4"
TOTAL FIXTURE UNITS			85
FIXTURE UNIT GPM			63
ADDITIONAL EQUIPMENT GPM			0
TOTAL BUILDING GPM			63
MINIMUM PSI AVAILABLE AT JOBSITE (Source - Fresno Fire Dept., 9/16/25: 40s, 25r @ 1350 gpm)			30.00
PSI MAIN LOSS FROM METER TO BOOSTER			6.00
PSI FLOW LOSS THROUGH WATER METER (CHART A-1)			4.00
PSI LOSS THROUGH BACK FLOW PREVENTER (*RP = 12.0 PSI / *D.C. = 12.0 PSI.)			12.0
SITE WATER PIPE SIZE			4
TOTAL DEVELOPED LENGTH FROM BOOSTER TO BUILDING POINT OF ENTRY (FT)			600.0
SITE WATER PSI PRESSURE DROP/100' OF PIPE			0.82
TOTAL PSI MAIN LOSS FROM BOOSTER TO BUILDING			4.902
TOTAL PRESSURE AVAILABLE AT BUILDING EXTERIOR WALL			3.1
TOTAL DEVELOPED BUILDING MAIN LENGTH TO MOST REMOTE FIXTURE (FT)			250.0
TOTAL RISE FOR HEAD LOSS (FT x 0.43)		5.0	2.2
MAIN PRV PSI LOSS OR OTHER SIMILAR EQUIPMENT / MAIN PSI LOSS			0.0
PSI REQUIRED FOR GOVERNING FIXTURE			30.0
TOTAL BUILDING LOSS (PSI)			32.2
REMAINING PSI AVAILABLE (IF NEGATIVE, USE BOOSTER PUMP)			-29.1
BOOSTER PUMP (PSI)			40.0
TOTAL REMAINING PSI AVAILABLE			10.9
FRICTION LOSS (PSI/100 FT.)			4.4
MAXIMUM COLD WATER VELOCITY ALLOWED (FT/S)			6.0
MAXIMUM HOT WATER VELOCITY ALLOWED (FT/S)			4.0

COLD WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
.8"	7.725	-	-	-	-
.6"	5.845	-	-	-	-
.5"	4.875	-	-	-	-
.4"	3.905	-	-	-	-
.3"	2.945	-	-	-	-
2.5"	2.465	88.9	6.0	191	322
.2"	1.985	57.4	6.0	67	161
1.5"	1.505	33.1	6.0	16	63
1.25"	1.265	22.2	5.7	9	34
.1"	1.025	12.6	4.9	-	17
.75"	0.785	6.2	4.1	-	8
.50"	0.545	2.2	3.0	-	2

HOT WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
.8"	7.725	-	-	-	-
.6"	5.845	-	-	-	-
.5"	4.875	-	-	-	-
.4"	3.905	-	-	-	-
.3"	2.945	84.7	4.0	171	300
2.5"	2.465	59.2	4.0	72	170
.2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
.1"	1.025	10.2	4.0	-	13
.75"	0.785	6.1	4.0	-	7
.50"	0.545	2.2	3.0	-	2

PLUMBING FIXTURE CALCULATIONS - BUILDING 300

ROOM	FIXTURE	NO.	CW WSFU		HW WSFU		SEWER DFU		HOT WATER	HOT WATER	Grease Interceptor Sizing - DFU	
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	GPH	TOTAL GPH	UNIT	TOTAL
	WC - FV	8	5.0	40.0			4.0	32.00	-	-		
	Lav	2	1.0	2.0	1.0	2.0	1.0	2.00	-	-		
	Lav - CW only	4	1.0	4.0	-	-	1.0	4.00	-	-		
	Urinal - FV	1	4.0	4.0	-	-	2.0	2.00	-	-		
	DF	5	0.5	2.5	-	-	0.5	2.50	-	-		
	Sink	-	1.5	-	1.5	-	2.0	-	-	-		
	Sink - CW only	7	1.5	10.5	-	-	2.0	14.00	-	-		
	Nurse Sink & Eyewash	-	2.0	-	2.0	-	2.0	-	-	-		
	Mop Sink	1	3.0	3.0	3.0	3.0	3.0	3.00	-	-		
	Water Supply Box	-	0.5	-	-	-	-	-	-	-		
	FD	5	-	-	-	-	2.0	10.00	-	-		
	FS 2	-	-	-	-	-	2.0	-	-	-		
	FS 3	-	-	-	-	-	3.0	-	-	-		
	FS 4	-	-	-	-	-	4.0	-	-	-		
	HB 1ST	3	2.5	7.5	-	-	-	-	-	-		
	HB 2ND	13	1.0	13.0	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
KITCHEN	Kitchen Equipment	-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL / TOTAL				86.5		5.0		69.5		-		-
GPM FLOW				63		5						

DOMESTIC WATER DEMAND AND PIPE SIZING - BUILDING 300

WATER METER SIZE	WATER METER USED?	YES	4"
TOTAL FIXTURE UNITS			87
FIXTURE UNIT GPM			63
ADDITIONAL EQUIPMENT GPM			0
TOTAL BUILDING GPM			63
MINIMUM PSI AVAILABLE AT JOBSITE (Source - Fresno Fire Dept., 9/16/25: 40s, 25r @ 1350 gpm)			30.00
PSI MAIN LOSS FROM METER TO BOOSTER			6.00
PSI FLOW LOSS THROUGH WATER METER (CHART A-1)			4.00
PSI LOSS THROUGH BACK FLOW PREVENTER (*RP = 12.0 PSI / *D.C. = 12.0 PSI.)			12.0
SITE WATER PIPE SIZE			4
TOTAL DEVELOPED LENGTH FROM BOOSTER TO BUILDING POINT OF ENTRY (FT)			750.0
SITE WATER PSI PRESSURE DROP/100' OF PIPE			0.82
TOTAL PSI MAIN LOSS FROM BOOSTER TO BUILDING			6.128
TOTAL PRESSURE AVAILABLE AT BUILDING EXTERIOR WALL			1.9
TOTAL DEVELOPED BUILDING MAIN LENGTH TO MOST REMOTE FIXTURE (FT)			250.0
TOTAL RISE FOR HEAD LOSS (FT x 0.43)		5.0	2.2
MAIN PRV PSI LOSS OR OTHER SIMILAR EQUIPMENT / MAIN PSI LOSS			0.0
PSI REQUIRED FOR GOVERNING FIXTURE			30.0
TOTAL BUILDING LOSS (PSI)			32.2
REMAINING PSI AVAILABLE (IF NEGATIVE, USE BOOSTER PUMP)			-30.3
BOOSTER PUMP (PSI)			40.0
TOTAL REMAINING PSI AVAILABLE			9.7
FRICTION LOSS (PSI/100 FT.)			3.9
MAXIMUM COLD WATER VELOCITY ALLOWED (FT/S)			6.0
MAXIMUM HOT WATER VELOCITY ALLOWED (FT/S)			4.0

COLD WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
.8"	7.725	-	-	-	-
.6"	5.845	-	-	-	-
.5"	4.875	-	-	-	-
.4"	3.905	-	-	-	-
.3"	2.945	126.8	6.0	404	515
2.5"	2.465	88.9	6.0	191	322
.2"	1.985	57.4	6.0	67	161
1.5"	1.505	33.1	6.0	16	63
1.25"	1.265	20.8	5.3	9	31
.1"	1.025	11.8	4.6	-	15
.75"	0.785	5.8	3.8	-	7
.50"	0.545	2.1	2.8	-	2

HOT WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
.8"	7.725	-	-	-	-
.6"	5.845	-	-	-	-
.5"	4.875	-	-	-	-
.4"	3.905	-	-	-	-
.3"	2.945	84.7	4.0	171	300
2.5"	2.465	59.2	4.0	72	170
.2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
.1"	1.025	10.2	4.0	-	13
.75"	0.785	5.8	3.8	-	7
.50"	0.545	2.1	2.8	-	2

PLUMBING FIXTURE CALCULATIONS - BUILDING 200

ROOM / Description	FIXTURE	NO.	CW WSFU		HW WSFU		SEWER DFU		HOT WATER	HOT WATER	Grease Interceptor Sizing - DFU	
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	GPH	TOTAL GPH	UNIT	TOTAL
Unisex RR	WC - FV	2	5.0	10.0	-	-	4.0	8.00	-	-		
Boys/Girls RR	WC - FV - Assembly	14	8.0	112.0	-	-	6.0	84.00	-	-		
Unisex, B/G: RR	Lav	8	1.0	8.0	1.0	8.0	1.0	8.00	-	-		
Unisex RR	Urinal - FV	2	4.0	8.0	-	-	2.0	4.00	-	-		
Boys RR	Urinal - FV - Assembly	3	5.0	15.0	-	-	5.0	15.00	-	-		
Multi-use Int. & Ext.	DF - Assembly	4	0.75	3.0	-	-	1.0	4.00	-	-		
Flexible Room	Sink	1	1.5	1.5	1.5	1.5	2.0	2.00	-	-		
Jan.	Mop Sink	1	3.0	3.0	3.0	3.0	3.0	3.00	-	-		
RR, Utility, Jan., Staging	FD	7	-	-	-	-	2.0	14.00	-	-		
Storage 201	FS 2	1	-	-	-	-	2.0	2.00	-	-		
Int., Ext., Roof	HB 1ST	4	2.5	10.0	-	-	-	-	-	-		
Int., Ext., Roof	HB 2ND	17	1.0	17.0	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
Kitchen	S/S Hand Sink	3	1.5	4.5	1.5	4.5	2.0	6.00	-	-		
Utility	Clothes Washer	1	4.0	4.0	4.0	4.0	3.0	3.00	-	-		
Kitchen	Combi-oven	4	1.5	6.0	-	-	-	-	-	-		
Clean Up	Prerinse Unit at Disposer	1	1.5	1.5	1.5	1.5	-	-	-	-		
Clean Up	Food Waste Disposer	1	1.5	1.5	-	-	3.0	3.00	-	-		
Clean Up and Food Prep	Faucet (2-comp, 3-comp to FS)	3	1.5	4.5	1.5	4.5	-	-	-	-		
Clean Up	Dishmachine (CW/HW, Drain to FS)	1	2.0	2.0	4.0	4.0	-	-	-	-		
Service yard	Can Wash Control Box (to CWD)	1	3.0	3.0	3.0	3.0	-	-	-	-		
Walk-in Units	FS 2	1	-	-	-	-	2.0	2.00	-	-		
Dishmachine	FS 4	1	-	-	-	-	4.0	4.00	-	-		
	Kitchen Equipment and Plbg fixtures to "Grease Interceptor	-	-	-	-	-	-	-	-	-		
Kitchen	Trench Drain	1	-	-	-	-	4.0	4.00	-	-	4.00	4.00
Serving, Cleanup, Food Prep	FD (emerg)	4	-	-	-	-	-	-	-	-	-	-
Service yard	Can Wash Drain	1	-	-	-	-	3.0	3.00	-	-	3.00	3.00
Food Well	FS 2	1	-	-	-	-	2.0	2.00	-	-	2.00	2.00
3-comp, 2-comp tilting braising pan & combi ovens	FS 4	3	-	-	-	-	4.0	12.00	-	-	4.00	12.00
		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL / TOTAL				214.5		34.0		183.0		-		21.00
GPM FLOW				94		22						

DOMESTIC WATER DEMAND AND PIPE SIZING - BUILDING 200

WATER METER SIZE	WATER METER USED?	YES	4"
TOTAL FIXTURE UNITS			215
FIXTURE UNIT GPM			94
ADDITIONAL EQUIPMENT GPM			0
TOTAL BUILDING GPM			94
MINIMUM PSI AVAILABLE AT JOBSITE (Source - Fresno Fire Dept., 9/16/25: 40s, 25r @ 1350 gpm)			30.00
PSI MAIN LOSS FROM METER TO BOOSTER			6.00
PSI FLOW LOSS THROUGH WATER METER (CHART A-1)			4.00
PSI LOSS THROUGH BACK FLOW PREVENTER (*RP = 12.0 PSI / *D.C. = 12.0 PSI.)			12.0
SITE WATER PIPE SIZE			4
TOTAL DEVELOPED LENGTH FROM BOOSTER TO BUILDING POINT OF ENTRY (FT)			230.0
SITE WATER PSI PRESSURE DROP/100' OF PIPE			1.20
TOTAL PSI MAIN LOSS FROM BOOSTER TO BUILDING			2.769
TOTAL PRESSURE AVAILABLE AT BUILDING EXTERIOR WALL			5.2
TOTAL DEVELOPED BUILDING MAIN LENGTH TO MOST REMOTE FIXTURE (FT)			400.0
TOTAL RISE FOR HEAD LOSS (FT x 0.43)		5.0	2.2
MAIN PRV PSI LOSS OR OTHER SIMILAR EQUIPMENT / MAIN PSI LOSS			0.0
PSI REQUIRED FOR GOVERNING FIXTURE			30.0
TOTAL BUILDING LOSS (PSI)			32.2
REMAINING PSI AVAILABLE (IF NEGATIVE, USE BOOSTER PUMP)			-26.9
BOOSTER PUMP (PSI)			40.0
TOTAL REMAINING PSI AVAILABLE			13.1
FRICTION LOSS (PSI/100 FT.)			3.3
MAXIMUM COLD WATER VELOCITY ALLOWED (FT/S)			6.0
MAXIMUM HOT WATER VELOCITY ALLOWED (FT/S)			4.0

COLD WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
.8"	7.725	-	-	-	-
.6"	5.845	-	-	-	-
.5"	4.875	-	-	-	-
.4"	3.905	-	-	-	-
.3"	2.945	126.8	6.0	404	515
2.5"	2.465	88.9	6.0	191	322
.2"	1.985	57.4	6.0	67	161
1.5"	1.505	30.0	5.4	13	54
1.25"	1.265	18.9	4.8	-	27
.1"	1.025	10.7	4.2	-	14
.75"	0.785	5.3	3.5	-	6
.50"	0.545	1.9	2.6	-	2

HOT WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
.8"	7.725	-	-	-	-
.6"	5.845	-	-	-	-
.5"	4.875	-	-	-	-
.4"	3.905	149.0	4.0	552	630
.3"	2.945	84.7	4.0	171	300
2.5"	2.465	59.2	4.0	72	170
.2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
.1"	1.025	10.2	4.0	-	13
.75"	0.785	5.3	3.5	-	6
.50"	0.545	1.9	2.6	-	2

PLUMBING FIXTURE CALCULATIONS - BUILDING 100

ROOM	FIXTURE	NO.	CW WSFU		HW WSFU		SEWER DFU		HOT WATER	HOT WATER	Grease Interceptor Sizing - DFU	
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	GPH	TOTAL GPH	UNIT	TOTAL
	WC - FV	8	5.0	25.0	-	-	4.0	20.00	-	-		
	Lav	3	1.0	3.0	1.0	3.0	1.0	3.00	-	-		
	Lav - CW only	-	1.0	-	-	-	1.0	-	-	-		
	Urinal - FV	1	4.0	4.0	-	-	2.0	2.00	-	-		
	DF	2	0.5	1.0	-	-	0.5	1.00	-	-		
	Sink	2	1.5	3.0	1.5	3.0	2.0	4.00	-	-		
	Sink - CW only	-	1.5	-	-	-	2.0	-	-	-		
	Nurse Sink & Eyewash	1	2.0	2.0	2.0	2.0	2.0	2.00	-	-		
	Mop Sink	1	3.0	3.0	3.0	3.0	3.0	3.00	-	-		
	Water Supply Box	2	0.5	1.0	-	-	-	-	-	-		
	FD	6	-	-	-	-	2.0	12.00	-	-		
	FS 2	1	-	-	-	-	2.0	2.00	-	-		
	FS 3	-	-	-	-	-	3.0	-	-	-		
	FS 4	-	-	-	-	-	4.0	-	-	-		
	HB 1ST	3	2.5	7.5	-	-	-	-	-	-		
	HB 2ND	6	1.0	6.0	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
KITCHEN	Kitchen Equipment	-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL / TOTAL				55.5		11.0		49.0		-		-
GPM FLOW				53		9						

DOMESTIC WATER DEMAND AND PIPE SIZING - BUILDING 100

WATER METER SIZE	WATER METER USED?	YES	4"
TOTAL FIXTURE UNITS			56
FIXTURE UNIT GPM			53
ADDITIONAL EQUIPMENT GPM			0
TOTAL BUILDING GPM			53
MINIMUM PSI AVAILABLE AT JOBSITE (Source - Fresno Fire Dept., 9/16/25: 40s, 25r @ 1350 gpm)			30.00
PSI MAIN LOSS FROM METER TO BOOSTER			6.00
PSI FLOW LOSS THROUGH WATER METER (CHART A-1)			4.00
PSI LOSS THROUGH BACK FLOW PREVENTER (*RP = 12.0 PSI / *D.C. = 12.0 PSI.)			12.0
SITE WATER PIPE SIZE			4
TOTAL DEVELOPED LENGTH FROM BOOSTER TO BUILDING POINT OF ENTRY (FT)			700.0
SITE WATER PSI PRESSURE DROP/100' OF PIPE			0.68
TOTAL PSI MAIN LOSS FROM BOOSTER TO BUILDING			4.756
TOTAL PRESSURE AVAILABLE AT BUILDING EXTERIOR WALL			3.2
TOTAL DEVELOPED BUILDING MAIN LENGTH TO MOST REMOTE FIXTURE (FT)			200.0
TOTAL RISE FOR HEAD LOSS (FT x 0.43)		5.0	2.2
MAIN PRV PSI LOSS OR OTHER SIMILAR EQUIPMENT / MAIN PSI LOSS			0.0
PSI REQUIRED FOR GOVERNING FIXTURE			30.0
TOTAL BUILDING LOSS (PSI)			32.2
REMAINING PSI AVAILABLE (IF NEGATIVE, USE BOOSTER PUMP)			-28.9
BOOSTER PUMP (PSI)			40.0
TOTAL REMAINING PSI AVAILABLE			11.1
FRICTION LOSS (PSI/100 FT.)			5.5
MAXIMUM COLD WATER VELOCITY ALLOWED (FT/S)			6.0
MAXIMUM HOT WATER VELOCITY ALLOWED (FT/S)			4.0

COLD WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
.8"	7.725	-	-	-	-
.6"	5.845	-	-	-	-
.5"	4.875	-	-	-	-
.4"	3.905	-	-	-	-
.3"	2.945	84.7	4.0	171	300
2.5"	2.465	59.2	4.0	72	170
.2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
.1"	1.025	10.2	4.0	-	13
.75"	0.785	6.1	4.0	-	7
.50"	0.545	2.6	3.4	-	3

HOT WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
.8"	7.725	-	-	-	-
.6"	5.845	-	-	-	-
.5"	4.875	-	-	-	-
.4"	3.905	-	-	-	-
.3"	2.945	84.7	4.0	171	300
2.5"	2.465	59.2	4.0	72	170
.2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
.1"	1.025	10.2	4.0	-	13
.75"	0.785	6.1	4.0	-	7
.50"	0.545	2.6	3.4	-	3

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SANGER, FRESNO COUNTY, CA

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P8.00

PROJECT: 24042

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25026
Fresno, CA 93727 FAX (559) 431-1362

16 September 2026 8:22 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P8.00 - 8.01 - Plumbing Calculations.dwg ryanf

P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P8.00 - 8.01 - Plumbing Calculations.dwg Sep 16 2026 8:22am

PLUMBING FIXTURE CALCULATIONS - BUILDING 800

ROOM	FIXTURE	NO.	CW WSFU		HW WSFU		SEWER DFU		HOT WATER	HOT WATER	Grease Interceptor Sizing - DFU	
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	GPH	TOTAL GPH	UNIT	TOTAL
	WC - FV	-	5.0	-	-	-	4.0	-	-	-		
	FD	1	-	-	-	-	4.0	4.00	-	-		
	FS 2	-	-	-	-	-	2.0	-	-	-		
	FS 3	6	-	-	-	-	3.0	18.00	-	-		
	FS 4	-	-	-	-	-	4.0	-	-	-		
	HB 1ST	2	2.5	5.0	-	-	-	-	-	-		
	HB 2ND	3	1.0	3.0	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
KITCHEN	Kitchen Equipment	-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL / TOTAL				8.0		-		22.0		-		-
GPM FLOW				25		-						

DOMESTIC WATER DEMAND AND PIPE SIZING - BUILDING 800

WATER METER SIZE	WATER METER USED? YES	4"
TOTAL FIXTURE UNITS		8
FIXTURE UNIT GPM		25
ADDITIONAL EQUIPMENT GPM		0
TOTAL BUILDING GPM		25
MINIMUM PSI AVAILABLE AT JOBSITE (Source - Fresno Fire Dept., 9/16/25: 40s, 25r @ 1350 gpm)		30.00
PSI MAIN LOSS FROM METER TO BOOSTER		6.00
PSI FLOW LOSS THROUGH WATER METER (CHART A-1)		4.00
PSI LOSS THROUGH BACK FLOW PREVENTER (*RP = 12.0 PSI / *D.C. = 12.0 PSI.)		12.0
SITE WATER PIPE SIZE		4
TOTAL DEVELOPED LENGTH FROM BOOSTER TO BUILDING POINT OF ENTRY (FT)		0.0
SITE WATER PSI PRESSURE DROP/100' OF PIPE		0.75
TOTAL PSI MAIN LOSS FROM BOOSTER TO BUILDING		0.000
TOTAL PRESSURE AVAILABLE AT BUILDING EXTERIOR WALL		8.0
TOTAL DEVELOPED BUILDING MAIN LENGTH TO MOST REMOTE FIXTURE (FT)		200.0
TOTAL RISE FOR HEAD LOSS (FT x 0.43)	5.0	2.2
MAIN PRV PSI LOSS OR OTHER SIMILAR EQUIPMENT / MAIN PSI LOSS		0.0
PSI REQUIRED FOR GOVERNING FIXTURE		30.0
TOTAL BUILDING LOSS (PSI)		32.2
REMAINING PSI AVAILABLE (IF NEGATIVE, USE BOOSTER PUMP)		-24.2
BOOSTER PUMP (PSI)		40.0
TOTAL REMAINING PSI AVAILABLE		15.9
FRICTION LOSS (PSI/100 FT.)		7.9
MAXIMUM COLD WATER VELOCITY ALLOWED (FT/S)		6.0
MAXIMUM HOT WATER VELOCITY ALLOWED (FT/S)		4.0

COLD WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
8"	7.725	-	-	-	-
6"	5.845	-	-	-	-
5"	4.875	-	-	-	-
4"	3.905	-	-	-	-
3"	2.945	-	-	-	-
2.5"	2.465	-	-	-	-
2"	1.985	-	-	-	-
1.5"	1.505	33.1	6.0	16	63
1.25"	1.265	23.4	6.0	9	37
1"	1.025	15.4	6.0	-	21
.75"	0.785	8.7	5.6	-	11
.50"	0.545	3.2	4.4	-	3

HOT WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
8"	7.725	-	-	-	-
6"	5.845	-	-	-	-
5"	4.875	-	-	-	-
4"	3.905	-	-	-	-
3"	2.945	-	-	-	-
2.5"	2.465	-	-	-	-
2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
1"	1.025	10.2	4.0	-	13
.75"	0.785	6.1	4.0	-	7
.50"	0.545	2.9	4.0	-	3

PLUMBING FIXTURE CALCULATIONS - BUILDING 700

ROOM	FIXTURE	NO.	CW WSFU		HW WSFU		SEWER DFU		HOT WATER	HOT WATER	Grease Interceptor Sizing - DFU	
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	GPH	TOTAL GPH	UNIT	TOTAL
	WC - FV	2	5.0	10.0	-	-	4.0	8.00	-	-		
	Lav	-	1.0	-	1.0	-	1.0	-	-	-		
	Lav - CW only	2	1.0	2.0	-	-	1.0	2.00	-	-		
	Urinal - FV	-	4.0	-	-	-	2.0	-	-	-		
	DF	-	0.5	-	-	-	0.5	-	-	-		
	Sink	-	1.5	-	1.5	-	2.0	-	-	-		
	Sink - CW only	-	1.5	-	-	-	2.0	-	-	-		
	Wash Station	2	3.0	6.0	-	-	3.0	6.00	-	-		
	Mop Sink	-	3.0	-	3.0	-	3.0	-	-	-		
	Water Supply Box	-	0.5	-	-	-	-	-	-	-		
	FD	2	-	-	-	-	2.0	4.00	-	-		
	FS 2	-	-	-	-	-	2.0	-	-	-		
	FS 3	-	-	-	-	-	3.0	-	-	-		
	FS 4	-	-	-	-	-	4.0	-	-	-		
	HB 1ST	3	2.5	7.5	-	-	-	-	-	-		
	HB 2ND	5	1.0	5.0	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
KITCHEN	Kitchen Equipment	-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL / TOTAL				30.5		-		20.0		-		-
GPM FLOW				42		-						

DOMESTIC WATER DEMAND AND PIPE SIZING - BUILDING 700

WATER METER SIZE	WATER METER USED? YES	4"
TOTAL FIXTURE UNITS		31
FIXTURE UNIT GPM		42
ADDITIONAL EQUIPMENT GPM		0
TOTAL BUILDING GPM		42
MINIMUM PSI AVAILABLE AT JOBSITE (Source - Fresno Fire Dept., 9/16/25: 40s, 25r @ 1350 gpm)		30.00
PSI MAIN LOSS FROM METER TO BOOSTER		6.00
PSI FLOW LOSS THROUGH WATER METER (CHART A-1)		4.00
PSI LOSS THROUGH BACK FLOW PREVENTER (*RP = 12.0 PSI / *D.C. = 12.0 PSI.)		12.0
SITE WATER PIPE SIZE		4
TOTAL DEVELOPED LENGTH FROM BOOSTER TO BUILDING POINT OF ENTRY (FT)		1150.0
SITE WATER PSI PRESSURE DROP/100' OF PIPE		0.75
TOTAL PSI MAIN LOSS FROM BOOSTER TO BUILDING		8.654
TOTAL PRESSURE AVAILABLE AT BUILDING EXTERIOR WALL		-0.7
TOTAL DEVELOPED BUILDING MAIN LENGTH TO MOST REMOTE FIXTURE (FT)		150.0
TOTAL RISE FOR HEAD LOSS (FT x 0.43)	5.0	2.2
MAIN PRV PSI LOSS OR OTHER SIMILAR EQUIPMENT / MAIN PSI LOSS		0.0
PSI REQUIRED FOR GOVERNING FIXTURE		30.0
TOTAL BUILDING LOSS (PSI)		32.2
REMAINING PSI AVAILABLE (IF NEGATIVE, USE BOOSTER PUMP)		-32.8
BOOSTER PUMP (PSI)		40.0
TOTAL REMAINING PSI AVAILABLE		7.2
FRICTION LOSS (PSI/100 FT.)		4.8
MAXIMUM COLD WATER VELOCITY ALLOWED (FT/S)		6.0
MAXIMUM HOT WATER VELOCITY ALLOWED (FT/S)		4.0

COLD WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
8"	7.725	-	-	-	-
6"	5.845	-	-	-	-
5"	4.875	-	-	-	-
4"	3.905	-	-	-	-
3"	2.945	-	-	-	-
2.5"	2.465	59.2	4.0	72	170
2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
1"	1.025	10.2	4.0	-	13
.75"	0.785	6.1	4.0	-	7
.50"	0.545	2.9	3.1	-	2

HOT WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
8"	7.725	-	-	-	-
6"	5.845	-	-	-	-
5"	4.875	-	-	-	-
4"	3.905	-	-	-	-
3"	2.945	-	-	-	-
2.5"	2.465	59.2	4.0	72	170
2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
1"	1.025	10.2	4.0	-	13
.75"	0.785	6.1	4.0	-	7
.50"	0.545	2.9	3.1	-	2

PLUMBING FIXTURE CALCULATIONS - BUILDING 600

ROOM	FIXTURE	NO.	CW WSFU		HW WSFU		SEWER DFU		HOT WATER	HOT WATER	Grease Interceptor Sizing - DFU	
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	GPH	TOTAL GPH	UNIT	TOTAL
	WC - FV	6	5.0	30.0	-	-	4.0	24.00	-	-		
	Lav	1	1.0	1.0	1.0	1.0	1.0	1.00	-	-		
	Lav - CW only	5	1.0	5.0	-	-	1.0	5.00	-	-		
	Urinal - FV	-	4.0	-	-	-	2.0	-	-	-		
	DF	2	0.5	1.0	-	-	0.5	1.00	-	-		
	Sink	-	1.5	-	1.5	-	2.0	-	-	-		
	Sink - CW only	-	1.5	-	-	-	2.0	-	-	-		
	Wash Station	4	3.0	12.0	-	-	3.0	12.00	-	-		
	Mop Sink	1	3.0	3.0	3.0	3.0	3.0	3.00	-	-		
	Water Supply Box	-	0.5	-	-	-	-	-	-	-		
	FD	7	-	-	-	-	2.0	14.00	-	-		
	FS 2	-	-	-	-	-	2.0	-	-	-		
	FS 3	-	-	-	-	-	3.0	-	-	-		
	FS 4	-	-	-	-	-	4.0	-	-	-		
	HB 1ST	3	2.5	7.5	-	-	-	-	-	-		
	HB 2ND	11	1.0	11.0	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
KITCHEN	Kitchen Equipment	-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL / TOTAL				70.5		4.0		60.0		-		-
GPM FLOW				59		4						

DOMESTIC WATER DEMAND AND PIPE SIZING - BUILDING 600

WATER METER SIZE	WATER METER USED? YES	4"
TOTAL FIXTURE UNITS		71
FIXTURE UNIT GPM		59
ADDITIONAL EQUIPMENT GPM		0
TOTAL BUILDING GPM		59
MINIMUM PSI AVAILABLE AT JOBSITE (Source - Fresno Fire Dept., 9/16/25: 40s, 25r @ 1350 gpm)		30.00
PSI MAIN LOSS FROM METER TO BOOSTER		6.00
PSI FLOW LOSS THROUGH WATER METER (CHART A-1)		4.00
PSI LOSS THROUGH BACK FLOW PREVENTER (*RP = 12.0 PSI / *D.C. = 12.0 PSI.)		12.0
SITE WATER PIPE SIZE		4
TOTAL DEVELOPED LENGTH FROM BOOSTER TO BUILDING POINT OF ENTRY (FT)		1350.0
SITE WATER PSI PRESSURE DROP/100' OF PIPE		0.68
TOTAL PSI MAIN LOSS FROM BOOSTER TO BUILDING		9.172
TOTAL PRESSURE AVAILABLE AT BUILDING EXTERIOR WALL		-1.2
TOTAL DEVELOPED BUILDING MAIN LENGTH TO MOST REMOTE FIXTURE (FT)		200.0
TOTAL RISE FOR HEAD LOSS (FT x 0.43)	5.0	2.2
MAIN PRV PSI LOSS OR OTHER SIMILAR EQUIPMENT / MAIN PSI LOSS		0.0
PSI REQUIRED FOR GOVERNING FIXTURE		30.0
TOTAL BUILDING LOSS (PSI)		32.2
REMAINING PSI AVAILABLE (IF NEGATIVE, USE BOOSTER PUMP)		-33.3
BOOSTER PUMP - ADDED PRESSURE (PSI)		40.0
TOTAL REMAINING PSI AVAILABLE		6.7
FRICTION LOSS (PSI/100 FT.)		3.3
MAXIMUM COLD WATER VELOCITY ALLOWED (FT/S)		6.0
MAXIMUM HOT WATER VELOCITY ALLOWED (FT/S)		4.0

COLD WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
8"	7.725	-	-	-	-
6"	5.845	-	-	-	-
5"	4.875	-	-	-	-
4"	3.905	-	-	-	-
3"	2.945	-	-	-	-
2.5"	2.465	88.9	6.0	191	322
2"	1.985	57.4	6.0	67	161
1.5"	1.505	30.4	5.5	14	55
1.25"	1.265	19.1	4.9	-	28
1"	1.025	10.8	4.2	-	14
.75"	0.785	5.3	3.5	-	6
.50"	0.545	1.9	2.6	-	2

HOT WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
8"	7.725	-	-	-	-
6"	5.845	-	-	-	-
5"	4.875	-	-	-	-
4"	3.905	-	-	-	-
3"	2.945	84.7	4.0	171	300
2.5"	2.465	59.2	4.0	72	170
2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
1"	1.025	10.2	4.0	-	13
.75"	0.785	5.3	3.5	-	6
.50"	0.545	1.9	2.6	-	2

PLUMBING FIXTURE CALCULATIONS - BUILDING 500

ROOM	FIXTURE	NO.	CW WSFU		HW WSFU		SEWER DFU		HOT WATER	HOT WATER	Grease Interceptor Sizing - DFU	
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	GPH	TOTAL GPH	UNIT	TOTAL
	WC - FV	8	5.0	40.0	-	-	4.0	32.00	-	-		
	Lav	2	1.0	2.0	1.0	2.0	1.0	2.00	-	-		
	Lav - CW only	4	1.0	4.0	-	-	1.0	4.00	-	-		
	Urinal - FV	1	4.0	4.0	-	-	2.0	2.00	-	-		
	DF	5	0.5	2.5	-	-	0.5	2.50	-	-		
	Sink	-	1.5	-	1.5	-	2.0	-	-	-		
	Sink - CW only	7	1.5	10.5	-	-	2.0	14.00	-	-		
	Nurse Sink & Eyewash	-	2.0	-	2.0	-	2.0	-	-	-		
	Mop Sink	1	3.0	3.0	3.0	3.0	3.0	3.00	-	-		
	Water Supply Box	-	0.5	-	-	-	-	-	-	-		
	FD	5	-	-	-	-	2.0	10.00	-	-		
	FS 2	-	-	-	-	-	2.0	-	-	-		
	FS 3	-	-	-	-	-	3.0	-	-	-		
	FS 4	-	-	-	-	-	4.0	-	-	-		
	HB 1ST	3	2.5	7.5	-	-	-	-	-	-		
	HB 2ND	13	1.0	13.0	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-		
KITCHEN	Kitchen Equipment	-	-	-	-	-	-	-	-	-		
		-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL / TOTAL				86.5		5.0		69.5		-		-
GPM FLOW				63		5						

DOMESTIC WATER DEMAND AND PIPE SIZING - BUILDING 500

WATER METER SIZE	WATER METER USED? YES	4"
TOTAL FIXTURE UNITS		87
FIXTURE UNIT GPM		63
ADDITIONAL EQUIPMENT GPM		0
TOTAL BUILDING GPM		63
MINIMUM PSI AVAILABLE AT JOBSITE (Source - Fresno Fire Dept., 9/16/25: 40s, 25r @ 1350 gpm)		30.00
PSI MAIN LOSS FROM METER TO BOOSTER		6.00
PSI FLOW LOSS THROUGH WATER METER (CHART A-1)		4.00
PSI LOSS THROUGH BACK FLOW PREVENTER (*RP = 12.0 PSI / *D.C. = 12.0 PSI.)		12.0
SITE WATER PIPE SIZE		4
TOTAL DEVELOPED LENGTH FROM BOOSTER TO BUILDING POINT OF ENTRY (FT)		500.0
SITE WATER PSI PRESSURE DROP/100' OF PIPE		0.82
TOTAL PSI MAIN LOSS FROM BOOSTER TO BUILDING		4.085
TOTAL PRESSURE AVAILABLE AT BUILDING EXTERIOR WALL		3.9
TOTAL DEVELOPED BUILDING MAIN LENGTH TO MOST REMOTE FIXTURE (FT)		250.0
TOTAL RISE FOR HEAD LOSS (FT x 0.43)	5.0	2.2
MAIN PRV PSI LOSS OR OTHER SIMILAR EQUIPMENT / MAIN PSI LOSS		0.0
PSI REQUIRED FOR GOVERNING FIXTURE		30.0
TOTAL BUILDING LOSS (PSI)		32.2
REMAINING PSI AVAILABLE (IF NEGATIVE, USE BOOSTER PUMP)		-28.2
BOOSTER PUMP (PSI)		40.0
TOTAL REMAINING PSI AVAILABLE		11.8
FRICTION LOSS (PSI/100 FT.)		4.7
MAXIMUM COLD WATER VELOCITY ALLOWED (FT/S)		6.0
MAXIMUM HOT WATER VELOCITY ALLOWED (FT/S)		4.0

COLD WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
8"	7.725	-	-	-	-
6"	5.845	-	-	-	-
5"	4.875	-	-	-	-
4"	3.905	-	-	-	-
3"	2.945	126.8	6.0	404	515
2.5"	2.465	88.9	6.0	191	322
2"	1.985	57.4	6.0	67	161
1.5"	1.505	33.1	6.0	16	63
1.25"	1.265	23.1	5.9	9	36
1"	1.025	13.1	5.1	-	18
.75"	0.785	6.5	4.3	-	8
.50"	0.545	2.3	3.1	-	2

HOT WATER COPPER TYPE L SYSTEM

PIPE SIZE INCHES (ID)		GPM	VELOCITY (fps)	FLUSH VALVE	FLUSH TANK
8"	7.725	-	-	-	-
6"	5.845	-	-	-	-
5"	4.875	-	-	-	-
4"	3.905	-	-	-	-
3"	2.945	84.7	4.0	171	300
2.5"	2.465	59.2	4.0	72	170
2"	1.985	38.2	4.0	23	80
1.5"	1.505	22.0	4.0	9	34
1.25"	1.265	15.6	4.0	-	22
1"	1.025	10.2	4.0	-	13
.75"	0.785	6.1	4.0	-	7
.50"	0.545	2.3	3.1	-	2

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
PLUMBING CALCULATIONS

P8.01

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

16 September 2026 8:22 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P8.00 - 8.01 - Plumbing Calculations.dwg ryanf

P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P8.00 - 8.01 - Plumbing Calculations.dwg Sep 16 2026 8:22am

MINIMUM CONDENSATE PIPE SIZE

EQUIPMENT CAPACITY IN TONS OF REFRIGERATION	MINIMUM CONDENSATE PIPE DIAMETER (inches)
UP to 20	3/4
21 - 40	1
41 - 90	1-1/4
91 - 125	1-1/2
126 - 250	2

NOTE:
1. PER 2022 CPC, TABLE 814.3

STORM DRAINAGE

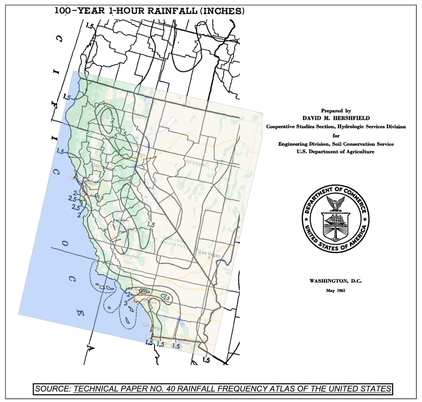
Fresno: 1.5 (in/h)

TABLE 1103.1
SIZING ROOF DRAINS, LEADERS, AND VERTICAL RAINWATER PIPING[2,3]

SIZE OF DRAIN, LEADER, OR PIPE	FLOW	MAXIMUM ALLOWABLE HORIZONTAL PROJECTED ROOF AREAS AT VARIOUS RAINFALL RATES (square feet)												
inches	gpm[1]	1 (in/h)	2 (in/h)	3 (in/h)	4 (in/h)	5 (in/h)	6 (in/h)	7 (in/h)	8 (in/h)	9 (in/h)	10 (in/h)	11 (in/h)	12 (in/h)	1.5 (in/h)
2	30	2880	1440	960	720	575	480	410	360	320	290	260	240	1,920
3	92	8800	4400	2930	2200	1760	1470	1260	1100	980	880	800	730	5,866
4	192	18 400	9200	6130	4600	3680	3070	2630	2300	2045	1840	1675	1530	12,266
5	360	34 600	17 300	11 530	8650	6920	5765	4945	4325	3845	3460	3145	2880	
6	563	54 000	27 000	17 995	13 500	10 800	9000	7715	6750	6000	5400	4910	4500	36,000
8	1208	116 000	58 000	38 660	29 000	23 200	19 315	16 570	14 500	12 890	11 600	10 545	9600	77,333

For SI units: 1 inch = 25 mm, 1 gallon per minute = 0.06 L/s, 1 inch per hour = 25.4 mm/h, 1 square foot = 0.0929 m^2

Notes:
1 Maximum discharge capacity, gpm (L/s) with approximately 1¼ inch (44 mm) head of water at the drain.
2 For rainfall rates other than those listed, determine the allowable roof area by dividing the area given in the 1 inch per hour (25.4 mm/h) column by the desired rainfall rate.
3 Vertical piping shall be round, square, or rectangular. Square pipe shall be sized to enclose its equivalent round pipe. Rectangular pipe shall have not less than the same cross-sectional area as its equivalent round pipe, except that the ratio of its side dimensions shall not exceed 3 to 1.



SOURCE: TECHNICAL PAPER NO. 40 RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

*Additional source: 2018 International Plumbing Code (IPC); Fresno **1.1 in/hr***
(Rainfall rate, in/hr, based on storm of 1-hour duration and 100-year return period)

CALIFORNIA PLUMBING CODE

STORM DRAINAGE

Fresno: 1.5 (in/h)

TABLE 1103.2
SIZING OF HORIZONTAL RAINWATER PIPING[1,2]

SIZE OF PIPE	FLOW (⅛ inch per foot slope)	MAXIMUM ALLOWABLE HORIZONTAL PROJECTED ROOF AREAS AT VARIOUS RAINFALL RATES (square feet)						
inches	gpm	1 (in/h)	2 (in/h)	3 (in/h)	4 (in/h)	5 (in/h)	6 (in/h)	1.5 (in/h)
3	34	3288	1644	1096	822	657	548	2,192
4	78	7520	3760	2506	1880	1504	1253	5,013
5	139	13 360	6680	4457	3340	2672	2227	
6	222	21 400	10 700	7133	5350	4280	3566	14,266
8	478	46 000	23 000	15 330	11 500	9200	7670	30,666
10	860	82 800	41 400	27 600	20 700	16 580	13 800	55,200
12	1384	133 200	66 600	44 400	33 300	26 650	22 200	88,800
15	2473	238 000	119 000	79 333	59 500	47 600	39 650	158,666

SIZE OF PIPE	FLOW (¼ inch per foot slope)	MAXIMUM ALLOWABLE HORIZONTAL PROJECTED ROOF AREAS AT VARIOUS RAINFALL RATES (square feet)						
inches	gpm	1 (in/h)	2 (in/h)	3 (in/h)	4 (in/h)	5 (in/h)	6 (in/h)	1.5 (in/h)
3	48	4640	2320	1546	1160	928	773	3,093
4	110	10 600	5300	3533	2650	2120	1766	7,066
5	196	18 880	9440	6293	4720	3776	3146	
6	314	30 200	15 100	10 066	7550	6040	5033	20,133
8	677	65 200	32 600	21 733	16 300	13 040	10 866	43,466
10	1214	116 800	58 400	38 950	29 200	23 350	19 450	77,866
12	1953	188 000	94 000	62 600	47 000	37 600	31 350	125,333
15	3491	336 000	168 000	112 000	84 000	67 250	56 000	224,000

SIZE OF PIPE	FLOW (⅛ inch per foot slope)	MAXIMUM ALLOWABLE HORIZONTAL PROJECTED ROOF AREAS AT VARIOUS RAINFALL RATES (square feet)						
inches	gpm	1 (in/h)	2 (in/h)	3 (in/h)	4 (in/h)	5 (in/h)	6 (in/h)	1.5 (in/h)
3	68	6576	3288	2192	1644	1310	1096	4,384
4	156	15 040	7520	5010	3760	3010	2500	10,026
5	278	26 720	13 360	8900	6680	5320	4450	
6	445	42 800	21 400	14 267	10 700	8580	7140	28,533
8	956	92 000	46 000	30 650	23 000	18 400	15 320	61,333
10	1721	165 600	82 800	55 200	41 400	33 150	27 600	110,400
12	2768	266 400	133 200	88 800	66 600	53 200	44 400	177,600
15	4946	476 000	238 000	158 700	119 000	95 200	79 300	317,333

For SI units: 1 inch = 25 mm, 1 gallon per minute = 0.06 L/s, ¼ inch per foot = 10.4 mm/m, 1 inch per hour = 25.4 mm/h, 1 square foot = 0.0929 m^2

Notes:
1 The sizing data for horizontal piping are based on the pipes flowing full.
2 For rainfall rates other than those listed, determine the allowable roof area by dividing the area given in the 1 inch per hour (25.4 mm/h) column by the desired rainfall rate.

PLUMBING FIXTURE CALCULATIONS - SITE SUMMARY

Status	Building	NO.	CW WSFU		HW WSFU		SEWER DFU		
			UNIT	TOTAL	UNIT	TOTAL	UNIT	TOTAL	
New	BLDG 100	1	55.5	55.5	11.0	11.0	49.0	49.0	
New	BLDG 200	1	214.5	214.5	34.0	34.0	183.0	183.0	
New	BLDG 300	1	86.5	86.5	5.0	5.0	69.5	69.5	
New	BLDG 400	1	85.0	85.0	5.0	5.0	68.0	68.0	
New	BLDG 500	1	86.5	86.5	5.0	5.0	69.5	69.5	
New	BLDG 600	1	69.5	69.5	4.0	4.0	59.0	59.0	
New	BLDG 700	1	30.5	30.5	-	-	20.0	20.0	
New	BLDG 800	1	8.0	8.0	-	-	22.0	22.0	
Future (est.)	Future Bldg	1	35.0	35.0	10.0	10.0	30.0	30.0	
Future (est.)	Future Portable	6	10.0	60.0	4.0	24.0	7.0	42.0	
		-	-	-	-	-	-	-	
		-	-	-	-	-	-	-	
SUBTOTAL / TOTAL				731		98		612.0	-
GPM FLOW				174		43			

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

LICENSED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1342

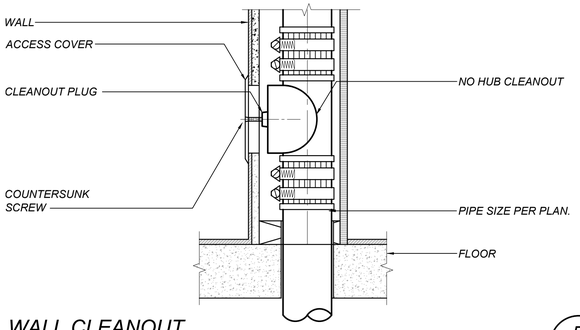
MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
PLUMBING CALCULATIONS

P8.02

PROJECT 24042

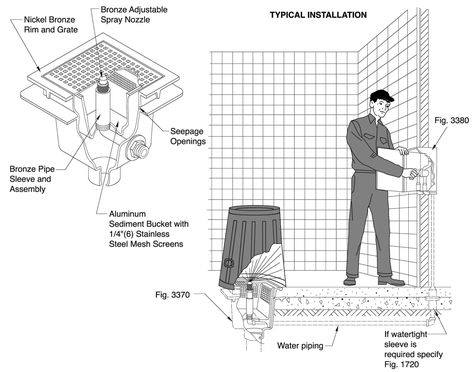
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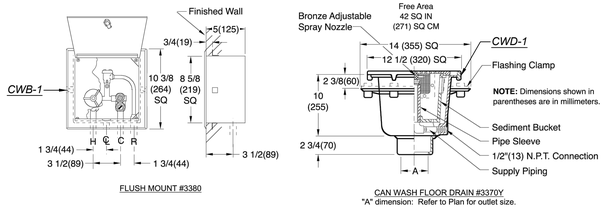


WALL CLEANOUT

E P9.00

SCALE: NONE

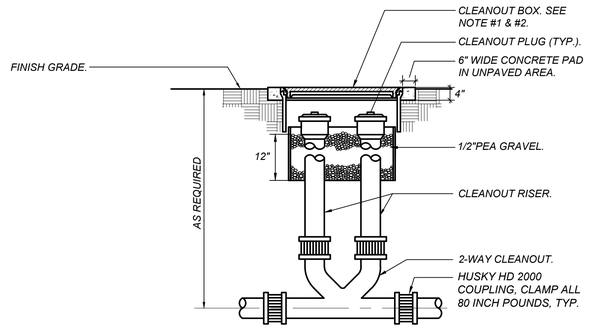




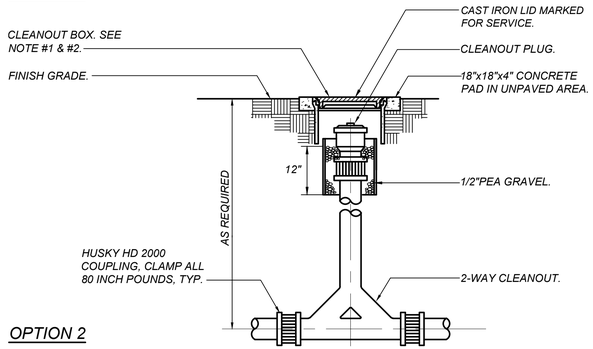
CAN WASH FLOOR DRAIN AND CONTROL BOX DETAIL

F P9.00

SCALE: NONE



OPTION 1



OPTION 2

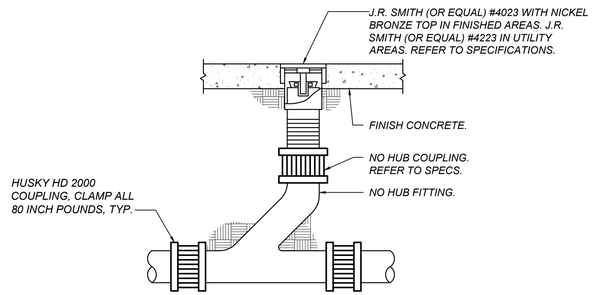
NOTE:
1. ALL CLEANOUT BOXES WITHIN 10'-0" OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDEWALK OR BUILDING WALL.

2. FOR FOOT TRAFFIC AREAS, PROVIDE CHRISTY B03 BOX WITH CAST IRON LID MARKED FOR SERVICE. FOR ROADWAYS AND SERVICE YARD, PROVIDE H20 RATED CHRISTY BOX G05 OR LARGER AS NECESSARY WITH H20 CAST IRON LID MARKED FOR SERVICE. REFER TO FLOOR PLAN FOR LOCATION.

TWO-WAY CLEANOUT TO GRADE DETAILS

C P9.00

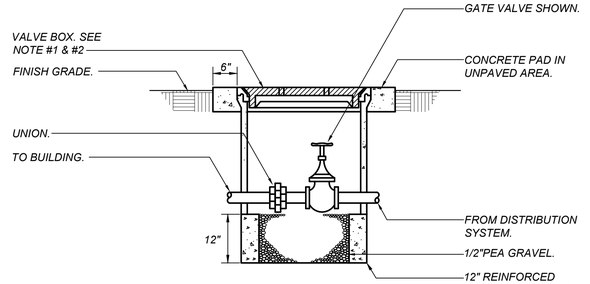
SCALE: NONE



FLOOR CLEANOUT (FCO) DETAIL

D P9.00

SCALE: NONE



NOTE:
1. ALL SHUT-OFF VALVE BOXES WITHIN 10'-0" OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDEWALK OR BUILDING WALL.

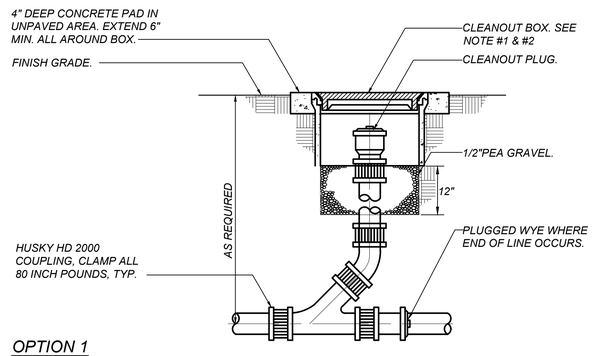
2. FOR FOOT TRAFFIC AREAS, PROVIDE CHRISTY B03 BOX WITH CAST IRON LID. FOR ROADWAYS AND SERVICE YARD, PROVIDE H20 RATED CHRISTY BOX G05 OR LARGER AS NECESSARY WITH H20 CAST IRON LID. REFER TO FLOOR PLAN FOR LOCATION. LABEL LID W/VALVE USE (WATER).

SHUT-OFF VALVE IN BOX DETAIL

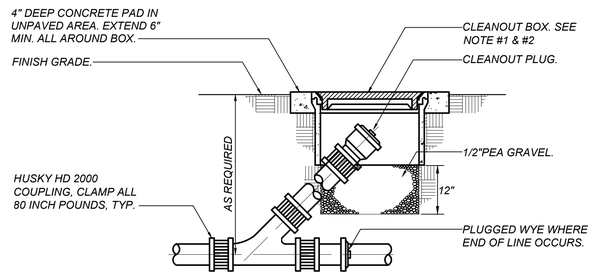
A P9.00

SCALE: NONE

P159



OPTION 1



OPTION 2

NOTE:
1. ALL CLEANOUT BOXES WITHIN 10'-0" OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDEWALK OR BUILDING WALL.

2. FOR FOOT TRAFFIC AREAS, PROVIDE CHRISTY B03 BOX WITH CAST IRON LID MARKED FOR SERVICE. FOR ROADWAYS AND SERVICE YARD, PROVIDE H20 RATED CHRISTY BOX G05 OR LARGER AS NECESSARY WITH H20 CAST IRON LID MARKED FOR SERVICE. REFER TO FLOOR PLAN FOR LOCATION.

CLEANOUT TO GRADE DETAILS

B P9.00

SCALE: NONE

P117

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-1926 Office
(559) 627-1926 Fax

TITLE
PLUMBING DETAILS

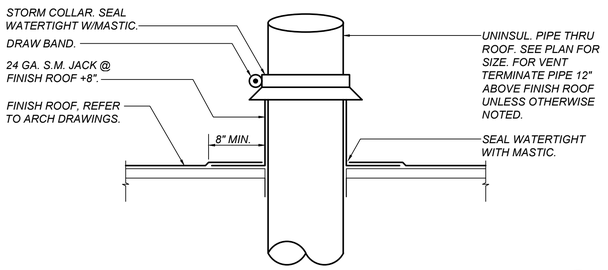
P9.00

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
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Fresno, CA 93727
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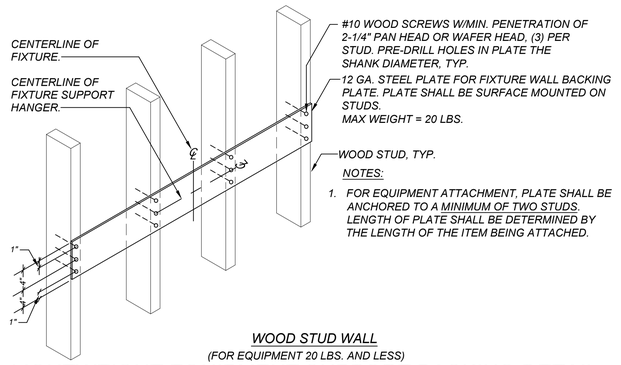
16 September 2026 8:22 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P9.00 - 9.03 - Plumbing Details.dwg ryanf



PIPE THRU ROOF DETAIL - UNINSULATED

G P9.01

SCALE: NONE



NOTES:

1. FOR EQUIPMENT ATTACHMENT, PLATE SHALL BE ANCHORED TO A MINIMUM OF TWO STUDS. LENGTH OF PLATE SHALL BE DETERMINED BY THE LENGTH OF THE ITEM BEING ATTACHED.

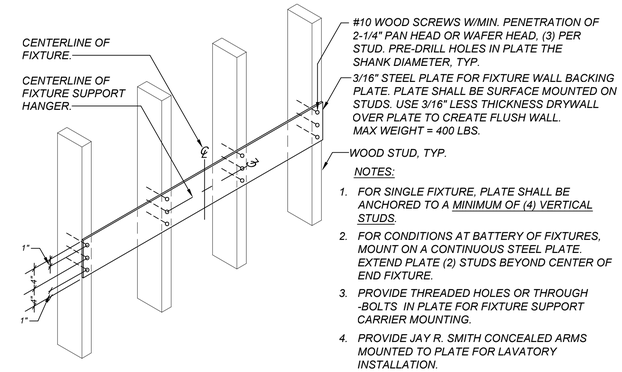
WOOD STUD WALL

(FOR EQUIPMENT 20 LBS. AND LESS)

LIGHTWEIGHT EQUIPMENT SUPPORT BACKING DETAIL

C P9.01

SCALE: NONE



NOTES:

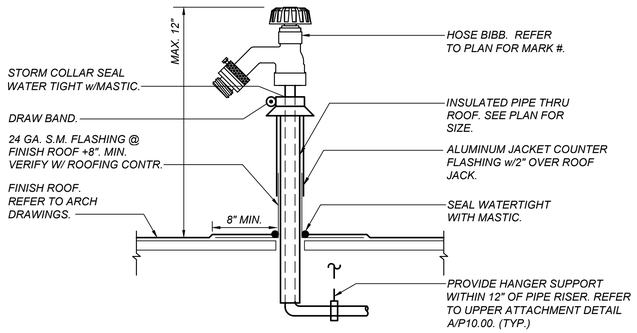
1. FOR SINGLE FIXTURE, PLATE SHALL BE ANCHORED TO A MINIMUM OF (4) VERTICAL STUDS.
2. FOR CONDITIONS AT BATTERY OF FIXTURES, MOUNT ON A CONTINUOUS STEEL PLATE. EXTEND PLATE (2) STUDS BEYOND CENTER OF END FIXTURE.
3. PROVIDE THREADED HOLES OR THROUGH -BOLTS IN PLATE FOR FIXTURE SUPPORT CARRIER MOUNTING.
4. PROVIDE JAY R. SMITH CONCEALED ARMS MOUNTED TO PLATE FOR LAVATORY INSTALLATION.
5. OPTION: REFER TO DETAIL B/P9.01 FOR FIXTURE / EQUIPMENT SUPPORT BACKING DETAIL.
6. ATTACH SUPPORT BRACKET TO BLOCKING WITH FASTENERS PER FIXTURE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
7. WHEN ATTACHING PLUMBING FIXTURES TO WOOD BLOCKING, PROVIDE WOOD SCREWS OF EQUIVALENT DIAMETER TO THE SHEET METAL SCREWS SPECIFIED ELSEWHERE ON THESE PLANS. WOOD SCREWS SHALL PENETRATE THE WOOD BLOCKING A MINIMUM OF 1-1/2"

WOOD STUD WALL

FIXTURE/EQUIPMENT SUPPORT BACKING PLATE DETAIL

A P9.01

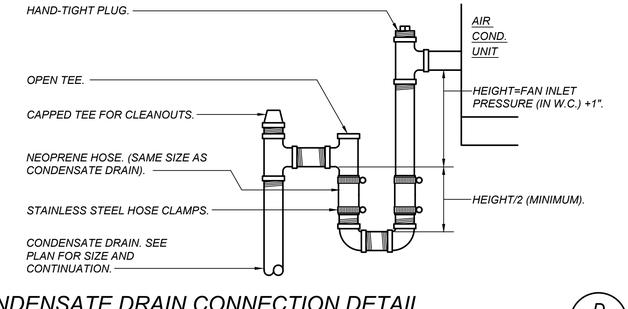
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PIPE THRU ROOF DETAIL - INSULATED

H P9.01

SCALE: NONE

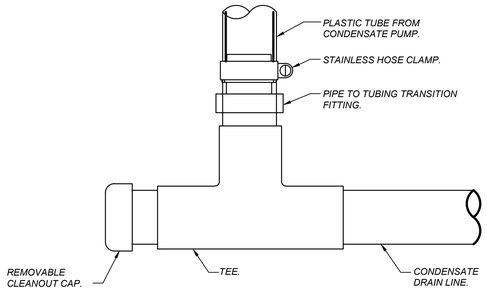


CONDENSATE DRAIN CONNECTION DETAIL

D P9.01

SCALE: NONE

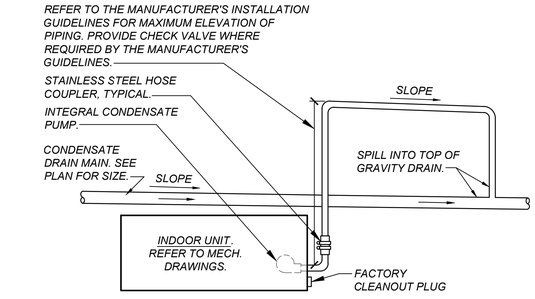
P020



CONDENSATE TUBE TO PIPE TRANSITION DETAIL

J P9.01

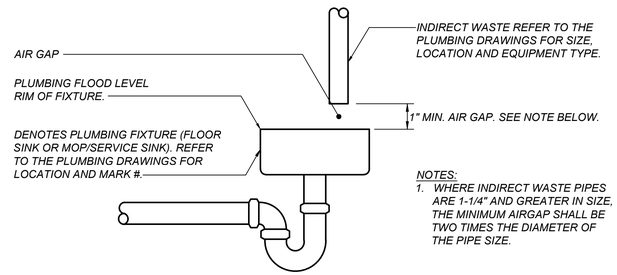
SCALE: NONE



CONDENSATE IDU CONNECTION DETAIL

E P9.01

SCALE: NONE



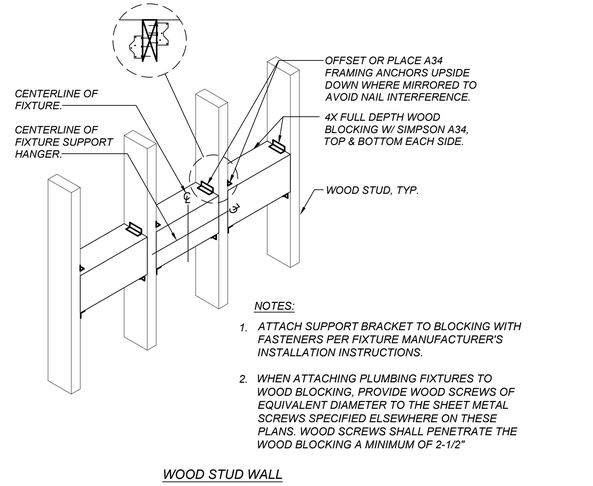
NOTES:

1. WHERE INDIRECT WASTE PIPES ARE 1-1/4" AND GREATER IN SIZE, THE MINIMUM AIRGAP SHALL BE TWO TIMES THE DIAMETER OF THE PIPE SIZE.

INDIRECT WASTE AIR GAP DRAIN DETAIL

F P9.01

SCALE: NONE



NOTES:

1. ATTACH SUPPORT BRACKET TO BLOCKING WITH FASTENERS PER FIXTURE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. WHEN ATTACHING PLUMBING FIXTURES TO WOOD BLOCKING, PROVIDE WOOD SCREWS OF EQUIVALENT DIAMETER TO THE SHEET METAL SCREWS SPECIFIED ELSEWHERE ON THESE PLANS. WOOD SCREWS SHALL PENETRATE THE WOOD BLOCKING A MINIMUM OF 2-1/2"

WOOD STUD WALL

FIXTURE/EQUIPMENT SUPPORT BACKING DETAIL

B P9.01

SCALE: NONE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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REGISTERED PROFESSIONAL ENGINEER
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STATE OF CALIFORNIA

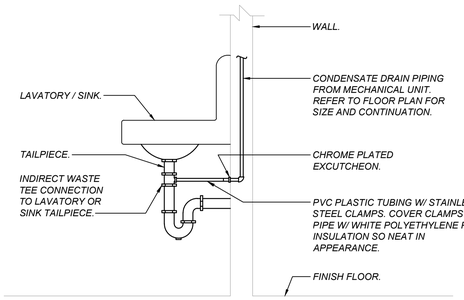
TITLE
PLUMBING DETAILS

P9.01

PROJECT 24042

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

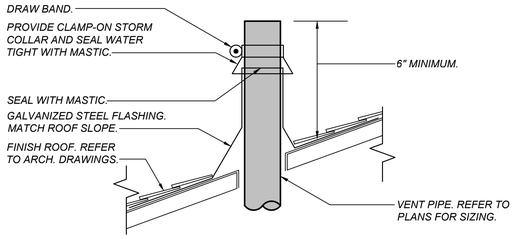
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CONDENSATE TERMINATION TO TAILPIECE

C P9.02

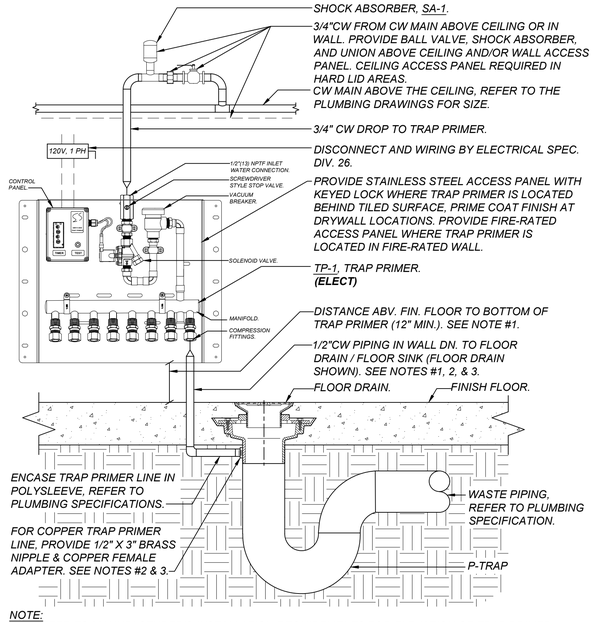
SCALE: NONE



VENT THRU SLOPED ROOF DETAIL

D P9.02

SCALE: NONE

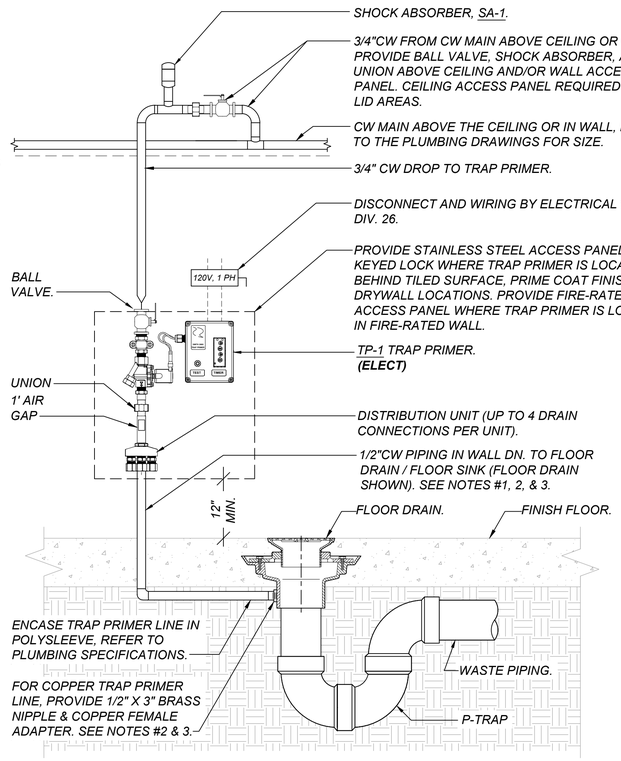


NOTE:
1. REFER TO MANUFACTURER'S INSTALLATION REQUIREMENTS FOR ELEVATION OF TRAP PRIMER VS. LENGTH OF RUN TO DRAINS. TRAP PRIMER ELEVATION SHALL BE INCREASED IN HEIGHT ABOVE FINISHED FLOOR FOR RUNS OVER 20'-0". REFER TO PLUMBING PLANS FOR SIZING.
2. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE.
3. OPTIONALLY: PROVIDE TRAP PRIMER CONNECTION P-TRAP WITH 1/2" PRIMER TAP.

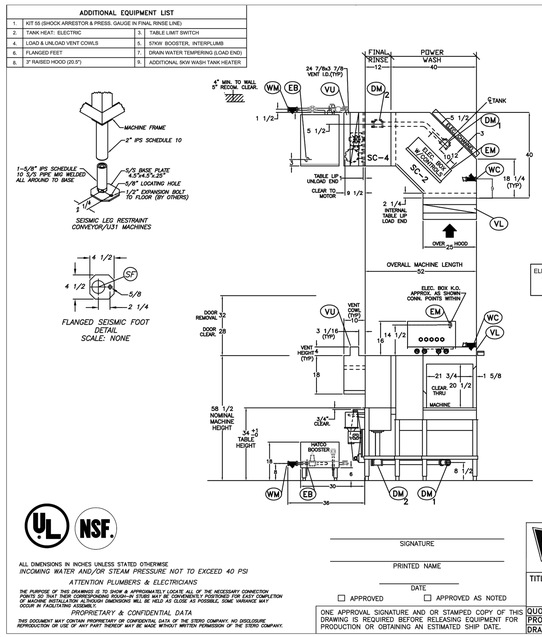
ELECTRONIC TRAP PRIMER CONNECTION - (TP-1)

A P9.02

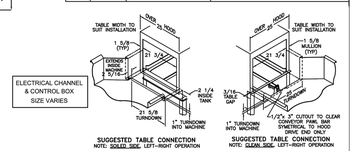
SCALE: NONE



ADDITIONAL EQUIPMENT LIST			
1.	KIT 55 (SHOCK ARRESTOR & PRESS. GAUGE IN FINAL RINSE LINE)		
2.	TANK HEAT: ELECTRIC	3.	TABLE LIMIT SWITCH
4.	LOAD & UNLOAD VENT COWLS	5.	57KW BOOSTER, INTERFLUMB)
6.	FLANGED FEET	7.	DRAIN WATER TEMPERING (LOAD END)
8.	3" RAISED HOOD (20.3")	9.	ADDITIONAL 36KW WASH TANK HEATER



CUSTOMER'S CONNECTION POINTS		
PT.	SIZE	DESCRIPTION
DM	2" NPT (F)	DRAIN, MACHINE WASTE: LEAVE UNUSED PORTS PLUGGED
WC	3/4" NPT (F)	WATER SUPPLY: COLD AS AVAILABLE
WM	3/4 NPT (F)	WATER SUPPLY: 140 F. MIN @ 30 PSI FLOW PRES. CONSUMPTION = 301 GALS./HR.
EM	ELECTRICAL	ONE (3) WIRE 480 V. 3PH - 60HZ FEEDER SIZED FOR: FEEDER NO. 1 1. WASH PUMP MOTOR - 2 HP = 2.7 AMPS 2. CONVEYOR MOTOR - 1 / 4 HP = 0.6 AMPS 3. WASH TANK HEAT - 15KW = 18.1 AMPS TOTAL FEEDER LOAD = 21.4 AMPS
EB	ELECTRICAL	ONE (3) WIRE 480 V. 3PH - 60HZ FEEDER SIZED FOR: 1. ELEC. BOOSTER - - - - 57KW = 68.6 AMPS
VL		VENT, LOAD END: RECOMMENDED MIN. DRAW = 200 CFM
VU		VENT, UNLOAD END: RECOMMENDED MIN. DRAW = 400 CFM



NOTE:
KITCHEN EQUIPMENT PER ARCH. SHEET A21. FOR KITCHEN EQUIPMENT PLUMBING SCHEDULE AND INTERCONNECTIONS BETWEEN KITCHEN EQUIPMENT AND PLUMBING, REFER TO SHEET P11.06. REFER TO ARCHITECTURAL PLANS, AND SPECIFICATIONS FOR ADDITIONAL PLUMBING REQUIREMENTS, AND EQUIPMENT DETAILS. INSTALL IN COMPLIANCE WITH MFG. INSTALLATION GUIDELINES.

ALL DIMENSIONS IN INCHES UNLESS STATED OTHERWISE
INCOMING WATER AND/OR STEAM PRESSURE NOT TO EXCEED 40 PSI

ATTENTION PLUMBERS & ELECTRICIANS

THE PURPOSE OF THIS DRAWING IS TO SHOW & APPROXIMATELY LOCATE ALL OF THE NECESSARY CONNECTION POINTS. IT IS NOT INTENDED FOR CONSTRUCTION PURPOSES. IT IS POSITIONED FOR EASY COMPLETION OF MACHINE INSTALLATION. ALTHOUGH DIMENSIONS WILL BE HELD AS CLOSE AS POSSIBLE, SOME VARIANCE MAY OCCUR IN FACILITATING ASSEMBLY.

PROPRIETARY & CONFIDENTIAL DATA

THIS DOCUMENT MAY CONTAIN PROPRIETARY OR CONFIDENTIAL DATA OF THE STERO COMPANY. NO DISCLOSURE, REPRODUCTION OR USE OF ANY PART THEREOF MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE STERO COMPANY.

SIGNATURE

PRINTED NAME

DATE

☐ APPROVED ☐ APPROVED AS NOTED

ONE APPROVAL SIGNATURE AND OR STAMPED COPY OF THIS DRAWING IS REQUIRED BEFORE RELEASING EQUIPMENT FOR PRODUCTION OR OBTAINING AN ESTIMATED SHIP DATE.

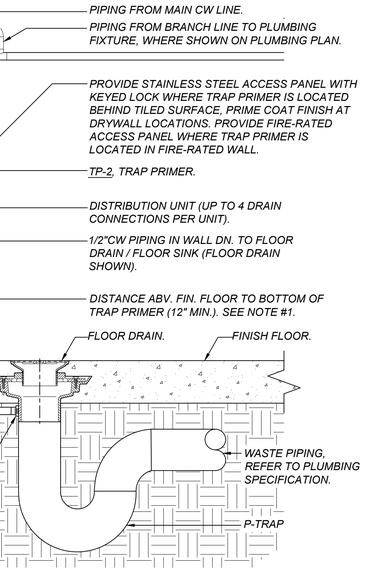
Stero
A DIV OF ITW FOOD EQUIPMENT GROUP LLC

TITLE:	TEMPERANCE ES FRESNO, CA	MODEL:	SC 2-4
QUOTE#:	BL4711	FEED:	R-L
PROJECT#:	25-01375	DATE:	5 / 13 / 2025
DRAWN BY:	KAW		
REV.	SHEET 1 OF 1		
	SCALE: NONE		
	DWG. #C 70-2644		

DISHWASHER CONNECTION DETAIL (ITEM #K16)

E P9.02

SCALE: NONE



NOTE:
1. REFER TO MANUFACTURER'S INSTALLATION REQUIREMENTS FOR ELEVATION OF TRAP PRIMER VS. LENGTH OF RUN TO DRAINS. TRAP PRIMER ELEVATION SHALL BE INCREASED IN HEIGHT ABOVE FINISHED FLOOR FOR RUNS OVER 20'-0". REFER TO PLUMBING PLANS FOR SIZING.
2. THE MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE OR FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE.
3. OPTIONALLY PROVIDE TRAP PRIMER CONNECTION P-TRAP WITH 1/2" PRIMER TAP.

TRAP PRIMER CONNECTION (TP-2)

B P9.02

SCALE: NONE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627 7639 Office
(559) 627 1926 Fax

TITLE: PLUMBING DETAILS

P9.02

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLOW No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

16 September 2026 8:22 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P9.00 - 9.03 - Plumbing Details.dwg ryanf

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

FIG. 7 CONE ASSEMBLY (Typical Installation)

NOTE:

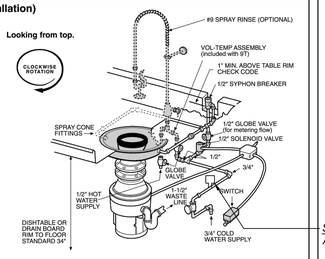
A globe valve, if used for metering flow, must be installed between solenoid valve and disposer. See metering valve Fig. 7. Any valve ahead of the solenoid valve must be opened and cause no restrictions.

IMPORTANT! Do not test or run disposer without minimum water flow (see Plumbing Installation) as this will damage the seal and void the warranty.

MINIMUM WATER FLOW RATE
5 GALLONS PER MINUTE WHILE IN USE

NOTE:

BASE UNIT INCLUDES DISPOSER, MOUNTINGS, AND DRAIN OUTLET. OTHER ITEMS SHOWN IN GRAY IN FIGURE 7 ARE AVAILABLE IN EQUIPMENT GROUPS ORDERED SEPARATELY.



SA-1, WATER HAMMER ARRESTOR.

1. For spray-rinse with vol-temp, run a 1/2" hot water line to point indicated in Figure 7. Connect to spray-rinse globe valve, hot water side. At no time should hot water be connected directly to disposer or cone sink.
2. Run a 1/2" cold water connection to point indicated in Figure 7.
3. Install solenoid valve in line, in upright (coil side up) position as shown in Figure 7, with arrow on side pointing in direction of water flow.
4. Install syphon breaker as in Figure 7.
5. Make connection to water inlet fitting of cone sink. See Figure 7.
6. Make 1/2" cold water connection to spray-rinse globe valve, cold water side. This must be separate cold water line. Do not tee off of line to cone unless a 3/4" line is furnished to assembly location. See Figure 7.
7. Assemble swirl spray(s) as shown in Figure 9. The assembly method for the swirl spray(s) is the same for all models. Other combinations of convertible and fixed swirl spray(s) are optional. The outlet hole of the fixed swirl spray should be horizontal to promote vortex action in the cone.

   NOTE: The convertible spray should be easily adjustable by the operator to function as a swirl spray or as a dish-washing flume. Avoid excessive tightening of nut or lock nut.
8. Connect 1/2" pipe to swirl spray as shown in Figure 7.
9. The disposer is equipped with a drain outlet designed for a slip-joint connection to a conventional 1½" trap (not furnished). Connect the trap with a branch waste line running directly into the sewage connection (Figure 7). **Do not connect into a grease trap.** A minimum slope of ¼" per foot of run of waste line is recommended. Limit 1½" drain line to a 15-foot run, free of turns. A minimum number of elbows, tees, etc., reduce the possibility of plumbing stoppages. If unusual sewer conditions exist (too many bends, main too long, low water pressure resulting in low flow rate*, or if a high percentage of food waste is leafy and/or paper), the use of a time delay relay and water injector into sewer is suggested. Under such conditions, additionally, a larger size cold water line, larger solenoid valves and larger syphon breakers should be used to overcome potential stoppages. (Parts and data available from factory.)

   *Minimum cold water flow rate used with Models 500 through 1500: 5 gallons per minute or enough to push waste through pipeline into the sewer.

   TIP: Water volume adjustment: The top of the swirling water should occasionally crest to the body of the swirl water inlet.
10. To use the optional supplementary water connection, see Figure 8.

FIG. 8 OPTIONAL SUPPLEMENTARY WATER CONNECTION

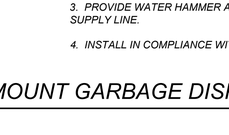


FIG. 9 SWIRL SPRAY(S) ASSEMBLY

FIG. 10 INSTALLATION DIMENSIONS AND DRAINLINE CONNECTIONS



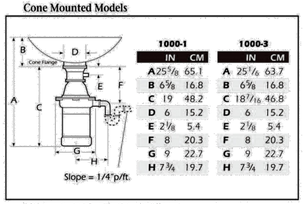
FLOOR LINE				
A	500-1	= 18 7/16	1250-1	= 19 11/16
	750-1	= 18 15/16	1250-3	= 18 15/16
	750-3	= 18 7/16	1500-1	= 19 11/16
	1000-1	= 18 15/16	1500-3	= 18 15/16
	1000-3	= 18 7/16		



- 1HP/1725 RPMs
- 1000-1, 1-phase
  - 110-120/220-240 V
- 1000-3, 3-phase
  - 208-240/460 V
- Ripper Bar integrated with turntable

ROUGH-IN DIMENSIONS WITH DRAIN LINE CONNECTIONS

Cone Mounted Models



	1000-1 IN	1000-1 CM	1000-3 IN	1000-3 CM
A	25 5/8	65.1	25 1/16	63.7
B	6 5/8	16.8	6 5/8	16.8
C	19	48.2	18 7/16	46.8
D	6	15.2	6	15.2
E	2 1/8	5.4	2 1/8	5.4
F	8	20.3	8	20.3
G	9	22.7	9	22.7
H	7 3/4	19.7	7 3/4	19.7

Waste King® COMMERCIAL by Anaheim Manufacturing

NOTES:
1. AT THE START OF THE PROJECT, PROVIDE SINK BOWL TO THE STAINLESS STEEL FABRICATOR FOR INSTALLATION INTO COUNTERTOP.

2. REFER TO ARCHITECTURAL KITCHEN EQUIPMENT SCHEDULE FOR EXACT MODEL, COMPONENTS AND INSTALLATION LOCATION.

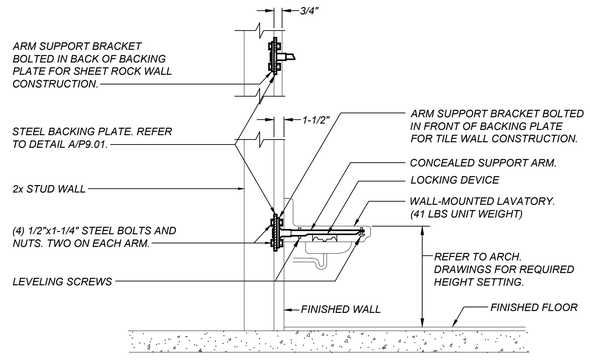
3. PROVIDE WATER HAMMER ARRESTOR, SA-1, AT COLD WATER SUPPLY LINE.

4. INSTALL IN COMPLIANCE WITH MFG. INSTALLATION GUIDELINES.

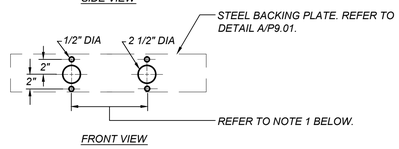
BOWL MOUNT GARBAGE DISPOSER - (KITCHEN ITEM #K15)

SCALE: NONE

C
P9.03



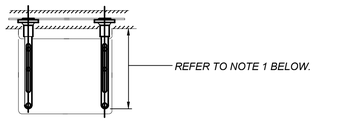
SIDE VIEW



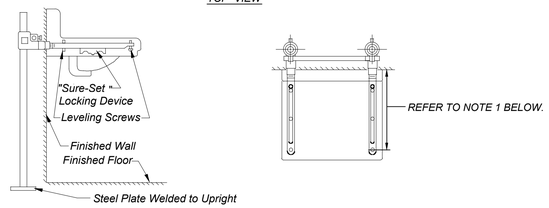
FRONT VIEW

NOTES:
1. WHERE WOOD BACKING IS PROVIDED PER DETAIL B/P9.01, USE (8) 5/16" DIA. x 3" LAG SCREWS WITH WASHERS MIN 2" EMBED. (OR APPROVED EQUIVALENT STRUCTURAL WOOD SCREWS).

2. ALL FASTENERS SHALL BE ZINC PLATED STEEL OR SS.



TOP VIEW



SIDE VIEW TOP VIEW

ALTERNATIVE MOUNTING METHOD

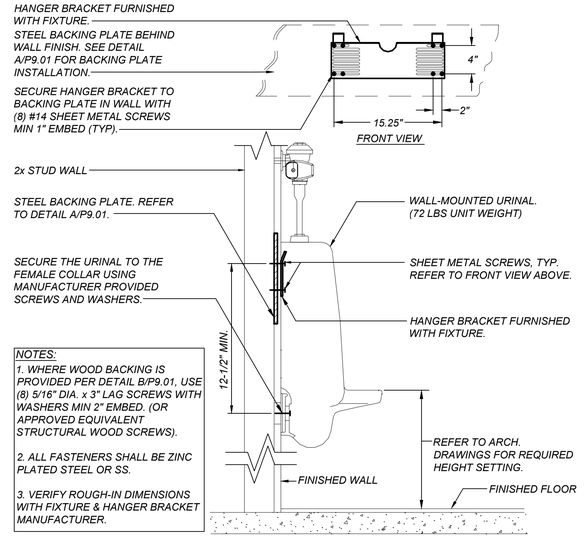
NOTE:

1. VERIFY ROUGH-IN DIMENSIONS WITH BOTH THE CARRIER MANUFACTURER AND FIXTURE MANUFACTURER.

LAVATORY CONCEALED ARM SUPPORT DETAIL

SCALE: NONE

B
P9.03



NOTES:
1. WHERE WOOD BACKING IS PROVIDED PER DETAIL B/P9.01, USE (8) 5/16" DIA. x 3" LAG SCREWS WITH WASHERS MIN 2" EMBED. (OR APPROVED EQUIVALENT STRUCTURAL WOOD SCREWS).

2. ALL FASTENERS SHALL BE ZINC PLATED STEEL OR SS.

3. VERIFY ROUGH-IN DIMENSIONS WITH FIXTURE & HANGER BRACKET MANUFACTURER.

SIDE VIEW

URINAL SUPPORT DETAIL

SCALE: NONE

A
P9.03

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-7638 Office
(559) 627-1926 Fax

TITLE
PLUMBING DETAILS

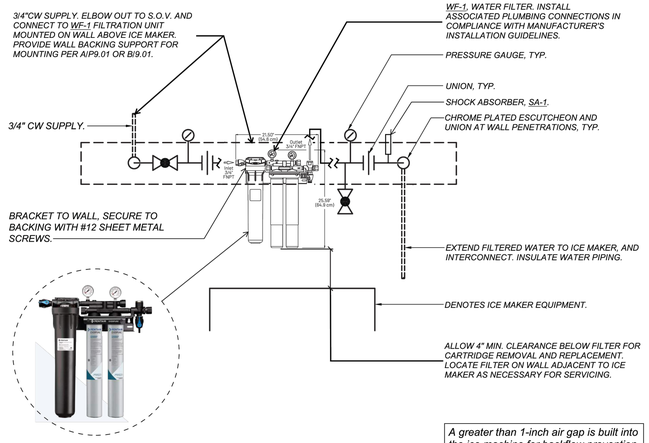
P9.03

PROJECT 24042

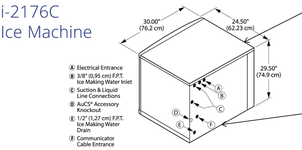
LICENSED PROFESSIONAL ENGINEER
BRYAN W. CARLOS
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
Fresno, CA 93727
FAX (559) 431-1362
25026

16 September 2026 8:22 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P9.00 - 9.03 - Plumbing Details.dwg ryanf



i-2176C
Ice Machine



ICE MACHINE



B-570

ICE STORAGE BIN

A greater than 1-inch air gap is built into the ice machine for backflow prevention. Exceeds NSF 12 requirements for backflow prevention.

CONNECT FULL SIZE DRAIN PIPING TO BOTTOM SIDE OF ICE BIN. REAR SIDE OF ICE MAKING WATER DRAIN, AND ICE MACHINE BASE AUXILIARY DRAIN. EXTEND EACH DRAIN INDIVIDUALLY / SEPARATELY TO FLOOR SINK AND DISCHARGE THERETO WITH AIR GAP PER DETAIL F/P9.01. PROVIDE TEE AT EACH DRAIN OUTLET AND INSTALL 18" VENT ABOVE THE DRAIN LINE. INSULATE DRAIN PIPING. DRAIN LINES SHALL SLOPE 1.5" PER 5 FT OF RUN TO FLOOR SINK. NO DIPS OR TRAPS ALLOWED.

NOTES:
1. ICE MAKER AND STORAGE BIN EQUIPMENT PER ARCH SHEET A1. CONFIRM EXACT MFG. AND MODEL # WITH DISTRICT.

2. PER MFG. DO NOT APPLY HEAT TO WATER INLET VALVE OR WATER DRAIN FITTINGS. DO NOT OVER TIGHTEN FITTINGS. TWO TURNS AFTER HAND TIGHT IS THE MAXIMUM.

3. PROVIDE WATER REGULATING VALVE AS NECESSARY WHEN PRESSURE EXCEEDS THE MAXIMUM VALVE RATING.

4. INSTALL ASSOCIATED PLUMBING CONNECTIONS IN COMPLIANCE WITH MFG. GUIDELINES.

Manitowoc Ice reserves the right to make changes to the design or specifications without prior notice.

Manitowoc.
2110 South 26th Street
Manitowoc, WI 54220
Tel: 1.920.682.0161
Fax: 1.920.683.7589
www.manitowocice.com
4853A
04/18

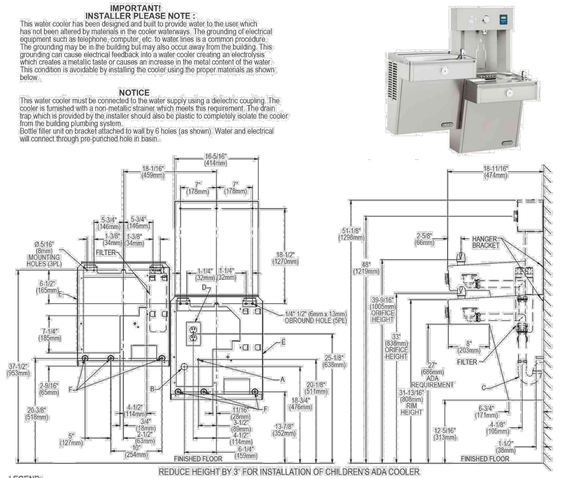
ICE MACHINE AND WATER FILTER DETAIL

B P9.04

SCALE: NONE

IMPORTANT!
INSTALLER PLEASE NOTE :
This water cooler has been designed and built to provide water to the user which has not been altered by materials in the cooler waterways. The grounding of electrical equipment such as telephone, computer, etc. to water lines is a common procedure. The grounding may be in the building but may also occur away from the building. This grounding can cause electrical feedback into a water cooler creating an electrolysis which creates a metallic taste or causes an increase in the metal content of the water. This condition is avoidable by installing the cooler using the proper materials as shown below.

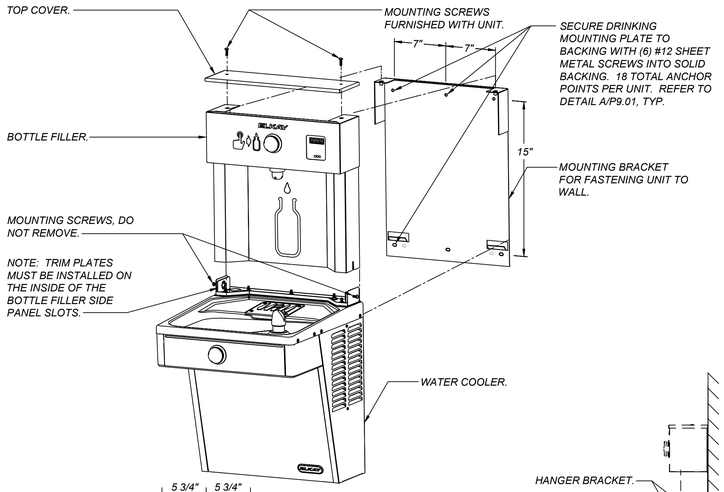
NOTICE
This water cooler must be connected to the water supply using a dielectric coupling. The cooler is furnished with a non-metallic strainer which meets this requirement. The drain trap which is provided by the installer should also be plastic to completely isolate the cooler from the building plumbing system.
Bottle filler unit on bracket attached to wall by 6 holes (as shown). Water and electrical will connect through pre-punched hole in basin.

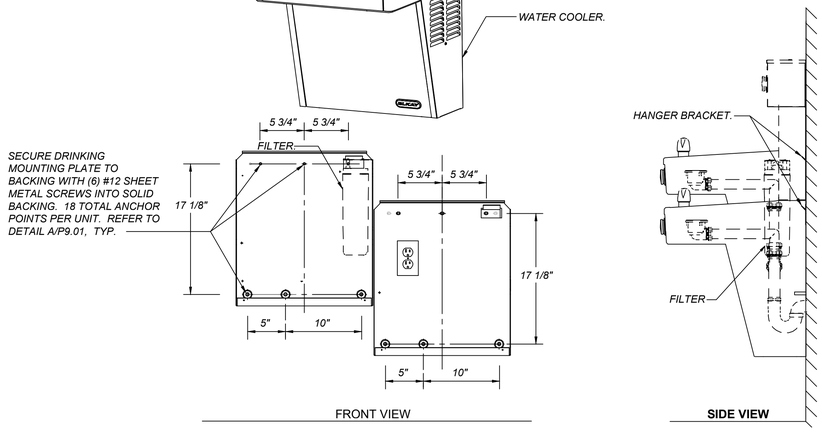


REDUCE HEIGHT BY 3" FOR INSTALLATION OF CHILDREN'S ADA COOLER

LEGEND:
A = Recommended Water Supply location. Shut-off Valve (not furnished) to accept 3/8" O.D. unplated copper tube. Up to 3" (76mm) maximum out from wall.
B = Recommended Waste Outlet location. To accommodate 1-1/2" nominal drain. Drain stub 2" (51mm) out from wall.
C = 1-1/2" Trap (not furnished).
D = Electrical Supply (3) Wire Recessed Box Duplex Outlet.
E = Insure proper ventilation by maintaining 6" (152mm) minimum clearance from cabinet louvers to wall.
F = 7/16" (11mm) Bolt Holes for fastening to wall.
Note : New Installations Must Use Ground Fault Circuit Interrupter (GFCI).

1-800-260-6640 | SVtechservice@Elkay.com
Patent zurn-elkay.com/patents
Elkay REV 080420 25
LVRCTL8WSK



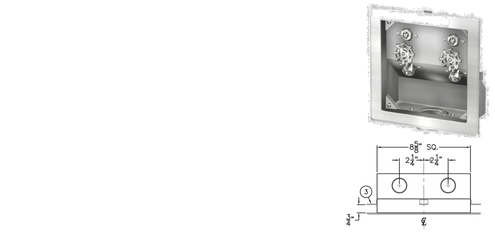


ANCHORAGE DETAIL

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT, AND CONFIGURATION. BI-LEVEL REVERSE CONFIGURATION SIMILAR. INSTALL IN COMPLIANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES.

1. WHERE WOOD BACKING IS PROVIDED PER DETAIL B/P9.01, USE (8) 5/16" DIA. x 3" LAG SCREWS WITH WASHERS MIN 2" EMBED. (OR APPROVED EQUIVALENT STRUCTURAL WOOD SCREWS).

2. ALL FASTENERS SHALL BE ZINC PLATED STEEL OR SS.



REFERENCE DRAWINGS	
REPAIR PARTS	9989-035-001
BITS & DRIVERS	9951-001-002

a 3/4" MALE HOSE THREAD.
b REMOVABLE WHEEL LOOSE KEY HANDLE 1/4"-5/16" SQUARE TAPER.
c LOCKSHIELD SCREWDRIVER STOPS.
d #10-32 x 1" PHILLIPS TRUSS HEAD SCREW WALL FLANGE / DOOR ANCHORING SCREWS.
e HOSE END VACUUM BREAKER INCLUDED ON MODELS 8181 & 8186.
g GRAY FOAM WEATHERSTRIPPING TAPE.

INSTALLATION INSTRUCTIONS:

A- REMOVE THE WALL FLANGE ① SHOWN FROM THE THE BOX ②.

B- SELECT RECESSED MOUNTING LOCATION AND BLOCK OUT AND/OR PROVIDE ADEQUATE WALL BACKING OR FRAMING BY OTHERS.

C- USING MOUNTING TABS ③, POSITION AND SECURE THE BOX TO THE STUD FRAMING OR WALL BACKING WITH THE BOX OPENING FLUSH WITH THE FINISHED WALL. PLUMB AND LEVEL AS REQUIRED.

D- MAKE UP CONNECTIONS TO ④ 3/4" NPTI VALVE INLETS(S). WRAP PERMASEAL TAPE ⑤ AROUND 2" WASTE LINE BY OTHERS AND INSERT INTO 2" SPS ⑥ HOSE RECEPTOR PRESSING FIRMLY TO SEAL.

E- INSTALL WALL FLANGE ① TO THE RECESSED BOX ② TO COMPLETE THE INSTALLATION.

NOTE: MAXIMUM RECOMMENDED WORKING WATER PRESSURE IS 100 PSI. MAXIMUM TEMPERATURE IS 120° F.

WARNING: PRIOR TO MAKING INSTALLATION, SUPPLY LINES MUST BE FLUSHED OF ALL FOREIGN MATERIAL. ICE MAKER, PIPE COMPONENTS, SOLDER, ETC. VALVE MUST BE DRAINED PRIOR TO BEING SUBJECTED TO FREEZING TEMPERATURES.

~~SINGLE TEMPERATURE (MODELS 8180, 8181)~~
HOT & COLD (MODELS 8185, 8186)

8180 SERIES RECESSED HOSE BOX w/ DRAIN

WASHING MACHINE BOX DETAIL

C P9.04

SCALE: NONE

DRINKING FOUNTAIN / BOTTLE FILLER DETAIL (DF-1 & DF-2)

A P9.04

SCALE: NONE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL 21128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.1926 Office
(559) 627.1926 Fax

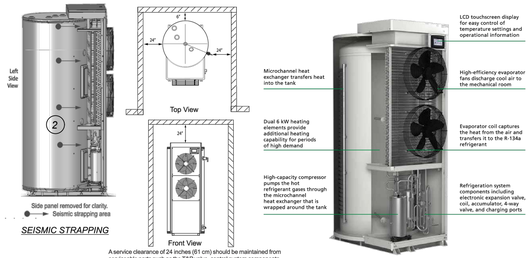
REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLOW No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

TITLE
PLUMBING DETAILS

P9.04

PROJECT 24042

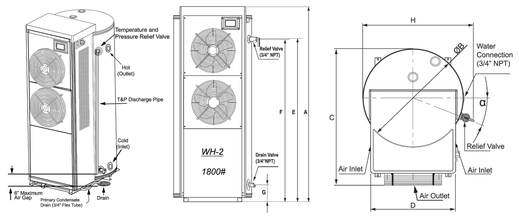
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



SEISMIC STRAPPING

A service clearance of 24 inches (61 cm) should be maintained from serviceable parts such as the T&P valve, control system components, drain valve, and anode. Leave as much space as possible above the water heater for this reason.

CLEARANCES



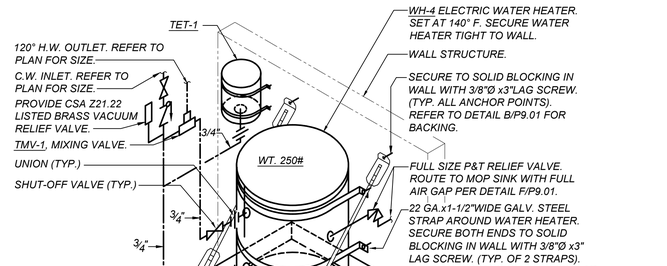
ROUGH-IN DIMENSIONS

Physical Dimensions								
Total Height (A)	Tank Diameter (B)	Maximum Depth (C)	Service Panel Width (D)	Relief Valve Height (E)	Water Outlet Height (F)	Water Inlet Height (G)	Relief Valve Angle α (°)	Maximum Width (H)
69 11/16	28 1/32	39 11/64	23 5/8	58 7/64	57 51/64	6 1/32	22	30 29/32

MODEL SPECIFICATIONS

Model Number	Nominal Capacity	COP	Number of Elements	Total Element Wattage (both elements at 240V)	First Hour Delivery at 100° Temperature Rise in Hybrid Mode (GPH)	Recovery in GPH at 100° Temperature Rise in Hybrid Mode	Recovery in GPH for each operation mode	Approx. Shipping Weight (lbs)
CAHP 120	119	4.3*	2	12,000	194	99	Efficiency = 50 Hybrid = 99 Electric = 49	620

*DOE test standard, 80°F ambient with 63% humidity, inlet water temperature at 70°F, outlet water temperature at 120° F

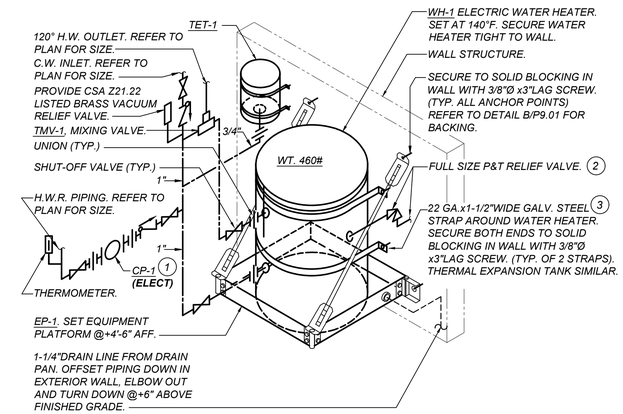


NOTES:
WATER HEATER SHALL BE SEISMICALLY STRAPPED IN COMPLIANCE WITH CPC 507.2. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER THIRD AND LOWER THIRD OF ITS VERTICAL DIMENSIONS. AT THE LOWER POINT A MIN. DISTANCE OF FOUR INCHES SHALL BE MAINTAINED ABOVE THE CONTROLS WITH THE STRAPPING. PROVIDE HOLDRITE (OR EQUAL) QUICK STRAP GALVANIZED STEEL WATER HEATER RESTRAINT WITH QUICK LINK FOR FRONT TENSIONING, AND BACK SPACER SADDLE. FOR THERMAL EXPANSION TANK, PROVIDE HOLDRITE (OR EQUAL) QUICK STRAP GALVANIZED EXPANSION TANK MOUNTING BRACKET.

WATER HEATER (WH-4) DETAIL

C / P9.05

SCALE: NONE



KEYNOTES (THIS DETAIL ONLY):

(1) *CIRCULATION PUMP **(ELECT).** FOR MOUNTING, SECURE PIPING WITHIN 12" OF EACH SIDE OF CP-1 TO WALL PER SIMILAR DETAIL A/P9.07 WITH STRUT AND PIPE CLAMP. PROVIDE WOOD BLOCKING FOR SUPPORT BACKING PER DETAIL B/P9.01.*

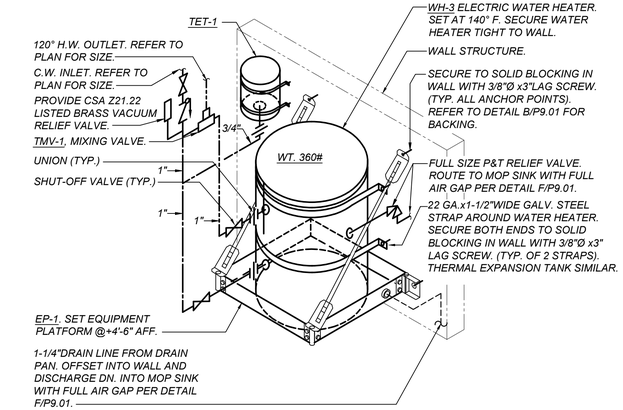
(2) *ROUTE PIPING DOWN IN EXTERIOR WALL. ELBOW OUT AND TURN DOWN @+6" ABOVE FINISHED GRADE.*

(3) *WATER HEATER SHALL BE SEISMICALLY STRAPPED IN COMPLIANCE WITH CPC 507.2. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER THIRD AND LOWER THIRD OF ITS VERTICAL DIMENSIONS. AT THE LOWER POINT A MIN. DISTANCE OF FOUR INCHES SHALL BE MAINTAINED ABOVE THE CONTROLS WITH THE STRAPPING. PROVIDE HOLDRITE (OR EQUAL) QUICK STRAP GALVANIZED STEEL WATER HEATER RESTRAINT WITH QUICK LINK FOR FRONT TENSIONING, AND BACK SPACER SADDLE. FOR THERMAL EXPANSION TANK, PROVIDE HOLDRITE (OR EQUAL) QUICK STRAP GALVANIZED EXPANSION TANK MOUNTING BRACKET.*

WATER HEATER (WH-1) DETAIL

A / P9.05

SCALE: NONE

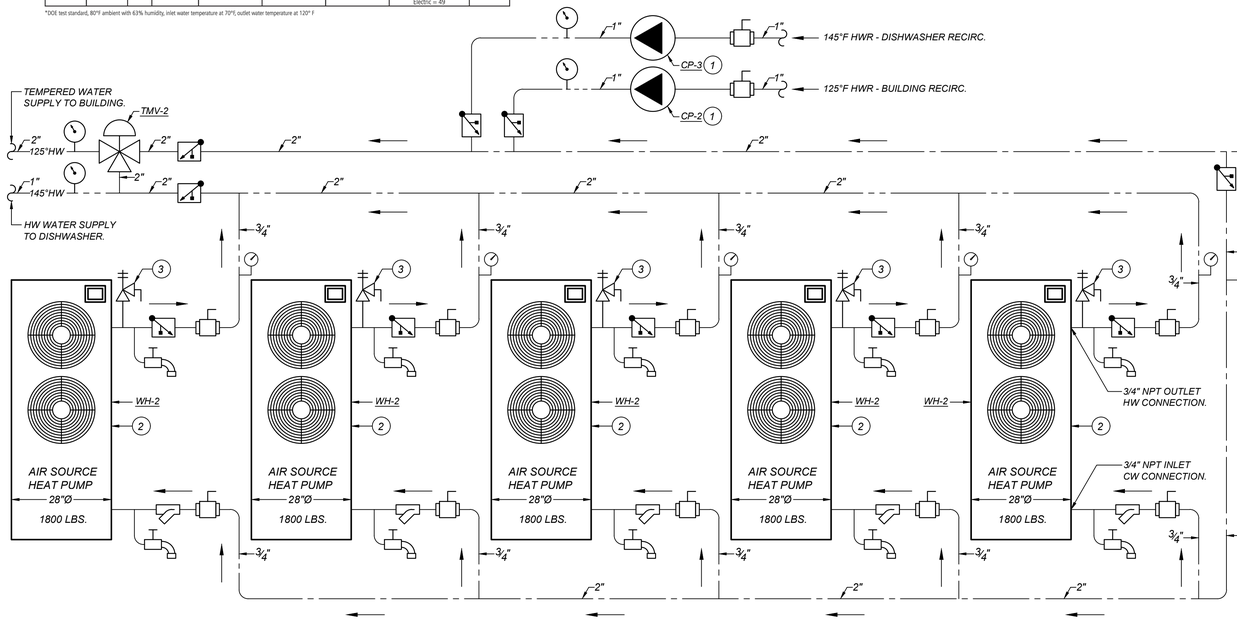


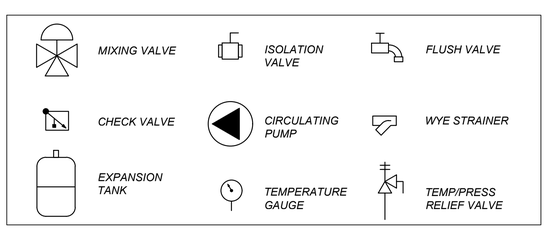
NOTES:
WATER HEATER SHALL BE SEISMICALLY STRAPPED IN COMPLIANCE WITH CPC 507.2. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER THIRD AND LOWER THIRD OF ITS VERTICAL DIMENSIONS. AT THE LOWER POINT A MIN. DISTANCE OF FOUR INCHES SHALL BE MAINTAINED ABOVE THE CONTROLS WITH THE STRAPPING. PROVIDE HOLDRITE (OR EQUAL) QUICK STRAP GALVANIZED STEEL WATER HEATER RESTRAINT WITH QUICK LINK FOR FRONT TENSIONING, AND BACK SPACER SADDLE. FOR THERMAL EXPANSION TANK, PROVIDE HOLDRITE (OR EQUAL) QUICK STRAP GALVANIZED EXPANSION TANK MOUNTING BRACKET.

WATER HEATER (WH-3) DETAIL

B / P9.05

SCALE: NONE





KEYNOTES (THIS DETAIL ONLY)

(1) *DOMESTIC HOT WATER CIRCULATING PUMP. FOR MOUNTING, SECURE PIPING WITHIN 12" OF EACH SIDE OF PUMP TO WALL PER SIMILAR DETAIL B/P9.07 WITH STRUT AND PIPE CLAMP. INTERLOCK PUMP WITH BUILDING EMS SYSTEM, SPEC. DIV. 23, MECHANICAL.*

(2) *WATER HEATER SHALL BE SEISMICALLY STRAPPED IN COMPLIANCE WITH CPC 507.2. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER THIRD AND LOWER THIRD OF ITS VERTICAL DIMENSIONS. AT THE LOWER POINT A MIN. DISTANCE OF FOUR INCHES SHALL BE MAINTAINED ABOVE THE CONTROLS WITH THE STRAPPING. PROVIDE HOLDRITE (OR EQUAL) QUICK STRAP GALVANIZED STEEL WATER HEATER RESTRAINT WITH QUICK LINK FOR FRONT TENSIONING, AND BACK SPACER SADDLE.*

(3) *FACTORY PROVIDED AGA/ASME RATED T&P RELIEF VALVE, TYP. EXTEND FULL SIZE TEMPERATURE PRESSURE RELIEF PIPING TO ADJACENT FLOOR SINK WITH AIR GAP PER DETAIL F/P9.01. TYPICAL.*

(4) *3/4" CONDENSATE DRAIN TUBE LOCATED UNDER PANEL. ROUTE TO FLOOR SINK WITH FULL AIR GAP PER DETAIL F/P9.01. TYPICAL.*

NOTE:
INSTALL IN COMPLIANCE WITH MFG. INSTALLATION GUIDELINES. INQUIRIES: CONTACT SCOTT THOMAS WITH PARAMOUNT SALES. (925) 373-0817, sthomas@paramountsales.biz

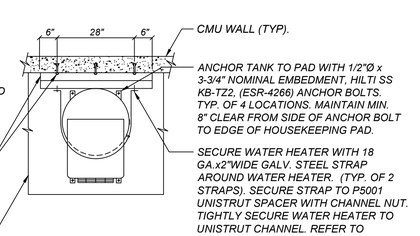
WATER HEATER (WH-2) DETAIL

D / P9.05

SCALE: NONE

PROVIDE (2) 6.5" UNISTRUT SPACER CHANNEL P5001 (OR EQUAL) BEHIND TANK TO SUPPORT LATERAL FORCES AGAINST WALL WITHIN THE UPPER 1/3 AND LOWER 1/3 OF WATER HEATER VERTICAL DIMENSION. STRUT TO EXTEND +6" BEYOND EDGE OF TANK IN EACH DIRECTION. SECURE STRUT TO CMU WALL WITH (3) HILTI #KB-TZ2-SS 1/2"Ø STAINLESS STEEL ANCHORS WITH 3-1/4" MIN. EFF. EMBEDMENT (ESR-4561). TORQUE = 25 FT/LBS.

6" TALL HOUSEKEEPING PAD. REFER TO STRUCTURAL DETAIL 13/S1.5, AND FLOOR PLAN FOR PAD FOOTPRINT.



WATER HEATER (WH-2) ANCHORAGE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 18128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
PLUMBING DETAILS

P9.05

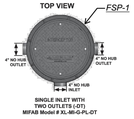
PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

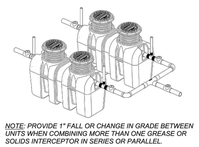
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1342

16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P9.04 - 9.08 - Plumbing Details.dwg ryanf
P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P9.04 - 9.08 - Plumbing Details.dwg Sep 16 2026 8:23am





FLOW SPLITTER



NOTE: PROVIDE 1" FALL OR CHANGE IN GRADE BETWEEN UNITS WHEN COMBINING MORE THAN ONE GREASE OR SOLIDS INTERCEPTOR IN SERIES OR PARALLEL.

TWIN UNITS IN PARALLEL (SIM.)



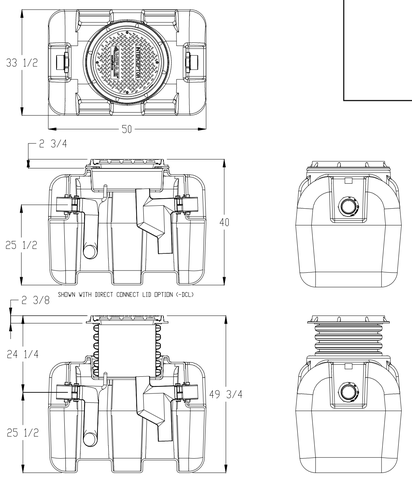
SAFETY SHIELD

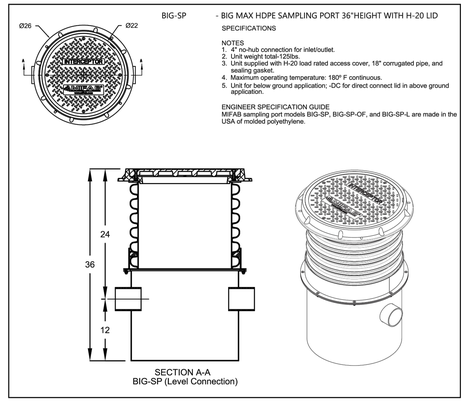
BIG-750 - 75 GPM HDPE GREASE INT./ 838 LBS GREASE HOLD CAPACITY WITH H-20 RATED ACCESS COVERS

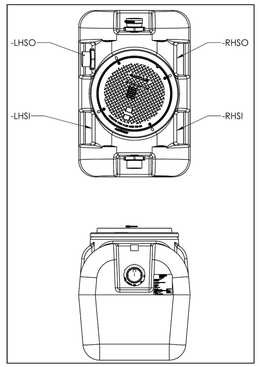
BIG-750
1. 4" Inlet and Outlet No-Hub Connections.
2. Liquid Holding Capacity: 140 Gallons
3. H20 Load Rated Access Covers
4. Maximum Operating Temperature: 180° Continuous

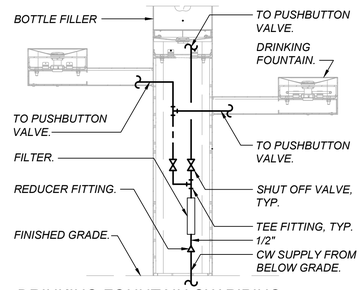
DETAILS
- Certified by CSA and IAPMO to ASME A112.14.3, CSA B481
- Approved installation to ASME A112.14.3 Type C
- Factory installed internal piping.
- 3/8" thick seamless high density polyethylene.
- Full internal access through lid.
- Integral Anti-siphon Air Relief port.

SUFFIX
-AK High water anchor kit
-C Lid extension(specify)



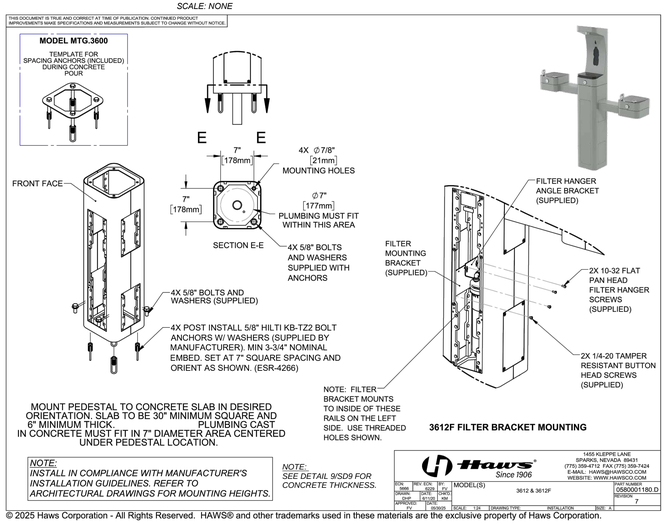


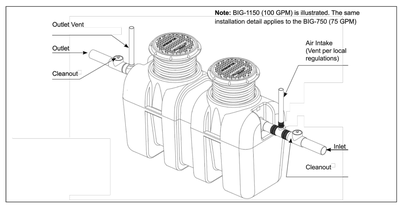


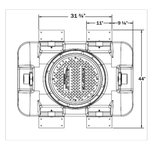


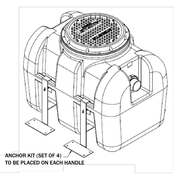
DRINKING FOUNTAIN CW PIPING

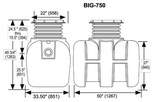
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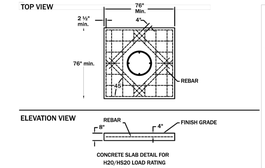












FINISHED CONCRETE SLAB

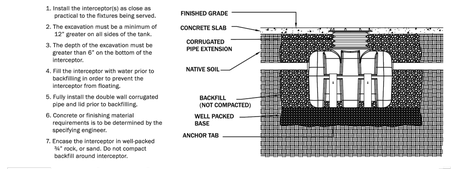
Slab must extend 18" minimum outside the footprint of the unit. ~~Pedestrian traffic areas: 4" Thick reinforced concrete slab required.~~ **Vehicular traffic areas:** Minimum 8" thick concrete slab with rebar is required.

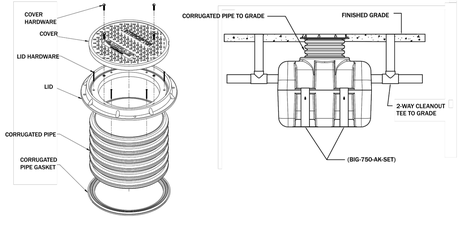
Thickness of concrete around cover to be determined by specifying engineer. If traffic loading is required, the concrete slab dimensions shown are for guiding purposes only. Concrete to be 28 day compressive strength to 4,000 PSI. Use #4 rebar (1/2") grade 60 steel per ASTM A615: connected with tire wire. Rebar to be 2-1/2" from edge of concrete and spaced in a 12" grid with 4" spacing around access openings.

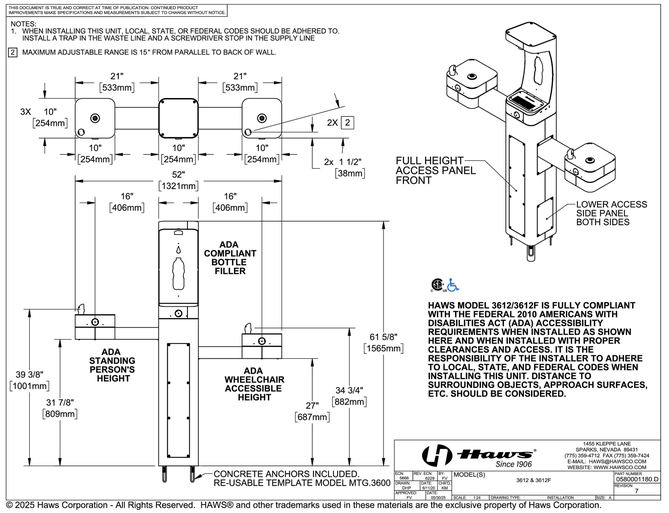
CONCRETE SLAB DETAIL

BELOW GRADE/BACKFILL INSTALL:

1. Install the interceptor(s) as close as practical to the fixtures being served.
2. The excavation must be a minimum of 12" greater on all sides of the tank.
3. The depth of the excavation must be greater than 6" on the bottom of the interceptor.
4. Fill the interceptor with water prior to backfilling in order to prevent the interceptor from floating.
5. Fully install the double wall corrugated pipe and lid prior to backfilling.
6. Concrete or finishing material requirements is to be determined by the specifying engineer.
7. Encase the interceptor in well-packed ¾" rock, or sand. Do not compact backfill around interceptor.







DRINKING FOUNTAIN / BOTTLE FILLER DETAIL (DF-3)

SCALE: NONE

A P9.06

HYDROMECHANICAL GREASE INTERCEPTOR DETAIL (HGI-1) - BUILDING "200"

SCALE: NONE

B P9.06

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
PLUMBING DETAILS

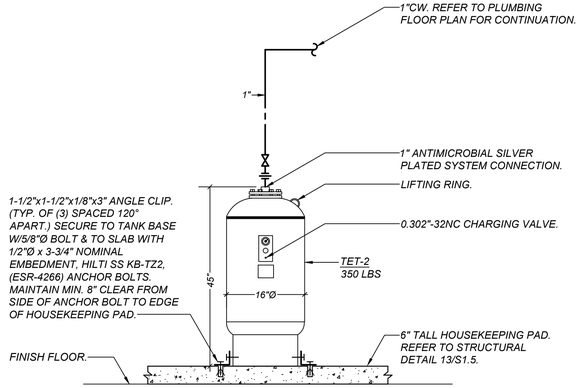
P9.06

PROJECT 24042

CERTIFIED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
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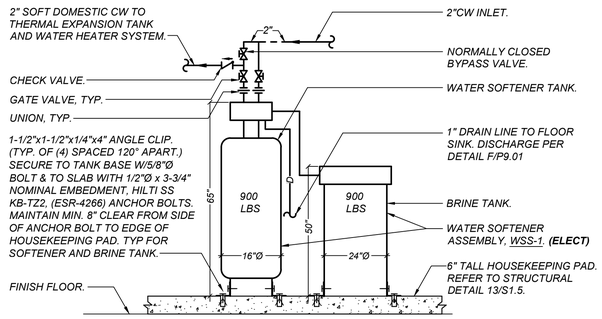
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THERMAL EXPANSION TANK (TET-2) DETAIL

E P9.07

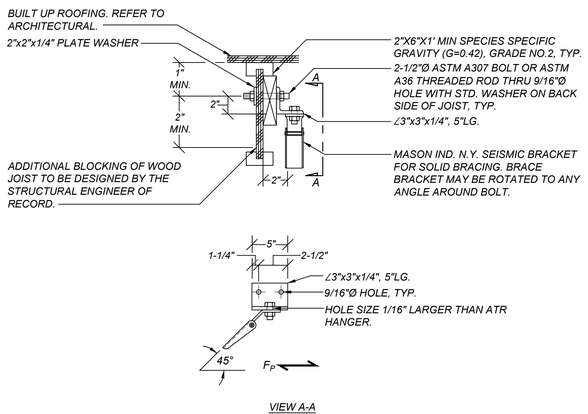
SCALE: NONE



WATER SOFTENER SYSTEM (WSS-1) DETAIL

F P9.07

SCALE: NONE



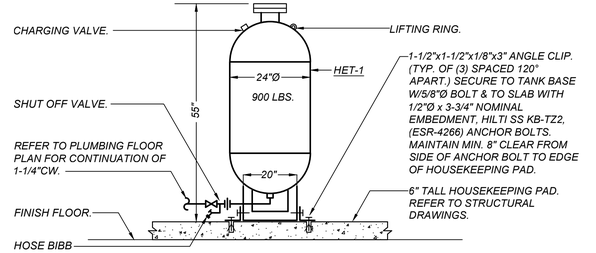
VIEW A-A

NOTE:
1. REFER TO DETAIL C/P10.00 FOR BRACE ATTACHMENT.
2. ANY PIPE WEIGHING 5 LBS/FT AND GREATER SHALL BE SEISMICALLY BRACED.
3. 12 FEET MAXIMUM BRACING SPACING.

SEISMIC BRACE ATTACHMENT TO WOOD I-JOIST

G P9.07

SCALE: NONE

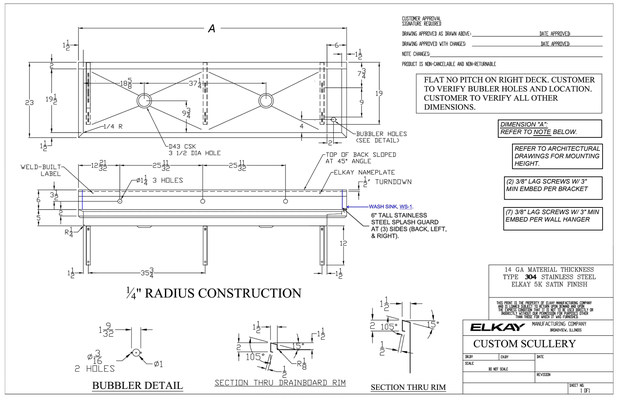


HYDRO-PNEUMATIC TANK DETAIL

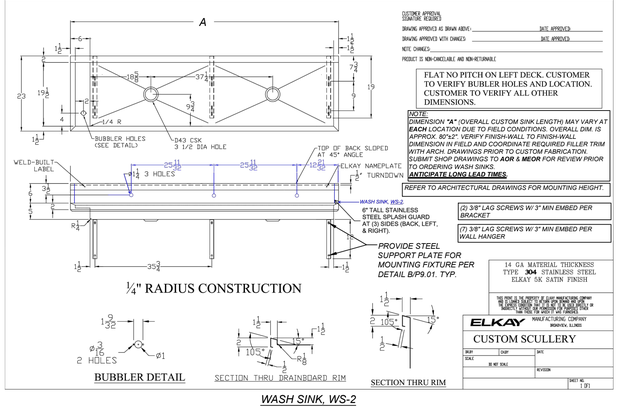
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P046



WASH SINK, WS-1

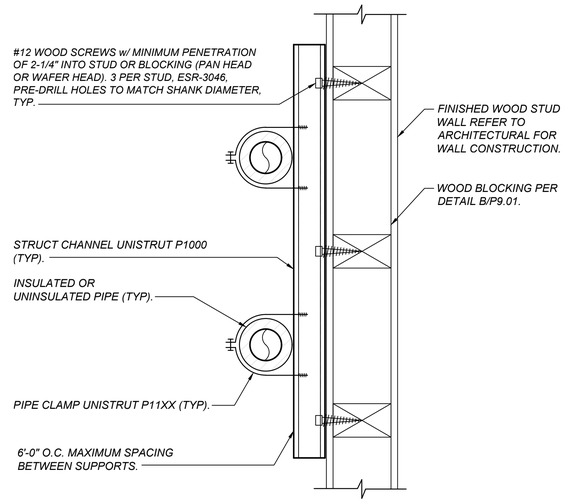


WASH SINK, WS-2

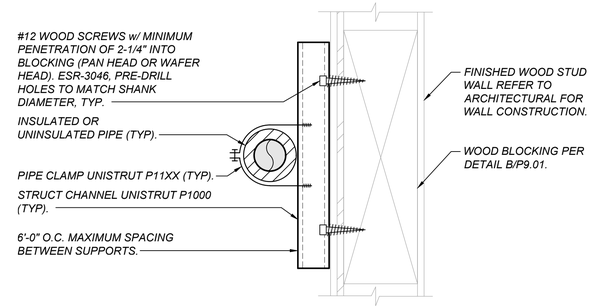
WASH SINK DETAIL(S)

D P9.07

SCALE: NONE



PIPE SUPPORT ON WALL (HORIZONTAL PIPE)

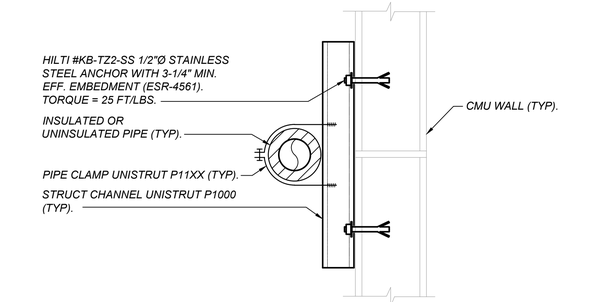


PIPE SUPPORT ON WALL (VERTICAL PIPE)

PIPE SUPPORT ON WALL

A P9.07

SCALE: NONE



PIPE SUPPORT ON CMU WALL DETAIL

B P9.07

SCALE: NONE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4310 West Mineral King Avenue
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(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
PLUMBING DETAILS

P9.07

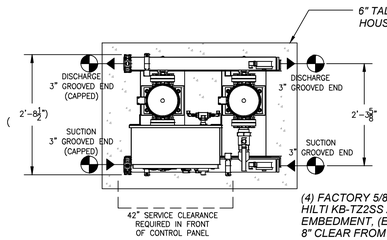
PROJECT 24042

JORDAN W. CARLSON No. M34846 Exp. 6-30-28 REGISTERED PROFESSIONAL ENGINEER MECHANICAL STATE OF CALIFORNIA

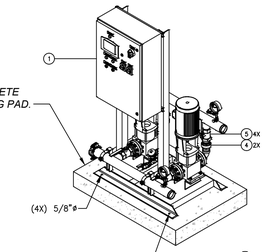
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

RELIEF VALVES AND EQUIPMENT DRAINS TO BE PIPED TO DRAIN OR VENT BY CONTRACTOR PER CODE REQUIREMENT

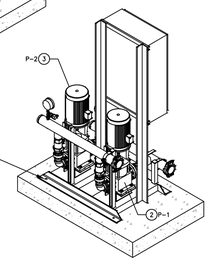
ALL BOLTING AND ANCHORAGE TO BE IN COMPLIANCE WITH LOCAL CODES AND ANY SEISMIC REQUIREMENTS.

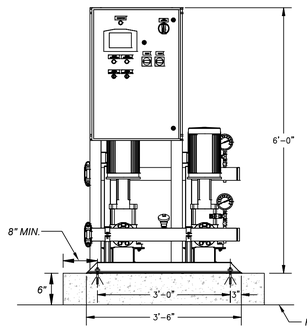


TOP VIEW

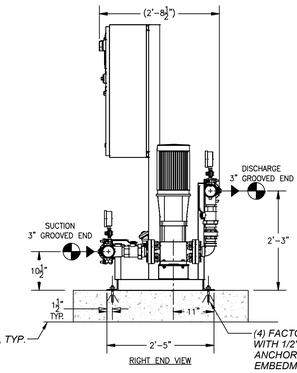


(4) FACTORY 5/8"Ø HOLES WITH 1/2"Ø HILTI KB-TZ2SS ANCHOR W/ 3" NOMINAL EMBEDMENT, (ESR 4266). MAINTAIN MIN. 8" CLEAR FROM SIDE OF ANCHOR BOLT TO EDGE OF HOUSEKEEPING PAD, TYP.





FRONT VIEW



RIGHT END VIEW

NOTE:
PROVIDE BOOSTER PUMP LOW-PRESSURE CUTOFF. INSTALL LOW-PRESSURE CUTOFF SWITCH ON INLET SIDE WITHIN 5 FEET OF PUMP INLET, SET FOR NOT LESS THAN 10 PSI. PROVIDE PRESSURE GAUGE BETWEEN SHUTOFF VALVE AND PUMP.

FWV2.1-5-XL – VARIABLE SPEED DUPLEX PRESSURE BOOSTER

175 GPM	53 PSI	13 PSI
TOTAL FLOW	TOTAL DISCHARGE PRESSURE	AVAILABLE PRESSURE
TOTAL SYSTEM CAPACITY		

ITEM	TAG	MANUFACTURER	SERIES	MODEL	GPM	TDH	HP	RPM	VOLTS/HZ/PH	ENCLOSURE
3	P-2	GOULDS	ESV	15SVG-2	88	104'	5	3500	460/60/3	TEFC P.E.
2	P-1	GOULDS	ESV	15SVG-2	88	104'	5	3500	460/60/3	TEFC P.E.
PUMP SCHEDULE										

ITEM	QTY	TAG	DESCRIPTION
10	–	–	–
9	–	–	–
8	–	–	–
7	–	–	–
6	–	–	–
5	4	–	APOLLO SINGLE UNION BALL VALVE MODEL 70LF-308-01 – 2"
4	2	–	BONOMI IN-LINE CHECK VALVE – 2"
3	1	P-2	GOULDS ESV MULTI-STAGE PUMP MODEL 15SVG-2
2	1	P-1	GOULDS ESV MULTI-STAGE PUMP MODEL 15SVG-2
1	1	–	AQUALOGIC XL CONTROL PANEL
EQUIPMENT SCHEDULE			

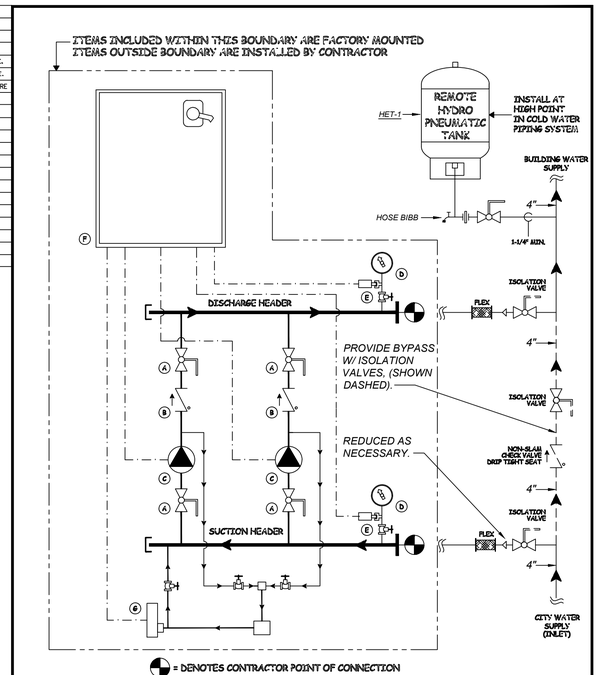
CONSTRUCTION NOTES:
1. SUCTION AND DISCHARGE HEADERS ARE GROOVED ON BOTH ENDS.
2. END CAPS CAN BE PLACED ON EITHER END OF HEADERS.
3. SYSTEM DESIGNED FOR OUTDOOR INSTALLATION.

GENERAL NOTES:
(1) SINGLE POINT POWER CONNECTION AT CONTROL PANEL.
(2) HYDRO PRESSURE CHECK AT 125 PSI.
(3) ASSEMBLED SYSTEM TO BE PAINTED WITH INDUSTRIAL MACHINE ENA MEL PRIOR TO SHIPMENT.

= DENOTES CONTRACTOR POINT OF CONNECTION

APPROXIMATE SHIPPING WEIGHT: 960 LBS.
APPROXIMATE OPERATING WEIGHT: 990 LBS.

LISTED
PACKAGED PUMPING SYSTEMS & HEAT TRANSFER SYSTEMS



E	PRESSURE TRANSDUCER	K	
D	PRESSURE GUAGE	J	
C	BOOSTER PUMP	H	
B	CHECK VALVE	G	HIGH TEMPERATURE SENSOR
A	ISOLATION VALVE	F	CONTROL PANEL
QT	DESCRIPTION	QT	DESCRIPTION

THIS DRAWING AND THE INFORMATION REFLECTED THEREIN IS THE PROPERTY OF FLOWTHERM SYSTEMS, A SUBSIDIARY OF CALIFORNIA HYDRONICS CORP., COPIED AND ISSUED IN STRICT CONFIDENCE AND SHALL NOT BE REPRODUCED OR COPIED, OR USED AS THE BASIS FOR THE MANUFACTURING OR SALE OF PRODUCT WITHOUT PRIOR WRITTEN PERMISSION OF CALIFORNIA HYDRONICS CORP.

FLOWTHERM systems HAYWARD, CALIFORNIA

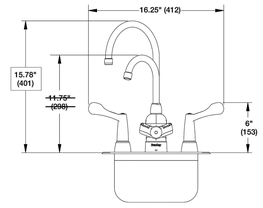
APPLICATION: DUPLEX PRESSURE BOOSTER-YS FLOW DIAGRAM-STD

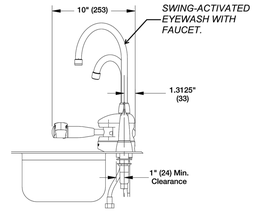
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A	FLOW-DUPLEX-YS-000	ACD	2/4/22	2

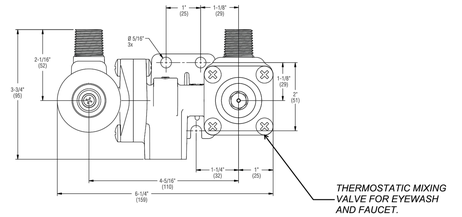
DOMESTIC WATER BOOSTER PUMP DETAIL (BP-1)

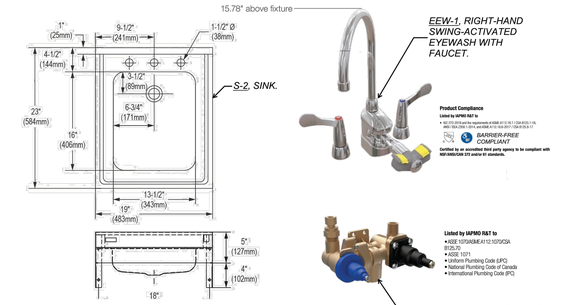
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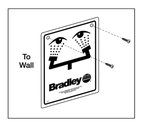
B
P9.08



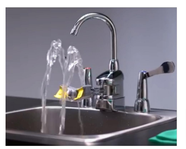


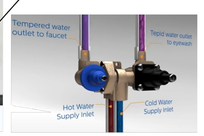












NOTES:
1). CONFIRM REQUIRED CLEAR FLOOR SPACE OF 30" X 48" IN FRONT OF THE UNIT FOR WHEELCHAIR ACCESSIBILITY.

2). OPERABLE PARTS MUST BE PLACED WITHIN SPECIFIED REACH RANGES, AS DETAILED IN SECTION 11B-309.

3). OPERABLE PARTS SHALL BE DESIGNED TO BE USED WITH ONE HAND AND NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. FORCE SHALL NOT EXCEED 5 POUNDS.

4). INSTALL ALL COMPONENTS IN COMPLIANCE WITH MANUFACTURER INSTALLATION GUIDELINES.



COMBINED EMERGENCY EYEWASH AND FAUCET DETAIL

SCALE: NONE

A
P9.08

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

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REVISIONS

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MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.7539 Office
(559) 627.1926 Fax

TITLE: PLUMBING DETAILS

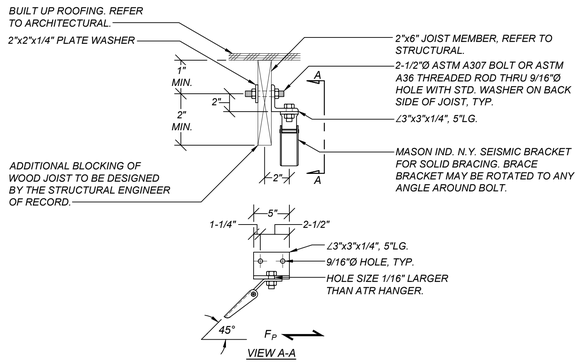
P9.08

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLOW No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1342

16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P9.04 - 9.08 - Plumbing Details.dwg ryanf

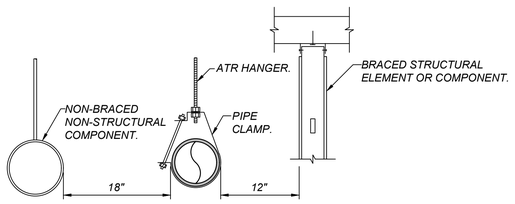


NOTE:
1. REFER TO DETAIL C/P10.00 FOR BRACE ATTACHMENT.
2. ANY PIPE WEIGHING 5 LBS/FT AND GREATER SHALL BE SEISMICALLY BRACED.
3. 12 FEET MAXIMUM BRACE SPACING.

SEISMIC BRACE ATTACHMENT TO WOOD JOIST

D P10.00

SCALE: NONE

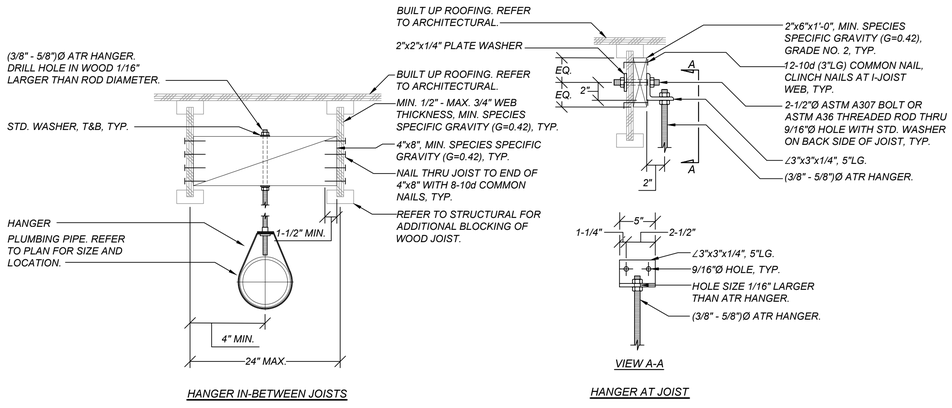


LATERAL SECTION OF COMPONENT

IMPACT PREVENTION DETAIL - SINGLE HUNG

E P10.00

SCALE: NONE



HANGER IN-BETWEEN JOISTS

HANGER AT JOIST

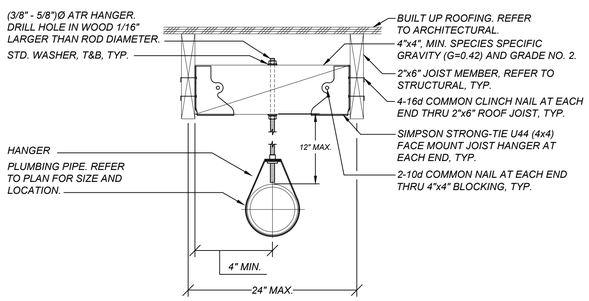
HANGER ROD SIZES		
PIPE SIZES	DIA. OF ROD	MAX. VERTICAL LOAD
< 4"	3/8" - 5/8"	360 LBS.

REFER TO PLUMBING SPECIFICATIONS FOR MAXIMUM HANGER SPACING

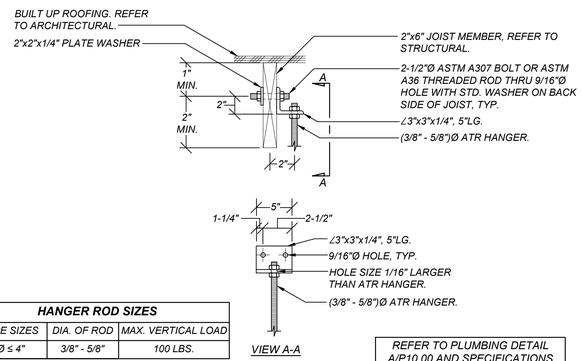
PIPE HANGER TO WOOD I-JOIST

F P10.00

SCALE: NONE



HANGER IN-BETWEEN JOISTS



HANGER ROD SIZES		
PIPE SIZES	DIA. OF ROD	MAX. VERTICAL LOAD
Ø ≤ 4"	3/8" - 5/8"	100 LBS.

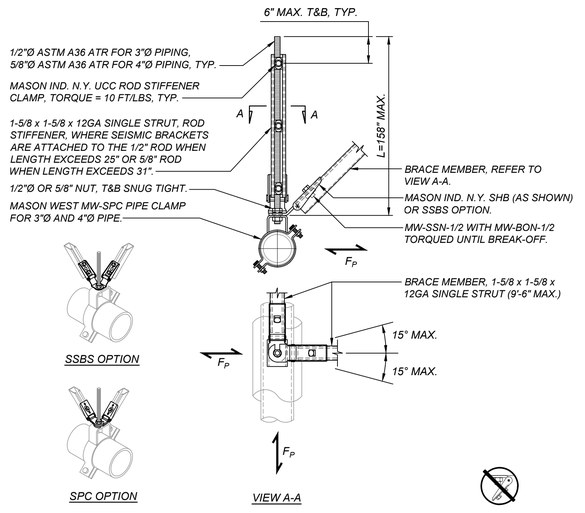
REFER TO PLUMBING DETAIL A/P10.00 AND SPECIFICATIONS FOR MAXIMUM HANGER SPACING

HANGER AT JOIST

PIPE HANGER SUPPORT TO WOOD JOIST

B P10.00

SCALE: NONE

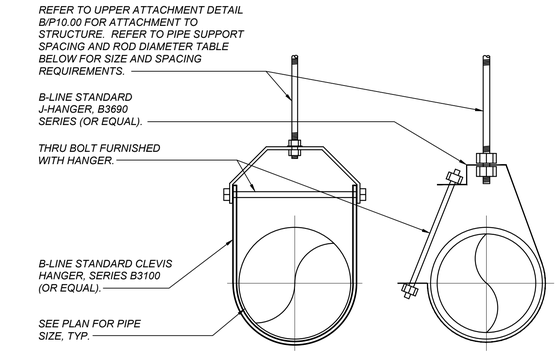


NOTE:
1. REFER TO DETAIL D/P10.00 OR G/P9.07 FOR UPPER ATTACHMENT TO STRUCTURE.
2. ANY PIPE WEIGHING 5 LBS/FT AND GREATER SHALL BE SEISMICALLY BRACED.
3. 20 FEET MAXIMUM BRACE SPACING.
4. MAXIMUM SEISMIC BRACE SPACING SHALL BE AS DETERMINED BY THE PROJECT-SPECIFIC SEISMIC CALCULATIONS IN ACCORDANCE WITH CBC CHAPTER 16A, ASCE 7, AND THE BRACE MANUFACTURER'S ESR/INSTALLATION REQUIREMENTS. DO NOT EXCEED THE MANUFACTURER'S ALLOWABLE BRACE SPACING.
5. FIRE SPRINKLER PIPES AND PLUMBING PIPES SHOULD NOT BE SUPPORTED FROM THE SAME I-JOISTS. COORDINATE INFIELD WITH RESPECTIVE INSTALLER.

SEISMIC ALL-DIRECTION BRACE DETAIL

C P10.00

SCALE: NONE



PIPE SUPPORT SPACING AND ROD DIAMETER

Pressure Pipe: Pipe Size (Inches)	Threaded Rod Size (Inches)	Copper (Feet)	Maximum Spacing* Between Supports (ft.) Sch. 40 steel
1/2"	3/8"	6	6
3/4"	3/8"	6	8
1"	3/8"	6	8
1-1/4"	3/8"	6	10
1-1/2"	3/8"	6	10
2"	3/8"	10	10
2-1/2"	1/2"	10	10
3"	1/2"	10	10
4"	1/2"	10	10

Cast Iron Pipe: Pipe Size (Inches)	Threaded Rod Size (Inches)	Cast Iron** (Feet)	Maximum Spacing* Between Supports (ft.) Sch. 40 steel
1-1/2"	3/8"	10	10
2"	3/8"	10	10
2-1/2"	1/2"	10	10
3"	1/2"	10	10
4"	1/2"	10	10

PIPE SUPPORT SPACING AND ROD DIAMETER

Notes:
*Based on straight lengths of pipe with couplings only. Provide additional supports for equipment, valves or other fittings. Seismic requirements may reduce maximum spacing.

**Cast Iron Gravity Drain Pipe:
Piping shall be supported at each length of pipe or fitting, but in no case at greater spacing than indicated above for pressure pipe. Hangers/supports shall not be placed on the coupling.

General:
Hangers shall be placed to support piping without strain on joints or fittings. Maximum spacing between supports shall be as specified above. Actual spacing requirements will depend on structural system. Vertical piping shall be supported with riser clamp at base and each floor. Cast Iron, Copper, Steel Pipe for water, Steel pipe for gas - Do not exceed information in the above table. Support pipe within 12" of all changes in direction. Support individual pipes with pipe hanger.

Refer to Specification 22 00 00, Part 2.1, C.1 "Products - Piping Materials - Miscellaneous Piping Items - Pipe Support" and Section 22 00 00, Part 3.1, "Execution - Piping Installation."

Refer to 2022 CPC Table 313.3 and Table 313.6 for additional hanger and support information.

Refer to CBC 1617A.1.26.
Section 3.4 - Piping and Distribution Systems (CBC Section 1617A.1.26)
To qualify for any of the exemptions listed below, the following is required:
1) Flexible connections, expansion loops, or other provisions are made to accommodate the relative displacement between the component and the piping. Flexible connections may be omitted when piping is rigidly attached to the same floor or wall that provides vertical and lateral support for the equipment or fixture per CBC 1617A.1.26.
2) The piping system is positively attached to the structure.

Section 3.4.1 - Individually Supported Piping Distribution System Components

Section 3.4.1.1 (In addition to Section 3.4 above)
1) Rp ≥ 4.5 (excludes pipes of glass, cast iron, and non-ductile plastics).
2) Nominal pipe size does not exceed 3" when Ip=1.0, and does not exceed 1" when Ip>1.0.
3) Vertical pipe size is provided by 3/8" or 1/2" diameter rod hangers.
4) Rod hanger does not exceed 12" in length from the pipe support to the connection point on the support structure.
5) The total weight supported by any rod hanger is 50 lbs or less.

Section 3.4.1.2 (In addition to Section 3.4 above)
1) Vertical support is required by rod hangers.
2) Nominal pipe size does not exceed 3" for Ip=1.0, or exceed 1" for Ip=1.5
3) Provisions are made to avoid impact with other components, as follows in Section 3.5.

Section 3.5 - Provisions To Avoid Impact
1) Maintain minimum horizontal separation distance of 12" between unbraced component and braced element.
2) Maintain minimum separation distance of 18" between adjacent, unbraced components.
3) Smaller separations may be accepted for components with an Ip=1.0 where impact with adjacent components would not cause contents to be released that would negatively impact the occupants, the building integrity, or the function of the component like air vents and air ducts.

PIPE HANGER SUPPORT DETAIL

A P10.00

SCALE: NONE

CERTIFIED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
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25026
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APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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(559) 627-1926 Fax

TITLE
PLUMBING SUPPORTS & SEISMIC ATTACHMENT DETAILS

P10.00

PROJECT 24042

16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P10.00 - 10.03 - Plumbing Seismic.dwg ryanf

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PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
L-1	LAVATORY STAFF **(BATTERY SENSOR)**	2"	2"	1/2"	1/2"	**KOHLER #K-2210 "CAXTON"** 19-1/4" OVAL BASIN UNDERMOUNT LAVATORY WITH OVERFLOW DRAIN, 14"x17" OVAL COUNTERTOP CUTOUT, VITREOUS CHINA. **KOHLER #1193643,** BASIN CLAMPS. **CHICAGO FAUCET #E80-A11A-17ABCPT,** WITH **CHICAGO #3500-001KJKCP** 4" COVER PLATE. "E-TRONIC" 80 MODULE WITH BUILT-IN BLUETOOTH AND ASSE 1070 THERMOSTATIC MIXING VALVE SCALD PROTECTION, 6-VOLT LITHIUM **CRP2** BATTERY POWERED SENSOR FAUCET WITH VANDAL PROOF 0.5 GPM ECONO-FLO NON-AERATING SPRAY OUTLET, ABOVE DECK ELECTRONICS. INCLUDES OPTIONAL USER-ADJUSTABLE TEMPERATURE CONTROL AND CONCEALED CONTROL WITH VANDAL RESISTANT CAP. **DEARBORN BRASS #760W-1,** CHROME PLATED GRID STRAINER WITH OFFSET TAILPIECE. **SET TEMPERATURE AT 105°F.** ADJUST FAUCET TO STAY OPEN FOR 10-15 SECONDS. (2) LOOSE KEY COMPRESSION ANGLED WALL STOP WITH SUPPLIES, P-TRAP/TAILPIECE WITH ESCUTCHEON, WRAP / INSULATE WATER SUPPLIES, TRAPS & TAILPIECE, AND DRAIN PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES BELOW FIXTURE. REFER TO SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. PROVIDE 2" WCO.
L-2	LAVATORY STAFF **(BATTERY SENSOR)**	2"	2"	1/2"	1/2"	**KOHLER WALL-HUNG "KINGSTON" #K-2005,** CBC ACCESS COMPLIANT, 21-1/4"x18-1/8", WALL-MOUNT, CONCEALED ARM CARRIER LAVATORY, VIT. CHINA WITH 4" CENTERSET FAUCET HOLE(S). **CHICAGO FAUCET #E80-A11A-17ABCPT,** WITH **CHICAGO #3500-001KJKCP** 4" COVER PLATE. "E-TRONIC" 80 MODULE WITH BUILT-IN BLUETOOTH AND ASSE 1070 THERMOSTATIC MIXING VALVE SCALD PROTECTION, 6-VOLT LITHIUM **CRP2** BATTERY POWERED SENSOR FAUCET WITH VANDAL PROOF 0.5 GPM ECONO-FLO NON-AERATING SPRAY OUTLET, ABOVE DECK ELECTRONICS. INCLUDES OPTIONAL USER-ADJUSTABLE TEMPERATURE CONTROL AND CONCEALED CONTROL WITH VANDAL RESISTANT CAP. **DEARBORN BRASS #760W-1,** CHROME PLATED GRID STRAINER WITH OFFSET TAILPIECE. **JAY R. SMITH #0723 CONCEALED ARMS**, AND A STEEL SUPPORT PLATE FOR MOUNTING FIXTURE PER DETAIL A/P9.01 AND B/P9.03. OR OPTIONAL: **JAY R. SMITH #0700** FLOOR MOUNTED CONCEALED ARM CARRIER. REFER TO MANUFACTURER FOR INSTALLATION **SET TEMPERATURE AT 105°F.** ADJUST FAUCET TO STAY OPEN FOR 10-15 SECONDS. (2) LOOSE KEY COMPRESSION ANGLED WALL STOP WITH SUPPLIES, P-TRAP/TAILPIECE WITH ESCUTCHEON, WRAP / INSULATE WATER SUPPLIES, TRAPS & TAILPIECE, AND DRAIN PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES BELOW FIXTURE. REFER TO SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. PROVIDE 2" WCO.

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
WC-4	WATER CLOSET **(BATTERY SENSOR WITH MECHANICAL OVERRIDE)** **SEAT HGT: 17"-19"** **ADULT ADA**	4"	2"	1"	-	**KOHLER "HIGHCLIFF ULTRA" #K-96057-SS,** ELONGATED FLOOR MOUNT, CBC ACCESS COMPLIANT, TOP SPUD FLUSHOMETER BOWL, ANTIMICROBIAL FINISH (SS). 16-5/8" RIM HEIGHT. **SLOAN "ROYAL" #111-SFSM-1.28-TMO,** 1.28 GPF, BATTERY SENSOR EXPOSED WATER CLOSET FLUSHOMETER, POLISHED CHROME FINISH, DIAPHRAGM VALVE, TOP SPUD CONNECTION, SINGLE FLUSH, WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON. 14" FLUSH VALVE HEIGHT. MOUNT FLUSH VALVE WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON POINTED TOWARDS WIDE/OPEN SIDE OF STALL. **BEMIS #2155SSCT** COMMERCIAL ELONGATED HEAVY-DUTY PLASTIC TOILET SEAT, DURAGUARD® ANTIMICROBIAL, OPEN-FRONT LESS COVER, SELF-SUSTAINING CHECK HINGE WITH NON-CORRODING 300 SERIES STAINLESS STEEL POSTS AND PINTLES, STA-TITE® FASTENING SYSTEM. 1-1/8" SEAT HEIGHT. **BOWL HEIGHT w/SEAT: 17-3/4"** **F.F. TO TOP OF FLUSH VALVE: 30-5/8"**
WC-5	WATER CLOSET **(BATTERY SENSOR WITH MECHANICAL OVERRIDE)** **ADULT NON-ADA**	4"	2"	1"	-	**KOHLER "WELLCOMME ULTRA" #K-96053-SS,** ELONGATED FLOOR MOUNT, TOP SPUD FLUSHOMETER BOWL, ANTIMICROBIAL FINISH (SS). 15-3/16" RIM HEIGHT. **SLOAN "ROYAL" #111-SFSM-1.28-TMO,** 1.28 GPF, BATTERY SENSOR EXPOSED WATER CLOSET FLUSHOMETER, POLISHED CHROME FINISH, DIAPHRAGM VALVE, TOP SPUD CONNECTION, SINGLE FLUSH, WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON. 14" FLUSH VALVE HEIGHT. **BEMIS #2155SSCT** COMMERCIAL ELONGATED HEAVY-DUTY PLASTIC TOILET SEAT, DURAGUARD® ANTIMICROBIAL, OPEN-FRONT LESS COVER, SELF-SUSTAINING CHECK HINGE WITH NON-CORRODING 300 SERIES STAINLESS STEEL POSTS AND PINTLES, STA-TITE® FASTENING SYSTEM. 1-1/8" SEAT HEIGHT. **BOWL HEIGHT w/SEAT: 16-5/16"** **F.F. TO TOP OF FLUSH VALVE: 29-3/16"**
U-1	URINAL **(BATTERY SENSOR WITH MECHANICAL OVERRIDE)**	2"	2"	3/4"	-	**KOHLER WALL MOUNT "BARDON" #K-4991-ETSS**, 0.125 GPF, WITH STAINLESS STEEL SECURED STRAINER, ANTIMICROBIAL FINISH. 26-7/8" URINAL HEIGHT. **SLOAN "ROYAL" #186-SFSM-0.125-TMO** (OR TOTO EQUAL), 0.125 GPF, BATTERY SENSOR EXPOSED URINAL FLUSHOMETER, POLISHED CHROME FINISH, DIAPHRAGM VALVE, TOP SPUD CONNECTION, SINGLE FLUSH, WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON. 14" FLUSH VALVE HEIGHT. **JAY R. SMITH #0637** SUPPORT CARRIER WITH BOTTOM PLATE FOR FLOOR AND WALL ATTACHMENT. MOUNTING OPTION: REFER TO DETAIL A/P9.03. PROVIDE 2" WCO ABOVE FLOOD RIM LEVEL OF FIXTURE. **URINAL AND F.V. OVERALL HEIGHT: 40-7/8"** REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
WC-1	WATER CLOSET **(BATTERY SENSOR WITH MECHANICAL OVERRIDE)** **SEAT HGT: 11"-12"** **AGES: 3 - 4**	4"	2"	1"	-	**KOHLER "PRIMARY" #K-96064-SS** ELONGATED FLOOR MOUNT, CBC ACCESS COMPLIANT, TOP SPUD FLUSHOMETER BOWL, ANTIMICROBIAL FINISH (SS), WITH INCLUDED OPEN-FRONT SEAT **(KOHLER K-4686-A)** WITH SCALLOPED HANDHOLD LOCATIONS. 1-1/4" SEAT HEIGHT. 10-1/2" TOILET RIM HEIGHT. **SLOAN "ROYAL" #111-SFSM-1.28-TMO,** 1.28 GPF, BATTERY SENSOR EXPOSED WATER CLOSET FLUSHOMETER, POLISHED CHROME FINISH, DIAPHRAGM VALVE, TOP SPUD CONNECTION, SINGLE FLUSH, WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON. 14" FLUSH VALVE HEIGHT. MOUNT FLUSH VALVE WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON POINTED TOWARDS WIDE/OPEN SIDE OF STALL. **BOWL HEIGHT w/SEAT: 11-3/4"** **F.F. TO TOP OF FLUSH VALVE: 24-1/2"**
WC-2	WATER CLOSET **(BATTERY SENSOR WITH MECHANICAL OVERRIDE)** **SEAT HGT: 12"-15"** **AGES: 5 - 8**	4"	2"	1"	-	**KOHLER "JUVENILE ULTRA" #K-96059-SS,** ELONGATED FLOOR MOUNT, CBC ACCESS COMPLIANT, TOP SPUD FLUSHOMETER BOWL, ANTIMICROBIAL FINISH (SS). 13-3/4" RIM HEIGHT. **SLOAN "ROYAL" #111-SFSM-1.28-TMO,** 1.28 GPF, BATTERY SENSOR EXPOSED WATER CLOSET FLUSHOMETER, POLISHED CHROME FINISH, DIAPHRAGM VALVE, TOP SPUD CONNECTION, SINGLE FLUSH, WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON. 14" FLUSH VALVE HEIGHT. MOUNT FLUSH VALVE WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON POINTED TOWARDS WIDE/OPEN SIDE OF STALL. **BEMIS #2155SSCT** COMMERCIAL ELONGATED HEAVY-DUTY PLASTIC TOILET SEAT, DURAGUARD® ANTIMICROBIAL, OPEN-FRONT LESS COVER, SELF-SUSTAINING CHECK HINGE WITH NON-CORRODING 300 SERIES STAINLESS STEEL POSTS AND PINTLES, STA-TITE® FASTENING SYSTEM. 1-1/8" SEAT HEIGHT. **BOWL HEIGHT w/SEAT: 14-7/8"** **F.F. TO TOP OF FLUSH VALVE: 27-3/4"**
WC-3	WATER CLOSET **(BATTERY SENSOR WITH MECHANICAL OVERRIDE)** **SEAT HGT: 15"-17"** **NURSE TOILET #117** **AGES: 9 - 12**	4"	2"	1"	-	**KOHLER "WELLCOMME ULTRA" #K-96053-SS,** ELONGATED FLOOR MOUNT, CBC ACCESS COMPLIANT, TOP SPUD FLUSHOMETER BOWL, ANTIMICROBIAL FINISH (SS). 15-3/16" RIM HEIGHT. **SLOAN "ROYAL" #111-SFSM-1.28-TMO,** 1.28 GPF, BATTERY SENSOR EXPOSED WATER CLOSET FLUSHOMETER, POLISHED CHROME FINISH, DIAPHRAGM VALVE, TOP SPUD CONNECTION, SINGLE FLUSH, WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON. 14" FLUSH VALVE HEIGHT. MOUNT FLUSH VALVE WITH TRUE MECHANICAL OVERRIDE FLUSH BUTTON POINTED TOWARDS WIDE/OPEN SIDE OF STALL. **BEMIS #2155SSCT** COMMERCIAL ELONGATED HEAVY-DUTY PLASTIC TOILET SEAT, DURAGUARD® ANTIMICROBIAL, OPEN-FRONT LESS COVER, SELF-SUSTAINING CHECK HINGE WITH NON-CORRODING 300 SERIES STAINLESS STEEL POSTS AND PINTLES, STA-TITE® FASTENING SYSTEM. 1-1/8" SEAT HEIGHT. **BOWL HEIGHT w/SEAT: 16-5/16"** **F.F. TO TOP OF FLUSH VALVE: 29-3/16"**

NOTE:
ALL PLUMBING FIXTURES SHALL MEET 2022 CAL GREEN MANDATORY MEASURES. MAXIMUM FLOW RATE AT 20 PERCENT REDUCTION PER A5.303.2.3.2 AND TABLE A5.303.2.2.

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
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TITLE
PLUMBING SCHEDULES

P11.00

PROJECT 24042

16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P11.00 - 11.06 - Plumbing Schedules.dwg ryanf

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
S-2	SINK (NURSE) (MANUAL)	2"	2"	1/2"	1/2"	**JUST #HCL23520-34-J** (OR ACORN, OR ELKAY EQUAL) WALL-HUNG HANDWASH SINK WITH BACKSPLASH AND WALL BRACKET, ADA COMPLIANT. OVERALL DIMS: 19"W x 23"(F to B) x 9"H, BOWL: 16"W x 13-1/2"(F to B) x 4" DEEP, 18 GAUGE 304 STAINLESS STEEL, REAR CENTER 1-1/2" DRAIN LOCATION, ADA, ASME A112.19.3, ICC A117.1. VERIFY & MATCH HOLE PUNCHES WITH FAUCET. **JUST #J-ADA-15-FS** GRID DRAIN WITH REMOVABLE STRAINER. PAIR WITH **EEW-1**, COMBINED FAUCET AND EYEWASH, WITH ASSE 1070 & 1071 THERMOSTATIC MIXING VALVE. **CONFIRM INSTALLATION CLEARANCE WITH SINK BACKSPLASH AND EEW-1, PRIOR TO ORDERING.** PROVIDE A STEEL SUPPORT PLATE FOR MOUNTING FIXTURE PER DETAIL A/P9.01. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. (2) LOOSE KEY COMPRESSION ANGLED WALL STOP WITH SUPPLIES, P-TRAP/TAILPIECE WITH ESCUTCHEON, WRAP / INSULATE WATER SUPPLIES, TRAPS & TAILPIECE, AND DRAIN PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES BELOW FIXTURE. REFER TO SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. PROVIDE 2" WCO.
S-3	CLASSROOM SINK (MANUAL)	2"	2"	1/2" (CW ONLY)	-	**ACORN-SINKS #CDADA-3120-55** SINGLE COMPARTMENT SINK, ADA COMPLIANT. OVERALL DIMS: 31" SIDE-TO-SIDE x 19-1/2" FRONT TO BACK x 5-1/2" DEEP. BOWL DIMS: 22"x16". 18 GA., TYPE 304 S.S. FINISH, SELF-RIMMING, 3-1/2" CENTER REAR DRAIN. FAUCET MOUNTED AT CENTER LEFT-LEDGE AND BUBBLER MOUNTED RIGHT-FRONT. ONE FAUCET HOLE DESIGNATED FOR SOAP DISPENSER PER ARCH PLANS. **CONFIRM AND MATCH FAUCET HOLE PUNCHING WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.** **JUST #J-ADA-35** (OR ACORN EQUAL) STAINLESS STEEL ADA OFFSET DRAIN ASSEMBLY. **CHICAGO FAUCET #350-GN8AE35ABCP** WITH PRESSURE COMPENSATING SOFTFLO AERATOR, 1.5 GPM, 8" GOOSENECK FAUCET INDEXED "C" **CHICAGO FAUCET "ECAST" #748-765FHABCP.** DRINKING BUBBLER WITH ANTI-MICROBIAL FLEXIBLE MOUTH GUARD. PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER. LOOSE KEY COMPRESSION ANGLED WALL STOP WITH SUPPLIES, P-TRAP/TAILPIECE WITH ESCUTCHEON, WRAP / INSULATE WATER SUPPLIES, TRAPS & TAILPIECE, AND DRAIN PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES BELOW FIXTURE. REFER TO SPECIFICATIONS. PROVIDE 2" WCO.
S-4	CLASSROOM SINK (MANUAL)	2"	2"	1/2" (CW ONLY)	-	FAUCET MOUNTED AT CENTER-RIGHT LEDGE AND BUBBLER MOUNTED LEFT-FRONT. ONE FACUET HOLE DESIGNATED FOR SOAP DISPENSER PER ARCH PLANS. **CONFIRM AND MATCH FAUCET HOLE PUNCHING WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.** **ALL ELSE PER MARK S-3.**
S-5	SINK (MANUAL)	2"	2"	1/2"	1/2"	FAUCET MOUNTED AT CENTER RIGHT-LEDGE AND BUBBLER MOUNTED LEFT-FRONT. ONE FAUCET HOLE DESIGNATED FOR SOAP DISPENSER PER ARCH PLANS. **CONFIRM AND MATCH FAUCET HOLE PUNCHING WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.** **CHICAGO FAUCET "ECAST" #748-765FHABCP.** DRINKING BUBBLER WITH ANTI-MICROBIAL FLEXIBLE MOUTH GUARD. PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER. **SET MAX. TEMPERATURE AT 110°F.** **ALL ELSE PER MARK S-1.**

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
WS-1	WASH SINK (BATTERY SENSOR)	2"	2"	1/2" (CW ONLY)	-	**ELKAY CUSTOM FABRICATED WASH SINK.** SIMILAR TO THE MULTI-STATION WASH-UP SCULLERY SINK, 14 GAUGE TYPE 304 WALL MOUNTED STAINLESS STEEL L"X23"X5" DEEP OVERALL SIZE, WITH **6" TALL STAINLESS STEEL SPLASH GUARD AT (3) SIDES** (BACK, LEFT & RIGHT), (3) SINGLE HOLE FAUCET PUNCHES ON BACKSPLASH, 6" WIDE LEDGE FOR BUBBLER ON ONE SIDE. *OVERALL CUSTOM SINK LENGTH "**L**" MAY VARY AT **EACH** LOCATION DUE TO FIELD CONDITIONS. OVERALL DIM. IS APPROX. 80"±2". VERIFY FINISH-WALL TO FINISH-WALL DIMENSION IN FIELD AND COORDINATE REQUIRED FILLER TRIM WITH ARCH. DRAWINGS PRIOR TO CUSTOM FABRICATION. SUBMIT SHOP DRAWINGS TO **AOR** & **MEOR** FOR REVIEW PRIOR TO ORDERING WASH SINKS. **ANTICIPATE LONG LEAD TIMES.** **(2) TWO ELKAY #LKAD35** (OR ACORN EQUAL) 3-1/2" STAINLESS STEEL ADA OFFSET DRAIN & TAILPIECE. **(3) THREE CHICAGO "HYTRONIC ECAST" #116.204.AB.1** (OR T&S BRASS EQUAL) WALL MOUNTED SINGLE HOLE FAUCET & 5-1/4" GOOSENECK SPOUT, 0.5 GPM VANDAL-PROOF, ECONO-FLO NON-AERATING LAMINAR SPRAY, SINGLE SUPPLY, 6-VOLT LITHIUM **CRP2** BATTERY, ABOVE DECK ELECTRONICS. **CHICAGO FAUCET "ECAST" #748-765FHABCP.** DRINKING BUBBLER WITH ANTI-MICROBIAL FLEXIBLE MOUTH GUARD, LOCATED AT **RIGHT FRONT** 6" WIDE LEDGE PER ARCHITECTURAL DRAWINGS. PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER. REFER TO WASH SINK DETAIL D/P9.07. PROVIDE STEEL SUPPORT PLATE FOR MOUNTING FIXTURE PER DETAIL A/P9.01. LOOSE KEY COMPRESSION ANGLED WALL STOP WITH SUPPLIES, P-TRAP/TAILPIECE WITH ESCUTCHEON. WRAP / INSULATE WATER SUPPLIES, TRAPS & TAILPIECE, AND DRAIN PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES BELOW FIXTURE. REFER TO SPECIFICATIONS. REFER TO THE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. WEIGHT: 250#
WS-2	WASH SINK (BATTERY SENSOR)	2"	2"	1/2" (CW ONLY)	-	**ELKAY CUSTOM FABRICATED WASH SINK. CHICAGO FAUCET "ECAST" #748-765FHABCP.** DRINKING BUBBLER LOCATED AT **LEFT FRONT** 6" WIDE LEDGE PER ARCHITECTURAL DRAWINGS. PROVIDE SEPARATE WALL STOP WITH SUPPLY FOR BUBBLER. **ALL ELSE PER MARK WS-1.**
S-1	SINK (MANUAL)	2"	2"	1/2"	1/2"	**ACORN-SINKS #CDADA-3120-55** SINGLE COMPARTMENT SINK, ADA COMPLIANT. OVERALL DIMS: 31" SIDE-TO-SIDE x 19-1/2" FRONT TO BACK x 5-1/2" DEEP. BOWL DIMS: 22"x16". 18 GA., TYPE 304 S.S. FINISH, SELF-RIMMING, 3-1/2" CENTER REAR DRAIN. FAUCET MOUNTED AT CENTER LEFT-LEDGE. ONE FAUCET HOLE DESIGNATED FOR SOAP DISPENSER PER ARCH PLANS. **CONFIRM AND MATCH FAUCET HOLE PUNCHING WITH ARCHITECTURAL PLANS PRIOR TO ORDERING.** **JUST #J-ADA-35** (OR ACORN EQUAL) ADA COMPLIANT STAINLESS STEEL OFFSET DRAIN ASSEMBLY. **CHICAGO #2302-GN8AE3ABCP** DECK MOUNTED FAUCET, TWO-HOLE MOUNTING, 2-3/4" LEVER HANDLE, 8" RIGID/SWING GOOSENECK SPOUT. PROVIDE 1.5 GPM PRESSURE COMPENSATING OUTLET. **LEONARD #170-LF-BP-BRKT** ASSE 1070 THERMOSTATIC MIXING VALVE MOUNTED ON WALL BELOW SINK WITH BRACKET "BRKT", COLD WATER BY-PASS "BP". PIPING FROM THE ANGLE STOPS TO THE THERMOSTATIC MIXING VALVE SHALL BE RIGID TUBING. PROVIDE AT SINK S-1, BLDG 100, TEACHER WORK ROOM #101: **JRSMITH #2698-ADA** (OR MIFAB, OR PPP EQUAL). TAILPIECE TRAP SEAL PRIMER WITH ESCUTCHEONS. EXTEND 1/2" MAKE-UP WATER DOWN TO UNDER-SLAB TO FLOOR DRAIN/SINK P-TRAP. MAKE-UP LINE FROM THE TRAP PRIMER TO FIXTURE TRAP SHALL HAVE CONTINUOUS SLOPE. **SET MAX. TEMPERATURE AT 110°F.** (2) LOOSE KEY COMPRESSION ANGLED WALL STOPS WITH SUPPLIES, P-TRAP/TAILPIECE WITH ESCUTCHEON, WRAP / INSULATE WATER SUPPLIES, TRAPS & TAILPIECE, AND DRAIN PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES BELOW FIXTURE. REFER TO SPECIFICATIONS. PROVIDE 2" WCO.

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
L-3	LAVATORY STUDENT CW ONLY (BATTERY SENSOR)	2"	2"	1/2" (CW ONLY)	-	**KOHLER WALL-HUNG "KINGSTON" #K-2005,** CBC ACCESS COMPLIANT, 21-1/4"x18-1/8", WALL-MOUNT/CONCEALED ARM CARRIER LAVATORY, VIT. CHINA WITH 4" CENTERSET FAUCET HOLE(S). **CHICAGO FAUCET #E80-A11A-11ABCPT,** WITH **CHICAGO #3500-001KJKCP** 4" COVER PLATE. "E-TRONIC" 80 MODULE WITH BUILT-IN BLUETOOTH, SINGLE SUPPLY, 6-VOLT LITHIUM **CRP2** BATTERY POWERED SENSOR FAUCET WITH VANDAL PROOF 0.5 GPM ECONO-FLO NON-AERATING SPRAY OUTLET, ABOVE DECK ELECTRONICS. **DEARBORN BRASS #760W-1,** CHROME PLATED GRID STRAINER WITH OFFSET TAILPIECE. **JAY R. SMITH #0723 CONCEALED ARMS,** AND A STEEL SUPPORT PLATE FOR MOUNTING FIXTURE PER DETAIL A/P9.01 AND B/P9.03. OR OPTIONAL: **JAY R. SMITH #0700** FLOOR MOUNTED CONCEALED ARM CARRIER. ADJUST FAUCET TO STAY OPEN FOR 10-15 SECONDS. LOOSE KEY COMPRESSION ANGLED WALL STOP WITH SUPPLIES, P-TRAP/TAILPIECE WITH ESCUTCHEON. WRAP / INSULATE WATER SUPPLIES, TRAPS & TAILPIECE, AND DRAIN PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES BELOW FIXTURE. REFER TO SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. PROVIDE 2" WCO.
L-4	LAVATORY STUDENT (BLDG 200) CW & HW (BATTERY SENSOR)	2"	2"	1/2"	1/2"	**SET MAX TEMPERATURE AT 105°F.** ADJUST FAUCET TO STAY OPEN FOR 10-15 SECONDS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. OMIT: OPTIONAL USER-ADJUSTABLE TEMPERATURE CONTRL MOUNTED ON SIDE OF CHICAGO FAUCET. REPLACE WITH VANDAL RESISTANT CAP TO CONCEAL TEMPERATURE CONTROL . **ALL ELSE PER MARK L-2.**
MS-1	MOP SINK (MANUAL)	3"	2"	3/4"	3/4"	**KOHLER "WHITBY" #K-6710** 28" x 28" FLOOR MOUNT, CORNER STYLE ENAMELED CAST IRON MOP SINK. **KOHLER #K-8940** RIM GUARD. **KOHLER #K-9146** SERVICE SINK STRAINER. **CHICAGO #897-CCP** (OR T&S BRASS EQUAL) WALL MOUNT POLISHED CHROME FAUCET WITH VACUUM BREAKER, INTEGRAL CHECK VALVES, STOPS, & WALL BRACE. **FLORESTONE #MR-370** 60" HOSE WITH WALL BRACKET. **FLORESTONE #MR-372** MOP HANGER. PROVIDE 3" WALL CLEANOUT.

NOTE:
ALL PLUMBING FIXTURES SHALL MEET 2022 CAL GREEN MANDATORY MEASURES. MAXIMUM FLOW RATE AT 20 PERCENT REDUCTION PER A5.303.2.3.2 AND TABLE A5.303.2.2.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

CERTIFIED PROFESSIONAL ENGINEER
BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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4910 E. Clinton Way, Suite 101
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TITLE
PLUMBING SCHEDULES

P11.01

PROJECT 24042

16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P11.00 - 11.06 - Plumbing Schedules.dwg rpanf

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
TD-1	TRENCH DRAIN	-	2"	1/2"	-	**MIFAB SERIES P6081-PB-12GA** 10-1/8" WIDE, 8" THROAT, 12 GAUGE FABRICATED TYPE 304 STAINLESS STEEL PRESLOPED TRENCH DRAIN. CUSTOM FABRICATED 12'-0" LONG CHANNEL AND GRATES TO MATCH PLAN WITH: **MIFAB #T200-PGB-3-WW-500**, 8.8"(W) x 19.69"(L) (0.5 METER), QTY 8, STAINLESS STEEL HEELPROOF RATED GRATE (PERFORATED WITH 1/4" HOLES), DIN LOAD CLASS "B". CLIPFIX LOCKING MECHANISM. CBC ACCESS COMPLIANT. CHANNELS PROVIDED WITH FLANGED ENDS TO CONNECT TO EACH OTHER WITH NEOPRENE RUBBER GASKET IN BETWEEN. PROVIDE WITH BOTTOM OR END OUTLET. INSTALL IN COMPLIANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES. PROVIDE TRAP PRIMER CONNECTION P-TRAP WITH 1/2" PRIMER TAP. REFER TO DRAWINGS FOR OUTLET SIZE.
FD-1	FLOOR DRAIN	-	2"	1/2"	-	**MIFAB F1100-C-TSS-3** (OR JR SMITH EQUAL) LAQUERED CAST IRON BODY WITH 5" SQUARE "STAINLESS STEEL" HEEL PROOF STRAINER. PROVIDE TRAP PRIMER CONNECTION P-TRAP WITH 1/2" PRIMER TAP, PER A/P9.02 AND/OR B/P9.02. REFER TO DRAWINGS FOR OUTLET SIZE.
FD-2	FLOOR DRAIN	-	-	-	-	**MIFAB #F1510-C, 12" SQUARE,** (OR JR SMITH EQUAL), LACQUERED CAST IRON FLOOR DRAIN DEEP SUMP BODY, WIDE ANCHOR FLANGE, WEEPHOLES AND ADJUSTABLE COLLAR WITH SQUARE HEAVY DUTY EPOXY DUCTILE IRON HINGED 1" THICK TRACTOR GRATE, WITH FOUR PIECE SURFACE MEMBRANE CLAMP, SEDIMENT BUCKET, 51 SQ.INCH FREE AREA. PROVIDE TRAP PRIMER CONNECTION P-TRAP WITH 1/2" PRIMER TAP, PER A/P9.02 AND/OR B/P9.02. REFER TO DRAWINGS FOR OUTLET SIZE.
FS-1	FLOOR SINK	-	2"	1/2"	-	**MIFAB FS1730-FL-C-3-150** (OR JR SMITH EQUAL) 12"x12"x8" DEEP WITH ANCHOR FLANGE, DOME BOTTOM STRAINER & STAINLESS STEEL RIM WITH 1/2 GRATE. INSTALL FLUSH WITH FINISH FLOOR. PROVIDE TRAP PRIMER CONNECTION P-TRAP WITH 1/2" PRIMER TAP, PER A/P9.02 AND/OR B/P9.02. REFER TO DRAWINGS FOR OUTLET SIZE. REFER TO DETAIL F/P9.01, FOR INDIRECT WASTE AIR GAP DRAIN DETAIL.
FS-2	FLOOR SINK	-	2"	1/2"	-	**MIFAB FS1740-FL-C-3-150** (OR JR SMITH EQUAL) 12"x12"x10" DEEP WITH ANCHOR FLANGE, DOME BOTTOM STRAINER & STAINLESS STEEL RIM WITH 1/2 GRATE. INSTALL FLUSH WITH FINISH FLOOR. PROVIDE TRAP PRIMER CONNECTION P-TRAP WITH 1/2" PRIMER TAP, PER A/P9.02 AND/OR B/P9.02. REFER TO DRAWINGS FOR OUTLET SIZE. REFER TO DETAIL F/P9.01, FOR INDIRECT WASTE AIR GAP DRAIN DETAIL.

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
DF-2	DRINKING FOUNTAIN (EXTERIOR WALL) **ELECTRICAL REQUIRED**	2"	2"	1/2"	-	MOUNTED FOR OUTDOOR APPLICATION WITH ROOF OVERHANG PER ARCH. DRAWINGS WITH PARTIAL/MINIMUM SUN EXPOSURE. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. **ALL ELSE PER DF-1.**
DF-3	DRINKING FOUNTAIN (SITE)	2"	-	1/2"	-	**HAWS #3612F** ADA VANDAL-RESISTANT OUTDOOR, PEDESTAL FILTERED BOTTLE FILLER AND DRINKING FOUNTAIN. HEAVY-DUTY STAINLESS-STEEL PEDESTAL WITH MATTE POWDER-COATING FINISH, ONE BOTTLE FILLER AND TWO DRINKING FOUNTAINS, 3000 GALLON CARBON BLOCK FILTER WITH MOUNTING BRACKET (HAWS #6477). VANDAL-RESISTANT PUSH-BUTTON OPERATED STAINLESS STEEL VALVES WITH FRONT-ACCESSIBLE CARTRIDGE AND FLOW ADJUSTMENT, POLISHED CHROME-PLATED BRASS VANDAL-RESISTANT SHIELDED BUBBLER HEADS WITH 0.45 GPM FLOW RATE, LARGE-OPENING BOTTLE FILLER WITH 1.0 GPM FLOW RATE. LEAD-FREE WATERWAYS, POLISHED CHROME-PLATED VANDAL-RESISTANT WASTE STRAINERS WITH TOP-DOWN CLEAN-OUT ACCESS ON FOUNTAINS, VANDAL-RESISTANT ACCESS PLATES, INTEGRAL MOUNTING FEET, AND 1-1/2" SLIP WASTE. CONFIRM **COLOR** WITH DISTRICT PRIOR TO ORDERING. **HAWS #MTG.3600**: INSTALLATION MOUNTING PLATE TEMPLATE FOR SPACING ANCHORS DURING CONCRETE POUR. **HAWS #6428**: PROVIDE (1) ONE ADDITIONAL REPLACEMENT FILTER. 3000 GALLON OR ONE YEAR SERVICE LIFE. CERTIFIED TO NSF 42 & 53 FOR REDUCTION OF CHLORINE (TASTE AND ODOR) AND LEAD, AND REMOVES 99.99% OF CYSTS. PROVIDE SERVICE STOP, TRAP PER SPECIFICATIONS. 30" MIN. SQUARE, 6" MIN. THICK CONCRETE SLAB REQUIRED. DRINKING FOUNTAIN ANCHORAGE PER DETAIL A/P9.06. REFER TO SIMILAR ARCH. DETAIL 9/SD9. INSTALL IN COMPLIANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS AND LOCATION. WEIGHT: 200 LBS
CWB-1	CAN WASH CONTROL BOX	-	-	1/2"	1/2"	**JAY R. SMITH #3380** (OR MIFAB EQUAL) FLUSH MOUNTED IN-WALL STAINLESS STEEL BOX WITH CONTROL VALVES, VACUUM BREAKER, STOPS & PIANO HINGED COVER WITH CYLINDER KEY LOCK. OVERALL DIMS: 8-5/8"W X 8-5/8"H X 5"D REFER TO DETAIL F/P9.00.
CWD-1	CAN WASH DRAIN	-	-	-	1/2"	**JAY R. SMITH #3370Y** (OR MIFAB EQUAL) 12-1/2"X12-1/2" W/FLASHING CLAMP, NICKEL BRONZE RIM AND GRATE, SPRAY NOZZLE & SEDIMENT BUCKET. REFER TO PLAN FOR OUTLET SIZE. REFER TO DETAIL F/P9.00.
HR-1	HOSE RACK	-	-	-	-	**STRAHMAN #HR-100-L (HR100MK60)** HEAVY-DUTY GAUGE STAINLESS STEEL HOSE HOLDER/RACK FOR COILED HOSES (100' MAX.). PROVIDE SUPPORT BACKING PER DETAIL B/P9.01.

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
EEW-1	EMERGENCY EYEWASH WITH FAUCET (NURSE) **(MANUAL)**	-	-	3/4"	3/4"	**BRADLEY #S19-510W, HALO SWING-ACTIVATED FAUCET EYEWASH.** BARRIER-FREE, ADA COMPLIANT, DECK-MOUNTED COMBINED GOOSENECK SPOUT & FAUCET WITH WRISTBLADE HANDLES AND SINGLE ACTION SWING-ACTIVATED EYEWASH UNIT. RIGHT-HAND SWING EYEWASH ACTIVATION, DEACTIVATES AND MOVES FAUCET OUT OF WAY. EYEWASH INCLUDES 5.1 GPM FLOW CONTROL. SEPARATE SUPPLY LINES FOR HOT, COLD, AND EYEWASH. 15.78" TALL 180° GOOSENECK SPOUT, WITH 1.5 GPM LAMINAR FLOW OUTLET. UPC, ANSI Z358.1-2014, NSF 61/372 COMPLIANT. PROVIDE & MOUNT EYEWASH SIGN ON WALL ABOVE SINK. PROVIDE WITH: **BRADLEY #S19-2010, NAVIGATOR THERMOSTATIC MIXING VALVE FOR EYEWASH AND FAUCET**. WALL-MOUNT BELOW SINK. 2 VALVES IN 1 WITH ONE OUTLET FOR TEMPERED WATER TO FAUCET & ONE OUTLET FOR TEPID WATER TO EYEWASH. BUILT-IN COLD WATER BYPASS ON EYEWASH, AND POSITIVE SHUTOFF OF HOT SUPPLY WHEN COLD SUPPLY IS LOST. ANSI Z358.1, ASSE 1070 &1071 COMPLIANT. PIPING FROM THE ANGLE STOPS TO THE THERMOSTATIC MIXING VALVE SHALL BE RIGID TUBING. SET MAX FAUCET TEMP. @ 110°F. SET EYEWASH TEMP. @ 75°F. PAIR WITH SINK, **S-2**. REFER TO DETAIL A/P9.08.
DF-1	DRINKING FOUNTAIN (INDOOR) **ELECTRICAL REQUIRED**	2"	2"	1/2"	-	**ELKAY "ezH2O" #LVRCTL8WSK** VANDAL-RESISTANT BOTTLE FILLING STATION & BI-LEVEL STAINLESS COOLER, FILTERED & REFRIGERATED. 8.0 GPH @ 50°F DRINKING WATER, BASED ON 80°F INLET WATER AND 90°F AMBIENT. GREEN TICKER, LAMINAR FLOW, REAL DRAIN, VISUAL FILTER MONITOR, VANDAL RESISTANT BUBBLER. ELECTRONIC BOTTLE FILLER BUTTON WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. WALL MOUNTED FOR INDOOR AND/OR OUTDOOR APPLICATIONS. **ELKAY #51300C**: PROVIDE WATERSENTRY LEAD MICROPLASTICS NSF/ANSI CERTIFIED 3000 GALLON FILTER, WITH (1) ONE ADDITIONAL REPLACEMENT FILTER. CERTIFIED TO NSF 372, 42, 53, & 401 FOR REDUCTION OF LEAD, MICROPLASTICS, CLASS 1 PARTICULATE, CYSTS, AND CHLORINE TASTE & ODOR. PROVIDE SERVICE STOP, 1-1/2" TRAP PER SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT, AND CONFIGURATION. BI-LEVEL REVERSE CONFIGURATION SIMILAR. INSTALL IN COMPLIANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES. DRINKING FOUNTAIN ANCHORAGE PER DETAIL A/P9.04. WEIGHT: 140 LBS **ELECTRICAL: 115V/60HZ, 1 FLA, 370 WATTS, GFCI.**

NOTE:
ALL PLUMBING FIXTURES SHALL MEET 2022 CAL GREEN MANDATORY MEASURES. MAXIMUM FLOW RATE AT 20 PERCENT REDUCTION PER A5.303.2.3.2 AND TABLE A5.303.2.2.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
PLUMBING SCHEDULES

P11.02

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CARLOW
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
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25026
Fresno, CA 93727
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16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P11.00 - 11.06 - Plumbing Schedules.dwg ryanf

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
HGI-1	HYDRO-MECHANICAL GREASE INTERCEPTOR	4"/4"	3", 3"	-	-	***MIFAB #BIG-750-AK-C-DI-STR-SP, BIG MAX® HYDROMECHANICAL GREASE INTERCEPTOR WITH EXTERNAL SAMPLING PORT.*** *HDPE ROTATIONAL MOLDED WITH FLOW RATING OF 75 GPM AND LIQUID HOLDING CAPACITY OF 140 GALLONS (18.6 CU. FT.) GREASE DESIGN CAPACITY OF 838 LBS (100.5 GALLONS).* *UNIT SHALL INCLUDE:* *3/8" UNIFORM WALL THICKNESS, DEEP SEAL TRAP COVERED BY LID, INTERNAL AIR RELIEF BY-PASS, ADJUSTABLE LID SYSTEM, STAINLESS STEEL CALIBRATED ORIFICE PLATE (INTERNAL FLOW CONTROL), SAMPLE PORT ACCESS AND 4" NO HUB INLET AND OUTLET CONNECTIONS.* *INTERCEPTOR SHALL BE TESTED AND CERTIFIED TO CSA B481, A.S.M.E. A112.14.3 AND LISTED WITH I.A.P.M.O. BIG MAX GREASE INTERCEPTORS IN COMPLIANCE WITH I.C.C. BY I.A.P.M.O.* *PROVIDE WITH:* ***AK: ANCHOR KIT.*** ***C: RISERS AND EXTENSIONS TO GRADE AS NECESSARY.*** ***DI: H20 24" DIA. WATERTIGHT DUCTILE IRON LID AND COLLAR.*** ***STR: SAFETY SHIELD FOR BIG MAX AT EACH ACCESS LID TO INTERCEPTOR, SAMPLE PORT, AND FLOW SPLITTER.*** ***SP: EXTERNAL SAMPLING PORT - INLINE, HIGH CONNECTIONS, PROVIDE H20 LOAD RATED LID TO MATCH INTERCEPTOR.*** ***PROVIDE MINIMUM 8" THICK TRAFFIC RATED CONCRETE SLAB +18" BEYOND EDGE OF INTERCEPTOR AND SAMPLING PORT WITH REBAR. COORDINATE WITH CONTRACTOR.*** ***NOTE: PROVIDE 1" FALL OR CHANGE IN GRADE BETWEEN UNITS WHEN COMBINING MORE THAN ONE GREASE OR SOLIDS INTERCEPTOR IN SERIES OR PARALLEL.*** *REFER TO DETAIL B/P9.06.* *INSTALL IN COMPLIANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES.*
FSP-1	FLOW SPLITTER	4"/4"/4"	-	-	-	***MIFAB FLOW SPLITTER #XL-MI-G-PL-DT SINGLE INLET WITH TWO OUTLETS.*** *PROVIDE WITH:* ***C: RISERS AND EXTENSIONS TO GRADE AS NECESSARY.*** ***DI: H20 24" DIA. WATERTIGHT DUCTILE IRON LID AND COLLAR.*** ***VEHICULAR TRAFFIC AREA:*** ***PROVIDE MINIMUM 8" THICK TRAFFIC RATED CONCRETE SLAB +18" BEYOND EDGE OF INTERCEPTOR(S), SAMPLING PORT, AND FLOW SPLITTER, WITH REBAR. COORDINATE WITH CONTRACTOR.*** *REFER TO DETAIL B/P9.06.* *INSTALL IN COMPLIANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES.*

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
HB-3	HOSE BIBB (ROOF)	-	-	3/4"	-	***WOODFORD #Y24-BR*** *(OR MIFAB EQUAL) ROUGH BRASS VERTICAL HOSE VALVE WITH LOCKSHIELD, NON-REMOVABLE VACUUM BREAKER, & LOOSE TEE KEY HANDLE WITH* ***WOODFORD NIDEL #34HD*** *ROUGH BRASS VACUUM BREAKER.* *REFER TO DETAIL H/P9.01.* *3/4" INLET REQUIRED AT ALL HOSE BIBBS.*
SA-1	SHOCK ABSORBER	-	-	3/4"	-	***JAY R. SMITH #5005*** *(OR MIFAB EQUAL) STAINLESS STEEL CONSTRUCTION, P.D.I. SYMBOL "A" FOR UP TO 11 FIXTURE UNITS. INSTALL IN UPWARD POSITION.*
SA-2	SHOCK ABSORBER	-	-	1"	-	***JAY R. SMITH #5020****, (OR MIFAB EQUAL) STAINLESS STEEL CONSTRUCTION, P.D.I. SYMBOL "C" FOR UP TO 60 FIXTURE UNITS. INSTALL IN UPWARD POSITION.*
WMB-1	WASHING MACHINE SUPPLY BOX	2"	2"	3/4"	3/4"	***ACORN #8186-SSLF*** *STAINLESS STEEL RECESSED HOT & COLD SUPPLY, WASTE HOSE BOX WITH VACUUM BREAKER.* *REFER TO DETAIL C/P9.04.*
BFP-1	REDUCED PRESSURE BACKFLOW PREVENTER (COMBI UNIT)	-	-	-	-	***WATTS #U-LFU009-QT-S-SC (OR EQUAL)*** *1-1/4" LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY W/ QUARTER-TURN BALL VALVES, STRAINER, UNION CONNECTIONS AND DRAIN KIT.* ***SATIN CHROME FINISH****. PIPE FULL SIZE DRAIN LINE FROM DRAIN KIT TO NEAREST RECEPTACLE, PER DETAIL F/P9.01.*
BFP-2	REDUCED PRESSURE BACKFLOW PREVENTER (MAKE-UP WATER)	-	-	-	-	***WATTS #U-LFU009-QT-S (OR EQUAL)*** *1-1/2" LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY W/ QUARTER-TURN BALL VALVES, STRAINER, UNION CONNECTIONS AND DRAIN KIT. PIPE FULL SIZE DRAIN LINE FROM DRAIN KIT TO NEAREST RECEPTACLE, PER DETAIL F/P9.01.*
BFP-3	REDUCED PRESSURE BACKFLOW PREVENTER (DISHWASHER)	-	-	-	-	***WATTS #U-LFU009-QT-S-SC (OR EQUAL)*** *1" LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY W/ QUARTER-TURN BALL VALVES, STRAINER, UNION CONNECTIONS AND DRAIN KIT.* ***SATIN CHROME FINISH****. PIPE FULL SIZE DRAIN LINE FROM DRAIN KIT TO NEAREST RECEPTACLE, PER DETAIL F/P9.01.*
HT-1	HEAT TRACE ***ELECTRICAL REQUIRED***	-	-	-	-	***RAYCHEM #5XLE1-CR:*** *100FT. SELF-REGULATING "XL-TRACE EDGE" HEATING CABLE FOR PIPE FREEZE PROTECTION. NOMINAL POWER OUTPUT @ 40°F, 120V: 5W/FT.* ***RACHEM #RAYCLIC-PS:*** *POWERED SPLICE CONNECTION KIT FOR (2) HEATING CABLES, WITH (2) TWO END SEALS (RAYCLIC-E), AND PIPE MOUNTING BRACKET (SB-04).* ***RAYCHEM #ECW-GF:*** *ELECTRONIC CONTROLLER WITH 25FT TEMP. SENSOR, TEMPERATURE CONTROL WITH INTEGRATED 30mA GROUND-FAULT PROTECTION. NEMA 4X ENCLOSURE WALL-MOUNTED OR OPTIONALLY INSTALLED ON A PIPE WITH "FTC-PSK" STAND KIT.* ***RAYCHEM #GT66:*** *66FT. GLASS CLOTH TAPE ROLL FOR ATTACHING HEATING CABLE TO PIPE.* ***RAYCHEM #ETL-ENGLISH:*** *"ELECTRIC-TRACED" WARNING LABELS. PROVIDE (1) ONE LABEL PER EACH 10FT OF PIPE.* *MAINTAIN TEMP. AT 40°F. AND PROVIDE 1" MIN. THICK FIBERGLASS PIPE INSULATION.* ***ELECT:120V, 15 AMP BREAKER*** *NOTE: JUNCTION BOX & FLEXIBLE CONDUIT REQ'D TO COMPLETE CONNECTION.* *INQUIRES/CONTACT: KLIMAN SALES PH#: (916) 379-0784*

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
RD-1	COMBO ROOF OVERFLOW DRAIN	-	-	-	-	***MIFAB #R1150 SERIES WITH 13-B-EG-JC-U-W*** *(OR JAY R. SMITH EQUAL), GALVANIZED COMBINED ROOF DRAIN AND SECONDARY OVERFLOW DRAIN WITH GALVANIZED BODY, MEMBRANE CLAMP AND DOME, SUMP RECEIVER, GALVANIZED ADJUSTABLE EXTENSION, BALLAST GUARD WITH SECONDARY CLAMP, UNDERDECK CLAMP, AND ADJUSTABLE WATER DAM FOR OVERFLOW DRAIN SET AT +2" ABOVE ROOF LEVEL.* *REFER TO ARCHITECTURAL SHEET 11/A103 FOR ROOF DRAIN / OVERFLOW DETAILS.* *INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO DRAWINGS FOR OUTLET SIZE. COORDINATE ROOF OPENING WITH ROOF AND FRAMING CONTRACTORS.* *PROVIDE ROOF DRAIN AND/OR OVERFLOW DRAINS WITH SIDE OUTLET* ***"-90NH"*** *AS INDICATED ON DRAWINGS OR WHERE STRUCTURAL OR CONSTRUCTABILITY CONDITIONS PROHIBIT INSTALLATION OF THE STANDARD ROOF DRAIN BODY OR ASSOCIATED PIPING.* *NOTE: POSSIBLE LONG LEAD TIME FOR EXTENSIONS, ORDER ROOF AND OVERFLOW DRAIN ASSEMBLY EARLY. NO JOBSITE FABRICATED EXTENSIONS ALLOWED.*
DN-1	DOWNSPOUT COVER	-	-	-	-	***JAY R. SMITH #1775-U*** *VANDAL PROOF DOWNSPOUT COVER TYPE 304 STAINLESS STEEL DOWNSPOUT COVER WITH HINGED PERFORATED COVER. REFER TO THE PLUMBING DRAWINGS FOR OUTLET SIZE.*
WF-1	WATER FILTER (ICE MACHINE)	-	-	3/4"	-	***PENTAIR EVERPURE INSURICE TWIN PF - i2000 ^{2} SYSTEM, MODEL #EV9324-22.*** *SEDIMENT PREFILTER WITH TWIN FILTRATION SYTEM TO 0.5 MICRONS SERVICE FLOW RATE: 3.34 GPM MAX. 18,000 GAL. CAPACITY.* *OVERALL DIM: 25.59"L x 21.5"W x 6" D.* *3/4" FNPT INLET & OUTLET.* *NSF/ANSI 42 & 53 CERTIFIED.* *PROVIDE ADDITIONAL REPLACEMENT CARTRIDGE SET FOR:* *PRE-FILTER:* ***#EV9534-26*** *PRIMARY FILTER (QTY 2)* ***#EV9612-22****.* *PROVIDE BACKING IN WALL.* *REFER TO DETAIL B/P9.04.* *OPERATING WEIGHT: 29 LBS.* *INSTALL IN COMPLIANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES.*
SB-1	SUPPLY BOX	-	-	-	-	***SPECIALTY PRODUCTS #OB-509-LL*** *METAL RECESSED WATER SUPPLY BOX WITH WHITE FINISH, INTEGRAL SHUT-OFF VALVE AND MINI-WATER HAMMER ARRESTER. 1/2" COPPER SWEAT X 1/4" COMP.*
HB-1	HOSE BIBB (INTERIOR)	-	-	3/4"	-	***WOODFORD #24P-PC*** *(OR MIFAB EQUAL) POLISHED CHROME WALL HOSE VALVE WITH LOCKSHIELD, NON-REMOVABLE VACUUM BREAKER, AND LOOSE TEE KEY HANDLE.* *3/4" INLET REQUIRED AT ALL HOSE BIBBS.*
HB-2	HOSE BIBB (EXTERIOR)	-	-	3/4"	-	***WOODFORD #24P-BR*** *(OR MIFAB EQUAL) ROUGH BRASS WALL HOSE VALVE WITH LOCKSHIELD, NON-REMOVABLE VACUUM BREAKER, & LOOSE TEE KEY HANDLE.* *AND* ***WOODFORD NIDEL #34HD*** *ROUGH BRASS VACUUM BREAKER.* *3/4" INLET REQUIRED AT ALL HOSE BIBBS.*

NOTE:
ALL PLUMBING FIXTURES SHALL MEET 2022 CAL GREEN MANDATORY MEASURES. MAXIMUM FLOW RATE AT 20 PERCENT REDUCTION PER A5.303.2.3.2 AND TABLE A5.303.2.2.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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MANGINI ASSOCIATES INC.
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(559) 627.0630 Office
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TITLE
PLUMBING SCHEDULES

P11.03

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1342

16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P11.00 - 11.06 - Plumbing Schedules.dwg ryanf

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PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
CP-3	145°F DOMESTIC HOT WATER CIRCULATING PUMP (WATER HEATER) BUILDING 800 **ELECTRICAL REQUIRED**	-	-	1/2"	1/2"	**B&G/XYLEM LEAD-FREE WET ROTOR CIRCULATOR "ECOCIRC XL" #XL-N-20-35, 3/4" FLANGE CONNECTION,** LEAD FREE BRONZE OR STAINLESS STEEL, (OR GRUNDFOS OR TACO EQUAL), 1/12 HP MOTOR, ECM VARIABLE SPEED WET ROTOR PUMP, INTEGRATED DRIVE, WITH (3) CONTROL MODES: PROPORTIONAL PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT SPEED. BUILT-IN TEMPERATURE SENSOR WITH **MINIMUM TEMP AT 140°F.** APPROXIMATE DESIGN OPERATING POINT: **2.0 GPM @ 10 FT TDH**. FINAL OPERATING FLOW SHALL BE FIELD-ADJUSTED TO MAINTAIN A **MAXIMUM 5°F** TEMPERATURE DROP BETWEEN THE SUPPLY MAIN AND PUMP INLET. **B&G/XYLEM #TC-1, AND AQS-3/4**, PROVIDE WITH AUTOMATIC TIMER KIT AND AQUASTAT WITH **MINIMUM TEMP SET AT 140°F.** ELECTRICAL: 115-120 VAC, 60Hz, 1Ø REFER TO DETAIL D/P9.05. **WEIGHT = 22 LBS. ELECTRICAL: 115V, SINGLE PHASE, 6-85 WATTS RANGE, 0.1 - 1.3 AMP RANGE. INTERLOCK PUMP WITH BUILDING EMS SYSTEM, SPEC. DIV. 23, MECHANICAL.**
TMV-2	THERMOSTATIC MIXING VALVE (WATER HEATER) (LOCATED IN BLDG 800)	-	-	3/4"	3/4" 1"	**BRADLEY #S59-3045-R-H-B-P-0, HL45** (OR LEONARD EQUAL) HIGH-LOW THERMOSTATIC MIXING VALVE, FLOW: 12.5 GPM @ 5 PSI PD, MATERIAL: ROUGH BRASS, LEAD-FREE. TEMP. RANGE: "HIGH" MOUNT: WALL BRACKET. PIPED ASSEMBLY WITH INLET AND OUTLET SHUTOFF. LISTING: ASSE 1017, NSF/ANSI 372. 3/4" CW/HW INLET, 1" TEMPERED OUTLET. REFER TO DETAIL D/P9.05. FOR WATER HEATER SYSTEM. **SET OUTLET TEMP @ 125°F. WEIGHT: 20 LBS.**
TMV-3	THERMOSTATIC MIXING VALVE (LOCATED IN BLDG 200)	-	-	1/2"	1/2"	**LEONARD #170-LF-BP-STSTL-REC** THERMOSTATIC MIXING VALVE WITH COLD WATER BYPASS MOUNTED BEHIND LOCKING WALL ACCESS PANEL BELOW FIXTURE, ASSE 1070 COMPLIANT, PIPING FROM THE ANGLE STOPS TO THE THERMOSTATIC MIXING VALVE SHALL BE RIGID TUBING. **SET HW OUTLET TEMP FOR 105°F. WEIGHT: 2 LBS.**

NOTE:
ALL PLUMBING FIXTURES SHALL MEET 2022 CAL GREEN MANDATORY MEASURES. MAXIMUM FLOW RATE AT 20 PERCENT REDUCTION PER A5.303.2.3.2 AND TABLE A5.303.2.2.

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
WH-4	WATER HEATER BUILDING 600 **ELECTRICAL REQUIRED**	-	-	3/4"	3/4"	**BRADFORD WHITE "ELECTRIFLEX™ LD LOWBOY" COMMERCIAL WATER HEATER #LE120L3-3.** VITRAGLAS® LINING WITH MICROBAN® ANTIMICROBIAL PROTECTION, (2) TWO SCREW TYPE ELEMENTS, PROTECTIVE ANODE ROD. OVERALL DIMS: 18"Ø x 25-3/4" HIGH. NOMINAL CAPACITY: 19 GAL. APPROX. RECOVERY AT 80°F RISE: 23 GPH. UNIFORM ENERGY FACTOR: 0.92 3/4" NPT WATER CONNECTIONS. ASME T&P RELIEF VALVE. PROVIDE w/ **HOLDRITE (OR EQUAL) QUICK STRAP** GALVANIZED STEEL WATER HEATER RESTRAINT WITH QUICK LINK FOR FRONT TENSIONING, AND BACK SPACER SADDLE. **ELECTRICAL: NON-SIMULTANEOUS, 4,500/4,500 WATT ELEMENTS, 208V, 3 PH.** CONFIRM & COORDINATE WITH ELECT. CONTRACTOR FOR **VOLTAGE, AMPS & DEDICATED ELECTRICAL DISCONNECT FOR EACH WATER HEATER.** OPERATING WEIGHT = 250 LBS. REFER TO DETAIL C/P9.05.
CP-1	120°F DOMESTIC HOT WATER CIRCULATING PUMP (WATER HEATER) BUILDING 100 **ELECTRICAL REQUIRED**	-	-	-	3/4"	**B&G/XYLEM LEAD-FREE WET ROTOR CIRCULATOR "ECOCIRC XL" #XL-N-20-35, 3/4" FLANGE CONNECTION,** LEAD FREE BRONZE OR STAINLESS STEEL, (OR GRUNDFOS OR TACO EQUAL), 1/12 HP MOTOR, ECM VARIABLE SPEED WET ROTOR PUMP, INTEGRATED DRIVE, WITH (3) CONTROL MODES: PROPORTIONAL PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT SPEED. BUILT-IN TEMPERATURE SENSOR WITH **MINIMUM TEMP AT 115°F.** APPROXIMATE DESIGN OPERATING POINT: **2.5 GPM @ 10 FT TDH**. FINAL OPERATING FLOW SHALL BE FIELD-ADJUSTED TO MAINTAIN A **MAXIMUM 5°F** TEMPERATURE DROP BETWEEN THE SUPPLY MAIN AND PUMP INLET. **B&G/XYLEM #TC-1, AND AQS-3/4,** PROVIDE WITH AUTOMATIC TIMER KIT AND AQUASTAT WITH **MINIMUM TEMP SET AT 115°F.** ELECTRICAL: 115-120 VAC, 60Hz, 1Ø **BUILDING MANAGEMENT VIA MODBUS OR BACNET PROTOCOLS.** REFER TO DETAIL A/P9.05. **WEIGHT = 22 LBS. ELECTRICAL: 115V, SINGLE PHASE, 6-85 WATTS RANGE, 0.1 - 1.3 AMP RANGE. INTERLOCK PUMP WITH BUILDING EMS SYSTEM, SPEC. DIV. 23, MECHANICAL.**
CP-2	125°F DOMESTIC HOT WATER CIRCULATING PUMP (WATER HEATER) BUILDING 800 **ELECTRICAL REQUIRED**	-	-	-	1"	**B&G/XYLEM LEAD-FREE WET ROTOR CIRCULATOR "ECOCIRC XL" #XL-N-36-45, 1" FLANGE CONNECTION,** LEAD FREE BRONZE OR STAINLESS STEEL, (OR GRUNDFOS OR TACO EQUAL), 1/6 HP MOTOR, ECM VARIABLE SPEED WET ROTOR PUMP, INTEGRATED DRIVE, WITH (3) CONTROL MODES: PROPORTIONAL PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT SPEED. BUILT-IN TEMPERATURE SENSOR WITH **MINIMUM TEMP AT 120°F.** APPROXIMATE DESIGN OPERATING POINT: **2.5 GPM @ 18 FT TDH**. FINAL OPERATING FLOW SHALL BE FIELD-ADJUSTED TO MAINTAIN A **MAXIMUM 5°F** TEMPERATURE DROP BETWEEN THE SUPPLY MAIN AND PUMP INLET. **B&G/XYLEM #TC-1, AND AQS-3/4**, PROVIDE WITH AUTOMATIC TIMER KIT AND AQUASTAT WITH **MINIMUM TEMP SET AT 120°F. ELECTRICAL: 115-120 VAC, 60Hz, 1Ø BUILDING MANAGEMENT VIA MODBUS OR BACNET PROTOCOLS.** REFER TO DETAIL D/P9.05. **WEIGHT = 22 LBS. ELECTRICAL: 115V, SINGLE PHASE, 20-200 WATTS RANGE, 0.1 - 3.0 AMP RANGE. INTERLOCK PUMP WITH BUILDING EMS SYSTEM, SPEC. DIV. 23, MECHANICAL.**

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
WH-1	WATER HEATER BUILDING 100 **ELECTRICAL REQUIRED**	-	-	3/4"	3/4"	**BRADFORD WHITE "ELECTRIFLEX™ LD LOWBOY" COMMERCIAL WATER HEATER #LE240LN3-3.** VITRAGLAS® LINING WITH MICROBAN® ANTIMICROBIAL PROTECTION, (2) TWO SCREW TYPE ELEMENTS, PROTECTIVE ANODE ROD. OVERALL DIMS: 24-1/2"Ø x 34-5/16" HIGH. NOMINAL CAPACITY: 37 GAL. APPROX. RECOVERY AT 80°F RISE: 23 GPH. UNIFORM ENERGY FACTOR: 0.92 3/4" NPT WATER CONNECTIONS. ASME T&P RELIEF VALVE. PROVIDE w/ **HOLDRITE (OR EQUAL) QUICK STRAP** GALVANIZED STEEL WATER HEATER RESTRAINT WITH QUICK LINK FOR FRONT TENSIONING, AND BACK SPACER SADDLE. **ELECTRICAL: NON-SIMULTANEOUS, 4,500/4,500 WATT ELEMENTS, 208V, 3 PH.** CONFIRM & COORDINATE WITH ELECT. CONTRACTOR FOR **VOLTAGE, AMPS & DEDICATED ELECTRICAL DISCONNECT FOR EACH WATER HEATER.** OPERATING WEIGHT = 460 LBS. REFER TO DETAIL A/P9.05.
WH-2	WATER HEATER BUILDING 800 **ELECTRICAL REQUIRED**	-	-	-	-	**A.O. SMITH "CHP-SERIES" FULLY INTERGATED COMMERCIAL HEAT PUMP WATER HEATER MODEL #CAHP-120** PRE-CHARGED R134a REFRIGERANT, ENERGY STAR QUALIFIED, LARGE CAPACITY 119 GALLON GLASS COATED TANK WITH 160 PSI WORKING PRESSURE, MULTIPLE OPERATING MODES - (EFFICIENCY, HYBRID, OR ELECTRIC), COMMERCIAL GRADE ANODE, LARGE TOUCH LCD SCREEN READOUT. PROVIDED WITH 3/4" INLET AND 3/4" OUTLET. EFFICIENCY: 4.3 COP FIRST HOUR DELIVERY: 194 GPH (HYBRID MODE FIRST HOUR RECOVERY: 99 GPH (HYBRID MODE) RECOVERY EACH MODE: EFFICIENCY: 50 GPH HYBRID: 99 GPH ELECTRIC: 49 GPH **ELECTRICAL: RATED HEAT PUMP POWER: 3.81 HP (240Vac), 3.69 HP (208Vac) TOTAL HEATING ELEMENT CAPACITY: (2-ELEMENTS - Capacity using both elements) 12kW (240Vac), 9kW (208Vac) VOLTAGE: 208/240Vac - 60Hz / 1Ph** CONFIRM & COORDINATE WITH ELECT. CONTRACTOR FOR **VOLTAGE, AMPS & DEDICATED ELECTRICAL DISCONNECT FOR EACH WATER HEATER.** MAX. WATER TEMP: 150°F (EFFICIENCY/HYBRID MODE) 180°F (ELECTRIC MODE) OPERATING RANGE: 20°F - 110°F DIMENSIONS: 69-11/16" H x 28-1/32"Ø x 39-11/64" DEPTH WEIGHT: 1800 LBS 3-YR TANK, 1-YR PARTS / COMPRESSOR LIMITED WARRANTY. INQUIRIES: CONTACT SCOTT THOMAS WITH PARAMOUNT SALES. (925) 373-0817, sthomas@paramountsales.biz REFER TO DETAIL D/P9.05.
WH-3	WATER HEATER BUILDING 300, 400, 500 **ELECTRICAL REQUIRED**	-	-	3/4"	3/4"	**BRADFORD WHITE "ELECTRIFLEX™ LD LOWBOY" COMMERCIAL WATER HEATER #LE230LN3-3.** VITRAGLAS® LINING WITH MICROBAN® ANTIMICROBIAL PROTECTION, (2) TWO SCREW TYPE ELEMENTS, PROTECTIVE ANODE ROD. OVERALL DIMS: 23"Ø x 31-5/16" HIGH. NOMINAL CAPACITY: 28 GAL. APPROX. RECOVERY AT 80°F RISE: 23 GPH. UNIFORM ENERGY FACTOR: 0.92 3/4" NPT WATER CONNECTIONS. ASME T&P RELIEF VALVE. PROVIDE w/ **HOLDRITE (OR EQUAL) QUICK STRAP** GALVANIZED STEEL WATER HEATER RESTRAINT WITH QUICK LINK FOR FRONT TENSIONING, AND BACK SPACER SADDLE. **ELECTRICAL: NON-SIMULTANEOUS, 4,500/4,500 WATT ELEMENTS, 208V, 3 PH.** CONFIRM & COORDINATE WITH ELECT. CONTRACTOR FOR **VOLTAGE, AMPS & DEDICATED ELECTRICAL DISCONNECT FOR EACH WATER HEATER.** OPERATING WEIGHT = 360 LBS. REFER TO DETAIL B/P9.05.

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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(559) 627-0630 Office
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TITLE
PLUMBING SCHEDULES

P11.04

PROJECT 24042

CERTIFIED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P11.00 - 11.06 - Plumbing Schedules.dwg ryanf

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
TET-1	THERMAL EXPANSION TANK (WATER HEATER) BUILDING 100, 300, 400, 500, 600	-	-	3/4"	-	**AMTROL "THERM-X-TROL" #ST-5C** (OR WESSELS EQUAL), ASME THERMAL EXPANSION TANK FOR CLOSED POTABLE WATER SYSTEMS TO CONTROL PRESSURE BUILD-UP. VOLUME: 2.1 GAL. ACCEPTANCE FACTOR: 0.43 MAX. MAX. WORKING PRESSURE & TEMP: 250 PSIG, 200°F. AIR VALVE: SCHRADER WITH EPDM SEAT. FACTORY PRE-CHARGE: 55 PSIG. FINISH: RED OXIDE PRIMER. DIAPHRAGM: HEAVY DUTY BUTYL NSF 61. LINER: ANTIMICROBIAL POLYPROPYLENE W/ ANTI-LEGIONELLA PROTECTION COMPLIANCE: ASME, JIS Z 2801, NSF 61, ASHRAE 188. OVERALL DIMS: 10" DIA. X 10"H. CONNECTION: 3/4" NPTF. PROVIDE w/ **HOLDRITE (OR EQUAL) QUICK STRAP** GALVANIZED EXPANSION TANK MOUNTING BRACKET. REFER TO ASSOCIATED DETAIL A/P9.05, B/P9.05, OR C/P9.05 FOR ANCHORAGE, AS APPLICABLE FOR WATER HEATER SYSTEM. **WEIGHT = 45 LBS.**
TET-2	THERMAL EXPANSION TANK (WATER HEATER) (LOCATED IN BLDG 800)	-	-	1"	-	**WESSELS COMPANY "TTA SERIES" #TTA-80-RX** (OR AMTROL EQUAL), ASME THERMAL EXPANSION TANK FOR CLOSED POTABLE WATER SYSTEMS TO CONTROL PRESSURE BUILD-UP. TOTAL VOLUME: 35.0 GAL. ACCEPTANCE VOLUME: 23.5 GAL. MAX. WORKING PRESSURE: 250 PSIG, TEMPERATURE RANGE: -20°F TO 240°F. AIR VALVE: STANDARD SCHRADER TIRE VALVE. FACTORY PRE-CHARGE: 40 PSIG. FINISH: RED OXIDE PRIMER. DIAPHRAGM: HEAVY DUTY BUTYL BLADDER THAT FIGHTS BACTERIOLOGICAL GROWTH (FDA APPROVED), WITH SILVER PLATED STAINLESS STEEL SYSTEM CONNECTION. COMPLIANCE: ANSI / NSF 61. OVERALL DIMS: 16" DIA. X 45"H. CONNECTION: 1" NPTF. REFER TO DETAIL D/P9.05 AND E/P9.07 FOR ANCHORAGE. **WEIGHT = 350 LBS.**
TMV-1	THERMOSTATIC MIXING VALVE (WATER HEATER) BUILDING 100, 300, 400, 500, 600	-	-	3/4"	3/4" 3/4" OUTLET	**LEONARD #370-LF-BV-DT-BRKT** ECO-MIX AND LEAD FREE, THERMOSTATIC MIXING VALVE WITH BALL VALVES (BV), DIAL THERMOMETER (DT), AND WALL MOUNTING BRACKET. INTEGRAL CHECK VALVES ON INLETS. FLOW: 6 GPM @ 10 PSI PD. ASSE 1017 & 1070, NFS 61 COMPLIANT. 3/4" CW/HW INLET, 3/4" TEMPERED OUTLET. REFER TO ASSOCIATED DETAIL A/P9.05, B/P9.05, OR C/P9.05 FOR ANCHORAGE, AS APPLICABLE FOR WATER HEATER SYSTEM. **SET OUTLET TEMP @ 120°F.** **WEIGHT: 4 LBS.**

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
BP-1	DOMESTIC WATER BOOSTER PUMP **ELECTRICAL REQUIRED**	-	-	3"	-	**FLOWTHERM SYSTEMS MODEL #FMV2.1-5** DUPLEX, MULTI-STAGE VARIABLE SPEED PRESSURE BOOSTER PUMP, NSF/ANSI-61 AND NSF/ANSI-372 CERTIFIED, ASHRAE STD 90.1-2010 ENERGY STD., SERIES 300 STAINLESS STEEL MANIFOLDS AND STRUCTURAL STEEL FRAME/SKID, XYLEM MULTISTAGE PUMPS WITH STAINLESS STEEL IMPELLER AND PUMP SLEEVES, ISOLATION VALVES. (2) - GOULDS ESV MODEL #15eSV2, 5.0 H.P. MULTI-STAGE PUMP(S), (2) 2" CHECK VALVE, (4) 2" BALL VALVES, AND 3" GROOVED SUCTION AND DISCHARGE HEADER. UL 508A LISTED AUTOLOGIC XL CONTROL PANEL WITH DISCONNECT, PROGRAMMABLE PUMP CONTROLLER, AND DEDICATED VARIABLE FREQUENCY DRIVE FOR EACH PUMP, CIRCUIT BREAKERS, STATUS INDICATOR LIGHTS. COMPLETE SYSTEM WITH PUMPS, PIPING, CONTROL PANEL, AND SKID. PROVIDE 6" LONG BRAIDED STAINLESS STEEL FLEX CONNECTORS WITH FLANGED ENDS ON SUCTION AND DISCHARGE LINES, METRAFLEX SLPC OR EQUAL. PROVIDE WITH VIBRATION ISOLATOR PADS. MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE SYSTEM START UP AND CHECK PRIOR TO PUMP BEING SET INTO OPERATION. PROVIDE FULL SIZE BYPASS PIPING. REFER TO DETAIL B/P9.08 FOR MORE INFORMATION AND REQUIREMENTS. THE ENTIRE BOOSTER PUMP ASSEMBLY SHALL BE UL LISTED AND MANUFACTURED IN A UL LISTED PLANT. THE PUMP ASSEMBLY SHALL BE LOCATED ON A COMMON STEEL SKID WITH AN ADJACENT HYDRO-PNEUMATIC TANK, REFER TO PLUMBING FIXTURE SCHEDULE HET-1, THIS SHEET. FLOW RATE: 175 GPM BOOST PRESSURE: 40 PSI DISCHARGE PRESSURE: 53 PSI OVERALL SIZE: 2'-8-1/2" W x 6'-0" H x 3'-6" L **ELECTRICAL REQUIRED:** **(2) - 5.0 H.P.MOTORS, 460V/3Ø,** **FLA: 11.33 AMPS** **MCA: 12.7** **MOCP:18.2** WEIGHT: 1,100 LBS
HET-1	HYDRO-PNEUMATIC EXPANSION TANK	-	-	1 1/2"	-	**WESSELS COMPANY MODEL #FXA-300**, ASME RATED PRESSURE BOOSTER HYDRO-PNEUMATIC EXPANSION TANK, NSF/ANSI-61 APPROVED WITH FDA APPROVED BLADDER FOR POTABLE WATER USE. TOTAL VOLUME: 79.0 GAL. MAX. DESIGN PRESSURE: 125 PSIG. TEMPERATURE RANGE: -20°F TO 240°F. AIR VALVE: STANDARD SHRADER TIRE VALVE. FACTORY PRE-CHARGE: 40 PSIG. FINISH: CARBOCOAT 140 - HARVEST RED. DIAPHRAGM: HEAVY DUTY BUTYL BLADDER. REFER TO DETAILS C/P9.07 AND B/P9.08. PROVIDED WITH ACCESSORY KIT FOR BOOSTER PUMP BP-1. WEIGHT. = 900 LBS
EP-1	WATER HEATER EQUIPMENT PLATFORM	-	-	-	-	**HOLDRITE QUICK STAND #60-SWHP-WM** WALL-MOUNT EQUIPMENT PLATFORM AND DRAIN PAN COMBINATION, DIMS: 28-1/2" x 28-1/2" x 3", 1-1/4" GALVANIZED WELDED STEEL DRAIN FITTING, PRE-ASSEMBLED AND WATER-TIGHT, STATIC 750 LB. LOAD RATING WITH 2X SAFETY FACTOR, HANGER RODS AND HARDWARE. REFER TO DETAILS A/P9.05 OR B/P9.05.
EP-2	WATER HEATER EQUIPMENT PLATFORM	-	-	-	-	**HOLDRITE QUICK STAND #40-SWHP-WM** WALL-MOUNT EQUIPMENT PLATFORM AND DRAIN PAN COMBINATION, DIMS: 21-1/4" x 21-1/4" x 2-1/2", 1" GALVANIZED WELDED STEEL DRAIN FITTING, PRE-ASSEMBLED AND WATER-TIGHT, STATIC 375 LB. LOAD RATING WITH 2X SAFETY FACTOR, HANGER RODS AND HARDWARE. REFER TO DETAIL C/P9.05.

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
TP-1	TRAP PRIMER **ELECTRICAL REQUIRED**	-	-	3/4"	-	**PRECISION PLUMBING PRODUCTS MODEL #MPB-500-115V-DU** MINI-PRIME WITH BOX FOR 1 TO 4 TRAPS WITH "**DU**" DISTRIBUTION UNIT. PROVIDE A LOCKING FIRE-RATED ACCESS DOOR WHERE REQUIRED. **PRECISION PLUMBING PRODUCTS MODEL PT-6, PT-8, PT-10, PT-12** (OR MIFAB EQUAL): FOR MORE THAN FOUR TRAPS TO BE PRIMED. RECESSED MOUNT CABINET WITH ACCESS DOOR AND CYLINDER LOCK. PROVIDE STAINLESS STEEL DOOR IN AREAS WITH CERAMIC TILE WALL FINISH. TRAP PRIMER IS FACTORY ASSEMBLED AND PRE-PIPED WITH COPPER MANIFOLD, INLET BALL VALVE. ELECTRIC SOLENOID VALVE, TIMER, AND VACUUM BREAKER. PROVIDE SIMILAR PRECISION PLUMBING PRODUCTS MODEL PTS-6, PTS-8, PTS-10, PTS-12 (OR MIFAB EQUAL), FOR SURFACE MOUNTED CABINET WITH COVER PLATE WHERE INDICATED ON PLANS. PROVIDE A LOCKING FIRE-RATED ACCESS DOOR WHERE REQUIRED. PROVIDE SHUT-OFF VALVE FOR SERVICING AND SHOCK ABSORBER SA-1 IMMEDIATELY UPSTREAM ON INLET SIDE OF TRAP PRIMER. REFER TO DRAWINGS FOR NUMBER OF DRAINS SERVED TO SELECT MODEL ABOVE. ALLOW ONE FOOT OF ELEVATION FOR EVERY 20 FEET OF DISTANCE RAN FOR FLOOR DRAIN MAKE UP LINE. REFER TO SIMILAR DETAIL A/P9.02. **ELECTRICAL: 120 VOLT/1Ø.**
TP-2	TRAP PRIMER	-	-	1/2"	-	**J.R. SMITH #2694 "TRAP-DEFENDER"** (OR MIFAB EQUAL) PRESSURE DROP ACTIVATED TRAP SEAL PRIMER. OPERATES AT PRESSURES FROM 20-80 PSI WITH A MINIMUM DROP OF 3 PSI. **DISTRIBUTION UNIT #2694DA** AS REQUIRED FOR UP TO 4 DRAINS. INSTALL WITH A SHUT-OFF VALVE FOR SERVICING ON THE INLET SIDE. LOCATE BEHIND 14"x14" ACCESS DOOR WITH SCREWDRIVER CAM LATCH (NO KEYS). REFER TO DETAIL B/P9.02.
WSS-1	WATER SOFTENER SYSTEM **ELECTRICAL REQUIRED**	-	-	2"	-	**CULLIGAN MODEL #CTM-120,** AUTOMATIC WATER SOFTENER SYSTEM, WITH OPTIONAL BRINE RECLAIM TANK, 55 GPM CONTINUOUS FLOW RATE AT 15 PSI PRESSURE DROP, 4 CUBIC FEET OF RESIN QUANTITY, INTEGRATED FLOW METER, VACUUM BREAKER, AND PRESSURE RELIEF VALVE, 2" FLOW ADAPTERS, OPTIONAL AQUASENSOR CONTROL, OPTIONAL EMS CONTROL READY. (24V TRANSFORMER INCLUDED.) *SIZE:* *SOFTENER: 16"Ø X 65"* *BRINE: 24"Ø X 50"* ***ELECTRICAL: 120V/1Ø*** *WEIGHT. = 1800 LBS* *REFER TO DETAIL F/P9.07.*

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

PROFESSIONAL ENGINEER
BRYAN W. CARLOW
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
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TITLE
PLUMBING SCHEDULES

P11.05

PROJECT 24042

16 September 2026 8:23 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\5 P\P11.00 - 11.06 - Plumbing Schedules.dwg ryanf

PLUMBING KITCHEN EQUIPMENT SCHEDULE

ITEM	QTY.	DESCRIPTION	MODEL	PLUMBING NOTES	WATER			WASTE		
					HOT	COLD	HT.	INDIRECT	DIRECT	HT.
K10	1	TILTING BRAISING PAN	"VULCAN" ELECTRIC TILTING BRAISING PAN MODEL VE40 WITH ACCESSORY CASTERS	NO PLUMBING WORK.	-	-	-	-	-	-
K11	-	"NOT USED"	-	NO PLUMBING WORK.	-	-	-	-	-	-
K12	1	MILK COOLER	"BEVERAGE AIR" MODEL SMF58	NO PLUMBING WORK.	-	-	-	-	-	-
K13	1	FREE STANDING INDUCTION COOKTOP	"COOK TEK" MC-1800	NO PLUMBING WORK.	-	-	-	-	-	-
K14	1	COMMERCIAL MICROWAVE OVEN	"AWANA" MODEL RCS10MPA	NO PLUMBING WORK.	-	-	-	-	-	-
K15	2	COMMERCIAL FOOD WASTE DISPOSER	"WASTE KING COMMERCIAL" MODEL 1000-# BY ANAHEIM MANUFACTURING	COORDINATE WITH ITEM #K5B - DISH CLEANUP TABLE. EXTEND 3/4"CW DOWN IN WALL TO GARBAGE DISPOSAL ASSEMBLY. REFER TO DETAIL C/P9.03. PROVIDE 1-1/2" DIRECT WASTE AND 2" VENT.	-	1/2"	-	-	2"	10"
K16	1	DISHWASHER	STERO SC-2-4	COORDINATE WITH ITEM #K5B - DISH CLEANUP TABLE. 1"HW (145°F), AND 1"CW DOWN IN WALL AND ELBOW OUT. PROVIDE SHUT-OFF VALVE, BACKFLOW PREVENTER BFP-3, AND SHOCK ABSORBER SA-2, AND CONNECT TO DISHWASHER. BRANCH 3/4"HW (145°F) TO RINSE CONNECTION. EXTEND 2" INDIRECT DRAIN FROM DISHWASHER TO FLOOR SINK WITH AIR GAP PER DETAIL F/P9.01. (CHROME OR PAINT SILVER). EXTEND FULL SIZE DRAIN LINE FROM EACH BFP-3 TO NEAREST FLOOR SINK WITH AIR GAP. AIR GAP DISCHARGE PER DETAIL F/P9.01, TYPICAL. INSTALL IN COMPLIANCE WITH MFG. INSTALLATION GUIDELINES. 140° HW WATER CONSUMPTION: 301 GAL/HR. 3/4" 140°F HW CONNECTION 3/4" CW CONNECTION TO DRAIN WATER TEMPERING KIT. 2" DRAIN CONNECTION. PROVIDE WITH "KIT 55" (SHOCK ARRESTOR & PRESSURE GAUGE IN FINAL RINSE LINE). REFER TO DETAIL E/P9.02 FOR DISHWASHER DETAIL WITH CONNECTION LOCATIONS.	3/4"	3/4"	-	2"	-	FS
K17	2	WALK-IN REFRIGERATOR & FREEZER	SEE SPECIFICATION	CONNECT 1"COND. TO EACH EVAPORATOR UNIT. CONFIRM CONNECTION LOCATION AND PREFERRED ROUTING WITH EQUIPMENT LAYOUT AND MFG. INSTALLATION GUIDELINES. PROVIDE HEAT TRACE, HT-1, PER PLAN. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION, PROVIDE COND. TRAP ON OUTSIDE WALL OF COOLER BOX AND DISCHARGE TO FLOOR SINK WITH FULL AIR GAP. PROVIDE STAINLESS STEEL SCREEN AT DISCHARGE OUTLET. REFER TO DETAIL D/P9.01 AND F/P9.01, TYP.	-	-	-	1"	-	FS
K18	1	WASHER	MAKE/MODEL BY OWNER	INTERCONNECT WITH WASHING MACHINE BOX WMB-1. REFER TO PLAN.	-	-	-	-	-	-
K19	1	DRYER	MAKE/MODEL BY OWNER	NO PLUMBING WORK.	-	-	-	-	-	-
K20	1	HOSE REEL	"FISHER" HOSE REEL MODEL 2985 WITH RECESSED REEL RINSE CONTROL UNIT MODEL 1801 AND (2) VACUUM BREAKERS MODEL 14540	COORDINATE WITH ITEMS: #K15 - FOOD WASTE DISPOSER #K5B - DISH CLEANUP TABLE. EXTEND 3/4"CW AND 3/4"HW DOWN IN WALL, ELBOW OUT AND CONNECT 1/2"CW AND 1/2"HW TO EACH VACUUM BREAKER MOUNTED +12" MIN. ABOVE DOWNSTREAM PIPING AND OUTLETS. EXTEND 1/2"CW AND 1/2"HW FROM VACUUM BREAKERS DOWN IN WALL AND CONNECT TO REEL RINSE CONTROL BOX RECESSED IN WALL WITH ACCESS PANEL. EXTEND 1/2" WATER OUTLET FROM CONTROL BOX, AND CONNECT TO HOSE REEL.	1/2"	1/2"	-	-	-	-
K21	3	HAND SINK	"ADVANCE TABCO" MODEL 7-PS-25	3/4"CW AND 1/2"HW DOWN IN WALL. BRANCH 3/4"CW TO HOSE BIBB. EXTEND 1/2"CW AND HW TO THERMOSTATIC MIXING VALVE, TMV-3, RECESSED IN-WALL BELOW SINK. EXTEND 1/2"CW AND 1/2" TEMPERED HW WATER TO HAND SINK AND CONNECT. **SET HW TEMP AT 105°F** PROVIDE (2) LOOSE KEY COMPRESSION ANGLED WALL STOPS WITH SUPPLIES, P-TRAP/TAILPIECE WITH ESCUTCHEON, WRAP / INSULATE WATER SUPPLIES, TRAPS & TAILPIECE, AND DRAIN PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES BELOW FIXTURE. REFER TO SPECIFICATIONS. PROVIDE A STEEL SUPPORT PLATE FOR MOUNTING FIXTURE PER DETAIL A/P9.01. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. PROVIDE 2" DIRECT WASTE AND 2" VENT ASSEMBLY WITH WCO.	1/2"	1/2"	-	-	1-1/2"	-

PLUMBING NOTE(S):

1. REFER TO SPECIFICATIONS & KITCHEN / ARCHITECTURAL DESIGN PLANS, SHEET A21, FOR EQUIPMENT INFORMATION AND EXACT LOCATIONS.

2. REFER TO "TYPICAL KITCHEN EQUIPMENT PLUMBING NOTES", SHEET P0.01, TYPICAL.

3. VERIFY REQUIREMENTS WITH SUPPLIER AND INSTALL IN COMPLIANCE WITH MANUFACTURERS INSTALLATION GUIDELINES, TYPICAL.

4. REFER TO SHEET P2.02 & A21 FOR KITCHEN EQUIPMENT MARK LOCATIONS.

5. WATER TREATMENT — FIELD VERIFICATION REQUIRED
CONTRACTOR SHALL OBTAIN WATER QUALITY ANALYSIS FROM LOCAL WATER SUPPLIER AND PERFORM FIELD TESTING OF SITE WATER PRESSURE (PSI), HARDNESS, CHLORINE, PH, AND CHLORIDE LEVELS PRIOR TO ORDERING WATER TREATMENT EQUIPMENT. TEST RESULTS SHALL FOLLOW EQUIPMENT MANUFACTURER'S WATER QUALITY CONTROL PROCEDURE (REF. VULCAN CHEF'S COMBI INSTALLATION MANUAL, "WATER TREATMENT: WATER QUALITY CONTROL" FLOWCHART). WATER SOFTENING AND CARBON FILTRATION EQUIPMENT (**CB30K-SYSTEM, WS80-NOINSTALL**) SHALL BE SPECIFIED AND SIZED BASED ON FIELD-MEASURED VALUES, NOT PUBLISHED MUNICIPAL AVERAGES. SOFTENER REGENERATION DISC SETTINGS SHALL BE FIELD-SET BASED ON MEASURED HARDNESS AT EQUIPMENT INLET. IF FIELD-MEASURED VALUES EXCEED EQUIPMENT MANUFACTURER'S RATED INLET LIMITS, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD AND PROCEED ONLY WITH WRITTEN APPROVAL. CONTRACTOR SHALL SUBMIT WATER QUALITY ANALYSIS REPORT, AND TREATMENT SYSTEM SPECIFICATIONS TO ENGINEER PRIOR TO FINAL EQUIPMENT INSTALLATION & STARTUP. ALL TESTING AND INSTALLATION COSTS ARE CONTRACTOR'S RESPONSIBILITY.

6. SERVICE ACCESS & PULLAWAY FLEXIBILITY:
PROVIDE FLEXIBLE WATER SUPPLY AND DRAIN CONNECTIONS (FLEX HOSE OR CORRUGATED STAINLESS STEEL TUBING) AT EACH APPLIANCE TO ALLOW UNITS TO BE ROLLED OR PULLED FORWARD FROM THE BACK WALL A MINIMUM OF APPROX. 19.7" FOR CLEANING AND SERVICE ACCESS WITHOUT DISCONNECTING OR STRAINING SUPPLY AND DRAIN LINES. SIZE ALL FLEX CONNECTIONS TO MATCH RIGID SUPPLY AND DRAIN PIPE DIAMETERS. ROUTE FLEXIBLE CONNECTIONS WITH SUFFICIENT SLACK (COILED OR LOOPED) TO PREVENT KINKING OR STRESS WHEN UNITS ARE PULLED FORWARD. SECURE EXCESS FLEX TUBING TO PREVENT MOVEMENT OR SAGGING BEHIND APPLIANCES. ALL SHUT-OFF VALVES AND DRAIN CONNECTIONS SHALL REMAIN ACCESSIBLE AND FUNCTIONAL WHEN APPLIANCES ARE IN PULLED-FORWARD POSITION.

PLUMBING KITCHEN EQUIPMENT SCHEDULE

ITEM	QTY.	DESCRIPTION	MODEL	PLUMBING NOTES	WATER			WASTE		
					HOT	COLD	HT.	INDIRECT	DIRECT	HT.
K1	2	DROP-IN HOT/COLD COMBINATION FOOD WELL	"RANDELL" MODEL 9580-4A	INTERCONNECT WITH ITEM #K5A - SERVING COUNTER. 1/2"CW TO AUTOFILL CONNECTIONS. EXTEND INDIVIDUAL 1" DRAIN TO FLOOR SINK AND DISCHARGE THERETO WITH AIR GAP PER DETAIL F/P9.01. (CHROME OR PAINT SILVER). CONFIRM PLUMBING AND DRAIN REQUIREMENTS PER MANUFACTURER INSTALLATION GUIDELINES PRIOR TO ROUGH-IN.	-	1/2"	-	1"	-	FS
K2	2	FRANKLIN SNEEZE GUARD	CUSTOM	NO PLUMBING WORK.	-	-	-	-	-	-
K3A	1	WORK TABLE	CUSTOM	NO PLUMBING WORK.	-	-	-	-	-	-
K3B	1	WORK TABLE	CUSTOM	NO PLUMBING WORK.	-	-	-	-	-	-
K4A	1	SS 3-COMPARTMENT SINK	CUSTOM	INTERCONNECT WITH ITEM #K4B - FAUCET, AND ITEM #K4C - ROTARY WASTE VALVE.	1/2"	1/2"	-	2"	-	FS
K4B	3	FAUCET	"T&S BRASS " MODEL B-0231 WITH INSTALLATION KIT MODEL B-0230K	INTERCONNECT WITH ITEM #K4A - 3-COMP SINK AND #K4D - 2-COMP SINK. EXTEND 3/4"CW AND 3/4"HW DOWN IN WALL, ELBOW OUT AND CONNECT 1/2"CW & 1/2"HW TO EACH FAUCET.	1/2"	1/2"	-	-	-	-
K4C	5	ROTARY WASTE VALVE	"T&S BRASS " MODEL B-3952	INTERCONNECT WITH ITEM #K4A - 3-COMP SINK. EXTEND 2" INDIRECT WASTE FROM EACH COMPARTMENT ROTARY WASTE VALVE, TO FLOOR SINK WITH AIR GAP PER DETAIL F/P9.01. (CHROME OR PAINT SILVER).	-	-	-	2"	-	FS
K4D	1	SS 2-COMPARTMENT SINK	CUSTOM	INTERCONNECT WITH ITEM #K4B - FAUCET, AND ITEM #K4C - ROTARY WASTE VALVE.	1/2"	1/2"	-	2"	-	FS
K5A	1	SERVING COUNTER	CUSTOM	COORDINATE WITH ITEM #K1 - FOOD WELLS.	-	-	-	-	-	-
K5B	1	DISH CLEAN-UP TABLE	CUSTOM	COORDINATE WITH ITEMS: #K4A - 3-COMP SINK. #K4B - FAUCETS. #K4C - ROTARY WASTE VALVE. #K15 - FOOD WASTE DISPOSER. #K16 - DISHWASHER. #K20 - HOSE REEL.	-	-	-	-	-	-
K5C	1	FOOD PREPARATION TABLE	CUSTOM	COORDINATE WITH ITEMS: #K4A - 3-COMP SINK. #K4B - FAUCETS. #K4C - ROTARY WASTE VALVE.	-	-	-	-	-	-
K6	-	"NOT USED"	-	NO PLUMBING WORK.						
K7	6	INSULATED HOT CABINET	"CRES-COR" MODEL H-137-UA-12D	NO PLUMBING WORK.	-	-	-	-	-	-
K8	1	MIXER WITH DELUXE ACCESSORY PACKAGE	"HOBART" LEGACY MODEL HL600 WITH HL600-1STD ACCESSORY PACKAGE	NO PLUMBING WORK.	-	-	-	-	-	-
K9	2	DOUBLE COMBINATION STEAMER-OVEN	"VULCAN" MODEL CHEF-62E-208 WITH CHEF-STACK2E, CHEF-HOOD2 AND CHEF-HOODHEPA2, AND CHEF-6NCAST2 CASTERS FILTRATION: CB30K-SYSTEM, WS80-NOINSTALL, HOSEWTR-3/4BBV.	***IMPORTANT***: PRIOR TO ORDERING, INSTALLATION, & STARTUP, REFER TO PLUMBING NOTE #5 FOR WATER QUALITY & TREATMENT PER FIELD VERIFICATION. *WATER CONNECTION SEQUENCE SUMMARY:* (PER STACK, REPEAT FOR EACH STACK. NO SHARED PIPING BETWEEN STACKS) CW SUPPLY → ISOLATION VALVE → BACKFLOW ASSEMBLY → CARBON FILTRATION (CB30K-SYSTEM*) → SPLIT (BRANCH) TO UNFILTERED AND FILTERED (SOFTENED) LEGS → FILTERED LEG THROUGH WS80 SOFTENER* → CONNECT FILTERED & UNFILTERED SUPPLY TO EACH OVEN'S DUAL INLETS WITH HOSEWTR-3/4BBV STAINLESS STEEL FLEX. REFER TO ARCHITECTURAL PLANS FOR CARBON FILTRATION, SOFTENER, AND STAINLESS STEEL FLEX CONNECTORS. *REFER TO PLUMBING NOTE #5. *BACKFLOW ASSEMBLY:* 1-1/4"CW BRANCH FROM 2"CW HEADER, ELBOW OUT WITH S.O.V. TO EACH BACKFLOW ASSEMBLY, BFP-1 (ONE PER DOUBLE-COMBI STACK UNIT) MOUNTED ON WALL. SECURE PIPING WITHIN 12" OF EACH SIDE OF BFP-1 TO WALL PER SIMILAR DETAIL A/P9.02 WITH STRUT AND PIPE CLAMP. PROVIDE WOOD BLOCKING FOR SUPPORT BACKING PER DETAIL B/P9.01. EXTEND FULL SIZE DRAIN LINE FROM EACH BFP-1 TO NEAREST FLOOR SINK AND DISCHARGE WITH AIR GAP PER DETAIL F/P9.01. *CARBON FILTRATION*:* PIPE 1-1/4" BACKFLOW PREVENTER DISCHARGE TO THE CB30K-SYSTEM*. PROVIDE STRAINER (114 MESH SEDIMENT FILTER/STRAINER ~ 130 MICRONS) UPSTREAM OF INLET. PROVIDE VALVES & UNIONS ON THE CARBON SYSTEM INLET AND OUTLET TO FACILITATE CARTRIDGE/MEDIA SERVICE WITHOUT SHUTTING DOWN THE FULL STACK. *REFER TO PLUMBING NOTE #5. *SPLIT TO UNFILTERED AND FILTERED (SOFTENED LEGS):* 1" UNFILTERED LEG - CARBON-TREATED, NON-SOFTENED WATER (BOTH OVENS' COLD UNFILTERED DRAW). FEEDS THE OVENS' CAVITY SPRAY/RINSE FUNCTIONS AND THE INLET PATH FOR CONDENSATE COOLING. ***IMPORTANT:*** ACTIVATE "CONDENSATE COOLING" FUNCTION, TO REDUCE DRAIN TEMPERATURE TO 140°F. MAX. *WATER SOFTENER*:* 1" FILTERED LEG - PIPE THROUGH THE WS80* WITH MFG. CUSTOM ADAPTER AND BRACKET. PROVIDE ISOLATION VALVES AND A BYPASS LOOP AROUND THE SOFTENER TO FACILITATE SERVICE ACCESS WITHOUT INTERRUPTING THE UNFILTERED LEG. ROUTE & DISCHARGE SOFTENER'S BRINE TANK OVERFLOW AND BACKWASH/REGENERATION DRAIN (1/2" TUBE EACH) TO FLOOR SINK PER F/P9.01. *REFER TO PLUMBING NOTE #5 *DISTRIBUTION TO EACH OVEN (TWO CONNECTIONS PER APPLIANCE):* AT EACH OVEN (LOWER AND UPPER UNIT IN THE STACK), TERMINATE BOTH THE UNFILTERED AND FILTERED (SOFTENED) LEGS AT THEIR RESPECTIVE 3/4" GHT ADAPTERS ON THE APPLIANCE. EACH CONNECTION POINT SHALL BE PROVIDED WITH THE FOLLOWING: → AN INDIVIDUAL LOCAL SHUT-OFF VALVE & PRESSURE GAUGE (REQUIRED PER APPLIANCE, INDEPENDENT OF THE UPSTREAM STACK ISOLATION VALVE). → HOSEWTR-3/4BBV FLEX STAINLESS CONNECTION (72", 3/4" GHT-F BOTH ENDS), REQUIRED PER THE CHEF-6NCAST2 MOBILE CASTERS, ALLOWING EACH OVEN TO BE ROLLED OUT ITS FULL DEPTH PLUS APPROX. 19.7" FOR CLEANING WITHOUT STRAINING THE SUPPLY LINES. FOUR (4) FLEX CONNECTIONS PER STACK (TWO (2) OVENS × TWO (2) INLETS), FOUR (4) LOCAL SHUT-OFF VALVES & GAUGES, TERMINATING THE WATER SIDE OF THE SEQUENCE. *DRAIN:* PROVIDE EACH OVEN WITH ITS OWN DEDICATED 1-1/2" DRAIN CONNECTION WITH A CONTINUOUS SLOPE OF 2.5" DOWN TOWARDS FLOOR SINK. DISCHARGE CONDENSATE 140°F ("CONDENSATE COOLING" ENABLED) TO FLOOR SINK PER F/P9.01. DO NOT MANIFOLD OVEN DRAINS TOGETHER, AND DO NOT CONNECT THE SOFTENER BRINE/BACKWASH DRAIN INTO THE OVEN DRAIN. EACH APPLIANCE SHALL HAVE ITS OWN INDEPENDENT DRAINAGE SYSTEM, AND THE SOFTENER REGENERATION DISCHARGE SHALL BE ROUTED AS A SEPARATE WASTE STREAM. *SERVICE ACCESS & PULLAWAY FLEXIBILITY: REFER TO PLUMBING NOTE #6.* PRIOR TO APPLIANCE STARTUP, OPEN THE STACK ISOLATION VALVE AND VERIFY THAT THERE ARE NO LEAKS AT THE BACKFLOW ASSEMBLY, CARBON SYSTEM, SOFTENER, OR ANY OF THE FLEX CONNECTIONS. FLUSH THE UNFILTERED AND SOFTENED LEGS IN ACCORDANCE WITH STANDARD PRACTICE PRIOR TO FINAL CONNECTION TO EACH OVEN'S 3/4" GHT ADAPTER. *PROVIDE CONNECTIONS AND EQUIPMENT ACCESSORIES TO COMPLY WITH MFG. INSTALLATION GUIDELINES, AND WARRANTY REQUIREMENTS. CONSULT & COMPLY WITH MFG. "VULCAN" TECHNICAL SERVICE FOR CONNECTIONS AND WATER TREATMENT.* *FIELD WATER QUALITY VERIFICATION AND COMMISSIONING:* FIELD-TEST WATER HARDNESS, CHLORINE, PH, AND CHLORIDE AT THE POINT OF CONNECTION (POST-CARBON, PRE-SOFTENER, WHICH IS THE RELEVANT LOCATION FOR SOFTENER DISC SETTING). SET THE SOFTENER REGENERATION DISC BASED ON THE MEASURED COMPENSATED HARDNESS (HARDNESS + 3 × IRON IN MG/L) IN ACCORDANCE WITH THE MANUFACTURER'S DISC SELECTION TABLE, NOT THE DESIGN-BASIS MUNICIPAL WATER QUALITY AVERAGE. ENTER THE SAME MEASURED HARDNESS VALUE INTO EACH OVEN'S INSTALLER PARAMETERS SCREEN ("WATER HARDNESS") TO SET CARE-STICK DESCALE DOSING CALIBRATION. COMPLETE THE OVEN'S BOILER CALIBRATION AND DRAIN BOX FILLING PROCEDURES IN ACCORDANCE WITH THE INSTALLER COMMISSIONING SEQUENCE, AND DOCUMENT ALL FIELD-MEASURED VALUES FOR O&M CLOSEOUT.	-	3/4" FILT 3/4" UNFILT 3/4" FILT 3/4" UNFILT	-	1-1/2" / 1-1/2" 1-1/4" 1/2" 1/2"	-	FS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
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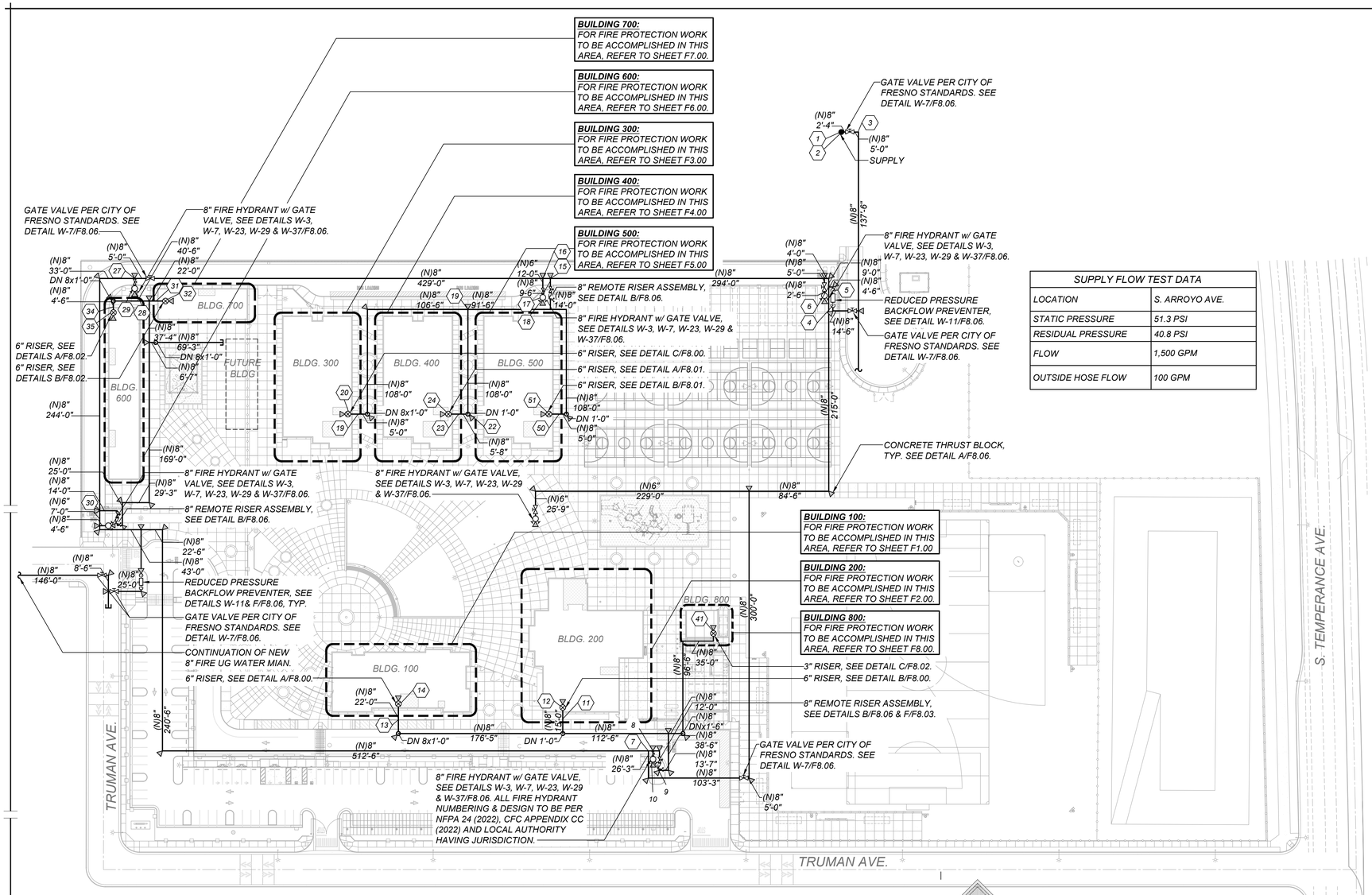
TITLE
PLUMBING KITCHEN EQUIPMENT SCHEDULES

P11.06

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
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Fresno, CA 93727
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FIRE PROTECTION SITE PLAN

SCALE: 1" = 60'-0"

north

*ALL 90'S & 45 ELBOWS TO HAVE THRUST BLOCKS, TYPICAL. DUE TO GRAPHICAL REPRESENTATION CLARITY, NOT ALL THRUST BLOCKS SHOWN.

SUPPLY FLOW TEST DATA	
LOCATION	S. ARROYO AVE.
STATIC PRESSURE	51.3 PSI
RESIDUAL PRESSURE	40.8 PSI
FLOW	1,500 GPM
OUTSIDE HOSE FLOW	100 GPM

FIRE PROTECTION SITE LEGEND		
SYMBOL	DESCRIPTION	ABBR
— — —	(E) FIRE SUPPLY LINE	(E) F
———	(N) FIRE UG LINE	(N) F
	FIRE HYDRANT	FH
	GATE VALVE	GV
	THRUST BLOCK	TB
	FIRE DEPARTMENT CONNECTION	F.D.C.
	POST INDICATOR VALVE	P.I.V.
	RISER	
	CHECK VALVE	CV
	HYDRAULIC NODE	
	POINT OF CONNECTION	POC
	RP BACKFLOW PREVENTER	RPBFP

*⟨0⟩ HYDRAULIC NODE, TYP.

GENERAL NOTES

SPRINKLER SYSTEM DESIGNED IN ACCORDANCE WITH NFPA 13 (2022), CFC/CBC (2022), DIVISION OF THE STATE ARCHITECT - DEPARTMENT OF GENERAL SERVICES, AND COUNTY OF FRESNO STANDARDS. ALL WORK TO BE DONE IN ACCORDANCE WITH THESE PLANS AND ALL NATIONAL, STATE, AND LOCAL CODES.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE ACCEPTABLE WORKING INSTALLATION, WHETHER SHOWN OR NOT SHOWN, APPLICABLE TO ALL CITED CODES AND STANDARDS. AT TIME OF DESIGN FINAL, COORDINATED STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND SPECIAL EQUIPMENT PLANS WERE NOT AVAILABLE. IT SHALL BE THE RESPONSIBILITY OF THE SPRINKLER INSTALLATION CONTRACTOR TO COORDINATE WITH ALL TRADES.

CONTRACTOR TO REVIEW FOR BID, SYSTEM PLANS AS DESIGNED BY ENGINEER. ANY ALTERNATE PROPOSED DESIGN CHANGES OR REVISIONS BY CONTRACTOR, ARE TO BE SUBMITTED IN WRITTEN FORMAT, REVIEWED AND RESPONDED TO, BY ENGINEER PRIOR TO BIDDING. AFTER AWARD OF BID, ALL DEVIATIONS FROM THE ORIGINAL DESIGN INTENTION SHALL BE CLOUDED AND NOTED ON CONTRACTOR ISSUED SHOP DRAWINGS TO ENGINEER, WHICH HAVE BEEN COORDINATED AMONGST THE TRADES, FOR REVIEW AND APPROVAL BY ENGINEER.

GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR INSURING ALL SUB-CONTRACTOR'S COORDINATE SHOP DRAWINGS PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT, DEVICE, MATERIAL, ETC. SUBMISSION OF SHOP DRAWINGS TO THE ENGINEER CONSTITUTES THAT THE DRAWINGS SUBMITTED HAVE BEEN COORDINATED AMONGST THE TRADES. FAILURE TO COORDINATE ALL SHOP DRAWINGS AMONGST THE TRADES, FOR REVIEW AND APPROVAL BY ENGINEER, WILL NOT CONSTITUTE A CHANGE ORDER TO THE OWNER, FOR UNIDENTIFIED FIELD COORDINATION ISSUES.

ANY DESIGN REVISIONS OR DEVIATIONS THAT ARISE FROM COORDINATION OF INSTALLATION METHODS AND MEANS AMONGST THE TRADES DURING CONSTRUCTION, SHALL BE PROVIDED TO THE ARCHITECT BY RFI, DETAILING COORDINATION ISSUE AND PROPOSED SOLUTION. ONCE REVIEWED AND APPROVED BY ENGINEER AND A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA. THE DESIGN REVISIONS OR DEVIATIONS SHALL BE COORDINATED IN THE FIELD AMONGST THE IMPACTED TRADES, AND SHOWN ON THE AS-BUILTS. A COMPLETE, ACCURATE SET OF AS-BUILTS SHALL BE MAINTAINED ONSITE DURING CONSTRUCTION, AND ARE TO BE ISSUED TO ARCHITECT AND ENGINEER UPON COMPLETION, INSPECTION, AND TESTING OF INSTALLATION.

CONTRACTOR TO PROVIDE (6) SETS OF THE FOLLOWING:

A. FULLY COORDINATED AMONGST THE TRADES INSTALLATION SHOP DRAWINGS, INCLUDING ALL PIPE CUT LENGTHS, FITTINGS, HANGERS, BRACES, SPRINKLERS WITH LEGEND, HYDRAULIC AND SEISMIC CALCULATIONS, AND PRODUCT SUBMITTAL.
B. BOUND SUBMITTAL TO INCLUDE COVER PAGE, PIPING, HARDWARE, AND MATERIALS (INCLUDING FIRE STOPPING). COVER PAGE TO INCLUDE PROJECT NAME, SPRINKLER CONTRACTOR, GENERAL CONTRACTOR, ARCHITECT, AND DATE SUBMITTED FOR REVIEW.

ALL ITEMS REQUIRED BY NFPA 13 (2022) CHAPTER 28.1.3 (FOR WORKING DRAWINGS) SHALL BE PROVIDED ON THE SHOP DRAWINGS. SUBMITTALS ARE IN ADDITION TO, AND NOT IN LIEU OF, THIS REQUIREMENT.

CLEVIS TYPE HANGERS SHALL BE INSTALLED AT TOP OF RISER, AND AS SHOWN ON RISER DETAILS. LOOP TYPE HANGERS ARE ACCEPTABLE IN ALL OTHER AREAS.

FINAL INSTALLATION SPACING FOR SPRINKLER SYSTEM PIPING AND SPRINKLERS, MAY VARY WITH FIELD COORDINATION ISSUES. ALL VARIANCES TO COMPLY WITH LISTING OF SPRINKLERS, NFPA 13 (2022), CFC/CBC (2022), DIVISION OF THE STATE ARCHITECT - DEPARTMENT OF GENERAL SERVICES, AND COUNTY OF FRESNO REQUIREMENTS.

ALL HANGERS, THREADED ROD, BRACING COMPONENTS AND HARDWARE, SHALL BE HOT DIPPED GALVANIZED - OR FACTORY COATED GALVANIZED - FOR ALL EQUIPMENT AND COMPONENTS IN EXTERIOR APPLICATIONS. ALL FASTENERS USED (IE BOLTS - NUTS / WASHERS) TO BE STAINLESS STEEL.

SPRINKLERS ARE TO BE LOCATED CENTER TILE (OR AS SHOWN) ACCORDING TO INDUSTRY STANDARDS AND PRACTICES.

SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR SHOWING THE EXACT LOCATION OF SEISMIC RESTRAINTS ON SUBMITTED COORDINATED AMONGST THE TRADES SHOP DRAWINGS, AND FINAL AS-BUILTS.
SUBMITTED SHOP DRAWINGS SHALL DESIGNATE THE TYPE AND LOCATION OF EACH BRACE, HANGER OR RESTRAINT, AND SHALL BE ACCOMPANIED BY A DETAIL WITH LEGEND, AND CALCULATIONS (IF APPLICABLE) IN ACCORDANCE WITH NFPA 13 (2022), CFC/CBC (2022), AND THE APPROPRIATE SEISMIC DESIGN CRITERIA FOR THE PROJECT.

ANY SUBSTITUTION OF "FLEXIBLE" TYPE PIPING IN LIEU OF "RIGID" PIPE, OR ANY CHANGES TO SIZE, MANUFACTURER, OR LENGTHS OF "FLEXIBLE" TYPE PIPING WILL REQUIRED RE-SUBMITTAL OF PIPING PLANS, PRODUCT DATA SHEETS, AND HYDRAULIC CALCULATIONS TO DIVISION OF THE STATE ARCHITECT - DEPARTMENT OF GENERAL SERVICES (FIRE LIFE SAFETY) FOR REVIEW AND APPROVAL.

SHOP DRAWINGS THAT HAVE NOT BEEN COORDINATED AMONGST THE TRADES UTILIZING THE MOST CURRENT 2D/3D FILES, WILL NOT BE ACCEPTED FOR REVIEW.

ELECTRONIC (DIGITAL) SUBMITTAL IN PDF FORMAT IS ACCEPTABLE, IF PREPARED IN ACCORDANCE WITH SPECIFICATION 2105 00, SECTION (1-10, A.5). SUBMITTALS NOT CONFORMING TO THE SPECIFICATION WILL NOT BE REVIEWED.

SPRINKLER SPECIFICATIONS

SYSTEM DESIGN:
1. SYSTEM SHALL BE DESIGNED TO CONFORM WITH NFPA 13 (2022), CFC/CBC (2022), DIVISION OF THE STATE ARCHITECT - DEPARTMENT OF GENERAL SERVICES, AND COUNTY OF FRESNO STANDARDS.
2. SYSTEM TO BE AN AUTOMATIC, WET TYPE SPRINKLER SYSTEM.
3. SPRINKLER DISCHARGE DENSITY FOR THIS PROJECT: MIN. OF 0.20 GPM/1500 sqft.
4. POINT OF SERVICE SHALL BE AT THE 8" SUPPLY MAIN AS SHOWN.
5. FIRE SPRINKLER ALARM SYSTEM SHALL BE DESIGNED, INSTALLED AND PERMITTED BY OTHERS, AND IS NOT IN THE SCOPE OF WORK. FLOW DETECTOR AND TAMPER RESISTANT VALVES WILL BE SUPPLIED AND INSTALLED BY FIRE SPRINKLER CONTRACTOR AND WIRED BY ALARM CONTRACTOR.
6. SPRINKLER SYSTEM SHALL BE SINGLE ZONE (SEE RISER DETAIL)
7. FIRE SPRINKLER PIPING SHALL BE AS FOLLOWS (UNLESS NOTED OTHERWISE ON PLANS):
   7.A. PIPING 2-1/2" AND LARGER SHALL BE SCH.10 BLACK STEEL WITH GROOVED FITTINGS, RISER TO BE SCH.10 GALVANIZED STEEL PIPE.
   7.B. BRANCH-LINE PIPING 2" AND LESS SHALL BE SCH.40 BLACK STEEL WITH THREADED FITTINGS.
8. ALL HANGERS, BRACES, AND RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2022), CBC/CFC (2022), DIVISION OF THE STATE ARCHITECT - DEPARTMENT OF GENERAL SERVICES, AND COUNTY OF FRESNO REQUIREMENTS.
9. PROVIDE CAGE-TYPE SPRINKLER HEAD GUARDS TO ALL SPRINKLERS, TO MINIMIZE CHANCE OF MECHANICAL DAMAGE TO SPRINKLER HEADS WHEN APPLICABLE.
10. IF DESIGN OR MATERIALS DIFFER FROM THAT SPECIFIED HEREIN, SUPPLEMENTAL ENGINEERING DESIGN, SUBMITTAL, AND REVIEW SHALL BE REQUIRED.
11. MICROBIAL INDUCED CORROSION WILL NOT BE A FACTOR FOR THIS SYSTEM.
12. ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 13 (2022), CBC/CFC (2022), DIVISION OF THE STATE ARCHITECT - GENERAL SERVICES DEPARTMENT, AND COUNTY OF FRESNO REQUIREMENTS.
13. HYDRAULIC CALCULATIONS SHALL BE TO THE STREET CONNECTION, ACCORDING TO LOCAL FIRE PREVENTION DISTRICT WATER CURVE DETERMINATIONS AND OR TESTING PROCEDURES.

HYDRAULIC DATA:
51.3 PSI STATIC
40.8 PSI RESIDUAL
FLOW 1,500 GPM

PIPE INSULATION SPECIFICATIONS

1. ALL WATER-FILLED SPRINKLER SYSTEM PIPING 2" AND SMALLER EXPOSED TO EXTERIOR, OR IN SPACES MAINTAINED BELOW 40 DEGREES FAHRENHEIT, SHALL BE INSULATED WITH 1" THICK RUBBER BASED ELASTOMERIC PRE-FORMED PIPE INSULATION.
2. ALL-WEATHER ALUMINUM PIPE AND FITTING JACKETING SHALL BE APPLIED OVER PIPE INSULATION, W/PRE-FABRICATED ALUMINUM STRAPPING AND SEALS BY SAME MANUFACTURER.
3. ALUMINUM JACKETING SHALL BE SEALED WITH OUTDOOR BARRIER MASTIC, WITH 1/8" BEAD OF GREY METAL JACKET SEALANT AT ALL SEAMS.

SITE UNDERGROUND PLAN NOTES

1. ALL UG PIPE LENGTHS INDICATED ON PLANS, REFLECT TOTAL PIPE LENGTH (CENTER TO CENTER) WITH NO TAKE-OUT FOR FITTINGS.
2. ALL UG PVC, C-900, OR OTHER PLASTIC PIPING UTILIZED SHALL BE EQUIPPED WITH A SUITABLE MAGNETIC LOCATION TAPE INSTALLED APPROPRIATELY TO THE TOP OF THE PIPING.
   A.) UG FIRE PIPING INSTALLATION CONTRACTOR SHALL COORDINATE WITH CIVIL, MECHANICAL, PLUMBING AND LANDSCAPE PIPING PLANS PRIOR TO INSTALLATION; TYPICAL.
3. PRIVATE UNDERGROUND FIRE SERVICE MAINS TO BE DESIGNED & INSTALLED PER NFPA 13 (2022) & NFPA 24 (2022) & PER DSA REQUIREMENTS.
4. PIPE JOINTS SHALL NOT BE LOCATED UNDER FOUNDATION FOOTINGS. THE PIPE UNDER THE BUILDING OR BUILDING FOUNDATION SHALL NOT CONTAIN MECHANICAL JOINTS.
   EXCEPTIONS:
   1. WHERE ALLOWED IN ACCORDANCE WITH NFPA 12 (2022) SECTION 6.4.3.1.
   2. ALTERNATE DESIGNS MAY BE UTILIZED WHERE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AND APPROVED BY THE ENFORCING AGENCY.

APPLICABLE SPECIFICATIONS

1. THE CONTRACTOR IS RESPONSIBLE TO ADHERE TO ALL APPLICABLE SPECIFICATIONS PERTINENT TO THE PROJECT, INCLUDING:

COUNTY OF FRESNO STANDARDS AND SPECIFICATIONS
DIVISION OF THE STATE ARCHITECT INFORMATION BULLETINS, INTERPRETATIONS AND ADDENDA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
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Visalia, California 93291
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REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
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Fresno, CA 93727
FAX (559) 431-1362

TITLE
FIRE PROTECTION SITE PLAN

F0.01

PROJECT 24042

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

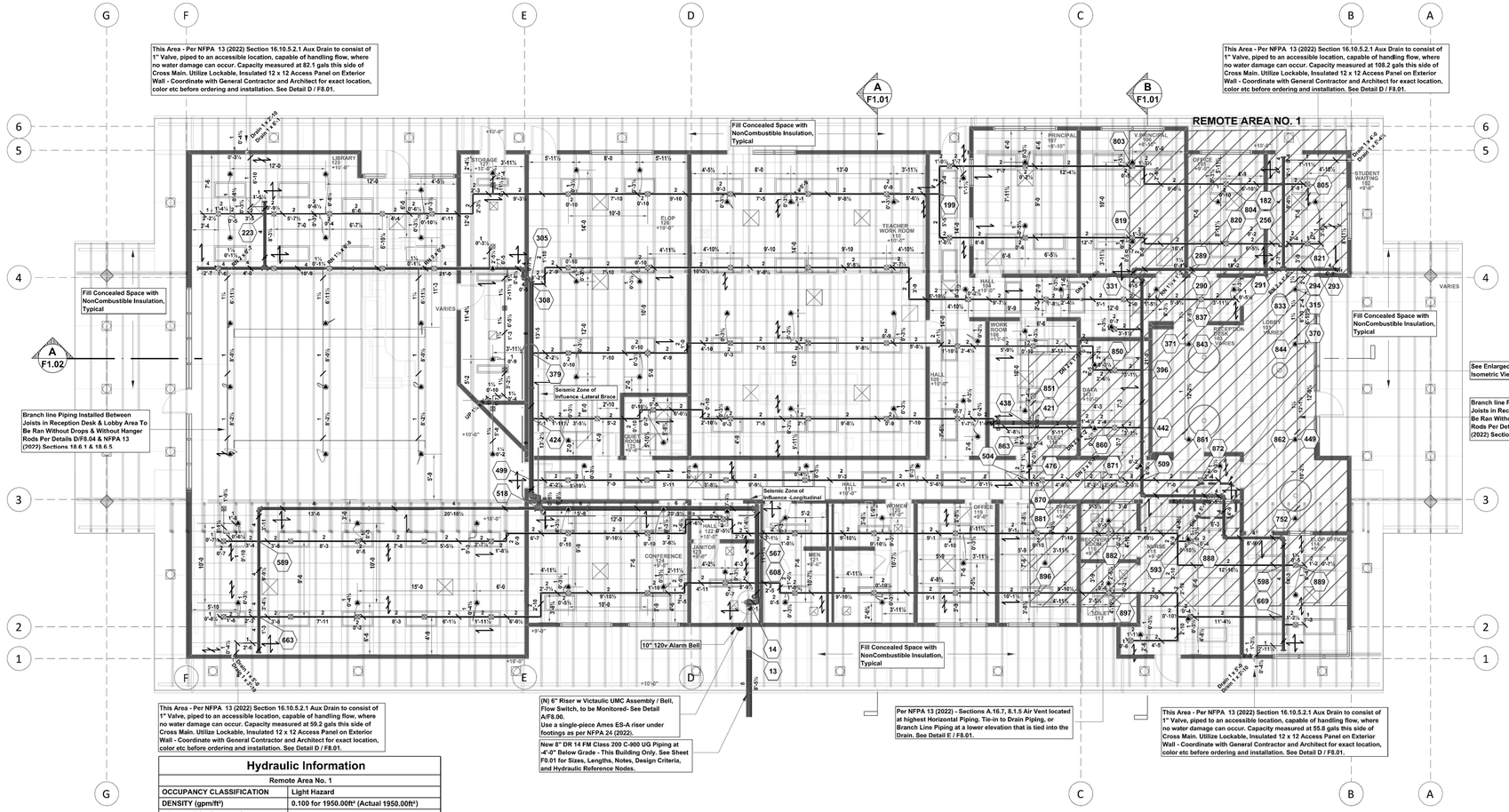
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DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MONTEITH
No. C-39128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK4621	Concealer	91	5.6	Concealed Pendent	½	Quick	Brass	155°F	
	Viking	VK4621	Concealer	2	5.6	Concealed Pendent	½	Quick	Brass	155°F	
	Viking	VK3001	Viking	99	5.6	Upright		Quick	Brass	200°F	
				Total = 192							



Hydraulic Information

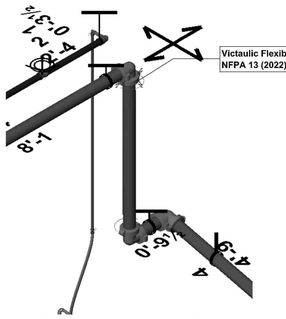
Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1950.00ft² (Actual 1950.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	26 (10' x 13' Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	654.09
TOTAL PRESSURE REQUIRED	41.023
BASE of RISER (gpm) (BOR)	554.09
BASE of RISER (psi) (BOR)	29.005
SAFETY MARGIN (psi)	+8.016 (16.3%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4, and Figure 19.2.3.1.1 for Light Hazard Occupancy.

Hydraulic Calculation Area per NFPA 13 (2025) 3.3.148.3, 19.2.1.2.4, 19.2.3.1.1, 19.2.3.2.3, 19.2.3.2.3.1, and 19.2.3.2.3.3 and Figure 19.2.3.2.3.1 for Light Hazard Occupancy Only. Adjustment made for Sloping Roof over 2 units in 12 (30% Increase) = 1950 sqft minimum Remote Area

NOTE - Per NFPA 13 (2022) Section 18.9.5.6 Branch Lines provided with a Longitudinal Brace shall not be required to be included in the Seismic Zone of Influence. Due to Zx Wood Member Construction, long Branch Lines to utilize a Longitudinal Brace as shown.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (FSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces:
Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic-, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.



PIPE RISE ENLARGED VIEW
SCALE: N.T.S.

BLDG. 100 FIRE PROTECTION PIPING PLAN
SCALE: 1/8" = 1'-0"

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2019), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

This project: Use the values for Cp .50

Pipe (in.)	Seismic Coefficient (Cp) Cp ≤ 0.50	0.5 < Cp ≤ 0.71	Cp ≥ 0.71
1"	43	36	30
1-1/4"	46	39	32
1-1/2"	49	41	33
2"	53	45	35

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

REGISTERED PROFESSIONAL ENGINEER
JEAN W. CARLSON
No. M34846
Exp. 6-30-26
MECHANICAL
STATE OF CALIFORNIA

north

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93720
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25026

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

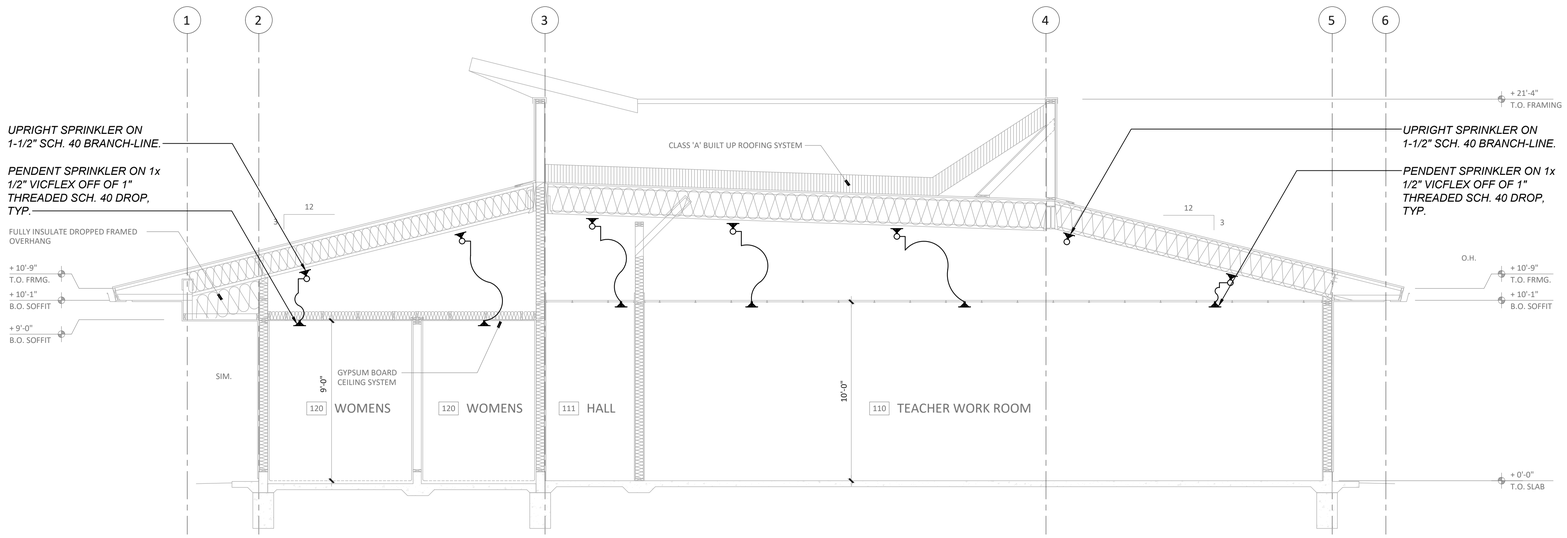
REVISIONS

MANGINI ARCHITECTURE INTERIORS
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1400 W. Visalia Parkway, Suite 200
Visalia, California 93291
www.manginiusa.us
(559) 627-2026 Office
(559) 627-1926 Fax

TITLE
BUILDING 100
FIRE PROTECTION
PIPING PLAN

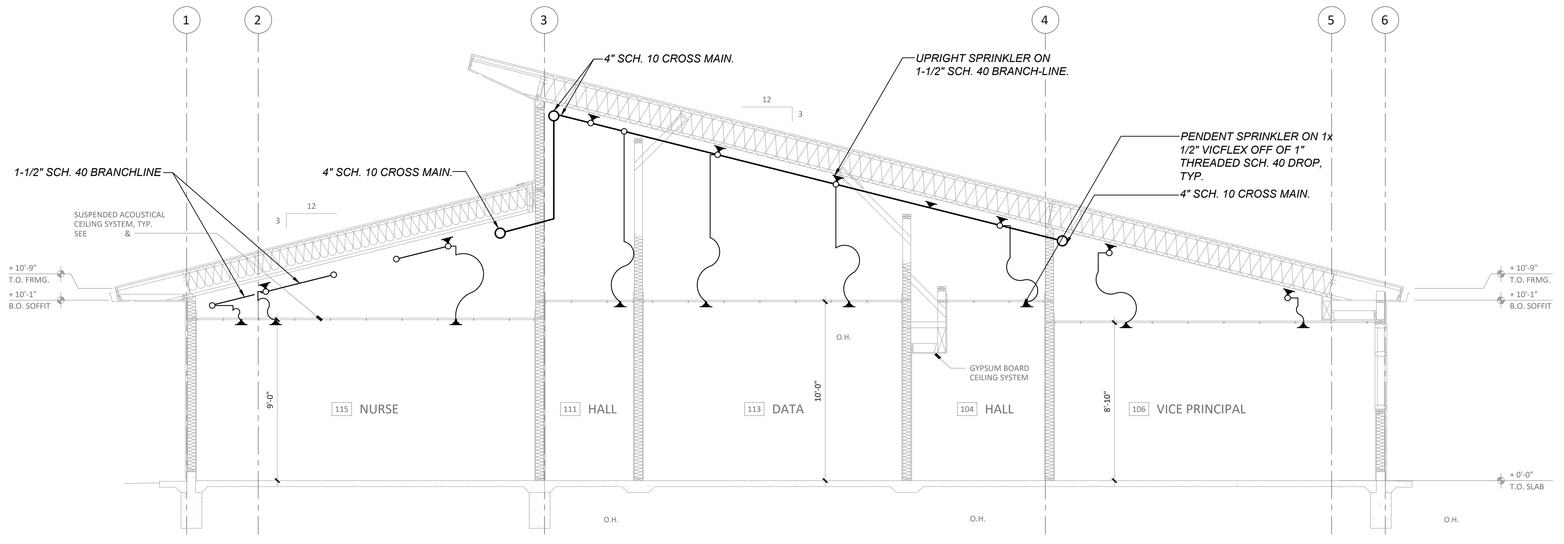
F1.00

PROJECT 24042



(A) SECTION - BLDG 100

SCALE: 1/4" = 1'-0"



(B) SECTION - BLDG 100

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
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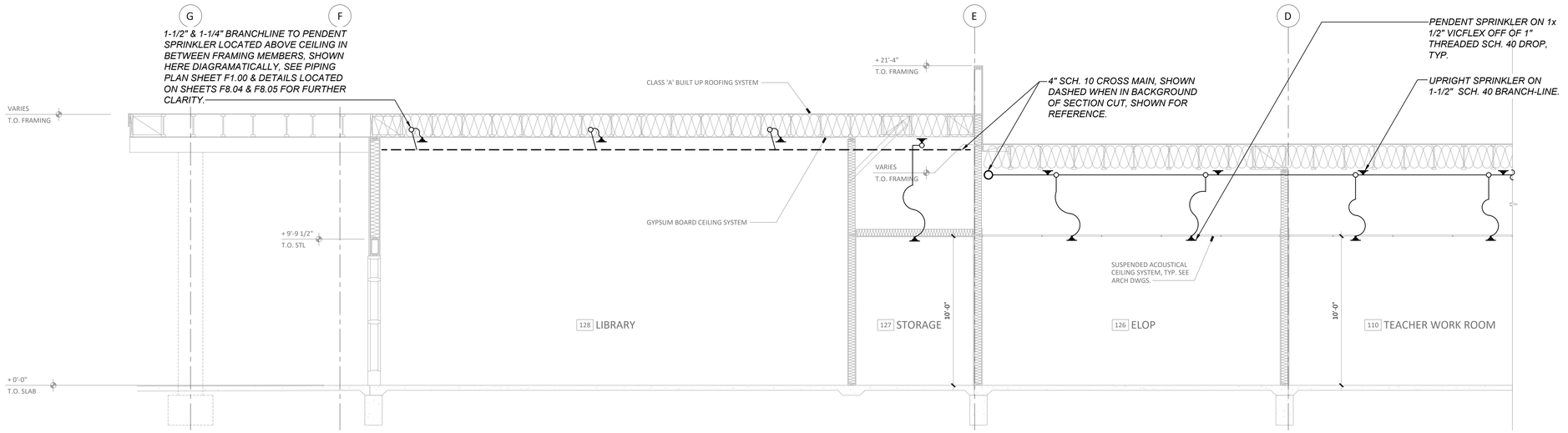
TITLE
FIRE PROTECTION
PIPING SECTIONS
BLDG. 100

F1.01

PROJECT 24042

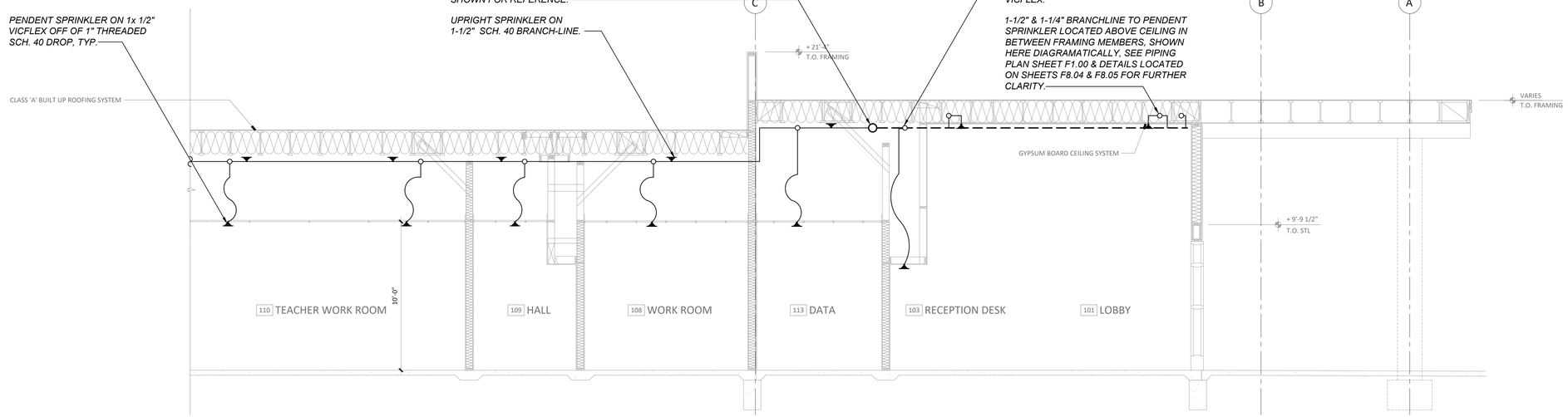
REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
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Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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25026
Fresno, CA 93727
FAX (559) 431-1362



A SECTION - BLDG 100 WEST

SCALE: 1/4" = 1'-0"



A SECTION - BLDG 100 EAST

SCALE: 1/4" = 1'-0"

APPROVALS

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LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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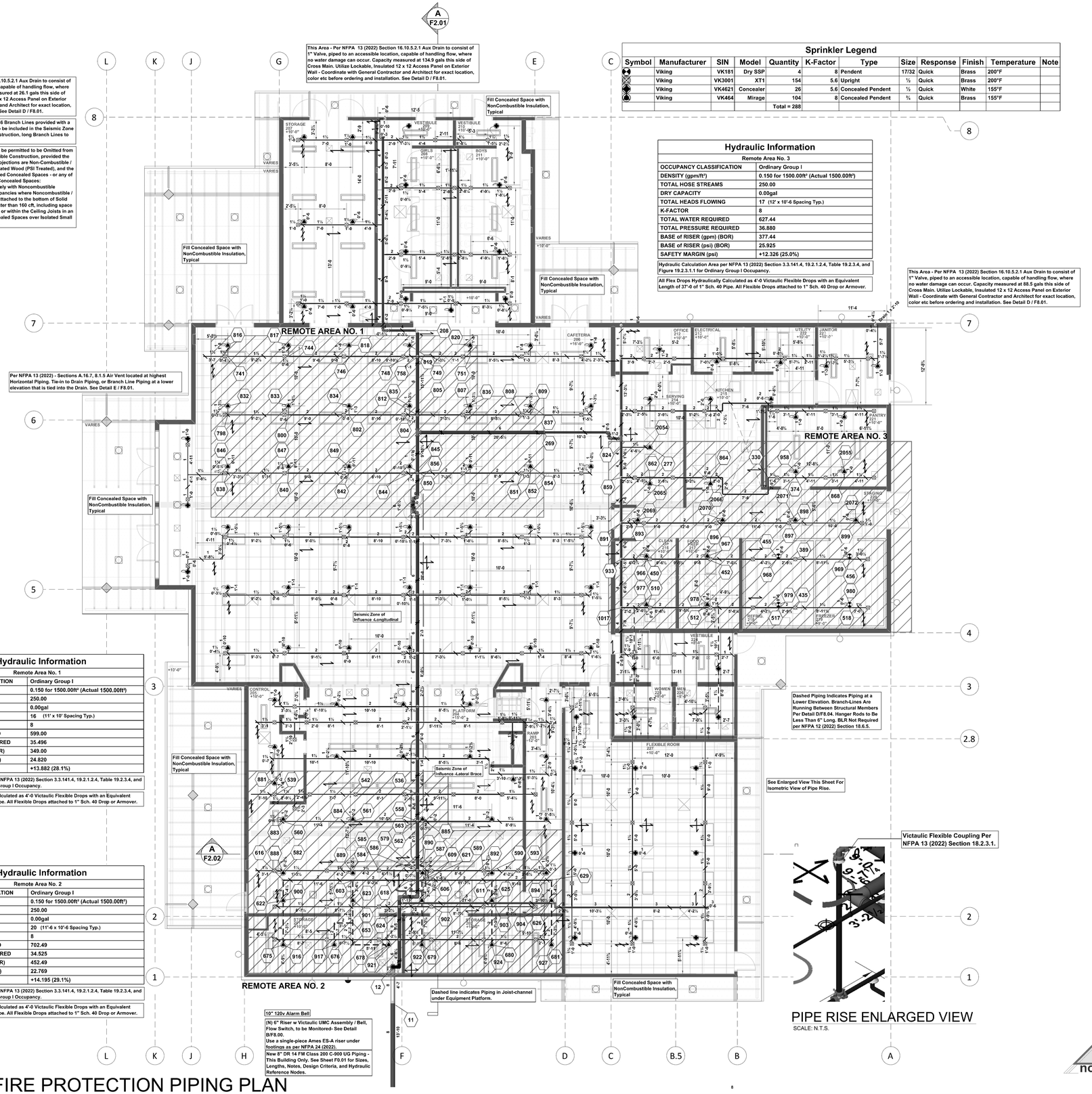
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(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
FIRE PROTECTION PIPING SECTIONS BLDG. 100

F1.02

PROJECT 24042

15 September 2026 9:36 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\6 F\F1.01 - Bldg 100 Fire Sections.dwg tim



Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK181	Dry SSP	4	8	Pendent	17/32	Quick	Brass	200°F	
	Viking	VK3001	XT1	154	5.6	Upright	½	Quick	Brass	200°F	
	Viking	VK4621	Concealer	26	5.6	Concealed Pendent	½	Quick	White	155°F	
	Viking	VK464	Mirage	104	8	Concealed Pendent	¾	Quick	Brass	155°F	
				Total = 288							

Hydraulic Information

Remote Area No. 3

OCCUPANCY CLASSIFICATION	Ordinary Group I
DENSITY (gpm/ft²)	0.150 for 1500.00ft² (Actual 1500.00ft²)
TOTAL HOSE STREAMS	250.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	17 (12' x 10'-6 Spacing Typ.)
K-FACTOR	8
TOTAL WATER REQUIRED	627.44
TOTAL PRESSURE REQUIRED	36.880
BASE of RISER (gpm) (BOR)	377.44
BASE of RISER (psi) (BOR)	25.925
SAFETY MARGIN (psi)	+12.326 (25.0%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.4, 19.2.1.2.4, Table 19.2.3.4, and Figure 19.2.3.1.1 for Ordinary Group I Occupancy.

All Flex Drops Hydraulically Calculated as 4'-0 Victaulic Flexible Drops with an Equivalent Length of 37'-0 of 1" Sch. 40 Pipe. All Flexible Drops attached to 1" Sch. 40 Drop or Armover.

Hydraulic Information

Remote Area No. 1

OCCUPANCY CLASSIFICATION	Ordinary Group I
DENSITY (gpm/ft²)	0.150 for 1500.00ft² (Actual 1500.00ft²)
TOTAL HOSE STREAMS	250.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	16 (11' x 10' Spacing Typ.)
K-FACTOR	8
TOTAL WATER REQUIRED	599.00
TOTAL PRESSURE REQUIRED	35.496
BASE of RISER (gpm) (BOR)	349.00
BASE of RISER (psi) (BOR)	24.820
SAFETY MARGIN (psi)	+13.882 (28.1%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.4, 19.2.1.2.4, Table 19.2.3.4, and Figure 19.2.3.1.1 for Ordinary Group I Occupancy.

All Flex Drops Hydraulically Calculated as 4'-0 Victaulic Flexible Drops with an Equivalent Length of 37'-0 of 1" Sch. 40 Pipe. All Flexible Drops attached to 1" Sch. 40 Drop or Armover.

Hydraulic Information

Remote Area No. 2

OCCUPANCY CLASSIFICATION	Ordinary Group I
DENSITY (gpm/ft²)	0.150 for 1500.00ft² (Actual 1500.00ft²)
TOTAL HOSE STREAMS	250.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	20 (11'-6 x 10'-6 Spacing Typ.)
K-FACTOR	8
TOTAL WATER REQUIRED	702.49
TOTAL PRESSURE REQUIRED	34.525
BASE of RISER (gpm) (BOR)	452.49
BASE of RISER (psi) (BOR)	22.769
SAFETY MARGIN (psi)	+14.195 (29.1%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.4, 19.2.1.2.4, Table 19.2.3.4, and Figure 19.2.3.1.1 for Ordinary Group I Occupancy.

All Flex Drops Hydraulically Calculated as 4'-0 Victaulic Flexible Drops with an Equivalent Length of 37'-0 of 1" Sch. 40 Pipe. All Flexible Drops attached to 1" Sch. 40 Drop or Armover.

PIPE RISE ENLARGED VIEW
SCALE: N.T.S.

BLDG. 200 FIRE PROTECTION PIPING PLAN
SCALE: 1/8" = 1'-0"

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2019), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)			
This project: Use the values for Cp .50			
	Seismic Coefficient (Cp)		
Pipe (in.)	Cp ≤ 0.50	0.51 < Cp ≤ 0.71	Cp > 0.71
1"	43	35	31
1-1/4"	46	38	33
1-1/2"	49	41	35
2"	53	45	39

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	.....

REGISTERED PROFESSIONAL ENGINEER — BRIAN W. CARLSON — No. M34846 Exp. 6-30-28 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101, Fresno, CA 93720
(559) 431-0101 FAX (559) 431-1362
25026

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MONTEITH — No. C-31128 — EXP. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

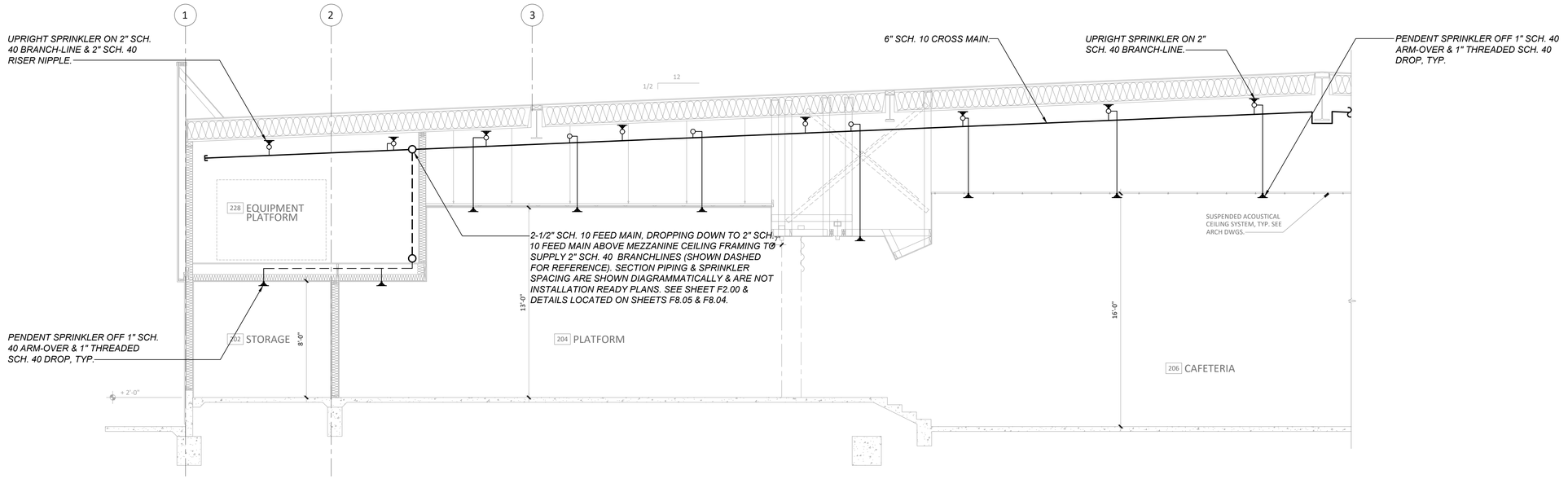
REVISIONS

MANGINI ARCHITECTURE ENGINEERING
MANGINI ASSOCIATES INC.
4340 W. Cypress Avenue, Suite 102
Visalia, California 93291
www.mangini.us
(559) 627-1926 Fax

TITLE
BUILDING 200
FIRE PROTECTION
PIPING PLAN

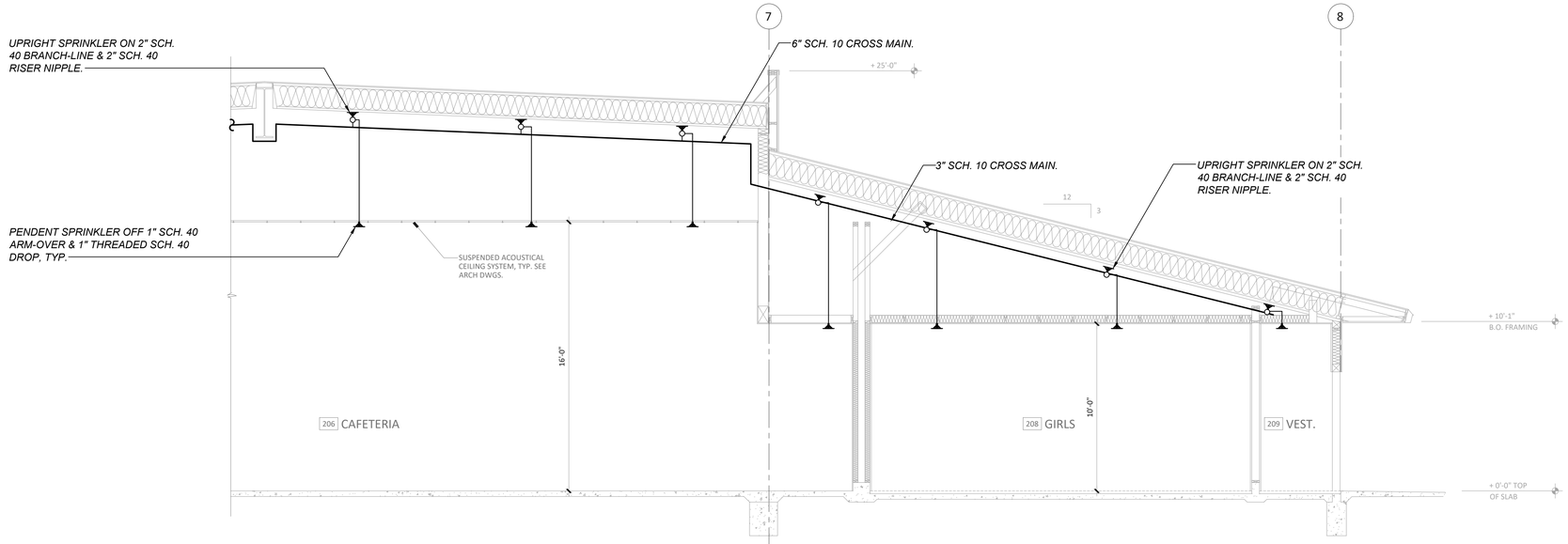
F2.00

PROJECT 24042



A SECTION - BLDG 200 WEST

SCALE: 1/4" = 1'-0"



A SECTION - BLDG 200 EAST

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
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(559) 627 2630 Office
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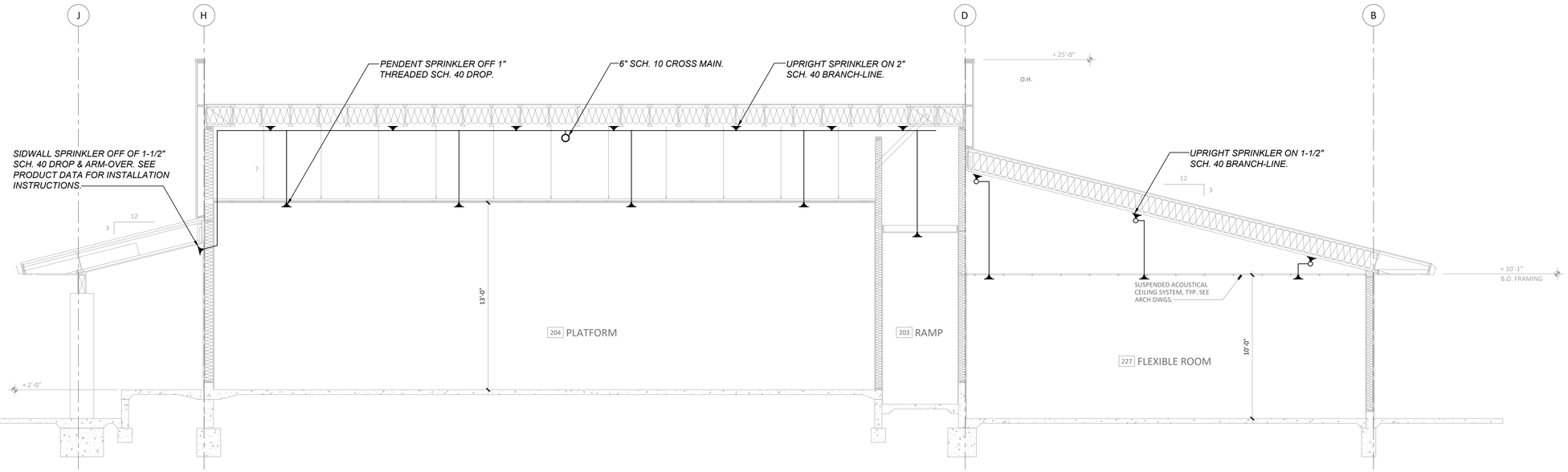
REGISTERED PROFESSIONAL ENGINEER
RYAN W. CARLOCK
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
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Fresno, CA 93727
FAX (559) 431-1362

TITLE
FIRE PROTECTION
PIPING SECTIONS
BLDG. 200

F2.01

PROJECT 24042



A SECTION - BLDG 200

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
TODD W. CARLSON
No. M34846
Exp. 6-30-28
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STATE OF CALIFORNIA

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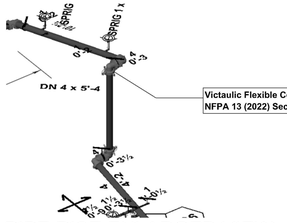
MANGINI ARCHITECTURE | INGENUITY
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(559) 627.0510 Office
(559) 627.1926 Fax

TITLE
FIRE PROTECTION PIPING SECTIONS BLDG. 200

F2.02

PROJECT 24042

15 September 2026 9:37 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\6 F\F2.01 - Bldg 200 Fire Sections.dwg tim



PIPE RISE ENLARGED VIEW

SCALE: N.T.S.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (PSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces:
Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic-, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK3001	XT1	116	5.6	Upright	½	Quick	Brass	200°F	
	Viking	VK680	QREC	1	8	Horizontal Concealed Sidewall	¾	Quick	Brass	165°F	
	Viking	VK4621		86	5.6	Concealed Pendent	½	Quick	Brass	155°F	
	Viking	VK481		3	5.6	Horizontal Concealed Sidewall	½	Quick	Brass	205°F	
				Total = 206							

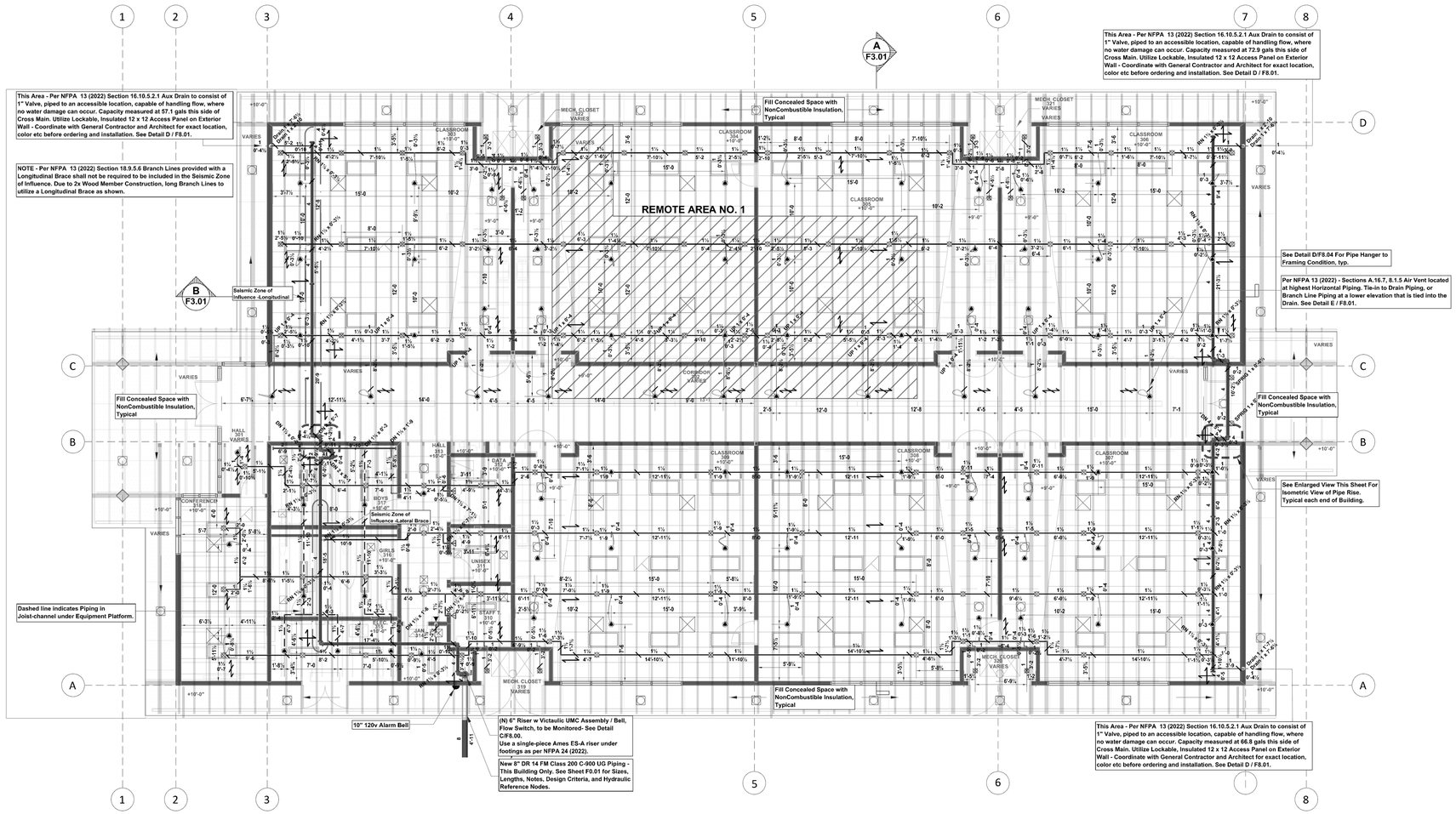
Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1170.00ft² (Actual 1170.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	15 (8' x 12' Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95
TOTAL PRESSURE REQUIRED	34.444
BASE of RISER (gpm) (BOR)	239.95
BASE of RISER (psi) (BOR)	24.885
SAFETY MARGIN (psi)	+16.182 (32.0%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4, and Figure 19.2.3.1.1 for Light Hazard Occupancy.

Hydraulic Calculation Area per NFPA 13 (2022) 3.3.141.3, 19.2.1.2.4(1), 19.2.3.1.1, Figure 19.2.3.1.1, 19.2.3.2.3.2, 19.2.3.2.3.3, and 19.2.3.2.4 for Light Hazard Occupancy.

Multiple Adjustments made for 10'-0 Max Ceiling Height (40% Reduction) and Sloping Roof over 2 units in 12 (30% Increase) = 1170 sqft minimum Remote Area



BUILDING 300 FIRE PROTECTION PIPING PLAN

SCALE: 1/8" = 1'-0"

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2019), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

This project: Use the values for Cp .50

	Seismic Coefficient (Cp)		
Pipe (in.)	Cp ≤ 0.50	0.5< Cp ≤ 0.7	Cp > 0.7
1"	43	35	28
1-1/4"	46	38	31
1-1/2"	49	41	33
2"	53	45	37

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

REGISTERED PROFESSIONAL ENGINEER — JOHN W. CARLSON — No. M34846 Exp. 6-30-26 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93720
(559) 431-0101 FAX (559) 431-1362
25026

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MONTEITH — No. C-39128 — REN: 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

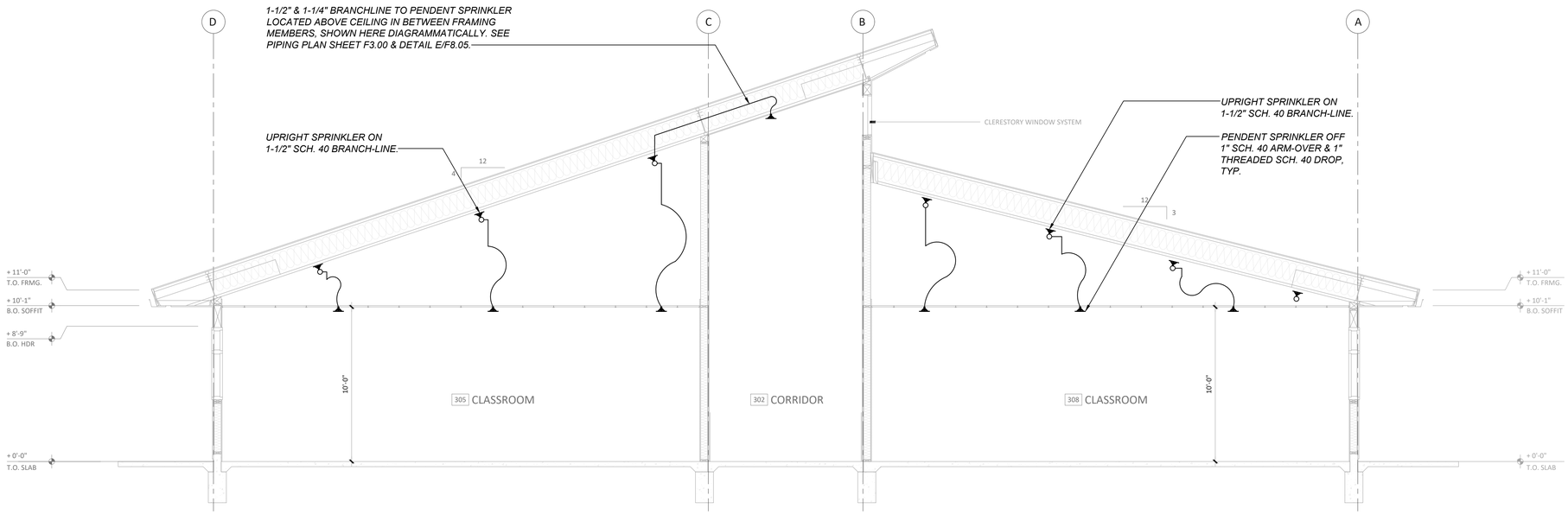
REVISIONS

MANGINI | ARCHITECTURE INTERIORS
www.mangini.us
(559) 627 1926 Fax
MANGINI ASSOCIATES INC.
4300 W. Cypress Avenue
Visalia, California 93291

TITLE
BUILDING 300
FIRE PROTECTION
PIPING PLAN

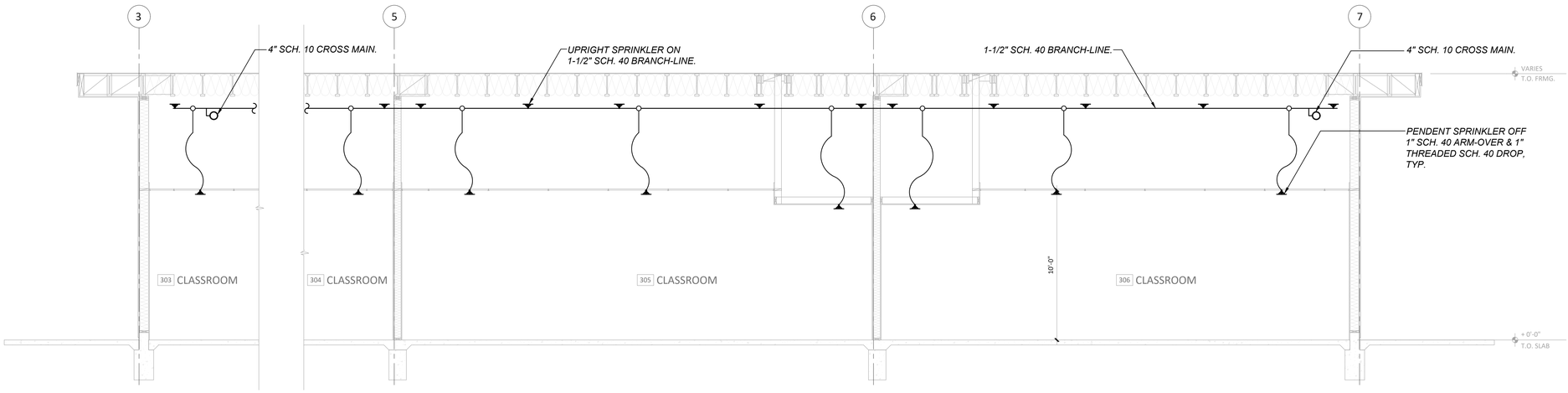
F3.00

PROJECT 24042



A SECTION - BLDGS 300-500

SCALE: 1/4" = 1'-0"



B SECTION - BLDGS 300-500

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
RYAN W. CALDER
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

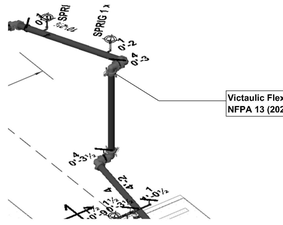
LAWRENCE ENGINEERING GROUP
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(559) 627-0530 Office
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TITLE
FIRE PROTECTION
PIPING SECTIONS
BLDGS. 300-500

F3.01

PROJECT 24042



PIPE RISE ENLARGED VIEW

SCALE: N.T.S.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (PSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces:
Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic-, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK3001	Viking	2	5.6	Upright		Quick	Brass	200°F	
	Viking	VK680	QREC	1	8	Horizontal Concealed Sidewall		Quick	Brass	165°F	
	Viking	VK3001	XT1	114	5.6	Upright	½	Quick	Brass	200°F	
	Viking	VK4621		85	5.6	Concealed Pendent	½	Quick	Brass	155°F	
	Viking	VK481		2	5.6	Horizontal Concealed Sidewall	½	Quick	Brass	205°F	
	Viking	VK481		2	5.6	Horizontal Concealed Sidewall	½	Quick	Brass	205°F	
				Total = 206							

Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1170.00ft² (Actual 1170.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	15 (8' x 12' Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95
TOTAL PRESSURE REQUIRED	34.440
BASE of RISER (gpm) (BOR)	239.95
BASE of RISER (psi) (BOR)	24.907
SAFETY MARGIN (psi)	+16.186 (32.0%)

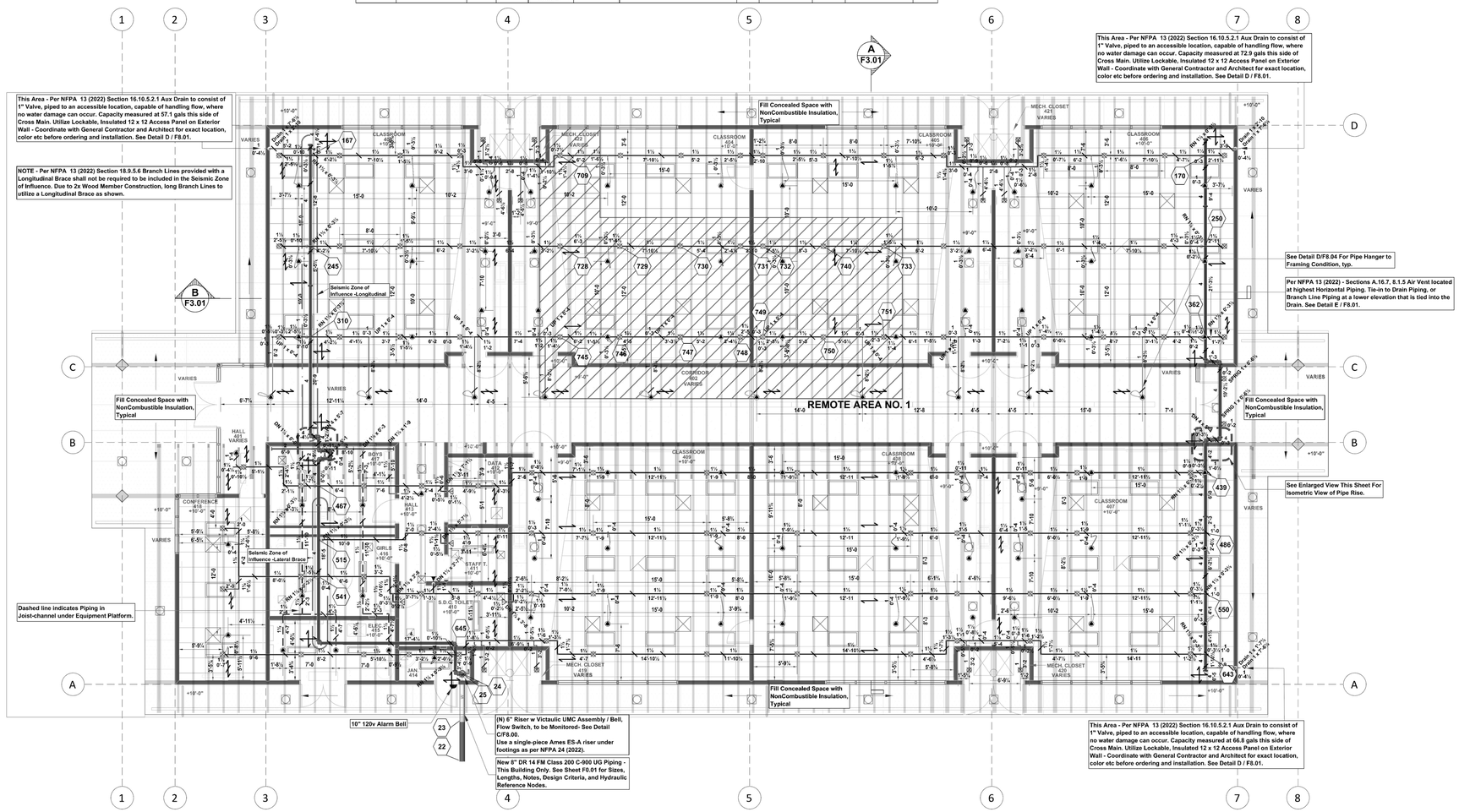
Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4, and Figure 19.2.3.1.1 for Light Hazard Occupancy.

Hydraulic Calculation Area per NFPA 13 (2022) 3.3.141.3, 19.2.1.2.4(1), 19.2.3.1.1, Figure 19.2.3.1.1, 19.2.3.2.3.2, 19.2.3.2.3.3, and 19.2.3.2.4 for Light Hazard Occupancy.

Multiple Adjustments made for 10'-0 Max Ceiling Height (40% Reduction) and Sloping Roof over 2 units in 12 (30% Increase) = 1170 sqft minimum Remote Area

This Area - Per NFPA 13 (2022) Section 16.10.5.2.1 Aux Drain to consist of 1" Valve, piped to an accessible location, capable of handling flow, where no water damage can occur. Capacity measured at 57.1 gals this side of Cross Main. Utilize Lockable, Insulated 12 x 12 Access Panel on Exterior Wall - Coordinate with General Contractor and Architect for exact location, color etc before ordering and installation. See Detail D / F8.01.

NOTE - Per NFPA 13 (2022) Section 18.9.5.6 Branch Lines provided with a Longitudinal Brace shall not be required to be included in the Seismic Zone of Influence. Due to 2x Wood Member Construction, long Branch Lines to utilize a Longitudinal Brace as shown.



BUILDING 400 FIRE PROTECTION PIPING PLAN

SCALE: 1/8" = 1'-0"

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2019), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

This project: Use the values for Cp .50

	Seismic Coefficient (Cp)		
Pipe (in.)	Cp ≤ 0.50	0.50 < Cp ≤ 0.71	0.71 ≤ Cp
1"	43	36	30
1-1/4"	46	38	32
1-1/2"	49	41	34
2"	53	44	37

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

REGISTERED PROFESSIONAL ENGINEER — BRIAN W. CARLSON — No. M34846 Exp. 6-30-28 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101, Fresno, CA 93720
(559) 431-0101 FAX (559) 431-1362
25026

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MONTEITH — No. C-39128 — REN: 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

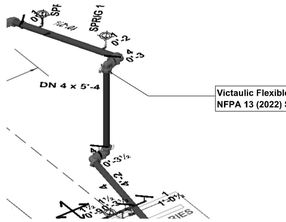
REVISIONS

MANGINI | ARCHITECTURE ENGINEERING
MANGINI ASSOCIATES INC.
4200 W. Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-2525 Office
(559) 627-1926 Fax

TITLE
BUILDING 400
FIRE PROTECTION
PIPING PLAN

F4.00

PROJECT 24042



PIPE RISE ENLARGED VIEW

SCALE: N.T.S.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (PSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces: Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic-, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK3001	XT1	116	5.6	Upright	½	Quick	Brass	200°F	
	Viking	VK680	QREC	1	8	Horizontal Concealed Sidewall	¼	Quick	Brass	165°F	
	Viking	VK4621		85	5.6	Concealed Pendent	½	Quick	Brass	155°F	
	Viking	VK481		3	5.6	Horizontal Concealed Sidewall	½	Quick	Brass	205°F	
				Total = 205							

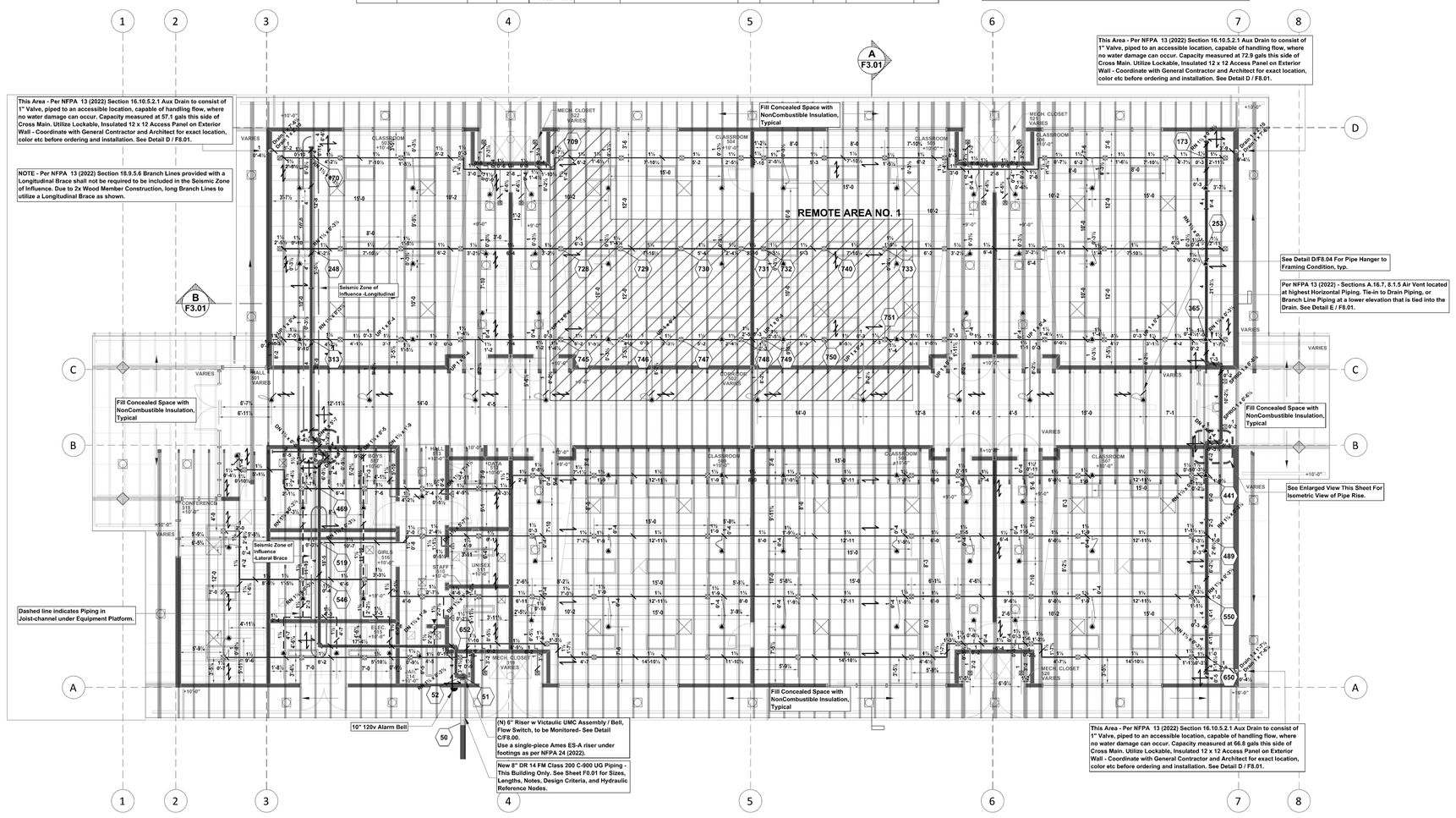
Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1170.00ft² (Actual 1170.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	15 (8' x 12' Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95
TOTAL PRESSURE REQUIRED	34.347
BASE of RISER (gpm) (BOR)	239.95
BASE of RISER (psi) (BOR)	24.881
SAFETY MARGIN (psi)	+16.279 (32.2%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4, and Figure 19.2.3.1.1 for Light Hazard Occupancy.

Hydraulic Calculation Area per NFPA 13 (2022) 3.3.141.3, 19.2.1.2.4(1), 19.2.3.1.1, Figure 19.2.3.1.1, 19.2.3.2.3.2, 19.2.3.2.3.3, and 19.2.3.2.4 for Light Hazard Occupancy.

Multiple Adjustments made for 10'-0 Max Ceiling Height (40% Reduction) and Sloping Roof over 2 units in 12 (30% Increase) = 1170 sqft minimum Remote Area



BUILDING 500 FIRE PROTECTION PIPING PLAN

SCALE: 1/8" = 1'-0"

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2019), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain is shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

This project: Use the values for Cp .50

	Seismic Coefficient (Cp)		
Pipe (in.)	Cp ≤ 0.50	0.51 < Cp ≤ 0.71	Cp > 0.71
1"	43	36	28
1-1/4"	46	38	30
1-1/2"	49	41	32
2"	53	45	35

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MONTEITH No. C-39128 EXP. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INTERIORS
MANGINI ASSOCIATES INC.
4000 Mare Island Boulevard, Suite 200
Visalia, California 93291
www.manginiarch.com
(559) 627 1926 Fax

TITLE
BUILDING 500
FIRE PROTECTION
PIPING PLAN

F5.00

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER JOHN W. CARLSON No. M34846 Exp. 6-30-26 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93720
(559) 431-0101 FAX (559) 431-1362
25026

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

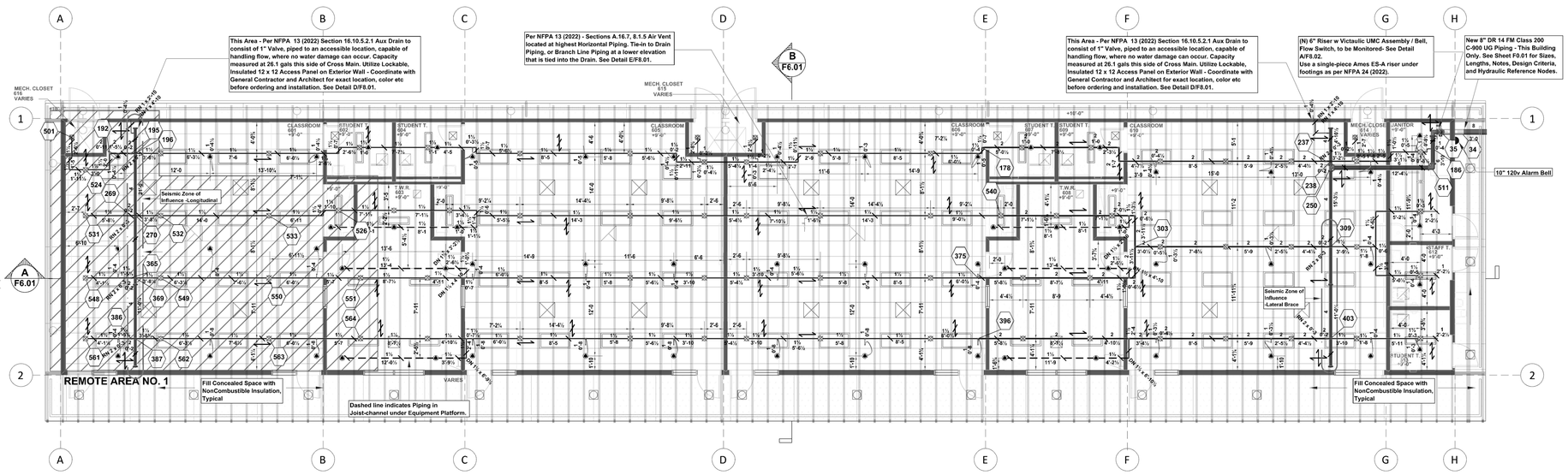
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MONGINI
No. C-39128
EXP. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK4621	Concealer	58	5.6	Concealed Pendent	½	Quick	Brass	155°F	
	Viking	VK3001	Viking	74	5.6	Upright		Quick	Brass	200°F	
				Total = 132							



Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1170.00ft² (Actual 1170.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	14 (14'-3 x 8'-6 Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	327.87
TOTAL PRESSURE REQUIRED	41.341
BASE of RISER (gpm) (BOR)	227.87
BASE of RISER (psi) (BOR)	31.657
SAFETY MARGIN (psi)	+9.328 (18.4%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4, and Figure 19.2.3.1.1 for Light Hazard Occupancy..

Hydraulic Calculation Area per NFPA 13 (2022) 3.3.141.3, 19.2.1.2.4(1), 19.2.3.1.1, Figure 19.2.3.1.1, 19.2.3.2.3.2, 19.2.3.2.3.3, and 19.2.3.2.4 for Light Hazard Occupancy.

Multiple Adjustments made for 10'-0 Max Ceiling Height (40% Reduction) and Sloping Roof over 2 units in 12 (30% Increase) = 1170 sqft minimum Remote Area

NOTE - Per NFPA 13 (2022) Section 18.9.5.6 Branch Lines provided with a Longitudinal Brace shall not be required to be included in the Seismic Zone of Influence. Due to 2x Wood Member Construction, lone Branch Lines to utilize a Longitudinal Brace as shown.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (PSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces: Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic.-, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2019), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

This project: Use the values for Cp .50

	Seismic Coefficient (Cp)		
Pipe (in.)	Cp ≤ 0.50	0.51 < Cp ≤ 0.71	0.71 < Cp ≤ 0.83
1"	43	41	39
1-1/4"	46	44	42
1-1/2"	49	47	45
2"	53	49	47

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

REGISTERED PROFESSIONAL ENGINEER
JOSHUA W. CARLSON
No. M34846
Exp. 6-30-26
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
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TITLE
BUILDING 600
FIRE PROTECTION
PIPING PLAN

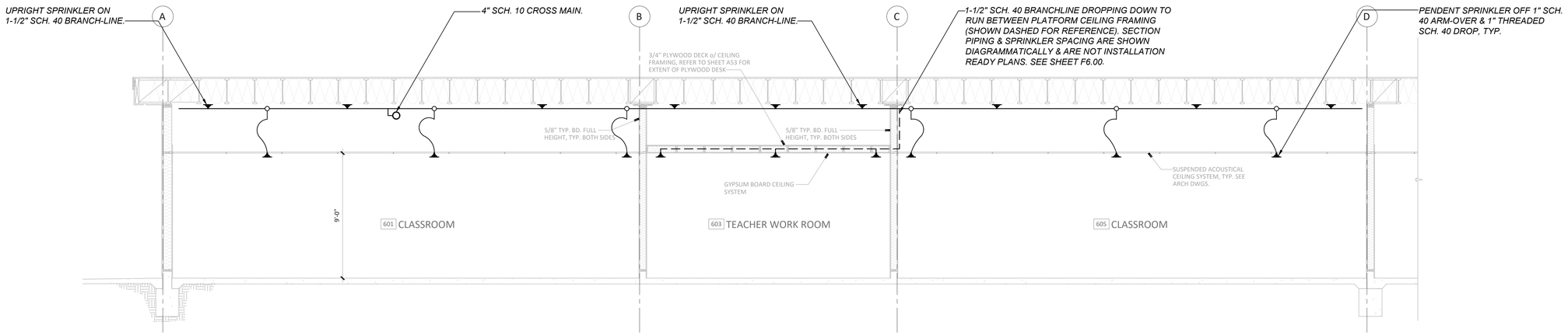
F6.00

PROJECT 24042

north

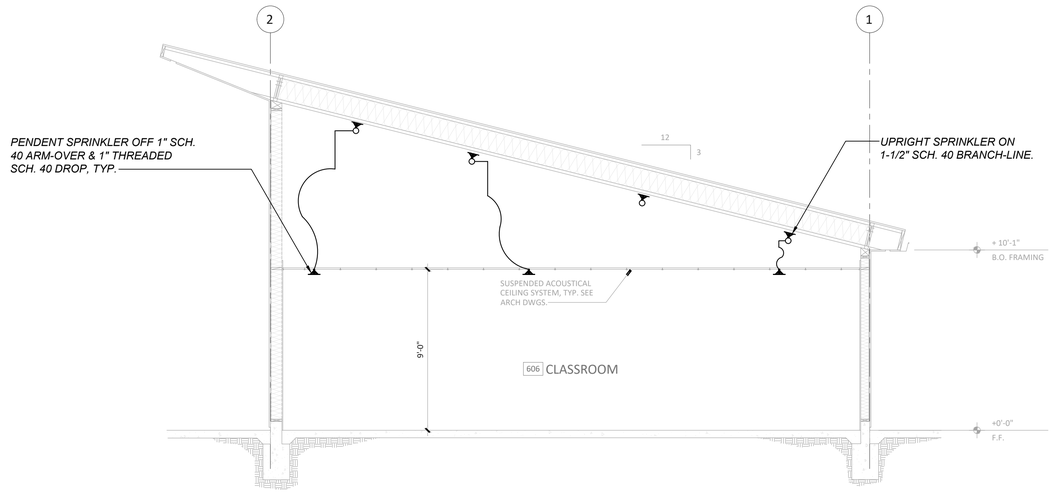
BLDG. 600 FIRE PROTECTION PIPING PLAN

SCALE: 1/8" = 1'-0"



(A) SECTION - BLDG 600

SCALE: 1/4" = 1'-0"



(B) SECTION - BLDG 600

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
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LAWRENCE ENGINEERING GROUP
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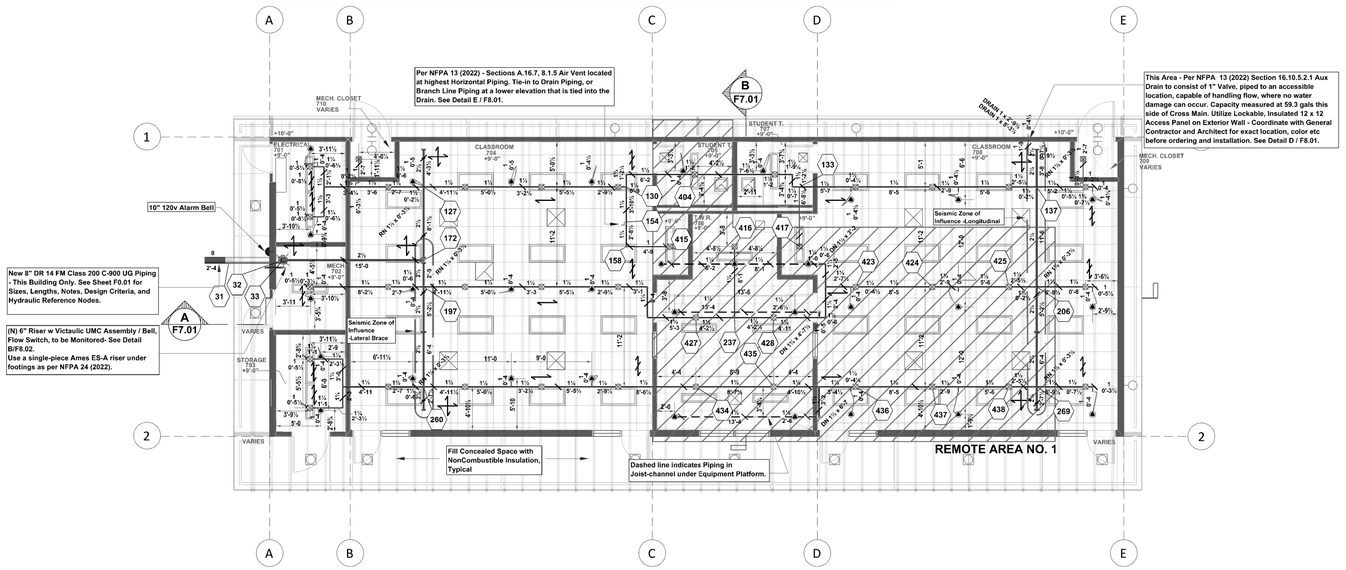
TITLE
FIRE PROTECTION
PIPING SECTIONS
BLDG 600

F6.01

PROJECT 24042

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK3001	Viking	40	5.6	Upright		Quick	Brass	200°F	
	Viking	VK4621	Concealer	32	5.6	Concealed Pendent	½	Quick	Brass	155°F	
				Total = 72							



Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1170.00ft² (Actual 1170.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	14 (12' x 9' Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	328.45
TOTAL PRESSURE REQUIRED	40.045
BASE of RISER (gpm) (BOR)	228.45
BASE of RISER (psi) (BOR)	30.373
SAFETY MARGIN (psi)	+10.623 (21.0%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4. and Figure 19.2.3.1.1 for Light Hazard Occupancy.

Hydraulic Calculation Area per NFPA 13 (2022) 3.3.141.3, 19.2.1.2.4(1), 19.2.3.1.1, Figure 19.2.3.1.1, 19.2.3.2.3.2, 19.2.3.2.3.3, and 19.2.3.2.4 for Light Hazard Occupancy.

Multiple Adjustments made for 10'-0 Max Ceiling Height (40% Reduction) and Sloping Roof over 2 units in 12 (30% Increase) = 1170 sqft minimum Remote Area

NOTE - Per NFPA 13 (2022) Section 18.9.5.6 Branch Lines provided with a Longitudinal Brace shall not be required to be included in the Seismic Zone of Influence. Due to 2x Wood Member Construction, long Branch Lines to utilize a Longitudinal Brace as shown.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (PSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces: Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic -, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2022), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

This project: Use the values for Cp .50

Pipe (in.)	Seismic Coefficient (Cp)		
	Cp ≤ 0.59	Cp > 0.59 ≤ 0.71	Cp > 0.71
1"	43	39	35
1-1/4"	46	38	27
1-1/2"	49	41	29
2"	53	45	31

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

JOHN W. CARLSON — No. M34846 Exp. 6-30-26 — REGISTERED PROFESSIONAL ENGINEER — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101, Fresno, CA 93720
(559) 431-0101 FAX (559) 431-1362
25026

north

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MONTEITH — No. C-39128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE ENGINEERING
MANGINI ASSOCIATES INC.
1400 W. Main Street, 2nd Floor
Visalia, California 93291
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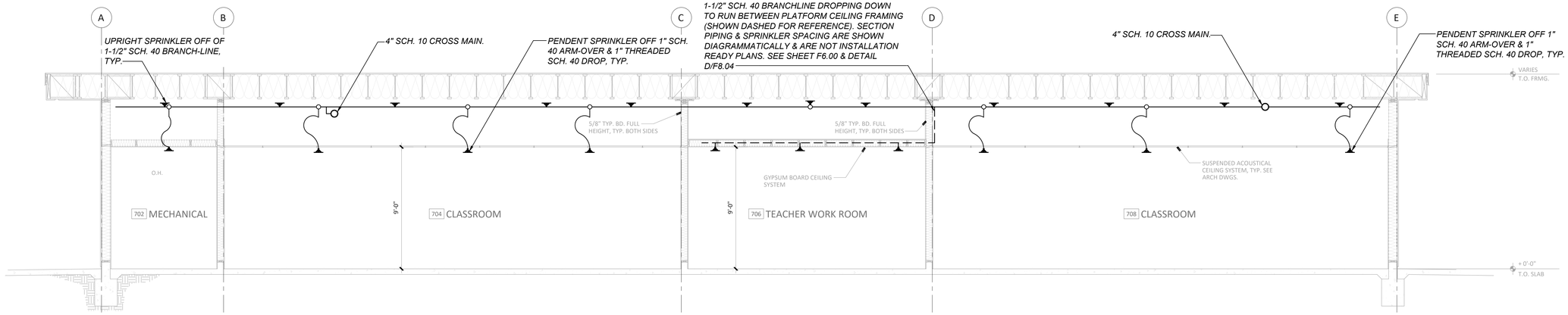
TITLE
BUILDING 700
FIRE PROTECTION
PIPING PLAN

F7.00

PROJECT 24042

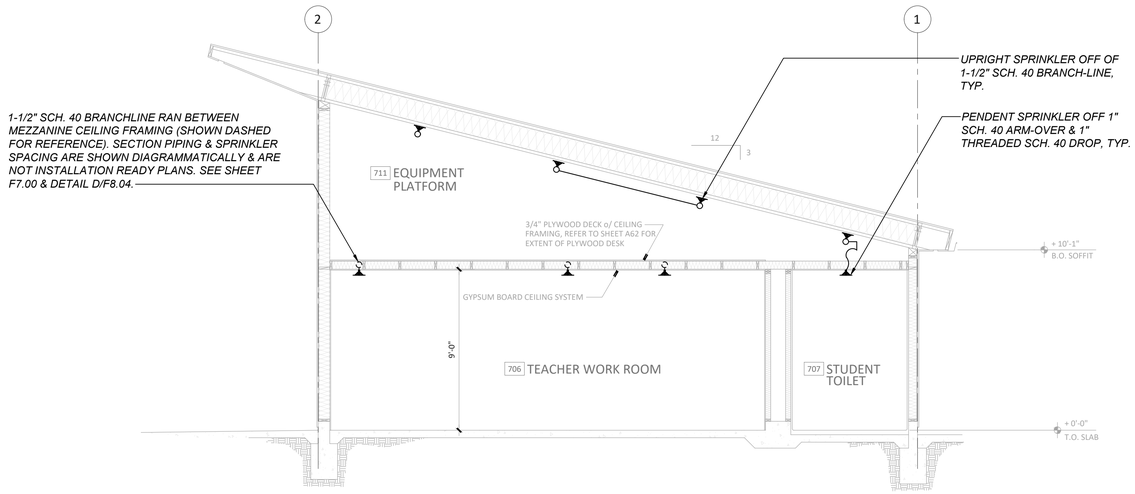
BLDG. 700 FIRE PROTECTION PIPING PLAN

SCALE: 3/16" = 1'-0"



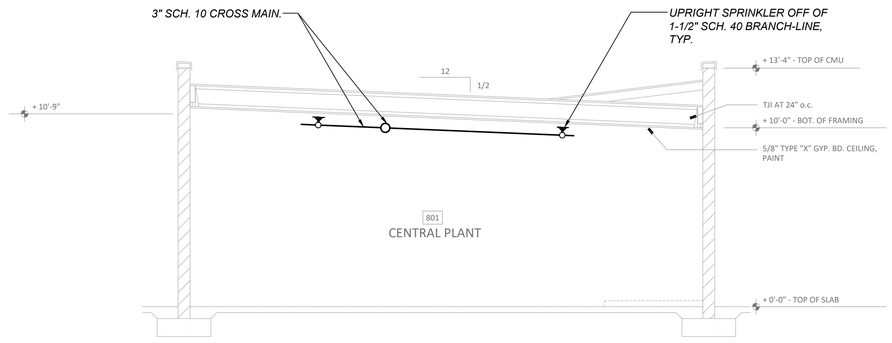
A SECTION - BLDG 700

SCALE: 1/4" = 1'-0"



B SECTION - BLDG 700

SCALE: 1/4" = 1'-0"



C SECTION - BLDG 800

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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4910 E. Clinton Way, Suite 101
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MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
FIRE PROTECTION
PIPING SECTIONS
BLDG 700 & 800

F7.01

PROJECT 24042

FILE # 10-126 APPLICATION # 02-123774

Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Ordinary Group II
DENSITY (gpm/ft²)	0.200 for 936.52ft² (Actual 936.52ft²)
TOTAL HOSE STREAMS	250.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	8 (14'-6 x 8'-4 Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	444.25
TOTAL PRESSURE REQUIRED	36.666
BASE of RISER (gpm) (BOR)	194.25
BASE of RISER (psi) (BOR)	27.049
SAFETY MARGIN (psi)	+13.528 (27.0%)

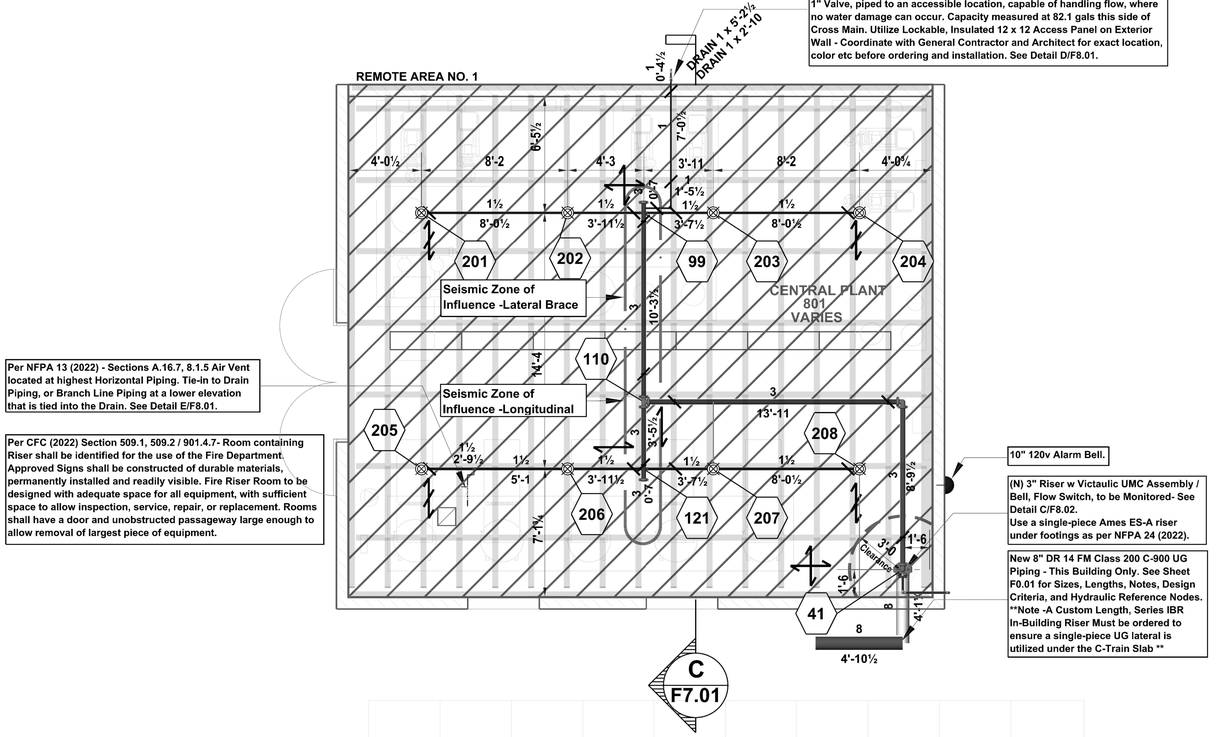
Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.5, 19.2.1.2.4, Table 19.2.3.4, and Figure 19.2.3.1.1 for Ordinary Group II Occupancy

NOTE - Per NFPA 13 (2022) Section 18.9.5.6 Branch Lines provided with a Longitudinal Brace shall not be required to be included in the Seismic Zone of Influence. Due to 2x Wood Member Construction, long Branch Lines to utilize a Longitudinal Brace as shown.

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
⊗	Viking	VK3001	Viking	8	5.6	Upright		Quick	Brass	200°F	
				Total = 8							

This Area - Per NFPA 13 (2022) Section 16.10.5.2.1 Aux Drain to consist of 1" Valve, piped to an accessible location, capable of handling flow, where no water damage can occur. Capacity measured at 82.1 gals this side of Cross Main. Utilize Lockable, Insulated 12 x 12 Access Panel on Exterior Wall - Coordinate with General Contractor and Architect for exact location, color etc before ordering and installation. See Detail D/F8.01.



Per NFPA 13 (2022) - Sections A.16.7, 8.1.5 Air Vent located at highest Horizontal Piping. Tie-in to Drain Piping, or Branch Line Piping at a lower elevation that is tied into the Drain. See Detail E/F8.01.

Per CFC (2022) Section 509.1, 509.2 / 901.4.7- Room containing Riser shall be identified for the use of the Fire Department. Approved Signs shall be constructed of durable materials, permanently installed and readily visible. Fire Riser Room to be designed with adequate space for all equipment, with sufficient space to allow inspection, service, repair, or replacement. Rooms shall have a door and unobstructed passageway large enough to allow removal of largest piece of equipment.

10" 120v Alarm Bell.

(N) 3" Riser w Victaulic UMC Assembly / Bell, Flow Switch, to be Monitored- See Detail C/F8.02.
Use a single-piece Ames ES-A riser under footings as per NFPA 24 (2022).

New 8" DR 14 FM Class 200 C-900 UG Piping - This Building Only. See Sheet F0.01 for Sizes, Lengths, Notes, Design Criteria, and Hydraulic Reference Nodes. **Note -A Custom Length, Series IBR In-Building Riser Must be ordered to ensure a single-piece UG lateral is utilized under the C-Train Slab **

north

BLDG. 800 FIRE PROTECTION PIPING PLAN

SCALE: 1/4" = 1'-0"

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

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LICENSED ARCHITECT
JAMES R. MONTEITH
No. C-39128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2022), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
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Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
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Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)			
This project: Use the values for Cp .50			
	Seismic Coefficient (Cp)		
Pipe (in.)	Cp ≤ 0.50	0.51< Cp ≤ 0.71	Cp ≥ 0.71
1"	43	36	28
1-1/4"	46	39	31
1-1/2"	49	41	33
2"	53	45	35

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (20Z2), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	•••••••••••••••••••

REGISTERED PROFESSIONAL ENGINEER
JOHN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

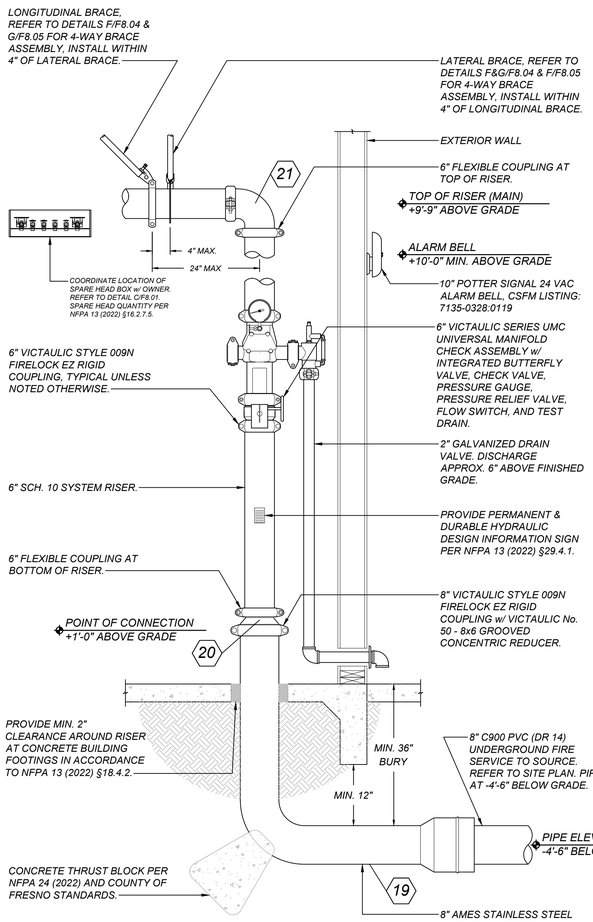
REVISIONS

MANGINI ARCHITECTURE INTERIORS
MANGINI ASSOCIATES INC.
1424 W. Main Street, Suite 101 Office
Visalia, California 93291
(559) 627-1926 Fax
www.mangini.us

TITLE
BUILDING 800
FIRE PROTECTION
PIPING PLAN

F8.0A

PROJECT 24042



HYDRAULIC INFORMATION	
REMOTE AREA NO. 1 (MOST DEMANDING)	
OCCUPANCY CLASSIFICATION	LIGHT HAZARD
DENSITY	.10 GPM/FT²
HOSE ALLOWANCE	100 GPM
TOTAL HEADS FLOWING	15
K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95 GPM
TOTAL PRESSURE REQUIRED	34.444 PSI
SAFETY MARGIN (PSI)	+16.182 (32.0%)



TITLE 19 ARTICLE 906 (A). A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

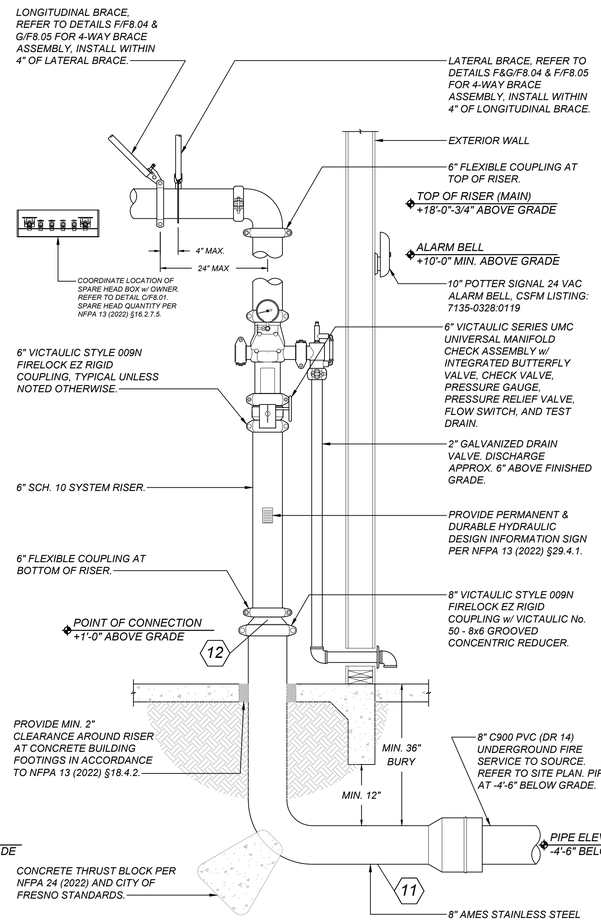
RISER NOTES:

1. *EACH RISER DETAIL IS A SCHEMATIC REPRESENTATION OF THE RISER(S). ORIENTATION OF FITTINGS, VALVES, GAUGES, AND OTHER DEVICES HAVE BEEN MODIFIED FOR ILLUSTRATION PURPOSES AND MAY VARY IN ACTUAL INSTALLATION.*
2. *PER NFPA 13 (2022) §18.2.3.1 - A FLEXIBLE COUPLING SHALL BE INSTALLED WITHIN 24" OF THE TOP AND BOTTOM OF ALL RISERS. RISERS LESS THAN 3 FT IN LENGTH MAY OMIT FLEX COUPLINGS. ONE FLEX COUPLING IS ADEQUATE FOR RISERS 3' TO 7' IN LENGTH.*
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6. *LOCATION OF 2" SYSTEM DRAIN TO BE COORDINATED WITH GENERAL CONTRACTOR. DRAIN PIPE AND FITTINGS SHALL BE GALV.*
7. *FIRE RISER ROOM SHALL COMPLY WITH CBC (2022) 901.3 PER CFC (2022) SECTION 509.1 FIRE EQUIPMENT ROOMS SHALL BE IDENTIFIED IN AN APPROVED MANNER. APPROVED SIGNS SHALL BE DURABLE, PERMANENT, AND VISIBLE.*
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RISER DETAIL: BLDG. 300
6" SYSTEM RISER ON 8" IN-BUILDING RISER (INT)

C F8.00

SCALE: NONE



HYDRAULIC INFORMATION	
REMOTE AREA NO. 2 (MOST DEMANDING)	
OCCUPANCY CLASSIFICATION	ORD GROUP I
DENSITY	.15 GPM/FT²
HOSE ALLOWANCE	250 GPM
TOTAL HEADS FLOWING	20
K-FACTOR	8
TOTAL WATER REQUIRED	702.49 GPM
TOTAL PRESSURE REQUIRED	35.545 PSI
SAFETY MARGIN (PSI)	+14.195 (29.1%)



TITLE 19 ARTICLE 906 (A). A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

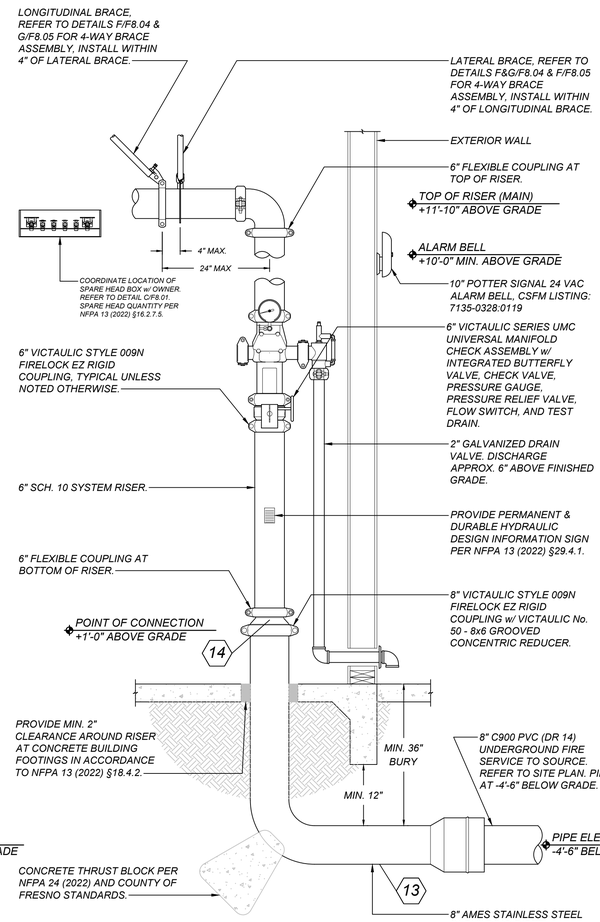
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RISER DETAIL: BLDG. 200
6" SYSTEM RISER ON 8" IN-BUILDING RISER (INT)

B F8.00

SCALE: NONE



HYDRAULIC INFORMATION	
REMOTE AREA NO. 1 (MOST DEMANDING)	
OCCUPANCY CLASSIFICATION	LIGHT HAZARD
DENSITY	.10 GPM/FT²
HOSE ALLOWANCE	100 GPM
TOTAL HEADS FLOWING	26
K-FACTOR	5.6
TOTAL WATER REQUIRED	654.09 GPM
TOTAL PRESSURE REQUIRED	41.023 PSI
SAFETY MARGIN (PSI)	+8.016 (16.3%)



TITLE 19 ARTICLE 906 (A). A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

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RISER DETAIL: BLDG. 100
6" SYSTEM RISER ON 8" IN-BUILDING RISER (INT)

A F8.00

SCALE: NONE

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

TITLE
FIRE PROTECTION
RISER DETAILS

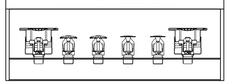
F8.00

PROJECT 24042

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1342

15 September 2026 9:37 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\6 F\F8.00 - F8.02 - Fire Riser Details.dwg lim

PROVIDE MIN. 6
SPARE SPRINKLERS FOR
THIS BUILDING.



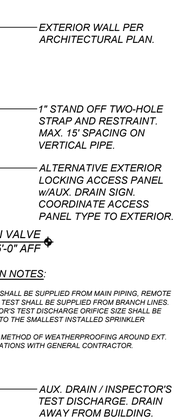
SPARE HEAD BOX NOTES:

1. PER NFPA 13 (2022) §16.2.7.3 THE SPRINKLERS SHALL BE KEPT IN A CABINET LOCATED WHERE THE TEMPERATURE TO WHICH THEY ARE SUBJECTED WILL AT NO TIME EXCEED THE MAXIMUM CEILING TEMPERATURES SPECIFIED IN TABLE 7.2.4.1 FOR EACH OF THE SPRINKLERS WITHIN THE CABINET.
2. THE SPARE HEAD CABINET SHALL BE PLACED IN A SECURE LOCATION, PREFERABLY FASTENED TO A WALL ABOVE 6'-0" A.F.F. LOCATION SHALL BE COORDINATED BY THE OWNER.
3. PER NFPA 13 (2022) §16.2.7.5 THE STOCK OF SPARE SPRINKLERS SHALL INCLUDE ALL TYPES AND RATINGS INSTALLED AND SHALL BE AS FOLLOWS:
   - 3.1. FOR PROTECTED FACILITIES HAVING UNDER 300 SPRINKLERS — NO FEWER THAN SIX SPRINKLERS.
   - 3.2. FOR PROTECTED FACILITIES HAVING 300 TO 1000 SPRINKLERS — NO FEWER THAN 12 SPRINKLERS.
   - 3.3. FOR PROTECTED FACILITIES HAVING OVER 1000 SPRINKLERS — NO FEWER THAN 24 SPRINKLERS.
   - 3.4. A MINIMUM OF TWO SPRINKLERS OF EACH TYPE AND TEMPERATURE RATING SHOULD BE PROVIDED.
4. PER NFPA 13 (2022) §16.2.7.6 ONE SPRINKLER WRENCH AS SPECIFIED BY THE SPRINKLER MANUFACTURER SHALL BE PROVIDED IN THE CABINET FOR EACH TYPE OF SPRINKLER INSTALLED TO BE USED FOR THE REMOVAL AND INSTALLATION OF SPRINKLERS IN THE SYSTEM. ONE SPRINKLER WRENCH DESIGN CAN BE APPROPRIATE FOR MANY TYPES OF SPRINKLERS AND SHOULD NOT REQUIRE MULTIPLE WRENCHES OF THE SAME DESIGN.
5. PER NFPA 13 (2022) §16.2.7.7.1 A LIST OF THE SPRINKLERS INSTALLED IN THE PROPERTY SHALL BE POSTED IN THE SPRINKLER CABINET. THE LIST SHALL INCLUDE THE FOLLOWING:
   - 5.1. SPRINKLER IDENTIFICATION NUMBER (SIN) IF EQUIPPED; ORTHE MANUFACTURER, MODEL, ORIFICE, DEFLECTOR TYPE, THERMAL SENSITIVITY, AND PRESSURE RATING.
   - 5.2. GENERAL DESCRIPTION.
   - 5.3. QUANTITY OF EACH TYPE TO BE CONTAINED IN THE CABINET.
   - 5.4. ISSUE OR REVISION DATE OF THE LIST.

SPARE HEAD BOX DETAIL

C
F8.01

SCALE: NONE



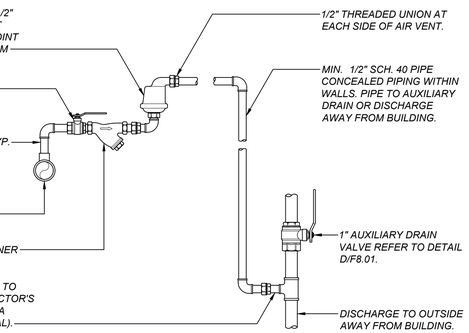
INSTALLATION NOTES:

A. AUX. DRAINS SHALL BE SUPPLIED FROM MAIN PIPING. REMOTE INSPECTOR'S TEST SHALL BE SUPPLIED FROM BRANCH LINES.
B. THE INSPECTOR'S TEST DISCHARGE ORIFICE SIZE SHALL BE EQUIVALENT TO THE SMALLEST INSTALLED SPRINKLER K-FACTOR.
C. COORDINATE METHOD OF WEATHERPROOFING AROUND EXT. PIPE PENETRATIONS WITH GENERAL CONTRACTOR.

CONCEALED AUXILIARY DRAIN DETAIL/ REMOTE INSPECTOR'S TEST

D
F8.01

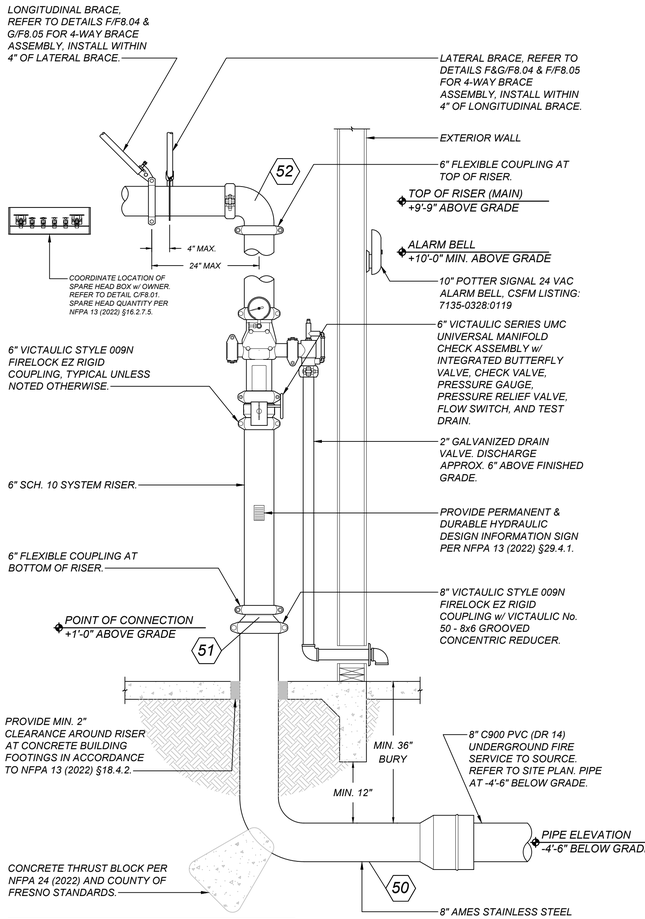
SCALE: NONE



POTTER AIR VENT

E
F8.01

SCALE: NONE



HYDRAULIC INFORMATION	
REMOTE AREA NO. 1 (MOST DEMANDING)	
OCCUPANCY CLASSIFICATION	LIGHT HAZARD
DENSITY	.10 GPM/FT²
HOSE ALLOWANCE	100 GPM
TOTAL HEADS FLOWING	15
K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95 GPM
TOTAL PRESSURE REQUIRED	34.347 PSI
SAFETY MARGIN (PSI)	+16.279 (32.2%)



TITLE 19 ARTICLE 906 (A). A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

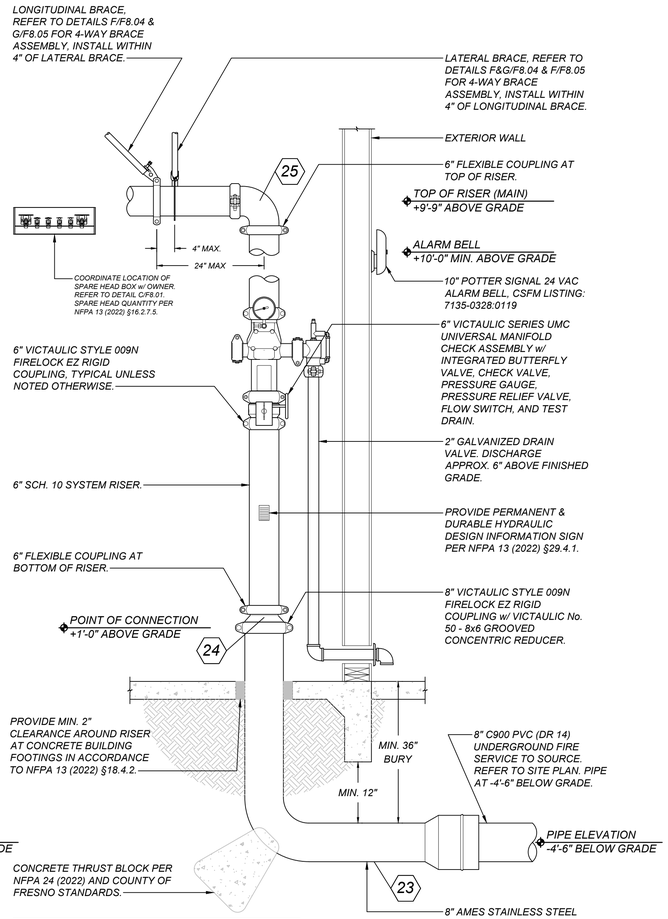
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RISER DETAIL: BLDG. 500
6" SYSTEM RISER ON 8" IN-BUILDING RISER (INT)

B
F8.01

SCALE: NONE



HYDRAULIC INFORMATION	
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DENSITY	.10 GPM/FT²
HOSE ALLOWANCE	100 GPM
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K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95 GPM
TOTAL PRESSURE REQUIRED	34.440 PSI
SAFETY MARGIN (PSI)	+16.186 (32.0%)



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RISER DETAIL: BLDG. 400
6" SYSTEM RISER ON 8" IN-BUILDING RISER (INT)

A
F8.01

SCALE: NONE

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CAMPBELL
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

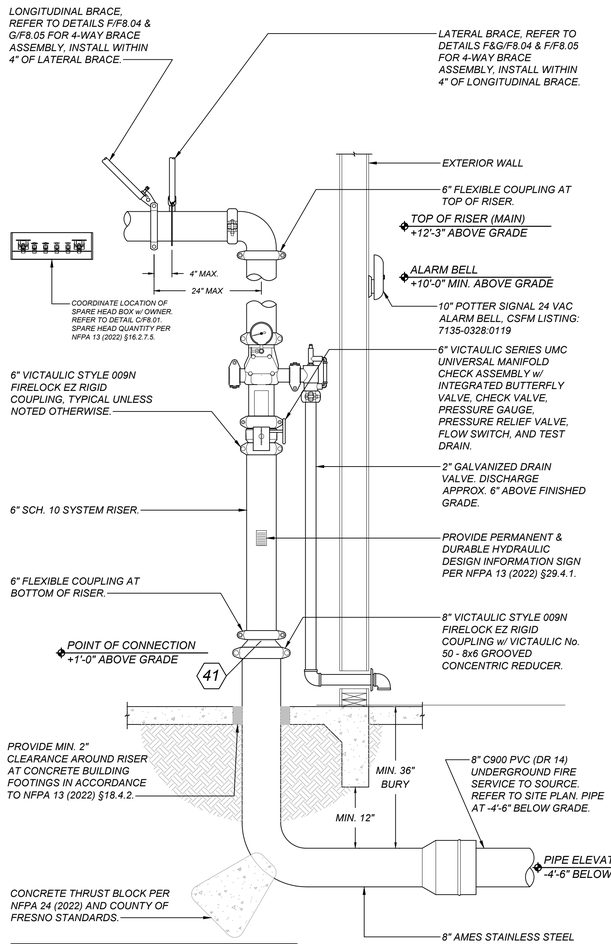
MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
FIRE PROTECTION
RISER DETAILS

F8.01

PROJECT 24042

15 September 2026 9:37 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\6 F\F8.00 - F8.02 - Fire Riser Details.dwg tim



HYDRAULIC INFORMATION	
REMOTE AREA NO. 1 (MOST DEMANDING)	
OCCUPANCY CLASSIFICATION	ORD GROUP II
DENSITY	.20 GPM/FT²
HOSE ALLOWANCE	250 GPM
TOTAL HEADS FLOWING	8
K-FACTOR	5.6
TOTAL WATER REQUIRED	444.25 GPM
TOTAL PRESSURE REQUIRED	36.666 PSI
SAFETY MARGIN (PSI)	+13.528 (27.0%)



TITLE 19 ARTICLE 906 (A). A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

RISER NOTES:

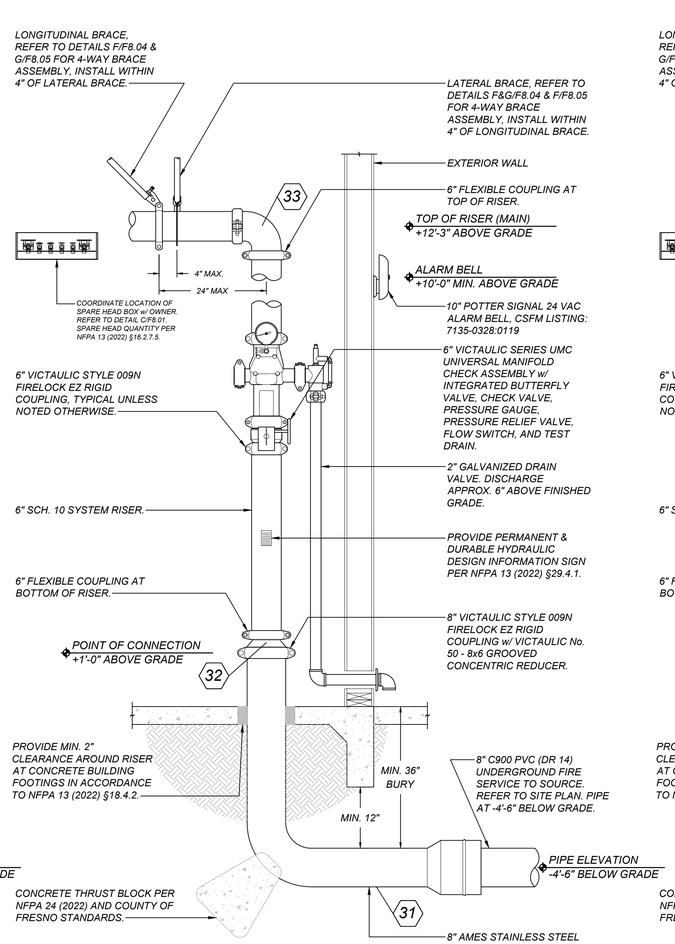
1. EACH RISER DETAIL IS A SCHEMATIC REPRESENTATION OF THE RISER(S). ORIENTATION OF FITTINGS, VALVES, GAUGES, AND OTHER DEVICES HAVE BEEN MODIFIED FOR ILLUSTRATION PURPOSES AND MAY VARY IN ACTUAL INSTALLATION.
2. PER NFPA 13 (2022) §18.2.3.1 - A FLEXIBLE COUPLING SHALL BE INSTALLED WITHIN 24" OF THE TOP AND BOTTOM OF ALL RISERS. RISERS LESS THAN 3 FT IN LENGTH MAY OMIT FLEX COUPLINGS. ONE FLEX COUPLING IS ADEQUATE FOR RISERS 3' TO 7' IN LENGTH.
3. PER NFPA 13 (2022) §18.5.8.3 - WHEN A FOUR-WAY BRACE AT THE TOP OF A RISER IS ATTACHED ON THE HORIZONTAL PIPING, IT SHALL BE WITHIN 24" OF THE CENTERLINE OF THE RISER AND THE LOADS FOR THAT BRACE SHALL INCLUDE BOTH THE VERTICAL AND HORIZONTAL PIPE.
4. PER NFPA 13 (2022) §29.4.1. - THE INSTALLING CONTRACTOR SHALL IDENTIFY A HYDRAULICALLY DESIGNED SPRINKLER SYSTEM WITH A PERMANENTLY MARKED WEATHERPROOF METAL OR RIGID PLASTIC SIGN SECURED WITH CORROSION RESISTANT WIRE, CHAIN, OR OTHER APPROVED MEANS.
5. PER NFPA 13 (2022) §29.6.1 - THE INSTALLING CONTRACTOR SHALL PROVIDE A GENERAL INFORMATION SIGN USED TO DETERMINE SYSTEM DESIGN BASIS AND INFORMATION RELEVANT TO THE INSPECTION, TESTING, AND MAINTENANCE REQUIREMENTS REQUIRED BY NFPA 25.
6. LOCATION OF 2" SYSTEM DRAIN TO BE COORDINATED WITH GENERAL CONTRACTOR. DRAIN PIPE AND FITTINGS SHALL BE GALV.
7. FIRE RISER ROOM SHALL COMPLY WITH CBC (2022) 901.3 PER CFC (2022) SECTION 509.1 FIRE EQUIPMENT ROOMS SHALL BE IDENTIFIED IN AN APPROVED MANNER. APPROVED SIGNS SHALL BE DURABLE, PERMANENT, AND VISIBLE.
8. PIPE JOINTS SHALL NOT BE LOCATED UNDER FOUNDATION FOOTINGS. THE PIPE UNDER THE BUILDING OR BUILDING FOUNDATION SHALL NOT CONTAIN MECHANICAL JOINTS. EXCEPTIONS: (1.)WHERE ALLOWED IN ACCORDANCE WITH NFPA 13 (2022) SECTION 6.4.3.1. (2.) ALTERNATE DESIGNS MAY BE UTILIZED WHERE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER & APPROVED BY THE ENFORCING AGENCY, PER CBC CHAPTER 35 & NFPA 13 (2022) SECTION 6.4.3.1.1.

RISER DETAIL: BLDG. 800
3" SYSTEM RISER ON 8" IN-BUILDING RISER (INT)

C / F8.02

SCALE: NONE

FSSXXX



HYDRAULIC INFORMATION	
REMOTE AREA NO. 1 (MOST DEMANDING)	
OCCUPANCY CLASSIFICATION	LIGHT HAZARD
DENSITY	.10 GPM/FT²
HOSE ALLOWANCE	100 GPM
TOTAL HEADS FLOWING	14
K-FACTOR	5.6
TOTAL WATER REQUIRED	328.45 GPM
TOTAL PRESSURE REQUIRED	40.045 PSI
SAFETY MARGIN (PSI)	+10.623 (21.0%)



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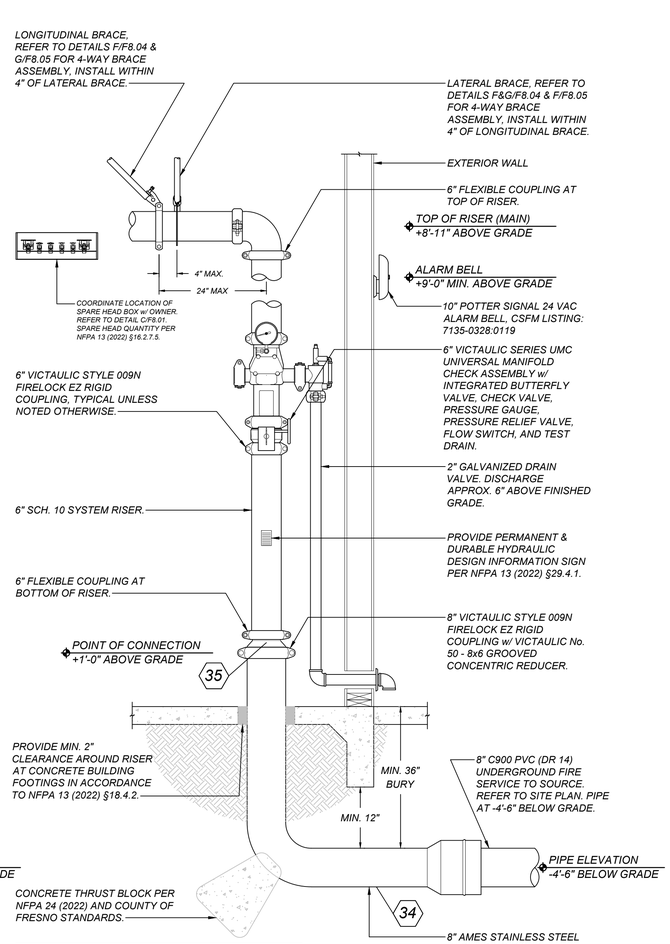
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RISER DETAIL: BLDG. 700
6" SYSTEM RISER ON 8" IN-BUILDING RISER (INT)

B / F8.02

SCALE: NONE



HYDRAULIC INFORMATION	
REMOTE AREA NO. 1 (MOST DEMANDING)	
OCCUPANCY CLASSIFICATION	LIGHT HAZARD
DENSITY	.10 GPM/FT²
HOSE ALLOWANCE	100 GPM
TOTAL HEADS FLOWING	14
K-FACTOR	5.6
TOTAL WATER REQUIRED	327.87 GPM
TOTAL PRESSURE REQUIRED	41.341 PSI
SAFETY MARGIN (PSI)	+9.328 (18.4%)



TITLE 19 ARTICLE 906 (A). A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

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RISER DETAIL: BLDG. 600
6" SYSTEM RISER ON 8" IN-BUILDING RISER (INT)

A / F8.02

SCALE: NONE

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.2650 Office
(559) 627.1926 Fax

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

TITLE
FIRE PROTECTION RISER DETAILS

F8.02

PROJECT 24042

SERIES AH2/AH2-CC VICTAULIC VICFLEX - FRICTION LOSS DATA (UL)									
LENGTH IN INCHES	OUTLET SIZE	1 - 90° BEND	2 - 90° BEND	3 - 90° BEND	4 - 90° BEND	5 - 90° BEND	6 - 90° BEND	7 - 90° BEND	8 - 90° BEND
31"	1/2"	11.0'	13.0'	15.0'	16.0'	N/A	N/A	N/A	N/A
	3/4"	12.0'	14.0'	19.0'	20.0'	N/A	N/A	N/A	N/A
36"	1/2"	14.0'	16.0'	18.0'	19.0'	21.0'	N/A	N/A	N/A
	3/4"	17.0'	19.0'	21.0'	22.0'	23.0'	N/A	N/A	N/A
48"	1/2"	18.0'	19.0'	21.0'	23.0'	25.0'	27.0'	30.0'	32.0'
	3/4"	21.0'	24.0'	26.0'	28.0'	31.0'	33.0'	35.0'	37.0'
60"	1/2"	21.0'	24.0'	27.0'	30.0'	32.0'	35.0'	37.0'	40.0'
	3/4"	23.0'	25.0'	27.0'	29.0'	32.0'	34.0'	37.0'	40.0'
72"	1/2"	27.0'	29.0'	31.0'	34.0'	37.0'	40.0'	43.0'	46.0'
	3/4"	26.0'	28.0'	30.0'	33.0'	37.0'	40.0'	44.0'	48.0'

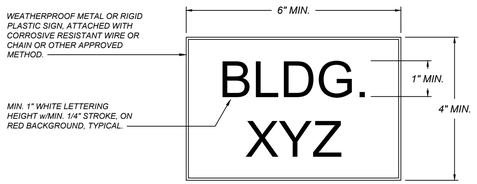
INSTALLATION NOTES:

A. ALL VICTAULIC VICFLEX FLEXIBLE SPRINKLER HOSE FITTINGS AND ANCHORING COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER GUIDELINES.
B. PER NFPA 13 (2022) §17.4.1.3.3, THE MAXIMUM UNSUPPORTED LENGTH FOR FLEXIBLE HOSE SPRINKLER FITTINGS SHALL NOT EXCEED 6-FEET.
C. PER NFPA 13 (2022) §17.4.1.3.3.4, WHERE FLEXIBLE SPRINKLER HOSE FITTINGS ARE USED TO CONNECT SPRINKLERS TO BRANCH LINES IN SUSPENDED CEILINGS, A LABEL LIMITING RELOCATION OF THE SPRINKLER SHALL BE PROVIDED ON THE ANCHORING COMPONENT.

VICFLEX FLEXIBLE SPRINKLER DROP FRICTION LOSS DATA AND INSTALLATION NOTES

E F8.03

SCALE: NONE



INSTALLATION NOTES:

A. PER NFPA 13 (2022) TABLE A.16.17 SPRINKLER SYSTEM SIGNAGE SUMMARY, SYSTEM CONTROL VALVES AND FIRE DEPARTMENT CONNECTIONS SHALL HAVE IDENTIFICATION SIGNAGE. IDENTIFICATION SIGNS SHALL BE INSTALLED AT A MINIMUM 18" ABOVE FINISH GRADE MEASURED FROM THE BOTTOM EDGE OF THE SIGN.
B. PER NFPA 13 (2022) §16.9.3.5 IDENTIFICATION SIGNS ON CONTROL VALVES SHALL BE PROVIDED AT EACH VALVE TO INDICATE ITS FUNCTION AND WHAT IT CONTROLS.
C. PER NFPA 13 (2022) §16.12.5.8 (CFC 2022 §912.5) EACH FIRE DEPARTMENT CONNECTION TO SPRINKLER SYSTEMS SHALL BE DESIGNATED BY A SIGN HAVING RAISED OR ENGRAVED LETTERS AT LEAST 1-INCH IN HEIGHT ON PLATE OR FITTING READING SERVICE DESIGN.
D. WHEN SYSTEM DEMANDS ARE GREATER THAN 150PSI, THE SIGN SHALL INDICATE THE PRESSURE REQUIRED AT THE INLETS TO DELIVER THE GREATEST SYSTEM DEMAND.
E. WHERE LOCAL JURISDICTION REQUIRES ADDRESS OR BUILDING IDENTIFICATION ON POST INDICATOR VALVES AND/OR FIRE DEPARTMENT CONNECTIONS, IDENTIFICATION MARKING CAN BE PAINTED DIRECTLY ON THE APPARATUS IN LIEU OF SIGNAGE. VERIFY REQUIREMENT WITH LOCAL JURISDICTION REGARDING MINIMUM LETTERING HEIGHT AND PAINT COLOR REQUIREMENTS.

SITE APPARATUS SIGNAGE

F F8.03

SCALE: NONE

FSS101

NOTES:

1. WALL ASSEMBLY - THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOMINAL 2"x4" LUMBER SPACED 16" OC. STEEL STUDS TO BE MIN. 2-1/2" WIDE AND SPACED MAX. 24" OC. WHEN STEEL STUDS ARE USED AND THE DIAMETER OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4"-6" WIDER AND 4"-6" HIGHER THAN THE DIAMETER OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2"-3" CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
   B. GYPSUM BOARD* - 5/8" THICK, 4' WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAMETER OF OPENING IS 32-1/4" FOR STEEL STUD WALLS. MAX. DIAMETER OF OPENING IS 14-1/2" FOR WOOD STUD WALLS. THE F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE FIRE RATING OF THE WALL ASSEMBLY.
2. THROUGH-PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN. 0" TO MAX 2-1/4" PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PIPE, CONDUIT OR TUBING MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45° FROM PERPENDICULAR. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE - NOMINAL 30"Ø (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE - NOMINAL 30"Ø (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT - NOMINAL 4"Ø (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. DIAMETER STEEL CONDUIT.
   D. COPPER TUBING - NOMINAL 6"Ø (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE - NOMINAL 6"Ø (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
3. FILL, VOID OR CAVITY MATERIAL HILTI FS-ONE SEALANT - MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND WALL, A MIN. 1/2"Ø BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE WALL INTERFACE ON BOTH SURFACES OF WALL.

PIPE CLEARANCE NOTES:

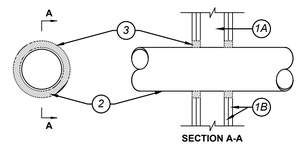
PER NFPA 13 (2022) 18.4.1 - CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS, AND FOUNDATIONS, INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS, AND OTHER AUXILIARY PIPING.

PER NFPA 13 (2022) 18.4.2 - WHERE PIPE PASSES THROUGH HOLES IN PLATFORMS, FOUNDATIONS, WALLS, OR FLOORS, THE HOLES SHALL BE SIZED SUCH THAT THE DIAMETER OF THE HOLES IS NOMINALLY 2" LARGER THAN THE PIPE FOR PIPE 1" NOMINAL TO 3-1/2" NOMINAL AND 4" LARGER THAN THE PIPE FOR PIPE 4" NOMINAL AND LARGER.

PER NFPA 13 (2022) 18.4.4 - NO CLEARANCE SHALL BE REQ'D FOR PIPING PASSING THROUGH GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQ'D TO HAVE A FIRE RESISTANCE RATING.

SYSTEM NO. W-L-1054

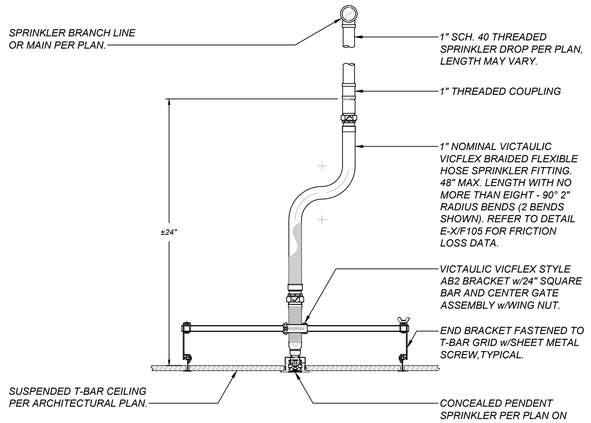
F RATINGS - 1 AND 2 HR (SEE ITEMS 1 AND 3)
T RATING - 0 HR
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT
L RATING AT 400 F-4 CFM/SQ FT



HILTI FS-ONE FIRE RATED PENETRATION

C F8.03

SCALE: NONE



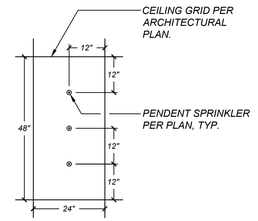
VICFLEX FLEXIBLE SPRINKLER DROP w/CONCEALED PENDENT SPRINKLER

D F8.03

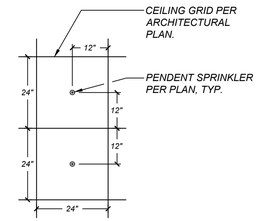
SCALE: NONE

INSTALLATION NOTES:

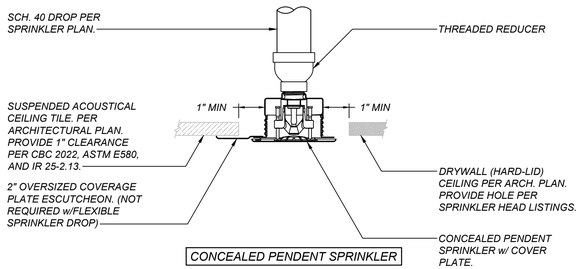
A. PENDENT SPRINKLER HEADS INSTALLED WITHIN SUSPENDED CEILING TILES SHALL BE POSITIONED "CENTER OF TILE" AS INDICATED PER PROJECT SPECIFICATIONS. HOWEVER, SPRINKLER SPACING SHALL NOT EXCEED THE MAXIMUM SPRINKLER SPACING PER NFPA 13 (2022) §10.2.5.1, §10.2.5.2, §10.2.5.2.3.1, §11.2.3.1, §11.2.3.2 AND FIRE SPRINKLER MANUFACTURER LISTINGS.
B. PENDENT SPRINKLER HEADS INSTALLED IN DRY-WALL CEILINGS SHALL BE POSITIONED PER PLAN, ALIGNED WITH LIGHTING, AUDIO, AND OTHER CEILING FEATURES. HOWEVER, SPRINKLER SPACING SHALL NOT EXCEED MAXIMUM NFPA 13 REQUIREMENTS AND FIRE SPRINKLER MANUFACTURER LISTINGS.



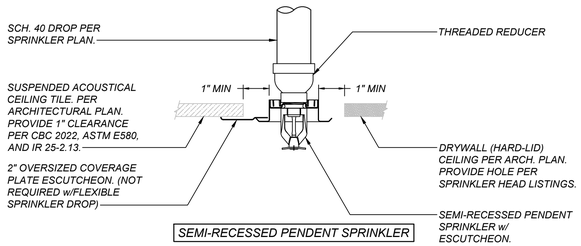
INSTALLATION AT 24"x48" CEILING TILES



INSTALLATION AT 24"x24" CEILING TILES



CONCEALED PENDENT SPRINKLER



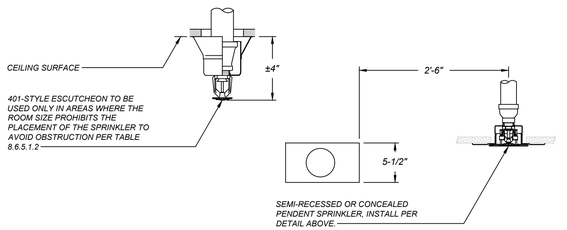
SEMI-RECESSED PENDENT SPRINKLER

SPRINKLER HEAD INSTALLATION DETAIL

A F8.03

SCALE: NONE

THIS DETAIL IS TO BE USED FOR AVOIDING OBSTRUCTIONS PRESENTED BY SURFACE MOUNTED LIGHTING IN GYPBOARD CEILINGS. SPRINKLER SPACING TO BE IN ACCORDANCE WITH NFPA 13 (2022) FOR PARTICULAR HAZARD, AND TYPE OF SPRINKLER WHERE OBSTRUCTION OCCURS. DETAIL AS SHOWN IS FOR STANDARD SPRAY PENDENT SPRINKLER, WITH PRESSURES FROM 15 PSI TO 100 PSI ONLY. IF EXTENDED COVERAGE OR SPECIAL LISTED SPRINKLERS ARE USED, REFER TO APPROPRIATE NFPA 13 (2022) TABLE FOR THE SPECIFIC REQUIREMENTS FOR EACH SPECIFIC TYPE OF SPRINKLER.



NFPA 13 (2022) TABLE 10.2.7.2(a) POSITIONING OF SPRINKLERS TO AVOID OBSTRUCTIONS TO DISCHARGE	
DISTANCE FROM SPRINKLERS TO SIDE OF OBSTRUCTION	MAX. ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION
2' TO LESS THAN 2'-6"	5-1/2"
COORDINATE ALL CONCEALED PENDENT SPRINKLERS W/ CURRENT LIGHT LAYOUT AND TYPES. AN AREAS W/ SURFACE MOUNTED LIGHT FIXTURES, UTILIZE OBSTRUCTION SPACING PER NFPA 13 (2022). IF SIZE OF ROOM PROHIBITS SPACING REQUIREMENTS TO BE MET, UTILIZE ST-1E 401 ESCUTCHEON W/ PENDENT SPRINKLER OF SAME TEMPERATURE, K-FACTOR, AND DESIGN CRITERIA.	

SPRINKLER HEAD OBSTRUCTION DETAIL

B F8.03

SCALE: NONE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.2630 Office
(559) 627.1926 Fax

TITLE
FIRE PROTECTION INSTALLATION DETAILS

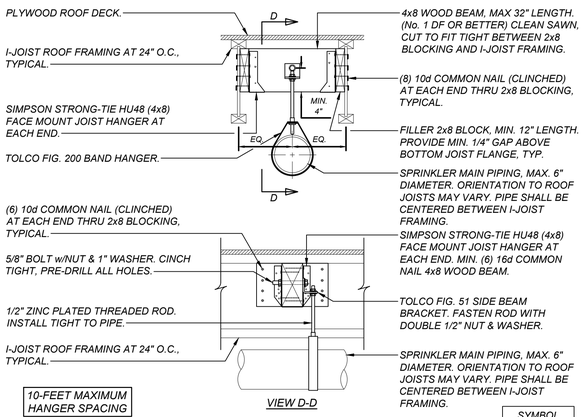
F8.03

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

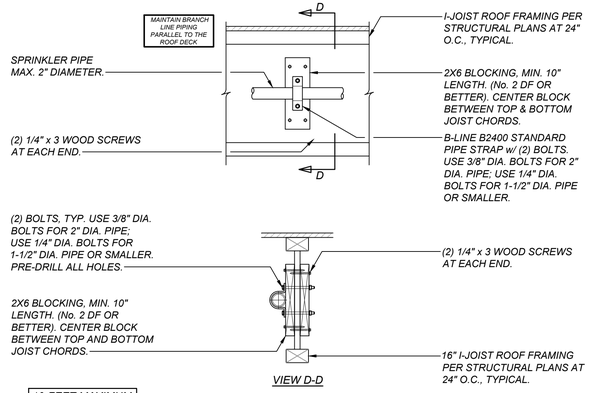
15 September 2026 9:37 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\6 F\F8.03 - Fire Install Details.dwg tim



4x8 WOOD BEAM SPANNING I-JOIST FRAMING - 6" MAX. PIPE DIAMETER

G F8.04

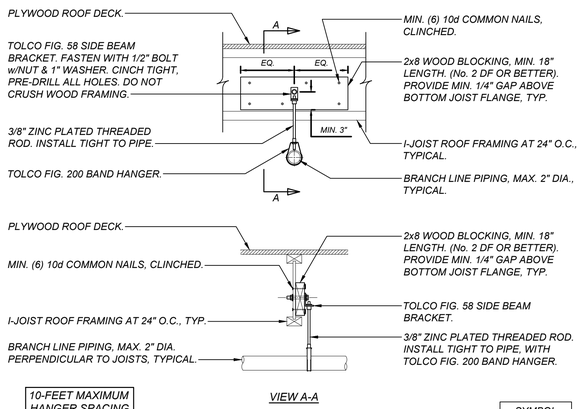
SCALE: NONE FSS106-11.19



STANDARD PIPE STRAP ATTACHMENT TO I-JOIST WEBBING (2" MAX. DIAMETER)

D F8.04

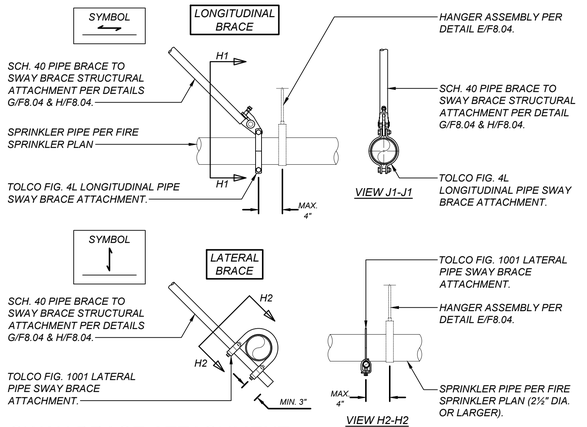
SCALE: NONE FSS005



BRANCH LINE HANGER SUPPORT AT I-JOIST FRAMING (2" MAX. PIPE DIAMETER)

A F8.04

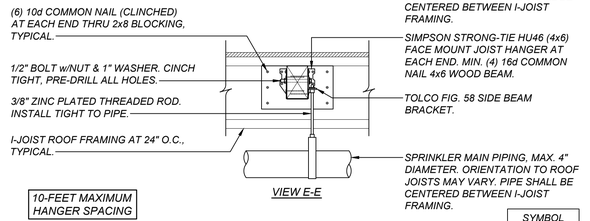
SCALE: NONE FSS101-11.19



SWAY BRACE ATTACHMENT AT SPRINKLER MAIN PIPING

H F8.04

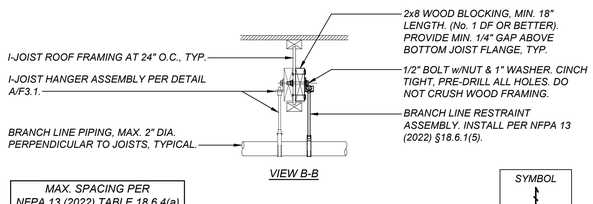
SCALE: NONE FSS008



4x6 WOOD BLOCKING SPANNING I-JOIST FRAMING - 4" MAX. PIPE DIAMETER

E F8.04

SCALE: NONE FSS105-11.19

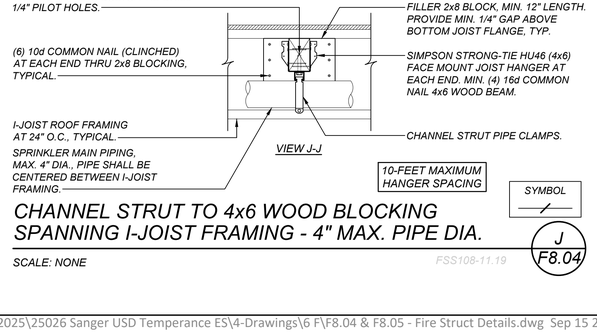


BRANCH LINE RESTRAINT AT I-JOIST FRAMING

B F8.04

SCALE: NONE FSS102-11.19

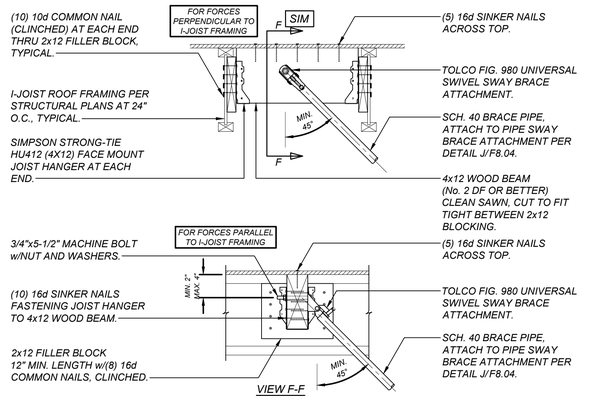
MAX. SPACING OF BRANCH LINE RESTRAINTS				
PIPE DIA. (INCHES)	SEISMIC COEFFICIENT - C_p			
	$C_p \leq 0.50$	$0.50 < C_p \leq 0.71$	$0.71 < C_p \leq 1.40$	$C_p \geq 1.40$
1	43-FT	36-FT	26-FT	22-FT
1¼	46-FT	39-FT	27-FT	24-FT
1½	49-FT	41-FT	29-FT	25-FT
2	53-FT	45-FT	31-FT	27-FT
NFPA 13 (2022) TABLE 18.6.4(a)				



CHANNEL STRUT TO 4x6 WOOD BLOCKING SPANNING I-JOIST FRAMING - 4" MAX. PIPE DIA.

J F8.04

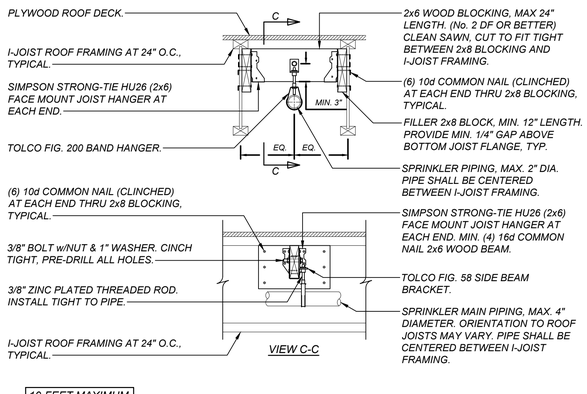
SCALE: NONE FSS108-11.19



4x12 WOOD BEAM ASSEMBLY FOR SEISMIC BRACING ATTACHMENT AT I-JOIST (PERPENDICULAR AND PARALLEL FORCES)

F F8.04

SCALE: NONE FSS006



BRANCH LINE PIPING BETWEEN I-JOIST ROOF FRAMING w/ 2x BLOCKING - 2" MAX. DIA. PIPE

C F8.04

SCALE: NONE FSSXXX-02.24

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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APP: 02-123774 INC:
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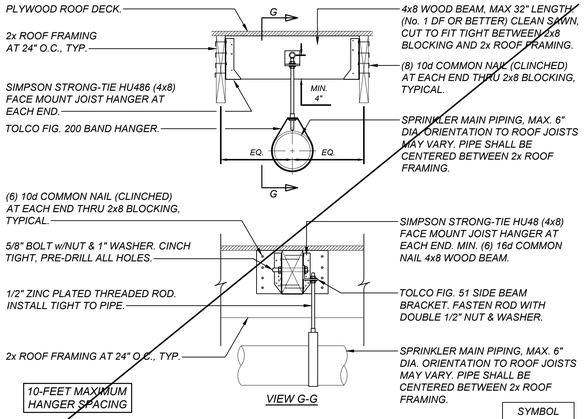
TITLE
FIRE PROTECTION STRUCTURAL DETAILS

F8.04

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER RYAN W. CAMPBELL No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

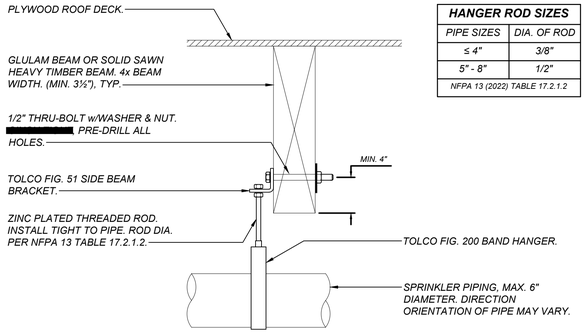


NOT USED

SCALE: NONE

G
F8.05

FSS106-11.19



HANGER ROD SIZES	
PIPE SIZES	DIA. OF ROD
≤ 4"	3/8"
5" - 8"	1/2"
NFPA 13 (2022) TABLE 17.2.1.2	

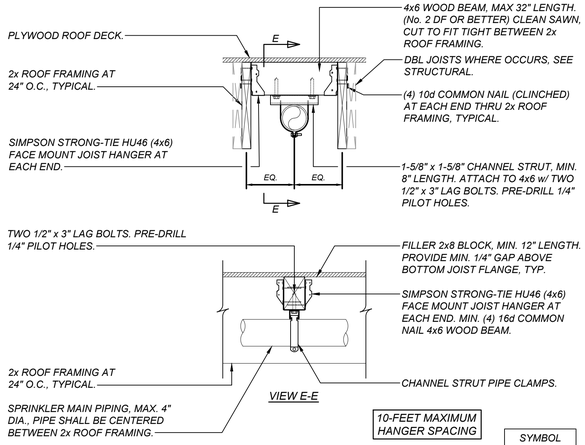
10-FEET MAXIMUM HANGER SPACING

SYMBOL

SPRINKLER PIPING HANGER SUPPORT AT GLULAM BEAM OR HEAVY TIMBER FRAMING

SCALE: NONE

D
F8.05

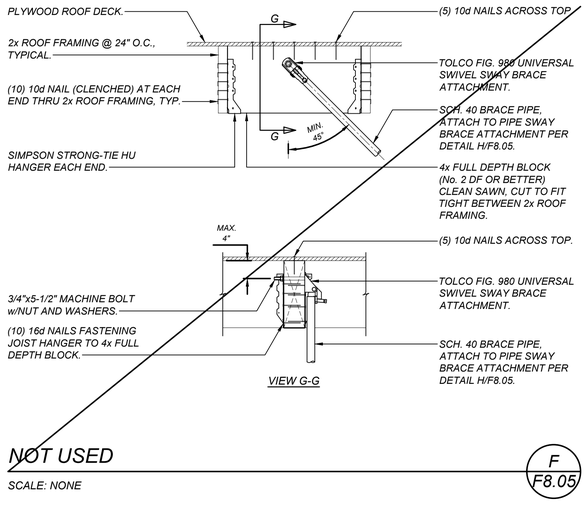


CHANNEL STRUT TO 4x6 WOOD BLOCKING SPANNING 2x ROOF FRAMING - 4" MAX. PIPE DIA.

SCALE: NONE

FSS108-11.19

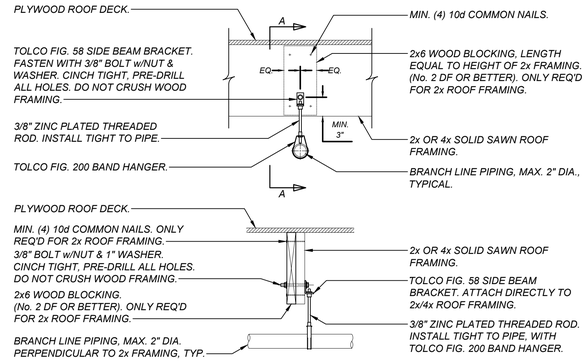
E
F8.05



NOT USED

SCALE: NONE

F
F8.05



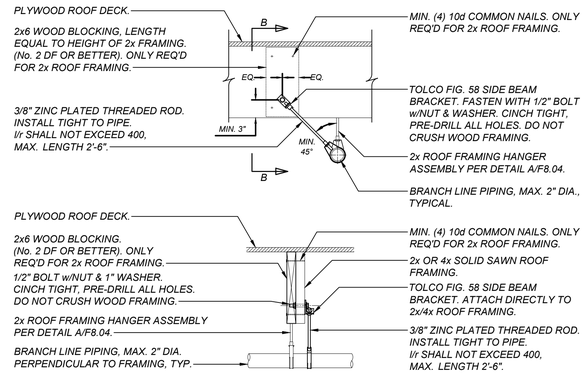
10-FEET MAXIMUM HANGER SPACING

SYMBOL

BRANCH LINE HANGER SUPPORT AT 2x ROOF FRAMING (2" MAX. PIPE DIAMETER)

SCALE: NONE

A
F8.05



MAX. SPACING PER NFPA 13 (2022) TABLE 17.4.2.1(a)

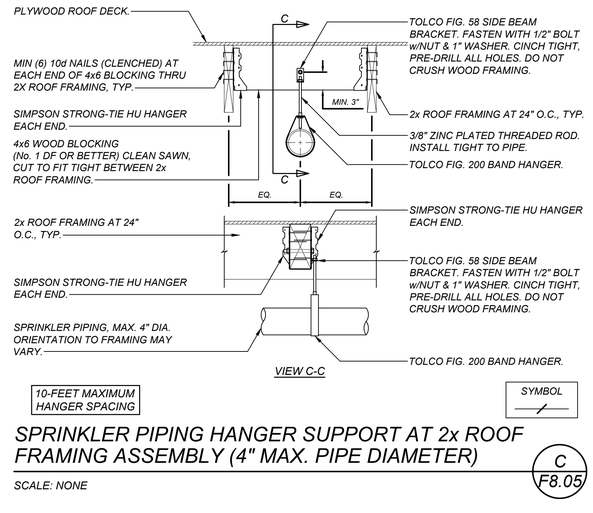
SYMBOL

BRANCH LINE RESTRAINT AT 2x ROOF FRAMING

SCALE: NONE

B
F8.05

MAX. SPACING OF BRANCH LINE RESTRAINTS				
PIPE DIA. (INCHES)	SEISMIC COEFFICIENT - C_p			
	$C_p \le 0.50$	$0.50 < C_p \le 0.71$	$0.71 < C_p \le 1.40$	$C_p \ge 1.40$
1	43-FT	36-FT	26-FT	22-FT
1¼	46-FT	39-FT	27-FT	24-FT
1½	49-FT	41-FT	29-FT	25-FT
2	53-FT	45-FT	31-FT	27-FT
NFPA 13 (2022) TABLE 18.6.4(a)				



10-FEET MAXIMUM HANGER SPACING

SYMBOL

SPRINKLER PIPING HANGER SUPPORT AT 2x ROOF FRAMING ASSEMBLY (4" MAX. PIPE DIAMETER)

SCALE: NONE

C
F8.05

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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(559) 627-1926 Fax

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CALDER
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

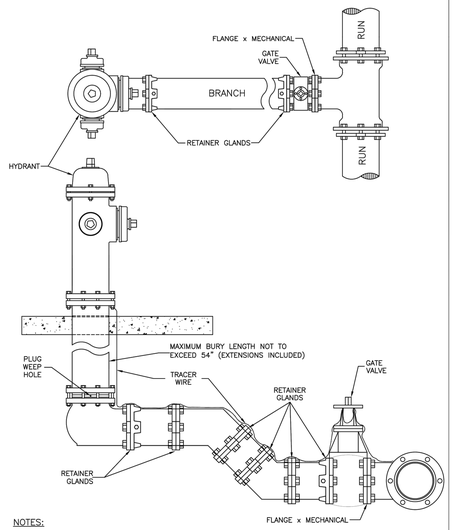
TITLE
FIRE PROTECTION
STRUCTURAL
DETAILS

F8.05

PROJECT 24042

15 September 2026 9:37 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\6 F\F8.04 & F8.05 – Fire Struct Details.dwg tim

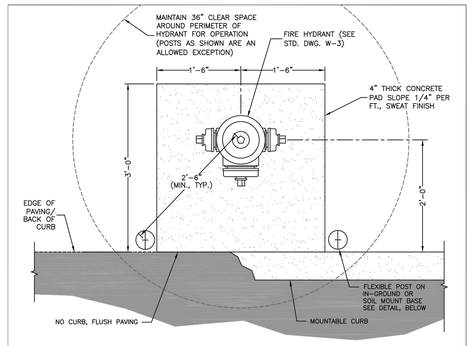
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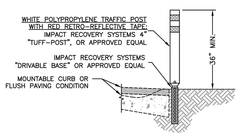
NOTES:

1. HYDRANT MUST BE FULLY RESTRAINED FROM TEE TO HYDRANT. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS ON PUSH ON PIPE PER CITY SPECIFICATIONS.
2. JOINT RESTRAINT IS NOT REQUIRED ON THE RUN OF THE TEE UNLESS THE TEE FALLS WITHIN THE RESTRAINED LENGTH REQUIREMENT OF ANOTHER FITTING.
3. FOR TEST PRESSURES AND LAYING CONDITIONS SEE SECTION ON GENERAL NOTES FOR USE OF RESTRAINED JOINT LENGTHS.

HYDRANT RUN TEE RESTRAINT FOR PVC OR DUCTILE IRON PIPE	REF. & REV. ~~DEC. 2003~~ DEC. 2020 (A.7)	CITY OF FRESNO W–37



PLAN VIEW

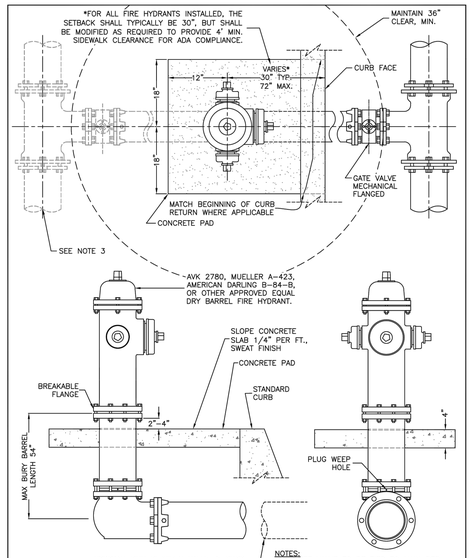


FLEXIBLE POST DETAIL
IN–GROUND OR SOIL MOUNT BASE
(PUBLIC STREETS ONLY)

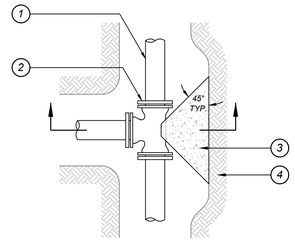
NOTES:

1. THIS STANDARD DRAWING IS APPLICABLE ONLY TO CITY OF FRESNO OWNED AND MAINTAINED FIRE HYDRANTS; PRIVATE HYDRANTS SHALL ADHERE TO PROTECTION CONDITIONS AND RELATED REQUIREMENTS AS SET FORTH BY THE FIRE DEPARTMENT.

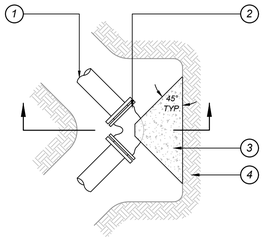
FIRE HYDRANT INSTALLATION WITH FLEXIBLE DELINEATORS	REF. & REV. ~~DEC. 2003~~ DEC. 2020 (A.7)	CITY OF FRESNO W–23



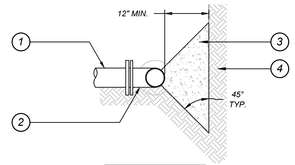
FIRE HYDRANT INSTALLATION	REF. & REV. ~~JAN. 1997~~ ~~DEC. 2003~~ ~~DEC. 2013~~ DEC. 2020 (A.7)	CITY OF FRESNO W–3



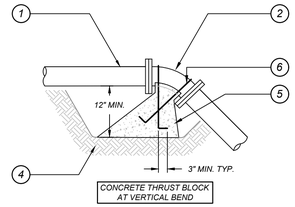
CONCRETE THRUST BLOCKS AT TEES & PLUGS



CONCRETE THRUST BLOCKS AT BENDS



SECTION AT CONCRETE THRUST BLOCK



CONCRETE THRUST BLOCK AT VERTICAL BEND

KEYNOTES:

1. *UNDERGROUND FIRE SERVICE PIPING, REFER TO FIRE PROTECTION SITE PLAN.*
2. *UNDERGROUND FIRE SERVICE PIPE FITTING (TEE, BEND, OR PLUG).*
3. *CONCRETE THRUST BLOCK. PROVIDE MINIMUM BEARING SURFACE PER TABLE BELOW. NON-REINFORCED, 5-SACK MIX - MIN. 2500 PSI IN 28-DAYS.*
4. *UNDISTURBED EARTH. MINIMUM HORIZONTAL BEARING STRENGTH OF 1500 lb/ft².*
5. *CONCRETE ANCHOR THRUST BLOCK (FOR VERTICAL BEND). 5-SACK MIX - MIN. 2500 PSI IN 28-DAYS. CONCRETE ANCHOR BLOCK BASE WIDTH SHALL BE MIN. 2x NOMINAL DIAMETER OF PIPE. WITH A MIN. BLOCK HEIGHT OF 12", MEASURED FROM THE THE UNDISTURBED EARTH TO THE BOTTOM OF THE HORIZONTAL FIRE SERVICE PIPING.*
6. *NO. 5 REBAR ANCHORS (MIN. TWO). REBAR SHALL HAVE CORROSIVE RESISTANT FINISH.*

INSTALLATION NOTES:

- *A. INSTALLATION OF UNDERGROUND FIRE SERVICE PIPING SHALL BE DONE IN ACCORDANCE TO NFPA 24 AND LOCAL STANDARD REQUIREMENTS.*
- *B. CONCRETE THRUST BLOCKS SHALL BE INSTALLED AT ALL ELBOWS, TEES, CROSSES, AND PLUGS.*
- *C. CONCRETE THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH. CONTACT WITH FITTINGS SHALL BE MADE ON THE BODY OF THE FITTING ONLY AND NOT ON THE BELL OR FLANGE ENDS.*
- *D. WHERE THRUST BLOCKING MAY BE IMPRACTICAL DUE TO SITE CONDITIONS, IMPLEMENTATION OF A RESTRAINED JOIST SYSTEM AS LISTED IN NFPA 24 §10.6.2 MAY BE USED IN LIEU OF CONCRETE THRUST BLOCKS.*
- *E. BACKFILL TRENCH PER DETAIL W-29/F8.06.*

REQUIRED HORIZONTAL BEARING BLOCK AREA

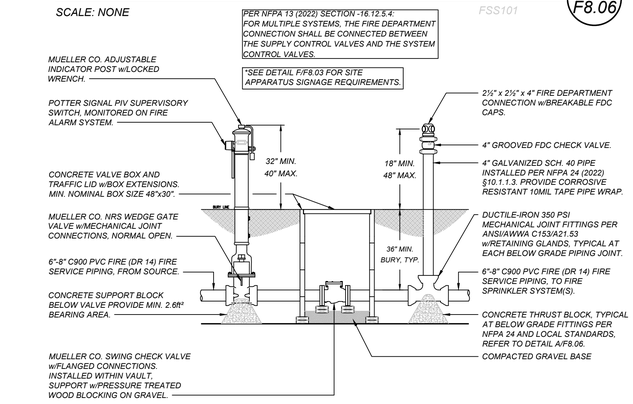
PIPE DIA.	TEE/PLUGS	90°-BEND	45°-BEND	22½°-BEND	11¼°-BEND
3-INCH	2.6 ft²	2.6 ft²	1.4 ft²	0.7 ft²	0.4 ft²
4-INCH	3.8 ft²	3.8 ft²	2.1 ft²	1.0 ft²	0.5 ft²
6-INCH	7.9 ft²	7.9 ft²	4.3 ft²	2.2 ft²	1.1 ft²
8-INCH	13.6 ft²	13.6 ft²	7.4 ft²	3.8 ft²	1.9 ft²
10-INCH	20.5 ft²	20.5 ft²	11.1 ft²	5.7 ft²	2.8 ft²
12-INCH	29.0 ft²	29 ft²	15.7 ft²	8.0 ft²	4.0 ft²
14-INCH	39.0 ft²	39 ft²	21.1 ft²	10.8 ft²	5.4 ft²

INFORMATION ABOVE BASED ON NFPA 24 TABLE A.10.6.1(b) - MIN. HORIZONTAL BEARING LOAD: 1500lb/ft²

CONCRETE THRUST BLOCK DETAILS AND TABLE

A F8.06

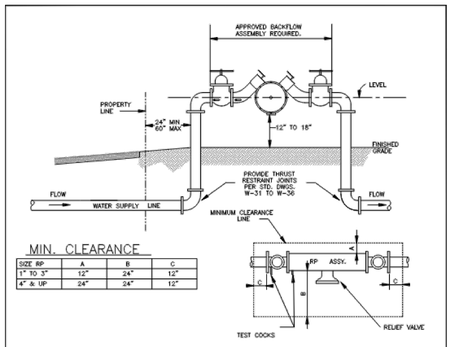
SCALE: NONE



ABOVE GRADE REMOTE RISER ASSEMBLY P.I.V. - CHECK VALVE - FDC

B F8.06

SCALE: NONE



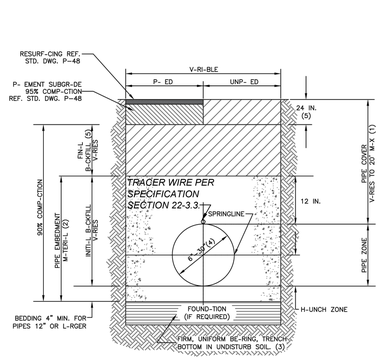
MIN. CLEARANCE

SIZE RP	A	B	C
1" TO 3"	12"	24"	12"
4" & UP	24"	24"	12"

GENERAL NOTES:

1. RESILIENT SEATED SHUT OFF VALVES AND TEST COCKS ARE REQUIRED.
2. NO TAPS, TEES OR CONNECTIONS OF ANY KIND ARE PERMITTED BETWEEN THE WATER METER AND THE BACKFLOW ASSEMBLY.
3. PROTECTION FROM FREEZE DAMAGE MAY BE REQUIRED IN EXPOSED AREAS.
4. ASSEMBLY MUST BE ACCESSIBLE FOR TESTING AND MAINTENANCE PER FRESNO MUNICIPAL CODE.
5. ASSEMBLY TO BE THE SAME SIZE AS THE WATER SUPPLY LINE PER UNIFORM PLUMBING CODE.
6. PRESSURE LOSS THROUGH RP ASSEMBLY MUST BE INCLUDED IN PRESSURE LOSS CALCULATIONS FOR SIZING OF THE WATER SYSTEM PER UNIFORM PLUMBING CODE.
7. MINIMUM CLEARANCES AROUND ASSEMBLY MUST BE MAINTAINED. REFER TO MINIMUM CLEARANCE CHART ON THIS PAGE.
8. INSTALL A MINIMUM OF ONE UNION IN THE PIPING SYSTEM WITHIN 12 INCHES OF THE ASSEMBLY – 3/4 THRU 2" SIZES.
9. DRAINAGE TO EXTERIOR OF THE BUILDING IS REQUIRED WHEN ASSEMBLY IS INSTALLED INSIDE.
10. ANY DEVIATION FROM THESE REQUIREMENTS SHALL BE APPROVED BY THE WATER SYSTEM MANAGER PRIOR TO INSTALLATION.

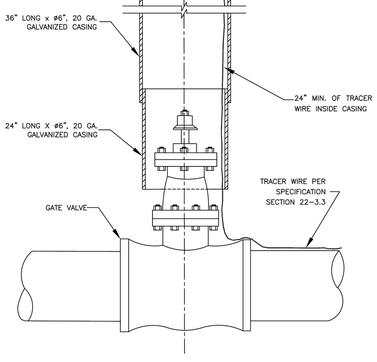
REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY INSTALLATION	REF. & REV. ~~AUG. 2002~~ MAR. 2021 (A.7)	CITY OF FRESNO W–11



NOTES

1. PIPE INST–LL–TIONS WHERE COVER OVER PIPE EXCEEDS 20' SH–LL BE DESIGNED BY - CIVIL ENGINEER -ND SPECIFIED IN THE PROJECT PL–NS -ND SPECI–L PROVISIONS.
2. PIPE EMBEDMENT M–TER–L SH–LL CONSIST OF CL–SS II OR CL–SS III SELECT N–TUR–L M–TERI–L OR PROCESSED PRODUCT –S DEFINED IN SUBSECTION 22–8.2, "PIPE EMBEDMENT ZONE" OF ST–ND–RD SPECIFIC–TIONS –ND INIT–L B–CKFILL PL–CED IN –CCORD–NCE WITH SUBSECTION 22–8.3, "INITI–L B–CKFILL", OF THE ST–ND–RD SPECIFIC–TIONS.
3. BOTTOM OF TRENCH SH–LL BE IN FIRM, UNIFORM–BE–RING SOIL SURF–CES. WHEN UNSUIT–BLE OR DISTURBED, THE CONTR–CTOR SH–LL REMOVE –ND REFILL WITH SUIT–BLE M–TERI–L –S SPECIFIED IN SUBSECTION 22–8.1, "FOUND–TION –ND BEDDING", OF THE ST–ND–RD SPECIFIC–TIONS.
4. ST–ND–RD DET–IL W–29 SH–LL BE –PPLIC–BLE TO –LL W–TER PIPE INST–LL–TIONS WITH DI–METERS OF 6 TO 30 INCHES. CONSTRUCTION PROCEDURES FOR PIPES L–RGER TH–N 30 INCHES SH–LL BE PROVIDED BY THE DESIGN ENGINEER.
5. IN UNP– ED –RE–S FIN–L B–CKFILL SH–LL EXTEND TO THE SURF–CE ELEV–TION WITH 95% COMP–CTION IN THE UPPER 24" OF TRENCH.

WATER MAIN TRENCH, BEDDING, AND BACKFILL DETAIL	REF. & REV. ~~DEC. 2003~~ DEC. 2020 (A.7)	CITY OF FRESNO W–29



VALVE LID & PAVING RING WITH GALVANIZED CASING	REF. & REV. ~~AUG. 2002~~ DEC. 2020 (A.7)	CITY OF FRESNO W–7

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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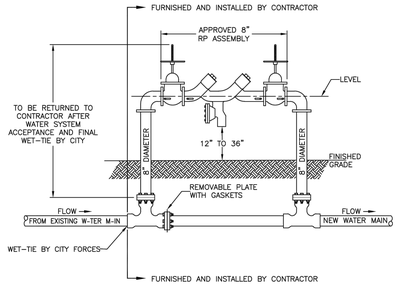
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(559) 627 7630 Office
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TITLE
FIRE PROTECTION
CITY UG
DETAILS

F8.06

PROJECT 24042

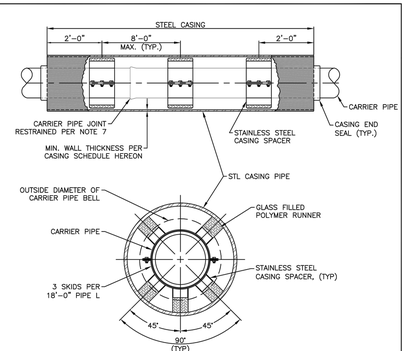
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NOTES:

1. VALVES SHALL BE "ULFM INDICATING OS&Y" TYPE.
2. CURRENTLY APPROVED RP DEVICES ARE:
   a. AMES MAXIM 400
   b. WILKINS 375OSY
   c. FEBCO 860
3. RESILIENT SEATED SHUT OFF VALVES AND TEST COCKS ARE REQUIRED.
4. ASSEMBLY MUST BE ACCESSIBLE FOR TESTING AND MAINTENANCE BY FRESNO CITY WATER DIVISION.
5. ANY DEVIATION FROM THESE REQUIREMENTS SHALL BE APPROVED BY THE WATER SYSTEM MANAGER PRIOR TO INSTALLATION.
6. RP DEVICE WITH ASSOCIATED PIPING, VALVES, TEES AND FITTINGS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
7. NEW SYSTEM OF MAINS, HYDRANTS AND SERVICES SHALL BE PRESSURE TESTED AND SHALL PASS STANDARD BACTERIAL TESTING PRIOR TO CONNECTION TO EXISTING CITY WATER SYSTEM.
8. WET TIE TO EXISTING SYSTEM WILL BE PERFORMED BY CITY FORCES.
9. AFTER INSTALLATION AND PRIOR TO PLACING IN SERVICE, THE RP DEVICE SHALL BE TESTED BY THE CITY.
10. PRIOR TO FINAL ACCEPTANCE OF THE WATER SYSTEM, A FINAL SET OF PRESSURE TESTS AND BACTERIAL TESTS SHALL BE PERFORMED.
11. UPON PUBLIC WORKS ACCEPTANCE OF THE COMPLETE WATER SYSTEM, CITY FORCES WILL REMOVE THE RP DEVICE AND ASSOCIATED PIPING, VALVES, TEES AND FITTINGS, AND WILL CALL FOR PICKUP BY THE CONTRACTOR.

TEMPORARY RP PRINCIPLE BACKFLOW ASSEMBLY INSTALLATION	REF. & REV. ~~MAR. 2006~~ DEC. 2020 (A.7)	CITY OF FRESNO W-43



STEEL CASING SCHEDULE

NOMINAL CARRIER PIPE SIZE	NOMINAL MINIMUM CASING SIZE	MINIMUM WALL THICKNESS: STREETS & HIGHWAYS	MINIMUM WALL THICKNESS: RAILROADS
6"	16"	0.250"	0.281"
8"	18"	0.250"	0.312"
10"	20"	0.250"	0.344"
12"	22"	0.250"	0.344"
14"	26"	0.312"	0.406"
16"	28"	0.312"	0.438"
24"	38"	0.375"	0.562"
30"	44"	0.500"	0.657"

NOTES:

1. REFER TO STANDARD SPECIFICATIONS SECTION 19 – JACKING PIPE.
2. SIZE AND THICKNESS OF CASING SHALL BE AS SHOWN IN STEEL CASING SCHEDULE HEREON. FOR LONG BORES OR SPECIAL SITUATIONS GREATER WALL THICKNESS THAN SHOWN IN SCHEDULE MAY BE REQUIRED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STRUCTURAL SUFFICIENCY OF THE CASING DURING CONSTRUCTION AND ALSO THE METHOD OF INSTALLATION.
3. CASING INSTALLATIONS AND WALL THICKNESS UNDER RAILROADS ARE SUBJECT TO APPROVAL BY THE APPROPRIATE RAILWAY AUTHORITY.
4. CASING SPACERS SHALL BE STAINLESS STEEL CENTER RESTRAINED POSITION TYPE.
5. INSTALL A MINIMUM OF THREE (3) CASING SPACERS PER 18' OF CARRIER PIPE SECTION, EQUALLY SPACED.
6. EACH END OF CASING SHALL BE SEALED WITH AN APPROVED RUBBER CASING END SEAL SECURED WITH STAINLESS STEEL BANDS.
7. CARRIER PIPE SHALL BE DUCTILE IRON AND ALL JOINTS INSIDE THE STEEL CASING AND A MINIMUM OF 5' OUTSIDE THE STEEL CASING SHALL BE RESTRAINED. REFER TO STANDARD SPECIFICATION SECTION 21-15 FOR RESTRAINTS.
8. 45° PIPELINE RISERS RUNNING FROM CARRIER PIPE TO TYPICAL DEPTH PIPELINE SHALL BE DUCTILE IRON WITH ALL JOINTS RESTRAINED.

INSTALLATION OF WATER PIPE IN JACKED STEEL CASING	REF. & REV. ~~AUG. 2002~~ DEC. 2020 (A.7)	CITY OF FRESNO W-24

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
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TITLE
FIRE PROTECTION
CITY UG
DETAILS

F8.07

PROJECT 24042

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REN. 05-31-27
STATE OF CALIFORNIA

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MECHANICAL SHEET INDEX

M0.01 - MECHANICAL NOTES AND LEGENDS
M0.02 - OVERALL MECHANICAL SITE PLAN
M0.03 - MECHANICAL PIPING & EMS SITE PLAN
M0.10 - OVERALL CENTRAL PLANT
M1.00 - BUILDING 100 - OVERALL MECHANICAL PLAN
M1.01 - BUILDING 100 - MECHANICAL ROOF PLAN
M1.02 - BUILDING 100 - PARTIAL MECHANICAL PLAN
M1.03 - BUILDING 100 - PARTIAL MECHANICAL PLAN
M2.00 - BUILDING 200 - OVERALL MECHANICAL PLAN
M2.01 - BUILDING 200 - MECHANICAL ROOF PLAN
M2.02 - BUILDING 200 - PARTIAL MECHANICAL PLAN
M2.03 - BUILDING 200 - PARTIAL MECHANICAL PLAN
M2.04 - BUILDING 200 - PARTIAL MECHANICAL PLAN
M2.05 - BUILDING 200 - MECHANICAL MEZZANINE PLAN
M2.06 - BUILDING 200 - MECHANICAL SECTIONS
M3.00 - BUILDING 300, 400, & 500 - OVERALL MECHANICAL PLAN
M3.01 - BUILDING 300, 400, & 500 - MECHANICAL ROOF PLAN
M3.02 - BUILDING 300, 400, & 500 - PARTIAL MECHANICAL PLAN
M3.03 - BUILDING 300, 400, & 500 - PARTIAL MECHANICAL PLAN
M3.04 - BUILDING 300, 400, & 500 - MECHANICAL SECTIONS
M4.00 - BUILDING 600 - OVERALL MECHANICAL PLAN
M4.01 - BUILDING 600 - MECHANICAL ROOF PLAN
M4.02 - BUILDING 600 - PARTIAL MECHANICAL PLAN
M4.03 - BUILDING 600 - PARTIAL MECHANICAL PLAN
M4.04 - BUILDING 600 - MECHANICAL SECTIONS
M5.00 - BUILDING 700 - ENLARGED MECHANICAL PLAN
M5.01 - BUILDING 700 - MECHANICAL ROOF PLAN
M5.02 - BUILDING 700 - MECHANICAL SECTIONS
M6.00 - MECHANICAL DETAILS
M6.01 - MECHANICAL DETAILS
M6.02 - MECHANICAL DETAILS
M6.03 - MECHANICAL DETAILS
M6.04 - MECHANICAL DETAILS
M6.05 - MECHANICAL DETAILS
M6.06 - MECHANICAL DETAILS
M7.00 - MECHANICAL SCHEDULES
M7.01 - MECHANICAL SCHEDULES
M7.02 - MECHANICAL SCHEDULES
M7.03 - MECHANICAL SCHEDULES
M7.04 - MECHANICAL SCHEDULES
M7.05 - MECHANICAL SCHEDULES
M7.06 - MECHANICAL SCHEDULES
M7.07 - KITCHEN HOOD SHOP DRAWINGS
M7.08 - KITCHEN HOOD SHOP DRAWINGS
M8.00 - MECHANICAL CONTROL DETAILS
M8.01 - MECHANICAL CONTROL DETAILS
M8.02 - MECHANICAL CONTROL DETAILS
M8.03 - MECHANICAL CONTROL DETAILS
M8.04 - MECHANICAL CONTROL DETAILS
M8.05 - MECHANICAL CONTROL DETAILS
M8.06 - MECHANICAL CONTROL DETAILS
M8.07 - MECHANICAL CONTROL DETAILS
M8.08 - MECHANICAL CONTROL DETAILS
M8.09 - MECHANICAL CONTROL DETAILS
M8.10 - MECHANICAL CONTROL DETAILS
M8.11 - MECHANICAL CONTROL DETAILS
M8.12 - MECHANICAL CONTROL DETAILS
M8.13 - MECHANICAL CONTROL DETAILS
M8.14 - MECHANICAL CONTROL DETAILS
M8.15 - MECHANICAL CONTROL DETAILS
M8.16 - MECHANICAL CONTROL DETAILS
M8.17 - MECHANICAL CONTROL DETAILS
M9.00 - TITLE 24 BUILDING 100
M9.01 - TITLE 24 BUILDING 100
M9.02 - TITLE 24 BUILDING 100
M9.03 - TITLE 24 BUILDING 200
M9.04 - TITLE 24 BUILDING 200
M9.05 - TITLE 24 BUILDING 200
M9.06 - TITLE 24 BUILDING 300
M9.07 - TITLE 24 BUILDING 300
M9.08 - TITLE 24 BUILDING 300
M9.09 - TITLE 24 BUILDING 400
M9.10 - TITLE 24 BUILDING 400
M9.11 - TITLE 24 BUILDING 400
M9.12 - TITLE 24 BUILDING 500
M9.13 - TITLE 24 BUILDING 500
M9.14 - TITLE 24 BUILDING 500
M9.15 - TITLE 24 BUILDING 600
M9.16 - TITLE 24 BUILDING 600
M9.17 - TITLE 24 BUILDING 600
M9.18 - TITLE 24 BUILDING 700
M9.19 - TITLE 24 BUILDING 700
M9.20 - TITLE 24 BUILDING 700
M10.00 - COMMISSIONING DOCUMENTS BUILDING 100
M10.01 - COMMISSIONING DOCUMENTS BUILDING 200
M10.02 - COMMISSIONING DOCUMENTS BUILDING 200
M10.03 - COMMISSIONING DOCUMENTS BUILDING 300
M10.04 - COMMISSIONING DOCUMENTS BUILDING 400
M10.05 - COMMISSIONING DOCUMENTS BUILDING 500
M10.06 - COMMISSIONING DOCUMENTS BUILDING 600
M10.07 - COMMISSIONING DOCUMENTS BUILDING 700

GENERAL NOTES :

1. THE INTENT OF THE DRAWING AND SPECIFICATIONS IS TO CONSTRUCT THE BUILDING IN ACCORDANCE WITH THE 2022 EDITION OF TITLE 24, CALIFORNIA CODE OF REGULATIONS. CHANGES TO THE STRUCTURAL, ACCESSIBILITY OR FIRE AND LIFE-SAFETY PORTIONS OF THE APPROVED PLANS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR CONSTRUCTION CHANGE DOCUMENT AS REQUIRED IN SECTION 4-338, PART 1, TITLE 24, CCR, AND SHALL BE SUBMITTED TO AND APPROVED BY DSA PRIOR TO COMMENCEMENT OF THE WORK. DOCUMENTS SHALL BE PREPARED AND SUBMITTED TO DSA IN COMPLIANCE WITH DSA INTERPRETATION OF REGULATION IR A-6.

2. LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE HVAC BUILDING PLANS HAVE BEEN PREPARED TO MATCH THE ARCHITECTURAL PLANS. IF DIFFERENCES OCCUR, THE ARCHITECTURAL PLANS ARE TO TAKE PRECEDENCE. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED, PRIOR TO INSTALLATION OF ANY WORK, TO AVOID ALL INTERFERENCE WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL, OR OTHER ELEMENTS. ALL DUCT AND PIPE OFFSET ELBOWS FOR COORDINATION BETWEEN TRADES ARE NOT SHOWN. CONTRACTOR SHALL INCLUDE SUFFICIENT FUNDS FOR THE COORDINATION OFFSETS IN THE BID. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.

3. WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER-DRIVEN PINS IN EXISTING NON-PRESTRESSED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.

4. ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE THERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

   1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
   2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
   3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

   THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

   A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

   B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

   FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

1. PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

   PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7 SECTION 13.3 AS DEFINED IN ASCE 7 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25, 1617A.1.26.

   THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. THE MEP DESIGN PROFESSIONAL ENGINEER RESPONSIBLE FOR THE CONTENT ON THE SHEETS HAS VERIFIED THAT THE DESIGN METHODS IDENTIFIED BELOW ARE IN ACCORDANCE WITH DSA IR16-13.

   MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

   MP ☒ MD ☒ PP ☐ E ☐ — OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

   MP ☐ MD ☐ PP ☐ E ☐ — OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD OPM, WITHIN PROJECT SUBMITTAL.

   MP ☐ MD ☐ PP ☐ E ☐ — OPTION 3: SHALL COMPLY WITH THE APPLICABLE OSHPD OPM, DEFERRED SUBMITTAL

2. PENETRATIONS THROUGH FIRE RATED WALLS, FLOOR/CEILING, AND ROOF/CEILING ASSEMBLIES SHALL BE SEALED USING AN APPROVED SYSTEM CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN SUBJECTED TO THE REQUIREMENTS OF THE TEST STANDARD SPECIFIC TO FIRE STOPS PER 2022 CBC SECTION 714. THIS INCLUDES EXISTING PIPE AND CONDUIT THROUGH NEW ASSEMBLIES. CUSTOM DESIGNED SYSTEMS WHICH COMBINE COMPONENTS FROM DIFFERENT APPROVED SYSTEMS BUT HAVE NOT BEEN TESTED AS A COMPLETE ASSEMBLY WILL NOT BE ACCEPTABLE. FOR FIRE STOPS FOR PIPE PENETRATIONS SEE SPECIFICATIONS.

3. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. WHERE ACOUSTIC LINING IS SHOWN, INCREASE EACH SHEET METAL DIMENSION TO ACCOMMODATE LINING & MAINTAIN CLEAR INSIDE DUCT DIMENSIONS SHOWN.

4. SA DUCTWORK SHALL BE 1" PRESSURE CLASS, AND RA & EA DUCTWORK SHALL 1" PRESSURE CLASS UNLESS OTHERWISE NOTED.

5. ALL DIFFUSERS ARE 4-WAY DISTRIBUTION UNLESS OTHERWISE NOTED ON THE PLANS.

6. A DSA CERTIFIED PROJECT INSPECTOR (CLASS 2) EMPLOYED BY THE DISTRICT & APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-338, PART 1, TITLE 24, CCR.

7. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.

AIR CONDITIONING LEGEND

SYMBOL	ITEM	ABBR
HWS	HOT WATER SUPPLY	HWS
HWR	HOT WATER RETURN	HWR
CWS	CHILLED WATER SUPPLY	CWS
CWR	CHILLED WATER RETURN	CWR
	BALL VALVE	—
	BUTTERFLY VALVE	—
	CHECK VALVE	—
	GATE VALVE	—
	SHUT-OFF VALVE	SOV
	PLUG VALVE	—
	PRESSURE RELIEF VALVE	PRV
	UNION	—
	INSTRUMENT WELL	—
	FLOW SWITCH	FS
	STRAINER	—
	FLEXIBLE CONNECTION	FLEX
	REDUCER OR INCREASER	—
—	ABOVE FINISHED FLOOR	AFF
RL	REFRIGERANT LIQUID	RL
RS	REFRIGERANT SUCTION	RS
	CONTROL VALVE	—

SYMBOL	ITEM	ABBR
	ROUND DUCT	Ø
	FLAT OVAL DUCT	⌀
	SHEET METAL DUCT	—
	ACOUSTIC LINING FOR DUCT OR GRILLES	(L)
	SUPPLY AIR DUCT DROP	—
	RETURN AIR DUCT DROP	—
	EXHAUST DUCT AIR DROP	—
	SUPPLY AIR DUCT RISE	—
	RETURN AIR DUCT RISE	—
	EXHAUST AIR DUCT RISE	—
	TURNING VANES	TV
	EXTRACTOR	—
	VOLUME CONTROL DAMPER W/LOCKING QUADRANT	VCD
	OPPOSED BLADE DAMPER	OBD
	BACKDRAFT DAMPER	BDD
	VOLUME CONTROL DAMPER W/ REMOTE REGULATOR	VCR
& ■	FIRE/SMOKE DAMPER WITH ACCESS PANEL	F/SD
& ▲	FIRE DAMPER WITH ACCESS PANEL	FD
& ◆	SMOKE DAMPER WITH ACCESS PANEL	SD
CFM	CUBIC FEET OF AIR PER MINUTE	CFM
M	EMS MOTORIZED DUCT DAMPER/ PIPE VALVE ACTUATOR	—
T	THERMOSTAT @ +4'-0" TOP OF BOX	T'STAT
H	HUMIDISTAT @ +4'-0" TOP OF BOX	H'STAT
C	CO_2 SENSOR @ +4'-0" TOP OF BOX	CO_2
T	EMS TEMPERATURE SENSOR @ +4'-0" TOP OF BOX	—
H	EMS HUMIDITY SENSOR @ +4'-0" TOP OF BOX	—
C	EMS CO_2 SENSOR @ +4'-0" TOP OF BOX	CO_2
SP	EMS STATIC PRESSURE SENSOR	SP
DP	EMS DIFFERENTIAL PRESSURE SENSOR	DP
CS	EMS CURRENT SENSOR	CS
	DIRECTION OF FLOW	—
	SUPPLY AIR	SA
	RETURN AIR	RA
	EXHAUST AIR	EA
—	OUTSIDE AIR	OSA
	PIPE/DUCT TURN DOWN	—
	PIPE/DUCT TURN UP	—
	POINT OF CONNECTION	POC
	EXISTING (DESIGNATED)	(E)
	NEW (DESIGNATED)	(N)
SD	DUCT SMOKE DETECTOR	SD
A/V	AUDIBLE/VISUAL ALARM	A/VA
	BYPASS TIMER	BPT
EMS	ENERGY MANAGEMENT SYSTEM CABLE IN CONDUIT	EMS
P	PULL STATION FOR ANSUL SYSTEM.	—

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REVISIONS

MANGINI ARCHITECTURE INGENUITY

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(559) 627.0530 Office
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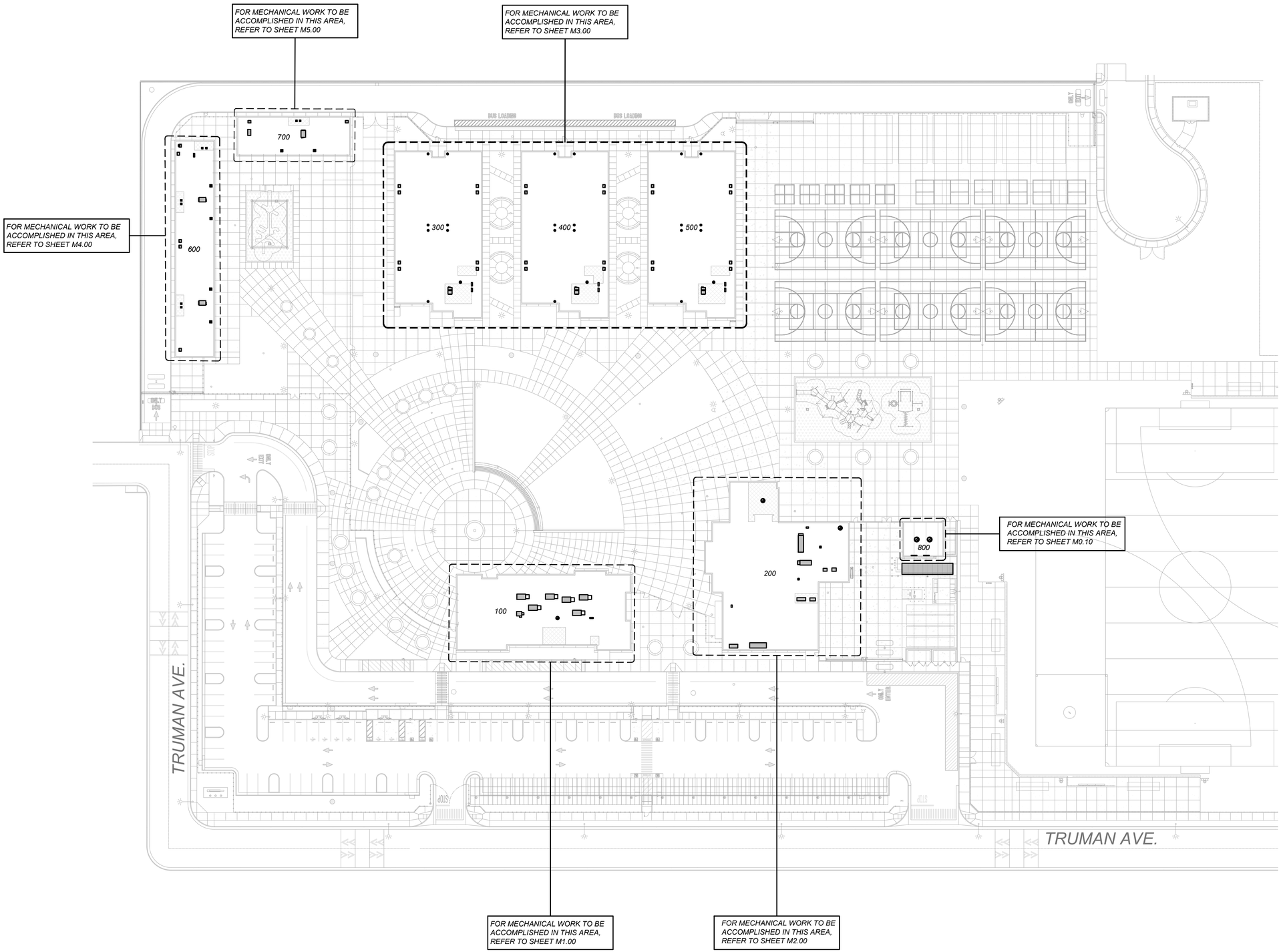
TITLE
MECHANICAL NOTES AND LEGENDS

M0.01

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



OVERALL MECHANICAL SITE PLAN

SCALE: 1' = 40'-0"

north

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
OVERALL MECHANICAL SITE PLAN

M0.02

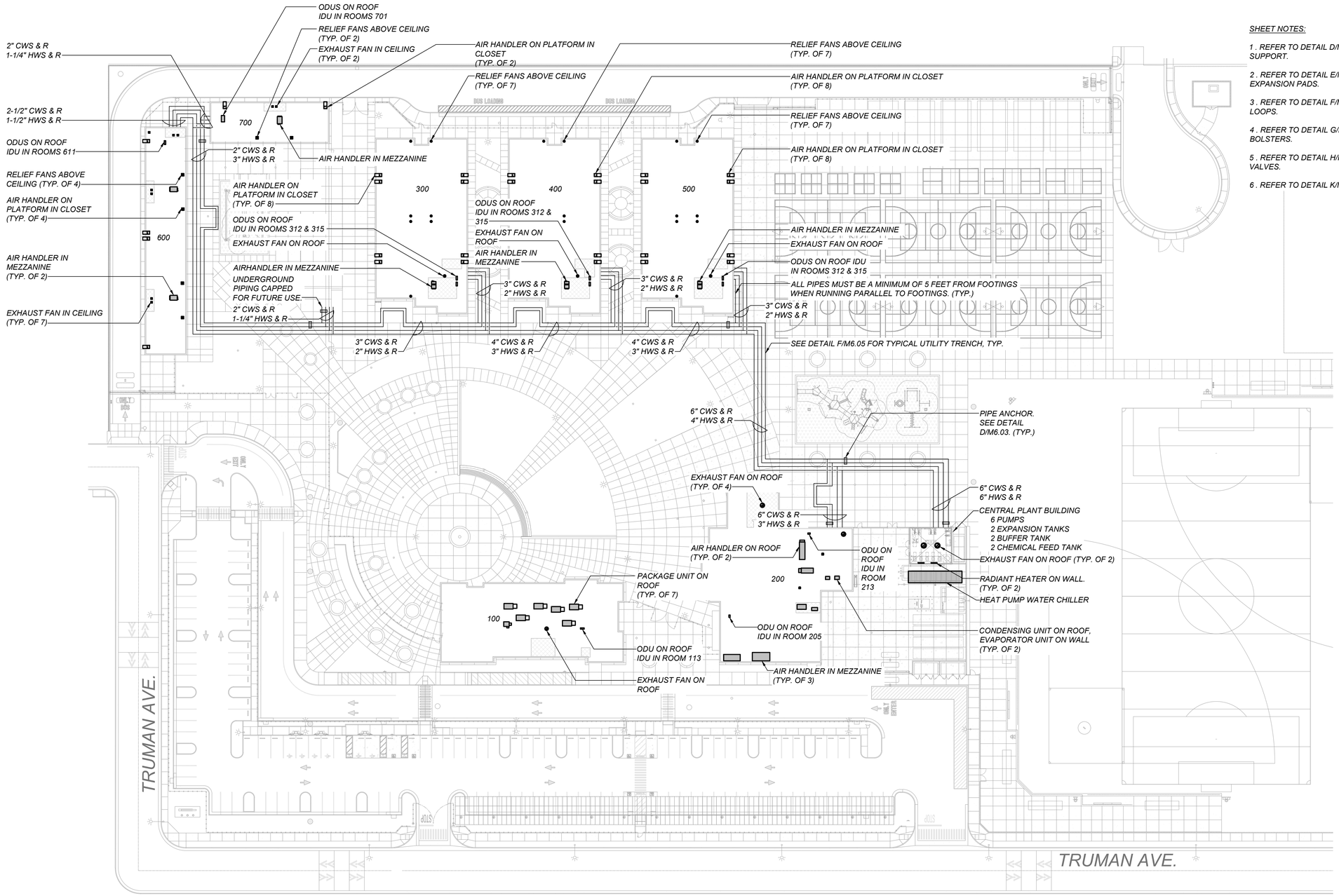
PROJECT 24042

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STATE OF CALIFORNIA

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(559) 431-0101
25026
FAX (559) 431-1342

15 September 2026 9:34 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M0.02 – Overall Mechanicol Site Plan.dwg rystf

P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M0.02 - Overall Mechanical SIte Plan.dwg Sep 15 2026 9:34am



SHEET NOTES:

1 . REFER TO DETAIL D/M6.00 FOR PIPE ANCHOR SUPPORT.

2 . REFER TO DETAIL E/M6.03 FOR PIPE EXTERNAL EXPANSION PADS.

3 . REFER TO DETAIL F/M6.03 FOR PIPE EXPANSION LOOPS.

4 . REFER TO DETAIL G/M6.03 FOR PIPE EXPANSION BOLSTERS.

5 . REFER TO DETAIL H/M6.03 FOR BURIED AIR RELEASE VALVES.

6 . REFER TO DETAIL K/M6.03 FOR PIPE RISER ELBOWS.

MECHANICAL PIPING & EMS SITE PLAN

SCALE: 1' = 40'-0"

north

APPROVALS

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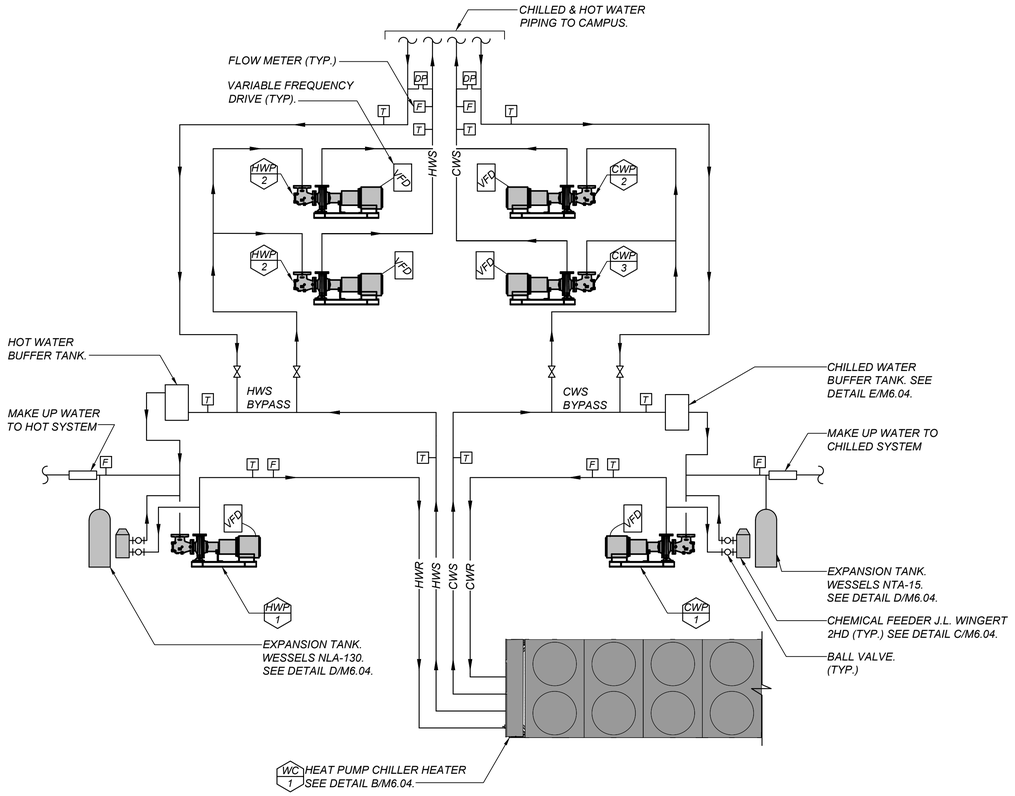
TITLE
MECHANICAL
PIPING & EMS
SITE PLAN

M0.03

PROJECT 24042

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BRYAN W. CARLSON
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MECHANICAL
STATE OF CALIFORNIA

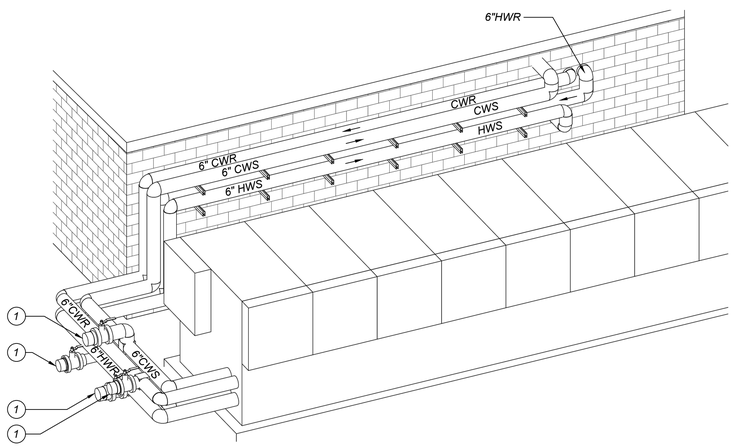
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FAX (559) 431-1362



CENTRAL PLANT PIPING DIAGRAM

A M0.10

SCALE: NONE



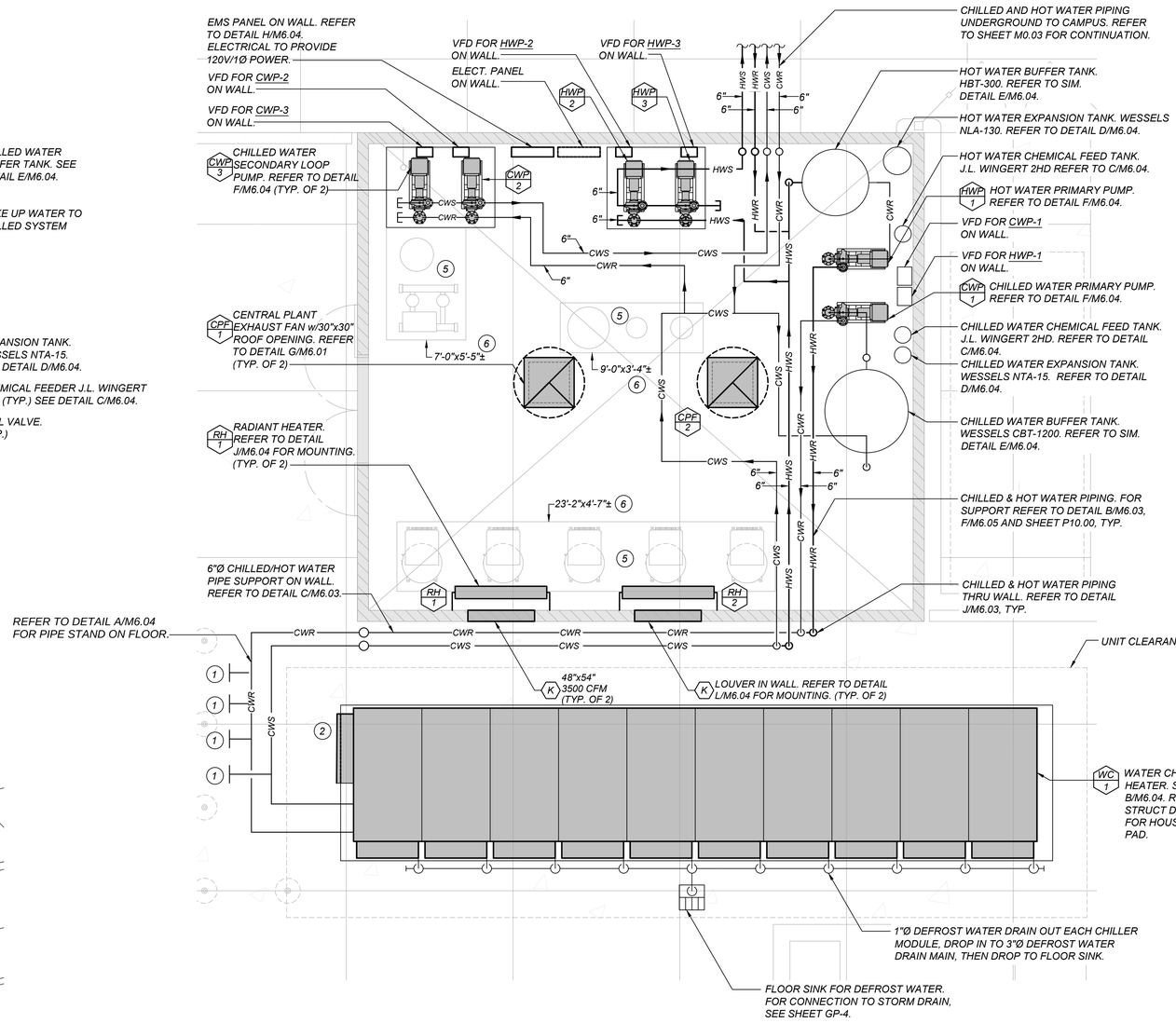
CHILLER YARD PIPING LAYOUT

B M0.10

SCALE: NONE

KEYNOTES (THIS SHEET ONLY):

1. *TAPS FOR RENTAL CHILLER. TYPICAL OF 4, ONE PER PIPE. TAP WILL CONSIST OF A TEE, FLANGED MANUAL ISOLATION VALVE AND A BLIND FLANGE.*
2. *UNIT ELECTRICAL PANEL.*
3. *HOT WATER DECOUPLER.*
4. *CHILLED WATER DECOUPLER.*
5. *SEE PLUMBING PLANS FOR EQUIPMENT INFORMATION.*
6. *6" TALL CONCRETE HOUSEKEEPING PAD. REFER TO STRUCTURAL DETAIL 10/S1.5. MECHANICAL CONTRACTOR TO COORDINATE EXACT SIZE WITH GENERAL CONTRACTOR. MAINTAIN MINIMUM EDGE DISTANCE FROM ANCHOR BOLT(S) TO SIDE OF HOUSEKEEPING PAD PER ESR-4266. TYPICAL.*



BLDG 800 - OVERALL CENTRAL PLANT

SCALE: 1/4" = 1'-0"

north

APPROVALS

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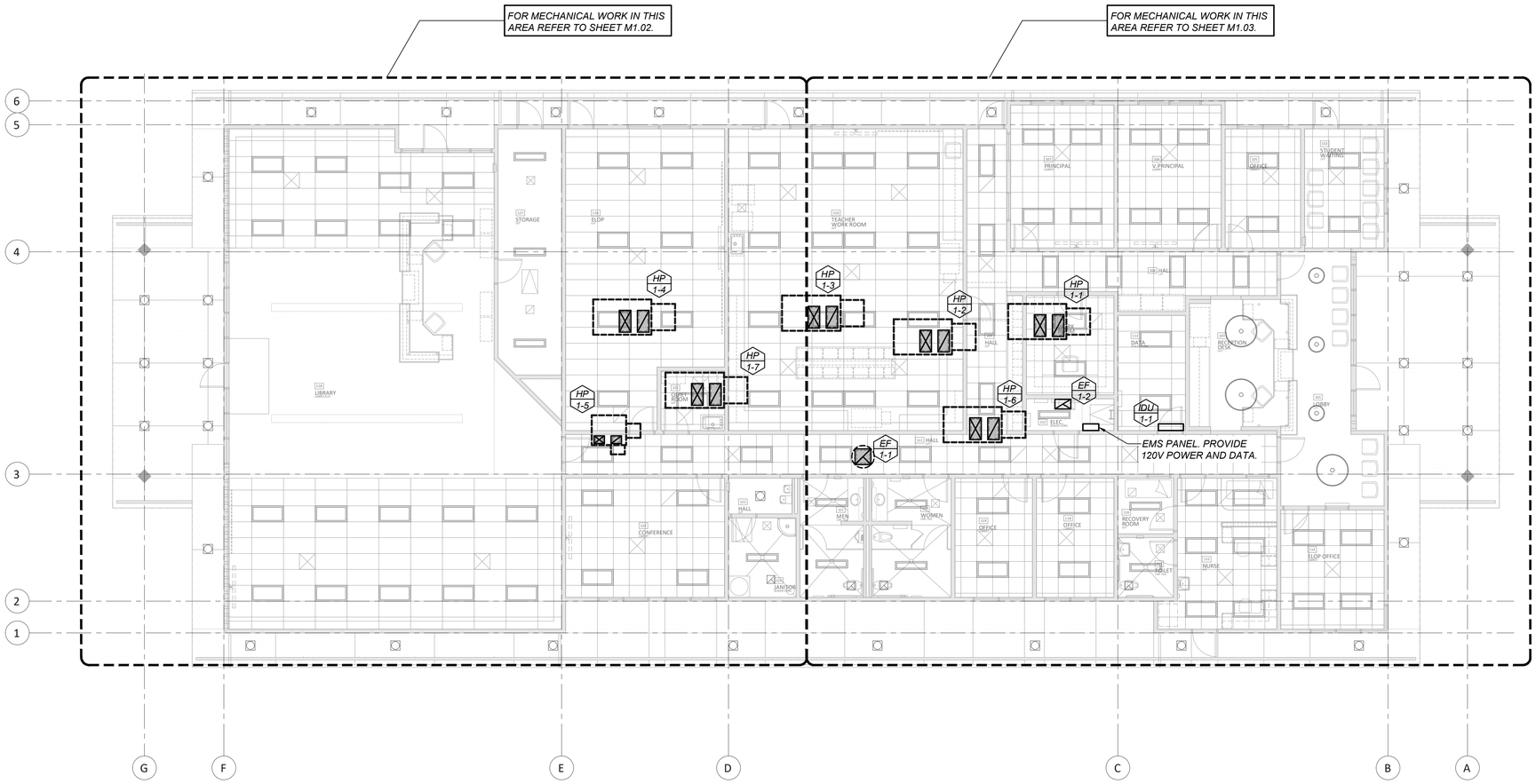
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OVERALL CENTRAL PLANT

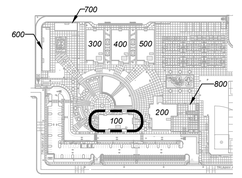
M0.10

PROJECT 24042

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15 September 2026 9:34 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M0.10 - Overall Central Plant.dwg ryonf





MECHANICAL KEY PLAN

SCALE: NONE

north

BUILDING 100 - OVERALL MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

north

APPROVALS

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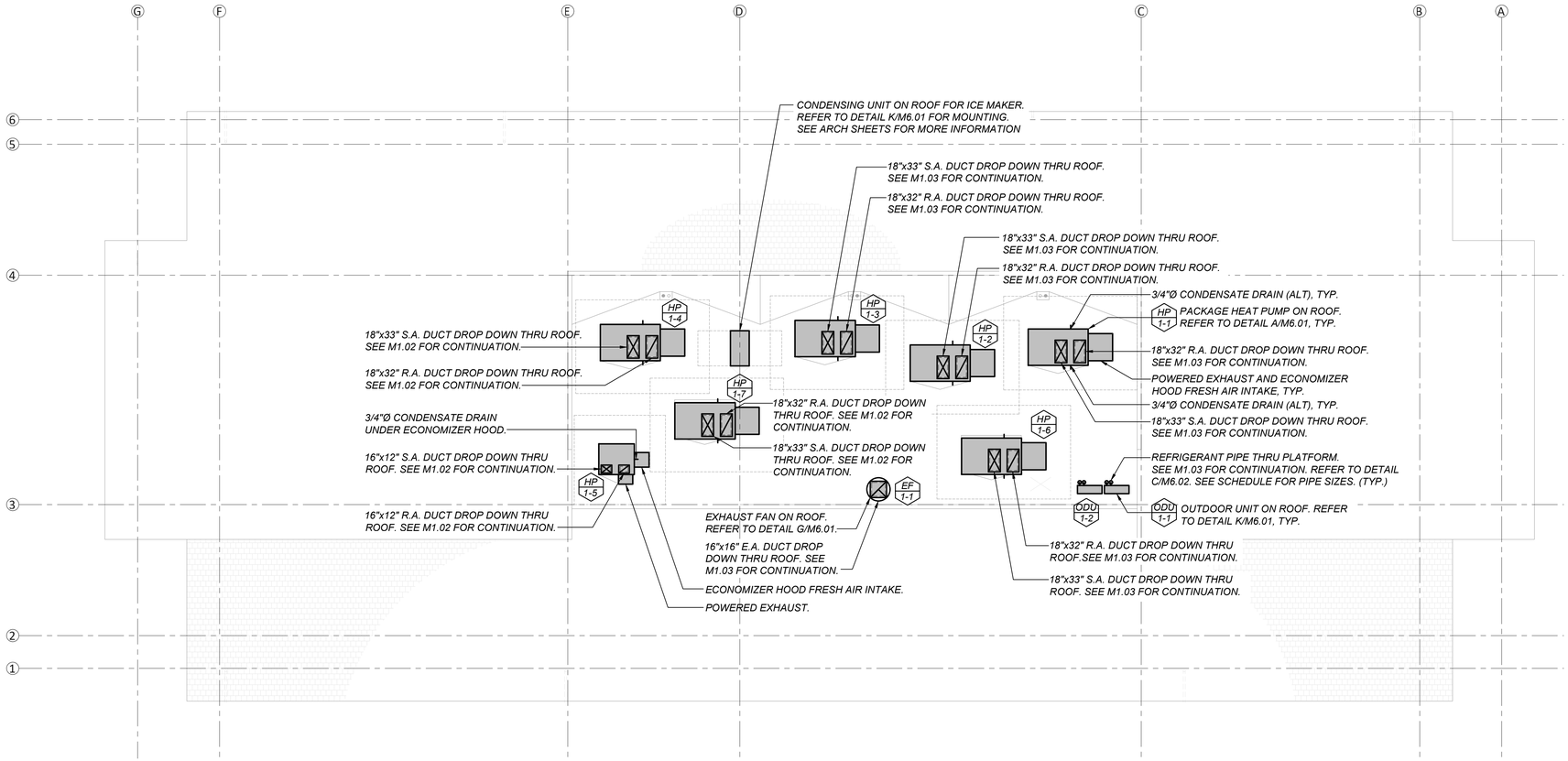
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TITLE
BUILDING 100 - OVERALL MECHANICAL PLAN

M1.00

PROJECT 24042

15 September 2026 9:34 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M1.00 - Building 100 - Overall Mechanical Plan.dwg cysnf



BUILDING 100 - MECHANICAL ROOF PLAN

SCALE: 1/8" = 1'-0"

north

APPROVALS

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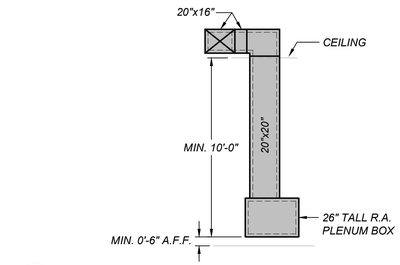
TITLE
BUILDING 100 - MECHANICAL ROOF PLAN

M1.01

PROJECT 24042

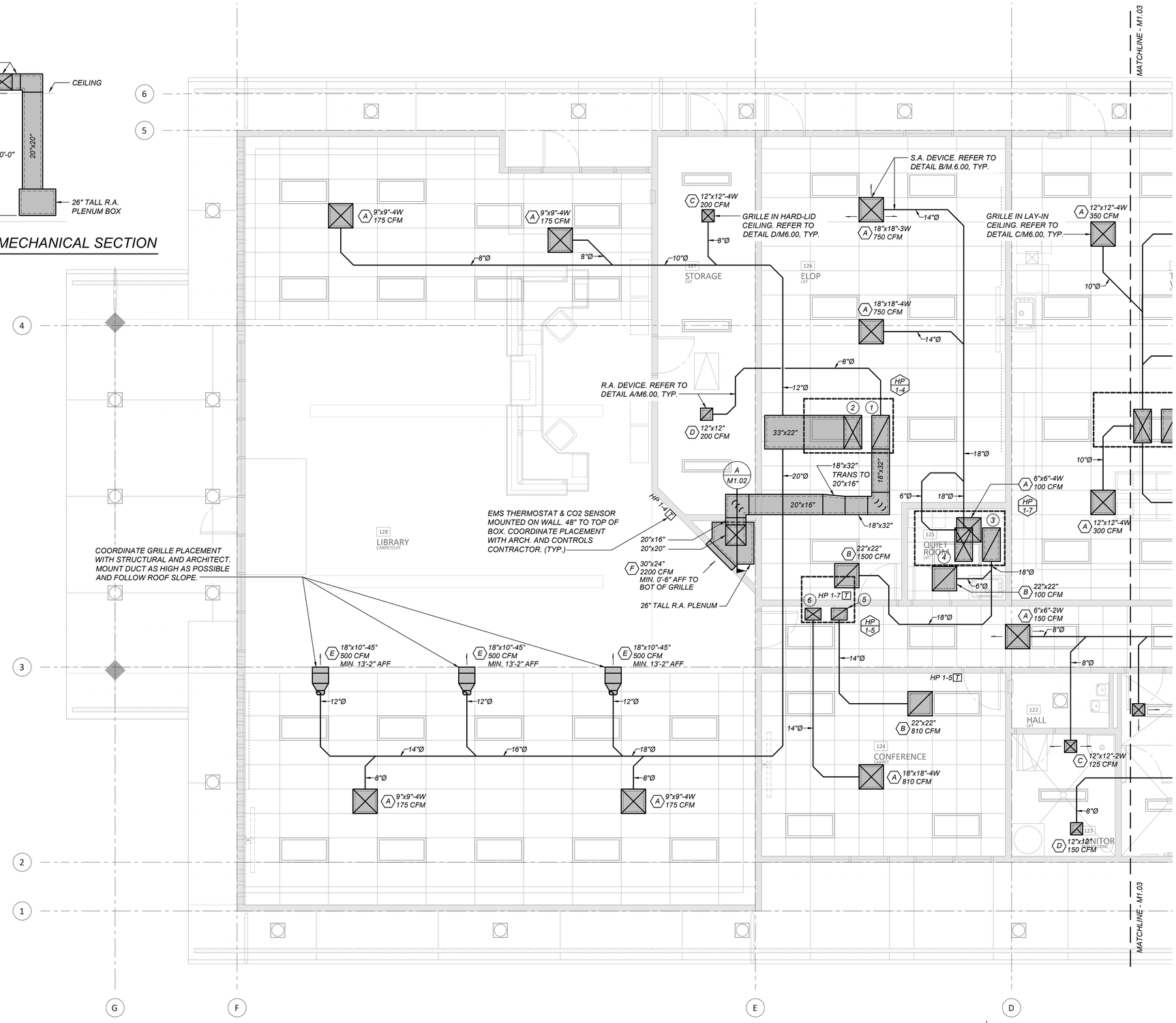
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MECHANICAL
STATE OF CALIFORNIA

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Fresno, CA 93727
FAX (559) 431-1362



A BUILDING 100 MECHANICAL SECTION

1/4" = 1'0"



BUILDING 100 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

SHEET NOTES:

1. *REFER TO DETAIL E/M6.00 FOR DUCT HANGING.*
2. *REFER TO DETAIL H/M6.00 FOR DUCTS THRU WALLS.*
3. *REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.*
4. *ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.*

KEYNOTES:

1. *18"x32" R.A. DUCT DROP FROM HP ON ROOF, DOWN IN TO 90° ELBOW WITH TURNING VANES.*
2. *18"x33" S.A. DUCT DROP FROM HP ON ROOF, DOWN IN TO 90° ELBOW WITH TURNING VANES, THEN OUT WITH 22"x33" S.A. DUCT.*
3. *18"x32" R.A. DUCT DROP FROM HP ON ROOF.*
4. *18"x33" S.A. DUCT DROP FROM HP ON ROOF.*
5. *16"x12" R.A. DUCT DROP FROM HP ON ROOF.*
6. *16"x12" S.A. DUCT DROP FROM HP ON ROOF.*

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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REN. 05-31-27
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REGISTERED PROFESSIONAL ENGINEER
MECHANICAL
STATE OF CALIFORNIA

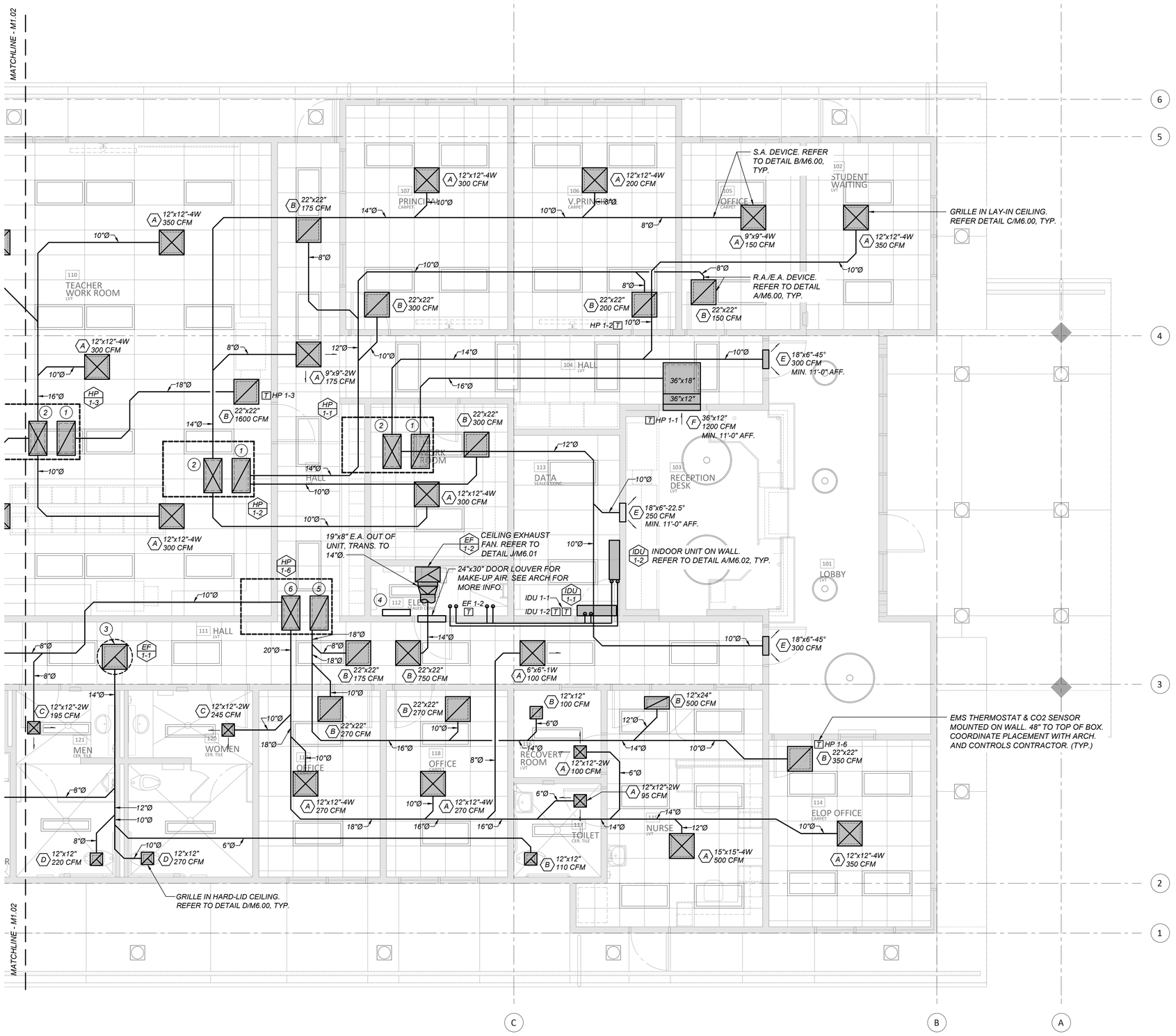
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
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25026
Fresno, CA 93727
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TITLE
BUILDING 100 - PARTIAL MECHANICAL PLAN

M1.02

PROJECT 24042

15 September 2026 9:34 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M1.02 – M1.03 – Building 100 – Partial Mechanical Plan.dwg ryanf



BUILDING 100 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

SHEET NOTES:

1. *REFER TO DETAIL E/M6.00 FOR DUCT HANGING, TYP.*
2. *REFER TO DETAIL H/M6.00 FOR DUCTS THRU WALLS., TYP.*
3. *REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS, TYP.*
4. *ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.*

KEYNOTES:

1. *18"x32" R.A. DUCT DROP FROM HP ON ROOF.*
2. *18"x33" S.A. DUCT DROP FROM HP ON ROOF.*
3. *16"x16" R.A. DUCT DROP FROM EF ON ROOF.*
4. *EMS PANEL ON WALL. PROVIDE 120V AND DATA. REFER TO DETAIL G/M6.04 FOR PANEL ENCLOSURE. REFER TO DETAIL H/M6.04 FOR PANEL MOUNTING.*
5. *18"x33" R.A. DUCT DROP FROM HP ON ROOF, TRANS TO 20"x33" BELOW ROOF STRUCTURE.*
6. *18"x33" S.A. DUCT DROP FROM HP ON ROOF, TRANS TO 22"x33" BELOW ROOF STRUCTURE.*

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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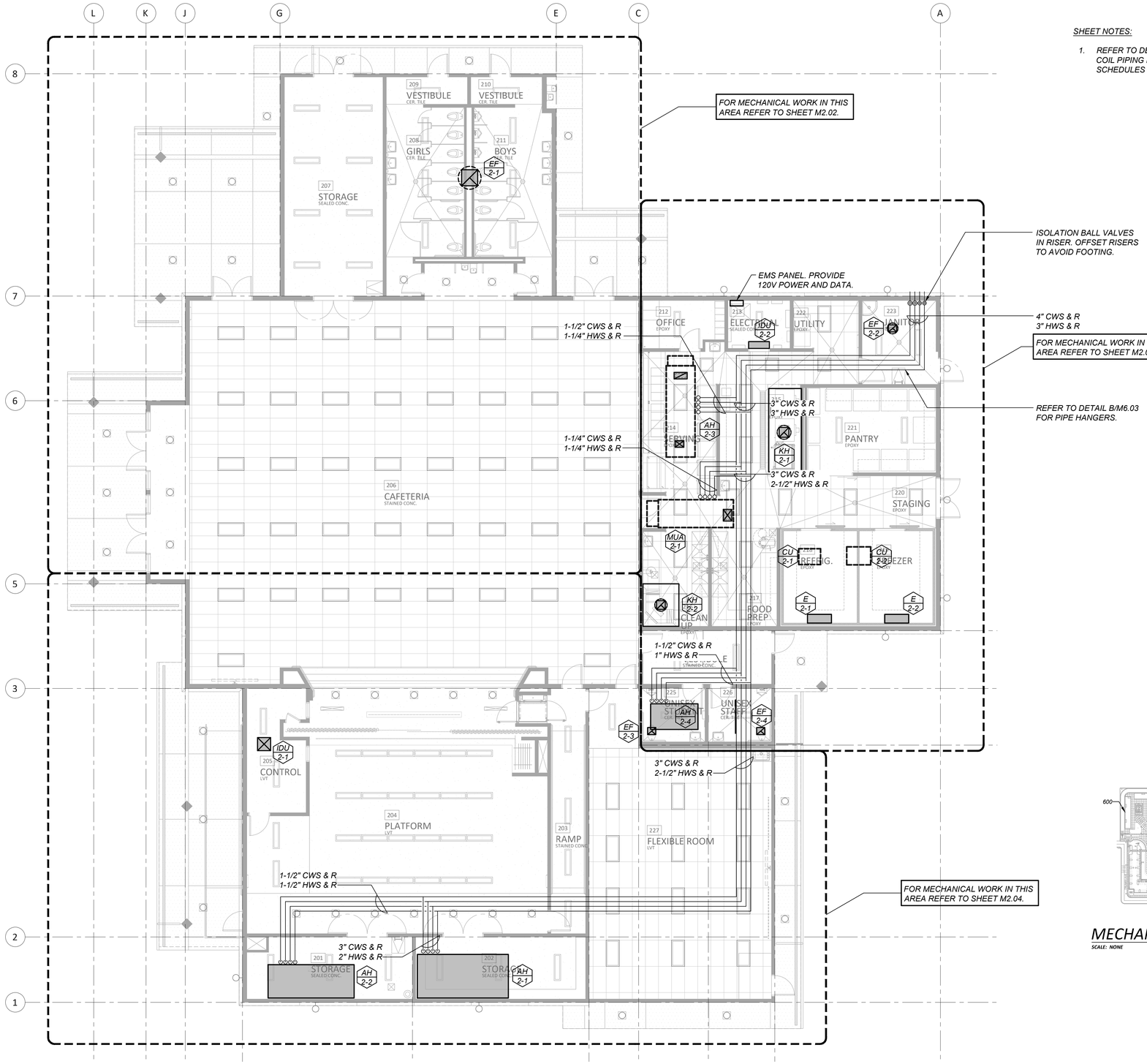
REGISTERED PROFESSIONAL ENGINEER
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No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

TITLE: BUILDING 100 - PARTIAL MECHANICAL PLAN

M1.03

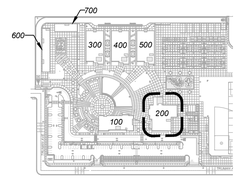
PROJECT 24042

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25026
Fresno, CA 93727
FAX (559) 431-1362



SHEET NOTES:

1. *REFER TO DETAIL J/M6.02 & K/M6.02 FOR COIL PIPING DIAGRAMS AND REFER TO SCHEDULES FOR VALVE TYPE.*



MECHANICAL KEY PLAN
SCALE: NONE

BUILDING 200 - OVERALL MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

north

APPROVALS

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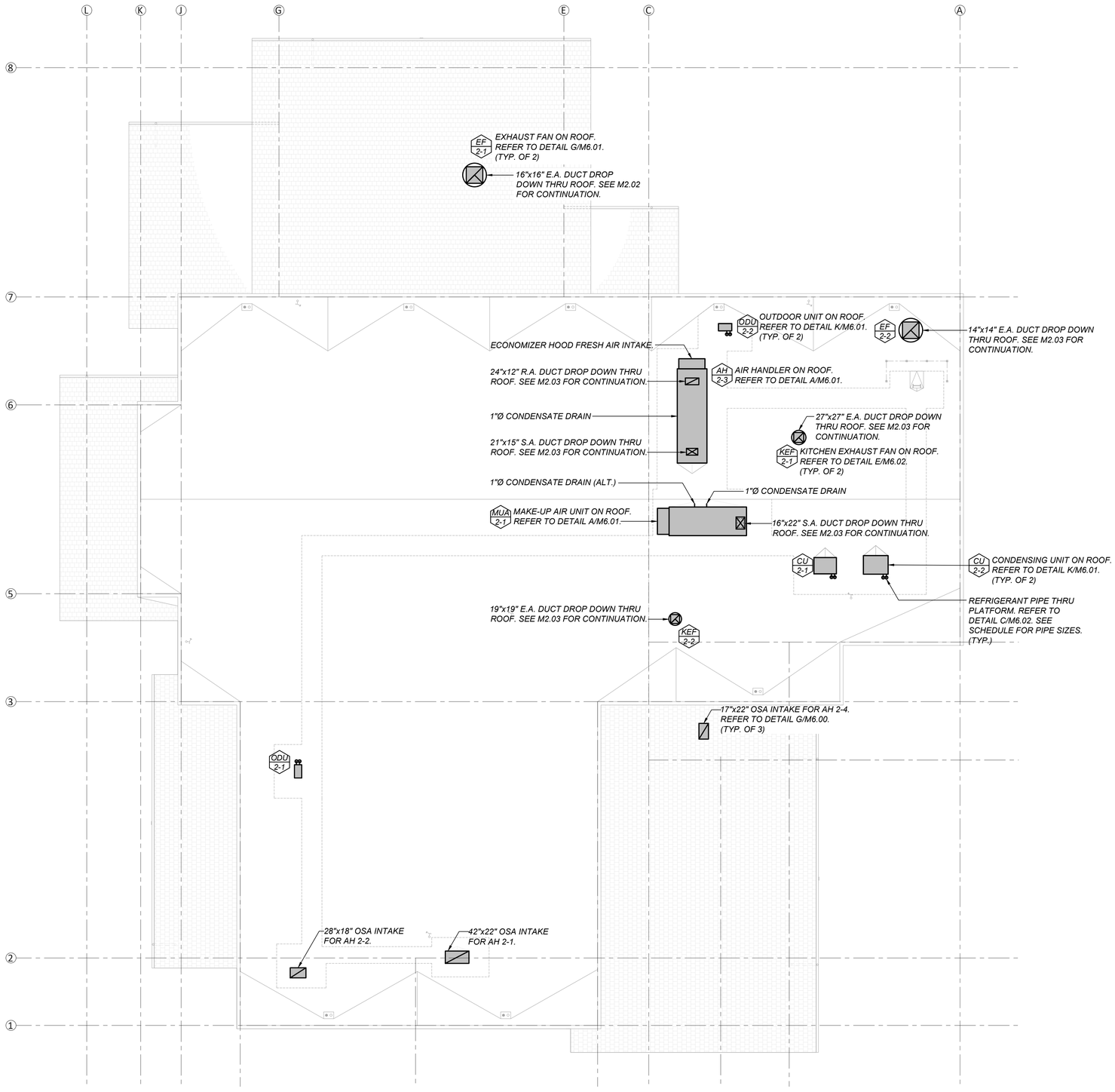
TITLE
BUILDING 200 - OVERALL MECHANICAL PLAN

M2.00

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
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STATE OF CALIFORNIA

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25026



BUILDING 200 - MECHANICAL ROOF PLAN

SCALE: 1/8" = 1'-0"

north

APPROVALS

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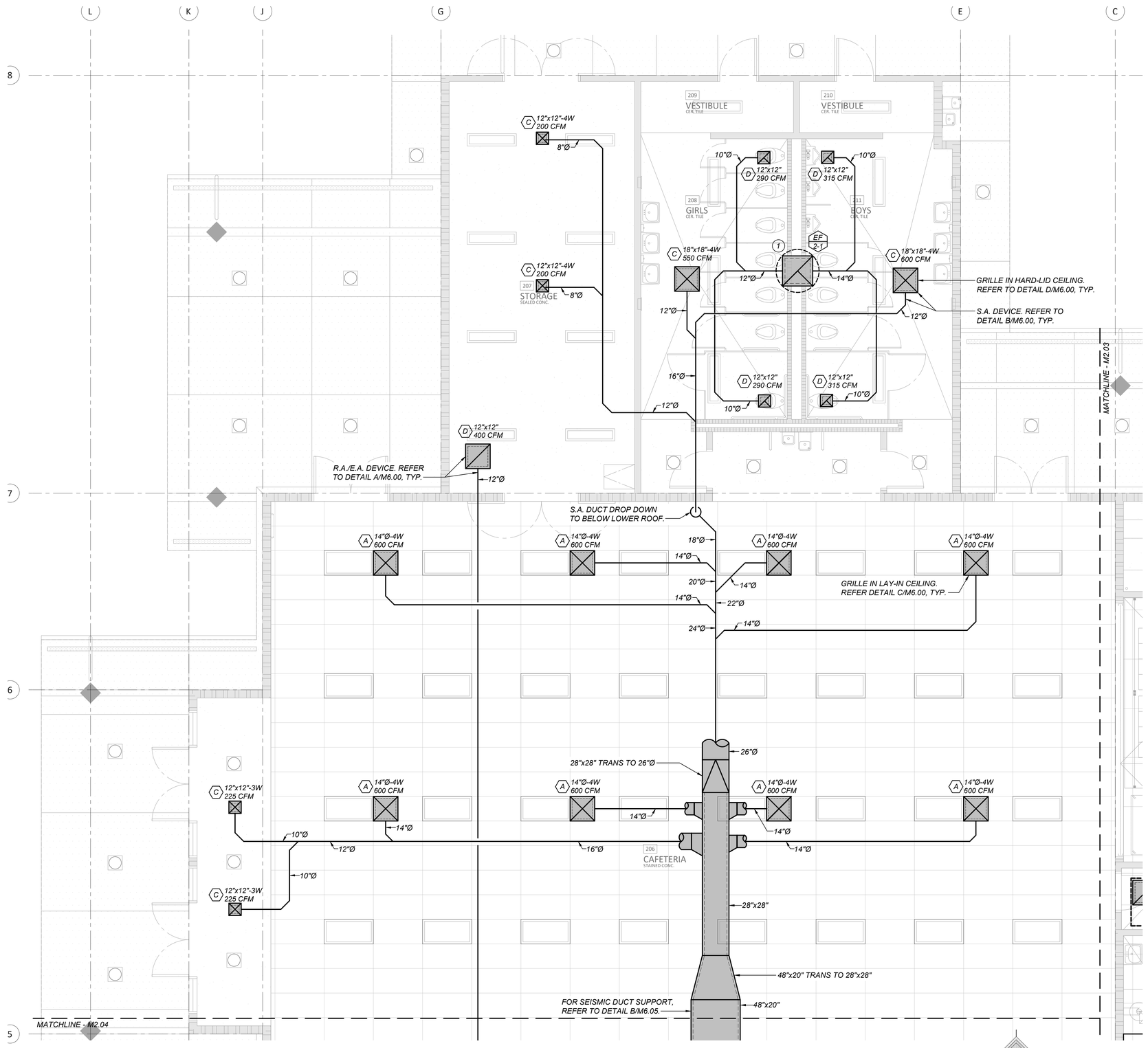
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TITLE
BUILDING 200 - MECHANICAL ROOF PLAN

M2.01

PROJECT 24042

15 September 2026 9:35 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M2.01 - Building 200 - Mechanical Roof Plan.dwg ryanf



BUILDING 200 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

SHEET NOTES:

1. *REFER TO DETAIL E/M6.00 FOR DUCT HANGING.*
2. *REFER TO DETAIL B/M6.05 FOR SEISMIC DUCT SUPPOR*
2. *REFER TO DETAIL H/M6.00 FOR DUCTS THRU WALLS.*
3. *REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.*
4. *SEE SHEET M2.04 FOR THERMOSTAT LOCATION.*
5. *ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.*

KEYNOTES:

(1) *16"x16" E.A. DUCT DROP FROM EF ON ROOF.*

APPROVALS

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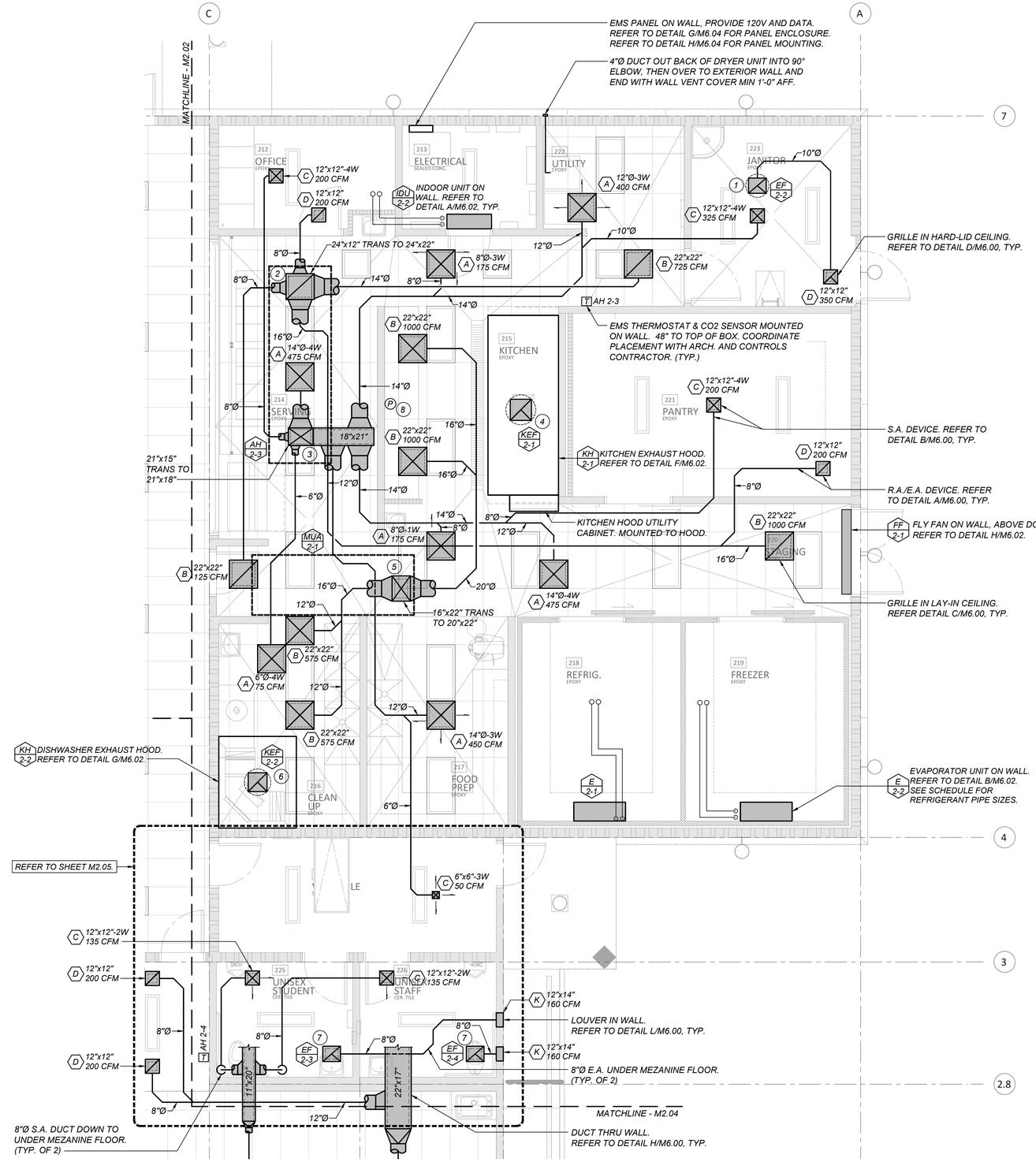
TITLE
BUILDING 200 - PARTIAL MECHANICAL PLAN

M2.02

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



BUILDING 200 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

GENERAL NOTES:

1. DRYER EXHAUST DUCT SHALL BE CONSTRUCTED OF RIGID METALLIC MATERIAL AND EQUIPPED WITH BACKDRAFT DAMPER. EXHAUST DUCT SHALL NOT BE ASSEMBLED WITH SCREWS OR OTHER FASTENING MEANS THAT EXTEND INTO DUCT AND THAT ARE CAPABLE OF CATCHING LINT AND REDUCE EFFICIENCY OF THE EXHAUST SYSTEM.

SHEET NOTES:

1. REFER TO DETAIL E/M6.00 FOR DUCT HANGING.
2. REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.
3. ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.

KEYNOTES:

1. 14"X14" E.A. DUCT DROP FROM EF ON ROOF.
2. 24"X12" R.A. DUCT DROP FROM AH ON ROOF, TRANS TO 24"X22" IN THE VERTICAL.
3. 21"X15" S.A. DUCT DROP FROM AH ON ROOF, TRANS TO 21"X18" IN THE VERTICAL, THEN DOWN IN TO 90° ELBOW WITH TURNING VANES.
4. 27"X27" E.A. DUCT DROP FROM KEF ON ROOF, TRANS TO 20"Ø DUCT, THEN TRANS TO 14"Ø DUCT AT HOOD.
5. 16"X22" S.A. DUCT DROP FROM MUA ON ROOF, TRANS TO 20"X22" IN THE VERTICAL.
6. 19"X19" E.A. DUCT DROP FROM KEF ON ROOF, TRANS TO 16"Ø DUCT, THEN TRANS TO 12"Ø DUCT AT HOOD.
7. EXHAUST FAN IN CEILING. REFER TO DETAIL J/M6.01, TYP.
8. PULL STATION FOR ANSUL SYSTEM.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY

MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-3530 Office
(559) 627-1926 Fax

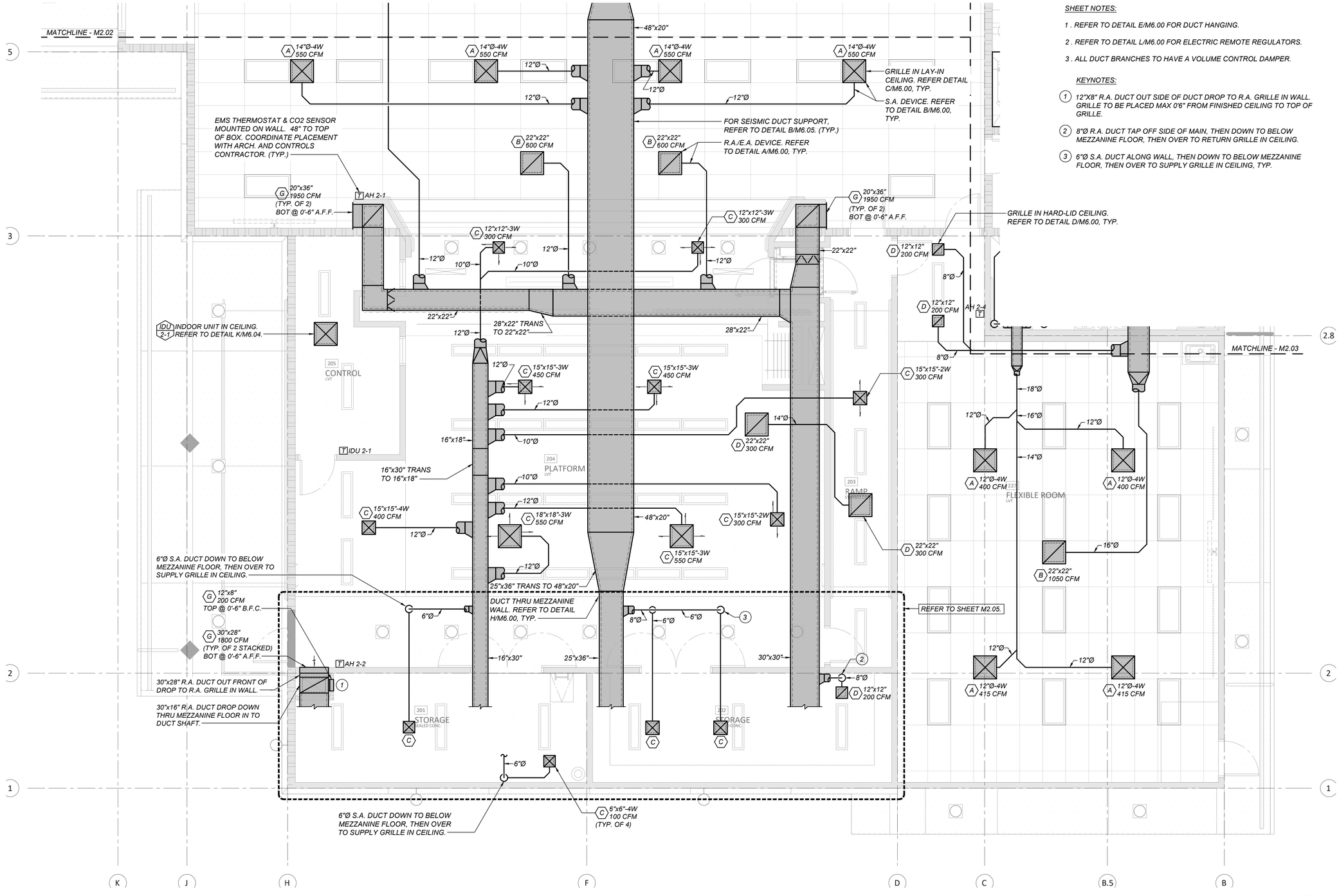
REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

TITLE
BUILDING 200 - PARTIAL MECHANICAL PLAN

M2.03

PROJECT 24042

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1342



SHEET NOTES:

1. REFER TO DETAIL E/M6.00 FOR DUCT HANGING.
2. REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.
3. ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.

KEYNOTES:

1. 12"X8" R.A. DUCT OUT SIDE OF DUCT DROP TO R.A. GRILLE IN WALL. GRILLE TO BE PLACED MAX 0'6" FROM FINISHED CEILING TO TOP OF GRILLE.
2. 8"Ø R.A. DUCT TAP OFF SIDE OF MAIN, THEN DOWN TO BELOW MEZZANINE FLOOR, THEN OVER TO RETURN GRILLE IN CEILING.
3. 6"Ø S.A. DUCT ALONG WALL, THEN DOWN TO BELOW MEZZANINE FLOOR, THEN OVER TO SUPPLY GRILLE IN CEILING, TYP.

BUILDING 200 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

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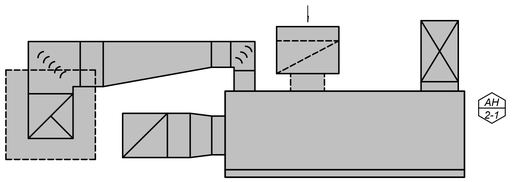
TITLE
BUILDING 200 - PARTIAL MECHANICAL PLAN

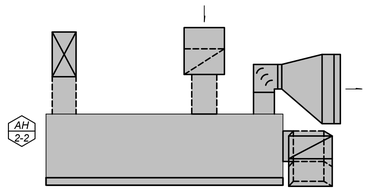
M2.04

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CARLOS
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

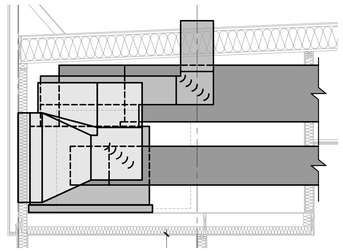
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
Fresno, CA 93727
FAX (559) 431-1362
25026





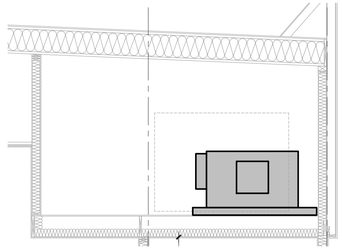
A BUILDING 200 SECTION AT MEZZANINE

1/4" = 1'0"



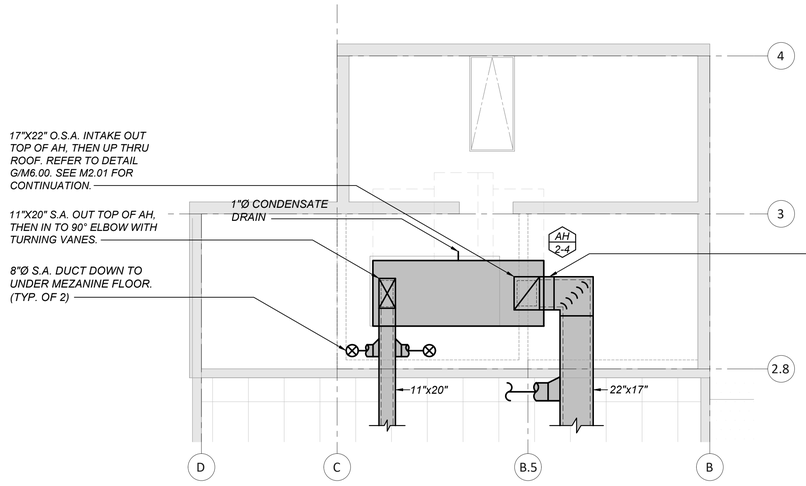
C BUILDING 200 SECTION AT AH 2-1

1/4" = 1'0"



B BUILDING 200 SECTION AT AH 2-2

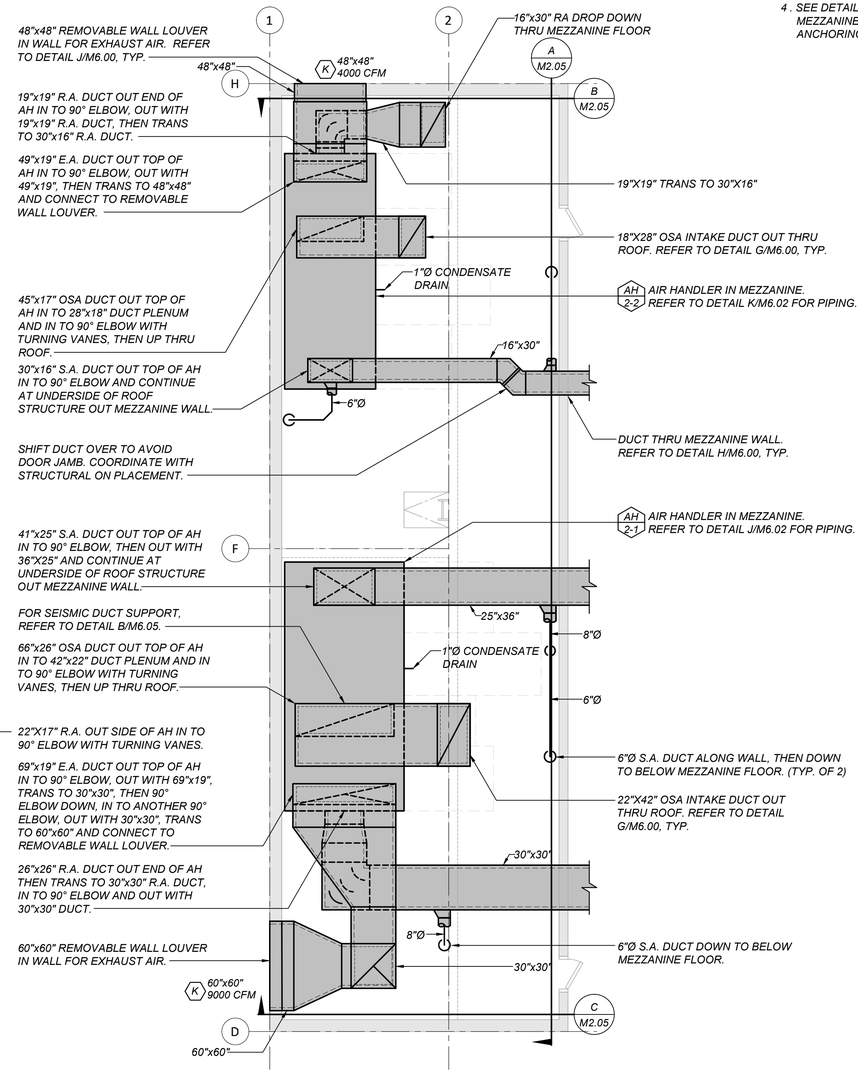
1/4" = 1'0"



BUILDING 200 - MECHANICAL MEZZANINE PLAN

SCALE: 1/4" = 1'0"

north



BUILDING 200 - MECHANICAL MEZZANINE PLAN

SCALE: 1/4" = 1'0"

north

GENERAL NOTES:

1. *ALL 90° ELBOWS TO HAVE TURNING VANES.*

SHEET NOTES:

1. *REFER TO DETAIL E/M6.00 FOR DUCT HANGING.*
2. *REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.*
3. *ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.*
4. *SEE DETAIL 14/S1.6 AIR HANDLER IN MEZZANINE FRAMING AND SEISMIC ANCHORING.*

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
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Visalia, California 93291
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(559) 627.1926 fax

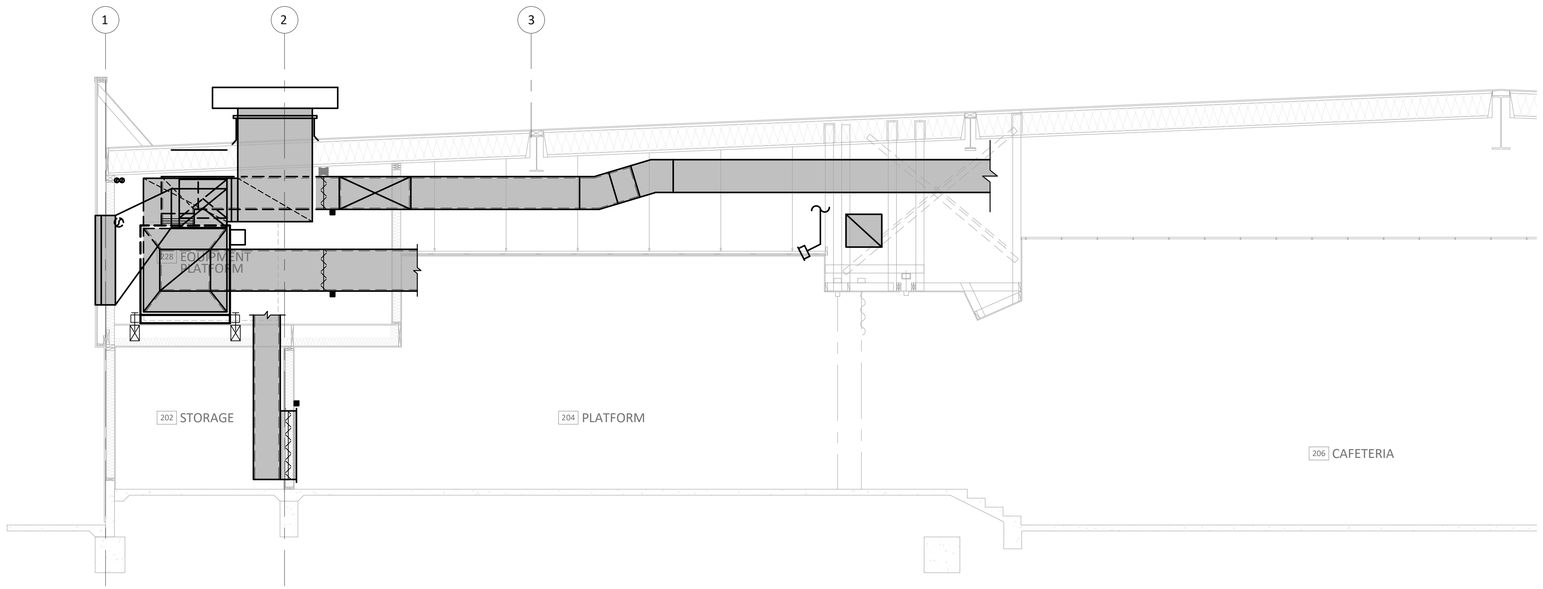
TITLE
BUILDING 200 - MECHANICAL MEZZANINE PLAN

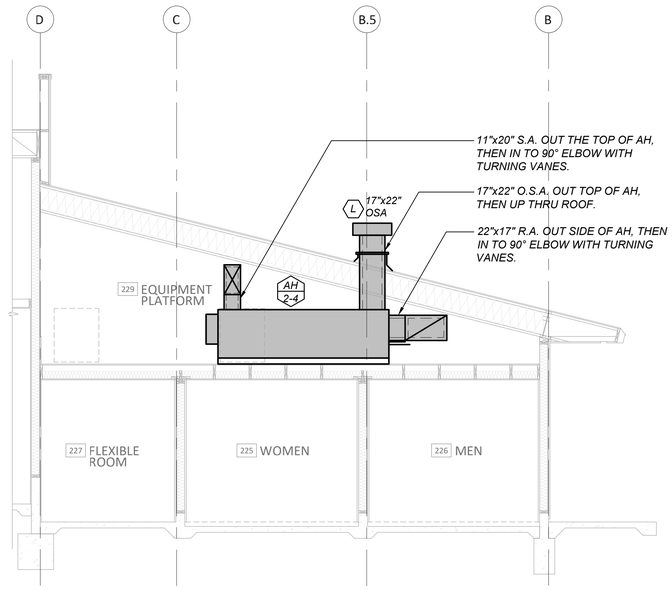
M2.05

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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4910 E. Clinton Way, Suite 101
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25026
Fresno, CA 93727
FAX (559) 431-1362





BUILDING 200 - MECHANICAL SECTIONS

SCALE: 1/4" = 1'-0"

north

APPROVALS

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LICENSED ARCHITECT
JAMES R. MORRELL
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REN. 05-31-27
STATE OF CALIFORNIA

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4320 West Mineral King Avenue
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(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 200 - MECHANICAL SECTIONS

M2.06

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
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25026
Fresno, CA 93727
FAX (559) 431-1362

15 September 2026 9:35 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M2.06 - Building 200 - Mechanical Sections.dwg ryanf

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

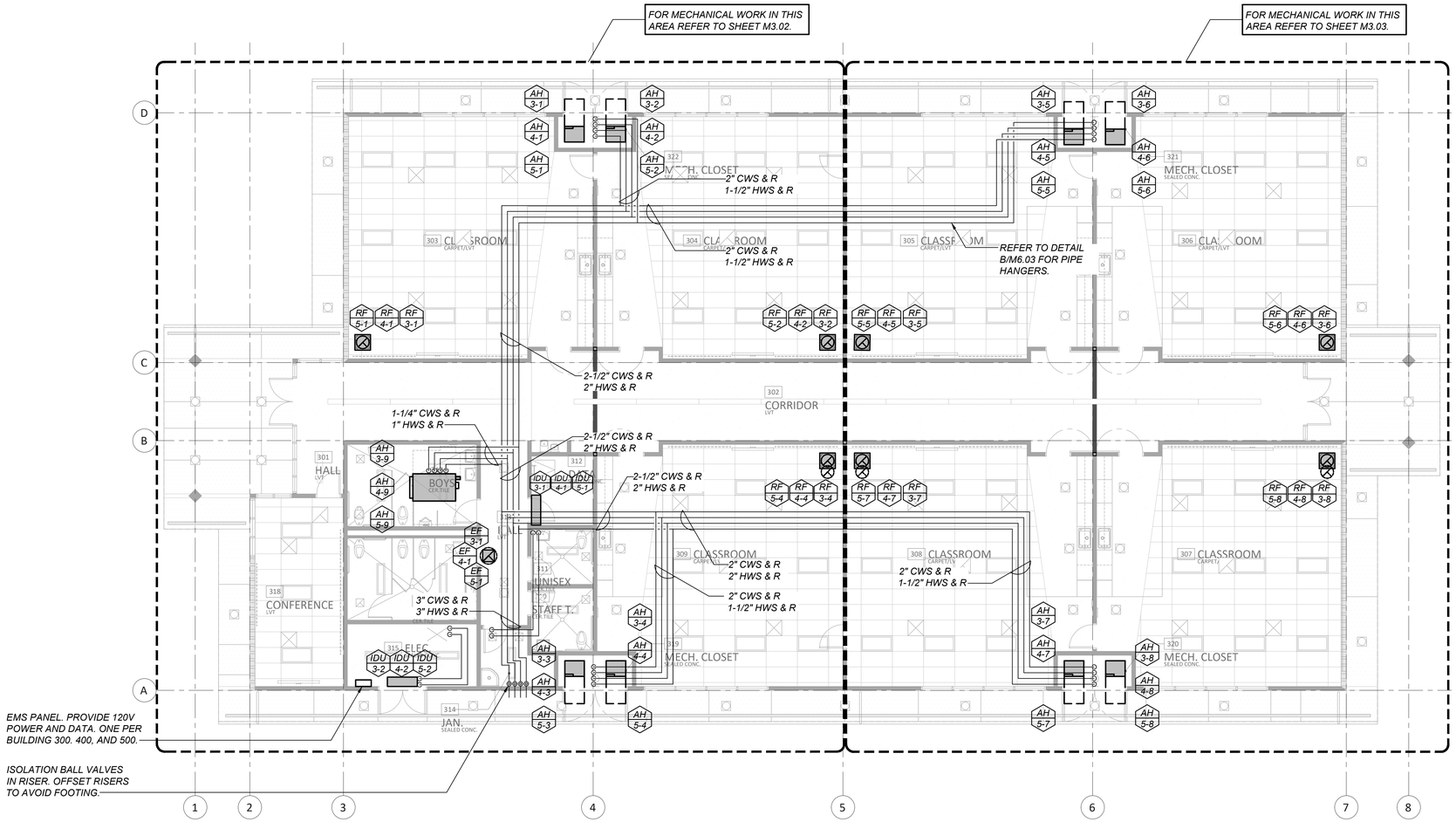
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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DATE: 09/22/26

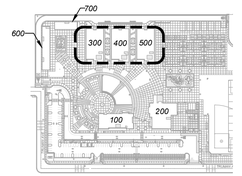
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

SHEET NOTES:

1. *REFER TO DETAIL J/M6.02 & K/M6.02 FOR COIL PIPING DIAGRAMS AND REFER TO SCHEDULES FOR VALVE TYPE.*





MECHANICAL KEY PLAN
SCALE: NONE

BUILDING 300, 400, 500 - OVERALL MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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4320 West Mineral King Avenue
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(559) 627.1926 Fax

REGISTERED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

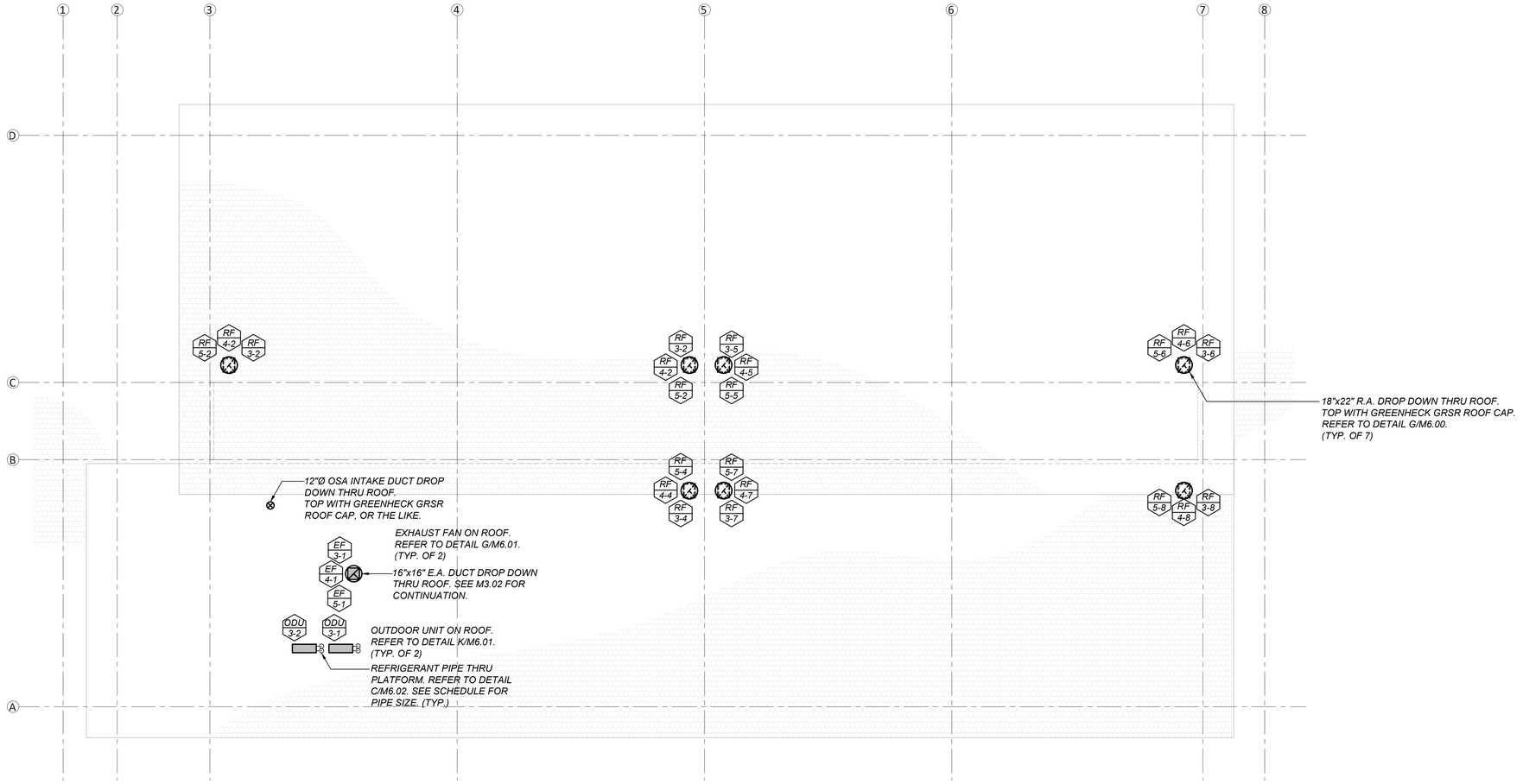
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

TITLE
BUILDING 300, 400, 500 - OVERALL MECHANICAL PLAN

M3.00

PROJECT 24042

15 September 2026 9:35 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M3.00 - Building 300, 400, & 500 - Overall Mechanical Plan.dwg ryanf



BUILDING 300, 400, 500 - MECHANICAL ROOF PLAN

SCALE: 1/8" = 1'-0"

north

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

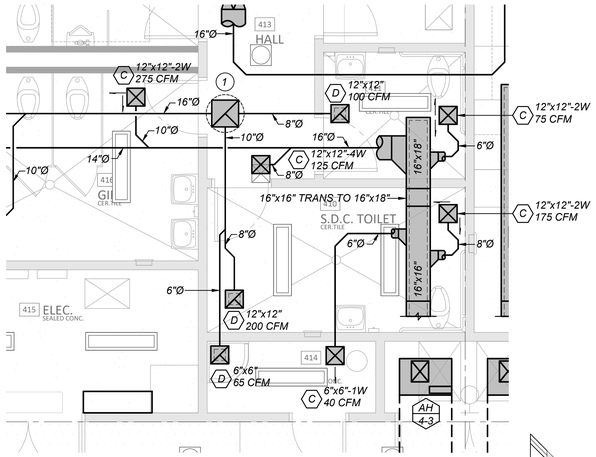
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1342

TITLE
BUILDING 300, 400, 500 - MECHANICAL ROOF PLAN

M3.01

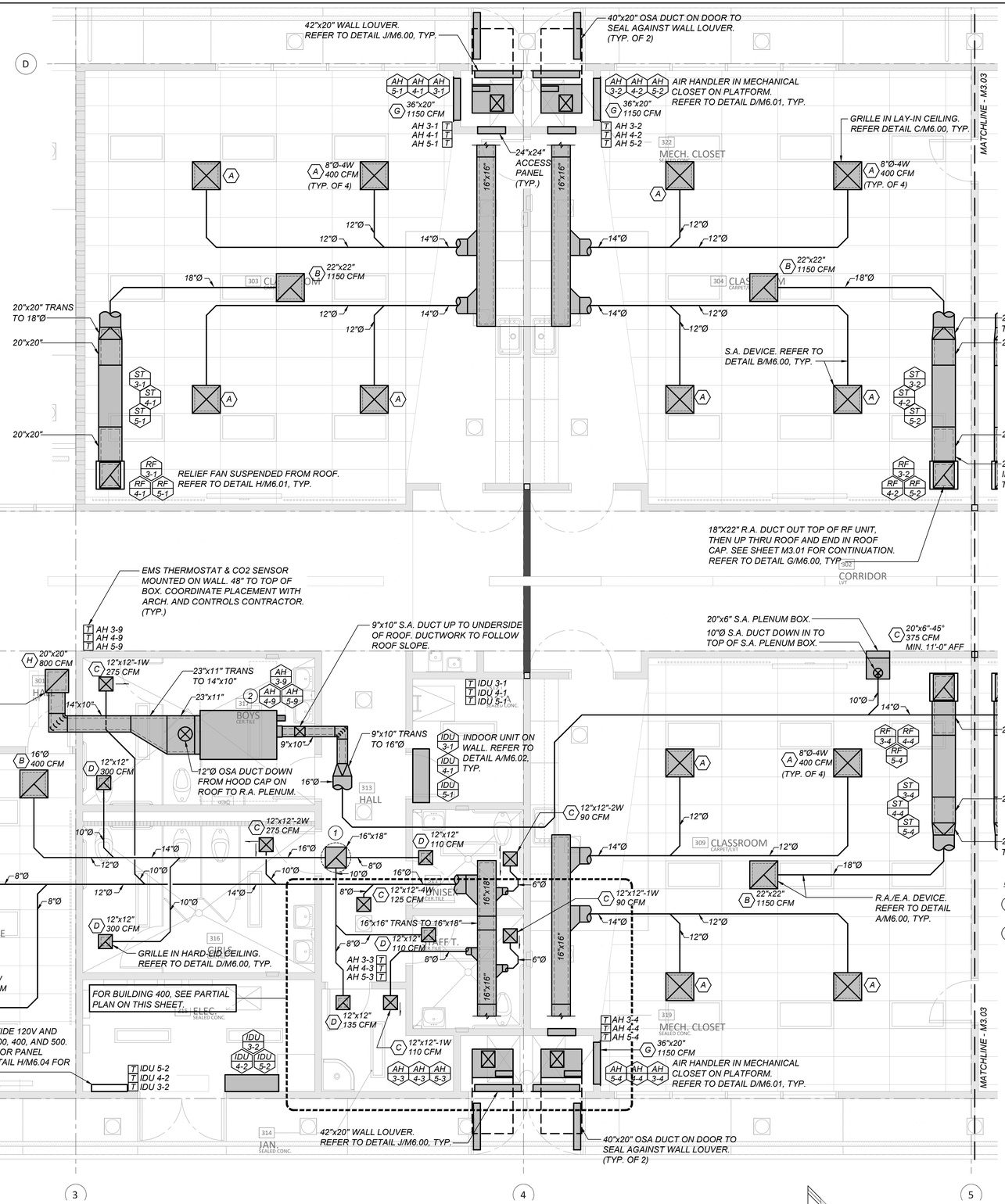
PROJECT 24042

15 September 2026 9:35 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M3.01 - Building 300, 400, & 500 - Mechanical Roof Plan.dwg cyanf



BUILDING 400 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"



BUILDING 300, 400, 500 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

SHEET NOTES:

1. REFER TO DETAIL E/M6.00 FOR DUCT HANGING.
2. REFER TO DETAIL H/M6.00 FOR DUCTS THRU WALLS.
3. REFER TO DETAIL K/M6.00 FOR PRESSURE SENSOR TUBE MOUNTING.
4. REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.
5. REFER TO DETAIL C/M6.01 FOR AIR HANDLER ON PLATFORM SECTION.
6. REFER TO DETAIL J/M6.02 FOR 2 WAY COIL PIPING.
7. ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.

KEYNOTES:

1. 16"x16" E.A. DUCT DROP DOWN THRU ROOF, THEN TRANS TO 16"x18" IN THE VERTICAL.
2. AIR HANDLER SUSPENDED FROM ROOF STRUCTURE. REFER TO DETAIL E/M6.01.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CARLON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

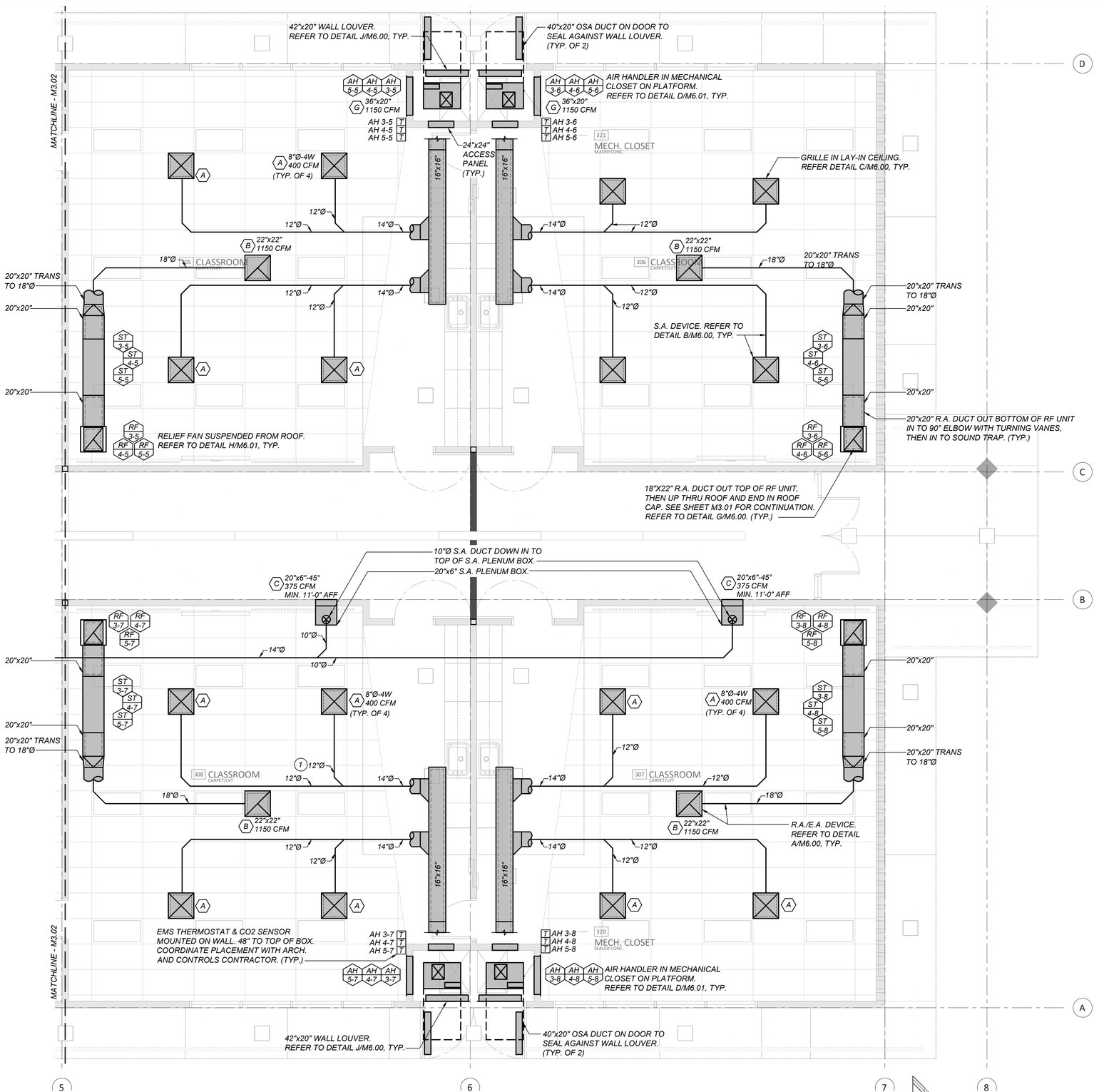
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1342

TITLE
BUILDING 300, 400, 500 - PARTIAL MECHANICAL PLAN

M3.02

PROJECT 24042

15 September 2026 9:36 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M3.02 - M3.03 - Buildings 300, 400, & 500 - Partial Mechanical Plan.dwg ryanf



BUILDING 300, 400, 500 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

SHEET NOTES:

1. REFER TO DETAIL E/M6.00 FOR DUCT HANGING.
2. REFER TO DETAIL H/M6.00 FOR DUCTS THRU WALLS.
3. REFER TO DETAIL K/M6.00 FOR PRESSURE SENSOR TUBE MOUNTING.
4. REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.
5. REFER TO DETAIL C/M6.01 FOR AIR HANDLER ON PLATFORM SECTION.
6. REFER TO DETAIL J/M6.02 FOR 2 WAY COIL PIPING.
7. REFER TO DETAIL K/M6.02 FOR 3 WAY COIL PIPING.
8. ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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LICENSED ARCHITECT JAMES R. MORRELL No. 24128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
BUILDING 300, 400, 500 - PARTIAL MECHANICAL PLAN

M3.03

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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APPROVALS

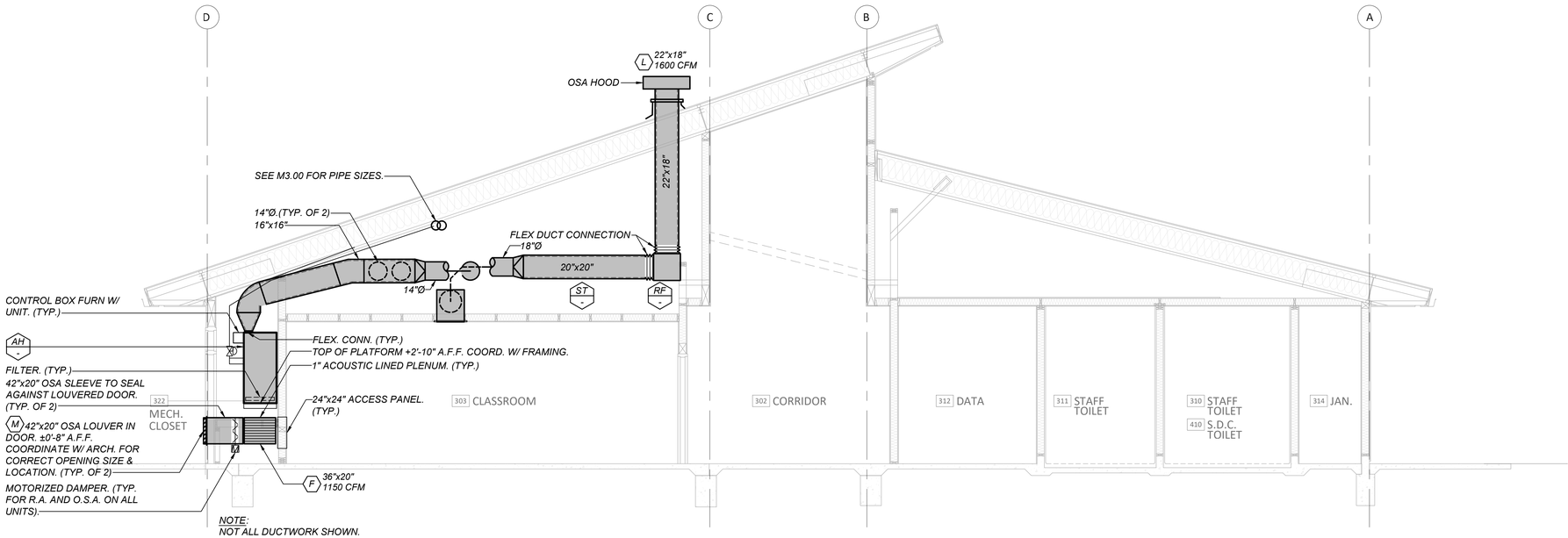
FILE # 10-126 APPLICATION # 02-123774

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REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA



NOTE:
NOT ALL DUCTWORK SHOWN.

BUILDING 300, 400, 500 - MECHANICAL SECTIONS

SCALE: 1/4" = 1'-0"

north

REVISIONS

MANGINI ARCHITECTURE INGENUITY
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(559) 627-1926 Fax

TITLE
BUILDING 300, 400, 500 - MECHANICAL SECTIONS

M3.04

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

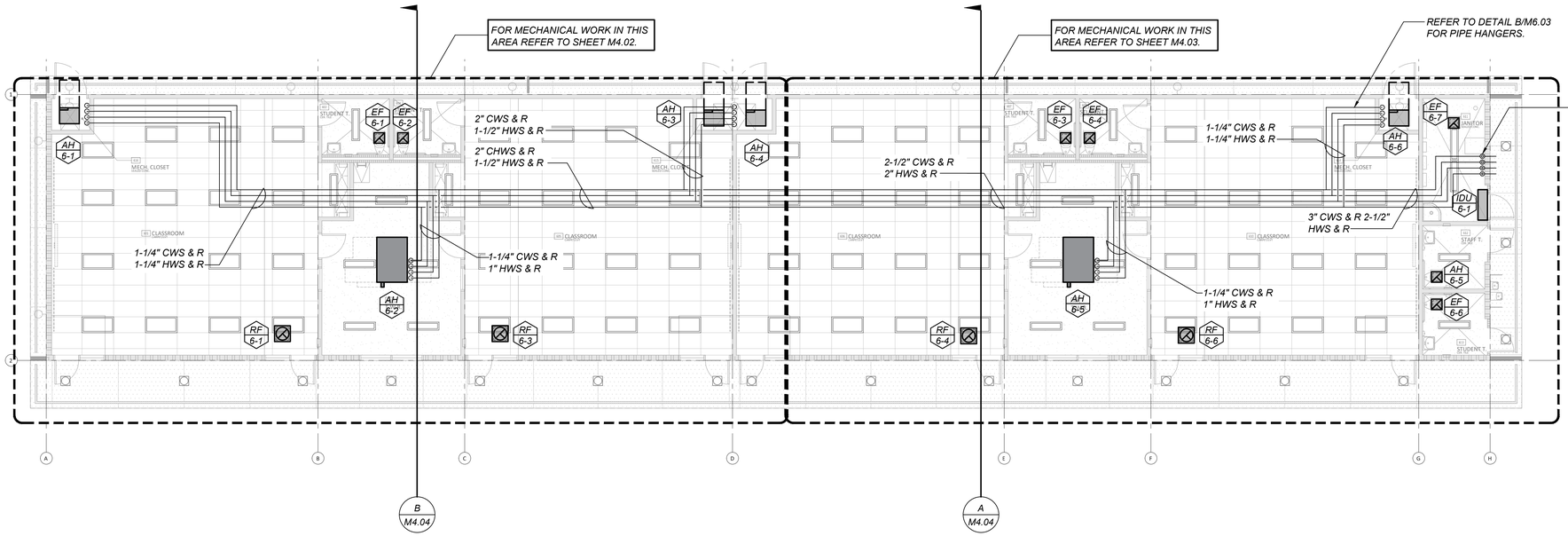
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

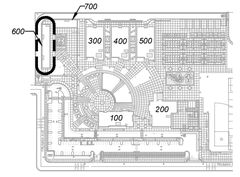
LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

SHEET NOTES:

1. *REFER TO DETAIL J/M6.02 & K/M6.02 FOR COIL PIPING DIAGRAMS AND REFER TO SCHEDULES FOR VALVE TYPE.*





MECHANICAL KEY PLAN
SCALE: NONE

north

BUILDING 600 - OVERALL MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

north

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

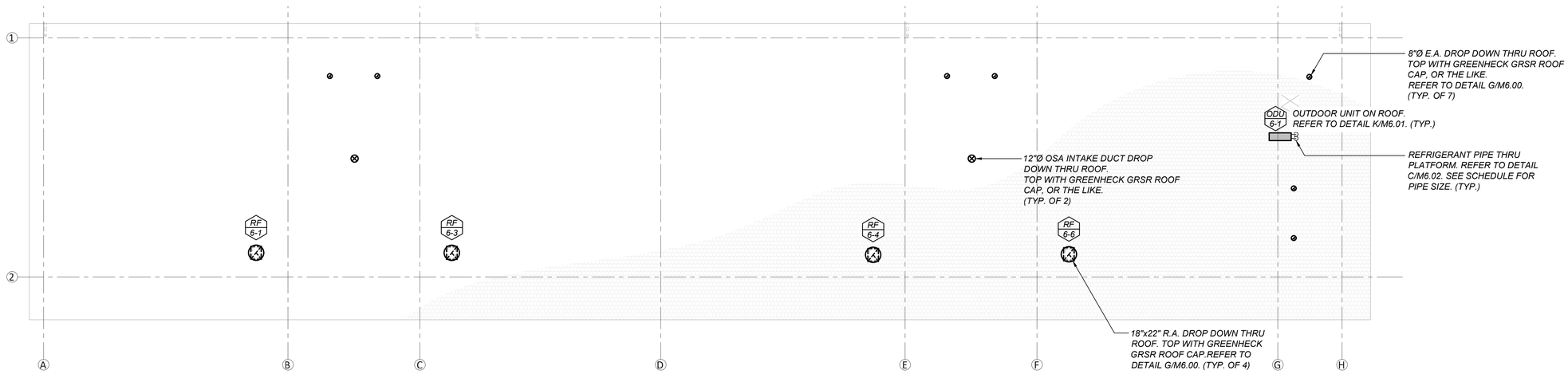
REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 600 - OVERALL MECHANICAL PLAN

M4.00

PROJECT 24042



BUILDING 600 - MECHANICAL ROOF PLAN

SCALE: 1/8" = 1'-0"

north

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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DATE: 09/22/26

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JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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SANGER, FRESNO COUNTY, CA

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STATE OF CALIFORNIA

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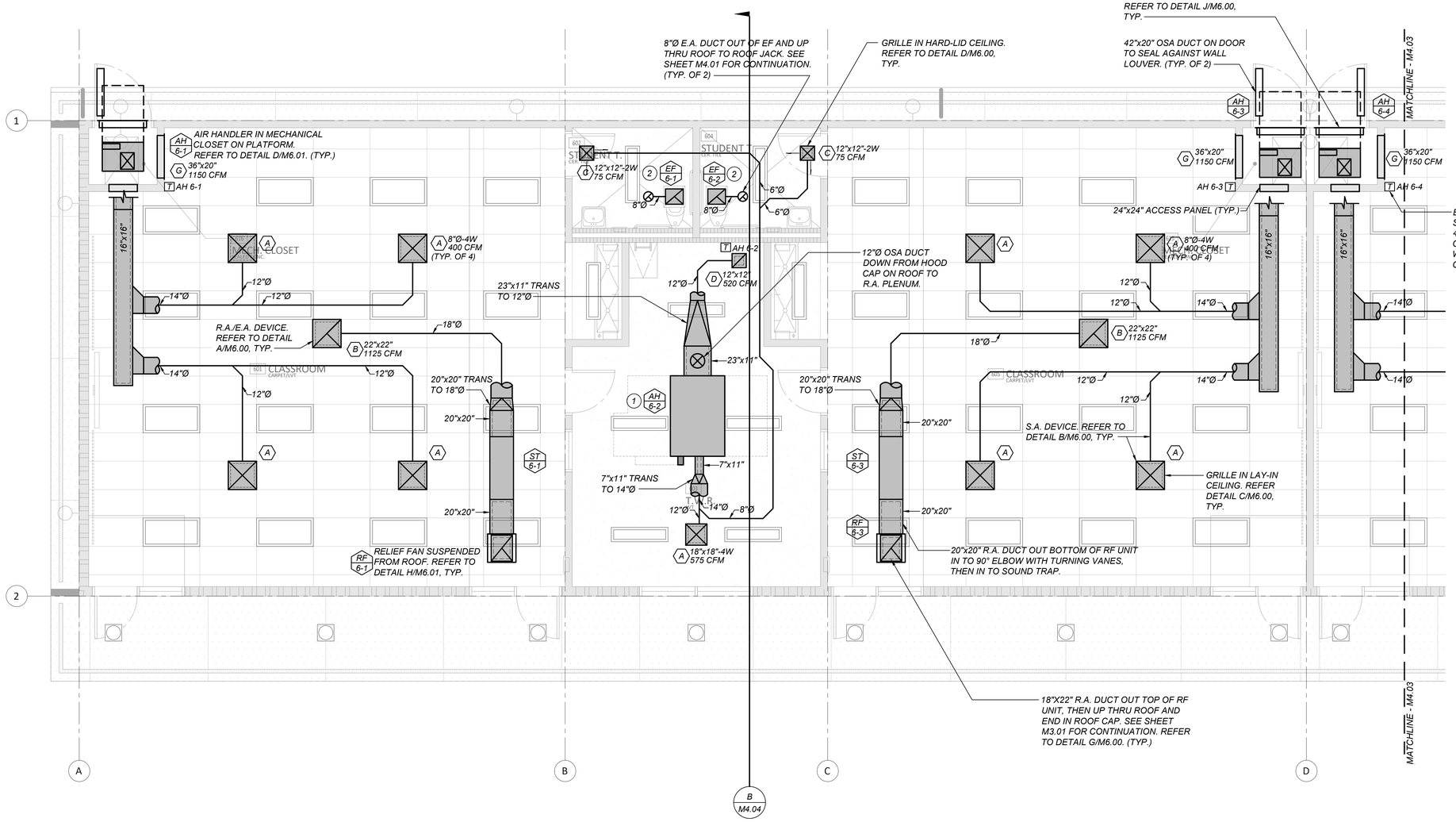
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4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 600 - MECHANICAL ROOF PLAN

M4.01

PROJECT 24042

15 September 2026 9:36 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M4.01 - Building 600 - Mechanical Roof Plan.dwg ryanf



SHEET NOTES:

1. *REFER TO DETAIL E/M6.00 FOR DUCT HANGING.*
2. *REFER TO DETAIL H/M6.00 FOR DUCTS THRU WALLS.*
3. *REFER TO DETAIL K/M6.00 FOR PRESSURE SENSOR TUBE MOUNTING.*
4. *REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.*
5. *REFER TO DETAIL C/M6.01 FOR AIR HANDLER ON PLATFORM SECTION.*
6. *REFER TO DETAIL J/M6.02 FOR 2 WAY COIL PIPING.*
7. *REFER TO DETAIL K/M6.02 FOR 3 WAY COIL PIPING.*
8. *ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.*

KEYNOTES:

(1) *AIR HANDLER SUSPENDED FROM ROOF STRUCTURE. REFER TO DETAIL E/M6.01.*

(2) *EXHAUST FAN IN CEILING. REFER TO DETAIL J/M6.01, TYP.*

BUILDING 600 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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4320 West Mineral King Avenue
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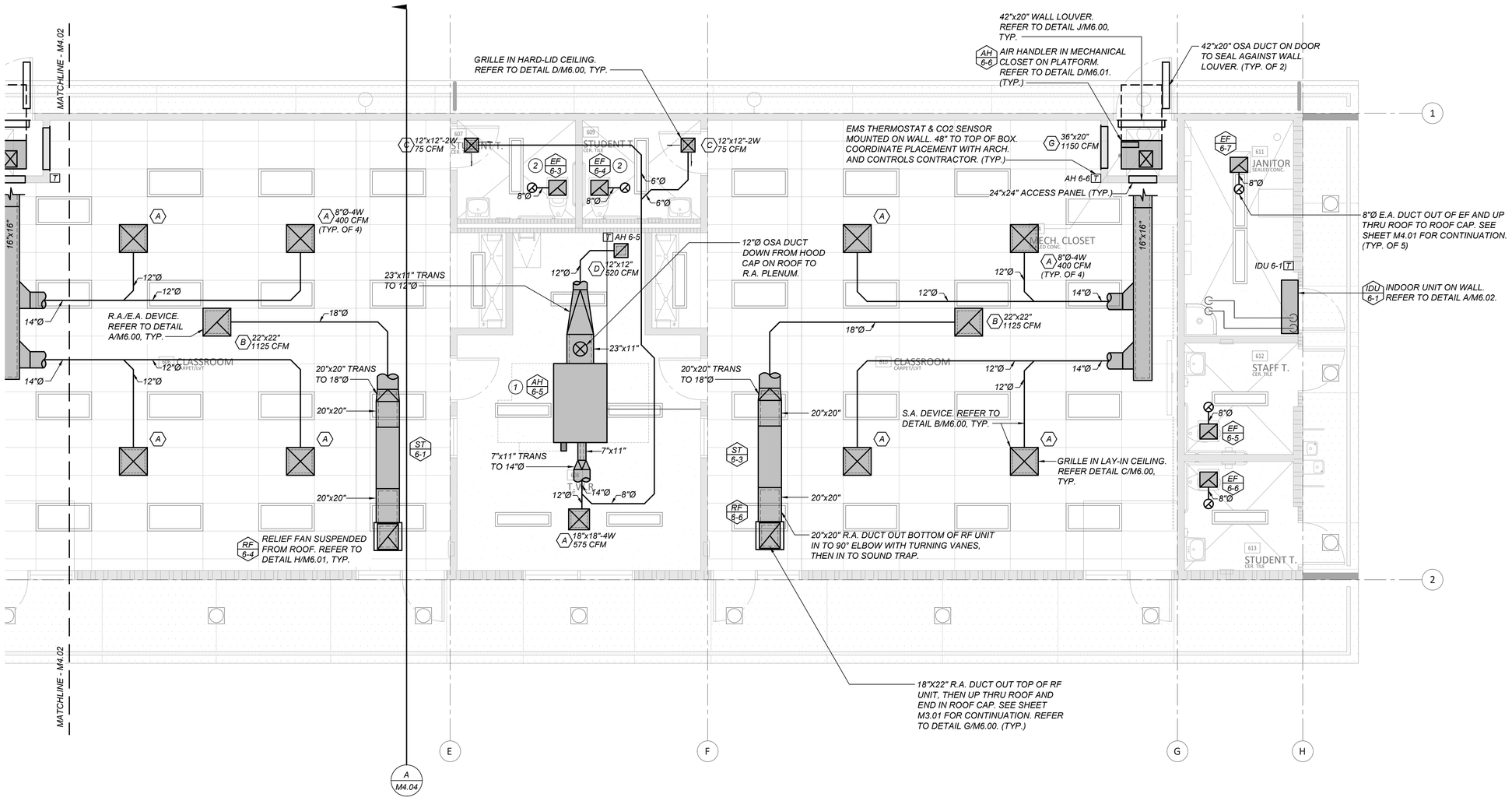
TITLE
BUILDING 600 - PARTIAL MECHANICAL PLAN

M4.02

PROJECT 24042

BRYAN W. CARLSON No. M34846 Exp. 6-30-28 REGISTERED PROFESSIONAL ENGINEER MECHANICAL STATE OF CALIFORNIA

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SHEET NOTES:

1. REFER TO DETAIL E/M6.00 FOR DUCT HANGING.
2. REFER TO DETAIL H/M6.00 FOR DUCTS THRU WALLS.
3. REFER TO DETAIL K/M6.00 FOR PRESSURE SENSOR TUBE MOUNTING.
4. REFER TO DETAIL L/M6.00 FOR ELECTRIC REMOTE REGULATORS.
5. REFER TO DETAIL C/M6.01 FOR AIR HANDLER ON PLATFORM SECTION.
6. REFER TO DETAIL J/M6.02 FOR 2 WAY COIL PIPING.
7. REFER TO DETAIL K/M6.02 FOR 3 WAY COIL PIPING.
8. ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.

KEYNOTES:

(1) AIR HANDLER SUSPENDED FROM ROOF STRUCTURE. REFER TO DETAIL E/M6.01.

(2) EXHAUST FAN IN CEILING. REFER TO DETAIL J/M6.01, TYP.

BUILDING 600 - PARTIAL MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DATE: 09/22/26

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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
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REGISTERED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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4910 E. Clinton Way, Suite 101
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FAX (559) 431-1362

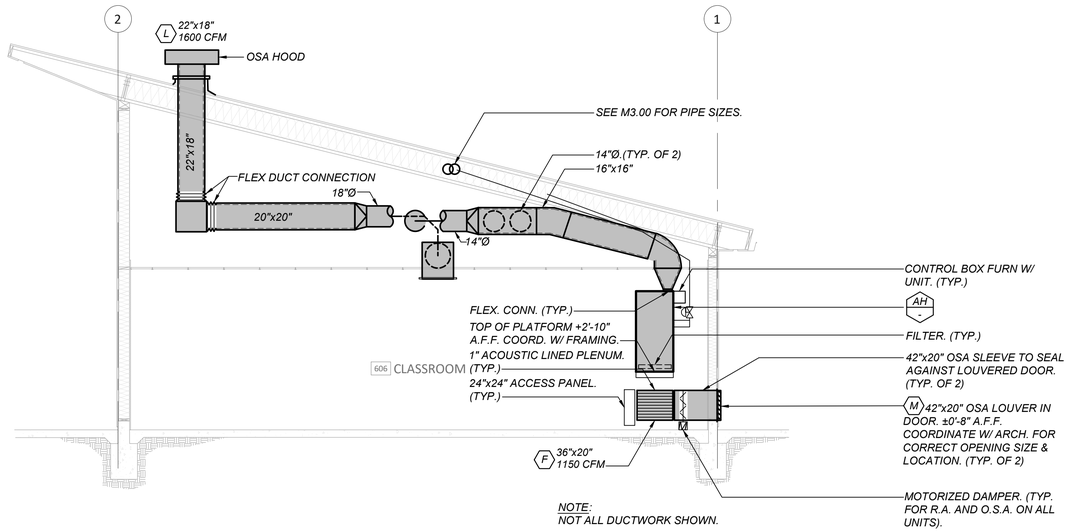
TITLE
BUILDING 600 - PARTIAL MECHANICAL PLAN

M4.03

PROJECT 24042

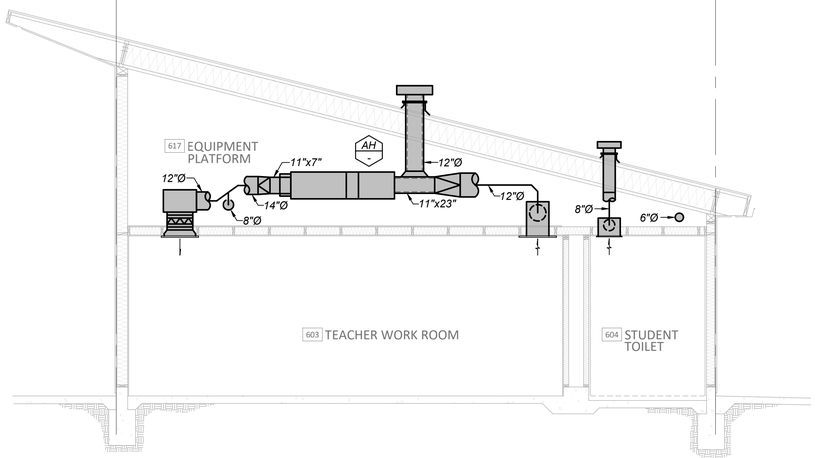
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P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M4.02 - M4.03 - Building 600 - Partial Mechanical Plan.dwg Sep 15 2026 9:36am



A BUILDING 600 SECTION

SCALE: 1/4" = 1'-0"



B BUILDING 600 SECTION

SCALE: 1/4" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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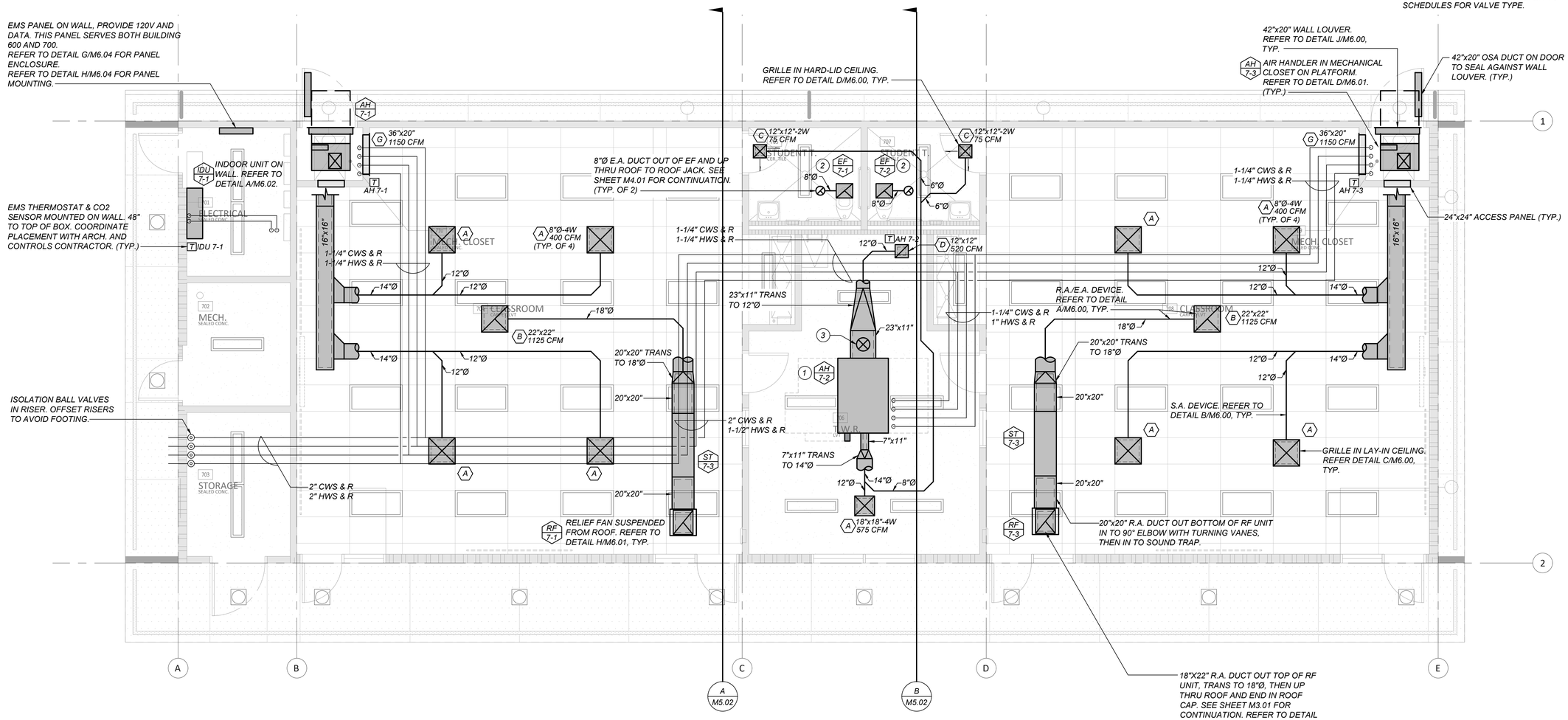
TITLE
BUILDING 600
- MECHANICAL
SECTIONS

M4.04

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



SHEET NOTES:

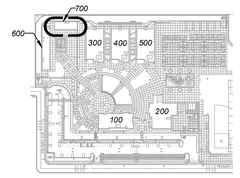
1. *REFER TO DETAIL J/M6.02 & K/M6.02 FOR COIL PIPING DIAGRAMS AND REFER TO SCHEDULES FOR VALVE TYPE.*

SHEET NOTES:

1. *REFER TO DETAIL E/M6.00 FOR DUCT HANGING.*
2. *REFER TO DETAIL H/M6.00 FOR DUCTS THRU WALLS.*
3. *REFER TO DETAIL K/M6.00 FOR PRESSURE SENSOR TUBE MOUNTING.*
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5. *REFER TO DETAIL C/M6.01 FOR AIR HANDLER ON PLATFORM SECTION.*
6. *REFER TO DETAIL J/M6.02 FOR 2 WAY COIL PIPINIG.*
7. *REFER TO DETAIL K/M6.02 FOR 3 WAY COIL PIPING.*
8. *ALL DUCT BRANCHES TO HAVE A VOLUME CONTROL DAMPER.*

KEYNOTES:

1. *AIR HANDLER SUSPENDED FROM ROOF STRUCTURE. REFER TO DETAIL E/M6.01.*
2. *EXHAUST FAN IN CEILING. REFER TO DETAIL J/M6.01, TYP.*
3. *12"Ø OSA DUCT DOWN FROM HOOD CAP ON ROOF TO R.A. PLENUM.*



MECHANICAL KEY PLAN

SCALE: NONE

north

BUILDING 700 - ENLARGED MECHANICAL PLAN

SCALE: 1/4" = 1'-0"

north

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 700 - ENLARGED MECHANICAL PLAN

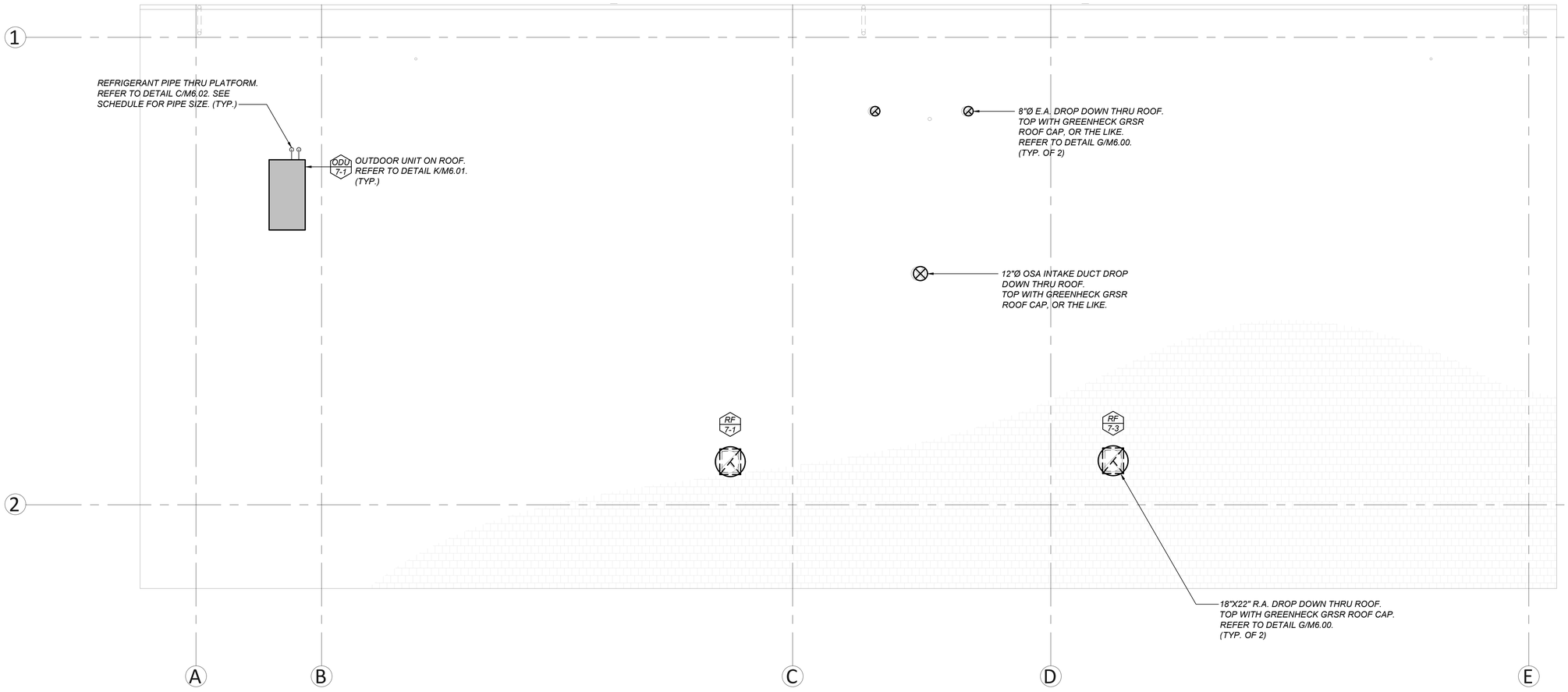
M5.00

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

15 September 2026 9:36 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M5.00 - Building 700 - Enlarged Mechanical Plan.dwg ryanf



BUILDING 700 - MECHANICAL ROOF PLAN

SCALE: 1/4" = 1'-0"

north

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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No. C-31128
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STATE OF CALIFORNIA

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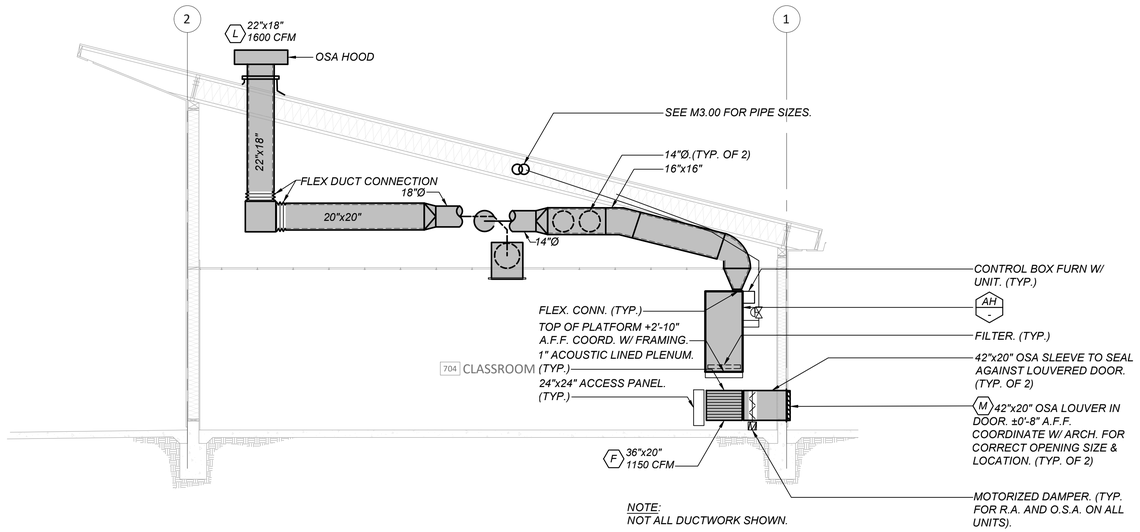
TITLE
BUILDING 700 - MECHANICAL ROOF PLAN

M5.01

PROJECT 24042

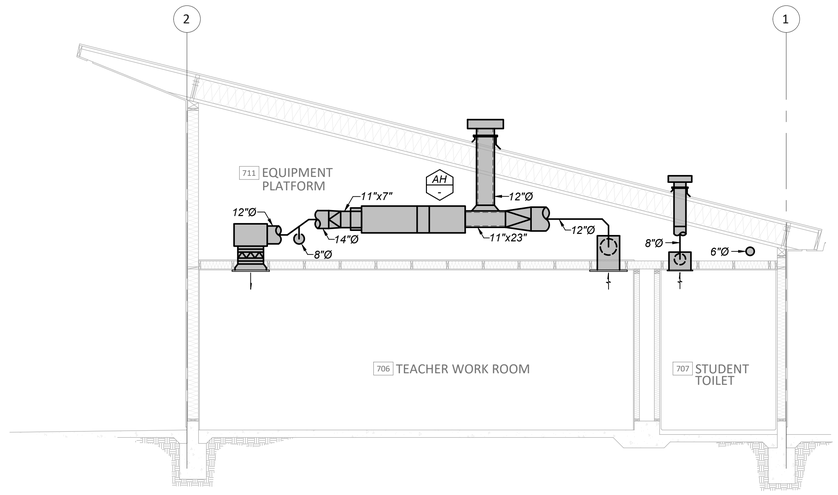
REGISTERED PROFESSIONAL ENGINEER
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No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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25026
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A BUILDING 700 SECTION

SCALE: 1/4" = 1'-0"



B BUILDING 700 SECTION

SCALE: 1/4" = 1'-0"

APPROVALS

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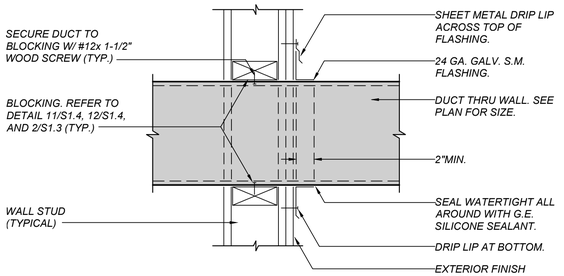
TITLE
BUILDING 700 - MECHANICAL SECTIONS

M5.02

PROJECT 24042

CERTIFIED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

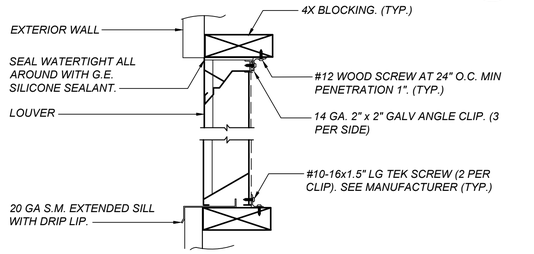
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25026
Fresno, CA 93727
FAX (559) 431-1362



DUCT THRU WALL DETAIL

H M6.00

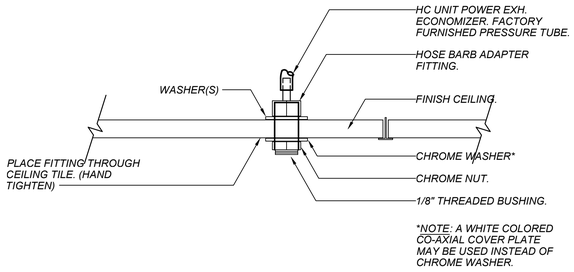
SCALE: NONE MD032



LOUVER MOUNTING (WOOD FRAMED) DETAIL

J M6.00

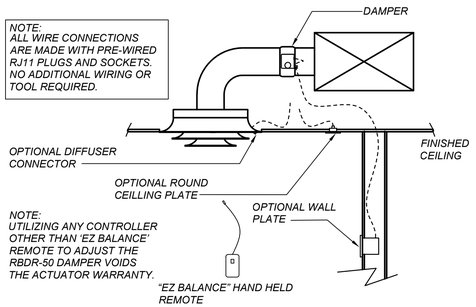
SCALE: NONE MM183



PRESSURE SENSOR TUBE MOUNTING DETAIL

K M6.00

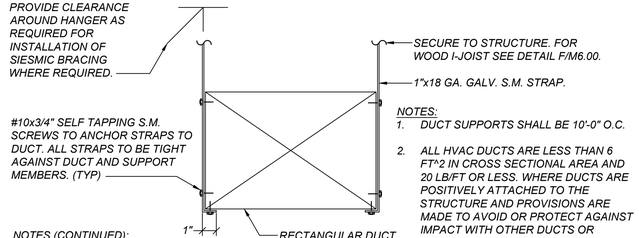
SCALE: NONE MC117



ELECTRONIC REMOTE REGULATOR DETAIL

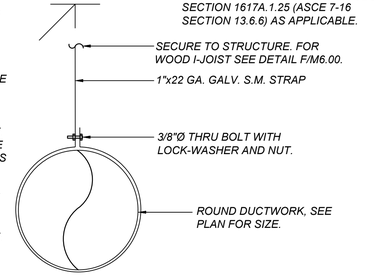
L M6.00

SCALE: NONE



NOTES:
1. DUCT SUPPORTS SHALL BE 10'-0" O.C.
2. ALL HVAC DUCTS ARE LESS THAN 6 FT^2 IN CROSS SECTIONAL AREA AND 20 LB/FT OR LESS. WHERE DUCTS ARE POSITIVELY ATTACHED TO THE STRUCTURE AND PROVISIONS ARE MADE TO AVOID OR PROTECT AGAINST IMPACT WITH OTHER DUCTS OR MECHANICAL COMPONENTS, SEISMIC DESIGN IN NOT REQUIRED PER CBC SECTION 1617A.1.25 (ASCE 7-16 SECTION 13.6.6) AS APPLICABLE.

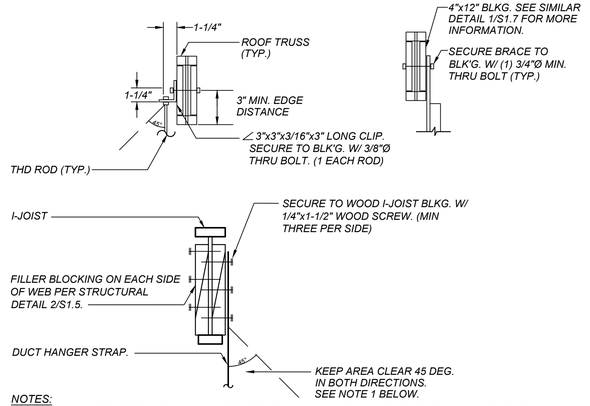
NOTES (CONTINUED):
3. DUCT SUPPORTS SHALL BE 10'-0" O.C.
4. ALL DUCTS ARE 33"Ø OR SMALLER (6 FT2 CROSS SECTION) PER SMACNA - HVAC DUCT CONSTRUCTION STANDARDS, FIGURE 5-5.
5. ALL ROUND DUCTWORK MEETING THE SEISMIC DESIGN EXEMPTION REQUIREMENTS OF 2022 CBC SECTION 1617A.1.25 (ASCE 7-16 SECTION 13.6.6) SHALL NOT REQUIRE SEISMIC RESTRAINT. REFER TO NOTE 6 WHERE EXEMPTION REQUIREMENTS ARE NOT MET.
6. WHERE DUCTWORK DOES NOT MEET THE SIESMIC DESIGN EXCEMPTIONS OF 2022 CBC SECTION 1617A.1.25 (ASCE 7-16 SECTION 13.6.6), PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH ASCE 7-16 SECTION 13.3 AND DSA IR 16-13.



DUCT HANGING DETAIL

E M6.00

SCALE: NONE



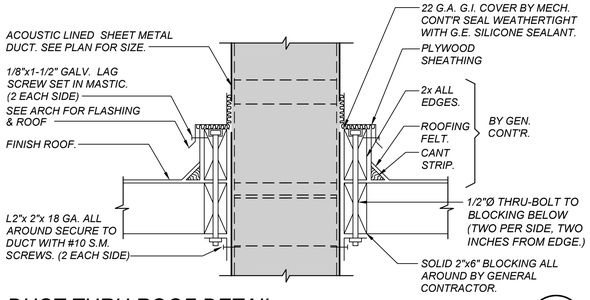
NOTES:
1. IF UNABLE TO MEET THE CLEARANCE REQUIREMENT, PROVIDE SEISMIC SWAY BRACING FOR DUCTWORK IN ACCORDANCE WITH CBC SECTION 1617.12.15A (ASCE 7-16 SECTION 13.6.6).
2. SEE TABLE IN DETAIL D/M6.05 FOR BRACE SIZES.
3. DO NOT NAIL TO SIDE OF I-JOIST.
4. MAXIMUM STRAP LOAD OF 50 LBS. MAXIMUM SPACING 10' O.C.

UPPER ATTACHMENT DETAIL(S)

F M6.00

SCALE: NONE MD066

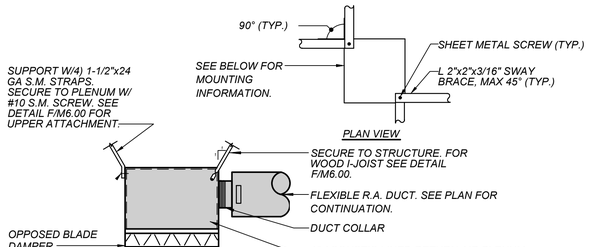
NOTES:
1. FOR STRUCTURAL DETAILS, SEE 4/S1.5.

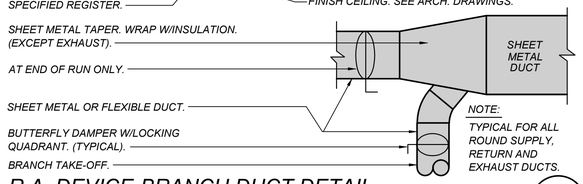


DUCT THRU ROOF DETAIL

G M6.00

SCALE: NONE MD039

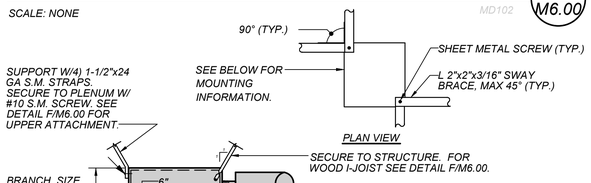


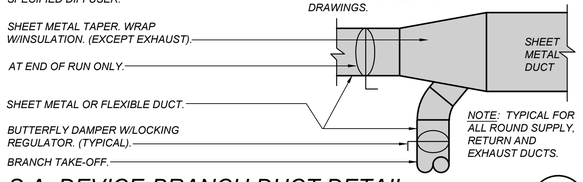


R.A. DEVICE-BRANCH DUCT DETAIL

A M6.00

SCALE: NONE MD102

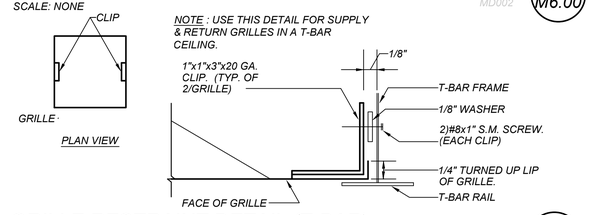




S.A. DEVICE-BRANCH DUCT DETAIL

B M6.00

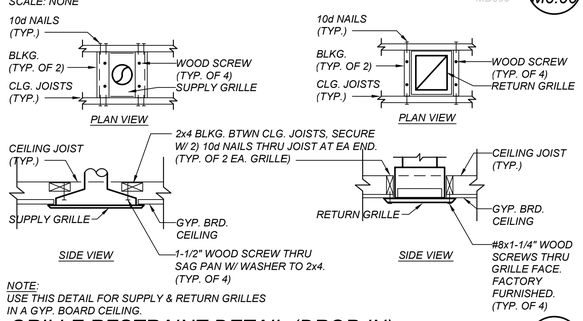
SCALE: NONE MD002



GRILLE RESTRAINT DETAIL (T-BAR)

C M6.00

SCALE: NONE MD090



NOTE:
USE THIS DETAIL FOR SUPPLY & RETURN GRILLES IN A GYP. BOARD CEILING.

GRILLE RESTRAINT DETAIL (DROP-IN)

D M6.00

SCALE: NONE MD107

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
MECHANICAL DETAILS

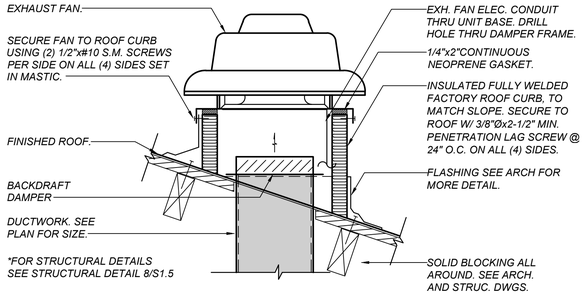
M6.00

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

15 September 2026 9:37 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M6.00 - Mechanical Details.dwg ryanf

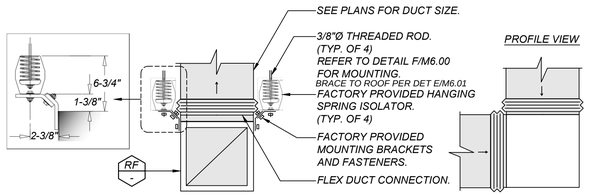


EXHAUST FAN ON SLOPED ROOF MOUNTING DETAIL

G / M6.01

SCALE: NONE

MM531

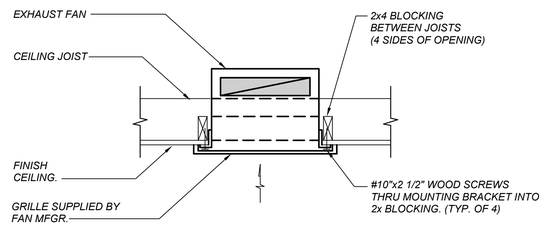


RELIEF FAN MOUNTING DETAIL

H / M6.01

SCALE: NONE

MM515

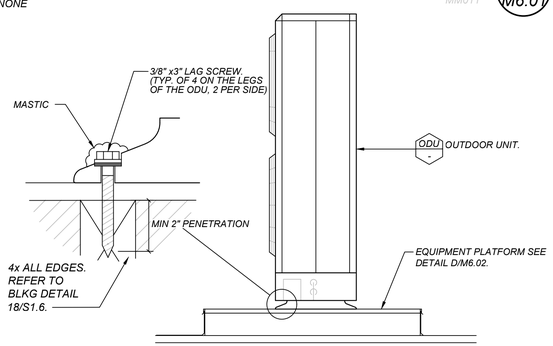


CEILING EXHAUST FAN MOUNTING DETAIL

J / M6.01

SCALE: NONE

MM011

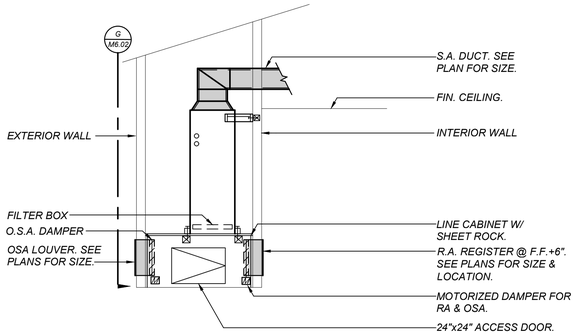


ODU AND CONDENSING UNIT MOUNTING DETAIL

K / M6.01

SCALE: NONE

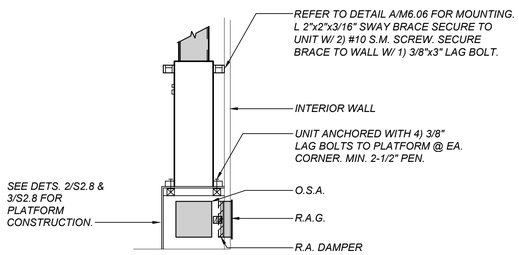
MM064



AIR HANDLER SECTION

C / M6.01

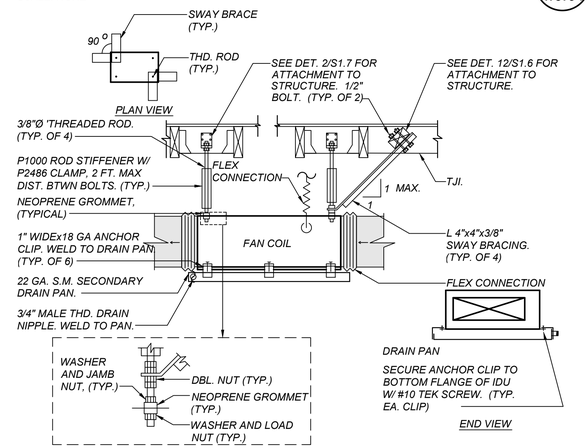
SCALE: NONE



AIR HANDLER MOUNTING DETAIL

D / M6.01

SCALE: NONE

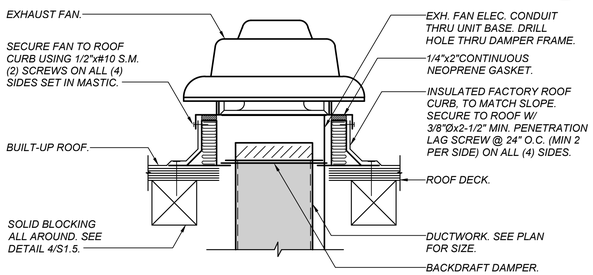


SUSPENDED AIR HANDLER MOUNTING DETAIL

E / M6.01

SCALE: NONE

MM105

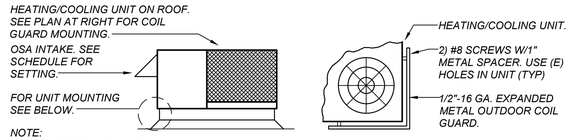


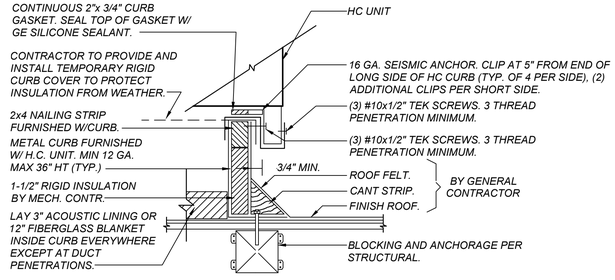
EXHAUST FAN ON FLAT ROOF MOUNTING DETAIL

F / M6.01

SCALE: NONE

MM120



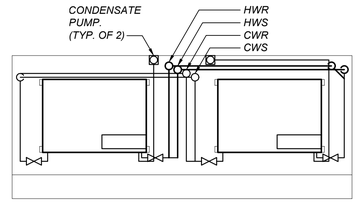


HP, MUA, & AH UNIT ROOF MOUNTING DETAIL

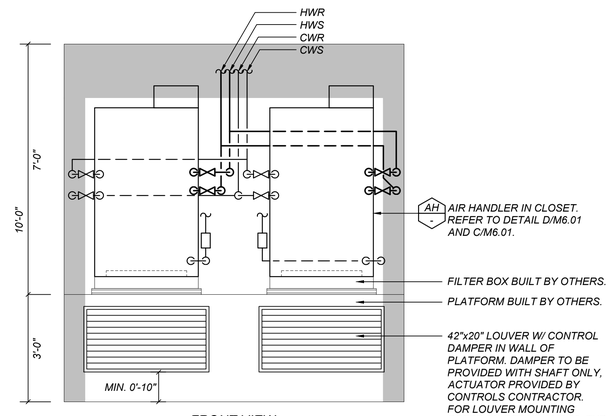
A / M6.01

SCALE: NONE

MM117



TOP VIEW



FRONT VIEW

AIR HANDLER IN MECHANICAL CLOSET SECTION

B / M6.01

SCALE: 1/2" = 1' 0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

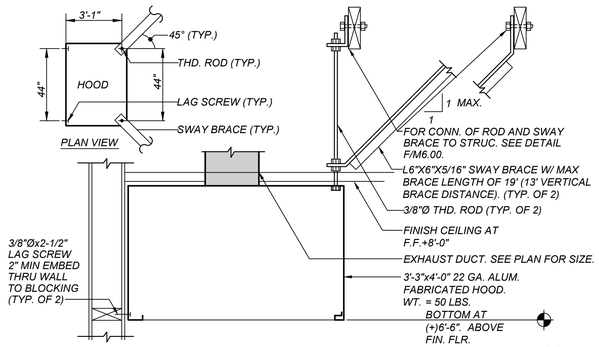
TITLE
MECHANICAL DETAILS

M6.01

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

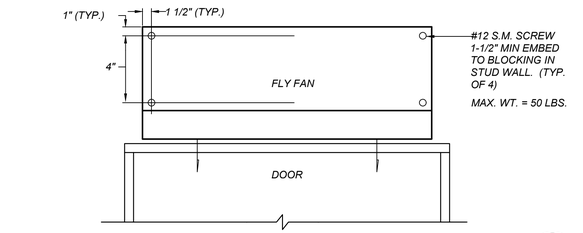


DISHWASHER HOOD MOUNTING DETAIL

G / M6.02

SCALE: NONE

MM700

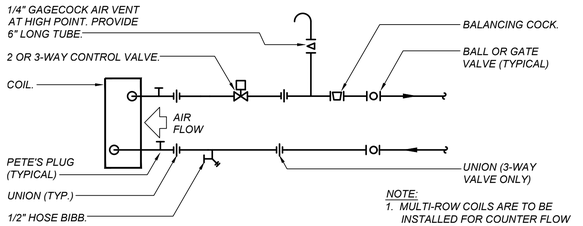


FLY FAN MOUNTING DETAIL

H / M6.02

SCALE: NONE

MM044



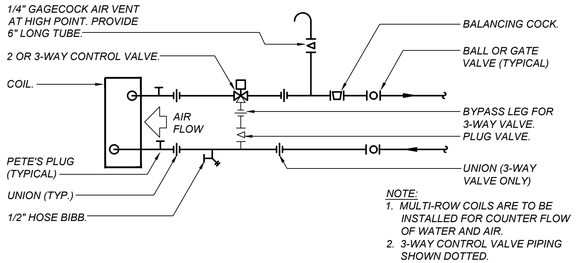
NOTE:
1. MULTI-ROW COILS ARE TO BE INSTALLED FOR COUNTER FLOW OF WATER AND AIR.
2. 3-WAY CONTROL VALVE PIPING SHOWN DOTTED.

2 WAY COIL PIPING DETAIL

J / M6.02

SCALE: NONE

MP001



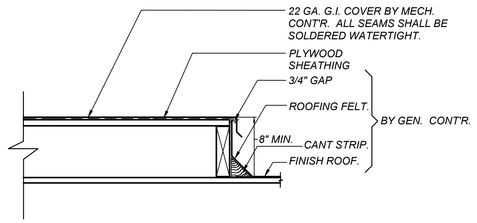
NOTE:
1. MULTI-ROW COILS ARE TO BE INSTALLED FOR COUNTER FLOW OF WATER AND AIR.
2. 3-WAY CONTROL VALVE PIPING SHOWN DOTTED.

3 WAY COIL PIPING DETAIL

K / M6.02

SCALE: NONE

MP005



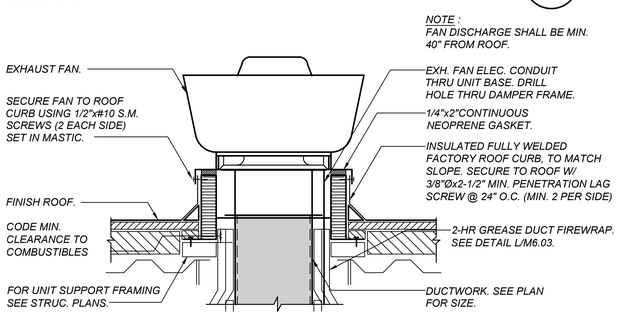
NOTES:
1. FOR STRUCTURAL DETAILS, SEE 18/S1.6.
2. PLATFORM MAXIMUM HEIGHT OF 12".

ROOF PLATFORM DETAIL

D / M6.02

SCALE: NONE

MM073

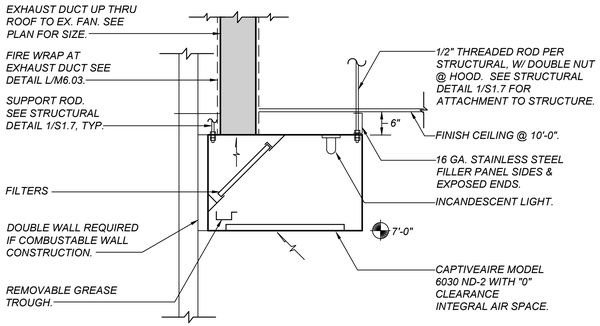


KITCHEN EXHAUST FAN MOUNTING DETAIL

E / M6.02

SCALE: NONE

MM504

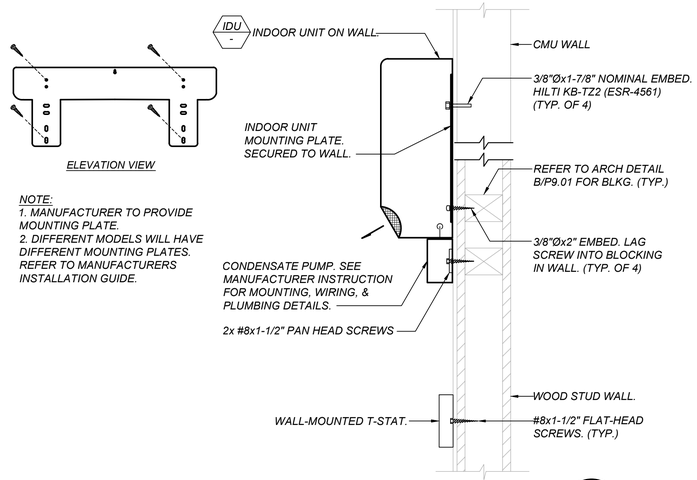


KITCHEN HOOD MOUNTING DETAIL

F / M6.02

SCALE: NONE

MM701

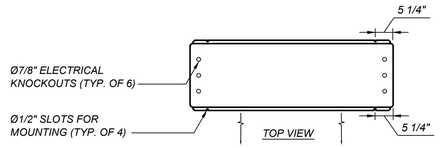


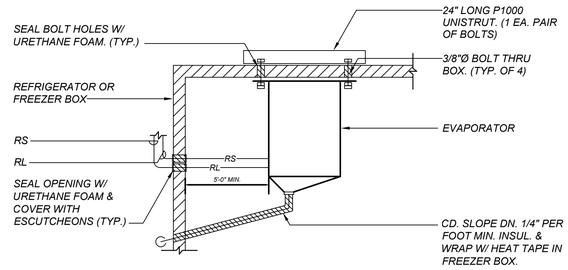
NOTE:
1. MANUFACTURER TO PROVIDE MOUNTING PLATE.
2. DIFFERENT MODELS WILL HAVE DIFFERENT MOUNTING PLATES. REFER TO MANUFACTURERS INSTALLATION GUIDE.

INDOOR UNIT WALL MOUNTING DETAIL

A / M6.02

SCALE: NONE

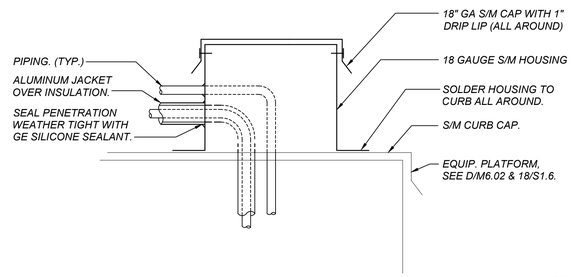




EVAPORATOR MOUNTING DETAIL

B / M6.02

SCALE: NONE



PIPE THRU PLATFORM DETAIL

C / M6.02

SCALE: NONE

MP198

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

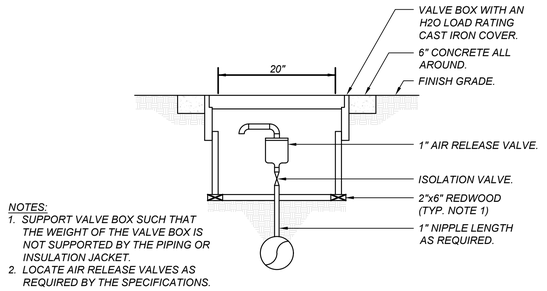
TITLE
MECHANICAL DETAILS

M6.02

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

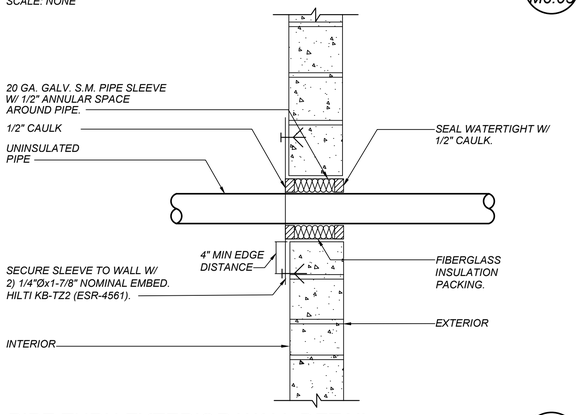


NOTES:
1. SUPPORT VALVE BOX SUCH THAT THE WEIGHT OF THE VALVE BOX IS NOT SUPPORTED BY THE PIPING OR INSULATION JACKET.
2. LOCATE AIR RELEASE VALVES AS REQUIRED BY THE SPECIFICATIONS.

BURIED AIR RELEASE VALVE DETAIL

H M6.03

SCALE: NONE

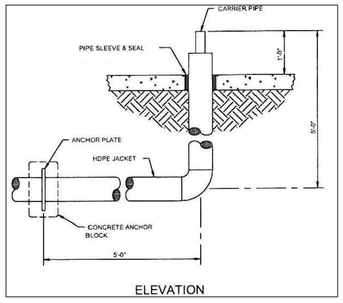


PIPE THRU EXTERIOR WALL DETAIL

J M6.03

SCALE: NONE

MP502



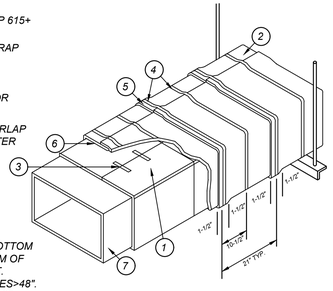
PIPE RISER DETAIL

K M6.03

SCALE: NONE

2-HOUR RATED FOR GREASE DUCT SYSTEMS.

1. FIRST LAYER 3M FIRE BARRIER DUCT WRAP 615+
2. SECOND LAYER 3M FIRE BARRIER DUCT WRAP 615+
3. 3/4" WIDE FILAMENT TAPE.
4. STEEL BANDING 1/2" WIDE MIN. TYPICAL FOR PERMANENT FASTENING.
5. LONGITUDINAL JOINT BUTT OR MIN. 3" OVERLAP ON INNER LAYER, MIN. 3" OVERLAP ON OUTER LAYER.
6. PERIMETER (LATERAL) JOINT BUTT OR MIN. 3" OVERLAP ON INNER LAYER, MIN. 3" OVERLAP ON OUTER LAYER.
7. METALLIC COMMERCIAL COOKING EXHAUST DUCT.



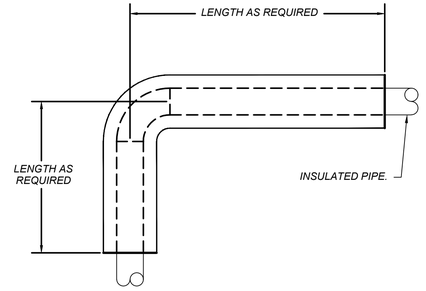
DUCTS > 24" WIDE REQUIRE PINNING ON THE BOTTOM SIDE OF HORIZONTAL DUCTS AND ON A MINIMUM OF ONE OF THE WIDER SIDES OF A VERTICAL DUCT. VERTICAL DUCTS REQUIRE PINNING ON ALL SIDES>48". FOR PINNING REQUIREMENTS SEE DETAIL A/M6.05.

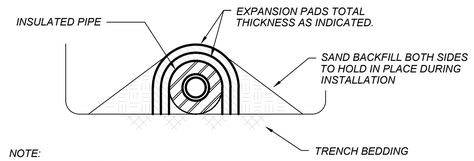
FIRE WRAP DETAIL

L M6.03

SCALE: NONE

MF015



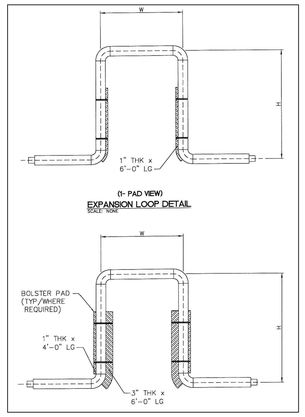


NOTE:
1. ACTUAL LENGTHS AND THICKNESSES OF EXPANSION PADS AS NEEDED TO ACCOMODATE THERMAL EXPANSION. REFER TO F/M6.03 & G/6.03.

EXTERNAL EXPANSION PAD DETAIL

E M6.03

SCALE: NONE



EXPANSION LOOP DETAIL

F M6.03

SCALE: NONE

INSTALLATION INSTRUCTIONS:

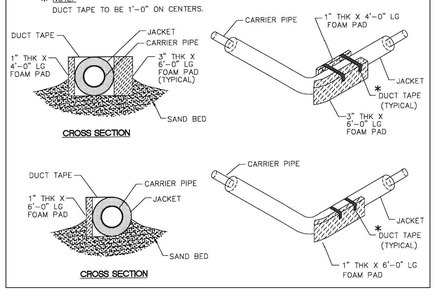
EXPANSION BOLSTERS PROCEDURE

1. EXPANSION BOLSTER MATERIAL IS SUPPLIED IN PADS: 6'-0" LONG x 3" THICK x HEIGHT SPECIFIED ON CHART. 4'-0" LONG x 1" THICK x HEIGHT SPECIFIED ON CHART.
2. PLACE BOLSTER PADS AGAINST JACKET AND CURVE AROUND ELBOW AS SHOWN. HOLD IN PLACE BY ATTACHING PADS TO JACKET WITH DUCT TAPE OR EQUIVALENT ON TOP AND BEDDING SAND ON THE BOTTOM. BE CERTAIN THAT THE BOLSTER PADS FITS SNUG TO JACKET.
3. BOLSTER PAD CONFIGURATION IS DEPENDENT ON LAYOUT & WILL BE SHOWN ON THE INSTALLATION DRAWING.

PVC JACKET OD (INCHES)	HDPE JACKET OD (INCHES)	PAD HEIGHT (INCHES)
3	--	7
4	5.40	7
6	6.68	7
8	8.68	7
10	10.85	13
12	12.85	13
14	14.1	13
16	16.1	17
--	18.2	17
--	20.28	17
--	22.2	25
--	24.38	25
--	28.25	25

SCALE: NONE

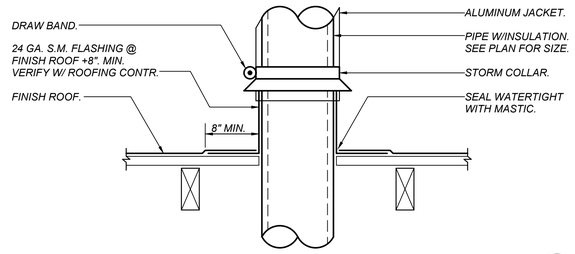
* NOTE:
DUCT TAPE TO BE 1'-0" ON CENTERS.



EXPANSION BOLSTER DETAIL

G M6.03

SCALE: NONE

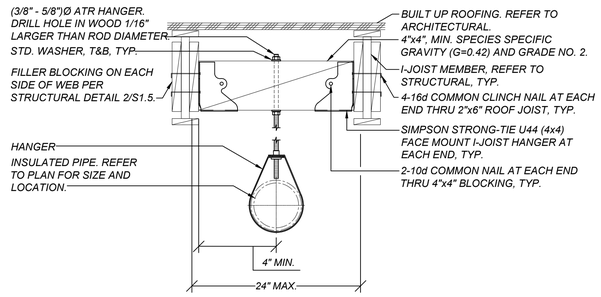


PIPE THRU ROOF DETAIL

A M6.03

SCALE: NONE

MP036

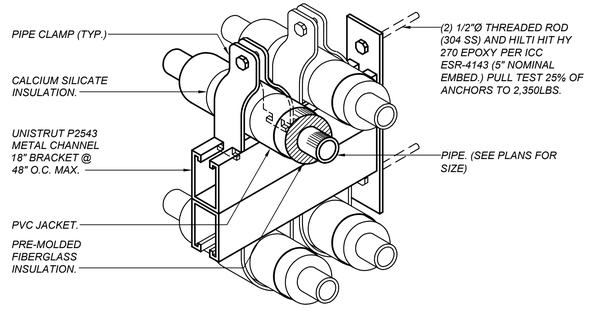


I-JOIST PIPE HANGER DETAIL

B M6.03

SCALE: NONE

MP401

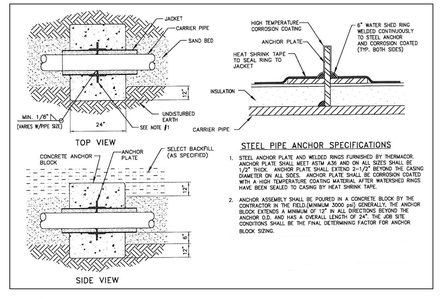


PIPE SUPPORT ON WALL DETAIL

C M6.03

SCALE: NONE

MP301



STEEL PIPE ANCHOR SPECIFICATIONS

1. STEEL ANCHOR PLATE AND WELDED RINGS FURNISHED BY THERMACOR. ANCHOR PLATE SHALL MEET ASTM A36 AND ON ALL SIZES SHALL BE 1/2" THICK. ANCHOR PLATE SHALL EXTEND 2-1/2" BEYOND THE CASING WITH 6" WATER SHED RING WELDED CONTINUOUSLY TO ANCHOR PLATE WITH HIGH TEMPERATURE COATING MATERIAL AFTER WATERSHED RINGS HAVE BEEN SEALED TO CASING BY HEAT SHRINK TAPE.
2. ANCHOR ASSEMBLY SHALL BE POURED IN A CONCRETE BLOCK BY THE CONTRACTOR IN THE FIELD.MINIMUM 3000 psi (GENERAL) THE ANCHOR BLOCK EXTENDS A MINIMUM OF 12" IN ALL DIRECTIONS BEYOND THE ANCHOR PLATE AND HAS A OVERALL LENGTH OF 24". THE SIZE OF CONCRETE SHALL BE THE FINAL DETERMINING FACTOR FOR ANCHOR BLOCK SIZING

PIPE ANCHOR DETAIL

D M6.03

SCALE: NONE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-41128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
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REVISIONS

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4320 West Mineral King Avenue
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(559) 627-0530 Office
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TITLE
MECHANICAL DETAILS

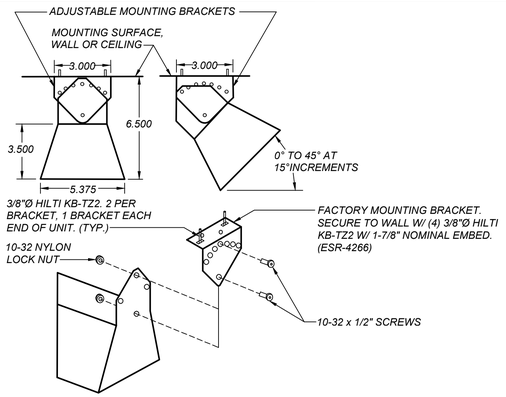
M6.03

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

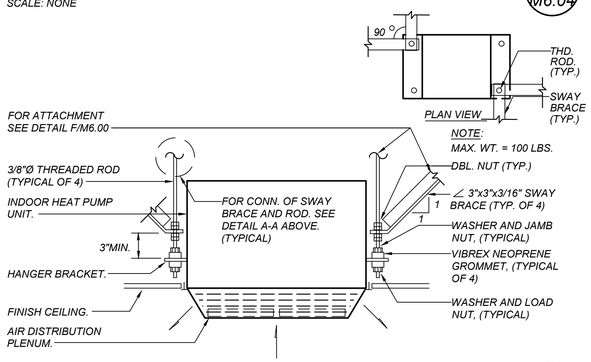
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RADIANT HEATER MOUNTING DETAIL

J M6.04

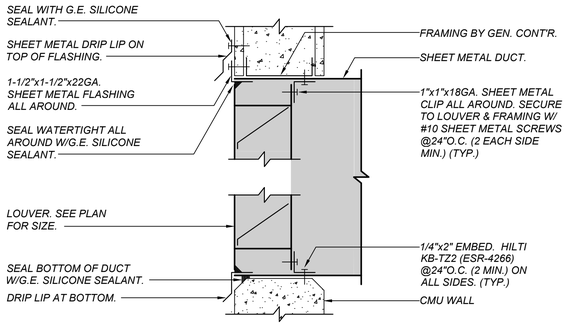
SCALE: NONE



INDOOR UNIT CEILING MOUNTING DETAIL

K M6.04

SCALE: NONE MM226



LOUVER MOUNTING (CMU) DETAIL

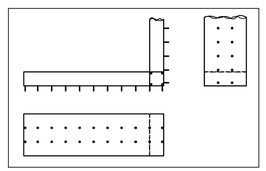
L M6.04

SCALE: NONE MD021

ADDITIONAL PINNING TO PREVENT SAGGING OF THE 3M FIRE BARRIER DUCT WRAP 615+. SPACE PINS A MAX. OF 10-1/2" APART IN THE DIRECTION OF THE BLANKET WIDTH, AND A MAX. 12" APART IN THE DIRECTION OF THE BLANKET LENGTH.

MATERIALS AND EQUIPMENT:

- *MINIMUM 12 GAUGE COPPER-COATED STEEL INSULATION PINS USED WITH MINIMUM 2-1/2" SQUARE GALVINIZED STEEL OF STAINLESS SPEED CLIPS OR 1-1/2" DIA. ROUND OR EQUIVALENT SIZED INSULATED CUP-HEAD PINS.*
- *CAPACITOR DISCHARGE STUD GUN.*

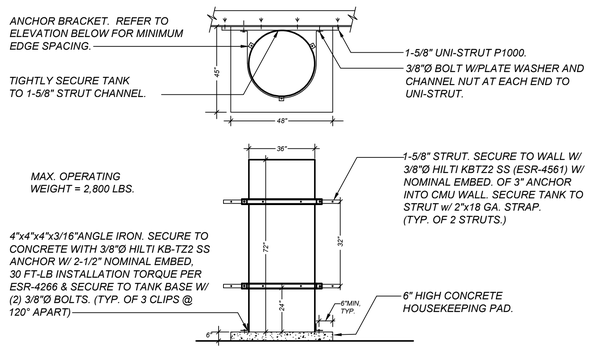


NOTE:
EITHER APPLY MIN. 12 GAUGE COPPER-COATED IMPALING PINS TO THE BARE DUCT USING A CAPACITOR DISCHARGE GUN OR APPLY MIN. 12 GAUGE CUP-HEAD PINS AFTER THE DUCT WRAP IS INSTALLED.

FIRE WRAP PINNING DETAIL

M M6.04

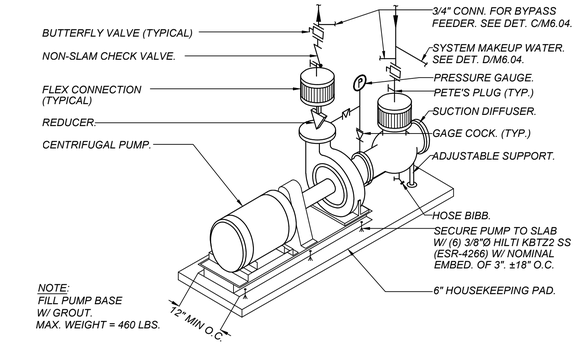
SCALE: NONE MF016



TANK SUPPORT ANCHORAGE DETAIL

E M6.04

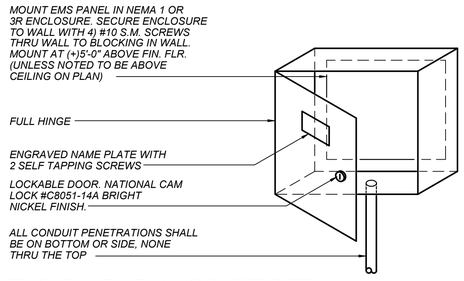
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BASE MOUNTED PUMP PIPING DETAIL

F M6.04

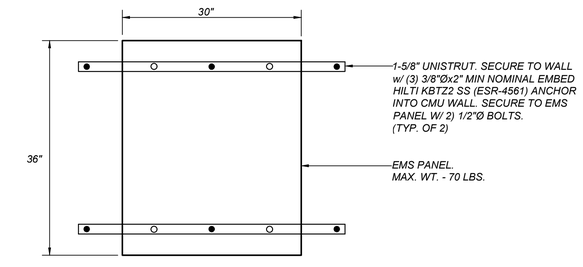
SCALE: NONE MP207



EMS PANEL ENCLOSURE DETAIL

G M6.04

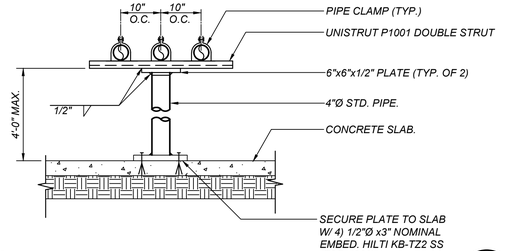
SCALE: NONE MC014



EMS PANEL MOUNTING DETAIL

H M6.04

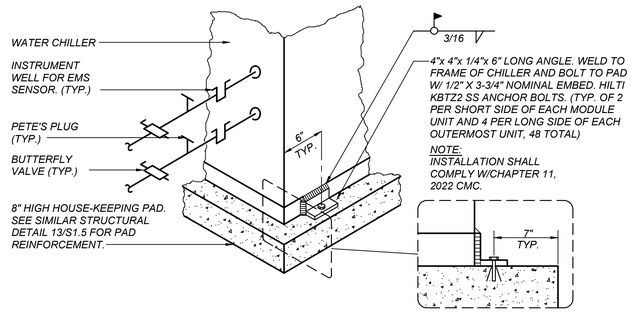
SCALE: NONE MC015



PIPE STAND DETAIL

A M6.04

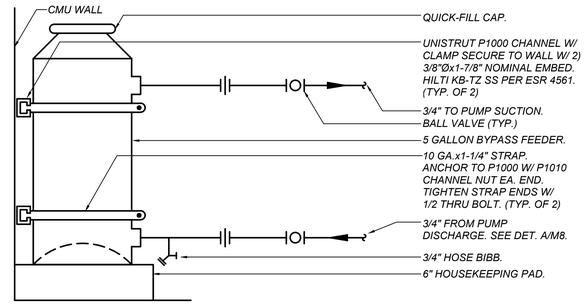
SCALE: NONE MP413



WATER CHILLER MOUNTING & PIPING DETAIL

B M6.04

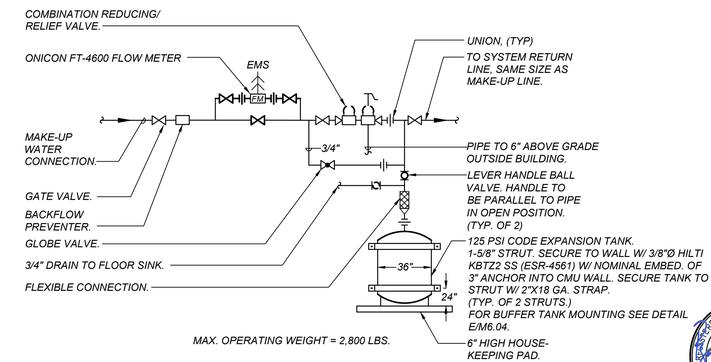
SCALE: NONE MP047



CLOSED SYSTEM BYPASS FEEDER DETAIL

C M6.04

SCALE: NONE MP015



MAKEUP WATER & EXPANSION TANK PIPING

D M6.04

SCALE: NONE MP710

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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SANGER, FRESNO COUNTY, CA

REVISIONS

PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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TITLE
MECHANICAL DETAILS

M6.04

PROJECT 24042

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RECTANGULAR DUCT SEISMIC REGULATIONS

HANGER SPACING: 10' O.C.

DUCT DIM. W X D (IN.)		SHEET METAL GA.	CROSS-SECTIONAL AREA (SQFT)	SHEET METAL LBS/FT	P/2
7"	11"	26	0.53	2.3	18"
9"	10"	26	0.63	2.4	19"
11"	20"	20	1.53	7.8	31"
14"	10"	24	0.97	4.0	24"
16"	16"	24	1.78	5.3	32"
16"	18"	22	2.00	7.1	34"
16"	30"	18	3.33	15.3	46"
18"	28"	18	3.50	15.3	46"
18"	32"	16	4.00	20.8	50"
19"	19"	18	2.51	12.7	38"
20"	16"	20	2.22	9.0	36"
20"	20"	20	2.78	10.0	40"
22"	17"	18	2.60	13.0	39"
22"	22"	18	3.36	14.7	44"
22"	42"	16	6.42	26.7	64"
23"	11"	18	1.76	11.3	34"
25"	36"	16	6.25	25.4	61"
28"	18"	18	3.50	15.3	46"
28"	22"	18	4.28	16.7	50"
28"	28"	18	5.44	18.7	56"
30"	16"	18	3.33	15.3	46"
30"	30"	18	6.25	20.0	60"
33"	22"	16	5.04	22.9	55"
36"	18"	16	4.50	22.5	54"
42"	22"	16	6.42	26.7	64"
48"	20"	16	6.67	28.3	68"
48"	48"	16	16.00	40.0	96"
49"	19"	16	6.47	28.3	68"
60"	19"	16	7.92	32.9	79"
60"	60"	16	25.00	50.0	120"

SEISMIC EXEMPTION NOTES:

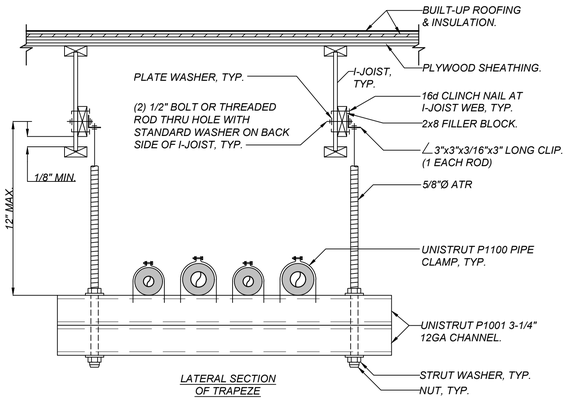
1. *CROSS-SECTIONAL AREA FOR ALL DUCTS IS LESS THAN 6 SQ.FT.*
2. *ALL DUCTS ARE LESS THAN 20 LBS PER LINEAL FOOT.*
3. *THE SEPARATION DISTANCE BETWEEN AN UNBRACED COMPONENT AND BRACED ELEMENTS OR COMPONENTS SHALL BE BASED ON A MINIMUM HORIZONTAL DISTANCE OF 12 INCHES. WHEN ADJACENT COMPONENTS ARE ALSO UNBRACED, THIS SEPARATION SHALL BE INCREASED TO A MINIMUM OF 18 INCHES.*

* *FOR DUCT SIZES HIGHLIGHTED ABOVE THAT EXCEED 6 SQFT CROSS-SECTIONAL AREA, SEE SEISMIC RESTRAINT DETAIL B/M6.05.*

RECTANGULAR DUCT SEISMIC TABLE

E M6.05

SCALE: NONE



LATERAL SECTION OF TRAPEZE

RECTANGULAR DUCT SEISMIC TABLE

F M6.05

SCALE: NONE

CENTER BRACING FOR RECTANGULAR DUCTS, L=10'							
DUCT SIZE WxD (1) (in.)	VERTICAL HANGERS	DIAGONAL BRACES (CABLE SIZE) (2)	HORIZONTAL BRACES	LONGITUDINAL BRACES (CABLE SIZE)	BOLT SIZE (in.)	CONNECTION TYPE TO STRUCTURAL MEMBER (3)	MAX. WT. PER FOOT (4) (lbs.)
30x30	L4x4x12ga	L4x4x14ga	L2x2x16ga	2-1/2" Pipe	3/8"	C	17
42x42	L4x4x12ga	L4x4x14ga	L21/2x21/2x12ga	2-1/2" Pipe	3/8"	C	29
54x54	L3x3x1/2"	L4x4x12ga	L21/2x21/2x12ga	2-1/2" Pipe	1/2"	C	46

1. *THE DUCTS' MAXIMUM DIMENSIONS SHALL GOVERN WHAT BRACING IS REQUIRED.*
2. *PROVIDE TRANSVERSE BRACING AT 30 FEET AND LONGITUDINAL BRACING AT 60 FEET.*
3. *SEE TABLE BELOW FOR "CONNECTION TYPE" TO STRUCTURAL SUPPORTING MEMBERS.*
4. *MAXIMUM WEIGHT OF DUCT OR COMBINATIONS OF DUCT PER LINEAR FOOT. FOR DUCTS WEIGHING MORE THAN THE MAX. WT. PER FOOT, USE THE NEXT HIGHER DUCT SIZE.*

SCHEDULE FOR TYPICAL CONNECTIONS TO STRUCTURAL SUPPORTING MEMBERS				
TYPE	MAX. LOAD CAPACITY (lbs.)(2)	MACHINE BOLT END OF BRACE	MACHINE BOLT AT WOOD	ANGLE TO SUPPORTING STRUCTURAL MEMBER (2)
C	1586	1/2"	3/4"	2-L4" x 3" x 3/8" x 0'-4" LLH

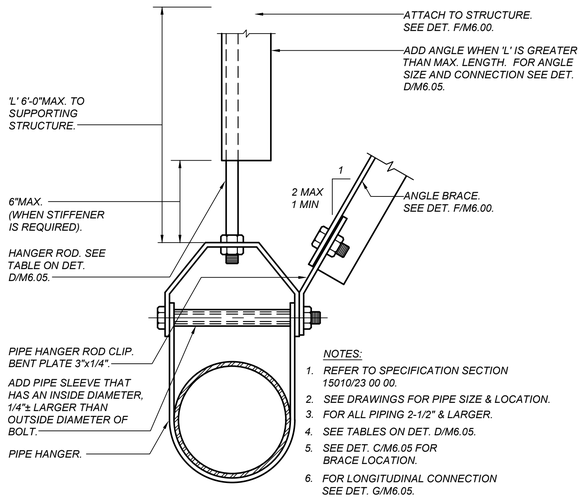
1. *MAXIMUM LOAD CAPACITY IS FOR GENERAL INFORMATION ONLY AND THE MAXIMUM MEMBER FORCE IN THE BRACING SYSTEM USED IN THIS MANUAL. A DESIGNER MAY USE THIS FORCE TO DESIGN A SPECIAL CONNECTION IF REQUIRED.*
2. *LLH = LONG LEG HORIZONTAL*
3. *FOR CONNECTION TO JOISTS SEE DETAIL F/M6.00.*

SEISMIC DUCT BRACING TABLE

D M6.05

SCALE: NONE

MB003



NOTES:

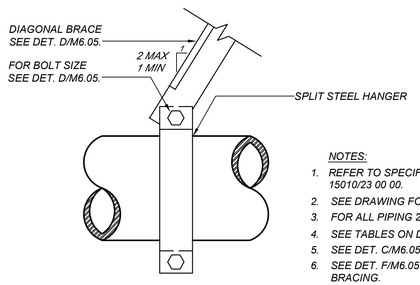
1. *REFER TO SPECIFICATION SECTION 15010/23 00 00.*
2. *SEE DRAWINGS FOR PIPE SIZE & LOCATION.*
3. *FOR ALL PIPING 2-1/2" & LARGER.*
4. *SEE TABLES ON DET. D/M6.05.*
5. *SEE DET. C/M6.05 FOR BRACE LOCATION.*
6. *FOR LONGITUDINAL CONNECTION SEE DET. G/M6.05.*

TRANVERSE SEISMIC RESTRAINT PIPE SUPPORT

F M6.05

SCALE: NONE

MB01D



LONGITUDINAL BRACE

NOTES:

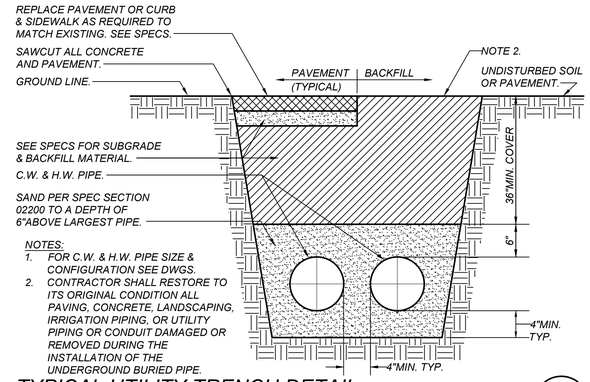
1. *REFER TO SPECIFICATION SECTION 15010/23 00 00.*
2. *SEE DRAWING FOR PIPE SIZE & LOCATION.*
3. *FOR ALL PIPING 2-1/2" & LARGER.*
4. *SEE TABLES ON DET. D/M6.05.*
5. *SEE DET. C/M6.05 FOR BRACE LOCATION.*
6. *SEE DET. F/M6.05 FOR TRANSVERSE BRACING.*

LONG. SEISMIC RESTRAINT PIPE SUPPORT

G M6.05

SCALE: NONE

MB012



NOTES:

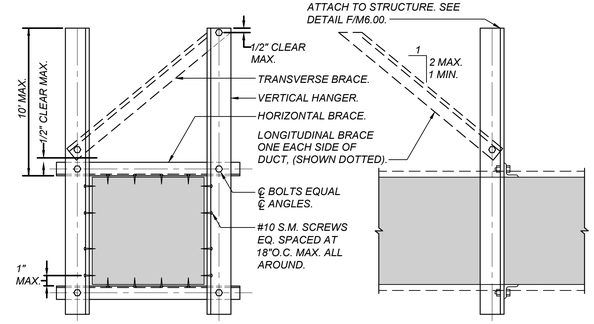
1. *FOR C.W. & H.W. PIPE SIZE & CONFIGURATION SEE DWGS.*
2. *CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION ALL PAVING, CONCRETE, LANDSCAPING, IRRIGATION PIPING, OR UTILITY PIPING OR CONDUIT DAMAGED OR REMOVED DURING THE INSTALLATION OF THE UNDERGROUND BURIED PIPE.*

TYPICAL UTILITY TRENCH DETAIL

A M6.05

SCALE: NONE

P161



NOTES:

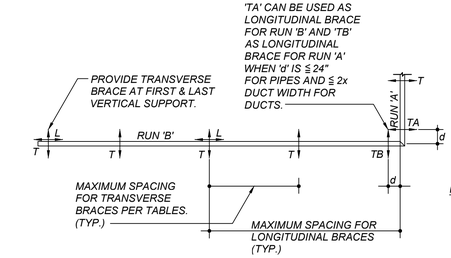
1. *SEE SPEC SECTION 23 00 00-1.21.*
2. *FOR DUCT 6 FT.^{2} & LARGER.*
3. *SEE TABLES ON DET. D/M6.05 & E/M6.05.*

SEISMIC RESTRAINT RECT. DUCT SUPPORT

B M6.05

SCALE: NONE

MB006



NOTES:

1. *SEE SPEC. SECTION 15010/23 00 00.*
2. *SEE TABLES ON DET. E/M6.05. FOR BRACE SPACING*

'T' - INDICATES TRANSVERSE BRACING - 1 SOLID BRACE.

'L' - INDICATES LONGITUDINAL BRACING - 1 SOLID BRACE AT PIPES AND 2 SOLID BRACES AT DUCTS.

PIPE/DUCT SEISMIC BRACE LOCATION

C M6.05

SCALE: NONE

MB004

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
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TITLE
MECHANICAL DETAILS

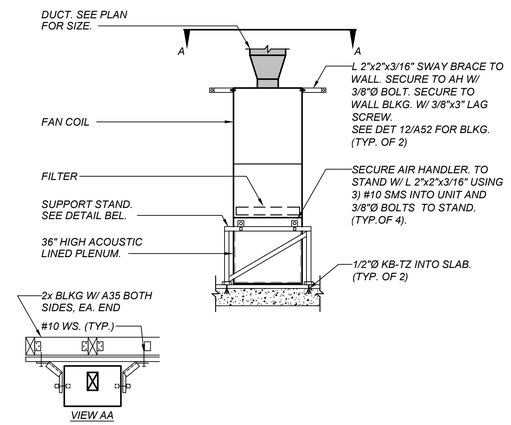
M6.05

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
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Fresno, CA 93727 FAX (559) 431-1362

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AIR HANDLER MOUNTING DETAIL

A
M6.06

SCALE: NONE

APPROVALS

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DIV. OF THE STATE ARCHITECT
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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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TITLE
MECHANICAL DETAILS

M6.06

PROJECT 24042

CERTIFIED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
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15 September 2026 9:37 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M6.06 - Mechanical Details.dwg ryanf

INDOOR UNIT SCHEDULE

DESIGNATION		IDU 1-1	IDU 1-2	IDU 2-1	IDU 2-2	IDU 3-1	IDU 3-2	IDU 4-1	IDU 4-2	IDU 5-1	IDU 5-2	IDU 6-1	IDU 7-1
BLOWER	SUPPLY AIR (CFM)	635	635	370	635	635	635	635	635	635	635	635	635
	EXT. S P (IN. WC)	-	-	-	-	-	-	-	-	-	-	-	-
	MIN. O.S.A. (CFM)	-	-	30	-	-	-	-	-	-	-	-	-
	MOCP	SEE ODU 3-1	SEE ODU 3-1	SEE ODU 2-1	SEE ODU 2-2	SEE ODU 3-1	SEE ODU 3-2	SEE ODU 4-1	SEE ODU 4-2	SEE ODU 5-1	SEE ODU 5-2	SEE ODU 6-1	SEE ODU 7-1
	MCA / FLA (AMPS)	SEE ODU 3-1	SEE ODU 3-1	SEE ODU 2-1	SEE ODU 2-2	SEE ODU 3-1	SEE ODU 3-2	SEE ODU 4-1	SEE ODU 4-2	SEE ODU 5-1	SEE ODU 5-2	SEE ODU 6-1	SEE ODU 7-1
	VOLTS / PHASE	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1
	SEER2 / EER2	21.1 / 12.0	21.1 / 12.0	24.8 / 17.1	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0
COOLING	SENSIBLE (MBH)	24.0	24.0	12.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
	TOTAL (MBH)	24.5	24.5	12.4	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
	EADB/EAWB (°F)	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67
	REFRIGERANT	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B
HEATING	CAPACITY (MBH) @47°F	28.0	28.0	20.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
	KW	2.414	2.414	1.542	2.414	2.414	2.414	2.414	2.414	2.414	2.414	2.414	2.414
	STAGES	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURER		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
TYPE		HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP
MODEL NUMBER		PKA-AK24NL	PKA-AK24NL	PLA-AE12NL	PKA-AK24NL	PKA-AK24NL	PKA-AK24NL	PKA-AK24NL	PKA-AK24NL	PKA-AK24NL	PKA-AK24NL	PKA-AK24NL	PKA-AK24NL
CONDENSING UNIT		ODU 1-1	ODU 1-1	ODU 2-1	ODU 2-2	ODU 3-1	ODU 3-2	ODU 4-1	ODU 4-2	ODU 5-1	ODU 5-2	ODU 6-1	ODU 7-1
SERVICE		DATA ROOM	DATA ROOM	CONTROL ROOM	ELECTRICAL ROOM	DATA ROOM	ELECTRICAL ROOM	DATA ROOM	ELECTRICAL ROOM	DATA ROOM	ELECTRICAL ROOM	ELECTRICAL ROOM	DATA ROOM
LOCATION		BLDG 100	BLDG 100	BLDG 200	BLDG 200	BLDG 300	BLDG 300	BLDG 400	BLDG 400	BLDG 500	BLDG 500	BLDG 600	BLDG 700
OPER. WT (LBS)		100	100	100	100	100	100	100	100	100	100	100	100
ACCESSORIES		1	1	1	1	1	1	1	1	1	1	1	1

1 . FACTORY HIGH LIFT CONDENSATE PUMP AND 24V THERMOSTAT INTERFACE WITH TRANSFORMERS.

OUTDOOR UNIT SCHEDULE

DESIGNATION	ODU 1-1	ODU 1-2	ODU 2-1	ODU 2-2	ODU 3-1	ODU 3-2	ODU 4-1	ODU 4-2	ODU 5-1	ODU 5-2	ODU 6-1	ODU 7-1
COOLING CAPACITY (MBH)	24.0	24.0	12.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
HEATING CAPACITY (MBH)	28.0	28.0	20.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
NOMINAL TONS	2.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
VOLTS / PHASE	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1
FLA	-	-	-	-	-	-	-	-	-	-	-	-
MCA / MOCP	22 / 37	22 / 37	16 / 27	22 / 37	22 / 37	22 / 37	22 / 37	22 / 37	22 / 37	22 / 37	22 / 37	22 / 37
SEER2 / EER2 (AT ARI)	21.1 / 12.0	21.1 / 12.0	24.8 / 17.1	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12.0	21.1 / 12	21.1 / 12
AMBIENT (°F)	105	105	105	105	105	105	105	105	105	105	105	105
REFRIG. LINE SIZE												
LIQUID (IN.OD)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
SUCTION (IN. OD)	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
REFRIG. TYPE	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B	R454B
MANUFACTURER	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
TYPE	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP
MODEL NUMBER	PUZ-AH24NL	PUZ-AH24NL	PUZ-AK12NL	PUZ-AH24NL	PUZ-AH24NL	PUZ-AH24NL	PUZ-AH24NL	PUZ-AH24NL	PUZ-AH24NL	PUZ-AH24NL	PUZ-AH24NL	PUZ-AH24NL
SERVICE	IDU 1-1	IDU 1-1	IDU 2-1	IDU 2-2	IDU 3-1	IDU 3-2	IDU 4-1	IDU 4-2	IDU 5-1	IDU 5-2	IDU 6-1	IDU 7-1
LOCATION	BLDG 100 - ROOF	BLDG 100 - ROOF	BLDG 200 - ROOF	BLDG 200 - ROOF	BLDG 300 - ROOF	BLDG 300 - ROOF	BLDG 400 - ROOF	BLDG 400 - ROOF	BLDG 500 - ROOF	BLDG 500 - ROOF	BLDG 600 - ROOF	BLDG 700 - ROOF
OPER. WT (LBS)	300	300	200	300	300	300	300	300	300	300	300	300
ACCESSORIES	1	1	1	1	1	1	1	1	1	1	1	1

1 . DRAIN SOCKET AND MOUNTING PAD.

RELIEF FAN SCHEDULE

DESIGNATION	RF 3-1 – RF 3-2	RF 3-4 – RF 3-9	RF 4-1 – RF 4-2	RF 4-4 – RF 4-9	RF 5-1 – RF 5-2	RF 5-4 – RF 5-9	RF 6-1	RF 6-3 – RF 6-4	RF 6-6	RF 7-1	RF 7-3
MIN / MAX CFM	1150 / 1600	1150 / 1600	1150 / 1600	1150 / 1600	1150 / 1600	1150 / 1600	1150 / 1600	1150 / 1600	1150 / 1600	1150 / 1600	1150 / 1600
EXT. S.P. (IN. WC)	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355
HP / BHP / WATTS	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -	0.75 / 0.22 / -
VOLTS / PHASE	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1
MCA / MOP (AMPS)	11 / 20	11 / 20	11 / 20	11 / 20	11 / 20	11 / 20	11 / 20	11 / 20	11 / 20	11 / 20	11 / 20
FLA (AMPS)	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
RPM	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
TIP SPEED/ SONES	3964 / 8.4	3964 / 8.4	3964 / 8.4	3964 / 8.4	3964 / 8.4	3964 / 8.4	3964 / 8.4	3964 / 8.4	3964 / 8.4	3964 / 8.4	3964 / 8.4
DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
MOUNTING	INLINE	INLINE	INLINE	INLINE	INLINE	INLINE	INLINE	INLINE	INLINE	INLINE	INLINE
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
MODEL NUMBER	SQ-140-VG	SQ-140-VG	SQ-140-VG	SQ-140-VG	SQ-140-VG	SQ-140-VG	SQ-140-VG	SQ-140-VG	SQ-140-VG	SQ-140-VG	SQ-140-VG
CONTROL	EMS	EMS	EMS	EMS	EMS	EMS	EMS	EMS	EMS	EMS	EMS
SERVICE	CLASSROOMS	CLASSROOMS	CLASSROOMS	CLASSROOMS	CLASSROOMS	CLASSROOMS	CLASSROOMS	CLASSROOMS	CLASSROOMS	CLASSROOMS	CLASSROOMS
LOCATION	BLDG 300 - ABOVE CEILING	BLDG 300 - ABOVE CEILING	BLDG 400 - ABOVE CEILING	BLDG 400 - ABOVE CEILING	BLDG 500 - ABOVE CEILING	BLDG 500 - ABOVE CEILING	BLDG 500 - ABOVE CEILING	BLDG 500 - ABOVE CEILING	BLDG 500 - ABOVE CEILING	BLDG 500 - ABOVE CEILING	BLDG 500 - ABOVE CEILING
OPER. WT. (LBS)	150	150	150	150	150	150	150	150	150	150	150
ACCESSORIES	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8

1 . VARI-GREEN EC MOTOR. MUST ACCEPT 1-10V SIGNAL.
2 . PROVIDE WITH FACTORY HANGING SPRING ISOLATORS, SQUARE DUCT INLET ADAPTER, DAMPER, JUNCTION BOX MOUNTED AND WIRED, NEMA-1 SWITCH, MOTOR COVER, AND GALVANIZED HOUSING.
3 . HUSHCORE HUSH-FLEX ACOUSTIC CABINET WRAP.
4 . INTERLOCK OPERATION WITH AIR HANDLER SERVING SAME ROOM.
6 . INTEGRATE WITH EMS.
7 . CONTROL VIA STATIC PRESSURE SENSOR MOUNTED IN THE SPACE TO MAINTAIN A SLIGHTLY POSITIVE ROOM PRESSURE. PRESSURE SENSOR PROVIDED BY CONTROLS CONTRACTOR.
8 . FACTORY 0-10 VDC WIRING HARNESS FOR CONTROL, INSTALLED BY CONTROLS CONTRACTOR.

HEAT PUMP MULTI-PIPE WATER CHILLER

DESIGNATION		WC 1
GENERAL	MODULES (MOD.)	10
	TOTAL CAPACITY (TONS)	276
	VOLTS / PHASE	460 / 3
	FLA	691.5
	MCA / MOCP (AMPS)	699 / 800
	EER / NPLV.IP	8.44 / 0.95
	COP (HEATNG)	2.25
COMPRESSOR	QTY PER MOD. / TYPE	2 / SCROLL
	REFRIG. TYPE / CLASS	R-454B / A2L
	REFRIG. LBS (PER MOD.)	87.0
	OPERATION	CONSTANT
COOLING	CAPACITY (TONS - TOTAL)	275.5
	MIN. UNLOADING (TONS - TOTAL)	13.76
	FLUID	WATER
	EWT / LWT (°F)	54.0 / 44.0
	AMBIENT DB / WB (°F)	105 / 72
	GPM (TOTAL)	657.7
	PD (FT. H2O - TOTAL)	9.09
	COMP. POWER (kW - TOTAL)	339.6
	FAN POWER (kW - TOTAL)	52.0
	SYSTEM POWER (kW - TOTAL)	391.6
HEATING	CAPACITY (TONS - TOTAL)	264.8
	FLUID	WATER
	EWT / LWT (°F)	120.0 / 140.0
	AMBIENT TEMP. / RH% (°F / %)	28 / 75%
	GPM (PER)	323.5
	PD (FT. H2O - PER)	2.3
	COMP. POWER (kW - TOTAL)	364.3
	FAN POWER (kW - TOTAL)	49.0
	SYSTEM POWER (kW - TOTAL)	413.3
HEAT RECOVERY	COOLING (TONS - TOTAL)	257.4
	HEATING (TONS - TOTAL)	352.5
	SYSTEM POWER (kW - TOTAL)	393.5
	COOLING GPM (TOTAL)	614.4
	COLLING PD (FT. H2O - TOTAL)	8.25
	HEATING GPM (TOTAL)	430.6
	HEATING PD (FT. H2O - TOTAL)	4.17
	EER / COP (HEAT RECOVERY)	7.848 / 3.15
MANUFACTURER		TRANE
TYPE		HEAT PUMP
MODEL NUMBER		MASA030
LOCATION		CHILLER YARD
OPER. WT (LBS - TOTAL)		35,500
ACCESSORIES		1, 2, 3, 4, 5, 6, 7, 8, 9

1 . BACNET BY CONTROLS CONTRACTOR.
2 . CHILLER MUST BE CAPABLE OF OPERATION IN THE EVENT OF A PRIMARY CONTROLLER FAILURE.
3 . A STRAINER SHALL BE FACTORY INSTALLED BETWEEN THE HEADER SYSTEM AND EACH EVAPORATOR AND CONDENSER INLET.
4 . FACTORY-INSTALLED DRAIN PANS.
5 . AN ELECTRONIC DISCHARGE AND MANUAL RETURN BUTTERFLY VALVE TO BE INSTALLED ON EACH EVAPORATOR AND CONDENSER FOR VPF CHILLER PLANT CONTROL.
6 . CHILLER TO INCLUDE 7 IN. TOUCHSCREEN DISPLAY.
7 . CHILLER MUST COME WITH SEPARATE LOW VOLTAGE AND HIGH VOLTAGE ENCLOSURES.
8 . SINGLE POINT POWER.
9 . FACTORY START UP.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
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MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
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(559) 627 2539 Office
(559) 627 1926 Fax

TITLE
MECHANICAL SCHEDULES

M7.00

PROJECT 24042

MAKE-UP AIR UNIT SCHEDULE		
DESIGNATION		MUA 2-1
VOLTS / PHASE		460 / 3
M.C.A.		6.22
F.L.A.		5.02
SEER / IEER / EER @ ARI		-
SEER2 / EER2 @ ARI		-
BLOWER	SUPPLY AIR (CFM)	3,150
	EXT. SP (IN. WC)	2.92
	O.S.A. (CFM)	3,150
	HP/BHP	3.0 / 2.2
	RPM	2489
	DRIVE	DIRECT
COOLING	SENSIBLE (MBH)	121.36
	TOTAL (MBH)	121.36
	SOURCE	WATER
	ROWS / FINS PER INCH	4 / 9
	EADB / EAWB (°F)	105 / 72
	AMBIENT AIR (°F)	105.0
	UNIT DISCHARGE TEMP (°F)	70.0
	GPM / PD (FT.)	22.79 / 0.69
	EWT / LWT (°F)	44.0 / 54.62
	BRANCH SIZE (IN.)	3/8
	VALVE TYPE	2-WAY
HEATING	CAPACITY @ 47 DEG. (MBH)	177.64
	SOURCE	WATER
	ROWS / FINS PER INCH	2 / 9
	EAT / LAT (°F)	28.0 / 80.0
	GPM / PD (FT.)	16.17 / 0.81
	EWT / LWT (°F)	140.0 / 117.98
	BRANCH SIZE (IN.)	3/8
	VALVE TYPE	2-WAY
FILTERS	QUANTITY / SIZE	4 / 16 x 20 x 2
	TYPE	MERV 13
	P D (IN WC)	1.437
MANUFACTURER		TRANE
TYPE		CW / HW
MODEL NUMBER		UCCAK08C1J0EDH32
SERVICE		KITCHEN
LOCATION		BLDG 200 - ROOF
OPER. WT (LBS)		2,300
ACCESSORIES		1, 2, 3, 4, 5, 6, 7

1 . STAINLESS STEEL DRAIN PAN, DOUBLE WALL CONSTRUCTION, HINGED ACCESS PANELS, TUBE AND FIN STYLE COIL, AND WEATHER HOODS.
2 . DIRECT DRIVE FAN MOTOR, INTERNAL ISOLATION, AND VARIABLE FREQUENCY DRIVE (VFD) WITH DISCONNECT, FACTORY MOUNTED IN LOCKABLE ENCLOSURE.
3 . SEISMIC SLOPED CURB. HEIGHT AND SLOPE OF CURB TO BE DETERMINED BY THE MECHANICAL CONTRACTOR.
4 . KMC AIRFLOW MONITORING STATION PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED PER MANUFACTURER GUIDELINES.
5 . INTERLOCK OPERATION WITH CAPTIVEAIRE CONTROL PANEL.

EXHAUST FAN SCHEDULE - PART 1									
DESIGNATION	EF 1-1	EF 1-2	EF 2-1	EF 2-2	EF 2-3	EF 2-4	EF 3-1	EF 4-1	EF 5-1
CFM	750	750	1210	350	160	160	1400	1400	1400
EXT. S.P. (IN. WC)	0.75	0.4	0.75	0.5	0.3	0.3	0.75	0.75	0.75
HP / BHP / WATTS	0.25 / 0.2 / -	- / - / 133	0.5 / 0.33 / -	0.166 / 0.09 / -	- / - / 21	- / - / 21	0.5 / 0.42 / -	0.5 / 0.42 / -	0.5 / 0.42 / -
VOLTS / PHASE	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1
MCA / MOP (AMPS)	4.0 / 15	- / -	8 / 15	3 / 15	- / -	- / -	8 / 15	8 / 15	8 / 15
FLA (AMPS)	2.85	4.75	6.4	2.2	1.5	1.5	6.4	6.4	6.4
RPM	1550	1121	1512	1503	991	991	1725	1725	1725
TIP SPEED/ SONES	4515 / 7.5	- / 5.0	5172 / 12.4	4279 / 10.0	- / 2.5	- / 2.5	5600 / 13.6	5600 / 13.6	5600 / 13.6
DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
MOUNTING	ROOF	CEILING	ROOF	ROOF	CEILING	CEILING	ROOF	ROOF	ROOF
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
MODEL NUMBER	G-100-VG	SP-A1050-VG	G-120-VG	G-095-VG	SP-A390-VG	SP-A390-VG	G-120-VG	G-120-VG	G-120-VG
CONTROL	EMS	SEE NOTE 7	EMS	EMS	EMS	EMS	EMS	EMS	EMS
SERVICE	RESTROOMS	ELECTRICAL ROOM	RESTROOMS	JANITOR'S ROOM	TOILET ROOM	TOILET ROOM	RESTROOMS	RESTROOMS	RESTROOMS
LOCATION	BLDG 100	BLDG 100	BLDG 200	BLDG 200	BLDG 200	BLDG 200	BLDG 300	BLDG 400	BLDG 500
OPER. WT. (LBS)	200	100	200	100	50	50	150	150	150
ACCESSORIES	1, 2, 3, 4, 10	2, 5, 7	1, 2, 3, 4, 10	1, 2, 3, 4, 10	2, 5, 6, 10	2, 5, 6, 10	1, 2, 3, 4, 10	1, 2, 3, 4, 10	1, 2, 3, 4, 10

1 . FACTORY SLOPED CURB. HEIGHT AND SLOPE OF CURB TO BE DETERMINED BY THE MECHANICAL CONTRACTOR.
2 . VARI-GREEN EC MOTOR WITH DIAL ON MOTOR. MUST ACCEPT 1-10V SIGNAL.
3 . BACKDRAFT DAMPER. SHIPPED LOOSE AND INSTALLED BY MECHANICAL CONTRACTOR.
4 . STAINLESS BIRDSCREEN, CONDUIT CHASE, FOAM CURB SEAL, UL/CUL 705 LISTED, NEMA-1 SWITCH, AND FACTORY JUNCTION BOX MOUNTED AND WIRED IN WEATHER-PROTECTED MOTOR COMPARTMENT.
5 . UL/CUL 507 LISTED ELECTRIC FAN, ISOLATION KIT SHIPPED LOOSE, FACTORY INSTALLATION MOUNTING BRACKET, AND STANDARD GRILLE.
6 . FACTORY ROUND DUCT CONNECTION.
7 . FACTORY WALL MOUNTED THERMOSTAT FOR SPEED CONTROL. ENABLE FAN AT 8°F (ADJ.) ABOVE SETPOINT.
8 . FACTORY GREASE TRAP WITH ABSORBENT MATERIAL AND HINGED ROOF CURB. HEIGHT AND SLOPE TO BE DETERMINED BY MECHANICAL CONTRACTOR. DIRECT DRIVE MOTOR ISOLATED ON SHOCK MOUNTS. FACTORY HIGH TEMP CURB SEAL RATED AT CONTINUOUS DUTY AT 1500°F. UL/CUL 705 LISTED. NEMA-1 SWITCH, FACTORY JUNCTION BOX IN WEATHER-PROTECTED COMPARTMENT, AND NON-STICK COATED ALUMINUM WHEEL.
9 . CONTROL BY CAPTIVEAIRE CONTROL PANEL, EMS TO MONITOR ONLY.
10 . INTERLOCK OPERATION WITH nLIGHT OCCUPANCY SENSOR FOR ON/OFF OPERATIONS.

EXHAUST FAN SCHEDULE - PART 2										
DESIGNATION	EF 6-1 – EF 6-4	EF 6-5	EF 6-6	EF 6-7	EF 7-1	EF 7-2	KEF 2-1	KEF 2-2	CPF 1	CPF 2
CFM	100	110	110	200	100	100	2200	1300	3500	3500
EXT. S.P. (IN. WC)	0.3	0.3	0.3	0.3	0.3	0.3	1.4	1.0	0.25	0.25
HP / BHP / WATTS	- / - / 16	- / - / 16	- / - / 16	- / - / 27	- / - / 16	- / - / 16	2.0 / 0.83 / -	0.5 / 0.258 / -	2.0 / 0.35 / -	2.0 / 0.35 / -
VOLTS / PHASE	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	115 / 1	460 / 3	115 / 1	460 / 3	460 / 3
MCA / MOP (AMPS)	- / -	- / -	- / -	- / -	- / -	- / -	4.0 / 15	8.0 / 15	4 / 15	4 / 15
FLA (AMPS)	1.5	1.5	1.5	1.5	1.5	1.5	3.2	6.4	3.3	3.3
RPM	971	971	971	1030	971	971	1590	1725	870	870
TIP SPEED/ SONES	- / 2.5	- / 2.5	- / 2.5	- / 5.5	- / 2.5	- / 2.5	6049 / 13.8	5369 / 15.3	3261 / 6.7	3261 / 6.7
DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
MOUNTING	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING	ROOF	ROOF	ROOF	ROOF
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
MODEL NUMBER	SP-A390-VG	SP-A390-VG	SP-A390-VG	SP-A390-VG	SP-A390-VG	SP-A390-VG	CUE-180HP-VG	CUE-120-VG	G-240-VG	G-240-VG
CONTROL	EMS	EMS	EMS	EMS	EMS	EMS	HOOD 2-1	HOOD 2-2	T-STAT	T-STAT
SERVICE	TOILET ROOMS	TOILET ROOM	TOILET ROOM	JANITOR'S ROOM	TOILET ROOMS	TOILET ROOMS	KITCHEN HOOD	DISHWASHER HOOD	CENTRAL PLANT	CENTRAL PLANT
LOCATION	BLDG 600	BLDG 600	BLDG 600	BLDG 600	BLDG 600	BLDG 600	BLDG 200	BLDG 200	CENTRAL PLANT	CENTRAL PLANT
OPER. WT. (LBS)	50	50	50	50	50	50	360	100	500	500
ACCESSORIES	2, 5, 6, 10	2, 5, 6, 10	2, 5, 6, 10	2, 5, 6, 10	2, 5, 6, 10	2, 5, 6, 10	2, 8, 9	2, 8, 9	1, 2, 3, 4, 7	1, 2, 3, 4, 7

1 . FACTORY SLOPED CURB. HEIGHT AND SLOPE OF CURB TO BE DETERMINED BY THE MECHANICAL CONTRACTOR.
2 . VARI-GREEN EC MOTOR WITH DIAL ON MOTOR. MUST ACCEPT 1-10V SIGNAL.
3 . BACKDRAFT DAMPER. SHIPPED LOOSE AND INSTALLED BY MECHANICAL CONTRACTOR.
4 . STAINLESS BIRDSCREEN, CONDUIT CHASE, FOAM CURB SEAL, UL/CUL 705 LISTED, NEMA-1 SWITCH, AND FACTORY JUNCTION BOX MOUNTED AND WIRED IN WEATHER-PROTECTED MOTOR COMPARTMENT.
5 . UL/CUL 507 LISTED ELECTRIC FAN, ISOLATION KIT SHIPPED LOOSE, FACTORY INSTALLATION MOUNTING BRACKET, AND STANDARD GRILLE.
6 . FACTORY ROUND DUCT CONNECTION.
7 . FACTORY WALL MOUNTED THERMOSTAT FOR SPEED CONTROL. ENABLE FAN AT 8°F (ADJ.) ABOVE SETPOINT.
8 . FACTORY GREASE TRAP WITH ABSORBANT MATERIAL AND HINGED ROOF CURB. HEIGHT AND SLOPE TO BE DETIMINED BY MECHANICAL CONTRACTOR. DIRECT DRIVE MOTOR ISOLATED ON SHOCK MOUNTS. FACTORY HIGH TEMP CURB SEAL RATED AT CONTINUOUS DUTY AT 1500°F. UL/CUL 705 LISTED. NEMA-1 SWITCH, FACTORY JUNCTION BOX IN WEATHER-PROTECTED COMPARTMENT, AND NON-STICK COATED ALUMINUM WHEEL.
9 . CONTROL BY CAPTIVEAIRE CONTROL PANEL, EMS TO MONITOR ONLY.
10 . INTERLOCK OPERATION WITH NLIGHT OCCUPANCY SENSOR FOR ON/OFF OPERATIONS.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
MECHANICAL SCHEDULES

M7.01

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

15 September 2026 9:38 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M7.00 - M7.06 - Mechanical Schedules.dwg ryonf

AIR HANDLER SCHEDULE - PART 1

	DESIGNATION	AH 2-3	AH 2-4	AH 3-1 – AH 3-2	AH 3-3	AH 3-4 – AH 3-5	AH 3-6	AH 3-7	AH 3-8	AH 3-9	AH 4-1 – AH 4-2	AH 4-3	AH 4-4 – AH 4-5	AH 4-6	AH 4-7	AH 4-8	AH 4-9
	VOLTS / PHASE	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3
	M.C.A.(AMPS)	10.3	4.47	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13
	M.O.C.P. (AMPS)	-	-	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	F.L.A. (AMPS)	8.22	3.62	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
SUPPLY FAN (PER FAN)	QUANITY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	SUPPLY AIR FLOW (CFM)	3,000	1,900	1,600	1,300	1,600	1,600	1,600	1,600	1,100	1,600	1,300	1,600	1,600	1,600	1,600	1,100
	TOTAL SP (IN. WC)	4.64	4.17	1.75	1.68	1.75	1.75	1.75	1.75	1.93	1.75	1.68	1.75	1.75	1.75	1.75	1.93
	MIN. O.S.A. (CFM)	425	450	450	1,300	450	450	450	450	300	450	1,300	450	450	450	450	300
	HP / BRAKE HP	8.05 / -	3 / 2.465	1.0 / 0.803	1.0 / 0.634	1.0 / 0.803	1.0 / 0.803	1.0 / 0.803	1.0 / 0.803	1.0 / 0.767	1.0 / 0.803	1.0 / 0.634	1.0 / 0.803	1.0 / 0.803	1.0 / 0.803	1.0 / 0.803	1.0 / 0.767
	FAN TYPE/CLASS	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -
	ISOLATOR DFLEC (IN.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
COOLING COIL	SENSIBLE (MBH)	82.67	52.36	42.43	79.17	42.43	42.43	42.43	42.43	28.49	42.43	79.17	42.43	42.43	42.43	42.43	28.49
	TOTAL (MBH)	116.53	73.75	58.54	91.26	58.54	58.54	58.54	58.54	41.76	58.54	91.26	58.54	58.54	58.54	58.54	41.76
	ROWS / FINS PER INCH	6 / 8.75	6 / 8.33	4 / 12	- / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	- / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12
	AIR PD (IN. WC)	0.701	0.518	0.579	0.568	0.579	0.579	0.579	0.579	0.438	0.579	0.568	0.579	0.579	0.579	0.579	0.438
	EADB / EAWB (°F)	80 / 67	80 / 67	80 / 67	105 / 72	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	105 / 72	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67
	GPM / PD (FT.)	23.22 / 4.34	14.70 / 2.78	11.67 / 6.16	18.19 / 19.32	11.67 / 6.16	11.67 / 6.16	11.67 / 6.16	11.67 / 6.16	8.80 / 11.75	11.67 / 6.16	18.19 / 19.32	11.67 / 6.16	11.67 / 6.16	11.67 / 6.16	11.67 / 6.16	8.80 / 11.75
	EWT (°F)	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
	BRANCH SIZE (IN.)	1-1/2	1-1/2	1-1/4	1-1/2	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/2	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4
	VALVE TYPE	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	3-WAY	2-WAY	3-WAY	2-WAY	2-WAY	2-WAY	2-WAY	3-WAY	2-WAY	3-WAY	2-WAY
HEATING COIL	CAPACITY (MBH)	146.41	92.72	38.64	93.71	38.64	38.64	38.64	38.64	31.50	38.64	93.71	38.64	38.64	38.64	38.64	31.50
	ROWS / FINS PER IN.	2 / 9.25	2 / 9.83	1 / 12	- / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	- / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12
	AIR PD (IN. WC)	0.196	0.154	0.112	0.123	0.112	0.112	0.112	0.112	0.086	0.112	0.123	0.112	0.112	0.112	0.112	0.086
	EWT / EAT (°F)	140 / 45	140 / 45	140 / 65	140 / 28	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 28	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65
	GPM / PD (FT.)	14.67 / 1.94	9.29 / 0.46	3.87 / 1.66	9.39 / 3.33	3.87 / 1.66	3.87 / 1.66	3.87 / 1.66	3.87 / 1.66	2.92 / 2.75	3.87 / 1.66	9.39 / 3.33	3.87 / 1.66	3.87 / 1.66	3.87 / 1.66	3.87 / 1.66	2.92 / 2.75
	BRANCH SIZE	1-1/4	1	1	1-1/4	1	1	1	1	1	1	1-1/4	1	1	1	1	1
	VALVE TYPE	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	3-WAY	2-WAY	3-WAY	2-WAY	2-WAY	2-WAY	2-WAY	3-WAY	2-WAY	3-WAY	2-WAY
PRE-FILTER	QUANTITY / SIZE	4 / 16 x 20 x 2	4 / 16 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 12 x 12 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 12 x 12 x 2
	QUANTITY / SIZE	-	-	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 24 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 24 x 2
	TYPE	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13
	FINAL PD (IN WC)	1.00	1.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MANUFACTURER	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
	TYPE	VERTICAL	VERTICAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	VERTICAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	VERTICAL
	MODEL NUMBER	CSAA006	CSAA004	BCVE048	BCVR048	BCVE048	BCVE048	BCVE048	BCVE048	BCHE036	BCVE048	BCVR048	BCVE048	BCVE048	BCVE048	BCVE048	BCHE036
	SERVICE	KITCHEN	FLEX ROOM	CLASSROOM	RR & CONF.	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	HALLWAY	CLASSROOM	RR & CONF.	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	HALLWAY
	LOCATION	BLDG 200 - ROOF	BLDG 200 - MEZZANINE	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MEZZANINE	BLDG 400 - MECH. CLOSET	BLDG 400 - MECH. CLOSET	BLDG 400 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 400 - MEZZANINE
	OPER. WT (LBS)	2,000	2,000	500	500	500	500	500	500	500	500	500	500	500	500	500	500
	ACCESSORIES	1, 2, 3, 4, 6, 8, 9, 10	1, 2, 3, 5, 6, 7, 8, 9, 10, 12	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 3, 6, 9, 10, 12	1, 2, 6, 7, 8, 9, 10, 11	1, 2, 6, 7, 8, 9, 10, 11	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 3, 6, 9, 10, 12

1. STAINLESS STEEL DRAIN PAN, DOUBLE WALL CONSTRUCTION, HINGED ACCESS PANELS, AND TUBE AND FIN STYLE COIL.
2. DIRECT DRIVE FAN MOTOR MUST ACCEPT 0-10V SIGNAL, INTERNALLY ISOLATED.
3. MIXING SECTION WITH MODULATING OUTDOOR AIR AND RETURN/EXHAUST AIR DAMPERS, AND MERV-13 FILTER RACK.
4. SEISMIC SLOPED CURB. HEIGHT AND SLOPE OF CURB TO BE DETERMINED BY THE MECHANICAL CONTRACTOR.
5. VARIABLE FREQUENCY DRIVE (VFD) WITH DISCONNECT, FACTORY MOUNTED IN LOCKABLE ENCLOSURE.
6. KMC AIRFLOW MONITORING STATION PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED PER MANUFACTURER GUIDELINES.
7. UV-C LIGHTS
8. CO2 SENSOR PROVIDED BY CONTROLS CONTRACTOR FOR DEMAND CONTROL VENTILATION AND INTEGRATE INTO EXISTING EMS.
9. UNITS SHALL BE SUPPLIED WITH A TERMINAL STRIP ONLY, CONTROLS CONTRACTOR TO PROVIDE CONTROLLER.
10. AUTOMATIC SHUT DOWN FROM FIRE ALARM AREA DEECTION SYSTEM, WIRING FROM FIRE ALARM RELAY TO UNIT BY HVAC CONTRACTOR.
11. FACTORY SINGLE POINT POWER.
12. UNIT MUST FIT THRU A 48 IN. X 48 IN. OPENING.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

LICENSED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101 25026 Fresno, CA 93727 FAX (559) 431-1362

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC. 4320 West Mineral King Avenue Visalia, California 93291
www.mangini.us (559) 627.0530 Office (559) 627.1926 Fax

TITLE
MECHANICAL SCHEDULES

M7.02

PROJECT 24042

AIR HANDLER SCHEDULE - PART 2

DESIGNATION		AH 5-1 – AH 5-2	AH 5-3	AH 5-4 – AH 5-5	AH 5-6	AH 5-7	AH 5-8	AH 6-1	AH 6-2	AH 6-3 – AH 6-4	AH 6-5	AH 6-6	AH 7-1	AH 7-2	AH 7-3
VOLTS / PHASE		460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3	460 / 3
M.C.A.(AMPS)		3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13
M.O.C.P. (AMPS)		15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
F.L.A. (AMPS)		2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
SUPPLY FAN (PER FAN)	QUANITY	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	SUPPLY AIR FLOW (CFM)	1,600	1,300	1,600	1,600	1,600	1,600	1,100	1,600	725	1,600	725	1,600	1,600	725	1,600
	TOTAL SP (IN. WC)	1.75	1.68	1.75	1.75	1.75	1.75	1.93	1.75	1.87	1.75	1.87	1.75	1.75	1.87	1.75
	MIN. O.S.A. (CFM)	450	1,300	450	450	450	450	300	450	205	450	205	450	450	205	450
	HP / BRAKE HP	1.0 / 0.803	1.0 / 0.634	1.0 / 0.803	1.0 / 0.803	1.0 / 0.803	1.0 / 0.803	1.0 / 0.767	1.0 / 0.803	1.0 / 0.574	1.0 / 0.803	1.0 / 0.574	1.0 / 0.803	1.0 / 0.803	1.0 / 0.574	1.0 / 0.803
	FAN TYPE/CLASS	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -	DIRECT / -
	ISOLATOR DFLEC (IN.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
COOLING COIL	SENSIBLE (MBH)	42.43	79.17	42.43	42.43	42.43	42.43	28.49	39.94	16.87	39.94	16.87	39.94	39.94	16.87	39.94
	TOTAL (MBH)	58.54	91.26	58.54	58.54	58.54	58.54	41.76	56.05	23.20	56.05	23.20	56.05	56.05	23.20	56.05
	ROWS / FINS PER INCH	4 / 12	- / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12	4 / 12
	AIR PD (IN. WC)	0.579	0.568	0.579	0.579	0.579	0.579	0.438	0.579	0.457	0.579	0.457	0.579	0.579	0.457	0.579
	EADB / EAWB (°F)	80 / 67	105 / 72	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67
	GPM / PD (FT.)	11.67 / 6.16	18.19 / 19.32	11.67 / 6.16	11.67 / 6.16	11.67 / 6.16	11.67 / 6.16	8.80 / 11.75	11.67 / 6.16	4.98 / 3.32	11.67 / 6.16	4.98 / 3.32	11.67 / 6.16	11.67 / 6.16	4.98 / 3.32	11.67 / 6.16
	EWT (°F)	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
	BRANCH SIZE (IN.)	1-1/4	1-1/2	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1	1-1/4	1	1-1/4	1-1/4	1	1-1/4
	VALVE TYPE	2-WAY	2-WAY	2-WAY	3-WAY	2-WAY	3-WAY	2-WAY	3-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	3-WAY
HEATING COIL	CAPACITY (MBH)	38.64	93.71	38.64	38.64	38.64	38.64	31.50	41.13	19.10	41.13	19.10	41.13	41.13	19.10	41.13
	ROWS / FINS PER IN.	1 / 12	- / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12	1 / 12
	AIR PD (IN. WC)	0.112	0.123	0.112	0.112	0.112	0.112	0.086	0.112	0.094	0.112	0.094	0.112	0.112	0.094	0.112
	EWT / EAT (°F)	140 / 65	140 / 28	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65	140 / 65
	GPM / PD (FT.)	3.87 / 1.66	9.39 / 3.33	3.87 / 1.66	3.87 / 1.66	3.87 / 1.66	3.87 / 1.66	2.92 / 2.75	3.87 / 1.66	1.74 / 0.86	3.87 / 1.66	1.74 / 0.86	3.87 / 1.66	3.87 / 1.66	1.74 / 0.86	3.87 / 1.66
	BRANCH SIZE	1	1-1/4	1	1	1	1	1	1	1/2	1	1/2	1	1	1/2	1
	VALVE TYPE	2-WAY	2-WAY	2-WAY	3-WAY	2-WAY	3-WAY	2-WAY	3-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	3-WAY
PRE-FILTER	QUANTITY / SIZE	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 18 x 20 x 2	1 / 12 x 12 x 2	1 / 18 x 20 x 2	FACTORY	1 / 18 x 20 x 2	FACTORY	1 / 18 x 20 x 2	1 / 18 x 20 x 2	FACTORY	1 / 18 x 20 x 2
	QUANTITY / SIZE	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 20 x 2	1 / 12 x 24 x 2	1 / 12 x 20 x 2	-	1 / 12 x 20 x 2	-	1 / 12 x 20 x 2	1 / 12 x 20 x 2	-	1 / 12 x 20 x 2
	TYPE	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13
	FINAL PD (IN WC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURER		TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
TYPE		HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	HORIZONTAL	VERTICAL	HORIZONTAL
MODEL NUMBER		BCVE048	BCVR048	BCVE048	BCVE048	BCVE048	BCVE048	BCHE036	BCVE048	BCHE024	BCVE048	BCHE024	BCVE048	BCVE048	BCHE024	BCVE048
SERVICE		CLASSROOM	RR & CONF.	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	HALLWAY	CLASSROOM	T.W.R.	CLASSROOM	T.W.R.	CLASSROOM	CLASSROOM	T.W.R.	CLASSROOM
LOCATION		BLDG 500 - MECH. CLOSET	BLDG 500 - MECH. CLOSET	BLDG 500 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 300 - MECH. CLOSET	BLDG 500 - MEZZANINE	BLDG 600 - MECH. CLOSET	BLDG 600 - MEZZANINE	BLDG 600 - MECH. CLOSET	BLDG 600 - MEZZANINE	BLDG 600 - MECH. CLOSET	BLDG 700 - MECH. CLOSET	BLDG 700 - MEZZANINE	BLDG 700 - MECH. CLOSET
OPER. WT (LBS)		500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
ACCESSORIES		1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 3, 6, 9, 10, 12	1, 2, 6, 7, 8, 9, 10	1, 2, 3, 6, 9, 10, 12	1, 2, 6, 7, 8, 9, 10	1, 2, 3, 6, 9, 10, 12	1, 2, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 3, 6, 9, 10, 12	1, 2, 6, 7, 8, 9, 10

1 . STAINLESS STEEL DRAIN PAN, DOUBLE WALL CONSTRUCTION, HINGED ACCESS PANELS, AND TUBE AND FIN STYLE COIL.
2 . DIRECT DRIVE FAN MOTOR MUST ACCEPT 0-10V SIGNAL, INTERNALLY ISOLATED.
3 . MIXING SECTION WITH MODULATING OUTDOOR AIR AND RETURN/EXHAUST AIR DAMPERS, AND MERV-13 FILTER RACK.
4 . SEISMIC SLOPED CURB. HEIGHT AND SLOPE OF CURB TO BE DETERMINED BY THE MECHANICAL CONTRACTOR.
5 . VARIABLE FREQUENCY DRIVE (VFD) WITH DISCONNECT, FACTORY MOUNTED IN LOCKABLE ENCLOSURE.
6 . KMC AIRFLOW MONITORING STATION PROVIDED BY MECHANICAL CONTRACTOR, INSTALLED PER MANUFACTURER GUIDELINES, AND INTEGRATED WITH THE EMS.
7 . UV-C LIGHTS
8 . CO2 SENSOR PROVIDED BY CONTROLS CONTRACTOR FOR DEMAND CONTROL VENTILATION AND INTEGRATE INTO EXISTING EMS.
9 . UNITS SHALL BE SUPPLIED WITH A TERMINAL STRIP ONLY, CONTROLS CONTRACTOR TO PROVIDE CONTROLLER.
10 . AUTOMATIC SHUT DOWN FROM FIRE ALARM AREA DEECTION SYSTEM, WIRING FROM FIRE ALARM RELAY TO UNIT BY HVAC CONTRACTOR.
11 . FACTORY SINGLE POINT POWER.
12 . UNIT MUST FIT THRU A 48 IN. X 48 IN. OPENING.

EVAPORATOR SCHEDULE

DESIGNATION	E 2-1	E 2-2
AIRFLOW (CFM)	-	-
MCA / MOPD	- / -	- / -
VOLTS/PHASE	208-230 / 1	208-230 / 1
TOTAL CAP. (MBH)	15,300	12,400
REFRIGERANT	R448A	R448A
REFRIG. SAFETY CLASS.	-	-
EVAP. TEMP. (°F)	25	-10
BOX TEMP. (°F)	35	0
LIQ. / SUCTION (IN.)	- / -	- / -
MANUFACTURER	RUSSELL	RUSSELL
DEFROST TYPE	ELECTRIC	ELECTRIC
MODEL NUMBER	RL6A130ADARE	RL6E105DDARE
SERVICE	REFRIGERATOR	FREEZER
LOCATION	BLDG 200 - INTERIOR WALL	BLDG 200 - INTERIOR WALL
OPER. WT (LBS)	-	-
ACCESSORIES	1, 2, 3, 4	1, 2, 3, 4

1. INCLUDES DEFROST HEATER.
2 . FACTORY ECONET CONTROLS, FACTORY MOUNTED.
3 . INTEGRATE INTO EMS. EMS TO MONITOR ONLY.

CONDENSING UNIT SCHEDULE

DESIGNATION	CU 2-1	CU 2-2
NAME PLATE AMPS	-	-
VOLTS / PHASE	208-230 / 1	208-230 / 1
MCA / MOPD / RLA (AMPS)	0 / 30 / 14.1	46 / 60 / 24.7
COMPRESSOR HP	2	5
COMPRESSOR TYPE	SCROLL	SCROLL
LIQ. / SUCTION (IN.)	- / -	- / -
COOLING CAP (MBH)	14,790	14,170
AMBIENT (°F)	110	110
MANUFACTURER	RUSSELL	RUSSELL
MODEL NUMBER	RFO200E4SDANT	RFO500L4SDBNT
SERVICE	REFRIGERATOR	FREEZER
LOCATION	BLDG 200 - ROOF	BLDG 200 - ROOF
OPER. WT (LBS)	100	100
ACCESSORIES	1, 2	1, 2

1 . REPLACEABLE CORE SUCTION FILTER, REPLACEABLE CORE LIQUID LINE FILTER, FAN CYCLING CONTROL, SUCTION ACCUMULATOR, MANUAL RESET HIGH PRESSURE SWITCH, AND SIGHT GLASS.

KITCHEN HOOD SCHEDULE

DESIGNATION	KH 2-1	KH 2-2
SIZE (L X W) (FT.)	12' 7" x 5' 0"	6' 6" x 5' 6"
CFM	2200	1300
DUCT CONN. NO. / SIZE	1 / 14"	1 / 12"
STATIC DROP (IN. WC)	-	-
MATERIAL	430 SS	430 SS
FILTER-QTY/SIZE (IN.)	9 / 20 x 16	-
MANUFACTURER	CAPTIVEAIRE	CAPTIVEAIRE
TYPE	TYPE 1	TYPE 2
MODEL NUMBER	6030 ND-2	6624 VHB-G-ND
SERVICE	KITCHEN	DISHWASHER
LOCATION	KITCHEN	CLEAN UP ROOM
OPER. WT. (LBS)	1200	500
ACCESSORIES	1, 3	2

1 . FIELD WRAPPER, BACKSPLASH, LEFT AND RIGHT SIDESPLASHES, LEFT AND RIGHT END STANDOFFS, STRUCTURAL FRONT PANEL, AND INSULATION FOR TOP OF HOOD.
2 . FIELD WRAPPER, BACKSPLASH, LEFT SIDESPLASH, AND BACKSPLASH INSIDE CORNER.
3 . FIRE SUPPRESSION ANSUL SYSTEM. SEE KITCHEN HOOD SHOP DRAWINGS ON SHEETS M7.07 - M7.10

PUMP SCHEDULE

DESIGNATION	CWP 1	CWP 2 – CWP 3	HWP 1	HWP 2 – HWP 3
HP/BHP	15 / 13	15 / 11	7.5 / 6.24	10 / 7.35
VOLTS/PHASE	460 / 3	460 / 3	460 / 3	460 / 3
RPM	1748	1714	1689	1728
GPM/TDH (FT.)	660 / 65	376 / 90	325 / 55	195 / 110
EFFICIENCY (%)	83.2	76.9	71.3	72.4
NPSH (FT)	10.4	6.12	9.77	6.96
MANUFACTURER	BELL AND GOSSETT	BELL AND GOSSETT	BELL AND GOSSETT	BELL AND GOSSETT
MOUNTING	BASE MOUNTED	BASE MOUNTED	BASE MOUNTED	BASE MOUNTED
TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
MODEL NUMBER	BG-E1510-3BD-SS-254T-S	BG-E1510-3EB-SS-254T-S	BG-E1510-2P5BB-SS-213T-S	BG-E1510-2EB-SS-215T-S
SERVICE	PRIMARY	SECONDARY	PRIMARY	SECONDARY
LOCATION	CENTRAL PLANT BLDG	CENTRAL PLANT BLDG	CENTRAL PLANT BLDG	CENTRAL PLANT BLDG
OPER. WT. (LBS)	375	375	325	350
ACCESSORIES	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3

1 . STAINLESS STEEL VOLUTE WEAR RING, GALVANIZED STEEL DRIP PAN, STAINLESS STEEL SHAFT, REXNORD OMEGA SPACE COUPLING,

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
MECHANICAL SCHEDULES

M7.03

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

15 September 2026 9:38 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M7.00 - M7.06 - Mechanical Schedules.dwg rysnf

AIR HANDLER WITH RETURN FAN SCHEDULE

	DESIGNATION	AH 2-1	AH 2-2
SUPPLY FAN (PER FAN)	QUANITY	1	1
	SUPPLY AIR FLOW (CFM)	9,000	4,000
	TOTAL SP (IN. WC)	4.13	4.01
	MIN. O.S.A. (CFM)	2,900	735
	HP / BRAKE HP	10 / 9.106	5 / 3.98
	VOLTS / PHASE	460 / 3	460 / 3
	M.C.A. (AMPS)	17.5	10.25
	F.L.A. (AMPS)	14.0	8.20
	FAN TYPE/CLASS	DIRECT / -	DIRECT / -
	ISOLATOR DFLEC (IN.)	2.0	2.0
RETURN FAN (PER FAN)	QUANTITY	1	1
	RETURN AIR FLOW (CFM)	9,000	4,000
	EXT. SP (IN. WC)	1.09	0.71
	HP / BRAKE HP	5 / 3.378	1.5 / 1.04
	M.C.A. (AMPS)	10.25	4.25
	F.L.A. (AMPS)	8.20	3.40
	VOLTS / PHASE	460 / 3	460 / 3
	FAN TYPE/CLASS	DIRECT / -	DIRECT / -
	ISOLATOR DFLEC (IN.)	2.0	2.0
COOLING COIL	SENSIBLE (MBH)	297.8	110.23
	TOTAL (MBH)	402.4	155.46
	COIL SIZE (FT.²)	20.8	9.7
	ROWS / FINS PER INCH	6 / 10	6 / 8.16
	AIR PD (IN. WC)	0.589	0.483
	EADB / EAWB (°F)	85 / 69	80 / 67
	GPM / PD (FT.)	80.2 / 2.85	20.66 / 3.81
	EWT (°F)	44	44
	BRANCH SIZE (IN.)	3	1-1/2
	VALVE TYPE	2-WAY	3-WAY
HEATING COIL	CAPACITY (MBH)	305.5	195.2
	COIL SIZE (FT.²)	20.5	9.72
	ROWS / FINS PER IN.	2 / 8.92	2 / 9.08
	AIR PD (IN. WC)	0.13	0.141
	EWT / EAT (°F)	140 / 58.7	140 / 45
	GPM / PD (FT.)	30.61 / 1.43	19.56 / 1.27
	BRANCH SIZE	2	1-1/2
	VALVE TYPE	2-WAY	3-WAY
PRE-FILTER	QUANTITY / SIZE	12 / 16 x 25 x 2	4 / 20 x 25 x 2
	QUANTITY / SIZE	-	-
	TYPE	MERV 13	MERV 13
	FINAL PD (IN WC)	1.0	1.00
MANUFACTURER		TRANE	TRANE
TYPE		VERTICAL	VERTICAL
MODEL NUMBER		CSAA021	CSAA010
SERVICE		MULTI-USE	STAGE
LOCATION		BLDG 200 - MEZZANINE	BLDG 200 - MEZZANINE
OPER. WT (LBS)		5,000	3,000
ACCESSORIES		1, 2, 3, 5, 6, 8, 9, 10, 11, 12	1, 2, 3, 5, 6, 8, 9, 10, 11, 12

1. STAINLESS STEEL DRAIN PAN, DOUBLE WALL CONSTRUCTION, HINGED ACCESS PANELS, AND TUBE AND FIN STYLE COIL.
2. DIRECT DRIVE FAN MOTOR MUST ACCEPT 0-10V SIGNAL, INTERNALLY ISOLATED.
3. MIXING SECTION WITH MODULATING OUTDOOR AIR AND RETURN/EXHAUST AIR DAMPERS, AND MERV-13 FILTER RACK.
4. SEISMIC SLOPED CURB. HEIGHT AND SLOPE OF CURB TO BE DETERMINED BY THE MECHANICAL CONTRACTOR.
5. VARIABLE FREQUENCY DRIVE (VFD) WITH DISCONNECT, FACTORY MOUNTED IN LOCKABLE ENCLOSURE.
6. KMC AIRFLOW MONITORING STATION PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED PER MANUFACTURER GUIDELINES.
7. UV-C LIGHTS
8. CO2 SENSOR PROVIDED BY CONTROLS CONTRACTOR FOR DEMAND CONTROL VENTILATION AND INTEGRATE INTO EXISTING EMS.
9. UNITS SHALL BE SUPPLIED WITH A TERMINAL STRIP ONLY, CONTROLS CONTRACTOR TO PROVIDE CONTROLLER.
10. AUTOMATIC SHUT DOWN FROM FIRE ALARM AREA DEECTION SYSTEM, WIRING FROM FIRE ALARM RELAY TO UNIT BY HVAC CONTRACTOR.
11. FACTORY SINGLE POINT POWER.
12. UNIT MUST FIT THRU A 60 IN. X 60 IN. OPENING.

SOUND TRAP SCHEDULE

DESIGNATION	ST 3-1 – ST 3-2	ST 3-4 – ST 3-9	ST 4-1 – ST 4-2	ST 4-4 – ST 4-9	ST 5-1 – ST 5-2	ST 5-4 – ST 5-9	ST 6-1	ST 6-3 – ST 6-4	ST 6-6	ST 7-1	ST 7-3
AIR FLOW (CFM)	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
FACE VELOCITY (FPM)	576	576	576	576	576	576	576	576	576	576	576
PRESS. DROP (IN. W.C.)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
SIZE (W" x H" x L")	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54	20 x 20 x 54
DYNAMIC INSERTION LOSS (DB)											
63 hz	6	6	6	6	6	6	6	6	6	6	6
125 hz	10	10	10	10	10	10	10	10	10	10	10
250 hz	19	19	19	19	19	19	19	19	19	19	19
500 hz	31	31	31	31	31	31	31	31	31	31	31
1000 hz	29	29	29	29	29	29	29	29	29	29	29
2000 hz	22	22	22	22	22	22	22	22	22	22	22
4000 hz	16	16	16	16	16	16	16	16	16	16	16
8000 hz	12	12	12	12	12	12	12	12	12	12	12
GENERATED NOISE (DB)											
63 hz	28	28	28	28	28	28	28	28	28	28	28
125 hz	21	21	21	21	21	21	21	21	21	21	21
250 hz	26	26	26	26	26	26	26	26	26	26	26
500 hz	32	32	32	32	32	32	32	32	32	32	32
1000 hz	29	29	29	29	29	29	29	29	29	29	29
2000 hz	26	26	26	26	26	26	26	26	26	26	26
4000 hz	14	14	14	14	14	14	14	14	14	14	14
8000 hz	10	10	10	10	10	10	10	10	10	10	10
AIR DIRECTION	REVERSE	REVERSE	REVERSE	REVERSE	REVERSE	REVERSE	REVERSE	REVERSE	REVERSE	REVERSE	REVERSE
MANUFACTURER	BRD	BRD	BRD	BRD	BRD	BRD	BRD	BRD	BRD	BRD	BRD
SHAPE	RECTANGULAR	RECTANGULAR	RECTANGULAR	RECTANGULAR	RECTANGULAR	RECTANGULAR	RECTANGULAR	RECTANGULAR	RECTANGULAR	RECTANGULAR	RECTANGULAR
MODEL NUMBER	C4-54LR	C4-54LR	C4-54LR	C4-54LR	C4-54LR	C4-54LR	C4-54LR	C4-54LR	C4-54LR	C4-54LR	C4-54LR
SERVICE	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM
LOCATION	BLDG 300 - ABOVE CEILING	BLDG 300 - ABOVE CEILING	BLDG 400 - ABOVE CEILING	BLDG 400 - ABOVE CEILING	BLDG 500 - ABOVE CEILING	BLDG 500 - ABOVE CEILING	BLDG 600 - ABOVE CEILING	BLDG 600 - ABOVE CEILING	BLDG 600 - ABOVE CEILING	BLDG 700 - ABOVE CEILING	BLDG 700 - ABOVE CEILING
OPER. WT. (LBS)	150	150	150	150	150	150	150	150	150	150	150
ACCESSORIES	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2	1, 2

1. PROVIDE WITH 22 GAUGE GAL. STEEL CASING, 26 GAUGE GAL. PERFORATED STEEL PARTITIONS, INORGANIC GLASS FIBER FILLER MATERIAL PACKED 5% COMPRESSION, ASTM E84 FLAME/SMOKE RATING OF 20/20.
2. ASTM E477 RATED.

PACKAGE AIR CONDITIONING SCHEDULE

	DESIGNATION	HP 1-1	HP 1-2	HP 1-3	HP 1-4	HP 1-5	HP 1-6	HP 1-7
	VOLTS / PHASE	460 / 3	460 / 3	460 / 3	460 / 3	208-230 / 1	460 / 3	460 / 3
	F.L.A. (AMPS)	-	-	-	-	-	-	-
	MCA / MOCP (AMPS)	22 / 25	22 / 25	25 / 30	33 / 35	44 / 45	33 / 35	25 / 30
	SEER / EER / IEER @ ARI	16.8 / 13.5 / -	16.8 / 13.5 / -	16.8 / 13.5 / -	16.3 / 12.8 / -	-	16.3 / 12.8 / -	16.8 / 13.5 / -
	SEER2 / EER2 @ ARI	12.8 / 16.2 / -	-	-	-	15.2 / 11.5	-	-
BLOWER	SUPPLY AIR (CFM)	1200	1200	1600	2400	810	2400	1600
	EXT. SP (IN. WC)	1.02	1.02	1.03	1.08	-	1.08	1.03
	MIN. O.S.A. (CFM)	225	195	450	670	135	750	450
	HP / BHP	3.0 / 0.472	3.0 / 0.472	3.0 / 0.579	3.0 / 0.906	0.5 / -	3.0 / 0.91	3.0 / 0.579
	RPM	911	911	961	1127	810	1127	961
	DRIVE TYPE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
COOLING	SENSIBLE (MBH)	26.59	26.59	35.59	54.59	19.2	68.67	35.59
	TOTAL (MBH)	33.08	33.08	45.05	70.64	23.4	70.38	45.05
	EADB / EAWB (°F)	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67	80 / 67
	AMBIENT AIR (°F)	105	105	105	105	105	105	105
	UNIT DISCH. TEMP (°F)	59.84	59.84	59.30	59.23	-	58.18	59.30
	REFRIGERANT TYPE	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
	REFRIG. CLASSIFICATION	A2L	A2L	A2L	A2L	A2L	A2L	A2L
	TONS OF REFRIGERATION	3.0	3.0	4.0	6.0	2.0	6.0	4.0
HEATING	OUTPUT CAPACITY (MBH)	32.74	32.74	43.32	69.63	22.2	72.25	43.32
	UNIT DISCH. TEMP (°F)	99.43	99.43	99.17	101.26	-	89.42	99.17
	FUEL	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC
	AUXILIARY ELEC. (KW)	6.0	6.0	6.0	9.0	3.76	9.0	6.0
	COP (AT 47°F)	3.8	3.8	3.8	3.72	3.57	3.72	3.8
FILTERS	QUANTITY / SIZE	2) 18" x 24" x 2" 3) 24" x 16" x 2"	2) 18" x 24" x 2" 3) 24" x 16" x 2"	2) 18" x 24" x 2" 3) 24" x 16" x 2"	2) 18" x 24" x 2" 3) 24" x 16" x 2"	FACTORY	2) 18" x 24" x 2" 3) 24" x 16" x 2"	2) 18" x 24" x 2" 3) 24" x 16" x 2"
	TYPE	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13	MERV 13
	P D (IN WC)	0.3	0.3	0.3	0.3	-	0.3	0.3
MANUFACTURER		TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
TYPE		HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP
MODEL NUMBER		WHK036A4S0B	WHK036A4S0B	WHK048A4S0B	WHK072A4S0C	5WCZ5024A1	WHK072A4S0C	WHK048A4S0B
SERVICE		LOBBY	OFFICES	STAFF LOUNGE	LIBRARY	CONFERENCE	NURSE & OFFICES	ELOP ROOM
LOCATION		BLDG 100 - ROOF	BLDG 100 - ROOF	BLDG 100 - ROOF	BLDG 100 - ROOF	BLDG 100 - ROOF	BLDG 100 - ROOF	BLDG 100 - ROOF
OPER. WT - UNIT ONLY (LBS)		1300	1300	1300	1500	415	1500	1300
ACCESSORIES		1, 2, 3, 5, 6, 7, 8, 9, 10	1, 2, 3, 5, 7, 8, 9, 10	1, 2, 3, 5, 7, 8, 9, 10	1, 2, 4, 5, 7, 8, 9, 10	1, 2, 3, 5, 6, 7, 8, 9, 10	1, 2, 4, 5, 7, 8, 9, 10	1, 2, 3, 5, 6, 7, 8, 9, 10

1. FACTORY REMOVABLE MAINTENANCE ACCESS PANELS, DUAL-SLOPED REMOVABLE CONDENSATE DRAIN PAIN, COIL GUARDS, DIRECT DRIVE SCROLL COMPRESSORS, MERV-13 FILTERS, AND FROSTAT.
2. SEISMIC SLOPED CURB. HEIGHT AND SLOPE OF CURB TO BE DETERMINED BY THE MECHANICAL CONTRACTOR. (WEIGHT NOT INCLUDED IN WEIGHT LISTED ABOVE).
3. MODULATING TITLE 24 COMPLIANT POWER EXHAUST AND ECONOMIZER WITH ACTUATOR ONLY. REQUIRES SEPARATE POWER AND DISCONNECT. POWER REQUIREMENTS: 460V / 3PH, 1.5 FLA, 1.9 MCA, 3.4 MOCP. (WEIGHT **NOT** INCLUDED IN WEIGHT LISTED ABOVE).
4. MODULATING TITLE 24 COMPLIANT POWER EXHAUST AND ECONOMIZER WITH ACTUATOR ONLY. REQUIRES SEPARATE POWER AND DISCONNECT. POWER REQUIREMENTS: 460V / 3PH, 2.8 FLA, 3.5 MCA, 6.3 MOCP. (WEIGHT **NOT** INCLUDED IN WEIGHT LISTED ABOVE).
5. KMC AIRFLOW MONITORY STATION PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED PER MANUFACTURER GUIDELINES.
6. CO2 SENSOR PROVIDED BY CONTROLS CONTRACTOR FOR DEMAND CONTROL VENTILATION.
7. AUTOMATIC SHUT DOWN FROM FIRE ALARM AREA DETECTION SYSTEM, WIRING FROM FIRE ALARM RELAY TO UNIT BY HVAC CONTRACTOR.
8. UNIT TO BE LABELED PER ASHRAE 15. SEE SPECIFICATIONS FOR MORE DETAILS.
9. INTEGRATE WITH EMS.
10. BACNET BY CONTROLS CONTRACTOR.

RADIANT HEATER SCHEDULE

	DESIGNATION	RH 1	RH 2
	VOLTS/PHASE	480 / 1	480 / 1
	AMPS	12.5	12.5
	LENGTH (FT)	66"	66"
HEATING	OUTPUT (MBH)	20.48	20.48
	FUEL	ELECTRICAL	ELECTRICAL
MANUFACTURER		FOSTORIA	FOSTORIA
TYPE		HORIZONTAL	HORIZONTAL
MODEL NUMBER		OCH2-66-480V-SS	OCH2-66-480V-SS
LOCATION		BLDG 800	BLDG 800
OPER. WT (LBS)		30	30
ACCESSORIES		1, 2	1, 2

1. PROVIDE WITH WIRE GUARDS.
2. PROVIDE WITH MOUNTING BRACKETS.

FLY FAN SCHEDULE

DESIGNATION	FF 2-1
CFM	1800
FPM AT NOZZLE	1800.00
(QUANTITY) HP	1/6
VOLTS / PHASE	115 / 1
MANUFACTURER	MARS
TYPE	UNHEATED
MODEL NUMBER	LPV272-1UA-OB
CONTROL	MICRO SWITCH
LOCATION	KITCHEN
OPER. WT. (LBS)	100
ACCESSORIES	1, 2

1. PROVIDE WITH FACTORY DOOR LIMIT SWITCH MODEL #99-014, COMBINATION PLUNGER/ROLLER SWITCH 250V, 1 HP MAX.
2. PROVIDE WITH FACTORY TRANSOM MOUNTING BRACKET SET FOR LPV2, MODEL #B0042.

REGISTERED PROFESSIONAL ENGINEER — BRIAN W. CARLSON — No. M34846 Exp. 6-30-28 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101 — 25026 — Fresno, CA 93727 FAX (559) 431-1362

APPROVALS
FILE # 10-126 — APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-31128 — REN. 05-31-27 — STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE: MECHANICAL SCHEDULES

M7.04

PROJECT 24042

15 September 2026 9:38 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M7.00 – M7.06 – Mechanical Schedules.dwg rysnf

TITLE 24 ACCEPTANCE TESTING TABLE

FORM / TITLE	DESIGNATION	HP 1-1	HP 1-2	HP 1-3	HP 1-4	HP 1-5	HP 1-6	HP 1-7	AH 2-1	AH 2-2	AH 2-3	AH 2-4	AH 3-1	AH 3-2	AH 3-3	AH 3-4	AH 3-5	AH 3-6	AH 3-7	AH 3-8	AH 3-9	AH 4-1	AH 4-2	AH 4-3	AH 4-4	AH 4-5	AH 4-6	AH 4-7	AH 4-8	AH 4-9
	NRCA-MCH-02-A OUTDOOR AIR.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	NRCA-MCH-03-A CONSTANT VOLUME SINGLE ZONE HVAC.	X	X	X	X	X	X	X																						
	NRCA-MCH-04-A AIR DISTRIBUTION DUCT LEAKAGE.																													
	NRCA-MCH-05-A AIR ECONOMIZER CONTROLS.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	NRCA-MCH-06-A DEMAND CONTROL VENTILATION SYSTEMS.	X				X		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
	NRCA-MCH-07-A SUPPLY FAN VARIABLE FLOW CONTROLS.																													
	NRCA-MCH-08-A VALVE LEAKAGE TEST.																													
	NRCA-MCH-09-A SUPPLY WATER TEMPERATURE RESET CONTROLS.																													
	NRCA-MCH-10-A HYDRONIC SYSTEM VARIABLE FLOW CONTROLS.																													
	NRCA-MCH-11-A AUTOMATIC DEMAND SHED CONTROLS.																													
	NRCA-MCH-12-A FDD FOR PACKAGED DIRECT EXPANSION UNITS.	X	X	X	X		X	X																						
	NRCA-MCH-13-A AUTOMATIC FDD FOR AIR HANDLING UNITS AND ZONE TERMINAL UNITS.								X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	NRCA-MCH-14-A DISTRIBUTED ENERGY STORAGE DX AC SYSTEMS.																													
	NRCA-MCH-15-A THERMAL ENERGY STORAGE (TES) SYSTEM.																													
	NRCA-MCH-16-A SUPPLY AIR TEMPERATURE RESET CONTROLS.																													
	NRCA-MCH-17-A CONDENSER WATER TEMPERATURE RESET CONTROLS.																													
	NRCA-MCH-18-A ENERGY MANAGEMENT CONTROL SYSTEMS.																													
	NRCA-MCH-19-A OCCUPANCY SENSOR CONTROLS.																													
	NRCA-MCH-20 MULTI-FAMILY VENTILATION.																													
	NRCA-MCH-21 MULTI-FAMILY ENVENLOPE LEAKAGE.																													
	NRCA-MCH-22-A MF DUCT LEAKAGE.																													
	NRCA-MCH-23-A MF HRV/ERV VERIFICATION.																													

1. REFER TO TITLE-24 DOCUMENTS FOR ADDITIONAL INFORMATION.
2. NRCA MUST BE SUMBITTED AND COMPLETED BY A CERTIFED ACCEPTANCE TEST TECHNICIAN TO COMPLY WITH CALIFORNIA ENERGY CODE.
3. SUBMIT ACCEPTANCE FORMS TO PROJECT INSPECTOR & MEOR FOR REVIEW.

TITLE 24 ACCEPTANCE TESTING TABLE

FORM / TITLE	DESIGNATION	AH 5-1	AH 5-2	AH 5-3	AH 5-4	AH 5-5	AH 5-6	AH 5-7	AH 5-8	AH 5-9	AH 6-1	AH 6-2	AH 6-3	AH 6-4	AH 6-5	AH 6-6	AH 7-1	AH 7-2	AH 7-3	IDU 1-1	IDU 2-1	IDU 2-2	IDU 3-1	IDU 3-2	IDU 4-1	IDU 4-2	IDU 5-1	IDU 5-2	IDU 6-1	IDU 7-1	WC 1
	NRCA-MCH-02-A OUTDOOR AIR.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	NRCA-MCH-03-A CONSTANT VOLUME SINGLE ZONE HVAC.																			X	X	X	X	X	X	X	X	X	X	X	
	NRCA-MCH-04-A AIR DISTRIBUTION DUCT LEAKAGE.																														
	NRCA-MCH-05-A AIR ECONOMIZER CONTROLS.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
	NRCA-MCH-06-A DEMAND CONTROL VENTILATION SYSTEMS.	X	X	X	X	X	X	X	X		X		X	X		X	X		X												
	NRCA-MCH-07-A SUPPLY FAN VARIABLE FLOW CONTROLS.																														
	NRCA-MCH-08-A VALVE LEAKAGE TEST.																														X
	NRCA-MCH-09-A SUPPLY WATER TEMPERATURE RESET CONTROLS.																														X
	NRCA-MCH-10-A HYDRONIC SYSTEM VARIABLE FLOW CONTROLS.																														X
	NRCA-MCH-11-A AUTOMATIC DEMAND SHED CONTROLS.																														
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	NRCA-MCH-13-A AUTOMATIC FDD FOR AIR HANDLING UNITS AND ZONE TERMINAL UNITS.	X	X	X	X	X	X	X	X	X	X		X	X		X	X		X												
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LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

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TITLE
MECHANICAL SCHEDULES

M7.05

PROJECT 24042

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GRILLE SCHEDULE

MARK	DUTY	DESCRIPTION
A	CEILING SUPPLY	TITUS TDC (TYPE 3) LOUVER FACE SQUARE OR ROUND NECK DIFFUSER FOR STD. LAY-IN CEILING, AND NO. 25 OFF-WHITE FINISH. (18"X18" NECK ADAPTER SIZE SHOWN).
B	CEILING RETURN OR EXHAUST	TITUS CORE 50F (TYPE 3) ALUMINUM EGG CRATE REGISTER WITH 1/2" x 1/2" GRID, FOR LAY-IN CEILING, AND NO. 25 OFF-WHITE FINISH.
C	CEILING SUPPLY	TITUS TDC (TYPE 3) LOUVER FACE SQUARE OR ROUND NECK DIFFUSER FOR SURFACE MOUNTING, AND NO. 25 OFF-WHITE FINISH.
D	CEILING RETURN OR EXHAUST	TITUS CORE 50F (TYPE 3) ALUMINUM EGG CRATE REGISTER WITH 1/2" x 1/2" GRID, FOR SURFACE MOUNTING. USE NO. 84 BLACK FINISH IN OPEN CEILING AREAS; OTHERWISE, USE NO. 25 OFF-WHITE FINISH.
E	WALL SUPPLY	TITUS MODEL 300RL (TYPE 1) WITH HORIZONTAL LOUVERS IN FRONT, 3/4" LOUVER SPACING, DOUBLE DEFLECTION, OPPOSED-BLADE DAMPER, 1-1/4" WIDE FRAME. FOR BLDGS 200, 300, & 400 USE NO. 25 OFF-WHITE FINISH, FOR BLDG 500 USE NO. 84 BLACK FINISH.
F	WALL RETURN	TITUS MODEL 350RL (TYPE 1) WITH HORIZONTAL LOUVERS IN FRONT, 3/4" LOUVER SPACING, DOUBLE DEFLECTION, OPPOSED-BLADE DAMPER, 1-1/4" WIDE FRAME. FOR BLDGS 200, 300, & 400 USE NO. 25 OFF-WHITE FINISH, FOR BLDG 500 USE NO. 84 BLACK FINISH.
G	WALL RETURN (HEAVY DUTY)	TITUS MODEL 33RS (TYPE 1) HEAVY DUTY GRILLE WITH HORIZONTAL LOUVERS, 1/2" LOUVER SPACING, 38° DEFLECTION, OPPOSED-BLADE DAMPER.
H	FILTERED CEILING RETURN OR EXHAUST	TITUS CORE 50FF (TYPE 3) ALUMINUM EGG CRATE REGISTER WITH 1/2" x 1/2" GRID, 1 INCH FILTER FRAME, FOR SURFACE MOUNTING. USE NO. 84 BLACK FINISH IN OPEN CEILING AREAS; OTHERWISE, USE NO. 25 OFF-WHITE FINISH.
J	CEILING SUPPLY	TITUS PAR (TYPE 1) PERFORATED FACE SQUARE OR RECTANGULAR NECK REGISTER FOR SURFACE MOUNTING , FLAT BLACK INTERIOR AND NO. 25 OFF-WHITE FINISH.
K	WALL LOUVER	RUSKIN ELF6375DX STATIONARY EXTRUDED ALUMINUM, DRAINABLE GUTTERS IN EACH BLADE, 0.75"x0.51" MESH SCREEN IN REMOVABLE FRAME. MILL FINISH FOR PAINTING. COORDINATE COLOR W/ ARCH. FOR HOLLOW METAL FRAMES COORDINATE INSTALLATION W/ ARCH.
L	HOOD	INTAKE OR EXHAUST. GREENHECK MODEL #FGR OR FGI W/ SCREEN. PROVIDE CURB TO MATCH SLOPE.
M	DOOR LOUVER	GREENHECK ESJ-155 STATIONARY ALUMINUM, 0.75" x 0.051" MESH SCREEN IN REMOVABLE FRAME. MILL FINISH FOR PAINTING. COORDINAE COLOR W/ ARCH. FOR HOLLOW METAL FRAMES COORDINATE INSTALLATION W/ ARCH.

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FILE # 10-126 APPLICATION # 02-123774

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JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
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TITLE
MECHANICAL SCHEDULES

M7.06

PROJECT 24042

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APPROVALS

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SANGER, FRESNO COUNTY, CA

REVISIONS

TITLE
KITCHEN HOOD SHOP DRAWINGS

M7.07

PROJECT 24042

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FOR QUESTIONS, CALL THE
Central Valley CA
REGION 10
PHONE: (559) 349 - 5566
EMAIL: cvca@captiveaire.com

PATENT NUMBERS
EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) – CA PATENT 2520435 C.

HOOD INFORMATION – JOB#7640065

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL CFM	EXHAUST PLENUM WIDTH	LENG	HEIGHT	SIA	CFM	VEL	SP	HOOD CONSTRUCTION	HOOD CONFIG WALL	HOOD CONFIG END
1		6030 ND-2	CAPTIVEAIRE	12' 7"	600 DEG	1	HEAVY	175	2202			4"	12"	2202	2560	-0.930"	430 SS WHERE EXPOSED	ALCOVE	ALCOVE
2		6624 VHB-G-ND	CAPTIVEAIRE	6' 6"	600 DEG	11	N/A	200	1300			4"	12"	1300	1655	-0.215"	430 SS 1005	ALCOVE	ALCOVE

HOOD INFORMATION

HOOD NO	TAG	FILTERS TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY # 7 MICRONS	QTY	LIGHTS TYPE	WIRE GUARD	LOCATION	SIZE	UTILITY CARRIER(S) FIRE SUPPRESSION TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE PIPING	HOOD WEIGHT
1		CAPTRATE SOLID FILTER	9	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x60"x30"	TANK FS	4.0	BCV-E111	1 LIGHT 1 FAN	YES	1197 LBS
2							0									NO	697 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 15.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 120.00" HIGH X 187.00" LONG 430 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
		STRUCTURAL FRONT PANEL.
		RIGHT WIDE VERTICAL END PANEL 42" TOP WIDTH, 36" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS
		LEFT WIDE VERTICAL END PANEL 42" TOP WIDTH, 36" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS
2		FIELD WRAPPER 16.00" HIGH FRONT, RIGHT.
		BACKSPLASH 85.00" HIGH X 79.00" LONG 430 SS VERTICAL.
		LEFT SIDESPLASH 85.00" HIGH X 66.00" LONG 430 SS VERTICAL.
		BACKSPLASH – INSIDE CORNER 80.00" HIGH X 2.00" LEG LENGTH 430 SS VERTICAL.

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL 'DW' ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL 'DW' IS LISTED TO UL-1978 AND IS INSTALLED USING 'V' CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL 'DW' DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL 'DW' HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL 'DW'- 2R, 2R TYPE HT, 3R, OR 3Z' ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE
HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT
___' - ___"
HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:
APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE
YOUR TITLE _____ DATE _____

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER

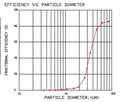
THE CAPTIVATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN. THE FILTER IS CONSTRUCTED OF 430 STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNELING.

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

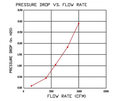
GREASE EXTRACTION EFFICIENCY: PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 10 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLID WAS TESTED TO ASTM STANDARD ASTM F2519-05, "STANDARD TEST METHOD FOR GREASE FILTERS USED IN COMMERCIAL KITCHEN HOODS."

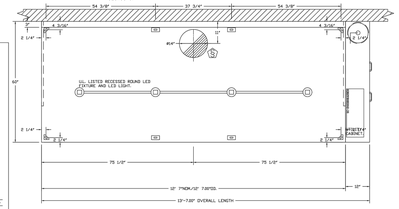
EFFICIENCY VS. PARTICLE DIAMETER



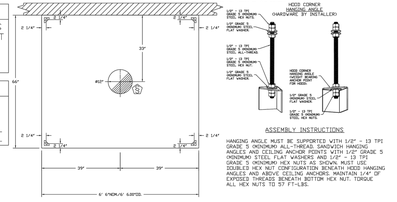
PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH NFPA #96, NOT STANDARD 80. (2018 INTERNATIONAL MECH. CODE (IMC). ULC-S649.



PLAN VIEW – HOOD #1
12'-7.00" LONG 6030ND-2
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 10' AND LONGER.



PLAN VIEW – HOOD #2
6'-6.00" LONG 6624VHB-G-ND

ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 (MINIMUM) ALL-THREAD SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLES HEX NUT CONFIGURATION ABOVE CEILING. SINGLE HEX NUT CONFIGURATION BELOW CEILING IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

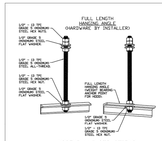
CAPTIVEAIRE
Central Valley CA
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REVISIONS
A KH 2-1, KH 2-2
A
A
A

New Temperance ES - Sanger, CA
Sanger, CA, 93657

DATE: 6/8/2026
DWG.#: 7640065
DRAWN BY: MR
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

FULL LENGTH HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

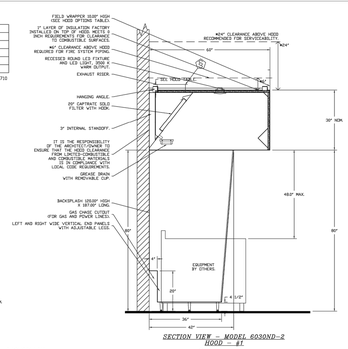
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 (MINIMUM) ALL-THREAD SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLES HEX NUT CONFIGURATION ABOVE CEILING. SINGLE HEX NUT CONFIGURATION BELOW CEILING IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

FIELD WRAPPER 15.00" HIGH (SEE HOOD OPTIONS TABLE).

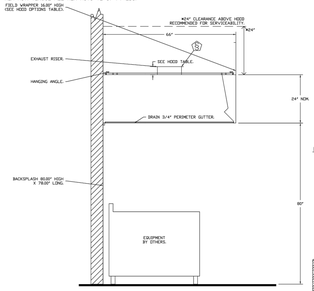
CLEARANCE TO COMBUSTIBLES

HOODS #	SURFACE	*CLEARANCE
1	TOP	0"
	FRONT	0"
	BACK	18"
	LEFT	18"
	RIGHT	0"

- *0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

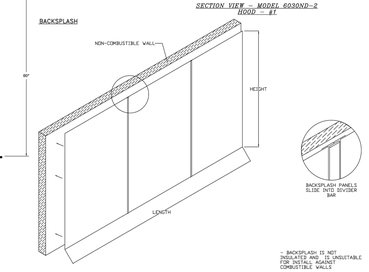


SECTION VIEW – MODEL 6030ND-2
HOOD – #1



SECTION VIEW – MODEL 6624VHB-G-ND
HOOD – #2

BACKSPLASH



- BACKSPLASH IS NOT INSULATED AND IS UNSUITABLE FOR INSTALL AGAINST COMBUSTIBLE WALLS

REVISIONS
A KH 2-1, KH 2-2
A
A
A

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LICENSED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

15 September 2026 9:38 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M7.07-7.08 - Kitchen Hood Shop Drawings.dwg ryanf
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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

FIRE SYSTEM INFORMATION – JOB#7640065

FIRE SYSTEM NO.	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK 7 G	4.0	20	20	FIRE CABINET RIGHT	RIGHT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO.	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	.030	CAPTIVEAIRE SYSTEMS

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO.	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 - 0 - 30-00002 - QUIK SEAL - 1/2" GJL's.	1	0
		ON - ON - GSA-3/8 - QUIK SEAL - 3/8" GJL's.	5	0
		16 - 16 - DL-F - NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	5	0
		0 - 0 - CBI-023 - CHROME PLATED PIPE FITTING 3/8" NPT 23/3 SCGREE ELBOW.	2	0
		0 - 0 - 9055455PC - PRD PRESS 1/2 PRESS X PRESS 90 ELBOW L.S.	5	0
		0 - 0 - 9091350PC - PRD PRESS PG&S 1/2 PRESS TEE L.S.	4	0
		16 - 16 - 79203 - 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	5	0
		0 - 0 - B1145 - 3/8" BLACK IRON 90 ELL.	3	0
		0 - 0 - TANK STRAP - TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	3	0
		0 - 0 - TFS-UCTANKBRACKET - TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - VK-083950-000 - DISCHARGE ADAPTER, TANK FIRE SUPPRESSION	1	0
		0 - 0 - 87-300252-001 - HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	4	0
		34 - 34 - A6034331 - RED COLOR - 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT.	1	0
		0 - 0 - A6034332 - JUNCTION BOX FOR MANUAL PULL STATION, 1.5" DEEP BACK BOX, RED COLOR	1	0
		0 - 0 - DATAKNLOCK - DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 9986944005 - HARDWARE, DATAKNLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 442903S3 - 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	1	0
		0 - 0 - UX-F28021-30144+07-1M2 - DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A6034310)	1	0
		0 - 0 - 442PBA20 - 1/2" X 1/4" BRASS REDUCING BUSHING	1	0
		0 - 0 - 79505 - 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	1	0
		0 - 0 - 79590 - 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	1	0
		0 - 0 - 87-300001-001 - - TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300030-001 - - PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300033-001 - - DIN CONNECTOR, CANFIELD PART #5,060-051-EUDA, TANK FIRE SUPPRESSION, SUBMOUNTURE SOLENOID CONNECTION (CED VENDOR 30377).	1	0
		0 - 0 - A6068 - 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES 1/4" FLARE X 1/4" NPT HALF UNION. USED ON TANK SERVICE PORT.	1	0
		SC-EGV4E - GAS VALVE - 3" ELECTRICAL SHUTOFF VALVE FOR USE WITH HMI RESET, 110V, 60HZ (A6014280). INCLUDES UPSTREAM STRAINER ASSEMBLY.	1	0

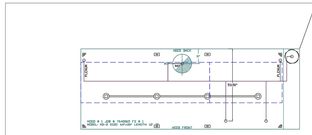
REVISIONS

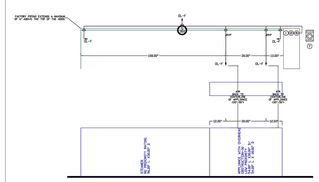
DESCRIPTION	DATE
A1	
A1	KH 2-1, KH 2-2
A1	
A1	
A1	

CAPTIVE-AIRE
Corporate Headquarters
Central Valley CA.
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SLOPE
SIDE SUPPLY
SIDE SUPPLY
SLOPE
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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
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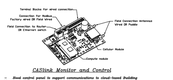
TITLE
KITCHEN HOOD SHOP DRAWINGS

M7.09

PROJECT 24042

ELECTRICAL PACKAGE – JOB#7640065

NO	TAG	PACKAGE #	LOCATION	SWITCHES LOCATION	SWITCHES QUANTITY	OPTION	FANS CONTROLLED TYPE	H.P.	VOLTS	FLA
1		SCV-2111	UTILITY CABINET RIGHT	SHOP LOOSE W/ PRESURE	1 LIGHT 1 FAN	SMART CONTROLS SCV	EXHAUST 3	2.000	208	6.1
							EXHAUST 1	0.500	115	6.3
							SUPPLY 3	5.000	208	15.5

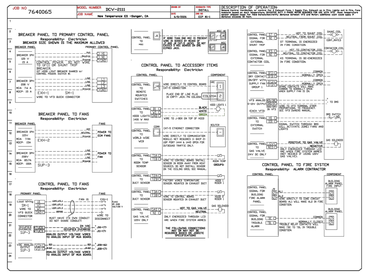


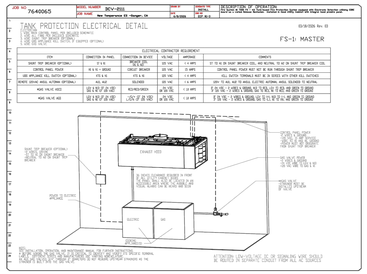
CASTlink Monitor and Control

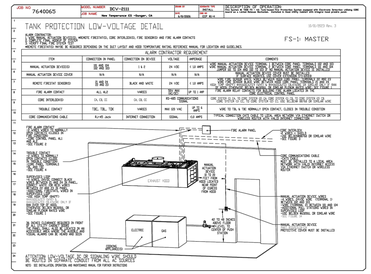
— Roof mount panel to support communications to cloud based Building Management System.
Provide Ethernet Panel to allow cloud based Building Management System to monitor and control all equipment connected to the CASTlink Network.
Ethernet Panel to allow cloud based Building Management System to control all protection methods via CASTlink to the panel.
Ethernet Panel to allow cloud based Building Management System to control all CASTlink interconnected alarm strategies for easy integrated Building Management.

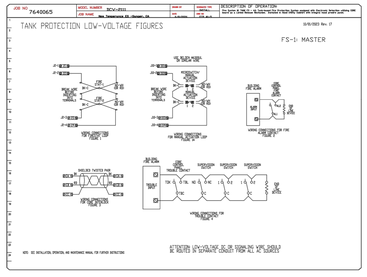
MONITORING AND CONTROL POINTS LIST

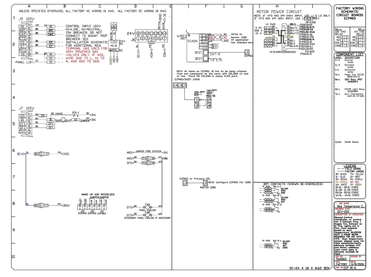
	Function		Function
Hood Temperature	provided	Hood Temperature	provided
Duct Temperature(s)	provided	Duct Temperature(s)	provided
Wet Discharge Temperature	provided	Wet Discharge Temperature	provided
Grease Cell Discharge Temperature	provided	Grease Cell Discharge Temperature	provided
Fire Alarm	provided	Fire Alarm	provided
Fire Preaction	provided	Fire Preaction	provided
Fire Flow	provided	Fire Flow	provided
MU Faults	provided	MU Faults	provided
Fire Flow Faults	provided	Fire Flow Faults	provided
Fan Faults	provided	Fan Faults	provided
Fire Faults	provided	Fire Faults	provided
MU Faults	provided	MU Faults	provided
MU Filter Dirty Percentages	provided	MU Filter Dirty Percentages	provided
Fire Alarm	provided	Fire Alarm	provided
Shtdwn Fire System	provided	Shtdwn Fire System	provided
Shtdwn Firestat	provided	Shtdwn Firestat	provided
Fans Status	provided	Fans Status	provided
Lights Status	provided	Lights Status	provided
Fans Faults	provided	Fans Faults	provided

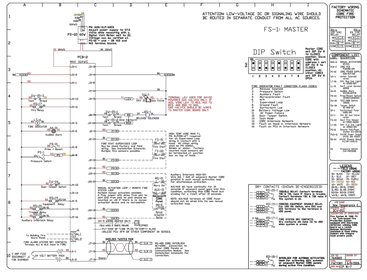












REVISIONS

DESCRIPTION	DATE
KH 2-1, KH 2-2	

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SHEET NO. 16

REVISIONS

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REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

KITCHEN HOOD SHOP DRAWINGS

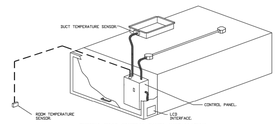
detail # A / M7.09

LAWRENCE ENGINEERING GROUP
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Fresno, CA 93727
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DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

- CONTROLS SHALL BE LISTED BY ETL UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN 2C3C 403.7.5 (2022).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A TEMPERATURE DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.11.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 6% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  B. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM (NO VALVES (NO RESET RELAY REQUIRED).
  C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.



TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:

THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND EXHAUST DUCT TEMPERATURE. THE SYSTEM WILL RUN AT MINIMUM SPEED UNTIL THE FIRST CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD (DEPENDING ON THE ZONE CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH CONSTANT SPEED FANS AND/OR A ZONE WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN 2C3C 403.7.5 (2022).
- MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (2DC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

REVISIONS

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A1		
A2	KH 2-1, KH 2-2	
A3		
A4		

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SHEET NO. 18

KITCHEN HOOD SHOP DRAWINGS

detail # A / M7.09

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REVISIONS

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TITLE
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PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

15 September 2026 9:38 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M7.07-7.08 - Kitchen Hood Shop Drawings.dwg ryanf

LEGEND

SYMBOLS

	SUPERVISORY TCP
	IP SYSTEM CONTROLLER
	IP TERMINAL UNIT CONTROLLER
	THERMOSTAT SENSOR
	AC
	LIGHTING PANEL
	AHU
000	MS/TP ROUTER
	RTU
	IDU
	CHILLER
	DISPLAY
	PROTONODE
	BACNET KW METER
FIRE A	FIRE ALARM
	BACNET ROOM PRESSURE MONITOR
	GAS WATER HEATER
	DOMESTIC COLD WATER BOOSTER PUMP
	THERMOSTATIC MIXING VALVE
	CONTROL PANEL
	MODULATING ECONOMIZER
	UNIT VENTILATOR WITH WATER COIL
	CONDENSING UNIT
	DAMPER
	TEMPERATURE SENSOR
	EFAN
	FIRE ALARM CONTROL PANEL
	GENERATOR CONTROL PANEL
	FAN
	PRESSURE SENSOR
	START/STOP CONTROL DEVICE
	OUTSIDE AIR TEMP
	FAN

SYMBOLS CONTD.

	BARD UNIT
	ZIO SENSOR
	WALL TEMP SENSOR
	COMPRESSOR STATUS
	CUSTOMER SUPPLIED NETWORK SWITCH
	SWITCH

DRAWING TAGS

CONTROL TAG — 4 / XX.# — EQUIPMENT TAG

EQUIPMENT TAGGED WITH CONTROL TAG TO BE INSTALLED BY LPC AUTOMATION OR LPC AUTOMATION WITH A CONTROL TAG TO APPEAR ON BILL OF MATERIALS RESIDING ON SAME DRAWING UNLESS NOTED. ALL EQUIPMENT TAGGED WITH CONTROL TAG TO BE INSTALLED BY LPC AUTOMATION OR LPC AUTOMATION SUBCONTRACTOR.

MECHANICAL TAG — M / XX.# — EQUIPMENT TAG

EQUIPMENT TAGGED WITH MECHANICAL TAG TO BE INSTALLED BY MECHANICAL CONTRACTOR. EQUIPMENT TAGGED WITH MECHANICAL TAG TO BE INSTALLED BY OTHERS.

SHEET NOTES:

ALL LON COMMUNICATION CABLE MUST BE 22 AWG UNSHIELDED TWISTED PAIR WIRE (ORANGE PAR P/N: W227P-C20-GREL) WITH LIMITS OF 4000 FEET AND 60 DEVICES PER LINK. 120 OHM RESISTORS ARE REQUIRED AT EACH END OF THE WIRE.

ALL BACNET MS/TP COMMUNICATION CABLE MUST BE 24 AWG SHIELDED COMMUNICATION CABLE (CONNECT AIR P/N: W241P-2000FBLRB) WITH LIMITS OF 4000 FEET AND 60 DEVICES PER LINK. 120 OHM RESISTORS ARE REQUIRED AT EACH END OF THE WIRE.

ALL BACNET/IP COMMUNICATION CABLE MUST BE CAT5E ETHERNET CABLE (CONNECT AIR P/N: W244P-2176) WITH LIMITS OF 300 FEET BETWEEN DEVICES.

GENERAL NOTES:

- DO NOT BUNDLE SWITCHED 120VAC WIRING TOGETHER WITH SENSOR WIRING OR LOW VOLTAGE (24VAC) OR COMMUNICATION CABLE.
- ALL DDC WIRES/CABLES INSTALLED WITHIN CEILING PLENUM WILL HAVE PLENUM RATED CABLE JACKET/COVER.
- THE MOUNTING HEIGHT OF T-STAT IS AT 48" ABOVE THE FINISHED FLOOR.

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. DETAILS ONLY APPLICABLE TO THE QUOTE FOR THIS PROJECT.

ABBREVIATIONS

	A
A	AMP(S)
AC	AIR CONDITIONER
AMS	AIR FLOW MEASURING STATION
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
	B
BC	BLOWER COIL
BLDG	BUILDING
BTU	BRITISH THERMAL UNIT
BYP	BYPASS
	C
CA	COLD ASILE
CB	CIRCUIT BREAKER
CC	COOLING COIL
CD	CONTROL DAMPER
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CHWR	CHILLED WATER RETURN
CHWRV	CHILLED WATER RETURN VALVE
CHWS	CHILLED WATER SUPPLY
CHWSV	CHILLED WATER SUPPLY VALVE
CLP	CONDENSATE LIFT PUMP
CMD	COMMAND
CO	CARBON MONOXIDE
CO2	CARBON DIOXIDE
COM	COMMON
COMM	COMMUNICATION
CS	CURRENT SWITCH
CSR	COMBINATION CURRENT SWITCH/RELAY
CTRL	CONTROL
CT	CURRENT TRANSDUCER
CT	COOLING TOWER (MECHANICAL TAG)
CTR	COMBINATION CURRENT TRANSDUCER/RELAY
CU	CONDENSING UNIT
CV	FLOW COEFFICIENT
CW	CONDENSER WATER
CWP	CONDENSER WATER PUMP
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
	D
DA	DISCHARGE AIR
DAT	DISCHARGE AIR TEMPERATURE
DCV	DEMAND CONTROL VENTILATION
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREES
DEWPT	DEWPOINT
DI	DIGITAL INPUT
DM	DAMPER MOTOR
DMPR	DAMPER
DO	DIGITAL OUTPUT
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSDUCER
DS	DEWPOINT SENSOR
	E
(E)	EXISTING
EA	EXHAUST AIR
EAD	EXHAUST AIR DAMPER
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
ENC	ENCLOSURE

ABBREVIATIONS

ENTH	ENTHAPLY
EOL	END OF LINE
EPT	ELECTRO PNEUMATIC TRANSDUCER
ES	END SWITCH
	F
FA	FIRE ALARM
FCU	FAN COIL UNIT
FLT	FILTER
FM	FLOW METER
FS	FLOW SWITCH
FSD	FIRE SMOKE DAMPER
FT	FOOT(FEET)
	G
GND	GROUND
GPM	GALLONS PER MINUTE
	H
HA	HOT AISLE
HC	HEATING COIL
HCV	HEATING COIL VALVE
HI	HIGH
HUM	HUMIDITY SENSOR
HW	HOT WATER
HWR	HOT WATER RETURN
HWR	HOT WATER SUPPLY
HWV	HOT WATER VALVE
HHW	HEATING HOT WATER
HHWR	HEATING HOT WATER RETURN
HHWR	HEATING HOT WATER SUPPLY
HHWV	HEATING HOT WATER VALVE
HX	HEAT EXCHANGER
HYS	HYDROGEN SENSOR
	I
IDF	INTERMEDIATE DISTRIBUTION FRAME
IN	INCH(ES)
ISO	ISOLATION
	K
KEF	KITCHEN EXHAUST FAN
	L
LAN	LOCAL AREA NETWORK
LB	POUND(S)
LD	LEAK DETECTOR
LON	LOCAL OPERATING NETWORK
	M
MA	MIXED AIR
MA	MIXED AIR TEMPERATURE
MAU	MAKEUP AIR UNIT
	N
N	NEUTRAL
NCP	NETWORK CONTROL PANEL
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
	O
OA	OUTSIDE AIR
OAD	OUTSIDE AIR DAMPER
OAT	OUTSIDE AIR TEMPERATURE
	P
PB	PUSH BUTTON
PCHW	PRIMARY CHILLED WATER
PCHWR	PRIMARY CHILLED WATER RETURN
PCHWS	PRIMARY CHILLED WATER SUPPLY
PCHW	PRIMARY HOT WATER
PHWR	PRIMARY HOT WATER RETURN
PHWS	PRIMARY HOT WATER SUPPLY
PL	PILOT LIGHT
PNL	PANEL

ABBREVIATIONS

PP	PRESSURE PICKUP
PT	PRESSURE TRANSDUCER
PS	POWER SUPPLY
	Q
QTY	QUANTITY
	R
R	RELAY
RA	RETURN AIR
RAD	RETURN AIR DAMPER
RAF	RETURN AIR FAN
RAF	RETURN AIR TEMPERATURE
RD	RELIEF DAMPER
RF	RELIEF FAN
RH	REHEAT
REL	RELIEF
RM	ROOM
RMP	REFRIGERANT MONITOR PANEL
RTU	ROOFTOP UNIT
	S
SA	SUPPLY AIR
SAD	SUPPLY AIR DAMPER
SAT	SUPPLY AIR TEMPERATURE
SCHW	SECONDARY CHILLED WATER
SCHWR	SECONDARY CHILLED WATER RETURN
SCHWS	SECONDARY CHILLED WATER SUPPLY
SCHW	SECONDARY HOT WATER
SD	SMOKE DETECTOR
SETPT	SET POINT
SF	SUPPLY FAN
SH	SHIELDED
SHWR	SECONDARY HOT WATER RETURN
SHWS	SECONDARY HOT WATER SUPPLY
SOL	SOLENOID
SPDT	SINGLE POLE DOUBLE THROW
SPST	SINGLE POLE SINGLE THROW
SW	SWITCH
	T
TCP	TEMPERATURE CONTROL PANEL
TEF	TOILET EXHAUST FAN
TF	TRANSFER FAN
THS	COMBINATION TEMPERATURE/HUMIDITY S
TS	TEMPERATURE SENSOR
TW	TWISTED WIRE
TX	TRANSFORMER
TXP	TRANSFORMER PANEL
	U
UI	UNIVERSAL INPUT
UO	UNIVERSAL OUTPUT
	V
V	VOLT(S)
VA	VOLT-AMPERES
VAC	VOLTS ALTERNATING CURRENT POWER
VAV	VARIABLE AIR VOLUME
VDC	VOLTS DIRECT CURRENT POWER
VFD	VARIABLE FREQUENCY DRIVE
VS	VIBRATION SWITCH
	W
WC	WATER COLUMN

1/2 SYMBOL & ABBREVIATIONS LEGEND

SHEET NOTES

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CABLE SCHEDULE

SYMBOL	SUPPLIER	PART NUMBER	DESCRIPTION	CIRCUIT	COLOR	CONDUCTOR COLORS
CAT5e/6a	CONNTECT AIR (209) 221-6900	W244P-2274	CAT 6 24AWG UTP 4 PAIR TIA/EIA 568B	ETHERNET BACnet/IP	YELLOW	WHITE/ORANGE ORANGE WHITE/GREEN BLUE WHITE/BLUE GREEN WHITE/BROWN BROWN
Subnet		W244P-2176	CAT 5E 24AWG UTP 4P TIA/EIA 568B	SUBNET COMMUNICATION	GREEN	
BACnet MS/TP		W241P-2000FBLRB	24AWG 2C STR SHLD	BACNET MS/TP	BLUE	WHITE BLACK
LON		W221P-2001GRIB	22AWG 2C STR SHLD	LON COMMUNICATION	YELLOW	WHITE BLACK
18/2		W181P-2051	18AWG 2C STR	SENSOR INPUT, SINGLE COMMAND	PURPLE	WHITE BLACK
18/4		W184C-2099	18AWG 4C STR	POWERED COMMAND, POWERED COMMAND W/ FEEDBACK	PINK	WHITE BLACK RED GREEN
18/8		W188C-2046	18AWG 8C STR	THERMOSTAT TERMINALS	WHITE	WHITE BLACK RED GREEN YELLOW

1/3 CABLE SCHEDULE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
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Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

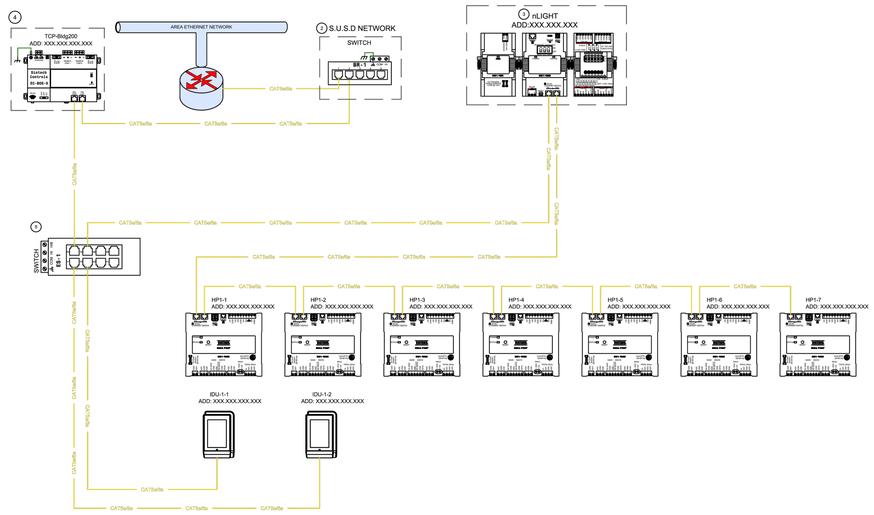
TITLE
MECHANICAL CONTROL DETAILS

M8.00

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



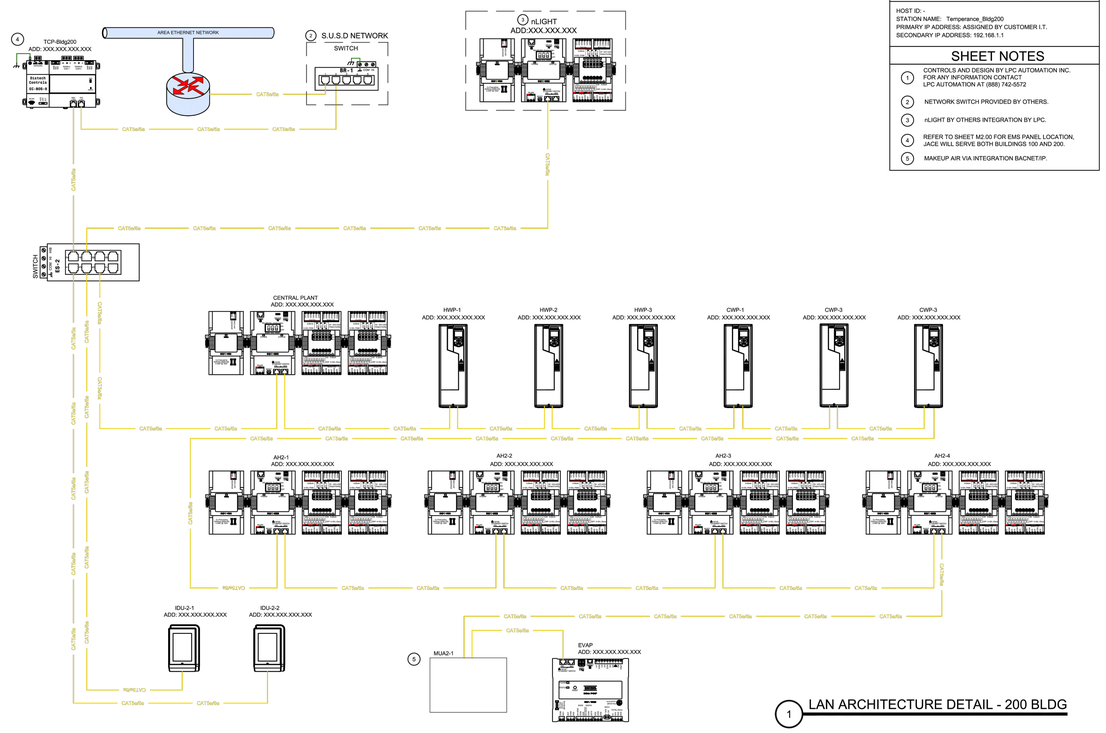
1 LAN ARCHITECTURE DETAIL - 100 BLDG

TCP-1 NOTES

HOST ID: -
STATION NAME: Temperance_Bldg200
PRIMARY IP ADDRESS: ASSIGNED BY CUSTOMER I.T.
SECONDARY IP ADDRESS: 192.168.1.1

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. NETWORK SWITCH PROVIDED BY OTHERS.
3. nLIGHT BY OTHERS INTEGRATION BY LPC.
4. JACE LOCATED IN BUILDING 200 SERVES BOTH BUILDINGS 100 AND 200.
5. REFER TO SHEET ADD/01 FOR EMS NETWORK PANEL SCHEMATIC AND PANEL LAYOUT WITH LOCATION DETAILS.



1 LAN ARCHITECTURE DETAIL - 200 BLDG

TCP-1 NOTES

HOST ID: -
STATION NAME: Temperance_Bldg200
PRIMARY IP ADDRESS: ASSIGNED BY CUSTOMER I.T.
SECONDARY IP ADDRESS: 192.168.1.1

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. NETWORK SWITCH PROVIDED BY OTHERS.
3. nLIGHT BY OTHERS INTEGRATION BY LPC.
4. REFER TO SHEET M2.00 FOR EMS PANEL LOCATION, JACE WILL SERVE BOTH BUILDINGS 100 AND 200.
5. MAKEUP AIR VIA INTEGRATION BACNET/IP.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
MECHANICAL CONTROL DETAILS

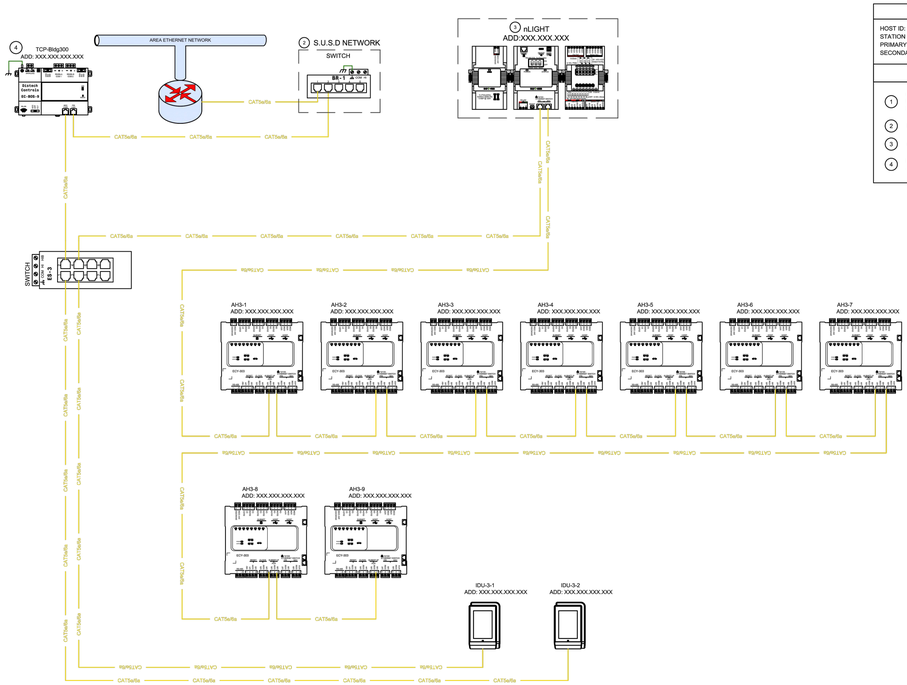
M8.01

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
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FAX (559) 431-1362

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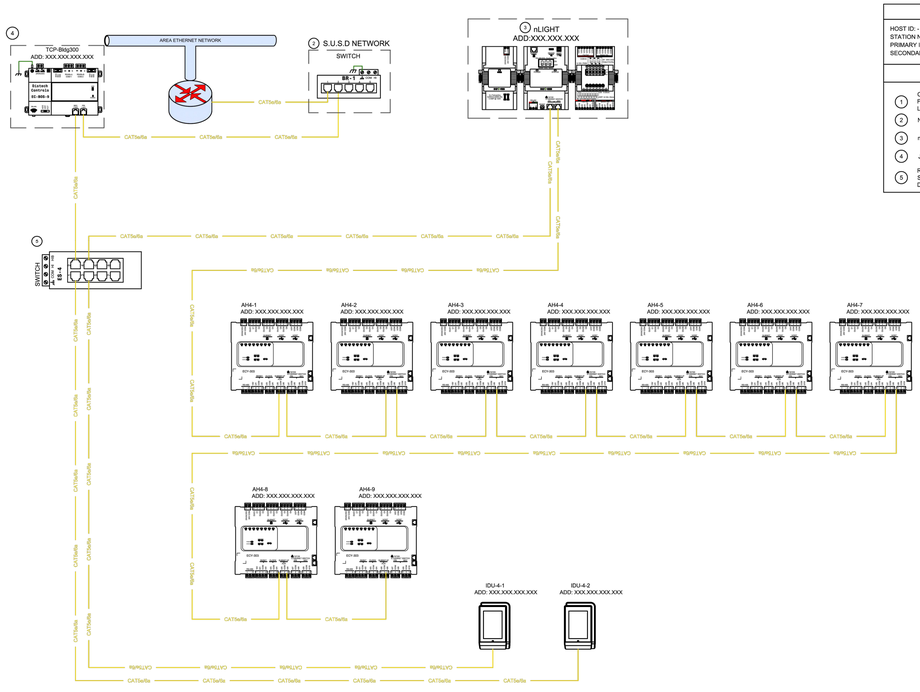
1/6 LAN ARCHITECTURE DETAIL - 300 BLDG

TCP-1 NOTES

HOST ID: -
STATION NAME: Temperance_Bldg300
PRIMARY IP ADDRESS: ASSIGNED BY CUSTOMER I.T.
SECONDARY IP ADDRESS: 192.168.1.1

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. NETWORK SWITCH PROVIDED BY OTHERS.
3. nLIGHT BY OTHERS INTEGRATION BY LPC.
4. REFER TO SHEET M3.00 FOR EMS PANEL LOCATION. JACE WILL SERVE BUILDINGS 300, 400, 500, 600 & 700



1/7 LAN ARCHITECTURE DETAIL - 400 BLDG

TCP-1 NOTES

HOST ID: -
STATION NAME: Temperance_Bldg300
PRIMARY IP ADDRESS: ASSIGNED BY CUSTOMER I.T.
SECONDARY IP ADDRESS: 192.168.1.1

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. NETWORK SWITCH PROVIDED BY OTHERS.
3. nLIGHT BY OTHERS INTEGRATION BY LPC.
4. JACE LOCATED IN BUILDING 300.
5. REFER TO SHEET ADD/01 FOR EMS NETWORK PANEL SCHEMATIC AND PANEL LAYOUT WITH LOCATION DETAILS.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

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SANGER, FRESNO COUNTY, CA

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4320 West Mineral King Avenue
Visalia, California 93291
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(559) 627-0510 Office
(559) 627-1926 Fax

TITLE
MECHANICAL CONTROL DETAILS

M8.02

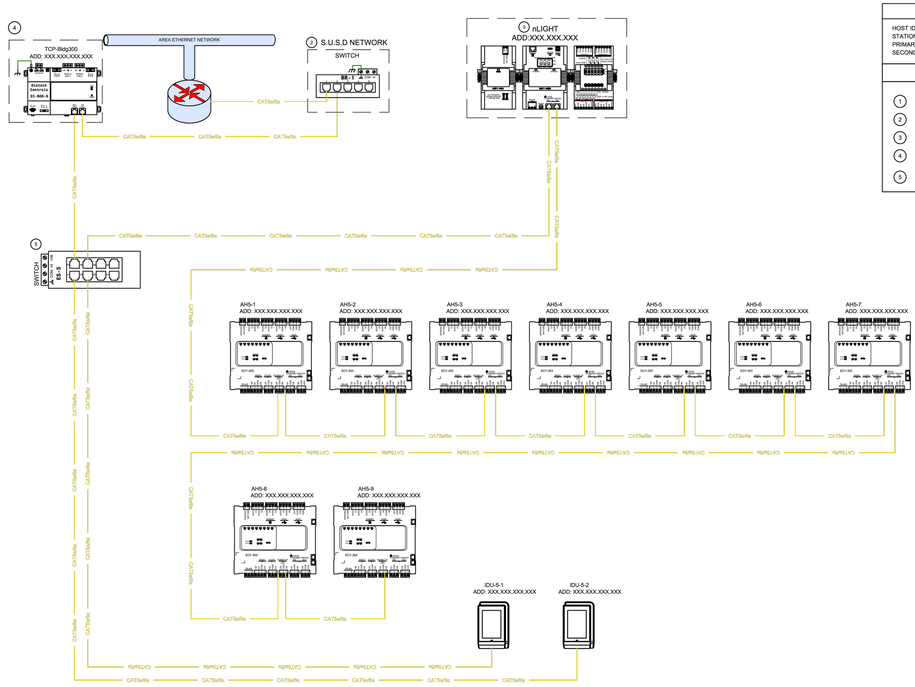
PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

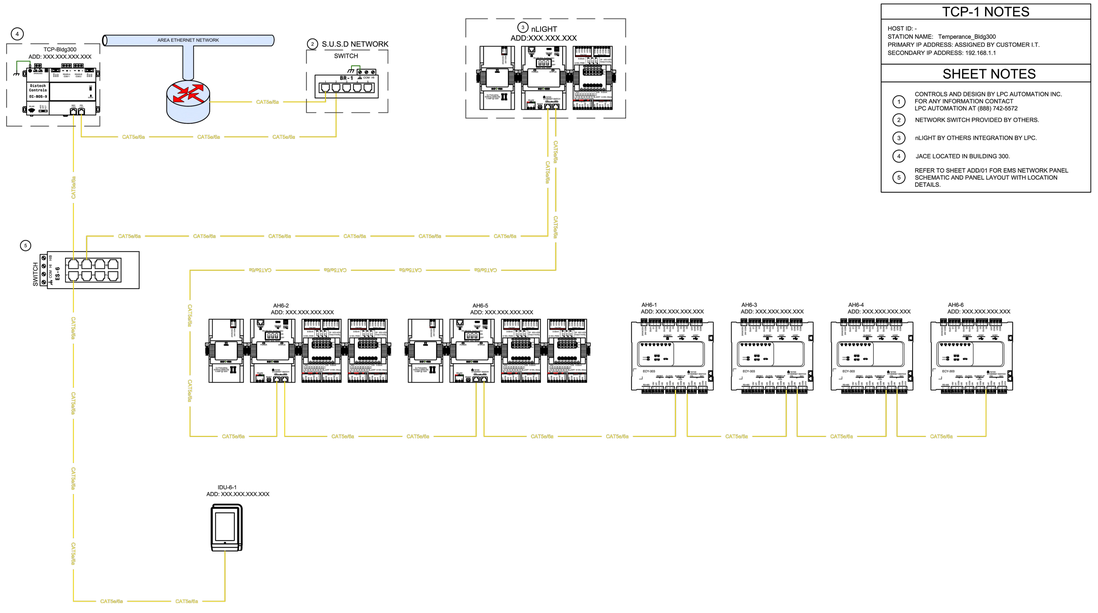
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Fresno, CA 93727
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P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M8.00 - M8.17 - Mechanical Control Details.dwg Sep 15 2026 9:38am



1/8 LAN ARCHITECTURE DETAIL - 500 BLDG



1/9 LAN ARCHITECTURE DETAIL - 600 BLDG

TCP-1 NOTES

HOST ID: -
STATION NAME: Temperance_Bldg300
PRIMARY IP ADDRESS: ASSIGNED BY CUSTOMER I.T.
SECONDARY IP ADDRESS: 192.168.1.1

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. NETWORK SWITCH PROVIDED BY OTHERS.
3. nLIGHT BY OTHERS INTEGRATION BY LPC.
4. JACE LOCATED IN BUILDING 300.
5. REFER TO SHEET ADD/01 FOR EMS NETWORK PANEL SCHEMATIC AND PANEL LAYOUT WITH LOCATION DETAILS.

TCP-1 NOTES

HOST ID: -
STATION NAME: Temperance_Bldg300
PRIMARY IP ADDRESS: ASSIGNED BY CUSTOMER I.T.
SECONDARY IP ADDRESS: 192.168.1.1

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
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3. nLIGHT BY OTHERS INTEGRATION BY LPC.
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TITLE
MECHANICAL CONTROL DETAILS

M8.03

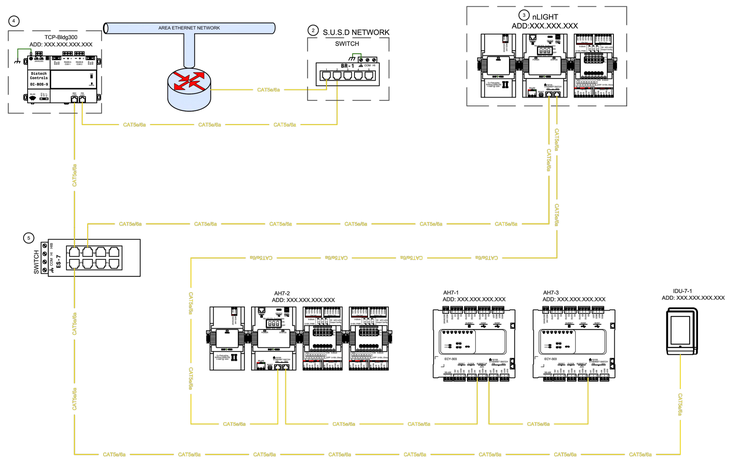
PROJECT 24042

CERTIFIED PROFESSIONAL ENGINEER
BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
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P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M8.00 - M8.17 - Mechanical Control Details.dwg Sep 15 2026 9:39am



1 / 10 LAN ARCHITECTURE DETAIL - 700 BLDG

TCP-1 NOTES

HOST ID: -
STATION NAME: Temperance_Bldg300
PRIMARY IP ADDRESS: ASSIGNED BY CUSTOMER I.T.
SECONDARY IP ADDRESS: 192.168.1.1

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. NETWORK SWITCH PROVIDED BY OTHERS.
3. nLIGHT BY OTHERS INTEGRATION BY LPC.
4. JACE LOCATED IN BUILDING 300.
5. REFER TO SHEET ADD/01 FOR EMS NETWORK PANEL SCHEMATIC AND PANEL LAYOUT WITH LOCATION DETAILS.

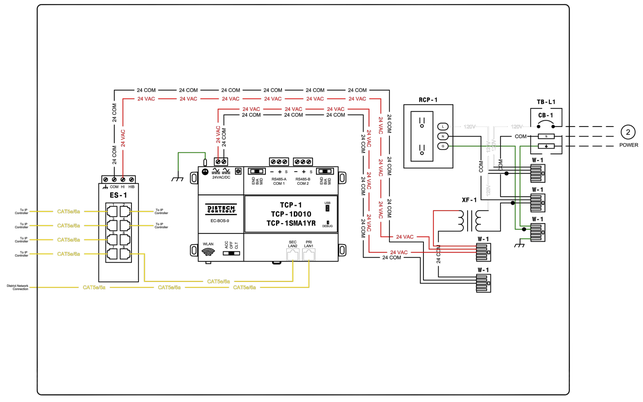
TCP Panel Components			
Tag	Quantity	Manufacturer	Part No.
ENC-1	2	Distech Controls	PIP-N1A24247
RCP-1	2	Allen Bradley	1492-REC15
CB-1	2	Allen Bradley	1489-M1C050
XF-1	2	Distech Controls	PW-TR50VA005
TCP-1	2	Distech Controls	EC-BOS-9
ES-3	1	Distech Controls	NC-EISK8-100T
ES-2	1	Distech Controls	NC-EISK16-100T

3

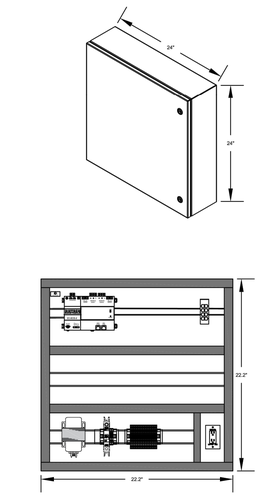
SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ADDITIONAL INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. LINE VOLTAGE & CONDUIT BY DIVISION 26.
3. REFER TO SHEET DDC/37 FOR JACE SCHEDULES.
4. REFER TO SHEET ADD/01 FOR NETWORK SWITCH SCHEMATIC PANEL LAYOUT AND LOCATION SCHEDULE.

ENC-1



1 / 11 TCP SCHEMATIC DETAIL
TYPICAL OF 2: BUILDINGS 200 AND 300



2 / 11 TCP PANEL LAYOUT DETAIL
TYPICAL OF 2: BUILDINGS 200 AND 300

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
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Visalia, California 93291
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(559) 627.1926 Office
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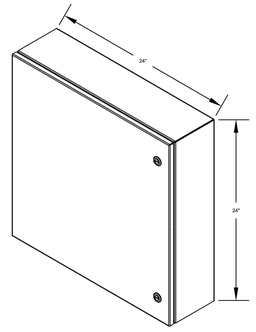
REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

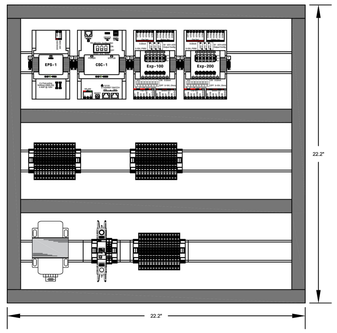
TITLE
MECHANICAL CONTROL DETAILS

M8.04

PROJECT 24042

LAWRENCE ENGINEERING GROUP
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(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362





1/12 TYPICAL AIR HANDLER UNIT LAYOUT

TYPICAL OF: 2

LPC Automation Inc.
Sequence of Operation – AHU Control Submittal with Return Fan

1. HVAC Mode

- The unit shall be capable of receiving HVAC mode commands from the network.
- When no network commands are present, the unit shall operate in **Auto mode** to maintain designatec setpoints.

Supported Network Modes:

- Heat
- Morning Warmup
- Cool
- Night Purge
- Precool
- Off
- A **Load Shedding command** shall proportionally limit supplemental heating capacity

2. Occupancy

- Occupancy status is determined via:
- A **network occupancy command**, or
- A **space sensor auxiliary contact**.
- The AHU shall also integrate with an **nLight Occupancy Sensor** via the **nLighting system**.
- **No hardware** is provided by the controls contractor.

3. Space Setpoint

- The **effective space temperature setpoint** shall be calculated based on current occupancy and HVAC mode.
- All setpoints shall be adjustable via the wall-mounted space sensor.

4. Fan Control

- The supply fan shall operate in one of the following BMS-selectable modes:
- Always On
- Auto
- Smart Mode (On during Occupied, Auto during Unoccupied/Standby)
- The fan modulates between min/max speed to maintain the space temperature setpoint.
- A **fan off-delay** shall be implemented.
- While the fan is off:
  The **heating and cooling valves** shall remain closed.

5. Heating & Cooling Control

- The heating and cooling valves shall be **2–10V modulating** with **actuator position feedback**.
- The heating valve modulates to maintain the **space heating setpoint**.
- The cooling valve modulates to maintain the **space cooling setpoint**.

6. Mixed Air Temperature Monitoring

- A **mixed air temperature (MAT) sensor** shall be installed downstream of the OSA and RA dampers.
- This value shall be logged and made available for **diagnostics** and **commissioning validation**.

7. Economizing

- The AHU shall implement a **true economizer** sequence using 2–10V modulating dampers with feedback for:
  Outside Air (OSA) Damper
  Return Air (RA) Damper
  Exhaust Air (EA) Damper

Economizer Dampers Operate to:

- Enable **free cooling** when outdoor air is suitable
- Maintain **code-compliant minimum outdoor air ventilation**
- Support **CO_2based demand control** by modulating the OSA damper

Operation Sequence:

- OSA and EA dampers open together
- RA damper closes proportionally to maintain balance
- Dampers are sequenced to avoid over-/under-pressurization

CO_2& AFMS Integration:

- Return air CO_2concentration shall be maintained at or below **800 ppm (adjustable)**
- A **0–10V Airflow Monitoring Station (AFMS)** in the OSA duct shall:
  Verify **minimum outdoor air volume** during occupancy
  Confirm **flow delivery** during economizing
  Log airflow data for diagnostics and commissioning

Alarm Logic:

- If AFMS shows insufficient airflow:
  The OSA damper may open further within safe limits
  A **BMS alarm** shall trigger if airflow remains low

8. Supply & Return Fan Control

The AHU shall utilize both a **variable-speed supply fan** and a **variable-speed return fan** for duct pressure and building pressure regulation.

Sensors Installed:

- Building Static Pressure Sensor
- Supply Duct Static Pressure Sensor
- Return Duct Static Pressure Sensor

Control Strategy:

- The **supply fan** modulates to maintain **supply duct static pressure**
- The **return fan** modulates to maintain **return duct static pressure** and air balance
- The **building static pressure** shall be maintained between **0" and +4" WC (adjustable)** using coordinated fan control

Diagnostics:

- Each fan shall include a **current sensor**
- Alarms are triggered if commanded on but not running
- Fan speeds, sensor values, and status shall be **logged and trended**

9. Filter Alarm

- A **hardware differential pressure sensor** shall monitor filter status
- Alarm reset logic:
  Auto-reset on controller startup
  Manual reset via BAS

10. Unoccupied Integration & Setback

- When an **unoccupied signal** is received from the **nLight system**:
  Cooling Setpoint: **78°F (adjustable)**
  Heating Setpoint: **65°F (adjustable)**
- These override standard occupied/standby schedules
- **No hardware is provided by the controls contractor**

11. ECLYPSE Commissioning Solution

- Controller shall support:
  Scheduled automatic testing of each mode
  Sensor logging, actuator feedback, and airflow data
  Email-enabled commissioning reports

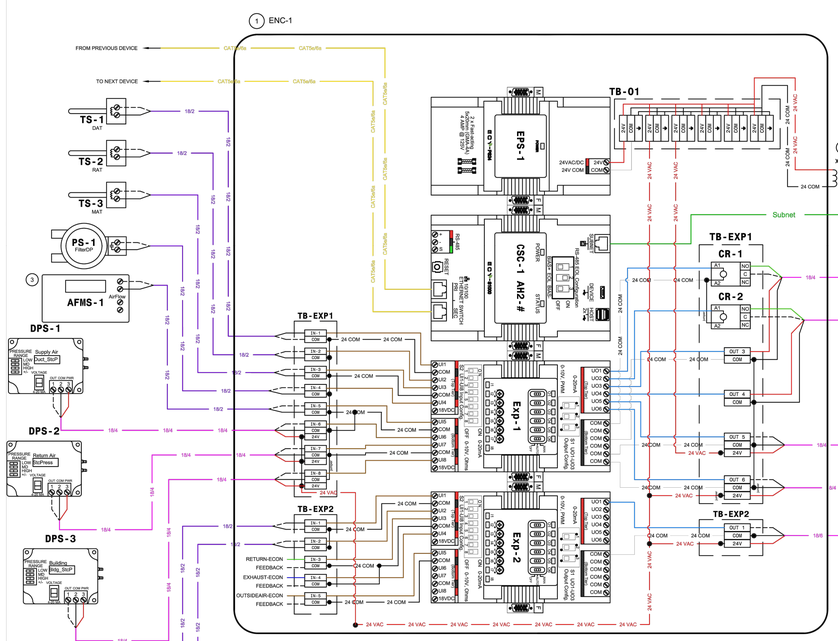
12. Setpoint Summary

Mode	Cooling Setpoint	Heating Setpoint
Unoccupied	85°F (adjustable)	60°F (adjustable)
Standby	78°F (adjustable)	70°F (adjustable)
Occupied	74°F (adjustable)	71°F (adjustable)
nLight Override	78°F (adjustable)	65°F (adjustable)

Effective space temperature setpoints are dynamically calculated based on occupancy and HVAC mode.

2/12 AIR HANDLER WITH RETURN FAN

SEQUENCE OF OPERATION: AH2-1 AND AH 2-2



1/13 AIR HANDLER W/RETURN FAN SCHEMATIC DETAIL

TYPICAL OF 2: AH2-1 AND AH2-2

SHEET NOTES

1. LINE VOLTAGE BY DIVISION 26.
2. FACTORY INSTALLED CLASS 2 TRANSFORMER.
3. AFMS PROVIDED BY OTHERS AND INSTALLED BY OTHERS. INTEGRATION ONLY IN LPC SCOPE.
4. FEEDBACK VIA BACNET.

Panel Components

Tag	Quantity	Manufacturer	Part No.
EPS-1	2	Distech Controls	ECY-PS24
CSC-1	2	Distech Controls	ECY-S1000-28-MS
EXP-1 THRU 2	2	Distech Controls	ECY-8UI6UO

Control Components

Tag	Quantity	Manufacturer	Part No.
ECON	2	See Schedule	See Schedule
CHWV/HWV	4	See Schedule	See Schedule
TS-1 THRU TS-3	6	Distech Controls	TS-DZK008
SMV-1	2	Distech Controls	PDIDI-RDISWC-00 W/CO2
PS-1	2	Distech Controls	PS-ADPS01WCPRN
DPS-1 & DPS-2	4	Distech Controls	PS-2ADP06WCDX
DPS-3	2	Distech Controls	PS-2ADP04WCDX
CT-1 & 2	4	Distech Controls	CS-RIBXGTF

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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LICENSED ARCHITECT
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REN. 05-31-27
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TITLE
MECHANICAL CONTROL DETAILS

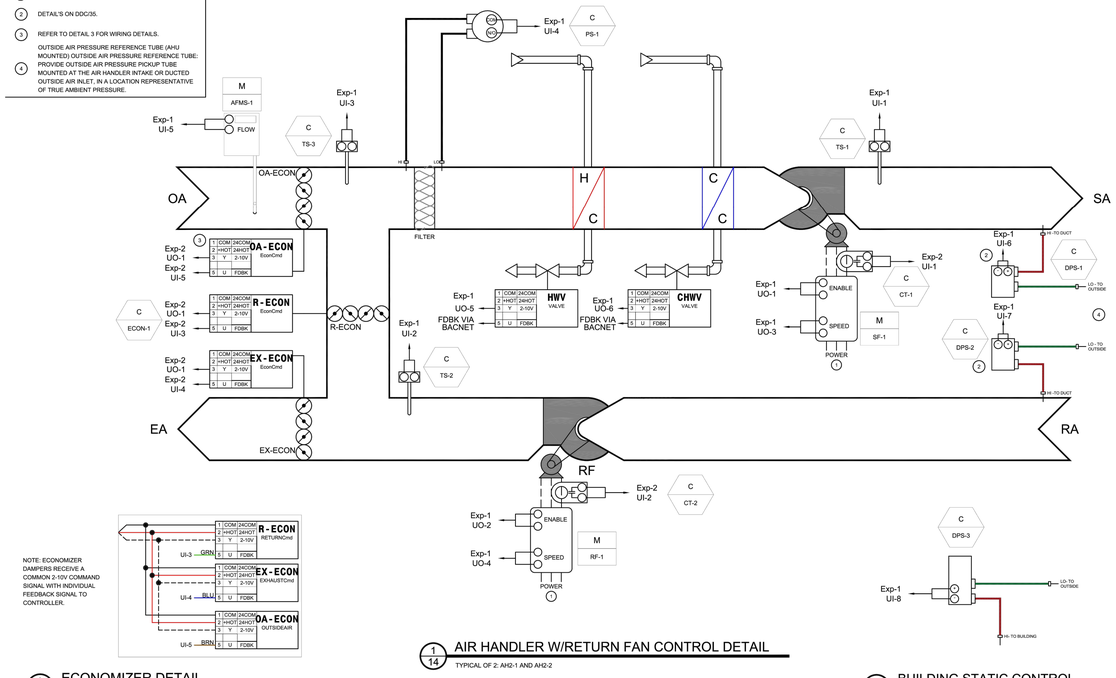
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PROJECT 24042

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SHEET NOTES

1. LINE VOLTAGE & CONDUIT BY DIVISION 26.
2. DETAIL'S ON DDC/35.
3. REFER TO DETAIL 3 FOR WIRING DETAILS.
4. OUTSIDE AIR PRESSURE REFERENCE TUBE (AHU MOUNTED) OUTSIDE AIR PRESSURE REFERENCE TUBE: PROVIDE OUTSIDE AIR PRESSURE PICKUP TUBE MOUNTED AT THE AIR HANDLER INTAKE OR DUCTED OUTSIDE AIR INLET, IN A LOCATION REPRESENTATIVE OF TRUE AMBIENT PRESSURE.



1 14 AIR HANDLER W/RETURN FAN CONTROL DETAIL

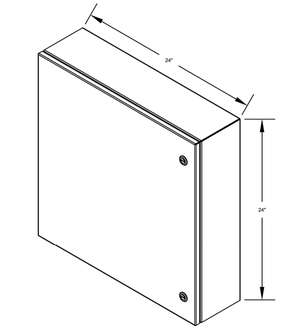
TYPICAL OF 2: AH2-1 AND AH2-2

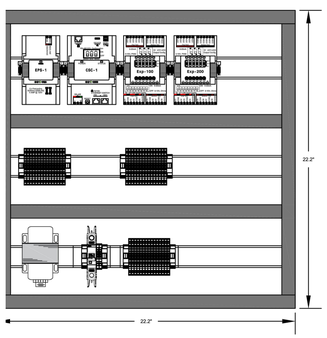
NOTE: ECONOMIZER DAMPERS RECEIVE A COMMON 2-10V COMMAND SIGNAL WITH INDIVIDUAL FEEDBACK SIGNAL TO CONTROLLER.

3 14 ECONOMIZER DETAIL

2 14 BUILDING STATIC CONTROL

DETAIL ON: DDC35





1 15 TYPICAL AIR HANDLER PANEL LAYOUT

TYPICAL OF: 4

LPC Automation Inc.
Sequence of Operation – AHU Control Submittal with Relief Fan

1. HVAC Mode

•The unit shall be capable of receiving HVAC mode commands from the network. When no network commands are present, the unit shall operate in Auto mode to maintain designated setpoints.

- Network commands include: **Heat**, **Morning Warmup**, **Cool**, **Night Purge**, **Precool**, and **Off**.
- A **Load Shedding** command shall proportionally limit supplemental heating capacity.

2. Occupancy

- Occupancy status is determined via:A network occupancy command, or
- A space sensor auxiliary contact
- The AHU shall also integrate with an **nLight Occupancy Sensor** via the **nLighting system**.
- **No hardware is provided by the controls contractor.**

3. Space Setpoint

- The effective space temperature setpoint shall be calculated based on current occupancy and HVAC mode.
- Setpoints shall be adjustable via the wall-mounted space sensor.

4. Fan Control

- The fan shall operate in one of the following BMS-selectable modes:
- **Always On**
- **Auto**
- **Smart Mode** (on during Occupied, Auto during Unoccupied/Standby)
- The fan modulates between minimum and maximum speeds to maintain the space temperature setpoint.
- A **fan off-delay** shall be implemented.
- While the fan is off, **heating and cooling valves** shall remain closed.

5. Heating & Cooling Control

- Heating and cooling valves shall be **2–10V modulating** with actuator position feedback.
- The **heating valve** shall control to maintain the **heating setpoint**.
- The **cooling valve** shall control to maintain the **cooling setpoint**.

6. Mixed Air Temperature Monitoring

- A sensor shall be installed downstream of the outside air and return air dampers to monitor **mixed air temperature**.
- This value shall be logged and made available for diagnostics.

7. Economizing

- The air handler shall implement a **true economizer sequence** using **2–10V modulating dampers** with actuator position feedback for:
  - **Outside Air (OSA) Damper**
  - **Return Air (RA) Damper**
  - **Exhaust Air (EA) Damper**
- The dampers shall operate under **BMS control** to:
  - Enable **economizer (free) cooling** when outside air conditions are suitable
  - Maintain **minimum outdoor air ventilation rates** in compliance with code during occupied periods
  - Support **CO_2-based demand ventilation** by modulating the OSA damper in response to CO_2levels
- **During economizer operation**:
  - The **OSA** and **EA** dampers shall **open together** to bring in outside air and exhaust return air
  - The **RA damper** shall **close proportionally** to reduce re-circulated air
  - The system shall **sequence all dampers** to prevent building **over-pressurization or depressurization**
- During **occupied hours**, the system shall regulate damper positions to maintain **return air CO_2concentration at or below 800 ppm** (adjustable).
- The system shall incorporate a **0–10V signal** from an **Airflow Monitoring Station (AFMS)** installed in the outside air duct. The AFMS signal shall be used to:
  - **Verify that minimum outside air volume is being delivered** during occupancy
  - **Confirm airflow during economizer operation**
  - **Log values** for diagnostics, functional testing, and commissioning
- If the **AFMS** indicates insufficient outdoor airflow during occupied periods:
  - The **OSA damper shall be commanded to open further**, within safe operating limits
  - A **BMS alarm** shall be generated if the airflow remains below the acceptable threshold

8. Relief Fan & Building Pressure Control

- A **variable-speed relief fan** shall be provided in place of an exhaust damper.
- The fan shall be **enabled with the AHU on schedule**.
- During economizer operation or high outdoor air intake conditions:
  - The **relief fan shall modulate to maintain building pressure** between **-4" and +4" WC** (adjustable).
  - Fan speed shall be coordinated with **OSA and RA damper positions** and **building pressure sensor input**.
- A **status input** shall monitor the fan's On/Off condition for BMS display and alarm.
- Pressure and fan values shall be **logged for diagnostics and commissioning**.

9. Filter Alarm

- A filter alarm shall be triggered by a **hardware differential pressure input**.
- The alarm shall:
  - Automatically reset on controller startup
  - Be manually reset by the operator via the BMS

10. Unoccupied Integration & Setback

- When an **unoccupied status** is received from the **nLight system**:
  - Cooling setpoint: **76°F (adjustable)**
  - Heating setpoint: **65°F (adjustable)**
- These override scheduled occupancy setpoints.
- **No hardware provided by the controls contractor.**

11. ECLYPSE Commissioning Solution

- The AHU controller shall support **auto commissioning**, including:
  - Scheduled testing of operational modes
  - Logging of temperature deltas, actuator responses, and sensor values
  - **Automatic report generation and emailing**

12. Setpoint Summary

Mode	Cooling Setpoint	Heating Setpoint
Unoccupied	82°F (adjustable)	60°F (adjustable)
Standby	78°F (adjustable)	69°F (adjustable)
Occupied	74°F (adjustable)	71°F (adjustable)
nLight Override	76°F (adjustable)	65°F (adjustable)

Effective space temperature setpoints are dynamically calculated based on occupancy and active HVAC mode.

2 15 AIR HANDLER UNIT

SEQUENCE OF OPERATION
TYPICAL OF 4: AH2-3, AH2-4, AH6-5, AH7-2

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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REGISTERED PROFESSIONAL ENGINEER
BRYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

TITLE
MECHANICAL CONTROL DETAILS

M8.06

PROJECT 24042

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FAX (559) 431-1342

25026

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APPROVALS

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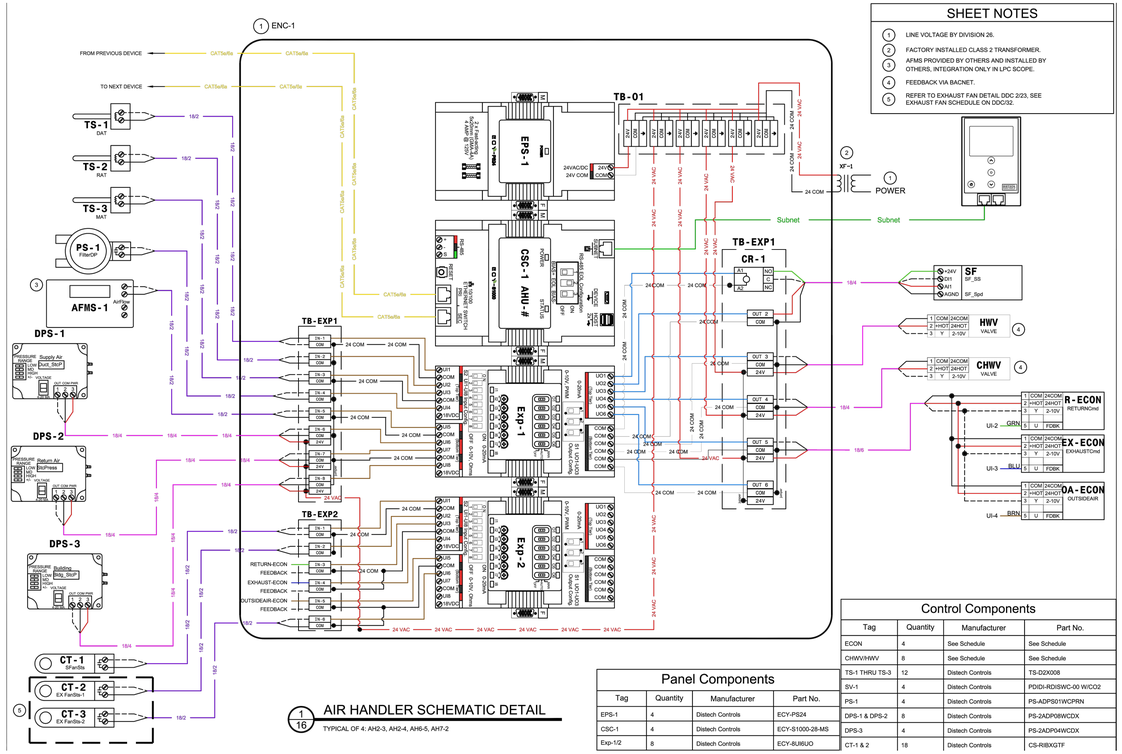
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT

SANGER, FRESNO COUNTY, CA

REVISIONS



1 / 16 AIR HANDLER SCHEMATIC DETAIL

TYPICAL OF 4: AH2-3, AH2-4, AH6-5, AH7-2

SHEET NOTES

1. LINE VOLTAGE BY DIVISION 26.
2. FACTORY INSTALLED CLASS 2 TRANSFORMER.
3. AFMS PROVIDED BY OTHERS AND INSTALLED BY OTHERS. INTEGRATION ONLY IN UPC SCOPE.
4. FEEDBACK VIA BACNET.
5. REFER TO EXHAUST FAN DETAIL DDC 2/23, SEE EXHAUST FAN SCHEDULE ON DDC/32.

Panel Components

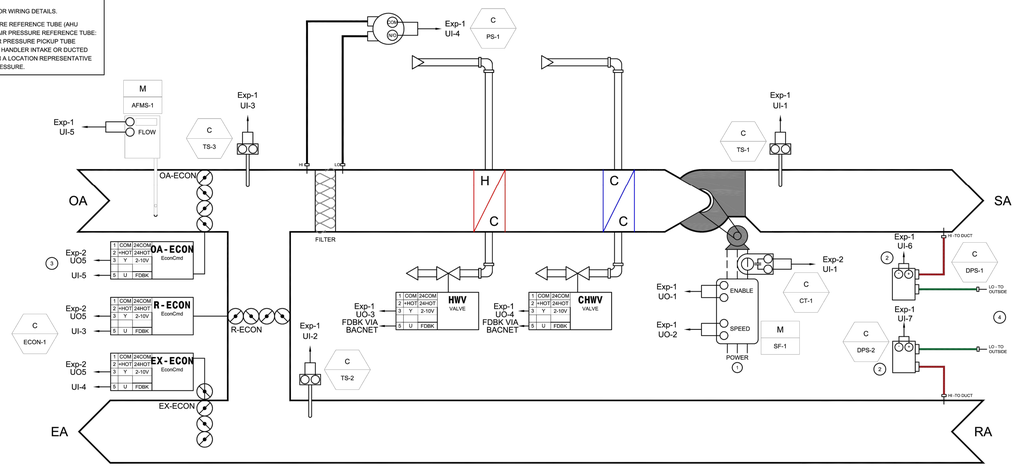
Tag	Quantity	Manufacturer	Part No.
EPS-1	4	Distech Controls	ECY-PS24
CSC-1	4	Distech Controls	ECY-S1000-28-MS
Exp-1/2	8	Distech Controls	ECY-8UI6UO

Control Components

Tag	Quantity	Manufacturer	Part No.
ECON	4	See Schedule	See Schedule
CHWV/HWV	8	See Schedule	See Schedule
TS-1 THRU TS-3	12	Distech Controls	TS-D2X008
SV-1	4	Distech Controls	PDIDI-RDISWC-00 W/CO2
PS-1	4	Distech Controls	PS-ADPS01WCPRN
DPS-1 & DPS-2	8	Distech Controls	PS-2ADP08WCDX
DPS-3	4	Distech Controls	PS-2ADP04WCDX
CT-1 & 2	18	Distech Controls	CS-RIBXQTF

SHEET NOTES

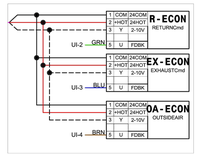
1. LINE VOLTAGE & CONDUIT BY DIVISION 26.
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4. OUTSIDE AIR PRESSURE REFERENCE TUBE (AHU MOUNTED) OUTSIDE AIR PRESSURE REFERENCE TUBE: PROVIDE OUTSIDE AIR PRESSURE PICKUP TUBE MOUNTED AT THE AIR HANDLER INTAKE OR DUCTED OUTSIDE AIR INLET, IN A LOCATION REPRESENTATIVE OF TRUE AMBIENT PRESSURE.



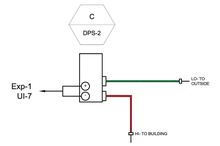
1 / 17 AIR HANDLER CONTROL DETAIL

TYPICAL OF 4: AH2-3, AH2-4, AH6-5, AH7-2

NOTE: ECONOMIZER DAMPERS RECEIVE A COMMON 2-10V COMMAND SIGNAL WITH INDIVIDUAL FEEDBACK SIGNAL TO CONTROLLER.



3 / 17 ECONOMIZER DETAIL



2 / 17 BUILDING STATIC CONTROL

SEE DETAIL ON: DOC/35

REGISTERED PROFESSIONAL ENGINEER — BRYAN W. CARLSON — No. M34846 Exp. 6-30-28 — MECHANICAL — STATE OF CALIFORNIA

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TITLE
MECHANICAL CONTROL DETAILS

M8.07

PROJECT 24042

LPC Automation Inc.

Sequence of Operation – AHU Control Submittal with Relief Fan

1. HVAC Mode

- The unit shall receive HVAC mode commands from the network. If no commands are present, it shall default to Auto mode to maintain designated setpoints.
- Network commands include: **Heat**, **Morning Warmup**, **Cool**, **Night Purge**, **Precool**, and **Off**.
- A **Load Shedding** command shall reduce supplemental heating capacity proportionally.

2. Occupancy

- Occupancy status is determined via:
  - Network occupancy command, or
  - Space sensor auxiliary contact
- Integration with **nLight Occupancy Sensors** via the **nLighting system** shall be provided.
- **No hardware will be provided by the controls contractor.**

3. Space Setpoint

- The space temperature setpoint shall be calculated based on the current HVAC mode and occupancy status.
- Setpoints are user-adjustable via the wall-mounted space sensor.

4. Fan Control

- The fan shall be selectable via the BMS with the following modes:
  - **Always On**
  - **Auto**
  - **Smart Mode** (on during Occupied, auto during Unoccupied/Standby)
- When enabled, the fan shall modulate to maintain the space setpoint.
- A **fan off-delay** shall be implemented before shutoff.
- While the fan is off, **heating and cooling valves shall close.**

5. Heating & Cooling Control

- Heating and cooling valves shall be **2–10V modulating** with actuator position feedback.
- The **heating valve** shall maintain the **heating setpoint**.
- The **cooling valve** shall maintain the **cooling setpoint**.

6. Mixed Air Temperature Monitoring

- A sensor shall be located downstream of the outside and return air dampers to monitor **mixed air temperature**.
- This data shall be logged and available for diagnostics and commissioning.

7. Economizing

- The AHU shall perform **true economizer control** using:
  - **2–10V modulating Outside Air Damper (OSA)**
  - **2–10V modulating Return Air Damper (RA)**
  - **A variable-speed relief fan** (instead of an exhaust damper)

Functional Sequence:

- Dampers and fan shall operate under BMS control to:
  - Provide **free cooling** when OA conditions allow
  - Maintain **code-compliant ventilation** during occupied hours
  - Enable **CO_2-based demand control ventilation (DCV)**

During Economizer Operation:

- **OSA damper opens**, **RA damper closes proportionally**
- **Relief fan modulates** to maintain air balance and building pressure
- Controls shall prevent over/under-pressurization

CO_2Regulation:

- During occupied hours, **RA CO_2concentration shall not exceed 800 ppm (adjustable)**

Airflow Monitoring Station (AFMS):

- A **0–10V AFMS sensor** in the OA duct shall:
  - Confirm **minimum OA flow** during occupancy
  - **Validate economizer airflow performance**
  - Provide **BMS trend logs** for commissioning
- If OA flow is below minimum:
  - **OA damper opens further (if allowed)**
  - A **BMS alarm** shall be generated if airflow is insufficient

8. Relief Fan & Building Pressure Control

- A **variable-speed relief fan** shall manage exhaust air volume in lieu of an exhaust damper.
- The fan shall be **enabled with the AHU on schedule**.
- Fan shall **modulate to maintain building pressure** between **-4" and +4" WC (adjustable)**.
- Control shall coordinate with OA/RA damper positions and building pressure sensor.
- A **status input** shall report On/Off to the BMS with alarming.
- Pressure and fan values shall be **trended for diagnostics and balancing**.

9. Filter Alarm

- Filter alarm shall be triggered by a **hardware differential pressure input**.
- It shall:
  - **Reset automatically** at controller power-up
  - Be **manually resettable** from the BMS

10. Unoccupied Integration & Setback

- When **nLight system** signals **no occupancy**:
  - Cooling setback = **76°F (adjustable)**
  - Heating setback = **65°F (adjustable)**
- These override scheduled setpoints.
- **No hardware provided by controls contractor.**

11. ECLYPSE Commissioning Solution

- Controller shall support **automated commissioning**, including:
  - Scheduled test cycles
  - Logging of sensor readings, valve/fan positions
  - Emailing of commissioning reports

12. Setpoint Summary

Mode	Cooling Setpoint	Heating Setpoint
Occupied	74°F (adjustable)	71°F (adjustable)
Standby	78°F (adjustable)	62°F (adjustable)
Unoccupied	80°F (adjustable)	60°F (adjustable)
nLight Override	76°F (adjustable)	62°F (adjustable)

Note: Final effective setpoint is based on mode and occupancy status.

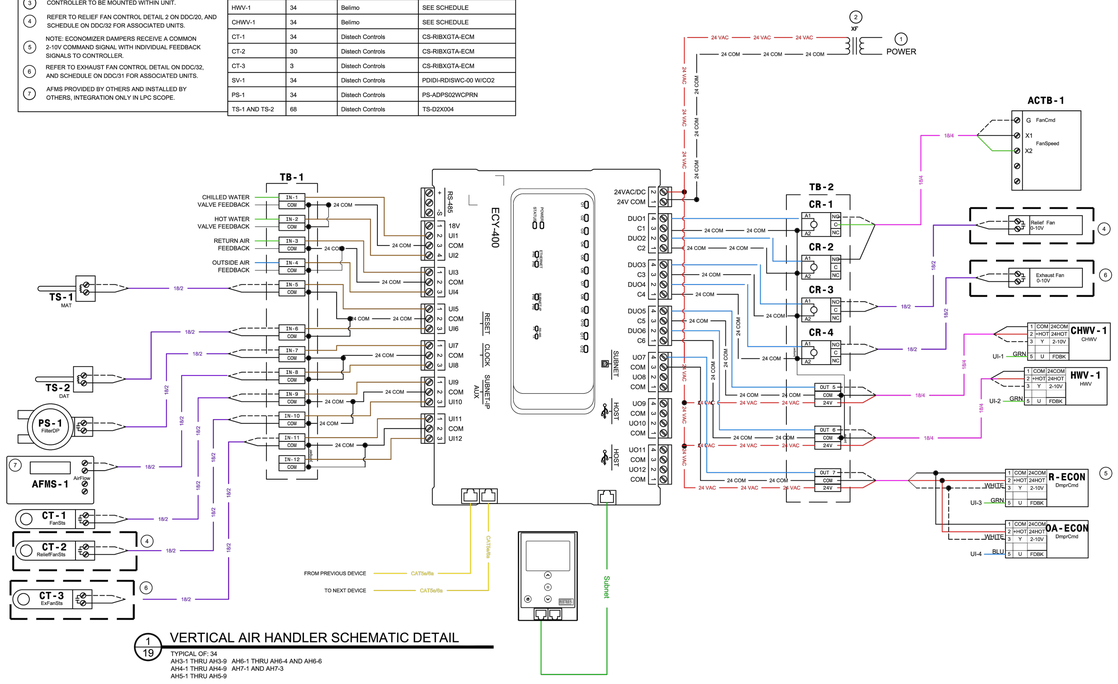
2/18 VERTICAL AIR HANDLER
SEQUENCE OF OPERATION

SHEET NOTES

1. LINE VOLTAGE BY DIVISION 26.
2. FACTORY INSTALLED CLASS 2 TRANSFORMER.
3. CONTROLLER TO BE MOUNTED WITHIN UNIT.
4. REFER TO RELIEF FAN CONTROL DETAIL 2 ON DDC/20, AND SCHEDULE ON DDC/32 FOR ASSOCIATED UNITS.
5. NOTE: ECONOMIZER DAMPERS RECEIVE A COMMON 2-10V COMMAND SIGNAL WITH INDIVIDUAL FEEDBACK SIGNALS TO CONTROLLER.
6. REFER TO EXHAUST FAN CONTROL DETAIL ON DDC/32, AND SCHEDULE ON DDC/31 FOR ASSOCIATED UNITS.
7. AFMS PROVIDED BY OTHERS AND INSTALLED BY OTHERS, INTEGRATION ONLY IN LPC SCOPE.

Control Components

Tag	Quantity	Manufacturer	Part No.
ECY-400	34	Distech Controls	ECY-400
ECON-1	34	Belimo	AFB24-SR
HWV-1	34	Belimo	SEE SCHEDULE
CHWV-1	34	Belimo	SEE SCHEDULE
CT-1	34	Distech Controls	CS-RIBXGTA-ECM
CT-2	30	Distech Controls	CS-RIBXGTA-ECM
CT-3	3	Distech Controls	CS-RIBXGTA-ECM
SV-1	34	Distech Controls	PDIDI-RDISWC-00 W/CO2
PS-1	34	Distech Controls	PS-ADPS02WCPRN
TS-1 AND TS-2	68	Distech Controls	TS-D2X004



1/19 VERTICAL AIR HANDLER SCHEMATIC DETAIL

TYPICAL OF: 34
AH3-1 THRU AH3-9 AH6-1 THRU AH6-4 AND AH6-6
AH4-1 THRU AH4-9 AH7-1 AND AH7-3
AH5-1 THRU AH5-9

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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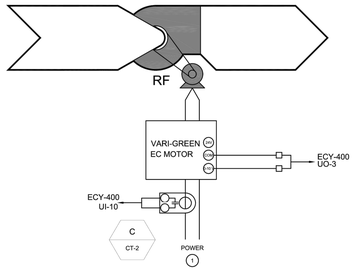
LICENSED PROFESSIONAL ENGINEER
BRIAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

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TITLE
MECHANICAL CONTROL DETAILS

M8.08

PROJECT 24042



2/20 RELIEF FAN CONTROL

TYPICAL OF : 30 SEE SCHEDULE DDC/32

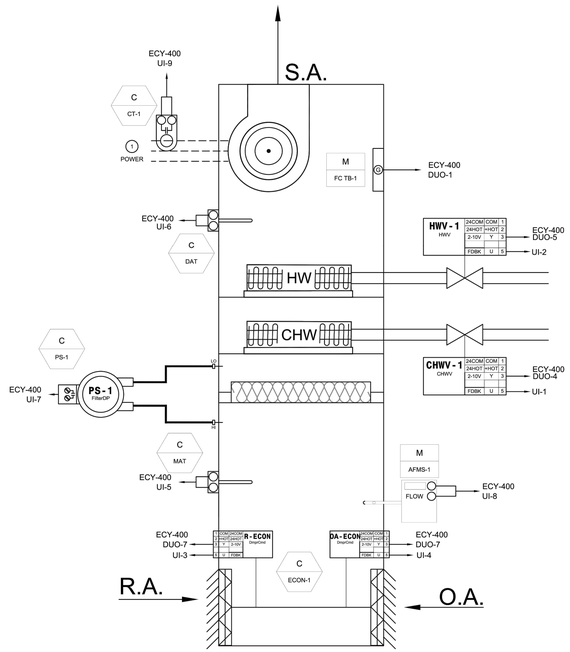
NOTES:

- Nlight OCCUPANCY SENSOR IS INTEGRATED VIA NLIGHTING SYSTEM.
- NO HARDWARE PROVIDED BY CONTROLS CONTRACTOR.



3/20 TEMPERATURE SETBACK

nLight OCCUPANCY SENSOR



1/20 AIR HANDLER CONTROL DETAIL

TYPICAL OF: 34
AH1-1 THRU AH3-9 AH6-1 THRU AH6-4 AND AH6-6
AH4-1 THRU AH4-9 AH7-1 AND AH7-3
AH5-1 THRU AH5-9

Sequence of Operation:

HVAC Mode

The unit shall be capable of receiving HVAC mode commands from the network. When no network commands are present the unit shall operate in Auto mode and operate to maintain designated setpoints.
Network commands include heat, morning warmup, cool, night purge, precool, and off.
The end user shall be able to override the HVAC mode from the space sensor

Occupancy

The occupancy status of the unit is determined by a network occupancy command or space sensor auxiliary contact.

Space Setpoint

The space temperature setpoint shall be calculated based on occupancy status and HVAC mode.
The user can adjust the final setpoints at the space sensor.
The thermostat internal sensor is configured as the space temperature input.
All heating stages shall be off
All cooling stages shall be off

Cooling

The system shall cycle on/off the mechanical cooling stage(s) to maintain the space temperature cooling setpoint.

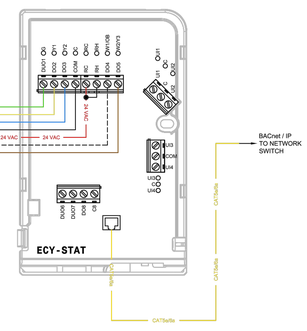
Control Components

Tag	Quantity	Manufacturer	Part No.
ECY-STAT	10	Distech Controls	ECY-STAT

SHEET NOTES

1. FACTORY PROVIDED.
2. THERMOSTAT HARNESS AND WIRING TO IDU BY OTHERS.

1/21 INDOOR UNIT CONTROL



2/21 INDOOR UNIT CONTROL

TYPICAL OF: 10

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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TITLE
MECHANICAL CONTROL DETAILS

M8.09

PROJECT 24042

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APPROVALS

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JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

LPC Automation Inc.

Sequence of Operation – Heat Pump Unit with DX Cooling & Gas Furnace Heating

1. HVAC Mode

- The unit shall operate based on HVAC mode commands from the building automation system (BAS).
- Supported modes include: **Cool**, **Heat**, **Auto**, **Off**, and **Load Shedding**.
- If no BAS commands are present, the unit defaults to **Auto** mode to maintain space setpoints based on occupancy.

2. Occupancy Control

- Occupancy status shall be determined by:
  - A **network command**, or
  - A **space sensor contact**
- Integration with the **nLight system** shall override schedules when no occupancy is detected.
- **No hardware is provided by the controls contractor** for occupancy detection.

3. Space Setpoint & Temperature Control

- The BAS shall determine setpoints based on occupancy:
  - **Occupied**: Heating and cooling actively controlled
  - **Unoccupied**: Setback mode applied:
    - Cooling: **76°F (adjustable)**
    - Heating: **65°F (adjustable)**
- Setpoints shall be adjustable via the space-mounted temperature sensor.

4. Fan Control

- The unit's supply fan shall operate in **Auto** or **Always On** mode.
- When enabled, it shall:
  - Initiate airflow for cooling or heating demand
  - Be monitored by a **current sensor**
- **Fan status** shall be visible in the BAS, with alarms on failure to start.

5. Heating Operation – Gas Furnace

- Heating shall be provided by a **gas furnace (GF)**.
- A **2–10V modulating actuator with position feedback** shall control the heating valve or burner modulation.
- The system shall modulate the heating output to maintain the space heating setpoint.
- A **current sensor** shall monitor the GF. A BAS alarm shall trigger if a heat call occurs with no current detected.

6. Cooling Operation – DX Cooling

- Cooling shall be provided by a **DX coil and compressor**.
- The **compressor** shall be monitored using a **current sensor**, reporting real-time run status to the BAS.
- A **2–10V actuator with feedback** shall regulate any associated airflow control.The DX system shall maintain the space cooling setpoint via modulating logic.

7. Demand Ventilation via CO_2Control

- A **return air CO_2sensor** shall enable **demand-controlled ventilation (DCV)**.
- If CO_2exceeds **800 ppm (adjustable)** during occupancy:
  - The OA damper (if applicable) shall open further
  - The fan shall continue to provide dilution ventilation
- This logic shall only be active during occupied periods.

8. Airflow Monitoring Station (AFMS)

- A **0–10V AFMS** shall be installed in the **outdoor air duct**.
- The AFMS signal shall be used to:
  - Verify that **minimum outdoor air volume** is delivered
  - Confirm proper airflow during **ventilation or economizer operation**
  - Log flow readings for **diagnostics, commissioning, and trend reporting**
- If the AFMS detects insufficient flow:
  - The OA damper (if applicable) shall open further within safety limits
  - A **BMS alarm** shall trigger if flow remains low

9. Sensors & Monitoring

- The following points shall be monitored and logged by the BAS:
  - **Discharge Air Temperature (DAT)**
  - **Mixed Air Temperature (MAT)**
  - **Return Air CO_2concentration**
  - **Filter differential pressure**
  - **Compressor current sensor**
  - **Fan current sensorAFMS signal (0–10V)**

10. Filter Alarm

- A **hardware differential pressure sensor** shall be used to detect clogged filters.
- The filter alarm shall:
  - **Auto-reset** on controller startup, or
  - Be **manually resettable** through the BAS

11. ECLYPSE Commissioning & Reporting

- The unit controller shall support **automated commissioning**, including:
  - Scheduled tests for **Cooling, Heating, Fan, and Setback modes**
  - Logging of **sensor values**, **AFMS airflow**, **actuator position**, and **runtime events**
  - **Email-enabled reports** for documentation and verification

12. Setpoint Summary

Mode	Cooling Setpoint	Heating Setpoint
Occupied	74°F (adjustable)	71°F (adjustable)
Standby	78°F (adjustable)	65°F (adjustable)
Unoccupied	81°F (adjustable)	60°F (adjustable)
nLight Override	76°F (adjustable)	65°F (adjustable)

Effective setpoints are calculated dynamically based on **occupancy status** and **HVAC mode**. Values are adjustable via BAS or local sensor.

1/22 HP SEQUENCE OF OPERATIONS

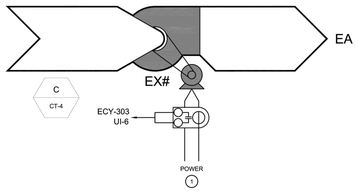
SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5372
2. LINE VOLTAGE & CONDUIT BY DIVISION 26.
3. FACTORY INSTALLED CLASS 2 TRANSFORMER.
4. CONTROLLER TO BE MOUNTED WITHIN UNIT.
5. TYPICAL OF (2) REFER TO EXHAUST FAN SCHEDULE ON DDC/32.
6. FACTORY INSTALLED ECONOMIZER, BY OTHERS.
7. AFMS PROVIDED BY OTHERS AND INSTALLED BY OTHERS, INTEGRATION ONLY IN LPC SCOPE.

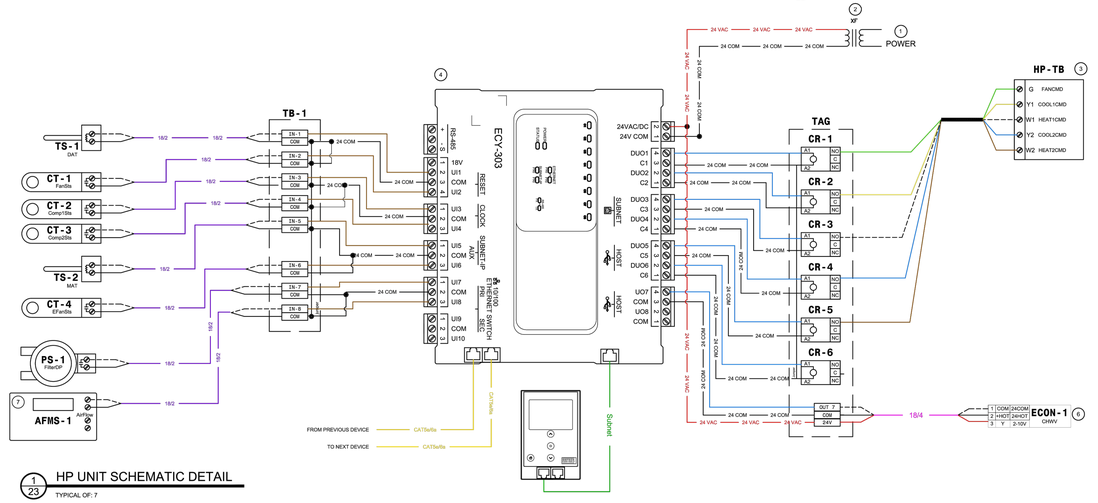
Controller Components			
Tag	Quantity	Manufactuer	Part No.
ECY-303	7	Distech Controls	ECY-303
SW - 1	7	Distech Controls	PDIDI-RDISWC-00 W/CO2
TS-1/TS-2	14	Distech Controls	TS-DZX008
CT-1 & CT-4	14	Functional Devices	RIBXGTA-ECM
CT-2/CT-3	7	Functional Devices	RIBGTF
PS-1	7	Distech Controls	PS-ADPS02WCPRN

NOTES:

- START/STOP CONTROLLED BY OCCUPANCY SENSOR.



2/23 EXHAUST FAN CONTROL DETAIL
TYPICAL OF 2: EF1-1 AND EF1-2



1/23 HP UNIT SCHEMATIC DETAIL
TYPICAL OF: 7

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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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LICENSED PROFESSIONAL ENGINEER
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Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

TITLE
MECHANICAL CONTROL DETAILS

M8.10

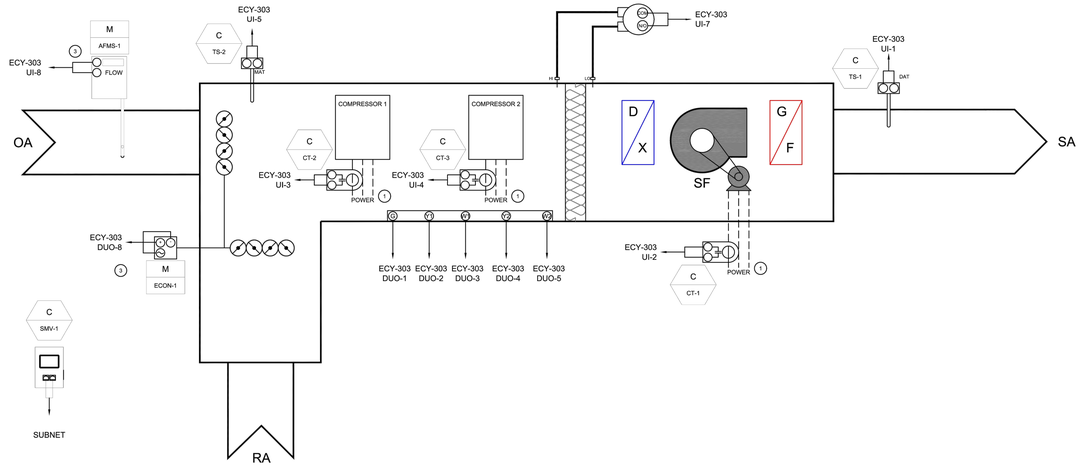
PROJECT 24042

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(559) 431-0101
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FAX (559) 431-1362

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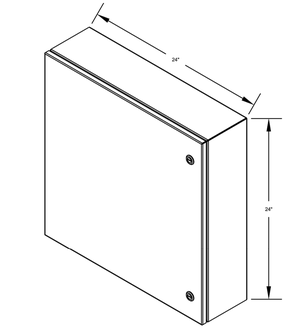
SHEET NOTES

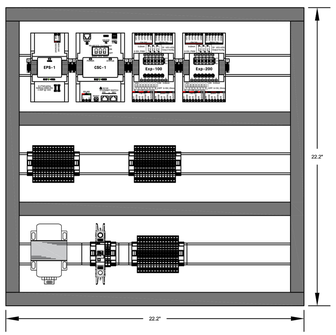
1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. LINE VOLTAGE & CONDUIT BY DIVISION 26.
3. INSTALLED BY OTHERS, INTEGRATION ONLY.



1/24 HP UNIT CONTROL DETAIL

TYPICAL OF: 7





1/25 CENTRAL PLANT PANEL LAYOUT

TYPICAL OF: 1

LPC Automation Inc.
Sequence of Operation – Central Plant

1. Campus Circulation Pumps

- The **campus circulation pumps** shall be started and stopped by the **BMS** or manually via selector switch.
- Pump speed shall be modulated to maintain **minimum system differential pressure**, based on feedback from pressure transmitters located as shown on plans.
- The **lead pump** shall operate up to **80% capacity**.If system demand exceeds this, the **lag pump** shall be started.Both pumps shall then modulate **in unison** to maintain pressure.
- During ramp-down, the lag pump shall stop first, and the lead pump shall follow.
- **Lead/lag rotation** shall alternate based on **adjustable runtime intervals**, controlled by the BMS or manually via switch.
- **Labeling Requirements**:

  - At each differential pressure sensor, install an **engraved plastic tag**: "PRESSURE SENSOR"

  - On the sensor itself, attach a **brass tag**: "PRESSURE SENSOR FOR DISTRIBUTION PUMP CONTROL"

2. Heat Pump Boiler Control

- The **heat pump boiler** and its **circulating pump** shall be started by BMS signal.
- They shall operate **continuously** until:
  - A BMS command shuts them down by schedule, or
  - **Outside air temperature** rises above **65°F** (adjustable).
- Upon boiler shutdown, the **boiler pump** shall continue to run for **15 minutes** (adjustable).

3. Boiler Interlocks and Isolation Valve

- The heat pump boiler shall be **interlocked with a flow switch** to confirm flow during operation.
- A **2-way motorized isolation valve** on the boiler inlet shall be **interlocked to open when the boiler is enabled**, and **close when the boiler is off**.

4. Heating Hot Water Temperature Reset

- Initial setpoint: **140°F** (adjustable)
- BMS shall control the **hot water loop temperature reset** based on heating valve demand.
- Every **10 minutes (adjustable)**, the BMS shall evaluate valve positions:
  - If any valve is **≥95% open**, increase loop setpoint by **2°F**
    - Max setpoint: **140°F** (adjustable)
  - If all valves are **≤85% open**, decrease loop setpoint by **2°F**
    - Min setpoint: **120°F** (adjustable)

5. Chiller Operation

- The **chiller** and its associated pumps shall be started by the BMS.
- Once **evaporator and condenser flow** is proven, the chiller shall operate using its **internal control logic** to maintain chilled water temperature.
- Provide all necessary **control boards**, **wiring**, and **programming** for **BMS integration**, including:
  - Real-time monitoring of chiller operation through its **built-in microprocessor**
  - Coordination with **District Maintenance** and **EMS** access via BMS front end

6. Chilled Water Pump Control

- The **chilled water pump** shall be started by BMS signal and shall run **continuously** until shutdown by the BMS.
- The pump shall continue to operate for **15 minutes** (adjustable) after chiller shutdown to ensure loop circulation.

7. Chilled Water Temperature Reset

Initial setpoint: **44°F** (adjustable)The BMS shall evaluate **chilled water valve positions** every **10 minutes (adjustable)**:

- If any valve is **≥95% open**, decrease setpoint by **1°F**
  - Min setpoint: **44°F** (adjustable)
- If all valves are **≤85% open**, increase setpoint by **1°F**
  - Max setpoint: **50°F** (adjustable)

2/25 CENTRAL PLANT SEQUENCE OF OPERATION

SEQUENCE OF OPERATION

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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M8.11

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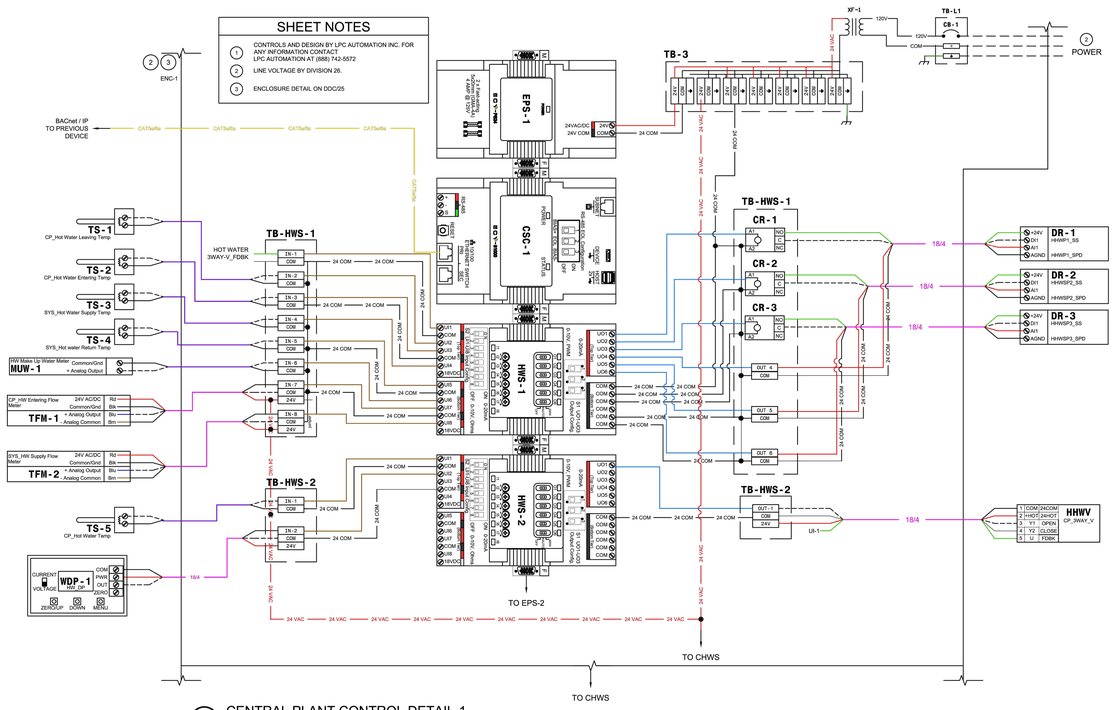
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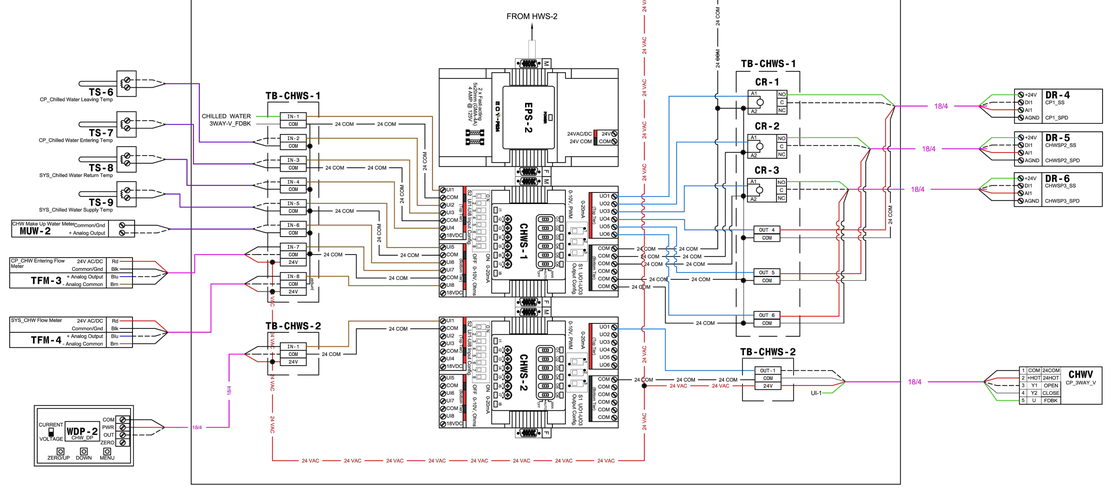
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SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. LINE VOLTAGE BY DIVISION 26.
3. ENCLOSURE DETAIL ON DDC/25



1/26 CENTRAL PLANT CONTROL DETAIL-1
TYPICAL OF 1: BLDG 200



1/27 CENTRAL PLANT SCHEMATIC DETAIL - 2
TYPICAL OF 1: BUILDING 200

Panel Components

Tag	Quantity	Manufacturer	Part No.
ENC-1	1	To come	To come
EPS-1	2	Distech Controls	ECY-PS24
CSC-1	1	Distech Controls	ECY-S1000-48-HOA
HWS-1THRU CHWS-2	4	Distech Controls	ECY-IU6UO
XF-1	1	Distech Controls	PW-TR100VA001
CB-1	1	Allen Bradley	1489-M1C150

Control Components

Tag	Quantity	Manufacturer	Part No.	Description
TS-1 THRU TS-9	9	Distech Controls	TS-O2X	THERMOWELL SENSORS
WDP-1 AND 2	2	Distech Controls	PS-2LDP	LIQUID DIFFERENTIAL PRESSURE SENSOR
TFM-1 THRU TFM-4	4	Distech Controls	F-1200	ONICON WATER FLOW METER
3-WAY VALVE	2	BELIMO	SEE SCHEDULE	3-WAY VALVE
MUW-1 AND MUW-2	2	ASSURED AUTOMATION	WM-NLCH-100-R/1P	MAKEUP WATER METER W/PULSE OUTPUT

APPROVALS

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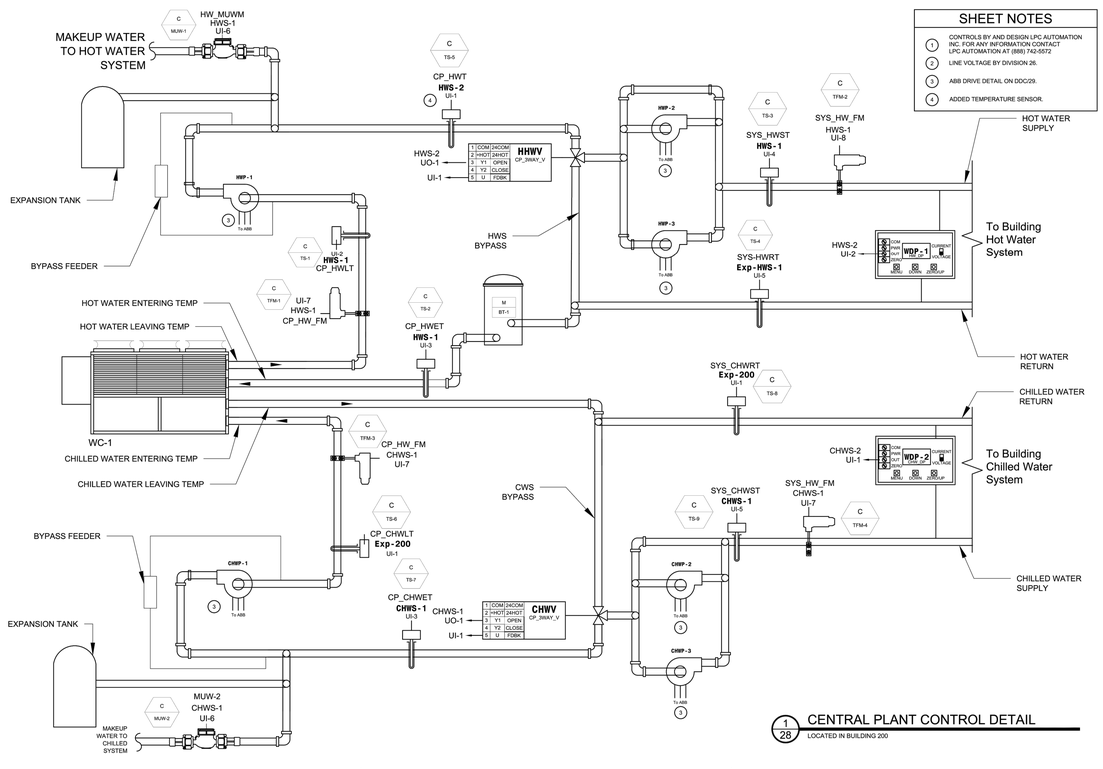
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MECHANICAL CONTROL DETAILS

M8.12

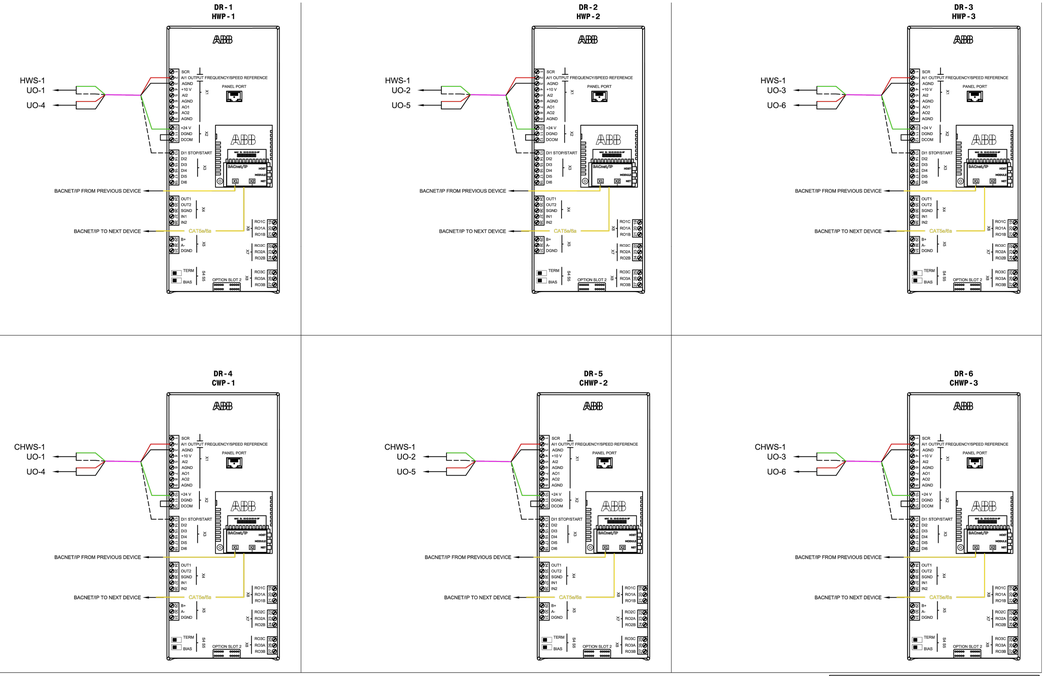
PROJECT 24042

BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362



1/28 CENTRAL PLANT CONTROL DETAIL
LOCATED IN BUILDING 200



1/29 ABB DRIVE DETAIL
TYPICAL OF 6: HWP-1, HWP-2, HWP-3, CHWP-1, CHWP-2, AND CHWP-3

SHEET NOTES
1 CONTROLS BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2 LINE VOLTAGE BY DIVISION 26.

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

TITLE
MECHANICAL CONTROL DETAILS

M8.13

PROJECT 24042

15 September 2026 9:39 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M8.00 - M8.17 - Mechanical Control Details.dwg ryanf

SHEET NOTES

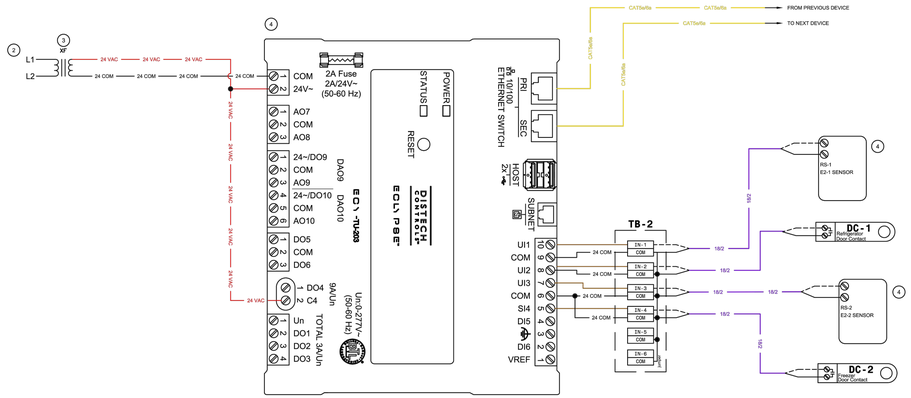
1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. LINE VOLTAGE & CONDUIT BY DIVISION 26.
3. FACTORY INSTALLED CLASS 2 TRANSFORMER.
4. REFER TO NOTES.

Controller Components			
Tag	Quantity	Manufactuer	Part No.
ECY-TU 203	1	Distech Controls	ECY-TU-203
RS - 1 AND RS - 2	2	Distech Controls	TS-RMP

Notes:
Freezer and refrigerator door contacts (dry-contact limit switches) shall be monitored as follows:

- If a door remains open for more than 10 minutes, an alarm shall be triggered.
- For the refrigerator, the temperature threshold is ≤ 48 °F. If the refrigerator temperature rises above 48 °F while the door is open beyond 10 minutes, then trigger alarm.
- For the freezer, the temperature threshold is ≥ 36 °F. If the freezer temperature rises above 36 °F while the freezer door is open beyond 10 minutes, then trigger alarm.
- The alarm shall latch until manually reset or until the door is reclosed and the temperature returns within limits.

Wiring: door contacts are dry contact type, 2-wire, wired to the designated Binary Input (BI) on the controller. Temperature sensors (thermistors or RTDs) wired to the designated Analog Input (AI).



1/30 EVAPORATOR SCHEMATIC DETAIL

TYPICAL OF: 1

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. LINE VOLTAGE & CONDUIT BY DIVISION 26.
3. VALVE SCHEDULE WITH SUBMITTAL.

1/31 VALVE SCHEDULE

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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REVISIONS

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4320 West Mineral King Avenue
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www.mangini.us
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(559) 627-1926 Fax

TITLE
MECHANICAL CONTROL DETAILS

M8.14

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

SHEET NOTES

1. CONTROLS AND DESIGN BY LPC AUTOMATION INC. FOR ANY INFORMATION CONTACT LPC AUTOMATION AT (888) 742-5572
2. DEVICE SCHEDULE DETAILS TO BE CONFIRMED AND PROVIDED WITH AS BUILT DRAWINGS.

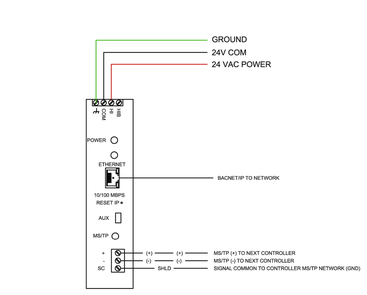
Relief Fan Schedule		
Controller	RF	Building
AH3-1	RF3-1	300
AH3-2	RF3-2	
AH3-4	RF3-4	
AH3-5	RF3-5	
AH3-6	RF3-6	
AH3-7	RF3-7	
AH3-8	RF3-8	
AH4-1	RF4-1	400
AH4-2	RF4-2	
AH4-4	RF4-4	
AH4-5	RF4-5	
AH4-6	RF4-6	
AH4-7	RF4-7	
AH4-8	RF4-8	
AH5-1	RF5-1	500
AH5-2	RF5-2	
AH5-4	RF5-4	
AH5-5	RF5-5	
AH5-6	RF5-6	
AH5-7	RF5-7	
AH5-8	RF5-8	
AH6-1	RF6-1	600
AH6-3	RF6-3	
AH6-4	RF6-4	
AH6-6	RF6-6	
AH7-1	RF7-1	700
AH7-3	RF7-3	

Device Schedule					
Jace-Bldg 200					
Equipment Tag	Manufacturer	Com Port	MAC Address	Device ID	Bldg
HP1-2	Distech Controls				100
HP1-3	Distech Controls				
HP1-4	Distech Controls				
HP1-5	Distech Controls				
HP1-6	Distech Controls				
HP1-7	Distech Controls				
Bldg 200 Jace	Distech Controls				200
Central Plant	Distech Controls				
HWP-1	ABB				
HWP-2	ABB				
HWP-3	ABB				
CWP-1	ABB				
CWP-2	ABB				
CWP-3	ABB				
AH2-1	Distech Controls				
AH2-2	Distech Controls				
AH2-3	Distech Controls				
AH2-4	Distech Controls				
EVAP-2-1	Distech Controls				
MUA-2-1	Distech Controls				
IDU2-1	Distech Controls				
IDU2-2	Distech Controls				

Exhaust Fan Schedule			
Controller	EF	Building	Control
HP1-1	EF1-2	100	Monitor Only
HP1-6	EF1-1		Monitor Only
AH2-3	EF2-1	200	Monitor Only
	EF2-2		Monitor Only
AH2-4	EF2-3		Monitor Only
	EF2-4		Monitor Only
AH3-9	EF3-1	300	EMS
AH4-9	EF4-1	400	EMS
AH5-9	EF5-1	500	EMS
AH6-2	EF6-1	600	EMS
	EF6-2		EMS
AH6-5	EF6-3		Monitor Only
	EF6-4		Monitor Only
	EF6-5		Monitor Only
	EF6-6		Monitor Only
	EF6-7		Monitor Only
AH7-2	EF7-1	700	Monitor Only
	EF7-2		Monitor Only

Device Schedule					
Jace-Bldg 300					
Equipment Tag	Manufacturer	Com Port	MAC Address	Device ID	Bldg
Bldg 300 Jace	Distech Controls				300
AH3-1	Distech Controls				
AH3-2	Distech Controls				
AH3-3	Distech Controls				
AH3-4	Distech Controls				
AH3-5	Distech Controls				
AH3-6	Distech Controls				
AH3-7	Distech Controls				
AH3-8	Distech Controls				
AH3-9	Distech Controls				
IDU3-1	Distech Controls				
IDU3-2	Distech Controls				
AH4-1	Distech Controls				400
AH4-2	Distech Controls				
AH4-3	Distech Controls				
AH4-4	Distech Controls				
AH4-5	Distech Controls				
AH4-6	Distech Controls				
AH4-7	Distech Controls				
AH4-8	Distech Controls				
AH4-9	Distech Controls				
IDU4-1	Distech Controls				
IDU4-2	Distech Controls				
AH5-1	Distech Controls				500
AH5-2	Distech Controls				
AH5-3	Distech Controls				
AH5-4	Distech Controls				
AH5-5	Distech Controls				
AH5-6	Distech Controls				
AH5-7	Distech Controls				
AH5-8	Distech Controls				
AH5-9	Distech Controls				
IDU5-1	Distech Controls				
IDU5-2	Distech Controls				
AH6-2	Distech Controls				600
AH6-5	Distech Controls				
AH6-1	Distech Controls				
AH6-3	Distech Controls				
AH6-4	Distech Controls				
AH6-6	Distech Controls				
AH7-2	Distech Controls				700
AH7-1	Distech Controls				
AH7-3	Distech Controls				
IDU7-1	Distech Controls				

1/32 DEVICE SCHEDULES



A BASROUTER- BASRT-B

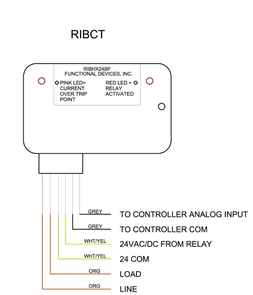
CONTACT RATINGS
20 AMP RES. @ 277 VAC
1HP @120 VAC
20A @ 277 VAC
20 A BALLAST @ 277 VAC
16 A ELECT. BALL @277 VAC (N/O)
770 VA P. DUTY @ 120 VAC
770 VA P. DUTY @ 120 VAC

COIL INPUTS
150 MA @24 VAC
100 MA @24 VDC
2 WHITE/YELLOW WIRES

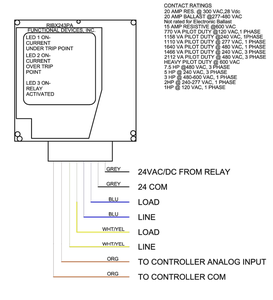
SENSOR OUTPUT
MAX 30 VAC/DC
MAX 100 MA
50VDC / 100 MA

RELAY CONTACT OUTPUT
2 ORANGE WIRES

SENSING RANGE
20 - 200A
FACTORY SET TRIP POINT = 20 AMPS (NON-ADJ.)



B RIBCT- WIRING DETAIL



CONTACT RATINGS
20 AMP RES. @ 300 VAC,28 Vdc
20 AMP BALLAST @277-480 VAC
Not rated for Electronic Ballast
1/2 HP @ 120 VAC, 1 PHASE
770 VA PILOT DUTY @ 120 VAC, 1 PHASE
1158 VA PILOT DUTY @240 VAC, 1PHASE
1540 VA PILOT DUTY @ 277 VAC, 1 PHASE
1540 VA PILOT DUTY @ 480 VAC, 1 PHASE
2112 VA PILOT DUTY @ 480 VAC, 3 PHASE
HEAVY PILOT DUTY @ 600 VAC
1 HP @ 120 VAC, 1 PHASE
3 HP @ 240 VAC, 1 PHASE
3 HP @ 480-600 VAC, 1 PHASE
2HP @ 240-277 VAC, 1 PHASE
1HP @ 120 VAC, 1 PHASE

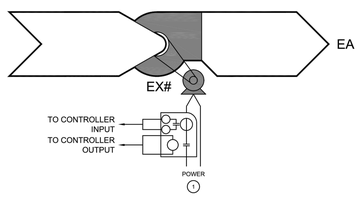
COIL VOLTAGE INPUT:
24 VAC/DC - 50-60 HZ
DROP OUT = 3 VAC / 3.8 VDC
PULL IN = 20VAC/22VDC

SENSOR OUTPUT
MAX 30 VAC/DC
MAX 100 MA
50VDC / 100 MA

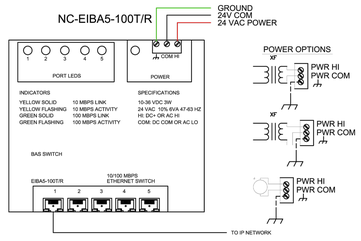
RELAY CONTACT OUTPUT
2 ORANGE WIRES

SENSING RANGE
20 - 20A
FACTORY SET TRIP POINT = 20 AMPS (NON-ADJ.)

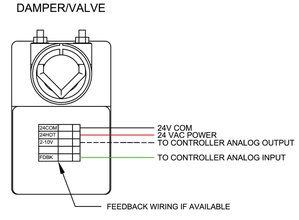
C RIBCT- WIRING DETAIL
CS-RIBX243PA



D EXHAUST FAN CONTROL 1
TYPICAL OF 1



E NS- NETWORK SWITCHES



F ECON/CHW- ECONOMIZER

1/33 DEVICE WIRING DETAILS - 1

Sheet Notes

1. DETAILS ONLY APPLICABLE TO THE QUOTE FOR THIS PROJECT.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
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(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
MECHANICAL CONTROL DETAILS

M8.15

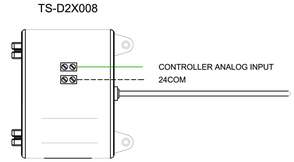
PROJECT 24042

BRYAN W. CARLSON No. M34846 Exp. 6-30-28 REGISTERED PROFESSIONAL ENGINEER MECHANICAL STATE OF CALIFORNIA

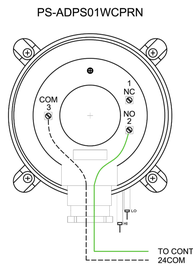
LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
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25026
Fresno, CA 93727
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15 September 2026 9:39 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M8.00 - M8.17 - Mechanical Control Details.dwg rysnf

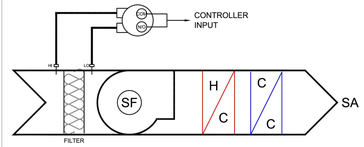
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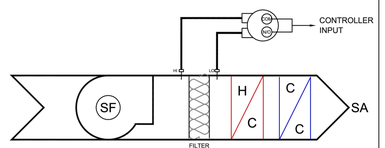
D — TS- TEMPERATURE SENSOR



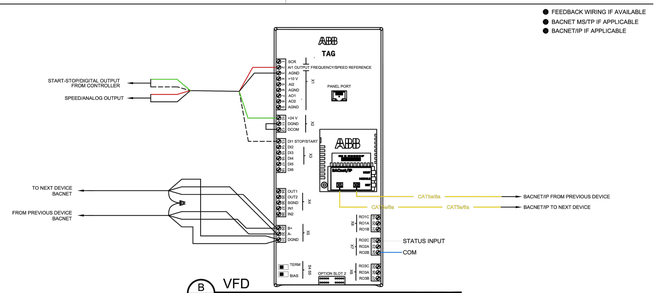
A — ADPS- AIR DIFFERENTIAL PRESSURE SWITCH



D — ADPS- AIR DIFFERENTIAL PRESSURE SWITCH
AFTER FAN



C — ADPS- AIR DIFFERENTIAL PRESSURE SWITCH
BEFORE FAN

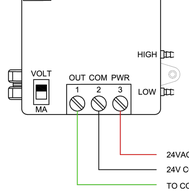


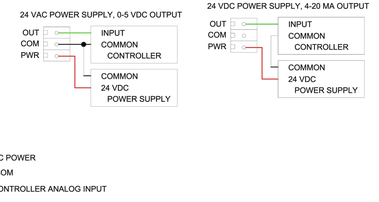
B — VFD

1/34 — DEVICE WIRING DETAILS - 2

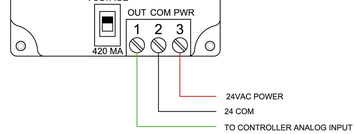
Sheet Notes

1. DETAILS ONLY APPLICABLE TO THE

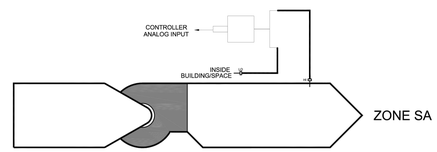




A — 2ADP- LOW AIR DIFFERENTIAL PRESSURE

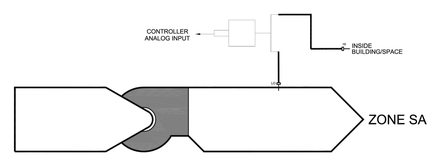


B — DPS



C — 2ADP- LOW AIR DIFFERENTIAL PRESSURE
DUCT

SWITCH SETTING	PS-2ADP04	PS-2ADP08	PS-2ADP12	PS-2ADP20	PS-2ADP01K	PS-2ADP02K
LOW	1 "WC	3 "WC	6 "WC	10 "WC	0.25 "KPA	0.5 KPA
MID	2 "WC	5 "WC	10 "WC	15 "WC	0.5 "WC	1 KPA
HIGH	4 "WC	8 "WC	12 "WC	20 "WC	1 KPA	2 KPA



D — 2ADP- LOW AIR DIFFERENTIAL PRESSURE
BUILDING STATIC

1/35 — MISC. EQUIPMENT CONTROL DETAILS - 1

Sheet Notes

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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LICENSED ARCHITECT — JAMES R. MORRELL — No. C-31128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

PROFESSIONAL ENGINEER — BRYAN W. CARLSON — No. M34846 Exp. 6-30-28 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101 — Fresno, CA 93727 FAX (559) 431-1362
25026

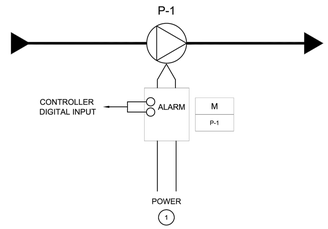
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TITLE
MECHANICAL CONTROL DETAILS

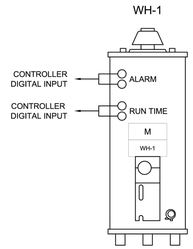
M8.16

PROJECT 24042

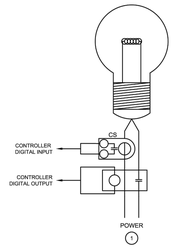
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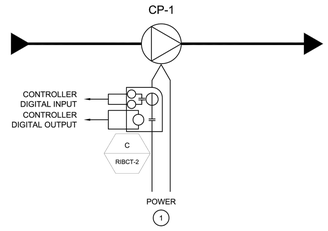
A — BOOSTER PUMP CONTROL DETAIL
WHERE APPLICABLE: WIRED TO NEAREST CONTROLLER



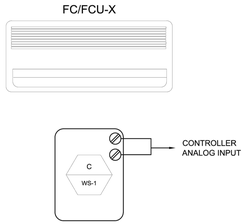
B — WATER HEATER CONTROL DETAIL
WHERE APPLICABLE: WIRED TO NEAREST CONTROLLER



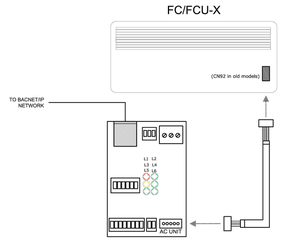
C — EXTERIOR LIGHTING CONTROL DETAIL
WHERE APPLICABLE: WIRED TO NEAREST CONTROLLER



D — CIRCULATION PUMP CONTROL DETAIL
WHERE APPLICABLE: WIRED TO NEAREST CONTROLLER



E — DX FAN COIL UNIT CONTROL DETAIL
WHERE APPLICABLE: WIRED TO NEAREST CONTROLLER

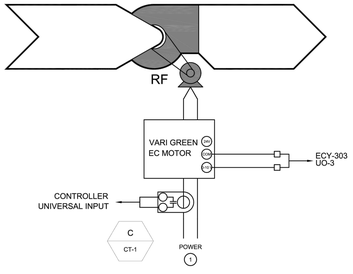


F — DX FAN COIL UNIT BACNET OPTION DETAIL
WHERE APPLICABLE: WIRED TO NEAREST CONTROLLER

1/36 — MISC. EQUIPMENT CONTROL DETAILS -2

Sheet Notes

1. DETAILS ONLY APPLICABLE TO THE QUOTE FOR THIS PROJECT.



A — RELIEF FAN
TYPICAL OF : SEE SCHEDULE

NOTES:

- Nlight OCCUPANCY SENSOR IS INTEGRATED VIA NLIGHTING SYSTEM.
- NO HARDWARE PROVIDED BY CONTROLS CONTRACTOR.



B — TEMPERATURE SETBACK
nLight OCCUPANCY SENSOR

1/37 — MISC. EQUIPMENT CONTROL DETAILS -3

Sheet Notes

1. DETAILS ONLY APPLICABLE TO THE QUOTE FOR THIS PROJECT.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
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www.mangini.us
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TITLE
MECHANICAL
CONTROL
DETAILS

M8.17

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
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FAX (559) 431-1362

15 September 2026 9:40 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M8.00 - M8.17 - Mechanical Control Details.dwg ryanf

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 3 of 20)**

C1. COMPLIANCE SUMMARY

	COMPLIES[1]		
	Time Dependent Valuation (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)
Standard Design	294.12	224.74	20.79
Proposed Design	234.68	136.1	13.62
Compliance Margins	**59.44**	**88.64**	**7.17**
	Pass	**Pass**	**Pass**

[1] Efficiency measures include improvements like a better building envelope and more efficient equipment
[2] Compliance Totals include efficiency, photovoltaics and batteries
[3] New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 2 of 20)**

B. PROJECT SUMMARY

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒	Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☐	Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☒	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Performance	Covered Process: Laboratory Exhaust (see Table J)	☐	Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒	Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Not Included	Photovoltaics (see Table F)	☒	Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☐	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☒	Performance	Commissioning 120.8	NRCC-CXR-E is required
				☐	Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 1 of 20)**

Project Name: Sanger USD Temperance ES Bldg 100 — **Date Prepared:** 2025-11-12

A. General Information

1	Project Name	Sanger USD Temperance ES Bldg 100		
2	Run Title	Title 24 Analysis		
3	Project Location	- specify -		
4	City	Sanger	5	Standards Version: Compliance 2022
6	Zip code	99999	7	Compliance Software (version): EnergyPro 9.4
8	Climate Zone	13	9	Building Orientation (deg): 0
10	Building Type(s)	• Nonresidential	11	Weather File: FRESNO-YOSEMITE_STYP20.epw
12	Project Scope	• New envelope and mechanical	13	Number of Dwelling Units: 0
14	Total Conditioned Floor Area in Scope (ft²)	8463.4	15	Total # of hotel/motel rooms: 0
16	Total Unconditioned Floor Area (ft²)	0	17	Fuel Type: Natural gas
18	Nonresidential Conditioned Floor Area	8463.4	19	Total # of Stories (Habitable Above Grade): 1
20	Residential Conditioned Floor Area	0		

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 6 of 20)**

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)

	COMPLIES[2]		
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Space Heating	2.53	1.86	0.67
Space Cooling	5.05	3.91	1.14
Indoor Fans	10.64	7.58	3.06
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	2.27	1.29	0.98
Indoor Lighting	3.26	3.26	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**23.75**	**17.9**	**5.85 (24.6%)**
Photovoltaics	-2.4	-3.26	0.86
Batteries	-0.56	-1.02	0.46
TOTAL COMPLIANCE	**20.79**	**13.62**	**7.17 (34.5%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 5 of 20)**

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	95.1	95.1	---
Process	101.81	101.81	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**421.65**	**333.01**	**88.64 (21%)**

[1] Notes: This table is not used for Energy Code Compliance.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 4 of 20)**

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

	COMPLIES[2]		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	17.37	12.86	4.51
Space Cooling	104.52	83.86	20.66
Indoor Fans	114.24	80.03	34.21
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	16.05	15.99	0.06
Indoor Lighting	41.94	41.94	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**294.12**	**234.68**	**59.44 (20.2%)**
Photovoltaics	-67.73	-93.32	25.59
Batteries	-1.65	-5.26	3.61
TOTAL COMPLIANCE	**224.74**	**136.1**	**88.64 (39.4%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 9 of 20)**

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	61.71	54.51	7.2	11.67
NET EUI[1]	50.06	38.66	11.4	22.77

[1] Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
• DesignedOccupancyUsedForCalculatingVentilation
• PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

F1. REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception[1]	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
23.8		Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

[1] See Table D1 for any PV exceptions used.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 8 of 20)**

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	4.5	3.3	1.2	---	---	---
Space Cooling	24.7	19.2	5.5	---	---	---
Indoor Fans	33	23.9	9.1	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	---	---	---	---	---
Domestic Hot Water	4.3	5.4	-1.1	11.2	---	---
Indoor Lighting	14.2	14.2	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**80.7**	**66**	**14.7**	**11.2**	**0**	**11.2**
Photovoltaics	-28.9	-39.3	10.4	---	---	---
Batteries	0.1	0.2	-0.1	---	---	---
ENERGY USE SUBTOTAL	**51.9**	**26.9**	**25**	**11.2**	**0**	**11.2**
Receptacle	33.4	33.4	0	---	---	---
Process	35.6	35.6	0	---	---	---
Other Ltg	---	---	---	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**120.9**	**95.9**	**25**	**11.2**	**0**	**11.2**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **NRCC-PRF-E**

Nonresidential Performance Compliance Method — **(Page 7 of 20)**

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	6.96	6.96	---
Process	7.58	7.58	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**35.33**	**28.16**	**7.17 (20.3%)**

[1] Notes: This table is not used for Energy Code Compliance.

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

APPROVALS

FILE # 10-126 — APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-31128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
TITLE 24
BUILDING 100

M9.00

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER — BRYAN W. CARLOCK — No. M34846 Exp. 6-30-28 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

15 September 2026 9:40 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 – Title 24.dwg ryonf

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G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	Construction Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value		Units	Value	Description of Assembly Layers	Status[1]
					Interior	Exterior				
25026 Ext. Wall8	Exterior Wall	5,913	Wood	19	N/A	N/A	U-factor	0.0676	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-1 Gypsum Board - 5/8 in.	N
Slab On Grade24	Underground Floor	8,463.4	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N
25026 Roof26	Roof	8,463.4	Wood	30	N/A	N/A	U-factor	0.0352	AsphaltShingle0_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-2 Air - Ceiling - 3/4 in. Gypsum Board - 5/8 in.	N
R-0 Wall45	Interior Wall	425	N/A	0	N/A	N/A	U-factor	0.3367	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Gypsum Board - 1/2 in.	N

[1] *Status: N - New, A - Altered, E - Existing*

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
25026 - HM Door39	105	0.7	N

[1] *Status: N - New, A - Altered, E - Existing*

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing[1]	1906	357.75	18.77
East-Facing[2]	1035	228	22.03
South-Facing[3]	1888	217.5	11.52
West-Facing[4]	1084	160.5	14.81
Total	**5913**	**963.75**	**16.3**
Roof	8463.4	0	0

Notes
[1] *North-Facing is oriented to within 45 degrees of true north, including 4500'00" east of north (NE), but excluding 4500'00" west of north (NW),*
[2] *East-Facing is oriented to within 45 degrees of true east, including 4500'00" south of east (SE), but excluding 4500'00" north of east (NE),*
[3] *South-Facing is oriented to within 45 degrees of true south, including 4500'00" west of south (SW), but excluding 4500'00" east of south (SE),*
[4] *West-Facing is oriented to within 45 degrees of true west, including 4500'00" north of west (NW), but excluding 4500'00" south of west (SW),*

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

F1B. PV BATTERY BUILDING TYPE(S)

01	02	03
Building Occupancy Type* (From Table 140.10-A/B and 170.2-U/V)	Conditioned Floor Area (ft²)	Unconditioned Floor Area (ft²)
Grocery	0	0
High-Rise Multifamily	0	0
Office, Financial Institutions, Unleased Tenant Space	5057	0
Retail	0	0
School	752	0
Warehouse	0	0
Auditorium, Convention Center, Hotel/Motel, Library, Medical Office Building/Clinic, Restaurant, Theater	2654.4	0
None	0	0

* *Building Occupancy Types are defined in Section 100.1 of the Energy Code*

F2. BATTERY SYSTEMS[1]

01	02	03	04	05	06	07
Control	Capacity (kWh)	Charging Efficiency	Charging Rate (kW)	Discharging Efficiency	Discharging Rate (kW)	Round Trip Efficiency
TOU	61.9	N/A	5	N/A	5	0.9

[1] *See Table D1 for any Battery exceptions used.*

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Design OA CFM	Supply Fan				Return / Relief Fan					Status[1]
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
HP - 1-1 Trane WHK036A4S0	1	322	1,200	0.47	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
HP - 1-2 Trane WHK036A4S0	1	178.35	1,200	0.47	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
HP 1-3 Trane WHK048A4S0B	1	172.5	1,600	0.58	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
HP 1-4 Trane WHK072A4S0C	1	645	2,400	0.91	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
HP 1-5 Trane 5WCZ5024A1	1	150	810	0.5	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
HP 1-6 Trane WHK072A4S0C	1	266.1	2,400	0.91	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
HP 1-7 Trane WHK048A4S0B	1	285.76	1,600	0.58	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
ODU 1-1/IDU 1-1 Mitsubish	1	0	635	0.1	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status[1]
Zone 6135-EF	6-Zone 6	1	1500	0.2	BHP	No	N

[1] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
HP 1-4 Trane WHK072A4S0C	Single Zone Heat Pump (SZHP) Air System	1	72.52	30.71	COP	3.72	67.82	EER	12.8	Differential DB	N
HP 1-5 Trane 5WCZ5024A1	Single Zone Heat Pump (SZHP) Air System	1	23.12	12.83	HSPF2	10.8	22.47	EER2 SEER2	11.5 15.2	Differential DB	N
HP 1-6 Trane WHK072A4S0C	Single Zone Heat Pump (SZHP) Air System	1	75.25	20.47	COP	3.72	67.57	EER	12.8	Differential DB	N
HP 1-7 Trane WHK048A4S0B	Single Zone Heat Pump (SZHP) Air System	1	46.83	20.47	HSPF	8.5	42.84	EER SEER	13.5 16.8	Differential DB	N
ODU 1-1/IDU 1-1 Mitsubish	Single Zone Air Conditioner	1	28	0	N/A	Electric Resistance	23.52	EER2 SEER2	12 21.1	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method[1]	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Status[2]
25026 - Window	Vertical fenestration Fixed window N/A	NFRC	Manufactured	963.75	0.34	0.22	0.42	N

[1] *Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
HP 1-1 Trane WHK036A4S0	Single Zone Heat Pump (SZHP) Air System	1	34.1	20.47	HSPF	12.97	31.76	EER SEER	13.5 16.8	Differential DB	N
HP 1-2 Trane WHK036A4S0	Single Zone Heat Pump (SZHP) Air System	1	34.1	20.47	HSPF	12.97	31.76	EER SEER	13.5 16.8	Differential DB	N
HP 1-3 Trane WHK048A4S0B	Single Zone Heat Pump (SZHP) Air System	1	45.12	20.47	HSPF	12.97	43.25	EER SEER	13.5 16.8	Differential DB	N

[1] *Status: N - New, A - Altered, E - Existing*

I1. WATER HEATER EQUIPMENT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input	Rated Input Unit	Efficiency	Efficiency Unit	Tank Insulation R-value Int/Ext	Standby Loss Fraction	1st Hr. Rating or Flow Rate (gal)	Heat Pump Type	Tank Location or Ambient Condition
WH-1 Bradford White LE2402	Electricity	Storage	1	37	4.5	kW	0.92	UEF	N/A	N/A	45	N/A	N/A

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Plumbing	NRCI-PLB-E - For all buildings with Plumbing Systems
	NRCI-SAB-E - Solar Water Heating, PV and Battery Storage Systems

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	HP - 1-1 Trane WHK036A4S0, HP - 1-2 Trane WHK036A4S0, HP 1-3 Trane WHK048A4S0B, HP 1-4 Trane WHK072A4S0C, HP 1-5 Trane 5WCZ5024A1, HP 1-6 Trane WHK072A4S0C and HP 1-7 Trane WHK048A4S0B., ODU 1-1/IDU 1-1 Mitsubish
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	HP - 1-1 Trane WHK036A4S0, HP - 1-2 Trane WHK036A4S0, HP 1-3 Trane WHK048A4S0B, HP 1-4 Trane WHK072A4S0C, HP 1-5 Trane 5WCZ5024A1, HP 1-6 Trane WHK072A4S0C and HP 1-7 Trane WHK048A4S0B., ODU 1-1/IDU 1-1 Mitsubish

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
5-Zone 5	General - Conference/meeting	10	150	0	300	DCV
6-Zone 6	Office - Office space	8.87	266.1	1500	1774	N/A
7-Zone 7	Education - Classrooms (ages 9-18)	18.8	285.76	0	752	DCV
8-Zone 8	General - Unoccupied	0.19	0	0	123.4	N/A

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
1-Zone 1-Trm	Uncontrolled	1	N/A	N/A	1,200	N/A	0	N/A	N/A	N/A	☐
2-Zone 2-Trm	Uncontrolled	1	N/A	N/A	1,200	N/A	0	N/A	N/A	N/A	☐
3-Zone 3-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
4-Zone 4-Trm	Uncontrolled	1	N/A	N/A	2,400	N/A	0	N/A	N/A	N/A	☐
5-Zone 5-Trm	Uncontrolled	1	N/A	N/A	810	N/A	0	N/A	N/A	N/A	☐
6-Zone 6-Trm	Uncontrolled	1	N/A	N/A	2,400	N/A	0	N/A	N/A	N/A	☐
7-Zone 7-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
ODU 1-1/IDU 1-1 Mitsubish	Single Zone Air Conditioner	1	28	23.52	635	N/A	N/A	0.1	BHP	Continuous	☐

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
HP - 1-1 Trane WHK036A4S0	Single Zone Heat Pump (SZHP) Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
HP - 1-2 Trane WHK036A4S0	Single Zone Heat Pump (SZHP) Air System	N/A	Differential DB
HP 1-3 Trane WHK048A4S0B	Single Zone Heat Pump (SZHP) Air System	N/A	Differential DB
HP 1-4 Trane WHK072A4S0C	Single Zone Heat Pump (SZHP) Air System	N/A	Differential DB
HP 1-5 Trane 5WCZ5024A1	Single Zone Heat Pump (SZHP) Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
HP 1-6 Trane WHK072A4S0C	Single Zone Heat Pump (SZHP) Air System	N/A	Differential DB
HP 1-7 Trane WHK048A4S0B	Single Zone Heat Pump (SZHP) Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
WH-1 Bradford White LE2401 - SHW	Service Hot Water	N/A	Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-Zone 1	Assembly - Lobbies	21.47	322	0	644	DCV
2-Zone 2	Office - Office space	5.95	178.35	0	1189	N/A
3-Zone 3	Office - Office space	5.75	172.5	0	1150	N/A
4-Zone 4	Assembly - Libraries (reading rooms and stack areas)	43	645	0	2531	N/A

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 24128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.7530 Office
(559) 627.1926 Fax

TITLE
TITLE 24
BUILDING 100

M9.01

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

15 September 2026 9:40 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 – Title 24.dwg ryanf

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	**(Page 20 of 20)**

Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Mathew Alviso	Documentation Author Signature: Mathew Alviso
Company: Lawrence Engineering Group	Signature Date: 11-12-2025
Address: 4910 E. Clinton Way, Suite 101	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: (559) 431-0101

Responsible Person's Declaration statement

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: James R. Morrelli	Responsible Designer Signature:	
Company: Mangini Associates Inc.		
Address: 4320 West Mineral King Avenue	Date Signed: 9.17.2026	
City/State/Zip: Visalia, CA 93291	License #: C-33128	
Phone:	Title:	Scope:
Responsible Designer Name: Ryan W. Carlson	Responsible Designer Signature:	
Company: Lawrence Engineering Group		
Address: 4910 E. Clinton Way, Suite 101	Date Signed: 11-12-2025	
City/State/Zip: Fresno, CA 93727	License #: M34846	
Phone:	Title:	Scope:

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	**(Page 19 of 20)**

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	HP - 1-1 Trane WHK036A4S0, HP - 1-2 Trane WHK036A4S0, HP 1-3 Trane WHK048A4S0B, HP 1-4 Trane WHK072A4S0C, HP 1-5 Trane SWCZ5024A1, HP 1-6 Trane WHK072A4S0C and HP 1-7 Trane WHK048A4S0B.
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.
	HP - 1-1 Trane WHK036A4S0, HP 1-5 Trane SWCZ5024A1 and HP 1-7 Trane WHK048A4S0B.
Mechanical	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units
	HP - 1-1 Trane WHK036A4S0, HP - 1-2 Trane WHK036A4S0, HP 1-3 Trane WHK048A4S0B, HP 1-4 Trane WHK072A4S0C, HP 1-6 Trane WHK072A4S0C and HP 1-7 Trane WHK048A4S0B.

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2025-11-12 17:28:23 Compliance ID: EnergyPro-2975-1125-0461

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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TITLE
TITLE 24
BUILDING 100

M9.02

PROJECT 24042

CERTIFIED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 3 of 21)

C1. COMPLIANCE SUMMARY

	COMPLIES[3]		
	Time Dependent Valuation (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)
Standard Design	590.23	576.39	44.66
Proposed Design	572.56	477.79	36.35
Compliance Margins	**17.67**	**98.6**	**8.31**
	Pass	**Pass**	**Pass**

[1] Efficiency measures include improvements like a better building envelope and more efficient equipment
[2] Compliance Totals include efficiency, photovoltaics and batteries
[3] New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 2 of 21)

B. PROJECT SUMMARY

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒	Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☒	Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☐	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Performance	Covered Process: Laboratory Exhaust (see Table J)	☐	Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒	Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Not Included	Photovoltaics (see Table F)	☒	Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☐	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☒	Performance	Commissioning 120.8	NRCC-CXR-E is required
				☐	Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 1 of 21)

Project Name: Sanger USD Temperance ES Bldg 200 **Date Prepared:** 2025-12-10

A. General Information

1	Project Name	Sanger USD Temperance ES Bldg 200		
2	Run Title	Title 24 Analysis		
3	Project Location	- specify -		
4	City	Sanger	5 Standards Version	Compliance 2022
6	Zip code	99999	7 Compliance Software (version)	EnergyPro 9.4
8	Climate Zone	13	9 Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11 Weather File	FRESNO-YOSEMITE_STYP20.epw
12	Project Scope	• New envelope and mechanical	13 Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	11030	15 Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	0	17 Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	11030	19 Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0		

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 6 of 21)

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)

	COMPLIES[2]		
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Space Heating	1.29	0.02	1.27
Space Cooling	19.35	22.98	-3.63
Indoor Fans	15.42	7.12	8.3
Heat Rejection	0	0	0
Pumps & Misc.	0	0.51	-0.51
Domestic Hot Water	1.87	1.81	0.06
Indoor Lighting	7.22	7.22	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**45.15**	**39.66**	**5.49 (12.2%)**
Photovoltaics	-0.49	-3.31	2.82
Batteries	---	---	---
TOTAL COMPLIANCE	**44.66**	**36.35**	**8.31 (18.6%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 5 of 21)

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	190.94	190.94	---
Process	903.2	903.2	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**1670.53**	**1571.93**	**98.6 (5.9%)**

[1] Notes: This table is not used for Energy Code Compliance.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 4 of 21)

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

	COMPLIES[2]		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	3.93	0.15	3.78
Space Cooling	321.53	393.29	-71.76
Indoor Fans	175.24	79.3	95.94
Heat Rejection	0	0	0
Pumps & Misc.	0	3.81	-3.81
Domestic Hot Water	9.09	15.57	-6.48
Indoor Lighting	80.44	80.44	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**590.23**	**572.56**	**17.67 (3%)**
Photovoltaics	-13.84	-94.77	80.93
Batteries	---	---	---
TOTAL COMPLIANCE	**576.39**	**477.79**	**98.6 (17.1%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 9 of 21)

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	219.02	212.86	6.16	2.81
NET EUI[1]	216.64	196.77	19.87	9.17

[1] Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
• The user model includes space(s) that are designed to be served by mechanical cooling systems, but the cooling systems were not included in the simulation model. A cooling system has been modeled for both the proposed and standard cases.
• The user model includes space(s) without sufficient cooling equipment. Cooling equipment has been added to the model to meet cooling loads.
• DesignedOccupancyUsedForCalculatingVentilation
• PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

F1. REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception[1]	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
31.5		Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

[1] See Table D1 for any PV exceptions used.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 8 of 21)

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	---	0.1	---	15.3	---	---
Space Cooling	105.7	123.7	-18	---	---	---
Indoor Fans	65.7	31.5	34.2	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	1.4	---	---	---	---
Domestic Hot Water	2.2	6.4	-4.2	16.8	---	---
Indoor Lighting	31.4	31.4	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**205**	**194.5**	**10.5**	**32.1**	**0**	**32.1**
Photovoltaics	-7.7	-52	44.3	---	---	---
Batteries	---	---	---	---	---	---
ENERGY USE SUBTOTAL	**197.3**	**142.5**	**54.8**	**32.1**	**0**	**32.1**
Receptacle	46.5	46.5	0	311.9	311.9	0
Process	355.7	355.7	0	---	---	---
Other Ltg	---	---	---	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**599.5**	**544.7**	**54.8**	**344**	**311.9**	**32.1**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 7 of 21)

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	37.01	37.01	---
Process	81.48	81.48	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**163.15**	**154.84**	**8.31 (5.1%)**

[1] Notes: This table is not used for Energy Code Compliance.

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
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TITLE
TITLE 24
BUILDING 200

M9.03

PROJECT 24042

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Fresno, CA 93727 FAX (559) 431-1362

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APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 12 of 21)

G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	Construction Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value Interior	Continuous R-Value Exterior	Units	Value	Description of Assembly Layers	Status[1]
25026 Ext. Wall10	Exterior Wall	7,324	Wood	19	N/A	N/A	U-factor	0.0676	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-1 Gypsum Board - 5/8 in.	N
Slab On Grade16	Underground Floor	11,030	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N
25026 Roof18	Roof	11,030	Wood	30	N/A	N/A	U-factor	0.0352	AsphaltShingled_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-2 Air - Ceiling - 3/4 in. Gypsum Board - 5/8 in.	N

[1] *Status: N - New, A - Altered, E - Existing*

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
Metal Door12	252	0.7	N

[1] *Status: N - New, A - Altered, E - Existing*

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 11 of 21)

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing[1]	2059	0	0
East-Facing[2]	1729	0	0
South-Facing[3]	1108	0	0
West-Facing[4]	2428	228	9.39
Total	**7324**	**228**	**3.11**
Roof	11030	0	0

Notes
[1] *North-Facing is oriented to within 45 degrees of true north, including 4500'00" east of north (NE), but excluding 4500'00" west of north (NW),*
[2] *East-Facing is oriented to within 45 degrees of true east, including 4500'00" south of east (SE), but excluding 4500'00" north of east (NE),*
[3] *South-Facing is oriented to within 45 degrees of true south, including 4500'00" west of south (SW), but excluding 4500'00" east of south (SE),*
[4] *West-Facing is oriented to within 45 degrees of true west, including 4500'00" north of west (NW), but excluding 4500'00" south of west (SW),*

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 10 of 21)

F1B. PV BATTERY BUILDING TYPE(S)

01	02	03
Building Occupancy Type* (From Table 140.10-A/B and 170.2-U/V)	Conditioned Floor Area (ft²)	Unconditioned Floor Area (ft²)
Grocery	0	0
High-Rise Multifamily	0	0
Office, Financial Institutions, Unleased Tenant Space	0	0
Retail	0	0
School	0	0
Warehouse	0	0
Auditorium, Convention Center, Hotel/Motel, Library, Medical Office Building/Clinic, Restaurant, Theater	11030	0
None	0	0

* *Building Occupancy Types are defined in Section 100.1 of the Energy Code*

F2. BATTERY SYSTEMS[1]

01	02	03	04	05	06	07
Control	Capacity (kWh)	Charging Efficiency	Charging Rate (kW)	Discharging Efficiency	Discharging Rate (kW)	Round Trip Efficiency
TOU	81.8	N/A	5	N/A	5	0.9

[1] *See Table D1 for any Battery exceptions used.*

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 15 of 21)

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Design OA CFM	Supply Fan				Return / Relief Fan					Status[1]
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
AH 2-1 Trane CSAA021	1	5672	9,000	2.9	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH 2-2 Trane CSAA010	1	1104.5	4,000	0.63	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH 2-3 Trane CSAA006	1	304.5	3,000	0.42	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH 2-4 Trane UCCAH06C0H0E	1	429.02	1,900	1.68	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 2-1 Mitsubishi PL	1	24	370	0.1	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 2-2 Mitsubishi PK	1	10.5	635	0.1	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status[1]
Zone 14-EF	1-Zone 1	1	1210	0.12	BHP	No	N
Zone 365-EF	3-Zone 3	1	2200	0.22	BHP	No	N

[1] *Status: N - New, A - Altered, E - Existing*

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 14 of 21)

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling				
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency	Economizer Type (if present)	Status[1]
AH 2-3 Trane CSAA006	Single Zone Air Conditioner (SZAC) Air System	1	146.41	0	N/A	NA - See Boiler	116.53	N/A	NA - See Chiller	Differential DB	N
AH 2-4 Trane UCCAH06C0H0E	Single Zone Air Conditioner (SZAC) Air System	1	92.72	0	N/A	NA - See Boiler	73.75	N/A	NA - See Chiller	Differential DB	N
IDU/ODU 2-1 Mitsubishi PL	Single Zone Heat Pump	1	20.83	0	HSPF2	10.9	11.91	EER2 SEER2	17.1 24.8	N/A	N
IDU/ODU 2-2 Mitsubishi PK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 13 of 21)

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method[1]	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Status[2]
25026 Glass Door	Vertical fenestration Fixed window N/A	NFRC	Manufactured	84	0.34	0.22	0.42	N
25026 Window	Vertical fenestration Fixed window N/A	NFRC	Manufactured	144	0.34	0.22	0.42	N

[1] *Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling				
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency	Economizer Type (if present)	Status[1]
AH 2-1 Trane CSAA021	Single Zone Air Conditioner (SZAC) Air System	1	439.2	0	N/A	NA - See Boiler	402.4	N/A	NA - See Chiller	Differential DB	N
AH 2-2 Trane CSAA010	Single Zone Air Conditioner (SZAC) Air System	1	195.2	0	N/A	NA - See Boiler	155.46	N/A	NA - See Chiller	Differential DB	N

[1] *Status: N - New, A - Altered, E - Existing*

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 18 of 21)

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-Zone 1	Education - Multiuse assembly	378.13	5672	1210	5432	DCV
2-Zone 2	Sports/Entertainment - Stages, studios	157.79	1104.5	0	2209	DCV
3-Zone 3	Food Service - Kitchen (cooking)	5.08	304.5	2200	2030	N/A
4-Zone 4	Education - Classrooms (ages 9-18)	28.23	429.02	0	1129	DCV
5-Zone 5	Office - Office space	0.8	24	0	160	N/A
6-Zone 6	Misc - All others	0.1	10.5	0	70	N/A

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
1-Zone 1-Trm	Uncontrolled	1	N/A	N/A	9,000	N/A	0	N/A	N/A	N/A	☐
2-Zone 2-Trm	Uncontrolled	1	N/A	N/A	4,000	N/A	0	N/A	N/A	N/A	☐
3-Zone 3-Trm	Uncontrolled	1	N/A	N/A	3,000	N/A	0	N/A	N/A	N/A	☐
4-Zone 4-Trm	Uncontrolled	1	N/A	N/A	1,900	N/A	0	N/A	N/A	N/A	☐
IDU/ODU 2-1 Mitsubishi PL	Single Zone Heat Pump	1	20.83	11.91	370	N/A	N/A	0.1	BHP	Continuous	☐
IDU/ODU 2-2 Mitsubishi PK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.1	BHP	Continuous	☐

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 17 of 21)

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(l)[1]	Other Special Features and Controls
AH 2-1 Trane CSAA021	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH 2-2 Trane CSAA010	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH 2-3 Trane CSAA006	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
AH 2-4 Trane UCCAH06C0H0E	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
WC-1Trane MASA0301 - HotWater	Hot Water System	N/A	DDC Controls Fixed Temperature Control
WC-1Trane MASA0301 - SHW	Service Hot Water	N/A	Fixed Temperature Control
WC-1Trane MASA0301 - ChillSys	Chilled Water System	N/A	DDC Controls Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD — NRCC-PRF-E
Nonresidential Performance Compliance Method — (Page 16 of 21)

H6. WET SYSTEM EQUIPMENT (boilers, chillers, cooling towers, etc.)

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Equipment Type	Parent Fluid System Name	Qty	Vol (gal)	Rated Capacity	Capacity Unit	Rating	Rating Unit	Status[1]
WC-1Trane MASA030-1-1-1	Scroll	WC-1Trane MASA0301 - ChillSys	1	N/A	3,306	kBtu/Hr	10.13	EER	N
WC-1Trane MASA0302-0	Air-to-Water Heat Pump	WC-1Trane MASA0301 - HotWater	1	1	7,147.51	kBtu/Hr	2.25	COP	N

[1] *Status: N - New, A - Altered, E - Existing*

H7. PUMPS

01	02	03	04	05	06	07	08
Name or Item Tag	Parent Equipment	Qty	Power	Power Units	GPM	VSD	Status[1]
Pump 1	WC-1Trane MASA0302-0	1	6.24	BHP	325	☐	N
Pump 2	WC-1Trane MASA030-1-1-1	1	0	BHP	3304.74	☐	N

[1] *Status: N - New, A - Altered, E - Existing*

LICENSED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101 — Fresno, CA 93727 FAX (559) 431-1362
25026

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
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(559) 627-0530 Office
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TITLE
TITLE 24
BUILDING 200

M9.04

PROJECT 24042

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Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Mathew Alviso	Documentation Author Signature: *Mathew Alviso*
Company: Lawrence Engineering Group	Signature Date: 2025-12-10
Address: 4910 E. Clinton Way, Suite 101	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: (559) 431-0101

Responsible Person's Declaration statement

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: James R. Morrelli	Responsible Designer Signature:
Company: Mangini Associates Inc.	
Address: 4320 West Mineral King Avenue	Date Signed: 9.17.2026
City/State/Zip: Visalia, CA 93291	License #: C-33128
Phone:	Title: Scope:
Responsible Designer Name: Ryan W. Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	
Address: 4910 E. Clinton Way, Suite 101	Date Signed: 2025-12-10
City/State/Zip: Fresno, CA 93727	License #: M34846
Phone:	Title: Scope:

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Covered Process	NRCA-PRC-02-F Kitchen Exhaust
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	AH 2-1 Trane CSAA021, AH 2-2 Trane CSAA010, AH 2-3 Trane CSAA006 and AH 2-4 Trane UCCAH06C0H0E., IDU/ODU 2-1 Mitsubishi PL and IDU/ODU 2-2 Mitsubishi PK.
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	IDU/ODU 2-1 Mitsubishi PL and IDU/ODU 2-2 Mitsubishi PK.
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	AH 2-1 Trane CSAA021, AH 2-2 Trane CSAA010, AH 2-3 Trane CSAA006 and AH 2-4 Trane UCCAH06C0H0E.
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.
	AH 2-1 Trane CSAA021, AH 2-2 Trane CSAA010 and AH 2-4 Trane UCCAH06C0H0E.
Mechanical	NRCA-MCH-08-A Valve Leakage Test
	WC-1Trane MASA0301 - ChillSys
Mechanical	NRCA-MCH-09-A Supply Water Temperature Reset Controls
	WC-1Trane MASA0301 - HotWater and WC-1Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-10-A Hydronic System Variable Flow Controls
	WC-1Trane MASA0301 - ChillSys
Mechanical	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
	AH 2-1 Trane CSAA021, AH 2-2 Trane CSAA010, AH 2-3 Trane CSAA006 and AH 2-4 Trane UCCAH06C0H0E.

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

I1. WATER HEATER EQUIPMENT SUMMARY

01 Name	02 Heater Element Type	03 Tank Type	04 Qty	05 Tank Vol (gal)	06 Rated Input	07 Rated Input Unit	08 Efficiency	09 Efficiency Unit	10 Tank Insulation R-value Im/Ext	11 Standby Loss Fraction	12 1st Hr. Rating or Flow Rate (gal)	13 Heat Pump Type	14 Tank Location or Ambient Condition
WC-1Trane MASA0302-0	Electricity	Storage	1	1	931.03	kW	N/A	N/A	N/A	0	N/A	Heat Pump Split Water Heater	N/A
HP-2 A.O. Smith CAHP-1203	Electricity	Storage	5	109.4	4.39	kW	3.3	UEF	N/A	N/A	80	Heat Pump Split Water Heater	N/A

J2. COMMERCIAL KITCHENS

01 Space Name	02 Exhaust Hood Style	03 Exhaust Hood Duty	04 Exhaust Length	05 Exhaust Flow Rate (cfm)
S-3-Zone 3	Wall-mounted Canopy	Heavy Duty	12.5	2,200

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Plumbing	NRCI-PLB-E - For all buildings with Plumbing Systems
	NRCI-SAB-E - Solar Water Heating, PV and Battery Storage Systems
Covered Process	NRCI-PRC-E - Covered Processes

STATE OF CALIFORNIA
Process Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PRC-E
Project Name: Sanger USD Temperance ES	**Report Page:**	**(Page 3 of 6)**
	Date Prepared:	12/10/2025

I. PROCESS BOILER

This section does not apply to this project.

J. COMPRESSED AIR SYSTEMS

This section does not apply to this project.

K. ELEVATOR LIGHTING AND VENTILATION

This section does not apply to this project.

L. ESCALATORS AND MOVING WALKWAYS SPEED CONTROLS

This section does not apply to this project.

M. COMPUTER ROOM SYSTEM SUMMARY

This section does not apply to this project.

N. COMMERCIAL KITCHEN EXHAUST AND VENTILATION

This table contains all new and replacement hoods being installed within the scope of the permit application. Table N is used to demonstrate compliance with prescriptive requirements found in 140.9(b).

Kitchen Ventilation 140.9(b)2

01	☐	Existing kitchen hoods not being replaced as part of an addition or alteration (do not need to meet requirements)
Requirements		
02	Replacement Air to Hood Compliance Method 140.9(b)1A	
	Not providing replacement air directly to the hood(s)	
03	Mechanically cooled or heated makeup air delivered to any space with a kitchen hood is designed per 140.9(b)2A to not exceed the greater of:	
	The supply flow required to meet the space heating and cooling load	
04	Location that is supplying transfer air:	

STATE OF CALIFORNIA
Process Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PRC-E
Project Name: Sanger USD Temperance ES	**Report Page:**	**(Page 6 of 6)**
Project Address:	**Date Prepared:**	12/10/2025

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Mathew Alviso	Documentation Author Signature: *Mathew Alviso*
Company: Lawrence Engineering Group	Signature Date: 2025-12-10
Address: 4910 E. Clinton Way, Suite 101	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Fresno CA 93727	Phone: (559) 431-0101

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan W. Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	Date Signed: 2025-12-10
Address: 4910 E. Clinton Way, Suite 101	License: M34846
City/State/Zip: Fresno CA 93727	Phone:

STATE OF CALIFORNIA
Process Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PRC-E
Project Name: Sanger USD Temperance ES	**Report Page:**	**(Page 2 of 6)**
	Date Prepared:	12/10/2025

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through R. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

01 Refrigerated Warehouse / Space 120.6(a) (See Table F)	02 Commercial Refrigeration 120.6(b) (See Table G)	03 Parking Garage Exhaust 120.6(c) (See Table H)	04 Process Boilers 120.6(d) (See Table I)	05 Compressed Air Systems 120.6(e) (See Table J)	06 Elevators 120.6(f) / 160.7 (See Table K)	07 Escalators & Moving Walkways 120.6(g) (See Table L)	08 Computer Rooms 140.9(a) (See Table M)	09 Commercial Kitchens 140.9(b) (See Table N)	10 Laboratory/ Factory Exhaust 140.9(c) (See Table O)	11 Controlled Environment Horticulture 120.6(h) (See Table P)	12 Steam Traps 120.6(i) (See Table Q)	13 Multifamily Pool/Spa 160.7 (See Table R)	14 **Compliance Results**
								Yes					COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. REFRIGERATED WAREHOUSES/SPACES

This section does not apply to this project.

G. COMMERCIAL REFRIGERATION

This section does not apply to this project.

H. ENCLOSED PARKING GARAGE EXHAUST

This section does not apply to this project.

STATE OF CALIFORNIA
Process Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PRC-E
Project Name: Sanger USD Temperance ES	**Report Page:**	**(Page 5 of 6)**
	Date Prepared:	12/10/2025

S. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title
NRCI-PRC-01-E - Covered Process

T. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-PRC-02-F Kitchen Exhaust	KH 2-1;

STATE OF CALIFORNIA
Process Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PRC-E
This form is used to document any process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in 120.6/ 160.7 or prescriptive requirements in 140.9. This compliance document is used for newly constructed, addition and alteration projects.		
Project Name: Sanger USD Temperance ES	**Report Page:**	**(Page 1 of 6)**
Project Address:	**Date Prepared:**	12/10/2025

A. GENERAL INFORMATION

01	Project Location (city)	Sanger	04 Total Conditioned Floor Area	11030
02	Climate Zone	13	05 Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)	1

● Office ● All Other Occupancies

B. PROJECT SCOPE

This table includes process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in 120.6 / 160.7 or prescriptive requirements in 140.9.

My project consists of: (check all that apply):

01		02	
☐	Refrigerated Spaces <3,000 ft² Total (no Title 24, Pt6 requirements)	☐	Escalator & Moving Walkway Speed Controls (mandatory 120.6(g))
☐	Refrigerated Spaces >=3,000 ft² Total (mandatory 120.6(a))	☐	Computer Rooms (mandatory 120.6(j) and prescriptive 140.9(a))[1]
☐	Food /Beverage Stores >8,000 ft² cfa (mandatory 120.6(b))	☒	Commercial Kitchen Ventilation/Exhaust (prescriptive 140.9(b))[1]
☐	Enclosed Parking Garage Exhaust >=10,000 cfm (mandatory 120.6(c))	☐	Laboratory Exhaust/Factory Exhaust & Fume Hood (prescriptive 140.9(c))[1]
☐	Newly Installed Process Boilers (mandatory 120.6(d))	☐	Pool/Spa (mandatory 110..4 / 160.7)
☐	Compressed Air Systems Combined HP >= 25 (mandatory 120.6(e))	☐	Controlled Environment Horticulture (mandatory 120.6(h))
☐	Elevator Lighting & Ventilation Controls (mandatory 120.6(f) / 160.7)	☐	New Steam Traps (mandatory 120.6(i))

[1] *FOOTNOTES: These building features can comply using the performance method. If using the performance method for these features, compliance should be demonstrated on the NRCC-PRF-E.*

STATE OF CALIFORNIA
Process Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PRC-E
Project Name: Sanger USD Temperance ES	**Report Page:**	**(Page 4 of 6)**
	Date Prepared:	12/10/2025

N. COMMERCIAL KITCHEN EXHAUST AND VENTILATION

05	The kitchen/ dining facility has a total Type I and Type II kitchen hood exhaust airflow > 5000 cfm and is designed to have one of the following per 140.9(b)2B:
	Demand ventilation system(s) on at least 75% of the exhaust air per 140.9(b)2Bii

Kitchen Exhaust: Airflow Rate 140.9(b)1B

01	Kitchen Name or Item Tag	Kitchen	Compliance Method per 140.9(b)1B		Type1 hood design exhaust rates do not exceed the maximum allowed per §140.9(b)1 as documented below	
02	03	04	05	06	07	08
Name or Item Tag	Hood Type[1]	Hood Style	Hood Length (ft)	Equipment Duty	Design Hood Exhaust Rate CFM	Max Hood Exhaust Rate Allowed CFM
KH 2-1	Type I	Wall-mounted Canopy	12.5	Heavy Duty	2200	3500

[1] *FOOTNOTES: Type II hoods do not have a max hood exhaust air rate per 140.9(b)1B*

O. LABORATORY AND FACTORY EXHAUST AND FUME HOODS

This section does not apply to this project.

P. CONTROLLED ENVIRONMENT HORTICULTURE

This section does not apply to this project.

Q. STEAM TRAPS IN INDUSTRIAL FACILITIES

This section does not apply to this project.

R. Pool & SPAs

This section does not apply to this project.

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELI No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 *Office*
(559) 627-1926 *Fax*

TITLE
TITLE 24
BUILDING 200

M9.05

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 STATE OF CALIFORNIA MECHANICAL

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

15 September 2026 9:40 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 – Title 24.dwg ryanf

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 1 of 23)

Project Name:	Sanger USD Temperance ES Bldg 300	**Date Prepared:**	2025-11-05

A. General Information

1	Project Name	Sanger USD Temperance ES Bldg 300		
2	Run Title	Title 24 Analysis		
3	Project Location	- specify -		
4	City	Sanger	5 Standards Version	Compliance 2022
6	Zip code	99999	7 Compliance Software (version)	EnergyPro 9.4
8	Climate Zone	13	9 Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11 Weather File	FRESNO-YOSEMITE_STYP20.epw
12	Project Scope	• New envelope and mechanical	13 Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	9144	15 Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	0	17 Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	9144	19 Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0		

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 2 of 23)

B. PROJECT SUMMARY

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.

Building Components Complying via Performance					Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐ Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒ Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☐ Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☒ Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Performance	Covered Process: Laboratory Exhaust (see Table J)	☐ Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒ Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Not Included	Photovoltaics (see Table F)	☒ Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☐ Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☒ Performance	Commissioning 120.8	NRCC-CXR-E is required
				☐ Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 3 of 23)

C1. COMPLIANCE SUMMARY

	COMPLIES[3]		
	Time Dependent Valuation (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)
Standard Design	298.22	255.44	20.38
Proposed Design	287.61	186.66	15.41
Compliance Margins	**10.61**	**68.78**	**4.97**
	Pass	**Pass**	**Pass**

[1] Efficiency measures include improvements like a better building envelope and more efficient equipment
[2] Compliance Totals include efficiency, photovoltaics and batteries
[3] New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 4 of 23)

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

	COMPLIES[2]		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	9.93	16.12	-6.19
Space Cooling	99.63	112.2	-12.57
Indoor Fans	130.09	74.17	55.92
Heat Rejection	0	0	0
Pumps & Misc.	0	14.72	-14.72
Domestic Hot Water	28.12	39.95	-11.83
Indoor Lighting	30.45	30.45	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**298.22**	**287.61**	**10.61 (3.6%)**
Photovoltaics	-40.78	-94.72	53.94
Batteries	-2	-6.23	4.23
TOTAL COMPLIANCE	**255.44**	**186.66**	**68.78 (26.9%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 5 of 23)

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	51.48	51.48	---
Process	60.61	60.61	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**367.53**	**298.75**	**68.78 (18.7%)**

[1] Notes: This table is not used for Energy Code Compliance.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 6 of 23)

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)

	COMPLIES[2]		
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Space Heating	1.28	2.02	-0.74
Space Cooling	4.76	4.8	-0.04
Indoor Fans	11.41	6.44	4.97
Heat Rejection	0	0	0
Pumps & Misc.	0	1.08	-1.08
Domestic Hot Water	2.38	3.21	-0.83
Indoor Lighting	2.44	2.44	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**22.27**	**19.99**	**2.28 (10.2%)**
Photovoltaics	-1.45	-3.31	1.86
Batteries	-0.44	-1.27	0.83
TOTAL COMPLIANCE	**20.38**	**15.41**	**4.97 (24.4%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 7 of 23)

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	3.85	3.85	---
Process	4.21	4.21	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**28.44**	**23.47**	**4.97 (17.5%)**

[1] Notes: This table is not used for Energy Code Compliance.

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 8 of 23)

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	2.9	4.5	-1.6	---	---	---
Space Cooling	26.7	28.6	-1.9	---	---	---
Indoor Fans	41.7	23.6	18.1	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	4.3	---	---	---	---
Domestic Hot Water	10.8	14.6	-3.8	---	---	---
Indoor Lighting	10.7	10.7	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**92.8**	**86.3**	**6.5**	**0**	**0**	**0**
Photovoltaics	-18.8	-43.1	24.3	---	---	---
Batteries	0.1	0.3	-0.2	---	---	---
ENERGY USE SUBTOTAL	**74.1**	**43.5**	**30.6**	**0**	**0**	**0**
Receptacle	18.9	18.9	0	---	---	---
Process	24.5	24.5	0	---	---	---
Other Ltg	---	---	---	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**117.5**	**86.9**	**30.6**	**0**	**0**	**0**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 9 of 23)

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	50.86	48.51	2.35	4.62
NET EUI[1]	43.84	32.43	11.41	26.03

[1] Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
• DesignedOccupancyUsedForCalculatingVentilation
• PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

F1. REQUIRED PV SYSTEMS

01 DC System Size (kWdc)	02 Exception[1]	03 Module Type	04 Array Type	05 Power Electronics	06 CFI	07 Azimuth (deg)	08 Tilt Input	09 Array Angle (deg)	10 Tilt: (x in 12)	11 Inverter Eff. (%)	12 Annual Solar Access (%)
26.1		Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

[1] See Table D1 for any PV exceptions used.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
TITLE 24
BUILDING 300

M9.06

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

15 September 2026 9:40 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 – Title 24.dwg ryonf

G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	Construction Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value		Units	Value	Description of Assembly Layers	Status[1]
					Interior	Exterior				
25026 Ext. Wall9	Exterior Wall	5,634	Wood	19	N/A	N/A	U-factor	0.0676	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-1 Gypsum Board - 5/8 in.	N
Slab On Grade11	Underground Floor	9,144	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N
25026 Roof13	Roof	9,144	Wood	30	N/A	N/A	U-factor	0.0352	AsphaltShingle|_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-2 Air - Ceiling - 3/4 in. Gypsum Board - 5/8 in.	N
R-0 Wall28	Interior Wall	640	N/A	0	N/A	N/A	U-factor	0.3367	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Gypsum Board - 1/2 in.	N

[1] Status: N - New, A - Altered, E - Existing

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
Metal Door110	42	0.7	N

[1] Status: N - New, A - Altered, E - Existing

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing[1]	1153	106	9.19
East-Facing[2]	1611	393	24.39
South-Facing[3]	1420	303	21.34
West-Facing[4]	1450	375	25.86
Total	**5634**	**1177**	**20.89**
Roof	9144	0	0

Notes
[1] North-Facing is oriented to within 45 degrees of true north, including 4500'00" east of north (NE), but excluding 4500'00" west of north (NW),
[2] East-Facing is oriented to within 45 degrees of true east, including 4500'00" south of east (SE), but excluding 4500'00" north of east (NE),
[3] South-Facing is oriented to within 45 degrees of true south, including 4500'00" west of south (SW), but excluding 4500'00" east of south (SE),
[4] West-Facing is oriented to within 45 degrees of true west, including 4500'00" north of west (NW), but excluding 4500'00" south of west (SW),

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

F1B. PV BATTERY BUILDING TYPE(S)

01	02	03
Building Occupancy Type* (From Table 140.10-A/B and 170.2-U/V)	Conditioned Floor Area (ft²)	Unconditioned Floor Area (ft²)
Grocery	0	0
High-Rise Multifamily	0	0
Office, Financial Institutions, Unleased Tenant Space	0	0
Retail	0	0
School	6580	0
Warehouse	0	0
Auditorium, Convention Center, Hotel/Motel, Library, Medical Office Building/Clinic, Restaurant, Theater	2564	0
None	0	0

** Building Occupancy Types are defined in Section 100.1 of the Energy Code*

F2. BATTERY SYSTEMS[1]

01	02	03	04	05	06	07
Control	Capacity (kWh)	Charging Efficiency	Charging Rate (kW)	Discharging Efficiency	Discharging Rate (kW)	Round Trip Efficiency
TOU	67.8	N/A	5	N/A	5	0.9

[1] See Table D1 for any Battery exceptions used.

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Design OA CFM	Supply Fan				Return / Relief Fan					Status[1]
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
AH-3-1 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-3-2 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-3-3 Trane BCVR048	1	0	1,300	0.38	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-3-4 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-3-5 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-3-6 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-3-7 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-3-8 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-3-9 Trane BCHE012	1	214.35	1,100	0.77	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 3-1 Mitsubishi PK	1	0	635	0.06	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 3-2 Mitsubishi PK	1	19.95	635	0.06	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] Status: N - New, A - Altered, E - Existing

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status[1]
Zone 3-320-EF	3-Zone 3-3	1	1300	0.13	BHP	No	N

[1] Status: N - New, A - Altered, E - Existing

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-3-4 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-3-5 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-3-6 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-3-7 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-3-8 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-3-9 Trane BCHE012	Single Zone Air Conditioner (SZAC) Air System	1	31.5	0	N/A	NA - See Boiler	41.76	N/A	NA - See Chiller	Differential DB	N
IDU/ODU 3-1 Mitsubishi PK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N
IDU/ODU 3-2 Mitsubishi PK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N

[1] Status: N - New, A - Altered, E - Existing

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method[1]	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Status[2]
25026 - Window	Vertical fenestration Fixed window N/A	NFRC	Manufactured	1,177	0.34	0.22	0.42	N

[1] Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.
[2] Status: N - New, A - Altered, E - Existing

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-3-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-3-2 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-3-3 Trane BCVR048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N

[1] Status: N - New, A - Altered, E - Existing

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-3-8 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-3-9 Trane BCHE012	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
WC-1 Trane MASA0301 - HotWater	Hot Water System	N/A	DDC Controls Fixed Temperature Control
WC-1 Trane MASA0301 - SHW	Service Hot Water	N/A	Fixed Temperature Control
WC-1 Trane MASA0301 - ChillSys	Chilled Water System	N/A	DDC Controls Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-Zone 3-1	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
2-Zone 3-2	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
3-Zone 3-3	Exhaust - Toilets, public	4.74	0	1300	947	DCV
4-Zone 3-4	Education - Classrooms (ages 9-18)	40	600	0	940	DCV

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-3-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-3-2 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-3-3 Trane BCVR048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
AH-3-4 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-3-5 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-3-6 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-3-7 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

H6. WET SYSTEM EQUIPMENT (boilers, chillers, cooling towers, etc.)

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Equipment Type	Parent Fluid System Name	Qty	Vol (gal)	Rated Capacity	Capacity Unit	Rating	Rating Unit	Status[1]
WC-1 Trane MASA030-1-1-1	Scroll	WC-1 Trane MASA0301 - ChillSys	1	N/A	3,306	kBtu/Hr	10.13	EER	N
WC-1 Trane MASA0302-0	Air-to-Water Heat Pump	WC-1 Trane MASA0301 - HotWater	1	N/A	7,147.51	kBtu/Hr	2.25	COP	N

[1] Status: N - New, A - Altered, E - Existing

H7. PUMPS

01	02	03	04	05	06	07	08
Name or Item Tag	Parent Equipment	Qty	Power	Power Units	GPM	VSD	Status[1]
Pump 1	WC-1 Trane MASA0302-0	1	6.24	BHP	325	☒	N
Pump 2	WC-1 Trane MASA030-1-1-1	1	13	BHP	3302.96	☒	N

[1] Status: N - New, A - Altered, E - Existing

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0510 Office
(559) 627-1926 Fax

LICENSED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

TITLE
TITLE 24
BUILDING 300

M9.07

PROJECT 24042

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 21 of 23)

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	AH-3-1 Trane BCVE048, AH-3-2 Trane BCVE048, AH-3-3 Trane BCVR048, AH-3-4 Trane BCVE048, AH-3-5 Trane BCVE048, AH-3-6 Trane BCVE048, AH-3-7 Trane BCVE048, AH-3-8 Trane BCVE048 and AH-3-9 Trane BCHE012., IDU/ODU 3-1 Mitsubishi PK and IDU/ODU 3-2 Mitsubishi PK.
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	IDU/ODU 3-1 Mitsubishi PK and IDU/ODU 3-2 Mitsubishi PK.
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	AH-3-1 Trane BCVE048, AH-3-2 Trane BCVE048, AH-3-3 Trane BCVR048, AH-3-4 Trane BCVE048, AH-3-5 Trane BCVE048, AH-3-6 Trane BCVE048, AH-3-7 Trane BCVE048, AH-3-8 Trane BCVE048 and AH-3-9 Trane BCHE012.
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO_2) concentration setpoints.
	AH-3-1 Trane BCVE048, AH-3-2 Trane BCVE048, AH-3-3 Trane BCVR048, AH-3-4 Trane BCVE048, AH-3-5 Trane BCVE048, AH-3-6 Trane BCVE048, AH-3-7 Trane BCVE048 and AH-3-8 Trane BCVE048.
Mechanical	NRCA-MCH-08-A Valve Leakage Test
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-09-A Supply Water Temperature Reset Controls
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-10-A Hydronic System Variable Flow Controls
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
	AH-3-1 Trane BCVE048, AH-3-2 Trane BCVE048, AH-3-3 Trane BCVR048, AH-3-4 Trane BCVE048, AH-3-5 Trane BCVE048, AH-3-6 Trane BCVE048, AH-3-7 Trane BCVE048, AH-3-8 Trane BCVE048 and AH-3-9 Trane BCHE012.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 20 of 23)

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
IDU/ODU 3-1 Mitsubishi PK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.06	BHP	Continuous	☐
IDU/ODU 3-2 Mitsubishi PK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.06	BHP	Continuous	☐

I1. WATER HEATER EQUIPMENT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input	Rated Input Unit	Efficiency	Efficiency Unit	Tank Insulation R-value Int/Ext	Standby Loss Fraction	1st Hr. Rating or Flow Rate (gal)	Heat Pump Type	Tank Location or Ambient Condition
WC-1 Trane MASA0302-O	Electricity	Storage	1	0	931.03	kW	N/A	N/A	N/A	0	N/A	Heat Pump Split Water Heater	N/A
WH-3 Bradford White LE2303	Electricity	Storage	1	28	4.5	kW	0.92	UEF	N/A	N/A	41	N/A	N/A

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Plumbing	NRCI-PLB-E - For all buildings with Plumbing Systems
	NRCI-SAB-E - Solar Water Heating, PV and Battery Storage Systems

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 19 of 23)

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
5-Zone 3-5	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
6-Zone 3-6	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
7-Zone 3-7	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
8-Zone 3-8	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
9-Zone 3-9	General - Corridors	7.14	214.35	0	1429	N/A
10-Zone 3-11	General - Unoccupied	0.08	0	0	55	N/A
11-Zone 3-12	Misc - All others	0.2	19.95	0	133	N/A

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
1-Zone 3-1-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
2-Zone 3-2-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
3-Zone 3-3-Trm	Uncontrolled	1	N/A	N/A	1,300	N/A	0	N/A	N/A	N/A	☐
4-Zone 3-4-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
5-Zone 3-5-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
6-Zone 3-6-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
7-Zone 3-7-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
8-Zone 3-8-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
9-Zone 3-9-Trm	Uncontrolled	1	N/A	N/A	1,100	N/A	0	N/A	N/A	N/A	☐

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 23 of 23)

Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Mathew Alviso	Documentation Author Signature: *Mathew Alviso*
Company: Lawrence Engineering Group	Signature Date: 11-12-2025
Address: 4910 E. Clinton Way, Suite 101	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: (559) 431-0101

Responsible Person's Declaration statement

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: James R. Morrelli	Responsible Designer Signature:	
Company: Mangini Associates Inc.		
Address: 4320 West Mineral King Avenue	Date Signed: 9.17.2026	
City/State/Zip: Visalia, CA 93291	License #: C-33128	
Phone:	Title:	Scope:
Responsible Designer Name: Ryan W. Carlson	Responsible Designer Signature:	
Company: Lawrence Engineering Group		
Address: 4910 E. Clinton Way, Suite 101	Date Signed: 11-12-2025	
City/State/Zip: Fresno, CA 93727	License #: M34846	
Phone:	Title:	Scope:

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 22 of 23)

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELLI No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

LICENSED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
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MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
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(559) 627-1926 Fax

TITLE
TITLE 24
BUILDING 300

M9.08

PROJECT 24042

15 September 2026 9:41 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 - Title 24.dwg ryanf

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 3 of 23)

C1. COMPLIANCE SUMMARY

	COMPLIES[3]		
	Time Dependent Valuation (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)
Standard Design	298.22	255.44	20.38
Proposed Design	287.61	186.66	15.41
Compliance Margins	**10.61**	**68.78**	**4.97**
	Pass	**Pass**	**Pass**

[1] Efficiency measures include improvements like a better building envelope and more efficient equipment
[2] Compliance Totals include efficiency, photovoltaics and batteries
[3] New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 2 of 23)

B. PROJECT SUMMARY

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒	Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☐	Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☒	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Performance	Covered Process: Laboratory Exhaust (see Table J)	☐	Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒	Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Not Included	Photovoltaics (see Table F)	☒	Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☐	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☒	Performance	Commissioning 120.8	NRCC-CXR-E is required
				☐	Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 1 of 23)

Project Name:	Sanger USD Temperance ES Bldg 400	**Date Prepared:**	2025-11-05

A. General Information

1	Project Name	Sanger USD Temperance ES Bldg 400		
2	Run Title	Title 24 Analysis		
3	Project Location	- specify -		
4	City	Sanger	5	Standards Version	Compliance 2022
6	Zip code	99999	7	Compliance Software (version)	EnergyPro 9.4
8	Climate Zone	13	9	Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11	Weather File	FRESNO-YOSEMITE_STYP20.epw
12	Project Scope	• New envelope and mechanical	13	Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	9144	15	Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	0	17	Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	9144	19	Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0			

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 6 of 23)

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)

	COMPLIES[2]		
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Space Heating	1.28	2.02	-0.74
Space Cooling	4.76	4.8	-0.04
Indoor Fans	11.41	6.44	4.97
Heat Rejection	0	0	0
Pumps & Misc.	0	1.08	-1.08
Domestic Hot Water	2.38	3.21	-0.83
Indoor Lighting	2.44	2.44	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**22.27**	**19.99**	**2.28 (10.2%)**
Photovoltaics	-1.45	-3.31	1.86
Batteries	-0.44	-1.27	0.83
TOTAL COMPLIANCE	**20.38**	**15.41**	**4.97 (24.4%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 5 of 23)

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	51.48	51.48	---
Process	60.61	60.61	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**367.53**	**298.75**	**68.78 (18.7%)**

[1] Notes: This table is not used for Energy Code Compliance.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 4 of 23)

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

	COMPLIES[2]		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	9.93	16.12	-6.19
Space Cooling	99.63	112.2	-12.57
Indoor Fans	130.09	74.17	55.92
Heat Rejection	0	0	0
Pumps & Misc.	0	14.72	-14.72
Domestic Hot Water	28.12	39.95	-11.83
Indoor Lighting	30.45	30.45	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**298.22**	**287.61**	**10.61 (3.6%)**
Photovoltaics	-40.78	-94.72	53.94
Batteries	-2	-6.23	4.23
TOTAL COMPLIANCE	**255.44**	**186.66**	**68.78 (26.9%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 9 of 23)

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	50.86	48.51	2.35	4.62
NET EUI[1]	43.84	32.43	11.41	26.03

[1] Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
• DesignedOccupancyUsedForCalculatingVentilation
• PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

F1. REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception[1]	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
26.1		Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

[1] See Table D1 for any PV exceptions used.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 8 of 23)

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	2.9	4.5	-1.6	---	---	---
Space Cooling	26.7	28.6	-1.9	---	---	---
Indoor Fans	41.7	23.6	18.1	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	4.3	---	---	---	---
Domestic Hot Water	10.8	14.6	-3.8	---	---	---
Indoor Lighting	10.7	10.7	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**92.8**	**86.3**	**6.5**	**0**	**0**	**0**
Photovoltaics	-18.8	-43.1	24.3	---	---	---
Batteries	0.1	0.3	-0.2	---	---	---
ENERGY USE SUBTOTAL	**74.1**	**43.5**	**30.6**	**0**	**0**	**0**
Receptacle	18.9	18.9	0	---	---	---
Process	24.5	24.5	0	---	---	---
Other Ltg	---	---	---	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**117.5**	**86.9**	**30.6**	**0**	**0**	**0**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 7 of 23)

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	3.85	3.85	---
Process	4.21	4.21	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**28.44**	**23.47**	**4.97 (17.5%)**

[1] Notes: This table is not used for Energy Code Compliance.

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
TITLE 24
BUILDING 400

M9.09

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLOCK No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
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G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	Construction Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value		Units	Value	Description of Assembly Layers	Status[1]
					Interior	Exterior				
25026 Ext. Wall9	Exterior Wall	5,634	Wood	19	N/A	N/A	U-factor	0.0676	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-1 Gypsum Board - 5/8 in.	N
Slab On Grade11	Underground Floor	9,144	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N
25026 Roof13	Roof	9,144	Wood	30	N/A	N/A	U-factor	0.0352	AsphaltShingleD_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-2 Air - Ceiling - 3/4 in. Gypsum Board - 5/8 in.	N
R-0 Wall28	Interior Wall	640	N/A	0	N/A	N/A	U-factor	0.3367	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Gypsum Board - 1/2 in.	N

[1] *Status: N - New, A - Altered, E - Existing*

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
Metal Door110	42	0.7	N

[1] *Status: N - New, A - Altered, E - Existing*

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing[1]	1153	106	9.19
East-Facing[2]	1611	393	24.39
South-Facing[3]	1420	303	21.34
West-Facing[4]	1450	375	25.86
Total	**5634**	**1177**	**20.89**
Roof	9144	0	0

Notes
[1] *North-Facing is oriented to within 45 degrees of true north, including 4500'00" east of north (NE), but excluding 4500'00" west of north (NW),*
[2] *East-Facing is oriented to within 45 degrees of true east, including 4500'00" south of east (SE), but excluding 4500'00" north of east (NE),*
[3] *South-Facing is oriented to within 45 degrees of true south, including 4500'00" west of south (SW), but excluding 4500'00" east of south (SE),*
[4] *West-Facing is oriented to within 45 degrees of true west, including 4500'00" north of west (NW), but excluding 4500'00" south of west (SW),*

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

F1B. PV BATTERY BUILDING TYPE(S)

01	02	03
Building Occupancy Type* (From Table 140.10-A/B and 170.2-U/V)	Conditioned Floor Area (ft²)	Unconditioned Floor Area (ft²)
Grocery	0	0
High-Rise Multifamily	0	0
Office, Financial Institutions, Unleased Tenant Space	0	0
Retail	0	0
School	6580	0
Warehouse	0	0
Auditorium, Convention Center, Hotel/Motel, Library, Medical Office Building/Clinic, Restaurant, Theater	2564	0
None	0	0

* *Building Occupancy Types are defined in Section 100.1 of the Energy Code*

F2. BATTERY SYSTEMS[1]

01	02	03	04	05	06	07
Control	Capacity (kWh)	Charging Efficiency	Charging Rate (kW)	Discharging Efficiency	Discharging Rate (kW)	Round Trip Efficiency
TOU	67.8	N/A	5	N/A	5	0.9

[1] *See Table D1 for any Battery exceptions used.*

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Design OA CFM	Supply Fan				Return / Relief Fan					Status[1]
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
AH-4-1 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-4-2 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-4-3 Trane BCVR048	1	0	1,300	0.38	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-4-4 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-4-5 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-4-6 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-4-7 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-4-8 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-4-9 Trane BCHE012	1	214.35	1,100	0.77	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 4-1 Mitsubishi PK	1	0	635	0.06	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 4-2 Mitsubishi PK	1	19.95	635	0.06	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status[1]
Zone 4-320-EF	3-Zone 4-3	1	1300	0.13	BHP	No	N

[1] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-4-4 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-4-5 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-4-6 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-4-7 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-4-8 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-4-9 Trane BCHE012	Single Zone Air Conditioner (SZAC) Air System	1	31.5	0	N/A	NA - See Boiler	41.76	N/A	NA - See Chiller	Differential DB	N
IDU/ODU 4-1 Mitsubishi PK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N
IDU/ODU 4-2 Mitsubishi PK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method[1]	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Status[2]
25026 - Window	Vertical fenestration Fixed window N/A	NFRC	Manufactured	1,177	0.34	0.22	0.42	N

[1] *Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-4-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-4-2 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-4-3 Trane BCVR048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N

[1] *Status: N - New, A - Altered, E - Existing*

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-4-8 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-4-9 Trane BCHE012	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
WC-1 Trane MASA0301 - HotWater	Hot Water System	N/A	DDC Controls Fixed Temperature Control
WC-1 Trane MASA0301 - SHW	Service Hot Water	N/A	Fixed Temperature Control
WC-1 Trane MASA0301 - ChillSys	Chilled Water System	N/A	DDC Controls Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-Zone 4-1	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
2-Zone 4-2	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
3-Zone 4-3	Exhaust - Toilets, public	4.74	0	1300	947	DCV
4-Zone 4-4	Education - Classrooms (ages 9-18)	40	600	0	940	DCV

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-4-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-4-2 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-4-3 Trane BCVR048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
AH-4-4 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-4-5 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-4-6 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-4-7 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

H6. WET SYSTEM EQUIPMENT (boilers, chillers, cooling towers, etc.)

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Equipment Type	Parent Fluid System Name	Qty	Vol (gal)	Rated Capacity	Capacity Unit	Rating	Rating Unit	Status[1]
WC-1 Trane MASA030-1-1-1	Scroll	WC-1 Trane MASA0301 - ChillSys	1	N/A	3,306	kBtu/Hr	10.13	EER	N
WC-1 Trane MASA0302-0	Air-to-Water Heat Pump	WC-1 Trane MASA0301 - HotWater	1	N/A	7,147.51	kBtu/Hr	2.25	COP	N

[1] *Status: N - New, A - Altered, E - Existing*

H7. PUMPS

01	02	03	04	05	06	07	08
Name or Item Tag	Parent Equipment	Qty	Power	Power Units	GPM	VSD	Status[1]
Pump 1	WC-1 Trane MASA0302-0	1	6.24	BHP	325	☒	N
Pump 2	WC-1 Trane MASA030-1-1-1	1	13	BHP	3302.96	☒	N

[1] *Status: N - New, A - Altered, E - Existing*

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
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LICENSED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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TITLE
TITLE 24
BUILDING 400

M9.10

PROJECT 24042

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 21 of 23)

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	AH-4-1 Trane BCVE048, AH-4-2 Trane BCVE048, AH-4-3 Trane BCVR048, AH-4-4 Trane BCVE048, AH-4-5 Trane BCVE048, AH-4-6 Trane BCVE048, AH-4-7 Trane BCVE048, AH-4-8 Trane BCVE048 and AH-4-9 Trane BCHE012., IDU/ODU 4-1 Mitsubishi PK and IDU/ODU 4-2 Mitsubishi PK
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	IDU/ODU 4-1 Mitsubishi PK and IDU/ODU 4-2 Mitsubishi PK.
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	AH-4-1 Trane BCVE048, AH-4-2 Trane BCVE048, AH-4-3 Trane BCVR048, AH-4-4 Trane BCVE048, AH-4-5 Trane BCVE048, AH-4-6 Trane BCVE048, AH-4-7 Trane BCVE048, AH-4-8 Trane BCVE048 and AH-4-9 Trane BCHE012.
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.
	AH-4-1 Trane BCVE048, AH-4-2 Trane BCVE048, AH-4-3 Trane BCVR048, AH-4-4 Trane BCVE048, AH-4-5 Trane BCVE048, AH-4-6 Trane BCVE048, AH-4-7 Trane BCVE048 and AH-4-8 Trane BCVE048.
Mechanical	NRCA-MCH-08-A Valve Leakage Test
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-09-A Supply Water Temperature Reset Controls
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-10-A Hydronic System Variable Flow Controls
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
	AH-4-1 Trane BCVE048, AH-4-2 Trane BCVE048, AH-4-3 Trane BCVR048, AH-4-4 Trane BCVE048, AH-4-5 Trane BCVE048, AH-4-6 Trane BCVE048, AH-4-7 Trane BCVE048, AH-4-8 Trane BCVE048 and AH-4-9 Trane BCHE012.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 20 of 23)

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
IDU/ODU 4-1 Mitsubishi PK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.06	BHP	Continuous	☐
IDU/ODU 4-2 Mitsubishi PK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.06	BHP	Continuous	☐

I1. WATER HEATER EQUIPMENT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input	Rated Input Unit	Efficiency	Efficiency Unit	Tank Insulation R-value Int/Ext	Standby Loss Fraction	1st Hr. Rating or Flow Rate (gal)	Heat Pump Type	Tank Location or Ambient Condition
WC-1 Trane MASA0302-O	Electricity	Storage	1	0	931.03	kW	N/A	N/A	N/A	0	N/A	Heat Pump Split Water Heater	N/A
WH-3 Bradford White LE2303	Electricity	Storage	1	28	4.5	kW	0.92	UEF	N/A	N/A	41	N/A	N/A

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Plumbing	NRCI-PLB-E - For all buildings with Plumbing Systems
	NRCI-SAB-E - Solar Water Heating, PV and Battery Storage Systems

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 19 of 23)

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
5-Zone 4-5	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
6-Zone 4-6	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
7-Zone 4-7	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
8-Zone 4-8	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
9-Zone 4-9	General - Corridors	7.14	214.35	0	1429	N/A
10-Zone 4-11	General - Unoccupied	0.08	0	0	55	N/A
11-Zone 4-12	Misc - All others	0.2	19.95	0	133	N/A

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
1-Zone 4-1-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
2-Zone 4-2-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
3-Zone 4-3-Trm	Uncontrolled	1	N/A	N/A	1,300	N/A	0	N/A	N/A	N/A	☐
4-Zone 4-4-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
5-Zone 4-5-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
6-Zone 4-6-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
7-Zone 4-7-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
8-Zone 4-8-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
9-Zone 4-9-Trm	Uncontrolled	1	N/A	N/A	1,100	N/A	0	N/A	N/A	N/A	☐

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 23 of 23)

Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Mathew Alviso	Documentation Author Signature: Mathew Alviso
Company: Lawrence Engineering Group	Signature Date: 11-12-2025
Address: 4910 E. Clinton Way, Suite 101	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: (559) 431-0101

Responsible Person's Declaration statement

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: James R. Morrelli	Responsible Designer Signature:	
Company: Mangini Associates Inc.		
Address: 4320 West Mineral King Avenue	Date Signed: 9.17.2026	
City/State/Zip: Visalia, CA 93291	License #: C-33128	
Phone:	Title:	Scope:
Responsible Designer Name: Ryan W. Carlson	Responsible Designer Signature:	
Company: Lawrence Engineering Group		
Address: 4910 E. Clinton Way, Suite 101	Date Signed: 11-12-2025	
City/State/Zip: Fresno, CA 93727	License #: M34846	
Phone:	Title:	Scope:

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 22 of 23)

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELLI No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

LICENSED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101 25026 Fresno, CA 93727 FAX (559) 431-1362

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(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
TITLE 24
BUILDING 400

M9.11

PROJECT 24042

15 September 2026 9:41 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 - Title 24.dwg rysnf

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 3 of 23)

C1. COMPLIANCE SUMMARY

	COMPLIES[3]		
	Time Dependent Valuation (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)
Standard Design	298.22	255.44	20.38
Proposed Design	287.61	186.66	15.41
Compliance Margins	**10.61**	**68.78**	**4.97**
	Pass	**Pass**	**Pass**

[1] Efficiency measures include improvements like a better building envelope and more efficient equipment
[2] Compliance Totals include efficiency, photovoltaics and batteries
[3] New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 2 of 23)

B. PROJECT SUMMARY

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒	Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☐	Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☒	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Performance	Covered Process: Laboratory Exhaust (see Table J)	☐	Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒	Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Not Included	Photovoltaics (see Table F)	☒	Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☐	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☒	Performance	Commissioning 120.8	NRCC-CXR-E is required
				☐	Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 1 of 23)

Project Name: Sanger USD Temperance ES Bldg 500 **Date Prepared:** 2025-11-05

A. General Information

1	Project Name	Sanger USD Temperance ES Bldg 500		
2	Run Title	Title 24 Analysis		
3	Project Location	- specify -		
4	City	Sanger	5 Standards Version	Compliance 2022
6	Zip code	99999	7 Compliance Software (version)	EnergyPro 9.4
8	Climate Zone	13	9 Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11 Weather File	FRESNO-YOSEMITE_STYP20.epw
12	Project Scope	• New envelope and mechanical	13 Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	9144	15 Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	0	17 Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	9144	19 Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0		

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 6 of 23)

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)

	COMPLIES[2]		
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Space Heating	1.28	2.02	-0.74
Space Cooling	4.76	4.8	-0.04
Indoor Fans	11.41	6.44	4.97
Heat Rejection	0	0	0
Pumps & Misc.	0	1.08	-1.08
Domestic Hot Water	2.38	3.21	-0.83
Indoor Lighting	2.44	2.44	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**22.27**	**19.99**	**2.28 (10.2%)**
Photovoltaics	-1.45	-3.31	1.86
Batteries	-0.44	-1.27	0.83
TOTAL COMPLIANCE	**20.38**	**15.41**	**4.97 (24.4%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 5 of 23)

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	51.48	51.48	---
Process	60.61	60.61	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**367.53**	**298.75**	**68.78 (18.7%)**

[1] Notes: This table is not used for Energy Code Compliance.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 4 of 23)

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

	COMPLIES[2]		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	9.93	16.12	-6.19
Space Cooling	99.63	112.2	-12.57
Indoor Fans	130.09	74.17	55.92
Heat Rejection	0	0	0
Pumps & Misc.	0	14.72	-14.72
Domestic Hot Water	28.12	39.95	-11.83
Indoor Lighting	30.45	30.45	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**298.22**	**287.61**	**10.61 (3.6%)**
Photovoltaics	-40.78	-94.72	53.94
Batteries	-2	-6.23	4.23
TOTAL COMPLIANCE	**255.44**	**186.66**	**68.78 (26.9%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 9 of 23)

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	50.86	48.51	2.35	4.62
NET EUI[1]	43.84	32.43	11.41	26.03

[1] Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
• DesignedOccupancyUsedForCalculatingVentilation
• PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

F1. REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception[1]	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
26.1		Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

[1] See Table D1 for any PV exceptions used.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 8 of 23)

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	2.9	4.5	-1.6	---	---	---
Space Cooling	26.7	28.6	-1.9	---	---	---
Indoor Fans	41.7	23.6	18.1	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	4.3	---	---	---	---
Domestic Hot Water	10.8	14.6	-3.8	---	---	---
Indoor Lighting	10.7	10.7	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**92.8**	**86.3**	**6.5**	**0**	**0**	**0**
Photovoltaics	-18.8	-43.1	24.3	---	---	---
Batteries	0.1	0.3	-0.2	---	---	---
ENERGY USE SUBTOTAL	**74.1**	**43.5**	**30.6**	**0**	**0**	**0**
Receptacle	18.9	18.9	0	---	---	---
Process	24.5	24.5	0	---	---	---
Other Ltg	---	---	---	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**117.5**	**86.9**	**30.6**	**0**	**0**	**0**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 7 of 23)

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	3.85	3.85	---
Process	4.21	4.21	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**28.44**	**23.47**	**4.97 (17.5%)**

[1] Notes: This table is not used for Energy Code Compliance.

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
TITLE 24
BUILDING 500

M9.12

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

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G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	Construction Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value		Units	Value	Description of Assembly Layers	Status[1]
					Interior	Exterior				
25026 Ext. Wall9	Exterior Wall	5,634	Wood	19	N/A	N/A	U-factor	0.0676	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-1 Gypsum Board - 5/8 in.	N
Slab On Grade11	Underground Floor	9,144	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N
25026 Roof13	Roof	9,144	Wood	30	N/A	N/A	U-factor	0.0352	AsphaltShingleD_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-2 Air - Ceiling - 3/4 in. Gypsum Board - 5/8 in.	N
R-0 Wall28	Interior Wall	640	N/A	0	N/A	N/A	U-factor	0.3367	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Gypsum Board - 1/2 in.	N

[1] *Status: N - New, A - Altered, E - Existing*

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
Metal Door110	42	0.7	N

[1] *Status: N - New, A - Altered, E - Existing*

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing[1]	1153	106	9.19
East-Facing[2]	1611	393	24.39
South-Facing[3]	1420	303	21.34
West-Facing[4]	1450	375	25.86
Total	**5634**	**1177**	**20.89**
Roof	9144	0	0

Notes
[1] *North-Facing is oriented to within 45 degrees of true north, including 4500'00" east of north (NE), but excluding 4500'00" west of north (NW),*
[2] *East-Facing is oriented to within 45 degrees of true east, including 4500'00" south of east (SE), but excluding 4500'00" north of east (NE),*
[3] *South-Facing is oriented to within 45 degrees of true south, including 4500'00" west of south (SW), but excluding 4500'00" east of south (SE),*
[4] *West-Facing is oriented to within 45 degrees of true west, including 4500'00" north of west (NW), but excluding 4500'00" south of west (SW),*

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

F1B. PV BATTERY BUILDING TYPE(S)

01	02	03
Building Occupancy Type* (From Table 140.10-A/B and 170.2-U/V)	Conditioned Floor Area (ft²)	Unconditioned Floor Area (ft²)
Grocery	0	0
High-Rise Multifamily	0	0
Office, Financial Institutions, Unleased Tenant Space	0	0
Retail	0	0
School	6580	0
Warehouse	0	0
Auditorium, Convention Center, Hotel/Motel, Library, Medical Office Building/Clinic, Restaurant, Theater	2564	0
None	0	0

* *Building Occupancy Types are defined in Section 100.1 of the Energy Code*

F2. BATTERY SYSTEMS[1]

01	02	03	04	05	06	07
Control	Capacity (kWh)	Charging Efficiency	Charging Rate (kW)	Discharging Efficiency	Discharging Rate (kW)	Round Trip Efficiency
TOU	67.8	N/A	5	N/A	5	0.9

[1] *See Table D1 for any Battery exceptions used.*

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Design OA CFM	Supply Fan				Return / Relief Fan					Status[1]
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
AH-5-1 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-5-2 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-5-3 Trane BCVR048	1	0	1,300	0.38	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-5-4 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-5-5 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-5-6 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-5-7 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-5-8 Trane BCVE048	1	600	1,600	0.59	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-5-9 Trane BCHE012	1	214.35	1,100	0.77	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 5-1 Mitsubishi PK	1	0	635	0.06	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 5-2 Mitsubishi PK	1	19.95	635	0.06	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status[1]
Zone 5-320-EF	3-Zone 5-3	1	1300	0.13	BHP	No	N

[1] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-5-4 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-5-5 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-5-6 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-5-7 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-5-8 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N
AH-5-9 Trane BCHE012	Single Zone Air Conditioner (SZAC) Air System	1	31.5	0	N/A	NA - See Boiler	41.76	N/A	NA - See Chiller	Differential DB	N
IDU/ODU 5-1 Mitsubishi PK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N
IDU/ODU 5-2 Mitsubishi PK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method[1]	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Status[2]
25026 - Window	Vertical fenestration Fixed window N/A	NFRC	Manufactured	1,177	0.34	0.22	0.42	N

[1] *Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-5-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-5-2 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-5-3 Trane BCVR048	Single Zone Air Conditioner (SZAC) Air System	1	93.71	0	N/A	NA - See Boiler	91.26	N/A	NA - See Chiller	Differential DB	N

[1] *Status: N - New, A - Altered, E - Existing*

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-5-8 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-5-9 Trane BCHE012	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
WC-1 Trane MASA0301 - HotWater	Hot Water System	N/A	DDC Controls Fixed Temperature Control
WC-1 Trane MASA0301 - SHW	Service Hot Water	N/A	Fixed Temperature Control
WC-1 Trane MASA0301 - ChillSys	Chilled Water System	N/A	DDC Controls Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.

[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-Zone 5-1	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
2-Zone 5-2	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
3-Zone 5-3	Exhaust - Toilets, public	4.74	0	1300	947	DCV
4-Zone 5-4	Education - Classrooms (ages 9-18)	40	600	0	940	DCV

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-5-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-5-2 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-5-3 Trane BCVR048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
AH-5-4 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-5-5 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-5-6 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-5-7 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.

[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

H6. WET SYSTEM EQUIPMENT (boilers, chillers, cooling towers, etc.)

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Equipment Type	Parent Fluid System Name	Qty	Vol (gal)	Rated Capacity	Capacity Unit	Rating	Rating Unit	Status[1]
WC-1 Trane MASA030-1-1-1	Scroll	WC-1 Trane MASA0301 - ChillSys	1	N/A	3,306	kBtu/Hr	10.13	EER	N
WC-1 Trane MASA0302-0	Air-to-Water Heat Pump	WC-1 Trane MASA0301 - HotWater	1	N/A	7,147.51	kBtu/Hr	2.25	COP	N

[1] *Status: N - New, A - Altered, E - Existing*

H7. PUMPS

01	02	03	04	05	06	07	08
Name or Item Tag	Parent Equipment	Qty	Power	Power Units	GPM	VSD	Status[1]
Pump 1	WC-1 Trane MASA0302-0	1	6.24	BHP	325	☒	N
Pump 2	WC-1 Trane MASA030-1-1-1	1	13	BHP	3302.96	☒	N

[1] *Status: N - New, A - Altered, E - Existing*

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0510 Office
(559) 627-1926 Fax

LICENSED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

TITLE
TITLE 24
BUILDING 500

M9.13

PROJECT 24042

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 21 of 23)

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	AH-5-1 Trane BCVE048, AH-5-2 Trane BCVE048, AH-5-3 Trane BCVR048, AH-5-4 Trane BCVE048, AH-5-5 Trane BCVE048, AH-5-6 Trane BCVE048, AH-5-7 Trane BCVE048, AH-5-8 Trane BCVE048 and AH-5-9 Trane BCHE012., IDU/ODU 5-1 Mitsubishi PK and IDU/ODU 5-2 Mitsubishi PK.
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	IDU/ODU 5-1 Mitsubishi PK and IDU/ODU 5-2 Mitsubishi PK.
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	AH-5-1 Trane BCVE048, AH-5-2 Trane BCVE048, AH-5-3 Trane BCVR048, AH-5-4 Trane BCVE048, AH-5-5 Trane BCVE048, AH-5-6 Trane BCVE048, AH-5-7 Trane BCVE048, AH-5-8 Trane BCVE048 and AH-5-9 Trane BCHE012.
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO_2) concentration setpoints.
	AH-5-1 Trane BCVE048, AH-5-2 Trane BCVE048, AH-5-3 Trane BCVR048, AH-5-4 Trane BCVE048, AH-5-5 Trane BCVE048, AH-5-6 Trane BCVE048, AH-5-7 Trane BCVE048 and AH-5-8 Trane BCVE048.
Mechanical	NRCA-MCH-08-A Valve Leakage Test
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-09-A Supply Water Temperature Reset Controls
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-10-A Hydronic System Variable Flow Controls
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
	AH-5-1 Trane BCVE048, AH-5-2 Trane BCVE048, AH-5-3 Trane BCVR048, AH-5-4 Trane BCVE048, AH-5-5 Trane BCVE048, AH-5-6 Trane BCVE048, AH-5-7 Trane BCVE048, AH-5-8 Trane BCVE048 and AH-5-9 Trane BCHE012.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 20 of 23)

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
IDU/ODU 5-1 Mitsubishi PK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.06	BHP	Continuous	☐
IDU/ODU 5-2 Mitsubishi PK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.06	BHP	Continuous	☐

I1. WATER HEATER EQUIPMENT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input	Rated Input Unit	Efficiency	Efficiency Unit	Tank Insulation R-value Int/Ext	Standby Loss Fraction	1st Hr. Rating or Flow Rate (gal)	Heat Pump Type	Tank Location or Ambient Condition
WC-1 Trane MASA0302-O	Electricity	Storage	1	0	931.03	kW	N/A	N/A	N/A	0	N/A	Heat Pump Split Water Heater	N/A
WH-3 Bradford White LE2303	Electricity	Storage	1	28	4.5	kW	0.92	UEF	N/A	N/A	41	N/A	N/A

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Plumbing	NRCI-PLB-E - For all buildings with Plumbing Systems
	NRCI-SAB-E - Solar Water Heating, PV and Battery Storage Systems

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 19 of 23)

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
5-Zone 5-5	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
6-Zone 5-6	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
7-Zone 5-7	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
8-Zone 5-8	Education - Classrooms (ages 9-18)	40	600	0	940	DCV
9-Zone 5-9	General - Corridors	7.14	214.35	0	1429	N/A
10-Zone 5-11	General - Unoccupied	0.08	0	0	55	N/A
11-Zone 5-12	Misc - All others	0.2	19.95	0	133	N/A

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
1-Zone 5-1-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
2-Zone 5-2-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
3-Zone 5-3-Trm	Uncontrolled	1	N/A	N/A	1,300	N/A	0	N/A	N/A	N/A	☐
4-Zone 5-4-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
5-Zone 5-5-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
6-Zone 5-6-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
7-Zone 5-7-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
8-Zone 5-8-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
9-Zone 5-9-Trm	Uncontrolled	1	N/A	N/A	1,100	N/A	0	N/A	N/A	N/A	☐

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 23 of 23)

Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Mathew Alviso	Documentation Author Signature: Mathew Alviso
Company: Lawrence Engineering Group	Signature Date: 11-12-2025
Address: 4910 E. Clinton Way, Suite 101	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: (559) 431-0101

Responsible Person's Declaration statement

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: James R. Morrelli	Responsible Designer Signature:	
Company: Mangini Associates Inc.		
Address: 4320 West Mineral King Avenue	Date Signed: 9.17.2026	
City/State/Zip: Visalia, CA 93291	License #: C-33128	
Phone:	Title:	Scope:
Responsible Designer Name: Ryan W. Carlson	Responsible Designer Signature:	
Company: Lawrence Engineering Group		
Address: 4910 E. Clinton Way, Suite 101	Date Signed: 11-12-2025	
City/State/Zip: Fresno, CA 93727	License #: M34846	
Phone:	Title:	Scope:

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 22 of 23)

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELLI No. 33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

LICENSED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101 Fresno, CA 93727 FAX (559) 431-1362
25026

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
TITLE 24
BUILDING 500

M9.14

PROJECT 24042

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 3 of 22)

C1. COMPLIANCE SUMMARY

	COMPLIES[3]		
	Time Dependent Valuation (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)
Standard Design	390.75	330.69	25.62
Proposed Design	383.47	285.65	20.8
Compliance Margins	**7.28**	**45.04**	**4.82**
	Pass	**Pass**	**Pass**

[1] Efficiency measures include improvements like a better building envelope and more efficient equipment
[2] Compliance Totals include efficiency, photovoltaics and batteries
[3] New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 2 of 22)

B. PROJECT SUMMARY

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒	Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☐	Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☒	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Performance	Covered Process: Laboratory Exhaust (see Table J)	☐	Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒	Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Not Included	Photovoltaics (see Table F)	☒	Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☐	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☒	Performance	Commissioning 120.8	NRCC-CXR-E is required
				☐	Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 1 of 22)

Project Name: Sanger USD Temperance ES Bldg 600 **Date Prepared:** 2025-11-24

A. General Information

1	Project Name	Sanger USD Temperance ES Bldg 600		
2	Run Title	Title 24 Analysis		
3	Project Location	- specify -		
4	City	Sanger	5 Standards Version	Compliance 2022
6	Zip code	99999	7 Compliance Software (version)	EnergyPro 9.4
8	Climate Zone	13	9 Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11 Weather File	FRESNO-YOSEMITE_STYP20.epw
12	Project Scope	• New envelope and mechanical	13 Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	5314	15 Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	121	17 Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	5314	19 Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0		

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 6 of 22)

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)

	COMPLIES[2]		
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Space Heating	0.88	1.09	-0.21
Space Cooling	6.72	7.59	-0.87
Indoor Fans	15.39	10.43	4.96
Heat Rejection	0	0	0
Pumps & Misc.	0	0.05	-0.05
Domestic Hot Water	2.67	3.58	-0.91
Indoor Lighting	2.55	2.55	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**28.21**	**25.29**	**2.92 (10.4%)**
Photovoltaics	-2.08	-3.23	1.15
Batteries	-0.51	-1.26	0.75
TOTAL COMPLIANCE	**25.62**	**20.8**	**4.82 (18.8%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 5 of 22)

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	70.43	70.43	---
Process	248.28	248.28	---
Other Ltg	0.79	0.79	---
Process Motors	1.93	1	0.93
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**652.12**	**606.15**	**45.97 (7%)**

[1] Notes: This table is not used for Energy Code Compliance.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 4 of 22)

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

	COMPLIES[2]		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	6.49	8.51	-2.02
Space Cooling	140.97	174.68	-33.71
Indoor Fans	180.81	120.45	60.36
Heat Rejection	0	0	0
Pumps & Misc.	0	0.38	-0.38
Domestic Hot Water	30.64	47.61	-16.97
Indoor Lighting	31.84	31.84	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**390.75**	**383.47**	**7.28 (1.9%)**
Photovoltaics	-58.56	-92.42	33.86
Batteries	-1.5	-5.4	3.9
TOTAL COMPLIANCE	**330.69**	**285.65**	**45.04 (13.6%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 9 of 22)

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	87.76	85.32	2.44	2.78
NET EUI[1]	77.91	70	7.91	10.15

[1] Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
• The user model includes space(s) that are designed to be served by mechanical cooling systems, but the cooling systems were not included in the simulation model. A cooling system has been modeled for both the proposed and standard cases.
• The user model includes space(s) without sufficient cooling equipment. Cooling equipment has been added to the model to meet cooling loads.
• DesignedOccupancyUsedForCalculatingVentilation
• PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

F1. REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception[1]	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
14.8		Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

[1] See Table D1 for any PV exceptions used.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 8 of 22)

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	1.1	1.2	-0.1	---	---	---
Space Cooling	22.4	25.8	-3.4	---	---	---
Indoor Fans	33.6	22.4	11.2	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	0.1	---	---	---	---
Domestic Hot Water	6.8	10.6	-3.8	---	---	---
Indoor Lighting	6.5	6.5	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**70.4**	**66.6**	**3.8**	**0**	**0**	**0**
Photovoltaics	-15.7	-24.4	8.7	---	---	---
Batteries	0.1	0.2	-0.1	---	---	---
ENERGY USE SUBTOTAL	**54.8**	**42.4**	**12.4**	**0**	**0**	**0**
Receptacle	15	15	0	---	---	---
Process	53.7	53.7	0	---	---	---
Other Ltg	0.2	0.2	0	---	---	---
Process Motors	0.4	0.2	0.2	---	---	---
ENERGY USE TOTAL	**124.1**	**111.5**	**12.6**	**0**	**0**	**0**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 7 of 22)

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	5.27	5.27	---
Process	18.43	18.43	---
Other Ltg	0.06	0.06	---
Process Motors	0.16	0.08	0.08
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**49.54**	**44.64**	**4.9 (9.9%)**

[1] Notes: This table is not used for Energy Code Compliance.

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4120 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
TITLE 24
BUILDING 600

M9.15

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

15 September 2026 9:41 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 – Title 24.dwg ryonf

P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 - Title 24.dwg Sep 15 2026 9:41am

G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	Construction Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value		Units	Value	Description of Assembly Layers	Status[1]
					Interior	Exterior				
25026 Ext. Wall9	Exterior Wall	6,371	Wood	19	N/A	N/A	U-factor	0.0676	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-1 Gypsum Board - 5/8 in.	N
Slab On Grade19	Underground Floor	5,435	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N
25026 Roof21	Roof	5,435	Wood	30	N/A	N/A	U-factor	0.0352	AsphaltShingled_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-2 Air - Ceiling - 3/4 in. Gypsum Board - 5/8 in.	N

[1] *Status: N - New, A - Altered, E - Existing*

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
25026 - HM Door16	231	0.7	N

[1] *Status: N - New, A - Altered, E - Existing*

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing[1]	295	0	0
East-Facing[2]	3480	258	7.41
South-Facing[3]	448	0	0
West-Facing[4]	1740	0	0
Total	**5963**	**258**	**4.33**
Roof	5314	0	0

Notes
[1] *North-Facing is oriented to within 45 degrees of true north, including 4500'00" east of north (NE), but excluding 4500'00" west of north (NW),*
[2] *East-Facing is oriented to within 45 degrees of true east, including 4500'00" south of east (SE), but excluding 4500'00" north of east (NE),*
[3] *South-Facing is oriented to within 45 degrees of true south, including 4500'00" west of south (SW), but excluding 4500'00" east of south (SE),*
[4] *West-Facing is oriented to within 45 degrees of true west, including 4500'00" north of west (NW), but excluding 4500'00" south of west (SW),*

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

F1B. PV BATTERY BUILDING TYPE(S)

01	02	03
Building Occupancy Type* (From Table 140.10-A/B and 170.2-U/V)	Conditioned Floor Area (ft²)	Unconditioned Floor Area (ft²)
Grocery	0	0
High-Rise Multifamily	0	0
Office, Financial Institutions, Unleased Tenant Space	908	0
Retail	0	0
School	4296	0
Warehouse	0	0
Auditorium, Convention Center, Hotel/Motel, Library, Medical Office Building/Clinic, Restaurant, Theater	110	121
None	0	0

* *Building Occupancy Types are defined in Section 100.1 of the Energy Code*

F2. BATTERY SYSTEMS[1]

01	02	03	04	05	06	07
Control	Capacity (kWh)	Charging Efficiency	Charging Rate (kW)	Discharging Efficiency	Discharging Rate (kW)	Round Trip Efficiency
TOU	38.6	N/A	5	N/A	5	0.9

[1] *See Table D1 for any Battery exceptions used.*

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Design OA CFM	Supply Fan				Return / Relief Fan					Status[1]
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
AH-6-1 Trane BCVE048	1	600	1,600	0.98	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-6-2 Trane BCHE024	1	68.1	725	0.61	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-6-3 Trane BCVE048	1	600	1,600	0.98	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-6-4 Trane BCVE048	1	600	1,600	0.98	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-6-5 Trane BCHE024	1	68.1	725	0.61	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-6-6 Trane BCVE048	1	600	1,600	0.98	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU 6-1 Mitsubishi PKA-AK	1	16.5	635	0.1	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status[1]
Zone 222-EF	2-Zone 2	1	200	0.02	BHP	No	N
Zone 556-EF	5-Zone 5	1	200	0.02	BHP	No	N
Zone 6.177-EF	7-Zone 6.1	1	420	0.05	BHP	No	N
Zone 787-EF	8-Zone 7	1	200	0.03	BHP	No	N

[1] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-6-4 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-6-5 Trane BCHE024	Single Zone Air Conditioner (SZAC) Air System	1	45.11	0	N/A	NA - See Boiler	31.77	N/A	NA - See Chiller	Differential DB	N
AH-6-6 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
IDU 6-1 Mitsubishi PKA-AK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method[1]	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Status[2]
25026 - Window	Vertical fenestration Fixed window N/A	NFRC	Manufactured	258	0.34	0.22	0.42	N

[1] *Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-6-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-6-2 Trane BCHE024	Single Zone Air Conditioner (SZAC) Air System	1	45.11	0	N/A	NA - See Boiler	31.77	N/A	NA - See Chiller	Differential DB	N
AH-6-3 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N

[1] *Status: N - New, A - Altered, E - Existing*

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
WC-1Trane MASA0301 - ChillSys	Chilled Water System	N/A	DDC Controls Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-Zone 1	Education - Classrooms (ages 9-18)	40	600	0	1074	DCV
2-Zone 2	Office - Office space	2.27	68.1	200	454	N/A
3-Zone 3	Education - Classrooms (ages 9-18)	40	600	0	1074	DCV
4-Zone 4	Education - Classrooms (ages 9-18)	40	600	0	1074	DCV
5-Zone 5	Office - Office space	2.27	68.1	200	454	N/A
6-Zone 6	Education - Classrooms (ages 9-18)	40	600	0	1074	DCV
8-Zone 7	Misc - All others	0	16.5	200	110	N/A

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-6-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-6-2 Trane BCHE024	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
AH-6-3 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-6-4 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
AH-6-5 Trane BCHE024	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
AH-6-6 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
WC-1Trane MASA0301 - HotWater	Hot Water System	N/A	DDC Controls Fixed Temperature Control
WC-1Trane MASA0301 - SHW	Service Hot Water	N/A	Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

H6. WET SYSTEM EQUIPMENT (boilers, chillers, cooling towers, etc.)

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Equipment Type	Parent Fluid System Name	Qty	Vol (gal)	Rated Capacity	Capacity Unit	Rating	Rating Unit	Status[1]
WC-1Trane MASA030-1-1-1	Scroll	WC-1Trane MASA0301 - ChillSys	1	N/A	3,306	kBtu/Hr	10.13	EER	N
WC-1Trane MASA0302-0	Air-to-Water Heat Pump	WC-1Trane MASA0301 - HotWater	1	N/A	7,147.51	kBtu/Hr	2.25	COP	N

[1] *Status: N - New, A - Altered, E - Existing*

H7. PUMPS

01	02	03	04	05	06	07	08
Name or Item Tag	Parent Equipment	Qty	Power	Power Units	GPM	VSD	Status[1]
Pump 1	WC-1Trane MASA0302-0	1	6.24	BHP	325	☒	N
Pump 2	WC-1Trane MASA030-1-1-1	1	0	BHP	3304.74	☐	N

[1] *Status: N - New, A - Altered, E - Existing*

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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Visalia, California 93291
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(559) 627.0510 Office
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TITLE
TITLE 24
BUILDING 600

M9.16

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

15 September 2026 9:41 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 — Title 24.dwg ryonf

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 21 of 22)

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Mechanical	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
	AH-6-1 Trane BCVE048, AH-6-3 Trane BCVE048, AH-6-4 Trane BCVE048 and AH-6-6 Trane BCVE048.

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 20 of 22)

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Plumbing	NRCI-PLB-E - For all buildings with Plumbing Systems
	NRCI-SAB-E - Solar Water Heating, PV and Battery Storage Systems

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	AH-6-1 Trane BCVE048, AH-6-2 Trane BCHE024, AH-6-3 Trane BCVE048, AH-6-4 Trane BCVE048, AH-6-5 Trane BCHE024 and AH-6-6 Trane BCVE048., IDU 6-1 Mitsubishi PKA-AK
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	IDU 6-1 Mitsubishi PKA-AK
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	AH-6-1 Trane BCVE048, AH-6-2 Trane BCHE024, AH-6-3 Trane BCVE048, AH-6-4 Trane BCVE048, AH-6-5 Trane BCHE024 and AH-6-6 Trane BCVE048.
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.
	AH-6-1 Trane BCVE048, AH-6-3 Trane BCVE048, AH-6-4 Trane BCVE048 and AH-6-6 Trane BCVE048.
Mechanical	NRCA-MCH-08-A Valve Leakage Test
	WC-1Trane MASA0301 - HotWater and WC-1Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-09-A Supply Water Temperature Reset Controls
	WC-1Trane MASA0301 - HotWater and WC-1Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-10-A Hydronic System Variable Flow Controls
	WC-1Trane MASA0301 - HotWater and WC-1Trane MASA0301 - ChillSys.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 19 of 22)

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
1-Zone 1-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
2-Zone 2-Trm	Uncontrolled	1	N/A	N/A	725	N/A	0	N/A	N/A	N/A	☐
3-Zone 3-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
4-Zone 4-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
5-Zone 5-Trm	Uncontrolled	1	N/A	N/A	725	N/A	0	N/A	N/A	N/A	☐
6-Zone 6-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
IDU 6-1 Mitsubishi PKA-AK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.1	BHP	Continuous	☐

I1. WATER HEATER EQUIPMENT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input	Rated Input Unit	Efficiency	Efficiency Unit	Tank Insulation R-value Int/Ext	Standby Loss Fraction	1st Hr. Rating or Flow Rate (gal)	Heat Pump Type	Tank Location or Ambient Condition
WC-1Trane MASA0302-0	Electricity	Storage	1	0	931.03	kW	N/A	N/A	N/A	0	N/A	Heat Pump Split Water Heater	N/A
WH-4 Bradford White LE1203	Electricity	Storage	1	19	4.5	kW	0.92	EF	N/A	N/A	N/A	N/A	N/A

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 22 of 22)

Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Mathew Alviso	Documentation Author Signature: Mathew Alviso
Company: Lawrence Engineering Group	Signature Date: 2025-11-24
Address: 4910 E. Clinton Way, Suite 101	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: (559) 431-0101

Responsible Person's Declaration statement

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: James R. Morrelli	Responsible Designer Signature:	
Company: Mangini Associates Inc.		
Address: 4320 West Mineral King Avenue	Date Signed: 9.17.2026	
City/State/Zip: Visalia, CA 93291	License #: C-33128	
Phone:	Title:	Scope:
Responsible Designer Name: Ryan W. Carlson	Responsible Designer Signature:	
Company: Lawrence Engineering Group		
Address: 4910 E. Clinton Way, Suite 101	Date Signed: 2025-11-24	
City/State/Zip: Fresno, CA 93727	License #: M34846	
Phone:	Title:	Scope:

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELI No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

LICENSED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 STATE OF CALIFORNIA MECHANICAL

LAWRENCE ENGINEERING GROUP
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TITLE
TITLE 24
BUILDING 600

M9.17

PROJECT 24042

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 3 of 19)

C1. COMPLIANCE SUMMARY

	COMPLIES[3]		
	Time Dependent Valuation (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)
Standard Design	413.9	354.89	27.24
Proposed Design	405.3	306.98	23.75
Compliance Margins	**8.6**	**47.91**	**3.49**
	Pass	**Pass**	**Pass**

[1] Efficiency measures include improvements like a better building envelope and more efficient equipment
[2] Compliance Totals include efficiency, photovoltaics and batteries
[3] New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 2 of 19)

B. PROJECT SUMMARY

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒	Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☐	Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☒	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Not Included	Covered Process: Laboratory Exhaust (see Table J)	☐	Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒	Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Not Included	Photovoltaics (see Table F)	☒	Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☐	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☒	Performance	Commissioning 120.8	NRCC-CXR-E is required
				☐	Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 1 of 19)

Project Name: Sanger USD Temperance ES Bldg 700 **Date Prepared:** 2025-11-05

A. General Information

1	Project Name	Sanger USD Temperance ES Bldg 700		
2	Run Title	Title 24 Analysis		
3	Project Location	- specify -		
4	City	Sanger	5 Standards Version	Compliance 2022
6	Zip code	99999	7 Compliance Software (version)	EnergyPro 9.4
8	Climate Zone	13	9 Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11 Weather File	FRESNO-YOSEMITE_STYP20.epw
12	Project Scope	• New envelope and mechanical	13 Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	2674	15 Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	162	17 Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	2674	19 Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0		

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 6 of 19)

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)

	COMPLIES[2]		
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Space Heating	1.12	0.07	1.05
Space Cooling	8.16	8.15	0.01
Indoor Fans	14.21	10.55	3.66
Heat Rejection	0	0	0
Pumps & Misc.	0	3.34	-3.34
Domestic Hot Water	3.61	3.61	0
Indoor Lighting	2.55	2.55	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**29.65**	**28.27**	**1.38 (4.7%)**
Photovoltaics	-2.07	-3.29	1.22
Batteries	-0.34	-1.23	0.89
TOTAL COMPLIANCE	**27.24**	**23.75**	**3.49 (12.8%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 5 of 19)

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	81.96	81.96	---
Process	411.05	411.05	---
Other Ltg	1.3	1.3	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**849.2**	**801.29**	**47.91 (5.6%)**

[1] Notes: This table is not used for Energy Code Compliance.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 4 of 19)

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

	COMPLIES[2]		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	8.3	0.45	7.85
Space Cooling	163.53	185.86	-22.33
Indoor Fans	170.9	122.47	48.43
Heat Rejection	0	0	0
Pumps & Misc.	0	25.5	-25.5
Domestic Hot Water	39.4	39.25	0.15
Indoor Lighting	31.77	31.77	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**413.9**	**405.3**	**8.6 (2.1%)**
Photovoltaics	-58.26	-94.32	36.06
Batteries	-0.75	-4	3.25
TOTAL COMPLIANCE	**354.89**	**306.98**	**47.91 (13.5%)**

[1] Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 9 of 19)

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	112.13	110.08	2.05	1.83
NET EUI[1]	102.62	94.92	7.7	7.5

[1] Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
• The building does not include service water heating. Verify that service water heating is not required and is not included in the design.
• The user model includes space(s) that are designed to be served by mechanical cooling systems, but the cooling systems were not included in the simulation model. A cooling system has been modeled for both the proposed and standard cases.
• The user model includes space(s) without sufficient cooling equipment. Cooling equipment has been added to the model to meet cooling loads.
• DesignedOccupancyUsedForCalculatingVentilation
• PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

F1. REQUIRED PV SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception[1]	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
7.6		Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

[1]*See Table D1 for any PV exceptions used.*

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 8 of 19)

C7. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	0.7	0	0.7	---	---	---
Space Cooling	13.9	14.4	-0.5	---	---	---
Indoor Fans	15.2	11.5	3.7	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	2.1	---	---	---	---
Domestic Hot Water	4.3	4.3	0	---	---	---
Indoor Lighting	3.3	3.3	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**37.4**	**35.6**	**1.8**	**0**	**0**	**0**
Photovoltaics	-7.9	-12.6	4.7	---	---	---
Batteries	0	0.1	-0.1	---	---	---
ENERGY USE SUBTOTAL	**29.5**	**23.1**	**6.4**	**0**	**0**	**0**
Receptacle	8.8	8.8	0	---	---	---
Process	46.9	46.9	0	---	---	---
Other Ltg	0.1	0.1	0	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**85.3**	**78.9**	**6.4**	**0**	**0**	**0**

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 7 of 19)

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	6.13	6.13	---
Process	29.45	29.45	---
Other Ltg	0.1	0.1	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**62.92**	**59.43**	**3.49 (5.5%)**

[1] Notes: This table is not used for Energy Code Compliance.

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-41128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4120 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
TITLE 24
BUILDING 700

M9.18

PROJECT 24042

BRYAN W. CARLSON No. M34846 Exp. 6-30-28 REGISTERED PROFESSIONAL ENGINEER MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93727
(559) 431-0101 25026 FAX (559) 431-1362

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G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	Construction Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value		Units	Value	Description of Assembly Layers	Status[1]
					Interior	Exterior				
25026 Ext. Wall8	Exterior Wall	3,580	Wood	19	N/A	N/A	U-factor	0.0676	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-1 Gypsum Board - 5/8 in.	N
Slab On Grade18	Underground Floor	2,836	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N
25026 Roof20	Roof	2,836	Wood	30	N/A	N/A	U-factor	0.0352	AsphaltShingled_25in Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-2 Air - Ceiling - 3/4 in. Gypsum Board - 5/8 in.	N

[1] Status: N - New, A - Altered, E - Existing

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
25026 - HM Door15	147	0.7	N

[1] Status: N - New, A - Altered, E - Existing

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing[1]	943	0	0
East-Facing[2]	448	0	0
South-Facing[3]	1615	144	8.92
West-Facing[4]	140	0	0
Total	**3146**	**144**	**4.58**
Roof	2674	0	0

Notes
[1] North-Facing is oriented to within 45 degrees of true north, including 4500'00" east of north (NE), but excluding 4500'00" west of north (NW),
[2] East-Facing is oriented to within 45 degrees of true east, including 4500'00" south of east (SE), but excluding 4500'00" north of east (NE),
[3] South-Facing is oriented to within 45 degrees of true south, including 4500'00" west of south (SW), but excluding 4500'00" east of south (SE),
[4] West-Facing is oriented to within 45 degrees of true west, including 4500'00" north of west (NW), but excluding 4500'00" south of west (SW),

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

F1B. PV BATTERY BUILDING TYPE(S)

01	02	03
Building Occupancy Type* (From Table 140.10-A/B and 170.2-U/V)	Conditioned Floor Area (ft²)	Unconditioned Floor Area (ft²)
Grocery	0	0
High-Rise Multifamily	0	0
Office, Financial Institutions, Unleased Tenant Space	454	0
Retail	0	0
School	2147	0
Warehouse	0	0
Auditorium, Convention Center, Hotel/Motel, Library, Medical Office Building/Clinic, Restaurant, Theater	73	162
None	0	0

** Building Occupancy Types are defined in Section 100.1 of the Energy Code*

F2. BATTERY SYSTEMS[1]

01	02	03	04	05	06	07
Control	Capacity (kWh)	Charging Efficiency	Charging Rate (kW)	Discharging Efficiency	Discharging Rate (kW)	Round Trip Efficiency
TOU	19.8	N/A	5	N/A	5	0.9

[1] See Table D1 for any Battery exceptions used.

H6. WET SYSTEM EQUIPMENT (boilers, chillers, cooling towers, etc.)

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Equipment Type	Parent Fluid System Name	Qty	Vol (gal)	Rated Capacity	Capacity Unit	Rating	Rating Unit	Status[1]
WC-1 Trane MASA0302-0	Air-to-Water Heat Pump	WC-1 Trane MASA0301 - HotWater	1	N/A	7,147.51	kBtu/Hr	2.25	COP	N

[1] Status: N - New, A - Altered, E - Existing

H7. PUMPS

01	02	03	04	05	06	07	08
Name or Item Tag	Parent Equipment	Qty	Power	Power Units	GPM	VSD	Status[1]
Pump 1	WC-1 Trane MASA0302-0	1	6.24	BHP	325	☐	N
Pump 2	WC-1 Trane MASA030-1-1-1	1	0	BHP	3304.74	☐	N

[1] Status: N - New, A - Altered, E - Existing

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-7-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Design OA CFM	Supply Fan				Return / Relief Fan					Status[1]
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
AH-7-1 Trane BCVE048	1	675	1,600	0.98	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-7-2 Trane BCHE024	1	68.1	725	0.61	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
AH-7-3 Trane BCVE048	1	675	1,600	0.98	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
IDU/ODU 7-1 Mitsubishi PK	1	0	635	0.1	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] Status: N - New, A - Altered, E - Existing

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status[1]
Zone 231-EF	3-Zone 2	1	200	0.02	BHP	No	N

[1] Status: N - New, A - Altered, E - Existing

H6. WET SYSTEM EQUIPMENT (boilers, chillers, cooling towers, etc.)

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Equipment Type	Parent Fluid System Name	Qty	Vol (gal)	Rated Capacity	Capacity Unit	Rating	Rating Unit	Status[1]
WC-1 Trane MASA0301-1-1-1	Scroll	WC-1 Trane MASA0301 - ChillSys	1	N/A	3,306	kBtu/Hr	10.13	EER	N

[1] Status: N - New, A - Altered, E - Existing

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method[1]	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Status[2]
25026 - Window	Vertical fenestration Fixed window N/A	NFRC	Manufactured	150	0.34	0.22	0.42	N

[1] Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.
[2] Status: N - New, A - Altered, E - Existing

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
AH-7-1 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
AH-7-2 Trane BCHE024	Single Zone Air Conditioner (SZAC) Air System	1	45.11	0	N/A	NA - See Boiler	31.77	N/A	NA - See Chiller	Differential DB	N
AH-7-3 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	1	88.1	0	N/A	NA - See Boiler	76.16	N/A	NA - See Chiller	Differential DB	N
IDU/ODU 7-1 Mitsubishi PK	Single Zone Heat Pump	1	29.16	0	HSPF2	9.2	23.52	EER2 SEER2	12 21.1	N/A	N

[1] Status: N - New, A - Altered, E - Existing

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	AH-7-1 Trane BCVE048, AH-7-2 Trane BCHE024 and AH-7-3 Trane BCVE048.
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.
	AH-7-1 Trane BCVE048 and AH-7-3 Trane BCVE048.
Mechanical	NRCA-MCH-08-A Valve Leakage Test
	WC-1 Trane MASA0301 - ChillSys
Mechanical	NRCA-MCH-09-A Supply Water Temperature Reset Controls
	WC-1 Trane MASA0301 - HotWater and WC-1 Trane MASA0301 - ChillSys.
Mechanical	NRCA-MCH-10-A Hydronic System Variable Flow Controls
	WC-1 Trane MASA0301 - ChillSys
Mechanical	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
	AH-7-1 Trane BCVE048 and AH-7-3 Trane BCVE048.

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
1-Zone 1-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
3-Zone 2-Trm	Uncontrolled	1	N/A	N/A	725	N/A	0	N/A	N/A	N/A	☐
4-Zone 3-Trm	Uncontrolled	1	N/A	N/A	1,600	N/A	0	N/A	N/A	N/A	☐
IDU/ODU 7-1 Mitsubishi PK	Single Zone Heat Pump	1	29.16	23.52	635	N/A	N/A	0.1	BHP	Continuous	☐

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
	NRCI-SAB-E - Solar Water Heating, PV and Battery Storage Systems

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	AH-7-1 Trane BCVE048, AH-7-2 Trane BCHE024 and AH-7-3 Trane BCVE048,, IDU/ODU 7-1 Mitsubishi PK
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	IDU/ODU 7-1 Mitsubishi PK

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AH-7-2 Trane BCHE024	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Optimum Start Differential DB
AH-7-3 Trane BCVE048	Single Zone Air Conditioner (SZAC) Air System	N/A	DDC Controls Zone(s) With CO2 Sensor Vent. Control Optimum Start Differential DB
WC-1 Trane MASA0301 - HotWater	Hot Water System	N/A	DDC Controls Fixed Temperature Control
WC-1 Trane MASA0301 - ChillSys	Chilled Water System	N/A	DDC Controls Fixed Temperature Control

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.
[1] Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-Zone 1	Education - Classrooms (ages 9-18)	45	675	0	1073	DCV
3-Zone 2	Office - Office space	3.95	68.1	200	454	N/A
4-Zone 3	Education - Classrooms (ages 9-18)	45	675	0	1074	DCV
5-Zone 4	General - Unoccupied	0.11	0	0	73	N/A

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
TITLE 24
BUILDING 700

M9.19

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 STATE OF CALIFORNIA MECHANICAL

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
Fresno, CA 93727 FAX (559) 431-1342

25026

15 September 2026 9:42 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 – Title 24.dwg rsonf

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	**(Page 19 of 19)**

Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Mathew Alviso	Documentation Author Signature: *Mathew Alviso*
Company: Lawrence Engineering Group	Signature Date: 11-17-2025
Address: 4910 E. Clinton Way, Suite 101	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: (559) 431-0101

Responsible Person's Declaration statement

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: James R. Morrelli	Responsible Designer Signature:	
Company: Mangini Associates Inc.		
Address: 4320 West Mineral King Avenue	Date Signed: 9.17.2026	
City/State/Zip: Visalia, CA 93291	License #: C-33128	
Phone:	Title:	Scope:
Responsible Designer Name: Ryan W. Carlson	Responsible Designer Signature:	
Company: Lawrence Engineering Group		
Address: 4910 E. Clinton Way, Suite 101	Date Signed: 11-17-2025	
City/State/Zip: Fresno, CA 93727	License #: M34846	
Phone:	Title:	Scope:

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELI
No. C-33128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

LICENSED PROFESSIONAL ENGINEER
RYAN W. CARLSON
No. M34846
Exp. 6-30-28
MECHANICAL
STATE OF CALIFORNIA

LAWRENCE
ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
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M9.20

PROJECT 24042

15 September 2026 9:42 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M9.00-9.20 – Title 24.dwg ryanf

STATE OF CALIFORNIA
Nonresidential Building Commissioning CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 100 Admin/Library	**Report Page:** (Page 3 of 7)
	Date Prepared: 2025-12-02T20:09:05-05:00

F. DESIGN REVIEW KICKOFF MEETING

This table indicates that the design reviewer meets the qualification requirements per Title 24, Part 1 Section 10-103(a)1 and demonstrates compliance with design review kickoff requirements per 120.8(d)2. This meeting should occur during the Schematic Design phase of the project.

Design Review Kickoff Meeting Details

01	Date of Design Review Kickoff Meeting		2025-11-25	
02	Meeting Attendees: (one person may play multiple roles)			
☐	Owner/Facility Manager:	☒	Design Reviewer(s)	Muey Tarvin
☐	Project Manager:	☒	Design Architect/ Engineer(s):	Manuel Acosta - Architect , Ryan Carlson-Mechanical Engineer, Steve Eastham - Electrical Engineer
☐	Contractor:	☐	Certified Acceptance Test Tech(s):	
☐	Commissioning Provider:	☐	Energy/ T24 Part 6 Consultant:	

Design Reviewer Qualifications per Title 24 Part 1 Section 10-103(a)1

		Do the Design Reviewer(s) meet these qualifications?	
	The design reviewer(s) must be licensed professional engineers or licensed architects, or licensed contractors representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code.	Yes	No
03	In addition, for buildings with < 10,000 ft², the design reviewer(s) may be the engineer or architect of record. The design reviewer(s) may also be a qualified in-house engineer or architect with no other project involvement or a third party engineer, architect or contractor.	●	○
04	The design reviewer(s) for this project will be:	Muey Tarvin	

Preliminary Construction Schedule

		Start Date	Completion Date
05	Schematic Design	2025-03-19	2025-05-14
06	Design Development	2025-05-14	2025-06-25
07	Construction Documents	2025-06-25	2025-12-10
08	Construction	2026-08-03	2028-04-28
09	Building Turnover	2028-05-01	2028-05-31

Project Goals Related to Energy Efficiency

10	Operational Costs	The project goal is to comply with code minimum requirements.
11	Desired Building Lifespan	The desired life span is 30+ years.
12	Equipment Lifecycle	It is anticipated the Contractor's workmanship and equipment warranty shall be included in the O&M's.

STATE OF CALIFORNIA
Nonresidential Building Commissioning CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 100 Admin/Library	**Report Page:** (Page 6 of 7)
	Date Prepared: 2025-12-02T20:09:05-05:00

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

There are no forms required for this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 100 Admin/Library	**Report Page:** (Page 2 of 7)
	Date Prepared: 2025-12-02T20:09:05-05:00

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with commissioning requirements per 120.8. This table is not editable by the user. If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09
Design Kickoff Review	Owner's Project Requirements	Basis of Design	Design Review	Commissioning Plan	Functional Performance Testing	Documentation and Training	Commissioning Report	
Table F	Table G	Table H	Table I	Table J	Table K	Table L	Table M	
Yes			Yes					COMPLIES
10				Muey Tarvin				COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Nonresidential Building Commissioning CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 100 Admin/Library	**Report Page:** (Page 5 of 7)
	Date Prepared: 2025-12-02T20:09:05-05:00

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

Design Review Checklist		
02	Envelope Design	Envelope design complies with code minimum requirements.
03	HVAC System Design	Heat pumps are primarily used to provide heating to the Administration/Library, with an IDU being used for the storage room and Exhaust Fans implemented in the data room and hallways. HVAC system designed matches owner's expectation and complies with code minimum requirements.
04	HVAC Controls Design	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.
05	Indoor Lighting System Design	Indoor lighting consists of LED lighting controlled by dimmers and occupancy sensors to match the owner's project requirements.
06	Indoor Lighting Controls Design	Ceiling or wall mounted standalone occupancy sensors controls each space for automatic on/off.
07	Outdoor Lighting System and Controls Design	Pedestrian walkway lighting is controlled by an astronomical timeclock for automatic on at sunset and automatic off at sunrise.
08	Water Heating System Design	Water heating system consists of one electric water heater located in the Janitor's closet supplying hot water to two sinks.
09	Other Systems and Features	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.

J. COMMISSIONING PLAN

This section does not apply to this project.

K. FUNCTIONAL PERFORMANCE TESTING

This section does not apply to this project.

L. DOCUMENTATION AND TRAINING

This section does not apply to this project.

M. COMMISSIONING REPORT

This section does not apply to this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 100 Admin/Library	**Report Page:** (Page 7 of 7)
	Date Prepared: 2025-12-02T20:09:05-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Muey Tarvin	Documentation Author Signature:
Company: Lawrence Engineering Group	Signature Date: 12/3/2025
Address: 4910 E Clinton Way, Suite 101	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	Date Signed: 12/10/2025
Address: 4910 E Clinton Way, Suite 101	License: M34846
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

STATE OF CALIFORNIA
Nonresidential Building Commissioning CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
This document is used to demonstrate compliance with mandatory commissioning requirements in 120.8 for nonresidential buildings and hotel/motel or mixed-use buildings with nonresidential spaces. This document does not demonstrate compliance with commissioning requirements within Title 24, Part 11, which need to be documented separately if they apply.	
Project Name: SUSD New Temperance Elementary School - Bldg 100 Admin/Library	**Report Page:** (Page 1 of 7)
Project Address:	**Date Prepared:** 2025-12-02T20:09:05-05:00

A. GENERAL INFORMATION

01	Project Location (city)	Fresno	04	Building Size (ft²)	8981
02	Occupancy Type	Nonresidential	05		< 10,000 ft²
03	Project Type	Newly constructed	06		Unitary or packaged equipment each serving one zone
			07	Climate Zone	13

B. PROJECT SCOPE

Based on project information provided in Table A, Table B indicates which commissioning related requirements apply per 120.8. Table B is not editable by the user.

Commissioning Requirements per 120.8

01	Table F: Design Review Kickoff	120.8(d)1 and 120.8(d)2	The design review kickoff meeting establishes who will play the role of the design reviewer, the project schedule and identify owner's requirements. This meeting should be conducted during schematic design.
02	Table G: Owner's Project Requirements (OPR)	120.8(b)	This requirement does not apply.
03	Table H: Basis of Design (BOD)	120.8(c)	This requirement does not apply.
04	Table I: Design Review	120.8(d) and 120.8(e)	The design reviewer(s) reviews the construction documents for clarity, completeness, and adherence to the owner's goals. Commissioning measures must be included in the construction documents to facilitate the design review and commissioning process. For projects with >= 10,000 ft² of nonresidential conditioned floor area, the design review is for adherence with the Owner's Project Requirements (OPR) and Basis of Design (BOD). This should be conducted during design.
05	Table J: Commissioning Plan	120.8(f)	This requirement does not apply.
06	Table K: Functional Performance Testing	120.8(g)	This requirement does not apply.
07	Table L: Documentation and Training	120.8(h)	This requirement does not apply.
08	Table M: Commissioning Report	120.8(i)	This requirement does not apply.

STATE OF CALIFORNIA
Nonresidential Building Commissioning CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 100 Admin/Library	**Report Page:** (Page 4 of 7)
	Date Prepared: 2025-12-02T20:09:05-05:00

F. DESIGN REVIEW KICKOFF MEETING

13	Project Energy Efficiency Goals	The owner have not specified.
14	Envelope Goals	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
15	HVAC System Goals	The HVAC system design, equipment efficiencies, and installation shall meet or exceed all applicable building and energy codes and/or ASHRAE 90.1 requirements for the site location. All equipment selected for the project is expected to comply with CEC, where required.
16	Indoor Lighting System Goals	Lighting systems and lighting controls shall be designed to meet or exceed the CEC. Include occupancy sensors and automatic daylight controls where required to minimize electric lighting usage. Illuminance shall comply with Illuminating Engineering Society (IES) Lighting Standards.
17	Outdoor Lighting System Goals	Outdoor lighting will need to include building facade lighting and/or lighting for pedestrian walkways. Outdoor lighting systems and lighting controls shall be designed to meet or exceed the CEC.
18	Water Heating System Goals	Water heaters shall be designed with no natural gas and to comply code minimum requirements.
19	Equipment and System Specifications	High efficiency, low cost for maintenance, no natural gas, and meet code minimum requirements.
20	Operations and Maintenance	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the maintenance personnel. The training will be hands-on demonstration and documentations.

G. OWNER'S PROJECT REQUIREMENTS (OPR)

This section does not apply to this project.

H. BASIS OF DESIGN (BOD)

This section does not apply to this project.

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

This table is only completed if a design review document is not attached to permit application to demonstrate compliance with 120.8(b) and 120.8(e). For buildings with >= 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the Owner's Project Requirements (Table G.) and the Basis of Design Documents (Table H.). For buildings with < 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the goals documented in Table F. during the Design Review Kickoff.

		YES	NO
01	Attaching Completed Design Review Documentation?	○	●

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
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TITLE
COMMISSIONING DOCUMENTS BUILDING 100

M10.00

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
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STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 200 Multi Use	**Report Page:**	(Page 3 of 17)
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F. DESIGN REVIEW KICKOFF MEETING

This table indicates that the design reviewer meets the qualification requirements per Title 24, Part 1 Section 10-103(a)1 and demonstrates compliance with design review kickoff requirements per 120.8(d)2. This meeting should occur during the Schematic Design phase of the project.

Design Review Kickoff Meeting Details

01	Date of Design Review Kickoff Meeting	2025-11-25
02	Meeting Attendees: (one person may play multiple roles)	

☐	Owner/Facility Manager:		☐ Design Reviewer(s)	
☐	Project Manager:		☒ Design Architect/ Engineer(s):	Manuel Acosta - Architect , Ryan Carlson- Mechanical Engineer, Steve Eastham - Electrical Engineer
☐	Contractor:		☐ Certified Acceptance Test Tech(s):	
☐	Commissioning Provider:		☐ Energy/ T24 Part 6 Consultant:	

Design Reviewer Qualifications per Title 24 Part 1 Section 10-103(a)1

		Do the Design Reviewer(s) meet these qualifications?	
	The design reviewer(s) must be licensed professional engineers or licensed architects, or licensed contractors representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code.	Yes	No
03	In addition, for buildings with >= 50,000 ft ^{2}, or complex mechanical systems^1, the design reviewer(s) shall be a third party design engineer, architect, or contractor.	●	○
04	The design reviewer(s) for this project will be:	Muey Tarvin	

Preliminary Construction Schedule

		Start Date	Completion Date
05	Schematic Design	2025-03-19	2025-05-14
06	Design Development	2025-05-14	2025-06-25
07	Construction Documents	2025-06-25	2025-12-10
08	Construction	2026-08-03	2028-04-28
09	Building Turnover	2028-05-01	2028-05-31

STATE OF CALIFORNIA
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B. PROJECT SCOPE

08	Table M: Commissioning Report	120.8(i)	A complete report of commissioning process activities undertaken through the design, construction and reporting recommendations for post-construction phases of the building project shall be completed and provided to the owner or representative.

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with commissioning requirements per 120.8. This table is not editable by the user. If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09
Design Kickoff Review	Owner's Project Requirements	Basis of Design	Design Review	Commissioning Plan	Functional Performance Testing	Documentation and Training	Commissioning Report	
Table F	Table G	Table H	Table I	Table J	Table K	Table L	Table M	
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	COMPLIES
10	Muey Tarvin							COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

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This document is used to demonstrate compliance with mandatory commissioning requirements in 120.8 for nonresidential buildings and hotel/motel or mixed-use buildings with nonresidential spaces. This document does not demonstrate compliance with commissioning requirements within Title 24, Part 11, which need to be documented separately if they apply.

A. GENERAL INFORMATION

01	Project Location (city)	Fresno	04	Building Size (ft^2)	12221
02	Occupancy Type	Nonresidential	05		10,000 - 49,999 ft^2
03	Project Type	Newly constructed	06		All other HVAC system types (indicates "complex")
			07	Climate Zone	13

B. PROJECT SCOPE

Based on project information provided in Table A, Table B indicates which commissioning related requirements apply per 120.8. Table B is not editable by the user.

Commissioning Requirements per 120.8

01	Table F: Design Review Kickoff	120.8(d)1 and 120.8(d)2	The design review kickoff meeting establishes who will play the role of the design reviewer, the project schedule and identify owner's requirements. This meeting should be conducted during schematic design.
02	Table G: Owner's Project Requirements (OPR)	120.8(b)	The owner's project requirements establish the owner's goals, requirements and expectations for everything related to energy consumption and operation. This should be completed during schematic design.
03	Table H: Basis of Design (BOD)	120.8(c)	The basis of design documents the design elements such as calculations and product selections that meet the owner's project requirements and applicable regulatory requirements. This should be completed during schematic design.
04	Table I: Design Review	120.8(d) and 120.8(e)	The design reviewer(s) reviews the construction documents for clarity, completeness, and adherence to the owner's goals. Commissioning measures must be included in the construction documents to facilitate the design review and commissioning process. For projects with >= 10,000 ft^2 of nonresidential conditioned floor area, the design review is for adherence with the Owner's Project Requirements (OPR) and Basis of Design (BOD). This should be conducted during design.
05	Table J: Commissioning Plan	120.8(f)	The commissioning plan is developed by the commissioning provider with input from the designer and defines the scope of commissioning the project. This should be drafted during design and completed during early construction.
06	Table K: Functional Performance Testing	120.8(g)	Functional performance testing is conducted on building systems to demonstrate correct installation and operation.
07	Table L: Documentation and Training	120.8(h)	Documentation of the operational aspects of the building shall be completed within the Systems Manual and delivered to the building owner or representative and facilities operator.

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G. OWNER'S PROJECT REQUIREMENTS (OPR)

28	Describe the maintenance plan and how the HVAC design needs to address operation and maintenance issues.	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the maintenance personnel. The training will be hands-on demonstration and documentations.

Energy Efficiency Goals: Indoor Lighting Systems

30	Describe specific lighting requirements including quality and glare.	Lighting systems and lighting controls shall be designed to meet or exceed the CEC. Include occupancy sensors and automatic daylight controls where required to minimize electric lighting usage. Illuminance shall comply with Illuminating Engineering Society (IES) Lighting Standards.
31	List the desired types of lighting (if any) and ones that are not to be considered. (example: fluorescent in 2x2 grid, accent lighting, particular lamps)	Illumination shall meet the IES requirement. LED lighting used throughout the building for efficiency. Natural Lighting where possible. Primary and Secondary Daylit where required.
32	Describe (if any) task lighting requirements.	N/A
33	Describe any desired features of the lighting control system including occupancy, daylighting, and demand response if applicable.	Lighting controls system comply with code minimum requirements.
34	What is the expected occupancy schedule? Will the occupants be allowed to override the lighting system controls during "unoccupied hours"?	Weekdays: 7:00 AM to 5:00 PM / Weekends: Off
35	Does occupancy-based control need to be coordinated with mechanical demand control ventilation?	N/A
36	Describe how occupants will interact with the lighting control system (overrides etc)	Occupant sensor will shut off after 20 mins when space is unoccupied. Override button or lighting control system can be programmed to allow for after hour maintenance.
37	Additional notes regarding Indoor Lighting system efficiency	N/A

Energy Efficiency Goals: Outdoor Lighting Systems

38	Describe specific outdoor lighting requirements.	Lighting systems and lighting controls shall be designed to meet or exceed the CEC.
39	List the desired types of outdoor lighting, including lighting for building facade, landscape, walkways, roof-top, etc. if applicable.	Include building facade lighting, walkways, and site pole lighting to meet or exceed the CEC.
40	Describe any features of the outdoor lighting control system, including motion sensors, photocontrol, time-switch and automatic scheduling.	Lighting controls system comply with code minimum requirements.
41	Describe how occupants will interact with the lighting control system (overrides etc)	Lighting controls system comply with code minimum requirements.
42	Additional notes regarding Outdoor lighting system efficiency	N/A

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G. OWNER'S PROJECT REQUIREMENTS (OPR)

Energy Efficiency Goals: HVAC Systems

13	List the HVAC system types considered desirable, and ones that are not to be considered.	The HVAC system design, equipment efficiencies, and installation shall meet or exceed all applicable building and energy codes and/or ASHRAE 90.1 requirements for the site location. All equipment selected for the project is expected to comply with CEC, where required.
14	What is the desired thermostatic setpoint range in the heating season, and cooling season?	Heating: 68°F, Cooling: 74°F, User Adjustment: +/- 3°F (Adjustable)
15	What is the expected occupancy schedule? Will the occupants be allowed to override the mechanical system controls during "unoccupied hours"?	Weekdays: 7:00 AM to 5:00 PM / Weekends: off
16	Are there times during the day that the zone temperature is allowed to drift out of the temperature setpoint range? If so, how long and what times are acceptable.	Temperature range maximum is +/-5°F
17	Is it acceptable to let the facility cool down to a night setback temperature in the winter?	Night setback temperature is desired.
18	Is it acceptable to let the facility temperature drift above setpoint during the summer evenings?	The building will be in operation year round with summer camp program. It is expected that drift is acceptable if the district is set up for the process.
19	How many days out of the year is it acceptable to not meet the entire cooling/heating load?	The building will be in operation year round.
20	Are there zones with special temperature, humidity, air filtering, etc., requirements? If so, identify and list the special environmental control requirements.	N/A
21	What expectations are there around building ventilation?	Ventilation shall comply with code minimum requirements.
22	Is occupancy-based demand control ventilation (DCV) desired, or required?	Comply with code minimum requirements.
23	Is a building automation system (BAS) desired? If so, what are the requirements of the BAS and what value is expected to be added with the BAS?	BAS shall meet owners project requirements.
24	Will zone setpoints be controlled locally by the user, or via the BAS only by the maintenance staff?	BAS only by the maintenance staff.
25	Explain the requirements of the HVAC system in regards to temperature, humidity and draft control.	Comply with code minimum requirements.
26	Explain the requirements of the facility in regards to indoor air quality	Comply with code minimum requirements.
27	What are the acoustic requirements of the HVAC system within the various spaces of the facility?	Comply with code minimum requirements.

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G. OWNER'S PROJECT REQUIREMENTS (OPR)

This table is only completed if an OPR document is not attached to permit application to demonstrate compliance with 120.8(b). If a specific field is not applicable to the project scope, "NA" is indicated in the table. Per 120.8(b), the OPR is to be completed before design begins. This may be done at the Design Review Kickoff Meeting (see Table F)

		YES	NO
01	Attaching Completed Owner's Project Requirements Document?	○	●
02	Owner's Project Requirements Document Authors and Roles	Sanger Unified School District	

Energy Efficiency Goals: General

03	What is the target total energy usage per square foot per year? (ie, Energy User Intensity (EUI) in kBtu/ft^2)	1
04	What is the target total energy cost per square foot per year?	1
05	Is kW demand control specifically an interest of the client or the design team? If so, for what reason?	The owner have not specified.
06	What are the project goals and requirements for building siting that will impact energy use?	The design of the facility including framing and insulation shall meet all applicable codes. During design, energy conservation strategies, measures and specific system shall be considered including building orientation and location.
07	What are the project goals and requirements for landscape that will impact energy use?	The project is to comply with the mandatory measures of CalGreen Code to ensure water efficiency and conservation.
08	Additional notes regarding general efficiency	N/A

Energy Efficiency Goals: Envelope

09	What are the project goals and requirements for building fenestration that will impact energy use?	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
10	What are the project goals and requirements for walls/floors that will impact energy use?	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
11	What are the project goals and requirements for building roof that will impact energy use?	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
12	Additional notes regarding envelope efficiency	N/A

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HVAC System Basis of Design

11	HVAC System Design	Kitchen Area: In the kitchen area, a make-up air unit (MAU 2-1) is designed to introduce fresh outdoor air back to the space. A make-up air solution is recommended for buildings where environmental conditions warrant a greater need for ventilation, not only to improve the quality of the air within the building but also to protect the health of those inside. The purpose of a make-up air unit is to replace the air exhausted from the kitchen hood (KH 2-1 and KH 2-2) By replacing the air, the building is brought to a neutral or predetermined building pressure. Ventilation rates will be designed to meet California Mechanical Code to ensure sufficient outside air for the space type and to maintain indoor air quality. To further reduce HVAC energy cost, air side economizers will be provided where required. During mild or cooler weather, the economizer will modulate the outside air dampers to 100% open to supply outside air into the building to reduce or eliminate the need for mechanical cooling. Cafeteria/Platform/Flexible Room/Storage/Restrooms: The chilled water supply/return and hot water supply/return piping connects to the cooling and heating coils on the roof mounted or mezzanine air handler (AH) designed to condition each zone. Each AH is equipped with MERV 13 filter, BACnet enabled to integrate into existing Distech Controls, a programmable thermostat for temperature control, and a CO2 sensor To meet minimum ventilation requirements, a mixing section with modulating outdoor air and return/exhaust air dampers is used to draw outside air through the door louver. With high occupancy load in each classroom, the CO2 sensor will detect the amount of CO2 in space and adjust the outdoor air damper to open accordingly. The low limit on the CO2 sensor is 800 ppm and high limit is 1000 ppm. When the sensor detects 800 ppm of CO2, the economizer will begin to open and reach 100% fully open before 1000 ppm. The outdoor air damper will go back to minimum ventilation position when the amount of CO2 concentration is below 800 ppm.
12	Heating System Description	The heat pump chiller located in the Building 800 Chiller Yard provides heating to the building. The hot water supply/return piping connects to the heating coil on the roof mounted or mezzanine air handler (AH) designed to condition each zone. The semi-custom AH is equipped with MERV 13 filter, BACnet enabled to integrate into existing Distech Controls, a programmable thermostat for temperature control, and a CO2 sensor.
13	Cooling System Description	The heat pump chiller located in the Building 800 Chiller Yard provides cooling to the building. The chilled water supply/return piping connects to the cooling coil on the roof mounted or mezzanine air handler (AH) designed to condition each zone. The semi-custom AH is equipped with MERV 13 filter, BACnet enabled to integrate into existing Distech Controls, a programmable thermostat for temperature control, and a CO2 sensor.

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General Energy Efficiency Goals

05	Energy Use Intensity (EUI)	The project is to comply with code minimum requirements using Energy Pro Software, for calculations.
06	Energy Cost Budget	The project is to comply with code minimum requirements using Energy Pro Software, for calculations.

Envelope Basis of Design

07	Window to Wall Ratio	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
08	Opaque Wall Assembly	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
09	Window Performance	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
10	Response to OPR Document	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).

STATE OF CALIFORNIA
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G. OWNER'S PROJECT REQUIREMENTS (OPR)

Energy Efficiency Goals: Water Heating Systems

43	Describe what the water heating system will be used for and expected demand?	Water heaters shall be designed to comply code minimum requirements.
44	Describe the desired type (if any) of water heating system and those that should not be considered, (example: instantaneous, heatpump, manufacturer, etc.)	Storage tank type water heater for the kitchen area. No natural gas.
45	What are the desired automation features and controls for the water heating system.	Recirculating pump with aquastat
46	What are the efficiency requirements of the water heating system?	Comply with code minimum requirements.

Operations and Maintenance Requirements

48	Desired building life span	The desired life span is 30+ years.
49	What are the broad goals relative to life cycle of the equipment?	It is anticipated the Contractor's workmanship and equipment warranty shall be included in the O&M's. Anticipated average lifecycle of HVAC and Solar PV equipment is approximately 20 years and water heating system is approximately 10 years.
50	What is the desired level of training and orientation for building occupants to understand and use the building systems?	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the building and maintenance personnel.
51	What is the desired level of training and orientation for O&M staff to understand and maintain the building systems?	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the maintenance personnel. The training will be hands-on demonstration and documentations.

H. BASIS OF DESIGN (BOD)

This table is only completed if a BOD document is not attached to the permit application to demonstrate compliance with 120.8(c). If a specific field is not applicable to the project scope, "NA" is indicated in the table. Per 120.8(c), the BOD should be completed and updated during the design phase.

		YES	NO
01	Attaching Completed Basis of Design Document?	○	●
02	Basis of Design Document Authors and Roles	Ryan Carlson - Mechanical Engineer / Steve Eastham - Electrical Engineer	

Title 24 Part 6 Compliance Approach

03	Title 24 Part 6 Compliance Approach (select one)	☐	Prescriptive	☐	Performance	☒ Performance and Prescriptive Combined
04	Description of prescriptive scope and performance scope	Electrical - Prescriptive / Mechanical - Performance				

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
COMMISSIONING DOCUMENTS BUILDING 200

M10.01

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

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25026

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34	Response to OPR Document	The selected system meets the owner's project requirements because of its thermal efficiency, low operating cost, heat pump, and meets or exceeds code minimum compliance.

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

This table is only completed if a design review document is not attached to permit application to demonstrate compliance with 120.8(b) and 120.8(e). For buildings with >= 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the Owner's Project Requirements (Table G.) and the Basis of Design Documents (Table H.). For buildings with < 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the goals documented in Table F. during the Design Review Kickoff.

		YES	NO
01	Attaching Completed Design Review Documentation?	○	●
Design Review Checklist			
02	Envelope Design	Envelope design complies with code minimum requirements.	
03	HVAC System Design	The Mechanical system meets the OPR through several key features: it is cost effective and efficient, does not use natural gas, offers flexibility to adapt to various demands from occupant and usage, and meets or exceeds code minimum requirements.	
04	HVAC Controls Design	SUSD standard is Distech Controls. Refer to M7.00 and M7.05 Controls for additional diagrams and sequence of operations.	
05	Indoor Lighting System Design	Indoor lighting is controlled by dimmers, motion sensors, lighting relay control panel with astronomical time switch, photosensors in rooms with windows, programmable room controllers, and programmable central controller. Specialty lighting installed where required.	
06	Indoor Lighting Controls Design	Project lighting control system shall consist of a network of occupancy sensors, photocontrols, low voltage dimming and control relays.	
07	Outdoor Lighting System and Controls Design	Exterior lighting will be controlled by the automatic time switch or the photocell feature of the central lighting control system to meet the requirements of code and OPR.	
08	Water Heating System Design	Water heating system with circulating pump complies with code minimum requirements and OPR.	
09	Other Systems and Features	Distech Controls to meet Sanger USD standards.	

J. COMMISSIONING PLAN

This table is only completed if a Commissioning Plan document is not attached to permit application to demonstrate compliance with 120.8(f). Per 120.8(f), the Commissioning Plan is to be started during the design phase and a completed draft must be submitted with permit application

		YES	NO
01	Attaching Completed Commissioning Plan?	○	●
02	Commissioning Plan Authors and Roles	Muey Tarvin / Commissioning	

24	Control Intent Narrative/ Sequence of Operations	Project lighting control system shall consist of a network of occupancy sensors, photocontrols, low voltage dimming and control relays. Lighting control system shall comply with code minimum requirements.
25	Response to OPR Document	The selected LED lighting system is a better choice than alternatives using Fluorescent and Incandescent fixtures. The LED fixtures have greater visual comfort performance, efficiency, reliability, flexibility, simplicity, color rendering, integration with daylighting, ease of maintenance and longevity.
Outdoor Lighting System Basis of Design		
26	Outdoor Lighting System Narrative	Exterior lighting will be controlled by the automatic time switch or the photocell feature of the central lighting control system.
27	Fixture Types	LEDs and Drivers for all fixtures.
28	Lamp and Ballast Types	N/A
29	Control Types	Exterior lighting will be controlled by the automatic time switch or the photocell feature of the central lighting control system.
30	Control Intent Narrative/ Sequence of Operations	Lighting control system shall comply with code minimum requirements.
31	Response to OPR Document	The selected LED lighting system is a better choice than alternatives using Fluorescent and Incandescent fixtures. The LED fixtures have greater visual comfort performance, efficiency, reliability, flexibility, simplicity, color rendering, integration with daylighting, ease of maintenance and longevity.
Water Heating System Basis of Design		
32	Water Heating System Narrative	The water heating system for the building consists of five (5) AO Smith CHP-Series fully integrated commercial heat pump water heater (WH-2) located in the Building 800 chiller yard. The AO Smith CHP-120 has a 119 gallon storage capacity and operates in multiple modes (efficiency, hybrid, or electric). Multiple operating modes maximizes efficiency while meeting hot water demands of the building. WH-2 supplies hot water to all lavatories, sinks, washing machine, and dishwashers. Thermal expansion tank, circulating pump, aquastat, and a thermostatic mixing valves are designed to comply with code requirements. The water heater will be set to maintain 120°F of hot water.
33	Water Heating Load Calculations	The water heater was selected using the ASHRAE and ASPE sizing method in conjunction with sizing software from the manufacturer. The Integrated Heat Pump Water Heater is capable of first hour delivery at 194 GPH in Hybrid Mode. Rate Recovery for each mode as follows: 50 GPH in Efficiency, 99 GPH in Hybrid, and 49 GPH in Electric.

14	Ventilation System Description	Ventilation complies with 2022 California Mechanical Code.
15	Control Intent Narrative/ Sequence of Operations	SUSD standard is Distech Controls. Refer to M7.00 and M7.05 Controls for additional diagrams and sequence of operations.
16	Outside Air Supply	Ventilation complies with 2022 California Mechanical Code.
17	Load Calculation	Assumptions • Exterior Wall: Stucco Wall • Roof: Built up roof with R-30 Insulation • Ventilation per code • Heat producing equipment (ie: TV monitors, coffee maker, vending machines, refrigerators, freezers, etc.), as applicable

18	Indoor Design Conditions	Occupied Spaces	Unoccupied Spaces	
		Occupied Periods	Temp (°F)	Temp (°F)	Relative Humidity (%)
		Heating	68	68	50
		Cooling	74	72	50
		Unoccupied Periods	Temp (°F)	Temp (°F)	Relative Humidity (%)
		Heating	55	55	50
		Cooling	95	95	50

19	Response to OPR Document	The Mechanical system meets the OPR through several key features: it is cost effective and efficient, does not use natural gas, offers flexibility to adapt to various demands from occupant and usage, and meets or exceeds code minimum requirements.
Indoor Lighting System Basis of Design		
20	Indoor Lighting System Narrative	The system is comprised of lighting zones which are controlled by a Lighting Control and lighting controller panel. Time clock and power pack control is overridden through the use of occupancy sensors with dimming controls within each space to be controlled. Sensors are mounted on the ceiling or wall with the mounting location determined by the amount of potential interference from areas outside the space to be controlled.
21	Fixture Types	• All lighting fixtures used in this building are LED with integral dimming drivers. • Dimmable fixtures are LED 0-10V. • All light fixtures are LED. They are recess, and surface mounted as appropriate for the room. • Exterior fixtures are controlled via astronomical time clock or photocontrol to meet code minimum requirements.
22	Lamp and Ballast Types	N/A – LEDs and Drivers for all fixtures.
23	Control Types	• Lighting fixtures will be LED controlled by wall or ceiling room occupancy sensors and/or wall switches. Lighting controls shall comply with CEC. • Illuminance shall comply with IES Standards.

K. FUNCTIONAL PERFORMANCE TESTING

AH 2-1, AH 2-2, AH 2-3, AH 2-4	Verify proper fault detection and reporting for automated fault detection and diagnostics systems. Automated FDD systems ensure proper equipment operation by identifying and diagnosing common equipment problems such as temperature sensor faults, low airflow, or faulty economizer operation.	NA7.5.12 FDD for AHU's/ Zone TU's	Yes
Indoor Lighting	Verify that occupant sensing controls and automatic time switch controls are functioning properly to achieve the desired lighting controls.	NA7.6.2 Lighting Shut-Off	Yes
Outdoor Lighting	Verify outdoor lighting turns on/off according to astronomical time switch control	NA7.5.1 Outdoor Air	Yes

The acceptance tests required by Title 24, Part 6 outline the minimum functional performance testing scope to be conducted for compliance. However, the commissioning scope may include additional functional performance tests on systems or equipment not having acceptance tests required by Title 24 Part 6.

The following additional functional performance tests have been requested by the owner or owner's representative:

06	07
System/ Equipment to be Tested	Brief description of functional performance test

[1]FOOTNOTE: See the signature block on the last page of this compliance document for the responsible party.
[2]Required acceptance tests can be determined by reviewing the "Certificates of Acceptance" table on each Certificate of Compliance submitted for permit application.

L. DOCUMENTATION AND TRAINING

The table below is completed to demonstrate compliance with documentation and training requirements per 120.8(h)

By checking this box, the responsible party[1] certifies that a systems manual will be provided to the building owner or representative per 120.8(h)1.	01 ☒
By checking this box, the responsible party[1] certifies that a training of the appropriate maintenance staff for each equipment and system will be completed and documented in the commissioning report per 120.8(h)2. Training requirements should be included in the contract document in the specifications.	02 ☒

[1]FOOTNOTE: See the signature block on the last page of this compliance document for the responsible party.

M. COMMISSIONING REPORT

The table below is completed to demonstrate compliance with commissioning report requirements per 120.8(i)

By checking this box, the responsible party[1] certifies that a complete report of commissioning process' activities undertaken through the design, construction and reporting recommendations for post-construction phases of the building project shall be completed and provided to the owner or owner's representative.	01 ☒

[1] FOOTNOTES: See the signature block on the last page of this compliance document for the responsible party.

J. COMMISSIONING PLAN

13	Functional Performance Testing	Observation is conducted with the technician or subcontractor. Verification during the construction of this project is intended to achieve the following specific objectives according to the Contract Documents: • Ensure that applicable equipment and systems are installed properly and receive adequate operational checkout by installing contractors. • Verify and document proper performance of equipment and systems. • Ensure that O&M documentation is complete. • Verify that adequate and accurate system and assembly documentation is provided to the owner. • Verify that operation and maintenance personnel and occupants are properly trained. • Utilize quality-based sampling techniques to detect systemic problems. • Verify proper coordination among systems and assemblies.
14	Documentation and Training	The final commissioning report will include an overview or summary of the commissioning process, major results of the process, the final commissioning issues log and resolutions, commissioning progress and field reports, a deferred testing log, an unresolved issues log, a lessons-learned evaluation, and concluding with a recommendation to accept the process as complete.

K. FUNCTIONAL PERFORMANCE TESTING

The table below is completed to demonstrate compliance with functional performance testing requirements per 120.8(g).

By checking this box, the responsible party[1] certifies that functional performance testing will be executed to demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the acceptance test requirements in 120.5, 130.4 and 140.9. The functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.	01 ☒

The following acceptance tests have been identified as applicable to the project scope:[2]

02	03	04	05
System/ Equipment to be Tested	Brief description of functional performance test	Applicable Reference Appendix	Certified Acceptance Test Technician Required?
AH 2-1, AH 2-2, AH 2-3, AH 2-4	Verify each AH Unit is providing outside requirements to meet code requirements and design intent.	NA7.5.1 Outdoor Air	Yes
AH 2-1, AH 2-2, AH 2-3, AH 2-4	Verify air side economizer uses outdoor air to satisfy space-cooling loads.	NA7.5.4 Air Economizer Controls & Exhaust Heat Recovery	Yes
AH 2-1, AH 2-2, AH 2-3, AH 2-4	Verify the AH Unit can vary outside air ventilation flow rates based on maintaining interior CO2 concentration setpoints for high density areas.	NA7.5.5 DCV Systems	Yes

J. COMMISSIONING PLAN

Commissioning Provider Information

03	Company Name	Lawrence Engineering Group	05	Contact Email	muey@LEGFresno.com
04	Contact Person	Muey Tarvin	06	Contact Phone	559-491-0101

Commissioning Process Overview

07	Owner Goals	Building commissioning is to provide documented confirmation that building systems function to meet the owner's operational needs and to meet code minimum requirements.
08	Roles and Responsibilities	The contractor verifies installation, provides scheduling and coordination of commissioning activities, performs training, starts up equipment, conducts tests, corrects deficiencies, performs re-tests, and provides documentation of the process. The CxA provides the owner an unbiased, objective view of the systems installation, documentation, operation, and performance. Commissioning procedures and results are observed by the CxA. The contractor is expected to verify the functional readiness of systems to be tested prior to performing the tests in the presence of the witnesses. A high rate of test failure will indicate that the contractor has not adequately verified the readiness of the systems. This plan is the key means for the CxA to inform all parties as to how each system functions independently and with respect to other systems.
09	Schedule	As this is the first issuance of the commissioning plan and no definitive construction schedule has been adopted, a finalized commissioning schedule will be provided following the identification of a construction schedule. For the purpose of review and analysis all checklists necessary for the commissioning of referenced systems will be included for subcontractors.

Commissioning Activities During Construction

10	Construction Observation	The CxA makes periodic site visits to witness equipment and system installations, and will verify installation procedures and conformance to specifications and construction documents. Each site visit will have a specific agenda and will be coordinated with the general contractor site supervisor. The CxA attends selected planning and job-site meetings in order to remain informed on construction progress and to update parties involved in commissioning. The GC provides the CxA with information regarding construction schedules, substitutions or change orders that may affect commissioned equipment or the commissioning schedule.
11	Issues Logs	Commissioning Corrections Log provide a record of deficiencies that are discovered through the commissioning process so that they may be tracked and appropriately resolved. The Commissioning Corrections Log is a formal and ongoing record of concerns – and their resolution – that have been raised by members of the Commissioning Team during the course of the commissioning process that synopsizes the issues recorded on the Commissioning Corrections Log.
12	Installation Verification	Verification is a systematic process of ensuring that all building systems perform interactively according to operational needs. This is achieved by reviewing construction submittals in the Construction Phase and continuing a review of the project through the occupancy and operations period with actual verification of performance prior to occupancy.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Muey Tarvin	Documentation Author Signature:
Company: Lawrence Engineering Group	Signature Date: 12/3/2025
Address: 4910 E Clinton Way, Suite 101	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	Date Signed: 12/10/2025
Address: 4910 E Clinton Way, Suite 101	License: M34846
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

There are no forms required for this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 24128 REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-2630 Office
(559) 627-1926 Fax

TITLE
COMMISSIONING DOCUMENTS BUILDING 200

M10.02

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER RYAN N. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
Fresno, CA 93727 FAX (559) 431-1362

25026

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F. DESIGN REVIEW KICKOFF MEETING

This table indicates that the design reviewer meets the qualification requirements per Title 24, Part 1 Section 10-103(a)1 and demonstrates compliance with design review kickoff requirements per 120.8(d)2. This meeting should occur during the Schematic Design phase of the project.

Design Review Kickoff Meeting Details

01	Date of Design Review Kickoff Meeting		2025-11-25	
02	Meeting Attendees: (one person may play multiple roles)			
☐	Owner/Facility Manager:		☐ Design Reviewer(s)	
☐	Project Manager:		☒ Design Architect/ Engineer(s):	Manuel Acosta - Architect , Ryan Carlson-Mechanical Engineer, Steve Eastham - Electrical Engineer
☐	Contractor:		☐ Certified Acceptance Test Tech(s):	
☐	Commissioning Provider:		☐ Energy/ T24 Part 6 Consultant:	

Design Reviewer Qualifications per Title 24 Part 1 Section 10-103(a)1

		Do the Design Reviewer(s) meet these qualifications?	
	The design reviewer(s) must be licensed professional engineers or licensed architects, or licensed contractors representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code.	Yes	No
03	In addition, for buildings with >= 50,000 ft², or complex mechanical systems[1], the design reviewer(s) shall be a third party design engineer, architect, or contractor.	●	○
04	The design reviewer(s) for this project will be:	Muey Tarvin	

Preliminary Construction Schedule

		Start Date	Completion Date
05	Schematic Design	2025-03-19	2025-05-14
06	Design Development	2025-05-14	2025-06-25
07	Construction Documents	2025-06-25	2025-12-10
08	Construction	2026-08-03	2028-04-28
09	Building Turnover	2028-05-01	2028-05-31
Project Goals Related to Energy Efficiency			
10	Operational Costs	The project goal is to comply with code minimum requirements.	
11	Desired Building Lifespan	The desired life span is 30+ years.	
12	Equipment Lifecycle	It is anticipated the Contractor's workmanship and equipment warranty shall be included in the O&M's.	

M. COMMISSIONING REPORT

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

There are no forms required for this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with commissioning requirements per 120.8. This table is not editable by the user. If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09
Design Kickoff Review	Owner's Project Requirements	Basis of Design	Design Review	Commissioning Plan	Functional Performance Testing	Documentation and Training	Commissioning Report	
Table F	Table G	Table H	Table I	Table J	Table K	Table L	Table M	
Yes			Yes					COMPLIES
10				Muey Tarvin				COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

Design Review Checklist		
02	Envelope Design	Envelope design complies with code minimum requirements.
03	HVAC System Design	The chilled water supply/return and hot water supply/return piping connects to the cooling and heating coils on the single zone vertical air handler (AH) designed to condition each classroom. Each AH will be located in an exterior closet adjacent to classroom with exterior access. Ducting from the AH to the classroom is used to distribute air into the space. Each AH is equipped with MERV 13 filter, BACnet enabled to integrate into existing Distech Controls, a programmable thermostat for temperature control, and a CO2 sensor To meet minimum ventilation requirements, a mixing section with modulating outdoor air and return/exhaust air dampers is used to draw outside air through the door louver.
04	HVAC Controls Design	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.
05	Indoor Lighting System Design	Indoor lighting is controlled by dimmers, motion sensors, lighting relay control panel with astronomical time switch, photosensors in rooms with windows, programmable room controllers, and programmable central controller. Specialty lighting installed where required.
06	Indoor Lighting Controls Design	Project lighting control system shall consist of a network of occupancy sensors, photocontrols, low voltage dimming and control relays.
07	Outdoor Lighting System and Controls Design	Exterior lighting will be controlled by the automatic time switch or the photocell feature of the central lighting control system to meet the requirements of code and OPR.
08	Water Heating System Design	Electric water heating system with circulating pump complies with code minimum requirements and OPR.
09	Other Systems and Features	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.

J. COMMISSIONING PLAN

This section does not apply to this project.

K. FUNCTIONAL PERFORMANCE TESTING

This section does not apply to this project.

L. DOCUMENTATION AND TRAINING

This section does not apply to this project.

A. GENERAL INFORMATION

01	Project Location (city)	Sanger	04	Building Size (ft²)	9874
02	Occupancy Type	Nonresidential	05		< 10,000 ft²
03	Project Type	Newly constructed	06		All other HVAC system types (indicates "complex")
			07	Climate Zone	13

B. PROJECT SCOPE

Based on project information provided in Table A, Table B indicates which commissioning related requirements apply per 120.8. Table B is not editable by the user.

Commissioning Requirements per 120.8

01	Table F: Design Review Kickoff	120.8(d)1 and 120.8(d)2	The design review kickoff meeting establishes who will play the role of the design reviewer, the project schedule and identify owner's requirements. This meeting should be conducted during schematic design.
02	Table G: Owner's Project Requirements (OPR)	120.8(b)	This requirement does not apply.
03	Table H: Basis of Design (BOD)	120.8(c)	This requirement does not apply.
04	Table I: Design Review	120.8(d) and 120.8(e)	The design reviewer(s) reviews the construction documents for clarity, completeness, and adherence to the owner's goals. Commissioning measures must be included in the construction documents to facilitate the design review and commissioning process. For projects with >= 10,000 ft² of nonresidential conditioned floor area, the design review is for adherence with the Owner's Project Requirements (OPR) and Basis of Design (BOD). This should be conducted during design.
05	Table J: Commissioning Plan	120.8(f)	This requirement does not apply.
06	Table K: Functional Performance Testing	120.8(g)	This requirement does not apply.
07	Table L: Documentation and Training	120.8(h)	This requirement does not apply.
08	Table M: Commissioning Report	120.8(i)	This requirement does not apply.

F. DESIGN REVIEW KICKOFF MEETING

13	Project Energy Efficiency Goals	The owner have not specified.
14	Envelope Goals	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
15	HVAC System Goals	The HVAC system design, equipment efficiencies, and installation shall meet or exceed all applicable building and energy codes and/or ASHRAE 90.1 requirements for the site location. All equipment selected for the project is expected to comply with CEC, where required.
16	Indoor Lighting System Goals	Lighting systems and lighting controls shall be designed to meet or exceed the CEC. Include occupancy sensors and automatic daylight controls where required to minimize electric lighting usage. Illuminance shall comply with Illuminating Engineering Society (IES) Lighting Standards.
17	Outdoor Lighting System Goals	Outdoor lighting will need to include building facade lighting and/or lighting for pedestrian walkways. Outdoor lighting systems and lighting controls shall be designed to meet or exceed the CEC.
18	Water Heating System Goals	Electric water heater shall be designed to comply code minimum requirements.
19	Equipment and System Specifications	High efficiency, low cost for maintenance, no natural gas, and meet code minimum requirements.
20	Operations and Maintenance	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the maintenance personnel. The training will be hands-on demonstration and documentations.

G. OWNER'S PROJECT REQUIREMENTS (OPR)

This section does not apply to this project.

H. BASIS OF DESIGN (BOD)

This section does not apply to this project.

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

This table is only completed if a design review document is not attached to permit application to demonstrate compliance with 120.8(b) and 120.8(e). For buildings with >= 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the Owner's Project Requirements (Table G.) and the Basis of Design Documents (Table H.). For buildings with < 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the goals documented in Table F. during the Design Review Kickoff.

		YES	NO
01	Attaching Completed Design Review Documentation?	○	●

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Muey Tarvin	Documentation Author Signature:
Company: Lawrence Engineering Group	Signature Date: 12/3/2025
Address: 4910 E Clinton Way, Suite 101	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	Date Signed: 12/10/2025
Address: 4910 E Clinton Way, Suite 101	License: M34846
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
COMMISSIONING DOCUMENTS BUILDING 300

M10.03

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 400 Classroom	**Report Page:** (Page 3 of 7)
	Date Prepared: 2025-12-01T17:50:26-05:00

F. DESIGN REVIEW KICKOFF MEETING

This table indicates that the design reviewer meets the qualification requirements per Title 24, Part 1 Section 10-103(a)1 and demonstrates compliance with design review kickoff requirements per 120.8(d)2. This meeting should occur during the Schematic Design phase of the project.

Design Review Kickoff Meeting Details

01	Date of Design Review Kickoff Meeting			2025-11-25
02	Meeting Attendees: (one person may play multiple roles)			
☐	Owner/Facility Manager:		☐ Design Reviewer(s)	
☐	Project Manager:		☒ Design Architect/ Engineer(s):	Manuel Acosta - Architect , Ryan Carlson-Mechanical Engineer, Steve Eastham - Electrical Engineer
☐	Contractor:		☐ Certified Acceptance Test Tech(s):	
☐	Commissioning Provider:		☐ Energy/ T24 Part 6 Consultant:	

Design Reviewer Qualifications per Title 24 Part 1 Section 10-103(a)1

	The design reviewer(s) must be licensed professional engineers or licensed architects, or licensed contractors representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code.	Do the Design Reviewer(s) meet these qualifications? Yes	No
03	In addition, for buildings with >= 50,000 ft², or complex mechanical systems[1], the design reviewer(s) shall be a third party design engineer, architect, or contractor.	●	○
04	The design reviewer(s) for this project will be:	Muey Tarvin	

Preliminary Construction Schedule

		Start Date	Completion Date
05	Schematic Design	2025-03-19	2025-05-14
06	Design Development	2025-05-14	2025-06-25
07	Construction Documents	2025-06-25	2025-12-10
08	Construction	2026-08-03	2028-04-28
09	Building Turnover	2028-05-01	2028-05-31

Project Goals Related to Energy Efficiency

10	Operational Costs	The project goal is to comply with code minimum requirements.
11	Desired Building Lifespan	The desired life span is 30+ years.
12	Equipment Lifecycle	It is anticipated the Contractor's workmanship and equipment warranty shall be included in the O&M's.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 400 Classroom	**Report Page:** (Page 6 of 7)
	Date Prepared: 2025-12-01T17:50:26-05:00

M. COMMISSIONING REPORT

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

There are no forms required for this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 400 Classroom	**Report Page:** (Page 2 of 7)
	Date Prepared: 2025-12-01T17:50:26-05:00

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with commissioning requirements per 120.8. This table is not editable by the user. If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09
Design Kickoff Review	Owner's Project Requirements	Basis of Design	Design Review	Commissioning Plan	Functional Performance Testing	Documentation and Training	Commissioning Report	
Table F	Table G	Table H	Table I	Table J	Table K	Table L	Table M	
Yes			Yes					COMPLIES
10				Muey Tarvin				COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 400 Classroom	**Report Page:** (Page 5 of 7)
	Date Prepared: 2025-12-01T17:50:26-05:00

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

Design Review Checklist

02	Envelope Design	Envelope design complies with code minimum requirements.
03	HVAC System Design	The chilled water supply/return and hot water supply/return piping connects to the cooling and heating coils on the single zone vertical air handler (AH) designed to condition each classroom. Each AH will be located in an exterior closet adjacent to classroom with exterior access. Ducting from the AH to the classroom is used to distribute air into the space. Each AH is equipped with MERV 13 filter, BACnet enabled to integrate into existing Distech Controls, a programmable thermostat for temperature control, and a CO2 sensor To meet minimum ventilation requirements, a mixing section with modulating outdoor air and return/exhaust air dampers is used to draw outside air through the door louver.
04	HVAC Controls Design	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.
05	Indoor Lighting System Design	Indoor lighting is controlled by dimmers, motion sensors, lighting relay control panel with astronomical time switch, photosensors in rooms with windows, programmable room controllers, and programmable central controller. Specialty lighting installed where required.
06	Indoor Lighting Controls Design	Project lighting control system shall consist of a network of occupancy sensors, photocontrols, low voltage dimming and control relays.
07	Outdoor Lighting System and Controls Design	Exterior lighting will be controlled by the automatic time switch or the photocell feature of the central lighting control system to meet the requirements of code and OPR.
08	Water Heating System Design	Electric water heating system with circulating pump complies with code minimum requirements and OPR.
09	Other Systems and Features	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.

J. COMMISSIONING PLAN

This section does not apply to this project.

K. FUNCTIONAL PERFORMANCE TESTING

This section does not apply to this project.

L. DOCUMENTATION AND TRAINING

This section does not apply to this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
This document is used to demonstrate compliance with mandatory commissioning requirements in 120.8 for nonresidential buildings and hotel/motel or mixed-use buildings with nonresidential spaces. This document does not demonstrate compliance with commissioning requirements within Title 24, Part 11, which need to be documented separately if they apply.	
Project Name: SUSD New Temperance Elementary School - Bldg 400 Classroom	**Report Page:** (Page 1 of 7)
Project Address:	**Date Prepared:** 2025-12-01T17:50:26-05:00

A. GENERAL INFORMATION

01	Project Location (city)	Sanger	04	Building Size (ft²)	9874
02	Occupancy Type	Nonresidential	05		< 10,000 ft²
03	Project Type	Newly constructed	06		All other HVAC system types (indicates "complex")
			07	Climate Zone	13

B. PROJECT SCOPE

Based on project information provided in Table A, Table B indicates which commissioning related requirements apply per 120.8. Table B is not editable by the user.

Commissioning Requirements per 120.8

01	Table F: Design Review Kickoff	120.8(d)1 and 120.8(d)2	The design review kickoff meeting establishes who will play the role of the design reviewer, the project schedule and identify owner's requirements. This meeting should be conducted during schematic design.
02	Table G: Owner's Project Requirements (OPR)	120.8(b)	This requirement does not apply.
03	Table H: Basis of Design (BOD)	120.8(c)	This requirement does not apply.
04	Table I: Design Review	120.8(d) and 120.8(e)	The design reviewer(s) reviews the construction documents for clarity, completeness, and adherence to the owner's goals. Commissioning measures must be included in the construction documents to facilitate the design review and commissioning process. For projects with >= 10,000 ft² of nonresidential conditioned floor area, the design review is for adherence with the Owner's Project Requirements (OPR) and Basis of Design (BOD). This should be conducted during design.
05	Table J: Commissioning Plan	120.8(f)	This requirement does not apply.
06	Table K: Functional Performance Testing	120.8(g)	This requirement does not apply.
07	Table L: Documentation and Training	120.8(h)	This requirement does not apply.
08	Table M: Commissioning Report	120.8(i)	This requirement does not apply.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 400 Classroom	**Report Page:** (Page 4 of 7)
	Date Prepared: 2025-12-01T17:50:26-05:00

F. DESIGN REVIEW KICKOFF MEETING

13	Project Energy Efficiency Goals	The owner have not specified.
14	Envelope Goals	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
15	HVAC System Goals	The HVAC system design, equipment efficiencies, and installation shall meet or exceed all applicable building and energy codes and/or ASHRAE 90.1 requirements for the site location. All equipment selected for the project is expected to comply with CEC, where required.
16	Indoor Lighting System Goals	Lighting systems and lighting controls shall be designed to meet or exceed the CEC. Include occupancy sensors and automatic daylight controls where required to minimize electric lighting usage. Illuminance shall comply with Illuminating Engineering Society (IES) Lighting Standards.
17	Outdoor Lighting System Goals	Outdoor lighting will need to include building facade lighting and/or lighting for pedestrian walkways. Outdoor lighting systems and lighting controls shall be designed to meet or exceed the CEC.
18	Water Heating System Goals	Electric water heater shall be designed to comply code minimum requirements.
19	Equipment and System Specifications	High efficiency, low cost for maintenance, no natural gas, and meet code minimum requirements.
20	Operations and Maintenance	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the maintenance personnel. The training will be hands-on demonstration and documentations.

G. OWNER'S PROJECT REQUIREMENTS (OPR)

This section does not apply to this project.

H. BASIS OF DESIGN (BOD)

This section does not apply to this project.

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

This table is only completed if a design review document is not attached to permit application to demonstrate compliance with 120.8(b) and 120.8(e). For buildings with >= 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the Owner's Project Requirements (Table G.) and the Basis of Design Documents (Table H.). For buildings with < 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the goals documented in Table F. during the Design Review Kickoff.

		YES	NO
01	Attaching Completed Design Review Documentation?	○	●

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 400 Classroom	**Report Page:** (Page 7 of 7)
Project Address:	**Date Prepared:** 2025-12-01T17:50:26-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Muey Tarvin	Documentation Author Signature:
Company: Lawrence Engineering Group	Signature Date: 12/3/2025
Address: 4910 E Clinton Way, Suite 101	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	Date Signed: 12/10/2025
Address: 4910 E Clinton Way, Suite 101	License: M34846
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
COMMISSIONING DOCUMENTS
BUILDING 400

M10.04

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

15 September 2026 9:42 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M10.00 - 10.07 - Commissioning Documents.dwg ryanf

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 500 Classroom	**Report Page:** (Page 3 of 7)
	Date Prepared: 2025-12-01T18:47:14-05:00

F. DESIGN REVIEW KICKOFF MEETING

This table indicates that the design reviewer meets the qualification requirements per Title 24, Part 1 Section 10-103(a)1 and demonstrates compliance with design review kickoff requirements per 120.8(d)2. This meeting should occur during the Schematic Design phase of the project.

Design Review Kickoff Meeting Details

01	Date of Design Review Kickoff Meeting			2025-11-25
02	Meeting Attendees: (one person may play multiple roles)			
☐	Owner/Facility Manager:		☐ Design Reviewer(s)	
☐	Project Manager:		☒ Design Architect/ Engineer(s):	Manuel Acosta - Architect , Ryan Carlson-Mechanical Engineer, Steve Eastham - Electrical Engineer
☐	Contractor:		☐ Certified Acceptance Test Tech(s):	
☐	Commissioning Provider:		☐ Energy/ T24 Part 6 Consultant:	

Design Reviewer Qualifications per Title 24 Part 1 Section 10-103(a)1

	The design reviewer(s) must be licensed professional engineers or licensed architects, or licensed contractors representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code.	Do the Design Reviewer(s) meet these qualifications? Yes	No
03	In addition, for buildings with >= 50,000 ft², or complex mechanical systems[1], the design reviewer(s) shall be a third party design engineer, architect, or contractor.	●	○
04	The design reviewer(s) for this project will be:	Muey Tarvin	

Preliminary Construction Schedule

		Start Date	Completion Date
05	Schematic Design	2025-03-19	2025-05-14
06	Design Development	2025-05-14	2025-06-25
07	Construction Documents	2025-06-25	2025-12-10
08	Construction	2026-08-03	2028-04-28
09	Building Turnover	2028-05-01	2028-05-31

Project Goals Related to Energy Efficiency

10	Operational Costs	The project goal is to comply with code minimum requirements.
11	Desired Building Lifespan	The desired life span is 30+ years.
12	Equipment Lifecycle	It is anticipated the Contractor's workmanship and equipment warranty shall be included in the O&M's.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 500 Classroom	**Report Page:** (Page 6 of 7)
	Date Prepared: 2025-12-01T18:47:14-05:00

M. COMMISSIONING REPORT

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

There are no forms required for this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 500 Classroom	**Report Page:** (Page 2 of 7)
	Date Prepared: 2025-12-01T18:47:14-05:00

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with commissioning requirements per 120.8. This table is not editable by the user. If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09
Design Kickoff Review	Owner's Project Requirements	Basis of Design	Design Review	Commissioning Plan	Functional Performance Testing	Documentation and Training	Commissioning Report	
Table F	Table G	Table H	Table I	Table J	Table K	Table L	Table M	
Yes			Yes					COMPLIES
10				Muey Tarvin				COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 500 Classroom	**Report Page:** (Page 5 of 7)
	Date Prepared: 2025-12-01T18:47:14-05:00

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

Design Review Checklist

02	Envelope Design	Envelope design complies with code minimum requirements.
03	HVAC System Design	The chilled water supply/return and hot water supply/return piping connects to the cooling and heating coils on the single zone vertical air handler (AH) designed to condition each classroom. Each AH will be located in an exterior closet adjacent to classroom with exterior access. Ducting from the AH to the classroom is used to distribute air into the space. Each AH is equipped with MERV 13 filter, BACnet enabled to integrate into existing Distech Controls, a programmable thermostat for temperature control, and a CO2 sensor To meet minimum ventilation requirements, a mixing section with modulating outdoor air and return/exhaust air dampers is used to draw outside air through the door louver.
04	HVAC Controls Design	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.
05	Indoor Lighting System Design	Indoor lighting is controlled by dimmers, motion sensors, lighting relay control panel with astronomical time switch, photosensors in rooms with windows, programmable room controllers, and programmable central controller. Specialty lighting installed where required.
06	Indoor Lighting Controls Design	Project lighting control system shall consist of a network of occupancy sensors, photocontrols, low voltage dimming and control relays.
07	Outdoor Lighting System and Controls Design	Exterior lighting will be controlled by the automatic time switch or the photocell feature of the central lighting control system to meet the requirements of code and OPR.
08	Water Heating System Design	Electric water heating system with circulating pump complies with code minimum requirements and OPR.
09	Other Systems and Features	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.

J. COMMISSIONING PLAN

This section does not apply to this project.

K. FUNCTIONAL PERFORMANCE TESTING

This section does not apply to this project.

L. DOCUMENTATION AND TRAINING

This section does not apply to this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
This document is used to demonstrate compliance with mandatory commissioning requirements in 120.8 for nonresidential buildings and hotel/motel or mixed-use buildings with nonresidential spaces. This document does not demonstrate compliance with commissioning requirements within Title 24, Part 11, which need to be documented separately if they apply.	
Project Name: SUSD New Temperance Elementary School - Bldg 500 Classroom	**Report Page:** (Page 1 of 7)
Project Address:	**Date Prepared:** 2025-12-01T18:47:14-05:00

A. GENERAL INFORMATION

01	Project Location (city)	Sanger	04	Building Size (ft²)	9874
02	Occupancy Type	Nonresidential	05		< 10,000 ft²
03	Project Type	Newly constructed	06		All other HVAC system types (indicates "complex")
			07	Climate Zone	13

B. PROJECT SCOPE

Based on project information provided in Table A, Table B indicates which commissioning related requirements apply per 120.8. Table B is not editable by the user.

Commissioning Requirements per 120.8

01	Table F: Design Review Kickoff	120.8(d)1 and 120.8(d)2	The design review kickoff meeting establishes who will play the role of the design reviewer, the project schedule and identify owner's requirements. This meeting should be conducted during schematic design.
02	Table G: Owner's Project Requirements (OPR)	120.8(b)	This requirement does not apply.
03	Table H: Basis of Design (BOD)	120.8(c)	This requirement does not apply.
04	Table I: Design Review	120.8(d) and 120.8(e)	The design reviewer(s) reviews the construction documents for clarity, completeness, and adherence to the owner's goals. Commissioning measures must be included in the construction documents to facilitate the design review and commissioning process. For projects with >= 10,000 ft² of nonresidential conditioned floor area, the design review is for adherence with the Owner's Project Requirements (OPR) and Basis of Design (BOD). This should be conducted during design.
05	Table J: Commissioning Plan	120.8(f)	This requirement does not apply.
06	Table K: Functional Performance Testing	120.8(g)	This requirement does not apply.
07	Table L: Documentation and Training	120.8(h)	This requirement does not apply.
08	Table M: Commissioning Report	120.8(i)	This requirement does not apply.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 500 Classroom	**Report Page:** (Page 4 of 7)
	Date Prepared: 2025-12-01T18:47:14-05:00

F. DESIGN REVIEW KICKOFF MEETING

13	Project Energy Efficiency Goals	The owner have not specified.
14	Envelope Goals	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
15	HVAC System Goals	The HVAC system design, equipment efficiencies, and installation shall meet or exceed all applicable building and energy codes and/or ASHRAE 90.1 requirements for the site location. All equipment selected for the project is expected to comply with CEC, where required.
16	Indoor Lighting System Goals	Lighting systems and lighting controls shall be designed to meet or exceed the CEC. Include occupancy sensors and automatic daylight controls where required to minimize electric lighting usage. Illuminance shall comply with Illuminating Engineering Society (IES) Lighting Standards.
17	Outdoor Lighting System Goals	Outdoor lighting will need to include building facade lighting and/or lighting for pedestrian walkways. Outdoor lighting systems and lighting controls shall be designed to meet or exceed the CEC.
18	Water Heating System Goals	Electric water heater shall be designed to comply code minimum requirements.
19	Equipment and System Specifications	High efficiency, low cost for maintenance, no natural gas, and meet code minimum requirements.
20	Operations and Maintenance	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the maintenance personnel. The training will be hands-on demonstration and documentations.

G. OWNER'S PROJECT REQUIREMENTS (OPR)

This section does not apply to this project.

H. BASIS OF DESIGN (BOD)

This section does not apply to this project.

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

This table is only completed if a design review document is not attached to permit application to demonstrate compliance with 120.8(b) and 120.8(e). For buildings with >= 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the Owner's Project Requirements (Table G.) and the Basis of Design Documents (Table H.). For buildings with < 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the goals documented in Table F. during the Design Review Kickoff.

		YES	NO
01	Attaching Completed Design Review Documentation?	○	●

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 500 Classroom	**Report Page:** (Page 7 of 7)
Project Address:	**Date Prepared:** 2025-12-01T18:47:14-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Muey Tarvin	Documentation Author Signature:
Company: Lawrence Engineering Group	Signature Date: 12/3/2025
Address: 4910 E Clinton Way, Suite 101	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	Date Signed: 12/10/2025
Address: 4910 E Clinton Way, Suite 101	License: M34846
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
Fresno, CA 93727 FAX (559) 431-1362
25026

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
COMMISSIONING DOCUMENTS
BUILDING 500

M10.05

PROJECT 24042

15 September 2026 9:43 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M10.00 - 10.07 - Commissioning Documents.dwg rynolf

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 600 Classroom	**Report Page:** (Page 3 of 7)
	Date Prepared: 2025-12-01T19:35:27-05:00

F. DESIGN REVIEW KICKOFF MEETING

This table indicates that the design reviewer meets the qualification requirements per Title 24, Part 1 Section 10-103(a)1 and demonstrates compliance with design review kickoff requirements per 120.8(d)2. This meeting should occur during the Schematic Design phase of the project.

Design Review Kickoff Meeting Details

01	Date of Design Review Kickoff Meeting		2025-11-25	
02	Meeting Attendees: (one person may play multiple roles)			
☐	Owner/Facility Manager:		☐ Design Reviewer(s)	
☐	Project Manager:		☒ Design Architect/ Engineer(s):	Manuel Acosta - Architect , Ryan Carlson-Mechanical Engineer, Steve Eastham - Electrical Engineer
☐	Contractor:		☐ Certified Acceptance Test Tech(s):	
☐	Commissioning Provider:		☐ Energy/ T24 Part 6 Consultant:	

Design Reviewer Qualifications per Title 24 Part 1 Section 10-103(a)1

	The design reviewer(s) must be licensed professional engineers or licensed architects, or licensed contractors representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code.	Do the Design Reviewer(s) meet these qualifications? Yes	No
03	In addition, for buildings with >= 50,000 ft^2, or complex mechanical systems[1], the design reviewer(s) shall be a third party design engineer, architect, or contractor.	●	○
04	The design reviewer(s) for this project will be:	Muey Tarvin	

Preliminary Construction Schedule

		Start Date	Completion Date
05	Schematic Design	2025-03-19	2025-05-14
06	Design Development	2025-05-14	2025-06-25
07	Construction Documents	2025-06-25	2025-12-10
08	Construction	2026-08-03	2028-04-28
09	Building Turnover	2028-05-01	2028-05-31
Project Goals Related to Energy Efficiency			
10	Operational Costs	The project goal is to comply with code minimum requirements.	
11	Desired Building Lifespan	The desired life span is 30+ years.	
12	Equipment Lifecycle	It is anticipated the Contractor's workmanship and equipment warranty shall be included in the O&M's.	

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 600 Classroom	**Report Page:** (Page 2 of 7)
	Date Prepared: 2025-12-01T19:35:27-05:00

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with commissioning requirements per 120.8. This table is not editable by the user. If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09
Design Kickoff Review	Owner's Project Requirements	Basis of Design	Design Review	Commissioning Plan	Functional Performance Testing	Documentation and Training	Commissioning Report	
Table F	Table G	Table H	Table I	Table J	Table K	Table L	Table M	
Yes			Yes					COMPLIES
10				Muey Tarvin				COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
This document is used to demonstrate compliance with mandatory commissioning requirements in 120.8 for nonresidential buildings and hotel/motel or mixed-use buildings with nonresidential spaces. This document does not demonstrate compliance with commissioning requirements within Title 24, Part 11, which need to be documented separately if they apply.	
Project Name: SUSD New Temperance Elementary School - Bldg 600 Classroom	**Report Page:** (Page 1 of 7)
Project Address:	**Date Prepared:** 2025-12-01T19:35:27-05:00

A. GENERAL INFORMATION

01	Project Location (city)	Sanger	04	Building Size (ft^2)	6097
02	Occupancy Type	Nonresidential	05		< 10,000 ft^2
03	Project Type	Newly constructed	06		All other HVAC system types (indicates "complex")
			07	Climate Zone	13

B. PROJECT SCOPE

Based on project information provided in Table A, Table B indicates which commissioning related requirements apply per 120.8. Table B is not editable by the user.

Commissioning Requirements per 120.8

01	Table F: Design Review Kickoff	120.8(d)1 and 120.8(d)2	The design review kickoff meeting establishes who will play the role of the design reviewer, the project schedule and identify owner's requirements. This meeting should be conducted during schematic design.
02	Table G: Owner's Project Requirements (OPR)	120.8(b)	This requirement does not apply.
03	Table H: Basis of Design (BOD)	120.8(c)	This requirement does not apply.
04	Table I: Design Review	120.8(d) and 120.8(e)	The design reviewer(s) reviews the construction documents for clarity, completeness, and adherence to the owner's goals. Commissioning measures must be included in the construction documents to facilitate the design review and commissioning process. For projects with >= 10,000 ft^2 of nonresidential conditioned floor area, the design review is for adherence with the Owner's Project Requirements (OPR) and Basis of Design (BOD). This should be conducted during design.
05	Table J: Commissioning Plan	120.8(f)	This requirement does not apply.
06	Table K: Functional Performance Testing	120.8(g)	This requirement does not apply.
07	Table L: Documentation and Training	120.8(h)	This requirement does not apply.
08	Table M: Commissioning Report	120.8(i)	This requirement does not apply.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 600 Classroom	**Report Page:** (Page 6 of 7)
	Date Prepared: 2025-12-01T19:35:27-05:00

M. COMMISSIONING REPORT

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

There are no forms required for this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 600 Classroom	**Report Page:** (Page 5 of 7)
	Date Prepared: 2025-12-01T19:35:27-05:00

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

Design Review Checklist

02	Envelope Design	Envelope design complies with code minimum requirements.
03	HVAC System Design	The chilled water supply/return and hot water supply/return piping connects to the cooling and heating coils on the single zone vertical air handler (AH) designed to condition each classroom. Each AH will be located in an exterior closet adjacent to classroom with exterior access. Ducting from the AH to the classroom is used to distribute air into the space. Each AH is equipped with MERV 13 filter, BACnet enabled to integrate into existing Distech Controls, a programmable thermostat for temperature control, and a CO2 sensor To meet minimum ventilation requirements, a mixing section with modulating outdoor air and return/exhaust air dampers is used to draw outside air through the door louver.
04	HVAC Controls Design	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.
05	Indoor Lighting System Design	Indoor lighting is controlled by dimmers, motion sensors, lighting relay control panel with astronomical time switch, photosensors in rooms with windows, programmable room controllers, and programmable central controller. Specialty lighting installed where required.
06	Indoor Lighting Controls Design	Project lighting control system shall consist of a network of occupancy sensors, photocontrols, low voltage dimming and control relays.
07	Outdoor Lighting System and Controls Design	Exterior lighting will be controlled by the automatic time switch or the photocell feature of the central lighting control system to meet the requirements of code and OPR.
08	Water Heating System Design	Electric water heating system with circulating pump complies with code minimum requirements and OPR.
09	Other Systems and Features	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.

J. COMMISSIONING PLAN

This section does not apply to this project.

K. FUNCTIONAL PERFORMANCE TESTING

This section does not apply to this project.

L. DOCUMENTATION AND TRAINING

This section does not apply to this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 600 Classroom	**Report Page:** (Page 4 of 7)
	Date Prepared: 2025-12-01T19:35:27-05:00

F. DESIGN REVIEW KICKOFF MEETING

13	Project Energy Efficiency Goals	The owner have not specified.
14	Envelope Goals	All proposed window openings, exterior wall insulation, and roof insulation to comply with California Energy Code (CEC).
15	HVAC System Goals	The HVAC system design, equipment efficiencies, and installation shall meet or exceed all applicable building and energy codes and/or ASHRAE 90.1 requirements for the site location. All equipment selected for the project is expected to comply with CEC, where required.
16	Indoor Lighting System Goals	Lighting systems and lighting controls shall be designed to meet or exceed the CEC. Include occupancy sensors and automatic daylight controls where required to minimize electric lighting usage. Illuminance shall comply with Illuminating Engineering Society (IES) Lighting Standards.
17	Outdoor Lighting System Goals	Outdoor lighting will need to include building facade lighting and/or lighting for pedestrian walkways. Outdoor lighting systems and lighting controls shall be designed to meet or exceed the CEC.
18	Water Heating System Goals	Electric water heater shall be designed to comply code minimum requirements.
19	Equipment and System Specifications	High efficiency, low cost for maintenance, no natural gas, and meet code minimum requirements.
20	Operations and Maintenance	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the maintenance personnel. The training will be hands-on demonstration and documentations.

G. OWNER'S PROJECT REQUIREMENTS (OPR)

This section does not apply to this project.

H. BASIS OF DESIGN (BOD)

This section does not apply to this project.

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

This table is only completed if a design review document is not attached to permit application to demonstrate compliance with 120.8(b) and 120.8(e). For buildings with >= 10,000 ft^2 conditioned floor area, the design review will ensure the construction documents meet the Owner's Project Requirements (Table G.) and the Basis of Design Documents (Table H.). For buildings with < 10,000 ft^2 conditioned floor area, the design review will ensure the construction documents meet the goals documented in Table F. during the Design Review Kickoff.

		YES	NO
01	Attaching Completed Design Review Documentation?	○	●

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 600 Classroom	**Report Page:** (Page 7 of 7)
Project Address:	**Date Prepared:** 2025-12-01T19:35:27-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Muey Tarvin	Documentation Author Signature:
Company: Lawrence Engineering Group	Signature Date: 12/3/2025
Address: 4910 E Clinton Way, Suite 101	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	Date Signed: 12/10/2025
Address: 4910 E Clinton Way, Suite 101	License: M34846
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.7030 Office
(559) 627.1926 Fax

TITLE
COMMISSIONING DOCUMENTS
BUILDING 600

M10.06

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 700 Classroom	**Report Page:** (Page 3 of 7)
	Date Prepared: 2025-12-01T20:23:53-05:00

F. DESIGN REVIEW KICKOFF MEETING

This table indicates that the design reviewer meets the qualification requirements per Title 24, Part 1 Section 10-103(a)1 and demonstrates compliance with design review kickoff requirements per 120.8(d)2. This meeting should occur during the Schematic Design phase of the project.

Design Review Kickoff Meeting Details

01	Date of Design Review Kickoff Meeting			2025-11-25
02	Meeting Attendees: (one person may play multiple roles)			
☐	Owner/Facility Manager:		☐ Design Reviewer(s)	
☐	Project Manager:		☒ Design Architect/ Engineer(s):	Manuel Acosta - Architect , Ryan Carlson-Mechanical Engineer, Steve Eastham - Electrical Engineer
☐	Contractor:		☐ Certified Acceptance Test Tech(s):	
☐	Commissioning Provider:		☐ Energy/ T24 Part 6 Consultant:	

Design Reviewer Qualifications per Title 24 Part 1 Section 10-103(a)1

		Do the Design Reviewer(s) meet these qualifications?	
	The design reviewer(s) must be licensed professional engineers or licensed architects, or licensed contractors representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code.	Yes	No
03	In addition, for buildings with >= 50,000 ft^2, or complex mechanical systems[1], the design reviewer(s) shall be a third party design engineer, architect, or contractor.	●	○
04	The design reviewer(s) for this project will be:	Muey Tarvin	

Preliminary Construction Schedule

		Start Date	Completion Date
05	Schematic Design	2025-03-19	2025-05-14
06	Design Development	2025-05-14	2025-06-25
07	Construction Documents	2025-06-25	2025-12-10
08	Construction	2026-08-03	2028-04-28
09	Building Turnover	2028-05-01	2028-05-31
Project Goals Related to Energy Efficiency			
10	Operational Costs	The project goal is to comply with code minimum requirements.	
11	Desired Building Lifespan	The desired life span is 30+ years.	
12	Equipment Lifecycle	It is anticipated the Contractor's workmanship and equipment warranty shall be included in the O&M's.	

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 700 Classroom	**Report Page:** (Page 6 of 7)
	Date Prepared: 2025-12-01T20:23:53-05:00

M. COMMISSIONING REPORT

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

There are no forms required for this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 700 Classroom	**Report Page:** (Page 2 of 7)
	Date Prepared: 2025-12-01T20:23:53-05:00

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with commissioning requirements per 120.8. This table is not editable by the user. If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09
Design Kickoff Review	Owner's Project Requirements	Basis of Design	Design Review	Commissioning Plan	Functional Performance Testing	Documentation and Training	Commissioning Report	
Table F	Table G	Table H	Table I	Table J	Table K	Table L	Table M	
Yes			Yes					COMPLIES
10				Muey Tarvin				COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 700 Classroom	**Report Page:** (Page 5 of 7)
	Date Prepared: 2025-12-01T20:23:53-05:00

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

Design Review Checklist		
02	Envelope Design	Envelope design complies with code minimum requirements.
03	HVAC System Design	The chilled water supply/return and hot water supply/return piping connects to the cooling and heating coils on the single zone vertical air handler (AH) designed to condition each classroom. Each AH will be located in an exterior closet adjacent to classroom with exterior access. Ducting from the AH to the classroom is used to distribute air into the space. Each AH is equipped with MERV 13 filter, BACnet enabled to integrate into existing Distech Controls, a programmable thermostat for temperature control, and a CO2 sensor To meet minimum ventilation requirements, a mixing section with modulating outdoor air and return/exhaust air dampers is used to draw outside air through the door louver.
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06	Indoor Lighting Controls Design	Project lighting control system shall consist of a network of occupancy sensors, photocontrols, low voltage dimming and control relays.
07	Outdoor Lighting System and Controls Design	Exterior lighting will be controlled by the automatic time switch or the photocell feature of the central lighting control system to meet the requirements of code and OPR.
08	Water Heating System Design	N/A
09	Other Systems and Features	Distech Controls to meet SUSD standards with Title 24 compliant, 7 day programmable thermostat.

J. COMMISSIONING PLAN

This section does not apply to this project.

K. FUNCTIONAL PERFORMANCE TESTING

This section does not apply to this project.

L. DOCUMENTATION AND TRAINING

This section does not apply to this project.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
This document is used to demonstrate compliance with mandatory commissioning requirements in 120.8 for nonresidential buildings and hotel/motel or mixed-use buildings with nonresidential spaces. This document does not demonstrate compliance with commissioning requirements within Title 24, Part 11, which need to be documented separately if they apply.	
Project Name: SUSD New Temperance Elementary School - Bldg 700 Classroom	**Report Page:** (Page 1 of 7)
Project Address:	**Date Prepared:** 2025-12-01T20:23:53-05:00

A. GENERAL INFORMATION

01	Project Location (city)	Sanger	04	Building Size (ft^2)	3199
02	Occupancy Type	Nonresidential	05		< 10,000 ft^2
03	Project Type	Newly constructed	06		All other HVAC system types (indicates "complex")
			07	Climate Zone	13

B. PROJECT SCOPE

Based on project information provided in Table A, Table B indicates which commissioning related requirements apply per 120.8. Table B is not editable by the user.

Commissioning Requirements per 120.8

01	Table F: Design Review Kickoff	120.8(d)1 and 120.8(d)2	The design review kickoff meeting establishes who will play the role of the design reviewer, the project schedule and identify owner's requirements. This meeting should be conducted during schematic design.
02	Table G: Owner's Project Requirements (OPR)	120.8(b)	This requirement does not apply.
03	Table H: Basis of Design (BOD)	120.8(c)	This requirement does not apply.
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06	Table K: Functional Performance Testing	120.8(g)	This requirement does not apply.
07	Table L: Documentation and Training	120.8(h)	This requirement does not apply.
08	Table M: Commissioning Report	120.8(i)	This requirement does not apply.

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 700 Classroom	**Report Page:** (Page 4 of 7)
	Date Prepared: 2025-12-01T20:23:53-05:00

F. DESIGN REVIEW KICKOFF MEETING

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17	Outdoor Lighting System Goals	Outdoor lighting will need to include building facade lighting and/or lighting for pedestrian walkways. Outdoor lighting systems and lighting controls shall be designed to meet or exceed the CEC.
18	Water Heating System Goals	N/A
19	Equipment and System Specifications	High efficiency, low cost for maintenance, no natural gas, and meet code minimum requirements.
20	Operations and Maintenance	Training for systems and equipment operations will be conducted on-site by each sub-contractor to the maintenance personnel. The training will be hands-on demonstration and documentations.

G. OWNER'S PROJECT REQUIREMENTS (OPR)

This section does not apply to this project.

H. BASIS OF DESIGN (BOD)

This section does not apply to this project.

I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST

This table is only completed if a design review document is not attached to permit application to demonstrate compliance with 120.8(b) and 120.8(e). For buildings with >= 10,000 ft^2 conditioned floor area, the design review will ensure the construction documents meet the Owner's Project Requirements (Table G.) and the Basis of Design Documents (Table H.). For buildings with < 10,000 ft^2 conditioned floor area, the design review will ensure the construction documents meet the goals documented in Table F. during the Design Review Kickoff.

		YES	NO
01	Attaching Completed Design Review Documentation?	○	●

STATE OF CALIFORNIA
Nonresidential Building Commissioning
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-CXR-E
Project Name: SUSD New Temperance Elementary School - Bldg 700 Classroom	**Report Page:** (Page 7 of 7)
Project Address:	**Date Prepared:** 2025-12-01T20:23:53-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Muey Tarvin	Documentation Author Signature:
Company: Lawrence Engineering Group	Signature Date: 12/3/2025
Address: 4910 E Clinton Way, Suite 101	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Ryan Carlson	Responsible Designer Signature:
Company: Lawrence Engineering Group	Date Signed: 12/10/2025
Address: 4910 E Clinton Way, Suite 101	License: M34846
City/State/Zip: Fresno, CA 93727	Phone: 559-431-0101

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. 28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
COMMISSIONING DOCUMENTS BUILDING 700

M10.07

PROJECT 24042

LICENSED PROFESSIONAL ENGINEER RYAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 (559) 431-0101
25026
Fresno, CA 93727 FAX (559) 431-1362

15 September 2026 9:43 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M10.00 - 10.07 - Commissioning Documents.dwg ryanf
P:\2025\25026 Sanger USD Temperance ES\4-Drawings\4 M\M10.00 - 10.07 - Commissioning Documents.dwg Sep 15 2026 9:43am

ELECTRICAL SYMBOLS
ALL DIMENSIONS TO CENTER OF BOX, U.O.N.

3-	CIRCUIT NUMBER (3-A-40)
-A-	FIXTURE TYPE (3-A-40)
-40	FIXTURE WATTAGE (3-A-40)
	HOME RUN 3/4"C - MIN. (PANEL A, CIRCUIT #3)
	CONDUIT RUN IN WALL OR ATTIC (1/2"C - 2 #12 AWG THWN + 1 #12 GND)
	CONDUIT RUN IN FLOOR OR UG (1/2"C - 2 #12 AWG THWN + 1 #12 GND)
	ANY CONDUIT RUN - 1/2"C - 3 #12 AWG THWN + 1 #12 GND
	" " - 3/4"C - 4 #12 AWG THWN + 1 #12 GND
	" " - 3/4"C - 5 #12 AWG THWN + 1 #12 GND
	" " - 1"C - 6 #12 AWG THWN + 1 #12 GND
	CONDUIT STUB - CAPPED AND LABELED.
1	ELECTRICAL KEYNOTE #1, REFER TO NOTES ON SAME SHEET.
U.O.N.	UNLESS OTHERWISE NOTED
W.P.	WEATHERPROOF
	TERMINAL CABINET (SIZE AS SHOWN)
	ELECTRICAL PANELBOARD
	TAMPER-RESISTANT SINGLE 20A RECEPTACLE IN WALL (+15" MIN. TO BOTTOM OF BOX)
	TAMPER-RESISTANT DUPLEX RECEPTACLE IN WALL (+15" MIN. TO BOTTOM OF BOX)
	TAMPER-RESISTANT DUPLEX RECEPTACLE IN FLUSH FLOOR BOX
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN FLUSH FLOOR BOX
	TAMPER-RESISTANT SPECIAL OUTLET AS NOTED ON DWGS. (+15" MIN. TO BOTTOM OF BOX)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL (+15" MIN. TO BOTTOM OF BOX)
(B)	TAMPER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE IN WALL (+15" MIN. TO BOTTOM OF BOX)
(M)	TAMPER-RESISTANT 'CONTROLLED' DUPLEX RECEPTACLE IN WALL (+15" MIN. TO BOTTOM OF BOX)
	EXIT LIGHT, WALL MOUNTED
	EXIT LIGHT, CEILING MOUNTED
	WALL MOUNTED LIGHT FIXTURE (MOUNT AS SHOWN)
	CEILING MOUNTED LIGHT FIXTURE
	RECESSED MOUNTED LIGHT FIXTURE IN CEILING
	RECESSED MOUNTED 'NIGHT' LIGHT FIXTURE IN CEILING (DUSK TO DAWN)
	LIGHT FIXTURE
(H)	NETWORK CABLE - CATEGORY 5e CABLE, LENGTH AS REQUIRED
(HH)	0-10V DIMMING CONTROL CABLE, LENGTH AS REQUIRED
(J)	LIGHT FIXTURE WITH 'nLIGHT' EMBEDDED CONTROLS
	EM RECESSED MOUNTED LIGHT FIXTURE EQUIPPED WITH EMERGENCY BATTERY PACK
EM	LIGHT FIXTURE EQUIPPED WITH EMERGENCY BATTERY PACK
	POLE MOUNTED 'AREA' LIGHT FIXTURE
	POLE MOUNTED 'AREA' LIGHT FIXTURES
	POST MOUNTED FIXTURE
	BALL FIELD LIGHTS
	LIGHT SWITCH (+4'-0" MAX. TO TOP OF BOX, U.O.N.)
(K)	OCCUPANCY SENSOR WALL SWITCH, LINE VOLTAGE (+4'-0" MAX. TO TOP OF BOX, U.O.N.)
(M)	ON/OFF SWITCH WITH RAISE/LOWER DIMMING CONTROL (+4'-0" MAX. TO TOP OF BOX, U.O.N.)
(N)	ON/OFF SWITCH WITH RAISE/LOWER DIMMING CONTROL (TWO CHANNELS) (+4'-0" MAX. TO TOP OF BOX, U.O.N.)
(P)	ON/OFF SWITCH WITH RAISE/LOWER DIMMING CONTROL (FOUR CHANNELS) (+4'-0" MAX. TO TOP OF BOX, U.O.N.)
(Q)	LOW VOLTAGE POWER/RELAY PACK FOR RECEPTACLE CONTROLS MOUNTED IN ACCESSIBLE ATTIC SPACE, U.O.N.
(R)	LOW VOLTAGE POWER/RELAY PACK WITH 0-10VDC DIMMING OUTPUT FOR LIGHTING CONTROLS MOUNTED IN ACCESSIBLE ATTIC SPACE, U.O.N.
(S)	LOW VOLTAGE POWER/RELAY PACK FOR LIGHTING CONTROLS MOUNTED IN ACCESSIBLE ATTIC SPACE, U.O.N.
(T)	360° OCCUPANCY SENSOR (DUAL TECHNOLOGY), CEILING MOUNTED
(V)	360° OCCUPANCY SENSOR (DUAL TECHNOLOGY) WITH AUTOMATIC DIMMING CONTROL PHOTOCELL, CEILING MOUNTED
(Y)	OCCUPANCY SENSOR WALL SWITCH, LOW VOLTAGE (+4'-0" MAX. TO TOP OF BOX, U.O.N.)
(W)	ON/OFF SWITCH (+4'-0" MAX. TO TOP OF BOX, U.O.N.)
(L)	ON/OFF DIGITAL KEYSWITCH WITH RAISE/LOWER DIMMING CONTROL (+4'-0" MAX. TO TOP OF BOX, U.O.N.)
(C)	DRY CONTACT INTERFACE DEVICE, LIGHTING NETWORK
(F)	NETWORK LIGHTING CONTROLLER
(E)	NETWORK INTERFACE BRIDGE WITH POWER SUPPLY
(D)	GRAPHIC WALLPOD WITH POWER SUPPLY
(G)	TOUCHSCREEN LIGHTING CONTROL EQUIPPED WITH POWER SUPPLY
	JUNCTION BOX EQUIPPED WITH BLANK COVER
	JUNCTION BOX EQUIPPED WITH BLANK COVER AND FLEX CONNECTION
	COMBINATION HEAVY-DUTY FUSED SAFETY SWITCH/MAGNETIC STARTER
	MOTOR
	HEAVY-DUTY FUSED SAFETY SWITCH

ELECTRICAL SYMBOLS (CONTINUED)
ALL DIMENSIONS TO CENTER OF BOX, U.O.N.

SD	ADDRESSABLE SMOKE DETECTOR MOUNTED ON CEILING
SD ISO	ADDRESSABLE SMOKE DETECTOR, WITH ISOLATOR BASE, MOUNTED ON CEILING
CO	ADDRESSABLE SMOKE/CARBON MONOXIDE DETECTOR, MOUNTED ON CEILING
HD	ADDRESSABLE HEAT DETECTOR MOUNTED ON CEILING
HD	HEAT DETECTOR MOUNTED IN ATTIC
MM	ADDRESSABLE MONITOR MODULE
DMM	ADDRESSABLE DUAL MONITOR MODULE
RM	ADDRESSABLE RELAY MODULE
SCM	ADDRESSABLE SUPERVISED CONTROL MODULE
ISO	FAULT ISOLATOR MODULE
F	ADDRESSABLE MANUAL PULL STATION
(A) SV 15	FIRE ALARM SPEAKER/15 CANDELA VISUAL STROBE (WALL MOUNTED)
(A) SV 30	FIRE ALARM SPEAKER/30 CANDELA VISUAL STROBE (WALL MOUNTED)
(A) SV 75	FIRE ALARM SPEAKER/75 CANDELA VISUAL STROBE (WALL MOUNTED)
(A) SV 95	FIRE ALARM SPEAKER/95 CANDELA VISUAL STROBE (WALL MOUNTED)
(A) SV 110	FIRE ALARM SPEAKER/110 CANDELA VISUAL STROBE (WALL MOUNTED)
(A) SV (15)	FIRE ALARM SPEAKER/15 CANDELA VISUAL STROBE (CEILING MOUNTED)
(A) SV (30)	FIRE ALARM SPEAKER/30 CANDELA VISUAL STROBE (CEILING MOUNTED)
(A) SV (75)	FIRE ALARM SPEAKER/75 CANDELA VISUAL STROBE (CEILING MOUNTED)
(A) SV (95)	FIRE ALARM SPEAKER/95 CANDELA VISUAL STROBE (CEILING MOUNTED)
(A) SV (110)	FIRE ALARM SPEAKER/110 CANDELA VISUAL STROBE (CEILING MOUNTED)
SP W.P.	FIRE ALARM EXTERIOR SPEAKER IN WALL
SP	FIRE ALARM SPEAKER (CEILING MOUNTED)
WF	WATERFLOW SWITCH AT FIRE SPRINKLER RISER
TS	TAMPER SWITCH AT FIRE DEPT. CONNECTION 'F.D.C.'
B	ELECTRIC BELL (FOR FIRE SPRINKLER RISER)
FSD	FIRE/SMOKE DAMPER BY DIVISION 23
E, (E)	SUBSCRIPT DENOTES EXISTING SHALL REMAIN
R, (R)	SUBSCRIPT DENOTES EXISTING SHALL BE REMOVED
— EP —	DENOTES EXISTING FEEDER, BRANCH CIRCUITING AND/OR HOMERUN SHALL REMAIN
— ER —	DENOTES EXISTING FEEDER, BRANCH CIRCUITING AND/OR HOMERUN SHALL BE REMOVED

ELECTRICAL SYMBOLS NOTES:

(A) REFER TO FIRE ALARM DEVICES ELEVATION, DETAIL #1/E8.8 FOR RESPECTIVE MOUNTING HEIGHTS.

(B) AT EXTERIOR LOCATIONS, PROVIDE WEATHER-RESISTANT/TAMPER-RESISTANT G.F.C.I. DUPLEX RECEPTACLES, LEVITON #S5362-WTW OR EQUAL. AT DAMP LOCATIONS, PROVIDE A DIECAST WEATHERPROOF LOCKABLE COVER, RACO #5028-0 OR EQUAL. AT WET LOCATIONS, PROVIDE A DIECAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, EXTRA-DUTY RATED, RED DOT #CKSUV OR EQUAL.

(C) ACUITY CONTROLS #nIO-1S OR EQUAL.

(D) ACUITY CONTROLS #nGWY2-GFX AND 150ma POWER SUPPLY #PS150 OR EQUAL.

(E) ACUITY CONTROLS #nBRG-8-KIT OR EQUAL. REFER TO DETAIL #3/E9.2 FOR ADDITIONAL INFORMATION. PROVIDE A 4" SQ. x 2 1/8" DEEP OUTLET BOX FOR MOUNTING OF NETWORK INTERFACE BRIDGE AND POWER SUPPLY.

(F) ACUITY CONTROLS #nECY-MVOLT-BAC-ADR-ENC-GFXK OR EQUAL. REFER TO DETAIL #8/E9.2 FOR ADDITIONAL INFORMATION.

(G) ACUITY CONTROLS #FCS-TTSN-X-DWH OR EQUAL.

(H) ACUITY CONTROLS #CAT 5e * J1 OR EQUAL. * ASTERISK INDICATES LENGTH OF CABLE. CABLES ARE AVAILABLE IN 6', 1, 2, 5, 10', 15', 30', AND 50' LENGTHS.

(HH) LIBERTY WIRE CABLE, INC #18-2C-LVB OR EQUAL.

(J) 'nLIGHT' ENABLED LIGHT FIXTURE PER FIXTURE SCHEDULE ON SHEET #EG1.2.

(K) ACUITY CONTROLS #nWSX-PDT-WH OR EQUAL. PROVIDE A DECORATOR STYLE STAINLESS STEEL WALLPLATE.

(L) ACUITY CONTROLS #nPOD-A-KEY-WH. PROVIDE A DECORATOR STYLE STAINLESS STEEL WALLPLATE.

(M) ACUITY CONTROLS #nPODMA-DX-WH OR EQUAL. PROVIDE A DECORATOR STYLE STAINLESS STEEL WALLPLATE.

(N) ACUITY CONTROLS #nPODMA-2P-DX-WH OR EQUAL. PROVIDE A DECORATOR STYLE STAINLESS STEEL WALLPLATE.

(P) ACUITY CONTROLS #nPODMA-4P-DX-WH OR EQUAL. PROVIDE A DECORATOR STYLE STAINLESS STEEL WALLPLATE.

(Q) ACUITY CONTROLS #nPP20-PL OR EQUAL. CONNECT TO THE SAME 120V 'UNSWITCHED' RECEPTACLE CIRCUIT, AS THE POWER/RELAY PACK CONTROLS.

(R) ACUITY CONTROLS #nPP16-D-EFP OR EQUAL.

(S) ACUITY CONTROLS #nPP16 OR EQUAL.

(T) ACUITY CONTROLS #nCM-PDT-10-RJB OR EQUAL.

(V) ACUITY CONTROLS #nCM-PDT-10-ADCX-RJB OR EQUAL.

(W) ACUITY CONTROLS #nPODMA-WH OR EQUAL. PROVIDE A DECORATOR STYLE STAINLESS STEEL WALLPLATE.

(X) DUPLEX RECEPTACLE SHALL HAVE PRINTED WORDING 'CONTROLLED' AND THE SPECIFIC SYMBOL ⏻ ON THE FACE OF THE RECEPTACLE. LEVITON #5362-2PE OR EQUAL.

(Y) ACUITY CONTROLS #nWSXA-PDT-LV-WH OR EQUAL. PROVIDE A DECORATOR STYLE STAINLESS STEEL WALLPLATE.

DIVISION OF THE STATE ARCHITECT APPLICABLE CODES AND STANDARDS

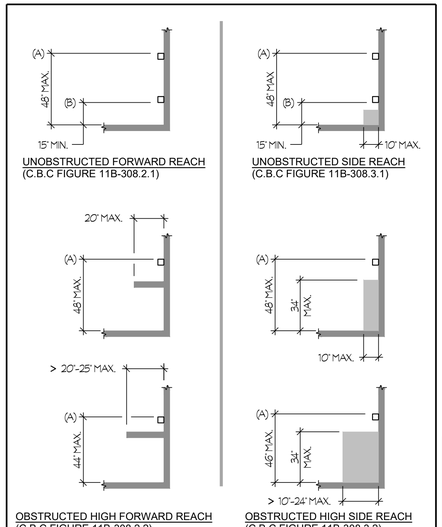
CODES:

2022	CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2022	CALIFORNIA BUILDING CODE (C.B.C.), PART 2, TITLE 24 C.C.R. (2021 INTERNATIONAL BUILDING CODE, VOLUMES 1 AND 2 WITH 2025 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA ELECTRICAL CODE (C.E.C.), PART 3, TITLE 24 C.C.R. (2020 NFPA 70 NATIONAL ELECTRICAL CODE WITH 2025 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA MECHANICAL CODE (C.M.C.), PART 4, TITLE 24 C.C.R. (2021 UNIFORM MECHANICAL CODE WITH 2025 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA PLUMBING CODE (C.P.C.), PART 5, TITLE 24 C.C.R. (2021 UNIFORM PLUMBING CODE WITH 2025 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA ENERGY CODE (CEnC), PART 6, TITLE 24 C.C.R.
2022	CALIFORNIA FIRE CODE (C.F.C.), PART 9, TITLE 24 C.C.R. (2021 INTERNATIONAL FIRE CODE WITH 2025 CALIFORNIA AMENDMENTS)
2022	CALIFORNIA REFERENCED STANDARDS CODE (C.R.S.C.), PART 12, TITLE 24 C.C.R.

TITLE 19, C.C.R. PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

STANDARDS AND GUIDES:

NFPA 72	NATIONAL FIRE ALARM CODE, 2025 EDITION (CALIFORNIA AMENDED)
ADAAG	AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES
UL 38	MANUAL ACTUATED SIGNALING BOXES, 1999 EDITION
UL 268	SMOKE DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS, 2011 EDITION
UL 268A	SMOKE DETECTORS FOR DUCT APPLICATIONS, 2009 EDITION
UL 464	AUDIBLE SIGNAL APPLIANCES, 2003 EDITION
UL 521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS, 1999 EDITION (WITH REVISIONS THROUGH JULY 2005)
UL 864	CONTROL UNITS FOR FIRE PROTECTIVE SIGNALING SYSTEMS, 2014 EDITION



(A) TOP OF OUTLET BOX FOR RECEPTACLES, SWITCHES AND CONTROLS.

(B) BOTTOM OF OUTLET BOX FOR RECEPTACLES, SWITCHES AND CONTROLS.

1 ELECTRICAL RECEPTACLE, SWITCH AND CONTROL HEIGHTS

NTS

TITLE 24, PART 6

THE CALIFORNIA ENERGY EFFICIENCY STANDARDS FOR NONRESIDENTIAL BUILDINGS HAS BEEN REVIEWED AND THE BUILDING DESIGN DESCRIBED ON THESE PAGES IS IN SUBSTANTIAL CONFORMANCE.

CODE, RULES AND REGULATIONS

ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST REGULATIONS OF THE STATE FIRE MARSHAL, CALIFORNIA CODE OF REGULATIONS, SERVING UTILITY COMPANIES AND OTHER APPLICABLE STATE ORDINANCES. NOTHING IN THESE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THESE CODES. WHERE WORK OF A HIGHER DEGREE IS INDICATED IN THE PLANS OR SPECIFICATIONS THIS REQUIREMENT SHALL GOVERN.

SEISMIC ANCHORAGE REQUIREMENTS

MECHANICAL, ELECTRICAL AND PLUMBING ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. 'PERMANENTLY ATTACHED' SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7 SECTION 13.3 AS DEFINED IN ASCE 7 SECTIONS 13.6.5, 13.6.6, 13.6.7 AND 13.6.8; AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. THE MEP DESIGN PROFESSIONAL ENGINEER RESPONSIBLE FOR CONTENT ON THESE SHEETS HAS VERIFIED THAT THE DESIGN METHODS IDENTIFIED BELOW ARE IN ACCORDANCE WITH DSA IR 16-13.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP ☐ MD ☐ PP ☐ E ☑ - OPTION 1: PROJECT-SPECIFIC DESIGN.

MP ☐ MD ☐ PP ☐ E ☐ - OPTION 2: DESIGN BASED ON OSHPD OPM, WITHIN PROJECT SUBMITTAL

MP ☐ MD ☐ PP ☐ E ☐ - OPTION 3: DESIGN BASED ON OSHPD OPM, DEFERRED SUBMITTAL

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORELLI
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.2630 Office
(559) 627.1926 Fax

TITLE
ELECTRICAL CODES, NOTES AND SYMBOLS SCHEDULE

EG1.1

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KATHLEEN KIRK EASTHAM
No. E 19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\SD4003.5\Sanger\Temperance Elem School\EG1.1.dwg DATE SAVED: 09/17/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

FIXTURE SCHEDULE

FIXTURE SYMBOL (3-A-40): 3 = CIRCUIT NUMBER, A = FIXTURE TYPE, 40 = FIXTURE WATTAGE

TYPE	WATTS	LAMPS	VOLT	MANUFACTURER	CATALOG NO.	MOUNT	NOTES	APPROX. WEIGHT #
A	40	L.E.D.	120-277V	LITHONIA	2BLT4-48L-ADP-MVOLT-WZ1-LP840-N100	FLUSH T-BAR	PER #1/E9.2	23
AE	40	L.E.D.		LITHONIA	2BLT4-48L-ADP-MVOLT-WZ1-LP840-N100-E10WLP	FLUSH T-BAR	PER #1/E9.2 (1)	25
B	47	L.E.D.		LITHONIA	2BLT4-60L-ADP-MVOLT-WZ1-LP840-N100	FLUSH T-BAR	PER #1/E9.2	23
BE	47	L.E.D.		LITHONIA	2BLT4-60L-ADP-MVOLT-WZ1-LP840-N100-E10WLP	FLUSH T-BAR	PER #1/E9.2 (1)	25
C	23	L.E.D.		LITHONIA	2BLT4-30L-ADP-MVOLT-WZ1-LP840-N100	FLUSH T-BAR	PER #1/E9.2	23
CE	23	L.E.D.		LITHONIA	2BLT4-30L-ADP-MVOLT-WZ1-LP840-N100-E10WLP	FLUSH T-BAR	PER #1/E9.2 (1)	25
D	35	L.E.D.		LITHONIA	STL4-40L-EZB-LP840-N100	SURFACE	PER #2/E9.2	13
DE	35	L.E.D.		LITHONIA	STL4-40L-EZB-LP840-N100-E10WLCP	SURFACE	PER #2/E9.2 (1)	15
E	45	L.E.D.		LITHONIA	STL4-48L-EZB-LP840-N100	SURFACE	PER #2/E9.2	13
EE	45	L.E.D.		LITHONIA	STL4-48L-EZB-LP840-N100-E10WLCP	SURFACE	PER #2/E9.2 (1)	15
F	29	L.E.D.		LITHONIA	LDN6-40/25-L06-AR-LSS-MVOLT-EZ1-NPS80EZ	RECESS	PER #6/E9.2 (3)	9
FE	29	L.E.D.		LITHONIA	LDN6-40/25-L06-ARLSS-MVOLT-EZ1-NPS80EZ-E10WCP	RECESS	PER #6/E9.2 (1), (3)	9
G	19	L.E.D.		MARK ARCHITECTURAL LIGHTING	S4WD-LLP-4FT-MSL4-80CR-40K-600LMF-SCT-NODM-FLL-MVOLT-SLVT-NLIGHT-ADPT	WALL		4
HE	266	L.E.D.		MARK ARCHITECTURAL LIGHTING	S4PID-LLP-24FT-MSL8-80CR-40K-1000LMF-80CR-40K-400LMF-SCT-MNO-FLL-MVOLT-NLIGHT-APDT-3E10WLCP	AIRCRAFT CABLE	PER #2/E9.5 (1)	34
JE	561	L.E.D.		MARK ARCHITECTURAL LIGHTING	S4PID-LLP-72FT-MSL8-80CR-40K-600LMF-80CR-40K-400LMF-SCT-MNO-FLL-MVOLT-NLIGHT-APDT-11E10WLCP	AIRCRAFT CABLE	PER #2/E9.5 (1)	100
K	121	L.E.D.		MARK ARCHITECTURAL LIGHTING	MSLP-48N-80CR-40K-3500LM-80CR-40K-4500LM-SCT-MNO-FLL-MVOLT-FLT-SLVT-RE10WLCP-NLIGHT-F3MZF-SLVCY-SLVTST	PENDANT	PER #2/E9.6 (1)	55
L	74	L.E.D.		MARK ARCHITECTURAL LIGHTING	MSLP-24N-80CR-40K-5000LM-80CR-40K-6500LM-SCT-MNO-FLL-MVOLT-FLT-SLVT-RE10WLCP-NLIGHT-F3MZF-SLVCY-SLVTST	PENDANT	PER #2/E9.6 (1)	20
M	60	L.E.D.		LITHONIA	2BLT4-72L-ADP-MVOLT-WZ1-LP840-N100	FLUSH T-BAR	PER #1/E9.2	23
ME	60	L.E.D.		LITHONIA	2BLT4-72L-ADP-MVOLT-WZ1-LP840-N100-E10WLP	FLUSH T-BAR	PER #1/E9.2 (1)	25
N1	—	———	120V	JUNO	TEK4-12FT-BL, TEK41-BL	SURFACE	TRACK PER #6/E9.3 (5), (6), (7)	<20
N2	—	———		JUNO	TEK4-8FT-BL, TEK41-BL	SURFACE	TRACK PER #6/E9.3 (5), (6), (7)	<20
N	25	L.E.D.		JUNO	T28BLTEK-40K-90CRI-PDIM-SO-BL-TT70BL	LIGHT TRACK	TRACK PER #8/E9.3 (8)	<20
P	27	L.E.D.	120-277V	LITHONIA	STL4-30L-EZB-LP840-N100	SURFACE	PER #2/E9.2	13
Q	18	L.E.D.		LITHONIA	LDN6-40/15-L06-AR-LSS-MVOLT-EZ1-NPS80EZ	RECESS	PER #6/E9.2 (3)	9
R	43	L.E.D.		LITHONIA	2BLT2-48L-ADP-MVOLT-WZ1-LP840-N100	FLUSH T-BAR	PER #1/E9.2	12
RE	43	L.E.D.		LITHONIA	2BLT2-48L-ADP-MVOLT-WZ1-LP840-N100-E10WLP	FLUSH T-BAR	PER #1/E9.2 (1)	14
S	22	L.E.D.		LITHONIA	LDN6-40/20-L06-AR-LSS-MVOLT-EZ1-NPS80EZ	RECESS	PER #6/E9.2 (3)	9
SE	22	L.E.D.		LITHONIA	LDN6-40/20-L06-AR-LSS-MVOLT-EZ1-NPS80EZ-E10WCP	RECESS	PER #6/E9.2 (1), (3)	9
TE	42	L.E.D.		MARK ARCHITECTURAL LIGHTING	S4PID-LLP-4FT-MSL8-80CR-40K-1000LMF-80CR-40K-400LMF-SCT-MNO-FLL-MVOLT-NLIGHT-APDT-3E10WLCP	AIRCRAFT CABLE	PER #2/E9.5 (1)	6
V	33	L.E.D.		LITHONIA	VAP-4000LM-FST-WD-MVOLT-SCTO-40K-80CRI-MSTONWL	SURFACE	PER #4/E9.10	14
WE	116	L.E.D.		MARK ARCHITECTURAL LIGHTING	S4PID-LLP-16FT-MSL8-80CR-40K-600LMF-80CR-40K-400LMF-SCT-MNO-FLL-MVOLT-NLIGHT-APDT-11E10WLCP	AIRCRAFT CABLE	PER #2/E9.5 (1)	23
Y	52	L.E.D.		LITHONIA	ZLIN-L48-SMR-7000LM-FST-MVOLT-40K-80CRI	SURFACE	PER #3/E9.5	12
YE	52	L.E.D.		LITHONIA	ZLIN-L48-SMR-7000LM-FST-MVOLT-40K-80CRI-E15WLCP	SURFACE	PER #3/E9.5 (1)	12
Z	53	L.E.D.		HYDREL	M3720C-SS-LED-P4-40K-MVOLT-NSP-FLC20SR-34B-RG-BL	GROUND	PER DETAIL #11/E9.3 (9)	20
L1	15	L.E.D.	120-277V	LITHONIA	WST-LED-P1-40K-VF-MVOLT-PIR-DDBXD	WALL	EXTERIOR	20
L1E	15	L.E.D.		LITHONIA	WST-LED-P1-40K-VF-MVOLT-PIR-DDBXD-E20WH	WALL	EXTERIOR (2)	20
L2	15	L.E.D.		GOTHAM	EVOVR-4Q-15-6AR-WD-LSS-MVOLT	RECESS	PER #6/E9.2 EXTERIOR (3)	9
L2E	15	L.E.D.		GOTHAM	EVOVR-4Q-15-6AR-WD-LSS-MVOLT-E10WCP	RECESS	PER #6/E9.2 EXTERIOR (2), (3)	9
P1	138	L.E.D.		LITHONIA	DSX1-LED-P5-40K-BLC3 RPA-MVOLT-PIR-DDBXD	POLE	PER #7/E9.2 (4)	34
P2	138	L.E.D.		LITHONIA	DSX1-LED-P5-40K-T4LG RPA-MVOLT-PIR-DDBXD	POLE	PER #7/E9.2 (4)	34
P3	276	L.E.D.		LITHONIA	(2) DSX1-LED-P5-40K-T4LG RPA-MVOLT-PIR-DDBXD	POLE	PER #10/E9.2 (4)	68
P4	54	L.E.D.		LITHONIA	RADPT-LED-P3-40K-SYM-MVOLT-PT14-PE-DDBXD RSS 14 4B PT DDBXD	POST	PER #13/E9.2 (4)	38
S1	483	L.E.D.		LITHONIA	(4) RSXF4 LED-P5-40K-AWFD-MVOLT-15-PE-DDBXD	POLE	PER #13/E9.4	272
X	2	L.E.D.	120-277V	LITHONIA	LE-S-W-1-R-120/277-ELNSD	SURFACE	SINGLE FACE EXIT SIGN WITH EMERGENCY BATTERY PACK	5

FIXTURE SCHEDULE NOTES:

(1) LIGHT FIXTURE SHALL BE EQUIPPED WITH AN EMERGENCY BATTERY PACK TO OPERATE THE L.E.D. DRIVER IN THE EMERGENCY MODE FOR A MINIMUM OF 90 MINUTES. PULL UNSWITCHED CIRCUIT TO EMERGENCY BATTERY PACK. REFER TO LIGHTING PLANS FOR EXACT LOCATIONS AND DETAIL PER #4/E9.2 FOR WIRING REQUIREMENTS.

(2) LIGHT FIXTURE SHALL BE EQUIPPED WITH AN EMERGENCY BATTERY PACK TO OPERATE THE L.E.D. DRIVER IN THE EMERGENCY MODE FOR A MINIMUM OF 90 MINUTES. PULL UNSWITCHED CIRCUIT TO EMERGENCY BATTERY PACK. REFER TO LIGHTING PLANS FOR EXACT LOCATIONS AND DETAIL PER #4/E9.2 FOR WIRING REQUIREMENTS.

(3) PROVIDE BAR HANGERS AS REQUIRED.

(4) SET FIXTURE TO DIM TO 50% AFTER FIRST 15 MINUTES, THEN TO OFF AT 30 MINUTES.

(5) TWO-CIRCUIT TRACK WITH TWO SEPARATE NEUTRALS. FINISH SHALL BE BLACK.

(6) PROVIDE 'SKBL' MOUNTING BRACKETS AT A MAXIMUM OF 3 O.C..

(7) PROVIDE 'LIVE' END FEED CONNECTION.

(8) PROVIDE SET OF COLORED FILTERS WITH EACH TRACK HEAD. COORDINATE COLORS WITH OWNER.

(9) AIM AFTER DARK AT MONUMENT SIGN.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
FIXTURE SCHEDULE

EG1.2

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E 19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\G1.2.dwg DATE SAVED: 06/26/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**

This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 100 **Report Page:** **(Page 1 of 8)**
Project Address: **SANGER, FRESNO COUNTY** **Date Prepared:** 2025-10-06T08:28:58-04:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	04	Total Conditioned Floor Area (ft²)	8,981
02	Climate Zone	13	05	Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1

● Library ● Office ● School or Classroom

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Complete Building Method	8981	N/A	0
☐ New Lighting System - Parking Garage	N/A	0	N/A	0
Total Area of Work (ft²)	8981			

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 100 **Report Page:** **(Page 2 of 8)**
Date Prepared: 2025-10-06T08:28:58-04:00

C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b) /170.2(e)	Allowed Lighting Power per 140.6(b) /170.2(e) (Watts)						Adjusted Lighting Power per 140.6(a) /170.2(e) (Watts)				Compliance Results
	01	02	03	04		05	06	07		08	09
	Complete Building 140.6(c)1	Area Category 140.6(c)2 /170.2(e)4	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 /170.2(e)4B (+)	=	**Total Allowed** (Watts)	≥	Total Designed (Watts)	Adjustments PAF Lighting Control Credits 140.6(a)2 /170.2(e)1B (-)	=	**Total Adjusted** (Watts) *Includes Adjustments	**05 must be >= 08 140.6 /170.2(e)**
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)			
Conditioned	5,388.6				=	5,388.6	≥	4,976		=	4976	COMPLIES
Unconditioned					=		≥			=		
Controls Compliance (See Table H for Details)												COMPLIES
Rated Power Reduction Compliance (See Table Q for Details)												

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 100 **Report Page:** **(Page 3 of 8)**
Date Prepared: 2025-10-06T08:28:58-04:00

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change [1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field Inspector	
									Pass	Fail
A, AE	2' x 4' L.E.D. GRID TROFFER	No	NA	40	Mfr. Spec	76	No	3,040	☐	☐
C, CE	2' x 4' L.E.D GRID TROFFER	No	NA	23	Mfr. Spec	17	No	391	☐	☐
D, DE	1' x 4' SURFACE L.E.D.	No	NA	35	Mfr. Spec	6	No	210	☐	☐
E, EE	1' x 4' L.E.D. GRID TROFFER	No	NA	45	Mfr. Spec	4	No	180	☐	☐
G	4' L.E.D WALL PACK	No	NA	19	Mfr. Spec	2	No	38	☐	☐
HE	24' LINEAR L.E.D	No	NA	266	Mfr. Spec	2	No	532	☐	☐
K	48" L.E.D. PENDANT	No	NA	121	Mfr. Spec	3	No	363	☐	☐
L	24" L.E.D. PENDANT	No	NA	74	Mfr. Spec	3	No	222	☐	☐
						Total Designed Watts: CONDITIONED SPACES		4,976		

[1] *FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B /170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2] *Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) /160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 100 **Report Page:** **(Page 4 of 8)**
Date Prepared: 2025-10-06T08:28:58-04:00

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03	
		Field Inspector	
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	Pass	Fail
Required >= 4,000W subject to multilevel	See Area/Space Level Controls	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) /160.5(b)4A	Multi-Level Controls 130.1(b) /160.5(b)4B	Shut-Off Controls 130.1(c) //160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) /160.5(b)4D	Secondary Daylighting 130.1(d) /160.5(b)4D	Interlocked Systems 140.6(a)1/170.2(e)2A	Field Inspector	
								Pass	Fail
ADMIN/LIBRARY	School or Classroom	Readily Accessible	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
							13		
							Plan Sheet Showing Daylit Zones:		
							E1.2		

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment	
					Area Category	PAF
ADMIN/LIBRARY	School or Classroom	0.6	8,981	5,388.6	No	No

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 100 **Report Page:** **(Page 5 of 8)**
Date Prepared: 2025-10-06T08:28:58-04:00

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

TOTALS:	8,981	5,388.6	See Tables J, or P for detail

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 100 **Report Page:** **(Page 6 of 8)**
Date Prepared: 2025-10-06T08:28:58-04:00

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 100 **Report Page:** **(Page 7 of 8)**
Date Prepared: 2025-10-06T08:28:58-04:00

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	ADMIN/LIBRARY
NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	ADMIN/LIBRARY
NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	ADMIN/LIBRARY

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 100 **Report Page:** **(Page 8 of 8)**
Project Address: **SANGER, FRESNO COUNTY** **Date Prepared:** 2025-10-06T08:28:58-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-06
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-06
Address 131 S DUNWORTH:	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORALES No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627 1650 Office
(559) 627 1926 Fax

TITLE
BUILDING 100
INDOOR LIGHTING
COMPLIANCE

EG1.3

PROJECT **24042**

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER STEVEN KIRK EASTHAM No. E-18786 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Z:\Drafting\Jobs\PDFS\SCHOOLS\Sanger\Temperance Elem School\01.3.dwg DATE SAVED: 10/06/25 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.	
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 200	**Report Page:** (Page 1 of 8)
Project Address: SANGER, FRESNO COUNTY	**Date Prepared:** 2026-06-25T11:05:06-04:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	04 Total Conditioned Floor Area (ft²)	13,180
02	Climate Zone	13	05 Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06 # of Stories (Habitable Above Grade)	1

● Auditorium ● School or Classroom

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Complete Building Method	13180	N/A	0
☐ New Lighting System - Parking Garage	N/A	0	N/A	0
Total Area of Work (ft²)	13180			

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 200	**Report Page:** (Page 2 of 8)
	Date Prepared: 2026-06-25T11:05:06-04:00

C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b) /170.2(e)	Allowed Lighting Power per 140.6(b) /170.2(e) (Watts)						Adjusted Lighting Power per 140.6(a) /170.2(e) (Watts)				Compliance Results
	01	02	03	04		05	06	07		08	09
	Complete Building 140.6(c)1	Area Category 140.6(c)2 /170.2(e)4	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 /170.2(e)4B (+)	=	**Total Allowed** (Watts)	≥	Total Designed (Watts)	Adjustments PAF Lighting Control Credits 140.6(a)2 /170.2(e)1B (-)	=	**Total Adjusted** (Watts) *Includes Adjustments	**05 must be >= 08 140.6 /170.2(e)**
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)			
Conditioned	7,908				=	7,908	≥	7,115		=	7115	COMPLIES
Unconditioned					=		≥			=		
Controls Compliance (See Table H for Details)												COMPLIES
Rated Power Reduction Compliance (See Table Q for Details)												

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 200	**Report Page:** (Page 3 of 8)
	Date Prepared: 2026-06-25T11:05:06-04:00

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change [1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field Inspector Pass	Field Inspector Fail
B, BE	2' x 4' L.E.D. GRID TROFFER	No	NA	47	Mfr. Spec	68	No	3,196	☐	☐
D, DE	1' x 4' SURFACE L.E.D.	No	NA	35	Mfr. Spec	37	No	1,295	☐	☐
E, EE	1' x 4' SURFACE L.E.D.	No	NA	45	Mfr. Spec	31	No	1,395	☐	☐
F, FE	L.E.D. RECESSED DOWNLIGHT	No	NA	29	Mfr. Spec	20	No	580	☐	☐
R, RE	2' x 2' L.E.D. GRID TROFFER	No	NA	43	Mfr. Spec	3	No	129	☐	☐
T, TE	4' LINEAR L.E.D.	No	NA	52	Mfr. Spec	10	No	520	☐	☐
Total Designed Watts: CONDITIONED SPACES								7,115		

[1] *FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B /170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2] *Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) /160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 200	**Report Page:** (Page 4 of 8)
	Date Prepared: 2026-06-25T11:05:06-04:00

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03 Field Inspector Pass	03 Field Inspector Fail
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	☐	☐
Required >= 4,000W subject to multilevel	See Area/Space Level Controls		

Area Level Controls

04	05	06	07	08	09	10	11	12 Field Inspector Pass	12 Field Inspector Fail
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) /160.5(b)4A	Multi-Level Controls 130.1(b) /160.5(b)4B	Shut-Off Controls 130.1(c) //160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) /160.5(b)4D	Secondary Daylighting 130.1(d) /160.5(b)4D	Interlocked Systems 140.6(a)1/170.2(e)2A		
MULTI-PURPOSE BUILDING	School or Classroom	Readily Accessible	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
								13	
								Plan Sheet Showing Daylit Zones:	
								E2.5	

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment Area Category	Additional Allowance / Adjustment PAF
MULTI-PURPOSE BUILDING	School or Classroom	0.6	13,180	7,908	No	No

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 200	**Report Page:** (Page 5 of 8)
	Date Prepared: 2026-06-25T11:05:06-04:00

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

TOTALS:	13,180	7,908	See Tables J, or P for detail

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 200	**Report Page:** (Page 6 of 8)
	Date Prepared: 2026-06-25T11:05:06-04:00

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 200	**Report Page:** (Page 7 of 8)
	Date Prepared: 2026-06-25T11:05:06-04:00

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	MULTI-PURPOSE BUILDING
NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	MULTI-PURPOSE BUILDING
NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	MULTI-PURPOSE BUILDING

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 200	**Report Page:** (Page 8 of 8)
Project Address: SANGER, FRESNO COUNTY	**Date Prepared:** 2026-06-25T11:05:06-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-06
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-06
Address: 131 S DUNWORTH	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORELLI
No. C-33128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627 1650 Office
(559) 627 1926 Fax

TITLE
BUILDING 200
INDOOR LIGHTING
COMPLIANCE

EG1.4

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
STEPHEN KIRK EASTHAM
No. E-18786
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\PDF\SCHOOLS\Sanger\Temperance Elem School\EG1.4.dwg DATE SAVED: 07/16/26 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**

This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 1 of 8)**
Project Address: SANGER, FRESNO COUNTY **Date Prepared:** 2026-06-25T11:02:25-04:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	04 Total Conditioned Floor Area (ft²)	10,657
02	Climate Zone	13	05 Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06 # of Stories (Habitable Above Grade)	1

● Classroom ● School or Classroom

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Complete Building Method	10657	N/A	0
☐ New Lighting System - Parking Garage	N/A	0	N/A	0
Total Area of Work (ft²)	10657			

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 2 of 8)**
Date Prepared: 2026-06-25T11:02:25-04:00

C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b) /170.2(e)	Allowed Lighting Power per 140.6(b) /170.2(e) (Watts)						Adjusted Lighting Power per 140.6(a) /170.2(e) (Watts)					Compliance Results
	01	02	03	04		05	06	07		08		09
	Complete Building 140.6(c)1	Area Category 140.6(c)2 /170.2(e)4	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 /170.2(e)4B (+)	=	**Total Allowed** (Watts)	≥ Total Designed (Watts)	Adjustments PAF Lighting Control Credits 140.6(a)2 /170.2(e)1B (-)	=	**Total Adjusted** (Watts) *Includes Adjustments		**05 must be >= 08 140.6 /170.2(e)**
	(See Table I)	(See Table I)	(See Table J)	(See Table K)			(See Table F)	(See Table P)				
Conditioned	6,394.2				=	6,394.2	≥ 6,230		=	6230		COMPLIES
Unconditioned					=		≥		=			
Controls Compliance (See Table H for Details)												COMPLIES
Rated Power Reduction Compliance (See Table Q for Details)												

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: ECA-294796-0626-0001 Report Generated: 2026-06-25 08:02:30

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 3 of 8)**
Date Prepared: 2026-06-25T11:02:25-04:00

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change [1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field Inspector	
									Pass	Fail
M, ME	2' x 4' L.E.D. GRID TROFFER	No	NA	60	Mfr. Spec	63	No	3,780	☐	☐
D, DE	1' x 4' SURFACE L.E.D.	No	NA	35	Mfr. Spec	6	No	210	☐	☐
E, EE	1' x 4' SURFACE L.E.D.	No	NA	45	Mfr. Spec	6	No	270	☐	☐
S. SE	RECESSED L.E.D. DOWNLIGHT	No	NA	22	Mfr. Spec	24	No	528	☐	☐
HE	24' LINEAR L.E.D.	No	NA	266	Mfr. Spec	1	No	266	☐	☐
JE	72' LINEAR L.E.D.	No	NA	561	Mfr. Spec	1	No	561	☐	☐
P	1' x 4' SURFACE L.E.D.	No	NA	27	Mfr. Spec	4	No	108	☐	☐
B, BE	2' x 4' L.E.D. GRID TROFFER	No	NA	47	Mfr. Spec	3	No	141	☐	☐
TE	4' LINEAR L.E.D.	No	NA	42	Mfr. Spec	1	No	42	☐	☐
WE	16' LINEAR L.E.D.	No	NA	116	Mfr. Spec	1	No	116	☐	☐
Y, YE	4' LINEAR L.E.D.	No	NA	52	Mfr. Spec	4	No	208	☐	☐
							Total Designed Watts: CONDITIONED SPACES	6,230		

[1]*FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B /170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2]*Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) /160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: ECA-294796-0626-0001 Report Generated: 2026-06-25 08:02:30

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 4 of 8)**
Date Prepared: 2026-06-25T11:02:25-04:00

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03	
		Field Inspector	
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	Pass	Fail
Required >= 4,000W subject to multilevel	See Area/Space Level Controls	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) /160.5(b)4A	Multi-Level Controls 130.1(b) /160.5(b)4B	Shut-Off Controls 130.1(c) //160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) /160.5(b)4D	Secondary Daylighting 130.1(d) /160.5(b)4D	Interlocked Systems 140.6(a)1/170.2(e)2A	Field Inspector	
								Pass	Fail
CLASSROOM BUILDING	School or Classroom	Readily Accessible	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
					13				
					Plan Sheet Showing Daylit Zones:				
					E3.2, E4.2, E5.2				

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment	
					Area Category	PAF
CLASSROOM BUILDING	School or Classroom	0.6	10,657	6,394.2	No	No

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STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 5 of 8)**
Date Prepared: 2026-06-25T11:02:25-04:00

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

TOTALS:	10,657	6,394.2	See Tables J, or P for detail

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

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STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 6 of 8)**
Date Prepared: 2026-06-25T11:02:25-04:00

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: ECA-294796-0626-0001 Report Generated: 2026-06-25 08:02:30

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 7 of 8)**
Date Prepared: 2026-06-25T11:02:25-04:00

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

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Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	CLASSROOM BUILDING
NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	CLASSROOM BUILDING
NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	CLASSROOM BUILDING

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: ECA-294796-0626-0001 Report Generated: 2026-06-25 08:02:30

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 8 of 8)**
Project Address: SANGER, FRESNO COUNTY **Date Prepared:** 2026-06-25T11:02:25-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-05
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-05
Address: 131 S DUNWORTH	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: ECA-294796-0626-0001 Report Generated: 2026-06-25 08:02:30

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 300/400/500 **Report Page:** **(Page 9 of 8)**
Date Prepared: 2026-06-25T11:02:25-04:00

Generated Date/Time: Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: ECA-294796-0626-0001 Report Generated: 2026-06-25 08:02:30

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORALES No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627 2630 Office
(559) 627 1926 Fax

TITLE
BLDGS 300/400/500
INDOOR LIGHTING
COMPLIANCE

EG1.5

PROJECT **24042**

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER STEVEN KIRK EASTHAM No. E-18786 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Z:\Drafting\Jobs\RDS\SCHOOLS\Sanger\Temperance Elem School\EG1.5.dwg DATE SAVED: 10/06/25 By: Casey DATE PLOTTED: 09/17/25 JOB #: 25-016-SE

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 600 — **Report Page:** **(Page 1 of 7)**
Project Address: SANGER, FRESNO COUNTY — **Date Prepared:** 2025-10-06T08:34:53-04:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	04	Total Conditioned Floor Area (ft²)	7,025
02	Climate Zone	13	05	Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1

● Classroom ● School or Classroom

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Complete Building Method	7025	N/A	0
☐ New Lighting System - Parking Garage	N/A	0	N/A	0
Total Area of Work (ft²)	7025			

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 600 — **Report Page:** **(Page 2 of 7)**
— **Date Prepared:** 2025-10-06T08:34:53-04:00

C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b) /170.2(e)	Allowed Lighting Power per 140.6(b) /170.2(e) (Watts)						Adjusted Lighting Power per 140.6(a) /170.2(e) (Watts)					Compliance Results
	01	02	03	04		05		06	07		08	09
	Complete Building 140.6(c)1	Area Category 140.6(c)2 /170.2(e)4 (+)	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 /170.2(e)4B (+)	=	**Total Allowed** (Watts)	≥	Total Designed (Watts)	Adjustments PAF Lighting Control Credits 140.6(a)2 /170.2(e)11B (-)	=	**Total Adjusted** (Watts) *Includes Adjustments	**05 must be >= 08 140.6 /170.2(e)**
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)			
Conditioned	4,215				=	4,215	≥	3,895		=	3895	COMPLIES
Unconditioned					=		≥			=		
Controls Compliance (See Table H for Details)												COMPLIES
Rated Power Reduction Compliance (See Table Q for Details)												

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 600 — **Report Page:** **(Page 3 of 7)**
— **Date Prepared:** 2025-10-06T08:34:53-04:00

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change [1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field Inspector	
									Pass	Fail
A, AE	2' x 4' L.E.D. GRID TROFFER	No	NA	40	Mfr. Spec	64	No	2,560	☐	☐
D, DE	1' x 4' SURFACE L.E.D.	No	NA	35	Mfr. Spec	18	No	630	☐	☐
P	1' x 4' SURFACE L.E.D.	No	NA	27	Mfr. Spec	3	No	81	☐	☐
Y, YE	4' LINEAR L.E.D.	No	NA	52	Mfr. Spec	12	No	624	☐	☐
					Total Designed Watts: CONDITIONED SPACES			3,895		

[1]*FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B /170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2]*Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) /160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03	
		Field Inspector	
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	Pass	Fail

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 600 — **Report Page:** **(Page 4 of 7)**
— **Date Prepared:** 2025-10-06T08:34:53-04:00

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

NA < 4,000W subject to multilevel — See Area/Space Level Controls — ☐ ☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) /160.5(b)4A	Multi-Level Controls 130.1(b) /160.5(b)4B	Shut-Off Controls 130.1(c) /160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) /160.5(b)4D	Secondary Daylighting 130.1(d) /160.5(b)4D	Interlocked Systems 140.6(a)1/170.2(e)2A	Field Inspector	
								Pass	Fail
CLASSROOM BUILDING	School or Classroom	Readily Accessible	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
					13				
					Plan Sheet Showing Daylit Zones:				
					E6.2				

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment	
					Area Category	PAF
CLASSROOM BUILDING	School or Classroom	0.6	7,025	4,215	No	No
		TOTALS:	7,025	4,215	See Tables J, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 600 — **Report Page:** **(Page 5 of 7)**
— **Date Prepared:** 2025-10-06T08:34:53-04:00

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 600 — **Report Page:** **(Page 6 of 7)**
— **Date Prepared:** 2025-10-06T08:34:53-04:00

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	CLASSROOM BUILDING
NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	CLASSROOM BUILDING

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 600 — **Report Page:** **(Page 7 of 7)**
Project Address: SANGER, FRESNO COUNTY — **Date Prepared:** 2025-10-06T08:34:53-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-06
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-06
Address: 131 S DUNWORTH	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

APPROVALS
FILE # 10-126 — APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
BUILDING 600
INDOOR LIGHTING
COMPLIANCE

EG1.6

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER — KIRK D. [illegible] — No. E-18786 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

Z:\Drafting\Jobs\RSE\SD400.03\Sanger\Temperance Elem School\EG1.6.dwg DATE SAVED: 10/06/25 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-LTI-E**

This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.

Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 700 | **Report Page:** **(Page 1 of 7)**
Project Address: SANGER, FRESNO COUNTY | **Date Prepared:** 2025-10-06T08:36:34-04:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	04	Total Conditioned Floor Area (ft²)	3,660
02	Climate Zone	13	05	Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1
• Classroom					

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Complete Building Method	3660	N/A	0
☐ New Lighting System - Parking Garage	N/A	0	N/A	0
Total Area of Work (ft²)	3660			

C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b) / 170.2(e)	Allowed Lighting Power per 140.6(b) /170.2(e) (Watts)						Adjusted Lighting Power per 140.6(a) /170.2(e) (Watts)				Compliance Results
	01	02	03	04		05		06	07	08	09
	Complete Building 140.6(c)1	Area Category 140.6(c)2 /170.2(e)4	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 /170.2(e)4B (+)		**Total Allowed** (Watts)		Total Designed (Watts)	Adjustments PAF Lighting Control Credits 140.6(a)2 /170.2(e)1B (-)	**Total Adjusted** (Watts) *Includes Adjustments	**05 must be >= 08 140.6 /170.2(e)**
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)		
Conditioned	2,196				=	2,196	≥	2,066		2066	COMPLIES
Unconditioned					=		≥				
Controls Compliance (See Table H for Details)											COMPLIES
Rated Power Reduction Compliance (See Table Q for Details)											

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change [1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field Inspector	
									Pass	Fail
A, AE	2' x 4' L.E.D. GRID TROFFER	No	NA	40	Mfr. Spec	32	No	1,280	☐	☐
D, DE	1' x 4' SURFACE L.E.D.	No	NA	35	Mfr. Spec	12	No	420	☐	☐
P	1' x 4' SURFACE L.E.D.	No	NA	27	Mfr. Spec	2	No	54	☐	☐
Y, YE	4' LINEAR L.E.D.	No	NA	52	Mfr. Spec	6	No	312	☐	☐
						Total Designed Watts: CONDITIONED SPACES		2,066		

[1]*FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B /170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2]*Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) /160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03	
		Field Inspector	
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	Pass	Fail

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

NA < 4,000W subject to multilevel | See Area/Space Level Controls | ☐ | ☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) /160.5(b)4A	Multi-Level Controls 130.1(b) /160.5(b)4B	Shut-Off Controls 130.1(c) /160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) /160.5(b)4D	Secondary Daylighting 130.1(d) /160.5(b)4D	Interlocked Systems 140.6(a)1/170.2(e)2A	Field Inspector	
								Pass	Fail
CLASSROOM BUILDING	School or Classroom	Readily Accessible	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
					13				
					Plan Sheet Showing Daylit Zones:				
					E7.2				

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment	
					Area Category	PAF
CLASSROOM BUILDING	School or Classroom	0.6	3,660	2,196	No	No
		TOTALS:	3,660	2,196	See Tables J, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	CLASSROOM BUILDING
NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	CLASSROOM BUILDING

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-06
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-06
Address: 131 S DUNWORTH	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

APPROVALS
FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORALES No. C-36128 REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0510 Office
(559) 627-1926 Fax

TITLE
BUILDING 700
INDOOR LIGHTING
COMPLIANCE

EG1.7

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER ROBERT K. KIRK STAMPER No. E-19786 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733–2671
Visalia, California 93292–6705

Z:\Drafting\Jobs\RSE\SCHOOLS\Sanger\Temperance Elem. School\EG1.7.dwg DATE SAVED: 10/06/25 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.	
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 800	**Report Page:** (Page 1 of 7)
Project Address: SANGER, FRESNO COUNTY	**Date Prepared:** 2025-10-16T10:44:10-04:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	04 Total Conditioned Floor Area (ft²)	922
02	Climate Zone	13	05 Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06 # of Stories (Habitable Above Grade)	1
• School or Classroom				

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Complete Building Method	922	N/A	0
☐ New Lighting System - Parking Garage	N/A	0	N/A	0
Total Area of Work (ft²)	922			

C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b) / 170.2(e)	Allowed Lighting Power per 140.6(b) /170.2(e) (Watts)						Adjusted Lighting Power per 140.6(a) /170.2(e) (Watts)						Compliance Results
	01	02	03	04		05	06	07		08			09
	Complete Building 140.6(c)1	Area Category 140.6(c)2 /170.2(e)4 (+)	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 /170.2(e)4B (+)	=	**Total Allowed** (Watts)	≥	Total Designed (Watts)	Adjustments PAF Lighting Control Credits 140.6(a)2 /170.2(e)1B (-)	=	**Total Adjusted** (Watts) *Includes Adjustments		**05 must be >= 08 140.6 /170.2(e)**
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)				
Conditioned	553.2				=	553.2	≥	405		=	405		COMPLIES
Unconditioned					=		≥			=			
Controls Compliance (See Table H for Details)													COMPLIES
Rated Power Reduction Compliance (See Table Q for Details)													

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 800	**Report Page:** (Page 3 of 7)
	Date Prepared: 2025-10-16T10:44:10-04:00

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
									Field Inspector	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change [1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Pass	Fail
E, EE	1' x 4' SURFACE L.E.D.	No	NA	45	Mfr. Spec	9	No	405	☐	☐
							Total Designed Watts: CONDITIONED SPACES	405		

[1]*FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B /170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2]*Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) /160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03	
		Field Inspector	
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	Pass	Fail
NA < 4,000W subject to multilevel	See Area/Space Level Controls	☐	☐

Generated Date/Time:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 318823-1025-0003
Report Generated: 2025-10-16 07:44:14

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 800	**Report Page:** (Page 6 of 7)
	Date Prepared: 2025-10-16T10:44:10-04:00

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no NRCA forms required for this project.

Generated Date/Time:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Report Version: 2022.0.000
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STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 800	**Report Page:** (Page 2 of 7)
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STATE OF CALIFORNIA
Indoor Lighting
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CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 800	**Report Page:** (Page 4 of 7)
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H. INDOOR LIGHTING CONTROLS (Not including PAFs)

Area Level Controls

04	05	06	07	08	09	10	11	12	
								Field Inspector	
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) /160.5(b)4A	Multi-Level Controls 130.1(b) /160.5(b)4B	Shut-Off Controls 130.1(c) /160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) /160.5(b)4D	Secondary Daylighting 130.1(d) /160.5(b)4D	Interlocked Systems 140.6(a)1/170.2(e)2A	Pass	Fail
CENTRAL PLANT	School or Classroom	Readily Accessible	Dimmer	NA: Elec. equip. rm	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
							13		
							Plan Sheet Showing Daylit Zones:		

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
					Additional Allowance / Adjustment	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Area Category	PAF
CENTRAL PLANT	School or Classroom	0.6	922	553.2	No	No
		TOTALS:	922	553.2	See Tables J, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

Generated Date/Time:
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STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 800	**Report Page:** (Page 7 of 7)
Project Address: SANGER, FRESNO COUNTY	**Date Prepared:** 2025-10-16T10:44:10-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-06
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-06
Address: 131 S DUNWORTH	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

Generated Date/Time:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: TEMPERANCE ELEMENTARY SCHOOL - BLDG. 800	**Report Page:** (Page 5 of 7)
	Date Prepared: 2025-10-16T10:44:10-04:00

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

Generated Date/Time:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Report Version: 2022.0.000
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Documentation Software: Energy Code Ace
Compliance ID: 318823-1025-0003
Report Generated: 2025-10-16 07:44:14

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORALES No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA
DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-7638 Office
(559) 627-1926 Fax

TITLE
BUILDING 800
INDOOR LIGHTING
COMPLIANCE

EG1.8

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER KIRK EASTHAM No. E-18786 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\25-016\S\Sanger\Temperance Elem School\Ltr\1.8.dwg DATE SAVED: 10/06/25 By: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**

This document is used to demonstrate compliance with requirements in 110.9, 130.0, 130.2, 140.7, and 141.0(b)2L for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e)6, 180.1(a) and 180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities.

Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 1 of 8)**
Project Address: **SANGER, FRESNO COUNTY** — **Date Prepared:** 2025-11-11T10:42:27-05:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	04	Total Illuminated Hardscape Area (ft²)	529372
02	Climate Zone	13			
03	Outdoor Lighting Zone per Title 24 Part 1 10.114 or as designated by Authority Having Jurisdiction (AHJ):				
☐	LZ-0: Very Low - Undeveloped Parkland	☐ LZ-2: Moderate - Urban Clusters	☐	LZ-4: High - Must be reviewed by CA Energy Commission for Approval	
☐	LZ-1: Low - Rural Areas	☒ LZ-3: Moderately High - Urban Areas			
05	Occupancy Types within Project				
● Classroom ● Library ● Office ● School or Classroom					

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv for alterations.

My Project Consists of:

01	02
☒ New Lighting System	Must Comply with Allowances from 140.7 / 170.2(e)6
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? ○ Yes ○ No

03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%		

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 2 of 8)**
Date Prepared: 2025-11-11T10:42:27-05:00

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv											Compliance Results		
01		02		03		04		05		06	07	08	09
General Hardscape Allowance 140.7(d)1 / 170.2(e)6 (See Table I)	+	Per Application 140.7(d)2 / 170.2(e)6 (See Table J)	+	Sales Frontage 140.7(d)2 (See Table K)	+	Ornamental 140.7(d)2 / 170.2(e)6 (See Table L)	+	Per Specific Area 140.7(d)2 / 170.2(e)6 (See Table M)	OR	Existing Power Allowance 141.0(b)2L / 180.2(b)4Bv (See Table N)	**Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**
12,548.21	+	---	+	---	+	---	+	---	OR	---	12,548.21	≥	8,400	COMPLIES
Shielding Compliance (See Table G for Details)														COMPLIES
Controls Compliance (See Table H for Details)														COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with unedtable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 3 of 8)**
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F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1, 2]	How is Wattage determined	Total Number Luminaires [2]	Luminaire Status[3]	Excluded per 140.7(a) / 170.2(e)6A	Design Watts	Cutoff Req. > 6,200 initial lumen output 130.2(b) /160.5(c1).[4]	Field Inspector	
										Pass	Fail
L1, L1E	L.E.D. WALL PACK	☐ Linear	15	Mfr. Spec	32	New	☐	480	NA: < 6200 lumens	☐	☐
L2, L2E	L.E.D. RECESSED DOWNLIGHT	☐ Linear	15	Mfr. Spec	163	New	☐	2,445	NA: < 6200 lumens	☐	☐
P1	25' L.E.D. POLE	☐ Linear	138	Mfr. Spec	2	New	☐	276	Provided	☐	☐
P2	25' L.E.D. POLE	☐ Linear	138	Mfr. Spec	3	New	☐	414	Provided	☐	☐
P3	25' L.E.D. TWIN HEAD POLE	☐ Linear	276	Mfr. Spec	8	New	☐	2,208	Provided	☐	☐
P4	L.E.D POST	☐ Linear	54	Mfr. Spec	30	New	☐	1,620	NA: < 6200 lumens	☐	☐
V	SOLAR CANOPY LIGHT	☐ Linear	33	Mfr. Spec	29	New	☐	957	NA: < 6200 lumens	☐	☐
							Total Design Watts:	8400			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)

[1] *FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)*
[2] *For linear luminaires, wattage should be indicated as W/ft instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.*
[3] *Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.*

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 4 of 8)**
Date Prepared: 2025-11-11T10:42:27-05:00

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Watts per luminaire[1, 2]	How is Wattage determined	Total Number Luminaires [2]	Luminaire Status[3]	Excluded per 140.7(a) / 170.2(e)6A	Design Watts	Cutoff Req. > 6,200 initial lumen output 130.2(b) /160.5(c1).[4]	Field Inspector
									Pass / Fail
L1, L1E	L.E.D. WALL PACK	15	Mfr. Spec	32	New	☐	480	NA: < 6200 lumens	☐ ☐
L2, L2E	L.E.D. RECESSED DOWNLIGHT	15	Mfr. Spec	163	New	☐	2,445	NA: < 6200 lumens	☐ ☐
P1	25' L.E.D. POLE	138	Mfr. Spec	2	New	☐	276	Provided	☐ ☐
P2	25' L.E.D. POLE	138	Mfr. Spec	3	New	☐	414	Provided	☐ ☐
P3	25' L.E.D. TWIN HEAD POLE	276	Mfr. Spec	8	New	☐	2,208	Provided	☐ ☐
P4	L.E.D POST	54	Mfr. Spec	30	New	☐	1,620	NA: < 6200 lumens	☐ ☐
V	SOLAR CANOPY LIGHT	33	Mfr. Spec	29	New	☐	957	NA: < 6200 lumens	☐ ☐
						Total Design Watts:	8400		

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)

[1] *FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)*
[2] *For linear luminaires, wattage should be indicated as W/ft instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.*
[3] *Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.*

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 5 of 8)**
Date Prepared: 2025-11-11T10:42:27-05:00

G. SHIELDING REQUIREMENTS (BUG)

This table includes fixtures of >=6,200 initial lumens indicated on Table F as needing to comply with Shielding Requirements. Maximum lumens can be found in Title 24, Part 11, Section 5.106.8.

01	02	03			04			05		06
Name or Item Tag	Complete Luminaire Description	Backlight Rating[2]			Uplight Rating[2]			Glare Rating (Lumens)[2]		Field Inspector
		Mounting Height[1]	Max Allowable Backlight Rating [3]	Backlight Rating Per Design	Lighting type	Max Allowable Uplight Rating [3]	Uplight Rating Per Design	Mounting Height[1]	Max Allowable Glare Rating [3]	Glare Rating Per Design	Pass / Fail
P1	25' L.E.D. POLE	2 MH from property line	No Limit	B0	Area Lighting	U0	U0	> 2 MH from property line	G3	G3	☐ ☐
P2	25' L.E.D. POLE	2 MH from property line	No Limit	B2	Area Lighting	U0	U0	> 2 MH from property line	G3	G2	☐ ☐
P3	25' L.E.D. TWIN HEAD POLE	2 MH from property line	No Limit	B2	All other outdoor lighting, including decorative	U3	U0	> 2 MH from property line	G3	G2	☐ ☐

[1] *FOOTNOTES: Mounting Height is labeled MH in this table.*
[2] *Authority Having Jurisdiction may ask for Luminaire cut sheets or other documentation to confirm luminaire type, uplight ratings and glare ratings used for compliance per 130.2(b)/ 160.5(c)*
[3] *BUG ratings with a lower number than the 'Max Allowable' are compliant. Ex. If Max Allowable is Bug Rating B4, then B0, B1, B2 and B3 are all compliant.*

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 6 of 8)**
Date Prepared: 2025-11-11T10:42:27-05:00

H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings

01	02	03	04	05	
Area Description	Shut-Off 130.2(c1) / 160.5(c)	Auto-Schedule 130.2(c)2 / 160.5(c)	Motion Sensor 130.2(c)3 / 160.5(c)	Field Inspector	
				Pass	Fail
GENERAL HARDSCAPE: "L1, L1E"	Astronomical Timer	Provided	NA: Each Luminaire <= 40 Watts	☐	☐
GENERAL HARDSCAPE: "L2, L2E"	Astronomical Timer	Provided	NA: Each Luminaire <= 40 Watts	☐	☐
GENERAL HARDSCAPE: "P1"	Astronomical Timer	Provided	Provided	☐	☐
GENERAL HARDSCAPE: "P2"	Astronomical Timer	Provided	Provided	☐	☐
GENERAL HARDSCAPE: "P3"	Astronomical Timer	Provided	Provided	☐	☐
GENERAL HARDSCAPE: "P4"	Astronomical Timer	Provided	Provided	☐	☐

[1] *FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.*
[2] *Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.*
[3] *Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.*

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 7 of 8)**
Date Prepared: 2025-11-11T10:42:27-05:00

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This section does not apply to this project.

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTO-E - Must be submitted for all buildings

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	GENERAL HARDSCAPE: "L1, L1E"; GENERAL HARDSCAPE: "L2, L2E"; GENERAL HARDSCAPE: "P1"; GENERAL HARDSCAPE: "P2"; GENERAL HARDSCAPE: "P3"; GENERAL HARDSCAPE: "P4"

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 8 of 8)**
Project Address: **SANGER, FRESNO COUNTY** — **Date Prepared:** 2025-11-11T10:42:27-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-06
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-06
Address: 131 S DUNWORTH	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTO-E**
Project Name: TEMPERANCE ELEMENTARY SCHOOL — **Report Page:** **(Page 6 of 8)**
Date Prepared: 2025-11-11T10:42:27-05:00

I. LIGHTING POWER ALLOWANCE (per 140.7 /170.2(e))

This table includes areas using allowance calculations per 140.7 /170.2(e). General Hardscape Allowance is per Table 140.7-A/Table 170.2-R while "Use it or lose it" Allowances are per Table 140.7-B /Table 170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.
Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

01						
	"Use it or lose it" Allowance (select all that apply) (select all that apply)					
☒ General Hardscape Allowance Table I (below)	☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☐ Per Specific Area Table M		

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
GENERAL HARDSCAPE	529372	0.021	11116.81	5907	0.2	1181.4	12298.21
					Initial Wattage Allowance for Entire Site (Watts):		250
					Instances of Initial Wattage Allowance (LZ 0 only)[1]		
					Total General Hardscape Allowance (Watts):		12548.21

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

APPROVALS
FILE # 10-126 — APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORELLI — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-2650 Office
(559) 627-1926 Fax

TITLE
OUTDOOR LIGHTING COMPLIANCE

EG1.9

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER — STEPHEN KIRK ZAHN — No. E 18786 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

Z:\Drafting\Jobs\RSE\SCHOOLS\Sanger\Temperance Elem School\EG1.9.dwg DATE SAVED: 10/06/25 By: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

This document is used to demonstrate compliance with mandatory requirements in 130.5, for electrical systems in newly constructed nonresidential and hotel/motel occupancies and 160.6 and 160.9 for electrical systems in newly constructed multifamily occupancies. Additions and alterations to electrical service systems in nonresidential and hotel/motel occupancies will also use this document to demonstrate compliance per 141.0(a) or 141.0(b)2P for alterations. For multifamily addition or alterations compliance will be documented per 180.1(a) or 180.2 (b)/4Bvii

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** (Page 1 of 6)
Project Address: SANGER, FRESNO COUNTY	**Date Prepared:** 2025-10-06T08:48:08-04:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	02	Climate Zone	13
			03	Occupancy Types Within Project:	ClassroomSchool or Classroom

B. PROJECT SCOPE

This table includes electrical systems that are within the scope of the permit application.

01	02	03	04	05	06	07
Electrical Service Designation/ Description	Scope of Work [1]	Rating[2] (kVA)	Utility Provided Metering System Exception to 130.5(a)/160.6(a)[3]	System subject to CA Elec Code Article 517 Exception to 130.5(a)and (b)	Demand Response Controls	Provides power to dwelling units/common living areas only in multifamily occupancy
NEW MAIN SWITCHBOARD "MSB"	New electrical service equipment and meter	1662.8	☒	☐	Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections 120.2/160.3, 130.1/160.5, and 130.3/160.5, and mechanical, indoor lighting, and sign lighting Certificate of Compliance documents will indicate when demand response controls are required.	☐

[1] FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c)/160.6(c), no other requirements from 130.5/160.6 are required.
[2] If common use areas in a multifamily are submetered, rating is for submeter size serving common use areas.
[3] Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** (Page 2 of 6)
	Date Prepared: 2025-10-06T08:48:08-04:00

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through J. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

01		02		03		04	05	06
Service Electrical Metering 130.5(a)/ 160.6(a) (See Table F)	AND	Separation for Monitoring 130.5(b)/ 160.6(b) (See Table G)	AND	Voltage Drop 130.5(c)/ 160.6(c) (See Table H)	AND	Controlled Receptacles 130.5(d)/ 160.6(d) (See Table I)	Electric Ready 160.9 (See Table J)	**Compliance Results**
	AND	Yes	AND	Yes	AND	Yes		COMPLIES with Exceptional Conditions

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Table B indicates the project is exempt from 130.5(a) Service Electrical Metering requirements because the utility company has provided the project a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** (Page 3 of 6)
	Date Prepared: 2025-10-06T08:48:08-04:00

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with 130.5(b)/160.6(b). Any load types that are not included in the service do not need to be shown. For multifamily occupancies, submetered systems that provide power to dwelling units do not need to meet these separation requirements and therefore load types on those submetered systems also do not need to be shown.

01	02	03	04	05	
Load Type per Table 130.5-B [1]	Minimum Required Separation of Load per Table 130.5-B	Compliance Method[2]	Location of Requirements in Construction Documents	Field Inspector	
				Pass	Fail
NEW MAIN SWITCHBOARD "MSB"					
Lighting including exit, egress and exterior	All lighting disaggregated by floor, type or area	Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring	E1.2, E2.4, E2.5, E3.2, E4.2, E5.2, E6.2, E7.2	☐	☐
Plug Loads and appliances less than 25kVA	All plug loads separated by floor, type or area Groups of plug loads exceeding 25 kVA connected load in an area less than 5000 sf	Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring	E1.1, E2.1, E2.2, E3.1, E4.1, E5.1, E6.1, E7.1	☐	☐
HVAC systems and components	All HVAC in aggregate and each HVAC load rated at least 50 kVA	Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring	E1.1, E2.3, E3.1, E4.1, E5.1, E6.1, E7.1	☐	☐
Charging stations for electrical vehicle	All loads in aggregate	Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring	ES1.2	☐	☐

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** (Page 4 of 6)
	Date Prepared: 2025-10-06T08:48:08-04:00

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with 130.5(b)/160.6(b). Any load types that are not included in the service do not need to be shown. For multifamily occupancies, submetered systems that provide power to dwelling units do not need to meet these separation requirements and therefore load types on those submetered systems also do not need to be shown.

01	02	03	04	05	
Load Type per Table 130.5-B [1]	Minimum Required Separation of Load per Table 130.5-B	Compliance Method[2]	Location of Requirements in Construction Documents	Field Inspector	
				Pass	Fail

** NOTES: If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

[1] FOOTNOTES: For each separate load type, up to 10% of the connected load may be of any type.
[2] Method 1: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type.
Method 2: Switchboards/ motor control centers/ panelboard supply other distribution equipment with loads disaggregated for each load type.
Method 3: Branch circuits serve load types individually and provisions for adding future branch circuit monitoring.
Method 4: Complete metering system measures and reports loads by type.
See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.

H. VOLTAGE DROP

This table includes entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with 130.5(c)/ 160.6(c). For alterations, only the altered circuits must demonstrate compliance per 141.0(b)2Piii/ 180.2(b)4Bviic.

01	02			03	04	05	
Electrical Service Designation/Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method			Location of Voltage Drop Calculations[1]	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector	
						Pass	Fail
NEW MAIN SWITCHBOARD "MSB"	☒ Voltage drop less than 5%	☐	Permitted by CA Elec Code (Exception to 130.5(c))*	In construction documents	E9.1	☐	☐

** NOTES: If "Permitted by CA Elec Code *" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.*

[1] FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with 130.5(d)/ 160.6(d).. Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** (Page 5 of 6)
	Date Prepared: 2025-10-06T08:48:08-04:00

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES

01	02	03	04	05	06	07	
Room name or Description	Location/ Type of Controlled Receptacles[1]	Shut-Off Controls	Demand Responsive Controls	Permanent Durable Marking Will be Used	Location of Requirements in Construction Documents	Field Inspector	
						Pass	Fail
OFFICE	Within 6ft of uncontrolled receptacle	Occupancy Sensor	Included w capabilities per 110.12(e)	☒	E1.1	☐	☐
CONFERENCE	Within 6ft of uncontrolled receptacle	Occupancy Sensor	Included w capabilities per 110.12(e)	☒	E3.1, E4.1, E5.1	☐	☐
LOBBY/RECEPTION	Within 6ft of uncontrolled receptacle	Occupancy Sensor	Included w capabilities per 110.12(e)	☒	E1.1	☐	☐

** NOTES: If "Other*" is selected under Shut-Off Controls above, please indicate how compliance has been achieved in the space provided below.*

[1] FOOTNOTES: Receptacles dedicated to refrigerators and water dispensers in kitchens, located a minimum of 6ft above the floor specifically for clocks, network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms, circuits rated more than 20 Amps, or connected to a UPS that are intended to be in continuous use and are marked to differentiate them from other receptacles or circuits are excepted from the requirements. .

K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-ELC-E - Must be submitted for all buildings

L. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-04-A - Must be submitted for demand response controls.	

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** (Page 6 of 6)
Project Address: SANGER, FRESNO COUNTY	**Date Prepared:** 2025-10-06T08:48:08-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-06
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-06
Address: 131 S DUNWORTH	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
POWER COMPLIANCE

EG1.10

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
STEVEN KIRK EASTHAM
No. E-18786
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

Z:\Jeff\Projects\RSES\SCHOOLS\Sanger\Temperance Elem School\EG1.10.dwg DATE SAVED: 10/06/25 By: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-SAB-E**

This document is used to demonstrate compliance with prescriptive PV and battery requirements in 140.10/170.2 for nonresidential, multifamily and mixed-use buildings and prescriptive solar thermal requirements in 170.2(d)3C for multifamily and hotel/ motel occupancies. When PV/battery/solar thermal requirements don't apply or are traded using the performance approach, this document demonstrates compliance with mandatory solar readiness requirements in 110.10/ 160.8 for newly constructed buildings which are either multifamily ten stories or fewer, hotel/motel ten stories or fewer or all other nonresidential buildings three stories or fewer. It is also used to demonstrate compliance with solar readiness in 110.10/ 160.8 for additions to nonresidential, multifamily or hotel/motel building types which add more than 2,000 ft² of roof area. Alterations, or additions of less than 2,000 ft² of roof area, are not required to comply with solar readiness, solar PV and battery requirements and do not need to complete this document.

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** **(Page 1 of 7)**
Project Address: SANGER, FRESNO COUNTY	**Date Prepared:** 2025-12-15T12:48:13-05:00

A. GENERAL INFORMATION

01	Project Location (city)	SANGER	04	Building Occupancies	School or Classroom
02	Climate Zone	13	05	Construction Type	New construction
03	Conditioned Floor Area (ft²)	61126	06	Number of Stories	Bldg <= 3 stories

B. PROJECT SCOPE

The compliance path the project is using to comply per 110.10(b)1B/ 140.10/ 170.2(g and h) is indicated below.

Compliance with Solar Photovoltaic (PV) and Battery Requirements in 140.10/ 170.2(g and h)

01		
☒	Provided PV system and battery storage sized per 140.10/ 170.2 (g and h)	The project has included an installed PV system and battery storage system per requirements in 140.10/ 170.2(g and h) as documented in Table J.
☐	Exception to PV and Battery: Not enough Solar Access Roof Area	The total of all available Solar Access Roof Area(s) of the project site is less than three percent of the conditioned floor area as documented in Table J.
☐	Exception to PV and Battery: Required PV < 4kW	The required PV system size is less than 4 kW dc as documented in Table J..
☐	Exception to PV and Battery: No contiguous Solar Access Roof Area	The Solar Access Roof Area(s) of the project site contains less than 80 contiguous square feet as documented in Table J.
☐	Exception to PV and Battery: Can't meet snow load	The project has a roof design where the enforcement authority has verified it is not possible for the PV system, including panels, modules, components, supports, and attachments to the roof structure, to meet ASCE 7-16 Chapter 7, Snow Loads.
☐	Exception to PV and Battery: Multi-tenant without VNEM or Community Solar	The project is a multi-tenant building in an area where a load serving entity does not provide either a Virtual Net Metering (VNEM) or community solar program.
☐	The prescriptive PV/battery requirement has been traded off using the performance compliance approach as documented on the PRF Certificate of Compliance form.	

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-SAB-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** **(Page 3 of 7)**
	Date Prepared: 2025-12-15T12:48:13-05:00

F. ALLOCATED SOLAR ZONE

This section does not apply to this project.

G. PERMANENTLY INSTALLED SOLAR PV FOR SOLAR READY EXCEPTION

This section does not apply to this project.

H. PERMANENTLY INSTALLED SOLAR HOT WATER SYSTEMS

This section does not apply to this project.

I. SMART THERMOSTATS AND ALTERNATIVE EFFICIENCY MEASURE FOR SOLAR READY EXCEPTION

This section does not apply to this project.

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-SAB-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** **(Page 6 of 7)**
	Date Prepared: 2025-12-15T12:48:13-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date:
Address:	CEA/ HERS Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Jeff Jackson	Responsible Designer Signature:
Company: Rose Sing Eastham & Associates	Date Signed:
Address:	License:
City/State/Zip:	Phone:

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-SAB-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** **(Page 2 of 7)**
	Date Prepared: 2025-12-15T12:48:13-05:00

Compliance with Solar Thermal Water Heating Requirements in 170.2(d)3C (Multifamily and hotel/ motel occupancies only)

01	
☐	The project includes a hotel/motel or multifamily occupancy with a gas or propane central water-heating system (serves 2+ dwelling units) and includes a permanently installed domestic solar water-heating system to comply with 170.2(d)3C and Reference Residential Appendix RA4, as documented in Table H. Compliance meets Exception 2 to solar ready requirements in 110.10(b).

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through I. Note: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance or see the applicable Table referenced below.

Allocated Solar Zone				Installed PV System				Installed SWH System				Smart Tstat and Alternative EE Measure		Compliance Results
01		02		03		04		05		06		07	08	
Required Minimum Area (ft²)	<=	Designated Area (ft²)	OR	Required Minimum DC Power Rating (Watts)	<=	Designed DC Power Rating (Watts)	OR	Required Minimum Solar Savings Fraction	<=	Designed/Rated Solar Savings Fraction	OR	JA5 Compliant Thermostat Specified?	Alternative Energy Efficiency Measure	
(See Table F)				(See Tables G or J)				(See Table H)				(See Table I)		
	<=		OR	99,640	<=	153,700	OR		<=		OR			COMPLIES
				Location in construction documents showing the location for inverters and metering equipment and a pathway for the routing of conduit/ plumbing to the electrical service/ water heating system per §110.10(c).										
Battery storage system design meets the minimum requirements in Joint Appendix JA12 and the minimum energy (kWh)/ power (kW) capacity per Table J.														COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table is includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-SAB-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** **(Page 4 of 7)**
	Date Prepared: 2025-12-15T12:48:13-05:00

J. PHOTOVOLTAIC (PV) AND BATTERY SYSTEMS

This table documents compliance with prescriptive photovoltaic and battery system requirements in 140.10/ 170.2(g and h). Unless the project meets one of the listed exceptions, or trades-off PV in an energy model using performance path, 140.10/ 170.2(g and h) requires installed photovoltaic and battery systems for newly constructed buildings. The installed PV systems must meet the minimum requirements in Joint Appendix 11.

Photovoltaic (PV) System

01	02	03	04	05	06	07	08
Occupancy	Conditioned Floor Area (ft²)	Area of New Roof[1] (ft²)	Roof Area < 70% Solar Access[2] (ft²)	Plansheet or Document showing Solar Access Calculations	Occupied Roof Area[3] (ft²)	Solar Access Roof Area (SARA) (ft²)	Min Size of PV System Required (kWdc)
School or Classroom	61,126	61,126	0	E9.7	8,183	52,943	99.64
					Total Min Size PV System Required for all Spaces (kWdc):		741
					Total Size PV System in Design (kWdc):		153.7

[1]*FOOTNOTES: Includes the area of the building's roof space capable of structurally supporting a PV system and the area of all roof space on covered parking areas, carports, and all other newly constructed structures on the site that are compatible with supporting a PV system per Title 24, Part 2 Section 1511.2.*
[2]*Solar access must be determined using CEC approved solar access calculation tools found at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/solar-assessment-tools.*
[3]*As specified by CBC Section 503.1.4.*

Battery Storage System

01	02	03	04	05
Space Type	Min Size of PV Applicable To Battery Sizing (kWdc)	Rated Single Charge-Discharge AC Efficiency of Battery System[1]	Min Battery Rated Energy Capacity Required (kWh)	Min Power Capacity of Battery Required (kWdc)
School or Classroom	99.64	0.9	196.4	45.83
	Total Min Energy (kWh) and Power (kW) Capacity Required		196.41	45.83
	Total Energy (kWh) and Power (kW) Capacity in Design		406	150

[1]*FOOTNOTE: Rated single charge-discharge cycle AC to AC (round trip) efficiency of the battery storage system*

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-SAB-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** **(Page 7 of 7)**
Project Address: SANGER, FRESNO COUNTY	**Date Prepared:** 2025-12-15T12:48:13-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jeff Jackson	Documentation Author Signature:
Company: Rose Sing Eastham & Associates	Signature Date: 25-10-06
Address: 131 S DUNWORTH	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 104

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Steven Eastham	Responsible Designer Signature:
Company: Rose Sing Eastham	Date Signed: 25-10-06
Address: 131 S DUNWORTH	License: E-18786
City/State/Zip: VISALIA, CA 93292	Phone: 559-733-2671 EXT. 101

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE **NRCC-SAB-E**

Project Name: TEMPERANCE ELEMENTARY SCHOOL	**Report Page:** **(Page 5 of 7)**
	Date Prepared: 2025-12-15T12:48:13-05:00

K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included Table E. Additional Remarks and ExceptionalConditionMessageCCSABE += UserChangedSelectionInCI. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-SAB-01-E - Must be submitted for all buildings that must comply with solar readiness or PV/Battery requirements.

L. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-31128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
SOLAR AND BATTERY STORAGE COMPLIANCE

EG1.11

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER KIRK D. SWEET No. E-19786 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733–2671
Visalia, California 93292–6705

Z:\Drafting\Jobs\RSES\24XXX\Storage\Temperance Elem. School\EG1.11.dwg DATE: 24AUG 12/15/25 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

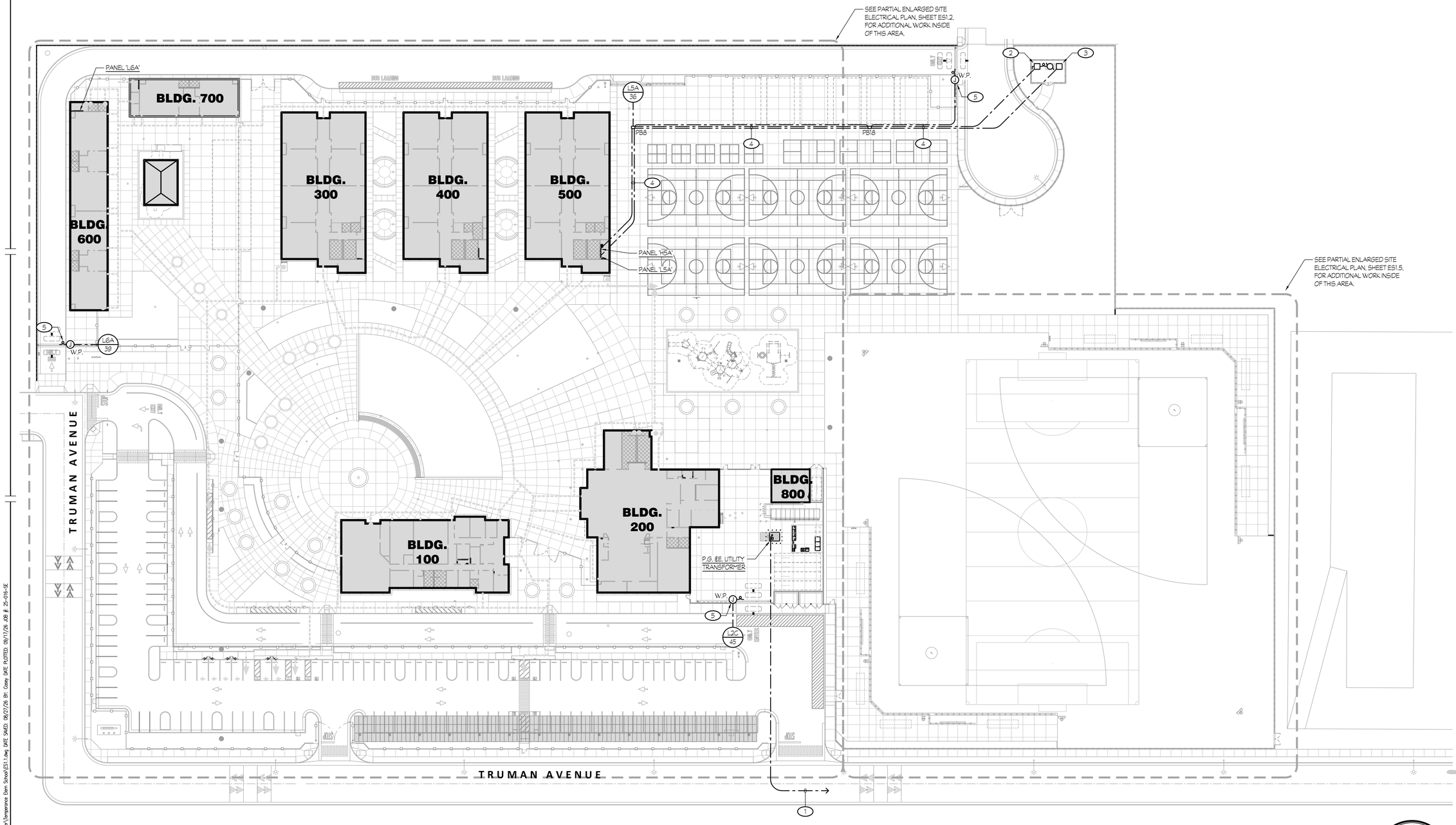
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NOTES (THIS SHEET ONLY):

1. PRIMARY CONDUIT TO P.G.&E. FACILITIES PER P.G.&E. REQUIREMENTS.
2. CONNECT IRRIGATION BOOSTER PUMP STATION. 480V, 3ph, 42 FLA.
3. CONNECT IRRIGATION CONTROLLER 120V.
4. FEEDER PER ONE LINE DIAGRAM, #1/ES9.1.
5. CONNECT AUTOMATIC GATE CONTROLLER, 120V.



OVERALL SITE ELECTRICAL PLAN

SCALE: 1" = 40'-0"

north

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK D. EASTHAM
No. E-19108
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
OVERALL SITE ELECTRICAL PLAN

ES1.1

PROJECT 24042

Z:\Drafing\Jobs\RDS\SCHOOLS\Sanger\Temperance Elem. School\ES1.1.dwg DATE SAVED: 08/27/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

PARTIAL ENLARGED SITE ELECTRICAL PLAN

SCALE: 1" = 30'-0"

NOTES (THIS SHEET ONLY):

1. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL 'LCP-100'.
2. CONNECT TWO ELECTRIC VEHICLE CHARGING STATIONS, 208V 1ph, 40A EACH. PROVIDE AUTEL MAXICHARGER ULTRA DUAL PORT LEVEL 2 EV CHARGER WITH PEDSTAL AND POINT OF SALE. INSTALL EV CHARGER PER MANUFACTURER SPECIFICATIONS AND PER DETAIL #13/E9.3. COORDINATE EXACT 'POINT-OF-CONNECTION' PRIOR TO ROUGH-IN.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL 'LCP-600'.
4. PULL BOX PER DETAILS #5/E9.4 AND #7/E9.4. TYPICAL, U.O.N..
5. FEEDER(S) PER ONE LINE DIAGRAM, #1/E9.1.
6. SEE RESPECTIVE POWER PLAN FOR EXACT LOCATION AND REQUIREMENTS.
7. SPARE CONDUITS PER ONE LINE DIAGRAM, #1/E9.1.
8. FEEDER PER SOLAR ONE LINE DIAGRAM, #1/E9.7.
9. SPARE CONDUITS PER SOLAR ONE LINE DIAGRAM, #1/E9.7.
10. CONNECT POWER FOR DOOR/GATE, 120V.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORELO
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.2630 Office
(559) 627.1926 Fax

TITLE
PARTIAL ENLARGED SITE ELECTRICAL PLAN

ES1.2

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK ZANDER EASTHAM
No. E-19789
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\24042LS\Sanger\Temperance Elem School\ES1.2.dwg DATE SAVED: 09/04/26 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

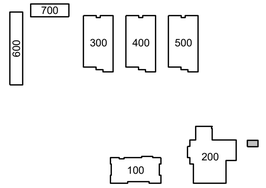
AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

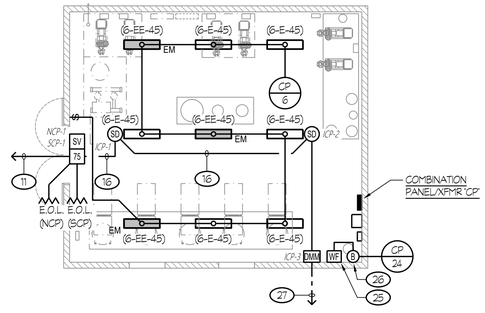
COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).



KEY PLAN



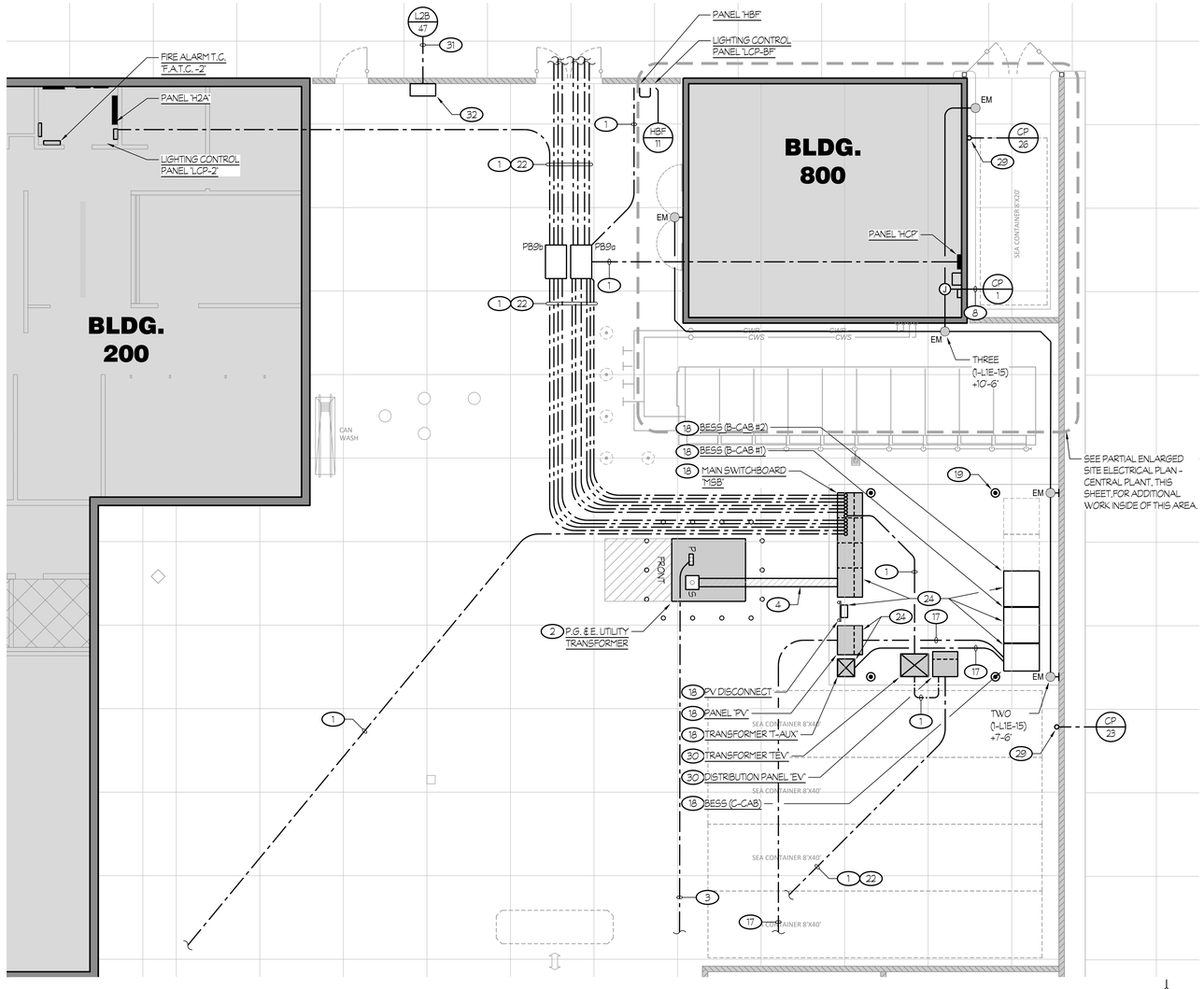
ELECTRICAL PLAN - CENTRAL PLANT

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

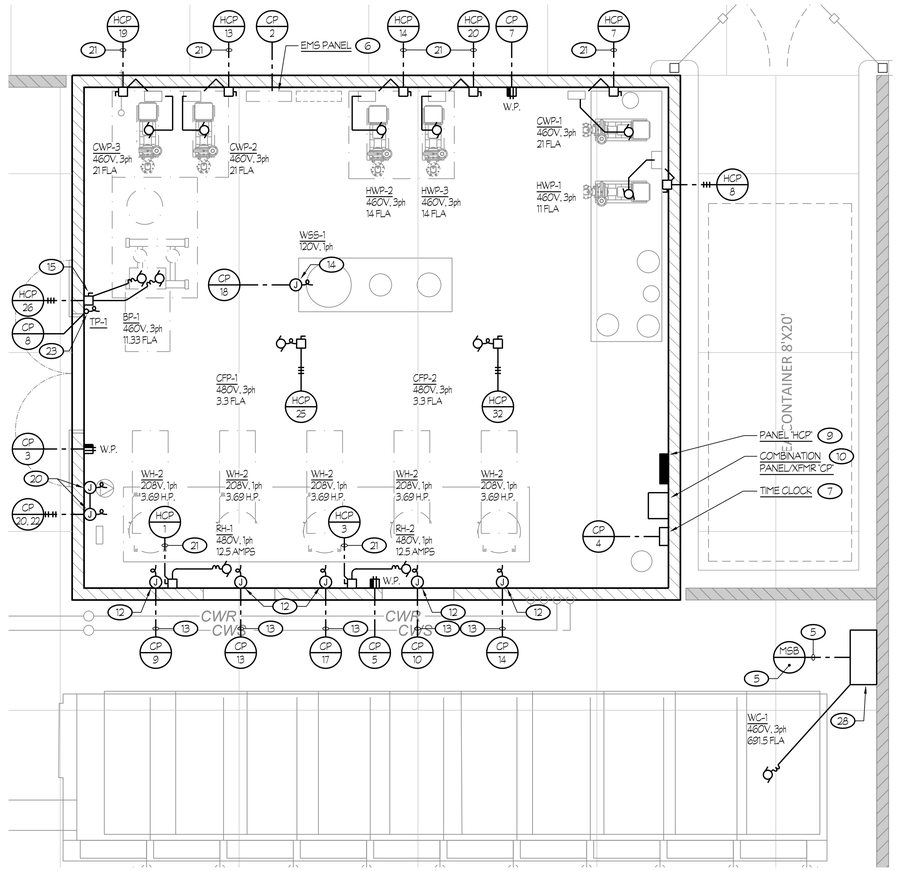
1. FEEDER PER ONE LINE DIAGRAM, #1/E9.1.
2. PROVIDE A 106" L x 90" W (STYLE I I E) CONCRETE PAD, BARRIER POSTS (FIXED AND REMOVABLE) AND GROUNDING FOR P.G.&E. PAD MOUNTED TRANSFORMER PER P.G.&E. REQUIREMENTS.
3. ONE 4"C (P.G.&E. 'PRIMARY') PER P.G.&E. REQUIREMENTS.
4. SECONDARY BUS DUCT PER P.G.&E. REQUIREMENTS.
5. SEE ONE LINE DIAGRAM #1/E9.1 FOR ADDITIONAL INFORMATION.
6. CONNECT EMS PANEL, 120V.
7. CONNECT TIME CLOCK, 120V.
8. ROUTE CIRCUIT THROUGH TIME CLOCK.
9. MOUNT PER DETAIL #9/E9.3.
10. MOUNT PER DETAIL #10/E9.3.
11. 1'C - ONE 'SFSP' CABLE, TWO 'SFA' CABLES, 2 #12 TO FIRE ALARM T.C. 'F.A.T.C. - 2' IN BUILDING 200.
12. CONNECT WH-2, 3.69 H.P., 208V, 1ph.
13. 3/4" - 2 #10 + 1 #10 GND.
14. CONNECT WSS-1, 120V.
15. CONNECT BP-1, 460V, 3ph.
16. 3/4"C - ONE 'FA' CABLE, TYPICAL, U.O.N..
17. FEEDERS AND SPARE CONDUITS PER SOLAR ONE LINE DIAGRAM, #1/E9.7.
18. MOUNT PER DETAILS #1/E9.5 AND #1/E9.6. REFER TO SHEETS #E9.1, E9.7 AND E9.10 FOR WARNING LABELS AND LOCATIONS.
19. BONDING AND GROUNDING PER DETAIL #6/E9.4. TYPICAL OF 4.
20. CONNECT CIRC PUMP, 120V.
21. 3/4" - 3 #10 + 1 #10 GND.
22. SPARE CONDUITS PER ONE LINE DIAGRAM, #1/E9.1.
23. CONNECT TRAP PRIMER, 120V.
24. REFER TO SHEETS #E9.1, E9.8 AND E9.10 FOR WARNING LABELS AND LOCATIONS.
25. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
26. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
27. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE 'P.I.V.'. REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
28. PROVIDE HEAVY DUTY RATED, FUSED SAFETY SWITCH, NEMA 3R WITH LOCKABLE COVER. PROVIDE FUSES, SIZE AND TYPE PER MANUFACTURER'S RECOMMENDATION. MOUNT PER DETAIL #12/E9.3.
29. POWER FOR SEA TRAIN.
30. MOUNT PER DETAILS #1/E9.5 AND #3/E9.6.
31. 3/4" - 3 #8 + 1 #10 GND.
32. CONNECT BOX TRUCK CHARGER, 208V, 1ph.



PARTIAL ENLARGED SITE ELECTRICAL PLAN - EQUIPMENT YARD

SCALE: 1/8" = 1'-0"

north



PARTIAL ENLARGED ELECTRICAL PLAN - CENTRAL PLANT

SCALE: 1/4" = 1'-0"

north

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK EASTHAM — No. E 19180 Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

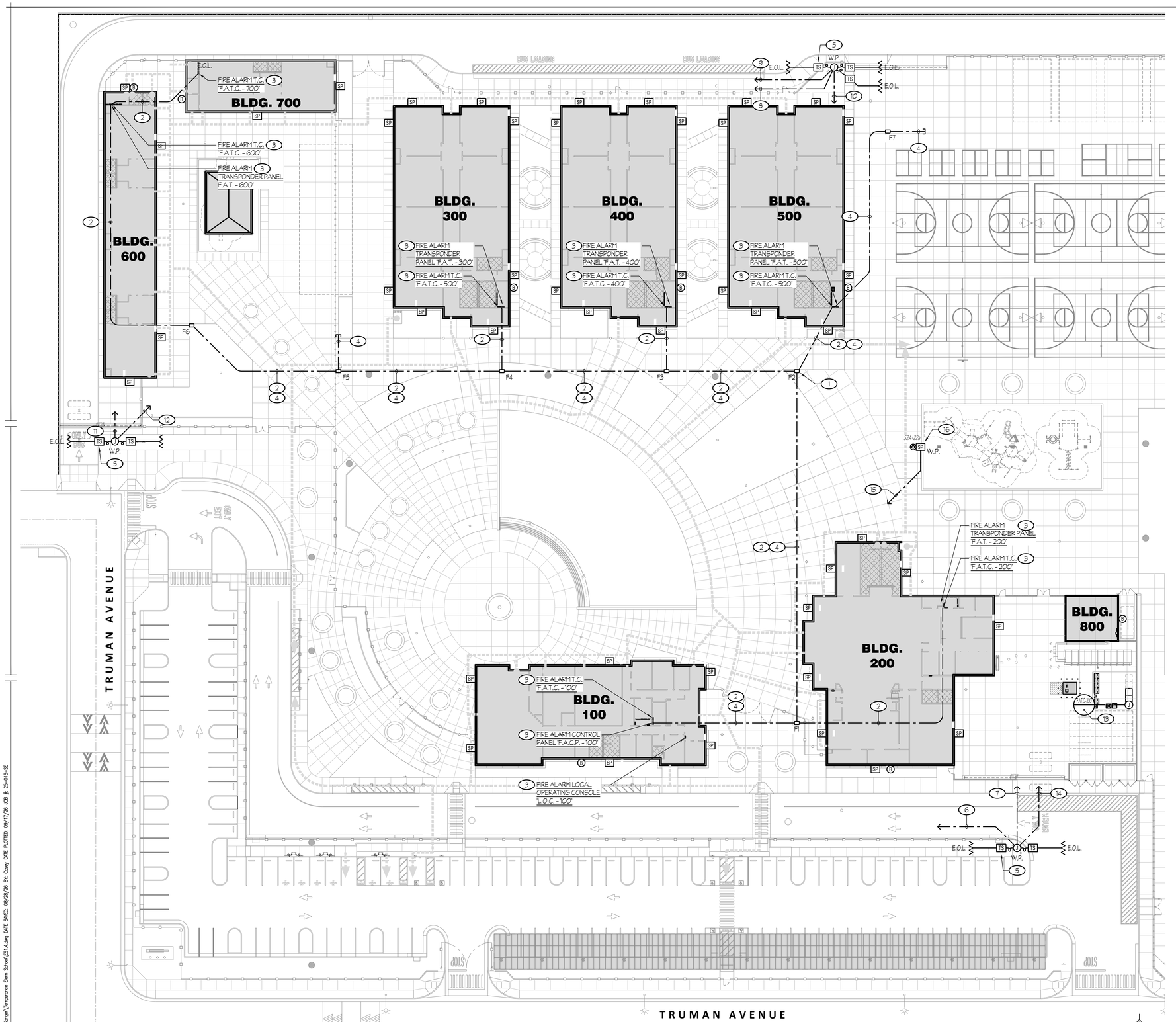
MANGINI ARCHITECTURE | INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
PARTIAL ENLARGED SITE ELECTRICAL PLANS - EQUIPMENT YARD & CENTRAL PLANT

ES1.3

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\ES1.3.dwg DATE: SAVED: 08/27/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



PARTIAL ENLARGED SITE FIRE ALARM PLAN

SCALE: 1" = 30'-0"

north

NOTES (THIS SHEET ONLY):

1. PULL BOX PER DETAILS #5/E9.4 AND #7/E9.4 TYPICAL, U.O.N..
2. CONDUIT AND WIRING PER MAIN FIRE ALARM SYSTEM RISER DIAGRAM, #1/E8.2.
3. SEE RESPECTIVE FIRE ALARM PLAN FOR EXACT LOCATION AND REQUIREMENTS.
4. SPARE CONDUITS PER MAIN FIRE ALARM SYSTEM RISER DIAGRAM, #1/E8.2.
5. CONNECT TAMPER SWITCHES AT THE POST INDICATOR VALVE 'P.I.V.'. RUN 1/2" LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT WITH 2 #14 INSIDE TO TAMPER SWITCH AND PROVIDE AN END-OF-LINE RESISTOR 'E.O.L.'. SECURE CONDUIT TO PIPING WITH 1/2" WIDE STAINLESS STEEL STRAPPING. PROVIDE A TWO-DEVICE DIECAST WEATHERPROOF JUNCTION BOX WITH A BLANK GASKETED COVER AND MOUNT AT +6" A.F.G.. PROVIDE AN ADDITIONAL GALVANIZED RIGID STEEL CONDUIT, MINIMUM OF 24" LONG, WRAPPED WITH PVC TAPE TO SUPPORT WEATHERPROOF JUNCTION BOX. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
6. RUN 1/2"C - 2 #14 TO DUAL MONITOR MODULE *'11-17'* IN ROOM #123.
7. RUN 1/2"C - 2 #14 TO DUAL MONITOR MODULE *'01-17a'* IN ROOM #202.
8. RUN 1/2"C - 2 #14 TO DUAL MONITOR MODULE *'13-4a'* IN ROOM #314.
9. RUN 1/2"C - 2 #14 TO DUAL MONITOR MODULE *'14-4a'* IN ROOM #414.
10. RUN 1/2"C - 2 #14 TO DUAL MONITOR MODULE *'15-4a'* IN ROOM #514.
11. RUN 1/2"C - 2 #14 TO DUAL MONITOR MODULE *'15-28'* IN ROOM #611.
12. RUN 1/2"C - 2 #14 TO DUAL MONITOR MODULE *'17-1a'* IN ROOM #703.
13. RUN 1/2"C - 4 #14 TO DUAL MONITOR MODULE *'01-57a'* IN ROOM #213.
14. RUN 1/2"C - 2 #14 TO DUAL MONITOR MODULE *'CP-3'* IN BUILDING 800.
15. RUN 3/4"C - TWO "SPSP" CABLES TO EXTERIOR WEATHERPROOF SPEAKER *'S24-22'* ON BUILDING 200.
16. MOUNT EXTERIOR WEATHERPROOF SPEAKER TO LIGHT POLE AT +10'-0" A.F.G. IN A SURFACE MOUNTED WEATHERPROOF BACK BOX AND WEATHERPROOF OUTLET BOX.

AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS, C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK D. EASTHAM — Reg. No. E-19789 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

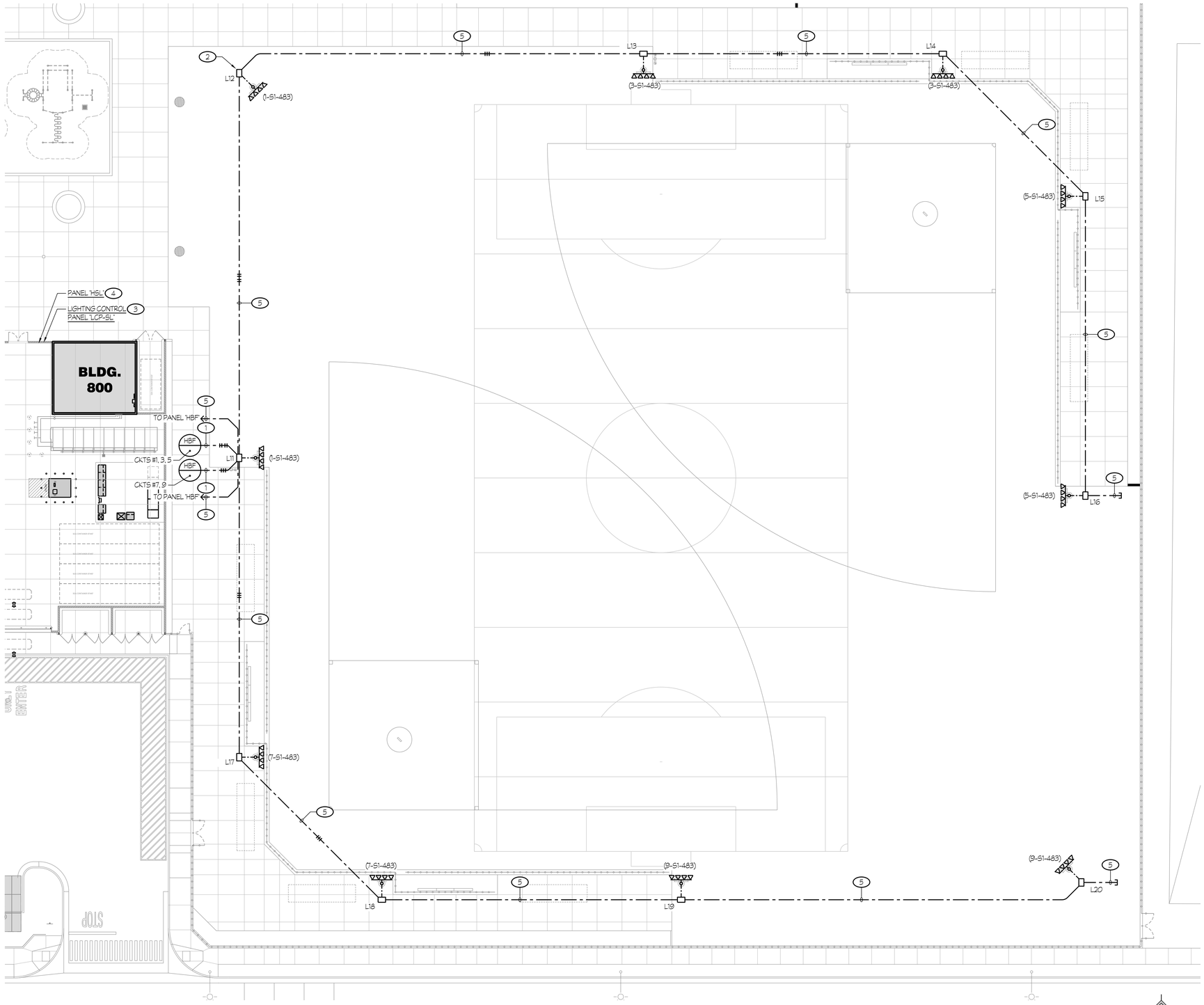
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-2630 Office
(559) 627-1926 Fax

TITLE
PARTIAL ENLARGED SITE FIRE ALARM PLAN

ES1.4

PROJECT 24042

Z:\Drafting\Jobs\RES\24042\ES\Sanger\Temperance Elem School\ES1.4.dwg DATE SAVED: 09/29/26 By: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



PARTIAL ENLARGED SITE ELECTRICAL PLAN

SCALE: 1" = 20'-0"

north

NOTES (THIS SHEET ONLY):

1. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL 'LCP-BF'.
2. PULL BOX PER DETAILS #5/E9.4 AND #7/E9.4. TYPICAL, U.O.N..
3. PROVIDE AN nLIGHT LIGHTING RELAY PANEL nLIGHT #ARPINTENC08-SM ENCLOSURE WITH #BFCR-MVOLT-HLK-DTC INTERIORS. MOUNT SIMILAR TO PANEL 'HBF'.
4. MOUNT PER DETAIL #9/E9.3.
5. 1-1/4"C SPARE (WITH NYLON PULL ROPE).

APPROVALS

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LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
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(559) 627.0530 Office
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TITLE
PARTIAL ENLARGED SITE ELECTRICAL PLAN

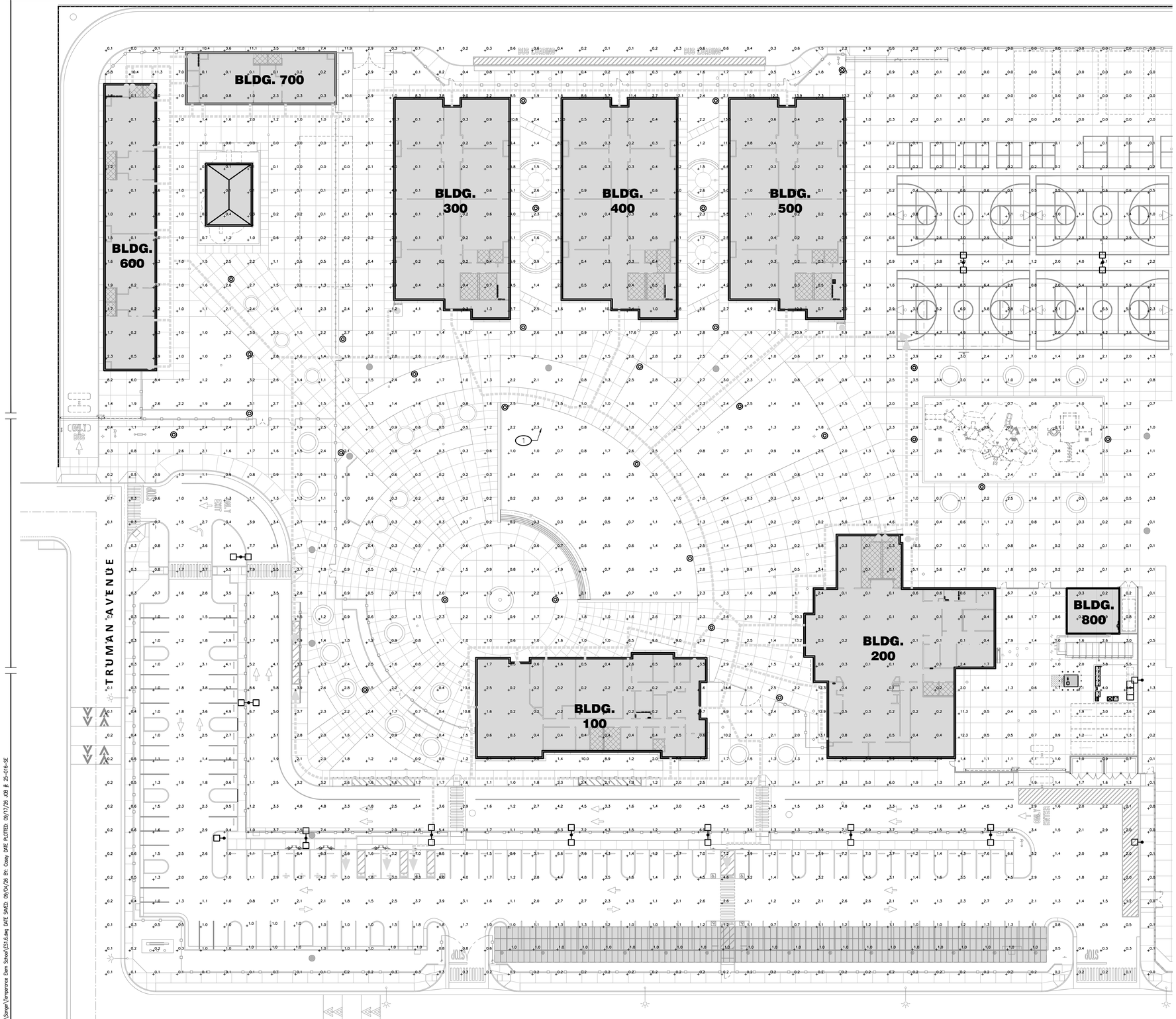
ES1.5

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth ~ (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
BRIAN KIRK EASTHAM
No. E-21180
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\ES1.5.dwg DATE SAVED: 08/27/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



SITE ILLUMINATION PLAN

SCALE: 1" = 30'-0"

north

NOTES (THIS SHEET ONLY):

1. SAFE DISPERSAL PATHWAY AND AREA COMPLY WITH MINIMUM FOOT-CANDLE ILLUMINATION (1 FC MINIMUM).

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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(559) 627-1926 Fax

TITLE
SITE ILLUMINATION PLAN

ES1.6

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK D. EASTHAM
No. E-19786
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

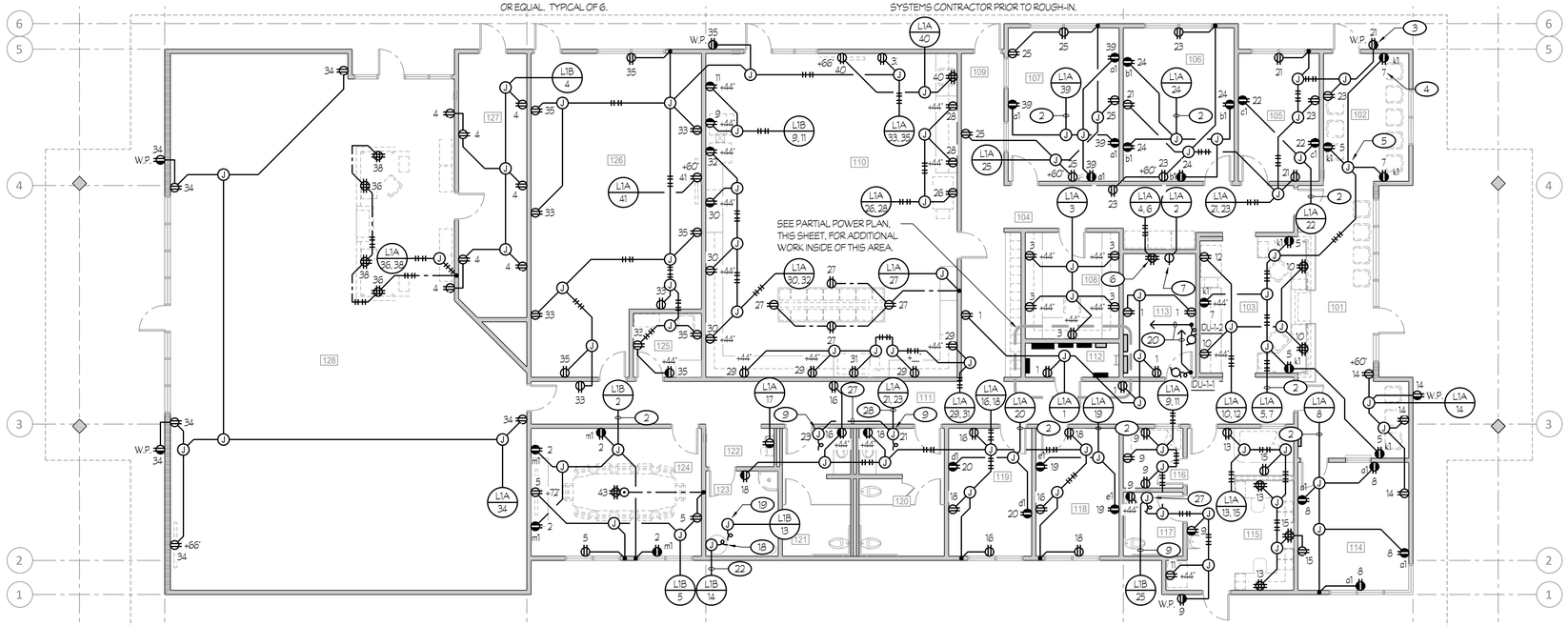
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GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

NOTES (THIS SHEET ONLY):

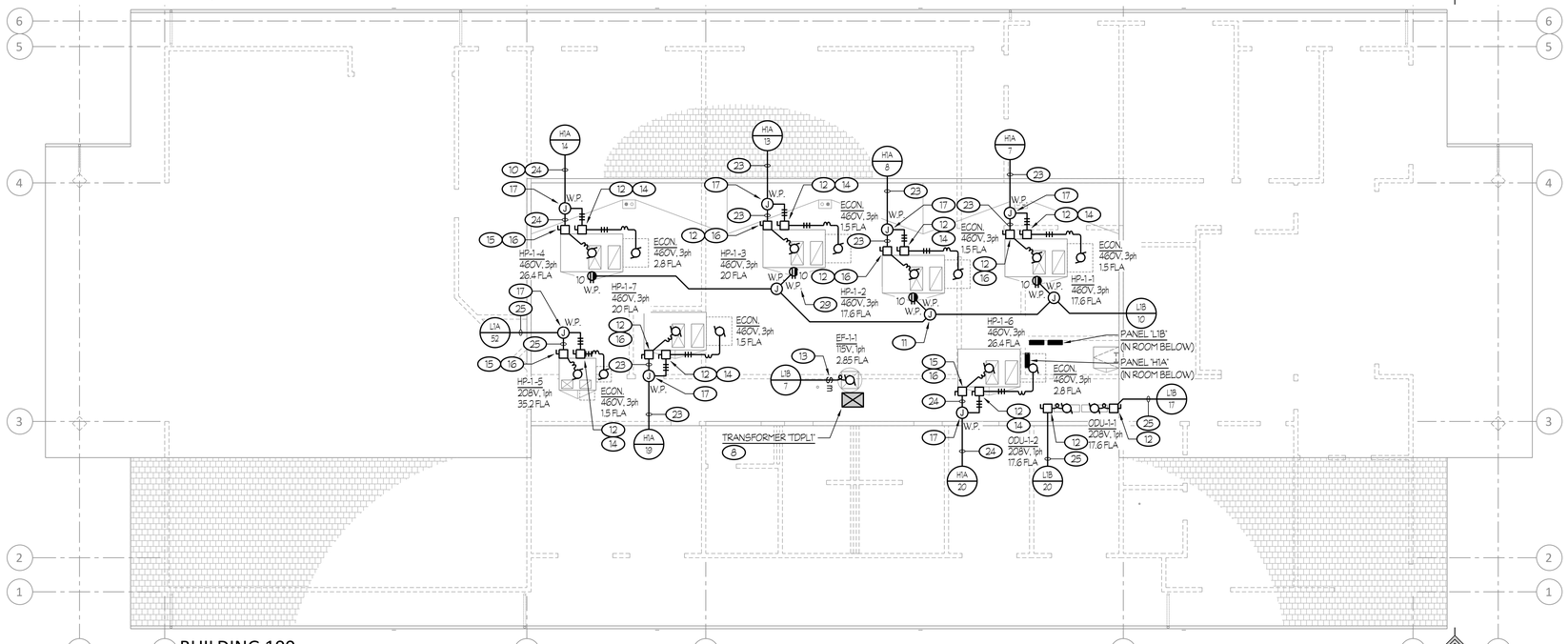
1. MOUNT PANEL PER DETAIL #2/E9.4.
2. ROUTE CIRCUIT THROUGH RECEPTACLE RELAY PACK. SEE SHEET #E1.2 FOR POWER RELAY PACK LOCATION.
3. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT +18" A.F.F., PROVIDE A DIE-CAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, RED-DOT #CKSUV OR EQUAL. TYPICAL OF 6.
4. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
5. DENOTES JUNCTION BOX IN ACCESSIBLE ATTIC SPACE. TYPICAL, U.O.N..
6. PROVIDE DEDICATED DOUBLE DUPLEX RECEPTACLE FOR HORIZONTAL CROSS-CONNECT. COORDINATE AND VERIFY EXACT LOCATION WITH DATA SYSTEMS CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE A 30A, 1-POLE RECEPTACLE (NEMA 5-30R) FOR I.D.F. CONNECTIONS.
8. MOUNT TRANSFORMER PER DETAIL #11/E9.4.
9. CONNECT HAND DRYER, 120V.
10. TYPICAL AT ALL H.V.A.C. EQUIPMENT: ROUTE BRANCH CIRCUITING UP THRU OPENING OF ROOF CURB & THEN THRU UNIT TO DISCONNECT SWITCH. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT INSIDE UNIT FOR ROUTING OF CONDUCTORS.
11. MOUNT JUNCTION BOX IN ACCESSIBLE ATTIC SPACE BELOW. TYPICAL, U.O.N..
12. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
13. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
14. PROVIDE ENGRAVED NAMEPLATE: 'ECONOMIZER DISCONNECT'.
15. PROVIDE 60A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
16. PROVIDE AND ENGRAVED NAMEPLATE: 'HP DISCONNECT'.
17. PROVIDE A NEW N3R SCREW COVER CAN (8" SQ. x 4" DP.) AND LOCATE AT WHERE THE BRANCH CIRCUIT ROUTES UP THRU THE ROOF.
18. CONNECT WATER HEATER, 208, 3ph, 4,500 WATTS.
19. CONNECT CIRC PUMP, 120V.
20. RUN A T'C TO RESPECTIVE ODU FOR CONTROLS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL.
21. MOUNT DISTRIBUTION PANEL PER DETAIL #4/E9.4.
22. 3/4"C - 3 #12 + 1 #12 GND.
23. 3/4" - 3 #10 + 1 #10 GND.
24. 1" - 3 #8 + 1 #10 GND.
25. 3/4" - 2 #10 + 1 #10 GND.
26. CONNECT EMS PANEL. SEE MECH'L PLANS FOR EXACT LOCATION AND REQUIREMENTS.
27. 1-1/2"C - 2 #10 + 1 #10 GND.
28. 3/4"C - 4 #10 + 1 #10 GND.
29. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT ROOF CURB PLATFORM. MOUNT INSIDE A WEATHERPROOF OUTLET BOX EQUIPPED WITH WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER. ROUTE BRANCH CIRCUITING UP OPENING OF ROOF CURB AND THEN THRU SIDEWALL. COVER SHALL BE A RED-DOT #CKSUV OR EQUAL. TYPICAL OF 4.



BUILDING 100

POWER PLAN

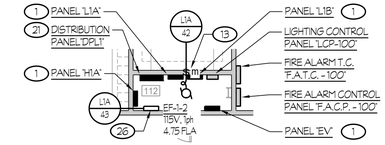
SCALE: 1/8" = 1'-0"



BUILDING 100

ROOF ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

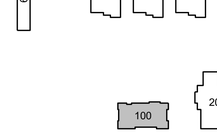


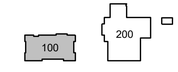
PARTIAL POWER PLAN

SCALE: 1/8" = 1'-0"

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
101	LOBBY	VARIES	115	NURSE	+9'-0"
102	STUDENT WAITING	VARIES	116	RECOVERY ROOM	+9'-0"
103	RECEPTION DESK	+9'-0"	117	TOILET	+9'-0"
104	HALL	+10'-0"	118	OFFICE	+9'-0"
105	OFFICE	+9'-0"	119	OFFICE	+9'-0"
106	PRINCIPAL	+9'-0"	120	WOMEN	+9'-0"
107	V. PRINCIPAL	+9'-0"	121	MEN	+9'-0"
108	WORK ROOM	+10'-0"	122	HALL	+10'-0"
109	HALL	+10'-0"	123	JANITOR	+9'-0"
110	TEACHER WORK ROOM	+10'-0"	124	CONFERENCE	+9'-0"
111	HALL	+10'-0"	125	QUIET ROOM	+9'-0"
112	ELECTRICAL	+10'-0"	126	ELOP	+10'-0"
113	DATA	+10'-0"	127	STORAGE	+9'-0"
114	ELOP OFFICE	+9'-0"	128	LIBRARY	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KENNETH KIRK SMITH
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

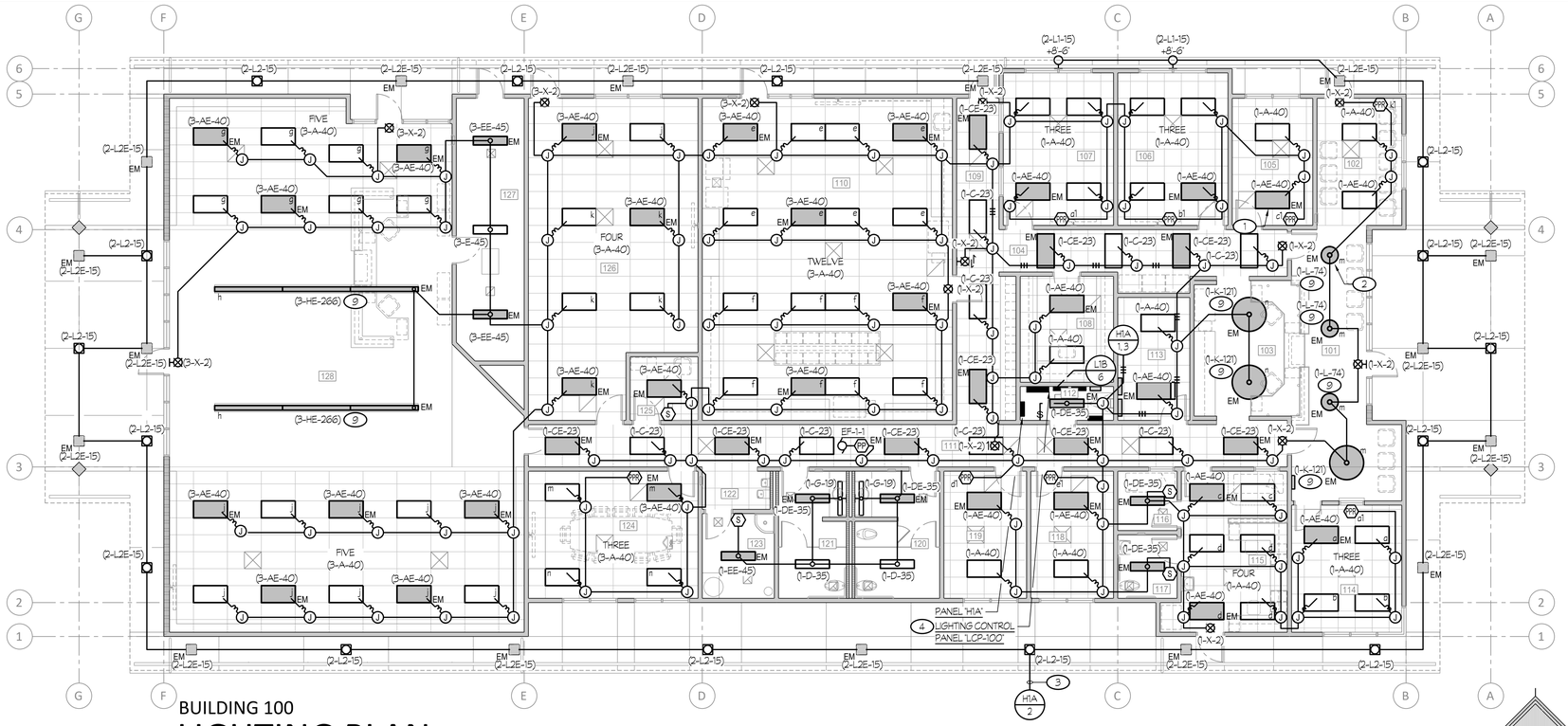
MANGINI ARCHITECTURE INGENUITY
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4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 100
POWER PLAN
AND ROOF
ELECTRICAL PLAN

E1.1

PROJECT 24042

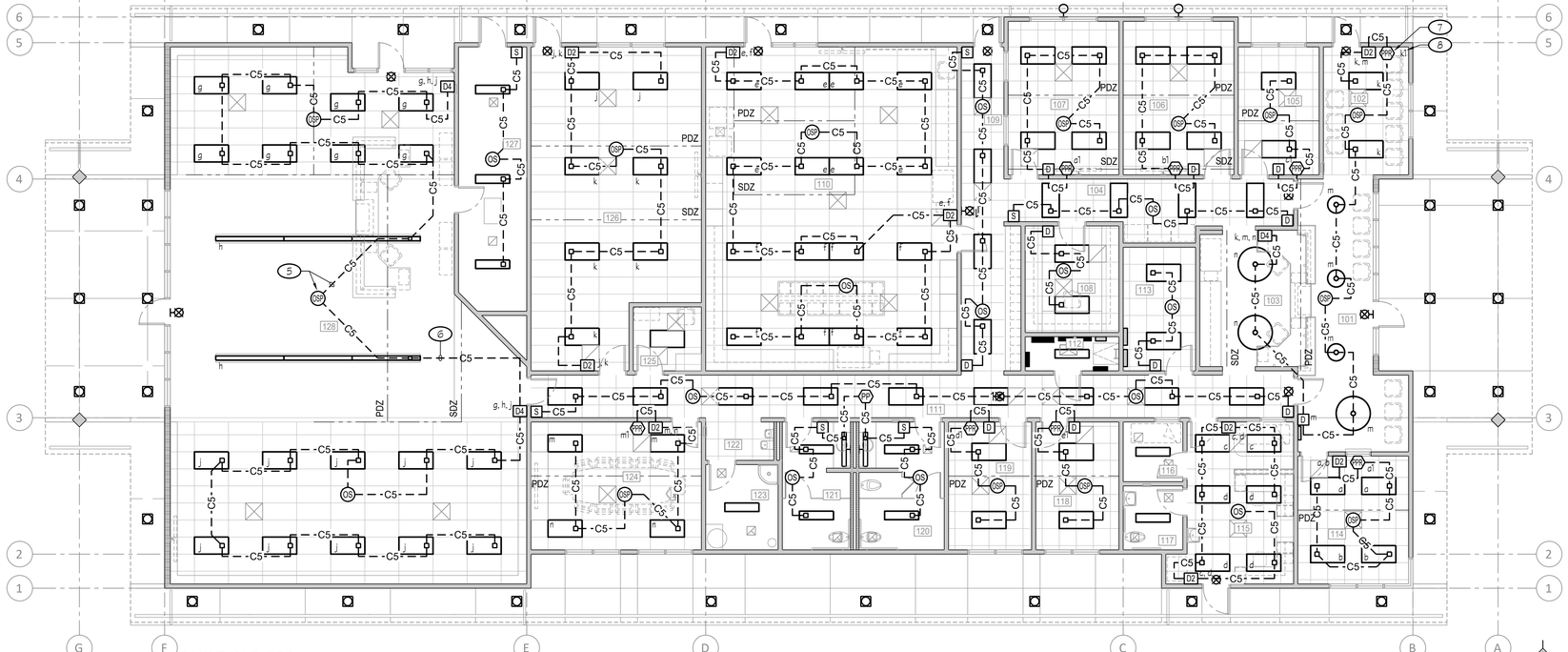
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BUILDING 100

LIGHTING PLAN

SCALE: 1/8" = 1'-0"



BUILDING 100

LIGHTING CONTROLS PLAN

SCALE: 1/8" = 1'-0"

NOTES (THIS SHEET ONLY):

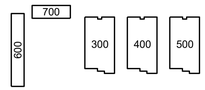
1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. LOWER CASE LETTER DENOTES RESPECTIVE CONTROL ZONE, TYPICAL.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL.
4. PROVIDE AN nLIGHT LIGHTING RELAY PANEL nLIGHT #ARPINTENC08-SM ENCLOSURE WITH #8FCR-MVOLT-HLK-DTC INTERIORS.
5. REFER TO DETAIL #3/E9.2 FOR LOW VOLTAGE DEVICES AND LIGHTING CONTROL WIRING REQUIREMENTS, TYPICAL.
6. — — C5 — — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/E1A-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
7. PROVIDE POWER RELAY PACK PER DETAIL #11/E9.2 MOUNT ABOVE T-BAR CEILING IN ACCESSIBLE ATTIC SPACE OR HIGH ON WALL ABOVE LIGHT SWITCH. ROUTE 120V RECEPTACLE POWER THROUGH CONTACTS. SEE KEYNOTE #2 ON SHEET #E1.1 FOR ADDITIONAL INFORMATION. TYPICAL, U.O.N..
8. DENOTES POWER RELAY PACK THAT CONTROL ROOM DEVICES. SEE CORRESPONDING NOMENCLATURE FOR ROOM POWER CIRCUIT ON POWER PLAN. TYPICAL, U.O.N..
9. MOUNT BOTTOM OF FIXTURE AT +10'-0" A.F.F..

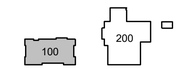
GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
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112	ELECTRICAL	+10'-0"	126	ELOP	+10'-0"
113	DATA	+10'-0"	127	STORAGE	+9'-0"
114	ELOP OFFICE	+9'-0"	128	LIBRARY	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E 19189
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

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No. C-26128
REN. 05-31-27
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DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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(559) 627.2630 Office
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TITLE
BUILDING 100
LIGHTING PLANS

E1.2

PROJECT 24042

Z:\Drafting\Jobs\RES\SCHOOLS\Sanger\Temperance Elem. School\E1.2.dwg DATE: 3/4/25 08/26/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

NOTES (THIS SHEET ONLY):

1. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.

2. TYPICAL OF NETWORK INTERFACE BRIDGE (SYMBOL BRG): LOCATE THE NETWORK INTERFACE BRIDGE IN THE ACCESSIBLE ATTIC SPACE ABOVE THE T-BAR CEILING. SURFACE MOUNT ON THE WALL AT A MINIMUM OF 12" ABOVE THE T-BAR CEILING. RUN 1/2"C - 2 #12 TO NEAREST "UNSWITCHED" LIGHTING CIRCUIT. RUN CAT. 5e CABLE BETWEEN ADJACENT NETWORK INTERFACE BRIDGES, WHERE APPLICABLE. REFER TO DETAIL #9/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

3. SURFACE MOUNT THE NETWORK LIGHTING CONTROLLER "NLC" AT +42" A.F.F.. LOCATE THE GRAPHIC WALLPOD ADJACENT TO THE NETWORK CONTROLLER. RUN 1"C - ONE CAT. 5e PATCH CABLE, LENGTH AS REQUIRED, FROM THE "NLC" TO THE EXISTING PATCH PANEL IN THE MAIN CROSS-CONNECT LOCATED IN THE ELECTRICAL ROOM. REFER TO DETAIL #8/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

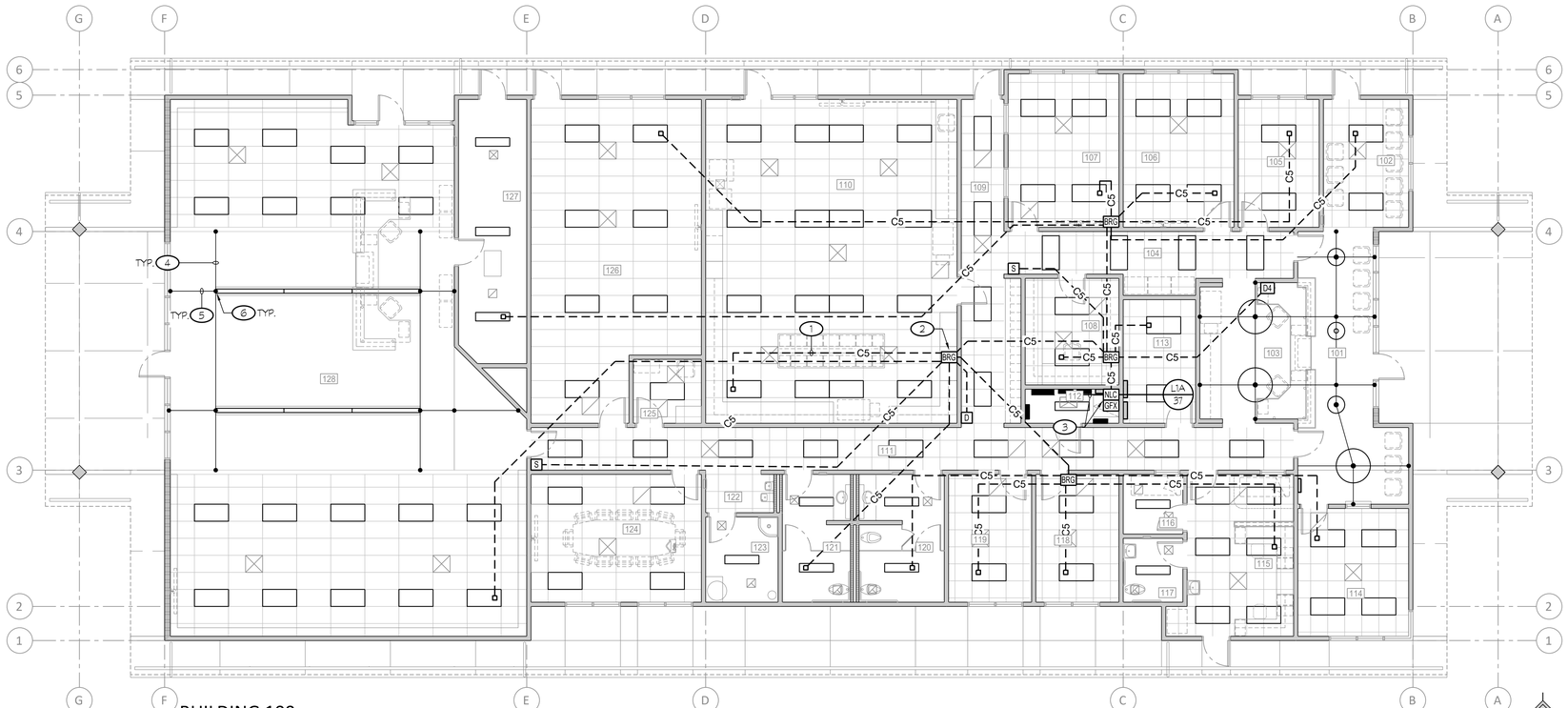
4. PROVIDE SEISMIC RESTRAINT FOR LIGHT FIXTURES PER DETAIL #1/E9.3, TYPICAL. THE "HORIZONTAL" CABLE SHALL RUN CONTINUOUS, FROM WALL TO WALL IN THE NORTH/SOUTH DIRECTION, WITH AN ATTACHMENT AT EACH WALL AND AT EACH "VERTICAL" CABLE.

5. PROVIDE SEISMIC RESTRAINT FOR LIGHT FIXTURES PER DETAIL #2/E9.3, TYPICAL. THE "HORIZONTAL" CABLE SHALL RUN CONTINUOUS, FROM WALL TO WALL IN THE EAST/WEST DIRECTION, WITH AN ATTACHMENT AT EACH WALL AND AT EACH "VERTICAL" CABLE.

6. ATTACHMENT AT EACH VERTICAL SUPPORT CABLE PER DETAIL #2/E9.3.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.



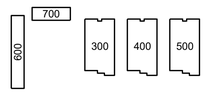
BUILDING 100

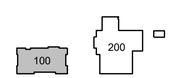
AUTOMATED DEMAND RESPONSE PLAN

SCALE: 1/8" = 1'-0"

north

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
101	LOBBY	VARIES	115	NURSE	+9'-0"
102	STUDENT WAITING	VARIES	116	RECOVERY ROOM	+9'-0"
103	RECEPTION DESK	+9'-0"	117	TOILET	+9'-0"
104	HALL	+10'-0"	118	OFFICE	+9'-0"
105	OFFICE	+9'-0"	119	OFFICE	+9'-0"
106	PRINCIPAL	+9'-0"	120	WOMEN	+9'-0"
107	V. PRINCIPAL	+9'-0"	121	MEN	+9'-0"
108	WORK ROOM	+10'-0"	122	HALL	+10'-0"
109	HALL	+10'-0"	123	JANITOR	+9'-0"
110	TEACHER WORK ROOM	+10'-0"	124	CONFERENCE	+9'-0"
111	HALL	+10'-0"	125	QUIET ROOM	+9'-0"
112	ELECTRICAL	+10'-0"	126	ELOP	+10'-0"
113	DATA	+10'-0"	127	STORAGE	+9'-0"
114	ELOP OFFICE	+9'-0"	128	LIBRARY	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK EASTHAM — No. E-19180 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

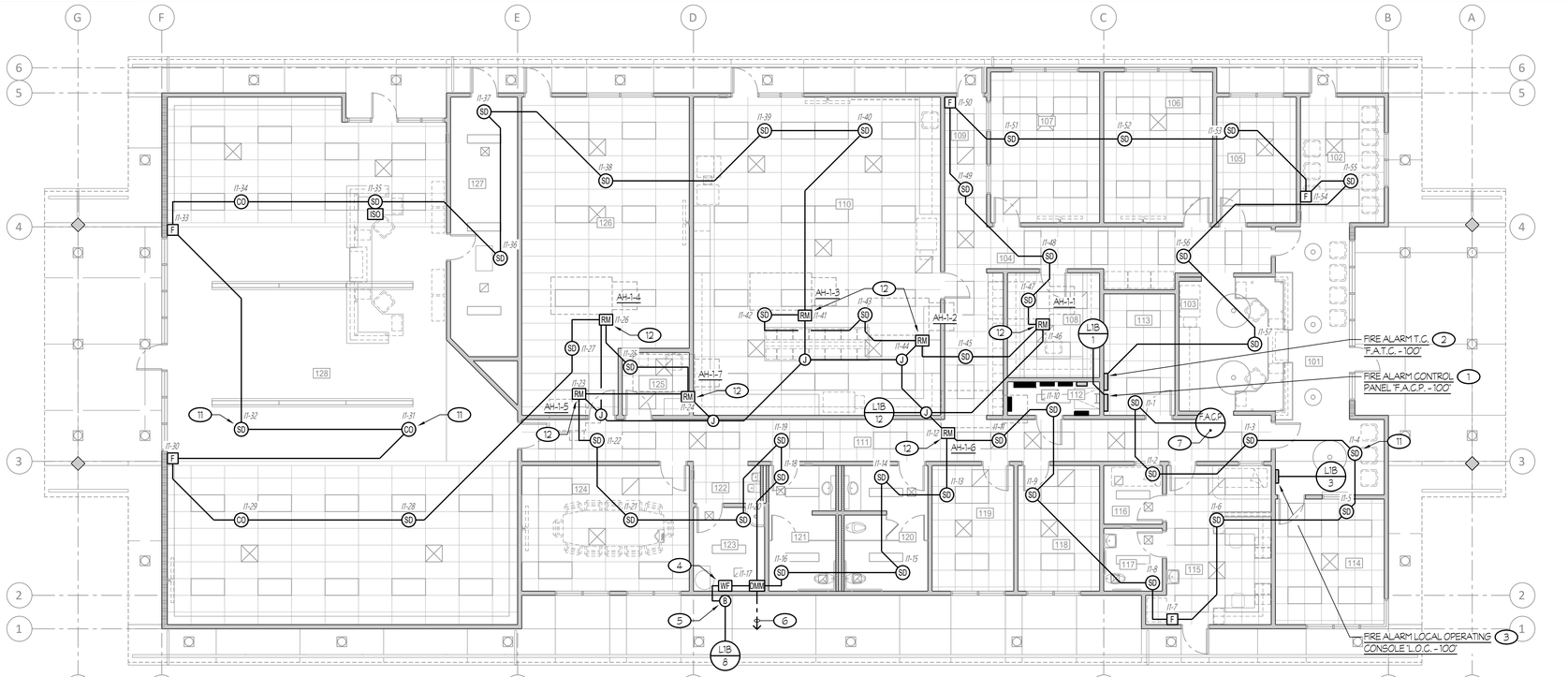
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MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 100
AUTOMATED
DEMAND RESPONSE
PLAN

E1.3

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem School\E1.1.dwg DATE SAVED: 08/19/26 Br. Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

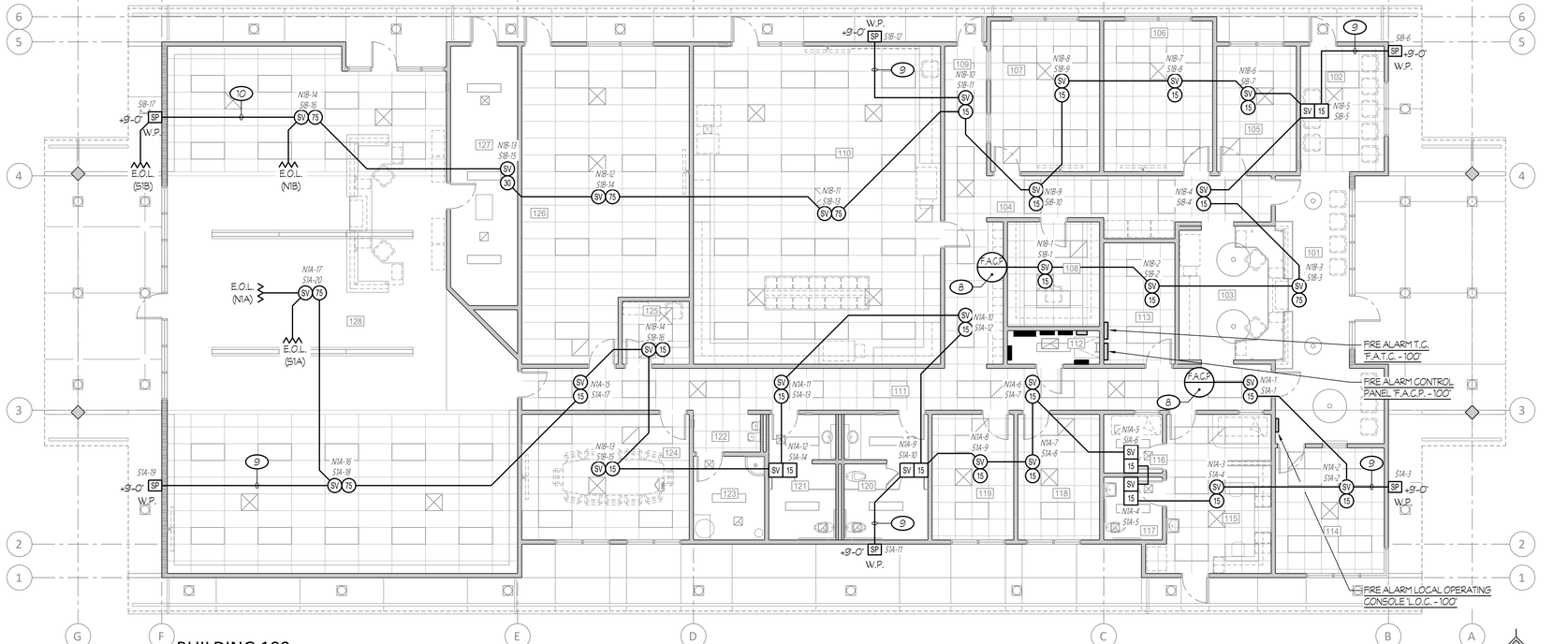


BUILDING 100

FIRE ALARM INITIATION PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 100

FIRE ALARM NOTIFICATION PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. MOUNT FIRE ALARM CONTROL PANEL 'F.A.C.P. - A' PER DETAIL #6/E8.8.
2. MOUNT FIRE ALARM T.C. 'F.A.T.C. - A' PER DETAIL #7/E8.8.
3. MOUNT FIRE ALARM LOCAL OPERATING CONSOLE 'L.O.C. - A' PER DETAIL #3/E8.8.
4. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
5. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
6. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE 'P.I.V.'. REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
7. 3/4"C - ONE 'FA' CABLE, ONE 'FAP' CABLE (24VDC AUXILIARY POWER FOR SOUNDER BASE AT CO DETECTOR). TYPICAL, U.O.N..
8. TYPICAL OF FIRE ALARM CIRCUITING BETWEEN NOTIFICATION APPLIANCES, U.O.N.: RUN 3/4"C - ONE 'FSP' CABLE, 2 #12 BETWEEN NOTIFICATION APPLIANCES.
9. 3/4"C - TWO 'FSP' CABLE.
10. 3/4"C - ONE 'FSP' CABLE.
11. MOUNT SMOKE DETECTOR WITHIN THREE FEET OF HIGHEST POINT OF THE CEILING.
12. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT IN T-BAR CEILING (OR GYPBOARD CEILING), U.O.N.. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/ CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS . PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
101	LOBBY	VARIES	115	NURSE	+9'-0"
102	STUDENT WAITING	VARIES	116	RECOVERY ROOM	+9'-0"
103	RECEPTION DESK	+9'-0"	117	TOILET	+9'-0"
104	HALL	+10'-0"	118	OFFICE	+9'-0"
105	OFFICE	+9'-0"	119	OFFICE	+9'-0"
106	PRINCIPAL	+9'-0"	120	WOMEN	+9'-0"
107	V. PRINCIPAL	+9'-0"	121	MEN	+9'-0"
108	WORK ROOM	+10'-0"	122	HALL	+10'-0"
109	HALL	+10'-0"	123	JANITOR	+9'-0"
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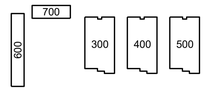
AUTOMATIC FIRE SPRINKLER SYSTEM

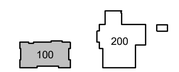
ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER KIRK EASTHAM No. E 18189 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORELLI No. C-36128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

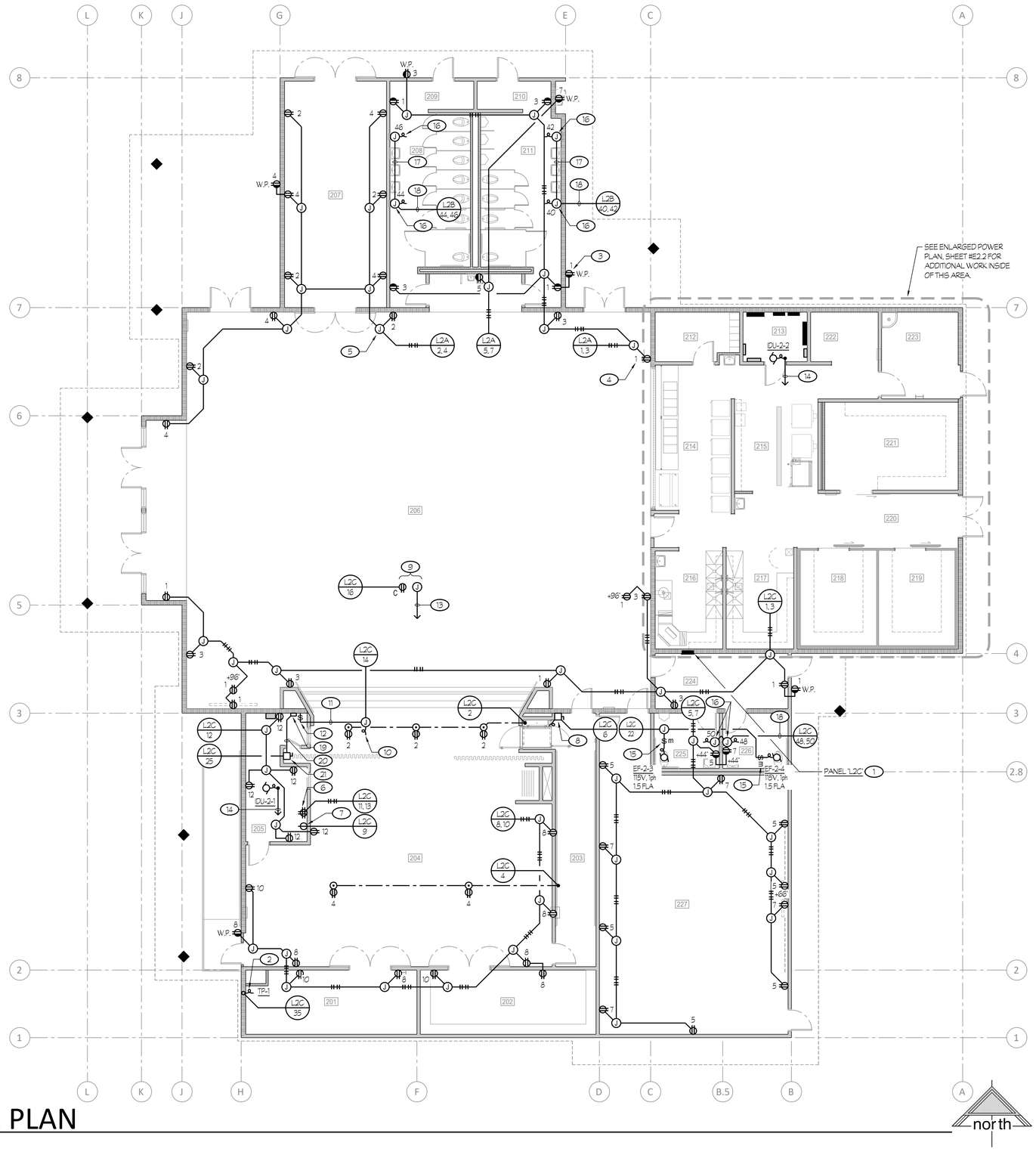
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www.mangini.us
(559) 627.2630 Office
(559) 627.1926 Fax

TITLE
BUILDING 100
FIRE ALARM
PLANS

E1.4

PROJECT **24042**

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\E1.4.dwg DATE: SAVED: 06/25/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



NOTES (THIS SHEET ONLY):

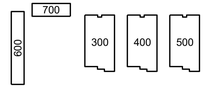
1. MOUNT PANEL PER DETAIL #3/E9.4.
2. CONNECT TRAP PRIMER, 120V.
3. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT +18" A.F.F.. PROVIDE A DIE-CAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, RED-DOT #CKSUV OR EQUAL. TYPICAL OF 5.
4. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
5. DENOTES JUNCTION BOX IN ACCESSIBLE ATTIC SPACE. TYPICAL, U.O.N..
6. PROVIDE DEDICATED DOUBLE DUPLEX RECEPTACLE FOR HORIZONTAL CROSS-CONNECT. COORDINATE AND VERIFY EXACT LOCATION WITH DATA SYSTEMS CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE A 30A, 1-POLE RECEPTACLE (NEMA 5-30R) FOR I.D.F. CONNECTIONS.
8. CONNECT WHEELCHAIR LIFT POWER AND CONTROLS. VERIFY REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. PROVIDE A 30A, 2-POLE HEAVY-DUTY FUSED SAFETY SWITCH WITH LOCKABLE HANDLE AND SURFACE MOUNT AT +48" A.F.F.. PROVIDE A FLUSH 4 11/16" SQ. x 2 1/8" DP. OUTLET BOX BEHIND THE SAFETY SWITCH TO CONCEAL HOMERUN AND BRANCH CIRCUITING TO HANDICAP LIFT. PROVIDE ENGRAVED NAMEPLATE THAT READS: 'HANDICAP LIFT DISCONNECT'.
9. PROVIDE FLUSH JUNCTION BOX FOR PROJECTOR CONTROLS AND RECEPTACLE FOR PROJECTOR POWER.
10. CONNECT PROJECTION SCREEN POWER AND CONTROLS. VERIFY EXACT LOCATION AND WIRING REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
11. 1C PLUS CONTROL WIRING (AS DIRECTED BY PROJECTOR SCREEN SUPPLIER) TO PROJECTOR SCREEN CONTROL SWITCH AT KEYNOTE #12.
12. PROJECTOR SCREEN CONTROL SWITCH.
13. RUN A 1C (FOR CONTROLS) TO CONTROL ROOM #205. COORDINATE WITH SIGNALS DRAWINGS AND THE OWNER.
14. RUN A 1C TO RESPECTIVE ODU FOR CONTROLS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL.
15. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
16. CONNECT HAND DRYER, 120V.
17. 1/2"C - 2 #10 + 1 #10 GND.
18. 3/4"C - 4 #10 + 1 #10 GND.
19. MOTORIZED CURTAIN CONTROL STARTER CABINET.
20. 1C PLUS CONTROL WIRING (AS DIRECTED BY MOTORIZED CURTAIN SUPPLIER) TO MOTORIZED CURTAIN CONTROL STARTER CABINET AT KEYNOTE #19.
21. CONNECT MOTORIZED CURTAIN POWER AND CONTROLS. VERIFY EXACT LOCATION AND WIRING REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
201	STORAGE	+8'-0"	215	KITCHEN	+10'-0"
202	STORAGE	+8'-0"	216	CLEAN UP	+10'-0"
203	RAMP	+11'-0"	217	FOOD PREP	+10'-0"
204	PLATFORM	+11'-0"	218	REFRIGERATOR	
205	CONTROL	+11'-0"	219	FREEZER	
206	CAFETERIA	+16'-0"	220	STAGING	+10'-0"
207	STORAGE	+10'-0"	221	PANTRY	+10'-0"
208	GIRLS	+10'-0"	222	UTILITY	+10'-0"
209	VESTIBULE	+10'-0"	223	JANITOR	+10'-0"
210	VESTIBULE	+10'-0"	224	VESTIBULE	+8'-0"
211	BOYS	+10'-0"	225	WOMEN	+8'-0"
212	OFFICE	+8'-0"	226	MEN	+8'-0"
213	ELECTRICAL	+8'-0"	227	FLEXIBLE ROOM	+10'-0"
214	SERVING	+10'-0"			





KEY PLAN

BUILDING200

POWER PLAN

SCALE: 1/8" = 1'-0"

north

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E 19180
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

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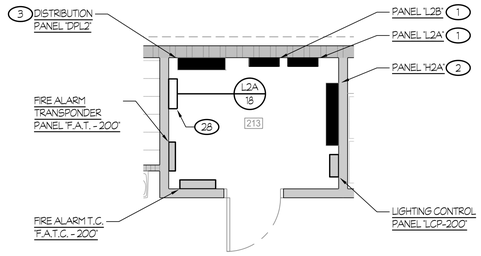
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www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 200
POWER PLAN

E2.1

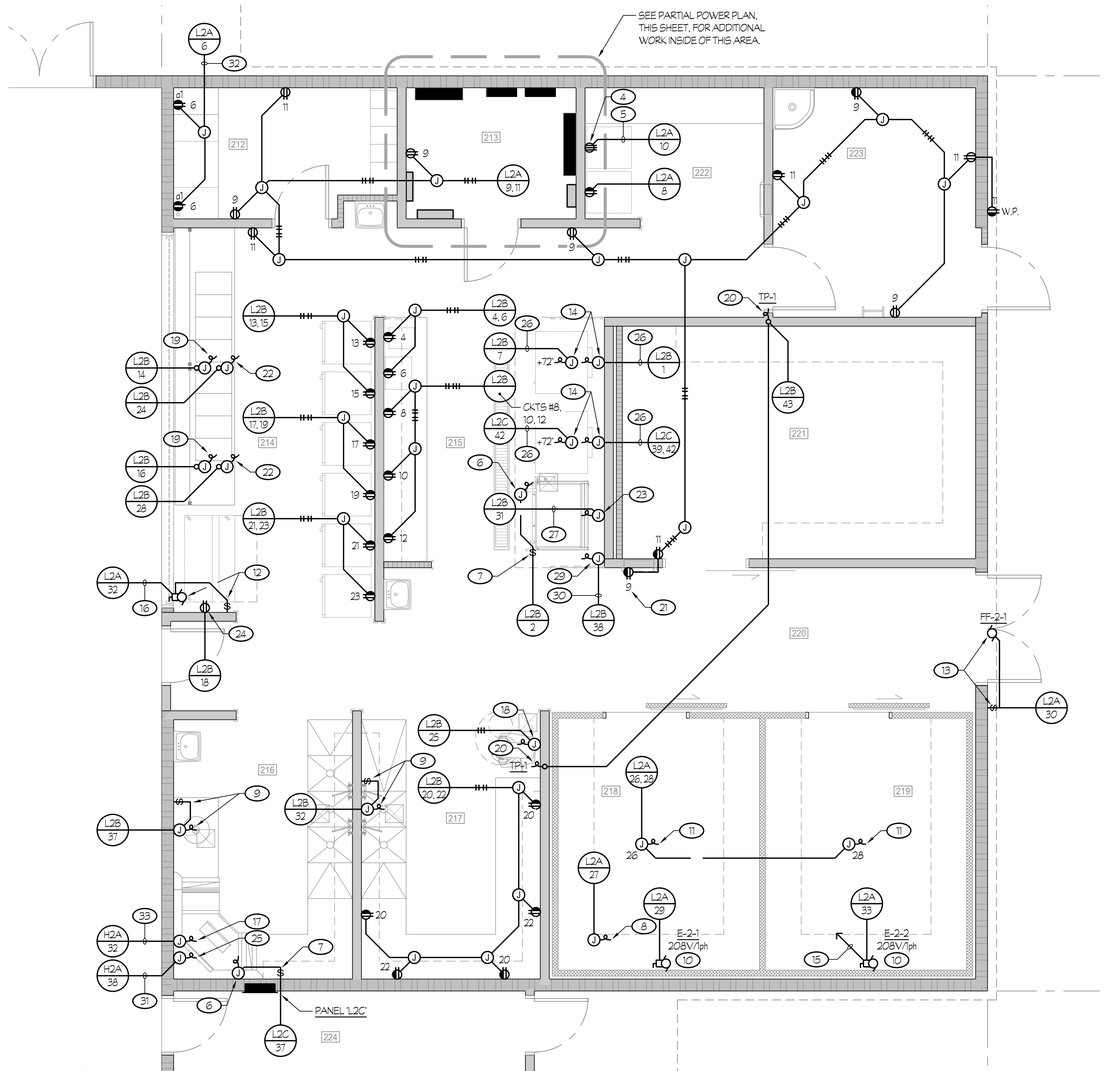
PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\E2.1.dwg DATE SAVED: 08/28/26 By: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



PARTIAL POWER PLAN

SCALE: 1/4" = 1'-0"



BUILDING200

POWER PLAN

SCALE: 1/8" = 1'-0"

north

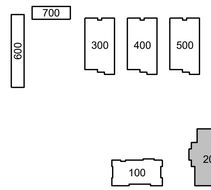
NOTES (THIS SHEET ONLY):

1. MOUNT PANEL PER DETAIL #2/E9.4.
2. MOUNT PANEL PER DETAIL #8/E9.4.
3. MOUNT DISTRIBUTION PANEL PER DETAIL #4/E9.4.
4. PROVIDE DRYER RECEPTACLE TO MATCH OWNER'S EQUIPMENT PLUG. VERIFY WITH OWNER PRIOR TO ROUGH-IN.
5. 3/4"C - 2 #10 + 1 #10 GND.
6. CONNECT 120V HOOD LIGHTS AT EXHAUST HOOD. VERIFY EXACT POINT OF CONNECTION WITH EQUIPMENT SUPPLIER. PROVIDE 120V BRANCH CIRCUITING BETWEEN LIGHTS/OUTLET BOXES IF REQUIRED.
7. PROVIDE ENGRAVED WALLPLATE: 'HOOD LIGHTS'.
8. CONNECT CONDENSATE LINE HEAT STRIP, 120V. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
9. CONNECT GARBAGE DISPOSAL POWER AND SWITCH, 208V, 3ph. PROVIDE CONDUIT AND CONDUCTORS BETWEEN CONTROL PANEL AND GARBAGE DISPOSAL PER MANUFACTURER'S INSTALLATION MANUAL.
10. SEAL ALL CONDUIT PENETRATIONS ON 'WARM' SIDE PER C.E.C. 300.7 (A).
11. CONNECT WALK-IN BOX LIGHTS, TEMP. ALARM, DOOR HEATER AND OTHER OTHER MISC. 120V EQUIPMENT. COORDINATE EXACT POINTS OF CONNECTION WITH WALK-IN BOX SUPPLIER. INSTALL AND CONNECT LIGHTS SUPPLIED WITH THE WALK-IN BOXES.
12. CONNECT OVERHEAD COILING DOOR POWER AND RECESSED CONTROL SWITCH. COORDINATE EXACT LOCATION AND WIRING REQUIREMENTS WITH EQUIPMENT SUPPLIER.
13. CONNECT FLY FAN. ROUTE 120V THRU DOOR MICROSWITCH (PROVIDED BY MECHANICAL). VERIFY EXACT LOCATION AND REQUIREMENTS WITH ARCHITECT AND EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. PROVIDE A HORSEPOWER RATED TOGGLE SWITCH EQUIPPED WITH A WEATHERPROOF COVER AND FLUSH MOUNT IN WALL ADJACENT TO FLY FAN.
14. CONNECT DOUBLE COMBINATION STEAMER-OVEN, 208V, 3ph, 63 AMPS.
15. RUN 3/4"C - 5 #12 (COLOR CODED PER MANUFACTURER'S RECOMMENDATIONS) TO TIMECLOCK AT FREEZER REMOTE REFRIGERATOR SYSTEM.
16. 3/4"C - 3 #14 + 1 #14 GND.
17. CONNECT DISHWASHER TANK HEATER, 480V, 3ph.
18. CONNECT MIXER, 208V, 3ph, 10 AMPS.
19. CONNECT REFRIGERATION FOR HOT/COLD FOOD WELLS, 120V.
20. CONNECT TRAP PRIMER, 120V.
21. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
22. CONNECT HEAT FOR HOT/COLD FOOD WELLS, 208V, 1ph, 15.9 AMPS.
23. CONNECT BRAISING PAN, 208V, 3ph, 46 AMPS.
24. CONNECT MILK COOLER, 120V.
25. CONNECT DISHWASHER MOTOR, 480, 3ph.
26. 1"C - 3 #4 + 1 #8 GND.
27. 1"C - 3 #6 + 1 #10 GND.
28. CONNECT EMS PANEL. SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS.
29. CONNECT HOOD FIRE SUPPRESSION SYSTEM CONTROL PANEL, 120V.
30. ROUTE CIRCUIT THROUGH POWER CONTACT IN ANSUL SYSTEM FOR 120V SHUNT TRIP POWER TO SHUNT TRIP CIRCUIT BREAKERS.
31. 3/4"C - 3 #10 + 1 #10 GND.
32. ROUTE CIRCUIT THROUGH RECEPTACLE RELAY PACK. SEE SHEET #E1.2 FOR POWER RELAY PACK LOCATION.
33. 1 1/4"C - 3 #2 + 1 #6 GND.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
201	STORAGE	+8'-0"	215	KITCHEN	+10'-0"
202	STORAGE	+8'-0"	216	CLEAN UP	+10'-0"
203	RAMP	+11'-0"	217	FOOD PREP	+10'-0"
204	PLATFORM	+11'-0"	218	REFRIGERATOR	
205	CONTROL	+11'-0"	219	FREEZER	
206	CAFETERIA	+16'-0"	220	STAGING	+10'-0"
207	STORAGE	+10'-0"	221	PANTRY	+10'-0"
208	GIRLS	+10'-0"	222	UTILITY	+10'-0"
209	VESTIBULE	+10'-0"	223	JANITOR	+10'-0"
210	VESTIBULE	+10'-0"	224	VESTIBULE	+8'-0"
211	BOYS	+10'-0"	225	WOMEN	+8'-0"
212	OFFICE	+8'-0"	226	MEN	+8'-0"
213	ELECTRICAL	+8'-0"	227	FLEXIBLE ROOM	+10'-0"
214	SERVING	+10'-0"			



KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E 19186
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORREO
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

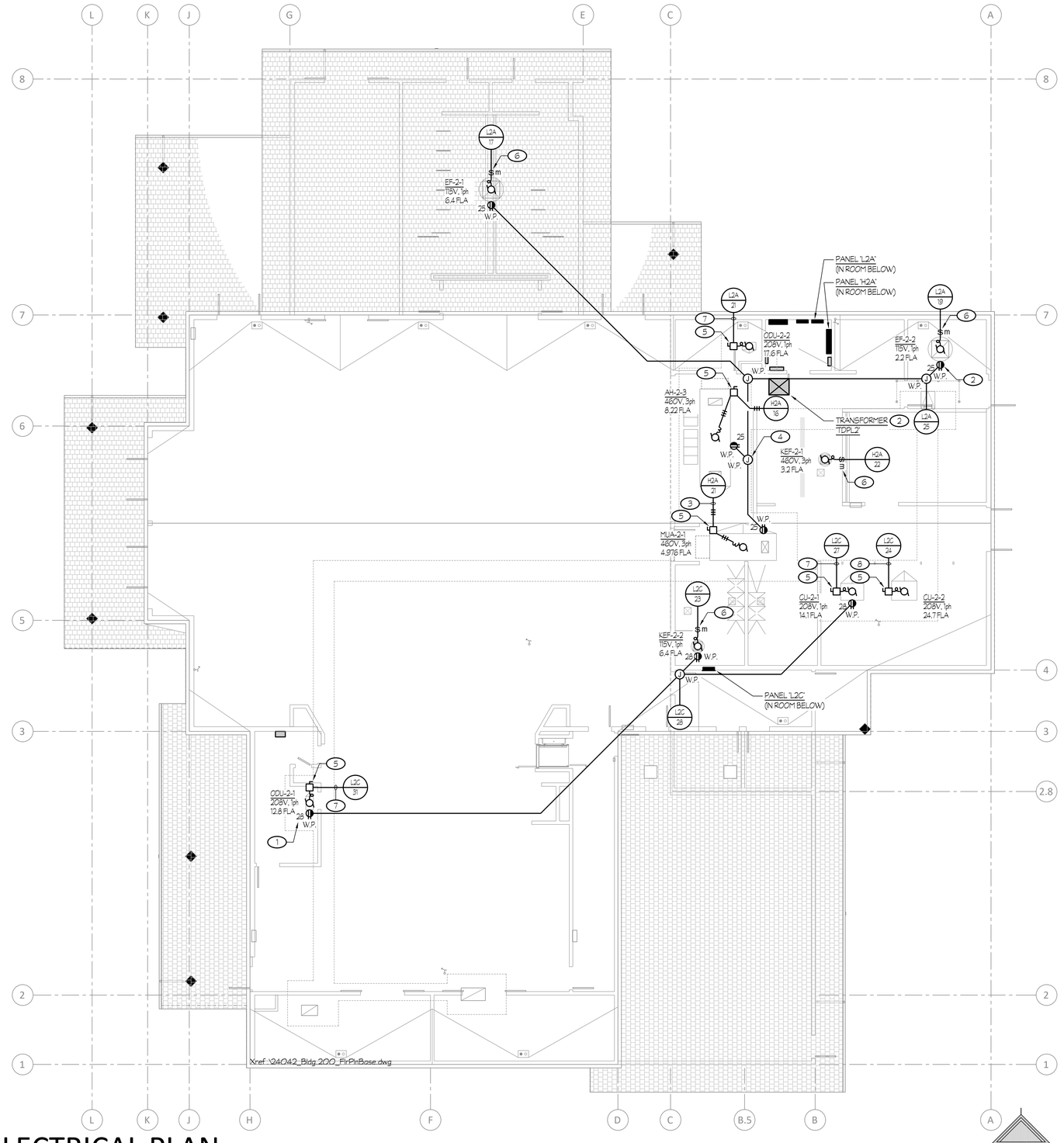
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDING 200
ENLARGED
POWER PLAN

E2.2

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\E2.2.dwg DATE SAVED: 06/25/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



NOTES (THIS SHEET ONLY):

1. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
2. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT ROOF CURB PLATFORM. MOUNT INSIDE A WEATHERPROOF OUTLET BOX EQUIPPED WITH WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER. ROUTE BRANCH CIRCUITING UP OPENING OF ROOF CURB AND THEN THRU SIDEWALL. COVER SHALL BE A RED-DOT #CKSUV OR EQUAL. TYPICAL OF 7.
3. TYPICAL AT ALL H.V.A.C. EQUIPMENT: ROUTE BRANCH CIRCUITING UP THRU OPENING OF ROOF CURB & THEN THRU UNIT TO DISCONNECT SWITCH. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT INSIDE UNIT FOR ROUTING OF CONDUCTORS.
4. MOUNT JUNCTION BOX IN ACCESSIBLE ATTIC SPACE BELOW. TYPICAL, U.O.N..
5. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
6. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
7. 3/4"C - 2 #10 + 1 #10 GND.
8. 3/4"C - 2 #8 + 1 #10 GND.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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TITLE
BUILDING 200
ROOF ELECTRICAL PLAN

E2.3

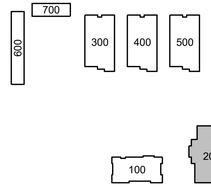
PROJECT 24042

BUILDING200

ROOF ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

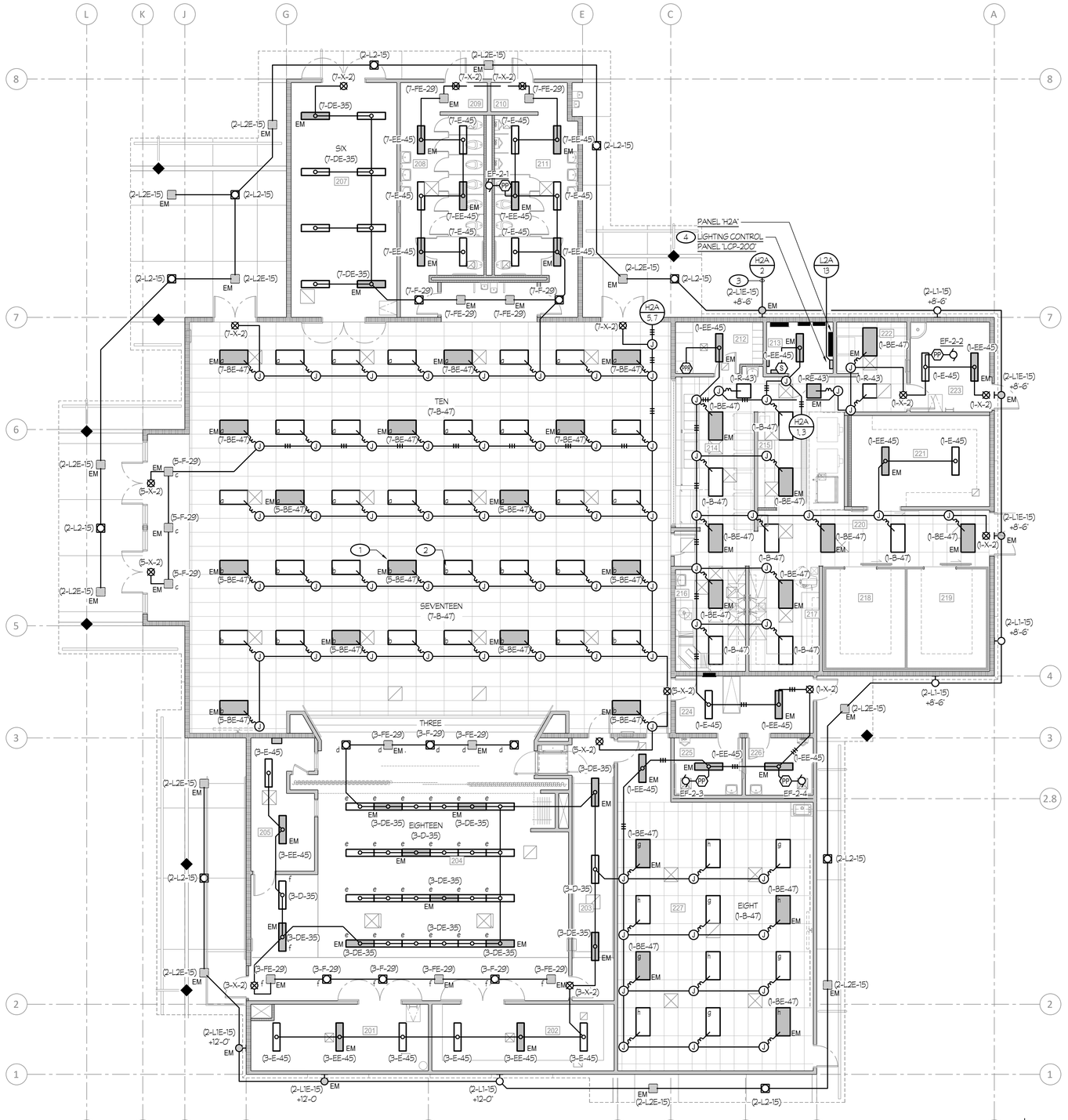
KEY PLAN



Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E 19189
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\PDFS\SCHOOLS\Sanger\Temperance Elem. School\E2.3.dwg DATE SAVED: 06/25/26 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



BUILDING200

LIGHTING PLAN

SCALE: 1/8" = 1'-0"

NOTES (THIS SHEET ONLY):

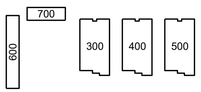
1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. LOWER CASE LETTER DENOTES RESPECTIVE CONTROL ZONE, TYPICAL.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL.
4. PROVIDE AN nLIGHT LIGHTING RELAY PANEL nLIGHT #ARPINTENC08-SM ENCLOSURE WITH #8FCR-MVOLT-HLK-DTC INTERIORS.

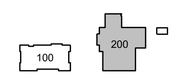
GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

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214	SERVING	+10'-0"			





KEY PLAN

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Visalia, California 93292-6705

APPROVALS

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SANGER, FRESNO COUNTY, CA

REVISIONS

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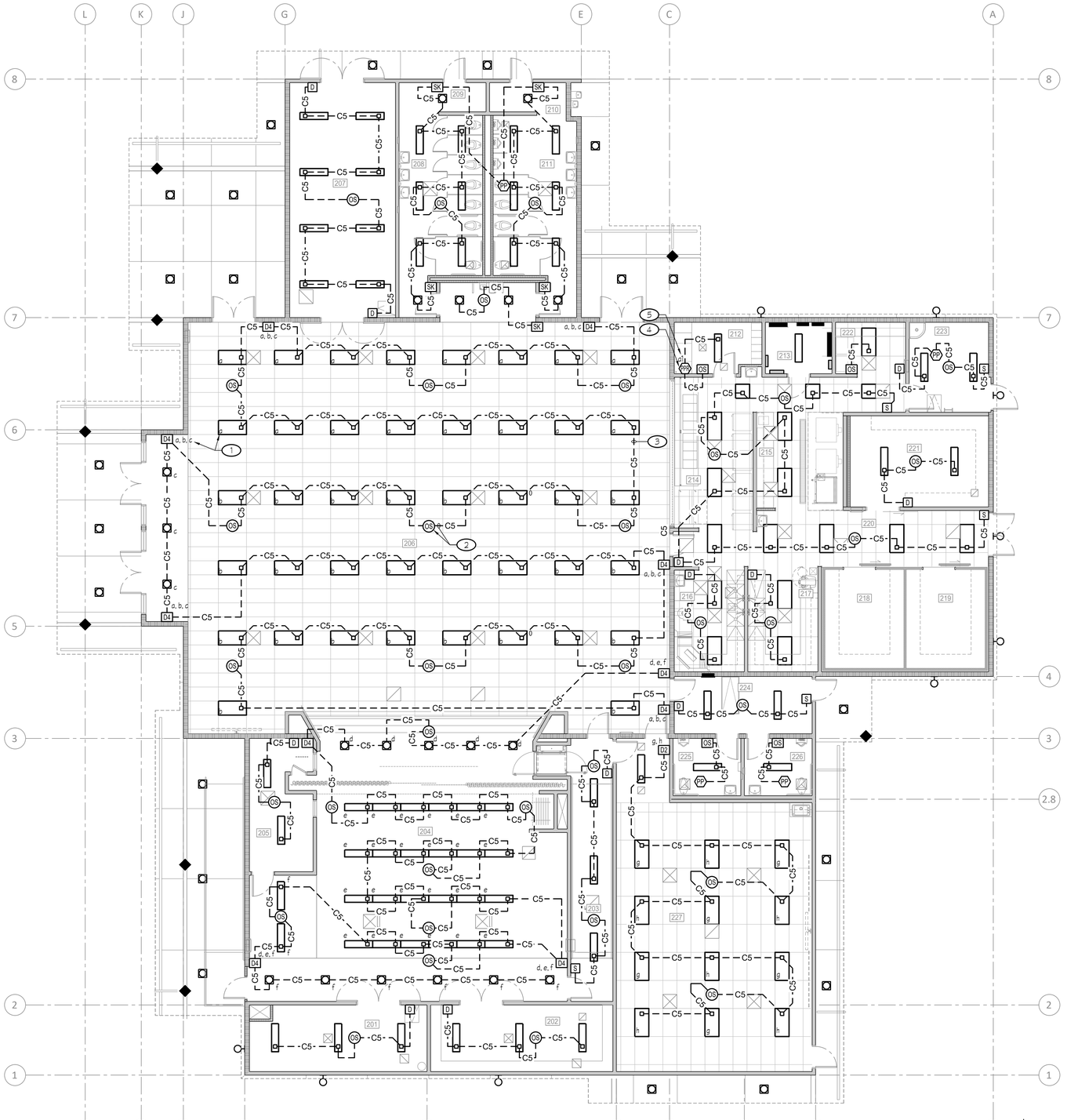
TITLE
BUILDING 200
LIGHTING PLAN

E2.4

PROJECT 24042

SECTION E. KIRK SAWYER
No. E-9780
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\SSD\03\Sanger\Temperance Elem School\E2.4.dwg DATE SAVED: 08/18/26 Br. Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



BUILDING200

LIGHTING CONTROLS PLAN

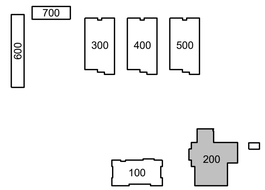
NOTES (THIS SHEET ONLY):

1. LOWER CASE LETTER DENOTES CONTROLLING SWITCH, TYPICAL.
2. REFER TO DETAIL #3/E9.2 FOR LOW VOLTAGE DEVICES AND LIGHTING CONTROL WIRING REQUIREMENTS, TYPICAL.
3. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
4. PROVIDE POWER RELAY PACK PER DETAIL #11/E9.2 MOUNT ABOVE T-BAR CEILING IN ACCESSIBLE ATTIC SPACE OR HIGH ON WALL ABOVE LIGHT SWITCH. ROUTE 120V RECEPTACLE POWER THROUGH CONTACTS. SEE KEYNOTE #32 ON SHEET #E2.2 FOR ADDITIONAL INFORMATION. TYPICAL, U.O.N..
5. DENOTES POWER RELAY PACK THAT CONTROL ROOM DEVICES. SEE CORRESPONDING NOMENCLATURE FOR ROOM POWER CIRCUIT ON POWER PLAN. TYPICAL, U.O.N..

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND					
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214	SERVING	+10'-0"			



KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK EASTHAM — No. E 19788 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-26128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

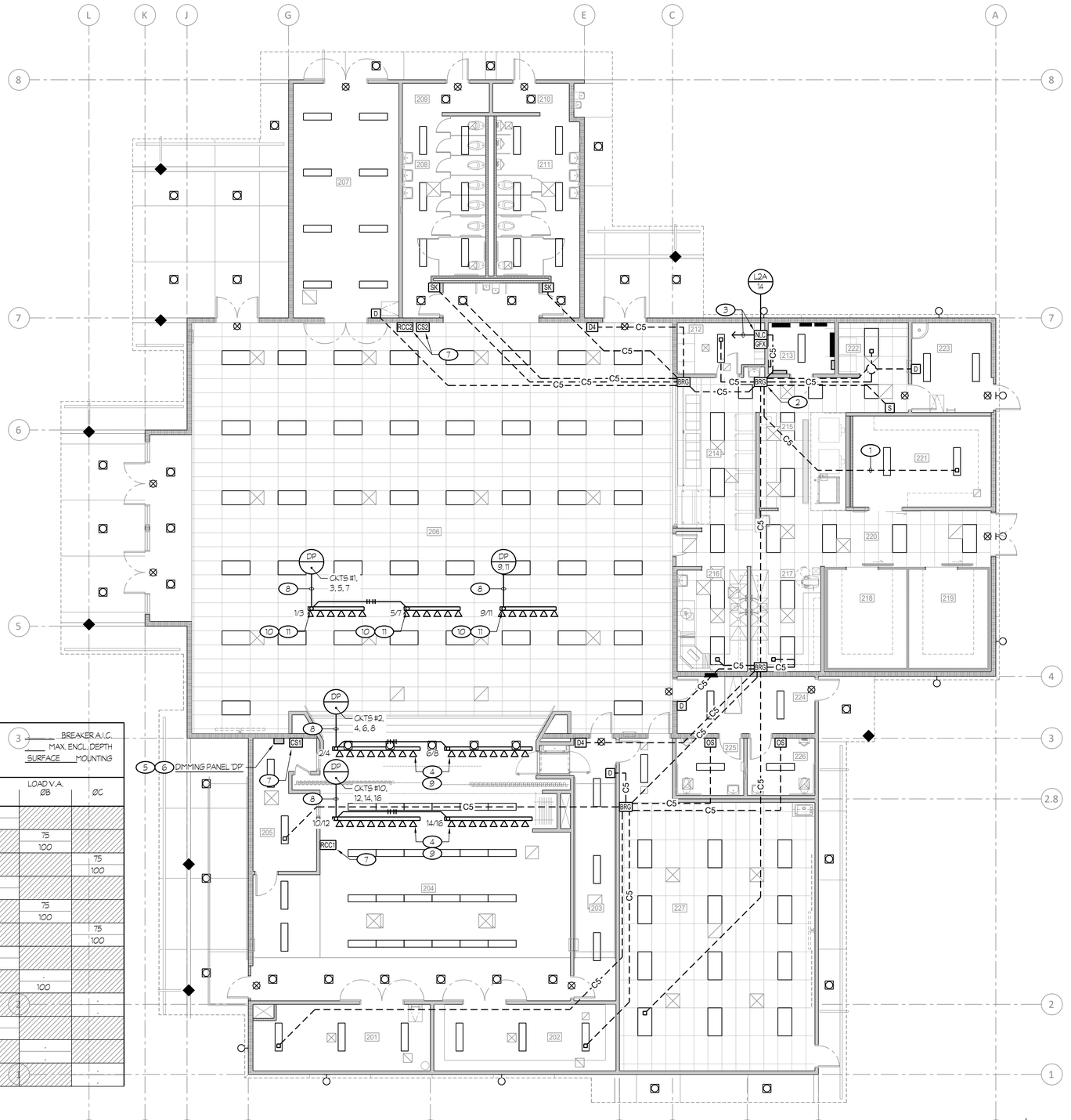
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDING 200
LIGHTING
CONTROLS PLAN

E2.5

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\E2.5.dwg DATE SAVED: 08/27/26 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



NOTES (THIS SHEET ONLY):

1. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
2. TYPICAL OF NETWORK INTERFACE BRIDGE (SYMBOL BRG): LOCATE THE NETWORK INTERFACE BRIDGE IN THE ACCESSIBLE ATTIC SPACE ABOVE THE T-BAR CEILING. SURFACE MOUNT ON THE WALL AT A MINIMUM OF 12" ABOVE THE T-BAR CEILING. RUN 1/2"C - 2 #12 TO NEAREST 'UNSWITCHED' LIGHTING CIRCUIT. RUN CAT. 5e CABLE BETWEEN ADJACENT NETWORK INTERFACE BRIDGES, WHERE APPLICABLE. REFER TO DETAIL #9/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
3. SURFACE MOUNT THE NETWORK LIGHTING CONTROLLER 'NLC' AT +42" A.F.F.. LOCATE THE GRAPHIC WALLPOD ADJACENT TO THE NETWORK CONTROLLER. RUN 1'C - ONE CAT. 5e PATCH CABLE, LENGTH AS REQUIRED, FROM THE 'NLC' TO THE EXISTING PATCH PANEL IN THE MAIN CROSS-CONNECT LOCATED IN THE ELECTRICAL ROOM. REFER TO DETAIL #8/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
4. TYPE 'N2' CIRCUIT LIGHT TRACK WITH EIGHT TYPE 'N' FIXTURES PER TRACK. PROVIDE FOUR (4) 'SPOT' LAMPS AND (4) 'FLOOD' LAMPS. VERIFY FIXTURE LOCATIONS, AIMING AND SWITCHING ARRANGEMENT WITH OWNER.
5. REFER TO DIMMING SYSTEM RISER DIAGRAM, DETAIL #4/E9.3 FOR DESCRIPTION AND WIRING REQUIREMENTS.
6. MOUNT PANEL PER DETAIL #3/E9.3. PROVIDE CONDUIT ENCLOSING SHROUD PER DETAIL #5/E9.3.
7. REFER TO DIMMING SYSTEM RISER DIAGRAM, DETAIL #4/E9.3 FOR DESCRIPTION AND WIRING REQUIREMENTS OF LIGHTING CONTROL DEVICES FOR ROOMS #204 AND #206.
8. 1'C - 8 #10 + 1 #10 GND (NOTE: SEPARATE NEUTRAL FOR EACH CIRCUIT).
9. INSTALL IN ANGLE CEILING MIDWAY UP SLOPE. COORDINATE LOCATION WITH NEW SURFACE MOUNTED GENERAL USE LIGHT FIXTURES AND SMOKE DETECTOR. MOUNT PER DETAIL #6/E9.3.
10. MOUNT PER DETAIL #8/E9.3.
11. TYPE 'N1' CIRCUIT LIGHT TRACK WITH EIGHT TYPE 'N' FIXTURES PER TRACK. PROVIDE FOUR (3) 'SPOT' LAMPS AND (3) 'FLOOD' LAMPS. VERIFY FIXTURE LOCATIONS, AIMING AND SWITCHING ARRANGEMENT WITH OWNER.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

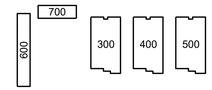
120/277 VOLTS 3 Ø 4 WIRE
_____ A. BUSSING
_____ A. MAIN BKR.
3 _____ BREAKER A.I.C.
_____ MAX. ENCL. DEPTH
SURFACE MOUNTING

DIMMER PANEL "DP"

CIRCUIT NUMBER	DESCRIPTION	ENCLOSURE NO.	DIMMER TYPE	LOAD V.A. ØA	ØB	ØC
1	STAGE LIGHTS - MULTI-PURPOSE	1	.	75		
2	STAGE LIGHTS - FRONT	1	.	100		
3	STAGE LIGHTS - MULTI-PURPOSE	1	.		75	
4	STAGE LIGHTS - FRONT	1	.		100	
5	STAGE LIGHTS - MULTI-PURPOSE	1	.			75
6	STAGE LIGHTS - FRONT	1	.			100
7	STAGE LIGHTS - MULTI-PURPOSE	1	.	75		
8	STAGE LIGHTS - FRONT	1	.	100		
9	STAGE LIGHTS - MULTI-PURPOSE	1	.		75	
10	STAGE LIGHTS - CENTER	1	.		100	
11	STAGE LIGHTS - MULTI-PURPOSE	1	.			75
12	STAGE LIGHTS - CENTER	1	.			100
13	SPARE	1	.	.		.
14	STAGE LIGHTS - CENTER	1	.	100		
15	SPARE	1	.			.
16	STAGE LIGHTS - CENTER	1	.		100	
17	SPARE	1	.			.
18	SPARE	1	.	.		
19	SPARE	1	.		.	
20	SPARE	1	.	.		
21	SPARE	1	.		.	
22	SPARE	1	.	.		
23	SPARE	1	.		.	
24	SPARE	1	.	.		.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
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214	SERVING	+10'-0"			



KEY PLAN

BUILDING200

AUTOMATED DEMAND RESPONSE AND STAGE LIGHTING PLAN

SCALE: 1/8" = 1'-0"

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK EASTHAM — No. E 19789 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS

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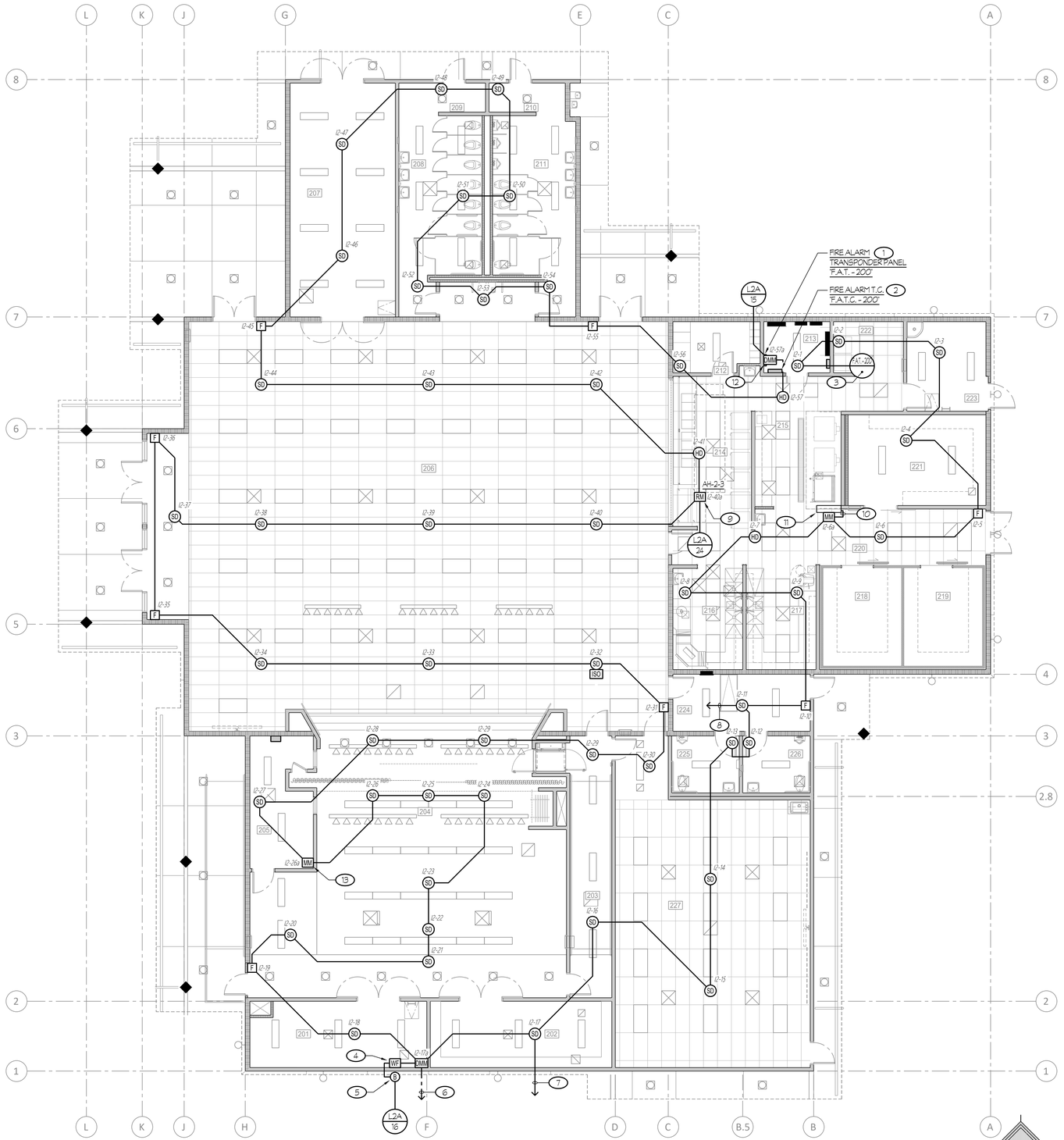
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(559) 627 1926 Fax

TITLE
BUILDING 200
AUTOMATED DEMAND
RESPONSE AND
STAGE LIGHTING PLAN

E2.6

PROJECT 24042

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BUILDING200

FIRE ALARM INITIATION PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. MOUNT FIRE ALARM TRANSPONDER PANEL 'F.A.T. - 200' PER DETAIL #8/E8.8.
2. MOUNT FIRE ALARM T.C. 'F.A.T.C. - 200' PER DETAIL #7/E8.8.
3. 3/4"C - ONE 'FA' CABLE, ONE 'FAP' CABLE (24VDC AUXILIARY POWER FOR SOUNDER BASE AT CO DETECTOR). TYPICAL, U.O.N..
4. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
5. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
6. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE 'P.I.V.'. REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
7. TO SMOKE DETECTOR "*I2-58*" IN MEZZANINE, SEE SHEET #E2.9 FOR CONTINUATION.
8. TO SMOKE DETECTOR "*I2-61*" IN MEZZANINE, SEE SHEET #E2.9 FOR CONTINUATION.
9. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT IN T-BAR CEILING (OR GYPBOARD CEILING), U.O.N.. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/ CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS . PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
10. 1/2"C - 2 #14.
11. ANSUL PANEL FOR KITCHEN HOOD FIRE SUPPRESSION SYSTEM. COORDINATE LOCATION WITH MECHANICAL SUPPLIER.
12. RUN 1/2"C - 4 #12 TO THE BESS CABINET DRY CONTACTS. REFER TO PARTIAL ENLARGED SITE FIRE ALARM PLAN, SHEET #ES1.4 FOR CONTINUATION.
13. LOCATE AT SOUND EQUIPMENT RACK TO ACTIVATE RELAY TO SHUT OFF SYSTEM.

GENERAL NOTE:

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
201	STORAGE	+8'-0"	215	KITCHEN	+10'-0"
202	STORAGE	+8'-0"	216	CLEAN UP	+10'-0"
203	RAMP	+11'-0"	217	FOOD PREP	+10'-0"
204	PLATFORM	+11'-0"	218	REFRIGERATOR	
205	CONTROL	+11'-0"	219	FREEZER	
206	CAFETERIA	+16'-0"	220	STAGING	+10'-0"
207	STORAGE	+10'-0"	221	PANTRY	+10'-0"
208	GIRLS	+10'-0"	222	UTILITY	+10'-0"
209	VESTIBULE	+10'-0"	223	JANITOR	+10'-0"
210	VESTIBULE	+10'-0"	224	VESTIBULE	+8'-0"
211	BOYS	+10'-0"	225	WOMEN	+8'-0"
212	OFFICE	+8'-0"	226	MEN	+8'-0"
213	ELECTRICAL	+8'-0"	227	FLEXIBLE ROOM	+10'-0"
214	SERVING	+10'-0"			

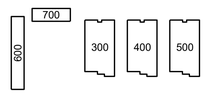
AUTOMATIC FIRE SPRINKLER SYSTEM

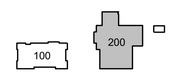
ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER KIRK E. ZAMORA No. E 19780 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORREO No. C-26128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

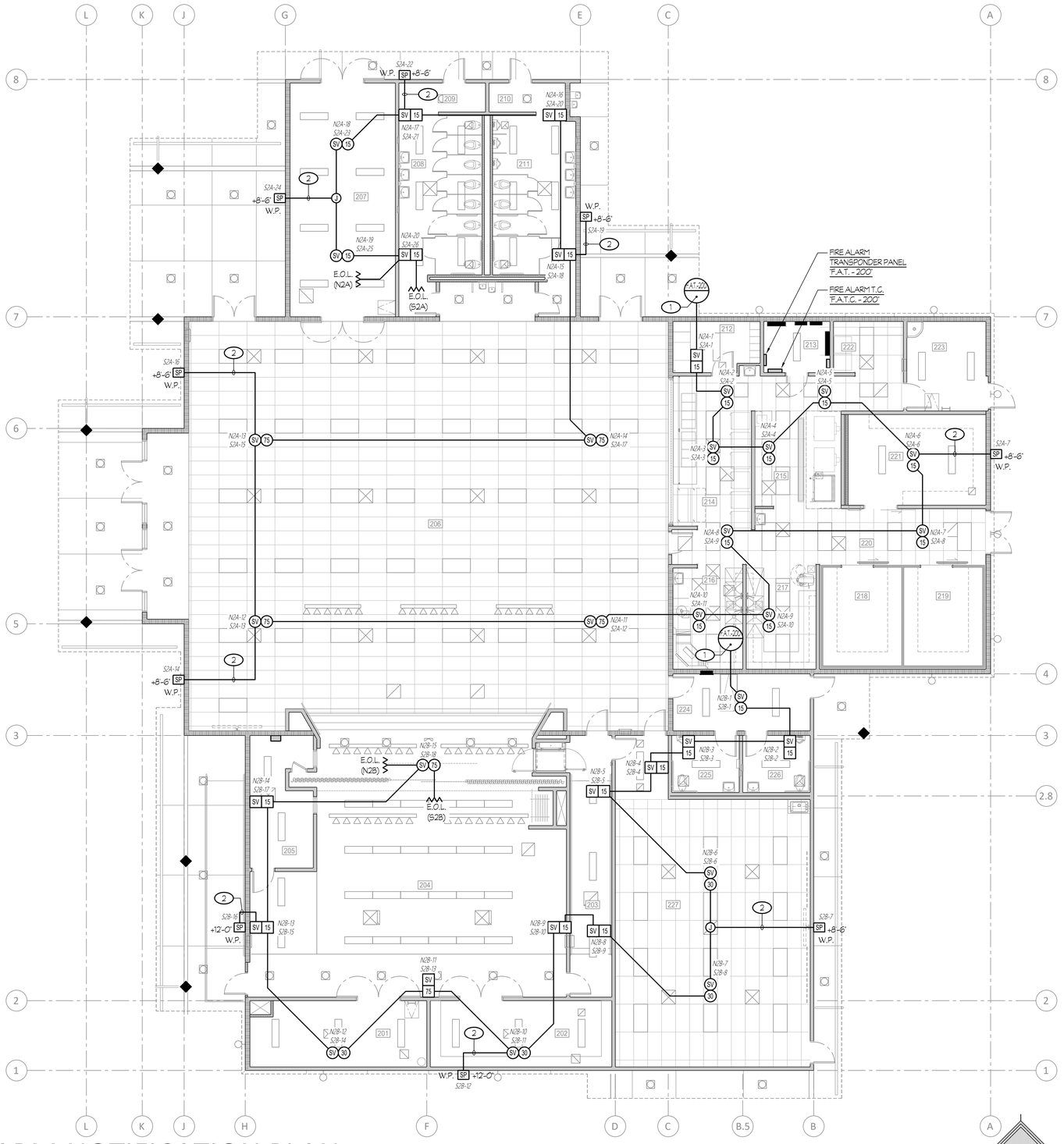
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MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0535 Office
(559) 627.1926 Fax

TITLE
BUILDING 200
FIRE ALARM
INITIATION PLAN

E2.7

PROJECT 24042

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BUILDING200

FIRE ALARM NOTIFICATION PLAN

SCALE: 1/8" = 1'-0"

NOTES (THIS SHEET ONLY):

1. TYPICAL OF FIRE ALARM CIRCUITING BETWEEN NOTIFICATION APPLIANCES, U.O.N.: RUN 3/4"C - ONE 'FSP' CABLE, 2 #12 BETWEEN NOTIFICATION APPLIANCES.
2. 3/4"C - TWO 'FSP' CABLE.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
201	STORAGE	+8'-0"	215	KITCHEN	+10'-0"
202	STORAGE	+8'-0"	216	CLEAN UP	+10'-0"
203	RAMP	+11'-0"	217	FOOD PREP	+10'-0"
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205	CONTROL	+11'-0"	219	FREEZER	
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213	ELECTRICAL	+8'-0"	227	FLEXIBLE ROOM	+10'-0"
214	SERVING	+10'-0"			

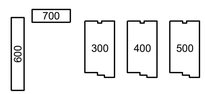
AUTOMATIC FIRE SPRINKLER SYSTEM

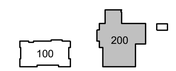
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COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

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KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK ZANDER EASTHAM
No. E 19789
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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No. C-26128
REN. 05-31-27
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SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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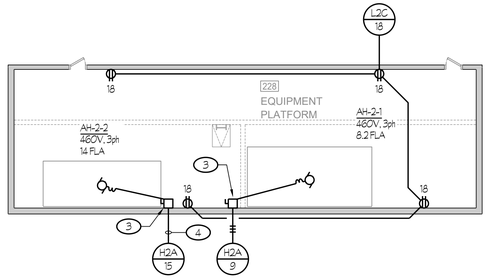
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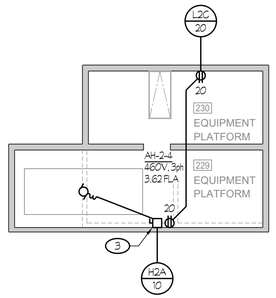
TITLE
BUILDING 200
FIRE ALARM
NOTIFICATION PLAN

E2.8

PROJECT **24042**

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BUILDING 200

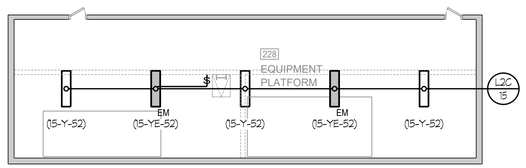
MEZZANINE POWER PLAN

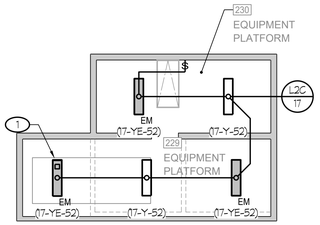
SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT HIGH ON WALL NEAR ROOF STRUCTURE. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS. PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
3. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
4. 3/4" - 3 #10 + 1 #10 GND.





BUILDING 200

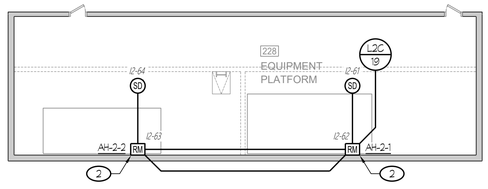
MEZZANINE LIGHITNG PLAN

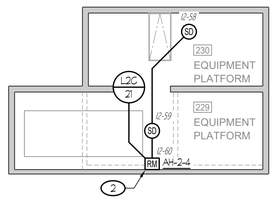
SCALE: 1/8" = 1'-0"

north

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.





BUILDING 200

MEZZANINE FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

north

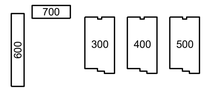
AUTOMATIC FIRE SPRINKLER SYSTEM

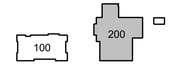
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COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

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KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
STEVEN KIRK EASTHAM
No. E-19180
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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LICENSED ARCHITECT
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No. C-26128
REN. 05-31-27
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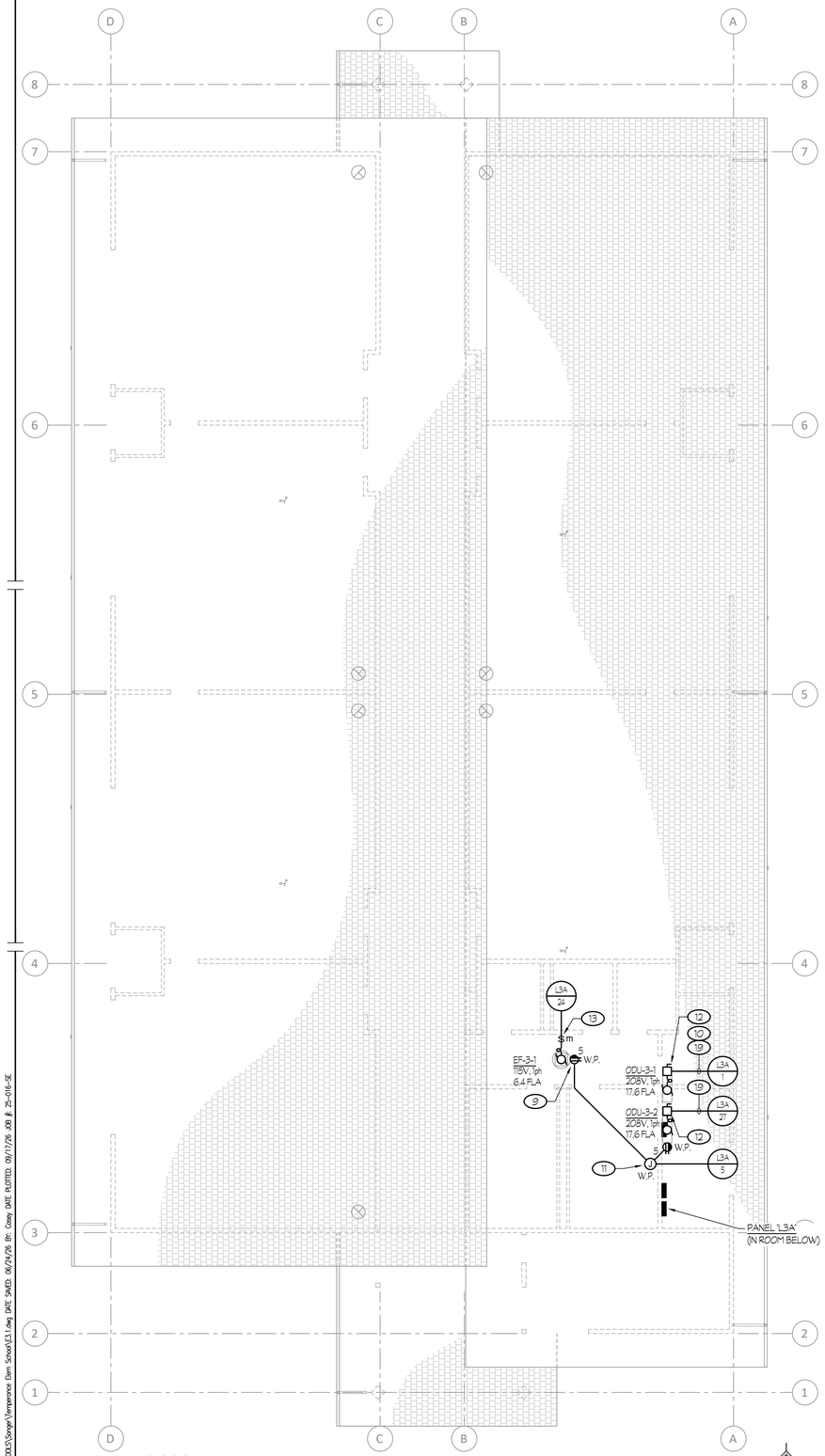
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(559) 627.0530 Office
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TITLE
BUILDING 200
MEZZANINE PLANS

E2.9

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem School\E2.9.dwg DATE SAVED: 11/06/25 Bri Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

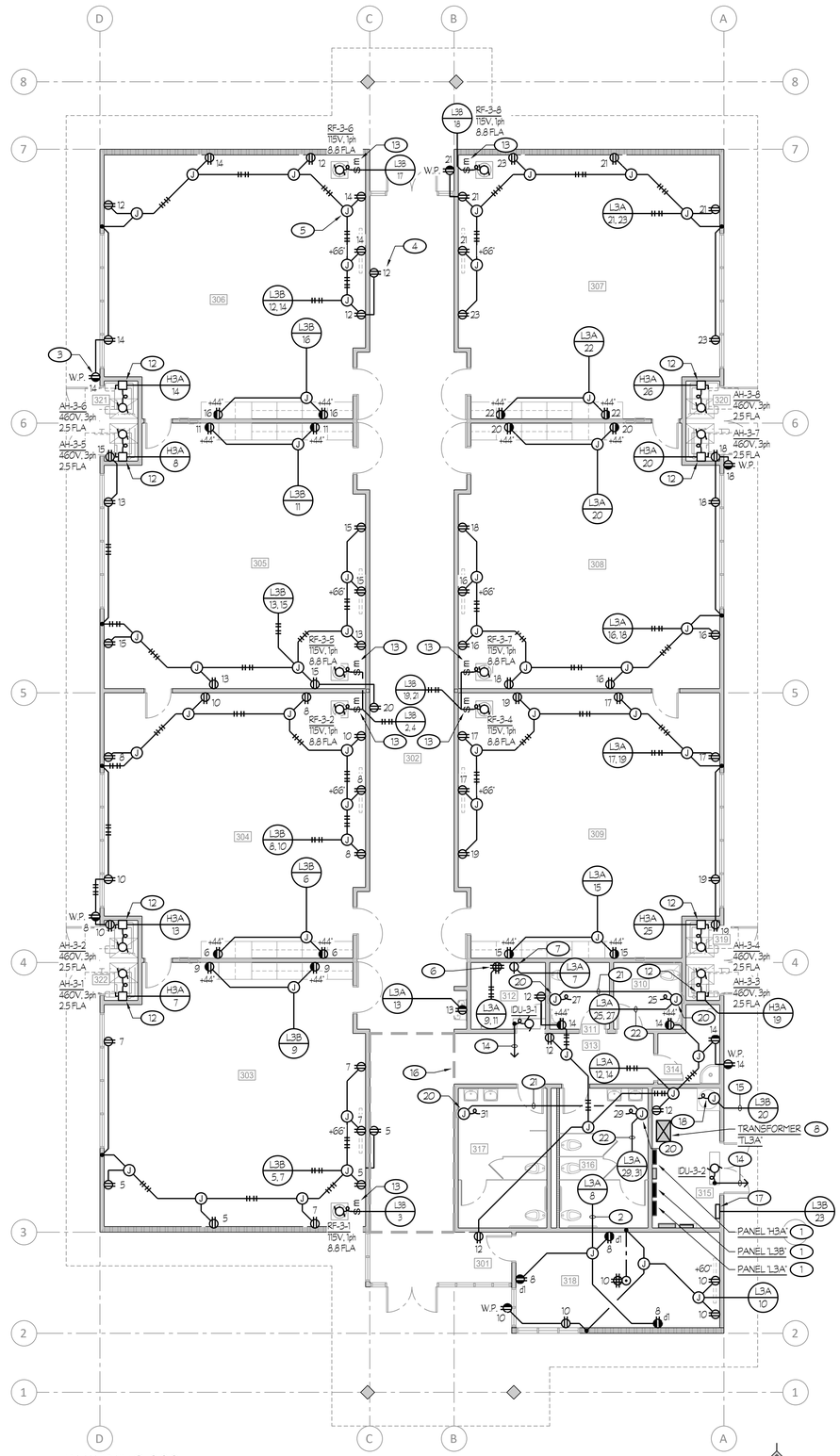


BUILDING 300

ROOF ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 300

POWER PLAN

SCALE: 1/8" = 1'-0"

north

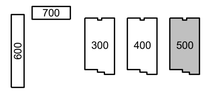
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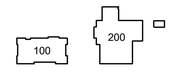
1. MOUNT PANEL PER DETAIL #2/E9.4.
2. ROUTE CIRCUIT THROUGH RECEPTACLE RELAY PACK. SEE SHEET #E3.2 FOR POWER RELAY PACK LOCATION.
3. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT +18" A.F.F., PROVIDE A DIE-CAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, RED-DOT #CKSUV OR EQUAL. TYPICAL OF 6.
4. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
5. DENOTES JUNCTION BOX IN ACCESSIBLE ATTIC SPACE. TYPICAL, U.O.N..
6. PROVIDE DEDICATED DOUBLE DUPLEX RECEPTACLE FOR HORIZONTAL CROSS-CONNECT. COORDINATE AND VERIFY EXACT LOCATION WITH DATA SYSTEMS CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE A 30A, 1-POLE RECEPTACLE (NEMA 5-30R) FOR I.D.F. CONNECTIONS.
8. MOUNT TRANSFORMER PER DETAIL #12/E9.4.
9. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT ROOF CURB PLATFORM. MOUNT INSIDE A WEATHERPROOF OUTLET BOX EQUIPPED WITH WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER. ROUTE BRANCH CIRCUITING UP OPENING OF ROOF CURB AND THEN THRU SIDEWALL. COVER SHALL BE A RED-DOT #CKSUV OR EQUAL. TYPICAL OF 2.
10. TYPICAL AT ALL H.V.A.C. EQUIPMENT: ROUTE BRANCH CIRCUITING UP THRU OPENING OF ROOF CURB & THEN THRU UNIT TO DISCONNECT SWITCH. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT INSIDE UNIT FOR ROUTING OF CONDUCTORS.
11. MOUNT JUNCTION BOX IN ACCESSIBLE ATTIC SPACE BELOW. TYPICAL, U.O.N..
12. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
13. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
14. RUN A 1"C TO RESPECTIVE ODU FOR CONTROLS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL.
15. 3/4"C - 3 #12 + 1 #12 GND.
16. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
17. CONNECT EMS PANEL. SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS.
18. CONNECT WATER HEATER, 208, 3ph, 4,500 WATTS.
19. 3/4"C - 2 #10 + 1 #10 GND.
20. CONNECT HAND DRYER, 120V.
21. 1/2"C - 2 #10 + 1 #10 GND.
22. 3/4"C - 4 #10 + 1 #10 GND.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
301	HALL	VARIES	312	DATA	+10'-0"
302	CORRIDOR	VARIES	313	HALL	+10'-0"
303	CLASSROOM	+10'-0"	314	JANITOR	+10'-0"
304	CLASSROOM	+10'-0"	315	ELECTRICAL	+10'-0"
305	CLASSROOM	+10'-0"	316	GIRLS	+10'-0"
306	CLASSROOM	+10'-0"	317	BOYS	+10'-0"
307	CLASSROOM	+10'-0"	318	CONFERENCE	+10'-0"
308	CLASSROOM	+10'-0"	319	MECH. CLOSET	VARIES
309	CLASSROOM	+10'-0"	320	MECH. CLOSET	VARIES
310	STAFF TOILET	+10'-0"	321	MECH. CLOSET	VARIES
311	STAFF TOILET	+10'-0"	322	MECH. CLOSET	VARIES





KEY PLAN

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Electrical Consultants
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Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORREO
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

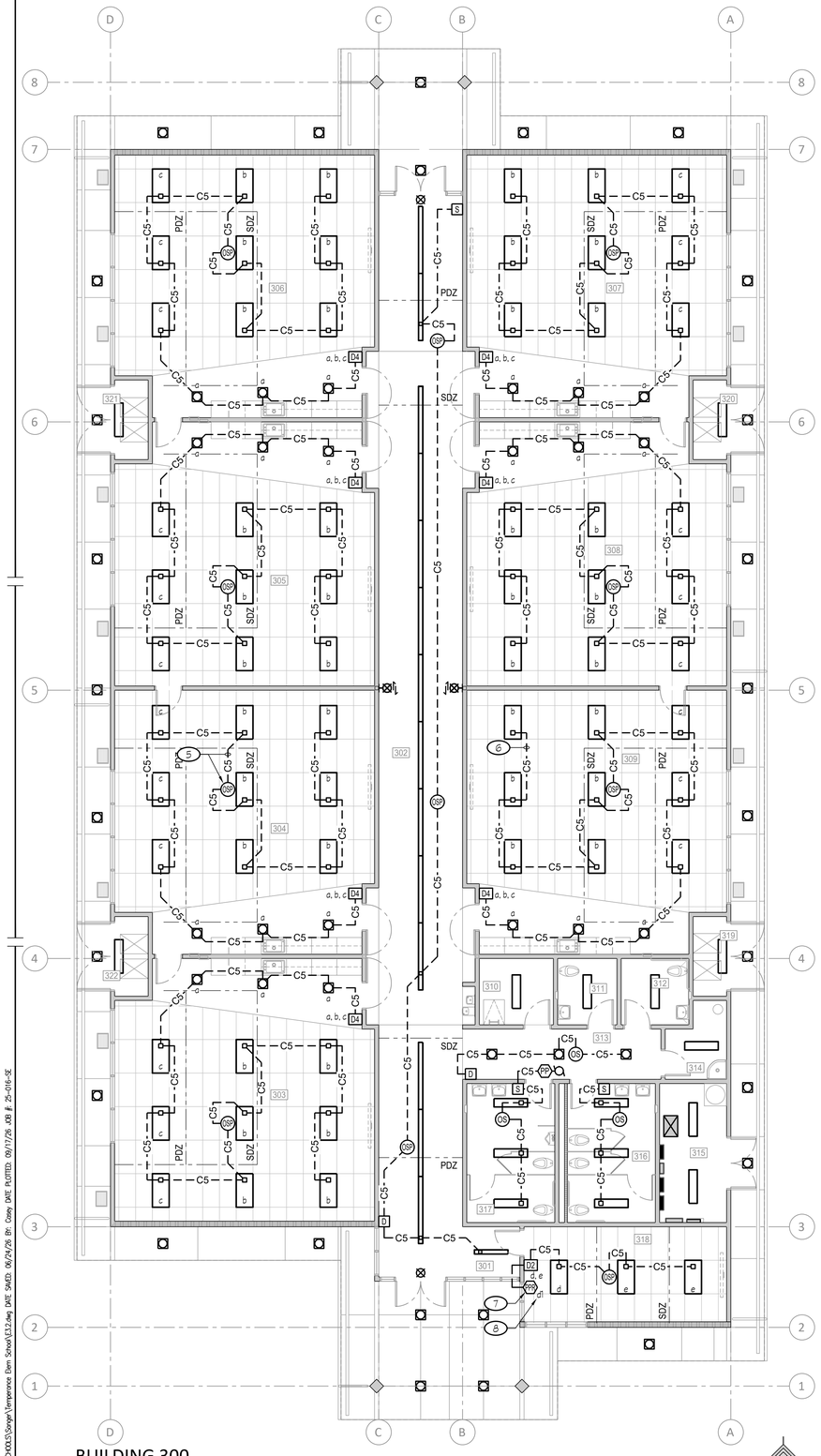
MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
430 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 300
POWER PLAN
AND ROOF
ELECTRICAL PLAN

E3.1

PROJECT 24042

Z:\Drafting\Jobs\RSES\SD\SDJS\Sanger\Temperance Elem School\E3.1.dwg DATE SAVED: 08/04/26 By: Casey DATE PLOTTED: 09/17/26 JOB # 26-016-SE

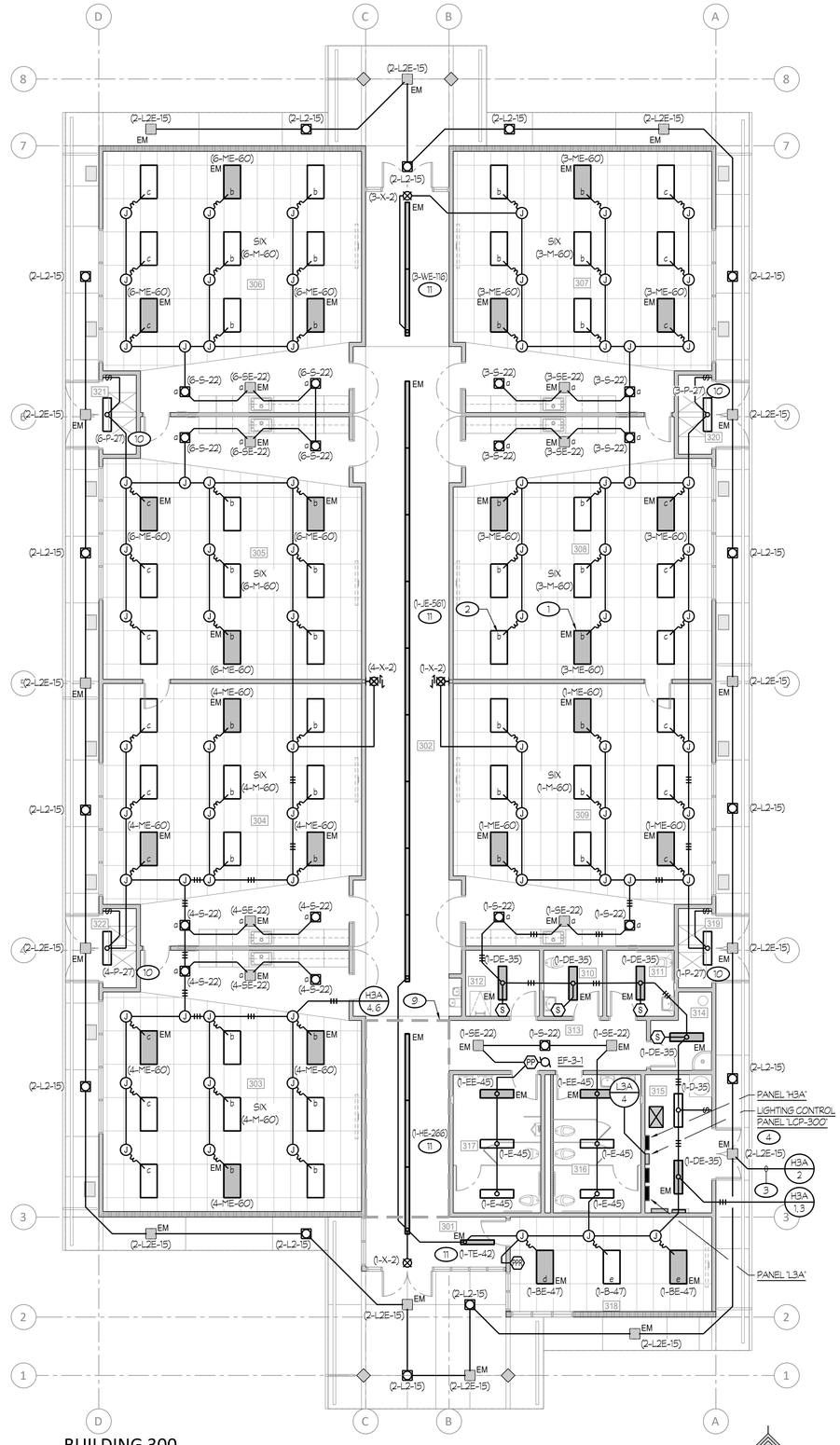


BUILDING 300

LIGHTING CONTROLS PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 300

LIGHTING PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

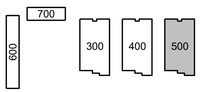
1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. LOWER CASE LETTER DENOTES RESPECTIVE CONTROL ZONE, TYPICAL.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL.
4. PROVIDE AN nLIGHT LIGHTING RELAY PANEL nLIGHT #ARPINTENC08-SM ENCLOSURE WITH #8FCR-MVOLT-HLK-DTC INTERIORS.
5. REFER TO DETAIL #3/E8.2 FOR LOW VOLTAGE DEVICES AND LIGHTING CONTROL WIRING REQUIREMENTS, TYPICAL.
6. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
7. PROVIDE POWER RELAY PACK PER DETAIL #11/E9.2 MOUNT ABOVE T-BAR CEILING IN ACCESSIBLE ATTIC SPACE OR HIGH ON WALL ABOVE LIGHT SWITCH. ROUTE 120V RECEPTACLE POWER THROUGH CONTACTS. SEE KEYNOTE #2 ON SHEET #E9.1 FOR ADDITIONAL INFORMATION, TYPICAL, U.O.N..
8. DENOTES POWER RELAY PACK THAT CONTROL ROOM DEVICES. SEE CORRESPONDING NOMENCLATURE FOR ROOM POWER CIRCUIT ON POWER PLAN, TYPICAL, U.O.N..
9. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
10. MOUNT FIXTURE 122' A.F.F.
11. MOUNT BOTTOM OF FIXTURE AT +10'-0" A.F.F..

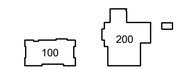
GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
301	HALL	VARIES	312	DATA	+10'-0"
302	CORRIDOR	VARIES	313	HALL	+10'-0"
303	CLASSROOM	+10'-0"	314	JANITOR	+10'-0"
304	CLASSROOM	+10'-0"	315	ELECTRICAL	+10'-0"
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309	CLASSROOM	+10'-0"	320	MECH. CLOSET	VARIES
310	STAFF TOILET	+10'-0"	321	MECH. CLOSET	VARIES
311	STAFF TOILET	+10'-0"	322	MECH. CLOSET	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK D. EASTHAM
No. E 19788
Exp. 6/30/27
ELECTRICAL
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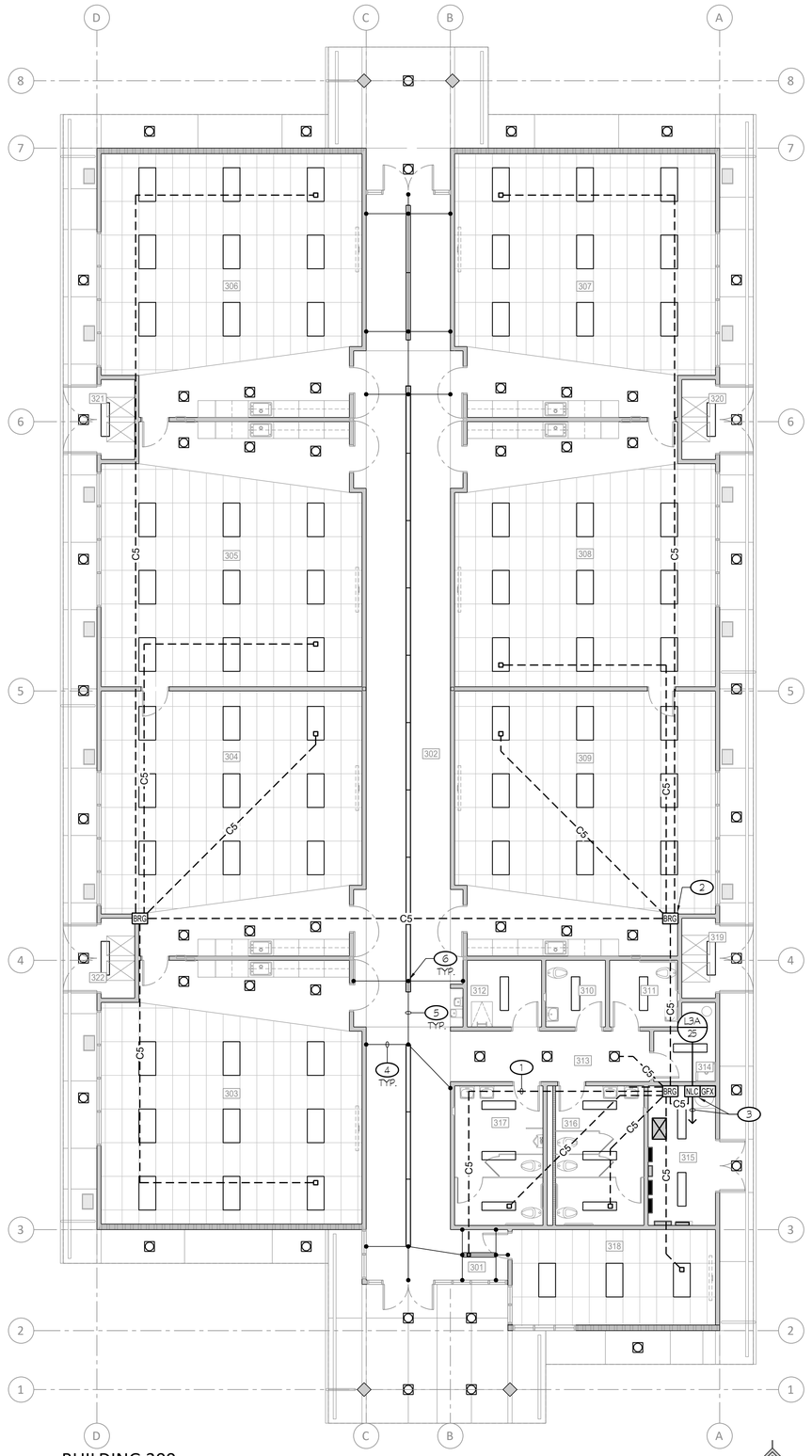
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TITLE
BUILDING 300
LIGHTING PLANS

E3.2

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\E3.2.dwg DATE SAVED: 06/24/26 Bfr. Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



NOTES (THIS SHEET ONLY):

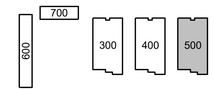
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2. TYPICAL OF NETWORK INTERFACE BRIDGE (SYMBOL SRC): LOCATE THE NETWORK INTERFACE BRIDGE IN THE ACCESSIBLE ATTIC SPACE ABOVE THE T-BAR CEILING. SURFACE MOUNT ON THE WALL AT A MINIMUM OF 12" ABOVE THE T-BAR CEILING. RUN 1/2"C - 2 #12 TO NEAREST "UNSWITCHED" LIGHTING CIRCUIT. RUN CAT. 5e CABLE BETWEEN ADJACENT NETWORK INTERFACE BRIDGES, WHERE APPLICABLE. REFER TO DETAIL #9/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
3. SURFACE MOUNT THE NETWORK LIGHTING CONTROLLER "NLC" AT +42" A.F.F.. LOCATE THE GRAPHIC WALLPOD ADJACENT TO THE NETWORK CONTROLLER. RUN 1"C - ONE CAT. 5e PATCH CABLE, LENGTH AS REQUIRED, FROM THE "NLC" TO THE EXISTING PATCH PANEL IN THE MAIN CROSS-CONNECT LOCATED IN THE ELECTRICAL ROOM. REFER TO DETAIL #8/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
4. PROVIDE SEISMIC RESTRAINT FOR LIGHT FIXTURES PER DETAIL #1/E9.3, TYPICAL. THE "HORIZONTAL" CABLE SHALL RUN CONTINUOUS, FROM WALL TO WALL IN THE NORTH/SOUTH DIRECTION, WITH AN ATTACHMENT AT EACH WALL AND AT EACH "VERTICAL" CABLE.
5. PROVIDE SEISMIC RESTRAINT FOR LIGHT FIXTURES PER DETAIL #2/E9.3, TYPICAL. THE "HORIZONTAL" CABLE SHALL RUN CONTINUOUS, FROM WALL TO WALL IN THE EAST/WEST DIRECTION, WITH AN ATTACHMENT AT EACH WALL AND AT EACH "VERTICAL" CABLE.
6. ATTACHMENT AT EACH VERTICAL SUPPORT CABLE PER DETAIL #2/E9.3.

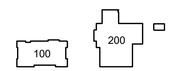
GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

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KEY PLAN

BUILDING 300

AUTOMATED DEMAND RESPONSE PLAN

SCALE: 1/8" = 1'-0"

north

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK SMITH
No. E 19189
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

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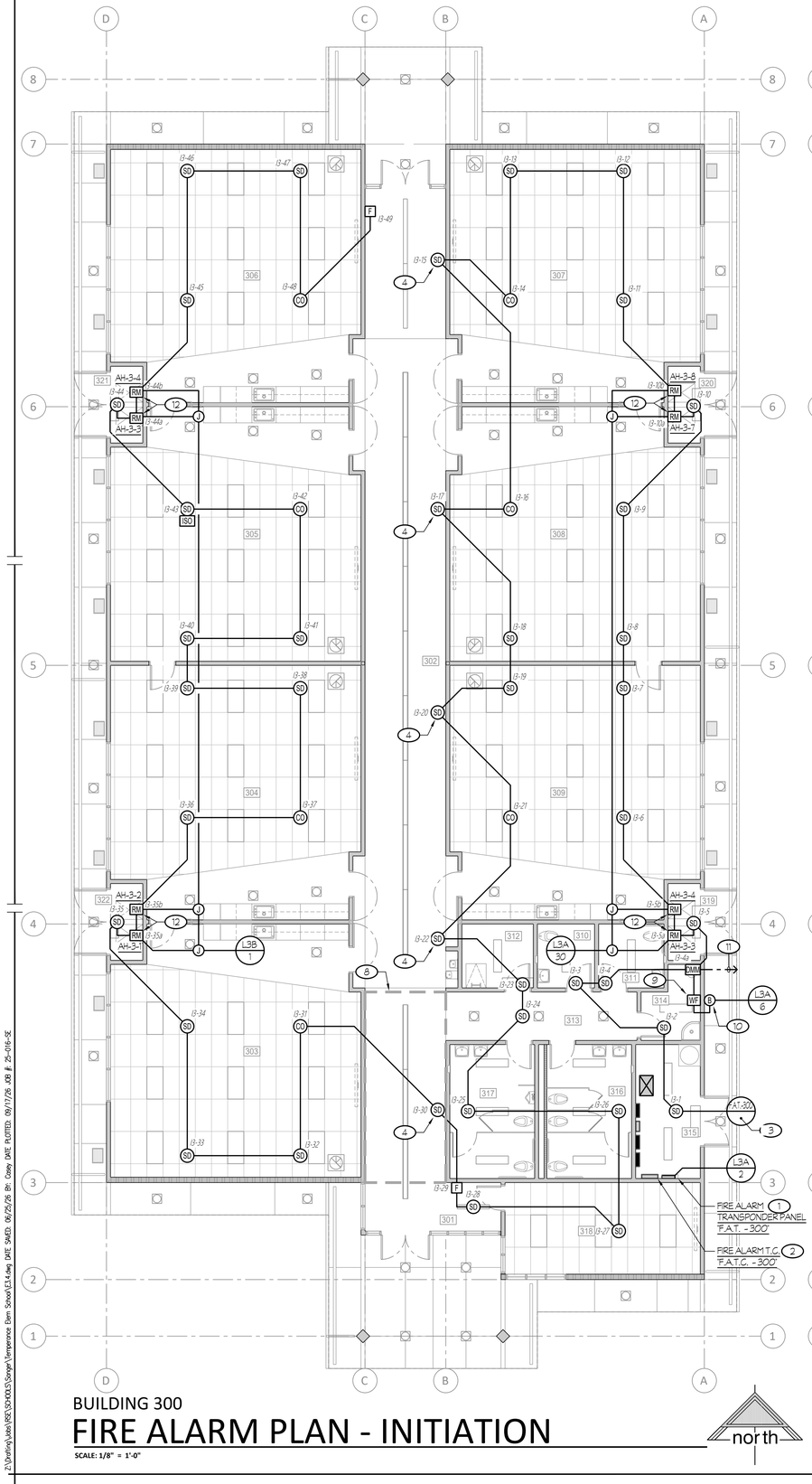
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TITLE
BUILDING 300
AUTOMATED
DEMAND RESPONSE
PLAN

E3.3

PROJECT 24042

Z:\Drafting\Jobs\RSES\SDHOLS\Sanger\Temperance Elem. School\E3.3.dwg DATE SAVED: 06/25/26 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

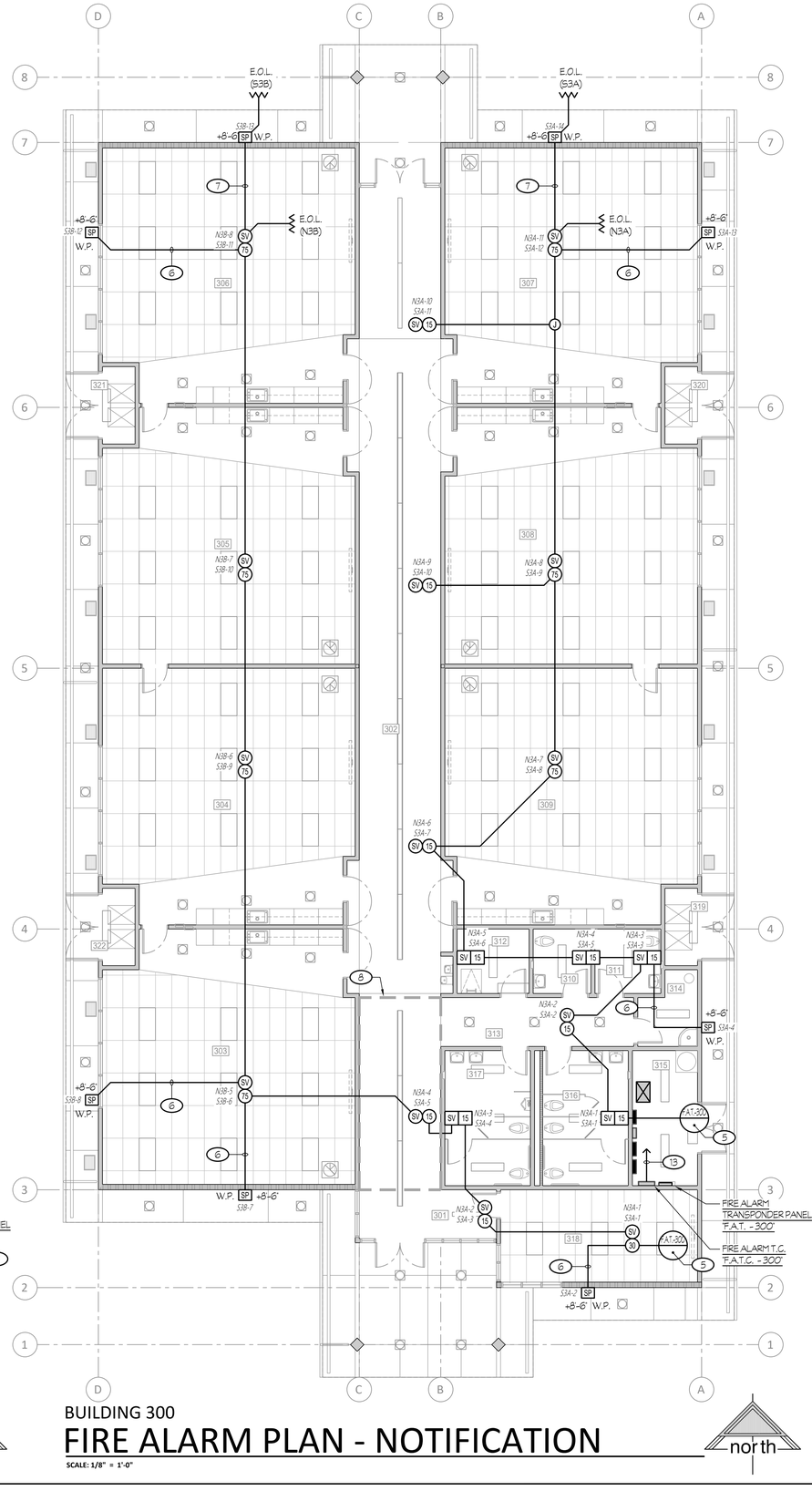


BUILDING 300

FIRE ALARM PLAN - INITIATION

SCALE: 1/8" = 1'-0"

north



BUILDING 300

FIRE ALARM PLAN - NOTIFICATION

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. MOUNT FIRE ALARM TRANSPONDER PANEL 'F.A.T. - 300' PER DETAIL #8/E8.8.
2. MOUNT FIRE ALARM T.C. 'F.A.T.C. - 300' PER DETAIL #7/E8.8.
3. 3/4"C - TWO 'FA' CABLE, ONE 'FAP' CABLE (24VDC AUXILIARY POWER FOR SOUNDER BASE AT CO DETECTOR). TYPICAL, U.O.N..
4. MOUNT SMOKE DETECTOR WITHIN THREE FEET OF HIGHEST POINT OF THE RESPECTIVE ATTIC SPACE.
5. TYPICAL OF FIRE ALARM CIRCUITING BETWEEN NOTIFICATION APPLIANCES, U.O.N.: RUN 3/4"C - ONE 'FSP' CABLE, 2 #12 BETWEEN NOTIFICATION APPLIANCES.
6. 3/4"C - TWO 'FSP' CABLE.
7. 3/4"C - ONE 'FSP' CABLE.
8. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
9. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
10. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
11. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE 'P.I.V.'. REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
12. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT IN T-BAR CEILING (OR GYPBOARD CEILING), U.O.N.. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/ CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS . PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
13. TO RELAY MODULE 'I3-50' IN MEZZANINE, SEE SHEET #E3.5 FOR CONTINUATION.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

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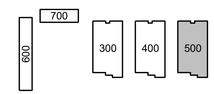
AUTOMATIC FIRE SPRINKLER SYSTEM

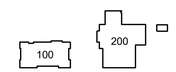
ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS, C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).





KEY PLAN

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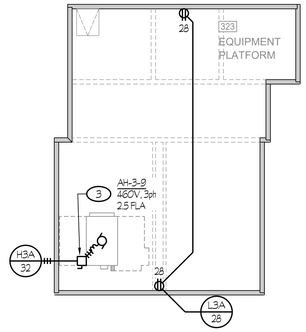
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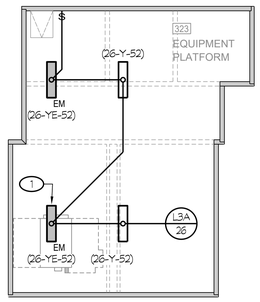


BUILDING 300

MEZZANINE POWER PLAN

SCALE: 1/8" = 1'-0"

north

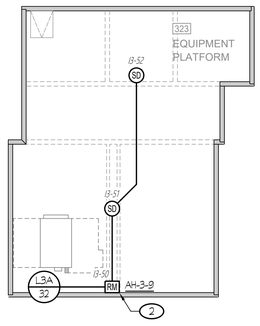


BUILDING 300

MEZZANINE LIGHITNG PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 300

MEZZANINE FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT HIGH ON WALL NEAR ROOF STRUCTURE. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS. PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
3. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

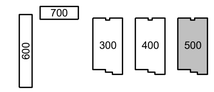
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ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS, C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).



KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E-19108
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

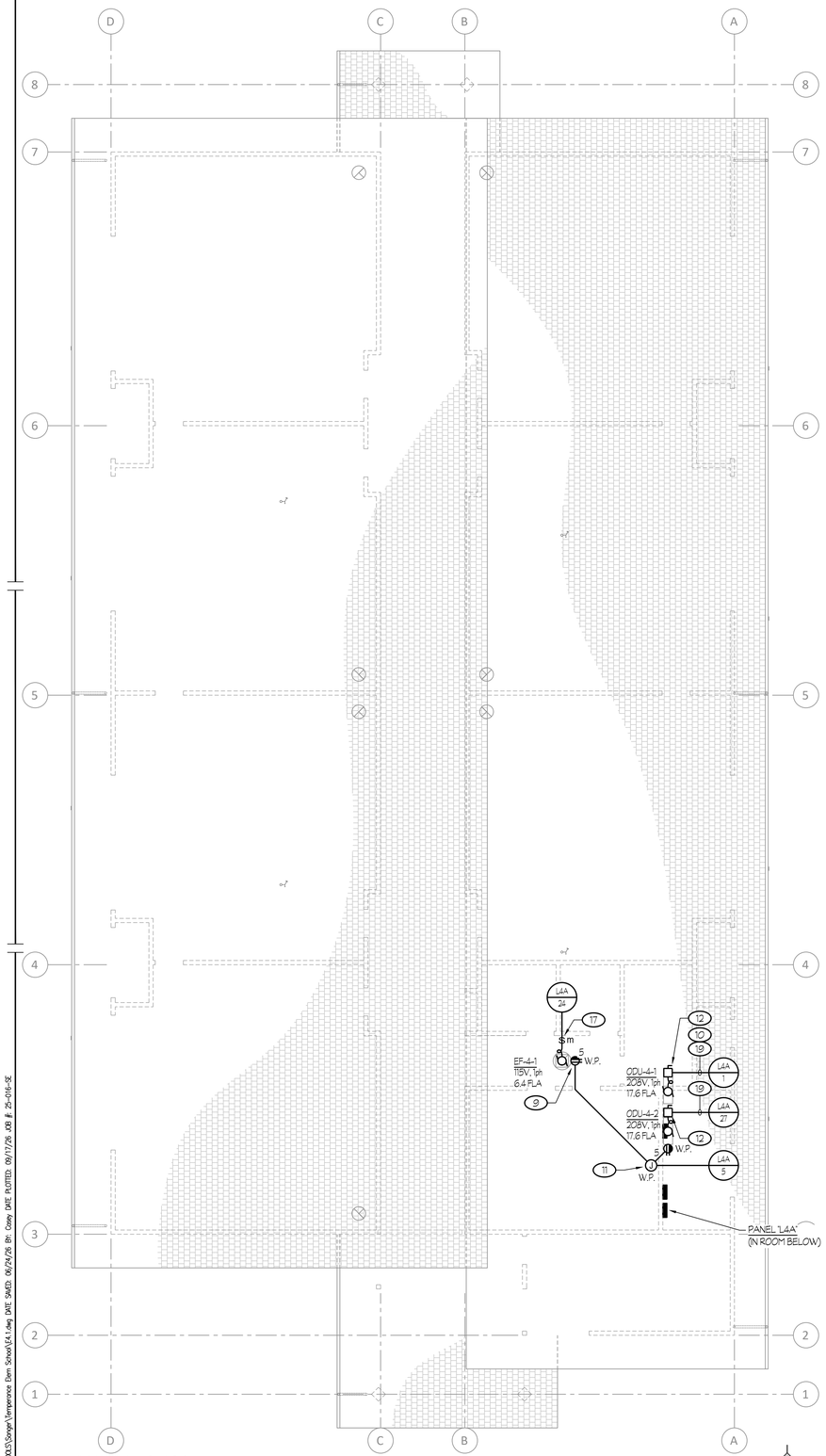
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TITLE
BUILDING 300
MEZZANINE PLANS

E3.5

PROJECT **24042**

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\E3.5.dwg DATE SAVED: 10/16/25 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

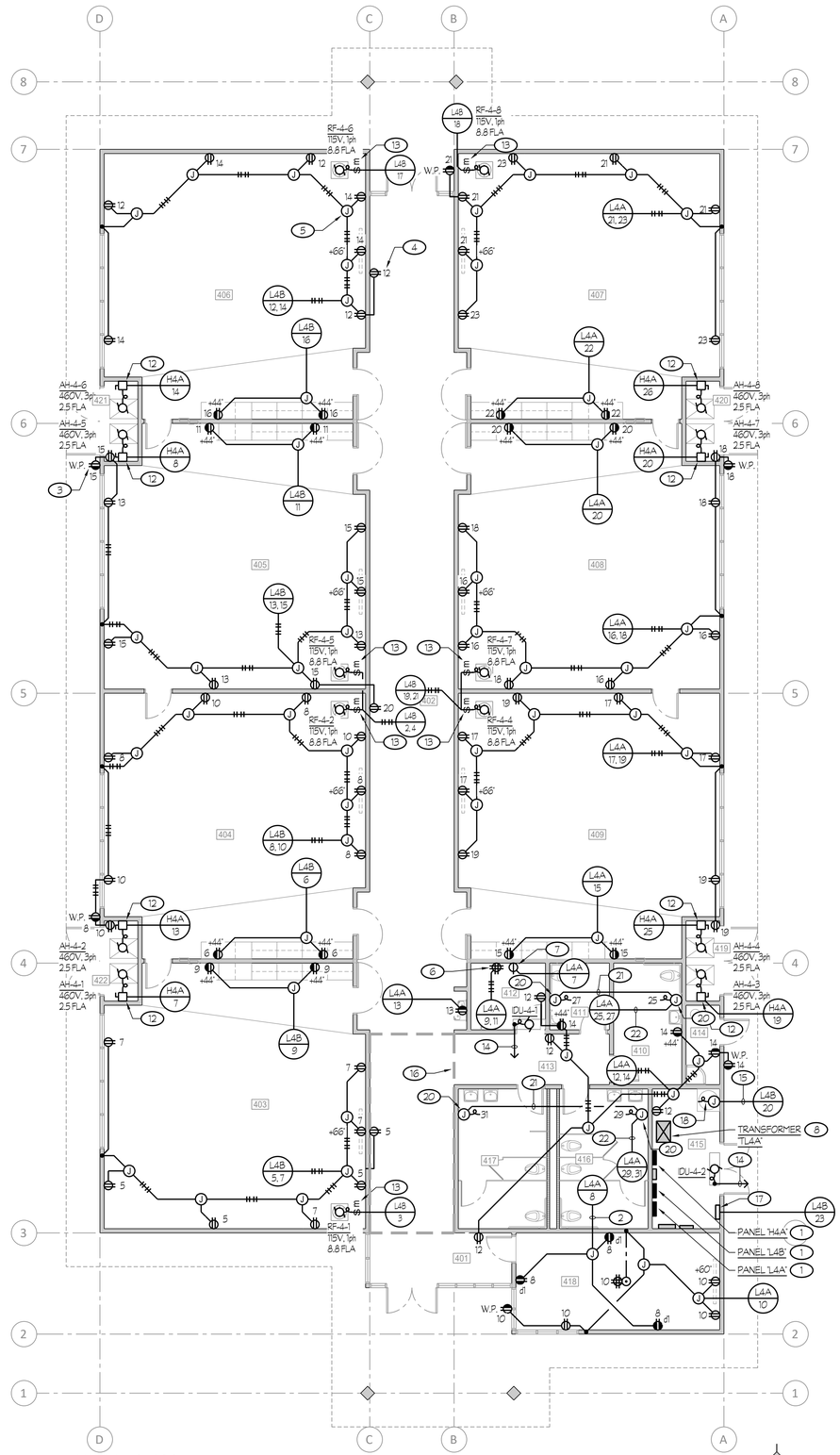


BUILDING 400

ROOF ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 400

POWER PLAN

SCALE: 1/8" = 1'-0"

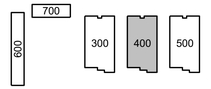
north

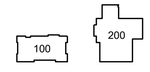
NOTES (THIS SHEET ONLY):

1. MOUNT PANEL PER DETAIL #2/E9.4.
2. ROUTE CIRCUIT THROUGH RECEPTACLE RELAY PACK. SEE SHEET #E3.2 FOR POWER RELAY PACK LOCATION.
3. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT +18" A.F.F., PROVIDE A DIE-CAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, RED-DOT #CKSUV OR EQUAL. TYPICAL OF 6.
4. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
5. DENOTES JUNCTION BOX IN ACCESSIBLE ATTIC SPACE. TYPICAL, U.O.N..
6. PROVIDE DEDICATED DOUBLE DUPLEX RECEPTACLE FOR HORIZONTAL CROSS-CONNECT. COORDINATE AND VERIFY EXACT LOCATION WITH DATA SYSTEMS CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE A 30A, 1-POLE RECEPTACLE (NEMA 5-30R) FOR I.D.F. CONNECTIONS.
8. MOUNT TRANSFORMER PER DETAIL #12/E9.4.
9. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT ROOF CURB PLATFORM. MOUNT INSIDE A WEATHERPROOF OUTLET BOX EQUIPPED WITH WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER. ROUTE BRANCH CIRCUITING UP OPENING OF ROOF CURB AND THEN THRU SIDEWALL. COVER SHALL BE A RED-DOT #CKSUV OR EQUAL. TYPICAL OF 2.
10. TYPICAL AT ALL H.V.A.C. EQUIPMENT: ROUTE BRANCH CIRCUITING UP THRU OPENING OF ROOF CURB & THEN THRU UNIT TO DISCONNECT SWITCH. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT INSIDE UNIT FOR ROUTING OF CONDUCTORS.
11. MOUNT JUNCTION BOX IN ACCESSIBLE ATTIC SPACE BELOW. TYPICAL, U.O.N..
12. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
13. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
14. RUN A 1"C TO RESPECTIVE ODU FOR CONTROLS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL.
15. 3/4"C - 3 #12 + 1 #12 GND.
16. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
17. CONNECT EMS PANEL. SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS.
18. CONNECT WATER HEATER, 208, 3ph, 4,500 WATTS.
19. 3/4"C - 2 #10 + 1 #10 GND.
20. CONNECT HAND DRYER, 120V.
21. 1/2"C - 2 #10 + 1 #10 GND.
22. 3/4"C - 4 #10 + 1 #10 GND.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
401	HALL	VARIES	412	DATA	+10'-0"
402	CORRIDOR	VARIES	413	HALL	+10'-0"
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408	CLASSROOM	+10'-0"	419	MECH. CLOSET	VARIES
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410	S.D.C. TOILET	+10'-0"	421	MECH. CLOSET	VARIES
411	STAFF TOILET	+10'-0"	422	MECH. CLOSET	VARIES





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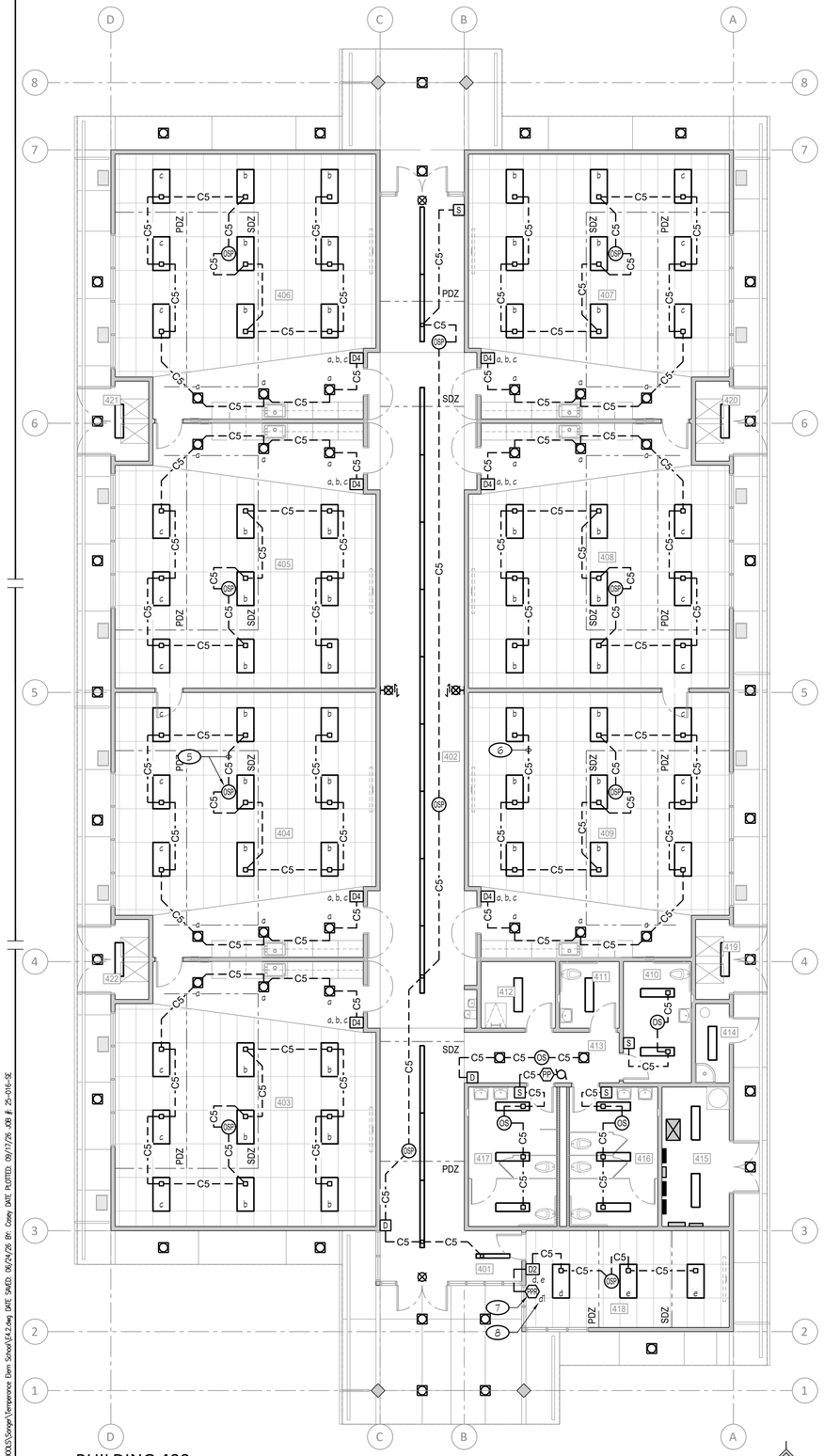
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TITLE
BUILDING 400
POWER PLAN
AND ROOF
ELECTRICAL PLAN

E4.1

PROJECT 24042

Z:\Drafting\Jobs\RSES\SD\00\SS\Sanger\Temperance Elem School\E4.1.dwg DATE SAVED: 08/04/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 26-016-SE

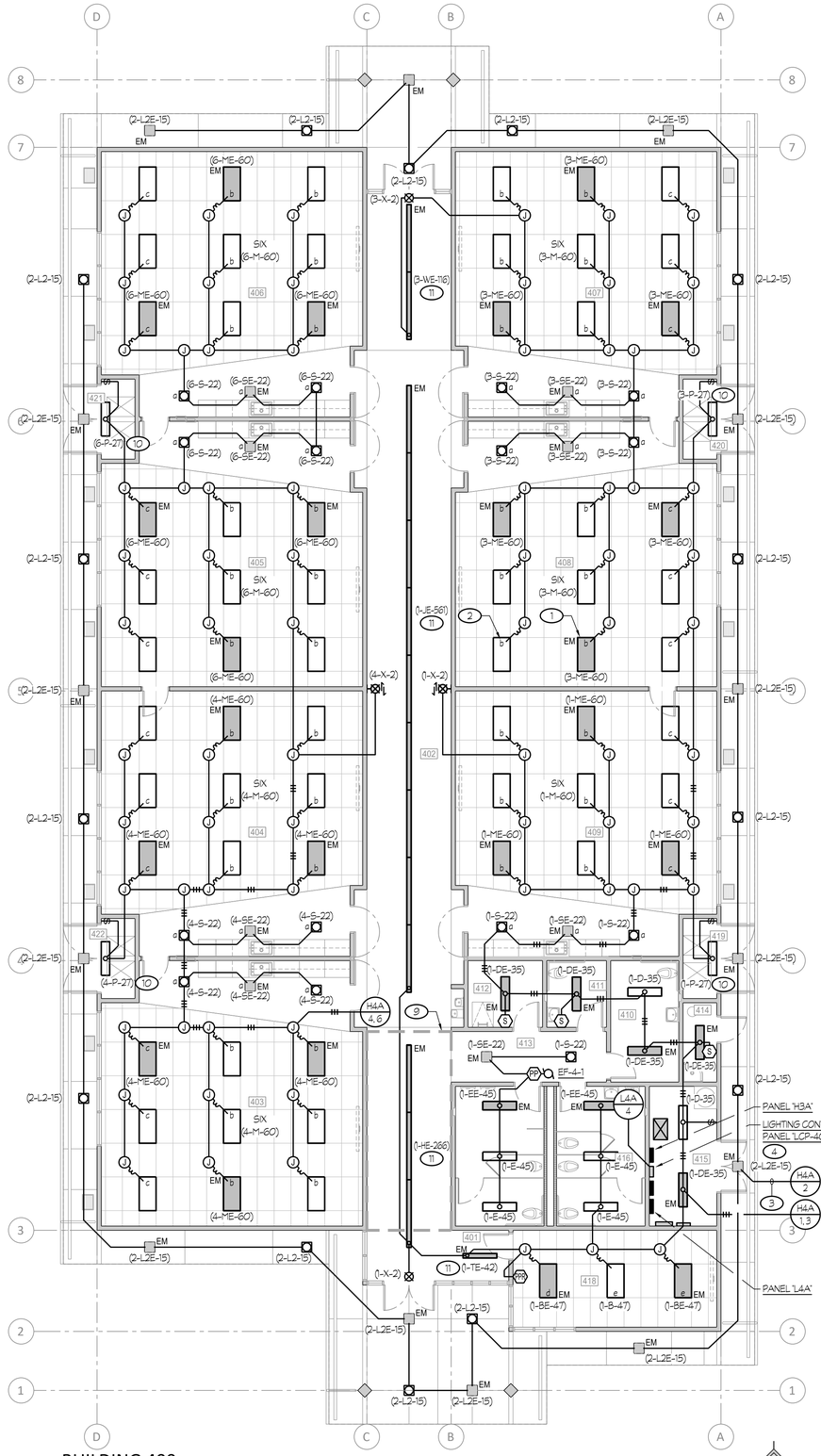


BUILDING 400

LIGHTING CONTROLS PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 400

LIGHTING PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

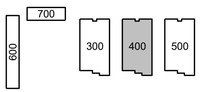
1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. LOWER CASE LETTER DENOTES RESPECTIVE CONTROL ZONE, TYPICAL.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL.
4. PROVIDE AN nLIGHT LIGHTING RELAY PANEL nLIGHT #ARPINTENC08-SM ENCLOSURE WITH #8FCR-MVOLT-HLK-DTC INTERIORS.
5. REFER TO DETAIL #3/E8.2 FOR LOW VOLTAGE DEVICES AND LIGHTING CONTROL WIRING REQUIREMENTS, TYPICAL.
6. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
7. PROVIDE POWER RELAY PACK PER DETAIL #11/E9.2 MOUNT ABOVE T-BAR CEILING IN ACCESSIBLE ATTIC SPACE OR HIGH ON WALL ABOVE LIGHT SWITCH. ROUTE 120V RECEPTACLE POWER THROUGH CONTACTS. SEE KEYNOTE #2 ON SHEET #E3.1 FOR ADDITIONAL INFORMATION. TYPICAL, U.O.N..
8. DENOTES POWER RELAY PACK THAT CONTROL ROOM DEVICES. SEE CORRESPONDING NOMENCLATURE FOR ROOM POWER CIRCUIT ON POWER PLAN. TYPICAL, U.O.N..
9. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
10. MOUNT FIXTURE 122" A.F.F..
11. MOUNT BOTTOM OF FIXTURE AT +10'-0" A.F.F..

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

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403	CLASSROOM	+10'-0"	414	JANITOR	+10'-0"
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408	CLASSROOM	+10'-0"	419	MECH. CLOSET	VARIES
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Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK E. EASTHAM
No. E 19789
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

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No. C-28128
REN. 05-31-27
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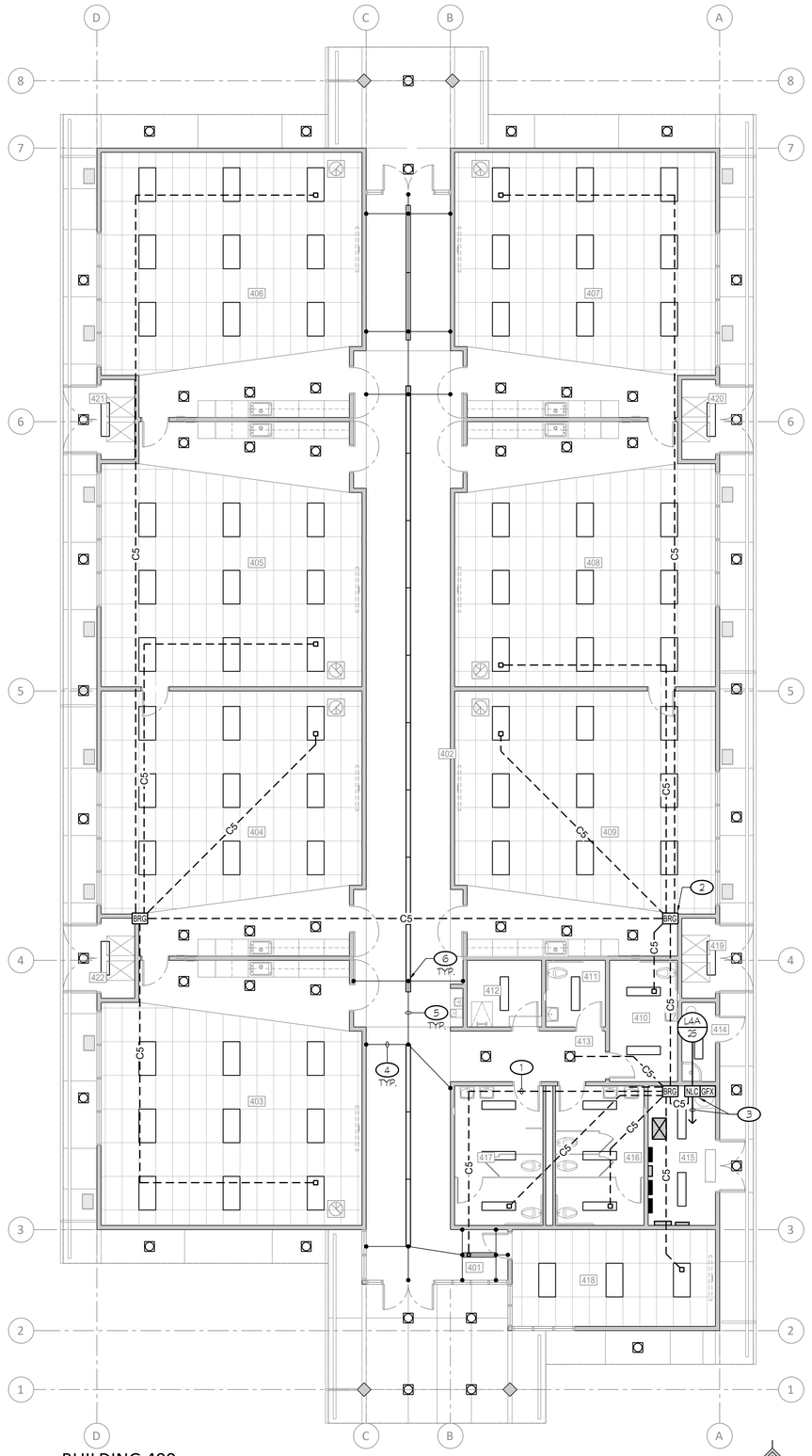
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(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDING 400
LIGHTING PLANS

E4.2

PROJECT 24042

Z:\Drafting\Jobs\KRSES\SCHOOLS\Sanger\Temperance Elem School\E4-2.dwg DATE SAVED: 06/24/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



NOTES (THIS SHEET ONLY):

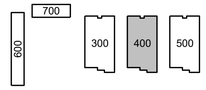
1. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
2. TYPICAL OF NETWORK INTERFACE BRIDGE (SYMBOL SRC): LOCATE THE NETWORK INTERFACE BRIDGE IN THE ACCESSIBLE ATTIC SPACE ABOVE THE T-BAR CEILING. SURFACE MOUNT ON THE WALL AT A MINIMUM OF 12" ABOVE THE T-BAR CEILING. RUN 1/2"C - 2 #12 TO NEAREST 'UNSWITCHED' LIGHTING CIRCUIT. RUN CAT. 5e CABLE BETWEEN ADJACENT NETWORK INTERFACE BRIDGES, WHERE APPLICABLE. REFER TO DETAIL #9/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
3. SURFACE MOUNT THE NETWORK LIGHTING CONTROLLER 'NLC' AT +42" A.F.F.. LOCATE THE GRAPHIC WALLPOD ADJACENT TO THE NETWORK CONTROLLER. RUN 1"C - ONE CAT. 5e PATCH CABLE, LENGTH AS REQUIRED, FROM THE 'NLC' TO THE EXISTING PATCH PANEL IN THE MAIN CROSS-CONNECT LOCATED IN THE ELECTRICAL ROOM. REFER TO DETAIL #8/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
4. PROVIDE SEISMIC RESTRAINT FOR LIGHT FIXTURES PER DETAIL #1/E9.3, TYPICAL. THE 'HORIZONTAL' CABLE SHALL RUN CONTINUOUS, FROM WALL TO WALL IN THE NORTH/SOUTH DIRECTION, WITH AN ATTACHMENT AT EACH WALL AND AT EACH 'VERTICAL' CABLE.
5. PROVIDE SEISMIC RESTRAINT FOR LIGHT FIXTURES PER DETAIL #2/E9.3, TYPICAL. THE 'HORIZONTAL' CABLE SHALL RUN CONTINUOUS, FROM WALL TO WALL IN THE EAST/WEST DIRECTION, WITH AN ATTACHMENT AT EACH WALL AND AT EACH 'VERTICAL' CABLE.
6. ATTACHMENT AT EACH VERTICAL SUPPORT CABLE PER DETAIL #2/E9.3.

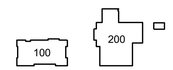
GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

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411	STAFF TOILET	+10'-0"	422	MECH. CLOSET	VARIES





KEY PLAN

BUILDING 400

AUTOMATED DEMAND RESPONSE PLAN

SCALE: 1/8" = 1'-0"

north

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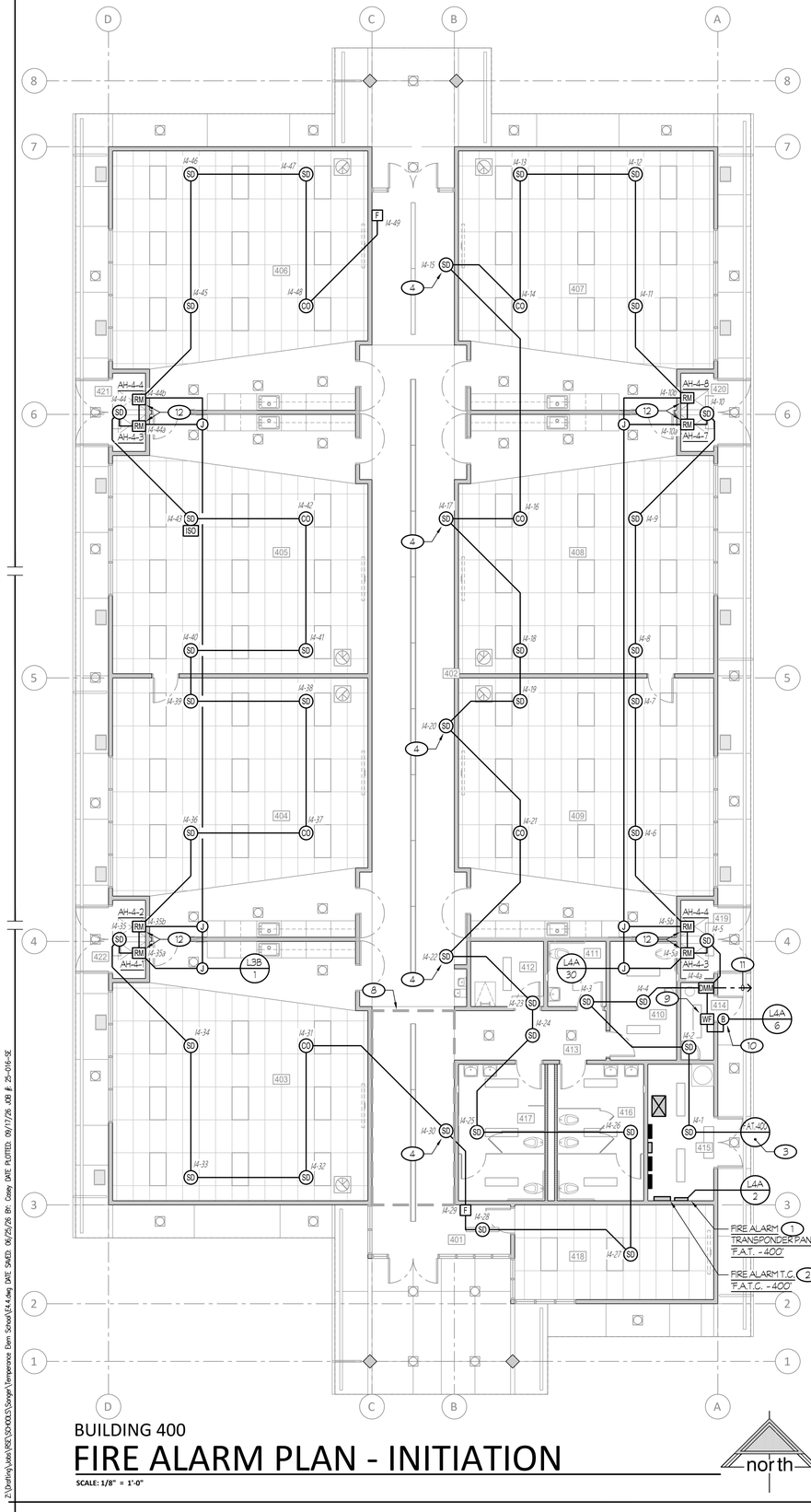
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TITLE
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AUTOMATED
DEMAND RESPONSE
PLAN

E4.3

PROJECT 24042

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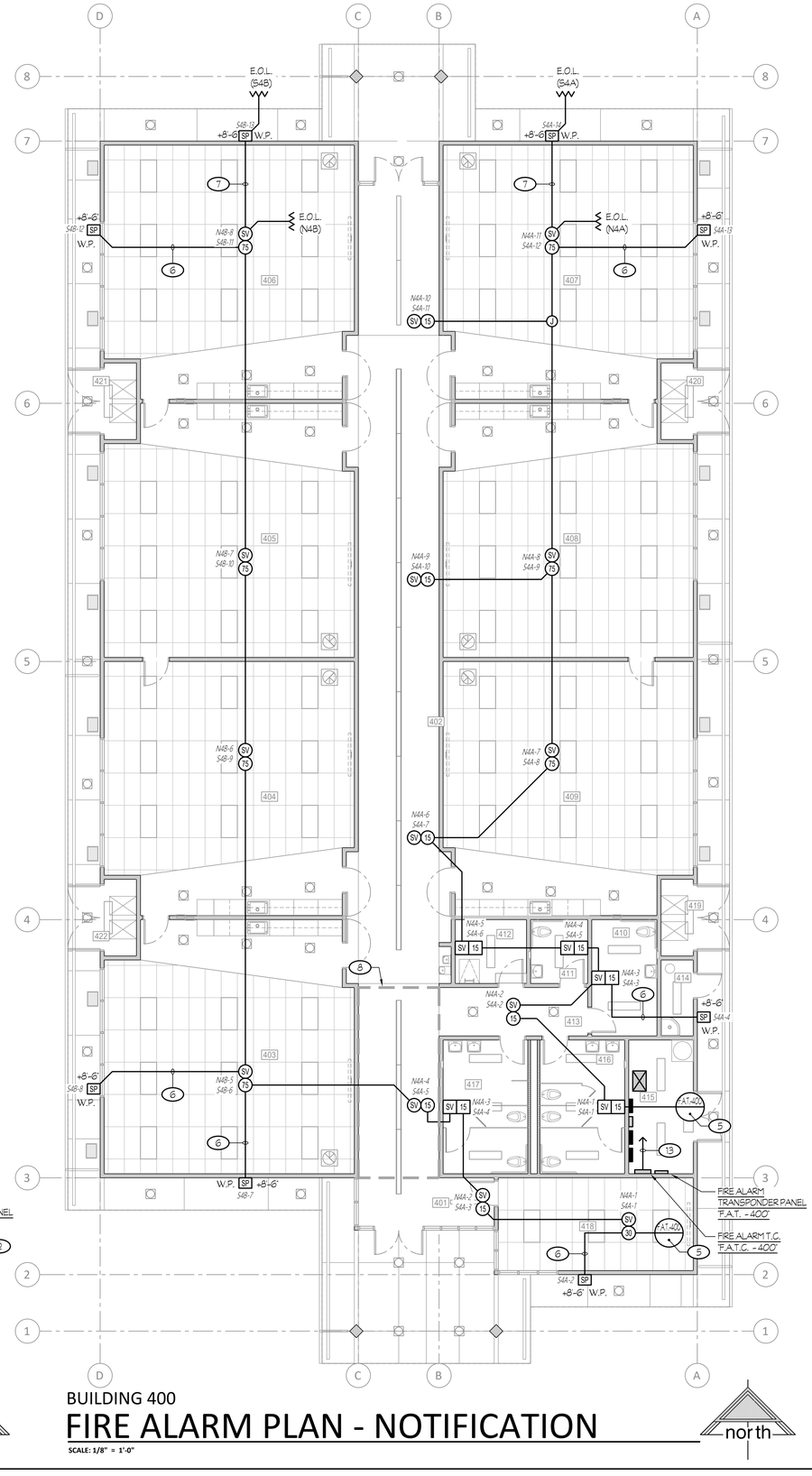


BUILDING 400

FIRE ALARM PLAN - INITIATION

SCALE: 1/8" = 1'-0"

north



BUILDING 400

FIRE ALARM PLAN - NOTIFICATION

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. MOUNT FIRE ALARM TRANSPONDER PANEL "F.A.T. - 400' PER DETAIL #8/E8.8.
2. MOUNT FIRE ALARM T.C. "F.A.T.C. - 400' PER DETAIL #7/E8.8.
3. 3/4"C - TWO "FA" CABLE, ONE "FAP" CABLE (24VDC AUXILIARY POWER FOR SOUNDER BASE AT CO DETECTOR). TYPICAL, U.O.N..
4. MOUNT SMOKE DETECTOR WITHIN THREE FEET OF HIGHEST POINT OF THE RESPECTIVE ATTIC SPACE.
5. TYPICAL OF FIRE ALARM CIRCUITING BETWEEN NOTIFICATION APPLIANCES, U.O.N.: RUN 3/4"C - ONE "FSP" CABLE, 2 #12 BETWEEN NOTIFICATION APPLIANCES.
6. 3/4"C - TWO "FSP" CABLE.
7. 3/4"C - ONE "FSP" CABLE.
8. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
9. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
10. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
11. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE "P.I.V.". REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
12. PROVIDE A RELAY MODULE FOR "UNIT SHUTDOWN" OF RESPECTIVE AC UNIT. FLUSH MOUNT IN T-BAR CEILING (OR GYPBOARD CEILING), U.O.N.. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/ CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS . PROVIDE AN ENGRAVED NAMEPLATE: "UNIT SHUTDOWN, AH-_".
13. TO RELAY MODULE "I4-50" IN MEZZANINE, SEE SHEET #E3.5 FOR CONTINUATION.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

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403	CLASSROOM	+10'-0"	414	JANITOR	+10'-0"
404	CLASSROOM	+10'-0"	415	ELECTRICAL	+10'-0"
405	CLASSROOM	+10'-0"	416	GIRLS	+10'-0"
406	CLASSROOM	+10'-0"	417	BOYS	+10'-0"
407	CLASSROOM	+10'-0"	418	CONFERENCE	+10'-0"
408	CLASSROOM	+10'-0"	419	MECH. CLOSET	VARIES
409	CLASSROOM	+10'-0"	420	MECH. CLOSET	VARIES
410	S.D.C. TOILET	+10'-0"	421	MECH. CLOSET	VARIES
411	STAFF TOILET	+10'-0"	422	MECH. CLOSET	VARIES

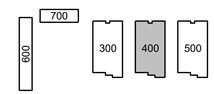
AUTOMATIC FIRE SPRINKLER SYSTEM

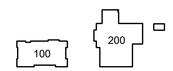
ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
STEPHEN KIRK EASTHAM
No. E 18189
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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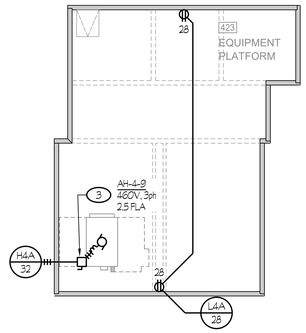
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(559) 627.8530 Office
(559) 627.1926 Fax

TITLE
BUILDING 400
FIRE ALARM
PLANS

E4.4

PROJECT 24042

Z:\Drafting\Jobs\RES\SCHOOLS\Sanger\Temperance Elem. School\E4.4.dwg DATE: SAVED: 06/25/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

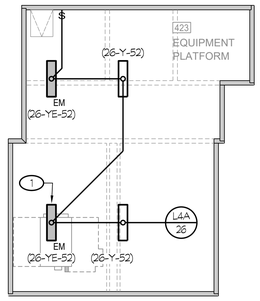


BUILDING 400

MEZZANINE POWER PLAN

SCALE: 1/8" = 1'-0"

north

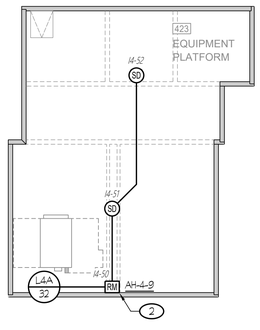


BUILDING 400

MEZZANINE LIGHITNG PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 400

MEZZANINE FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT HIGH ON WALL NEAR ROOF STRUCTURE. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS. PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
3. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

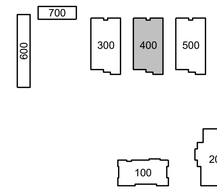
AUTOMATIC FIRE SPRINKLER SYSTEM

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COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

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Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

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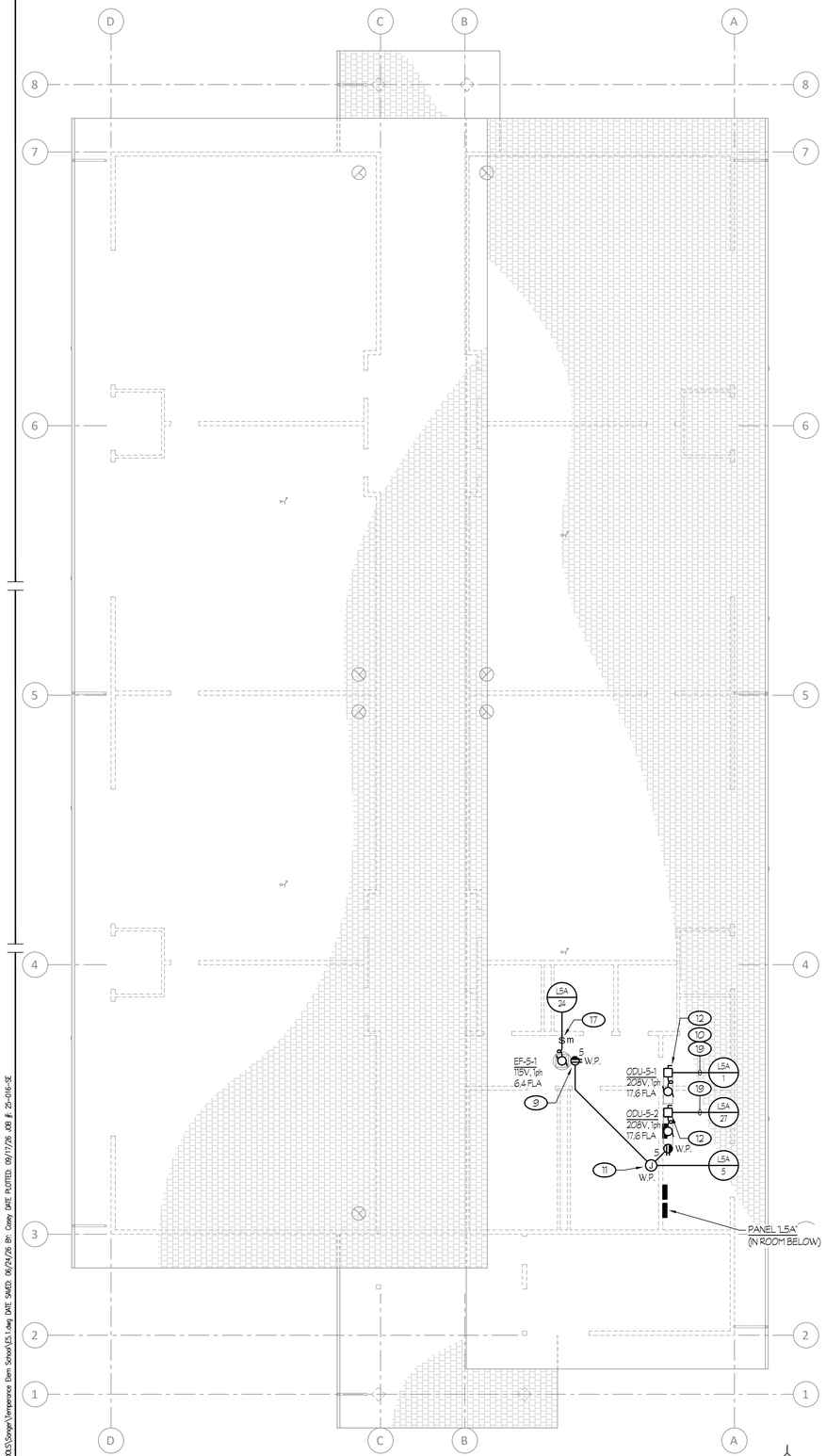
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TITLE
BUILDING 400
MEZZANINE PLANS

E4.5

PROJECT **24042**

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem School\E4.5.dwg DATE SAVED: 10/16/25 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

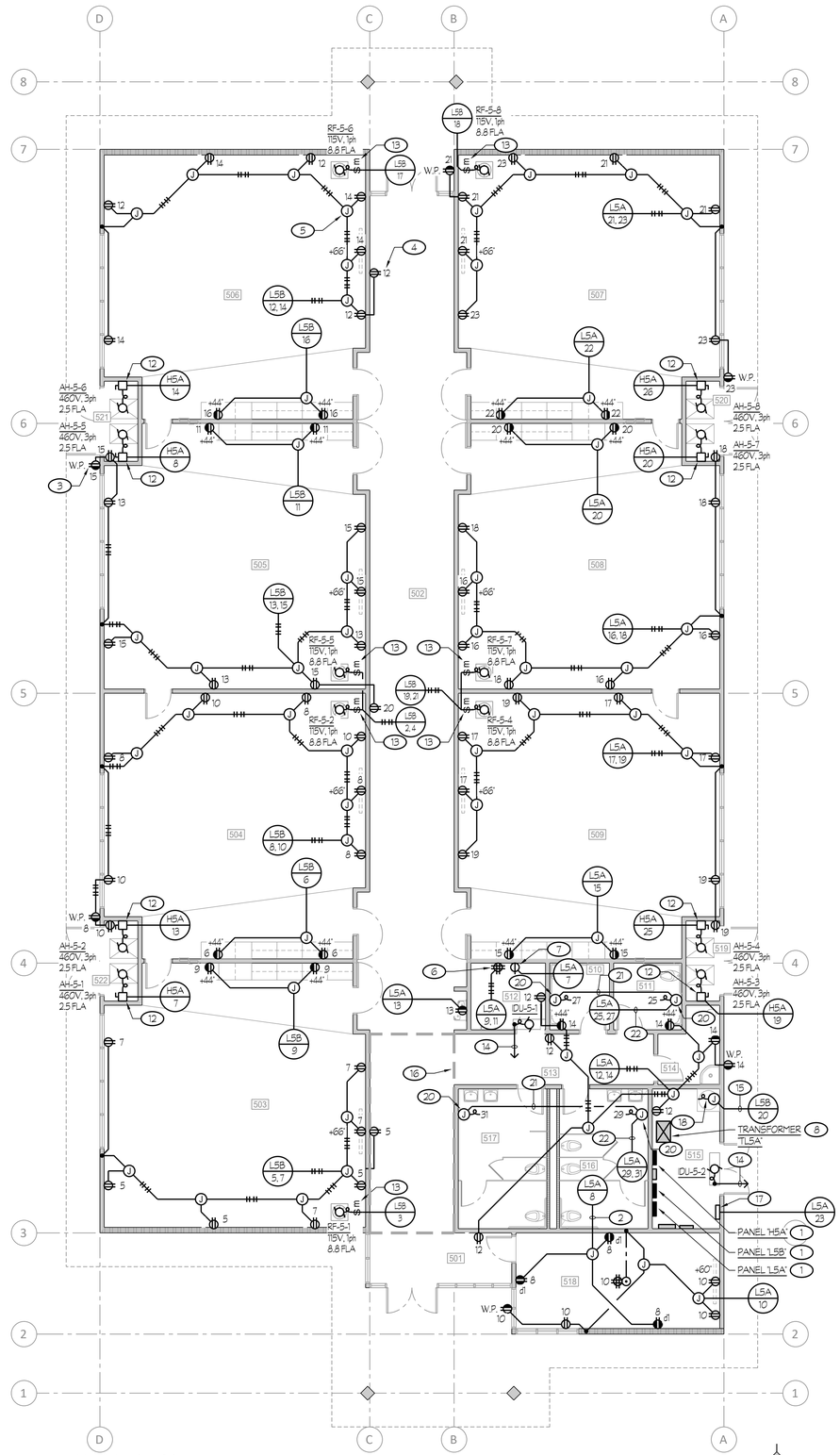


BUILDING 500

ROOF ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 500

POWER PLAN

SCALE: 1/8" = 1'-0"

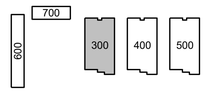
north

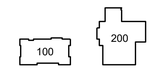
NOTES (THIS SHEET ONLY):

1. MOUNT PANEL PER DETAIL #2/E9.4.
2. ROUTE CIRCUIT THROUGH RECEPTACLE RELAY PACK. SEE SHEET #E3.2 FOR POWER RELAY PACK LOCATION.
3. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT +18" A.F.F., PROVIDE A DIE-CAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, RED-DOT #CKSUV OR EQUAL. TYPICAL OF 6.
4. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
5. DENOTES JUNCTION BOX IN ACCESSIBLE ATTIC SPACE. TYPICAL, U.O.N..
6. PROVIDE DEDICATED DOUBLE DUPLEX RECEPTACLE FOR HORIZONTAL CROSS-CONNECT. COORDINATE AND VERIFY EXACT LOCATION WITH DATA SYSTEMS CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE A 30A, 1-POLE RECEPTACLE (NEMA 5-30R) FOR I.D.F. CONNECTIONS.
8. MOUNT TRANSFORMER PER DETAIL #12/E9.4.
9. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT ROOF CURB PLATFORM. MOUNT INSIDE A WEATHERPROOF OUTLET BOX EQUIPPED WITH WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER. ROUTE BRANCH CIRCUITING UP OPENING OF ROOF CURB AND THEN THRU SIDEWALL. COVER SHALL BE A RED-DOT #CKSUV OR EQUAL. TYPICAL OF 2.
10. TYPICAL AT ALL H.V.A.C. EQUIPMENT: ROUTE BRANCH CIRCUITING UP THRU OPENING OF ROOF CURB & THEN THRU UNIT TO DISCONNECT SWITCH. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT INSIDE UNIT FOR ROUTING OF CONDUCTORS.
11. MOUNT JUNCTION BOX IN ACCESSIBLE ATTIC SPACE BELOW. TYPICAL, U.O.N..
12. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
13. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
14. RUN A 1"C TO RESPECTIVE ODU FOR CONTROLS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL.
15. 3/4"C - 3 #12 + 1 #12 GND.
16. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
17. CONNECT EMS PANEL. SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS.
18. CONNECT WATER HEATER, 208, 3ph, 4,500 WATTS.
19. 3/4"C - 2 #10 + 1 #10 GND.
20. CONNECT HAND DRYER, 120V.
21. 1/2"C - 2 #10 + 1 #10 GND.
22. 3/4"C - 4 #10 + 1 #10 GND.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
501	HALL	VARIES	512	DATA	+10'-0"
502	CORRIDOR	VARIES	513	HALL	+10'-0"
503	CLASSROOM	+10'-0"	514	JANITOR	+10'-0"
504	CLASSROOM	+10'-0"	515	ELECTRICAL	+10'-0"
505	CLASSROOM	+10'-0"	516	GIRLS	+10'-0"
506	CLASSROOM	+10'-0"	517	BOYS	+10'-0"
507	CLASSROOM	+10'-0"	518	CONFERENCE	+10'-0"
508	CLASSROOM	+10'-0"	519	MECH. CLOSET	VARIES
509	CLASSROOM	+10'-0"	520	MECH. CLOSET	VARIES
510	STAFF TOILET	+10'-0"	521	MECH. CLOSET	VARIES
511	STAFF TOILET	+10'-0"	522	MECH. CLOSET	VARIES





KEY PLAN

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Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-19188
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

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REN. 05-31-27
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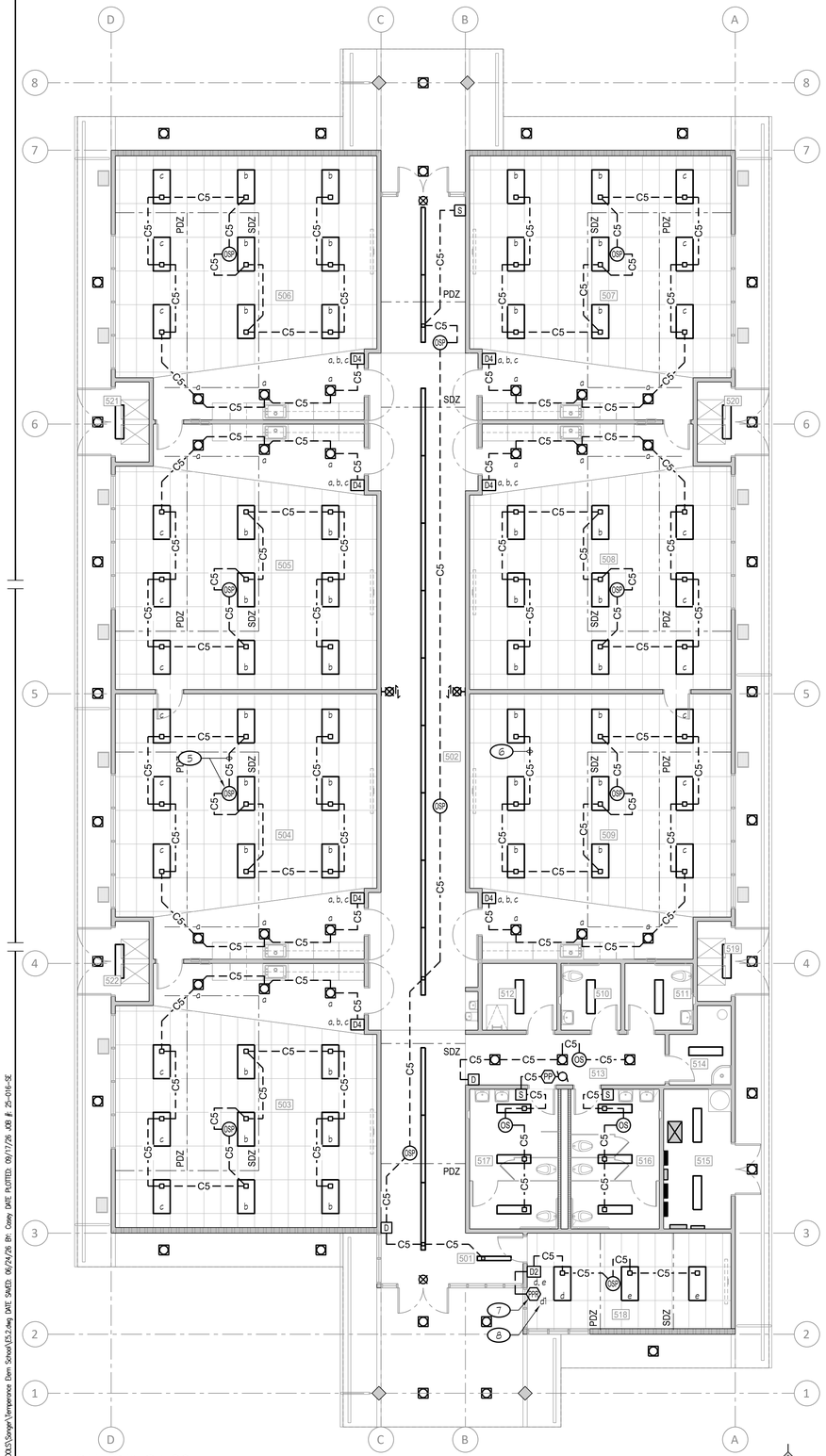
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TITLE
BUILDING 500
POWER PLAN
AND ROOF
ELECTRICAL PLAN

E5.1

PROJECT 24042

Z:\Drafting\Jobs\RSES\SD\KSD\SS\Sanger\Temperance Elem School\E5.1.dwg DATE SAVED: 06/24/26 By: Casey DATE PLOTTED: 09/17/26 JOB # 26-016-SE

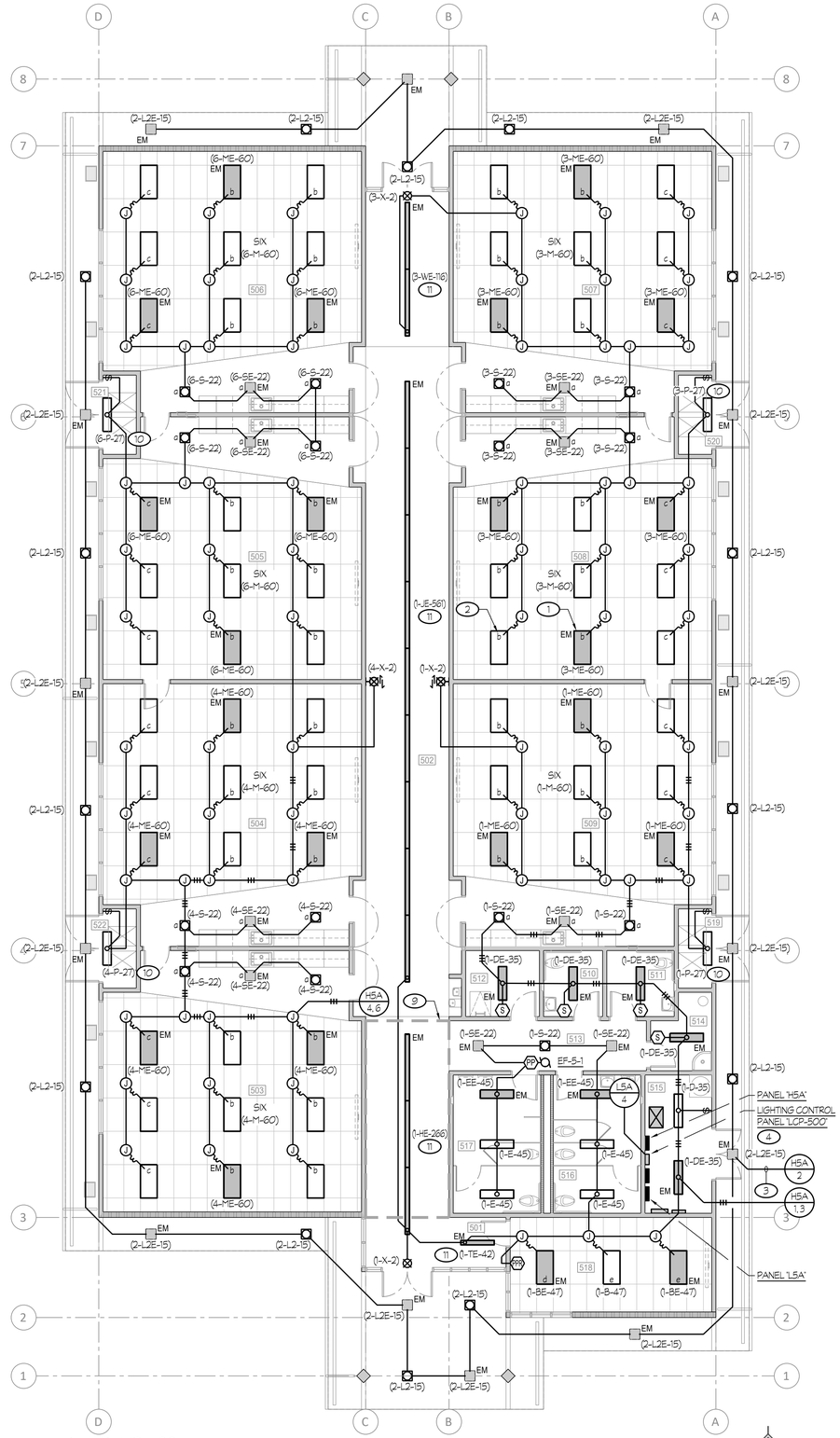


BUILDING 500

LIGHTING CONTROLS PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 500

LIGHTING PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

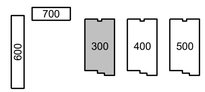
1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. LOWER CASE LETTER DENOTES RESPECTIVE CONTROL ZONE, TYPICAL.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL.
4. PROVIDE AN nLIGHT LIGHTING RELAY PANEL nLIGHT #ARPINTENC08-SM ENCLOSURE WITH #8PCR-MVOLT-HLK-DTC INTERIORS.
5. REFER TO DETAIL #3/E8.2 FOR LOW VOLTAGE DEVICES AND LIGHTING CONTROL WIRING REQUIREMENTS, TYPICAL.
6. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
7. PROVIDE POWER RELAY PACK PER DETAIL #11/E9.2 MOUNT ABOVE T-BAR CEILING IN ACCESSIBLE ATTIC SPACE OR HIGH ON WALL ABOVE LIGHT SWITCH. ROUTE 120V RECEPTACLE POWER THROUGH CONTACTS. SEE KEYNOTE #2 ON SHEET #E3.1 FOR ADDITIONAL INFORMATION. TYPICAL, U.O.N..
8. DENOTES POWER RELAY PACK THAT CONTROL ROOM DEVICES. SEE CORRESPONDING NOMENCLATURE FOR ROOM POWER CIRCUIT ON POWER PLAN. TYPICAL, U.O.N..
9. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
10. MOUNT FIXTURE 122" A.F.F..
11. MOUNT BOTTOM OF FIXTURE AT +10'-0" A.F.F..

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

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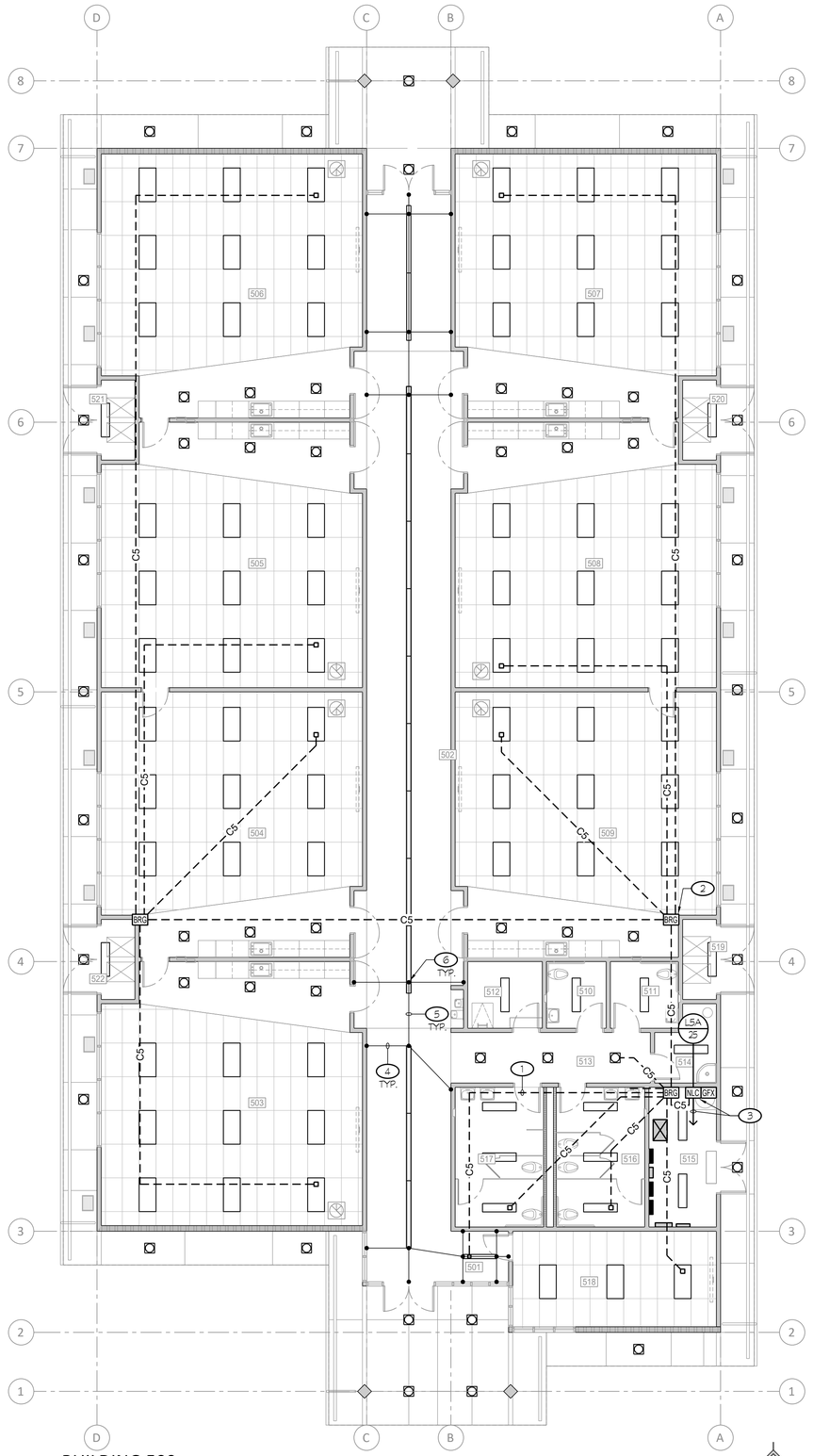
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E5.2

PROJECT 24042

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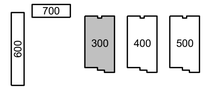
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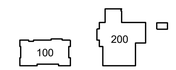
1. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
2. TYPICAL OF NETWORK INTERFACE BRIDGE (SYMBOL SRC): LOCATE THE NETWORK INTERFACE BRIDGE IN THE ACCESSIBLE ATTIC SPACE ABOVE THE T-BAR CEILING. SURFACE MOUNT ON THE WALL AT A MINIMUM OF 12" ABOVE THE T-BAR CEILING. RUN 1/2"C - 2 #12 TO NEAREST 'UNSWITCHED' LIGHTING CIRCUIT. RUN CAT. 5e CABLE BETWEEN ADJACENT NETWORK INTERFACE BRIDGES, WHERE APPLICABLE. REFER TO DETAIL #9/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
3. SURFACE MOUNT THE NETWORK LIGHTING CONTROLLER 'NLC' AT +42" A.F.F.. LOCATE THE GRAPHIC WALLPOD ADJACENT TO THE NETWORK CONTROLLER. RUN 1"C - ONE CAT. 5e PATCH CABLE, LENGTH AS REQUIRED, FROM THE 'NLC' TO THE EXISTING PATCH PANEL IN THE MAIN CROSS-CONNECT LOCATED IN THE ELECTRICAL ROOM. REFER TO DETAIL #8/E9.2 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
4. PROVIDE SEISMIC RESTRAINT FOR LIGHT FIXTURES PER DETAIL #1/E9.3, TYPICAL. THE 'HORIZONTAL' CABLE SHALL RUN CONTINUOUS, FROM WALL TO WALL IN THE NORTH/SOUTH DIRECTION, WITH AN ATTACHMENT AT EACH WALL AND AT EACH 'VERTICAL' CABLE.
5. PROVIDE SEISMIC RESTRAINT FOR LIGHT FIXTURES PER DETAIL #2/E9.3, TYPICAL. THE 'HORIZONTAL' CABLE SHALL RUN CONTINUOUS, FROM WALL TO WALL IN THE EAST/WEST DIRECTION, WITH AN ATTACHMENT AT EACH WALL AND AT EACH 'VERTICAL' CABLE.
6. ATTACHMENT AT EACH VERTICAL SUPPORT CABLE PER DETAIL #2/E9.3.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
501	HALL	VARIES	512	DATA	+10'-0"
502	CORRIDOR	VARIES	513	HALL	+10'-0"
503	CLASSROOM	+10'-0"	514	JANITOR	+10'-0"
504	CLASSROOM	+10'-0"	515	ELECTRICAL	+10'-0"
505	CLASSROOM	+10'-0"	516	GIRLS	+10'-0"
506	CLASSROOM	+10'-0"	517	BOYS	+10'-0"
507	CLASSROOM	+10'-0"	518	CONFERENCE	+10'-0"
508	CLASSROOM	+10'-0"	519	MECH. CLOSET	VARIES
509	CLASSROOM	+10'-0"	520	MECH. CLOSET	VARIES
510	STAFF TOILET	+10'-0"	521	MECH. CLOSET	VARIES
511	STAFF TOILET	+10'-0"	522	MECH. CLOSET	VARIES





KEY PLAN

BUILDING 500

AUTOMATED DEMAND RESPONSE PLAN

SCALE: 1/8" = 1'-0"

north

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK SWAYZE
No. E 19180
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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No. C-26128
REN. 05-31-27
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DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

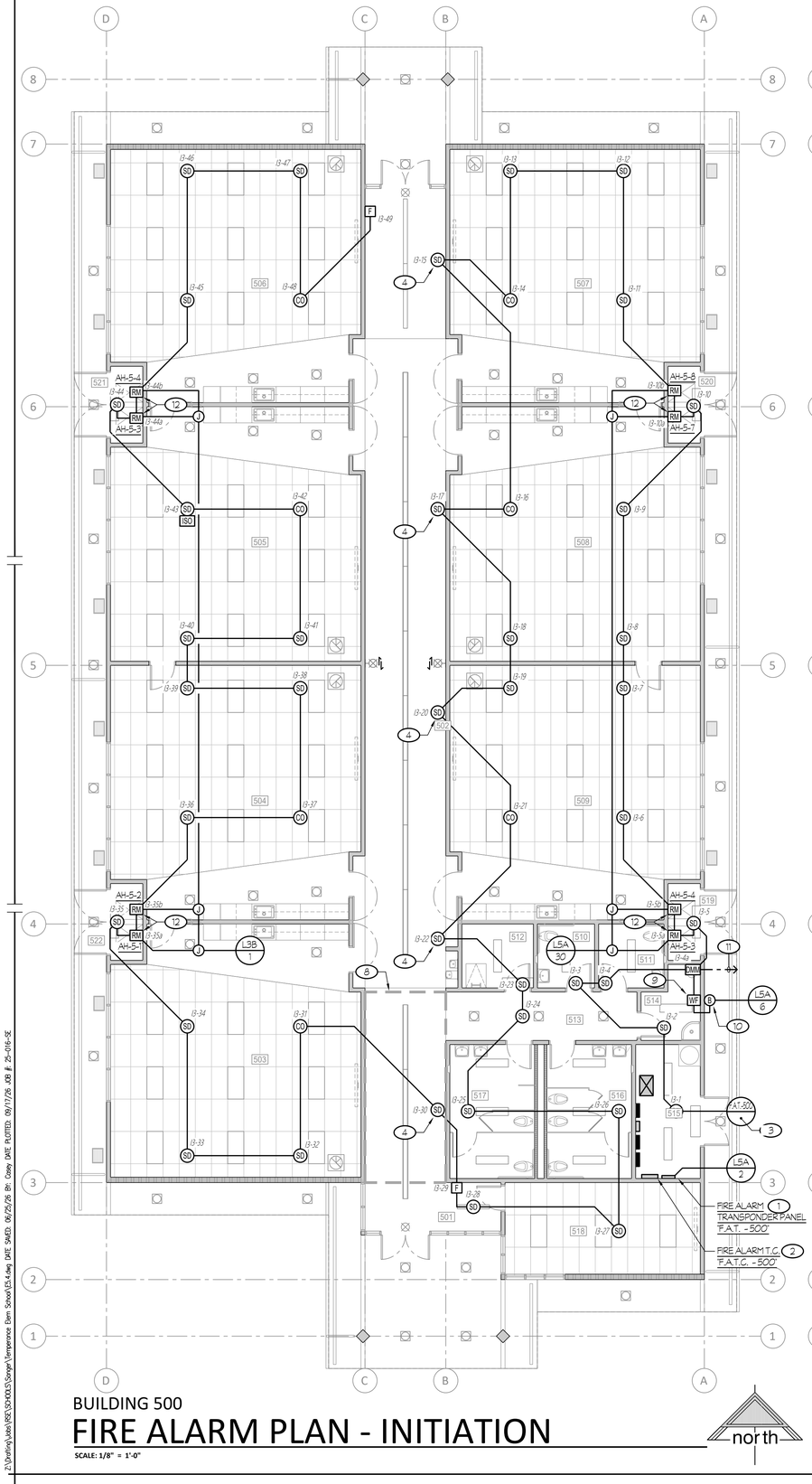
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TITLE
BUILDING 500
AUTOMATED
DEMAND RESPONSE
PLAN

E5.3

PROJECT 24042

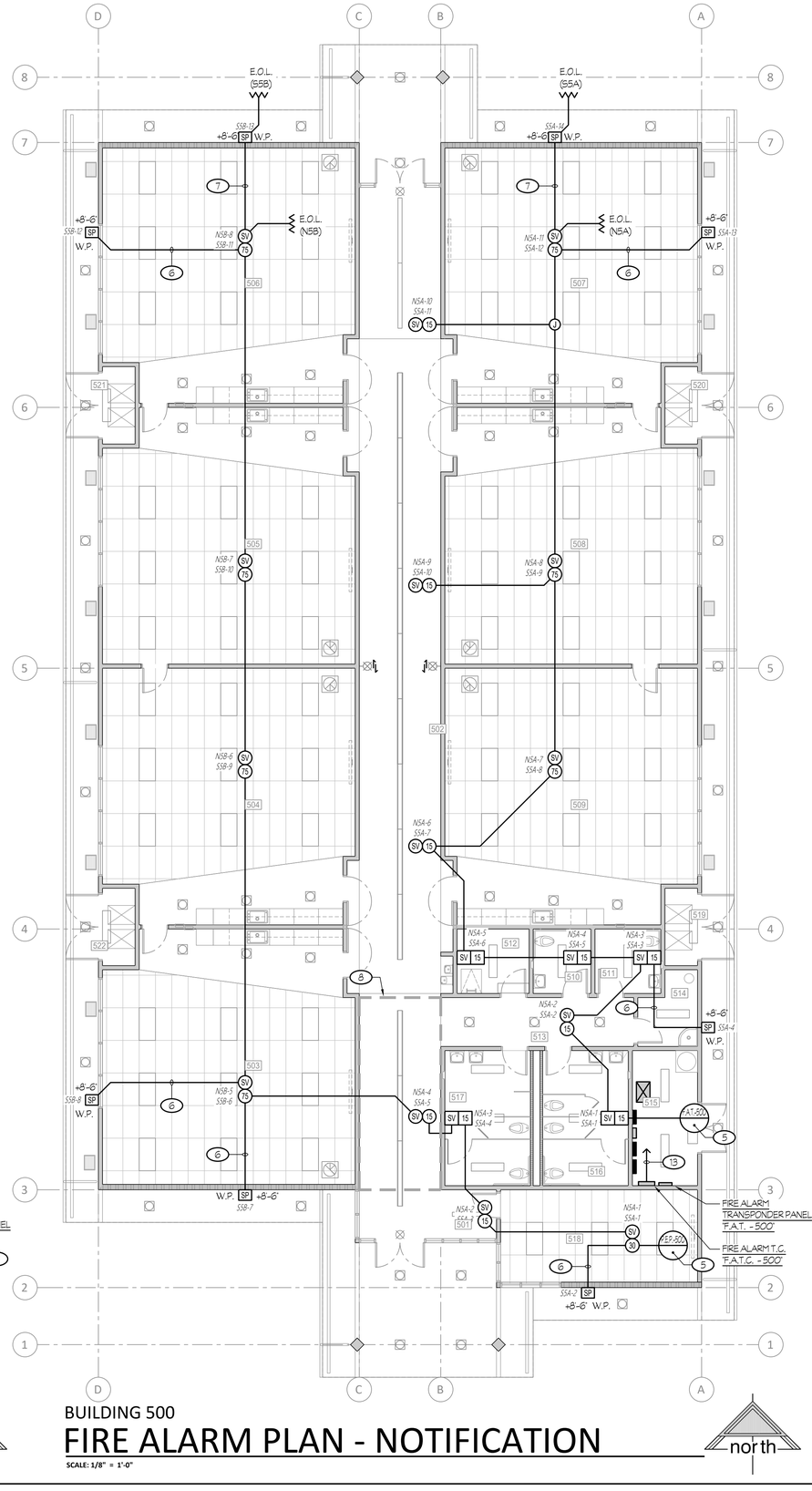
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BUILDING 500

FIRE ALARM PLAN - INITIATION

SCALE: 1/8" = 1'-0"



BUILDING 500

FIRE ALARM PLAN - NOTIFICATION

SCALE: 1/8" = 1'-0"

NOTES (THIS SHEET ONLY):

1. MOUNT FIRE ALARM TRANSPONDER PANEL 'F.A.T. - 500' PER DETAIL #8/E8.8.
2. MOUNT FIRE ALARM T.C. 'F.A.T.C. - 500' PER DETAIL #7/E8.8.
3. 3/4"C - TWO 'FA' CABLE, ONE 'FAP' CABLE (24VDC AUXILIARY POWER FOR SOUNDER BASE AT CO DETECTOR). TYPICAL, U.O.N..
4. MOUNT SMOKE DETECTOR WITHIN THREE FEET OF HIGHEST POINT OF THE RESPECTIVE ATTIC SPACE.
5. TYPICAL OF FIRE ALARM CIRCUITING BETWEEN NOTIFICATION APPLIANCES, U.O.N.: RUN 3/4"C - ONE 'FSP' CABLE, 2 #12 BETWEEN NOTIFICATION APPLIANCES.
6. 3/4"C - TWO 'FSP' CABLE.
7. 3/4"C - ONE 'FSP' CABLE.
8. ROUTE ALL OVERHEAD CONDUIT THROUGH ACCESSIBLE ATTIC SPACE IN THIS AREA.
9. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
10. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
11. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE 'P.I.V.'. REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
12. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT IN T-BAR CEILING (OR GYPBOARD CEILING), U.O.N.. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/ CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS . PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
13. TO RELAY MODULE 'I3-50' IN MEZZANINE, SEE SHEET #E3.5 FOR CONTINUATION.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
501	HALL	VARIES	512	DATA	+10'-0"
502	CORRIDOR	VARIES	513	HALL	+10'-0"
503	CLASSROOM	+10'-0"	514	JANITOR	+10'-0"
504	CLASSROOM	+10'-0"	515	ELECTRICAL	+10'-0"
505	CLASSROOM	+10'-0"	516	GIRLS	+10'-0"
506	CLASSROOM	+10'-0"	517	BOYS	+10'-0"
507	CLASSROOM	+10'-0"	518	CONFERENCE	+10'-0"
508	CLASSROOM	+10'-0"	519	MECH. CLOSET	VARIES
509	CLASSROOM	+10'-0"	520	MECH. CLOSET	VARIES
510	STAFF TOILET	+10'-0"	521	MECH. CLOSET	VARIES
511	STAFF TOILET	+10'-0"	522	MECH. CLOSET	VARIES

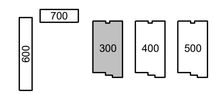
AUTOMATIC FIRE SPRINKLER SYSTEM

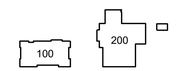
ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS, C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KATHLEEN KIRK EASTHAM
No. E 19189
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

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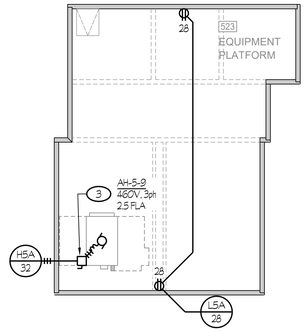
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TITLE
BUILDING 500
FIRE ALARM
PLANS

E5.4

PROJECT 24042

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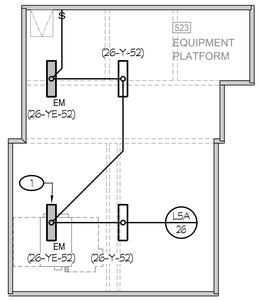


BUILDING 500

MEZZANINE POWER PLAN

SCALE: 1/8" = 1'-0"

north

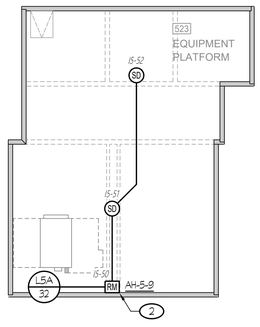


BUILDING 500

MEZZANINE LIGHITNG PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 500

MEZZANINE FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT HIGH ON WALL NEAR ROOF STRUCTURE. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS. PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
3. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

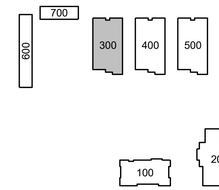
AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS, C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).



KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E-19108
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

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MEZZANINE PLANS

E5.5

PROJECT 24042

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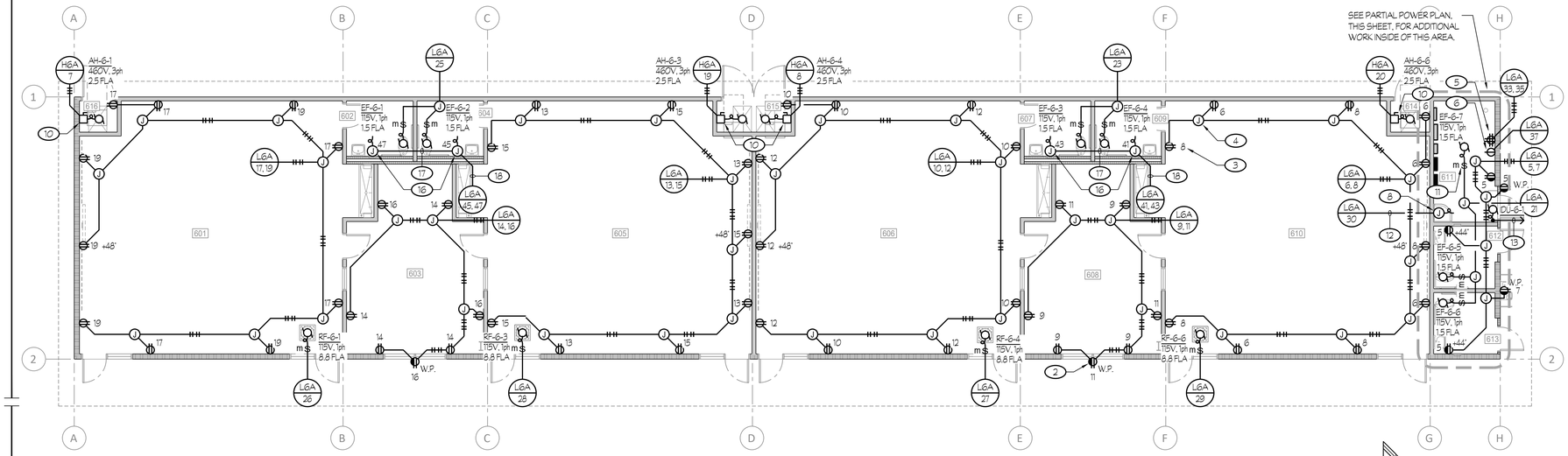
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NOTES (THIS SHEET ONLY):

1. MOUNT PANEL PER DETAIL #2/E9.4.
2. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT +18" A.F.F.. PROVIDE A DIE-CAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, RED-DOT #CKSUV OR EQUAL. TYPICAL OF 3.
3. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
4. DENOTES JUNCTION BOX IN ACCESSIBLE ATTIC SPACE. TYPICAL, U.O.N..
5. PROVIDE DEDICATED DOUBLE DUPLEX RECEPTACLE FOR HORIZONTAL CROSS-CONNECT. COORDINATE AND VERIFY EXACT LOCATION WITH DATA SYSTEMS CONTRACTOR PRIOR TO ROUGH-IN.
6. PROVIDE A 30A, 1-POLE RECEPTACLE (NEMA 5-30R) FOR I.D.F. CONNECTIONS.
7. 3/4"C - 2 #10 + 1 #10 GND.
8. CONNECT WATER HEATER, 208, 3ph, 4.500 WATTS.
9. MOUNT TRANSFORMER PER DETAIL #11/E9.4.
10. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
11. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN, TYPICAL, U.O.N..
12. 3/4"C - 3 #12 + 1 #12 GND.
13. RUN A 1"C TO RESPECTIVE ODU FOR CONTROLS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL.
14. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT ROOF CURB PLATFORM. MOUNT INSIDE A WEATHERPROOF OUTLET BOX EQUIPPED WITH WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER. ROUTE BRANCH CIRCUITING UP OPENING OF ROOF CURB AND THEN THRU SIDEWALL. COVER SHALL BE A RED-DOT #CKSUV OR EQUAL.
15. TYPICAL AT ALL H.V.A.C. EQUIPMENT: ROUTE BRANCH CIRCUITING UP THRU OPENING OF ROOF CURB & THEN THRU UNIT TO DISCONNECT SWITCH. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT INSIDE UNIT FOR ROUTING OF CONDUCTORS.
16. CONNECT HAND DRYER, 120V.
17. 1/2"C - 2 #10 + 1 #10 GND.
18. 3/4"C - 4 #10 + 1 #10 GND.

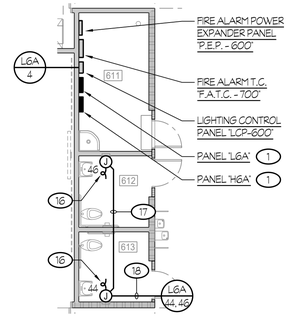


BUILDING 600

POWER PLAN

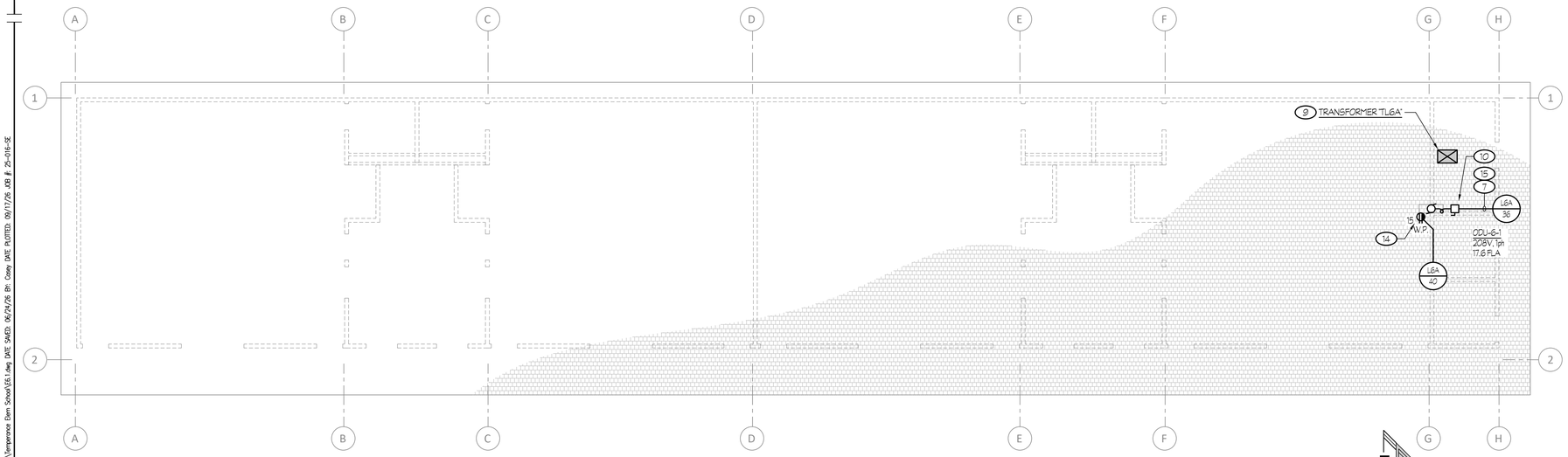
SCALE: 1/8" = 1'-0"

north



PARTIAL POWER PLAN

SCALE: 1/8" = 1'-0"



BUILDING 600

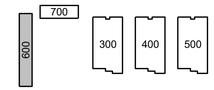
ROOF ELECTRICAL PLAN

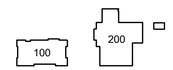
SCALE: 1/8" = 1'-0"

north

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
601	CLASSROOM	+10'-0"	609	STUDENT TOILET	+10'-0"
602	STUDENT TOILET	+10'-0"	610	CLASSROOM	+10'-0"
603	T.W.R.	+10'-0"	611	JANITOR	+10'-0"
604	STUDENT TOILET	+10'-0"	612	STAFF TOILET	+10'-0"
605	CLASSROOM	+10'-0"	613	STUDENT TOILET	+10'-0"
606	CLASSROOM	+10'-0"	614	MECH. CLOSET	VARIES
607	STUDENT TOILET	+10'-0"	615	MECH. CLOSET	VARIES
608	T.W.R.	+10'-0"	616	MECH. CLOSET	VARIES





KEY PLAN

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Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
STEVEN KIRK EASTHAM
No. E-9780
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

NEW TEMPERANCE ELEMENTARY SCHOOL
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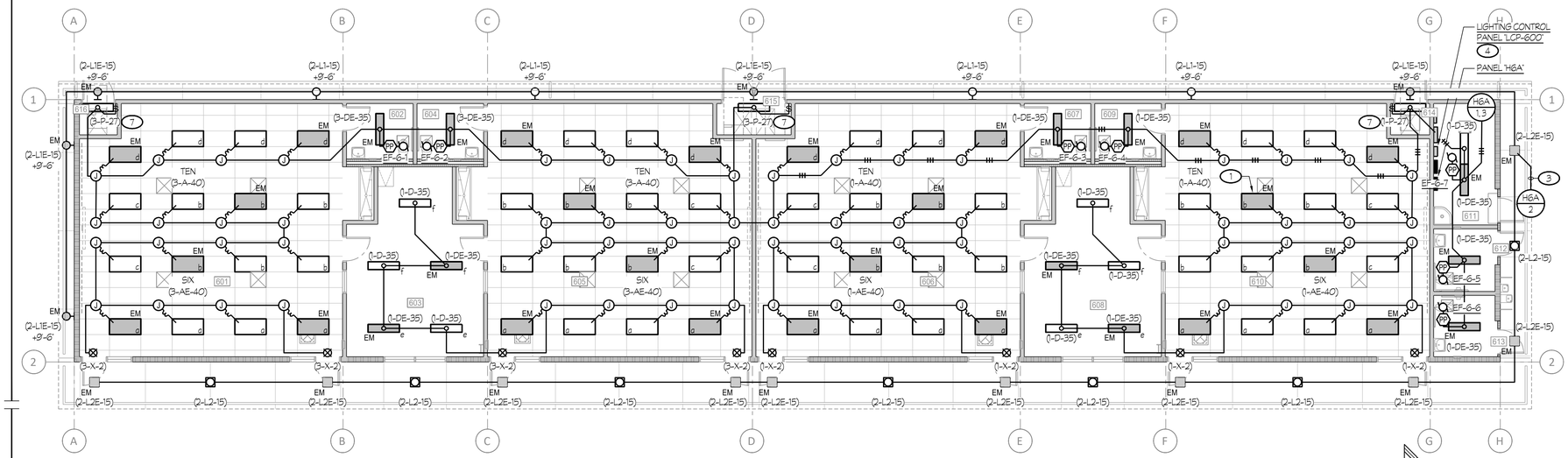
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TITLE
BUILDING 600
POWER PLANS

E6.1

PROJECT 24042

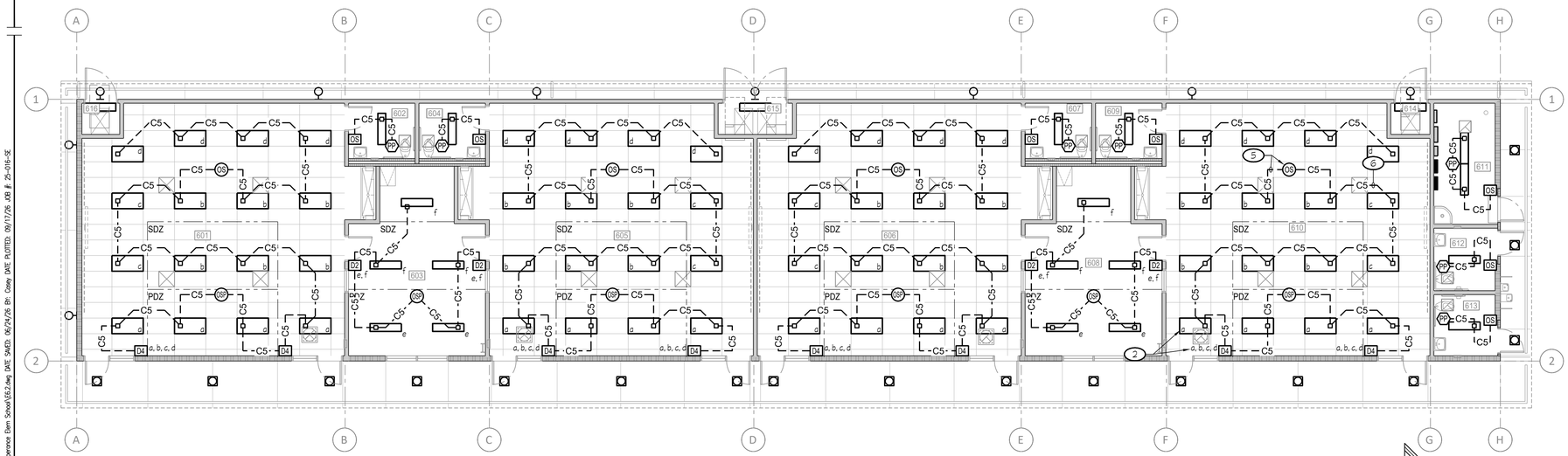
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BUILDING 600

LIGHTING PLAN

SCALE: 1/8" = 1'-0"



BUILDING 600

LIGHTING CONTROLS PLAN

SCALE: 1/8" = 1'-0"

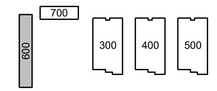
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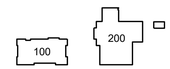
1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. LOWER CASE LETTER DENOTES RESPECTIVE CONTROL ZONE, TYPICAL.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL.
4. PROVIDE AN nLIGHT LIGHTING RELAY PANEL nLIGHT #ARPINTENC08-SM ENCLOSURE WITH #8FCR-MVOLT-HLK-DTC INTERIORS.
5. REFER TO DETAIL #3/E9.2 FOR LOW VOLTAGE DEVICES AND LIGHTING CONTROL WIRING REQUIREMENTS, TYPICAL.
6. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
7. MOUNT FIXTURE 122" A.F.F..

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
601	CLASSROOM	+10'-0"	609	STUDENT TOILET	+10'-0"
602	STUDENT TOILET	+10'-0"	610	CLASSROOM	+10'-0"
603	T.W.R.	+10'-0"	611	JANITOR	+10'-0"
604	STUDENT TOILET	+10'-0"	612	STAFF TOILET	+10'-0"
605	CLASSROOM	+10'-0"	613	STUDENT TOILET	+10'-0"
606	CLASSROOM	+10'-0"	614	MECH. CLOSET	VARIES
607	STUDENT TOILET	+10'-0"	615	MECH. CLOSET	VARIES
608	T.W.R.	+10'-0"	616	MECH. CLOSET	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-9788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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APP: 02-123774 INC:
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

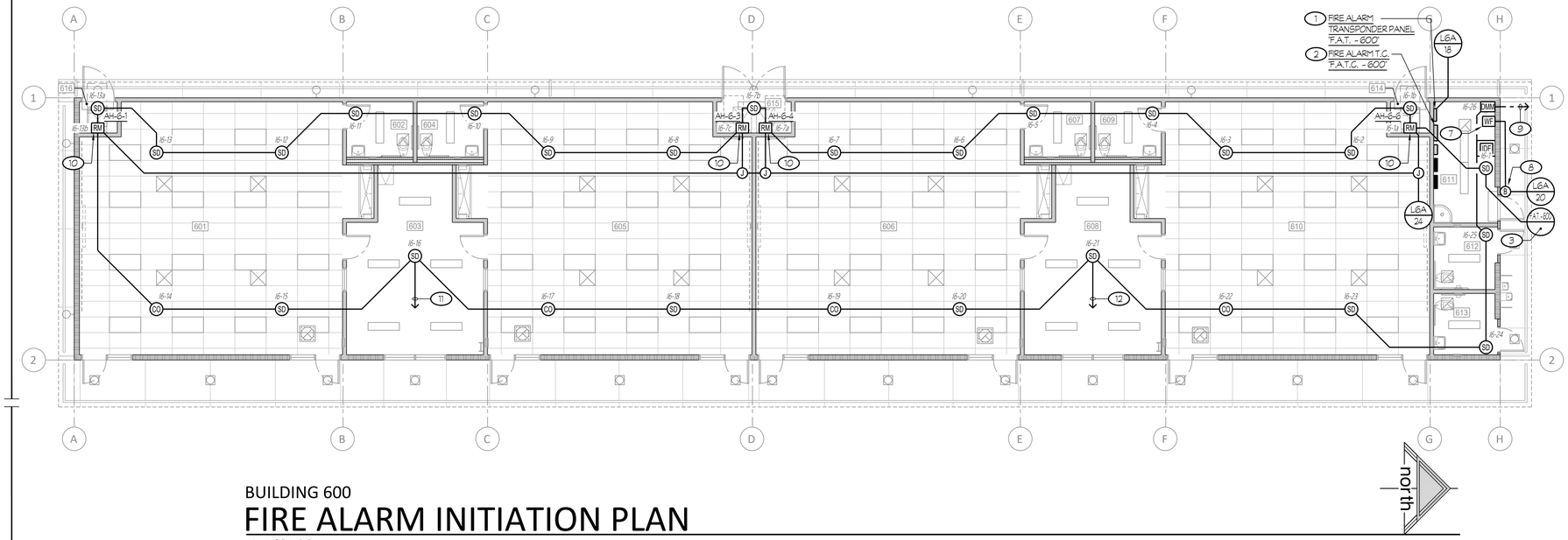
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
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(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 600
LIGHTING PLANS

E6.2

PROJECT 24042

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BUILDING 600

FIRE ALARM INITIATION PLAN

SCALE: 1/8" = 1'-0"

NOTES (THIS SHEET ONLY):

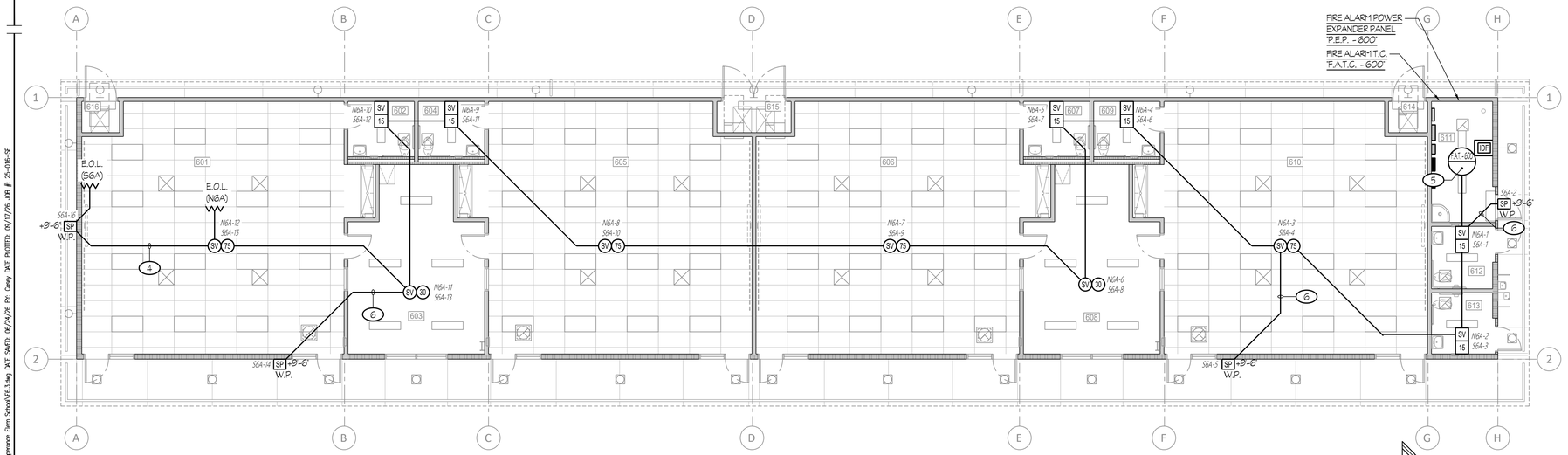
1. MOUNT FIRE ALARM TRANSPONDER PANEL 'F.A.T. - 600' PER DETAIL #8/E8.8.
2. MOUNT FIRE ALARM T.C. 'F.A.T.C. - 600' PER DETAIL #7/E8.8.
3. 3/4"C - TWO 'FA' CABLE, ONE 'FAP' CABLE (24VDC AUXILIARY POWER FOR SOUNDER BASE AT CO DETECTOR). TYPICAL, U.O.N..
4. 3/4"C - ONE 'FSP' CABLE.
5. TYPICAL OF FIRE ALARM CIRCUITING BETWEEN NOTIFICATION APPLIANCES, U.O.N.: RUN 3/4"C - ONE 'FSP' CABLE, 2 #12 BETWEEN NOTIFICATION APPLIANCES.
6. 3/4"C - TWO 'FSP' CABLE.
7. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
8. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
9. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE 'P.I.V.'. REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
10. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT IN T-BAR CEILING (OR GYPBOARD CEILING), U.O.N.. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/ CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS . PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
11. TO RELAY MODULE '*16-16a*' IN MEZZANINE, SEE SHEET #E6.4 FOR CONTINUATION.
12. TO RELAY MODULE '*16-21a*' IN MEZZANINE, SEE SHEET #E6.4 FOR CONTINUATION.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
601	CLASSROOM	+10'-0"	609	STUDENT TOILET	+10'-0"
602	STUDENT TOILET	+10'-0"	610	CLASSROOM	+10'-0"
603	T.W.R.	+10'-0"	611	JANITOR	+10'-0"
604	STUDENT TOILET	+10'-0"	612	STAFF TOILET	+10'-0"
605	CLASSROOM	+10'-0"	613	STUDENT TOILET	+10'-0"
606	CLASSROOM	+10'-0"	614	MECH. CLOSET	VARIES
607	STUDENT TOILET	+10'-0"	615	MECH. CLOSET	VARIES
608	T.W.R.	+10'-0"	616	MECH. CLOSET	VARIES



BUILDING 600

FIRE ALARM NOTIFICATION PLAN

SCALE: 1/8" = 1'-0"

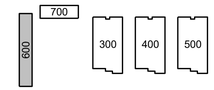
AUTOMATIC FIRE SPRINKLER SYSTEM

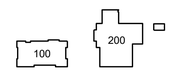
ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER KIRK EASTHAM No. E 19189 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

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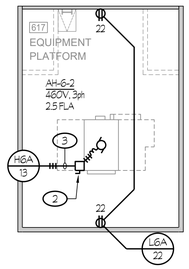
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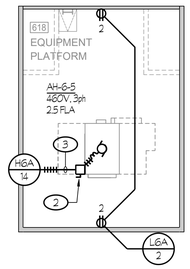
TITLE
BUILDING 600
FIRE ALARM PLANS

E6.3

PROJECT **24042**

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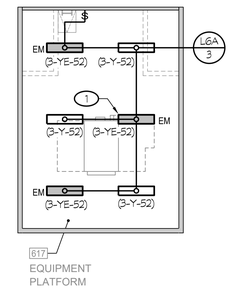


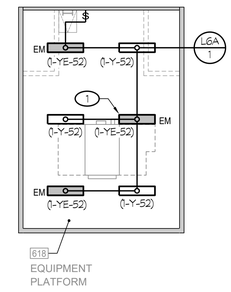
BUILDING 600

MEZZANINE POWER PLAN

SCALE: 1/8" = 1'-0"

north



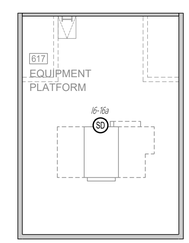


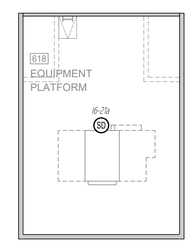
BUILDING 600

MEZZANINE LIGHITNG PLAN

SCALE: 1/8" = 1'-0"

north





BUILDING 600

MEZZANINE FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
3. PROVIDE A MINIMUM OF 18" WEATHERPROOF FLEX CONDUIT AT THE END OF THE RIGID CONDUIT WHERE IT COMES OUT OF THE ATTIC SPACE ADJACENT TO THE FUSED SAFETY SWITCH TO ALLOW FOR SEISMIC MOVEMENT PER CBC SECTION 1617A.1.25. THEN PROVIDE FLEX CONDUIT FROM THE FUSED SAFETY SWITCH TO THE HVAC UNIT CONNECTION POINT TO ALLOW FOR SEISMIC MOVEMENT. MAXIMUM LENGTH NOT TO EXCEED 36".

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

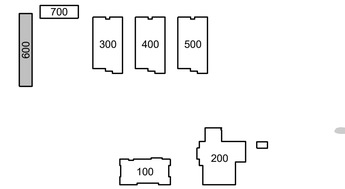
AUTOMATIC FIRE SPRINKLER SYSTEM

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COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

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KEY PLAN

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Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E 19180
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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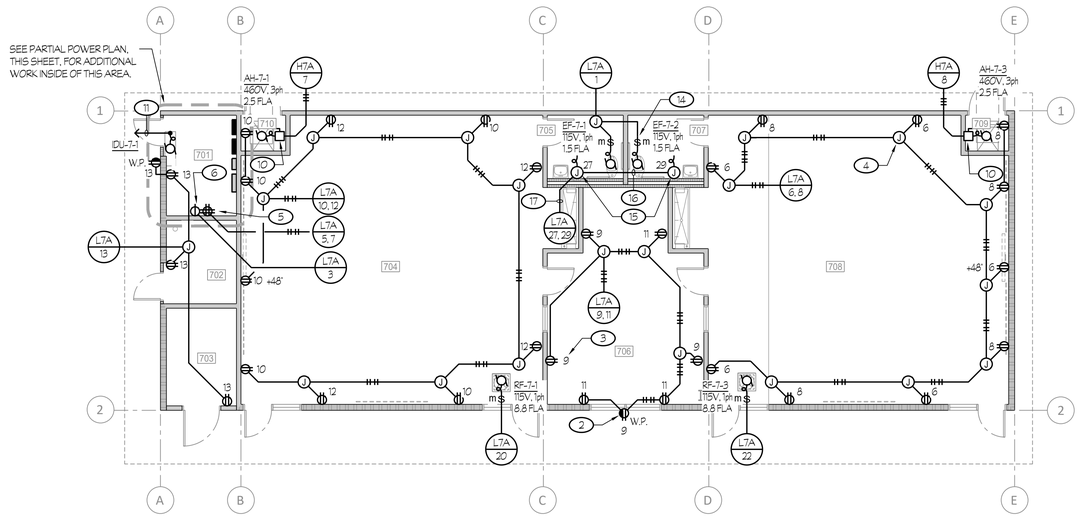
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TITLE
BUILDING 600
MEZZANINE PLANS

E6.4

PROJECT 24042

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BUILDING 700

POWER PLAN

SCALE: 1/8" = 1'-0"

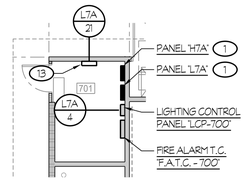
north

NOTES (THIS SHEET ONLY):

1. MOUNT PANEL PER DETAIL #2/E9.4.
2. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT +18" A.F.F.. PROVIDE A DIE-CAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, RED-DOT #CKSUV OR EQUAL. TYPICAL OF 2.
3. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON. TYPICAL.
4. DENOTES JUNCTION BOX IN ACCESSIBLE ATTIC SPACE. TYPICAL, U.O.N..
5. PROVIDE DEDICATED DOUBLE DUPLEX RECEPTACLE FOR HORIZONTAL CROSS-CONNECT. COORDINATE AND VERIFY EXACT LOCATION WITH DATA SYSTEMS CONTRACTOR PRIOR TO ROUGH-IN.
6. PROVIDE A 30A, 1-POLE RECEPTACLE (NEMA 5-30R) FOR I.D.F. CONNECTIONS.
7. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT ROOF CURB PLATFORM. MOUNT INSIDE A WEATHERPROOF OUTLET BOX EQUIPPED WITH WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER. ROUTE BRANCH CIRCUITING UP OPENING OF ROOF CURB AND THEN THRU SIDEWALL. COVER SHALL BE A RED-DOT #CKSUV OR EQUAL.
8. TYPICAL AT ALL H.V.A.C. EQUIPMENT:
   ROUTE BRANCH CIRCUITING UP THRU OPENING OF ROOF CURB & THEN THRU UNIT TO DISCONNECT SWITCH. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT INSIDE UNIT FOR ROUTING OF CONDUCTORS.
9. 3/4"C - 2 #10 + 1 #10 GND.
10. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
11. RUN A 1"C TO RESPECTIVE ODU FOR CONTROLS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL.
12. MOUNT TRANSFORMER PER DETAIL #11/E9.4.
13. CONNECT EMS PANEL. SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS.
14. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. TYPICAL, U.O.N..
15. CONNECT HAND DRYER, 120V.
16. 1/2"C - 2 #10 + 1 #10 GND.
17. 3/4"C - 4 #10 + 1 #10 GND.

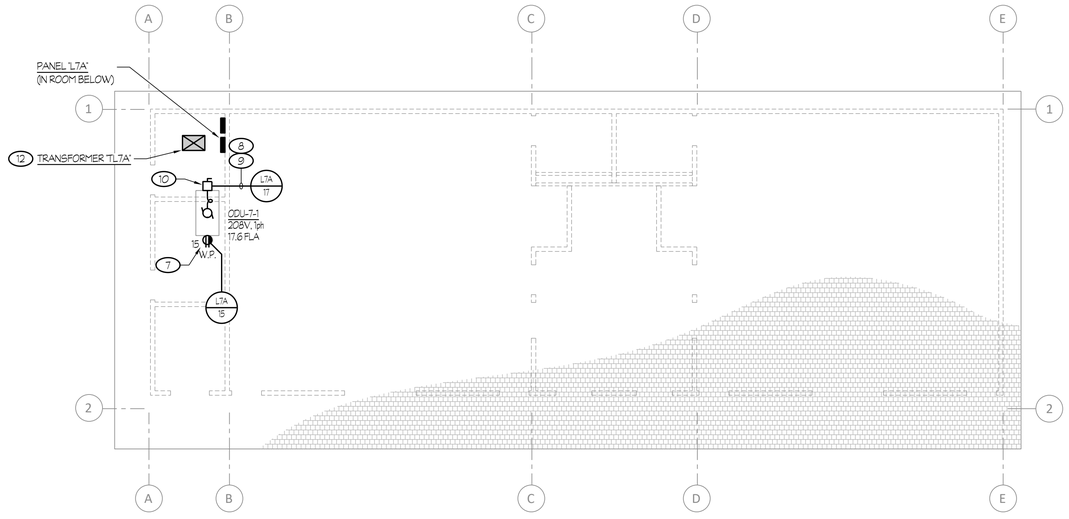
GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.



PARTIAL POWER PLAN

SCALE: 1/8" = 1'-0"



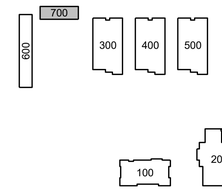
BUILDING 700

ROOF ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

north

ROOM LEGEND		
#	ROOM NAME	CEILING HEIGHT
701	ELECTRICAL	+10'-0"
702	MECHANICAL	+10'-0"
703	STORAGE	+10'-0"
704	CLASSROOM	+10'-0"
705	STUDENT TOILET	+10'-0"
706	T.W.R.	+10'-0"
707	STUDENT TOILET	+10'-0"
708	CLASSROOM	+10'-0"
709	MECH. CLOSET	VARIES
709	MECH. CLOSET	VARIES



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NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

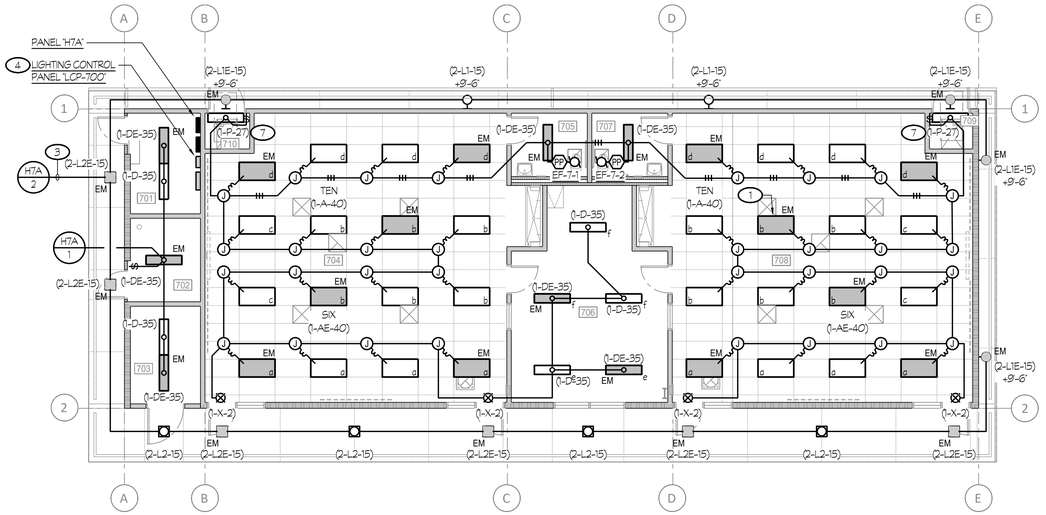
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 700
POWER PLANS

E7.1

PROJECT **24042**

Z:\Drafting\Jobs\RSES\SJVUSD\Sanger\Temperance Elem School\E7.1.dwg DATE SAVED: 06/24/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



BUILDING 700

LIGHTING PLAN

SCALE: 1/8" = 1'-0"

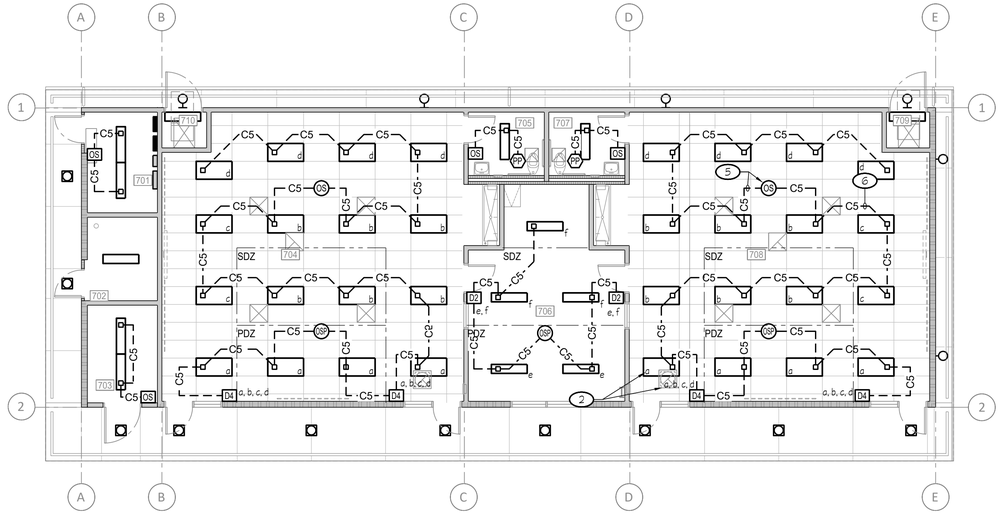
north

NOTES (THIS SHEET ONLY):

1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. LOWER CASE LETTER DENOTES RESPECTIVE CONTROL ZONE, TYPICAL.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL.
4. PROVIDE AN nLIGHT LIGHTING RELAY PANEL nLIGHT #ARPINTENC08-SM ENCLOSURE WITH #8FCR-MVOLT-HLK-DTC INTERIORS.
5. REFER TO DETAIL #3/E9.2 FOR LOW VOLTAGE DEVICES AND LIGHTING CONTROL WIRING REQUIREMENTS, TYPICAL.
6. — —C5— — DENOTES CAT. 5e CABLE. ELECTRICAL CONTRACTOR MAY USE PRETERMINATED CAT. 5e CABLING OR PROVIDE CAT. 5e CABLING, MODULAR JACKS ON EACH END AND TERMINATE THE MODULAR JACKS USING THE TIA/EIA-568-B.2 PIN-PAIR SPECIFICATION. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND OUTLET BOXES IN WALLS FOR ROUTING OF CABLING. CABLE MAY BE ROUTED IN FREE-AIR, WHEN LOCATED IN ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILINGS. AT GYPBOARD CEILINGS, PROVIDE A DOUBLE-GANG LOW VOLTAGE MOUNTING PLATE BRACKET, CADDY #MPLS2 OR EQUAL, AT THE RJ-45 JACKS (EMBEDDED CONTROLS) OF THE SURFACE MOUNTED LIGHT FIXTURES FOR PASSAGE OF CAT. 5e CABLING.
7. MOUNT FIXTURE 122" A.F.F..

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.



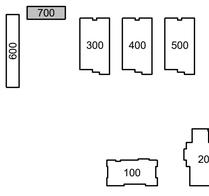
BUILDING 700

LIGHTING CONTROLS PLAN

SCALE: 1/8" = 1'-0"

north

ROOM LEGEND		
#	ROOM NAME	CEILING HEIGHT
701	ELECTRICAL	+10'-0"
702	MECHANICAL	+10'-0"
703	STORAGE	+10'-0"
704	CLASSROOM	+10'-0"
705	STUDENT TOILET	+10'-0"
706	T.W.R.	+10'-0"
707	STUDENT TOILET	+10'-0"
708	CLASSROOM	+10'-0"
709	MECH. CLOSET	VARIES
709	MECH. CLOSET	VARIES



KEY PLAN

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Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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SANGER, FRESNO COUNTY, CA

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E7.2

PROJECT 24042

Z:\Drafting\Jobs\RES\SSD\SS\Sanger\Temperance Elem School\E7.2.dwg DATE SAVED: 08/24/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

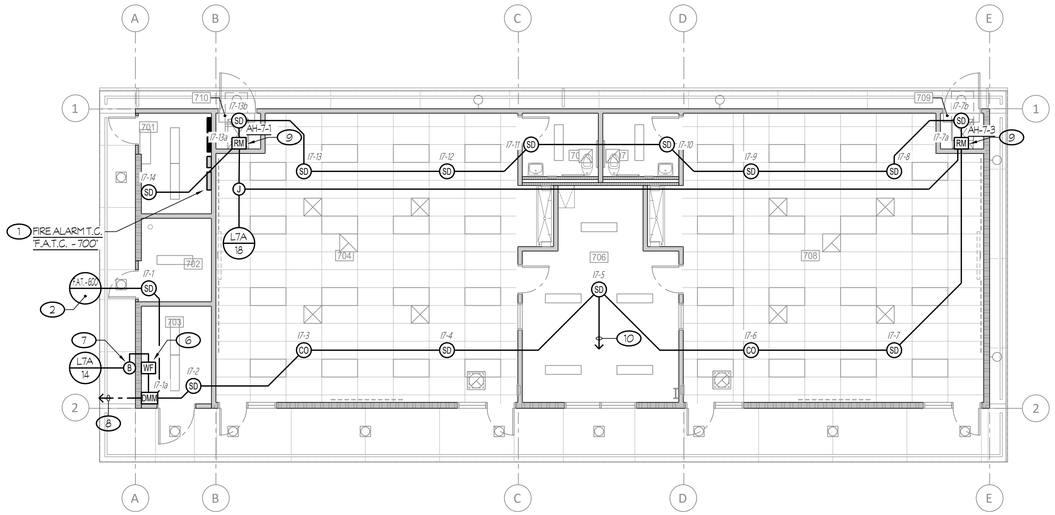
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REN. 05-31-27
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DATE: DECEMBER 18, 2025



BUILDING 700

FIRE ALARM INITIATION PLAN

SCALE: 1/8" = 1'-0"

north

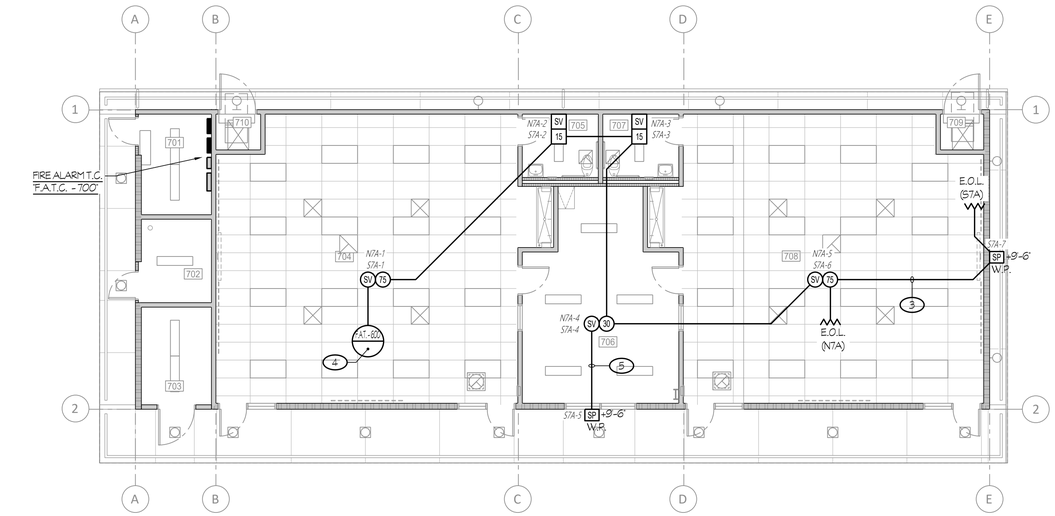
NOTES (THIS SHEET ONLY):

1. MOUNT FIRE ALARM T.C. 'F.A.T.C. - 700' PER DETAIL #7/E8.8.
2. 3/4"C - TWO 'FA' CABLE, ONE 'FAP' CABLE (24VDC AUXILIARY POWER FOR SOUNDER BASE AT CO DETECTOR). TYPICAL, U.O.N..
3. 3/4"C - ONE 'FSP' CABLE.
4. TYPICAL OF FIRE ALARM CIRCUITING BETWEEN NOTIFICATION APPLIANCES, U.O.N.: RUN 3/4"C - ONE 'FSP' CABLE, 2 #12 BETWEEN NOTIFICATION APPLIANCES.
5. 3/4"C - TWO 'FSP' CABLE.
6. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
7. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
8. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE 'P.I.V.'. REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
9. PROVIDE A RELAY MODULE FOR 'UNIT SHUTDOWN' OF RESPECTIVE AC UNIT. FLUSH MOUNT IN T-BAR CEILING (OR GYPBOARD CEILING), U.O.N.. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE THE INTERCONNECTION CONDUIT/ CONDUCTORS AND ANY ADDITIONAL REQUIREMENTS . PROVIDE AN ENGRAVED NAMEPLATE: 'UNIT SHUTDOWN, AH-_'.
10. TO RELAY MODULE *'I7-5a'* IN MEZZANINE, SEE SHEET #E7.4 FOR CONTINUATION.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND		
#	ROOM NAME	CEILING HEIGHT
701	ELECTRICAL	+10'-0"
702	MECHANICAL	+10'-0"
703	STORAGE	+10'-0"
704	CLASSROOM	+10'-0"
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706	T.W.R.	+10'-0"
707	STUDENT TOILET	+10'-0"
708	CLASSROOM	+10'-0"
709	MECH. CLOSET	VARIES
709	MECH. CLOSET	VARIES



BUILDING 700

FIRE ALARM NOTIFICATION PLAN

SCALE: 1/8" = 1'-0"

north

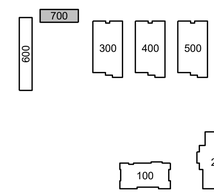
AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).



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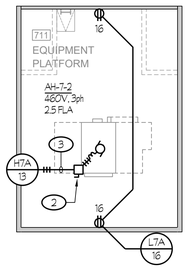
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FIRE ALARM PLANS

E7.3

PROJECT 24042

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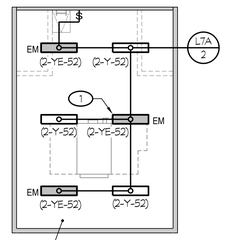


BUILDING 700

MEZZANINE POWER PLAN

SCALE: 1/8" = 1'-0"

north

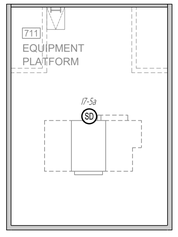


BUILDING 700

MEZZANINE LIGHITNG PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 700

MEZZANINE FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. SYMBOLS EM DENOTES LIGHT FIXTURE EQUIPPED WITH AN EMERGENCY BATTERY PACK. CONNECT PER DETAIL #4/E9.2.
2. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
3. PROVIDE A MINIMUM OF 18" WEATHERPROOF FLEX CONDUIT AT THE END OF THE RIGID CONDUIT WHERE IT COMES OUT OF THE ATTIC SPACE ADJACENT TO THE FUSED SAFETY SWITCH TO ALLOW FOR SEISMIC MOVEMENT PER CBC SECTION 1617A.1.25. THEN PROVIDE FLEX CONDUIT FROM THE FUSED SAFETY SWITCH TO THE HVAC UNIT CONNECTION POINT TO ALLOW FOR SEISMIC MOVEMENT. MAXIMUM LENGTH NOT TO EXCEED 36".

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

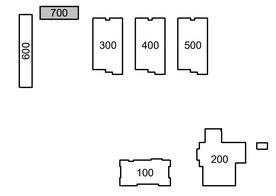
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COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

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FIRE ALARM SYSTEM SEQUENCE OF OPERATIONS

RESULT OF OPERATION	TYPE OF INITIATION: MANUAL PULL STATION	AREA SMOKE/ HEAT DETECTOR (1)	CARBON MONOXIDE DETECTOR (2)	LOSS OF POWER	SHORT CIRCUIT/ GROUND FAULT	FIRE SPRINKLER RISER WATER FLOW SWITCH	FIRE SPRINKLER RISER TAMPER SWITCH, P/V MONITORING	AUDIO VIDEO SHUTDOWN	KITCHEN HOOD FIRE SUPPRESSION SYSTEM	BESS TROUBLE	BESS ALARM
ANNUNCIATE ALARM AT FIRE ALARM CONTROL PANEL	YES	YES	———	———	———	YES	———	YES	YES	———	———
ANNUNCIATE TROUBLE AT FIRE ALARM CONTROL PANEL	———	———	———	YES	YES	———	YES	YES	———	YES	YES
ANNUNCIATE SUPERVISORY AT FIRE ALARM CONTROL PANEL	———	———	YES	———	———	———	YES	———	———	———	———
ACTIVATE ALL AUDIBLE AND VISUAL ALARM SIGNALS	YES	YES	———	———	———	YES	———	———	YES	———	———
TRANSFER TO BATTERY BACK-UP	———	———	———	YES	———	———	———	———	———	———	———
(2) SHUTDOWN RESPECTIVE A/C UNIT	———	YES	———	———	———	———	———	———	———	———	———
(2) CLOSE SMOKE/FIRE DAMPER	———	YES	———	YES	———	———	———	———	———	———	———
ACTIVATE TEMPORAL PATTERN, CODE 4, AT RESPECTIVE DETECTOR	———	———	YES	———	———	———	———	———	———	———	———
(3) ANNUNCIATE SUPERVISORY AT THE FIRE ALARM CONTROL PANEL	———	———	YES	———	———	———	———	———	———	YES	YES
ANNUNCIATE AT 24 HR ATTENDED LOCATION	YES	YES	YES	YES	———	YES	YES	———	YES	YES	YES
CENTRAL STATION FOR MONITORING (ALARM)	YES	YES	YES	YES	YES	YES	YES	YES	YES	———	YES
CENTRAL STATION FOR MONITORING (TROUBLE)	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
CENTRAL STATION FOR MONITORING (SUPERVISORY)	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

(1) OR ACTIVATE THE TIME-DELAY RELEASING DEVICE AT OVERHEAD COILING DOOR.

(2) THIS OPERATION SHALL BE ACCOMPLISHED BY UTILIZING THE TOTAL SMOKE COVERAGE SYSTEM TO ACTIVATE THE RESPECTIVE RELAY MODULE. THE CONTACTS SHALL BE PROGRAMMED TO 'OPEN', THUS DE-ENERGIZING THE 120V POWER TO THE ACTUATOR OF THE SMOKE/FIRE DAMPER OR 'OPENING' THE H.V.A.C. CONTROL CIRCUIT.

(3) UPON DETECTION OF CARBON MONOXIDE, A SUPERVISORY SIGNAL SHALL ANNUNCIATE A BOTH THE FIRE ALARM CONTROL PANEL 'F.A.C.P.'.

FIRE ALARM SYSTEM GENERAL NOTES

1. APPLICABLE STANDARD NFPA 72, AS ADOPTED AND AMENDED IN CBC CHAPTER 35.
2. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN, DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAS BEEN APPROVED BY DSA.
3. UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR. TEST SHALL INCLUDE ALL INFORMATION PER NFPA 72 14.6.2.4 AND FIGURE 7.8.2(a) AND READ OUT VERIFICATION FORM FROM CENTER STATION.
4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ ENGINEER OF THE PROJECT.
6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
7. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7. UL OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION.
8. WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
9. WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THAN 6" TO A HORIZONTAL STRUCTURE.
10. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR FIVE dBA ABOVE THE MAXIMUM SOUND LEVEL, HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIABLE SPACE WITHIN THE BUILDING.
11. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN FOR A FIRE ALARM SIGNAL. AUDIBLE DEVICES SHALL ALSO SOUND A TEMPORAL CODE 4 PATTERN FOR A CARBON MONOXIDE SIGNAL. THE EXISTING FIRE ALARM CONTROL PANEL WILL PRODUCE/GENERATE BOTH SIGNALS.
12. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
13. VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISIBLE DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
14. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
15. ALL FIRE ALARM WIRING SHALL BE FPL OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE THHN OR THWN.
16. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.
17. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREAS OF CONSTRUCTION OR POSSIBLE DAMAGE/ CONTAMINATION ON NEWLY INSTALLED FIRE ALARM, DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
18. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILING, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
19. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
20. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE 'ON' POSITION. THE CIRCUIT BREAKER SHALL BE LABELED 'FIRE ALARM CIRCUIT CONTROL'. CIRCUIT ID TO BE LABELED AT FIRE PANELS/EXTENDERS.
21. THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED 'SYSTEM RECORD OF COMPLETION' PER NFPA 72, FIGURE 7.5.6.
22. FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE THE FINISHED FLOOR.
23. MICROPHONES ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
24. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 907.6.2.
25. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
26. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
27. PROVIDE AN ENGRAVED NAMEPLATE INDICATING THE D.S.A. APPLICATION NUMBER, FILE NUMBER AND DATE OF INSTALLATION AT EACH FIRE ALARM CONTROL PANEL 'F.A.C.P.', AT EACH FIRE ALARM TRANSPONDER 'F.A.T.' AND AT EACH FIRE ALARM POWER EXPANDER PANEL 'P.E.P.':
    - A. THE PRIMARY POWER SUPPLY TO EACH FIRE ALARM CONTROL PANEL 'F.A.C.P.', TO EACH FIRE ALARM TRANSPONDER 'F.A.T.' AND TO EACH FIRE ALARM POWER EXPANDER PANEL 'P.E.P.' SHALL BE IN ACCORDANCE WITH NFPA 72 10.6.5 AND AS FOLLOWS:
        - a) THE CIRCUIT BREAKER FEEDING THE RESPECTIVE PANEL SHALL BE LOCATED IN A LOCKED ROOM OR BEHIND A LOCKABLE DOOR AND BE READILY ACCESSIBLE TO AUTHORIZED PERSONNEL ONLY.
        - b) THE CIRCUIT BREAKER SHALL BE EQUIPPED WITH A LOCK-ON ACCESSORY. PAINT LOCK-ON ACCESSORY 'RED' IN COLOR.
        - c) THE CIRCUIT BREAKER SHALL HAVE AN ENGRAVED NAMEPLATE THAT IDENTIFIES IT AS A 'FIRE ALARM CIRCUIT'. THIS ENGRAVED NAMEPLATE SHALL HAVE WHITE LETTERS ON A RED BACKGROUND. MOUNT ONTO THE INTERIOR TRIM AND LOCATE ADJACENT TO CIRCUIT BREAKER WHERE POSSIBLE.
        - d) THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT EACH FIRE ALARM CONTROL PANEL 'F.A.C.P.', AT EACH FIRE ALARM TRANSPONDER 'F.A.T.' AND AT EACH FIRE ALARM POWER EXPANDER PANEL P.E.P.'. PROVIDE AN ENGRAVED NAMEPLATE (WHITE LETTERS ON A RED BACKGROUND) WHICH INDICATES THIS.
    - B. ALL ENGRAVED NAMEPLATES SHALL BE ATTACHED TO THE FRONT OF THE RESPECTIVE ENCLOSURE WITH SCREWS OR RIVETS.
28. PROVIDE A COPY OF THE BATTERY CALCULATION AT EACH FIRE ALARM CONTROL PANEL 'F.A.C.P.', AT EACH FIRE ALARM TRANSPONDER 'F.A.T.' AND AT EACH FIRE ALARM POWER EXPANDER PANEL 'P.E.P.'. BATTERY CALCULATION SHALL CONTAIN INFORMATION AS NOTED ON SCHEDULES AND BE PLASTIC LAMINATED. MOUNT ONTO INSIDE FACE OF DOOR.

FIRE ALARM SYSTEM EQUIPMENT SPECIFICATIONS

	SYMBOL	DESCRIPTION	MODEL #	CSFM LISTING #	BACKBOX REQUIREMENTS (D)	MOUNTING HEIGHT (TO CENTER U.O.N.)
	FACP	FIRE ALARM CONTROL PANEL 'F.A.C.P.'		7165-1703:0125	INCLUDED	+60" PER DETAIL #6/E8.8
		INTELLIGENT LOOP INTERFACE - MAIN BOARD	GAMEWELL/F.C.I. #ILMB-E3			
		INTELLIGENT LOOP INTERFACE - EXPANSION BOARD	GAMEWELL/F.C.I. #ILXB-S-E3			
		LCD DISPLAY	GAMEWELL/F.C.I. #LCD-E3			
		VOICE GATEWAY	GAMEWELL/F.C.I. #NAVGX			
		ADAPTER PLATE FOR VOICE GATEWAY	GAMEWELL/F.C.I. #80375			
		POWER SUPPLY	GAMEWELL/F.C.I. #PM-9			
		DIGITAL ALARM COMMUNICATOR/ TRANSMITTER	GAMEWELL/F.C.I. #DACT-E3			
		ENCLOSURE WITH PLEXI-GLASS DOOR	GAMEWELL/F.C.I. #E388-RD/NCC			
		INNER DOOR	GAMEWELL/F.C.I. #E3D2-D			
		MOUNTING PLATE	GAMEWELL/F.C.I. #E3-NCC-PLATE			
	LOC	LOCAL OPERATING CONSOLE		7165-1703:0125	INCLUDED	+60" PER DETAIL #3/E8.8
		NETWORK GRAPHIC ANNUNCIATOR	GAMEWELL/F.C.I. #NGA			
		VOICE GATEWAY	GAMEWELL/F.C.I. #NAVGX			
		ADAPTER PLATE FOR VOICE GATEWAY	GAMEWELL/F.C.I. #80375			
		PAGING MICROPHONE	GAMEWELL/F.C.I. #NCC-MC			
		PROGRAMMABLE SWITCH MODULE	GAMEWELL/F.C.I. #ASM-16			
		INNER DOOR	GAMEWELL/F.C.I. #E3D3-A			
		ENCLOSURE, 'AA' SIZE	GAMEWELL/F.C.I. #E388-RAA			
		FIRE ALARM TRANSPONDER		7165-1703:0125	INCLUDED (B)	+60" PER DETAIL #3/E8.8
		INTELLIGENT LOOP INTERFACE - MAIN BOARD	GAMEWELL/F.C.I. #ILMB-E3			
	(C)	50W 70V AUDIO AMPLIFIER	GAMEWELL/F.C.I. #AM-50-70			
		VOICE GATEWAY	GAMEWELL/F.C.I. #NAVGX			
		ADAPTER PLATE FOR VOICE GATEWAY	GAMEWELL/F.C.I. #80375			
		POWER SUPPLY	GAMEWELL/F.C.I. #PM-9			
		ENCLOSURE WITH SOLID DOOR	GAMEWELL/F.C.I. #E388-RC/NX			
		MOUNTING PLATE	GAMEWELL/F.C.I. #E3-NX-PLATE			
	F	ADDRESSABLE MANUAL PULL STATION	GAMEWELL/F.C.I. #MS-7AF	7150-1703:0119	4" SQ. x 2 1/8" DP. OUTLET BOX	PER DETAIL #1/E8.8
	SD	ADDRESSABLE PHOTOELECTRONIC SMOKE DETECTOR	GAMEWELL/F.C.I. #ASD-PL3/B300-6	7272-1703:0501 7300-1653:0109	3.5" OCTAGON BOX OR 4" OCTAGON BOX WITH RAISED ROUND COVER	PER DETAIL #1/E8.8
	SD SO	ADDRESSABLE PHOTOELECTRONIC SMOKE DETECTOR WITH ISOLATOR BASE	GAMEWELL/F.C.I. #ASD-PL3/B224BI-WH	7272-1703:0501 7300-1653:0126	3.5" OCTAGON BOX OR 4" OCTAGON BOX WITH RAISED ROUND COVER	PER DETAIL #1/E8.8
	CO	ADDRESSABLE FIRE AND CARBON MONOXIDE DETECTOR	GAMEWELL/F.C.I. #MCS-COP3/B300-6	7272-1703:0508 7300-1653:0109	3.5" OCTAGON BOX OR 4" OCTAGON BOX WITH RAISED ROUND COVER	PER DETAIL #1/E8.8
	HD	ADDRESSABLE HEAT DETECTOR, 135°F	GAMEWELL/F.C.I. #ATD-L3/B300-6	7270-1703:0502 7300-1653:0109	3.5" OR 4" x 1 1/2" DP. OCTAGONAL BOX WITH 1/2" RAISED ROUND COVER	PER DETAIL #1/E8.8
	MM	ADDRESSABLE MONITOR MODULE	GAMEWELL/F.C.I. #AMM-4F	7300-1703:0102	4" SQ. x 2 1/8" DP. OUTLET BOX	———
	DMM	ADDRESSABLE DUAL MONITOR MODULE	GAMEWELL/F.C.I. #AMM-2IF	7300-1703:0107	4" SQ. x 2 1/8" DP. OUTLET BOX	———
	RM	ADDRESSABLE RELAY CONTROL MODULE	GAMEWELL/F.C.I. #ACM-2RF	7300-1703:0102	4" SQ. x 2 1/8" DP. OUTLET BOX	———
	SCM	ADDRESSABLE SUPERVISED CONTROL MODULE	GAMEWELL/F.C.I. #ACM-2SF	7300-1703:0102	4" SQ. x 2 1/8" DP. OUTLET BOX	———
	SV 15 30, 75, 110	SPEAKER/STROBE, WALL MOUNTED (CANDELA RATING AS NOTED)	SYSTEM SENSOR #SPSWL	7320-1653:0505	4" SQ. x 2 1/8" DP. OUTLET BOX WITH 1 1/2" DP. BOX EXTENSION	PER DETAIL #1/E8.8
	SV 15 30, 75, 95	SPEAKER/STROBE, CEILING MOUNTED (CANDELA RATING AS NOTED)	SYSTEM SENSOR #SPSCWL-P	7320-1653:0505	4" SQ. x 2 1/8" DP. OUTLET BOX WITH 1 1/2" DP. BOX EXTENSION	PER DETAIL #1/E8.8
	SP W.P.	EXTERIOR SPEAKER, WALL MOUNTED	SYSTEM SENSOR #SPRK-RAWTP-SPW	T320-1653:0201	4" SQ. x 2 1/8" DP. OUTLET BOX WITH 1 1/2" DP. BOX EXTENSION, PROVIDE WEATHERPROOF PLATE FOR SEMI-FLUSH MOUNTING	———
(A)	E.O.L.	END OF LINE RESISTOR	———	———	———	———
	WF	WATERFLOW SWITCH (AT FIRE SPRINKLER RISER)	PROVIDED BY OTHERS	———	———	VERIFY EXACT LOCATION WITH FIRE SPRINKLER CONTR.
	TS	TAMPER SWITCH (AT FIRE SPRINKLER RISER)	PROVIDED BY OTHERS	———	———	VERIFY EXACT LOCATION WITH FIRE SPRINKLER CONTR.
	B	ELECTRIC BELL (FOR FIRE SPRINKLER RISER)	PROVIDED BY OTHERS	———	4" SQ. x 2 1/8" DP. OUTLET BOX	———
	FSD	FIRE/SMOKE DAMPER	PROVIDED BY MECHANICAL	———	———	VERIFY EXACT LOCATION WITH MECHL CONTR.
	'FA' CABLE	ADDRESSABLE FIRE ALARM CABLE (INDOORS)	WEST PENN #D990	7161-0859:0101	———	———
	'SFA' CABLE	ADDRESSABLE FIRE ALARM CABLE (OUTDOORS)	WEST PENN #AG225	7161-0859:0101	———	———
	'FSP' CABLE	FIRE ALARM SPEAKER CABLE	WEST PENN #9845	7161-0859:0101	———	———
	'SFSP' CABLE	FIRE ALARM SPEAKER CABLE (OUTDOORS)	WEST PENN #AGC224	7161-0859:0101	———	———
	'SFN' CABLE	NETWORK FIBER OPTIC CABLE (OUTDOORS)	BERK-TEK #LTR006A80403	———	———	———

NOTES (FIRE ALARM SYSTEM EQUIPMENT SPECIFICATIONS):

(A) END OF LINE RESISTORS FOR CONVENTIONAL DEVICES CONNECTED TO ADDRESSABLE MONITOR MODULE DEVICES AND/OR ADDRESSABLE CONTROL MODULES SHALL BE 3.9K OHM, 1/2 WATT.

(B) PROVIDE EXTERNAL BATTERY BOX, FCI #LBB AND MOUNT BELOW ENCLOSURE. PROVIDE 3/4" CHASE NIPPLE WITH 2 #12 BETWEEN ADJACENT ENCLOSURES.

(C) PROVIDE TWO 50W AMPLIFIERS.

(D) VERIFY BACKBOX REQUIREMENTS WITH FIRE ALARM SYSTEM EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.

FIRE ALARM LEVEL OF AUDIBILITY

ALARM INDICATING DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL BE SO LOCATED AND UNOBSTRUCTED AS TO CAUSE A LEVEL OF AUDIBILITY OF NOT LESS THAN 15db ABOVE AMBIENT NOISE LEVELS MEASURED FOUR FEET ABOVE THE FLOOR INSIDE BUILDING.

AMBIENT NOISE LEVELS SHALL BE CONSTRUED TO MEAN THAT WHICH CAN NORMALLY BE EXPECTED TO EXIST WHEN THE FACILITY, BUILDING, ROOM OR AREA IS FUNCTIONING UNDER NORMAL OPERATIVE OR WORKING CONDITIONS.

THE FIRE ALARM SIGNAL SHALL COMPLY WITH THE CALIFORNIA EDUCATION CODE, SECTIONS 32000 AND 32004, AND BE A TEMPORAL PATTERN, CODE 3 AND THEN FOLLOWED BY ANY VOICE MESSAGES.

SCHOOLS FIRE ALARM REQUIREMENTS

THE FIRE ALARM SYSTEM SHALL CONFORM TO CALIFORNIA BUILDING CODE, SECTION 907.2.3; CALIFORNIA ELECTRICAL CODE, ARTICLE 760 AND CALIFORNIA FIRE CODE, CHAPTER 9, SECTION 907.

UPON COMPLETION OF THE INSTALLATION OF THE FIRE PROTECTIVE SIGNALING EQUIPMENT, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING FIRE AGENCY, NFPA 72. IF TESTING RESULTS DETERMINE FIRE ALARM AUDIBILITY DOES NOT MEET 15db OVER AMBIENT NOISE LEVELS, ADDITIONAL FIRE ALARM SIGNALING DEVICES MAY BE REQUIRED BY THE ENFORCING FIRE AGENCY.

FIRE ALARM SYSTEM CERTIFICATION AND DESCRIPTION SHALL BE PROVIDED FOR TESTING AND A PLASTIC LAMINATED COPY SHALL REMAIN (WITH INSTRUCTIONS) AT THE FIRE ALARM CONTROL PANEL PER NFPA 72.

THE FIRE ALARM 'CERTIFICATE OF COMPLETION' FORM IN NFPA 72 SHALL BE COMPLETED, SIGNED AND SUBMITTED.

SCOPE OF WORK

1. PROVIDE A NEW AUTOMATIC FIRE ALARM SYSTEM WITH SUPPLEMENTAL MANUAL FIRE DETECTION.
2. PROVIDE A FIRE ALARM CONTROL PANEL, FIRE ALARM POWER EXPANDER PANEL, ADDRESSABLE INITIATION DEVICES, NOTIFICATION APPLIANCES, CONDUIT, CABLING AND CONDUCTORS AS SHOWN ON THE DRAWINGS.

FIRE ALARM MONITORING NOTE

AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UL/FX (CENTRAL STATION) OR UUJS (REMOTE AND PROPRIETARY) BY UNDERWRITERS LABORATORY (UL) OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD FM 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER.

FIRE ALARM RECORD DOCUMENTS CABINET NFPA 72, 7.7.2

- EVERY NEW FIRE ALARM SYSTEM SHALL PROVIDE A DOCUMENTATION CABINET, INSTALLED AT THE SYSTEM CONTROL PANEL OR OTHER APPROVED LOCATION.
- THE DOCUMENTATION CABINET SHALL BE PROMINENTLY LABELED, 'SYSTEM RECORD DOCUMENTS'.
- ALL RECORD AND TESTING DOCUMENTATION SHALL BE STORED IN THE CABINET.
- CONTENTS SHALL BE ACCESSIBLE BY AUTHORIZED PERSONNEL ONLY.
- WHERE CABINET IS INSTALLED IN A LOCATION OTHER THAN THE SYSTEM CONTROL UNIT, ITS LOCATION SHALL BE IDENTIFIED AT THE SYSTEM CONTROL UNIT.

SYSTEM DOCUMENTS AS APPLICABLE:

- RECORD DRAWINGS/AS-BUILTS.
- EQUIPMENT CUT SHEETS AND CA SFM LISTINGS.
- ALTERNATIVE MEANS AND METHODS.
- PERFORMANCE BASED DESIGN DOCUMENTATION (NFPA 72, 7.3.7).
- SYSTEM RECORD OF COMPLETION AND ANY SUPPLEMENTAL INSPECTION AND TESTING DOCUMENTATION (NFPA 72, 7.8.2).
- EMERGENCY RESPONSE PLAN (NFPA 72, 7.3.8.).
- EVALUATION DOCUMENTATION (NFPA 72, 7.3.9.).
- RISK ANALYSIS DOCUMENTATION (NFPA 72, 7.3.6).
- SOFTWARE AND FIRMWARE CONTROL DOCUMENTATION (NFPA 72, 23.2.2).

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK EASTHAM — No. E 19189 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 — APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

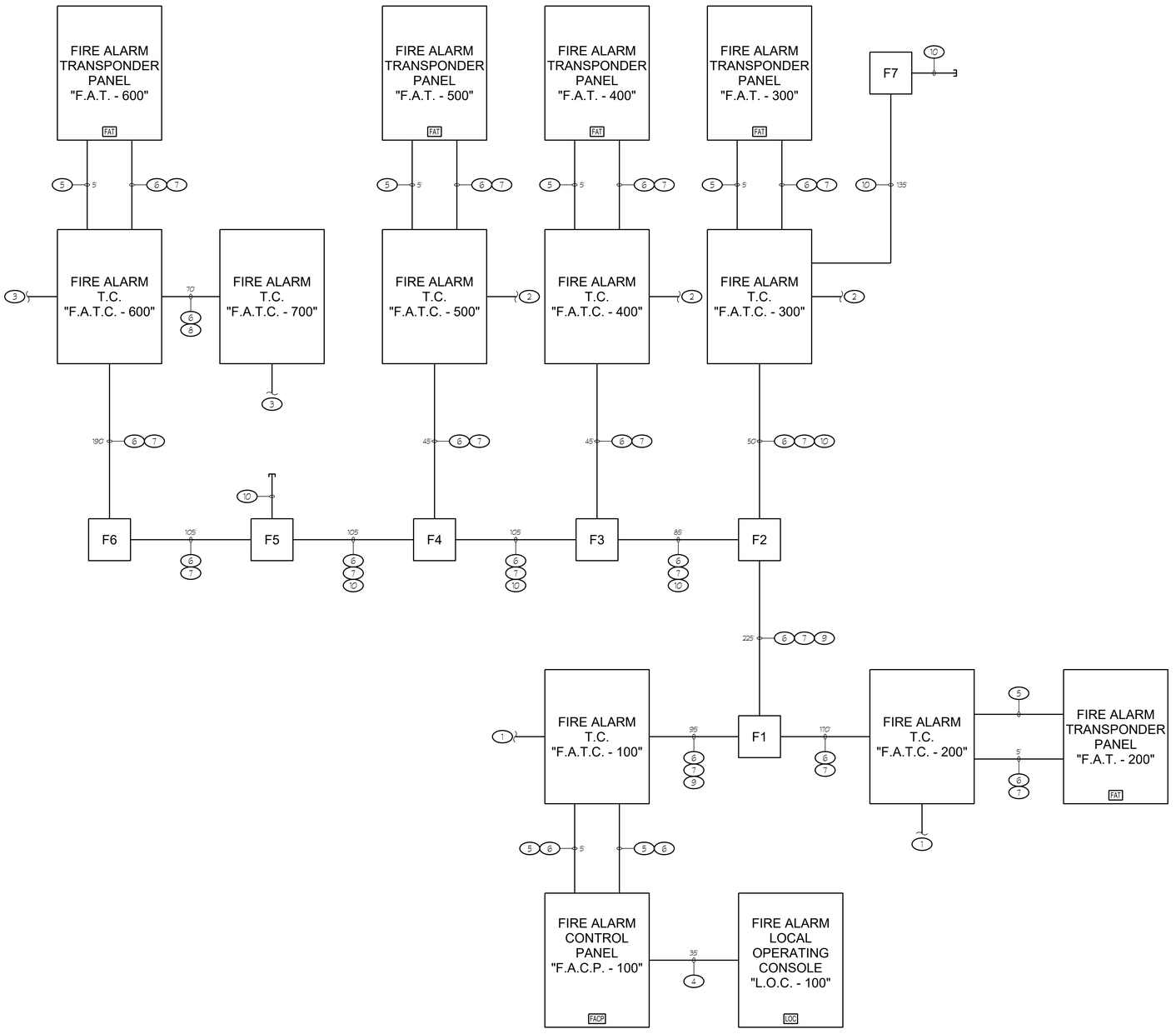
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
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(559) 627.2630 Office
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TITLE
FIRE ALARM SYSTEM EQUIPMENT SPECIFICATIONS, CODES AND NOTES

E8.1

PROJECT 24042

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1 FIRE ALARM MAIN SYSTEM EQUIPMENT RISER DIAGRAM

NTS

NOTES (THIS SHEET ONLY):

1. SEE SHEET #E8.3 FOR CONTINUATION.
2. SEE SHEET #E8.4 FOR CONTINUATION.
3. SEE SHEET #E8.5 FOR CONTINUATION.
4. 3/4"C - TWO 'FA' CABLES.
5. 1"C - ONE 'FA' CABLE, TWO 'FSP' CABLES, 4 #12, 2 #14 (AUX POWER FOR SOUNDER BASE).
6. ONE SPARE 1 1/2"C (WITH NYLON PULL ROPE).
7. 1 1/4"C - TWO 'SFA' CABLES, TWO 'SFSP' CABLES.
8. 1"C - ONE 'FA' CABLE, ONE 'FSP' CABLES, 2 #12, 2 #14 (AUX POWER FOR SOUNDER BASE).
9. THREE SPARE 1 1/2"C (WITH NYLON PULL ROPE).
10. TWO SPARE 1 1/2"C (WITH NYLON PULL ROPE).

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AUTOMATIC FIRE SPRINKLER SYSTEM

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COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

REGISTERED PROFESSIONAL ENGINEER
KIRK SWANSON
No. E 19169
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

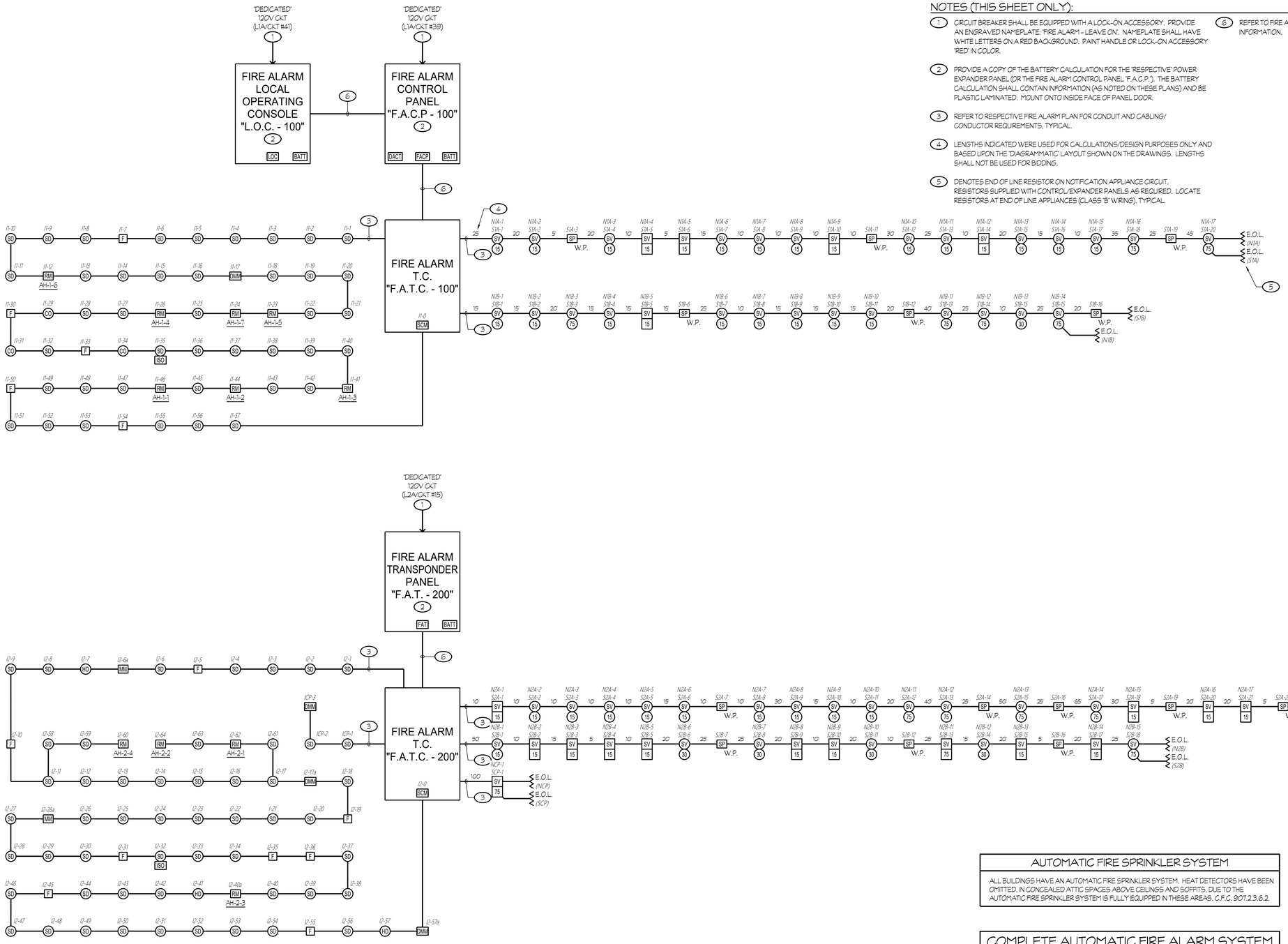
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TITLE
MAIN FIRE ALARM SYSTEM EQUIPMENT RISER DIAGRAM

E8.2

PROJECT 24042

Z:\Drafting\Jobs\KRS\SCHOOLS\Sanger\Temperance Elem. School\E8.2.dwg DATE SAVED: 05/11/26 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



NOTES (THIS SHEET ONLY):

1. CIRCUIT BREAKER SHALL BE EQUIPPED WITH A LOCK-ON ACCESSORY. PROVIDE AN ENGRAVED NAMEPLATE: 'FIRE ALARM - LEAVE ON'. NAMEPLATE SHALL HAVE WHITE LETTERS ON A RED BACKGROUND. PAINT HANDLE OR LOCK-ON ACCESSORY 'RED' IN COLOR.
2. PROVIDE A COPY OF THE BATTERY CALCULATION FOR THE 'RESPECTIVE' POWER EXPANDER PANEL (OR THE FIRE ALARM CONTROL PANEL 'F.A.C.P.'). THE BATTERY CALCULATION SHALL CONTAIN INFORMATION (AS NOTED ON THESE PLANS) AND BE PLASTIC LAMINATED. MOUNT ONTO INSIDE FACE OF PANEL DOOR.
3. REFER TO RESPECTIVE FIRE ALARM PLAN FOR CONDUIT AND CABLING/ CONDUCTOR REQUIREMENTS, TYPICAL.
4. LENGTHS INDICATED WERE USED FOR CALCULATIONS/DESIGN PURPOSES ONLY AND BASED UPON THE 'DIAGRAMMATIC' LAYOUT SHOWN ON THE DRAWINGS. LENGTHS SHALL NOT BE USED FOR BIDDING.
5. DENOTES END OF LINE RESISTOR ON NOTIFICATION APPLIANCE CIRCUIT. RESISTORS SUPPLIED WITH CONTROL/EXPANDER PANELS AS REQUIRED. LOCATE RESISTORS AT END OF LINE APPLIANCES (CLASS 'B' WIRING). TYPICAL.
6. REFER TO FIRE ALARM SYSTEM MAIN RISER DIAGRAM #1/E8.2 FOR CONDUIT AND WIRING INFORMATION.

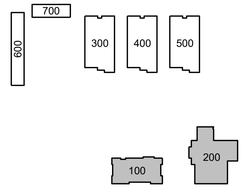
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KEY PLAN

1 BUILDINGS 100 & 200
FIRE ALARM SYSTEM EQUIPMENT RISER DIAGRAM

NTS

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Electrical Consultants
131 S. Dunworth - (559)733-2671
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REGISTERED PROFESSIONAL ENGINEER — KIRK S. EASTHAM — No. E-19788 Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

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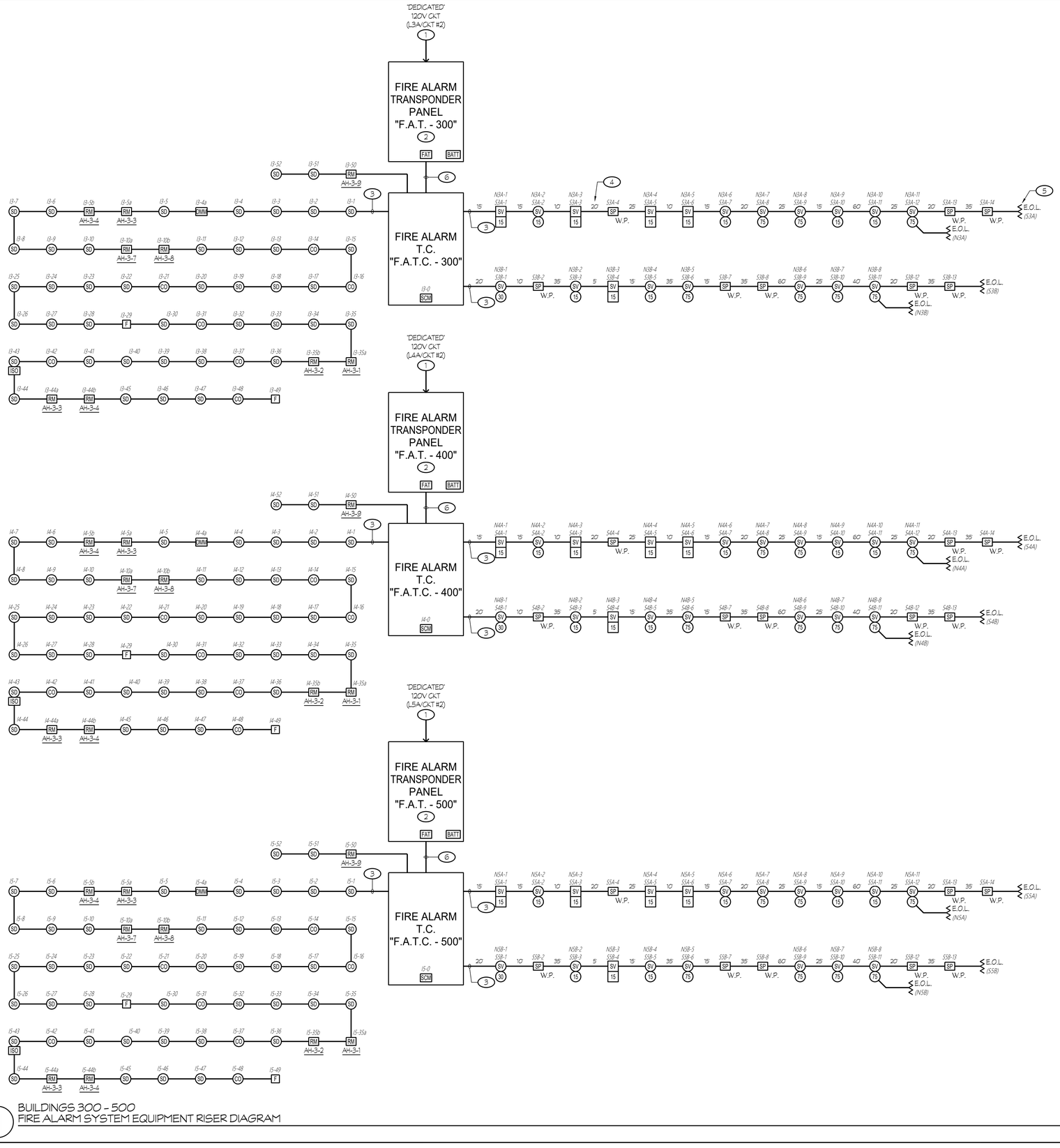
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BLDGS. 100 & 200
FIRE ALARM SYSTEM
EQUIPMENT RISER
DIAGRAM

E8.3

PROJECT 24042

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1 BUILDINGS 300 - 500
FIRE ALARM SYSTEM EQUIPMENT RISER DIAGRAM

NTS

NOTES (THIS SHEET ONLY):

1. CIRCUIT BREAKER SHALL BE EQUIPPED WITH A LOCK-ON ACCESSORY. PROVIDE AN ENGRAVED NAMEPLATE: 'FIRE ALARM - LEAVE ON'. NAMEPLATE SHALL HAVE WHITE LETTERS ON A RED BACKGROUND. PAINT HANDLE OR LOCK-ON ACCESSORY 'RED' IN COLOR.
2. PROVIDE A COPY OF THE BATTERY CALCULATION FOR THE 'RESPECTIVE' POWER EXPANDER PANEL (OR THE FIRE ALARM CONTROL PANEL "F.A.C.P."). THE BATTERY CALCULATION SHALL CONTAIN INFORMATION (AS NOTED ON THESE PLANS) AND BE PLASTIC LAMINATED. MOUNT ONTO INSIDE FACE OF PANEL DOOR.
3. REFER TO RESPECTIVE FIRE ALARM PLAN FOR CONDUIT AND CABLING/ CONDUCTOR REQUIREMENTS, TYPICAL.
4. LENGTHS INDICATED WERE USED FOR CALCULATIONS/DESIGN PURPOSES ONLY AND BASED UPON THE 'DIAGRAMMATIC' LAYOUT SHOWN ON THE DRAWINGS. LENGTHS SHALL NOT BE USED FOR BIDDING.
5. DENOTES END OF LINE RESISTOR ON NOTIFICATION APPLIANCE CIRCUIT. RESISTORS SUPPLIED WITH CONTROL/EXPANDER PANELS AS REQUIRED. LOCATE RESISTORS AT END OF LINE APPLIANCES (CLASS 'B' WIRING). TYPICAL.
6. REFER TO FIRE ALARM SYSTEM MAIN RISER DIAGRAM #1/E8.2 FOR CONDUIT AND WIRING INFORMATION.

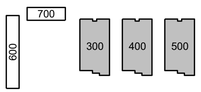
AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

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KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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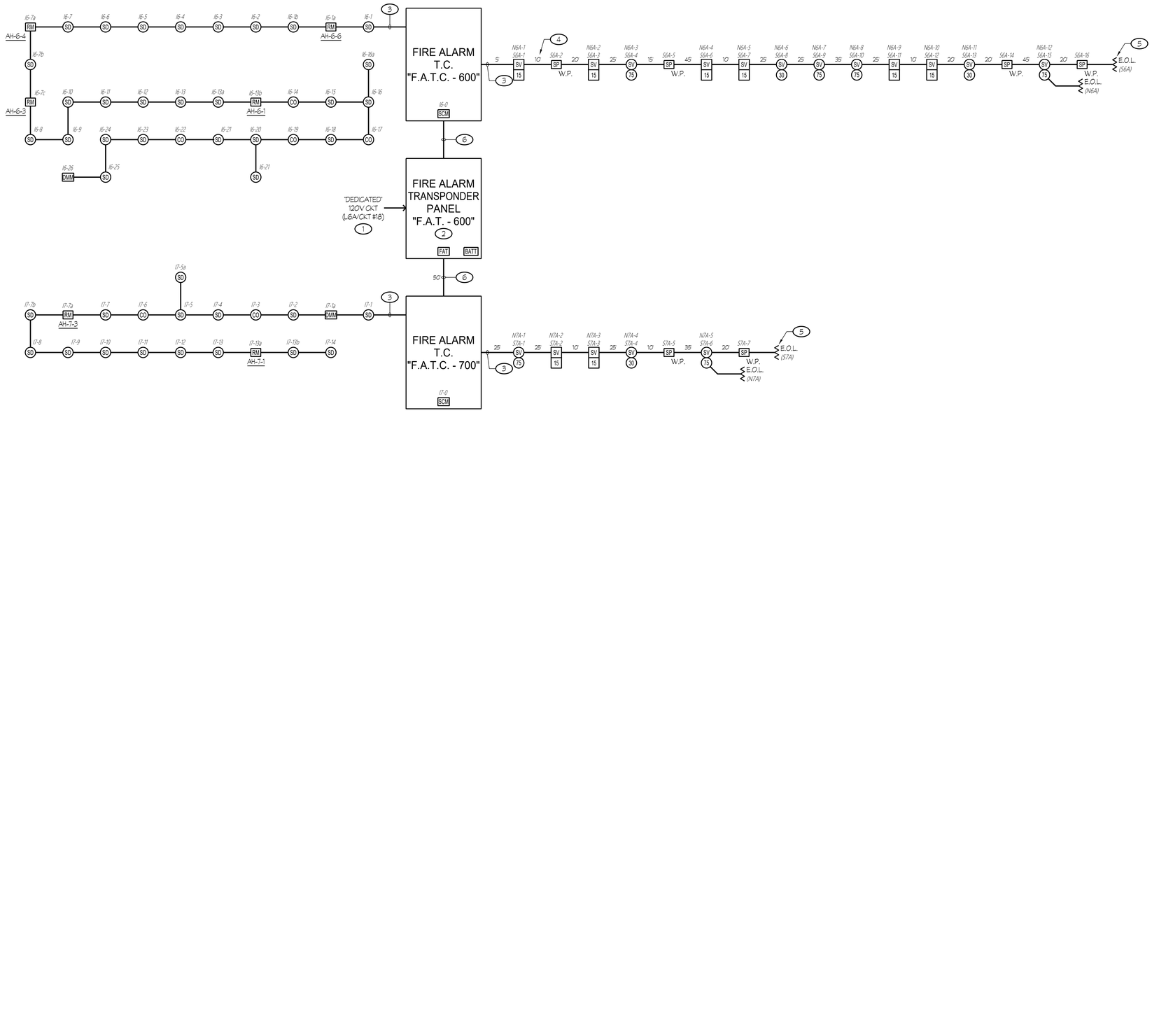
TITLE
BLDGS. 300-500
FIRE ALARM SYSTEM
EQUIPMENT RISER
DIAGRAM

E8.4

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
STEPHEN K. KIRK SMITH
No. E-19169
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSE\SCHOOLS\Sanger\Temperance Elem. School\E8.4.dwg DATE SAVED: 06/24/26 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



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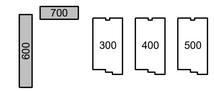
AUTOMATIC FIRE SPRINKLER SYSTEM

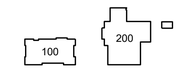
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KEY PLAN

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Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK S. EASTHAM — No. E 9788 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

1 BUILDINSG 600 & 700
FIRE ALARM SYSTEM EQUIPMENT RISER DIAGRAM

NTS

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E8.5

PROJECT 24042

Z:\Drafting\Jobs\RSES\SSD\SSDS\Sanger\Temperance Elem School\E8.5.dwg DATE SAVED: 09/17/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

FIRE ALARM CONTROL PANEL "F.A.C.P. - 100" BATTERY CALCULATION

	DESCRIPTION	QUANTITY	SUPV. CURRENT EACH	SUPV. CURRENT SUB-TOTAL	ALARM CURRENT EACH	ALARM CURRENT SUB-TOTAL
	CONTROL PANEL WITH DACT	1	0.14200	0.14200	0.18700	0.18700
	AM-50 AMPLIFIERS	1	0.04900	0.04900	2.30000	2.30000
	MANUAL PULL STATION	5	0.00030	0.00150	0.00150	0.00750
	SMOKE DETECTOR	41	0.00030	0.01230	0.00650	0.26650
	C.O. DETECTOR	3	0.00030	0.00090	0.00650	0.01950
	DUAL MONITOR MODULE	2.000	0.00750	0.01500	0.00570	0.01140
	RELAY MODULE	7	0.00030	0.00210	0.00030	0.00210
	SUPV. CONTROL MODULE	1	0.00030	0.00030	0.00030	0.00030
(A)	SPEAKER/15cd STROBE (CEILING)	19	—	—	0.04100	0.77900
(A)	SPEAKER/30cd STROBE (CEILING)	1	—	—	0.06300	0.06300
(A)	SPEAKER/75cd STROBE (CEILING)	6	—	—	0.11100	0.66600
(A)	SPEAKER/15cd STROBE (WALL)	5	—	—	0.04300	0.21500
	TOTALS			0.223		4.517

TOTAL ALARM CURRENT OF 4.517 x 0.250 (15 MINUTES) = 1.129 A.H.
TOTAL SUPERVISORY CURRENT OF 0.223 x 24 HOURS = 5.352 A.H.
TOTAL AMP HOURS REQUIRED 6.481 A.H.
x 1.25 SAFETY FACTOR
8.101 A.H.

PROVIDE 18.0 AMP HOUR BATTERIES

(A) THE CURRENT VALUES LISTED ARE FOR THE STROBES ONLY. THE SPEAKER CURRENT IS INCLUDED IN THE VALUES LISTED UNDER THE DIGITAL AMPLIFIER.

FIRE ALARM TRANSPONDER PANEL "F.A.T. - 200" BATTERY CALCULATION

	DESCRIPTION	QUANTITY	SUPV. CURRENT EACH	SUPV. CURRENT SUB-TOTAL	ALARM CURRENT EACH	ALARM CURRENT SUB-TOTAL
	TRANSPONDER PANEL	1	0.14200	0.14200	0.18700	0.18700
	AM-50 AMPLIFIERS	1	0.04900	0.04900	2.30000	2.30000
	MANUAL PULL STATION	8	0.00030	0.00240	0.00150	0.01200
	SMOKE DETECTOR	53	0.00030	0.01590	0.00650	0.34450
	HEAT DETECTOR	3	0.00030	0.00090	0.00650	0.01950
	DUAL MONITOR MODULE	1.000	0.00750	0.00750	0.00570	0.00570
	RELAY MODULE	4	0.00030	0.00120	0.00030	0.00120
	SUPV. CONTROL MODULE	1	0.00030	0.00030	0.00030	0.00030
	MONTIOR MODULE	1	0.00030	0.00030	0.00030	0.00030
(A)	SPEAKER/15cd STROBE (CEILING)	12	—	—	0.04100	0.49200
(A)	SPEAKER/30cd STROBE (CEILING)	4	—	—	0.06300	0.25200
(A)	SPEAKER/75cd STROBE (CEILING)	5	—	—	0.11100	0.55500
(A)	SPEAKER/15cd STROBE (WALL)	13	—	—	0.04300	0.55900
(A)	SPEAKER/75cd STROBE (WALL)	2	—	—	0.10700	0.21400
	TOTALS			0.220		4.942

TOTAL ALARM CURRENT OF 4.942 x 0.250 (15 MINUTES) = 1.236 A.H.
TOTAL SUPERVISORY CURRENT OF 0.219 x 24 HOURS = 5.256 A.H.
TOTAL AMP HOURS REQUIRED 6.492 A.H.
x 1.25 SAFETY FACTOR
8.115 A.H.

PROVIDE 18.0 AMP HOUR BATTERIES

(A) THE CURRENT VALUES LISTED ARE FOR THE STROBES ONLY. THE SPEAKER CURRENT IS INCLUDED IN THE VALUES LISTED UNDER THE DIGITAL AMPLIFIER.

FIRE ALARM TRANSPONDER PANEL "F.A.T. - 300" BATTERY CALCULATION

	DESCRIPTION	QUANTITY	SUPV. CURRENT EACH	SUPV. CURRENT SUB-TOTAL	ALARM CURRENT EACH	ALARM CURRENT SUB-TOTAL
	TRANSPONDER PANEL	1	0.14200	0.14200	0.18700	0.18700
	AM-50 AMPLIFIERS	1	0.04900	0.04900	2.30000	2.30000
	MANUAL PULL STATION	2	0.00030	0.00060	0.00150	0.00300
	SMOKE DETECTOR	42	0.00030	0.01260	0.00650	0.27300
	C.O. DETECTOR	7	0.00030	0.00210	0.00650	0.04550
	DUAL MONITOR MODULE	1.000	0.00750	0.00750	0.00570	0.00570
	RELAY MODULE	9	0.00030	0.00270	0.00030	0.00270
	SUPV. CONTROL MODULE	1	0.00030	0.00030	0.00030	0.00030
(A)	SPEAKER/15cd STROBE (CEILING)	6	—	—	0.04100	0.24600
(A)	SPEAKER/30cd STROBE (CEILING)	1	—	—	0.06300	0.06300
(A)	SPEAKER/75cd STROBE (CEILING)	4	—	—	0.11100	0.44400
(A)	SPEAKER/15cd STROBE (WALL)	5	—	—	0.04300	0.21500
(A)	SPEAKER/75cd STROBE (WALL)	1	—	—	0.10700	0.10700
	TOTALS			0.217		3.892

TOTAL ALARM CURRENT OF 3.892 x 0.250 (15 MINUTES) = 0.973 A.H.
TOTAL SUPERVISORY CURRENT OF 0.217 x 24 HOURS = 5.208 A.H.
TOTAL AMP HOURS REQUIRED 6.181 A.H.
x 1.25 SAFETY FACTOR
7.726 A.H.

PROVIDE 18.0 AMP HOUR BATTERIES

(A) THE CURRENT VALUES LISTED ARE FOR THE STROBES ONLY. THE SPEAKER CURRENT IS INCLUDED IN THE VALUES LISTED UNDER THE DIGITAL AMPLIFIER.

FIRE ALARM TRANSPONDER PANEL "F.A.T. - 400" BATTERY CALCULATION

	DESCRIPTION	QUANTITY	SUPV. CURRENT EACH	SUPV. CURRENT SUB-TOTAL	ALARM CURRENT EACH	ALARM CURRENT SUB-TOTAL
	TRANSPONDER PANEL	1	0.14200	0.14200	0.18700	0.18700
	AM-50 AMPLIFIERS	1	0.04900	0.04900	2.30000	2.30000
	MANUAL PULL STATION	2	0.00030	0.00060	0.00150	0.00300
	SMOKE DETECTOR	42	0.00030	0.01260	0.00650	0.27300
	C.O. DETECTOR	7	0.00030	0.00210	0.00650	0.04550
	DUAL MONITOR MODULE	2	0.00750	0.01500	0.00570	0.01140
	RELAY MODULE	9	0.00030	0.00270	0.00030	0.00270
	SUPV. CONTROL MODULE	1	0.00030	0.00030	0.00030	0.00030
(A)	SPEAKER/15cd STROBE (CEILING)	6	—	—	0.04100	0.24600
(A)	SPEAKER/30cd STROBE (CEILING)	1	—	—	0.06300	0.06300
(A)	SPEAKER/75cd STROBE (CEILING)	4	—	—	0.11100	0.44400
(A)	SPEAKER/15cd STROBE (WALL)	5	—	—	0.04300	0.21500
(A)	SPEAKER/75cd STROBE (WALL)	1	—	—	0.10700	0.10700
	TOTALS			0.224		3.898

TOTAL ALARM CURRENT OF 3.898 x 0.250 (15 MINUTES) = 0.975 A.H.
TOTAL SUPERVISORY CURRENT OF 0.224 x 24 HOURS = 5.376 A.H.
TOTAL AMP HOURS REQUIRED 6.351 A.H.
x 1.25 SAFETY FACTOR
7.939 A.H.

PROVIDE 18.0 AMP HOUR BATTERIES

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FIRE ALARM LOCAL OPERATING CONSOLE "L.O.C. - 100" BATTERY CALCULATION

DESCRIPTION	QUANTITY	SUPV. CURRENT EACH	SUPV. CURRENT SUB-TOTAL	ALARM CURRENT EACH	ALARM CURRENT SUB-TOTAL
LOCAL OPERATING CONSOLE	1	0.505	0.505	0.505	0.505
TOTALS			0.505		0.505

TOTAL ALARM CURRENT OF 0.505 x 0.250 (15 MINUTES) = 0.1263 A.H.
TOTAL SUPERVISORY CURRENT OF 0.505 x 24 HOURS = 12.12 A.H.
TOTAL AMP HOURS REQUIRED 12.2463 A.H.
x 1.25 SAFETY FACTOR
15.31 A.H.

PROVIDE 18.0 AMP HOUR BATTERIES

FIRE ALARM TRANSPONDER PANEL "F.A.T. - 500" BATTERY CALCULATION

	DESCRIPTION	QUANTITY	SUPV. CURRENT EACH	SUPV. CURRENT SUB-TOTAL	ALARM CURRENT EACH	ALARM CURRENT SUB-TOTAL
	TRANSPONDER PANEL	1	0.14200	0.14200	0.18700	0.18700
	AM-50 AMPLIFIERS	1	0.04900	0.04900	2.30000	2.30000
	MANUAL PULL STATION	2	0.00030	0.00060	0.00150	0.00300
	SMOKE DETECTOR	42	0.00030	0.01260	0.00650	0.27300
	C.O. DETECTOR	7	0.00030	0.00210	0.00650	0.04550
	DUAL MONITOR MODULE	1.000	0.00750	0.00750	0.00570	0.00570
	RELAY MODULE	9	0.00030	0.00270	0.00030	0.00270
	SUPV. CONTROL MODULE	1	0.00030	0.00030	0.00030	0.00030
(A)	SPEAKER/15cd STROBE (CEILING)	6	—	—	0.04100	0.24600
(A)	SPEAKER/30cd STROBE (CEILING)	1	—	—	0.06300	0.06300
(A)	SPEAKER/75cd STROBE (CEILING)	4	—	—	0.11100	0.44400
(A)	SPEAKER/15cd STROBE (WALL)	5	—	—	0.04300	0.21500
(A)	SPEAKER/75cd STROBE (WALL)	1	—	—	0.10700	0.10700
	TOTALS			0.217		3.892

TOTAL ALARM CURRENT OF 3.892 x 0.250 (15 MINUTES) = 0.973 A.H.
TOTAL SUPERVISORY CURRENT OF 0.217 x 24 HOURS = 5.208 A.H.
TOTAL AMP HOURS REQUIRED 6.181 A.H.
x 1.25 SAFETY FACTOR
7.726 A.H.

PROVIDE 18.0 AMP HOUR BATTERIES

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FIRE ALARM TRANSPONDER PANEL "F.A.T. - 600" BATTERY CALCULATION

	DESCRIPTION	QUANTITY	SUPV. CURRENT EACH	SUPV. CURRENT SUB-TOTAL	ALARM CURRENT EACH	ALARM CURRENT SUB-TOTAL
	TRANSPONDER PANEL	1	0.14200	0.14200	0.18700	0.18700
	AM-50 AMPLIFIERS	1	0.04900	0.04900	2.30000	2.30000
	SMOKE DETECTOR	41	0.00030	0.01230	0.00650	0.26650
	C.O. DETECTOR	6	0.00030	0.00180	0.00650	0.03900
	DUAL MONITOR MODULE	1.000	0.00750	0.00750	0.00570	0.00570
	RELAY MODULE	6	0.00030	0.00180	0.00030	0.00180
	SUPV. CONTROL MODULE	1	0.00030	0.00030	0.00030	0.00030
(A)	SPEAKER/30cd STROBE (CEILING)	3	—	—	0.06300	0.18900
(A)	SPEAKER/75cd STROBE (CEILING)	6	—	—	0.11100	0.66600
(A)	SPEAKER/15cd STROBE (WALL)	8	—	—	0.04300	0.34400
	TOTALS			0.215		3.999

TOTAL ALARM CURRENT OF 3.999 x 0.250 (15 MINUTES) = 1.000 A.H.
TOTAL SUPERVISORY CURRENT OF 0.215 x 24 HOURS = 5.160 A.H.
TOTAL AMP HOURS REQUIRED 6.160 A.H.
x 1.25 SAFETY FACTOR
7.700 A.H.

PROVIDE 18.0 AMP HOUR BATTERIES

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STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.2630 Office
(559) 627.1926 Fax

TITLE
FIRE ALARM CALCULATIONS

E8.6

PROJECT 24042

Z:\Drafting\Jobs\RES\24042.5\Sanger\Temperance Elem. School\E8.6.dwg DATE: 24AUG. 08/18/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

VOLTAGE DROP CALCULATIONS (OHM'S LAW)

$$\text{VOLTAGE DROP} = 2\left(\text{DC RESISTANCE AT 75°C FROM TABLE 8, C.E.C.}\right)\left(\frac{\text{LENGTH OF CIRCUIT}}{1000}\right)\left(\text{CURRENT } I\right)$$

$$\text{PERCENT VOLTAGE DROP} = \frac{\text{VOLTAGE DROP}}{\text{NOMINAL VOLTAGE}} \times 100$$

#12 CONDUCTORS, TYPICAL

1. NOTIFICATION APPLIANCE CIRCUIT " *N1A* ":

SV 15 : 4 x 0.043 A = 0.172 A
SV 15 : 11 x 0.041 A = 0.451 A
SV 75 : 2 x 0.111 A = 0.222 A
0.845 A

VOLTAGE DROP = $2(1.98)\left(\frac{345}{1000}\right)(0.845) = 1.15$ V.D.
PERCENT VOLTAGE DROP = $\frac{1.15}{24} \times 100 = 4.8\%$

2. NOTIFICATION APPLIANCE CIRCUIT " *N1B* ":

SV 15 : 1 x 0.043 A = 0.043 A
SV 15 : 8 x 0.041 A = 0.328 A
SV 30 : 1 x 0.063 A = 0.063 A
SV 75 : 4 x 0.111 A = 0.444 A
0.878 A

VOLTAGE DROP = $2(1.98)\left(\frac{315}{1000}\right)(0.878) = 1.10$ V.D.
PERCENT VOLTAGE DROP = $\frac{1.10}{24} \times 100 = 4.6\%$

3. NOTIFICATION APPLIANCE CIRCUIT " *N2A* ":

SV 15 : 5 x 0.043 A = 0.215 A
SV 15 : 11 x 0.041 A = 0.451 A
SV 75 : 4 x 0.111 A = 0.444 A
1.110 A

VOLTAGE DROP = $2(1.98)\left(\frac{400}{1000}\right)(1.110) = 1.76$ V.D.
PERCENT VOLTAGE DROP = $\frac{1.76}{24} \times 100 = 7.3\%$

4. NOTIFICATION APPLIANCE CIRCUIT " *N2B* ":

SV 15 : 8 x 0.043 A = 0.344 A
SV 75 : 1 x 0.107 A = 0.107 A
SV 15 : 1 x 0.041 A = 0.041 A
SV 30 : 4 x 0.063 A = 0.252 A
SV 75 : 1 x 0.111 A = 0.111 A
0.855 A

VOLTAGE DROP = $2(1.98)\left(\frac{330}{1000}\right)(0.855) = 1.12$ V.D.
PERCENT VOLTAGE DROP = $\frac{1.12}{24} \times 100 = 4.7\%$

5. NOTIFICATION APPLIANCE CIRCUIT " *N3A* ":

SV 15 : 4 x 0.043 A = 0.172 A
SV 15 : 4 x 0.041 A = 0.164 A
SV 75 : 3 x 0.111 A = 0.333 A
0.669 A

VOLTAGE DROP = $2(1.98)\left(\frac{255}{1000}\right)(0.669) = 0.68$ V.D.
PERCENT VOLTAGE DROP = $\frac{0.68}{24} \times 100 = 2.8\%$

6. NOTIFICATION APPLIANCE CIRCUIT " *N3B* ":

SV 15 : 1 x 0.043 A = 0.043 A
SV 15 : 2 x 0.041 A = 0.082 A
SV 30 : 1 x 0.063 A = 0.063 A
SV 75 : 4 x 0.111 A = 0.444 A
0.632 A

VOLTAGE DROP = $2(1.98)\left(\frac{295}{1000}\right)(0.632) = 0.74$ V.D.
PERCENT VOLTAGE DROP = $\frac{0.74}{24} \times 100 = 3.1\%$

7. NOTIFICATION APPLIANCE CIRCUIT " *N4A* ":

SV 15
SV 15 : 4 x 0.043 A = 0.172 A
SV 75 : 4 x 0.041 A = 0.164 A
: 3 x 0.111 A = 0.333 A
~~0.669~~ A

VOLTAGE DROP = $2(1.98)\left(\frac{255}{1000}\right)(0.669) = 0.68$ V.D.
PERCENT VOLTAGE DROP = $\frac{0.68}{24} \times 100 = 2.8\%$

8. NOTIFICATION APPLIANCE CIRCUIT " *N4B* ":

SV 15
SV 15 : 1 x 0.043 A = 0.043 A
SV 30 : 2 x 0.041 A = 0.082 A
SV 75 : 1 x 0.063 A = 0.063 A
: 4 x 0.111 A = 0.444 A
~~0.632~~ A

VOLTAGE DROP = $2(1.98)\left(\frac{295}{1000}\right)(0.632) = 0.74$ V.D.
PERCENT VOLTAGE DROP = $\frac{0.74}{24} \times 100 = 3.1\%$

9. NOTIFICATION APPLIANCE CIRCUIT " *N5A* ":

SV 15
SV 15 : 4 x 0.043 A = 0.172 A
SV 75 : 4 x 0.041 A = 0.164 A
: 3 x 0.111 A = 0.333 A
~~0.669~~ A

VOLTAGE DROP = $2(1.98)\left(\frac{255}{1000}\right)(0.669) = 0.68$ V.D.
PERCENT VOLTAGE DROP = $\frac{0.68}{24} \times 100 = 2.8\%$

10. NOTIFICATION APPLIANCE CIRCUIT " *N5B* ":

SV 15
SV 15 : 1 x 0.043 A = 0.043 A
SV 30 : 2 x 0.041 A = 0.082 A
SV 75 : 1 x 0.063 A = 0.063 A
: 4 x 0.111 A = 0.444 A
~~0.632~~ A

VOLTAGE DROP = $2(1.98)\left(\frac{295}{1000}\right)(0.632) = 0.74$ V.D.
PERCENT VOLTAGE DROP = $\frac{0.74}{24} \times 100 = 3.1\%$

11. NOTIFICATION APPLIANCE CIRCUIT " *N6A* ":

SV 15
SV 30 : 6 x 0.043 A = 0.258 A
SV 75 : 2 x 0.063 A = 0.126 A
: 4 x 0.111 A = 0.444 A
~~0.828~~ A

VOLTAGE DROP = $2(1.98)\left(\frac{385}{1000}\right)(0.828) = 1.16$ V.D.
PERCENT VOLTAGE DROP = $\frac{1.16}{24} \times 100 = 4.8\%$

12. NOTIFICATION APPLIANCE CIRCUIT " *N7A* ":

SV 15
SV 30 : 2 x 0.043 A = 0.086 A
SV 75 : 1 x 0.063 A = 0.063 A
: 2 x 0.111 A = 0.222 A
~~0.371~~ A

VOLTAGE DROP = $2(1.98)\left(\frac{200}{1000}\right)(0.371) = 0.29$ V.D.
PERCENT VOLTAGE DROP = $\frac{0.29}{24} \times 100 = 1.2\%$

13. NOTIFICATION APPLIANCE CIRCUIT " *N6P* ":

SV 75
SV 15
VOLTAGE DROP = $2(1.98)\left(\frac{100}{1000}\right)(0.107) = 0.04$ V.D.
: 1 x 0.107 A = ~~0.107~~ A
PERCENT VOLTAGE DROP = $\frac{0.04}{24} \times 100 = 0.2\%$

SIGNALING LINE CIRCUIT SCHEDULE

DESCRIPTION	SIGNALING LINE CIRCUIT
BUILDING 100 - ADDRESSABLE/INITIATION DEVICES	*SLC #1*
BUILDING 200 - ADDRESSABLE/INITIATION DEVICES	*SLC #2*
BUILDING 300 - ADDRESSABLE/INITIATION DEVICES	*SLC #3*
BUILDING 400 - ADDRESSABLE/INITIATION DEVICES	*SLC #4*
BUILDING 500 - ADDRESSABLE/INITIATION DEVICES	*SLC #5*
BUILDING 600 - ADDRESSABLE/INITIATION DEVICES	*SLC #6*
BUILDING 700 - ADDRESSABLE/INITIATION DEVICES	*SLC #7*
BUILDING 800 - ADDRESSABLE/INITIATION DEVICES	*SLC #8*

NOTIFICATION APPLIANCE CIRCUIT SCHEDULE

CIRCUIT	DESCRIPTION/LOCATION	PANEL
N1A	BUILDING 100 - VISUAL STROBES	F.A.C.P. - 100
N1B	BUILDING 100 - VISUAL STROBES	F.A.C.P. - 100
N2A	BUILDING 200 - VISUAL STROBES	F.A.T. - 200
N2B	BUILDING 200 - VISUAL STROBES	F.A.T. - 200
N3A	BUILDING 300 - VISUAL STROBES	F.A.T. - 300
N3B	BUILDING 300 - VISUAL STROBES	F.A.T. - 300
N4A	BUILDING 400 - VISUAL STROBES	F.A.T. - 400
N4B	BUILDING 400 - VISUAL STROBES	F.A.T. - 400
N5A	BUILDING 500 - VISUAL STROBES	F.A.T. - 500
N5B	BUILDING 500 - VISUAL STROBES	F.A.T. - 500
N6A	BUILDING 600 - VISUAL STROBES	F.A.T. - 600
N7A	BUILDING 700 - VISUAL STROBES	F.A.T. - 600
NCP	BUILDING 800 - VISUAL STROBES	F.A.T. - 200

SPEAKER CIRCUIT SCHEDULE

CIRCUIT	DESCRIPTION/LOCATION	PANEL
S1A	BUILDING 100 - SPEAKERS	F.A.C.P. - 100
S1B	BUILDING 100 - SPEAKERS	F.A.C.P. - 100
S2A	BUILDING 200 - SPEAKERS	F.A.T. - 200
S2B	BUILDING 200 - SPEAKERS	F.A.T. - 200
S3A	BUILDING 300 - SPEAKERS	F.A.T. - 300
S3B	BUILDING 300 - SPEAKERS	F.A.T. - 300
S4A	BUILDING 400 - SPEAKERS	F.A.T. - 400
S4B	BUILDING 400 - SPEAKERS	F.A.T. - 400
S5A	BUILDING 500 - SPEAKERS	F.A.T. - 500
S5B	BUILDING 500 - SPEAKERS	F.A.T. - 500
S6A	BUILDING 600 - SPEAKERS	F.A.T. - 600
S7A	BUILDING 700 - SPEAKERS	F.A.T. - 600
SCP	BUILDING 800 - SPEAKERS	F.A.T. - 200

SPEAKER dB LOSS CALCULATION

SPEAKER CIRCUIT	SPEAKER VOLTAGE	WIRE SIZE	RESISTANCE PER FOOT	FEET REQUIRED ON CIRCUIT	WIRE RESISTANCE	TOTAL WATTAGE OF SPEAKERS ON CIRCUIT	SPEAKER CURRENT (AMPS)	RESISTANCE OF SPEAKER LOAD	WIRE SIZE	ACTUAL VOLTAGE AT SPEAKER LOAD	ACTUAL WATTS AT SPEAKER LOAD	dB LOSS
S1A	70	18	0.01278	345	4.409	23	0.329	213.04	18	68.5807	22.0768	-0.18
S1B	70	16	0.0082	315	2.583	20	0.286	245.00	16	69.2697	19.5849	-0.09
S2A	70	14	0.0052	575	2.990	34	0.486	144.12	14	68.5772	32.6319	-0.18
S2B	70	12	0.0032	330	1.056	21	0.300	233.33	12	69.6846	20.6112	-0.04
SCP	70	12	0.0032	100	0.320	1	0.014	4900.00	12	69.9954	0.9999	0.00

NOTE:
CALCULATION IS BASED ON EACH OF THE 'INTERIOR' SPEAKERS TAPPED AT 1 WATT AND EACH OF THE 'EXTERIOR' SPEAKERS TAPPED AT 2 WATTS.

SPEAKER dB LOSS CALCULATION

SPEAKER CIRCUIT	SPEAKER VOLTAGE	WIRE SIZE	RESISTANCE PER FOOT	FEET REQUIRED ON CIRCUIT	WIRE RESISTANCE	TOTAL WATTAGE OF SPEAKERS ON CIRCUIT	SPEAKER CURRENT (AMPS)	RESISTANCE OF SPEAKER LOAD	WIRE SIZE	ACTUAL VOLTAGE AT SPEAKER LOAD	ACTUAL WATTS AT SPEAKER LOAD	dB LOSS
S3A	70	18	0.01278	310	3.962	17	0.243	288.24	18	69.0509	16.5421	-0.12
S3B	70	16	0.0082	350	2.870	18	0.257	272.22	16	69.2697	17.6264	-0.09
S4A	70	14	0.0052	310	1.612	17	0.243	288.24	14	69.6107	16.8114	-0.05
S4B	70	12	0.0032	350	1.120	18	0.257	272.22	12	69.7132	17.8528	-0.04

NOTE:
CALCULATION IS BASED ON EACH OF THE 'INTERIOR' SPEAKERS TAPPED AT 1 WATT AND EACH OF THE 'EXTERIOR' SPEAKERS TAPPED AT 2 WATTS.

SPEAKER dB LOSS CALCULATION

SPEAKER CIRCUIT	SPEAKER VOLTAGE	WIRE SIZE	RESISTANCE PER FOOT	FEET REQUIRED ON CIRCUIT	WIRE RESISTANCE	TOTAL WATTAGE OF SPEAKERS ON CIRCUIT	SPEAKER CURRENT (AMPS)	RESISTANCE OF SPEAKER LOAD	WIRE SIZE	ACTUAL VOLTAGE AT SPEAKER LOAD	ACTUAL WATTS AT SPEAKER LOAD	dB LOSS
S5A	70	18	0.01278	310	3.962	17	0.243	288.24	18	69.0509	16.5421	-0.12
S5B	70	16	0.0082	350	2.870	18	0.257	272.22	16	69.2697	17.6264	-0.09
S6A	70	14	0.0052	355	1.846	19	0.271	257.89	14	69.5025	18.7309	-0.06
S7A	70	12	0.0032	200	0.640	9	0.129	544.44	12	69.9178	8.9789	-0.01

NOTE:
CALCULATION IS BASED ON EACH OF THE 'INTERIOR' SPEAKERS TAPPED AT 1 WATT AND EACH OF THE 'EXTERIOR' SPEAKERS TAPPED AT 2 WATTS.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK A. EASTHAM — No. E 19786 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS
FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

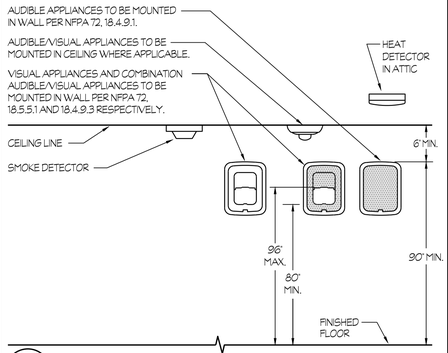
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TITLE
FIRE ALARM CALCULATIONS

E8.7

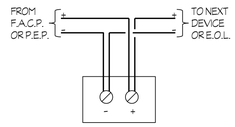
PROJECT 24042

Z:\Drafting\Jobs\RSES\24XX\53\Sanger\Temperance Elem School\E8.7.dwg DATE SAVED: 09/19/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

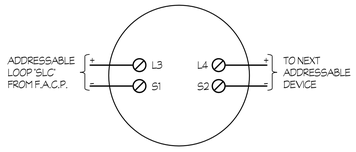


1 FIRE ALARM DEVICES ELEVATION

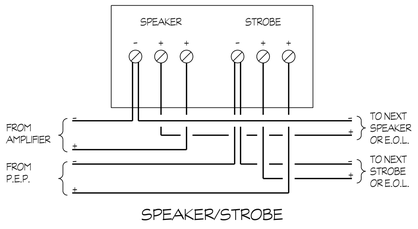
NTS



STROBE OR SPEAKER



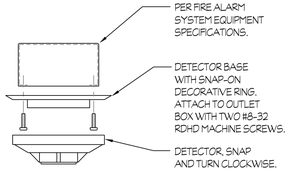
SMOKE OR HEAT DETECTOR



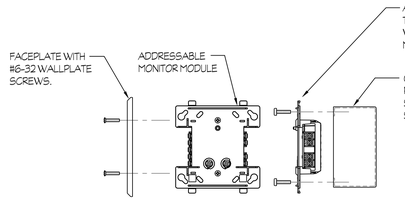
SPEAKER/STROBE

2 FIRE ALARM SYSTEM WIRING DIAGRAMS

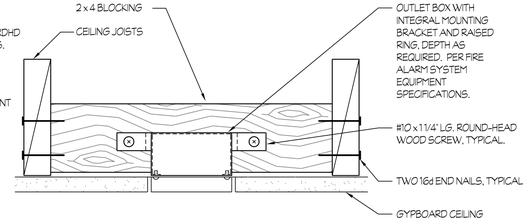
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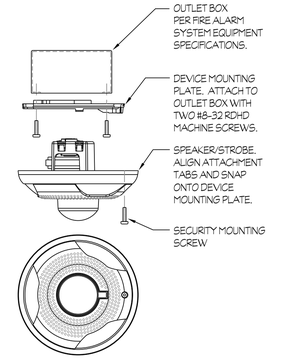
ADDRESSABLE SMOKE OR HEAT DETECTOR



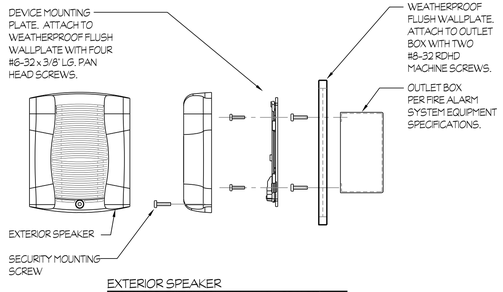
ADDRESSABLE MONITOR MODULE
(SIMILAR MOUNTING FOR ADDRESSABLE DUAL MONITOR, SUPERVISED OUTPUT, AND RELAY CONTROL MODULES)



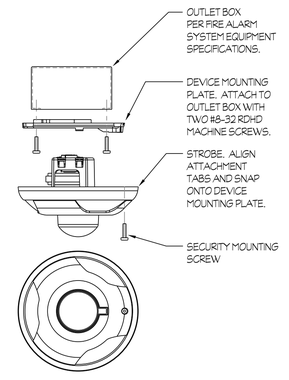
OUTLET BOX MOUNTING AT CEILING JOIST
(SIMILAR MOUNTING FOR OUTLET BOX BETWEEN WOOD STUDS)



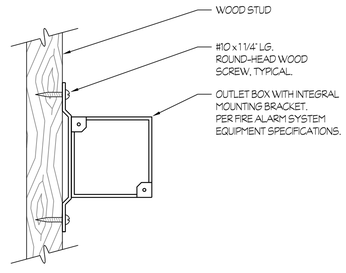
CEILING SPEAKER/STROBE



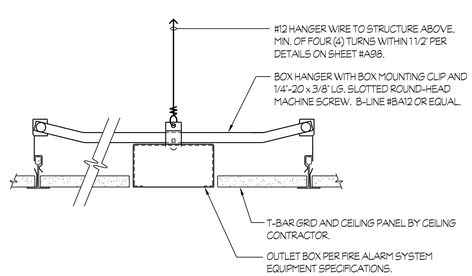
EXTERIOR SPEAKER
(WITH WEATHERPROOF FLUSH WALLPLATE 'WTP')



CEILING STROBE



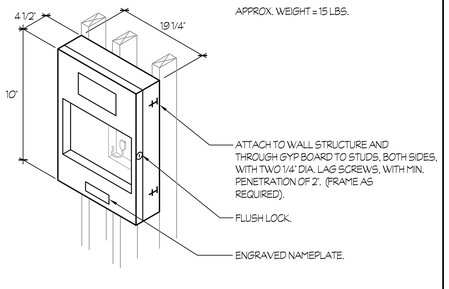
OUTLET BOX MOUNTING ONTO WOOD STUD
(SIMILAR MOUNTING FOR OUTLET BOX AT CEILING JOISTS)



OUTLET BOX MOUNTING AT SUSPENDED T-BAR CEILING

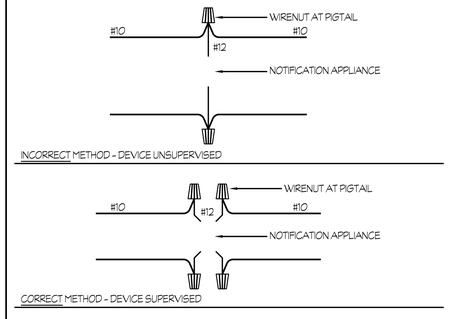
4 FIRE ALARM DEVICE MOUNTING

NTS



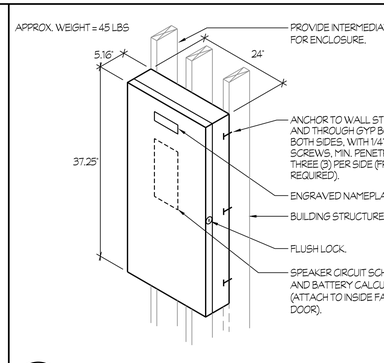
3 FIRE ALARM
LOCAL OPERATING CONSOLE MOUNTING

NTS



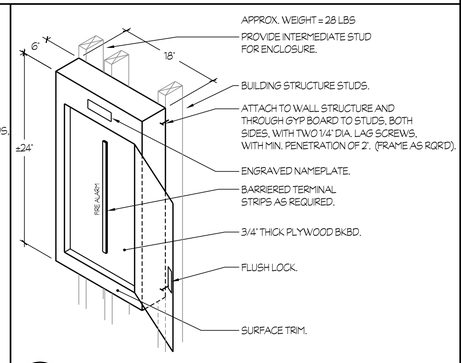
5 PIGTAIL WIRING DETAIL

NTS



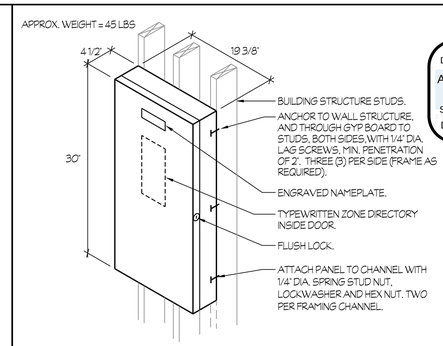
6 FIRE ALARM CONTROL PANEL MOUNTING

NTS



7 FIRE ALARM T.C. MOUTNING

NTS



8 FIRE ALARM POWER
TRANSPONDER PANEL MOUNTING

NTS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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TITLE
FIRE ALARM DETAILS

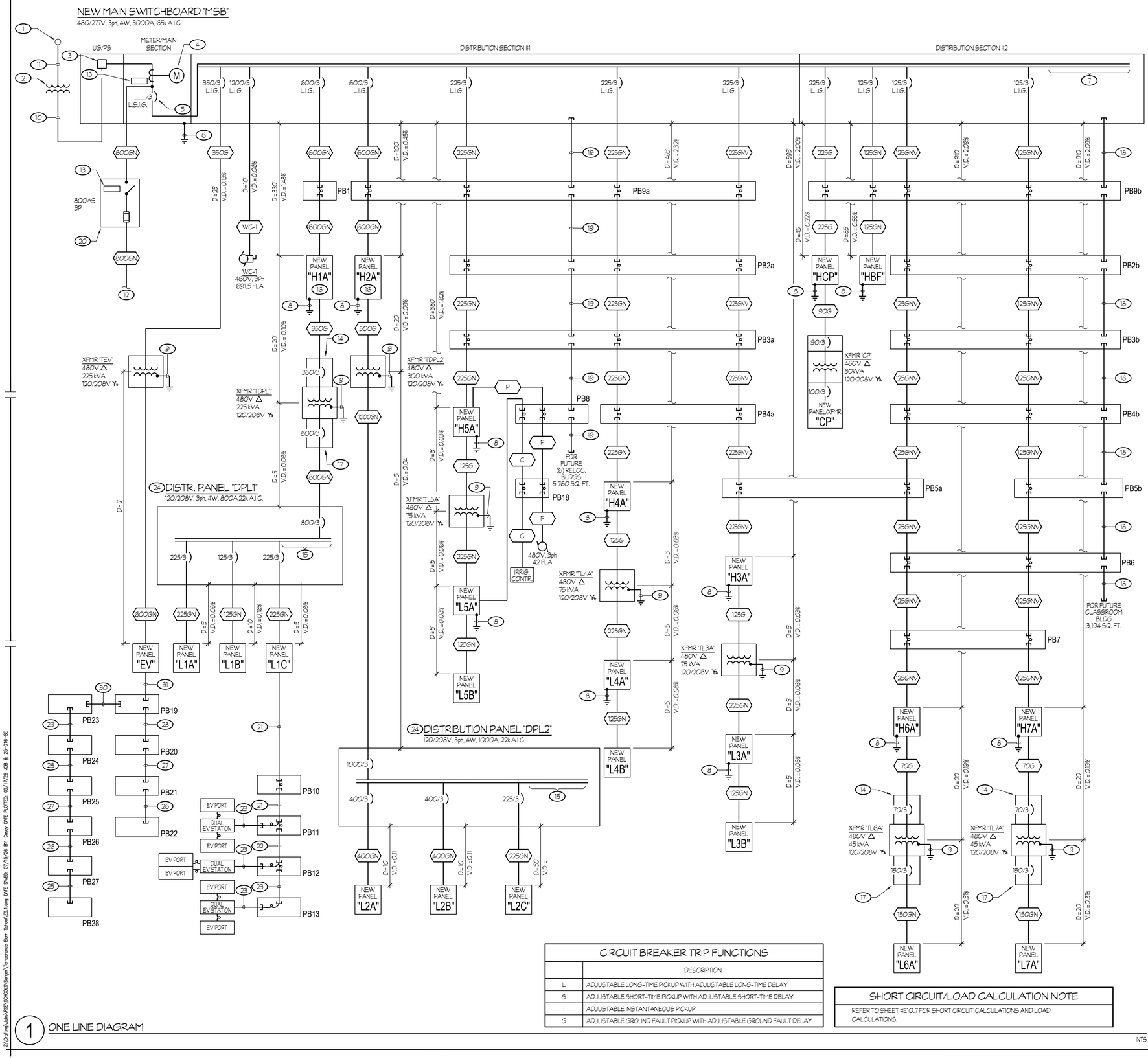
E8.8

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
KIRK D. EASTHAM
No. E-19786
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

Z:\Drafting\Jobs\RSES\24003.S\Sonya\Temperance Elem School\E8.8.dwg DATE SAVED: 09/19/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



1 ONE LINE DIAGRAM

NTS

CIRCUIT BREAKER TRIP FUNCTIONS

	DESCRIPTION
L	ADJUSTABLE LONG-TIME PICKUP WITH ADJUSTABLE LONG-TIME DELAY
S	ADJUSTABLE SHORT-TIME PICKUP WITH ADJUSTABLE SHORT-TIME DELAY
I	ADJUSTABLE INSTANTANEOUS PICKUP
G	ADJUSTABLE GROUND FAULT PICKUP WITH ADJUSTABLE GROUND FAULT DELAY

SHORT CIRCUIT/LOAD CALCULATION NOTE

REFER TO SHEET #E10.7 FOR SHORT CIRCUIT CALCULATIONS AND LOAD CALCULATIONS.

ONE LINE DIAGRAM NOTES (THIS SHEET ONLY):

1. EXISTING P.G.&E. POWER POLE. VERIFY EXACT LOCATION AND RISER QUADRANT WITH P.G.&E. PRIOR TO ROUGH-IN.
2. PROVIDE A 10'6" L x 9'0" W (STYLE I I E) CONCRETE PAD, BARRIER POSTS (FIXED AND REMOVABLE) AND GROUNDING FOR P.G.&E. PAD MOUNTED TRANSFORMER PER P.G.&E. REQUIREMENTS.
3. PROVIDE LANDING LUGS PER P.G.&E. REQUIREMENTS.
4. PROVIDE METERING FACILITIES PER P.G.&E. REQUIREMENTS.
5. MAIN CIRCUIT BREAKER SHALL BE 100% RATED ELECTRONIC TYPE, EQUIPPED WITH LONG-TIME, SHORT-TIME, INSTANTANEOUS-OFF TYPE AND GROUND FAULT TYPE CONFIGURATIONS. MAIN CIRCUIT BREAKER SHALL ALSO BE EQUIPPED WITH A TRIP INDICATOR AND LOCAL CURRENT METER SQUARE D #RK SERIES OR EQUAL.
6. 1 #3/0 TO GROUNDING ELECTRODE SYSTEM PER DETAIL #9/E9.4.
7. PROVIDE SPACE AND MOUNTING HARDWARE FOR A MINIMUM OF ONE 125A, 3-POLE CIRCUIT BREAKER AND TWO 225 AMP, 3-POLE CIRCUIT BREAKERS.
8. BOND AND GROUND REMOTE PANEL PER DETAIL #9/E9.4.
9. BOND AND GROUND TRANSFORMER PER DETAIL #9/E9.4.
10. FIVE 5"C (P.G.&E. "SECONDARY") PER P.G.&E. REQUIREMENTS.
11. ONE 4"C (P.G.&E. "PRIMARY") PER P.G.&E. REQUIREMENTS.
12. SEE SOLAR ONE LINE DIAGRAM, #1/E9.7 FOR CONTINUATION.
13. PROVIDE SOLAR NAME PLATE AS REQUIRED BY C.E.C.. SEE SHEET #E9.7 FOR ADDITIONAL INFORMATION.
14. PRIMARY CIRCUIT BREAKER IN NEMA 3R ENCLOSURE.
15. PROVIDE INCHES OF CIRCUIT BREAKER MOUNTING SPACE FROM KEYNOTE (24).
16. SQUARE 'D', I-LINE #HCP OR EQUAL WITH 72" OF CIRCUT BREAKER MOUTNING SPACE. REFER TO PANEL SCHEDULE FOR ADDITIONAL PANEL INFORMATION.
17. SECONDARY CIRCUIT BREAKER IN NEMA 3R ENCLOSURE.
18. TWO SPARE 4"C (WITH NYLON PULL ROPE).
19. TWO SPARE 3"C (WITH NYLON PULL ROPE).
20. NEMA 3R HEAVY DUTY FUSED DISCONNECT SWITCH.
21. 1 1/4"C - 6 #6 + 1 #8 GND.
22. 1"C - 4 #8 + 1 #10 GND.
23. 1"C - 2 #8 + 1 #10 GND.
24. SQUARE 'D', 'HCM', I-LINE OR EQUAL WITH 54" OF CIRCUIT BREAKER MOUNTING SPACE.
25. 1-1/2"C SPARE (WITH NYLON PULL ROPE).
26. TWO 1-1/2"C SPARE (WITH NYLON PULL ROPE).
27. FOUR 1-1/2"C SPARE (WITH NYLON PULL ROPE).
28. SIX 1-1/2"C SPARE (WITH NYLON PULL ROPE).
29. EIGHT 1-1/2"C SPARE (WITH NYLON PULL ROPE).
30. TEN 1-1/2"C SPARE (WITH NYLON PULL ROPE).
31. EIGHTEEN 1-1/2"C SPARE (WITH NYLON PULL ROPE).

NEW FEEDER SCHEDULE:

(ALL CONDUCTORS IN 480V OR 480/277V UNDERGROUND FEEDERS SHALL BE CU-XHHW-2, ALL OTHER CONDUCTORS , INCLUDING THE EQUIPMENT GROUNDING CONDUCTOR, SHALL BE CU-THWN-2 FOR #8 AWG OR LARGER AND CU-THWN FOR #10 AWG OR SMALLER).

70G	1"C - 3 #6 + 1 #8 GND.
90G	1 1/2"C - 3 #4 + 1 #8 GND.
125G	1-1/2"C - 3 #2 + 1 #6 GND.
125GN	1-1/2"C - 4 #2 + 1 #6 GND.
225GNV	TWO 2"C - 4 #1/0 + 1 #4 GND IN EACH.
150GN	1-1/2"C - 4 #1 + 1 #6 GND.
225G	2"C - 3 #4/0 + 1 #4 GND.
225GN	2-1/2"C - 4 #4/0 + 1 #4 GND.
225GNV	3"C - 4 #350 kcmil + 1 #1 GND.
350G	3"C - 3 #400 kcmil + 1 #1/0 GND.
400GN	3-1/2"C - 4 #500 kcmil + 1 #2 GND.
500G	TWO 3"C - 3 #250 kcmil + 1 #3/0 GND EACH.
600GN	TWO 3"C - 4 #350 kcmil + 1 #1 GND EACH.
800GN	TWO 3-1/2"C - 4 #500 kcmil + 1 #1/0 GND EACH.
1000G	FOUR 3"C - 4 #350 kcmil + 1 #2/0 GND EACH.
WC-1	TWO 4"C - 3 #750 kcmil + 1 #3/0 GND IN EACH.
P	1 1/4"C - 3 #4 + 1 #6 GND.
C	1"C - 2 #10 + 1 #10 GND.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE: ONE LINE DIAGRAM

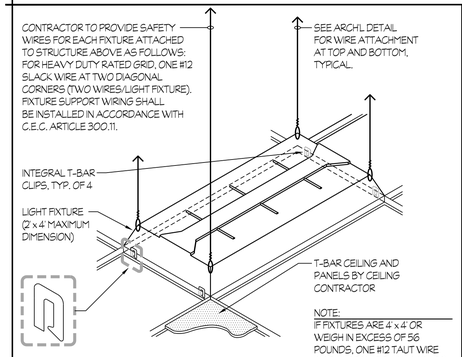
E9.1

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
STEVEN KIRK EATHAM
No. E-19108
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

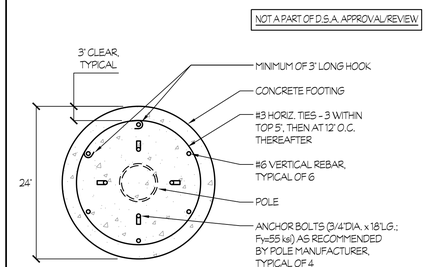
Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

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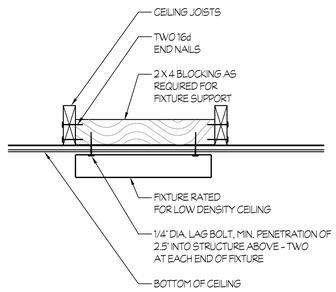
1 RECESSED FIXTURE MOUNTING

NTS



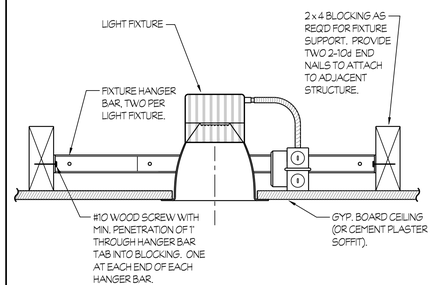
5 CROSS SECTION OF CONCRETE FOOTING

NTS



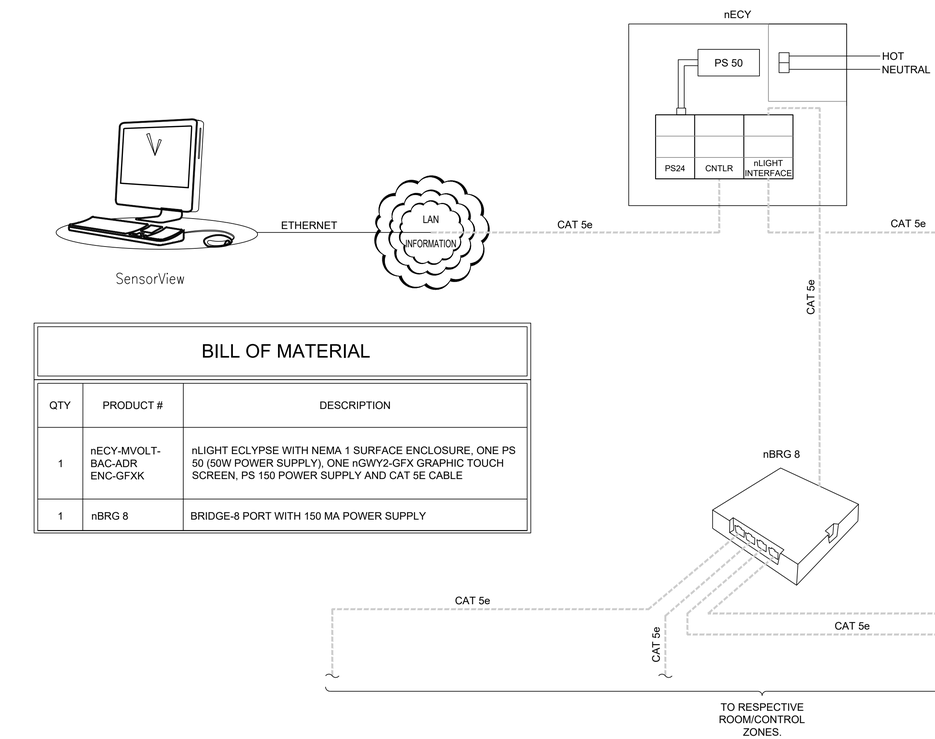
2 SURFACE FIXTURE MOUNTING

NTS



6 RECESSED DOWNLIGHT MOUNTING

NTS



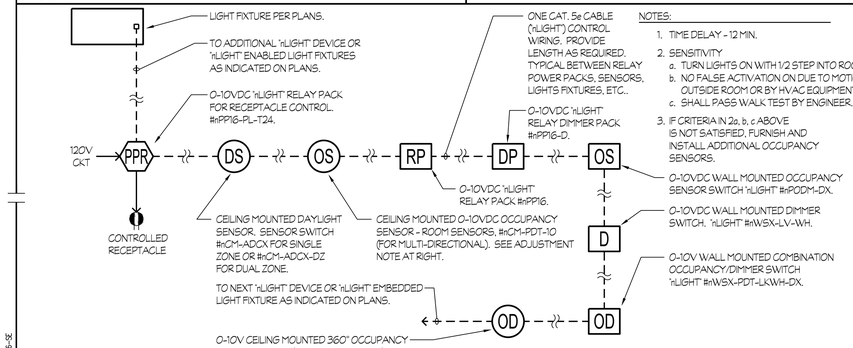
BILL OF MATERIAL

QTY	PRODUCT #	DESCRIPTION
1	nECY-MVOLT-BAC-ADR ENC-GFXK	nLIGHT ECLYPSE WITH NEMA 1 SURFACE ENCLOSURE, ONE PS 50 (50W POWER SUPPLY), ONE nGWY2-GFX GRAPHIC TOUCH SCREEN, PS 150 POWER SUPPLY AND CAT 5E CABLE
1	nBRG 8	BRIDGE-8 PORT WITH 150 MA POWER SUPPLY

8 AUTOMATED DEMAND RESPONSE CLIENT INTERFACE AND NETWORK INTERFACE CONTROLLER

(WIRING DIAGRAM)

NTS



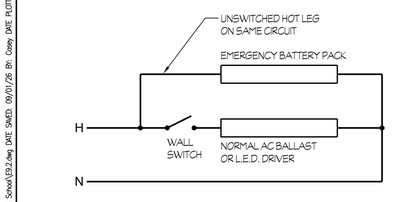
NOTES:

1. TIME DELAY - 12 MIN.
2. SENSITIVITY
   a. TURN LIGHTS ON WITH 1/2 STEP INTO ROOM.
   b. NO FALSE ACTIVATION ON DUE TO MOTION OUTSIDE ROOM OR BY HVAC EQUIPMENT.
   c. SHALL PASS WALK TEST BY ENGINEER.
3. IF CRITERIA IN 2a, b, c ABOVE IS NOT SATISFIED, FURNISH AND INSTALL ADDITIONAL OCCUPANCY SENSORS.

3 SENSOR SWITCH, "nLIGHT" DEVICES WIRING DIAGRAM

(NOTE: ACTUAL SEQUENCE OF DEVICES TO BER PER PLANS)

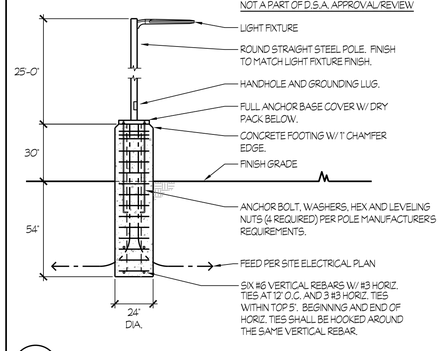
NTS



CONNECT LIGHT FIXTURE SO THAT THE L.E.D. DRIVER (OR ALL OF THE LAMPS) ARE CONTROLLED BY THE WALL SWITCH AND THE L.E.D. DRIVER (OR LAMPS) CONNECTED TO THE EMERGENCY BATTERY PACK WILL OPERATE DURING NORMAL POWER OUTAGE REGARDLESS OF THE POSITION OF THE WALL SWITCH.

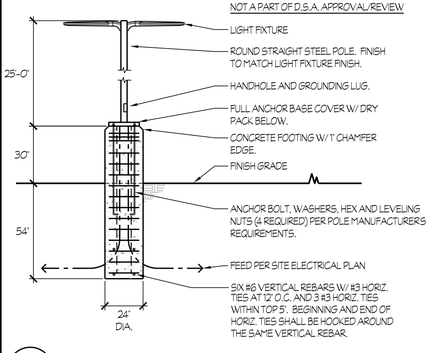
4 EMERGENCY BATTERY PACK WIRING DIAGRAM

NTS



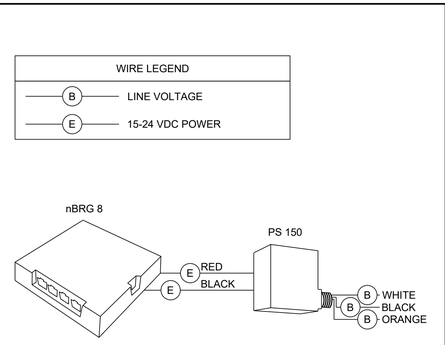
7 POLE LIGHT MOUNTING

NTS



10 POLE LIGHT MOUNTING

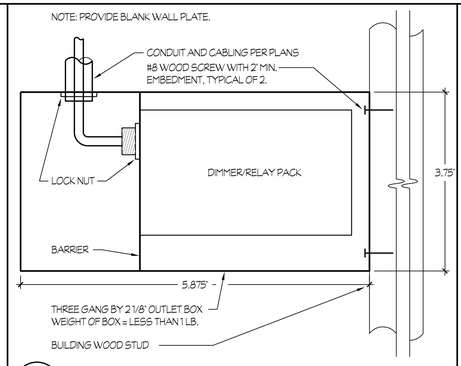
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9 NETWORK INTERFACE BRIDGE KIT

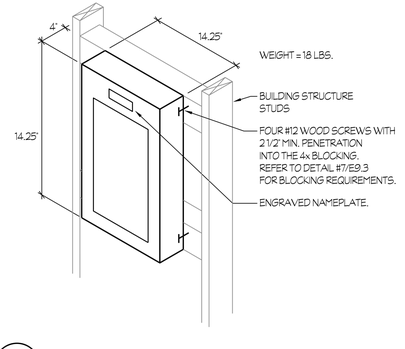
(WIRING DIAGRAM)

NTS



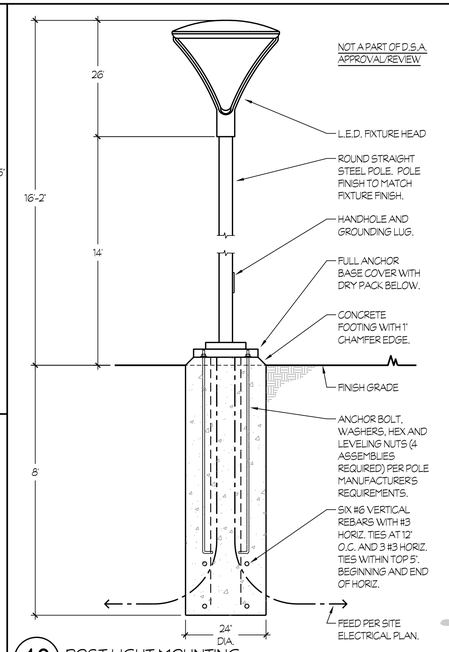
11 DIMMER/RELAY PACK MOUNTING

NTS



12 LIGHTING CONTROL PANEL MOUNTING

NTS



13 POST LIGHT MOUNTING

NTS

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER KIRK D. EASTHAM No. E-19186 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-26128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE DETAILS

E9.2

PROJECT 24042

Z:\Drafting\Jobs\RSES\24042\Sanger\Temperance Elem School\23.2.dwg DATE SAVED: 09/01/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE

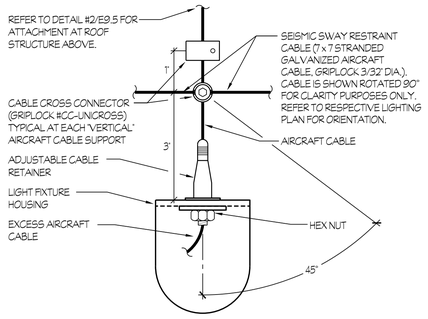
APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

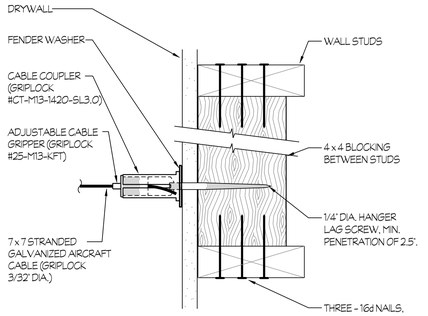
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025



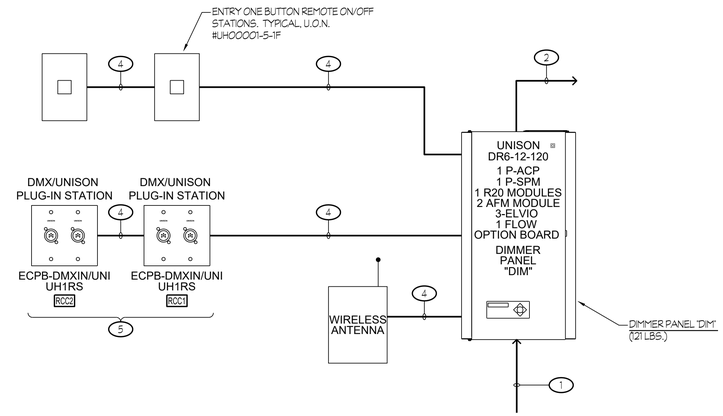
CONNECTION AT LIGHT FIXTURE SUPPORT
(ELEVATION)



CONNECTION AT STUD WALL
(PLAN VIEW)

1 SEISMIC SWAY RESTRAINT

NTS



NOTES (THIS DETAIL ONLY):

1. FEEDER PER LIGHTING PLAN.
2. TO 20 AMP DIMMED LIGHTING CIRCUITS PER LIGHTING PLAN SHEET #E2.6.
3. CONTROLS 'THEATRICAL' LIGHT FIXTURES PER BUILDING '200' STAGE LIGHTING PLAN SHEET #E2.6.
4. 1C - ONE BELDEN #9729, ONE BELDEN #8471, PLUS 1 #14 (DMX CABLES).
5. PROVIDE A PORTABLE CONTROL CONSOLE, UNISON PARADIGM PORTABLE TOUCH SCREEN, ETC #P-LCD-P WITH A 25 FOOT EXTENSION CABLE, ETC #CD-25-UNISON.

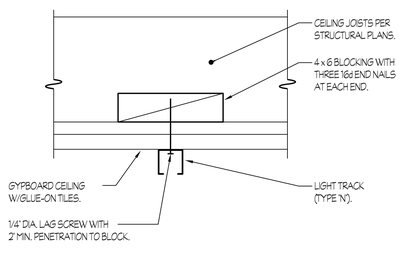
GENERAL NOTES:

(1) A SEPARATE NEUTRAL FOR EACH DIMMER LOAD CIRCUIT IS REQUIRED.
(2) TOTAL LENGTH OF UNISON WIRING RUNS SHALL NOT EXCEED 1640 FT. (500 M.)
(3) TOTAL LENGTH OF NETWORK WIRING RUNS SHALL NOT EXCEED 320 FT. (150 M.)
(4) DISTRIBUTION OMITTED FOR CLARITY.
(5) ALL MODEL NUMBERS NOTED ARE MANUFACTURED BY ELECTRONIC THEATER CONTROLS, INC.

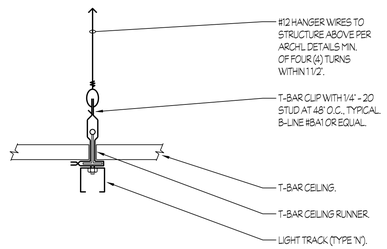
4 DIMMING SYSTEM RISER DIAGRAM

(AT BUILDING '200')

NTS



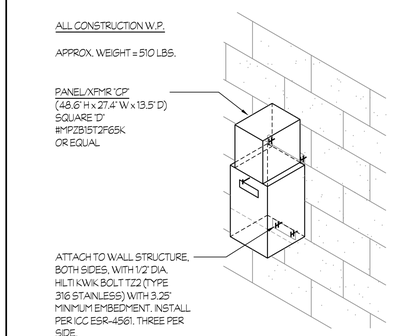
AT GYPBOARD CEILING



AT T-BAR CEILING

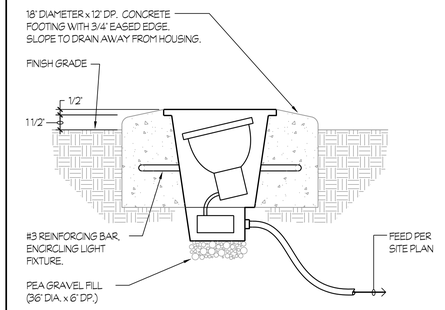
8 TYPE "N" TRACK MOUNTING

NTS



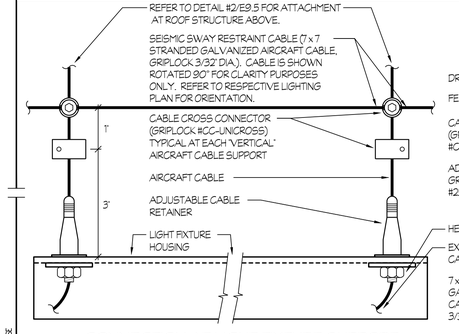
10 PANEL/XFMR "CP" MOUNTING

NTS

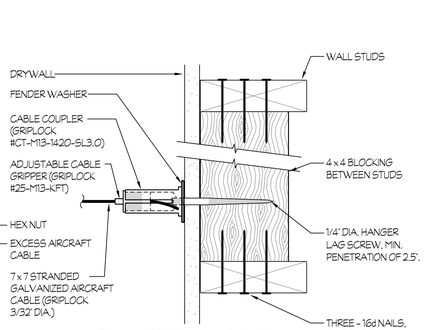


11 GROUND MOUNTED LIGHT

NTS



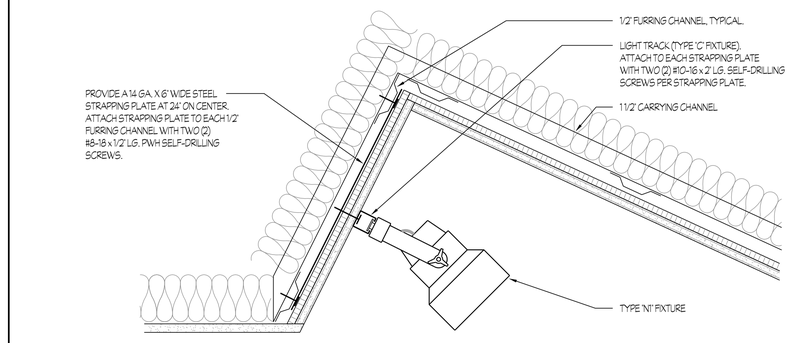
CONNECTION AT LIGHT FIXTURE SUPPORT
(ELEVATION)



CONNECTION AT STUD WALL
(PLAN VIEW)

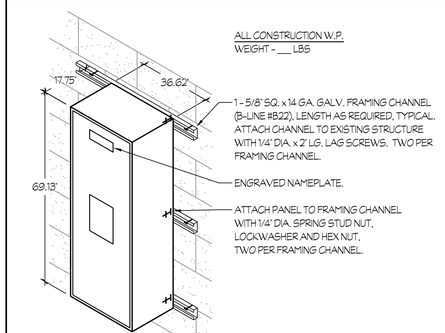
2 SEISMIC SWAY RESTRAINT

NTS



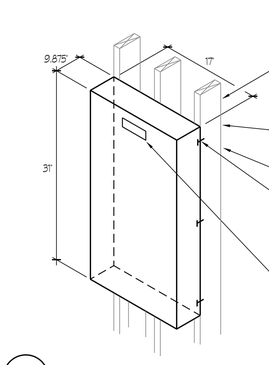
6 TYPE "N" AND "N1" FIXTURE MOUNTING

NTS



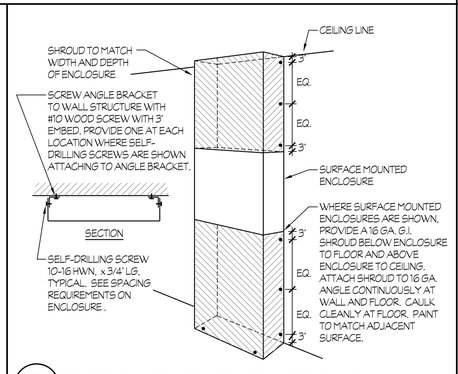
12 DISCONNECT MOUNTING

NTS



3 DIMMER PANEL "DP" MOUNTING

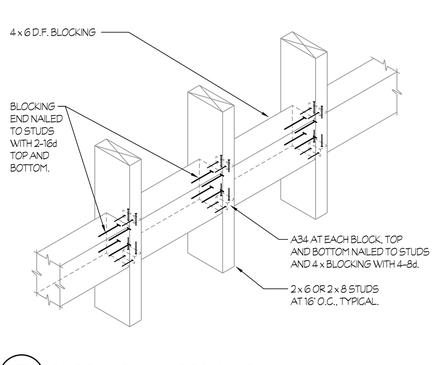
NTS



5 SHROUD AT SURFACE MOUNTED PANEL

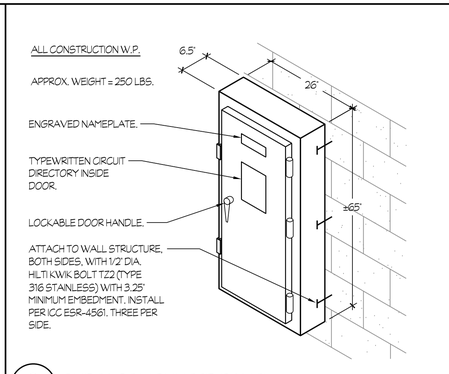
(FOR ENCLOSING OF EXPOSED CONDUITS)

NTS



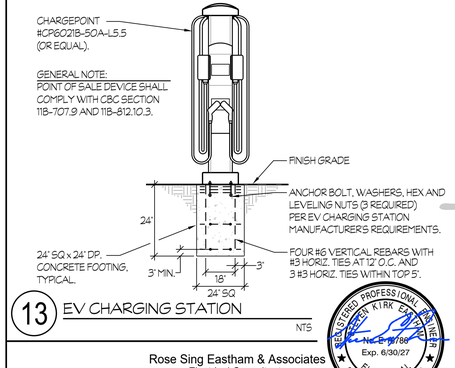
7 BLOCKING AT WOOD STUDS

NTS



9 SURFACE MOUNTED PANEL

NTS



13 EV CHARGING STATION

NTS

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E-19180
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

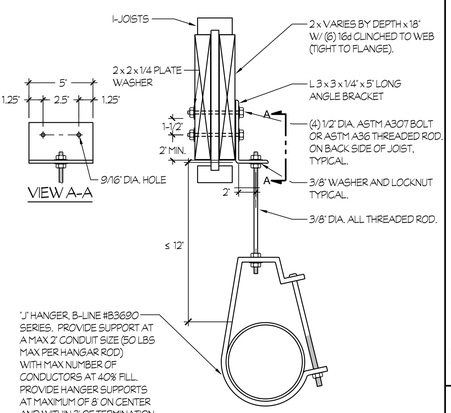
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE: DETAILS

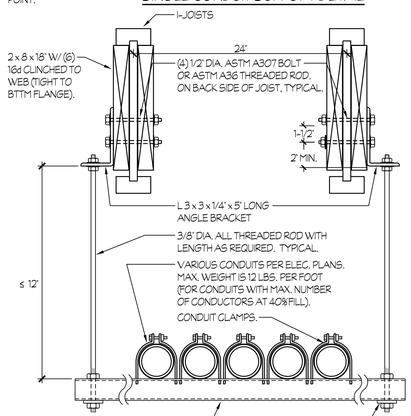
E9.3

PROJECT 24042

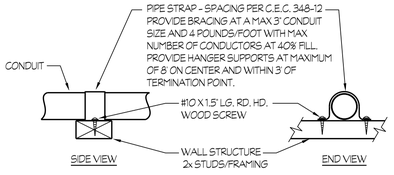
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SINGLE CONDUIT SUPPORT DETAIL



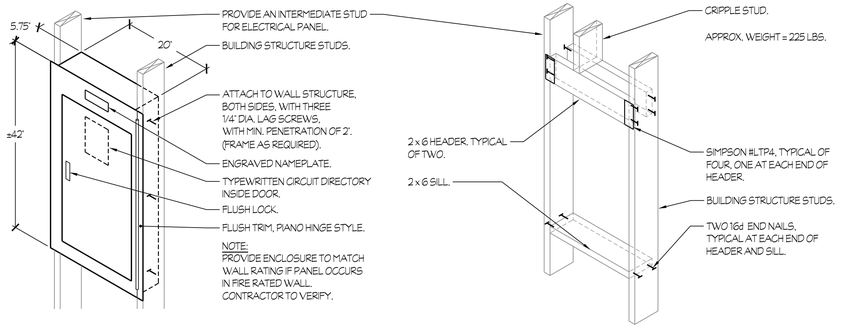
CONDUIT SUPPORT RACK



CONDUIT BRACING AT WALL STRUCTURE

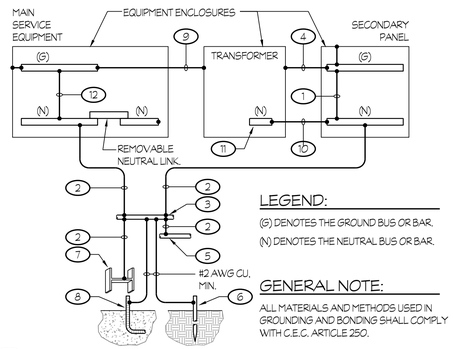
1 CONDUIT MOUNTING DETAILS

NTS



3 FLUSH MOUNTED PANEL

NTS



LEGEND:

(G) DENOTES THE GROUND BUS OR BAR.

(N) DENOTES THE NEUTRAL BUS OR BAR.

GENERAL NOTE:

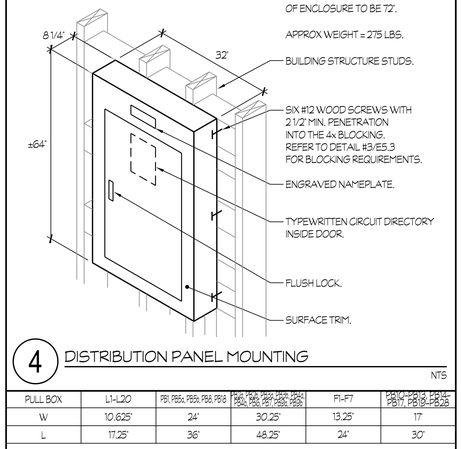
ALL MATERIALS AND METHODS USED IN GROUNDING AND BONDING SHALL COMPLY WITH C.E.C. ARTICLE 250.

NOTES (THIS DETAIL ONLY):

1. SYSTEM BONDING JUMPER PER C.E.C. 250.30 (1).
2. FULL SIZE GROUNDING ELECTRODE CONDUCTOR PER C.E.C., TABLE 250.66.
3. METAL WATER PIPING PER C.E.C. 250.104.
4. SUPPLY SIDE BONDING JUMPER PER C.E.C. 250.30 (A), (2).
5. OTHER ABOVEGROUND METALLIC PIPING SYSTEMS PER C.E.C. 250.104.
6. 5/8' DIA. ROD ELECTRODE PER C.E.C. 250.52 (A), (5).
7. BUILDING STRUCTURAL STEEL (WHERE APPLICABLE ON SITE) PER C.E.C. 250.104.
8. CONCRETE ENCASED ELECTRODE PER C.E.C. 250.52 (A), (3).
9. EQUIPMENT GROUND CONDUCTOR PER C.E.C., TABLE 250.122.
10. NEUTRAL CONDUCTOR PER FEEDER SCHEDULE.
11. NEUTRAL BAR.
12. MAIN BONDING JUMPER PER C.E.C. 250.28.

9 MAIN SERVICE EQUIPMENT, XFMR AND SECONDARY PANEL - GROUNDING AND BONDING

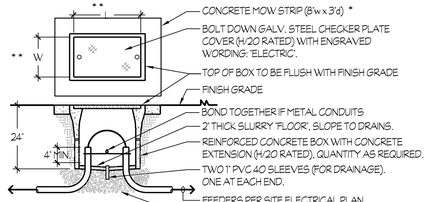
NTS



4 DISTRIBUTION PANEL MOUNTING

NTS

PULL BOX	L1-L20	P31, P32, P33, P34, P35	P36, P38, P39, P40, P41, P42, P43, P44, P45, P46, P47, P48, P49, P50	F1-F7	P37, P51, P52, P53, P54, P55, P56, P57, P58, P59, P60
W	10.625'	24'	30.25'	13.25'	17'
L	17.25'	36'	48.25'	24'	30'

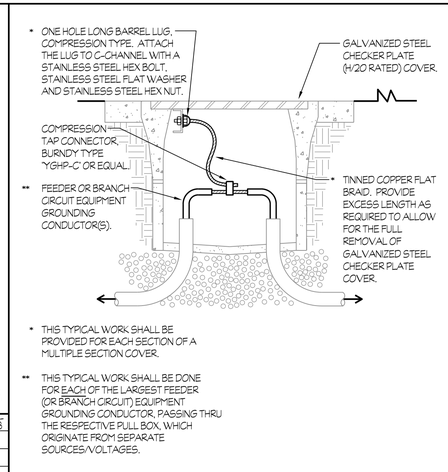


* NOTE: WHERE PULL BOX IS ADJACENT TO CONCRETE WALK, EXTEND MOWSTRIP TO CONNECT WITH WALK. FOAM SEAL ALL CONDUITS IN YARD BOXES.

** NOTE: INTERIOR DIMENSIONS MEASURED AT 'OPENING' OF PULL BOX.

5 PULL BOX MOUNTING

NTS



* THIS TYPICAL WORK SHALL BE PROVIDED FOR EACH SECTION OF A MULTIPLE SECTION COVER.

** THIS TYPICAL WORK SHALL BE DONE FOR EACH OF THE LARGEST FEEDER (OR BRANCH CIRCUIT) EQUIPMENT GROUNDING CONDUCTOR, PASSING THRU THE RESPECTIVE PULL BOX, WHICH ORIGINATE FROM SEPARATE SOURCES/VOLTAGES.

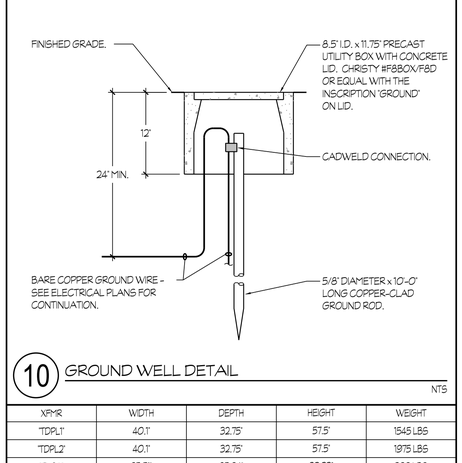
MATRIX FOR TINNED COPPER FLAT BRAID

SIZE OF EQUIPMENT GROUNDING CONDUCTOR (g)	ALPHA WIRE PART #	OLYMPIC WIRE AND CABLE PART #
#8	1233	708
#6	1235	710
#4	1239	710
#2 THRU #1/0	1240	713
#2/0 THRU #4/0	1241	714

(g) CONTAINED IN THE LARGEST FEEDER (OR BRANCH CIRCUIT) PASSING THRU THE RESPECTIVE PULL BOX.

7 GROUNDING AND BONDING OF STEEL CHECKER PLATE COVERS

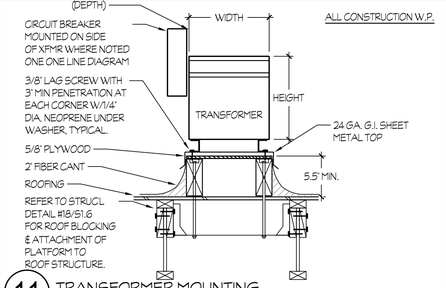
NTS



10 GROUND WELL DETAIL

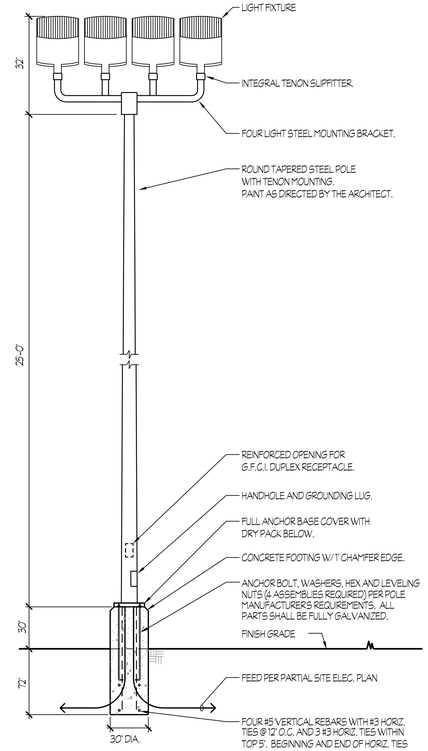
NTS

XFMR	WIDTH	DEPTH	HEIGHT	WEIGHT
'TDPL1'	40.1'	32.75'	57.5'	1545 LBS
'TDPL2'	40.1'	32.75'	57.5'	1975 LBS
'TL6A'	25.51'	25.94'	29.33'	399 LBS
'TL7A'	25.51'	25.94'	29.33'	399 LBS



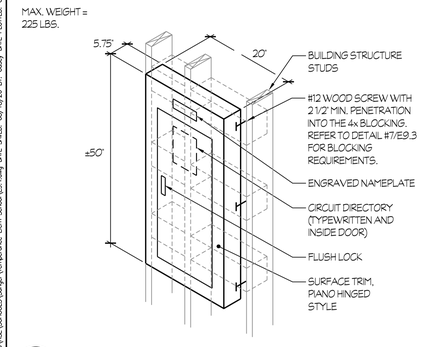
11 TRANSFORMER MOUNTING

NTS



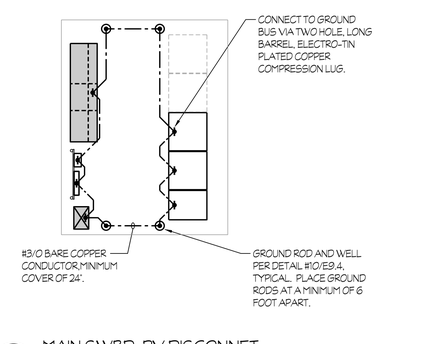
13 FIXTURE 'S1' MOUNTING

NTS



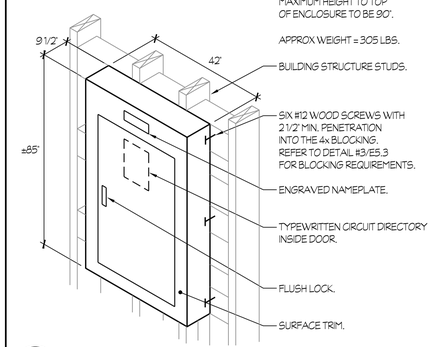
2 SURFACE MOUNTED PANEL

NTS



6 MAIN SWBD, PV DISCONNET, PV INVERTER AND BATTERY CABINET GROUNDING

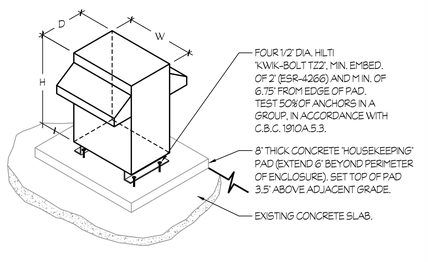
NTS



8 PANEL MOUNTING

NTS

XFMR	WIDTH	DEPTH	HEIGHT	WEIGHT
'TL3A'	30.08'	27.44'	33.5'	661 LBS
'TL4A'	30.08'	27.44'	33.5'	661 LBS
'TL5A'	30.08'	27.44'	33.5'	661 LBS



12 PAD MOUNTED TRANSFORMER

NTS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-26128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT

SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY

MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291

www.mangini.us
(559) 627.0510 Office
(559) 627.1926 Fax

TITLE

DETAILS

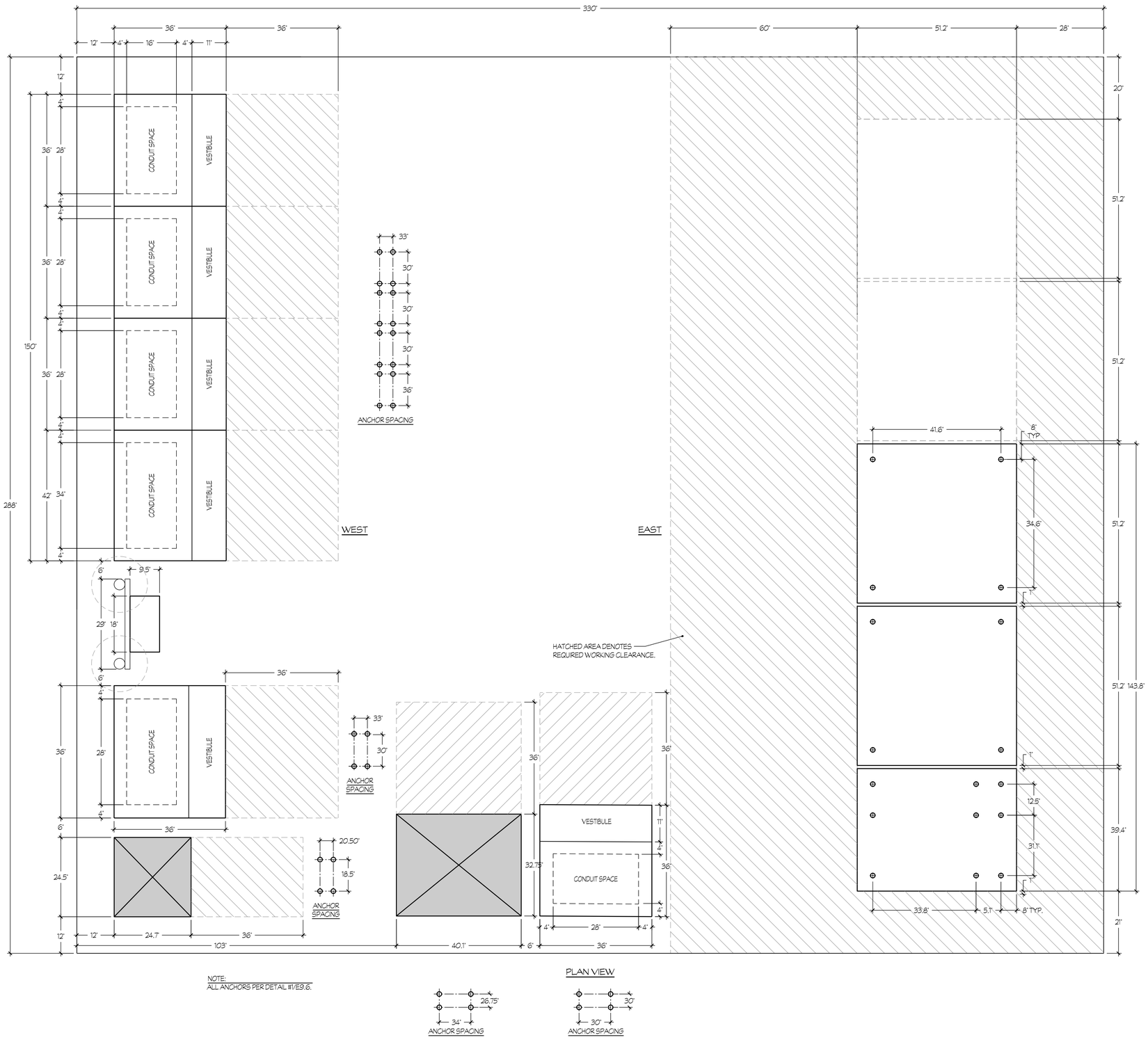
E9.4

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER KIRK D. SING No. E-19188 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

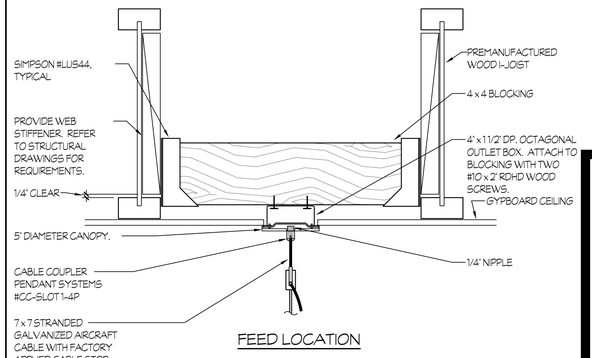
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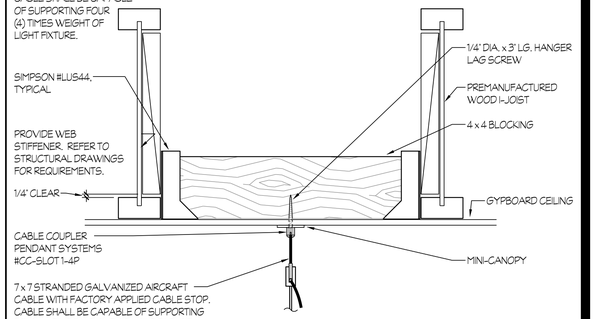
PLAN VIEW

1 MAIN SWITCHBOARD "MSB", PV DISCONNECT, PV PANEL AND BATTERY CABINET MOUNTING - PLAN VIEW

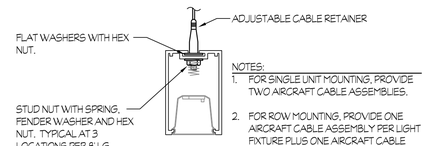
NTS



FEED LOCATION



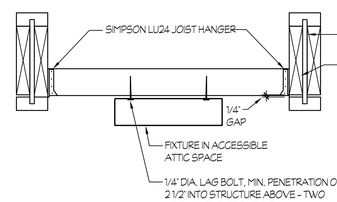
NON-FEED LOCATION



NOTES:
1. FOR SINGLE UNIT MOUNTING, PROVIDE TWO AIRCRAFT CABLE ASSEMBLIES.
2. FOR ROW MOUNTING, PROVIDE ONE AIRCRAFT CABLE ASSEMBLY PER LIGHT FIXTURE PLUS ONE AIRCRAFT CABLE ASSEMBLY PER ROW. PLACE ASSEMBLIES AT EACH END OF ROW AND AT EACH CONNECTION POINT BETWEEN ADJACENT LIGHT FIXTURES.

2 AIR CRAFT CABLE MOUNTING

NTS



3 FIXTURE TYPE "Y" AND "YE" MOUNTING

NTS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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SS ☑ FLS ☑ ACS ☑
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LICENSED ARCHITECT
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REN. 05-31-27
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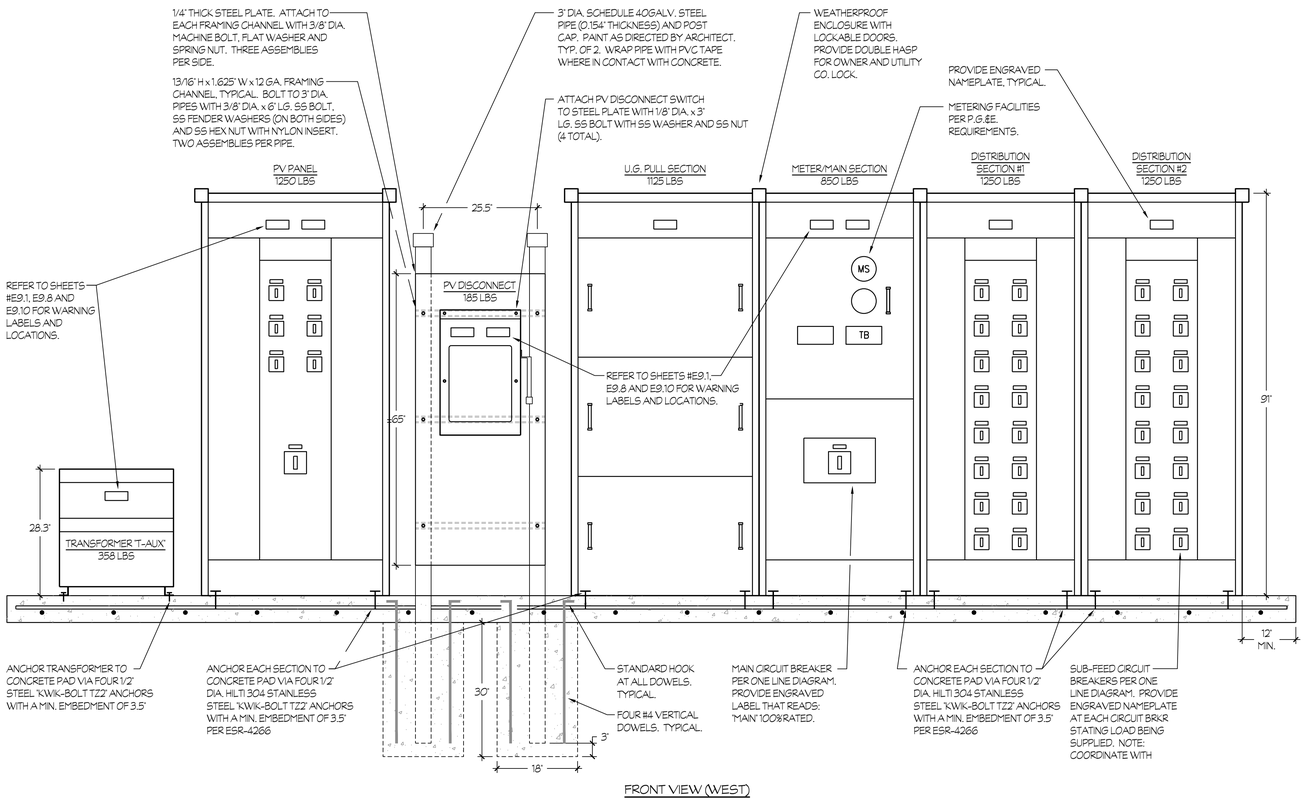
E9.5

PROJECT 24042

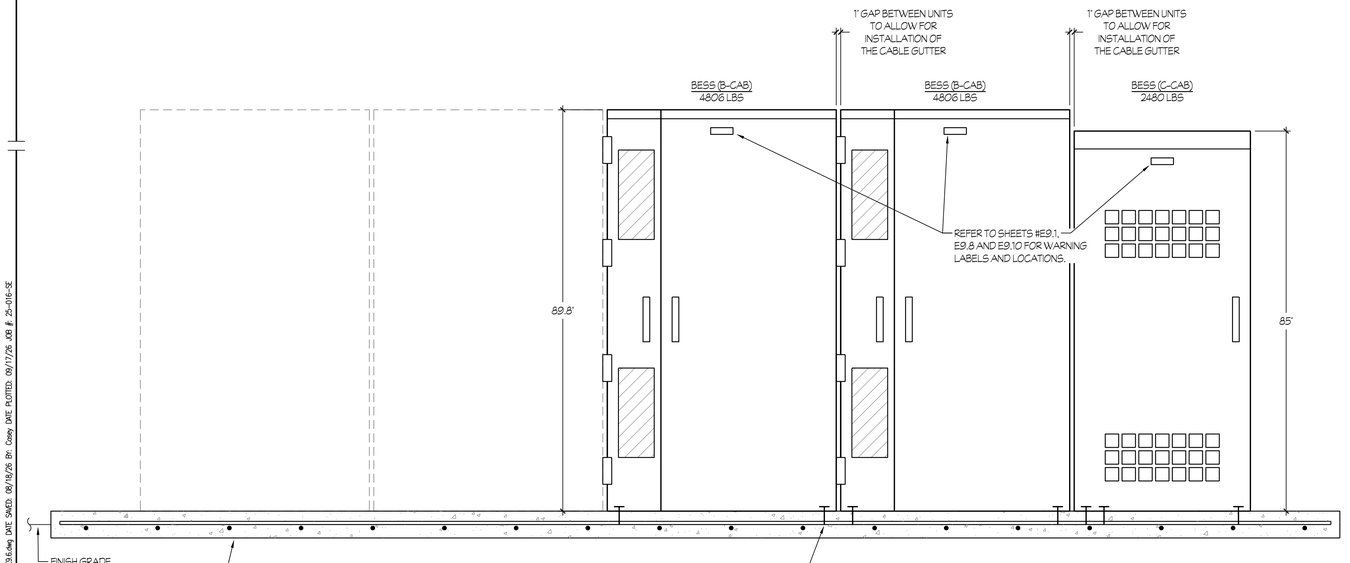
Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK SING EASTHAM
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\SJ-XXX.S\Sanger\Temperance Elem School\03-S.dwg DATE SAVED: 08/18/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



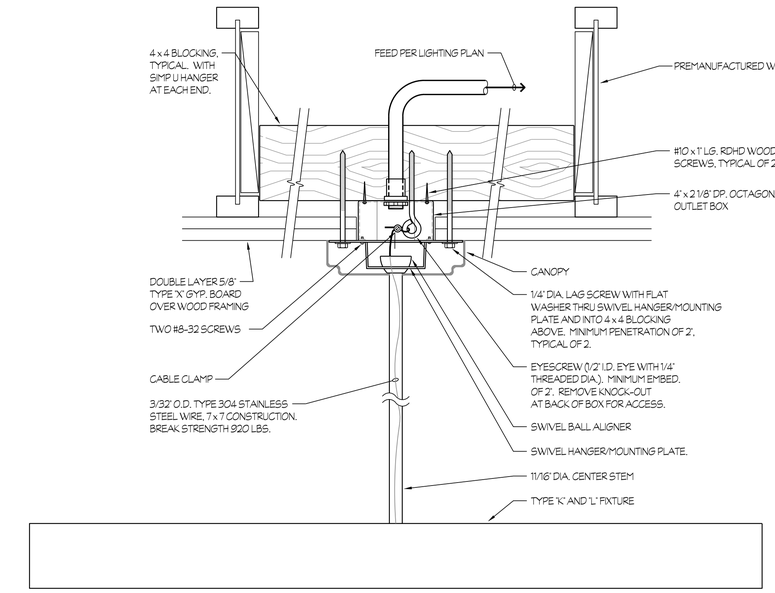
FRONT VIEW (WEST)



FRONT VIEW (EAST)

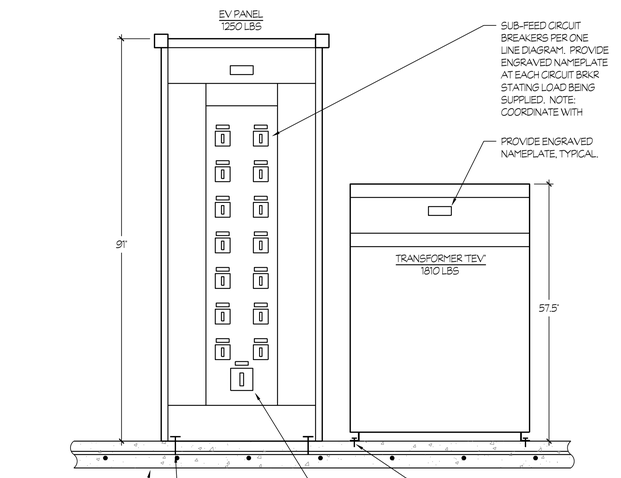
1 MAIN SWITCHBOARD "MSB", PV DISCONNECT, PV PANEL AND BATTERY CABINET MOUNTING - ELEVATIONS

NTS



2 PENDANT MOUNTING

NTS



FRONT VIEW (SOUTH)

3 PANEL "EV" AND XFMR "EV" MOUNTING

NTS

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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SS ☑ FLS ☑ ACS ☑
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TITLE
DETAILS

E9.6

PROJECT 24042

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STATE OF CALIFORNIA

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CA ENERGY CODE MINIMUMS (SECTION 140.10)

PER BUILDING ENERGY EFFICIENCY STANDARDS
EQUATION 140.10-A: kW(PVdc) = (CFA x A)/1000
EQUATION 140.10-B: kWh(batt) = kW (PVdc) x B / (D ^ 0.5)
EQUATION 140.10-C: kW(batt) = kW(PVdc) x C

A = 1.63 (PER TABLE 140.10-A)
B = 1.87, C = 0.46 (PER TABLE 140.10-B)
D = 0.90 (PER SUNSYS HES L)

ENERGY CODE REQUIREMENTS

	ENERGY CODE MINIMUMS	DESIGN
PV SIZE	114.2 kW	153.7 kW
BATTERY ENERGY CAPACITY	225.2 kWh	406 kWh
BATTERY POWER CAPACITY	52.5 kW	150.0 kW

NOTE: THIS CALCULATION INCLUDES FUTURE BUILDING SQUARE FOOTAGE. 61,126 SQ. FT. FOR BLDGS INSTALLED UNDER THIS APPLICATION AND AN ESTIMATED 8,959 SQ. FT. FOR FUTURE BLDGS, FOR A COMBINED TOTAL OF 70,085 SQ. FT.

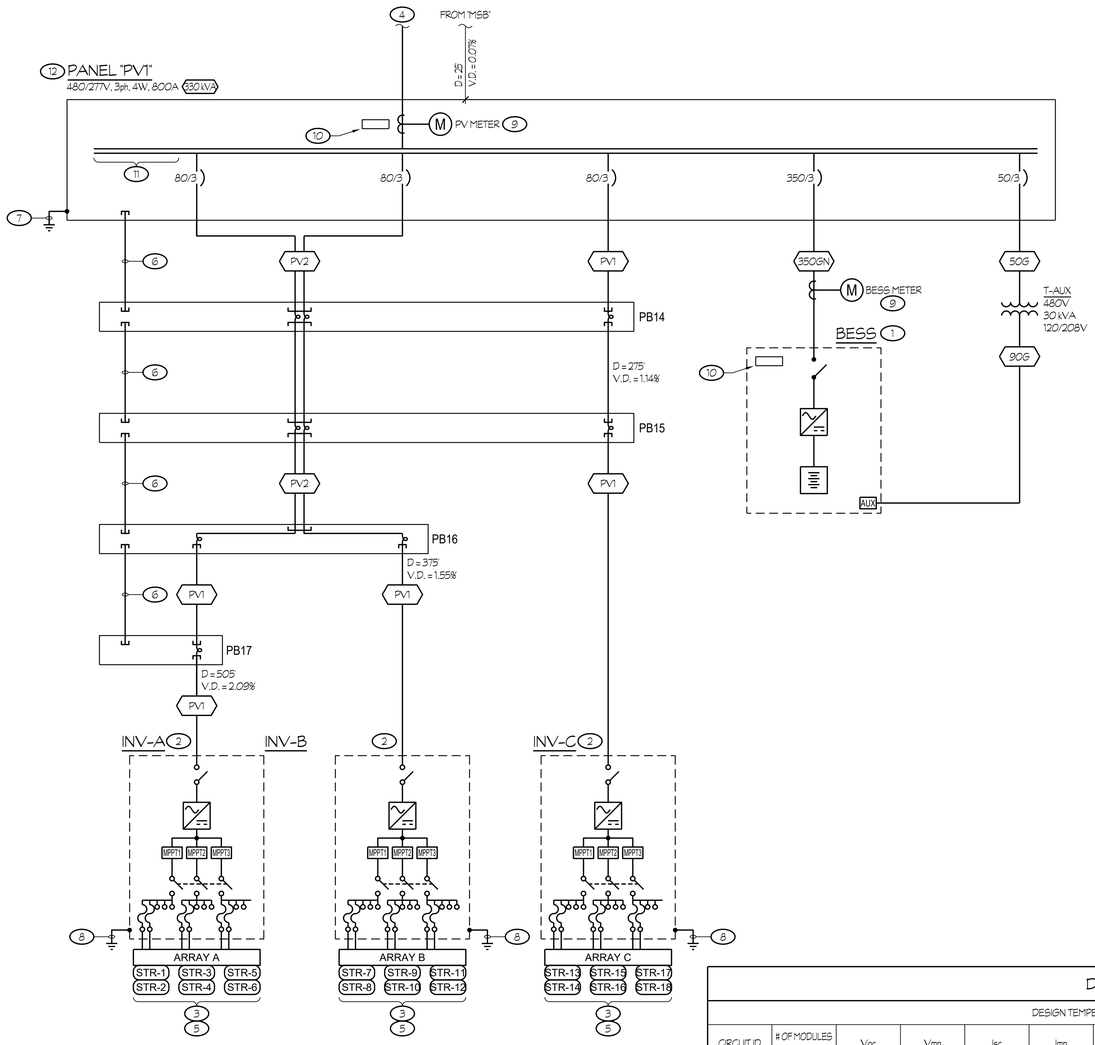
SYSTEM SUMMARY

PROJECT LOCATION	SANGER, CA
MIN DESIGN TEMPERATURE	-5°C
MAX DESIGN TEMPERATURE	65°C
PV MODULE & COUNT	(282) CSI SOLAR CS6W-545MB-AG
PV MODULE WATTAGE @ STC	555 W
PV DC SYSTEM SIZE	156.5 kW
PV INVERTER TYPE & COUNT	(3) CPS SCA50KTL-DO/US-480 (50kVA)
BESS TYPE & COUNT	(1) SOCOMEC SUNYS-HES-L 150 kVA/406 kWh

PV SYSTEM - TEMPERATURE CORRECTION CALCS

PANEL
ISC = 13.95A PER PANEL
VOC = 49.4V PER PANEL

LOWEST AMBIENT TEMP = -5 °C
CORRECTED VOC = 55.3 V
MAX VOC W/ 17 PER STRING @ -5°C = 995 VDC
CORRECTED ISC @ 65°C = 14.12 A (PER STRING)
MAX ISC (MPPT) = 1.25 * ISC * 3 STRINGS = 52.95A (@DC VOLTAGE)
MAX ISC (INV) = ISC (MPPT) * 3 MPPTs = 158.85A



SOLAR ONE LINE DIAGRAM NOTES (THIS SHEET ONLY):

1. PROVIDE SOCOMEC SUNSYS-HES-L BATTERY STORAGE SYSTEM. CONNECT TO SYSTEM PER MANUFACTURER REQUIREMENTS.
2. PROVIDE CPS SCA50KTL-DO/US-480 PV INVERTER. CONNECT PV STRING CIRCUITS PER MANUFACTURER REQUIREMENTS.
3. PROVIDE 555W PV MODULES AS MANUFACTURED BY CSI SOLAR, MODEL CS6W-555MB-AG AT EACH UNIT. REFER TO PLANS FOR QUANTITY AND LOCATION OF MODULES.
4. SEE ONE LINE DIAGRAM #1/E9.1 FOR CONTINUATION.
5. LIMIT OF 13-18 PV MODULES PER STRING AND LIMIT OF 1-3 STRING INPUTS PER MPPT.
6. PROVIDE (2) 2" SPARE CONDUITS.
7. BOND AND GROUND REMOTE PANEL PER DETAIL #9/E9.4.
8. BOND ELECTRICAL PANELS AND INVERTER GROUND TERMINALS TO NEW GROUNDING ELECTRODE CONDUCTOR.
9. PV AND BESS METER COMPATIBLE WITH ENERGY TOOLBASE CONTROLLER. MONITORING DESIGN BY OTHERS.
10. PROVIDE SOLAR NAMEPLATE AS REQUIRED BY C.E.C.. SEE SHEET #E9.10 FOR ADDITIONAL INFORMATION.
11. SPARE INCHES OF CIRCUIT BREAKER MOUNTING SPACE PER KEYNOTE (12).
12. PROVIDE SQUARE 'D', HCM, I-LINE OR EQUAL. PROVIDE WITH 27 OF CIRCUIT BREAKER MOUNTING SPACE.

NEW FEEDER SCHEDULE:

(ALL CONDUCTORS IN 480V OR 480/277V UNDERGROUND FEEDERS SHALL BE CU-XHHW-2. ALL OTHER CONDUCTORS , INCLUDING THE EQUIPMENT GROUNDING CONDUCTOR, SHALL BE CU-THWN-2 FOR #8 AWG OR LARGER AND CU-THWN FOR #10 AWG OR SMALLER).

- PV1 — 1/2"C - 3 #2 + 1 #8 GND.
- PV2 — 2"C - 6 #2 + 2 #8 GND.
- 50G — 1"C - 3 #8 + 1 #10 GND
- 90G — 1-1/2"C - 3 #4 + 1 #8 GND.
- 350GN — 3"C - 4 #350 kcmil + 1 #2 GND.

DC SCHEDULE AND CALCULATIONS

DESIGN TEMPERATURE BASED OFF OF -5°C LOW SITE TEMPERATURE. Voc (%/°C) = -0.26

	CIRCUIT ID	# OF MODULES IN STRING	Voc	Vmp	Isc	Imp	KW @ STC	MIN FUSE SIZE	WIRE QTY & SIZE	WIRE AMPACITY AFTER DERATE	WIRE MATERIAL	WIRE INSULATION	MAX ONE-WAY DISTANCE	%VOLTAGE DROP
	PV MODULE	N/A	55.3	41.5	14.12	13.14	0.555	N/A	MFR. DATASHEET	N/A	MFR. DATASHEET	MFR. DATASHEET	N/A	N/A
ARRAY A	STR-1	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.34
	STR-2	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.36
	STR-3	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.31
	STR-4	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.33
	STR-5	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.32
	STR-6	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.34
ARRAY B	STR-7	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.37
	STR-8	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.36
	STR-9	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.35
	STR-10	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.34
	STR-11	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.36
	STR-12	16	884.8	664.0	14.12	13.14	8.72	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.34
ARRAY C	STR-13	15	829.5	622.5	14.12	13.14	8.18	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.35
	STR-14	15	829.5	622.5	14.12	13.14	8.18	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.37
	STR-15	15	829.5	622.5	14.12	13.14	8.18	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.32
	STR-16	15	829.5	622.5	14.12	13.14	8.18	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.34
	STR-17	15	829.5	622.5	14.12	13.14	8.18	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.33
	STR-18	15	829.5	622.5	14.12	13.14	8.18	20	2 #10 + 1 #10 GND	32	CU	PV WIRE	100	0.34

INVERTER CONFIGURATION

INVERTER ID	INVERTER ARRAY	INVERTER MAKE & MODEL	INVERTER OCP	INVERTER KW	INVERTER KVA	STRINGS	MODULES PER INVERTER	KW DC PER INVERTER
INV-A	A	CPS SCA50KTL-DO/US-480 (50kVA)	80/3P	50	50	STR-1 TO STR-6	96	52.32
INV-B	B	CPS SCA50KTL-DO/US-480 (50kVA)	80/3P	50	50	STR-7 TO STR-12	96	52.32
INV-C	C	CPS SCA50KTL-DO/US-480 (50kVA)	80/3P	50	50	STR-13 TO STR-18	90	49.05

1 SOLAR ONE LINE DIAGRAM

NTS

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-26128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
SOLAR ONE LINE DIAGRAM, CODES AND NOTES

E9.7

PROJECT 24042

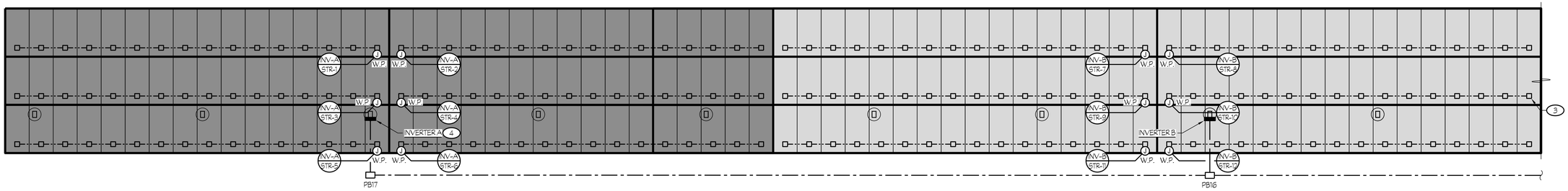
Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER KIRK EASTHAM No. E 19180 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

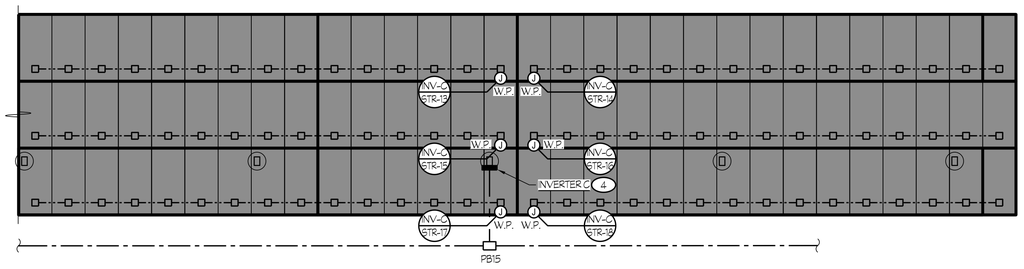
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ARRAY A					
INVERTER A (52.32 kW)					
MPPT1 (17.44 kW)		MPPT2 (17.44 kW)		MPPT3 (17.44 kW)	
STRING #1	STRING #2	STRING #3	STRING #4	STRING #5	STRING #6

ARRAY B					
INVERTER A (52.32 kW)					
MPPT1 (17.44 kW)		MPPT2 (17.44 kW)		MPPT3 (17.44 kW)	
STRING #7	STRING #8	STRING #9	STRING #10	STRING #11	STRING #12



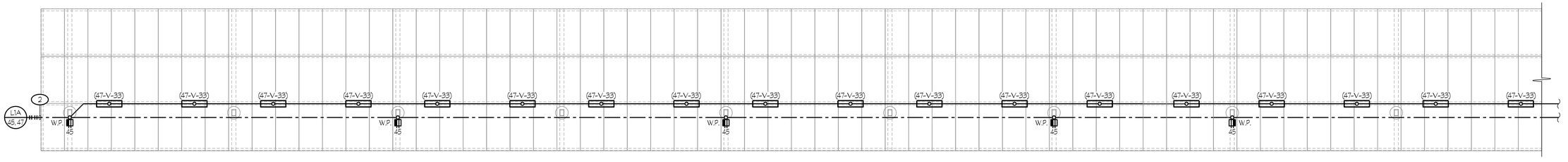
ARRAY C					
INVERTER A (49.05 kW)					
MPPT1 (16.35 kW)		MPPT2 (16.35 kW)		MPPT2 (16.35 kW)	
STRING #13	STRING #14	STRING #15	STRING #16	STRING #17	STRING #18



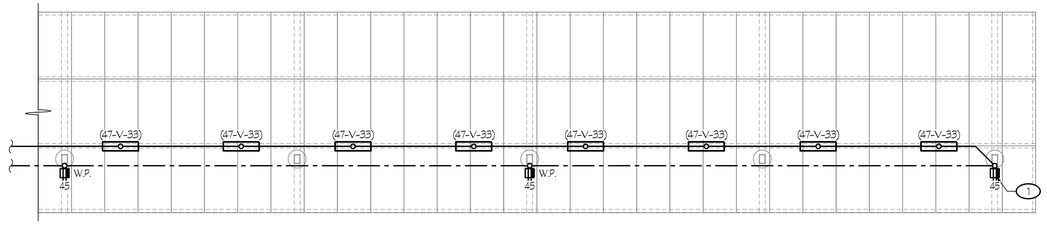
NOTES (THIS SHEET ONLY):

1. REFER TO DETAIL #3/E9.10 FOR ADDITIONAL REQUIREMENTS.
2. ROUTE CIRCUIT #47 THROUGH LIGHTING CONTROL PANEL "LCP"
3. GROUND ALL PV MODULES USING UL LISTED GROUNDING CLIP WASHER AT EACH SOLAR MOUNTING CLIP, PER DETAIL #2/E9.10. REFER TO INSTALLATION MANUAL FOR MANUFACTURER REQUIREMENTS.
4. REFER TO DETAIL #1/E9.10 FOR INVERTER MOUNTING REQUIREMENTS.

POWER



LIGHTING



north

1 ENLARGED PV ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORELLI
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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(559) 627.2630 Office
(559) 627.1926 Fax

TITLE
ENLARGED PV ELECTRICAL PLAN

E9.8

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK [illegible]
No. E 19786
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

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BiHiKu6

520 W ~ 550 W

BIFACIAL MONO PERC

CS6W-520|525|530|535|540|545|550MB-AG

MORE POWER

- Module power up to 550 W
  Module efficiency up to 21.4 %
- Up to 12.3 % lower LCOE
  Up to 5.2 % lower system cost
- Comprehensive LID / LeTID mitigation
  technology, up to 50% lower degradation
- Compatible with mainstream trackers,
  cost effective product for utility power plant
- Better shading tolerance

MORE RELIABLE

- Minimizes micro-crack impacts
- Heavy snow load up to 5400 Pa,
  wind load up to 2400 Pa*

* For detailed information, please refer to the Installation Manual.

CSI Solar (USA) Co., Ltd.
1350 Treat Blvd. Suite 500, Walnut Creek, CA 94597 | www.csisolar.com/na | service.ca@csisolar.com

12 Years Enhanced Product Warranty on Materials and Workmanship*

30 Years Linear Power Performance Warranty*

1st year power degradation no more than 2%
Subsequent annual power degradation no more than 0.45%

*According to the applicable Canadian Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001 : 2015 / Quality management system
ISO 14001 : 2015 / Standards for environmental management system
ISO 45001 : 2018 / International standards for occupational health & safety
IECE62941 : 2019 / Photovoltaic module manufacturing quality system

PRODUCT CERTIFICATES*

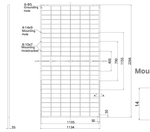
IEC 61215 / IEC 61730 / CE / INMETRO / MCS / UKCA
CEC listed (US California)
UL 61730 / IEC 61701 / IEC 62716 / IEC 63126 Level1 / IEC 60068-2-68
Take-e-way

* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your Product and applicable in the regions in which the products will be used.

CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 22 years, it has successfully delivered over 88 GW of premium-quality solar modules across the world.

ENGINEERING DRAWING (mm)

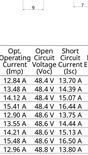
Rear View



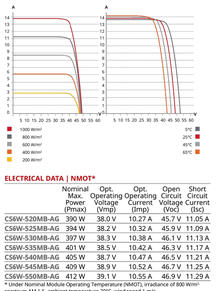
Frame Cross Section A-A



Mounting Hole



CS6W-530MB-AG / I-V CURVES



ELECTRICAL DATA | STC*

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)	Module Efficiency
CS6W-520MB-AG	520 W	40.5 V	12.84 A	48.4 V	13.70 A	20.2%
Bifacial Gain**	5%	546 W	40.5 V	13.48 A	48.4 V	14.39 A	21.2%
	10%	572 W	40.5 V	14.12 A	48.4 V	15.07 A	22.3%
	20%	624 W	40.5 V	15.41 A	48.4 V	16.44 A	24.3%
CS6W-525MB-AG	525 W	40.7 V	12.90 A	48.6 V	13.75 A	20.4%
Bifacial Gain**	5%	551 W	40.7 V	13.55 A	48.6 V	14.44 A	21.4%
	10%	578 W	40.7 V	14.21 A	48.6 V	15.13 A	22.5%
	20%	630 W	40.7 V	15.48 A	48.6 V	16.50 A	24.5%
CS6W-530MB-AG	530 W	40.9 V	12.96 A	48.8 V	13.80 A	20.6%
Bifacial Gain**	5%	557 W	40.9 V	13.62 A	48.8 V	14.49 A	21.7%
	10%	583 W	40.9 V	14.26 A	48.8 V	15.18 A	22.7%
	20%	636 W	40.9 V	15.55 A	48.8 V	16.56 A	24.8%
CS6W-535MB-AG	535 W	41.1 V	13.02 A	49.0 V	13.85 A	20.8%
Bifacial Gain**	5%	562 W	41.1 V	13.68 A	49.0 V	14.54 A	21.9%
	10%	589 W	41.1 V	14.34 A	49.0 V	15.24 A	22.9%
	20%	642 W	41.1 V	15.62 A	49.0 V	16.62 A	25.0%
CS6W-540MB-AG	540 W	41.3 V	13.08 A	49.2 V	13.90 A	21.0%
Bifacial Gain**	5%	567 W	41.3 V	13.73 A	49.2 V	14.60 A	22.1%
	10%	594 W	41.3 V	14.39 A	49.2 V	15.29 A	23.1%
	20%	648 W	41.3 V	15.70 A	49.2 V	16.68 A	25.2%
CS6W-545MB-AG	545 W	41.5 V	13.14 A	49.4 V	13.95 A	21.2%
Bifacial Gain**	5%	572 W	41.5 V	13.80 A	49.4 V	14.65 A	22.3%
	10%	600 W	41.5 V	14.46 A	49.4 V	15.35 A	23.3%
	20%	654 W	41.5 V	15.77 A	49.4 V	16.74 A	25.5%
CS6W-550MB-AG	550 W	41.7 V	13.20 A	49.6 V	14.00 A	21.4%
Bifacial Gain**	5%	578 W	41.7 V	13.87 A	49.6 V	14.70 A	22.5%
	10%	605 W	41.7 V	14.52 A	49.6 V	15.40 A	23.5%
	20%	660 W	41.7 V	15.84 A	49.6 V	16.80 A	25.7%

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
** Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

ELECTRICAL DATA

Operating Temperature	-40°C ~ +85°C
Max. System Voltage	1500 V (IEC/UL) or 1000 V (IEC/UL)
Module Fire Performance	TYPE 29 (UL 61730) or CLASS C (IEC61730)
Max. Series Fuse Rating	30 A
Application Classification	Class A
Power Tolerance	0 ~ + 10 W
Power Bifacility*	70 %

* Power Bifacility = $Pmax_{rear}$ / $Pmax_{front}$, both $Pmax_{rear}$ and $Pmax_{front}$ are tested under STC, Bifacility Tolerance: ± 5 %.

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. CSI Solar Co., Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice.
Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

ELECTRICAL DATA | NMOT*

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)
CS6W-520MB-AG	390 W	38.0 V	10.27 A	45.7 V	11.05 A
CS6W-525MB-AG	394 W	38.2 V	10.32 A	45.9 V	11.09 A
CS6W-530MB-AG	397 W	38.3 V	10.38 A	46.1 V	11.13 A
CS6W-535MB-AG	401 W	38.5 V	10.42 A	46.3 V	11.17 A
CS6W-540MB-AG	405 W	38.7 V	10.47 A	46.5 V	11.21 A
CS6W-545MB-AG	409 W	38.9 V	10.52 A	46.7 V	11.25 A
CS6W-550MB-AG	412 W	39.1 V	10.55 A	46.9 V	11.29 A

* Under Nominal Module Operating Temperature (NMOT), Irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA

Specification	Data
Cell Type	Mono-crystalline
Cell Arrangement	144 [2 x (12 x 6)]
Dimensions	2266 × 1134 × 35 mm (89.2 × 44.6 × 1.38 in)
Weight	32.2 kg (71.0 lbs)
Front Glass	2.0 mm heat strengthened glass with anti-reflective coating
Back Glass	2.0 mm heat strengthened glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4.0 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	350 mm (13.8 in) (+) / 250 mm (9.8 in) (-) or customized length*
Connector	T6 or T4 series or MC4 series
Per Pallet	30 pieces
Per Container (40' HQ)	600 pieces or 540 pieces (only for US & Canada)

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.34 % / °C
Temperature Coefficient (Voc)	-0.26 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	41 ± 3°C

PARTNER SECTION

CSI Solar (USA) Co., Ltd. Mar. 2023 | All rights reserved | PV Module Product Datasheet v2.411_F42_P1_NA

1 PHOTOVOLTAIC MODULE - CS6W-530MB-AG

NTS

CPS

Datasheet

50/60kW, 1000Vdc String Inverters for North America

The 50 & 60kW (55 & 66kVA) medium-power CPS three-phase string inverters are designed for ground mount, large rooftop and carport applications. The units are high performance, advanced and reliable inverters designed especially for the North American environment and grid. High efficiency at 98.8% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 50/60KTL products ship with either the Standard wire-box or the Rapid Shutdown wire-box, each fully integrated and separable with touch safe fusing, monitoring, and AC and DC disconnect switches. The integrated PLC transmitter in the Rapid Shutdown wire-box enables PVRSS certified module-level rapid shutdown when used with the Tigo TS4-F/TS4-A-F/TS4-A-2F products, APS RSD-S-PLC/RSD-D products, and NEP PVG-2 products. The CPS FlexOM Gateway enables monitoring, controls and remote product upgrades.



CPS SCA50KTL-DO/US-480
CPS SCA60KTL-DO/US-480

Key Features

- NEC 2017/2020 PVRSS certified for rapid shutdown
- 55 & 66kVA rating allows max rated active power @±0.91PF
- Selectable max AC apparent power of 50/55kVA and 60/66kVA
- NEC-compliant & UL listed Arc-Fault circuit protection
- 15-90° Mounting orientation for low profile roof installs
- Optional FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 3 MPPTs with 5 inputs each for maximum flexibility
- NEMA Type 4X outdoor rated enclosure
- UL 1741-SA certified to CA Rule 21, including SA8 - SA18
- UL 1741-SB and IEEE 1547-2018 certified
- Separable wire-box design for fast service
- Standard 10-year warranty with extensions up to 20 years



50/60KTL Standard Wire-box



50/60KTL Rapid Shutdown Wire-box

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Chint Power Systems America
1380 Presidential Drive, Suite 100, Richardson, TX 75081
Tel: 855-584-7168 Mail: AmericaSales@chintpowersystems.com Web: www.chintpowersystems.com

CPS

Technical Data

Model Name	CPS SCA50KTL-DO/US-480	CPS SCA60KTL-DO/US-480
DC Input		
Max. PV power	90kW (33kW per MPPT)	
Max. DC input voltage	1000Vdc	
Operating DC input voltage range	200-950Vdc	
Start-up DC input voltage / power	330V / 80W	
Number of MPP trackers	3	
MPPT voltage range @ PF>0.99	480-850Vdc	540-850Vdc
Max. PV short-circuit current (Isc x 1.25)	204A (68A per MPPT)	
Number of DC inputs	15 inputs, 5 per MPPT	
DC disconnection type	Load-rated DC switch	
DC surge protection	Type II MOV, 2800V_C, 20kA I_{TN} (8/20μS)	
AC Output		
Rated AC output power @ PF=0.99 to ±0.91[1]	50kW	60kW
Max. AC apparent power (selectable)	50/55kVA	60/66kVA
Rated output voltage	480Vac	
Output voltage range[2]	422 - 528Vac	
Grid connection type	3Φ / PE / N (neutral optional)	
Max. AC output current @ 480Vac	60.2/66.2A	72.2/79.4A
Rated output frequency	60Hz	
Output frequency range[2]	57 - 63Hz	
Power factor	>0.99 (±0.8 adjustable)	
Current THD @ rated load	<3%	
Max. fault current contribution (1 cycle RMS)	64.1A (1.06/0.88 PU)	
Max. OCPD rating	110A	125A
AC disconnection type	Load-break rated AC switch	
AC surge protection	Type II MOV, 1240V_C, 15kA I_{TN} (8/20μS)	
System and Performance		
Topology	Transformerless	
Max. efficiency	98.8%	
CEC efficiency	98.5%	
Stand-by / night consumption	<1W	
Environment		
Enclosure protection degree	NEMA Type 4X	
Cooling method	Variable speed cooling fans	
Operating temperature range[3]	-22°F to +140°F / - 30°C to +60°C	
Non-operating temperature range[4]	No low temp minimum to +158°F / +70°C maximum	
Operating humidity	0 to 100%	
Operating altitude	13,123.4ft / 4000m (derating from 9842.5ft / 3000m)	
Audible noise	<60dBA @ 1m and 25°C	
Display and Communication		
User interface and display	LCD + LED	
Inverter monitoring	SunSpec, Modbus RS485	
Site-level monitoring	CPS FlexOM Gateway (1 per 32 inverters)	
Modbus data mapping	CPS	
Remote diagnostics / firmware upgrade functions	Standard / (with FlexOM Gateway)	
Mechanical		
Dimensions (H x W x D)	39.4 x 23.6 x 10.24in. (1000 x 600 x 260mm)	
Weight	Inverter: 123.5lbs/56kg; Wire-box: 33lbs/15kg	
Mounting / installation angle[5]	15 to 90 degrees from horizontal (vertical or angled)	
AC termination	M8 stud type terminal block (wire range: #6 - 3/0AWG CU/AL; lugs not supplied)	
DC termination[6]	Screw clamp, nag, busbar (RSD version[7]); wire range: #14 - #6AWG CU	
Fused string inputs (5 per MPPT)[7]	RSD[8] and Standard Wire-box: 20A fuses provided (fuse values up to 30A acceptable)	
Safety		
Certifications and standards	UL1741-SA/SB Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018; FCC PART15	
Selectable grid standard	IEEE 1547a-2014, IEEE 1547-2018[9], CA Rule 21, ISO-NE	
Smart-grid features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt	
Warranty		
Standard	10 years	
Extended terms	15 and 20 years	

1) Active power derating begins at PF=±0.91 to ±0.8 when max AC apparent power is set to 55 or 66kVA.
2) The "output voltage range" and "output frequency range" may differ according to the specific grid standard.
3) Active power derating begins at 40°C when PF=±0.9 and MPPT ≥1min; at 45°C when PF=1 and MPPT ≥1min; and at 50°C when PF=1 and MPPT V ≥ 700Vdc.
4) See user manual for further requirements regarding non-operating conditions.
5) Shade cover accessory required for installation angles of 75 degrees or less.
6) RSD wire-box only includes fuses/fuseholders on the positive polarity, compliant with NEC 2017/2020.
7) Fuse values above 20A have additional spacing requirements or require the use of the Y-Comb Terminal Block. See user manual for details.
8) Firmware version 17.0 or later required.

2 PHOTOVOLTAIC INVERTERS CPS SCA 50KTL-DO/US-480

NTS

SUNSYS HES L©

Modular outdoor energy storage system
from 50 kVA / 203 kWh to 550 kVA / 1218 kWh

SUNSYS HES L



Function

SUNSYS HES L is a modular outdoor energy storage system designed for both on-grid and off-grid applications. It is available in a variety of configurations, to provide the ideal system size for a range of project requirements.
It supports dedicated applications such as optimization of photovoltaics with self consumption, peak shaving, backup power, and EV charging infrastructure support.
SUNSYS HES L combines the economic returns of on-grid operation with the security of a microgrid when the grid may fail.

Advantages

High safety standards
SUNSYS HES L integrates advanced power conversion and LFP battery technologies to create a winning formula.
The B-Cab L (Battery Cabinet) uses liquidcooled thermal management, with an integrated fire safety system, and meets the requirements of the latest international fire code.
The complete system is certified to the latest UL 9540, the safety standard for energy storage systems in both the Canada and the USA.

Extreme modularity
SUNSYS HES L is a modular energy storage system that uses 2 standard cabinets to enable 29 UL certified configurations, providing ideal system sizing for a variety of projects.
- C-Cab L: Converter Cabinet from 50 to 300 kVA per Cabinet.
- B-Cab L: Battery Cabinet of 203 kWh.

2 C-Cabs L can be stacked in parallel with up to 6 B-Cabs L reaching a maximum configuration of 550 kVA / 1218 kWh.
Standard configurations simplify the design, quotation, installation and commissioning process of your projects.

Fully bankable historical supplier
Socomec is a 100+ years old company with expert knowledge in power conversion, switching and monitoring.
With our energy storage experience of 10+ years and 420+ systems installed worldwide, we have proven our knowledge and support process on the field.

Integrated ready-to-use certified system
SUNSYS HES L systems, including inverter, batteries and control components, are fully integrated, tested and certified.
Our systems have undergone a typetesting procedure to guarantee reliable behavior and performance, reducing the time and effort required for commissioning. Specially adapted software for internal communication between all cabinets has been developed allowing efficient monitoring and control of the system, called PMS. Going a step further, we enabled thanks to SunSpec standard an easy integration with external EMS if you require it.
Whether you have a switchboard, solar system, generators or other equipment on site, our systems are designed to be compatible with a wide range of existing installations.

The solution for
- Commercial and industrial buildings
- EV charging infrastructure
- Isolated microgrids
- Resilient microgrids
- Renewable energy integration

Strong Points
- High safety standards
- Extreme modularity
- Fully bankable historical supplier
- Integrated ready to use certified system

Conformity to standards
- **Safety:** UL 9540-2020; UL 9540A; UL 1973; NFPA 855; NFPA 68
- **EMC:** FCC part 15 Level A
- Environment: RoHS; REACH, IEC 61249
- **Communication protocol:** Modbus TCP; SunSpec 2.0
- **Grid code:** UL 1741 SB; UL 1741 PCS CRD; IEEE 1547-2018; IEEE 1547.1-2020; CA Rule 21
- CEC listed

Please consult us for additional ones.

Expert Services
An experienced and skilled team is at your service to make your project a success!
- **Project development:** pre-sales support, project design
- **Deployment:** training, field inspection, pre-commissioning, commissioning
- **Operation:** maintenance contracts, spare parts replacement, remote monitoring
- Cloud data storage
- Extended warranty on both product and performance

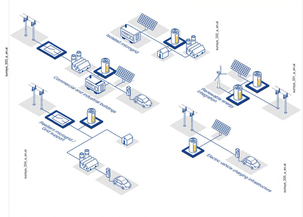
For more information, please contact us.

socomec
Innovative Power Solutions

SUNSYS HES L©

Modular outdoor energy storage system
from 50 kVA / 203 kWh to 550 kVA / 1218 kWh

Suitable for all of the following applications



Native services supported by SUNSYS HES L
- Demand charge reduction
- Peak shaving
- Time-of-Use
- Energy arbitrage
- Energy smoothing
- Energy shifting
- Emergency back-up
- PV self-consumption
- Compatible with external EMS to unlock more services

Modular Design enables Variety without Complexity



(W x D x H): 1000 x 1300 x 2160 mm
39.4 x 51.2 x 85 in
Up to 1085 kg / 2392 lbs



(W x D x H): 1390 x 1344 x 2368 mm
54.7 x 52.9 x 93.4 in
2370 kg / 5225 lbs

C-Cab L - Converter Cabinet
- Bidirectional hot swappable power converter
- 50 to 300 kVA / cabinet
- Automation functions and EMS connection
- AC/DC distribution and protection
- Battery management system
- IoT Ready

B-Cab L - Battery Cabinet
- Lithium Iron Phosphate (LFP) Chemistry
- 203 kWh / rack
- Liquid cooling thermal management
- Integrated fire safety detection and suppression system
- Life cycle of 8000 cycles at 25°C; 0.5P

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SUNSYS HES L©

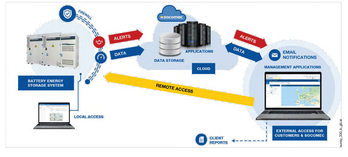
Modular outdoor energy storage system
from 50 kVA / 203 kWh to 550 kVA / 1218 kWh

Many system configurations are available to meet customer requirements

		1 Rack 203 kWh	2 Racks 406 kWh	3 Racks 609 kWh	4 Racks 812 kWh	5 Racks 1,015 kWh	6 Racks 1,218 kWh
C-Cab 1	50	3.4					
	100	2.0	3.4	5.2			
	150		2.2	3.4	4.6		
	200		2.0	2.5	3.4	4.3	
	250			2.0	2.7	3.4	4.1
	300			2.0	2.2	2.8	3.4
C-Cab 2	350				2.0	2.4	2.9
	400				2.0	2.1	2.5
	450					2.0	2.2
	500						2.0
	550						2.0

Duration shown in AC-usable energy at BOL
(*) Power derating to respect 0.5 P-Rate

Remote Monitoring & Debugging



Local management
The Socomec Power Management System, coordinating the operation of all converter and battery components. It's capabilities include: This open platform, integrated in the C-Cab, provides access to:
- Peak shaving, energy shifting, self-consumption and fuel saving to maximise valuable savings,
- Transitions between on-grid and microgrid operation,
- Autonomous microgrid management,
- Compatibility with 3rd party energy management software suites, through a Sunspec 2.0 or Modbus interface,
- SCADA integration through Modbus/TCP.

Remote monitoring
In addition, the C-Cab L also integrates IoT devices that make it possible to continuously monitor the system remotely.
These devices enable the following, through 2 offers SoLive and SoLive Pro:
- Web dashboard for on-line monitoring,
- Web access to the system KPIs,
- Smartphone app,
- Remote firmware upgrade.

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SUNSYS HES L©

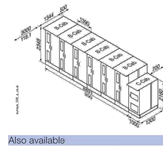
Modular outdoor energy storage system
from 50 kVA / 203 kWh to 550 kVA / 1218 kWh

Technical Data

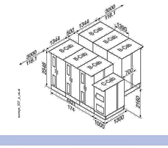
System information										
Power modularity	50 kVA power modules - up to 550 kVA									
Symmetrical overload	110% during 60 min - 125% during 30 min - 150% during 60 sec									
Chemistry	LFP - Lithium Iron Phosphate									
Energy Nameplate	203.7 kWh per rack									
AC/AC Max Round Trip Efficiency	90%									
Maximum P-rate	0.5 P									
Maximum DC current	82 A charging / 87 A discharging per 50 kVA power module									
Power rating	50 kVA	100 kVA	150 kVA	200 kVA	250 kVA	300 kVA	350 kVA	400 kVA	450 kVA	500 kVA	550 kVA
AC-rated current	60 A	120 A	180 A	241 A	301 A	361 A	421 A				
AC-temporary current (overload)	90 A	180 A	271 A	361 A	451 A	541 A					
AC connections	Up to 4x95mm²/3/0AWG - 3x150mm²/300MCM - 2x185mm²/350MCM										
Rated voltage (Un)	480 Vac (3ph+N) ±20%										
Rated frequency	60 Hz ±5%										
Fire protection	Fire Safety System including smoke detectors, heat detectors and aerosol										
Environment											
Degree of protection	IP 55 / NEMA 3R (Outdoor)										
Operation temperature	-20 °C to +45 °C / -4 °F to +113 °F without derating - up to +50 °C / 122°F with derating										
Storage temperature	-20 °C to +60 °C / -4 °F to +140°F										
Acoustic level at 1 m	< 64.8 dB										
Maximum altitude	1000 m / 3280 ft. without derating (consult us for requirements above this)										

Two system installation options according to the space available on your site

In-line installation (with 1 C-Cab L)
Up to 6 B-Cabs L - dimensions (mm/in)



Back-to-back installation (with 1 C-Cab L)
Up to 6 B-Cabs L - dimensions (mm/in)



Also available



SUNSYS HES XXL©
High power energy storage system
from 1 MVA / 2 MWh to 6 MVA / 23 MWh systems

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Innovative Power Solutions

3 BATTERY ENERGY STORAGE SYSTEM

NTS

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth ~ (559)733-2671
Visalia, California 93292-6705

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-31128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
SOLAR
CUTSHEETS

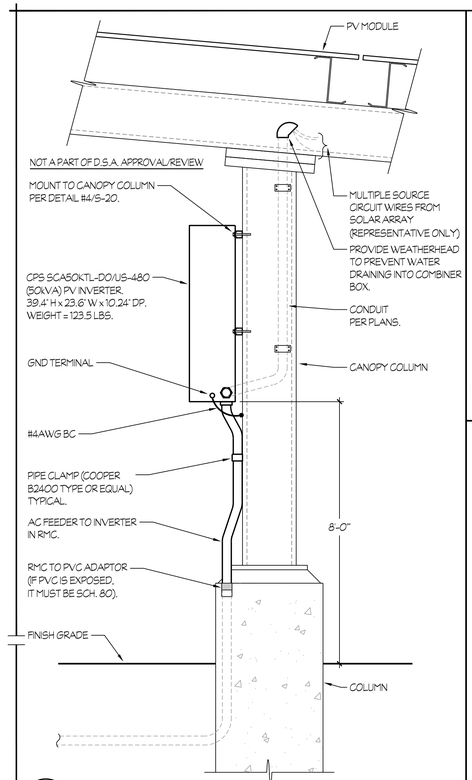
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PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth ~ (559)733-2671
Visalia, California 93292-6705

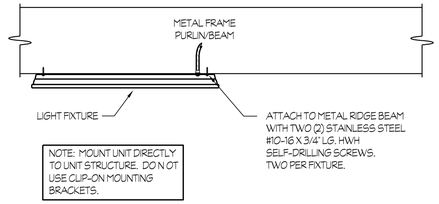
REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E 19169
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\E9.9.dwg DATE SAVED: 11/06/26 By: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



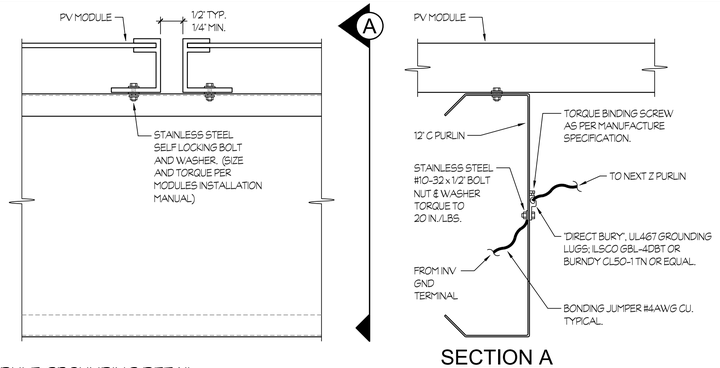
1 PV INVERTER MOUNTING

NTS



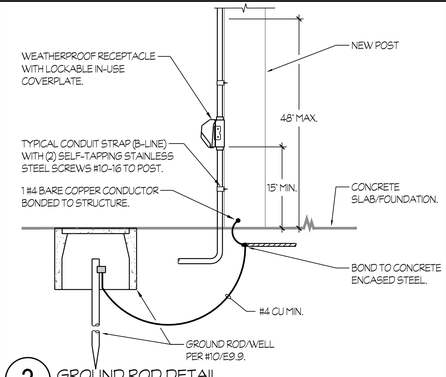
4 FIXTURE TYPE "V" MOUNTING

NTS



2 MODULE GROUNDING DETAIL

NTS



3 GROUND ROD DETAIL

NTS

PHOTOVOLTAIC SOLAR SYSTEMS - GENERAL NOTES

1. THESE DRAWINGS HAVE BEEN PREPARED WITH INFORMATION PROVIDED IN ORIGINAL DESIGN DOCUMENTS AND HAVE NOT BEEN VERIFIED FOR ACCURACY. NEW DESIGN AND REQUIREMENTS WERE BASED ON THE ASSUMPTION OF EXISTING INFORMATION BEING ACCURATE. ANY DISCREPANCIES OR QUESTIONABLE POINTS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.
2. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY. ALL LIKE EQUIPMENT, MATERIAL, FIXTURES, ETC. SHALL BE OF SAME MANUFACTURER AT ALL TIMES - NO EXCEPTIONS. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS, STANDARDS, RULES, AND REGULATIONS OF THE FOLLOWING AND BE MOST SUITABLE TO THE PURPOSE INTENDED:

   AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
   INSULATED POWER CABLE MANUFACTURERS ASSOCIATION (IPCMA)
   NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
   AMERICAN STANDARD ASSOCIATION (ASA)
   NATIONAL FIRE PROTECTION AGENCY (NFPA)
   AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
   CALIFORNIA ELECTRICAL CODE (CEC), 2022 EDITION
   CALIFORNIA CODE OF REGULATIONS TITLE 24 (CCR)
   INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
   NATIONAL ELECTRICAL CODE (NEC), 2020 EDITION
   ELECTRONIC INDUSTRY ASSOCIATION (EIA)
   TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA)
3. ELECTRICAL DOCUMENTS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LAYOUT OF THE COMPLETE CONSTRUCTION WORK. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, OR MECHANICAL ITEMS OR FEATURES. DUE TO STRUCTURAL CONDITIONS, MECHANICAL DUCTING, OR PIPING REASONS, ELECTRICAL CONTRACTOR MAY DESIRE TO INSTALL THE WORK IN A MANNER DIFFERENT FROM THAT SHOWN. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER SECTIONS.
4. ALL WIRING AND CABLING SHALL BE IN CONDUIT, ALL EXPOSED CONDUITS SHALL BE RIGID, GALVANIZED STEEL OR INTERMEDIATE METAL CONDUITS (IMC) OR ELECTRICAL METALLIC TUBING (EMT). ALL CONDUITS SHALL BE INSTALLED PARALLEL WITH, OR AT RIGHT ANGLES TO THE BUILDING LINES, BEAMS, OR CEILING. ALL LONG CONDUIT RUNS SHALL INCLUDE PULL BOXES AT 100-FOOT INCREMENTS AND SIZED AS REQUIRED OR NOTED. IN ADDITION, ALL CONDUITS CROSSING CEILING STRUCTURE EXPANSIONS SHALL HAVE APPROVED EXPANSION FITTINGS ACCORDINGLY. FLEXIBLE CONDUIT IS PERMITTED ONLY FOR SHORT LENGTHS TO EQUIPMENT TERMINATION AS REQUIRED (NOT TO EXCEED 5' IN LENGTH).
5. ALL CONDUCTORS SHALL BE COPPER. CONDUCTORS #10-AWG AND LARGER SHALL BE STRANDED TYPE WITH "THWN/THHN" INSULATION (75 DEGREES CELSIUS, WET OR DRY). ALUMINUM CONDUCTORS ARE NOT PERMITTED.
6. ALL FINAL CONNECTIONS TO AND INSTALLATION OF FURNISHED BY OTHERS EQUIPMENT SHALL BE MADE BY THE ELECTRICAL CONTRACTOR.
7. UTILITY PENETRATIONS OF ANY KIND IN FIRE AND SMOKE PARTITIONS AND CEILING ASSEMBLIES SHALL BE FIRE STOPPED AND SEALED WITH AN APPROVED MATERIAL SECURELY INSTALLED.
8. REFER TO SHEET #EG1.1, "SEISMIC ANCHORAGE REQUIREMENTS", FOR THE SEISMIC BRACING AND ANCHORAGE OF ELECTRICAL CONDUITS.
9. SOLAR PANELS AND SUPPORT SYSTEM TO BE GROUNDED PER CEC 250 AND 690.
10. INVERTER INCLUDES INTEGRAL DC DISCONNECT UNLESS OTHERWISE NOTED.
11. SECURELY FASTEN ALL ELECTRICAL EQUIPMENT BY MEANS OF RODS, HANGERS, SUPPORTS, GUIDES, ANCHORS AND SWAY BRACES TO MAINTAIN ALIGNMENT, TO PREVENT EQUIPMENT MOVEMENT, AND TO RESIST SEISMIC FORCES. DO NOT SECURE ANY ELECTRICAL EQUIPMENT TO ACOUSTICAL CEILING SUPPORT WIRES OR NON STRUCTURAL ELEMENTS.
12. STRAIGHT FEEDER, BRANCH CIRCUIT AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.
13. FEEDERS:

13.A. CONDUITS FOR SOLAR SYSTEMS SHALL BE IDENTIFIED WITH STENCIL MARKINGS AT 100 FOOT INCREMENTS, AT EACH INTERSECTION, AND AT EACH CROSSOVER FROM ONE AREA TO ANOTHER, PENETRATION OF WALLS, AND FLOORS WITH LETTERING 3/4" MINIMUM FOR 1" CONDUIT OR LESS, 1" MINIMUM FOR 2" CONDUIT OR LESS, AND 1-1/2" MINIMUM FOR 4" OR LESS IN THE COLORS AS FOLLOWS:

208/240 VOLTS: BLACK
1000 VOLTS: RED

14. ALL CONDUCTORS AND CABLES SHALL BE IDENTIFIED AT EACH JUNCTION BOX, OUTLET BOX, CABINET, PULL BOX, ETC., WITH VINYL SELF-ADHESIVE TAPE SHOWING PANEL AND CIRCUIT NUMBERS, CONTROL WIRE NUMBER OR OTHER APPROPRIATE INFORMATION REGARDING THE SYSTEM IT REPRESENTS.
15. DRAWINGS DO NOT SHOW ALL OFFSETS, BENDS, SPECIFIC FITTINGS, JUNCTION BOXES NOR PULL BOXES NECESSARY TO MEET JOB CONDITIONS. THESE ITEMS SHALL BE PROVIDED WHERE NECESSARY.
16. ALL EXISTING EQUIPMENT, MATERIAL, CONDUCTORS AND CABLES THAT ARE NOT TO BE REUSED IN THEIR PRESENT LOCATIONS SHALL BE CAREFULLY DISCONNECTED (CONDUCTORS AND CABLES REMOVED TO SOURCE OF SUPPLY) AND STORED IN A SAFE PLACE. IT SHALL BE MADE AVAILABLE FOR INSPECTION BY THE OWNER WHO WILL DESIGNATE WHAT IS TO BE STORED BY THE OWNER AND WHAT IS TO BE REMOVED FROM THE PREMISES BY THE ELECTRICAL CONTRACTOR.
17. THE ALTERATION OF THE EXISTING BUILDING IS WORK OF A COMPLEX NATURE WHICH WILL REQUIRE PLANNING, CAREFUL PREPARATION AND EXECUTION, ATTENTION TO DETAIL AND CLOSE SUPERVISION BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR WILL BE REQUIRED TO DO THIS WORK IN FULL COOPERATION WITH THE OTHER CONSTRUCTION TRADES AND, SUBJECT TO SCHEDULING, ARRANGE TO MINIMIZE DISRUPTION OF THE NORMAL ACTIVITIES OF THE FACILITY. ELECTRICAL CONTRACTOR TO COORDINATE ALL ACTIVITIES WITH OWNER.
18. IN AREAS WHERE THERE ARE NO ALTERATIONS INDICATED, THE EXISTING FACILITIES SHALL REMAIN IN SERVICE. IN CASE OF DOUBT, ASSUME THAT THE EXISTING ELECTRICAL SERVICE IS TO REMAIN IN OPERATION THROUGHOUT THE CONSTRUCTION PERIOD.
19. INSTALLATION OF ALL ELECTRICAL EQUIPMENT SHALL BE CAREFULLY COORDINATED WITH EXISTING CONDITIONS TO AVOID POSSIBLE INTERFERENCE PROBLEMS.
20. OUTDOOR ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN SUITABLE ENCLOSURES AND SHALL BE PROTECTED FROM ACCIDENTAL CONTACT BY UNAUTHORIZED PERSONNEL, OR BY VEHICULAR TRAFFIC, OR BY ACCIDENTAL SPILLAGE OR LEAKAGE FROM PIPING SYSTEMS.
21. REFER TO MANUFACTURERS MOUNTING INSTALLATION REQUIREMENTS FOR PROPER SUPPORT SPACING AND ATTACHMENTS PER CALIFORNIA BUILDING CODE. INSTALL AS REQUIRED.
22. EXACT LOCATION OF SOLAR SYSTEM TO BE FIELD VERIFIED AND INSTALLED AS REQUIRED BY MANUFACTURER AND APPLICABLE CALIFORNIA BUILDING CODE.
23. SOLAR CIRCUIT BREAKERS SHALL BE INSTALLED ON OPPOSITE ENDS OF THE BUS BAR FROM OTHER SOURCE FEEDS (i.e. MAIN CIRCUIT BREAKER).
24. ACCESS AND WORKING SPACE SHALL BE PROVIDED AND MAINTAINED ABOUT ALL ELECTRICAL EQUIPMENT TO PERMIT READY AND SAFE OPERATION AND MAINTENANCE OF SUCH EQUIPMENT. THERE SHALL BE A MINIMUM CLEAR SPACE OF 36" IN FRONT OF EQUIPMENT; THE WIDTH OF CLEAR SPACE SHALL BE 32" AND A HEIGHT OF 6-1/2 FEET FROM GRADE.
25. THE DESIGN OF SUPPORT FRAME SYSTEM SHALL BE BASED ON CALCULATIONS OR ON TESTING IN COMPLIANCE WITH ICC-ES AC428 "ACCEPTANCE CRITERIA FOR MODULAR FRAMING SYSTEM USED TO SUPPORT PHOTOVOLTAIC (PV) MODULES," OR EQUAL, PER IR A-5.
26. SOLAR PANEL SYSTEM REQUIREMENTS
    a. SOLAR PANELS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 1703 OR BOTH UL 61730-1 AND UL 61730-2 (CBC 3111.3.1) FOR THE PANEL ORIENTATIONS SHOWN ON PLANS, AND THIS SHALL BE INDICATED ON THE DRAWINGS.
    b. SOLAR PANEL ORIENTATION (PORTRAIT AND/OR LANDSCAPE LAYOUTS), ANCHORAGE POINT LOCATION, AND INSTALLATION TOLERANCE RANGE SHALL BE SPECIFIED ON THE DRAWINGS. PANEL CONNECTION GEOMETRY SHALL BE CONSISTENT WITH UL 1703 TESTS (AND UL 2703 TEST IF UTILIZED). IF HORIZONTAL SLIP JOINTS (e.g., THERMAL EXPANSION JOINTS) IN FRAMING MEMBERS ARE PRESENT, PANELS MUST NOT SPAN ACROSS NOR BE CONNECTED ON OPPOSING SIDES OF THE SLIP JOINTS.
    c. DRAWINGS MUST SPECIFY OVERALL SOLAR PANEL DIMENSIONS AND FULLY-DIMENSIONED FRAME CONFIGURATION OF THE SPECIFIED PANEL INCLUDING HEIGHT, LENGTH, WIDTH, THICKNESS OF EACH WEB/FLANGE, AND MATERIAL GRADE.
    d. DRAWINGS MUST SPECIFY THE SOLAR PANEL LOAD RATING IN POUNDS PER SQUARE FOOT (psf) BASED ON AN EFFECTIVE AREA EQUAL TO THE AREA OF ONE PV PANEL. THE LOAD RATING SHALL BE PROVIDED AS BOTH ALLOWABLE AND STRENGTH LEVEL CAPACITIES, FOR CLARITY.

CEC 690.13 (B) & 706.15 (C)
PLACE THIS LABEL ON ***ALL*** DISCONNECTING MEANS WHERE ENERGIZED IN AN OPEN POSITION

WARNING
ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS
TERMINALS ON BOTH THE LINE AND LOAD SIDE MAY BE ENERGIZED IN THE OPEN POSITION

CEC 690.53
PLACE THIS LABEL ON ***ALL*** PHOTOVOLTAIC **DC** DISCONNECTING MEANS (ON INVERTER IF INTEGRATED DC DISCONNECTS ***AND*** AT SEPARATE DC DISCONNECT IF APPLICABLE)

PHOTOVOLTAIC SYSTEM DISCONNECT	
RATED MAX POWER POINT CURRENT (IMP):	26.5A
RATED MAX POWER POINT VOLTAGE (VMP):	712.3V
MAX SYSTEM VOLTAGE (VOC):	948.6V
MAX SHORT CIRCUIT CURRENT (ISC):	28.5A

CEC 690.54
PLACE THIS LABEL AT "INTERACTIVE POINT OF INTERCONNECTION" (AT MAIN SERVICE PANEL ***AND*** SUBPANEL IF APPLICABLE)

INVERTER "INV-A" (OR "INV-B")	
INTERACTIVE PHOTOVOLTAIC POWER SOURCE	
RATED AC OUTPUT CURRENT (A):	60.2A
NOMINAL OPERATING AC VOLTAGE (V):	480V, 3-PH

CEC 705.10(D)(4)
PLACE THIS LABEL AT UTILITY METER.

WARNING
DUAL POWER SOURCES SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

CEC 690.13(B)
PLACE THIS LABEL AT ALL PV DISCONNECTION POINTS.

PV SYSTEM DISCONNECT

CEC 705.12(B)(3)
PLACE THIS LABEL AT P.O.C. TO SERVICE DISTRIBUTION EQUIPMENT (I.E. MAIN PANEL (AND SUBPANEL IF APPLICABLE))

WARNING
POWER SOURCE OUTPUT CONNECTION
DO NOT RELOCATE THIS OVERCURRENT DEVICE

CEC 1207.4.8
PLACE THIS LABEL AT BATTERY STORAGE SYSTEM, ENCLOSURES AND GATE ACCESSES.

WARNING:
LITHIUM IRON PHOSPHATE BATTERY STORAGE SYSTEM
- ENERGIZED ELECTRICAL CIRCUITS.
MANUFACTURER HOTLINE:
+1 617-245-0447

CALIFORNIA STATE FIRE MARSHAL PHOTOVOLTAIC INSTALLATION GUIDELINES LABELS

PLACE ON ALL CONDUIT, LOCATED ON ROOF, INTERIOR AND EXTERIOR, EVERY 5 FEET, AT TURNS AND ABOVE AND/OR BELOW PENETRATIONS AND ALL DC COMBINER AND JUNCTION BOXES, IN ⅜" WHITE LETTERING ON RED BACKGROUND, ON FADE-RESISTANT MATERIAL:

WARNING: PHOTOVOLTAIC POWER SOURCE

PLACE THIS LABEL WITHIN MAIN SERVICE DISCONNECT (OR ON OUTSIDE IF DISCONNECT IS OPERABLE WITH COVER CLOSED)

CAUTION: SOLAR ELECTRIC SYSTEM

REFLECTIVE, WHITE LETTERING ON RED BACKGROUND, TYPICAL UNLESS OTHERWISE NOTED

CEC 706.15 (C)
PLACE THIS LABEL AT ALL PV DISCONNECTION POINTS.

⚠ WARNING

ARC FLASH AND SHOCK HAZARD PRESENT
APPROPRIATE PPE REQUIRED

[IN] - FLASH HAZARD BOUNDARY
[CAL/CM^2] - FLASH HAZARD AT 18"

REQUIRED PPE: ###

KVAC SHOCK HAZARD WHEN COVER REMOVED
GLOVE CLASS
[FT] LIMITED APPROACH
[FT] RESTRICTED APPROACH

EQUIPMENT ID - ####

11445 AVE. 264
VISALIA, CA 93277

COMPANY
MM/DD/YY

⚠ DANGER

ARC FLASH AND SHOCK HAZARD PRESENT
APPROPRIATE PPE REQUIRED

[IN] - FLASH HAZARD BOUNDARY
[CAL/CM^2] - FLASH HAZARD AT 18"

REQUIRED PPE: ###

KVAC SHOCK HAZARD WHEN COVER REMOVED
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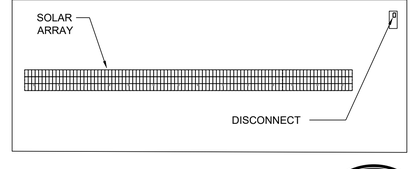
EQUIPMENT ID - ####

11445 AVE. 264
VISALIA, CA 93277

COMPANY
MM/DD/YY

CEC 705.10
PLACE A PERMANENT PLAQUE DENOTING ALL ELECTRIC POWER SOURCES ON OR IN THE PREMISES AT THE SERVICE EQUIPMENT LOCATION AND AT ALL ELECTRIC POWER PRODUCTION SOURCES CAPABLE OF INTERCONNECTION

CAUTION MULTIPLE SOURCES OF POWER



Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK EASTHAM
No. E-19180
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 fax

TITLE
SOLAR NOTES AND DETAILS

E9.10

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem School\E9.10.dwg DATE: 3/4/ED: 07/08/26 BY: Casey PLOTTED: 09/17/26 JOB #: 25-016-SE

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PANEL "HBF"

480/277V, 3 PH, 4 W — 125 A. BUSSING — 125 A. MAIN BKR. — 30 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	3864			LIGHTS - BALL FIELD	SPARE				20/1	2
3	20/1		3864		LIGHTS - BALL FIELD	SPARE				20/1	4
5	20/1			3864	LIGHTS - BALL FIELD	SPARE				20/1	6
7	20/1	3864			LIGHTS - BALL FIELD	SPARE				20/1	8
9	20/1		3864		LIGHTS - BALL FIELD	SPARE				20/1	10
11	20/1			500	LIGHTING CONTROL PNL	SPARE				20/1	12
13	20/1				SPARE	SPARE				20/1	14
15	20/1				SPARE	SPARE				20/1	16
17	20/1				SPARE	SPARE				20/1	18
19	20/1				SPARE	SPARE				20/1	20
21	20/1				SPARE	SPARE				20/1	22
23	20/1				SPARE	SPARE				20/1	24
25					SPACE	SPACE					26
27					SPACE	SPACE					28
29					SPACE	SPACE					30

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	7728	7728	4364	TOTAL CALCULATED
25% LCL/LML (VA) :	1932	1932	966	LOAD FOR PANEL:
TOTAL LOAD (VA) :	9660	9660	5330	24650 VA
TOTAL LOAD (AMPS) :	34.9	34.9	19.2	

PANEL "L1C"

120/208V, 3 PH, 4 W — 225 A. BUSSING — 225 A. MAIN BKR. — 30 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	40/2	3600			EV STATION	EV STATION			3600	40/2	2
3			3600					3600			4
5	40/2			3600	EV STATION	EV STATION	3600			40/2	6
7		3600							3600		8
9	40/2		3600		EV STATION	SPARE				20/1	10
11				3600		SPARE				20/1	12
13	40/2	3600			EV STATION	SPARE				20/1	14
15			3600			SPARE				20/1	16
17	20/1				SPARE	SPARE				20/1	18
19	20/1				SPARE	SPARE				20/1	20
21	20/1				SPARE	SPARE				20/1	22
23	20/1				SPARE	SPARE				20/1	24
25					SPACE	SPACE					26
27					SPACE	SPACE					28
29					SPACE	SPACE					30

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	18000	14400	10800	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	18000	14400	10800	43200 VA
TOTAL LOAD (AMPS) :	150.0	120.0	90.0	

PANEL "H1A"

480/277V, 3 PH, 4 W — 600 A. BUSSING — 600 A. MAIN BKR. — 42 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	2401			LIGHTS - ADMIN	LIGHTS - EXTERIOR			450	20/1	2
3	20/1		2395		LIGHTS - LIBRARY, TWR	LIGHTS - PARKING LOT		2965		20/1	4
5	20/1				SPARE	LIGHTS - WALKWAY	1674			20/1	6
7	30/3	5291							5291	30/3	8
9			5291		HP-1-1/ECON., 19.1 FLA	HP-1-2/ECON., 19.1 FLA		5291			10
11				5291			5291				12
13	40/3	5956							8089	50/3	14
15			5956		HP-1-3/ECON., 21.5 FLA	HP-1-4/ECON., 29.2 FLA		8089			16
17				5956			8089				18
19	40/3	5956							8089	50/3	20
21			5956		HP-1-7/ECON., 21.5 FLA	HP-1-6/ECON., 29.2 FLA		8089			22
23				5956			8089				24
25					SPACE	SPACE					26
27					SPACE	SPACE					28
29					SPACE	SPACE					30
31					SPACE	SPACE					32
33					SPACE	SPACE					34
35					SPACE	SPACE					36
37	350/3	39917				SPACE					38
39			39917		TRANSFORMER "TL1A"	SPACE					40
41				39917		SPACE					42

(3)

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	81440	83949	80263	TOTAL CALCULATED
25% LCL/LML (VA) :	713	1340	419	LOAD FOR PANEL:
TOTAL LOAD (VA) :	82153	85289	80682	248123 VA
TOTAL LOAD (AMPS) :	296.6	307.9	291.3	

PANEL "EV"

120/208V, 3 PH, 4 W — 225 A. BUSSING — 600 A. MAIN BKR. — 42 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	40/2	3600			FUTURE EV STATION	FUTURE EV STATION			3600	40/2	2
3			3600					3600			4
5	40/2			3600	FUTURE EV STATION	FUTURE EV STATION	3600			40/2	6
7		3600							3600		8
9	40/2		3600		FUTURE EV STATION	FUTURE EV STATION		3600		40/2	10
11				3600			3600				12
13	40/2	3600			FUTURE EV STATION	FUTURE EV STATION			3600	40/2	14
15			3600					3600			16
17	40/2			3600	FUTURE EV STATION	FUTURE EV STATION	3600			40/2	18
19		3600							3600		20
21	40/2		3600		FUTURE EV STATION	FUTURE EV STATION		3600		40/2	22
23				3600			3600				24
25	40/2	3600			FUTURE EV STATION	FUTURE EV STATION			3600	40/2	26
27			3600					3600			28
29	40/2			3600	FUTURE EV STATION	FUTURE EV STATION	3600			40/2	30
31		3600							3600		32
33	40/2		3600		FUTURE EV STATION	FUTURE EV STATION		3600		40/2	34
35				3600			3600				36
37					SPACE	FUTURE EV STATION			3600	40/2	38
39					SPACE			3600			40
41					SPACE	SPACE					42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	46800	46800	43200	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	46800	46800	43200	136800 VA
TOTAL LOAD (AMPS) :	390.0	390.0	360.0	

PANEL "L1A"

120/208V, 3 PH, 4 W — 225 A. BUSSING — NO MAIN BKR. — 54 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	1080			RECEPT- ELEC., DATA RM	RECEPT - DATA RACK			2500	30/1	2
3	20/1		900		RECEPT - WORK ROOM	RECEPT - DATA RACK		1250		20/1	4
5	20/1			720	RECEPT - CONTROLLED	RECEPT - DATA RACK	1250			20/1	6
7	20/1	500			RECEPT- CONTROLLED	RECEPT- CONTROLLED			720	20/1	8
9	20/1		1080		RECEPT- NURSE	RECEPT- RECEPTION		900		20/1	10
11	20/1			800	RECEPT - REFRIGERATOR	RECEPT - COPIER	1500			20/1	12
13	20/1	900			RECEPT- NURSE	REECPT - CONFERENCE			720	20/1	14
15	20/1		720		RECEPT- NURSE	RECEPT- OFFICES, TOILET		900		20/1	16
17	20/1			370	RECEPT- E.D.F.	RECEPT- OFFICES, TOILET	900			20/1	18
19	20/1	360			RECEPT- CONTROLLED	RECEPT- CONTROLLED			360	20/1	20
21	20/1		720		RECEPT- OFFICES	RECEPT- CONTROLLED		360		20/1	22
23	20/1			900	RECEPT- OFFICES	RECEPT- CONTROLLED	720			20/1	24
25	20/1	900			RECEPT- OFFICES	RECEPT - COPIER			1500	20/1	26
27	20/1		720		RECEPT- T.W.R.	RECEPTER - COUNTER		1000		20/1	28
29	20/1			720	RECEPT- T.W.R.	RECEPT- T.W.R.	720			20/1	30
31	20/1	1500			RECEPT- COPIER	RECEPT- VENDING MACH.			1500	20/1	32
33	20/1		1260		RECEPT- ELOP	RECEPT- LIBR, EXTERIOR		1260		20/1	34
35	20/1			1260	RECEPT- ELOP	RECEPT- LIBRARY	720			20/1	36
37	20/1	500			AUTO DEMAND RESPONSE	RECEPT- LIBRARY			720	20/1	38
39	20/1		720		RECEPT - CONTROLLED	RECEPT- T.V.		500		20/1	40
41	20/1			500	RECEPT - T.V.	EF-1-2, 4.75 FLA	570			20/1	42
43	20/1	500			EMS PANEL	RECEPT - AMPITHEATER			540	20/1	44
45	20/1		1440		RECEPT - PV CANOPY	GATE/DOOR POWER		200		20/1	46
47	20/1			792	LIGHTS - PV CANOPY	SPARE				20/1	48
49					SPACE	SPACE					50
51					SPACE	HP-1-5, 35.2 FLA		4224		60/2	52
53					SPACE		4224				54

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	14800	18154	16666	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	198	LOAD FOR PANEL:
TOTAL LOAD (VA) :	14800	18154	16864	49818 VA
TOTAL LOAD (AMPS) :	123.3	151.3	140.5	

PANEL "L1B"

120/208V, 3 PH, 4 W — 225 A. BUSSING — NO MAIN BKR. — 30 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

	CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
(1)	1	20/1	500			F.A. CONTROL PANEL	RECEPT - CONTROLLED			720	20/1	2	
(1)	3	20/1		500		LOCAL OPRTNG CONSOLE	RECEPT - STORAGE		1260		20/1	4	
	5	20/1			900	RECEPT- CONFERENCE	LIGHTING CONTROL PNL	500			20/1	6	
(2)	7	20/1	342			EF-1-1, 2.85 FLA	FIRE ALARM BELL			500	20/1	8	(1)
	9	20/1		1500		RECEPT- VENDING MACH.	RECEPT W.P. ON ROOF		720		20/1	10	
	11	20/1			1500	RECEPT- VENDING MACH.	RELAY MODULES	350			20/1	12	(1)
	13	20/1	85			CIRC PUMP				1500	20/3	14	
	15	20/1				SPARE	WH-1		1500			16	(2)
	17	30/2			2112	ODU-1-1, 17.6 FLA		1500				18	
	19		2112				ODU-1-2, 17.6 FLA			2112	30/2	20	
	21	20/1		1450		HAND DRYER			2112			22	
	23	20/1			1450	HAND DRYER	SPARE				20/1	24	
	25	20/1	1450			HAND DRYER	SPACE					26	
	27					SPACE	SPACE					28	
	29					SPACE	SPACE					30	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	9321	9042	8312	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	9321	9042	8312	26675 VA
TOTAL LOAD (AMPS) :	77.7	75.4	69.3	

TYPICAL PANEL SCHEDULE NOTES:

(1) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, 'RED IN COLOR', SPACEAGE #ELOCK-FA OR EQUAL. PROVIDE AN ENGRAVED NAMEPLATE: 'FIRE ALARM CIRCUIT', WHITE LETTERS ON A RED BACKGROUND. MOUNT NAMEPLATE ONTO INTERIOR TRIM AND ADJACENT TO CIRCUIT BREAKER.

(2) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, SPACEAGE #ELOCK-FA OR EQUAL.

(3) PROVIDE SUB-FEED CIRCUIT BREAKER KIT.

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

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(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDING 100
PANEL SCHEDULES

E10.1

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
STEPHEN KIRK ZAMBRANO
No. E-19780
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

Z:\Drafting\Jobs\RSE\524003\Sanger\Temperance Elem School\E10.1.dwg DATE SAVED: 08/26/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: ZS-016-SE

480/277V, 3 PH, 4 W — 35K BREAKER A.I.C.
600 A. BUSSING 600 A. MAIN BKR. — 9 1/2" MAX. ENCL. DEPTH
72" CKT BRKR MNT'G SPACE — SURF MOUNTING

PANEL "H2A"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	1870			LIGHTS - KITCHEN	LIGHTS - EXTERIOR			420	20/1	2
3	20/1		1447		LIGHTS - STAGE	SPARE				20/1	4
5	20/1			1317	LIGHTS - MULTI-USE	SPARE				20/1	6
7	20/1	1417			LIGHTS - RR, STORAGE	SPARE				20/1	8
9	25/3		3878		AH-2-1, 14 FLA	AH-2-4, 3.62 FLA		1008		15/3	10
11				3878			1008				12
13		3878							1008		14
15	15/3		2272		AH-2-2, 8.2 FLA	AH-2-3, 8.22 FLA		2277		15/3	16
17				2272			2277				18
19		2272							2277		20
21	15/3		1379		MUA-2-2, 4.976 FLA	KEF-2-1, 3.2 FLA		887		15/3	22
23				1379			887				24
25		1379							887		26
27					SPACE	SPACE					28
29					SPACE	SPACE					30
31					SPACE				5928	30/3	32
33					SPACE	DISHWASHER HEATER		5928			34
35					SPACE		5928				36
37	500/3	73876							19002	125/3	38
39			73876		TRANSFORMER "TL2A"	DISHWASHER MOTOR		19002			40
41				73876			19002				42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	114214	111954	111824	TOTAL CALCULATED LOAD FOR PANEL: 339610 VA
25% LCL/LML (VA) :	927	362	329	
TOTAL LOAD (VA) :	115141	112316	112153	
TOTAL LOAD (AMPS) :	415.7	405.5	404.9	

120/208V, 3 PH, 4 W — 22K BREAKER A.I.C.
225 A. BUSSING NO MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
42 CIRCUIT — SURF MOUNTING

PANEL "L2A"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	720			RECEPT- RESTROOMS	RECEPT - STORAGE			900	20/1	2
3	20/1		720		RECEPT- RESTROOMS	RECEPT - STORAGE		900		20/1	4
5	20/1			370	RECEPT- E.D.F.	RECEPT- CONTROLLED	360			20/1	6
7	20/1	370			RECEPT- E.D.F.	RECEPT - WASHER			1500	20/1	8
9	20/1		1080		RECEPT- OFFICE, JANITOR	DRYER		3600		30/2	10
11	20/1			1080	RECEPT- OFFICE, JANITOR		3600				12
13	20/1	500			LIGHTING CONTROL PNL	AUTO DEMAND RESPONSE			500	20/1	14
(1) 15	20/1		500		F.A. TRANSPONDER PNL	FIRE ALARM BELL		500		20/1	16 (1)
(2) 17	20/1			768	EF-2-1, 6.4 FLA	EMS PANEL	500			20/1	18
(2) 19	20/1	264			EF-2-2, 2.2 FLA	SPARE				20/1	20
21	30/2		2112		ODU-2-2, 17.6 FLA	SPARE				20/1	22
23				2112		RELAY MODULE	50			20/1	24
25	20/1	720			RECEPT - W.P. ON ROOF	WALK-IN REFRIG LIGHTS			1750	20/1	26
27	20/1		750		HEAT STRIP	WALK-IN FREEZEER LIGHTS		1750		20/1	28
29	20/2			1000	WALK-IN EVAP COIL	FLY FAN	500			20/1	30
(1) 31		1000							300	20/3	32 (1)
(1) 33	20/2		1000		WALK-IN EVAP COIL	POWER ROLL UP DOOR		300			34 (2)
(2) 35				1000			300				36
37					SPACE	SPACE					38
39					SPACE	SPACE					40
41					SPACE	SPACE					42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	8524	13212	11640	TOTAL CALCULATED LOAD FOR PANEL: 33376 VA
25% LCL/LML (VA) :	0	0	0	
TOTAL LOAD (VA) :	8524	13212	11640	
TOTAL LOAD (AMPS) :	71.0	110.1	97.0	

120/208V, 3 PH, 4 W — 22K BREAKER A.I.C.
400 A. BUSSING NO MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
54 CIRCUIT — SURF MOUNTING

PANEL "L2B"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	80/3	7560			DOUBLE OVEN	EXHAUST HOOD LIGHTS			200	20/1	2
3			7560			RECEPT- COOK TOP		1800		20/1	4
5				7560		RECEPT - MIRCROWAVE	1500			20/1	6
7	80/3	7560			DOUBLE OVEN	RECEPT- FOOD PREP			500	20/1	8
9			7560			RECEPT - FOOD PREP		500		20/1	10
11				7560		RECEPT - FOOD PREP	500			20/1	12
13	20/1	1500			RECEPT- HOT CART	FOOD WELL REFRIG.			636	20/1	14
15	20/1		1500		RECEPT- HOT CART	FOOD WELL REFRIG.		636		20/1	16
17	20/1			1500	RECEPT- HOT CART	RECEPT - MILK COOLER	984			20/1	18
19	20/1	1500			RECEPT- HOT CART	RECEPT - FOOD PREP			540	20/1	20
21	20/1		1500		RECEPT- HOT CART	RECEPT - FOOD PREP		360		20/1	22
23	20/1			1500	RECEPT- HOT CART	FOOD WELL HEAT	1908			20/2	24
25	20/3	1200			MIXER				1908		26
27			1200			FOOD WELL HEAT		1908		20/2	28
29				1200			1908				30
31	60/3	5520			BRAISING PAN	GARBAGE DISPOSAL			576	15/3	32
33			5520					576			34
35				5520			576				36
37	15/3	576			GARBAGE DISPOSAL	ANSUL PANEL			500	20/1	38
39			576			HAND DRYER		1450		20/1	40
41				576		HAND DRYER	1450			20/1	42
43	20/1	200			TRAP PRIMERS	HAND DRYER			1450	20/1	44
45	20/1		4160		SPARE	HAND DRYER		1450		20/1	46
47	50/2			4160	BOX TRUCK CHARGER	SPACE					48
49						SPACE					50
51	20/1				SPARE	SPACE					52
53	20/1				SPARE	SPACE					54

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	31926	38256	38402	TOTAL CALCULATED LOAD FOR PANEL: 108584 VA
25% LCL/LML (VA) :	0	0	0	
TOTAL LOAD (VA) :	31926	38256	38402	
TOTAL LOAD (AMPS) :	266.1	318.8	320.0	

120/208V, 3 PH, 4 W — 22K BREAKER A.I.C.
400 A. BUSSING 400A. MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
54 CIRCUIT — SURF MOUNTING

PANEL "L2C"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	900			RECEPT- MULTI-USE	RECEPT- FLOOR BOXES			540	20/1	2
3	20/1		900		RECEPT- MULTI-USE	RECEPT - FLOOR BOXES		360		20/1	4
5	20/1			1080	RECEPT - FLEX	WHEELCHAIR LIFT	1200			20/1	6
7	20/1	1080			RECEPT - FLEX	RECEPT- STAGE			900	20/1	8
9	30/1		2500		RECEPT -DATA RACK	RECEPT - STAGE		900		20/1	10
11	20/1			1250	RECEPT -DATA RACK	RECEPT - CONTROL	900			20/1	12
13	20/1	1250			RECEPT -DATA RACK	PROJECTOR SCREEN			500	20/1	14
15	20/1		260		LIGHTS - MEZZANINE	PROJECTOR		1500		20/1	16
17	20/1			260	LIGHTS - MEZZANINE	RECEPT - MEZZANINE	720			20/1	18
(1) 19	20/1	100			RELAY MODULES	RECEPT - MEZZANINE			360	20/1	20
(1) 21	20/1		50		RELAY MODULE	EF-2-3, EF-2-4		360		20/1	22 (2)
(2) 23	20/1			768	KEF-2-2, 6.4 FLA	CU-2-2, 24.7 FLA	2964			40/2	24
25	20/1	265			CURTAIN MOTOR				2964		26
27	25/2		1692		CU-2-1, 14.1 FLA	RECEPT - W.P. ON ROOF		540		20/1	28
29				1692		SPARE				20/1	30
31	25/2	1536			ODU-2-1, 12.8 FLA	SPARE				20/1	32
33			1536			SPARE				20/1	34
35	20/1			100	TRAP PRIMER	SPARE				20/1	36
37	20/1	200			EXHAUST HOOD LIGHTS	SPARE				20/1	38
39	80/3		7560			SPARE				20/1	40
41				7560	DOUBLE OVEN	DOUBLE OVEN	7560			80/3	42
43		7560							7560		44
45	20/1		1200		GATE MOTOR			7560			46
47	20/1				SPARE	HAND DRYER	1450			20/1	48
49	20/1				SPARE	HAND DRYER			1450	20/1	50
51	20/1				SPARE	SPACE					52
53	20/1				SPARE	SPACE					54

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	27165	26918	27504	TOTAL CALCULATED LOAD FOR PANEL: 81587 VA
25% LCL/LML (VA) :	0	0	0	
TOTAL LOAD (VA) :	27165	26918	27504	
TOTAL LOAD (AMPS) :	226.4	224.3	229.2	

TYPICAL PANEL SCHEDULE NOTES:

(1) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, 'RED IN COLOR', SPACEAGE #ELOCK-FA OR EQUAL. PROVIDE AN ENGRAVED NAMEPLATE: 'FIRE ALARM CIRCUIT', WHITE LETTERS ON A RED BACKGROUND. MOUNT NAMEPLATE ONTO INTERIOR TRIM AND ADJACENT TO CIRCUIT BREAKER.

(2) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, SPACEAGE #ELOCK-FA OR EQUAL.

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK D. EASTHAM — No. E 19786 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS
FILE # 10-126 — APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
BUILDING 200
PANEL SCHEDULES

E10.2

PROJECT 24042

Z:\Drafting\Jobs\RSES\24042\53\Sanger\Temperance Elem School\E10.2.dwg DATE SAVED: 06/25/26 BY: Corey DATE PLOTTED: 09/17/26 JOB #: ZG-016-SE

480/277V, 3 PH, 4 W | 22K BREAKER A.I.C.
225 A. BUSSING | 225 A. MAIN BKR. | 5 3/4" MAX. ENCL. DEPTH
42 CIRCUIT | SURF MOUNTING

PANEL "H3A"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	2210			LIGHTS - HALL, RR, CLASS	LIGHTS - EXTERIOR			420	20/1	2
3	20/1		1241		LIGHTS - CLASSROOMS	LIGHTS - CLASSROOMS		1239		20/1	4
5	20/1				SPARE	LIGHTS - CLASSROOMS	1241			20/1	6
7	15/3	693							693	15/3	8
9			693		AH-3-1, 2.5 FLA	AH-3-5, 2.5 FLA		693			10
11				693			693				12
13	15/3	693							693	15/3	14
15			693		AH-3-2, 2.5 FLA	AH-3-6, 2.5 FLA		693			16
17				693			693				18
19	15/3	693							693	15/3	20
21			693		AH-3-3, 2.5 FLA	AH-3-7, 2.5 FLA		693			22
23				693			693				24
25	15/3	693							693	15/3	26
27			693		AH-3-4, 2.5 FLA	AH-3-8, 2.5 FLA		693			28
29				693			693				30
31					SPACE				693	15/3	32
33					SPACE	AH-3-9, 2.5 FLA		693			34
35					SPACE		693				36
37	125/3	16527				SPACE					38
(3) 39			16527		TRANSFORMER "TL3A"	SPACE					40
41				16527		SPACE					42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	25394	25244	24005	TOTAL CALCULATED
25% LCL/LML (VA) :	658	620	310	LOAD FOR PANEL:
TOTAL LOAD (VA) :	26052	25864	24315	76231 VA
TOTAL LOAD (AMPS) :	94.0	93.4	87.8	

120/208V, 3 PH, 4 W | 22K BREAKER A.I.C.
225 A. BUSSING | 225 A. MAIN BKR. | 5 3/4" MAX. ENCL. DEPTH
42 CIRCUIT | SURF MOUNTING

PANEL "L3A"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
1	30/2	2112			ODU-3-1, 17.6 FLA	F.A. TRANSPONDER PNL			500	20/1	2	(1)
3			2112			LIGHTING CNTRL PANEL		500		20/1	4	
5	20/1			360	RECEPT - W.P. ROOF	FIRE ALARM BELL	500			20/1	6	(1)
7	20/1	2500			RECEPT - DATA RACK	RECEPT - CONTROLLED			540	20/1	8	
9	20/1		1250		RECEPT - DATA RACK	RECEPT- CONFERENCE		900		20/1	10	
11	20/1			1250	RECEPT - DATA RACK	RECEPT- ELEC, HALLWAY	720			20/1	12	
13	20/1	370			RECEPT - E.D.F.	RECEPT - RR, JANITOR			720	20/1	14	
15	20/1		1000		RECEPT- COUNTER	RECEPT - CLASSROOM		720		20/1	16	
17	20/1			720	RECEPT - CLASSROOM	RECEPT - CLASSROOM	720			20/1	18	
19	20/1	720			RECEPT - CLASSROOM	RECEPT- COUNTER			1000	20/1	20	
21	20/1		900		RECEPT - CLASSROOM	RECEPT- COUNTER		1000		20/1	22	
23	20/1			720	RECEPT - CLASSROOM	EF-3-1, 6.4 FLA	768			20/1	24	(2)
25	20/1	500			AUTO DEMAND RESPONSE	LIGHTS - MEZZANINE			468	20/1	26	
27	30/2		2112		ODU-3-2, 17.6 FLA	RECEPT - MEZZANINE		360		20/1	28	
29				2112		RELAY MODULES	200			20/1	30	
31	20/1				SPARE	RELAY MODULE			50	20/1	32	
33	20/1				SPARE	SPARE				20/1	34	
35	20/1				SPARE	SPARE				20/1	36	
37	125/3	6872				SPACE					38	
(3) 39			8288		PANEL "L3B"	SPACE					40	
41				7552		SPACE					42	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	16352	19142	15622	TOTAL CALCULATED
25% LCL/LML (VA) :	117	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	16469	19142	15622	51233 VA
TOTAL LOAD (AMPS) :	137.2	159.5	130.2	

120/208V, 3 PH, 4 W | 22K BREAKER A.I.C.
125 A. BUSSING | NO MAIN BKR. | 5 3/4" MAX. ENCL. DEPTH
42 CIRCUIT | FLUSH MOUNTING

PANEL "L3B"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
1	20/1	200			RELAY MODULES	RF-3-2, 8.8. FLA			1056	20/1	2	(2)
(2) 3	20/1		1056		RF-3-1, 8.8. FLA	RF-3-5, 8.8. FLA		1056		20/1	4	(2)
5	20/1			720	RECEPT- CLASSROOM	RECEPT - COUNTER	1000			20/1	6	
7	20/1	720			RECEPT- CLASSROOM	RECEPT- CLASSROOM			900	20/1	8	
9	20/1		1000		RECEPT - COUNTER	RECEPT- CLASSROOM		720		20/1	10	
11	20/1			1000	RECEPT - COUNTER	RECEPT- CLASSROOM	720			20/1	12	
13	20/1	540			RECEPT- CLASSROOM	RECEPT- CLASSROOM			900	20/1	14	
15	20/1		900		RECEPT- CLASSROOM	RECEPT - COUNTER		1000		20/1	16	
(2) 17	20/1			1056	RF-3-6, 8.8. FLA	RF-3-8, 8.8. FLA	1056			20/1	18	(2)
(2) 19	20/1	1056			RF-3-4, 8.8. FLA				1500	20/3	20	
(2) 21	20/1		1056		RF-3-7, 8.8. FLA	WH-3		1500			22	(3)
23	20/1			500	EMS PANEL		1500				24	
25	20/1	1450			HAND DRYER	SPARE				20/1	26	
27	20/1		1450		HAND DRYER	SPARE				20/1	28	
29	20/1			1450	HAND DRYER	SPARE				20/1	30	
31	20/1	1450			HAND DRYER	SPARE				20/1	32	
33	20/1				SPARE	SPARE				20/1	34	
35	20/1				SPARE	SPARE				20/1	36	
37					SPACE	SPACE					38	
39					SPACE	SPACE					40	
41					SPACE	SPACE					42	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	9772	9738	9002	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	9772	9738	9002	28512 VA
TOTAL LOAD (AMPS) :	81.4	81.2	75.0	

TYPICAL PANEL SCHEDULE NOTES:

(1) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, "RED IN COLOR", SPACEAGE #ELOCK-FA OR EQUAL. PROVIDE AN ENGRAVED NAMEPLATE: "FIRE ALARM CIRCUIT", WHITE LETTERS ON A RED BACKGROUND. MOUNT NAMEPLATE ONTO INTERIOR TRIM AND ADJACENT TO CIRCUIT BREAKER.

(2) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, SPACEAGE #ELOCK-FA OR EQUAL.

(3) PROVIDE SUB-FEED CIRCUIT BREAKER KIT.

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE #	APPLICATION #
10-126	02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 300
PANEL SCHEDULES

E10.3

PROJECT 24042

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480/277V, 3 PH, 4 W
225 A. BUSSING 225 A. MAIN BKR.
42 CIRCUIT

PANEL "H4A"

22K BREAKER A.I.C.
5 3/4" MAX. ENCL. DEPTH
SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	2210			LIGHTS - HALL, RR, CLASS	LIGHTS - EXTERIOR			420	20/1	2
3	20/1		1241		LIGHTS - CLASSROOMS	LIGHTS - CLASSROOMS		1239		20/1	4
5	20/1				SPARE	LIGHTS - CLASSROOMS	1241			20/1	6
7	15/3	693							693	15/3	8
9			693		AH-4-1, 2.5 FLA	AH-4-5, 2.5 FLA		693			10
11				693			693				12
13	15/3	693							693	15/3	14
15			693		AH-4-2, 2.5 FLA	AH-4-6, 2.5 FLA		693			16
17				693			693				18
19	15/3	693							693	15/3	20
21			693		AH-4-3, 2.5 FLA	AH-4-7, 2.5 FLA		693			22
23				693			693				24
25	15/3	693							693	15/3	26
27			693		AH-4-4, 2.5 FLA	AH-4-8, 2.5 FLA		693			28
29				693			693				30
31					SPACE				693	15/3	32
33					SPACE	AH-4-9, 2.5 FLA		693			34
35					SPACE		693				36
37	125/3	16527			SPACE						38
(3) 39			16527		TRANSFORMER "TL4A"	SPACE					40
41				16527		SPACE					42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	25394	25244	24005	TOTAL CALCULATED
25% LCL/LML (VA) :	658	620	310	LOAD FOR PANEL:
TOTAL LOAD (VA) :	26052	25864	24315	76231 VA
TOTAL LOAD (AMPS) :	94.0	93.4	87.8	

120/208V, 3 PH, 4 W
225 A. BUSSING 225 A. MAIN BKR.
42 CIRCUIT

PANEL "L4A"

22K BREAKER A.I.C.
5 3/4" MAX. ENCL. DEPTH
SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
1	30/2	2112			ODU-4-1, 17.6 FLA	F.A. TRANSPONDER PNL			500	20/1	2	(1)
3			2112			LIGHTING CNTRL PANEL		500		20/1	4	
5	20/1			360	RECEPT - W.P. ROOF	FIRE ALARM BELL	500			20/1	6	(1)
7	20/1	2500			RECEPT - DATA RACK	RECEPT - CONTROLLED			540	20/1	8	
9	20/1		1250		RECEPT - DATA RACK	RECEPT- CONFERENCE		900		20/1	10	
11	20/1			1250	RECEPT - DATA RACK	RECEPT- ELEC, HALLWAY	720			20/1	12	
13	20/1	370			RECEPT - E.D.F.	RECEPT - RR, JANITOR			720	20/1	14	
15	20/1		1000		RECEPT- COUNTER	RECEPT - CLASSROOM		720		20/1	16	
17	20/1			720	RECEPT - CLASSROOM	RECEPT - CLASSROOM	720			20/1	18	
19	20/1	720			RECEPT - CLASSROOM	RECEPT- COUNTER			1000	20/1	20	
21	20/1		900		RECEPT - CLASSROOM	RECEPT- COUNTER		1000		20/1	22	
23	20/1			720	RECEPT - CLASSROOM	EF-4-1, 6.4 FLA	768			20/1	24	(2)
25	20/1	500			AUTO DEMAND RESPONSE	LIGHTS - MEZZANINE			468	20/1	26	
27	30/2		2112		ODU-4-2, 17.6 FLA	RECEPT - MEZZANINE		360		20/1	28	
29				2112		RELAY MODULES	200			20/1	30	
31	20/1				SPARE	RELAY MODULE			50	20/1	32	
33	20/1				SPARE	SPARE				20/1	34	
35	20/1				SPARE	SPARE				20/1	36	
37	125/3	6872				SPACE					38	
(3) 39			8288		PANEL "L4B"	SPACE					40	
41				7552		SPACE					42	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	16352	19142	15622	TOTAL CALCULATED
25% LCL/LML (VA) :	117	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	16469	19142	15622	51233 VA
TOTAL LOAD (AMPS) :	137.2	159.5	130.2	

120/208V, 3 PH, 4 W
125 A. BUSSING NO MAIN BKR.
42 CIRCUIT

PANEL "L4B"

22K BREAKER A.I.C.
5 3/4" MAX. ENCL. DEPTH
FLUSH MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
1	20/1	200			RELAY MODULES	RF-4-2, 8.8. FLA			1056	20/1	2	(2)
(2) 3	20/1		1056		RF-4-1, 8.8. FLA	RF-4-5, 8.8. FLA		1056		20/1	4	(2)
5	20/1			720	RECEPT- CLASSROOM	RECEPT - COUNTER	1000			20/1	6	
7	20/1	720			RECEPT- CLASSROOM	RECEPT- CLASSROOM			900	20/1	8	
9	20/1		1000		RECEPT - COUNTER	RECEPT- CLASSROOM		720		20/1	10	
11	20/1			1000	RECEPT - COUNTER	RECEPT- CLASSROOM	720			20/1	12	
13	20/1	540			RECEPT- CLASSROOM	RECEPT- CLASSROOM			900	20/1	14	
15	20/1		900		RECEPT- CLASSROOM	RECEPT - COUNTER		1000		20/1	16	
(2) 17	20/1			1056	RF-4-6, 8.8. FLA	RF-4-8, 8.8. FLA	1056			20/1	18	(2)
(2) 19	20/1	1056			RF-4-4, 8.8. FLA				1500	20/3	20	(3)
(2) 21	20/1		1056		RF-4-7, 8.8. FLA	WH-3		1500			22	(3)
23	20/1			500	EMS PANEL		1500				24	(3)
25	20/1	1450			HAND DRYER	SPARE				20/1	26	
27	20/1		1450		HAND DRYER	SPARE				20/1	28	
29	20/1			1450	HAND DRYER	SPARE				20/1	30	
31	20/1	1450			HAND DRYER	SPARE				20/1	32	
33	20/1				SPARE	SPARE				20/1	34	
35	20/1				SPARE	SPARE				20/1	36	
37					SPACE	SPACE					38	
39					SPACE	SPACE					40	
41					SPACE	SPACE					42	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	9772	9738	9002	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	9772	9738	9002	28512 VA
TOTAL LOAD (AMPS) :	81.4	81.2	75.0	

TYPICAL PANEL SCHEDULE NOTES:

(1) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, 'RED IN COLOR', SPACEAGE #ELOCK-FA OR EQUAL. PROVIDE AN ENGRAVED NAMEPLATE: 'FIRE ALARM CIRCUIT', WHITE LETTERS ON A RED BACKGROUND. MOUNT NAMEPLATE ONTO INTERIOR TRIM AND ADJACENT TO CIRCUIT BREAKER.

(2) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, SPACEAGE #ELOCK-FA OR EQUAL.

(3) PROVIDE SUB-FEED CIRCUIT BREAKER KIT.

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
STEPHEN KIRK EASTHAM
No. E-9780
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 400
PANEL SCHEDULES

E10.4

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\E10.4.dwg DATE: SAVED: 11/17/25 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

480/277V, 3 PH, 4 W
225 A. BUSSING 225 A. MAIN BKR.
42 CIRCUIT

PANEL "H5A"

22K BREAKER A.I.C.
5 3/4" MAX. ENCL. DEPTH
SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	2210			LIGHTS - HALL, RR, CLASS	LIGHTS - EXTERIOR			420	20/1	2
3	20/1		1241		LIGHTS - CLASSROOMS	LIGHTS - CLASSROOMS		1239		20/1	4
5	20/1				SPARE	LIGHTS - CLASSROOMS	1241			20/1	6
7	15/3	693							693	15/3	8
9			693		AH-5-1, 2.5 FLA	AH-5-5, 2.5 FLA		693			10
11				693			693				12
13	15/3	693							693	15/3	14
15			693		AH-5-2, 2.5 FLA	AH-5-6, 2.5 FLA		693			16
17				693			693				18
19	15/3	693							693	15/3	20
21			693		AH-5-3, 2.5 FLA	AH-5-7, 2.5 FLA		693			22
23				693			693				24
25	15/3	693							693	15/3	26
27			693		AH-5-4, 2.5 FLA	AH-5-8, 2.5 FLA		693			28
29				693			693				30
31					SPACE				693	15/3	32
33					SPACE	AH-5-9, 2.5 FLA		693			34
35					SPACE		693				36
37	125/3	16527							11634	80/3	38
(3) 39			16527		TRANSFORMER "TL5A"	IRRIGATION PUMP, 42 FLA		11634			40
41				16527			11634				42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	37028	36878	35639	TOTAL CALCULATED
25% LCL/LML (VA) :	658	620	310	LOAD FOR PANEL:
TOTAL LOAD (VA) :	37686	37498	35949	111133 VA
TOTAL LOAD (AMPS) :	136.0	135.4	129.8	

120/208V, 3 PH, 4 W
225 A. BUSSING 225 A. MAIN BKR.
42 CIRCUIT

PANEL "L5A"

22K BREAKER A.I.C.
5 3/4" MAX. ENCL. DEPTH
SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
1	30/2	2112			ODU-5-1, 17.6 FLA	F.A. TRANSPONDER PNL			500	20/1	2	(1)
3			2112			LIGHTING CNTRL PANEL		500		20/1	4	
5	20/1			360	RECEPT - W.P. ROOF	FIRE ALARM BELL	500			20/1	6	(1)
7	20/1	2500			RECEPT - DATA RACK	RECEPT - CONTROLLED			540	20/1	8	
9	20/1		1250		RECEPT - DATA RACK	RECEPT- CONFERENCE		900		20/1	10	
11	20/1			1250	RECEPT - DATA RACK	RECEPT- ELEC, HALLWAY	720			20/1	12	
13	20/1	370			RECEPT - E.D.F.	RECEPT - RR, JANITOR			720	20/1	14	
15	20/1		1000		RECEPT- COUNTER	RECEPT - CLASSROOM		720		20/1	16	
17	20/1			720	RECEPT - CLASSROOM	RECEPT - CLASSROOM	720			20/1	18	
19	20/1	720			RECEPT - CLASSROOM	RECEPT- COUNTER			1000	20/1	20	
21	20/1		900		RECEPT - CLASSROOM	RECEPT- COUNTER		1000		20/1	22	
23	20/1			720	RECEPT - CLASSROOM	EF-5-1, 6.4 FLA	768			20/1	24	(2)
25	20/1	500			AUTO DEMAND RESPONSE	LIGHTS - MEZZANINE			468	20/1	26	
27	30/2		2112		ODU-5-2, 17.6 FLA	RECEPT - MEZZANINE		360		20/1	28	
29				2112		RELAY MODULES	200			20/1	30	
31	20/1				SPARE	RELAY MODULE			50	20/1	32	
33	20/1				SPARE	IRRIGATION CONTROLLER		500		20/1	34	
35	20/1				SPARE	GATE MOTOR	1200			20/1	36	
37	125/3	9772				SPACE					38	
(3) 39			9738		PANEL "L5B"	SPACE					40	
41				9002		SPACE					42	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	19252	21092	18272	TOTAL CALCULATED
25% LCL/LML (VA) :	117	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	19369	21092	18272	58733 VA
TOTAL LOAD (AMPS) :	161.4	175.8	152.3	

120/208V, 3 PH, 4 W
125 A. BUSSING NO MAIN BKR.
42 CIRCUIT

PANEL "L5B"

22K BREAKER A.I.C.
5 3/4" MAX. ENCL. DEPTH
FLUSH MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
1	20/1	200			RELAY MODULES	RF-5-2, 8.8. FLA			1056	20/1	2	(2)
(2) 3	20/1		1056		RF-5-1, 8.8. FLA	RF-5-5, 8.8. FLA		1056		20/1	4	(2)
5	20/1			720	RECEPT- CLASSROOM	RECEPT - COUNTER	1000			20/1	6	
7	20/1	720			RECEPT- CLASSROOM	RECEPT- CLASSROOM			900	20/1	8	
9	20/1		1000		RECEPT - COUNTER	RECEPT- CLASSROOM		720		20/1	10	
11	20/1			1000	RECEPT - COUNTER	RECEPT- CLASSROOM	720			20/1	12	
13	20/1	540			RECEPT- CLASSROOM	RECEPT- CLASSROOM			900	20/1	14	
15	20/1		900		RECEPT- CLASSROOM	RECEPT - COUNTER		1000		20/1	16	
(2) 17	20/1			1056	RF-5-6, 8.8. FLA	RF-5-8, 8.8. FLA	1056			20/1	18	(2)
(2) 19	20/1	1056			RF-5-4, 8.8. FLA				1500	20/3	20	(3)
(2) 21	20/1		1056		RF-5-7, 8.8. FLA	WH-3		1500			22	
23	20/1			500	EMS PANEL		1500				24	
25	20/1	1450			HAND DRYER	SPARE				20/1	26	
27	20/1		1450		HAND DRYER	SPARE				20/1	28	
29	20/1			1450	HAND DRYER	SPARE				20/1	30	
31	20/1	1450			HAND DRYER	SPARE				20/1	32	
33	20/1				SPARE	SPARE				20/1	34	
35	20/1				SPARE	SPARE				20/1	36	
37					SPACE	SPACE					38	
39					SPACE	SPACE					40	
41					SPACE	SPACE					42	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	9772	9738	9002	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	9772	9738	9002	28512 VA
TOTAL LOAD (AMPS) :	81.4	81.2	75.0	

TYPICAL PANEL SCHEDULE NOTES:

(1) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, "RED IN COLOR", SPACEAGE #ELOCK-FA OR EQUAL. PROVIDE AN ENGRAVED NAMEPLATE: "FIRE ALARM CIRCUIT", WHITE LETTERS ON A RED BACKGROUND. MOUNT NAMEPLATE ONTO INTERIOR TRIM AND ADJACENT TO CIRCUIT BREAKER.

(2) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, SPACEAGE #ELOCK-FA OR EQUAL.

(3) PROVIDE SUB-FEED CIRCUIT BREAKER KIT.

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
STEPHEN KIRK EASTHAM
No. E-9780
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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TITLE
BUILDING 500
PANEL SCHEDULES

E10.5

PROJECT 24042

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

PANEL "H6A"

480/277V, 3 PH, 4 W — 125 A. BUSSING — 125 A. MAIN BKR. — 42 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	1673			LIGHTS - HALL, RR, CLASS	LIGHTS - EXTERIOR			420	20/1	2
3	20/1		1533		LIGHTS - CLASSROOMS	SPARE				20/1	4
5	20/1				SPARE	SPARE				20/1	6
7	15/3	693			AH-6-1, 2.5 FLA	AH-6-4, 2.5 FLA			693	15/3	8
9			693					693			10
11				693			693				12
13	15/3	693			AH-6-2, 2.5 FLA	AH-6-5, 2.5 FLA			693	15/3	14
15			693					693			16
17				693			693				18
19	15/3	693			AH-6-3, 2.5 FLA	AH-6-6, 2.5 FLA			693	15/3	20
21			693					693			22
23				693			693				24
25					SPACE	SPACE					26
27					SPACE	SPACE					28
29					SPACE	SPACE					30
31					SPACE	SPACE					32
33					SPACE	SPACE					34
35					SPACE	SPACE					36
(3) 37	70/3	8007				SPACE					38
(3) 39			8007		TRANSFORMER "TL6A"	SPACE					40
(3) 41				8007		SPACE					42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	14258	13698	12165	TOTAL CALCULATED
25% LCL/LML (VA) :	523	383	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	14781	14081	12165	41028 VA
TOTAL LOAD (AMPS) :	53.4	50.8	43.9	

PANEL "H7A"

480/277V, 3 PH, 4 W — 125 A. BUSSING — 125 A. MAIN BKR. — 42 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	1673			LIGHTS - CLASSROOM	LIGHTS - EXTERIOR			255	20/1	2
3	20/1				SPARE	SPARE				20/1	4
5	20/1				SPARE	SPARE				20/1	6
7	15/3	693			AH-7-1, 2.5 FLA	AH-7-3, 2.5 FLA			693	15/3	8
9			693					693			10
11				693			693				12
13	15/3	693			AH-7-2, 2.5 FLA	SPACE					14
15			693			SPACE					16
17				693		SPACE					18
19					SPACE	SPACE					20
21					SPACE	SPACE					22
23					SPACE	SPACE					24
25					SPACE	SPACE					26
27					SPACE	SPACE					28
29					SPACE	SPACE					30
31					SPACE	SPACE					32
33					SPACE	SPACE					34
35					SPACE	SPACE					36
(3) 37	70/3	6502				SPACE					38
(3) 39			6502		TRANSFORMER "TL7A"	SPACE					40
(3) 41				6502		SPACE					42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	10509	8581	8581	TOTAL CALCULATED
25% LCL/LML (VA) :	482	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	10991	8581	8581	28153 VA
TOTAL LOAD (AMPS) :	39.7	31.0	31.0	

PANEL "L6A"

120/208V, 3 PH, 4 W — 225 A. BUSSING — 150 A. MAIN BKR. — 54 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
1	20/1	312			LIGHTS - MEZZANINE	RECEPT - MEZZANINE			360	20/1	2	
3	20/1		312		LIGHTS - MEZZANINE	LIGHTING CNTRL PANEL		500		20/1	4	
5	20/1			720	RECEPT JAN, TOILET, EXT.	RECEPT - CLASSROOM	900			20/1	6	
7	20/1	376			RECEPT - E.D.F.	RECEPT - CLASSROOM		900		20/1	8	
9	20/1		720		RECEPT - T.W.R.	RECEPT - CLASSROOM		900		20/1	10	
11	20/1			540	RECEPT - T.W.R.	RECEPT - CLASSROOM	900			20/1	12	
13	20/1	720			RECEPT - CLASSROOM	RECEPT - T.W.R.		720		20/1	14	
15	20/1		900		RECEPT - CLASSROOM	RECEPT - T.W.R.		540		20/1	16	
17	20/1			900	RECEPT - CLASSROOM	F.A. TRANSPONDER PNL	500			20/1	18	(1)
19	20/1	900			RECEPT - CLASSROOM	FIRE ALARM BELL		500		20/1	20	(1)
(2) 21	20/1		540		EF-6-6, EF-6-6, EF-6-7	RECEPT - MEZZANINE		360		20/1	22	
(2) 23	20/1			360	EF-6-3, EF-6-4	RELAY MODULES	200			20/1	24	
(2) 25	20/1	360			EF-6-1, EF-6-2	RF-6-1, 8.8. FLA			1056	20/1	26	(2)
(2) 27	20/1		1056		RF-6-4, 8.8. FLA	RF-6-3, 8.8. FLA		1056		20/1	28	(2)
(2) 29	20/1			1056	RF-6-6, 8.8. FLA	WH-3	1500			20/3	30	(2)
31	20/1				SPARE				1500		32	
33	20/1		1250		RECEPT - DATA RACK			1500			34	
35	20/1			1250	RECEPT - DATA RACK	ODU-6-1, 17.6 FLA	2112			30/2	36	
37	20/1	2500			RECEPT - DATA RACK				2112		38	
39	20/1		1200		GATE MOTOR	RECEPT- W.P. ON ROOF		180		20/1	40	
41	20/1			1450	HAND DRYER	SPARE				20/1	42	
43	20/1	1450			HAND DRYER	HAND DRYER			1450	20/1	44	
45	20/1		1450		HAND DRYER	HAND DRYER		1450		20/1	46	
47	20/1			1450	HAND DRYER	SPARE				20/1	48	
49					SPACE	SPACE					50	
51					SPACE	SPACE					52	
53					SPACE	SPACE					54	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	15216	13914	13838	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	15216	13914	13838	42968 VA
TOTAL LOAD (AMPS) :	126.8	116.0	115.3	

PANEL "L7A"

120/208V, 3 PH, 4 W — 150 A. BUSSING — NO MAIN BKR. — 42 CIRCUIT — 22K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
(2) 1	20/1	360			EF-7-1, EF-7-2	MEZZANINE - LIGHTS			312	20/1	2	
3	30/1		2500		RECEPT - DATA RACK	LIGHTING CNTRL PANEL		500		20/1	4	
5	20/1			1250	RECEPT - DATA RACK	RECEPT - CLASSROOM	720			20/1	6	
7	20/1	1250			RECEPT - DATA RACK	RECEPT - CLASSROOM			1080	20/1	8	
9	20/1		720		RECEPT - T.W.R.	RECEPT - CLASSROOM		900		20/1	10	
11	20/1			540	RECEPT - T.W.R.	RECEPT - CLASSROOM	900			20/1	12	
13	20/1	720			RECEPT- ELEC, DATA, EXT.	FIRE ALARM BELL			500	20/1	14	(1)
15	20/1		180		RECEPT- W.P. ON ROOF	RECEPT- MEZZANINE		360		20/1	16	
17	30/2			2112	ODU-7-1, 17.6 FLA	RELAY MODULES	100			20/1	18	
19		2112				RF-7-1, 8.8. FLA			1056	20/1	20	(2)
21	20/1		500		EMS PANEL	RF-7-3, 8.8. FLA		1056		20/1	22	(2)
23	20/1				SPARE	SPARE				20/1	24	
25	20/1				SPARE	SPARE				20/1	26	
27	20/1		1450		HAND DRYER	SPARE				20/1	28	
29	20/1			1450	HAND DRYER	SPARE				20/1	30	
31	20/1				SPARE	SPARE				20/1	32	
33	20/1				SPARE	SPARE				20/1	34	
35	20/1				SPARE	SPARE				20/1	36	
37					SPACE	SPACE					38	
39					SPACE	SPACE					40	
41					SPACE	SPACE					42	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	7390	8166	7072	TOTAL CALCULATED
25% LCL/LML (VA) :	78	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	7468	8166	7072	22706 VA
TOTAL LOAD (AMPS) :	62.2	68.1	58.9	

PANEL "HCP"

480/277V, 3 PH, 4 W — 225 A. BUSSING — 225 A. MAIN BKR. — 42 CIRCUIT — 35K BREAKER A.I.C. — 5 3/4" MAX. ENCL. DEPTH — SURF MOUNTING — WEATHERPROOF

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	30/1	3463			RH-1	SPARE				20/1	2
3	30/1		3463		RH-2	SPARE				20/1	4
5	20/1				SPARE	SPARE				20/1	6
7	35/3	5817			CWP-1, 21 FLA	HWP-1, 11 FLA			3047	20/3	8
9			5817					3047			10
11				5817			3047				12
13	35/3	5817			CWP-2, 21 FLA	HWP-2, 14 FLA			3878	25/3	14
15			5817					3878			16
17				5817			3878				18
19	35/3	5817			CWP-3, 21 FLA	HWP-3, 14 FLA			3878	25/3	20
21			5817					3878			22
23				5817			3878				24
25	15/3	915			CPF-1, 3.3 FLA	BP-1, 11.33 FLA			3139	25/3	26
27			915					3139			28
29				915			3139				30
31					SPACE				915	15/3	32
33					SPACE	CPF-2, 3.3 FLA		915			34
35					SPACE		915				36
(3) 37	90/3	7147				SPACE					38
(3) 39			7147		PANEL/XFMR "CP"	SPACE					40
(3) 41				7147		SPACE					42

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	43833	43833	40370	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	43833	43833	40370	128036 VA
TOTAL LOAD (AMPS) :	158.2	158.2	145.7	

PANEL/XFMR "CP"

120/208V, 3 PH, 4 W — 100 A. BUSSING — 90A. MAIN BKR. — 27 CIRCUIT — 100A. SECONDARY MAIN BKR — 18K BREAKER A.I.C. — 13.5 MAX. ENCL. DEPTH — SURF MOUNTING

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	75			LIGHTS - EQUIP	EMS PANEL			500	20/1	2
3	20/1		180		RECEPT - CENTRAL PLANT	TIME CLOCK		500		20/1	4
5	20/1			180	RECEPT - CENTRAL PLANT	LIGHTS - CENTRAL PLANT	180			20/1	6
7	20/1	180			RECEPT - CENTRAL PLANT	TRAP PRIMER			100	20/1	8
9	40/2		1858		WH-2	WH-2		1858		40/2	10
11				1858			1858				12
13	40/2	1858			WH-2	WH-2			1858	40/2	14
15			1858					1858			16
17	40/2			1858	WH-2	WSS-1	500			20/1	18
19		1858				CP-2			200	20/1	20
21	20/1				SPARE	CP-2		200		20/1	22
23	20/1			1000	POWER TO SEATRAIN	FIRE ALARM BELL	500			20/1	24 (1)
25					SPACE	POWER TO SEATRAIN			1000		26
27					SPACE	SPACE					28
29					SPACE	SPACE					30

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	7629	8312	7934	TOTAL CALCULATED
25% LCL/LML (VA) :	19	0	45	LOAD FOR PANEL:
TOTAL LOAD (VA) :	7648	8312	7979	23939 VA
TOTAL LOAD (AMPS) :	63.7	69.3	66.5	

TYPICAL PANEL SCHEDULE NOTES:

(1) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, 'RED IN COLOR', SPACEAGE #ELOCK-FA OR EQUAL. PROVIDE AN ENGRAVED NAMEPLATE: 'FIRE ALARM CIRCUIT', WHITE LETTERS ON A RED BACKGROUND. MOUNT NAMEPLATE ONTO INTERIOR TRIM AND ADJACENT TO CIRCUIT BREAKER.

(2) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, SPACEAGE #ELOCK-FA OR EQUAL.

(3) PROVIDE SUB-FEED CIRCUIT BREAKER KIT.

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI | ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-7630 Office
(559) 627-1926 Fax

TITLE
BLDGS 600/700/800
PANEL SCHEDULES

E10.6

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER — STEVEN KTRE EASTHAM — No. E-9789 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

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LOAD CALCULATION:

BUILDING 100	
LIGHTS x 125%	12.6 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	27.7 kVA
H.V.A.C. x 125%	192.6 kVA
MISCELLANEOUS x 100%	12.25 kVA
(6) E.V. STATIONS x 100%	43.2 kVA
TOTAL	288.35 kVA
AT 120/208V 3ph 4W	346.8 AMPS
BUILDING 200	
LIGHTS x 125%	8.7 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	19.6 kVA
H.V.A.C. x 125%	71.4 kVA
MISCELLANEOUS x 100%	21.8 kVA
COOKING EQUIPMENT x 65%	139.6 kVA
TOTAL	261.1 kVA
AT 120/208V 3ph 4W	314.1 AMPS
BUILDING 300	
LIGHTS x 125%	8.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	19.8 kVA
H.V.A.C. x 125%	42.8 kVA
MISCELLANEOUS x 100%	12.75 kVA
TOTAL	83.85 kVA
AT 120/208V 3ph 4W	100.9 AMPS
BUILDING 400	
LIGHTS x 125%	8.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	19.8 kVA
H.V.A.C. x 125%	42.8 kVA
MISCELLANEOUS x 100%	12.75 kVA
TOTAL	83.85 kVA
AT 120/208V 3ph 4W	100.9 AMPS
BUILDING 500	
LIGHTS x 125%	8.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	19.8 kVA
H.V.A.C. x 125%	42.8 kVA
MISCELLANEOUS x 100%	48.2 kVA
TOTAL	119.3 kVA
AT 120/208V 3ph 4W	143.5 AMPS
BUILDING 600	
LIGHTS x 125%	5.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	12.3 kVA
H.V.A.C. x 125%	22.5 kVA
MISCELLANEOUS x 100%	16.3 kVA
TOTAL	56.6 kVA
AT 120/208V 3ph 4W	68.1 AMPS
BUILDING 700	
LIGHTS x 125%	2.8 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	10.4 kVA
H.V.A.C. x 125%	16.2 kVA
MISCELLANEOUS x 100%	4.2 kVA
TOTAL	33.6 kVA
AT 120/208V 3ph 4W	40.4 AMPS
BUILDING 800	
LIGHTS x 125%	0.32 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	0.54 kVA
H.V.A.C. x 125%	133.22 kVA
MISCELLANEOUS x 100%	20.08 kVA
TOTAL	154.16 kVA
AT 120/208V 3ph 4W	185.4 AMPS
SITE	
BALL FIELD LIGHTS x 125%	24.2 kVA
MISCELLANEOUS x 100%	191.5 kVA
(19) FUTURE E.V. STATIONS x 100%	136.8 kVA
(6) FUTURE RELOCS	123 kVA
TOTAL	475.5 kVA
AT 120/208V 3ph 4W	572 AMPS
FUTURE BUILDING	
LIGHTS x 125%	5.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	12.3 kVA
H.V.A.C. x 125%	22.5 kVA
MISCELLANEOUS x 100%	16.3 kVA
TOTAL	56.6 kVA
AT 120/208V 3ph 4W	68.1 AMPS
GRAND TOTAL FOR ALL BUILDINGS	1,613 kVA
AT 480/277V 3ph 4W	1941 AMPS

THEREFORE THE 3000 AMP SERVICE IS ADEQUATE.

SHORT CIRCUIT CURRENT (SCC) CALCULATIONS

DESIGNATION	CALCULATED SCC	MINIMUM EQUIPMENT A.I.C. RATING
MAIN SWITCHBOARD 'MSB'	65,000 (3)	65,000
PANEL 'H1A'	20,732	22,000
DISTRIBUTION PANEL 'DPL1'	10,453	22,000
PANEL 'L1A'	10,125	22,000
PANEL 'L1B'	8,935	22,000
PANEL 'L1C'	10,125	22,000
PANEL 'H2A'	34,728	35,000
DISTRIBUTION PANEL 'DPL2'	15,215	22,000
PANEL 'L2A'	14,352	22,000
PANEL 'L2B'	14,352	22,000
PANEL 'L2C'	10,344	22,000
PANEL 'H3A'	7,472	22,000
PANEL 'L3A'	3,715	22,000
PANEL 'L3B'	3,606	22,000
PANEL 'H4A'	6,874	22,000
PANEL 'L4A'	3,646	22,000
PANEL 'L4B'	3,541	22,000
PANEL 'H5A'	8,525	22,000
PANEL 'L5A'	4,309	22,000
PANEL 'L5B'	4,163	22,000
PANEL 'H6A'	4,440	22,000
PANEL 'L6A'	1,826	22,000
PANEL 'H7A'	4,440	22,000
PANEL 'L7A'	1,826	22,000
PANEL 'HCP'	36,424	35,000
PANEL 'HBP'	13,285	22,000
PANEL 'EV'	12,191	22,000

(1) SERIES RATINGS MAY BE USED TO ACHIEVE THE REQUIRED MINIMUM EQUIPMENT A.I.C. RATING. PROVIDE AN ENGRAVED NAMEPLATE WHICH INDICATES THIS APPLICATION TO COMPLY WITH C.E.C. ARTICLES 110.22(C), 240.83(C) AND 240.86(B).

(2) THE SHORT CIRCUIT CURRENT CALCULATIONS AND MINIMUM EQUIPMENT A.I.C. RATINGS ARE "PRELIMINARY" AND ARE FOR BIDDING PURPOSES ONLY. THE SHORT CIRCUIT AND PROTECTIVE DEVICE COORDINATION STUDY, REQUIRED BY THE PROJECT MANUAL, WILL DETERMINE THE ACTUAL SHORT CIRCUIT CURRENT VALUES.

(3) THE AVAILABLE FAULT CURRENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT TO COMPLY WITH C.E.C. ARTICLE 110.24. THE FIELD MARKING SHALL INCLUDE THE DATE THAT THE FAULT CURRENT CALCULATION WAS PERFORMED. THE LABEL SHALL BE PRINTED IN COLOR AND ON SELF-ADHESIVE NYLON OR VINYL DIE CUT STOCK.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-36128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

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(559) 627-1926 Fax

TITLE
CALCULATIONS

E10.7

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

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ASSISTIVE LISTENING SYSTEMS

PROVIDE ASSISTIVE LISTENING AS REQUIRED BY CBC SECTIONS 11B.219 & 11B.706 AND ADA 706. REFER TO SPECIFICATIONS FOR CLASSROOMS SYSTEMS. REFER TO DETAIL DRAWINGS FOR INSTALLED SOLUTIONS. CLASSROOM SYSTEMS ARE TO BE PORTABLE 'BRIEFCASE' STYLE FOR USE WHEN REQUESTED BY USERS.

SIGNALS SYMBOLS

ALL DIMENSIONS TO CENTER OF BOX, U.O.N.

	U.O.N.	UNLESS OTHERWISE NOTED
	⟷	CONDUIT RUN IN WALL OR ATTIC
	⟷	CONDUIT RUN IN FLOOR OR UG
	J	J-HOOK PATHWAY IN CEILING OR ATTIC AS SHOWN.
	TRAY	CABLE TRAY/BASKET PATHWAY IN CEILING OR ATTIC AS SHOWN.
	SFSB	SMOKE/FIRE CABLE SLEEVE THRU WALL.
	⟶	CONDUIT STUB - CAPPED AND LABELED.
	⟶	HOMERUN CONDUIT TO NEAREST CROSS CONNECT OR SOUND EQUIPMENT RACK
	⟷	CONDUIT SLEEVE
(A)	◁	DATA OUTLET IN WALL (+18" U.O.N.) FOUR 'D' CABLES U.O.N.
(C)	▼ W	TELEPHONE OUTLET IN WALL (+48" U.O.N.)
	⊙	FLUSH FLOOR BOX
(A)	WA	DATA OUTLET IN WALL WIRELESS ACCESS POINT (2 'D-WA' CABLES) +120 A.F.F.
(A)	TV	TELEVISION OUTLET, MOUNTED IN WALL (+96" U.O.N.)
(C)	◷	INTERCOM CLOCK, ON WALL (+96" U.O.N.)
(B)	◷ S	INTERCOM CLOCK/SPEAKER COMBO (+84" U.O.N.)
(A)	SP1	OUTDOOR SPEAKER CONNECTION
(A)	AC	ACCESS CONTROL CARD READER +48" A.F.F.
(A)	AV	AUDIO VISUAL CONNECTION
(C)	M	INTRUSION ALARM MOTION CEILING MOUNT
(A)	M	INTRUSION SYSTEMS MOTION WALL MOUNT +120" A.F.F.
(B)	⏃	FLOOR OUTLET
(C)	SP	SOUND SYSTEM SPEAKER, MOUNTING PER DETAIL NOTED
(A)	C	IP CAMERA, MOUNTING PER DETAIL NOTED
(C)	K	INTRUSION ALARM KEY PAD (+48" U.O.N.)
(C)	✕	INTRUSION ALARM DOOR CONTACT IN DOOR FRAMING
	MDF IDF	MDF/IDF LOCATION
	SER	AUDIO VISUAL OR SOUND EQUIPMENT CABINET/RACK

SIGNAL SYMBOLS NOTES:

(A) ELECTRICAL CONTRACTOR SHALL PROVIDE A 5" SQUARE x 2 1/8" DEEP OUTLET BOX WITH SINGLE GANG RAISED RING, DEPTH AS REQUIRED. UNLESS OTHERWISE NOTED, RUN 1-1/4"C FROM OUTLET BOX AND STUB INTO ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILING. PROVIDE AN INSULATING BUSHING, BRIDGEPORT #TWB-54 OR EQUAL, AT STUB.

(B) ELECTRICAL CONTRACTOR SHALL PROVIDE SPECIAL BACK BOX PER MFG.

(C) ELECTRICAL CONTRACTOR SHALL PROVIDE A 4-11/16" SQUARE x 2 1/8" DEEP OUTLET BOX WITH SINGLE GANG RAISED RING, DEPTH AS REQUIRED. UNLESS OTHERWISE NOTED, RUN 1"C FROM OUTLET BOX AND STUB INTO ACCESSIBLE ATTIC SPACE ABOVE T-BAR CEILING. PROVIDE AN INSULATING BUSHING, BRIDGEPORT #TWB-52 OR EQUAL, AT STUB.

SIGNALS / TELECOMMUNICATIONS APPLICABLE CODES AND STANDARDS

CODES:

2022 CALIFORNIA BUILDING CODE (C.B.C.)

2022 CALIFORNIA ELECTRICAL CODE (C.E.C.)

STANDARDS AND GUIDES:

NFPA 72 - NATIONAL FIRE ALARM CODE, (CALIFORNIA AMENDED)

ANSI/BICSI - TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL (TDMM), 13TH EDITION OR NEWER.

ANSI/BICSI 001-2017 - INFORMATION AND COMMUNICATION TECHNOLOGY SYSTEMS DESIGN AND IMPLEMENTATIONS BEST PRACTICES FOR EDUCATIONAL INSTITUTIONS AND FACILITIES.

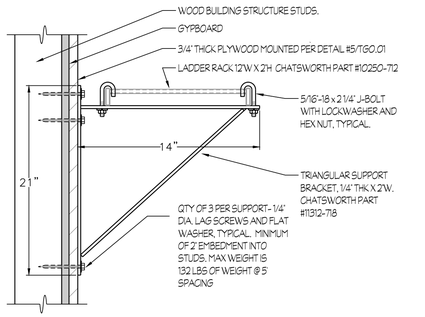
ANSI/BICSI 005-2016 - ELECTRONIC SAFETY AND SECURITY (ESS) SYSTEM DESIGN AND IMPLEMENTATIONS BEST PRACTICES.

CABLE LEGEND/SPECIFICATIONS

CABLE	MANUFACTURER/CATALOG NO.	DESCRIPTION/SYSTEM(S)
'SM012'	CORNING # 012EUC-T4100D20	12 STRAND SINGLE MODE FIBER OPTIC OUTDOOR
'SMPF'	COMMSCOPE #PFC-502L12 'POWERED FIBER'	2 STRAND SINGLE MODE, 052, INDOOR/ OUTDOOR PLUS 2-PAIR 12-AWG Cu
'D'	COMMSCOPE # UN884026814/10 'BLUE VOICE/DATA'	CAT. 6, 4 PAIR, 24 AWG COPPER
'D-WA'	COMMSCOPE # UN884026814/10 'BLUE VOICE/DATA'	CAT. 6A, 4 PAIR, 24 AWG COPPER
'DC'	WEST PENN #220	22/2 WIRE (DOOR CONTACT)
'IH'	WEST PENN #224	18/2 WIRE (INTERCOM HORN)
'MG'	WEST PENN #240	22/4 WIRE (MOTION OR GLASSBREAK)
'C60'	COMMSCOPE #874036404/10 'BLACK CAT6A'	CAT. 6A, 4 PAIR, 23 AWG COPPER, OUTDOOR

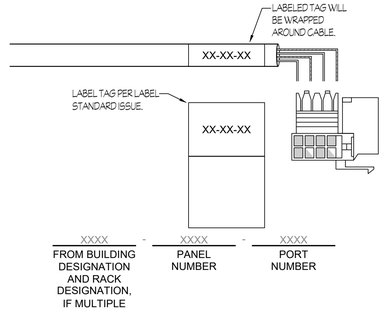
SIGNALS SYSTEM EQUIPMENT AND CABLE LEGEND NOTES:

(1) COPPER CABLING SHALL BE TESTED IN ACCORDANCE WITH TIA/EIA 568C-2.1. FIBER OPTIC CABLING SHALL BE TESTED IN ACCORDANCE WITH TIA/EIA 455A AND TIA/EIA 568-C.3. SUBMIT ALL TEST REPORTS TO OWNER.



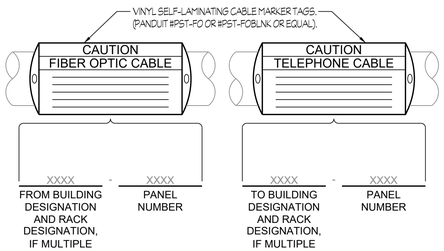
1 LADDER RACKING AT WALL

NTS



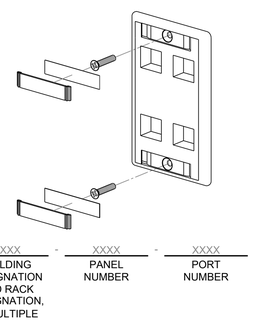
2 CABLE LINK IDENTIFIER LABELING FORMAT

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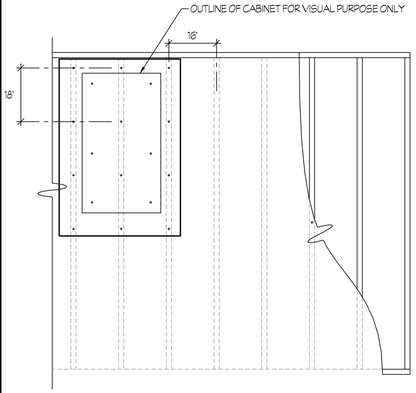
3 CABLE MARKER TAG

NTS



4 DATA OUTLET IDENTIFICATION MATRIX

NTS

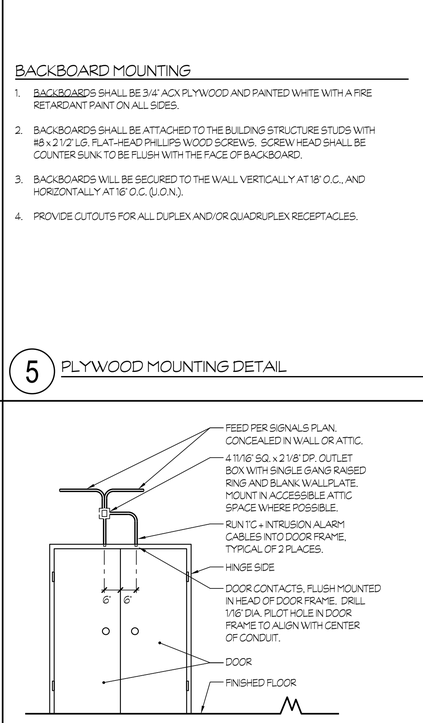


BACKBOARD MOUNTING

1. BACKBOARDS SHALL BE 3/4" ACX PLYWOOD AND PAINTED WHITE WITH A FIRE RETARDANT PAINT ON ALL SIDES.
2. BACKBOARDS SHALL BE ATTACHED TO THE BUILDING STRUCTURE STUDS WITH #8 x 2 1/2" LG. FLAT-HEAD PHILLIPS WOOD SCREWS. SCREW HEAD SHALL BE COUNTER SUNK TO BE FLUSH WITH THE FACE OF BACKBOARD.
3. BACKBOARDS WILL BE SECURED TO THE WALL VERTICALLY AT 18" O.C., AND HORIZONTALLY AT 16" O.C. (U.O.N.).
4. PROVIDE CUTOUTS FOR ALL DUPLEX AND/OR QUADRUPLEX RECEPTACLES.

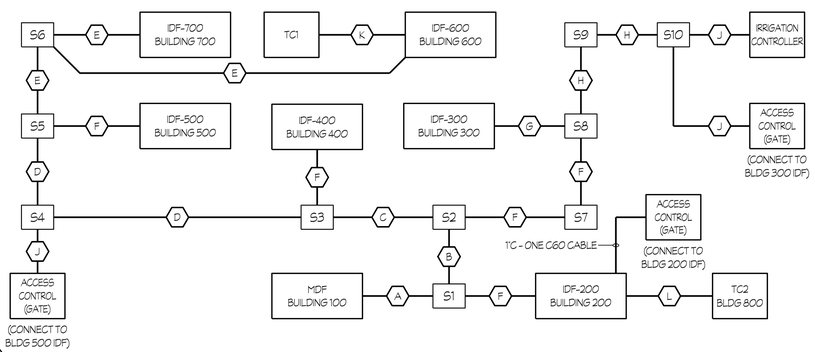
5 PLYWOOD MOUNTING DETAIL

NTS



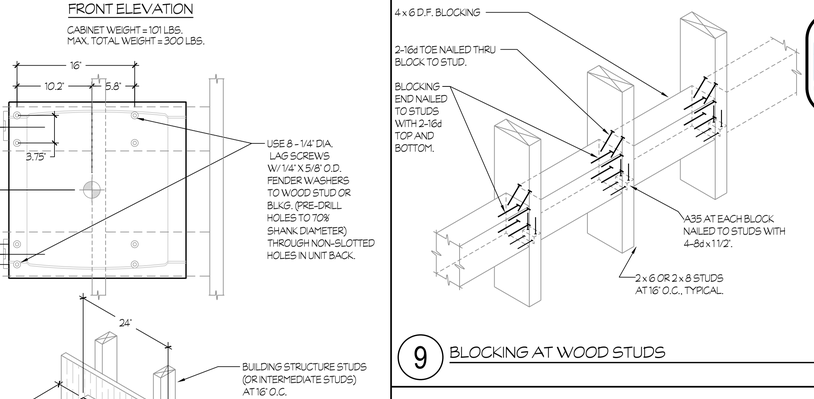
6 INTRUSION ALARM DOOR CONTACTS

NTS



7 SIGNALS RISER DIAGRAM

NTS

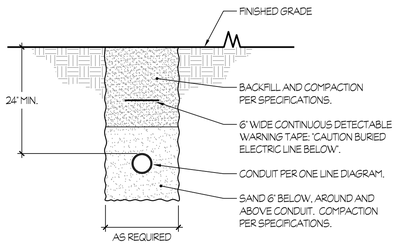


8 INTERMEDIATE DISTR. FRAME "I.D.F. #1" MOUNTING

NTS

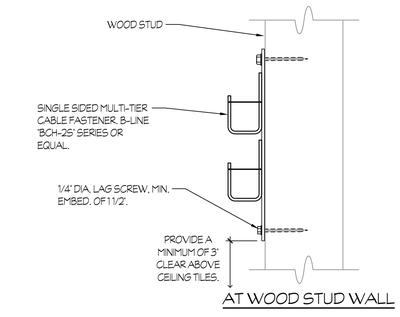
9 BLOCKING AT WOOD STUDS

NTS



10 TRENCH DETAIL

NTS



11 J HOOK DETAIL

NTS

SIGNALS FEEDER SCHEDULE:

- (A) THREE 2"C - 6-SM012, TWO SPARE. ONE 2"C WITH SIX 'SM012' CABLES PLUS TWO 2"C SPARE.
- (B) THREE 2"C 5-SM012 PLUS TWO 2"C SPARE.
- (C) THREE 2"C 4-SM012 PLUS TWO 2"C SPARE.
- (D) THREE 2"C 3-SM012, ONE 'SMPF' PLUS TWO 2"C SPARE.
- (E) THREE 2"C 2-SM012 PLUS TWO 2"C SPARE.
- (F) THREE 2"C 1-SM012 ONE 'SMPF' PLUS TWO 2"C SPARE.
- (G) THREE 2"C 1-SM012, TWO 'SMPF' PLUS TWO 2"C SPARE.
- (H) THREE 2"C TWO 'SMPF' PLUS THREE 2"C SPARE.
- (J) ONE 2"C - ONE 'SMPF'.
- (K) TWO 2"C SPARE.
- (L) ONE 2"C - ONE 'SM012' CABLE.

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER - STEVEN KIRK EASTHAM - No. E-9186 - Exp. 6/30/27 - ELECTRICAL - STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT - JAMES R. MORRELL - No. C-26128 - REN. 05-31-27 - STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

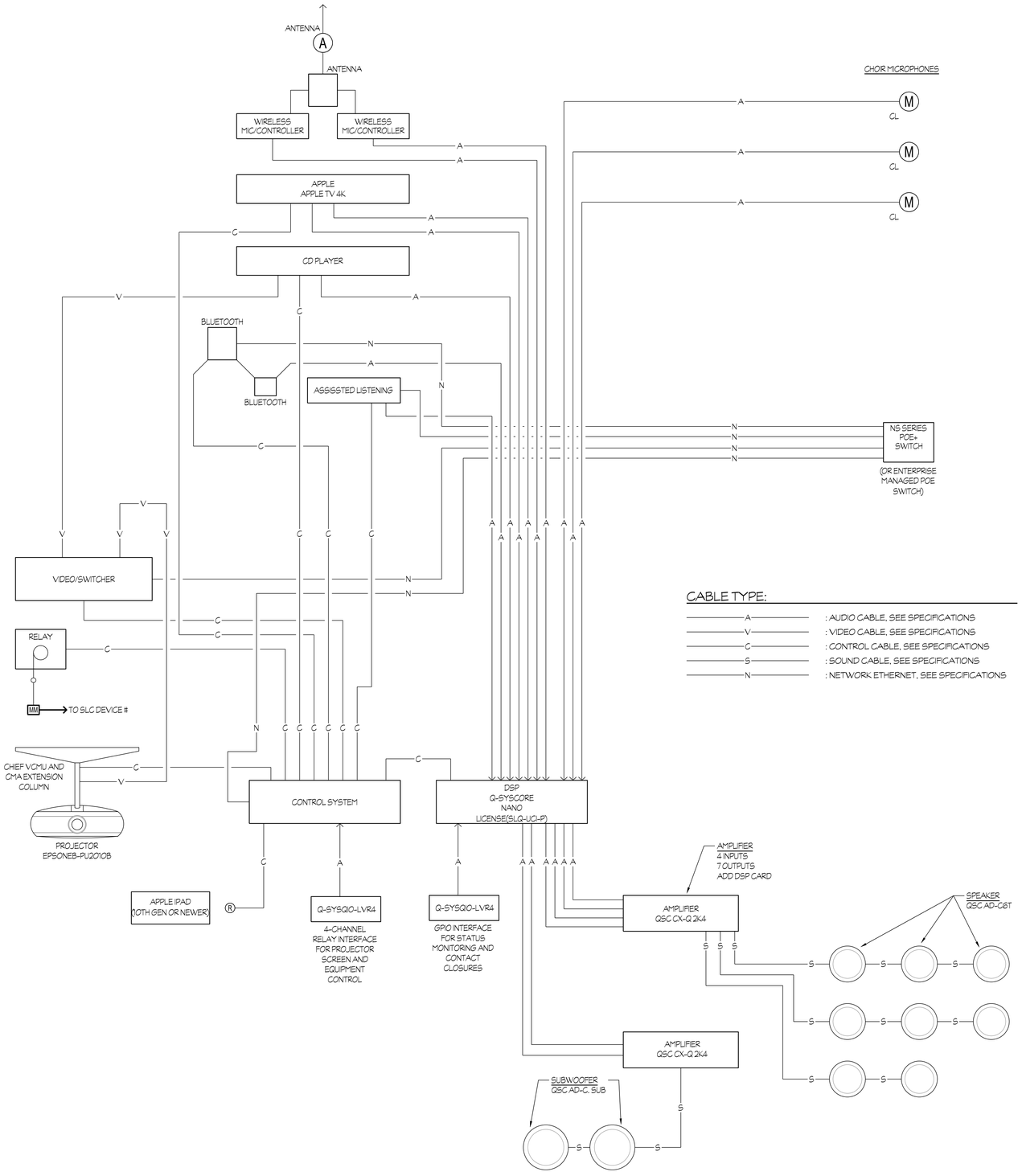
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 fax

TITLE
SIGNALS CODES, NOTES, SYMBOLS AND DETAILS

TG1.1

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\TG1.1.dwg DATE: SAVED: 09/16/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

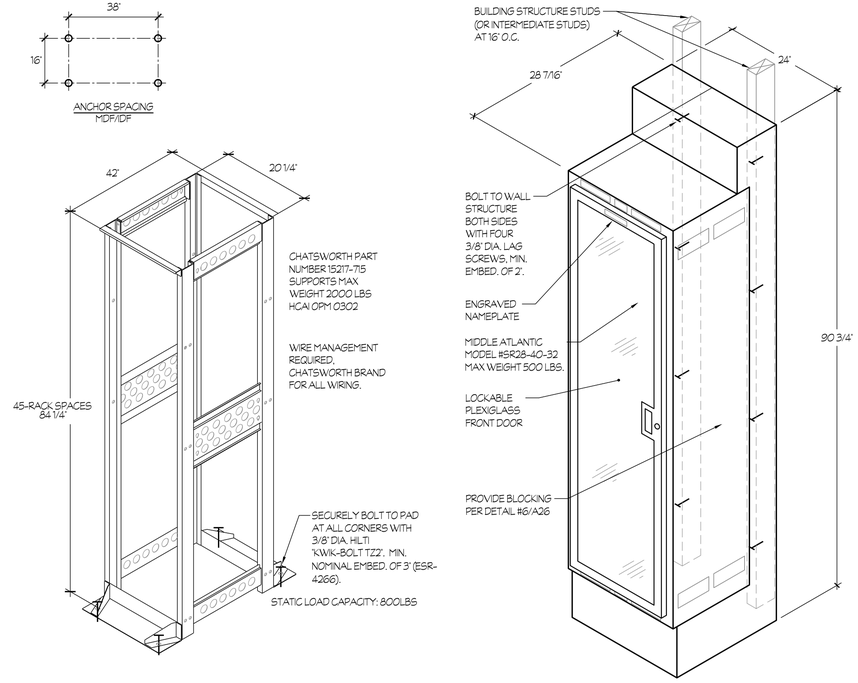


CABLE TYPE:

A	: AUDIO CABLE, SEE SPECIFICATIONS
V	: VIDEO CABLE, SEE SPECIFICATIONS
C	: CONTROL CABLE, SEE SPECIFICATIONS
S	: SOUND CABLE, SEE SPECIFICATIONS
N	: NETWORK ETHERNET, SEE SPECIFICATIONS

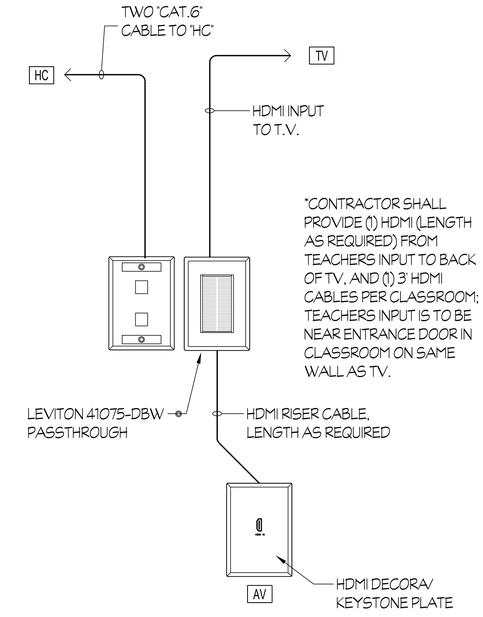
1 MULTI-USE A/V SINGLE LINE

NTS



2 FOUR POST RACK AND SOUND EQUIPMENT RACK

NTS



3 CLASSROOM MEDIA SINGLE LINE DIAGRAM

NTS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT JAMES R. MORRELL No. C-28128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0630 Office
(559) 627-1926 Fax

TITLE
SIGNALS
DETAILS

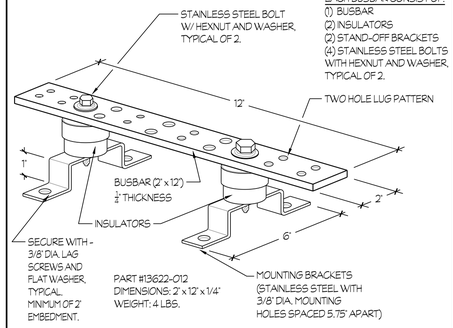
TG1.2

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

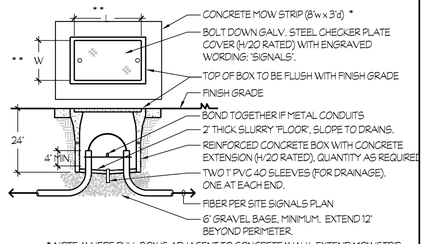
REGISTERED PROFESSIONAL ENGINEER KIRK D. EASTHAM No. E-19788 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\24042\3\Sonya\Temperance Elem School\101.2.dwg DATE SAVED: 09/16/26 BY: Cris DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



1 GROUND BUSBAR CONNECTION

NTS

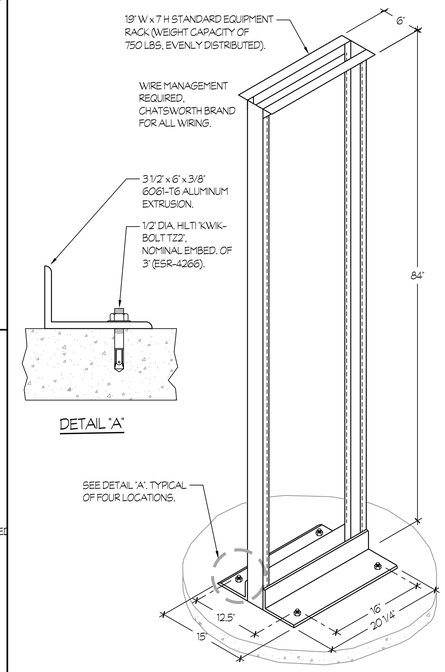


* NOTE: WHERE PULL BOX IS ADJACENT TO CONCRETE WALK, EXTEND MOWSTRIP TO CONNECT WITH WALK. FOAM SEAL ALL CONDUITS IN YARD BOXES.

** NOTE: INTERIOR DIMENSIONS MEASURED AT 'OPENING' OF PULL BOX.

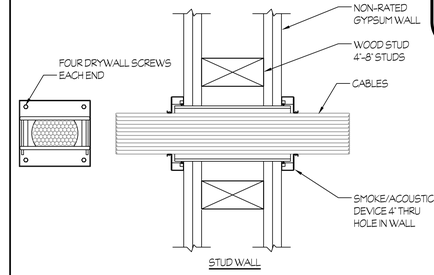
2 PULL BOX MOUNTING

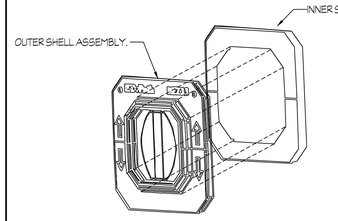
NTS



4 DATA RACK MOUNTING

NTS



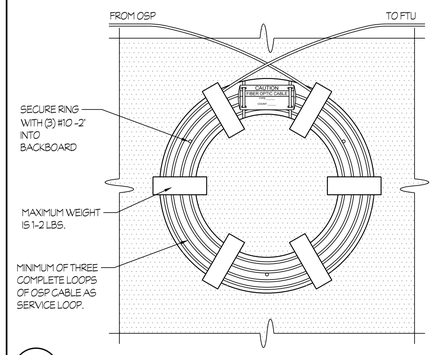


NOTES:

1. CABLES - AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN THE SLEEVE TO BE 0% TO MAX. 60% OF THE AGGREGATE CROSS-SECTIONAL AREA OF THE SLEEVE. WHEN THERE IS NO CABLE FILL, DEVICE COVER IS TO BE TIGHTLY CLOSED. CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY.
2. SMOKE/ACOUSTIC DEVICE - DEVICE TO BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYNG INSTALLATION INSTRUCTIONS.
3. STI FIRE STOP DEVICE # NEZDP233

6 SMOKE AND ACOUSTICAL PATHWAY THRU NON-RATED WALL

NTS

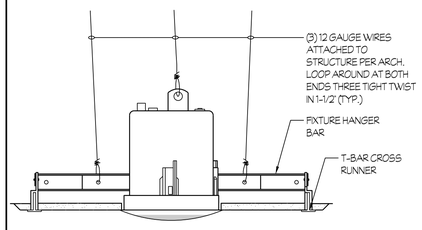


3 STORAGE RING FOR OSP CABLES

NTS

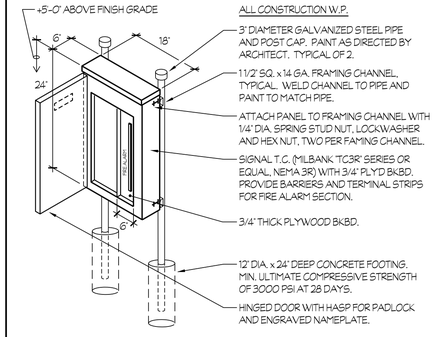
GENERAL NOTES: (THIS DETAIL ONLY)

1. CONTRACTOR TO PROVIDE ALL SPEAKER SUPPORT SYSTEMS, T-BAR BRACE, TIE WIRES AND SAFETY CABLE.
2. TILES BROKEN BY CONTRACTOR ARE TO BE REPLACED WITH SAME STYLE AND MAKE AS ORIGINALLY SUPPLIED.



5 CEILING SPEAKER MOUNTING

NTS



7 EXTERIOR SIGNAL T.C.

NTS

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
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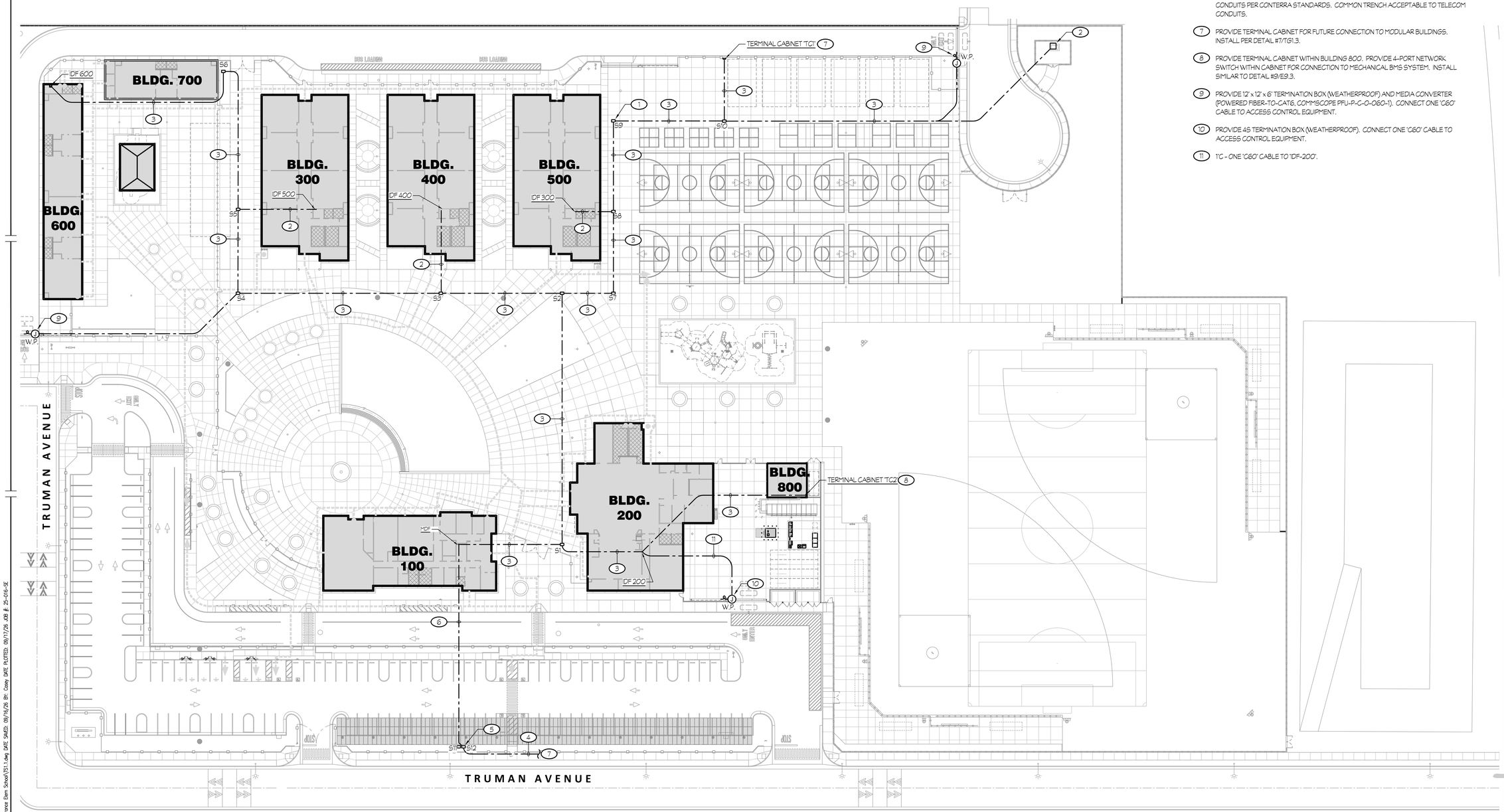
TG1.3

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
STEPHEN KIRK EASTHAM
No. E-9780
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem. School\TG1-Jdwg DATE SAVED: 07/15/26 By: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



OVERALL SITE SIGNALS PLAN

SCALE: 1" = 40'-0"

north

NOTES (THIS SHEET ONLY):

1. PULL BOX PER DETAIL #2/TG1.3. TYPICAL, U.O.N..
2. PROVIDE 12" x 12" x 6" TERMINATION BOX (WEATHERPROOF) AND MEDIA CONVERTER (POWERED FIBER-TO-CAT6, COMMSCOPE PFJ-P-C-O-060-01). CONNECT ONE 'C60' CABLE TO IRRIGATION CONTROLLER.
3. NEW SIGNALS CONDUIT PER DETAIL #7/TG1.1. TRENCH PER DETAIL #10/TG1.1.
4. TELECOM UTILITY CONDUITS PER UTILITY REQUIREMENTS COORDINATE WITH TELECOM UTILITY, EXPECTED TO BE FOUR 4" CONDUITS (TWO FOR AT&T, TWO FOR CONTERRA.
5. TELECOM UTILITY PULLBOX PER UTILITY REQUIREMENTS. COORDINATE WITH TELECOM UTILITY, EXPECTED TO BE ONE 36" x 60" TELECOM VAULT PER AT&T STANDARDS AND ONE 36" x 60" TELECOM VAULT PER CONTERRA STANDARDS.
6. TELECOM UTILITY CONDUITS PER UTILITY REQUIREMENTS. COORDINATE WITH TELECOM UTILITY, EXPECTED TO BE TWO 4"C CONDUITS PER AT&T STANDARDS PLUS TWO 4"C CONDUITS PER CONTERRA STANDARDS. COMMON TRENCH ACCEPTABLE TO TELECOM CONDUITS.
7. PROVIDE TERMINAL CABINET FOR FUTURE CONNECTION TO MODULAR BUILDINGS. INSTALL PER DETAIL #7/TG1.3.
8. PROVIDE TERMINAL CABINET WITHIN BUILDING 800. PROVIDE 4-PORT NETWORK SWITCH WITHIN CABINET FOR CONNECTION TO MECHANICAL BMS SYSTEM. INSTALL SIMILAR TO DETAIL #9/E9.3.
9. PROVIDE 12" x 12" x 6" TERMINATION BOX (WEATHERPROOF) AND MEDIA CONVERTER (POWERED FIBER-TO-CAT6, COMMSCOPE PFJ-P-C-O-060-1). CONNECT ONE 'C60' CABLE TO ACCESS CONTROL EQUIPMENT.
10. PROVIDE 4S TERMINATION BOX (WEATHERPROOF). CONNECT ONE 'C60' CABLE TO ACCESS CONTROL EQUIPMENT.
11. 1'C - ONE 'C60' CABLE TO 'IDF-200'.

APPROVALS

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LICENSED ARCHITECT
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No. C-28128
REN. 05-31-27
STATE OF CALIFORNIA

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TITLE
OVERALL SITE SIGNALS PLAN

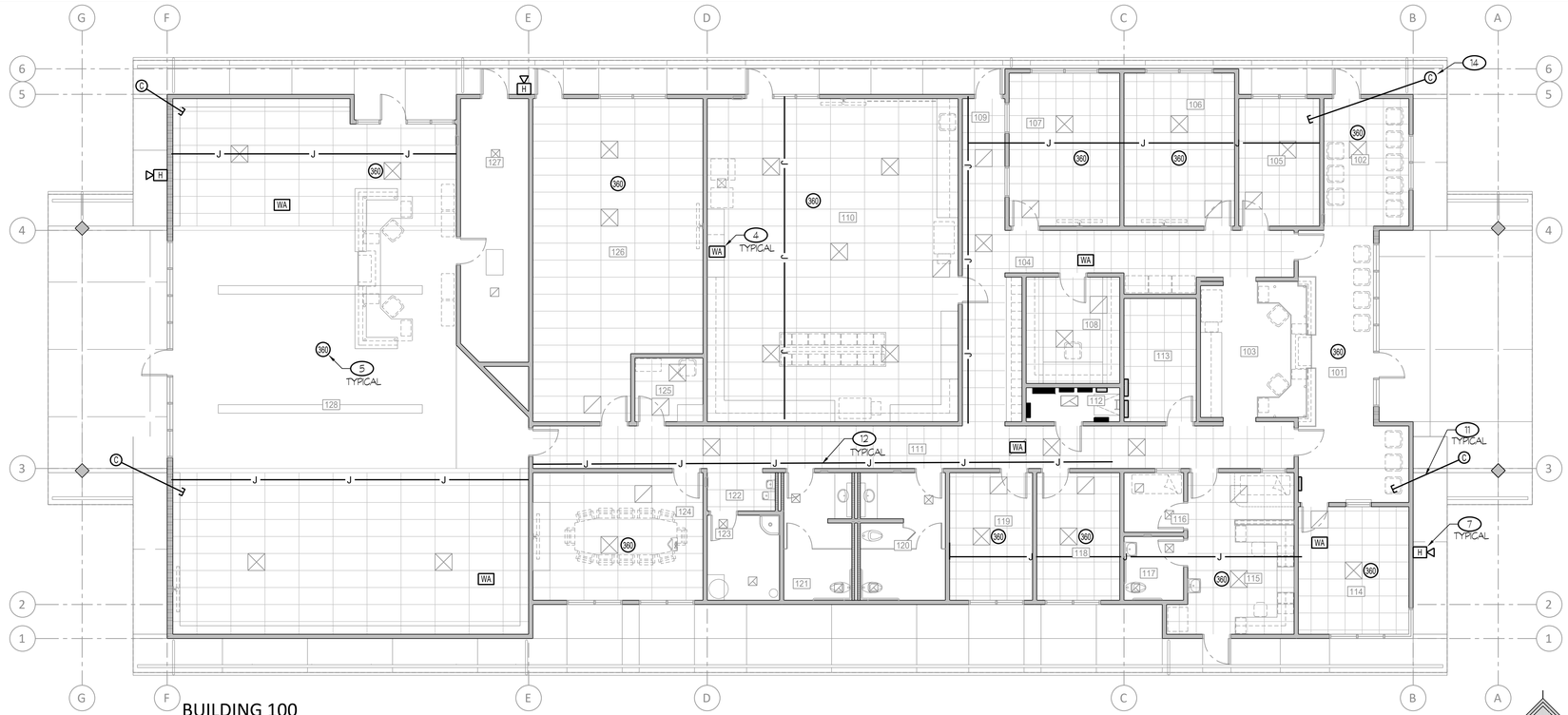
TS1.1

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK D. EASTHAM
No. E-19786
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\24XXX\Sanger\Temperance Elem School\TS1.1.dwg DATE SAVED: 09/16/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



BUILDING 100

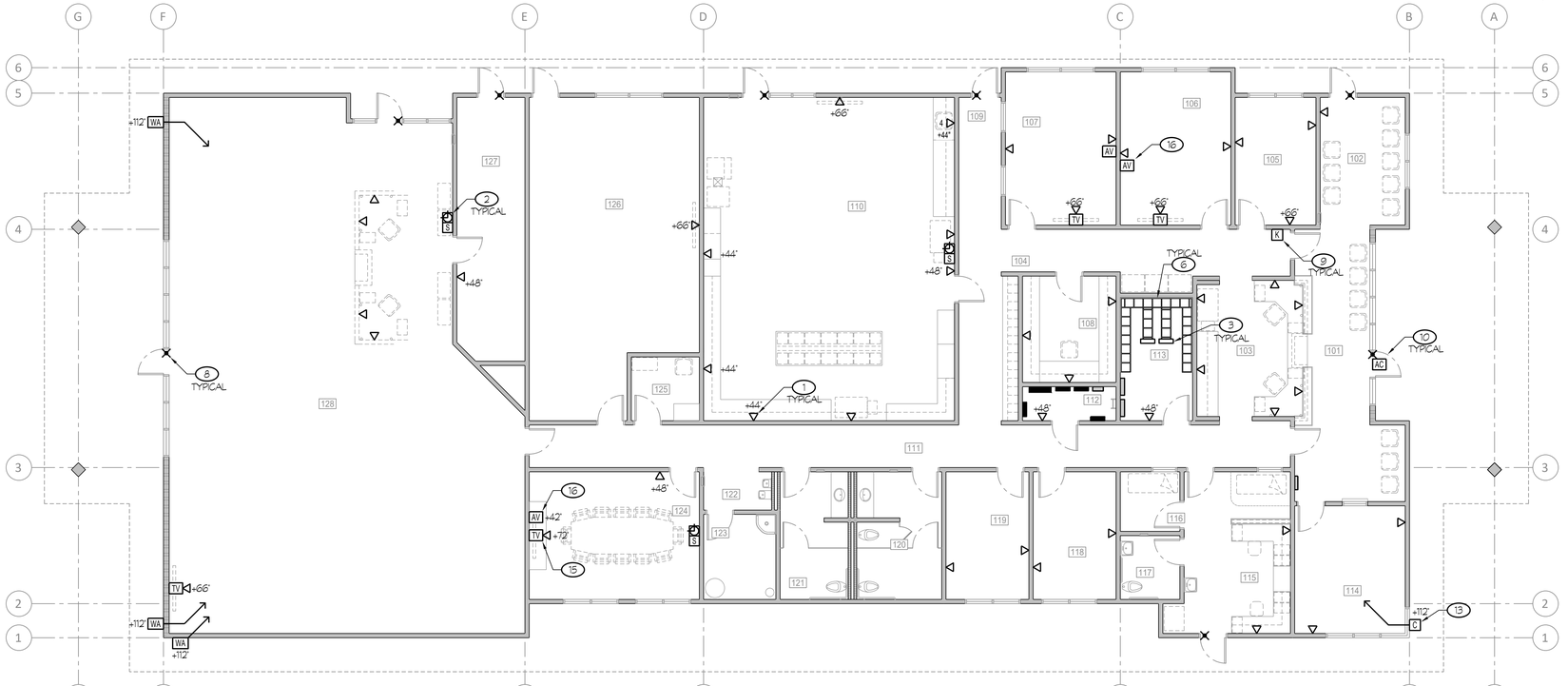
SIGNALS CEILING PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. DATA OUTLET. PROVIDE THREE (U.O.N.) 'D' CABLES AND JACKS, IN FOUR PORT SINGLE GANG PLATE. OUTLET BOX SHALL BE 5s TYPE 2 7/8' DEEP, 1G TRIM RING, ONE 1 1/4'C TO ACCESSIBLE SPACE. +18' A.F.F. PER DETAIL #2/TG1.1, #4/TG1.1.
2. IP INTERCOM AND CLOCK. PROVIDE ONE 'D' CABLE AND JACK IN SURFACE BOX, +92' A.F.F. PER SPEC 27 51 16
3. NEW TWO POST RACK, CHATSWORTH PART #46753-703 REFER TO DETAIL #4/TG1.3
4. CEILING GRID MOUNTED WIRELESS AP. PROVIDE ONE 'D-WA' CABLE AND JACK IN SURFACE BOX ABOVE GRID. LABEL GRID LOCATION AND OUTLET NUMBER ON GRID TEE.
5. 360 DEGREE INTRUSION MOTION DETECTOR. PROVIDE ONE 'MG' CABLE IN LOW VOLTAGE RING ON GRID. COORDINATE OUTLET WITH MILLWORK, ARCH, AND ELECT. PRIOR TO ROUGH-IN.
6. NEW PLYWOOD TELECOM BACKBOARD ON THREE WALLS(NOT WALL WITH DOOR) FOR ROUTING AND TERMINATION OF CABLING. REFER TO DETAIL #5/TG1.1. MOUNT FIBER STORAGE RING ON PLYWOOD PER DETAIL #3/TG1.3, LABEL OSP FIBER PER DETAIL #3/TG1.1.
7. INTERCOM HORN, WALL MOUNTED +108' A.F.F., U.O.N., PROVIDE ONE 'IC' CABLE (WHITE INTERCOM CAT. 6, 4 PAIR, 24 AWG COPPER) IN SPECIAL BACK BOX, ONE 3/4'C TO ACCESSIBLE SPACE.
8. INTRUSION DOOR CONTACT. PROVIDE ONE 'DC' CABLE, ONE 3/4'C TO ACCESSIBLE SPACE. COORDINATE ROUGH-IN WITH ALL TRADES. REFER TO DETAIL #6/TG1.1.
9. INTRUSION DEVICE KEYPAD. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1'C TO ACCESSIBLE SPACE. REFER TO DETAIL #6/TG1.1.
10. ACCESS CONTROL HARDWARE PER DETAIL #6/TG1.1.
11. CAMERA OUTLET. PROVIDE TWO 'D' CABLES AND JACKS IN TWO PORT SURFACE BOX. OUTLET BOX SHALL BE 4 11/16 SQR TYPE 2 1/8' DEEP, ONE 1'C TO ACCESSIBLE SPACE. PROVIDE (WP) BLANK COVER.
12. WITHIN CONCEALED CEILING SPACE FREE-AIR CABLES SHALL BE SUPPORTED WITH J-HOOKS AS REQUIRED. REFER TO DETAIL #11/TG1.1 FOR ADDITIONAL INFORMATION.
13. WALL MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1'C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
14. CEILING MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1'C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
15. WALL MOUNTED TV DISPLAY. PROVIDE TWO 'D' CABLES AND RJ-45 JACKS, ONE HDMI OUTLET, ONE USB-TYPE A' AND ONE USB-TYPE C JACKS WITHIN TV OUTLET BOX (LEVITON MODEL 47617 OR EQUAL) ONE 1-1/2'C TO ACCESSIBLE SPACE. TYPICAL.
16. AUDIO/VISUAL INPUT STATION. PROVIDE 4S BACKBOX, ONE HDMI OUTLET, ONE USB-TYPE A' OUTLET AND ONE USB-TYPE C OUTLET. ROUTE ONE HDMI CABLE AND TWO USB CABLES TO TV WALL DISPLAY AS REQUIRED. TYPICAL.



BUILDING 100

SIGNALS PLAN

SCALE: 1/8" = 1'-0"

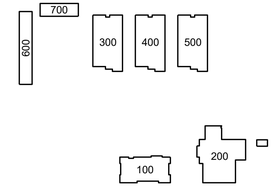
north

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
101	LOBBY	VARIES	115	NURSE	+9'-0"
102	STUDENT WAITING	VARIES	116	RECOVERY ROOM	+9'-0"
103	RECEPTION DESK	+9'-0"	117	TOILET	+9'-0"
104	HALL	+10'-0"	118	OFFICE	+9'-0"
105	OFFICE	+9'-0"	119	OFFICE	+9'-0"
106	PRINCIPAL	+9'-0"	120	WOMEN	+9'-0"
107	V. PRINCIPAL	+9'-0"	121	MEN	+9'-0"
108	WORK ROOM	+10'-0"	122	HALL	+10'-0"
109	HALL	+10'-0"	123	JANITOR	+9'-0"
110	TEACHER WORK ROOM	+10'-0"	124	CONFERENCE	+9'-0"
111	HALL	+10'-0"	125	QUIET ROOM	+9'-0"
112	ELECTRICAL	+10'-0"	126	ELOP	+10'-0"
113	DATA	+10'-0"	127	STORAGE	+9'-0"
114	ELOP OFFICE	+9'-0"	128	LIBRARY	VARIES



KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunwoth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK D. EASTHAM — No. E-19788 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-28128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

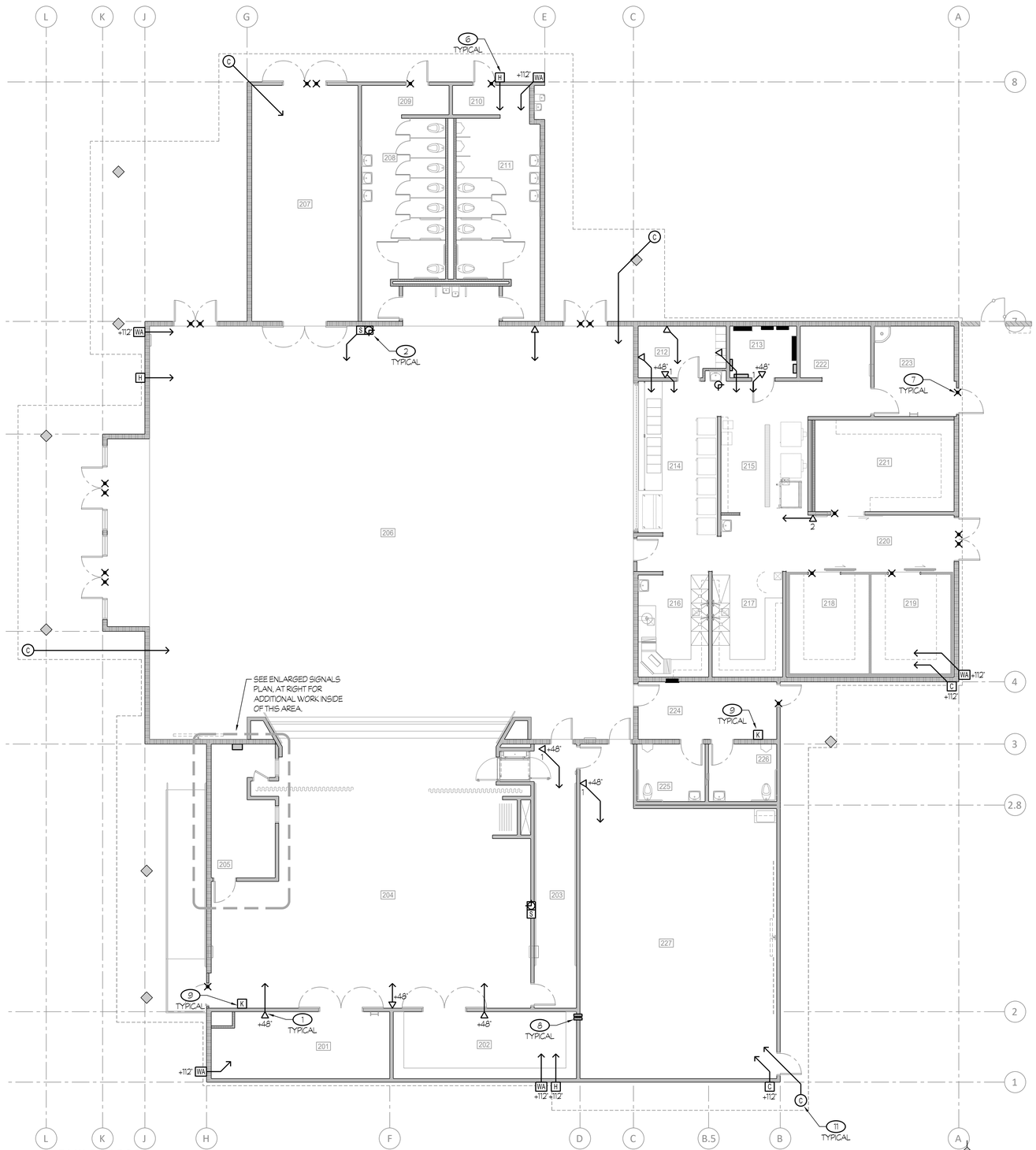
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TITLE
BUILDING 100
SIGNALS PLANS

T1.1

PROJECT 24042

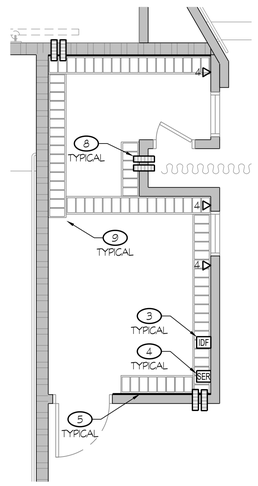
Z:\Drafting\Jobs\RSES\24XXX\Sanger\Temperance Elem School\T1.1.dwg DATE SAVED: 07/15/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # 25-016-SE



BUILDING200

1 SIGNALS PLAN

SCALE: 1/8" = 1'-0"



ROOM 205

2 ENLARGED SIGNALS PLAN

SCALE: 1/4" = 1'-0"

NOTES (THIS SHEET ONLY):

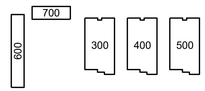
1. DATA OUTLET. PROVIDE THREE (U.O.N.) 'D' CABLES AND JACKS, IN FOUR PORT SINGLE GANG PLATE. OUTLET BOX SHALL BE 56 TYPE 2 7/8" DEEP, 1G TRM RING, ONE 1 1/4"C TO ACCESSIBLE SPACE. +18" A.F.F. PER DETAILS #2/TG1.1 AND #4/TG1.1.
2. IP INTERCOM AND CLOCK. PROVIDE ONE 'D' CABLE AND JACK IN SURFACE BOX. PER SPEC 27 51 16.
3. NEW TWO POST RACK, CHATSWORTH PART #46753-703 REFER TO DETAIL #4/TG1.3.
4. NEW SOUND EQUIPMENT RACK, MIDDLE ATLANTIC PART #SR28-40-32 REFER TO DETAIL #2/TG1.2.
5. NEW PLYWOOD TELECOM BACKBOARD FOR ROUTING AND TERMINATION OF CABLING. REFER TO DETAIL #5/TG1.1. MOUNT FIBER STORAGE RING ON PLYWOOD PER DETAIL #3/TG1.3, LABEL OSP FIBER PER DETAIL #3/TG1.1.
6. CAMERA OUTLET. PROVIDE TWO 'D' CABLES AND JACKS IN TWO PORT SURFACE BOX. OUTLET BOX SHALL BE 4 11/16" SQR TYPE 2 1/8" DEEP, 3/0 FIXTURE TRIM RING, ONE TC TO ACCESSIBLE SPACE. PROVIDE BLANK COVER.
7. INTRUSION DOOR CONTACT. PROVIDE ONE 'DC' CABLE, ONE 3/4"C TO ACCESSIBLE SPACE. COORDINATE ROUGH-IN WITH ALL TRADES. REFER TO DETAIL #8/TG1.1.
8. ABOVE CEILING, IN WALL SMOKE AND ACOUSTIC SLEEVE. PER DETAIL #6/TG1.3.
9. WITHIN CONCEALED CEILING SPACE FREE-AIR CABLES SHALL BE SUPPORTED WITH J-HOOKS AS REQUIRED. REFER TO DETAIL #11/TG1.1 FOR ADDITIONAL INFORMATION.
10. INTRUSION DEVICE KEYPAD. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. REFER TO DETAIL #8/TG1.1.
11. WALL MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
12. CEILING MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.

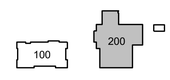
GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
201	STORAGE	+8'-0"	215	KITCHEN	+10'-0"
202	STORAGE	+8'-0"	216	CLEAN UP	+10'-0"
203	RAMP	+11'-0"	217	FOOD PREP	+10'-0"
204	PLATFORM	+11'-0"	218	REFRIGERATOR	
205	CONTROL	+11'-0"	219	FREEZER	
206	CAFETERIA	+16'-0"	220	STAGING	+10'-0"
207	STORAGE	+10'-0"	221	PANTRY	+10'-0"
208	GIRLS	+10'-0"	222	UTILITY	+10'-0"
209	VESTIBULE	+10'-0"	223	JANITOR	+10'-0"
210	VESTIBULE	+10'-0"	224	VESTIBULE	+8'-0"
211	BOYS	+10'-0"	225	WOMEN	+8'-0"
212	OFFICE	+8'-0"	226	MEN	+8'-0"
213	ELECTRICAL	+8'-0"	227	FLEXIBLE ROOM	+10'-0"
214	SERVING	+10'-0"			





KEY PLAN

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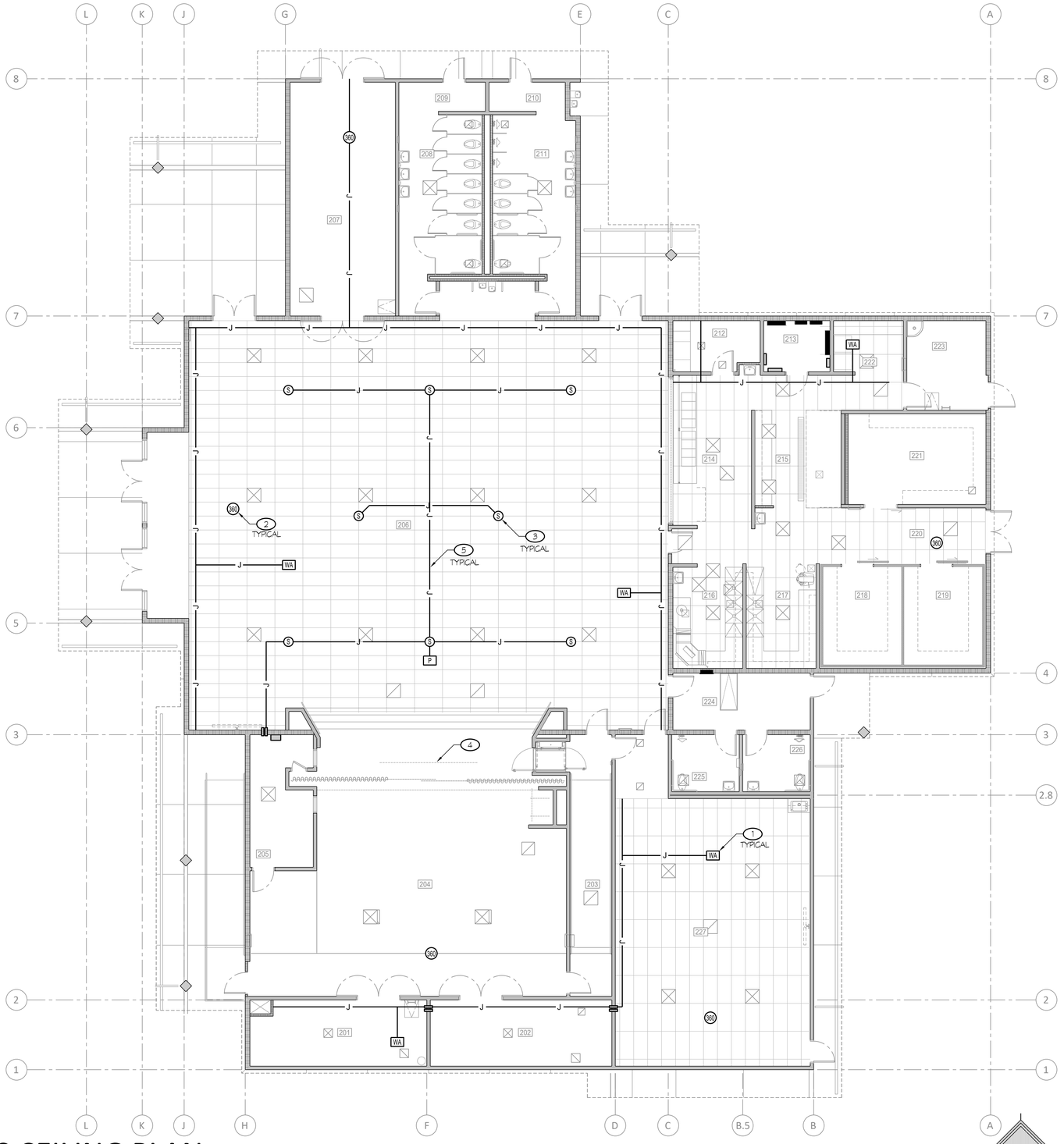
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TITLE
BUILDING 200
SIGNALS PLAN

T2.1

PROJECT 24042

Z:\Drafting\Jobs\RSES\SGH003.5\Sanger\Temperance Elem School\T2.1.dwg DATE SAVED: 07/15/26 BY: Casey DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



BUILDING200

SIGNALS CEILING PLAN

SCALE: 1/8" = 1'-0"

NOTES (THIS SHEET ONLY):

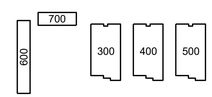
1. CEILING GRID MOUNTED WIRELESS AP. PROVIDE ONE 'D-WA' CABLE AND JACK IN SURFACE BOX ABOVE GRID. LABEL GRID LOCATION AND OUTLET NUMBER ON GRID TEE.
2. 360 DEGREE INTRUSION MOTION DETECTOR. PROVIDE ONE 'MG' CABLE IN LOW VOLTAGE RING ON GRID. COORDINATE OUTLET WITH MILLWORK, ARCH, AND ELECT. PRIOR TO ROUGH-IN.
3. CEILING GRID SOUND SPEAKER. PROVIDE ONE 'SP' CABLE ABOVE GRID. LABEL GRID LOCATION AND OUTLET NUMBER ON GRID TEE. PER DETAIL #5/TG1.3, RUN WIRE TO SER.
4. DA-LITE TENSIONED ADVANTAGE SERIES, 108" X 192" WITH HD PROGRESSIVE 1.1 CONTRAST - 14762L SKU: 14762L
5. WITHIN CONCEALED CEILING SPACE FREE-AIR CABLES SHALL BE SUPPORTED WITH J-HOOKS AS REQUIRED. REFER TO DETAIL #9/TG1.1 FOR ADDITIONAL INFORMATION.

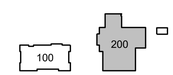
GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
201	STORAGE	+8'-0"	215	KITCHEN	+10'-0"
202	STORAGE	+8'-0"	216	CLEAN UP	+10'-0"
203	RAMP	+11'-0"	217	FOOD PREP	+10'-0"
204	PLATFORM	+11'-0"	218	REFRIGERATOR	
205	CONTROL	+11'-0"	219	FREEZER	
206	CAFETERIA	+16'-0"	220	STAGING	+10'-0"
207	STORAGE	+10'-0"	221	PANTRY	+10'-0"
208	GIRLS	+10'-0"	222	UTILITY	+10'-0"
209	VESTIBULE	+10'-0"	223	JANITOR	+10'-0"
210	VESTIBULE	+10'-0"	224	VESTIBULE	+8'-0"
211	BOYS	+10'-0"	225	WOMEN	+8'-0"
212	OFFICE	+8'-0"	226	MEN	+8'-0"
213	ELECTRICAL	+8'-0"	227	FLEXIBLE ROOM	+10'-0"
214	SERVING	+10'-0"			





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — KIRK EASTHAM — No. E-19180 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-26128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

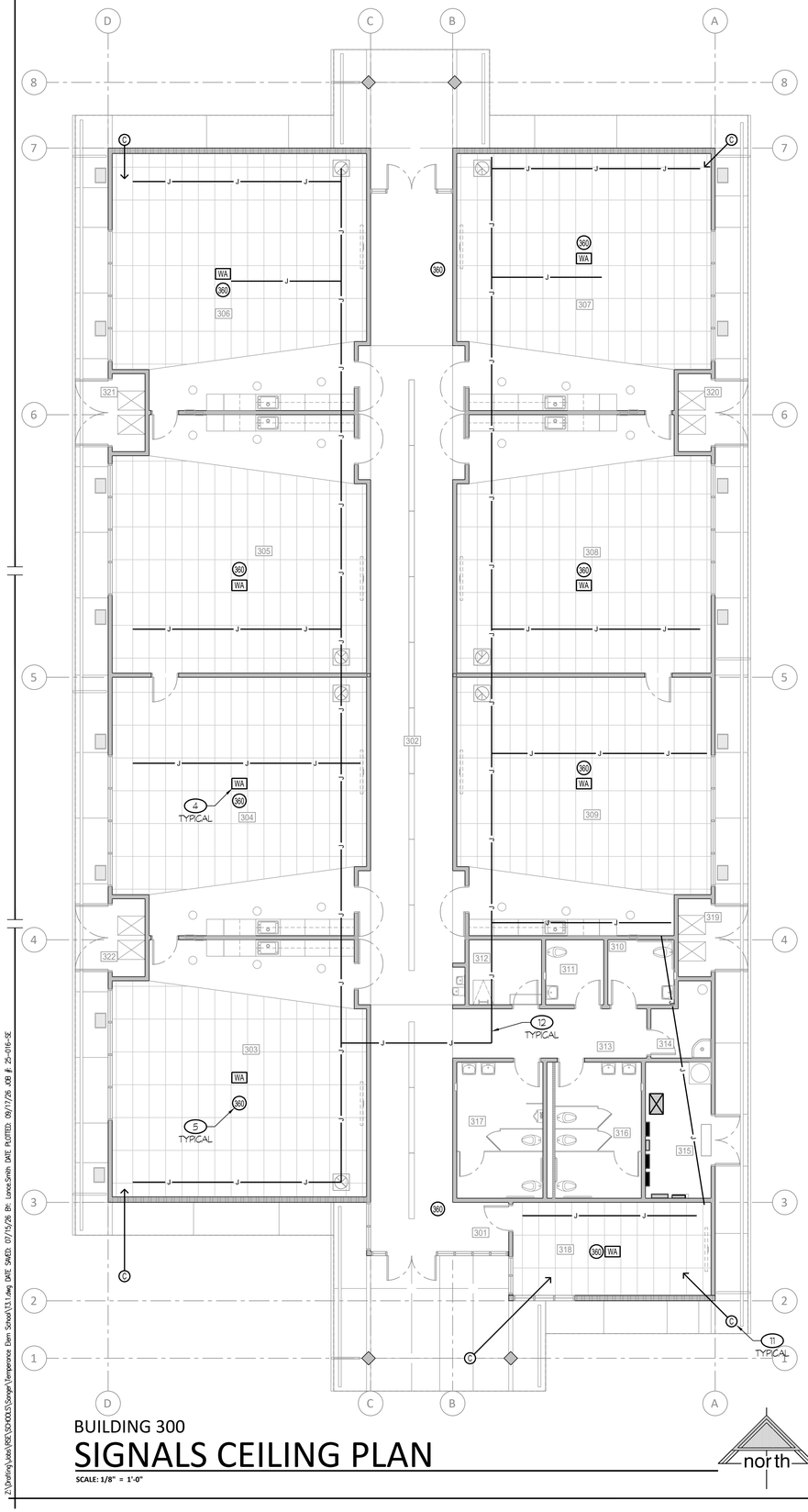
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 200
SIGNALS
CEILING PLAN

T2.2

PROJECT 24042

Z:\Drafting\Jobs\RSES\SCHOOLS\Sanger\Temperance Elem School\T2.2.dwg DATE SAVED: 08/27/26 By: LanceSmith DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

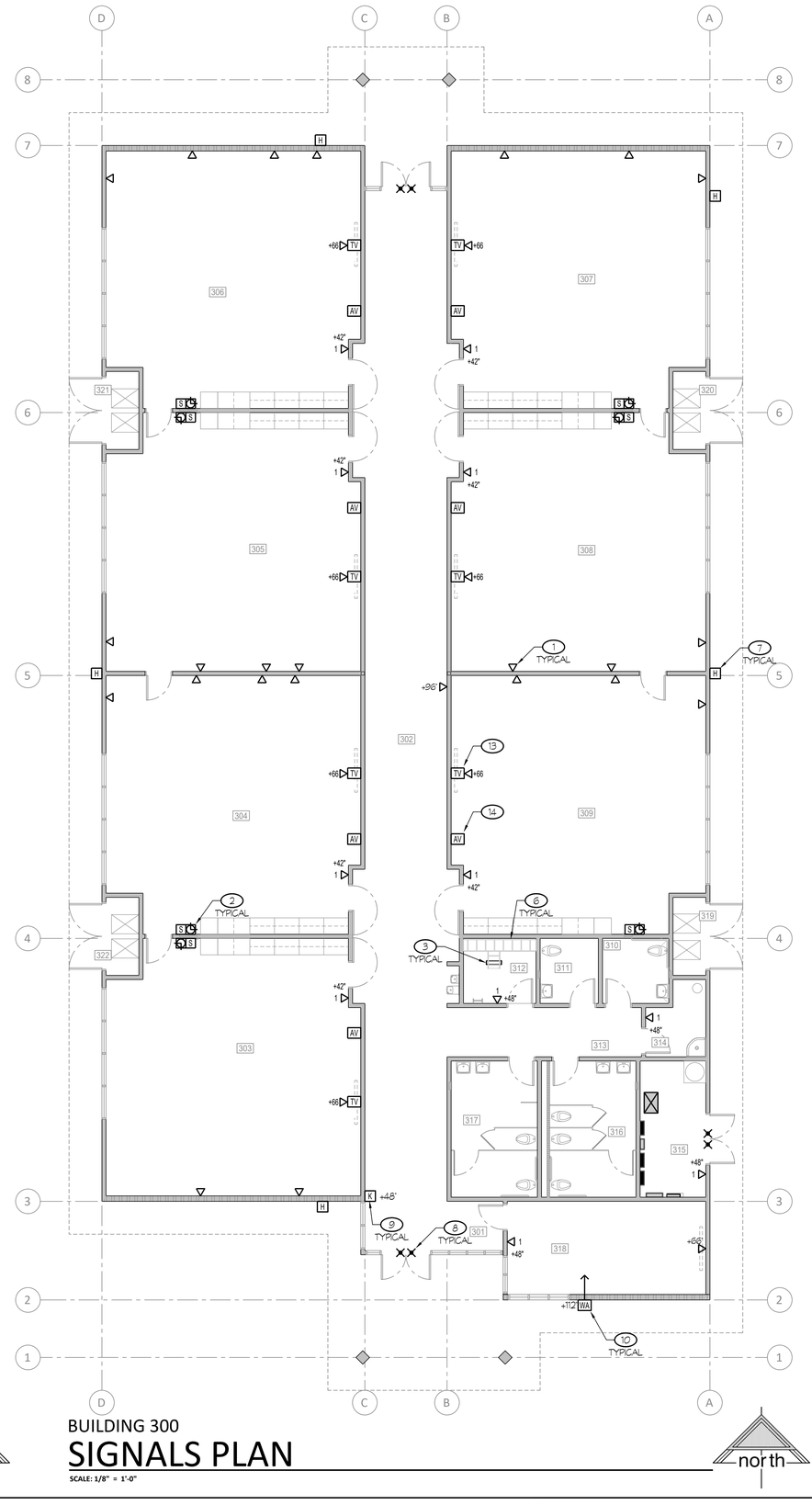


BUILDING 300

SIGNALS CEILING PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 300

SIGNALS PLAN

SCALE: 1/8" = 1'-0"

north

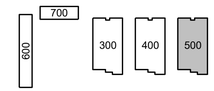
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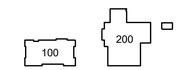
1. DATA OUTLET. PROVIDE THREE (J.O.N.) 'D' CABLES AND JACKS, IN FOUR PORT SINGLE GANG PLATE. OUTLET BOX SHALL BE 5x TYPE 2 7/8" DEEP, 1G TRM RING, ONE 1 1/4"C TO ACCESSIBLE SPACE. +18" A.F.F. PER DETAILS #2/TG1.1 AND #4/TG1.1.
2. IP INTERCOM AND CLOCK. PROVIDE ONE 'D' CABLE AND JACK IN SURFACE BOX. PER SPEC 27 51 16
3. NEW TWO POST RACK. CHATSWORTH PART #46753-703 REFER TO DETAIL #4/TG1.3
4. CEILING GRID MOUNTED WIRELESS AP. PROVIDE ONE 'D-WA' CABLE AND JACK IN SURFACE BOX ABOVE GRID. LABEL GRID LOCATION AND OUTLET NUMBER ON GRID TEE.
5. 360 DEGREE INTRUSION MOTION DETECTOR. PROVIDE ONE 'MG' CABLE IN LOW VOLTAGE RING ON GRID. COORDINATE OUTLET WITH MILLWORK, ARCH, AND ELECT. PRIOR TO ROUGH-IN.
6. NEW PLYWOOD TELECOM BACKBOARD FOR ROUTING AND TERMINATION OF CABLING. REFER TO DETAIL #5/TG1.1. MOUNT FIBER STORAGE RING ON PLYWOOD PER DETAIL #3/TG1.3. LABEL OSP FIBER PER DETAIL #3/TG1.1.
7. INTERCOM HORN, WALL MOUNTED +108" A.F.F., U.O.N.. PROVIDE ONE 'IC' CABLE (WHITE INTERCOM' CAT. 6, 4 PAIR, 24 AWG COPPER) IN SPECIAL BACK BOX, ONE 3/4"C TO ACCESSIBLE SPACE.
8. INTRUSION DOOR CONTACT. PROVIDE ONE 'DC' CABLE, ONE 3/4"C TO ACCESSIBLE SPACE. COORDINATE ROUGH-IN WITH ALL TRADES. REFER TO DETAIL #8/TG1.1.
9. INTRUSION DEVICE KEYPAD. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. REFER TO DETAIL #8/TG1.1.
10. WALL MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
11. CEILING MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
12. WITHIN CONCEALED CEILING SPACE FREE-AIR CABLES SHALL BE SUPPORTED WITH J-HOOKS AS REQUIRED. REFER TO DETAIL #11/TG1.1 FOR ADDITIONAL INFORMATION.
13. WALL MOUNTED TV DISPLAY. PROVIDE TWO 'D' CABLES AND RJ-45 JACKS, ONE HDMI OUTLET, ONE USB-TYPE A AND ONE USB-TYPE C JACKS WITHIN TV OUTLET BOX (LEVITON MODEL 47617 OR EQUAL) ONE 1-1/2"C TO ACCESSIBLE SPACE. TYPICAL.
14. AUDIO/VISUAL INPUT STATION. PROVIDE 4S BACKBOX, ONE 'HDMI' OUTLET, ONE 'USB-TYPE A' OUTLET AND ONE USB-TYPE C OUTLET. ROUTE ONE HDMI CABLE AND TWO USB CABLES TO TV WALL DISPLAY AS REQUIRED, TYPICAL.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
301	HALL	VARIES	312	DATA	+10'-0"
302	CORRIDOR	VARIES	313	HALL	+10'-0"
303	CLASSROOM	+10'-0"	314	JANITOR	+10'-0"
304	CLASSROOM	+10'-0"	315	ELECTRICAL	+10'-0"
305	CLASSROOM	+10'-0"	316	GIRLS	+10'-0"
306	CLASSROOM	+10'-0"	317	BOYS	+10'-0"
307	CLASSROOM	+10'-0"	318	CONFERENCE	+10'-0"
308	CLASSROOM	+10'-0"	319	MECH. CLOSET	VARIES
309	CLASSROOM	+10'-0"	320	MECH. CLOSET	VARIES
310	STAFF TOILET	+10'-0"	321	MECH. CLOSET	VARIES
311	STAFF TOILET	+10'-0"	322	MECH. CLOSET	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK STEVEN EASTHAM
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE #	APPLICATION #
10-126	02-123774

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LICENSED ARCHITECT
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No. C-26128
REN. 05-31-27
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REVISIONS

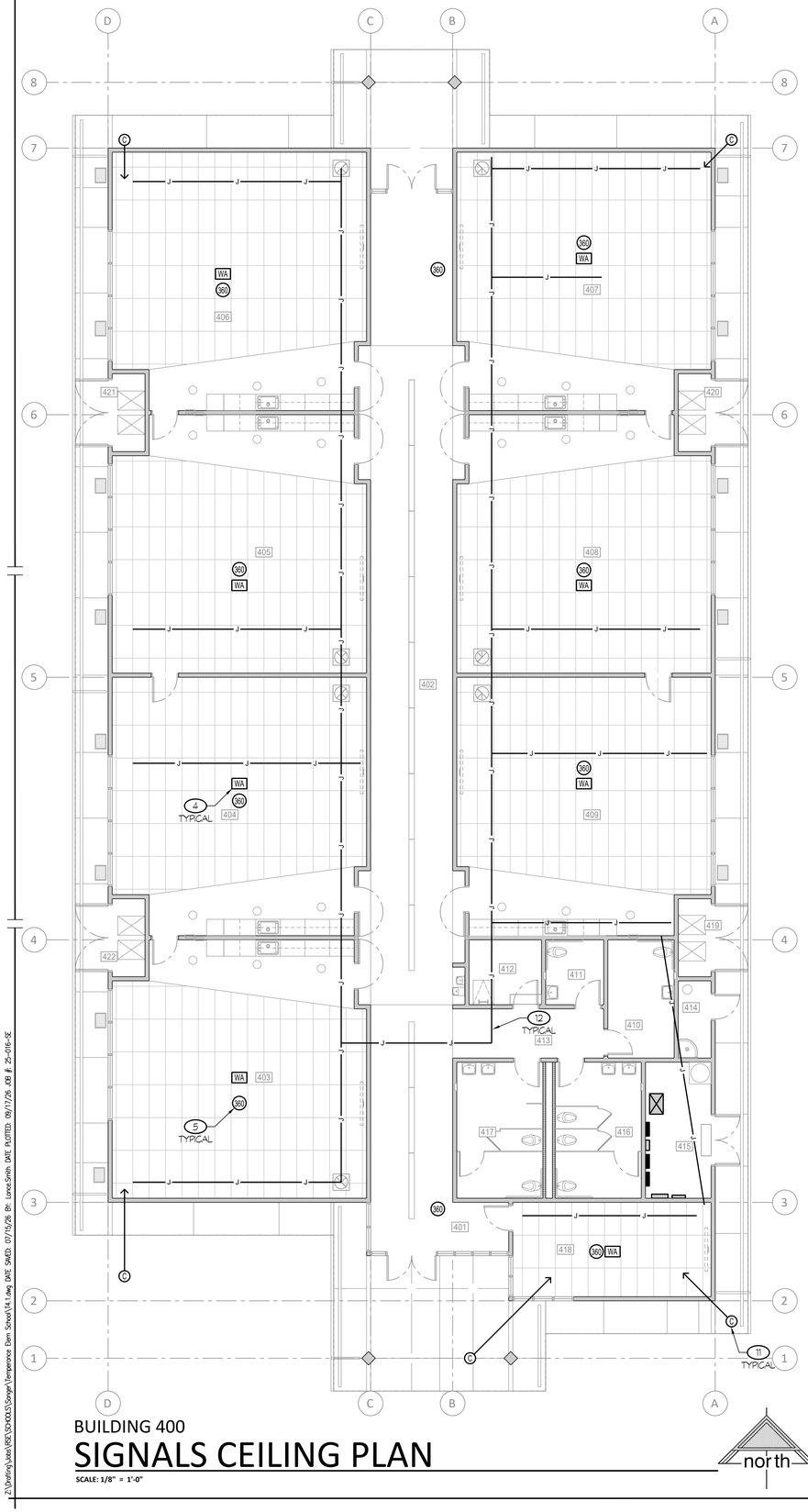
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4130 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 300
SIGNALS PLANS

T3.1

PROJECT **24042**

Z:\Drafting\Jobs\RSES\SDUSD\Sanger\Temperance Elem School\T3.1.dwg DATE SAVED: 07/15/26 BY: Lance Smith DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

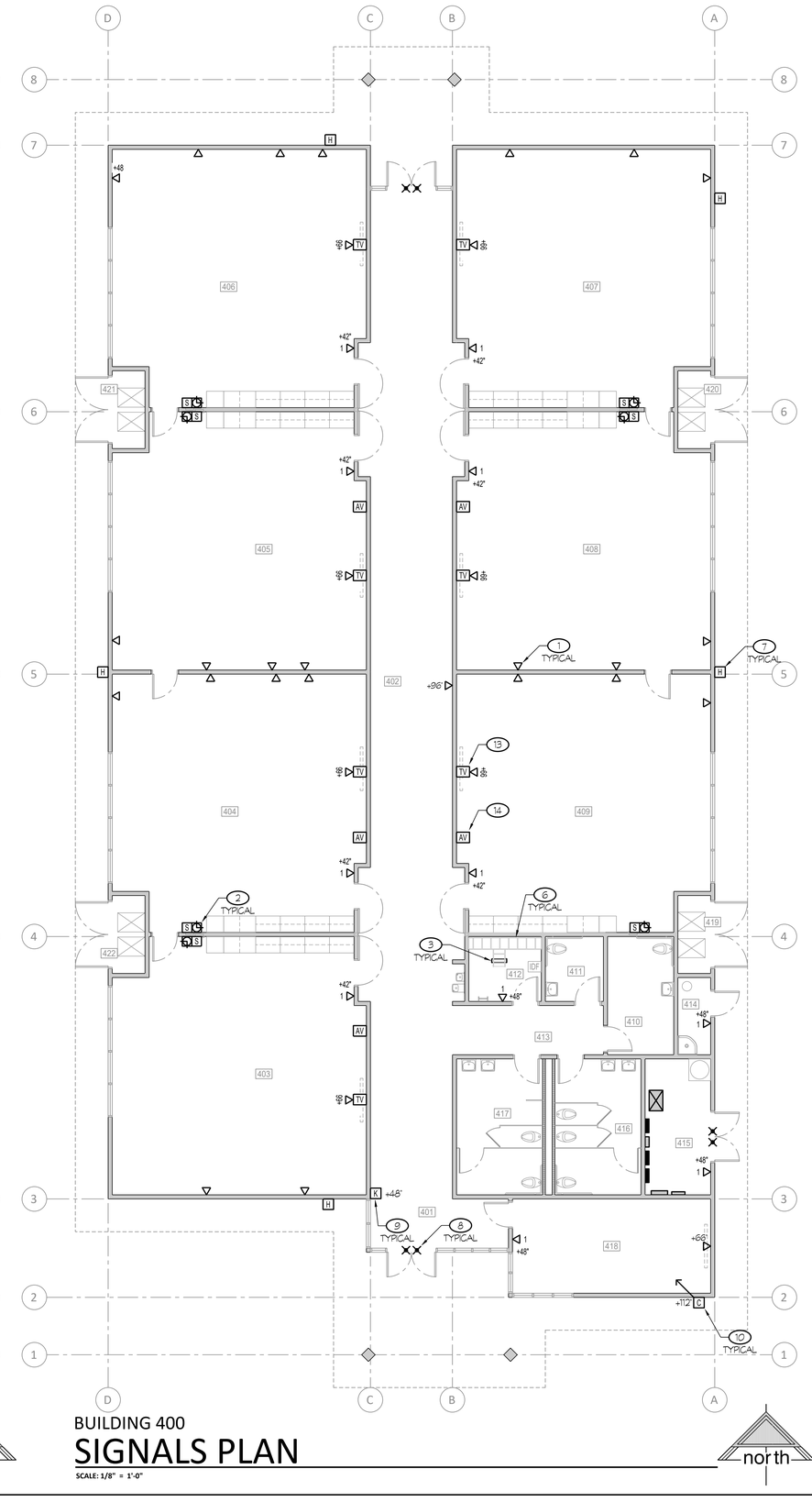


BUILDING 400

SIGNALS CEILING PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 400

SIGNALS PLAN

SCALE: 1/8" = 1'-0"

north

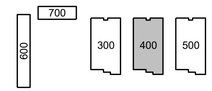
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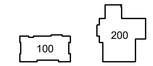
1. DATA OUTLET. PROVIDE THREE (U.O.N.) 'D' CABLES AND JACKS, IN FOUR PORT SINGLE GANG PLATE. OUTLET BOX SHALL BE 55 TYPE 2 7/8" DEEP, 1G TRIM RING. ONE 1 1/4"C TO ACCESSIBLE SPACE. +18" A.F.F. PER DETAILS #2/TG1.1 AND #4/TG1.1.
2. IP INTERCOM AND CLOCK. PROVIDE ONE 'D' CABLE AND JACK IN SURFACE BOX. PER SPEC 27 51 16
3. NEW TWO POST RACK, CHATSWORTH PART #46753-703 REFER TO DETAIL #4/TG1.3
4. CEILING GRID MOUNTED WIRELESS AP. PROVIDE ONE 'D-WA' CABLE AND JACK IN SURFACE BOX ABOVE GRID. LABEL GRID LOCATION AND OUTLET NUMBER ON GRID TEE.
5. 360 DEGREE INTRUSION MOTION DETECTOR. PROVIDE ONE 'MS' CABLE IN LOW VOLTAGE RING ON GRID. COORDINATE OUTLET WITH MILLWORK, ARCH. AND ELECT. PRIOR TO ROUGH-IN.
6. NEW PLYWOOD TELECOM BACKBOARD FOR ROUTING AND TERMINATION OF CABLING. REFER TO DETAIL #5/TG1.1. MOUNT FIBER STORAGE RING ON PLYWOOD PER DETAIL #3/TG1.3, LABEL OSP FIBER PER DETAIL #3/TG1.1.
7. INTERCOM HORN, WALL MOUNTED +108" A.F.F., U.O.N.. PROVIDE ONE 'IC' CABLE (WHITE INTERCOM CAT. 6, 4 PAIR, 24 AWG COPPER) IN SPECIAL BACK BOX, ONE 3/4"C TO ACCESSIBLE SPACE.
8. INTRUSION DOOR CONTACT. PROVIDE ONE 'DC' CABLE, ONE 3/4"C TO ACCESSIBLE SPACE. COORDINATE ROUGH-IN WITH ALL TRADES. REFER TO DETAIL #6/TG1.1.
9. INTRUSION DEVICE KEYPAD. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. REFER TO DETAIL #6/TG1.1.
10. WALL MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
11. CEILING MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
12. WITHIN CONCEALED CEILING SPACE FREE-AIR CABLES SHALL BE SUPPORTED WITH J-HOOKS AS REQUIRED. REFER TO DETAIL #11/TG1.1 FOR ADDITIONAL INFORMATION.
13. WALL MOUNTED TV DISPLAY. PROVIDE TWO 'D' CABLES AND RJ-45 JACKS, ONE HDMI OUTLET, ONE USB-TYPE A AND ONE USB-TYPE C JACKS WITHIN TV OUTLET BOX (LEVITON MODEL 47617 OR EQUAL) ONE 1-1/2"C TO ACCESSIBLE SPACE, TYPICAL.
14. AUDIO/VISUAL INPUT STATION. PROVIDE 4S BACKBOX, ONE HDMI OUTLET, ONE USB-TYPE A' OUTLET AND ONE USB-TYPE C OUTLET. ROUTE ONE HDMI CABLE AND TWO USB CABLES TO TV WALL DISPLAY AS REQUIRED, TYPICAL.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
401	HALL	VARIES	412	DATA	+10'-0"
402	CORRIDOR	VARIES	413	HALL	+10'-0"
403	CLASSROOM	+10'-0"	414	JANITOR	+10'-0"
404	CLASSROOM	+10'-0"	415	ELECTRICAL	+10'-0"
405	CLASSROOM	+10'-0"	416	GIRLS	+10'-0"
406	CLASSROOM	+10'-0"	417	BOYS	+10'-0"
407	CLASSROOM	+10'-0"	418	CONFERENCE	+10'-0"
408	CLASSROOM	+10'-0"	419	MECH. CLOSET	VARIES
409	CLASSROOM	+10'-0"	420	MECH. CLOSET	VARIES
410	S.D.C. TOILET	+10'-0"	421	MECH. CLOSET	VARIES
411	STAFF TOILET	+10'-0"	422	MECH. CLOSET	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
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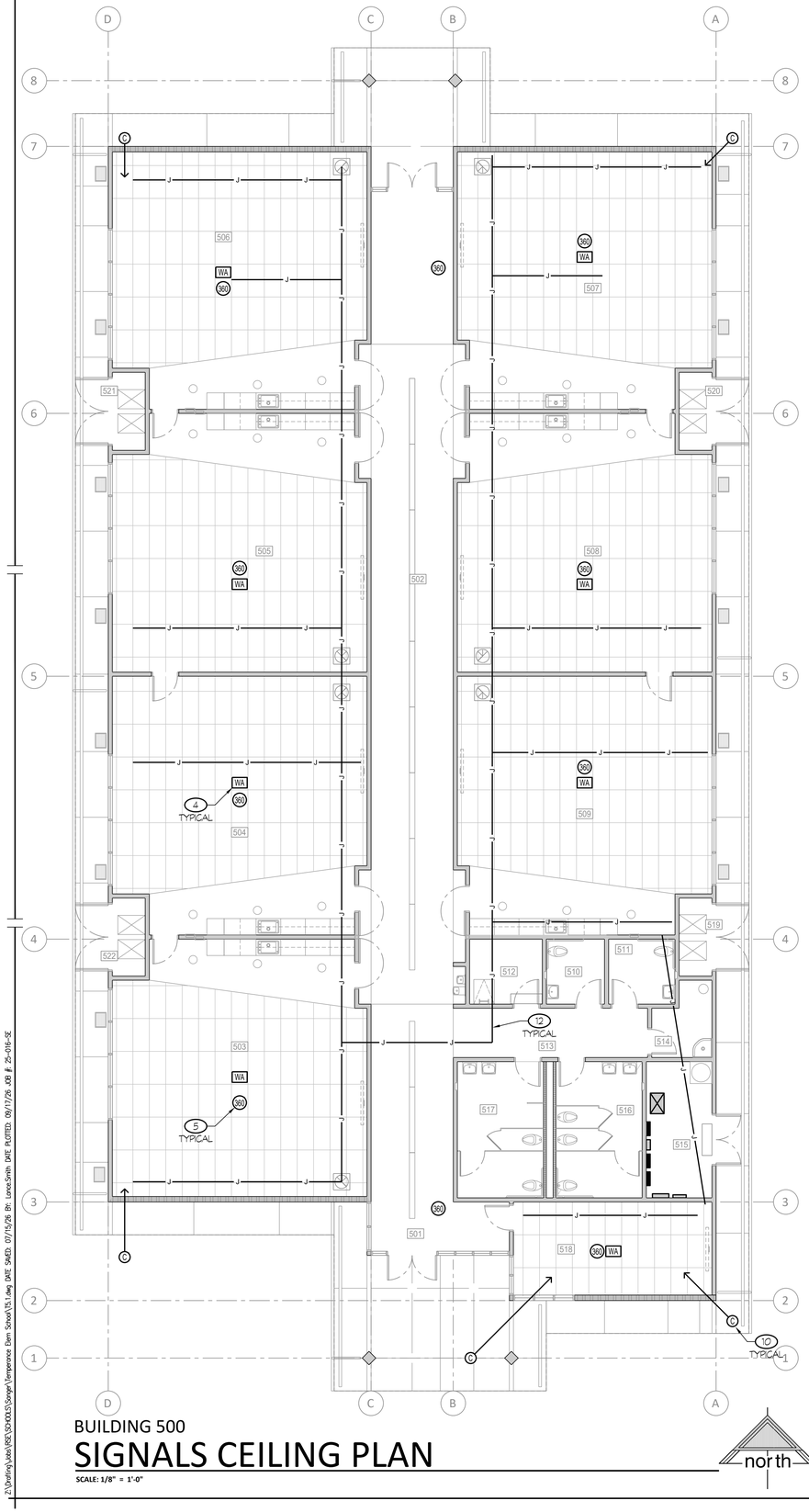
MANGINI ARCHITECTURE INGENUITY
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Visalia, California 93291
www.mangini.us
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TITLE
BUILDING 400
SIGNALS PLANS

T4.1

PROJECT 24042

Z:\Drafting\Jobs\RSES\SDUSD\Sanger\Temperance Elem School\T4.1.dwg DATE SAVED: 07/15/26 BY: Loyd Smith DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

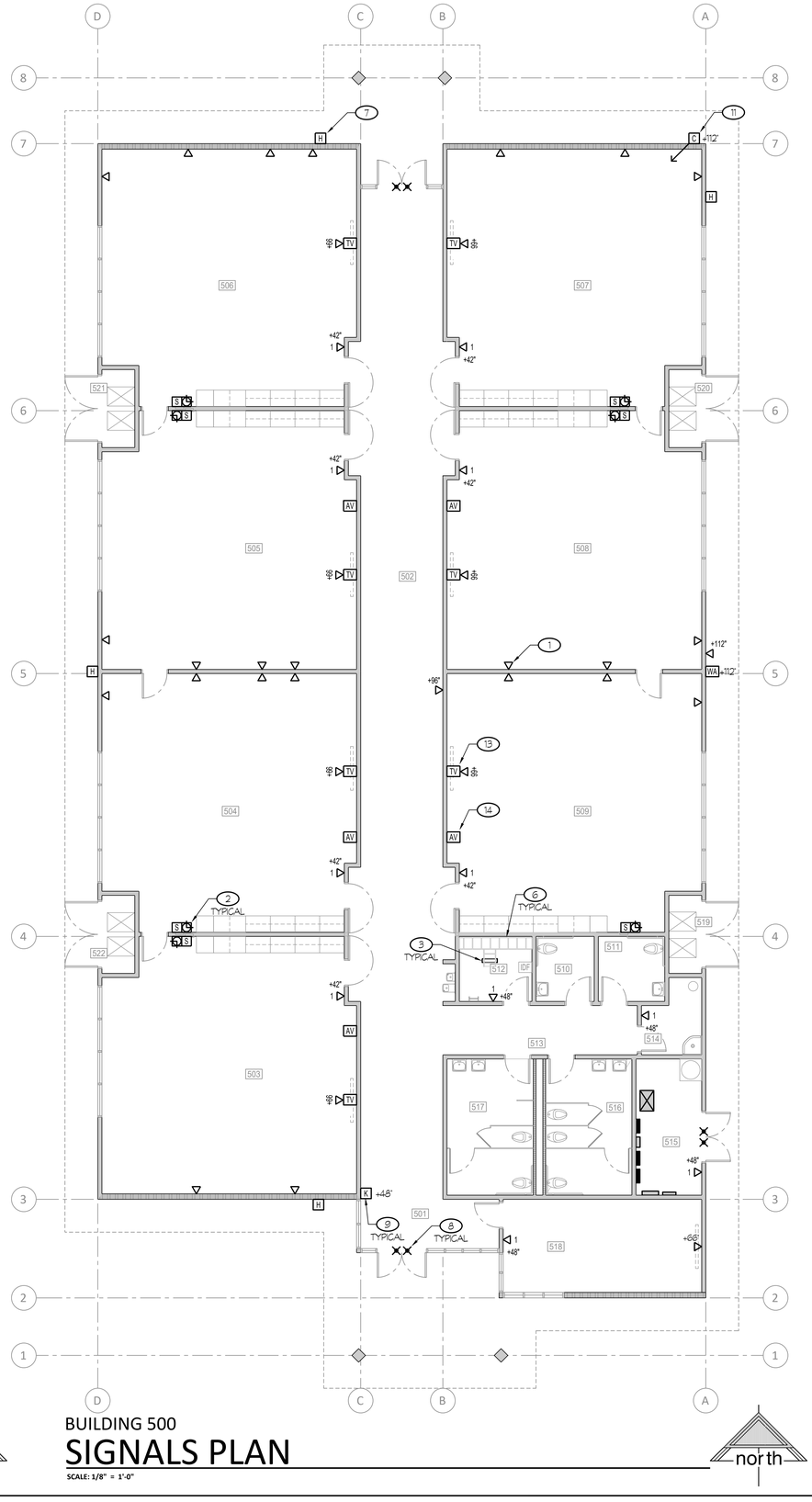


BUILDING 500

SIGNALS CEILING PLAN

SCALE: 1/8" = 1'-0"

north



BUILDING 500

SIGNALS PLAN

SCALE: 1/8" = 1'-0"

north

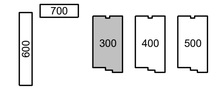
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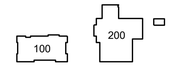
1. DATA OUTLET. PROVIDE THREE (U.O.N.) 'D' CABLES AND JACKS, IN FOUR PORT SINGLE GANG PLATE. OUTLET BOX SHALL BE 5S TYPE 2 7/8" DEEP, 1G TRM RING, ONE 1 1/4"C TO ACCESSIBLE SPACE. +18" A.F.F. PER DETAILS #2/TG1.1 AND #4/TG1.1.
2. IP INTERCOM AND CLOCK. PROVIDE ONE 'D' CABLE AND JACK IN SURFACE BOX. PER SPEC 27 51 16
3. NEW TWO POST RACK, CHATSWORTH PART #46753-703 REFER TO DETAIL #4/TG1.3
4. CEILING GRID MOUNTED WIRELESS AP. PROVIDE ONE 'D-WA' CABLE AND JACK IN SURFACE BOX ABOVE GRID. LABEL GRID LOCATION AND OUTLET NUMBER ON GRID TEE.
5. 360 DEGREE INTRUSION MOTION DETECTOR. PROVIDE ONE 'MG' CABLE IN LOW VOLTAGE RING ON GRID. COORDINATE OUTLET WITH MILLWORK, ARCH, AND ELECT. PRIOR TO ROUGH-IN.
6. NEW PLYWOOD TELECOM BACKBOARD FOR ROUTING AND TERMINATION OF CABLING. REFER TO DETAIL #5/TG1.1. MOUNT FIBER STORAGE RING ON PLYWOOD PER DETAIL #3/TG1.3, LABEL OSP FIBER PER DETAIL #3/TG1.1.
7. INTERCOM HORN, WALL MOUNTED +108" A.F.F., U.O.N.. PROVIDE ONE 'IC' CABLE (WHITE INTERCOM CAT. 6, 4 PAIR, 24 AWG COPPER) IN SPECIAL BACK BOX, ONE 3/4"C TO ACCESSIBLE SPACE.
8. INTRUSION DOOR CONTACT. PROVIDE ONE 'DC' CABLE, ONE 3/4"C TO ACCESSIBLE SPACE. COORDINATE ROUGH-IN WITH ALL TRADES. REFER TO DETAIL #6/TG1.1.
9. INTRUSION DEVICE KEYPAD. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. REFER TO DETAIL #6/TG1.1.
10. WALL MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
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12. WITHIN CONCEALED CEILING SPACE FREE-AIR CABLES SHALL BE SUPPORTED WITH J-HOOKS AS REQUIRED. REFER TO DETAIL #11/TG1.1 FOR ADDITIONAL INFORMATION.
13. WALL MOUNTED TV DISPLAY. PROVIDE TWO 'D' CABLES AND RJ-45 JACKS, ONE HDMI OUTLET, ONE USB-TYPE A' AND ONE USB-TYPE C' JACKS WITHIN TV OUTLET BOX (LEVITON MODEL 47617 OR EQUAL) ONE 1-1/2"C TO ACCESSIBLE SPACE. TYPICAL.
14. AUDIO/VISUAL INPUT STATION. PROVIDE 4S BACKBOX, ONE HDMI OUTLET, ONE USB-TYPE A' OUTLET AND ONE USB-TYPE C OUTLET. ROUTE ONE HDMI CABLE AND TWO USB CABLES TO TV WALL DISPLAY AS REQUIRED. TYPICAL.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
501	HALL	VARIES	512	DATA	+10'-0"
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503	CLASSROOM	+10'-0"	514	JANITOR	+10'-0"
504	CLASSROOM	+10'-0"	515	ELECTRICAL	+10'-0"
505	CLASSROOM	+10'-0"	516	GIRLS	+10'-0"
506	CLASSROOM	+10'-0"	517	BOYS	+10'-0"
507	CLASSROOM	+10'-0"	518	CONFERENCE	+10'-0"
508	CLASSROOM	+10'-0"	519	MECH. CLOSET	VARIES
509	CLASSROOM	+10'-0"	520	MECH. CLOSET	VARIES
510	STAFF TOILET	+10'-0"	521	MECH. CLOSET	VARIES
511	STAFF TOILET	+10'-0"	522	MECH. CLOSET	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-9788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE #	APPLICATION #
10-126	02-123774

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-36128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

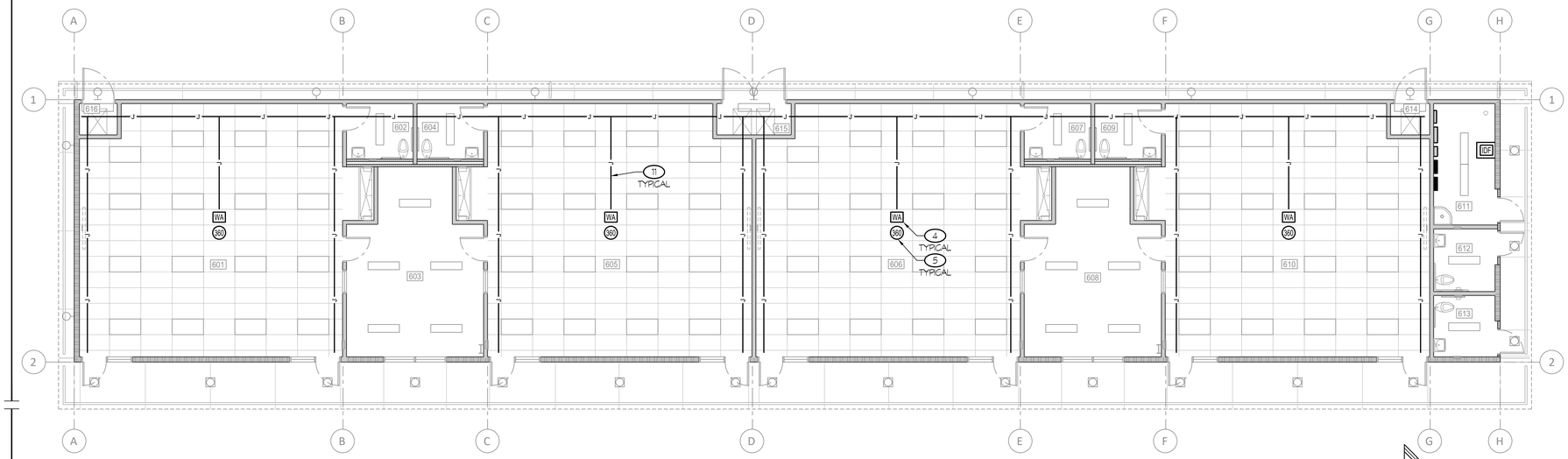
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4130 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 500
SIGNALS PLANS

T5.1

PROJECT **24042**

Z:\Drafting\Jobs\RES\SG\00\SG\Sanger\Temperance Elem School\15.1.dwg DATE SAVED: 07/15/26 BY: Lance Smith DATE PLOTTED: 09/17/26 JOB #: 25-016-SE



north

BUILDING 600

SIGNALS CEILING PLAN

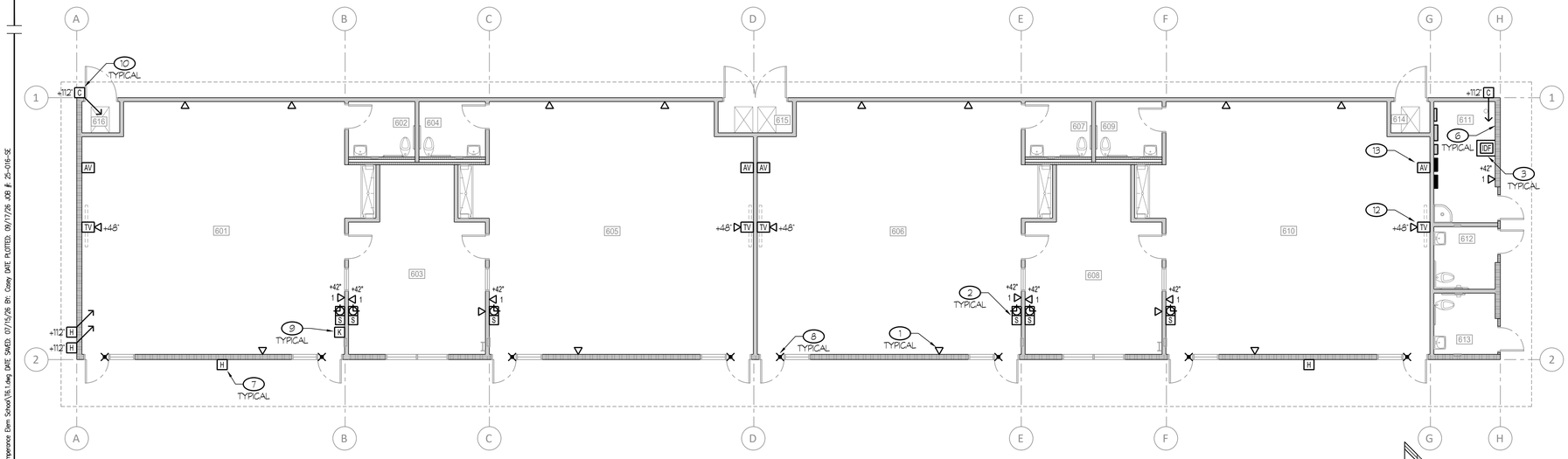
SCALE: 1/8" = 1'-0"

NOTES (THIS SHEET ONLY):

1. DATA OUTLET. PROVIDE THREE (U.O.N.) 'D' CABLES AND JACKS, IN FOUR PORT SINGLE GANG PLATE. OUTLET BOX SHALL BE 5S TYPE 2 7/8" DEEP, 1G TRM RING, ONE 1 1/4"C TO ACCESSIBLE SPACE, +18" A.F.F. PER DETAILS #2/TG1.1 AND #4/TG1.1.
2. IP INTERCOM AND CLOCK. PROVIDE ONE 'D' CABLE AND JACK IN SURFACE BOX. PER SPEC 27 51 16.
3. NEW 'IDF-X' CABINET. REFER TO DETAIL #8/TG1.1.
4. CEILING GRID MOUNTED WIRELESS AP. PROVIDE ONE 'D-WA' CABLE AND JACK IN SURFACE BOX ABOVE GRID. LABEL GRID LOCATION AND OUTLET NUMBER ON GRID TEE.
5. 360 DEGREE INTRUSION MOTION DETECTOR. PROVIDE ONE 'MG' CABLE IN LOW VOLTAGE RING ON GRID. COORDINATE OUTLET WITH MILLWORK, ARCH, AND ELECT. PRIOR TO ROUGH-IN.
6. NEW PLYWOOD TELECOM BACKBOARD FOR ROUTING AND TERMINATION OF CABLING. REFER TO DETAIL #5/TG1.1. MOUNT FIBER STORAGE RING ON PLYWOOD PER DETAIL #3/TG1.3, LABEL OSP FIBER PER DETAIL #3/TG1.1.
7. INTERCOM HORN, WALL MOUNTED +108" A.F.F., U.O.N., PROVIDE ONE 'C' CABLE (WHITE INTERCOM CAT. 6, 4 PAIR, 24 AWG COPPER) IN SPECIAL BACK BOX, ONE 3/4"C TO ACCESSIBLE SPACE.
8. INTRUSION DOOR CONTACT. PROVIDE ONE 'DC' CABLE, ONE 3/4"C TO ACCESSIBLE SPACE. COORDINATE ROUGH-IN WITH ALL TRADES. REFER TO DETAIL #6/TG1.1.
9. INTRUSION DEVICE KEYPAD. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. REFER TO DETAIL #6/TG1.1.
10. WALL MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
11. WITHIN CONCEALED CEILING SPACE FREE-AIR CABLES SHALL BE SUPPORTED WITH J-HOOKS AS REQUIRED. REFER TO DETAIL #11/TG1.1 FOR ADDITIONAL INFORMATION.
12. WALL MOUNTED TV DISPLAY. PROVIDE TWO 'D' CABLES AND RJ-45 JACKS, ONE HDMI OUTLET, ONE USB-TYPE A' AND ONE USB-TYPE C' JACKS WITHIN TV OUTLET BOX (LEVITON MODEL 47617 OR EQUAL) ONE 1-1/2"C TO ACCESSIBLE SPACE. TYPICAL.
13. AUDIO/VISUAL INPUT STATION. PROVIDE 4S BACKBOX, ONE 'HDMI' OUTLET, ONE USB-TYPE A' OUTLET AND ONE USB-TYPE C OUTLET. ROUTE ONE HDMI CABLE AND TWO USB CABLES TO TV WALL DISPLAY AS REQUIRED. TYPICAL.

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.



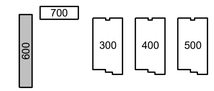
north

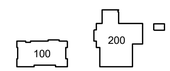
BUILDING 600

SIGNALS PLAN

SCALE: 1/8" = 1'-0"

ROOM LEGEND					
#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
601	CLASSROOM	+10'-0"	609	STUDENT TOILET	+10'-0"
602	STUDENT TOILET	+10'-0"	610	CLASSROOM	+10'-0"
603	T.W.R.	+10'-0"	611	JANITOR	+10'-0"
604	STUDENT TOILET	+10'-0"	612	STAFF TOILET	+10'-0"
605	CLASSROOM	+10'-0"	613	STUDENT TOILET	+10'-0"
606	CLASSROOM	+10'-0"	614	MECH. CLOSET	VARIES
607	STUDENT TOILET	+10'-0"	615	MECH. CLOSET	VARIES
608	T.W.R.	+10'-0"	616	MECH. CLOSET	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

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No. C-26128
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REVISIONS

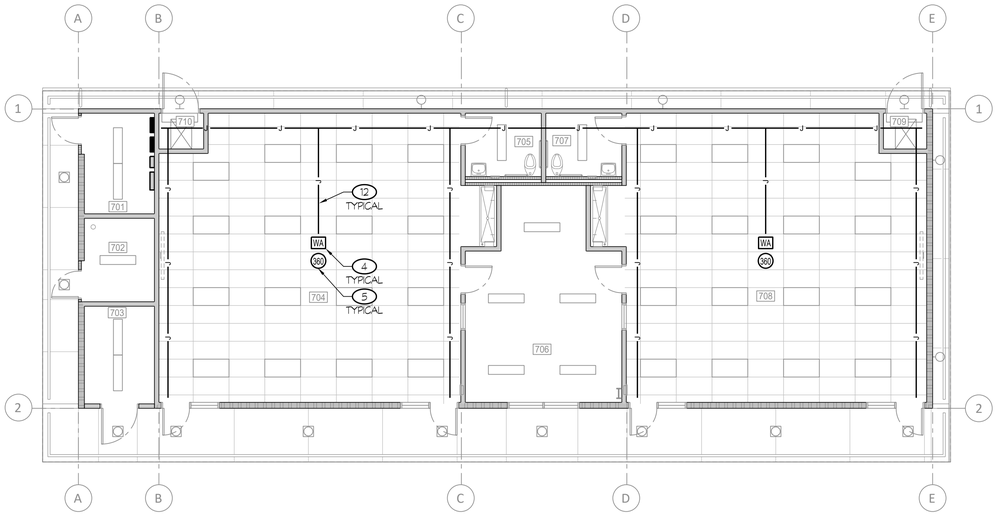
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4130 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 600
SIGNALS PLANS

T6.1

PROJECT **24042**

Z:\Drafting\Jobs\RSES\SD\SDS\Sanger\Temperance Elem School\T6.1.dwg DATE SAVED: 07/15/26 BY: Casey DATE PLOTTED: 09/17/26 JOB # ZS-016-SE



BUILDING 700

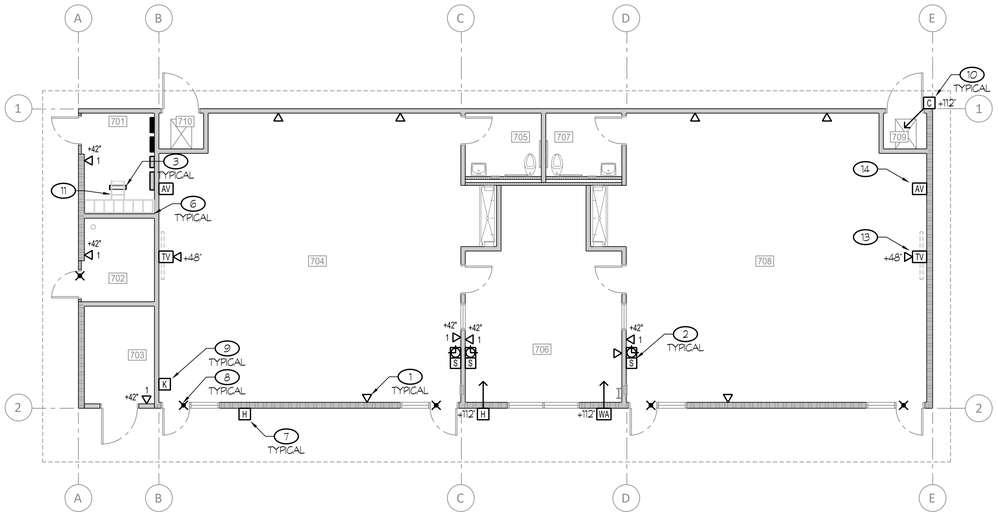
SIGNALS CEILING PLAN

SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. DATA OUTLET. PROVIDE THREE (U.O.N.) 'D' CABLES AND JACKS, IN FOUR PORT SINGLE GANG PLATE. OUTLET BOX SHALL BE 5S TYPE 2 7/8" DEEP, 1G TRIM RING, ONE 1 1/4"C TO ACCESSIBLE SPACE. +18" A.F.F. PER DETAILS #2/TG1.1 AND #4/TG1.1.
2. IP INTERCOM AND CLOCK. PROVIDE ONE 'D' CABLE AND JACK IN SURFACE BOX. PER SPEC 27 51 16
3. NEW TWO POST RACK, CHATSWORTH PART #46753-703 REFER TO DETAIL #4/TG1.3
4. CEILING GRID MOUNTED WIRELESS AP. PROVIDE ONE 'D-WA' CABLE AND JACK IN SURFACE BOX ABOVE GRID. LABEL GRID LOCATION AND OUTLET NUMBER ON GRID TEE.
5. 360 DEGREE INTRUSION MOTION DETECTOR. PROVIDE ONE 'MG' CABLE IN LOW VOLTAGE RING ON GRID. COORDINATE OUTLET WITH MILLWORK, ARCH, AND ELECT. PRIOR TO ROUGH-IN.
6. NEW PLYWOOD TELECOM BACKBOARD FOR ROUTING AND TERMINATION OF CABLING. REFER TO DETAIL #5/TG1.1. MOUNT FIBER STORAGE RING ON PLYWOOD PER DETAIL #3/TG1.3, LABEL OSP FIBER PER DETAIL #3/TG1.1.
7. INTERCOM HORN, WALL MOUNTED +108" A.F.F., U.O.N., PROVIDE ONE 'IC' CABLE (WHITE INTERCOM' CAT. 6, 4 PAIR, 24 AWG COPPER) IN SPECIAL BACK BOX, ONE 3/4"C TO ACCESSIBLE SPACE.
8. INTRUSION DOOR CONTACT. PROVIDE ONE 'DC' CABLE, ONE 3/4"C TO ACCESSIBLE SPACE. COORDINATE ROUGH-IN WITH ALL TRADES. REFER TO DETAIL #6/TG1.1.
9. INTRUSION DEVICE KEYPAD. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. REFER TO DETAIL #6/TG1.1.
10. WALL MOUNTED CAMERA LOCATION. PROVIDE ONE 'D' CABLE SINGLE GANG BOX AND RING, ONE 1"C TO ACCESSIBLE SPACE. COORDINATE ALL CAMERA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. TYPICAL FOR CAMERA SYMBOL SHOWN.
11. PROVIDE OVERHEAD RACK SYSTEM FOR DATA/NETWORK CABLING PER DETAIL #1/TG1.1.
12. WITHIN CONCEALED CEILING SPACE FREE-AIR CABLES SHALL BE SUPPORTED WITH J-HOOKS AS REQUIRED. REFER TO DETAIL #11/TG1.1 FOR ADDITIONAL INFORMATION.
13. WALL MOUNTED TV DISPLAY, PROVIDE TWO 'D' CABLES AND RJ-45 JACKS, ONE HDMI OUTLET, ONE USB-TYPE A' AND ONE USB-TYPE C JACKS WITHIN TV OUTLET BOX (LEVITON MODEL 47617 OR EQUAL) ONE 1-1/2"C TO ACCESSIBLE SPACE. TYPICAL.
14. AUDIO/VISUAL INPUT STATION. PROVIDE 4S BACKBOX, ONE HDMI OUTLET, ONE 'USB-TYPE A' OUTLET AND ONE USB-TYPE C OUTLET. ROUTE ONE HDMI CABLE AND TWO USB CABLES TO TV WALL DISPLAY AS REQUIRED. TYPICAL.



BUILDING 700

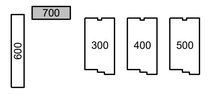
SIGNALS PLAN

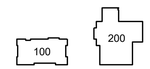
SCALE: 1/8" = 1'-0"

north

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT
701	ELECTRICAL	+10'-0"
702	MECHANICAL	+10'-0"
703	STORAGE	+10'-0"
704	CLASSROOM	+10'-0"
705	STUDENT TOILET	+10'-0"
706	T.W.R.	+10'-0"
707	STUDENT TOILET	+10'-0"
708	CLASSROOM	+10'-0"
709	MECH. CLOSET	VARIES
709	MECH. CLOSET	VARIES





KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK SMITH
No. E-19788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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DATE: 09/22/26

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-26128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 700
SIGNALS PLANS

T7.1

PROJECT 24042

Z:\Drafting\Jobs\RSES\SDHS\SS\Sanger\Temperance Elem School\T7.1.dwg DATE SAVED: 07/15/26 BY: Loyd Smith DATE PLOTTED: 09/17/26 JOB #: 25-016-SE

SEISMIC CRITERIA

SHORT SPECTRAL RESPONSE:	S_S = 0.559 g
LONG SPECTRAL RESPONSE:	S_1 = 0.220 g
SHORT SPECTRAL RESPONSE:	S_{DS} = 0.504 g
LONG SPECTRAL RESPONSE:	S_{D1} = 0.475 g
SEISMIC DESIGN CATEGORY:	D
SITE CLASS:	D
ROOF SNOW LOAD:	0 PSF

DESIGN WIND SPEED

BASIC WIND SPEED = 94 mph
V_{ASD} = 73 MPH
WIND EXPOSURE = C

KEY NOTES

1. SEE SHEET NT-S2.1 FOR CANOPY DETAILS
2. VERIFY LOCATION OF STORM DRAIN PRIOR TO DRILLING
3. ARRAY TO BE CONSTRUCTED PARALLEL WITH (E) CURB

CONCRETE INSPECTION

PER SECTION 1705A.3.3.2 - BATCH PLANT INSPECTION NOT REQUIRED WITH FOLLOWING REQUIREMENTS:

1. AN APPROVED AGENCY SHALL CHECK THE FIRST BATCH AT THE START OF THE DAY TO VERIFY MATERIALS AND PROPORTIONS CONFORM TO THE APPROVED MIX DESIGN.
2. A LICENSED WEIGHMASTER SHALL POSITIVELY IDENTIFY QUANTITY OF MATERIALS AND CERTIFY EACH LOAD BY A BATCH TICKET.
3. BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY THE TRUCK DRIVER WITH LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR OF RECORD SHALL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK, ITS LOAD, AND TIME OF RECEIPT AT THE JOBSITE, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND SHALL MAINTAIN A COPY OF THE DAILY RECORD AS REQUIRED BY THE ENFORCEMENT AGENCY.

GENERAL NOTES

REFERS TO ULTIMATE GUARDIAN 22.1.1 PC: A# PROJECT A# 04-123080

G1. SEE 6/S-21 FOR DEEPENED FOUNDATION, COORDINATE LOCATION OF DEEPENED FOUNDATION WITH ELECTRICAL DRAWINGS.

G2. SEE SHEET S-20 FOR TYPICAL CONDUIT ROUTING.

G3. SEE DETAIL 3/S-20 FOR TYPICAL CONDUIT MOUNTING.

G4. SEE DETAIL 4/S-20 OR 5/S-20 FOR TYPICAL ELECTRICAL BOX MOUNTING.

G5. ALL DIMENSIONS ON THIS SHEET ARE PROJECTED FLAT.

G6. DIMENSION INCLUDES 1.5" EXTRA LENGTH ON EACH END OF EACH ARRAY.

G7. CONTRACTOR TO DEMO EXISTING BUSHES AND TREES AS REQUIRED.

G8. MIN (1) STAR WASHER IN CONFORMANCE WITH ASME B18.21.1 EACH END OF EACH PURLIN.

G9. GEOTECHNICAL REPORT #1-220-0695 DATED SEPTEMBER 29, 2020, SUPPLEMENTAL GEOTECHNICAL ENGINEERING INVESTIGATION DATED MAY 10, 2021, & UPDATE ADDENDUM LETTER DATED MAY 20, 2025, BY SALEM ENGINEERING GROUP, INC.

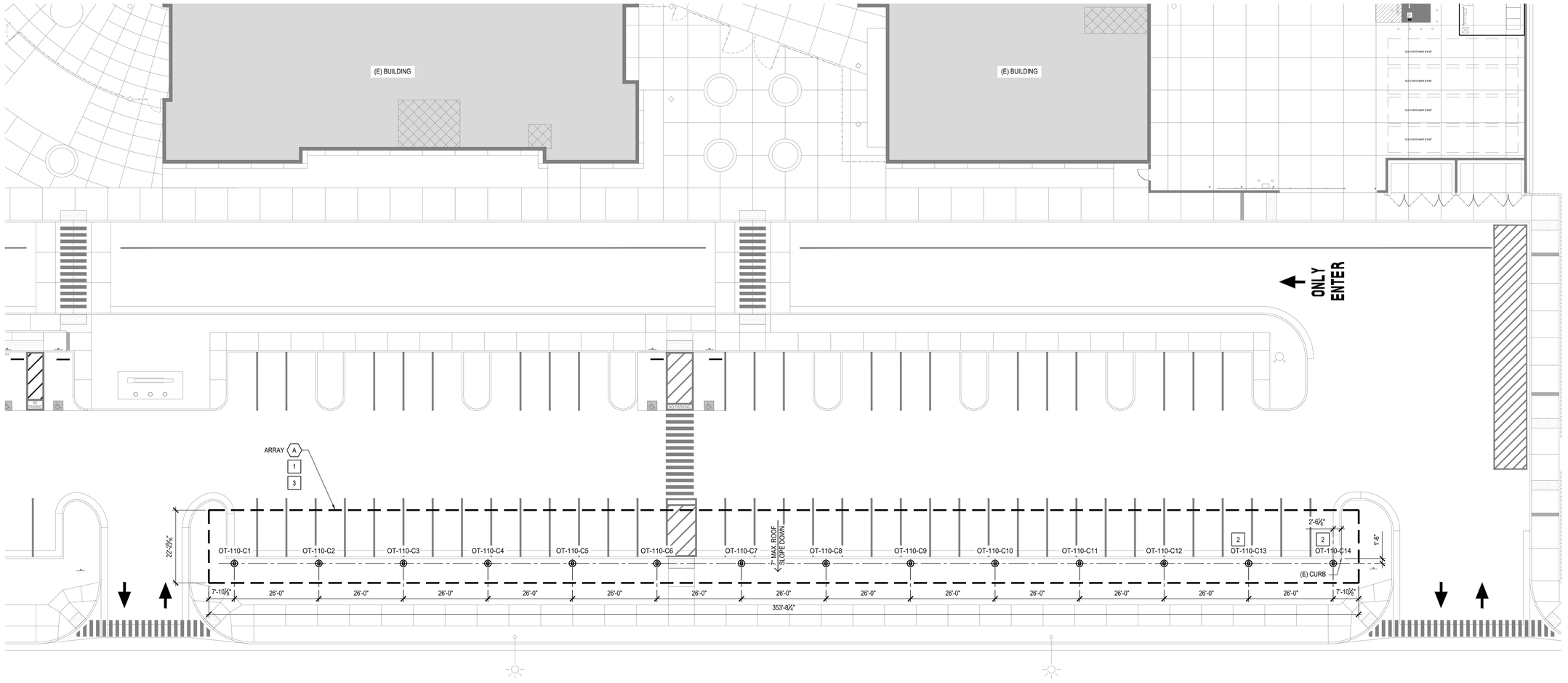
LEGEND

(N) PHOTOVOLTAIC ARRAY OUTLINES

(E) UNDERGROUND ELECTRICAL LINE

(E) UNDERGROUND WATER LINE

(B) INDICATES COLUMN WITH NO CONC. PEDESTAL



1 - COLUMN PLAN — 1/16" = 1'-0"

NORTH

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

IDENTIFICATION STAMP
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APP: 02-123774 INC:
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DATE: 09/22/26

STRUCTURAL ENGINEER
JSTE ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

ENGINEER STAMP

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K. ROSSETTI
S 5885
STRUCTURAL
STATE OF CALIFORNIA

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT

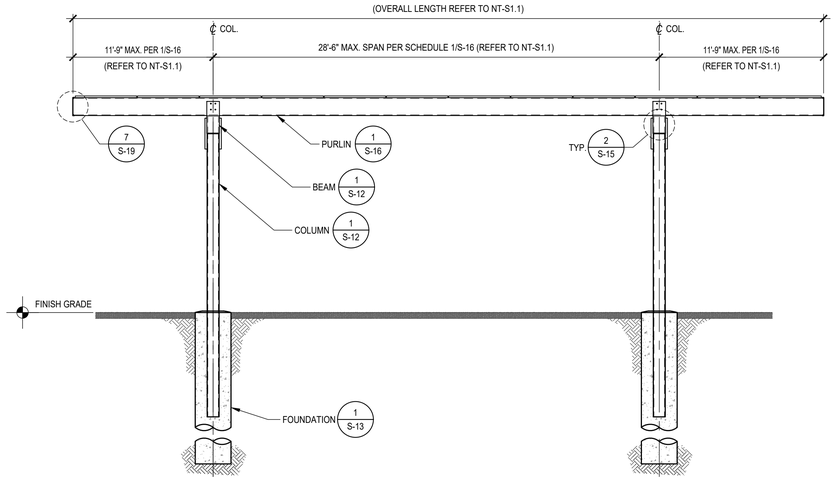
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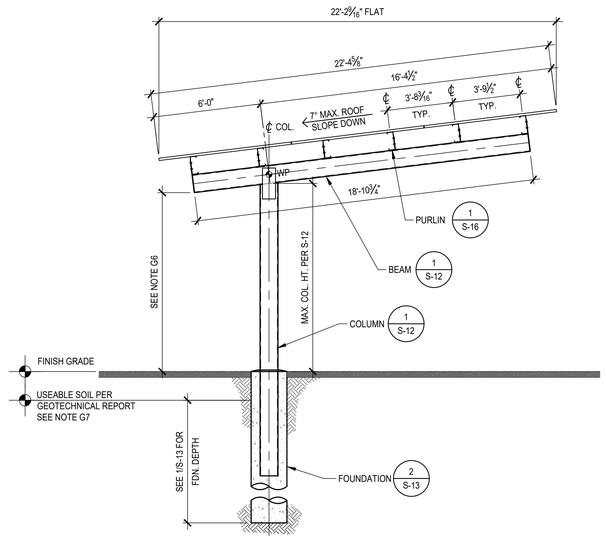
TITLE
COLUMN PLAN

NT-S1.1

PROJECT 25-1100



3 - OT-STRUCTURE TYPICAL SIDE ELEVATION
SIMPLE-SPAN 1/4" = 1'-0"



2 - OT-STRUCTURE END ELEVATION
SIMPLE-SPAN 1/4" = 1'-0"

GENERAL NOTES

REFERS TO ULTIMATE GUARDIAN 22.1.1 PC: A# PROJECT A# 04-123080

G1. FOR DETAILS, REFER TO 1 S-11 / 3 S-11

G2. MIN. 4,000 psi CONCRETE WITH TYPE II CEMENT.

G3. OT-STRUCTURE SOILS CLASS X PER SCHEDULE ON S-3.

G4. STEEL SHALL BE ORDERED AND INSTALLED BASED ON THE SLOPED DIMENSIONS, NOT THE FLAT DIMENSIONS.

G5. SOLAR PANEL ATTACHMENT PER DETAILS ON SHEET S-18.

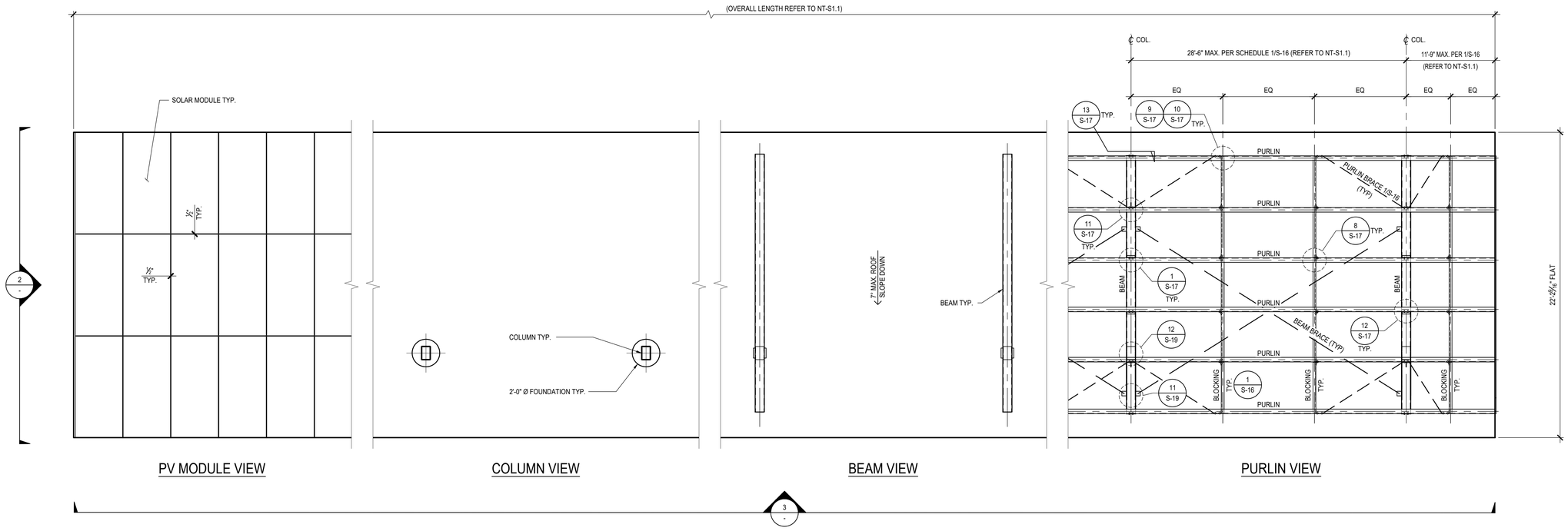
G6. STRUCTURES SHALL BE CONSTRUCTED TO 11'-0" MIN. CLR.

G7. TOP OF USABLE SOIL IN 1'-6" BELOW GRADE AT TURF OR LANDSCAPE SURFACE.

G8. ALL PURLINS TO BE CS12x4x0.071 (14GA).

G9. 5.62"/30' MAX. PURLIN SLOPE. BOLT HOLES IN PURLIN SHALL BE 1/8" OVERSIZE PER STEEL NOTE #24 ON SHEET S-3.

G10. USE PC I.D. # OT-110.



1 - OT-STRUCTURE FRAMING PLAN
SIMPLE-SPAN 1/4" = 1'-0"

APPROVALS

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STEL ENGINEERING
26030 ACERO
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949.305.1150 | FAX 949.305.1420

ENGINEER STAMP

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K. ROSSETTI
S 5885
STRUCTURAL
STATE OF CALIFORNIA

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12/12/2025 IFP

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(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
3 PANEL
OT-STRUCTURE
SIMPLE SPAN
SITE SPECIFIC

NT-S2.1

PROJECT 25-1100

ULTIMATE GUARDIAN 22.1.1 - LOW WIND & LOW SEISMIC

PHOTOVOLTAIC SUPPORT STRUCTURES



THE ULTIMATE GUARDIAN IS THE SUPREME SOLAR PC ON THE MARKET WITH OVER 15,000,000 COMBINATIONS & CALCULATIONS RUN!

PC OWNERSHIP

4 STEL ENGINEERING

26030 ACERO
MISSION VIEJO, CA 92691

PHONE: (949) 305-1150
FAX: (949) 305-1420

STRUCTURAL ENGINEER OF RECORD:
DUSTIN K. ROSEPINK, S5885

POINT OF CONTACT:
GARY MILLS, DIRECTOR OF ENGINEERING

M BAR C CONSTRUCTION INC.

1770 LA COSTA MEADOWS DR.
SAN MARCOS, CA 92078

LIC # 869960
B AND C51

POINT OF CONTACT:
ERIK KRIVOKOPICH

PHONE: (760) 744-4131
FAX: (760) 744-4449

STANDARD NOTES FOR PC USE

- 4 S.T.E.L. ENGINEERING, INC. SHALL ALWAYS BE GIVEN THE OPPORTUNITY TO BID THE DSA SUBMITTAL PACKAGE (I.E. TO ACT AS THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE).
- 4 S.T.E.L. ENGINEERING, INC. SHALL ALWAYS BE THE SEOR FOR ALL PROJECTS UTILIZING THE PC, NO OTHER FIRM IS ALLOWED TO PERFORM THIS SERVICE WITH THIS PC.
- M BAR C CONSTRUCTION, INC. SHALL ALWAYS BE THE STEEL CONTRACTOR FOR THE STEEL CANOPIES (PURLINS, BEAMS, COLUMNS, FOUNDATIONS, AND ASSOCIATED CONNECTIONS). NO OTHER CONTRACTOR IS ALLOWED TO PERFORM THIS SCOPE OF WORK WITH THIS PC.
- FOR CONSTRUCTION COST INFORMATION, CONTACT M BAR C CONSTRUCTION, INC.
- CUSTOM SIZES AND LOADING REQUIRE SUPPLEMENTARY SHOP DRAWINGS AND CALCULATIONS.

LEGAL NOTES

- USE OF PC WITHOUT WRITTEN CONSENT FROM 4 S.T.E.L. ENGINEERING, INC. AND/OR M BAR C CONSTRUCTION, INC. IS STRICTLY PROHIBITED.
- ALL INFORMATION HEREIN IS PROPRIETARY INFORMATION AND UNDER THE OWNERSHIP OF 4 S.T.E.L. ENGINEERING, INC & M BAR C CONSTRUCTION, INC.
- ALL INFORMATION COPYRIGHT 2009, 2011 & 2014.

DESIGN PARAMETER NOTES

1. REFER TO SHEET S-2 FOR 'DESIGN CHECK LIST' AND 'SITE SPECIFIC PARAMETERS'.
2. WHEN A SITE-SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED FROM A GEOTECHNICAL ENGINEER IS REQUIRED IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC DRAWINGS ARE STILL APPLICABLE. UNLESS THE BOTTOMS OF FOUNDATIONS ARE RAISED ABOVE THE DESIGN FLOOD ELEVATION, A VALIDATION LETTER FROM THE GEOTECHNICAL ENGINEER SHALL BE PROVIDED, EVEN IF THE PRESUMPTIVE LOAD BEARING VALUES PER CBC SECTION 1806A.2 ARE USED.
   EXCEPTION: WHEN A SITE-SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE D (UNDEFINED) AND THE APPLICANT PROVIDES EVIDENCE FROM THE LOCAL JURISDICTION OR A QUALIFIED DESIGN PROFESSIONAL CONFIRMING THE SITE IS NOT IN A FLOOD HAZARD ZONE.
3. WET STAMPED & SIGNED COPIES OF PC PLANS ARE NOT REQUIRED FOR SITE SPECIFIC PC USE.
4. CHANGES TO PC DOCUMENTS ARE GOVERNED BY DSA PL 07-02, SECTION 5. INCONSEQUENTIAL CHANGES MAY BE MADE TO THE EXTENT THAT THEY CAN BE REVIEWED WITHIN THE TWO-HOUR OTC TIME FRAME. CHANGES TO CODE-REGULATED ASPECTS TO PC DOCUMENTS ARE NOT PERMITTED AND SHALL BE SUBMITTED AND REVIEWED THROUGH THE REGULAR PLAN REVIEW PROCESS.
5. THE SITE SPECIFIC DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE IS RESPONSIBLE FOR ENSURING ALL INFORMATION SHOWN IN THE DESIGN PARAMETER CHECKLIST ARE MET AND PROVIDED AT THE TIME OF DSA SUBMITTAL.
6. THE SITE SPECIFIC DESIGN PROFESSIONAL IS RESPONSIBLE FOR OBTAINING A STATEMENT FROM THE PC DESIGN PROFESSIONAL REGARDING THE SOLAR PANEL ADEQUACY. SEE NOTES 12 AND 13 OF THE SOLAR PANEL AND SOLAR PANEL CONNECTION NOTES ON S-3 FOR INFORMATION REGARDING OBTAINING THIS STATEMENT.
7. THE SITE SPECIFIC DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE IS RESPONSIBLE FOR ENSURING 4 S.T.E.L. ENGINEERING, INC. HAS BEEN PROPERLY CONTRACTED TO PERFORM THE ROLE AS SEOR. NO OTHER FIRM SHALL PERFORM THE SEOR ROLE. 4 S.T.E.L. ENGINEERING, INC./DUSTIN ROSEPINK SHALL ONLY ACT AS THE SEOR IF PROPERLY CONTRACTED.
8. 4 S.T.E.L. ENGINEERING, INC./DUSTIN ROSEPINK WILL NOT SIGN ANY DSA FORMS (I.E. DSA-5, DSA-6, ETC.), REVIEW OR APPROVE ANY SUBMITTALS (I.E. GEOTECHNICAL REPORTS, CONCRETE MIX DESIGNS, SHOP DRAWINGS, ETC.) FOR THE SITE SPECIFIC PROJECT UNLESS HE IS ACTING AS THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR THE SITE SPECIFIC STRUCTURAL ENGINEER OF RECORD PER NOTE 3 ABOVE.

SHEET INDEX

- [x] S-1 ..... COVER SHEET 1
- [x] S-2 ..... COVER SHEET 2
- [x] S-3 ..... GENERAL NOTES
- [x] S-4 ..... SAMPLE DSA-103 FORMS
- [x] S-5 ..... SECTION PROPERTIES & REBAR DETAILS
- [ ] S-6 ..... ~~T-STRUCTURE FRAMING PLAN & ELEVATIONS~~
- [ ] S-7 ..... ~~T-STRUCTURE BEAM/COLUMN SCHEDULE~~
- [ ] S-8 ..... ~~T-STRUCTURE PIER FOUNDATION SCHEDULE~~
- [ ] S-9 ..... ~~T-STRUCTURE SPREAD FOOTING SCHEDULE~~
- [ ] S-10 ..... ~~T-STRUCTURE BEAM-TO-COLUMN SCHEDULE~~
- [x] S-11 ..... OT-STRUCTURE FRAMING PLAN & ELEVATIONS
- [x] S-12 ..... OT-STRUCTURE BEAM/COLUMN SCHEDULE
- [x] S-13 ..... OT-STRUCTURE PIER FOUNDATION SCHEDULE
- [ ] S-14 ..... ~~OT-STRUCTURE SPREAD FOOTING SCHEDULE~~
- [x] S-15 ..... OT-STRUCTURE BEAM-TO-COLUMN SCHEDULE
- [x] S-16 ..... PURLIN SCHEDULE
- [x] S-17 ..... TYPICAL PURLIN DETAILS
- [x] S-18 ..... TYPICAL SOLAR PANEL DETAILS
- [x] S-19 ..... BEAM BRACING & MISC. DETAILS
- [x] S-20 ..... EQUIPMENT COLUMN CONNECTIONS
- [x] S-21 ..... FOUNDATION MISC. DETAILS
- [ ] S-22 ..... ~~OPTIONAL DETAILS~~
- [ ] S-23 ..... ~~EQUIPMENT PAD DETAILS~~
- [ ] S-24 ..... ~~UNISTRUT BRACED EQUIPMENT RACK 1~~
- [ ] S-25 ..... ~~HSS STEEL EQUIPMENT RACK 2~~
- [ ] S-26 ..... ~~UNISTRUT EQUIPMENT RACK 3~~
- [ ] S-27 ..... ~~WALL MOUNTED EQUIPMENT DETAILS~~
- [ ] S-28 ..... ~~EQUIPMENT PAD ENCLOSURE~~
- [ ] S-29 ..... ~~EQUIPMENT PAD ENCLOSURE DETAILS~~
- [ ] S-30 ..... ~~PERIMETER FENCE DETAILS~~

30 SHEETS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE
SAN MARCOS, CA 92078
ERIK KRIVOKOPICH
PHONE: (760) 744-4131
FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960
B AND C51
(775) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K. ROSEPINK
S 5885
STATE OF CALIFORNIA

BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

COVER SHEET 1

S-1

DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE

DESIGN CHECK LIST

INSTRUCTIONS:
DESIGN PROFESSIONAL SHALL ENSURE ADEQUACY OF PC DESIGN AND PLAN PREPARATION BY VERIFYING THAT ALL THE APPLICABLE CHECKLIST ITEMS BELOW HAVE BEEN PROPERLY EVALUATED/EXECUTED.

SUBMISSION IS FOR: [X] OTC [ ] REGULAR SUBMITTAL

SEOR

- [X] ALLOWABLE LATERAL PRESSURE OF SOIL AT PROJECT SITE LIMITS GROUND-LEVEL LATERAL DISPLACEMENT OF THE STRUCTURE TO A MAXIMUM OF 1/2"
- [X] SITE SPECIFIC GEOTECHNICAL REPORT HAS BEEN PROVIDED WITH A GEOHAZARD SECTION INCLUDED.
- [X] VERIFY THE SITE PLAN SOLAR PANEL LAYOUT IS PROVIDED WITH AREA THAT DOES NOT EXCEED THE PC MAXIMUM.
- [X] VERIFY IF CGS APPROVAL OF GEOTECHNICAL REPORT REQUIRED BECAUSE INDIVIDUAL PC STRUCTURES EXCEED 4000 SQ FT OR SITE IS LOCATED IN A STATE OR LOCAL GEOHAZARD ZONE. STRUCTURES MAY BE BROKEN UP INTO MULTIPLE 4,000 SQ FT STRUCTURES WITH SEISMIC BREAKS PER STUCTURAL DATA ON S-2.
- [X] SOLAR PANEL + NON STRUCTURAL ITEMS < 3.15 psf
- [X] S-2: VERIFY THE SITE PLANS PLANS UTILIZE A RISK CATEGORY II STRUCTURE.
- [X] S-2: VERIFY APPROPRIATE SEISMIC SEPARATION PER 'STRUCTURAL DATA'.
- [X] S-2: VERIFY THAT TABLES IN 'SITE SPECIFIC PARAMETERS' SECTION HAVE BEEN COMPLETED
- [X] S-2: SPECIFY THE SOLAR PANEL AND VERIFY SOLAR PANEL CAPACITY FOR THE CORRESPONDING STRUCTURE WIDTH
- [X] S-2: SPECIFY THE SOLAR PANEL'S DIMENSIONS AND WEIGHT AND SELECT THE APPROPRIATE SOLAR PANEL CONNECTION FORCE OPTION.
- [X] S-3: VERIFY THAT DESIGN PROFESSIONAL STATEMENT REGARDING SOLAR PANEL MEETING PC CRITERIA PER HAS BEEN PROVIDED PER NOTE 15 WITHIN "PV PANEL AND PV PANEL FASTENER INSTALLATION PROCEDURE"
- [X] S-3: VERIFY THAT OPTIONS FOR CONCRETE DURABILTY BASED ON EXPOSURE CLASS AND THE FOUNDATION SOILS CLASS HAVE BEEN SELECTED.
- [X] S-3: VERIFY THE SITE SPECIFIC FOUNDATION LOCATIONS MEET WITH NOTE 10 ON S-3 IN THE SOILS NOTES SECTION FOR SET BACK FROM TOP OF SLOPES, OR THAT THE GEOTECHNICAL REPORT HAS ALLOWED A SMALLER DISTANCE.
- [X] S-5: VERIFY THAT COLD FORMED SECTIONS AND HOT ROLLED SECTIONS HAVE BEEN SELECTED BASED ON THE SITE SPECIFIC PC ID'S UTILIZED ON SHEETS S-7, S-12, AND S-16.
- [ ] S-6: FOR T STRUCTURE, VERIFY WHETHER CANTILEVER MID-SPAN BLOCKING / BRACING REQUIRED PER S-16.
- [ ] S-6: FOR T STRUCTURE, VERIFY 2' MAXIMUM DIFFERENCE IN COLUMN HEIGHTS WITHIN A STRUCTURE.
- [ ] S-6: SELECT APPLICABLE FRAMING, BOLLARD, AND FOUNDATION OPTIONS.
- [X] S-7: VERIFY T PC ID SELECTION MATCHES SITE SPECIFIC LAYOUT. VERIFY IF MULTI SPAN PURLIN HAS BEEN SELECTED FOR NOTE 3 IF APPLICABLE.
- [X] S-8: VERIFY T PC ID FOUNDATION SELECTION MATCHES SITE SPECIFIC LAYOUT AND THAT SOILS CLASS SELECTION MATCHES S-3. VERIFY THAT SPIRAL TIE LENGTH AND SPACINGS HAVE BEEN SELECTED IN DETAIL 2. VERIFY IF STEEL CASING REQUIRED IN DETAIL 2. VERIFY IF NON-STRUCTURAL BOLLARD IS REQUIRED PER DETAIL 3.
- [X] S-9: VERIFY T SPREAD FOOTING PC ID SELECTION MATCHES SITE SPECIFIC LAYOUT. VERIFY IF NON-STRUCTURAL BOLLARD IS REQUIRED PER DETAIL 2.
- [X] S-10: VERIFY T BEAM TO COLUMN PC ID SELECTION MATCHES SITE SPECIFIC LAYOUT.
- [X] S-11: FOR OT STRUCTURE, VERIFY WHETHER CANTILEVER MID-SPAN BLOCKING / BRACING REQUIRED PER S-16.
- [X] S-11: FOR OT STRUCTURE, VERIFY 2' MAXIMUM DIFFERENCE IN COLUMN HEIGHTS WITHIN A STRUCTURE.
- [X] S-11: SELECT APPLICABLE FRAMING, BOLLARD, AND FOUNDATION OPTIONS.
- [X] S-12: VERIFY OT PC ID SELECTION MATCHES SITE SPECIFIC LAYOUT. VERIFY IF MULTI SPAN PURLIN HAS BEEN SELECTED FOR NOTE 3 IF APPLICABLE.
- [X] S-13: VERIFY OT PC ID FOUNDATION SELECTION MATCHES SITE SPECIFIC LAYOUT AND THAT SOILS CLASS SELECTION MATCHES S-3. VERIFY THAT SPIRAL TIE LENGTH AND SPACINGS HAVE BEEN SELECTED IN DETAIL 2. VERIFY IF STEEL CASING REQUIRED IN DETAIL 2. VERIFY IF NON-STRUCTURAL BOLLARD IS REQUIRED PER DETAIL 3.
- [ ] S-14: VERIFY OT SPREAD FOOTING PC ID SELECTION MATCHES SITE SPECIFIC LAYOUT. VERIFY IF NON-STRUCTURAL BOLLARD IS REQUIRED PER DETAIL 2.
- [X] S-15: VERIFY OT BEAM TO COLUMN PC ID SELECTION MATCHES SITE SPECIFIC LAYOUT.
- [X] S-16: VERIFY PURLIN ID SELECTION MATCHES SITE SPECIFIC LAYOUT. VERIFY IF THE PURLIN CANTILEVER SCHEDULE SHOWS THAT THE T OR OT PC ID FOR THE ARRAY END COLUMNS NEED TO BE INCREASED DUE TO THE SITE SPECIFIC CANTLIEVER EXCEEDING THE MAX CANTILEVER LENGTH SHOWN. VERIFY THAT THE PURLIN BRACE AND SPLICE DETAILS HAVE BEEN SELECTED AND MATCH THE INFORMATION FROM THE SELECTION FOR THE PURLIN ID.
- [X] S-17: VERIFY THAT THE PURLIN BRACE AND SPLICE DETAILS HAVE BEEN SELECTED AND MATCH THE INFORMATION FROM THE SELECTION FOR THE PURLIN ID ON S-16.
- [X] S-18: VERIFY PURLIN LAYOUT AND BOLTING OPTIONS HAVE BEEN SELECTED. VERIFY SOLAR PANEL LAYOUT OPTIONS SELECTED MATCH SITE SPECIFIC PLANS. VERIFY PV MODULE MOUNTING BOLT SIZE SELECTED MATCHES REQUIRED PV MODULE MOUNTING BOLT SIZE SPECIFIED IN THE PV MODULE INSTALLATION MANUAL. VERIFY WHETHER ANY GROUNDING/BONDING OPTIONS HAVE BEEN SELECTED.
- [X] S-20: IF SHEET IS PRESENT, VERIFY THAT COLUMN MOUNTED EQUIPMENT SELECTIONS MATCH SITE SPECIFIC PLANS.
- [X] S-21: VERIFY OPTIONAL BOLLARD SELECTIONS MATCH SITE SPECIFIC PLANS. VERIFY FOUNDATION OPTIONS FOR CONDUIT ROUTING MATCH SITE SPECIFIC PLANS.
- [X] S-23: IF SHEET IS PRESENT, VERIFY THAT EQUIPMENT PAD AND RACK SELECTIONS MATCH SITE SPECIFIC PLANS.
- [X] S-23: IF SHEET IS PRESENT AND BATTERY/BESS EQUIPMENT ITEM 19 SELECTED, VERIFY THAT ALL SITE SPECIFIC DRAWING REQUIREMENTS HAVE BEEN PROVIDED PER NOTE 14 ON DETAIL 1.
- [X] S-29: IF SHEET IS PRESENT, VERIFY THAT ENCLOSURE OPTIONS HAVE BEEN SELECTED.
- [X] S-30: IF SHEET IS PRESENT, VERIFY THAT FENCING OPTIONS HAVE BEEN SELECTED.

SITE SPECIFIC PARAMETERS

INSTRUCTIONS:
DESIGN PROFESSIONAL SHALL CHECK THE APPROPRIATE SELECTION BOXES BELOW AND ENTER THE DESIGN PARAMETERS APPLICABLE TO THE SPECIFIC PROJECT SITE.

SNOW

[X] 0 psf ORIGINAL — pg = _____ psf; pf = _____ psf [ ] 5 psf [ ] 20 psf; Ce = _____

WIND

V = 94 mph < = 98 mph
Kzt = 1.00 ≤ 1 K_e = _____ ≤ 1 SITE ELEVATION = _____
EXPOSURE: [X] C [ ] D (***NOT ELIGIBLE FOR OTC REVIEW***)

SEISMIC

[X] DESIGN BASED ON SITE CLASS DETERMINED PER CHAPTER 20 OF ASCE 7-16
GEOTECHNICAL INVESTIGATION PROVIDED
SITE CLASS: [ ] C [X] D [ ] E
S_s = 0.559 Fa = 1.353 PER ASCE 7-16 SUPPL 3, TABLE 11.4-1

[ ] DESIGN BASED ON SITE SPECIFIC GROUND MOTION HAZARD ANALYSIS PER CHAPTER 21 OF ASCE 7-16
SHORT-PERIOD DESIGN SPECTRAL RESPONSE PARAMETER, S_{DS}, SHALL BE AS SPECIFIED IN GEOTECHNICAL INVESTIGATION
CGS APPROVAL REQUIRED
NOT ELIGIBLE FOR OTC REVIEW
SITE CLASS: [ ] C [ ] D [ ] E

S_{DS} = $^2/_3$ Fa. S_s = 0.504 ≤ 1.00
C_s = S_{ds} x I_e / R = ≤ 0.80 USED IN DESIGN
SEISMIC DESIGN CATEGORY: [X] D [ ] E

SOLAR PANEL CAPACITY

INSTRUCTIONS:
DESIGN PROFESSIONAL SHALL ENTER THE INFORMATION FOR THE PROJECT'S SOLAR PANEL, AND CHECK THE APPROPRIATE BOXES BELOW.

[X] SOLAR PANEL: CANADIAN SOLAR BiHiKu6 CS6W-550MB-AG (NAME)

OPTION 1

- [X] STRUCTURE WIDTH < = 43 FT
- [X] SOLAR PANEL ALLOWABLE STRENGTH WIND UPWARD PRESSURE (ASD) 33.4 PSF IS > = 23.1 PSF
- [X] SOLAR PANEL ALLOWABLE STRENGTH WIND DOWNWARD PRESSURE (ASD) 75.1 PSF IS > = 26.3 PSF
- [ ] SOLAR PANEL ALLOWABLE STRENGTH WIND DOWNWARD PRESSURE (ASD) + 20PSF SNOW ___ PSF IS > = 23.4 PSF
- [ ] SOLAR PANEL ALLOWABLE STRENGTH WIND DOWNWARD PRESSURE (ASD) + 20PSF SNOW ___ PSF IS > = 31.9 PSF

OPTION 2

- [ ] STRUCTURE WIDTH > 43 FT
- [ ] SOLAR PANEL ALLOWABLE STRENGTH WIND UPWARD PRESSURE (ASD) ___ PSF IS > = 47.2 PSF
- [ ] SOLAR PANEL ALLOWABLE STRENGTH WIND DOWNWARD PRESSURE (ASD) ___ PSF IS > = 34.1 PSF
- [ ] SOLAR PANEL ALLOWABLE STRENGTH WIND DOWNWARD PRESSURE (ASD) + 5PSF SNOW ___ PSF IS > = 29.2 PSF
- [ ] SOLAR PANEL ALLOWABLE STRENGTH WIND DOWNWARD PRESSURE (ASD) + 20psf SNOW ___ psf IS > = 37.7 psf

SOLAR PANEL CONNECTION FORCE

INSTRUCTIONS:
DESIGN PROFESSIONAL SHALL ENTER THE INFORMATION FOR THE PROJECT'S SOLAR PANEL SIZE & WEIGHT. CHECK THE APPROPRIATE OPTION AND BOXES BELOW, AND CALCULATE THE PANEL SITE SPECIFIC BOLT FORCE IF APPLICABLE

SOLAR PANEL DIMENSIONS 89.2 in x 44.6 in = 27.6 ft^2
SOLAR PANEL CS6W-550MB-AG WEIGHT 71.0 lbs

OPTION 1 [X]: IS THE SITE-SPECIFIC PANEL SIZE LESS THAN 28.12 SQ FT? [X] YES [ ] NO
IF ANSWER IS YES, NO CALCULATION NEEDED AND OTC ALLOWED.
IF ANSWER IS NO, SEE OPTION 2.

OPTION 2 [ ]: IS THE SITE-SPECIFIC PANEL SIZE LESS THAN 29.50 SQ FT? [ ] YES [ ] NO
IS THE SITE-SPECIFIC WIND SPEED LESS THAN OR EQUAL TO 96 MPH? [ ] YES [ ] NO
IF BOTH ANSWERS ARE YES, NO CALCULATION NEEDED AND OTC ALLOWED.
IF ONE OR BOTH ANSWERS ARE NO, SEE OPTION 3.

OPTION 3 [ ]: ***OTC IS NOT ALLOWED***. A STANDARD SUBMITTAL IS REQUIRED

MAXIMUM DESIGN PARAMETERS

RISK CATEGORY:.....II

ROOF LIVE LOAD (L_r):
- WITH SOLAR PANELS INSTALLED:.....12 psf (PER IR 16-8. REVISED 03/03/2021)
- OPEN TRELLIS SYSTEM:.....12 psf (PER IR 16-8. REVISED 03/03/2021)
- POINT LOAD:.....300 lb (PER IR 16-8. REVISED 03/03/2021)

MAX. ROOF SNOW LOAD (S):.....0 psf, 5 psf, 20 psf (VARIES - PER STRUCTURE SELECTED)

MAX. DEAD LOAD:
- SOLAR PANEL/RACKING/ELEC.....3.15 psf

WIND: DIRECTIONAL PROCEDURE

BASIC WIND SPEED.....98 mph (3 SECOND GUST) (SEE NOTES BELOW) [1]
WIND EXPOSURE:.....C[1]
INTERNAL PRESSURE:.....N/A (OPEN STRUCTURE)
.....K_d=0.85
.....K_z=0.88, 0.925 (SEE NOTES BELOW) [1]
.....K_{zt}=1.00

SNOW:
GROUND SNOW, p_g = 0 psf, 5 psf, 20.0 psf
C_e = 0.9
C_t = 1.2
I = 1.0
C_s = 1.0
p_s = 0.7.C_e.C_t.I.p_g.C_s = 0 psf, 5 psf, 20.0 psf
ROOF SNOW, p_f = 0 psf, 5 psf, 20.0 psf
$p_{S.E}$ = 0.0 psf

SEISMIC:
BASE:.....FROM USABLE SOIL HT. PER GEOTECHNICAL REPORT
SEISMIC IMPORTANCE FACTOR:.....I_e = 1.0
SITE CLASS:.....E [3]
SHORT SPECTRAL RESPONSE:.....S_{ds} = 1.000 [2]
RESPONSE MODIFICATION FACTOR:.....R = 1.25
SEISMIC RESPONSE COEFFICIENT:.....C_s = 0.800 [2]
SEISMIC REDUNDANCY FACTOR:.....ρ = 1.3
.....pC_s= 1.040

DESIGN BASE SHEAR: (LRFD)
T-STRUCTURES:.....13,466 [2] lb MAX. (VARIES - PER STRUCTURE SELECTED)
OFFSET T-STRUCTURES:.....7,168 [2] lb MAX. (VARIES - PER STRUCTURE SELECTED)

SEISMIC DESIGN CATEGORY:.....E
SEISMIC FORCE RESISTING SYSTEM:.....ORDINARY STEEL CANTILEVERED COLUMN
ANALYSIS PROCEDURE:.....EQUIVALENT LATERAL FORCE

NOTES:

1. THIS PC'S WIND FORCE RESISTING SYSTEM IS DESIGNED TO ONE WIND CRITERIA.
98 mph EXPOSURE C WITH q_h = 19.3 psf MAX.
EACH CRITERIA IS DESIGNED WITH THE K_z, K_{zt}, AND K_d PER THE ABOVE. THIS PC MAY BE USED IN ANY LOCATION WITH ANY WIND SPEED AND VALUES OF K_z, K_{zt}, AND K_d, SUCH THAT THE RESULTING q_h FOR THE SITE DOES NOT EXCEED 19.3 psf. THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE IS RESPONSIBLE FOR ENSURING THE WIND CRITERIA SELECTED HAS A HIGHER q_h THAN THE SITE SPECIFIC q_h.
2. THIS PC'S SEISMIC FORCE RESISTING SYSTEM IS DESIGNED TO ONE SEISMIC CRITERIA.
S_{ds} = 1.0 WITH R = 1.25 AND pC_s = S_{ds}/R = 1.0/1.25 = 0.800x(1.3)=1.040.
THIS PC MAY BE USED IN ANY LOCATION WITH SUCH THAT THE RESULTING C_s USING THE APPROPRIATE R VALUE DOES NOT EXCEED THE DESIGN CRITERIA C_s VALUES. THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE IS RESPONSIBLE FOR ENSURING THE C_s CRITERIA SELECTED HAS A HIGHER C_s THAN THE SITE SPECIFIC C_s. S_{DS} VALUE TO BE CONFIRMED BY THE GEOTECHNICAL REPORT AND CLEARLY IDENTIFIED ON THE CONSTRUCTION DRAWINGS.
3. THIS PC IS EXEMPTED FROM SITE-SPECIFIC GROUND MOTION HAZARD ANALYSIS REQUIREMENTS OF ASCE 7 SECTION 11.4.8. THIS PC IS DESIGNED USING THE EQUIVALENT LATERAL FORCE PROCEDURE AND A SEISMIC RESPONSE COEFFICIENT BASED ON THE SHORT PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION, SDS.
FOR SITE CLASS 'D'; THE INCREASE IN THE SM1 PARAMETER PRESCRIBED IN THE EXCEPTION TO ASCE 7 SEC 11.4.8, ITEM 1, DOES NOT IMPACT THE DESIGN OF THE STRUCTURE.
FOR SITE CLASS 'E'; THE STRUCTURE COMPLIES WITH THE EXCEPTION 1 CONDITIONS OF ASCE 7 SECTION 11.4.8, ITEM 2.

BID INFORMATION

THE STEEL STRUCTURES IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC.
AND 4 S.T.E.L. ENGINEERING, INC. THE STEEL WORK SHALL NOT GO OUT TO BID.

STRUCTURAL DATA

LATERAL RESISTING SYSTEM:..... CANTILEVERED COLUMN
FOUNDATION:..... PIER AND SPREAD FOOTING
MINIMUM REQUIRED SEISMIC SEPARATION:..... 10"
TESTING AND INSPECTION LIST:..... SEE SHEETS S-3 & S-4
DESIGNED TO SUPPORT FIRE SPRINKLERS:.....NO

FIRE LIFE SAFETY

AUTOMATIC FIRE SPRINKLERS REQUIRED? (Y/N).....N

1. FOR ALL CANOPY ARRAYS - VERIFY COMPLIANCE W/ CFC 503.2.1
FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET, EXCLUSIVE OF SHOULDERS, EXCEPT FOR APPROVED SECURITY GATES IN ACCORDANCE WITH SECTION 503.6, AND AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET 6 INCHES
2. ALL GROUNDING SHALL BE IN ACCORDANCE WITH CEC ART. 250

ACCESS

1. CONCRETE BOLLARD ABOVE FOUNDATIONS (RAISED PIERS) CANNOT BE LOCATED IN ACCESSIBLE PARKING SPACES OR ACCESS AISLES.
2. SLOPED PORTIONS OF FOUNDATIONS, WHEN LOCATED IN ACCESSIBLE PARKING STALL OR ACCESS AISLE, MUST HAVE A SLOPE LESS THAN OR EQUAL TO 2.08%
3. MINIMUM ARRAY CLEAR HEIGHTS IN ACCESSIBLE AREAS:
8'-2" - WHEN LOCATED OVER ACCESSIBLE PARKING OR ACCESS AISLES
9'-6" - WHEN LOCATED OVER ACCESSIBLE PASSENGER LOADING ZONES

BUILDING DATA

TYPE OF CONSTRUCTION.....II B
OCCUPANCY.....VARIES - SEE EXAMPLES BELOW
NUMBER OF STORIES.....1
BUILDING AREAS.....VARIES DUE TO OCCUPANCY - SEE EXAMPLES BELOW
MODULE SIZES.....VARIES WITH OPTIONS
BUILDING LENGTH:
ALL WIDTHS.....MAX. 500'-0" LENGTH
NOTE: NO SEISMIC AND/OR THERMAL EXPANSION JOINTS REQUIRED ALONG THE LENGTH OF THE STRUCTURES. (ALL JOINTS ARE INTERNAL)

OCCUPANCY AND BUILDING AREA EXAMPLES:
ALL STRUCTURES SHALL BE BASED ON RISK CATEGORY II STRUCTURE.
OCCUPANCY A:
- EXAMPLE 1:
  - STRUCTURES LOCATED OVER LUNCH AREA WITHOUT FIXED SEATING
  - OCCUPANCY: A-2
  - OCCUPANCY LOAD: 15 ft^2/person - MAX 300 PERSONS FOR RISK II
  - MAX SQ FT: 4,500 ft^2
- EXAMPLE 2:
  - STRUCTURES LOCATED OVER LUNCH AREA WITH FIXED SEATING
  - OCCUPANCY: A-2
  - OCCUPANCY LOAD: 18 lb/person ALONG LINEAR BENCH - MAX 300 PERSONS FOR RISK II
  - MAX SQ FT: 5,400 LINEAR INCHES OF FIXED SEATING UNDER THE STRUCTURE
- EXAMPLE 3:
  - STRUCTURES LOCATED OVER AN AREA DESIGNATED FOR ASSEMBLY (TYPICALLY UNPARTITIONED, OR OTHER SPACE WITH FIXED SEATING OR DESIGNATED AS A STANDING ASSEMBLY AREA)
  - OCCUPANCY: A
  - OCCUPANCY LOAD: 7 ft^2/person - MAX 300 PERSONS FOR RISK II
  - MAX SQ FT: 2,100 ft^2

SHADE STRUCTURE:
- EXAMPLE 1:
  - STRUCTURES LOCATED OVER A FIELD, BLACKTOP, PLAYGROUND EQUIPMENT, OR OTHER NON-DESIGNATED USE SPACES
  - OCCUPANCY: E
  - OCCUPANCY LOAD: 20 ft^2/person - MAX 250 PERSONS FOR RISK II
  - MAX SQ FT: 5,000 ft^2

PARKING
EXAMPLE 1:
STRUCTURES LOCATED OVER PARKING
OCCUPANCY: S-2
OCCUPANCY LOAD: 200 ft^2/person
MAX SQ FT: UNLIMITED PER CBC 406.5.4 AND 406.5.5

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
2. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENTS APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
3. A 'DSA CERTIFIED' PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR).
4. A 'DSA CERTIFIED' INSPECTOR WITH CLASS 2 CERTIFICATION IS REQUIRED FOR THIS PROJECT.
5. A 'DSA CERTIFIED' INSPECTOR WHO IS SPECIFICALLY QUALIFIED IN MECHANICAL AND ELECTRICAL WORK WILL BE REQUIRED FOR THIS PROJECT.
6. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE SCHOOL BOARD SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
7. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
8. IF THE PROJECT IS DIVIDED INTO INCREMENTS: THE SCOPE OF WORK FOR EACH INCREMENT MUST BE CLEARLY SPECIFIED ON THE TITLE SHEET OF ALL INCREMENTS SUBMITTED.
9. DESIGN PER 2022 CBC AND ITS PRESCRIBED LOADING AND MATERIAL SPECIFICATIONS:
   - ASCE 7-16
   - ASCE 19-16
   - 15TH EDITION AISC STEEL MANUAL
   - AISI S100-16(2020) W/S2-20 COLD-FORMED STEEL STRUCTURAL MEMBERS, WITH SUPP. 2, 2020 EDITION
   - ACI 318-19
10. THESE STRUCTURES ARE NOT DESIGNED TO BE, NOR SHALL THEY BE, ENCLOSED.
11. ALL DIMENSIONS, CONDITIONS, AND ELEVATIONS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK OR FABRICATION. IF ANY DISCREPANCIES ARE FOUND OR IF ANY CONDITION EXISTS NOT AS SHOWN ON THE DRAWINGS THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE SHALL BE NOTIFIED IMMEDIATELY.
12. IF A SNOW LOAD OPTION IS USED THEN THE SITE-SPECIFIC MAX. ROOF SNOW LOADING INCLUDING DRIFT MUST BE LESS THAN OR EQUAL TO THE psf OF SNOW LOAD SELECTED FOR THE SITE USE (5 OR 20 psf).
13. NO FUTURE STRUCTURAL ROOF DECK OR SHEATHING MAY BE APPLIED TO THE OPEN GRID.
14. THE ALLOWABLE MAXIMUM psf ALLOWED FOR THE SOLAR PANEL, ELECTRICAL, AND OTHER NON-STRUCTURAL ITEMS IS 3.15 psf.
15. ALL SCREWS TO BE ITW BUILDEX TEK SCREWS PER ICC ESR-1976 OR ELCO DRILL SCREW PER ICC ESR-3294.
16. ALL UNISTRUT PARTS & CALLOUTS MAY BE SUBSTITUTED BY OTHER MANUFACTURERS W/ EQUIVALENT STRENGTH.

CODES

GOVERNING CODES:
CALIFORNIA CODE OF REGULATIONS:
2022 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
(2021 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2020 NATIONAL ELECTRICAL CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R.
(2021 UNIFORM MECHANICAL CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2021 UNIFORM PLUMBING CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.
2022 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
(2021 INTERNATIONAL FIRE CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
2022 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

NFPA 13	AUTOMATIC FIRE SPRINKLER SYSTEMS	2022 EDITION
NFPA 72	NATIONAL FIRE ALARM & SIGNALING CODE	2022 EDITION

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:
2022 CBC, CHAPTER 35
2022 CFC, CHAPTER 80

PRE-CHECK (PC) DOCUMENT

CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE, SAN MARCOS, CA 92078
ERIK KRIVOPOPCH
PHONE: (760) 744-4131
FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960
B AND C-51
(770) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER — DUSTIN K. ROSENTRETER — S 5885 — CIVIL — STATE OF CALIFORNIA

BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT

CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

COVER SHEET 2

S-2

DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE

PV PANEL AND PV PANEL FASTENER INSTALLATION PROCEDURE

1. PRIOR TO PRETENSIONED PANEL FASTENER INSTALLATION, THE CONTRACTOR MUST SUBMIT TO THE PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW AND ACCEPTANCE A DETAILED PRETENSIONED PANEL FASTENER INSTALLATION PROCEDURE OUTLINING PROVISIONS TO ENSURE ALL PRETENSIONED PANEL FASTENERS ARE INSTALLED AND TORQUED WITHIN THE SPECIFIED MINIMUM AND MAXIMUM TORQUE RANGE. A COPY OF THE RESPONSIBLE DESIGN PROFESSIONAL-ACCEPTED INSTALLATION PROCEDURE SHALL BE PROVIDED TO THE SPECIAL INSPECTOR AND PROJECT INSPECTOR PRIOR TO COMMENCING PANEL FASTENER INSTALLATION.

   NOTE: THE FASTENER INSTALLATION PROCEDURE MAY ALSO BE SUBMITTED AT TIME OF SITE-SPECIFIC APPLICATION AND INCLUDED ON THE SITE-SPECIFIC CONTRACT DOCUMENTS.

2. INSTALLATION VERIFICATION TESTING AND SPECIAL INSPECTION

   PC DRAWINGS HAVING PRETENSIONED PANEL FASTENER CONNECTIONS SHALL SPECIFY ON APPLICABLE PANEL CONNECTION DETAIL(S):

   SPECIAL INSPECTION AND TORQUE TESTING OF PRETENSIONED PANEL FASTENER INSTALLATION SHALL BE PERFORMED BY A QUALIFIED REPRESENTATIVE OF THE LABORATORY OF RECORD (LOR) IN ACCORDANCE WITH SECTION 2.1.8 OF IR PC-7 PC DESIGN CRITERIA FOR CANTILEVERED CANOPY STRUCTURES.

3. SPECIAL INSPECTION AND TESTING
   TO ENSURE COMPLIANCE WITH THE CONTRACTOR'S INSTALLATION PROCEDURE AND DSA-APPROVED CONSTRUCTION DOCUMENTS, SPECIAL INSPECTION OF PRETENSIONED PANEL FASTENER INSTALLATION SHALL BE PERFORMED AS FOLLOWS:
   a. VERIFY THAT SPECIFIED FASTENERS ARE UTILIZED.
   b. VERIFY THAT INSTALLERS HAVE ACCESS TO AND FOLLOW THE INSTALLATION PROCEDURE, INCLUDING ANY SPECIFIED CALIBRATED INSTALLATION EQUIPMENT.
   c. VERIFY AND DOCUMENT PRE-INSTALLATION QUALIFICATION FOR EACH PV PANEL FASTENER INSTALLER BEFORE CONTINUING WITH INSTALLATION BEYOND THIS QUALIFICATION PROCEDURE ON THE PROJECT AS FOLLOWS:
   d. PERFORM TORQUE TESTING OF 30 RANDOMLY SELECTED (AS SPECIFIED IN THE CALIFORNIA ADMINISTRATIVE CODE [CAC]) PANEL FASTENERS FROM THE FIRST 100 FASTENERS INSTALLED.
   e. IF 30 CONSECUTIVE CONFORMING TEST ARE NOT ACHIEVED WITHIN THE FIRST 100 FASTENERS INSTALLED, INSTALL ANOTHER 100 FASTENERS, AND REPEAT THE TESTING PROCESS UNTIL 30 CONSECUTIVE TEST ARE ACHIEVED. ALL FASTENERS FAILING INSTALLATION TORQUE REQUIREMENTS SHALL BE REPLACED AND/OR RE-INSTALLED CORRECTLY BY THE INSTALLER AND TESTED FOR CONFORMANCE.
   f. EQUIPMENT AND TOOLS (E.G., TORQUE WRENCHES) USED FOR VERIFICATION SHALL BE PROVIDED BY THE LOR AND CALIBRATED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND PERTINENT STANDARD (E.G., ANSI/ASME B107).

4. SPECIAL INSPECTION AND TESTING RATES
   AFTER COMPLETION OF THE PRE-INSTALLATION QUALIFICATION DESCRIBED IN SECTION 2.1.8.3.3 ABOVE, SPECIAL INSPECTION AND TORQUE TESTING OF THE REMAINING INSTALLED PRETENSIONED PANEL FASTENERS (CHOSEN RANDOMLY AS SPECIFIED IN THE CAC, UNLESS INSTALLATION CONCERNS SUGGEST OTHERWISE) TO VERIFY THAT MINIMUM TORQUE VALUES ARE ACHIEVED AND THAT MAXIMUM VALUES ARE NOT EXCEEDED SHALL OCCUR AT LEAST AT THE RATES SHOWN BELOW TO VERIFY CONFORMANCE FOR EACH INSTALLER:

SPECIAL INSPECTION AND TORQUE TESTING RATES TABLE

TOTAL NUMBER OF PANEL FASTENERS ON THE PROJECT	SPECIAL INSPECTION	% OF TOTAL TO BE TESTED
0 - 800	CONTINUOUS	50
801 - 1600	CONTINUOUS	33
1601-3500	PERIODIC*	20
3501-7500	PERIODIC*	10
MORE THAN 7500	PERIODIC*	5

   * FOR PROJECTS WITH MORE THAN 1600 TOTAL PANEL FASTENERS, THE FIRST 1600 SHALL RECEIVE CONTINUOUS INSPECTION.
   IF ANY FASTENER FAILS TORQUE TESTING, ALL FASTENERS OF THE SAME TYPE AND BY THE SAME INSTALLER, BUT NOT PREVIOUSLY TESTED, SHALL BE TESTED UNTIL 20 CONSECUTIVE FASTENERS PASS, THEN RESUME THE INITIAL TEST FREQUENCY

5. ALL SOLAR PANELS MUST BE INSTALLED BY PROPERLY TRAINED AND QUALIFIED PERSONNEL. PROPERLY TRAINED PERSONNEL SHALL BE:
   - FAMILIAR WITH THE DIFFERENCE BETWEEN A DRILL GUN AND AN IMPACT GUN.
   - FAMILIAR WITH HOW TO MEASURE THE TORQUE ON THE INSTALLED BOLT.
   - SHALL BE TRAINED IN INSTALLATION OF STRUCTURAL STEEL BOLTING.
6. ALL SOLAR PANEL INSTALLATION BOLTS SHALL BE ASTM F593C STAINLESS STEEL BOLTS.
7. TESTING OF ASTM F593C SOLAR PANEL ATTACHMENT BOLTS IS REQUIRED.
8. SOLAR PANELS MUST BE SECURED TO THE STRUCTURE WITH A MINIMUM OF 4 DIRECT BOLTS. ALL 4 BOLTS MUST BE PROPERLY INSTALLED, TORQUED, AND INSPECTED FOR ALL PANELS INSTALLED ON A STRUCTURE BY THE END OF THE WORK DAY. NO PANEL MAY BE LEFT ON THE STRUCTURE WITHOUT ALL 4 BOLTS INSTALLED AND PROPERLY TORQUED.
9. THE INSTALLATION TORQUE SHALL BE INSPECTED TO BE IN CONFORMANCE WITH 5/S-18 OR 7/S-18.
10. SPECIAL INSPECTION OF SOLAR PANEL BOLT INSTALLATION SHALL BE PER NOTE 3 ABOVE.
11. CONTRACTOR RESPONSIBLE FOR SOLAR PANEL INSTALLATION AND ATTACHMENT SHALL PROVIDE A SUBMITTAL TO THE SITE SPECIFIC STRUCTURAL ENGINEER OF RECORD FOR THEIR REVIEW CONTAINING: THE PANEL INSTALLATION PROCEDURES, METHOD TO ENSURE ALL PANELS HAVE ALL 4 BOLTS INSTALLED AND PROPERLY TORQUED BEFORE THE END OF EVERY WORK DAY, ALL TOOLS USED TO SECURE THE SOLAR PANEL (INCLUDING BUT NOT LIMITED TO: POWER TOOLS RPMS, TOOLS MAX TORQUE ABILITY, METHOD OF ENSURING TOQUE VALUES ARE NOT EXCEEDED, ETC),, AND ALL BOLTS AND HARDWARE USED TO SECURE THE PANEL TO THE STRUCTURE.
12. SOLAR PANELS MAY BE INSTALLED IN LANDSCAPE OR PORTRAIT SUBJECT TO PANEL MANUFACTURER INSTALLATION REQUIREMENTS.
13. SOLAR PANELS ARE TO BE LISTED AND LABELED IN ACCORDANCE WITH UL1703, OR IEC / UL61730-1 & IEC / UL61730-2 PER CBC SECTION 1511.9 FOR BOTH PORTRAIT AND LANDSCAPE INSTALLATIONS.
14. THE LOAD RATINGS FOR THE SOLAR PANELS SELECTED BY THE CONTRACTOR MUST MEET OR EXCEED THE ACTUAL DESIGN WIND PRESSURES SHOWN ON THE PC PLANS. SEE S-1 DESIGN PARAMETER CHECK LIST NOTE 2 FOR DESIGN WIND PRESSURES.
15. THE OWNER'S SITE PROFESSIONAL SHALL PROVIDE PRODUCT DOCUMENTATION FROM THE SOLAR PANEL SUPPLIER, INCLUDING PANEL DIMENSIONS AND LOAD RATINGS, TO THE PC DESIGN PROFESSIONAL FOR REVIEW PRIOR TO SUBMITTAL TO DSA FOR PLAN REVIEW. DOCUMENTATION SHALL IDENTIFY PANEL LOAD RATINGS AS ALLOWABLE OR STRENGTH LEVEL,THE NUMBER OF FASTENERS REQUIRED TO ACHIEVE THE RATING, AND SPECIFY WHETHER THE LOADS LISTED ARE DESIGN OR TEST VALUES FROM THE UL 1703 TESTS. UPON ACCEPTANCE, THE PC DESIGN PROFESSIONAL SHALL PROVIDE A STATEMENT TO OWNER'S SITE PROFESSIONAL THAT THE SOLAR PANELS ARE IN COMPLIANCE WITH THE APPROVED PC PLANS. THE OWNER'S SITE PROFESSIONAL SHALL SUBMIT THE STATEMENT AND PANEL DOCUMENTATION TO DSA WITH THE PLAN REVIEW PACKAGE.
16. IF 4 S.T.E.L. ENGINEERING, INC. IS NOT THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE IT WILL NEED TO BE CONTRACTED BY THE APPROPRIATE PARTY IN ORDER TO SUPPLY THE REQUIRED DOCUMENTATION IN NOTE 12 ABOVE. THE CONTRACT SHALL PROVIDE THE APPROPRIATE FEE AND A MINIMUM OF 15 BUSINESS DAYS LEAD TIME TO REVIEW THE DOCUMENTS IN ORDER TO GENERATE THE REQUIRED STATEMENT. ANY REQUESTS MADE WITH LESS NOTICE WILL REQUIRE ADDITIONAL FEES. SAME DAY REQUESTS WILL NOT BE ACCEPTED.

SPECIAL INSPECTION

1. SOILS:
   - VERIFY THE SITE HAS BEEN PREPARED PROPERLY PRIOR TO PLACEMENT OF CONTROLLED FILL AND/OR EXCAVATIONS FOR FOUNDATIONS.
   - VERIFY THAT THE FOUNDATION EXCAVATIONS ARE PROPER WIDTH, EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.
   - VERIFY THAT MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.
2. PIER FOUNDATIONS:
   - INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH PIER.
   - VERIFY LOCATIONS OF PIERS.
3. CONCRETE:
   - VERIFY USE OF REQUIRED DESIGN MIX, DETERMINE THE TEMPERATURE OF THE CONCRETE, AND (WHERE REQUIRED) PERFORM AIR CONTENT TEST.
   - TEST CONCRETE (COMPRESSION TEST).
   - INSPECT PLACEMENT OF FORMWORK, REINFORCING STEEL, EMBEDDED ITEMS, AND CONCRETE. INSPECT CURING AND FORM REMOVAL.
   - INSPECT INSTALLATION OF POST-INSTALLED ANCHORS.
   - TEST POST-INSTALLED ANCHORS PER 2022 CBC 1910A.5.
   - ALL ½"Ø HILTI STAINLESS STEEL KB-TZ2 BOLTS TO BE INSTALLED TO 40 FT- lbs OF TORQUE. ALL ⅝"Ø HILTI STAINLESS STEEL KB-TZ2 BOLTS TO BE INSTALLED TO 60 FT- lbs OF TORQUE. ALL ¾"Ø HILTI STAINLESS STEEL KB-TZ2 BOLTS TO BE INSTALLED TO 125 FT- lbs OF TORQUE. AT LEAST 50% OF THE INSTALLED ANCHORS SHALL BE TESTED. HILTI KB TZ2 BOLTS PER ICC ESR-4266.
   - SLUMP TEST SHALL BE PERFORMED PER SITE SPECIFIC DSA-103.
4. STEEL:
   - VERIFY THAT ALL MATERIALS ARE APPROPRIATELY MARKED AND THAT:
     - MILL CERTIFICATES INDICATE MATERIAL PROPERTIES THAT COMPLY WITH REQUIREMENTS.
     - MATERIAL SIZES, TYPES AND GRADES COMPLY WITH REQUIREMENTS.
   - TEST UNIDENTIFIED MATERIALS.
   - VERIFY MEMBER LOCATIONS, BRACING AND ALL DETAILS CONSTRUCTED IN THE FIELD.
   - VERIFY STIFFENER LOCATIONS, CONNECTION TAB LOCATIONS, AND ALL CONSTRUCTION DETAILS FABRICATED IN THE SHOP.
   - VERIFY WELD FILLER MATERIAL IDENTIFICATION MARKINGS PER AWS DESIGNATION LISTED ON THE DSA APPROVED DOCUMENTS AND THE WPS.
   - VERIFY WELD FILLER MATERIAL MANUFACTURER'S CERTIFICATE OF COMPLIANCE.
   - VERIFY WPS, WELDER QUALIFICATIONS, AND EQUIPMENT.
   - INSPECT GROOVE, MULTI-PASS, AND FILLET WELDS > 5/16" (BOTH SHOP AND FIELD WELDS).
5. SHOP FABRICATION:
   - VERIFY FABRICATOR'S FABRICATION AND QUALITY CONTROL PROCEDURES.
   - VERIFY ALL ASPECTS OF SHOP FABRICATION INCLUDING MEMBER LOCATIONS, DIMENSIONAL LAYOUT OF ALL PARTS AND PIECES, ALL WELDING, BOLTING, ETC.
6. SEE DSA APPROVED 103 FOR ADDITIONAL REQUIREMENTS.

CONCRETE NOTES

1. CONCRETE MIN. 4,500 PSI AT 28 DAYS UNLESS THE GEOTECHNICAL REPORT ALLOWS FOR A LOWER STRENGTH (4,000 PSI MIN.). BATCH PLANT INSPECTION NOT REQUIRED.
2. CONCRETE TO REACH 1,000 psi PRIOR TO REMOVAL OF SHORING AND/OR INSTALLATION OF BEAMS AND PURLINS. (NOTE: A HIGHER COMPRESSIVE CONCRETE MAY BE USED TO ACHIEVE 1,000 psi SOONER. SUBMIT AN APPROVED CONCRETE MIX DESIGN TO JUSTIFY) OR 24 HRS WHICH COMES FIRST.
3. CONCRETE TO REACH 3,000 psi PRIOR TO INSTALLATION OF SOLAR PANELS. (NOTE: A HIGHER COMPRESSIVE CONCRETE MAY BE USED TO ACHIEVE 3,000 psi SOONER. SUBMIT AN APPROVED CONCRETE MIX DESIGN TO JUSTIFY).
4. REINFORCEMENT BARS SHALL BE ASTM A615, GR60. MINIMUM U.N.O.
5. MINIMUM CONCRETE COVER SHALL BE 2½" TO EARTH (DRILLED PIER FOUNDATIONS ONLY), 3" TO EARTH ALL OTHER CONCRETE, 2" TO SKY. PER CBC TABLE 1808A.8.2.
6. ALL REINFORCING STEEL AND OTHER EMBEDDED ITEMS SHALL BE SECURELY POSITIONED PRIOR TO THE POURING OF CONCRETE.
7. ALL CONCRETE WORK SHALL COMPLY WITH ACI 301 & 318 LATEST EDITION.
8. AGGREGATE GRADATION AND QUALITY SHALL BE IN ACCORDANCE WITH ACI 302-IR.
9. COLD JOINTS SHALL HAVE A ROUGHENED SURFACE. BONDING AGENT SHALL COMPLY WITH ASTM C1059. A SUBMITTAL FOR CONCRETE BONDING AGENT SHALL BE APPROVED BY DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO INSTALLATION. DSA INSPECTOR OF RECORD TO PERIODICALLY INSPECT INSTALLATION OF BONDING AGENT.
10. BATCH PLANT INSPECTION NOT REQUIRED PER CBC 1705A3.3.2. SUBJECT TO:
    - A LICENSED WEIGHMASTER SHALL POSITIVELY IDENTIFY QUANTITY OF MATERIALS AND CERTIFY EACH LOAD BY A BATCH TICKET.
    - BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY THE TRUCK DRIVER WITH LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR OF RECORD SHALL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK, ITS LOAD, AND TIME OF RECEIPT AT THE JOBSITE, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND SHALL MAINTAIN A COPY OF THE DAILY RECORD AS REQUIRED BY THE ENFORCEMENT AGENCY.
11. CONCRETE MAY BE PUMPED, POURED, TAILGATED OR OTHER SUCH METHODS INTO PLACE. CONCRETE SHALL BE ALLOWED TO FREE FALL THE ENTIRE DEPTH OF THE FOUNDATION, AS INDICATED IN ACI 304R-09, CHAPTER 5. PLACEMENT OF ANY FREE-FALL CONCRETE SHALL BE SUCH THAT THE CONCRETE DOES NOT ALTER THE EMBEDMENT DEPTH OR THE CLEARANCE OF THE REINFORCING BAR CAGE OR OTHER EMBEDDED MATERIALS.
12. CONCRETE SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS BASED ON EXPOSURE CLASS IN ACCORDANCE WITH ACI 318-19 TABLE 19.3.2.1 WHEN DETERMINED BY A SITE SPECIFIC GEOTECHNICAL REPORT. WHEN EXPOSURE CLASS NOT SPECIFIED, USE "NOT DETERMINED" AS PERMITTED BELOW.
13. AIR-ENTRAINED CONCRETE AT EXPOSURE CLASSES F1, F2 AND F3 SHALL MEET ACI 318-19 SECTION 19.3.3.

REQUIREMENTS FOR CONCRETE BASED ON EXPOSURE CLASS

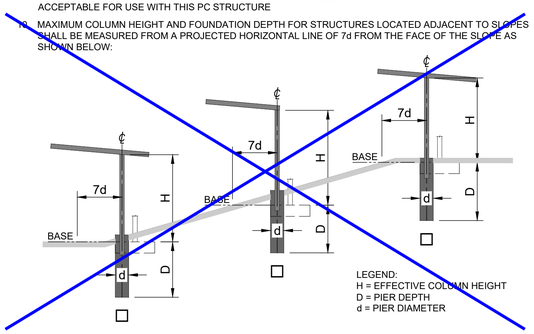
USE	EXPOSURE CLASS ACI TABLE 19.3.1.1	MINIMUM CONCRETE STRENGTH F_c	CEMENT TYPE ASTM C150	MAX. WATER/CEMENT RATIO W/M
☐	NOT DETERMINED	4,500 PSI	TYPE V	0.45
☒	F0, S0, W0, W1, C0, C1	4,000 PSI	TYPE II	N/A
☐	S1, W2	4,000 PSI	TYPE II	0.50
☐	C2, F3	5,000 PSI	TYPE V	0.40
☐	ALL OTHER	4,500 PSI	TYPE V	0.45

STEEL NOTES

1. COLD FORMED STEEL SIZES ARE BASED ON GAUGE THICKNESS.
2. PURLINS, BEAMS, POSTS (FRAMING MEMBERS) HAVE MIN. YIELD STRENGTHS AS INDICATED.
3. ZINC COATING OF STRUCTURAL STEEL SHALL CONFORM WITH G90 STANDARD OR BETTER COLD FORMED STEEL (CFS) MEMBERS TO BE GALVANIZED IN ACCORDANCE WITH ASTM A653 G90 STANDARD. HOLLOW STRUCTURAL STEEL (HSS) MEMBERS AND STEEL PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123, UNLESS NOTED OTHERWISE.
4. ALL STEEL MEMBERS SHALL BE GALVANIZED OR PAINTED WITH ZINC-RICH PRIMER, UNDERCOAT AND FINISH COAT OR EQUIVALENT PAINT SYSTEM. CONTRACT DOCUMENTS SHALL SPECIFY THE TYPE OF SSPC CORROSION RESISTING SYSTEM TO BE UTILIZED AND THE SSPC GRADE FOR CLEANING, MINIMUM SSPC GRADE SP2.
5. STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED (MINIMUM ASTM A123 OR A153, CLASS D) OR PAINTED WITH ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT; OR EQUIVALENT PAINT SYSTEM. COLD-FORMED STEEL MEMBERS SHALL BE 55% ALUMINUM-ZINC ALLOY COATED PER ASTM A792/A792M STANDARD IN ACCORDANCE TO AISI S240 TABLE A4-1, CP 90 COATING DESIGNATION.
6. ALL EXPOSED STEEL FASTENERS, INCLUDING CAST IN PLACE ANCHOR BOLTS/RODS, SHALL BE STAINLESS STEEL (TYPE 304 MINIMUM), HOT-DIP GALVANIZED (ASTM A153, CLASS D MINIMUM OR ASTM F2329), OR PROTECTED WITH CORROSION-PREVENTIVE COATING THAT DEMONSTRATED NO MORE THAN 2% OF RED RUST IN MINIMUM 1,000 HOURS OF EXPOSURE IN SALT SPRAY TEST PER ASTM B117. ZINC-PLATED FASTENERS DO NOT COMPLY WITH THIS REQUIREMENT. (EXAMPLE PROPRIETARY COATINGS THAT COMPLY WITH THE 1000 HOUR REQUIREMENT INCLUDE BUT ARE NOT NECESSARILY LIMITED TO: QUIK GUARD BY SIMPSON, KWIK-COTE BY HILTI, STALGARD BY ELCO, VISTACORR BY SFS INTEC, ETC.)
7. ALL STEEL FABRICATION SHALL COMPLY WITH LATEST AISC SPECIFICATIONS.
8. ALL WELDING SHALL COMPLY WITH THE LATEST AWS D1.1. ALL WELD FILLER MATERIAL SHALL HAVE A MINIMUM CHARPY V-NOTCH (CVN) VALUE OF 20 FT-lbs AT A TEMPERATURE OF -20° F.
9. ALL BOLTS TO MEET OR EXCEED ASTM A307. NO BOLTING INSPECTIONS REQUIRED U.N.O.
10. ALL PLATES AND ANGLES TO BE ASTM A36 U.N.O.
11. ALL STRUCTURAL TUBING TO BE ASTM A1085 U.N.O.
12. ALL PURLINS TO BE ASTM A653 GR. 55
13. REPAIR ANY DAMAGED GALVANIZATION AFTER FIELD WELDS WITH AN APPROVED REPAIR METHOD.
14. ALL MEMBERS TO BE GALVANIZED OR PRIMED AND PAINTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL CONTRACT DOCUMENTS SHALL SPECIFY THE TYPE OF SSPC CORROSION RESISTING SYSTEM TO BE UTILIZED AND THE SSPC GRADE FOR CLEANING, MINIMUM SSPC GRADE SP2.
15. ALL BEAM TO COLUMN CONNECTIONS TO MEET WITH DETAILS 3 OR 4/S-10, 3 OR 4/S-15 FOR CORROSION PROTECTION.
16. ALL A307 BOLTS MAY BE SUBSTITUTED WITH THE SAME QUANTITY OF SAE J429 GRADE 2 BOLTS OF THE SAME DIAMETER.
17. A1085 STEEL HAS SAME OR BETTER PROPERTIES AND WELDABILITY THAN A500 GR. B.
18. BOLT HOLES FOR ½" Ø BOLTS SHALL BE 9/16" Ø.
19. BOLTS SHALL BE TIGHTENED TO SNUG-TIGHT CONDITION UNLESS NOTED OTHERWISE.
20. ALL BOLTS SHALL BE PROVIDED WITH A METHOD TO PREVENT NUTS FROM LOOSENING. SAMPLE ACCEPTABLE METHODS ARE: LOCK WASHERS, NYLOCK NUTS, BOLTS WITHOUT WASHERS WITH SERRATED NUTS, ND PATCH, LOCTITE, OTHER SIMILAR CHEMICAL LOCKING DEVICES, OR OTHER SIMILAR LOCKING DEVICES. ONLY ONE METHOD IS REQUIRED. CONTRACTOR TO IDENTIFY A METHOD IN ALL SUBMITTALS TO THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE.
21. ALL BOLTS IN THIS PC OTHER THAN THOSE SHOWN IN DETAILS 3/S-18, 4/S-18, 5/S-18, 7/S-18 DO NOT REQUIRE SPECIAL INSPECTION.
22. ALL HSS MEMBERS MAY BE SUBSTITUTED WITH AN ALTERNATE HSS MEMBER WITH EQUAL OR GREATER DIMENSIONS IN HEIGHT, WIDTH, AND THICKNESS. EXAMPLE HSS 12x8x¼ MAY BE SUBSTITUTED WITH 12x8x5/16 OR 14x10x5/16 OR 16x12x5/16 OR OTHER MEMBER WITH A HEIGHT EQUAL TO OR GREATER THAN 12 INCHES WITH A WIDTH EQUAL TO OR GREATER THAN 8 INCHES WITH A WALL THICKNESS OF ¼ INCH OR GREATER.
23. ALL HSS MEMBERS USING ASTM A1085 MATERIAL MAY SUBSTITUTE ASTM A500, GRADE B MATERIAL PROVIDED THE THICKNESS OF THE MEMBER IS INCREASED BY A MINIMUM OF 1/16".
24. BOLT HOLES IN THE PURLIN MEMBERS FOR THE PURLIN TO BEAM CONNECTIONS AND PURLIN SPLICES MAY BE OVERSIZED BY ½".
25. SPECIFIED SPECIAL INSPECTION FOR THREADED RODS USED FOR BRACING IS FOR MATERIAL ONLY. NO INSTALLATION INSPECTION IS REQUIRED.

SOILS NOTES

1. A SITE SPECIFIC GEOTECHNICAL REPORT IS REQUIRED.
2. THE GEOTECHNICAL ENGINEER SHALL REVIEW THE SITE CONDITIONS, TESTING RESULTS, ALL APPLICABLE ALLOWABLE INCREASES AND SPECIFY THE FINAL SOIL CLASS TO BE USED FROM THE TABLE BELOW. THE GEOTECHNICAL ENGINEER SHALL PROVIDE IN THE GEOTECHNICAL REPORT THE BASE VALUES WITHOUT INCREASE FOR MINIMUM 24" DIAMETER PIERS. THE ALLOWABLE VERTICAL END BEARING, ALLOWABLE LATERAL BEARING, ALLOWABLE DOWNWARD SKIN FRICTION AND ALLOWABLE SKIN FRICTION TO RESIST UPLIFT. FACTORS OF SAFETY USED FOR THESE BASE VALUES ARE TO BE CLEARLY IDENTIFIED. THE GEOTECHNICAL ENGINEER SHALL ALSO PROVIDE ANY ALLOWABLE INCREASES TO THE BASE VALUES. POSSIBLE ALLOWABLE INCREASES TO BE CONFIRMED BY THE GEOTECHNICAL ENGINEER ARE: DOUBLE LATERAL BEARING VALUES DUE TO ISOLATED FOUNDATIONS. DOUBLE LATERAL BEARING VALUES DUE TO THE STRUCTURE NOT BEING ADVERSELY AFFECTED BY 1/2" DEFLECTION AT THE SURFACE, A 4/3 INCREASE DUE TO SHORT TERM LOADING AND ANY OTHER ALLOWABLE INCREASES. THE GEOTECHNICAL ENGINEER SHALL MAKE RECOMMENDATION FOR THE SOIL CLASS TO BE USED AFTER ALL INCREASES HAVE BEEN APPLIED, WHERE ALLOWED PER THE 2022 CBC LOAD COMBINATIONS. ALL FOUNDATIONS HAVE BEEN DESIGNED BASED ON THE VALUES PRESENTED IN THE TABLE BELOW. THE GEOTECHNICAL REPORT SHALL ADDRESS IF THE USE OF STEEL CASING THAT IS TWISTED INTO PLACE AND LEFT INSTALLED AFFECTS ANY ALLOWABLE VALUES.
3. THE GEOTECHNICAL ENGINEER MAY SPECIFY DIFFERENT SOILS CLASSES TO BE USED FOR THE DIFFERENT STRUCTURE TYPES (T OR OT), DIFFERENT AREAS OF THE SITE (I.E. NORTH LOT OR WEST LOT), OR THE ENGINEER MAY SPECIFY ONE SOILS CLASS TO BE USED FOR THE ENTIRE SITE.
4. THE GEOTECHNICAL ENGINEER SHALL ADDRESS IN THE REPORT ANY CONCRETE DURABILITY REQUIREMENTS IN ACCORDANCE WITH ACI 318-19 CHAPTER 4.
5. THE GEOTECHNICAL REPORT SHALL BE SPECIFIC TO THE LOCATION OF THE PHOTOVOLTAIC STRUCTURES. BORING(S) SHALL BE DONE AT THE SPECIFIC LOCATION(S) WHERE THE PHOTOVOLTAIC STRUCTURES ARE TO OCCUR. THE GEOTECHNICAL REPORT SHALL CONFORM TO 2022 CBC SECTION 1803A.
6. GEOTECHNICAL ENGINEER SHALL IDENTIFY THE LOCATION WHERE "USABLE SOIL" STARTS WHICH IS ALLOWED TO BE AT GRADE OR DEEPER IF NECESSARY. SEE DETAILS 2/S-6, 2/S-11, 3/S-11.
7. A COPY OF THE GEOTECHNICAL REPORT SHALL BE PROVIDED AT THE TIME OF PLAN REVIEW.
8. AT THE TIME OF PLAN REVIEW, THE STRUCTURAL ENGINEER OF RECORD SHALL SELECT A SOILS CLASS ON THE SITE-SPECIFIC PLANS BASED ON THE GEOTECHNICAL REPORT.
9. DESIGN OF PC STRUCTURE ASSUMES A MAXIMUM LATERAL DISPLACEMENT OF 1/2" AT THE BASE; ALLOWABLE LATERAL BEARING VALUES THAT RESULT IN LARGER DISPLACEMENTS ARE NOT ACCEPTABLE FOR USE WITH THIS PC STRUCTURE
10. MAXIMUM COLUMN HEIGHT AND FOUNDATION DEPTH FOR STRUCTURES LOCATED ADJACENT TO SLOPES SHALL BE MEASURED FROM A PROJECTED HORIZONTAL LINE OF 7d FROM THE FACE OF THE SLOPE AS SHOWN BELOW:



PIER FOUNDATIONS - FINAL DESIGN VALUES [1,2,3]

USE	SOILS CLASS	MIN. ALLOWABLE END BEARING (psf)	MIN. ALLOWABLE LATERAL BEARING (psf/ft)	MAX. LATERAL BEARING (psf)	MIN. ALLOWABLE SKIN FRICTION DOWN (psf)	MIN. ALLOWABLE SKIN FRICTION UP (psf)
☐	CLASS W	0	267	4,000	250	125
☒	CLASS X	0	400	6,000	365	162.5
☐	CLASS Y	0	533	8,000	365	175
☐	CLASS Z	0	800	12,000	425	212.5

SPREAD FOOTINGS - FINAL DESIGN VALUES [1,2,3]

USE	SOILS CLASS	MIN. ALLOWABLE END BEARING (psf)	MIN. ALLOWABLE LATERAL BEARING (psf/ft)	MAX. LATERAL BEARING (psf)	SLIDING FRICTION μ
☐	ALL	1,500	100	2,000	0.25

NOTES:
1. TABLE ALREADY TAKES INTO ACCOUNT 1/3 INCREASE AND DOUBLING OF THE PASSIVE PRESSURE WITHOUT ANY FURTHER INCREASES. GEOTECHNICAL ENGINEER IS REQUIRED TO SPECIFY THE SOILS CLASS WHERE FINAL VALUES WITH INCREASES ARE NOT ALLOWED TO EXCEED THESE VALUES)
2. DOUBLING THE PASSIVE PRESSURE DUE TO SOIL ARCHING EFFECTS IS NOT ALLOWED IN CONJUNCTION WITH DOUBLING BASED ON THE 1/2" DEFLECTION AT THE SURFACE.
3. THE FOUNDATION DESIGNS FOR THIS PC ARE BASED ON 2022 CBC ALTERNATE BASIC LOAD COMBINATIONS PER SECTION 1605A.3.2 WHERE 1/3 INCREASES ARE ALLOWED.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE
SAN MARCOS, CA 92078
EBK KBVKOPOCH
PHONE: (760) 744-4131
FAX: (760) 744-4449
EBK@MBARCONLINE.COM
LIC # 869960
B AND-CS1
(775) 787-8845

ENGINEER'S APPROVAL



BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

4 STEL JOB # MC02-V3-1-1

DATE 11-18-24

DRAWN BY GM

CHECKED RWS

GENERAL NOTES

S-3

DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-122152
DSA File Number: PC-61
School Name: Ultimate Guardian PC-22.1 - Spread Footing Only with Post Installed Anchors
Increment Number:
School District: N/A
Date Created: 2023-04-06

Geotechnical Reports: Project has a geotechnical report, or CDs indicate soils special inspection is required by GE

	Test or Special Inspection	Type	Performed By	Code References and Notes
S1. GENERAL:				
☑	**a.** Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):				
☑	**a.** Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**b.** Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable), record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**c.** Confirm adequate end-strata bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**d.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		
C1. CAST-IN-PLACE CONCRETE				
☑	**a.** Verify use of required design mix.	Periodic	SI	**Table 1705A.3 Item 5, 1910A.1.**
☑	**b.** Identify, sample, and test reinforcing steel.	Test	LOR	**1910A.2;** ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	**c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	**Table 1705A.3 Item 6;** ACI 318-19 Sections 26.5 & 26.12.
☑	**d.** Test concrete (F.). **C5. POST-INSTALLED ANCHORS:**	Test	LOR	**1905A.1.17;** ACI 318-19 Section 26.12.
☑	**a.** Inspect installation of post-installed anchors	**See Notes**	SI*	**1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (See Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13.* May be performed by the project inspector when specifically approved by DSA.
☑	**b.** Test post-installed anchors.	Test	LOR	**1910A.5.** (See Appendix (end of this form) for exemptions.)
S1A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES				
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	**Table 1705A.2.1 Item 3a–3c.** 2202A.1; AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	Test	LOR	**2202A.1.**
☑	**c.** Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
☑	**d.** Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**).
S1A3. WELDING:				
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	**1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	**b.** Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
S1A4. SHOP WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
S1A5. FIELD WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	**Table 1705A.2.1 Item 5a.5;** ASC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
S1A9. ANCHOR BOLTS AND ANCHOR RODS:				
☑	**b.** Threaded rod not used for foundation anchorage.	Test	LOR	Identify, sample and test threaded rods **not** meeting exemptions identified in Section 1 of IR 17-11.
X1. OTHER:				
☑	**c.** SOLAR PANEL ATTACHMENT	Continuous	LOR	Pre-tension bolt connections and calibration of test equipment
☑	**d.** SOLAR PANEL ATTACHMENT BOLTS	Test	LOR	Bolts shall be identified, sampled, and tested in accordance with DSA IR 17-8,19

1. Soils Testing and Inspection: Geotechnical Verified Report Form DSA 293
2. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
3. Post-installed Anchors: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
4. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
5. Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

5 - SAMPLE DSA-103 - STRUCTURES WITH ONLY SPREAD FOUNDATIONS WITH POST INSTALLED ANCHORS

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-122152
DSA File Number: PC-61
School Name: Ultimate Guardian PC-22.1 - Spread Footing without Post Installed Anchors
Increment Number:
School District: N/A
Date Created: 2023-04-06

Geotechnical Reports: Project has a geotechnical report, or CDs indicate soils special inspection is required by GE

	Test or Special Inspection	Type	Performed By	Code References and Notes
S1. GENERAL:				
☑	**a.** Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):				
☑	**a.** Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**b.** Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable), record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**c.** Confirm adequate end-strata bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**d.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		
C1. CAST-IN-PLACE CONCRETE				
☑	**a.** Verify use of required design mix.	Periodic	SI	**Table 1705A.3 Item 5, 1910A.1.**
☑	**b.** Identify, sample, and test reinforcing steel.	Test	LOR	**1910A.2;** ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	**c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	**Table 1705A.3 Item 6;** ACI 318-19 Sections 26.5 & 26.12.
☑	**d.** Test concrete (F.).	Test	LOR	**1905A.1.17;** ACI 318-19 Section 26.12.
C5. POST-INSTALLED ANCHORS:				
☑	**a.** Inspect installation of post-installed anchors	**See Notes**	SI*	**1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (See Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13.* May be performed by the project inspector when specifically approved by DSA.
☑	**b.** Test post-installed anchors.	Test	LOR	**1910A.5.** (See Appendix (end of this form) for exemptions.)
S1A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES				
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	**Table 1705A.2.1 Item 3a–3c.** 2202A.1; AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	Test	LOR	**2202A.1.**
☑	**c.** Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
☑	**d.** Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**).
S1A3. WELDING:				
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	**1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	**b.** Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
S1A4. SHOP WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
S1A5. FIELD WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	**Table 1705A.2.1 Item 5a.5;** ASC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
S1A9. ANCHOR BOLTS AND ANCHOR RODS:				
☑	**b.** Threaded rod not used for foundation anchorage.	Test	LOR	Identify, sample and test threaded rods **not** meeting exemptions identified in Section 1 of IR 17-11.
X1. OTHER:				
☑	**c.** SOLAR PANEL ATTACHMENT	Continuous	LOR	Pre-tension bolt connections and calibration of test equipment
☑	**d.** SOLAR PANEL ATTACHMENT BOLTS	Test	LOR	Bolts shall be identified, sampled, and tested in accordance with DSA IR 17-8,19

1. Soils Testing and Inspection: Geotechnical Verified Report Form DSA 293
2. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
3. Post-installed Anchors: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
4. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
5. Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

4 - SAMPLE DSA-103 - STRUCTURES WITH PIER & SPREAD FOUNDATIONS WITHOUT POST INSTALLED ANCHORS

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-122152
DSA File Number: PC-61
School Name: Ultimate Guardian PC-22.1 - Pier & Spread Footing with Post Installed Anchors
Increment Number:
School District: N/A
Date Created: 2023-04-06

Geotechnical Reports: Project has a geotechnical report, or CDs indicate soils special inspection is required by GE

	Test or Special Inspection	Type	Performed By	Code References and Notes
S1. GENERAL:				
☑	**a.** Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):				
☑	**a.** Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**b.** Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable), record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**c.** Confirm adequate end-strata bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**d.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		
C1. CAST-IN-PLACE CONCRETE				
☑	**a.** Verify use of required design mix.	Periodic	SI	**Table 1705A.3 Item 5, 1910A.1.**
☑	**b.** Identify, sample, and test reinforcing steel.	Test	LOR	**1910A.2;** ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	**c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	**Table 1705A.3 Item 6;** ACI 318-19 Sections 26.5 & 26.12.
☑	**d.** Test concrete (F.).	Test	LOR	**1905A.1.17;** ACI 318-19 Section 26.12.
C5. POST-INSTALLED ANCHORS:				
☑	**a.** Inspect installation of post-installed anchors	**See Notes**	SI*	**1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (See Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13.* May be performed by the project inspector when specifically approved by DSA.
☑	**b.** Test post-installed anchors.	Test	LOR	**1910A.5.** (See Appendix (end of this form) for exemptions.)
S1A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES				
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	**Table 1705A.2.1 Item 3a–3c.** 2202A.1; AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	Test	LOR	**2202A.1.**
☑	**c.** Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
☑	**d.** Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**).
S1A3. WELDING:				
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	**1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	**b.** Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
S1A4. SHOP WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
S1A5. FIELD WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	**Table 1705A.2.1 Item 5a.5;** ASC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
S1A9. ANCHOR BOLTS AND ANCHOR RODS:				
☑	**b.** Threaded rod not used for foundation anchorage.	Test	LOR	Identify, sample and test threaded rods **not** meeting exemptions identified in Section 1 of IR 17-11.
X1. OTHER:				
☑	**c.** SOLAR PANEL ATTACHMENT	Continuous	LOR	Pre-tension bolt connections and calibration of test equipment
☑	**d.** SOLAR PANEL ATTACHMENT BOLTS	Test	LOR	Bolts shall be identified, sampled, and tested in accordance with DSA IR 17-8,19

1. Soils Testing and Inspection: Geotechnical Verified Report Form DSA 293
2. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
3. Post-installed Anchors: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
4. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
5. Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

3 - SAMPLE DSA-103 - STRUCTURES WITH PIER & SPREAD FOUNDATIONS WITH POST INSTALLED ANCHORS

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-122152
DSA File Number: PC-61
School Name: Ultimate Guardian PC-22.1 - Pier Footing with Post Installed Anchors
Increment Number:
School District: N/A
Date Created: 2023-04-06

Geotechnical Reports: Project has a geotechnical report, or CDs indicate soils special inspection is required by GE

	Test or Special Inspection	Type	Performed By	Code References and Notes
S1. GENERAL:				
☑	**a.** Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):				
☑	**a.** Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**b.** Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable), record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**c.** Confirm adequate end-strata bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**d.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		
C1. CAST-IN-PLACE CONCRETE				
☑	**a.** Verify use of required design mix.	Periodic	SI	**Table 1705A.3 Item 5, 1910A.1.**
☑	**b.** Identify, sample, and test reinforcing steel.	Test	LOR	**1910A.2;** ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	**c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	**Table 1705A.3 Item 6;** ACI 318-19 Sections 26.5 & 26.12.
☑	**d.** Test concrete (F.).	Test	LOR	**1905A.1.17;** ACI 318-19 Section 26.12.
C5. POST-INSTALLED ANCHORS:				
☑	**a.** Inspect installation of post-installed anchors	**See Notes**	SI*	**1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (See Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13.* May be performed by the project inspector when specifically approved by DSA.
☑	**b.** Test post-installed anchors.	Test	LOR	**1910A.5.** (See Appendix (end of this form) for exemptions.)
S1A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES				
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	**Table 1705A.2.1 Item 3a–3c.** 2202A.1; AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	Test	LOR	**2202A.1.**
☑	**c.** Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
☑	**d.** Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**).
S1A3. WELDING:				
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	**1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	**b.** Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
S1A4. SHOP WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
S1A5. FIELD WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	**Table 1705A.2.1 Item 5a.5;** ASC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
S1A9. ANCHOR BOLTS AND ANCHOR RODS:				
☑	**b.** Threaded rod not used for foundation anchorage.	Test	LOR	Identify, sample and test threaded rods **not** meeting exemptions identified in Section 1 of IR 17-11.
X1. OTHER:				
☑	**c.** SOLAR PANEL ATTACHMENT	Continuous	LOR	Pre-tension bolt connections and calibration of test equipment
☑	**d.** SOLAR PANEL ATTACHMENT BOLTS	Test	LOR	Bolts shall be identified, sampled, and tested in accordance with DSA IR 17-8,19

1. Soils Testing and Inspection: Geotechnical Verified Report Form DSA 293
2. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
3. Post-installed Anchors: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
4. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
5. Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

2 - SAMPLE DSA-103 - STRUCTURES WITH ONLY PIER FOUNDATIONS WITHOUT POST INSTALLED ANCHORS

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-122152
DSA File Number: PC-61
School Name: Ultimate Guardian PC-22.1 - Spread Footing without Post Installed Anchors
Increment Number:
School District: N/A
Date Created: 2023-04-06

Geotechnical Reports: Project has a geotechnical report, or CDs indicate soils special inspection is required by GE

	Test or Special Inspection	Type	Performed By	Code References and Notes
S1. GENERAL:				
☑	**a.** Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):				
☑	**a.** Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**b.** Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable), record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**c.** Confirm adequate end-strata bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)
☑	**d.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		
C1. CAST-IN-PLACE CONCRETE				
☑	**a.** Verify use of required design mix.	Periodic	SI	**Table 1705A.3 Item 5, 1910A.1.**
☑	**b.** Identify, sample, and test reinforcing steel.	Test	LOR	**1910A.2;** ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	**c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	**Table 1705A.3 Item 6;** ACI 318-19 Sections 26.5 & 26.12.
☑	**d.** Test concrete (F.).	Test	LOR	**1905A.1.17;** ACI 318-19 Section 26.12.
C5. POST-INSTALLED ANCHORS:				
☑	**a.** Inspect installation of post-installed anchors	**See Notes**	SI*	**1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8** (See Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13.* May be performed by the project inspector when specifically approved by DSA.
☑	**b.** Test post-installed anchors.	Test	LOR	**1910A.5.** (See Appendix (end of this form) for exemptions.)
S1A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES				
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	**Table 1705A.2.1 Item 3a–3c.** 2202A.1; AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	Test	LOR	**2202A.1.**
☑	**c.** Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
☑	**d.** Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**).
S1A3. WELDING:				
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	**1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	**b.** Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
S1A4. SHOP WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
S1A5. FIELD WELDING (IN ADDITION TO SECTION S1A3):				
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** ASC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	**Table 1705A.2.1 Item 5a.5;** ASC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
S1A9. ANCHOR BOLTS AND ANCHOR RODS:				
☑	**b.** Threaded rod not used for foundation anchorage.	Test	LOR	Identify, sample and test threaded rods **not** meeting exemptions identified in Section 1 of IR 17-11.
X1. OTHER:				
☑	**c.** SOLAR PANEL ATTACHMENT	Continuous	LOR	Pre-tension bolt connections and calibration of test equipment
☑	**d.** SOLAR PANEL ATTACHMENT BOLTS	Test	LOR	Bolts shall be identified, sampled, and tested in accordance with DSA IR 17-8,19

1. Soils Testing and Inspection: Geotechnical Verified Report Form DSA 293
2. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
3. Post-installed Anchors: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
4. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
5. Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

1 - SAMPLE DSA-103 - STRUCTURES WITH ONLY PIER FOUNDATIONS WITH POST INSTALLED ANCHORS

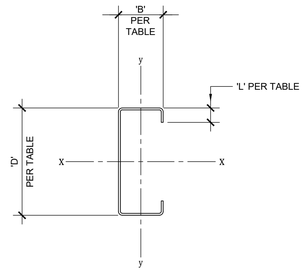
DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-122152
DSA File Number: PC-61
School Name: Ultimate Guardian PC-22.1 - Sp

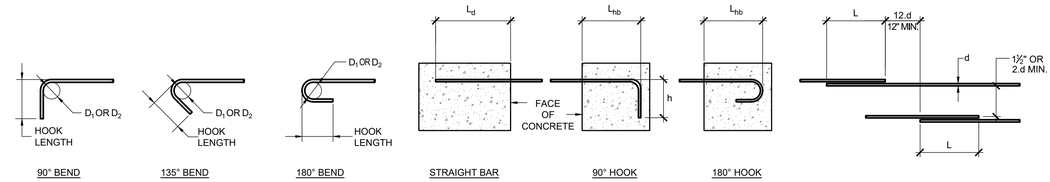
USE	SECTION NAME	D (in)	B (in)	L (in)	GA	WT (lb/ft)	A (in²)	AXIS X-X			AXIS Y-Y		
								I_x (in⁴)	S_{xe} (in³)	r_x (in)	I_y (in⁴)	S_y (in³)	r_y (in)
☐	CS5 x 2.5 x 0.057	5	2.5	0.625	16	2.086	0.613	2.513	0.819	2.025	0.525	0.322	0.929
☐	CS7 x 2.5 x 0.057	7	2.5	0.625	16	2.856	0.726	5.462	1.288	2.743	0.590	0.334	0.902
☐	CS7 x 2.5 x 0.071	7	2.5	0.625	14	3.086	0.907	6.768	1.934	2.732	0.729	0.402	0.893
☒	CS9 x 2.5 x 0.057	9	2.5	0.625	16	2.856	0.839	9.864	1.630	3.428	0.635	0.341	0.870
☐	CS11 x 2.5 x 0.057	11	2.5	0.625	16	3.241	0.953	15.945	2.245	4.091	0.669	0.347	0.838

NOTES:

1. COLD FORMED STEEL (CFS) BLOCKING MATERIAL SHALL CONFORM TO ASTM A653 SS GRADE 55 (F_y = 55 KSI, F_u = 70 KSI) OR ASTM A1011 SS GRADE 55 (F_y = 55 KSI, F_u = 70 KSI).
2. COLD FORMED STEEL (CFS) DESIGNED PER 2012 AISI SPECIFICATIONS AND COLD-FORMED STEEL DESIGN MANUAL.
3. CFS SECTION PROPERTIES LISTED ABOVE ARE MINIMUM SECTION PROPERTIES REQUIRED PER THE LATEST STEEL FRAMING INDUSTRY ASSOCIATION (SFIA) PRODUCT TECHNICAL GUIDE. ACTUAL MANUFACTURER'S PROPERTIES MUST MEET OR EXCEED SFIA PROPERTIES.



3 - PURLIN BLOCKING AND BRACING
COLD FORMED C-SECTIONS N.T.S.



FINISHED BEND DIAMETERS		
BAR SIZE	D_1	D_2
#3	1½"	2¼"
#4	2"	3"
#5	2½"	3¾"
#6, #7, #8	6.d	6.d

"D_1" - FINISHED BEND DIA. FOR STIRRUP & TIE HOOKS.
"D_2" - BEND DIA. FOR STD HOOKS.
"d" - BAR DIAMETER

STANDARD HOOK LENGTHS				
BAR SIZE	MAIN REINFT.		STIRRUP & TIE HOOKS	
	90°	180°	90°	135°
#3	6"	4"	3½"	4¼"
#4	8"	4½"	4½"	4½"
#5	10"	5"	6"	6"
#6	12"	6"	12"	7½"
#7	14"	7"	14"	9"
#8	16"	8"	16"	10"

REINFORCEMENT DEVELOPMENT LENGTHS				
CONCRETE STRENGTH		F'c = 3,000 PSI		
NOMINAL BAR SIZE	h	L_d TOP BARS	L_d OTHER BARS	L_{hb}
#3	6"	1'-10"	1'-5"	9"
#4	8"	2'-5"	1'-10"	11"
#5	10"	3'-0"	2'-4"	1'-2"
#6	1'-0"	3'-7"	2'-9"	1'-5"
#7	1'-2"	5'-3"	4'-0"	1'-7"
#8	1'-4"	6'-0"	4'-7"	1'-10"

NOTES:
1. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW.

REINFORCEMENT LAP SPLICE LENGTH 'L'		
CONCRETE STRENGTH	F'c=3,000 PSI	
NOMINAL BAR SIZE	TOP BARS	OTHER BARS
#3	2'-4"	1'-10"
#4	3'-2"	2'-5"
#5	3'-11"	3'-0"
#6	4'-8"	3'-7"
#7	6'-9"	5'-3"
#8	7'-9"	6'-0"

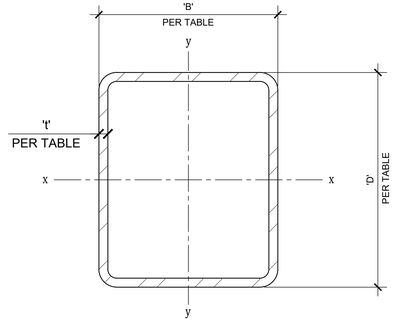
NOTES:
1. LAP SPLICE SHALL BE INCREASED 50% WHERE CLEAR SPACE BETWEEN BARS IS LESS THAN 2 BAR DIAMETERS AND/OR THE CLEAR COVER IS LESS THAN ONE BAR DIAMETER.

A STANDARD HOOKS
B DEVELOPMENT LENGTHS
C OFFSETS AND LAP SPLICES

1 - TYPICAL REINFORCEMENT BAR BENDS AND LAPS N.T.S.

USE	SECTION NAME	D (in)	B (in)	t (in)	WT (lb/ft)	A (in²)	AXIS X-X			AXIS Y-Y		
							I_x (in⁴)	Z_x (in³)	r_x (in)	I_y (in⁴)	Z_y (in³)	r_y (in)
☐	HSS 12 x 8 x 1/4	12	8	0.250	32.630	9.590	196.000	39.100	4.520	105.000	29.600	3.310
☐	HSS 12 x 8 x 5/16	12	8	0.313	40.350	11.900	239.000	48.000	4.480	128.000	36.400	3.280
☐	HSS 12 x 8 x 3/8	12	8	0.375	47.900	14.100	279.000	56.500	4.450	149.000	42.700	3.250
☒	HSS 12 x 8 x 1/2	12	8	0.500	62.460	18.400	353.000	72.400	4.380	188.000	54.700	3.200
☐	HSS 14 x 10 x 5/16	14	10	0.313	48.860	14.400	406.000	69.100	5.310	242.000	55.000	4.100
☐	HSS 14 x 10 x 3/8	14	10	0.375	58.100	17.100	476.000	81.500	5.280	284.000	64.800	4.080
☐	HSS 14 x 10 x 1/2	14	10	0.500	76.070	22.400	608.000	105.000	5.210	361.000	83.600	4.010
☐	HSS 14 x 10 x 5/8	14	10	0.625	93.340	27.400	728.000	127.000	5.150	431.000	101.000	3.970
☐	HSS 16 x 12 x 5/16	16	12	0.313	57.360	16.900	636.000	92.900	6.130	410.000	77.300	4.930
☐	HSS 16 x 12 x 3/8	16	12	0.375	68.310	20.100	748.000	111.000	6.100	482.000	91.300	4.900
☐	HSS 16 x 12 x 1/2	16	12	0.500	89.680	26.400	962.000	144.000	6.040	618.000	118.000	4.840

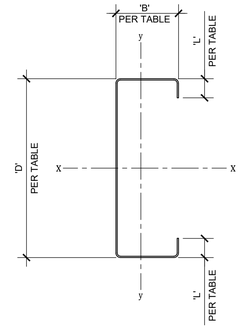
NOTES
1. HSS BEAMS AND COLUMNS SHALL CONFORM TO ASTM A1085, F_y=50 ksi.



4 - HOLLOW STRUCTURAL SECTIONS N.T.S.

USE	SECTION NAME	D (in)	B (in)	L (in)	GA	WT (lb/ft)	A (in²)	AXIS X-X			AXIS Y-Y		
								I_x (in⁴)	S_{xe} (in³)	r_x (in)	I_y (in⁴)	S_y (in³)	r_y (in)
☐	CS8 x 3.5 x 0.071	8	3.5	0.875	14	4.000	1.174	12.046	2.596	3.203	2.034	0.856	1.316
☐	CS8 x 4 x 0.071	8	4	1.000	14	4.240	1.246	13.167	2.656	3.251	2.797	1.060	1.498
☐	CS10 x 3.5 x 0.071	10	3.5	0.875	14	4.480	1.317	20.204	3.417	3.917	2.185	0.877	1.288
☐	CS10 x 3.5 x 0.102	10	3.5	0.875	12	6.330	1.855	28.148	5.118	3.895	2.992	1.207	1.270
☐	CS10 x 4 x 0.071	10	4	1.000	14	4.720	1.388	21.961	3.424	3.977	3.009	1.086	1.472
☐	CS12 x 3.5 x 0.071	12	3.5	1.000	14	4.970	1.460	30.996	4.061	4.608	2.306	0.904	1.257
☐	CS12 x 3.5 x 0.102	12	3.5	1.000	12	7.010	2.059	43.269	6.590	4.584	3.159	1.244	1.239
☒	CS12 x 4 x 0.071	12	4	1.000	14	5.210	1.531	33.532	4.082	4.680	3.183	1.105	1.442
☐	CS12 x 4 x 0.102	12	4	1.000	12	7.350	2.161	46.868	6.761	4.658	4.376	1.527	1.423

NOTES:
1. COLD FORMED STEEL (CFS) PURLIN MATERIAL SHALL CONFORM TO ASTM A653 SS GRADE 55 (F_Y = 55 KSI, F_U = 70 KSI) OR ASTM A1011 SS GRADE 55 (F_Y = 55 KSI, F_U = 70 KSI).
2. COLD FORMED STEEL (CFS) DESIGNED PER 2012 AISI SPECIFICATIONS AND AISI COLD-FORMED STEEL DESIGN MANUAL.
3. CFS SECTION PROPERTIES LISTED ABOVE ARE MINIMUM SECTION PROPERTIES REQUIRED PER THE LATEST STEEL FRAMING INDUSTRY ASSOCIATION (SFIA) PRODUCT TECHNICAL GUIDE. ACTUAL MANUFACTURER'S PROPERTIES MUST MEET OR EXCEED SFIA PROPERTIES.



2 - PURLINS
COLD FORMED C-SECTIONS N.T.S.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE
SAN MARCOS, CA 92078
ERIK KRIVOPOPICH
PHONE: (760) 744-4131
FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960
B AND C51
(760) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K. ROSENTRETER
S 5885
CIVIL
STATE OF CALIFORNIA

BID INFORMATION
THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION
TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

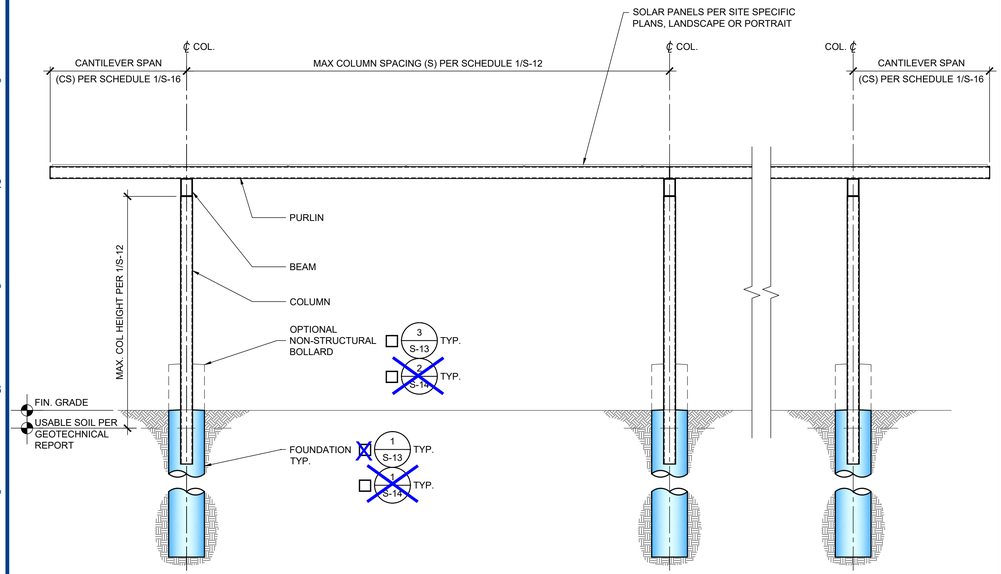
4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

SECTION PROPERTIES & REBAR DETAILS

S-5

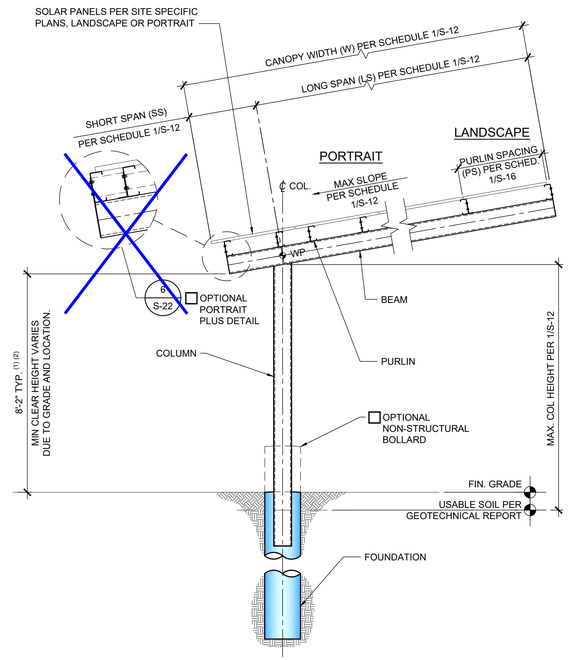
DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE



4 OT-STRUCTURE - TYPICAL SIDE ELEVATION

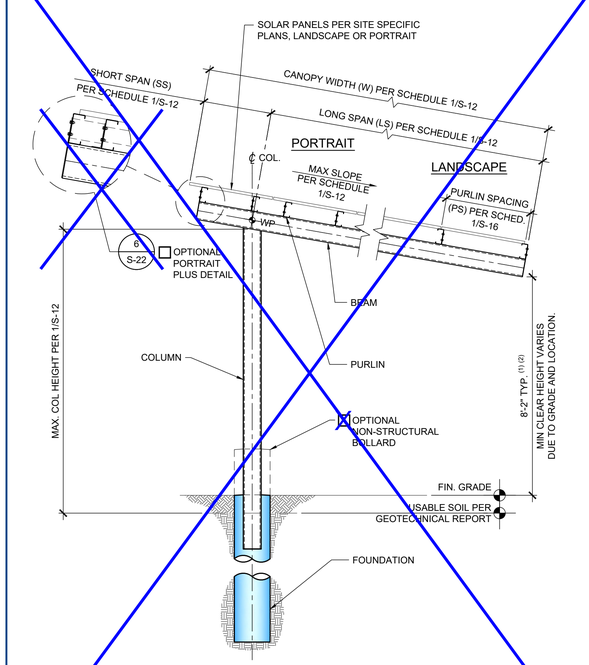
N.T.S.



NOTES:
1. SEE ACCESS NOTES ON SHEET S-2 WHEN LOCATED IN ACCESSIBLE AREAS.
2. SEE FIRE LIFE SAFETY NOTE #1 ON SHEET S-2 WHEN AT FIRE LANE.

3 OT-STRUCTURE - END ELEVATION

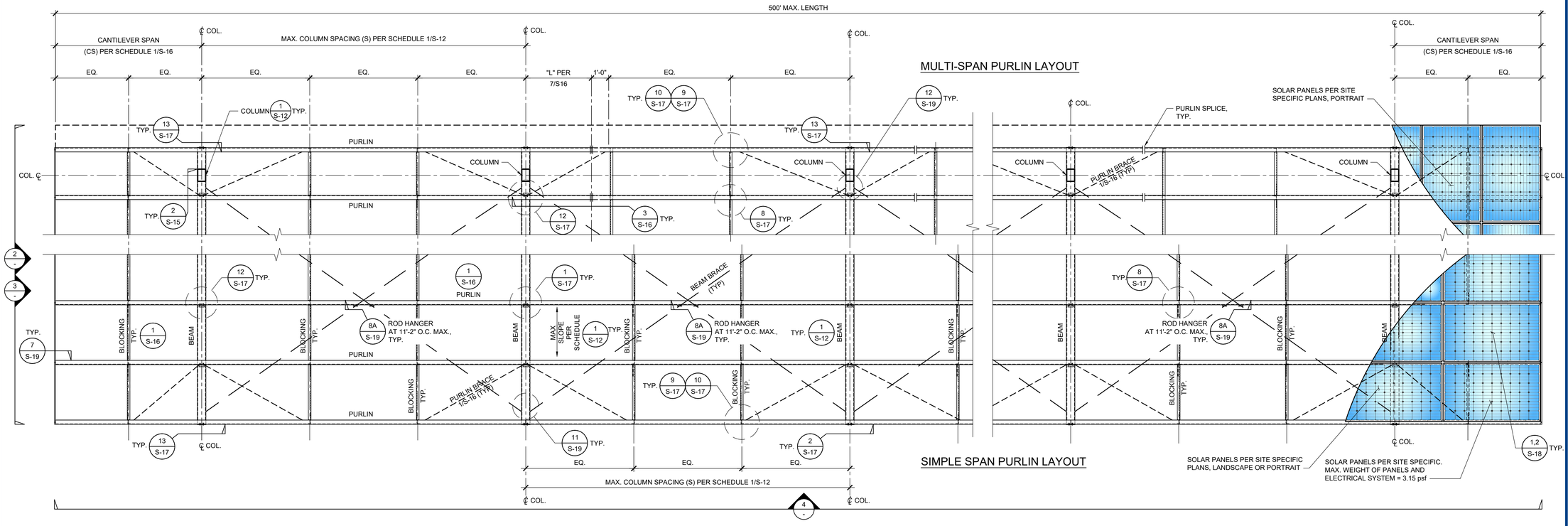
N.T.S.



NOTES:
1. SEE ACCESS NOTES ON SHEET S-2 WHEN LOCATED IN ACCESSIBLE AREAS.
2. SEE FIRE LIFE SAFETY NOTE #1 ON SHEET S-2 WHEN AT FIRE LANE.

2 OT-STRUCTURE - END ELEVATION

N.T.S.



NOTE:
1. BEAM, COLUMN, CONNECTION, AND FOUNDATION SIZES AT ENDS OF STRUCTURE MAY NEED TO BE INCREASED DEPENDING ON PURLIN CANTILEVER. SEE PURLIN SCHEDULE '1/S-16' NOTE 6.
2. ☒ CANTILEVER MID-SPAN BLOCKING/CANTILEVER BRACING REQUIRED, SEE S-16.

1 OT-STRUCTURE - FRAMING PLAN

N.T.S.

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ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER DUSTIN K. ROSENTRETER S 5885 STATE OF CALIFORNIA

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4 STEL JOB #	MC02-V3-1-1
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CHECKED	RWS

OT-STRUCTURE FRAMING PLAN & ELEVATIONS

S-11

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NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE

OT-STRUCTURE BEAM/COLUMN SCHEDULE

USE	I.D. #	MULTI SPAN PURLIN	MAX. WIDTH W	MIN. SHORT SPAN SS	MAX. LONG SPAN LS	MAX. COLUMN SPACING S	MAX. COLUMN HEIGHT (5)	MAX. ROOF SLOPE	ROOF SNOW LOAD (PSF)	BEAM		BEAM TO COLUMN DETAIL	COLUMN		LONG SPAN 'LS' BEAM LATERAL BRACING
										SECTION	DETAIL		SECTION	DETAIL	DETAILS
☐	OT-101		22'-0"	2'-0"	20'-0"	18'-0"	15'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 1/4	4/S-5	11/S-19, 12/S-19
☐	OT-102		22'-0"	6'-0"	16'-0"	18'-0"	15'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 1/4	4/S-5	11/S-19, 12/S-19
☐	OT-103		22'-0"	2'-0"	20'-0"	28'-6"	15'-0"	7°	5	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-104		22'-0"	6'-0"	16'-0"	28'-6"	15'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☐	OT-105	✓	22'-0"	2'-0"	20'-0"	32'-6"	15'-0"	7°	5	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-106	✓	22'-0"	6'-0"	16'-0"	32'-6"	15'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☐	OT-107	✓	22'-0"	2'-0"	20'-0"	35'-9"	15'-0"	7°	5	HSS12 x 8 x 3/8	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-108	✓	22'-0"	6'-0"	16'-0"	35'-9"	15'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☐	OT-109		28'-3"	6'-0"	22'-3"	18'-0"	15'-0"	7°	5	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☒	OT-110		28'-3"	6'-0"	22'-3"	28'-6"	15'-0"	7°	5	HSS12 x 8 x 1/2	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-111		22'-0"	2'-0"	20'-0"	18'-0"	20'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☐	OT-112		22'-0"	6'-0"	16'-0"	18'-0"	20'-0"	7°	0	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 1/4	4/S-5	11/S-19, 12/S-19
☐	OT-113		22'-0"	2'-0"	20'-0"	28'-6"	20'-0"	7°	0	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-114		22'-0"	6'-0"	16'-0"	28'-6"	20'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☐	OT-115	✓	22'-0"	2'-0"	20'-0"	32'-6"	20'-0"	7°	5	HSS12 x 8 x 3/8	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-116	✓	22'-0"	6'-0"	16'-0"	32'-6"	20'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-117	✓	22'-0"	2'-0"	20'-0"	35'-9"	20'-0"	7°	5	HSS12 x 8 x 3/8	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-118	✓	22'-0"	6'-0"	16'-0"	35'-9"	20'-0"	7°	5	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-119		28'-3"	6'-0"	22'-3"	18'-0"	20'-0"	7°	5	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☐	OT-120		28'-3"	6'-0"	22'-3"	28'-6"	20'-0"	7°	5	HSS12 x 8 x 1/2	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-151		22'-0"	2'-0"	20'-0"	18'-0"	15'-0"	7°	20	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-152		22'-0"	6'-0"	16'-0"	18'-0"	15'-0"	7°	20	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☐	OT-153		22'-0"	2'-0"	20'-0"	28'-6"	15'-0"	7°	20	HSS14 x 10 x 3/8	4/S-5	2/S-15	HSS14 x 10 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-154		22'-0"	6'-0"	16'-0"	28'-6"	15'-0"	7°	20	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-155	✓	22'-0"	2'-0"	20'-0"	32'-6"	15'-0"	7°	20	HSS14 x 10 x 3/8	4/S-5	2/S-15	HSS14 x 10 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-156	✓	22'-0"	6'-0"	16'-0"	32'-6"	15'-0"	7°	20	HSS12 x 8 x 3/8	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-157	✓	22'-0"	2'-0"	20'-0"	35'-9"	15'-0"	7°	20	HSS14 x 10 x 1/2	4/S-5	2/S-15	HSS14 x 10 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-158	✓	22'-0"	6'-0"	16'-0"	35'-9"	15'-0"	7°	20	HSS12 x 8 x 3/8	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-159		28'-3"	6'-0"	22'-3"	18'-0"	15'-0"	7°	20	HSS12 x 8 x 1/2	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-160		28'-3"	6'-0"	22'-3"	28'-6"	15'-0"	7°	20	HSS14 x 10 x 1/2	4/S-5	2/S-15	HSS14 x 10 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-161		22'-0"	2'-0"	20'-0"	18'-0"	20'-0"	7°	20	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-162		22'-0"	6'-0"	16'-0"	18'-0"	20'-0"	7°	20	HSS12 x 8 x 1/4	4/S-5	2/S-15	HSS12 x 8 x 5/16	4/S-5	11/S-19, 12/S-19
☐	OT-163		22'-0"	2'-0"	20'-0"	28'-6"	20'-0"	7°	20	HSS14 x 10 x 3/8	4/S-5	2/S-15	HSS14 x 10 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-164		22'-0"	6'-0"	16'-0"	28'-6"	20'-0"	7°	20	HSS12 x 8 x 5/16	4/S-5	2/S-15	HSS12 x 8 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-165	✓	22'-0"	2'-0"	20'-0"	32'-6"	20'-0"	7°	20	HSS14 x 10 x 3/8	4/S-5	2/S-15	HSS14 x 10 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-166	✓	22'-0"	6'-0"	16'-0"	32'-6"	20'-0"	7°	20	HSS12 x 8 x 3/8	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-167	✓	22'-0"	2'-0"	20'-0"	35'-9"	20'-0"	7°	20	HSS14 x 10 x 1/2	4/S-5	2/S-15	HSS14 x 10 x 5/8	4/S-5	11/S-19, 12/S-19
☐	OT-168	✓	22'-0"	6'-0"	16'-0"	35'-9"	20'-0"	7°	20	HSS14 x 10 x 5/16	4/S-5	2/S-15	HSS14 x 10 x 3/8	4/S-5	11/S-19, 12/S-19
☐	OT-169		28'-3"	6'-0"	22'-3"	18'-0"	20'-0"	7°	20	HSS12 x 8 x 1/2	4/S-5	2/S-15	HSS12 x 8 x 1/2	4/S-5	11/S-19, 12/S-19
☐	OT-170		28'-3"	6'-0"	22'-3"	28'-6"	20'-0"	7°	20	HSS14 x 10 x 1/2	4/S-5	2/S-15	HSS14 x 10 x 1/2	4/S-5	11/S-19, 12/S-19

1. MULTIPLE STRUCTURE ID'S MAY BE SELECTED WITHIN THE SAME SITE AND/OR STRUCTURE.

2. WHEN UTILIZING A STRUCTURE ID READ FROM WITHIN THAT ID ROW ONLY.

3. THE SHORT SPAN AND LONG SPANS MAY BE ADJUSTED WITH THE FOLLOWING REQUIREMENTS:
   - THE OVERALL CANOPY WIDTH IS NOT EXCEEDED.
   - NEITHER SPAN IS LESS THAN THE MIN SHORT SPAN.
   - NEITHER SPAN EXCEEDS THE MAX LONG SPAN.

☐ MULTI-SPAN PURLIN REQUIRED

4. 32'-6" AND 35'-9" COLUMN SPACING MUST UTILIZE THE MULTI-SPAN PURLIN AS SHOWN WHEN MULTI SPAN PURLIN IS CHECKED ABOVE. THE ACTUAL SITE SPECIFIC COLUMN SPACING WILL BE DETERMINED BY THE SOLAR PANEL UTILIZED ON THE SITE. THE COLUMN QUANTITY, COLUMN SPACING, AND PURLIN CANTILEVER LENGTHS ON EACH ARRAY MUST COMPLY WITH THE CORRESPONDING NOTE 9 OR 10 ON 1/S-16.

5. MAXIMUM COLUMN HEIGHT IS MEASURED FROM 'USABLE SOIL PER GEOTECHNICAL REPORT' AS SHOWN ON SHEET S-11 AND DETERMINED ON GEOTECH REPORT.

1 / - OT-STRUCTURE BEAM/COLUMN SCHEDULE

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REVISIONS

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OT-STRUCTURE BEAM/COLUMN SCHEDULE

S-12

DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE

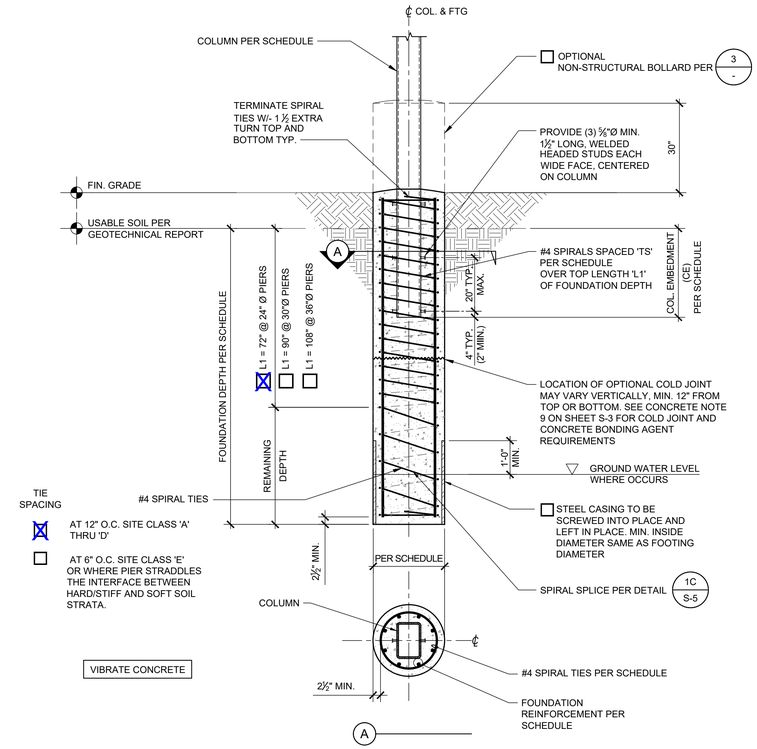
OT-STRUCTURE PIER FOUNDATION SCHEDULE

USE	I.D. #	MAX. WIDTH W	MAX. COLUMN SPACING S	MAX. COLUMN HEIGHT	MAX. ROOF SLOPE	ROOF SNOW LOAD (PSF)	COLUMN EMBEDMENT CE	FOUNDATION DETAIL	PIER FOUNDATION DIAMETER & DEPTH									
									SOIL CLASS PER SOILS NOTES SHEET S-3									
									☐ W			☒ X		☐ Y		☐ Z		☒ X, Y, & Z
									DIAMETER	VERTICAL REINFT.	DEPTH	DIAMETER	DEPTH	DIAMETER	DEPTH	DIAMETER	DEPTH	VERTICAL REINFT.
☐	OT-101	22'-0"	18'-0"	15'-0"	7°	5	56"	2/S-13	2'-0"	(5) - #8	12'-0"	2'-0"	10'-6"	2'-0"	9'-6"	2'-0"	8'-3"	(5) - #8
☐	OT-102	22'-0"	18'-0"	15'-0"	7°	5	56"	2/S-13	2'-0"	(4) - #8	10'-9"	2'-0"	9'-3"	2'-0"	8'-3"	2'-0"	7'-3"	(4) - #8
☐	OT-103	22'-0"	28'-6"	15'-0"	7°	5	56"	2/S-13	2'-0"	(7) - #8	13'-9"	2'-0"	12'-0"	2'-0"	11'-0"	2'-0"	9'-6"	(7) - #8
☐	OT-104	22'-0"	28'-6"	15'-0"	7°	5	56"	2/S-13	2'-0"	(4) - #8	12'-0"	2'-0"	10'-6"	2'-0"	9'-6"	2'-0"	8'-3"	(4) - #8
☐	OT-105	22'-0"	32'-6"	15'-0"	7°	0	56"	2/S-13	2'-0"	(7) - #8	14'-0"	2'-0"	12'-3"	2'-0"	11'-0"	2'-0"	9'-9"	(7) - #8
☐	OT-106	22'-0"	32'-6"	15'-0"	7°	5	56"	2/S-13	2'-0"	(5) - #8	12'-6"	2'-0"	11'-0"	2'-0"	10'-0"	2'-0"	8'-9"	(5) - #8
☐	OT-107	22'-0"	35'-9"	15'-0"	7°	5	56"	2/S-13	2'-0"	(9) - #8	15'-0"	2'-0"	13'-0"	2'-0"	11'-9"	2'-0"	10'-3"	(9) - #8
☐	OT-108	22'-0"	35'-9"	15'-0"	7°	5	56"	2/S-13	2'-0"	(5) - #8	13'-0"	2'-0"	11'-3"	2'-0"	10'-3"	2'-0"	9'-0"	(5) - #8
☐	OT-109	28'-3"	18'-0"	15'-0"	7°	5	56"	2/S-13	2'-0"	(5) - #8	12'-9"	2'-0"	11'-0"	2'-0"	10'-0"	2'-0"	8'-9"	(5) - #8
☒	OT-110	28'-3"	28'-6"	15'-0"	7°	5	56"	2/S-13	2'-0"	(9) - #8	14'-9"	2'-0"	13'-0"	2'-0"	11'-9"	2'-0"	10'-3"	(9) - #8
☐	OT-111	22'-0"	18'-0"	20'-0"	7°	5	56"	2/S-13	2'-0"	(5) - #8	12'-3"	2'-0"	10'-9"	2'-0"	9'-9"	2'-0"	8'-6"	(5) - #8
☐	OT-112	22'-0"	18'-0"	20'-0"	7°	0	56"	2/S-13	2'-0"	(4) - #8	11'-3"	2'-0"	9'-9"	2'-0"	8'-9"	2'-0"	7'-6"	(4) - #8
☐	OT-113	22'-0"	28'-6"	20'-0"	7°	0	56"	2/S-13	2'-0"	(7) - #8	13'-9"	2'-0"	12'-0"	2'-0"	11'-0"	2'-0"	9'-6"	(7) - #8
☐	OT-114	22'-0"	28'-6"	20'-0"	7°	5	56"	2/S-13	2'-0"	(5) - #8	12'-6"	2'-0"	11'-0"	2'-0"	9'-9"	2'-0"	8'-6"	(5) - #8
☐	OT-115	22'-0"	32'-6"	20'-0"	7°	5	56"	2/S-13	2'-0"	(9) - #8	15'-0"	2'-0"	13'-0"	2'-0"	11'-9"	2'-0"	10'-3"	(9) - #8
☐	OT-116	22'-0"	32'-6"	20'-0"	7°	5	56"	2/S-13	2'-0"	(6) - #8	13'-0"	2'-0"	11'-3"	2'-0"	10'-3"	2'-0"	9'-0"	(6) - #8
☐	OT-117	22'-0"	35'-9"	20'-0"	7°	5	56"	2/S-13	2'-0"	(10) - #8	15'-6"	2'-0"	13'-6"	2'-0"	12'-3"	2'-0"	10'-9"	(10) - #8
☐	OT-118	22'-0"	35'-9"	20'-0"	7°	5	56"	2/S-13	2'-0"	(6) - #8	13'-6"	2'-0"	11'-9"	2'-0"	10'-9"	2'-0"	9'-3"	(6) - #8
☐	OT-119	28'-3"	18'-0"	20'-0"	7°	5	56"	2/S-13	2'-0"	(6) - #8	13'-3"	2'-0"	11'-6"	2'-0"	10'-6"	2'-0"	9'-0"	(6) - #8
☐	OT-120	28'-3"	28'-6"	20'-0"	7°	5	56"	2/S-13	2'-0"	(10) - #8	15'-3"	2'-0"	13'-3"	2'-0"	12'-3"	2'-0"	10'-6"	(10) - #8
☐	OT-151	22'-0"	18'-0"	15'-0"	7°	20	56"	2/S-13	2'-0"	(7) - #8	12'-9"	2'-0"	11'-3"	2'-0"	10'-3"	2'-0"	9'-0"	(7) - #8
☐	OT-152	22'-0"	18'-0"	15'-0"	7°	20	56"	2/S-13	2'-0"	(4) - #8	11'-0"	2'-0"	9'-9"	2'-0"	8'-9"	2'-0"	7'-9"	(4) - #8
☐	OT-153	22'-0"	28'-6"	15'-0"	7°	20	70"	2/S-13	2'-6"	(7) - #8	13'-9"	2'-6"	12'-0"	2'-6"	11'-0"	2'-6"	9'-6"	(7) - #8
☐	OT-154	22'-0"	28'-6"	15'-0"	7°	20	56"	2/S-13	2'-0"	(6) - #8	13'-0"	2'-0"	11'-3"	2'-0"	10'-3"	2'-0"	9'-0"	(6) - #8
☐	OT-155	22'-0"	32'-6"	15'-0"	7°	20	70"	2/S-13	2'-6"	(9) - #8	14'-6"	2'-6"	12'-9"	2'-6"	11'-6"	2'-6"	10'-0"	(9) - #8
☐	OT-156	22'-0"	32'-6"	15'-0"	7°	20	56"	2/S-13	2'-0"	(7) - #8	15'-6"	2'-0"	11'-9"	2'-0"	10'-9"	2'-0"	9'-3"	(7) - #8
☐	OT-157	22'-0"	35'-9"	15'-0"	7°	20	70"	2/S-13	2'-6"	(10) - #8	15'-0"	2'-6"	13'-3"	2'-6"	12'-0"	2'-6"	10'-6"	(10) - #8
☐	OT-158	22'-0"	35'-9"	15'-0"	7°	20	56"	2/S-13	2'-6"	(6) - #8	13'-9"	2'-0"	12'-3"	2'-0"	11'-9"	2'-0"	10'-0"	(8) - #8
☐	OT-159	28'-3"	18'-0"	15'-0"	7°	20	56"	2/S-13	2'-0"	(8) - #8	13'-9"	2'-0"	12'-0"	2'-0"	11'-0"	2'-0"	9'-6"	(8) - #8
☐	OT-160	28'-3"	28'-6"	15'-0"	7°	20	70"	2/S-13	2'-6"	(9) - #8	14'-9"	2'-6"	13'-0"	2'-6"	11'-9"	2'-6"	10'-3"	(9) - #8
☐	OT-161	22'-0"	18'-0"	20'-0"	7°	20	56"	2/S-13	2'-0"	(7) - #8	13'-3"	2'-0"	11'-6"	2'-0"	10'-6"	2'-0"	9'-3"	(7) - #8
☐	OT-162	22'-0"	18'-0"	20'-0"	7°	20	56"	2/S-13	2'-0"	(4) - #8	11'-9"	2'-0"	10'-0"	2'-0"	9'-0"	2'-0"	8'-0"	(4) - #8
☐	OT-163	22'-0"	28'-6"	20'-0"	7°	20	70"	2/S-13	2'-6"	(8) - #8	14'-3"	2'-6"	12'-6"	2'-6"	11'-3"	2'-6"	9'-9"	(8) - #8
☐	OT-164	22'-0"	28'-6"	20'-0"	7°	20	56"	2/S-13	2'-0"	(7) - #8	13'-3"	2'-0"	11'-6"	2'-0"	10'-6"	2'-0"	9'-3"	(7) - #8
☐	OT-165	22'-0"	32'-6"	20'-0"	7°	20	70"	2/S-13	2'-6"	(9) - #8	15'-0"	2'-6"	13'-0"	2'-6"	11'-9"	2'-6"	10'-3"	(9) - #8
☐	OT-166	22'-0"	32'-6"	20'-0"	7°	20	56"	2/S-13	2'-0"	(8) - #8	16'-0"	2'-0"	12'-3"	2'-0"	11'-0"	2'-0"	9'-9"	(8) - #8
☐	OT-167	22'-0"	35'-9"	20'-0"	7°	20	70"	2/S-13	2'-6"	(11) - #8	15'-6"	2'-6"	13'-6"	2'-6"	12'-3"	2'-6"	10'-9"	(11) - #8
☐	OT-168	22'-0"	35'-9"	20'-0"	7°	20	70"	2/S-13	2'-6"	(6) - #8	14'-0"	2'-6"	11'-9"	2'-6"	10'-6"	2'-6"	9'-3"	(6) - #8
☐	OT-169	28'-3"	18'-0"	20'-0"	7°	20	56"	2/S-13	2'-0"	(9) - #8	14'-3"	2'-0"	12'-6"	2'-0"	11'-3"	2'-0"	9'-9"	(9) - #8
☐	OT-170	28'-3"	28'-6"	20'-0"	7°	20	70"	2/S-13	2'-6"	(10) - #8	15'-3"	2'-6"	13'-3"	2'-6"	12'-0"	2'-6"	10'-6"	(10) - #8

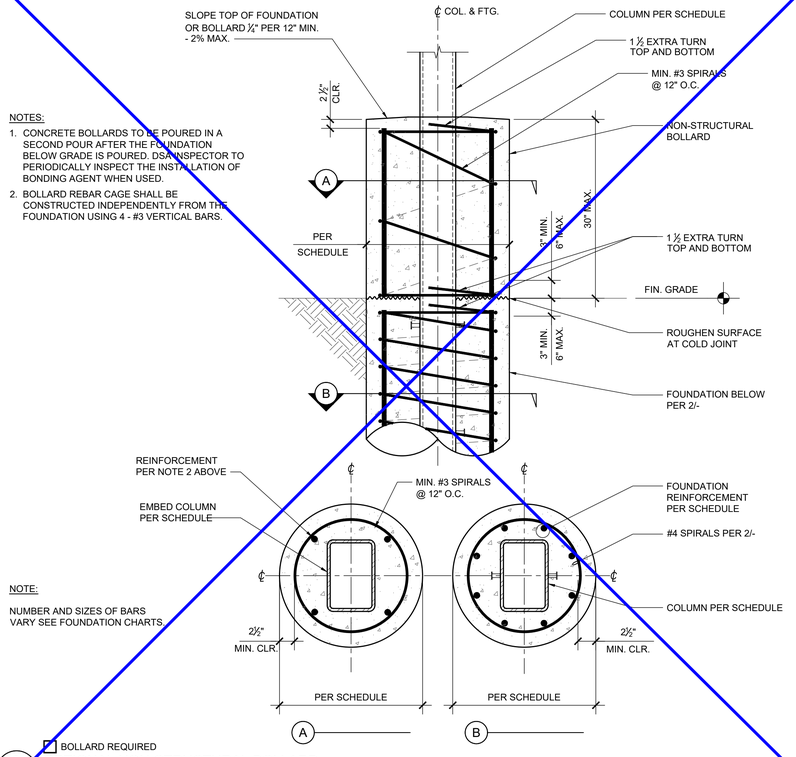
	TIE SPACING "TS" AT TOP
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	4"
	6"
	3"
	4"

1. MULTIPLE STRUCTURE ID'S MAY BE SELECTED WITHIN THE SAME SITE AND/OR STRUCTURE.
2. WHEN UTILIZING A STRUCTURE ID READ FROM WITHIN THAT ID ROW ONLY.
3. SEE SOILS NOTES ON SHEET S-3 FOR INFORMATION ON SOILS CLASS SELECTION.
4. WHERE WATER MITIGATION IS NECESSARY, OR FOR OTHER CONDITIONS REQUIRING MITIGATION, REFER TO DETAIL '2/-' FOR SLEEVED FOUNDATION OPTION.
5. FOR CONDUIT INTERACTION WITH FOUNDATION SEE S-21.

1 - OT-STRUCTURE NON-CONSTRAINED PIER FOUNDATION SCHEDULE



2 - PIER FOUNDATION DETAIL
1/2" = 1'-0"



☐ BOLLARD REQUIRED

3 - OPTIONAL NON-STRUCTURAL BOLLARD
1" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

MBAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE, SAN MARCOS, CA 92078
ERIK KRIVOPOPICH
PHONE: (760) 744-4131
FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960 B AND C-57 (770) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER DUSTIN K. ROSENTHAL S 5885 STATE OF CALIFORNIA

BID INFORMATION
THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION
TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

OT-STRUCTURE PIER FOUNDATION SCHEDULE

S-13

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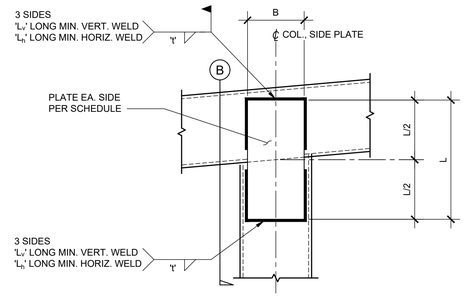
NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE

OT-STRUCTURE BEAM-TO-COLUMN SCHEDULE

USE	I.D. #	MAX. WIDTH W	MAX. COLUMN SPACING S	MAX. COLUMN HEIGHT	MAX. ROOF SLOPE	ROOF SNOW LOAD (PSF)	BEAM TO COLUMN DETAIL	BEAM TO COLUMN SIDE PLATE 't' x 'B' x 'L' (IN)	SIDE PLATE WELDS		
									MIN. THICKNESS t	MIN. HORIZONTAL LENGTH L_h	MIN. VERTICAL LENGTH L_v
☐	OT-101	22'-0"	18'-0"	15'-0"	7°	5	2/S-15	5/8 x 9 3/4 x 1'-9 3/4"	1/4"	9.5"	9.5"
☐	OT-102	22'-0"	18'-0"	15'-0"	7°	5	2/S-15	3/8 x 9 3/4 x 1'-9 3/4"	3/16"	9.5"	9.5"
☐	OT-103	22'-0"	28'-6"	15'-0"	7°	5	2/S-15	1 x 9 1/4 x 1'-9 1/2"	3/8"	9"	9"
☐	OT-104	22'-0"	28'-6"	15'-0"	7°	5	2/S-15	5/8 x 9 1/2 x 1'-9 7/8"	1/4"	9.5"	9.5"
☐	OT-105	22'-0"	32'-6"	15'-0"	7°	0	2/S-15	1 1/4 x 9 1/4 x 1'-9 1/2"	7/16"	9"	9"
☐	OT-106	22'-0"	32'-6"	15'-0"	7°	5	2/S-15	3/4 x 9 1/2 x 1'-9 7/8"	1/4"	9.5"	9.5"
☐	OT-107	22'-0"	35'-9"	15'-0"	7°	5	2/S-15	1 1/2 x 8 3/4 x 1'-9 3/8"	1/2"	8.5"	9"
☐	OT-108	22'-0"	35'-9"	15'-0"	7°	5	2/S-15	3/4 x 9 1/2 x 1'-9 7/8"	1/4"	9.5"	9.5"
☐	OT-109	28'-3"	18'-0"	15'-0"	7°	5	2/S-15	3/4 x 9 1/2 x 1'-9 1/2"	5/16"	9.5"	9"
☒	OT-110	28'-3"	28'-6"	15'-0"	7°	5	2/S-15	1 1/2 x 8 3/4 x 1'-8 3/4"	1/2"	8.5"	8.5"
☐	OT-111	22'-0"	18'-0"	20'-0"	7°	5	2/S-15	5/8 x 9 1/2 x 1'-9 7/8"	1/4"	9.5"	9.5"
☐	OT-112	22'-0"	18'-0"	20'-0"	7°	0	2/S-15	3/8 x 9 3/4 x 1'-9 3/4"	3/16"	9.5"	9.5"
☐	OT-113	22'-0"	28'-6"	20'-0"	7°	0	2/S-15	1 x 9 1/4 x 1'-9 1/2"	3/8"	9"	9"
☐	OT-114	22'-0"	28'-6"	20'-0"	7°	5	2/S-15	5/8 x 9 1/2 x 1'-9 7/8"	1/4"	9.5"	9.5"
☐	OT-115	22'-0"	32'-6"	20'-0"	7°	5	2/S-15	1 1/2 x 8 3/4 x 1'-9 3/8"	1/2"	8.5"	9"
☐	OT-116	22'-0"	32'-6"	20'-0"	7°	5	2/S-15	3/4 x 9 1/4 x 1'-9 7/8"	1/4"	9"	9.5"
☐	OT-117	22'-0"	35'-9"	20'-0"	7°	5	2/S-15	1 1/2 x 8 3/4 x 1'-9 3/8"	1/2"	8.5"	9"
☐	OT-118	22'-0"	35'-9"	20'-0"	7°	5	2/S-15	7/8 x 9 1/4 x 1'-9 7/8"	5/16"	9"	9.5"
☐	OT-119	28'-3"	18'-0"	20'-0"	7°	5	2/S-15	7/8 x 9 1/2 x 1'-9 1/2"	5/16"	9.5"	9"
☐	OT-120	28'-3"	28'-6"	20'-0"	7°	5	2/S-15	1 1/2 x 8 3/4 x 1'-8 3/4"	9/16"	8.5"	8.5"
☐	OT-151	22'-0"	18'-0"	15'-0"	7°	20	2/S-15	1 1/4 x 9 1/4 x 1'-9 1/2"	3/8"	9"	9"
☐	OT-152	22'-0"	18'-0"	15'-0"	7°	20	2/S-15	5/8 x 9 1/2 x 1'-9 7/8"	1/4"	9.5"	9.5"
☐	OT-153	22'-0"	28'-6"	15'-0"	7°	20	2/S-15	1 1/2 x 10 x 2'-0 5/8"	1/2"	10"	10.5"
☐	OT-154	22'-0"	28'-6"	15'-0"	7°	20	2/S-15	1 x 9 1/4 x 1'-9 1/2"	3/8"	9"	9"
☐	OT-155	22'-0"	32'-6"	15'-0"	7°	20	2/S-15	1 3/4 x 10 x 2'-0 5/8"	9/16"	10"	10.5"
☐	OT-156	22'-0"	32'-6"	15'-0"	7°	20	2/S-15	1 1/4 x 8 3/4 x 1'-9 3/8"	7/16"	8.5"	9"
☐	OT-157	22'-0"	35'-9"	15'-0"	7°	20	2/S-15	2 x 10 x 1'-11 7/8"	11/16"	10"	9.5"
☐	OT-158	22'-0"	35'-9"	15'-0"	7°	20	2/S-15	1 1/2 x 8 3/4 x 1'-9 3/8"	1/2"	8.5"	9"
☐	OT-159	28'-3"	18'-0"	15'-0"	7°	20	2/S-15	1 1/2 x 8 3/4 x 1'-8 3/4"	9/16"	8.5"	8.5"
☐	OT-160	28'-3"	28'-6"	15'-0"	7°	20	2/S-15	1 3/4 x 10 x 1'-11 7/8"	5/8"	10"	9.5"
☐	OT-161	22'-0"	18'-0"	20'-0"	7°	20	2/S-15	1 1/4 x 9 1/4 x 1'-9 1/2"	3/8"	9"	9"
☐	OT-162	22'-0"	18'-0"	20'-0"	7°	20	2/S-15	5/8 x 9 1/2 x 1'-9 7/8"	1/4"	9.5"	9.5"
☐	OT-163	22'-0"	28'-6"	20'-0"	7°	20	2/S-15	1 1/2 x 10 x 2'-0 5/8"	1/2"	10"	10.5"
☐	OT-164	22'-0"	28'-6"	20'-0"	7°	20	2/S-15	1 x 9 1/4 x 1'-9 1/2"	3/8"	9"	9"
☐	OT-165	22'-0"	32'-6"	20'-0"	7°	20	2/S-15	1 3/4 x 10 x 2'-0 5/8"	9/16"	10"	10.5"
☐	OT-166	22'-0"	32'-6"	20'-0"	7°	20	2/S-15	1 1/2 x 8 3/4 x 1'-9 3/8"	7/16"	8.5"	9"
☐	OT-167	22'-0"	35'-9"	20'-0"	7°	20	2/S-15	2 1/4 x 9 1/4 x 2'-0"	3/4"	9"	9.5"
☐	OT-168	22'-0"	35'-9"	20'-0"	7°	20	2/S-15	1 x 10 3/4 x 2'-0 7/8"	3/8"	10.5"	10.5"
☐	OT-169	28'-3"	18'-0"	20'-0"	7°	20	2/S-15	1 1/2 x 8 3/4 x 1'-8 3/4"	9/16"	8.5"	8.5"
☐	OT-170	28'-3"	28'-6"	20'-0"	7°	20	2/S-15	1 3/4 x 10 x 1'-11 7/8"	11/16"	10"	9.5"

1. MULTIPLE STRUCTURE ID'S MAY BE SELECTED WITHIN THE SAME SITE AND/OR STRUCTURE.
2. WHEN UTILIZING A STRUCTURE ID READ FROM WITHIN THAT ID ROW ONLY.

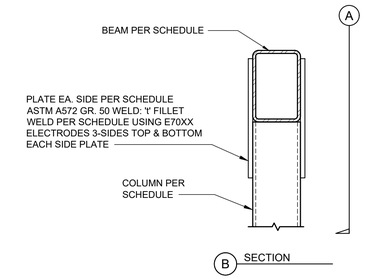
1 / - OT-STRUCTURE BEAM-TO-COLUMN SCHEDULE



A ELEVATION

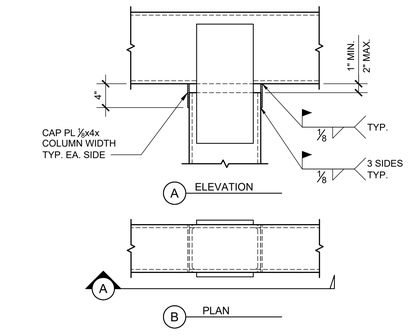
NOTES:

1. WELD TO BE ALL AROUND PLATE. PORTIONS OF THE WELD ALL AROUND JOINT ARE STRUCTURAL AND OTHER PORTIONS ARE NON STRUCTURAL. MINIMUM STRUCTURAL WELD LENGTHS 'L_v' AND 'L_h' PER SCHEDULE. WELDS BEYOND THESE MIN. LENGTHS ARE NON STRUCTURAL SEAL WELDS.
2. PURLIN, SOLAR PANEL NOT SHOWN

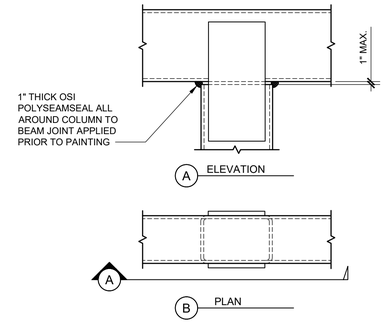


B SECTION

2 / - BEAM TO COLUMN
1" = 1'-0"



3 / - BEAM TO COLUMN CORROSION PROTECTION OPTION 1
1" = 1'-0"



4 / - BEAM TO COLUMN CORROSION PROTECTION OPTION 2
1" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE, SAN MARCOS, CA 92078
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PHONE: (760) 744-4131
FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960 B AND C-53 (775) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER DUSTIN K. ROSENTHAL S 5885 STATE OF CALIFORNIA

BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

OT-STRUCTURE BEAM-TO-COLUMN SCHEDULE

S-15

DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE

PURLIN SCHEDULE

USE	I.D. #	MULTI SPAN PURLIN	PURLIN[8] SPACING (PS)	MAX. COLUMN SPACING (S)	ROOF SNOW LOAD (PSF)	MAX. CANTILEVER SPAN (CS)[6]		PURLIN		BLOCKING		ALTERNATE PURLIN		ALTERNATE BLOCKING		BLOCKING TO PURLIN DETAILS			PURLIN TO BEAM DETAILS				INTERIOR CLIP ANGLE		EXTERIOR END PLATE		PURLIN BRACING DETAILS
																			INTERIOR PURLINS		EXTERIOR PURLINS						
						MIDSPAN BLOCKING	NO BLOCKING	SECTION	DETAIL	SECTION	DETAIL	SECTION	DETAIL	SECTION	DETAIL	BOLT DIA. d_3 (IN)	INTERIOR	EXTERIOR	SPLICE	CONTINUOUS	SPLICE	CONTINUOUS	THICKNESS t_1 (IN)	BOLT DIA. d_1 (IN)	THICKNESS t_2 (IN)	BOLT DIA. d_2 (IN)	
☐	P101		47"	18'-0"	0	10'-6"	6'-0"	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS8 x 3.5 x 0.071 (14GA)	2/S-5	CS5 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	3/8	1/2	5/16	1/2	N/A
☐	P102		47"	18'-0"	5	10'-6"	6'-0"	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS8 x 3.5 x 0.071 (14GA)	2/S-5	CS5 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	3/8	1/2	5/16	1/2	N/A
☐	P103		47"	18'-0"	20	10'-0"	5'-0"	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS8 x 4 x 0.071 (14GA)	2/S-5	CS5 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	3/8	1/2	3/8	1/2	N/A
☐	P104		47"	21'-6"	0	11'-6"	6'-6"	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS8 x 4 x 0.071 (14GA)	2/S-5	CS5 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	1/2	1/2	3/8	1/2	N/A
☐	P105		47"	21'-6"	5	11'-6"	6'-6"	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS8 x 4 x 0.071 (14GA)	2/S-5	CS5 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	1/2	1/2	3/8	1/2	N/A
☐	P106		47"	21'-6"	20	11'-0"	6'-0"	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS10 x 4 x 0.071 (14GA)	2/S-5	CS7 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	1/2	1/2	3/8	1/2	N/A
☒	P107		47"	28'-6"	0	13'-0"	8'-0"	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS12 x 3.5 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	1/2	1/2	3/8	1/2	10, 11/S-17
☐	P108		47"	28'-6"	5	13'-0"	8'-0"	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS12 x 3.5 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	1/2	1/2	3/8	1/2	10, 11/S-17
☐	P109		47"	28'-6"	20	13'-0"	7'-6"	CS12 x 4 x 0.102 (12GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS12 x 3.5 x 0.102 (12GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	1/S-17	12/S-17	2/S-17	13/S-17	1/2	1/2	3/8	1/2	10, 11/S-17
☐	P110[9,11]	✓	47"	32'-6"	0	12'-8"	n/a	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS10 x 3.5 x 0.071 (14GA)	2/S-5	CS7 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	3/S-16	12/S-17	3/S-16	13/S-17	1/2	1/2	1/2	1/2	10, 11/S-17
☐	P111[9,11]	✓	47"	32'-6"	5	12'-8"	n/a	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS10 x 3.5 x 0.071 (14GA)	2/S-5	CS7 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	3/S-16	12/S-17	3/S-16	13/S-17	1/2	1/2	1/2	1/2	10, 11/S-17
☐	P112[9]	✓	47"	32'-6"	20	12'-8"	n/a	CS12 x 4 x 0.102 (12GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS10 x 3.5 x 0.102 (12GA)	2/S-5	CS7 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	3/S-16	12/S-17	3/S-16	13/S-17	1/2	1/2	3/8	1/2	10, 11/S-17
☐	P113[10]	✓	47"	35'-9"	0	12'-6"	n/a	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS10 x 4 x 0.071 (14GA)	2/S-5	CS7 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	3/S-16	12/S-17	3/S-16	13/S-17	1/2	1/2	1/2	1/2	10, 11/S-17
☐	P114[10]	✓	47"	35'-9"	5	12'-6"	n/a	CS12 x 4 x 0.071 (14GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS10 x 4 x 0.071 (14GA)	2/S-5	CS7 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	3/S-16	12/S-17	3/S-16	13/S-17	1/2	1/2	1/2	1/2	10, 11/S-17
☐	P115[10]	✓	47"	35'-9"	20	12'-6"	n/a	CS12 x 4 x 0.102 (12GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	CS12 x 3.5 x 0.102 (12GA)	2/S-5	CS9 x 2.5 x 0.057 (16 GA)	3/S-5	1/2	8/S-17	9/S-17	3/S-16	12/S-17	3/S-16	13/S-17	1/2	1/2	1/2	1/2	10, 11/S-17

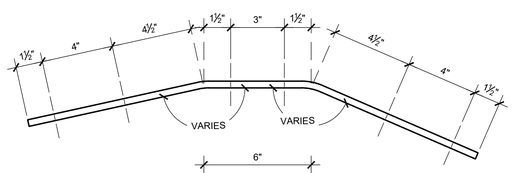
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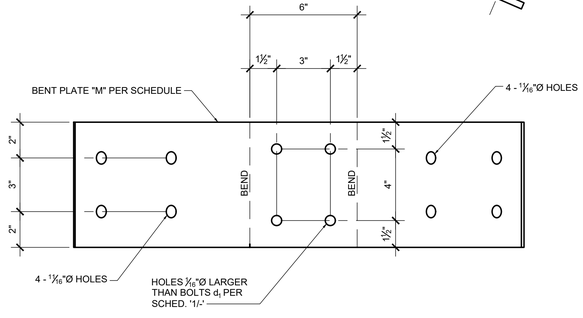
1. MULTIPLE STRUCTURE ID'S MAY BE SELECTED WITHIN THE SAME SITE AND/OR STRUCTURE.
2. WHEN UTILIZING A STRUCTURE ID READ FROM WITHIN THAT ID ROW ONLY.
3. BEAM TO PURLIN DETAIL AT SPLICE SHALL NOT OCCUR ON A PURLIN WITH A CANTILEVER SPAN.
4. WHEN THE CANTILEVER SPAN SHOWN ON THE SITE SPECIFIC SHEETS DOES NOT EXCEED THE MAX CANTILEVER SPAN NO BLOCKING, MID SPAN BLOCKING OF THE CANTILEVER IS NOT REQUIRED.
5. PURLIN SPACING MAY BE INCREASED BEYOND THE MAXIMUMS GIVEN IN THE SCHEDULE ABOVE AS LONG AS THE TRIBUTARY WIDTH TO THE PURLIN DOES NOT EXCEED PS.
6. LONG PURLIN CANTILEVERS INCREASE THE TRIBUTARY AREA TO THE END BEAM AND MAY REQUIRE THE SUPPORTING MEMBERS TO INCREASE IN SIZE PER THE PURLIN CANTILEVER SCHEDULE ADJACENT. THE LEFT COLUMN OF THE SCHEDULE REPRESENTS THE COLUMN SPACING CURRENTLY USED, AND THE CENTER COLUMN OF THE SCHEDULE REPRESENTS THE PURLIN CANTILEVER RANGE. USING THE COLUMN SPACING AND PURLIN CANTILEVER ADJACENT TO THE END BEAM, DETERMINE THE APPROPRIATE MEMBER SIZING PER THE RIGHTMOST COLUMN OF THE SCHEDULE. FOR EXAMPLES, SEE DETAIL 2/-.
7. MINIMUM PURLIN SPACING WHERE PURLIN BRACING OCCURS IS 38.5". NO MINIMUM SPACING IS REQUIRED OTHER LOCATIONS.
8. WHEN PURLIN CANTILEVER DOES NOT REQUIRE BLOCKING PURLIN BRACING ON THE CANTILEVER IS NOT REQUIRED.
9. ☐ ALL STRUCTURES UTILIZING THIS PURLIN OPTION SHALL BE GOVERNED BY THE SOLAR PANEL DIMENSIONS AND NO OTHER SITE CONDITIONS. STRUCTURES MUST HAVE A MINIMUM OF 3 COLUMNS. STRUCTURES CANNOT HAVE PANELS WIDER THAN 42". LAYOUTS REQUIRE THAT THE CANTILEVER PURLIN LENGTH BE EXACTLY 3.5x(PANEL WIDTH PLUS PANEL GAP), THE COLUMN SPACING MUST BE EXACTLY 9x(PANEL WIDTH PLUS PANEL GAP), AND PURLIN SPLICE LOCATION "L" IN DETAIL 3/S-16 EXACTLY 1.5x(PANEL WIDTH PLUS PANEL GAP). THE PURLIN MAX. CANTILEVER LENGTH, COLUMN SPACING, AND SPLICE LOCATION "L" MUST ALL BE RATIOS OF THE PANEL WIDTH, AND CANNOT DEVIATE FROM THE SPACING PREVIOUSLY STATED.
10. ☐ ALL STRUCTURES UTILIZING THIS PURLIN OPTION SHALL BE GOVERNED BY THE SOLAR PANEL DIMENSIONS AND NO OTHER SITE CONDITIONS. STRUCTURES MUST HAVE A MINIMUM OF 3 COLUMNS. STRUCTURES CANNOT HAVE PANELS WIDER THAN 42". LAYOUTS REQUIRE THAT THE CANTILEVER PURLIN LENGTH BE EXACTLY 3.5x(PANEL WIDTH PLUS PANEL GAP), THE COLUMN SPACING MUST BE EXACTLY 10x(PANEL WIDTH PLUS PANEL GAP), AND PURLIN SPLICE LOCATION "L" IN DETAIL 3/S-16 EXACTLY 1.5x(PANEL WIDTH PLUS PANEL GAP). THE PURLIN MAX. CANTILEVER LENGTH, COLUMN SPACING, AND SPLICE LOCATION "L" MUST ALL BE RATIOS OF THE PANEL WIDTH, AND CANNOT DEVIATE FROM THE SPACING PREVIOUSLY STATED.
11. ~~☐ ALTERNATE PURLIN SIZE CAN BE C8x4x0.071 (14 GA) WITH CS5x2.5x0.057 (16 GA) BLOCKING.~~

PURLIN CANTILEVER SCHEDULE

USE	COLUMN SPACING	MAX. CANTILEVER	REQUIRED MEMBER PC I.D. # PER S-7, S-12
☐	18'-0"	CS ≤ 7'-3"	18'-0"
☐	18'-0"	7'-3" < CS ≤ 8'-9"	21'-6"
☐	18'-0"	8'-9" < CS ≤ 10'-6"	28'-6"
☐	21'-6"	CS ≤ 8'-9"	21'-6"
☐	21'-6"	8'-9" < CS ≤ 11'-6"	28'-6"
☒	28'-6"	CS ≤ 11'-9"	28'-6"
☐	28'-6"	11'-9" < CS ≤ 13'-8"	32'-6"

1 - PURLIN SCHEDULE

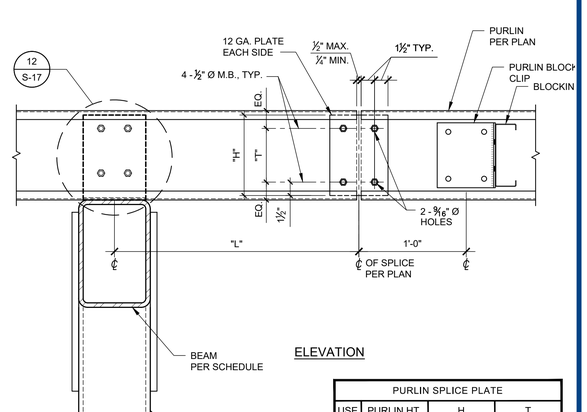




PURLIN BRACE PLATE		
USE	MAX. COLUMN SPACING "S" FROM 1/-	MATERIAL "M"
☒	"S" <= 28'-6"	12 GA 55 KSI
☐	"S" = 32'-6"	10 GA 55 KSI
☐	"S" = 35'-9"	10 GA 55 KSI

4 - PURLIN BRACE PLATE

3"=1'-0"



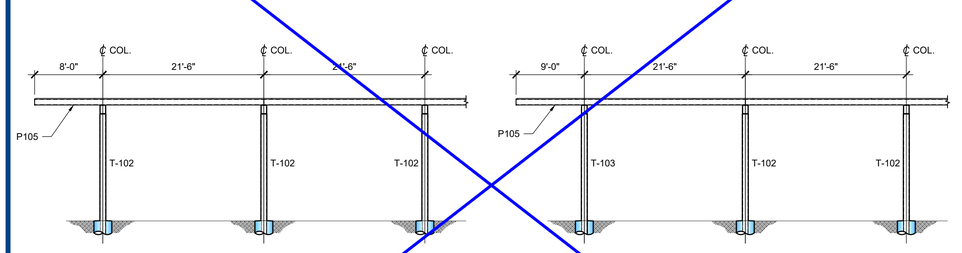
ELEVATION

PURLIN SPLICE PLATE			
USE	PURLIN HT.	H	T
☐	9"	7"	4"
☐	10"	9"	6"
☒	12"	11"	8"
☐	14"	13"	10"

NOTE:
L = 1.5 x (PANEL WIDTH + PANEL GAP)
(SEE NOTES 9 AND 10 ON 1/- FOR MULTI-SPAN PURLIN REQUIREMENTS)

3 - PURLIN SPLICE

1-1/2"=1'-0"



PURLIN CANTILEVER DOES NOT EXCEED LIMITS SHOWN IN PURLIN SCHEDULE '1/-'
NO END MEMBER SIZE INCREASE REQUIRED.

EXAMPLE 1

PURLIN CANTILEVER EXCEEDS LIMITS SHOWN IN PURLIN SCHEDULE '1/-'
END MEMBER SIZE INCREASE REQUIRED PER PURLIN CANTILEVER SCHEDULE.

EXAMPLE 2

2 - PURLIN CONDITION EXAMPLES

N.T.S.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE
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PHONE: (760) 744-4131
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LIC # 869960
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(770) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER DUSTIN K. ROSENTRETER S 5885 STATE OF CALIFORNIA

BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT

CODE: 2022 CBC

A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

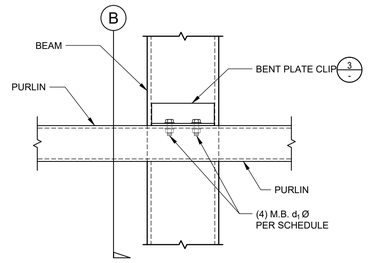
4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

PURLIN SCHEDULE

S-16

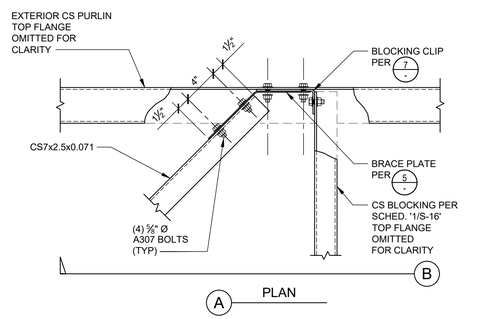
DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE



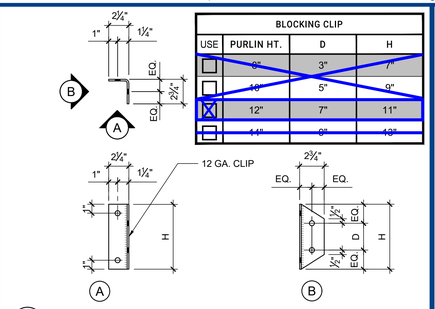
12 - PURLIN TO BEAM

1-1/2"=1'-0"



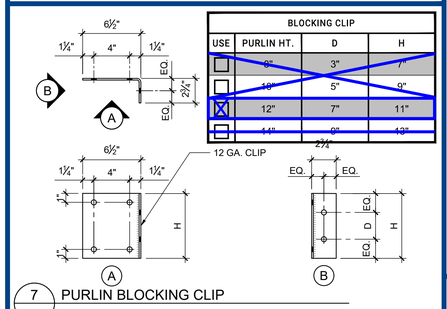
10 - TYP. PURLIN BRACE AT EXTERIOR PURLIN

1-1/2"=1'-0"



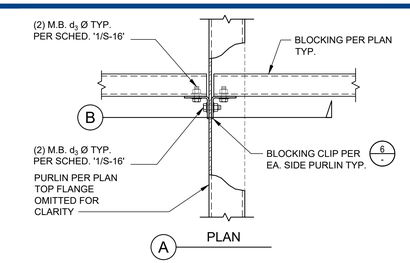
6 - PURLIN BLOCKING CLIP

1-1/2"=1'-0"



7 - PURLIN BLOCKING CLIP

1-1/2"=1'-0"

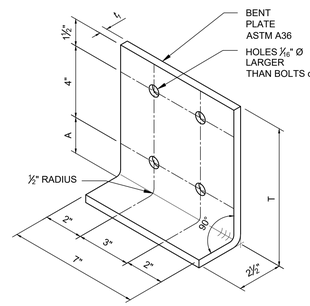


8 - PURLIN BLOCKING CONNECTION AT INTERIOR

1-1/2"=1'-0"

9 - PURLIN BLOCKING CONNECTION AT EXTERIOR

1-1/2"=1'-0"



BENT PLATE CLIP

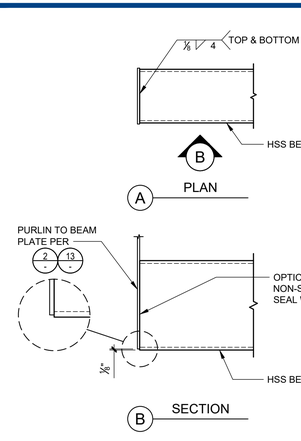
USE	PURLIN HT.	T	A
	8"	7 ½"	2"
	10"	8 ½"	3"
X	12"	9 ½"	4"
	14"	10 ½"	5"

NOTES:

1. CLIP PLATE THICKNESS 't_1' PER PURLIN SCHEDULE '1/S-16'.

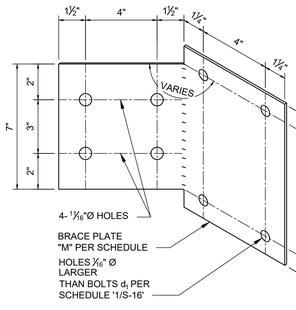
3 - PURLIN BEAM CLIP

3"=1'-0"



4 - BEAM END PLATE

1-1/2"=1'-0"



PURLIN BRACE PLATE

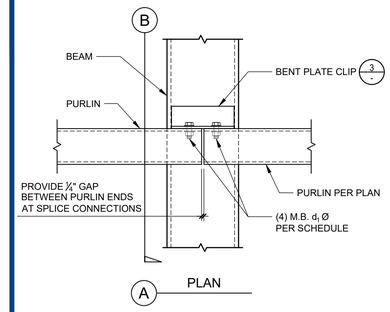
USE	MAX. COLUMN SPACING "S" FROM 1/S-16	MATERIAL "M"
X	"S" <= 28'-6"	12 GA 55 KSI
	"S" = 32'-6"	10 GA 55 KSI
	"S" = 35'-9"	10 GA 55 KSI

PURLIN BRACE PLATE

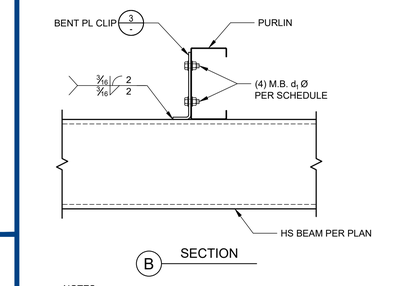
USE	PURLIN HT.	H
	8"	7"
	10"	9"
X	12"	11"
	14"	13"

5 - PURLIN BRACE PLATE

3"=1'-0"



SPLICE CONNECTION AT INTERIOR BEAMS.
EXTERIOR BEAMS USE FULL LENGTH PURLIN WITH CANTILEVER. SEE DETAIL 12 -

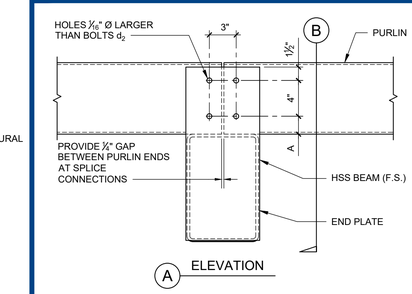


NOTES:

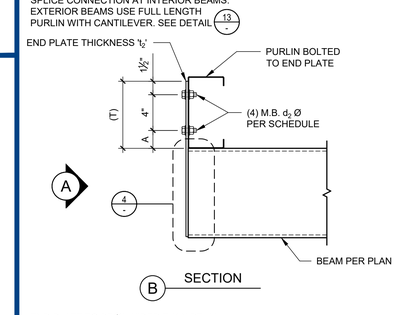
1. BOLT DIAMETER d_1 PER SCHEDULE '1/S-16'

1 - PURLIN TO BEAM AT SPLICE

1-1/2"=1'-0"



SPLICE CONNECTION AT INTERIOR BEAMS.
EXTERIOR BEAMS USE FULL LENGTH PURLIN WITH CANTILEVER. SEE DETAIL 13 -



END PLATE TO BE ½" WIDER THAN BEAM.

END PLATE

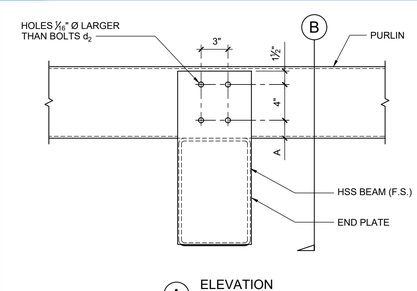
USE	PURLIN HT.	T	A
	8"	7 ½"	2"
	10"	8 ½"	3"
X	12"	9 ½"	4"
	14"	10 ½"	5"

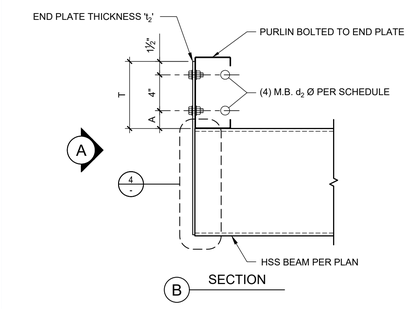
NOTES:

1. END PLATE THICKNESS 't_2' PER PURLIN SCHEDULE '1/S-16'.
2. BOLT DIAMETER d_2 PER SCHEDULE 1/S-16

2 - PURLIN TO BEAM END PLATE AT SPLICE

1-1/2"=1'-0"





END PLATE TO BE ½" WIDER THAN BEAM.

END PLATE

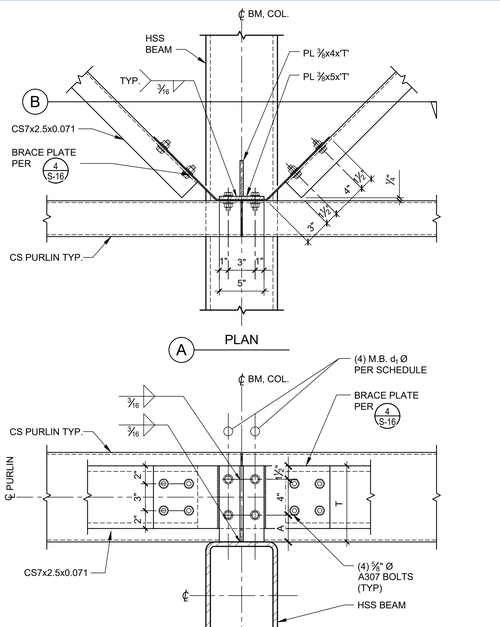
USE	PURLIN HT.	T	A
	8"	7 ½"	2"
	10"	8 ½"	3"
X	12"	9 ½"	4"
	14"	10 ½"	5"

NOTES:

1. END PLATE THICKNESS 't_2' PER PURLIN SCHEDULE '1/S-16'.
2. BOLT DIAMETER d_2 PER SCHEDULE 1/S-16

13 - PURLIN TO BEAM END PLATE

1-1/2"=1'-0"



T PLATE

USE	PURLIN HT.	T	A
	8"	7 ½"	2"
	10"	8 ½"	3"
X	12"	9 ½"	4"
	14"	10 ½"	5"

11 - TYP. PURLIN BRACE TO HSS BEAM

1-1/2"=1'-0"

4 STEEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE
SAN MARCOS, CA 92078
ERIK KRIVOPOPICH
PHONE: (760) 744-4131
FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960
B AND C-51
(775) 787-8845

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K. ROSENTRETER
S 5885
CIVIL
STATE OF CALIFORNIA

BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT

CODE: 2022 CBC

A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

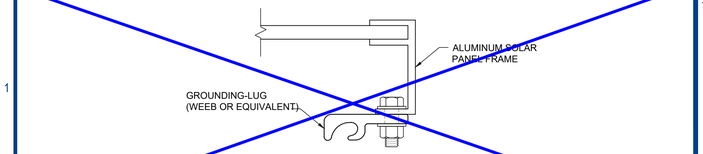
4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

TYPICAL PURLIN DETAILS

S-17

DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

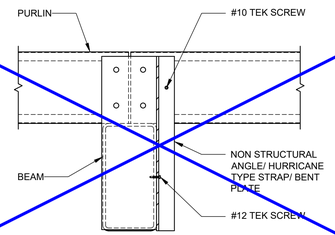
NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE



☐ OPTION UTILIZED

9 - OPTIONAL GROUNDING LUG

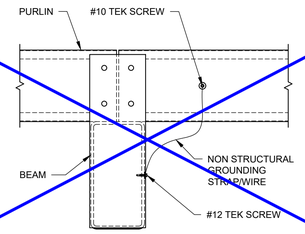
1'-0" = 1'-0"



☐ OPTION UTILIZED

10 - PURLIN GROUNDING DETAIL

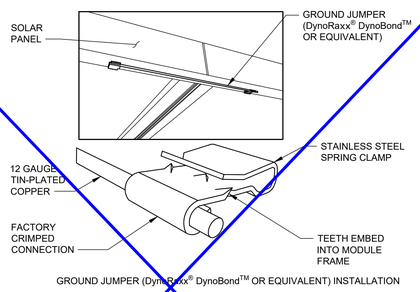
1-1/2" = 1'-0"



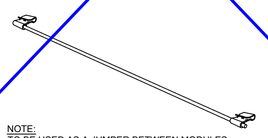
☐ OPTION UTILIZED

11 - PURLIN GROUNDING DETAIL

1-1/2" = 1'-0"



GROUND JUMPER (DynoRaxx® DynoBond™ OR EQUIVALENT) INSTALLATION



NOTE:
TO BE USED AS A JUMPER BETWEEN MODULES AND ROWS WHICH MAKES THE MODULE FRAME THE MEDIUM FOR THE EQUIPMENT GROUND PATH.

GROUND JUMPER (DynoRaxx® DynoBond™ OR EQUIVALENT)

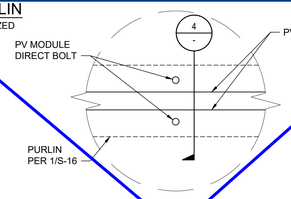
☐ OPTION UTILIZED

12 - OPTIONAL GROUND JUMPER

N.T.S.

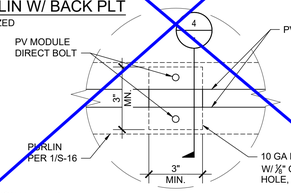
12 GA PURLIN

☐ OPTION UTILIZED



14 GA PURLIN W/ BACK PLT

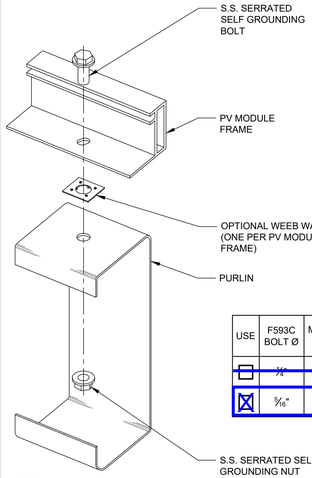
☐ OPTION UTILIZED



☐ OPTION UTILIZED

14 - LANDSCAPE CONNECTION DETAILS

3" = 1'-0"



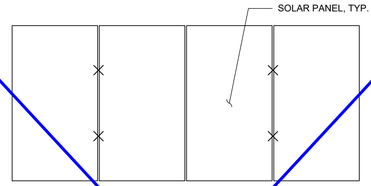
USE	F593C BOLT Ø	MIN. TORQUE (ft. lbs.)	MAX. TORQUE (ft. lbs.)
☐	¼"	8	10
☒	5/16"	12	15

NOTES:
1. REFER TO 'PV PANEL AND PV PANEL FASTENER INSTALLATION PROCEDURE' NOTES ON SHEET S-3.
2. BOLT SIZE SHALL BE SELECTED FROM THE SOLAR PANEL MANUFACTURER'S DOCUMENTATION SUBMITTED TO DSA AT PLAN REVIEW.

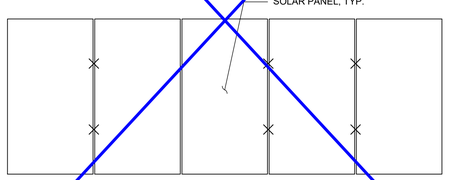
☒ OPTION UTILIZED

7 - SELF GROUNDING BOLT

6"=1'-0"



EVEN NUMBER OF MODULES IN ROW



ODD NUMBER OF MODULES IN ROW

NOTE:
X DENOTES WEEB-KSR OR CCR LOCATION

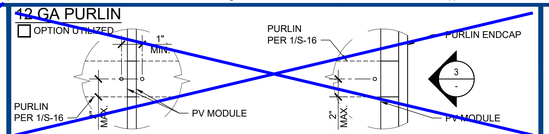
☐ OPTION UTILIZED

8 - OPTIONAL WEEB-KSR OR CCR LAYOUT

3/8" = 1'-0"

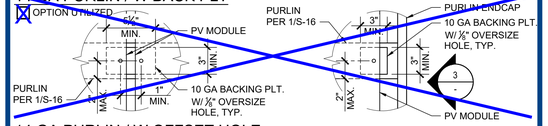
12 GA PURLIN

☐ OPTION UTILIZED



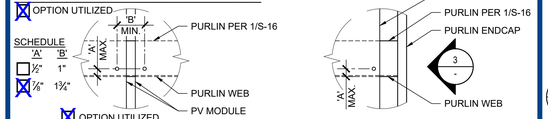
14 GA PURLIN / W BACK PLT

☒ OPTION UTILIZED



14 GA PURLIN / W OFFSET HOLE

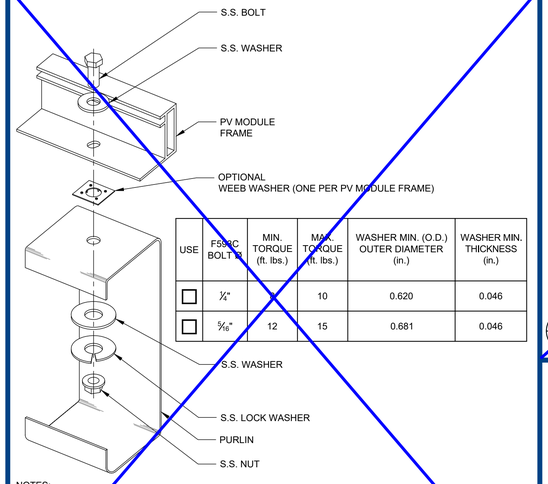
☒ OPTION UTILIZED



☒ OPTION UTILIZED

13 - PORTRAIT CONNECTION DETAILS

1 1/2" = 1'-0"



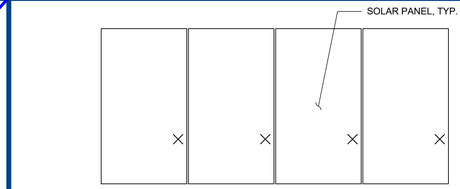
USE	F593C BOLT Ø	MIN. TORQUE (ft. lbs.)	MAX. TORQUE (ft. lbs.)	WASHER MIN. (O.D.) OUTER DIAMETER (in.)	WASHER MIN. THICKNESS (in.)
☐	¼"		10	0.620	0.046
☐	5/16"	12	15	0.681	0.046

NOTES:
1. REFER TO 'PV PANEL AND PV PANEL FASTENER INSTALLATION PROCEDURE' NOTES ON SHEET S-3.
2. BOLT SIZE SHALL BE SELECTED FROM THE SOLAR PANEL MANUFACTURER'S DOCUMENTATION SUBMITTED TO DSA AT PLAN REVIEW.

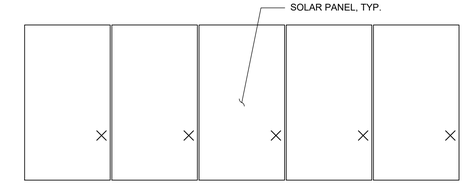
☐ OPTION UTILIZED

5 - SOLAR PANEL DIRECT BOLT ASSEMBLY

6"=1'-0"



EVEN NUMBER OF MODULES IN ROW



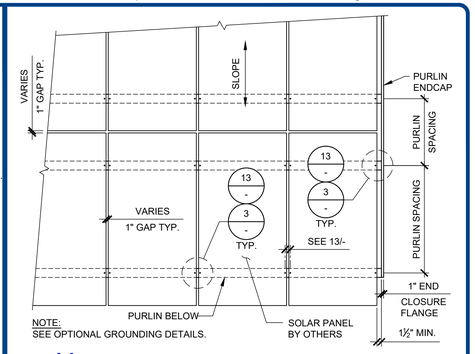
ODD NUMBER OF MODULES IN ROW

NOTE:
X DENOTES WEEB-ADC LOCATION

☒ OPTION UTILIZED

6 - OPTIONAL WEEB-ADC LAYOUT

3/8" = 1'-0"

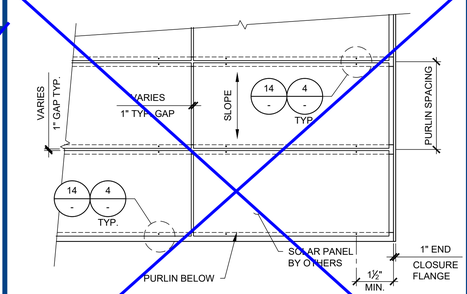


NOTE:
SEE OPTIONAL GROUNDING DETAILS.

☒ OPTION UTILIZED

1 - PORTRAIT SOLAR PANEL LAYOUT

3/8" = 1'-0"



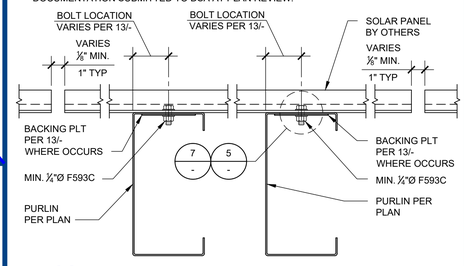
NOTE:
SEE OPTIONAL GROUNDING DETAILS.

☐ OPTION UTILIZED

2 - LANDSCAPE SOLAR PANEL LAYOUT

3/8" = 1'-0"

NOTES:
1. HOLES IN PURLIN SHALL BE ½"Ø LARGER THAN BOLTS UTILIZED.
2. FASTENERS SHALL BE TORQUED PER 5/- OR 7/-.
3. BOLT STACK SHALL BE INSTALLED PER 5/- OR 7/-.
4. BOLT SIZE SHALL BE SELECTED FROM THE SOLAR PANEL MANUFACTURER'S DOCUMENTATION SUBMITTED TO DSA AT PLAN REVIEW.

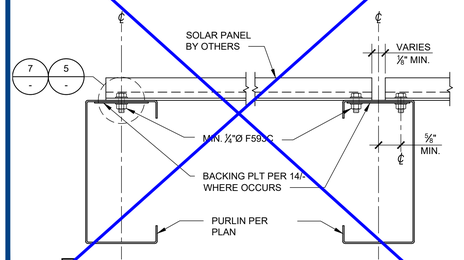


☒ OPTION UTILIZED

3 - PORTRAIT DIRECT BOLT

3" = 1'-0"

NOTES:
1. HOLES IN PURLIN SHALL BE ½"Ø LARGER THAN BOLTS UTILIZED.
2. FASTENERS SHALL BE TORQUED PER 5/- OR 7/-.
3. BOLT STACK SHALL BE INSTALLED PER 5/- OR 7/-.
4. BOLT SIZE SHALL BE SELECTED FROM THE SOLAR PANEL MANUFACTURER'S DOCUMENTATION SUBMITTED TO DSA AT PLAN REVIEW.



☐ OPTION UTILIZED

4 - LANDSCAPE DIRECT BOLT

3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE, SAN MARCOS, CA 92078
PHONE: (760) 744-4131
FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960
B AND C-21
(760) 787-8845
ERIK KRIVOKOPICH

ENGINEER'S APPROVAL



BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT

CODE: 2022 CBC

A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

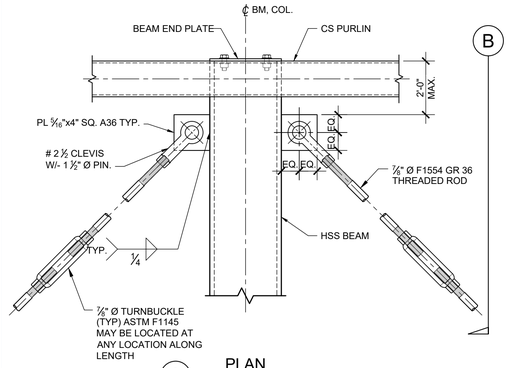
4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

TYPICAL SOLAR PANEL DETAILS

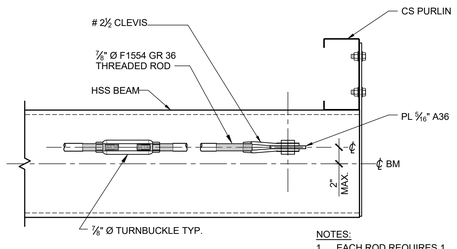
S-18

DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE



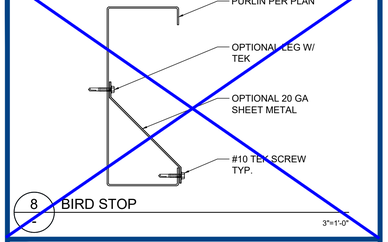
A PLAN



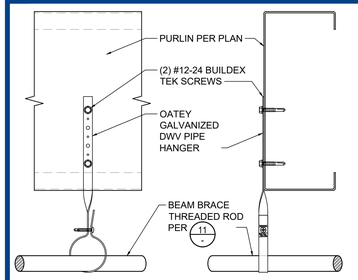
B ELEVATION

NOTES:
1. EACH ROD REQUIRES 1 TURNBUCKLE MINIMUM HOWEVER MORE THAN 1 MAY BE USED.
2. THREADED ROD SAG:
   - MIN. DEFLECTION ¼"
   - MAX. DEFLECTION ¾"
3. THREADED ROD CAN BE LOCATED 2" MAX. ABOVE OR BELOW CENTER OF BEAM.

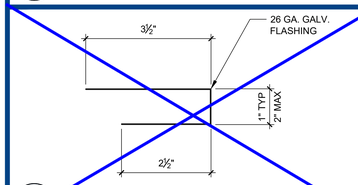
11 - TYP OT BEAM BRACE AT BEAM END
1-1/2"=1'-0"



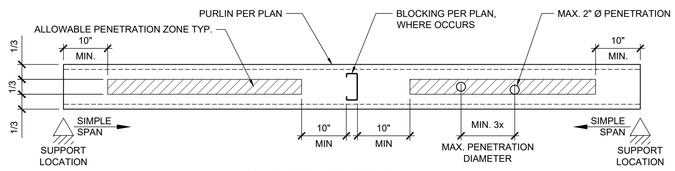
8 - BIRD STOP
3"=1'-0"



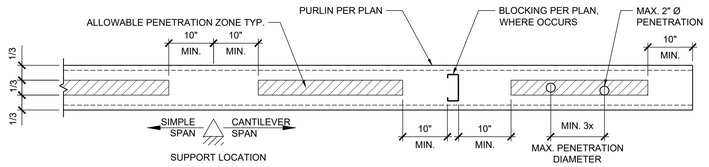
8A - BEAM BRACE ROD SUPPORT
3"=1'-0"



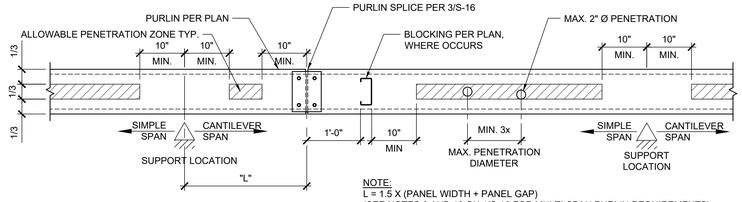
9 - DECK FLASHING
6"=1'-0"



SIMPLE SUPPORT SPAN



CANTILEVER SPAN

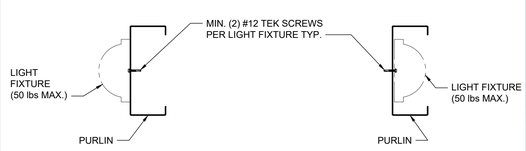


NOTE:
L = 1.5 X (PANEL WIDTH + PANEL GAP)
(SEE NOTES 9 AND 10 ON 1/S-16 FOR MULTI-SPAN PURLIN REQUIREMENTS)

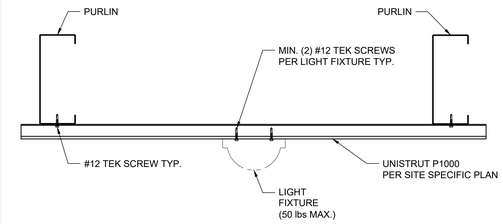
MULTI SUPPORT SPAN

NOTE:
IF MORE THAN 5 PENETRATIONS PER SPAN ARE NEEDED, CONTRACTOR TO SUBMIT AN RFI TO DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE TO ENSURE REQUIREMENTS OF THIS DETAIL ARE MET AND TO JUSTIFY THE QUANTITY OF PENETRATIONS NEEDED.

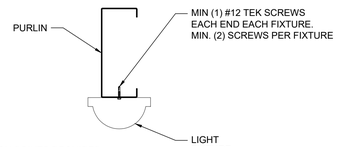
4 - ALLOWABLE PURLIN PENETRATIONS
3/4"=1'-0"



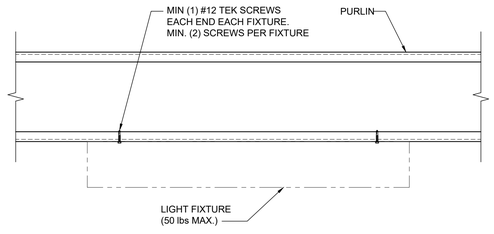
NOTE:
ALL STRUCTURAL CONNECTION POINTS REQUIRED BY MANUFACTURER TO MAINTAIN WARRANTY TO BE FILLED. THIS MAY EXCEED THE MINIMUM NUMBER OF SCREWS.



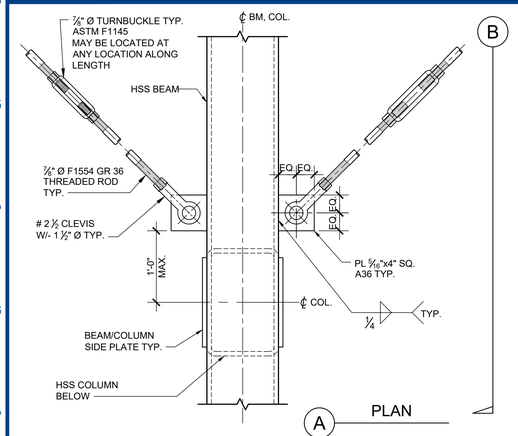
1 - LIGHT INSTALLATION OPTIONS
1-1/2"=1'-0"



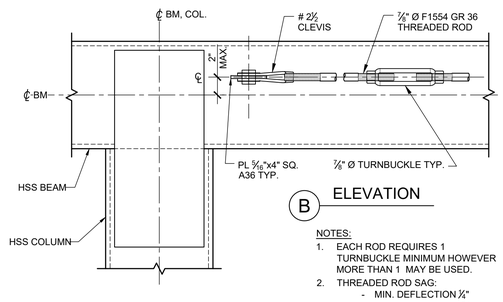
NOTE:
ALL STRUCTURAL CONNECTION POINTS REQUIRED BY MANUFACTURER TO MAINTAIN WARRANTY TO BE FILLED. THIS MAY EXCEED THE MINIMUM NUMBER OF SCREWS.



2 - ALTERNATE LIGHT INSTALLATION OPTIONS
1-1/2"=1'-0"



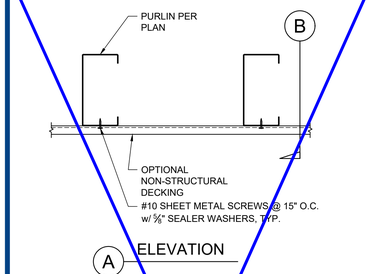
A PLAN



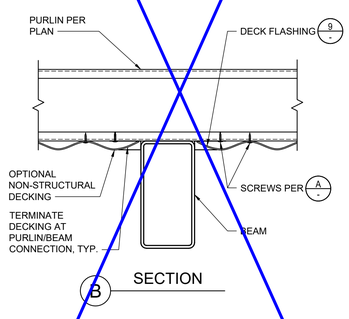
B ELEVATION

NOTES:
1. EACH ROD REQUIRES 1 TURNBUCKLE MINIMUM HOWEVER MORE THAN 1 MAY BE USED.
2. THREADED ROD SAG:
   - MIN. DEFLECTION ¼"
   - MAX. DEFLECTION ¾"
3. THREADED ROD CAN BE LOCATED 2" MAX. ABOVE OR BELOW CENTER OF BEAM.

12 - TYP OT BEAM BRACE AT COLUMN
1-1/2"=1'-0"



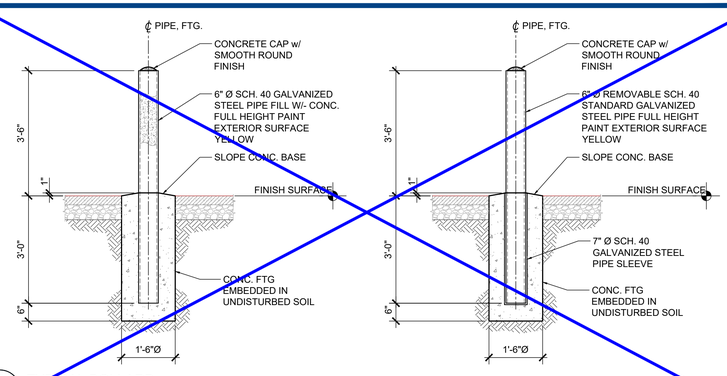
A ELEVATION



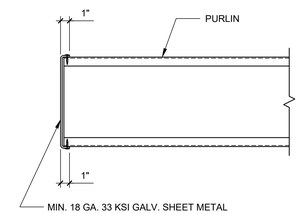
B SECTION

NOTES:
1. SOLAR PANELS NOT SHOWN.
2. PURLIN TO BEAM CONNECTION NOT SHOWN.
3. NON-STRUCTURAL DECKING MAY BE INSTALLED ONLY IF DECKING WEIGHT COMBINED WITH SOLAR SYSTEM WEIGHT AND SPRINKLERS, IF APPLICABLE, IS LESS THAN OR EQUAL TO 3.15 psf.

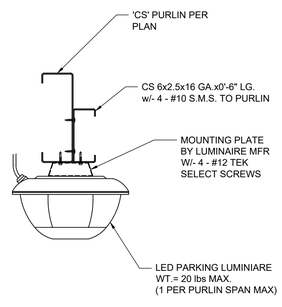
10 - OPTIONAL DECKING
1-1/2"=1'-0"



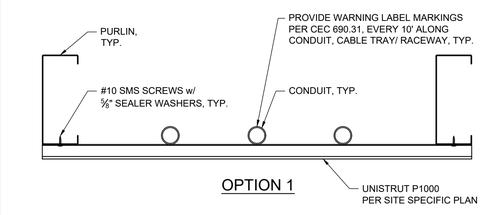
5 - TYPICAL BOLLARD
1/2"=1'-0"



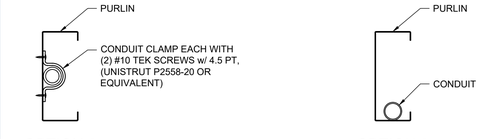
7 - PURLIN END CAP
1-1/2"=1'-0"



6 - ALTERNATIVE LIGHT INSTALLATION DETAIL
1-1/2"=1'-0"



OPTION 1



OPTION 2 OPTION 3

3 - CONDUIT SUPPORT/ LOCATION OPTIONS
1-1/2"=1'-0"

IDENTIFICATION STAMP
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APP: 02-123774 INC:
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DATE: 09/22/26

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26030 ACERO
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FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960 B AND C-57 (770) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER DUSTIN K. ROSENTHAL S 5885 STATE OF CALIFORNIA

BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
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SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

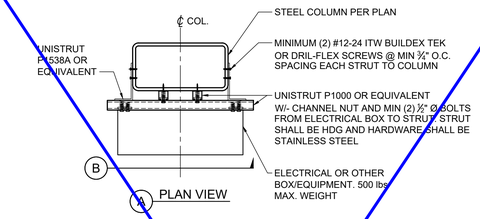
4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

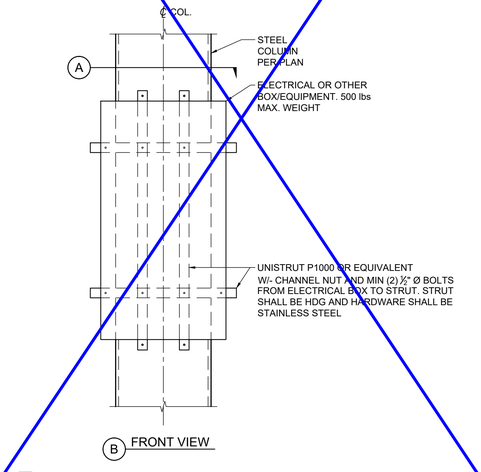
BEAM BRACING & MISC. DETAILS

S-19

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NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE

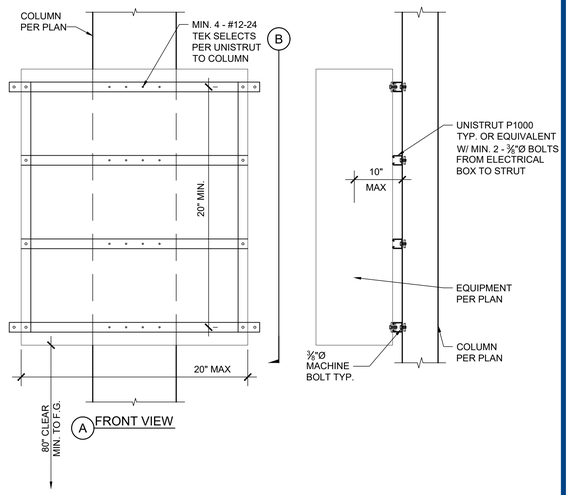




☐ OPTION UTILIZED

1 - COLUMN MOUNTED EQUIPMENT ANCHORAGE DETAIL

1"=1'-0"

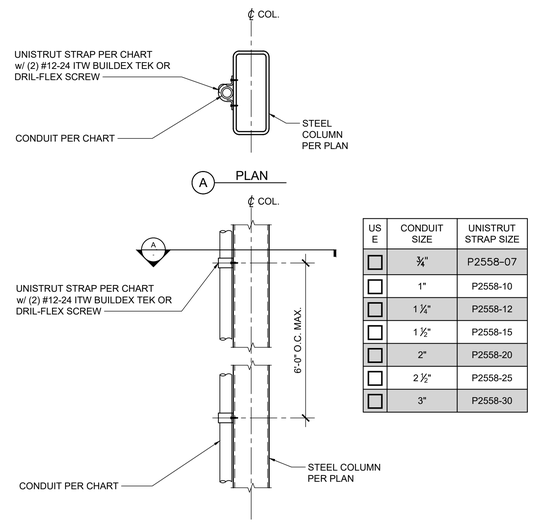


NOTES:
1. 500 lb MAX EQUIPMENT WEIGHT
2. FOR COLUMN THICKER ½" PRE DRILL COLUMN WITH DRILL BIT EQUAL TO ROOT DIAMETER OF SCREW USED. (I.E. SHAFT EXCLUDING THREADS)

☒ OPTION UTILIZED

5 - EQUIPMENT TO COLUMN CONNECTION

1"=1'-0"



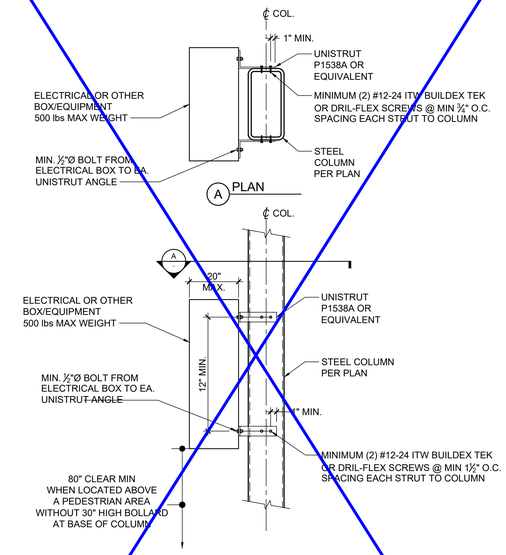
USE	CONDUIT SIZE	UNISTRUT STRAP SIZE
☒	¾"	P2558-07
☐	1"	P2558-10
☒	1 ¼"	P2558-12
☐	1 ½"	P2558-15
☒	2"	P2558-20
☐	2 ½"	P2558-25
☒	3"	P2558-30

NOTE:
1. FOR COLUMN THICKER ½" PRE DRILL COLUMN WITH DRILL BIT EQUAL TO ROOT DIAMETER OF SCREW USED. (I.E. SHAFT EXCLUDING THREADS)
2. PIPE CONDUIT MAY BE MOUNTED TO BOTH SIDES OF COLUMN. NOT SHOWN IN DETAIL FOR CLARITY.

☒ OPTION UTILIZED

3 - PIPE/ CONDUIT MOUNTING

1"=1'-0"

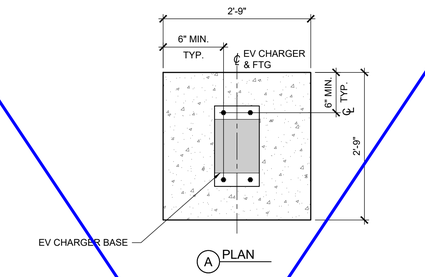


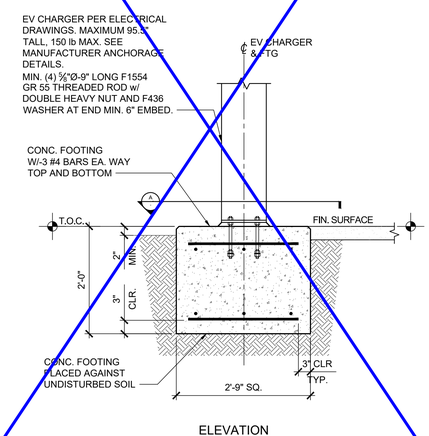
NOTE:
1. FOR COLUMN THICKER ½" PRE DRILL COLUMN WITH DRILL BIT EQUAL TO ROOT DIAMETER OF SCREW USED. (I.E. SHAFT EXCLUDING THREADS)
2. EQUIPMENT MAY BE MOUNTED TO BOTH SIDES OF COLUMN. NOT SHOWN IN DETAIL FOR CLARITY.

☐ OPTION UTILIZED

4 - ALTERNATE EQUIPMENT ATTACHMENT DETAIL

1" = 1'-0"

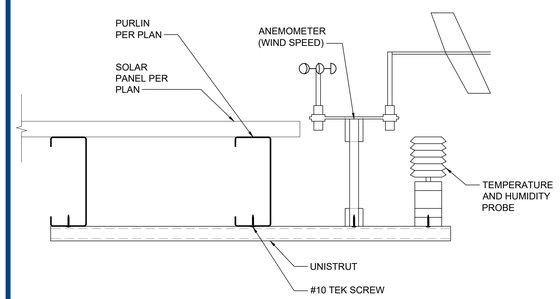




☐ OPTION UTILIZED

5 - EV CHARGER FOUNDATION

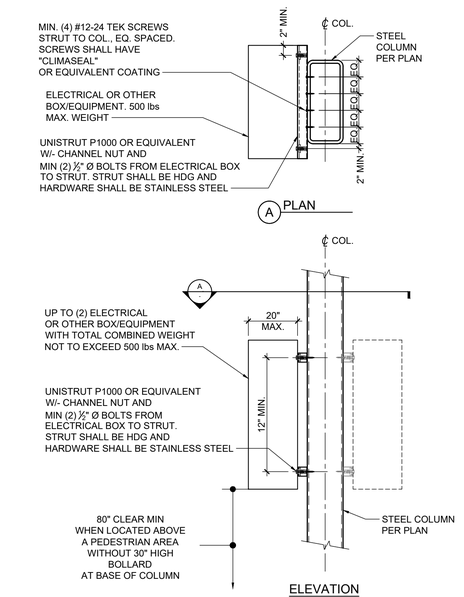
3/4"=1'-0"



☐ OPTION UTILIZED

6 - WEATHER STATION ATTACHMENT DETAIL

N.T.S.

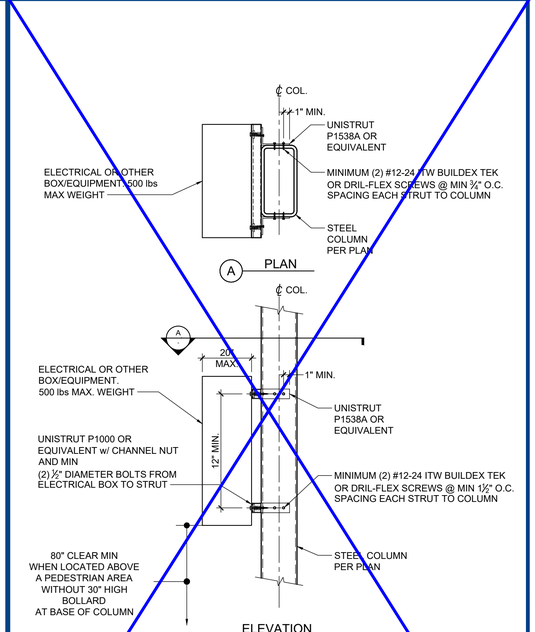


NOTE:
1. FOR COLUMN THICKER ½" PRE DRILL COLUMN WITH DRILL BIT EQUAL TO ROOT DIAMETER OF SCREW USED. (I.E. SHAFT EXCLUDING THREADS)
2. EQUIPMENT MAY BE MOUNTED TO BOTH SIDES OF COLUMN. NOT SHOWN IN DETAIL FOR CLARITY.

☒ OPTION UTILIZED

4 - TYP. ELECTRICAL EQUIPMENT TO COLUMN

1"=1'-0"



NOTE:
1. FOR COLUMN THICKER ½" PRE DRILL COLUMN WITH DRILL BIT EQUAL TO ROOT DIAMETER OF SCREW USED. (I.E. SHAFT EXCLUDING THREADS).
2. EQUIPMENT MAY BE MOUNTED TO BOTH SIDES OF COLUMN. NOT SHOWN FOR CLARITY

☐ OPTION UTILIZED

2 - ALTERNATE EQUIPMENT ATTACHMENT DETAIL

1" = 1'-0"

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(770) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER DUSTIN K. ROSENTRETER S 5885 STATE OF CALIFORNIA

BID INFORMATION

THE STRUCTURES AND DESIGNS IN THIS PC ARE PROPRIETARY TO M BAR C CONSTRUCTION, INC. AND 4 S.T.E.L. ENGINEERING, INC. ALL SITES USING THIS PC: M BAR C CONSTRUCTION, INC. SHALL BE THE STEEL CONTRACTOR & 4 S.T.E.L. ENGINEERING, INC. SHALL BE THE SEOR. SEE THE STANDARD NOTES FOR PC USE ON S-1 FOR ADDITIONAL REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT

CODE: 2022 CBC

A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123080 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 11/25/2024

SITE SPECIFIC INFORMATION

TEMPERANCE ELEMENTARY SCHOOL
1345 S. TEMPERANCE AVENUE
FRESNO, CA 93727

REVISIONS

MARK	DATE	DESCRIPTION

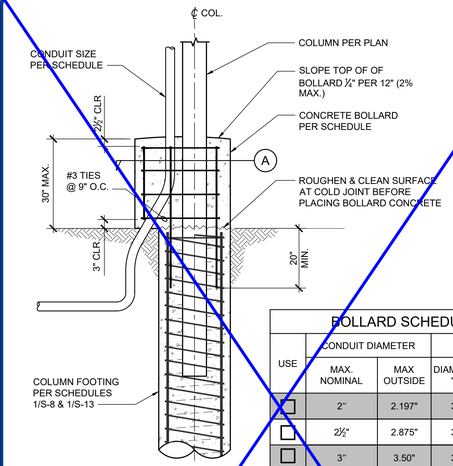
UG 22.1.1

4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
DRAWN BY	GM
CHECKED	RWS

EQUIPMENT COLUMN CONNECTIONS

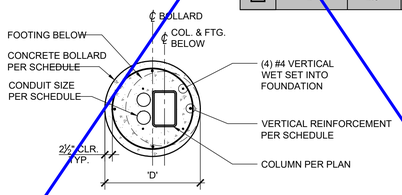
S-20

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE



ELEVATION

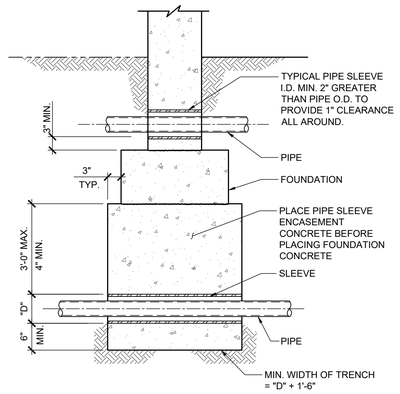
USE	CONDUIT DIAMETER		BOLLARD	
	MAX. NOMINAL	MAX OUTSIDE	DIAMETER "D"	VERTICAL REBAR
☐	2"	2.197"	30"	6 - #4
☐	2½"	2.875"	30"	6 - #4
☐	3"	3.50"	32"	6 - #4
☐	3½"	4.0"	32"	6 - #4
☐	4"	4.5"	32"	6 - #4



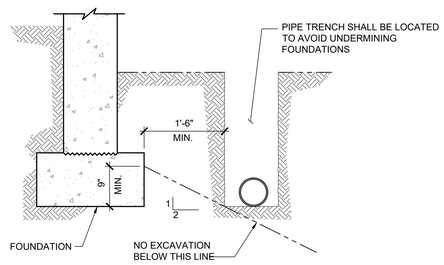
A SECTION

☐ OPTION UTILIZED

1 - OPTIONAL BOLLARD DETAIL W/ SINGLE SIDED CONDUIT 1/2"=1'-0"

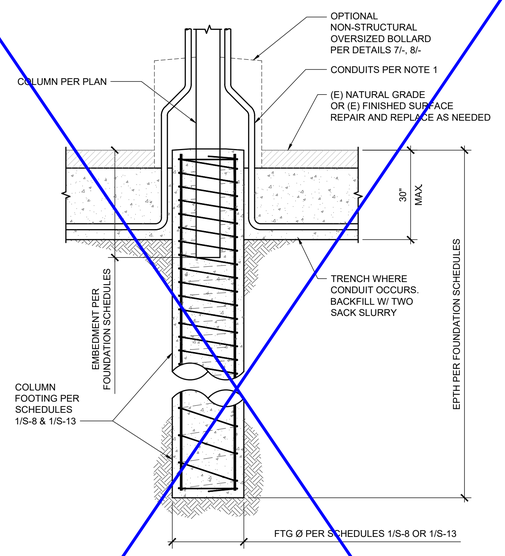


A PIPES PERPENDICULAR TO FOUNDATIONS



B PIPE TRENCH PARALLEL TO FOUNDATIONS

5 - TYPICAL UTILITY PIPES AND TRENCHES AT FOUNDATIONS N.T.S.

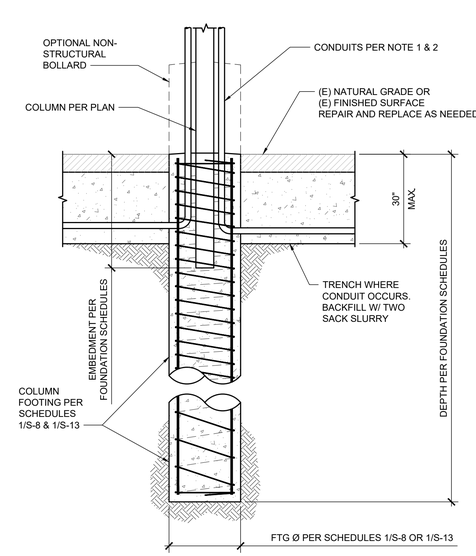


NOTES:

1 UNLIMITED NUMBER OF CONDUITS ALLOWED.

☐ OPTION UTILIZED

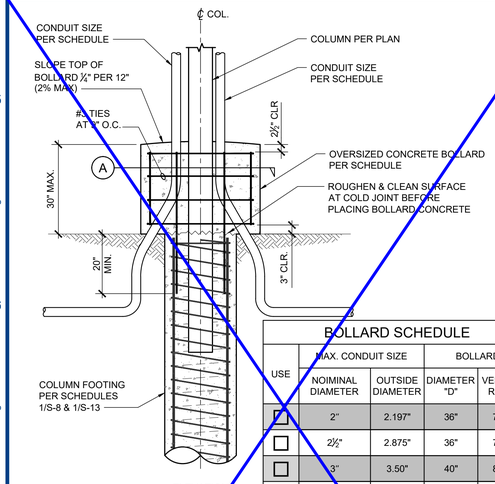
3 - CONDUIT OUTSIDE FOOTING 1/2"=1'-0"



NOTES:

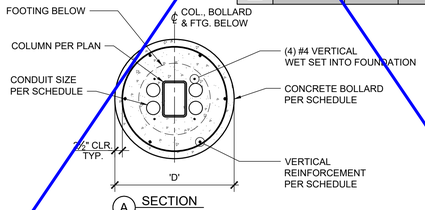
1. (2) 1" OR (1) 2" OR COMBINATION NOT TO EXCEED MAX 2" SIZE NOMINAL CONDUIT. CONDUITS MAY OCCUR ON ONE OR BOTH SIDES OF COLUMN.
2. CONTRACTOR TO SUBMIT CONDUIT LAYOUT TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

1 - CONDUITS IN STANDARD FOOTING 1/2"=1'-0"



ELEVATION

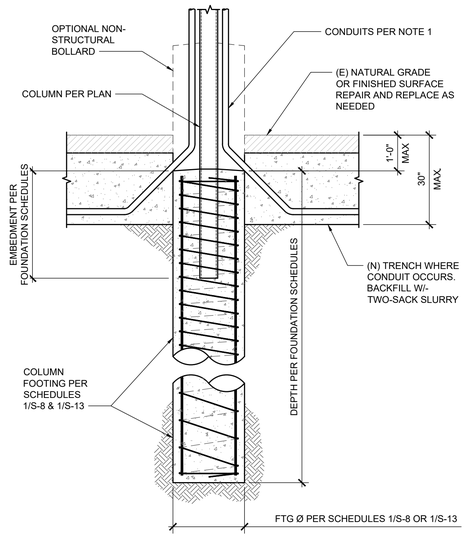
USE	MAX. CONDUIT SIZE		BOLLARD	
	NOIMINAL DIAMETER	OUTSIDE DIAMETER	DIAMETER "D"	VERTICAL REBAR
☐	2"	2.197"	36"	7 - #4
☐	2½"	2.875"	36"	7 - #4
☐	3"	3.50"	40"	8 - #4
☐	3½	4.0"	40"	8 - #4
☐	4"	4.5"	40"	8 - #4



A SECTION

☐ OPTION UTILIZED

8 - OPTIONAL BOLLARD DETAIL W/ DUAL SIDED CONDUIT 1/2"=1'-0"

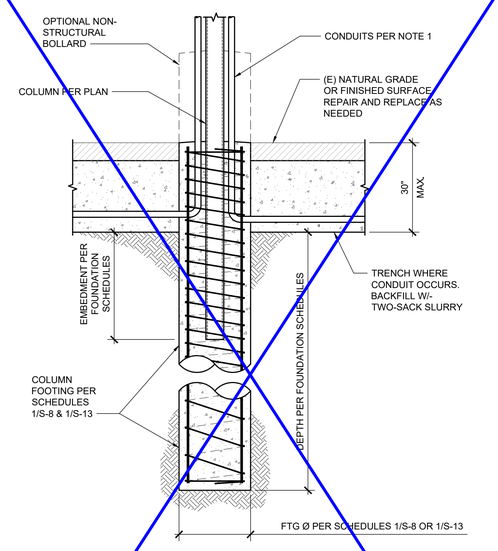


NOTES:

1. UNLIMITED NUMBER OF CONDUITS ALLOWED.

☒ OPTION UTILIZED

6 - ALTERNATIVE DEEPENED FOOTING 1/2"=1'-0"



NOTES:

1. UNLIMITED NUMBER OF CONDUITS ALLOWED IN FOUNDATIONS.

☐ OPTION UTILIZED

2 - DEEPENED FOOTING 1/2"=1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

4 STEL ENGINEERING
26030 ACERO
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

M BAR C CONSTRUCTION INC.
1770 LA COSTA MEADOWS DRIVE
SAN MARCOS, CA 92078
ERIK KRIVOKOPICH
PHONE: (760) 744-4131
FAX: (760) 744-4449
ERIK@MBARCONLINE.COM
LIC # 869960
B AND C-57
(770) 787-8845

ENGINEER'S APPROVAL

REGISTERED PROFESSIONAL ENGINEER DUSTIN K. ROSENTHAL S 5885 STATE OF CALIFORNIA

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REVISIONS

MARK	DATE	DESCRIPTION

UG 22.1.1

4 STEL JOB #	MC02-V3-1-1
DATE	11-18-24
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CHECKED	RWS

FOUNDATION MISC. DETAILS

S-21

DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS, PREPARED BY THE DESIGN PROFESSIONAL (DP) AND THE DP'S CONSULTANTS ARE INSTRUMENTS OF SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT. THIS INCLUDES DOCUMENTS IN ELECTRONIC FORM. THE DP AND THE DP'S CONSULTANTS SHALL BE DEEMED THE AUTHORS AND OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. THE INSTRUMENTS OF SERVICE SHALL NOT BE USED BY THE OWNER FOR FUTURE ADDITIONS OR ALTERATIONS TO THIS PROJECT OR FOR OTHER PROJECTS, WITHOUT THE PRIOR WRITTEN AGREEMENT OF THE DP. ANY UNAUTHORIZED USE OF THE INSTRUMENTS OF SERVICE SHALL BE AT THE OWNER'S SOLE RISK AND WITHOUT LIABILITY TO THE DP AND THE DP'S CONSULTANTS.

NOTE: IF DWG. IS NOT 24 x 36, IT IS NOT FULL SIZE

PROJECT DIRECTORY

OWNER
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670
T: (562) 464-4766
F: (562) 464-4770
CONTACT: STEVE GRAAF

ARCHITECT
RON EDWARDS ARCHITECT
7400 PEDRICK CT
BAKERSFIELD, CA 93313
T: (661) 394-0053
CONTACT: RON EDWARDS

STRUCTURAL
JAMES L. MITCHELL
220 CHERRY LAUREL LANE
KYLE, TX 78640
T: (936) 446-9999

PRECHECK FABRIC SHADE STRUCTURE II

FOR
CUSTOM CANOPIES

NEW SHADE STRUCTURE AT TEMPERANCE ELEMENTARY SCHOOL

SHT	SHEET INDEX	
	ARCHITECTURAL:	
T001	TITLE SHEET & CAL-FIRE MATERIAL CERT.	
T002	T&I GUIDELINE	2 SHEETS
	STRUCTURAL:	
S1.1	GENERAL NOTES & TYPICAL DETAILS	
S1.2	GENERAL NOTES & TYPICAL DETAILS	
S1.3	GENERAL NOTES & TYPICAL DETAILS	
HC2020-1	20'X20'X12' HIP CANOPY DRAWINGS	
HC2020-2	20'X20'X12' HIP CANOPY DRAWINGS	
HC2020-3	20'X20'X12' HIP CANOPY DRAWINGS	
HC3030-1	30'X30'X12' HIP CANOPY DRAWINGS	
HC3030-2	30'X30'X12' HIP CANOPY DRAWINGS	
HC3030-3	30'X30'X12' HIP CANOPY DRAWINGS	
HC4030-1	40'X30'X12' HIP CANOPY DRAWINGS	
HC4030-2	40'X30'X12' HIP CANOPY DRAWINGS	
HC4030-3	40'X30'X12' HIP CANOPY DRAWINGS	
HS3030-1	30'X30'X14'/16' HYPAR SHADE DRAWINGS	
HS3030-2	30'X30'X14'/16' HYPAR SHADE DRAWINGS	
HS3030-3	30'X30'X14'/16' HYPAR SHADE DRAWINGS	
TS3030-1	30'X30'X14'/16' TRIANGULAR SHADE DRAWINGS	
TS3030-2	30'X30'X14'/16' TRIANGULAR SHADE DRAWINGS	
TS3030-3	30'X30'X14'/16' TRIANGULAR SHADE DRAWINGS	6 SHEETS
TOTAL		8 SHEETS

MATERIAL SPECIFICATIONS - SEE ALSO SHEETS S1.1 & S1.2

1. MATERIAL WIRE ROPE CLIPS
   - 1.A. CABLE CLIPS SHALL BE FORGED STEEL PER FEDERAL INSPECTION FF-C-40 TYPE 1, CLASS 2 INSTALLED WITH THE U-BOLT ON THE CABLE DEAD END
   - 1.B. BOLT TORQUE FOR $\frac{1}{4}$"Ø CALBE CLIPS = 15 lb-ft, FOR $\frac{5}{16}$"Ø CABLE CLIPS = 30 lb-ft.
2. BOLT HOLES
   - 2.A. BOLT HOLE DIAMETERS SHALL BE $\frac{1}{8}$" MAX. LARGER THAN THE BOLT DIAMETER.
   - 2.B. ALL BOLTS SHALL BE INSTALLED WITH LOCK WASHERS.
3. CORROSION PROTECTION
   - 3.A. STEEL TUBE ROOF MEMBER SHALL BE TRIPLE COATED USING IN-LINE ZINC ELECTROPLATING PER ASTM E-6 AND THEN POWDER COATED WITH A TGIC POLYESTER TOP COAT.
   - 3.B. STEEL PIPE COLUMNS SHALL BE POWDER COATED WITH A TGIC POLYESTER PRIMER AND TOP COAT.
   - 3.C. ZINC SPELTER CONFORMS TO ASTM B-6 HIGH GRADE ZINC.
4. FABRIC MATERIAL
   - 4.A. FABRIC MATERIAL SHALL BE EXTRA BLOCK.
   - 4.B. THE FABRIC SHALL BE MANUFACTURED FROM HIGH DENSITY POLYETHYLENE POLYMER.
   - 4.C. MIN. WEIGHT - 8.3 oz/sq.yd
     FABRIC THICKNESS - 50.4 mil.
   - 4.D. MIN. BREAKING STRENGTH PER ASTM D 5034: WARP = 165 lbs., WEFT = 260 lbs.
   - 4.E. MAX. ELONGATION WARP = 115%, WEFT = 76%.
   - 4.F. MIN. TEAR STRENGTH PER ASTM D 2261: WARP = 26 lbs., WEFT = 26 lbs
   - 4.G. FIRE RETARDANT RATING PER CSFM - TITLE 19, (REGISTRATION #: ALNET EXTRA BLOCK SHADECLOTH - F94501)
   - 4.H. THE FABRIC SHALL BE CAPABLE OF MAINTAINING 80% OF IT'S TENSILE AND TEARING STRENGTH AFTER EXPOSURE TO A 313NM LIGHT SOURCE APPLIED FOR 500 HOURS AND WHILE MOISTENED FOR 1 HOUR EVERY 12 HOURS PER ASTM G53. THE FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE.
   - 4.I. THE FABRIC SHALL MAINTAIN AT LEAST 50% OF IT'S ORIGINAL BREAKING STRENGTH AFTER 5 YEARS OF EXPOSURE TO SUNLIGHT.
5. STANDARD NOTES
   - 5.A. ALL WORK SHALL CONFORM TO 2022 EDITION TITLE 24, CALIFORNIA CODE OF REGULATION (CCR)
   - 5.B. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24 (CCR)
   - 5.C. A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY DSA SHALL PROVIDE (CCR). MINIMUM CLASS 2 PROJECT INSPECTOR FOR THE PROJECT.
   - 5.D. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TEST AND INSPECTIONS FOR THE PROJECT.
   - 5.E. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE TITLE24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD) OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA.
   - 5.F. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND REQUIREMENTS AND ENVIROMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

APPLICABLE CODES

2022 California Administrative Code (CAC), Part 1, Title 24 CCR2022 California Building Code (CBC), Part 2, Title 24 CCR 2022 California Electrical Code (CEC), Part 3, Title 24 CCR
2022 California Mechanical Code (CMC), Part 4, Title 24 CCR2022 California Plumbing Code (CPC), Part 5, Title 24 CCR
2022 California Energy Code, Part 6, Title 24 CCR 2022 California Fire Code (CFC), Part 9, Title 24 CCR
2022 California Existing Building Code (CEBC), Part 10, Title 24 CCR
2022 California Green Building Standards Code (CALGreen), Part 11, Title 24 CCR
2022 California Referenced Standards Code, Part 12, Title 24 CCR
Title 19 CCR, Public Safety, State Fire Marshal Regulations

APPLICABLE STANDARDS
For a list of applicable standards, including California amendments to the NFPA Standards, refer to CBC Chapter 35 and CFC Chapter 80.

GENERAL NOTES

1. FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CFC CHAPTER 33 AND CBC CHAPTER 33.

CAL FIRE

FLAME RETARDANT

Fabric Registration

LICENSE NUMBER: F-094501

EXTRA BLOCK SHADECLOTH

Product Marketed by:

ALNET PTY (LTD)
MOORSOM AVENUE, EPPING, INDUSTRY II
CAPE TOWN, S. AFRICA, ,

Issue Date : 03/06/2023
Expiration Date : 06/30/2024

This product meets the minimum requirements of flame resistance established by the California State Fire Marshal for products identified in Section 13115, California Health and Safety Code. The scope of the approved use of this product is provided in the current edition of the CALIFORNIA APPROVED LIST OF FLAME RETARDANT CHEMICALS AND FABRICS, GENERAL AND LIMITED APPLICATIONS CONCERNS published by the California State Fire Marshal.

Issued By Cortney Walker
Fire Engineering License Manager
Fire Engineering & Investigations Division

Reviewed and Approved By Patricia Setter
Deputy State Fire Marshal III
Fire Engineering & Investigations Division

OFFICE OF THE STATE FIRE MARSHAL

Please visit calfire.govmotus.org for more information on Licensing and Permitting with CAL FIRE

Page 1 of 1

DESIGN PARAMETER CHECKLIST FOR OTC REVIEW

THE FOLLOWING CHECKLIST IS INTENDED TO ASSIST THE PLAN REVIEWER TO DETERMINE IF THIS PRE-CHECKED SUBMITTAL IS APPLICABLE TO THE SITE SPECIFIC CONDITIONS IN WHICH IT IS INTENDED TO BE USED. IT IS THE SITE APPROVAL ARCHITECT'S RESPONSIBILITY TO FILL IN THE APPROPRIATE BOXES AND CONFIRM SITE CONDITIONS. IF THIS CHECKLIST CANNOT BE COMPLETED, ADDITIONAL ENGINEERING PROVING SITE-SPECIFIC COMPLIANCE IS REQUIRED.

THIS PRE-CHECKED SUBMITTAL IS APPLICABLE UNDER THE FOLLOWING CIRCUMSTANCES:

- [X] NONE OF THE STRUCTURAL DESIGN CRITERIA ARE EXCEEDED
- [X] THE RISK CATEGORY IS 'II' OR LESS
- [X] THE WIND EXPOSURE CATEGORY IS 'C'
- [X] THE PROJECT SITE BASIC ULTIMATE WIND SPEED IS <100mph
- [X] THE PROJECT SITE CLASS CATEGORY IS 'D'
- [ ] THE PROJECT SEISMIC DESIGN CATEGORY IS 'E'
- [ ] THE PROJECT SEISMIC SDS IS MAXIMUM 2.40
- [X] THE PROJECT SITE IS NOT IN A FLOOD ZONE OTHER THAN ZONE 'X'. IF SO, THEN A GEOTECHNICAL LETTER IS REQUIRED PER IR PC-4 1.7.2.
- [X] THE PROJECT SITE IS NOT IN AN AREA WITH SNOW LOADING EXCEEDING 5 PSF.
- [X] THE PROJECT IS DESIGNED FOR VERY HIGH FIRE HAZARD SEVERITY ZONE (AREAS PER CBC CHAPTER 7A.
- [X] THE ALLOWABLE SOIL BEARING PRESSURE IS 1500psf OR GREATER
- [X] IF THE CANOPY SIZE IS <1600s.f. IN AREA, NO GEOTECHNICAL/GEOHAZARDS REPORT IS REQUIRED.
- [ ] IF THE CANOPY SIZE IS >1600s.f. AND <4000s.f. AND THERE IS A GEOTECHNICAL REPORT PROVING THAT NO POTENTIAL FOR LIQUIFICATION EXISTS, NO GEOHAZARDS REPORT IS REQUIRED.
- [ ] IF THE CANOPY SIZE IS >4000s.f., A SITE SPECIFIC GEOTECHNICAL/GEOHAZARD REPORT IS REQUIRED GEOTECHNICAL/GEOHAZARD REPORT REQUIRED IN MAPPED GEOLOGIC HAZARD ZONES AND AS REQUIRED BY IR A-4.
- [X] THE CANOPY SIZE PROVIDES THE MAXIMUM REQUIRED AREA FOR SELECTED ASSEMBLY USE AND DESIRED OCCUPANCY LOAD (SEE ASSEMBLY USE CHECKLIST)
- [X] THE PROJECT IS NOT INTENDED TO PROVIDE SOLAR PANELS
- [ ] THE PROJECT DOES NOT INCLUDE FIRE SPRINKLERS.

ASSEMBLY USE SELECTION CHECKLIST

THE FOLLOWING CHECKLIST IS TO BE USED BY THE PARTY SUBMITTING THIS PRE-CHECK TO INDICATE THE INTENDED ASSEMBLY USE FOR THIS STRUCTURE.

- [ ] DINING CANOPY - ASSEMBLY USE - 'A2'
- [ ] SHADE STRUCTURE - ASSEMBLY USE - 'A'
- [ ] SHADE STRUCTURE - OUTDOOR INSTRUCTIONAL USE - ASSEMBLY USE - 'E'
- [X] SHADE STRUCTURE OVER PLAY EQUIPMENT - ASSEMBLY USE - 'E'
- [ ] SHADE STRUCTURE OVER PARKING - ASSEMBLY USE - 'S2' OR 'U'

SITE-SPECIFIC CODE ANALYSIS

THE SECTION IS TO BE FILLED OUT BY THE ARCHITECT OF RECORD FOR THE SITE-SPECIFIC APPROVAL

- [X] OCCUPANCY GROUP: E (SEE USE CHECKLIST) — OCCUPANCY LOAD FACTOR: 20
- [X] OCCUPANCY LOAD: 60
- [X] TYPE OF CONSTRUCTION: V-B
- [X] PROPOSED AREA: 1,200 SF
- [X] ALLOWABLE AREA: 9,500

CANOPY SIZE SELECTION CHECKLIST

THE FOLLOWING CHECKLIST IS TO BE USED BY THE PARTY SUBMITTING THIS PRE-CHECK TO INDICATE THE INTENDED SIZES USED FOR THIS PRE-CHECK STRUCTURE. SITE SPECIFIC AOR TO SPECIFY IF CONJOINED OR NON-CONJOINED COLUMNS PER SHEET S2.0.

- [ ] 20'X20' [ ] _____'X_____' (FOR INTERMEDIATE SIZE)
- [ ] 30'X30' [ ] _____'X_____' (FOR INTERMEDIATE SIZE)
- [X] 40'X30' [ ] _____'X_____' (FOR INTERMEDIATE SIZE)

NOTES:
1. PLAN DIMENSIONS ARE REPEATABLE IN ANY ONE DIRECTION TO A TOTAL AREA OF 4000 SQ.FT. STRUCTURALLY. MAXIMUM SIZES MAY BE LESS DUE TO RISK CATEGORY THRESHOLDS. SEE TABLE 1604.5, 2022 CBC.
2. INTERMEDIATE SIZES MAY USE THE MEMBER SIZES, CONNECTIONS, AND FOUNDATIONS OF THE NEXT LARGEST CANOPY PROVIDED NO SINGLE PLAN DIMENSION, LENGTH OR WIDTH VARIES BY MORE THAN 35%. ADDITIONALLY, THE EVE AND RIDGE HEIGHTS OF THE LARGER CANOPY IS NOT EXCEEDED.

COLUMN HEIGHTS:
- [ ] 9' COLUMN HEIGHT
- [ ] 10' COLUMN HEIGHT
- [ ] 11' COLUMN HEIGHT
- [X] 12' COLUMN HEIGHT
- [ ] 14'/16' COLUMN HEIGHT(HYPAR & TRIANGULAR SHADES)

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

rea architect RONEDWARDS
Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net
LICENSED ARCHITECT RONALD W. EDWARDS C-25192 Ex. 10-31-25 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-123036 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

PRECHECK FABRIC SHADE STRUCTURE II

TITLE SHEET

Project # 22-037
Drawn By RWE
Date 1-10-24

PC-T001

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

General

Application Number: 04-123036
DSA File Number:
School Name:
Increment Number:
School District:
Date Created: 2024-01-10 15:15:54

IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC).

**NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code.

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required Periodic – Indicates that a periodic special inspection is required Test – Indicates that a test is required	GE (Geotechnical Engineer) – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative. LOR (Laboratory of Record) – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335. PI (Project Inspector) – Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA. SI (Special Inspection) – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8

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Geotechnical Reports: Project does NOT have and does NOT require a geotechnical report

	S1. GENERAL:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify that • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings must not contain loose material, mud, organic silt, organic clays, or peat.	See Notes	PI	Refer to specific items identified in the Appendix listing exemptions for limitations. Placement of controlled fill exceeding 12" depth under foundations and/or within the building envelope is not permitted without a geotechnical report.

	S2. SOIL COMPACTION AND FILL:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Perform classification and testing of fill materials.	Test	LOR*	* Under the supervision of the geotechnical engineer.
*	b. Verify use of proper materials, densities and inspect lift thickness, placement and compaction during placement of fill.	Continuous	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.
*	c. Compaction testing.	Test	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.

	S3. DRIVEN DEEP FOUNDATIONS (PILES):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Verify pile materials, sizes and lengths comply with the requirements.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC

Table 1705A.6, Table 1705A.7, Table 1705A.8

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	S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):			
	Test or Special Inspection	Type	Performed By	Code References and Note
☑	a. Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	PI	Continuous Inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	b. Verify pier locations, diameters, plumbness and lengths/bearing of concrete or grout volumes.	Continuous	PI	Continuous Inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	c. Concrete piers.	Provide tests and inspections per CONCRETE section below.		

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Table 1705A.6, Table 1705A.7, Table 1705A.8

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	S5. RETAINING WALLS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Placement, compaction and inspection of backfill.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. See section 52 above.
*	b. Placement of soil reinforcement and/or drainage devices.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
*	c. Segmental retaining walls; inspect placement of units, dowels, connectors, etc.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. See DSA IR 19-2.
*	d. Concrete retaining walls.	Provide tests and inspections per CONCRETE section below.		
*	e. Masonry retaining walls.	Provide tests and inspections per MASONRY section below.		

	S6. OTHER SOILS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Soil Improvements	Test	GE*	Submit a comprehensive report documenting final soil improvements constructed, construction observation and the results of the investigations, testing and analysis to CGS (California Geological Survey) for final acceptance. * By geotechnical engineer or his or her qualified representative.
*	b. Inspection of Soil Improvements	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
*	c.			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

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	C1. CAST-IN-PLACE CONCRETE			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify use of required design mix.	Continuous	SI	Table 1705A.3 Item 5, 1910A.1.
☑	b. Identify, sample, and test reinforcing steel.	Test	LOR	1910A.2; ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	c. During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	Table 1705A.3 Item 6; ACI 318-19 Sections 26.5 & 26.12.
☑	d. Test concrete (f'c).	Test	LOR	1905A.1.17; ACI 318-19 Section 26.12.
☑	e. Batch plant inspection: Not Required	See Notes	SI	Default of 'Continuous' per 1705A.3.3 if approved by DSA; batch plant inspection may be reduced to 'Periodic' subject to requirements in Section 1705A.3.3.1, i.e not required per 1705A.3.3.2. See IR 17-13. (See Appendix (end of this form) for exemptions.)
*	f. Welding of reinforcing steel.	Provide special inspection per STEEL, Category S/A4(d) & (e) and/or S/A5(g) & (h) below.		

	C2. PRESTRESSED / POST-TENSIONED CONCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Sample and test prestressing tendons and anchorages.	Test	LOR	1705A.3.A, 1910A.3
*	b. Inspect placement of prestressing tendons.	Periodic	SI	1705A.3.A, Table 1705A.3 Items 1 & 9.

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Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

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	C3. PRECAST CONCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Inspect fabrication of precast concrete members.	Continuous	SI	ACI 318-19 Section 26.13, and PCI MNL-128 and -130.
*	b. Inspect erection of precast concrete members.	Periodic	SI*	Table 1705A.3 Item 10. * May be performed by PI when specifically approved by DSA.
*	c. For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (NMC or HDE) in structures assigned to Seismic Design Category D, E or F, inspect such connections and reinforcement in the field for: 1. Installation of the embedded parts 2. Completion of the continuity of reinforcement across joints. 3. Completion of connections in the field.	Continuous	SI	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5
*	d. Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5.	Periodic	SI	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5

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Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

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	C4. SHOTCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Inspect shotcrete placement for proper application techniques.	Continuous	SI	1705A.3, 9; Table 1705A.3 Item 7; 1908A.1; 1908A.2; 1908A.3; See ACI 506.2-13 Section 3.4, ACI 506R-16.
*	b. Sample and test shotcrete (f'c).	Test	LOR	1908A.2, 1705A.3.9

	C5. POST-INSTALLED ANCHORS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Inspect installation of post-installed anchors	See Notes	SI*	1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic); 1705A.3.8 (See Appendix (end of this form) for exemptions); ACI 318-19 Section 26.13. * May be performed by the project inspector when specifically approved by DSA.
*	b. Test post-installed anchors.	Test	LOR	1910A.5. (See Appendix (end of this form) for exemptions.)

	C6. OTHER CONCRETE:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a.			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; ASC 303-16, ASC 341-16, ASC 358-16, ASC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements, • Material sizes, types and grades comply with the requirements.	Periodic	*	Table 1705A.2.1 Item 3a-3c, 2202A.1; AISC 360-16/AISC 341-16 Section A3.1 & A3.2; AISI S240-20 Section A3 & A5; AISI S100-20 Sections A4 & A6. * By the project inspector or qualified technician when performed off-site.
☑	b. Test unidentified materials	Test	LOR	2303A.1.
☑	c. Examine seam welds of HSS shapes	Periodic	SI	DSA-IR 17-3.
☑	d. Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for tracking. 1705A.2.4).
*	e. Buckling restrained braces.	Test	LOR	Testing and special inspections in accordance with IR 22-4.

	S/A2. HIGH-STRENGTH BOLTS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA-approved documents.	Periodic	SI	Table 1705A.2.1 Items 1a & 1b, 2202A.1; AISC 360-16 Section A3.3; J3.1, and RCSC 2014 Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9.
*	b. Test high-strength bolts, nuts and washers.	Test	LOR	Table 1705A.2.1 Item 1b, 2213A.1; RCSC 2014 Section 7.2; DSA IR 17-8.
*	c. Bearing-type ("snug tight") connections.	Periodic	SI	Table 1705A.2.1 Item 2a; 1705A.2.4, 2204A.2; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 8.1; DSA IR 17-9.
*	d. Pretensioned and slip-critical connections.	*	SI	Table 1705A.2.1 Items 2b & 2c; 1705A.2.4, 2204A.2; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 8.2; DSA IR 17-9. *"Continuous" or "Periodic" depends on the fastening method used.

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1705A.2.1, Table 1705A.2.1; ASC 303-16, ASC 341-16, ASC 358-16, ASC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	S/A3. WELDING:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify welder filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	1705A.2.2; Table 1705A.2.1 Items 4 & 5; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-5.
☑	b. Verify weld fillet material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
☑	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.

	S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	Table 1705A.2.1 Items 5a.1–4; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
*	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
*	d. Verification of reinforcing steel weldability other than ASTM A706.	Periodic	SI	1705A.2.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
*	e. Inspect welding of reinforcing steel.	Continuous	SI	Table 1705A.2.1 Item 5b; 1705A.3.1, Table 1705A.3 Item 2, 1903A.8; AWS D1.4; DSA IR 17-3.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; ASC 303-16, ASC 341-16, ASC 358-16, ASC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	Table 1705A.2.1 Items 5a.1–4; ASC 360-16 (ASC 341-16 as applicable); DSA IR 17-3.
*	b. Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	Table 1705A.2.1 Item 5a.5; ASC 360-16 (ASC 341-16 as applicable); DSA IR 17-3.
*	c. Inspect end-welded studs (ASTM A-108) installation (including bend test).	Periodic	SI	2213A.2; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1; DSA IR 17-3.
*	d. Inspect floor and roof deck welds.	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.6; AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3.
*	e. Inspect welding of structural cold-formed steel.	Periodic	SI*	1705A.2.3; AWS D1.3; DSA IR 17-3. The quality control provisions of AISI S240-20 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA.
*	f. Inspect welding of stairs and railing systems.	Periodic	SI*	1705A.2.1; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
*	g. Verification of reinforcing steel weldability.	Periodic	SI	1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
*	h. Inspect welding of reinforcing steel.	Continuous	SI	Table 1705A.2.1 Item 5b; 1705A.3.1, Table 1705A.3 Item 2, 1903A.8; AWS D1.4; DSA IR 17-3.

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1705A.2.1, Table 1705A.2.1; ASC 303-16, ASC 341-16, ASC 358-16, ASC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	S/A6. SPRAYED FIRE-RESISTANT MATERIALS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Examine structural steel surface conditions, inspect application, take samples, measure thickness and verify compliance of all aspects of application with DSA approved documents.	Periodic	SI	1705A.15, 1705A.15.1, 1705A.15.2, 1705A.15.3, 1705A.15.4, 1705A.15.5, 1705A.15.6, ASTM E605
*	b. Test density.	Test	LOR	1705A.15.1, 1705A.15.6, ASTM E605
*	c. Bond strength adhesion/cohesion.	Test	LOR	1705A.15.1, 1705A.15.6, ASTM E736

	S/A9. ANCHOR BOLTS AND ANCHOR RODS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Anchor Bolts and Anchor Rods	Test	LOR	Identify, sample and test anchor bolts and anchor rods not meeting exemptions identified in Section 1 of IR 17-11.
*	b. Threaded rod not used for foundation anchorage.	Test	LOR	Identify, sample and test threaded rods not meeting exemptions identified in Section 1 of IR 17-11.

	S/A10. STORAGE RACK SYSTEMS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a. Materials used, to verify compliance with one or more of the material test reports in accordance with the approved construction documents	Periodic	SI	Table 1705A.13.7
*	b. Fabricated storage rack elements.	Periodic	SI	1704A.2.5; Table 1705A.13.7

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1705A.2.1, Table 1705A.2.1; ASC 303-16, ASC 341-16, ASC 358-16, ASC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	Test or Special Inspection	Type	Performed By	Code References and Notes
*	c. Storage rack anchorage installation.	Periodic	SI	ANSI/MH16.1 Section 7.3.2; Table 1705A.13.7
*	d. Completed storage rack system to indicate compliance with the approved construction documents.	Periodic	SI*	Table 1705A.13.7 * May be performed by the project inspector when specifically approved by DSA.

	S/A11. Other Steel			
	Test or Special Inspection	Type	Performed By	Code References and Notes
*	a.			

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

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	WELDING:
*	7. Any support for exempt non-structural components given in CBC Section 1617A.1.18 (when conforming to ASCE 7-16, Section 13.1.4) meeting the following: A) when supported on a floor/roof, <4004 and resulting composite center of mass) including component's center of mass) ≤4' above supporting floor/roof, B) when hung from a wall or roof/floor, <25# for discrete units and <10#/ft for distributed systems.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS(SIGNATURE), 2022 CBC

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School District:
Date Created: 2024-01-10 15:15:54

Name of Architect or Engineer in general responsible charge:

Name of Structural Engineer (When structural design has been delegated):

Signature of Architect or Structural Engineer: Date:

Note: To facilitate DSA electronic mark-ups and identification stamp application, DSA recommends against using secured electronic or digital signatures.

DSA STAMP

DSA 103-22: LIST OF REQUIRED VERIFIED REPORTS, CBC 2022

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Increment Number:
School District:
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1. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
2. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

NOTES

1. THE EXAMPLE FORM DSA-103(s) SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSES ONLY. A FORM DSA-103 IS TO BE FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL EXAMPLE DSA-103(s) ARE TO BE CROSSED OUT ON THIS DRAWING.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-123036 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

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(661) 394-0053
ron@reaarchitect.net

LICENSED ARCHITECT RONALD W. EDWARDS C 25592 Exp. 08-31-25 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required
PC APPROVAL STAMP:

PRECHECK FABRIC SHADE STRUCTURE II

T&I GUIDELINE

Project # 22-037
Drawn By RWE
Date 1-10-24

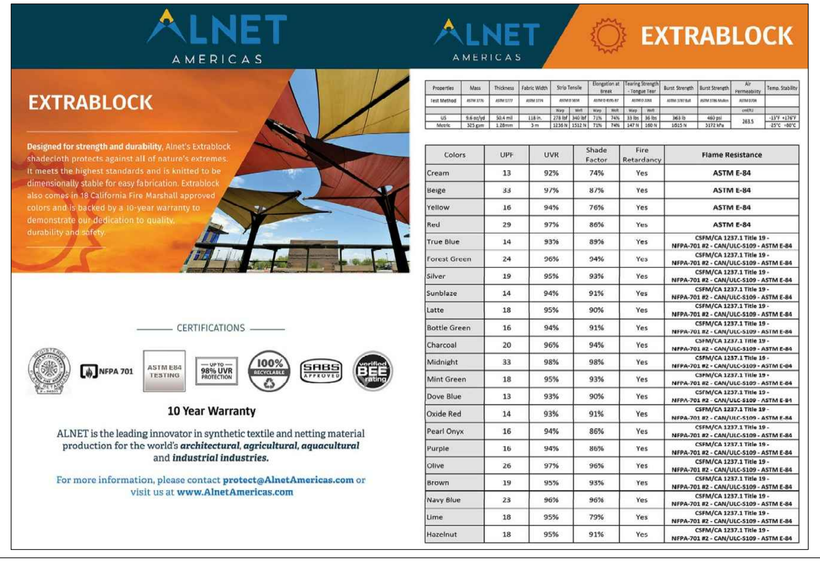
PC-T002

CONCRETE:

1. ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE 2022 C.B.C. AND THE A.C.I. 319-14 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
2. SLAB AND FOUNDATION CONCRETE SHALL BE 150 P.C.F. HARDROCK, MIXED PER A.S.T.M. C-94, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 P.S.I. AT 28 DAY. MAX. SLUMP TO BE 4" ± 1" OF W/C RATIO < .45
3. THE MAXIMUM SIZE AGGREGATE IN FOUNDATION AND MASS CONCRETE WORK SHALL BE 1 INCH.
4. CEMENT SHALL CONFORM TO A.S.T.M.. C-150 TYPE V, LOW ALKALI. AGGREGATES FOR NORMAL WEIGHT SHALL CONFORM TO A.S.T.M. C-33.
5. ADMIXTURES AND COLORS (EXCEPT AS NOTED HEREIN) SHALL NOT BE USED UNLESS SUBSTANTIATING DATE IS SUBMITTED TO AND ACCEPTED BY THE ENGINEER AND ARCHITECT OF RECORD AND DSA.
6. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY. THE MIX DESIGNS SHALL CONFORM TO ACI 318-19 SECTION 26.4.3. UNLESS NOTED OTHERWISE.
7. NON-STRUCTURAL STEEL EMBEDDED IN CONCRETE SHALL BE GALVANIZED OR PAINTED. ALL DAMAGED GALVANIZED AREAS SHALL BE REPAIRED PRIOR TO EMBEDMENT.
8. READY MIXED CONCRETE SHALL CONFORM TO (A.S.T.M. C-94).
9. PLACEMENT OF CONCRETE SHALL CONFORM THE 2022 C.B.C. AND THE TO A.C.I. 304. CLEAN AND ROUGHEN A FULL AMPLITUDE OF $\frac{3}{4}$" BY REMOVING THE ENTIRE SURFACE AND EXPOSING CLEAN AGGREGATE SOLIDLY EMBEDDED IN THE MORTAR MATRIX AGAINST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE POURED.
10. ALL EXPOSED CONCRETE SHALL HAVE A SMOOTH FORM FINISH USING B-B PLYFORM, CLASS I, EXT-A.P.A. PLYWOOD.
11. ALL SLABS SHALL HAVE A TROWELED FINISH EXCEPT AS NOTED ON THE DRAWINGS.
12. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
13. IF THE CONTRACTOR DESIRES TO MAKE ANY CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THESE DRAWINGS, HE SHALL SUBMIT DETAILS OF CHANGES TO THE ENGINEER OF RECORD FOR REVIEW BEFORE STARTING WORK AND THE ENGINEER OF RECORD TO OBTAIN DSA APPROVAL PRIOR TO STARTING WORK.
14. NO BRICK OR POROUS MATERIAL SHALL BE USED TO SUPPORT FOUNDATION STEEL OF THE GROUND.
15. PROVIDE $\frac{3}{4}$ INCH CHAMFER ON ALL EXPOSED CONCRETE CORNERS, U.N.O.
16. MINIMUM CONCRETE COVERAGES

FOOTINGS CAST AGAINST EARTH	3"
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER	2"

17. CONCRETE CURING:
SLAB AND FDN; TYPICALLY REQUIRED FOR 10 DAYS TO ACHIEVE A MINIMUM OF 3000 PSI STRENGTH PRIOR TO INSTALLATION OF OTHER MAJOR STRUCTURAL COMPONENTS.



ALNET AMERICAS — EXTRABLOCK

Properties	Mass	Thickness	Fabric Width	Strip Tensile		Elongation at Break		Tearing Strength - Tongue Tear		Burst Strength	Burst Strength	Air Permeability	Temp. Stability
Test Method	ASTM D76	ASTM D777	ASTM D774	ASTM D5034		ASTM D 4595-17		ASTM D 2261		ASTM D3786 Bal	ASTM D3786 Modern	ASTM D6936	
				warp	weft	warp	weft	warp	weft			cm/s/cm²	
US	9.4 oz/yd²	50.4 mil	118 in.	278 lbf	340 lbf	71%	74%	33 lbs	36 lbs	360 lb	460 psi	260.5	-13°F +176°F
Metric	321 gsm	1.28mm	3 m	1236 N	1512 N	71%	74%	147 N	160 N	1615 N	3172 kPa		-25°C +80°C

Colors	UPF	UVR	Shade Factor	Fire Retardancy	Flame Resistance
Cream	13	92%	74%	Yes	ASTM E-84
Beige	33	97%	87%	Yes	ASTM E-84
Yellow	16	94%	76%	Yes	ASTM E-84
Red	29	97%	86%	Yes	ASTM E-84
True Blue	14	93%	89%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Forest Green	24	96%	94%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Silver	19	95%	93%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Sunblaze	14	94%	91%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Latte	18	95%	90%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Bottle Green	16	94%	91%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Charcoal	20	96%	94%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Midnight	33	98%	98%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Mint Green	18	95%	93%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Dove Blue	13	93%	90%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Oxide Red	14	93%	91%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Pearl Onyx	16	94%	86%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Purple	16	94%	86%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Olive	26	97%	96%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Brown	19	95%	93%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Navy Blue	23	96%	96%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Lime	18	95%	79%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84
Hazelnut	18	95%	91%	Yes	CSFM/CA 1237.1 Title 19 - NFPA-701 #2 - CAN/ULC-S109 - ASTM E-84

FOUNDATION:

1. THIS P.C. IS DESIGN TO THE C.B.C. MINIMUM. WHERE SOIL REPORT IS AVAILABLE; ATTACH ONE COPY OF SOILS REPORT TO THE APPROVED SET OF CONSTRUCTION DOCUMENTS. SOILS REPORT SHALL BE PART OF THESE NOTES. PRIOR TO THE POURING OF CONCRETE AND PRIOR TO THE CONTRACTOR REQUESTING A DSA FOUNDATION INSPECTION, THE GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE THE FOOTING EXCAVATIONS. HE SHALL POST NOTICE ON THE JOB SITE AND ADVISE THE DSA INSPECTOR IN WRITING THAT THE WORK SO INSPECTED MEETS THE CONDITIONS OF THE REPORT. A WRITTEN CERIFICATION TO VERIFY THAT:
   A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE SOIL REPORT.
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED, AND
   C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT.
2. SOIL REMOVAL AND RECOMPACTION SHALL BE DONE PER SOILS REPORT RECOMMENDATIONS UNDER GEOTECHNICAL ENGINEERS'S SUPERVISION AND INSPECTION.
3. TYPE OF FOOTING:
   A. DESIGN SOIL PRESSURE:

FOOTING TYPE	STATIC BEARING PRESSURE
DEEP FOOTING	1,500 psf
LATERAL BEARING	100 pcf*

   *MAY BE DOUBLED PER SECTION 1806A.3.4
4. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
5. THE CONTRACTOR SHALL DETERMINE LOCATION OF UTILITY SERVICES IN AREAS TO BE EXCAVATED BEFORE BEGINNING EXCAVATION. EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING. DAMAGE CAUSED AS A RESULT OF FAILING TO EXACTLY LOCATE AND PRESERVE ALL EXISTING UNDERGROUND UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, APPROVALS, PERMITS, INSTALLATION AND MONITORING OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN TEMPORARY EXCAVATIONS.
7. ALL PLANTERS IN CLOSE PROXIMITY TO THE STRUCTURE SHALL HAVE ADEQUATE DRAINAGE OF SURFACE WATER TO PREVENT SATURATION OF SOIL UNDER FOUNDATION.
8. 2022 C.B.C. SEISMIC SITE CLASS A, B, C, D, + D-DEFAULT

GENERAL NOTES:

1. THE PROJECT SPECIFICATIONS SHALL BE PART OF THE CONTRACT DOCUMENTS.
2. THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
3. THE CONTRACTOR SHALL REVIEW EXISTING CONDITIONS ON THE SITE DURING THE BIDDING. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARING WORK. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES PRIOR TO PROCEEDING.
4. ALL PHASES OF WORK ARE TO CONFORM TO THE MINIMUM STANDARDS OF THE CALIFORNIA BUILDING CODE (2022 EDITION C.B.C.), RELATED CALIFORNIA BUILDING CODE STANDARDS, AND ANY A.S.T.M. SPECIFICATIONS ON WHICH THESE STANDARDS ARE BASED. WHERE CONFLICT BETWEEN BUILDING CODES AND SPECIFICATIONS OCCURS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
5. ALL A.S.T.M. DESIGNATIONS REFERRED TO ON THESE DRAWINGS SHALL BE THE LATEST ADOPTED OR REVISED SPECIFICATION, AS OF THE DATE OF THESE DRAWINGS.
6. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS. DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
7. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
8. THE STRUCTURAL DRAWINGS SHOW ONLY THE BASIC STRUCTURAL REQUIREMENTS. REFER TO CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS THAT OCCUR PER SPECIFIC PLANS FOR NON-STRUCTURAL ITEMS, SUCH AS:
   A. SIZE AND LOCATION OF ALL OPENINGS.
   B. SIZE AND LOCATION OF ALL NON-BEARING WALLS.
   C. SIZE AND LOCATION OF ALL CONCRETE CURBS, WALKS, ROOF AND FLOOR DRAINS, SLOPES, DEPRESSED SLAB AREAS, ETC.
   D. FLOOR, ROOF AND WALL FINISHES.
   E. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
9. THE STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.
10. NEITHER THE OWNER NOR THE ARCHITECT/STRUCTURAL ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STARE AND FEDERAL SAFETY AND HEALTH STANDARDS, SLAWS AND REGULATIONS. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE SAFETY ITEMS.
11. SATISFACTORY EXECUTION OF CONSTRUCTION IS DEPENDENT UPON CONFORMANCE WITH THE INTENT OF THESE DRAWINGS. OWNER OR CONTRACTOR SHALL RETAIN A CALIFORNIA LICENSED STRUCTURAL ENGINEER DURING CONSTRUCTION TO OBSERVE THE CONSTRUCTION AND FILE A REPORT (DSA 6AE) STATING THE "THE CONSTRUCTION HAS, IN EVERY MATERIAL RESPECT, BEEN PERFORMED IN COMPLIANCE WITH THE DSA APPROVED DOCUMENTS".
12. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOAD SHALL NOT EXCEED DESIGN LIVE LOAD FOR EACH PARTICULAR LEVEL. WHEN WEIGHT OF MATERIALS OR EQUIPMENT MAY EXCEED DESIGN LOAD, STRUCTURAL SYSTEMS SHALL BE SHORED.
13. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK. THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.

DESIGN BASIS:

CODE: 2022 C.B.C. (CALIFORNIA BUILDING CODE CCR, TITLE 24, PART 2)

GRAVITY LOADS:

1. ROOF LIVE LOAD 5 P.S.F.
2. ROOF DEAD LOAD 1.5 P.S.F. (MAX.)
3. SNOW LOAD Pg 5.0 PS.F.

LATERAL LOADS:

1. SEISMIC DESIGN

☐ SITE CLASS D Default were no Geotechical Report required

RISK CATEGORY = II
REDUNDANCY (p) = 1

S_S = 2.5
S_{DS} = 1.67

S_{ds} = S_{ms} X 2/ 3

☐ CANOPIES OCCUPANCY = II

☐ ORDINARY STEEL CANTILEVER COLUMNS

SEISMIC DESIGN CATEGORY = E (ASCE 7-16 TABLE 11.6.1 AND TABLE 11.6.2)
I_e = 1.25
R = 1.25
$C_S = S_{ds}/(R/I_e)$ (LRFD) = 1.33 Ultimate (0.993 ASD)
ANALYSIS METHOD = EQUIVALENT LATERAL FORCE ANALYSIS

Note: Design values may also be used conservatively where Site Class C is justified by location specific Geotechnical Report

2. WIND DESIGN
ANALYSIS METHOD = DIRECTIONAL PROCEDURE (OPEN STRUCTURE)
V = 110 M.P.H. BASIC WIND SPEED, ASCE 7-16
EXPOSURE "C"
Kzt = 1.0
RISK CATEGORY = II
SITE CLASS "D-DEFAULT"

STRUCTURE IS DESIGN FOR CLEAR WIND FLOW

FLOOD HAZARD: DESIGN DOES NOT ACCOUNT FOR FLOOD HAZARD

SITE SPECIFIC GEOTECHNICAL STUDY IS NOT REQUIRED FOR

THIS PC PROJECT IS NOT DESIGNED TO INCLUDE WEIGHT OF SPRINKLERS

BUILDING SEPARATION REQUIREMENT:

MINIMUM CLEAR DISTANCE REQUIRED BETWEEN EXISTING SITE STRUCTURE/ ADJACENT SITE STRUCTURE AND SHADE STRUCTURE IS TO BE AT LEAST 5' FROM OUTER EDGE OF FABRIC TO OUTER EDGE OF STRUCTURE AND PER EMBEDDED DOUBLE POST OPTION BETWEEN SHADE STRUCTURES IN THE SAME APPLICATION.

SEISMIC BASE SHEAR (LRFD)	
BUILDING CONFIGURATION	BASE SHEAR (KIP)
20'X20'	1.5K
30'X30'	3.00K
40'X30'	3.50K

REGISTERED PROFESSIONAL ENGINEER
JAMES L. MITCHELL
S 3081
EXP: 6/30/2025
STRUCTURAL
STATE OF CALIFORNIA
2/16/24

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

rea architect RONEDWARDS
Architecture
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Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net
REGISTERED ARCHITECT RONALD W. EDWARDS C 25192 REN 12-31-25 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:

~~IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 04-123035 PC REVIEWED FOR SS ☑ FLS ☑ ACS ☑ CG ☐ DATE: 04/12/2024~~

PRECHECK FABRIC SHADE STRUCTURE II

GENERAL NOTES AND TYPICAL DETAILS

Project # 22-037	PC-S1.1
Drawn By RWE	
Date 12-20-22	

FNAME
REVDATE
USER

STRUCTURAL OBSERVATION:

1. PER C.B.C. CHAPTER 17A, 1704A.6 THE OWNER SHALL EMPLOY A LICENSED ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, OR HIS DESIGNATED ENGINEER OR ARCHITECT TO MAKE SITE VISITS TO OBSERVE. GENERAL COMPLIANCE WITH THE APPROVED STRUCTURAL PLANS, SPECIFICATIONS AND CHANGE ORDERS. THE ENGINEER OR ARCHITECT SHALL SUBMIT A STATEMENT IN WRITING TO THE BUILDING OFFICIAL STATING THAT THE SITE VISIT HAS BEEN MADE AND THAT ANY DEFICIENCIES NOTED HAVE BEEN CORRECTED.

2. IN ACCORDANCE WITH SECT. 4-333 (a) OF TITLE 24, PART 1, STRUCTURAL OBSERVATION SHALL INCLUDE AND OCCUR AT THE FOLLOWING STAGES:
   A. OBSERVATION AT THE SITE PRIOR TO PLACING CONCRETE.
   B. OBSERVATION OF THE BUILDING DURING FABRICATION AFTER MAJORITY OF STRUCTURAL ITEMS ARE IN PLACE.
   C. OBSERVATION OF THE COMPLETED STRUCTURE PRIOR TO BEING COVERED FINISHES.

3. AT COMPLETION OF IN-PLANT MANUFACTURING THE INDIVIDUAL ACCEPTING RESPONSIBILITY FOR OBSERVATION OF IN-PLANT MANUFACTURING SHALL SIGN THE VERIFIED REPORT, DSA 152-IPI (IN-PLANT INSPECTOR VERIFIED REPORT).

4. OBSERVATION OF THE ON SITE CONSTRUCTION INCLUDES THE SCOPE OF WORK INDICATED ON THE DSA APPROVED BUILDING PLANS AND SPECS.

5. INTERIM AND FINAL VERIFIED REPORTS ARE REQUIRED DURING, AND AT THE COMPLETION OF, ON SITE CONSTRUCTION AND INSTALLATION USING FORM DSA 6-AE (ARCHITECT/ENGINEER VERIFIED REPORT).

6. STRUCTURAL TESTING & SPECIAL INSPECTIONS: SEE APPROVED DSA-103 FORM FOR STRUCTURAL TESTING AND INSPECTIONS.

COLD FORMED STRUCTURAL STEEL:

1. ALL LIGHT GAUGE METAL FRAMING SHALL BE THE TYPE, SIZE, GAUGE AS SHOWN ON THE PLANS AND BE FABRICATED AND ERECTED IN ACCORDANCE WITH 2016 (2020) A.I.S.I. S100 SPECIFICATIONS. WITH SUPPLEMENT 2 AND 2022 CBC SECTIONS 2210A, 2211A, &2213A.

2. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123 OR A153 CLASS D OR PAINTED WITH ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT; OR EQUIVALENT PAINT SYSTEM. COLD FORMER STEEL MEMBERS SHALL BE 5 PERCENT ALUMINUM-ZINC ALLOY COATED PER ASTM A792/A792M STANDARD IN ACCORDANCE TO AMERICAN IRON AND STEEL INSTITUTE (AISI) S240 TABLE A4-1, CP 90 COATING DESIGNATION.

3. TOUCH UP COLD GALVANIZING USING ZRC CHEMICAL PRODUCTS CO., ZRC COLD GALVANIZING COMPOUND OR EQUAL.

STEEL CABLES:

1. ALL CABLE STEEL TO BE ASTM A1023, 6X19 CLASS IWRC OR 7x19 CLASS IWRC

2. CABLES SHALL BE GALVANIZED (CLASS A ZINC COATING) OR STAINLESS STEEL, CLASS BRIGHT WIRE ROPE

3. MAXIMUM CABLE STRENGTH: (Service loads)

5 / 16"	7X19 304 SS	=	3.068K
3 / 8"	7X19 304 SS	=	4.091K
7/16"	6X19 Galv.	=	6.259K
1/2"	6X19 Galv.	=	8.181K

4. MAXIMUM. PRETENSION LOAD:(Service loads)

1 / 4"	DIA.	=	0.30k
3 / 8"	DIA.	=	0.30k
7/ 16"	DIA.	=	0.30k
1/2"	DIA	=	0.50K

5. FOR CABLE (ROPE CLIPS) SEE SHEET 1 OF EACH SIZE

WELDING:

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN WELDING SOCIETY CODE D1.1.-15, AND CBC.

2. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS.

3. ALL WELDING SHALL BE DONE BY THE SHIELDED ARC PROCESS USING APPROVED ELECTRODES PER A.W.S. SPECIFICATIONS E70XX (LOW HYDROGEN ELECTRODES).

4. ALL WELDS SHALL HAVE A WELD CONTROLLED SEQUENCE AND TECHNIQUE IN ORDER TO MINIMIZE SHRINKAGE, STRESSES AND DISTORTION.

5. ALL ELECTRODES FILLER MATERIAL SHALL BE A MINIMUM OF E70XX.

6. SPECIAL INSPECTION IS REQUIRED FOR ALL WELDING.

STEEL:

1. QUALIFIED AND CERTIFIED WELDERS SHALL BE USED FOR ALL WELDING. ALL WELDING TO CONFORM TO THE LATEST ADOPTED EDITION OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE A.W.S. D1.1.

2. MATERIALS:

MISCELLANEOUS PLATES	A.S.T.M. A-36
STRUCTURAL STEEL PIPES	A.S.T.M. A500 Gr. B, Fy = 42 ksi
WELDING ELECTRODES	A.W.S. STRUCTURAL STEEL E70XX,
TYPICAL STEEL CONNECTION BOLTS	GALVANIZED A307
GALVANIZING	A.S.T.M. A-123
RUST-INHIBITING PRIMER	CC-M10
STEEL TUBING	A.S.T.M. A-500, GRADE C (HSS ROUND) (Fy = 46 K.S.I.) (HSS RECT) (Fy = 50 K.S.I.)

3. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123, UNDERCOAT AND FINISH COAT OR EQUIVALENT PAINT SYSTEM.

4. CONNECTED MEMBERS SHALL BEAR ONLY UPON UNTHREADED PORTIONS OF BOLTS.

5. BURNING OF HOLES IS NOT ALLOWED.

6. INSPECTION OF WELDING SHALL CONFORM TO C.B.C. REQUIREMENTS (CHAPTER 17A).

7. THE STRUCTURAL STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

8. BOLT HOLES SHALL BE 1 / 8" LARGER IN DIAMETER THAN NOMINAL SIZE OF BOLTS USED, UNLESS NOTED OTHERWISE.

9. STRUCTURAL STEEL SHALL BE DELIVERED TO THE JOB SITE FREE OF EXCESSIVE RUST, MILL SCALE, GREASE, ETC.

10. OPENINGS SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED.

REGISTERED PROFESSIONAL ENGINEER
JAMES L. MITCHELL
S 3081
EXP. 6/30/2025
STRUCTURAL
STATE OF CALIFORNIA
2/16/24

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REVIEWED FOR
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REGISTERED ARCHITECT RONALD W. EDWARDS C 25192 REN 12-31-25 STATE OF CALIFORNIA

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~~DATE: 04/12/2024~~

PRECHECK FABRIC SHADE STRUCTURE II

GENERAL NOTES AND TYPICAL DETAILS

Project # 22-037	PC-S1.2
Drawn By RWE	
Date 12-20-22	

ABBREVIATIONS:

&	AND
@	AT
℄	CENTER LINE
℔	PLATE, PROPERTY LINE
A.B.	ANCHOR BOLT
ADJ	ADJACENT
A.F.F.	ABOVE FINISH FLOOR
ARCH'L	ARCHITECTURAL
BD	BOARD
BLD'G	BUILDING
BLK	BLOCK
BLK'G	BLOCKING
BLW	BELOW
BM	BEAM
B.N.	BOUNDARY NAIL/SCREW
BOT.	BOTTOM
BRG	BEARING
B.S.	BOTH SIDE
BTWN	BETWEEN
C.B.	CARRIAGE BOLT
C.F.	CUBIC FOOT
CHAM	CHAMFER
C.I.	CAST-IRON
C.I.P.	CAST-IN-PLACE
C.J.	CONTROL JOINT
CLG	CEILING
CLK	CAULK
CLK'G	CAULKING
CLR.	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
CNTR	CENTER
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CNTRSNK	COUNTERSINK
d	PENNY
DBL	DOUBLE
DEP	DEPRESSED
DET	DETAILED
D.F.	DOUGLAS FIR
D.F.L.	DOUGLAS FIR/LARCH
DIA	DIAMETER
DIAG	DIAGONAL
DIAM.	DIMENSION
D.L.	DEAD LOAD
DN	DOWN
DIV	DIVISION
DR	DOOR
DWG	DRAWING
DWL	DOWEL
EA	EACH
E.F.	EACH FACE
EL.	ELEVATION
ELEV.	ELEVATION / ELEVATOR
EMBED	EMBEDMENT
E.N.	EDGE NAIL/SCREW
EQ.	EQUAL
EQUIP	EQUIPMENT
E.S.	EACH SIDE
E.W.	EACH WAY
EXIST'G	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F.D.	FLOOR DRAIN
FDN	FOUNDATION
F.F.	FINISH FLOOR
FIN.	FINISH
F.N.	FIELD NAIL
F.O.	FACE OF
FRM'G	FRAMING
F.S.	FAR SIDE
FT	FEET / FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
G.I.	GALVANIZED IRON
GLB	GLU-LAMINATED BEAM
GRD	GRADE
GYP	GYPSUM
H.D.	HOLDOWN
HDR	HEADER
HGR	HANGER
HORIZ	HORIZONTAL
HRD	HARD
H.S.B.	HIGH STRENGTH BOLT
HT.	HEIGHT
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
IN.	INCH
INSP.	INSPECTION / INSPECTOR
INT.	INTERIOR
JST	JOIST
JT	JOINT
KIPS	KILOPOUNDS (1,000 POUNDS)
K.O.	KNOCK OUT
LB	POUND
L.B.	LAG BOLT
L.F.	LINEAR FOOT
LG	LONG
L.L.	LIVE LOAD
L.L.H.	LONG LEG HORIZONTAL
L.L.V.	LONG LEG VERTICAL
L.S.	LAG SCREW
LT.	LIGHT
MAS	MASONRY
MAT.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH'L	MECHANICAL
MEZZ.	MEZZANINE
MIN.	MINIMUM
M.H.	MANHOLE
MANUF.	MANUFACTURER
MTL.	METAL
N.S.	NEAR SIDE
N.I.C.	NOT IN CONTACT
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.H.	OPPOSITE HAND
OPN'G	OPENING
OPP	OPPOSITE
O.W.J.	OPEN WEB JOIST
P.C.	PRECAST
PERP.	PERPENDICULAR
PLYWD	PLYWOOD
PNL	PANEL
PREFAB	PREFABRICATED
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
PT	POINT
P.T.	PRESSURE TREATED
P.V.C.	POLYVINYL CHLORIDE
RAD	RADIUS
R.D.	ROOF DRAIN
REF.	REFERENCE
REINF.	REINFORCED / REINFORCING
REQ'D	REQURIRED
REV	REVISION
RF	ROOF
RFTR	RAFTER
R.H.	ROOF HATCH
RM	ROOM
R.O.	ROUGH OPENING
R.S.	ROUGH SAWN
SCHED.	SCHEDULE
SECT.	SECTION
S.F.	SQUARE FOOT
SHT	SHEET
SHT'G	SHEETING
SIM.	SIMULAR
S.M.S.	SHEET METAL SCREW
SPEC.	SPECIFICATION
SQ.	SQUARE
S.S.	STAINLESS STEEL
STAGG.	STAGGARED
STD	STANDARD
STIFF.	STIFFENER
STL.	STEEL
STRUCT'L	STRUCTURAL
STS	SELF TAPPING SCREW
SYM	SYMMETRICAL
SYS	SYSTEM
T & B	TOP AND BOTTM
T & G	TONGUE AND GROOVE
TEMP	TEMPORARY
THK	THICK
THKN'D	THICKENED
THRU	THROUGH
T.L.	TOTAL LOAD
T.O.	TOP OF
T.S.G.	TAPERED STEEL GIRDER
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U.T.	ULTRASONIC TESTING
VERT.	VERTICAL
W/	WITH
W/O	WITHOUT
WD	WOOD
WIN	WINDOW
W.P.	WATERPROOF / WORK POINT
W.P.J.	WEAKENED PLAN JOINT
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
W.W.M.	WELDED WIRE MESH

REGISTERED PROFESSIONAL ENGINEER
JAMES L. MITCHELL
S 3081
EXP. 6/30/2025
STRUCTURAL
STATE OF CALIFORNIA

2/16/24

FNAME
REVDATE
USER

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
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DATE: 09/22/26

rea architect
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7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT
RONALD W. EDWARDS
C 25192
REN 12-31-25
STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

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CODE: 2022 CBC
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DATE: 04/12/2024

PRECHECK FABRIC SHADE STRUCTURE II

GENERAL NOTES AND TYPICAL DETAILS

Project # 22-037	PC-S1.3
Drawn By RWE	
Date 12-20-22	



7X19 Stainless Steel Cable

Diameter (in)	Weight per 100ft (lbs)	Nominal B.S. (lbs)	
		AISI 302,304	AISI 316
1/16	0.75	480	427
3/32	1.74	920	819
1/8	2.90	1,760	1,566
5/32	4.50	2,400	2,136
3/16	6.50	3,700	2,900
7/32	8.60	5,000	4,450
1/4	11.0	6,400	5,696
5/16	17.3	9,000	7,600
3/8	24.3	12,000	11,000

kulkoni

MALLEABLE WIRE ROPE CLIPS



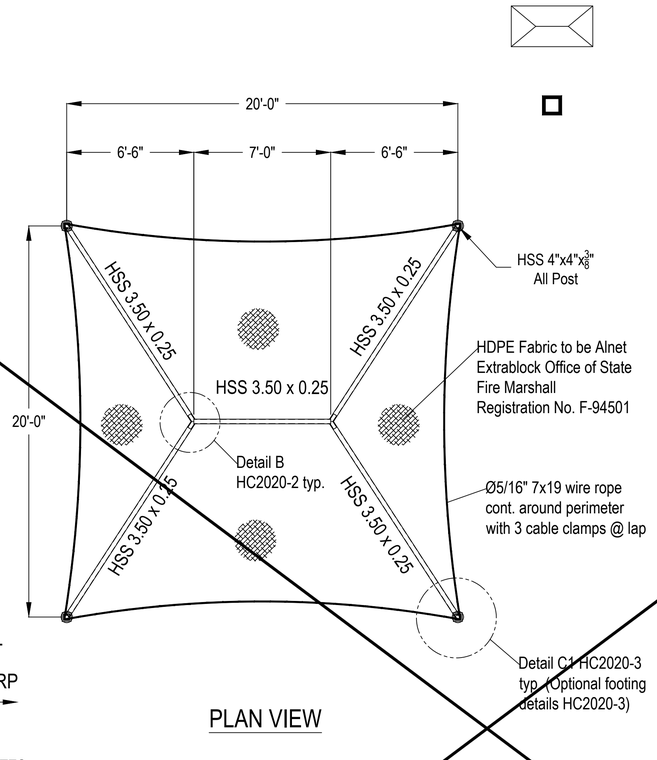
ZINC PLATED, MALLEABLE

Size in Inches	Min. Clips Required	Wire Rope Turn Back in Inches	Torque in Foot Pounds*	Approx. Wt. in Pounds	Dimensions in Inches						
					A	B	C	D	E	F	G
1/16**	3	4	2.0	0.030	0.15	0.65	0.45	0.38	0.38	0.45	0.69
1/8**	3	4.3/4	3.0	0.040	0.18	0.81	0.50	0.50	0.50	0.56	0.94
3/16	3	5.1/2	4.5	0.063	0.25	0.94	0.56	0.56	0.56	0.63	1.06
1/4	3	7	15.0	0.130	0.31	1.19	0.75	0.75	0.69	0.75	1.31
5/16	3	7.3/4	15.0	0.150	0.31	1.31	0.84	0.75	0.75	0.75	1.44
3/8	3	9.1/2	30.0	0.210	0.38	1.63	1.00	0.88	0.84	0.88	1.63
7/16	4	10.1/4	40.0	0.370	0.38	2.00	1.19	1.06	1.00	1.06	1.88
1/2	4	15.1/4	45.0	0.370	0.44	2.00	1.19	1.06	1.00	1.06	1.88
9/16	4	16	50.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
5/8	4	16	75.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
3/4	5	22.1/4	75.0	0.840	0.56	2.56	1.56	1.31	1.44	1.56	2.38
7/8	5	23.1/2	130.0	1.250	0.63	3.06	1.81	1.63	1.75	1.81	2.88
1	6	31	130.0	1.660	0.63	3.44	2.00	1.88	2.06	2.00	3.00
1.1/8	7	39	200.0	2.430	0.75	4.00	2.75	2.00	2.19	2.06	3.38

Meets the performance requirements of Federal Specification FF-C-450, current revision, Type 1, Class 2.**
* Based on clean, unlubricated threads. The table above shows the minimum torque required to reach maximum holding power of wire rope clips.
** NOTE: 1/16" and 1/8" are not covered by Federal Specification FF-C-450, current revision.

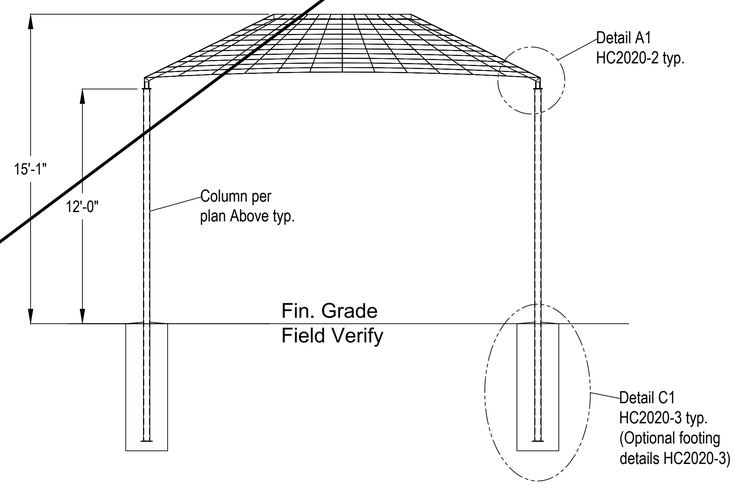
Improper use and installation of cast malleable wire rope clips can result in serious injury or death.
NEVER use cast malleable wire rope clips for lifting or suspending ANY load.
Cast malleable wire rope clips are to be used only for non-critical, light duty applications with small applied loads.
For complete installation instructions refer to page 48.

WARNING: NEVER EXCEED WORKING LOAD LIMIT
Read important warnings and information on pages 2 - 5 and page 48.

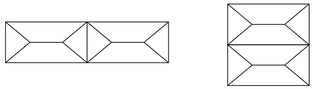


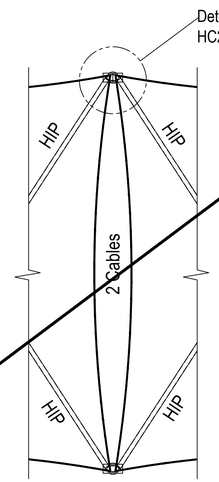
PLAN VIEW

NOTES:
1 - Steel Structure not designed for snow load accumulation in excess of 5.0 psf.
All Sails/cables shall be removed prior to snow load accumulation
2 - Refer toHC2020-3 for footing details

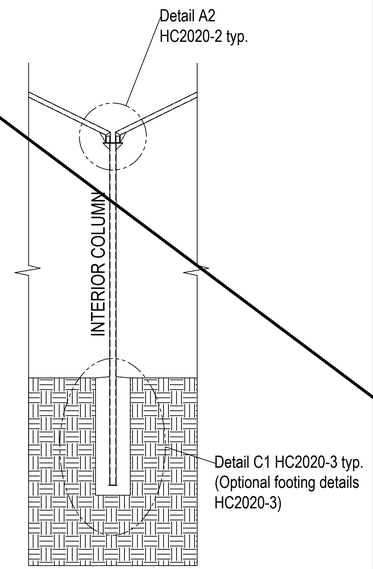


ELEVATION VIEW

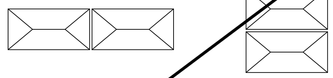


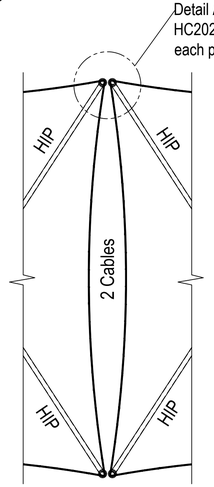


CONJOINED INTERIOR PLAN DETAIL - Single Post

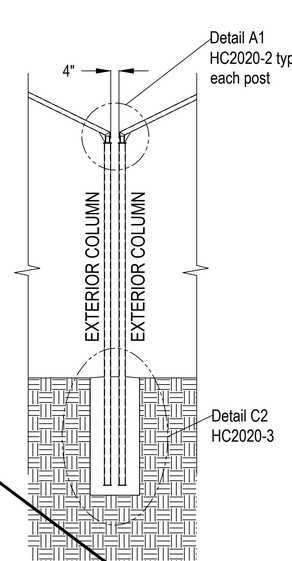


CONJOINED INTERIOR COLUMN DETAIL - Single Post





DOUBLE EXTERIOR PLAN DETAIL - Double Post



DOUBLE EXTERIOR COLUMN DETAIL - Double Post

Scale: Not To Scale



2/16/24

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rea architect
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(661) 394-0053
ron@rearchitect.net

MANUFACTURER:
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

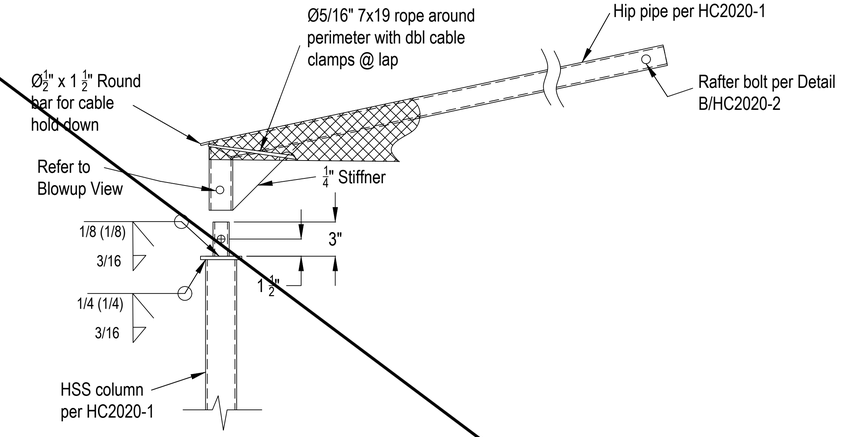
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CODE: 2022 CBC
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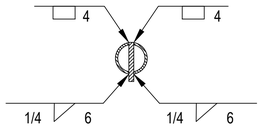
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DATE: 04/12/2024

20'X20'X12' HIP CANOPY

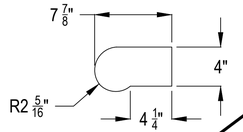
Project #	
22-037	PC-HC2020-1
Drawn By	
RWE	
Date	
12-20-22	



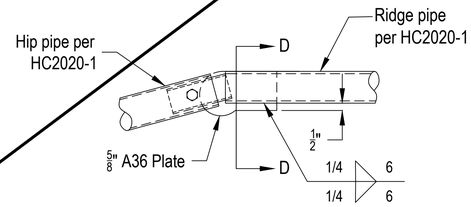
Detail A1



Section View D-D

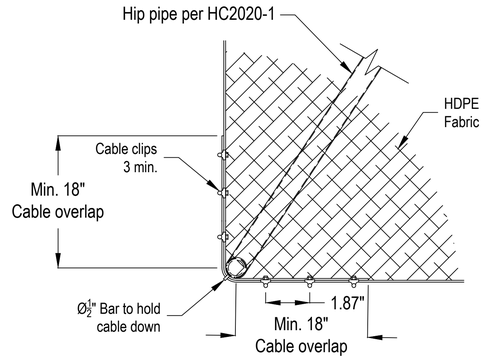


Knife Plate Detail

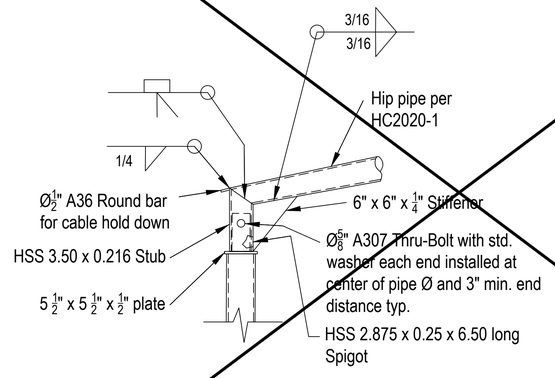


Plan View

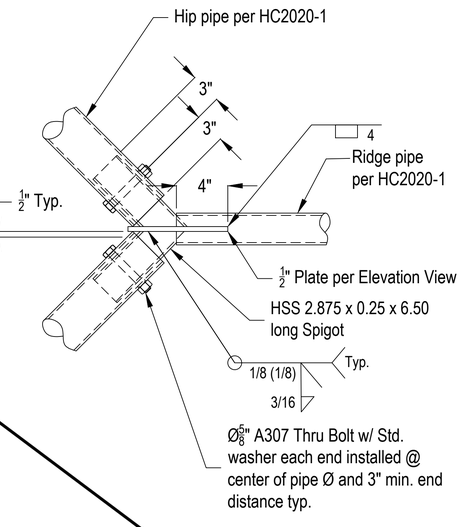
Detail B
Elevation View



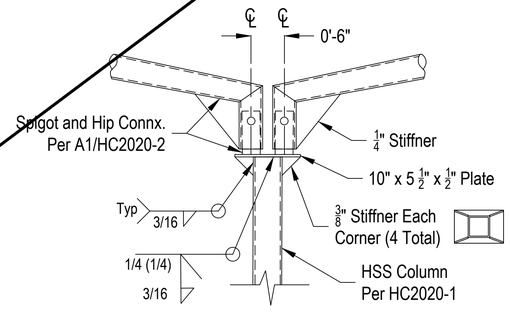
Detail A1
Top View



Detail A1
Blowup View



Detail B
Plan View



Detail A2
Blowup View

REGISTERED PROFESSIONAL ENGINEER
JAMES L. MITCHELL
S 3081
EXP. 6/30/2025
STRUCTURAL
STATE OF CALIFORNIA
2/16/24

Scale: Not to Scale

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DATE: 09/22/26

rea architect
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(661) 394-0053
ron@rearchitect.net

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

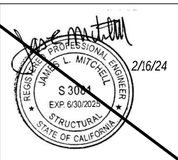
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SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

20'X20'X12' HIP CANOPY

Project #	22-037
Drawn By	RWE
Date	12-20-22

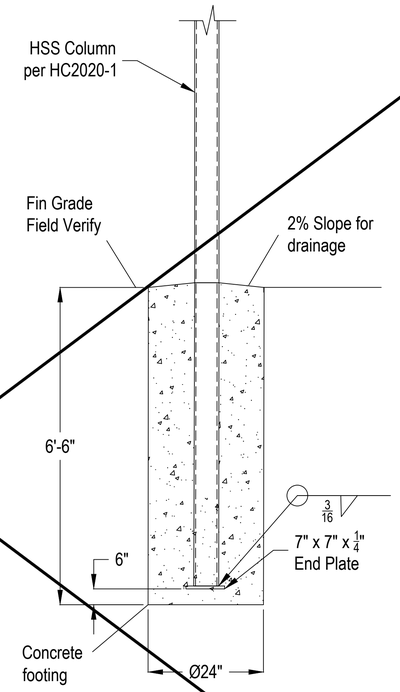
PC-HC2020-2

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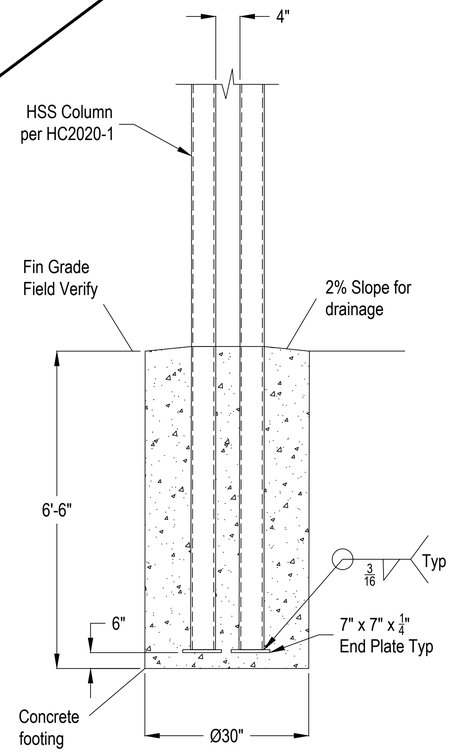
Node No.		Support Forces P_x [kip]	P_y [kip]	P_z [kip]	Support Moments M_x [kipft]	M_y [kipft]	M_z [kipft]
	D LC1 - Self-weight						
1		-0.012	0.080	-0.275	-0.75	-0.19	-0.15
3		0.012	0.080	-0.275	-0.75	0.19	0.15
5		-0.012	-0.080	-0.275	0.75	-0.19	0.15
7		0.012	-0.080	-0.275	0.75	0.19	-0.15
	Tv LC2 - Prestress						
1		0.022	0.099	0.000	-0.82	-0.01	-0.14
3		-0.022	0.099	0.000	-0.82	0.01	0.14
5		0.022	-0.099	0.000	0.82	-0.01	0.14
7		-0.022	-0.099	0.000	0.82	0.01	-0.14
	L LC3 - Live						
1		0.011	0.171	-0.432	-1.58	-0.12	-0.29
3		-0.011	0.171	-0.432	-1.58	0.12	0.29
5		0.011	-0.171	-0.432	1.58	-0.12	0.29
7		-0.011	-0.171	-0.432	1.58	0.12	-0.29
	W LC4 - Wind 1						
1		0.481	0.887	0.278	-6.04	2.43	-0.48
3		-0.481	0.887	0.278	-6.04	-2.43	0.48
5		0.720	-0.551	1.079	3.85	4.25	-0.01
7		-0.720	-0.551	1.079	3.85	-4.25	0.01
	W LC5 - Wind 2						
1		0.266	0.778	0.853	-5.75	1.10	-0.56
3		-0.602	0.585	-0.226	-4.35	-3.31	0.36
5		0.266	-0.777	0.853	5.75	1.10	0.56
7		-0.602	-0.585	-0.225	4.35	-3.31	-0.36
	S LC6 - Snow						
1		0.011	0.171	-0.432	-1.58	-0.12	-0.29
3		-0.011	0.171	-0.432	-1.58	0.12	0.29
5		0.011	-0.171	-0.432	1.58	-0.12	0.29
7		-0.011	-0.171	-0.432	1.58	0.12	-0.29



NOTE: This detail shall not be used on Double Post Option

Detail C1

☐ Embedded Single Post Option



Detail C2

☐ Embedded Double Post Option

Scale: Not To Scale

FNAME

REVDATE

USER

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DATE: 04/12/2024

20'X20'X12'
HIP CANOPY

Project # 22-037
Drawn By RWE
Date 12-20-22

PC-HC2020-3



7X19 Stainless Steel Cable

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7/32	8.60	5,000	4,450
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kulkoni

MALLEABLE WIRE ROPE CLIPS

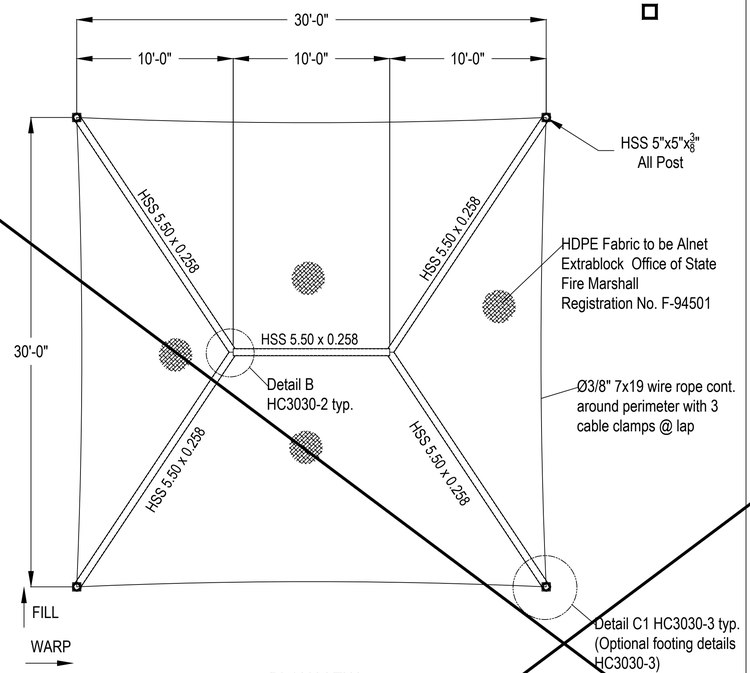


ZINC PLATED, MALLEABLE

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1/4	3	7	15.0	0.130	0.31	1.19	0.75	0.75	0.69	0.75	1.31
5/16	3	7 3/4	15.0	0.150	0.31	1.31	0.84	0.75	0.75	0.75	1.44
3/8	3	9 1/2	30.0	0.210	0.38	1.63	1.00	0.88	0.84	0.88	1.63
7/16	4	10 1/4	40.0	0.370	0.38	2.00	1.19	1.06	1.00	1.06	1.88
1/2	4	15 1/4	45.0	0.370	0.44	2.00	1.19	1.06	1.00	1.06	1.88
9/16	4	16	50.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
5/8	4	16	75.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
3/4	5	22 1/4	75.0	0.840	0.56	2.56	1.56	1.31	1.44	1.56	2.38
7/8	5	23 1/2	130.0	1.250	0.63	3.06	1.81	1.63	1.75	1.81	2.88
1	6	31	130.0	1.660	0.63	3.44	2.00	1.88	2.06	2.00	3.00
1 1/8	7	39	200.0	2.430	0.75	4.00	2.75	2.00	2.19	2.06	3.38

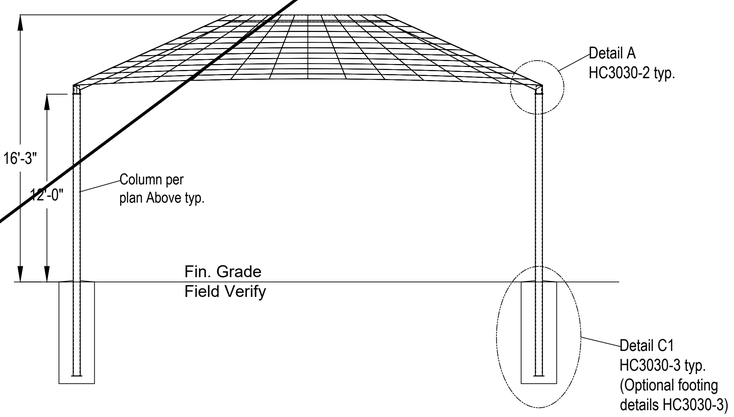
Meets the performance requirements of Federal Specification FF-C-450, current revision, Type 1, Class 2.**
* Based on clean, unlubricated threads. The table above shows the minimum torque required to reach maximum holding power of wire rope clips.
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Cast malleable wire rope clips are to be used only for non-critical, light duty applications with small applied loads.
For complete installation instructions refer to page 48.

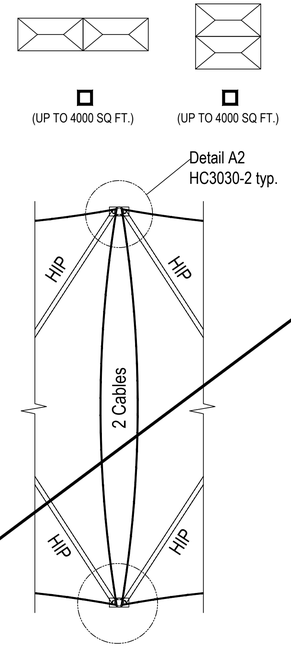


PLAN VIEW

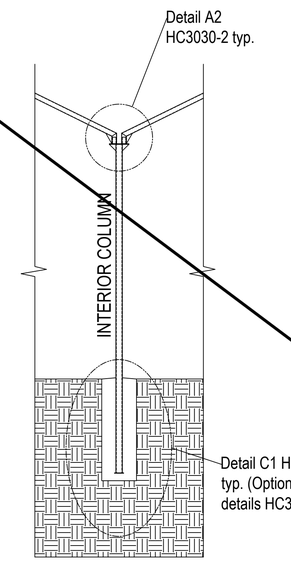
NOTES:
1 - Steel Structure not designed for snow load accumulation in excess of 5.0 psf.
All Sails/cables shall be removed prior to snow load accumulation
2 - Refer to HC3030-3/HC3030-4 for Footing details



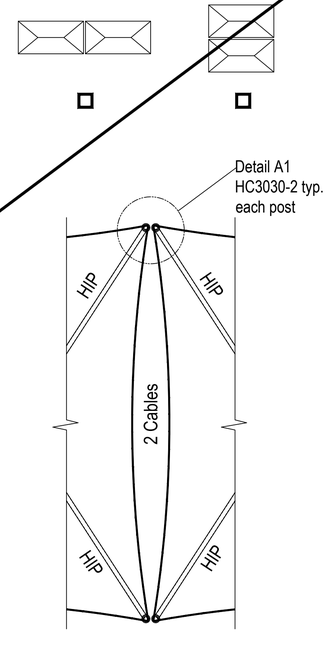
ELEVATION VIEW



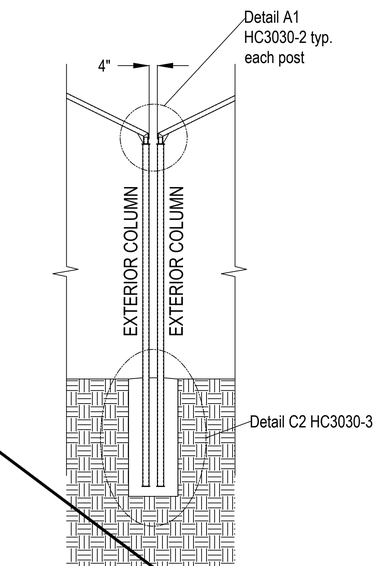
CONJOINED INTERIOR PLAN DETAIL - Single Post



CONJOINED INTERIOR COLUMN DETAIL - Single Post



DOUBLE EXTERIOR PLAN DETAIL - Double Post



DOUBLE EXTERIOR COLUMN DETAIL - Double Post

Scale: Not To Scale

JAMES L. MITCHELL REGISTERED PROFESSIONAL ENGINEER S 3081 EXP. 6/30/2025 STRUCTURAL STATE OF CALIFORNIA 2/16/24

FNAME REVDATE USER

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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DATE: 09/22/26

rea architecture RONE DWARDS
Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net
LICENSED ARCHITECT RONALD W. EDWARDS © 25192 Exp. 08-31-27 STATE OF CALIFORNIA

MANUFACTURER:
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

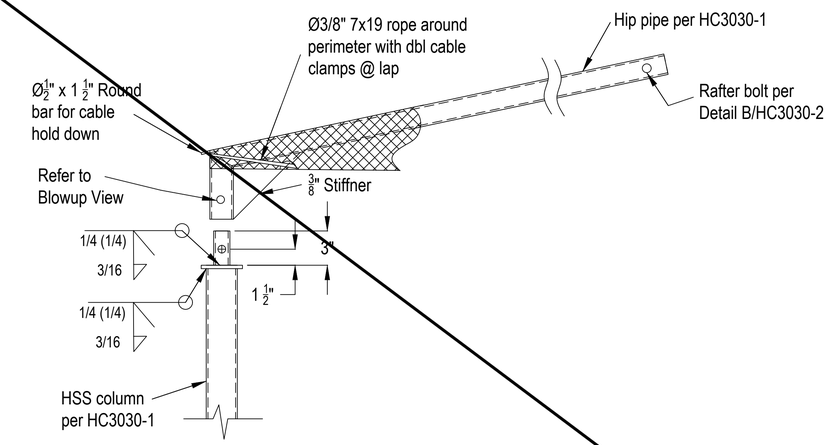
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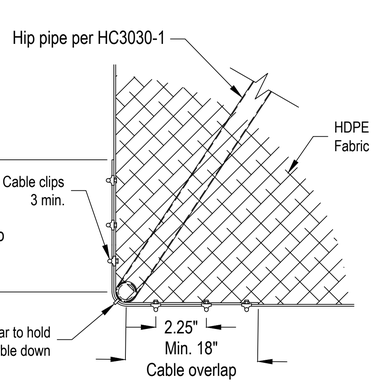
30'X30'X12' HIP CANOPY

Project # 22-037
Drawn By RWE
Date 12-20-22

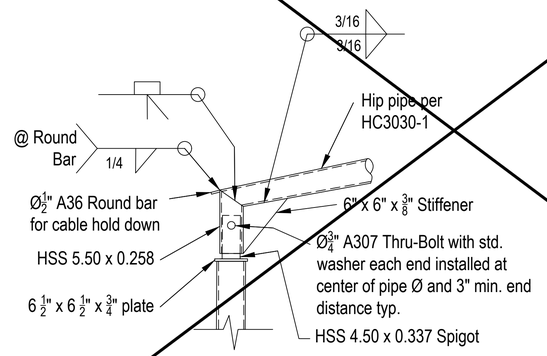
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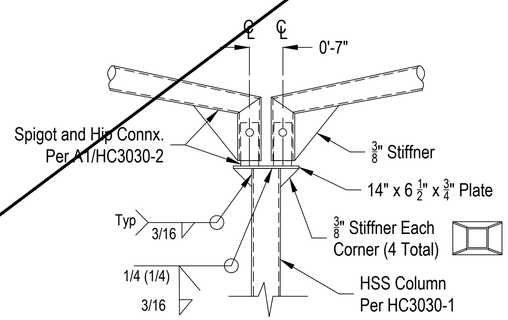
Detail A1



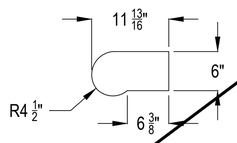
Detail A1 Top View



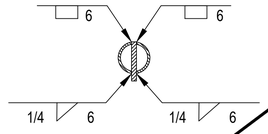
Detail A1 Blowup View



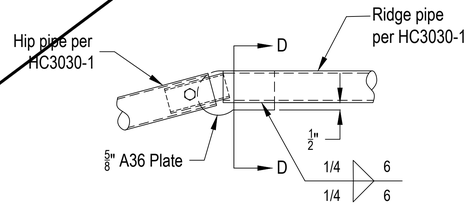
Detail A2 Blowup View



Knife Plate Detail

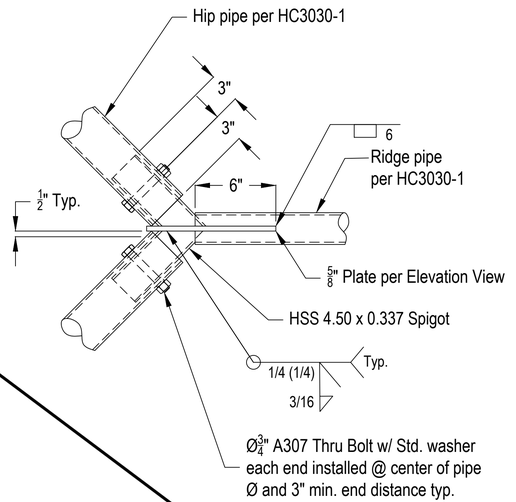


Section View D-D



Plan View

Detail B Elevation View



Detail B Plan View

Scale: Not To Scale

REGISTERED PROFESSIONAL ENGINEER
MARK C. MITCHELL
S 3081
EXP. 6/30/2025
STRUCTURAL
STATE OF CALIFORNIA
2/16/24

IDENTIFICATION STAMP
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APP: 02-123774 INC:
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ron@rearchitect.net

LICENSED ARCHITECT RONALD E. EDWARDS C 25192 12-31-23 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

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DATE: 04/12/2024

30'X30'X12' HIP CANOPY

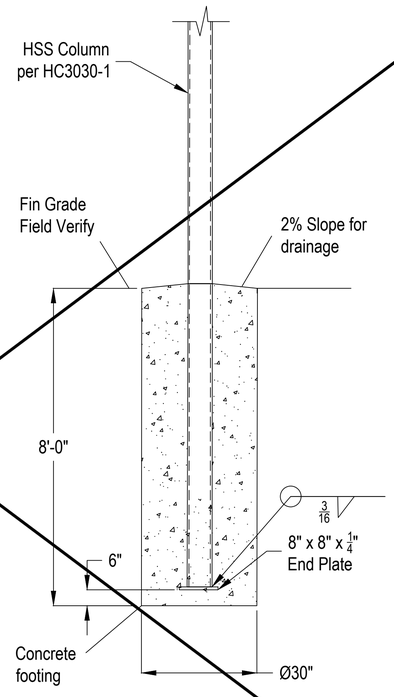
Project # 22-037
Drawn By RWE
Date 12-20-22

PC-HC3030-2

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USER



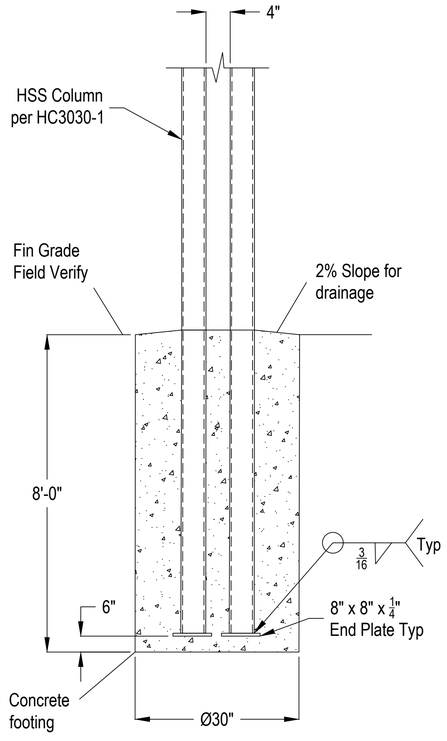
2/16/24



NOTE: This detail shall not be used on Double Post Option

Detail C1

☐ Embedded Single Post Option



Detail C2

☐ Embedded Double Post Option

Node No.		Support Forces P_x [kip]	P_y [kip]	P_z [kip]	Support Moments M_x [kipft]	M_y [kipft]	M_z [kipft]	Node Comment Cor. Loading
	D	LC1 - Self-weight						
1		-0.136	0.044	-0.577	-0.74	-0.96	-0.21	
3		0.136	0.044	-0.577	-0.74	0.96	0.21	
5		-0.136	-0.044	-0.577	0.74	-0.96	0.21	
7		0.136	-0.044	-0.577	0.74	0.96	-0.21	
	PT	LC2 - Prestress						
1		0.034	0.128	0.000	-1.06	0.06	-0.13	
3		-0.034	0.128	0.000	-1.06	-0.06	0.13	
5		0.034	-0.128	0.000	1.06	0.06	0.13	
7		-0.034	-0.128	0.000	1.06	-0.06	-0.13	
	L	LC3 - Live						
1		-0.179	0.339	-0.861	-3.70	-1.72	-0.75	
3		0.179	0.339	-0.861	-3.70	1.72	0.75	
5		-0.178	-0.339	-0.861	3.70	-1.72	0.75	
7		0.178	-0.339	-0.861	3.70	1.72	-0.75	
	W	LC4 - Wind 1						
1		1.158	2.095	0.699	-15.02	5.63	-1.22	
3		-1.158	2.095	0.699	-15.02	-5.63	1.22	
5		1.875	-1.758	2.151	12.16	11.16	0.08	
7		-1.879	-1.759	2.151	12.17	-11.16	-0.08	
	W	LC5 - Wind 2						
1		0.816	2.178	1.720	-16.69	3.11	-1.54	
3		-1.152	1.474	-0.259	-11.36	-6.17	0.94	
5		0.815	-2.178	1.720	16.69	3.10	1.54	
7		-1.151	-1.473	-0.260	11.36	-6.17	-0.94	
	S	LC6 - Snow						
1		-0.179	0.339	-0.861	-3.70	-1.72	-0.75	
3		0.179	0.339	-0.861	-3.70	1.72	0.75	
5		-0.178	-0.339	-0.861	3.70	-1.72	0.75	
7		0.178	-0.339	-0.861	3.70	1.72	-0.75	

FNAME

REVDATE

USER

Scale: Not To Scale

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ron@rearchitect.net

LICENSED ARCHITECT
RONALD W. EDWARDS
C 25192
Ron Edwards
REN 12-31-2025
STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

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DATE: 04/12/2024

30'X30'X12' HIP CANOPY

Project # 22-037
Drawn By RWE
Date 12-20-22

PC-HC3030-3

6X19/37 Class Galvanized Wire Rope

Size (in)	Approx. Wt per ft (lbs)		Nominal Breaking Load (lbs)			
			IPS		EIPS	
	FC	IWRC	FC	IWRC	FC	IWRC
1/4	0.015	0.116	4,940	5,300	5,430	6,120
5/16	0.164	0.18	7,660	8,240	8,440	9,480
3/8	0.236	0.26	10,980	11,800	12,090	13,600
☒ 7/16	0.32	0.35	14,880	16,000	16,380	18,350
1/2	0.42	0.46	19,260	20,700	21,240	24,000
9/16	0.53	0.59	24,300	26,100	26,820	30,200
5/8	0.66	0.72	30,000	32,200	32,940	37,000
3/4	0.95	1.04	42,800	46,000	47,160	53,000
7/8	1.29	1.42	58,000	62,200	63,720	71,600
1	1.68	1.85	75,200	80,800	82,800	93,000
1-1/8	2.13	2.34	94,600	101,800	104,040	117,000
1-1/4	2.63	2.89	116,200	125,000	127,980	143,800
1-3/8	3.18	3.50	139,800	150,400	153,900	172,800

kulkoni MALLEABLE WIRE ROPE CLIPS



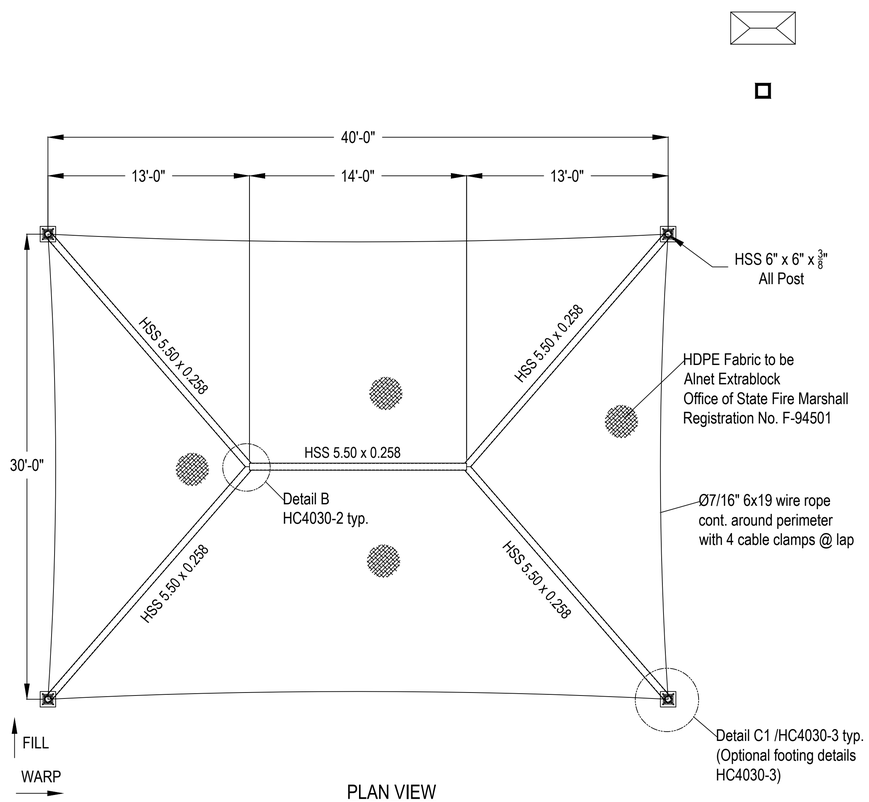
ZINC PLATED, MALLEABLE

Size in Inches	Min. Clips Required	Wire Rope Turn-Back in Inches	Torque in Foot Pounds*	Approx. Wt. in Pounds	Dimensions in Inches						
					A	B	C	D	E	F	G
1/16**	3	4	2.0	0.030	0.15	0.65	0.45	0.38	0.38	0.45	0.69
1/8**	3	4-3/4	3.0	0.040	0.18	0.81	0.50	0.50	0.50	0.56	0.94
3/16	3	5-1/2	4.5	0.063	0.25	0.94	0.56	0.56	0.56	0.63	1.06
1/4	3	7	15.0	0.130	0.31	1.19	0.75	0.75	0.69	0.75	1.31
5/16	3	7-3/4	15.0	0.150	0.31	1.31	0.84	0.75	0.75	0.75	1.44
3/8	3	9-1/2	30.0	0.210	0.38	1.63	1.00	0.88	0.84	0.88	1.63
☒ 7/16	4	10-1/4	40.0	0.370	0.38	2.00	1.19	1.06	1.00	1.06	1.88
1/2	4	15-1/4	40.0	0.370	0.44	2.00	1.19	1.06	1.00	1.06	1.88
9/16	4	16	50.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
5/8	4	16	75.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
3/4	5	22-1/4	75.0	0.840	0.56	2.56	1.56	1.31	1.44	1.56	2.38
7/8	5	23-1/2	130.0	1.250	0.63	3.06	1.81	1.63	1.75	1.81	2.88
1	6	31	130.0	1.660	0.63	3.44	2.00	1.88	2.06	2.00	3.00
1.1/8	7	39	200.0	2.430	0.75	4.00	2.75	2.00	2.19	2.06	3.38

Meets the performance requirements of Federal Specification FF-C-450, current revision, Type 1, Class 2.**
* Based on clean, unlubricated threads. The table above shows the minimum torque required to reach maximum holding power of wire rope clips.
** NOTE: 1/16" and 1/8" are not covered by Federal Specification FF-C-450, current revision.

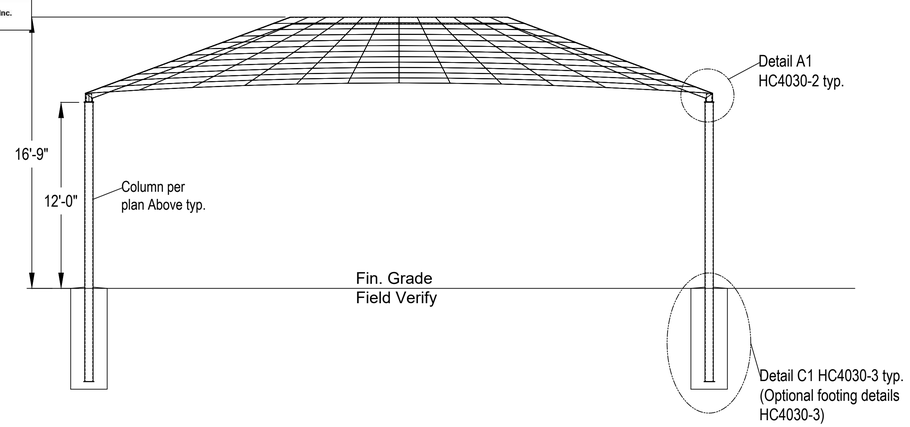
Improper use and installation of cast malleable wire rope clips can result in serious injury or death.
NEVER use cast malleable wire rope clips for lifting or suspending ANY load.
Cast malleable wire rope clips are to be used only for non-critical, light duty applications with small applied loads.
For complete installation instructions refer to page 48.

Page 52 v921 WARNING: NEVER EXCEED WORKING LOAD LIMIT Read important warnings and information on pages 2 - 5 and page 48. Kulkoni, Inc.



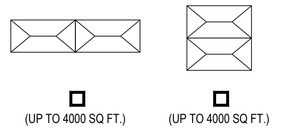
PLAN VIEW

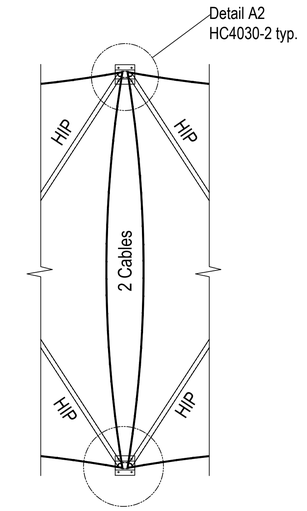
NOTES:
1 - Steel Structure not designed for snow load accumulation in excess of 5.0 psf. All Sails/cables shall be removed prior to snow load accumulation
2 - Refer to HC4030-3/HC4030-4 for Footing details



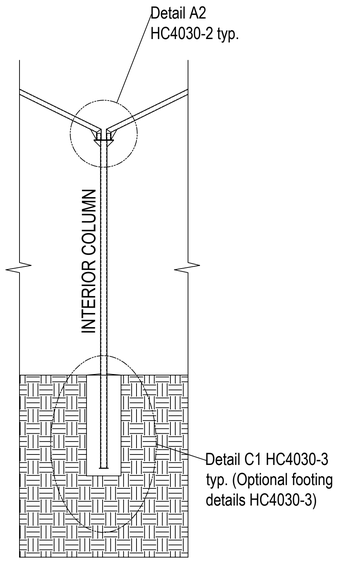
ELEVATION VIEW

JAMES L. MITCHELL REGISTERED PROFESSIONAL ENGINEER S 3081 EXP. 6/30/2025 STRUCTURAL STATE OF CALIFORNIA 2/16/24

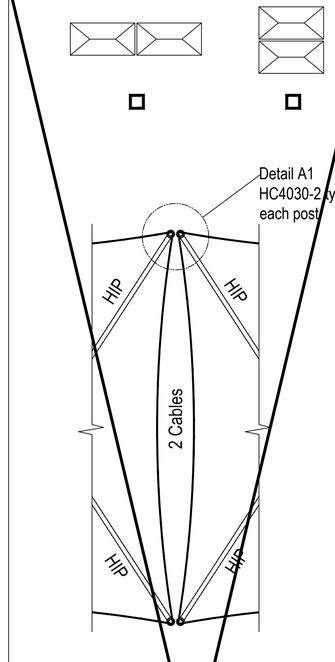




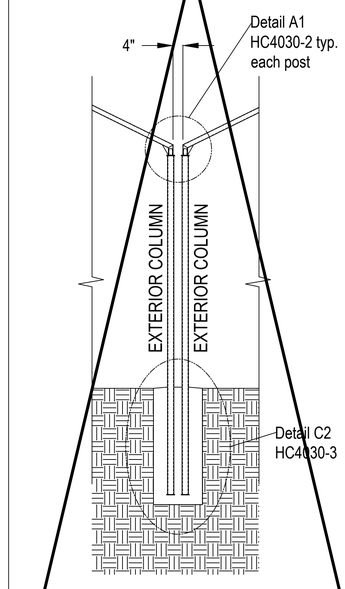
☒ CONJOINED INTERIOR PLAN DETAIL - Single Post



☒ CONJOINED INTERIOR COLUMN DETAIL - Single Post



☐ DOUBLE EXTERIOR PLAN DETAIL - Double Post



☐ DOUBLE EXTERIOR COLUMN DETAIL - Double Post

Scale: Not To Scale

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
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rea architect RONE DWARDS
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LICENSED ARCHITECT RONE W. EDWARDS C 25192 Exp. 08-31-2025 STATE OF CALIFORNIA

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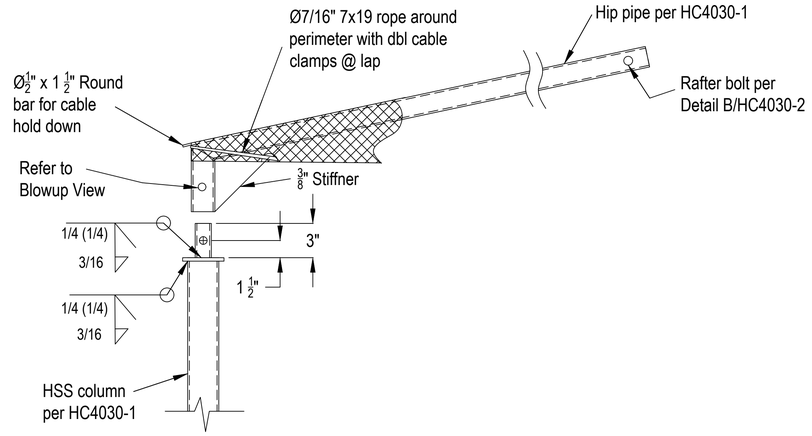
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40'X30'X12' HIP CANOPY

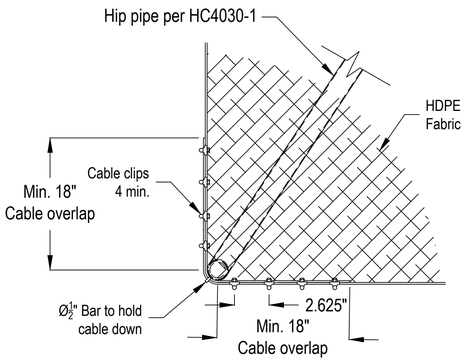
Project # 22-037
Drawn By RWE
Date 12-20-22

PC-HC4030-1

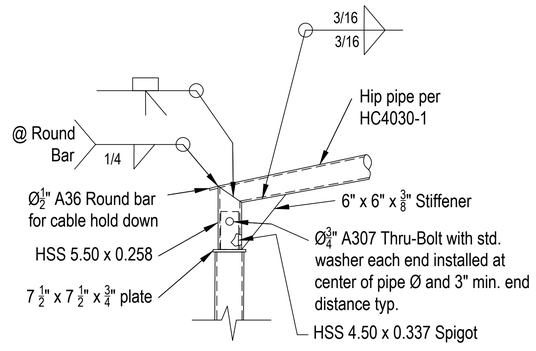
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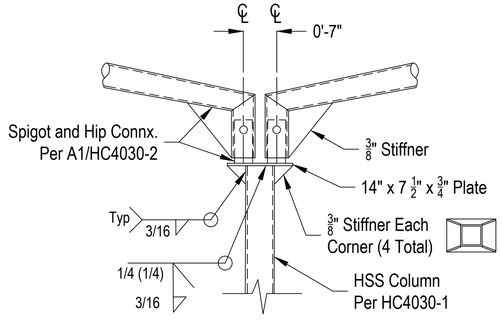
Detail A1



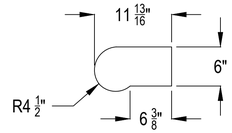
Detail A1 Top View



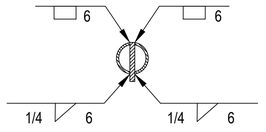
Detail A1 Blowup View



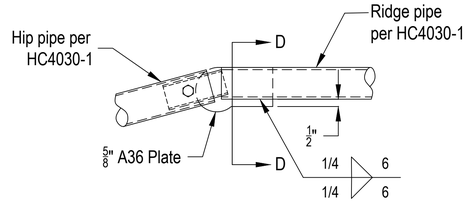
☒ Detail A2 Blowup View



Knife Plate Detail

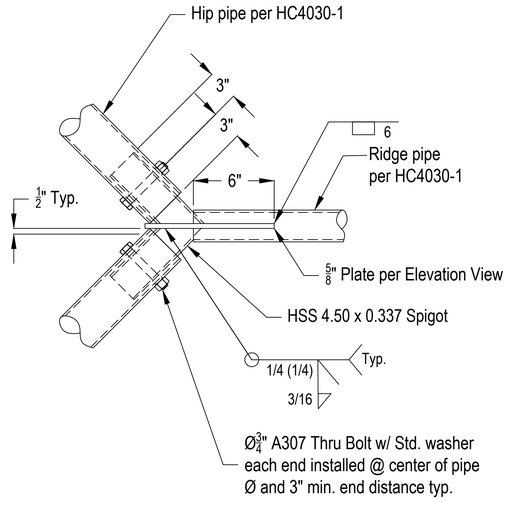


Section View D-D



Plan View

Detail B Elevation View



Detail B Plan View

Scale: Not To Scale

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

rea architect
RONEDWARDS

Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT RONALD W. EDWARDS C 25192 REN 12-31-25 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-123035 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

40'X30'X12' HIP CANOPY

Project # 22-037
Drawn By RWE
Date 12-20-22

PC-HC4030-2

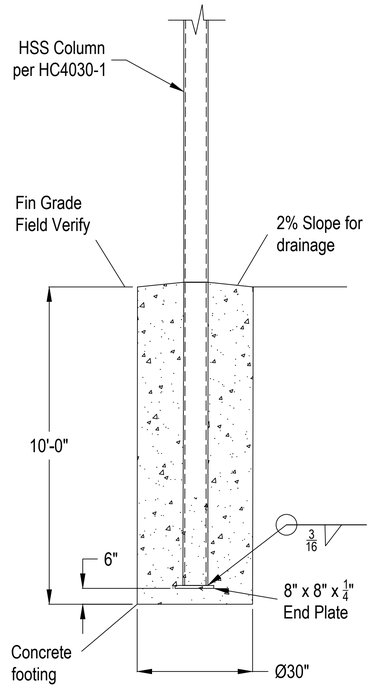
REGISTERED PROFESSIONAL ENGINEER JAMES L. MITCHELL S 3081 EXP. 6/30/2025 STRUCTURAL STATE OF CALIFORNIA 2/16/24

FNAME
REVDATE
USER



2/16/24

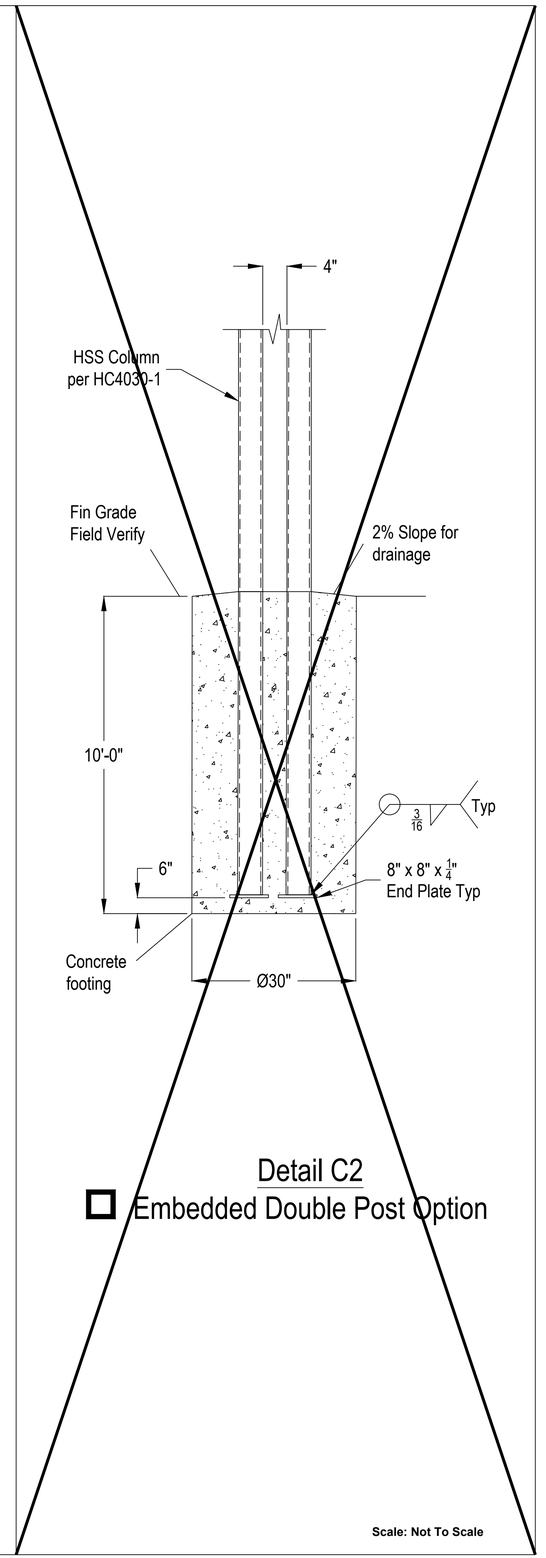
Node No.		Support Forces Px [kip]	Py [kip]	Pz [kip]	Support Moments Mx [kipft]	My [kipft]	Mz [kipft]
	D	LC1 - Self-weight					
1		-0.119	-0.104	-0.677	0.51	-0.59	0.00
3		0.119	-0.104	-0.677	0.51	0.59	0.00
5		-0.119	0.104	-0.677	-0.51	-0.59	0.00
7		0.119	0.104	-0.677	-0.51	0.59	0.00
	Tv	LC2 - Prestress					
1		0.093	0.084	0.000	-0.59	0.75	0.04
3		-0.093	0.084	0.000	-0.59	-0.75	-0.04
5		0.093	-0.084	0.000	0.59	0.75	-0.04
7		-0.093	-0.084	0.000	0.59	-0.75	0.04
	L	LC3 - Live					
1		-0.104	0.228	-0.953	-2.74	-0.55	-0.21
3		0.104	0.228	-0.953	-2.74	0.55	0.21
5		-0.103	-0.228	-0.953	2.74	-0.54	0.21
7		0.103	-0.228	-0.953	2.74	0.55	-0.21
	W	LC4 - Wind 1					
1		2.114	3.076	0.736	-24.56	16.71	0.85
3		-2.114	3.076	0.736	-24.56	-16.71	-0.85
5		2.474	-1.910	2.417	11.88	18.31	-0.63
7		-2.474	-1.909	2.417	11.87	-18.31	0.63
	W	LC5 - Wind 2					
1		0.494	1.856	1.513	-13.70	1.16	0.21
3		-2.314	2.526	0.066	-21.00	-18.49	0.55
5		0.494	-1.856	1.514	13.70	1.17	-0.21
7		-2.315	-2.526	0.066	20.99	-18.49	-0.55
	S	LC6 - Snow					
1		-0.104	0.228	-0.953	-2.74	-0.55	-0.21
3		0.104	0.228	-0.953	-2.74	0.55	0.21
5		-0.103	-0.228	-0.953	2.74	-0.54	0.21
7		0.103	-0.228	-0.953	2.74	0.55	-0.21



NOTE: This drawing shall not be used on Double Post Option

Detail C1

☒ Embedded Single Post Option



Detail C2

☐ Embedded Double Post Option

Scale: Not To Scale

FNAME

REVDATE

USER

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

rea architect
RONEDWARDS

Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT RONALD W. EDWARDS C 25192 RENEWAL 12-31-25 STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT

PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-129036 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

40'X30'X12'
HIP CANOPY

Project #	
22-037	PC-HC4030-3
Drawn By	
RWE	
Date	
12-20-22	

6X19/37 Class Galvanized Wire Rope

Size (in)	Approx. Wt per ft (lbs)		Nominal Breaking Load (lbs)			
			IPS		EIPS	
	FC	IWRC	FC	IWRC	FC	IWRC
1/4	0.015	0.116	4,940	5,300	5,430	6,120
5/16	0.164	0.18	7,660	8,240	8,440	9,480
3/8	0.236	0.26	10,980	11,800	12,090	13,600
7/16	0.32	0.35	14,880	16,000	16,380	18,360
1/2	0.42	0.46	19,260	20,700	21,240	24,000
9/16	0.53	0.59	24,300	26,100	26,820	30,200
5/8	0.66	0.72	30,000	32,200	32,940	37,000
3/4	0.95	1.04	42,800	46,000	47,160	53,000
7/8	1.29	1.42	58,000	62,200	63,720	71,600
1	1.68	1.85	75,200	80,800	82,800	93,000
1-1/8	2.13	2.34	94,600	101,800	104,040	117,000
1-1/4	2.63	2.89	116,200	125,000	127,980	143,800
1-3/8	3.18	3.50	139,800	150,400	153,900	172,800

kulkani — MALLEABLE WIRE ROPE CLIPS

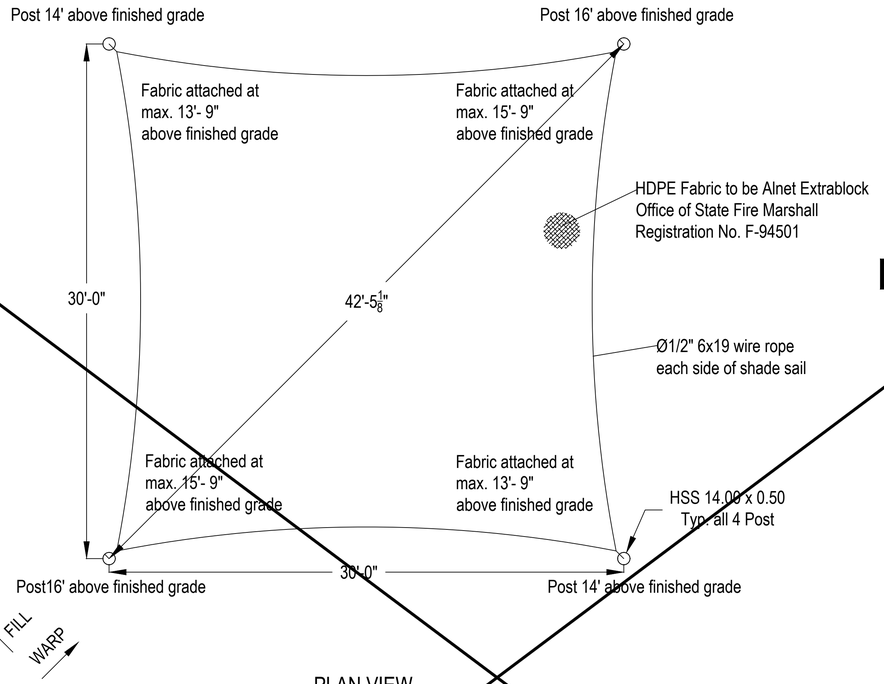


ZINC PLATED, MALLEABLE

Size in Inches	Min. Clips Required	Wire Rope Turn Back in Inches	Torque in Foot Pounds*	Approx. Wt. in Pounds	Dimensions in Inches					
					A	B	C	D	E	F	G
1/16**	3	4	2.0	0.030	0.15	0.65	0.45	0.38	0.38	0.45	0.69
1/8**	3	4.3/4	3.0	0.040	0.18	0.81	0.50	0.50	0.50	0.56	0.94
3/16	3	5.1/2	4.5	0.063	0.25	0.94	0.56	0.56	0.56	0.63	1.06
1/4	3	7	15.0	0.130	0.31	1.19	0.75	0.75	0.69	0.75	1.31
5/16	3	7.3/4	15.0	0.150	0.31	1.31	0.84	0.75	0.75	0.75	1.44
3/8	3	9.1/2	30.0	0.210	0.38	1.63	1.00	0.88	0.84	0.88	1.63
7/16	4	10.1/4	40.0	0.370	0.38	2.00	1.19	1.06	1.00	1.06	1.88
1/2	4	15.1/4	45.0	0.370	0.44	2.00	1.19	1.06	1.00	1.06	1.88
9/16	4	16	50.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
5/8	4	16	75.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
3/4	5	22.1/4	75.0	0.840	0.56	2.56	1.56	1.31	1.44	1.56	2.38
7/8	5	23.1/2	130.0	1.250	0.63	3.06	1.81	1.63	1.75	1.81	2.88
1	6	31	130.0	1.660	0.63	3.44	2.00	1.88	2.06	2.00	3.00
1.1/8	7	39	200.0	2.430	0.75	4.00	2.75	2.00	2.19	2.06	3.38

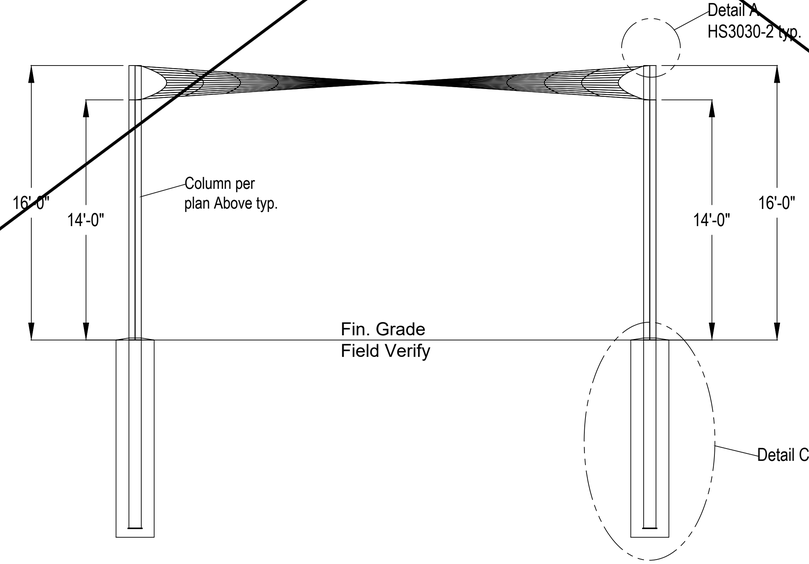
Meets the performance requirements of Federal Specification FF-C-450, current revision, Type 1, Class 2.**
* Based on clean, unlubricated threads. The table above shows the minimum torque required to reach maximum holding power of wire rope clips.
** NOTE: 1/16" and 1/8" are not covered by Federal Specification FF-C-450, current revision.

Improper use and installation of cast malleable wire rope clips can result in serious injury or death.
NEVER use cast malleable wire rope clips for lifting or suspending ANY load.
Cast malleable wire rope clips are to be used only for non-critical, light duty applications with small applied loads.
For complete installation instructions refer to page 48.

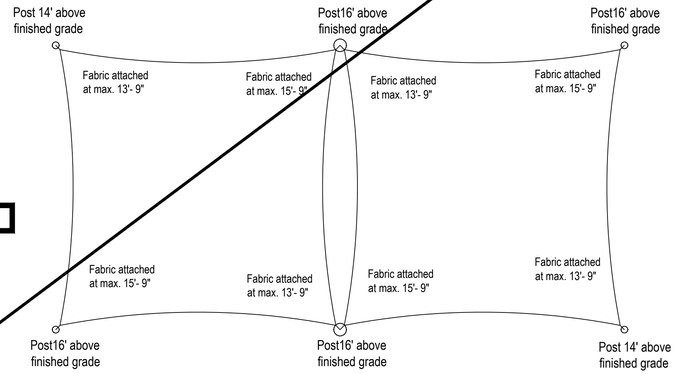


PLAN VIEW

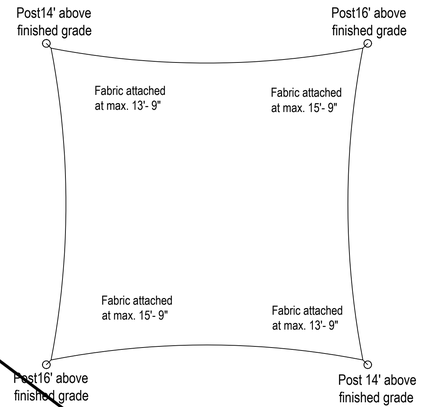
NOTES:
1 - Steel Structure not designed for snow load accumulation in excess of 5.0 psf.
All Sails/cables shall be removed prior to snow load accumulation
2 - Refer to HS3030-3 for Footing details



ELEVATION VIEW



Double shade sails



Single shade sail

Scale: Not To Scale

FNAME
REVDATE
USER

JAMES L. MITCHELL — REGISTERED PROFESSIONAL ENGINEER — S 3081 EXP. 6/30/2025 — STRUCTURAL — STATE OF CALIFORNIA — 2/16/24

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

rea architect RONEDWARDS

Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT RONALD W. EDWARDS C 25192 Exp. 08-31-27 STATE OF CALIFORNIA

MANUFACTURER:
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

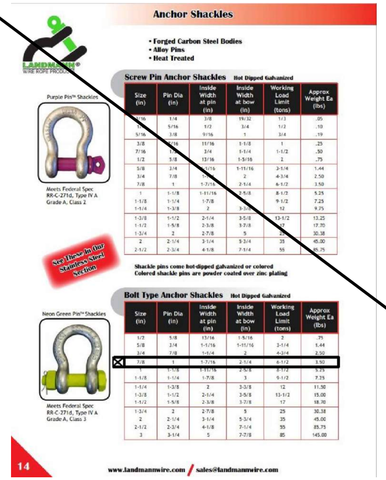
IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT CODE: 2022 CBC
A separate application for construction is required

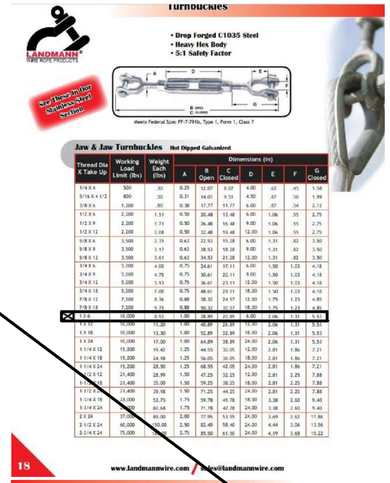
PC APPROVAL STAMP:
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-123036 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

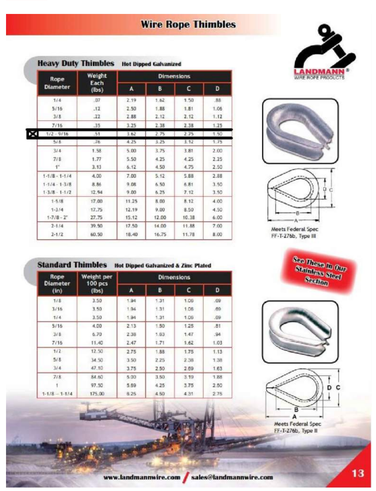
30'X30'X14' HYPAR SHADE

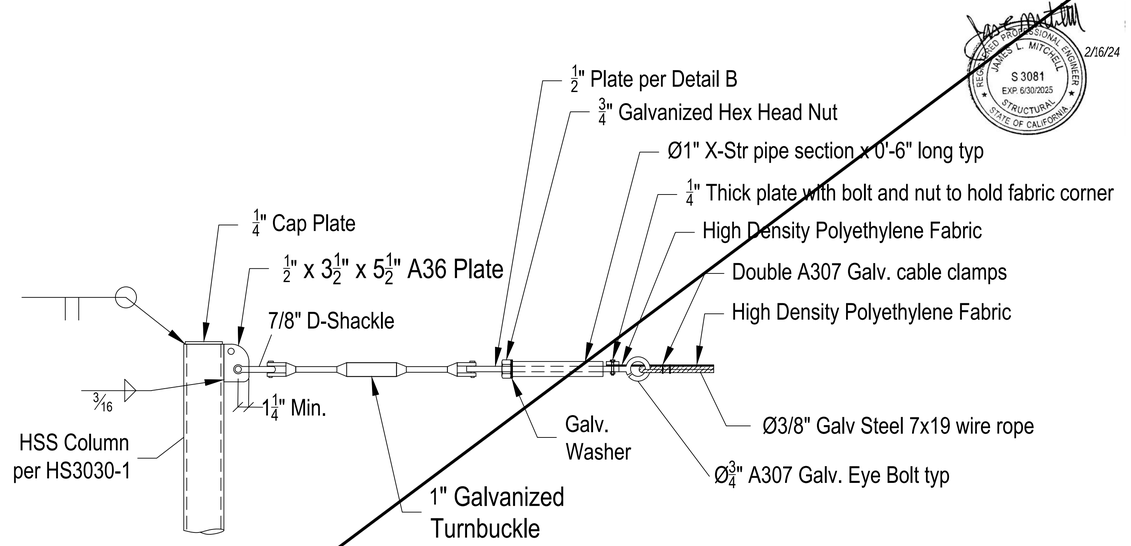
Project # 22-037
Drawn By RWE
Date 12-20-22

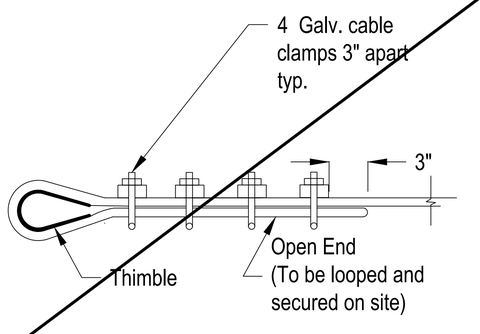
PC-HS3030-1



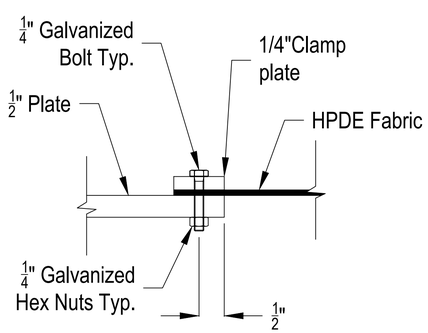




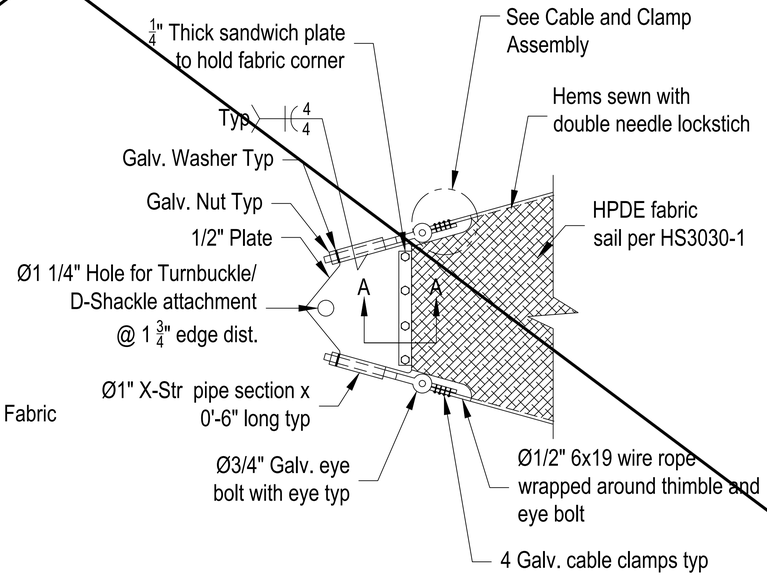




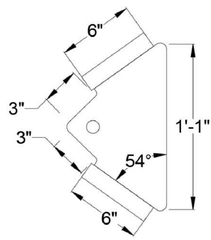
Cable and Clamp Assembly Detail



Section A-A



Detail B
Plate Assembly Detail



Corner plate dimension

Scale: Not To Scale

FNAME
REVDATE
USER

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

JAMES L. MITCHELL
REGISTERED PROFESSIONAL ENGINEER
S 3081
EXP. 6/30/2025
STRUCTURAL
STATE OF CALIFORNIA
2/16/24

rea architect
RONE WARDS
Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT
RONALD W. EMMERT
C-29190
Exp. 08-31-25
STATE OF CALIFORNIA

MANUFACTURER:
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:

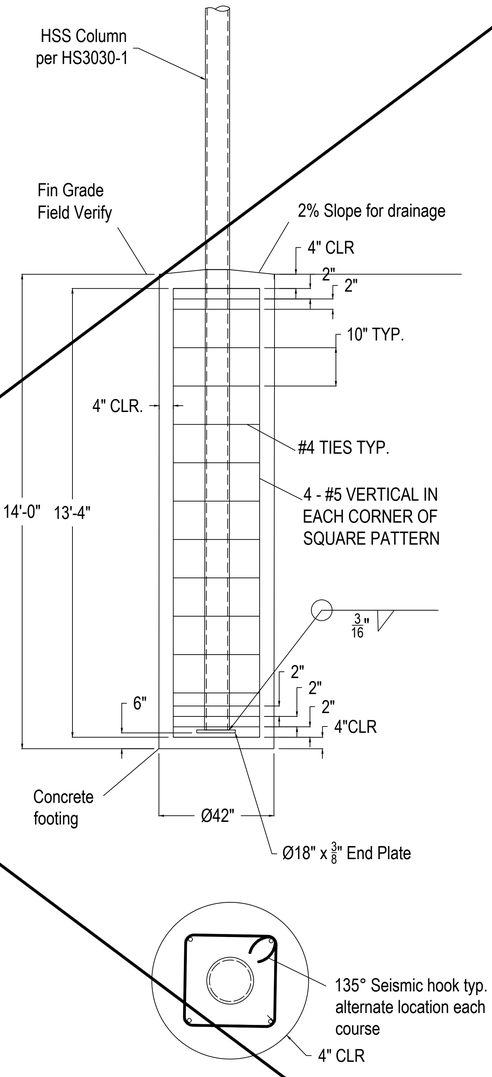
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-123036 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

30'X30'X14' HYPAR SHADE

Project # 22-037	PC-HS3030-2
Drawn By RWE	
Date 12-20-22	

JAMES L. MITCHELL
REGISTERED PROFESSIONAL ENGINEER
S 3084
EXP. 6/30/2025
STRUCTURAL
STATE OF CALIFORNIA
2/16/24

Node No.		Support Forces P_x [kip]	P_y [kip]	P_z [kip]	Support Moments M_x [kipft]	M_y [kipft]	M_z [kipft]
	D LC1 - Self-weight						
1		1.045	1.046	-1.313	-16.75	16.73	0.00
2		-0.591	0.591	-0.967	-8.27	-8.27	0.00
4		0.591	-0.591	-0.966	8.28	8.28	0.00
5		-1.046	-1.045	-1.313	16.74	-16.74	0.00
	Tv LC2 - Prestress						
1		0.604	0.604	-0.070	-9.67	9.67	0.00
2		-0.604	0.604	0.070	-8.46	-8.46	0.00
4		0.604	-0.604	0.070	8.46	8.46	0.00
5		-0.604	-0.604	-0.070	9.67	-9.67	0.00
	L LC3 - Live						
1		5.397	5.402	-1.637	-86.57	86.49	0.00
2		-2.755	2.755	-0.240	-38.59	-38.58	0.00
4		2.756	-2.760	-0.239	38.65	38.59	0.00
5		-5.398	-5.397	-1.637	86.50	-86.50	-0.01
	W LC4 - Wind 1						
1		8.186	8.184	2.146	-130.67	130.70	0.00
2		-13.938	13.925	6.403	-194.01	-194.21	0.01
4		13.937	-13.936	6.403	194.19	194.20	0.00
5		-8.184	-8.172	2.147	130.46	-130.67	0.00
	W LC5 - Wind 2						
1		0.604	0.604	-0.070	-9.67	9.67	0.00
2		-0.604	0.604	0.070	-8.46	-8.46	0.00
4		0.604	-0.604	0.070	8.46	8.46	0.00
5		-0.604	-0.604	-0.070	9.67	-9.67	0.00
	S LC6 - Snow						
1		5.397	5.402	-1.637	-86.57	86.49	0.00
2		-2.755	2.755	-0.240	-38.59	-38.58	0.00
4		2.756	-2.760	-0.239	38.65	38.59	0.00
5		-5.398	-5.397	-1.637	86.50	-86.50	-0.01



Detail C
Embedded Post Option

Scale: Not To Scale

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

rea architect
RONE DWARDS
Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT
RONALD W. EDWARDS
C 25192
STATE OF CALIFORNIA

MANUFACTURER:
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-123088 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

30'X30'X14' HYPAR SHADE

Project # 22-037
Drawn By RWE
Date 12-20-22

PC-HS3030-3

FNAME
REVDATE
USER

6X19/37 Class Galvanized Wire Rope

Size (in)	Approx. Wt per ft (lbs)		Nominal Breaking Load (lbs)			
			IPS		EIPS	
	FC	IWRC	FC	IWRC	FC	IWRC
1/4	0.015	0.116	4,940	7,200	5,430	6,120
5/16	0.164	0.18	7,660	8,240	8,440	9,480
3/8	0.236	0.26	10,980	11,800	12,090	13,600
7/16	0.32	0.35	14,880	16,000	16,380	18,360
☒ 1/2	0.42	0.46	19,260	20,700	21,240	24,000
9/16	0.53	0.59	24,300	26,100	26,820	30,200
5/8	0.66	0.72	30,000	32,200	32,940	37,000
3/4	0.95	1.04	42,800	46,000	47,160	53,000
7/8	1.29	1.42	58,000	62,200	63,720	71,600
1	1.68	1.85	75,200	80,800	82,800	93,000
1-1/8	2.13	2.34	94,600	101,800	104,040	117,000
1-1/4	2.63	2.89	116,200	125,000	127,980	143,800
1-3/8	3.18	3.50	139,800	150,400	153,900	172,800

kulkani MALLEABLE WIRE ROPE CLIPS

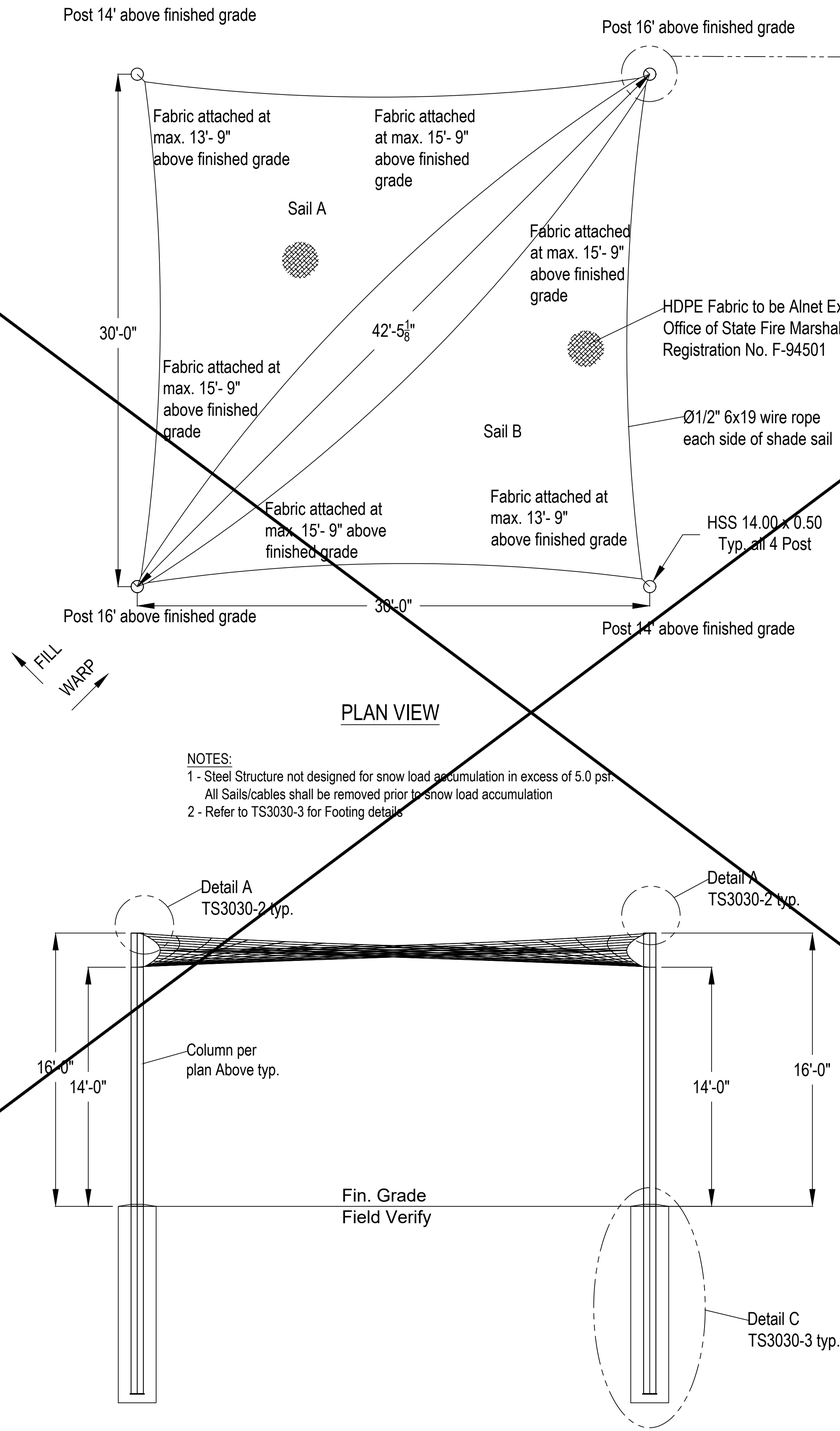


ZINC PLATED, MALLEABLE

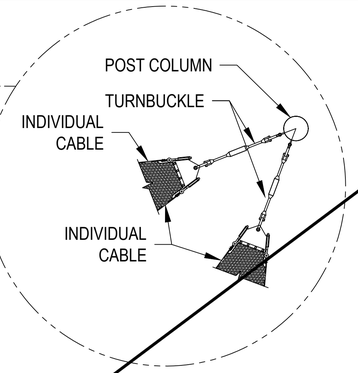
Size in Inches	Min. Clips Required	Wire Rope Turn Back in Inches	Torque in Foot Pounds*	Approx. Wt. in Pounds	Dimensions in Inches						
					A	B	C	D	E	F	G
1/16"**	3	4	2.0	0.030	0.15	0.65	0.45	0.38	0.38	0.45	0.69
1/8"**	3	4.3/4	3.0	0.040	0.18	0.81	0.50	0.50	0.50	0.56	0.94
3/16	3	5.1/2	4.5	0.063	0.25	0.94	0.56	0.56	0.56	0.63	1.06
1/4	3	7	15.0	0.130	0.31	1.19	0.75	0.75	0.69	0.75	1.31
5/16	3	7.3/4	15.0	0.150	0.31	1.31	0.84	0.75	0.75	0.75	1.44
3/8	3	9.1/2	30.0	0.210	0.38	1.63	1.00	0.88	0.84	0.88	1.63
7/16	4	10.1/4	40.0	0.370	0.38	2.00	1.19	1.06	1.00	1.06	1.88
☒ 1/2	4	15.1/4	45.0	0.370	0.44	2.00	1.19	1.06	1.00	1.06	1.88
9/16	4	16	50.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
5/8	4	16	75.0	0.590	0.50	2.31	1.38	1.25	1.25	1.28	2.09
3/4	5	22.1/4	75.0	0.840	0.56	2.56	1.56	1.31	1.44	1.56	2.38
7/8	5	23.1/2	130.0	1.250	0.63	3.06	1.81	1.63	1.75	1.81	2.88
1	6	31	130.0	1.660	0.63	3.44	2.00	1.88	2.06	2.00	3.00
1.1/8	7	39	200.0	2.400	0.75	4.00	2.75	2.00	2.19	2.06	3.38

Meets the performance requirements of Federal Specification FF-C-450, current revision, Type 1, Class 2.**
* Based on clean, unlubricated threads. The table above shows the minimum torque required to reach maximum holding power of wire rope clips.
** NOTE: 1/16" and 1/8" are not covered by Federal Specification FF-C-450, current revision.

Improper use and installation of cast malleable wire rope clips can result in serious injury or death.
NEVER use cast malleable wire rope clips for lifting or suspending ANY load.
Cast malleable wire rope clips are to be used only for non-critical, light duty applications with small applied loads.
For complete installation instructions refer to page 48.

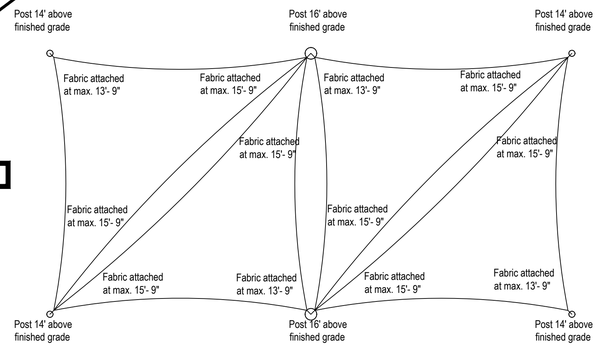


PLAN VIEW

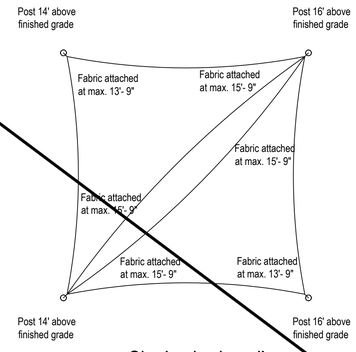


NOTES:
1 - Steel Structure not designed for snow load accumulation in excess of 5.0 psf.
All Sails/cables shall be removed prior to snow load accumulation
2 - Refer to TS3030-3 for Footing details

ELEVATION VIEW



Double shade sails



Single shade sail

Scale: Not To Scale

rea architect RONEDWARDS
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(661) 394-0053
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LICENSED ARCHITECT RONALD E. WARDS C 25192 Exp. 08-31-25 STATE OF CALIFORNIA

MANUFACTURER:
CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-123036 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

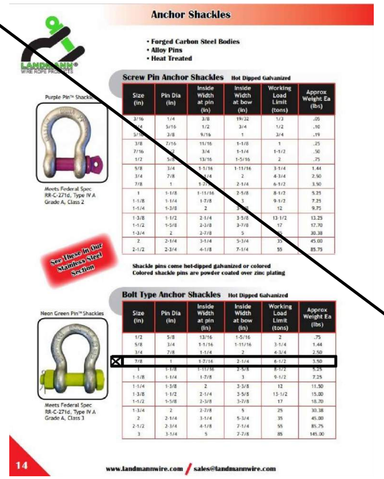
30'X30'X14' TRIANGULAR SHADE

Project # 22-037
Drawn By RWE
Date 12-20-22

PC-TS3030-1

Ronald Wayne Mitchell 2/16/24
LICENSED PROFESSIONAL ENGINEER RONALD WAYNE MITCHELL S 3081 EXP. 6/30/2025 STRUCTURAL STATE OF CALIFORNIA

FNAME
FNAME
REVDATE
USER



Anchor Shackles

- Forged Carbon Steel Bodies
- Allen Pins
- Heat Treated

Screw Pin Anchor Shackles Hot Dipped Galvanized

Size (in)	Pin Dia (in)	Inside Width at pin (in)	Inside Width at bow (in)	Working Load Limit (tons)	Approx Weight Ea (lbs)
3/16	1/4	3/8	19/32	1/2	.05
1/4	5/16	1/2	3/4	1/2	.10
	3/8	9/16	1	3/4	.19
3/8	7/16	11/16	1-1/8	1	.25
7/16	.35	3/4	1-1/4	1-1/2	.30
1/2	1/2	13/16	1-5/16	2	.25
5/8	3/4	1 7/16	1-11/16	3 1/4	1.44
3/4	7/8	1 1/4	2	4 3/4	3.50
7/8	1	1 7/16	2-1/4	6 1/2	3.90
1	1-1/8	1-11/16	2-5/8	8 1/2	5.35
1-1/8	1-1/4	1 7/8	3	9 1/2	7.25
1-1/4	1-3/8	2	3-1/4	12	9.75
1-3/8	1-1/2	2-1/4	3-5/8	13 1/2	13.25
1-1/2	1-5/8	2-3/8	3-7/8	17	17.70
1-3/4	2	2-7/8	5		30.38
2	2-1/4	3-1/4	5-3/4	35	45.00
2-1/2	2-3/4	4-1/8	7-1/4	55	85.75

Meets Federal Spec RR-C-271d, Type IV A, Grade A, Class 2

Shackle pins come bet-dipped galvanized or colored
Colored shackle pins are powder coated over zinc plating

Bolt Type Anchor Shackles Hot Dipped Galvanized

Size (in)	Pin Dia (in)	Inside Width at pin (in)	Inside Width at bow (in)	Working Load Limit (tons)	Approx Weight Ea. (lbs.)
1/2	5/8	13/16	1-5/16	2	.75
5/8	3/4	1 1/16	1-11/16	3 1/4	1.44
3/4	7/8	1 1/4	2	4 3/4	2.50
7/8	1	1 7/16	2-1/4	6 1/2	3.90
1	1-1/8	1 5/8	2-5/8	8 1/2	5.35
1-1/8	1-1/4	1 7/8	3	9 1/2	7.25
1-1/4	1-3/8	2	3-3/8	12	11.50
1-3/8	1-1/2	2-1/4	3-5/8	13 1/2	15.00
1-1/2	1-5/8	2-3/8	3-7/8	17	16.70
1-3/4	2	2-7/8	5	25	30.38
2	2-1/4	3-1/4	5-3/4	35	45.00
2-1/2	2-3/4	4-1/8	7-1/4	55	85.75
3	3-1/4	5	7-7/8	85	145.00

Meets Federal Spec RR-C-271d, Type IV A, Grade A, Class 3

Wire Rope Thimbles

Heavy Duty Thimbles Hot Dipped Galvanized

Rope Diameter	Weight Each (lbs)	Dimensions A	B	C	D
1/4	.07	2.19	1.62	1.50	.88
5/16	.12	2.50	1.88	1.81	1.06
3/8	.22	2.88	2.12	2.12	1.12
7/16	.35	3.25	2.38	2.38	1.25
1/2 - 9/16	.50	3.62	2.75	2.75	1.50
5/8	.76	4.25	3.25	3.12	1.75
3/4	1.58	5.00	3.75	3.81	2.00
7/8 & 1	1.77	5.50	4.25	4.25	2.25
1"	3.53	6.12	4.50	4.75	2.50
1-1/8 - 1-1/4	4.00	7.00	5.12	5.00	2.68
1-1/4 - 1-3/8	8.86	9.08	6.50	6.81	3.50
1-3/8 - 1-1/2	12.94	9.80	6.75	7.12	3.50
1-5/8	17.00	11.25	8.00	8.12	4.00
1-3/4	17.75	12.19	9.00	8.50	4.50
1-7/8 - 2"	27.75	15.12	12.00	10.38	6.00
2-1/4	39.50	17.50	14.00	11.88	7.00
2 1/2	60.50	18.40	16.75	11.78	8.00

Meets Federal Spec. FF-T-276b, Type III

Standard Thimbles Hot Dipped Galvanized & Zinc Plated

Rope Diameter (in)	Weight per 100 pcs (lbs)	Dimensions A	B	C	D
1/8	2.50	1.94	1.31	1.06	.69
3/16	3.50	1.94	1.31	1.06	.69
1/4	3.50	1.94	1.31	1.06	.69
5/16	4.00	2.13	1.50	1.25	.81
3/8	6.70	2.38	1.63	1.47	.94
7/16	11.40	2.47	1.71	1.52	1.03
1/2	12.50	2.75	1.88	1.75	1.13
5/8	34.50	3.50	2.25	2.38	1.38
3/4	47.10	3.75	2.50	2.69	1.63
7/8	84.60	5.50	3.50	3.19	1.88
1	97.50	5.88	4.25	3.75	2.50
1-1/8 - 1-1/4	175.00	9.25	6.50	4.31	2.75

Meets Federal Spec. FF-T-276b, Type II

Turnbuckles

- Drop Forged C1035 Steel
- Heavy Hex Body
- 5:1 Safety Factor

Meets Federal Spec FF T 791b, Type 1, Form 1, Class 7

Jaw & Jaw Turnbuckles Hot Dipped Galvanized

Thread Dia X Take Up	Working Load Limit (lbs)	Weight Each (lbs)	Dimensions (in) A	B Open	C Closed	D	E	F	G Closed
1/4 X 4	300	.38	0.25	12.67	8.97	4.00	.62	.45	1.58
5/16 X 4 1/2	800	.50	0.31	14.01	9.51	4.50	.87	.50	1.98
3/8 X 6	1,200	.80	0.38	17.77	11.27	6.00	.87	.54	2.12
1/2 X 6	2,200	1.51	0.50	20.48	13.48	6.00	1.06	.55	2.75
1/2 X 9	2,200	1.71	0.50	26.48	16.48	9.00	1.06	.55	2.75
1/2 X 12	2,200	2.08	0.50	32.48	19.48	12.00	1.06	.55	2.75
5/8 X 6	3,500	2.35	0.63	22.53	15.28	6.00	1.31	.82	3.50
5/8 X 9	3,500	3.17	0.63	28.53	18.28	9.00	1.31	.82	3.50
5/8 X 12	3,500	3.61	0.63	34.53	21.28	12.00	1.31	.82	3.50
3/4 X 6	5,200	4.00	0.75	24.61	17.11	6.00	1.50	1.03	4.18
3/4 X 9	5,200	4.75	0.75	30.61	20.11	9.00	1.50	1.03	4.18
3/4 X 12	5,200	5.45	0.75	36.61	23.11	12.00	1.50	1.03	4.18
3/4 X 18	5,200	7.00	0.75	48.61	29.11	18.00	1.50	1.03	4.18
7/8 X 12	7,200	8.36	0.88	38.12	24.57	12.00	1.75	1.21	4.85
7/8 X 18	7,200	9.75	0.88	50.12	30.57	18.00	1.75	1.21	4.85
1 X 6	10,000	8.92	1.00	29.89	21.89	6.00	2.06	1.39	5.53
1 X 12	10,000	11.20	1.00	40.89	26.89	12.00	2.06	1.39	5.53
1 X 18	10,000	13.30	1.00	52.89	32.89	18.00	2.06	1.39	5.53
1 X 24	10,000	17.00	1.00	64.89	38.89	24.00	2.06	1.39	5.53
1-1/4 X 12	15,200	19.42	1.25	44.55	33.05	12.00	2.81	1.86	7.21
1-1/4 X 18	15,200	24.16	1.25	56.05	36.05	18.00	2.81	1.86	7.21
1-1/4 X 24	15,200	28.50	1.25	68.55	42.05	24.00	2.81	1.86	7.21
1-1/2 X 12	21,400	26.99	1.50	47.25	33.25	12.00	2.81	2.25	7.88
1-1/2 X 18	21,400	35.00	1.50	59.25	38.25	18.00	2.81	2.25	7.88
1-1/2 X 24	21,400	39.18	1.50	71.25	44.25	24.00	2.81	2.25	7.88
1-1/4 X 9	28,000	53.75	1.75	39.78	41.78	9.00	3.38	2.60	9.40
1-1/4 X 24	28,000	60.68	1.75	71.78	47.78	24.00	3.38	2.60	9.40
2 X 24	60,000	85.00	2.00	77.95	53.95	24.00	3.69	2.62	11.80
2-1/2 X 24	60,000	150.00	2.50	82.40	58.40	24.00	4.44	3.06	13.56
2-1/4 X 24	75,000	130.00	2.75	85.50	61.50	24.00	4.19	3.68	15.22

Eye Bolts & Eye Nuts

Regular Nut Eye Bolts Drop Forged, Hot Dipped Galvanized

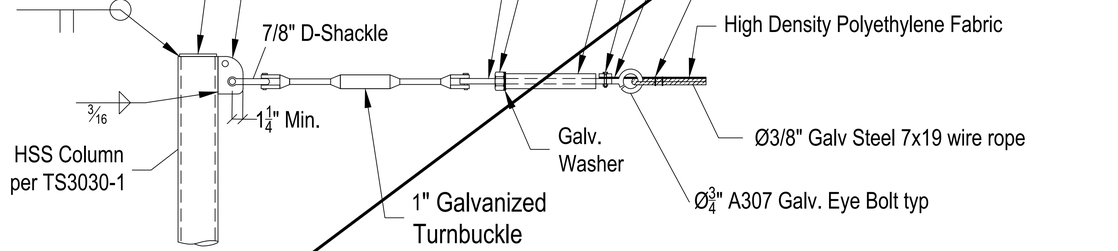
Shank Diameter X Shank Length (in)	Thread Length (in)	Eye Dimensions (in) I.D.	O.D.	Working Load Limit (lbs)	Approx Weight Per 100 (lbs)
1/4 X 2	1.50	.50	1.50	400	6.90
1/4 X 4	2.50	.50	1.00	400	11.50
5/16 X 2-1/4	1.50	.62	1.25	1,200	18.75
5/16 X 4 X 1/4	2.50	.62	1.25	1,200	25.00
3/8 X 2 1/2	1.50	.75	1.50	1,550	24.33
3/8 X 4 X 1/2	2.50	.75	1.50	1,550	37.50
3/8 X 6	2.50	.75	1.50	1,550	43.75
1/2 X 3-1/4	1.50	1.00	2.00	2,600	50.00
1/2 X 6	3.00	1.00	2.00	2,600	62.50
1/2 X 8	3.00	1.00	2.00	2,600	75.00
1/2 X 10	3.00	1.00	2.00	2,600	88.00
1/2 X 12	3.00	1.00	2.00	2,600	100.00
5/8 X 4	2.00	1.25	2.50	5,200	101.25
5/8 X 6	3.00	1.25	2.50	5,200	120.00
5/8 X 8	3.00	1.25	2.50	5,200	131.00
5/8 X 10	3.50	1.25	2.50	5,200	162.50
5/8 X 12	4.00	1.25	2.50	5,200	175.00
3/4 X 4 X 1/2	2.00	1.50	3.00	7,200	168.60
3/4 X 6	4.00	1.50	3.00	7,200	184.50
3/4 X 10	3.00	1.50	3.00	7,200	237.50
3/4 X 12	4.00	1.50	3.00	7,200	254.54
3/4 X 15	5.00	1.50	3.00	7,200	300.00
7/8 X 5	2.50	1.75	3.50	10,600	277.00
7/8 X 8	4.00	1.75	3.50	10,600	325.00
7/8 X 12	4.00	1.75	3.50	10,600	400.00
1 X 6	3.00	2.00	4.00	13,300	425.00
1 X 9	4.00	2.00	4.00	13,300	492.00
1 X 12	4.00	2.00	4.00	13,300	550.00
1 X 18	7.00	2.00	4.00	13,300	650.00

Ultimate Load is 5 Times the Working Load Limit. Working Load Limit applies to straight, inline pulls only.

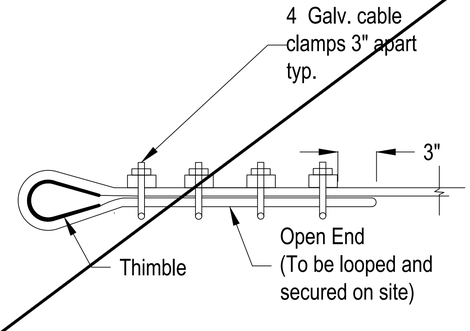
Eye Nuts Drop Forged, HD Galvanized

Trade Size	Tap Size	Working Load Limit (lbs)	Weight Each (lbs)	Dimensions (in) A	B	C	D
1	1/4 - 20	520	.09	1.25	.75	1.00	.75
2	3/8 - 16	1,250	.17	1.62	1.00	1.20	.91
3A	1/2 - 13	2,250	.28	2.00	1.25	1.44	.98
4	5/8 - 11	3,600	.60	2.50	1.50	1.92	.90
5	3/4 - 10	5,200	1.00	3.00	1.75	2.28	.63
6	7/8 - 9	7,200	1.65	3.50	2.00	2.50	.75
7	1 - 8	10,000	2.69	4.00	2.25	2.92	.78
8	1-1/4 - 7	15,500	3.87	4.50	2.50	3.25	.94
9	1-3/8 - 6	18,500	5.00	5.00	2.75	4.06	1.13

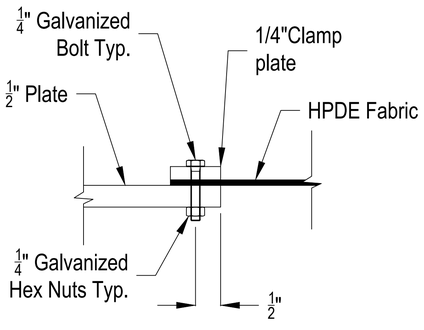
Ultimate Load is 5 Times the Working Load Limit. Working Load Limit applies to straight, inline pulls only.



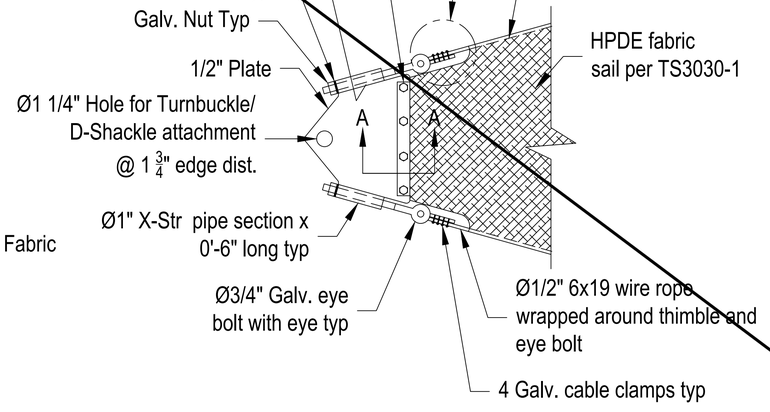
Detail A Side view



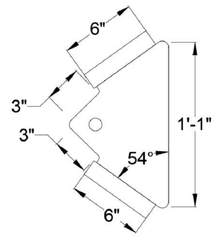
Cable and Clamp Assembly Detail



Section A-A



Detail B
Plate Assembly Detail



Corner plate dimension

Scale: Not To Scale

FNAME
REVDATE
USER

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

REGISTERED PROFESSIONAL ENGINEER
JAMES L. MITCHELL
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EXP. 6/30/2025
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2/16/24

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LICENSED ARCHITECT
RONALD W. EDWARDS
C 25192
STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

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PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required
PC APPROVAL STAMP:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-123036 PC
REVIEWED FOR
SS ☑ FLS ☐ ACS ☑ CG ☐
DATE: 04/12/2024

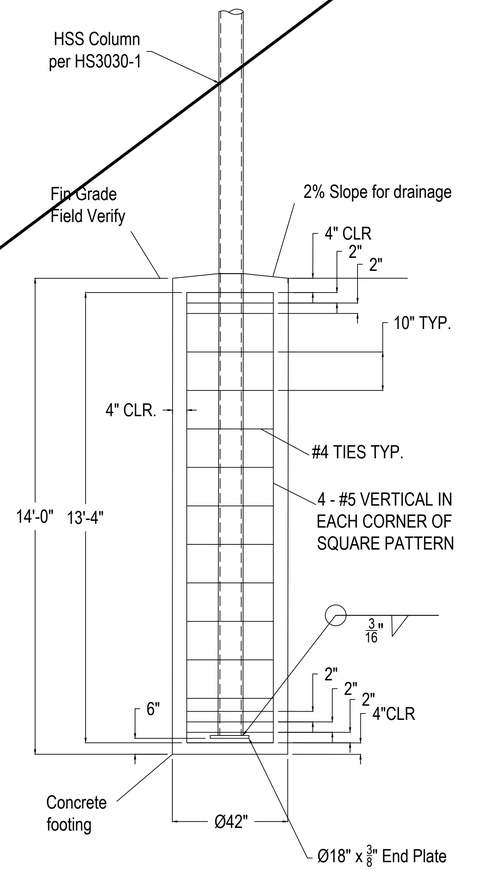
30'X30'X14' TRIANGULAR SHADE

Project #	
22-037	PC-TS3030-2
Drawn By	
RWE	
Date	
12-20-22	

JAMES L. MITCHELL — REGISTERED PROFESSIONAL ENGINEER — S 3081 EXP. 6/30/2025 — STRUCTURAL — STATE OF CALIFORNIA

2/16/24

Node No.		Support Forces P_x [kip]	P_y [kip]	P_z [kip]	Support Moments M_x [kipft]	M_y [kipft]	M_z [kipft]
	D	LC1 - Self-weight					
1		1.020	1.018	-1.232	-15.78	14.80	0.00
2		-0.503	0.502	-1.007	-7.03	-7.05	0.00
4		0.504	-0.502	-1.007	7.03	7.05	0.00
5		-1.020	-1.018	-1.232	15.79	-14.81	0.00
	Tv	LC2 - Prestress					
1		0.776	0.775	-0.026	-12.00	11.25	0.00
2		-0.387	0.386	0.026	-5.40	-5.42	0.00
4		0.387	-0.386	0.026	5.40	5.42	0.00
5		-0.776	-0.775	-0.026	12.01	-11.25	0.00
	L	LC3 - Live					
1		4.090	4.069	-0.699	-63.06	59.39	0.00
2		-2.000	1.979	-0.297	-27.71	-28.00	0.00
4		2.001	-1.979	-0.297	27.72	28.01	0.00
5		-4.091	-4.069	-0.699	63.05	-59.39	0.00
	W	LC4 - Wind 1					
1		10.571	10.314	2.206	-159.63	152.81	0.00
2		-5.475	5.219	2.384	-72.94	-76.52	0.00
4		5.475	-5.219	2.387	72.93	76.51	0.00
5		-10.570	-10.315	2.207	159.64	-152.80	0.00
	W	LC5 - Wind 2					
1		0.776	0.775	-0.026	-12.01	11.25	0.00
2		-0.387	0.386	0.026	-5.40	-5.42	0.00
4		0.387	-0.386	0.026	5.40	5.42	0.00
5		-0.776	-0.775	-0.026	12.01	-11.25	0.00
	S	LC6 - Snow					
1		0.776	0.775	-0.026	-12.01	11.25	0.00
2		-0.387	0.386	0.026	-5.40	-5.42	0.00
4		0.387	-0.386	0.026	5.40	5.42	0.00
5		-0.776	-0.775	-0.026	12.01	-11.25	0.00



Detail C
Embedded Post Option

Scale: Not To Scale

FNAME

REVDATE

USER

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123774 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 09/22/26

rea architect
RONEDWARDS

Architecture
7400 Pedrick Court
Bakersfield, CA 93313
(661) 394-0053
ron@rearchitect.net

LICENSED ARCHITECT — RONALD W. EDWARDS — C 25102 — Exp. 08-31-27 — STATE OF CALIFORNIA

MANUFACTURER:

CUSTOM CANOPIES INC.
11815 BURKE STREET
SANTA FE SPRINGS, CA 90670

IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
PRE-CHECK PC DOCUMENT
CODE: 2022 CBC
A separate application for construction is required

PC APPROVAL STAMP:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-122036 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 04/12/2024

30'X30'X14' TRIANGULAR SHADE

Project # 22-037
Drawn By RWE
Date 12-20-22

PC-TS3030-3