VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE, NEWMAN CA 95360

NEWMAN/CROWS LANDING UNIFIED SCHOOL DISTRICT

SHEET COUNT: 125

ABV	ABOVE
AFF	ABOVE FINISH FLOOR
ACC	ACCESSIBLE
ACOUS	ACOUSTICAL
A/C	AIR CONDITIONING
ALT	ALTERNATE
ALUM	ALUMINUM
AB	ANCHOR BOLT
ANOD	ANODIZED
ARCH	ARCHITECT(URAL)
AC	ASPHALT CONCRETE
AUTO	AUTOMATIC
BM	BEAM
BET	BETWEEN
BLK	BLOCK
BLKG	BLOCKING
BD	BOARD
BOT	BOTTOM
BOB	BOTTOM OF BEAM
BLDG	BUILDING
CIP	CAST IN PLACE
CB	CATCH BASIN
CLKG	CAULKING
CLG	CEILING
CJ	CEILING JOIST / CONTROL JOINT
CEM	CEMENT
CL	CHAIN LINK
CO	CLEAN OUT
CLR	CLEAR(ENCE)
COL	COLUMN
COMB	COMBINATION
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CONT	CONTINUOUS
CTSK	COUNTER SINK
DP	DEEP
D	DEEP (DEPTH)
DEPT	DEPARTMENT
DTL	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DR	DOOR
DBL	DOUBLE
DF	DOUGLAS FIR
DN	DOWN
DS	DOWN SPOUT
DWG	DRAWING
DF	DRINKING FOUNTAIN
EA	EACH
EW	EACH WAY
E	EAST
EWC	ELECT. WATER COOLER
ELEC	ELECTRIC(AL)
ELEV	ELEVATION
EMER	EMERGENCY
ENCL	ENCLOSURE
EQ	EQUAL
EXH	EXHAUST
	EXISTING
EJ	EXPANSION JOINT
EXP	EXPOSED/EXPANSION
EXT	EXTERIOR
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD/STRUCTURE
FIN	FINISH
FF	FINISH FLOOR
FA	FIRE ALARM
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FLASH	FLASHING
FLR	FLOOR
FT	FOOT / FEET
FTG	FOOTING
FDN	FOUNDATION
GA	GAGE / GAUGE
GI	GALVANIZED IRON
GL	GLASS / GLAZING
GALV	GLAVANIZED
GLB	GLUE LAMINATED BEAM
GB	GRAB BAR
GND	GROUND
GYP	GYPSUM
GYPBD	GYPSUM BOARD
HDW	HARDWARE
HDR	HEADER
HVAC	HEATING/VENTILATING/AIR CONDITION
HT	HEIGHT
H	HIGH
HC	HOLLOW CORE
HM	HOLLOW METAL
HSS	HOLLOW STRUCTURAL SECTION
HORIZ	HORIZONTAL
HB	HOSE BIB
HR	HOUR
IN	INCH
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
LAB	LABORATORY
LAM	LAMINATE(D)
LAV	LAVATORY
LT	LIGHT
LTWT	LIGHT WEIGHT
L	LONG/LENGTH
LV	LOUVER VENT
MB	MACHINE BOLT
MH	MAN HOLE
	MANUFACTURER
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
NEW	NEW
NRC	NOISE REDUCTION COEFF.
NOM	NOMINAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO/#	NUMBER
OC	ON CENTER
OPNG	OPENING
OD	OUTSIDE DIAMETER
O/	OVER
OFOI	OWNER FURNISHED OWNER INSTALLED
OFCI	OWNER FURSHINED CONTRACTOR INSTALLED
PR	PAIR
PTD	PAPER TOWEL DISPENSER
d	PENNY
PERF	PERFORATED
	PLASTER
PLYWD	PLYWOOD
PT	POINT
POC	POINT OF CONNECTION
PVC	POLYVINYL CHLORIDE
PSI	POUNDS PER SQ. INCH
PSF	POUNDS PER SQ.FT.
PREFAB	PREFABRICATED
P.T.	PRESSURE TREATED
PTDF	PRESSURE TREATED DOUG. FIR
PROJ	PROJECT
P.L.	PROPERTY LINE
RAD	RADIUS
REF	REFERENCE
REFL	REFLECTED
REFR	REFRIDGERATOR
REINF	REINFORCE(ING)
REQ	REQUIRED
RA	RETURN AIR
REV	REVISION(S)/REVISED
ROW	RIGHT OF WAY
R	RISER/RADIUS
RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
RB	RUBBER BASE
SECT	SECTION
SHTG	SHEATHING
SHT	SHEET
SM	SHEET METAL
SIM	SIMILAR
SD	SOAP DISPENSER
SC	SOLID CORE
STC	SOUND TRANSMISSION COEFF.
S	SOUTH
SPEC	SPECIFICATION
SQ	SQUARE
SF	SQUARE FOOT
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE
S4S	SURFACE FOUR SIDES
SUSP	SUSPENDED
SAT	SUSPENDED ACOUSTICAL TILE
SYM	SYMBOL/SYMMETRICAL
TB	TACKBOARD
TEL	TELEPHONE
TV	TELEVISION
THK	THICK
THRES	THRESHOLD
T&G	TONGUE & GROOVE
TOB	TOP OF BEAM
TOC	TOP OF CURB/CONCRETE
TOP	TOP OF PLATE/PARAPET/PAVEMENT
TOS	TOP OF SHEATHING STEEL/SLAB
TOW	TOP OF WALK/WALL
T	TREAD
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
WSTC	WAINSCOT
WC	WATER CLOSET
WH	WATER HEATER
WP	WATER PROOFING
WR	WATER RESISTANCE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W	WEST/WIDTH/WIDE
WDW	WINDOW
W/	WITH
W/O	WITHOUT
WD	WOOD
WWM	WOVEN WIRE MESH

ABBREVIATIONS

GENERAL NOTES	
01.	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 TITLE 24, 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 BEFORE PROCEEDING WITH THE REPAIR WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR)
02.	CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE OWNER, ARCHITECT, AND DSA, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
03.	THE LOCATION AND STORAGE OF CONSTRUCTION MATERIALS AND THE EFFECTS ON EXISTING OCCUPIED BUILDINGS SHALL BE APPROVED BY THE CITY OF NEWMAN FIRE DEPARTMENT.
04.	TEMPORARY TOILET FACILITIES SHALL BE PROVIDED PER THE PROJECT MANUAL UNDER TEMPORARY FACILITIES.
05.	ALL PENETRATIONS IN FIRE RATED ASSEMBLIES SHALL BE PROTECTED IN ACCORDANCE WITH C.B.C. CHAPTER 7.
06.	TESTING OF MATERIALS SHALL BE CONDUCTED BY A TESTING LAB SELECTED BY THE OWNER & APPROVED BY THE ARCHITECT. THE OWNER SHALL PAY FOR TESTING OF MATERIALS IN ACCORDANCE WITH SECTION 01410.
07.	A "DSA CERTIFIED" PROJECT INSPECTOR (CLASS 1) EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE ARCHITECT AND DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR
08.	A COPY OF TITLE 24 PART ONE AND TWO SHALL BE KEPT AVAILABLE IN THE FIELD BY THE INSPECTOR AND THE CONTRACTOR DURING CONSTRUCTION.
09.	ALL ITEMS ARE TO BE CONSIDERED NEW UNLESS IDENTIFIED AS (E) OR EXISTING
10.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING AN UNDERGROUND UTILITY LOCATING SERVICE AND WILL BE RESPONSIBLE FOR REPAIRS TO ANY AND ALL UNDERGROUND UTILITIES DAMAGED IN THE TRENCHING AND/OR HORIZONTAL BORING AT THE SITE THE FIELD BY THE INSPECTOR
11.	IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE TO BECOME FAMILIAR WITH THE PROJECT AREA AND SITE CONDITIONS
12.	THE CONTRACTOR SHALL ADVISE THE OWNER AND ARCHITECT OF THE SCHEDULE AND COORDINATE WORK AS SO TO HAVE THE LEAST POSSIBLE IMPACT ON THE OWNER'S OPERATIONS
13.	EXISTING IMPROVEMENTS AND UTILITIES DAMAGED DURING THE COURSE OF THE WORK SHALL BE PROMPTLY REPAIRED. EXISTING IMPROVEMENTS AND UTILITIES DAMAGED, FOR WHICH LOCATIONS WERE UNKNOWN, SHALL BE IMMEDIATELY BROUGHT TO THE ARCHITECT'S ATTENTION AND PROMPTLY REPAIRED AT HIS DIRECTION. THE WORK REQUIRED TO REPAIR DAMAGED EXISTING WILL BE REVIEWED AND TAKEN UNDER CONSIDERATION AS EXTRA WORK
14.	THE CONTRACTOR WILL VERIFY EXACT CONDITIONS AND DIMENSIONS IN THE FIELD
15.	ADEQUATELY PROTECT ALL PERSONNEL AND THE PUBLIC FROM HARM AND ACCIDENT DURING WORK OF THIS PROJECT, BY THE ERECTION OF PROPER BARRICADES, SIGNAGE AND LIGHTING AS MAY BE NECESSARY. ADEQUATELY PROTECT ALL EXISTING BUILDINGS AND SURFACES ADJACENT TO THE WORK OF THIS PROJECT FROM DAMAGE
16.	NO INTERFERENCE OF THE USE OF FIRE LANES OR PUBLIC EGRESS AT ANY TIME SHALL BE ALLOWED UNLESS OTHERWISE AUTHORIZED IN THESE DOCUMENTS OR IN WRITING
17.	ALL RUBBISH AND DEBRIS SHALL BE LEGALLY DISPOSED OF OFF THE SITE BY THE CONTRACTOR THE CONTRACTOR SHALL MAINTAIN THE PREMISES FREE OF ACCUMULATED WASTE AND MATERIALS CAUSED BY CONTRACTORS, EMPLOYEES OR WORK, OR THE EMPLOYEES OR WORK OF THE SUBCONTRACTORS
18.	NO MATERIAL OR EQUIPMENT SHALL BE LEFT ON THE PROJECT SITE OVERNIGHT UNSECURED.
19.	IN ACCORDANCE WITH THE GENERAL CONDITIONS OF THE CONTRACT, A FULL-TIME SUPERINTENDENT SHALL BE EMPLOYED BY THE CONTRACTOR AND SHALL BE PRESENT AT THE JOB SITE WHILE WORK IS BEING PERFORMED
20.	THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR EXISTING CONCRETE WALKS, LANDSCAPING, IRRIGATION SYSTEMS, ETC. WHICH MAY BE DAMAGED BY THE WORK OF THIS PROJECT, IF DAMAGE OCCURS, CONTRACTOR MUST REPAIR
21.	A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
22.	GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

GENERAL DEMOLITION NOTES	
01.	THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CORRECTION / CLARIFICATION PRIOR TO EXECUTION OF THE WORK.
02.	DETAILING, MATERIALS & FINISHES ARE TYPICAL FOR ALL SIMILAR CONDITIONS.
03.	THE INTENT OF THE DEMOLITION PLANS IS TO DESCRIBE THE GENERAL SCOPE OF THE DEMOLITION WORK BUT DOES NOT NECESSARILY DEPICT ALL ITEMS / CONDITIONS REQUIRED TO COMPLETE THE RELEVANT WORK AS INDICATED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR AND ANY RELEVANT SUB-CONTRACTOR SHALL PERFORM A THOROUGH SITE INVESTIGATION PRIOR TO BIDDING AND/OR COMMENCING WITH THE WORK.
04.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING ALL RELATED FEES FOR A DEMOLITION PERMIT FROM SAN JUAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT AND IS TO COMPLY WITH ALL SJVAPCD REQUIREMENTS INCLUDING NOTIFICATIONS.

SCOPE OF WORK

SHEETS - GENERAL

CS	COVER SHEET
CA.1	CALGREEN SHADE
CA.2	CODE ANALYSIS
FGA	FIRE, GATES AND ACCESS PLAN
PH-1	PHASING PLAN - PHASE 1
PH-2	PHASING PLAN - PHASE 2
CG.1	CALGREEN NON-RESIDENTIAL MANDATORY MEASURES
CG.2	CALGREEN NON-RESIDENTIAL MANDATORY MEASURES
CG.3	CALGREEN NON-RESIDENTIAL MANDATORY MEASURES

SHEETS - CIVIL

C1.0	CIVIL SPECIFICATIONS
C2.0	EXISTING TOPOGRAPHY
C3.0	DEMOLITION PLAN
C4.0	HORIZONTAL CONTROL PLAN
C5.0	GRADING AND DRAINAGE PLAN
C6.0	UTILITY PLAN
C7.0	CONSTRUCTION DETAILS
C7.1	CONSTRUCTION DETAILS
C7.2	CONSTRUCTION DETAILS
C8.0	EROSION AND SEDIMENT CONTROL PLAN
C8.1	EROSION AND SEDIMENT CONTROL DETAILS

SHEETS - LANDSCAPE

L 0.1	LANDSCAPE SCHEDULES AND NOTES
L 1.1	IRRIGATION AND LANDSCAPE DEMOLITION PLAN
L 1.2	IRRIGATION PLAN
L 2.1	PLANTING PLAN
L 3.1	IRRIGATION DETAILS
L 4.1	PLANTING DETAILS
L 5.1	WELO NOTES AND CALCULATIONS

SHEETS - ARCHITECTURAL

SITE	
AS-1.1	SITE PLAN - DEMOLITION
AS-1.2	SITE PLAN- NEW CONSTRUCTION
AS-1.3	ENLARGED SITE PLAN
AS-1.4	ENLARGED SITE PLAN- PLAYCOURTS
AS-1.5	SITE PLAN - CONCRETE & FENCE DETAILS
AS-1.6	SITE DETAILS - PLAY COURTS
AS-1.7	SITE DETAIL - PORTABLE DETAILS
ARCHITECTURAL	
A1-1.1	FLOOR PLAN
A1-1.2	ENLARGED FLOOR PLAN & ELEV. - TYP. CLASSROOM
A1-1.3	ENLARGED FLOOR PLAN & ELEV. - ART CLASSROOM
A1-2.1	REFLECTED CEILING PLAN
A1-3.1	ROOF PLAN
A1-3.2	CANOPY PLANS / DETAILS
A1-3.3	SOLAR SUPPORT DETAILS
A1-4.1	BUILDING EXTERIOR ELEVATIONS
A1-5.1	BUILDING SECTIONS
A1-6.1	INTERIOR ELEVATIONS
A1-7.1	WALL SECTIONS
A1-7.2	WALL SECTIONS
A1- 8.1	SCHEDULES
A1- 9.1	FINISH PLAN
DETAILS	
AD.1	DETAILS - TYPICAL ROOF DETAILS
AD.2	DETAIL - TYPICAL EXTERIOR WALL DETAILS
AD.3	DETAILS - TYP. EXT. WALL AND CANOPY DETAILS

SHEETS - ARCHITECTURAL

AD.4	DETAIL - TYPICAL INTERIOR WALL DETAILS
AD.5	DETAILS - INTERIOR WALL HEAD AND BASE DETAILS
AD.6	DETAILS - EXT. / INT. H.M. DOORS / STOREFRONT DETAILS
AD.7	DETAILS - RESTROOMS, SIGNAGE & CASEWORK
AD.8	DETAILS - SUSPENDED CEILING
AD.9	DETAILS - SUSPENDED CEILING
AD.10	DETAILS - SUSPENDED CEILING

SHEETS - STRUCTURAL

S0.1	STRUCTURAL NOTES
S0.2	TYPICAL CONCRETE DETAILS
S0.3	TYPICAL WOOD DETAILS
S0.4	ADDITIONAL TYPICAL DETAILS
S0.5	NAILING SCHEDULE
S1.1	FOUNDATION PLAN
S1.2	ROOF FRAMING PLAN
SD.1	FOOTING DETAILS
SD.2	FRAMING DETAILS
SD.3	FRAMING DETAILS
SD.4	CANOPY FRAMING DETAILS

SHEETS - MECHANICAL

M0-0.1	MECHANICAL - LEGEND & NOTES
M0-0.2	MECHANICAL - SCHEDULES
M0-0.3	MECHANICAL - GREEN BUILDING CODE NOTES
M0-0.4	MECHANICAL - DETAILS
M0-0.5	MECHANICAL - DETAILS
M1-1.1	MECHANICAL - FLOOR PLAN
M1-3.1	MECHANICAL - ROOF PLAN

SHEETS - PLUMBING

P0-0.1	PLUMBING - LEGEND, NOTES AND SCHEDULES
P0-0.2	PLUMBING - GREEN BUILDING CODE NOTES
P0-0.3	PLUMBING - DETAILS
P0-0.4	PLUMBING - DETAILS
P1-1.0	PLUMBING - GAS PIPING SITE PLAN
P1-1.1	PLUMBING - FLOOR PLAN
P1-1.2	PLUMBING - ENLARGED FLOOR PLAN
P1-3.1	PLUMBING - ROOF PLAN

SHEETS - ENERGY COMPLIANCE

ET24A	COMPLIANCE
ET24B	COMPLIANCE
T24.1	ENERGY COMPLIANCE
T24.2	ENERGY COMPLIANCE
T24.3	ENERGY COMPLIANCE

SHEETS - ELECTRICAL

E0-1.1	GENERAL NOTES
E0-1.2	ELECTRICAL INFORMATION
E0-1.3	LIGHTING SCHEDULE AND DETAILS
E0-2.1	COMMOM ELECTRICAL DETAILS
E0-2.3	COMMON ELECTRICAL DETAILS
E0-2.5	ONE LINE DIAGRAMS
E0-2.6	SOLAR COMPONET CUT SHEETS
E0-3.1	FIRE ALARM DETAILS
E0-3.2	FIRE ALARM CALCULATIONS
SITEWORK	
ES-1.1	EXISTING SITE CONDITIONS PLAN
ES-1.2	PORTABLE CLASSROOM ELECTRICAL PLAN
ES-2.0	ELECTRICAL SITE PLANS
E1-1.1	BUILDING F - LIGHTING PLAN
E1-2.1	BUILDING F - ELECTRICAL PLAN
E1-2.2	BUILDING F -ELECTRICAL ROOF PLAN
E1-3.1	BUILDING F - SIGNAL PLAN
E1-4.1	BUILDING F - FIRE ALARM PLAN

SHEETS - FIRE SPRINKLER

FP1	FIRE PROTECTION SITE PLAN & PROJECT INFORMATION
FP2	BUILDING F - OVERHEAD PIPING PLAN
FP3	BUILDING F - REFLECED CEILING PLAN
FP4	BUILDING F - BUILDING SECTION & DETAILS

SHEETS - RELOC. BLDG. P5, DSA# 47475

A-1	COVER SHEET
A-2	FLOOR PLAN - ELEVATIONS
A-3	SECTION TO FLR. GIRDER, SECTION @ MODULE LINE, SECTION II LFR. GIRDDER, ANCHOR CLIP DETAIL, PLAN SECTION @ CORNER COLUMN, & PLAN SECTION @ MODULE LINE CCOLUMN
A-4	ROOF PLAN @ CANTELEVERS, WINDOW AND DOOR DETAILS
S-1	FOUNDATION PLAN, PIER ELEVATIONS AND SECTIONS
S-2	ROOF FRAMING PLAN, REFLECTED CEILING PLAN, FLOOR FRAMING PLAN, STEEL FRAME ELEVATIONS & BRCING DIAGRAM
S-3	FLOOR BEAM TO COLLUMN CONN., FLOOR GIRDER TO BEAM,. FLR. BEAM TO FLANGE DETAIL
S-4	ROOF BEAM DETAILS, ROOF PURLIN DETAILS, ROOF BEAM SECTION @ PURLIN, TYPICAL ROOF BEAM, ROOF DECK CONNECTIN, TYP. ROOF PURLIN, TYO. T-GRID
S-5	HVAC MOUNTING BRACKET SECTION, WALL FRAMING DETAILS, WALL FRAMINF @ HVAC UNIT, WALL FRAMING @ WINDOW, HEADER DETAIL, HVAC HEADER OR WINDOW SILL DETAIL, PLYWOOD SPLICE @ JOINT
E-1	ELECTRICAL PLAN, LIGHT FIXTURE SUPPORT, EXTERIOR LIGHT, PANEL DIAGRAM & GROUNDING DETAILS

SHEETS - RAMP PC DRAWINGS

1	COVER SHEET
2	ACCESSIBLE RAMP ELEVATIONS & DETAILS
3	ACCESSIBLE RAMP DETAILS & NOTES
4	DETAILS AND NOTES
8	ACCESSIBLE RAMP ELEVATIONS & PLAN VIEWS

PROJECT TEAM

CLIENT
NEWMAN - CROWS LANDING UNIFIED SCHOOL DISTRICT
SHAWN POSEY, SUPERINTENDENT
1223 MAIN STREET
NEWMAN, CA 95360
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DBA: TPH ARCHITECTS
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LANDSCAPE ARCHITECT:
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SAM HARNED
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ELECTRICAL ENGINEER:
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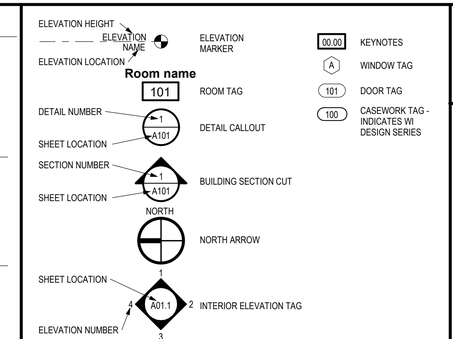
FAX: (209) 478 2169

SYMBOLS LEGEND



ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND STANDARDS	
APPLICABLE CODES - EFFECTIVE JANUARY 1, 2023	
TITLE 19 CCR	PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
TITLE 24 CCR	PART 1 - 2025 BUILDING STANDARDS ADMINISTRATIVE CODE
TITLE 24 CCR	PART 2 - 2022 CALIFORNIA BUILDING CODE, VOL. 1 & 2 (CBC) (2021 IBC, AS AMENDED BY CA)
TITLE 24 CCR	PART 3 - 2022 CALIFORNIA ELECTRICAL CODE (CEC) (2020 NEC, AS AMENDED BY CA)
TITLE 24 CCR	PART 4 - 2022 CALIFORNIA MECHANICAL CODE (CMC) (2021 IAPMO UMC, AS AMENDED BY CA)
TITLE 24 CCR	PART 5 - 2022 CALIFORNIA PLUMBING CODE (CPC) (2021 IAPMO UPC, AS AMENDED BY CA)
TITLE 24 CCR	PART 6 - 2022 CALIFORNIA ENERGY CODE
TITLE 24 CCR	PART 9 - 2022 CALIFORNIA FIRE CODE (CFC) (2021 IFC, AS AMENDED BY CA)
TITLE 24 CCR	PART 11 - 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
TITLE 24 CCR	PART 12 - 2022 REFERENCED STANDARDS

APPLICABLE STANDARDS - (PARTIAL LIST, SEE CBC CH.35 AND CFC CH. 45)	
2022 NFPA 13	INSTALLATION OF SPRINKLER SYSTEMS. (CA AMENDED)
2019 NFPA 14	INSTALLATION STANDPIPE AND HOSE SYSTEMS
2024 NFPA 17A	WET CHEMICAL EXTINGUISHING SYSTEMS
2022 NFPA 72	NATIONAL FIRE ALARM CODE (CA AMENDED) (SEE UL STANDARD 1971 FOR *"VISUAL DEVICES"*)
2023 UL 464	AUDIBLE SIGNALING DEVICES
2023 UL 521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS
CFC CH 33	FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

APPLICABLE CODES

THE CALIFORNIA ENERGY CODE SECION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTGALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETETION. 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 PERFORMED 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 OR THE OWNER'S AGENT.
A LISTING OF CERTIFIED ATT CAN BE FOUND AT:
https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider/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.

ACCEPTANCE TESTING

GENERAL NOTES

FOUNDATION / SUBGRADE:

FOUNDATION PREPARATION DESIGN IS BASED ON A SOILS REPORT PREPARED BY RANEY GEOTECHNICAL INC. FILE NO. 6389-001.00P , DATED OCTOBER 15, 2025

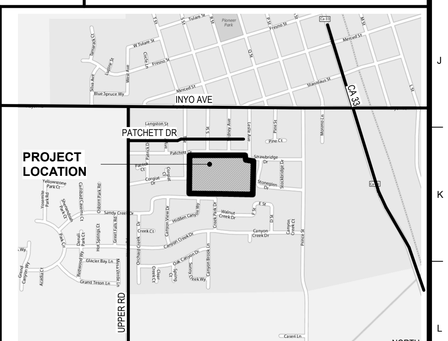
CONTRACTOR SHALL OBTAIN A COPY OF THIS REPORT FROM THE SOILS ENGINEER PRIOR TO CONSTRUCTION. THE SOILS REPORT SHALL BE CONSIDERED A PART OF THE CONSTRUCTION DOCUMENTS AND THE RECOMMENDATIONS SHALL BE FOLLOWED DURING CONSTRUCTION, INCLUDING MOISTURE CONDITIONING, ENGINEERED FILL, AND SOIL IMPROVEMENTS WITH GEOGRID AT NEW BUILDINGS

SOILS REPORT

THE SCOPE OF WORK FOR THIS PROJECT INCLUDES BUT IS NOT LIMITED TO:

- CONSTRUCTION (1) CLASS ROOM BUILDING - "F"
- REMOVAL OF (8) RELOCATABLE BUILDINGS
- RELOCATION OF (1) RELOCATABLE - "P5"
- NEW RAMP AT RELOCATABLE - "P5"
- ASSOCIATED SITE WORK AND LANDSCAPING

DEFERRED APPROVAL
NONE



VICINITY MAP

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
Ph: (209) 571-2232 Fax: (209) 571-1936

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

LICENSED ARCHITECT
JONATHAN E. GIVEN
No. C-36824
REN. 1/27
STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

COVER SHEET

Project Number	2514
Date	June, 2026
Drawn by	MB
Checked by	JG

CS

Plot Date & Time 7/2/2026 1:40:45 PM

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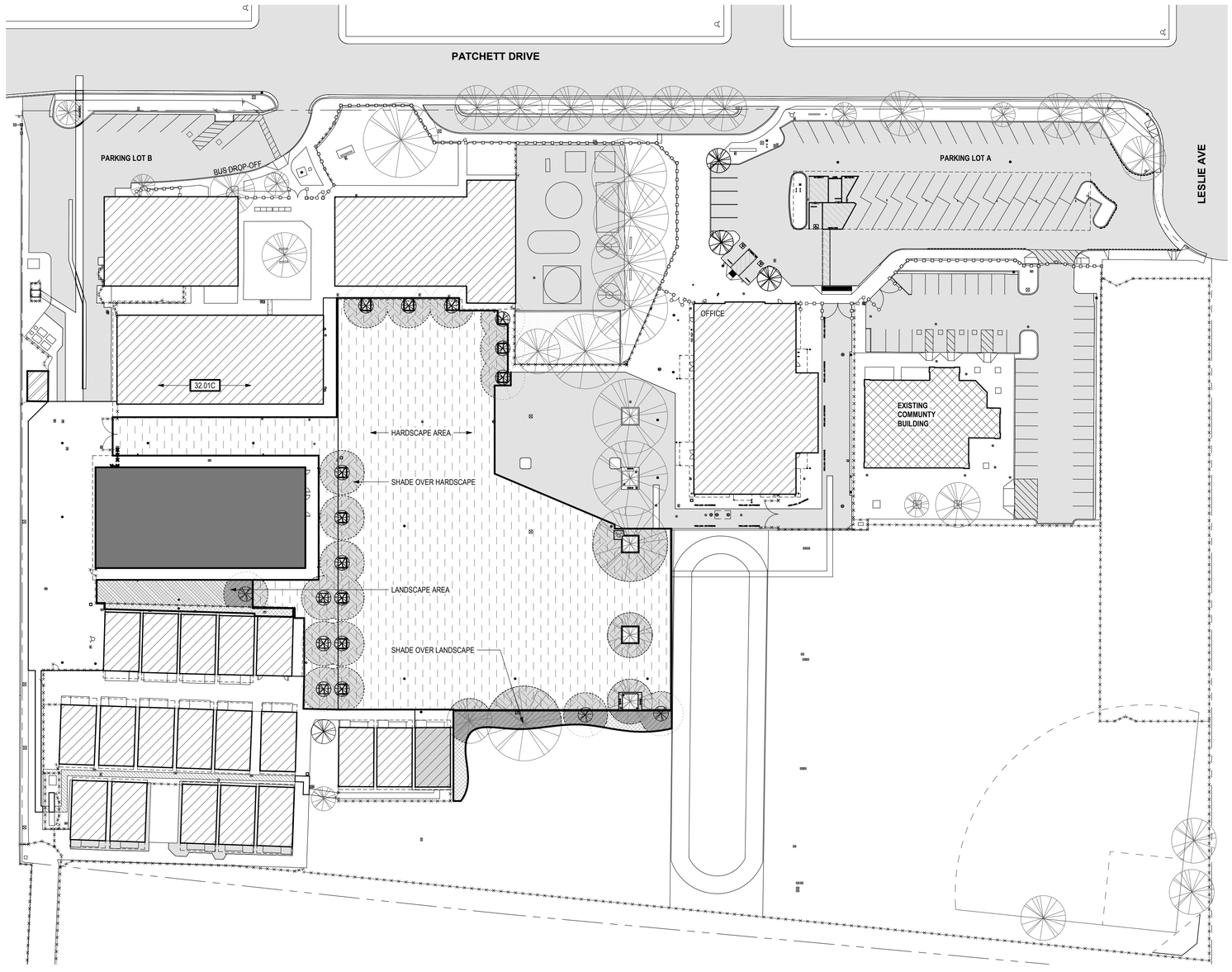

1 **CALGREEN SHADE SITE PLAN**
SCALE: 1" = 40'-0"

CGBC SECTION 5.106.12.2 LANDSCAPE AREAS

LANDSCAPE AREA = 4,600 S.F.
SHADE AREA = 2,013 S.F.

2,013 / 4,600 = 43.75% > 20% THEREFORE OK

CGBC SECTION 5.106.12.3 HARDSCAPE AREAS

HARDSCAPE AREA = 53,228 S.F.
SHADE AREA = 10,864 S.F.

10,864 / 53,228 = 20.04% > 20% THEREFORE OK

SHADE CALCULATION

SHADE LEGEND

- LANDSCAPE AREA
- HARDSCAPE AREA
- TREE CANOPY OVER LANDSCAPE AREAS
- TREE CANOPY OVER HARDSCAPE AREA
- EXISTING BUILDING
- EXISTING COMMUNITY BUILDING
- PROPOSED NEW BUILDING
- EXISTING RELOCATED BUILDING

TREE CANOPY NOTES:
1. TREES SHOWN ON AS-1.2 ARE SIZES AT INITIAL PLANTING - SHADE CANOPY SHOWN ON THIS SHEET SHOWS SIZE PROJECTED AFTER 15 YEARS
2. CANOPY ON THIS SHEET IS MEASURED AT NOON ON THE SUMMER SOLSTICE

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LICENSED ARCHITECT TIMOTHY PAUL HUFF No. 15627 REN. 5/27 STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

CALGREEN SHADE

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	Checker

CA.1

Plot Date & Time 7/2/2026 1:40:35 PM

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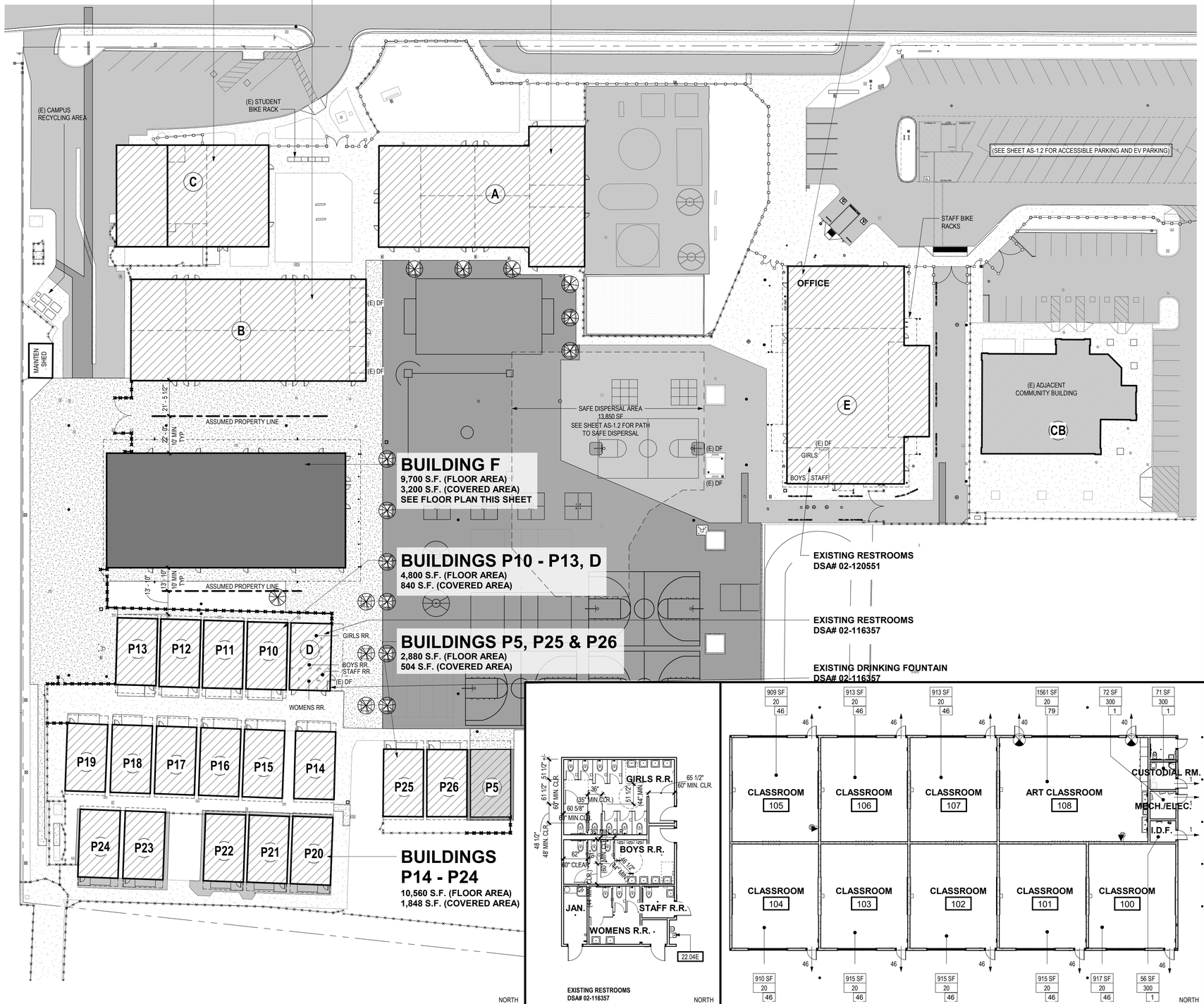
BUILDING 'C'
3,630 S.F. (FLOOR AREA)
937 S.F. (COVERED AREA)

BUILDING 'B'
8,370 S.F. (FLOOR AREA)
3,564 S.F. (COVERED AREA)

BUILDING 'A'
8,075 S.F. (FLOOR AREA)
3,179 S.F. (COVERED AREA)

BUILDING 'E'
9,767 S.F. (FLOOR AREA)
1,279 S.F. (COVERED AREA)



3 SITE PLAN - CODE ANALYSIS
SCALE: 1" = 30'-0"

EXISTING RESTROOMS
DSA# 02-116357

NORTH

2 (E) BLDG 'D'
SCALE: 3/32" = 1'-0"

NORTH

1 BLDG 'F' FLOOR PLAN - CODE ANALYSIS
SCALE: 1/16" = 1'-0"

ALL BUILDINGS ARE CONSTRUCTION TYPE V-B, (1) STORY

ALLOWABLE BUILDING AREA (PER CBC TABLE 506.2)

	ALLOWABLE
E OCCUPANCY:	9,500 S.F.
	38,000 S.F., (1) STORY WITH SPRINKLERS
B OCCUPANCY:	9,000 S.F.

BUILDING 'A'
E OCCUPANCY
EXISTING:
FLOOR AREA: 8,075 S.F.
COVERED AREA: 3,179 S.F.
TOTAL AREA: 11,254 S.F.
BUILDING AREA IS NOT MODIFIED IN THIS PROJECT

BUILDING 'B'
E OCCUPANCY
EXISTING:
FLOOR AREA: 8,370 S.F.
COVERED AREA: 3,564 S.F.
TOTAL AREA: 11,934 S.F.
BUILDING AREA IS NOT MODIFIED IN THIS PROJECT

BUILDING 'C'
A2 OCCUPANCY
EXISTING:
FLOOR AREA: 3,630 S.F.
COVERED AREA: 937 S.F.
TOTAL AREA: 4,567 S.F.
BUILDING AREA IS NOT MODIFIED IN THIS PROJECT

BUILDINGS P10, P11, P12, P13, & D
E OCCUPANCY
EXISTING:
FLOOR AREA: 4,800 S.F.
COVERED AREA: 840 S.F.
TOTAL AREA: 5,640 S.F.
BUILDING AREA IS NOT MODIFIED IN THIS PROJECT

BUILDINGS P14 - P24
E OCCUPANCY
EXISTING:
FLOOR AREA: 10,560 S.F.
COVERED AREA: 1,848 S.F.
TOTAL AREA: 12,408 S.F.
BUILDING AREA IS NOT MODIFIED IN THIS PROJECT

BUILDINGS P5, P25 & P26
E OCCUPANCY
EXISTING:
FLOOR AREA: 2,880 S.F.
COVERED AREA: 504 S.F.
TOTAL AREA: 3,384 S.F.
BUILDING AREA IS NOT MODIFIED IN THIS PROJECT

BUILDING 'E' - SEPARATED MIXED USE
A-2 & A-3 (MULTI-USE) & B (OFFICE) OCCUPANCY
EXISTING:
FLOOR AREA: 9,767 S.F.
COVERED AREA: 1,279 S.F.
TOTAL AREA: 11,046 S.F.
BLDG. HEIGHT: 23' - 8"
BUILDING AREA IS NOT MODIFIED IN THIS PROJECT

BUILDING 'F'
E OCCUPANCY
PROPOSED:
FLOOR AREA: 3,840 S.F.
COVERED AREA: 840 S.F.
TOTAL AREA: 4,680 S.F.
BLDG. HEIGHT: 20' - 2"

ALLOWABLE BUILDING AREA:
38,000 (W/ SPRINKLERS)
X < 38,000 THEREFORE OK

ALLOWABLE BUILDING HEIGHT:
60' AND (1) STORY FOR SPRINKLERED W/OUT AREA INCREASE
20'-2"" < 60' - 0" THEREFORE OK

SAFE DISPERSAL AREA (CBC 1028.5)

BUILDING 'A' = 123 OCCUPANTS
BUILDING 'B' = 381 OCCUPANTS
BUILDING 'C' = 313 OCCUPANTS
BUILDING 'E' = 685 OCCUPANTS
BUILDING 'F' = 450 OCCUPANTS
BUILDING 'P' = 782 OCC. (INCLUDES P13-P26, D)

GROSS CAMPUS OCCUPANTS = 2,734 OCC.
x 5 S.F/OCCUPANT = 13,670 S.F REQUIRED
13,850 S.F. PROVIDED

DRINKING FOUNTAINS (CBC 422.1 & TABLE A)

BUILDING 'A' = 226 OLF (B & E - 30SF / PERSON)
BUILDING 'B' = 245 OLF (E - 30SF / PERSON)
BUILDING 'C' = 204 OLF (A - 15 SF / PERSON)
BUILDING 'E' = 13 + 371 = 385 OLF
(B - 150SF / PERSON, A - 15SF / PERSON)
BUILDING 'F' = 296 OLF (E - 30SF / PERSON)
BUILDING 'P' = 505 OLF
(INCLUDES P13-P26) (E - 30SF / PERSON)

CAMPUS OLF = 1,861 OCCUPANTS / 150 OCC./D.F. =

13 = REQUIRED
14 = PROVIDED

CODE ANALYSIS

FLOOD ZONE DESIGNATION: ZONE X
FIRM PANEL: 06099C0945E
EFFECTIVE DATE: SEPTEMBER 26, 2008
BASE FLOOD ELEVATION N/A

FLOOD DESIGN REQUIREMENTS

150 SF — ROOM SQUARE FOOTAGE
20 OLF — OCCUPANT LOAD FACTOR (PER CBC TABLE 1004.5)
X — INDICATES ROOM OCCUPANT LOAD

CODE ANALYSIS LEGEND

ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND STANDARDS	
APPLICABLE CODES - EFFECTIVE JANUARY 1, 2023	
TITLE 19 CCR	PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
TITLE 24 CCR	PART 1 - 2025 BUILDING STANDARDS ADMINISTRATIVE CODE
TITLE 24 CCR	PART 2 - 2022 CALIFORNIA BUILDING CODE, VOL. 1 & 2 (CBC) (2021 IBC, AS AMENDED BY CA)
TITLE 24 CCR	PART 3 - 2022 CALIFORNIA ELECTRICAL CODE (CEC) (2020 NEC, AS AMENDED BY CA)
TITLE 24 CCR	PART 4 - 2022 CALIFORNIA MECHANICAL CODE (CMC) (2021 IAPMO UMC, AS AMENDED BY CA)
TITLE 24 CCR	PART 5 - 2022 CALIFORNIA PLUMBING CODE (CPC) (2021 IAPMO UPC, AS AMENDED BY CA)
TITLE 24 CCR	PART 6 - 2022 CALIFORNIA ENERGY CODE
TITLE 24 CCR	PART 9 - 2022 CALIFORNIA FIRE CODE (CFC) (2021 IFC, AS AMENDED BY CA)
TITLE 24 CCR	PART 11 - 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
TITLE 24 CCR	PART 12 - 2022 REFERENCED STANDARDS

APPLICABLE STANDARDS - (PARTIAL LIST, SEE CBC CH.35 AND CFC CH. 45)	
2022 NFPA 13	INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED)
2019 NFPA 14	INSTALLATION STANDPIPE AND HOSE SYSTEMS
2024 NFPA 17A	WET CHEMICAL EXTINGUISHING SYSTEMS
2022 NFPA 72	NATIONAL FIRE ALARM CODE (CA AMENDED) (SEE UL STANDARD 1971 FOR *"VISUAL DEVICES"*)
2023 UL 464	AUDIBLE SIGNALING DEVICES
2023 UL 521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS
CFC CH 33	FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

APPLICABLE CODES

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1389 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

CODE ANALYSIS

Project Number	2514
Date	June, 2026
Drawn by	MB
Checked by	JG

CA.2

Plot Date & Time 7/2/2026 1:40:43 PM

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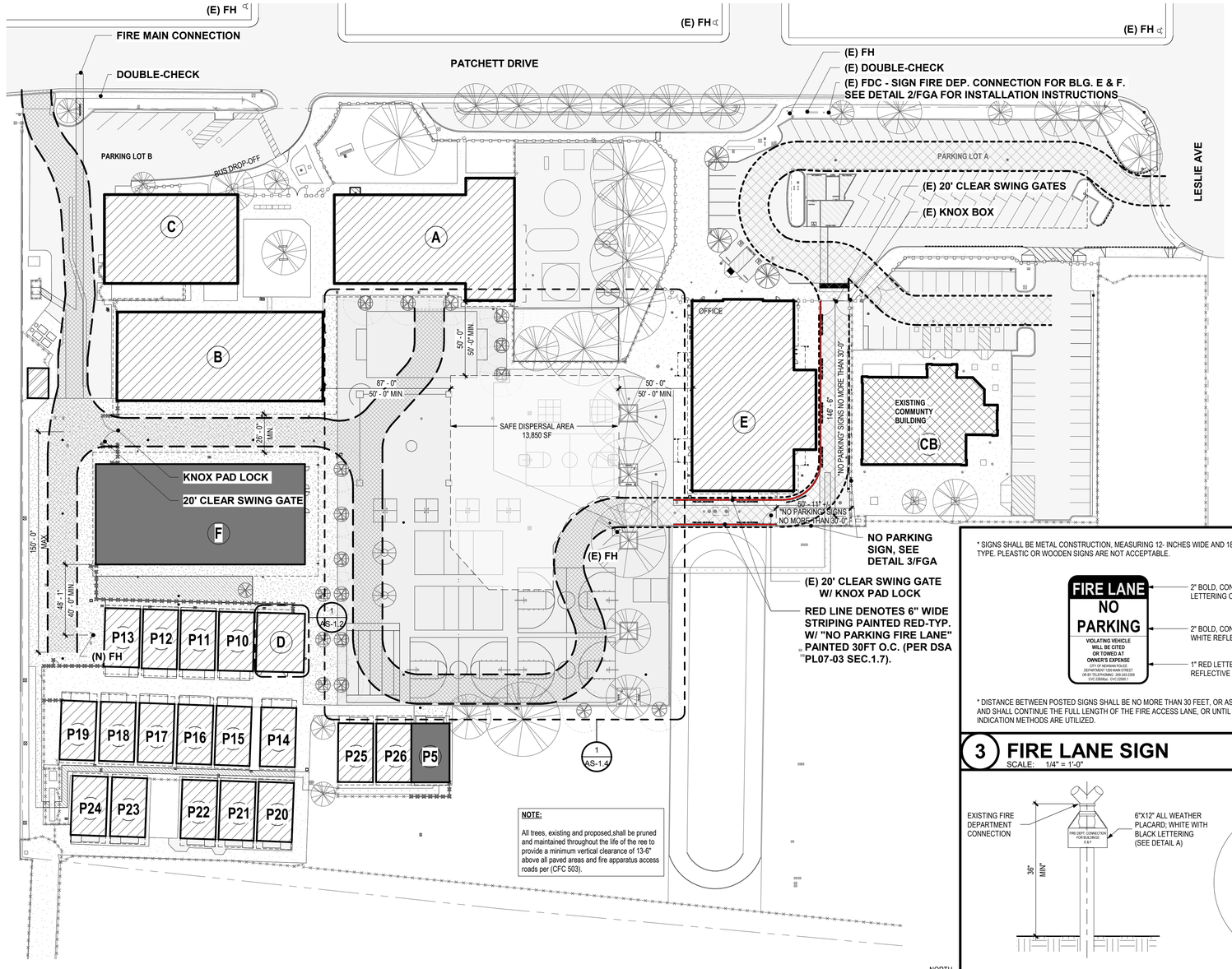


1 FIRE, GATES AND ACCESS PLAN
SCALE: 1" = 40'-0"

3 FIRE LANE SIGN
SCALE: 1/4" = 1'-0"

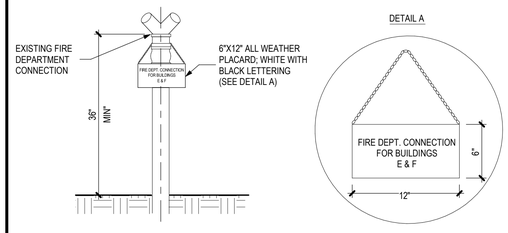
* SIGNS SHALL BE METAL CONSTRUCTION, MEASURING 12- INCHES WIDE AND 18-INCHES HIGH, AND OF A REFLECTIVE TYPE. PLEASTIC OR WOODEN SIGNS ARE NOT ACCEPTABLE.

2" BOLD, CONDENSED WHITE REFLECTIVE LETTERING ON RED BACKGROUND

2" BOLD, CONDENSED RED LETTERING ON WHITE REFLECTIVE BACKGROUND

1" RED LETTERING ON WHITE REFLECTIVE BACKGROUND

* DISTANCE BETWEEN POSTED SIGNS SHALL BE NO MORE THAN 30 FEET, OR AS REQUIRED BY LOCAL FIRE AUTHORITY, AND SHALL CONTINUE THE FULL LENGTH OF THE FIRE ACCESS LANE, OR UNTIL OR MORE OF THE OTHER APPROVED INDICATION METHODS ARE UTILIZED.



2 FDC SIGN
SCALE: 3/4" = 1'-0"

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:	Newman / Crows Landing Unified School District
Project Name/School:	Von Renner Elementary School: Classroom Building F
Project Address:	1388 Patchett DR, Newman, CA 95360

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. 150' hose length exceeded at existing portables	✓			
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. New fire hydrant is closer than 40' to existing portables	✓			
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. Pressure at site hydrant is less than 20 PSI at 1,500 GPM	✓			
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: JUSTIN PRUETT Title: SUPERINTENDENT

S Signature: Date: 7/1/26

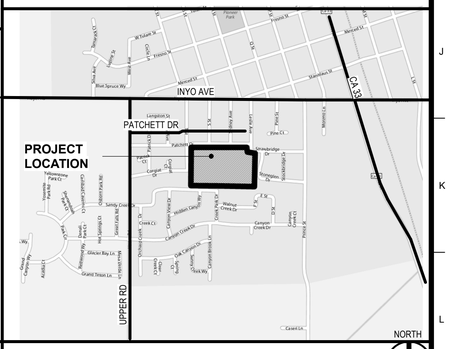
LOCAL FIRE AUTHORITY (LFA) INFORMATION		
LFA Agency Name:	STANISLAUS COUNTY FIRE PREVENTION BUREAU	
LFA Review Official:	MATTHEW JENKINS	
Title:	FIRE MARSHAL	Work Phone: (209) 552-3700
Work Email:	MJENKINS@STANOES.COM	

LFA Reviewer's Signature: Date: 7/1/26

LOCAL FIRE AUTHORITY REVIEW

* PER LOCAL FIRE CHIEF REQUEST KNOX PAD IS TO BE PROVIDED IN LIEU OF KNOX BOX.

NOTE



DSA INFORMATION

DSA INFORMATION					
ID	DESCRIPTION	DSA APPLICATION	SPRINKLERS	OCCUPANCY	BUILDING & COVERED AREAS
A	CLASSROOMS	16800, 60168, 02-100252, 02-116357, 02-120551	NO	E	11,254 S.F.
B	CLASSROOM	16800, 60168, 02-100252, 02-116357	NO	E	11,934 S.F.
C	CAFETERIA	16800, 60168, 02-100252	NO	A-2	4,567 S.F.
D	RESTROOM BUILDING	02-108089, 02-116357	NO	E	1,333 S.F.
E	MULTI-PURPOSE / ADMIN	02-120551	YES	B, A-2 & A-3	11,046 S.F.
F	CLASSROOM	02-123751	YES	E	12,900 S.F.
P5	RELOCATABLE CLASSROOM	36502, 47475, 02-123751	NO	E	1,080 S.F.
P10	RELOCATABLE CLASSROOM	51968	NO	E	1,080 S.F.
P11	RELOCATABLE CLASSROOM	51968	NO	E	1,080 S.F.
P12	RELOCATABLE CLASSROOM	50341	NO	E	1,080 S.F.
P13	RELOCATABLE CLASSROOM	50341	NO	E	1,080 S.F.
P14	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P15	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P16	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P17	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.

DSA INFORMATION					
ID	DESCRIPTION	DSA APPLICATION	SPRINKLERS	OCCUPANCY	BUILDING & COVERED AREAS
P18	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.
P19	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.
P20	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.
P21	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.
P22	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.
P23	RELOCATABLE CLASSROOM	02-100266	NO	E	1,080 S.F.
P24	RELOCATABLE CLASSROOM	02-100266	NO	E	1,080 S.F.
P25	RELOCATABLE CLASSROOM	02-103707	NO	E	1,080 S.F.
P26	RELOCATABLE CLASSROOM	02-103707	NO	E	1,080 S.F.

NOTES:
ALL BUILDINGS ARE CONSTRUCTION TYPE V-B
ALL BUILDINGS ARE (1) STORY

ERRC TESTING

EMERGENCY RESPONDER RADIO COVERAGE (ERRC) SHALL BE VERIFIED ONCE ALL BUILDINGS ARE CONSTRUCTED, BUT PRIOR TO SUBSTANTIAL COMPLETION.

- A LICENSED EMERGENCY RADIO CONTRACTOR SHALL TEST EACH BUILDING TO VERIFY THE FLOOR AREA HAS ADEQUATE COVERAGE PER NFPA 1221. THE CONTRACTOR SHALL PROVIDE A REPORT OF THE TEST TO THE ARCHITECT FOR THE FIRE DEPARTMENT'S REVIEW.

- A RADIATING CABLE OR DISTRIBUTED ANTENNA SYSTEM SHALL BE DESIGNED PER THE FIRE DEPARTMENT'S STANDARDS FOR NON-COMPLIANT AREAS. SEE NFPA 1221 FOR REQUIRED THRESHOLDS.

- ANY BI-DIRECTIONAL AMPLIFICATION (BDA) SYSTEM DESIGN SHALL BE REVIEWED BY THE FIRE DEPARTMENT. ANY STRUCTURAL CHANGES (SUCH AS ROOF MOUNTED ANTENNAS) SHALL ALSO BE SUBMITTED TO DSA AS A CCD.

LEGEND

EXISTING BUILDING

ADJACENT COMMUNITY BUILDING

PROPOSED BUILDING

AC PAVING

CONCRETE PAVING

EXSISTING FIRE ACCESS

NEW FIRE ACCESS

FIRE ACCESS COMPLIANCE
INDICATES A 20'-0" WIDE WIDTH WITH MIN. 25'-0" INSIDE RADIUS AND 45'-0" OUTSIDE TURNING RADIUS FOR FIRE APPARATUS ACCESS.

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.

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TPH architects
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LICENSED ARCHITECT JONATHAN E. GIACOMAZZI LIC. NO. C-36244 REN. 1/27 STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

FIRE, GATES AND ACCESS PLAN

Project Number	2514
Date	June, 2026
Drawn by	MB
Checked by	JG

FGA

Plot Date & Time 7/2/2026 1:40:49 PM

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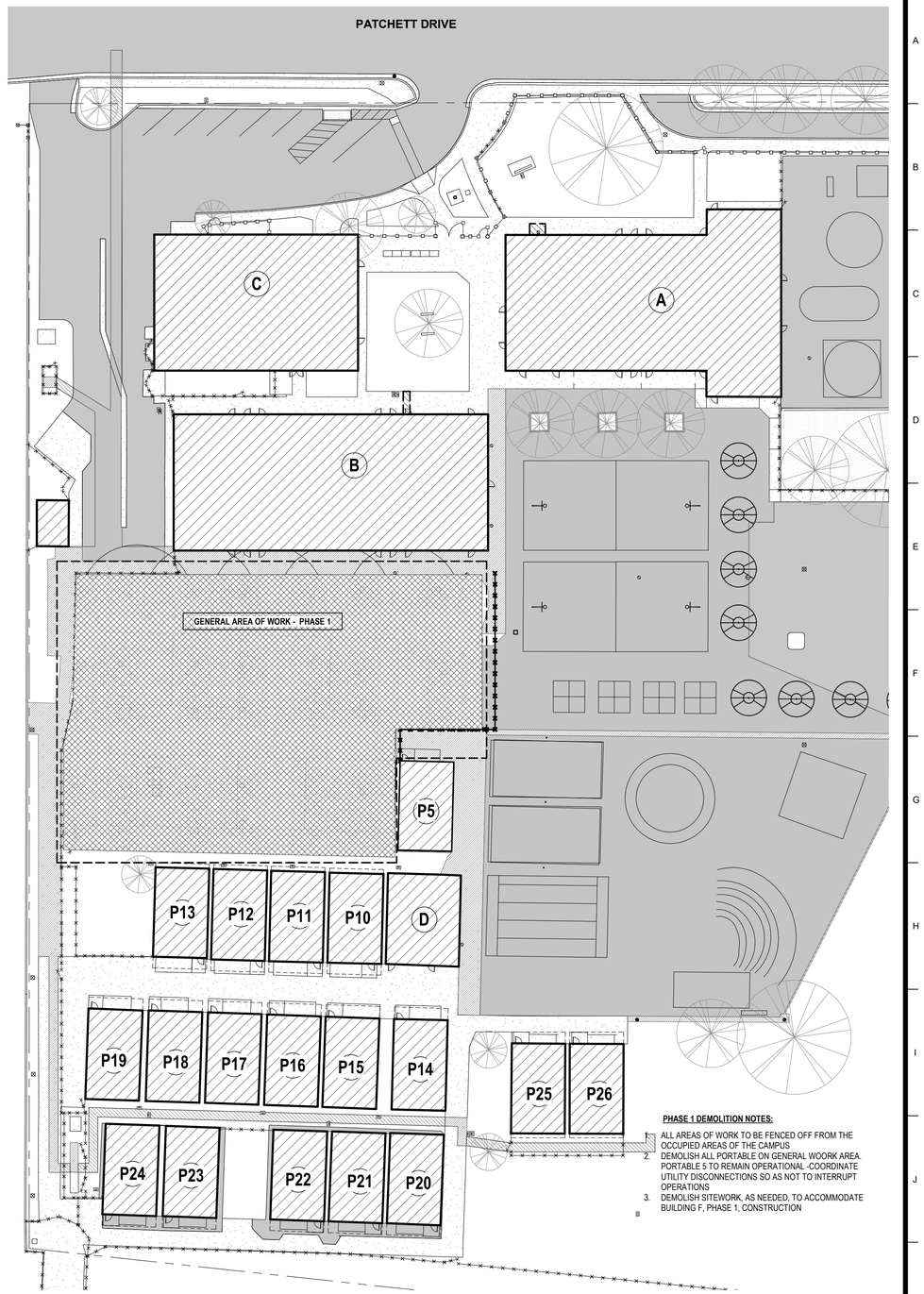
PHASE 1 NOTES:

1. ALL AREAS OF WORK TO BE FENCED OFF FROM THE OCCUPIED AREAS OF THE CAMPUS

NORTH

2 SITE PLAN - PHASE 1

SCALE: 1" = 30'-0"



PHASE 1 DEMOLITION NOTES:

1. ALL AREAS OF WORK TO BE FENCED OFF FROM THE OCCUPIED AREAS OF THE CAMPUS
2. DEMOLISH ALL PORTABLE ON GENERAL WOORK AREA. PORTABLE 5 TO REMAIN OPERATIONAL -COORDINATE UTILITY DISCONNECTIONS SO AS NOT TO INTERRUPT OPERATIONS
3. DEMOLISH SITEWORK, AS NEEDED, TO ACCOMMODATE BUILDING F, PHASE 1, CONSTRUCTION

NORTH

1 SITE DEMOLITION PLAN - PHASE 1

SCALE: 1" = 30'-0"

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LICENSED ARCHITECT
JONATHAN E. GISH
No. C-36644
REN. 1/27
STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

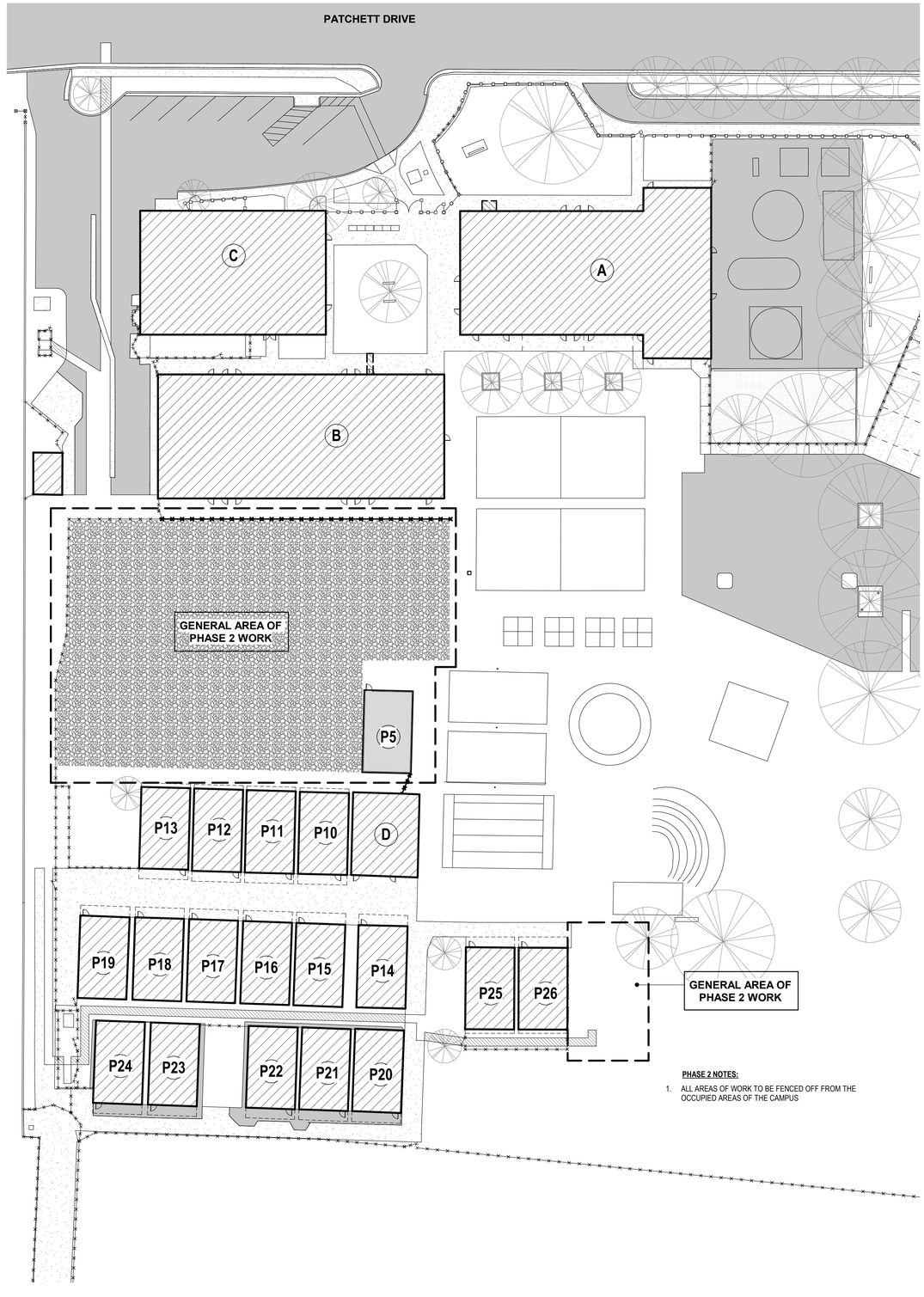
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

PHASING PLAN - PHASE 1

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

PH-1

Plot Date & Time 7/2/2026 1:40:55 PM



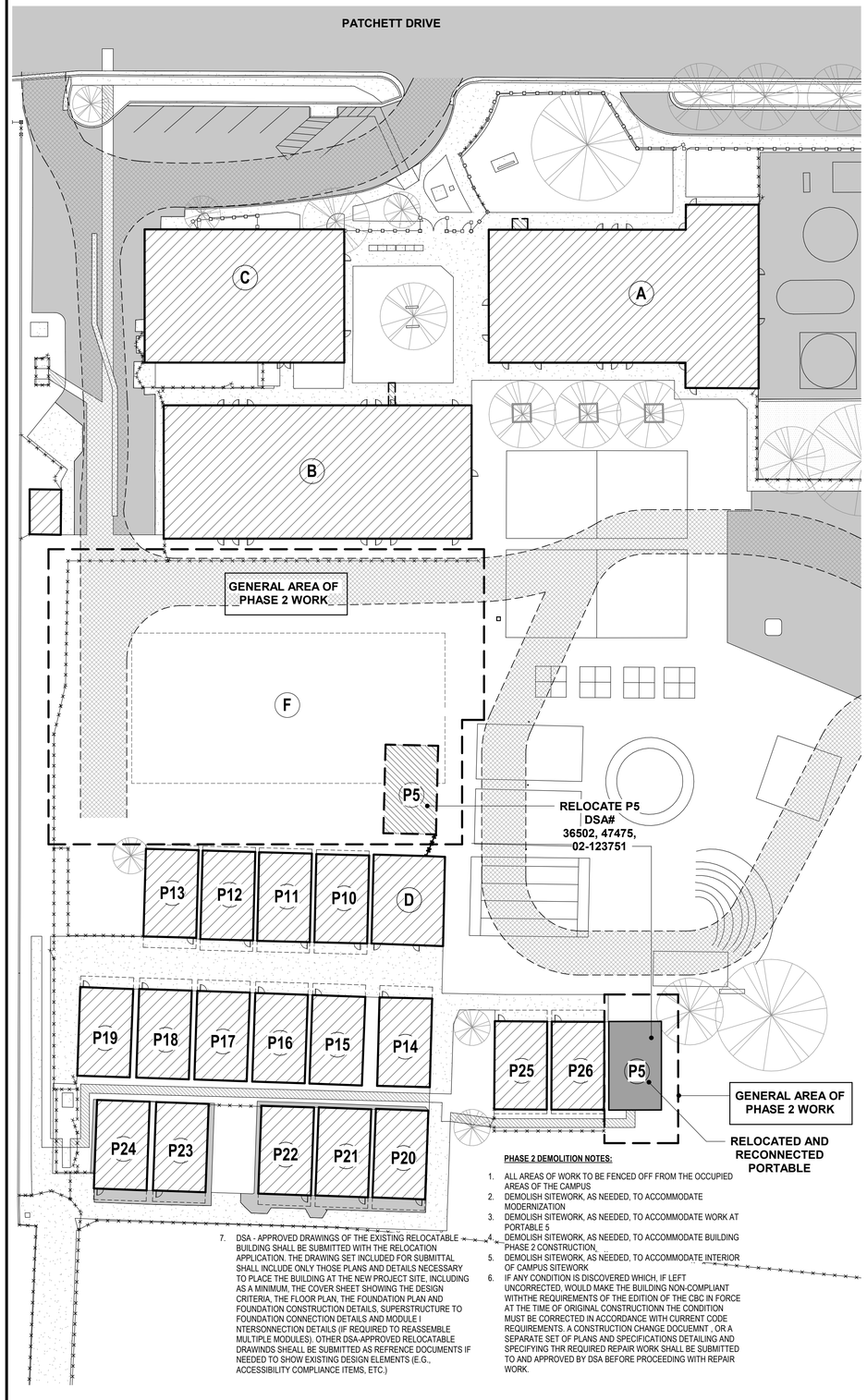
PHASE 2 NOTES:

1. ALL AREAS OF WORK TO BE FENCED OFF FROM THE OCCUPIED AREAS OF THE CAMPUS

NORTH

2 SITE PLAN - PHASE 2

SCALE: 1" = 30'-0"



PHASE 2 DEMOLITION NOTES:

1. ALL AREAS OF WORK TO BE FENCED OFF FROM THE OCCUPIED AREAS OF THE CAMPUS
2. DEMOLISH SITEWORK, AS NEEDED, TO ACCOMMODATE MODERNIZATION
3. DEMOLISH SITEWORK, AS NEEDED, TO ACCOMMODATE WORK AT PORTABLE 5
4. DEMOLISH SITEWORK, AS NEEDED, TO ACCOMMODATE BUILDING PHASE 2 CONSTRUCTION,
5. DEMOLISH SITEWORK, AS NEEDED, TO ACCOMMODATE INTERIOR OF CAMPUS SITEWORK
6. IF ANY CONDITION IS DISCOVERED WHICH, IF LEFT UNCORRECTED, WOULD MAKE THE BUILDING NON-COMPLIANT WITHTHE REQUIREMENTS OF THE EDITION OF THE CBC IN FORCE AT THE TIME OF ORIGINAL CONSTRUCTIONN THE CONDITION MUST BE CORRECTED IN ACCORDANCE WITH CURRENT CODE REQUIREMENTS. A CONSTRUCTION CHANGE DOCUEMNT , OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THR REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH REPAIR WORK.
7. DSA - APPROVED DRAWINGS OF THE EXISTING RELOCATABLE BUILDING SHALL BE SUBMITTED WITH THE RELOCATION APPLICATION. THE DRAWING SET INCLUDED FOR SUBMITTAL SHALL INCLUDE ONLY THOSE PLANS AND DETAILS NECESSARY TO PLACE THE BUILDING AT THE NEW PROJECT SITE, INCLUDING AS A MINIMUM, THE COVER SHEET SHOWING THE DESIGN CRITERIA, THE FLOOR PLAN, THE FOUNDATION PLAN AND FOUNDATION CONSTRUCTION DETAILS, SUPERSTRUCTURE TO FOUNDATION CONNECTION DETAILS AND MODULE I NTERSONNECTION DETAILS (IF REQUIRED TO REASSEMBLE MULTIPLE MODULES). OTHER DSA-APPROVED RELOCATABLE DRAWINDS SHEALL BE SUBMITTED AS REFRENCE DOCUMENTS IF NEEDED TO SHOW EXISTING DESIGN ELEMENTS (E.G., ACCESSIBILITY COMPLIANCE ITEMS, ETC.)

NORTH

1 SITE DEMOLITION PLAN - PHASE 2

SCALE: 1" = 30'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects

TIMOTHY P. HUFF & ASSOCIATES, INC.
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PHASING PLAN - PHASE 2

Project Number	2514
Date	June, 2026
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PH-2

Plot Date & Time 7/2/2026 1:40:59 PM

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2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of $200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no banner will be used.

301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only:

Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 *et seq.* for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work.

301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC)
301.5 HEALTH FACILITIES. (see GBSC)

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

303.1.1 Initial Tenant improvements. The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 5
NONRESIDENTIAL MANDATORY MEASURES
DIVISION 5.1 PLANNING AND DESIGN
SECTION 5.101 GENERAL

5.101.1 SCOPE

The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

SECTION 5.102 DEFINITIONS

5.102.1 DEFINITIONS

The following terms are defined in Chapter 2 *(and are included here for reference)*

CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

LOW-EMITTING AND FUEL EFFICIENT VEHICLES.

Eligible vehicles are limited to the following:

1. Zero emission vehicle (ZEV), enhanced advanced technology PZEV (enhanced AT ZEV) or transitional zero emission vehicles (TZEV) regulated under CCR, Title 13, Section 1962.
2. High-efficiency vehicles, regulated by U.S. EPA, bearing a fuel economy and greenhouse gas rating od 9 oe 10 as regulated under 40 CFR Section 600 Subpart D.

NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent occupants, such as employees, as distinguished from customers and other transient visitors.

VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing.

Note: Source: Vehicle Code, Division 1, Section 668

ZEV. Any vehicle certified to zero-emission standards.

SECTION 5.106 SITE DEVELOPMENT

5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND. Newly constructed projects and additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

5.106.1.1 Local ordinance . Comply with a lawfully enacted storm water management and/or erosion control ordinance.

5.106.1.2 Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMPs.

1. Soil loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Scheduling construction activity during dry weather, when possible.
   b. Preservation of natural features, vegetation, soil, and buffers around surface waters.
   c. Drainage swales or lined ditches to control stormwater flow.
   d. Mulching or hydroseeding to stabilize disturbed soils.
   e. Erosion control to protect slopes.
   f. Protection of storm drain inlets (gravel bags or catch basin inserts).
   g. Perimeter sediment control (perimeter silt fence, fiber rolls).
   h. Sediment trap or sediment basin to retain sediment on site.
   i. Stabilized construction exits.
   j. Wind erosion control.
   k. Other soil loss BMPs acceptable to the enforcing agency.
2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Dewatering activities.
   b. Material handling and waste management.
   c. Building materials stockpile management.
   d. Management of washout areas (concrete, paints, stucco, etc.).
   e. Control of vehicle/equipment fueling to contractor's staging area.
   f. Vehicle and equipment cleaning performed off site.
   g Spill prevention and control.
   h. Other housekeeping BMPs acceptable to the enforcing agency.

5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale.

Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit).

The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversation design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency.

Refer to the current applicable permits on the State Water Resources Control Board website at: www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development.

5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.
Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.

5.106.4.1.2 Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one bicycle parking facility.

5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.5 Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.

5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

5.106.5.3 Electric vehicle (EV) charging . [N] Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code.

Exceptions:
1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
   a. Where there is no local utility power supply
   b. Where the local utility is unable to supply adequate power.
   c. Where there is evidence suitable to the local enforcement agency substantiating the local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.
2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section

5.106.5.3.1 EV capable spaces.
[N] EV capable spaces shall be provided in accordance with Table 5.106.5.3.1 and the following requirements:
1. Raceways complying with the California Electrical Code and no less that 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the EV capable and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV charging spaces.
2. A service panel or subpanel (s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.
3. The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each EV capable space.
4. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective devices space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

Note: A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by an enforcement agency. See vehicle Code Section 22511.2 for further details.

TABLE 5.106.5.3.1

TOTAL NUMBER OF ACTUAL PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE)^2
0-9	0	0
10-25	2	0
26-50	8	2
51-75	13	3
76-100	17	4
101-150	25	6
151-200	35	9
201 AND OVER	20% of total [1]	25% of EV capable spaces [1]

1. Where there is insufficient electrical supply.
2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count towards the total number of required EV capable spaces shown in column 2.

5.106.5.3.2 Electric vehicle charging stations (EVCS)
EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.3.1. The EVCS required by Table 5.106.5.3.1 may be provided with EVSE in any combination of Level 2 and Direct Current Fast Charging (DCFC), except that at least one Level 2 EVSE shall be provided.

One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.3.1 for each EV capable space is accumulatively supplied to the EV charger.

The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaceswithout EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel.

5.106.5.3.3 Use of automatic load management systems (ALMS).
ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity specified in Section

5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

5.106.5.3.4 Accessible EVCS.
When EVSE is installed, accessible EVSC shall be provided in accordance with the *California Building Code*, Chapter 11B, Section 11B-228.3.
Note: For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

5.106.5.4 Electric Vehicle (EV) charging: medium-duty and heavy-duty. [N]
Construction shall comply with section 5.106.5.4.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores with planned off-street loading spaces shall also comply with Section 5.106.5.4.1 for future installation of medium- and heavy-duty EVSE.
Exceptions:
1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
   a. Where there is no local utility power supply.
   b. Where the local utility is unable to supply adequate power.
   c. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

When EVSE(s) is/are installed, it shall be in accordance with the *California Building Code*, the *California Electrical Code* and as follows:

5.106.5.4.1 Electric vehicle charging readiness requirements for warehouse, grocery stores and retail stores with planned off-street loading spaces.
[N] In order to avoid future demolition when adding EV charging supply and distribution equipment, spare raceways(s) or busway(s) and adequate capacity for transformers(s), service panels(s) or subpanel(s) shall be installed at the time of construction in accordance with the California Electrical Code. Construction plans and specifications shall include but are not limited to, the following:
1. The transformer, main service equipment and subpanel shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future installation of EVSE.
2. The construction documents shall indicate on or more location(s) convenient to the planned offstreet loading space(s) reserved for medium-and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s) as shown in Table 5.106.5.4.1
3. Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium-and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipments for medium- and heavy-duty vehicles.
4. The raceway(s) or busway(s) shall be sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table 5.106.5.4.1.

TABLE 5.106.5.4.1 RACEWAY CONDUIT AND PANEL POWER REQUIREMENTS FOR MEDIUM- AND HEAVY-DUTY EVSE [N]

BUILDING TYPE	BUILDING SIZE (SQ. FT.)	NUMBER OF OFF-STREET LOADING SPACES	ADDITIONAL CAPACITY REQUIRED (KVA) FOR RACEWAY & BUSWAY AND TRANSFORMER & PANEL
Grocery	10,000 to 90,000	1 or 2	200
		3 or Greater	400
	Greater than 90,000	1 or Greater	400
Retail	10,000 to 135,000	1 or 2	200
		3 or Greater	400
	Greater than 135,000	1 or Greater	400
Warehouse	20,000 to 256,000	1 or 2	200
		3 or Greater	400
	Greater than 256,000	1 or Greater	400

5.106.8 LIGHT POLLUTION REDUCTION. [N]. I Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and
2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);
3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in Chapter 8) and
4. Allowable BUG ratings not exceeding those shown in Table 5.106.8, [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

1. Luminaires that qualify as exceptions in Sections 130.2 (b) and 140.7 of the California Energy Code.
2. Emergency lighting.
3. Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.
4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.
5. Luminaires with less than 6,200 initial luminaire lumens.

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS [1,2]

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING [3]					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting [3]	N/A	U0	U0	U0	U0
For all other outdoor lighting,including decorative luminaires	N/A	U1	U2	U3	UR
MAXIMUM ALLOWABLE GLARE RATING [3] (G)					
MAXIMUM ALLOWABLE GLARE RATING [3] (G)	N/A	G1	G2	G3	G4
MAXIMUM ALLOWABLE GLARE RATING [3] (G)	N/A	G0	G1	G1	G2
MAXIMUM ALLOWABLE GLARE RATING [3] (G)	N/A	G0	G0	G1	G1
MAXIMUM ALLOWABLE GLARE RATING [3] (G)	N/A	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code.*

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.

3. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaries located in these areas shall meet *U*-value limits for "all other outdoor lighting"

5.106.8.1 Facing- Backlight
Luminaries within 2MH of a property line shall be oriented so that the nearest property line is behind the fixture, and shall comply with the backlight rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point of that property line.
Exception: Corners. If two property lines (or two segments of the same property line) have equidistant point to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is directly behind the luminaire. The luminaire shall still use the distance to the nearest points(s) on the property lines to determine the required backlight rating.

5.106.8.2 Facing-Glare.
For luminaires covered by 5.106.8.1, if a property line also exists within or extends into the front hemisphere within 2MH of the luminaire then the luminaire shall comply with the more stringent glare rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point on the nearest property line within the front hemisphere.

Note: [N]
1. See also *California Building Code* , Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.
2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, *California Energy Code* Tables 130.2-A and 130.2-B.
3. Refer to the *California Building Code* for requirements for additions and alterations.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales.
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.
Exception: Additions and alterations not altering the drainage path.

5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

Exceptions: Surface parking area covered by solar photovoltaic shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.

5.106.12.2 Landscape areas. Shade tress plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

Exceptions: Playfields for organized sport activity are not included in the total area calculation.

5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years.

Exceptions:
1. Walks, hardscape areas covered by solar photovoltaic shade structures or shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting
2. Designated and marked play areas of organized sport activity are not included in the total area calculation.

DIVISION 5.2 ENERGY EFFICIENCY
SECTION 5.201 GENERAL

5.201.1 Scope [BSC-CG]. ***California Energy Code [DSA-SS].*** For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION
SECTION 5.301 GENERAL

5.302.1 Definitions. The following terms are defined in Chapter 2 *(and are included here for reference)*

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which ae two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

METERING FAUCET . A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or dishwashers.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least as effective as the MWELO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic purposes, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. [HCD 1] A secondary device beyond a meter that measures water consumption of an individual rental unit within a multiunit residential structure or mixed-use residential and commercial structure. (See Civic Code Section 1954.202 (g) and Water code Section 517 for additional details.)

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWELO).

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

CALGREEN NON-RESIDENTIAL MANDATORY MEASURES

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JC

CG.1

Plot Date & Time 7/2/2026 1:40:44 PM

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

SECTION 5.303 INDOOR WATER USE

5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:

1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
   a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
   b. Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s).
   c. Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

5.303.3.2 Urinals.

5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.

5.303.3.2.2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads. [BSC-CG]

5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

5.303.3.4 Faucets and fountains.

5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than1.8 gallons per minute/20 [rim space (inches) at 60 psi].

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.

5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi].

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

5.303.3.4.6 Pre-rinse spray value
When installed, shall meet the requirements in the *California Code of Regulations* , Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7), and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations* , Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

5.303.4 COMMERCIAL KITCHEN EQUIPMENT.

5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.
Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.

5.303.5 AREAS OF ADDITION OR ALTERATION. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.

5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code* , and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code* and in Chapter 6 of this code.

SECTION 5.304 OUTDOOR WATER USE

5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

Notes:
1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations,Title 23, Chapter 2.7, Division 2.
2. MWELO and supporting documents, including a water budget calculator, are available at: https://www.water.ca.gov/.

5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, *California Code of Regulations* , except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.

Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO.

5.304.6.1 Newly constructed landscapes. New construction projects with an aggregate landscape area equal to or greater than 500 square feet.

5.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.

DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

SECTION 5.401 GENERAL

5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

SECTION 5.402 DEFINITIONS

SECTION 5.402 DEFINITIONS
5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 *(and are included here for reference)*

ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.

BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities.

BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner 's project requirements.

ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food soiled paper waste that is mixed in with food waste.

TEST. A procedure to determine quantitative performance of a system or equipment

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT
5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent.

5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods.

5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures.

5.407.2.2 Entries and openings . Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:

5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:

1. An installed awning at least 4 feet in depth.
2. The door is protected by a roof overhang at least 4 feet in depth.
3. The door is recessed at least 4 feet.
4. Other methods which provide equivalent protection.

5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING
5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:

1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.

5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission- Resources-List-Folder/CALGreen may be used to assist in documenting compliance with the waste management plan.
2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents.

Note: Refer to the Universal Waste Rule link at: http://www.dtsc.ca.gov/universalwaste/

5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.

Notes:

1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material.
2. For a map of know pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. (www.cdfa.ca.gov)

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

5.410.1 RECYCLING BY OCCUPANTS. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section.

5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.

Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.

5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the *Public Resources Code* . Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle 's web site.

5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner 's or owner representative 's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated y the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply.

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements

Commissioning requirements shall include:

1. Owner 's or Owner representative 's project requirements.
2. Basis of design.
3. Commissioning measures shown in the construction documents.
4. Commissioning plan.
5. Functional performance testing.
6. Documentation and training.
7. Commissioning report.

Exceptions:

1. Unconditioned warehouses of any size.
2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1.
4. Open parking garages of any size, or open parking garage areas, of any size, within a structure.

Note: For the purposes of this section, unconditioned shall mean a building, area, or room which does not provide heating and or air conditioning.

Informational Notes:

1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualifications of commissioning personnel. AC 476 des not certify individuals to conduct functional performance tests or to adjust and balance systems.
2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the *California Energy Code* .

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:

1. Environmental and sustainability goals.
2. Building sustainable goals.
3. Indoor environmental quality requirements.
4. Project program, including facility functions and hours of operation, and need for after hours operation.
5. Equipment and systems expectations.
6. Building occupant and operation and maintenance (O&M) personnel expectations.

5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse system.

5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:

1. General project information.
2. Commissioning goals.
3. Systems to be commissioned. Plans to test systems and components shall include:
   a. An explanation of the original design intent.
   b. Equipment and systems to be tested, including the extent of tests.
   c. Functions to be tested.
   d. Conditions under which the test shall be performed.
   e. Measurable criteria for acceptable performance.
4. Commissioning team information.
5. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included.

5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. 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.

5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in *California Code of Regulations* (CCR), Title 8, Section 5142, and other related regulations.

5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:

1. Site information, including facility description, history and current requirements.
2. Site contact information.
3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log.
4. Major systems.
5. Site equipment inventory and maintenance notes.
6. A copy of verifications required by the enforcing agency or this code.
7. Other resources and documentation, if applicable.

5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:

1. System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces).
2. Review and demonstration of servicing/preventive maintenance.
3. Review of the information in the Systems Manual.
4. Review of the record drawings on the system/equipment.

5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.

5.410.4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet. Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.

5.410.4.2 (Reserved)

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)3 for additional testing requirements of specific systems.

5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse systems.

5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.

5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.

5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.501 GENERAL

5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.

SECTION 5.502 DEFINITIONS

SECTION 5.502 DEFINITIONS
5.502.1 DEFINITIONS. The following terms are defined in Chapter 2 *(and are included here for reference)*

ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route.

A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.

1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 320/ Fahrenheit.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products " does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I – joists or finger -jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).
Note: See CCR, Title 17, Section 93120.1.

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.).

DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code* , off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

ELECTRIC VEHICLE CHARGING STATION(S) (EVCS). One or more spaces intended for charging electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.

EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.

FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.

GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.

GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14.

HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hdrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009) .

LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.

LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2 –1999.

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundreths of a gram (g O3//g ROC).

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).

PSIG. Pounds per square inch, guage.

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

SCHRADER ACCESS VALVES. Access fittings with a valve core installed.
SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pipe diameter.

SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units.

VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a)
Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question.

SECTION 5.50 FIRE PLACES

5.503.1 FIREPLACES. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.

5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.

SECTION 5.504 POLLUTANT CONTROL

5.504.1 TEMPORARY VENTILATION. The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992 Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.

5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

CALGREEN NON-RESIDENTIAL MANDATORY MEASURES

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JC

CG.2

Plot Date & Time 7/2/2026 1:40:44 PM

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations* , Title 17, commencing with Section 94507.

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT [1,2]

Less Water and Less Exempt Compounds in Grams per Liter

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter

SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialtycoatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of *California Code of Regulations* , Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS [2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	CURRENT VOC LIMIT
FLAT COATINGS	50
NONFLAT COATINGS	100
NONFLAT HIGH GLOSS COATINGS	150

TABLE 5.504.4.3 - CONT.

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	CURRENT VOC LIMIT
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS [1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification
2. Field verification of on-site product containers

5.504.4.4 Carpet Systems.
All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from IndoorSources Using Environmental Chambers." Version 1.2, January 2017 (Emission testing method for California Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health,"Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,"Version 1.2, January 2017 (Emission testing method for California Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.

5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS [1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD [2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

5.504.4.6 Resilient flooring systems. Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health,"Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350)
See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.4.7 Thermal insulation
Comply with the requirements of the California Department of Public Health, "Standard Method of the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, "Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.7.1 Verification of compliance.
Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits.

5.504.4.8 Acoustical ceiling and wall panels.
Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, " Version 1.2, January 2017 (Emission testing method for California Specification 01350).
See California Department of Public Health's website for certification programs and testing labs.

5.504.4.8.1 Verification of compliance. Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Exceptions: Existing mechanical equipment.

5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL. Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

SECTION 5.505 INDOOR MOISTURE CONTROL

5.505.1 INDOOR MOISTURE CONTROL Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY

SECTION 5.506 INDOOR AIR QUALITY

5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the *California Energy Code* , or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

5.506.2 CARBON DIOXIDE (CO2) MONITORING. For buildings or additions equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

5.506.3 Carbon dioxide (CO2) monitoring in classrooms.
(DSA-SS) Each public K-12 school classroom, as listed in Table 120.1-A of the *California Energy Code*, shall be equipped with a carbon dioxide monitor or sensor that meets the following requirements:

1. The monitor or sensor shall be permanently affixed in a tamper-proof manner in each classroom between 3 and 6 feet (914 mm and 1829 mm) above the floor and at least 5 feet (1524 mm) away from door and operable windows.
2. When the monitor or sensor is not integral to an Energy Management Control System (EMCS), the monitor or sensor shall display the carbon dioxide readings on the device. When the sensor is integral to an EMCS, the carbon dioxide readings shall be available to and regularly monitored by facility personnel.
3. A monitor shall provide notification though a visual indicator on the monitor when the carbon dioxide levels in the classroom have exceeded 1,100ppm. A sensor integral to an EMCS shall provide notification to facility personnel through a visual and/or audible indicator when the carbon dioxide levels in the classroom have exceeded 1,100ppm.
4. The monitor or sensor shall measure carbon dioxide levels at minimum 15- minute intervals and shall maintain a record of previous carbon dioxide measurements of not less than 30 days duration.
5. The monitor or sensor used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range of 400ppm to 2000ppm or greater.
6. The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1,000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more frequently than once every 5 years.

SECTION 5.507 ENVIRONMENTAL COMFORT

5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

   Exceptions:

   1. Ldn or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
   2. Ldn or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or Ldn noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1. Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB Leq - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation.

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf.

SECTION 5.508 OUTDOOR AIR QUALITY

5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO/2), and potentially other refrigerants.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.

5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fouth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

5.508.2.2 Valves. Valves Valves and fittings shall comply with the *California Mechanical Code* and as follows.

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent corrosion from these substances.

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device tha indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.

5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CAL GREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

CALGREEN NON-RESIDENTIAL MANDATORY MEASURES

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JC

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Plot Date & Time 7/2/2026 1:40:44 PM

CIVIL SPECIFICATIONS

1. ALL IMPROVEMENTS TO BE DONE SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF NEWMAN DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS, THE LATEST EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), STANDARD SPECIFICATIONS, THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE AND THE FEDERAL AMERICANS WITH DISABILITIES ACT REQUIREMENTS FOR ACCESSIBLE DESIGN AND CONSTRUCTION.

2. BENCHMARK: USGS PID "HS2444", BEING A DISK LOCATED ON THE NORTH END OF THE WEST CONCRETE HEADWALL OF A CULVERT, JUST EAST OF THE STATE HIGHWAY 33 AND APPROXIMATELY SEVEN RAIL LENGTHS SOUTHEAST OF THE SANGHES ROAD RAILROAD CROSSING. ELEV.=91.50

3. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY WORK PERFORMED BY THE CONTRACTOR OR OWNER BASED ON PLANS WHICH HAVE NOT BEEN SIGNED AND SEALED BY THE ENGINEER. ALL INFORMATION SHOWN ON PRELIMINARY DRAWINGS IS SUBJECT TO CORRECTION AND CHANGE, AND THE CONTRACTOR OR OWNER SHALL PERFORM ANY AND ALL WORK AT THEIR OWN RISK.

4. ALL DISTANCES AND MEASUREMENTS ARE GIVEN AND WILL BE MADE IN A HORIZONTAL PLANE. GRADE WILL BE GIVEN FROM THE TOP OF NAILS OR STAKES, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL PRESERVE ALL POINTS AND STAKES SET FOR LINES AND GRADES OR MEASUREMENTS OF THE WORK, IN THEIR PROPER LOCATION UNTIL AUTHORIZED TO REMOVE THEM BY THE ENGINEER. ALL EXPENSES INCURRED IN REPLACING STAKES THAT HAVE BEEN REMOVED WITHOUT PROPER AUTHORITY SHALL BE PAID FOR BY THE GENERAL CONTRACTOR.

5. THESE PLANS HAVE BEEN PREPARED WITH THE INTENT THAT ASSOCIATED ENGINEERING GROUP, INC. WILL PERFORM THE CONSTRUCTION STAKING FOR THE COMPLETE PROJECT. THE CONTRACTOR SHALL PROVIDE ASSOCIATED ENGINEERING GROUP, INC. WITH FORTY-EIGHT HOURS ADVANCE NOTICE OF STAKING NEEDS. ANY STAKING REQUESTED BY THE CONTRACTOR OR THEIR SUBCONTRACTORS THAT IS ABOVE AND BEYOND THE AGREED UPON STAKING REQUEST SHALL BE SUBJECT TO AN EXTRA BACK CHARGE TO THE CONTRACTOR / CLIENT. IF ANOTHER FIRM OR AGENCY IS EMPLOYED TO USE THESE PLANS FOR THE PURPOSE OF CONSTRUCTION STAKING, NOTICE IS HEREBY GIVEN THAT ASSOCIATED ENGINEERING GROUP, INC. WILL NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED, CORRECTED OR MITIGATED IF ASSOCIATED ENGINEERING GROUP, INC. HAD PERFORMED THE STAKING WORK.

6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW HIS WORK PRIOR TO THE REMOVAL OF CONSTRUCTION STAKES. IN THE EVENT THAT DISCREPANCIES ARISE BETWEEN CONSTRUCTION AND STAKING, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO FIELD REVIEW THE CONSTRUCTION STAKES. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR STAKING THAT HAS BEEN REMOVED OR DESTROYED BY THE CONTRACTOR.

7. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS, BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FINEST QUALITY ARE TO BE USED.

8. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS PERTAINING TO HIS OPERATIONS. HE SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAG MEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY IN ACCORDANCE WITH THE CURRENT ISSUE OF "MANUAL OF TRAFFIC CONTROLS WARNING SIGNS, LIGHTS AND DEVICES FOR USE IN PERFORMANCE OF WORK UPON HIGHWAYS" PUBLISHED BY THE STATE OF CALIFORNIA BUSINESS AND TRANSPORTATION AGENCY. THE CONTRACTOR'S ATTENTION IS ALSO CALLED TO THE REQUIREMENTS OF TITLE 8 OF THE CALIFORNIA ADMINISTRATIVE CODE, SUBCHAPTER 4, ARTICLE 6, "EXCAVATIONS, TRENCHES, EARTHWORK."

9. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

10. THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR REVIEW AND APPROVAL OF ALL CONSTRUCTION MATERIALS INCLUDING SHOP DRAWINGS, PRODUCT LITERATURE, DATA SHEETS AND SPECIFICATIONS. NEITHER THE REVIEW NOR THE LACK OF REVIEW OF ANY SUBMITTALS SHALL WAIVE ANY OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, OR RELIEVE THE CONTRACTOR OF ANY OBLIGATION THERE UNDER.

UTILITIES

11. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF NEWMAN STANDARD SPECIFICATIONS, THE CURRENT EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS AND THE LATEST EDITION OF THE CALIFORNIA PLUMBING CODE.

12. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 9, SECTION 6705, 6706, AND 6707 OF THE STATE LABOR CODE.

13. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A DETAILED PLAN SHOWING THE DESIGN OF SHORING, BRACING, SLOPING, OR OTHER PROVISIONS TO BE MADE FOR WORKER PROTECTION FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF FIVE FEET OR MORE. IF THE PLAN VARIES FROM THE SHORING SYSTEM STANDARDS, THE PLANS SHALL BE PREPARED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER.

14. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EXISTING UTILITY LINES PRIOR TO CONSTRUCTION, IT IS INTENDED THAT THE CONTRACTOR "POTHOLE" THE EXISTING UTILITIES. IF A CONFLICT EXISTS BETWEEN EXISTING AND PROPOSED UTILITY LINES, THE CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO BEGINNING THE INSTALLATION OF THE PROPOSED UTILITIES. FIELD ADJUSTMENTS TO THE UTILITIES CAN BE MADE WITH THE APPROVAL OF THE ENGINEER.

15. ALL UTILITY LINE TRENCHES SHALL BE BACKFILLED AND RECOMPACTED IN ACCORDANCE WITH THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS. PIPES SHALL BE BEDDED WITH SELECTED NATIVE SOILS AS APPROVED BY A GEOTECHNICAL ENGINEER, OR CLEAN SANDS TO A DEPTH OF AT LEAST TWO FEET OVER THE PIPE (OR AS SHOWN ON THE PLAN). THE REMAINDER OF THE BACKFILL MAY BE ON-SITE SOIL COMPACTED TO 95 PERCENT PER ASTM D1557.

SANITARY SEWER

16. P.V.C. PIPE AS SHOWN ON THE PLANS SHALL BE POLYVINYL CHLORIDE PIPE CONFORMING TO ASTM D-3034, SDR 26, WITH RUBBER SEALING RINGS MEETING ASTM D-3212 "JOINTS FOR DRAINS AND SEWER PIPES USING FLEXIBLE ELASTOMERIC SEALS" OR AN APPROVED EQUAL. THE P.V.C. PIPE AND ITS INSTALLATION, BACKFILL AND TESTING SHALL CONFORM TO THE CITY OF NEWMAN STANDARDS.

17. WHERE THE PLANS SHOW P.V.C. SEWER PIPE, THE CONTRACTOR MAY USE VITRIFIED CLAY PIPE, BELL AND SPIGOT, CONFORMING IN ALL RESPECTS TO EXTRA STRENGTH VCP, ASTM SPECIFICATION C-700. JOINTS SHALL BE FLEXIBLE COMPRESSION JOINTS CONFORMING TO ASTM SPECIFICATION C-425 FOR TYPE III JOINT, OR ABS-DWR PIPE CONFORMING TO ASTM D-2680, SCHEDULE 40. THE CONTRACTOR SHALL INDICATE IN HIS BID THE TYPE OF PIPE MATERIAL TO BE USED.

WATER SYSTEM

18. ALL P.V.C. WATER LINES SMALLER THAN 4" SHALL BE POLYVINYL CHLORIDE, SCHEDULE 80 CONFORMING TO THE LATEST EDITION OF THE UNIFORM PLUMBING CODE AND THE REQUIREMENTS OF THE CITY OF NEWMAN BUILDING DEPARTMENT.

19. ALL WATER MAINS 4" AND LARGER SHALL BE POLYVINYL CHLORIDE CLASS 235 CONFORMING TO AWWA C-900. DUCTILE IRON FITTINGS INCLUDING TEES, CROSSES, CAPS, ETC. SHALL BE FLANGE, MECHANICAL JOINT OR COMBINATION THEREOF. MECHANICAL JOINT COUPLINGS SHALL CONFORM TO ANSI A21.10 (AWWA C110-71). ALL COUPLINGS SHALL BE CEMENT MORTAR LINED IN ACCORDANCE WITH AWWA C104-80, AND SHALL BE FURNISHED WITH RUBBER RING SEAL JOINTS DESIGNED TO BE USED WITH CLASS 235 P.V.C. PIPE, AWWA C-900.

20. ALL WATER LINES SHALL BE INSTALLED WITH 36" MINIMUM COVER FROM FINISH GRADE. THE CONTRACTOR SHALL VERIFY THE LOCATION AND THE ELEVATION OF EXISTING WATER LINES PRIOR TO BEGINNING CONSTRUCTION.

21. ON-SITE WATER LINES SHALL BE CHLORINATED AND TESTED IN ACCORDANCE WITH THE CITY OF NEWMAN STANDARD SPECIFICATION 5.17 AND THE TEST RESULTS SHALL BE APPROVED BY THE CITY OF NEWMAN PRIOR TO THE CONNECTION TO THE EXISTING WATER SYSTEM.

STORM DRAIN

22. P.V.C. PIPE AS SHOWN ON THE PLANS SHALL BE POLYVINYL CHLORIDE PIPE CONFORMING TO ASTM D-3034, SDR 35, WITH RUBBER SEALING RINGS MEETING ASTM D-3212 "JOINTS FOR DRAINS AND SEWER PIPES USING FLEXIBLE ELASTOMERIC SEALS" OR AN APPROVED EQUAL.

23. WHERE THE PLANS SHOW P.V.C. STORM DRAINS, THE CONTRACTOR MAY USE HIGH DENSITY POLYETHYLENE PIPE MEETING AASHTO DESIGNATION M 294M-98.

24. H.D.P.E. AS SHOWN ON THE PLANS SHALL BE HIGH DENSITY POLYETHYLENE RIBBED PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF SECTION 64 OF THE CALTRANS SPECIFICATIONS. HDPE PIPE SHALL BE BELL AND SPIGOT ONLY WITH POLYISOPRENE RUBBER GASKET JOINTS MEETING OR EXCEEDING ASTM F-477 REQUIREMENTS. HDPE SHALL HAVE A SMOOTH INTERIOR WALL.

ASPHALT CONCRETE PAVING

25. THE PAVING CONTRACTOR SHALL PROVIDE COMPACTION TESTS AT THE CONTRACTOR'S EXPENSE.

26. UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXISTING BOXES, VAULTS, CLEANOUTS, MANHOLES, DRYWELLS, INLETS, ETC. WITHIN THE AREA OF NEW PAVEMENT THAT ARE TO REMAIN SHALL BE ADJUSTED TO FINISH GRADE AND PROTECTED WITH A NEW 8" WIDE (MIN) RECTANGULAR CONCRETE COLLAR.

27. APPROPRIATE DUST CONTROL SHALL BE PROVIDED FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE, AT THE CONTRACTOR'S EXPENSE.

28. AFTER SUBGRADE EXCAVATION, THE EXPOSED SOIL SURFACE SHALL BE SCARIFIED AND RECOMPACTED TO A DEPTH OF 12". THE RECOMMENDED DEGREE OF RECOMPACTION IS 95 PERCENT IN PAVEMENT AREAS. THESE PERCENTAGES REFER TO THE MAXIMUM DRY DENSITY AS OBTAINED BY THE ASTM D-1557 TEST PROCEDURE.

29. ALL SUBGRADE PREPARATION AND PAVING SHALL CONFORM TO SECTION 26 OF THE CALTRANS STANDARD SPECIFICATIONS, AS WELL AS THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. PLACE TO THE MINIMUM THICKNESS AS SHOWN ON THE PLANS.

30. APPLY TACK COAT TO ASPHALT BASE COURSE IMMEDIATELY PRIOR TO SPREADING SURFACE COURSE MATERIALS. APPLY 0.15 GALLONS PER SQUARE YARD OF SURFACE TO BE COVERED. APPLY TACK COAT BY BITUMINOUS DISTRIBUTOR SO UNIFORM DISTRIBUTION IS OBTAINED AT ALL POINTS. APPLY TACK COAT TO EACH LAYER OF BASE COURSE AND ALLOW TO CURE BEFORE PLACING SUCCEEDING COURSE. APPLY ONLY AS MUCH TACK COAT ON PAVEMENT AS CAN BE COVERED WITH ASPHALT AGGREGATE MIXTURE IN THE SAME DAY.

31. ASPHALT CONCRETE SHALL CONFORM TO SECTION 39 OF THE CALTRANS STANDARDS AND SHALL BE TYPE A ASPHALT CONCRETE USING PG 64-10 PAVING ASPHALT. AGGREGATE USED IN ALL BUT THE FINAL COURSE SHALL BE 3/4" MAXIMUM, MEDIUM GRADING. AGGREGATE IN THE FINAL COURSE (WEARING SURFACE) SHALL BE TYPE B, 1/2" MAXIMUM, MEDIUM GRADING. IN THE TENNIS COURT AREA, THE FINAL COURSE SHALL BE NO. 4 MAXIMUM, MEDIUM GRADING.

32. PLANT HOT-MIX ASPHALT CONCRETE SURFACE COURSE OF THE SPECIFIED GRADE SHALL BE PLACED IN ONE OR MORE COURSES TO THE THICKNESS INDICATED PLACED OVER THE PREVIOUSLY PREPARED / APPROVED BASE COURSE.

33. PLACE ASPHALT CONCRETE ONLY WHEN THE PRIMED OR TACK COATED BASE COURSE IS DRY, WEATHER IS NOT RAINY AND WHEN TEMPERATURES ARE ABOVE 50 DEGREES F.

34. PLACE MIXTURE WITH A BITUMINOUS SPREADER IN STRIPS HAVING A TEN (10) FOOT WIDTH. DO NOT ROLL THE EDGE 6-INCH STRIP ADJACENT TO THE AREA THAT ADDITIONAL MATERIAL IS TO BE LAID UNTIL ADDITIONAL MATERIALS ARE PLACED. AFTER THE FIRST STRIP HAS BEEN PLACED AND ROLLED, PLACE THE SECOND STRIP AND EXTEND ROLLING TO INCLUDE THE 6 INCHES OF THE FIRST STRIP NOT PREVIOUSLY ROLLED. PLACE SUCCEEDING STRIPS WHILE THE UNROLLED 6 INCH SECTION OF THE ADJOINING WORK IS HOT AND READILY COMPACTABLE.

35. JOINTS: ALL JOINTS SHALL HAVE THE SAME TEXTURE AND DENSITY.

36. SMOOTHNESS: THE FINISHED SURFACE SHALL BE FREE OF BIRD BATHS AND NOT VARY MORE THAN 1/8-INCH WHEN TESTED WITH A 10 FOOT STRAIGHTEDGE APPLIED BOTH PARALLEL WITH AND AT RIGHT ANGLES TO THE CENTERLINE OF THE PAVED AREA.

37. THICKNESS: AS SHOWN ON THE DRAWINGS.

CONCRETE PAVEMENT

38. CONCRETE: PORTLAND CEMENT CONCRETE PAVING SHALL CONFORM TO MINOR CONCRETE AS DEFINED IN THE STATE OF CALIFORNIA 2015 STANDARD SPECIFICATIONS SECTION 90-2, WITH A 28 DAY COMPRESSIVE STRENGTH OF 2,500 POUNDS PER SQUARE INCH AS A MINIMUM AND A MAXIMUM SLUMP OF 4 INCHES. CONCRETE SHALL CONSIST OF A MINIMUM OF 5.5 SACK MIX OF PORTLAND CEMENT, WATER, AND AGGREGATE. PORTLAND CEMENT SHALL BE TYPE II. AGGREGATES SHALL BE WASHED BEFORE USE AND BE FREE FROM ANY FOREIGN MATTER.

39. THE AGGREGATES SHALL BE GRADED TO PROVIDE A PLASTIC, WORKABLE MIXTURE OF MAXIMUM DENSITY WITH A MAXIMUM SIZE AGGREGATE OF 3/4 INCHES. THE WATER SHALL BE POTABLE AND NO ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF THE ENGINEER. THE CEMENT, WATER AND AGGREGATES SHALL BE COMBINED AT THE BATCH PLANT AND BE THOROUGHLY MIXED. NO WATER SHALL BE ADDED TO THE MIXTURE AFTER LEAVING THE BATCH PLANT WITHOUT APPROVAL OF THE ENGINEER. ALL CONCRETE SHALL BE PLACED WITHIN 90 MINUTES AFTER THE INTRODUCTION OF WATER TO THE CEMENT. THE TEMPERATURE OF THE CONCRETE SHALL NOT BE LESS THAN 50 DEGREES FAHRENHEIT AND NOT MORE THAN 90 DEGREES FAHRENHEIT.

40. THE CONCRETE SHALL BE CONSOLIDATED BY VIBRATING. CONCRETE WHICH HAS ROCK POCKETS OR HONEY COMBING AFTER CURING SHALL BE REMOVED AND REPLACED.

41. ALL CONCRETE SHALL BE CURED IN ACCORDANCE WITH SECTION 90 OF THE STATE OF CALIFORNIA STANDARDS AND VEHICULAR TRAFFIC SHOULD NOT BE ALLOWED FOR 3 DAYS (AUTOMOBILE TRAFFIC) OR 7 DAYS (TRUCK TRAFFIC).

42. CRACK CONTROL JOINTS SHALL BE PLACED AS SHOWN ON THE PLANS OR AT 15 FOOT MAXIMUM INTERVALS, WHICHEVER IS LESS, AND SHALL PENETRATE THE CONCRETE SLAB A MINIMUM OF 1/4 OF THE SLAB THICKNESS.

43. A THICKENED CONCRETE PAVEMENT EDGE SHALL BE INSTALLED ON THE OUTSIDE EDGE OF PAVING SUBJECTED TO VEHICULAR WHEEL LOADS.

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REGISTERED PROFESSIONAL ENGINEER RYAN D. CARRELL No.61619 CIVIL STATE OF CALIFORNIA

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CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN/CROWS LANDING UNIFIED SCHOOL DISTRICT

CIVIL SPECIFICATIONS

Project Number	2514
Date	JUNE 2026
Drawn by	J.T.S.
Checked by	R.D.C.

C1.0

Plot Date & Time

LEGEND

- EX. GROUND ELEVATION
- EX. TOP OF CURB ELEVATION
- EX. FLOWLINE ELEVATION
- EX. EDGE OF PAVEMENT ELEVATION
- EX. A.C. PAVEMENT ELEVATION
- EX. RIM ELEVATION
- EX. GUTTER LIP ELEVATION
- EX. CONCRETE ELEVATION
- EX. CURB AND GUTTER
- EX. EDGE OF PAVEMENT
- EX. SANITARY SEWER LINE
- EX. MANHOLE
- EX. CLEAN-OUT
- EX. STORM DRAIN LINE
- EX. CATCH BASIN
- EX. CATCH BASIN DROP INLET
- EX. WATER LINE
- EX. WATER METER
- EX. FIRE HYDRANT
- EX. GATE VALVE
- EX. DRINKING FOUNTAIN
- EX. BACKFLOW PREVENTION DEVICE
- EX. HOSE BIB
- EX. MAILBOX
- EX. POWER POLE
- EX. TELEPHONE POLE
- EX. JOINT POLE
- EX. POLE WITH GUY ANCHOR
- EX. SIGN
- EX. GUARD POST
- EX. BASKET BALL GOAL
- EX. TETHER BALL POST
- EX. JOINT UTILITY TRENCH
- EX. GAS LINE
- EX. ELECTRICAL CONDUIT
- EX. TELEPHONE CONDUIT
- EX. UTILITY LINE, TYPE UNKNOWN
- EX. TELEPHONE BOX
- EX. ELECTRICAL BOX
- EX. GAS METER
- EX. LANDSCAPE IRRIGATION BOX
- EX. ELECTROLIER
- EX. CHAIN LINK FENCE
- EX. WOOD FENCE
- EX. WROUGHT IRON FENCE
- EX. TREE, SPREAD DRAWN TO SCALE
- EX. AREA OF CONCRETE
- EX. AREA OF ASPHALT PAVEMENT

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BENCHMARK

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EXISTING TOPOGRAPHY

Project Number	2514
Date	JUNE 2026
Drawn by	J.T.S.
Checked by	R.D.C.

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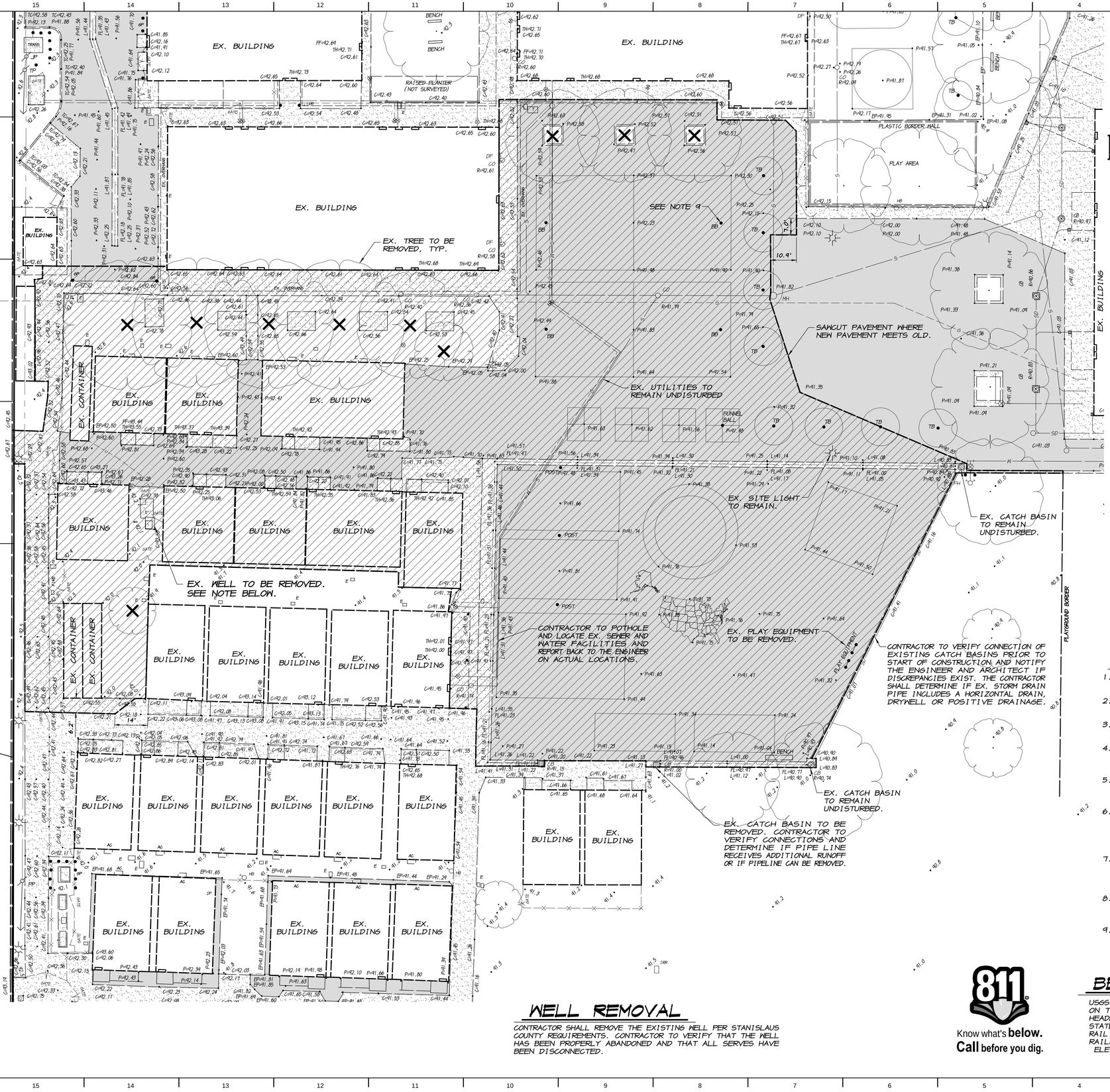
Plot Date & Time



WELL REMOVAL

CONTRACTOR SHALL REMOVE THE EXISTING WELL PER STANISLAUS COUNTY REQUIREMENTS. CONTRACTOR TO VERIFY THAT THE WELL HAS BEEN PROPERLY ABANDONED AND THAT ALL SERVES HAVE BEEN DISCONNECTED.

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LEGEND

- EX. GROUND ELEVATION
- EX. TOP OF CURB ELEVATION
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- EX. STORM DRAIN LINE
- EX. CATCH BASIN
- EX. CATCH BASIN DROP INLET
- EX. WATER LINE
- EX. WATER METER
- EX. FIRE HYDRANT
- EX. GATE VALVE
- EX. DRINKING FOUNTAIN
- EX. BACKFLOW PREVENTION DEVICE
- EX. HOSE BIB
- EX. MAILBOX
- EX. POWER POLE
- EX. TELEPHONE POLE
- EX. JOINT POLE
- EX. POLE WITH GUY ANCHOR
- EX. SIGN
- EX. GUARD POST
- EX. BASKET BALL GOAL
- EX. TETHER BALL POST
- EX. JOINT UTILITY TRENCH
- EX. GAS LINE
- EX. ELECTRICAL CONDUIT
- EX. TELEPHONE CONDUIT
- EX. UTILITY LINE, TYPE UNKNOWN
- EX. TELEPHONE BOX
- EX. ELECTRICAL BOX
- EX. GAS METER
- EX. LANDSCAPE IRRIGATION BOX
- EX. ELECTROLIER
- EX. CHAIN LINK FENCE
- EX. WOOD FENCE
- EX. WROUGHT IRON FENCE
- EX. TREE, SPREAD DRAWN TO SCALE
- EX. AREA OF CONCRETE
- EX. AREA OF ASPHALT PAVEMENT
- APPROX. AREA OF DEMOLITION
- EX. TREE TO BE REMOVED

GENERAL NOTES

1. LANDSCAPE AND LANDSCAPE IRRIGATION FACILITIES SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT'S PLANS.
2. CONCRETE TO BE REMOVED SHALL BE SAW CUT IN STRAIGHT LINES, OR REMOVED TO THE NEAREST COLD JOINT, AS REQUIRED.
3. ASPHALT PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES, AS SHOWN ON THE PLAN.
4. UTILITY BOXES AND COVERS, FRAMES, GRATES AND FIRE HYDRANTS SHALL BE SALVAGED FOR REUSE ON THIS PROJECT AS REQUIRED.
5. THE CONTRACTOR SHALL PROVIDE PROTECTION TO FACILITIES THAT ARE WITHIN THE AREA OF DEMOLITION, BUT ARE TO REMAIN. REFER TO THE PLAN FOR LOCATIONS.
6. EXISTING UTILITIES WITHIN THE AREA OF DEMOLITION SHALL BE PRESERVED IN PLACE, MODIFIED AS PER THE PLANS OR REMOVED AS REQUIRED. THE CONTRACTOR SHALL DETERMINE THE EXACT EXTENT OF MODIFICATIONS AND REMOVALS OF UTILITIES PRIOR TO PERFORMING THE WORK.
7. THE LIMITS OF DEMOLITION SHOWN ON THE PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT DEMOLITION LIMITS LOCATIONS BASED ON ACTUAL FIELD CONDITIONS, AS REQUIRED.
8. RECORDS INDICATE THAT THE EX. SEWER LINES MAY BE TRANSITE. CONTRACTOR TO INCLUDE PROPER HANDLING AND DISPOSAL OF PIPE IN THEIR BID.
9. ALL PLAY EQUIPMENT INCLUDING BASKETBALL HOOPS, TETHER BALL POSTS AND ANY OTHER POLES LOCATED WITHIN THE AREA OF DEMOLITION, SHALL BE REMOVED AND SALVAGED, UNLESS THE DISTRICT ELECTS TO DISPOSE OF ITEMS.

BENCHMARK

USGS PID "HS2414", BEING A DISK LOCATED ON THE NORTH END OF THE WEST CONCRETE HEADWALL OF A CULVERT, JUST EAST OF THE STATE HIGHWAY 33 AND APPROXIMATELY SEVEN RAIL LENGTHS SOUTHEAST OF THE SANCHES ROAD RAILROAD CROSSING.
ELEV. =91.50

REGISTERED PROFESSIONAL ENGINEER RYAN D. CARREL No. 61619 CIVIL STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects

TIMOTHY P. HUFF & ASSOCIATES, INC.
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LICENSED ARCHITECT JONATHAN E. GRAY C-28 REN. 1/27 STATE OF CALIFORNIA

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AEG PROJ. 1468B-25

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

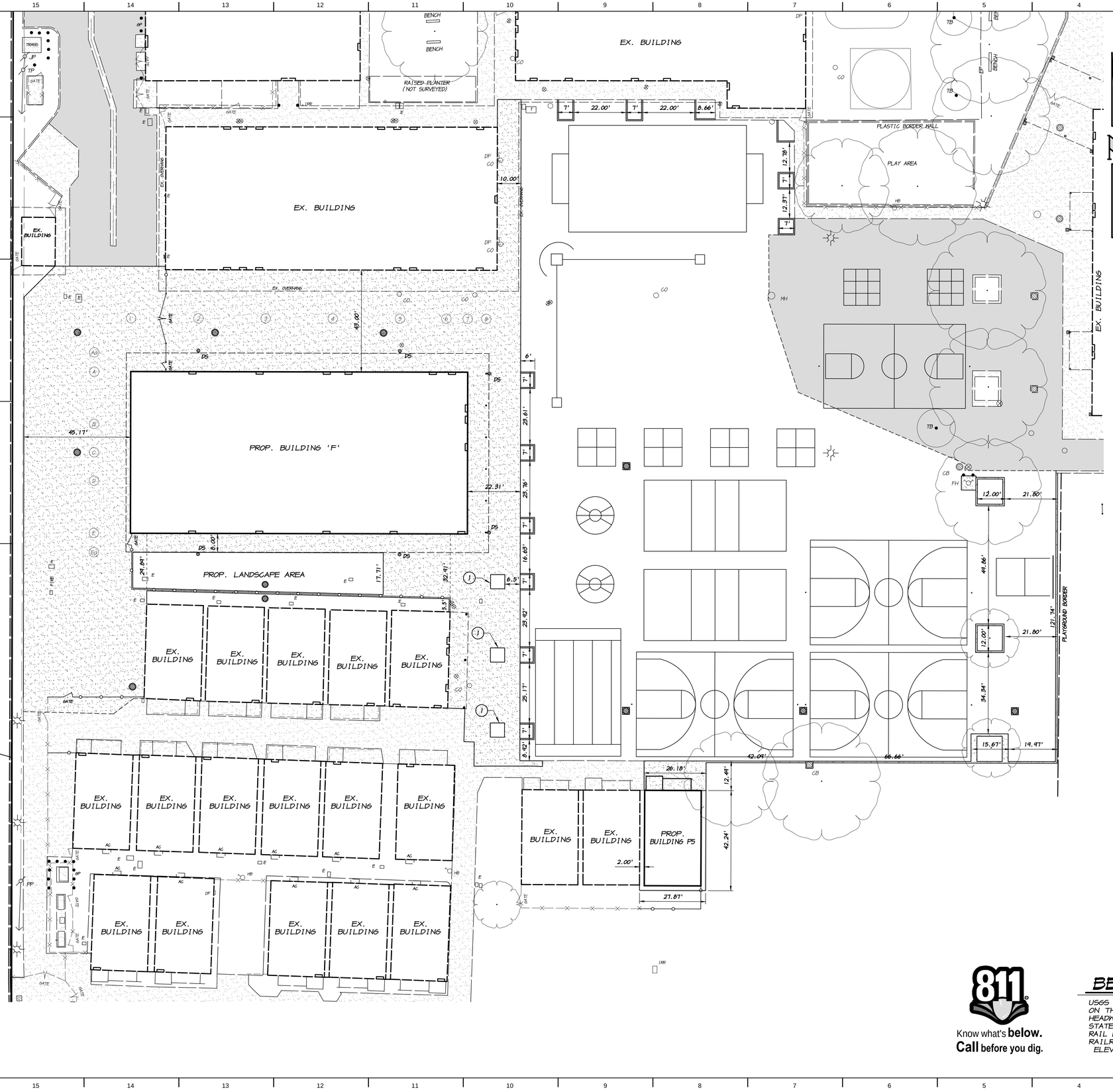
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN/CROWS LANDING UNIFIED SCHOOL DISTRICT

DEMOLITION PLAN

Project Number	2514
Date	JUNE 2026
Drawn by	J.T.S.
Checked by	R.D.C.

C3.0

Plot Date & Time



LEGEND

- EX. CURB AND GUTTER
- EP EX. EDGE OF PAVEMENT
- MH EX. MANHOLE
- CO EX. CLEAN-OUT
- CB EX. CATCH BASIN
- DI EX. CATCH BASIN DROP INLET
- W EX. WATER METER
- FH EX. FIRE HYDRANT
- EX. GATE VALVE
- DF EX. DRINKING FOUNTAIN
- EX. BACKFLOW PREVENTION DEVICE
- HB EX. HOSE BIB
- MB EX. MAILBOX
- PP EX. POWER POLE
- TP EX. TELEPHONE POLE
- JP EX. JOINT POLE
- EX. POLE WITH GUY ANCHOR
- EX. SIGN
- GP EX. GUARD POST
- BB EX. BASKET BALL GOAL
- TB EX. TETHER BALL POST
- T EX. TELEPHONE BOX
- E EX. ELECTRICAL BOX
- G EX. GAS METER
- IRR CR EX. LANDSCAPE IRRIGATION BOX
- EX. ELECTROLIER
- EX. CHAIN LINK FENCE
- EX. WOOD FENCE
- EX. WROUGHT IRON FENCE
- EX. TREE, SPREAD DRAWN TO SCALE
- EX. AREA OF CONCRETE
- EX. AREA OF ASPHALT PAVEMENT
- PROP. CURBING
- PROP. FENCE, SEE ARCHITECTURAL PLANS FOR DETAILS.
- PROP. AREA OF CONCRETE
- PROP. AREA OF ASPHALT PAVEMENT

KEY NOTES

(1) THE LOCATION OF THE THREE TREE WELLS MAY NEED TO BE ADJUSTED BASED ON LOCATION OF EXISTING UTILITIES. PRIOR TO FORMING OR POURING OF CONCRETE, THE CONTRACTOR SHALL CONFIRM WITH THE ARCHITECT AND ENGINEER THAT THE TREE LOCATIONS ARE FINALIZED. SEE POTHOLE NOTE ON THE DEMOLITION PLAN.

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

BENCHMARK

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ELEV. =91.50

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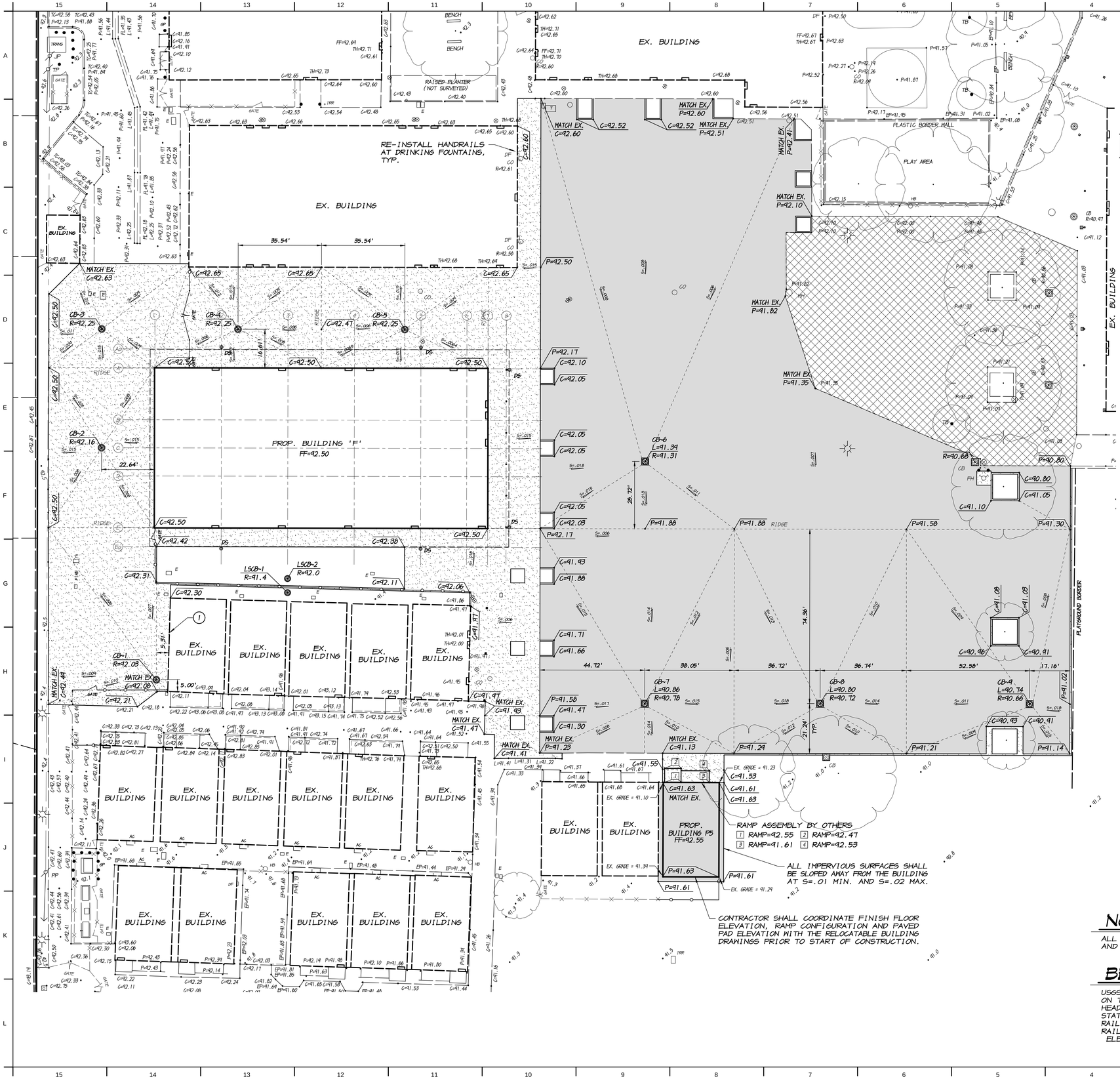
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN/CROWS LANDING UNIFIED SCHOOL DISTRICT

HORIZONTAL CONTROL PLAN

Project Number	2514
Date	JUNE 2026
Drawn by	J.T.S.
Checked by	R.D.C.

C4.0

Plot Date & Time


EX. BUILDING
RE-INSTALL HANDRAILS AT DRINKING FOUNTAINS, TYP.
EX. BUILDING
35.54'
35.54'
PROP. BUILDING 'F'
FF=42.50
22.64'
LSCB-1
R=91.4
LSCB-2
R=42.0
EX. BUILDING
EX. BUILDING
EX. BUILDING
EX. BUILDING
EX. BUILDING
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EX. BUILDING
EX. BUILDING
EX. BUILDING
EX. BUILDING
EX. BUILDING
EX. BUILDING
EX. BUILDING
PROP. BUILDING F5
FF=92.55
EX. BUILDING
EX. BUILDING
EX. BUILDING
EX. BUILDING
EX. BUILDING
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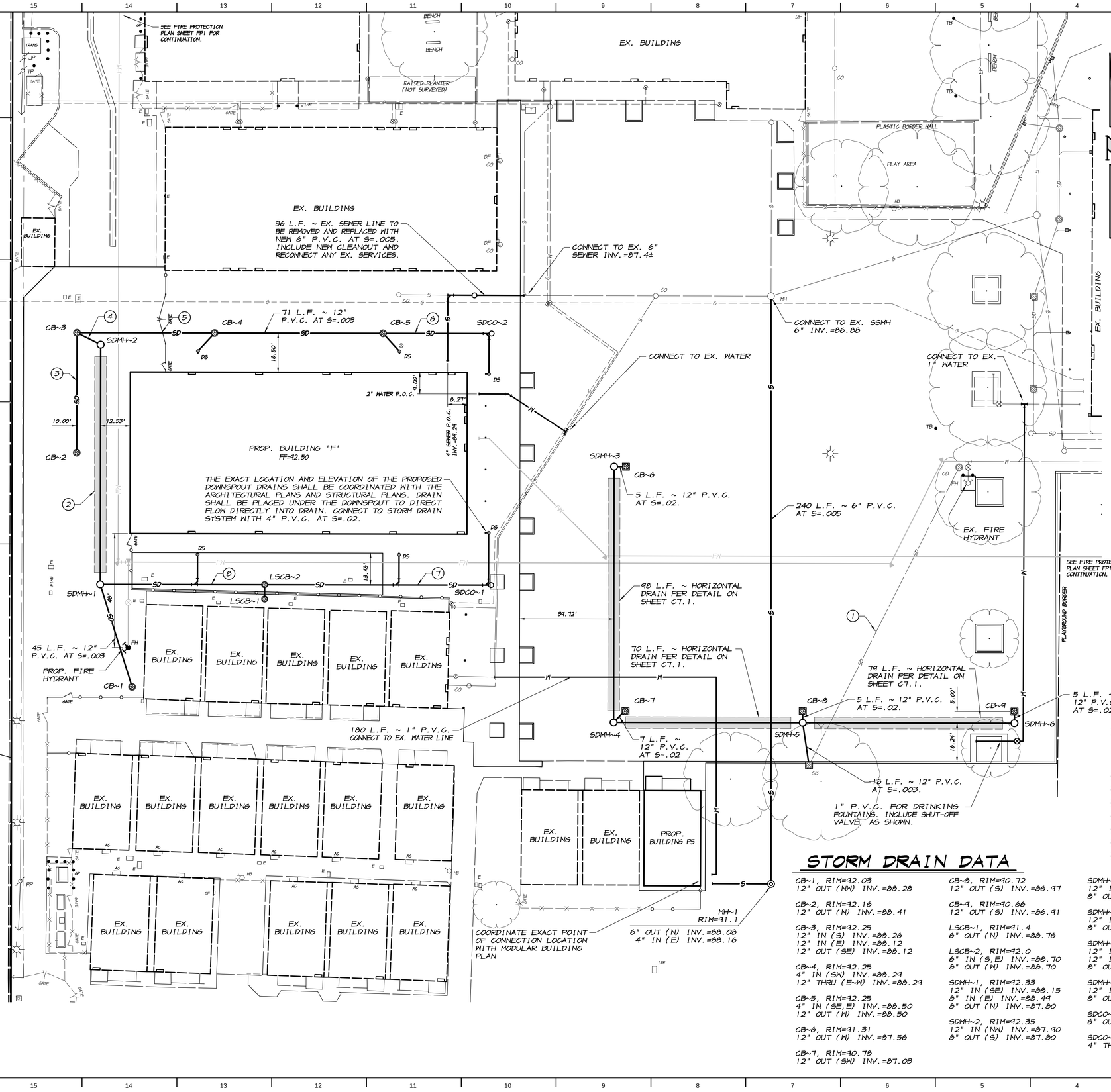

LEGEND

- EX. CURB AND GUTTER
- EX. EDGE OF PAVEMENT
- EX. SANITARY SEWER LINE
- EX. MANHOLE
- EX. CLEAN-OUT
- EX. STORM DRAIN LINE
- EX. CATCH BASIN
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- EX. ELECTROLIER
- EX. CHAIN LINK FENCE
- EX. WOOD FENCE
- EX. WROUGHT IRON FENCE
- EX. TREE, SPREAD DRAWN TO SCALE
- PROP. SANITARY SEWER LINE
- PROP. SANITARY SEWER MANHOLE (A C7.0)
- PROP. SANITARY SEWER CLEANOUT (B C7.0)
- PROP. STORM DRAIN LINE
- PROP. HORIZONTAL DRAIN (L C7.1)
- PROP. STORM DRAIN MANHOLE (A C7.0)
- PROP. STORM DRAIN CATCH BASIN (D C7.0)
- PROP. LANDSCAPE CATCH BASIN (F C7.0)
- PROP. DOWNSPOUT DRAIN (E C7.0)
- PROP. STORM DRAIN CLEANOUT (B C7.0)
- PROP. DOMESTIC WATER LINE
- PROP. FIRE PROTECTION WATER LINE SEE FIRE PROTECTION PLAN SHEET FP1.
- PROP. FIRE HYDRANT (C C7.0) SEE FIRE PROTECTION DRAWINGS FOR CONNECTION.
- PROP. WATER VALVE (H C7.0)

KEY NOTES

1. CONTRACTOR TO VERIFY CONNECTION OF EXISTING CATCH BASINS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE ENGINEER AND ARCHITECT IF DISCREPANCIES EXIST. THE CONTRACTOR SHALL DETERMINE IF EX. STORM DRAIN PIPE INCLUDES A HORIZONTAL DRAIN, DRYWELL OR POSITIVE DRAINAGE.
2. 91 L.F. ~ HORIZONTAL DRAIN PER DETAIL ON SHEET C7.1.
3. 51 L.F. ~ 12" P.V.C. AT S=.003
4. 11 L.F. ~ 12" P.V.C. AT S=.02
5. 50 L.F. ~ 12" P.V.C. AT S=.003
6. 45 L.F. ~ 4" P.V.C. AT S=.02
7. 94 L.F. ~ 6" P.V.C. AT S=.01
8. 69 L.F. ~ 12" P.V.C. AT S=.003

STORM DRAIN DATA

CB~1, RIM=92.03
12" OUT (NW) INV.=88.28

CB~2, RIM=92.16
12" OUT (N) INV.=88.41

CB~3, RIM=92.25
12" IN (S) INV.=88.26
12" IN (E) INV.=88.12
12" OUT (SE) INV.=88.12

CB~4, RIM=92.25
4" IN (SW) INV.=88.29
12" THRU (E~W) INV.=88.29

CB~5, RIM=92.25
4" IN (SE,E) INV.=88.50
12" OUT (W) INV.=88.50

CB~6, RIM=91.31
12" OUT (W) INV.=87.56

CB~7, RIM=90.78
12" OUT (SW) INV.=87.03

CB~8, RIM=90.72
12" OUT (S) INV.=86.97

CB~9, RIM=90.66
12" OUT (S) INV.=86.91

LSCB~1, RIM=91.4
6" OUT (N) INV.=88.76

LSCB~2, RIM=92.0
6" IN (S,E) INV.=88.70
8" OUT (W) INV.=88.70

SDMH~1, RIM=92.33
12" IN (SE) INV.=88.15
8" IN (E) INV.=88.49
8" OUT (N) INV.=87.80

SDMH~2, RIM=92.35
12" IN (NW) INV.=87.90
8" OUT (S) INV.=87.80

SDMH~3, RIM=91.41
12" IN (E) INV.=87.46
8" OUT (S) INV.=86.70

SDMH~4, RIM=90.85
12" IN (NE) INV.=86.89
8" OUT (N,E) INV.=86.70

SDMH~5, RIM=90.82
12" IN (N) INV.=86.87
12" IN (S) INV.=86.87
8" OUT (W,E) INV.=86.70

SDMH~6, RIM=90.81
12" IN (N) INV.=86.81
8" OUT (W) INV.=86.70

SDCO~1, RIM=91.97
6" OUT (W) INV.=89.18

SDCO~2, RIM=92.41
4" THRU (S~N) INV.=89.40

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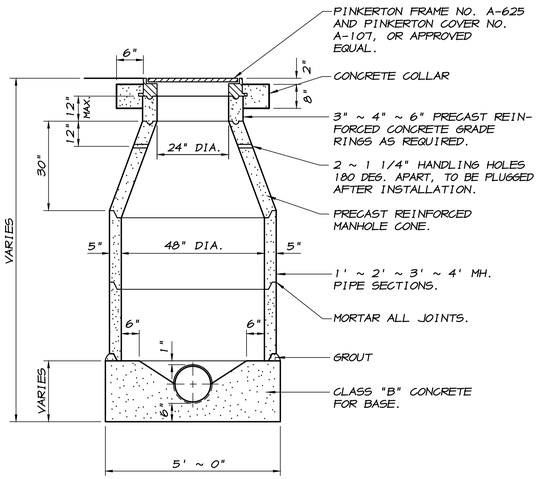
VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN/CROWS LANDING UNIFIED SCHOOL DISTRICT

UTILITY PLAN

Project Number	2514
Date	JUNE 2026
Drawn by	J.T.S.
Checked by	R.D.C.

C6.0

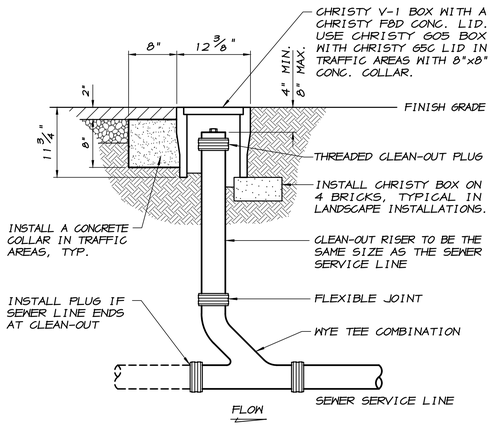
Plot Date & Time



NOTES : PRECAST REINFORCED CONCRETE MANHOLE UNITS SHALL CONFORM TO A.S.T.M. C-478. PRIOR APPROVAL MUST BE OBTAINED BEFORE INSTALLING MORE THAN 12" OF GRADE RINGS.

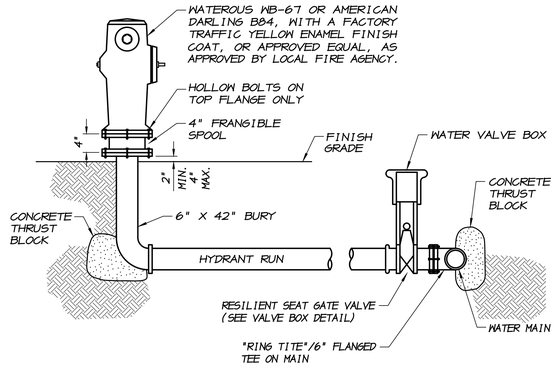
MANHOLE DETAIL (A)

NO SCALE



CLEAN-OUT DETAIL (B)

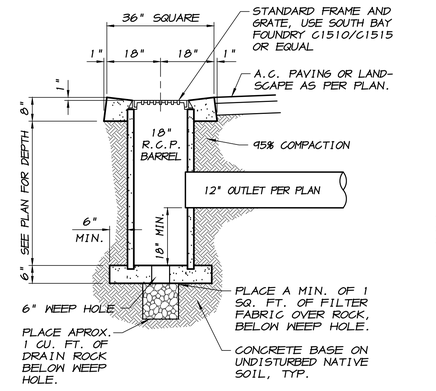
NO SCALE



A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS (CFC 507).

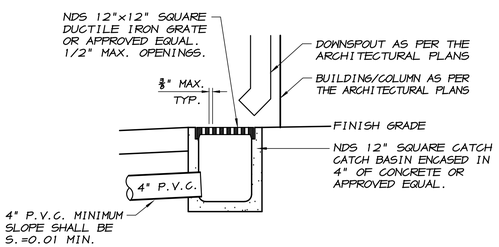
FIRE HYDRANT DETAIL (C)

NO SCALE



CATCH BASIN DETAIL (D)

SCALE: 1"=2'

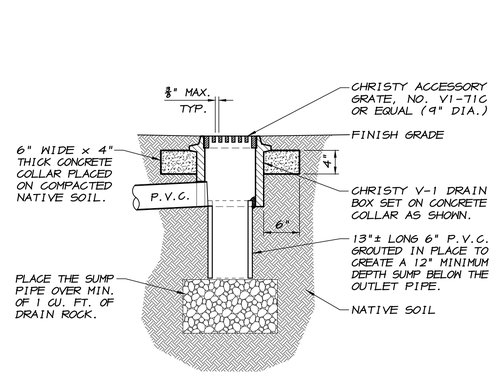


NOTE

THE EXACT LOCATION AND ELEVATION OF THE PROPOSED DOWNSPOUT DRAINS SHALL BE COORDINATED WITH THE ARCHITECTURAL PLANS AND STRUCTURAL PLANS. DRAIN SHALL BE PLACED UNDER DOWNSPOUT TO ALLOW ENCOURAGE FLOW DIRECTLY INTO DRAIN.

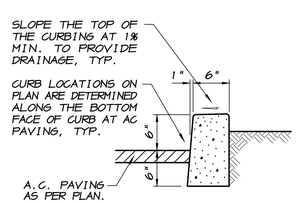
DOWNSPOUT DRAIN (E)

NO SCALE



LANDSCAPE CATCH BASIN (F)

NO SCALE

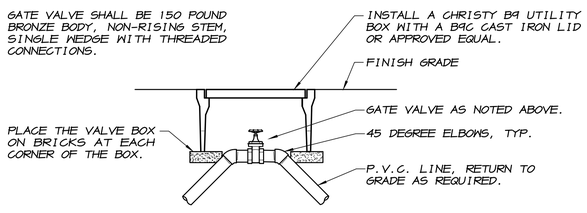


NOTE

WHERE CURBING IS TO BE INSTALLED ALONG A BUILDING OR ANY OTHER LOCATION REQUIRING DOORWAY LANDINGS OR AN A.D.A. / C.B.C. PATH OF TRAVEL, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THAT THE CONCRETE INSTALLATIONS WILL BE IN CONFORMANCE WITH THE CODE REQUIREMENTS. THE CONTRACTOR SHALL VERIFY THE ADEQUACY OF THE CONSTRUCTION PRIOR TO PLACING THE CONCRETE, AND IF NECESSARY DUE TO CONSTRUCTION TOLERANCES, FIELD ADJUST THE ACTUAL ELEVATIONS ACCORDINGLY TO MEET THE REQUIRED A.D.A. AND C.B.C. CODE REQUIREMENTS.

6" CURBING DETAIL (G)

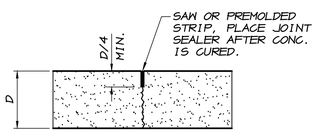
NO SCALE



3" AND SMALLER WATER LINE

GATE VALVE DETAIL (H)

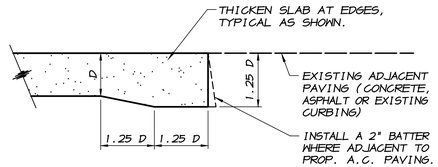
NO SCALE



TYPICAL CONCRETE CRACK

CONTROL JOINT DETAIL (I)

NO SCALE



CONCRETE PAVEMENT

THICKENED EDGE DETAIL (J)

NO SCALE

REGISTERED PROFESSIONAL ENGINEER
RYAN D. CARROLL
No. 61619
CIVIL
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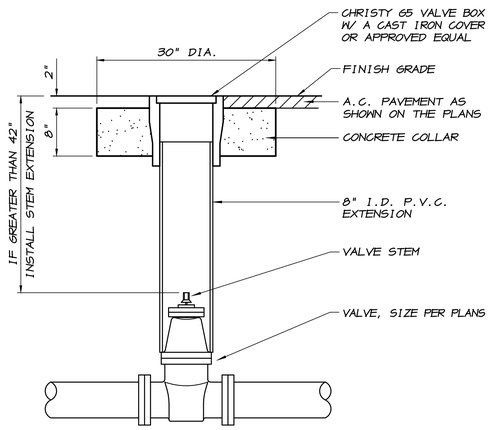
NEWMAN/CROWS LANDING UNIFIED SCHOOL DISTRICT

CONSTRUCTION DETAILS

Project Number	2514
Date	JUNE 2026
Drawn by	J.T.S.
Checked by	R.D.C.

C7.0

Plot Date & Time

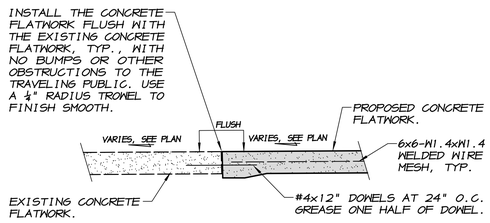


NOTES

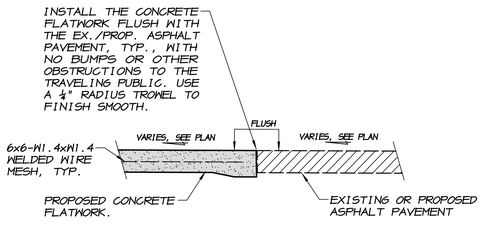
1. CLEAN INSIDE OF VALVE BOX EXTENSION SO THAT IT IS FREE OF DIRT AND DEBRIS
2. SET VALVE BOX TO FINISH GRADE
3. COMPACT NATIVE SOIL AROUND BASE WITH MECHANICAL TAMPER TO 95% RELATIVE COMPACTION AND ENCASE WITH 8" OF CONCRETE
4. AFTER CONCRETE SETS, PATCH WITH 2" OF ASPHALT CONCRETE
5. IN EXISTING TRAFFIC AREAS, CONCRETE SHALL BE MADE WITH TYPE III HIGH EARLY STRENGTH CEMENT. BARRICADES TO BE REMOVED IN 24 HOURS

VALVE BOX DETAIL (K)

NO SCALE



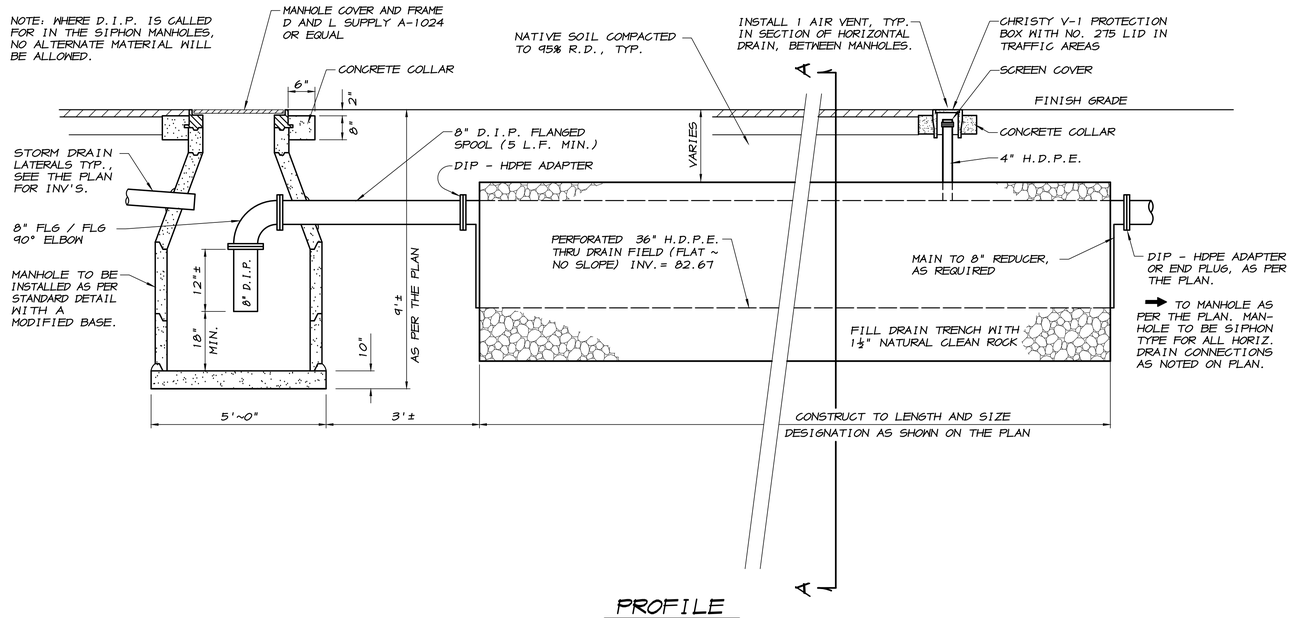
PROPOSED CONCRETE TO EXISTING CONCRETE



PROPOSED CONCRETE TO EX./PROP. ASPHALT

FLUSH CONCRETE DETAIL (M)

NO SCALE



PROFILE

NOTE

1. PRECAST REINFORCED CONCRETE MANHOLE UNITS SHALL CONFORM TO A.S.T.M. C-478. CONSTRUCT PIPE JOINTS AT 4.0' MAXIMUM FROM BASE OF MANHOLE. PRIOR APPROVAL MUST BE OBTAINED BEFORE INSTALLING MORE THAN 12" OF GRADE RINGS. PLUG ALL HANDLING HOLES AFTER INSTALLATION.
2. THE HORIZONTAL DRAIN AND PERFORATED PIPE SHALL BE INSTALLED LEVEL WITH NO SLOPE.

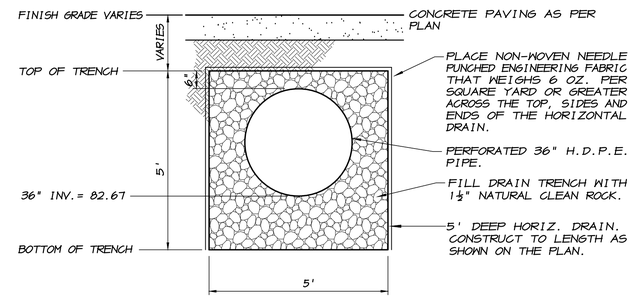
ON-SITE HORIZONTAL DRAIN MATERIAL SPECIFICATION
(1 1/2" NATURAL DRAIN ROCK)

THE AGGREGATE MATERIAL TO BE USED FOR THE HORIZONTAL DRAIN IS TO BE 1 1/2" DRAIN ROCK OBTAINED FROM NATURAL MATERIAL ONLY. NO CRUSHED PRODUCT WILL BE ALLOWED

THE SIEVE ANALYSIS OF THE MATERIAL WILL BE AS FOLLOWS:

SCREEN SIZE	+/- RETAINED	+/- PASSING
2	0	100
1 1/2	4	96
3/4 AND BELOW	NOT TO EXCEED 10% PASSING	

A MATERIAL SIEVE ANALYSIS IS TO BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR REVIEW PRIOR TO THE PLACEMENT OF THE ROCK MATERIAL



HORIZONTAL DRAIN
SECTION "A-A"

HORIZONTAL DRAIN DETAIL (L)

NO SCALE

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

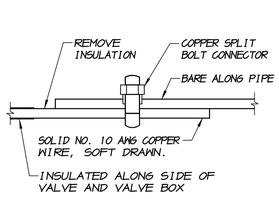
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN/CROWS LANDING UNIFIED SCHOOL DISTRICT

CONSTRUCTION DETAILS

Project Number	2514
Date	JUNE 2026
Drawn by	J.T.S.
Checked by	R.D.C.

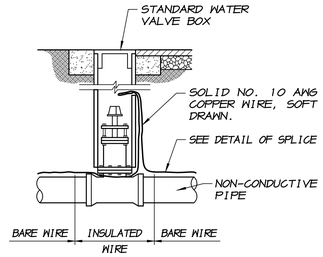
C7.1

Plot Date & Time

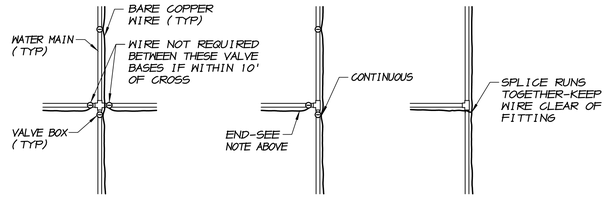


NOTE: IF WIRE ENDS AT VALVE BOX, RUN SINGLE INSULATED LEAD UP TO 10" BELOW GROUND.

DETAIL OF CONNECTION



INSTALLATION AT VALVE BOX



TYPICAL PLACING AT MAIN INTERSECTIONS

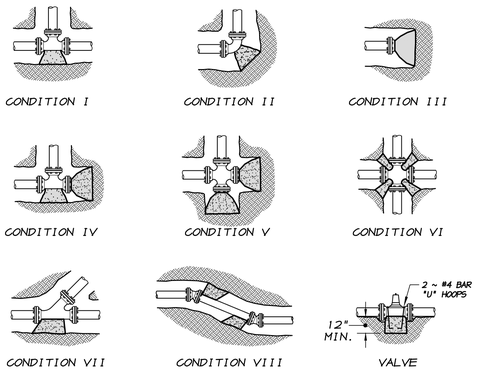
NOTES

1. WIRE TO BE CONTINUOUS BETWEEN VALVE BOXES, EXCEPT WHERE BOXES ARE WITHIN TEN (10') FEET OF PIPE INTERSECTION.
2. BARE WIRE NOT TO TOUCH VALVE OR FITTINGS. (COATED WIRE ONLY)
3. LOCATING WIRE TO BE LAID AT TOP OF PIPE.

NON-CONDUCTIVE WATER PIPE

LOCATING WIRE DETAIL

NO SCALE (N)



THRUST BLOCK BEARING AREAS IN SQ. FT.

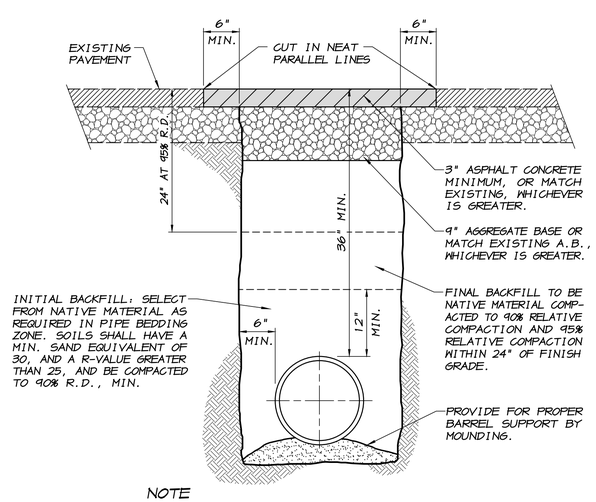
PIPE SIZE	CONDITION											
	I	II				III	IV	V	VI	VII	VIII	VALVE
ANGLE		90°	45°	22½°	11¼°							
<6"	2.0	2.7	1.6	1.2	1.0	2.0	2 @ 2.0	2 @ 2.0	4 @ 1.6	2.0	2 @ 1.6	2.0
6"	4.3	6.0	3.5	2.0	1.2	4.3	2 @ 4.3	2 @ 4.3	4 @ 3.3	4.3	2 @ 3.3	4.3
8"	7.5	10.7	6.0	3.2	2.2	7.5	2 @ 7.5	2 @ 7.5	4 @ 5.8	7.5	2 @ 5.8	7.5
10"	12.1	17.1	9.2	4.8	2.5	12.1	2 @ 12.1	2 @ 12.1	4 @ 9.3	12.1	2 @ 9.3	12.1
12"	17.2	24.1	13.3	6.9	3.5	17.2	2 @ 17.2	2 @ 17.2	4 @ 13.2	17.2	2 @ 13.2	17.2

NOTES

1. AREAS ARE FOR 225 PSI AND 1,500 PSF SOIL PRESSURE WITH 3 FEET OF COVER MINIMUM.
2. THRUST BLOCK BEARING FACES SHALL BE PLACED AGAINST UNDISTURBED SOIL, APPROVED COMPACTED BACKFILL, OR CLASS 100-E-100 SLURRY.
3. THRUST BLOCKS SHALL BE CLASS 560-C-3250 CONCRETE, UNLESS SPECIFIED OTHERWISE.
4. TO FACILITATE FUTURE REMOVAL OF THRUST BLOCKS AND LINE EXTENSION USE CARDBOARD SEPARATORS BETWEEN BLOCKS, IF NEEDED.
5. AFTER INSTALLATION. RODS, NUTS, BOLTS, WASHERS, CLAMPS, AND OTHER RESTRAINING DEVICES SHALL BE CLEANED AND THOROUGHLY COATED WITH A BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RESISTANT MATERIAL.
6. **THRUST BLOCK SHALL BE BETWEEN ONE AND TWO TIMES THE EIGHT (NFPA 24 A.10.6.1).**

THRUST BLOCK DETAILS

NO SCALE (O)



NOTE

TRENCH SETTLEMENT SHALL BE BACKFILLED AND COMPACTED TO GRADE.

TRENCH SECTION & PAVING DETAIL

NO SCALE (P)

REGISTERED PROFESSIONAL ENGINEER RYAN D. CARREL No. 61619 CIVIL STATE OF CALIFORNIA

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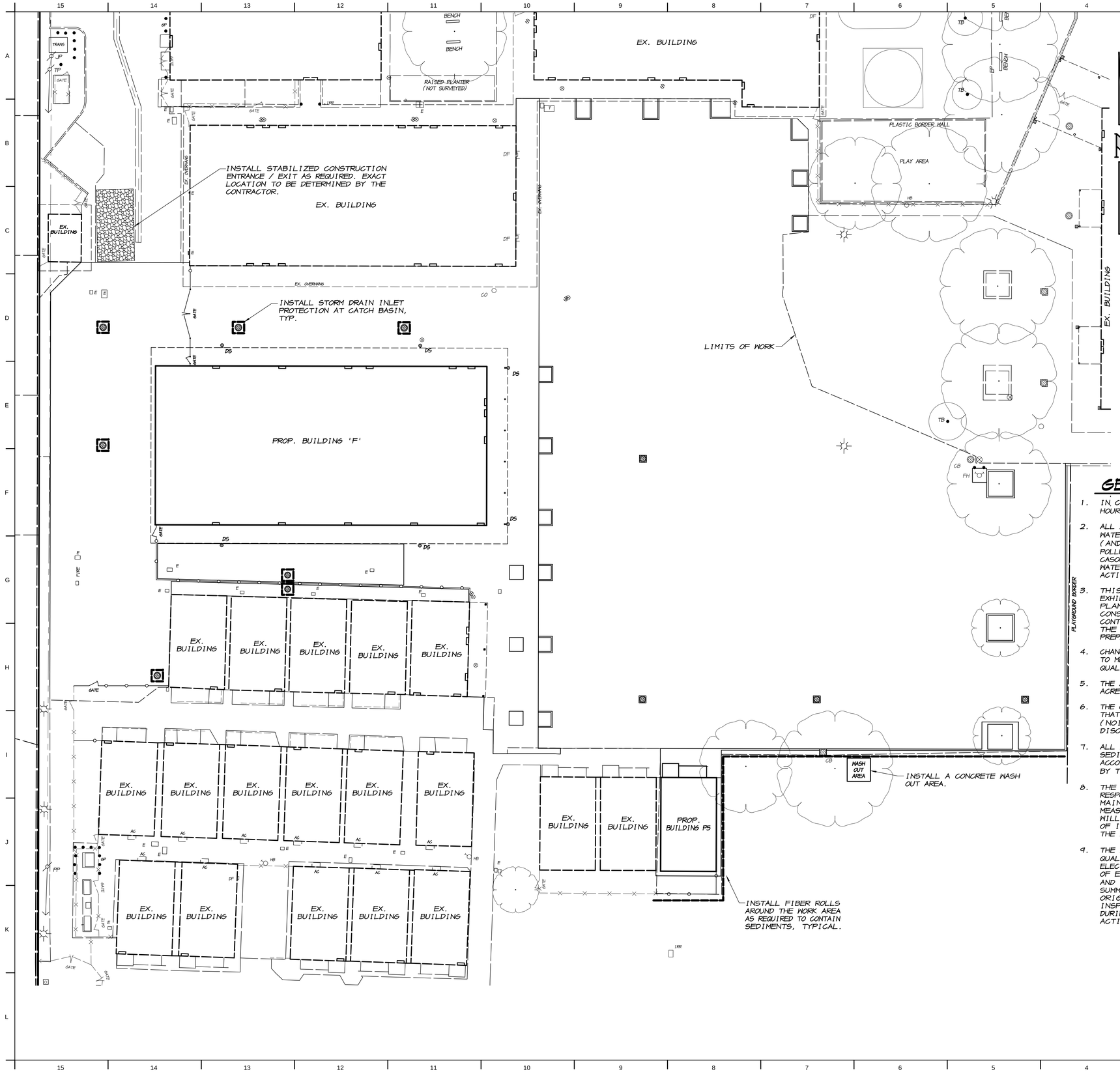
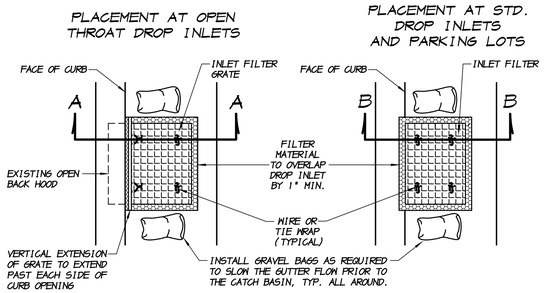
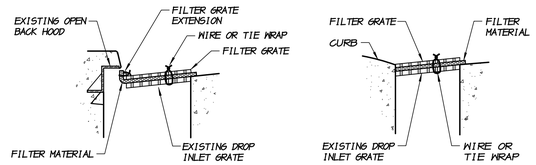
Checked by	R.D.C.

C7.2

Plot Date & Time


EX. BUILDING
BENCH
BENCH
RAISED PLANTER (NOT SURVEYED)
TRANS
UP
TP
GATE
INSTALL STABILIZED CONSTRUCTION ENTRANCE / EXIT AS REQUIRED. EXACT LOCATION TO BE DETERMINED BY THE CONTRACTOR.
EX. BUILDING
EX. BUILDING
EX. OVERHANG
INSTALL STORM DRAIN INLET PROTECTION AT CATCH BASIN, TYP.
PROP. BUILDING 'F'
FIRE
EX. BUILDING
EX. BUILDING
EX. BUILDING





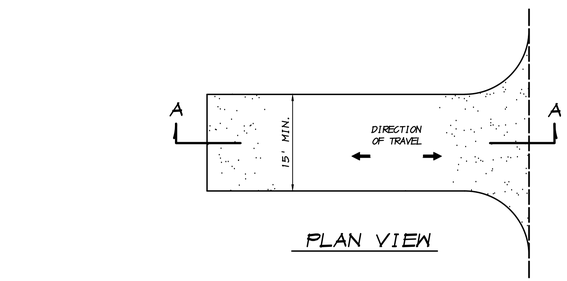
NOTES

1. THE MAXIMUM DRAINAGE AREA PER FILTER SHALL BE NO MORE THAN 1 ACRE.
2. THE FILTER PAD SHALL BE CLEANABLE POLYESTER FIBER AND ACRYLIC LATEX RESIN OR APPROVED EQUAL. THE FILTER PAD SHALL OVERLAP DROP INLET ON ALL SIDES BY A MINIMUM OF 1 INCH.
3. THE FILTER GRATE SHALL BE MADE OR EXPANDED METAL OF REBAR AND BE OF SUFFICIENT STRENGTH TO PREVENT BENDING WHEN DRIVEN OVER. GRATE MATERIAL SHALL NOT EXCEED 0.5" THICK. THE GRATE SHALL HAVE A MINIMUM 60% OPEN AREA. GRATES USED AT TYPE B AND E INLETS SHALL HAVE A VERTICAL EXTENSION TO COVER THE CURB OPENING. THE FILTER GRATE SHALL BE THE SAME SIZE AS THE DROP INLET GRATE.
4. THE FILTER PAD AND GRATE SHALL BE SECURELY ATTACHED TO THE DROP INLET BY WIRE OR TIE-WRAPS.
5. INLET FILTERS SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL. REPAIRS AND SEDIMENT AND DEBRIS REMOVAL SHALL BE MADE AS NECESSARY.
6. THE CONTRACTOR SHALL IMPLEMENT INLET PROTECTION AS PER THE REQUIREMENTS IN THE CALIFORNIA STORMWATER BMP HANDBOOK (CASQA) CONSTRUCTION FACT SHEET SE-10, TO PROVIDE DRAIN INLET PROTECTION FOR ALL CATCH BASINS LOCATED IN THE VICINITY OF THE WORK. THIS INCLUDES ANY CATCH BASINS LOCATED IN THE PUBLIC RIGHT-OF-WAY, AS WELL AS ANY ON-SITE CATCH BASINS LOCATED IN THE PARKING LOT.

STORM DRAIN

INLET PROTECTION

NO SCALE



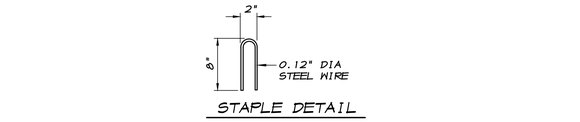
NOTES

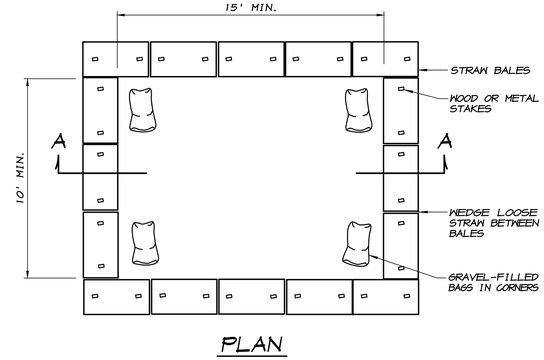
1. STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3" TO 6" MAX. AGGREGATE BASE MATERIAL CONFORMING TO CITY OR COUNTY STANDARDS. MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12". THE METHOD OF PLACING, SPREADING AND COMPACTING AGGREGATE BASE MATERIAL SHALL CONFORM TO SECTION 26 OF THE STATE SPECIFICATIONS.
2. LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50 FEET. WIDTH SHALL BE A MIN. OF 15 FEET OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII.
3. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH AGGREGATE ROCK MATERIAL OR CLEANING THE EXISTING ROCK.
4. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.
5. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE / EXIT AS PER THE REQUIREMENTS IN THE CALIFORNIA STORMWATER BMP HANDBOOK (CASQA) CONSTRUCTION FACT SHEET TC-1.

STABILIZED

CONSTRUCTION ENTRANCE / EXIT

NO SCALE





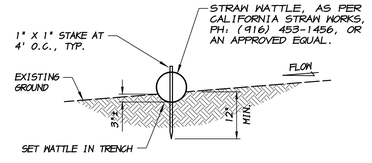
NOTE

1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THE CONCRETE WASHOUT AS PER THE REQUIREMENTS IN THE CALIFORNIA STORMWATER BMP HANDBOOK (CASQA) CONSTRUCTION FACT SHEET WM-8.

CONCRETE WASTE MANAGEMENT

CONCRETE WASHOUT

NO SCALE



NOTES

1. CONTRACTOR SHALL INSPECT FIBER ROLLS WEEKLY AND AFTER EACH RAINFALL. REPAIRS SHALL BE MADE AS NECESSARY AND SEDIMENT SHALL BE REMOVED WHEN IT HAS ACCUMULATED TO A DEPTH OF 4 INCHES. WATTLES SHALL BE REPLACED WHEN THEY HAVE BEEN DAMAGED, COLLAPSED OR DECOMPOSED.
2. WHERE FIBER ROLLS ARE TO BE PLACED ON EXISTING ASPHALT OR CONCRETE PAVEMENTS, THE ROLLS SHALL BE SECURED IN PLACE BY PLACING GRAVEL BAGS ON THE FIBER ROLL AT 8 FOOT MAXIMUM SPACING.
3. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THE FIBER ROLLS AS PER THE REQUIREMENTS IN THE CALIFORNIA STORMWATER BMP HANDBOOK (CASQA) CONSTRUCTION FACT SHEET SE-5.

FIBER ROLLS

NO SCALE

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EROSION AND SEDIMENT CONTROL DETAILS

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Drawn by	J.T.S.
Checked by	R.D.C.

C8.1

Plot Date & Time

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING	WUCOLS	DETAIL
TREES								
	ACE OGL	Acer rubrum 'October Glory'	October Glory Red Maple	3	15 gal.	35`	Moderate	1/L4.1
	CER OKL	Cercis canadensis texensis 'Oklahoma'	Oklahoma Texas Redbud	9	15 gal.	30`	Moderate	1/L4.1
	GIN PSG	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Maidenhair Tree	6	15 gal.	per plan	Moderate	1/L4.1
INERT GROUNDCOVER								
	DG	Decomposed Granite	3/8" minus, tan color, loose fill	1,154 sf	3"min. depth		Moderate	3/L4.1
SOD/SEED								
	Tur bol	Turf Sod Bolero Plus	Fescue blend	9,459 sf	sod		SLA	2/L4.1

PLANTING NOTES

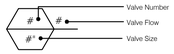
1. Examine site conditions and locate utilities prior to start of work. Report any conflicts to Owner or Landscape Architect prior to starting work. Start of work implies acceptance of site conditions.
2. Confirm all plant quantities. The quantity of symbols on the plan shall have priority over the quantity provided in the legend.
3. Contractor is responsible for maintaining current condition of existing landscape to remain. Any damage that occurs to landscape after start of work shall be repaired or replaced at no additional expense to the Owner.
4. The contractor shall be responsible for the purchasing of all material to provide a complete installation per the intent of the contract documents.
5. The contractor is responsible for the protection of all material until the project has been completely turned over to the owner.
6. Landscape Architect reserves the right to review plant material prior to planting. Plant material may be rejected at any time due to condition, form, or damage, before or after planting. Installed and then rejected material shall be replaced by the contractor at contractor expense.
7. All plant material to be nursery grown in a climate similar to that of the project site. All plant material shall:
   - 7.1. Be vigorous and of normal habit of growth.
   - 7.2. Be pest and disease free, including insects, insect eggs and larvae.
   - 7.3. Be free of girdling roots, sun scald, abrasions, disease
8. Plants shall equal or exceed the standards as outlined by the American Standards for Nursery Stock and to applicable California Agriculture Code.
9. The landscape contractor shall, prior to installation of any plant material, provide for a Soil Agronomy Report (per WELO) from an approved soils laboratory that shall include recommendations for amending and preparing soil. Provide report to landscape architect for review and further direction regarding soil amendments and preparation. Soil analysis shall include: soil texture, infiltration rate, soil pH, total soluble salts, sodium, and percent organic matter.
10. Prepare the soil by removing all rock and debris larger than 1" from planting areas; legally dispose of materials removed from this process.
11. Amend the soil per the recommendations of the Soil Agronomy Report, including any additional amendments specified by the landscape architect, prior to the installation of plant material. Provided below is a list of minimum amendments that shall be incorporated into all planting pits and broadcast into soil to depth of 12", by means of a roto-tiller or equal, per 1000 square feet. This list is provided for Bid purposes and shall be augmented as recommended by the Soils Agronomy Report.
    - 4 cyds organic amendment. Cow manure or nitrogen-treated sawdust or ground bark humus
    - 15 lbs. soil sulfur
    - 15 lbs. 15-15-15 fertilizer
12. Notify landscape architect if site soil has been lime treated. Additional testing may be required to determine extent of lime treatment, compaction, or other condition that may be deleterious to healthy plant growth.
13. Provide weed control prior to planting. Thoroughly irrigate the site to promote germination of weed seeds that may be in the soil. Once germination has taken place spray the site with approved herbicide, (Round-Up or equal) at the rate specified by the manufacturer. Reapply as needed.
14. Planting pits for trees shall be excavated per the details provided in these plans. Planting pit backfill mix for all trees and shrubs shall consist of the following:
    - 6 parts 'on-site' soil
    - 4 parts organic amendment (same as described above)
    - 1 lb./yd. of mix 12-12-12 commercial fertilizer
    - 2 lbs./cu. yd. of mix Iron Sulfate
    - 10 lbs./cu. yd. of mix Agricultural Gypsum
15. Fertilizer tablets (20-10-5) to be placed in all planting pits in the following quantities per plant container size:
    - 15 gallon 9 tablets
    - 24" box 9 tablets
16. Plant establishment period of ninety (90) days shall commence upon notice of Substantial Completion. Maintain all plant material throughout duration of plant establishment period to a point accepted by the Landscape Architect or Owner's Representative. See Planting Specifications for additional information.
17. Trees to be planted a min. of 5'-0" from edge of paving or walls, U.O.N.
    - 17.1. Tree planting shall conform to minimum distances away from lights or other utilities, as published in the local jurisdictions standards or guidelines.
18. Prior to placing mulch, apply pre-emergent weed control, (Ronstar, or approved equal) in the amounts specified by the manufacturer.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	ARC	PSI	GPM	RADIUS	DETAIL
	Rain Bird R-VAN18 1806-SAM-P45 RV-18 Turf Rotary, 13ft.-18ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	Adj	35		14'	6/L3.1
	Rain Bird R-VAN24 1806-SAM-P45 RV-24 Turf Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	Adj	35		18'	6/L3.1
	Rain Bird RWS-B-C 1402 Root Watering System with 4.0in. diameter x 36.0in. long with locking grate, semi-rigid mesh tube, and check valve. Rain Bird bubbler option as indicated: 1401 0.25 GPM, 1402 0.5 GPM, 1404 1.0 GPM, 1408 2.0 GPM. Install (2) bubblers per tree, install on opposite sides of the root ball.	360	20	0.5	3'	7/L3.1

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS	DETAIL
	Rain Bird 6504-PC, FC-SS 14 Turf Rotor, 4in. Pop-Up, Stainless Steel Riser, Adjustable and Full Circle. With Removable Seal-A-Matic Check Valve, 1in. Female Threaded Inlet.	40	11.3	50'	5/L3.1

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	DETAIL
	Rain Bird PESB Plastic Electric Remote-Control Valve, Globe Configuration, with NPT Threaded Inlet/Outlet, size per plans	1/L3.1
C	Existing Controller Model IC-2400-M, located adjacent to pump station, per design drawings for Multi-Purpose and Admin Building (App #02-120551). Connect new valves, add new modules as needed to create sufficient zones for this project.	
X X	Main Line Stub Stub main line for future use. Extend common wire and pilot wires in number provided on plans at each location. The pressure and flow provided to that location are indicated next to the cap symbol.	2/L3.1
POC	Point of Connection Existing pump station. Design based on 45 psi and 82 gpm min. available at POC, per design drawings for Multi-Purpose and Admin Bldg (App #02-120551).	
	Irrigation Lateral Line: PVC Schedule 40	3/L3.1
	Irrigation Mainline: PVC Schedule 40	2/L3.1
	Pipe Sleeve: PVC Class 200 SDR 21 Sleeve dia. to be 2x pipe diameter (min. 2"). Install wiring in separate 1" electrical conduit PVC at main line crossings.	4/L3.1



EXISTING IRRIGATION NOTES

1. The new irrigation system for this project connects to an existing system. Contractor shall investigate the existing system and verify that it can support the design as shown; contact the landscape architect if found otherwise.
2. Modifications are necessary to the existing system as part of the Work of this project. Contractor shall modify and reconnect all existing zones as required to provide continued water supply to the existing zones and to provide a coordinated and functional irrigation system for the overall site at completion of work.
3. The design of these plans is based on the following parameters of the existing system. Confirm and report any discrepancies to landscape architect for further clarification or direction as may be required:
   - Pressure: 47 psi
   - Available Flow: 82 gpm
4. Contractor shall investigate the existing controller to determine if it is functional and feasible for connection of valves used for the new irrigation in this design. Report findings to Owner's Representative and landscape architect for final determination and additional direction.

IRRIGATION NOTES

1. Contractor shall become familiar with the drawings, specifications, and site conditions prior to beginning work. Should conflicting information be found in these documents or between these documents and site conditions, notify the Landscape Architect before proceeding with the work in question.
2. All existing utilities, water lines, and fire hydrants shall remain connected and in full continuous operation unless specifically directed otherwise.
   - 2.1. Irrigation backflow prevention device and meter are existing on this project. Verify both are in proper operation, meet current code requirements, and are sufficient for the work of these plans.
3. Irrigation plan is diagrammatic. Actual routing of pipe and location of equipment shall be determined based on field conditions and as directed by the Landscape Architect. Install pipe and equipment in landscape areas wherever possible unless specifically noted otherwise. Stake layout of mainline and primary laterals for field review and approval prior to trenching. Field adjust existing irrigation system as necessary.
4. Pipe Sizing:
   - 4.1. Minimum pipe size shall be 3/4".
   - 4.2. Unlabeled pipe segments shall be equal to the size of the segment immediately upstream.
   - 4.3. In making adjustments to irrigation zone layouts Contractor shall be responsible to determine pipe sizes as required to deliver water pressure required for each outlet device considering flow rate, elevation changes, length of run, and other factors affecting pressure loss. Maximum flows in various pipe sizes shall not exceed the following guidelines. Flows may may need to be significantly less than the maximums stated below to off-set other factors affecting pressure loss:
     - 4.3.1. 3/4": up to 8 gpm.
     - 4.3.2. 1": 8-12 gpm.
     - 4.3.3. 1-1/4": 12-22 gpm.
     - 4.3.4. 1-1/2": 22-30 gpm.
     - 4.3.5. 2": 30-50 gpm.
   - 4.4. Mainline pipe sizes shall not be changed without written approval of the Landscape Architect.
   - 4.5. Lateral line pipe runs of lengths greater than the typical distance between outlet devices shall not be made without written approval of the Landscape Architect.
5. Do not install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Notify the Landscape Architect of all such conditions immediately upon discovery. In the event this notification is not provided, the Contractor shall assume full responsibility for all revisions necessary in response to field conditions with no additional compensation.
6. Sleeves:
   - 6.1. All pipe under existing and proposed paving shall be installed in sleeves.
   - 6.2. Sleeves are shown for contractor's convenience. Contractor shall be responsible to coordinate irrigation sleeve locations and installation with other trades.
   - 6.3. Extend all sleeves 18 inches beyond paving, cap and clearly mark by approved means to facilitate recovery.
   - 6.4. Install sleeves to accommodate future paving where indicated or as may be needed.
7. Spray Heads and Rotors:
   - 7.1. Install perpendicular to grade unless otherwise noted in plans.
8. Contractor to flush entire system and adjust all delivery devices and assemblies for complete coverage and reduced over-spray, prior to project completion.

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LANDSCAPE DEMOLITION LEGEND

Existing turf and landscape areas to remain. Preserve and protect in place. Do not not store materials, and do not park or drive vehicles in this area. Maintain existing irrigation in operable condition throughout duration of the Work of this project.

Restore or replace planting and turf areas that are damaged as part of the Work of this project; includes any area of the campus that may not be shown in these landscape plans. All areas of repair shall be repaired to the satisfaction of the District.

In areas needing repair, Contractor shall grade damaged areas as needed to return to existing conditions and to coordinate with any proposed grading associated with this project. Any fill required shall be of a suitable quality for the purpose. Planting shall be restored with existing species. Plant maintenance for repaired areas shall be included with the plant maintenance component of the proposed work. Irrigation that is damaged shall be replaced in kind for model and manufacturer.

Area of turf renovation. See Planting Plan for work in this area.

Existing landscape to be removed.

Turf Areas: Provide min. (3) applications of approved herbicide to kill turf; applications to be minimum (1) week apart. Once turf is dead, remove turf down through root zone at a minimum. Coordinate with the work of other consultant's plans associated with this project for other Work that may be required in this area. Verify limit of demolition with District and Architect prior to start of work.

Landscape Areas: Remove all shrubs, ground cover and trees. Remove root balls and roots to a minimum 24" below grade. Fill holes or depressed areas with suitable fill and return to uniform graded level.

Contractor to remove and dispose of all debris associated with this demolition, unless otherwise approved by District.

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NEWMAN - CROWS LANDING UNIFIED SCHOOL DISTRICT

LANDSCAPE SCHEDULES AND NOTES

Project Number	2514 (SHLA 25-46)
Date	APRIL 2026
Drawn by	RSH
Checked by	RSH

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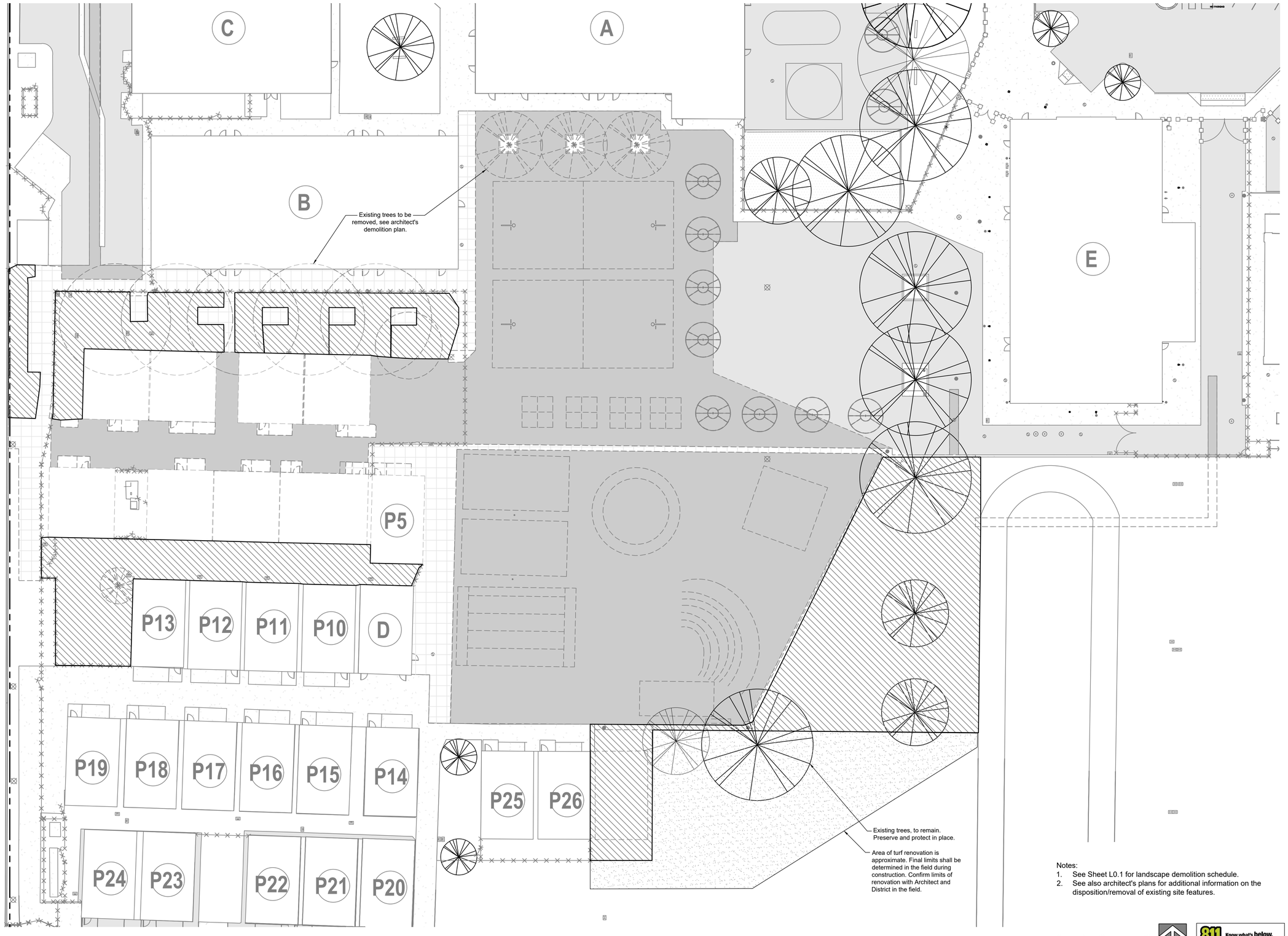

Notes:
1. See Sheet L0.1 for landscape demolition schedule.
2. See also architect's plans for additional information on the disposition/removal of existing site features.

0' 10' 20' 40'
scale: 1" = 20'-0"

NORTH

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IRRIGATION AND LANDSCAPE DEMOLITION PLAN

Project Number	2514 (SHLA 25-46)
Date	APRIL 2026
Drawn by	RSH
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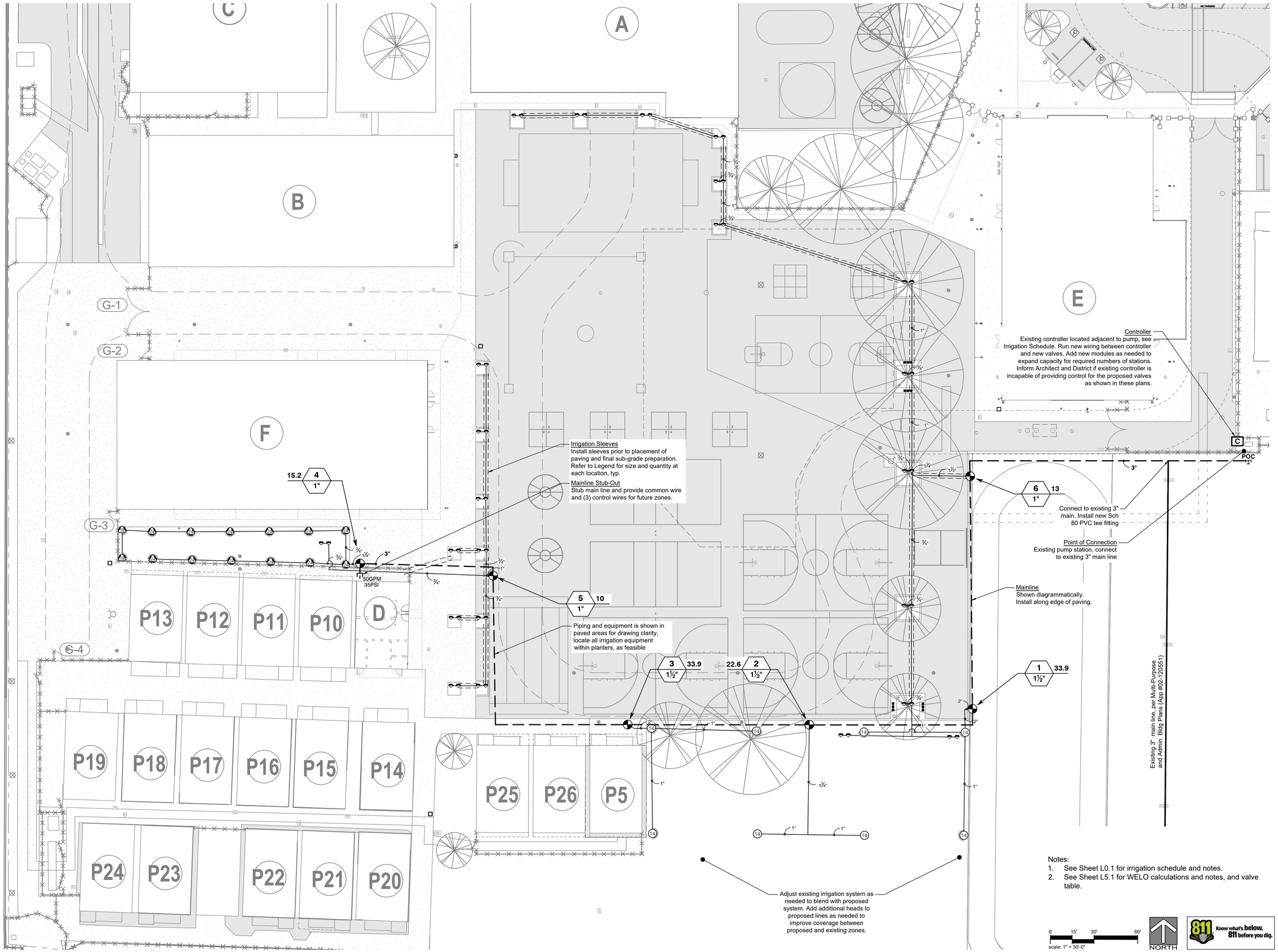

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IRRIGATION PLAN

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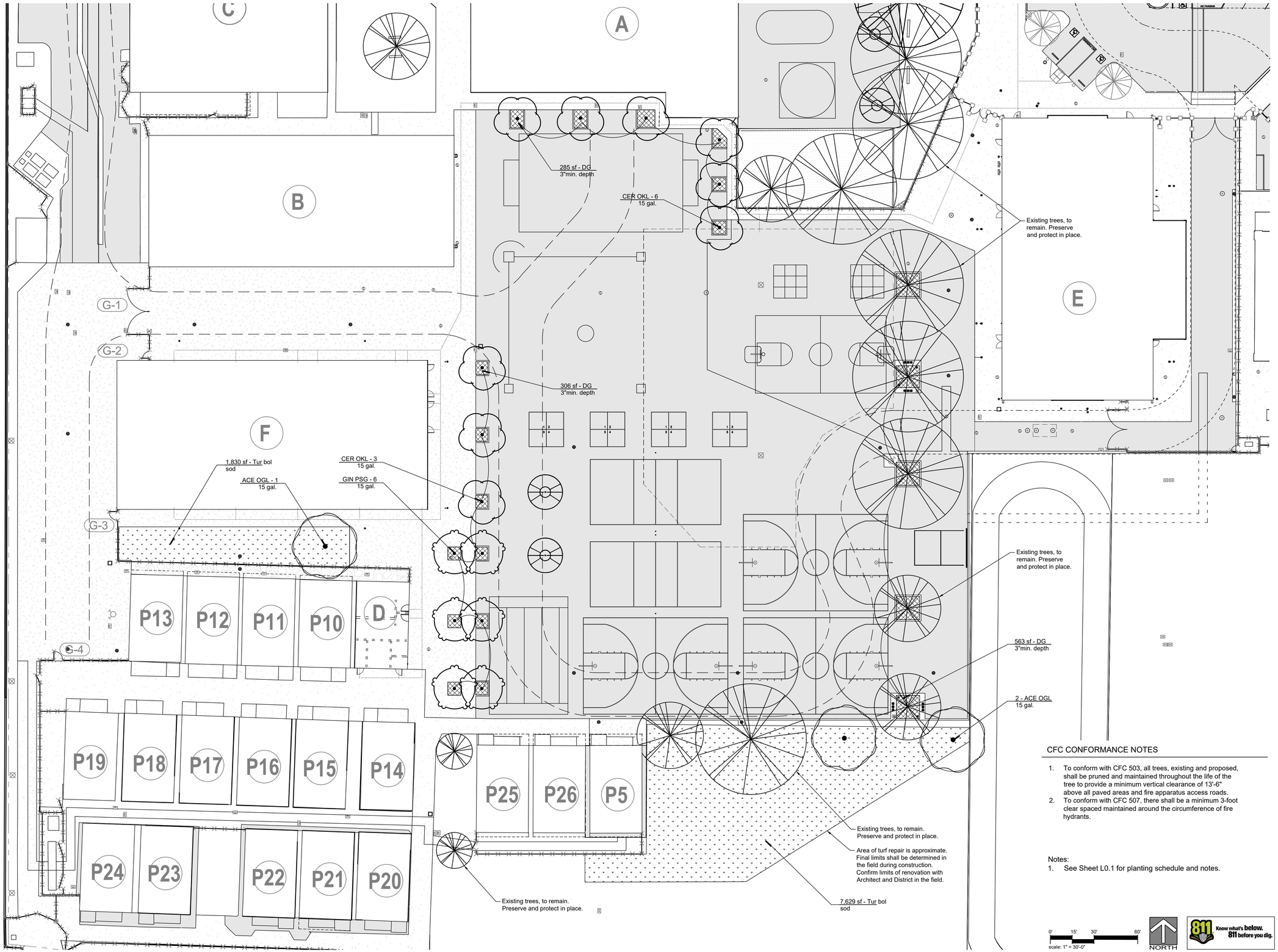

CFC CONFORMANCE NOTES

1. To conform with CFC 503, all trees, existing and proposed, shall be pruned and maintained throughout the life of the tree to provide a minimum vertical clearance of 13'-6" above all paved areas and fire apparatus access roads.
2. To conform with CFC 507, there shall be a minimum 3-foot clear spaced maintained around the circumference of fire hydrants.

Notes:
1. See Sheet L0.1 for planting schedule and notes.

0' 15' 30' 60'
scale: 1" = 30'-0"

NORTH

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PLANTING PLAN

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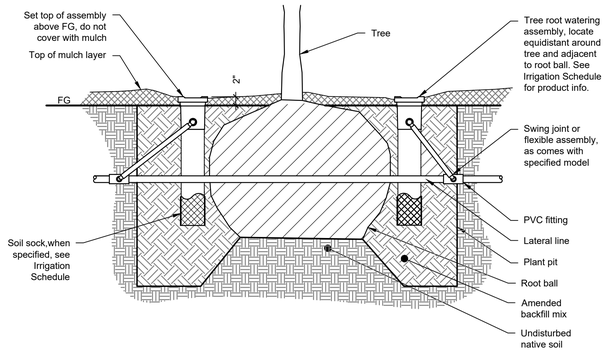
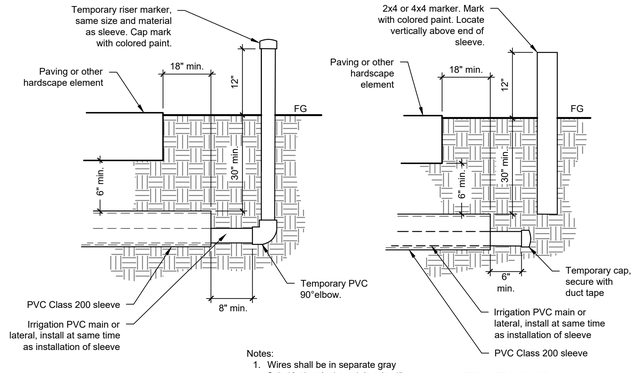


7 TREE ROOT WATERING SYSTEM

NTS 328401-17

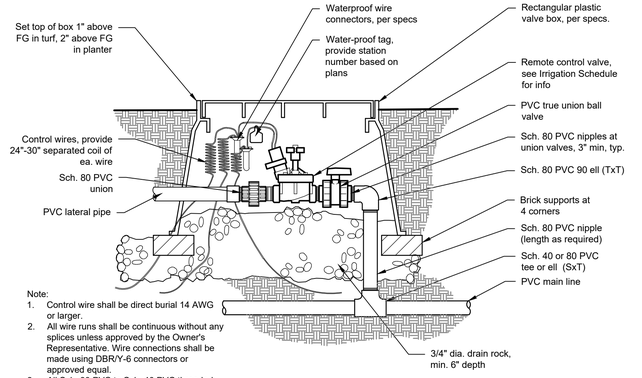


Notes:
1. Wires shall be in separate gray Sch 40 electrical conduit, min. 1" dia.
2. Install sleeves side by side in the same trench.

ALTERNATE MARKER

4 IRRIGATION SLEEVE

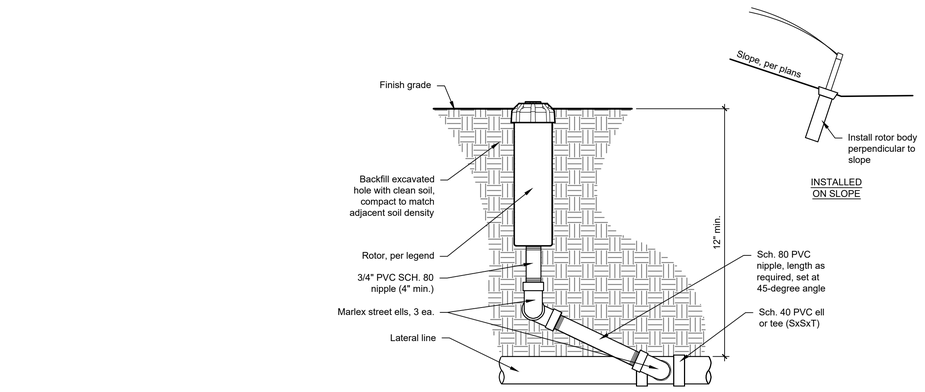
NTS 328401.04-26



Note:
1. Control wire shall be direct burial 14 AWG or larger.
2. All wire runs shall be continuous without any splices unless approved by the Owner's Representative. Wire connections shall be made using DBR/Y-6 connectors or approved equal.
3. All Sch. 80 PVC to Sch. 40 PVC threaded connections shall be made using teflon tape.
4. Valve boxes shall be located in planting areas.

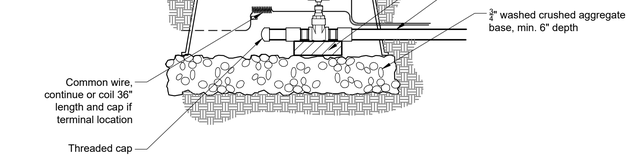
1 REMOTE CONTROL VALVE

NTS 328401.03-12



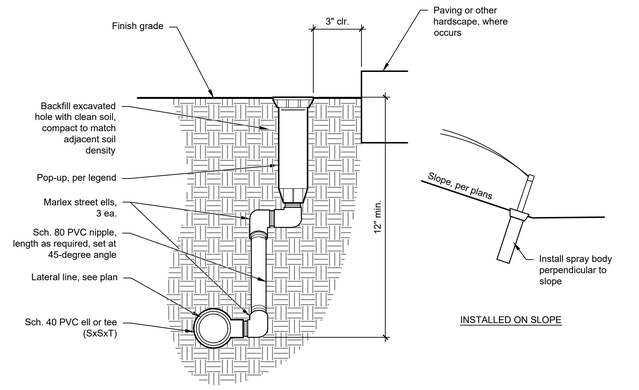
5 GEAR ROTOR

NTS 328401-15



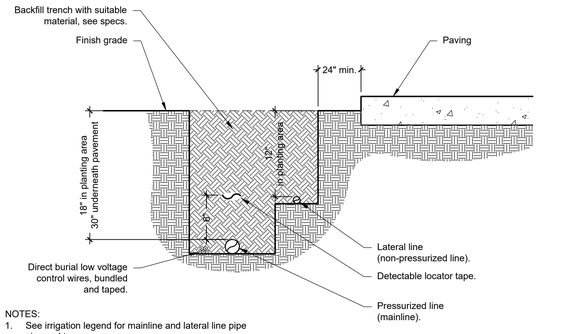
2 MAIN LINE STUB-OUT

1" = 1'-0" 328401.04-28



6 POP-UP SPRAY

NTS 328401-16



NOTES:
1. See irrigation legend for mainline and lateral line pipe size and type.
2. Direct burial control wires shall be installed in Sch. 40 PVC electrical conduit if required.
3. 2-wire irrigation wire shall be installed in Sch. 40 PVC electrical conduit.
4. Detectable locator tape shall be located six inches (6") above the entire mainline run.

3 TRENCHING

NTS 328401.04-29

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IRRIGATION DETAILS

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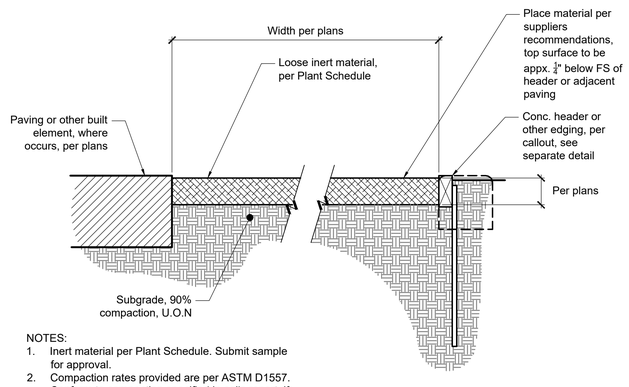
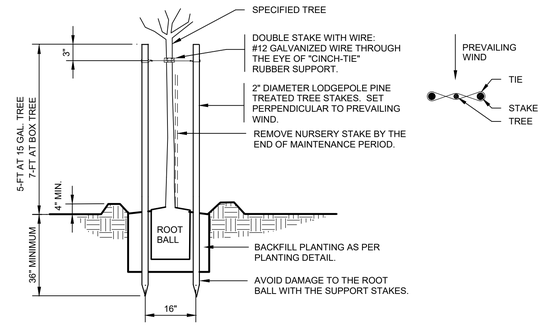


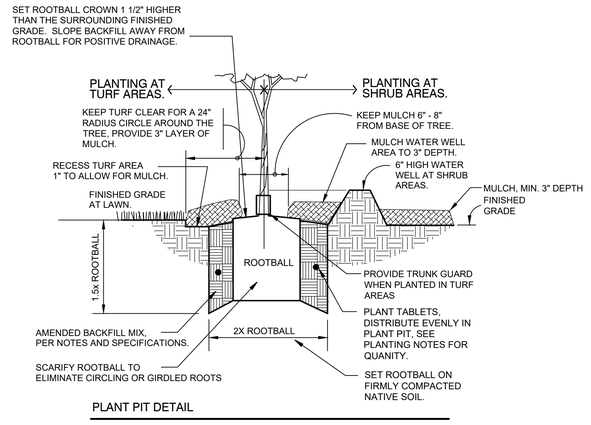
NOTES:
1. Inert material per Plant Schedule. Submit sample for approval.
2. Compaction rates provided are per ASTM D1557. Conform to compaction specified in soils report, if one is prepared for this project.

3 INERT LANDSCAPE MATERIAL

1 1/2" = 1'-0" 329301-24



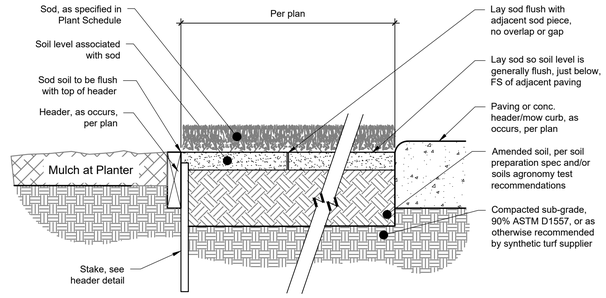
STAKING DETAIL



PLANT PIT DETAIL

1 TREE PLANTING

1" = 1'-0" 329301-13



2 SOD

NTS 329301-18

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PLANTING DETAILS

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WATER EFFICIENT LANDSCAPE ORDINANCE WORKSHEET

	Reference Evapotranspiration			49.8 in/yr	**ETAF(req)**	Maximum Allowed ETAF	0.45

APPENDIX B WORKSHEET

Hydro-zone (see desc. below)	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas ("RLA") - See Hydrozone Descriptions for Referenced Numbers							
	1.00	Spray	0.75	1.33	0 sf	0.00	0 gals
	0.85	Spray	0.75	1.13	0 sf	0.00	0 gals
	0.60	Spray	0.75	0.80	0 sf	0.00	0 gals
	0.50	Drip	0.81	0.62	0 sf	0.00	0 gals
	0.30	Spray	0.75	0.40	0 sf	0.00	0 gals
	0.30	Drip	0.81	0.37	0 sf	0.00	0 gals
12	0.30	Drip	0.81	0.37	1,154 sf	427.41	13,197 gals
				Sub-totals	1,154.00	427.41	13,197 gals
Special Landscape Areas ("SLA") - See Hydrozone Planting Descriptions for Referenced Numbers							
SLA1				1.00	9,459 sf	9,459.00	292,056 gals
SLA2				1.00	0 sf	0.00	0 gals
				Sub-totals	9,459 sf	9,459.00	292,056 gals
	Total Landscape Area (regular and special)				10,613 sf	9,886.41	
						ETWU Total	305,253 gals
				Maximum Allowed Water Allowance (MAWA)			308,090 gals

MAWA CALCULATION

MAXIMUM ALLOWABLE WATER CALCULATION ("MAWA")

	Ref. ETo	Conv.	ET Adjustment Factor "ETAF"	Area Incl. "SLA" (sf)	SLA Addt'l Water	Special Landscape Area (sf)
MAWA =	(ETo)	(0.62)	[(ETAF	x LA) +	((1-ETAF)	x SLA)]
308,090 gal/yr	49.8 in/yr	0.62	0.45	10,613 sf	0.55	9,459 sf

Data used in MAWA Formula (per 2015 WELO):

Ref. Evapotranspiration (in/yr) ETo=	49.8 in/yr		Landscape Area including SLA	10,613 sf	
Conversion Factor (to gallons)	0.62		Additional Water Allowance for SLA (1-ETAF)	0.55	
Required ETAF per Ordinance for Project	0.45		Special Landscape Area ("SLA" in SF)	9,459 sf	

ETWU CALCULATION

ESTIMATED TOTAL WATER USE (ETWU) TOTAL SITE W/ SLA FACTORED IN

ETWU =	(ETo)	(0.62)	(ETAF)	(Area)		
305,253 gal/yr	49.8 in/yr	0.62	0.93	10,613 sf		

ETAF CALCULATIONS

Regular Landscape Area (RLA) ETAF		Max Allowed ETAF	
Total ETAF x RLA	427.41		
Divided by Total RLA	1,154 sf		If Average ETAF is less than Max. Allowed ETAF the Project complies with WELO
Average ETAF (RLA)	0.37	0.45	
Sitewide ETAF			
Total ETAF x Area (RLA and SLA)	9886.41		
Divided by Total Area (RLA and SLA)	10,613 sf		
Sitewide ETAF (RLA and SLA)	0.93		

HYDROZONE DESCRIPTIONS

Hydrozone number	*Description*	*Irrigation zones on plan*
1	High water use turf with gear rotor irrigation	
2	High water use turf with rotary spray irrigation	
3	High water use plantings with drip irrigation	
4	Moderate water use plantings with subsurface irrigation	
5	Moderate water use plantings with rotary spray irrigation	
6	Moderate water use plantings with drip irrigation	
7	Low water use plantings with subsurface irrigation	
8	Low water use plantings with rotary spray irrigation	
9	Low water use plantings with drip irrigation	
10	Bio-filtration basin	
11	No irrigation / inert landscape area	
12	Trees with root watering system	5-6
SLA 1	Public school field turf with gear rotor irrigation	1-4
SLA 2		

PRELIMINARY IRRIGATION SCHEDULES

The schedules below are based on calculating runtime and frequency of irrigation cycles to meet the average evapotranspiration of noted seasons factoring in the rate of water delivery, plant factors, and other variables. Actual runtimes and frequency of cycles required to sustain the landscape at the desired aesthetic appearance may differ and must be adjusted to due to field observations of microclimates, slope conditions, solar exposure, and other variables. Contractor shall observe the health of the plantings during the establishment period and make adjustments necessary from observed conditions and plant health.

After the establishment period it is incumbent upon the Owners and Owner's maintenance entity to observe plant health and desired aesthetic appearance and make adjustments to the irrigation schedules as may be required to satisfy their desired aesthetic appearance as well as limit water use to less than the MAWA.

PRELIMINARY IRRIGATION SCHEDULE - PLANT ESTABLISHMENT PERIOD

			Winter (Nov, Dec, Jan, Feb)		*Spring (Mar, Apr, May)*		*Summer (Jun, Jul, Aug, Sep)*		*Autumn (Oct.)*	
Hydro-zone	*Description*	*Zone*	*Runtime*	*Cycles per Month*	*Runtime*	*Cycles per Month*	*Runtime*	*Cycles per Month*	*Runtime*	*Cycles per Month*
12	Trees with root watering system	5-6	0 min.	0	30 min.	5	45	5	30 min.	5
SLA 1	Public school field turf with gear rotor irrigation	1-4								

PRELIMINARY IRRIGATION SCHEDULE - ESTABLISHED PLANTING

			Winter (Nov, Dec, Jan, Feb)		*Spring (Mar, Apr, May)*		*Summer (Jun, Jul, Aug, Sep)*		*Autumn (Oct.)*	
Hydro-zone	*Description*	*Zone*	*Runtime*	*Cycles per Month*	*Runtime*	*Cycles per Month*	*Runtime*	*Cycles per Month*	*Runtime*	*Cycles per Month*
12	Trees with root watering system	5-6	10 min.	1	30 min.	5	30 min.	8	30 min.	6
SLA 1	Public school field turf with gear rotor irrigation	1-4								

LANDSCAPE WELO ORDINANCE

This project has been designed to comply with the criteria of the Water Efficient Landscape Ordinance - California Code of Regulations Title 23, Division 2, Chapter 2.7 § 490 - 494 ("WELO" or the "Ordinance") as adopted by the jurisdictional agency ("Agency") for this project. The following information provides data required by the Ordinance and specifically fulfills the requirements of the Landscape Documentation Package as outlined in § 492.3 of the Ordinance. Upon completion of the Project, Contractor shall be responsible for certifying compliance with the Ordinance and Agency requirements. Prior to start of Work, Contractor shall review this information and the Ordinance to establish a full understanding of the measures necessary to meet requirements of the Ordinance. Contractor shall notify the Owner of anything the Contractor feels does not meet the requirements of the Ordinance or Agency requirements. Landscape work shall not commence until such concerns are corrected to the satisfaction of all parties.

SOILS MANAGEMENT REPORT
This project will require significant earthwork and/or construction activity. The type of soil in the proposed landscape areas cannot be sufficiently assessed until the earthwork and construction is substantially completed. Per §492.5 paragraph (a) (2) (B) of the State Ordinance, Contractor shall, upon completion of the earthwork operations, acquire soil samples representative of all landscape areas and have the samples analyzed by an approved laboratory in accordance with §492.5 paragraph (a) (1) of the State Ordinance. Contractor shall submit the approved soil laboratory's recommendations for amending the soil as appropriate for the proposed planting in a timely manner to allow for modifications to the design plans and specifications as may be required. Contractor shall amend soil in accordance with the laboratory recommendations unless otherwise directed.

LANDSCAPE DESIGN PLAN
See Planting Plan of this set of drawings.

IRRIGATION DESIGN PLAN
See Irrigation Plan of this set of drawings.

GRADING DESIGN PLAN
See Site Grading and Drainage Plan of this set of drawings. See also grading design plans prepared by the Civil Engineer for this project.

CERTIFICATE OF COMPLETION
Contractor shall be responsible of preparing and submitting the Certificate of Completion required by the Water Efficient Landscape Ordinance - California Code of Regulations Title 23, Division 2, Chapter 2.7 § 490 - 494. Refer to the Landscape Documentation Package and the information below to provide guidance on preparing the certificate. The certificate shall be prepared and submitted upon Substantial Completion. Approval of the certificate and verification by the City that the landscape and irrigation has been installed in accordance with the approved landscape and irrigation plans and the Landscape Documentation Package is required prior to Final Acceptance of the project.

PROJECT INFORMATION SHEET
Contractor shall complete Project information sheet found in the "Certificate of Completion" per Appendix C of the Ordinance.

CERTIFICATION OF INSTALLATION
Contractor shall prepare the "Certification of Installation According to the Landscape Documentation Package" per Appendix C of the Ordinance.

IRRIGATION SCHEDULE
See the irrigation schedules provided on this page as a guide. Contractor shall prepare an irrigation schedule meeting the requirements of §492.10 of the Ordinance. Contractor shall use the irrigation schedule provided with these drawings for the initial settings and after observing operation of the system Contractor shall make all adjustments necessary to finalize recommended schedules for the plant establishment period (first 12 months) and the post-establishment period providing values appropriate to each of the 4 seasons--winter, spring, summer, and fall.

MAINTENANCE SCHEDULE
Contractor shall prepare a schedule of landscape and irrigation maintenance meeting the requirements of §492.11 of the Ordinance.

IRRIGATION AUDIT REPORT
Contractor shall retain the services of an independent, third-party, certified landscape irrigation auditor to conduct an irrigation audit, an irrigation survey, and an irrigation water use analysis in accordance with the requirements of §492.12 of the Ordinance. Contractor shall prepare an Irrigation Audit Report of the results of the audit. Should the audit identify conditions that are not in compliance with the Ordinance. Contractor shall make corrections at no additional cost.

SOIL MANAGEMENT REPORT
Per §492.5 of the Ordinance, Contractor shall submit the soil analysis report on which the soil amendments were based together with acceptable documentation that the soil was amended per the recommendations in the report.

MAINTENANCE SCHEDULE

A regular maintenance schedule shall be set up for this project to provide healthy plants and an efficient, functional irrigation system. The following practices shall be incorporated into a regular maintenance schedule:

1. Maintain irrigation system. Adjust or replace delivery system components to keep them working to meet manufacturer specifications. Repair leaks in a timely manner. Replacement products and materials shall match originally specifications, or equal..

2. Review drip emitters and adjust locations as plants mature. Replace emitters as needed to adjust water delivery to each plant, as needed.

3. Adjust controller as required to provide proper amount of water to each zone.

4. Mow turf on a regular basis. De-thatch and aerate annually.

5. Prune plantings to maintain design form (e.g.- natural, hedge) and to remove broken or dead branches. Remove suckers from tree roots on a regular basis.

6. Establish a regular program of weed and pest control. Conform to any local regulations regarding use of pesticides and herbicides. Pesticides and herbicides are to be applied only when needed and by a state licensed professional.

7. Re-apply mulches as needed to maintain full coverage at planting areas, retain soil moisture, and inhibit weed growth.

LANDSCAPE ARCHITECT'S STATEMENT

I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the irrigation design plan and the landscape design plan.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
1	Rain Bird PESB	1-1/2"	Turf Rotor	33.9	45.4	45.8	1.25 in/h
2	Rain Bird PESB	1-1/2"	Turf Rotor	22.6	46.4	46.6	0.45 in/h
3	Rain Bird PESB	1-1/2"	Turf Rotor	33.9	45.4	46	1.18 in/h
4	Rain Bird PESB	1"	Turf Rotary	15.15	41.0	41.2	0.76 in/h
5	Rain Bird PESB	1"	Bubbler	10	22.6	22.7	2.01 in/h
6	Rain Bird PESB	1"	Bubbler	13	26.0	26.0	2.01 in/h
Unknown	Main Line Stub		Cap (as indicated for future use)	50	35	36.8	Unknown

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Jonathan E. Gish, AIA Architect
519 McHenry Ave., Modesto, CA 95354
Ph: (209) 571-2232 Fax: (209) 571-1936

LICENSED ARCHITECT JONATHAN E. GISH No. C 30243 REN. 1/27 STATE OF CALIFORNIA

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Sam Harned Landscape Architecture
P O Box 2275
Oakdale, CA 95361
209-380-7376
www.harnedla.com

REGISTERED LANDSCAPE ARCHITECT Richard S. Harned Expiration Date: 12/31/24 Date Signed: 04/11/2024 STATE OF CALIFORNIA

Consultants

VON RENNER ELEMENTARY SCHOOL CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN - CROWS LANDING UNIFIED SCHOOL DISTRICT

WELO NOTES AND CALCULATIONS

Project Number	2514 (SHLA 25-46)
Date	APRIL 2026
Drawn by	RSH
Checked by	RSH

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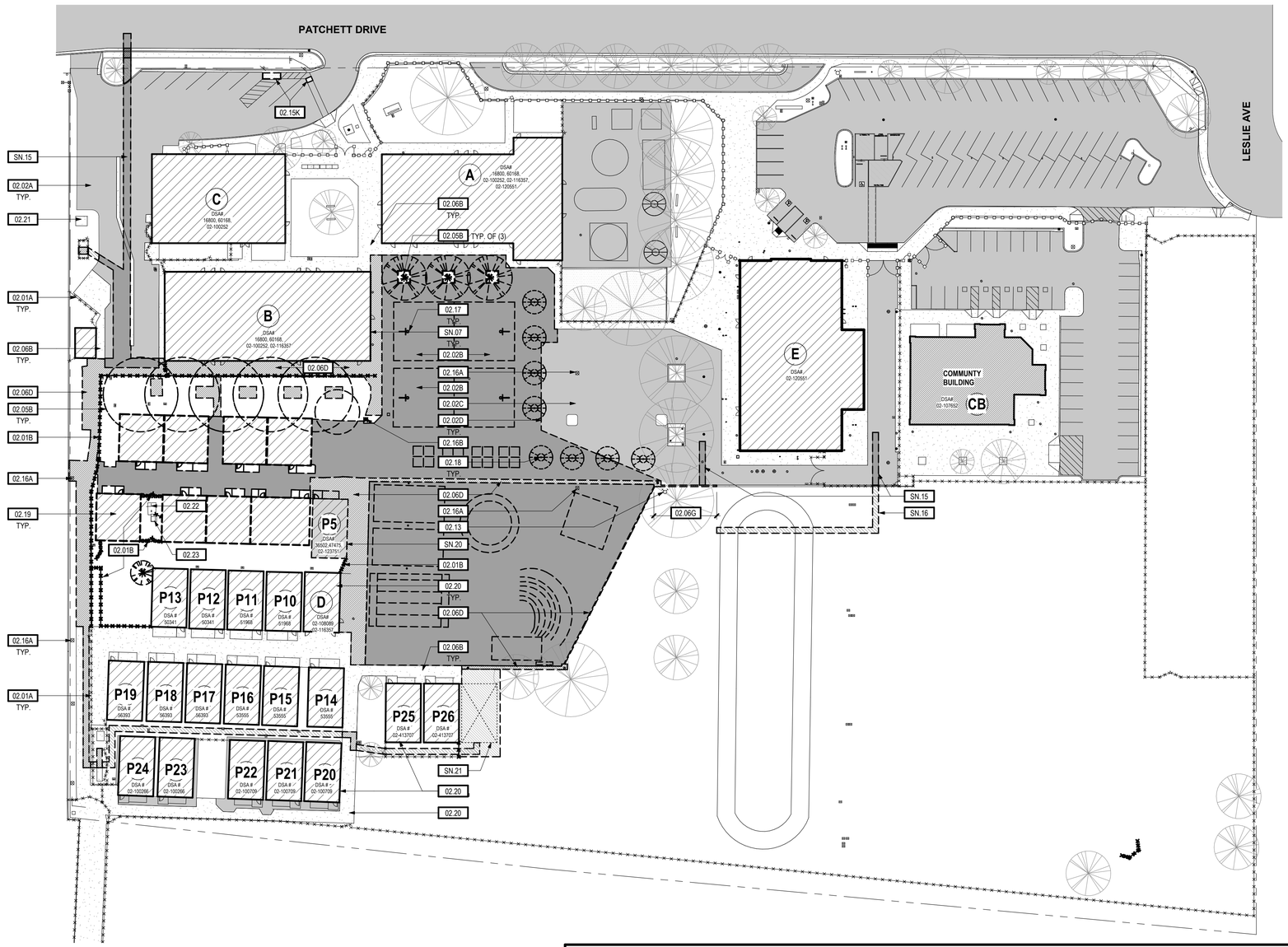
Plot Date & Time 1/8/2024 4:36:42 PM



KEYNOTES

02.01A	CHAIN LINK FENCE - EXISTING TO REMAIN
02.01B	CHAIN LINK FENCE AND FOUNDATIONS - EXISTING TO BE REMOVED
02.02A	ASPHALT PAVING - EXISTING TO REMAIN
02.02B	ASPHALT PAVING - TO BE REMOVED
02.02C	ASPHALT PAVING - EXISTING - SEALCOAT AND RE-STRIPE
02.02D	ASPHALT PAVING - SAW CUT, PATCH AND REPAIR
02.05B	TREE - EXISTING TO BE REMOVED
02.06B	CONCRETE SIDEWALK - EXISTING - TO REMAIN
02.06D	CONCRETE SIDEWALK - EXISTING - TO BE REMOVED - SEE CIVIL DRAWINGS
02.06G	CONCRETE CURB - EXISTING TO BE REMOVED
02.13	FIRE HYDRANT - EXISTING - TO REMAIN
02.15K	(E) TRUNCATED DOMES TO BE REMOVED - REPAIR ASPHALT & STRIPING
02.16A	POLE LIGHT - EXISTING TO REMAIN - SEE ELECTRICAL DRAWINGS
02.16B	POLE LIGHT AND FOUNDATION - EXISTING TO BE REMOVED
02.17	BASKETBALL STANDARD AND FOUNDATION - EXISTING TO REMAIN
02.18	TETHERBALL POLE AND FOUNDATION - EXISTING TO BE REMOVED
02.19	PORTABLE CLASSROOM, RAMPS AND FOUNDATIONS - EXISTING TO BE REMOVED - PREP SITE FOR NEW BUILDING OR FLATWORK - SEE CIVIL DRAWINGS
02.20	PORTABLE CLASSROOM AND RAMP - EXISTING TO REMAIN
02.21	ELECTRICAL TRANSFORMER - EXISTING TO REMAIN - SEE ELECTRICAL DRAWINGS
02.22	EXISTING IRRIGATION PUMP PAD TO BE REMOVED
02.23	EXISTING SWITCHGEAR TO BE REMOVED - SEE ELECTRICAL DRAWINGS

SHEET NOTES

SN.07	SAWCUT EXISTING CONCRETE SIDEWALK AT BUILDING PERIMETER
SN.15	TRENCH AT NEW UTILITY PIPING-SEE CIVIL DRAWINGS - SEE DETAILS 1, 3, 4 AND 7/AS-1.5
SN.16	TRENCH AT NEW UTILITY PIPING IN PLANTER - REPAIR/REPLACE TURF AND IRRIGATION WHERE DAMAGED OR REMOVED FOR TRENCHING - MAINTAIN IRRIGATION OF ADJACENTTREES AND LANDSCAPING DURING CONSTRUCTION- SEE LANDSCAPE DRAWINGS
SN.20	EXISTING PORTABLE CLASSROOM TO BE RELOCATED - SEE NEW SITE PLAN
SN.21	LOCATION FOR RELOCATED PORTABLE CLASSROOM - SEE NEW SITE PLAN

BUILDING INFORMATION

-DSA INFORMATION-					
ID	DESCRIPTION	DSA APPLICATION	SPRINKLERS	OCCUPANCY	BUILDING & COVERED AREAS
A	CLASSROOMS	16800, 60168, 02-100252, 02-116357, 02-120551	NO	E	11,254 S.F.
B	CLASSROOM	16800, 60168, 02-100252, 02-116357	NO	E	11,934 S.F.
C	CAFETERIA	16800, 60168, 02-100252	NO	A-2	4,567 S.F.
D	RESTROOM BUILDING	02-108089, 02-116357	NO	E	1,333 S.F.
E	MULTI-PURPOSE / ADMIN	02-120551	YES	B, A-2 & A-3	11,046 S.F.
P5	RELOCATABLE CLASSROOM	36502, 47475, 02-123751	NO	E	1,080 S.F.
P10	RELOCATABLE CLASSROOM	51968	NO	E	1,080 S.F.
P11	RELOCATABLE CLASSROOM	51968	NO	E	1,080 S.F.
P12	RELOCATABLE CLASSROOM	50341	NO	E	1,080 S.F.
P13	RELOCATABLE CLASSROOM	50341	NO	E	1,080 S.F.
P14	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P15	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P16	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P17	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.
P18	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.
P19	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.
P20	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.
P21	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.

-DSA INFORMATION-					
ID	DESCRIPTION	DSA APPLICATION	SPRINKLERS	OCCUPANCY	BUILDING & COVERED AREAS
P22	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.
P23	RELOCATABLE CLASSROOM	02-100266	NO	E	1,080 S.F.
P24	RELOCATABLE CLASSROOM	02-100266	NO	E	1,080 S.F.
P25	RELOCATABLE CLASSROOM	02-103707	NO	E	1,080 S.F.
P26	RELOCATABLE CLASSROOM	02-103707	NO	E	1,080 S.F.

NOTES

SITE LEGEND

- EXISTING BUILDING
- EXISTING BUILDING TO BE RELOCATED
- EXISTING STORAGE CONTAINER
- EXISTING ADJACENT COMMUNITY BUILDING
- EXISTING CONCRETE FLATWORK TO REMAIN
- EXISTING CONCRETE FLATWORK TO BE REMOVED
- EXISTING AC PAVING
- EXISTING AC PAVING TO BE REMOVED
- EXISTING LAWN OR LANDSCAPE AREA - SEE LANDSCAPE DRAWINGS
- EXISTING PLAY SURFACING
- (E) LANDSCAPING TO BE REMOVED - SEE LANDSCAPE PLANS

NORTH

1 **SITE PLAN - DEMOLITION**
SCALE: 1" = 40'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
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LICENSED ARCHITECT JONATHAN E. GIACOMINI C-36244 REN. 1/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

SITE PLAN - DEMOLITION

Project Number	2514
Date	June, 2026
Drawn by	MB
Checked by	JG

AS-1.1

Plot Date & Time 7/2/2026 1:40:00 PM

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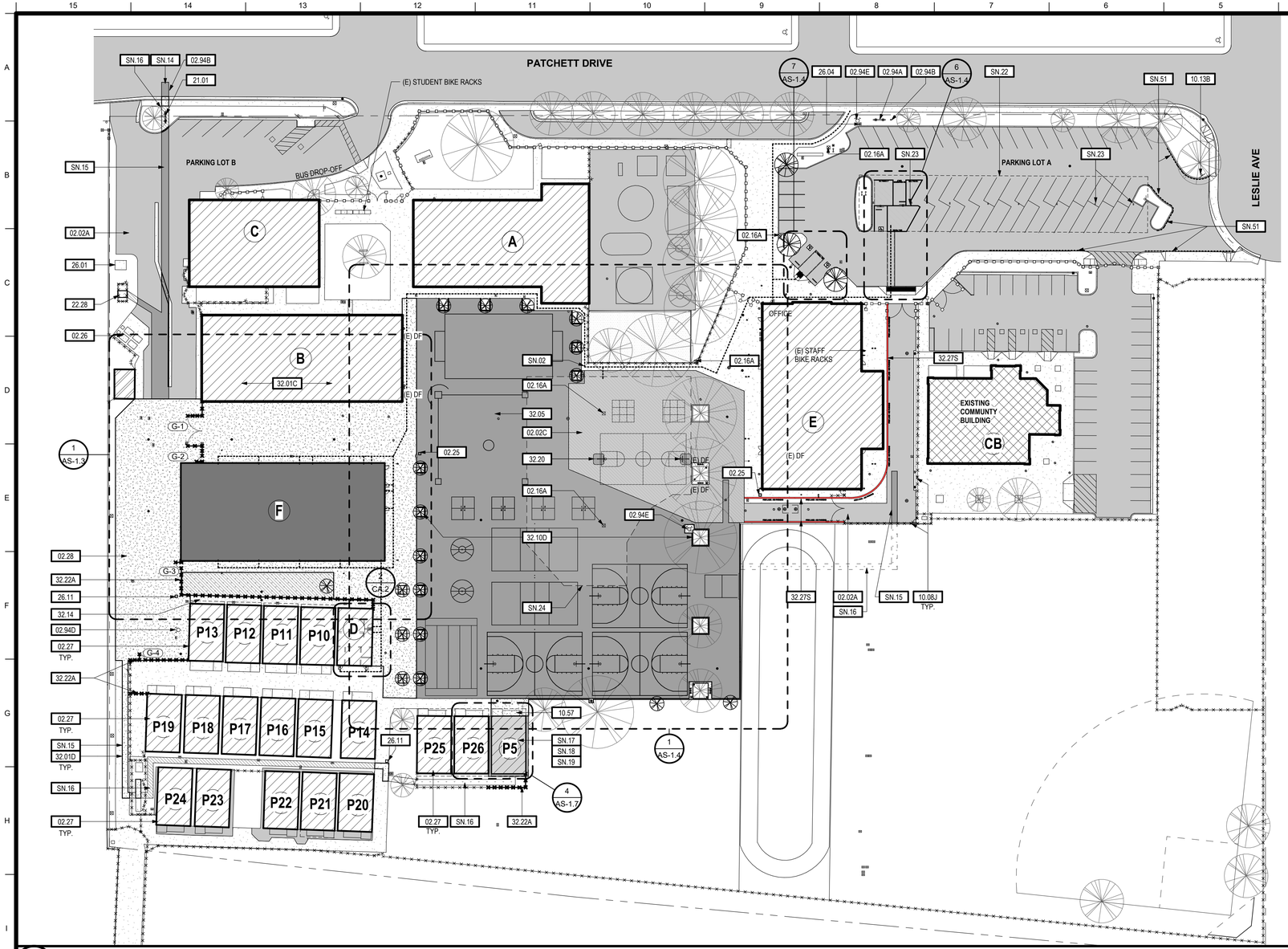

1 SITE PLAN - NEW CONSTRUCTION

SCALE: 1" = 40'-0"

NORTH

KEYNOTES

02.02A	ASPHALT PAVING - EXISTING TO REMAIN
02.02C	ASPHALT PAVING - EXISTING - SEALCOAT AND RE-STRIPE
02.16A	POLE LIGHT - EXISTING TO REMAIN - SEE ELECTRICAL DRAWINGS
02.25	EXISTING CHRISTY PULLBOX - SEE ELECTRCAL DRAWINGS
02.26	RECYCLE/ TRASH COLLECTION AREA - EXISTING TO REMAIN
02.27	EXISTING CLASSROOM TO REMAIN
02.28	CONCRETE FLATWORK - SEE DETAIL 1/AS-1.5 - SEE CIVIL DWGS FOR CONCRETE NOTES
02.94A	WATER DISTRIBUTION - DOUBLE CHECK ASSEMBLY - SEE CIVIL & FIRE PROTECTION DWGS
02.94B	WATER DISTRIBUTION - FIRE DEPARTMENT CONNECTION (F.D.C.) - SEE CIVIL & FIRE PROTECTION DWGS
02.94D	WATER DISTRIBUTION - FIRE HYDRANT - SEE CIVIL & FIRE PROTECTION DWGS - NEW PROPOSED
02.94E	WATER DISTRIBUTION - FIRE HYDRANT - EXISTING
10.08J	SITE SIGN - NO PARKING SIGN - SEE DETAIL 3/FGA
10.13B	SIGNAGE - ACCESSIBLE PARKING ENTRY SIGN -- SEE DETAIL 5/AS-1.4
10.57	NEW RAMP AT RELOCATED BUILDING - SEE PC DRAWINGS
21.01	SITE FIRE PROTECTION - BACKFLOW PREVENTION DEVICE - SEE FIRE PROTECTION DRAWINGS
22.28	GAS METER WITH SEISMIC VALVE - SEE PLUMBING DRAWINGS
26.01	ELECTRICAL POWER - TRANSFORMER ON CONCRETE PAD - SEE ELECTRICAL DRAWINGS
26.04	ELECTRICAL PULL-BOX - SEE ELECTRICAL
26.11	ELECTRICAL CHRISTY PULLBOX - SEE ELECTRCAL DRAWINGS
32.01C	CONCRETE FLATWORK - SEE CIVIL FOR SLOPE - SEE DETAIL 1/AS-1.5
32.01D	CONCRETE FLATWORK - NEW TO EXISTING - SEE DETAIL 4/AS-1.5
32.05	ASPHALT PAVING - SEE CIVIL DRAWINGS
32.10D	PLANTING - TREE WELL - SEE DETAIL 9/AS-1.5
32.14	HATCH DENOTES 6" DEEP PEA GRAVEL FILL OVER WEED FABRIC
32.20	REPAIR ASPHALT PAVING WHERE NEW BASKETBALL STANDARD IS INSTALLED
32.22A	CHAIN LINK FENCE (6'-0" TALL) - SEE DETAIL 12/AS-1.5
32.27S	PAVEMENT MARKING - RED LINE DENOTES 12" WIDE STRIPING PAINTED RED-TYP. W/ "NO PARKING FIRE LANE" PAINTED 30FT O.C - PAINTED RED

SHEET NOTES

SN.02	PATH TO SAFE DISPERSAL
SN.14	WHERE UNDERGROUND UTILITIES CROSS CITY SIDEWALKS OR ROAD, REPLACE CONCRETE AND ASPHALT IN LIKE KIND PER CITY OF NEWMAN STANDARDS. ALL MATERIAL TRANSITIONSTO BE SMOOTH AND FLUSH - SEE CIVIL DRAWINGS
SN.15	TRENCH AT NEW UTILITY PIPING-SEE CIVIL DRAWINGS - SEE DETAILS 1, 3, 4 AND 7/AS-1.5
SN.16	TRENCH AT NEW UTILITY PIPING IN PLANTER - REPAIR/REPLACE TURF AND IRRIGATION WHERE DAMAGED OR REMOVED FOR TRENCHING - MAINTAIN IRRIGATION OF ADJACENTTREES AND LANDSCAPING DURING CONSTRUCTION- SEE LANDSCAPE DRAWINGS
SN.17	REMOVE AND REINSTALL AND PAINT SHEET METAL COVERS AT MODLINE
SN.18	REPAIR CARPET AT MODLINE
SN.19	REPAIR SINGLE PLY AT MODLINE (CLASS B MIN.)
SN.22	LINE DENOTES (E) PARKING LOT SOLAR CANOPY
SN.23	(E) EV CHARGING STATION
SN.24	SAFE DISPERSAL AREA
SN.51	LINE DENOTES EXISTING CURB PAINTED RED FOR FIRE LANE

NOTES

SITE LEGEND

- EXISTING BUILDING
- EXISTING COMMUNITY BUILDING
- EXISTING RELOCATED BUILDING
- EXISTING AC PAVING — DENOTES AREA OF SEALCOAT
- EXISTING STORAGE CONTAINER
- NEW AC PAVING
- PROPOSED NEW BUILDING
- EXISTING LAWN OR LANDSCAPE AREA - SEE LANDSCAPE DRAWINGS
- EXISTING CONCRETE FLATWORK TO REMAIN
- NEW LAWN OR LANDSCAPE AREA - SEE LANDSCAPE DRAWINGS
- NEW CONCRETE FLATWORK - SEE DETAIL
- GRAVEL - SEE LANDSCAPE DRAWINGS
- EXISTING PLAY SURFACING

PATH OF TRAVEL NOTES

(ACS) ACCESS COMPLIANCE

THE **PATH OF TRAVEL (P.O.T.)** IS A COMMON BARRIER FREE ACCESS 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 P.O.T. IS SLIP RESISTANT, STABLE, FIRM AND SMOOTH. PASSING SPACES (11B-403.5.3) AT LEAST 60"X60" ARE LOCATED NOT MORE THAN 200' APART. PARTS OF P.O.T. WITH CONTINUOUS GRADIENTS HAVE 60" LEVEL AREAS (11B-403.7) NOT MORE THAN 400' APART. THE CROSS-SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. (P.O.T.) SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTION TO 80" MINIMUN (11B-307.4) & PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80" (11B-307.2). GRID OPENINGS OF GRATINGS IN THE P.O.T. SHALL NOT EXCEED 1/2" IN THE DIRECTION OF TRAFFIC FLOW.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISION FOR **PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS**. AS PART OF THE DESIGN OF THE IS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN INDENTIFIED AND 2) 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 PORTION OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATION OR FINDING OF UNREASONABLE HARDSHIP ARE SO 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, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

PARKING INFORMATION

PARKING SCHEDULE

LOT	STANDARD STALLS	STANDARD ACCESSIBLE STALLS	VAN ACCESSIBLE STALLS	TOTAL STALLS	DSA APPLICATION #
LOT 'A'	59	3	1	63	02-115728
LOT 'B'	5	1	1	7	02-116357

CAL GREEN PARKING SCHEDULE

LOT	TOTAL STALLS	ACCESSIBLE EV CHARGING STATIONS	STANDARD EV CHARGING STATIONS	DSA APPLICATION #
LOT 'A'	63	1	3	02-115728

GATE SCHEDULE

GATE SCHEDULE

GATE #	WIDTH	TYPE	MATERIAL	GATE HDW.	DETAIL	NOTES
G-1	20' - 0"	DOUBLE SWING	C.L.	D.F.L., C.B.	3/AS-1.6	
G-2	4' - 0"	SWING	C.L.	D.F.L.	3/AS-1.6	
G-3	4' - 0"	SWING	C.L.	D.F.L.	3/AS-1.6	
G-4	4' - 0"	SWING	C.L.	D.F.L.	3/AS-1.6	

C.L. - CHAIN LINK
D.F.L. - DROP FORK LATCH (4/AS-1.6)
C.B. - CANE BOLT

BUILDING INFORMATION

DSA INFORMATION-

ID	DESCRIPTION	DSA APPLICATION	SPRINKLERS	OCCUPANCY	BUILDING & COVERED AREAS
A	CLASSROOMS	16800, 60168, 02-100252, 02-116357, 02-120551	NO	E	11,254 S.F.
B	CLASSROOM	16800, 60168, 02-100252, 02-116357	NO	E	11,934 S.F.
C	CAFETERIA	16800, 60168, 02-100252	NO	A-2	4,567 S.F.
D	RESTROOM BUILDING	02-108089, 02-116357	NO	E	1,333 S.F.
E	MULTI-PURPOSE / ADMIN	02-120551	YES	B, A-2 & A-3	11,046 S.F.
F	CLASSROOM	02-123751	YES	E	12,900 S.F.
P5	RELOCATABLE CLASSROOM	36502, 47475, 02-123751	NO	E	1,080 S.F.
P10	RELOCATABLE CLASSROOM	51968	NO	E	1,080 S.F.
P11	RELOCATABLE CLASSROOM	51968	NO	E	1,080 S.F.
P12	RELOCATABLE CLASSROOM	50341	NO	E	1,080 S.F.
P13	RELOCATABLE CLASSROOM	50341	NO	E	1,080 S.F.
P14	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P15	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P16	RELOCATABLE CLASSROOM	53555	NO	E	1,080 S.F.
P17	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.
P18	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.
P19	RELOCATABLE CLASSROOM	56393	NO	E	1,080 S.F.

DSA INFORMATION-

ID	DESCRIPTION	DSA APPLICATION	SPRINKLERS	OCCUPANCY	BUILDING & COVERED AREAS
P20	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.
P21	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.
P22	RELOCATABLE CLASSROOM	02-100709	NO	E	1,080 S.F.
P23	RELOCATABLE CLASSROOM	02-100266	NO	E	1,080 S.F.
P24	RELOCATABLE CLASSROOM	02-100266	NO	E	1,080 S.F.
P25	RELOCATABLE CLASSROOM	02-103707	NO	E	1,080 S.F.
P26	RELOCATABLE CLASSROOM	02-103707	NO	E	1,080 S.F.

P5 - VENT CALCULATIONS

RELOCATABLE BLDG: P5 - 960 SF / 150 SF = 6.4 SF (922 SQ.IN.) VENTING AREA REQUIRED
PROVIDE: (CALC. BASED ON 75%OA)
6.89 SF (992.25 SQ. IN.) PROVIDED > 6.4 SF (922 SQ.IN.) REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
Ph: (209) 571-2232 Fax: (209) 571-1936

LICENSED ARCHITECT JONATHAN E. GIACOMAZZI C-30824 REN. 1/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

SITE PLAN- NEW CONSTRUCTION

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

AS-1.2

Plot Date & Time 7/2/2026 1:40:10 PM

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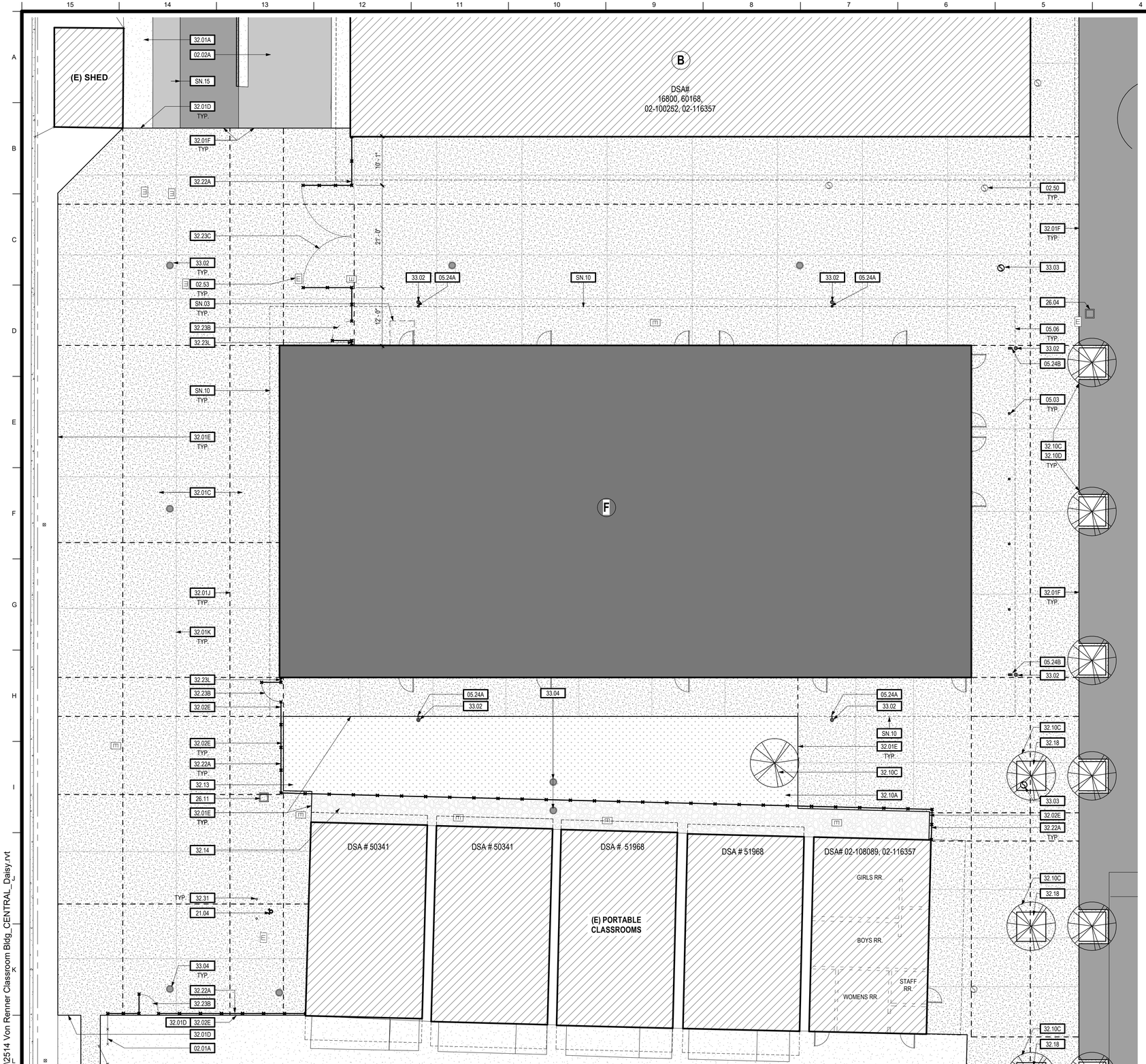


KEYNOTES

02.01A	CHAIN LINK FENCE - EXISTING TO REMAIN
02.02A	ASPHALT PAVING - EXISTING TO REMAIN
02.50	EXISTING CLEANOUT - ADJUST CAP WHERE FLATWORK IS NEW - SEE CIVIL DRAWINGS
02.53	ELEC BOX - EXISTING TO REMAIN - ADJUST CAP WHERE FLATWORK IS NEW - SEE CIVIL DRAWINGS
05.03	STEEL COLUMN (PAINT WHEN EXPOSED AT INTERIOR LOCATIONS AND ALL EXTERIOR LOCATIONS) - SEE DETAIL 10/AS-1.5 FOR EXPANSION JOINT AT CONCRETE FLATWORK - SEE STRUCTURAL DRAWINGS
05.06	CANOPY AT BUILDING F- SEE SHEET A1-3.2
05.24A	METAL DOWNSPOUT 3"x4"x1/4" THK., GALV. - SEE DETAIL 5 & 6/AD.2
05.24B	METAL DOWNSPOUT 3"x4"x1/4" THK., GALV. @ COLUMN - SEE DETAIL 9 & 10/AD.3
21.04	SITE FIRE PROTECTION - FIRE HYDRANT - SEE FIRE PROTECTION DRAWINGS
26.04	ELECTRICAL PULL-BOX - SEE ELECTRICAL
26.11	ELECTRICAL CHRISTY PULLBOX - SEE ELECTRCAL DRAWINGS
32.01A	CONCRETE FLATWORK - EXISTING TO REMAIN
32.01C	CONCRETE FLATWORK - SEE CIVIL FOR SLOPE - SEE DETAIL 1/AS-1.5
32.01D	CONCRETE FLATWORK - NEW TO EXISTING - SEE DETAIL 4/AS-1.5
32.01E	CONCRETE FLATWORK EDGE - SEE DETAIL 2/AS-1.5
32.01F	CONCRETE TO ASPHALT- SEE DETAIL 3/AS-1.5
32.01J	EXPANSION / CONSTRUCTION JOINT - SEE DETAIL 1/AS-1.5
32.01K	CONTROL JOINT - SEE DETAIL 1/AS-1.5
32.02E	CONCRETE MOW STRIP AT FENCE - 12" - SEE DETAIL 6/AS-1.5
32.10A	PLANTING - SEE LANDSCAPE DRAWINGS
32.10C	PLANTING - NEW TREE - SEE LANDSCAPE DRAWINGS
32.10D	PLANTING - TREE WELL - SEE DETAIL 9/AS-1.5
32.13	PLANTING AREA - SEE LANDSCAPE DRAWINGS
32.14	HATCH DENOTES 6" DEEP PEA GRAVEL FILL OVER WEED FABRIC
32.18	6'X6' TREE WELL - 3" THICK STABILIZED DECOMPOSED GRANITE
32.22A	CHAIN LINK FENCE (6'-0" TALL) - SEE DETAIL 12/AS-1.5
32.23B	CHAIN LINK GATE (4'-0"W. X ADJ. FENCE HEIGHT) - SEE DETAIL 14/AS-1.5
32.23C	CHAIN LINK SWING GATE 20'W. (EA LEAF 10'-0"W. X ADJ. FENCE HEIGHT) - SEE DETAIL 13/AS-1.5
32.23L	CHAIN LINK FENCE - EXTENSION AT BUILDING - SEE DETAIL 15/AS-1.5
32.31	REMOVABLE BOLLARD - SEE DETAIL 8/AS-1.5
33.02	SITE UTILITY - AREA DRAIN - SEE CIVIL DRAWINGS
33.03	SITE UTILITY - CLEAN OUT - SEE CIVIL DRAWINGS
33.04	SITE UTILITY - STORM DRAIN CATCH BASIN - SEE CIVIL PLANS

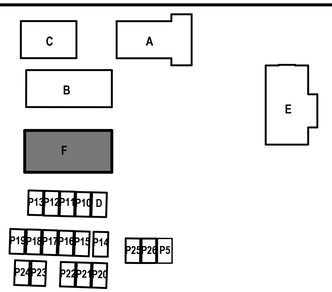
SHEET NOTES

SN.03	CONCRETE WALK - PROVIDE 60"x60" CLEAR AND LEVEL LANDING AT EACH DOOR (2% MAX. SLOPE IN ANY DIRECTION)
SN.10	BUILDING OVERHANG ABOVE
SN.15	TRENCH AT NEW UTILITY PIPING-SEE CIVIL DRAWINGS - SEE DETAILS 1, 3, 4 AND 7/AS-1.5

NOTES

- EXISTING BUILDING
- EXISTING RELOCATED BUILDING
- EXISTING STORAGE CONTAINER
- PROPOSED NEW BUILDING
- EXISTING CONCRETE FLATWORK TO REMAIN
- NEW CONCRETE FLATWORK - SEE DETAIL
- EXISTING COMMUNITY BUILDING
- EXISTING AC PAVING
- DENOTES AREA OF SEALCOAT
- NEW AC PAVING
- EXISTING LAWN OR LANDSCAPE AREA - SEE LANDSCAPE DRAWINGS
- NEW LAWN OR LANDSCAPE AREA - SEE LANDSCAPE DRAWINGS
- GRAVEL - SEE LANDSCAPE DRAWINGS
- EXISTING PLAY SURFACING

SITE LEGEND



1 ENLARGED SITE PLAN

SCALE: 1" = 10'-0"

CAMPUS KEY

NORTH

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
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LICENSED ARCHITECT JONATHAN E. GIACOMINI STATE OF CALIFORNIA
LICENSE NO. C-36244
REN. 1/27

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

ENLARGED SITE PLAN

Project Number	2514
Date	June, 2026
Drawn by	Author
Checked by	Checker

AS-1.3

Plot Date & Time 7/2/2026 1:40:14 PM

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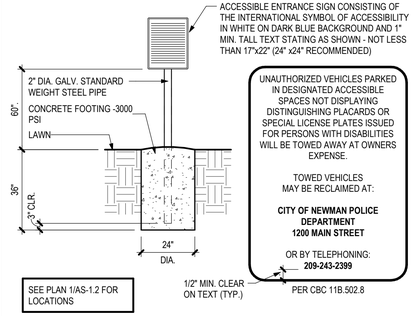
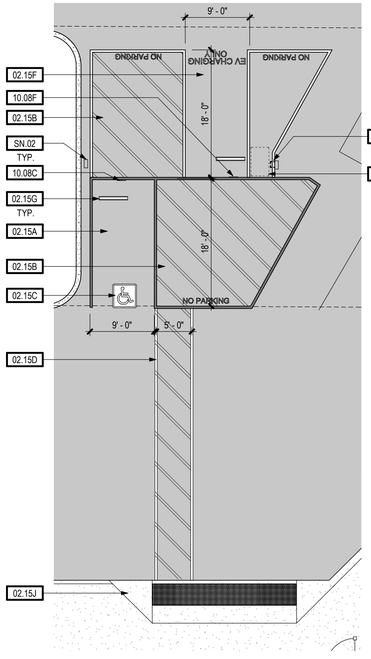
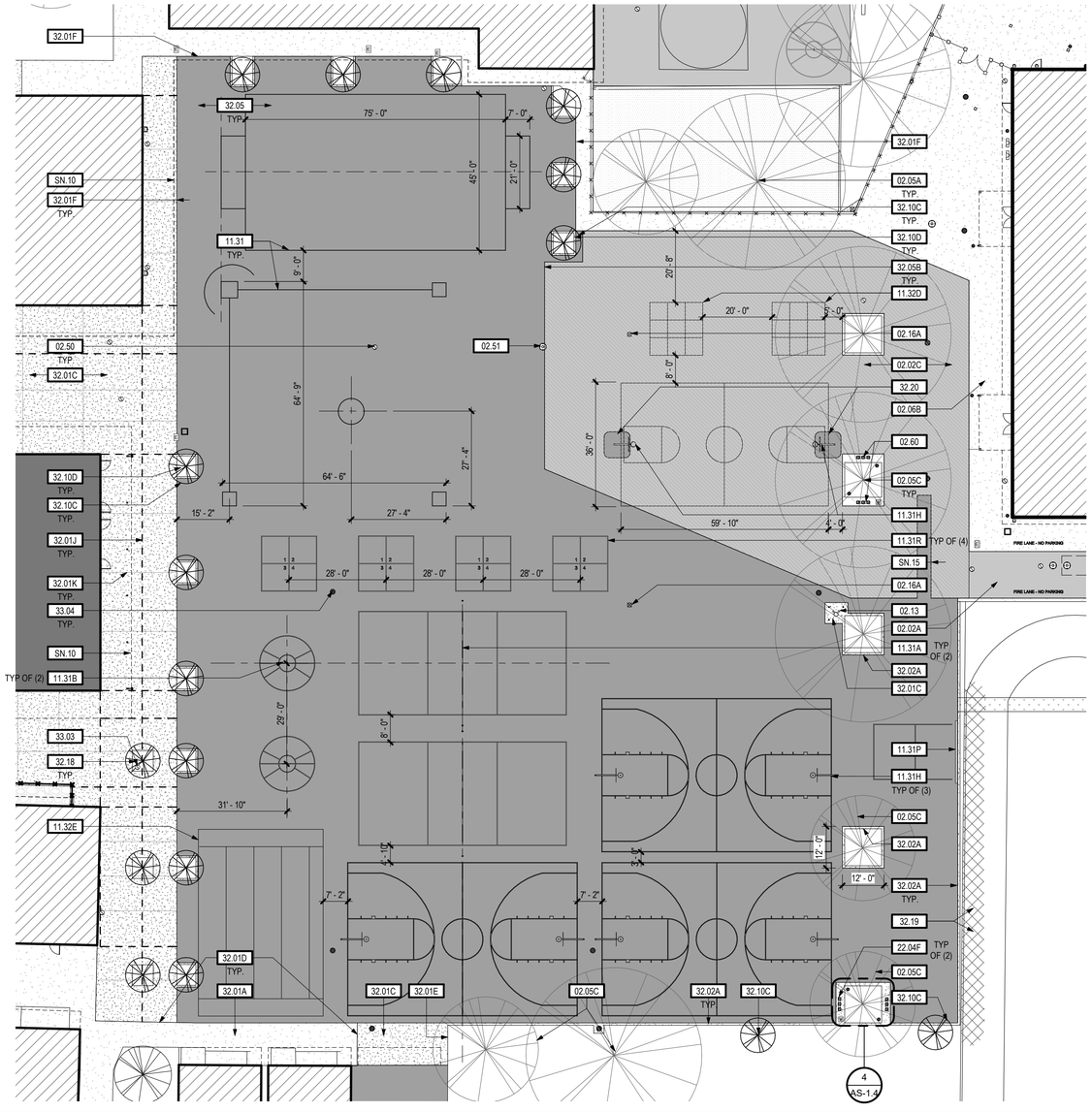


5 ACCESSIBLE ENTRANCE SIGN



6 (E) PARKING
EXISTING PARKING DSA APP# 02-120551
SCALE: 1" = 10'-0"



1 ENLARGED SITE PLAN- PLAYCOURTS
SCALE: 1" = 20'-0"

NORTH

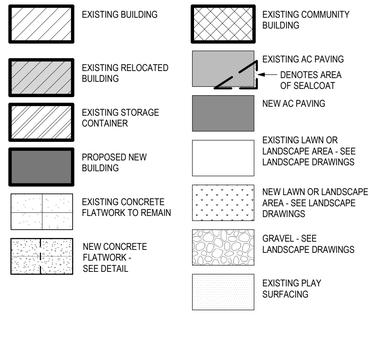
KEYNOTES

02.02A	ASPHALT PAVING - EXISTING TO REMAIN
02.02C	ASPHALT PAVING - EXISTING - SEALCOAT AND RE-STRIPE
02.05A	TREE - EXISTING TO REMAIN
02.05C	TREE - EXISTING TO REMAIN - PROTECT IN PLACE & WATER DURING CONSTRUCTION
02.06B	CONCRETE SIDEWALK - EXISTING - TO REMAIN
02.13	FIRE HYDRANT - EXISTING - TO REMAIN
02.15A	(E) PARKING SPACE - ACCESSIBLE
02.15B	(E) ACCESSIBLE PARKING ACCESS AISLE - 4" WIDE BLUE BORDER WITH 4" WIDE WHITE DIAGONAL STRIPING AT 3'-0" O.C. PAINT "NO PARKING" IN 12" HIGH LETTERING AS SHOWN
02.15C	(E) INTERNATIONAL SYMBOL OF ACCESSIBILITY PAVMENT SYMBOL
02.15D	(E) ACCESSIBLE PARKING ACCESS WALKWAY - 4" WIDE WHITE BORDER WITH 4" WIDE WHITE DIAGONAL STRIPING AT 3'-0" O.C. PAINT
02.15F	(E) ACCESSIBLE EV CHARGING PARKING SPACE
02.15G	(E) WHEEL STOP TO REMAIN
02.15H	(E) ACCESSIBLE ELECTRIC VEHICLE CHARGING STATION (DUAL STATION) - DSA APP# 02-115728
02.15J	(E) CURB RAMP W/ TRUNCATED DOMES
02.16A	POLE LIGHT - EXISTING TO REMAIN - SEE ELECTRICAL DRAWINGS
02.50	EXISTING CLEANOUT - ADJUST CAP WHERE FLATWORK IS NEW - SEE CIVIL DRAWINGS
02.51	MANHOLE - EXISTING TO REMAIN - ADJUST CAP WHERE FLATWORK IS NEW - SEE CIVIL DRAWINGS
02.60	PEDESTAL DRINKING FOUNTAIN - EXISTING TO REMAIN
10.08B	(E) SITE SIGN - ACCESSIBLE PARKING STALL SIGN
10.08C	(E) SITE SIGN - VAN ACCESSIBLE PARKING STALL SIGN
10.08F	(E) SITE SIGN - ACCESSIBLE EV CHARGING STALL
11.31	PLAY COURT - STRIPING TO BE 2" WIDE AND PAINTED WHITE, TYP U.O.N.
11.31A	PLAY COURT - VOLLEYBALL - SEE DETAIL 4/AS-1.6
11.31B	PLAY COURT - TETHERBALL - SEE DETAIL 9/AS-1.6
11.31H	PLAY COURT - BASKETBALL - SEE DETAIL 1/AS-1.6
11.31P	PLAY COURT - BALL WALL - SEE DETAIL 7/AS-1.6 AND 11/AS-1.6
11.31R	PLAY COURT - FOUR SQUARE 'B' - SEE DETAIL 6/AS-1.6
11.32D	PLAYCOURT - 9 SQUARE - SEE DETAIL 10/AS-1.6
11.32E	PLAYCOURT - LINEUP LINES - SEE DETAIL 12/AS-1.6
22.04F	PLUMBING FIXTURE - 'HI-LO' DRINKING FOUNTAIN W/ BOTTLE FILLER - HAWS MODEL 3612, PEDESTAL HI-LO, BARRIER FREE, 3/16" PHOSPHATED-STEEL DRINKING FOUNTAIN, SILVER POWDER COATED, PUSH BUTTON VALVES, DRAIN TO DRYWELL - ROTATE LOWER BOWL TO MEET ACCESSIBILITY REQUIREMENTS FOR CONTROLS AND SPOUT - SEE CLEAR FLOOR SPACE AND APPROACH ON 4/AS-1.4 - AND SEE DETAIL 3/AS-1.4
32.01A	CONCRETE FLATWORK - EXISTING TO REMAIN
32.01C	CONCRETE FLATWORK - SEE CIVIL FOR SLOPE - SEE DETAIL 1/AS-1.5
32.01D	CONCRETE FLATWORK - NEW TO EXISTING - SEE DETAIL 4/AS-1.5
32.01E	CONCRETE FLATWORK EDGE - SEE DETAIL 2/AS-1.5
32.01F	CONCRETE TO ASPHALT- SEE DETAIL 3/AS-1.5
32.01J	EXPANSION / CONSTRUCTION JOINT - SEE DETAIL 1/AS-1.5
32.01K	CONTROL JOINT - SEE DETAIL 1/AS-1.5
32.02A	CONCRETE MOW STRIP - 8" WIDE - SEE DETAIL 5/AS-1.5
32.05	ASPHALT PAVING - SEE CIVIL DRAWINGS
32.05B	ASPHALT PAVING - AT (E) ASPHALT - SEE DETAIL 11/AS-1.5
32.10C	PLANTING - NEW TREE - SEE LANDSCAPE DRAWINGS
32.10D	PLANTING - TREE WELL - SEE DETAIL 9/AS-1.5
32.16	DRYWELL - SEE DETAIL 2/AS-1.4
32.17	WATER BOX - SEE CIVIL DRAWINGS
32.18	6'X6' TREE WELL - 3" THICK STABILIZED DECOMPOSED GRANITE
32.19	HATCH DENOTED REPAIR ON DECOMPOSED GRANITE TRACK WHERE NEW PAVING OCCURS
32.20	REPAIR ASPHALT PAVING WHERE NEW BASKETBALL STANDARD IS INSTALLED
33.03	SITE UTILITY - CLEAN OUT - SEE CIVIL DRAWINGS
33.04	SITE UTILITY - STORM DRAIN CATCH BASIN - SEE CIVIL PLANS

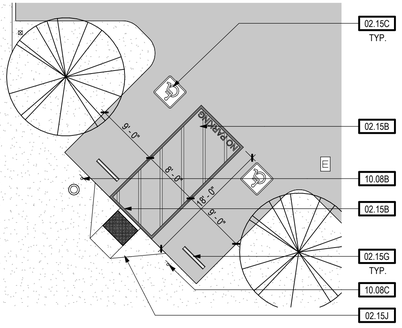
SHEET NOTES

SN.02	PATH TO SAFE DISPERSAL
SN.05	30" x 48" CLEAR ACCESSIBLE FLOOR SPACE
SN.10	BUILDING OVERHANG ABOVE
SN.15	TRENCH AT NEW UTILITY PIPING-SEE CIVIL DRAWINGS - SEE DETAILS 1, 3, 4 AND 7/AS-1.5

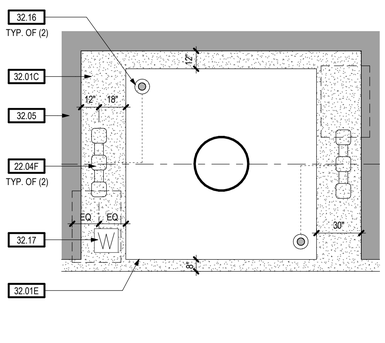
NOTES



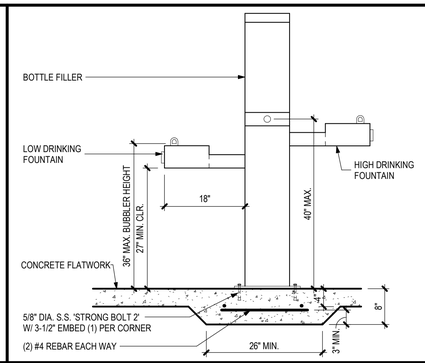
7 (E) PARKING
EXISTING PARKING DSA APP# 02-120551
SCALE: 1" = 10'-0"



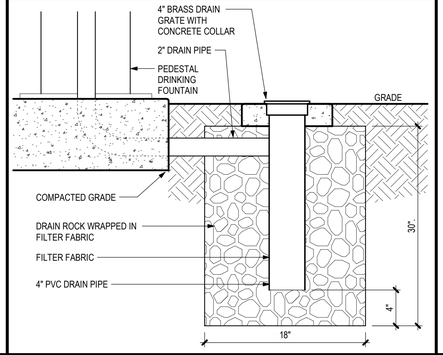
4 SITE PLAN - DF
SCALE: 1/4" = 1'-0"



3 PEDESTAL DF
SCALE: 3/4" = 1'-0"



2 DRY WELL DETAIL
SCALE: 1 1/2" = 1'-0"



SITE LEGEND

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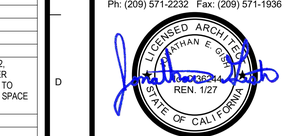

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
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ENLARGED SITE PLAN- PLAYCOURTS

Project Number	2514
Date	June, 2026
Drawn by	Author
Checked by	Checker

AS-1.4

Plot Date & Time 7/2/2026 1:40:23 PM

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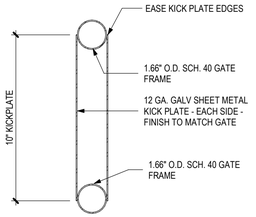

CHAIN LINK

16 KICK PLATE - SECTION
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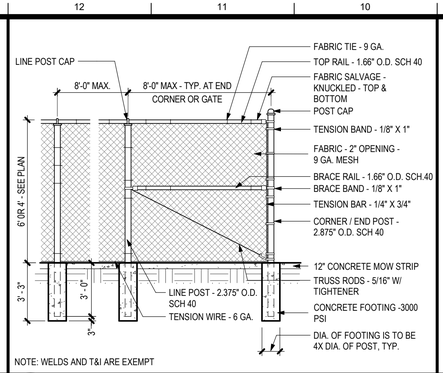
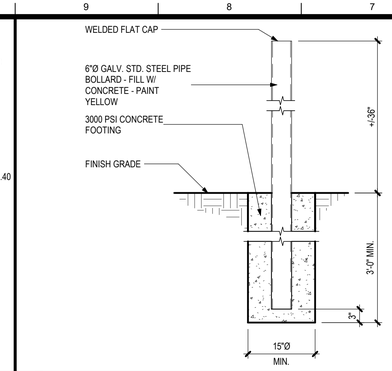
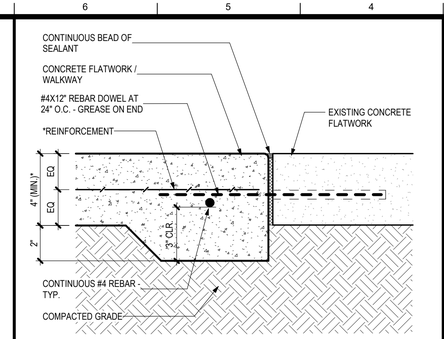


NOTE: WELDS AND T&I ARE EXEMPT

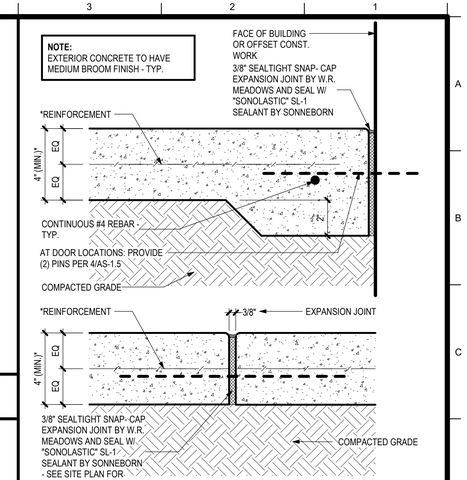
12 CHAIN LINK - FENCE
SCALE: 1/4" = 1'-0"



8 BOLLARD
SCALE: 3/4" = 1'-0"

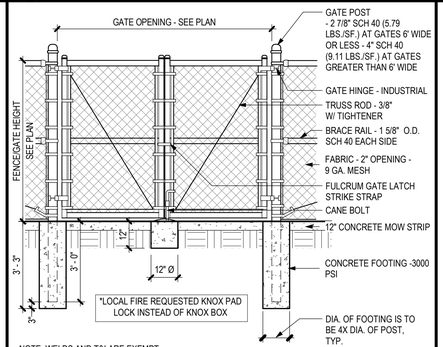


4 (N) CONC. TO (E) FLATWORK
SCALE: 3" = 1'-0"



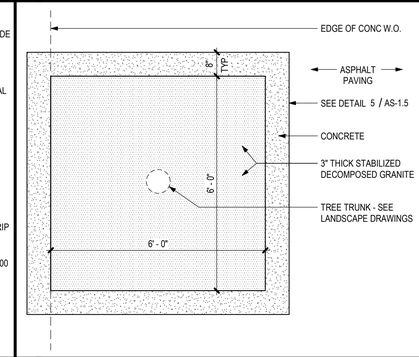
* SEE CIVIL PLANS FOR CONCRETE THICKNESS, REINFORCEMENT, AND BASE.

1 TYPICAL CONC. FLATWORK
SCALE: 3" = 1'-0"

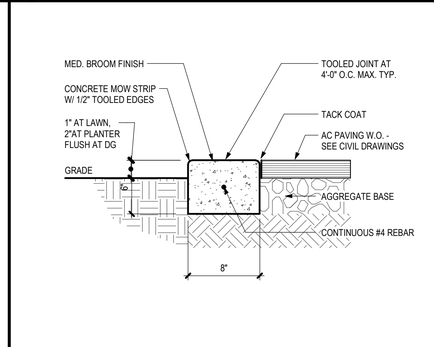


NOTE: WELDS AND T&I ARE EXEMPT

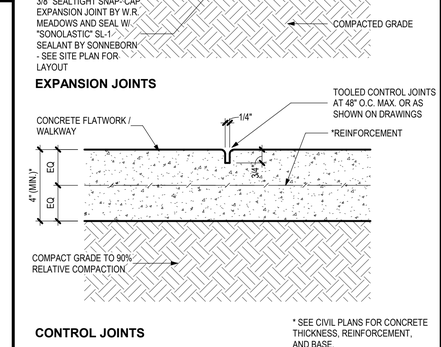
13 CHAINLINK-VEH DOUBLE GATE
SCALE: 3/8" = 1'-0"



9 TREE WELL PLAN
SCALE: 1/2" = 1'-0"



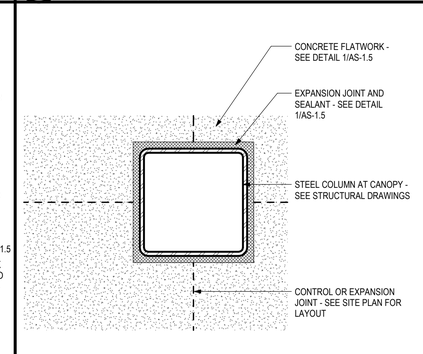
5 CONC. MOW STRIP - 8"
SCALE: 1 1/2" = 1'-0"



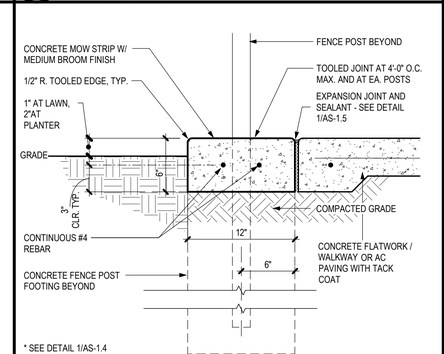
3 CONC. TO AC PAVING
SCALE: 3" = 1'-0"

NOTE: WELDS AND T&I ARE EXEMPT

14 CHAIN LINK - ACC. GATE
SCALE: 3/8" = 1'-0"

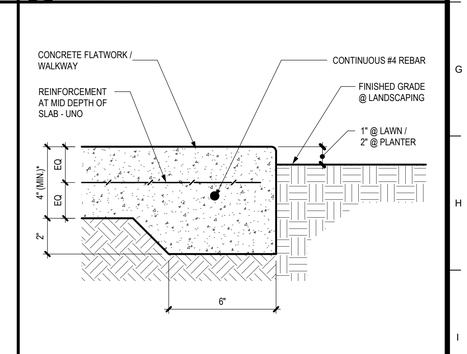


10 TYP. COLUMN EXP. JOINT
SCALE: 3" = 1'-0"



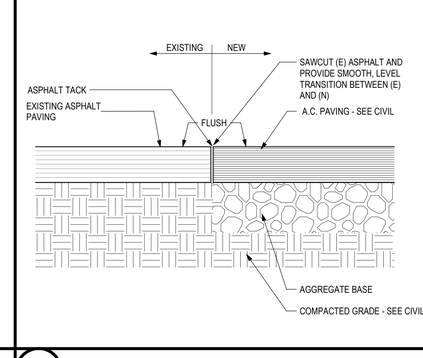
* SEE DETAIL 1/AS-1.4

6 CONC. MOW STRIP AT FENCE
SCALE: 1 1/2" = 1'-0"

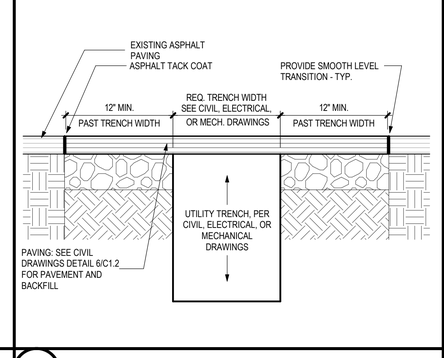


2 CONC. FLATWORK EDGE
SCALE: 3" = 1'-0"

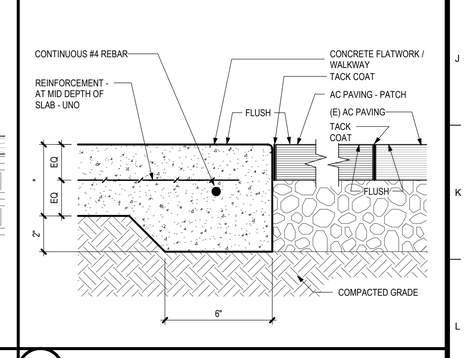
15 FENCE EXTENSION AT BLDG.
SCALE: 3/8" = 1'-0"



11 AC - NEW TO EXISTING
SCALE: 3" = 1'-0"



7 AC - PATCHING AT TRENCHES
SCALE: 1 1/2" = 1'-0"



3 CONC. TO AC PAVING
SCALE: 3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects

TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
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LICENSED ARCHITECT JONATHAN E. GIBB No. C-36644 REN. 1/27 STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

SITE PLAN - CONCRETE & FENCE DETAILS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

AS-1.5

Plot Date & Time 7/2/2026 1:40:27 PM

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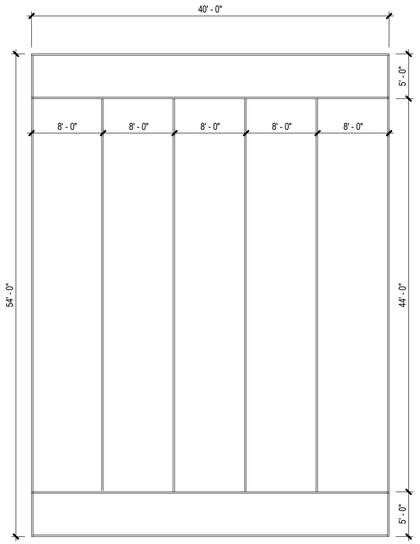
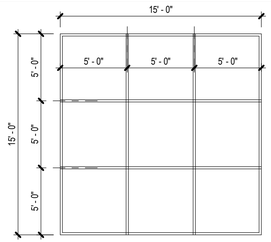


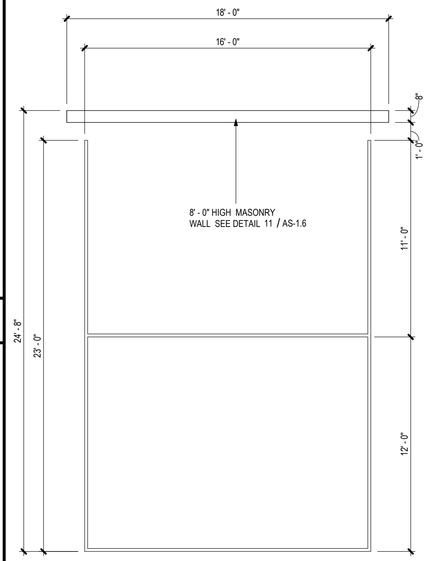
NOTE:
ALL LINES TO BE 2" WIDE, PAINTED WHITE.

12 LINE UP LINES
SCALE: 1/8" = 1'-0"



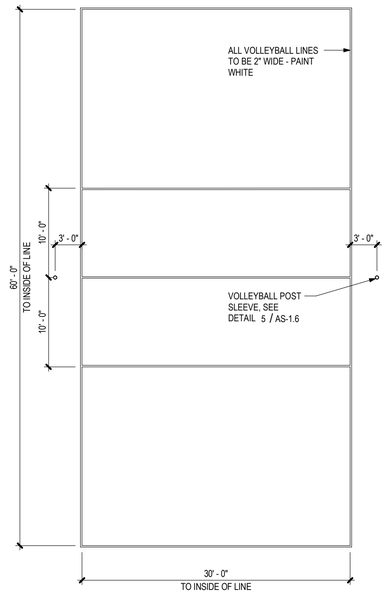
NOTE:
ALL LINES TO BE 2" WIDE, PAINTED WHITE.

10 NINE SQUARE
SCALE: 3/16" = 1'-0"

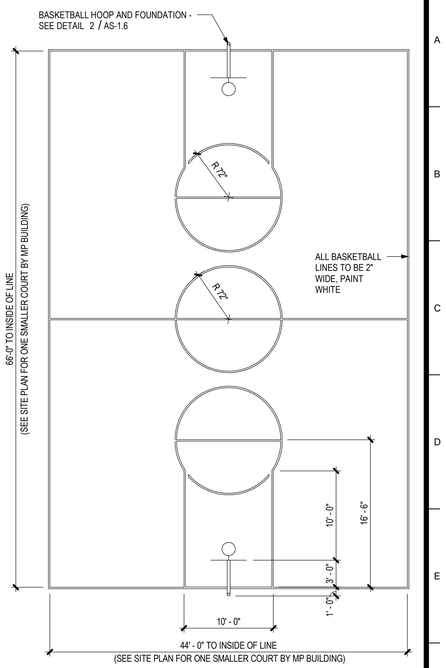


NOTE:
ALL LINES TO BE 2" WIDE, PAINTED WHITE.

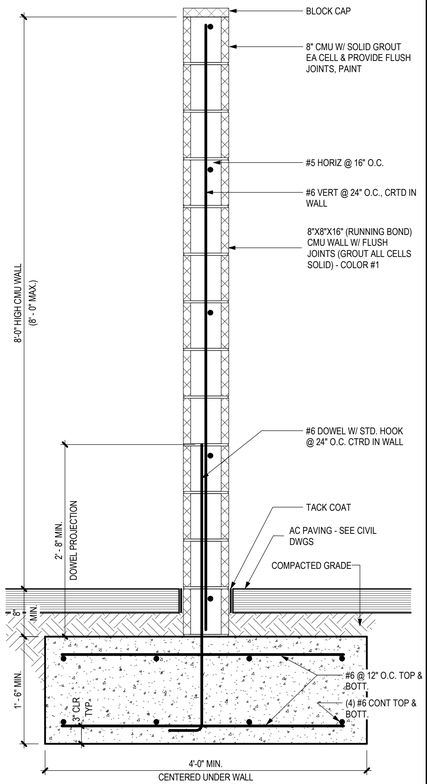
7 BALL WALL PLAN
SCALE: 1/4" = 1'-0"



4 VOLLEYBALL COURT
SCALE: 1/8" = 1'-0"



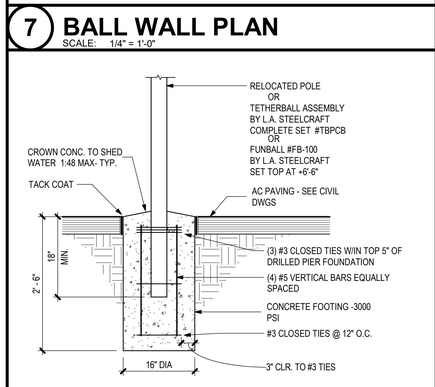
1 BASKETBALL COURT -TYP.
SCALE: 1/8" = 1'-0"



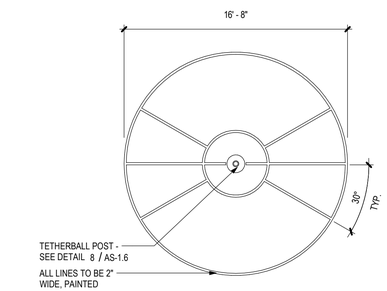
NOTES:

1. SPECIAL INSPECTION OF CMU IS REQUIRED

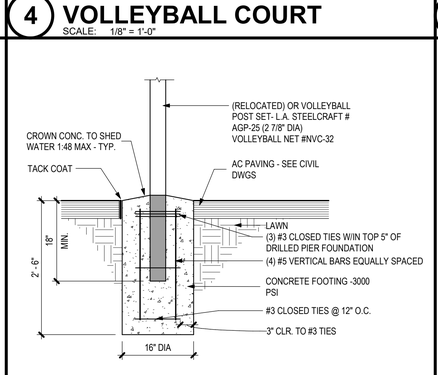
11 BALL WALL SECTION
SCALE: 1" = 1'-0"



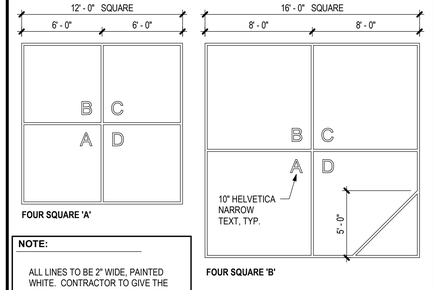
8 FUNBALL / TETHERBALL
SCALE: 3/4" = 1'-0"



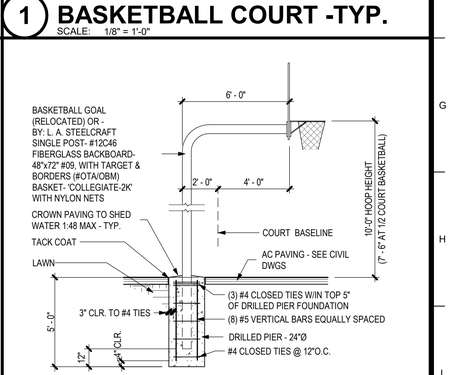
9 TETHERBALL
SCALE: 3/16" = 1'-0"



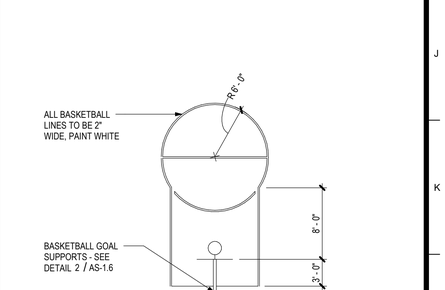
5 VOLLEYBALL POST
SCALE: 3/4" = 1'-0"



6 FOUR SQUARE
SCALE: 3/16" = 1'-0"



2 BASKETBALL HOOP
SCALE: 1/4" = 1'-0"



3 1/2 COURT BASKETBALL
SCALE: 1/8" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
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Ph: (209) 571-2232 Fax: (209) 571-1936

LICENSED ARCHITECT
JONATHAN E. GIACOMINI
C-31082
REN. 1/27
STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL:
CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

SITE DETAILS - PLAY COURTS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

AS-1.6

Plot Date & Time 7/2/2026 1:40:29 PM

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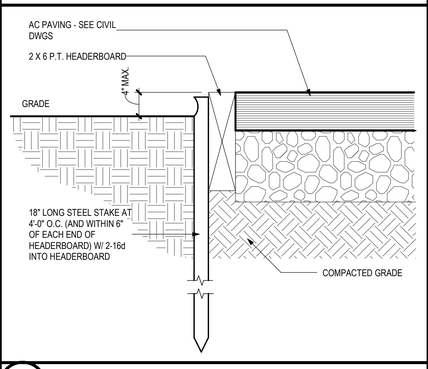
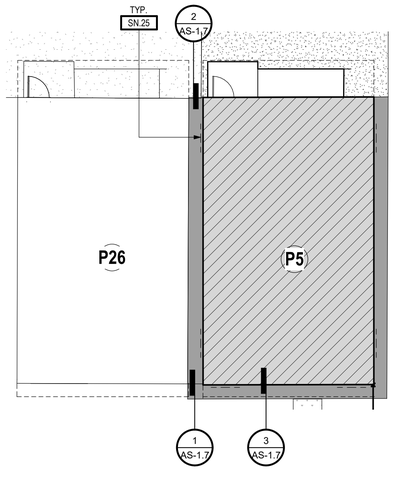
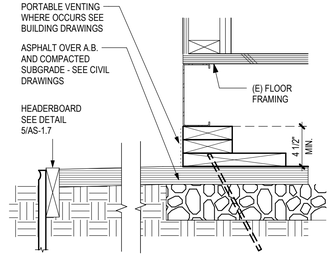
KEYNOTES -	
SN.25	PROVIDE 3" X36" (MIN) VENT SCREENS BETWEEN FOUNDATION BLOCK (MIN. (3) PER SIDE BETWEEN BUILDINGS



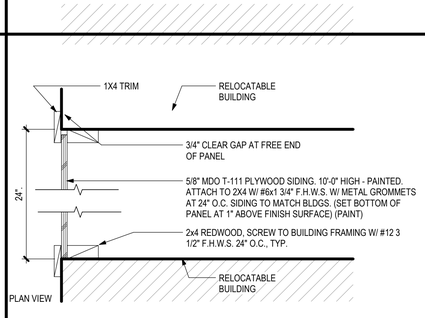
5 AC - HEADERBOARD
SCALE: 3" = 1'-0"



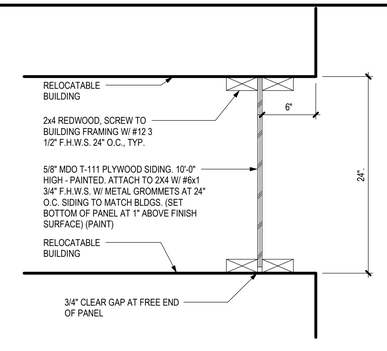
4 ENLARGED PLAN - P26 - P5
SCALE: 1" = 10'-0"



3 RELOCATABLE VENT
SCALE: 1 1/2" = 1'-0"



2 FRONT CLOSURE PANEL
SCALE: 1 1/2" = 1'-0"



1 REAR CLOSURE PANEL
SCALE: 1 1/2" = 1'-0"

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TPH architects
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LICENSED ARCHITECT — TIMOTHY PAUL HUFF — No. 18527 — REN. 5/27 — STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

SITE DETAIL - PORTABLE DETAILS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

AS-1.7

Plot Date & Time 7/2/2026 1:40:30 PM

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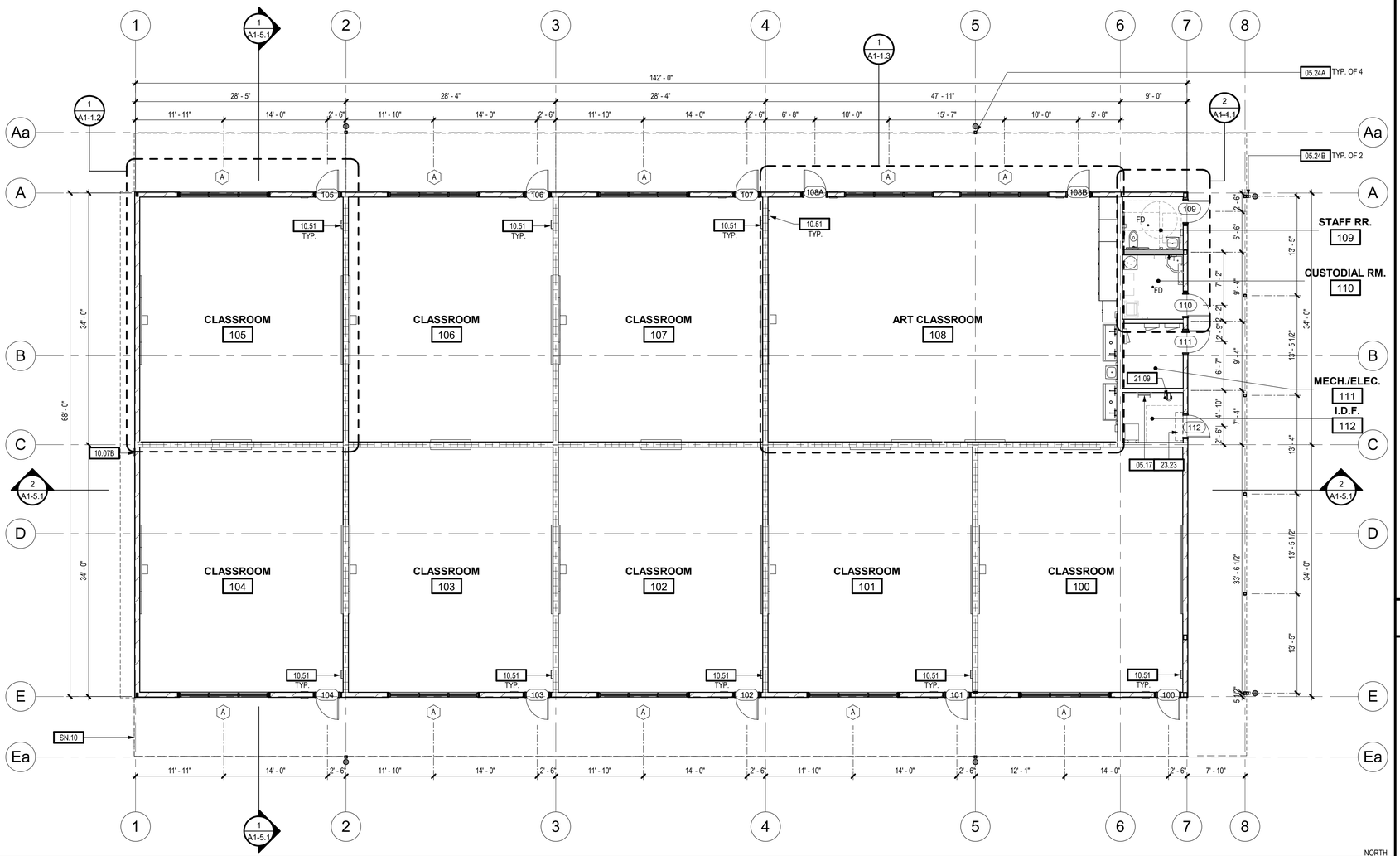
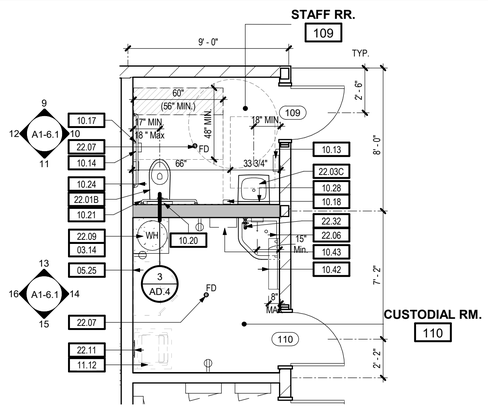


1 FLOOR PLAN

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



2 FLOOR PLAN -STAFF RR. & CUST. RR.

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

KEYNOTES

03.14	12" HIGH CONCRETE PAD
05.17	ACCESS LADDER - SEE DETAIL 14/AD.4
05.24A	METAL DOWNSPOUT 3"x4"x1/4" THK., GALV. - SEE DETAIL 5 & 6/AD.2
05.24B	METAL DOWNSPOUT 3"x4"x1/4" THK., GALV. @ COLUMN - SEE DETAIL 9 & 10/AD.3
05.25	FLAT STRAP BACKING AT FUTURE METAL CABINET - SEE DETAIL 11/AD.5
10.07B	SIGNAGE - GAS RISER IN WALL - SEE DETAIL 5/AD.7
10.13	PAPER TOWEL DISPENSER - SEE DETAIL 1/AD.7
10.14	TOILET TISSUE DISPENSER - SURFACE MOUNTED - SEE DETAIL 1/AD.7
10.17	WASTE DISPOSAL UNIT - SEE DETAIL 1/AD.7
10.18	SOAP DISPENSER - SEE DETAIL 1/AD.7
10.20	TOILET SEAT COVER DISPENSER - SEE DETAIL 1/AD.7
10.21	36" GRAB BAR - ADULT HEIGHT - SEE DETAIL 3/AD.7
10.24	48" GRAB BAR - ADULT HEIGHT - SEE DETAIL 3/AD.7
10.28	MIRROR - 24" x 36" - SEE DETAIL 1/AD.7
10.42	UTILITY SHELF - BOBRICK B-239 - PROVIDE FLAT STRAP BACKING SEE 11/AD.5
10.43	MOP SOAP DISPENSER - OFCI
10.51	SEMI-RECESSED FIRE EXTINGUISHER CABINET w/ EXTINGUISHER (4A:80BC) - SEE DETAIL 6/AD.4
11.12	EQUIPMENT - WASHING MACHINE (NIC) PROVIDE POWER/WATER - SEE ELEC & PLUMBING DWGS
21.09	FIRE SPRINKLER SYSTEM - FIRE RISER
22.01B	PLUMBING FIXTURE - WATER CLOSET - ADULT - ACCESSIBLE - 1/AD.7
22.03C	PLUMBING FIXTURE - LAVATORY - ADULT - ACCESSIBLE - SEE DETAIL 2/AD.7
22.06	PLUMBING FIXTURE - MOP SINK - SEE PLUMBING DRAWINGS
22.07	PLUMBING FIXTURE - FLOOR DRAIN - SEE PLUMBING DRAWINGS
22.09	PLUMBING FIXTURE - WATER HEATER - SEE PLUMBING DRAWINGS
22.11	PLUMBING FIXTURE - WALL BOX - SEE PLUMBING
22.32	HOSE BIB - SEE PLUMBING DRAWINGS

SHEET NOTES

SN.10	BUILDING OVERHANG ABOVE

NOTES

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION: PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

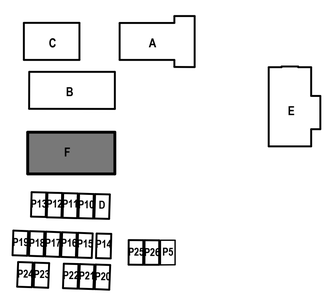
INTERIOR WALLS

- 2x4 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER AT EACH SIDE
- 2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE
- 2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE AND PLYWD. SHEATHING AT ONE SIDE (SHEAR WALL)
- 2x8 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE

NOTES:

- ALL WALL TILE TO TO HAVE TILE BACKER BOARD - SEE INTERIOR ELEVATIONS & FINISH SCHEDULE.
- WALL LEGEND ONLY ADDRESSES GYPSUM BOARD LOCATIONS - SEE FINISH SCHEDULE FOR LOCATIONS WHERE TACKBOARD IS SPECIFED OVER THE GYPSUM BOARD
- DIMENSIONS ARE TO FACE OF STUD OR CENTERLINE OF COLUMN, UNLESS OTHERWISE NOTED
- ALL INTERIOR AND EXTERIOR WOOD OR METAL STUDS ARE TO BE SPACED AT 16" O.C. MAX.
- SEE STRUCTURAL DRAWINGS FOR ALL EXTERIOR AND INTERIOR SHEAR WALL LOCATIONS
- SEE STRUCTURAL DRAWINGS FOR EXTERIOR WALLS W/ PLYWD. SHEATHING AT INTERIOR FACE
- ALL STUD OR PLATE PENETRATIONS (INCLUDING ELECTRICAL, COMMUNICATIONS, AND PLUMBING LINES) AT WALLS SHALL BE SEALED WITH EXPANDING FOAM FOR SOUND ATTENUATION BEFORE SOUND BATTS ARE INSTALLED. ARCHITECT SHALL INSPECT PRIOR TO SOUND BATT INSTALLATION.

WALL LEGEND



CAMPUS KEY

NORTH

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

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LICENSED ARCHITECT JONATHAN E. GIACOMINI C-30824 REN. 1/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

FLOOR PLAN

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

A1-1.1

Plot Date & Time 7/2/2026 1:38:17 PM

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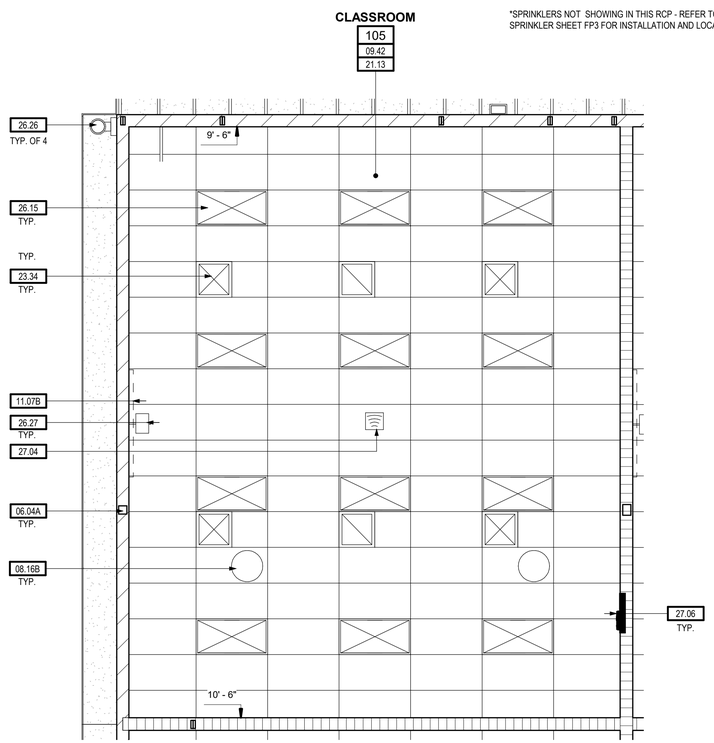
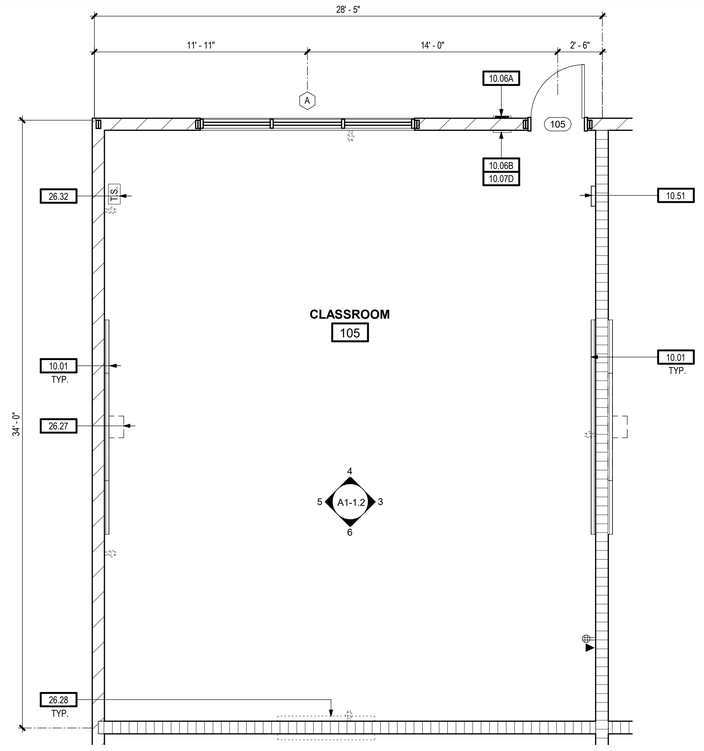


* SIM AT ROOMS: 106, 107
* MIRROR AT RMS: 104, 103, 102, 101 & 100

2 REFLECTED CEILING PLAN - TYP. CLASSROOM

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

NORTH



* SIM AT ROOMS: 106, 107
* MIRROR AT RMS: 104, 103, 102, 101 & 100

1 ENLRGD. FLOOR PLAN - TYP. CLASSROOM

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

NORTH

KEYNOTES

05.11	FLAT STRAP BACKING AT WOOD STUDS - SEE 11/AD.5
06.04A	WOOD COLUMN - SEE STRUCTURAL DRAWINGS
08.01	DOOR - HOLLOW METAL - SEE DOOR SCHEDULE
08.04	WINDOW - HOLLOW METAL
08.16B	SKYLIGHT AT WOOD FRAMING - SEE DETAIL 13/AD.1
09.11	VINYL COVERED TACKBOARD - SEE DETAIL 2/AD.4
09.29	WALL BASE - SEE FINISH SCHEDULE
09.42	ACOUSTICAL CEILING - SUSPENDED, 2X4 - SLOPED - SEE SHEET AD.8, AD.9 & AD.10
10.01	12'-0" X 4'-0" FIXED MARKERBOARD - SEE DETAIL 4/AD.4
10.06A	SIGNAGE - ROOM IDENTIFICATION - SEE DETAIL 6/AD.7
10.06B	SIGNAGE - WALL MOUNTED "EXIT" - SEE DETAIL 8/AD.7
10.07D	SIGNAGE - ASSISTED LISTENING SYSTEM - SEE DETAIL 4/AD.7
10.51	SEMI-RECESSED FIRE EXTINGUISHER CABINET w/ EXTINGUISHER (4A:80BC) - SEE DETAIL 6/AD.4
11.07B	PROJECTION SCREEN - SURFACE MOUNTED - SEE DETAIL 11/AD.4
21.13	FIRE SPRINKLER SYSTEM - FOR FIRE SPRINKLER LOCATIONS AND INSTALLATION - SEE FIRE SPRINKLER DRAWINGS 1/FP3
23.34	CEILING HVAC REGISTER - SEE MECHANICAL DRAWINGS
26.15	LIGHTING - SEE ELECTRICAL DRAWINGS
26.26	WALL MOUNTED SECURITY CAMERA - SEE ELEVATIONS FOR MOUNTING HEIGHT - SEE DETAIL 2/AD.2 - SEE ELECTRICAL DRAWINGS
26.27	WALL MOUNTED SHORT THROW PROJECTOR - SEE 10/AD.4 AND ELECTRICAL DRAWINGS
26.28	TV (FUTURE) 4" MAX PROTRUSION FROM WALL - PROVIDE POWER/AV - SEE ELECTRICAL
26.32	TEACHER CONTROLS - SEE ELECTRICAL SHEET 3/E1-3.1
27.04	WIRELESS ACCESS POINT - SEE ELECTRICAL
27.06	CLOCK/SPEAKER - RECESSED - SEE ELECTRICAL DRAWINGS

NOTES

S	MOTORIZED BLIND SWITCH		FIRE ALARM DEVICE
C	CLOCK/SPEAKER CALL BACK BUTTON		LIGHT SWITCH
OR	DATA OR AV OUTLETS	S	SKYLIGHT DIMMER SWITCH
OR	POWER OUTLETS		

NOTES:

1. NOT ALL OUTLET/DEVICE LOCATIONS ARE SHOWN IN INTERIOR ELEVATIONS - SEE ELECTRICAL DRAWINGS FOR FULL SCOPE OF WORK
2. SEE ELECTRICAL DRAWINGS FOR OUTLET/BOX HEIGHT REQUIREMENTS

OUTLET/DEVICE LEGEND

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION: PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

INTERIOR WALLS

2x4 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER AT EACH SIDE

2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE

2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE AND PLYWD. SHEATHING AT ONE SIDE (SHEAR WALL)

NOTES:

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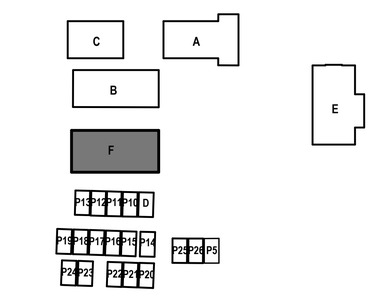
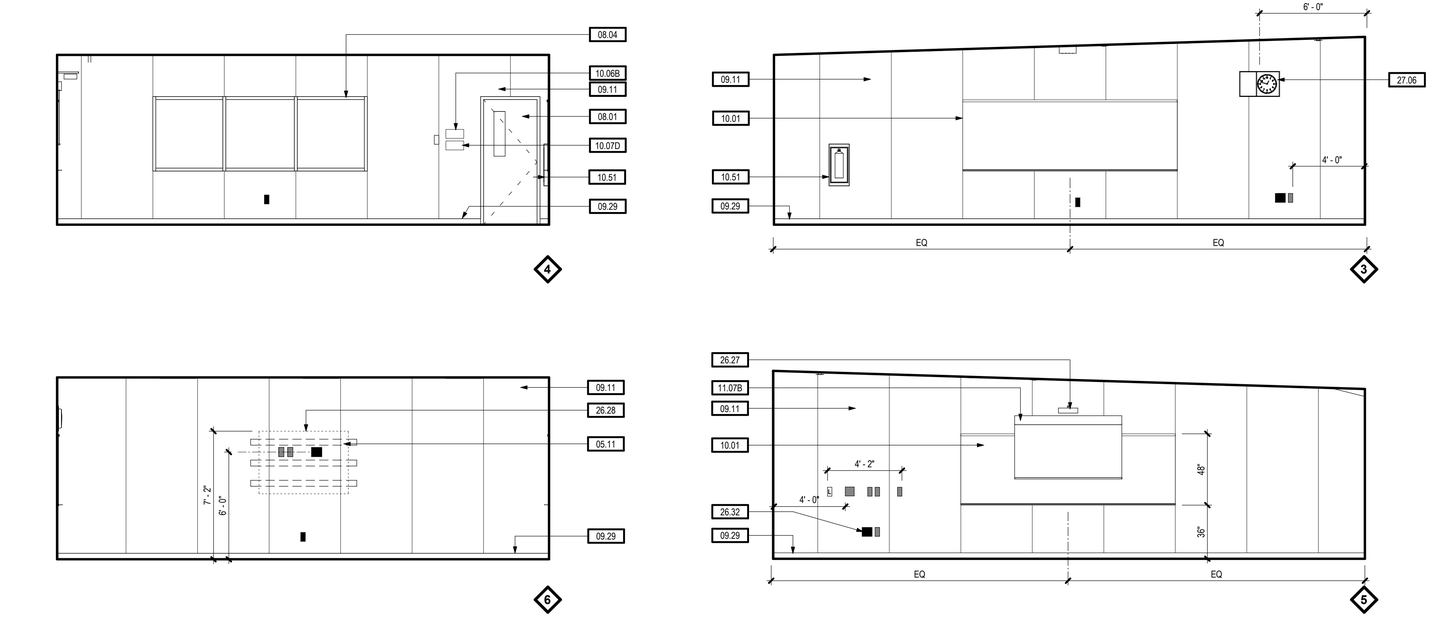
- SEE STRUCTURAL DRAWINGS FOR ALL EXTERIOR AND INTERIOR SHEAR WALL LOCATIONS
- SEE STRUCTURAL DRAWINGS FOR EXTERIOR WALLS W/ PLYWD. SHEATHING AT INTERIOR FACE
- ALL STUD OR PLATE PENETRATIONS (INCLUDING ELECTRICAL, COMMUNICATIONS, AND PLUMBING LINES) AT WALLS SHALL BE SEALED WITH EXPANDING FOAM FOR SOUND ATTENUATION BEFORE SOUND BATTS ARE INSTALLED. ARCHITECT SHALL INSPECT PRIOR TO SOUND BATT INSTALLATION.

WALL LEGEND



NORTH

CAMPUS KEY



INTERIOR ELEVATIONS- TYP. CLASSROOM

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

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DATE: 07/15/26

TPH architects

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LICENSED ARCHITECT
JONATHAN E. GIBB
No. C-36241
REN. 1/27
STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

ENLARGED FLOOR PLAN & ELEV. - TYP. CLASSROOM

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

A1-1.2

Plot Date & Time 7/2/2026 1:38:21 PM

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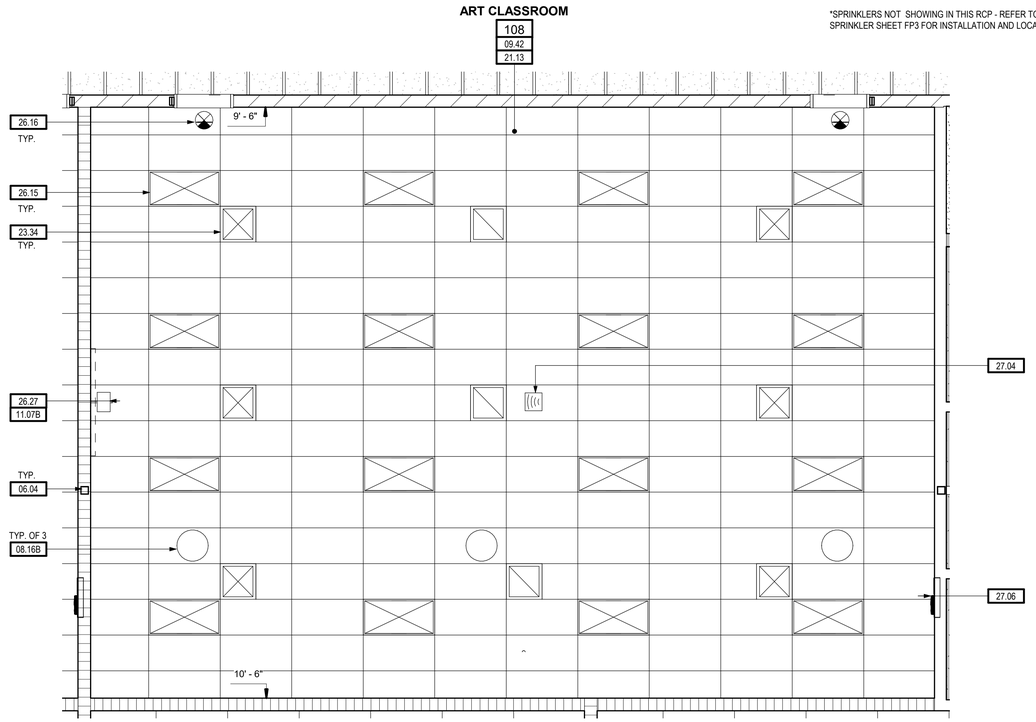
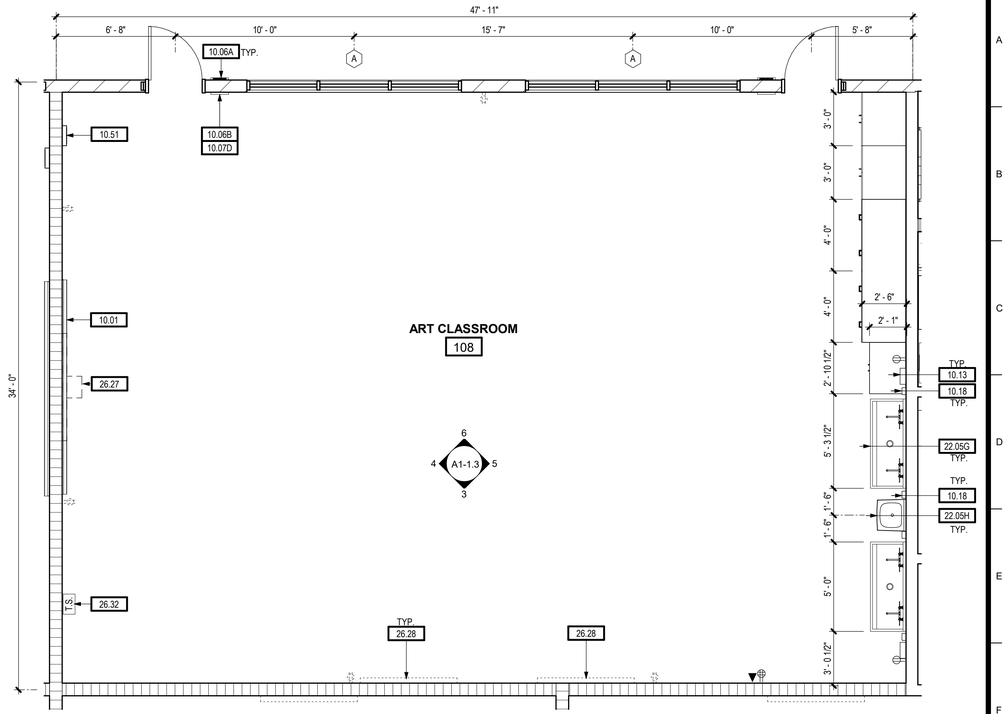


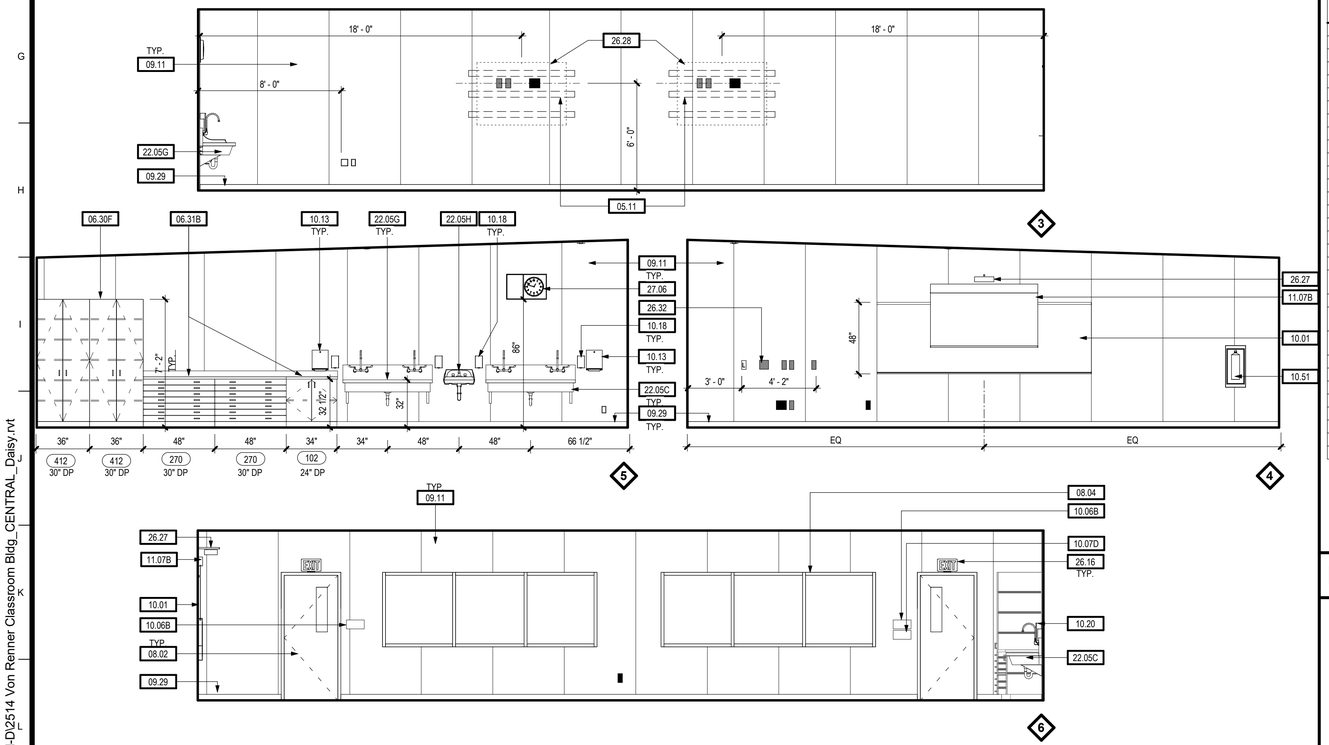
2 REFLECTED CEILING PLAN - ART CLASSROOM

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



1 FLOOR PLAN - ART CLASSROOM

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



INTERIOR ELEVATIONS - ART CLASSROOM

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

KEYNOTES

05.11	FLAT STRAP BACKING AT WOOD STUDS - SEE 11/AD.5
06.04	WOOD POST - SEE STRUCTURAL DRAWINGS
06.30F	PLASTIC LAMINATE CASEWORK - FULL HEIGHT CABINET - SEE DETAIL 10/AD.7
06.31B	PLASTIC LAMINATE COUNTERTOP WITH BACKSPLASH SEE DETAIL 11/AD.7
08.02	SIDELITE - HOLLOW METAL - SEE DOOR SCHEDULE
08.04	WINDOW - HOLLOW METAL
08.16B	SKYLIGHT AT WOOD FRAMING - SEE DETAIL 13/AD.1
09.11	VINYL COVERED TACKBOARD - SEE DETAIL 2/AD.4
09.29	WALL BASE - SEE FINISH SCHEDULE
09.42	ACOUSTICAL CEILING - SUSPENDED, 2X4 - SLOPED - SEE SHEET AD.8, AD.9 & AD.10
10.01	12'-0" X 4'-0" FIXED MARKERBOARD - SEE DETAIL 4/AD.4
10.06A	SIGNAGE - ROOM IDENTIFICATION - SEE DETAIL 6/AD.7
10.06B	SIGNAGE - WALL MOUNTED "EXIT" - SEE DETAIL 8/AD.7
10.07D	SIGNAGE - ASSISTED LISTENING SYSTEM - SEE DETAIL 4/AD.7
10.13	PAPER TOWEL DISPENSER - SEE DETAIL 1/AD.7
10.18	SOAP DISPENSER - SEE DETAIL 1/AD.7
10.20	TOILET SEAT COVER DISPENSER - SEE DETAIL 1/AD.7
10.51	SEMI-RECESSED FIRE EXTINGUISHER CABINET w/ EXTINGUISHER (4A:80BC) - SEE DETAIL 6/AD.4
11.07B	PROJECTION SCREEN - SURFACE MOUNTED - SEE DETAIL 11/AD.4
21.13	FIRE SPRINKLER SYSTEM - FOR FIRE SPRINKLER LOCATIONS AND INSTALLATION - SEE FIRE SPRINKLER DRAWINGS 1/FP3
22.05C	PLUMBING FIXTURE - SINK AT ART CLASSROOM - SEE PLUMBING
22.05G	PLUMBING FIXTURE - CUSTOM SIZE 2-STATION THROUGH SINK W PEDAL CONTROLS - SEE PLUMBING DRAWINGS
22.05H	PLUMBING FIXTURE - HANDWASHING SINK - ACCESSIBLE - DETAIL 2/AD.7 - SEE PLUMBING DRAWINGS
23.34	CEILING HVAC REGISTER - SEE MECHANICAL DRAWINGS
26.15	LIGHTING - SEE ELECTRICAL DRAWINGS
26.16	LIGHTING - EMERGENCY - SEE ELECTRICAL
26.27	WALL MOUNTED SHORT THROW PROJECTOR - SEE 10/AD.4 AND ELECTRICAL DRAWINGS
26.28	TV (FUTURE) 4" MAX PROTRUSION FROM WALL - PROVIDE POWER/AV - SEE ELECTRICAL
26.32	TEACHER CONTROLS - SEE ELECTRICAL SHEET 3/E1-3.1
27.04	WIRELESS ACCESS POINT - SEE ELECTRICAL
27.06	CLOCK/SPEAKER - RECESSED - SEE ELECTRICAL DRAWINGS

NOTES

- MOTORIZED BLIND SWITCH
- CLOCK/SPEAKER CALL BACK BUTTON
- DATA OR AV OUTLETS
- POWER OUTLETS
- FIRE ALARM DEVICE
- LIGHT SWITCH
- SKYLIGHT DIMMER SWITCH

NOTES:

1. NOT ALL OUTLET/DEVICE LOCATIONS ARE SHOWN IN INTERIOR ELEVATIONS - SEE ELECTRICAL DRAWINGS FOR FULL SCOPE OF WORK
2. SEE ELECTRICAL DRAWINGS FOR OUTLET/BOX HEIGHT REQUIREMENTS

OUTLET/DEVICE LEGEND

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION: PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

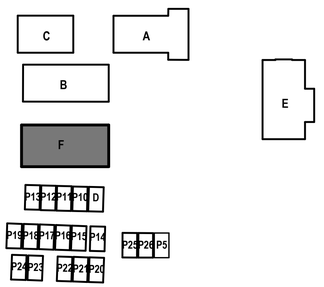
INTERIOR WALLS

- 2x4 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER AT EACH SIDE
- 2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE
- 2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE AND PLYWD. SHEATHING AT ONE SIDE (SHEAR WALL)

NOTES:

- ALL WALL TILE TO TO HAVE TILE BACKER BOARD - SEE INTERIOR ELEVATIONS & FINISH SCHEDULE.
- WALL LEGEND ONLY ADDRESSES GYPSUM BOARD LOCATIONS - SEE FINISH SCHEDULE FOR LOCATIONS WHERE TACKBOARD IS SPECIFIED OVER THE GYPSUM BOARD
- DIMENSIONS ARE TO FACE OF STUD OR CENTERLINE OF COLUMN, UNLESS OTHERWISE NOTED
- ALL INTERIOR AND EXTERIOR WOOD OR METAL STUDS ARE TO BE SPACED AT 16" O.C. MAX.
- SEE STRUCTURAL DRAWINGS FOR ALL EXTERIOR AND INTERIOR SHEAR WALL LOCATIONS
- SEE STRUCTURAL DRAWINGS FOR EXTERIOR WALLS W/ PLYWD. SHEATHING AT INTERIOR FACE
- ALL STUD OR PLATE PENETRATIONS (INCLUDING ELECTRICAL, COMMUNICATIONS, AND PLUMBING LINES) AT WALLS SHALL BE SEALED WITH EXPANDING FOAM FOR SOUND ATTENUATION BEFORE SOUND BATTS ARE INSTALLED. ARCHITECT SHALL INSPECT PRIOR TO SOUND BATT INSTALLATION.

WALL LEGEND



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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
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NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

ENLARGED FLOOR PLAN & ELEV. - ART CLASSROOM

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JC

A1-1.3

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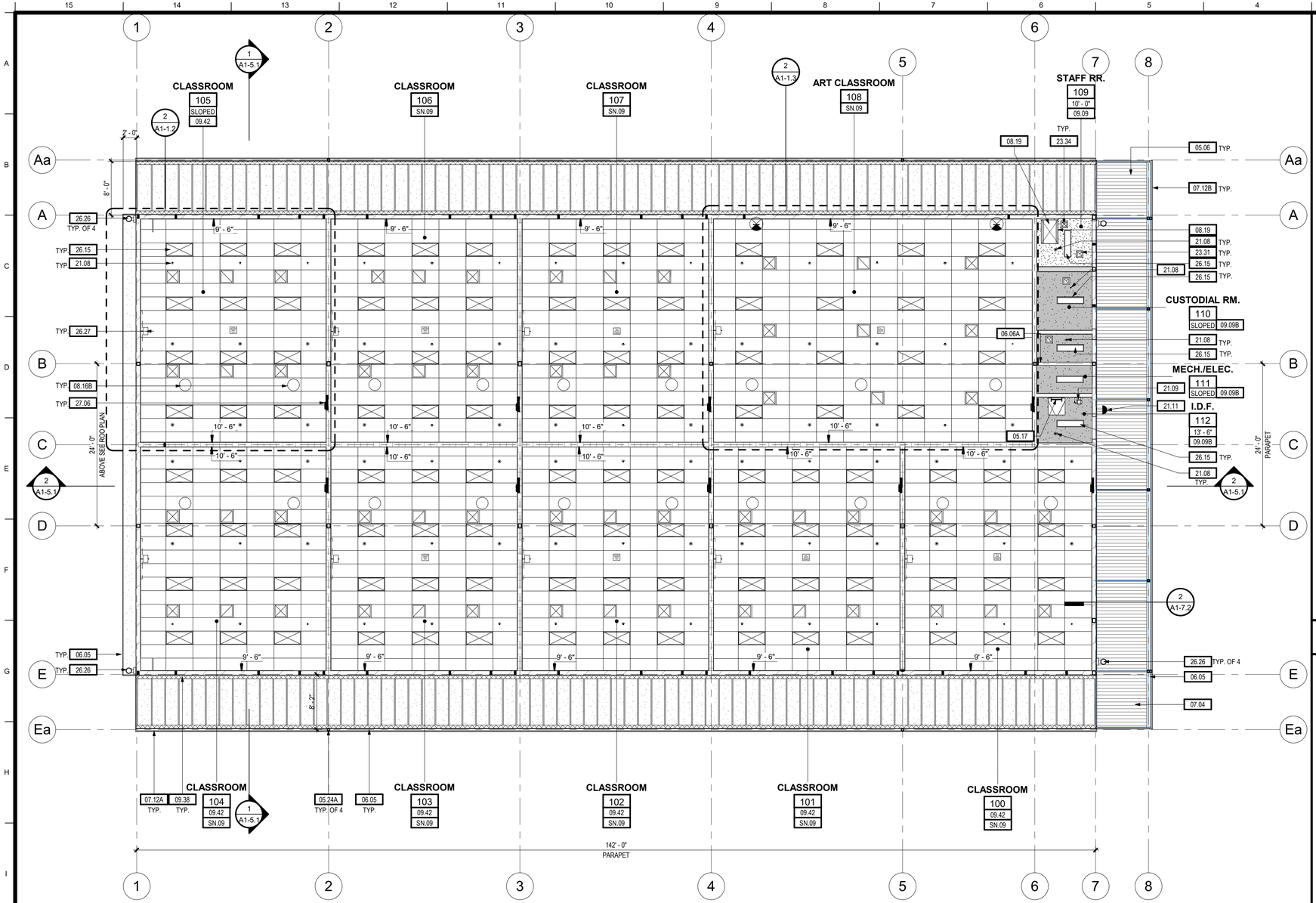


VENT CALCULATION:
(VALUES FOR OVERHANG ON ONE SIDE OF BUILDING 'F')

COVERED AREA: 1222 S.F.
REQUIRED VENT AREA: 1222 / 150 = 8.15 S.F.

2" SNAPVENT NET FREE AREA = 0.0625 PER LINEAR FOOT

LINEAR FEET OF VENT: 284 L.F.
284 x .0625 =17.75 S.F.

TOTAL VENT AREA: 17.75 S.F. (GREATER THAN REQ. 8.15 S.F.)

KEYNOTES

05.06	CANOPY AT BUILDING F- SEE SHEET A1-3.2
05.17	ACCESS LADDER - SEE DETAIL 14/AD.4
05.24A	METAL DOWNSPOUT 3"x4"x.14" THK., GALV. - SEE DETAIL 5 & 6/AD.2
06.05	FASCIA BOARD - PAINT FINISH - SEE DETAIL 1/AD.3
06.06A	GLUE-LAM BEAM - SEE STRUCTURAL, PAINT WHERE EXPOSED
07.04	ROOFING - PRE-FINISHED STANDING SEAM METAL
07.12A	GUTTER - PRE-FINISHED - SEE 1/AD.3
07.12B	GUTTER - PRE-FINISHED - SEE 11/AD.3
08.16B	SKYLIGHT AT WOOD FRAMING - SEE DETAIL 13/AD.1
08.19	ATTIC ACCESS PANEL
09.09	GYPSUM BOARD - PAINT - SEE FINISH SCHEDULE
09.09B	GYPSUM BOARD - PAINT - SECURED TO ROOF JOISTS
09.38	CONTINUOUS ALUMINUM SOFFIT VENT - SEE DETAILS 9/AD.1
09.42	ACOUSTICAL CEILING - SUSPENDED, 2X4 - SLOPED - SEE SHEET AD.8, AD.9 & AD.10
21.08	FIRE SPRINKLER SYSTEM - SPRINKLER HEAD - SEE FIRE SPRINKLER DRAWINGS
21.09	FIRE SPRINKLER SYSTEM - FIRE RISER
21.11	FIRE SPRINKLER SYSTEM - ALARM BELL - SEE ELECTRICAL
23.31	HVAC EQUIPMENT - IN CEILING EXHAUST FAN - SEE DETAIL 5/AD.1 - SEE MECHANICAL DRAWINGS
23.34	CEILING HVAC REGISTER - SEE MECHANICAL DRAWINGS
26.15	LIGHTING - SEE ELECTRICAL DRAWINGS
26.26	WALL MOUNTED SECURITY CAMERA - SEE ELEVATIONS FOR MOUNTING HEIGHT - SEE DETAIL 2/AD.2 - SEE ELECTRICAL DRAWINGS
26.27	WALL MOUNTED SHORT THROW PROJECTOR - SEE 10/AD.4 AND ELECTRICAL DRAWINGS
27.06	CLOCK/SPEAKER - RECESSED - SEE ELECTRICAL DRAWINGS

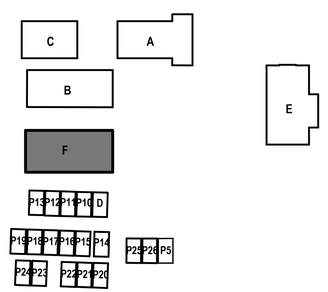
SHEET NOTES

SN.09	SEE CLASSROOM 105 FOR TYPICAL NOTES

NOTES

- FIBER CEMENT SOFFIT - SECURED TO ROOF JOIST
- SOFFIT VENT
- GYPSUM BOARD CEILING - SEE STRUCTURAL FOR CEILING FRAMING PLANS - 11/S0.3
- GYPSUM BOARD CEILING - SECURED TO ROOF JOIST
- 24" X 48" SUSPENDED ACOUSTICAL CEILING
- EXPOSED METAL AWNING

RCP LEGEND



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TPH architects
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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

REFLECTED CEILING PLAN

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

A1-2.1

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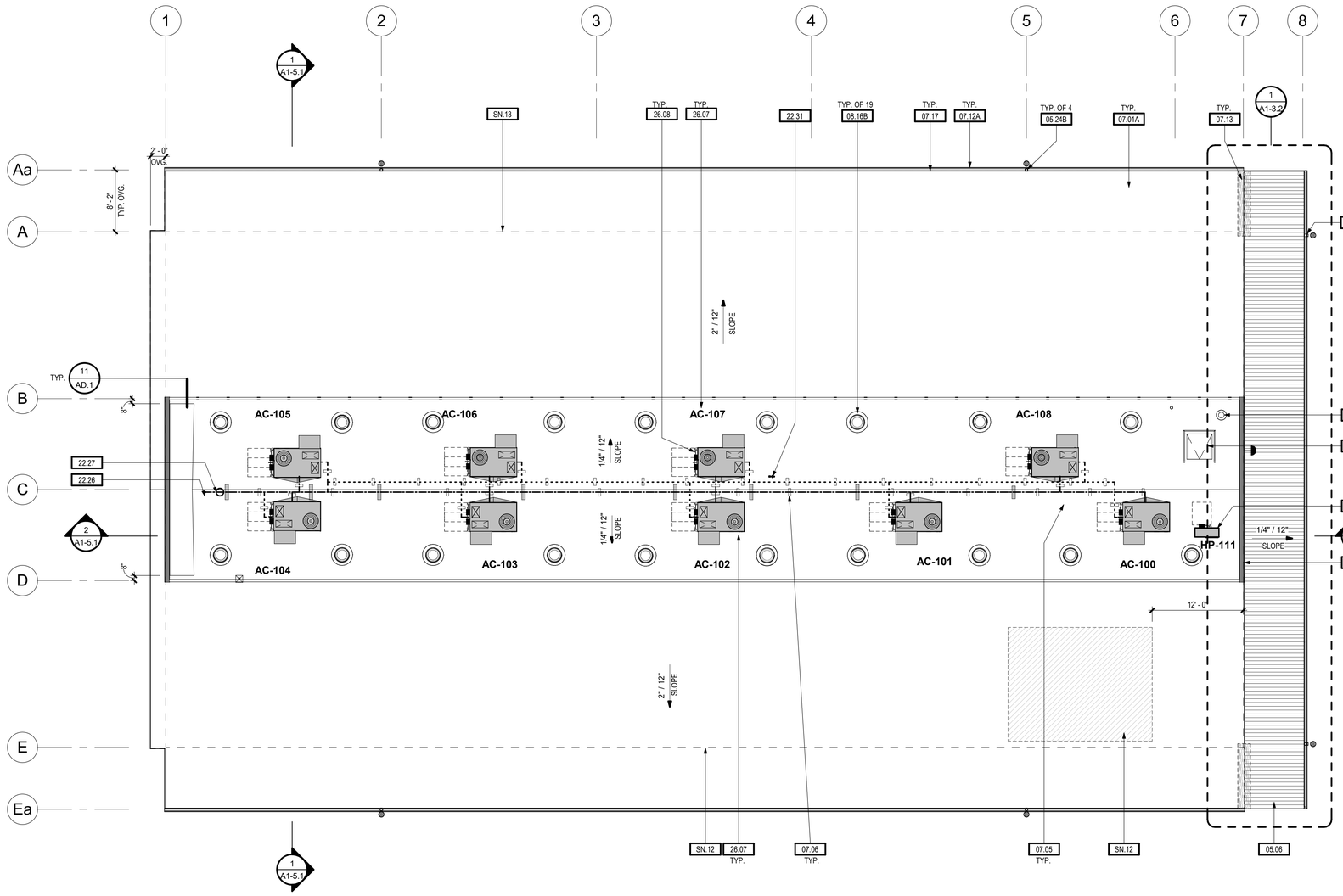
1 REFLECTED CEILING PLAN

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



KEYNOTES

05.06	CANOPY AT BUILDING F- SEE SHEET A1-3.2
05.24B	METAL DOWNSPOUT 3"x4"x1/4" THK., GALV. @ COLUMN - SEE DETAIL 9 & 10/AD.3
07.01A	ROOFING - SINGLE-PLY - CLASS 'B' MINIMUM - OVER 1/4" DENS DECK - SEE DETAIL 17/AD.1
07.05	ROOFED IN BLOCK / PIPE SUPPORT - SEE DETAIL 7/AD.1
07.06	PIPE SUPPORT - SEE DETAIL 8/AD.1
07.07A	ROOF ACCESSORY - ROOF ACCESS HATCH - SEE DETAIL 4/AD.1
07.10	PARAPET CAP - SEE PLANS AND WALL SECTION DETAILS
07.12A	GUTTER - PRE-FINISHED - SEE 1/AD.3
07.13	WRAP HIGH TEMPERATURE UNDERLAYMENT DOWN VERTICAL FACE AND OVER CANOPY FLASHING BELOW
07.17	FASCIA - SEE PLANS AND WALL SECTION DETAILS
08.16B	SKYLIGHT AT WOOD FRAMING - SEE DETAIL 13/AD.1
22.26	GAS LINE PENETRATION AT ROOF - PAINT ALL EXPOSED PIPE - SEE DETAILS 6/AD.1 - SEE PLUMBING DRAWINGS
22.27	PLUMBING FIXTURE - GAS REGULATOR - SEE PLUMBING DRAWINGS
22.31	ROOF HOSE BIB - SEE PLUMBING DRAWINGS
23.17	HVAC EQUIPMENT - HEAT PUMP AT WOOD DECK - SEE DETAIL 2/AD.1 AND SEE MECHANICAL
23.22	ROOF FLUE OR VENT AT WOOD DECK - SEE DETAIL 5/AD.1 & MECHANICAL DRAWINGS
26.07	ELECTRICAL DISCONNECT AT HVAC UNIT WITH 30x36 MIN. CLEAR FLOOR SPACE - COORDINATE LOCATION WITH MFR RECOMMENDATIONS - SEE ELECTRICAL & MECH. DRAWINGS
26.08	ELECTRICAL LOW VOLTAGE OR POWER ROOF PENETRATIONS ON EITHER SIDE OF DISCONNECTS CLEAR AREA - SEE DETAIL XYZ & ELECTRICAL/MECH. DRAWINGS

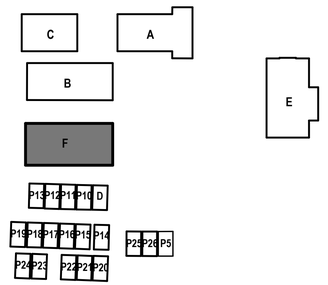
SHEET NOTES

SN.12	SOLAR AREA 288 SF - SEE SHEET A1-3.3 FOR SOLAR PANEL FRAMING
SN.13	BUILDING PETERMETER BELOW

NOTES

- HEAT PUMP UNIT
- MECHANICAL UNIT
- CRICKETS
- SINGLE PLY (CLASS B MIN.)
- CANOPY - SEE KEYNOTE
- SINGLE PLY WALK PADS (CLASS B MIN.)
- PARAPET WALL (SEE FLOOR PLAN FOR WALL TYPES)
- SKYLIGHT
- EXHAUST FAN
- FRESH AIR INTAKE
- ROOF VENT
- ROOF ACCESS HATCH
- OR — PLUMBING OR ELECTRICAL ROOF PENETRATION
- SLOPE — DENOTES ROOF SLOPES
- PIPE SUPPORT - SEE DETAIL
- ROOFED IN PIPE SUPPORT - SEE DETAIL
- GAS LINES
- CONDENSATE LINES
- ELECTRICAL CONDUITS

WALL LEGEND



NORTH

CAMPUS KEY

NORTH

1 ROOF PLAN

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

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ROOF PLAN

Project Number	2514
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A1-3.1

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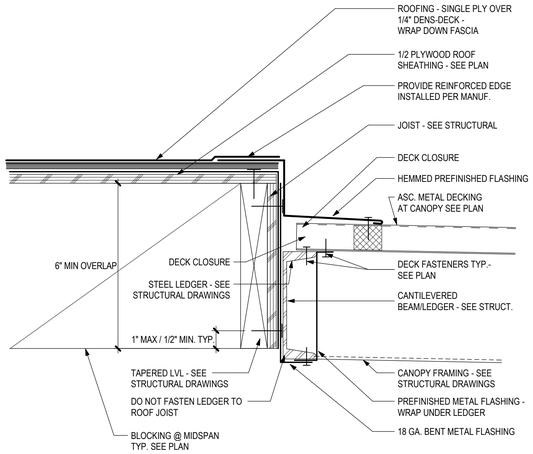
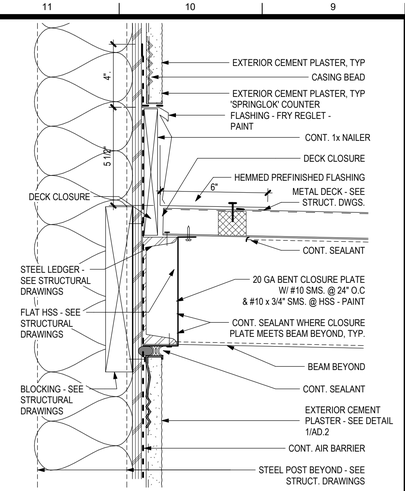
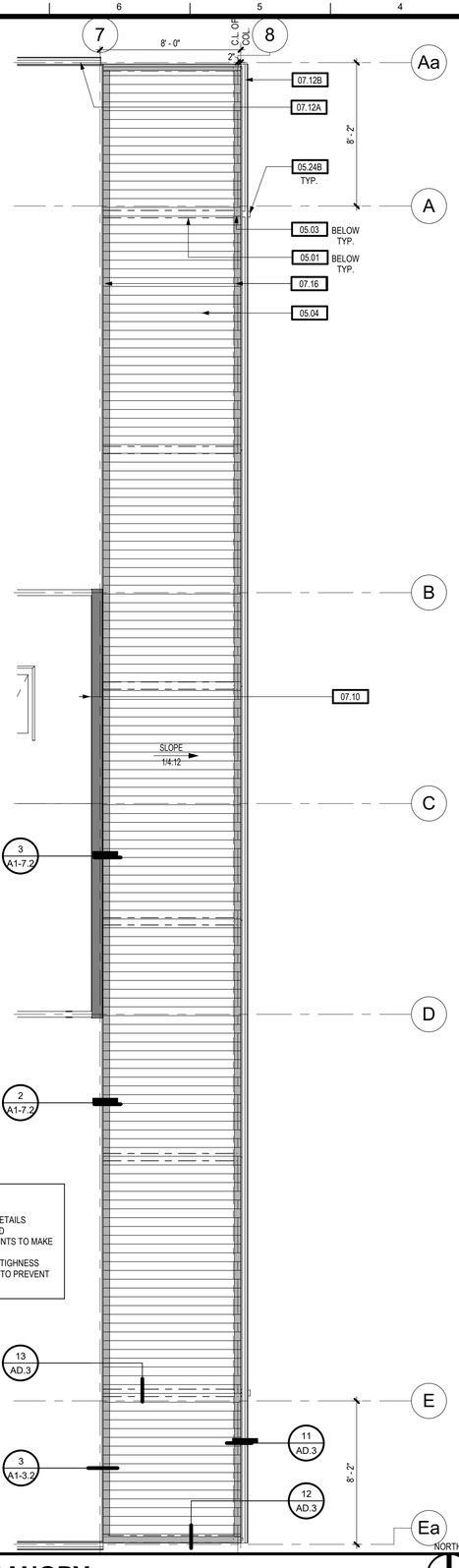


3 CANOPY @ ROOF
SCALE: 3" = 1'-0"



2 CANOPY @ WALL
SCALE: 3" = 1'-0"

4 NOT USED



NOTES:

1. SEE PLAN SHEETS A1-3.1 FOR LOCATIONS
2. SEE STRUCTURAL SHEET SD.4 FOR ADDITIONAL DETAILS
3. ALL EXPOSED METAL AT CANOPIES TO BE PAINTED
4. PROVIDE SEALANT ON THE TOP SIDE OF DECK JOINTS TO MAKE THE DECK WATERTIGHT
5. SEAL ALL DECK FASTENERS TO MAINTAIN WATER TIGHNESS
6. SEAL ALL GAPS AT ENDS AND EDGES OF CANOPY TO PREVENT BIRD & INSECT INTRUSION

1 ROOF PLAN - CANOPY
SCALE: 1/4" = 1'-0"

KEYNOTES

05.01	STRUCTURAL METAL FRAMING (PAINT WHEN EXPOSED AT INTERIOR LOCATIONS AND ALL EXTERIOR LOCATIONS) - SEE STRUCTURAL DRAWINGS
05.24B	METAL DOWNSPOUT 3"x4"x1/4" THK., GALV. @ COLUMN - SEE DETAIL 9 & 10/AD.3
07.10	PARAPET CAP - SEE PLANS AND WALL SECTION DETAILS
07.12A	GUTTER - PRE-FINISHED - SEE 1/AD.3
07.12B	GUTTER - PRE-FINISHED - SEE 11/AD.3
07.16	FLASHING - PRE-FINISHED

NOTES

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CANOPY PLANS / DETAILS

Project Number	2514
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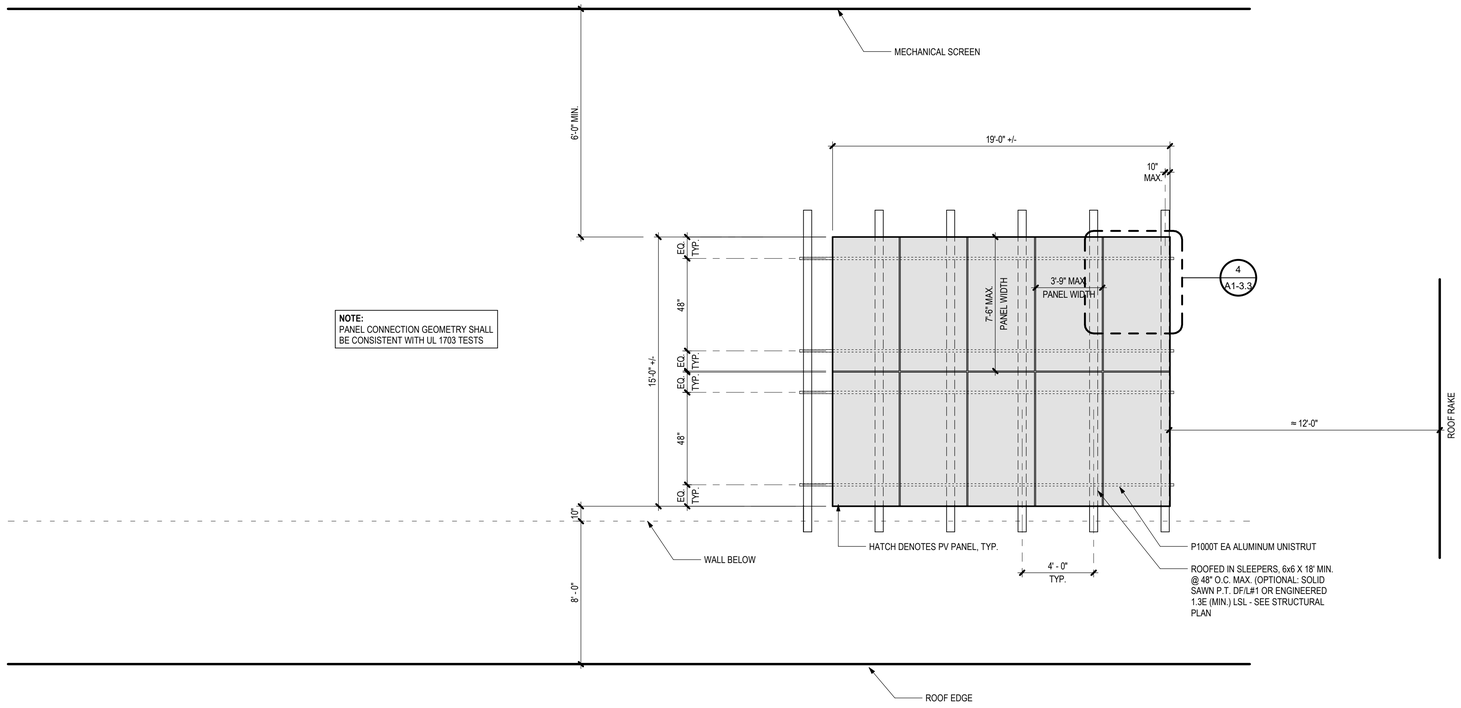


1 SOLAR ARRAY PLAN

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

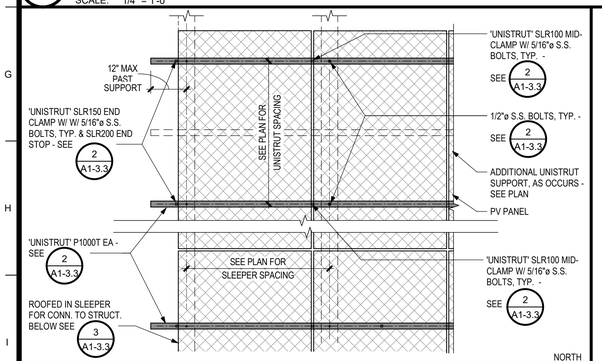
SOLAR DESIGN BASIS NOTES:

1. BASIC WIND SPEED: 102 MPH
2. RISK CATAGORY: III
3. EXPOSURE CATAGORY: C
4. WIND VELOCITY PRESSURE: Qz = 19.2 PSF
5. WIND DESIGN PRESSURE: Z1 = 26.6 PSF (LFRD)

6. SEISMIC PARAMETERS: Sds = 0.793
   ap = 1.0
   Rp = 2.5
   Ip = 1.0
   Z/H = 1.0
   Fp = 0.63Wp (LRFD)

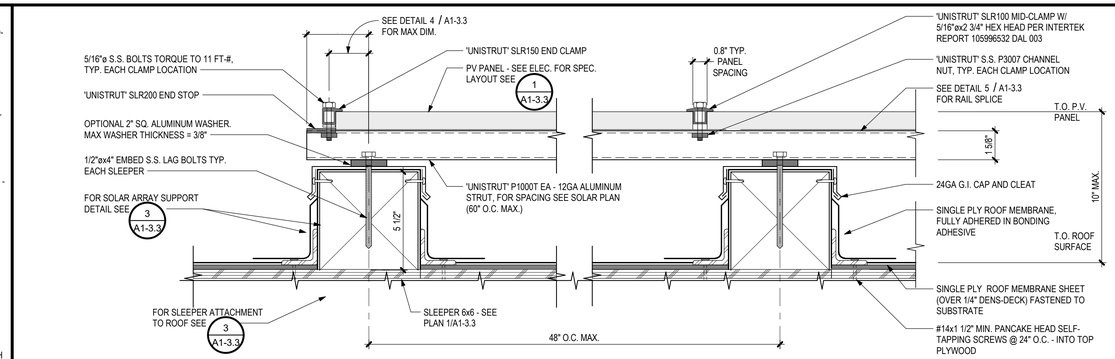
SHEET NOTES:

1. VERIFY DIMENSIONS AND CLEARANCES IN FIELD PRIOR TO CONSTRUCTION
2. SLOPE PANELS W/ OPTIONAL WASHERS
3. MINIMUM UNISTRUT LENGTH = 8'-0"
4. ALL UNISTRUT HARDWARE SHALL BE ALUMINUM OR STAINLESS STEEL U.O.N.



4 ENLARGED PANEL DETAIL

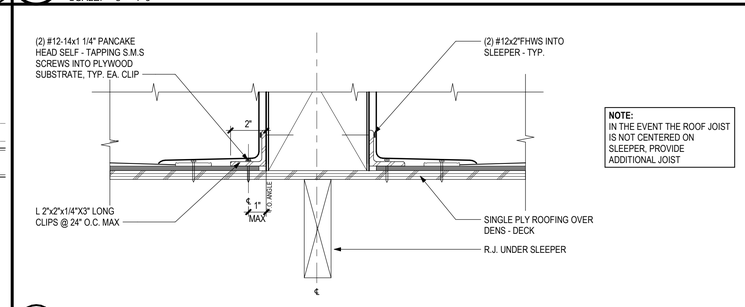
SCALE: 1/2" = 1'-0"

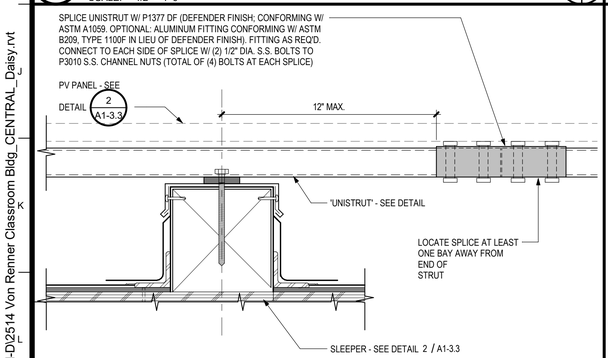


2 SOLAR SUPPORT

SCALE: 3" = 1'-0"

NOTES



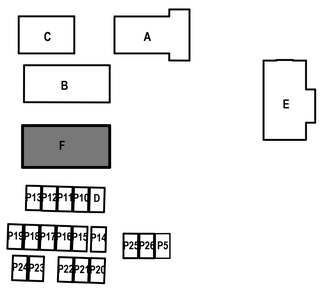


5 RAIL SPLICE

SCALE: 3" = 1'-0"

3 SOLAR ARRAY SUPPORT - DECK

SCALE: 3" = 1'-0"



CAMPUS KEY PLAN

NORTH

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APP: 02-123751 INC:
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DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
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LICENSED ARCHITECT JOHN PAUL HUFF No. 15627 REN. 5/24 STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

SOLAR SUPPORT DETAILS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

A1-3.3

Plot Date & Time 7/2/2026 1:38:51 PM

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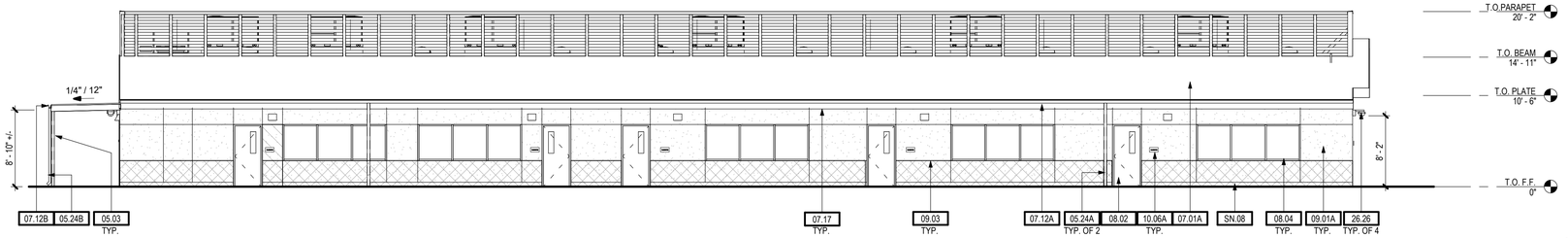
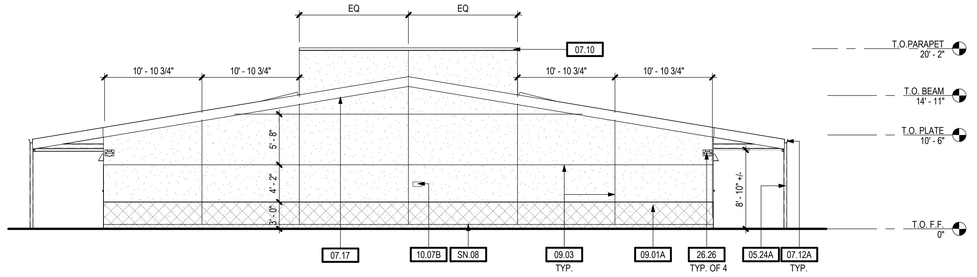


NORTH ELEVATION 1



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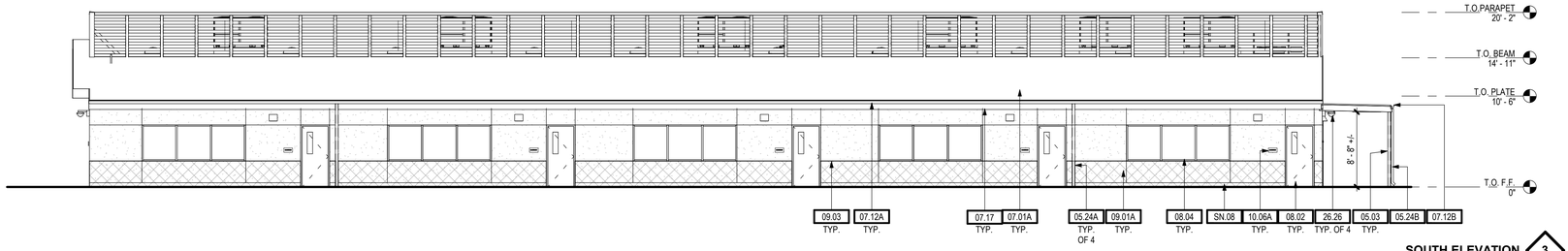
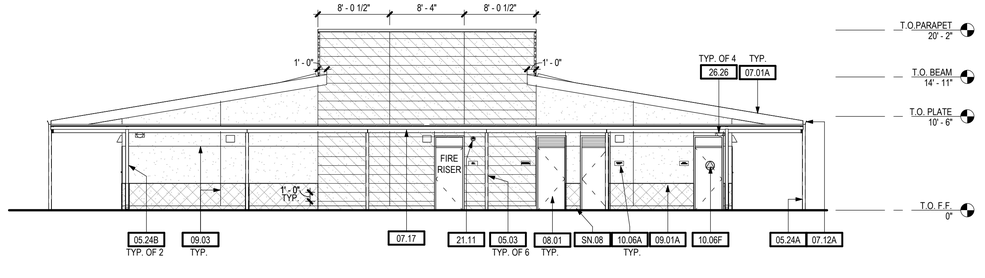


SOUTH ELEVATION 3



WEST ELEVATION 4

KEYNOTES

05.03	STEEL COLUMN (PAINT WHEN EXPOSED AT INTERIOR LOCATIONS AND ALL EXTERIOR LOCATIONS) - SEE DETAIL 10/AS-1.5 FOR EXPANSION JOINT AT CONCRETE FLATWORK - SEE STRUCTURAL DRAWINGS
05.24A	METAL DOWNSPOUT 3"x4"x1/4" THK., GALV. - SEE DETAIL 5 & 6/AD.2
05.24B	METAL DOWNSPOUT 3"x4"x1/4" THK., GALV. @ COLUMN - SEE DETAIL 9 & 10/AD.3
07.01A	ROOFING - SINGLE-PLY - CLASS 'B' MINIMUM - OVER 1/4" DENS DECK - SEE DETAIL 17/AD.1
07.10	PARAPET CAP - SEE PLANS AND WALL SECTION DETAILS
07.12A	GUTTER - PRE-FINISHED - SEE 1/AD.3
07.12B	GUTTER - PRE-FINISHED - SEE 11/AD.3
07.17	FASCIA - SEE PLANS AND WALL SECTION DETAILS
08.01	DOOR - HOLLOW METAL - SEE DOOR SCHEDULE
08.02	SIDELITE - HOLLOW METAL - SEE DOOR SCHEDULE
08.04	WINDOW - HOLLOW METAL
09.01A	CEMENT PLASTER - EXTERIOR - SEE DETAIL 10/AD.2
09.03	CEMENT PLASTER - CONTROL JOINT AT WOOD FRAMING - SEE DETAIL 10/AD.2
10.06A	SIGNAGE - ROOM IDENTIFICATION - SEE DETAIL 6/AD.7
10.06F	SIGNAGE - RESTROOM - SEE DETAIL 7/AD.7
10.07B	SIGNAGE - GAS RISER IN WALL - SEE DETAIL 5/AD.7
21.11	FIRE SPRINKLER SYSTEM - ALARM BELL - SEE ELECTRICAL
26.26	WALL MOUNTED SECURITY CAMERA - SEE ELEVATIONS FOR MOUNTING HEIGHT - SEE DETAIL 2/AD.2 - SEE ELECTRICAL DRAWINGS

SHEET NOTES

SN.08	SAC-N-PATCH AND PAINT EXPOSED FOUNDATION TO MATCH STUCCO

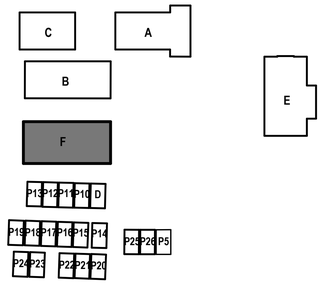
NOTES

EXTERIOR CEMENT PLASTER
TYP. WALL COLOR

EXTERIOR CEMENT PLASTER
ACCENT COLOR

EXTERIOR CEMENT PLASTER
ACCENT COLOR

ELEVATION LEGEND



CAMPUS KEY

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

BUILDING EXTERIOR ELEVATIONS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

A1-4.1

Plot Date & Time 7/2/2026 1:38:56 PM

BUILDING - EXTERIOR ELEVATIONS

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

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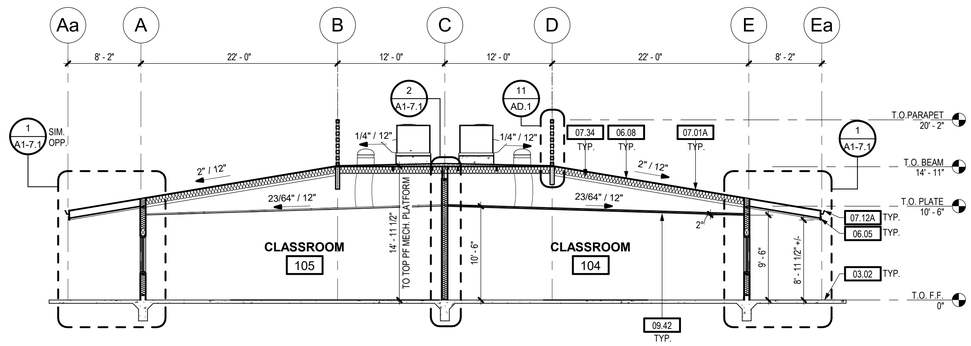
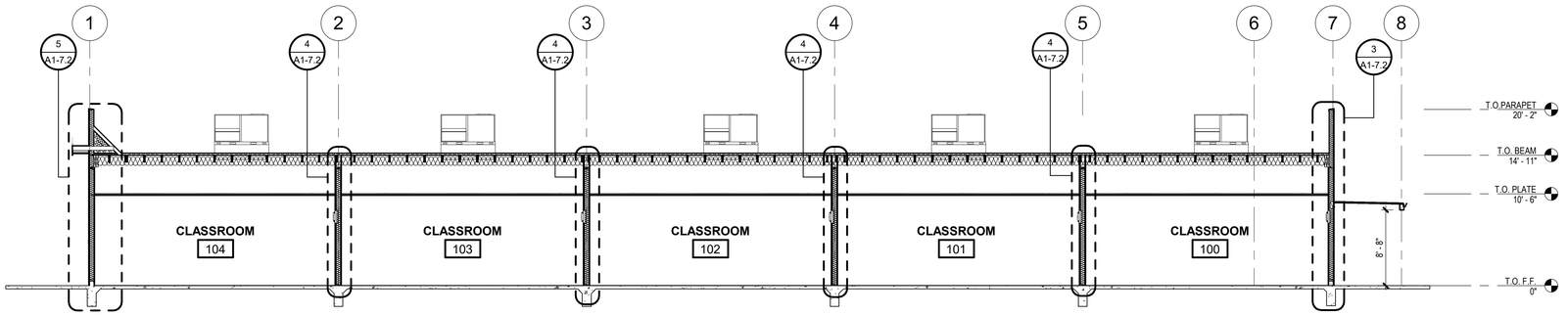


BUILDING SECTION 1 1

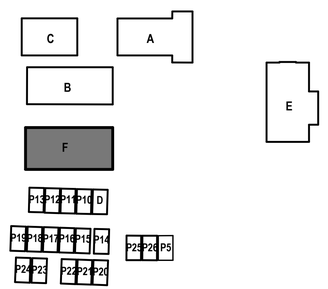


BUILDING SECTION 2 2

KEYNOTES

03.02	CONCRETE SLAB AND FOUNDATIONS - SEE STRUCTURAL DRAWINGS
06.05	FASCIA BOARD - PAINT FINISH - SEE DETAIL 1/AD.3
06.08	PLYWOOD ROOF DECK - SEE STRUCTURAL DRAWINGS
07.01A	ROOFING - SINGLE-PLY - CLASS 'B' MINIMUM - OVER 1/4" DENS DECK - SEE DETAIL 17/AD.1
07.12A	GUTTER - PRE-FINISHED - SEE 1/AD.3
07.34	BATT INSULATION - R-30
09.42	ACOUSTICAL CEILING - SUSPENDED, 2X4 - SLOPED - SEE SHEET AD.8, AD.9 & AD.10

NOTES



NORTH

CAMPUS KEY

BUILDING SECTIONS

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

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TPH architects
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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

BUILDING SECTIONS

Project Number	2514
Date	June, 2026
Drawn by	Author
Checked by	Checker

A1-5.1

Plot Date & Time 7/2/2026 1:39:00 PM

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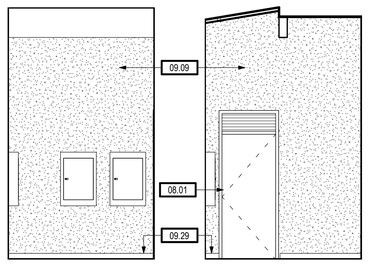

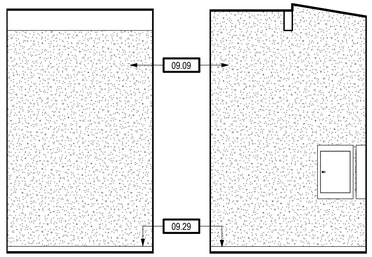

1 2 3 4

INTERIOR ELEVATIONS - MECH. / ELCT. ROOM

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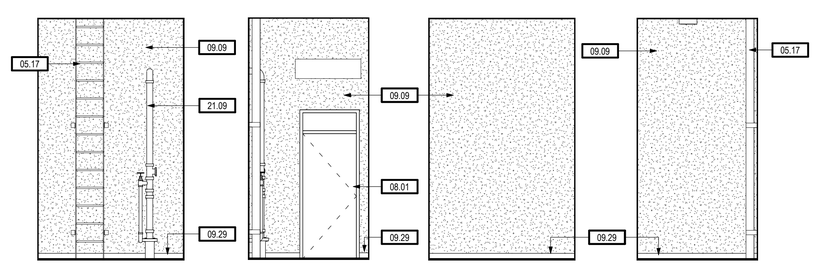

5 6 7 8

INTERIOR ELEVATIONS - I.D.F. ROOM

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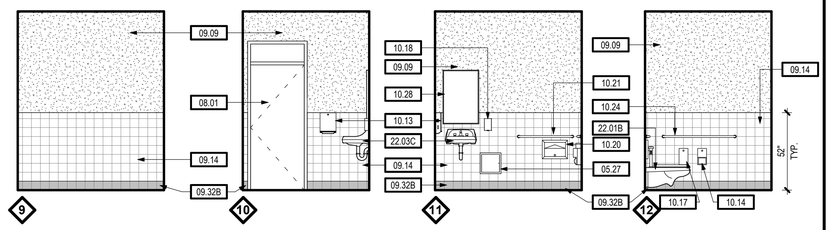
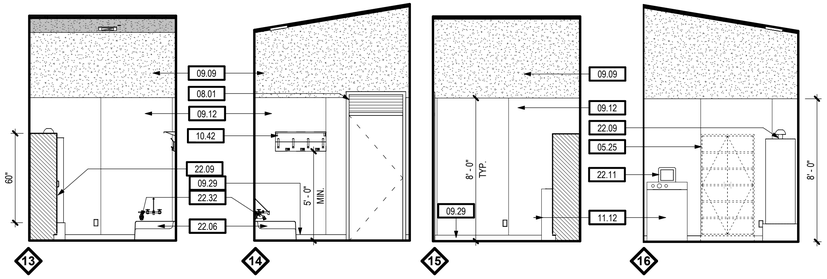


9 10 11 12

INTERIOR ELEVATIONS- STAFF R.R.

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



13 14 15 16

INTERIOR ELEVATIONS- CUSTODIAL ROOM

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

KEYNOTES

05.17	ACCESS LADDER - SEE DETAIL 14/AD.4
05.25	FLAT STRAP BACKING AT FUTURE METAL CABINET - SEE DETAIL 11/AD.5
05.27	PLUMBING ACCESS PANEL- STAINLESS STEEL
08.01	DOOR - HOLLOW METAL - SEE DOOR SCHEDULE
09.09	GYPSUM BOARD - PAINT - SEE FINISH SCHEDULE
09.12	F.R.P. WALL PANEL - SEE DETAIL 1/AD.4
09.14	CERAMIC TILE - SEE FINISH SCHEDULE
09.29	WALL BASE - SEE FINISH SCHEDULE
09.32B	WALL BASE - 6" COVED CERAMIC TILE BASE (@ TILE WALL) - SEE DETAIL 13D/AD.4
10.13	PAPER TOWEL DISPENSER - SEE DETAIL 1/AD.7
10.14	TOILET TISSUE DISPENSER - SURFACE MOUNTED - SEE DETAIL 1/AD.7
10.17	WASTE DISPOSAL UNIT - SEE DETAIL 1/AD.7
10.18	SOAP DISPENSER - SEE DETAIL 1/AD.7
10.20	TOILET SEAT COVER DISPENSER - SEE DETAIL 1/AD.7
10.21	36" GRAB BAR - ADULT HEIGHT - SEE DETAIL 3/AD.7
10.24	48" GRAB BAR - ADULT HEIGHT - SEE DETAIL 3/AD.7
10.28	MIRROR - 24" x 36" - SEE DETAIL 1/AD.7
10.42	UTILITY SHELF - BOBRICK B-239 - PROVIDE FLAT STRAP BACKING SEE 11/AD.5
11.12	EQUIPMENT - WASHING MACHINE (NIC) PROVIDE POWER/WATER - SEE ELEC & PLUMBING DWGS
21.09	FIRE SPRINKLER SYSTEM - FIRE RISER
22.01B	PLUMBING FIXTURE - WATER CLOSET - ADULT - ACCESSIBLE - 1/AD.7
22.03C	PLUMBING FIXTURE - LAVATORY - ADULT - ACCESSIBLE - SEE DETAIL 2/AD.7
22.06	PLUMBING FIXTURE - MOP SINK - SEE PLUMBING DRAWINGS
22.09	PLUMBING FIXTURE - WATER HEATER - SEE PLUMBING DRAWINGS
22.11	PLUMBING FIXTURE - WALL BOX - SEE PLUMBING
22.32	HOSE BIB - SEE PLUMBING DRAWINGS

TYPICAL NOTES:

FOR FIXTURE AND ACCESORY MOUNTING HEIGHTS SEE DETAILS:
FOR TYPICAL ADULT HEIGHTS - 1/AD.10
FOR ELEMENTARY HEIGHTS - 2/AD.10

FOR TYPICAL CABINETRY DETAILS:
FOR WALL HUNG UPPER CABINETS - 1/AD.11
FOR BASE CABINETS - 2/AD.11 & 3/AD.11
FOR FULL HEIGHT CABINETRY - 5/AD.11
FOR BACKPACK CUBBIES - 4/AD.11
FOR KINDERGARTEN SINKS - 5/AD.12
FOR STAFF MAILBOXES - 6/AD.11

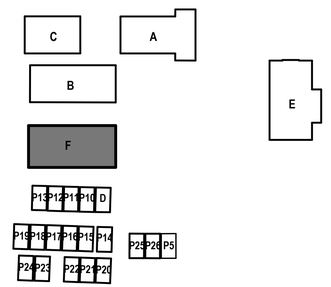
NOTES

- MOTORIZED BLIND SWITCH
- CLOCK/SPEAKER CALL BACK BUTTON
- DATA OR AV OUTLETS
- POWER OUTLETS
- FIRE ALARM DEVICE
- LIGHT SWITCH
- SKYLIGHT DIMMER SWITCH

NOTES:

1. NOT ALL OUTLET/DEVICE LOCATIONS ARE SHOWN IN INTERIOR ELEVATIONS - SEE ELECTRICAL DRAWINGS FOR FULL SCOPE OF WORK
2. SEE ELECTRICAL DRAWINGS FOR OUTLET/BOX HEIGHT REQUIREMENTS

OUTLET/DEVICE LEGEND



CAMPUS KEY

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DATE: 07/15/26

TPH architects
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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

INTERIOR ELEVATIONS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	Checker

A1-6.1

Plot Date & Time 7/2/2026 1:39:06 PM

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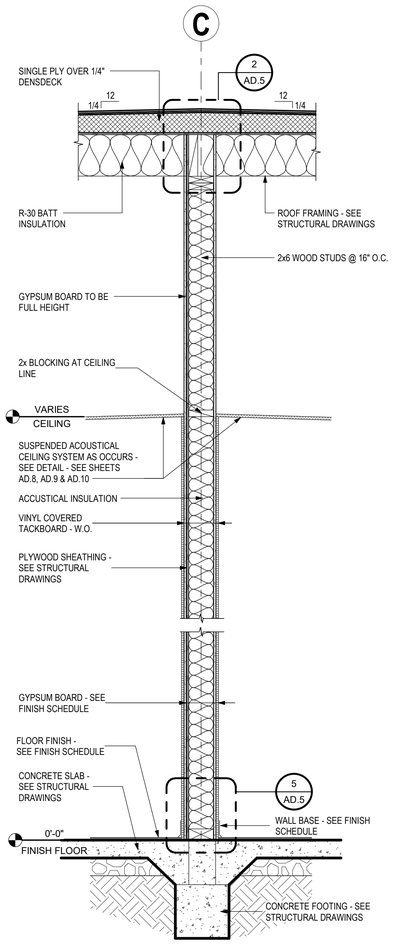

2 WALL SECTION - INTERIOR

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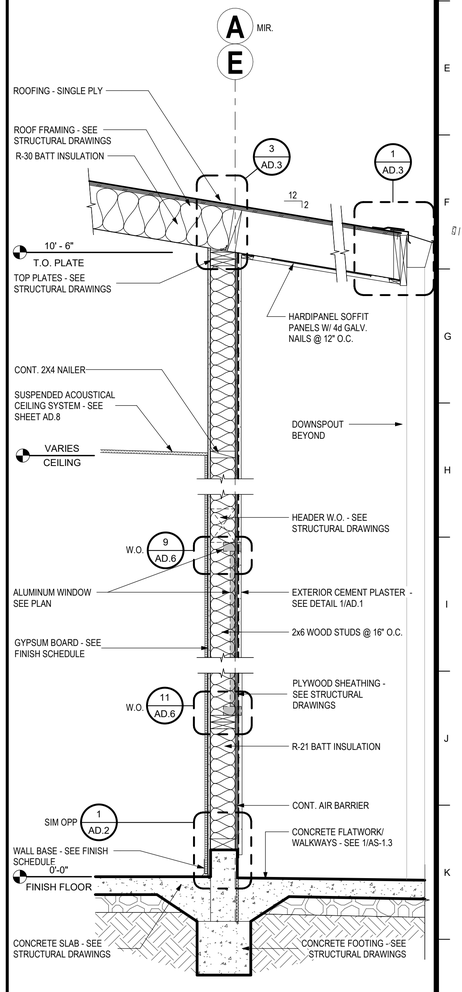

1 TYP. EXT. WALL SECTION

SCALE: 3/4" = 1'-0"

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

WALL SECTIONS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

A1-7.1

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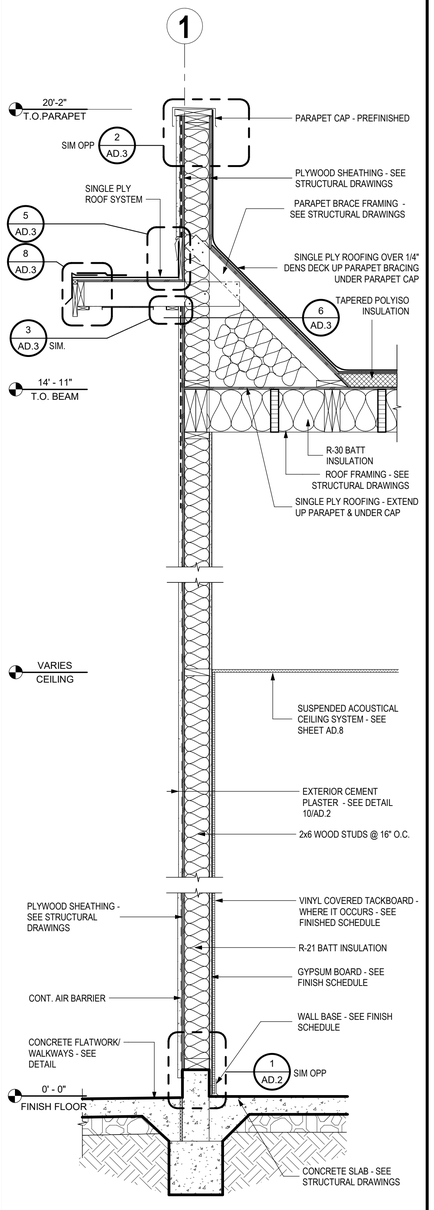
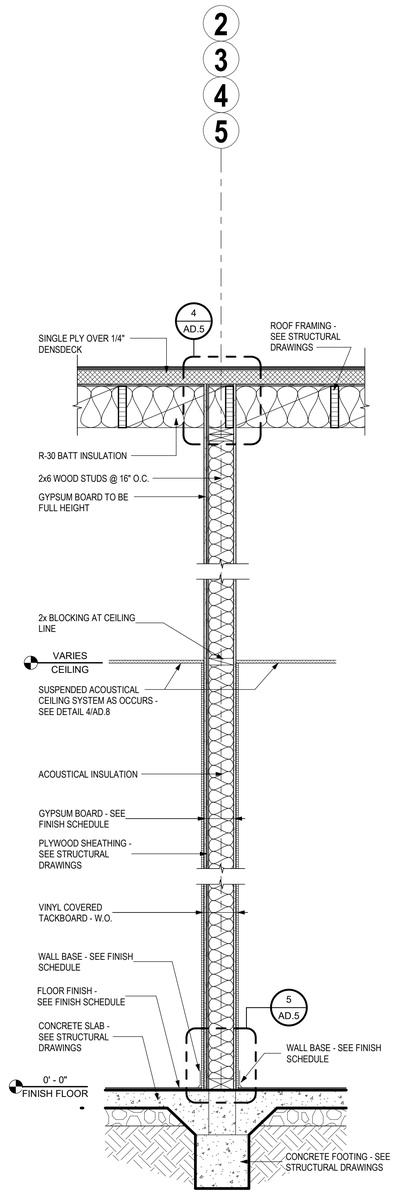


5 WALL SECTION - PARAPET

SCALE: 3/4" = 1'-0"



4 WALL SECTION - INTERIOR

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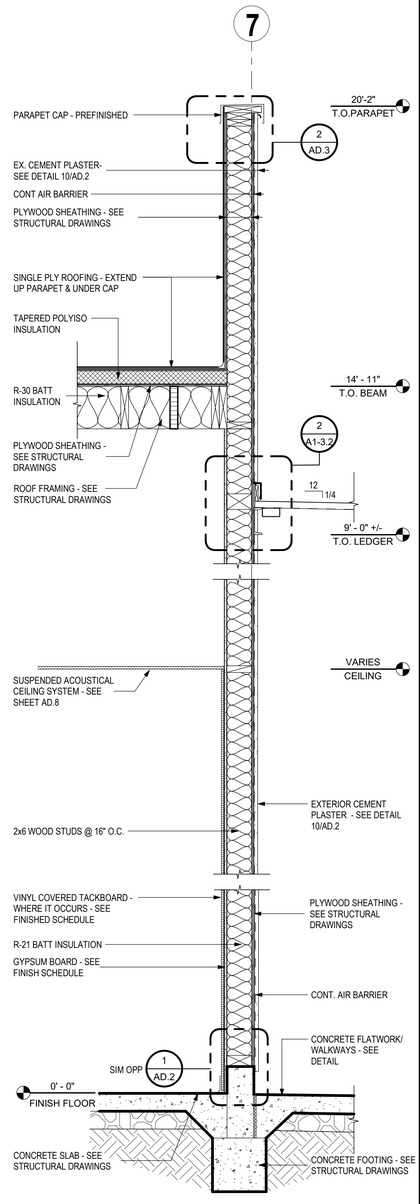

3 WALL SECTION - PARAPET

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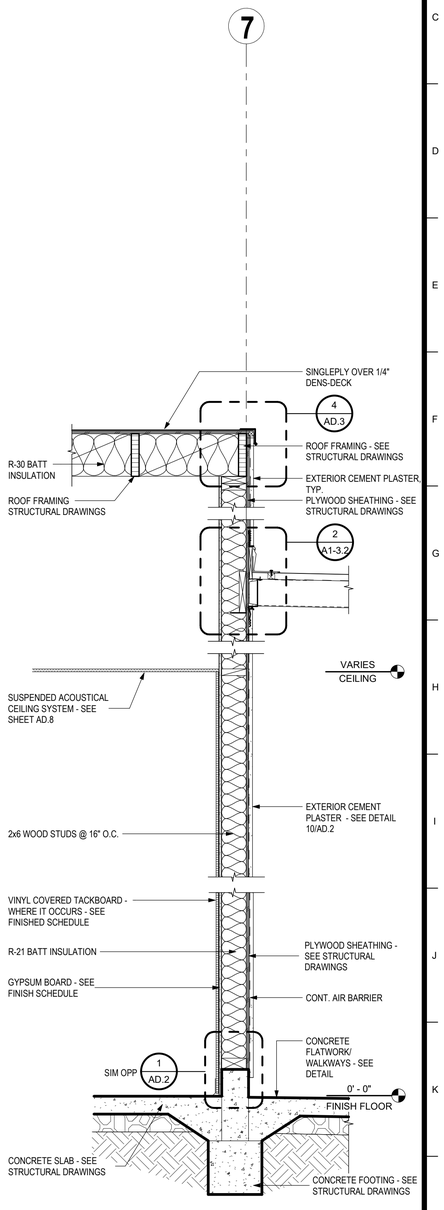

2 WALL SECTION - ROOF RAKE

SCALE: 3/4" = 1'-0"

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1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

WALL SECTIONS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

A1-7.2

Plot Date & Time 7/2/2026 1:39:09 PM

DOOR SCHEDULE - BUILDING A

DOOR #	DOORS WIDTH	HEIGHT	TYPE	THICKNESS	MATERIAL	HDW. GRP.	FRAMES MATERIAL	TYPE	GLAZING	RATING	DETAILS HEAD / JAMB	THRESHOLD	SIGNAGE TEXT	DETAIL	COMMENTS
100	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	2	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	CLASSROOM 100	6/AD.7	
101	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	2	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	CLASSROOM 101	6/AD.7	
102	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	2	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	CLASSROOM 102	6/AD.7	
103	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	2	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	CLASSROOM 103	6/AD.7	
104	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	2	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	CLASSROOM 104	6/AD.7	
105	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	2	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	CLASSROOM 105	6/AD.7	
106	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	2	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	CLASSROOM 106	6/AD.7	
107	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	2	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	CLASSROOM 107	6/AD.7	
108A	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	1	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	ART CLASSROOM 108	6/AD.7	PANIC HARDWARE
108B	3' - 0"	7' - 0"	TYPE B	1 3/4"	H.M.	1	H.M.	TYPE 1	GL-2	-	3/AD.6	4/AD.6	ART CLASSROOOM 108	6/AD.7	PANIC HARDWARE
109	3' - 0"	7' - 0"	TYPE A	1 3/4"	H.M.	3	H.M.	TYPE 2	GL-2	-	6, 13/AD.6	4/AD.6	STAFF RESTROOM	7E/AD.7	GLASS TRANSOM
110	3' - 0"	7' - 0"	TYPE A	1 3/4"	H.M.	4	H.M.	TYPE 2	-	-	7, 16/AD.6	4/AD.6	CUSTODIAL ROOM	6/AD.7	LOUVERS W/ BUG SCREEN IN TRANSOM
111	3' - 0"	7' - 0"	TYPE A	1 3/4"	H.M.	4	H.M.	TYPE 2	-	-	7, 16/AD.6	4/AD.6	MECH./ ELECT. ROOM	6/AD.7	LOUVERS W/ BUG SCREEN IN TRANSOM
112	3' - 0"	7' - 0"	TYPE A	1 3/4"	H.M.	4	H.M.	TYPE 2	GL-2	-	6, 13/AD.6	4/AD.6	I.D.F. ROOM	6/AD.7	GLASS TRANSOM

GLAZING LEGEND

A. TYPE GL-1: EXTERIOR WINDOWS - ASTME-2190
- DOUBLE PANE
- TOTAL TICKNESS: 1" OVERALL

B. TYPE GL-2: EXTERIOR WINDOWS - ASTME-2190
- DOUBLE PANE
- TOTAL TICKNESS: 3/4" OVERALL

C. TYPE GL-3: DOOR VISION PANELS
- FLAT GLASS
- TOTAL TICKNESS: 1/4" OVERALL

* NOTE:REFER TO PROJECT MANUAL - DIVISION 088000-6, SECTION 3.4 FOR ADDITIONAL INFORMATION.

DOOR SCHEDULE NOTES:

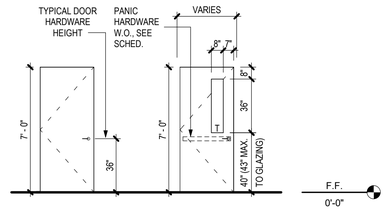
1. "T" INDICATES SAFETY GLAZING LOCATIONS PER 2022 CBC, SECTION 2406.
2. SEE SPECIFICATIONS 07650 FOR PENETRATION FLASHING REQUIREMENTS.
3. SEE DETAIL 1/AD.6 FOR CLOSURE PANEL AT ALL EXTERIOR HOLLOW METAL FRAMES.
4. SEE DETAIL 2/AD.6 FOR HOLLOW METAL FRAME ATTACHMENT.
5. SEE SPECIFICATIONS FOR GLAZING TYPES
6. (*) REFER TO STOREFRONT SCHEDULE FOR FRAME TYPE.
7. FOR AIR BARRIER DETAILS, SEE 9/AD.2

EMERGENCY EXIT & PANIC HARDWARE NOTES:

1. EMERGENCY EXIT & PANIC HARDWARE SHALL COMPLY WITH SFM STANDARD 12-10-3, SECTION 12-10-302.
2. THE CROSS-BAR SHALL EXTEND ACROSS NOT LESS THAN 1/2 THE WIDTH OF THE DOOR.
3. THE ENDS OF THE CROSS-BAR SHALL BE CURVED, GUARDED OR OTHERWISE DESIGNED TO PREVENT CATCHING ON THE CLOTHING OF PERSONS DURING EGRESS.

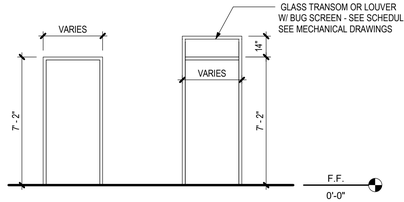
HARDWARE NOTES:

1. ALL DOORS TO ROOMS OR SPACES THAT HAVE AN OCCUPANT LOAD OF 5 OR MORE SHALL BE EQUIPPED WITH HARDWARE THAT IS LOCKABLE FROM THE INSIDE PER CBC 1010.2.8.2



TYPE A
FLUSH PANEL

TYPE B
FLUSH PANEL W/ VISION LIGHT



FRAME TYPE 1
HOLLOW METAL FRAME

FRAME TYPE 2
HOL. METAL

DOOR SCHEDULE

FINISH SCHEDULE - BUILDING F

ROOM #	ROOM NAME	FLOOR	BASE	WALL NORTH	WALL EAST	WALL SOUTH	WALL WEST	CEILING	CEILING HEIGHT	COMMENTS
100	CLASSROOM	F1	B1	W3	W3	W3	W3	C1	10' - 0"	
101	CLASSROOM	F1	B1	W3	W3	W3	W3	C1	10' - 0"	
102	CLASSROOM	F1	B1	W3	W3	W3	W3	C1	10' - 0"	
103	CLASSROOM	F1	B1	W3	W3	W3	W3	C1	10' - 0"	
104	CLASSROOM	F1	B1	W3	W3	W3	W3	C1	10' - 0"	
105	CLASSROOM	F1	B1	W3	W3	W3	W3	C1	10' - 0"	
106	CLASSROOM	F1	B1	W3	W3	W3	W3	C1	10' - 0"	
107	CLASSROOM	F1	B1	W3	W3	W3	W3	C1	10' - 0"	
108	ART CLASSROOM	F5	B1	W3	W3	W3	W3	C1	10' - 0"	
109	STAFF RR.	F5	B2,B3	W1,W2	W1,W2	W1,W2	W1,W2	C4	10' - 0"	
110	CUSTODIAL RM.	F4	B2	W2	W2	W2	W2	C4	-	GYP. BOARD SECURED TO RAFTERS
111	MECH./ELEC.	F4	B1	W2	W2	W2	W2	C4	-	GYP. BOARD SECURED TO RAFTERS
112	I.D.F.	F4	B1	W2	W2	W2	W2	C4	-	GYP. BOARD SECURED TO RAFTERS

FLOOR FINISH LEGEND

TYPE	FLOOR FINISH	SPEC SECTION
F1	CARPET	096800
F2	CARPET - WALK-OFF MAT - TILE	096800
F3	CARPET - WALK-OFF MAT	096800
F4	CONCRETE - SEALED	099723
F5	CONCRETE - SEALED / POLISHED	099723

BASE FINISH LEGEND *

TYPE	FINISH	SPEC SECTION
B1	4" COVED - RUBBER	096513
B2	6"- CERAMIC TILE W/ METAL COVE	093013
B3	CONCRETE CURB	
*	SEE DETAIL AD.4 FOR BASE DETAILS	

WALL FINISH LEGEND

TYPE	FINISH	SPEC SECTION	CLASS
W1	CERAMIC TILE HALF HEIGHT	093013,099000	A
W2	GYPSUM BOARD - PAINT	092000,099000	A
W3	VINYL COVERED TACKBOARD O/ GYP WALLBOARD	097200	B
W4	VINYL COVERED TACKBOARD O/ GYP BOARD - PAINT	097200,099000	B
W5	FRP-FIBER REINFORCED PANEL	099850	A

CEILING FINISH LEGEND

TYPE	FINISH	SPEC SECTION	CLASS
C1	ACOUSTICAL CEILING (2X4) - SUSPENDED	095113	A
C2	EXPOSED ROOF - PAINT	099000	A
C3	GYPSUM BOARD - PAINT	092000,099000	A

MILLWORK FINISH LEGEND

TYPE	FINISH	SPEC SECTION	CLASS
M1	PLASTIC LAMINATE	064023	A

FINISH SCHEDULE

ALUMINUM WINDOW SCHEDULE

MARK	LENGTH	HEIGHT	GLAZING	DETAIL GROUP HEAD	JAMB	SILL	COMMENTS
A	12' - 0"	4' - 2"	GL-1	9/AD.6	9/AD.6	11/AD.6	

WINDOW / STOREFRONT NOTES:

1. SEE SPECIFICATIONS FOR GLAZING TYPES
2. FOR AIR BARRIER CORNER DETAILS, SEE 9 / AD.2

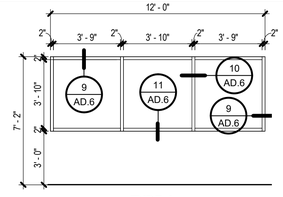
GLAZING LEGEND

A. TYPE GL-1: EXTERIOR WINDOWS - ASTME-2190
- DOUBLE PANE
- TOTAL TICKNESS: 1" OVERALL

B. TYPE GL-2: EXTERIOR WINDOWS - ASTME-2190
- DOUBLE PANE
- TOTAL TICKNESS: 3/4" OVERALL

C. TYPE GL-3: DOOR VISION PANELS
- FLAT GLASS
- TOTAL TICKNESS: 1/4" OVERALL

* NOTE:REFER TO PROJECT MANUAL - DIVISION 088000-6, SECTION 3.4



TYPE A
ALUMINUM NAIL FIN

WINDOW SCHEDULE

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DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
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LICENSED ARCHITECT TIMOTHY PAUL HUFF No. 15627 REN. 5/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

SCHEDULES

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JC

A1- 8.1

Plot Date & Time 7/2/2026 1:39:15 PM

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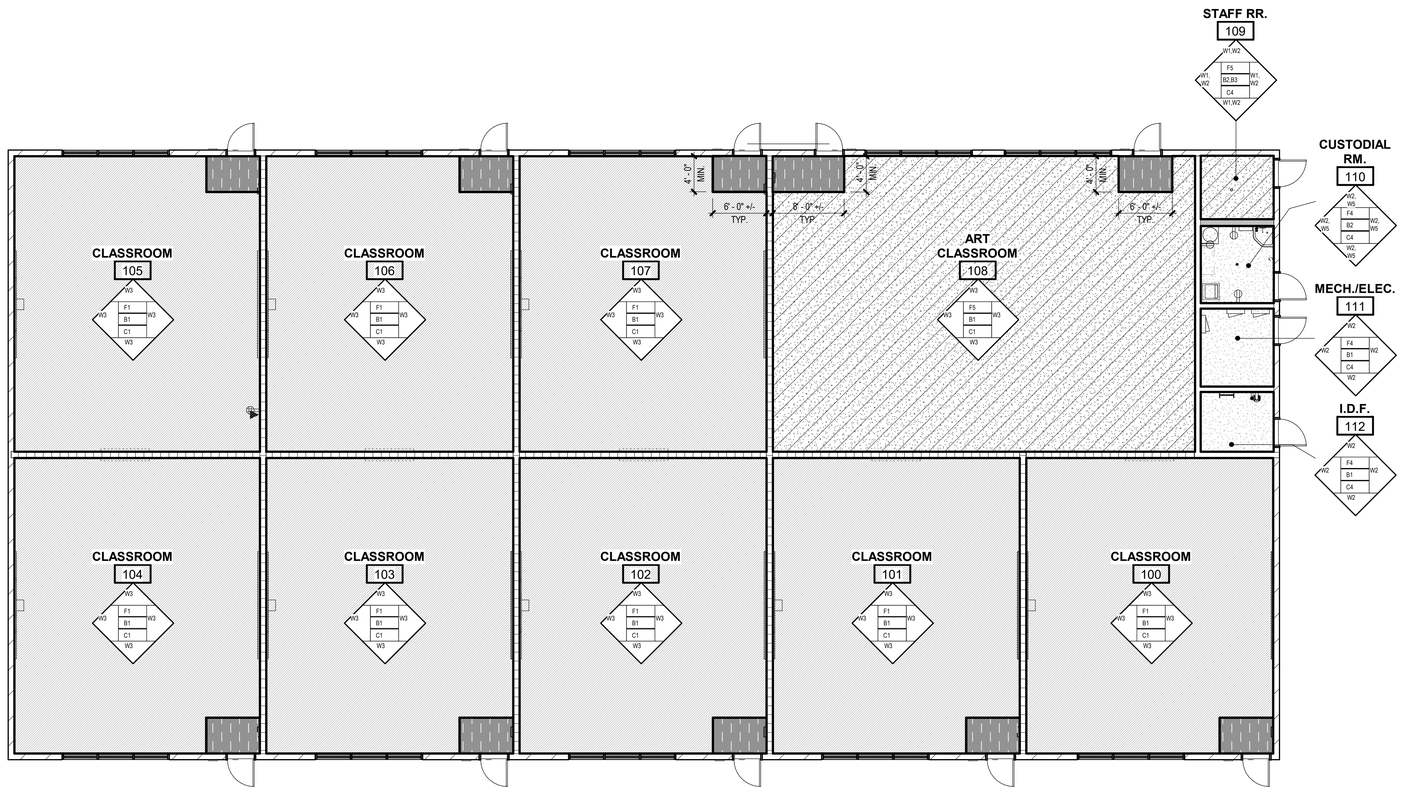


1 FINISH PLAN

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

NORTH

FLOOR FINISH LEGEND

TYPE	FLOOR FINISH	SPEC SECTION
F1	CARPET	096800
F2	CARPET - WALK-OFF MAT - TILE	096800
F3	CARPET - WALK-OFF MAT	096800
F4	CONCRETE - SEALED	099723
F5	CONCRETE - SEALED / POLISHED	099723

BASE FINISH LEGEND *

TYPE	FINISH	SPEC SECTION
B1	4" COVED - RUBBER	096513
B2	6"- CERAMIC TILE W/ METAL COVE	093013
B3	CONCRETE CURB	
*	SEE DETAIL AD.4 FOR BASE DETAILS	

WALL FINISH LEGEND

TYPE	FINISH	SPEC SECTION	CLASS
W1	CERAMIC TILE HALF HEIGHT	093013,099000	A
W2	GYPSUM BOARD - PAINT	092000,099000	A
W3	VINYL COVERED TACKBOARD O/ GYP WALLBOARD	097200	B
W4	VINYL COVERED TACKBOARD O/ GYP BOARD - PAINT	097200,099000	B
W5	FRP-FIBER REINFORCED PANEL	099850	A

MILLWORK FINISH LEGEND

TYPE	FINISH	SPEC SECTION	CLASS
M1	PLASTIC LAMINATE	064023	A

CEILING FINISH LEGEND

TYPE	FINISH	SPEC SECTION	CLASS
C1	ACOUSTICAL CEILING (2X4) - SUSPENDED	095113	A
C2	EXPOSED ROOF - PAINT	099000	A
C3	GYPSUM BOARD - PAINT	092000,099000	A

FLOOR FINISH LEGENDS

GENERAL NOTES

1.) SEE DETAIL 15 / AD.4 FOR FLOORING TRANSITION DETAILS

2.) SEE INTERIOR ELEVATIONS FOR WALLS WITH MULTIPLE FINISHES

3.) SEE BUILDING FINISH SCHEDULES FOR ADDITIONAL COMMENTS

NOTES

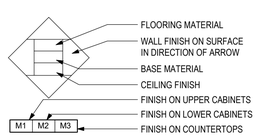
CARPET

WALK-OFF MAT

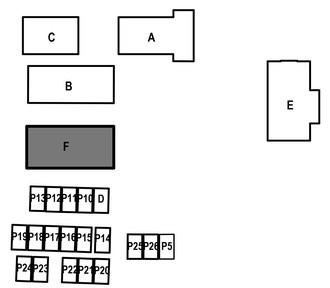
CONCRETE-SEALED/POLISHED

CONCRETE-SEALED

FINISH SYMBOL LEGEND



FLOOR FINISH LEGEND



NORTH

CAMPUS KEY

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
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DATE: 07/15/26

TPH architects
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STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

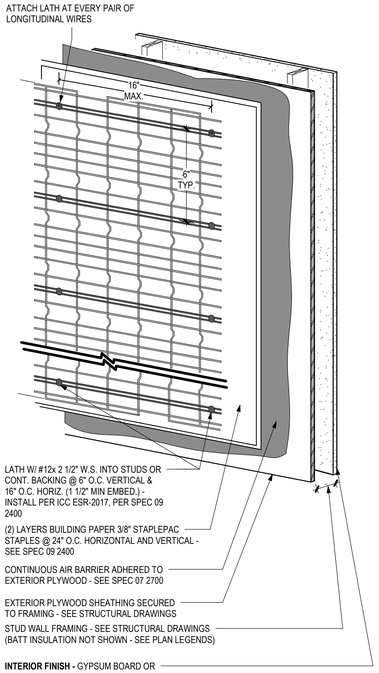
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

FINISH PLAN

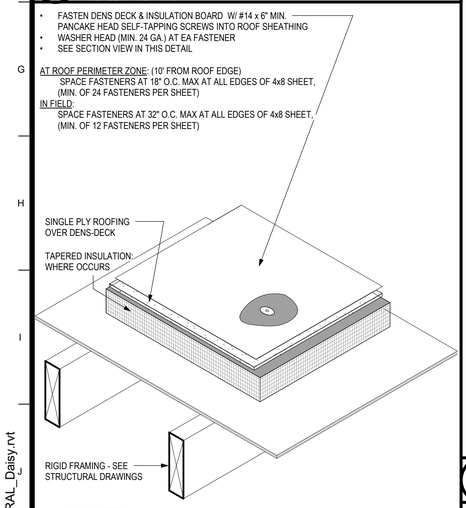
Project Number	2514
Date	June, 2026
Drawn by	Author
Checked by	Checker

A1- 9.1

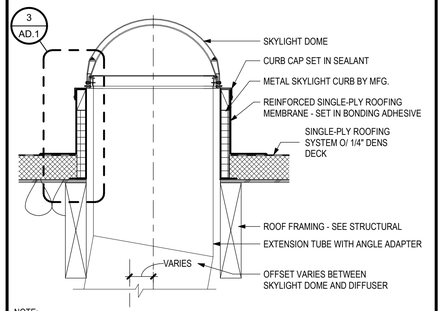
Plot Date & Time 7/2/2026 1:39:21 PM



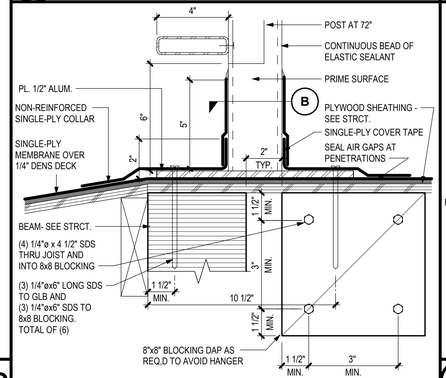
16 LATH ATTACH. @ WOOD STUD
SCALE: 1/2" = 1'-0"



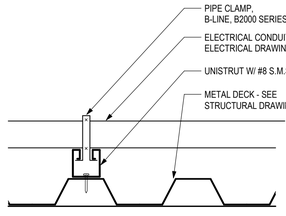
17 ROOF PANEL ISOMETRIC
SCALE: 1" = 1'-0"



13 SKYLIGHT TUBE DETAILS
SCALE: 1" = 1'-0"



14 MECH. SCREEN PEN.
SCALE: 3" = 1'-0"



15 CONDUIT AT CANOPY
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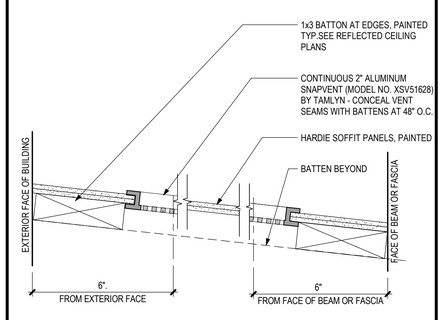
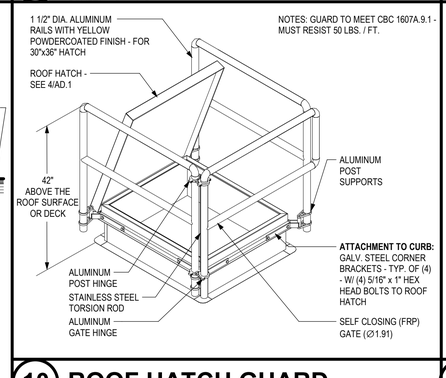
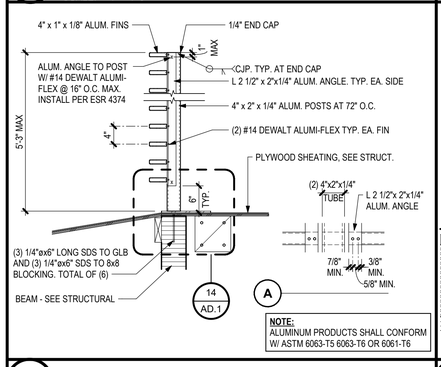


9 SOFFIT VENT
SCALE: 6" = 1'-0"

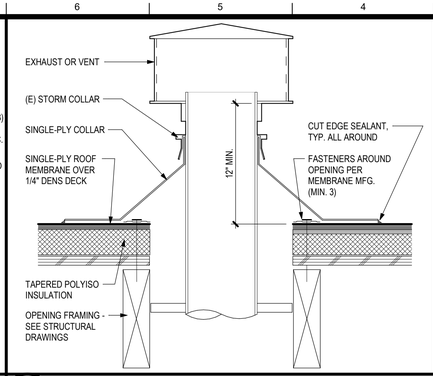


10 ROOF HATCH GUARD
SCALE: 1" = 1'-0"

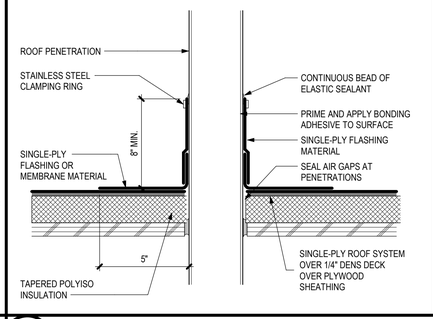


11 MECHANICAL SCREEN
SCALE: 3/4" = 1'-0"

12 NOT USED



5 VENT / FAN THRU ROOF
SCALE: 3" = 1'-0"



6 TYP. ROOF PENETRATION
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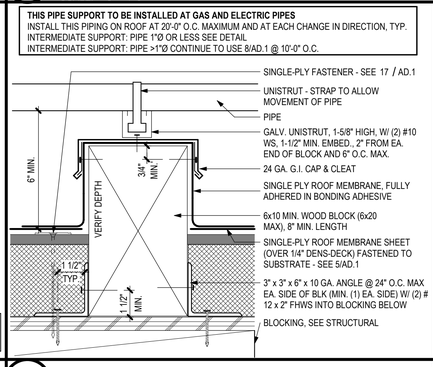
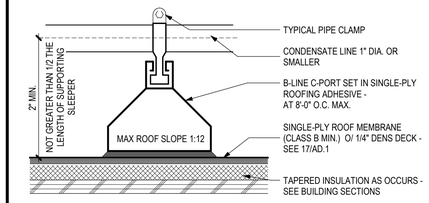


7 PIPE SUPPORT
SCALE: 3" = 1'-0"

PIPE SUPPORT SPACING SCHEDULE	
PIPE SIZE	PIPE SUPPORT SPACING
1/2"Ø	6'-0" O.C.
3/4" & 1"Ø	8'-0" O.C.
1 1/4"Ø ~ 2" Ø	INTERMEDIATE SUPPORTS NOT PERMITTED. SEE DETAIL 7/AD.1 @ PLY. DECK



8 INTERMEDIATE SUPPORT
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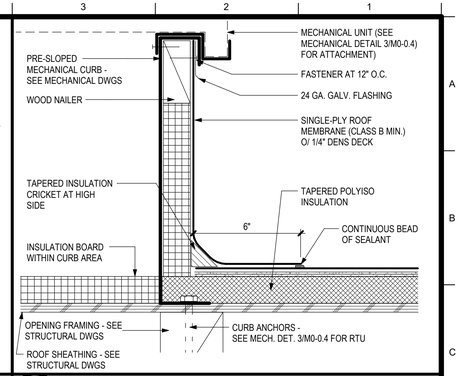
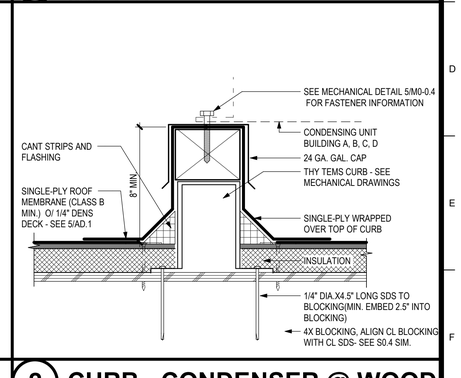
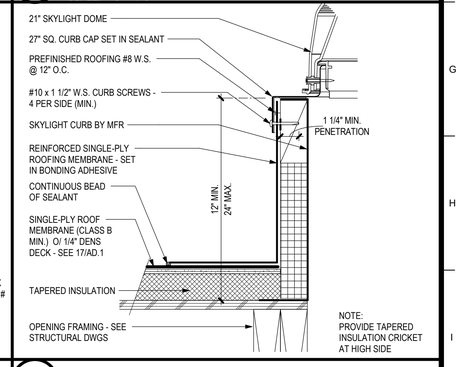


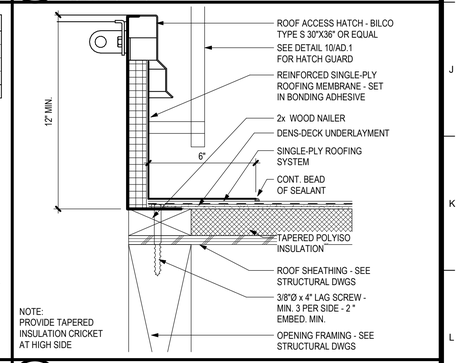
1 CURB - MECH. AT WOOD
SCALE: 3" = 1'-0"



2 CURB - CONDENSER @ WOOD
SCALE: 3" = 1'-0"



3 SKYLIGHT CURB
SCALE: 3" = 1'-0"



4 CURB - ROOF ACCESS HATCH
SCALE: 3" = 1'-0"

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TPH architects

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

DETAILS - TYPICAL ROOF DETAILS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

AD.1

Plot Date & Time 7/2/2026 1:39:25 PM

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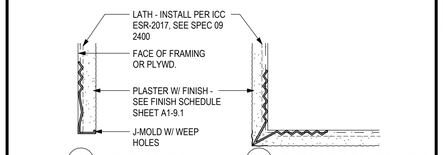
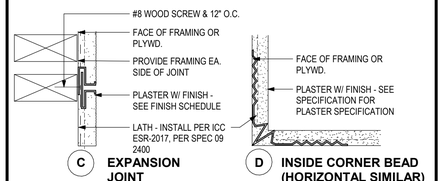
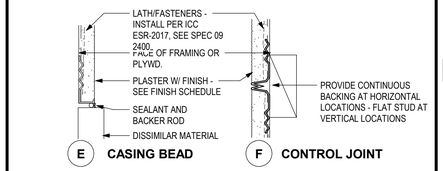






10 CEMENT PLASTER - WOOD
SCALE: 3" = 1'-0"

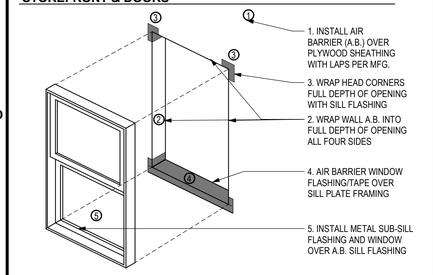
DETAIL NOT USED

DETAIL NOT USED

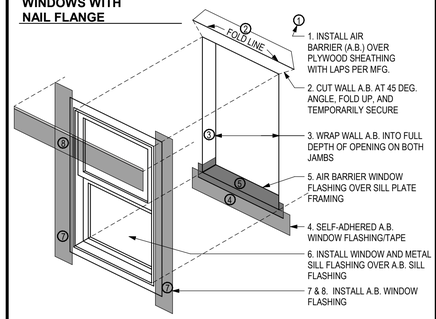
NOTE: DOORS OPENINGS ARE SIMILAR, JUST OMIT STEP 4

TYP. AIR BARRIER NOTES:
- ALL PRODUCTS INCLUDING: SELF-ADHERED AIR BARRIER, FLASHING/TAPES, SILL FLASHING, AND CAULKS TO BE BY THE AIR BARRIER MANUFACTURE AND INSTALLED PER MFG. RECOMMENDATIONS
- ALL MISCELLANEOUS EXTERIOR WALL PENETRATIONS SUCH AS PIPES/OUTLETS TO BE SEALED WITH CAULK OR SILL FLASHING FROM THE A.B. MFG.
- 3" MIN. OVERLAP BETWEEN A.B. SHEETS

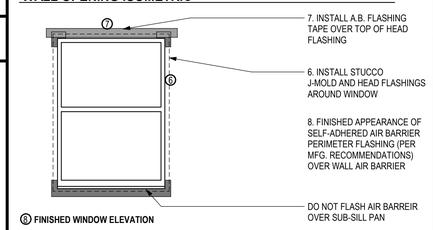
STOREFRONT & DOORS



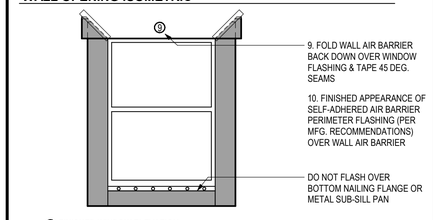
WINDOWS WITH NAIL FLANGE

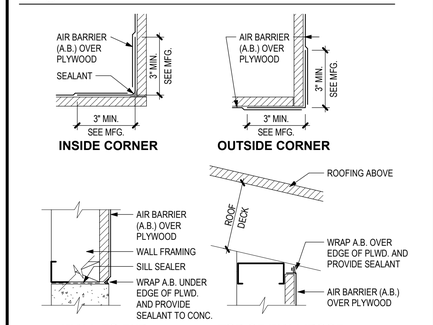


WALL OPENING ISOMETRIC

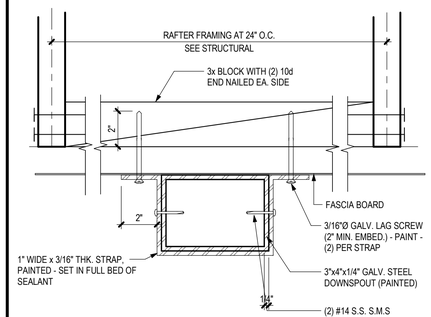


WALL OPENING ISOMETRIC

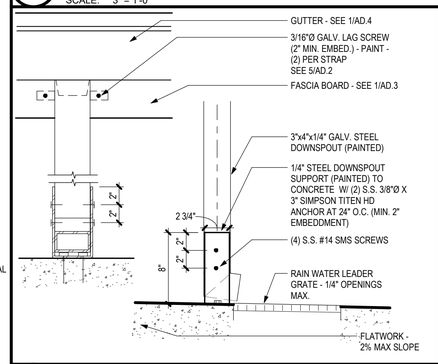




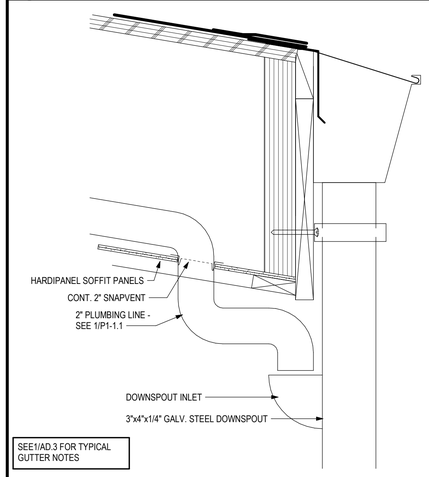
9 AIR BARRIER AT OPENINGS
SCALE: 1/2" = 1'-0"



5 DOWNSPOUT - CLASSROOM
SCALE: 3" = 1'-0"



6 DNSPT SUPPORT @ CONC.
SCALE: 1 1/2" = 1'-0"

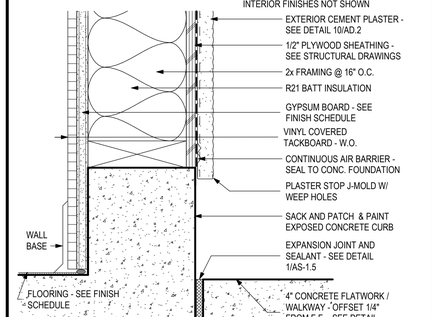


7 PLMBNG DRAIN & DOWNSPOUT
SCALE: 3" = 1'-0"

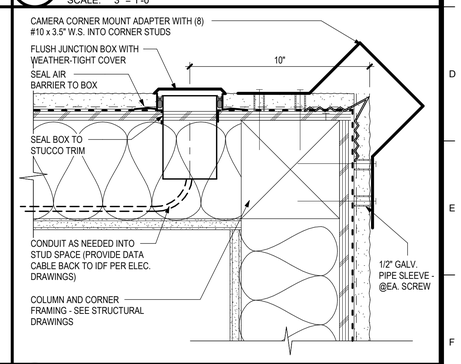
DETAIL NOT USED

8 DETAIL NOT USED
SCALE: 1/4" = 1'-0"

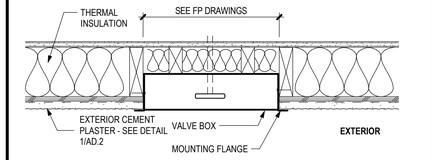
NOTE: SEE FINISH SCHEDULE FOR ADDITIONAL INTERIOR FINISHES NOT SHOWN



1 PERIMETER CURB TYP.
SCALE: 3" = 1'-0"



2 CAMERA POWER BOX - WD.
SCALE: 3" = 1'-0"



3 VALVE BOX DETAIL
SCALE: 1 1/2" = 1'-0"

DETAIL NOT USED

4 DETAIL NOT USED
SCALE: 1/4" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
Ph: (209) 571-2232 Fax: (209) 571-1936

LICENSED ARCHITECT TIMOTHY PAUL HUFF No. C-15627 REN. 5/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

DETAIL - TYPICAL EXTERIOR WALL DETAILS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

AD.2

Plot Date & Time 7/2/2026 1:39:28 PM

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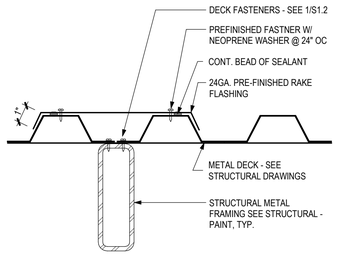
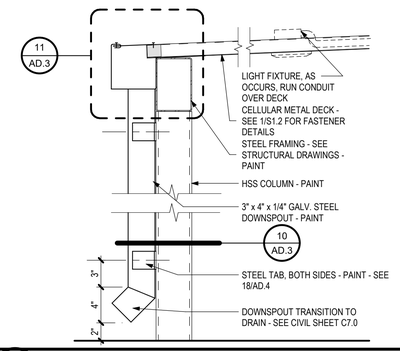
17 NOT USED

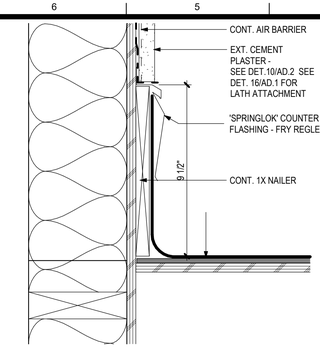
13 CANOPY AT DECK SEAM
SCALE: 3" = 1'-0"



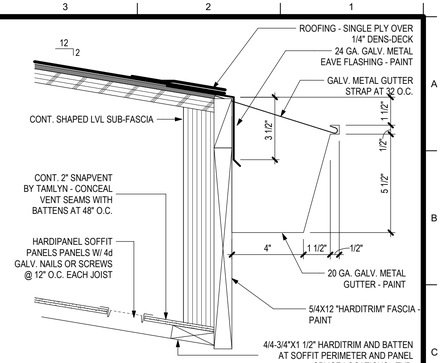
9 DOWNSPOUT AT COLUMN
SCALE: 1 1/2" = 1'-0"



5 SINGLE PLY AT ALL
SCALE: 3" = 1'-0"



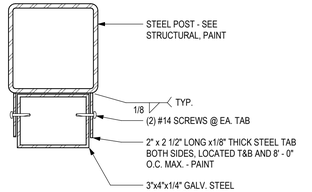
1 TYPICAL GUTTER
SCALE: 3" = 1'-0"



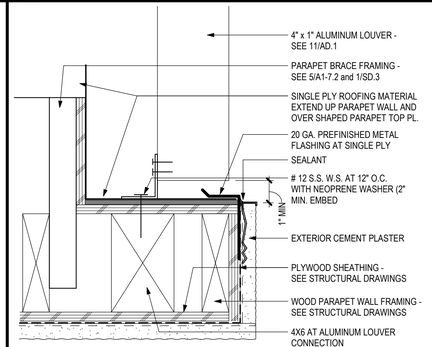
18 NOT USED

14 NOT USED

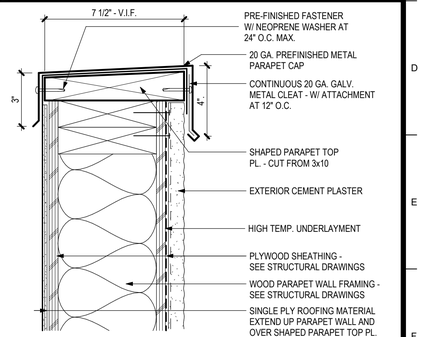
10 DOWNSPOUT @ COLUMN
SCALE: 3" = 1'-0"



6 PARAPET - PLAN VIEW
SCALE: 3" = 1'-0"



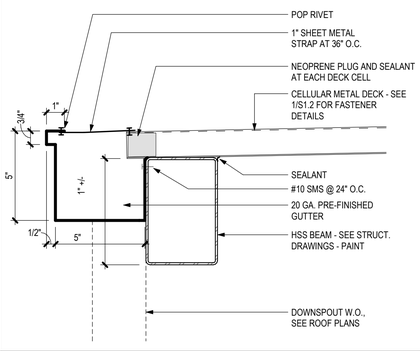
2 PARAPET CAP TYP.
SCALE: 3" = 1'-0"



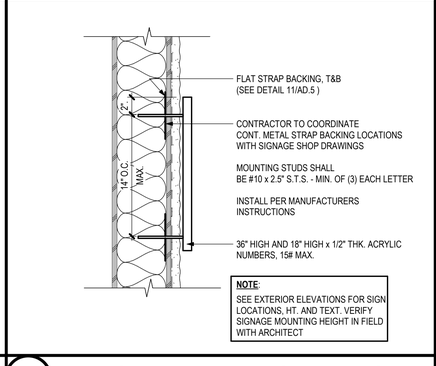
19 NOT USED

15 NOT USED

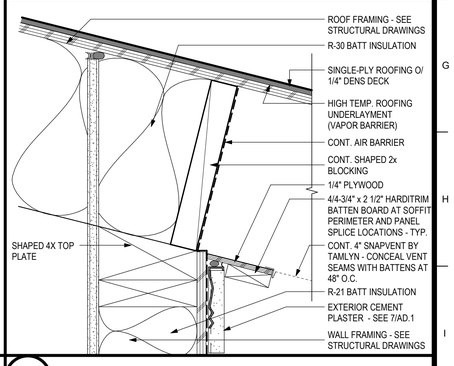
11 CANOPY EAVE
SCALE: 3" = 1'-0"



7 BLDG NUMBER MOUNTING
SCALE: 1 1/2" = 1'-0"



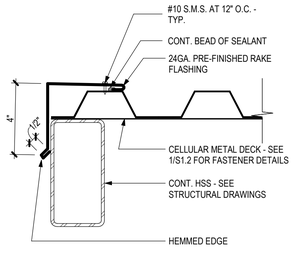
3 ROOF AT EXT. WALL
SCALE: 3" = 1'-0"



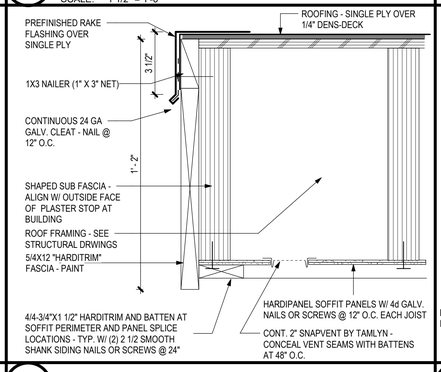
20 NOT USED

16 NOT USED

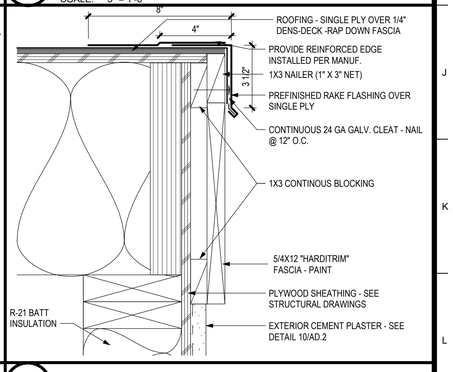
12 CANOPY RAKE
SCALE: 3" = 1'-0"



8 ROOF RAKE
SCALE: 3" = 1'-0"



4 ROOF RAKE
SCALE: 3" = 1'-0"



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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
Ph: (209) 571-2232 Fax: (209) 571-1936

LICENSED ARCHITECT TIMOTHY PAUL HUFF No. 15027 REN. 5/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

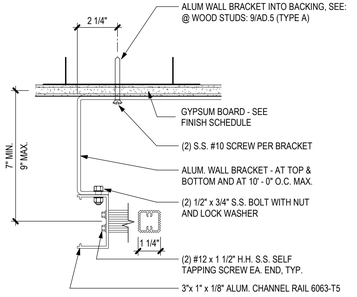
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

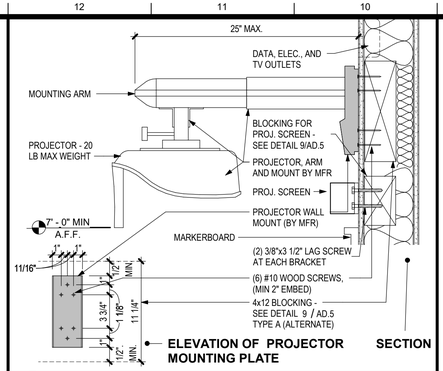
DETAILS - TYP. EXT. WALL AND CANOPY DETAILS

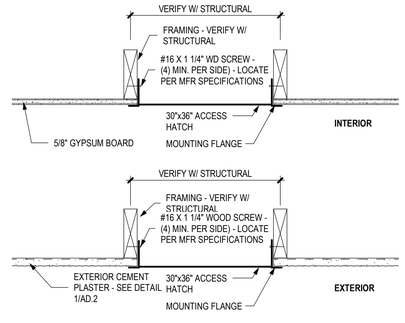
Project Number	2514
Date	June, 2026
Drawn by	Author
Checked by	Checker

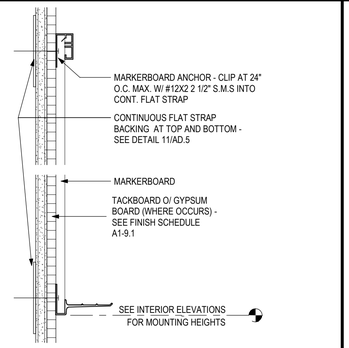
AD.3

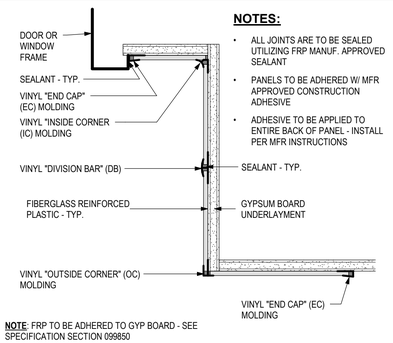
Plot Date & Time 7/2/2026 1:39:31 PM









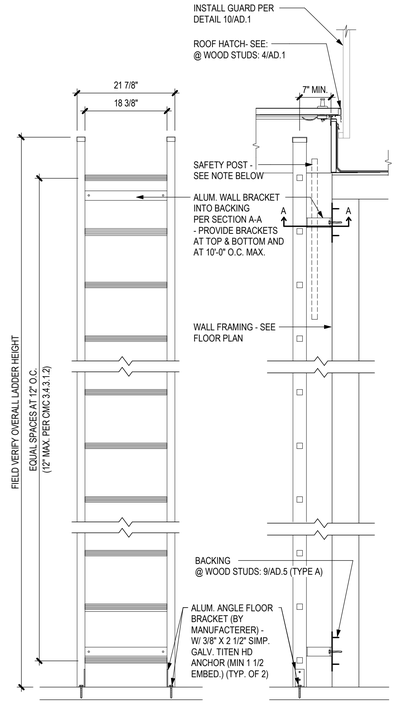


10 PROJECTOR - WALL MTD
SCALE: 1 1/2" = 1'-0"

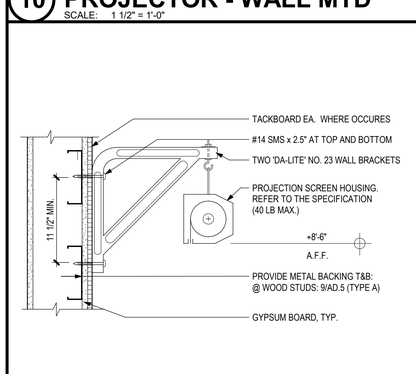
7 ACCESS HATCH
SCALE: 1 1/2" = 1'-0"

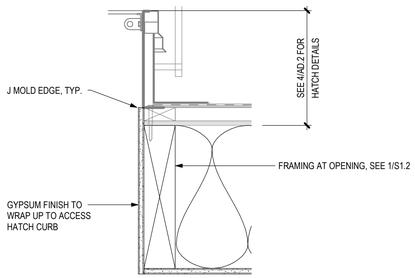
4 MARKERBOARD MOUNTING
SCALE: 3" = 1'-0"

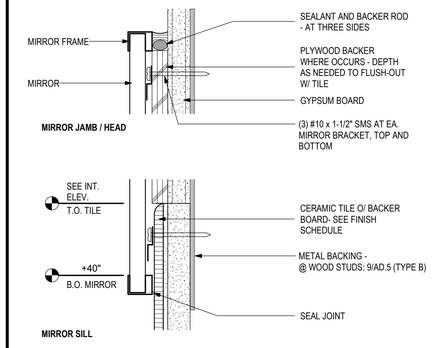
1 FRP PANEL
SCALE: 3" = 1'-0"

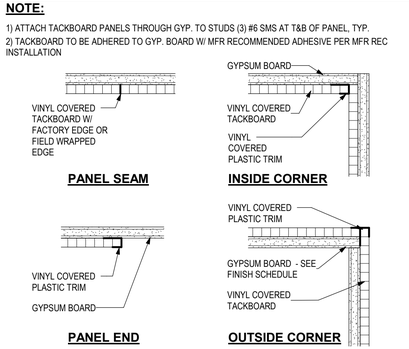


NOTE
ALUMINUM LADDER:
O'KEEFFE'S, INC. MODEL 500, STAND. DUTY W/ MILL FINISH AND "BILCO" LADDERUP SAFETY POST (LU-1)







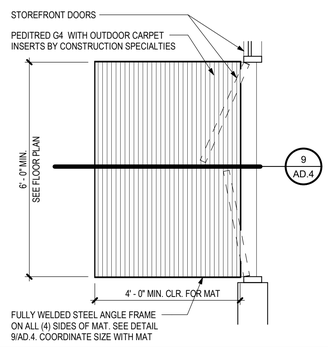


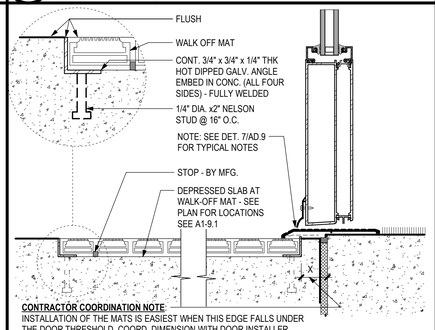
11 WALL MOUNT SCREEN
SCALE: 1 1/2" = 1'-0"

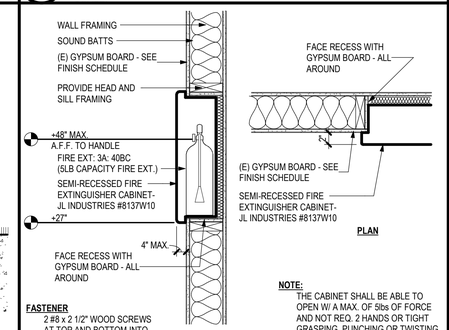
8 GYP. FINISH AT HATCH
SCALE: 1 1/2" = 1'-0"

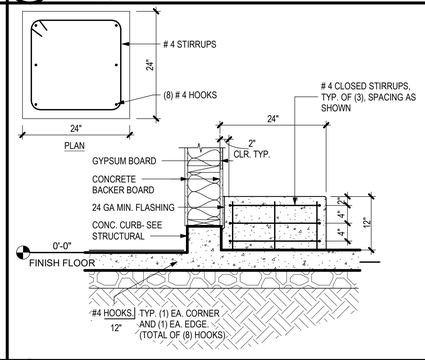
5 MIRROR FURRING
SCALE: 1 : 1

2 TACKBOARD
SCALE: 3" = 1'-0"









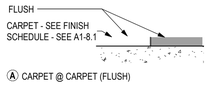
14 ROOF ACCESS LADDER
SCALE: 3/4" = 1'-0"

12 WALK OFF MAT - PLAN
SCALE: 1/2" = 1'-0"

9 WALK OFF MAT - SECTION
SCALE: 3" = 1'-0"

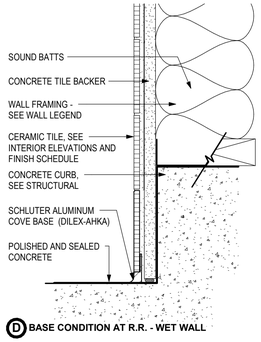
6 FIRE EXTINGUISHER
SCALE: 1" = 1'-0"

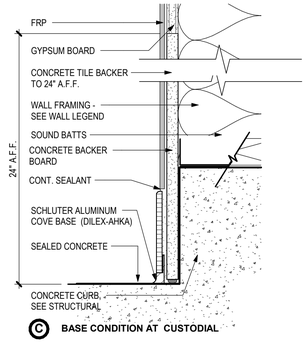
3 HOUSE KEEPING PAD DETAIL
SCALE: 3/4" = 1'-0"

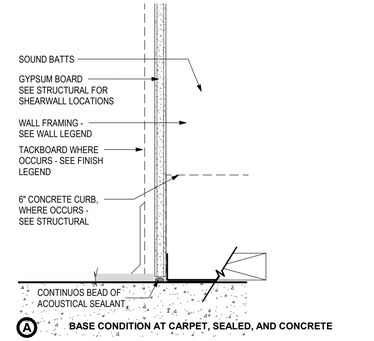


15 FLOOR TRANSITIONS
SCALE: 6" = 1'-0"

13 TYP. INT. WALL BASE CONDITIONS
SCALE: 3" = 1'-0"







13 TYP. INT. WALL BASE CONDITIONS
SCALE: 3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects

TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
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LICENSED ARCHITECT TIMOTHY PAUL HUFF No. 15627 REN. 5/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

DETAIL - TYPICAL INTERIOR WALL DETAILS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

AD.4

Plot Date & Time 7/2/2026 1:39:35 PM

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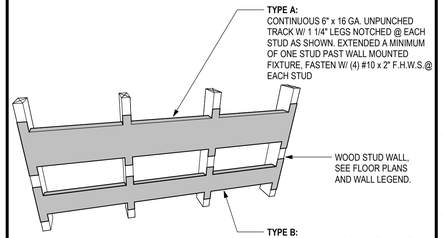
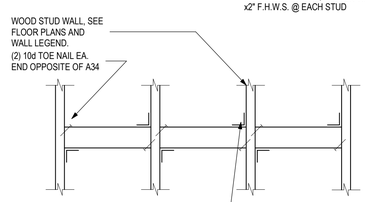
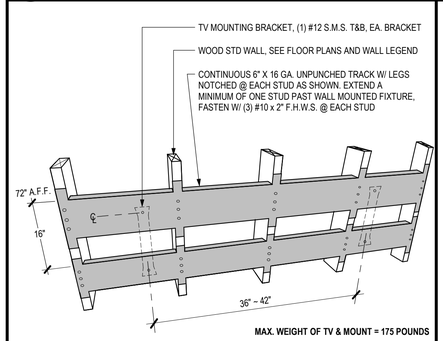


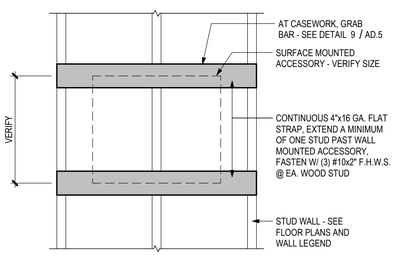


NOTE:
1. FOR ACCESSORY BACKING - 11/AD.5

9 BACKING - WOOD STUDS
SCALE: 1" = 1'-0"

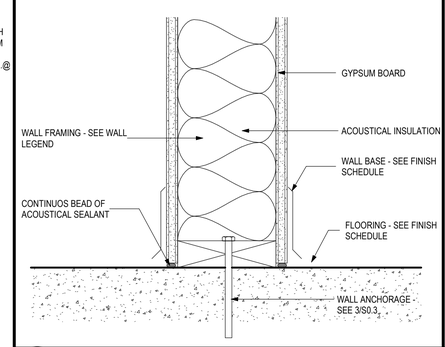


10 TV BACKING WOOD STUDS
SCALE: 6" = 1'-0"

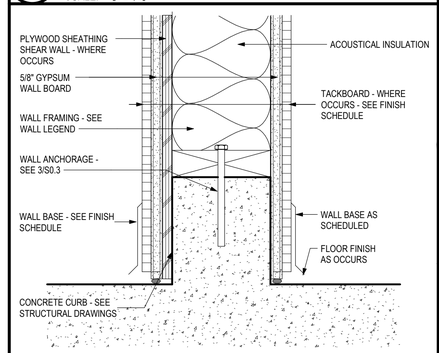


NOTE:
EXTEND BACKING A MINIMUM OF ONE STUD BEYOND EXTENT OF ACCESSORY

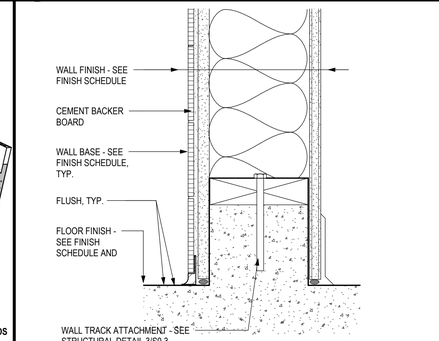
11 ACCESSORY BACKING
SCALE: 1" = 1'-0"



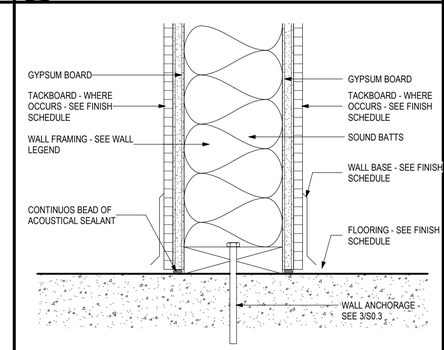
5 INTERIOR WALL BASE
SCALE: 3" = 1'-0"
WITH STRUCT. PLY



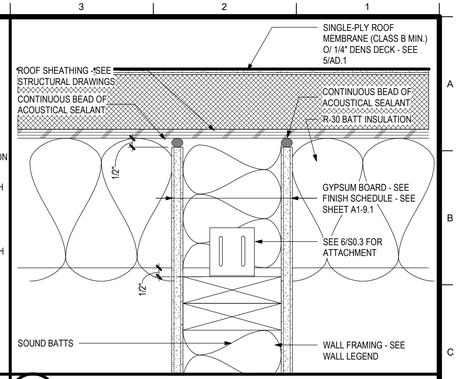
6 INT. WALL BASE -TACKBOARD
SCALE: 3" = 1'-0"



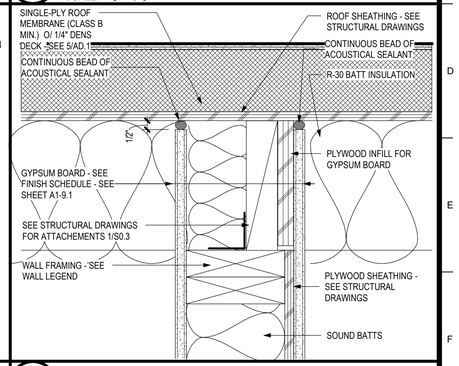
7 INT. WALL BASE
SCALE: 3" = 1'-0"



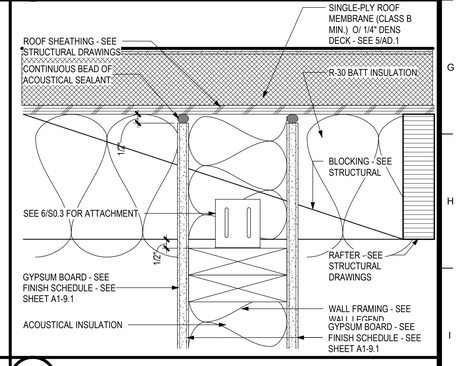
8 TYP. INT. WALL BASE - TACK
SCALE: 3" = 1'-0"



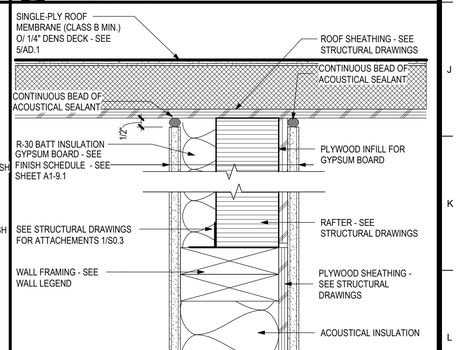
1 INT. WALL HEAD
SCALE: 3" = 1'-0"
PERPENDICULAR TO RAFTERS



2 INT. SHEAR WALL HEAD
SCALE: 3" = 1'-0"
PERPENDICULAR TO RAFTER



3 INT. WALL HEAD
SCALE: 3" = 1'-0"
PARALLEL TO RAFTER



4 INT. SHEAR WALL HEAD
SCALE: 3" = 1'-0"
PARALLEL TO RAFTER

12 NOT USED

C:\Local-D\2514 Von Renner Classroom Bldg_CENTRAL_Daisy.rvt

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
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TPH architects
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LICENSED ARCHITECT TIMOTHY PAUL HUFF No. 15627 REN. 5/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

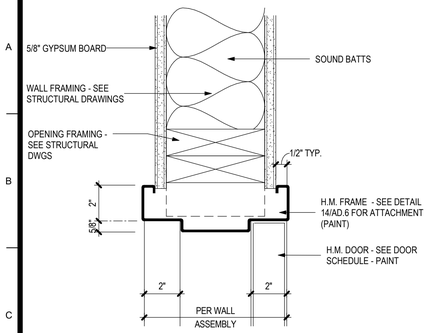
DETAILS - INTERIOR WALL HEAD AND BASE DETAILS

Project Number	2514
Date	June, 2026
Drawn by	RS
Checked by	JG

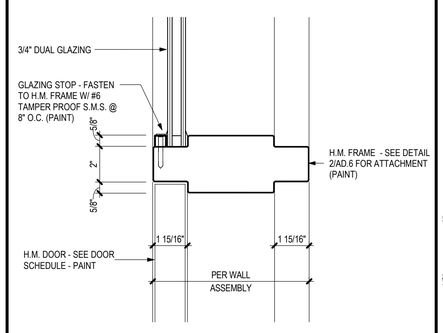
AD.5

Plot Date & Time 7/2/2026 1:39:38 PM

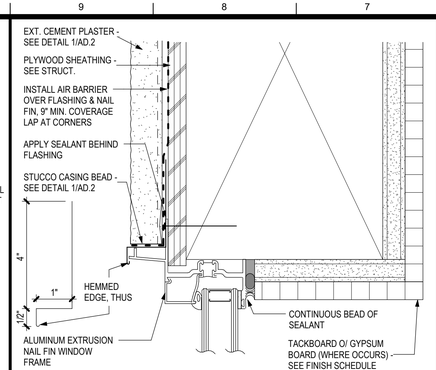
17 INT. DOOR HEAD/JAMB
SCALE: 3" = 1'-0"



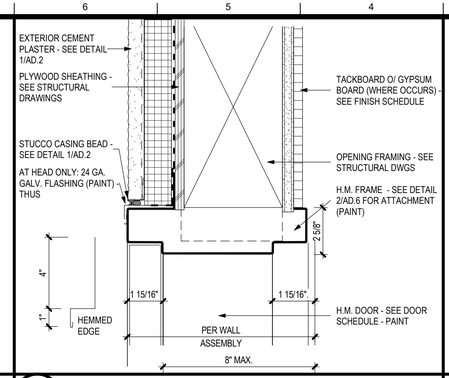
13 DOOR HEAD/ TRANSOM1
SCALE: 3" = 1'-0"



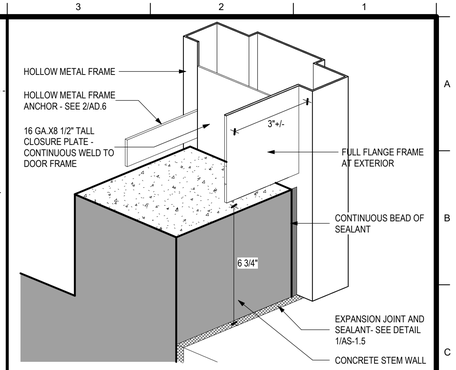
9 EXT. WINDOW HEAD/JAMB
NAIL FIN
SCALE: 6" = 1'-0"



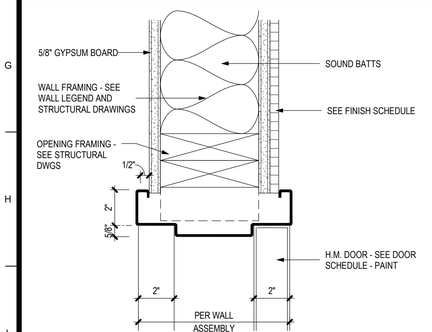
5 EXT. DOOR HEAD (JAMB SIM.)
SCALE: 3" = 1'-0"



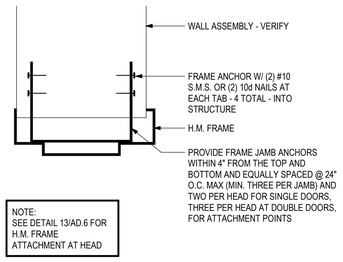
1 EXT. DOOR FRAME AT CURB
SCALE: 3" = 1'-0"



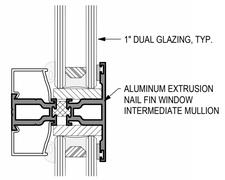
18 INT. DOOR HEAD/JAMB
SCALE: 3" = 1'-0"



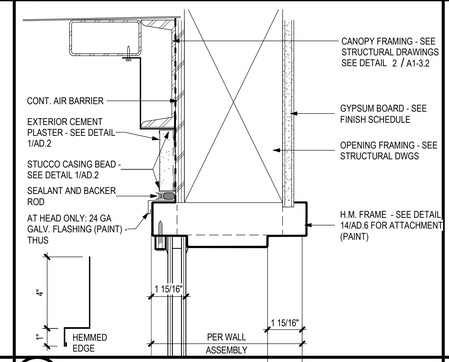
14 INT. H.M. FRAME
SCALE: 3" = 1'-0"



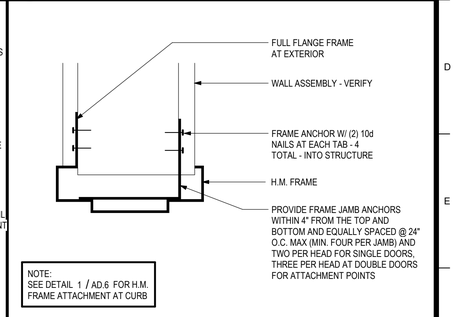
10 INTERMEDIATE MULLION
SCALE: 6" = 1'-0"



6 TRANSOM AT EXT.
SCALE: 3" = 1'-0"



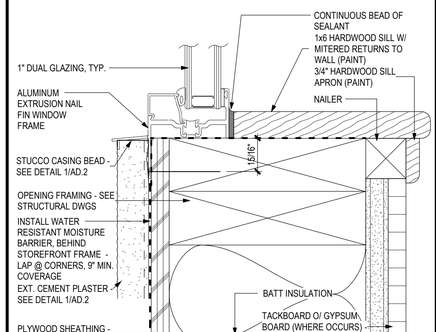
2 EXT. H.M.FRAME ATTACHMENT
SCALE: 3" = 1'-0"



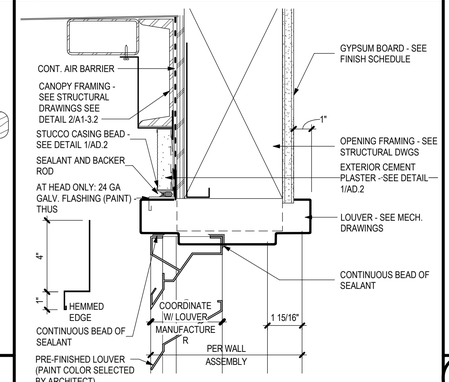
19 INT. DOOR HEAD/JAMB
SCALE: 3" = 1'-0"

15 NOT USED

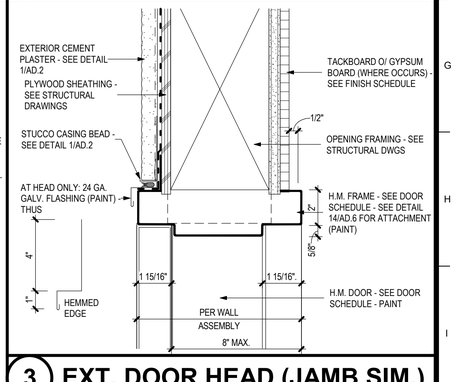
11 EXT. WDW. SILL (NAIL FIN)
SCALE: 6" = 1'-0"



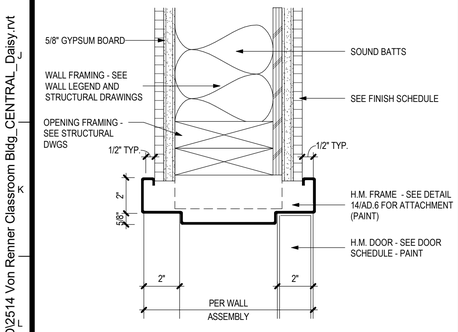
7 LOUVER AT EXT.
SCALE: 3" = 1'-0"



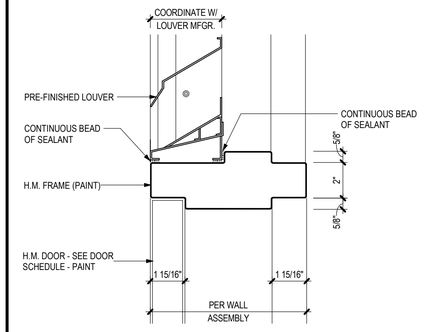
3 EXT. DOOR HEAD (JAMB SIM.)
SCALE: 3" = 1'-0"



20 INT. DOOR JAMB (SHEAR)
SCALE: 3" = 1'-0"

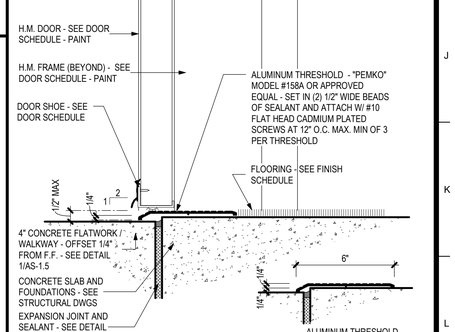


16 LOUVER AT DOOR HEAD
SCALE: 3" = 1'-0"



8 NOT USED

4 TYP. EXT. THRESHOLD
SCALE: 3" = 1'-0"



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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

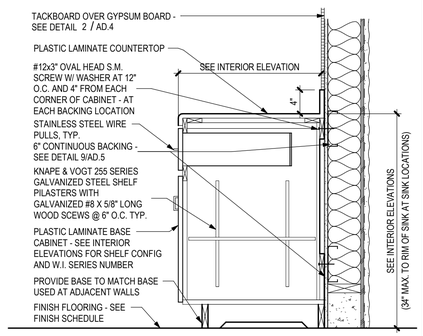
DETAILS - EXT. / INT. H.M. DOORS / STOREFRONT DETAILS

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

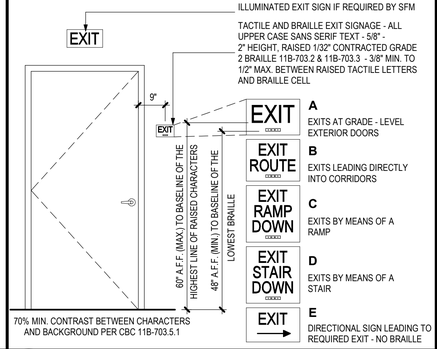
AD.6

Plot Date & Time 7/2/2026 1:39:42 PM

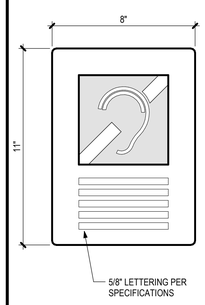
11 BASE CABINET SECTION -TYP.
SCALE: 1" = 1'-0"



8 SIGNAGE-EXIT DOOR
SCALE: 1/2" = 1'-0"



4 ALS SIGNAGE
SCALE: 3" = 1'-0"



ASSISTED LISTENING SYSTEM

(PER CBC SECTION 11B-703, 11B-703.7.2.4)

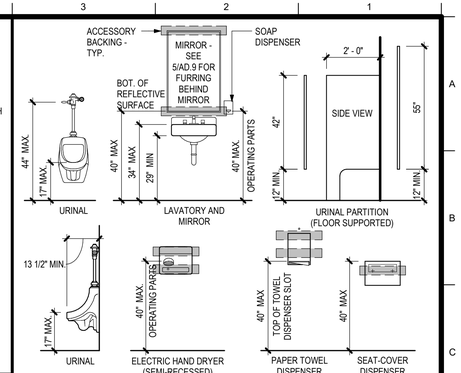
PROVIDE SIGNAGE TO BE POSTED AT +72" A.F.F. WITH PICTOGRAM INDICATING THE AVAILABILITY OF ASSISTIVE LISTENING DEVICES. THE SIGNAGE SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS AND VERBAGE THAT INDICATES "ASSITIVE LISTENING SYSTEM AVAILABLE"

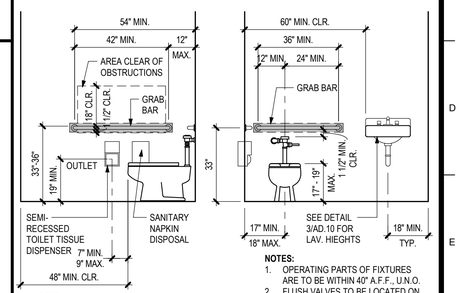
USERS MAY CONTACT FACULTY OR MAIN OFFICE STAFF FOR PORTABLE ASSITIVE LISTENING DEVICES.

THE CONTRACTOR SHALL FURNISH AND INSTALL A FULLY OPERABLE PUBLIC ADDRESS SYSTEM WITH ASSISTIVE LISTENING SYSTEM

THE ASSISTIVE LISTENING SYSTEM SHALL CONSIST OF A TRANSMITTER AND RECEIVERS;

SEE SPEC SECTION 274100



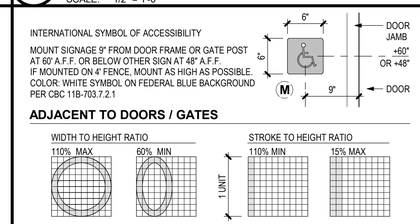


NOTES:
FOR GRAB BAR BACKING:
@ WOOD STUDS: SEE 9/AD.5 (TYPE A)
FOR ACCESSORY BACKING: SEE 11/AD.5

NOTES:
1. OPERATING PARTS OF FIXTURES ARE TO BE WITHIN 40" A.F.F., U.N.O.
2. FLUSH VALVES TO BE LOCATED ON WIDE SIDE OF SPACE, TYP.
3. INSULATE ALL EXPOSED WATER AND WASTE LINES, TYP
4. ALL DIMENSIONS ARE FROM THE FACE OF FINISH SURFACES AT ADJACENT WALL OR PARTITION

DIMENSIONS SHOWN PER CBC 11B-6

12 NOTE USED

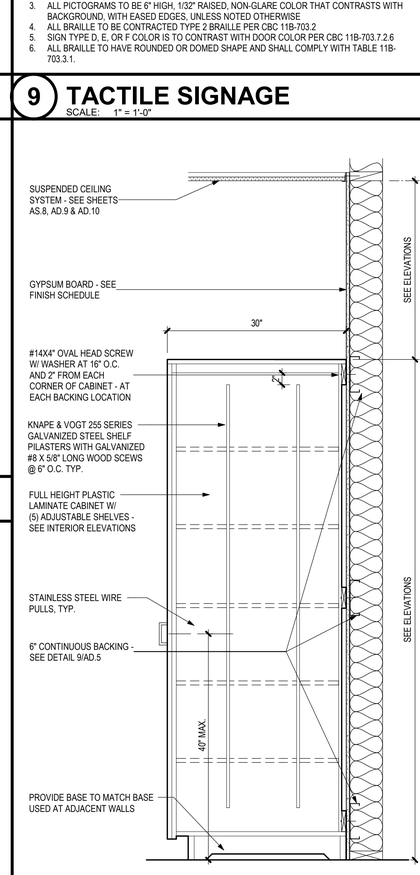


ADJACENT TO DOORS / GATES

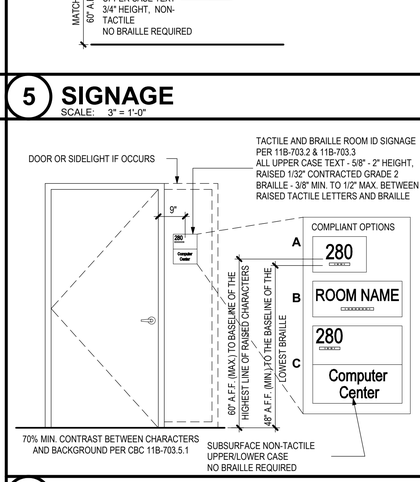
FONT RATIOS

1. ALL SIGNAGE TO BE CONSTRUCTED OF 1/4" THICK, NON-GLARE, ONE PIECE PHENOLIC PHOTOPOLYMER WITH EASED EDGES & RADIUS OUTSIDE CORNERS, UNLESS NOTED OTHERWISE
2. ALL SIGNAGE FONTS TO BE 1" TALL X 1/32" RAISED, NON-GLARE COLOR THAT CONTRASTS WITH BACKGROUND, SANS SARIF FONT WITH EASED EDGES, UNLESS NOTED OTHERWISE
3. ALL PICTOGRAMS TO BE 6" HIGH, 1/32" RAISED, NON-GLARE COLOR THAT CONTRASTS WITH BACKGROUND, WITH EASED EDGES, UNLESS NOTED OTHERWISE
4. ALL BRAILLE TO BE CONTRACTED TYPE 2 BRAILLE PER CBC 11B-703.2
5. SIGN TYPE D, E, OR F COLOR IS TO CONTRAST WITH DOOR COLOR PER CBC 11B-703.7.2.6
6. ALL BRAILLE TO HAVE ROUNDED OR DOMED SHAPE AND SHALL COMPLY WITH TABLE 11B-703.3.1.

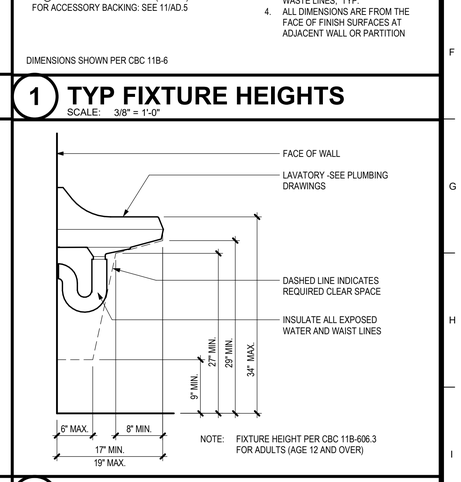
9 TACTILE SIGNAGE
SCALE: 1" = 1'-0"



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

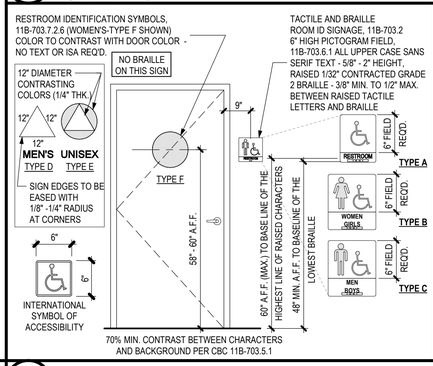


1 TYP FIXTURE HEIGHTS
SCALE: 3/8" = 1'-0"

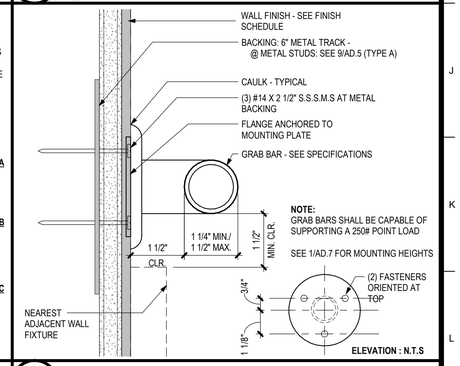


13 NOTE USED

6 SIGNAGE-ROOM ID
SCALE: 1/2" = 1'-0"



2 TYP. LAV. CLEARANCES
SCALE: 1 : 1



14 NOTE USED

10 FULL HGHT. CAB. W/O SOFFIT
SCALE: 1" = 1'-0"

7 SIGNAGE - RESTROOM
SCALE: 1/2" = 1'-0"

3 GRAB BAR
SCALE: 6" = 1'-0"

IDENTIFICATION STAMP
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APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
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LICENSED ARCHITECT TIMOTHY PAUL HUFF No. 15627 REN. 5/27 STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

DETAILS - RESTROOMS, SIGNAGE & CASEWORK

Project Number	2514
Date	June, 2026
Drawn by	DV
Checked by	JG

AD.7

Plot Date & Time 7/2/2026 1:39:45 PM

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ACOUSTICAL CEILING NOTES

1. CEILING SYSTEM GENERAL NOTES

1.01 CEILING SYSTEM COMPONENTS SHALL COMPLY WITH ASTM C635 AND SECTION 5.1 OF ASTM E580.
1.02 THE CEILING GRID SYSTEM MUST 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: ARMSTRONG
PRODUCT NAME: PRELUDE XL
EVALUATION REPORT TYPE AND NUMBER: ICC-ESR-1222
MAIN RUNNER PART, MODEL, OR CATALOG NUMBER: 7301 HEAVY DUTY MAIN BEAM
CROSS RUNNER PART, MODEL, CATALOG NUMBER: XL 7342 4' CROSS TEE
1.04 SEISMIC WALL CLIP: BEAM END RETAINING CLIP
MANUFACTURER'S MODEL: BERC2
1.05 CEILING PANELS SHALL NOT SUPPORT ANY LUMINAIRES, AIR TERMINALS OR DEVICES.
1.06 SLOPED CEILING HOLD DOWN - N/A
1.07 FOR CEILING INSTALLATIONS UTILIZING ACOUSTICAL TILE PANELS OF MINERAL OR GLASS FIBER, IT IS NOT MANDATORY TO PROVIDE ¾" 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 ¾" CLEARANCE BETWEEN THE CEILING PANEL AND THE WALL ON THE SIDES OF THE CEILING FREE TO SLIP. CLEARANCE BETWEEN CEILING GRID RUNNERS/MEMBERS AND WALLS SHALL COMPLY WITH THE DETAILS ON THESE DRAWINGS REGARDLESS OF CEILING TILE MATERIAL.
1.08 FOR SLOPED CEILINGS
1.09 CEILINGS SHALL COMPLY WITH IR 25-2 AND IR 25-3.

2. MATERIALS

2.01 CEILING WIRE SHALL BE CLASS 1 ZINC COATED (GALVANIZED) CARBON STEEL CONFORMING TO ASTM A641. WIRE SHALL BE #12 GAUGE (0.106" DIAMETER) WITH SOFT TEMPER AND MINIMUM ULTIMATE 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, (AISI S100). MATERIAL 43 MIL (18 GAUGE) AND LIGHTER SHALL HAVE MINIMUM YIELD STRENGTH OF 33 KSI. MATERIAL 54 MIL (16 GAUGE) AND HEAVIER SHALL HAVE A MINIMUM YIELD STRENGTH OF 50KSI.
2.03 ELECTRICAL METALLIC TUBE (EMT) SHALL BE ANSI C80.3/UL 797 CARBON STEEL WITH G90 GALVANIZING. EMT SHALL HAVE MINIMUM YIELD STRENGTH (FY) OF 30 KSI AND MINIMUM ULTIMATE STRENGTH (FU) OF 48 KSI.

3. ATTACHMENT OF HANGER AND BRACING WIRES

3.01 SEPARATE ALL CEILING HANGER AND BRACING WIRES AT LEAST 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: N/A
4.03 POWER-ACTUATED FASTENERS SHALL BE: HILTI X-U, TYP. EA. STRUT. INSTALL PER 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 OR MASONRY 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 ANCHORS.
4.07 WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3 USING E60XX SERIES ELECTRODES.

5. TESTING

5.01 ALL FIELD TESTING MUST BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.
5.02 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 POUNDS IN TENSION. ALL OTHER POST-INSTALLED ANCHORS IN CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1910A.5.
5.03 POST-INSTALLED ANCHORS IN CONCRETE USED TO ATTACH BRACING WIRES SHALL BE TESTED AT A FREQUENCY OF 50 PERCENT IN ACCORDANCE WITH CBC SECTION 1910A.5.

6. LUMINAIRES

6.01 ALL LUMINAIRES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE LUMINAIRE. A MINIMUM OF TWO SCREWS OR APPROVED FASTENERS ARE REQUIRED AT EACH LUMINAIRE, PER ASTM E580 SECTION 5.3.1.
6.02 SURFACE-MOUNTED LUMINAIRES 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 GAUGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A #12 GAUGE SLACK SAFETY WIRE SHALL BE CONNECTED FROM EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN A LUMINAIRE IS 8 FEET OR LONGER OR EXCEEDS 56 POUNDS. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 8 FEET.
6.03 LUMINAIRES WEIGHING LESS THAN OR EQUAL TO 10 POUNDS MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, SHALL HAVE A MINIMUM OF ONE #12 GAUGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.
6.04 LUMINAIRES WEIGHING GREATER THAN 10 POUNDS BUT LESS THAN OR EQUAL TO 56 POUNDS MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO #12 GAUGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTURE ABOVE. EXCEPTION: ALL LUMINAIRES GREATER THAN TWO BY FOUR FEET WEIGHING LESS THAN 56 POUNDS SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE AT EACH CORNER.
6.05 ALL LUMINAIRES WEIGHING GREATER THAN 56 POUNDS SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR TAUT #12 GAUGE HANGER WIRES (ONE AT EACH CORNER) ATTACHED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS. THE FOUR TAUT #12 GAUGE WIRES OR OTHER APPROVED HANGERS, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, SHALL BE CAPABLE OF SUPPORTING FOUR 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 POUNDS SHALL HAVE ONE #12 GAUGE 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 POUNDS BUT LESS THAN OR EQUAL TO 56 POUNDS SHALL HAVE TWO #12 GAUGE 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 POUNDS SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY NOT LESS THAN FOUR TAUT #12 GAUGE 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 POUNDS SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE. DEVICES WEIGHING MORE THAN 20 POUNDS SHALL BE SUPPORTED INDEPENDENTLY FROM THE STRUCTURE ABOVE.

STRUCTURAL SYSTEM OF FLOOR/ ROOF ABOVE SUSPENDED CEILING	APPLICABLE HANGER WIRE DETAIL	APPLICABLE BRACE WIRE DETAIL
BARE METAL DECK	-	-
CONCRETE OVER METAL DECK	-	-
CONCRETE SLAB, BEAM, OR JOIST	-	-
STRUCTURAL STEEL	-	-
METAL STUD WALL	-	-
SAWN TIMBER	1/AD.9 , 2/AD.9	3/AD.9
WOOD I-JOIST	-	-
WOOD CHORD TRUSS	-	-
OPEN WEB STEEL JOIST	-	-

1 HANGER AND BRACING WIRE REF. TABLE

STRUCTURAL SYSTEM OF FLOOR/ ROOF ABOVE SUSPENDED CEILING	APPLICABLE DETAIL
BARE METAL DECK	-
CONCRETE OVER METAL DECK	-
CONCRETE SLAB, BEAM, OR JOIST	-
STRUCTURAL STEEL	-
SAWN TIMBER WITH GYPSUM BOARD	-
SAWN TIMBER WITHOUT GYPSUM BOARD	7/AD.10
WOOD I-JOIST	-

2 STRUT DETAIL REFERENCE TABLE

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 STRUT REF. TABLE

4 ACOUSTICAL CEILING NOTES

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

DETAILS - SUSPENDED CEILING

Project Number	2514
Date	June, 2026
Drawn by	AV
Checked by	JM

AD.8

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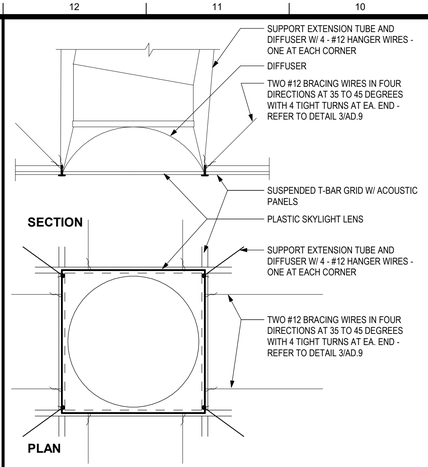
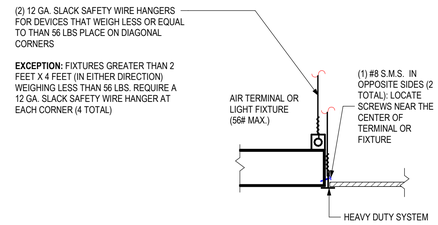
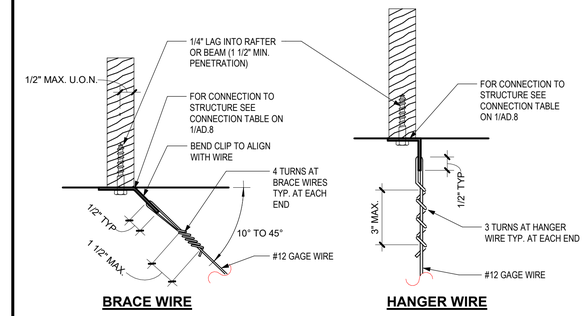


NOTE:
SKYLIGHT TUBE IS INTENDED TO FIT BETWEEN RAFTERS. DO NOT CUT RAFTERS

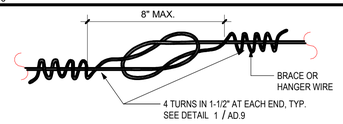
8 SKYLIGHT DIFFUSER
SCALE: 1" = 1'-0"



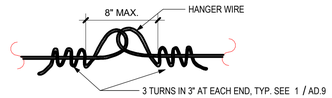
4 LUMINAIRE-AIR TERMINAL
SCALE: 1 1/2" = 1'-0"



1 HANGER & BRACE WIRE - TYP. WIRE TURNS
SCALE: 3" = 1'-0"



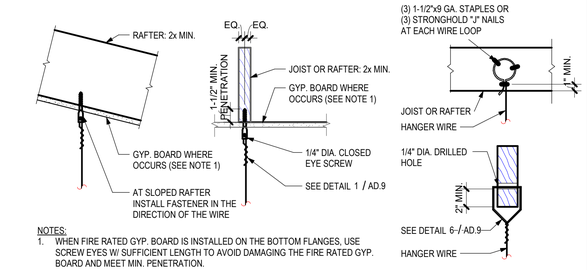
HANGER OR BRACE WIRE



HANGER WIRE ONLY

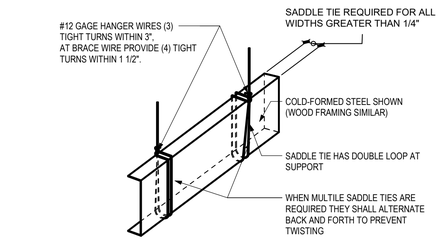
NOTES:
1. WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTED.
2. WIRE LOOPS SHALL BE TIGHTLY WRAPPED AND SHARPLY BENT TO PREVENT ANY VERTICAL MOVEMENT OR ROTATION WITHIN THE LOOPS.
3. EACH HANGER AND BRACE WIRE SHALL BE SPLICED NO MORE THAN ONCE ALONG ITS LENGTH.

5 WIRE SPLICE
SCALE: 3" = 1'-0"

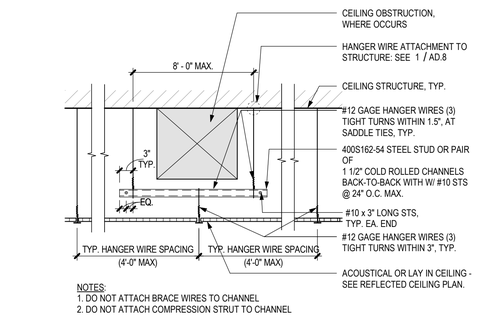


NOTES:
1. WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES W/ SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MIN. PENETRATION.

2 HANGER WIRE CONNECTION TO TIMBER
SCALE: 1" = 1'-0"

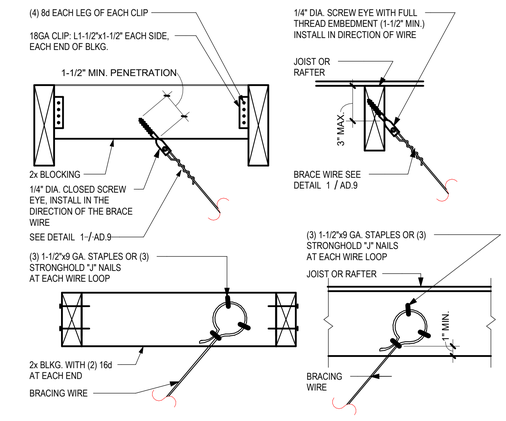


6 SADDLE TIE
SCALE: 3" = 1'-0"



NOTES:
1. DO NOT ATTACH BRACE WIRES TO CHANNEL
2. DO NOT ATTACH COMPRESSION STRUT TO CHANNEL

7 OBSTRUCTION - TRAPEEZE
SCALE: 3/4" = 1'-0"



3 BRACE WIRE TO SAWN TIMBER
SCALE: 1 1/2" = 1'-0"

9 DETAIL NOT USED
SCALE: 1/4" = 1'-0"

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DETAILS - SUSPENDED CEILING

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Drawn by	AV
Checked by	JM

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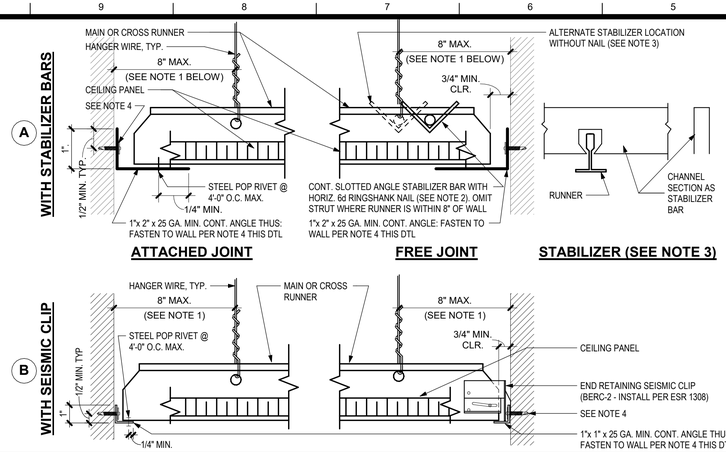
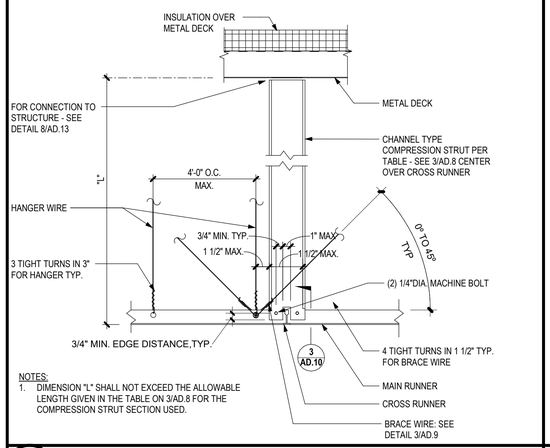
NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. NAILS AT ENDS OF HORIZONTAL STABILIZERS ARE TO BE PLACED WITH NAIL HEAD TOWARD CENTER LINE OF SPAN OF STRUT.
3. STABILIZER BAR MAY BE SLOTTED APPROVED ANGLES OR CHANNELS WITH "DIAMOND POINTS" OF SPRING STEEL WHICH SNAP TIGHT TO PREVENT MOVEMENT OF STRUT.
4. FASTEN ANGLE TO WALL STUD OR BLOCKING AS FOLLOWS:
   1. METAL STUD (20 GA. MIN.) WALL: (1) #10 SMS AT 24" O.C. MAX.
   2. WOOD STUD WALL: #10x2" LONG WOOD SCREW AT 16" O.C. MAX.
5. WHERE BERC-2 SEISMIC CLIPS ARE USED, STABILIZER BAR MAY BE OMITTED

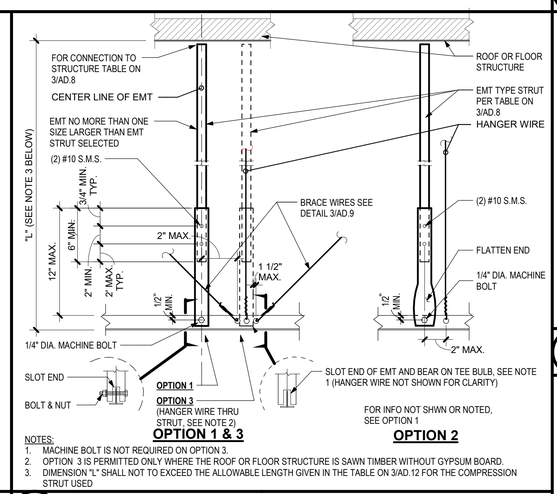


5 CEILING PERIMETER
SCALE: 3" = 1'-0"



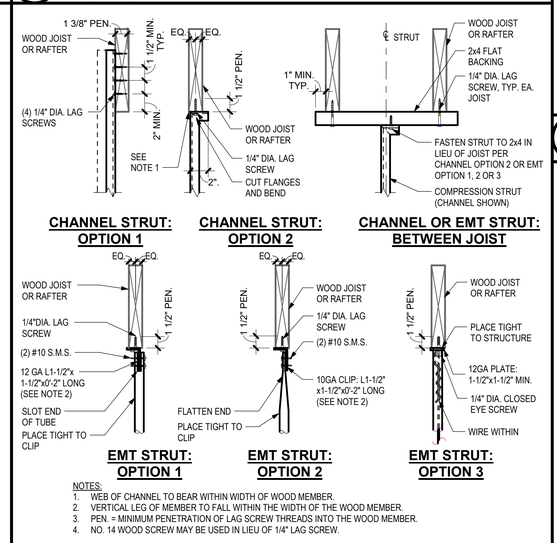
NOTES:
1. DIMENSION "L" SHALL NOT EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON 3/AD.8 FOR THE COMPRESSION STRUT SECTION USED.

8 COMPRESSION STRUT
SCALE: 1 1/2" = 1'-0"



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. DIMENSION "L" SHALL NOT TO EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON 3/AD.12 FOR THE COMPRESSION STRUT USED

6 COMPRESSION STRUT - EMT TYPE
SCALE: 1 1/2" = 1'-0"

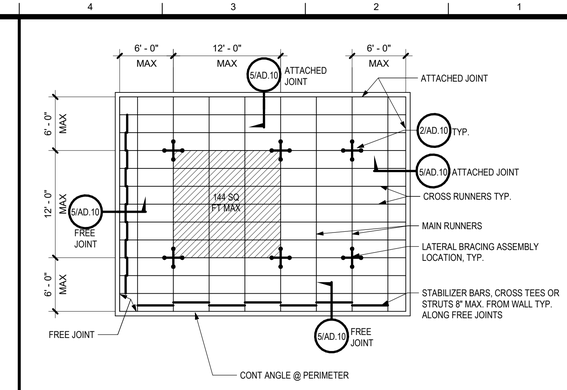


NOTES:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. VERTICAL LEG OF MEMBER TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER.
3. PEN. = MINIMUM PENETRATION OF LAG SCREW THREADS INTO THE WOOD MEMBER.
4. NO. 14 WOOD SCREW MAY BE USED IN LIEU OF 1/4" LAG SCREW.

10 DETAIL NOT USED

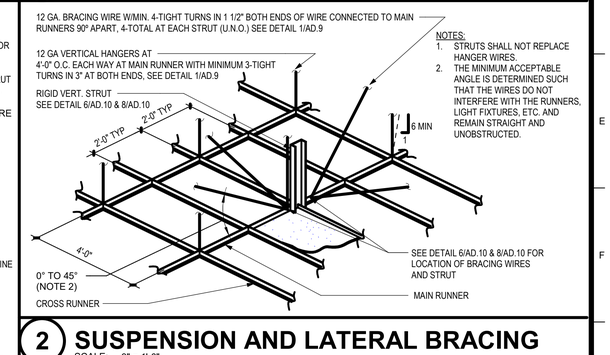
9 DETAIL NOT USED

7 STRUT TO WOOD FRAMING W/O GYP.
SCALE: 1 1/2" = 1'-0"



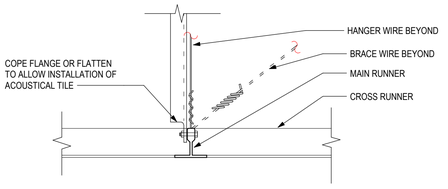
NOTE:
- BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 144 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.
- WHERE BERC-2 SEISMIC CLIPS ARE USED, THE STABILIZER BARS MAY BE OMITTED - SEE DETAIL 5B/AD.10

1 PLAN - 12x12 BRACE ASSY SPACING
SCALE: 1/8" = 1'-0"

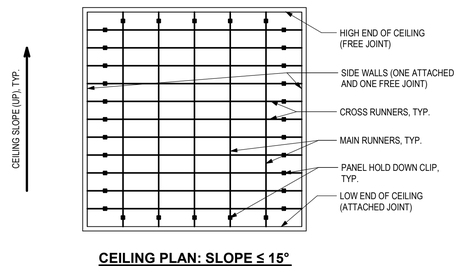


2 SUSPENSION AND LATERAL BRACING
SCALE: 3" = 1'-0"

NOTES:
1. DIMENSION "L" SHALL NOT EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON 3/AD.8 FOR THE COMPRESSION STRUT SECTION USED.



3 COMPRESSION STRUT SECTION
SCALE: 3" = 1'-0"



CEILING PLAN: SLOPE ≤ 15°

NOTE:
1. LATERAL FORCE BRACING ASSEMBLIES NOT SHOWN FOR CLARITY. REFER TO TYP. CEILING PLAN.
2. STABILIZER BARS, PERIMETER ANGLES, AND PROPRIETARY SEISMIC CLIPS NOT SHOWN FOR CLARITY. REFER TO TYP. CEILING PLAN.

4 HOLD DOWN CLIPS AT SLOPED CEILING
SCALE: 1/8" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

DETAILS - SUSPENDED CEILING

Project Number	2514
Date	June, 2026
Drawn by	AV
Checked by	JM

AD.10

Plot Date & Time 7/2/2026 1:39:52 PM

C:\Local-D\2514 Von Renner Classroom Bldg_CENTRAL_Daisy.rvt

ABBREVIATIONS

# / LBS	POUNDS	INCL	INCLUDING / INCLUSIVE
# / NO	NUMBER	INT	INTERIOR
&	AND	JT	JOINT
(E)	EXISTING	KIP	1,000 POUNDS
(N)	NEW	KSI	KIPS PER SQUARE INCH
@	AT	L	ANGLE
AB	ANCHOR BOLT	LD	LOAD
ABV	ABOVE	LG	LONG
ACI	AMERICAN CONCRETE INSTITUTE	LL	LIVE LOAD
		LLH	LONG LEG HORIZONTAL
ADD'L	ADDITIONAL	LLV	LONG LEG VERTICAL
ADJ	ADJACENT	LN	LINE
AFF	ABOVE FINISH FLOOR	LONG.	LONGITUDINAL
AISI	AMERICAN IRON AND STEEL INSTITUTE	LSL	TIMBERSTRAND LUMBER
		LT	LIGHT
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION	LVL	MICROLLAM LUMBER
		LWC	LIGHTWEIGHT CONCRETE
ALT	ALTERNATE	MATL	MATERIAL
APPROX	APPROXIMATE	MAX	MAXIMUM
ARCH	ARCHITECT / ARCHITECTURAL	MB	MACHINE BOLT
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	MECH	MECHANICAL
		MFR/MANUF	MANUFACTURER
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	MIN	MINIMUM
		MISC	MISCELLANEOUS
ATR	ALL-THREAD ROD	MTL	METAL
AWC	AMERICAN WOOD COUNCIL	NDS	NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION
AWS	AMERICAN WELDING SOCIETY		
B/T	BETWEEN	NIC	NOT IN CONTRACT
BD	BOARD	NOM	NOMINAL
BLDG	BUILDING	NS	NEAR SIDE
BLK/BLKG	BLOCK/BLOCKING	NSG	NON-SHRINK GROUT
BLW	BELOW	NTS	NOT TO SCALE
BM	BEAM	OC	ON CENTER
BOF	BOTTOM OF FOOTING	OD	OUTSIDE DIAMETER
BOS	BOTTOM OF STEEL	OPG	OPENING
BOTT	BOTTOM	OPP	OPPOSITE
C	CHANNEL PREFIX	PAR	PARALLEL
C (gms)	SEIEMIC INCREASE FOR GROUND MOTION STUDY	PDF	POWDER DRIVEN FASTENERS
		PERP	PERPENDICULAR
C (irr)	SEISMIC INCREASE FOR I RREGULAR STRUCTURE	PL	PLATE
CANT	CANTILEVER	PLY	PLYWOOD
CBC	CALIFORNIA BUILDING CODE	PSF	POUNDS PER SQUARE FOOT
CJ	CONSTRUCTION JOINT / CEILING JOISTS	PSI	POUNDS PER SQUARE INCH
		PSL	PARALLAM LUMBER
CL	CENTERLINE	PT	PRESSURE TREATED
CLR	CLEAR	QTY	QUANTITY
COL	COLUMN	REBAR	CONCRETE REINFORCEMENT
CONC	CONCRETE	REINF	REINFORCING
CONN	CONNECTION	REQ'D	REQUIRED
CONST	CONSTRUCTION	RJ	ROOF JOIST
CONT	CONTINUOUS	RR	ROOF RAFTER
CONT'D	CONTINUED	SAD	SEE ARCHITECTURAL DRAWINGS
CSK	COUNTERSINK	SCD	SEE CIVIL DRAWINGS
CTR	CENTER	SCH	SCHEDULE
CU	CUBIC	SECT	SECTION
DBL	DOUBLE	SED	SEE ELECTRICAL DRAWINGS
DET	DETAIL	SFRS	SEISMIC FORCE RESISTING SYSTEM
DF	DOUGLAS FIR	SHT	SHEET
DF/L	DOUGLAS FIR/LARCH	SIM	SIMILAR
DIA	DIAMETER	SJ	SAW CUT JOINT
DIM	DIMENSION	SMD	SEE MECHANICAL DRAWINGS
DIST	DISTANCE	SMS	SHEET METAL SCREWS
do	DITTO	SQ	SQUARE
DP	DEEP	SS	STAINLESS STEEL
DWG	DRAWING	STAGG	STAGGER(ED)
EA	EACH	STD	STANDARD
EF	EACH FACE	STIFF	STIFFENER
EJ	EXPANSION JOINT	STL	STEEL
EL / ELEV	ELEVATION	STRUCT	STRUCTURAL
EMB	EMBED	STS	SELF TAPPING SCREW
EN	EDGE NAILING	SW	SHEARWALL
ENGR	ENGINEER	SWS	SHEARWALL SCHEDULE
EQ	EQUAL	SYM	SYMMETRICAL
ES	EACH SIDE / EDGE SCREW	T&B	TOP AND BOTTOM
EW	EACH WAY	T&G	TONGUE AND GROOVE
EXP	EXPANSION	THK	THICK / THICKNESS
EXT	EXTERIOR	THRD	THREAD / THREADED
FF	FINISH FLOOR	TMS	THE MASONRY SOCIETY (GOVERNING CODE FOR CMU)
FJ	FLOOR JOIST		
FLR	FLOOR	TOC	TOP OF CONCRETE
FN	FEILD NAILING	TOF	TOP OF FOOTING
FOC	FACE OF CONCRETE	TOS	TOP OF STEEL
FOS	FACE OF STUD	TOSL	TOP OF SLAB
FOW	FACE OF WALL	TOW	TOP OF WALL
FS	FAR SIDE	TS	TUBE STEEL (SEE ALSO: HSS)
FT	FOOT/FEET	TYP	TYPICAL
FTG	FOOTING	UON	UNLESS OTHERWISE NOTED
GA	GAGE	VB	VAPOR BARRIER
GALV	GALVANIZED	VIF	VERIFY IN FIELD
GLB	GLUE-LAMINATED BEAM	W	WIDE / WIDE FLANGE BEAM DESIGNATION
GRND	GROUND		
GYP. BD.	GYPSUM BOARD	W/	WITH
HD	HOLDDOWN	W/O	WITHOUT
HDS	HOLDDOWN SCHEDULE	WCLIB	WEST COAST LUMBER INSPECTION BUREAU
HK	HOOK		
HORIZ	HORIZONTAL	WD	WOOD
HP	HIGH POINT	WF	WIDE FLANGE (SEE ALSO: W)
HSS	HOLLOW STEEL SECTION	WP	WORK POINT
ID	INSIDE DIAMETER	WT	WEIGHT / 'WT' STEEL SECTION
IN	INSIDE	WWF	WELDED WIRE FABRIC
		ρ	REDUNDANCY FACTOR

STRUCTURAL NOTES

GENERAL NOTES

01. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE 2022 CALIFORNIA BUILDING CODE, WITH DSA AMENDMENTS.
02. ALL NOTES ON THIS PAGE SHALL APPLY TO ALL STRUCTURAL DRAWINGS UNLESS SPECIFICALLY NOTED OTHERWISE.
03. THESE DOCUMENTS AND THE DESIGNS INCORPORATED HEREIN ARE THE PROPERTY OF TIMOTHY P. HUFF AND ASSOCIATES, INC. dba TPH ARCHITECTS, AND SHALL NOT BE USED IN WHOLE OR IN PART WITHOUT PRIOR WRITTEN APPROVAL FROM TIMOTHY P. HUFF AND ASSOCIATES, INC.
04. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE.
05. CONTRACTOR SHALL COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS PRIOR TO COMMENCING WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES AND DO NOT PROCEED WITH AFFECTED WORK UNTIL DISCREPANCIES HAVE BEEN RESOLVED.
06. CONTRACTOR SHALL BRING OMISSIONS OR DISCREPANCIES WITHIN THE STRUCTURAL DOCUMENTS TO THE ARCHITECT'S ATTENTION PRIOR TO PROCEEDING WITH WORK.
07. DO NOT SCALE DRAWINGS.
08. ALL TYPICAL DETAILS SHALL BE USED WHERE APPLICABLE, UNLESS NOTED OTHERWISE.
09. ALL DETAILS SHALL BE CONSIDERED TYPICAL AT SIMILAR CONDITIONS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. ALL DAMAGE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
11. AT ALL TIMES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF PERSONS AND PROPERTY, PROVIDING NECESSARY SHORING AND BRACING, AND FOR ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS. ENGINEER'S SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF TEMPORARY SHORING/BRACING.
12. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER A MINIMUM OF 48 HOURS PRIOR TO FOUNDATION POURS OR CLOSING IN ANY PHASE OF THE STRUCTURE.

SHOP DRAWINGS

01. PROVIDE ELECTRONIC SHOP DRAWINGS TO BE REVIEWED BY THE ENGINEER/ARCHITECT OF RECORD PRIOR TO CONSTRUCTION.
02. PROVIDE A MINIMUM OF 5 BUSINESS DAYS FOR SHOP DRAWING REVIEW.
03. SHOP DRAWINGS SHALL BE PROVIDED FOR THE FOLLOWING ITEMS:
    a) STRUCTURAL STEEL
    b) REINFORCING BARS
    c) CONCRETE MIX DESIGN
    d) STEEL ROOF DECKING
    e) GLUE-LAMINATED TIMBER

TESTS AND INSPECTIONS

01. PROVIDE TESTS AND SPECIAL INSPECTIONS FOR ALL ITEMS AS REQUIRED BY SECTION 1705A OF THE 2022 CALIFORNIA BUILDING CODE.
02. THE OWNER (NOT THE CONTRACTOR) SHALL BE RESPONSIBLE FOR RETAINING AN INDEPENDENT TESTING LAB TO PERFORM ALL REQUIRED TESTING AND SPECIAL INSPECTIONS. A COPY OF ALL INSPECTION REPORTS SHALL BE SUBMITTED TO THE ARCHITECT.
03. THE FOLLOWING ITEMS SHALL BE INSPECTED AND/OR TESTED BY THE TESTING LAB IN ACCORDANCE WITH SECTION 1705A OF THE 2022 CBC:
    a) CONCRETE PLACEMENT, SAMPLING AND TESTING FOR STRENGTH
    b) BOLTS INSTALLED IN CONCRETE
    c) PLACEMENT OF REINFORCING STEEL
    d) WELDING
    e) HOLDDOWNS
    f) SHEARWALLS AND ROOF SYSTEMS USED AS SHEAR DIAPHRAGMS
    g) POST-INSTALLED CONCRETE ANCHORS
04. THE FOLLOWING ITEMS SHALL BE INSPECTED BY THE ARCHITECT/ENGINEER OF RECORD:
    a) PLACEMENT OF REINFORCING STEEL
    b) PLACEMENT OF HOLDDOWNS AND ANCHOR BOLTS
    c) SHEARWALLS
05. PROOF LOAD TESTING OF POST-INSTALLED CONCRETE ANCHORS SHALL BE PERFORMED PER THE RELEVANT ICC-ES REPORT OR CBC SECTION 1910A.5 U.O.N.
06. TESTS AND INSPECTIONS SHALL BE CONDUCTED PER THE DSA-APPROVED FORM 'DSA-103'

DESIGN BASIS

01. STRUCTURAL DESIGN IS BASED ON THE 2022 CALIFORNIA BUILDING CODE WITH DSA AMENDMENTS, U.O.N.
02. GENERAL DESIGN DATA :

LEVEL	DL (PSF)	LL (PSF)
ROOF (LOW SLOPE)	20	20
ROOF (MECH)	20	20
METAL CANOPY	5	20
SOLAR	5	-
OVERHANG	11	20

03. WIND DESIGN DATA:
    - BASIC WIND SPEED: 102 MPH
    - RISK CATEGORY: III
    - EXPOSURE CATEGORY: C
    - ENCLOSED BUILDING
    - GCpi = +/- 0.18
    - WIND VELOCITY PRESSURE: Qh = 19.2 PSF
    - WIND DESIGN PRESSURE (C & C ZONE 4): 24.6 PSF
04. SEISMIC DESIGN DATA:
    - RISK CATEGORY: III
    - SEISMIC IMPORTANCE FACTOR: 1.25
    - SITE COORDINATES: LAT - 37° 18' 30"N LONG - 121° 1' 37"W
    - MAPPED SPECTRAL RESPONSE ACCELERATIONS:
    - Ss = 1.139 S1 = 0.393
    - SITE CLASSIFICATION: 'D' (SOILS REPORT)
    - SPECTRAL RESPONSE COEFFICIENTS:
    - Sds = 0.793 Sd1 = 0.749
    - SEISMIC DESIGN CATEGORY: 'D'
    - SEISMIC FORCE RESISTING SYSTEM:
    - LT. FRAMED WOOD STRUCTURAL PANEL SHEARWALLS
    - RESPONSE MODIFICATION FACTOR, R = 6.5
    - SEISMIC RESPONSE COEFFICIENT, Cs = 0.153 (LRFD)
    - Cs MODIFICATIONS: C(irr) = 1.0; C(gms) = 1.0; ρ = 1.3
    - DESIGN BASE SHEAR, Cs * C(irr) * C(gms) * ρ * 0.7 (ASD): 0.139W (ASD)

FOUNDATIONS

01. FOUNDATION DESIGN IS BASED ON CBC CHAPTER 18 / A SOILS REPORT PREPARED BY RANEY GEOTECHNICAL INC., REPORT # 6381-009.00P, DATED OCT. 15, 2025. CONTRACTOR SHALL OBTAIN A COPY OF THIS REPORT FROM THE SOILS ENGINEER PRIOR TO CONSTRUCTION. THE SOILS REPORT SHALL BE CONSIDERED A PART OF THE CONSTRUCTION DOCUMENTS AND THE RECOMMENDATIONS SHALL BE FOLLOWED DURING CONSTRUCTION.
02. FOUNDATION ASD DESIGN VALUES ARE AS FOLLOWS: (ABOVE SOILS REPORT)
    - VERTICAL BEARING PRESSURE: 2000 PSF (D+L)
    - LATERAL BEARING PRESSURE: 250 PSF
    - FRICTION COEFFICIENT: 0.30
03. CONTRACTOR SHALL PROTECT ALL NEARBY EXISTING FOUNDATIONS AFFECTED BY EXCAVATION FOR NEW FOUNDATIONS FROM BOTH LATERAL MOVEMENT AND SETTLEMENT.
04. EXCEPT WHERE OTHERWISE NOTED, EXCAVATIONS SHALL BE MADE AS NEAR AS POSSIBLE TO NEAT LINES REQUIRED BY THE SIZE AND SHAPE OF THE DETAILED FOUNDATIONS.
05. FOUNDATIONS SHALL BE POURED WITHOUT USE OF SIDE FORMS WHEREVER POSSIBLE; HOWEVER IF TRENCHES CANNOT STAND, FULLY FORM SIDES TO DIMENSIONS SHOWN ON PLANS.
06. ALL TRENCHES AND EXCAVATIONS SHALL BE COMPACTED TO 95% RELATIVE COMPACTION PRIOR TO THE PLACEMENT OF CONCRETE.
07. DO NOT ALLOW WATER TO STAND IN TRENCHES. IF BOTTOM OF TRENCHES BECOME SOFTENED DUE TO RAIN OR OTHER WATER SOURCE PRIOR TO CASTING CONCRETE, EXCAVATE SOFTENED MATERIAL AND REPLACE WITH PROPERLY COMPACTED BACKFILL OR CONCRETE AT NO COST TO OWNER
08. ALL EXCAVATIONS, FORMS AND REINFORCING ARE TO BE INSPECTED BY THE DSA INSPECTOR AND ARCHITECT PRIOR TO PLACING CONCRETE.

CONCRETE

01. REINFORCE ALL CONCRETE. INSTALL AND SECURELY TIE ALL INSERTS, BOLTS, ANCHORS, AND REINFORCING PRIOR TO PLACING CONCRETE.
02. NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT.
03. ALL STRUCTURAL CONCRETE (E.G. FOUNDATIONS, FLOOR SLABS, RETAINING WALLS, OR SHEARWALLS) SHALL BE MADE WITH PORTLAND CEMENT TYPE II/V LOW ALKALINE AND SHALL ATTAIN AN ULTIMATE COMPRESSIVE STRENGTH OF 3000 PSI (SLABS) OR 4000 PSI (ALL OTHER CONSTRUCTION) AT 28 DAYS.
04. CONCRETE MIX DESIGN (NORMAL WEIGHT CONCRETE):
    - MINIMUM CEMENT CONTENT = 5 SACKS/CUBIC YD. (SLABS) - SEE NOTE 5 BELOW
    - MINIMUM CEMENT CONTENT = 6 SACKS/CUBIC YD. (ALL OTHER CONSTR.) - SEE NOTE 5 BELOW
    - TARGET SLUMP = 4" (+/- 1")
    - MAX. WATER/CEMENT RATIO = 0.50
    - AGGREGATE SIZE = MAXIMUM SIZE APPROPRIATE FOR FORM AND REBAR CLEARANCE, CONFORMING WITH LIMITS OF ACI318 SECTION 26.4.2.1(a)(5)
05. MAY REPLACE PORTLAND CEMENT CONTENT WITH FLY ASH (CONFORMING TO ASTM C618) OR OTHER CEMENTITIOUS MATERIAL (SLAG CONFORMING TO ASTM C989, SILICA FUME CONFORMING TO ASTM C1240, POZZOLANS CONFORMING TO ASTM C618, OR BLENDED CEMENT CONFORMING TO C595) UNDER THE FOLLOWING CONDITIONS:
    a) A MAXIMUM OF 25% OF PORTLAND CEMENT CONTENT (BY WEIGHT) MAY BE REPLACED WITH OTHER CEMENTITIOUS MATERIAL WITH NO BREAK TEST RECORD SUBMITTED.
    b) A MAXIMUM OF 50% OF PORTLAND CEMENT CONTENT MAY BE REPLACED (BY WEIGHT) MAY BE REPLACED WITH OTHER CEMENTITIOUS MATERIAL PROVIDED BREAK TEST RECORDS (A MINIMUM OF 20 BREAKS WITHIN THE PAST YEAR) ARE SUBMITTED TO THE ARCHTIECT FOR APPROVAL PRIOR TO USE.
    c) FLY ASH SHALL NOT COMPOSE MORE THAN 15% OF THE CEMENTITIOUS MATERIAL
    d) SILICA FUME SHALL NOT COMPOSE MORE THAN 10% OF THE CEMENTITIOUS MATERIAL
06. CONCRETE ADMIXTURES SHALL CONFORM WITH ASTM C494, C1017, C260, OR C1582
07. CONCRETE SHALL BE CONTINUOUSLY CURED FOR 10 DAYS AFTER PLACEMENT USING AN APPROVED MANNER (CURING COMPOUND, CURING PAPER, ETC.) NOTE: FOOTINGS ARE EXEMPTED FROM THIS REQUIREMENT.
08. OUTSIDE DIAMETER OF CONDUITS OR PIPES EMBEDDED WITHIN SLAB SHALL NOT EXCEED 30% OF SLAB THICKNESS AND SHALL BE SPACED AT LEAST (4) DIAMETERS APART, UNLESS SPECIFICALLY DETAILED OTHERWISE.
09. VERIFY ALL CONCRETE WORK DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO POURING CONCRETE.
11. CONCRETE BATCH PLANT INSPECTION SHALL OCCUR ON A PERIODIC BASIS, SUBJECT TO THE FOLLOWING REQUIREMENT (PER CBC 1705A.3.3.1):
    a) DSA INSPECTOR SHALL CHECK FIRST BATCH AT START OF THE DAY TO VERIFY MATERIALS AND PROPORTIONS CONFORM TO APPROVDED MIX DESIGN.
    b) LICENSED WEIGHMASTER SHALL POSITIVELY IDENTIFY QUANTITY OF MATERIALS AND CERTIFY EACH LOAD BY A BATCH TICKET.
    c) BATCH TICKETS SHALL ACCOMPANY LOAD, AND BE TRANSMITTED TO I.O.R. WITH LOAD IDENTIFIED THEREON.
    d) LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET.
    e) I.O.R. SHALL MAINTIAN DAILY RECORD OF BATCH TICKETS PER DSA REQUIREMENTS.

REINFORCING STEEL

01. ALL REINFORCING STEEL BARS SHALL CONFORM WITH THE STANDARD SPECIFICATIONS FOR DEFORMED BILLET-STEEL OR CONCRETE REINFORCEMENT, ASTM A615-22, GRADE 60 (MIN. Fy=80 KSI AND MIN. 1.10 RATIO OF ACTUAL TENSILE STRENGTH OVER ACTUAL YIELD STRENGTH) OR ASTM A706-22a WITH SUPPLEMENTARY REQUIREMENT S1, GRADE 60.
02. ASTM A706 REBAR SHALL BE USED IN ALL CONCRETE SHEARWALL CONSTRUCTION AND IN ALL INSTANCES WHERE REBAR IS REQUIRED TO BE WELDED.
03. WIRE MESH SHALL CONFORM WITH ASTM A1064
04. SUITABLE DEVICES OF STANDARD MANUFACTURE SHALL BE USED TO HOLD REINFORCEMENT IN ITS TRUE HORIZONTAL AND VERTICAL POSITIONS. THESE DEVICES SHALL BE SUFFICIENTLY RIGID AND NUMEROUS TO PREVENT DISPLACEMENT OF THE REINFORCING BARS DURING PLACEMENT OF CONCRETE.
05. LAP SPLICE ALL BARS WITH CLASS B SPLICE U.O.N. PROVIDE MIN. 1½" CLR. BETWEEN NON-SPLICED PARALLEL BARS.
06. MAINTAIN COVERAGE TO THE FACE OF BARS AS FOLLOWS U.O.N.:
    a) 3" WHERE CONCRETE IS DEPOSITED AGAINST EARTH EXCEPT SLAB-ON-GRADE
    b) 2" WHERE CONCRETE IS EXPOSED TO EARTH BUT FORMED
    c) 1-1/2" FOR BEAMS, COLUMNS AND EXTERIOR SURFACES
    d) 3/4" FOR INTERIOR SLABS, JOISTS AND WALLS
07. ALL SLABS ON GRADE SHALL HAVE CONTROL JOINTS AT APPROXIMATELY 15'-0" O.C. EACH WAY, U.O.N.
08. POUR SLABS OR WALLS WITH SHORT DIMENSION NOT EXCEEDING 60'-0". CONSTRUCTION JOINTS SHALL BE PROVIDED PER DETAILS PROVIDED.
09. REINFORCING STEEL IN CONTINUOUS BEAMS, GRADE BEAMS, AND SPANDRELS SHALL HAVE TOP STEEL SPLICED AT THE MIDSPAN, AND THE BOTTOM STEEL SPLICED OVER SUPPORTS (30 BAR DIAMETER SPLICE MINIMUM). AT DISCONTINUOUS ENDS, THE TOP STEEL SHALL BE BENT DOWN 12-DIAMETER OR 12" MINIMUM, WHICHEVER IS GREATER.

FRAMING LUMBER / ROUGH CARPENTRY

01. PLACE ALL LUMBER WITH THE CROWN UP.
02. ALL FRAMING LUMBER SHALL BE GRADED PER WCLIB GRADING RULES NO. 16 WITH A MAXIMUM MOISTURE CONTENT OF 19% AT THE TIME OF INSTALLATION.
03. ALL STUDS, POSTS AND BEAMS SHALL BE DOUGLAS FIR/LARCH, #1 OR BETTER.
04. ALL FLOOR, CEILING AND ROOF JOISTS OR RAFTERS SHALL BE DOUGLAS FIR/LARCH, #1 OR BETTER.
05. ALL BLOCKING, PLATES, AND OTHER MISC. FRAMING SHALL BE DOUGLAS FIR/LARCH, #2 OR BETTER.
06. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS U.O.N.
07. BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2x DOUGLAS FIR/LARCH, #2 OR BETTER SOLID BLOCKING.
08. BLOCK AND BRIDGE ROOF JOISTS AT 10'-0" AND FLOOR JOISTS AT 8'-0" U.O.N.
09. ALL FRAMING LUMBER EXPOSED TO WEATHER SHALL BE PRESSURE-TREATED DOUGLAS FIR U.O.N.
10. ALL TIMBER PLACED AGAINST BRICK, MASONRY, OR CONCRETE CONSTRUCTION SHALL BE PRESSURE-TREATED.
11. SILLS SHALL BE FASTENED TO CONCRETE WITH A MINIMUM OF (2) FASTENERS PER PIECE, AND WITH A MAXIMUM END DISTANCE OF 12".
12. SILL PLATES ANCHORED TO CONCRETE SHALL BE ANCHORED IN THE MIDDLE OF THE SILL PLATE. PROVIDE MIN. 3"x3"x0.229" PLATE WASHERS, EXTENDING WITHIN 1/2" OF SHEARWALL SHEATHING - AS OCCURS (PLATES MAY BE SLOTTED TO FACILITATE PLACEMENT), FOR ALL BOLTS IN BEARING CONTACT WITH SILL PLATES. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GR. 36, U.O.N.
13. ALL EXTERIOR DECKING SHALL BE REDWOOD SELECT, PRESSURE-TREATED DOUGLAS FIR, OR MANUFACTURED DECKING, PER ARCHITECTURAL SPECIFICATIONS.
14. ALL CONSTRUCTION SHALL COMPLY WITH THE STANDARDS OF QUALITY REQUIREMENTS IN SECTION 2303 OF THE 2022 CBC.
15. CONVENTIONAL CONSTRUCTION PROVISIONS NOT SPECIFICALLY DETAILED ON THE PLANS SHALL BE IN COMPLIANCE WITH SECTION 2308 OF THE 2022 CBC.
16. FOR NAILING SCHEDULE, SEE TABLE 2304.10.2 OF THE 2022 CBC. 16d VINYL-COATED SINKERS MAY BE SUBSTITUTED FOR 10d BOX OR COMMON NAILS FOR ROUGH FRAMING. SINKER NAILS SHALL NOT BE USED WITH METAL CONNECTORS.
17. ALL FASTENERS (INCLUDING WASHERS, NUTS, AND PRE-FABRICATED COMPONENTS) IN CONTACT WITH PRESERVATIVE-TREATED LUMBER, FIRE-RETARDANT TREATED LUMBER, USED FOR THE ATTACHMENT OF EXTERIOR WALL COVERINGS, OR PERMANENTLY EXPOSED TO WEATHER SHALL BE HOT-DIPPED, ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL OR SILICON BRONZE IN ACCORDANCE WITH SECTION 2304.10.2.1 AND 2304.10.6 OF THE 2022 CBC.
18. ALL TIMBER FASTENERS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE 'SIMPSON' STANDARD FASTENERS OR APPROVED EQUAL.
19. BOLT HOLES SHALL BE BORED NO MORE THAN 1/8" LARGER THAN THE DIAMETER OF THE BOLT.
20. RE-TIGHTEN ALL BOLTS PRIOR TO CLOSING IN WALLS.
21. LAG SCREW INSTALLATION (INCL. LEAD HOLE REQ'S) SHALL CONFORM TO AWC NDS-2018 12.1.4

ENGINEERED LUMBER

01. ENGINEERED LUMBER - DESIGNATED: MICROLAM (LVL), PARALLAM (PSL), OR TIMBERSTRAND (LSL) - SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN STRESSES:

    LVL (2.0E):
    Fb = 2900 PSI
    Fc = 750 PSI
    Fv = 285 PSI
    E = 2,000 KSI

    PSL (2.0E):
    Fb = 2900 PSI
    Fc = 625 PSI
    Fv = 285 PSI
    E = 2,000 KSI

    LSL (1.55E):
    Fb = 2100 PSI
    Fc = 850 PSI [PERP]
    Fv = 285 PSI
    E = 1,550 KSI
02. ALL ENGINEERED LUMBER SHALL BE MANUFACTURED BY REDBUILT, WEYERHAUSER, LOUISIANA-PACIFIC OR APPROVED EQUIVALENT WITH VALUES GREATER THAN OR EQUAL TO THOSE LISTED ABOVE.
03. ALL PSL AND LSL BEAMS SHALL BE SOLID, DIMENSIONS AS SHOWN. ALL LVL BEAMS SHALL BE COMPRISED OF LAMINATED PLIES TO MEET THE DIMENSIONS AS SHOWN, FASTENED PER MANUFACTURER'S SPECIFICATIONS OR TYPICAL DETAILS. THE CONTRACTOR MAY USE A SOLID LVL OR PSL BEAM WITH DIMENSIONS SHOWN IN LIEU OF LAMINATED PLIES.
04. ALL GLUE-LAMINATED (GLU-LAM) BEAMS SHALL BE MANUFACTURED TO THE FOLLOWING SPECIFICATIONS:
    - ALL LAMINATIONS SHALL BE DOUGLAS FIR (NO MIXED SPECIES ALLOWED)
    - FINAL SECTION SHALL CONFORM TO 24F-V8 (CANTILEVERED, MULTI-SPAN, OR OVERHANGING BEAMS) OR 24F-V4 (SIMPLE SPAN BEAMS)
    - GLULAMS SHALL CONFORM TO ANSI/AITC A190.1 STANDARDS

WOOD STRUCTURAL PANELS

01. ALL WOOD STRUCTURAL PANELS SHALL BE MARKED WITH THE APPROPRIATE TRADEMARK OF THE APA AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF VOLUNTARY PRODUCT STANDARDS PS1 OR PS2 OR APA PRP-108 PERFORMANCE STANDARDS. PANEL THICKNESS, GRADE AND GROUP NUMBER OR SPAN RATING SHALL GREATER THAN OR EQUAL TO THAT SHOWN ON PLANS. APPLICATION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE APA.
02. WOOD STRUCTURAL PANEL SHEETS SHALL AT FLOORS AND ROOFS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND RAFTERS, U.O.N.
03. WOOD STRUCTURAL PANEL SHEETS ON WALLS SHALL BE PLACED WITH LONG DIMENSION VERTICAL, BLOCK ALL EDGES.
04. MINIMUM DIMENSION OF PANELS ON WALLS SHALL BE 16"; MINIMUM DIMENSION OF PANELS ON FLOORS OR ROOF SHALL BE 24"
05. TYPICAL ROOF SHEATHING SHALL BE 1/2" APA STRUCT. 1 WITH A MINIMUM SPAN RATING 32/16, EXPOSURE 1 U.O.N. FASTEN TO FRAMING WITH 10d NAILS AT 6" O.C. AT PANEL EDGES AND 10d NAILS AT 12" O.C. IN THE FIELD, U.O.N.
07. TYPICAL WALL SHEATHING SHALL BE ½" APA STRUCTURAL 1 WITH A MINIMUM SPAN RATING OF 24/0, U.O.N. (SEE ALSO, SHEARWALL SCHEDULE). FASTEN TO LT. GAGE STUDS WITH MIN. #8 SCREWS AT 6" O.C. AT PANEL EDGES AND #8 SCREWS AT 12" O.C. IN THE FIELD, U.O.N. (SCREWS SHALL NOT HAVE WINGS). FASTEN TO WOOD STUDS WITH 10d AT 6" O.C. AT PANEL EDGES AND 10d AT 12" O.C. IN THE FIELD, U.O.N.
08. ALL PLYWOOD FACE PLIES SHALL BE GROUP 1 (STRUCT 1 OR CDX) OR GROUP 2 (CDX ONLY), AS DEFINED BY APA PLYWOOD SPECIFICATION, TABLE 1.5

ROD AND REBAR EPOXY

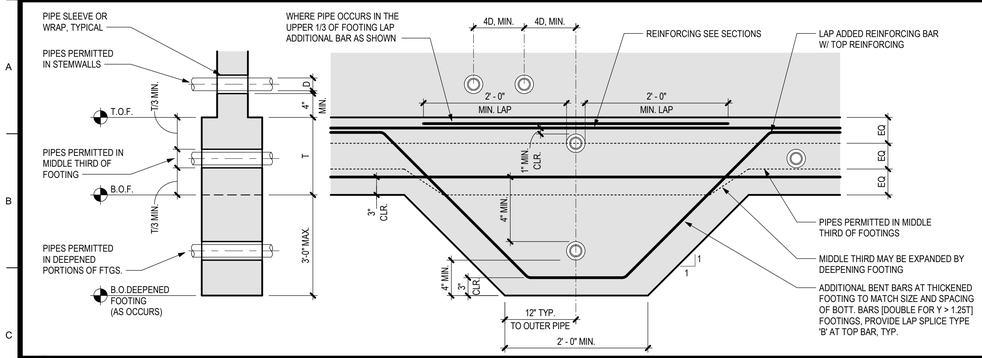
01. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS AND APPLICABLE SECTIONS OF THE APPROPRIATE ESR REPORTS
02. DRILL HOLES WITH ROTARY DRILL (NO IMPACT TOOLS ALLOWED) TO DEPTHS CALLED ON PLANS. HOLE DIAMETER FOR INSTALLATION IN CONCRETE OR GROUTED CMU SHALL BE 1/8" LARGER THAN THE ROD OR BAR DIAMETER, U.O.N. HOLE DIAMETER.
03. DO NOT DRILL THROUGH EXISTING REBAR. IN THE EVENT THAT EXISTING REBAR IS ENCOUNTERED, DRILL NEW HOLE NEARBY AND DRYPACK THE ABANDONED HOLE. CONTRACTOR SHALL LOCATE REBAR PRIOR TO DRILLING HOLES IN COLUMNS AND BEAMS.
04. BRUSH ALL HOLES WITH A CIRCULAR WIRE BRUSH ATTACHED TO A ROTARY DRILL AND BLOW OUT HOLE WITH OIL-FREE COMPRESSED AIR.
05. POUR A MEASURED AMOUNT OF EPOXY INTO THE HOLE AND INSERT THE BAR, DISPLACING THE EPOXY, THEN SECURE THE BAR IN THE CENTER OF THE HOLE. REMOVE EXCESS EPOXY FROM AROUND THE HOLE BEFORE IT HARDENS. EPOXY SHALL FILL HOLE TO THE RIM.
06. EPOXY FOR ANCHORING BOLTS, RODS AND REINFORCING BARS SHALL BE SIMPSON SET-3G (ICC ESR 4057) OR EQUAL FOR CONCRETE, U.O.N.
07. ALL EPOXY ANCHOR INSTALLATIONS SHALL HAVE SPECIAL INSPECTION OF A MINIMUM 25% OF ALL ANCHORS WITH A MINIMUM OF 25% OF ALTERNATING ANCHORS WITHIN A GROUP FOR EPOXIED RODS SUBJECT ONLY TO SHEAR. FOR SILL PLATE ANCHORS, TEST 10% OF ALL ANCHORS. FOR ALL OTHER APPLICATIONS, TEST 100% OF THE ANCHORS IN ACCORDANCE WITH 1910A.5

STRUCTURAL STEEL

01. ALL STEEL CONSTRUCTION SHALL BE COMPLETED IN CONFORMANCE WITH THE ANSI/AISC 360 SPECIFICATIONS.
02. ALL WELDING SHALL BE COMPLETED IN CONFORMANCE WITH AWS SPECIFICATIONS WITH E70-SERIES ELECTRODE.
03. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MATERIAL SPECIFICATIONS:
    -(W) WIDE-FLANGE BEAMS: A992 GR. 50
    -(HSS) HOLLOW STRUCTURAL SECTIONS: A500 GR. C
    -(PIPE) STANDARD, X-STRONG, XX-STRONG PIPE: A53 GR. B
    -(PL) PLATES AND BARS: A529 OR A572 GR. 50 (MOMENT CONNECTIONS) OR A36 (ALL OTHER APPLICATIONS)
    -ALL OTHER SHAPES: A36 (GR. 36)
04. STRUCTURAL BOLTS FOR WOOD CONNECTIONS SHALL CONFORM TO ASTM A307, U.O.N.
05. STRUCTURAL BOLTS FOR STEEL-TO-STEEL CONNECTIONS SHALL BE SNUG TIGHT AND CONFORM TO ASTM F3125 GR. A325 N, U.O.N.
06. ALL BOLT HOLES SHALL BE MAX 1/16" OVERSIZED.
07. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GR. 36, U.O.N.
08. STEEL CONNECTED TO OR SUPPORTING WOOD FRAMING SHALL HAVE 5/8" DIAMETER THREADED STUDS AT 24" O.C., WELDED TO STEEL WITH 3/16" FILLET WELD (ALL AROUND) U.O.N.
09. ALL STEEL EXPOSED TO WEATHER SHALL BE GALVANIZED.

METAL DECK

01. ALL METAL DECKING SHALL BE GALVANIZED AND CONFORM TO ASTM A653, SS GR. 40 MIN AND REQUIREMENTS CONTAINED IN AISI 100. ZINC COATING SHALL CONFORM TO ASTM A653.
02. METAL DECK SHALL BE CONNECTED WITH WELDS CONFORMING TO AWS

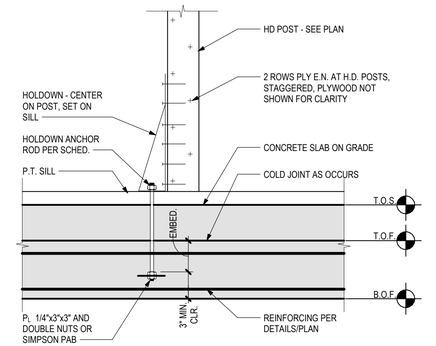


NOTES:
1. PROVIDE PIPE SLEEVE W/ MIN. 1" CLEARANCE (ALL AROUND) TO PIPE. CAULK W/ PLASTIC MATERIAL.
2. IF PIPE IS IN PLACE PRIOR TO CONCRETE POUR, WRAP W/ PIPE INSULATION IN LIEU OF SLEEVE.
3. FOR PIPES GREATER THAN 2' - 8" BELOW BOTTOM OF FOOTING, DOUBLE WRAP WITH PIPE INSULATION (OR USE 2" CLR. PIPE SLEEVE), AND BACKFILL AREA DIRECTLY UNDER, AND WITHIN 1' - 0" EACH SIDE OF FOUNDATION WITH LEAN CONCRETE (3 SACK) MIX. ALLOW LEAN CONCRETE TO CURE TO A MINIMUM OF 500PSI PRIOR TO POURING FOUNDATIONS.
4. PIPES SHALL NOT PENETRATE FOOTING/STEM WITHIN THE GREATER OF (12" OR HD ANCHOR EMBED) OF HD LOCATIONS.
5. PIPES SHALL NOT PENETRATE FOOTING/STEM WITHIN 18" OF EXCEEDING (2) STUD CONFIGURATIONS, PSL COLUMNS, OR WOOD COLUMNS EXCEEDING 4x6 NOM.
6. NO MORE THAN (2) PIPES SHALL OCCUR WITHIN 48" OF CONDITIONS LISTED IN NOTES 4 OR 5.
7. FOOTING MAY BE DEEPENED TO ALIGN PIPE WITHIN MIDDLE THIRD OF MODIFIED CROSS SECTION.

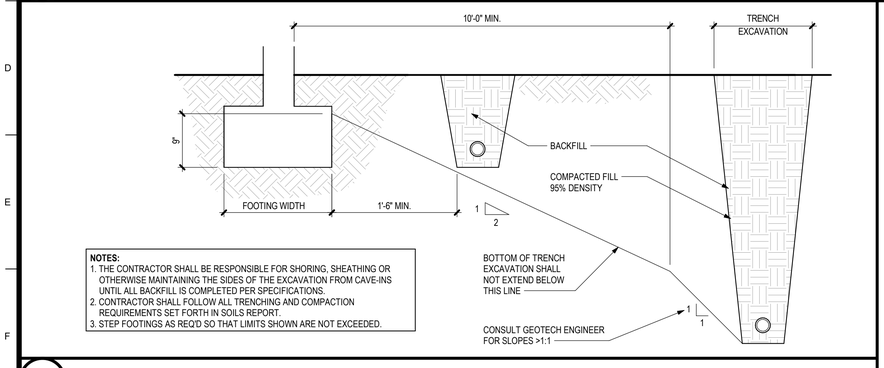
8 PIPE PENETRATION THROUGH FOOTING/STEMWALL
SCALE: 1" = 1'-0"

HOLDOWN SCHEDULE SIMPSON)				
TYPE	ANCHOR DIA.	ANCHOR EMBED. NEW	ANCHOR EMBED. EXISTING	REQUIRED FNDN. WIDTH
HDU 2	5/8	8"	N/A	12"
HDU 4	5/8	9"	N/A	12"

NOTES:
1. CONCRETE FOUNDATION STRENGTH SHALL BE 4000 PSI MIN.
2. ANCHOR BOLTS SHALL BE F1554 GR 36 U. O. N.
3. INSTALL H.D. AND A.B. PER MANUFACTURER'S INSTRUCTIONS.
4. ANCHOR BOLT NUT SHALL BE FINGER TIGHT PLUS 1/3 TO 1/2 TURN WITH HAND WRENCH.
5. H.D. AND A.B.'S ARE IN ADDITION TO (NOT IN PLACE OF) SILL ANCHORS.
6. DEEPEN FOOTING AS REQUIRED AT H.D. LOCATIONS - TYPICAL. SEE 8/S0.2 FOR DEEPENED FTG. OR 10/S0.2 FOR STEPPED FOOTING DETAIL.
7. ANCHORS INSTALLED IN (N) CONC. SHALL BE HEAVY HEX BOLTS OR 'SIMPSON' PAB5-24 (NO CURB) OR PAB5-30 (CURB) AS NOTED.
8. ANCHORS INSTALLED IN (E) CONC. SHALL BE F1554 GR. 36 W/ "SIMPSON" SET-3G EPOXY PER MANUFACTURER INSTRUCTIONS AND ESR4057.
9. (2) 2x HD POSTS SHALL BE FASTENED TOGETHER W/ (2) 16d @ 12" O.C. STAGGERED, AS REQUIRED.

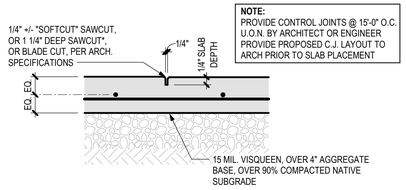


1 HOLDOWN SCHEDULE - WOOD STUDS
SCALE: 1 1/2" = 1'-0"



NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING, SHEATHING OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVE-INS UNTIL ALL BACKFILL IS COMPLETED PER SPECIFICATIONS.
2. CONTRACTOR SHALL FOLLOW ALL TRENCHING AND COMPACTION REQUIREMENTS SET FORTH IN SOILS REPORT.
3. STEP FOOTINGS AS REQ'D SO THAT LIMITS SHOWN ARE NOT EXCEEDED.

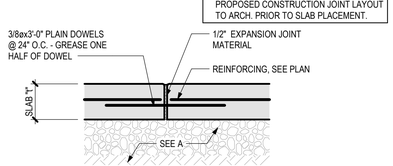
9 EXCAVATION PARALLEL TO FOOTING
SCALE: 1" = 1'-0"



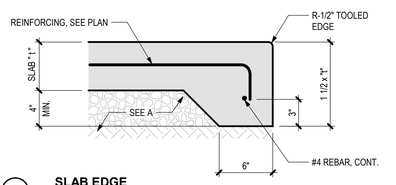
NOTE:
PROVIDE CONTROL JOINTS @ 15'-0" O.C. U.O.N. BY ARCHITECT OR ENGINEER PROVIDE PROPOSED C.J. LAYOUT TO ARCH PRIOR TO SLAB PLACEMENT

A CONTROL JOINTS

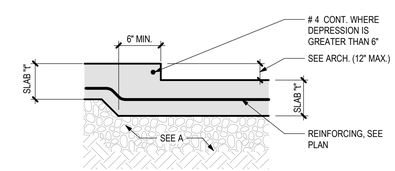
NOTES:
1. EXPANSION JOINT DEPTH TO BE FULL THICKNESS OF SLAB
2. CONSTRUCTION JOINTS SHALL BE PROVIDED FOR POUR WIDTHS EXCEEDING 60'-0" IN THE SHORT DIMENSION. PROVIDE PROPOSED CONSTRUCTION JOINT LAYOUT TO ARCH. PRIOR TO SLAB PLACEMENT.



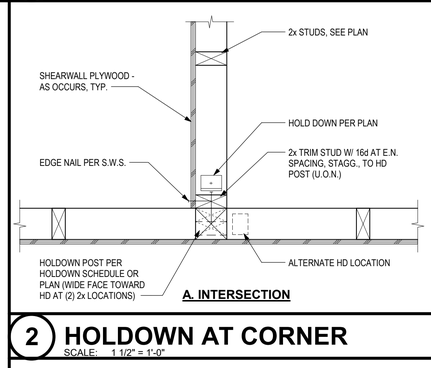
B EXPANSION/CONSTRUCTION JOINTS



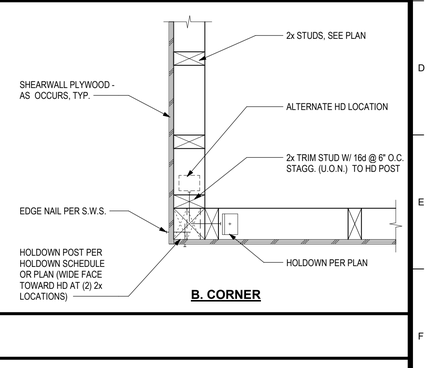
C SLAB EDGE



D SLAB DEPRESSION

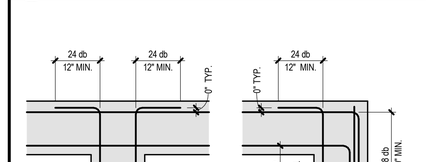


A. INTERSECTION



B. CORNER

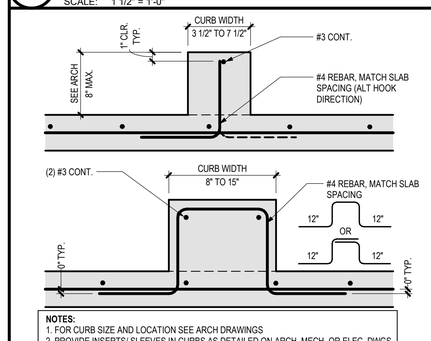
2 HOLDOWN AT CORNER
SCALE: 1 1/2" = 1'-0"



A TEE CONDITION **B CORNER CONDITION**

NOTES:
1. db - BAR DIAMETER
2. PLACE ALL BENDS HORIZONTALLY.
3. FOR SINGLE CURTAIN STEEL PROVIDE BENDS SIMILAR TO OUTER CURTAIN SHOWN AT CENTER LINE OF FOOTING, U.O.N.

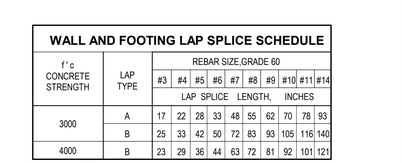
5 REINFORCING HOOKS
SCALE: 1 1/2" = 1'-0"



NOTES:
1. FOR CURB SIZE AND LOCATION SEE ARCH DRAWINGS
2. PROVIDE INSERTS/ SLEEVES IN CURBS AS DETAILED ON ARCH, MECH, OR ELEC. DWGS.
3. SEE ARCHITECTURAL CURB DETAILS FOR FINISH REQUIREMENTS

WALL AND FOOTING LAP SPLICE SCHEDULE											
f ' c CONCRETE STRENGTH	LAP TYPE	REBAR SIZE,GRADE 60									
		#3	#4	#5	#6	#7	#8	#9	#10	#11	#14
		LAP SPLICE LENGTH, INCHES									
3000	A	17	22	28	33	48	55	62	70	78	93
	B	25	33	42	50	72	83	93	105	116	140
4000	B	23	29	36	44	63	72	81	92	101	121

TYPE: A (STAGGERED LAPS)

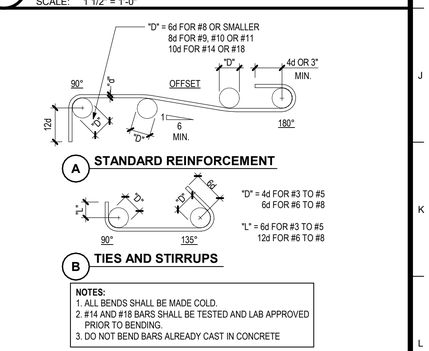


NOTES:
1.TYPE 'A' LAP SPLICES SHALL HAVE STAGGERED LAPS AS SHOWN
2. ALL OTHER LAP SPLICES SHALL BE TYPE "B"
3. MULTIPLY TABLE LENGTHS BY 1.5 IF EITHER OF THE FOLLOWING ARE TRUE:
   A. CLEAR SPACING OF BARS IS LESS THAN TWICE THE BAR DIAMETER
   B. CLEAR COVER IS LESS THAN ONE BAR DIAMETER
4. FOR EPOXY - COATED BARS, MULTIPLY TABLE LENGTHS BY 1.5
5. FOR GRADE 40 REBAR, MULTIPLY TABLE LENGTHS BY 0.667
6. FOR BARS W/ MORE THAN 12" OF CONCRETE BELOW, MULTIPLY TABLE LENGTHS BY 1.3
7. FOR STANDARD HOOK LENGTHS SEE 4/S0.2.

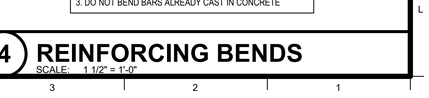
3 REINFORCEMENT LAP SPLICE
SCALE: 1 1/2" = 1'-0"

POST-INSTALLED (CONC.) ANCHOR BOLT PROOF LOADS			
ANCHOR DIA.	ANCHOR TYPE.	TORQUE TEST VALUE	TENSION TEST VALUE
1/4"	EXPANSION	4 FT-LB	N/A
	SCREW	24 FT-LB	N/A
3/8"	EPOXY	N/A	910#
	EXPANSION	30 FT-LB	N/A
	SCREW	50 FT-LB	N/A
	S.S. SCREW	40 FT-LB	N/A
1/2"	EPOXY	N/A	2145#
	EXPANSION	60 FT-LB	N/A
	SCREW	65 FT-LB	N/A
	S.S. SCREW	70 FT-LB	N/A
5/8"	EPOXY	N/A	5645# *
	EXPANSION	90 FT-LB	N/A
	SCREW	100 FT-LB	N/A
	S.S. SCREW	85 FT-LB	N/A
3/4"	EPOXY	N/A	7870#
	EXPANSION	150 FT-LB	N/A
	SCREW	150 FT-LB	N/A
	S.S. SCREW	150 FT-LB	N/A
1"	EPOXY	N/A	#14445
	EXPANSION	230 FT-LB	N/A

NOTES (CONC):
1. "EXPANSION" ANCHORS REFERENCE SIMPSON STRONG- BOLT 2, ESR 3037
2. "SCREW" ANCHORS REFERENCE SIMPSON TITEN HD, ESR 2713
3. "S.S. SCREW" ANCHORS REFERENCE STAINLESS STEEL TITEN HD ANCHORS, ER-493
4. "EPOXY" ANCHORS REFERENCE SIMPSON SET-3G EPOXY SYSTEM, ESR-4057
* TENSION TEST FOR 5/8" DIA. SILL ANCHORS SHALL BE 2000#



A STANDARD REINFORCEMENT



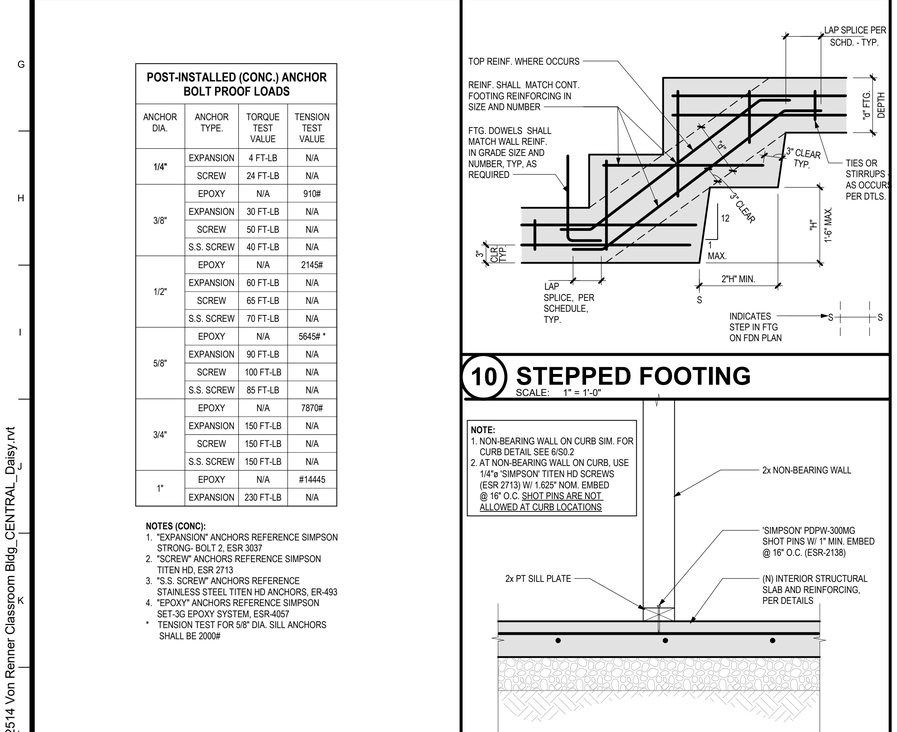
"D" = 4d FOR #3 TO #5
6d FOR #6 TO #8

"L" = 6d FOR #3 TO #5
12d FOR #6 TO #8

B TIES AND STIRRUPS

NOTES:
1. ALL BENDS SHALL BE MADE COLD.
2. #14 AND #18 BARS SHALL BE TESTED AND LAB APPROVED PRIOR TO BENDING.
3. DO NOT BEND BARS ALREADY CAST IN CONCRETE

4 REINFORCING BENDS
SCALE: 1 1/2" = 1'-0"



10 STEPPED FOOTING
SCALE: 1" = 1'-0"

NOTE:
1. NON-BEARING WALL ON CURB SIM. FOR CURB DETAIL SEE 6/S0.2
2. AT NON-BEARING WALL ON CURB, USE 1/4"ø 'SIMPSON' TITEN HD SCREWS (ESR 2713) W/ 1.625" NOM. EMBED @ 16" O.C. SHOT PINS ARE NOT ALLOWED AT CURB LOCATIONS

11 NON-BEARING WALL TO SLAB
SCALE: 1 1/2" = 1'-0"

12 A.B. PROOF LOADS
SCALE: 1 1/2" = 1'-0"

7 TYPICAL SLAB DETAILS
SCALE: 1 1/2" = 1'-0"

6 TYP. CONC. CURB - INTERIOR
SCALE: 1 1/2" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
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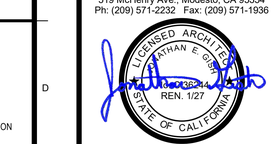

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

TYPICAL CONCRETE DETAILS

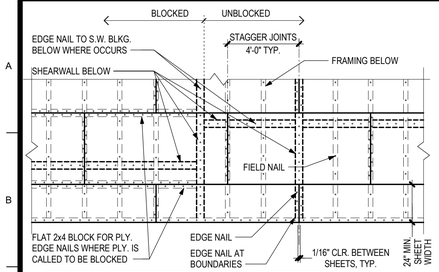
Project Number	2514
Date	June, 2026
Drawn by	SJR
Checked by	AH

S0.2

Plot Date & Time 7/2/2026 2:04:28 PM

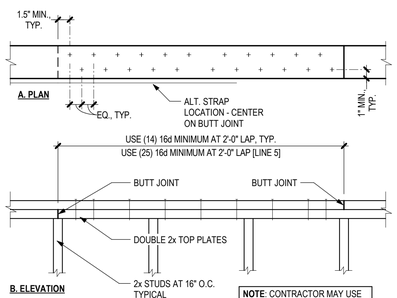
C:\Local-D\2514 Von Renner Classroom Bldg_CENTRAL_Daisy.rvt

13 PLYWOOD DIAPHRAGM PLAN
SCALE: 1" = 1'-0"



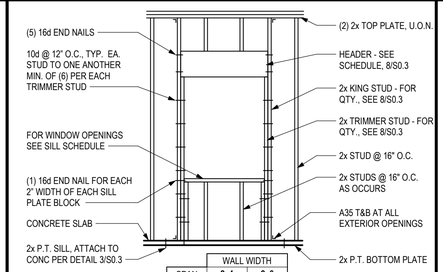
NOTES:
1. GLUE AND NAIL FLOOR PLYWOOD. NAIL COMPLETELY IMMEDIATELY AFTER GLUING.
2. ORIENT PLYWOOD WITH FACE GRAIN PERPENDICULAR TO FRAMING MEMBERS.
3. FLOOR PLYWOOD SHALL BE BLOCKED (W/ BLOCKING AT ALL PANEL EDGES), WHERE SHOWN ON PLANS.
4. SEE PLANS FOR PLYWOOD NAIL SPACING.
5. OSB IS NOT PERMITTED.

10 TYPICAL CHORD SPLICE
SCALE: 1" = 1'-0"



NOTE: CONTRACTOR MAY USE CMST14x60" [LINE A OR 5], OR CS16x26" [ALL OTHER LINES] IN LIEU OF TYP. LAP SPLICE

7 TYP. WOOD STUD FRAMING
SCALE: 3/8" = 1'-0"



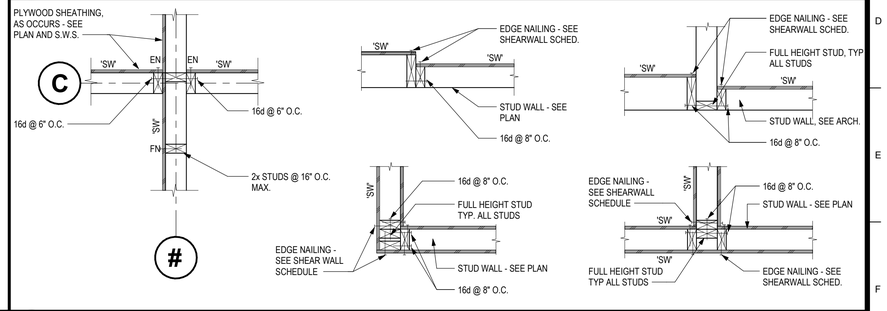
		WALL WIDTH	
	SPAN	2x4	2x6
EXT.	9'-0"	N/A	2x6
	12'-3"	N/A	(2) 2x6
INT.	14'-0"	N/A	2x6
	20'-0"	N/A	(2) 2x6

SILL SCHEDULE

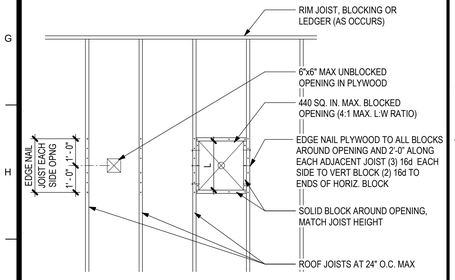
	PLYWOOD (STRUCT 1)	EDGE NAILING	FIELD NAILING	FRAMING AT PLY EDGES	SILL PLATE CONNECTIONS TO CONCRETE	SILL PLATE CONNECTIONS TO WOOD	JOIST TO BLKG. OR TO TOP PLATE OF WALL DF [18,19]
1	15/32" (340 PLF)	10d @ 6" O.C.	10d @ 12" O.C.	2x NOM	5/8"ø AB @ 4'-0" O.C.	1/4" SDS x 4-1/2" @ 16" O.C.	GA2 @ 20" O.C. OR A34 @ 12" O.C.
2	15/32" (510 PLF)	10d @ 4" O.C.	10d @ 12" O.C.	3x NOM	5/8"ø AB @ 2'-10" O.C.	1/4" SDS x 6" @ 12" O.C.	GA2 @ 13.5" O.C. OR A34 @ 9" O.C.
3	15/32" (665 PLF)	10d @ 3" O.C.	10d @ 12" O.C.	3x NOM	5/8"ø AB @ 2'-6" O.C.	1/4" SDS x 6" @ 9" O.C.	GA2 @ 10" O.C. OR A34 @ 7" O.C.
4	15/32" (870 PLF)	10d @ 2" O.C.	10d @ 12" O.C.	3x NOM	5/8"ø AB @ 2'-0" O.C.	1/4" SDS x 6" @ 6" O.C.	GA2 @ 8" O.C. OR A34 @ 5.25" O.C.
5	15/32" (1020 PLF) BOTH SIDES	10d @ 4" O.C.	10d @ 12" O.C.	3x NOM	3/4"ø AB @ 2'-3" O.C.	1/4" SDS x 6" @ 6" O.C.	GA2 @ 6.5" O.C. OR A34 @ 4.5" O.C.
6	15/32" (1330 PLF) BOTH SIDES	10d @ 3" O.C.	10d @ 12" O.C.	3x NOM	3/4"ø AB @ 1'-8" O.C.	1/4" SDS x 6" @ 4" O.C.	GA2 @ 5" O.C. OR A34 @ 3.5" O.C.

SHEARWALL NOTES
1. ALL EXTERIOR WALLS SHALL BE CONSTRUCTED AS SHEARWALL TYPE 'A' U.O.N.
2. (2) 2x, FACE NAILED W/ 10d AT EDGE NAIL SPACING NOTED (STAGGERED), MAY BE USED IN LIEU OF 3x MEMBERS AS NOTED
3. PROVIDE 1/16" GAP BETWEEN ADJOINING PANEL EDGES
4. SHEARWALLS MAY BE CONSTRUCTED OUT OF PLYWOOD 5/32" THICKER THAN TABLE SPECIFICATION. FOR 5/8" PLY, USE 10d NAILS AS NOTED ABOVE.
5. STAGGER (2) 2x TOP PLATE NAILING TO ENGAGE EACH PLATE, TYP.
6. ALL NAILS SPECIFIED SHALL BE COMMON NAILS. NAIL GUNS USING 'CLIPPED HEAD' OR 'SINKER NAILS' ARE NOT ACCEPTABLE.
7. FOUNDATION A.B. IN ALL SHEAR WALLS SHALL HAVE MIN. 3"x3"x0.229" BEARING PLATES UNDER EACH NUT. PLATES SHALL EXTEND TO WITHIN 1/2" OF SHEAR PLY. (PROVIDE LARGER DIAGONALLY SLOTTED BEARING PLATES AS REQ'D TO MEET 1/2" REQMENT) NUTS SHALL BE TIGHTENED JUST PRIOR TO CLOSING WALL FRAMING.
8. A.B. HOLES DRILLED IN SOLE PLATE SHALL BE NO LARGER THAN 1/8" LARGER THAN DIAMETER OF THE BOLT.
9. SILL PLATES IN CONTACT WITH CONCRETE SHALL BE PT DOUGLAS FIR #2 OR BETTER. USE GALV. A.B. AND NAILS IN ALL PT LUMBER.
10. STANDARD A.B. AND EPOXIED A.B. EMBEDMENT INTO CONCRETE SHALL BE 7" MIN.
11. ALL WOOD SHEATHING PANEL EDGES SHALL BE BLOCKED WITH BLOCKING SIZE PER CHART ABOVE.
12. PROVIDE 3/8" MIN. EDGE DISTANCES FOR ALL SHEATHING AND FRAMING MEMBER EDGE NAILING.
13. STAGGER EDGES OF SHEARWALLS APPLIED TO BOTH FACES.
14. STUCCO AND/OR EXTERIOR VENEER OVER A WOOD STRUCTURAL PANEL SHEARWALL SHALL BE WATERPROOFED WITH A MINIMUM OF 2 LAYERS OF FELT PAPER.
15. THE SHEAR WALL LENGTH NOTED ON THE FLOOR PLANS INDICATES THE MINIMUM REQ'D LENGTH AS DETERMINED BY ENGINEERING DESIGN. THE ACTUAL WALL LENGTH MAY EXCEED THIS LENGTH. NOTIFY ARCHITECT/ENGINEER IF WALL LENGTH IS SHORTER THAN NOTED.
16. NAILS ARE TO BE DRIVEN FLUSH TO THE SHEATHING. ADD (1) ADDITIONAL NAIL FOR EVERY (2) OVERDRIVEN NAILS IF MORE THAN 20% OF NAILS ARE 1/16" OVERDRIVEN OR IF ANY NAILS ARE 1/8" OVERDRIVEN. IF SPLITTING CONDITION OCCURS OR IF ADDING NAILS WILL DECREASE SPACING TO 3" O.C. OR LESS, ADD ANOTHER STUD TO RECEIVE END NAILING FOR EACH PLYWOOD EDGE AND CONNECT STUDS WITH 10d NAILS @ 6" O.C. (STAGG.).
17. ALLOWABLE CAPABILITY FOR WIND COMBINATIONS MAY BE INCREASED BY 40% PER NDS SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC SECTION 4.1.4.
18. ATTACH GA2 CLIPS TO WOOD MEMBERS W/ (6) #9x1 1/2" SD FASTENERS.
19. ATTACH A34 CLIPS TO WOOD MEMBERS W/ (8) 0.131"x1 1/2" NAILS.

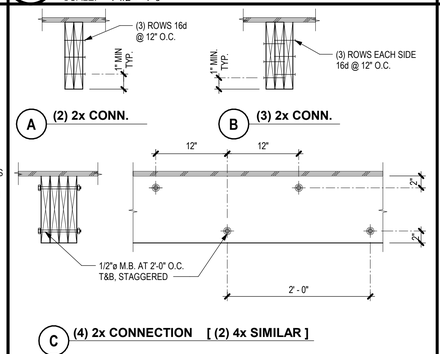
1 SHEARWALL SCHEDULE (1/2" STRUCT 1) - WOOD STUDS
SCALE: 3" = 1'-0"



14 NOTCH SCHEDULE - WOOD
SCALE: 1" = 1'-0"



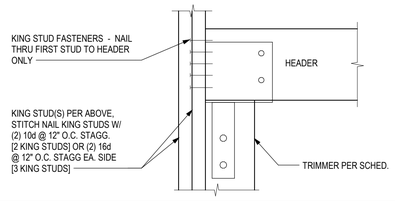
11 SOFFIT/CLG. TO 2x WALL
SCALE: 1 1/2" = 1'-0"



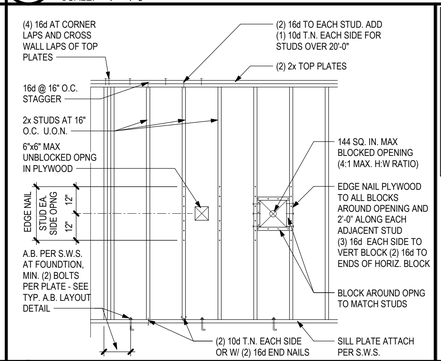
8 WOOD HEADER SCHEDULE
SCALE: 1 1/2" = 1'-0"

	ROUGH OPENING	HEADER SIZE (MIN. U.O.N.) 6" NOM WALL	HEADER SIZE (MIN. U.O.N.) POSTCAP	KING STUDS AT EA. END	KING FASTENERS	TRIMMER SIZE
BEARING (ROOF)	TO 12'-3"	6x12 DF/L S.S.	EPC6Z	THREE	(8) 16d	4x6
	TO 12'-3"	5-1/4x11-7/8" LVL	EPC6Z	THREE	(8) 16d	4x6

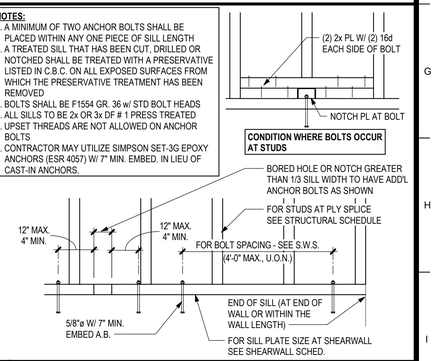
NOTES:
1. TRIMMERS SHALL BE CONTINUOUS FROM BOTTOM OF HEADER TO THE TOP OF THE SILL PLATE BELOW
2. FOR HEADERS < 10'-0" LONG - SEE 8/S0.3



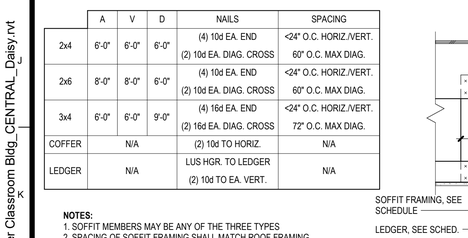
2 S.W. CONSTRUCTION - PLAN VIEW
SCALE: 1" = 1'-0"



NOTES:
1. A MINIMUM OF TWO ANCHOR BOLTS SHALL BE PLACED WITHIN ANY ONE PIECE OF SILL LENGTH
2. A TREATED SILL THAT HAS BEEN CUT, DRILLED OR NOTCHED SHALL BE TREATED WITH A PRESERVATIVE LISTED IN C.B.C. ON ALL EXPOSED SURFACES FROM WHICH THE PRESERVATIVE TREATMENT HAS BEEN REMOVED
3. BOLTS SHALL BE F1554 GR. 36 w/ STD BOLT HEADS
4. ALL SILLS TO BE 2x OR 3x DF # 1 PRESS TREATED
5. UPSET THREADS ARE NOT ALLOWED ON ANCHOR BOLTS
6. CONTRACTOR MAY UTILIZE SIMPSON SET-3G EPOXY ANCHORS (ESR 4057) W/ 7" MIN. EMBED. IN LIEU OF CAST-IN ANCHORS.



15 MINOR OPG @ RF DIAPHRAGM
SCALE: 3/8" = 1'-0"



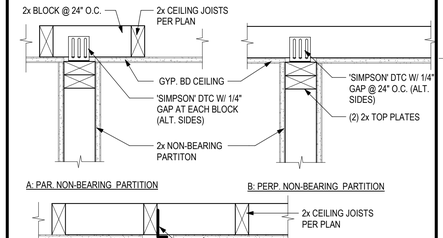
NOTES:
1. NO NOTCHING IS PERMITTED ON THE BOTTOM OF BEAM NOR NEAR INTERIOR SUPPORT OF MULTI-SPAN BEAM, UNLESS SPECIFICALLY NOTED/DETAILED OTHERWISE IN THESE PLANS.
2. NO HOLES OR NOTCHES IN GLULAM BEAMS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
3. AT FABRICATED FLOOR JOIST(TJI), SEE MANUFACTURER'S INSTRUCTIONS FOR ALLOWABLE HOLES IN WEBS. DO NOT CUT FLANGES
4. IF CONDITIONS ARE NOT MET ON STUDS, ADD NEW STUD NEXT TO (E) STUD AND NAIL TOGETHER WITH 10d @ 6" O.C.

12 BUILT-UP BM. CONNECTIONS
SCALE: 1" = 1'-0"

CEILING JOIST SCHEDULE		
SPAN	JOIST	NOTES
TO 10'-0"	2x6 @ 24" O.C.	AS DETAILED
TO 14'-0"	2x8 @ 24" O.C.	PROVIDE MID-SPAN BLOCKING; (3) 16d, LEDGER TO EACH STUD
TO 19'-0"	2x12 @ 24" O.C.	PROVIDE THIRD POINT BLOCKING; (4) 16d, LEDGER TO EA. STUD

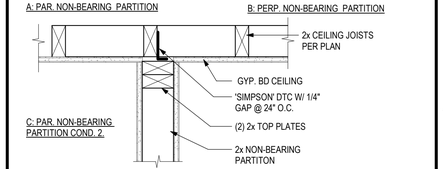
9 LONG SPAN HDR. CONNS.
SCALE: 1 1/2" = 1'-0"

5 MINOR OPENINGS IN S.W.
SCALE: 3/8" = 1'-0"



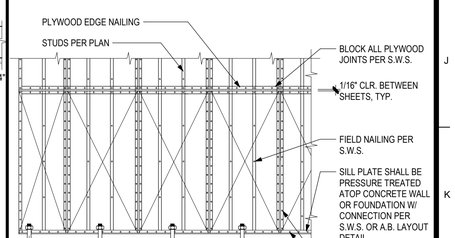
A: PAR. NON-BEARING PARTITION

B: PERP. NON-BEARING PARTITION



C: PAR. NON-BEARING PARTITION COND. 2.

3 TYP. A.B. PLACEMENT
SCALE: 1/2" = 1'-0"

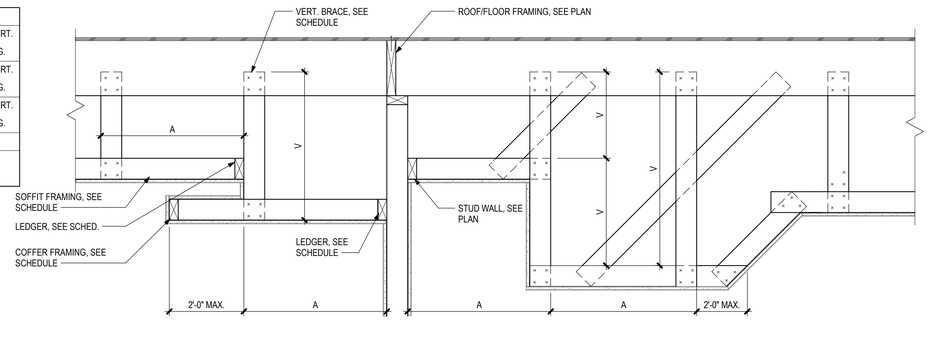


NOTE: PLYWOOD PANELS SHALL NOT BE LESS THAN 16" IN WIDTH

16 SOFFIT FRAMING
SCALE: 1" = 1'-0"

	A	V	D	NAILS	SPACING
2x4	6'-0"	6'-0"	6'-0"	(4) 10d EA. END (2) 10d EA. DIAG. CROSS	<24" O.C. HORIZ./VERT. 60" O.C. MAX DIAG.
2x6	8'-0"	8'-0"	6'-0"	(4) 10d EA. END (2) 10d EA. DIAG. CROSS	<24" O.C. HORIZ./VERT. 60" O.C. MAX DIAG.
3x4	6'-0"	6'-0"	9'-0"	(4) 16d EA. END (2) 16d EA. DIAG. CROSS	<24" O.C. HORIZ./VERT. 72" O.C. MAX DIAG.
COFFER	N/A			(2) 10d TO HORIZ.	N/A
LEDGER	N/A			LUS HGR. TO LEDGER (2) 10d TO EA. VERT.	N/A

NOTES:
1. SOFFIT MEMBERS MAY BE ANY OF THE THREE TYPES
2. SPACING OF SOFFIT FRAMING SHALL MATCH ROOF FRAMING MEMBERS, UP TO 24" O.C. MAX. FOR MEMBERS WITH GREATER SPACING, SEE SPECIFIC PROJECT DETAILS.
3. LEDGER CONNECTION MAY BE USED IN LIEU OF OVERLAPPED CONNECTION BETWEEN VERTICAL AND HORIZONTAL MEMBERS SO LONG AS TOTAL LENGTH OF VERTICAL MEMBER 'V' DOES NOT EXCEED LIMITS ABOVE.
4. PROVIDE IN-PLANE DIAGONALS



6 NON-BEARING WALL CONN.
SCALE: 1 1/2" = 1'-0"

4 S.W. PLYWOOD FRAMING
SCALE: 1" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
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LICENSED ARCHITECT JONATHAN E. GIACOMAZZI C-30824 REN. 1/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

TYPICAL WOOD DETAILS

Project Number	2514
Date	June, 2026
Drawn by	SJR
Checked by	AH

S0.3

Plot Date & Time 7/2/2026 2:04:32 PM

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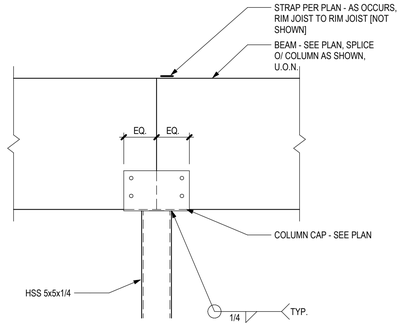
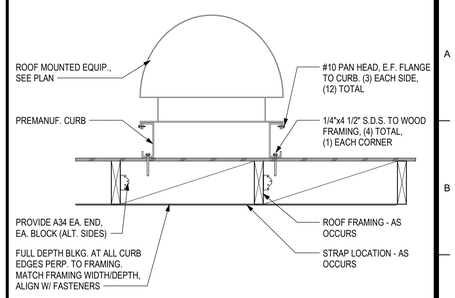


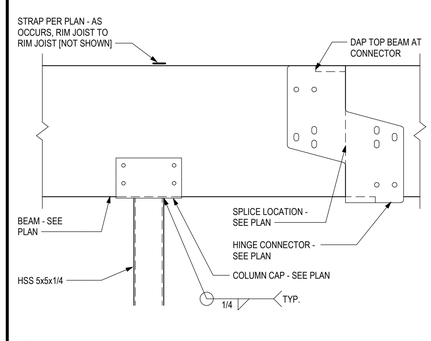
5 TYP. BEAM SPLICE AT POST

SCALE: 1" = 1'-0"



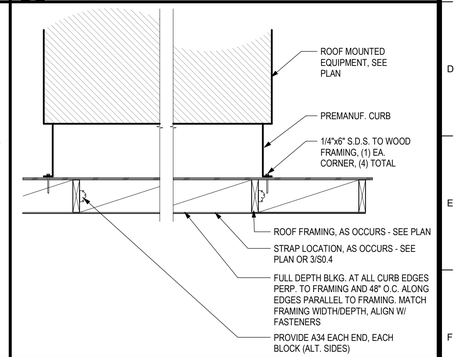
1 SMALL ROOF MOUNT HVAC

SCALE: 1" = 1'-0"



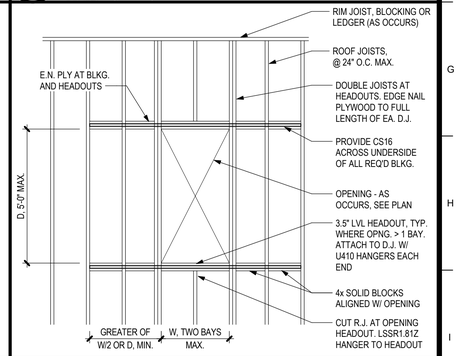
6 TYPICAL HINGE SPLICE

SCALE: 1" = 1'-0"



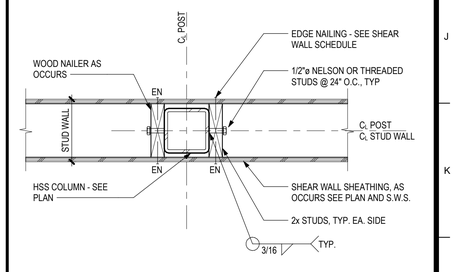
2 ROOF MOUNT HVAC

SCALE: 3/4" = 1'-0"



3 ROOF OPNG UP TO 48"x 60"

SCALE: 3/8" = 1'-0"



4 STEEL POST AT WOOD WALL

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

C:\Local-D\2514 Von Renner Classroom Bldg_CENTRAL_Daisy.rvt

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
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TPH architects
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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

ADDITIONAL TYPICAL DETAILS

Project Number	2514
Date	June, 2026
Drawn by	SJR
Checked by	AH

S0.4

Plot Date & Time 7/2/2026 2:04:33 PM

TABLE 2304.10.2
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a]	SPACING AND LOCATION
Roof		
1. Blocking between ceiling joists, rafters or trusses to top plate or other framing below	4-8d box (2½″ × 0.113″); or 3-8d common (2½″ × 0.113″); or 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″14 gage staples, 7/16″ crown	Each end, toenail
Blocking between rafters or truss not at the wall top plate, to rafter or truss	2-8d common (2½″ × 0.131″) 2-3″ × 0.131″ nails 2-3″ 14 gage staples	Each end, toenail
	2-16 d common (3½″ × 0.162″) 3-3″ × 0.131″ nails 3-3″ 14 gage staples	End nail
Flat blocking to truss and web filler	16d common (3½″ × 0.162″) @ 6″ o.c. 3″ × 0.131″ nails @ 6″ o.c. 3″ × 14 gage staples @ 6″ o.c	Face nail
2. Ceiling joists to top plate	4-8d box (2½″ × 0.113″); or 3-8d common (2½″ × 0.131″); or 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″ 14 gage staples, 7/16″ crown	Each joist, toenail
3. Ceiling joist not attached to parallel rafter, laps over partitions (no thrust) (see Section 2308.7.3.1, Table 2308.7.3.1)	3-16d common (3½″ × 0.162″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails; or 4-3″ 14 gage staples, 7/16″ crown	Face nail
4. Ceiling joist attached to parallel rafter (heel joint) (see Section 2308.7.3.1, Table 2308.7.3.1)	Per Table 2308.7.3.1	Face nail
5. Collar tie to rafter	3-10d common (3″ × 0.148″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails; or 4-3″ 14 gage staples, 7/16″ crown	Face nail
6. Rafter or roof truss to top plate (See Section 2308.7.5, Table 2308.7.5)	3-10 common (3″ × 0.148″); or 3-16d box (3½″ × 0.135″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131 nails; or 4-3″ 14 gage staples, 7/16″ crown	2 toenails on one side and 1 toenail on opposite side of rafter or truss[c]
7. Roof rafters to ridge valley or hip rafters; or roof rafter to 2-inch ridge beam	2-16d common (3½″ × 0.162″); or 3-16d box (3½″ × 0.135″); or 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″ 14 gage staples, 7/16″ crown	End nail
	3-10d common (3½″ × 0.148″); or 4-16d box (3½″ × 0.135″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails; or 4-3″ 14 gage staples, 7/16″ crown	Toenail
Wall		
8. Stud to stud (not at braced wall panels)	16d common (3½″ × 0.162″);	24″ o.c. face nail
	10d box (3″ × 0.128″); or 3″ × 0.131″ nails; or 3-3″ 14 gage staples, 7/16″ crown	16″ o.c. face nail

TABLE 2304.10.2—continued
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a]	SPACING AND LOCATION
Wall		
9. Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d common (3½″ × 0.162″)	16″ o.c. face nail
	16d box (3½″ × 0.135″); or 3″ × 0.131″ nails; or 3-3″ 14 gage staples, 7/16″ crown	12″ o.c. face nail
10. Built-up header (2″ to 2″ header)	16d common (3½″ × 0.162″)	16″ o.c. each edge, face nail
	16d box (3½″ × 0.135″)	12″ o.c. each edge, face nail
11. Continuous header to stud	4-8d common (2½″ × 0.131″); or 4-10d box (3″ × 0.128″); or 5-8d box (2½″ × 0.113″)	Toenail
12. Top plate to top plate	16d common (3½″ × 0.162″)	16″ o.c. face nail
	10d box (3″ × 0.128″); or 3″ × 0.131″ nails; or 3″ 14 gage staples, 7/16″ crown	12″ o.c. face nail
13. Top plate to top plate, at end joints	8-16d common (3½″ × 0.162″); or 12-16d box (3½″ x 0.135″); or 12-10d box (3″ × 0.128″); or 12-3″ × 0.131″ nails; or 12-3″ 14 gage staples, 7/16″ crown	Each side of end joint, face nail (minimum 24″ lap splice length each side of end joint)
14. Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3½″ × 0.162″)	16″ o.c. face nail
	16d box (3½″ × 0.135″); or 3″ × 0.131″ nails; or 3″ 14 gage staples, 7/16″ crown	12″ o.c. face nail
15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels	2-16d common (3½″ × 0.162″); or 3-16d box (3½″ × 0.135″); or 4-3″ × 0.131″ nails; or 4-3″ 14 gage staples, 7/16″ crown	16″ o.c. face nail
16. Stud to top or bottom plate	3-16d box (3½″ x 0.135″); or 4-8d common (2½″ × 0.131″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails; or 4-8d box (2½″ x 0.113″); or 4-3″ 14 gage staples, 7/16″ crown	Toenail
	2-16d common (3½″ × 0.162″); or 3-16d box (3½″ × 0.135″); or 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″ 14 gage staples, 7/16″ crown	End nail
17. Top plates, laps at corners and intersections	2-16d common (3½″ × 0.162″); or 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″ 14 gage staples, 7/16″ crown	Face nail
18. 1″ brace to each stud and plate	3-8d box (2½″ x 0.113″); or 2-8d common (2½″ × 0.131″); or 2-10d box (3″ × 0.128″); or 2-3″ × 0.131″ nails; or 2-3″ 14 gage staples, 7/16″ crown	Face nail
19. 1″ × 6″ sheathing to each bearing	3-8d box (2½″ x 0.113″); or 2-8d common (2½″ × 0.131″); or	Face nail
	2-10d box (3″ × 0.128″); or 2-1¼″ 16 gage staples, 1″ crown	

TABLE 2304.10.2—continued
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a]	SPACING AND LOCATION
Wall		
20. 1″ × 8″ and wider sheathing to each bearing	3-8d common (2½″ × 0.131″); or 3-8d box (2½″ x 0.113″); or 3-10d box (3″ × 0.128″); or 3-1¾″ 16 gage staples, 1″ crown	Face nail
	Wider than 1″ × 8″ 3-8d common (2½″ x 0.131″); or 4-8d box (2½″ × 0.113″); or 3-10d box (3″ × 0.128″); or 4-1¾″ 16 gage staples, 1″ crown	
Floor		
21. Joist to sill, top plate, or girder	4-8d box (2½″ × 0.113″); or 3-8d common (2½″ × 0.131″); or floor 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″ 14 gage staples, 7/16″ crown	Toenail
22. Rim joist, band joist, or blocking to top plate, sill or other framing below	8d box (2½″ × 0.113″)	4″ o.c., toenail
	8d common (2½″ × 0.131″); or 10d box (3″ × 0.128″); or 3″ × 0.131″ nails; or 3″ 14 gage staples, 7/16″ crown	6″ o.c., toenail
23. 1″ × 6″ subfloor or less to each joist	3-8d box (2½″ × 0.113″); or 2-8d common (2½″ × 0.131″); or 3-10d box (3″ × 0.128″); or 2-1¾″ 16 gage staples, 1″ crown	Face nail
24. 2 subfloor to joist or girder	3-16d box (3½″ × 0.135″); or 2-16d common (3½″ × 0.162″)	Blind and face nail
25. 2″ planks (plank & beam – floor & roof)	3-16d box (3½″ × 0.135″); or 2-16d common (3½″ × 0.162″)	Each bearing, face nail
26. Built-up girders and beams, 2″ lumber layers	20d common (4″ × 0.192″)	32″ o.c., face nail at top and bottom staggered on opposite sides
	10d box (3″ × 0.128″); or 3″ × 0.131″ nails; or 3″ 14 gage staples, 7/16″ crown	24″ o.c. face nail at top and bottom staggered on opposite sides
	And: 2-20d common (4″ × 0.192″); or 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails; or 3-3″ 14 gage staples, 7/16″ crown	Ends and at each splice, face nail
27. Ledger strip supporting joists or rafters	3-16d common (3½″ × 0.162″); or 4-16d box (3½″ × 0.135″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails; or 4-3″ 14 gage staples, 7/16″ crown	Each joist or rafter, face nail
28. Joist to band joist or rim joist	3-16d common (3½″ × 0.162″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails; or 4-3″ 14 gage staples, 7/16″ crown	End nail
29. Bridging or blocking to joist, rafter or truss	2-8d common (2½″ × 0.131″); or 2-10d box (3″ × 0.128″); or 2-3″ × 0.131″ nails; or 2-3″ 14 gage staples, 7/16″ crown	Each end, toenail

TABLE 2304.10.2—continued
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a]	SPACING AND LOCATION
Wood structural panels (WSP), subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing[g]		
		Edges (inches) / Intermediate supports (inches)
30. 3/8″ – 1/2″	6d common or deformed (2″ × 0.113″); or 2¾″ × 0.113″ nail (subfloor and wall)	6 / 12
	8d common or deformed (2½″ × 0.131″× 0.281″ head) (roof) or RSRS-01 (2⅜″ × 0.113″) nail (roof)[d]	6[e] / 6[e]
	1¾″ 16 gage staple, 7/16″ crown (subfloor and wall)	4 / 8
	2¾″ × 0.113″× 0.266″ head nail (roof)	3[f] / 3[f]
	1¾″ 16 gage staple, 7/16″ crown (roof)	3[f] / 3[f]
31. 19/32″ – 3/4″	8d common (2½″ × 0.131″); or deformed (2″ × 0.113″) (subfloor and wall)	6 / 12
	8d common or deformed (2½″ × 0.131″ × 0.281″ head) (roof) or RSRS-01 (2⅜″ × 0.113″) nail (roof)[d]	6[e] / 6[e]
	2¾″ × 0.113″× 0.266″ head nail; or 2″ 16 gage staple, 7/16″ crown	4 / 8
32. 7/8″ – 1 1/4″	10d common (3″ × 0.148″); or deformed (2½″ × 0.131″ × 0.281″ head)	6 / 12
Other exterior wall sheathing		
33. 1/2″ fiberboard sheathing[b]	1½″ × 0.120″, galvanized roofing nail (7/16″ head diameter); or 1¼″ 16 gage staple with 7/16″ or 1″ crown	3 / 6
34. 25/32″ fiberboard sheathing[b]	1¾″ × 0.120″ galvanized roofing nail (7/16″ diameter head); or 1½″ 16 gage staple with 7/16″ or 1″ crown	3 / 6
Wood structural panels, combination subfloor underlayment to framing		
35. 3/4″ and less	8d common (2½″ × 0.131″); or deformed (2″ × 0.113″); or deformed (2″ × 0.120″)	6 / 12
36. 7/8″ – 1″	8d common (2½″ × 0.131″); or deformed (2½″ × 0.131″); or deformed (2½″ × 0.120″)	6 / 12
37. 1 1/8″ – 1 1/4″	10d common (3″ × 0.148″); or deformed (2½″ × 0.131″); or deformed (2½″ × 0.120″)	6 / 12
Panel siding to framing		
38. 1/2″ or less	6d corrosion-resistant siding (1⅞″ × 0.106″); or 6d corrosion-resistant casing (2″ × 0.099″)	6 / 12
39. 5/8″	8d corrosion-resistant siding (2⅜″ × 0.128″); or 8d corrosion-resistant casing (2½″ × 0.113″)	6 / 12

TABLE 2304.10.2—continued
FASTENING SCHEDULE

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a]	SPACING AND LOCATION
Wood structural panels (WSP), subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing[g]		
		Edges (inches) / Intermediate supports (inches)
Interior paneling		
40. 1/4″	4d casing (1½″ × 0.080″); or 4d finish (1½″ × 0.072″)	6 / 12
41. 3/4″	6d casing (2″ × 0.099″); or 6d finish (2″ × 0.092″) (Panel supports at 24 inches)	6 / 12

For SI: 1 inch = 25.4 mm.

a. Nails spaced at 6 inches at intermediate supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
b. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).
c. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule and the ceiling joist is fastened to the top plate in accordance with this schedule, the number of toenails in the rafter shall be permitted to be reduced by one nail.
d. RSRS-01 is a Roof Sheathing Ring Shank nail meeting the specifications in ASTM F1667.
e. Tabulated fastener requirements apply where the ultimate design wind speed is less than 140 mph. For wood structural panel roof sheathing attached to gable-end roof framing and to intermediate supports within 48 inches of roof edges and ridges, nails shall be spaced at 4 inches on center where the ultimate design wind speed is greater than 130 mph in Exposure B or greater than 110 mph in Exposure C. Spacing exceeding 6 inches on center at intermediate supports shall be permitted where the fastening is designed per the AWC NDS.
f. Fastening is only permitted where the ultimate design wind speed is less than or equal to 110 mph.
g. Nails and staples are carbon steel meeting the specifications of ASTM F1667. Connections using nails and staples of other materials, such as stainless steel, shall be designed by acceptable engineering practice or approved under Section 104.11.

NAILING SCHEDULE

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VON RENNER ELEMENTARY SCHOOL:
CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

NAILING SCHEDULE

Project Number	2514
Date	June, 2026
Drawn by	SJR
Checked by	AH

S0.5

Plot Date & Time 7/2/2026 2:04:34 PM

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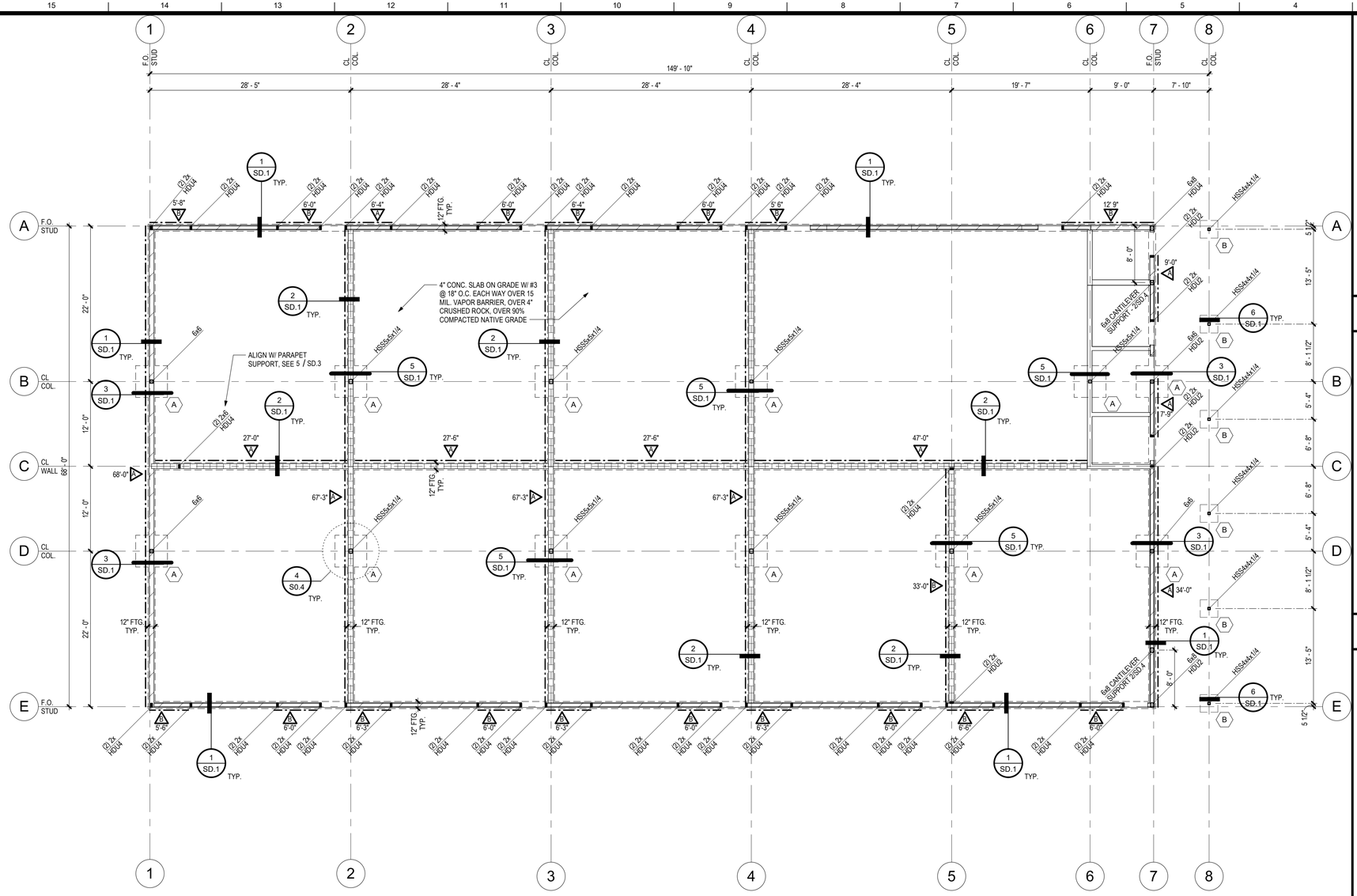

1 FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

FOUNDATION PLAN LEGEND

- DETAIL NUMBER / SHEET NUMBER
- POST SIDE HOLDOWN HARDWARE / POST SIDE HOLDOWN HARDWARE
- WOOD COLUMN LOCATIONS
- HSS COLUMN LOCATIONS
- PAD FOUNDATION CALL OUT
- SHEARWALL
- EXTENT OF PLYWOOD (MAY OCCUR ON EITHER SIDE)
- SHEARWALL TYPE
- MIN. SHEARWALL LENGTH
- FOUNDATION

SYMBOLS

EXTERIOR WALLS
2x6 WOOD STUDS @ 16" O.C. MAX. [STUD < 14'-0"] OR 3x6 WOOD STUDS @ 16" O.C. MAX [STUD < 20'-0"] W/ PLYWOOD SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

INTERIOR WALLS
- 2x4 WOOD STUDS
- 2x6 WOOD STUDS W/ PLYWOOD SHEATHING AT ONE SIDE (SHEAR WALL)
- 2x8 WOOD STUDS

NOTES:
- DIMENSIONS ARE TO FACE OF STUD OR CENTERLINE OF COLUMN, UNLESS OTHERWISE NOTED
- ALL INTERIOR AND EXTERIOR WOOD STUDS ARE TO BE SPACED AT 16" O.C. MAX.

WALL LEGEND

FOUNDATION NOTES:

1. FOR HOLDOWN SCHEDULE - SEE DETAIL 1 / S0.2
2. FOR REINFORCING DETAILS - SEE 3, 4, & 5 / S0.2
3. FOR CURB DETAILS - SEE 6 / S0.2
4. FOR TYPICAL SLAB DETAILS - SEE DETAIL 7 / S0.2
5. FOR PIPING/CONDUITS THROUGH FOOTINGS - SEE DETAIL 8 / S0.2
6. FOR PIPES/CONDUIT PARALLEL TO FOOTINGS SEE DETAIL 9 / S0.2
7. FOR NON-BEARING WALL CONNECTION DETAIL - SEE 11 / S0.2
8. FOR SHEARWALL SCHEDULE SEE 1 / S0.3
9. ALL SHEARWALLS SHALL BE BLOCKED - SEE DETAIL 4 / S0.3 .FOR TYP. S.W. PLY. ELEVATIONS.
10. FOR MINOR ELEC./HVAC OPENINGS IN SHEARWALLS - SEE DETAIL 5 / S0.3
11. FOR TYPICAL FRAMING DETAIL SEE 7 / S0.3
12. FOR STEEL POST IN WOOD WALL - SEE 4 / S0.4
13. TOP OF FOUNDATION SHALL BE -0'-8" B.F.F., TYP.
14. FOR FASTENING SCHEDULE - SEE S0.5

NOTES

FOOTING SCHEDULE

MARK	SIZE	REINFORCING
A	4'-6" SQ. x 18" DEEP	(5) #5 EACH WAY T&B
B	3'-0" SQ. x 18" DEEP	(3) #5 EACH WAY T&B

STUD SCHEDULE

LOCATION	SIZE	SPACING	GRADE (MIN.)
(WOOD) INT. < 15' - 0"	2x6 MIN.	16" O.C. MAX	DF/L #1
EXT. < 14'-0"	2x6 MIN.	16" O.C. MAX	DF/L #1
EXT. < 20'-0"	3x6 MIN.	16" O.C. MAX	DF/L #1

NOTE: FOR WALL FRAMING DETAIL - SEE 7/S0.3

3 CURB PLAN
SCALE: 1" = 40'-0"

2 EXCAVATION PLAN
SCALE: 1" = 40'-0"

CAMPUS KEY

SCHEDULES

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1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

FOUNDATION PLAN

Project Number	2514
Date	June, 2026
Drawn by	SJR
Checked by	AH

S1.1

Plot Date & Time 7/2/2026 2:04:39 PM

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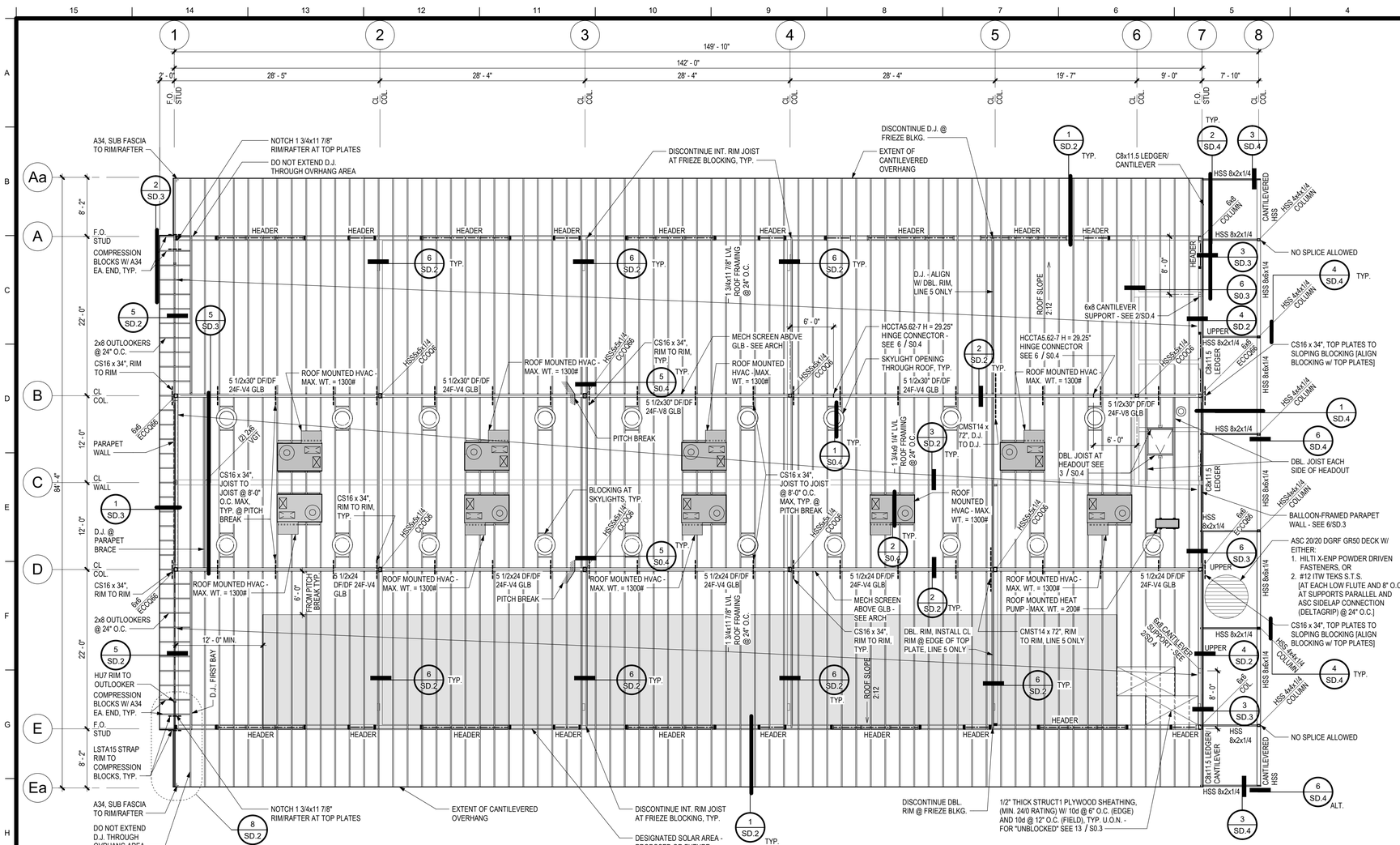
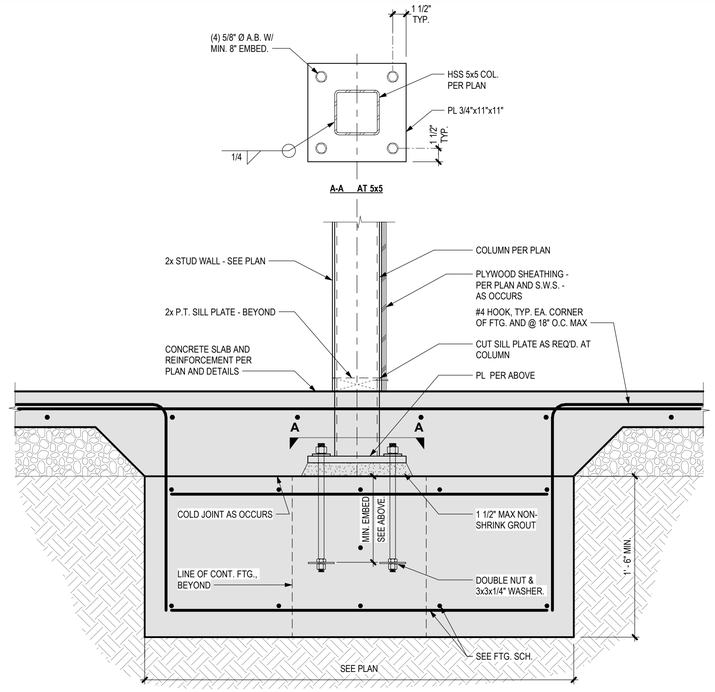
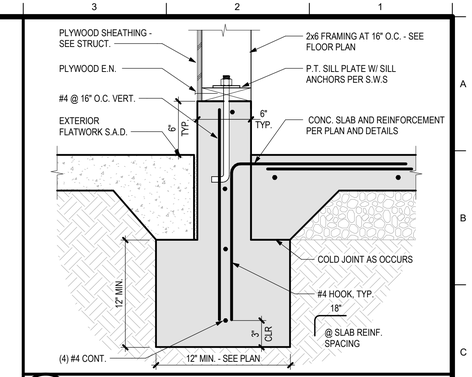
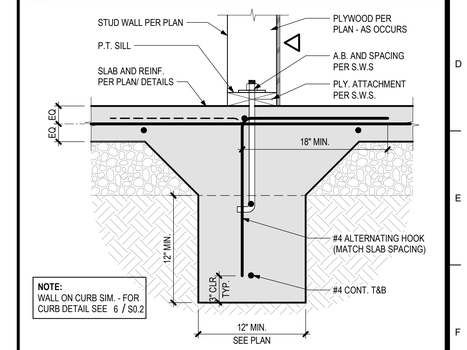

1
2
3
4
5
6
7
8
149' - 10"
142' - 0"
2' - 5"
28' - 5"
28' - 4"
28' - 4"
28' - 4"
19' - 7"
9' - 0"
7' - 10"
F.O. STUD
CL COL.
Aa
A
B
C
D
E
Ea
A34, SUB FASCIA TO RIM/RAFTER
NOTCH 1 3/4x11 7/8" RIM/RAFTER AT TOP PLATES
DO NOT EXTEND D.J. THROUGH OVRHANG AREA
DISCONTINUE INT. RIM JOIST AT FRIEZE BLOCKING, TYP.
EXTENT OF CANTILEVERED OVERHANG
DISCONTINUE D.J. @ FRIEZE BLKG.
C8x11.5 LEDGER/ CANTILEVER
HSS 8x2x1/4
6x6 COLUMN
HSS 4x4x1/4 COLUMN
CANTILEVERED HSS
NO SPLICE ALLOWED
HEADER
TYP.
8' - 2"
22' - 0"
12' - 0"
84' - 4"
F.O. STUD
COMPRESSION BLOCKS W/ A34 EA. END, TYP.
2x8 OUTLOOKERS @ 24" O.C.
CS16 x 34", RIM TO RIM
CL COL.
PARAPET WALL
CL WALL
D.J. @ PARAPET BRACE
HU7 RIM TO OUTLOOKER
LSTA15 STRAP RIM TO COMPRESSION BLOCKS, TYP.
D.J., FIRST BAY
12' - 0" MIN.
6x6 EC/OO6
(2) 2x6 VGT
5 1/2x30" DF/DF 24F-V4 GLB
5 1/2x30" DF/DF 24F-V8 GLB
5 1/2x24 DF/DF 24F-V4 GLB
ROOF MOUNTED HVAC - MAX. WT. = 1300#
ROOF MOUNTED HVAC - MAX. WT. = 200#
ROOF MOUNTED HEAT PUMP - MAX. WT. = 200#
HSS5x5x1/4 EC/OO6
PITCH BREAK
6' - 0" FROM PITCH BREAK TYP.
CS16 x 34", JOIST TO JOIST @ 8'-0" O.C. MAX, TYP. @ PITCH BREAK
CS16 x 34", RIM TO RIM, TYP.
CS16 x 34", JOIST TO JOIST @ 8'-0" O.C. MAX, TYP. @ PITCH BREAK.
BLOCKING AT SKYLIGHTS, TYP.
MECH SCREEN ABOVE GLB - SEE ARCH
CS16 x 34", RIM TO RIM, TYP.
SKYLIGHT OPENING THROUGH ROOF, TYP.
HCCTA5.62-7 H = 29.25" HINGE CONNECTOR - SEE 6 / S0.4
1 3/4x11 7/8" LVL ROOF FRAMING @ 24" O.C.
1 3/4x9 1/4" LVL ROOF FRAMING @ 24" O.C.
ROOF SLOPE 2:12
D.J. - ALIGN W/ DBL. RIM, LINE 5 ONLY
6x8 CANTILEVER SUPPORT - SEE 2/SD.4
CMST14 x 72", D.J. TO D.J.
DBL. JOIST AT HEADOUT SEE 3 / S0.4
CMST14 x 72", RIM TO RIM, LINE 5 ONLY
DBL. RIM, INSTALL CL RIM @ EDGE OF TOP PLATE, LINE 5 ONLY
C8x11.5 LEDGER
DBL. JOIST EACH SIDE OF HEADOUT
BALLOON-FRAMED PARAPET WALL - SEE 6/SD.3
ASC 20/20 DGRF GR50 DECK W/ EITHER:
1. HILTI X-ENP POWDER DRIVEN FASTENERS, OR
2. #12 ITW TEKS S.T.S. (AT EACH LOW FLUTE AND 8" O.C. AT SUPPORTS PARALLEL AND ASC SIDELAP CONNECTION (DELTAGRIP) @ 24" O.C.)
UPPER
HSS 8x6x1/4
HSS 4x4x1/4 COLUMN
CS16 x 34", TOP PLATES TO SLOPING BLOCKING [ALIGN BLOCKING w/ TOP PLATES]
HSS 8x6x1/4
HSS 4x4x1/4 COLUMN
HSS 8x2x1/4



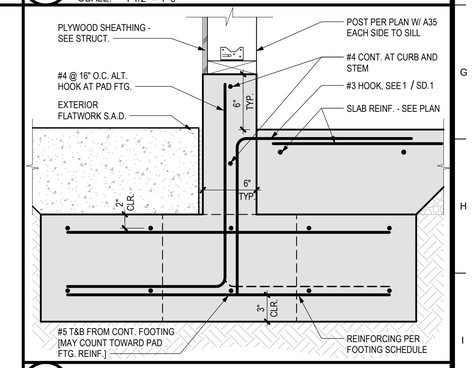
5 HSS COLUMN AT INTERIOR FOOTING (EXT. SIM.)
SCALE: 1 1/2" = 1'-0"



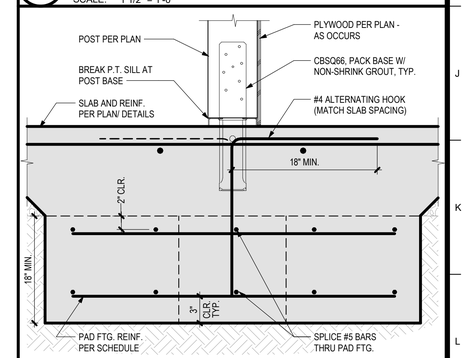
1 EXTERIOR FOOTING / CURB
SCALE: 1 1/2" = 1'-0"



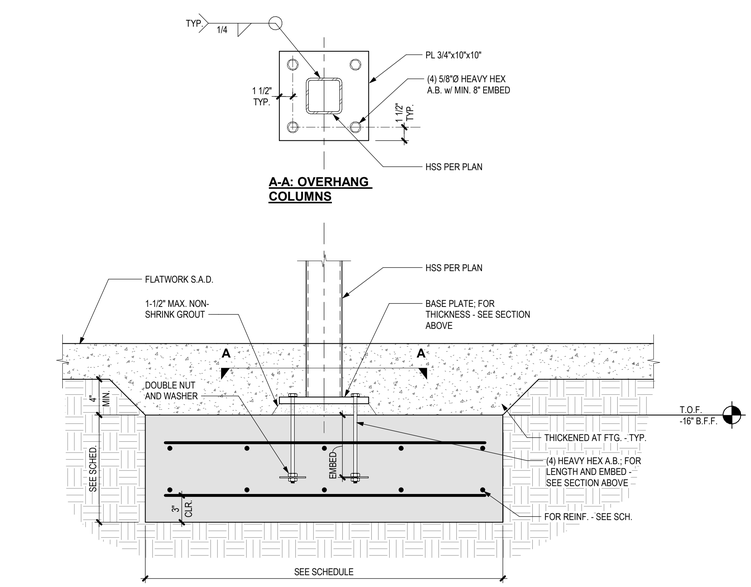
2 INTERIOR FOOTING
SCALE: 1 1/2" = 1'-0"



3 POST ON SILL AT PAD FTG.
SCALE: 1 1/2" = 1'-0"



4 POST BASE AT PAD FOOTING
SCALE: 1 1/2" = 1'-0"



6 OVERHANG COLUMN
SCALE: 1 1/2" = 1'-0"

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1388 PATCHETT DRIVE
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FOOTING DETAILS

Project Number	2514
Date	June, 2026
Drawn by	SJR
Checked by	AH

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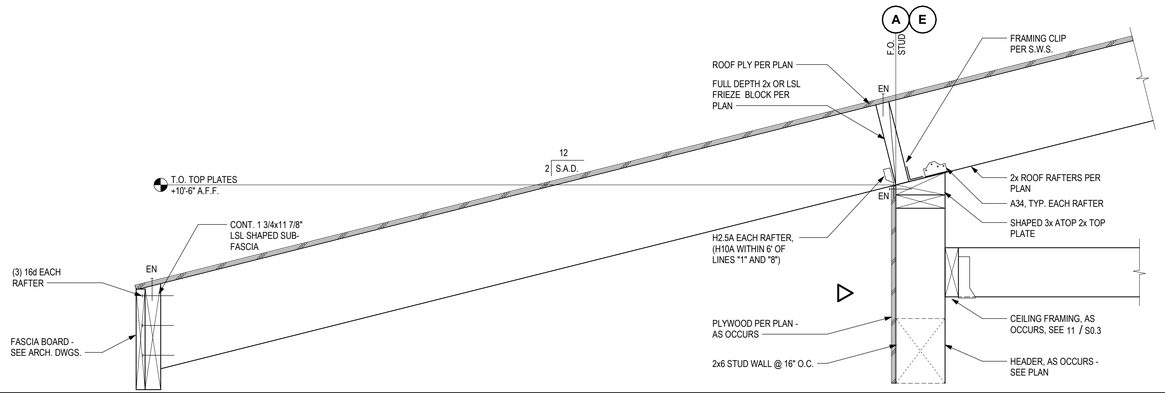
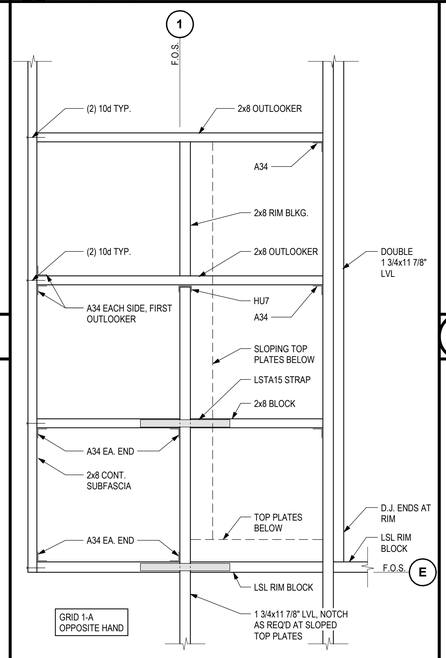
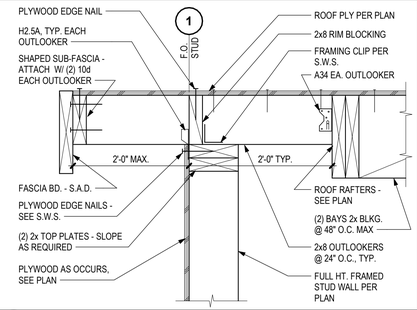


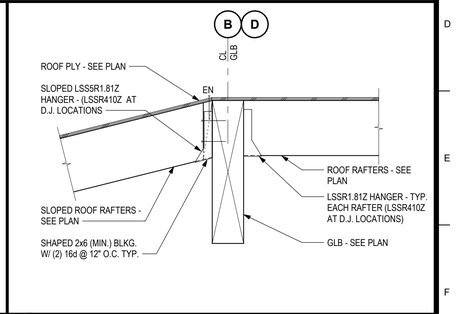
1 TYPICAL EXTERIOR BEARING WALL SECTION
SCALE: 1 1/2" = 1'-0"



8 OUTLOOKER AT RIM - PLAN
SCALE: 1" = 1'-0"



5 ENDWALL DETAIL - TYPE 'B'
SCALE: 1 1/2" = 1'-0"



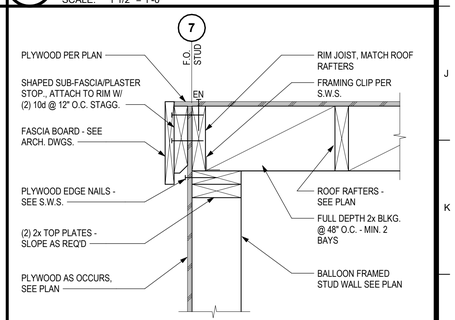
2 RAFTERS AT BEAM
SCALE: 1" = 1'-0"

6 SHEARWALL PAR. TO RAFTER
SCALE: 1 1/2" = 1'-0"

NOT USED

7 DETAIL NOT USED

3 RAFTERS AT CENTER WALL
SCALE: 1 1/2" = 1'-0"



4 ENDWALL DETAIL - TYPE 'A'
SCALE: 1 1/2" = 1'-0"

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DATE: 07/15/26

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VON RENNER ELEMENTARY SCHOOL:
CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

FRAMING DETAILS

Project Number	2514
Date	June, 2026
Drawn by	SJR
Checked by	AH

SD.2

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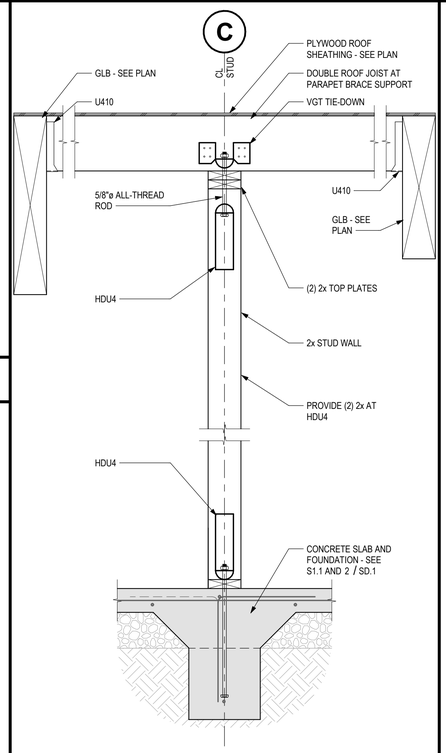
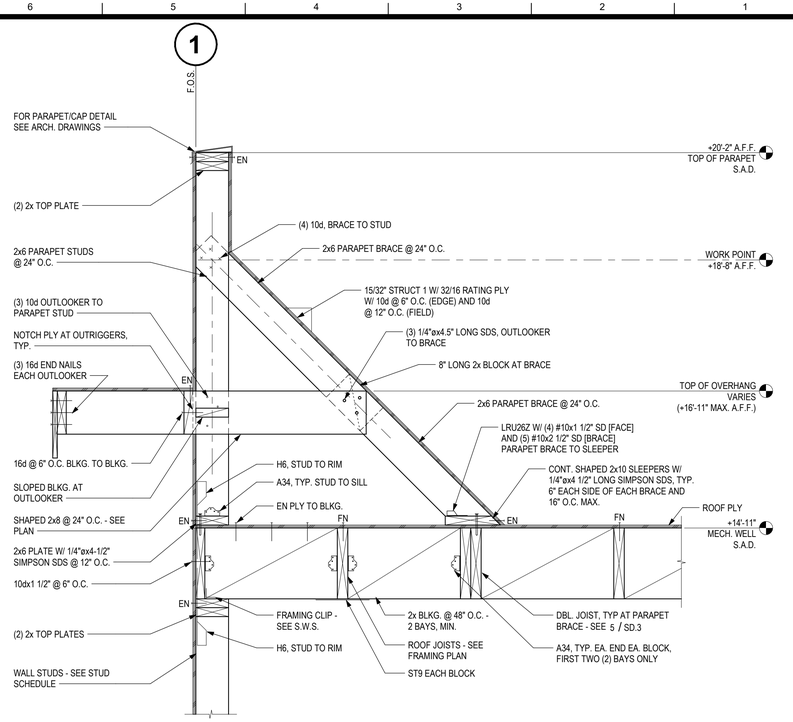
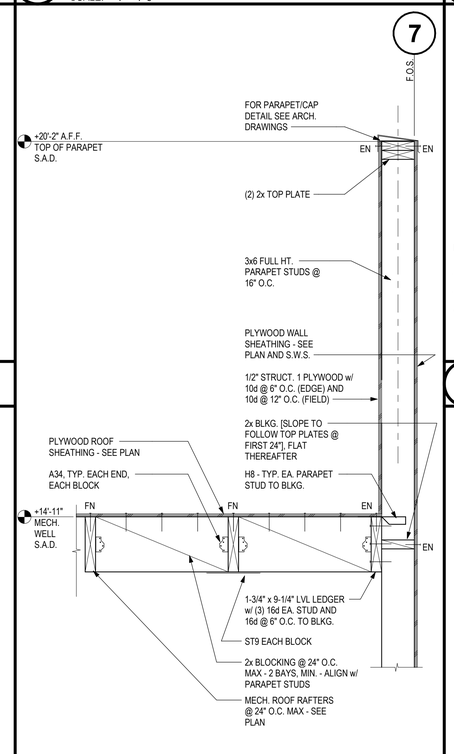


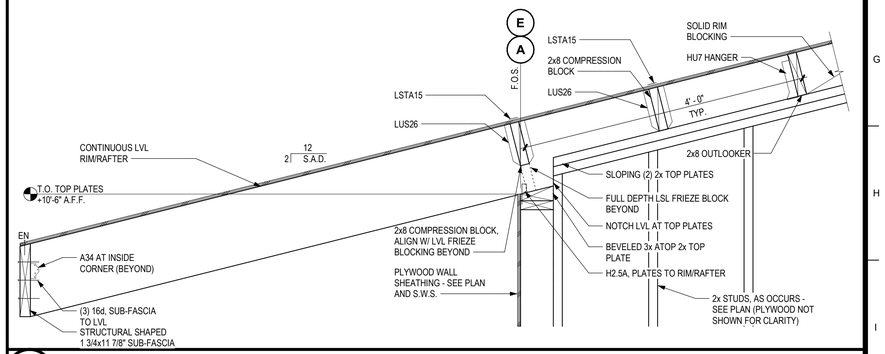
5 PARAPET SUPPORT DETAIL
SCALE: 1" = 1'-0"



1 OVERHANG AT PARAPET, LINE 1
SCALE: 1" = 1'-0"

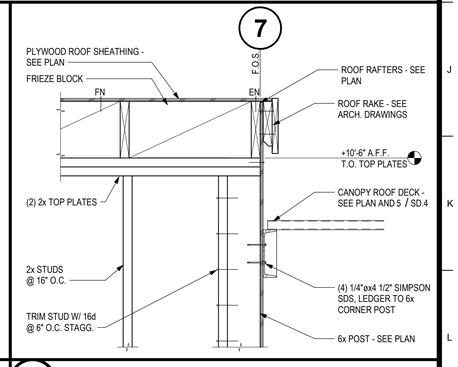


6 PARAPET FRAMING LINE 7
SCALE: 1" = 1'-0"



2 WALL ELEVATION - OUTLOOKER AT RAKE
SCALE: 1" = 1'-0"

4 NOT USED



3 CANOPY AT WALL END
SCALE: 1" = 1'-0"

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NEWMAN, CA 95360
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FRAMING DETAILS

Project Number	2514
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Checked by	AH

SD.3

Plot Date & Time 7/2/2026 2:04:51 PM

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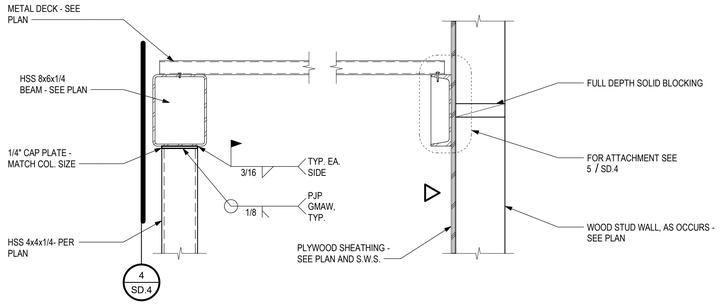
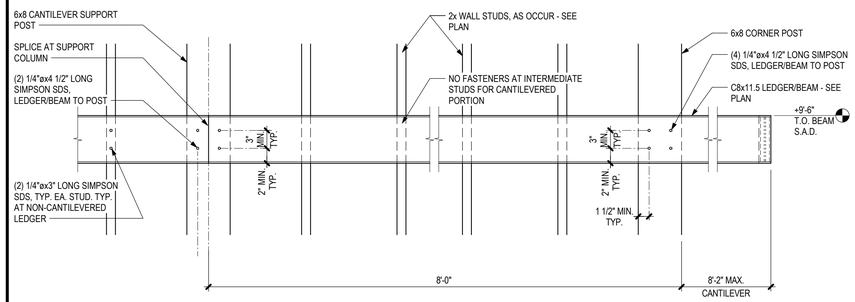


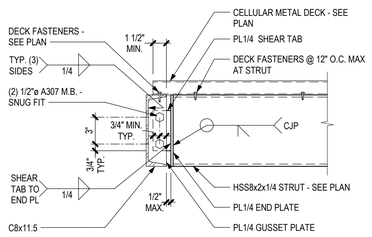
1 TYP. METAL CANOPY DETAILS

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



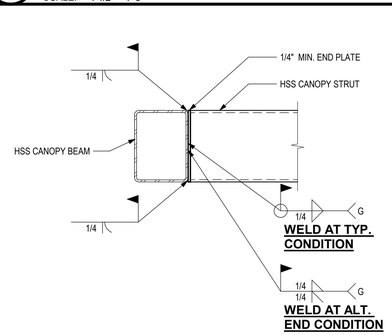
2 CANTILEVERED LEDGER DETAIL

SCALE: 1" = 1'-0"



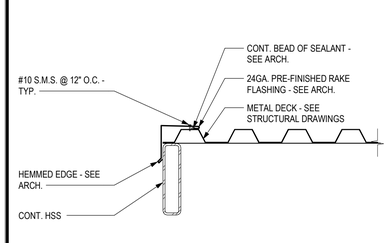
5 HSS TO C-CHANNEL CONN.

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



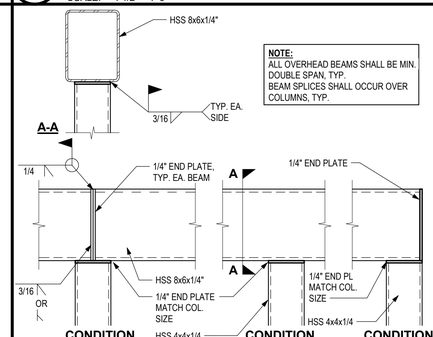
6 HSS TO HSS CONN.

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



3 METAL CANOPY END DETAIL

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



4 CANOPY BEAM/COL CONN.

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

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NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

CANOPY FRAMING DETAILS

Project Number	2514
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Drawn by	SJR
Checked by	AH

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MEP Component 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 1617.A.1.26 and ASCE 7-16 Chapter 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 110/120 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 above requirements.

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 7-16 Section 13.3 as defined in ASCE 7-16 Section 13.6.5, 13.6.6, 13.6.7, 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, With Project Submittal.

MP☐ MD☐ PP☐ E☐ - Option 3: Design Based on OSHPD OPM, Deferred Submittal.

MECHANICAL GENERAL NOTES

1. SCOPE:
   A NEW COMPLETE HVAC SYSTEM, INCLUDING MECHANICAL EQUIPMENT & DUCTWORK AS GENERALLY DELINEATED ON THE DRAWINGS. EQUIPMENT SHALL COMPLY WITH TITLE 24 CALIFORNIA CODE OF REGULATIONS.
2. CODES:
   ALL WORK MATERIAL AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY HAVING JURISDICTION. NOTHING IN THESE PLANS SHALL BE CONSTRUED TO PERMIT THE INSTALLATION OF WORK, MATERIAL OR EQUIPMENT NOT CONFORMING TO THESE OR OTHER CODES APPLICABLE TO THIS PROJECT:
   A. 2025 CALIFORNIA ADMINISTRATIVE CODE (CAC) PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
   B. 2022 CALIFORNIA BUILDING CODE (CBC) PART 2, TITLE 24, CCR BASED ON THE 2021 INTERNATIONAL BUILDING CODE (IBC)
   C. 2022 CALIFORNIA ELECTRICAL CODE (CEC) PART 3, TITLE 24, CCR BASED ON THE 2020 NATIONAL ELECTRICAL CODE (NEC)
   D. 2022 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24, CCR BASED ON THE 2021 UNIFORM MECHANICAL CODE (UMC)
   E. 2022 CALIFORNIA PLUMBING CODE (CPC) PART 5, TITLE 24, CCR BASED ON THE 2021 UNIFORM PLUMBING CODE (UPC)
   F. 2022 CALIFORNIA ENERGY CODE (CEC) PART 6, TITLE 24 CCR.
   G. 2022 CALIFORNIA FIRE CODE (CFC) PART 9, TITLE 24, CCR BASED ON THE 2021 INTERNATIONAL FIRE CODE (IFC)
   H. 2022 CALIFORNIA GREEN BUILDING STANDARDS (CGBSC) PART 11, TITLE 24, CCR
3. WORKMANSHIP:
   ALL WORKMANSHIP SHALL BE DONE IN A NEAT AND ORDERLY MANNER ACCORDING TO THE BEST TRADE PRACTICE BY THOSE SKILLED IN THE PARTICULAR TRADE. EQUIPMENT, DUCTS, GRILLES, ETC., SHALL BE PLUMB, LEVEL, SQUARE OR CENTERED ETC., TO GIVE A NEAT AND PLEASING APPEARANCE. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. AVAILABLE POWER:
   THE MECHANICAL CONTRACTOR SHALL CONFIRM ALL SYSTEMS VOLTAGES BEFORE BIDDING OR ORDERING EQUIPMENT, AND SHALL ALLOW FOR BUCK & BOOST TRANSFORMERS IF REQUIRED.
5. AIR BALANCE:
   THE AIR DISTRIBUTION SYSTEM SHALL BE BALANCED TO DELIVER SPECIFIED AIR QUANTITIES FOLLOWING THE PROCEDURES OF THE LATEST EDITION OF THE SMACNA PUBLICATION PROCEDURAL STANDARDS FOR TESTING ADJUSTING & BALANCING OF ENVIRONMENTAL SYSTEMS. CONTRACTOR SHALL PROVIDE ACCESSIBLE & ADJUSTABLE VOLUME DAMPERS AS REQUIRED TO BALANCE THE SYSTEMS AND MAINTAIN A NOISE CRITERIA LEVEL NOT TO EXCEED 30.
   THE AIR BALANCE TECHNICIAN SHALL BE RESPONSIBLE TO MODIFY ALL SUPPLY, RETURN, AND EXHAUST FAN SHEAVES & VFD OUTPUT FREQUENCY LIMITS AS APPLICABLE SUCH THAT THE DESIGN AIR FLOWS ARE MET. ALL SUPPLY FANS CONTROLLED FOR FILTER LOADING SHALL SIMILARLY BE MODIFIED TO ENSURE THE FULL RANGE OF MOTOR POWER IS AVAILABLE TO THE CONTROL SYSTEM. RATED MAXIMUM FAN SPEED SHALL NOT BE EXCEEDED.
6. PERMITS AND UTILITY SERVICE FEES:
   CONTRACTOR TO ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND SERVICE CHARGES REQUIRED IN THE INSTALLATION OF THE WORK.
7. EXISTING INFORMATION:
   LOCATION, SIZE, MATERIAL, ETC. OF EXISTING SYSTEMS, ETC., IS PROVIDED FROM SOURCES DEEMED TO BE RELIABLE BUT IS NOT GUARANTEED. CONTRACTOR SHALL FIELD VERIFY ALL DATA BEFORE PROCEEDING WITH ANY WORK. NO EXTRA COST WILL BE ALLOWED FOR CONDITIONS NOT AS SHOWN.
8. ACCURACY:
   PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND LOCATIONS OF AC UNITS, EXHAUST FANS, WALLS, PARTITIONS ETC., AGAINST ARCHITECTURAL AND STRUCTURAL DESIGN PLANS FOR LOCATION CONSISTENCY & ACCURACY PRIOR TO COMMENCING WITH ANY WORK.
9. PAINTING:
   PAINT ALL VISIBLE INTERIOR PORTIONS OF TERMINAL DEVICES & CANS WITH FLAT BLACK ENAMEL PAINT.
10. SIZES:
    DUCTWORK SIZES ON PLANS ARE INSIDE NET FREE AREA.
11. MECHANICAL EQUIPMENT:
    ALL EQUIPMENT SHALL BE LISTED BY AN APPROVED TESTING AGENCY AND INSTALLED IN ACCORDANCE WITH ITS INSTALLATION INSTRUCTIONS AND LISTING.

DUCTWORK NOTES

1. DUCT LEAKAGE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH 2022 CALIFORNIA MECHANICAL CODE 603.9.2 AND SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL.
2. MINIMUM TEST AREA SHALL BE 10% OF THE TOTAL INSTALLED DUCT SURFACE AREA. TEST SECTIONS SHALL INCLUDE A REPRESENTATIVE PORTION OF EACH SYSTEM (SUPPLY, RETURN, AND EXHAUST) AND FROM EACH AIR-HANDLING UNIT OR EXHAUST FAN SERVING THE BUILDING. REPRESENTATIVE SECTIONS SHALL INCLUDE BOTH HIGHER-PRESSURE DUCT SECTIONS (E.G., UPSTREAM OF TERMINAL BOXES) AND LOWER-PRESSURE BRANCH SECTIONS (E.G., DOWNSTREAM OF TERMINAL BOXES) WHERE PRESENT. ADDITIONAL TESTING SHALL BE PERFORMED AT NO COST TO THE OWNER IF INITIAL TESTS FAIL TO MEET REQUIREMENTS.
3. THE MAXIMUM PERMITTED LEAKAGE SHALL BE DETERMINED AS FOLLOWS:

   $L_{max} = C_L \times P^{0.65}$

   WHERE:
   L_{MAX} = MAXIMUM PERMITTED LEAKAGE, CFM PER 100 FT^2 OF DUCT SURFACE AREA
   CL = DUCT LEAKAGE CLASS, DEFAULT = 6 (CFM PER 100 FT^2 AT 1" W.C.)
   P = TEST PRESSURE, EQUAL TO DESIGN DUCT PRESSURE CLASS, INCHES W.C.
4. DUCT PRESSURE CLASS SHALL BE MINIMUM 2"W.C. AND SHALL EXCEED THE FAN SYSTEM DESIGN EXTERNAL STATIC PRESSURE WHERE APPLICABLE.
5. FOR CRITICAL SYSTEMS, INCLUDING HOSPITALS, SURGERY CENTERS, LABORATORIES, AND SIMILAR FACILITIES, SUPPLY DUCTS SHALL BE TESTED TO A MAXIMUM LEAKAGE CLASS OF 4.
6. CONTRACTOR SHALL PROVIDE TEMPORARY SEALS AND CAPS AS REQUIRED TO CONDUCT TESTS AND SHALL SUBMIT DOCUMENTED RESULTS TO THE ENGINEER AND AUTHORITY HAVING JURISDICTION PRIOR TO INSULATION OR COVERING OF DUCTWORK.

MECHANICAL LEGEND

DESCRIPTION	SYMBOL
SUPPLY AIR DUCT CROSS SECTION	SA
RETURN AIR DUCT CROSS SECTION	RA
EXHAUST AIR DUCT CROSS SECTION	EA
SUPPLY AIR DUCT - SINGLE LINE	
RETURN AIR DUCT - SINGLE LINE	
EXHAUST AIR DUCT - SINGLE LINE	
DUCT SIZE NET INSIDE DIMENSION	12"x8" 12"x8"
FLEXIBLE DUCT CONNECTION	
DUCT DROP/RISE	
VOLUME DAMPER W/ LOCKING QUADRANT	VD VD
AUTO MOTORIZED CONTROLLED DAMPER	MD MD
FIRE DAMPER / CEILING FIRE DAMPER	FD FD/CFD
MOTORIZED FIRE / SMOKE DAMPER	FSD FSD

AIR REGISTER TAGS

1ST DIGIT - LOCATION: C-CEILING, W-WALL, F-FLOOR
2ND DIGIT - DUCT SYSTEM: S-SUPPLY, R-RETURN, E-EXHAUST
3RD DIGIT - IDENTIFIER: -1, -2, ETC. SEE SCHEDULE

CS-1 300 CFM 12x12
CS-2 300 CFM 12x12
WS-1 300 CFM 14x8

300 CFM = CUBIC FEET PER MINUTE
12"x12" = NECK/COLLAR SIZE

EXAMPLES

SMOKE DETECTOR	SD
DUCT WITH ACOUSTICAL LINING	
TO BE REMOVED	
THERMOSTAT, MOUNT TOP AT +48" AFF	T 1-8
CONDENSATE DRAIN LINE	CD
EQUIPMENT TAG	X / X
ABOVE FINISHED FLOOR	A.F.F.
ACCESS DOOR / ACCESS PANEL	A.D. / A.P.
ANALOG INPUT / ANALOG OUTPUT	AI / AO
AUTOMATIC AIR VENT	AAV
CUBIC FEET PER HOUR	CFH
CUBIC FEET PER MINUTE	CFM
DIGITAL INPUT / DIGITAL OUTPUT	DI / DO
EXISTING	(E)
FLOW SWITCH	FS
GALLONS PER MINUTE	GPM
THOUSANDS OF BTU'S PER HOUR	MBH
NEW	(N)
NOT IN MECHANICAL CONTRACT	N.I.M.C.
OUTSIDE AIR	OSA
POINT OF CONNECTION	POC
REFRIGERANT LIQUID / REFRIGERANT SUCTION	RL / RS

SHEET INDEX

SHEET NO.	DESCRIPTION
M0-0.1	MECHANICAL - LEGEND AND NOTES
M0-0.2	MECHANICAL - SCHEDULES
M0-0.3	MECHANICAL - GREEN BUILDING CODE NOTES
M0-0.4	MECHANICAL - DETAILS
M0-0.5	MECHANICAL - DETAILS
M1-1.1	MECHANICAL - FLOOR PLAN
M1-3.1	MECHANICAL - ROOF PLAN
T24-1.1 THRU T24-1.3	ENERGY COMPLIANCE

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Process/Plant Engineering . Refrigeration

REGISTERED PROFESSIONAL ENGINEER JOSEPH EN LAM No. M30069 MECHANICAL STATE OF CALIFORNIA

Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

MECHANICAL - LEGEND AND NOTES

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

M0-0.1

Plot Date & Time

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PACKAGED ROOFTOP HVAC UNIT SCHEDULE

MK. NO.	MANUFACTURER & MODEL NO.	AREA SERVED	NOM. TONS	AIRFLOW HIGH (CFM)	AIRFLOW LOW (CFM)	OSA (CFM)	ESP (IN. W.G.)	SUPPLY FAN BHP	DX COOLING (NET)				GAS FURNACE		UNIT ELECTRICAL			POWER EXHAUST ELECTRICAL						EFFICIENCY				OPERATING WEIGHT (LBS)				MOUNTING DETAIL	REMARKS
									TOTAL CAPACITY (MBH)	SENS. CAPACITY (MBH)	EVAP EDB (°F)	EVAP EWB (°F)	INPUT (MBH)	OUTPUT (MBH)	V / PH	MCA	MOCP	EXH. FAN HP	EXH. FAN FLA	V / PH	MCA	MOCP	EER	SEER2 (IEER)	AFUE	AFUE	UNIT	ROOF CURB	PWR. EXH.	TOTAL		
AC-1	CARRIER #48GEGM04A2M5	CLASSROOM 100	3	1,200	800	270	0.8"	0.49	35.49	32.02	82.5	65.9	60	49	208 / 3	21	25	3/4	1.5	208 / 3	2.75	4.95	9.66	16.8	0.80	81.0	553	324	222	1099	3/M0-0.4	SEE NOTES #1 - #7
AC-2	CARRIER #48GEGM04A2M5	CLASSROOM 101	3	1,200	800	270	0.8"	0.49	35.49	32.02	82.5	65.9	60	49	208 / 3	21	25	3/4	1.5	208 / 3	2.75	4.95	9.66	16.8	0.80	81.0	553	324	222	1099	3/M0-0.4	SEE NOTES #1 - #7
AC-3	CARRIER #48GEGM04A2M5	CLASSROOM 102	3	1,200	800	270	0.8"	0.49	35.49	32.02	82.5	65.9	60	49	208 / 3	21	25	3/4	1.5	208 / 3	2.75	4.95	9.66	16.8	0.80	81.0	553	324	222	1099	3/M0-0.4	SEE NOTES #1 - #7
AC-4	CARRIER #48GEGM04A2M5	CLASSROOM 103	3	1,200	800	270	0.8"	0.49	35.49	32.02	82.5	65.9	60	49	208 / 3	21	25	3/4	1.5	208 / 3	2.75	4.95	9.66	16.8	0.80	81.0	553	324	222	1099	3/M0-0.4	SEE NOTES #1 - #7
AC-5	CARRIER #48GEGM04A2M5	CLASSROOM 104	3	1,200	800	270	0.8"	0.49	35.49	32.02	82.5	65.9	60	49	208 / 3	21	25	3/4	1.5	208 / 3	2.75	4.95	9.66	16.8	0.80	81.0	553	324	222	1099	3/M0-0.4	SEE NOTES #1 - #7
AC-6	CARRIER #48GEGM04A2M5	CLASSROOM 105	3	1,200	800	270	0.8"	0.49	35.49	32.02	82.5	65.9	60	49	208 / 3	21	25	3/4	1.5	208 / 3	2.75	4.95	9.66	16.8	0.80	81.0	553	324	222	1099	3/M0-0.4	SEE NOTES #1 - #7
AC-7	CARRIER #48GEGM04A2M5	CLASSROOM 106	3	1,200	800	270	0.8"	0.49	35.49	32.02	82.5	65.9	60	49	208 / 3	21	25	3/4	1.5	208 / 3	2.75	4.95	9.66	16.8	0.80	81.0	553	324	222	1099	3/M0-0.4	SEE NOTES #1 - #7
AC-8	CARRIER #48GEGM04A2M5	CLASSROOM 107	3	1,200	800	270	0.8"	0.49	35.49	32.02	82.5	65.9	60	49	208 / 3	21	25	3/4	1.5	208 / 3	2.75	4.95	9.66	16.8	0.80	81.0	553	324	222	1099	3/M0-0.4	SEE NOTES #1 - #7
AC-9	CARRIER #48GEHM06A2M5	CLASSROOM 108	5	2,000	1,330	490	0.8"	1.09	57.08	53.18	82.5	65.9	82	66	208 / 3	30	40	3/4	1.5	208 / 3	3.62	6.52	9.66	16.8	0.80	81.0	622	324	222	1168	3/M0-0.4	SEE NOTES #1 - #7

NOTES:
1. DISCONNECT BY ELECTRICAL. PROVIDE WITH DISCONNECT FOR MAIN UNIT AND SEPARATE DISCONNECT FOR POWER EXHAUST. ELECTRICAL TO PROVIDE CONVENIENCE OUTLET AT UNIT.
2. PROVIDE WITH TWO STAGE COOLING AND STAGED AIR VOLUME SYSTEM WITH ECOBLUE DIRECT-DRIVE ECM FAN MOTOR, COMPLIANT WITH ASHRAE 90.1.
3. PROVIDE WITH PELICAN WIRELESS THERMOSTAT. MOUNT TOP AT MAX 48" A.F.F.
4. PROVIDE WITH MANUFACTURED VIBRATION ISOLATION ROOF CURB TO MATCH ROOF SLOPE (TOP OF CURB MUST BE LEVEL). INSTALL PER MANUFACTURER INSTRUCTIONS. CANFAB #1006-IC11A-CBC.
5. PROVIDE WITH ECONOMIZER WITH POWER EXHAUST. CANFAB #1120-PE/MPE.
6. PROVIDE WITH MERV-13 FILTERS.
7. REFRIGERANT TYPE R-454B, ANSI/ASHRAE 34 SAFETY GROUP A2L.

LOUVER SCHEDULE

MK. NO.	MANUFACTURER & MODEL NO.	DESCRIPTION	SIZE	FREE AREA (SQ. FT.)	AIRFLOW (CFM)	PRESSURE DROP	VELOCITY (FPM)	REMARKS
L-1	GREENHECK #ESJ-401	WALL MOUNTED LOUVER	34"W x 12"H	1.06	--	--	--	SEE NOTE #1
L-2	GREENHECK #ESJ-401	WALL MOUNTED LOUVER	34"W x 12"H	1.06	--	--	--	SEE NOTE #1

NOTES:
1. PROVIDE WITH ALUMINUM BIRD SCREEN, COORDINATE COLOR WITH ARCHITECT.

OUTDOOR SPLIT SYSTEM HEAT PUMP SCHEDULE

MK. NO.	MANUFACTURER & MODEL NO.	AREA SERVED	NOMINAL CAPACITY TONS	NOMINAL CAPACITY COOLING (MBH)	NOMINAL CAPACITY HEATING (MBH)	REF. PIPING LIQUID	REF. PIPING SUCTION	ELECTRICAL V / PH	ELECTRICAL MCA	ELECTRICAL MOCP	EFFICIENCY EER2	EFFICIENCY SEER2	EFFICIENCY HSPF2	OP. WEIGHT (LBS) UNIT	OP. WEIGHT (LBS) ROOF CURB	OP. WEIGHT (LBS) TOTAL	MOUNTING DETAIL	REMARKS
HP-1	CARRIER #37MARAQ12AA3	112 I.D.F.	1	12	12	1/4"	3/8"	208 / 1	12	15	12.0	19.5	8.0	62	50	112	5/M0-0.4	SEE NOTES #1, #2

NOTES:
1. DISCONNECT BY ELECTRICAL.
2. REFRIGERANT TYPE R-454B, ANSI/ASHRAE 34 SAFETY GROUP A2L.

INDOOR SPLIT SYSTEM FAN COIL SCHEDULE

MK. NO.	MANUFACTURER & MODEL NO.	AREA SERVED	AIRFLOW (CFM)	MIN OSA (CFM)	ESP (IN. W.G.)	SUPPLY FAN BHP	NOMINAL CAPACITY TONS	NOMINAL CAPACITY COOLING (MBH)	NOMINAL CAPACITY HEATING (MBH)	REF. PIPING LIQUID	REF. PIPING SUCTION	ELECTRICAL V / PH	ELECTRICAL MCA	ELECTRICAL MOCP	OP. WT. (LBS)	MOUNTING DETAIL	REMARKS
FC-1	CARRIER #45MAHAQ12XA3	112 I.D.F.	440	--	--	--	1	12	12	1/4"	3/8"	208 / 1	1	--	23	1/M0-0.5	SEE NOTES #1 - #4

NOTES:
1. PROVIDE WITH FACTORY DISCONNECT. ELECTRICAL SUPPLY IS FED FROM OUTDOOR UNIT THROUGH FIELD-SUPPLIED WIRING PER MANUFACTURER'S SPECIFICATIONS.
2. PROVIDE WITH PELICAN WIRELESS THERMOSTAT. MOUNT TOP AT MAX 48" A.F.F.
3. PROVIDE WITH CONDENSATE PUMP & CONDENSATE OVERFLOW SWITCH.
4. REFRIGERANT TYPE R-454B, ANSI/ASHRAE 34 SAFETY GROUP A2L.

CEILING EXHAUST FAN SCHEDULE

MK. NO.	MANUFACTURER & MODEL NO.	AREA SERVED	AIRFLOW (CFM)	ESP (IN. W.G.)	FAN RPM	INLET SONES	MOTOR V / PH	MOTOR HP	MOTOR WATT	OP. WT. (LBS)	MOUNTING DETAIL	REMARKS
CEF-1	GREENHECK #SP-A125	109 STAFF RESTROOM	100	0.3"	1,100	0.8	115 / 1	--	21	17	6/M0-0.4	SEE NOTES #1, INTERLOCK WITH LIGHTS
CEF-2	GREENHECK #SP-A125	110 CUSTODIAL	100	0.3"	1,100	0.8	115 / 1	--	21	17	6/M0-0.4	SEE NOTES #1, PROVIDE WITH WALL SWITCH
CEF-3	GREENHECK #SP-A125	111 MECH/ELEC	100	0.3"	1,100	0.8	115 / 1	--	21	17	6/M0-0.4	SEE NOTES #1, PROVIDE WITH XXX

NOTES:
1. PROVIDE WITH INTEGRAL BACKDRAFT DAMPER AND ROOF WEATHER CAP.

AIR DISTRIBUTION DEVICE SCHEDULE

MK. NO.	MANUFACTURER & MODEL NO.	DESCRIPTION	FRAME TYPE	BLOW PATTERN	OBD	NECK SIZE	MOUNTING DETAIL	REMARKS
CS-1	NAILOR #7500-L	CEILING SUPPLY	LAY-IN	SEE PLAN	NO	SEE PLAN	2/M0-0.4	WHITE FINISH, MODULAR CORE, SEE NOTE #1
CS-2	NAILOR #7500-S	CEILING SUPPLY	SURFACE	SEE PLAN	YES	SEE PLAN	2/M0-0.4	WHITE FINISH, MODULAR CORE, SEE NOTE #1
CR-1	NAILOR #4260-L	CEILING RETURN	LAY-IN	--	NO	SEE PLAN	2/M0-0.4	WHITE FINISH, ROUND NECK, SEE NOTE #1

NOTES:
1. PAINT ALL VISIBLE INTERIOR PORTIONS OF TERMINAL DEVICES & CANS WITH FLAT BLACK ENAMEL PAINT.

REFRIGERANT CALCULATION

MARK	NOMINAL TONS	UNIT REFRIGERANT CHARGE (LBS)	REFRIGERANT TYPE	EFFECTIVE DISPERSAL VOLUME, **Veff** (CUFT)	LOWER FLAMABILITY LIMIT, **LFL** (LB/1000 FT^3)	CONCENTRATION FACTOR, **CF**	INSTITUTIONAL OCC? Y/N	OCCUPANCY ADJUSTMENT FACTOR, **Focc**	EFFECTIVE DISPERSAL VOLUME CHARGE, **EDVC** (LB)	PASS: UNIT REF CHARGE < EDVC?
AC-1	3	**8.5**	R-454b	9400	18.5	0.5	N	1	**87.0**	**Y**
AC-2	3	8.5	R-454b	9389	18.5	0.5	N	1	86.8	Y
AC-3	3	8.5	R-454b	9389	18.5	0.5	N	1	86.8	Y
AC-4	3	8.5	R-454b	9389	18.5	0.5	N	1	86.8	Y
AC-5	3	**8.5**	R-454b	9338	18.5	0.5	N	1	**86.4**	**Y**
AC-6	3	8.5	R-454b	9338	18.5	0.5	N	1	86.3765	Y
AC-7	3	8.5	R-454b	9389	18.5	0.5	N	1	86.84825	Y
AC-8	3	8.5	R-454b	9389	18.5	0.5	N	1	86.84825	Y
AC-9	5	10.3	R-454b	16485	18.5	0.5	N	1	152.48625	Y
FC-1	1	6	R-454b	756	18.5	0.5	N	1	6.993	Y

NOTES:
1. **EDVC = Veff x LFL x CF x Focc** PER ASHRAE 15, Section 7.6.1.1.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

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NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

MECHANICAL - SCHEDULES

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

M0-0.2

Plot Date & Time

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MECHANICAL GREEN BUILDING CODE NOTES

REQUIRED

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

5.410.1 RECYCLING BY OCCUPANTS. PROVIDE READILY ACCESSIBLE AREAS THAT SERVE THE ENTIRE BUILDING AND ARE IDENTIFIED FOR THE DEPOSITING, STORAGE AND COLLECTION OF NON-HAZARDOUS MATERIALS FOR RECYCLING, INCLUDING (AT A MINIMUM) PAPER, CORRUGATED CARDBOARD, GLASS, PLASTICS, ORGANIC WASTE, AND METALS OR MEET A LAWFULLY ENACTED LOCAL RECYCLING ORDINANCE, IF MORE RESTRICTIVE.

EXCEPTION: RURAL JURISDICTIONS THAT MEET AND APPLY FOR THE EXEMPTION IN PUBLIC RESOURCES
CODE 42649.82 (A)(2)(A) ET SEQ. SHALL ALSO BE EXEMPT FROM THE ORGANIC WASTE PORTION OF THIS SECTION.

5.410.1.1 ADDITIONS. ALL ADDITIONS CONDUCTED WITHIN A 12-MONTH PERIOD UNDER SINGLE OR MULTIPLE PERMITS, RESULTING IN AN INCREASE OF 30% OR MORE IN FLOOR AREA, SHALL PROVIDE RECYCLING AREAS ON SITE.

EXCEPTION: ADDITIONS WITHIN A TENANT SPACE RESULTING IN LESS THAN A 30% INCREASE IN THE TENANT SPACE FLOOR AREA.

5.410.1.2 SAMPLE ORDINANCE. SPACE ALLOCATION FOR RECYCLING AREAS SHALL COMPLY WITH CHAPTER 18, PART 3, DIVISION 30 OF THE PUBLIC RESOURCES CODE. CHAPTER 18 IS KNOWN AS THE CALIFORNIA SOLID WASTE REUSE AND RECYCLING ACCESS ACT OF 1991 (ACT).

NOTE: A SAMPLE ORDINANCE FOR USE BY LOCAL AGENCIES MAY BE FOUND IN APPENDIX A OF THE DOCUMENT AT THE CALRECYCLE'S WEB SITE.

☐ 5.410.2 COMMISSIONING. [N] FOR NEW BUILDINGS 10,000 SQUARE FEET AND OVER, BUILDING COMMISSIONING SHALL BE INCLUDED IN THE DESIGN AND CONSTRUCTION PROCESSES OF THE BUILDING PROJECT TO VERIFY THAT THE BUILDING SYSTEMS AND COMPONENTS MEET THE OWNER'S OR OWNER REPRESENTATIVE'S PROJECT REQUIREMENTS. COMMISSIONING SHALL BE PERFORMED IN ACCORDANCE WITH THIS SECTION BY TRAINED PERSONNEL WITH EXPERIENCE ON PROJECTS OF COMPARABLE SIZE AND COMPLEXITY. ALL OCCUPANCIES OTHER THAN I-OCCUPANCIES AND L-OCCUPANCIES SHALL COMPLY WITH THE CALIFORNIA ENERGY CODE AS PRESCRIBED IN CALIFORNIA ENERGY CODE SECTION 120.8. FOR I-OCCUPANCIES THAT ARE NOT REGULATED BY OSHPD OR FOR I-OCCUPANCIES AND L-OCCUPANCIES THAT ARE NOT REGULATED BY THE CALIFORNIA ENERGY CODE SECTION 100.0 SCOPE, ALL REQUIREMENTS IN SECTIONS 5.410.2 THROUGH 5.410.2.6 SHALL APPLY.

COMMISSIONING REQUIREMENTS SHALL INCLUDE:

1. OWNER'S OR OWNER REPRESENTATIVE'S PROJECT REQUIREMENTS.
2. BASIS OF DESIGN.
3. COMMISSIONING MEASURES SHOWN IN THE CONSTRUCTION DOCUMENTS.
4. COMMISSIONING PLAN.
5. FUNCTIONAL PERFORMANCE TESTING.
6. DOCUMENTATION AND TRAINING.
7. COMMISSIONING REPORT.

☒ EXCEPTIONS:

1. UNCONDITIONED WAREHOUSES OF ANY SIZE.
2. AREAS LESS THAN 10,000 SQUARE FEET USED FOR OFFICES OR OTHER CONDITIONED ACCESSORY SPACES WITHIN UNCONDITIONED WAREHOUSES.
3. TENANT IMPROVEMENTS LESS THAN 10,000 SQUARE FEET AS DESCRIBED IN SECTION 303.1.1.
4. OPEN PARKING GARAGES OF ANY SIZE, OR OPEN PARKING GARAGE AREAS, OF ANY SIZE, WITHIN A STRUCTURE.

NOTE: FOR THE PURPOSES OF THIS SECTION, UNCONDITIONED SHALL MEAN A BUILDING, AREA, OR ROOM WHICH DOES NOT PROVIDE HEATING AND OR AIR CONDITIONING.

INFORMATIONAL NOTES:

1. IAS AC 476 IS AN ACCREDITATION CRITERIA FOR ORGANIZATIONS PROVIDING TRAINING AND/OR CERTIFICATION OF COMMISSIONING PERSONNEL. AC 476 IS AVAILABLE TO THE AUTHORITY HAVING JURISDICTION AS A REFERENCE FOR QUALIFICATIONS OF COMMISSIONING PERSONNEL. AC 476 DES NOT CERTIFY INDIVIDUALS TO CONDUCT FUNCTIONAL PERFORMANCE TESTS OR TO ADJUST AND BALANCE SYSTEMS.

2. FUNCTIONAL PERFORMANCE TESTING FOR HEATING, VENTILATION, AIR CONDITIONING SYSTEMS AND LIGHTING CONTROLS MUST BE PERFORMED IN COMPLIANCE WITH THE CALIFORNIA ENERGY CODE.

5.410.2.1 OWNER'S OR OWNER REPRESENTATIVE'S PROJECT REQUIREMENTS (OPR). [N] THE EXPECTATIONS AND REQUIREMENTS OF THE BUILDING APPROPRIATE TO ITS PHASE SHALL BE DOCUMENTED BEFORE THE DESIGN PHASE OF THE PROJECT BEGINS. THIS DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

1. ENVIRONMENTAL AND SUSTAINABILITY GOALS.
2. ENERGY EFFICIENCY GOALS.
3. INDOOR ENVIRONMENTAL QUALITY REQUIREMENTS.
4. PROJECT PROGRAM, INCLUDING FACILITY FUNCTIONS AND HOURS OF OPERATION, AND NEED FOR AFTER HOURS OPERATION.
5. EQUIPMENT AND SYSTEMS EXPECTATIONS.
6. BUILDING OCCUPANT AND OPERATION AND MAINTENANCE (O&M) PERSONNEL EXPECTATIONS.

5.410.2.2 BASIS OF DESIGN (BOD). [N] A WRITTEN EXPLANATION OF HOW THE DESIGN OF THE BUILDING SYSTEMS MEETS THE OPR SHALL BE COMPLETED AT THE DESIGN PHASE OF THE BUILDING PROJECT. THE BASIS OF DESIGN DOCUMENT SHALL COVER THE FOLLOWING SYSTEMS:

1. HEATING, VENTILATION, AIR CONDITIONING (HVAC) SYSTEMS AND CONTROLS.
2. INDOOR LIGHTING SYSTEM AND CONTROLS.
3. WATER HEATING SYSTEM.
4. RENEWABLE ENERGY SYSTEMS.
5. WATER REUSE SYSTEMS.

5.410.2.3 COMMISSIONING PLAN. [N] PRIOR TO PERMIT ISSUANCE A COMMISSIONING PLAN SHALL BE COMPLETED TO DOCUMENT HOW THE PROJECT WILL BE COMMISSIONED. THE COMMISSIONING PLAN SHALL INCLUDE THE FOLLOWING:

1. GENERAL PROJECT INFORMATION.
2. COMMISSIONING GOALS.
3. SYSTEMS TO BE COMMISSIONED. PLANS TO TEST SYSTEMS AND COMPONENTS SHALL INCLUDE:
   A. AN EXPLANATION OF THE ORIGINAL DESIGN INTENT.
   B. EQUIPMENT AND SYSTEMS TO BE TESTED, INCLUDING THE EXTENT OF TESTS.
   C. FUNCTIONS TO BE TESTED.
   D. CONDITIONS UNDER WHICH THE TEST SHALL BE PERFORMED.
   E. MEASURABLE CRITERIA FOR ACCEPTABLE PERFORMANCE.
4. COMMISSIONING TEAM INFORMATION.
5. COMMISSIONING PROCESS ACTIVITIES, SCHEDULES AND RESPONSIBILITIES.

PLANS FOR THE COMPLETION OF COMMISSIONING SHALL BE INCLUDED.

5.410.2.4 FUNCTIONAL PERFORMANCE TESTING. [N] FUNCTIONAL PERFORMANCE TESTS SHALL DEMONSTRATE THE CORRECT INSTALLATION AND OPERATION OF EACH COMPONENT, SYSTEM AND SYSTEM-TO-SYSTEM INTERFACE IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. 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.

REQUIRED

☒ 5.410.4 TESTING AND ADJUSTING. TESTING AND ADJUSTING OF SYSTEMS SHALL BE REQUIRED FOR BUILDINGS LESS THAN 10,000 SQUARE FEET OR NEW SYSTEMS TO SERVE AN ADDITION OR ALTERATION SUBJECT TO SECTION 303.1.

5.410.4.2 SYSTEMS. DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING SYSTEMS. SYSTEMS TO BE INCLUDED FOR TESTING AND ADJUSTING SHALL INCLUDE AS APPLICABLE TO THE PROJECT:

1. RENEWABLE ENERGY SYSTEMS.
2. LANDSCAPE IRRIGATION SYSTEMS.
3. WATER REUSE SYSTEMS.

5.410.4.3 PROCEDURES. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND APPLICABLE STANDARDS ON EACH SYSTEM.

☒ 5.410.4.3.1 HVAC BALANCING. IN ADDITION TO TESTING AND ADJUSTING, BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING OR SPACE IS OPERATED FOR NORMAL USE, THE SYSTEM SHALL BE BALANCED IN ACCORDANCE WITH THE PROCEDURES DEFINED BY THE TESTING ADJUSTING AND BALANCING BUREAU NATIONAL STANDARDS; THE NATIONAL ENVIRONMENTAL BALANCING BUREAU PROCEDURAL STANDARDS; ASSOCIATED AIR BALANCE COUNCIL NATIONAL STANDARDS OR AS APPROVED BY THE ENFORCING AGENCY.

5.410.4.4 REPORTING. AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING, PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.

☒ 5.410.4.5 OPERATION AND MAINTENANCE (O & M) MANUAL. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM. O & M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR, TITLE 8, SECTION 5142, AND OTHER RELATED REGULATIONS.

☒ 5.410.4.5.1 INSPECTIONS AND REPORTS. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY.

5.410.2.5 DOCUMENTATION AND TRAINING. [N] A SYSTEMS MANUAL AND SYSTEMS OPERATIONS TRAINING ARE REQUIRED, INCLUDING OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) REQUIREMENTS IN CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 8, SECTION 5142, AND OTHER RELATED REGULATIONS.

5.410.2.5.1 SYSTEMS MANUAL. [N] DOCUMENTATION OF THE OPERATIONAL ASPECTS OF THE BUILDING SHALL BE COMPLETED WITHIN THE SYSTEMS MANUAL AND DELIVERED TO THE BUILDING OWNER OR REPRESENTATIVE. THE SYSTEMS MANUAL SHALL INCLUDE THE FOLLOWING:

1. SITE INFORMATION, INCLUDING FACILITY DESCRIPTION, HISTORY AND CURRENT REQUIREMENTS.
2. SITE CONTACT INFORMATION.
3. BASIC OPERATIONS AND MAINTENANCE, INCLUDING GENERAL SITE OPERATING PROCEDURES, BASIC TROUBLESHOOTING, RECOMMENDED MAINTENANCE REQUIREMENTS, SITE EVENTS LOG.
4. MAJOR SYSTEMS.
5. SITE EQUIPMENT INVENTORY AND MAINTENANCE NOTES.
6. A COPY OF VERIFICATIONS REQUIRED BY THE ENFORCING AGENCY OR THIS CODE.
7. OTHER RESOURCES AND DOCUMENTATION, IF APPLICABLE.

5.410.2.5.2 SYSTEMS OPERATIONS TRAINING. [N] A PROGRAM FOR TRAINING OF THE APPROPRIATE MAINTENANCE STAFF FOR EACH EQUIPMENT TYPE AND/OR SYSTEM SHALL BE DEVELOPED AND DOCUMENTED IN THE COMMISSIONING REPORT AND SHALL INCLUDE THE FOLLOWING:

1. SYSTEM/EQUIPMENT OVERVIEW (WHAT IT IS, WHAT IT DOES AND WITH WHAT OTHER SYSTEMS AND/OR EQUIPMENT IT INTERFACES).
2. REVIEW AND DEMONSTRATION OF SERVICING/PREVENTIVE MAINTENANCE.
3. REVIEW OF THE INFORMATION IN THE SYSTEMS MANUAL.
4. REVIEW OF THE RECORD DRAWINGS ON THE SYSTEM/EQUIPMENT.

5.410.2.6 COMMISSIONING REPORT. [N] A REPORT OF COMMISSIONING PROCESS ACTIVITIES UNDERTAKEN THROUGH THE DESIGN AND CONSTRUCTION PHASES OF THE BUILDING PROJECT SHALL BE COMPLETED AND PROVIDED TO THE OWNER OR REPRESENTATIVE.

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.501 GENERAL

5.501.1 SCOPE. THE PROVISIONS OF THIS CHAPTER SHALL OUTLINE MEANS OF REDUCING THE QUANTITY OF AIR CONTAMINANTS THAT ARE ODOROUS, IRRITATING, AND/OR HARMFUL TO THE COMFORT AND WELL-BEING OF A BUILDING'S INSTALLERS, OCCUPANTS AND NEIGHBORS.

SECTION 5.502 DEFINITIONS

5.502.1 DEFINITIONS. THE FOLLOWING TERMS ARE DEFINED IN CHAPTER 2 (AND ARE INCLUDED HERE FOR REFERENCE)

ARTERIAL HIGHWAY. A GENERAL TERM DENOTING A HIGHWAY PRIMARILY FOR THROUGH TRAFFIC USUALLY ON A CONTINUOUS ROUTE.

A-WEIGHTED SOUND LEVEL (DBA). THE SOUND PRESSURE LEVEL IN DECIBELS AS MEASURED ON A SOUND LEVEL METER USING THE INTERNATIONALLY STANDARDIZED A-WEIGHTING FILTER OR AS COMPUTED FROM SOUND SPECTRAL DATA TO WHICH A-WEIGHTING ADJUSTMENTS HAVE BEEN MADE.

1 BTU/HOUR. BRITISH THERMAL UNITS PER HOUR, ALSO REFERRED TO AS BTU. THE AMOUNT OF HEAT REQUIRED TO RAISE ONE POUND OF WATER ONE DEGREE FAHRENHEIT PER HOUR, A COMMON MEASURE OF HEAT TRANSFER RATE. A TON OF REFRIGERATION IS 12,000 BTU, THE AMOUNT OF HEAT REQUIRED TO MELT A TON (2,000 POUNDS) OF ICE AT 32° FAHRENHEIT.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A METRIC SIMILAR TO THE DAY-NIGHT AVERAGE SOUND LEVEL (LDN), EXCEPT THAT A 5 DECIBEL ADJUSTMENT IS ADDED TO THE EQUIVALENT CONTINUOUS SOUND EXPOSURE LEVEL FOR EVENING HOURS (7PM TO 10PM) IN ADDITION TO THE 10 DB NIGHTTIME ADJUSTMENT USED IN THE LDN.

COMPOSITE WOOD PRODUCTS. COMPOSITE WOOD PRODUCTS INCLUDE HARDWOOD PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD. "COMPOSITE WOOD PRODUCTS" DOES NOT INCLUDE HARDBOARD, STRUCTURAL PLYWOOD, STRUCTURAL PANELS, STRUCTURAL COMPOSITE LUMBER, ORIENTED STRAND BOARD, GLUED LAMINATED TIMBER, TIMBER, PREFABRICATED WOOD I–JOISTS OR FINGER–JOINTED LUMBER, ALL AS SPECIFIED IN CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 17, SECTION 93120.1(A).

NOTE: SEE CCR, TITLE 17, SECTION 93120.1.

DAY-NIGHT AVERAGE SOUND LEVEL (LDN). THE A-WEIGHTED EQUIVALENT CONTINUOUS SOUND EXPOSURE LEVEL FOR A 24-HOUR PERIOD WITH A 10 DB ADJUSTMENT ADDED TO SOUND LEVELS OCCURRING DURING NIGHTTIME HOURS (10P.M. TO 7 A.M.).

DECIBEL (DB). A MEASURE ON A LOGARITHMIC SCALE OF THE MAGNITUDE OF A PARTICULAR QUANTITY (SUCH AS SOUND PRESSURE, SOUND POWER, SOUND INTENSITY) WITH RESPECT TO A REFERENCE QUANTITY.

ELECTRIC VEHICLE (EV). AN AUTOMOTIVE-TYPE VEHICLE FOR ON-ROAD USE, SUCH AS PASSENGER AUTOMOBILES, BUSES, TRUCKS, VANS, NEIGHBORHOOD ELECTRIC VEHICLES, ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTOR THAT DRAWS CURRENT FROM A RECHARGEABLE STORAGE BATTERY, FUEL CELL, PHOTOVOLTAIC ARRAY, OR OTHER SOURCE OF ELECTRIC CURRENT. PLUG-IN HYBRID ELECTRIC VEHICLES (PHEV) ARE CONSIDERED ELECTRIC VEHICLES. FOR PURPOSES OF THE CALIFORNIA ELECTRICAL CODE, OFF-ROAD, SELF-PROPOELLED ELECTRIC VEHICLES, SUCH AS INDUSTRIAL TRUCKS, HOISTS, LIFTS, TRANSPORTS, GOLF CARTS, AIRLINE GROUND SUPPORT EQUIPMENT, TRACTORS, BOATS, AND THE LIKE, ARE NOT INCLUDED.

REQUIRED

SECTION 5.502 DEFINITIONS (CONT)

ELECTRIC VEHICLE CHARGING STATION(S) (EVCSJ). ONE OR MORE SPACES INTENDED FOR CHARGING ELECTRIC VEHICLES.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). THE CONDUCTORS, INCLUDING THE UNGROUNDED, GROUNDED, AND EQUIPMENT GROUNDING CONDUCTORS AND THE ELECTRIC VEHICLE CONNECTORS, ATTACHMENT PLUGS, AND ALL OTHER FITTINGS, DEVICES, POWER OUTLETS, OR APPARATUS INSTALLED SPECIFICALLY FOR THE PURPOSE OF TRANSFERRING ENERGY BETWEEN THE PREMISES WIRING AND THE ELECTRIC VEHICLE.

ENERGY EQUIVALENT (NOISE) LEVEL (LEQ). THE LEVEL OF A STEADY NOISE WHICH WOULD HAVE THE SAME ENERGY AS THE FLUCTUATING NOISE LEVEL INTEGRATED OVER THE TIME OF PERIOD OF INTEREST.

EXPRESSWAY. AN ARTERIAL HIGHWAY FOR THROUGH TRAFFIC WHICH MAY HAVE PARTIAL CONTROL OF ACCESS, BUT WHICH MAY OR MAY NOT BE DIVIDED OR HAVE GRADE SEPARATIONS AT INTERSECTIONS.

FREEWAY. A DIVIDED ARTERIAL HIGHWAY WITH FULL CONTROL OF ACCESS AND WITH GRADE SEPARATIONS AT INTERSECTIONS.

GLOBAL WARMING POTENTIAL (GWP). THE RADIATIVE FORCING IMPACT OF ONE MASS-BASED UNIT OF A GIVEN GREENHOUSE GAS RELATIVE TO AN EQUIVALENT UNIT OF CARBON DIOXIDE OVER A GIVEN PERIOD OF TIME. CARBON DIOXIDE IS THE REFERENCE COMPOUND WITH A GWP OF ONE.

GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-YEAR GWP VALUE PUBLISHED BY THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC) IN EITHER ITS SECOND ASSESSMENT REPORT (SAR) (IPCC, 1995); OR ITS FOURTH ASSESSMENT A-3 REPORT (AR4) (IPCC, 2007). THE SAR GWP VALUES ARE FOUND IN COLUMN "SAR (100-YR)" OF TABLE 2.14.; THE AR4 GWP VALUES ARE FOUND IN COLUMN "100 YR" OF TABLE 2.14.

HIGH-GWP REFRIGERANT. A COMPOUND USED AS A HEAT TRANSFER FLUID OR GAS THAT IS: (A) A CHLOROFLUOROCARBON, A HDROCHLOROFLUOROCARBON, A HYDROFLUOROCARBON, A PERFLUOROCARBON, OR ANY COMPOUND OR BLEND OF COMPOUNDS, WITH A GWP VALUE EQUAL TO OR GREATER THAN 150, OR (B) ANY OZONE DEPLETING SUBSTANCE AS DEFINED IN TITLE 40 OF THE CODE OF FEDERAL REGULATIONS, PART 82, SEC.82.3 (AS AMENDED MARCH 10, 2009).

LONG RADIUS ELBOW. PIPE FITTING INSTALLED BETWEEN TWO LENGTHS OF PIPE OR TUBING TO ALLOW A CHANGE OF DIRECTION, WITH A RADIUS 1.5 TIMES THE PIPE DIAMETER.

LOW-GWP REFRIGERANT. A COMPOUND USED AS A HEAT TRANSFER FLUID OR GAS THAT: (A) HAS A GWP VALUE LESS THAN 150, AND (B) IS NOT AN OZONE DEPLETING SUBSTANCE AS DEFINED IN TITLE 40 OF THE CODE OF FEDERAL REGULATIONS, PART 82, SEC.82.3 (AS AMENDED MARCH 10, 2009).

MERV. FILTER MINIMUM EFFICIENCY REPORTING VALUE, BASED ON ASHRAE 52.2–1999.

MAXIMUM INCREMENTAL REACTIVITY (MIR). THE MAXIMUM CHANGE IN WEIGHT OF OZONE FORMED BY ADDING A COMPOUND TO THE "BASE REACTIVE ORGANIC GAS (ROG) MIXTURE" PER WEIGHT OF COMPOUND ADDED, EXPRESSED TO HUNDREDTHS OF A GRAM (G O^3/G ROC).

PRODUCT-WEIGHTED MIR (PWMIR). THE SUM OF ALL WEIGHTED-MIR FOR ALL INGREDIENTS IN A PRODUCT SUBJECT TO THIS ARTICLE. THE PWMIR IS THE TOTAL PRODUCT REACTIVITY EXPRESSED TO HUNDREDTHS OF A GRAM OF OZONE FORMED PER GRAM OF PRODUCT (EXCLUDING CONTAINER AND PACKAGING).

PSIG. POUNDS PER SQUARE INCH, GUAGE.

REACTIVE ORGANIC COMPOUND (ROC). ANY COMPOUND THAT HAS THE POTENTIAL, ONCE EMITTED, TO CONTRIBUTE TO OZONE FORMATION IN THE TROPOSPHERE.

SCHRADER ACCESS VALVES. ACCESS FITTINGS WITH A VALVE CORE INSTALLED.

SHORT RADIUS ELBOW. PIPE FITTING INSTALLED BETWEEN TWO LENGTHS OF PIPE OR TUBING TO ALLOW A CHANGE OF DIRECTION, WITH A RADIUS 1.0 TIMES THE PIPE DIAMETER.

SUPERMARKET. FOR THE PURPOSES OF SECTION 5.508.2, A SUPERMARKET IS ANY RETAIL FOOD FACILITY WITH 8,000 SQUARE FEET OR MORE CONDITIONED AREA, AND THAT UTILIZES EITHER REFRIGERATED DISPLAY CASES, OR WALK-IN COOLERS OR FREEZERS CONNECTED TO REMOTE COMPRESSOR UNITS OR CONDENSING UNITS.

VOC. A VOLATILE ORGANIC COMPOUND BROADLY DEFINED AS A CHEMICAL COMPOUND BASED ON CARBON CHAINS OR RINGS WITH VAPOR PRESSURES GREATER THAN 0.1 MILLIMETERS OF MERCURY AT ROOM TEMPERATURE. THESE COMPOUNDS TYPICALLY CONTAIN HYDROGEN AND MAY CONTAIN OXYGEN, NITROGEN AND OTHER ELEMENTS. SEE CCR TITLE 17, SECTION 94508(A).

NOTE: WHERE SPECIFIC REGULATIONS ARE CITED FROM DIFFERENT AGENCIES SUCH AS SCAQMD, ARB, ETC., THE VOC DEFINITION INCLUDED IN THAT SPECIFIC REGULATION IS THE ONE THAT PREVAILS FOR THE SPECIFIC MEASURE IN QUESTION.

SECTION 5.503 FIREPLACES

5.503.1 FIREPLACES. INSTALL ONLY A DIRECT-VENT SEALED-COMBUSTION GAS OR SEALED WOOD-BURNING FIREPLACE, OR A SEALED WOODSTOVE OR PELLET STOVE, AND REFER TO RESIDENTIAL REQUIREMENTS IN THE CALIFORNIA ENERGY CODE, TITLE 24, PART 6, SUBCHAPTER 7, SECTION 150. WOODSTOVES, PELLET STOVES AND FIREPLACES SHALL COMPLY WITH APPLICABLE LOCAL ORDINANCES.

5.503.1.1 WOODSTOVES. WOODSTOVES AND PELLET STOVES SHALL COMPLY WITH U.S. EPA NEW SOURCE PERFORMANCE STANDARDS (NSPS) EMISSION LIMITS AS APPLICABLE, AND SHALL HAVE A PERMANENT LABEL INDICATING THEY ARE CERTIFIED TO MEET THE EMISSION LIMITS.

SECTION 5.504 POLLUTANT CONTROL

☒ 5.504.1 TEMPORARY VENTILATION. THE PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION THE BUILDING OR AREAS OF ADDITION OR ALTERATION WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8, BASED ON ASHRAE 52.2-1999, OR AN AVERAGE EFFICIENCY OF 30% BASED ON ASHRAE 52.1-1992 REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY, OR, IF THE BUILDING IS OCCUPIED DURING ALTERATION, AT THE CONCLUSION OF CONSTRUCTION.

☒ 5.504.3 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION, OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY COLLECT IN THE SYSTEM.

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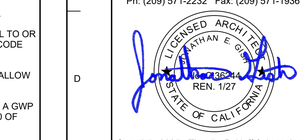

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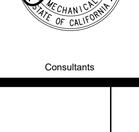

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MECHANICAL - GREEN BUILDING CODE NOTES

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

M0-0.3

Plot Date & Time

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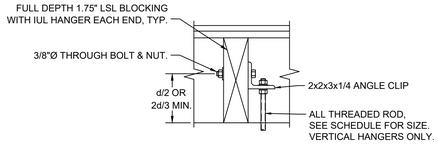
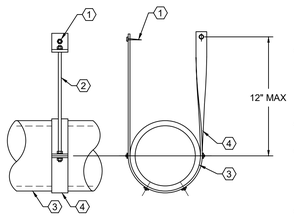




1. UPPER ATTACHMENT - SECURE TO UNISTRUT WITH 3/8"Ø BOLT, NUT & WASHER. REFER TO STRUCTURAL DRAWINGS FOR BLOCKING REQUIREMENTS.
2. HANGER ROD SEE TABLE, FOR SIZE SEE TABLE 5-2
3. GALV. SHEET METAL DUCT W/ ACOUSTIC LINING, SHEET METAL DUCT W/ EXTERNAL INSULATION OR VENT, SEE PLANS FOR SIZE.
4. STRAP, SEE TABLE FOR SIZE.

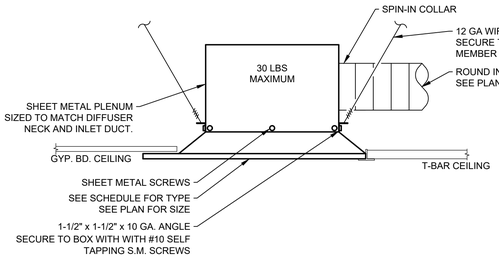
NOTES:
1. DUCTWORK SHALL CONFORM WITH, HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE, THIRD EDITION, SMACNA - 2020.

TABLE 5-2 MINIMUM HANGER SIZES FOR ROUND DUCT

DUCT DIAMETER	MAX. SPACING	ROD DIA.	STRAP	MAX. WT. PER LIN FT.
≥ 10"	12'	3/8"	1" x 0.030" (22 GA.)	1.2 LBS.
11" TO 18"	12'	3/8"	1" x 0.030" (22 GA.)	4.63 LBS.
19" TO 24"	12'	3/8"	1" x 0.030" (22 GA.)	7.26 LBS.

NOTES:
1. STRAPS ARE GALVANIZED STEEL; RODS ARE UNCOATED OR GALVANIZED STEEL; WIRE IS BLACK ANNEALED, BRIGHT BASIC OR GALVANIZED STEEL. ALL ARE ALTERNATIVES.
2. TABLE ALLOWS FOR CONVENTIONAL WALL THICKNESS, AND JOINT SYSTEMS PLUS 1 LB./SF INSULATION WEIGHT. IF HEAVIER DUCTS ARE TO BE INSTALLED, ADJUST HANGER SIZES TO BE WITHIN THEIR LOAD LIMITS; SEE ALLOWABLE LOAD LIMITS WITH SMACNA TABLE 5-1. HANGER SPACING MAY BE ADJUSTED BY SPECIAL ANALYSIS.
3. LATERAL MOTION OF DUCT WILL NOT CAUSE IMPACT WITH OTHER SYSTEMS (E.G. OTHER DUCT, PIPES OR ELECTRICAL SYSTEMS, EQUIPMENT, STRUCTURAL MEMBERS ETC., OR FRAGILE APPURTENANCES SUCH AS SPRINKLER HEADS OR LIGHTING FIXTURES) OR LOSS OF SYSTEM VERTICAL SUPPORT WHEN SWINGING 45 DEGREES IN ANY DIRECTION.

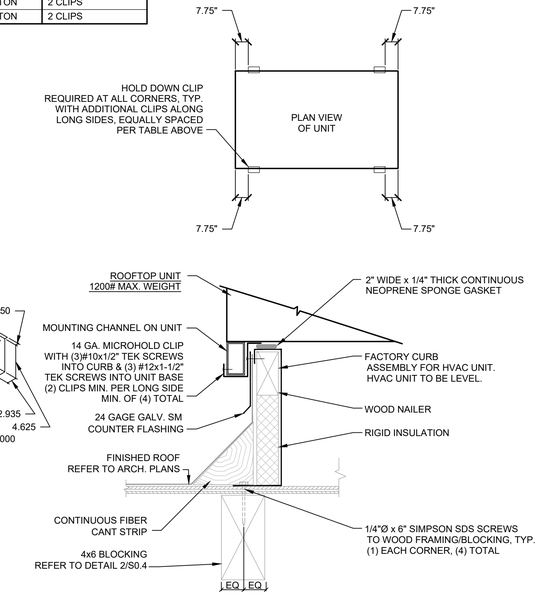
1 ROUND DUCT HANGER DETAIL
M0-0.4 — SCALE: N/A



FLEXIBLE DUCT NOTES:
1. FLEXIBLE DUCTS SHALL CONSIST OF AN EXTERIOR REINFORCED LAMINATED VAPOR BARRIER, FIBER GLASS INSULATION (PER CEC STANDARDS), ENCAPSULATED SPRING STEEL WIRE HELIX AND IMPERVIOUS, SMOOTH, NON-PERFORATED INTERIOR VINYL LINER.
2. INSTALLATION OF FLEXIBLE DUCTS SHALL MINIMIZE SHARP RADIUS TURNS OR OFFSETS. THE MAXIMUM LENGTH SHALL BE FIVE (5) FEET AND CAN BE USED AT THE TERMINAL ENDS ONLY, AND SHALL NOT BE USED IN LIEU OF RIGID ELBOWS OR FITTINGS. EXCEPT THAT FLEXIBLE DUCTS PROPERLY INSTALLED MAY BE USED TO CROSS SEISMIC JOINTS WITHOUT OFFSETS.

2 TYPICAL REGISTER DETAIL
M0-0.4 — SCALE: N/A

UNIT	CLIP PER LONG SIDE
3 TON	2 CLIPS
5 TON	2 CLIPS



NOTE: INTERNAL WELDING OF THE FACTORY CURB IS EXEMPT FROM INSPECTION.

3 ROOFTOP AC CURB DETAIL
M0-0.4 — SCALE: N/A

HANGER ROD & SPACING SCHEDULES

COPPER TUBE & COPPER ALLOYS

SOLDERED, BRAZED, THREADED, OR MECHANICAL JOINTS.

PIPE SIZE	HANGER ROD	MAX HORIZONTAL SPAN
1/2" - 1-1/2"	3/8"	6'

PIPE SUPPORT SPACING NOTES

PIPE HANGER SPACING AND SUPPORT SHALL MEET THE FOLLOWING ADDITIONAL CRITERIA.

INDIVIDUALLY HUNG PIPE (≤ 5 PLF):

NO RESTRICTIONS REQUIRED.

INDIVIDUALLY HUNG PIPE
(> 5 PLF AND ≤ 3"ø, NON-HAZARDOUS, OR ≤1"ø HAZARDOUS)

PROVISIONS SHALL BE MADE TO AVOID IMPACT WITH OTHER STRUCTURAL AND NONSTRUCTURAL COMPONENTS

OR

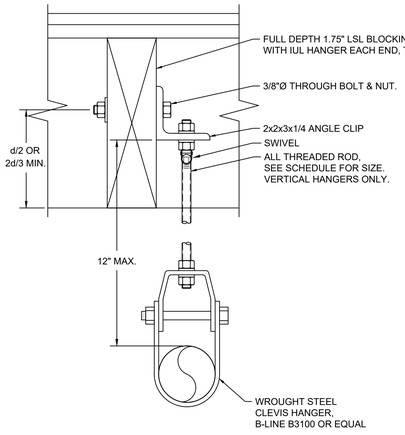
WITH 3/8" AND 1/2" ROD HANGERS, THE POINT OF PIPE SUPPORT SHALL NOT EXCEED 12" FROM STRUCTURAL ATTACHMENT ABOVE, AND SUPPORT SPACING SHALL BE REDUCED SUCH THAT NO HANGER LOAD EXCEEDS 50 LBS.

INDIVIDUALLY HUNG PIPE (> 3"ø)

SHALL BE SUPPORTED ACCORDING TO SPECIFIC DETAILS ON THESE PLANS, AS OCCURS. SEE NOTE BELOW.

NOTE: WHERE FIELD CONDITIONS ARE DISCOVERED SUCH THAT PIPE CANNOT BE INSTALLED ACCORDING TO THE ABOVE CRITERIA OR PROJECT SPECIFIC DETAILS, CERTIFIED SEISMIC BRACING SHALL BE INSTALLED AS PROVIDED BY MASON INDUSTRIES OR EQUAL VENDOR FOR FULL COMPLIANCE WITH 2022 CBC SECTION 1617A, WHICH INCLUDES MODIFICATIONS TO ASCE 7 CHAPTER 13 FOR NON-STRUCTURAL COMPONENTS.

CRITERIA BASED ON DSA IR 16-13 AND CBC 2022 SECTION 1617A, FOR SEISMIC DESIGN CATEGORY D, E, OR F.



4 PIPE SUPPORT DETAIL
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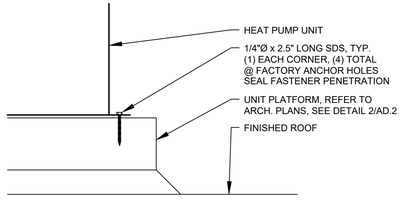
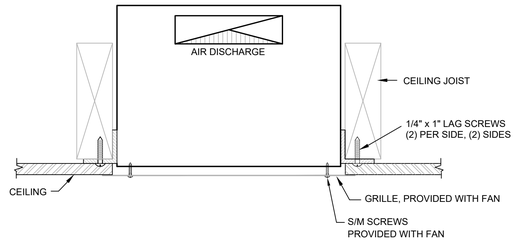


5 HEAT PUMP MOUNTING DETAIL
M0-0.4 — SCALE: N/A



6 CEILING EXHAUST FAN DETAIL
M0-0.4 — SCALE: NONE

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Checked by	GL

M0-0.4

Plot Date & Time

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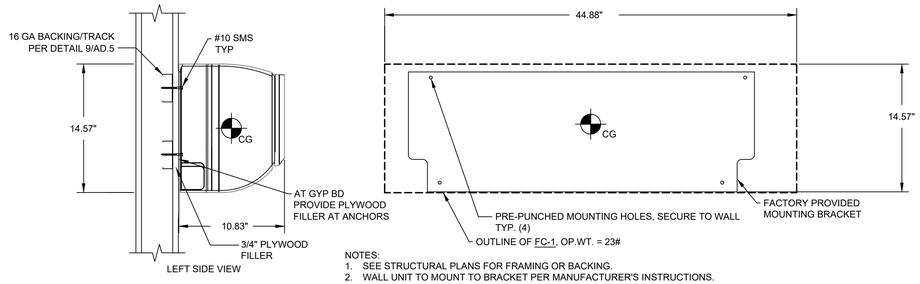

NOTES:
1. SEE STRUCTURAL PLANS FOR FRAMING OR BACKING.
2. WALL UNIT TO MOUNT TO BRACKET PER MANUFACTURER'S INSTRUCTIONS.

1 / M0-0.5 FAN COIL UNIT WALL MOUNTING DETAIL

SCALE: N/A

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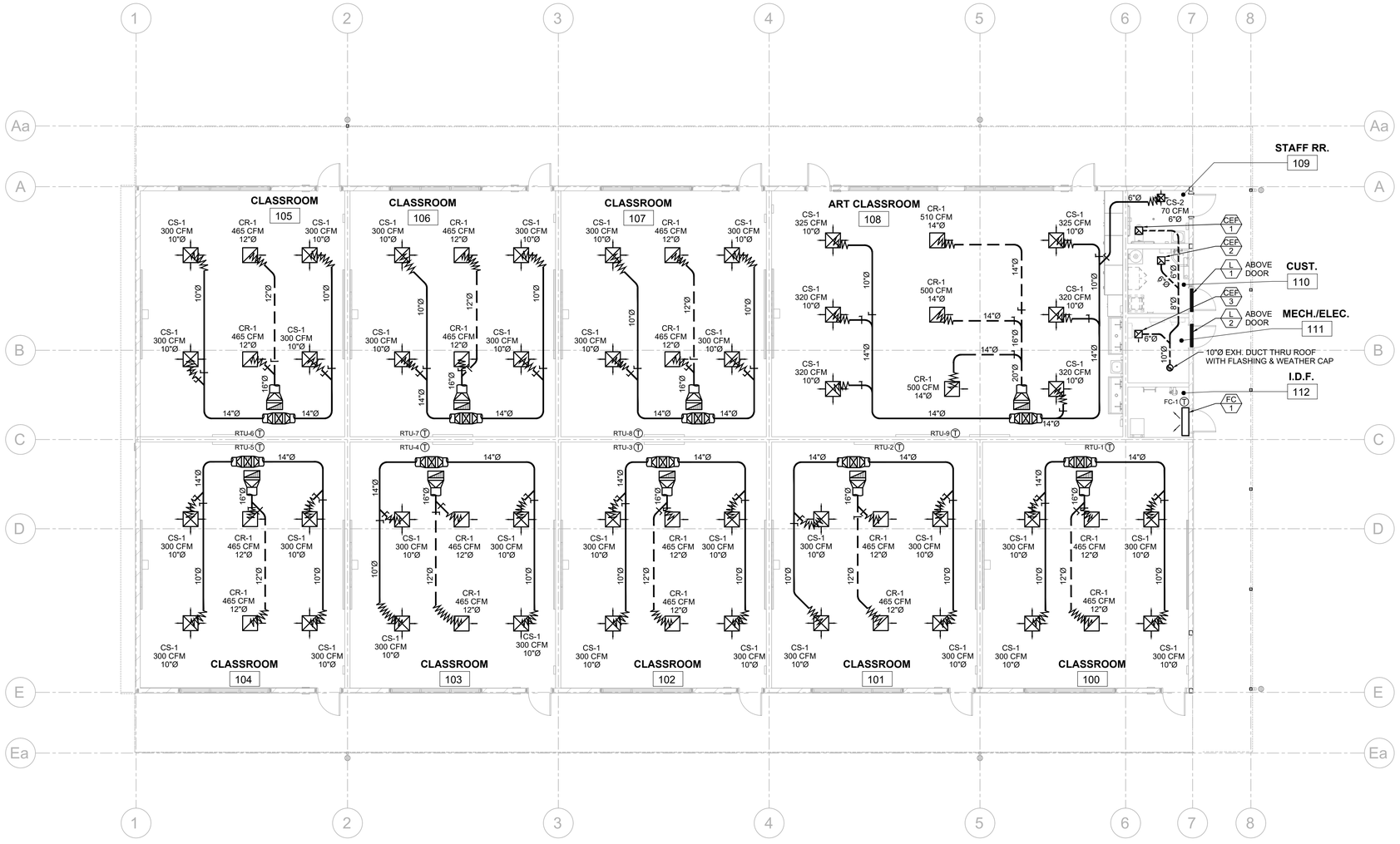


1 M1-1.1 MECHANICAL - FLOOR PLAN

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

NORTH

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION: PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

INTERIOR WALLS

2x4 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER AT EACH SIDE

2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE

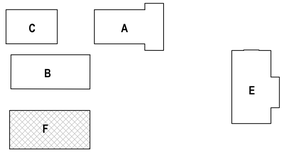
2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE AND PLYWD. SHEATHING AT ONE SIDE (SHEAR WALL)

NOTES:

- ALL WALL TILE TO TO HAVE TILE BACKER BOARD - SEE INTERIOR ELEVATIONS & FINISH SCHEDULE.
- WALL LEGEND ONLY ADDRESSES GYPSUM BOARD LOCATIONS - SEE FINISH SCHEDULE FOR LOCATIONS WHERE TACKBOARD IS SPECIFIED OVER THE GYPSUM BOARD
- DIMENSIONS ARE TO FACE OF STUD OR CENTERLINE OF COLUMN, UNLESS OTHERWISE NOTED
- ALL INTERIOR AND EXTERIOR WOOD OR METAL STUDS ARE TO BE SPACED AT 16" O.C. MAX.
- SEE STRUCTURAL DRAWINGS FOR ALL EXTERIOR AND INTERIOR SHEAR WALL LOCATIONS
- SEE STRUCTURAL DRAWINGS FOR EXTERIOR WALLS W/ PLYWD. SHEATHING AT INTERIOR FACE
- ALL STUD OR PLATE PENETRATIONS (INCLUDING ELECTRICAL, COMMUNICATIONS, AND PLUMBING LINES) AT WALLS SHALL BE SEALED WITH EXPANDING FOAM FOR SOUND ATTENUATION BEFORE SOUND BATTS ARE INSTALLED. ARCHITECT SHALL INSPECT PRIOR TO SOUND BATT INSTALLATION.

WALL LEGEND

CAMPUS KEY



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NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

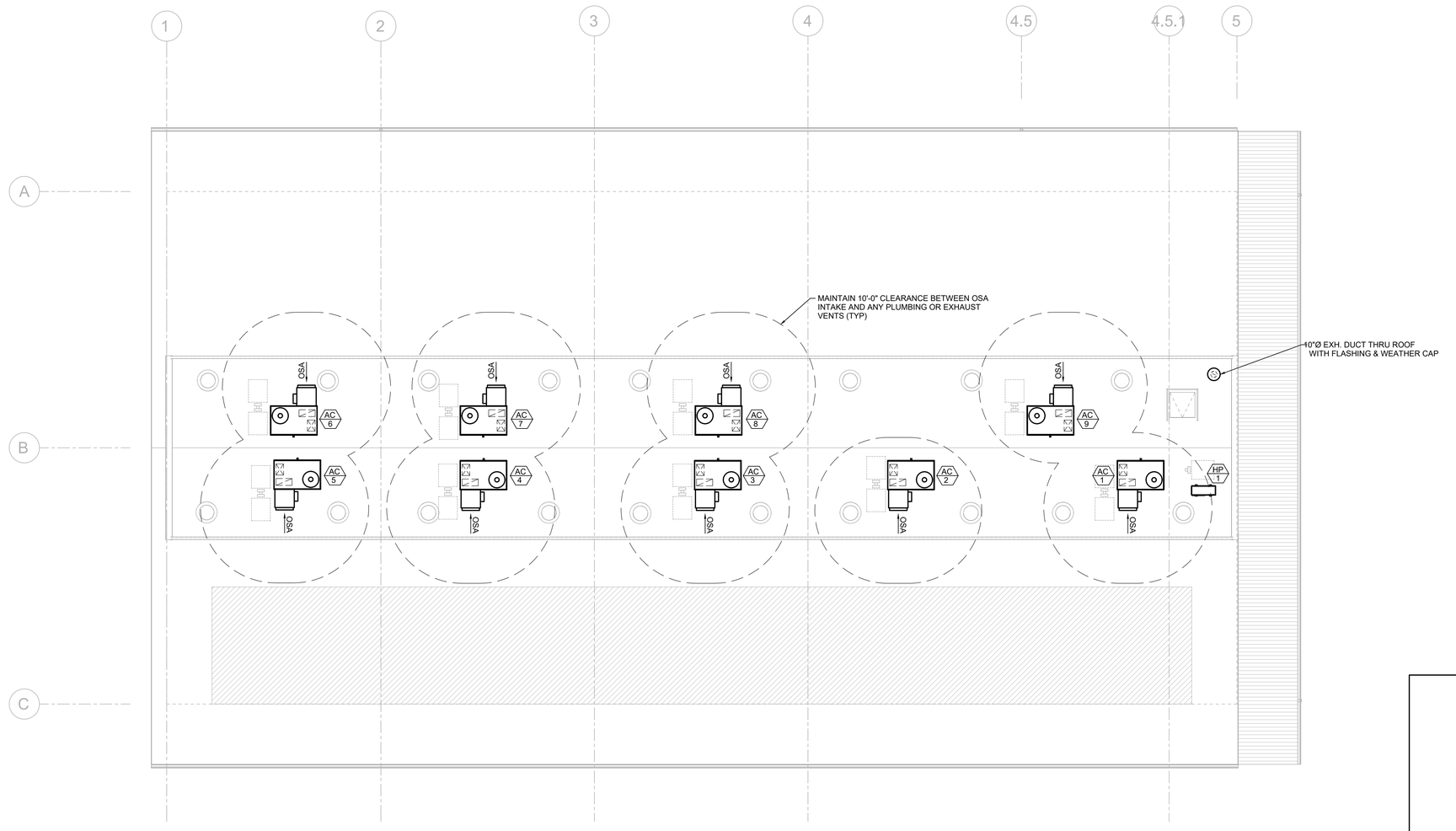
MECHANICAL - FLOOR PLAN

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

M1-1.1

Plot Date & Time

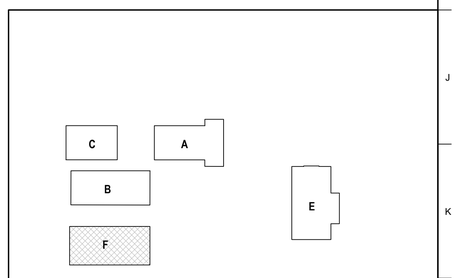
J:\2025 Jobs\25363 - Von Renner Classrooms\25363 - Mechanical.dwg, 6/9/2026 7:17:06 AM, d.wilson



1 M1-3.1 MECHANICAL - ROOF PLAN

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

NORTH



CAMPUS KEY

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

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REGISTERED PROFESSIONAL ENGINEER GLEN LANGE No. M 29016 MECHANICAL STATE OF CALIFORNIA

Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

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DOMESTIC WATER SIZING CALCULATION

WATER SIZING WORKSHEET PER 2022 CPC TABLE 610.3
AND 2022 CPC, APPENDIX A

			TABLE A-2 FIXTURE TYPE	MINIMUM BRANCH SIZE			
SOURCE DATA					QTY	FU	TOTAL
MIN. PRESSURE AVAILABLE:	60.0	PSI	BATHTUB/BATH-SHOWER COMB. (FILL)	1/2"	0	4.0	0.0
			BIDET	1/2"	0	1.0	0.0
DEMAND DATA			CLOTHESWASHER	1/2"	1	4.0	4.0
TOTAL FIXTURE UNITS:	24.0	F.U.	DENTAL UNIT, CUSPIDOR	1/2"	0	1.0	0.0
FIXTURE UNIT DEMAND:	37.0	GPM CHART A103.1	DISHWASHER	3/4"	0	1.5	0.0
CONTINUOUS DEMAND:	0.0	GPM	DRINKING FOUNTAIN OR WATERCOOLER	1/2"	0	0.5	0.0
TOTAL DEMAND:	37.0	GPM	HOSE BIBB	1/2"	1	2.5	2.5
			HOSE BIBB (EACH ADDITIONAL)	1/2"	1	1.0	1.0
SOURCE TO PUMP			LAVATORY	1/2"	1	1.0	1.0
DISTANCE:	0	FT	LAWN SPRINKLER, EACH HEAD		0	1.0	0.0
ELEVATION CHANGE:	0	FT	SINK, BAR TYPE	1/2"	0	2.0	0.0
FRICTION LOSS:	0.0	PSI	SINK, CLINIC FAUCET	1/2"	0	3.0	0.0
TOTAL LOSS:	0.0	PSI	SINK, CLINIC FLUSHOMETER VALVE	1/2"	0	1.5	0.0
			SINK, KITCHEN DOMESTIC	1/2"	4	1.5	6.0
BOOSTER PUMP:	0	PSI	SINK, LAUNDRY	1/2"	0	1.5	0.0
			SINK, SERVICE OR MOP BASIN	1/2"	1	3.0	3.0
BUILDING SYSTEM			SINK, WASHUP (EACH SET OF FAUCETS)	1/2"	0		0.0
TOTAL DEVELOPED LENGTH TO			SHOWER	1/2"	0	2.0	0.0
MOST REMOTE FIXTURE:	500	FT	URINAL, 1.0 GPF	3/4"	0	4.0	0.0
ELEVATION TO HIGHEST FIXTURE:	12	FT	URINAL, >1.0 GPF	3/4"	0	4.0	0.0
METER:	5	PSI CHART A102.2	URINAL, FLUSH TANK	1/2"	0	2.0	0.0
BACKFLOW PREVENTER:	12	PSI	WASHFOUNTAIN, CIRCULAR SPRAY	3/4"	0		0.0
SOFTENER:	0	PSI	WATER CLOSET, 1.6 GPF GRAVITY TANK	1/2"	0	2.5	0.0
FILTER:	0	PSI	WATER CLOSET, 1.6 GPF FLUSHOMETER TANK	1/2"	0	2.5	0.0
MISC:	0	PSI	WATER CLOSET, 1.6 GPF FLUSHOMETER VALVE	1"	1	5.0	5.0
TOTAL BUILDING SYSTEM LOSS:	22.2	PSI	WATER CLOSET > 1.6 GPF GRAVITY TANK	1/2"	0	5.0	0.0
			WATER CLOSET > 1.6 GPF FLUSHOMETER VALVE	1"	0	7.0	0.0
						TOTAL:	24.0
FLUSH VALVE SYSTEM (25 PSI RESID):	2.6	PSI/100'					
BUILDING SUPPLY PIPE SIZE:	2"	INCHES					

COLD WATER (FLUSH TANK 8 FPS MAX)

SIZE	DP/100'	GPM	F.U.	VEL IN FPS
1/2"	5.5	2.6	1	3.4
3/4"	5.5	6.8	7	4.5
1"	5.5	15.0	21	5.5
1 1/4"	5.5	25.0	42	6.3
1 1/2"	5.5	38.0	78	7.6
2"	4.6	72.0	236	8.0

COLD WATER (FLUSH VALVE 8 FPS MAX)

SIZE	DP/100'	GPM	F.U.	VEL IN FPS
1/2"	2.5	1.6	-	2.2
3/4"	2.5	4.3	-	2.8
1"	2.5	8.5	-	3.4
1 1/4"	2.5	16.0	-	3.9
1 1/2"	2.5	25.0	8	4.5
2"	2.5	50.0	48	5.5

HOT WATER (5 FPS MAX)

SIZE	DP/100'	GPM	F.U.	VEL IN FPS
1/2"	5.5	2.6	1	3.4
3/4"	5.5	6.8	7	4.5
1"	4.7	13.5	18	5.0
1 1/4"	3.6	19.0	28	5.0
1 1/2"	3.0	28.0	49	5.0
2"	2.2	48.0	119	5.0

PLUMBING EQUIPMENT SCHEDULE

MK. NO.	DESCRIPTION
WC-1	WATER CLOSET: FLOOR MOUNTED, 1.28 GPF FLUSH VALVE, ELONGATED BOWL, KOHLER "HIGHLINE" #K-96057-0. FLUSH VALVE: 1.28 GPF, SLOAN #111-1.28. (LOCATE HANDLE ON WIDE SIDE OF STALL) SEAT: MOUNT TOP OF SEAT @ 17" HIGH, OPEN FRONT, MAINLINE #ML1055/ML1055SSC. INSTALL PER ACCESSIBILITY REQUIREMENTS.
L-1	WALL MOUNTED LAVATORY: VITREOUS CHINA, 21-1/4"x18-1/4", CENTER HOLE, KOHLER "KINGSTON" #K-2007-0. FAUCET: POLISHED CHROME, 0.5 GPM, MANUAL SINGLE LEVER HANDLE, CHICAGO FAUCET #2200-E2805ABCP. MIXING VALVE: THERMOSTATIC MIXING VALVE, ASSE 1070, SET TO 110°F MAX., CHICAGO #131-ABNF. CARRIER: FLOOR-MOUNT CONCEALED ARM SYSTEM, JOSAM #17100. PROVIDE WITH P-TRAP, WATER SUPPLY & ANGLE STOPS. INSTALL PER ACCESSIBILITY REQUIREMENTS.
S-1	WALL HUNG SINK: 14 GA. 304 STAINLESS STEEL, 60"x20"x8", CENTER BOTTOM DRAIN, 2-FAUCET HOLES @ 8" O.C., JUST #J6020-J. FAUCET-1: RIGID WALL MOUNT SPOUT, CHUCAGO FAUCET #629-S6ABCP WITH #834-EPABCP FOOT PEDALS. FAUCET-2: WALL MOUNTED FAUCET WITH 44" FLEXIBLE HOSE, 1.6 GPM SPRAY HEAD, 3" LEVER HANDLES, ELKAY #LK943C. PROVIDE WITH J-35-SSF DRAIN, P-TRAP, WATER SUPPLY & ANGLE STOPS.
S-2	WALL HUNG SINK: VITREOUS CHINA, 21-1/4"x18-1/4", 4" CENTERS, KOHLER "KINGSTON" #K-2005-0. FAUCET: SINGLE HANDLE, POLISHED CHROME FINISH, 0.5 GPM, MOEN #8430. MIXING VALVE: THERMOSTATIC MIXING VALVE, ASSE 1070, SET TO 110°F MAX., CHICAGO #131-ABNF. CARRIER: FLOOR-MOUNT CONCEALED ARM SYSTEM, JOSAM #17100. PROVIDE WITH P-TRAP, WATER SUPPLY & ANGLE STOPS. INSTALL PER ACCESSIBILITY REQUIREMENTS.
MS-1	SINK: FLOOR MOUNTED MOP SINK, ENAMEL COATED CAST IRON, 3" DRAIN, KOHLER "WHITBY #K-6710. FAUCET: WALL MOUNTED, 8" CENTERS, RIGID SPOUT WITH PAIL HOOK AND WALL BRACE, CHICAGO #897-MPRCF. MOP HANGER: SPEAKMAN #MR-372. HOSE AND HOSE BRACKET/CLAMP: SPEAKMAN #MR-370. STAINLESS STEEL RIM GUARD: SPEAKMAN #MR-373.
FD-1	FLOOR DRAIN: CAST IRON BODY, BOTTOM OUTLET, LIGHT DUTY HEEL-PROOF POLISHED NICKEL BRONZE STRAINER, 2" NO-HUB OUTLET, 1/2" TRAP PRIMER CONNECTION, ROUND GRATE, ZURN #Z415B-NH-ZN-P.
HB-1	HOSE BIBB: ANTI-SIPHON, WALL FAUCET WITH VACUUM BREAKER, LOOSE KEY, WOODFORD #24.
HB-2	HOSE BIBB: ANTI-SIPHON, AUTOMATIC DRAINING, ROOF MOUNTED, WOODFORD #RHY1-MS. PROVIDE WITH DRAIN LINE, REFER TO DETAIL 1/P0-0.4.
WMB-1	WASHING MACHINE BOX: REVERSIBLE, METAL CONSTRUCTION, 1/4 TURN BRASS BALL VALVES, COPPER SWEAT, ABS TAILPIECE, OATEY #38983.
TP-1	TRAP PRIMER: AUTOMATIC TYPE, INLINE, CORROSION RESISTANT BRASS, INSTALL PER MANUFACTURER'S RECOMMENDATIONS, PROVIDE DISTRIBUTION UNIT AS REQUIRED, PROVIDE ACCESS PANEL, PPP "PRIME-PRO" #PRO1-500, OR EQUAL.
WHA-1	WATER HAMMER ARRESTOR: FLUID TYPE. TYPE "K" COPPER BODY, MALE NPT CONNECTION, SIZE PER MFG. RECOMMENDATIONS. 1-11 F.U.: PPP #SC-500A, 12-32 F.U.: PPP #SC-750B. PROVIDE WITH ACCESS PANEL, SEE AP-1.
AP-1	WALL ACCESS PANEL: 16 GAUGE STEEL WITH STAINLESS STEEL FINISH, ACCESS DOOR MIN. 12"x12", CYLINDER LOCK WITH (2) KEYS, HINGED DOOR. ELMDOR "DW" SERIES -SS (SIZE - FIT TO SUIT)
RR-1	ROOF RECEPTOR: 8 1/2" DIA. DECK RECEPTOR DRAIN, DURA-COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP/DECK RECEPTOR FRAME AND INTERNAL DOME. ZURN #127, 2" OUTLET.

PLUMBING EQUIPMENT SCHEDULE

MK. NO.	DESCRIPTION
EWH-1	HYBRID ELECTRIC HEAT PUMP WATER HEATER: 50 GALLON STORAGE, INSULATED TANK, 65 GALLON FIRST HOUR RATING, T&P RELIEF, 3.68 UEF RATING, STORAGE TEMP 120°F, 208V/1ø, 30A, OP. WT. = 611 LBS. A. O. SMITH #HPTA-50.
CP-1	CIRCULATION PUMP: BRONZE BODY, NORYL IMPELLER, CERAMIC SHAFT, 3/4" FLANGED CONNECTIONS, 6 GPM @ 8' HD, 120V/1ø, 55W, OP. WT. 9.5 lbs. B&G #NBF-12F/LW. PROVIDE WITH AUTOMATIC TIMER KIT (120V/1ø). PROVIDE WITH AQUASTAT TO TURN ON CIRCULATOR AT LESS THAN 100°F, AND TURN OFF CIRCULATOR @ 120°F, SIZE FOR 3/4" RETURN LINE.
ET-1	EXPANSION TANK: 2.0 GALLON TANK VOLUME, 0.90 GALLON ACCEPTANCE VOLUME, BUTYL DIAPHRAGM BLADDER, MAX OPERATING TEMP = 200°F, MAX WORKING PRESSURE = 150 PSI, FACTORY PRE-CHARGED TO 55 PSI, DIM = 8" DIA. x 14" HIGH, WEIGHT = 10 LBS, DEEP DRAWN CONSTRUCTION, AMTROL "THERM-X-TROL" #ST-5C-DD. ASME RATED.

PLUMBING GENERAL NOTES

1. SCOPE:
   A COMPLETE DOMESTIC PLUMBING SYSTEM AS GENERALLY DELINEATED ON THE PLUMBING DRAWINGS, INCLUDING SERVICE PIPING AND FINAL CONNECTIONS TO EQUIPMENT FURNISHED AND INSTALLED BY OTHER TRADES AS MAY BE SHOWN ON THE ARCHITECTURAL, ELECTRICAL OR OTHER DRAWINGS OF THE CONTRACT DOCUMENTS.
2. CALIFORNIA CODE OF REGULATIONS:
   ALL HOT WATER DISTRIBUTION AND CIRCULATION LINES SHALL BE INSULATED IN ACCORDANCE WITH SECTION 120.3 OF THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 6, SUBCHAPTER 3.
3. ALL PLUMBING FIXTURES & EQUIPMENT USED (E.G. SHOWERHEADS, LAVATORY FAUCETS, SINK FAUCET AND WATER HEATERS) SHALL HAVE BEEN CERTIFIED TO THE CALIFORNIA ENERGY COMMISSION BY ITS MANUFACTURER TO COMPLY WITH THE EFFICIENCY STANDARDS FOR SUCH APPLIANCES.
4. CODES:
   ALL WORK, MATERIAL, AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY HAVING JURISDICTION. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT THE INSTALLATION OF WORK, MATERIAL OR EQUIPMENT NOT CONFORMING TO THESE OR OTHER CODES APPLICABLE TO THIS PROJECT.
   A. 2025 CALIFORNIA ADMINISTRATIVE CODE (CAC) PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
   B. 2022 CALIFORNIA BUILDING CODE (CBC) PART 2, TITLE 24, CCR BASED ON THE 2021 INTERNATIONAL BUILDING CODE (IBC)
   C. 2022 CALIFORNIA ELECTRICAL CODE (CEC) PART 3, TITLE 24, CCR BASED ON THE 2020 NATIONAL ELECTRICAL CODE (NEC)
   D. 2022 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24, CCR BASED ON THE 2021 UNIFORM MECHANICAL CODE (UMC)
   E. 2022 CALIFORNIA PLUMBING CODE (CPC) PART 5, TITLE 24, CCR BASED ON THE 2021 UNIFORM PLUMBING CODE (UPC)
   F. 2022 CALIFORNIA ENERGY CODE (CEC) PART 6, TITLE 24 CCR.
   G. 2022 CALIFORNIA FIRE CODE (CFC) PART 9, TITLE 24, CCR BASED ON THE 2021 INTERNATIONAL FIRE CODE (IFC)
   H. 2022 CALIFORNIA GREEN BUILDING STANDARDS (CGBSC) PART 11, TITLE 24, CCR
5. WORKMANSHIP:
   ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER ACCORDING TO THE BEST TRADE PRACTICE BY THOSE SKILLED IN THE PARTICULAR TRADE. EQUIPMENT, FIXTURES, PIPING, ETC., SHALL BE PLUMB, LEVEL, SQUARE AND/OR CENTERED, ETC. EQUIPMENT TO BE INSTALLED IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. EXISTING INFORMATION:
   LOCATION, SIZE, ELEVATION, MATERIAL, ETC., OF EXISTING UTILITIES IS PROVIDED FROM SOURCES DEEMED RELIABLE BUT IS NOT GUARANTEED. THE CONTRACTOR SHALL FIELD VERIFY ALL DATA BEFORE PROCEEDING WITH ANY WORK. NO EXTRA COST WILL BE ALLOWED FOR SERVICES NOT AS SHOWN.
7. PERMITS AND UTILITY SERVICE FEES:
   THE PLUMBING CONTRACTOR SHALL ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS, AND SERVICE CHARGES REQUIRED FOR THE INSTALLATION OF THE WORK.
8. ACCURACY:
   PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND LOCATION OF WALLS, PARTITIONS, FIXTURES, ETC., AGAINST DESIGN PLANS FOR CONSISTENCY AND ACCURACY PRIOR TO COMMENCING WORK.
9. PROVIDE AND INSTALL CONDENSATE DRAIN WITH TRAP AT EACH A/C UNIT PER THE UPC, AT LOCATIONS SHOWN ON DRAWINGS. COORDINATE WITH MECHANICAL CONTRACTOR.
10. PROVIDE AND INSTALL ACCESS PANELS FOR ALL SHUT-OFF, ISOLATION, OR BRANCH VALVES NOT READILY ACCESSIBLE. ACCESS PANELS SHALL BE PROVIDED AND INSTALLED AT ALL TRAP PRIMER VALVES AND WATER HAMMER ARRESTORS.
11. ALL PIPING PASSING THROUGH CONCRETE FLOORS SHALL BE SLEEVED TO PROTECT PIPING AGAINST BREAKAGE.
12. HORIZONTAL DRAINAGE PIPING LESS THAN 4" IN DIAMETER SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT (2%) DRAINAGE PIPING 4" AND LARGER SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT (2%) UNLESS OTHERWISE APPROVED BY THE AHJ.
13. ALL PLUMBING FIXTURES AND PIPING SHALL BE LISTED BY AN APPROVED LISTING AND TESTING AGENCY AND PROPERLY LABELED.
14. ALL PIPES SHALL BE LABELED WITH CLASSIFICATION, COLOR SCHEME, AND SIZING PER ANSI STANDARD A13.1.

PLUMBING PIPING MATERIAL SPECIFICATIONS

A. SANITARY SEWER & VENT (SS, V) - INTERIOR OUT TO 5'-0" FROM BUILDING
   PIPE: ABS SCH 40 DWV PER ASTM D2661-2014
   FITTINGS: ABS SCH 40 DWV PER ASTM D2661-2014
B. DOMESTIC COLD & HOT WATER (CW, HW, HWR)
   PIPE: COPPER TYPE L PER ASTM B88-2016
   FITTINGS: WROUGHT COPPER PER ASME B16.22-2018
   HW & HWR INSULATION (THRU 3/4"ø PIPE): 1" FIBERGLASS WITH ALL-SERVICE-JACKET
   HW & HWR INSULATION (1" - 1-1/2"ø PIPE): 1-1/2" FIBERGLASS WITH ALL-SERVICE-JACKET
   HW & HWR INSULATION (2"ø & LARGER PIPE): 2" FIBERGLASS WITH ALL-SERVICE-JACKET
C. CONDENSATE DRAIN (CD)
   PIPE: COPPER TYPE L PER ASTM B88-2016
   FITTINGS: WROUGHT COPPER PER ASME B16.22-2018
D. NATURAL GAS - BELOW GRADE (G)
   PIPE: MEDIUM DENSITY POLYETHYLENE SDR 11 PER ASTM D2513-2018a
   FITTINGS: FUSION WELDED FITTINGS PER ASTM D2513-2018a
E. NATURAL GAS - ABOVE GRADE (G)
   PIPE (THRU 2"ø): BLACK STEEL SCH 40 THREADED PER ASTM A53-2018
   PIPE (2-1/2" AND LARGER): BLACK STEEL SCH 40 PLAIN END PER ASTM A53-2018
   FITTINGS: MALLEABLE IRON THREADED CLASS 150 PER ASME B16.3-2016 AND ASME B1.20.1-2013
   FITTINGS: CARBON STEEL BUTT WELD PER ASTM A234
   PAINT: ALL EXPOSED EXTERIOR GAS PIPE SHALL BE PAINTED SAFETY YELLOW
F. RAINWATER LEADERS (RWL, OFL) - INTERIOR OUT TO 5'-0" FROM BUILDING
   PIPE: ABS SCH 40 PIPE PER ASTM D 2661-2011
   FITTINGS: ABS SCH. 40 FITTINGS PER D 2661-2011
   INSULATION (HORIZONTAL PIPE ONLY): 1" FIBERGLASS WITH ALL-SERVICE-JACKET

FIXTURE CONNECTION SCHEDULE

FIXTURE	SYM	WASTE		TRAP	VENT	COLD WATER		HOT WATER	
		BRANCH	ROUGH			BRANCH	ROUGH	BRANCH	ROUGH
WATER CLOSET (F.V.)	WC	4"	3"	--	2"	1-1/4"	1"	--	--
LAVATORY	L	2"	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	1/2"	1/2"
SINK	S	2"	1-1/2"	1-1/2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
MOP SINK	MS	3"	3"	3"	2"	3/4"	3/4"	3/4"	3/4"
TRAP PRIMER	TP	--	--	--	--	1/2"	1/2"	--	--
HOSE BIBB	HB	--	--	--	--	3/4"	1/2"	--	--
FLOOR DRAIN	FD	2"	2"	2"	1-1/2"	--	--	--	--
WASHING MACHINE	WMB	2"	2"	2"	1-1/2"	3/4"	3/4"	3/4"	3/4"

PLUMBING LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	SS	SOIL, WASTE OR SANITARY SEWER BELOW FLOOR
	SS	SOIL, WASTE OR SANITARY SEWER OVERHEAD
	V	VENT PIPING
	CW	COLD WATER
	HW (110°, 140°)	HOT WATER SUPPLY
	HWR	HOT WATER RETURN
G	G	NATURAL GAS - LOW PRESSURE
X X X X X X X X X		EXISTING TO BE REMOVED
D OR IW	D OR IW	DRAIN OR INDIRECT WASTE
CD	CD	CONDENSATE DRAIN
OCD	OCD	OVERFLOW CONDENSATE DRAIN
	SD, RWL	STORM DRAIN, RAINWATER LEADER
	OFL	RAINWATER OVERFLOW LEADER (STORM)
	AD, AP	ACCESS DOOR, ACCESS PANEL
	AC	AIR CHAMBER
	ANV	ANGLE VALVE
	AQ	AQUASTAT
	AD	AREA DRAIN
	AAV	AUTOMATIC AIR VENT
	BV	BALL VALVE
		BRANCH - TOP CONNECTION
		BRANCH - BOTTOM CONNECTION
		BRANCH - SIDE CONNECTION
	BFV	BUTTERFLY VALVE
	COP	CAP ON END OF PIPE
	CBV	CALIBRATED BALANCE VALVE
	CB, RD	CATCH BASIN, ROOF DRAIN
	CKV	CHECK VALVE
	CP	CIRCULATING PUMP
CO	CO	CLEANOUT PLUG
	CR	CONCENTRIC REDUCER
Ø	DIA	DIAMETER
	ER	ECCENTRIC REDUCER
	FC	FLEXIBLE CONNECTOR
	FCO	FLOOR CLEANOUT
FD	FD	FLOOR DRAIN
FS	FS	FLOW SWITCH
	GCK	GAGE COCK
	SOV	SHUT OFF VALVE
	GSCK, PC	GAS COCK, PLUG COCK
	GPR	GAS PRESSURE REGULATOR
	GL. V.	GLOBE VALVE
	GCO	GRADE CLEANOUT
	HB	HOSE BIBB
	AN	PIPE ANCHOR
	PG	PIPE GUIDE
	POC	POINT OF CONNECTION
	PRV	PRESSURE REDUCING VALVE
	PG	PRESSURE GAUGE
OR	RV or T&P	RELIEF VALVE OR TEMPERATURE & PRESSURE RELIEF VALVE
	SV	SOLENOID VALVE
	STR	STRAINER
	TDL	TOTAL DEVELOPED LENGTH
	TH	THERMOMETER
TP	TP	TRAP PRIMER
	UN	UNION OR FLANGE
	WCO	WALL CLEANOUT

SHEET INDEX

SHEET NO.	DESCRIPTION
P0-0.1	PLUMBING - LEGEND, NOTES & SCHEDULES
P0-0.2	PLUMBING - GREEN BUILDING CODE NOTES
P0-0.3	PLUMBING - DETAILS
P0-0.4	PLUMBING - DETAILS
P1-1.0	PLUMBING - GAS PIPING SITE PLAN
P1-1.1	PLUMBING - FLOOR PLAN
P1-1.2	PLUMBING - ENLARGED FLOOR PLAN
P1-3.1	PLUMBING - ROOF PLAN

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PLUMBING - LEGEND, NOTES AND SCHEDULES

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

P0-0.1

Plot Date & Time

J:\2025 Jobs\25363 - Von Renner Classrooms\25363 - Plumbing.dwg, 6/9/2026 7:17:52 AM, d.wilson

MEP Component 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 1617.A.1.26 and ASCE 7-16 Chapter 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 110/120 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 above requirements.

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 7-16 Section 13.3 as defined in ASCE 7-16 Section 13.6.5, 13.6.6, 13.6.7, 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, With Project Submittal.

MP☐ MD☐ PP☐ E☐ - Option 3: Design Based on OSHPD OPM, Deferred Submittal.

PLUMBING GREEN BUILDING CODE NOTES

REQUIRED		REQUIRED	
	SECTION 5.301 GENERAL 5.301.1 SCOPE. THE PROVISIONS OF THIS CHAPTER SHALL ESTABLISH THE MEANS OF CONSERVING WATER USE INDOORS, OUTDOORS AND IN WASTEWATER CONVEYANCE.		**SECTION 5.303 INDOOR WATER USE** 5.303.1 METERS. SEPARATE SUBMETERS OR METERING DEVICES SHALL BE INSTALLED FOR THE USES DESCRIBED IN SECTIONS 503.1.1 AND 503.1.2.
	SECTION 5.302 DEFINITIONS 5.302.1 DEFINITIONS. THE FOLLOWING TERMS ARE DEFINED IN CHAPTER 2 (AND ARE INCLUDED HERE FOR REFERENCE)	X	5.303.1.1 BUILDINGS IN EXCESS OF 50,000 SQUARE FEET. SEPARATE SUBMETERS SHALL BE INSTALLED AS FOLLOWS: 1. FOR EACH INDIVIDUAL LEASED, RENTED OR OTHER TENANT SPACE WITHIN THE BUILDING PROJECTED TO CONSUME MORE THAN 100 GAL/DAY (380 L/DAY), INCLUDING, BUT NOT LIMITED TO, SPACES USED FOR LAUNDRY OR CLEANERS, RESTAURANT OR FOOD SERVICE, MEDICAL OR DENTAL OFFICE, LABORATORY, OR BEAUTY SALON OR BARBER SHOP. 2. WHERE SEPARATE SUBMETERS FOR INDIVIDUAL BUILDING TENANTS ARE UNFEASIBLE, FOR WATER SUPPLIED TO THE FOLLOWING SUBSYSTEMS: A. MAKEUP WATER FOR COOLING TOWERS WHERE FLOW THROUGH IS GREATER THAN 500 GPM (30 L/S). B. MAKEUP WATER FOR EVAPORATIVE COOLERS GREATER THAN 6 GPM (0.04 L/S). C. STEAM AND HOT WATER BOILERS WITH ENERGY INPUT MORE THAN 500,000 BTU/H (147 KW).
	EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. AN ADJUSTMENT FACTOR WHEN APPLIED TO REFERENCE EVAPOTRANSPIRATION THAT ADJUSTS FOR PLANT FACTORS AND IRRIGATION EFFICIENCY, WHICH AE TWO MAJOR INFLUENCES ON THE AMOUNT OF WATER THAT NEEDS TO BE APPLIED TO THE LANDSCAPE.		
	FOOTPRINT AREA [DSA-SS]. THE TOTAL AREA OF THE FURTHEST EXTERIOR WALL OF THE STRUCTURE PROJECTED TO NATURAL GRADE, NOT INCLUDING EXTERIOR AREAS SUCH AS STAIRS, COVERED WALKWAYS, PATIOS AND DECKS.		
	METERING FAUCET. A SELF-CLOSING FAUCET THAT DISPENSES A SPECIFIC VOLUME OF WATER FOR EACH ACTUATION CYCLE. THE VOLUME OR CYCLE DURATION CAN BE FIXED OR ADJUSTABLE.		
	GRAYWATER. PURSUANT TO HEALTH AND SAFETY CODE SECTION 17922.12, "GRAYWATER" MEANS UNTREATED WASTEWATER THAT HAS NOT BEEN CONTAMINATED BY ANY TOILET DISCHARGE, HAS NOT BEEN AFFECTED BY INFECTIOUS, CONTAMINATED, OR UNHEALTHY BODILY WASTES, AND DOES NOT PRESENT A THREAT FROM CONTAMINATION BY UNHEALTHFUL PROCESSING, MANUFACTURING, OR OPERATING WASTES. "GRAYWATER" INCLUDES, BUT IS NOT LIMITED TO WASTEWATER FROM BATHTUBS, SHOWERS, BATHROOM WASHBASINS, CLOTHES WASHING MACHINES AND LAUNDRY TUBS, BUT DOES NOT INCLUDE WASTE WATER FROM KITCHEN SINKS OR DISHWASHERS.	X	5.303.1.2 EXCESS CONSUMPTION. A SEPARATE SUBMETER OR METERING DEVICE SHALL BE PROVIDED FOR ANY TENANT WITHIN A NEW BUILDING OR WITHIN AN ADDITION THAT IS PROJECTED TO CONSUME MORE THAN 1,000 GAL/DAY.
	MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). THE CALIFORNIA ORDINANCE REGULATING LANDSCAPE DESIGN, INSTALLATION AND MAINTENANCE PRACTICES THAT WILL ENSURE COMMERCIAL, MULTIFAMILY AND OTHER DEVELOPER INSTALLED LANDSCAPES GREATER THAN 2500 SQUARE FEET MEET AN IRRIGATION WATER BUDGET DEVELOPED BASED ON LANDSCAPED AREA AND CLIMATOLOGICAL PARAMETERS.		5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING:
	MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] THE CALIFORNIA MODEL ORDINANCE (CALIFORNIA CODE OF REGULATIONS, TITLE 23, DIVISION 2, CHAPTER 2.7), REGULATING LANDSCAPE DESIGN, INSTALLATION AND MAINTENANCE PRACTICES. LOCAL AGENCIES ARE REQUIRED TO ADOPT THE UPDATED MWELO, OR ADOPT A LOCAL ORDINANCE AT LEAST AS EFFECTIVE AS THE MWELO.	X	5.303.3.1 WATER CLOSETS. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR TANK-TYPE TOILETS. NOTE: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH.
	POTABLE WATER. WATER THAT IS DRINKABLE AND MEETS THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) DRINKING WATER STANDARDS. SEE DEFINITION IN THE CALIFORNIA PLUMBING CODE, PART 5.	X	5.303.3.2 URINALS. THE EFFECTIVE FLUSH VOLUME OF URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.
	POTABLE WATER. [HCD] WATER THAT IS SATISFACTORY FOR DRINKING, CULINARY, AND DOMESTIC PUROSES, AND MEETS THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) DRINKING WATER STANDARDS AND THE REQUIREMENTS OF THE HEALTH AUTHORITY HAVING JURISDICTION.	X	5.303.3.3 SHOWERHEADS. 5.303.3.3.1 SINGLE SHOWERHEAD. SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 2.0 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEADS.
	RECYCLED WATER. WATER WHICH, AS A RESULT OF TREATMENT OF WASTE, IS SUITABLE FOR A DIRECT BENEFICIAL USE OR A CONTROLLED USE THAT WOULD NOT OTHERWISE OCCUR [WATER CODE SECTION 13050 (N)]. SIMPLY PUT, RECYCLED WATER IS WATER TREATED TO REMOVE WASTE MATTER ATTAINING A QUALITY THAT IS SUITABLE TO USE THE WATER AGAIN.		5.303.3.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER. WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL THE SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 2.0 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME. NOTE: A HAND-HELD SHOWER SHALL BE CONSIDERED A SHOWERHEAD.
	SUBMETER. A METER INSTALLED SUBORDINATE TO A SITE METER. USUALLY USED TO MEASURE WATER INTENDED FOR ONE PURPOSE, SUCH AS LANDSCAPE IRRIGATION. FOR THE PURPOSES OF CALGREEN, A DEDICATED METER MAY BE CONSIDERED A SUBMETER.	X	5.303.3.4 FAUCETS AND FOUNTAINS. 5.303.3.4.1 NONRESIDENTIAL LAVATORY FAUCETS. LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.5 GALLONS PER MINUTE AT 60 PSI. 5.303.3.4.2 KITCHEN FAUCETS. KITCHEN FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI. 5.303.3.4.3 WASH FOUNTAINS. WASH FOUNTAINS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE/20 [RIM SPACE (INCHES) AT 60 PSI]. 5.303.3.4.4 METERING FAUCETS. METERING FAUCETS SHALL NOT DELIVER MORE THAN 0.20 GALLONS PER CYCLE. 5.303.3.4.5 METERING FAUCETS FOR WASH FOUNTAINS. METERING FAUCETS FOR WASH FOUNTAINS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.20 GALLONS PER MINUTE/20 [RIM SPACE (INCHES) AT 60 PSI]. NOTE: WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION.
	WATER BUDGET. IS THE ESTIMATED TOTAL LANDSCAPE IRRIGATION WATER USE WHICH SHALL NOT EXCEED THE MAXIMUM APPLIED WATER ALLOWANCE CALCULATED IN ACCORDANCE WITH THE DEPARTMENT OF WATER RESOURCES MODEL EFFICIENT LANDSCAPE ORDINANCE (MWELO).	X	5.303.4 COMMERCIAL KITCHEN EQUIPMENT. 5.303.4.1 FOOD WASTE DISPOSERS. DISPOSERS SHALL EITHER MODULATE THE USE OF WATER TO NO MORE THAN 1 GPM WHEN THE DISPOSER IS NOT IN USE (NOT ACTIVELY GRINDING FOOD WASTE/NO-LOAD) OR SHALL AUTOMATICALLY SHUT OFF AFTER NO MORE THAN 10 MINUTES OF INACTIVITY. DISPOSERS SHALL USE NO MORE THAN 8 GPM OF WATER. NOTE: THIS CODE SECTION DOES NOT AFFECT LOCAL JURISDICTION AUTHORITY TO PROHIBIT OR REQUIRE DISPOSER INSTALLATION.
		X	5.303.5 AREAS OF ADDITION OR ALTERATION. FOR THOSE OCCUPANCIES WITHIN THE AUTHORITY OF THE CALIFORNIA BUILDING STANDARDS COMMISSION AS SPECIFIED IN SECTION 103, THE PROVISIONS OF SECTION 5.303.3 AND 5.303.4 SHALL APPLY TO NEW FIXTURES IN ADDITIONS OR AREAS OF ALTERATION TO THE BUILDING.
		X	5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE, AND SHALL MEET THE APPLICABLE STANDARDS REFERENCED IN TABLE 1701.1 OF THE CALIFORNIA PLUMBING CODE AND IN CHAPTER 6 OF THIS CODE.

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PLUMBING - GREEN BUILDING CODE NOTES

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P0-0.2

Plot Date & Time

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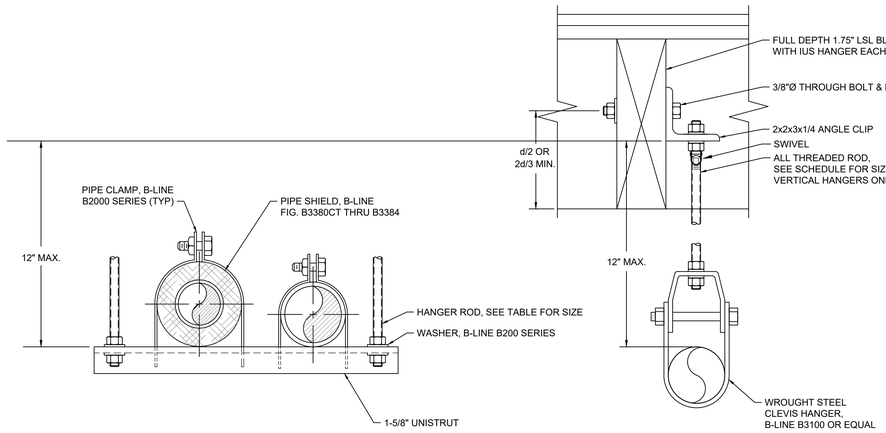


1 P0-0.3 **PIPE SUPPORT DETAIL**

SCALE: N/A

HANGER ROD & SPACING SCHEDULES

COPPER TUBE & COPPER ALLOYS

SOLDERED, BRAZED, THREADED, OR MECHANICAL JOINTS.

PIPE SIZE	HANGER ROD	MAX HORIZONTAL SPAN
1/2" - 1-1/2"	3/8"	6'
2" - 4"	3/8"	10'

CAST IRON HUBLESS

SHIELDED COUPLINGS

PIPE SIZE	HANGER ROD	MAX HORIZONTAL SPAN
1/2" - 3/4"	3/8"	EVERY OTHER JOINT, UNLESS
1" - 4"	3/8"	OVER 4 FEET THEN SUPPORT

STEEL PIPE - WATER OR DWV

THREADED OR WELDED FITTINGS

PIPE SIZE	HANGER ROD	MAX HORIZONTAL SPAN
1/2" - 3/4"	3/8"	10'
1" - 4"	3/8"	12'

PVC & ABS - SCH 40 OR DWV

SOLVENT WELDED FITTINGS

PIPE SIZE	HANGER ROD	MAX HORIZONTAL SPAN
1/2" - 1-1/2"	3/8"	4'
2" - 4"	3/8"	4'

MAXIMUM WEIGHT PER LINEAR FOOT = 7.6 LBS., BASED ON 4" DIA. CAST IRON PIPE.

PIPE SUPPORT SPACING NOTES

PIPE HANGER SPACING AND SUPPORT SHALL MEET THE FOLLOWING ADDITIONAL CRITERIA.

INDIVIDUALLY HUNG PIPE (≤ 5 PLF):

NO RESTRICTIONS REQUIRED.

INDIVIDUALLY HUNG PIPE
(> 5 PLF AND ≤ 3"ø, NON-HAZARDOUS, OR ≤1"ø HAZARDOUS)

PROVISIONS SHALL BE MADE TO AVOID IMPACT WITH OTHER STRUCTURAL AND NONSTRUCTURAL COMPONENTS

OR

WITH 3/8" AND 1/2" ROD HANGERS, THE POINT OF PIPE SUPPORT SHALL NOT EXCEED 12" FROM STRUCTURAL ATTACHMENT ABOVE, AND SUPPORT SPACING SHALL BE REDUCED SUCH THAT NO HANGER LOAD EXCEEDS 50 LBS.

INDIVIDUALLY HUNG PIPE (> 3"ø)

SHALL BE SUPPORTED ACCORDING TO SPECIFIC DETAILS ON THESE PLANS, AS OCCURS. SEE NOTE BELOW.

TRAPEZE HUNG PIPE (< 5 PLF):

NO RESTRICTIONS REQUIRED.

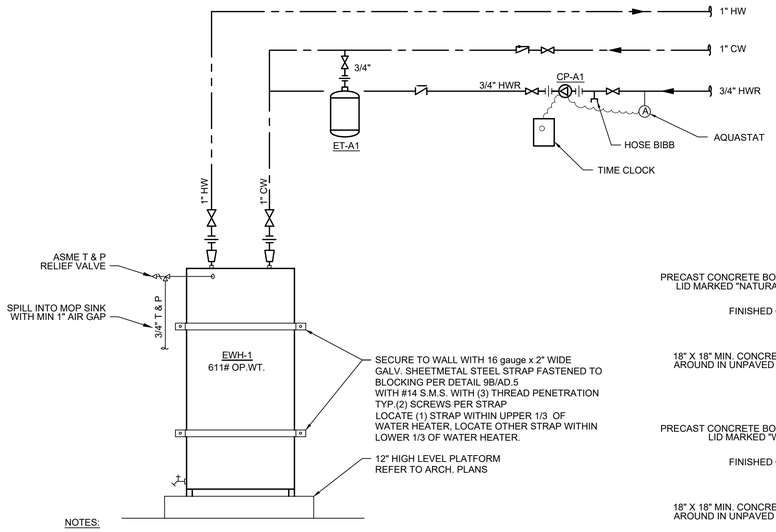
TRAPEZE HUNG PIPE (> 5 PLF AND ≤ 3"ø):

WITH 3/8" AND 1/2" ROD HANGERS, THE POINT OF PIPE SUPPORT SHALL NOT EXCEED 12" FROM STRUCTURAL ATTACHMENT ABOVE, AND SUPPORT SPACING SHALL BE REDUCED SUCH THAT NO INDIVIDUAL TRAPEZE LOAD EXCEEDS 100 LBS.

NOTE: WHERE FIELD CONDITIONS ARE DISCOVERED SUCH THAT PIPE CANNOT BE INSTALLED ACCORDING TO THE ABOVE CRITERIA OR PROJECT SPECIFIC DETAILS, CERTIFIED SEISMIC BRACING SHALL BE INSTALLED AS PROVIDED BY MASON INDUSTRIES OR EQUAL VENDOR FOR FULL COMPLIANCE WITH 2022 CBC SECTION 1617A, WHICH INCLUDES MODIFICATIONS TO ASCE 7 CHAPTER 13 FOR NON-STRUCTURAL COMPONENTS.

CRITERIA BASED ON DSA IR 16-13 AND CBC 2022 SECTION 1617A, FOR SEISMIC DESIGN CATEGORY D, E, OR F.

NATURAL GAS AND FUEL OIL ARE EXAMPLES OF HAZARDOUS PIPE.

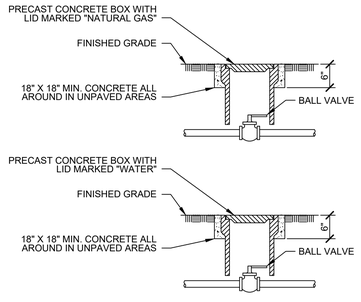


NOTES:

1. UNLESS OTHERWISE NOTED, ALL VALVES & FITTINGS SHALL BE LINE SIZE. USE BELL REDUCERS WHERE REDUCERS ARE REQUIRED. SEE PLANS FOR SIZES.
2. WATER HEATERS SHALL BE SET AT A MAXIMUM TEMPERATURE OF 120° F.

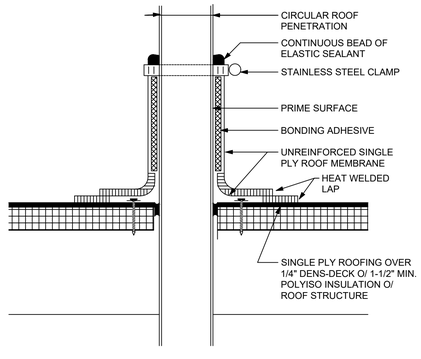
2 P0-0.3 **WATER HEATER PIPING DETAIL**

SCALE: N/A



3 P0-0.3 **SHUT-OFF VALVE IN BOX DETAIL**

SCALE: N/A



4 P0-0.3 **VENT THRU ROOF DETAIL**

SCALE: N/A

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PLUMBING - DETAILS

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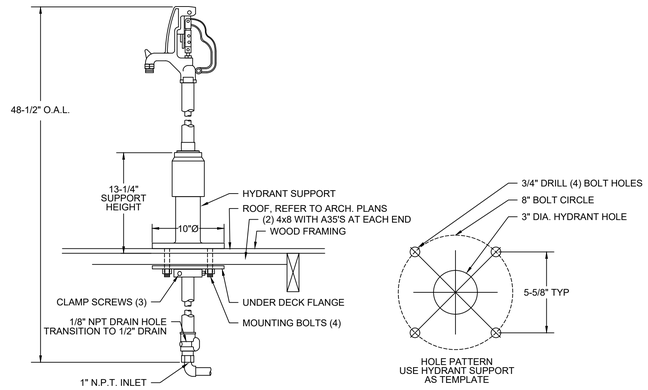
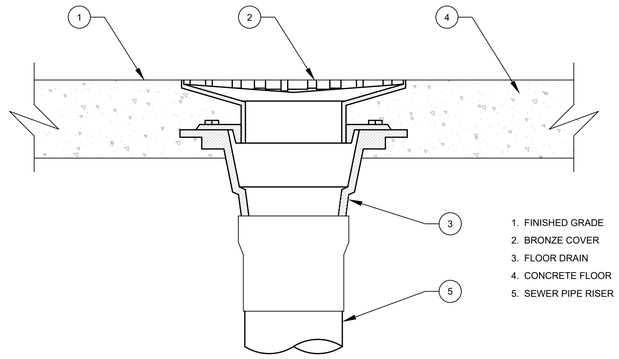


1 HB-2 HOSE BIBB DETAIL

P0-0.4

SCALE: N/A



2 FLOOR DRAIN DETAIL

P0-0.4

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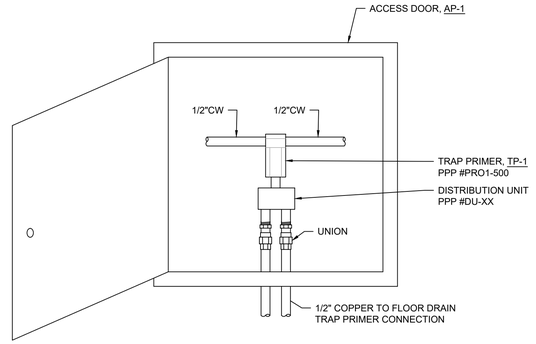


3 TRAP PRIMER DETAIL

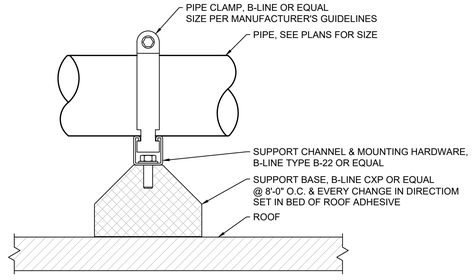
P0-0.4

SCALE: N/A

6 AC UNIT CONDENSATE & GAS PIPING DETAIL

P0-0.4

SCALE: N/A



5 COND. PIPE SUPPORT DETAIL

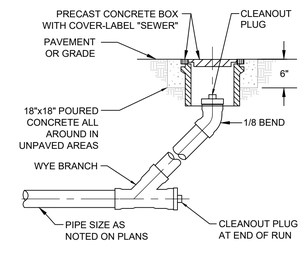
P0-0.4

SCALE: N/A

6 ROOF RECEPTOR DRAIN DETAIL

P0-0.4

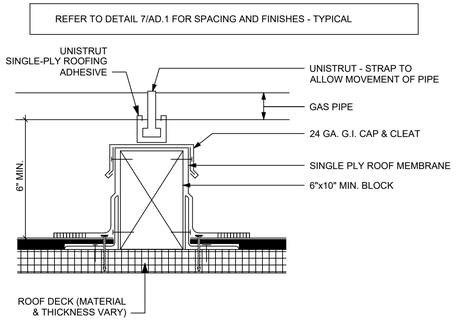
SCALE: N/A



7 CLEANOUT TO GRADE DETAIL

P0-0.4

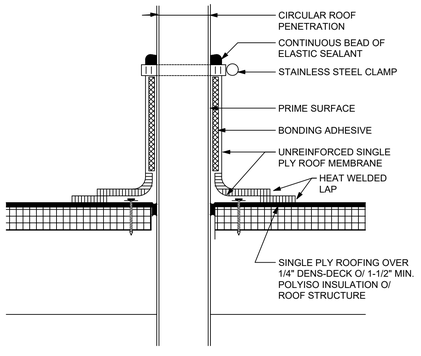
SCALE: NONE



8 ROOF PIPE SUPPORT DETAIL

P0-0.4

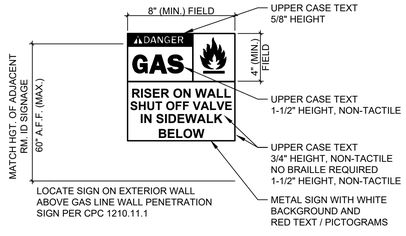
SCALE: N/A



9 VENT THRU ROOF DETAIL

P0-0.4

SCALE: N/A



10 GAS VALVE SIGNAGE DETAIL

P0-0.4

SCALE: NONE

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

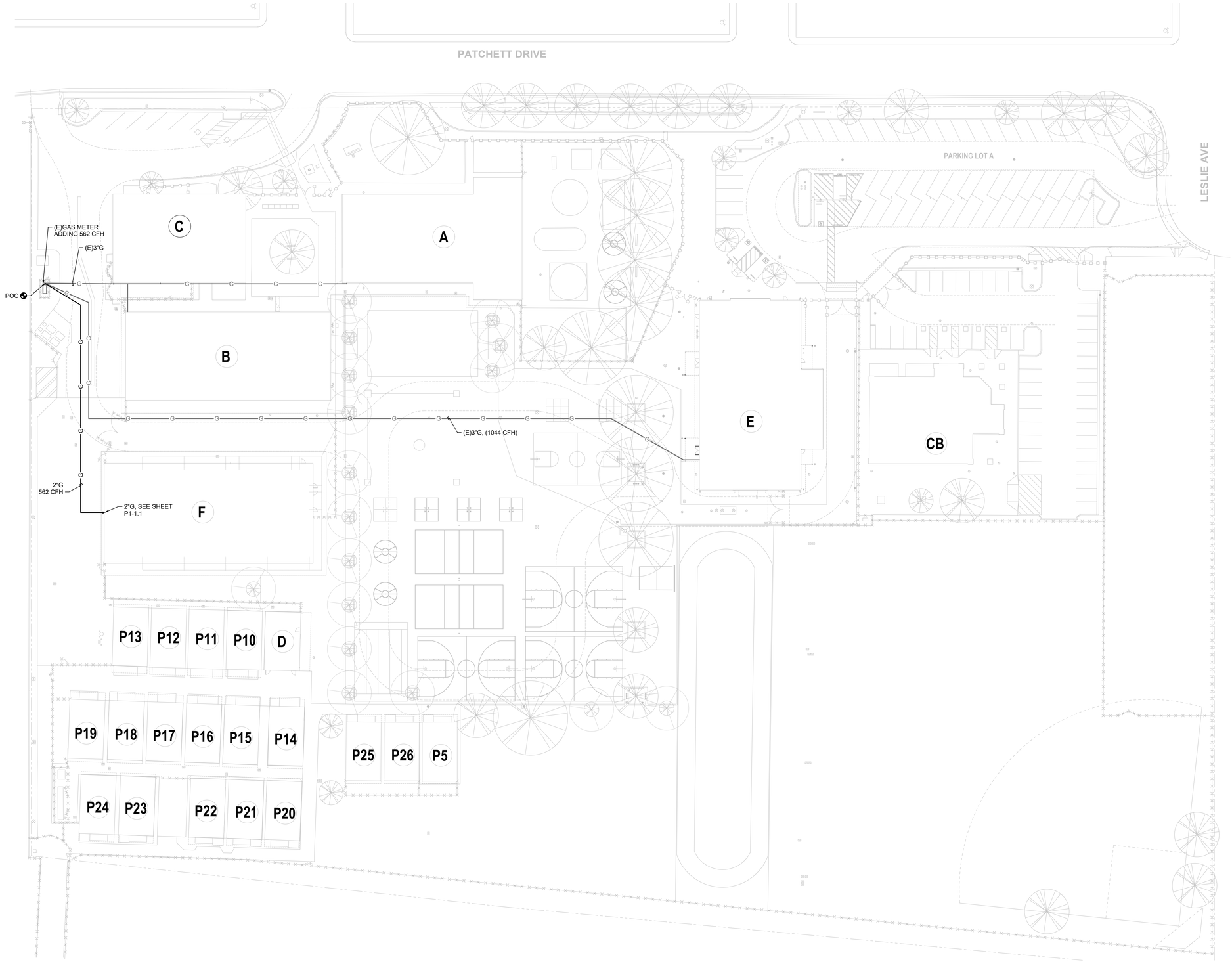
PLUMBING - DETAILS

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

P0-0.4

Plot Date & Time

J:\2025 Jobs\25363 - Von Renner Classrooms\25363 - Plumbing.dwg, 6/9/2026 7:17:56 AM, d.wilson



1 P1-1.0 PLUMBING - GAS PIPING SITE PLAN

SCALE: 1/32" = 1'-0"

NORTH

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects

TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
Ph: (209) 571-2232 Fax: (209) 571-1936

LICENSED ARCHITECT JONATHAN E. GLASS No. C-26414 REN. 1/27 STATE OF CALIFORNIA

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1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

PLUMBING - GAS PIPING SITE PLAN

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

P1-1.0

Plot Date & Time

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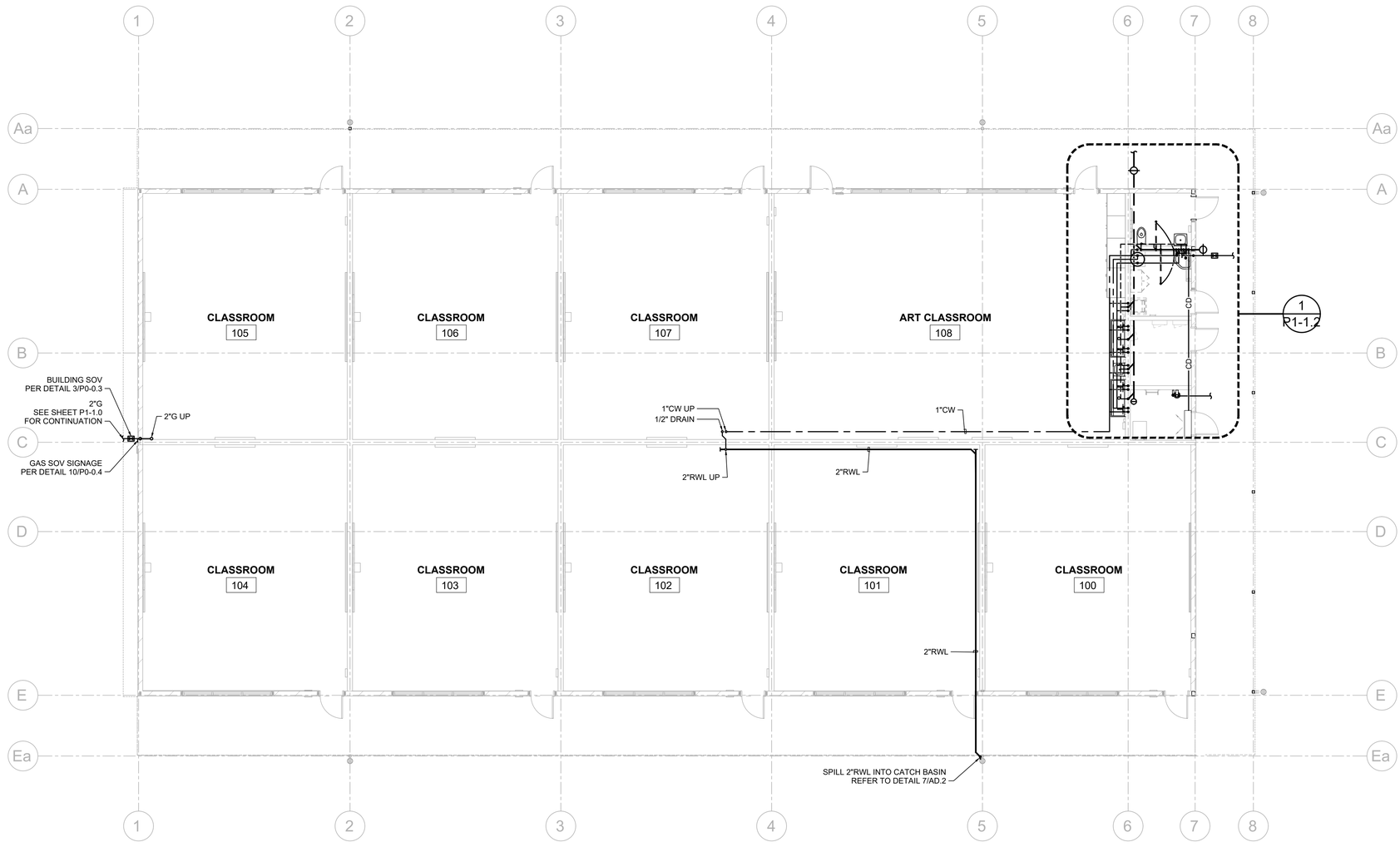


1 P1-1.1 PLUMBING - FLOOR PLAN

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

NORTH

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION/ PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

INTERIOR WALLS

2x4 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER AT EACH SIDE

2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE

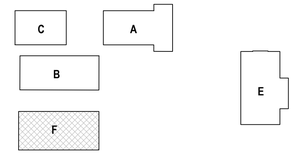
2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE AND PLYWD. SHEATHING AT ONE SIDE (SHEAR WALL)

NOTES:

- ALL WALL TILE TO TO HAVE TILE BACKER BOARD - SEE INTERIOR ELEVATIONS & FINISH SCHEDULE.
- WALL LEGEND ONLY ADDRESSES GYPSUM BOARD LOCATIONS - SEE FINISH SCHEDULE FOR LOCATIONS WHERE TACKBOARD IS SPECIFED OVER THE GYPSUM BOARD
- DIMENSIONS ARE TO FACE OF STUD OR CENTERLINE OF COLUMN, UNLESS OTHERWISE NOTED
- ALL INTERIOR AND EXTERIOR WOOD OR METAL STUDS ARE TO BE SPACED AT 16" O.C. MAX.
- SEE STRUCTURAL DRAWINGS FOR ALL EXTERIOR AND INTERIOR SHEAR WALL LOCATIONS
- SEE STRUCTURAL DRAWINGS FOR EXTERIOR WALLS W/ PLYWD. SHEATHING AT INTERIOR FACE
- ALL STUD OR PLATE PENETRATIONS (INCLUDING ELECTRICAL, COMMUNICATIONS, AND PLUMBING LINES) AT WALLS SHALL BE SEALED WITH EXPANDING FOAM FOR SOUND ATTENUATION BEFORE SOUND BATTS ARE INSTALLED. ARCHITECT SHALL INSPECT PRIOR TO SOUND BATT INSTALLATION.

WALL LEGEND

CAMPUS KEY



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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

PLUMBING - FLOOR PLAN

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

P1-1.1

Plot Date & Time

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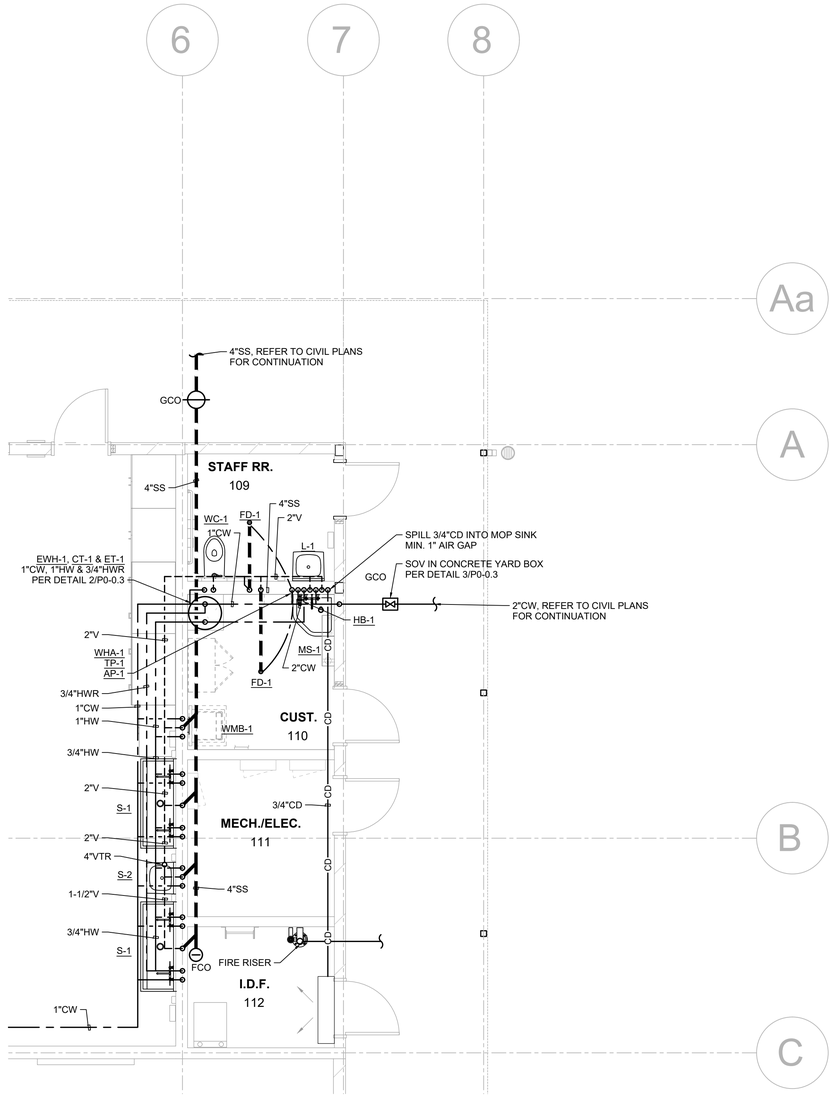

1 P1-1.2 PLUMBING - ENLARGED FLOOR PLAN

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

NORTH

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION/ PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

INTERIOR WALLS

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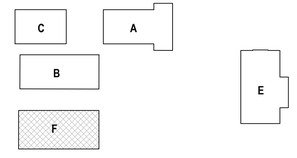
WALL LEGEND

CAMPUS KEY



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1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

PLUMBING - ENLARGED FLOOR PLAN

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

P1-1.2

Plot Date & Time

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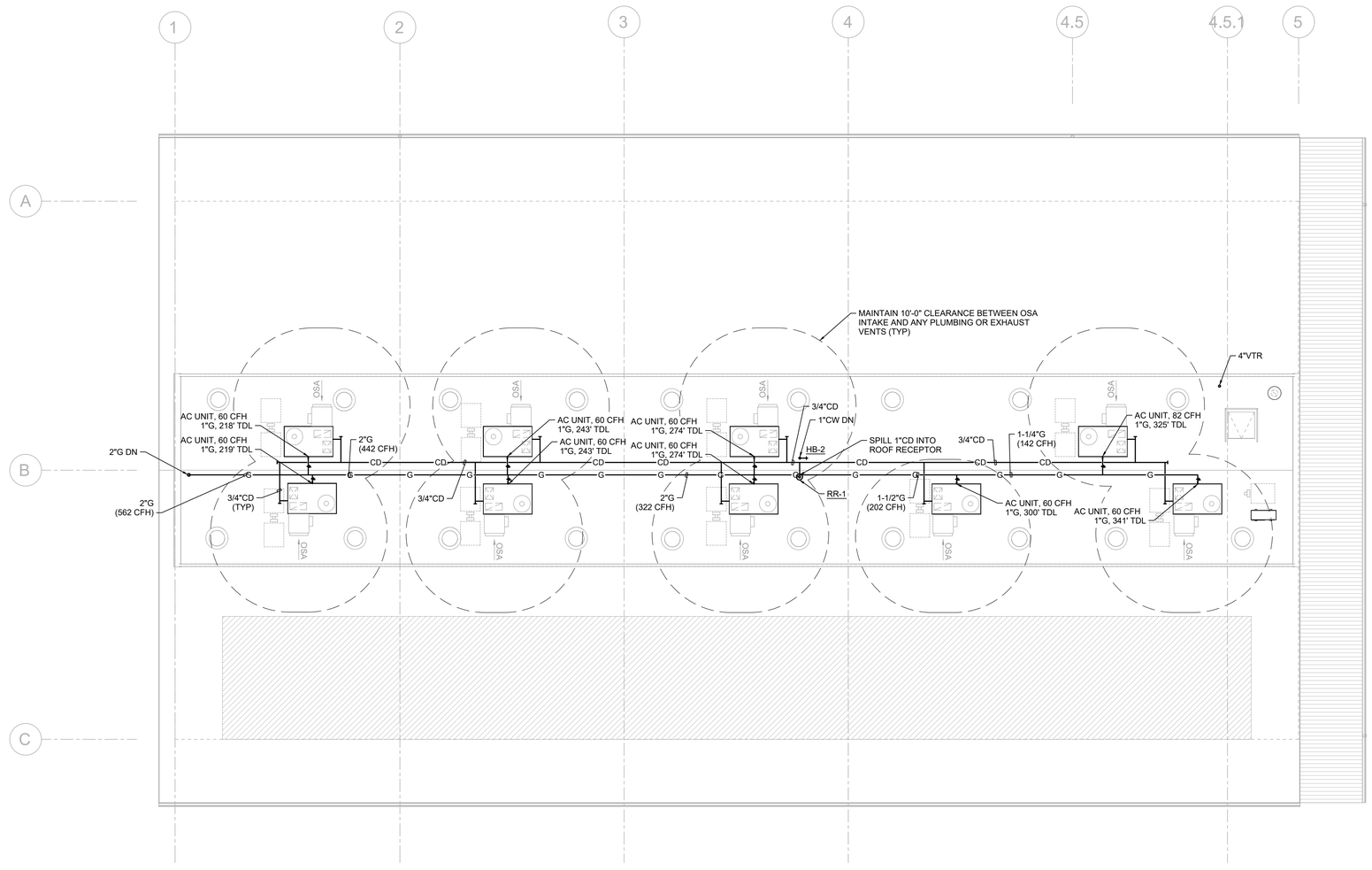
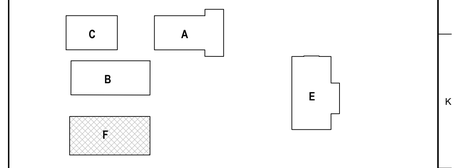


1 P1-3.1 PLUMBING - ROOF PLAN

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

NORTH



CAMPUS KEY

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NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

PLUMBING - ROOF PLAN

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

P1-3.1

Plot Date & Time

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STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: VON RENNER F	**Report Page:**	**(Page 3 of 7)**
	Date Prepared:	11/13/2025

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	LED WRAP	No	NA	35	Mfr. Spec	5	No	175	☐	☐
B	LED TROFFER	No	NA	47	Mfr. Spec	112	No	5,264	☐	☐
							Total Designed Watts: CONDITIONED SPACES	5,439		

[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	
		Pass	Fail
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C		
Required >= 4,000W subject to multilevel	Whole Building Auto Time Switch	☐	☐

STATE OF CALIFORNIA
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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: VON RENNER F	**Report Page:**	**(Page 6 of 7)**
	Date Prepared:	11/13/2025

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.	Whole Building Time Switch;
NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	Whole Building;
NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	Whole Building Demand Response;

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Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: VON RENNER F	**Report Page:**	**(Page 2 of 7)**
	Date Prepared:	11/13/2025

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)1 / 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	5,820				=	5,820	≥	5,439	0	=	5439	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: VON RENNER F	**Report Page:**	**(Page 5 of 7)**
	Date Prepared:	11/13/2025

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.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: VON RENNER F	**Report Page:**	**(Page 7 of 7)**
Project Address: 1388 PATCHETT DR	**Date Prepared:**	11/13/2025

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Richard Smith, PE	Richard Smith, PE (Digitally signed by Richard Smith, PE; DN: C=US, E=rsmith@hcs-eng.com, O=HCS Engineering, CN=Richard Smith, PE; Date: 2025-11-13 10:07:16 -08'00')
Company: HCS Engineering, Inc.	Signature Date: 2025-11-13
Address: 4512 Feather River Dr #F	CEA/ HERS Certification Identification (if applicable): E14303
City/State/Zip: Stockton CA 95219	Phone: 2094788270

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:	Responsible Designer Signature:
RICHARD SMITH, PE	Richard Smith, PE (Digitally signed by Richard Smith, PE; DN: C=US, E=rsmith@hcs-eng.com, O=HCS Engineering, CN=Richard Smith, PE; Date: 2025-11-13 10:07:16 -08'00')
Company: HCS ENGINEERING, INC.	Date Signed: 2025-11-13
Address: 4512 FEATHER RIVER DR #F	License: E14303
City/State/Zip: STOCKTON CA 95219	Phone: 2094788270

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: VON RENNER F	**Report Page:**	**(Page 1 of 7)**
Project Address: 1388 PATCHETT DR	**Date Prepared:**	11/13/2025

A. GENERAL INFORMATION

01	Project Location (city)	NEWMAN	04	Total Conditioned Floor Area (ft²)	9,700
02	Climate Zone	12	05	Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1
• Office					

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	9700	Complete Building Method	0
☐ New Lighting System - Parking Garage				
Total Area of Work (ft²)	9700		0	

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CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: VON RENNER F	**Report Page:**	**(Page 4 of 7)**
	Date Prepared:	11/13/2025

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

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
Whole Building	All Other Occupancies	Readily Accessible	Dimmer	See Building Level	Included	Included	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	
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
Whole Building	School or Classroom	0.6	9,700	5,820	No	No
		TOTALS:	9,700	5,820	See Tables J, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

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HCS Engineering inc.
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209-478-8270 | www.hcs-eng.com

Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

COMPLIANCE

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	Author
Checked by	Checker

ET24A

Plot Date & Time 6/10/2026 11:39:47 AM

Autodesk Docs://VonRennerWing/VonRenner Electrical.rvt
path://john/17/4

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: VON RENNER F	**Report Page:**	**(Page 3 of 7)**
	Date Prepared:	11/13/2025

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(c)1[4]	Field Inspector	
										Pass	Fail
W2	LED SCONCE	☐ Linear	34	Mfr. Spec	14	New	☐	476	NA: < 6200 lumens	☐	☐
							Total Design Watts:	476			

* 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/lf 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.
[4] Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by 130.2(b)/ 160.5(c)

G. SHIELDING REQUIREMENTS (BUG)

This section does not apply to this project.

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: VON RENNER F	**Report Page:**	**(Page 6 of 7)**
	Date Prepared:	11/13/2025

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

There are no NRCA forms required for this project.

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: VON RENNER F	**Report Page:**	**(Page 1 of 7)**
	Date Prepared:	11/13/2025

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	OR	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)		Existing Power Allowance 141.0(b)2L / 180.2(b)4Bv (See Table N)		**Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**	
520	+	---	+	---	+	---	+	---	OR	---	=	520	≥	476	COMPLIES	
Shielding Compliance (See Table G for Details)															N/A	
Controls Compliance (See Table H for Details)															Not applicable	

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
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: VON RENNER F	**Report Page:**	**(Page 5 of 7)**
	Date Prepared:	11/13/2025

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 (ft^2)	Allowed Density (W/ft^2)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
PEDESTRIAN WALK WAY	12120	0.019	230.3	600	0.2	90	320
					Initial Wattage Allowance for Entire Site (Watts):		200
					Instances of Initial Wattage Allowance (LZ 0 only)[1]		
					Total General Hardscape Allowance (Watts):		520

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.

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: VON RENNER F	**Report Page:**	**(Page 7 of 7)**
Project Address: 1388 PATCHETT DR	**Date Prepared:**	11/13/2025

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Richard Smith, PE	Documentation Author Signature: Richard Smith, PE (Digitally signed by Richard Smith, PE; DN: C=US, E=richard@hcs-eng.com, O=HCS Engineering, CN=Richard Smith, PE; Reason: I am the author of this document; Date: 2025-11-13 10:07:32-08'00')
Company: HCS Engineering, Inc.	Signature Date: 2025-11-13
Address: 4512 Feather River Dr #F	CEA/ HERS Certification Identification (if applicable): E14303
City/State/Zip: Stockton CA 95219	Phone: 2094788270

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: RICHARD SMITH, PE	Responsible Designer Signature: Richard Smith, PE (Digitally signed by Richard Smith, PE; DN: C=US, E=richard@hcs-eng.com, O=HCS Engineering, CN=Richard Smith, PE; Reason: I am the author of this document; Date: 2025-11-13 10:08:06-08'00')
Company: HCS ENGINEERING, INC.	Date Signed: 2025-11-13
Address: 4512 FEATHER RIVER DR #F	License: E14303
City/State/Zip: STOCKTON CA 95219	Phone: 2094788270

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: VON RENNER F	**Report Page:**	**(Page 1 of 7)**
Project Address: 1388 PATCHETT DR	**Date Prepared:**	11/13/2025

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.

A. GENERAL INFORMATION

01	Project Location (city)	NEWMAN	04	Total Illuminated Hardscape Area (ft^2)	12120
02	Climate Zone	12			
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				
• Office					

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: VON RENNER F	**Report Page:**	**(Page 4 of 7)**
	Date Prepared:	11/13/2025

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(c)1 / 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

[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.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
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LICENSED ARCHITECT JONATHAN E. GIBSON REN. 1/27 STATE OF CALIFORNIA
Nov. 2024

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REGISTERED PROFESSIONAL ENGINEER RICHARD C. SMITH No. E14303 Exp. 6-30-27 ELECTRICAL STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

COMPLIANCE

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	Author
Checked by	Checker

ET24B

Plot Date & Time 6/10/2026 11:39:48 AM

Autodesk Docs://VonRennerWing/VonRenner Electrical.rvt

path://john/17/4

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	**(Page 1 of 21)**
Project Name: Von Renner Elementary - Classroom Building F	**Date Prepared:** 2025-11-13

A. General Information

1	Project Name	Von Renner Elementary - Classroom Building F			
2	Run Title	Title 24 Analysis			
3	Project Location	1388 Patchett Drive			
4	City	Newman	5	Standards Version	Compliance 2022
6	Zip code	95360	7	Compliance Software (version)	EnergyPro 9.4
8	Climate Zone	12	9	Building Orientation (deg)	0
10	Building Type(s)	• Nonresidential	11	Weather File	MODESTO-CITY_STYP20.epw
12	Project Scope	• New envelope and mechanical	13	Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	9139	15	Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	0	17	Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	9139	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 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 3 of 21)**

C1. COMPLIANCE SUMMARY

COMPLIES[3]			
	Time Dependent Valuaton (TDV)		Source Energy Use
	Efficiency[1] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)	Total[2] (kBtu/ft² - yr)
Standard Design	221.37	166.16	13.83
Proposed Design	146.83	121.86	13.77
Compliance Margins	**74.54**	**44.3**	**0.06**
	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 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	19.8	20.56	-0.76
Space Cooling	68.97	55.54	13.43
Indoor Fans	76.48	26.83	49.65
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	24.23	12.01	12.22
Indoor Lighting	31.89	31.89	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**221.37**	**146.83**	**74.54 (33.7%)**
Photovoltaics	-50.23	-24.97	-25.26
Batteries	-4.98	---	-4.98
TOTAL COMPLIANCE	**166.16**	**121.86**	**44.3 (26.7%)**

[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	66.39	66.39	---
Process	---	---	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**232.55**	**188.25**	**44.3 (19%)**

[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 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	2.7	6.74	-4.04
Space Cooling	2.79	2.26	0.53
Indoor Fans	6.38	2.06	4.32
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	2.07	1.01	1.06
Indoor Lighting	2.57	2.57	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**16.51**	**14.64**	**1.87 (11.3%)**
Photovoltaics	-1.78	-0.87	-0.91
Batteries	-0.9	---	-0.9
TOTAL COMPLIANCE	**13.83**	**13.77**	**0.06 (0.4%)**

[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 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	4.99	4.99	---
Process	---	---	---
Other Ltg	---	---	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**18.82**	**18.76**	**0.06 (0.3%)**

[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

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	5.7	0	5.7	---	66	---
Space Cooling	16.1	11.8	4.3	---	---	---
Indoor Fans	24.2	7.8	16.4	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	---	---	---	---	---
Domestic Hot Water	9.3	4.6	4.7	---	---	---
Indoor Lighting	11.2	11.2	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**66.5**	**35.4**	**31.1**	**0**	**66**	**-66**
Photovoltaics	-23.5	-11.5	-12	---	---	---
Batteries	0.2	---	---	---	---	---
ENERGY USE SUBTOTAL	**43.2**	**23.9**	**19.3**	**0**	**66**	**-66**
Receptacle	24.5	24.5	0	---	---	---
Process	---	---	---	---	---	---
Other Ltg	---	---	---	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**67.7**	**48.4**	**19.3**	**0**	**66**	**-66**

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]	34.05	29.59	4.46	13.1
NET EUI[1]	25.28	25.29	-0.01	-0.04

[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 aged solar reflectance and aged thermal emittance must be listed in the Cool Roof Rating Council database of certified products. For projects where initial reflectance is used, the initial reflectance must be listed, and the aged reflectance is calculated by the software program and used in the compliance model.
• 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.

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		Standard (14-17%)	Fixed	none	false	180	Degrees	22	4.85	96	100

[1]See Table D1 for any PV exceptions used.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
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LICENSED ARCHITECT JONATHAN E. GLICK No. C-36244 REN. 1/27 STATE OF CALIFORNIA

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HVAC . Plumbing/Piping . Fire Sprinklers
Process/Plant Engineering . Refrigeration

REGISTERED PROFESSIONAL ENGINEER GREGORY LEN LAMB No. M30069 EXP. 6/30/2026 MECHANICAL STATE OF CALIFORNIA

Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

ENERGY COMPLIANCE

Project Number	2514
Date	2025
Drawn by	DW
Checked by	GL

T24.1

Plot Date & Time

J:\2025 Jobs\25363 - Von Renner Classrooms\25363 - Title-24.dwg, 6/9/2026 7:17:10 AM, d.wilson

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	9139	0
Warehouse	0	0
Auditorium, Convention Center, Hotel/Motel, Library, Medical Office Building/Clinic, Restaurant, Theater	0	0
None	0	0

Building Occupancy Types are defined in Section 100.1 of the Energy Code

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]	1395	250	17.92
East-Facing[2]	750	0	0
South-Facing[3]	1395	240	17.2
West-Facing[4]	820	0	0
Total	**4360**	**490**	**11.24**
Roof	9132	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),

G2A. ROOFING PRODUCT SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06
Assembly Name	Roof Pitch	Roof Rise (x in 12)	Aged Solar Reflectance	Thermal Emittance	SRI
Membrane Roof10	LowSlope	N/A	0.63	0.75	N/A
Standing Seam Roof12	SteepSlope	N/A	0.25	0.75	N/A

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

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				
Slab On Grade8	Underground Floor	9,139	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
Membrane Roof10	Roof	3,268	Wood	30	N/A	N/A	U-factor	0.0344	Single Ply Roofing - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Ceiling - 3/4 in. Composite-1 Gypsum Board - 1/2 in.	N
Standing Seam Roof12	Roof	5,864	Wood	30	N/A	N/A	U-factor	0.0344	Metal Standing Seam - 1/16 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Ceiling - 3/4 in. Composite-2 Gypsum Board - 1/2 in.	N
R-21 Wall (No Cont. Insul14	Exterior Wall	4,360	Wood	21	N/A	N/A	U-factor	0.0652	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Composite-3 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]
Classroom Door18	294	0.2	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]
Classroom Window	Vertical fenestration Fixed window N/A	NFRC	Manufactured	490	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		
AC-100	Package SZ VAV AC Air System	1	49	0	AFUE	0	35.49	EER2 SEER2	10.35 16.8	Differential DB	N
AC-101	Package SZ VAV AC Air System	1	49	0	AFUE	0	35.49	EER2 SEER2	10.35 16.8	Differential DB	N
AC-102	Package SZ VAV AC Air System	1	49	0	AFUE	0	35.49	EER2 SEER2	10.35 16.8	Differential DB	N
AC-103	Package SZ VAV AC Air System	1	49	0	AFUE	0	35.49	EER2 SEER2	10.35 16.8	Differential DB	N
AC-104	Package SZ VAV AC Air System	1	49	0	AFUE	0	35.49	EER2 SEER2	10.35 16.8	Differential DB	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		
AC-105	Package SZ VAV AC Air System	1	49	0	AFUE	0	35.49	EER2 SEER2	10.35 16.8	Differential DB	N
AC-106	Package SZ VAV AC Air System	1	49	0	AFUE	0	35.49	EER2 SEER2	10.35 16.8	Differential DB	N
AC-107	Package SZ VAV AC Air System	1	49	0	AFUE	0	35.49	EER2 SEER2	10.35 16.8	Differential DB	N
AC-108	Package SZ VAV AC Air System	1	66	0	AFUE	0	57.08	EER2 SEER2	9.66 16.8	Differential DB	N
I.D.F.	Single Zone Heat Pump (SZHP) Air System	1	8.41	0	HSPF2	8	9.4	EER2 SEER2	12 19.5	No Economizer	N

[1] Status: N - New, A - Altered, E - Existing

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	
AC-100	1	348.46	1,200	0.49	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
AC-101	1	348.08	1,200	0.49	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
AC-102	1	348.08	1,200	0.49	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
AC-103	1	348.08	1,200	0.49	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
AC-104	1	346.18	1,200	0.49	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
AC-105	1	346.18	1,200	0.49	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
AC-106	1	348.08	1,200	0.49	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
AC-107	1	348.08	1,200	0.49	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
AC-108	1	670.32	2,000	1.09	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
I.D.F.	1	0	420	0.1	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	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
AC-100	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
AC-101	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
AC-102	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control 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.

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
AC-103	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
AC-104	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
AC-105	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
AC-106	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
AC-107	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
AC-108	Package SZ VAV AC Air System	N/A	Zone(s) With CO2 Sensor Vent. Control Differential DB
Building F1 - 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-Classroom	Education - Classrooms (ages 9-18)	22.93	348.46	0	917	DCV
2-Classroom	Education - Classrooms (ages 9-18)	22.9	348.08	0	916	DCV
3-Classroom	Education - Classrooms (ages 9-18)	22.9	348.08	0	916	DCV

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		
4-Classroom	Education - Classrooms (ages 9-18)	22.9	348.08	0	916	DCV
5-Classroom	Education - Classrooms (ages 9-18)	22.77	346.18	0	911	DCV
6-Classroom	Education - Classrooms (ages 9-18)	22.77	346.18	0	911	DCV
7-Classroom	Education - Classrooms (ages 9-18)	22.9	348.08	0	916	DCV
8-Classroom	Education - Classrooms (ages 9-18)	22.9	348.08	0	916	DCV
9-Classroom	Education - Classrooms (ages 9-18)	44.1	670.32	0	1764	DCV
10-IDF	General - Unoccupied	0.08	0	0	56	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-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	1,200	800	0.67	N/A	N/A	N/A	☐
2-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	1,200	800	0.67	N/A	N/A	N/A	☐
3-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	1,200	800	0.67	N/A	N/A	N/A	☐
4-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	1,200	800	0.67	N/A	N/A	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	
5-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	1,200	800	0.67	N/A	N/A	N/A	☐
6-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	1,200	800	0.67	N/A	N/A	N/A	☐
7-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	1,200	800	0.67	N/A	N/A	N/A	☐
8-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	1,200	800	0.67	N/A	N/A	N/A	☐
9-Classroom-Trm	Variable Air Volume No Reheat Box	1	N/A	N/A	2,000	1,330	0.67	N/A	N/A	N/A	☐
10-IDF-Trm	Uncontrolled	1	N/A	N/A	420	N/A	0	N/A	N/A	N/A	☐

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
A. O. Smith HPTA-502	Electricity	Storage	1	50	9	kW	3.68	UEF	N/A	N/A	65	Heat Pump Split Water Heater	N/A

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T24.2

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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

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
	AC-100, AC-101, AC-102, AC-103, AC-104, AC-105, AC-106, AC-107, AC-108 and I.D.F..
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	I.D.F.
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	AC-100, AC-101, AC-102, AC-103, AC-104, AC-105, AC-106, AC-107 and AC-108.
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.
	AC-100, AC-101, AC-102, AC-103, AC-104, AC-105, AC-106, AC-107 and AC-108.
Mechanical	NRCA-MCH-07-A Supply Fan Variable Flow Controls
	AC-100, AC-101, AC-102, AC-103, AC-104, AC-105, AC-106, AC-107 and AC-108.
Mechanical	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units
	AC-100, AC-101, AC-102, AC-103, AC-104, AC-105, AC-106, AC-107 and AC-108.

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

Documentation Author's Declaration Statement

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Dan Wilson	Documentation Author Signature:
Company: Nexus Engineering	Signature Date: 2025-11-13
Address: 1400 Lone Palm, Suite A	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Modesto, CA 95351	Phone: 209-572-7399

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: JonathanE. Gish	Responsible Designer Signature:	
Company: TPH Architects		
Address: 519 McHenry Ave	Date Signed: 2025-11-13	
City/State/Zip: Modesto, CA 95354	License #: C36244	
Phone: (209) 571-2232	Title:	Scope:
Responsible Designer Name: Allen Layman	Responsible Designer Signature:	
Company: Nexus Engineering		
Address: 1400 Lone Palm, Suite A	Date Signed: 2025-11-13	
City/State/Zip: Modesto, CA 95351	License #: M30029	
Phone: (209) 572-7399	Title:	Scope:

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REGISTERED PROFESSIONAL ENGINEER ALLEN LAYMAN No. M30029 REN. 2026 MECHANICAL STATE OF CALIFORNIA

Consultants

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260500 ELECTRICAL WORK FOR COMMON RESULTS:

1. ELECTRICAL INSTALLATION SHALL COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, INCLUDING THE FOLLOWING:
TITLE 24, CCR, PART 2, 2022 CBC
TITLE 24, CCR, PART 3, 2022 CEC
TITLE 24, CCR, PART 4, 2022 CMC
TITLE 24, CCR, PART 9, 2022 CFC
TITLE 24, CCR, PART 6, 2022 CALIFORNIA ENERGY CODE
TITLE 24, CCR, PART 11, 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
ALL APPLICABLE LOCAL CODES

2. THE ELECTRICAL SERVICES ARE EXISTING. THE ELECTRICAL CONTRACTOR SHALL FAMILIZE THEMSELVES WITH THE EXISTING CONDITONS, DISTRIBUTION AND SIGNAL SYSTEMS PRIOR TO BID.

3. CONTRACTOR SHALL PROCURE AND PAY FOR ALL PERMITS, LICENSES, ETC. REQUIRED TO CARRY ON AND COMPLETE THE WORK.

4. PROVIDE ALL LABOR, MATERIALS, TOOLS, PLANT EQUIPMENT, TRANSPORTATION AND PERFORM ALL OPERATIONS NECESSARY FOR ANY REASONABLE INCIDENTAL TO PROPER EXECUTION AND COMPLETION OF ALL "ELECTRICAL WORK" WHETHER SPECIFICALLY MENTIONED OR NOT; ALL AS INDICATED, SPECIFIED HEREIN, AND/OR IMPLIED THEREBY TO CARRY OUT THE APPARENT INTENT THEREOF.

5. ALL MATERIALS SHALL BE NEW AND LISTED WITH THE UNDERWRITERS' LABORATORIES, INC., SHALL MEET THEIR REQUIREMENTS AND SHALL BEAR THEIR LABEL WHEREVER STANDARDS HAVE BEEN ESTABLISHED AND LABEL SERVICE IS REGULARLY FURNISHED BY THAT AGENCY.

6. ELECTRICAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH THE SIZE AND LOCATIONS OF EQUIPMENT ARE SHOWN TO SCALE WHEREVER POSSIBLE, CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION AT THE SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT AND INSTALLING HIS WORK TO AVOID INTERFERENCE WITH OTHER TRADES.

7. WORK SHOWN ON THE DRAWINGS TO BE INSTALLED UNDERGROUND SHALL BE INSTALLED AT LEAST 24" BELOW GRADE UNLESS OTHERWISE NOTED. BACKFILL IN 6" THICK, PROPERLY MOISTENED LAYERS, SOLIDLY PACKED AND IRON TAMPED TO A DENSITY NOT LESS THAN THAT OF ADJACENT, UNDISTURBED EARTH. RESTORE SURFACES, ROADWAYS, WALKS, CURBS, WALLS AND EXISTING UNDERGROUND INSTALLATIONS TO ORIGINAL CONDITION IN AN ACCEPTABLE MANNER.

8. ALL ELECTRICAL EQUIPMENT EXPOSED TO THE WEATHER SHALL BE LISTED FOR EXTERIOR USE.

9. ALL U.L. LISTED EQUIPMENT SHALL BE INSTALLED AS PER THEIR LISTING OR LABELING.

10. IN LOCATIONS WHERE ELECTRICAL EQUIPMENT WOULD BE EXPOSED TO PHYSICAL DAMAGE, ENCLOSURES OR GUARDS SHALL BE SO ARRANGED AND OF SUCH STRENGTH AS TO PREVENT SUCH DAMAGE.

11. CONFLICTS BETWEEN SPECIFICATIONS AND PLANS:

a. ANY CONFLICT BETWEEN ELECTRICAL SPECIFICATIONS AND ELECTRICAL PLANS; OR BETWEEN ELECTRICAL PLANS AND PLANS OF ANOTHER DISCIPLINE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND A RESOLUTION RECEIVED PRIOR TO PROCUREMENT OR INSTALLATION OF THE ITEM IN QUESTION.

b. IF THE CONTRACTOR PROCEEDS WITH THE WORK WITHOUT RECEIVING ANY RESOLUTION TO THE CONFLICT HE/SHE DOES SO AT HIS/HER OWN RISK AND SHALL RECTIFY THE WORK TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER OR ENGINEER.

260500.01. HVAC SYSTEMS:

1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS OF ALL HVAC UNITS, DISCONNECTS AND DEVICES IN FIELD. COORDINATE ROOF PENETRATIONS FOR DISCONNECTS AND WEATHERPROOF OUTLETS WITH ELECTRICAL CONNECTION POINTS ON THE UNITS TO KEEP FLEXIBLE CONDUIT LENGTH TO A MINIMUM (36" MAXIMUM). VERIFY AND CONFIRM THE ACTUAL MOUNTING LOCATION ON THE HVAC UNIT FOR THE DISCONNECT. ALL SERVICING OUTLETS ON THE ROOF OR OUTDOORS FOR HVAC UNITS SHALL BE WP/GFI.

2. THE RATING OF THE DISCONNECT SHALL BE SUCH AS TO ENABLE THE LARGEST FUSE SIZE ON THE UNIT NAMEPLATE TO BE INSTALLED IN THE DISCONNECT. PROVIDE FUSES OF THIS RATING.

3. FURNISH AND INSTALL ALL LINE VOLTAGE CONDUITS AND LINE VOLTAGE WIRING (LOW VOLTAGE CONDUITS AND WIRING BY MECHANICAL) TO HVAC EQUIPMENT AND ASSOCIATED CONTROLS AND DEVICES AS SHOWN ON THE ELECTRICAL AND MECHANICAL PLANS, UNLESS OTHERWISE NOTED.

4. RUN ALL CONDUITS FOR ROOFTOP EQUIPMENT WITHIN CEILING SPACE BELOW. SURFACE CONDUIT RUNS ON THE ROOF ARE NOT PERMITTED ON THIS PROJECT.

5. DISCONNECTS SHALL NOT BE USED AS THROUGH RACEWAYS FOR WIRING NOT DIRECTLY SERVING THE DISCONNECTS. SERVICING OUTLETS SHALL NOT BE MOUNTED ON DISCONNECTS.

260500.02. SUBMITALLS:

1. PROVIDE THE FOLOWING SUBMITTALS FOR REVIEW AND APPROVAL. EACH SHALL BE SUBMITTED SEPARATELY TO AVOID DELAYS IN THE REVIEW OF ONE SUBMITTAL IN HOLDING UP REVIEW OF THE REMAINDER.

a. LIGHTING CONTROLS
b. BASIC ELECTRICAL MATERIALS
c. LIGHT FIXTURES

260500.03. WORKING CLEARANCES FOR ELECTRICAL SWITCHGEAR:

1. PROVIDE WORKING SPACES FOR ELECTRICAL PANELS AND SWITCHGEAR TO COMPLY WITH CEC 110.26.

2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES INVOLVED TO ENSURE THE CLEARANCES REQUIRED BY ITEM 1 ABOVE ARE PROVIDED.

260526. GROUNDING:

1. GROUND AND BOND ALL EQUIPMENT AS REQUIRED BY GOVERNING CODES AND SPECIFICALLY INCLUDING SWITCHBOARD, PANELBOARDS, MOTOR CASES, METAL PIPING SYSTEMS, STRUCTURAL STEEL, ETC.

2. PROVIDE GROUND WIRES IN ALL FEEDERS AND BRANCH CIRCUITS, SIZE PER CEC TABLE 250.122

3. ALL GROUND WIRES SHALL BE INSULATED GROUND WIRES.

260529. INSTALLATION OF SUPPORT SYSTEMS

1. RACEWAYS, CABLE ASSEMBLIES, BOXES, CABINETS, AND FITTINGS SHALL BE SECURELY FASTENED IN PLACE PER CEC ARTICLE 300.11. SUPPORT WIRES THAT DO NOT PROVIDE SECURE SUPPORT SHALL NOT BE PERMITTED AS THE SOLE SUPPORT. SUPPORT WIRES AND ASSOCIATED FITTINGS THAT PROVIDE SECURE SUPPORT AND THAT ARE INSTALLED IN ADDITION TO THE CEILING GRID SUPPORT WIRES SHALL BE PERMITTED AS THE SOLE SUPPORT. WHERE INDEPENDENT SUPPORT WIRE ARE USED, THEY SHALL BE SECURED AT BOTH ENDS. CABLES AND RACEWAYS SHALL NOT BE SUPPORTED BY CEILING GRIDS.

2. FURNISH ALL NECESSARY FOUNDATIONS, SUPPORTS, BACKING, ETC., FOR ALL ELECTRICAL ENCLOSURES, CONDUITS AND EQUIPMENT.

3. ATTACH ALL BOXES, CABINETS, ETC. TO WOOD WITH WOOD OR LAG SCREWS, TO METAL WITH MACHINE SCREWS OR BOLTS AND TO CONCRETE WITH EXPANSION ANCHORS AND MACHINE SCREWS OR BOLTS.

2. RIGID STEEL CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT GREATER THAN 10 FT, ELECTRICAL METALLIC TUBING AT INTERVALS NOT GREATER THAN 5 FT.

3. A SUPPORT SHALL BE PROVIDED NOT MORE THAN 3 FT. FROM ANY CHANGE IN DIRECTION. ADDITIONAL SUPPORTS TO THOSE SPECIFIED ABOVE SHALL BE INSTALLED WHERE REQUIRED TO SUIT JOB CONDITIONS AND TO PROVIDE A SECURE INSTALLATION. ALL HANGERS AND SUPPORTS SHALL BE THE PRODUCTS OF ONE MANUFACTURER.

260533. PULL OR JUNCTION BOXES:

1. INSTALL WHERE INDICATED, OR AS REQUIRED BY CODE, PULL BOXES AND JUNCTION BOXES OF SUFFICIENT SIZE AND CAPACITY TO FACILITATE ALL WIRING. BOXES SHALL BE SIZED TO PROPERLY ACCOMMODATE ALL CONDUCTORS ENTERING SAME.

2. BOXES SHALL BE OF THE SHAPE AND SIZE BEST SUITED FOR THE PARTICULAR APPLICATION AND SHALL BE SUPPORTED DIRECTLY TO STRUCTURAL MEMBERS, FRAMING OR BLOCKING BY MEANS OF SCREWS, ANCHORS, BOLTS OR EMBEDDED IN MASONRY.

A. SWITCH AND RECEPTACLE BOX SHALL BE ONE PIECE DRAWN OR STAMPED STEEL BOXES MINIMUM SIZE SHALL BE FOUR INCHES (4") SQARE. BOXES SHALL BE FITTED WITH FLUSH DEVICE COVERS, PLASTER RINGS, OR TILE SWITCH RINGS IN MASONRY IN AREA WHERE EXPOSED WIRING IS PERMISSIBLE, BOXES SHALL BEFITTED WITH SURFACE TYPE COVERS.

B. LIGHTING OUTLETS SHALL BE FOUR INCHES (4")OCTAGON, MINIMUM.

C. VOICE/DATA OUTLET BOXES SHALL BE 4_11/16"SQ.x2_1/8" DEEP MINIMUM, FITTED WITH PLASTER RINGS.

D. BOXES FOR SPECIAL EQUIPMENT SHALL BE SUITABLE FOR THE PARTICULAR EQUIPMENT.

E. BOXES SHALL BE LOCATED AND PLACED ACCORDING TO ARCHITECTURAL AND STRUCTURAL REQUIREMENTS.

260550. WIRING METHODS: LINE VOLTAGE SYSTEMS (120V AND ABOVE):

1. ALL WIRING SHALL BE INSTALLED IN CONDUITS. CONDUITS SHALL BE RUN CONCEALED IN WALLS AND CEILINGS WHERE FEASIBLE. ALL CONDUITS INSTALLED SURFACE ON WALL SHALL BE PAINTED TO MATCH WALL FINISH. MOUNT EXTERIOR CONDUITS ON WALL ON GALVANIZED UNISTRUTS. ALL SURFACE CONDUIT INSTALLATION/ RUNS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.

2. ALL CONDUITS RUN WITHIN INTERIOR FINISHED SPACES SUCH AS OFFICES, BREAKROOM, RESTROOM ETC. SHALL BE RUN CONCEALED.

3. ALL CONDUITS RUN IN DEDICATED ELECTRICAL AND MECHANICAL ROOMS SHALL BE RUN EXPOSED.

4. MINIMUM CONDUIT SIZE SHALL BE 1/2" ABOVE GRADE AND 3/4" UNDERGROUND.

5. MINIMUM ACCEPTABLE CONDUITS ARE:

A. GALVANIZED RIGID STEEL - FOR USE ON:
(1) EXTERIOR WALL SURFACES.

B. GALVANISED STEEL EMT FOR USE:
(1) CONCEALED IN INDOOR FINISHED SPACES.
(2) EXPOSED INSIDE ELECTRICAL & MECHANICAL ROOMS.

C. LIQUID TIGHT STEEL FLEX:
(1) FOR FINAL CONNECTION TO OUTDOOR EQUIPMENT. LENGTH SHALL NOT EXCEED 36".

D. FLEXIBLE STEEL CONDUIT:
(1) FOR INDOOR FINAL CONNECTION TO RECESSED LIGHT FIXTURES. LENGTH SHALL NOT EXCEED 72".
(2) FOR INDOOR FINAL CONNECTION TO HVAC EQUIPMENT. LENGTH SHALL NOT EXCEED 36".

E. "PVC" SCHEDULE 40:
(1) FOR CONDUITS RUN UNDERGROUND AND FOR UNDER BUILDING SLAB.
(2) CONDUIT STUBUPS THROUGH THE FLOOR OR GRADE SHALL BE IN PVC WRAPPED RIGID STEEL CONDUIT. PVC WRAPPING SHALL EXTEND 6" ABOVE FINISHED FLOOR OR GRADE.
(3) NOT PERMITTED FOR WIRING ABOVE FINISHED FLOOR INSIDE BUILDINGS

F. ALUMINUM CONDUITS, IMC CONDUITS OR ALUMINUM FITTINGS ARE NOT APPROVED FOR USE ON THIS PROJECT.

G. ALL CONDUIT FITTINGS SHALL BE MALLEABLE IRON/STEEL.

H. COUPLING:
(1) EMT COUPLING - APPLETON TWC-CS SERIES
(2) EMT CONNECTOR - APPLETON TW-CSI SERIES
(3) FLEX CONDUIT CONNECTOR - T&B "TITE BITE", INSULATED
(4) LIQUID TIGHT FLEX CONDUIT CONNECTOR - APPLETON "STB" SERIES UP TO 2", "ST" SERIES OVER 2".

I. RIGID STEEL CONDUIT CONNECTED TO BOXES AND CABINETS SHALL BE FITTED WITH TWO LOCKNUTS AND INSULATING BUSHING, OA "A" SERIES. PROVIDE GROUNDING BUSHING OZ "BL" SERIES WHERE LOCKNUTS AND BUSHING IS NOT USED. CONDUITS CONNECTED TO BOXES EXPOSED TO WEATHER/MOISTURE SHALL BE FITTED WITH WATERTIGHT SEALING HUBS OF STEEL OR MALLEABLE IRON WITH SEALING RING AND INSULATED THREAT, T & B 370 SERIES.

J. TYPE NM AND NMC CABLES SHALL NOT BE USED ON THIS PROJECT.

K. THE PROJECT DRAWINGS ARE LAID OUT USING SOLID CONDUITS AND CABLES PULLED THROUGH SUCH CONDUITS. MC CABLES MAY BE UTILIZED AS DESCRIBED BELOW, WITH RESTRICTIONS NOTED.

(1) PRIOR APPROVAL OF OWNER/ARCHITECT REQUIRED.

(2) ALL SUPPORTS, ATTACHMENTS SPACING SHALL BE PER CEC 330.30.

(3) FOR MULTI-WIRE BRANCH CIRCUITS SUCH CABLES SHALL HAVE MULTIPLE NEUTRALS, ONE FOR EACH CIRCUIT.

6. CONDUCTORS SHALL BE COPPER CONDUCTORS TYPE THHN/THWN UNLESS OTHERWISE NOTED OR REQUIRED BY CODE.

7. ALL DEVICES, CONDUITS, RACEWAYS AND CABLES SHOWN ARE NEW TO BE PROVIDED UNLESS OTHERWISE NOTED.

8. FLASH AND COUNTERFLASH ALL ITEMS PASSING THROUGH THE ROOF.

9. THE OWNER RESERVES THE RIGHT TO RELOCATE ALL LIGHTING, OUTLETS AND SWITCHES BEFORE THEY ARE ROUGHED IN AT NO EXTRA COST.

260551. INSTALLATION OF RACEWAYS AND FITTINGS

1. CONCEAL RACEWAYS WITHIN CEILINGS, WALLS, AND FLOORS EXCEPT WHERE EXPOSED RACEWAYS ARE SPECIFICALLY PERMITTED.

2. WHERE CONDUIT IS ALLOWED TO BE EXPOSED, INSTALL THE CONDUIT PARALLEL WITH OR AT RIGHT ANGLES TO STRUCTURAL MEMBERS, WALLS, AND LINES OF THE BUILDING.

3. INSTALL WHERE INDICATED, OR AS REQUIRED BY CODE, PULLBOXES AND JUNCTION BOXES OF SUFFICIENT SIZE TO FACILITATE WIRING. BOXES SHALL BE SIZED TO PROPERLY ACCOMMODATE ALL CONDUCTORS ENTERING SAME.

4. DO NOT INSTALL CONDUIT OR TUBING WHICH HAS BEEN CRUSHED OR DEFORMED.

5. RUN CONDUCTORS OF SAME CIRCUIT IN SAME CONDUIT. RUN CONDUCTORS OF DIFFERENT VOLTAGE SYSTEMS IN SEPARATE CONDUITS.

6. INSTALL NO CONDUCTORS UNTIL WORK WHICH MIGHT CAUSE DAMAGE TO SUCH CONDUCTORS OR THE CONDUIT HAS BEEN COMPLETED.

7. KEEP ALL CONDUITS AT LEAST SIX INCHES AWAY FROM THE COVERING ON HOT WATER OR STEAM PIPES.

8. CAP RACEWAY ENDS DURING CONSTRUCTION. CLEAN OR REPLACE CONDUITS IN WHICH WATER OR FOREIGN MATTER HAVE ACCUMULATED, TO THE SATISFACTION OF THE ARCHITECT.

9. CONDUITS SHALL BE SUPPORTED WITH STRAPS, WITH GALVANIZED MALLEABLE SPLIT RING AND ROD FOR INDIVIDUAL RUNS OR WITH KINDORF OR UNISTRUT CHANNEL SUPPORTS FOR MULTIPLE RUNS. DISTANCE BETWEEN SUPPORTS SHALL NOT EXCEED 10 FEET. CONDUITS SHALL BE SUPPORTED INDEPENDENTLY OF ONE ANOTHER.

10. CONDUITS CONNECTED TO BOXES AND CABINETS SHALL BE FITTED WITH TWO LOCKNUTS AND INSULATED BUSHING, OA "A" SERIES.

11. CONDUITS NOT CONNECTED WITH LOCKNUTS AND BUSHINGS SHALL BE FITTED WITH GROUNDING BUSHING, OZ "BL" SERIES, U. L. APPROVED AND BONDED.

12. CONDUIT STRAPS FOR INDIVIDUAL RUNS SHALL BE SECURED BY TOGGLE BOLTS ON HOLLOW MASONRY, EXPANSION ANCHORS ON SOLID CONCRETE OR MASONRY, MACHINE SCREWS OR BOLTS ON METAL SURFACES AND WOOD SCREWS ON WOOD CONSTRUCTION. THE USE OF NAILS TO ANCHOR STRAPS ON WOOD CONSTRUCTION IS PROHIBITED. STRAPS SHALL BE TWO HOLE MALLEABLE IRON OR SNAP-TYPE STEEL WITH RIBBED BACK, GALVANIZED OR CADMIUM PLATED. THE USE

13. PLACEMENT OF ALL BOXES SHALL BE GOVERNED BY APPLICABLE ARCHITECTURAL AND STRUCTURAL REQUIREMENTS.

14. CONDUIT FITTINGS: EXCEPT WHERE OTHERWISE NOTED, CONDUIT FITTINGS SHALL BE APPLETON OR APPROVED EQUAL. UNILETS SHALL BE MALLEABLE IRON AND FITTED WITH COVERS AND GASKETS.

15. TELEPHONE AND SIGNAL CONDUIT BENDS WHERE REQUIRED SHALL HAVE A RADIUS OF TEN TIMES THE CONDUIT TRADE SIZE.

16. PROVIDE PULL TAPE IN ALL EMPTY CONDUITS.

260551.01. PENETRATIONS OF FIRE-RATED ASSEMBLIES:

1. PENETRATIONS OF PIPES, CONDUITS, ETC., IN WALLS AND CEILINGS REQUIRING PROTECTED OPENINGS SHALL BE FIRESTOPPED IN ACCORDANCE WITH CBC SECTION 714. FIRE STOP MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY AUTHORITY HAVING JURISDICTION.

2. THROUGH PENETRATIONS AND MEMBRANE PENETRATIONS OF FIRE-RESISTANCE RATED WALLS SHALL COMPLY WITH CBC 714.3.

3. PENETRATIONS OF FIRE RESISTANCE RATED FLOOR, FLOOR/CEILING ASSEMBLY OR THE CEILING MEMBRANCE OF A ROOF/CEILING ASSEMBLY SHALL COMPLY WITH CBC 714.4.

4. ALL ELECTRICAL BOXES INSTALLED IN A FIRE-RESISTIVE SEPARATION SHALL BE AN "APPROVED BOX". AN "APPROVED BOX" IS AN ALL STEEL ELECTRICAL BOX WHICH IS UL LISTED FOR INSTALLATION IN A FIRE-RESISTIVE SEPARATION.

5. ELECTRICAL BOXES, INCLUDING BOXES FOR RECEPTACLES, IN RATED WALLS SHALL HAVE A MINIMUM OF 24" HORIZONTAL SEPARATION FROM THOSE IN ADJACENT ROOMS AT THE OTHER SIDE OF WALL IN ACCORDANCE WITH C.B.C. SECTION 714.3.2. IN CASE SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE EACH BOX SHALL BE PROTECTED BY A LISTED FIRE-STOPPING PUTTY PAD AND BOX SHALL BE PROVIDED WITH A METAL COVERPLATE AND NOT PLASTIC OR NYLON.

6. WHERE CONDUIT SLEEVE IS USED FOR THE PROTECTION OF WIRING PENETRATIONS, UL LISTED FIRESTOP COMPOUND SHALL BE USED TO SEAL THE OPENING AROUND THE CONDUIT AND TO SEAL THE CONDUIT ENDS AFTER THE CABLE IS INSTALLED.

7. WHERE A CABLE OR A GROUP OF CABLES PENETRATES MEMBRANE OR CONTINUOUS BLOCKING, UL LISTED FIRESTOP COMPOUND SHALL BE USED TO SEAL THE OPENING AROUND THE CABLES.

8. SEE ARCHITECTURAL PLANS FOR LOCATION OF FIRE-RATED WALLS AND CEILING.

260553. NAMEPLATES & IDENTIFICATION:

1. INSTALL ENGRAVED NAMEPLATES FOR EACH PANELBOARD, CABINET, DISCONNECT, ETC. NAMEPLATES SHALL BE SECURELY FASTENED TO THE EQUIPMENT WITH #4 PHILLIPS ROUND HEAD CADMIUM PLATED SELF-TAPPING SCREWS, BRASS BOLT.

2. PROVIDE CIRCUIT LABEL INDICATING PANEL AND CIRCUIT NUMBER ON EACH COVERPLATE FOR EACH RECEPTACLE AND LIGHT SWITCH, MOTION SENSOR SWITCH. SUCH LABEL SHALL BE SELF ADHESIVE WHITE TAPE WITH BLACK LETTERS MADE ON A LABEL MAKER.

3. ALL CONTROLLED RECEPTACLES SHALL BE PERMANENTLY MARKED TO DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES PER CALIFORNIA ENERGY CODE SECTION 130.5(d)(3).

260573. ARC FLASH HAZARDS:

1. PROVIDE WARNING LABEL ON ELECTRICAL EQUIPMENT OF POSSIBLE ARC FLASH HAZARDS PER C.E.C. 110.16.

260800. TESTING:

1. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE FREE FROM SHORT CIRCUITS AND IMPROPER GROUNDS. TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY AND GROUNDS BEFORE ANY FIXTURES OR EQUIPMENT ARE CONNECTED AND WHERE SUCH TESTS INDICATE FAULTY INSULATION OR OTHER DEFECTS, THEY SHALL BE LOCATED, REPAIRED AND RETESTED AT THE CONTRACTOR'S EXPENSE. PROVIDE ALL INSTRUMENTS TO MAKE SUCH TESTS.

2. DEMONSTRATE TO THE OWNER AND THE ARCHITECT, THAT THE ENTIRE INSTALLATION IS COMPLETE, IN PROPER OPERATING CONDITION AND THAT THE CONTRACT HAS BEEN PROPERLY AND FULLY EXECUTED.

260811. OPERATIONS AND MAINTENANCE (O&M) MANUALS:

1. PROVIDE AS-BUILT DRAWINGS.

A. UPON COMPLETION OF WORK COVERED BY THIS CONTRACT, PROVIDE AS-BUILT PLANS UPON WHICH SHALL BE SHOWN ALL CHANGES OF FEEDERS, PANELS, CIRCUITS, LIGHT FIXTURES, ETC., FOR THIS PROJECT AND INSTALLED UNDER THIS CONTRACT, WHICH ARE NOT IN ACCORD WITH THESE DRAWINGS FOR THE WORK.

B. ALL SYMBOLS AND DESIGNATIONS USED IN PREPARING "AS-BUILT" DRAWINGS SHALL MATCH THOSE USED IN CONTRACT DRAWINGS.

2. PROVIDE OF OPERATION AND MAINTENANCE MANUAL FOR POWER, AND LIGHTING SYSTEMS.

3. SCAN BOTH "AS-BUILT" PLANS AND O&M MANUAL ON TO A CD AND PROVIDE (3) COPIES OF THE CD TO OWNER PRIOR TO RELEASE OF FINAL PAYMENT.

260943. INTERIOR LIGHTING CONTROL SYSTEM:

1. PROVIDE A COMPLETE AND FULLY OPERATIONAL INTERIOR LIGHTING CONTROL SYSTEM FOR INTERIOR LIGHTING AS SPECIFIED HEREIN AND SHOWN ON THE DRAWINGS.

2. THE COMPLETE SYSTEM, INCLUDING ALL DEVICES SHALL BE IN COMPLIANCE WITH THE 2022 CALIFORNIA ENERGY CODE.

3. THE COMPLETE SYSTEM SHALL BE AS MANUFACTURED BY NLIGHT, WATTSTOPPER, OR GREENGAGE CONSISTING OF:

A. LUMINAIRES WITH 0-10V DIMMING LED DRIVERS.

B. WALL DIMMER SWITCHES THAT COMMUNICATE THROUGH ROOM CONTROLLERS.

C OCCUPANCY SENSORS THAT COMMUNICATE THROUGH ROOM CONTROLLERS.

D WHERE LIGHT FIXTURES FALL UNDER THE PRIMARY AND SECONDARY DAYLIT ZONES AS DEFINED BY SECTION 130.1(d) AND THE TOTAL INSTALLED GENERAL LIGHTING POWER IN THE PRIMARY DAYLIT ZONE IS NOT LESS THAN 120W (EXCEPTION #1 TO SECTION 130.1(d)2) SUCH LIGHT FIXTURES SHALL BE PROVIDED WITH AUTOMATIC DAYLIGHITNG CONTROLS IN ACCORDANCE WITH SECTION 130.1(d)(2)(D).

E. TIME BASED GATEWAY DEVICE THAT PROVIDES TIME-BASED SIGNAL TO ROOM CONTROLLERS FOR ALL SPACES THAT CONTROLLED BY MOTION SENSORS TO AUTOMATICALLY SHUT-OFF LIGHTS AT THE END OF DAY

4. ALL SYSTEM COMPONENTS SHALL BE UL LISTED. ALL SYSTEM CONTROL COMPONENTS SHALL BE APPROVED BY THE CALIFORNIA ENERGY COMMISSION.

5. ALL EQUIPMENT AND ITEMS OF CONTROL SHALL BE INSTALLED AND WIRED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

6. PROVIDE WALL OCCUPANCY SENSOR LIGHT SWITCHES WHERE SO SHOWN ON PLANS. SUCH OCCUPANCY SENSOR SWITCHES SHALL BE SINGLE LEVEL AUTOMATIC "ON"/AUTOMATIC "OFF" AS SHOWN ON PLANS. SENSORS SHALL COMPLY WITH SECTION 110.9 OF THE ENERGY CODE.

7. THE SYSTEM SHALL AUTOMATICALLY SWITCH OFF ALL LIGHTS WHEN CONTROLLED SPACE BECOMES UNOCCUPIED AND SWITCH ON LIGHTS WHEN THE SPACE IS RE-OCCUPIED. ALL SENSORS SHALL BE PROVIDED WITH USER ADJUSTABLE TIME DELAY (15 SEC. TO 20 MINUTES) FOR "SWITCH-OFF" FUNCTION AND ADJUSTABLE SENSITIVITY.

8. LOW VOLTAGE WIRING IS NOT REQUIRED TO BE IN CONDUIT EXCEPT IN HARDLID CEILINGS WHERE SUCH WIRES SHALL BE RUN IN CONDUIT.

262417. PANELBOARDS:

1. UNITS SHALL BE FLUSH OR SURFACE MOUNTED AS INDICATED ON THE PANEL SCHEDULE, WITH THE NUMBER AND SIZE OF BREAKERS AS INDICATED ON THE PANEL SCHEDULE. SINGLE POLE, TWO POLE, AND THREE POLE BREAKERS SHALL BE BOLT-ON TYPE. MULTIPLE POLE BREAKERS SHALL HAVE COMMON INTERNAL TRIP CONNECTION. SINGLE POLE BREAKERS SHALL NOT BE TIED AT HANDLES TO FORM MULTIPLE POLE BREAKERS. THE PANEL DOORS SHALL BE DOOR-IN-DOOR CONSTRUCTION AND SHALL HAVE FLUSH TYPE LOCKS, ALL LOCKS SHALL BE KEYED ALIKE AND HAVE TYPEWRITTEN DIRECTORIES INDICATING FIXTURES, EQUIPMENT, OR OUTLETS SERVICE BY EACH BREAKER. PANELS SHALL HAVE COPPER BUSSING.

MEP COMPONENT ANCHORAGE

APPLICABLE CODE: 2022 CBC

MEP COMPONENT 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 HAVING 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 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 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. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., HCAI OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

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 DEAILS.

MP ☐ MD ☐ PP ☐ E ☐ OPTION 2: SHALL COMPLY WITH HCAI PREAPPROVAL (OPM #)

SONITROL COORDINATION FOR BUILDINGS H:

1. THE DISTRICT USES SONITROL FOR SECURITY.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT TO DOOR SWITCHES. COORDINATE THESE LOCATIONS WITH SONITROL IN THE FIELD.
3. THE CONTRACTOR IS TO PROVIDE A POWER OUTLET IN THE MECHANICAL ROOMS FOR SECURITY ALARMS. VERIFY LOCATION IN THE FIELD WITH SONITROL. (BUILDING H)
4. THE CONTRACTOR SHALL PROVIDE CONDUIT RUNS PARALLEL WITH THE EMS CONDUITS FOR SECURITY.
5. THE CONTRACTOR SHALL PROVIDE CONDUIT AND WIRE FOR THE CAMERAS (PER SPECIFICATION). VERIFY LOCATION OF THE CAMERAS IN THE FIELD WITH THE DISTRICT.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Hu

262726. WIRING DEVICES:

1. UNITS SHALL BE EQUAL TO THE DEVICES SET FORTH HEREIN, IN STANDARD COLORS (BROWN, WHITE, GREY, BEIGE OR IVORY) AS SELECTED BY THE ARCHITECT:

A. WIRING DEVICES	LEVITON #	HUBBELL #	P & S #
SINGLE POLE SWITCH, 15A	1201-2	HBL1201	PS15AC1
DOUBLE POLE SWITCH, 15A	1202-2	HBL1202	PS15AC2
THREE WAY SWITCH, 15A	1203-2	HBL1203	PS15AC3
DUPLEX CONV. OUTLET, 15A	5262	HBL5262	5262
DUPLEX CONV. OUTLET, 20A	5362	HBL5362	5362
DUPLEX CONV. GFI OUTLET, 15A	6599	GF15	1595L
DUPLEX CONV. GFI OUTLET, 20A	6899	GF15 2095L	

2. THE CONTROLLED OUTLET SHALL HAVE PERMANENT UNIQUE MARKING PROVIDED BY THE MANUFACTURER OF THE RECEPTACLE.

3. THE MOUNTING HEIGHTS OF LIGHT SWITCHES, RECEPTACLES AND CONTROLS SHALL BE MAXIMUM 48" MEASURED TO THE TOP OF BOXES OR MINIMUM 16" TO THE BOTTOM OF BOXES. SEE "LEGEND" FOR ACTUAL MOUNTING HEIGHTS OF DEVICES. VERIFY HEIGHT WITH ARCHITECT WHERE AN ACTUAL MOUNTING HEIGHT IS NOT CALLED OUT ON PLANS.

4. SINGLE RECEPTACLE SERVED BY INDIVIDUAL 20A BRANCH CIRCUIT DEDICATED TO THE OUTLET SHALL BE 20A RATED PER CEC 210.21(B)(1). ALL OTHERS SHALL BE 15A RATED.

5. ALL 15A AND 20A, 120V OUTLETS IN KITCHEN SHALL BE GFCI PER CEC 210.8(B)(2). LOCATE SUCH OUTLETS SO THAT THEY ARE ACCESSIBLE AFTER APPLIANCES THAT ARE PLUGGED INTO THE OUTLETS ARE IN PLACE.

6. ALL RECEPTACLES INSTALLED OUTDOORS SHALL BE WEATHERPROOF AND HAVE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION.

7. 120V, 15A AND 20A RECEPTACLES ARE NOW SUBJECT TO CALIFORNIA ENERGY CODE, SECTION 130.5(d). ALL SUCH OUTLETS SHALL BE CONSIDERED AS UNCONTROLLED EXCEPT THOSE WHICH ARE SPECIFICALLY CALLED OUT ON THE PLANS AS CONTROLLED. SEE "CONTROLLED 120V RECEPTACLES" PARAGRAPH BELOW.

262726.01. CONTROLLED 120V RECEPTACLES:

1. CALIFORNIA ENERGY CODE, SECTION 130.5(d) NOW REQUIRES THAT BOTH CONTROLLED AND UNCONTROLLED 120V OUTLETS FOR PLUG LOADS BE PROVIDED IN THE FOLLOWING LOCATIONS:

A. EACH PRIVATE OFFICE.
B. EACH OPEN OFFICE AREA.
C. RECEPTION LOBBY.
D. CONFERENCE ROOM.
E. KITCHENETTE AND BREAK ROOM IN OFFICE SPACES.
F. COPY ROOM.

2. CIRCUITS SERVING CONTROLLED RECEPTACLES SHALL BE AUTOMATICALLY BE SHUT-OFF IN ACCORDANCE WITH SECTION 130.1(c)1.

3. PROVIDE A SPLITWIRED DUPLEX RECEPTACLE WITH ONE HALF CONTROLLED AND ONE HALF UNCONTROLLED DUPLEX RECEPTACLE AS SHOWN ON THE PLANS. THIS RECEPTACLE SHALL BE SPLIT DUPLEX OUTLET AS MANUFACTURED BY SAME MANUFACTURER AS THE OCCUPANCY LIGHTING SENSOR SYSTEM WITH A 15-AMP RELAY-SWITCHED OUTLET AND A 15-AMP CONSTANT POWER OUTLET.

262726.02. DEVICE PLATES:

1. ALL DEVICE PLATES FOR INDOOR USE SHALL BE STAINLESS STEEL.

2. ALL DEVICE BOXES WHICH ARE INSTALLED IN FIRE RATED WALL ASSEMBLY AND IS PROVIDED WITH A FIRE-STOPPING PUTTY PAD SHALL HAVE A BRUSHED STAINLESS STEEL COVERPLATE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PUTTY PAD.

3. DEVICE COVERS FOR SURFACE MOUNTED BOXES SHALL BE 1/2" RAISED STEEL PLATES.

4. DEVICE COVERS FOR DEVICES LOCATED IN DAMP LOCATIONS SHALL COMPLY WITH CEC 406.9(A).

5. DEVICE COVERS FOR DEVICES LOCATED IN WET LOCATIONS SHALL COMPLY WITH CEC 406.9(B).

265100. LIGHTING:

1. ALL LUMINAIRES SHALL BE CERTIFIED BY THE MANUFACTURER TO THE CALIFORNIA ENERGY COMMISSION:

A. ALL LUMINAIRES SPECIFIED ON THIS PROJECT SHALL BE AS NOTED IN THE "LIGHT FIXTURE SCHEDULE" ON THESE PLANS. NO SUBSTITUTES ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.

B. ALL INTERIOR LUMINAIRES SHALL BE PROVIDES WITH 0-10V DIMMING LED DRIVERS.

C. ALL EXTERIOR LUMINAIRES SHALL BE PROVIDED WITH 0-10V DIMMING LED DRIVERS WITH INTEGRAL MOTION SENSORS WHERE SO NOTED.

265300. EXIT AND MEANS OF EGRESS EMERGENCY LIGHTING:

1. PROVIDE EXIT SIGNS IN ACCORDANCE WITH CBC SECTION 1011.1. PROVIDE MEANS OF EGRESS ILLUMINATION IN ACCORDANCE WITH CBC SECTION 1006. PROVIDE FLOOR-LEVEL EXIT SIGNS PER CBC 1011.7 IF REQUIRED

2. ELECTRICAL CONTRACTOR SHALL RE-VERIFY PLACEMENT OF ALL EXIT SIGNS AS TO ENSURE THAT THEY ARE CLEARLY VISIBLE FROM ANY DIRECTION OF APPROACH WITHIN THE PATH OF EXIT TRAVEL TO AND WITHIN EXITS INSIDE THE BUILDING. THIS VERIFICATION SHALL BE CARRIED OUT AT ROUGHIN STAGE. THEY SHALL BE LOCATED AS NECESSARY TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. NO POINT IN THE EXIT PATH SHALL BE MORE THAN 100 FT. FROM THE NEAREST VISIBLE SIGN. ALL IN ACCORDANCE WITH CBC SECTION 1011.1. RELOCATE AND/OR ADD EXIT SIGNS AS NECESSARY TO ACHIEVE THIS. PROVIDE PENDANTS TO MOUNT SIGNS AS NECESSARY TO ACHIEVE THIS.

3. THE FINAL NUMBER AND LOCATION OF EXIT SIGNS SHALL BE DETERMINED IN THE FIELD BY THE FIRE MARSHALL AND BUILDING INSPECTOR.

4. INDIVIDUAL UNIT EQUIPMENT FOR EMERGENCY ILLUMINATION SHALL COMPLY WITH CEC SECTION 700.12(F). THE BRANCH CIRCUIT FEEDING THE UNIT EQUIPMENT SHALL BE THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES.

5. ALL EMERGENCY LIGHTS AND EXIT SIGNS SHALL BE PROVIDED WITH AN UNSWITCHED HOT WIRE.

6. ALL EMERGENCY LIGHT FIXTURES WITH INTEGRAL BATTERY BALLASTS SHALL BE SWITCHED AS SHOWN AND SHALL COME ON IN EMERGENCY POWER-OFF MODE UPON POWER FAILURE. TO THIS EFFECT PROVIDE AN UNSWITCHED POWER WIRE TO EACH SUCH FIXTURE FROM THE SAME CIRCUIT AS THAT FEEDING THE LIGHT FIXTURE.

283100. FIRE ALARM SYSTEM :

A. GENERAL REQUIREMENTS:

1. THE CONTRACTOR SHALL PROVIDE A NEW VOICE EVAC AUTOMATIC FIRE ALARM SYSTEM FOR THE ENTIRE CAMPUS

A. THE FIRE ALARM SYSTEM SHALL CONFORM TO STATE FIRE CODES. ALL EQUIPMENT SHALL HAVE BEEN APPROVED AND LISTED BY THE STATE FIRE MARSHAL.

B. THE FIRE ALARM SYSTEM EQUIPMENT SHALL BE U.L. LISTED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHAL'S OFFICE.

C. ALL WIRING SHALL BE IN RACEWAYS. MINIMUM SIZE OF CONDUIT SHALL BE 1/2" INDOORS. ALL CONDUITS INSTALLED UNDERGROUND AND ON EXTERIOR OF BUILDING EXTERIOR WALLS SHALL HAVE WATER TIGHT FITTINGS.

B. FIELD INVESTIGATION:

1. THE ELECTRICAL CONTRACTOR AND HIS FIRE ALARM CONTRACTOR SHALL CARRY OUT AND INCLUDE ALL INVESTIGATIONS REQUIRED AT THE SITE FOR THE EXISTING SYSTEM PRIOR TO BID TIME AND SHALL INCLUDE IN HIS/HER BID ALL COMPONENTS, DEVICES, ETC., REQUIRED TO PRODUCE THE INTENDED RESULTS. SUBMISSION OF A BID BY THE ELECTRICAL CONTRACTOR SHALL BE CONSIDERED AS HIM/HER HAVING COMPLIED WITH THIS REQUIREMENT AND NO ADDITIONAL COMPENSATION SHALL BE PROVIDED TO THE CONTRACTOR FOR FAILING TO CARRY OUT A THOROUGH INVESTIGATION OF THE EXISTING SYSTEM.

2. THE FIRE ALARM SYSTEM CONTRACTOR SHALL VERIFY THE CURRENTNESS AND COMPATIBILITY OF THE PRODUCTS AND COMPONENT CATALOG NUMBERS CALLED OUT ON THE PLANS, TOGETHER WITH THE FACT THAT THEY ARE CONSISTENT WITH THE WIRING INDICATED ON THE PLANS, TO PRODUCE A FULLY FUNCTIONAL FIRE ALARM SYSTEM AS INTENDED. HE SHALL USE THE SERVICES OF AN AUTHORIZED, TRAINED REPRESENTATIVE OF THE SILENT KNIGHT COMPANY TO EVALUATE THIS. IN CASE OF ANY DISCREPANCY, HE SHALL INCLUDE IN HIS BID ALL REQUIRED MODIFICATIONS. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED TO THE ELECTRICAL AND FIRE ALARM CONTRACTOR AFTER THE BID FOR FAILING TO CARRYOUT THIS EXCERCISE PRIOR TO BID TIME.

C. EQUIPMENT: SCOPE OF WORK/INSTALLATION

1. PROVIDE SPEAKERS, STROBES AND SPEAKER/STROBES.

2. PROVIDE SMOKE DETECTORS AND ATTIC HEAT DETECTORS.

3. PROVIDE ALL ASSOCIATED WIRING, MODULES, ACCESSORIES, ETC., AS REQUIRED TO MAKE THIS A COMPLETE AND FULLY OPERATIONAL FIRE ALARM SYSTEM.

4. PROVIDE ALL PROGRAMING AND TESTING NECESSARY FOR THE SYSTEM. THIS WORK SHALL BE CARRIED OUT BY AUTHORIZED, SKILLED REPRESENTATIVE OF GAMEWELL.

D. WIRING:

1. SEE "FIRE ALARM SYSTEM WIRING SCHEDULE" ON THIS SHEET.

E. AUDIBLES:

1. ALL AUDIBLE DEVICES SHALL PRODUCE THE SAME BASIC SOUND AND PATTERN AUDIBLE DEVICES SHALL BE AT LEAST 15dBA ABOVE AVERAGE AMBIENT SOUND LEVEL BUT NOT LESS THAN 75dBA AT 10 FT. OR MORE THAN 110dBA IN TOTAL, THROUGHOUT.

F. VISUALS:

1. VISUAL DEVICES SHALL NOT EXCEED TWO FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN ONE FLASH EVERY SECOND.

G. INITIATION SYSTEM:

1. THE SYSTEM FOR THE BUILDINGS BEING ADDED IS AUTOMATIC.

H. OFF-SITE MONITORING:

1. AUTOMATIC FIRE ALARM SYSTEM MONITORED AND 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 UUFX (CENTRAL STATION) OR UUJS (REMOTE & PROPRIETARY) BY THE UNDERWRITERS LABORATORY INC. (UL) OR OTHER APPROVED LISTING AND TESTING LABORATORY OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD, FM 3011. (CBC 907.6.6.3)

I. PENETRATIONS:

1. PENETRATIONS OF FIRE-RATED WALLS SHALL BE PROTECTED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, PART 2, CHAPTER 7, TITLE 24.

J. SUBMITTALS:

1. SUBMITTALS ARE NOT REQUIRED. SYSTEM COMPONENTS SHALL BE AS SPECIFIED. PLANS AND SYSTEM COMPONENTS HAVE ALREADY BEEN PRE APPROVED BY D.S.A.

2. PROVIDE 3 COPIES OF A CERTIFICATE TO THE ARCHITECT THAT THE FIRE ALARM SYSTEM COMPONENTS AND SYSTEM INSTALLED IS IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. SUCH A CERTIFICATE SHALL BE SIGNED BY THE D.S.A. INSPECTOR, THE OWNER'S REPRESENTATIVE, AND THE INSTALLING CONTRACTOR. SUCH A CERTIFICATE SHALL ALSO STATE THAT THE FIRE ALARM SYSTEM WAS TESTED SUCCESSFULLY.

K. TESTING:

1. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY, AND BE WITNESSED BY THE LOCAL FIRE AUTHORITY WITH THE DSA INSPECTOR OF RECORD.

2. PROVIDE A CERTIFICATE OF COMPLETION PER NFPA 72.

ELECTRICAL LEGEND

LIGHTING FIXTURES

FIXTURE NOTATIONS:
A,(b).C-12 FIXTURE TYPE "A", SWITCH "b", CIRCUIT C-12
(A/LED) ALTERNATE DESIGNATION FOR SITE LIGHTING FIXTURES

LINEAR FIXTURE
- SQUARE = RECESSED
- CIRCLE =SURFACE

TASK LIGHT OR STRIP LIGHT

DOWNLIGHT, SQUARE = RECESSED, HEXAGON = INGRADE UPLIGHT

WALL MOUNT

CEILING EXHAUST FAN

POLE MOUNT AREA LIGHT

EMERGENCY LIGHTING

EXIT SIGN WITH 90 MIN BATTERY BACKUP

WALL MOUNT EMERGENCY LIGHT WITH 90 MIN BATTERY BACK

EXTERIOR LANDING EMERGENCY LIGHT. CONNECT TO INTERIOR EXIT SIGN FOR POWER.

FIXTURES WITH INTEGRAL EMERGENCY BALLAST

BASIC LIGHTING CONTROLS

LIGHT SWITCH, +48" TO TOP OF BOX
- D = DIMMER
- 3 = SWAY
- P = PILOT SWITCH
- os = LINE VOLTAGE OCCUPANCY SENSOR
- T = TIMMER
- VS = VACANCY SENSOR

WALL MOUNT OCCUPANCY SENSOR (LINE VOLTAGE)

TITLE 24 LIGHTING CONTROLS

LIGHT SWITCH

COMPONENTS OF DIMMING ROOM CONTROLLER
- US = LOW VOLTAGE OCCUPANCY SENSOR (CAT 5 OR AS REQUIRED)
- DRC = DIMMING ROOM CONTROLLER
- PE = LOW VOLTAGE DIMMING PHOTOCELL (CAT 5 OR AS REQUIRED)
- D = LOW VOLTAGE DIMMER (CAT 5 OR AS REQUIRED)
- R = PLUG LOAD CONTROLLER
- ADR = AUTOMATIC DEMAND RESPOSNE (FOR BUILDINGS OVER 10,000 SF)

NOTES:

1. FOR SUBMITTAL INCLUDE FACTORY CONTROL DRAWINGS.

2. CONDUCT A CONTROLS PRE-CONSTRUCTION MEETING WITH CONTROLS STARTUP TEAM. PROVIDE AGENDA AND ATTENDEES AS A SUBMITTAL. INCLUDE DEVICE I.D. TAGS, PROGRAMMING, CABLE ROUTING, PROGRAM AND TIME SCHEDULES AND DATE OF PROGRAMMING AND TESTING.

3. CONTRACTOR TO HAVE SYSTEM FACTORY SUPPORT FOR START UP, PROGRAMMING AND COMMISSIONING. VERIFY OPERATIONAL HOURS WITH OWNER PRIOR TO COMMISSIONING.

ELECTRICAL POWER

ALL LINE VOLTAGE WIRING IN CONDUIT, SEE GENERAL NOTES
TICKS = # OF #12 WIRE, SHORT = HOT, LONG = NEUTRAL, DOT = GROUND, UNLESS NOTED OTHERWISE

120V OUTLET, +15" TO BOTTOM OF BOX
- S = SIGN
- F = FLOOR
- GFI = GROUND FAULT INTERUPTER

COUNTER OUTLET. +44" TO TOP OF BOX.

CEILING OUTLET

QUADRUPLEX OUTLET, SQUARE FOR TV LOCATIONS

HALF SWITCHED OUTLETS

FLOOR OUTLET

JUNCTION BOX WITH MOTOR TOGGLE DISCONNECT

JUCTION BOX

MOTOR / DISCONNECT

PANELBOARD

TRANSFORMER / SWITCHBOARD AS NOTED

COMMUNICATIONS

TELEPHONE BACKBOARD, PROVIDE #8 GND TO SERVICE GROUND

PHONE ONLY OUTLET, PREWIRED WITH CAT 6 CABLE

DATA OUTLET JACK, PREWIRED WITH CAT 6 CABLE, NO # = 2 DROPS

DATA OUTLET AND CEILING PROJECTOR — SEE DETAIL 12/E0-4.2 FOR CONDUIT AND BOX MOUNTING

FLOOR DATA OUTLET JACK, PREWIRED WITH CAT 6 CABLE, NO # = 2 DROPS

IP SPEAKER (1 CAT 6)

CLOCK SPEAKER (IP BASED) (1 CAT 6)

WIRELESS ACCESS POINT (1 CAT 6)

WALL MOUNT ACCESS POINT (1 CAT 6)

EXTERIOR WIRELESS ACCESS POINT (1 CAT 6)

TEACHER STATION (SEE DETAIL 5/E0-4.2)

HMDI CONNECTOR IN FLUSH WALL PLATE

TV EXIST WITH COAX OUTLET, NEW WITH 2 DATA AND HDMI

DATA SYSTEM JUNCTION BOX

DATA SYSTEM PULLBOX

IDF/MDF RACK (SITE PLAN SYMBOL)

NOTE: GREY HATCHED SIGNAL DEVICES ARE EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.

ELECTRICAL LEGEND

DRAFTING NOTATIONS

KEY NOTE, SEE SCHEDULE

EQUIPMENT TAG, SEE SCHEDULE

REFERENCE TO A DETAIL VIEW "A" ON SHEET E-2

NEW ELECTRICAL CONDUIT AND WIRE

(e) EXISTING DEVICE, TO REMAIN IN OPERATION

(r) REMOVE DEVICE, KEEP REMAINDER OF CIRCUIT IN OPERATION

(RR) REMOVE, RELOCATE AND RECONNECT DEVICE ON EXISTING CIRCUIT, EXTEND CIRCUIT

ELECTRICAL ABBREVIATIONS:

AL = ALUMINUM
A = AMPERAGE
AIC = AMPS INTERRUPTING CAPACITY
AFF = ABOVE FINISHED FLOOR
AFG = ABOVE FINISHED GRADE
CKT = CIRCUIT
CO = CONDUIT ONLY
CU = COPPER
EC = ELECTRICAL CONTRACTOR
GC = GENERAL CONTRACTOR
GFI = GROUND FAULT INTERRUPTER
GND = GROUND
KW = KILOWATT
KVA = KILO-VOLT-AMPERE
LC = LIGHTING CONTACTOR
NO = NUMBER
NL = NIGHT LIGHT
PB = PULLBOX
SP = SPACE
UG = UNDERGROUND
UON = UNLESS OTHERWISE NOTED
V = VOLT
WP = WEATHERPROOF

ONE LINE DIAGRAM

BUS / SWITCHBOARD — 50/3 — CIRCUIT BREAKER 50 AMP RATED, 3 POLE

PANEL — GFI = GROUND FAULT INTERRUPTER; AFCI = ARC FAULT CIRCUIT INTERRUPTER

GROUND — DISCONNECT, RATED TO POWER SOURCE VOLTAGE AND AMPERAGE RATING FOR FUSE OR AS NOTED

METER

CURRENT TRANSFORMER — 60 — FUSE, SIZE = 60 AMPS

POTENTIAL TRANSFORMER — AUTOMATIC TRANSFER SWITCH

DRY TYPE TRANSFORMER — 50/3 — ENGINE DRIVEN GENERATOR RATING AS NOTED AGAINST THE UNIT.

MOTOR

RELAY — CR# = CONTROL RELAY; TDR = TIME DELAY RELAY; M = MOTOR STARTER CONTACTOR RELAY; ETM = ELAPSE TIME METER — DRAW OUT DEVICE

CONTACT (OPEN) — 52 — ANSI RELAY

CONTACT (CLOSED)

VFD VARIABLE FREQ. DRIVE

MOTOR OVERLOAD HEATER

INDICATOR LIGHT (R) RED, (W) WHITE

ANTENNA

FIRE ALARM

1A, 1X, 1Y, 1Z — TSP#16 ADDRESSIBLE INPUT CIRCUIT; 2#14 HARD WIRED NON-ADDRESSIBLE CIRCUITS; 2#12 VISUAL CIRCUIT; 2#14/SHIELDED AUDIBLE CIRCUIT

NOTE: ALL FIRE ALARM CABLES/ CONDUCTORS SHALL BE CSFM APPROVED.

FIRE ALARM CONTROL PANEL (FACP)

SMOKE DETECTOR

CO COMBINATION SMOKE /CO DETECTOR

DUCT SMOKE DETECTOR

HEAT DETECTOR

A HEAT DETECTOR IN ATTIC (194 DEGREE)

CO CARBON MONOXIDE DETECTOR

STROBE

COMBINATION SPEAKER/STROBE

EXTERIOR HORN

PULL STATION

MM INPUT MODULE

TCDR TONE GENERATOR

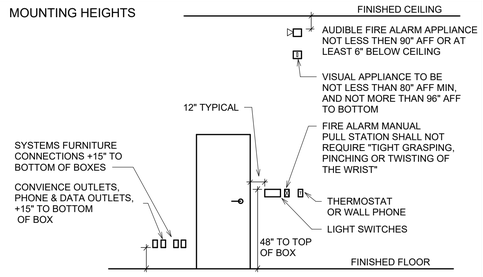
RM RISER MONITOR MODULE

FIRE ALARM ABBREVIATIONS:

CD = CANDELLA
DSD = DUCT SMOKE DETECTOR
EOL = END OF LINE RESISTOR
NAC = NOTIFICATION POWER SUPPLY
PIV = POST INDICATOR VALVE
TS = TAMPER SWITCH
WF = WATER FLOW SWITCH
WP = WEATHERPROOF

MARKINGS:
= CIRCUIT "a" DEVICE
15CD = 15 CANDELLA VISUAL DEVICE
1/2W = 1/2 WATT AUDIBLE DEVICE

MOUNTING HEIGHTS



IDENTIFICATION STAMP
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APP: 02-123751 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

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NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

ELECTRICAL INFORMATION

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	RCS-1
Checked by	Checker

E0-1.2

Plot Date & Time 6/10/2026 11:39:27 AM

Autodesk Docs://VonRennerWing/VonRenner Electrical.rvt
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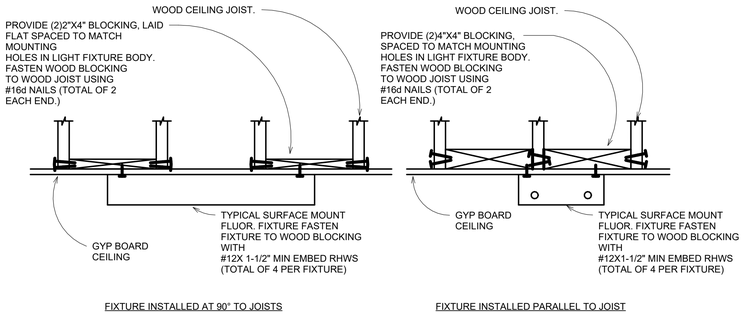
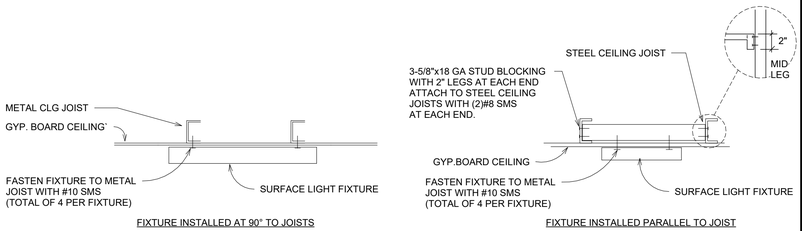


1 SURFACE FIXTURE MOUNTING ON WOOD CLG JOISTS

SCALE: NTS



2 SURFACE FIXTURE ON METAL CLG JOISTS

SCALE: NTS

FIXTURE SCHEDULE

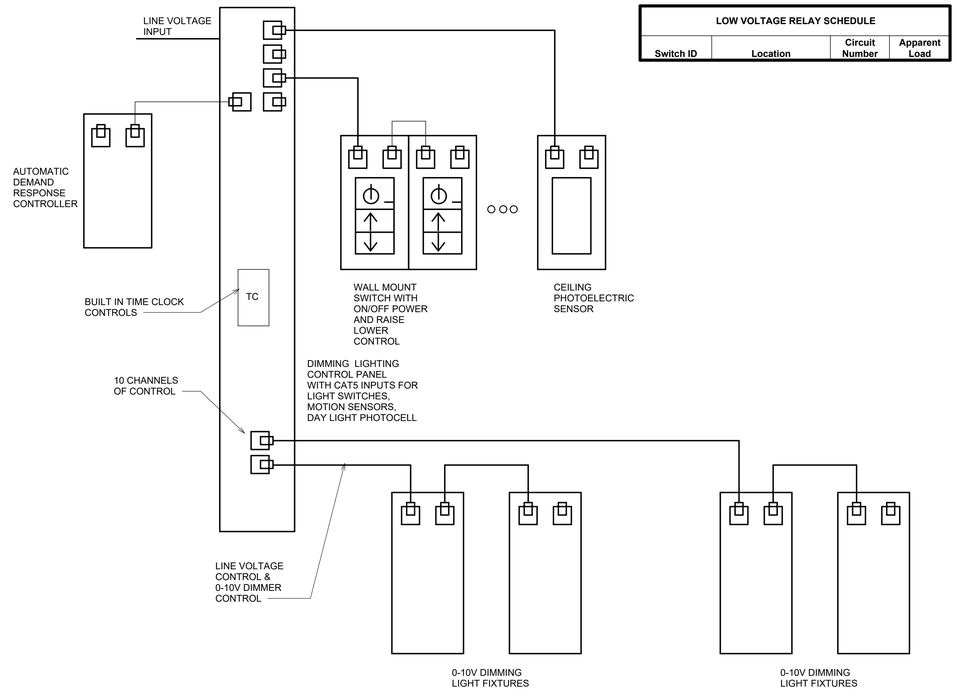
Type Mark	Lamp	Description	Manufacturer	Model	Apparent Load	WEIGHT	MOUNTING
A	LED	4' LED 4000 LUMEN LED WRAP SURFACE MOUNT FIXTURE, 0-10 V DIMMING DRIVER, UNIVERSAL VOLTAGE	LITHONIA	STL4 40L EZ1 LP835	35 VA	13	1, 2 / E0-1.3
AE	LED	SIMILAR TO "A" WITH EMERGENCY BALLAST	LITHONIA		35 VA	13	1, 2 / E0-1.3
B	LED	2'x4' 4000 LUMEN LED CENTER BASKET TROFFER WITH 0-10V DIMMING DRIVER, UNIVERSAL VOLTAGE	LITHONIA	2BLT4 60L ADP EZ1 LP840	47 VA	18	6/E0-1.3
BE	LED	SIMILAR TO "B" WITH EMERGENCY BALLAST	LITHONIA		32 VA	18	6/E0-1.3
EXIT	LED	COMBINATION EXIT SIGN/EGRESS LIGHT UNIT, 90 MINUTE BATTERY BACKUP, UNIVERSAL MOUNT	LITHONIA	LHQM SW1R120/277 ELN	1 VA		
W2	LED	WALL MOUNT EMERGENCY EGRESS LIGHT FIXTURES WTH INTEGRAL BATTERY BACKUP FOR 90 MINIUTE	LITHONIA	WDGE2 LED P4 T0K 80CRI T2M EMCW10	34 VA	16	< 25#

LED COLOR:
THE H BUILDING IS TO HAVE 4000K, OTHER BUILDINGS TO HAVE 3500K

FIXTURE SCHEDULE

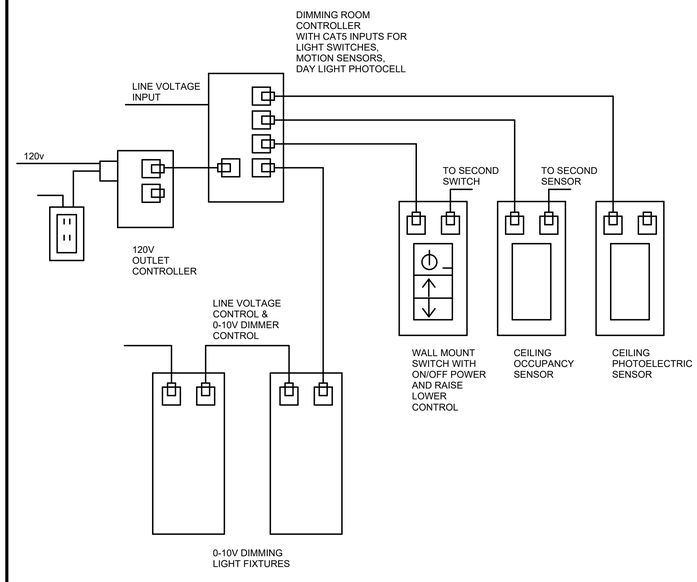
LOW VOLTAGE RELAY SCHEDULE

Switch ID	Location	Circuit Number	Apparent Load



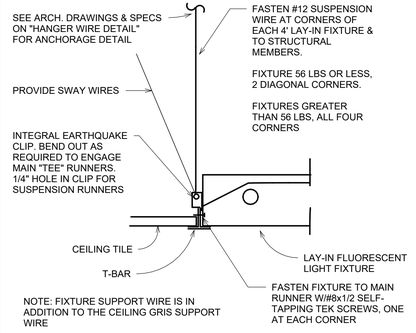
3 LIGHTING CONTROL PANEL (OPEN OFFICE)

SCALE: NTS



4 LIGHTING CONTROLS DETAIL - SMALL ROOM

SCALE: NTS



6 TROFFER MOUNTING

SCALE: NTS

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LIGHTING SCHEDULE AND DETAILS

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	Author
Checked by	Checker

E0-1.3

Plot Date & Time 6/10/2026 11:39:28 AM

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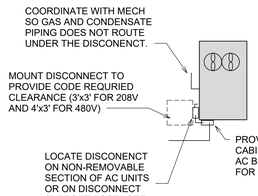
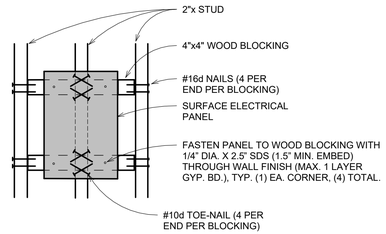
path://john/17/4

10 AC CONNECTIONS
SCALE: NTS

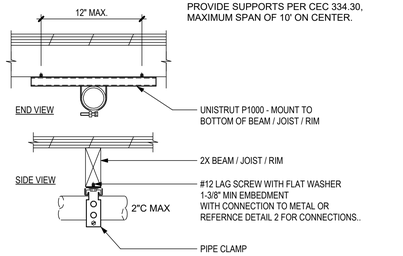


6 SURFACE PANEL
SCALE: NTS



LIGHTING/OUTLET PANELS:
NOMINAL DIMENSIONS: 24"Hx20"Wx5.75"D
WEIGHT: 80 lbs.

12 CONDUIT TO BEAM/JOIST/RIM
SCALE: NTS



DETAIL IS TYPICAL FOR ALL ATTIC SPACE CONDUITS.
PROVIDE SUPPORTS PER CEC 334.30, MAXIMUM SPAN OF 10' ON CENTER.

7 PANEL LABELS
SCALE: NTS

LABELS FOR FEEDERS ORIGINATING WITHIN DISTRIBUTION PANEL/SWITCHBOARDS:

NAME OF PANEL/EQUIPMENT SERVED
FEEDER WIRE SIZE

LABELS AT EQUIPMENT DISCONNECTS:

EQUIPMENT FED
FED FROM PANEL
FEEDER WIRE SIZE
VOLTS / AMPS / PHASES

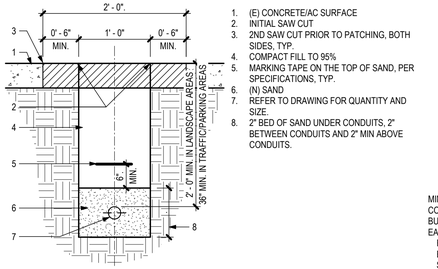
LABELS FOR SWITCHBOARD/DISTRIBUTION PANELS & BRANCH CIRCUIT PANELS:

PANEL NAME
FEED FROM PANEL
FEEDER WIRE SIZE
VOLTS / AMPS / PHASES

NOTES:

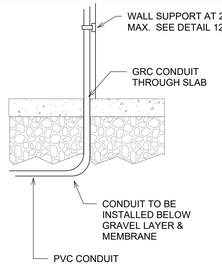
1. NAMEPLATES SHALL BE CONSTRUCTED OF ENGRAVED BAKELITE - BLACK BACKGROUND WITH WHITE LETTERS.
2. MINIMUM SIZE TO BE 1"x3".
3. RIVET NAMEPLATES TO ENCLOSURE.
4. FILL-IN UNDERLINED NAMES AND VALUES FOR EACH NAMEPLATE TO INSTALLED.
5. ALL DISCONNECTS, PANELS, AND CIRCUIT BREAKERS INSTALLED UNDER THIS PROJECT SHALL HAVE A NAMEPLATE AS SHOWN HERE.
6. NAMEPLATES FOR EMERGENCY POWER FED EQUIPMENT SHALL HAVE RED BACKGROUND WITH WHITE LETTERS.

2 CONCRETE PULLBOX
SCALE: NTS

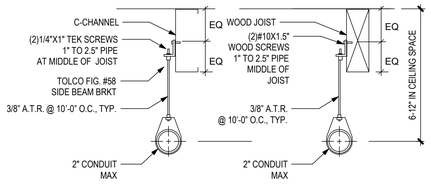


PRE-CAST CONC. BOX SIZE AS REQUIRED

11 UNDERFLOOR CONDUIT
SCALE: NTS

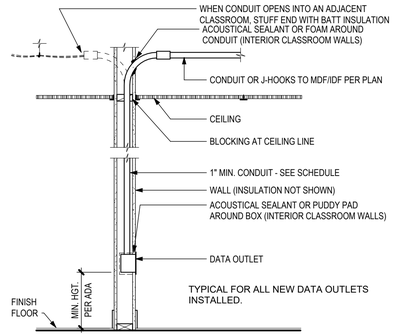


8 CONDUIT IN ATTIC SPACE
SCALE: NTS



TYPICAL FOR SUSPENDED CONDUITS IN ATTIC SPACE (FIRE ALARM, LIGHTING, POWER).

13 DATA WALL SECTION
SCALE: NTS

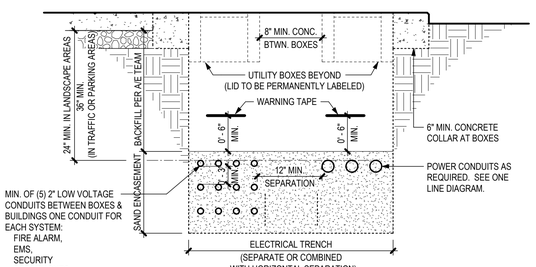


TYPICAL FOR ALL NEW DATA OUTLETS INSTALLED.

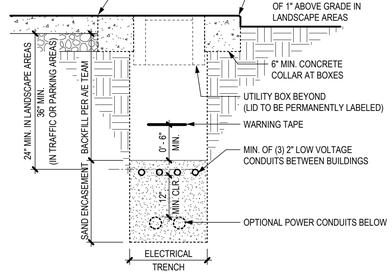
3 TRENCH DETAIL
SCALE: NTS

SINGLE CONDUIT

1. (E) CONCRETE/AC SURFACE
2. INITIAL SAW CUT
3. 2ND SAW CUT PRIOR TO PATCHING, BOTH SIDES, TYP.
4. COMPACT FILL TO 95%
5. MARKING TAPE ON THE TOP OF SAND, PER SPECIFICATIONS, TYP.
6. (N) SAND
7. REFER TO DRAWING FOR QUANTITY AND SIZE.
8. 2" BED OF SAND UNDER CONDUITS, 2" BETWEEN CONDUITS AND 2" MIN ABOVE CONDUITS.



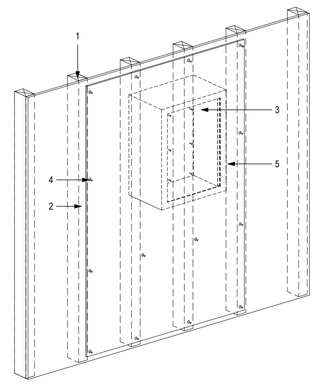
TYPICAL UTILITY TRENCH DETAIL



COMBINED TRENCH DETAIL
(REQUIRES ARCHITECT'S PERMISSIONS)

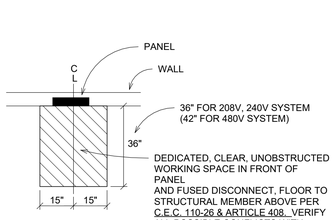
REFERED TO 9/S4.2 FOR TRENCHING ADJACENT TO BUILDINGS

1. STUD WALL PER ARCHITECTURAL
2. 3/4" FIRE RETARDANT PLYWOOD CUT TO FIT
3. #10X1" FULL THREAD WOOD SCREW W/ LOCK WASHER @ 16" O.C. INTO PLYWOOD AND (4) ¼" DIA. X 2.5" SDS (1.5" MIN. EMBED) THROUGH PLYWOOD BACKING INTO 4X BLOCKING, TYP. (1) EA. CORNER, (4) TOTAL.
4. PLYWOOD BACKING TO STUD CENTERS USE; #12X2-1/2" SMS AT METAL STUD BUILDING OR #12 X 2.5" WS AT WOOD BUILDING AND 24" O.C. TO FIELD STUDS.
5. EQUIPMENT RACK/CABINET (AS REQUIRED)



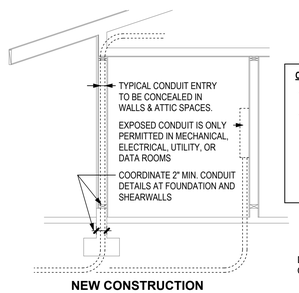
WALL MOUNT IDF
MAX EQUIPMENT WEIGHT = 200#
18U RACK = 25" DEEP, 25" WIDE, 34" TALL

4 PANEL CLEARANCE
SCALE: NTS



DEDICATED, CLEAR, UNOBSTRUCTED WORKING SPACE IN FRONT OF PANEL
AND FUSED DISCONNECT, FLOOR TO STRUCTURAL MEMBER ABOVE PER C.E.C. 110-26 & ARTICLE 408. VERIFY ALL POSSIBLE CONFLICTS WITH OTHER TRADES PRIOR TO ROUGHING IN THE PANELBOARD.

15 SITE PATHWAYS / BUILDING ENTRY
SCALE: NTS



NEW CONSTRUCTION
(ALWAYS FULLY CONCEALED)

CONDUIT NOTES:

- ANY EXPOSED CONDUIT SHALL BE PAINTED TO MATCH THE EXISTING BUILDING
- ALTERNATE INSTALLATIONS REQUIRE THE APPROVAL OF THE FACILITIES DEPARTMENT PRIOR TO INSTALLATION

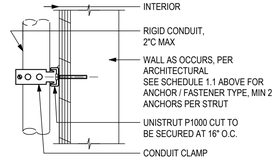
DETAIL IS TYPICAL FOR ALL COMMUNICATION CONDUITS ENTRIES INTO BUILDINGS.

9 CONDUIT (VERT)
SCALE: NTS

SCHEDULE 1.1

WALL TYPE	ANCHOR / FASTENER	MIN. EMBED
WOOD	#12 LAG	1-1/2"
LIGHT GAUGE	#12x1-1/2" STS	N/A
CMU-MASONRY*	5/16"	1-1/2"

EPOXY ANCHOR, WASHER AS REQ'D*



TYPICAL FOR ALL VERTICAL CONDUITS.
MAX SPACING PER CEC 334.30 (10' ON CENTER)

14 IDF ON STUD WALL
SCALE: NTS

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DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
TIMOTHY P. HUFF & ASSOCIATES, INC.
Timothy P. Huff, AIA Architect
519 McHenry Ave., Modesto, CA 95354
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LICENSED ARCHITECT JONATHAN E. GEE No. C-32424 REN. 1/27 STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER RICHARD C. SMITH No. E14303 Exp. 6-30-27 ELECTRICAL STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

COMMON ELECTRICAL DETAILS

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	RCS-1
Checked by	Checker

E0-2.1

Plot Date & Time 6/10/2026 11:39:28 AM

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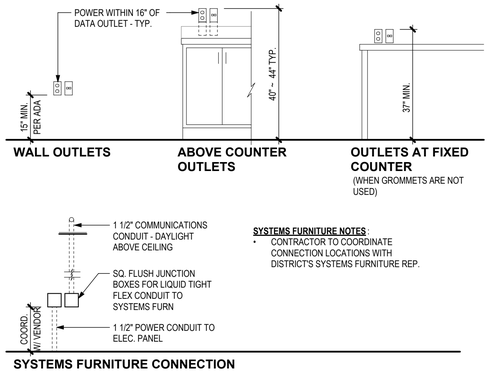
path://john/17/4



SYSTEMS FURNITURE NOTES:

- CONTRACTOR TO COORDINATE CONNECTION LOCATIONS WITH DISTRICT'S SYSTEMS FURNITURE REP.

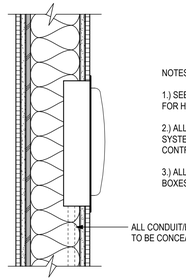
NOTES:

1.) ALL IT SYSTEMS (NEW OR ADDITIONS TO EXISTING SYSTEMS) ARE TURN-KEY INSTALLATION BY THE CONTRACTOR. REFER TO SPECIFICATIONS FOR ALL REQUIRED HARDWARE, SOFTWARE AND COMPONENTS.

2.) DISTRICT IT STAFF WILL REVIEW PROPOSED DESIGN LOCATIONS, ATTEND THE MANDATORY PRE-CONSTRUCTION MEETING, REVIEW SUBMITTALS, AND PERFORM A PUNCH-WALK.

3.) ALL DATA CABLES IN ENCLOSED SPACES (WALLS, ATTICS, AND THE LIKE) TO BE RUN IN 1" MINIMUM CONDUIT

11 DATA & PHONE SYSTEMS
SCALE: NTS



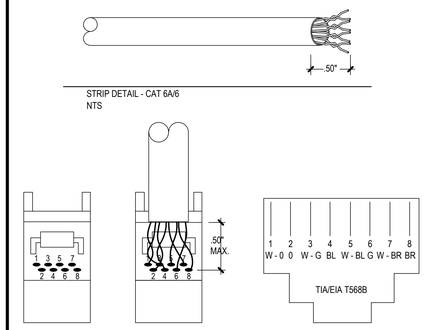
NOTES:

1.) SEE SPECIFICATION 271000 CABLING AND INTERCOM FOR HARDWARE AND SOFTWARE REQUIREMENTS.

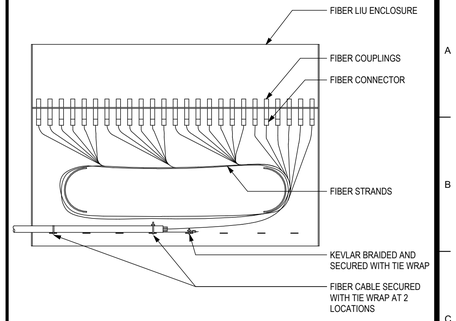
2.) ALL IT SYSTEMS (NEW OR ADDITIONS TO EXISTING SYSTEMS) ARE TURN-KEY INSTALLATIONS BY THE CONTRACTOR.

3.) ALL NEW CONSTRUCTION TO HAVE RECESSED BACK BOXES FOR FLUSH MOUNT SPEAKERS.

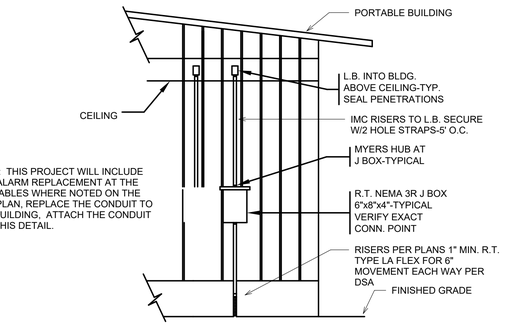
12 INTERCOM/CLOCK SYSTEM
SCALE: NTS



5 JACK WIRING CONFIG.
SCALE: NTS

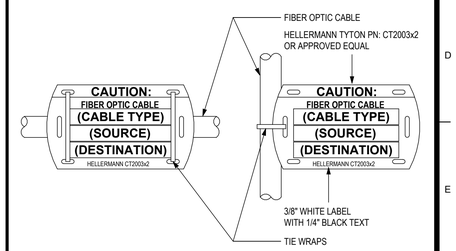


1 FIBER LIU DETAIL
SCALE: NTS



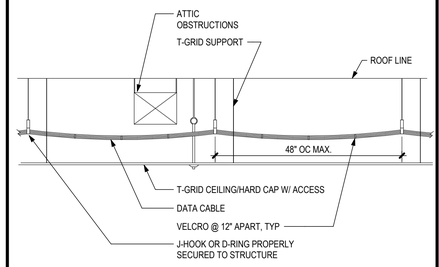
NOTE: THIS PROJECT WILL INCLUDE FIRE ALARM REPLACEMENT AT THE PORTABLES WHERE NOTED ON THE SITE PLAN, REPLACE THE CONDUIT TO THE BUILDING, ATTACH THE CONDUIT PER THIS DETAIL.

6 PORTABLE CONNECTIONS
SCALE: 1 : 1

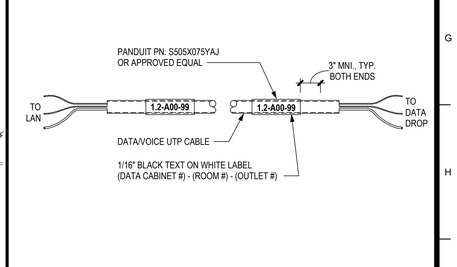


(ABOVE AND BELOW GROUND)

2 FIBER OPTIC CABLE LABELS
SCALE: NTS

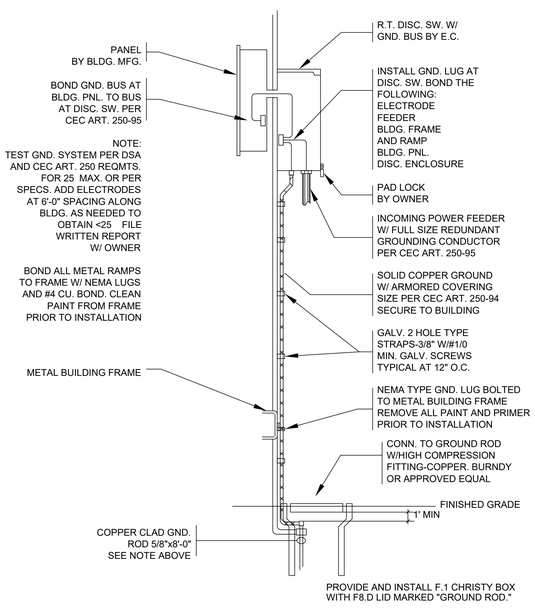


7 J-HOOK / D-RING PATHWAY
SCALE: NTS



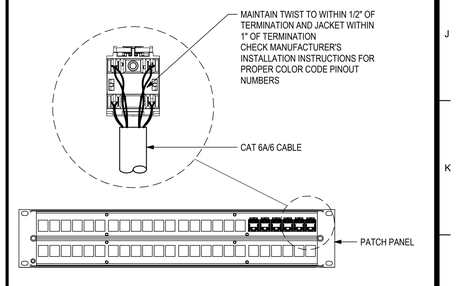
(AT JACK AND PATCH PANEL)

3 DATA/VOICE CABLE LABELS
SCALE: NTS



GROUND RESISTANCE COMPLIANCE SHALL BE TESTED BY A INDEPENDENT TESTING AGENCY HIRED BY THE OWNER.

8 PORTABLE GROUNDING DETAIL
SCALE: 12" = 1'-0"



4 PATCH PANEL TERMINATION
SCALE: NTS

IDENTIFICATION STAMP
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APP: 02-123751 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

TPH architects
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LICENSED ARCHITECT JONATHAN E. GEE No. C-32424 REN. 1/27 STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

COMMON ELECTRICAL DETAILS

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	Author
Checked by	Checker

E0-2.3

Plot Date & Time 6/10/2026 11:39:29 AM

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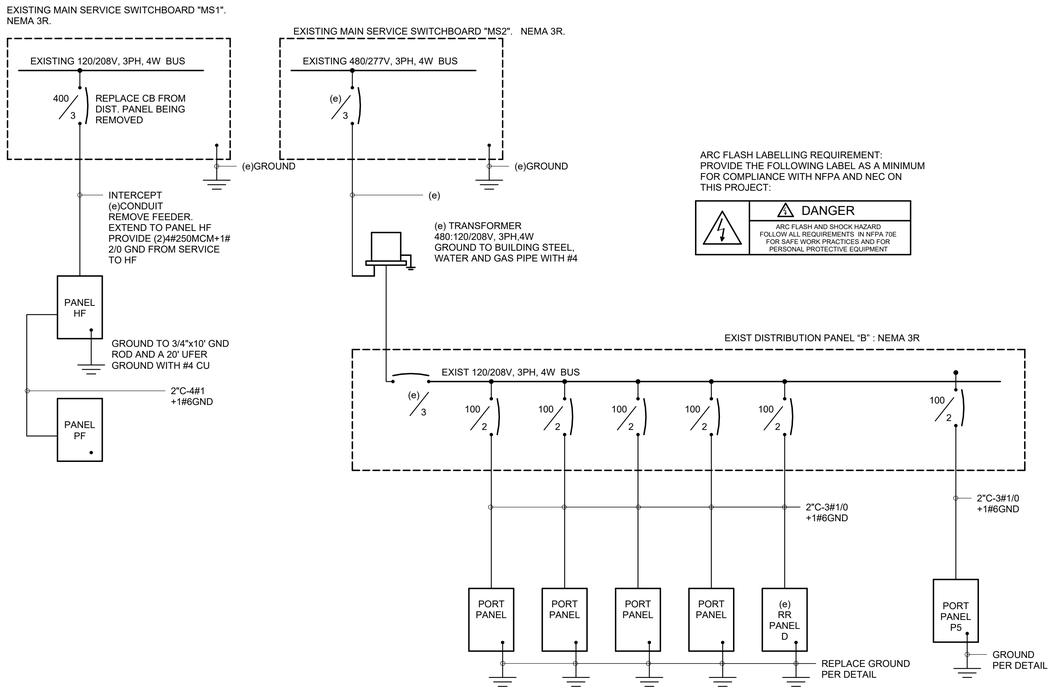
path://john/17/4



PANEL HF

Location: MECH./ELEC. 111
Supply From:
Mounting: Surface
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 25K
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 400 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
HF-1	PANEL PF	125 A	3	8659 VA	2241 VA					3	30 A	AC-7	HF-2
HF-3	--	--	--			11715 VA	2241 VA			--	--	--	HF-4
HF-5	--	--	--					11673 VA	2241 VA	--	--	--	HF-6
HF-7	AC-1	30 A	3	2241 VA	2241 VA					3	30 A	AC-8	HF-8
HF-9	--	--	--			2241 VA	2241 VA			--	--	--	HF-10
HF-11	--	--	--					2241 VA	2241 VA	--	--	--	HF-12
HF-13	AC-2	30 A	3	2241 VA	3105 VA					3	50 A	AC-9	HF-14
HF-15	--	--	--			2241 VA	3105 VA			--	--	--	HF-16
HF-17	--	--	--					2241 VA	3105 VA	--	--	--	HF-18
HF-19	AC-3	30 A	3	2241 VA	1040 VA					2	20 A	HP1	HF-20
HF-21	--	--	--			2241 VA	1040 VA			--	--	--	HF-22
HF-23	--	--	--					2241 VA	540 VA	1	20 A	ROOF OUTLETS	HF-24
HF-25	AC-4	30 A	3	2241 VA	476 VA					1	20 A	EXT LIGHT THRU TC	HF-26
HF-27	--	--	--			2241 VA							HF-28
HF-29	--	--	--					2241 VA					HF-30
HF-31	AC-5	30 A	3	2241 VA									HF-32
HF-33	--	--	--			2241 VA							HF-34
HF-35	--	--	--					2241 VA	0 VA	1	20 A	Spare	HF-36
HF-37	AC-6	30 A	3	2241 VA	0 VA					1	20 A	Spare	HF-38
HF-39	--	--	--			2241 VA	0 VA			1	20 A	Spare	HF-40
HF-41	--	--	--					2241 VA	0 VA	1	20 A	Spare	HF-42
		Total Load:		31175 VA		33779 VA		33237 VA					
		Total Amps:		260 A		284 A		280 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	6002 VA	100.00%	6002 VA		
Motor	65179 VA	100.00%	65179 VA	**Total Conn. Load:**	98190 VA
Other	0 VA	0.00%	0 VA	**Total Est. Demand:**	92331 VA
Power	5555 VA	100.00%	5555 VA	**Total Conn.:**	273 A
Receptacle	21720 VA	73.02%	15860 VA	**Total Est. Demand:**	256 A

PANEL PF

Location: MECH./ELEC. 111
Supply From: PANEL HF
Mounting: Surface
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22K
Mains Type: MCB
Mains Rating: 125 A
MCB Rating: 125 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
PF-1	NAC PANEL **RED HANDLE LOCK ON**	20 A	1	500 VA	1080 VA					1	20 A	Receptacle 107	PF-2
PF-3	FIRE BELL	20 A	1			500 VA	1260 VA			1	20 A	Receptacle 108	PF-4
PF-5	IDF	20 A	1					360 VA	1260 VA	1	20 A	Receptacle 108	PF-6
PF-7	ELEC / IT ROOM OUTLET	20 A	1	360 VA	900 VA					1	20 A	Receptacle 104	PF-8
PF-9	JAN	20 A	1			720 VA	1080 VA			1	20 A	Receptacle 104	PF-10
PF-11	WASHER	20 A	1					1200 VA	900 VA	1	20 A	Receptacle 103	PF-12
PF-13	CIRC PUMP	20 A	1	55 VA	1080 VA					1	20 A	Receptacle 103	PF-14
PF-15	EWH1	30 A	2			2250 VA	900 VA			1	20 A	Receptacle 102	PF-16
PF-17	--	--	--					2250 VA	1080 VA	1	20 A	Receptacle 102	PF-18
PF-19	RR OUTLET	20 A	1	180 VA	900 VA					1	20 A	Receptacle 101	PF-20
PF-21	CLASSROOM 105-106	20 A	1			1128 VA	1080 VA			1	20 A	Receptacle 101	PF-22
PF-23	LIGHTING 103-4	20 A	1					1128 VA	900 VA	1	20 A	Receptacle 100	PF-24
PF-25	LIGHTING 101-102	20 A	1	1128 VA	1080 VA					1	20 A	Receptacle 100	PF-26
PF-27	CLASSROOM 100	20 A	1			888 VA							PF-28
PF-29	Lighting 108	20 A	1					692 VA					PF-30
PF-31	Lighting 107	20 A	1	564 VA									PF-32
PF-33	Receptacle 105	20 A	1			900 VA							PF-34
PF-35	Receptacle 105	20 A	1					1080 VA					PF-36
PF-37	Receptacle 106	20 A	1	900 VA									PF-38
PF-39	Receptacle 106	20 A	1			1080 VA							PF-40
PF-41	Receptacle 107	20 A	1					900 VA					PF-42
		Total Load:		8659 VA		11715 VA		11673 VA					
		Total Amps:		72 A		101 A		101 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	5527 VA	100.00%	5527 VA		
Other	0 VA	0.00%	0 VA	**Total Conn. Load:**	32046 VA
Power	5555 VA	100.00%	5555 VA	**Total Est. Demand:**	26465 VA
Receptacle	21180 VA	73.61%	15590 VA	**Total Conn.:**	89 A
				Total Est. Demand:	73 A

1 **ONE LINE DIAGRAMS**
SCALE: NTS

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path://john/17/4

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APP: 02-123751 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

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REGISTERED PROFESSIONAL ENGINEER RICHARD C. SMITH No. E14303 Exp. 6-30-27 ELECTRICAL STATE OF CALIFORNIA

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

ONE LINE DIAGRAMS

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	Author
Checked by	Checker

E0-2.5

Plot Date & Time 6/10/2026 11:39:29 AM

/ SBSE3.8-US-50 / SBSE4.8-US-50 / SBSE5.8-US-50 / SBSE7.7-US-50 / SBSE9.6-US-50* / SBSE11.5-US-50*

Sunny Boy Smart Energy-US

3.8 / 4.8 / 5.8 / 7.7
9.6* / 11.5*

The perfect solution for solar installers

powered by ennexOS

SMA Smart Connected

SMA ShadeFix

Ultimate flexibility
- 200% DC/AC design capability
- PV and Hybrid use cases
- 3 or 4* MPPT optimizing channels
- Larger power classes*

Easy installation
- Smaller and lighter, eases mounting
- 2-in-1 solution saves time, wall space and electrical upgrades
- Rapid commissioning via built-in SunSpec Certified RSD transmitter

Complete reliability
- No need for complex microinverters or optimizers
- 10-year warranty, extendable to 25
- SMA Backup Secure provides energy security with or without a battery

New, modern design
- Fresh aesthetic look, with more functional capabilities
- Curved, easy-open cover

Quick commissioning
- SMA 360° app saves installers time and money
- Scan, tap and connect multiple devices from your mobile device or tablet

For over 40 years, SMA has been the leader in solar energy and the new SMA Home Energy Solution will continue this trajectory. Installers choose SMA for reliability, performance and innovation.

The center of the new SMA Home Energy Solution is the Sunny Boy Smart Energy (SBSE-US) hybrid inverter. This groundbreaking inverter combines the functions of a PV and battery inverter into a single unit, keeping electrical upgrades to a minimum. SBSE-US features modular add-on options including the new SMA Energy Meter and SMA Backup Secure that enhance the systems' performance and offer peace of mind to the homeowner.

Sunny Boy Smart Energy is packed with new technology, including an integrated system manager, SMA 360° and Energy apps, SunSpec RSD transmitter, SMA ShadeFix optimization (with 3 MPPTs), SMART Connected and more.

Trust in SMA America, your leader in residential energy - building reliable, high performance and innovative solutions, with support you can depend on.

* Upcoming

Technical data	SBSE 3.8	SBSE 4.8	SBSE 5.8	SBSE 7.7	SBSE 9.6*	SBSE 11.5*
Input PV (DC)						
Max. PV array power (200% oversizing)	7680 Wp	9600 Wp	11520 Wp	15360 Wp	19200 Wp	23040 Wp
Max. DC voltage	600 V					
Rated MPP voltage range	91 V - 480 V	112 V - 480 V	136 V - 480 V	180 V - 480 V		
Min. / Startup DC Voltage	60 V / 66 V					
Max. usable current input per MPPT	15 A					
Max. short-circuit current input per MPPT	20 A (the sum of all inputs must not exceed 60 A)				30 A	
Independent MPPT inputs / inputs per MPPT	3 / 1				4 / 1	
Connection of MPPT inputs in parallel	A and B*				A and B / C and D*	
Input battery (DC)						
Battery type	BYD Battery-Box Premium HVL 12.0; 16.0; 20.0; 24.0; 28.0; 32.0 (LVL9540)					
Voltage range	90 V to 500 V					
Max. charging current / max. discharging current	30 A / 30 A					
Number of independent battery inputs	1					
Max. charging power / max. discharging power	10000 W / 4040 W	10000 W / 5053 W	10000 W / 6063 W	10000 W / 8084 W	10000 W / 10000 W	
Output (AC)						
Max. apparent AC power	3840 VA	4800 VA	5760 VA	7680 VA	9600 VA	11520 VA
AC Rated power (at 240 V, 60 Hz)	3840 W	4800 W	5760 W	7680 W	9600 W	11520 W
AC Rated power (at 208 V, 60 Hz)	3328 W	4160 W	4992 W	6656 W	8320 W	9984 W
AC voltage rated and range	240 V (211 V to 264 V) or 208 V (183 V to 229 V)					
AC grid frequency / range	60 Hz / 55 Hz to 66 Hz					
Max. rated output current	16 A	20 A	24 A	32 A	40 A	48 A
Breaker (overcurrent protection)	20 A	25 A	30 A	40 A	50 A	60 A
Power factor at rated power	1 / adjustable 0.8 overexcited to 0.8 underexcited					
Efficiency						
Max. efficiency	98.1%					
CEC efficiency (240/208V)	96.5% / 97%	97% / 97%	97.5% / 97%	97.5% / 97%		
Protective devices						
DC disconnect / DC reverse polarity protection	● / ●					
DC AFCI arc-fault protection	●					
Ground fault monitoring / Grid monitoring	● / ●					
AC short circuit current capability	●					
All-pole-sensitive residual-current monitoring unit	●					
Protection class	I					
Overvoltage category grid / battery / PV	III / II / II					
General data						
Dimensions (W / H / D) / Weight	19.7 x 23.1 x 9.3 in / 38.6 lb				19.7 x 26.8 x 9.3 in / 50 lb	
Operating temperature range	-13 °F to +140 °F (-25 °C to +60 °C) with derating					
Topology / cooling method	Transformerless / Natural convection					
Environmental protection rating	IP65 / Type 3R					
Equipment						
Communication protocols	Modbus (SMA, SunSpec), Speedwire / Webconnect, SMA Battery Interface					
Interfaces: WLAN / Ethernet / BAT-CAN / RS-485	● / ● / ● / ●					
2.4 GHz WLAN	●					
Ethernet ports / Number of outputs	2 / 1 (Multi function relay 30 Vdc / 1 A)					
Warranty: 10 / +5 / +10 / +15 years	● / ○ / ○ / ○					
Certificates and approvals	UL 1741 SB/SA, UL 62109-1, UL 1998, UL 16998 Ed. 1, UL9540, IEEE1547, FCC Part 15 (Class A & B), CAN CSA-C22.2, CA Rule 21, HECO Rule 14H, PV Rapid Shutdown System Equipment in accordance with UL1741, NEC 2020, NEC 2023 compliant					
SMA Smart Connected	●					
SMA ShadeFix (integrated shade optimization)	●					
SunSpec certified transmitter (Rapid Shutdown)	●					
SMA Backup Secure** (grid outage mode, with or without battery)						
Rated power (at 120 V, 60 Hz)	1920 W					
Max. apparent AC power	1920 VA					
Nominal AC voltage	120 V					
AC grid frequency	60 Hz					
Activation mode	Manual					
● Standard features ○ Optional features						
Type designation	SBSE3.8-US-50	SBSE4.8-US-50	SBSE5.8-US-50	SBSE7.7-US-50	SBSE9.6-US-50	SBSE11.5-US-50

* Upcoming **SMA Backup Start module required to enable SMA Backup Secure in installations bound by NEC rapid shutdown requirements.

Accessories

SMA Energy Meter EMETER-US-50

SMA Backup Start BU-STRT-US-50

SMA Shutdown Initiator RSI-US-50

www.SMA-America.com

SMA America, LLC

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SOLAR LABELS:

1) At Switches or Circuit Breakers (Pull Boxes)

WARNING — ELECTRIC SHOCK HAZARD — DO NOT TOUCH TERMINALS TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.

2) On the Main Service

THIS SERVICE IS FED FROM MULTIPLE SOURCES: GRID AND PV ARRAY

3) On AC Service Section and AC Sub Panels

WARNING: TURN OFF PHOTOVOLTAIC AC DISCONNECTS PRIOR TO WORKING INSIDE PANEL.

4) On Back-fed Breakers

CAUTION: PHOTOVOLTAIC SYSTEM CIRCUIT BREAKER IS BACKFED

5) On AC Disconnect and AC Point of Connection

PHOTOVOLTAIC AC DISCONNECT:
MAX. AC OUTPUT OPERATING CURRENT: _42__. *(1)
MAX. AC OPERATING VOLTAGE: _208___ *(2)

6) On DC Disconnect

PHOTOVOLTAIC DC DISCONNECT:
OPERATING CURRENT: _110_____ *(3)
OPERATING VOLTAGE: __48_____ *(4)
MAX. SYSTEM VOLTAGE: __48____ *(5)
SHORT CIRCUIT VOLTAGE: __56__ *(6)

Notes:

(1) AC Output Current: The AC output operating current or rated AC output current is the maximum current of the inverter output at full power. It can be calculated by taking the maximum power of the inverter at 104 F and dividing that value by the nominal voltage of the inverter.

(2) AC Nominal Voltage: The AC Nominal voltage or operating voltage is the nominal voltage of the inverter output. It will be same as service voltage.

(3) Operating Current: The rated current or operating current is calculated by multiplying the rated MPP current for a module string in series by the number of strings in parallel.

(4) Operating Voltage: The rated voltage or operating voltage of a string in series is calculated by multiplying the rated MPP voltage of a module by the number of modules in series.

(5) Maximum System Voltage: (NEC Article and Table 690.7, page 512) Maximum system voltage is calculated by multiplying the value of Voc (open circuit voltage) of the PV module by the appropriate value on Table 690.7 in the NEC, and then multiplying that value by the number of modules in a series string.

(6) Short Circuit Current: (NEC Article 690.8, page 513) The maximum circuit current is calculated by multiplying the rated Isc (short circuit current) of the PV module by the number of source circuits operating in parallel, then multiplying this value by 125%.

ADD SIGNAGE WHERE APPLICABLE

PROVIDE SITE PLAN PLAQUE DISCONNECT WARNING SIGN AT SERVICE EQUIPMENT.
TITLE OF PLAQUE: "CAUTION: MULTIPLE SOURCES OF POWER".
PLAQUE SHALL DENOTE LOCATION OF EACH POWER SOURCE DISCONNECTING MEANS
CEC 690.56(A)(B)
CEC 705.10

SOLAR:
PROVIDE WARNING SIGN FOR EMT / CONDUIT RACEWAYS AT 10FT O.C.
COMPLY WITH:
CEC 690.31(D)(2)

BESS:
PROVIDE WARNING SIGN FOR EMT / CONDUIT RACEWAYS AT 10FT O.C.
COMPLY WITH:
CEC 690.31(D)(2)

SOLAR:
PROVIDE WARNING SIGN FOR COMBINER BOX / EMT ENCLOSURES
COMPLY WITH:
CEC 690.13(B)
CEC 706.15(C)(4)

AT MAIN SERVICE, BUILDING 900 AND 1000
PROVIDE FOR MULTIPLE WARNING SIGNS FOR AC DISCONNECT / BREAKER / POINTS OF CONNECTION
COMPLY WITH:
CEC 690.13(B)
CEC 690.54
CEC 705.12(B)(3)(3)
CEC 706.15(C)(4)

PROVIDE FOR FIELD MARKING / LABELING OF INVERTERS
COMPLY WITH:
CEC 408.4(B)

AT MAIN SERVICE, BUILDING 900 AND 1000
PROVIDE FOR FIELD LABELING BREAKER PANELS / PULL BOXES / MAIN SERVICE DISCONNECT
COMPLY WITH:
CEC 110.16
CEC 210.5(C)(1)(B)
CEC 706.15(C)
NFPA 70E 130.5(C)(1), (2), (3)

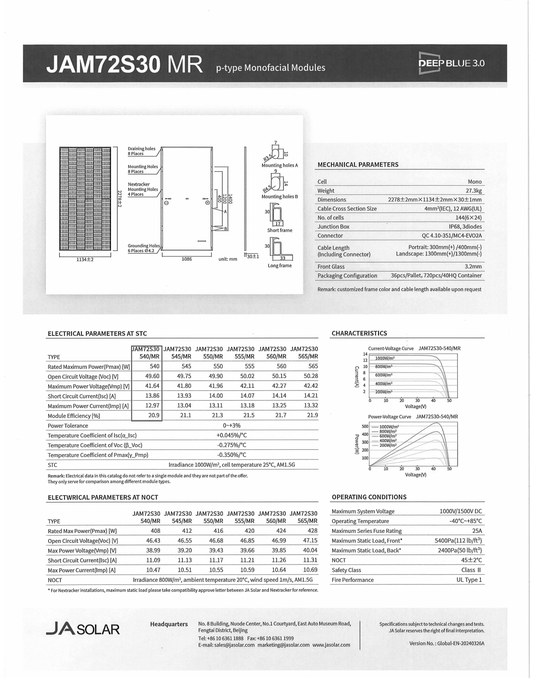
PROVIDE DETAIL FOR MULTIPLE WARNING SIGNS FOR MAIN SERVICE DISCONNECT
COMPLY WITH:
110.27(C)
690.13(B)
690.15(B)
690.33(D)(2)
690.59
705.12(B)(3)(2)
705.12(C)
705.12(D)
706.15(C)(4)
OSHA 1910.145(F)(7)

4 PROJECT SIGNAGE REQUIREMENT

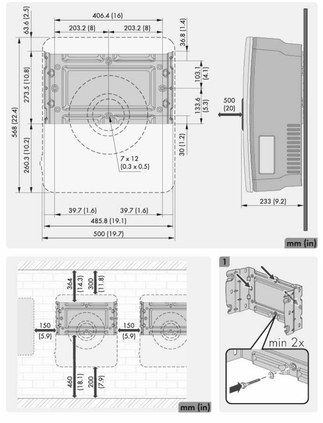
SCALE: NTS

1 SOLAR INVERTER SUNBOY SBSE7.7

2 SOLAR PANELS JA SOLAR72530 540/MR



3 INVERTER MOUNTING



FROM DSA IR 16-8
SOLAR PANEL SYSTEM REQUIREMENTS, ANY SUBSTITUTION MUST SHOW:

1.2.1 SOLAR PANELS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 1703 OR UL 61730-1 AND UL 61730-2 PER CBC FOR THE PANEL ORIENTATIONS SHOWN ON PLANS, AND THIS SHALL BE INDICATED ON THE DRAWINGS.

1.2.2 SOLAR PANEL ORIENTATION (PORTRAIT AND/OR LANDSCAPE), ANCHORAGE POINT LOCATION, AND INSTALLATION TOLERANCE RANGE SHALL BE SPECIFIED ON THE DRAWINGS. PANEL CONNECTION GEOMETRY SHALL BE CONSISTENT WITH UL 1703 TEST (AND UL 2703 TESTS IF UTILIZED) OR UL 61730-1 AND UL 61730-2. OF HORIZONTAL SLIP JOINTS (E.G. THERMAL EXPANSION JOINTS) ON FRAMING MEMBERS ARE PRESENT, PANELS MUST NOT SPAN ACROSS NOR BE CONNECTED ON OPPOSING SIDES OF THE SLIP JOINTS .

1.2.3 DRAWINGS MUST SPECIFY OVERALL SOLAR PANEL DIMENSION AND FULLY DIMENSIONS FRAME CONFIGURATION OF THE SPECIFIED PANEL INCLUDING HEIGHT, LENGTH, WIDTH, THICKNESS OF EACH WEB/FLANGE, AND MATERIAL GRADE.

1.2.4 DRAWING 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.

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SOLAR COMPONENT CUT SHEETS

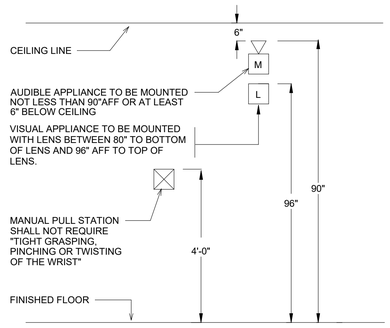
Project Number	2514
Date	SEPTEMBER 2025
Drawn by	RCS-1
Checked by	Checker

E0-2.6

Plot Date & Time 12/4/2025 8:51:00 AM

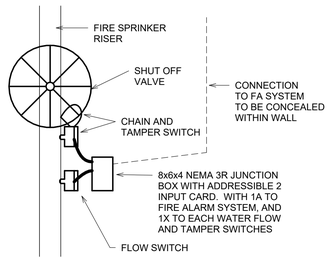
Autodesk Docs://VonRennerWingVonRenner Electrical.rvt

path://john/17/4



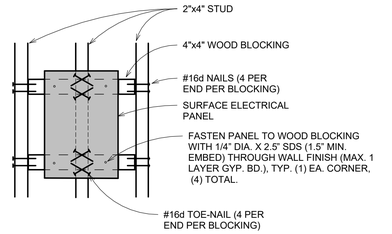
1 FIRE ALARM ELEVATION

SCALE: NTS



2 FIRE RISER WIRING

SCALE: NTS



FIRE ALARM PANEL
NOMINAL DIMENSIONS: 36"Hx20"Wx5.75"D
WEIGHT: 86 lbs.

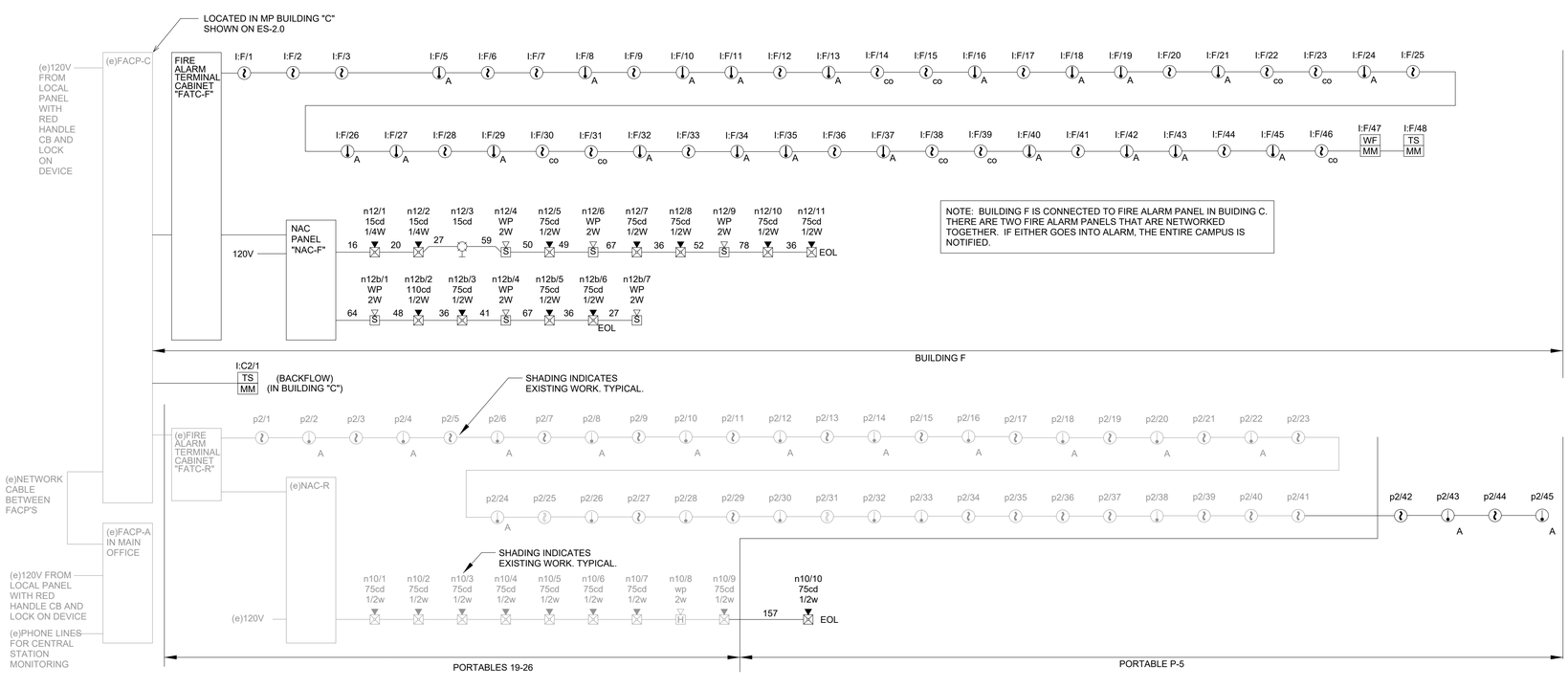
SEISMIC CERTIFICATION
FACP OSP-0073
GAMEWELL CABINET E3BB-BD

4 FACP ON WOOD STUDS

SCALE: NTS

FIRE ALARM SYSTEM OPERATION MATRIX

DEVICE / RESULTS	MANUAL PULL STATION	SMOKE & HEAT DETECTORS	POWER LOSS	GROUND FAULT, OPENS, SHORTS	CO DETECTOR	TAMPER SWITCH	WATER FLOW SWITCH	DUCT SMOKE DETECTOR
ACTIVATE VOICE, SPEAKERS	YES	YES	NO	NO	NO	NO	YES	NO
ACTIVATE VISUALS	YES	YES	N/A	N/A	NO	NO	YES	NO
ANNUNCIATE AT FACP	YES	YES	YES	YES	YES	YES	YES	YES
ANNUNCIATE AT REMOTE ANNUCIATOR	YES	YES	YES	YES	YES	YES	YES	YES
LIGHT UP "ALARM" LIGHT	YES	YES	NO	NO	NO	NO	YES	NO
LIGHT UP "TROUBLE" LIGHT	NO	NO	YES	YES	NO	NO	NO	NO
CENTRAL STATION	YES	YES	YES	YES	YES	YES	YES	YES
CO BASE BUZZER	NO	NO	NO	NO	YES	NO	NO	NO
AC UNIT SHUTDOWN (MECH CONTRACTOR)	NO	NO	NO	NO	NO	NO	NO	YES
SUPERVISION	NO	NO	NO	NO	YES	YES	NO	YES



FIRE ALARM RISER

FIRE ALARM RELATED NOTES:

1) APPLICABLE STANDARD NFPA 72, AS ADOPTED AND AMENDED IN CBC CHAPTER 35

2) UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.

3) A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.

4) 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.

5) DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.

6) 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.

7) THE ENTIRE LENS OF WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL OCCUR BETWEEN +80" MINIMUM AND +96" MAXIMUM FROM FINISHED FLOOR.

8) WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6" TO A HORIZONTAL STRUCTURE.

9) 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.

10) AUDIBLE FIRE ALARM NOTIFICATION APPLIANCES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN. CARBON MONOXIDE DETECTION / ALARM SHALL BE TEMPORAL CODE 4 PATTERN.

11) THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.

12) 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 CANDELLA. VISIBLE DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.

13) UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.

14) ALL FIRE ALARM WIRING SHALL BE FPLOR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE THHN OR THWN.

15) 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.

16) SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER, IN AREA 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.

17) ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.

18) 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 PANEL/EXTENDERS.

19) THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED "SYSTEM RECORD OF COMPLETION" PER NFPA 72, FIGURE 7.8.2.

20) FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE THE FINISHED FLOOR.

21) 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.

22) THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.

23) SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.

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FIRE ALARM DETAILS

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	RCS-1
Checked by	Checker

E0-3.1

Plot Date & Time 6/10/2026 11:39:30 AM

Autodesk Docs://VonRennerWing/VonRenner Electrical.rvt

path://john/17/4

NAC VOLTAGE DROP CALCULATIONS

CALCULATION: dV = V - (2L x K x dI)
Where: dV = device Voltage
V = previous device voltage (Source Voltage = 20.4 VDC)
K = wire AWG constant (Ω/k') at 167ºF: #8 = 0.81, #10 = 1.29, #12 = 2.05, #14 = 3.26 (stranded)
L = wire length
dI = current

DEVICE LEGEND: S(x) = Strobe (where 'x' is candela)
SS(x) = SPEAKER/Strobe (where 'x' is candela)
H = Horn
WPH = Weatherproof Speaker
CEIL = Ceiling Mounted

CIRCUIT: n10/

DEVICE ID NO.	DEVICE TYPE	DEVICE CURRENT (mA)	SECTION CURRENT (mA)	WIRE AWG	LENGTH (ft)	DEVICE VDC	PERCENT DROP
n10/01	S75	107	963	12	51	20.20	0.99
n10/02	S75	107	856	12	105	19.83	2.79
n10/03	S75	107	749	12	105	19.51	4.37
n10/04	S75	107	642	12	105	19.23	5.73
n10/05	S75	107	535	12	105	19.00	6.86
n10/06	S75	107	428	12	105	18.82	7.76
n10/07	S75	107	321	12	162	18.60	8.81
n10/08	WPH	0	214	12	38	18.57	8.97
n10/09	SS75	107	214	12	166	18.42	9.68
n10/10	SS75	107	107	12	105	18.38	9.91

NAC VOLTAGE DROP CALCULATIONS

CALCULATION: dV = V - (2L x K x dI)
Where: dV = device Voltage
V = previous device voltage (Source Voltage = 20.4 VDC)
K = wire AWG constant (Ω/k') at 167ºF: #8 = 0.81, #10 = 1.29, #12 = 2.05, #14 = 3.26 (stranded)
L = wire length
dI = current

DEVICE LEGEND: S(x) = Strobe (where 'x' is candela)
SS(x) = SPEAKER/Strobe (where 'x' is candela)
H = Horn
WPH = Weatherproof Speaker
CEIL = Ceiling Mounted

CIRCUIT: n12/

DEVICE ID NO.	DEVICE TYPE	DEVICE CURRENT (mA)	SECTION CURRENT (mA)	WIRE AWG	LENGTH (ft)	DEVICE VDC	PERCENT DROP
n12/01	ss15	43	664	12	16	20.36	0.21
n12/02	ss15	43	621	12	20	20.31	0.46
n12/03	s15	43	578	12	27	20.24	0.78
n12/04	wph	0	535	12	59	20.11	1.41
n12/05	ss75	107	535	12	50	20.00	1.95
n12/06	wph	0	428	12	49	19.92	2.37
n12/07	ss75	107	428	12	67	19.80	2.95
n12/08	ss75	107	321	12	36	19.75	3.18
n12/09	wph	0	214	12	52	19.71	3.40
n12/10	ss75	107	214	12	78	19.64	3.74
n12/11	ss75	107	107	12	36	19.62	3.82

NAC VOLTAGE DROP CALCULATIONS

CALCULATION: dV = V - (2L x K x dI)
Where: dV = device Voltage
V = previous device voltage (Source Voltage = 20.4 VDC)
K = wire AWG constant (Ω/k') at 167ºF: #8 = 0.81, #10 = 1.29, #12 = 2.05, #14 = 3.26 (stranded)
L = wire length
dI = current

DEVICE LEGEND: S(x) = Strobe (where 'x' is candela)
SS(x) = SPEAKER/Strobe (where 'x' is candela)
H = Horn
WPH = Weatherproof Speaker
CEIL = Ceiling Mounted

CIRCUIT: n12b/

DEVICE ID NO.	DEVICE TYPE	DEVICE CURRENT (mA)	SECTION CURRENT (mA)	WIRE AWG	LENGTH (ft)	DEVICE VDC	PERCENT DROP
n12b/01	wph	0	469	12	64	20.28	0.60
n12b/02	ss110	148	469	12	48	20.18	1.06
n12b/03	ss75	107	321	12	36	20.14	1.29
n12b/04	wph	0	214	12	41	20.10	1.46
n12b/05	ss75	107	214	12	67	20.04	1.75
n12b/06	ss75	107	107	12	36	20.03	1.83
n12b/07	wph	0	0	12	27	20.03	1.83

SPEAKER NAC VOLTAGE DROP CALCULATIONS

CALCULATION (LUMP SUM METHOD): VD = (2L x K x I)
Where: VD = voltage drop
L = wire length
K = wire AWG constant (Ω/k') at 167ºF: #16 = 4.73, #18 = 7.51, #20 = 11.90, #22 = 19.00 (stranded)
I = total current (Note: Total current is derived by Ohm's Law, dividing the total power by the source voltage: I = P/E)

AUDIO LOSS: dB = 20 x log (Vc/Vs)
Where: dB = audio loss
Vc = calculated voltage (source voltage minus voltage drop)
Vs = source voltage

CIRCUIT NUMBER	TOTAL PWR (W)	SOURCE VOLTAGE	CURRENT (A)	WIRE AWG	LENGTH (ft)	VOLTAGE DROP	PERCENT DROP	AUDIO LOSS (dB)
n1	5.75	70	0.08	16	500	0.19	0.28	-0.02
n2	13.5	70	0.19	16	500	0.46	0.65	-0.06
n3	12.5	70	0.18	16	500	0.42	0.60	-0.05
n4-n5	12	70	0.17	16	1200	0.97	1.39	-0.12
n6	12	70	0.17	16	800	0.65	0.93	-0.08
n7	10.5	70	0.15	16	1200	0.85	1.22	-0.11
n8-n9	10	70	0.14	16	1200	0.81	1.16	-0.10
n10-n11	12.5	70	0.18	16	1600	1.35	1.93	-0.17
n12	13	70	0.19	16	1200	1.05	1.51	-0.13
SPARE		70	0.00	16		0.00	0.00	0.00

FIRE ALARM SYSTEM COMPONENTS

DEVICE	DESCRIPTION	MANUFACTURER	MODEL #	CSFM #
exist	FIRE ALARM CONTROL PANEL	GAMEWELL	E3	7165-1703:125
	ILI-MB-E3 CPU CARD			
	DACT-E3 DIGITIAL COMMUNICATION			
	E3 ENCLOSURE CABINET, DOORS, PLATES,			
	PM9 POWER SUPPLY			
	RPT-E3-UTP REPEATER			
	INI-VGX VOICE GATEWAY (EVAC)			
	FML-E3 FIBER LOOP CONTROLLER			
	LCD-SLP LCD TOUCH SCREEN			
	1100-0456 AMPLIFIER			
	INCC-MIC MICROPHONE			
	3-12/SIGY 12 SWITCH, 24 LED DISPLAY MOD			
a	NAC PANEL	GAMEWELL	HPFF8	7315-1637:102
e	ATTIC HEAT DETECTOR	GAMEWELL	ATD-L3H	7270-1703:502
	BASE		B300-6	7300-1653:109
f	SMOKE DETECTOR	GAMEWELL	ASD-PL3	7272-1703:0501
	BASE		B300-6	7300-1653:109
g	SMOKE / CO DETECTOR	GAMEWELL	MCS-COF	7275-1703:175
	SOUNDER BASE	GAMEWELL	B200S-LF	7300-1653:238
i	MODULES			
	INPUT MODULE	GAMEWELL	AMM-2F	7300-1703:102
j	SIGNALLING DEVICES			
	STROBE	SYSTEM SENSOR	SRL	7125-1653:504
	SPEAKER STROBE	SYSTEM SENSOR	SPSRL	7320-1653:505
	WP SPEAKER	SYSTEM SENSOR	SPRK	7320-1653:201

FACP-C BATTERY CALCULATIONS

Description	Qty.	Standby Current (mA)	Total Standby (mA)	Alarm Current (mA)	Total Alarm (mA)
MAIN BOARD	1	81	81	150	150
1209V POWER SUPPLY	1	50	50	50	50
LCD DISPLAY	1	24	24	28	28
ARC NET REPEATER	1	16	16	17	17
DIGITAL COMMUNICATOR	1	18	18	18	18
REMOTE ANNUNCIATOR	1	200	200	200	200
VOICE GATEWAY	1	150	150	150	150
VOICE AMPLIFIER	2	86	172	2206	4412
OUTPUT MODULE AOM-2SF	1	2	2	6.5	6.5
NETWORK VOICE MODULE (INI-VGE)	1	150	150	150	150
ADDRESSIBLE SWITH MODULE ASM-SLC (FULLY LOADED)	1	11	11	11	11
FNA	2	51	102	136	272
TOTALS	1	0	0	1223	1223
	--	--	977	--	6689

* NOTE: The SIGA Device Controller is calculated with the maximum Signature addressable device load
Note: Assume 1 Sounder Base Max at a time

Battery Requirement Calculation for 24 Hours Standby and 15 Minutes Alarm:
Ampere Hours = [(Standby Current x Time)+(Alarm Current x Time)] x 1.25
Ampere Hours = [(0.977A x 24 hrs)+(6.6885A x 0.25 hrs)] x 1.25
Ampere Hours = 31.4

BATTERIES SUPPLIED: (4) 12 Volts, 24 Ampere Hours (24 Volts, 48 Ampere Hours)

NAC-R BATTERY CALCULATION

Description	Qty.	Standby Current (mA)	Total Standby (mA)	Alarm Current (mA)	Total Alarm (mA)
Control Board	1	70	70	270	270
EXIST NAC CIRCUIT	0	0	0	255	255
NAC - N10	1	--	--	963	963
EXIST NAC CIRCUIT	1	--	--	535	535
SPARE NAC	0	--		30	0
SPARE NAC	1	--	--	0	0
	1	--	--	0	0
TOTALS	--	--	70	--	2023

Battery Requirement Calculation for 24 Hours Standby and 15 Minutes Alarm:
Ampere Hours = [(Standby Current x Time)+(Alarm Current x Time)] x Derating Factor
Ampere Hours = [(0.07A x 24 hrs)+(2.023A x 0.25 hrs)] x 1.25
Ampere Hours = 2.7

BATTERIES SUPPLIED: (2) 12 Volts, 7 Ampere Hours (24 Volts, 7 Ampere Hours)

NAC-F BATTERY CALCULATION

Description	Qty.	Standby Current (mA)	Total Standby (mA)	Alarm Current (mA)	Total Alarm (mA)
Control Board	1	70	70	270	270
NAC - n12	0	0	0	255	0
nac n12b	1	--	--	469	469
CO BASE CIRCUIT	1	--	--	40	40
SPARE NAC	0	--		0	0
SPARE NAC	1	--	--	0	0
	1	--	--	0	0
TOTALS	--	--	70	--	779

Battery Requirement Calculation for 24 Hours Standby and 15 Minutes Alarm:
Ampere Hours = [(Standby Current x Time)+(Alarm Current x Time)] x Derating Factor
Ampere Hours = [(0.07A x 24 hrs)+(0.779A x 0.25 hrs)] x 1.25
Ampere Hours = 2.3

BATTERIES SUPPLIED: (2) 12 Volts, 7 Ampere Hours (24 Volts, 7 Ampere Hours)

FIRE ALARM CALCULATIONS

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DATE: 07/15/26

TPH architects
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1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

FIRE ALARM CALCULATIONS

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	RCS-1
Checked by	Checker

E0-3.2

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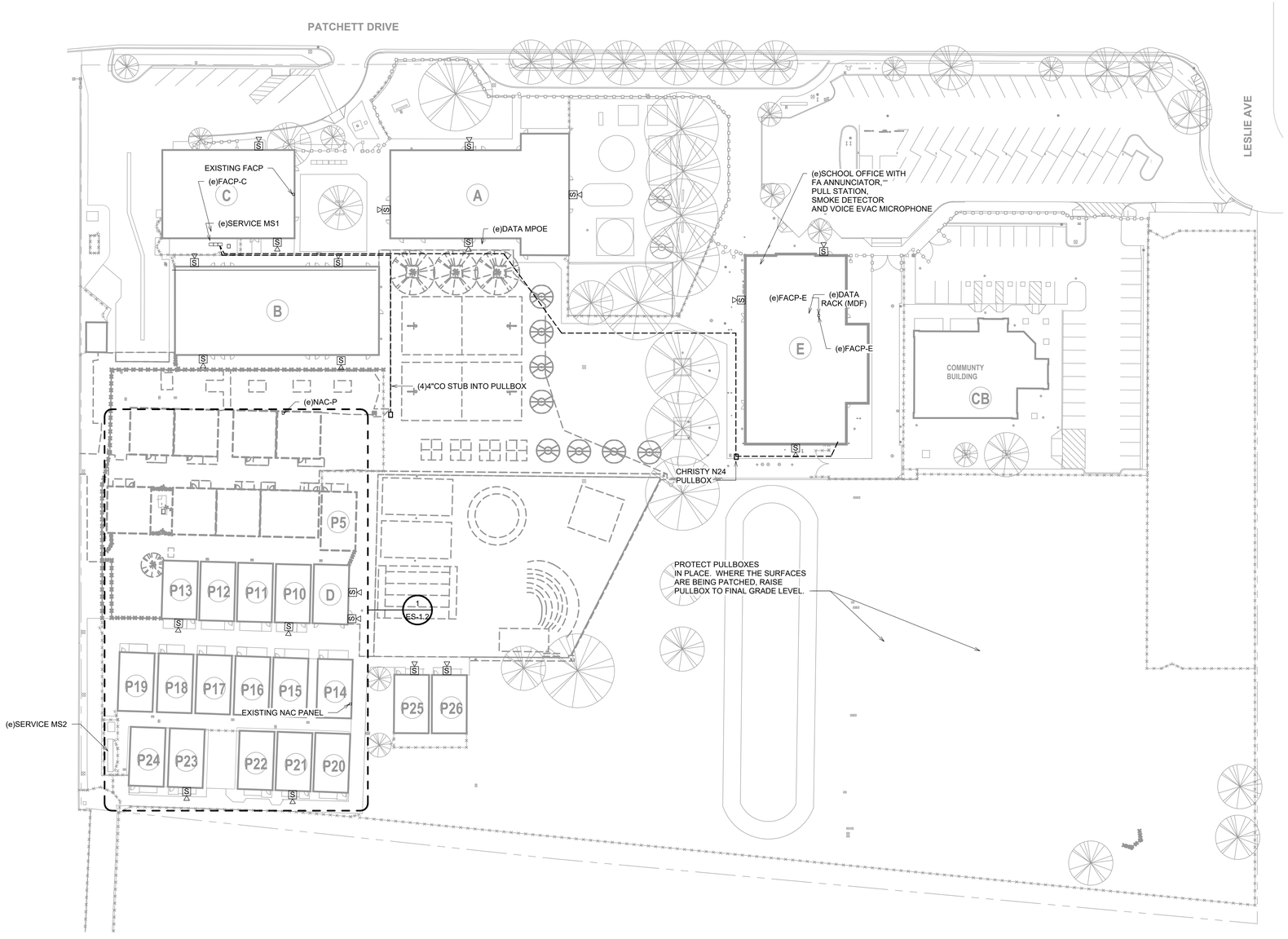
EXISTING CONDUIT LOCATIONS ARE DIAGRAMMATICALLY SHOWN BASED UPON EXISTING DRAWINGS AND CASUAL FIELD OBSERVATION. THE CONTRACTOR SHALL TRACE AND POTHOLE TO VERIFY ACTUAL PATHS OF UNDERGROUND CONDUITS BEFORE STARTING WORK.

DAMAGE TO CONDUIT PATHS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE



1 **EXISTING SITE CONDITIONS PLAN**
SCALE: 1" = 40'-0"

NORTH

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1388 PATCHETT DRIVE
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NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

EXISTING SITE CONDITIONS PLAN

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	RCS-2
Checked by	Checker

ES-1.1

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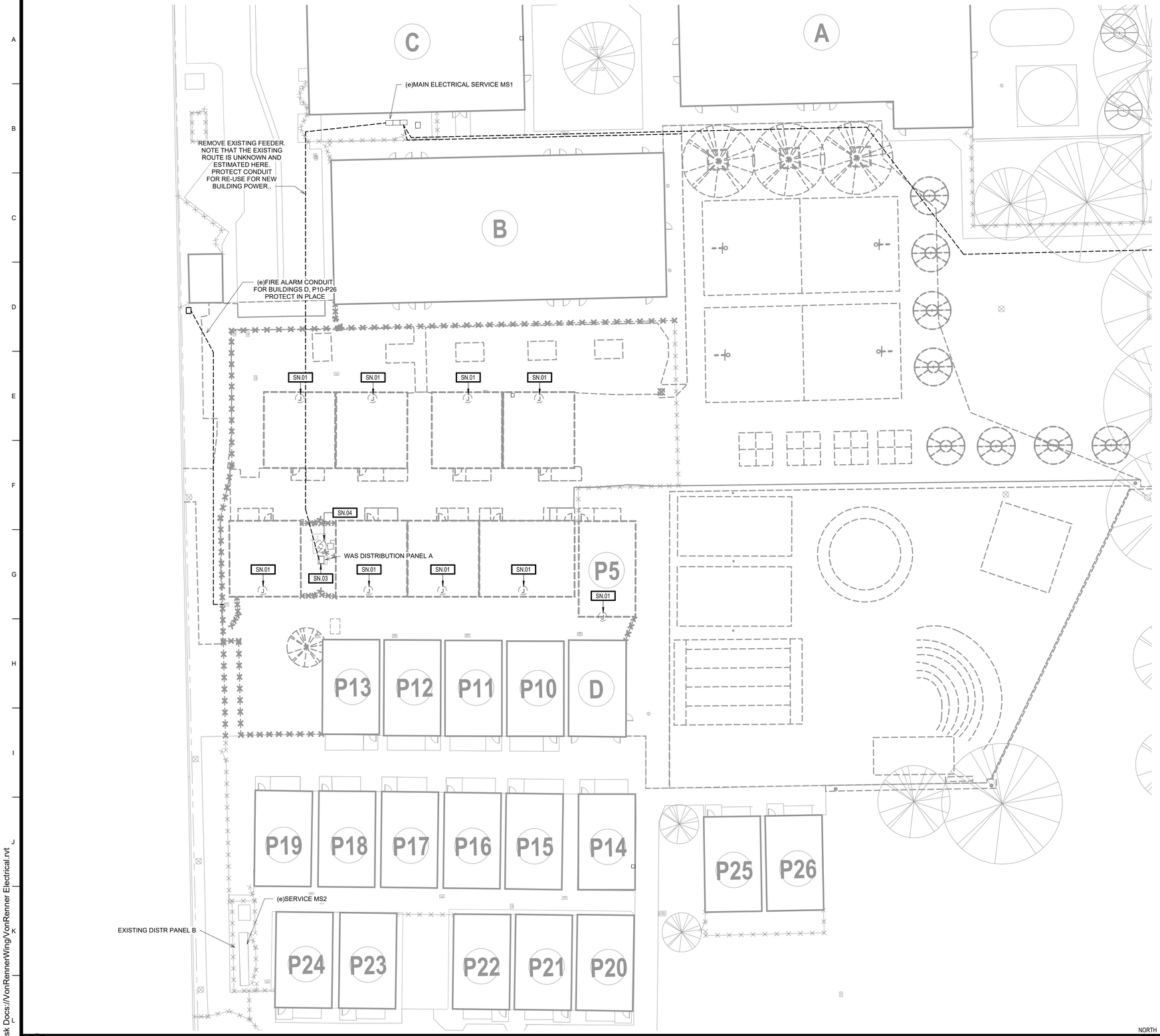

SHEET NOTES	
Key Value	Keynote Text
SN.01	MAKE ALL ELECTRICAL DISCONNECTS, REMOVE POWER TO SOURCE, REMOVE ANY FIRE ALARM, INTERCOM, DATA DEVICES AND RETURN TO DISTRICT. REMOVE ALL ABOVE GROUND CONDUITS.
SN.03	REMOVE EXIST DISTRIBUTION PANEL. REMOVE FEEDER TO MAIN ELECTRICAL SERVICE. DISCONNECT ALL LOADS AND REMOVE ALL BRANCH CIRCUITS.
SN.04	MAKE ALL ELECTRICAL DISCONNECTIONS TO IRRIGATIONI PUMP AND IRRIGATION CONTROLLER, REMOVE ALL WIRE AND ABOVE GROUND CONDUITS.

EXISTING CONDUIT LOCATIONS ARE DIAGRAMMATICALLY SHOWN BASED UPON EXISTING DRAWINGS AND CASUAL FIELD OBSERVATION. THE CONTRACTOR SHALL TRACE AND POTHOLE TO VERIFY ACTUAL PATHS OF UNDERGROUND CONDUITS BEFORE STARTING WORK.

DAMAGE TO CONDUIT PATHS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE

NORTH

1 PORTABLE CLASSROOM ELECTRICAL PLANS

SCALE: 1" = 20'-0"

NOTES

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1388 PATCHETT DRIVE
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PORTABLE CLASSROOM ELECTRICAL PLANS

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ES-1.2

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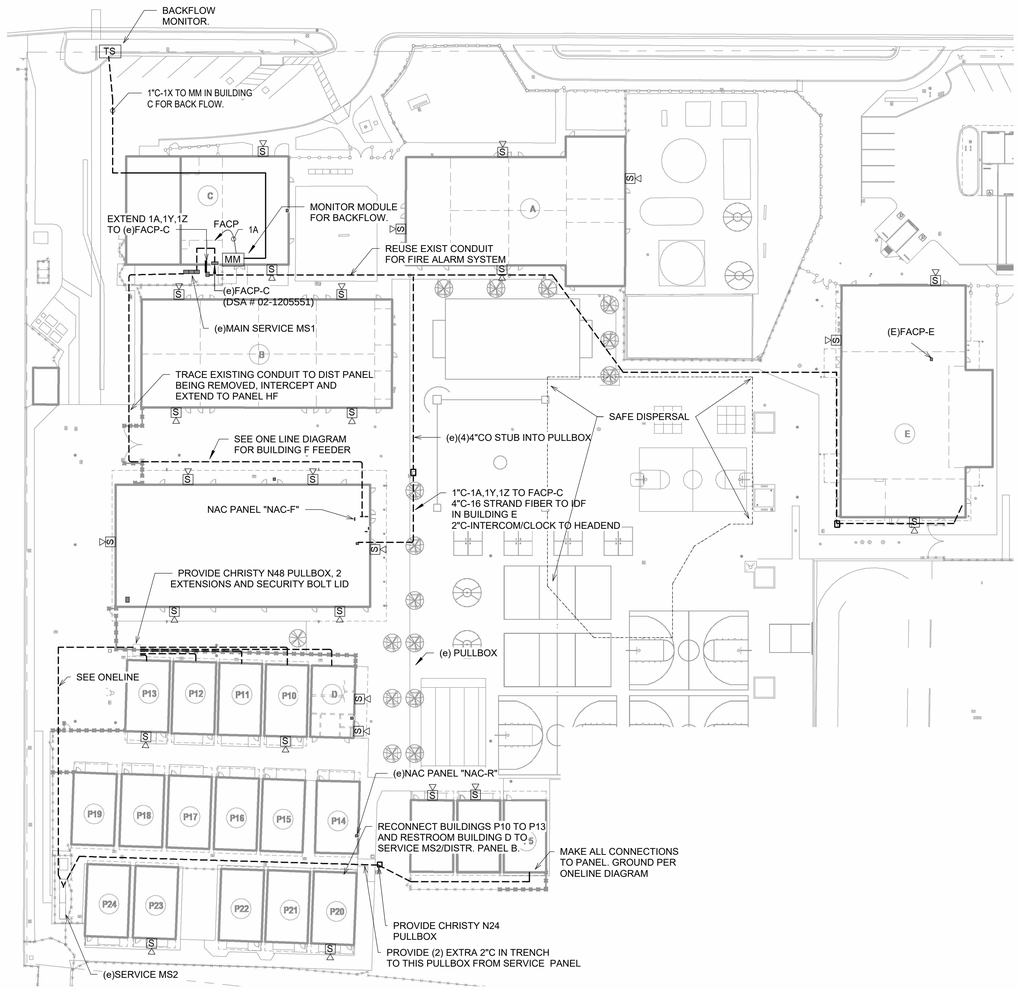


NOTE: BUILDING F AND PORTABLE P6 ARE CONNECTED TO THE FIRE ALARM PANEL IN BUILDING C. THERE ARE TWO FIRE ALARM PANELS (BUILDINGS A AND C) THAT ARE NETWORKED TOGETHER. IF EITHER GOES INTO ALARM, THE ENTIRE CAMPUS IS NOTIFIED.

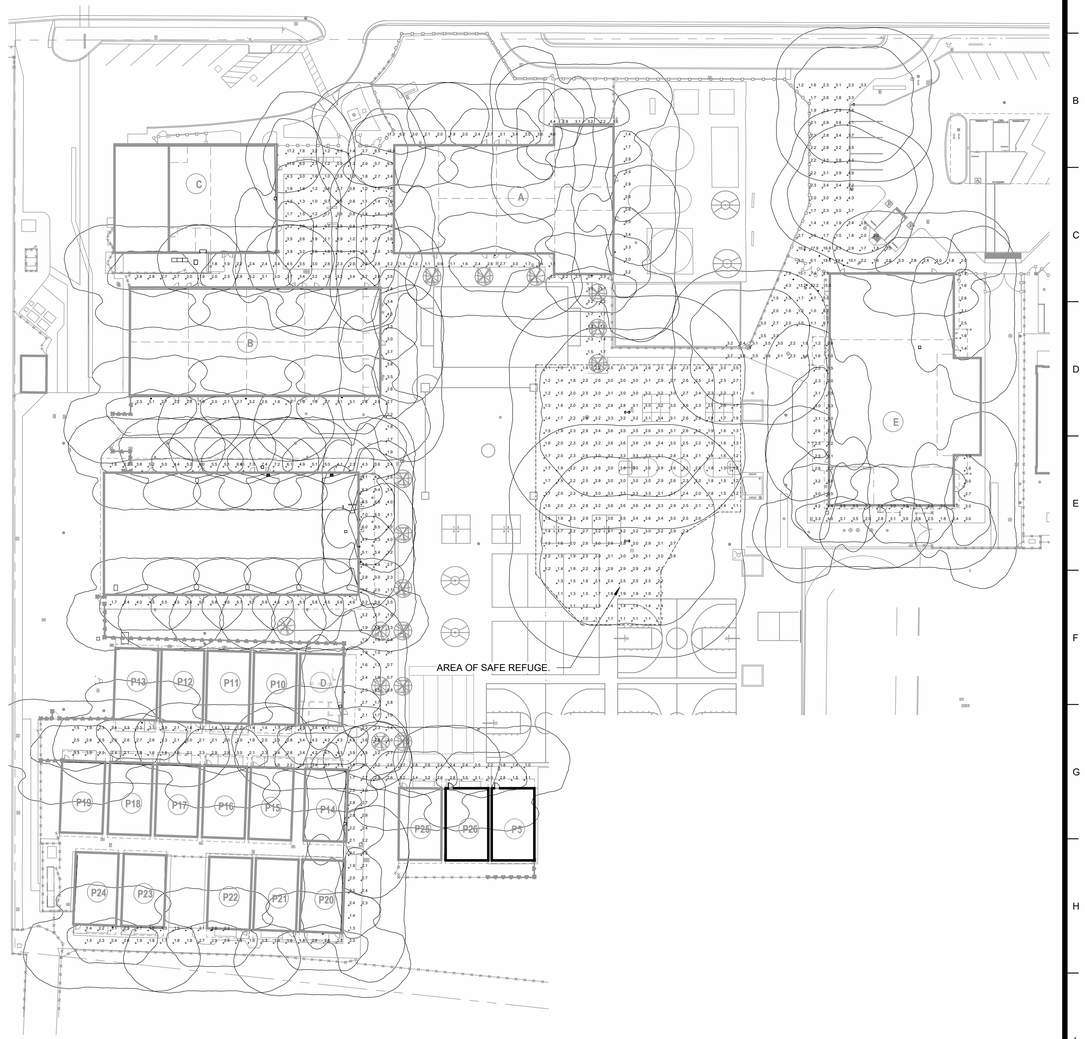
TRENCH NOTE:

ALL UNDERGROUND UTILITY TRENCHES ARE TO BE ALIGNED NEARLY PARALLEL WITH NEW FOUNDATIONS, AND BE AT LEAST 3 FEET FROM OUTER EDGE OF FOUNDATIONS, WHEREVER POSSIBLE. TRENCHES SHALL NO ENCROACH INTO THE ZONE EXTENDING OUTWARD AT A ONE HORIZONTAL TO ONE VERTICAL (1H:1V) INCLINATION BELOW THE BOTTOM OF FOUNDATIONS. THE INTENT OF THIS REQUIREMENT IS TO PREVENT LOSS OF BOTH LATERAL AND VERTICAL SUPPORT OF FOUNDATIONS, RESULTING IN POSSIBLE SETTLEMENT.

1 ELECTRICAL SITE PLAN

SCALE: 1" = 40'-0"

NORTH



2 PHOTOMETRIC STUDY

SCALE: 1" = 40'-0"

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ELECTRICAL SITE PLANS

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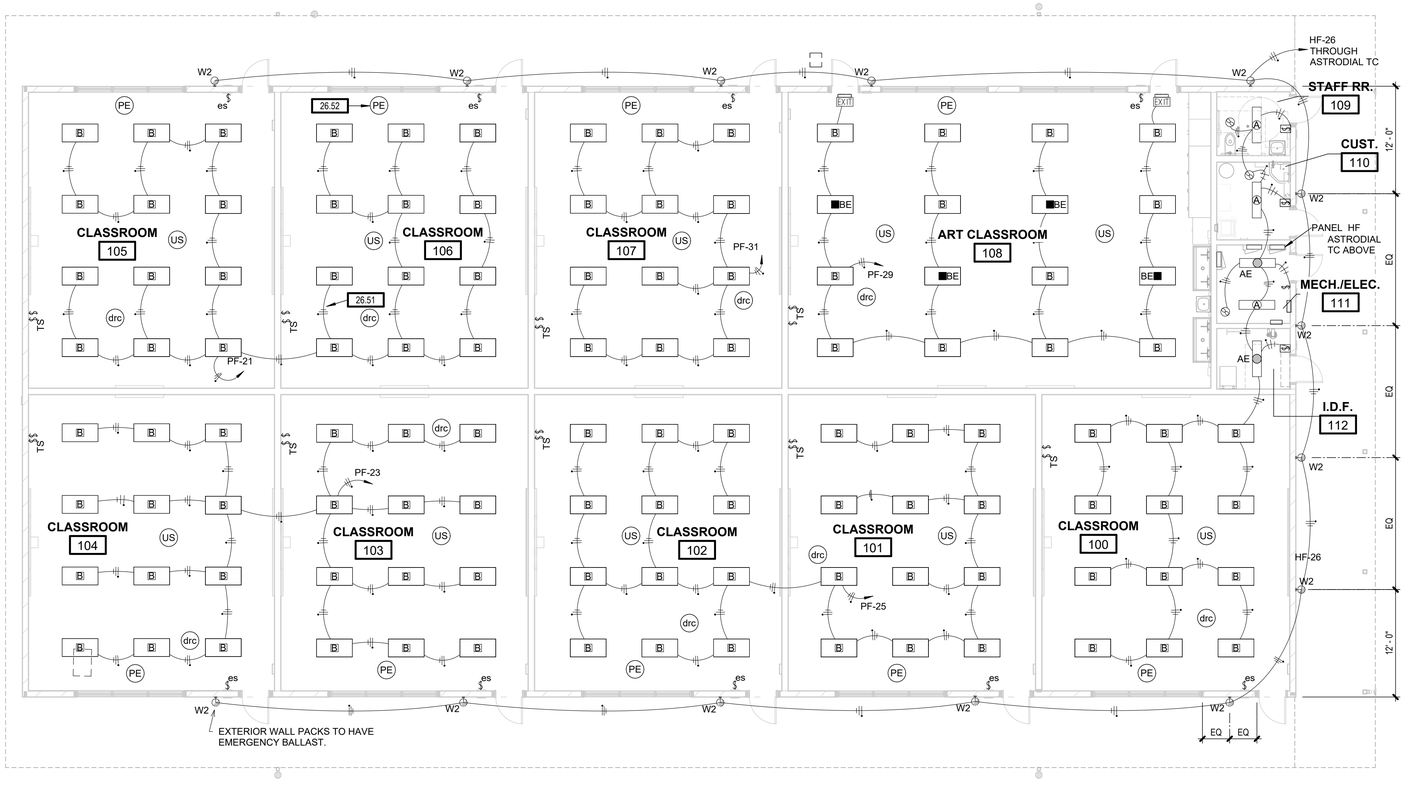

KEYNOTES

26.51	LIGHTING CIRCUIT TO CONTAIN HOT LEG, SWITCHED HOT LEG, NEUTRAL, GROUND, GREY AND VIOLET 0-10V DIMMING CONTROL.
26.52	INTERCONNECT ALL LIGHTING CONTROL DEVICES IN ROOM INCLUDING DIMMING SWICH(ES), DIMMING ROOM CONTROLLER, OCCUPANCY SENSOR, PLUG LOAD CONTROLLER (OFFICES & FANS), AND DAY LIGHT HAVESTING SENSOR (WHERE SHOWN).

SHEET NOTES	
Key Value	Keynote Text

KEY NOTES

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION: PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

INTERIOR WALLS

2x4 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER AT EACH SIDE

2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE

2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE AND PLYWD. SHEATHING AT ONE SIDE (SHEAR WALL)

2x6 WOOD STUDS W/ SOUND BATTS AND SHEATHING: GYPSUM (OR TILE BACKER) BOARD AT EACH SIDE - RESILIANT CHANNEL - SEE DETAIL 11 / A2-5.3

NOTES:

- ALL WALL TILE TO TO HAVE TILE BACKER BOARD - SEE INTERIOR ELEVATIONS & FINISH SCHEDULE.
- WALL LEGEND ONLY ADDRESSES GYPSUM BOARD LOCATIONS - SEE FINISH SCHEDULE FOR LOCATIONS WHERE TACKBOARD IS SPECIFED OVER THE GYPSUM BOARD
- DIMENSIONS ARE TO FACE OF STUD OR CENTERLINE OF COLUMN, UNLESS OTHERWISE NOTED
- ALL INTERIOR AND EXTERIOR WOOD OR METAL STUDS ARE TO BE SPACED AT 16" O.C. MAX.
- SEE STRUCTURAL DRAWINGS FOR ALL EXTERIOR AND INTERIOR SHEAR WALL LOCATIONS
- SEE STRUCTURAL DRAWINGS FOR EXTERIOR WALLS W/ PLYWD. SHEATHING AT INTERIOR FACE
- ALL STUD OR PLATE PENETRATIONS (INCLUDING ELECTRICAL, COMMUNICATIONS, AND PLUMBING LINES) AT WALLS SHALL BE SEALED WITH EXPANDING FOAM FOR SOUND ATTENUATION BEFORE SOUND BATTS ARE INSTALLED. ARCHITECT SHALL INSPECT PRIOR TO SOUND BATT INSTALLATION.

WALL LEGEND

KEY PLAN

NORTH

1 LIGHTING FLOOR PLAN - BUILDING 'F'

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

NORTH

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BUILDING F - LIGHTING PLAN

Project Number	2514
Date	SEPTEMBER 2025
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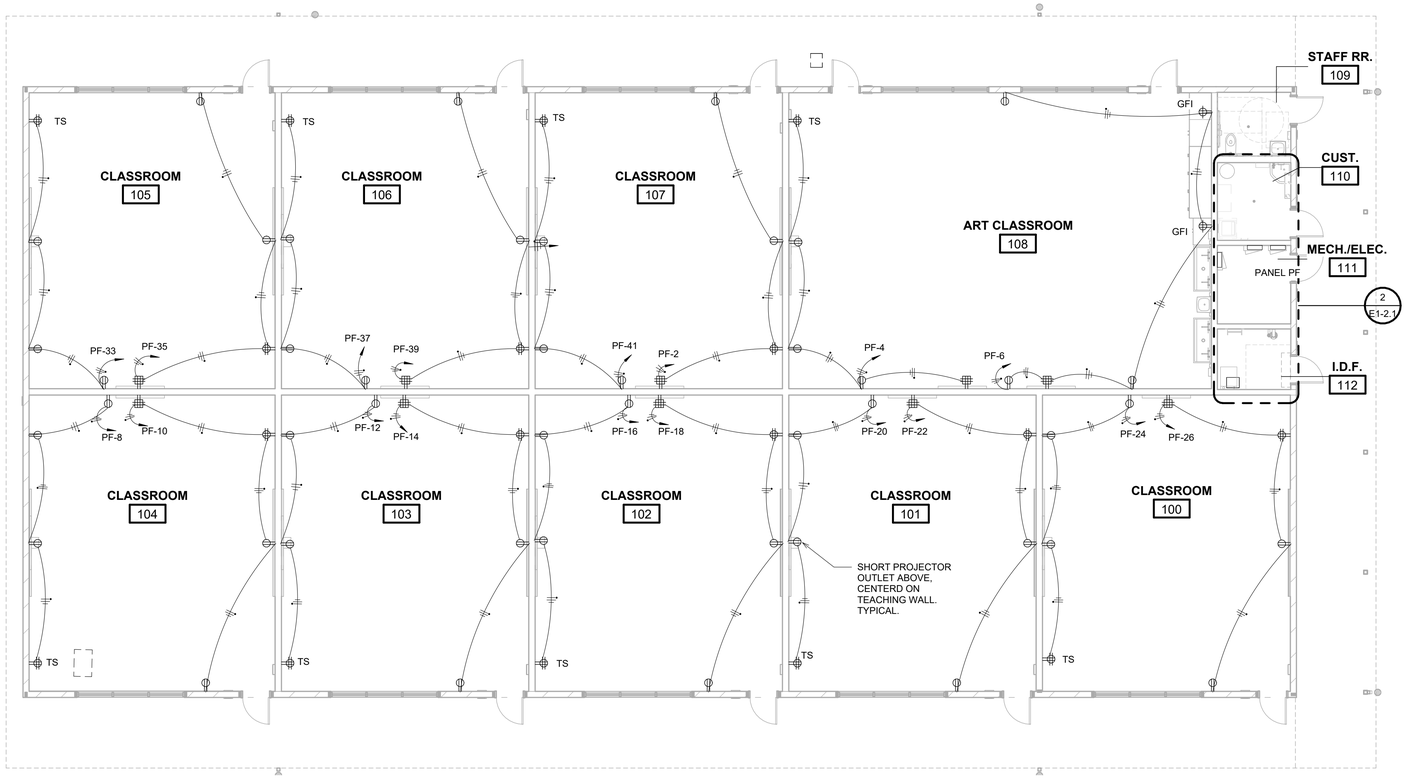
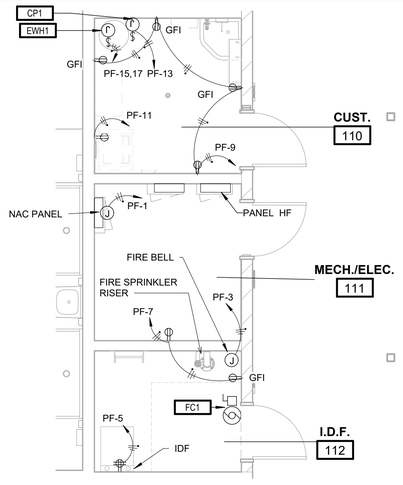


1 **ELECTRICAL FLOOR PLAN - BUILDING 'F'**
SCALE: 1/8" = 1'-0"



2 **ELECTRICAL ROOM**
SCALE: 1/4" = 1'-0"

KEYNOTES

CP1	CIRC PUMP, 120V, PROVIDE MOTOR TOGGLE DISCONNECT, 1/2"C-2#12+1#12 GND
EWH1	ELECTRICAL WATER HEATER, 208V, 1PH, 30A, PROVIDE MOTOR TOGGLE DISCONNECT, 3/4"C-2#10+1#10 GND
FC1	MINISPLIT FAN COIL, 208V, 1PH, <1A, PROVIDE MOTOR TOGGLE DISCONNECT, 1/2"C-WIRE AS REQUIRED TO HP1

SHEET NOTES	
Key Value	Keynote Text

KEY NOTES

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION: PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

INTERIOR WALLS

2x4 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER AT EACH SIDE

2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE

2x6 WOOD STUDS W/ SOUND BATTS: GYPSUM BOARD (OR TILE BACKER) AT EACH SIDE AND PLYWD. SHEATHING AT ONE SIDE (SHEAR WALL)

2x6 WOOD STUDS W/ SOUND BATTS AND SHEATHING: GYPSUM (OR TILE BACKER) BOARD AT EACH SIDE - RESILIANT CHANNEL - SEE DETAIL 11 / A2-5.3

NOTES:
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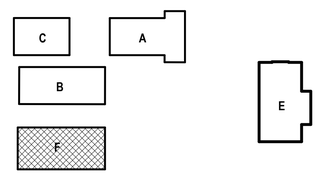
WALL LEGEND

KEY PLAN



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LICENSED ARCHITECT JONATHAN E. GEE No. C-32424 REN. 1/27 STATE OF CALIFORNIA

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

BUILDING F - ELECTRICAL PLAN

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	RCS-3
Checked by	Checker

E1-2.1

Plot Date & Time 6/10/2026 11:39:39 AM

Autodesk Docs://VonRennerWing/VonRenner Electrical.rvt
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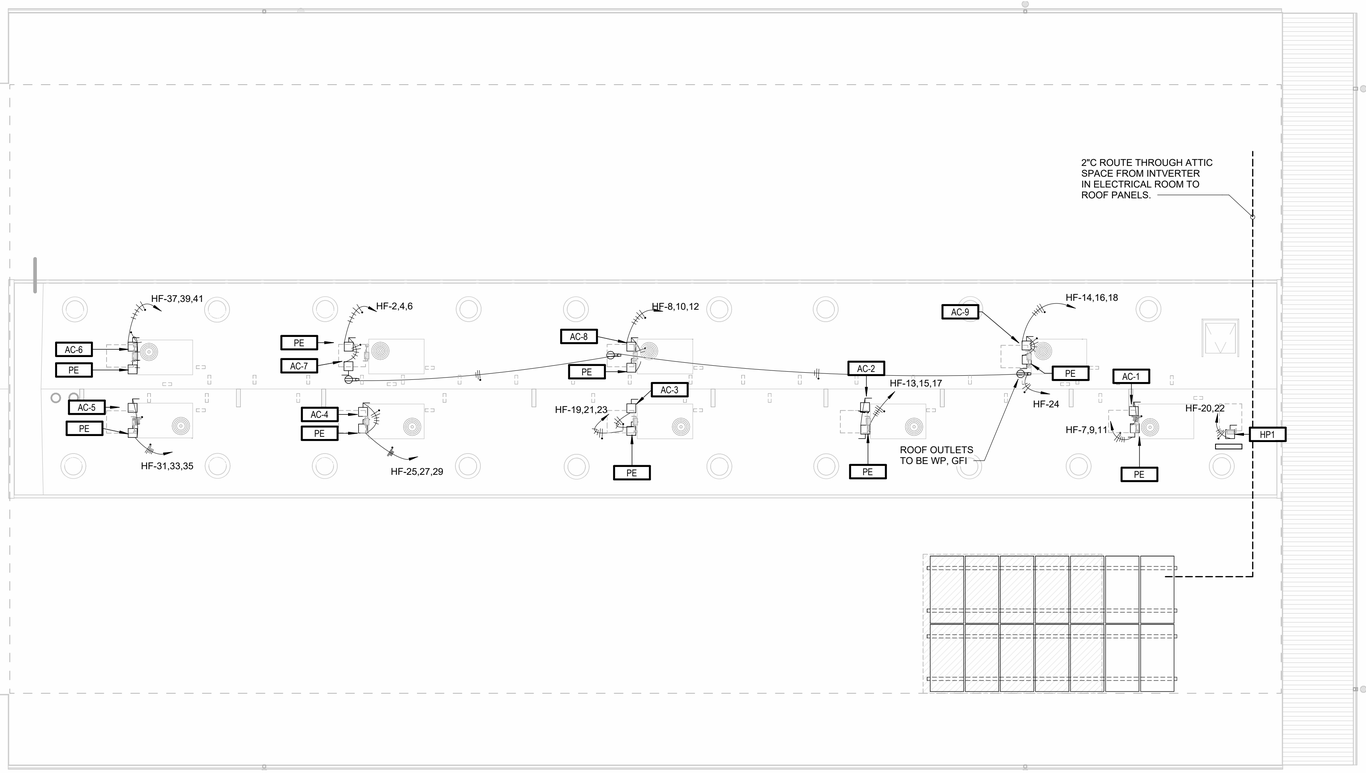
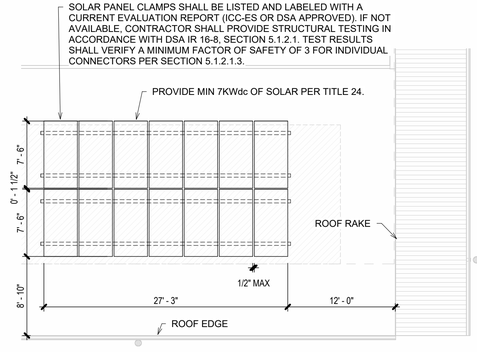


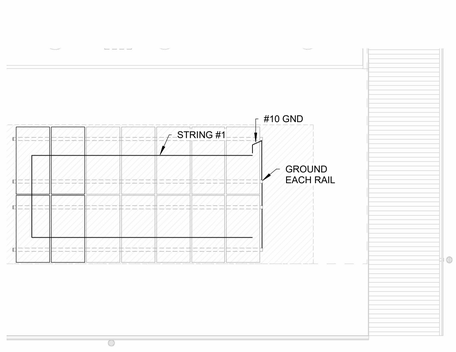
1 ELECTRICAL ROOF PLAN - BUILDING 'F'

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



2 SOLAR DIMENSION PLAN

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



3 SOLAR STRING PLAN

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

KEYNOTES	
AC-1	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 21MCA, PROVIDE 30/3 DISC, 25A FUSES, 3/4"C-3#10+1#10 GND
AC-2	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 21MCA, PROVIDE 30/3 DISC, 25A FUSES, 3/4"C-3#10+1#10 GND
AC-3	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 21MCA, PROVIDE 30/3 DISC, 25A FUSES, 3/4"C-3#10+1#10 GND
AC-4	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 21MCA, PROVIDE 30/3 DISC, 25A FUSES, 3/4"C-3#10+1#10 GND
AC-5	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 21MCA, PROVIDE 30/3 DISC, 25A FUSES, 3/4"C-3#10+1#10 GND
AC-6	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 21MCA, PROVIDE 30/3 DISC, 25A FUSES, 3/4"C-3#10+1#10 GND
AC-7	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 21MCA, PROVIDE 30/3 DISC, 25A FUSES, 3/4"C-3#10+1#10 GND
AC-8	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 21MCA, PROVIDE 30/3 DISC, 25A FUSES, 3/4"C-3#10+1#10 GND
AC-9	ROOF TOP MECHANICAL UNIT, 208V, 3PH, 30MCA, PROVIDE 60/3 DISC, 40A FUSES, 1"C-3#8+1#8 GND
HP1	MINISPLIT COMPRESSOR, 208V, 1PH, 12MCA, PROVIDE 30/2 DISC, 15A FUSES, 1/2"C-2#12+1#12 GND
PE	POWER EXHUAST, 208V, 3PH, 1.5A, PROVIDE 30/3 DISC, 3A FUSES, 3/4"C-3#10+1#10 GND GROUP WITH RTU ONTO ONE CIRCUIT

KEY NOTES

EXTERIOR WALLS

2x6 WOOD STUDS W/ R-21 BATT INSULATION: PLASTER OR METAL PANEL OVER PLYWD. SHEATHING AT EXTERIOR / GYPSUM BOARD (OR TILE BACKER) AT INTERIOR

INTERIOR WALLS

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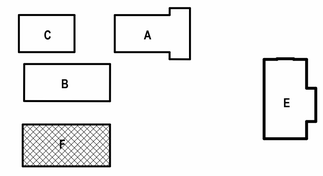

KEY PLAN

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BUILDING F - ELECTRICAL ROOF PLAN

Project Number	2514
Date	SEPTEMBER 2025
Drawn by	RCS-3
Checked by	Checker

E1-2.2

Plot Date & Time 6/10/2026 11:39:43 AM

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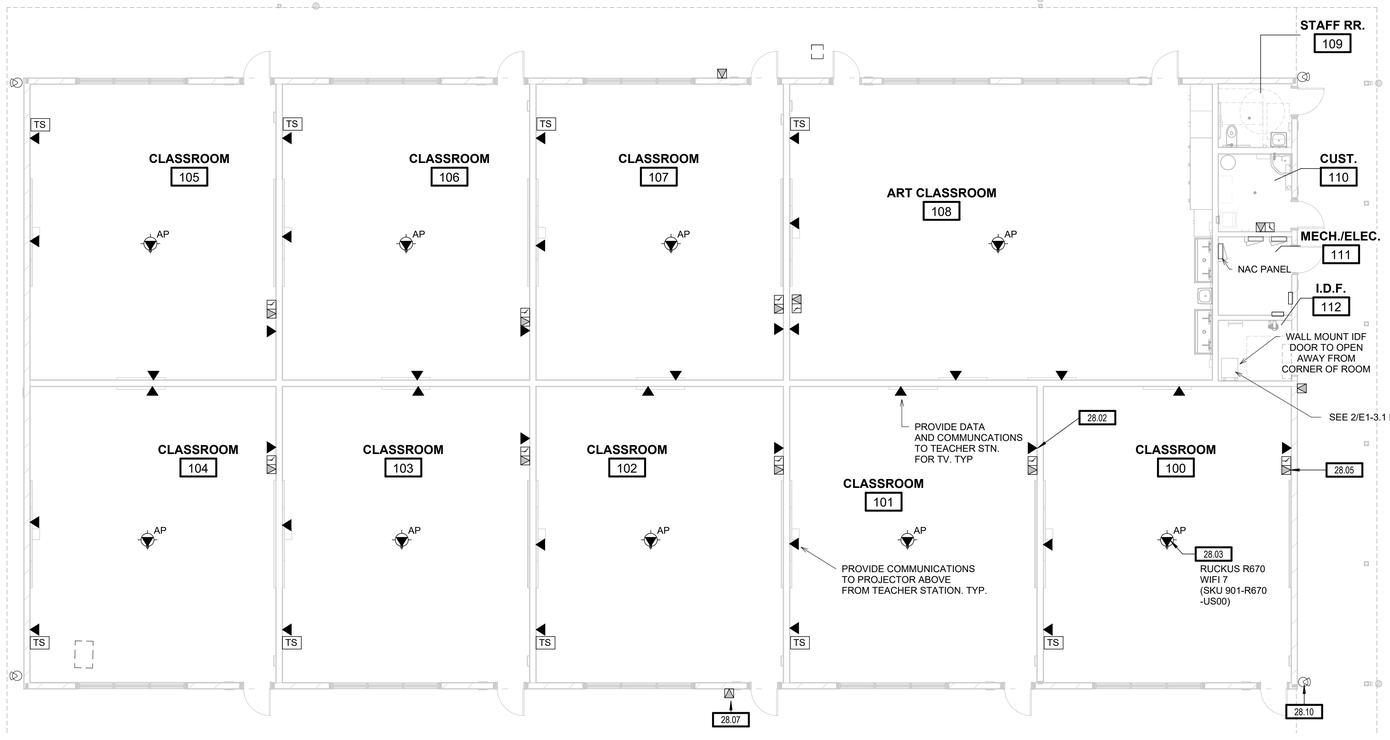

1 SIGNAL FLOOR PLAN - BUILDING 'F'

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

NORTH

KEYNOTES	
28.02	PROVIDE 2 CAT 6 DATA FROM LOCAL IDF (A NUMBER NEXT TO THE DATA JACK WOULD INDICATE WHERE MORE JACKS ARE REQUIRED, PROVIDE QUANTITY SHOWN). INSTALL IN CONDUIT IN WALL, NEATLY GATHER ON J-HOOKS EVERY 8' IN ACCESSIBLE ATTIC SPACE.
28.03	PROVIDE 1 CAT 6 DATA FOR WIRELESS ACCESSP POINT FROM LOCAL IDF
28.05	PREWIRE ALL CLOCK SPEAKERS WITH A CAT6 (FOR THE SPEAKER), AND 3#14 (CLOCK) FROM THE IDF.
28.07	PREWIRE ALL VANDAL RESISTANT EXTERIOR SPEAKERS WITH A CAT6 CABLE TO AND EXTERIOR IP AMP AT THE IDF RACK. TYPICAL
28.10	PROVIDE FLUSH JBOX WITH CAT 6 FOR CAMERAS BY DISTRICT, INSTALL BOX FLUSH AT HIGH LEVEL ON WALL. (SEE ARCHITECTURAL EXTERIOR ELEVATIONS FOR HEIGHTS).

KEY NOTES

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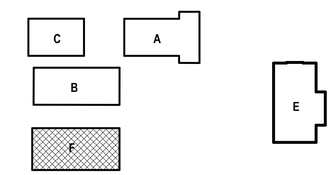
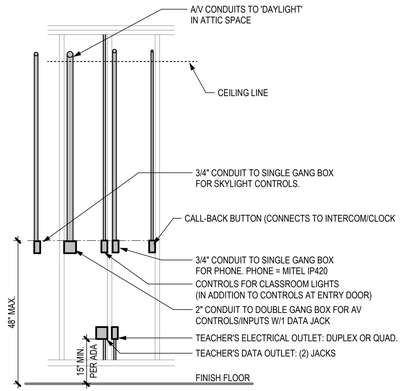


NORTH

KEY PLAN

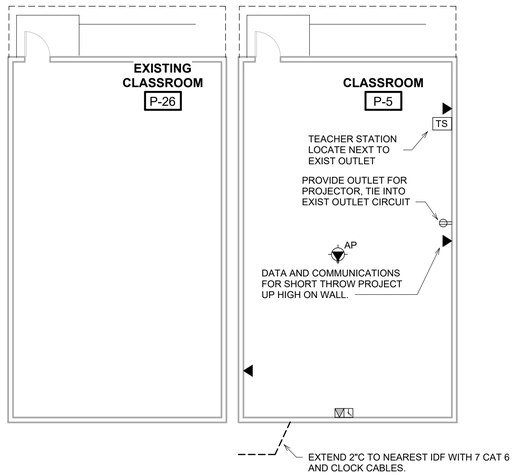


TYPICAL TEACHER'S STATION

CONTRACTOR SHALL PROVIDE AND INSTALL :
COMPLETE DATA & POWER SYSTEMS FOR A 'TURN-KEY' INSTALLATION + ALL CONDUIT/BOXES FOR AV SYSTEMS WITH TV MOUNTS, AND ABOVE CEILING 'J' HOOKS. REFER TO SPECIFICATIONS FOR ALL REQUIRED IT SYSTEM CABLES, AND EQUIPMENT TO BE INSTALLED.

3 TEACHER STATION DETAIL

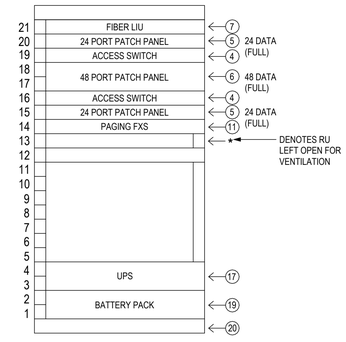
SCALE: NTS



4 PORTABLE P5 SIGNAL PLAN

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

(N) IDF RACK LAYOUT: (VRE-RM15-IDF2)



CFCI - CONTRACTOR FURNISHED / CONTRACTOR INSTALLED
OFCI - OWNER FURNISHED / CONTRACTOR INSTALLED
OFOI - OWNER FURNISHED / OWNER INSTALLED

CFCI	OFCI	OFOI	ID	DESCRIPTION	MODEL / PART NUMBER
✓			2	FIBER LIU - 4 RU	PANDUIT / FRME4
✓			3	CORE SWITCH - 2 RU	CISCO / CATALYST 9500-40X-EDU
✓			4	ACCESS SWITCH - 1 RU	CISCO / CATALYST 9200P-48P
✓			5	24 PORT PATCH PANEL - 1 RU	PANDUIT / CPP24FMWBLY
✓			6	48 PORT PATCH PANEL - 2 RU	PANDUIT / CPP48FMWBLY
✓			7	FIBER LIU - 1 RU	PANDUIT / FRME1
✓			11	EXTERIOR PAGING AMPLIFIER	BOGEN
✓			17	UPS - 2 RU *(IDF)*	APC / SMX1500RM2U
✓			19	BATTERY PACK *(IDF)*	APC / SMX48RMBP2U
✓			20	CABINET	IDF - HOFFMAN 3 FT., EWMW362430

NOTE:
THIS IS A PARTIAL LIST OF THE MAIN IDF EQUIPMENT. REFER TO SPECIFICATIONS FOR ADDITIONAL MODEL / PARTS REQUIRED FOR A FULLY OPERATIONAL SYSTEM

2 IDF RACK LAYOUT

SCALE: NTS

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BUILDING F - SIGNAL PLAN

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E1-3.1

Plot Date & Time 6/10/2026 11:39:44 AM

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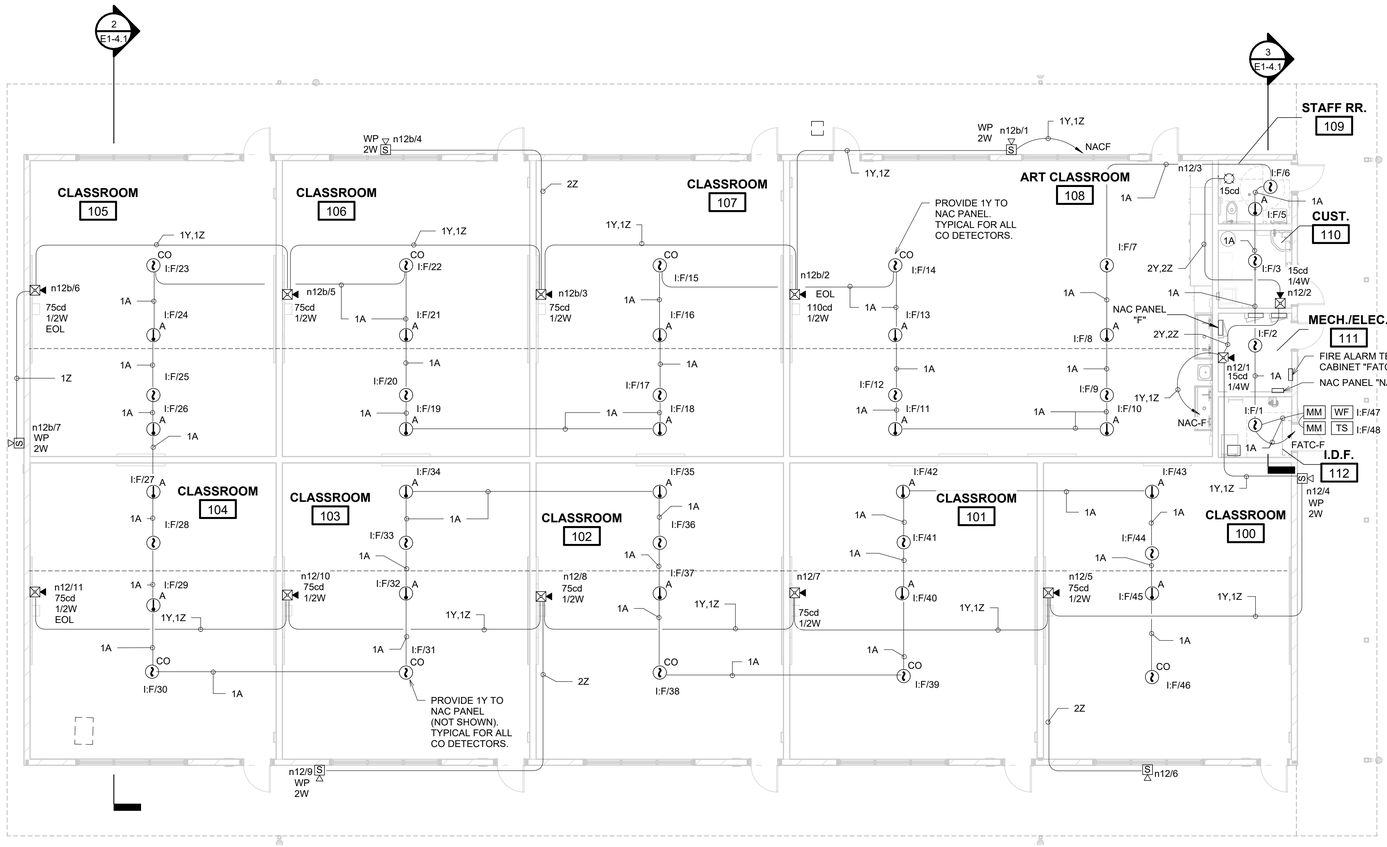
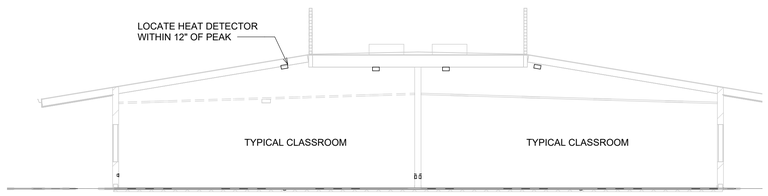


1 FIRE ALARM FLOOR PLAN - BUILDING 'F'

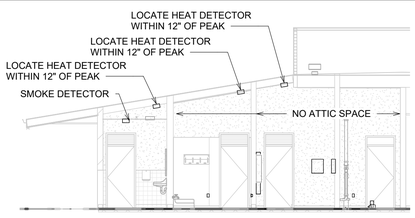
SCALE: 1/8" = 1'-0"

NORTH



2 Section 1

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



3 Section 2

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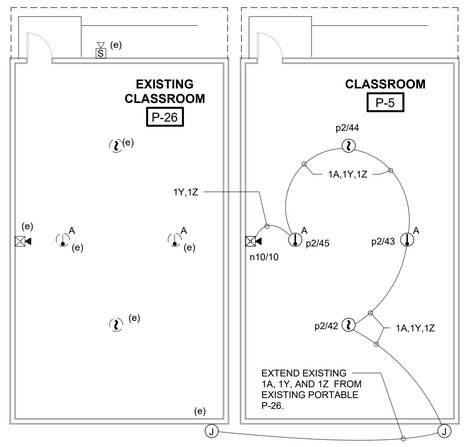

4 PORTABLE P5 FIRE ALARM

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

KEYNOTES

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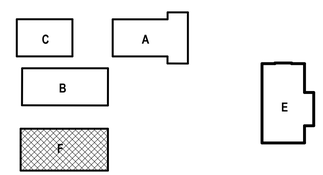

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BUILDING F - FIRE ALARM PLAN

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E1-4.1

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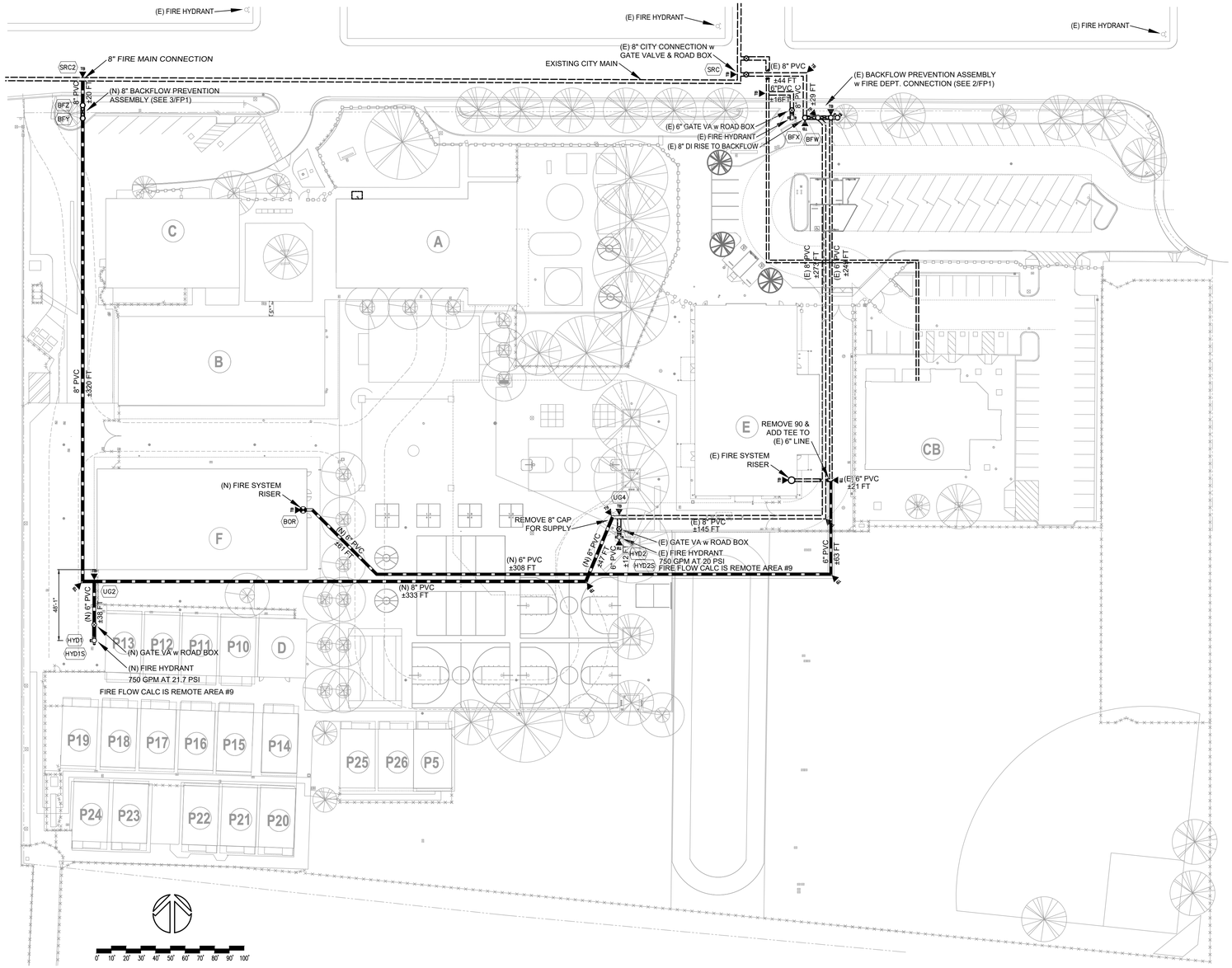


DESIGN CRITERIA

AUTHORITY HAVING JURISDICTION:	DSA
STANDARD:	NFPA 13 (2022 EDITION WITH CFC AMENDMENTS) NFPA 24 (2022 EDITION WITH CFC AMENDMENTS) CALIFORNIA BUILDING CODE (CBC) 2022
OCCUPANCY GROUP:	E
CONSTRUCTION TYPE:	V-B
BUILDING SQ. FT.:	4,680 SQ. FT.
SPRINKLER SYSTEM TYPE:	WET
FACILITY USAGE:	ELEMENTARY SCHOOL
SCOPE OF WORK:	A NEW FIRE PUMP AND REDESIGNED FIRE SPRINKLER SYSTEM AS GENERALLY DELINEATED ON THE DRAWINGS. SYSTEMS SHALL COMPLY WITH NFPA 13 & 20.
SPRINKLER OCCUPANCY CLASSIFICATION:	LIGHT HAZARD, ORD. GROUP 1 & HIGH PILLED STORAGE
REMOTE AREAS:	ORDINARY GROUP 1 = 0.15 GPM/1500 SQ. FT.
HOSE ALLOWANCE:	LIGHT HAZARD = 100 GPM
WATER FLOW INFORMATION:	56 PSI STATIC, 46 PSI RESIDUAL @ 949 GPM FLOW (FIRE SLOW IS LESS THAN THE REQ. 1,500 GPM AT 20 PSI)

NOTE : 810 FORM APPROVED BY LOCAL FIRE MARSHALL

OVERHEAD INSTALLATION NOTES

1. ALL MATERIALS AND METHODS SHALL CONFORM TO THE REQUIREMENTS OF NFPA 13 (2022 EDITION WITH CFC AMENDMENTS) AND THE AUTHORITY HAVING JURISDICTION.
2. ALL MATERIALS SHALL BE NEW, UL LISTED AND/OR NFPA APPROVED.
3. THE SYSTEM HAS BEEN HYDRAULICALLY CALCULATED PER THE DESIGN CRITERIA ABOVE; SEE ATTACHED HYDRAULIC CALCULATION SUBMITTAL FOR DETAILS. A PLACARD INDICATION THE HYDRAULIC DESIGN CRITERIA SHALL BE INSTALLED ON THE RISER.
4. ALL OVERHEAD PIPING 1-1/4" AND LARGER SHALL BE SCHEDULE 10 BLACK PIPE WITH SHOP WELDED OUTLETS WELDED BY CERTIFIED WELDERS.
5. ALL OVERHEAD PIPING 1" AND SMALLER SHALL BE SCHEDULE 40 BLACK PIPE. WHERE SHOP WELDED OUTLETS ARE REQUIRED, THEY SHALL BE WELDED BY CERTIFIED WELDERS.
6. CROSS AND FEED MAIN PIPE FITTINGS SHALL BE DUCTILE IRON GROOVED WITH STANDARD GASKETS.
7. BRANCH LINE PIPE FITTINGS SHALL BE DUCTILE IRON GROOVED WITH STANDARD GASKETS OR CAST IRON 125# THREADED.
8. ALL PIPING SHALL BE HYDROSTATICALLY TESTED PER NFPA 13 (2022) 29.2.1. A 24 HOUR NOTIFICATION IS REQUIRED PRIOR TO TEST.
9. SPARE SPRINKLER HEADS AND WRENCH(S) SHALL BE PROVIDED PER NFPA 13 (2022) 16.2.7 AND BE LOCATED IN A SPRINKLER HEAD CABINET.
10. ALARM BELL IS EXISTING AND PROPER FUNCTION SHALL BE VERIFIED.
11. THE SYSTEM ALARMS SHALL BE PROVIDED WITH 24-HOUR MONITORING PER CALIFORNIA FIRE CODE (2022) 903.4.
12. ALL STORAGE SHALL HAVE 1'-6" CLEAR ABOVE, PER NFPA 13.
13. PROTECTION AGAINST FREEZING OF ALL EXPOSED PIPING, SPRINKLERS AND VALVES SHALL BE PER NFPA 13 (2022) 16.4.1.
14. WHEN REQUIRED BY THE LOCAL JURISDICTION, THE FIRE SPRINKLER CONTRACTOR SHALL SCHEDULE A WELD INSPECTION.

UNDERGROUND INSTALLATION NOTES

1) ALL MATERIALS AND METHODS SHALL CONFORM TO THE REQUIREMENTS OF NFPA 13 (2022) & 24 (2022) AND THE AUTHORITY HAVING JURISDICTION.
2) ALL MATERIALS TO BE NEW, UL LISTED AND/OR NFPA APPROVED.
3) THRUST BLOCKING SHALL BE PLACED AND FORMED PER NFPA 13 SEC. 10.6.1.
4) U/G PIPING TO BE PVC, C-900, CLASS 305, DR14 OR DUCTILE IRON CLASS 52.
5) ALL UNDERGROUND PIPE IN VERTICAL POSITION TO BE DUCTILE IRON.
6) U/G FITTINGS TO BE DUCTILE IRON, CLASS 350 W/MECHANICAL JOINTS.
7) PIPING SHALL HAVE A MINIMUM BURY OF 36 INCHES BELOW GRADE.
8) U/G PIPE TO BE FLUSHED PER NFPA 13, SEC. 10.10.2.1.
9) U/G PIPING TO BE HYDROSTATICALLY TESTED AT 200 PSI FOR TWO HOURS PER NFPA 13, SEC. 10.10.2.2. PIPE TO BE CENTER LOADED FOR TESTING.
10) VERIFY LOCATION OF ALL EXISTING UTILITIES BEFORE PROCEEDING WITH INSTALLATION.

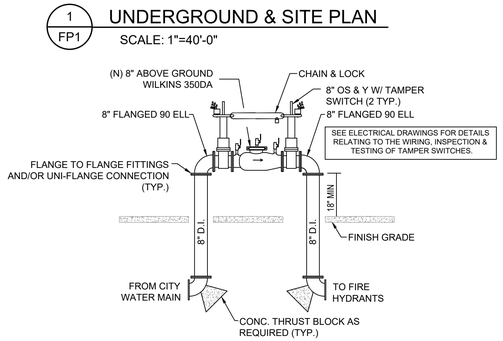
SHEET INDEX

SHEET NO.	DESCRIPTION
FP1	FIRE PROTECTION - SITE PLAN & PROJECT INFORMATION
FP2	FIRE PROTECTION - BUILDING 'F' - OVERHEAD PIPING PLAN
FP3	FIRE PROTECTION - BUILDING 'F' - REFLECTED CEILING PLAN
FP4	FIRE PROTECTION - BUILDING 'F' SECTION & DETAILS

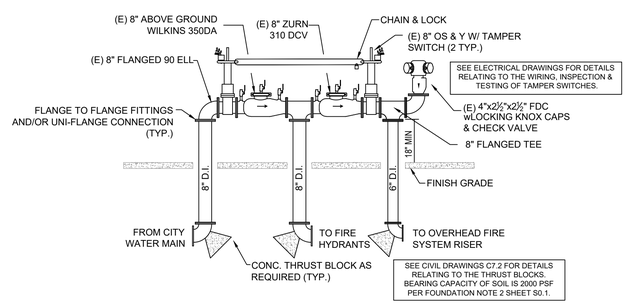
GENERAL NOTES

1. DETAILS AND DIMENSIONS OF CONSTRUCTION SHALL BE VERIFIED AT THE SITE BY THE CONTRACTOR. MINOR MODIFICATIONS TO THE DESIGN SHOWN, WILL BE REQUIRED DUE TO FILED CONDITIONS. ANY CHANGES MADE SHALL IN NO WAY EFFECT THE SPECIFIED PERFORMANCE ON THE SPRINKLER SYSTEM. MAJOR DEVIATIONS FROM THE ORIGINAL DESIGN MUST BE APPROVED IN WRITING PRIOR TO CONSTRUCTION. UNAUTHORIZED CHANGES TO THESE DRAWINGS ARE NOT THE RESPONSIBILITY OF NEXUS ENGINEERING.
2. OWNERSHIP OF DOCUMENTS: THESE DOCUMENTS, AND IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF NEXUS ENGINEERING AND ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF NEXUS ENGINEERING.
3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF LOCAL, COUNTY, STATE OR FEDERAL AGENCIES HAVING JURISDICTION. NEXUS ENGINEERING ASSUMES NO RESPONSIBILITY FOR SUPERVISION OF CONSTRUCTION OR PROPER EXECUTION OF THE WORK SHOWN ON THESE DRAWINGS. SAFETY METHODS AND TECHNIQUES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

1 / FP1 — UNDERGROUND & SITE PLAN
SCALE: 1"=40'-0"

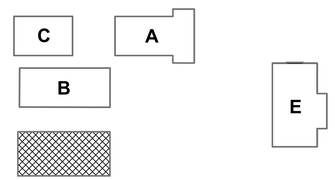


3 / FP1 — BACKFLOW PREVENTION ASSEMBLY DETAIL
SCALE: N.T.S.



2 / FP1 — EXISTING BACKFLOW PREVENTION ASSEMBLY DETAIL
SCALE: N.T.S.

SEE CIVIL DRAWINGS C7.2 FOR DETAILS RELATING TO THE THRUST BLOCKS. BEARING CAPACITY OF SOIL IS 2000 PSF PER FOUNDATION NOTE 2 SHEET S0.1.



CAMPUS KEY PLAN

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DATE: 07/15/26

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Consultants

VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING -'F'

1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

FIRE PROTECTION SITE PLAN & PROJECT INFORMATION

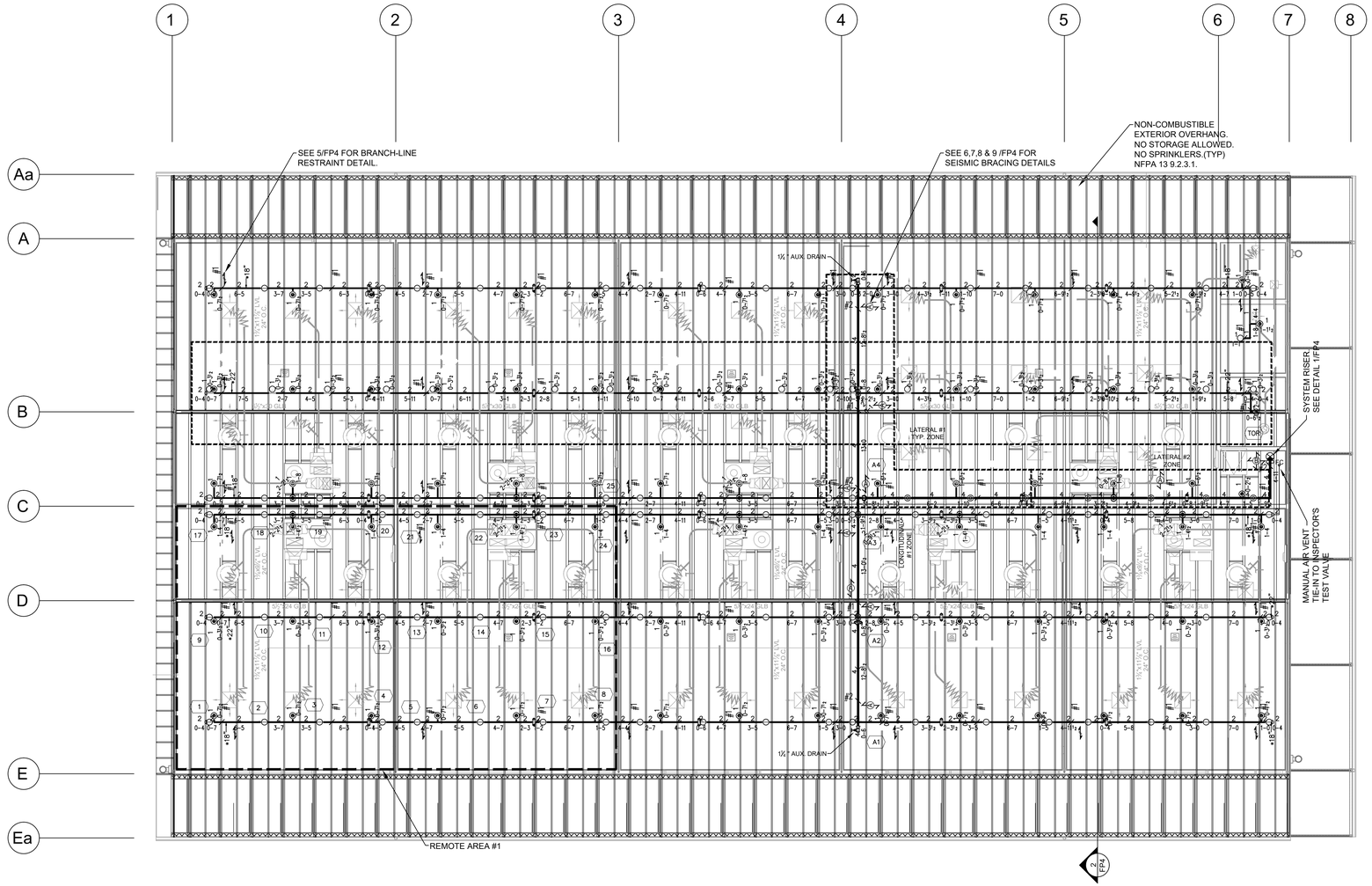
Project Number	2144
Date	7/02/2026
Drawn by	SH
Checked by	AL

FP1

Plot Date & Time

FIRE SPRINKLER SYMBOLS LEGEND

DESCRIPTION	ABBREVIATION	SYMBOL
AUTOMATIC SPRINKLER RISER	ASR	
2-WAY SEISMIC BRACING	--	
4-WAY SEISMIC BRACING	--	
2-WAY BRANCH LINE RESTRAINT	--	
SPRINKLER WITH HEAD GUARD	--	
PIPE HANGER	--	
HYDRAULIC REFERENCE POINT	--	
FLEXIBLE GROOVED COUPLING	FC	
RIGID GROOVED COUPLING	--	
FIRE DEPARTMENT CONNECTION	FDC	
FIRE HYDRANT	FH	
GATE VALVE	GV	
POST INDICATING VALVE	PIV	
CHECK VALVE	CV	
FIRE SYSTEM RISER	--	
REVISION NOTATION	--	
BACKFLOW ASSEMBLY	BFP	
THRUST BLOCK	TB	
THREADED PLUG	--	
THREADED OR GROOVED CAP	--	
ELEVATION BELOW DECK	--	
LOCAL ALARM BELL	--	
CHANGE IN PIPE ELEVATION	--	
INSPECTORS TEST	--	
AUX DRAIN	--	
PENDANT SPRINKLER HEAD	--	
UPRIGHT SPRINKLER HEAD	--	
SIDEWALL SPRINKLER HEAD	--	
STANDARD RESPONSE	SR	--
QUICK RESPONSE	QR	--
EXISTING	(E)	--
NEW	(N)	--
RELOCATE	(R)	--
POINT OF CONNECTION	POC	--
UNDERGROUND PIPE	UG	
MAIN (OVERHEAD)	MN	
BRANCH LINE (OVERHEAD)	BL	
ARM OVER (OVERHEAD)	AO	
--	--	--

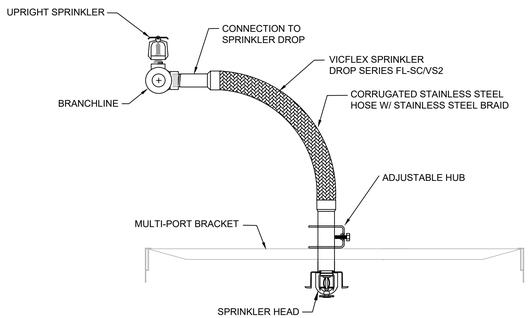


OVERHEAD PIPING PLAN

1/FP2

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

SEE FP4 FOR HANGING & BRACING DETAILS



ALTERNATE ARMOVER DETAIL

2/FP2

SCALE: N.T.S.

HYDRAULIC DESIGN INFORMATION

FILENAME:	25363FS
LOCATION:	REMOTE AREA #1
# OF HEADS:	25
DENSITY:	0.10 GPM/SQ. FT.
REMOTE AREA:	1950
GPM REQUIRED AT BOR:	402 GPM
PSI REQUIRED AT BOR:	27.3 PSI
OUTSIDE HOSE STREAMS:	100 GPM
PSI REQUIRED AT SRC:	38.2 PSI
52.9 PSI AVAILABLE:	14.7 PSI SAFETY - 28%
CLASS ROOMS, OFFICES DATA EQUIPMENT:	LIGHT HAZARD
CUSTODIAN, ELECTRICAL AND MECHANICAL:	ORDINARY HAZARD GP 1

SEE REFLECTED CEILING PLAN FOR ROOM NAMES / USE. SEE FP1 FOR NFPA 13 OCCUPANCY HAZARD CLASSIFICATIONS.

SPRINKLER LEGEND

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	NOTES
◉	91	QR PENDENT	WHITE	155°	5.6	1/2"	TY323	TYCO	TY-FRB	-
○	114	QR UPRIGHT	BRASS	200°	5.6	1/2"	TY313	TYCO	TY-FRB	-
◎	7	QR SPRIG-UP	BRASS	200°	5.6	1/2"	TY313	TYCO	TY-FRB	-

SEISMIC RESTRAINT & HANGER NOTES

SEISMIC COEFFICIENT FOR SEISMIC BRACING (Cp) IS 0.78 PER TIA 22-8. (WHICH IS MORE STRINGENT THAN WHAT THE STRUCTURAL ENGINEER FOR THIS PROJECT IS REQUIRING.)

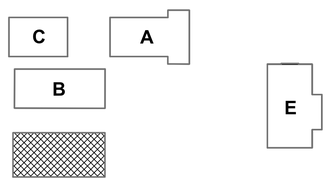
MAXIMUM DISTANCE BETWEEN HANGERS IS PER TABLE 17.4.2.1: 1" & 1-1/4" 12'-0" O.C., 1-1/2" AND LARGER 15'-0" O.C.

RESTRAINTS SHALL BE INSTALLED AT 45° FROM VERTICAL WITHIN 6" OF PIPE HANGER WITH TOLCO FIGURE 25 PER SPACING BELOW. NFPA 13 18.6.1(5)

MAXIMUM DISTANCE BETWEEN BRANCH LINE RESTRAINTS IF HANGER RODS ARE OVER 6" LONG IS PER TABLE 18.6.4: STEEL PIPE: 1" = 20'-0" O.C., 1-1/4" = 22'-0" O.C., 1-1/2" = 24'-0" O.C., 2" = 27'-0" O.C. NFPA 13 18.6.4

THE LOCATION OF THE RESTRAINT FROM THE END OF THE LINE SHALL NOT BE GREATER THAN 36" FOR 1" PIPE, 48" FOR 1-1/4" PIPE AND 60" FOR 1-1/2" AND LARGER PIPE. NFPA 13 18.6.3.1

DROPS AND ARM-OVERS SHALL NOT REQUIRE RESTRAINT. NFPA 13 18.6.7



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TPH architects

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VON RENNER ELEMENTARY SCHOOL: CLASSROOM BUILDING -'F'

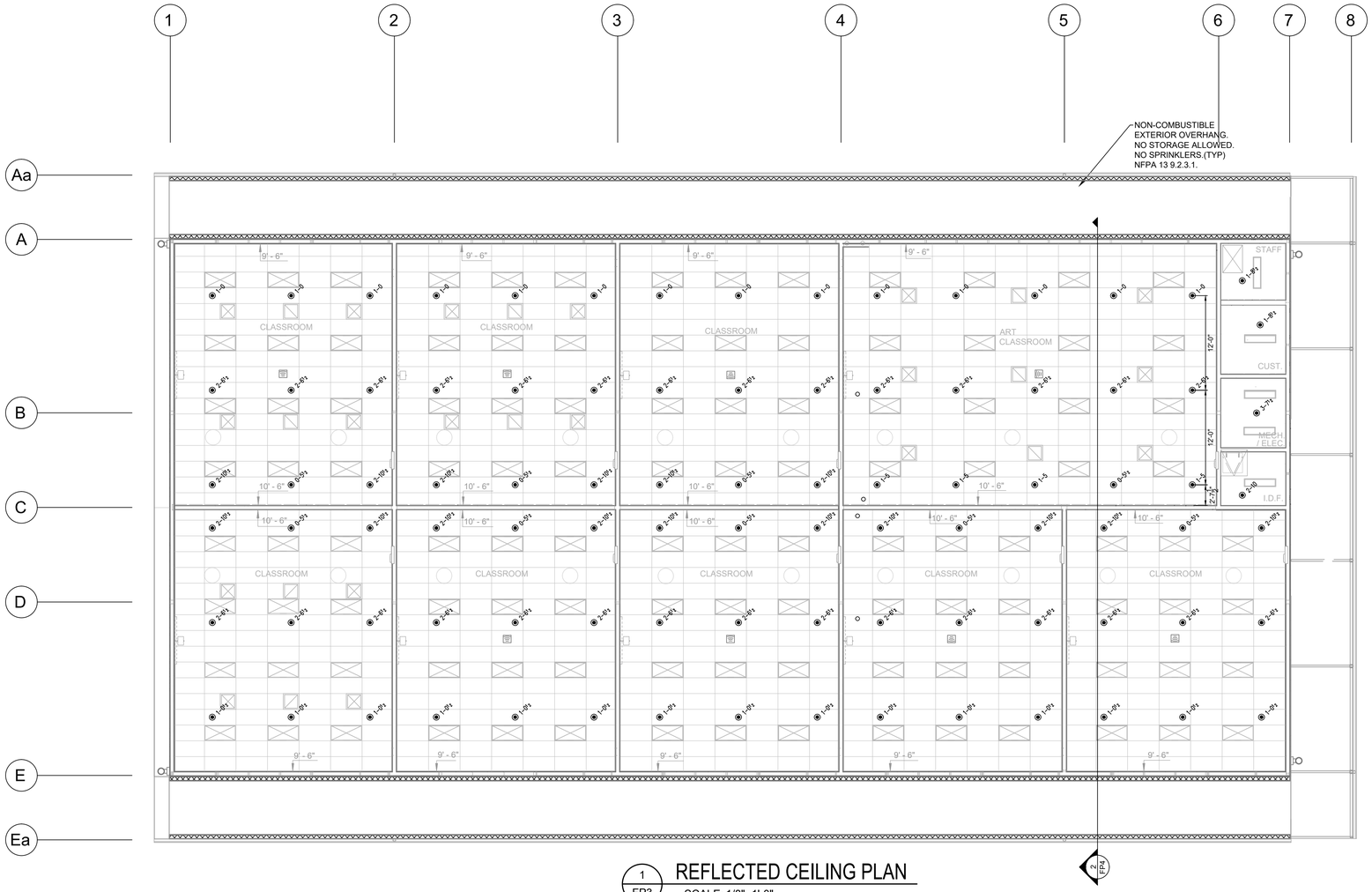
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

BUILDING 'F' - OVERHEAD PIPING PLAN

Project Number	2144
Date	7/02/2026
Drawn by	SH
Checked by	AL

FP2

Plot Date & Time



1 FP3 REFLECTED CEILING PLAN

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

HYDRAULIC DESIGN INFORMATION	
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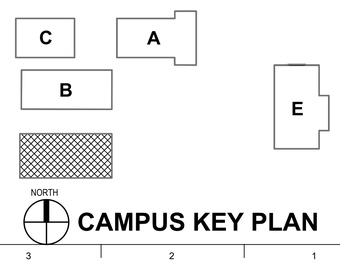
○	114	QR UPRIGHT	BRASS	200°	5.6	1/2"	TY313	TYCO	TY-FRB	-
◎	7	QR SPRIG-UP	BRASS	200°	5.6	1/2"	TY313	TYCO	TY-FRB	-



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VON RENNER ELEMENTARY SCHOOL:
CLASSROOM BUILDING -'F'

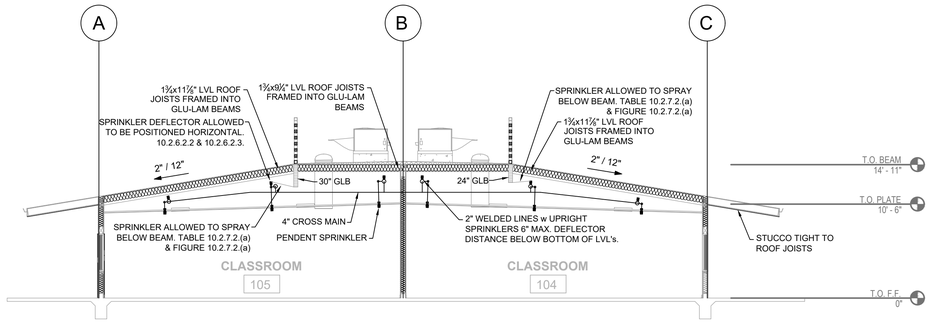
1388 PATCHETT DRIVE
NEWMAN, CA 95360
NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

BUILDING 'F' - REFLECTED CEILING PLAN

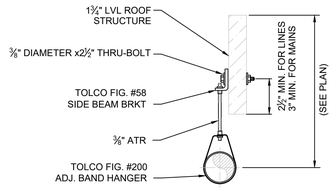
Project Number	2144
Date	7/02/2026
Drawn by	SH
Checked by	AL

FP3

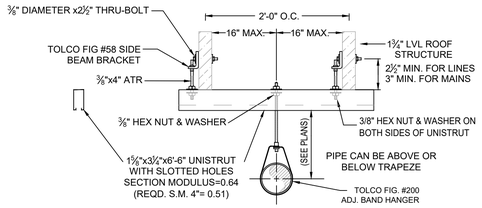
Plot Date & Time



2 FP4 BUILDING SECTION
SCALE: N.T.S.

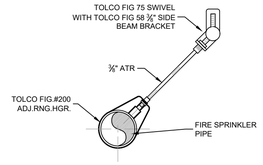


3 FP4 HANGER DETAIL #1
SCALE: NONE



4 FP4 HANGER DETAIL #2
SCALE: N.T.S.

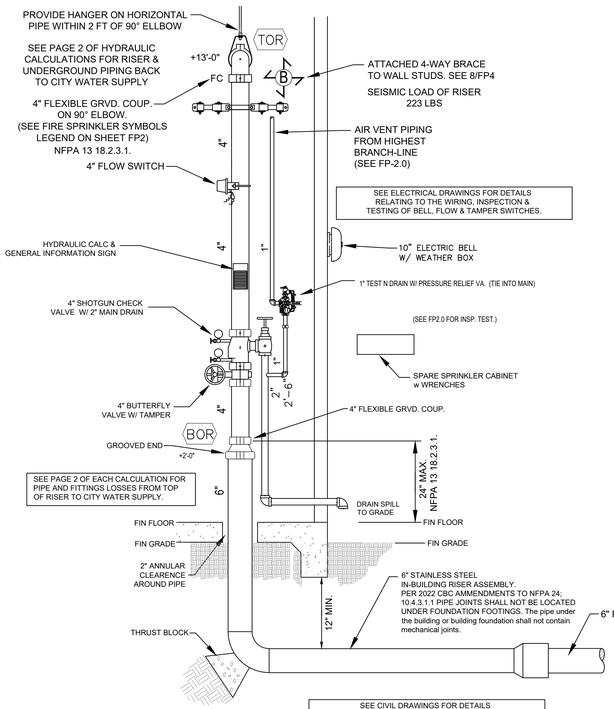
NOTE: BRANCHLINE RESTRAINT IS NOT REQUIRED WHERE HANGER RODS ARE LESS THAN 6" LONG MEASURED FROM TOP OF PIPE TO ATTACHMENT POINT TO BUILDING STRUCTURE. (9.3.6.5) DROPS & ARMOVERS DO NOT REQUIRE RESTRAINT (9.3.6.7)



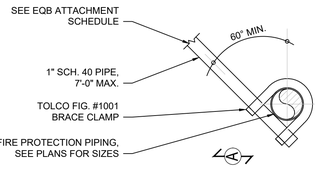
ADDITIONAL HANGER INSTALLED AT 45° FROM VERTICAL, LOCATED WITHIN 6" OF VERTICAL HANGER AT THE END OF THE BRANCHLINES WITH A TOLCO FIG. 25 TO RESIST LATERAL MOVEMENT.

5 FP4 BRANCHLINE RESTRAINT
SCALE: N.T.S.

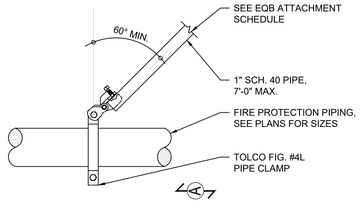
(SEE SEISMIC BRACING DETAILS THIS SHEET AND SEISMIC CALCULATIONS IN HYDRAULIC CALCULATIONS PACKAGE)



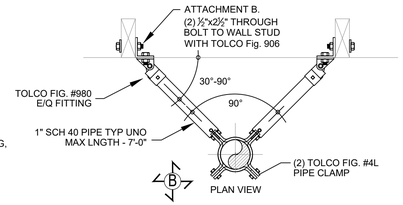
1 FP4 FIRE SYSTEM RISER DETAIL
SCALE: N.T.S.



6 FP4 LATERAL BRACING
SCALE: NONE

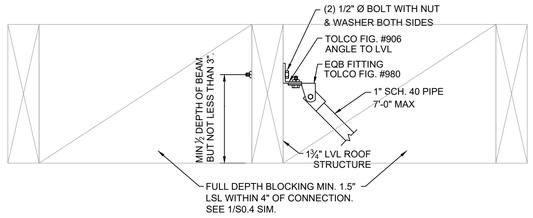


7 FP4 LONGITUDINAL BRACING
SCALE: NONE

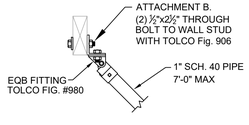


NOTE: TO BE LOCATED WITHIN 24" OF TOP OF RISER

8 FP4 4-WAY BRACING
SCALE: NONE



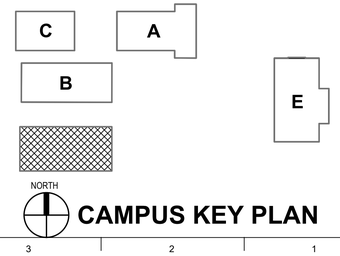
ATTACHMENT A



ATTACHMENT B

EQB ATTACHMENT SCHEDULE				
TYPE	HARDWARE	SIZE	LENGTH	STRUCTURE
A	THRU-BOLT OR ATR	(2) 1/2"	VARIES	1¾" LVL
B	THRU-BOLT OR ATR	(2) 1/2"	VARIES	2x6 DF WALL STUD

9 FP4 EQB ATTACHMENT SCHEDULE
SCALE: NONE



CAMPUS KEY PLAN

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Consultants

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NEWMAN-CROWS LANDING UNIFIED SCHOOL DISTRICT

BUILDING 'F' - BUILDING SECTION & DETAILS

Project Number	2144
Date	7/02/2026
Drawn by	SH
Checked by	AL

FP4

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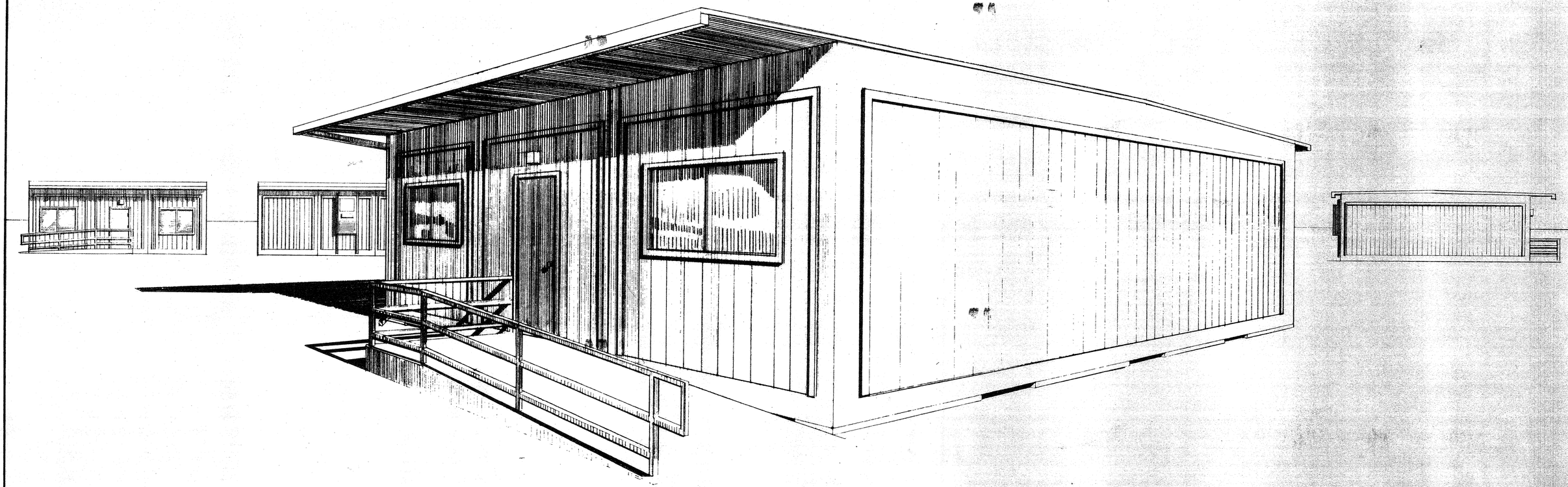
DATE: 07/15/26

VON RENNER ELEMENTARY SCHOOL

RELOCATION OF EXISTING RELOCATABLE BUILDINGS
24x40 CLASSROOM BUILDING



STATE OF CALIFORNIA
Department of General Services
FEB 19 1980
Office of the State Architect
Structural Safety Section

REVISIONS	DATE	STATE FIRE MARSHAL	OFFICE OF THE STATE ARCHITECT	ENGINEER
		APPROVED FIRE AND PANIC ONLY	OFFICE OF THE STATE ARCHITECT STRUCTURAL SAFETY SECTION 42500 OCT 12 '79	ARCHITECT

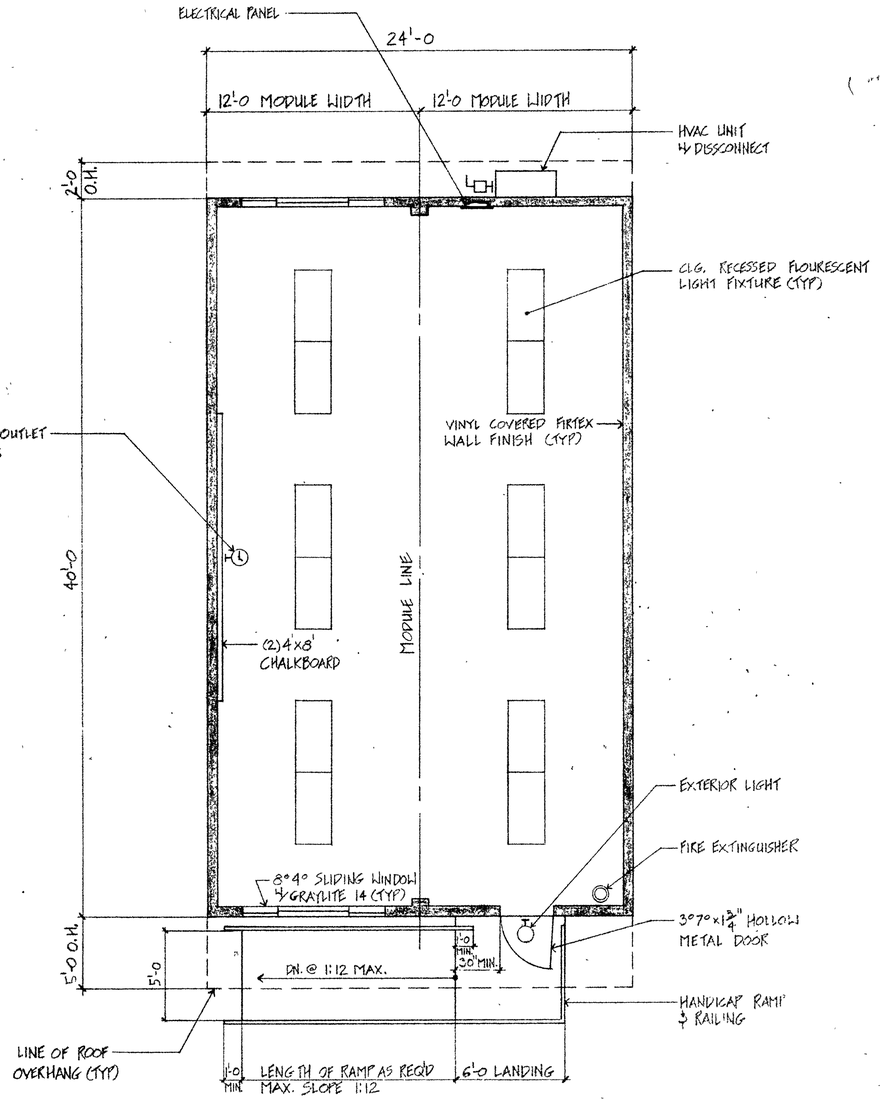
RELOCATABLE CLASSROOM FOR

HUGHSON SCHOOL DISTRICT

STEELGARD, INC.
1273 INDUSTRIAL PARKWAY WEST
HAYWARD CALIFORNIA
415-886-5566 94544

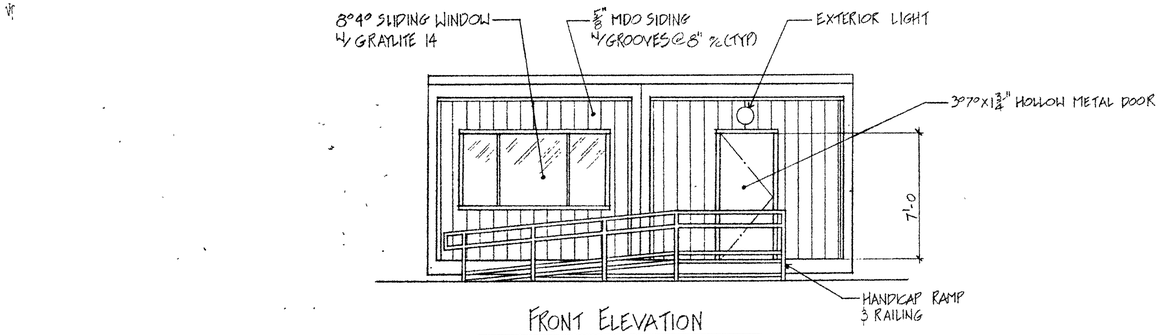
DRAWN
DATE
CHECKED
APPROVED
DATE

A-1



FLOOR PLAN

SCALE: 1/4"=1'-0

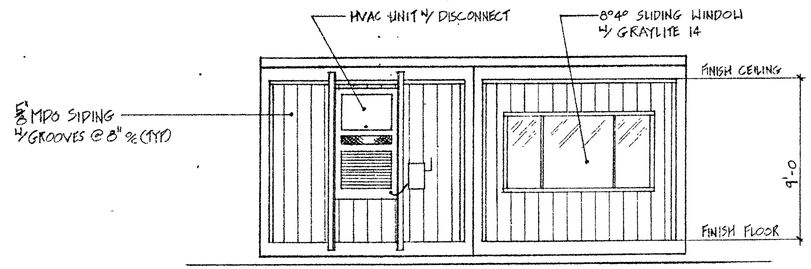


FRONT ELEVATION

SCALE: 1/4"=1'-0

SIDE ELEVATION

SCALE: 1/4"=1'-0



REAR ELEVATION

SCALE: 1/4"=1'-0

NOTE:
EACH MODULE SHALL HAVE PERMANENTLY ATTACHED TO EXTERIOR END, A TAG GIVING O.S.A. APPL.# AND MANUFACTURER'S NAME AND SERIAL #.

STATE OF CALIFORNIA
Department of General Services
MAY - 5 1986
Office of the State Architect
Structural Safety

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

31

REVISIONS	DATE	STATE FIRE MARSHAL	OFFICE OF THE STATE ARCHITECT	ARCHITECT / ENGINEER

RELOCATABLE CLASSROOMS
AT
VARIOUS SITES
FOR
STANISLAUS COUNTY DEPT OF EDUCATION
Yolo & Van Ramm

STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

DRAWN Dave
DATE 7-23-86
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APPROVED
PROJECT A-6009

A-2

J.G. PRODUCTS 1/84

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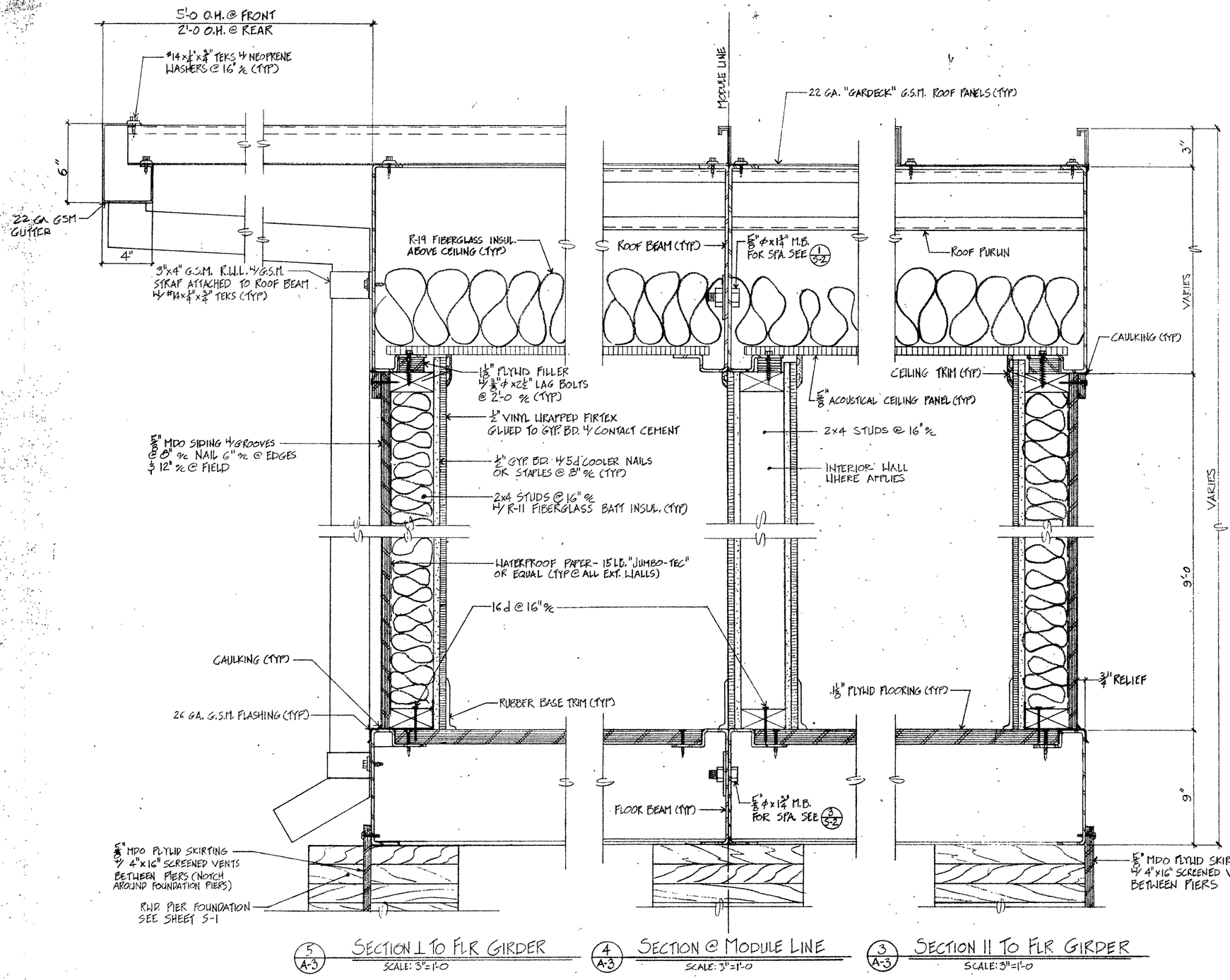
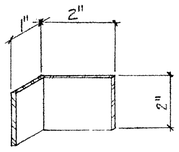


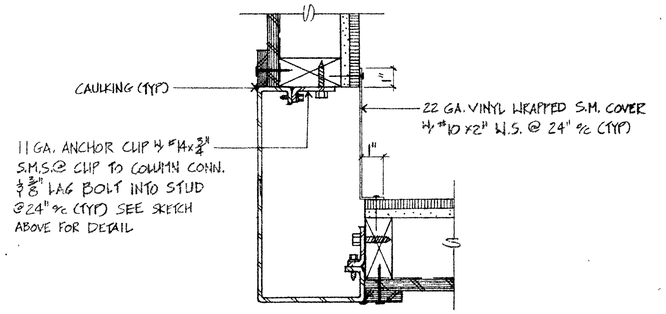
5/A-3 SECTION ⊥ TO FLR GIRDER
SCALE: 3"=1'-0

4/A-3 SECTION @ MODULE LINE
SCALE: 3"=1'-0

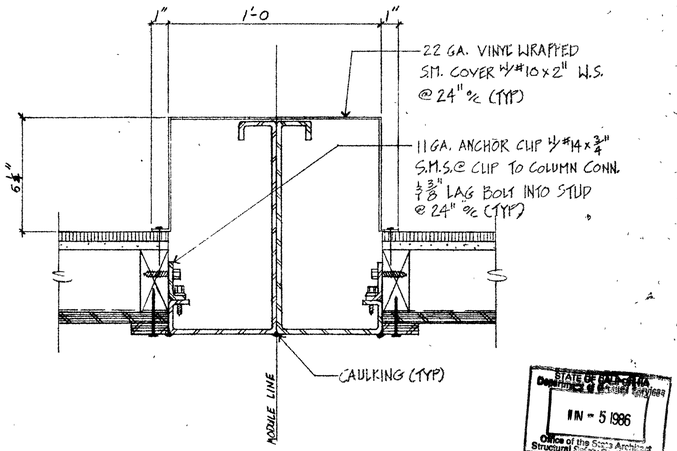
3/A-3 SECTION ∥ TO FLR GIRDER
SCALE: 3"=1'-0



11 GA. ANCHOR CLIP
NOT TO SCALE



1/A-3 PLAN SECTION @ CORNER COLUMN



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2/A-3 PLAN SECTION @ MODULE LINE COLUMN
SCALE: 3"=1'-0

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			A7475		

RELOCATABLE CLASSROOMS
AT
VARIOUS SITES
FOR
STANISLAUS COUNTY DEPT. OF EDUCATION
Yolo & Vim Rmm

STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

DRAWN DWK
DATE 3-27-86
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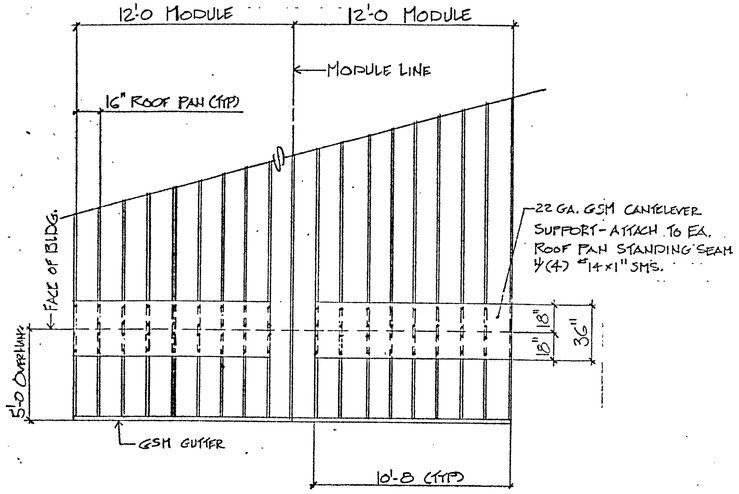
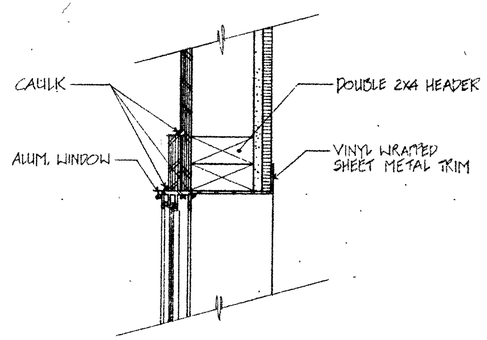
APPROVED
PROJECT A6-009

A-3

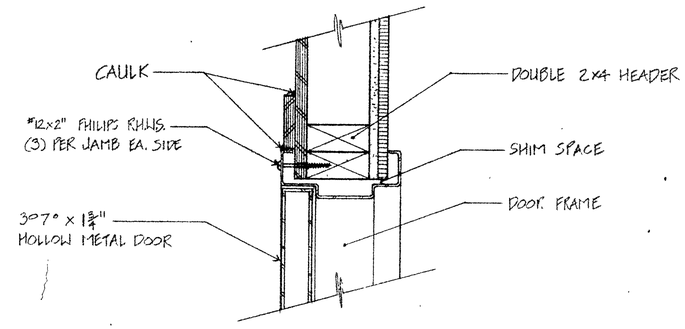
3 M PRODUCTS NIH



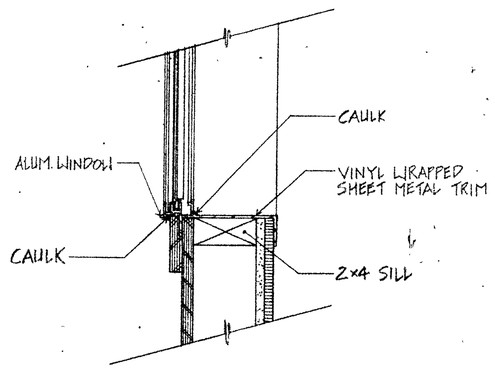
5 / A-4 ROOF PLAN @ CANTELEVER
SCALE: 1/4"=1'-0



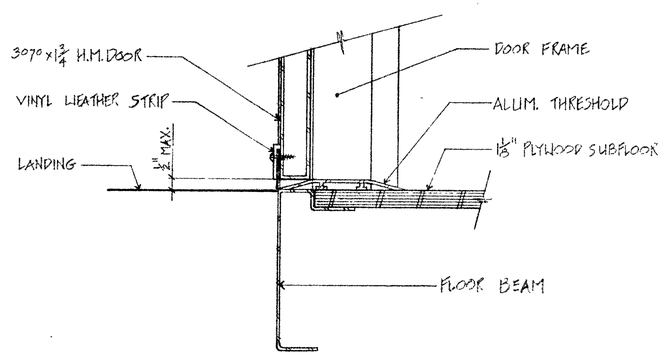
1 / A-4 WINDOW HEAD
SCALE: 3"=1'-0



2 / A-4 DOOR HEAD
SCALE: 3"=1'-0



3 / A-4 WINDOW SILL
SCALE: 3"=1'-0



4 / A-4 DOOR SILL
SCALE: 3"=1'-0

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STATE OF CALIFORNIA
Department of General Services
IN - 5 1986
Office of the State Architect
Structural Safety Section

REVISIONS	DATE	STATE FIRE MARSHAL	OFFICE OF THE STATE ARCHITECT	ARCHITECT / ENGINEER	

RELOCATABLE CLASSROOMS
AT
VARIOUS SITES
FOR
STANISLAUS COUNTY DEPT OF EDUCATION
Yolo & Vm Runnion

STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

DRAWN Shaw
DATE 7-10-84
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PROJECT A6-009

A-4

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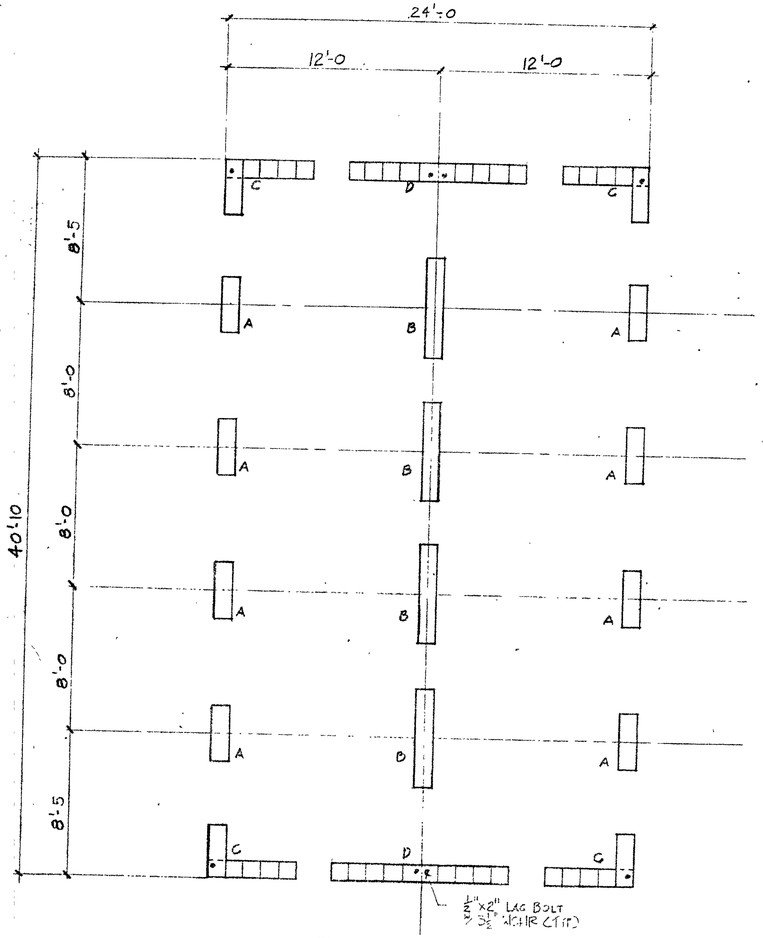
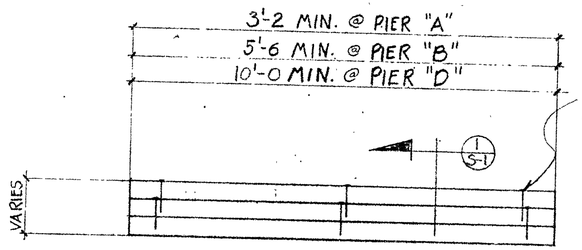
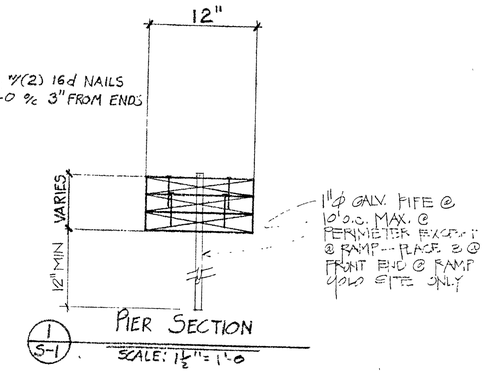


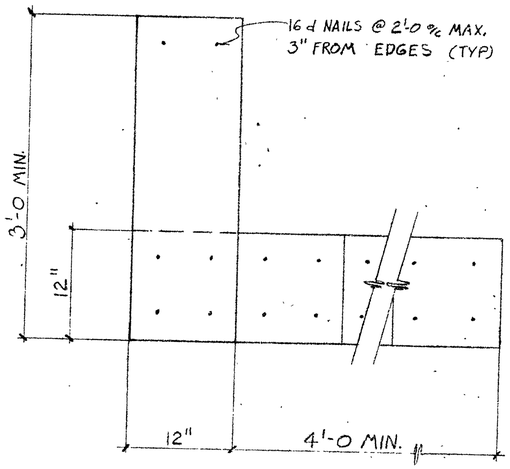
FOUNDATION PLAN
SCALE: 1/4"=1'-0

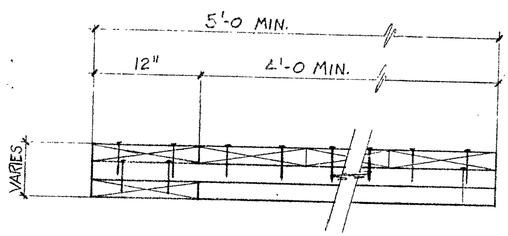


PIER ELEVATION @ "A","B" & "D"
NO SCALE



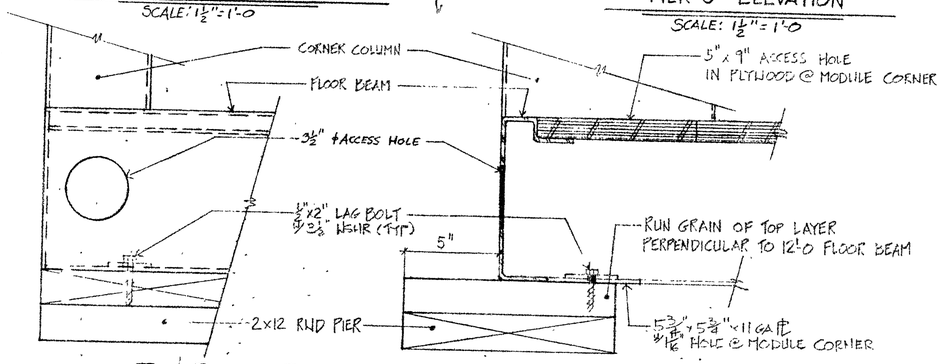
PIER SECTION
SCALE: 1½"=1'-0





PIER "C" PLAN VIEW
SCALE: 1½"=1'-0

PIER "C" ELEVATION
SCALE: 1½"=1'-0



TIE DOWN DETAIL @ 12' FLR. BEAM.
SCALE: 3"=1'-0

GENERAL NOTES

1. ALL PIERS SHALL BE FOUNDATION GRADE REDWOOD
2. SHIM AS REQUIERED WITH REDWOOD
3. ASSUMED SOIL PRESSURE @ 1,000 P.S.F.

STATE OF CALIFORNIA
Department of General Services
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Office of the State Architect
Structural Safety Section

REVISIONS	DATE	STATE FIRE MARSHAL	OFFICE OF THE STATE ARCHITECT	ARCHITECT / ENGINEER

RELOCATABLE CLASSROOMS
AT
VARIOUS SITES
FOR
STANISLAUS COUNTY DEPT. OF EDUCATION
Yolo & Van Rummen

STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

DRAWN
DATE 5-21-86
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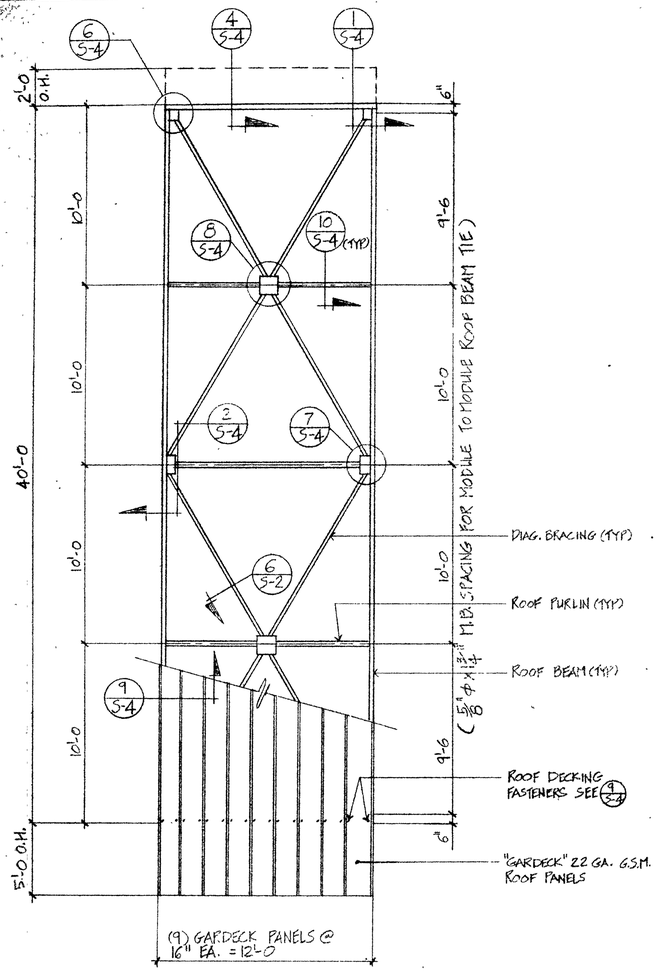
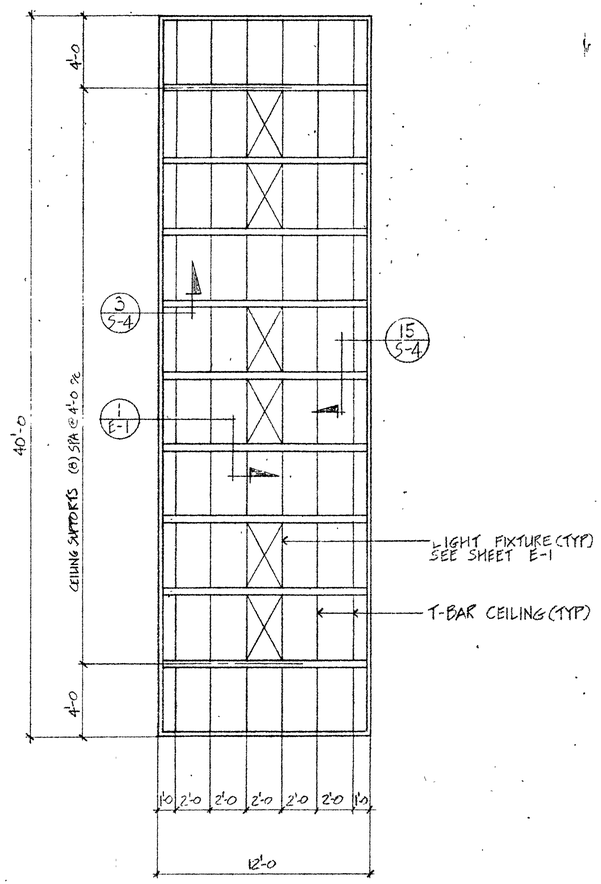
PROJECT AG-009

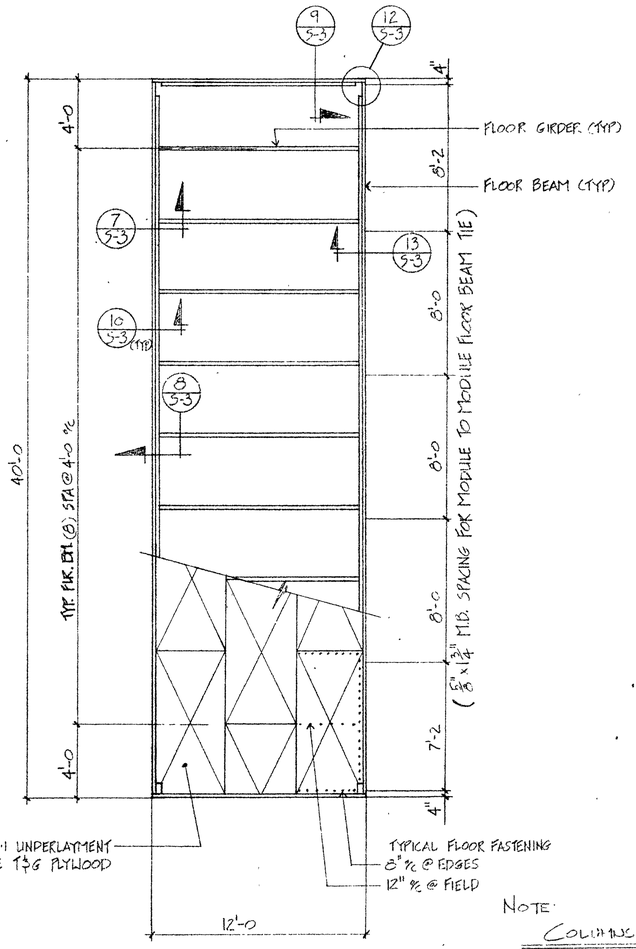
S-1



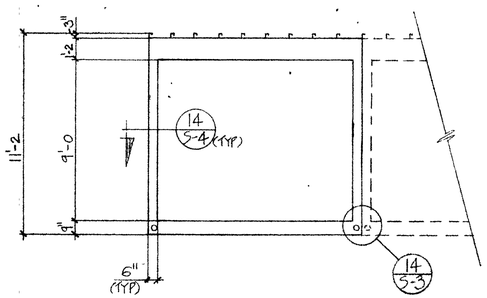
1/5-2 ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0



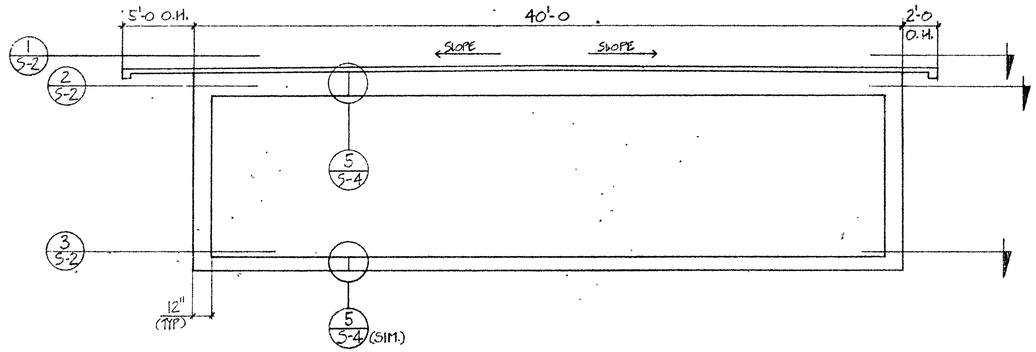
2/5-2 REFLECTED CEILING PLAN
SCALE 1/4" = 1'-0



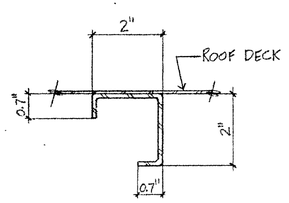
3/5-2 FLOOR FRAMING PLAN
SCALE 1/4" = 1'-0



4/5-2 STEEL FRAME ELEVATION @ 12'-0 WALL
SCALE: 1/4" = 1'-0



5/5-2 STEEL FRAME ELEVATION @ 40'-0 WALL
SCALE: 1/4" = 1'-0



6/5-2 11GA. DIAG. BRACING
SCALE: 6" = 1'-0

NOTE:
COLUMNS & ROOF BEAMS

10 Gauge Roof Beam :	Yield Strength	45,400 psi
	Tensile Strength	60,200 psi
	Elong. in 8"	27.0 percent
10 Gauge Column:	Yield Strength	53,400 psi
	Tensile Strength	70,300 psi
	Elong. in 8"	21.0 psi

FRAMING NOTES

GENERAL:

1. Light gage steel shall conform to ASTM A-570 grade 36 except columns ~~which shall conform to: ASTM A-570 grade 45.~~ & ROOF BEAMS, SEE NOTE ABOVE,
2. Bolts shall conform to : ASTM A-307.
3. Structural steel shall conform to : ASTM A-36.
4. 11 Ga. shall be .120" min. 10 Ga. = .1345" min. 22 Ga. = .0299 min.
5. Bend radius of 11 Ga. and 10 Ga. cold formed sections shall be a min. of 3/16".
6. All welding shall be inspected for requirements of the Title 21 and 24
7. All exposed welds on contact face of module line shall be ground flush with parent metal.

FLOOR:

1. Floor plywood shall be 2-4-1 group: 1 interior with exterior glue.
2. Fasteners - teks or equal #10 x 2" self-drilling self-tapping screws.

ROOF:

1. Preformed metal roof deck: "Gardeck" or equal 22 Ga. Galv. and shall conform to ASTM A-570 grade 36.
2. Fasteners #14 x 3/4" type A SMS. with neoprene washers.

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DIV. OF THE STATE ARCHITECT
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STATE OF CALIFORNIA
Department of General Services
JUN - 5 1986
Office of the State Architect
Structural Safety Section

REVISIONS	DATE

STATE FIRE MARSHAL

OFFICE OF THE STATE ARCHITECT

ARCHITECT

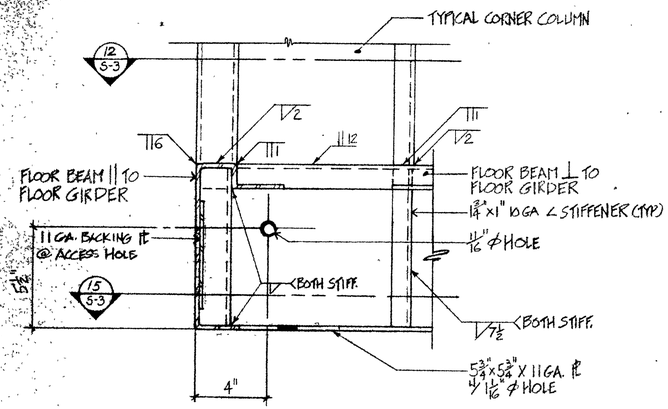
ENGINEER

RELOCATABLE CLASSROOMS AT VARIOUS SITES FOR STANISLAUS COUNTY DEPT. OF EDUCATION
Yoder & Van Pumm

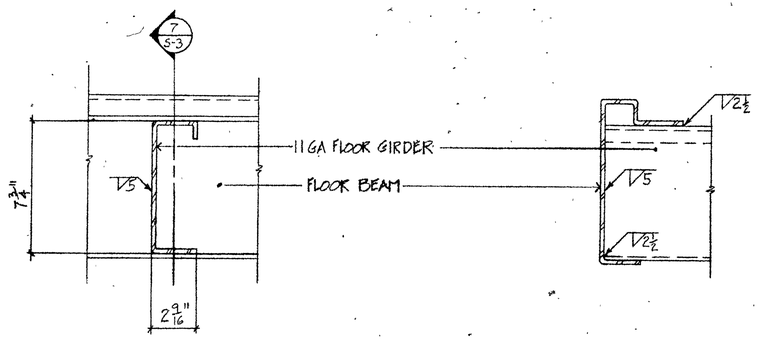
STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

DRAWN
DATE 10-14-84
CHECKED
APPROVED
PROJECT 86-009

S-2

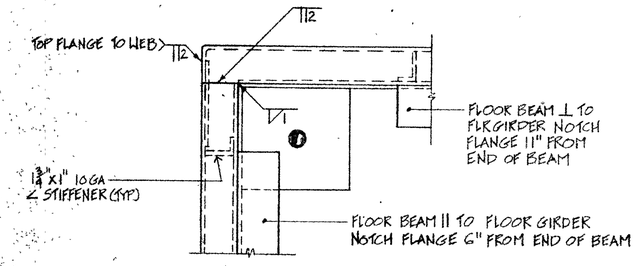


9/5-3 FLR. BM TO CORNER COLUMN CONN.
SCALE: 3"=1'-0

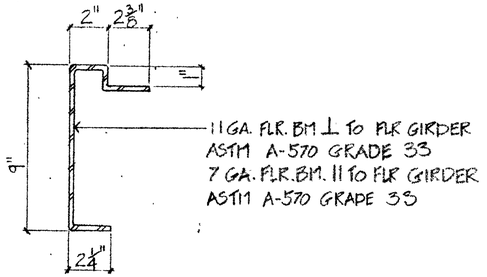


8/5-3 FLR GIRDER TO FLR BEAM CONN
SCALE: 3"=1'-0

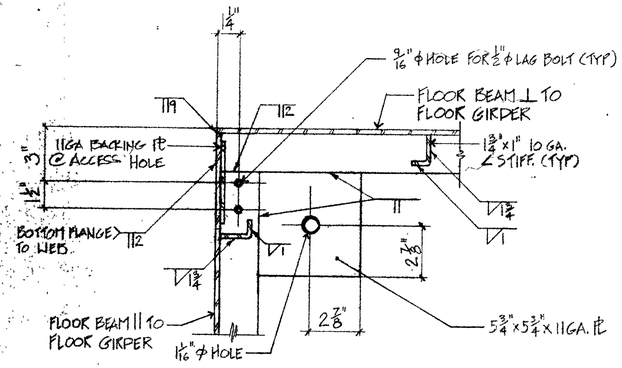
7/5-3 FLR GIRDER TO FLR BEAM CONN.
SCALE: 3"=1'-0



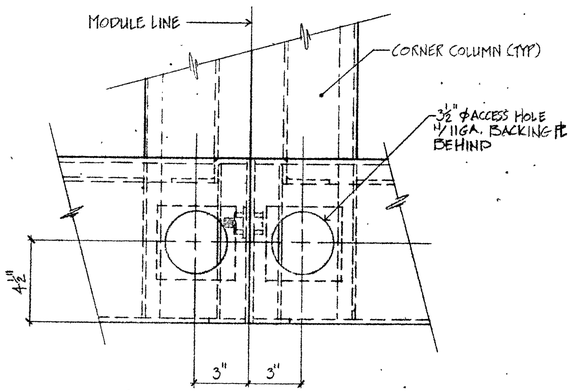
12/5-3 FLR BEAM TOP FLANGE
SCALE: 3"=1'-0



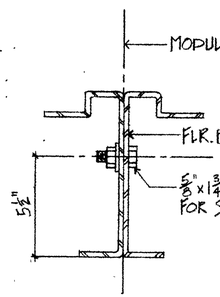
10/5-3 TYPICAL FLOOR BEAM
SCALE: 3"=1'-0



15/5-3 FLR BEAM BOTTOM FLANGE
SCALE: 3"=1'-0



14/5-3 FLOOR BM ELEV. @ MOD. LINE
SCALE: 3"=1'-0



13/5-3 FLOOR BM CONN. @ MOD. LINE
SCALE: 3"=1'-0

NOTE: ALL WELDS ⅛" UNLESS NOTED OTHERWISE

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STATE OF CALIFORNIA
Department of General Services
MAY - 5 1996
Office of the State Architect
Structural Safety Section

REVISIONS	DATE	STATE FIRE MARSHAL	OFFICE OF THE STATE ARCHITECT	ARCHITECT / ENGINEER
			27475	

RELOCATABLE CLASSROOMS
AT
VARIOUS SITES
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STANISLAUS COUNTY DEPT OF EDUCATION
Yost & Van Ramm

STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

DRAWN Anne
DATE 3-1-84
CHECKED
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PROJECT 86-009

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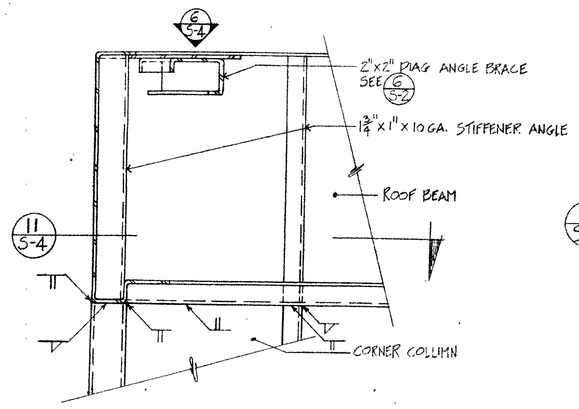
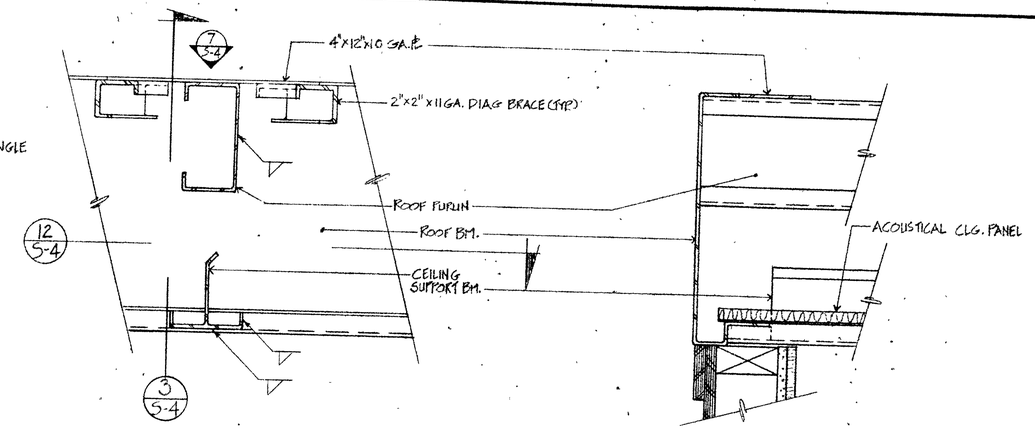
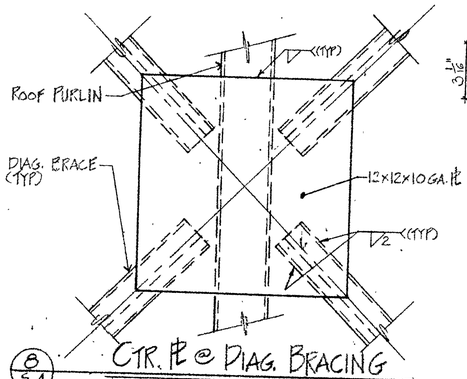


1/5-4 ROOF BM. TO CORNER COL.
SCALE: 3"=1'-0

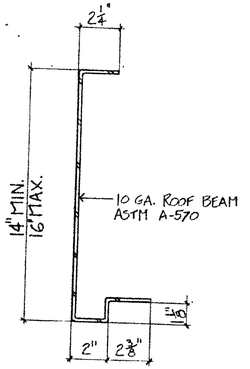


2/5-4 ROOF PURLIN TO ROOF BEAM
SCALE: 3"=1'-0

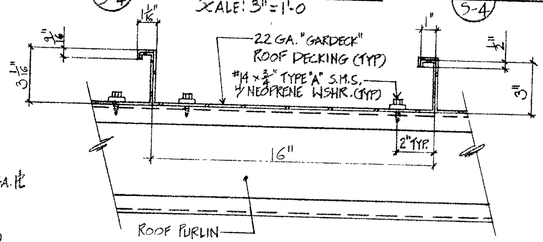


8/5-4 CTR. ℄ @ DIAG. BRACING
SCALE: 3"=1'-0

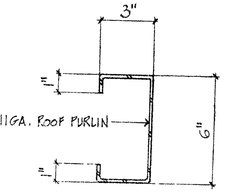
3/5-4 ROOF BEAM SECTION @ PURLIN
SCALE: 3"=1'-0

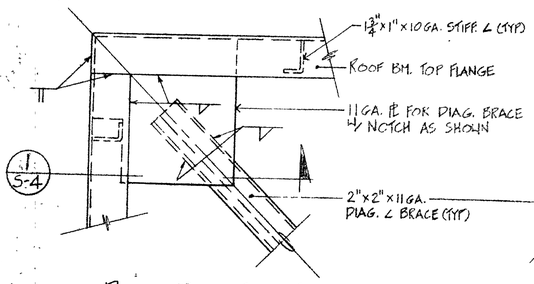


4/5-4 TYPICAL ROOF BEAM
SCALE: 3"=1'-0

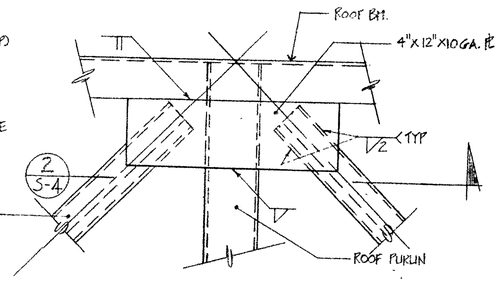


5/5-4 BEAM SPLICE
SCALE: 3"=1'-0



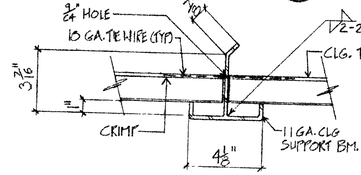


6/5-4 ROOF BM. TOP FLANGE
SCALE: 3"=1'-0

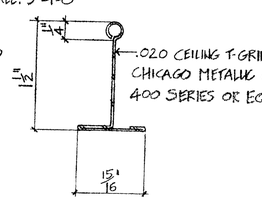


7/5-4 ROOF PURLIN @ ROOF BM.
SCALE: 3"=1'-0

9/5-4 ROOF DECK CONNECTION
SCALE: 3"=1'-0

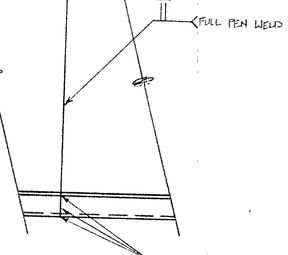


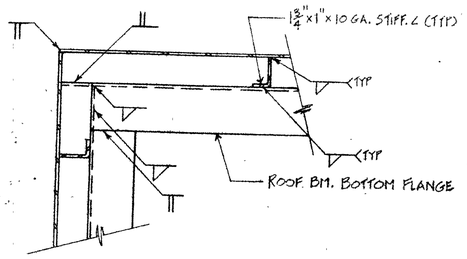
15/5-4 CEILING SUPPORT
SCALE: 3"=1'-0



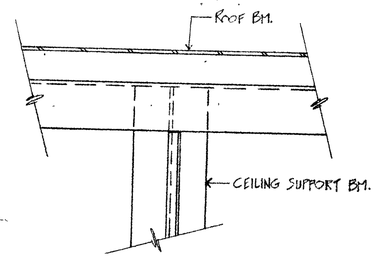
16/5-4 TYPICAL T-GRID
FULL SCALE

10/5-4 TYPICAL ROOF PURLIN
SCALE: 3"=1'-0

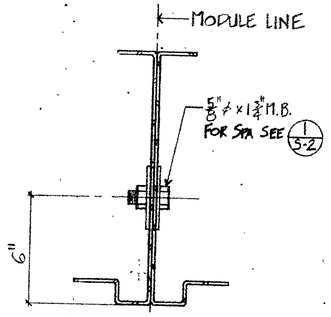




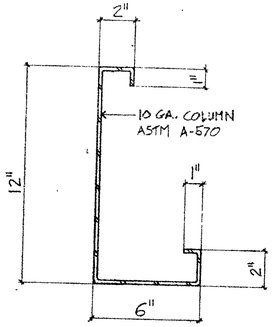
11/5-4 ROOF BM. BOTTOM FLANGE
SCALE: 3"=1'-0



12/5-4 CLG. SUPPORT @ ROOF BM.
SCALE: 3"=1'-0



13/5-4 ROOF BM. TO ROOF BM.
SCALE: 3"=1'-0



14/5-4 TYPICAL CORNER COLUMN
SCALE: 3"=1'-0

NOTE: ALL WELDS ⅜" UNLESS NOTED OTHERWISE

STATE OF CALIFORNIA
Department of Industrial Relations
MAY - 5 1986
Office of the State Architect
Structural Safety Section

REVISIONS	DATE	STATE FIRE MARSHAL	OFFICE OF THE STATE ARCHITECT	ARCHITECT / ENGINEER

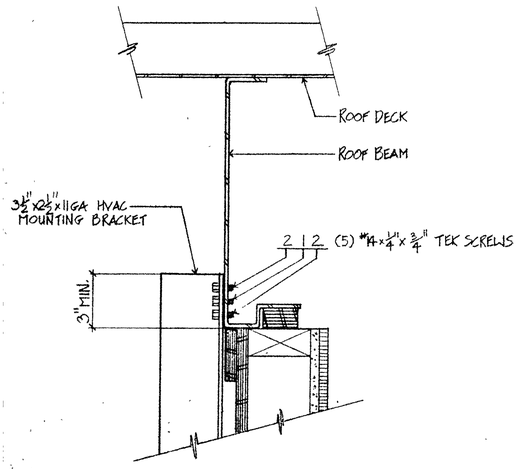
RELOCATABLE CLASSROOMS
AT
VARIOUS SITES
FOR
STANISLAUS COUNTY DEPT. OF EDUCATION

STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

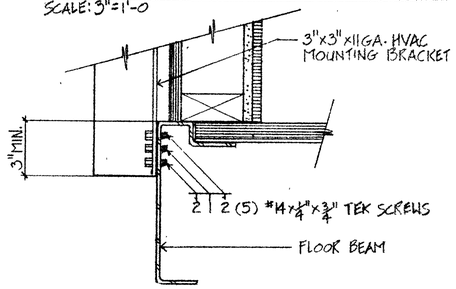
DRAWN Brian
DATE 9-11-84
CHECKED
APPROVED
PROJECT 86-009

S - 4

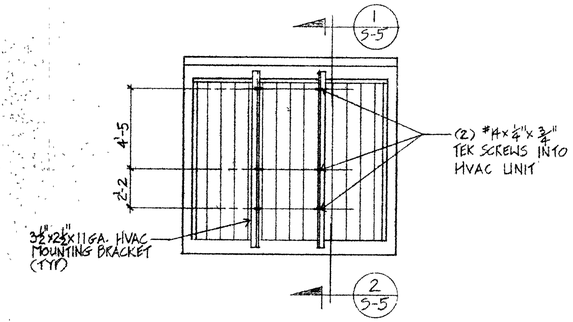
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26



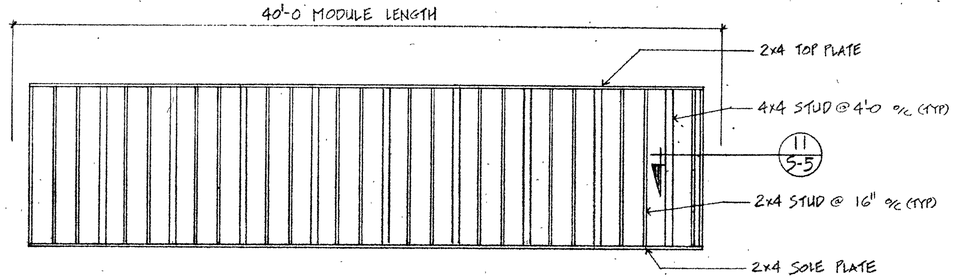
1/S-5 HVAC MOUNTING BRACKET SECTION
SCALE: 3"=1'-0



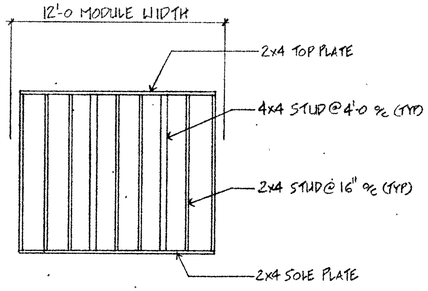
2/S-5 HVAC MOUNTING BRACKET SECTION
SCALE: 3"=1'-0



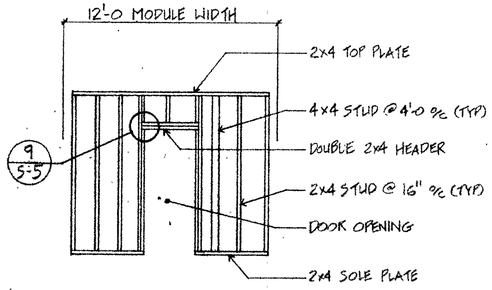
3/S-5 HVAC MOUNTING BRACKETS
SCALE: ¼"=1'-0



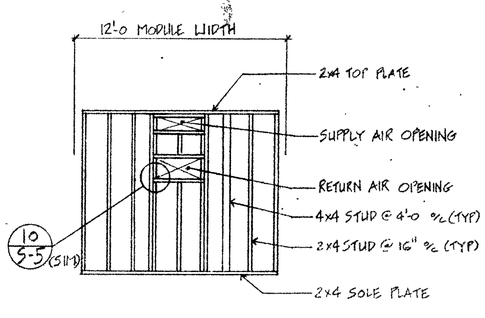
4/S-5 WALL FRAMING @ 40'-0 SIDEWALL
SCALE: ¼"=1'-0



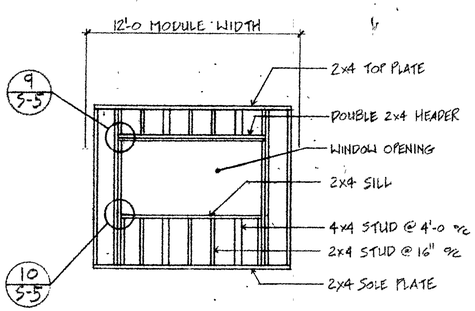
5/S-5 WALL FRAMING @ 12'-0 MOD END
SCALE: ¼"=1'-0.



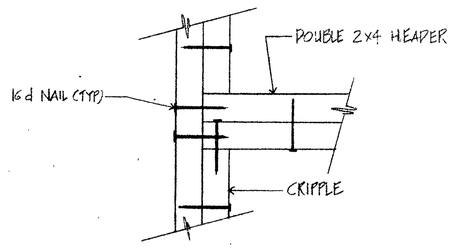
6/S-5 WALL FRAMING @ DOOR
SCALE: ¼"=1'-0



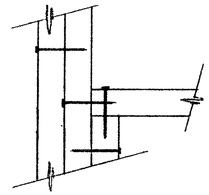
7/S-5 WALL FRAMING @ HVAC UNIT
SCALE: ¼"=1'-0



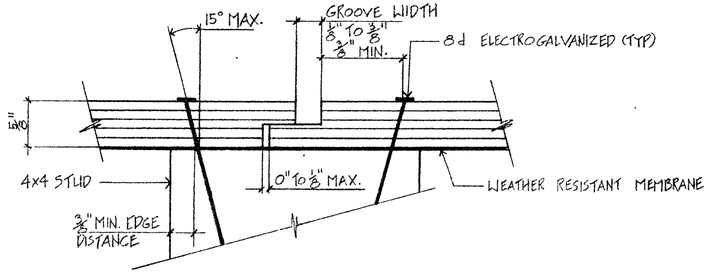
8/S-5 WALL FRAMING @ WINDOW
SCALE: ¼"=1'-0



9/S-5 HEADER DETAIL
SCALE: 3"=1'-0



10/S-5 HVAC HEADER OR WINDOW SILL DETAIL



11/S-5 PLYWOOD SPLICE @ JOINT
FULL SCALE

Nailing Schedule
As Per U.B.C. Table No. 25-P

Top Plate to Stud	End Nail (2) 16d
Sole Plate To Stud	End Nail (2) 16d
Doubled Studs	Face Nail 16d at 24" O.C.
Continuous Header, Two Pieces	16d at 16" o.c. along each edge
Continuous Header to Stud	End Nail (4) 16d
Plywood Siding to framing	8d electro glavanized at 6" o.c. at edges-12" o.c. at field
Gypsum Board to Studs	Hilti Wide Staple WS6120CX 1" crown x 1¼" leg at 8 o.c.

STATE OF CALIFORNIA Department of General Services
MAY - 5 1986
Office of the State Architect Structural Safety

REVISIONS	DATE

STATE FIRE MARSHAL

OFFICE OF THE STATE ARCHITECT

ARCHITECT

ENGINEER

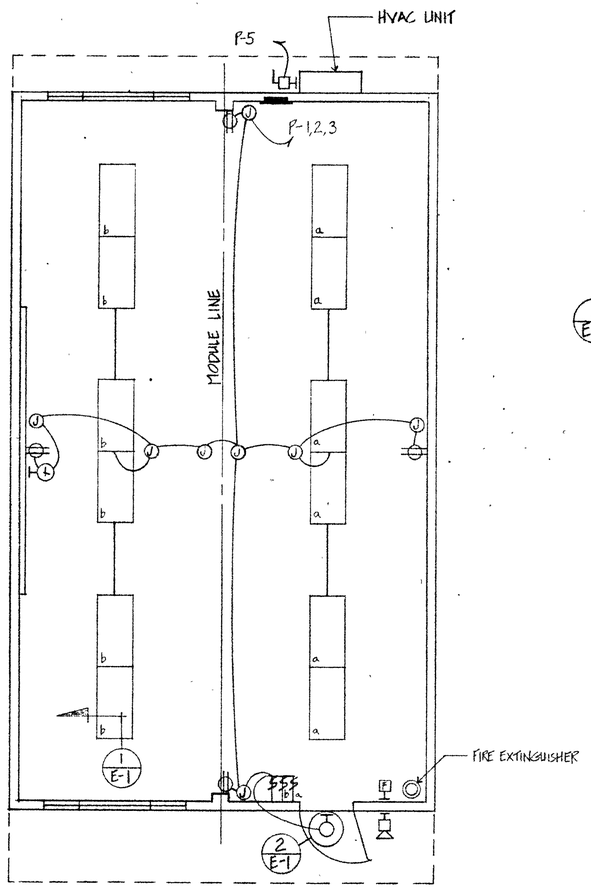
RELOCATABLE CLASSROOMS
AT
VARIOUS SITES
FOR
STANISLAUS COUNTY DEPT OF EDUCATION
Yolo & Vm Runnion

STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

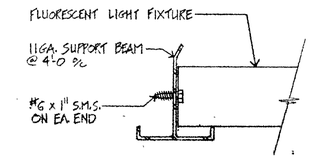
DRAWN
DATE 7-17-84
CHECKED
APPROVED
PROJECT AS-004

5 - 5

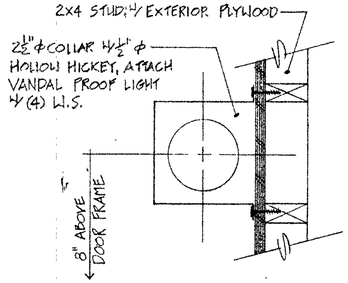
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26



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



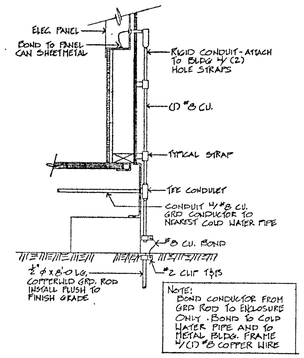
1 E-1 LIGHT FIXTURE SUPPORT
NO SCALE



2 E-1 EXTERIOR LIGHT
NO SCALE

125 A MAIN 120/208 V 1ϕ FLUSH MTD ELEC. PANEL								
				S/N				
LOAD	DES.	BKR.	#		#	BKR.	DES.	LOAD
960	LTG	20A1-P	1	—	2	20A1-P	REC'P.	700
960	LTG	20A1-P	3	—	4			
15,683	HVAC	80A2-P	5	—	6			
			7	—	8			

PANEL DIAGRAM
TOTAL LOAD 15,303



GROUNDING DETAIL (N.I.C.)

GENERAL NOTES

1. Fire Alarm shall be in full accordance with the latest rules and regulations of the State Fire Marshal, Part 3, CAC, Titles 24, 8 and 19.
2. Grounding, all raceway systems, fixtures, outlets, motors, equipment enclosures and metal building must be permanently and effectively grounded in accordance with the 1978 NEC, CAC, Title 8, and local codes.
3. All electrical installation for the building and the site electrical service shall meet requirements of the 1978 NEC, Title 8, Title 24, and 19, and local codes.
4. FIRE ALARM:
   The fire alarm system shall conform to section 2-809 Part 2 of Title 24 and Article 3-760 of Part 3, Title 24 of the California Administrative code.
   Installation of the fire alarm system shall not be started until detailed plans and specifications, including State Fire Marshal listing numbers for each component of the system have been approved by the State Fire Marshal, O.S.A.
   Upon completion of the installation of the fire alarm system a satisfactory test of the entire system shall be made in the presence of the enforcing agency.
   Any additions to existing alarm system shall conform to Part 3, Title 24, CAC, Fire alarm must tie into existing fire alarm system.
   If emergency warning systems are required they shall activate a means of warning for the hearing impaired, flashing visual warning shall have a frequency of not more than 60 flashes per minute (SEC. 2-7204).
5. FIRE EXTINGUISHERS:
   Approved portable fire extinguishers having a min. NC rating of 2A:10 BC:5LB stored pressure type shall be so located that it will be unnecessary to travel more than 75 ft. to obtain one. Not less than one unit shall be provided for each 6000 sq. ft. Fire extinguishers should be located adjacent to manual fire alarm sending stations.

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION
	4'-0 FLUORESCENT LIGHT FIXTURE, RECESS MTD. IN CLG. W/ (4) F40W TUBES.
T	KENALL #3636 OR EQUAL INCANDESCENT LIGHT FIXTURE WALL MTD. W/ (1) 100W LAMP.
$	SINGLE POLE 20A TOGGLE SWITCH (QUIET TYPE) @ 48" MAX.
	20A GROUNDABLE DUPLEX CONVENIENCE RECEPTACLE @ 12" MIN.
J	JUNCTION BOX
a	SWITCH CIRCUIT 1
b	SWITCH CIRCUIT 3
HVAC	HVAC DISCONNECT
F	FIRE ALARM PULL STATION @ 48" MAX. SFM# 7150-028:3
	FIRE ALARM HORN SFM# 7135-785:5
	~~FIRE ALARM VISUAL WARNING DEVICE SFM# 7300-028:114~~
C	CLOCK OUTLET @ 7'-6

STATE OF CALIFORNIA
Department of General Services
MAY - 5 1986
Office of the State Architect
Structural Safety Section

REVISIONS	DATE	STATE FIRE MARSHAL	OFFICE OF THE STATE ARCHITECT	ARCHITECT / ENGINEER	

RELOCATABLE CLASSROOMS
AT
VARIOUS SITES
FOR
STANISLAUS COUNTY DEPT. OF EDUCATION
Yolo & Vine Runnin

STEELGARD, INC.
15700 So. McKinley Ave.
Lathrop, California 95330
(209) 858-2101

DRAWN BWC
DATE 5-17-84
CHECKED
APPROVED
PROJECT A.C.-009

E-1

TMP SERVICES

2929 KANSAS AVE.
RIVERSIDE, CA 92507
(951) 213-3900
FAX (651) 213-3997

VON RENNER ELEMENTRY SCHOOL
ACCESSIBLE RAMP
FOR BUILDING RELOCATIONS

PC
ACCESSIBLE RAMPS/ LANDINGS/STAIRS
(STEEL + OPTIONAL ALUM. DECK)

STATE OF CALIFORNIA - 2021 IBC/2022 CBC

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: School Name: School District:

DSA File Number: Increment Number: Date Created:

2022 CBC

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	**GE (Geotechnical Engineer)** – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative.
Periodic – Indicates that a periodic special inspection is required	**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.
Test – Indicates that a test is required	**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.

	CS. 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 318-14 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.)
	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 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**).
	S/A3. WELDING:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**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.
	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.

"CONSTRUCTION OF" AND "STOCKPILE OF" EXAMPLE DSA 103 FORM (DSA 103 FORM NOT REQUIRED FOR RELOCATION OF CERTIFIED RAMP & LANDING).

THE EXAMPLE FORM DSA-103 SHOWN ON THIS SHEET IS FOR ILLUSTRATION PURPOSES ONLY TO ASSIST IN THE COMPLETION OF FUTURE PROJECT-SPECIFIC FORM DSA-103'S. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND THE EXAMPLE FORM DSA-103 IS TO BE CROSSED OUT ON THIS DRAWING.

NOTES:

LOADS:

1. RAMP LIVE LOAD = 100 PSF
2. NO SNOW LOADING
3. NO FLOOD LOADING
4. WIND:
   WIND SPEED = 110 MPH
   RISK CATEGORY = II & III
   EXPOSURE = C
   K_{ZT}= 1.0
   WIND DESIGN PER ASCE 7-16 CHAPTER 29
5. SEISMIC:
   RISK CATEGORY = II
   I_e = 1.0
   S_S = 2.55
   S_1 = 1.0
   SITE CLASS = D DEFAULT
   S_{DS}= 1.428
   C_S = 1.14 (ASCE 7-16 EQUATION 15.4-2)
   R = 1.25 (ASCE 7-16 TABLE 15.4-1)
5. SEISMIC:
   RISK CATEGORY = III
   I_e = 1.25
   S_S = 1.43
   S_1 = 1.0
   SITE CLASS = DEFAULT
   S_{DS}= 1.14
   C_S = 1.14CE 7-16 EQUATION 15.4-2)
   R = 1.25 (ASCE 7-16 TABLE 15.4-1)
6. ALLOWABLE SOIL BEARING = 1000 PSF

CODES: (TITLE 24 CODES)

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)....(PART 1, TITLE 24, CCR)

2022 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1 AND 2 (PART 2, TITLE 24, CCR) (2021 EDITION INTERNATIONAL BUILDING CODE WITH 2022 CALIFORNIA AMENDMENTS)

2022 CALIFORNIA FIRE CODE (CFC), (PART 9, TITLE 24, CCR) (2021 EDITION INTERNATIONAL FIRE CODE WITH 2022 CALIFORNIA AMENDMENTS)

2022 CALIFORNIA GREEN CODE (CGC), (PART 9, TITLE 24, CCR)

2022 CALIFORNIA REFERENCED CODE, (PART 12, TITLE 24, CCR)

2022 CODE SECTIONS FOR APPLICABLE STANDARDS
2022 CBC, CHAPTER 35

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Sheet No.	Description	Dated	Revised
1	COVER SHEET	02 AUG 2023	
2	ACCESSIBLE RAMP ELEVATIONS & DETAILS	02 AUG 2023	
3	ACCESSIBLE RAMP DETAILS & NOTES	02 AUG 2023	
4	DETAILS & NOTES	02 AUG 2023	
~~5~~	~~ACCESSIBLE RAMP SWITCH BACK DETAILS~~	~~02 AUG 2023~~	
~~6~~	~~STAIRS - OPTIONAL~~	~~02 AUG 2023~~	
~~7~~	~~ACCESSIBLE RAMP OPTIONAL ALUMINUM DECK~~	~~02 AUG 2023~~	
8	ACCESSIBLE RAMP ELEVATIONS & PLAN VIEWS	02 AUG 2023	

ALTERNATE RAMPS/LANDINGS/STAIRS

Sheet No.	Description	Dated	Revised
1A	COVER SHEET	02 AUG 2023	
2A	ACCESSIBLE RAMP ELEVATIONS & DETAILS	02 AUG 2023	
3A	ACCESSIBLE RAMP DETAILS & NOTES	02 AUG 2023	
4A	DETAILS & NOTES	02 AUG 2023	
5A	ACCESSIBLE RAMP SWITCH BACK DETAILS	02 AUG 2023	
6A	STAIRS - OPTIONAL	02 AUG 2023	
7A	ACCESSIBLE RAMP OPTIONAL ALUMINUM DECK	02 AUG 2023	
8A	ACCESSIBLE RAMP ELEVATIONS & PLAN VIEWS	02 AUG 2023	

PROPRIETARY DESIGN: THIS DRAWING AND THE MATERIAL CONTAINED THEREIN ARE THE PROPERTY OF TMP SERVICES, INC. AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND CONSENT OF TMP SERVICES, INC. ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATED WITH TMP SERVICES, INC. SHALL BE THE PROPERTY OF TMP SERVICES, INC.

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SAN DIEGO, CA 92128
PHONE:(858) 444-3344
WWW.RSTAVARES.COM

DSA APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT
APPLICATION FOR CONSTRUCTION
IS REQUIRED

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRANCO
No. 53380
Exp. 03/31/24
STRUCTURAL
STATE OF CALIFORNIA
02/12/24

DATE SIGNED_____

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-122262 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 02/14/2024

COVER SHEET

TMP SERVICES
2929 KANSAS AVE.
RIVERSIDE, CA 92507
PHONE: (951)213-3900
FAX: (951)213 3997

SITE:

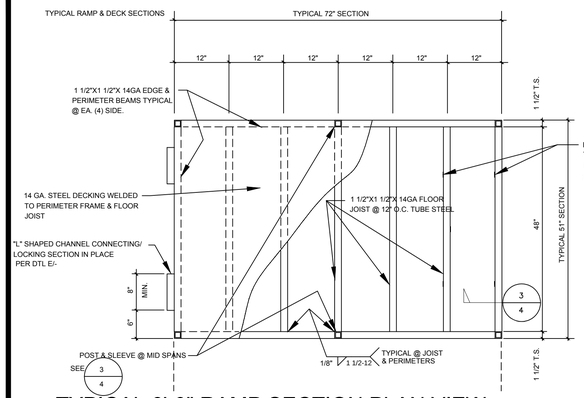
STATE OF CALIFORNIA -2022 CBC
PC

DRAWN
CHECKED
DATE 02 AUG 2023
SCALE
JOB NO.

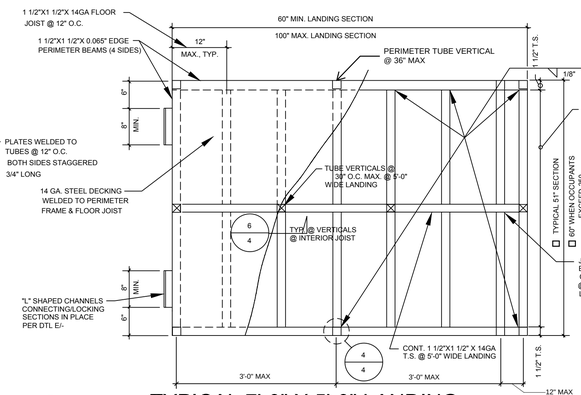
1

1 OF ~~16~~ SHEETS

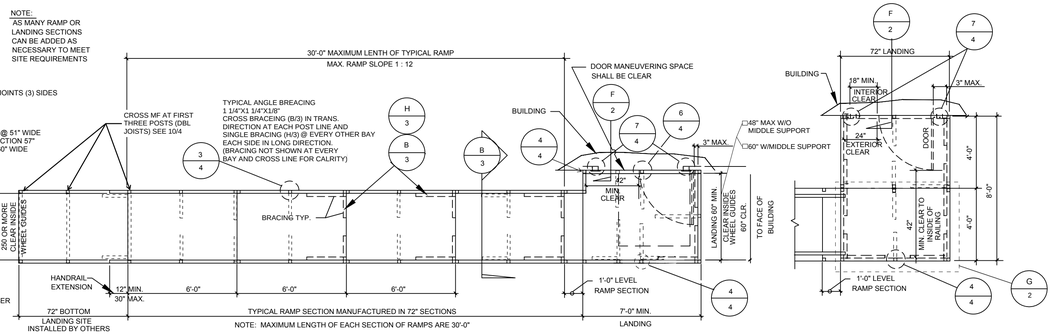
TMP SERVICES DSA RAMP & LANDING - STEEL SHEET 1.DWG



TYPICAL 6'-0" RAMP SECTION PLAN VIEW (A)



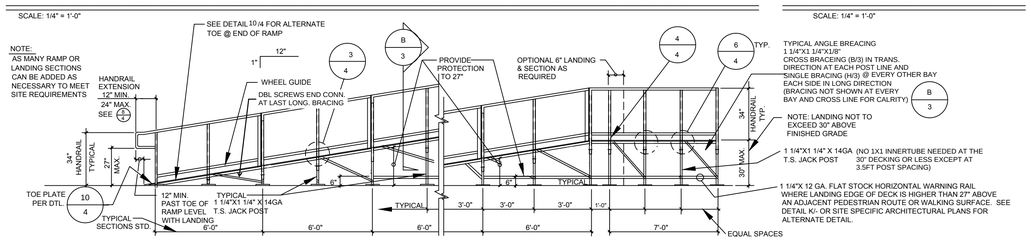
TYPICAL 7'-0" X 5'-0" LANDING (G)



TYPICAL PLAN VIEW OF ACCESSIBLE RAMP & DECK LAYOUT

OPTIONAL LANDING

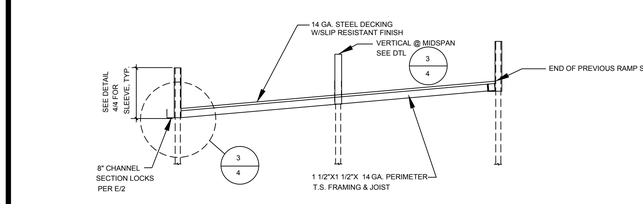
SCALE: 1/4" = 1'-0"



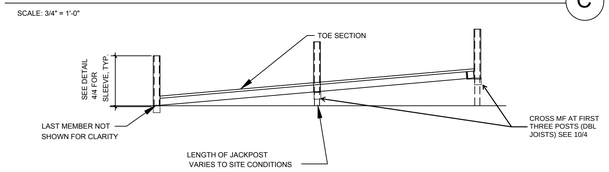
TYPICAL ELEVATION OF ACCESSIBLE RAMP & DECKING 30" OR LESS

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

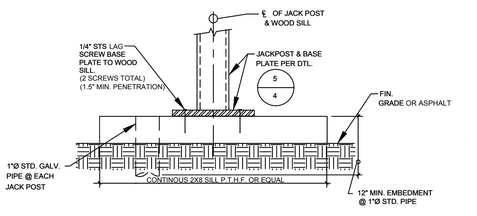
NOTE: SEE PLAN SHEET 3 FOR HANDRAIL SIZES



SIDE/END VIEW OF LEVEL DECK SECTION (B)

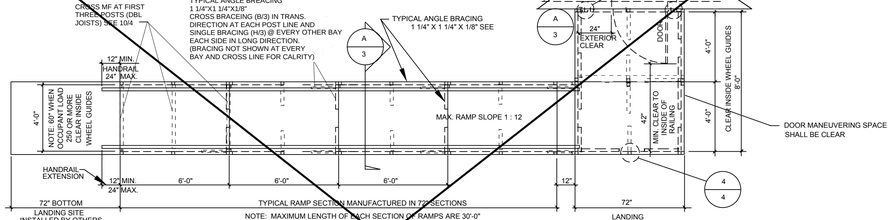


SIDE VIEW OF SLOPING RAMP SECTION TYPICAL (C)



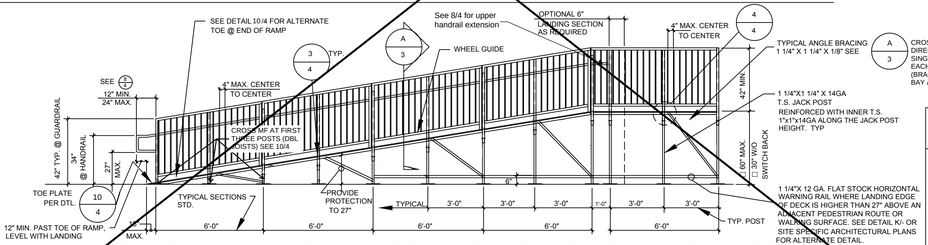
ALTERNATE WOOD SILLS (J)

@JACK POST TO GRADE OR ASPHALT WHERE CONCRETE DOES NOT OCCUR

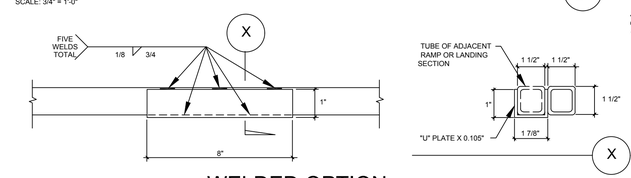


TYPICAL PLAN VIEW OF ACCESSIBLE RAMP & DECK LAYOUT OVER 30" DESIGN

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

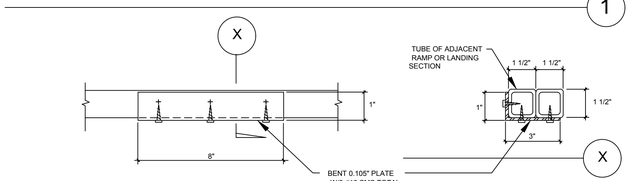


TYPICAL ELEVATION OF ACCESSIBLE RAMP & DECKING OVER 30" DESIGN



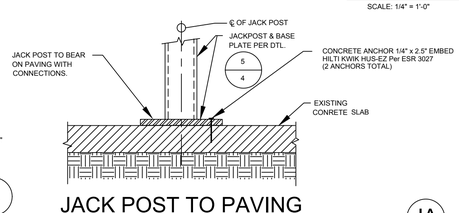
TOE SECTION (D)

WELDED OPTION (1)

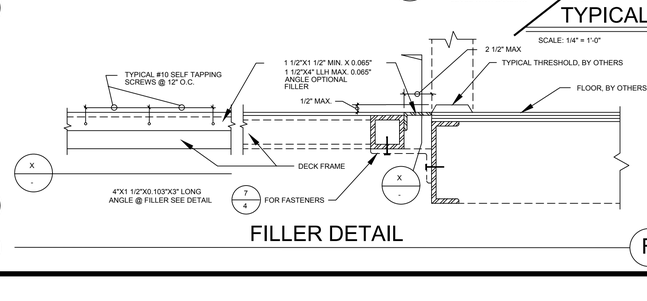


SMS OPTION (2)

8" CHANNEL SECTION (E)



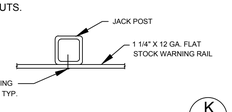
JACK POST TO PAVING (JA)



FILLER DETAIL (F)

NOTE: 1. SEE PLAN SHEET 3 FOR HANDRAIL/GUARDRAIL SIZES

2. PROVIDE INTERMEDIATE LANDINGS AND SWITCH BACK OR MULTIPLE RAMP SECTIONS AS REQUIRED WHERE ELEVATION DIFFERENCE AT RAMP EXCEEDS 30" MAX. RISE, SEE SHEET 5 FOR OPTIONAL RAMP/LANDING LAYOUTS.



K

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SAN DIEGO, CA 92128
PHONE:(858) 444-3344
WWW.RSTAVARES.COM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
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REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRANCO
No. S3380
exp. 03/31/24
STRUCTURAL
STATE OF CALIFORNIA
02/12/24

DATE SIGNED

APPROVED
DIV. OF THE STATE ARCHITECT
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ACCESSIBLE RAMP ELEVATIONS & DETAILS

TMP SERVICES
2929 KANSAS AVE
RIVERSIDE, CA 92507
PHONE: (951)213-3900
FAX: (951)213 3997

DSA APPROVALS

SITE:

STATE OF CAL.-2022 CBC
PC

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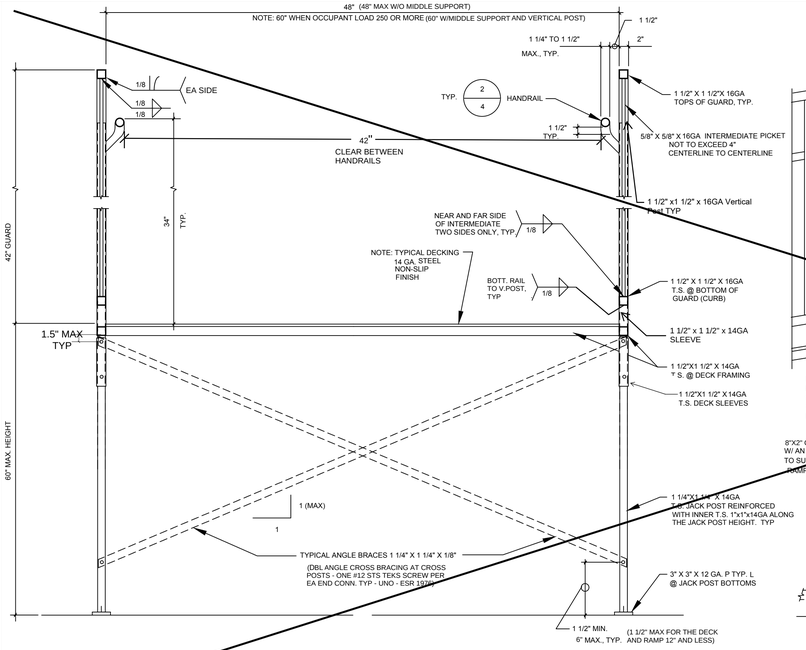
DATE
02 AUG 2023
SCALE
JOB NO.

2

2 OF 16 SHEETS

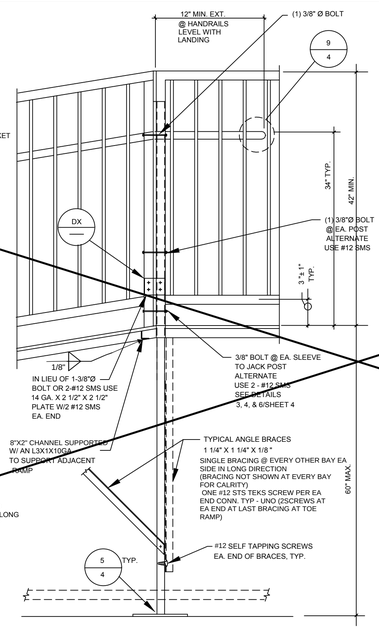
TMP DSA RAMP AND LANDING STEEL SHEET 2.DWG



A

SCALE: 1" = 1'-0"

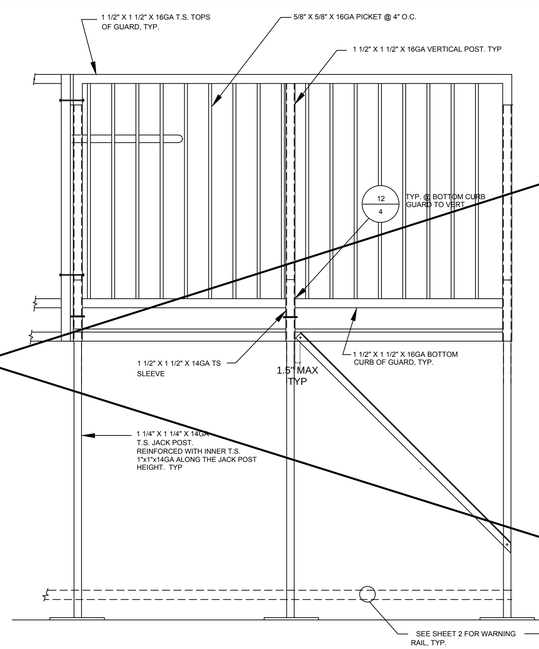
TYPICAL CROSS SECTIONS +30"



C

SCALE: 1" = 1'-0"

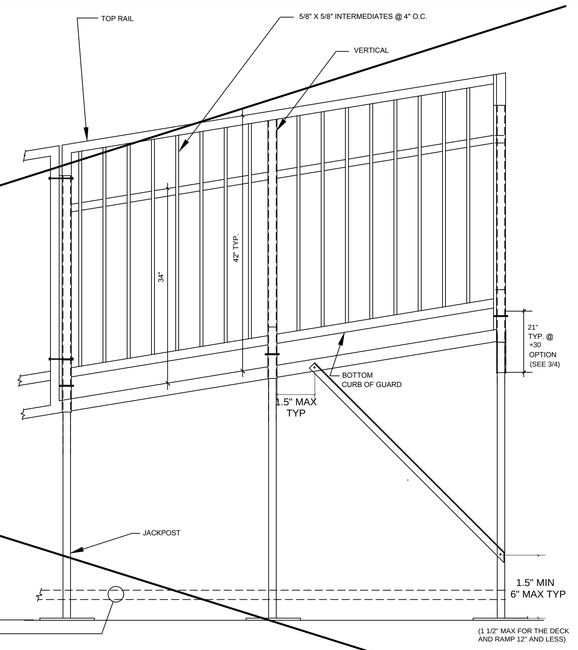
POST SECTION +30"



E

SCALE: 1" = 1'-0"

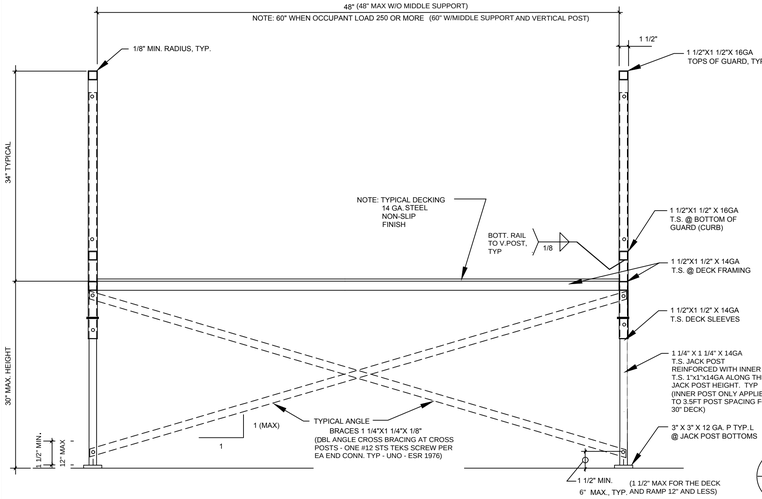
LANDING RAIL LAYOUT +30"



G

SCALE: 1" = 1'-0"

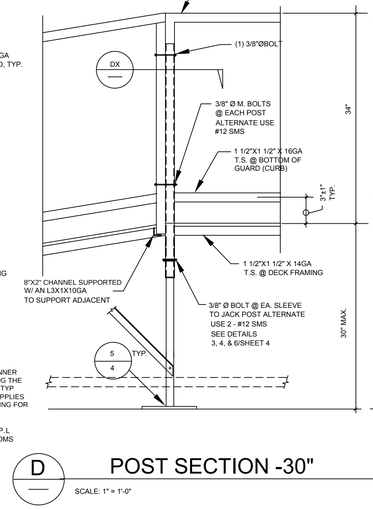
RAMP RAILING LAYOUT +30"



B

SCALE: 1" = 1'-0"

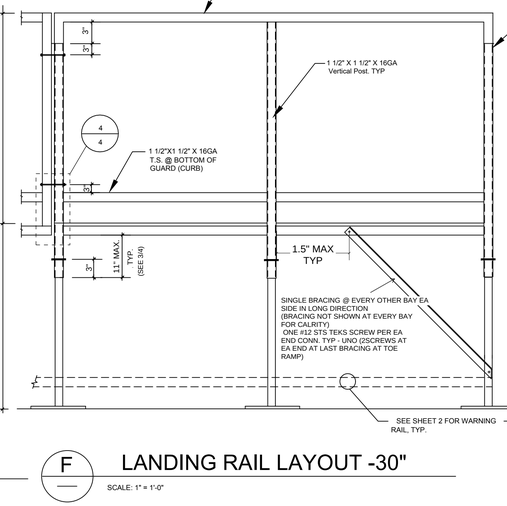
TYPICAL CROSS SECTIONS -30"



D

SCALE: 1" = 1'-0"

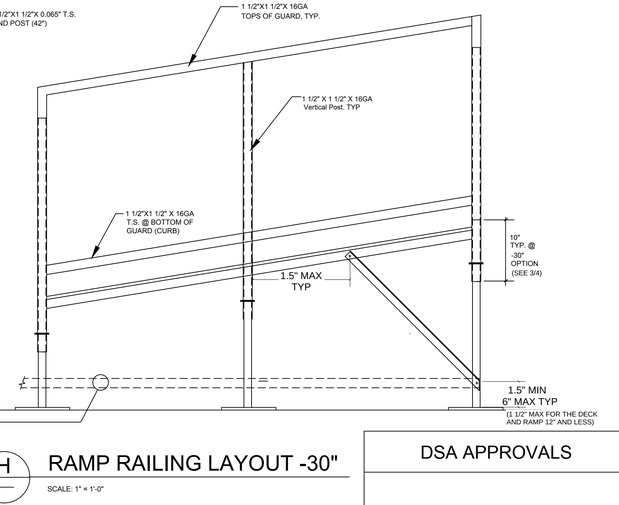
POST SECTION -30"



F

SCALE: 1" = 1'-0"

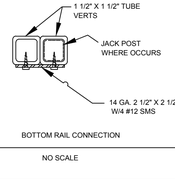
LANDING RAIL LAYOUT -30"



H

SCALE: 1" = 1'-0"

RAMP RAILING LAYOUT -30"



BOTTOM RAIL CONNECTION

NO SCALE

DX

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TAVARES ASSOCIATES
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11590 W. BERNARDO COURT, SUITE 105
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ACCESSIBLE RAMP
DETAILS & NOTES

TMP SERVICES
2929 KANSAS AVE.
RIVERSIDE, CA 92507
PHONE: (951)213-3900
FAX: (951)213 3997

SITE:

STATE OF CAL -2022 CBC
PC

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CHECKED

DATE
02 AUG 2023

SCALE

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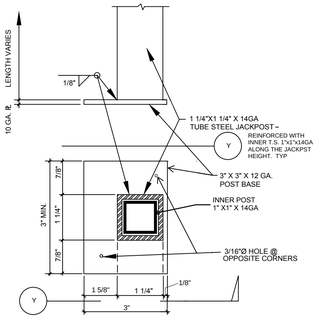
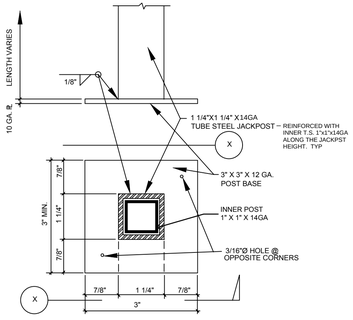
3 Type text here

3 OF 16 SHEETS

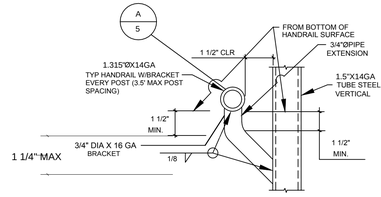
TMP DSA RAMP & LANDING STEEL SHEET 3.DWG



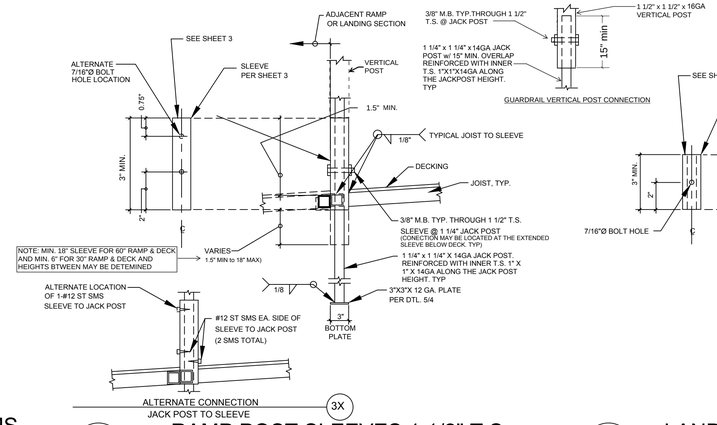
POST BASE AT ADJACENT POSTS



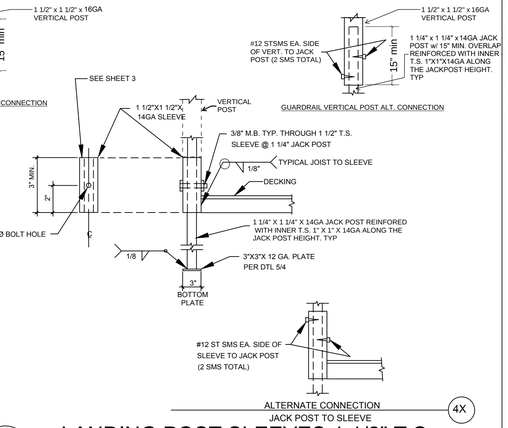
5/4 POST BASE



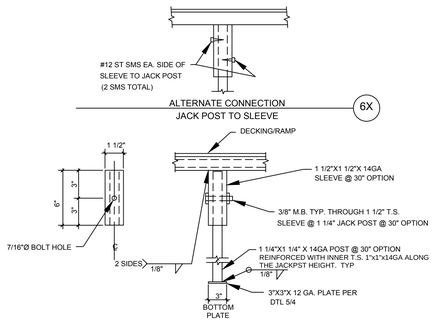
2/4 TYPICAL HANDRAIL ARMS



3/4 RAMP POST SLEEVES 1 1/2" T.S.

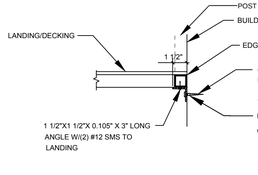


4/4 LANDING POST SLEEVES 1 1/2" T.S.



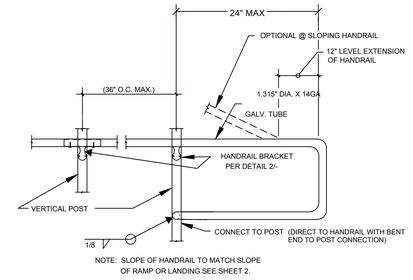
6/4 MID SPAN POST

NOTE: USE 1 1/2"X1 1/2"X 14GA SLEEVE AND 1 1/4"X1 1/4"X 14GA JACK POST @ ABOVE 30" OPTION

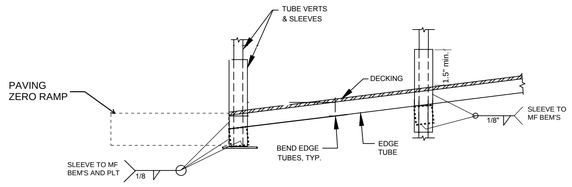


7/4 LANDING TO BUILDING

NOTE: DECK SECTIONS ARE FREE STANDING FOR VERTICAL LOADS.

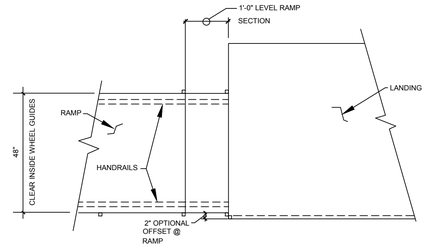


8/4 CONNECTION @ HANDRAIL EXTENSION DETAIL



10/4 TOE @ END OF RAMP

NO SCALE



11/4 NO SCALE

NOTES:

CODES:
2022 CALIFORNIA BUILDING CODE (CBC)

DESIGN LOADS:
LIVE LOAD: 100 PSF
WIND LOAD: SEE SHEET 1
SEISMIC: SEE SHEET 1
HANDRAIL & GUARD RAIL LOADS:
50#/FT
200# POINT LOAD

MATERIAL SPECIFICATIONS:
STEEL: ALL TUBE STEEL ASTM A572 GRADE 65 (Fy = 65 KS1) OR SIMILAR/BETTER
ALL ROUND TUBE STEEL TO BE ASTM A500 ROUND GRADE C (FY=46KSI) OR SIMILAR/BETTER
ALL SHEET, ANGLES, PLATE ETC. TO BE A1011SS GRADE 40
ALL STEEL TO BE COATED WITH A RUST INHIBITIVE COATING
BOLTS: ASTM A307 COMMON BOLTS HOT DIPPED GALVANIZED W/ STAINLESS STEEL WASHERS
PLYWOOD OPTION: APA RATED STRUCT I EXTERIOR PLYWOOD
WELDS: ALL WELDING SHALL CONFORM TO "AMERICAN WELDING SOCIETY D-1.1-10-2020 FOR SHEET STEEL.
ELECTRODES SHALL BE E70XX.

GENERAL NOTES:
1) RAMPS HAVING SLOPES STEEPER THAN 1 VERTICAL TO 20 HORIZONTAL SHALL HAVE LANDINGS AT TOP AND BOTTOM AND AT LEAST ONE INTERMEDIATE LANDING SHALL BE PROVIDED FOR EACH 30" OF RISE, PER CBC 11B-405.7.
2) LOCATION OF LANDINGS.
LANDINGS SHALL BE PROVIDED AT TOP AND BOTTOM OF EACH RAMP.
INTERMEDIATE LANDINGS SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 30 INCHES OF VERTICAL RISE AND AT EACH CHANGE OF DIRECTION . LANDINGS ARE NOT CONSIDERED IN DETERMINING THE MAXIMUM HORIZONTAL DISTANCE OF EACH RAMP.

NOTE: EXAMPLES OF RAMP DIMENSIONS ARE:

SLOPE	MAX. RISE (INCHES)	MAX. HORIZONTAL PROJECTION
1:12	30	30'-0"
1:16	30	40'-0"
1:20	30	50'-0"
1:15	30	37'-6"

2. SIZE OF TOP LANDINGS. TOP LANDINGS SHALL NOT BE LESS THAN 60 INCHES WIDE AND SHALL HAVE A LENGTH OF NOT LESS THAN 60 INCHES IN THE DIRECTION OF RAMP RUN, PER CBC 11B-405.7.2 AND .3.

3) DOORS IN ANY POSITION SHALL NOT REDUCE THE MINIMUM DIMENSION OF THE LANDING TO LESS THAN 42" AND SHALL NOT REDUCE THE REQUIRED WIDTH BY MORE THAN 3" WHEN FULLY OPENED, CBC 11B-405.7.5.
4) RAMPS SHALL BE CONSTRUCTED AS REQUIRED FOR STAIRWAYS.
5) THE SURFACE OF RAMPS SHALL BE ROUGHED OR SHALL BE OF SLIP-RESISTANT MATERIAL, TYP. FOR LANDINGS & STAIRS.
6) RAMPS REQUIREMENTS SHALL BE PER CBC 11B-405.
7) RAMPS AND STAIRWAYS USED AS EXIT SHALL CONFORM TO CBC SEC. 1009 SEC. 1010, CHAPTER 11B AND 11B-405.5.
8) HANDRAILS AND GUARDRAILS SHALL CONFORM TO CBC 11B-405.8 (RAMP), AND 11B-504 (STAIRS).
9) RAMPS SHALL CONFORM TO CBC 11B-405.
10) STRIKE EDGE EXTENSION THE WIDTH OF THE LANDING SHALL EXTEND 24" PAST THE STRIKE EDGE OF ANY DOOR OR GATE FOR EXTERIOR RAMPS AND 18" PAST THE STRIKE EDGE FOR INTERIOR RAMPS.
11) LANDING WIDTH. AT BOTTOM AND INTERMEDIATE LANDINGS, THE WIDTH SHALL BE AT LEAST THE SAME AS REQUIRED FOR RAMPS, CBC 11B-405.7.4.
12) THE WIDTH OF RAMPS SHALL BE AS REQUIRED PER STAIRWAYS AND EXITS, CBC 11B-405.5.
13) SLOPE RAMPS AND LANDINGS AS REQUIRED TO PREVENT ACCUMULATION OF WATER ON WALKING SURFACES.
14) ALL WORK SHALL CONFORM TO TITLE 24 CALIFORNIA CODE OF REGULATIONS (CCR).
15) CHANGES TO APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT AS REQUIRED BY SECTION 4-338, PART 1 TITLE 24, CCR.
16) A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4.342 PART 1 TITLE 24 CCR.

IN PLANT: SHOP WELDING INSPECTION AND MATERIAL VERIFICATION

SITE CONSTRUCTION: CLASS 4

DSA APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-123751 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/15/26

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO No. S3380 exp. 03/31/24 STRUCTURAL STATE OF CALIFORNIA
02/12/24

DATE SIGNED

APPROVED
DIV OF THE STATE ARCHITECT
APP: 04-122262 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 02/14/2024

DETAILS AND NOTES

TMP SERVICES
2929 KANSAS AVE.
RIVERSIDE, CA 92507
PHONE: (951)213-3900
FAX: (951)213 3997

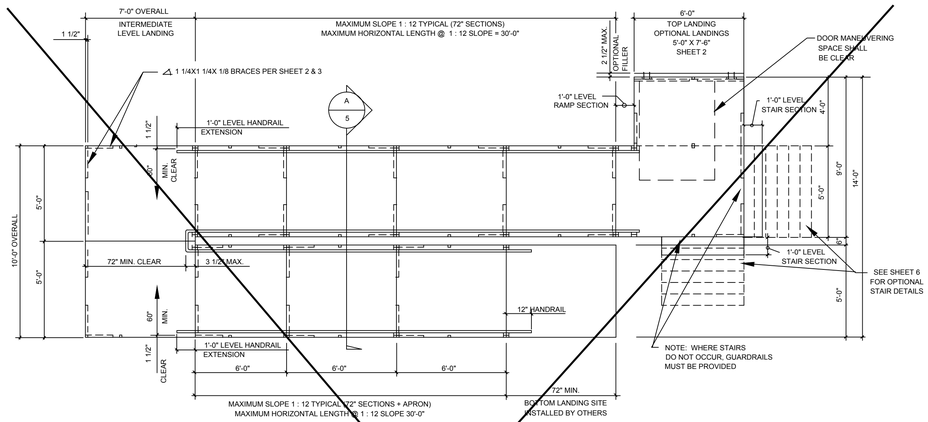
SITE:

STATE OF CALIFORNIA -2022 CBC
PC

DRAWN
CHECKED
DATE 02 AUG 2023
SCALE
JOB NO.
4 Add text here
4 OF 16 SHEETS

TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11590 W. Bernardo Court, Suite 105
San Diego, CA 92128
PHONE:(858) 444-3344
www.rstavares.com

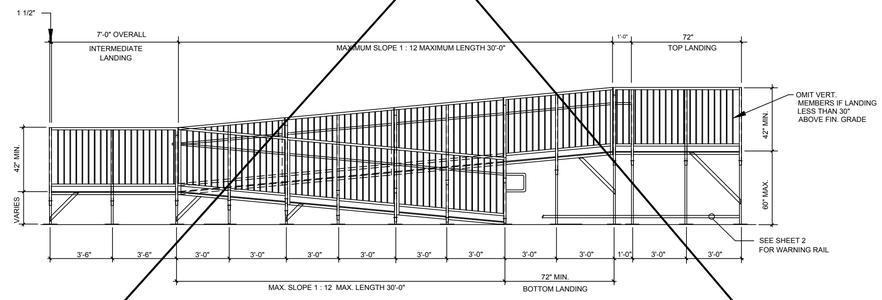
TMP DSA RAMP & LANDING STEEL SHEET 4.DWG



TYPICAL PLAN VIEW OF ACCESSIBLE RAMP WITH SWITCH-BACK & PLATFORMS

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

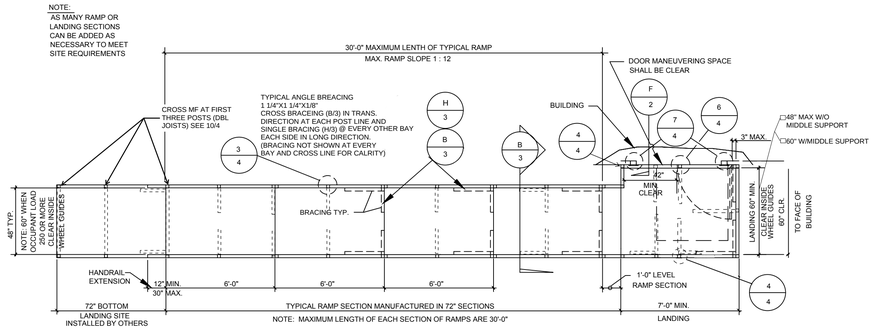
NOTE: SEE SHEET 3 FOR HANDRAIL/GUARDRAIL SIZES AND SHEET 2, PLAN WITH OVER 30" DECK FOR POSTS, BRACING, ETC.



TYPICAL ELEVATION OF ACCESSIBLE RAMP W/SWITCH-BACK RAMP W/ 5'-0" WIDE RAMPS

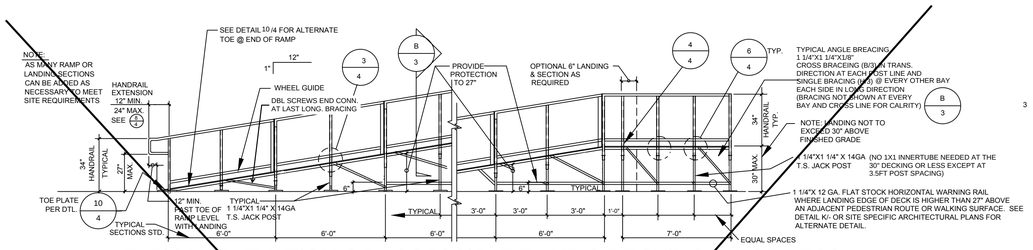
SCALE: 1/4" = 1'-0"

NOTE: SEE SHEET 3 FOR HANDRAIL/GUARDRAIL SIZES AND SHEET 2, ELEVATION WITH OVER 30" DECK FOR POSTS, BRACING, ETC.



TYPICAL PLAN VIEW OF ACCESSIBLE RAMP & DECK LAYOUT

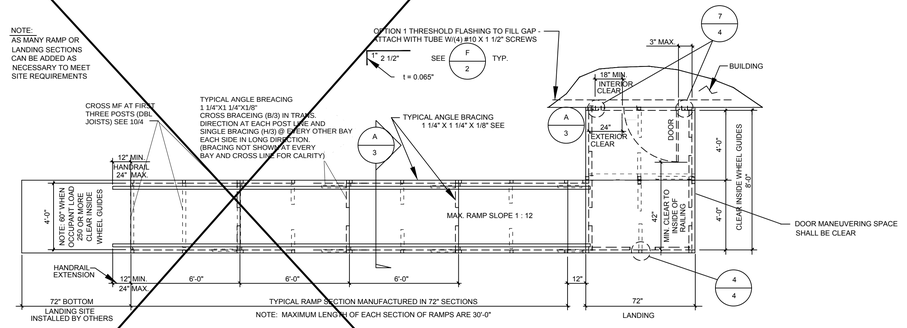
SCALE: 1/4" = 1'-0"



TYPICAL ELEVATION OF ACCESSIBLE RAMP & DECKING 30" OR LESS

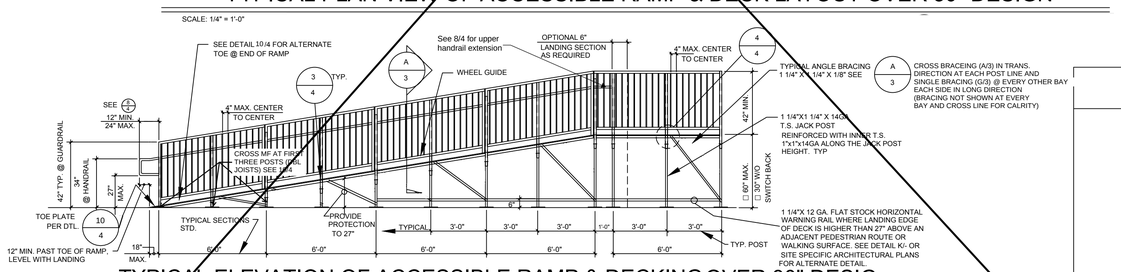
SCALE: 1/4" = 1'-0"

NOTE: SEE PLAN SHEET 3 FOR HANDRAIL SIZES



TYPICAL PLAN VIEW OF ACCESSIBLE RAMP & DECK LAYOUT OVER 30" DESIGN

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



TYPICAL ELEVATION OF ACCESSIBLE RAMP & DECKING OVER 30" DESIG

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

NOTE: 1. SEE PLAN SHEET 3 FOR HANDRAIL/GUARDRAIL SIZES

2. PROVIDE INTERMEDIATE LANDINGS AND SWITCH BACK OR MULTIPLE RAMP SECTIONS AS REQUIRED WHERE ELEVATION DIFFERENCE AT RAMP EXCEEDS 30" MAX. RISE, SEE SHEET 5 FOR OPTIONAL RAMP/LANDING LAYOUTS.

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ACCESSIBLE RAMP ELEVATIONS & PLAN VIEWS

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TMP DSA RAMP & LANDING STEEL SHEET 8.DWG