STATEMENT OF GENERAL CONFORMANCE

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

(APPLICATION NO. 03-122398 FILE NO. 19-C6)

THIS DRAWINGS, PAGE OF SPECIFICATIONS / CALCULATIONS, OR THE ATTACHED LISTED OF ITEMS HAS BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND / OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:

1) DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMETNS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
2) COORDINATION WITH MY PLANS AND SPEFICATIONS AND IS ACCEPTABLE FOR INFORPORATION INTO THE CONSTRUCTION OF THIS PROJECT.

THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DETIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 8138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341 AND 4-344 OF TITLE 24, PART 1 (TITLE 24, PART 1, SECTION 4-317 (b))

I CERTIFY THAT: ☐ ALL DRAWINGS OR SHEETS ☒ ALL DRAWINGS LISTED UNDER "SHADE SHELTER" DSA P.C. A# 04-119455
☐ THIS DRAWINGS OR PAGE

☒ IS/ARE IN GENERAL CONFORMANCE ☐ IS/ARE IN GENERAL CONFORMANCE
☒ HAVE BEEN COORDINATED ☐ HAVE BEEN COORDINATED

	6/28/2022		
SIGNATURE	DATE	SIGNATURE	DATE
ARCHITECT OR ENGINEER DESIGNATED TO BE IN RESPONSIBLE CHARGE		ARCHITECT OR ENGINEER DESIGNATED TO BE IN RESPONSIBLE CHARGE	
BRIAN PAUL DOUGHERTY, FAIA			
PRINT NAME		PRINT NAME	
C-9824	7/31/2023		
LICENSE NUMBER	EXPIRATION DATE	LICENSE NUMBER	EXPIRATION DATE

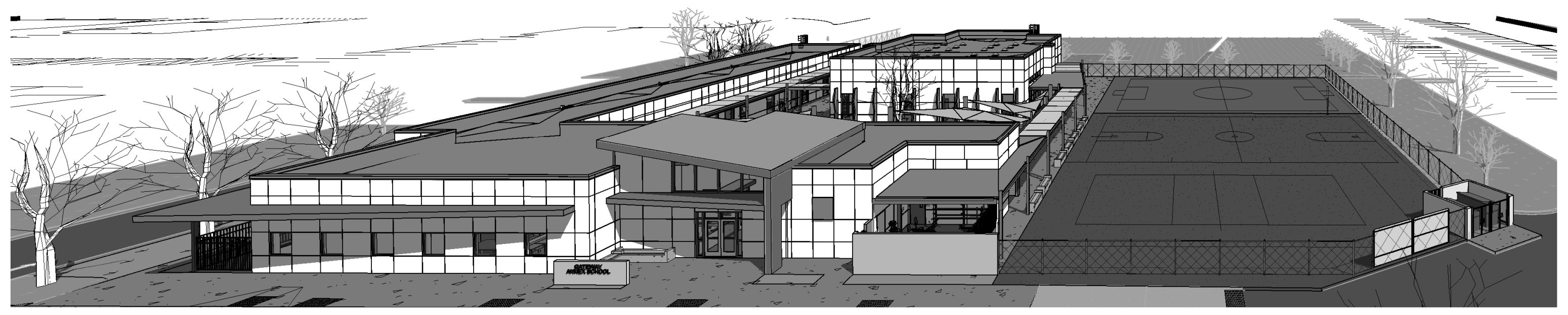
VENTURA COUNTY OFFICE OF EDUCATION

GATEWAY ANNEX SCHOOL

550 Airport Way, Camarillo, CA 93010

CONSTRUCTION DOCUMENTS

12/07/2022



DIRECTORY

OWNER

VENTURA COUNTY OFFICE OF EDUCATION
5100 ADOLFO RD,
CAMARILLO, CA 93012
TEL: (805) 383-1900
CONTACT: DAVID FATEH, DIRECTOR, FACILITIES

ARCHITECT

PERKINS EASTMAN ARCHITECTS, DPC.
3194-D AIRPORT LOOP DRIVE
COSTA MESA, CA 92626
TEL: (714) 427-0277
CONTACT: BRIAN DOUGHERTY

CIVIL ENGINEER

DELANE ENGINEERING, INC.
400 W VENTURA BLVD., SUITE 265
CAMARILLO, CA 93010
TEL: (805) 330-9730

LANDSCAPE ARCHITECT

JORDAN, GILBERT & BRIAN LANDSCAPE ARCHITECTS INC.
459 N. VENTURA AVE.
VENTURA, CA 93001
TEL: (805) 642-3641

STRUCTURAL ENGINEER

PETER SARKIS S.E.
17981 SKYPARK CIRCLE, SUITE O
IRVINE, CA 92614
TEL: (949) 748-7170

MECHANICAL, ELECTRICAL, PLUMBING, & FIRE PREVENTION ENGINEER

SALAS O'BRIEN
8825 RESEARCH DRIVE
IRVINE, CA 92618
TEL: (949) 753-1553

FOOD SERVICES

RICCA DESIGN STUDIOS
5613 DTC PKWY SUITE 100
GREENWOOD VILLAGE, CO 80111
TEL: (303) 518-5381

GEOTECHNICAL ENGINEER

EARTH SYSTEMS PACIFIC
1731-A WALTER STREET
VENTURA, CA 93003
TEL: (805) 642-6727

PROJECT DATA

SCOPE OF WORK

CONSTRUCTION OF BUILDINGS A, B AND C WHICH INCLUDES A TOTAL OF 8 CLASSROOMS, SUPPORT SPACES, ASSOCIATED RESTROOMS, DRINKING FOUNTAINS, UPGRADES ALONG THE PATH OF TRAVEL, COVERED WALKWAYS, LANDSCAPED COURTYARD, SHADE STRUCTURES, NEW OUTDOOR RECREATION AREA, STUDENT DROP-OFF, NEW PERIMETER FENCING, NEW MONUMENT SIGN, AND EXTENSION OF UTILITY LINES TO SERVICE THE NEW BUILDINGS.

BID ALTERNATES

DEDUCTIVE ALTERNATIVE ITEM 1: DEDUCTION OF BUILDING C, WHICH INCLUDES ONE CLASSROOM AND ASSOCIATED COVERED WALKWAY.

DEFERRED APPROVAL

DESCRIPTION OF DEFERRED ITEMS

WOOD TRUSSES WITH METAL STRAPPING

SHEET INDEX

(153 SHEETS)

GENERAL

G001	COVER SHEET
G002	ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES
G003	SITE PLAN - CODE ANALYSIS
G004	SITE PLAN - LOCAL FIRE AUTHORITY
G005	FLOOR PLAN - EGRESS ANALYSIS

CIVIL

C-1	ENGINEERED SITE PLAN
C-2	OVERALL UTILITY SITE PLAN
C-3	HORIZONTAL CONTROL PLAN

LANDSCAPE

L1	IRRIGATION PLAN
L2	IRRIGATION LEGEND AND NOTES
L3	PLANTING PLAN
L4	PLANTING LEGEND AND NOTES
L5	IRRIGATION / PLANTING DETAILS
L6	LANDSCAPE DETAILS
L7	LANDSCAPE SHADING PLAN
L8	LANDSCAPE SHADING PLAN LEGEND AND NOTES

ARCHITECTURE

AD001	DEMOLITION SITE PLAN
A001	SITE PLAN
A002	ENLARGED SITE PLAN
A011	SITE DETAILS
A012	CHAIN-LINK FENCE AND GATE DETAILS
A013	ORNAMENTAL METAL FENCING AND GATE DETAILS
A014	MISCELLANEOUS SITE DETAILS
A015	PARKING DETAILS
A016	SHADE STRUCTURES ENLARGED PLANS
A101	OVERALL FLOOR PLAN
A102	ENLARGED FLOOR PLAN - BLDG A
A103	ENLARGED FLOOR PLANS - BLDGS A, B AND C
A121	REFLECTED CEILING PLAN
A131	ROOF PLAN
A201	EXTERIOR ELEVATIONS
A202	EXTERIOR ELEVATIONS
A221	BUILDING SECTIONS
A231	EXTERIOR WALL SECTIONS
A232	EXTERIOR WALL SECTIONS
A301	ENLARGED RESTROOM FLOOR PLANS & ELEVATIONS
A302	ENLARGED RESTROOM FLOOR PLANS & ELEVATIONS
A303	ENLARGED FLOOR PLAN & ELEVATIONS - CLASSROOM TYPE A
A304	ENLARGED FLOOR PLAN & ELEVATIONS - CLASSROOM TYPE B
A305	ENLARGED STAIRS PLANS AND SECTIONS
A401	INTERIOR ELEVATIONS - BLDG A
A402	INTERIOR ELEVATIONS - BLDG A
A403	INTERIOR ELEVATIONS - BLDG A
A404	INTERIOR ELEVATIONS - BLDG B
A501	SIGNAGE FLOOR PLAN AND SCHEDULE
A502	SIGNAGE DETAILS
A601	FINISH AND FLOOR PATTERN PLANS
A602	INTERIOR FINISH SCHEDULE
A701	DOOR, GATE, WINDOW AND STOREFRONT SCHEDULES
A704	INTERIOR WALL SCHEDULE AND DETAILS
A721	EXTERIOR WALL DETAILS
A731	DOOR AND WINDOW DETAILS
A732	DOOR AND WINDOW DETAILS
A734	TUBULAR SKYLIGHT DETAILS
A771	STAIR AND RAMP DETAILS
A801	CASEWORK DETAILS
A802	RECEPTION DESK DETAILS
A821	TYP. LAY-IN CEILING DETAILS
A822	TYP. LAY-IN CEILING DETAILS
A823	TYP. LAY-IN CEILING DETAILS
A824	TYP. GYPSUM BOARD CEILING DETAILS
A825	TYP. LAY-IN CEILING DETAILS
A831	ROOF DETAILS
A832	ROOF DETAILS
A841	MISCELLANEOUS DETAILS
A843	FOLDING PARTITION DETAILS

STRUCTURE

S001	GENERAL NOTES
S002	GENERAL NOTES & ABBREVIATIONS
S101	FOUNDATION PLAN
S102	ROOF FRAMING PLAN
S301	TYPICAL CONCRETE SLAB ON GRADE
S302	TYPICAL CONCRETE FOOTING DETAILS
S303	CONCRETE FOOTING DETAILS
S401	TYPICAL MANSONRY DETAILS
S402	TRASH ENCLOSURE
S501	TYPICAL STEEL FRAMING DETAILS
S502	TYPICAL STEEL DECK DETAILS
S601	TYPICAL WOOD CONNECTION DETAILS
S602	TYPICAL WOOD DETAILS
S603	TYPICAL WOOD DETAILS
S604	WOOD DETAILS
S612	TYPICAL SHEAR WALL DETAILS
S621	TYPICAL SHEAR WALL DETAILS
S622	TYP WOOD DIAPHRAGM, SHEAR & DRAG CONNECTION DETAILS

MECHANICAL

M001	MECHANCIAL SYMBOLS & ABBREVIATIONS
M002	MECHANICAL TITLE 24
M003	MECHANICAL TITLE 24
M004	MECHANICAL TITLE 24
M005	MECHANICAL TITLE 24
M101	MECHANICAL FIRST FLOOR PLAN - DUCT
M141	MECHANICAL ROOF PLAN
M501	MECHANICAL DETAILS
M502	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES
M602	MECHANICAL SCHEDULES
M701	MECHANICAL CONTROLS

PLUMBING

P001	PLUMBING SYMBOLS, ABBREVIATIONS AND GENERAL NOTES
P101	PLUMBING 1ST FLOOR PLAN
P141	PLUMBING ROOF PLAN
P401	PLUMBING ENLARGED PLANS
P501	PLUMBING DETAILS
P601	PLUMBING SCHEDULES
P701	PLUMBING RISER DIAGRAM
P702	PLUMBING RISER DIAGRAM

ELECTRICAL

E001	STANDARDS, SYMBOLS & ABBREVIATIONS
E002	ELECTRICAL GENERAL NOTES
E003	ELECTRICAL TITLE 24
E004	ELECTRICAL TITLE 24
ES101	ELECTRICAL SITE PLAN - NEW
ESP101	ELECTRICAL SITE PLAN - EM PHOTOMETRIC

ELECTRICAL

E101	ELECTRICAL 1ST FLOOR PLAN
E121	ELECTRICAL 1ST FLOOR PLAN - AUXILIARY
E131	ELECTRICAL 1ST FLOOR LIGHTING PLAN
E132	ELECTRICAL 1ST FLOOR LIGHTING PLAN - EM PHOTOMETRICS
E141	ELECTRICAL ROOF PLAN - AUXILIARY
E311	ELECTRICAL ENLARGED PLANS
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS
E503	ELECTRICAL DETAILS
E601	ELECTRICAL SCHEDULES
E602	ELECTRICAL SCHEDULES
E603	ELECTRICAL SCHEDULES
E701	ELECTRICAL SINGLE LINE DIAGRAM

FIRE PROTECTION

FA001	FIRE ALARM GENERAL
FA002	FIRE ALARM DETAILS
FA003	FIRE ALARM DETAILS
FA100	FIRE ALARM SITE PLAN
FA201	NEW BUILDING FIRE ALARM PLAN
FA202	FOUR SQUARE BUILDING FIRE ALARM PLAN
FA301	FIRE ALARM RISER DIAGRAMS AND CALCS
FA302	FIRE ALARM RISER DIAGRAMS AND CALCS
FP001	FIRE PROTECTION GENERAL
FP100	FIRE PROTECTION SITE PLAN
FP201	NEW BUILDING SPRINKLER PLAN
FP202	NEW BUILDING HEAD LAYOUT
FP203	FOUR SQUARE BUILDING PLAN
FP301	FIRE PROTECTION SECTIONS
FP401	FIRE PROTECTION DETAILS
FP402	FIRE PROTECTION SEISMIC DETAILS

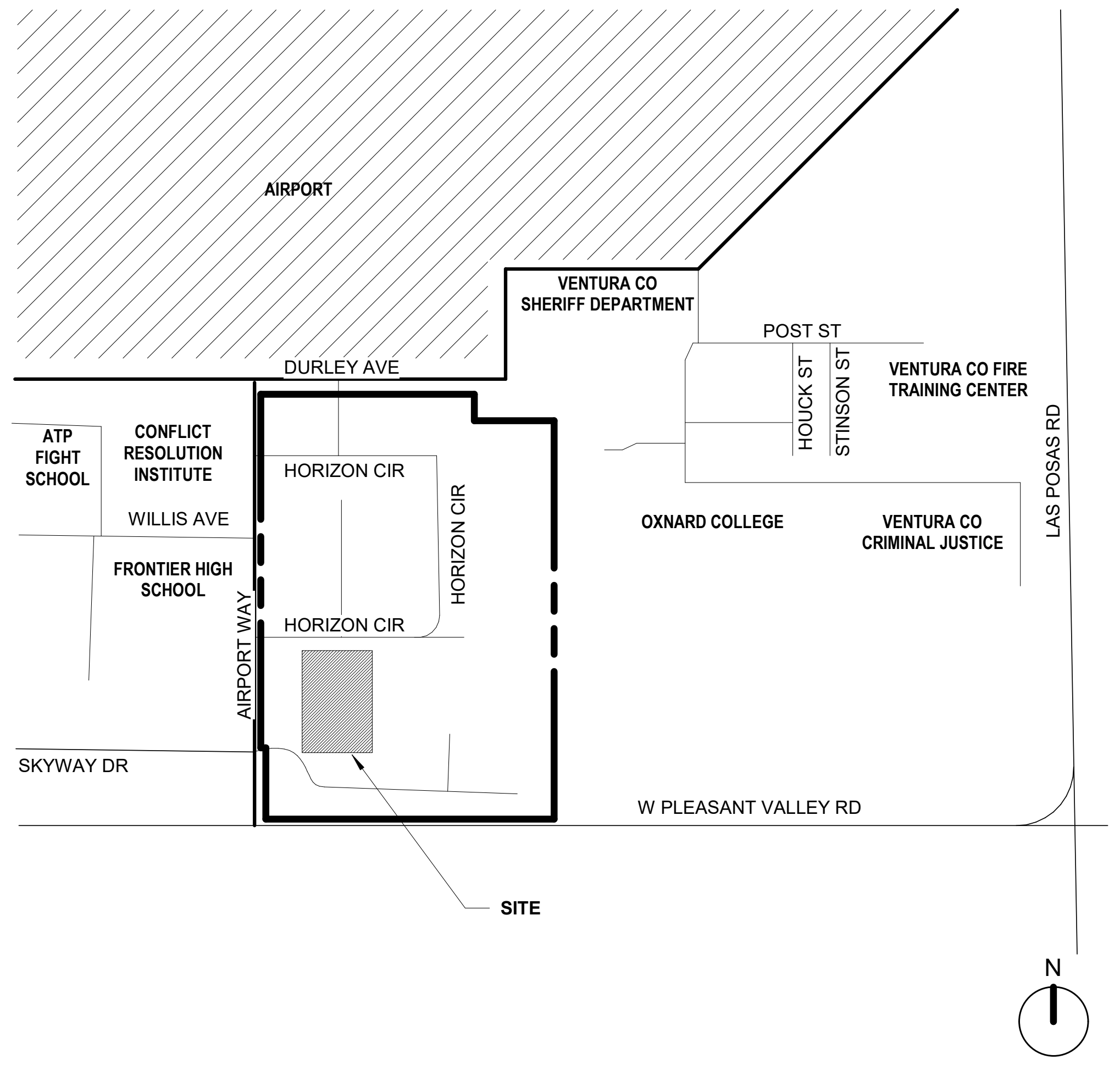
FOOD SERVICES

QF000-1	Index Sheet
QF100-1	Foodservice Key Plan
QF400-1	Foodservice Equipment Plan
QF400-2	Foodservice Utility Schedule
QF400-3	Foodservice Building Conditions & Ventilation Plan
QF400-4	Foodservice Plumbing Plan
QF400-5	Foodservice Electrical Plan
QF500-1	Foodservice Elevations
QF501-1	Foodservice Details & Sections

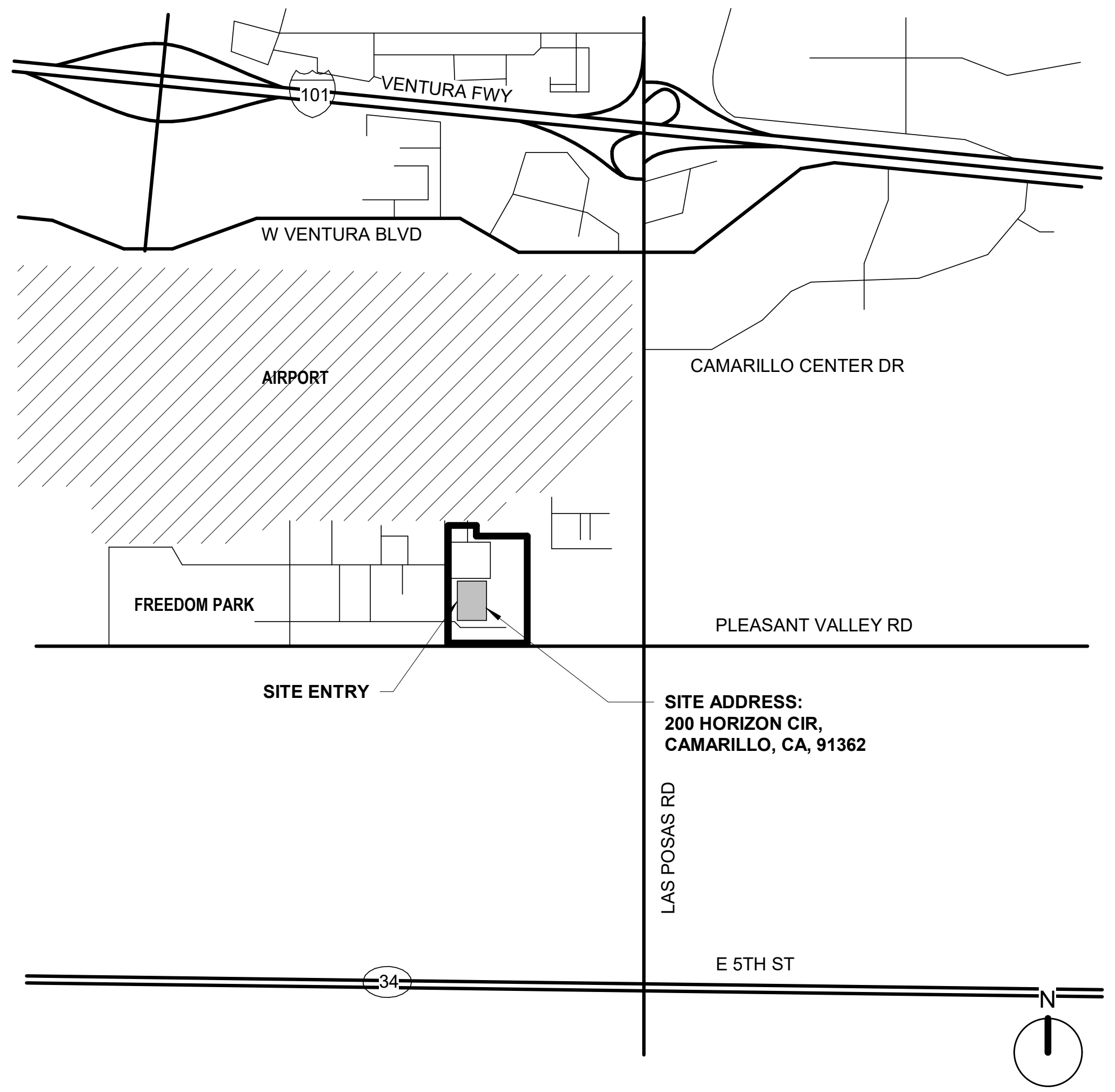
SHADE SHELTER_FOUR POINT SAILS_PC 04-119455

P.C. T-1.0	P.C. TITLE SHEET
P.C. T-2.0	DSA 103 SAMPLE FORM
P.C. T-2.1	DSA 103 SAMPLE FORM
15.1-1000	PRODUCT INFORMATION
15.2-2000	REACTIONS

VICINITY MAP



LOCATION MAP



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
C-98
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△	
△	
△	
△	
△	

COVER SHEET

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

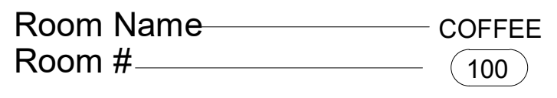
G001

ABBREVIATIONS

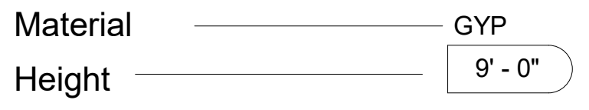
FOR ADDITIONAL ABBREVIATIONS, SEE OTHER DISCIPLINE SHEETS. ABBREVIATIONS MAY VARY BETWEEN DISCIPLINES.

@	AT
℄	CENTERLINE
A.F.F.	ABOVE FINISH FLOOR
A.C.	ASPHALTIC CONCRETE
ALUM.	ALUMINUM
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT
BLDG.	BUILDING
C.J.	CONTROL JOINT
CLG.	CEILING
CONC.	CONCRETE
C.M.U.	CONCRETE MASONRY UNITS
CONT.	CONTINUOUS
D.G.	DECOMPOSED GRANITE
DIA.	DIAMETER
DN.	DOWN
D.F.	DRINKING FOUNTAIN
D.S.	DOWNSPOUT
DWG.	DRAWING
(E)	EXISTING
EA.	EACH
E.J.	EXPANSION JOINT
ELEC.	ELECTRIC
ELEV.	ELEVATOR
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXT.	EXTERIOR
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER (WALL HUNG)
F.E.C.	FIRE EXTINGUISHER AND CABINET
F.F.	FINISH FLOOR
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.R.P.	FIBERGLASS REINFORCED PLASTIC
F.S.	FLOOR SINK
F.V.	FIELD VERIFY
FT.	FOOT OR FEET
GA.	GAUGE OR GAGE
GALV.	GALVANIZE
GYP.	GYPSUM
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
HT.	HEIGHT
INT.	INTERIOR
LAB.	LABORATORY
LAM. PLAS.	LAMINATED PLASTIC
LAV.	LAVATORY
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
NO./#	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.F.C.I.	OWNER FURNISHED CONTRACTOR INSTALLED
O.F.O.I	OWNER FURNISHED OWNER INSTALLED
O.H.	OPPOSITE HAND
O.L.F.	OCCUPANT LOAD FACTOR
P.H.	PANIC HARDWARE
P.L.	PROPERTY LINE
R.	STAIR RISER
RAD.	RADIUS
REF.	REFRIGERATOR
REQ'D.	REQUIRED
RM.	ROOM
R.O.	ROUGH OPENING
SF	SQUARE FEET
SIM.	SIMILAR
SPEC.	SPECIFICATIONS
S.S.	STAINLESS STEEL OR SERVICE SINK
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
T.	STAIR TREAD
T.& G.	TONGUE AND GROOVE
T.O.C.	TOP OF CURB
T.O.D.	TOP OF DECK
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TEMP.	TEMPORARY
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U.O.N.	UNLESS OTHERWISE NOTED
U.	URINAL
V.C.T.	VINYL COMPOSITION TILE
V.I.F.	VERIFY IN FIELD
VERT.	VERTICAL
W/	WITH
W.C.	WATER CLOSET

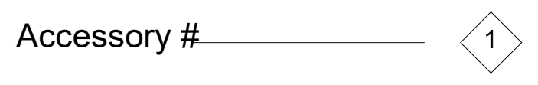
SYMBOLS



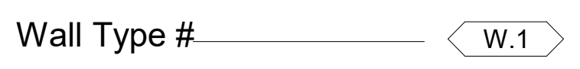
ROOM NAME AND NUMBERS



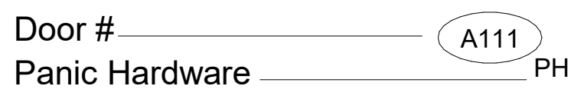
CEILING HEIGHT



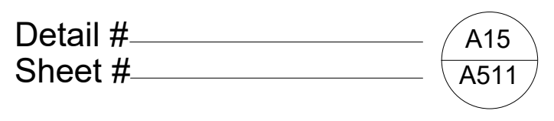
TOILET ACCESSORY



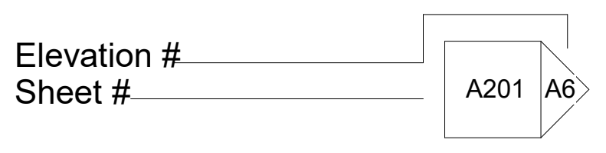
WALL TYPE



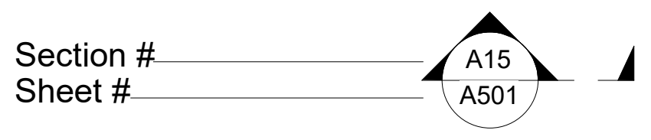
DOOR AND GATE NUMBER



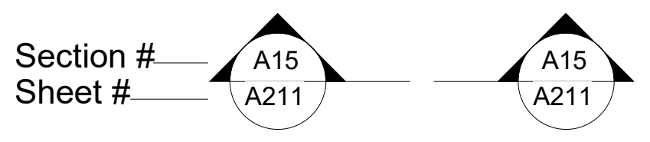
DETAIL NUMBER



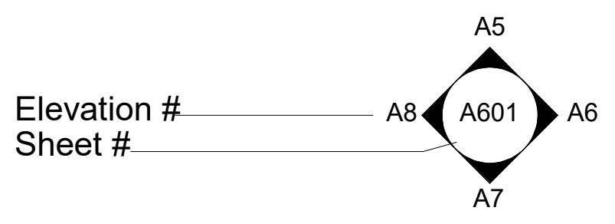
EXTERIOR ELEVATION



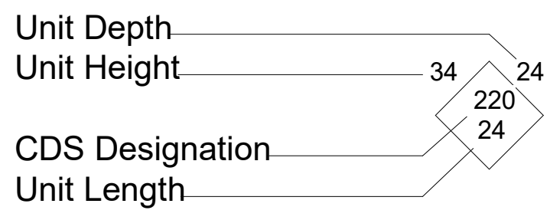
WALL SECTION



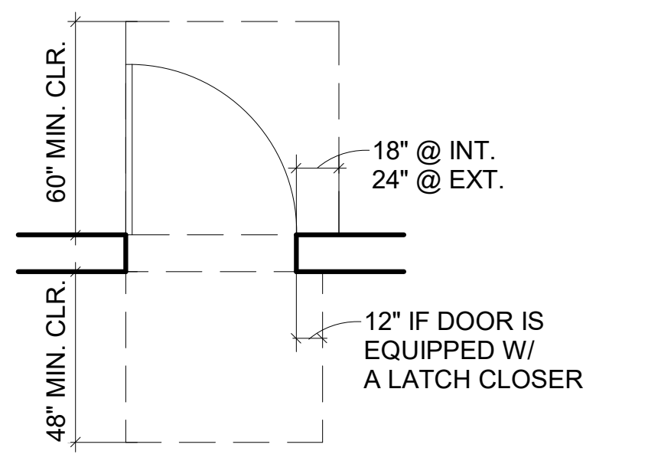
BUILDING SECTION



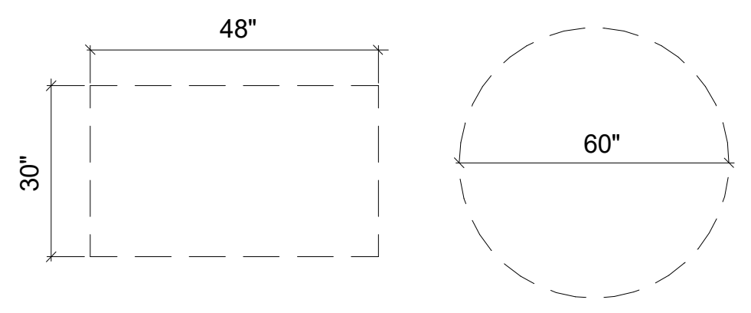
INTERIOR ELEVATIONS



CASEWORK -
PER NORTH AMERICAN
ARCHITECTURAL
WOODWORK STANDARD



DOOR LANDING CLEARANCE



FLOOR CLEARANCE

APPLICABLE CODES & STANDARDS

GENERAL CODES

- 2019 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
- 2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. (2018 INTERNATIONAL BUILDING CODE VOLUMES 1&2 AND 2016 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. (2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R. (2018 IAPMO UNIFORM MECHANICAL AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. (2018 IAPMO UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R.
- 2019 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 C.C.R. (2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 C.C.R. (2018 INTERNATIONAL EXISTING BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA GREEN BUILDING STANDARD (CALGREEN CODE), PART 11, TITLE 24 C.C.R.
- 2019 CALIFORNIA REFERENCE STANDARDS CODE (CRSC), PART 12, TITLE 24 C.C.R.
- TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
- NFPA 101 - LIFE SAFETY CODE, 2015
- AMERICANS WITH DISABILITIES ACT (ADA), TITLE II 2010: ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36)

GENERAL STANDARDS		**EDITION**
NFPA 13	INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED)	2016
NFPA 14	INSTALLATION OF STANDPIPE AND HOSE SYSTEMS	2013
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2013
NFPA 17A	WET CHEMICAL EXTINGUISHING SYSTEMS	2013
NFPA 20	INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION	2016
NFPA 22	WATER TANKS FOR PRIVATE FIRE PROTECTION	2013
NFPA 24	INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES	2016
NFPA 25	INSPECTION, TESTING, MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS	2016
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)	2016
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2016
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYTEMS	2015
UL 464	AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES	2003
UL 521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	1999
UL 1971	SIGNALING DEVICES FOR THE HEARING IMPAIRED	2002

GENERAL NOTES

1. VERIFY DIMENSIONS, LOCATIONS OF EXISTING UTILITIES, AND CONDITIONS ON THE JOB SITE PRIOR TO THE START OF WORK OR PORTIONS OF THE WORK. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE ACTUAL FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS. EXISTING CONDITIONS ARE INDICATED AS A RESULT OF FIELD OBSERVATIONS, INFORMATION SHOWN ON AVAILABLE DOCUMENTS AND FIELD CONDITIONS AT THE TIME OF PREPARATION, AND ARE NOT GUARANTEED TO BE ACCURATE.
2. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH GOVERNING CODES, ORDINANCES, REGULATIONS AND LAWS.
3. THE DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS AND SCAFFOLDING IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. WHERE CONFLICT OCCURS BETWEEN THE REQUIREMENTS OF LAWS, CODES, ORDINANCES, RULES AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
5. DIMENSIONS SHOWN ON DRAWINGS SUPERSEDE SCALED DIMENSIONS.
6. DETAILS MARKED 'TYPICAL' SHALL APPLY IN SIMILAR CASES.
7. WHERE NO SPECIFIC DETAIL IS SHOWN, THE FRAMING OR CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION OR PER COMMON INDUSTRY PRACTICE IF THERE ARE NO LIKE CASES.
8. PRIOR TO THE START OF WORK COORDINATE THE REQUIREMENTS OF THE TRADES INDICATED HEREIN AND THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBDIVIDE THE WORK.
10. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD EXISTING CONDITIONS SUCH AS DETERIORATION OR NON COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE NEW WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, NOTIFY THE OWNER AND MAKE CORRECTIONS REQUIRED TO BRING THE NEW WORK INTO COMPLIANCE WITH THE CODE.
11. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY A WRITTEN CONSTRUCTION CHANGE DOCUMENT AND IF REQUIRED BY STATUTE, APPROVED BY THE AGENCY HAVING JURISDICTION, IN COMPLIANCE WITH THE GOVERNING CODES.
12. PROVIDE THE OWNER, THE OWNER'S REPRESENTATIVE, AND THE PROJECT INSPECTOR FULL ACCESS TO THE SITE AT ALL TIMES.
13. COOPERATE WITH THE OWNER PROVIDED TESTING LAB TO OBTAIN TEST SAMPLES. THE INSPECTOR FOR THE AGENCY HAVING JURISDICTION SHALL HAVE FULL ACCESS TO THE WORK AT ALL TIMES.
14. DIMENSIONS ARE TO GRID LINES, FACE OF CONCRETE, FACE OF CONCRETE MASONRY UNITS, AND FACE OF STUDS, UNLESS NOTED OTHERWISE.
15. CONTRACTOR'S SAFETY BARRICADES AND TEMPORARY FENCING SHALL PROTECT THE PUBLIC FROM CONSTRUCTION ACTIVITIES. THE SAFETY BARRICADE SHALL PROTECT AND SECURE THE CONSTRUCTION AREA. TEMPORARY FENCING SHALL BE PROVIDED TO PROTECT AND SECURE STORAGE YARDS. THE EXACT LOCATION OF SAFETY BARRICADE AND TEMPORARY FENCING SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE OWNER PRIOR TO INSTALLATION.
16. PENETRATIONS NOT SHOWN ON THE PLANS THAT REQUIRE CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH EXISTING OR NEW STRUCTURAL ELEMENTS ARE NOT ALLOWED UNLESS THE DETAILS HAVE BEEN REVIEWED BY THE OWNER OR THE PROJECT'S STRUCTURAL ENGINEER.
17. LOCATE ON-SITE UTILITIES BY OBTAINING AND PAYING FOR THE SERVICES OF A UTILITY LOCATER.
18. CONTACT AN UNDERGROUND UTILITY SERVICE TO CHECK PUBLIC UTILITIES PRIOR TO WORK IN A PUBLIC WAY.
19. WHERE CONFLICTS OCCUR IN THE DOCUMENTS, BID THE MORE EXPENSIVE ITEM.
20. SAFEGAURDS DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CBC CHAPTER 33 AND CFC CHAPTER 33.
21. THE WORK IS GOVERNED BY THE DIVISION OF THE STATE ARCHITECT (DSA) AND TO COMPLY WITH THE DSA INTERPRETIVE REGULATIONS AND DSA PROCEDURES.
22. A 'DSA CERTIFIED' CLASS 2 PROJECT INSPECTOR EMPLOYED BY THE OWNER AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN CBC, PART 1, CHAPTER 4, SECTION 4-342.
23. CHANGES TO DSA APPROVED DRAWINGS SHALL BE SUBMITTED BY THE ARCHITECT WHEN REQUIRED BY DSA INTERPRETIVE REGULATION IR A-6 AND SHALL COMPLY WITH THE REQUIREMENTS OF CBC, PART 1, CHAPTER 4, SECTION 4-215.
24. SUBMIT DSA FORM 6-C ELECTRONICALLY AT THE END OF THE WORK USING THE PROCEDURES AND NAMING REQUIREMENTS REQUIRED BY DSA.
25. THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.

    LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).

    MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE 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-PROGRAM/ACCEPTANCE.

    THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.

    PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.
26. ALL WORK SHALL CONFORM TO 2019 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
27. FABRICATION AND INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTOR'S DRAWINGS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCTURAL ENGINEER AND APPROVED BY THE DSA. LIST DEFERRED SUBMITTAL ITEMS FOR THIS PROJECT.
28. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND ISPECTIONS FOR THE PROJECT.
29. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

MODERNIZATION NOTES

1. CONSTRUCTION ACTIVITIES SHALL BE CONTAINED WITHIN FENCED OR BARRICADED AREAS. CONSTRUCTION ACTIVITIES THAT GENERATE DISRUPTIVE NOISE, ODORS, AND DUST TO BE SCHEDULED TO MINIMIZE DISRUPTION TO OCCUPANTS AT THE SITE AND NEIGHBORING PROPERTY. MODIFY THE PROJECT SCHEDULE AT THE OWNER'S REQUEST WHEN DISRUPTIONS CANNOT BE AVOIDED.
2. EXERCISE CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID EXISTING DUCTS, PIPING, AND CONDUIT, AND TO PREVENT HAZARD TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES. THE OWNER IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES, WHETHER OR NOT SHOWN ON THESE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND IDENTIFYING UNDERGROUND UTILITIES AND STRUCTURES.
3. PHOTO DOCUMENT THE EXISTING CONDITIONS OF THE SITE INCLUDING THE CONTRACTOR'S YARD AREA; AREAS WHERE TRENCHING WILL BE OCCURING AND WHERE VEHICLE TRAFFIC IS ANTICIPATED. TEST IRRIGATION SYSTEM FOR PROPER OPERATION. AT PROJECT COMPLETION THE AREAS ARE TO BE RESTORED TO THEIR ORIGINAL CONDITION INCLUDING, BUT NOT LIMITED TO, INSTALLING SOD AT DAMAGED TURF AREAS, REPLACING DAMAGED PLANTING, REPAIRING DAMAGED UNDERGROUND UTILITIES, PATCHING DAMAGED ASPHALT PAVING, RESTRIPING PAVING AND REPLACEMENT OF DAMAGED CONCRETE.
4. HAVE EMERGENCY SHUT-OFF PROCEDURES IN PLACE PRIOR TO START OF CONSTRUCTION. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH SHUT-OFF VALVE LOCATIONS ON SITE AND HAVE PROPER TOOLS AVAILABLE TO OPERATE VALVES.
5. BUILDINGS UNDERGOING ALTERATION OR DEMOLITION SHALL BE IN ACCORDANCE WITH CFC CHAPTER 33 AND CBC CHAPTER 33. MAINTAIN EXISTING FIRE ALARM SYSTEM UNTIL THE NEW SYSTEM OR SYSTEM MODIFICATIONS ARE FUNCTIONAL.
6. WHERE ITEMS ARE CUT DEMOLISHED OR REMOVED, PATCH SURFACES AFFECTED TO MATCH ADJACENT SURFACES. MATCH MATERIAL, TEXTURE, AND PATTERN. REMOVE FASTENERS AND ANCHORS AND PATCH HOLES.
7. WHERE ITEMS ARE CUT, REMOVED OR DEMOLISHED AND PAINTING OR FINISHING IS REQUIRED TO MATCH ADJACENT SURFACES, PAINT OR FINISH THE ENTIRE PLANE OF THE REPAIR.
8. THESE DRAWINGS DO NOT SHOW MATERIALS TO BE REMOVED AND REINSTALLED IN ORDER TO INSTALL NEW WORK. THE EXTENTOF REMOVAL AND REINSTALLATION IS TO BE DETERMINED BY THE CONTRACTOR AND IS NOT CONSIDERED DEMOLITION. REINSTALL MATERIALS PER THE DEMOLISHED ITEMS' NOTES ABOVE.
9. REMOVE, DEMOLISH OR DISPOSE MEANS REMOVE FROM THE SITE AND DISPOSE IN A LEGAL FASHION.
10. SEE ELECTRICAL, MECHANICAL, AND PLUMBING FOR ADDITIONAL DEMOLITION.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-982[illegible]
REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

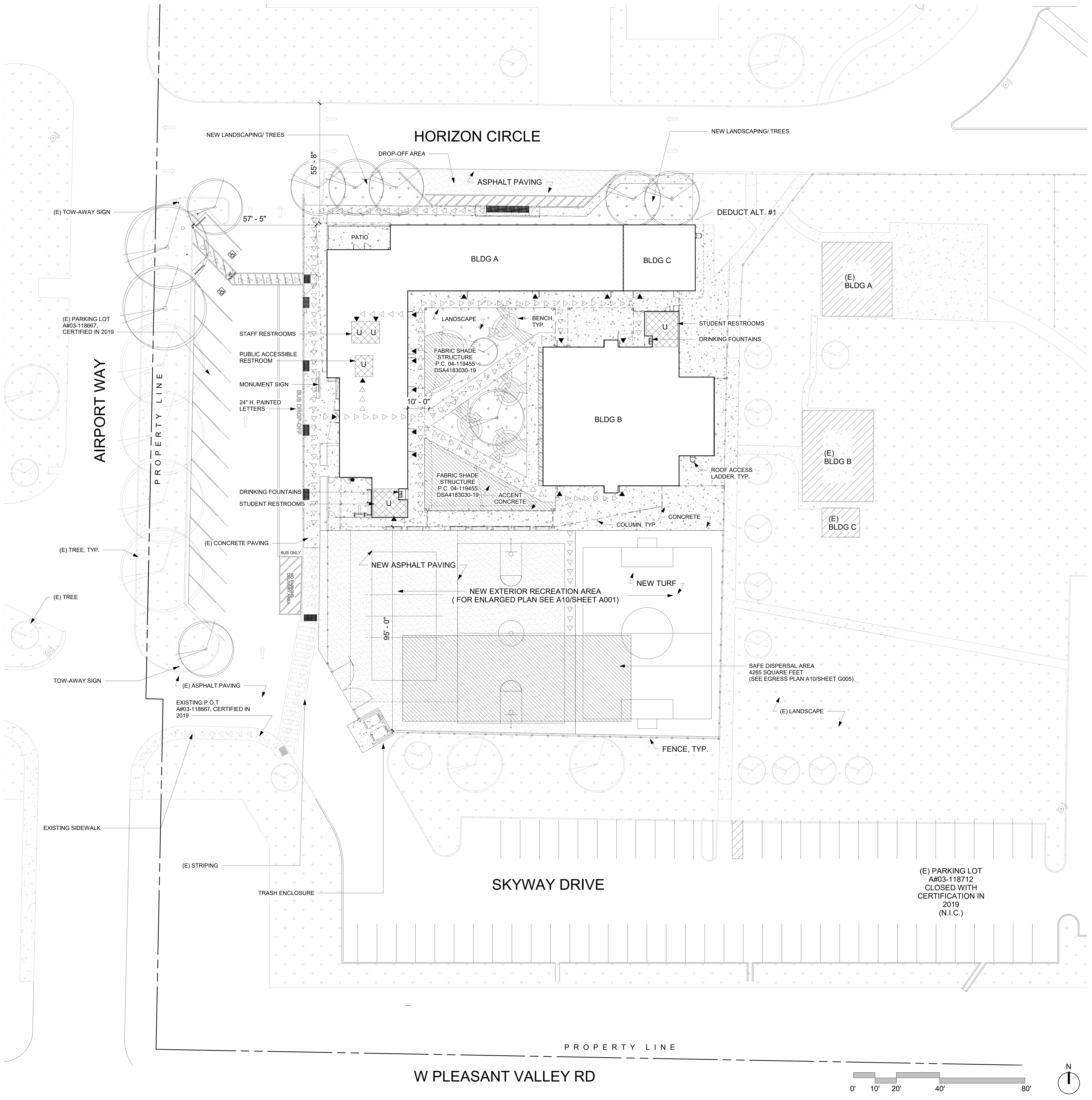
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022

ABBREVIATIONS, SYMBOLS,
AND GENERAL NOTES

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

G002



SITE PLAN - CODE ANALYSIS **C10**

1" = 20'-0"

CODE ANALYSIS:

ANNEX SCHOOL: BUILDING A, B, AND C

CONSTRUCTION TYPE:	VB
ALLOWABLE NUMBER OF STORIES:	1
PROVIDED:	1
ALLOWABLE BUILDING HEIGHT SPRINKLER:	40 FT
ACTUAL BUILDING HEIGHT:	23 FT
AUTOMATIC SPRINKLER SYSTEM: BUILDINGS A, B AND C:	YES
MIN. ROOF CLASS ASSEMBLY: (PER CBC TABLE 1505.1)	TYPE B
ROOF CLASS PROVIDED:	TYPE A
OCCUPANCY:	A
AREA BLDG A:	7,196 SF
AREA BLDB B:	4,994 SF
AREA BLDG C:	1,070 SF
SHADE SHELTERS:	1,050 SF
TOTAL AREA:	14,310 SF
ALLOWABLE AREA PER FLOOR: (CBC TABLE 506.2.4)	24,000 SF

FIRE RATING REQUIREMENTS:
(PER CBC TABLE 601)

PRIMARY STRUCTURAL FRAME:	0
NON BEARING WALLS:	0
FLOOR CONSTRUCTION:	0
ROOF CONSTRUCTION:	0

PLUMBING COUNTS:	MEN	WOMEN	ALL-GENDER
TOTAL OCCUPANTS:	90	90	-
WATER CLOSET REQ.:	3	4	
PROVIDED:	-	-	9*
URINALS REQ.:	2*	0	
PROVIDED:	-	-	0
SINKS REQ.:	4	4	
PROVIDED:	-	-	8
D.F. REQ.:			3
PROVIDED:			4

*URINALS ARE PROVIDED BY WATER CLOSETS IN ALL-GENDER RESTROOMS

PARKING COUNT;
(CBC TABLE 11B-208.2)

TOTAL RE-STRIPED PARKING STALLS:	13
REQ. ACCESSIBLE STALLS:	1/25
PROVIDED:	1
REQ. VAN ACCESSIBLE STALLS:	1
PROVIDED:	1
TOTAL ACCESSIBLE STALLS PROVIDED:	2

SITE LEGEND

☐	NEW BUILDING
▨	EXISTING BUILDING
☐	SITE CONCRETE
■	SITE CONCRETE, ACCENT COLOR
⁘	EXISTING ASPHALT
↓	EXISTING GRASS
--------	AREA OF WORK
▩	ACCESSIBLE RESTROOM
	M: MEN W: WOMEN B: BOYS G: GIRLS U: UNISEX
▷ ▷ ▷ ▷	(E) ACCESSIBLE PATH OF TRAVEL, A#03-118667
▷ ▷ ▷ ▷	ACCESSIBLE PATH OF TRAVEL
▶	ACCESSIBLE ENTRANCE

- ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAX SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX, AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE FIRM AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT

- THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED 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 PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.
- DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002

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BRIAN PAUL DOUGHERTY
REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL

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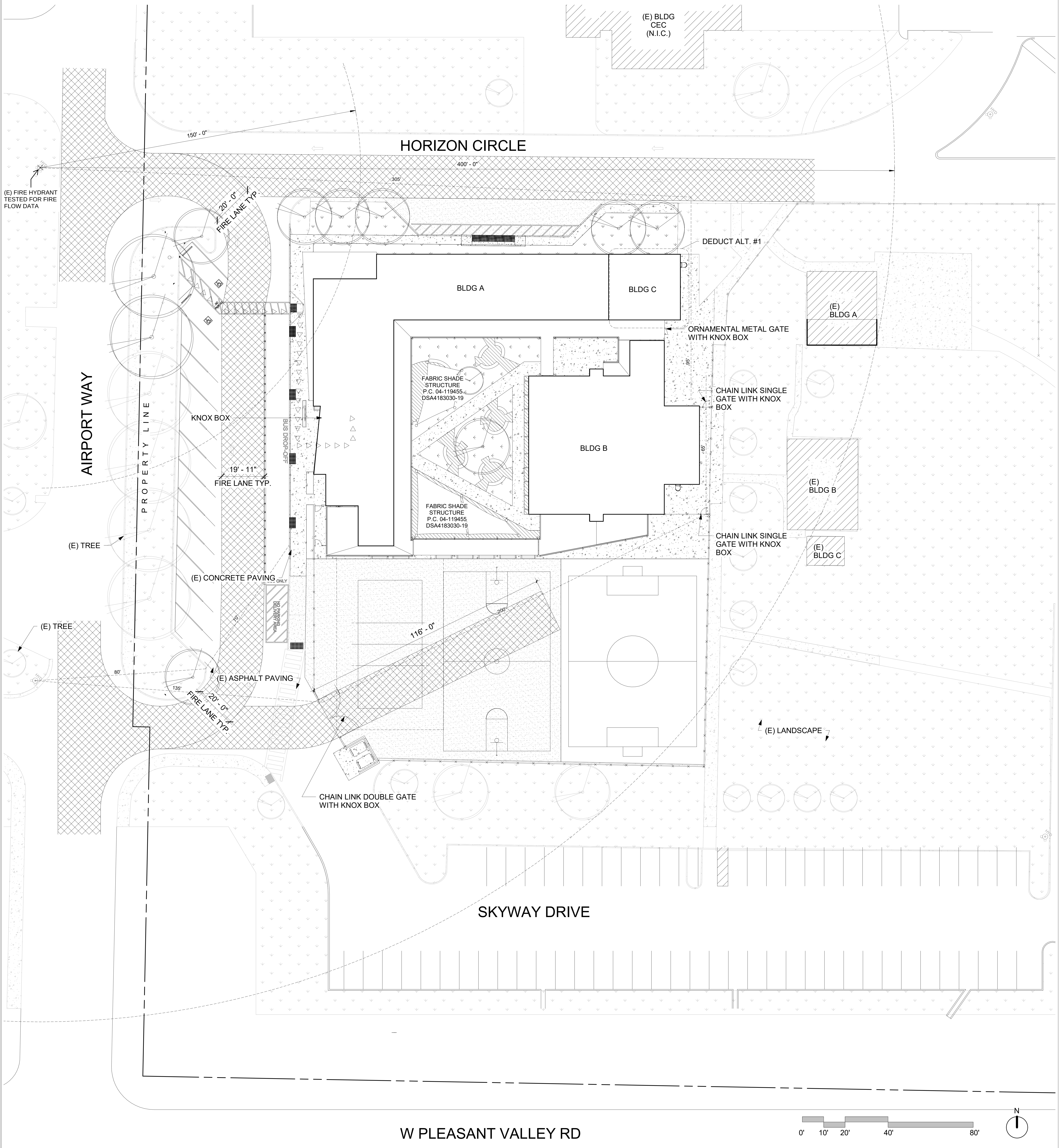
△	
△	

SITE PLAN - CODE ANALYSIS

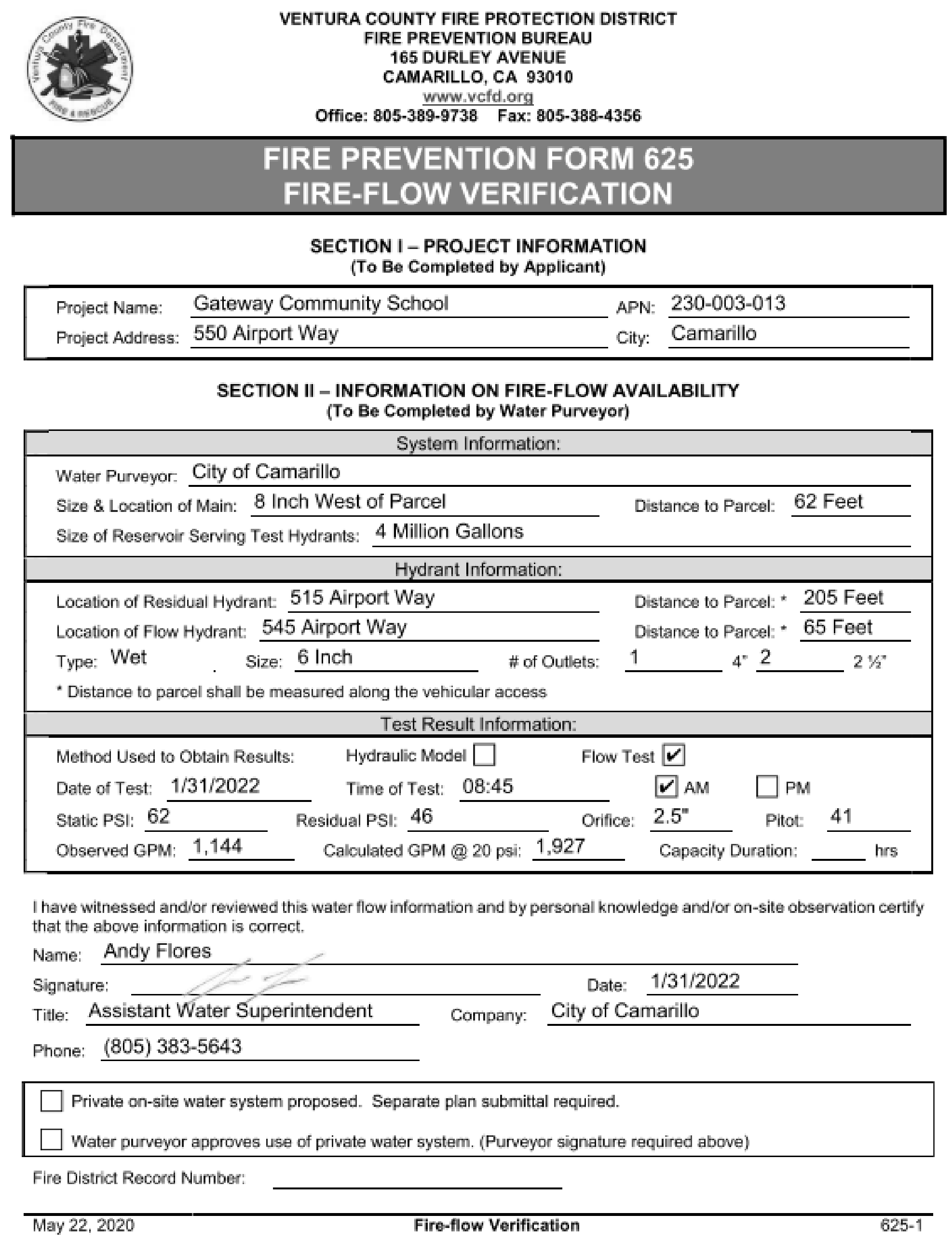
PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

G003



SITE PLAN - LOCAL FIRE AUTHORITY D10
1" = 20'-0"



VENTURA COUNTY FIRE PROTECTION DISTRICT
FIRE PREVENTION BUREAU
165 DURLEY AVENUE
CAMARILLO, CA 93010
www.vcfd.org
Office: 805-389-9738 Fax: 805-388-4356

FIRE PREVENTION FORM 625
FIRE-FLOW VERIFICATION

SECTION I – PROJECT INFORMATION
(To Be Completed by Applicant)

Project Name: Gateway Community School APN: 230-003-013
Project Address: 550 Airport Way City: Camarillo

SECTION II – INFORMATION ON FIRE-FLOW AVAILABILITY
(To Be Completed by Water Purveyor)

System Information:

Water Purveyor: City of Camarillo
Size & Location of Main: 8 Inch West of Parcel Distance to Parcel: 62 Feet
Size of Reservoir Serving Test Hydrants: 4 Million Gallons

Hydrant Information:

Location of Residual Hydrant: 515 Airport Way Distance to Parcel: * 205 Feet
Location of Flow Hydrant: 545 Airport Way Distance to Parcel: * 65 Feet
Type: Wet Size: 6 Inch # of Outlets: 1 4" 2 2 ½"
* Distance to parcel shall be measured along the vehicular access

Test Result Information:

Method Used to Obtain Results: Hydraulic Model ☐ Flow Test ☑
Date of Test: 1/31/2022 Time of Test: 08:45 ☑ AM ☐ PM
Static PSI: 62 Residual PSI: 46 Orifice: 2.5" Pitot: 41
Observed GPM: 1,144 Calculated GPM @ 20 psi: 1,927 Capacity Duration: ____ hrs

I have witnessed and/or reviewed this water flow information and by personal knowledge and/or on-site observation certify that the above information is correct.

Name: Andy Flores
Signature: Date: 1/31/2022
Title: Assistant Water Superintendent Company: City of Camarillo
Phone: (805) 383-5643

☐ Private on-site water system proposed. Separate plan submittal required.
☐ Water purveyor approves use of private water system. (Purveyor signature required above)

Fire District Record Number: ____________

May 22, 2020 **Fire-flow Verification** 625-1

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: Ventura County Office of Education
Project Name/School: Gateway Annex School
Project Address: 550 Airport Way, Camarillo, CA 93010

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: http://egis.fire.ca.gov/FHSZ/	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

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

School District Acceptance of Acceptable Design Alternates

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

Accepted by: ______________________ Title: ______________________

Signature: ______________________ Date: ______________________

LOCAL FIRE AUTHORITY (LFA) INFORMATION	
LFA Agency Name: Ventura County Fire Department	
LFA Review Official: Brandon Sube	
Title: Fire Inspector II	Work Phone: (805) 914-7436
Work Email: Brandon.Sube@ventura.org	

LFA Reviewer's Signature: Brandon Sube Digitally signed by Brandon Sube Date: 2023.01.04 08:59:33 -08'00' Date: 01/04/23

DGS DSA 810 (revised 12/29/20) Page 2 of 4
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL.31, 2023

SITE LEGEND

☐	NEW BUILDING
▨	EXISTING BUILDING
▦	FIRE ACCESS LANE
HYD	FIRE HYDRANT

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002

FIRE AUTHORITY NOTES

1. VEGETATION AND OTHER OBSTRUCTIONS OVERHANGING A FIRE ACCESS ROADWAY SHALL BE MAINTAINED TO A CLEAR HEIGHT OF 13'-6".
2. KNOX KEY SWITCHES, KNOX LOCKS, OR FRANGIBLE PADLOCKS/CHAINS SHALL BE PROVIDED FOR ALL GATES AND BARRIERS IN THE PATH OF VEHICLE OR FIREFIGHTER ACCESS.
3. THE CAMPUS IS IDENTIFIED WITH 6" HIGH ADDRESS NUMBERS EASILY VISIBLE FROM THE PUBLIC ROAD FRONTING THE PROPERTY. INDIVIDUAL STRUCTURES ARE IDENTIFIED WITH 6" HIGH ADDRESS NUMBERS OR LETTERS EASILY VISIBLE FROM THE PUBLIC WAY OR FIRE ACCESS ROADWAY.
4. ALL-WEATHER ACCESS ROADWAYS AND FIRE HYDRANTS SHALL BE IN PLACE AND OPERATIONAL BEFORE BRINGING COMBUSTIBLE BUILDING MATERIALS OR PORTABLE UNITS ON-SITE.
5. PIVS, DDCS, FDCS SHALL BE UNOBSTRUCTED AND VISIBLE FROM THE FIRE LANE OR PUBLIC ROAD. THEY SHALL BE PAINTED OSHA SAFETY RED.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
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DATE	12/07/2022
△	
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△	
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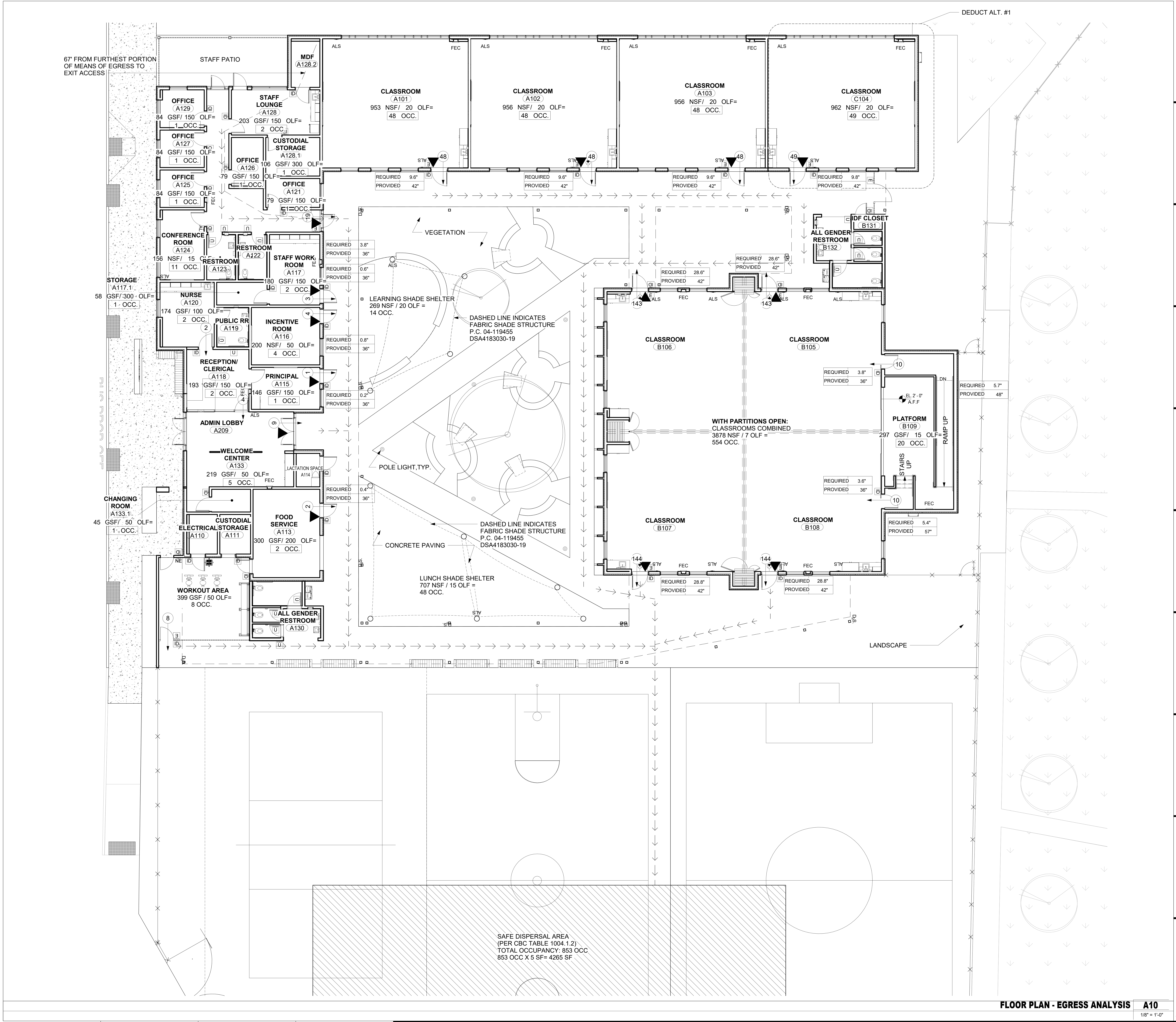
SITE PLAN - LOCAL FIRE AUTHORITY

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

G004


DEDUCT ALT. #1
67' FROM FURTHEST PORTION OF MEANS OF EGRESS TO EXIT ACCESS
STAFF PATIO
MDF A128.2
CLASSROOM A101 953 NSF/ 20 OLF= 48 OCC.
CLASSROOM A102 956 NSF/ 20 OLF= 48 OCC.
CLASSROOM A103 956 NSF/ 20 OLF= 48 OCC.
CLASSROOM C104 962 NSF/ 20 OLF= 49 OCC.
OFFICE A129 84 GSF/ 150 OLF= 1 OCC.
STAFF LOUNGE A128 203 GSF/ 150 OLF= 2 OCC.
OFFICE A127 84 GSF/ 150 OLF= 1 OCC.
CUSTODIAL STORAGE A128.1 106 GSF/ 300 OLF= 1 OCC.
OFFICE A126 79 GSF/ 150 OLF= 1 OCC.
OFFICE A125 84 GSF/ 150 OLF= 1 OCC.
OFFICE A121 79 GSF/ 150 OLF= 1 OCC.
CONFERENCE ROOM A124 156 NSF/ 15 OLF= 11 OCC.
RESTROOM A122
RESTROOM A123
STAFF WORK ROOM A117 180 GSF/ 150 OLF= 2 OCC.
STORAGE A117.1 58 GSF/ 300 OLF= 1 OCC.
NURSE A120 174 GSF/ 100 OLF= 2 OCC.
PUBLIC RR A119
INCENTIVE ROOM A116 200 NSF/ 50 OLF= 4 OCC.
RECEPTION/ CLERICAL A118 193 GSF/ 150 OLF= 2 OCC.
PRINCIPAL A115 146 GSF/ 150 OLF= 1 OCC.
ADMIN LOBBY A209
WELCOME CENTER A133 219 GSF/ 50 OLF= 5 OCC.
LACTATION SPACE A114
CHANGING ROOM A133.1 45 GSF/ 50 OLF= 1 OCC.
ELECTRICAL A110
CUSTODIAL STORAGE A111
FOOD SERVICE A113 300 GSF/ 200 OLF= 2 OCC.
WORKOUT AREA 399 GSF / 50 OLF= 8 OCC.
ALL GENDER RESTROOM A130
VEGETATION
LEARNING SHADE SHELTER 269 NSF / 20 OLF = 14 OCC.
DASHED LINE INDICATES FABRIC SHADE STRUCTURE P.C. 04-119455 DSA4183030-19
POLE LIGHT,TYP.
CONCRETE PAVING
LUNCH SHADE SHELTER 707 NSF / 15 OLF = 48 OCC.
ALL GENDER RESTROOM B132
IDF CLOSET B131
CLASSROOM B106
CLASSROOM B105
CLASSROOM B107
CLASSROOM B108
WITH PARTITIONS OPEN: CLASSROOMS COMBINED 3878 NSF / 7 OLF = 554 OCC.
PLATFORM B109 297 GSF/ 15 OLF= 20 OCC.
EL. 2'-0" A.F.F
RAMP UP
STAIRS UP
LANDSCAPE
REQUIRED 9.6" PROVIDED 42"
REQUIRED 9.8" PROVIDED 42"
REQUIRED 3.8" PROVIDED 36"
REQUIRED 0.6" PROVIDED 36"
REQUIRED 0.8" PROVIDED 36"
REQUIRED 0.2" PROVIDED 36"
REQUIRED 0.4" PROVIDED 36"
REQUIRED 28.6" PROVIDED 42"
REQUIRED 5.7" PROVIDED 48"
REQUIRED 3.6" PROVIDED 36"
REQUIRED 5.4" PROVIDED 57"
REQUIRED 28.8" PROVIDED 42"
48
49
143
144
10
SAFE DISPERSAL AREA (PER CBC TABLE 1004.1.2) TOTAL OCCUPANCY: 853 OCC 853 OCC X 5 SF= 4265 SF

FLOOR PLAN - EGRESS ANALYSIS A10
1/8" = 1'-0"

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APP: 03-122398 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL.31, 2023

CODE ANALYSIS LEGEND

→ → → EXIT PATH
▶ EXIT ACCESS
(X)→ EXIT PATH X = NUMBER OF OCCUPANTS

OCCUPANT LOAD:

ROOM NAME
(ROOM #)
GSF / ___ OLF =
___ OCC.

EXISTING OCCUPANT LOAD:
(A# 04-118580)

ROOM NAME
(ROOM #)
GSF / ___ OLF =
___ OCC.

MEANS OF EGRESS:
1. EGRESS WIDTH: CBC SECTION 1005.1
2. MIN. WIDTH 32" (PER SECTION 1010.1.1)

NUMBER OF EXITS REQUIRED: CBC TABLE 1006.3.1.**EXIT DOOR WIDTH:** (CBC SECTION 1005.1)

EXIT ACCESS TYPICAL CLASSROOM

1 EXITS
TOTAL OCCUPANTS: 49 OCC.
49 OCC x 0.2" = 9.8"
MIN WIDTH REQUIRED = 32"
PROVIDED WIDTH = 42"
THEREFORE OK

SAFE DISPERSAL AREA
(PER CBC TABLE 1004.1.2)

TOTAL OCCUPANCY: 494 OCC or 846 OCC

853 OCC x 5 SF = 4265 SF

SIGNAGE LEGEND

ID	IDENTIFICATION SIGNAGE
E	EXIT SIGNAGE SIM
ER	EXIT ROUTE SIGNAGE
OCC	OCCUPANCY LOAD SIGNAGE
U	ALL GENDER RESTROOM SIGNAGE
FR	FIRE RISER SIGNAGE
ALS	ASSISTIVE LISTENING SIGNAGE

SIGNAGE NOTES

1. FINISH: CHARACTERS, SYMBOLS, PICTOGRAMS AND THEIR BACKGROUNDS SHALL HAVE A NON-GLARE FINISH.
2. FOR MOUNTING HEIGHTS REFER TO DETAIL A2/A502
3. FOR BRAILLE SEE DETAIL E2/A502
4. SIGNAGE CORNERS TO BE 1/2" RADIUS
5. RAISED LETTERS MAY NOT BE SURFACE APPLIED AND MUST BE INTEGRAL.

GATEWAY ANNEX SCHOOL
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△	
△	
△	
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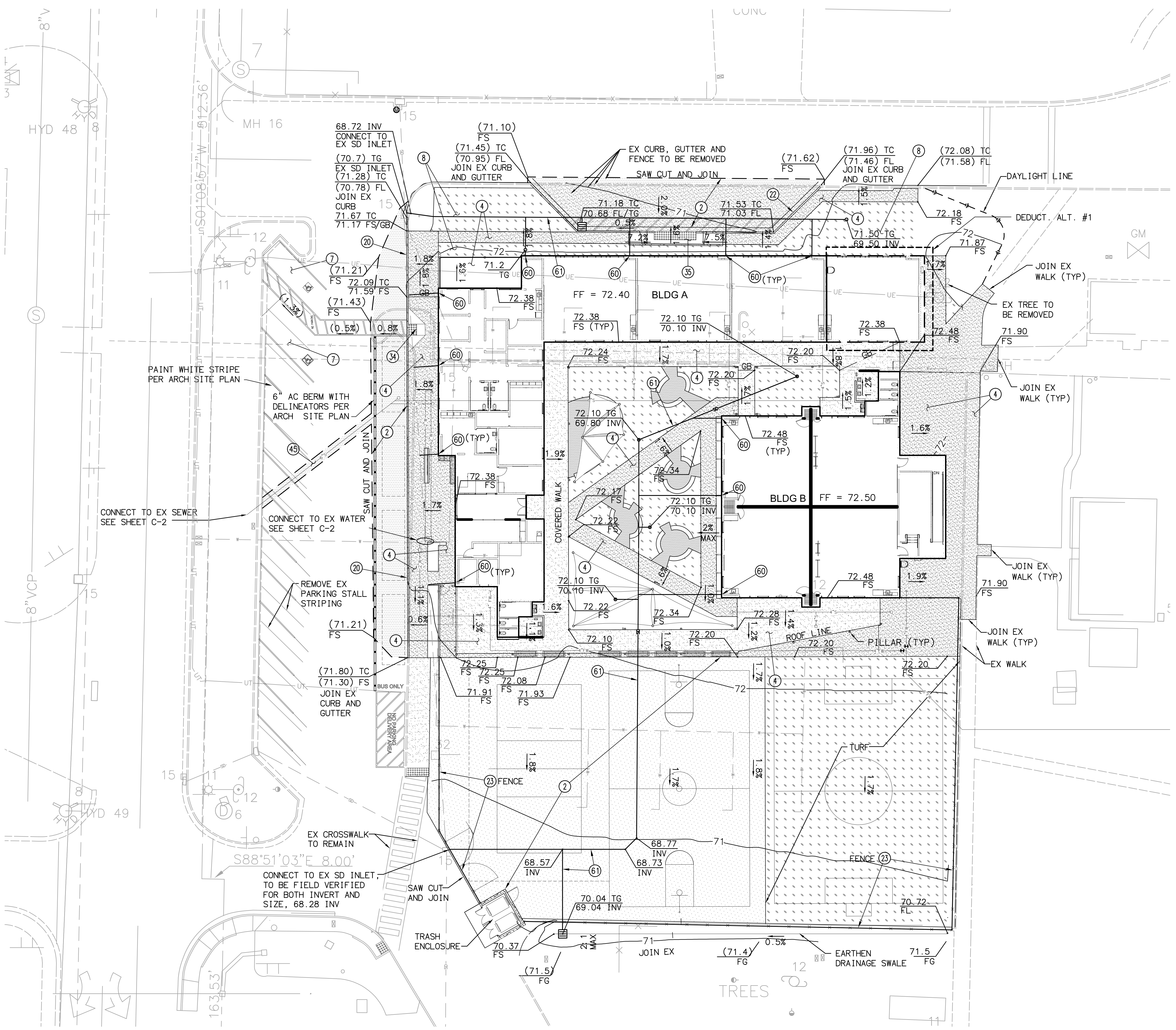
△	

FLOOR PLAN - EGRESS ANALYSIS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

G005



CONSTRUCTION NOTES

② CONSTRUCT 3" AC OVER 6" AGGREGATE BASE, ACTUAL SECTION TO BE DETERMINED BY SOILS ENGINEER BASED ON R-VALUE ANALYSIS AND APPROVED BY CITY ENGINEER

④ CONSTRUCT 4" CONCRETE OVER NATIVE SOIL COMPACTED TO 95%, MINIMUM RELATIVE COMPACTION PER ASTM D1557, PER SPPWC 112-2. SEE ARCH PLAN FOR FINISH, COLOR AND PATTERN ON WALKS AND PATIO AREAS

⑦ INSTALL ACCESSIBLE PARKING STALL PER CALTRANS RSP A90A,

⑧ LANDSCAPE, SEE LANDSCAPE ARCHITECTUAL PLANS

⑳ CONSTRUCT 6" CONCRETE CURB PER CITY OF CAMARILLO STD PLATE E-4.1 (REV D), TYPE A-1.

㉒ CONSTRUCT 6" CONCRETE CURB AND 18" GUTTER PER CITY OF CAMARILLO STD PLATE E-4.1 (REV D), TYPE A-2.

㉓ HARDSCAPE FEATURE, SEE ARCHITECTURAL PLANS

㉞ CONSTRUCT CURB RAMP, CASE A, TYPE 1, PER SPPWC STD PLAN 111-5 AND AS MODIFIED PER PLAN.

㉟ CONSTRUCT CURB RAMP, CASE B, TYPE 1, PER SPPWC STD PLAN 111-5 AND AS MODIFIED PER PLAN.

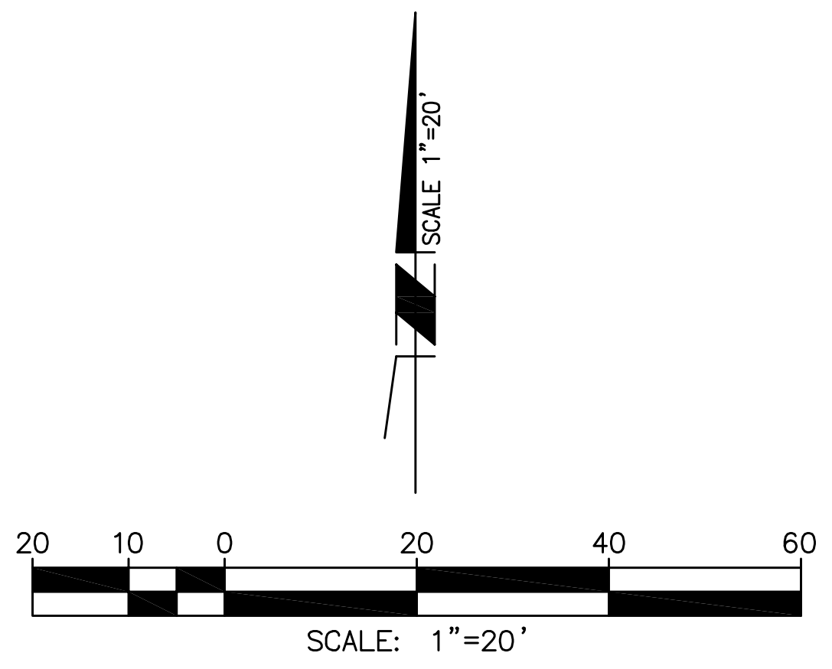
㊺ SAWCUT, REMOVE AND REPLACE EXISTING PAVEMENT PER CITY OF CAMARILLO STD PLATE E-10.1 (REV. C)

(60) CONNECT ROOF DRAIN DOWN SPOUT TO STORM DRAIN.

(61) INSTALL 6" SDR 35 PVC PIPE

NOTES:

1. SEE SHEET C-2 FOR UTILITY INFORMATION
2. OVER-EXCAVATION SHALL BE COMPLETED BASED ON THE GEOTECHNICAL REPORT DATED 9/3/2021 AND REVISED 5/18/2022, GRADING/DEVELOPMENT OF STRUCTURES. 5' BEYOND BUILDING FOOTPRINT AND 4' BELOW EXISTING GRADE. GEOGRID PLACED PRIOR TO PLACING FILL.



SCALE: 1"=20'

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REN. JUL. 31, 2023

DELANE ENGINEERING
400 W. VENTURA BLVD. SUITE 265
CAMARILLO, CA 93010
PHONE: 310.546.5711-WWW.DELANEENGINEERING.COM

SCOTT DELANE UHLES
No C 72391

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550 Airport Way, Camarillo, CA 93010

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ENGINEERED SITE PLAN
GRADING, DRAINAGE, AND
STORM DRAIN

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

C-1

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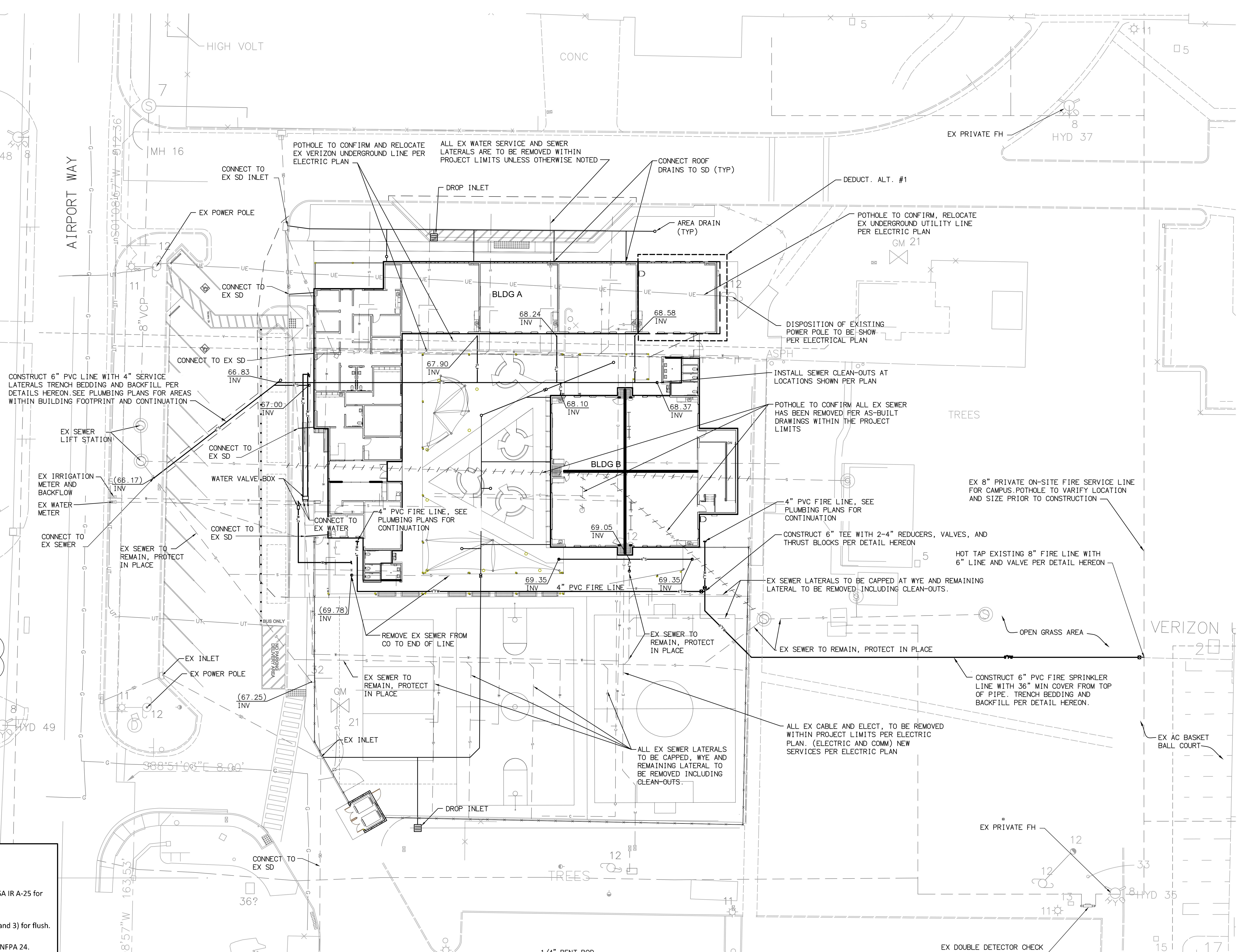
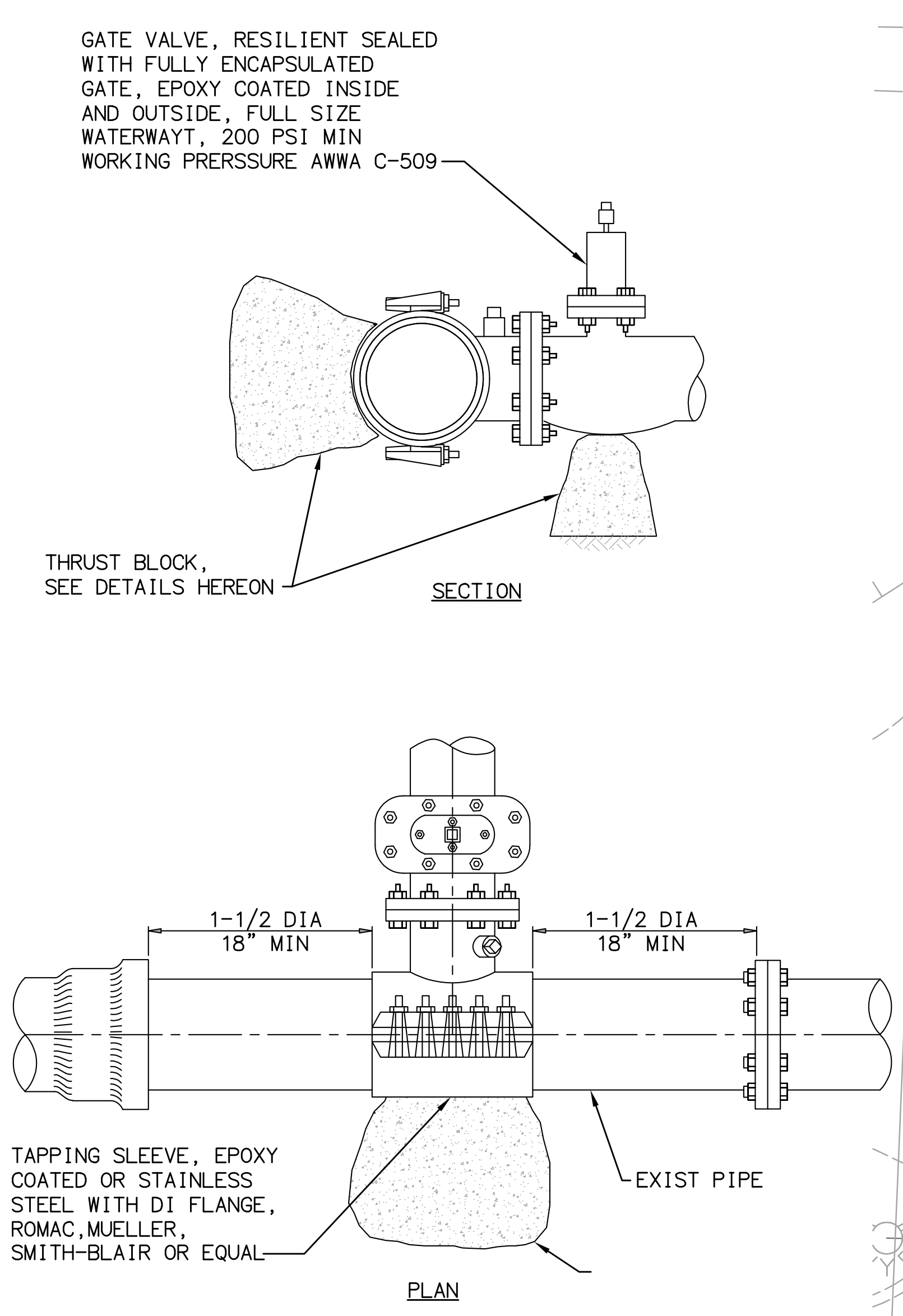
No. C-72391
CIVIL


HIGH VOLT
CONC
AIRPORT WAY
MH 16
HYD 37
EX PRIVATE FH
POTHOLE TO CONFIRM AND RELOCATE EX VERIZON UNDERGROUND LINE PER ELECTRIC PLAN
ALL EX WATER SERVICE AND SEWER LATERALS ARE TO BE REMOVED WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED
CONNECT ROOF DRAINS TO SD (TYP)
DEDUCT. ALT. #1
CONNECT TO EX SD INLET
DROP INLET
AREA DRAIN (TYP)
EX POWER POLE
POTHOLE TO CONFIRM, RELOCATE EX UNDERGROUND UTILITY LINE PER ELECTRIC PLAN
GM 21
CONNECT TO EX SD
BLDG A
68.24 INV
68.58 INV
8" VCP
DISPOSITION OF EXISTING POWER POLE TO BE SHOW PER ELECTRICAL PLAN
ASPH
CONNECT TO EX SD
67.90 INV
66.83 INV
INSTALL SEWER CLEAN-OUTS AT LOCATIONS SHOWN PER PLAN
CONSTRUCT 6" PVC LINE WITH 4" SERVICE LATERALS TRENCH BEDDING AND BACKFILL PER DETAILS HEREON.SEE PLUMBING PLANS FOR AREAS WITHIN BUILDING FOOTPRINT AND CONTINUATION
67.00 INV
68.10 INV
68.37 INV
POTHOLE TO CONFIRM ALL EX SEWER HAS BEEN REMOVED PER AS-BUILT DRAWINGS WITHIN THE PROJECT LIMITS
TREES
EX SEWER LIFT STATION
CONNECT TO EX SD
BLDG B
EX IRRIGATION METER AND BACKFLOW
(66.17) INV
WATER VALVE BOX
EX 8" PRIVATE ON-SITE FIRE SERVICE LINE FOR CAMPUS.POTHOLE TO VARIFY LOCATION AND SIZE PRIOR TO CONSTRUCTION
EX WATER METER
4" PVC FIRE LINE, SEE PLUMBING PLANS FOR CONTINUATION
CONNECT TO EX WATER
4" PVC FIRE LINE, SEE PLUMBING PLANS FOR CONTINUATION
CONNECT TO EX SEWER
CONNECT TO EX SD
69.05 INV
CONSTRUCT 6" TEE WITH 2-4" REDUCERS, VALVES, AND THRUST BLOCKS PER DETAIL HEREON
EX SEWER TO REMAIN, PROTECT IN PLACE
HOT TAP EXISTING 8" FIRE LINE WITH 6" LINE AND VALVE PER DETAIL HEREON
69.35 INV
4" PVC FIRE LINE
69.35 INV
EX SEWER LATERALS TO BE CAPPED AT WYE AND REMAINING LATERAL TO BE REMOVED INCLUDING CLEAN-OUTS.
(69.78) INV
BUS ONLY
NO PARKING DELIVERY AREA
VERIZON
OPEN GRASS AREA
REMOVE EX SEWER FROM CO TO END OF LINE
EX SEWER TO REMAIN, PROTECT IN PLACE
EX SEWER TO REMAIN, PROTECT IN PLACE
EX INLET
EX POWER POLE
EX SEWER TO REMAIN, PROTECT IN PLACE
CONSTRUCT 6" PVC FIRE SPRINKLER LINE WITH 36" MIN COVER FROM TOP OF PIPE. TRENCH BEDDING AND BACKFILL PER DETAIL HEREON.
(67.25) INV
GM 21
HYD 49
ALL EX CABLE AND ELECT, TO BE REMOVED WITHIN PROJECT LIMITS PER ELECTRIC PLAN. (ELECTRIC AND COMM) NEW SERVICES PER ELECTRIC PLAN
EX INLET
EX AC BASKET BALL COURT
ALL EX SEWER LATERALS TO BE CAPPED, WYE AND REMAINING LATERAL TO BE REMOVED INCLUDING CLEAN-OUTS.
S88°51'03"E 8.00'
DROP INLET
EX PRIVATE FH
CONNECT TO EX SD
TREES
HYD 35
S01°08'57"W
EX DOUBLE DETECTOR CHECK VALVE AND BACKFLOW
A#03-112187

HOT TAPPING NOTES:

1. PRIOR TO TAPPING THE WATER MAIN, THE TAPPING SLEEVE AND VALVE SHALL BE ATTACHED TO THE WATER MAIN AND PRESSURE TESTED FOR FIVE MINUTES AT 150 PSI
2. NEW LINE AND TAPPING SLEEVE MUST BE AT LEAST ONE SIZE SMALLER THAN EXISTING MAIN
3. TAPPING SLEEVE SHALL BE SEPARATED FROM NEAREST BELL, FLANGE, SERVICE CLAMP, CORP STOP OR OTHER FITTING BY A DISTANCE NO LESS THAN 1-1/2 PIPE DIAMETERS, WITH A MINIMUM OF 18"


GATE VALVE, RESILIENT SEALED WITH FULLY ENCAPSULATED GATE, EPOXY COATED INSIDE AND OUTSIDE, FULL SIZE WATERWAYT, 200 PSI MIN WORKING PRERSSURE AWWA C-509
THRUST BLOCK, SEE DETAILS HEREON
SECTION
1-1/2 DIA 18" MIN
1-1/2 DIA 18" MIN
TAPPING SLEEVE, EPOXY COATED OR STAINLESS STEEL WITH DI FLANGE, ROMAC,MUELLER, SMITH-BLAIR OR EQUAL
EXIST PIPE
PLAN

HOT TAP DETAIL

NOTES:

UNDERGROUND PIPING FOR PRIVATE HYDRANTS & SPRINKLERS

1. Prior to installation, all plans and specifications shall be approved by DSA. Refer to DSA IR A-25 for design, installation and maintenance general requirements.

2. Inspections are required: 1) prior to pouring thrust blocks. 2) for hydrostatic testing, and 3) for flush.

3. Installation, inspection, and testing shall conform to 2016 editions CFC, NFPA 13 and NFPA 24.

4. Private fire hydrants shall be approved wet barrel style with a minimum of one 2 1/2" and one 4" outlet. The 4" outlet shall face the fire department access road. All outlets shall be provided with National Standard Threads NST). NFPA 24, 7.1.1.2.

5. Fire hydrant supply piping shall be a minimum of six inches in diameter. The center of the hose outlet shall be not less than 18" above final grade or, where located in a hose house, 12" above the floor. NFPA 24, 7.1.1 & 7.3.3.

6. Fire hydrants shall be a minimum of 40 feet from all structures. NFPA 24, 7.2.3.

7. A keyed gate valve shall be provided for each hydrant in an accessible location. Valves shall not be located in parking stalls. NFPA 24, 7.1.1.1

8. All piping shall be listed for use in fire protection service and comply with AWWA Standards (Class 150 minimum) Class 200 pipe shall be used where the pressure may exceed 150 psi. NFPA 24, 10.1.1

9. All bolted joints shall be cleaned and thoroughly coated with asphalt or other corrosion retarding material after installation. NFPA 24, 10.4.1.1

10. Backfill shall be well tamped layers to consist of 6" minimum bed of clean fill sand or pea gravel below and 12" above the pipe (total 18" minimum). NFPA 24, 10.9.1.

11. Fittings shall be of an approved type. NFPA 24, 10.2.1.

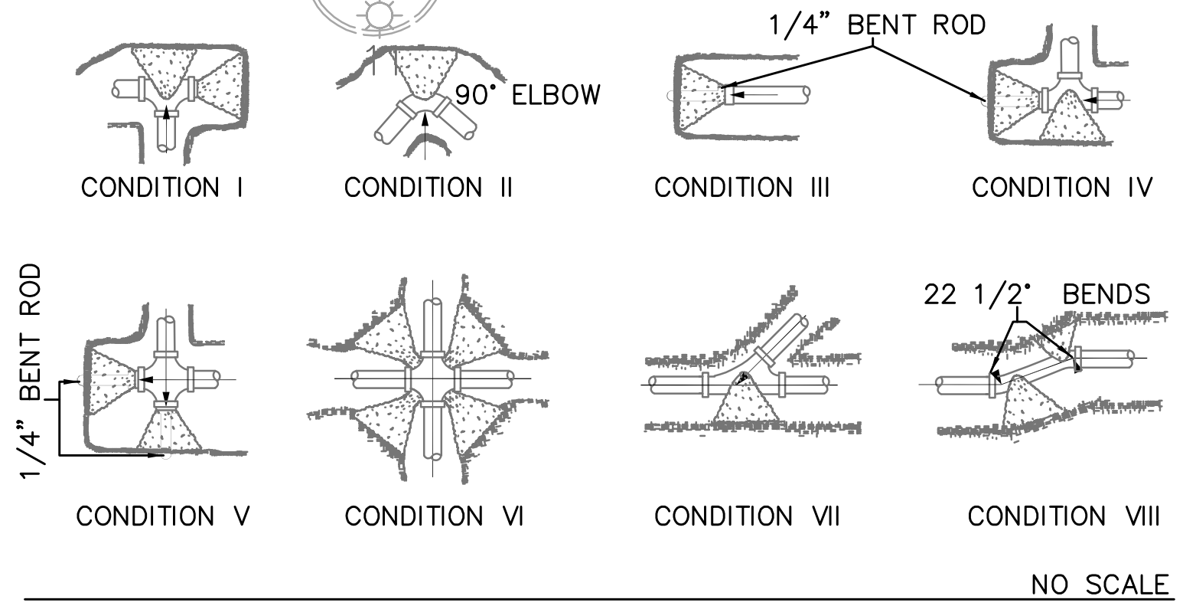
12. A minimum of 30" of cover, from finish grade to the top of the pipe, shall be provided. When surface loads are expected, a minimum of 36" cover shall be provided. NFPA 24, 10.4.2.2.2 &.3

13. Thrust blocks, or other approved method of thrust restraint, shall be provided wherever pipe changes direction. Back-fill between the joints to prevent movement of the pipe. Provide details and calculations for sizing thrust blocks based on actual soil conditions. NFPA 24, 10.6.

14. A hydrostatic test (200 psi for two hours or 50 psi over maximum static pressure, whichever is greater) shall be performed. NFPA 24, 10.10.2.2.1.

CAUTION:

THE CONTRACTOR SHALL POTHOLE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO STARTING ANY WET UTILITY CONSTRUCTION. PRIOR TO POTHOLING THE CONTRACTOR SHALL PROVIDE THE ENGINEER TWO WORKING DAYS NOTICE TO SURVEY AND VERIFY THE HORIZONTAL/VERTICAL LOCATION OF ALL EXISTING UTILITY CROSSINGS. CHANGES TO THE PROPOSED WET UTILITY ALIGNMENT COULD BE REQUIRED BASED ON THE ACTUAL UTILITY LOCATIONS.



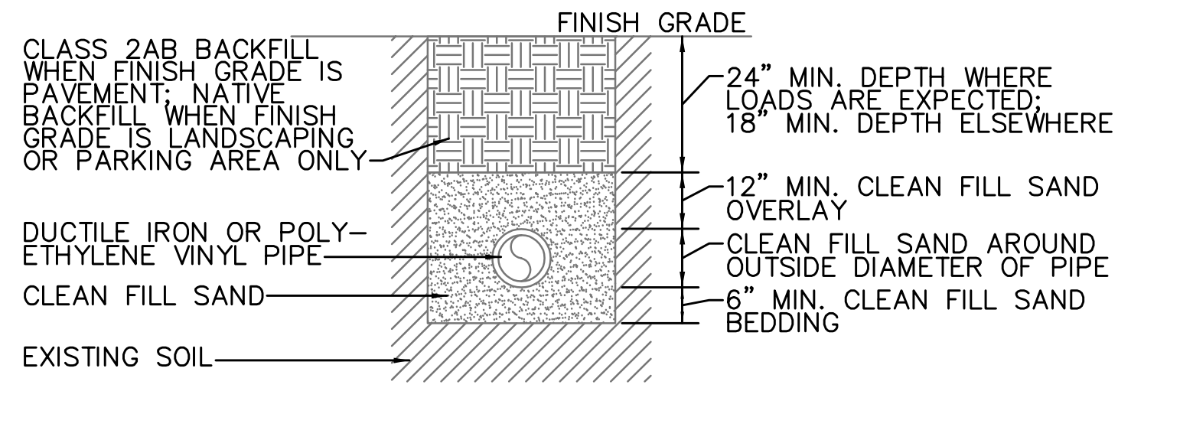
NO SCALE

THRUST BLOCK BEARING AREA IN SQUARE FEET								
PIPE IN.	CONDITION							
	I	II	III	IV	V	VI	VII	VIII
4	2.0	2.9	2.0	2@2.0	2@2.0	4@1.6	2.0	2@1.6
6	4.3	6.0	4.3	2@4.3	2@4.3	4@3.3	4.3	2@3.3
8	7.4	10.5	7.4	2@7.4	2@7.4	4@5.7	7.4	2@5.7
10	12.1	17.1	12.1	2@12.1	2@12.1	4@9.3	12.1	2@9.3
12	17.2	24.3	17.2	2@17.2	2@17.2	4@13.2	17.2	2@13.2
14	20.7	29.3	20.7	2@20.7	2@20.7	4@15.8	20.7	2@15.8
16	26.7	37.8	26.7	2@26.7	2@26.7	4@20.5	26.7	2@20.5

NOTES
1. PIPE FITTINGS SHALL BE WRAPPED WITH A LAYER OF 8-MIL POLYETHYLENE PLASTIC TUBE AND SEALED WITH 8-MIL UG TAPE
2. ALL BURIED BOLTS/JOINT ACCESSORIES SHALL BE COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION
3. THRUST BLOCK AREAS BASED ON 225 PSI PRESSURE AND 2,000 PSF ALLOWABLE SOIL PRESSURE WITH 2 1/2 FEET OF COVER MINIMUM. ADDITIONAL BEARING AREA REQUIRED FOR SPECIAL CONDITIONS SHALL BE APPROVED BY THE DISTRICT ENGINEER.
4. THRUST BLOCK BEARING FACES SHALL BE PLACED AGAINST UNDISTURBED SOIL, APPROVED COMPACTED BACKFILL OR CLASS 100-E-100 SLURRY.
5. THRUST BLOCKS SHALL BE NO LEANER THAN 1 PART CEMENT 2 1/2 PARTS SAND AND 5 PARTS STONE U.N.O.
6. TO FACILITATE FUTURE REMOVAL OF THRUST BLOCKS AND LINE EXTENSIONS:
   A. INSTALL 1/4" BENT ROD HANDLES.
   B. USE CARDBOARD SEPARATORS BETWEEN BLOCKS, IF NEEDED.

ON-SITE PRIVATE FIRE LINE THRUST BLOCK DETAILS

NOTE:
1. SEE SHEET C-1 FOR STORM DRAIN INFORMATION


FINISH GRADE
CLASS 2AB BACKFILL WHEN FINISH GRADE IS PAVEMENT; NATIVE BACKFILL WHEN FINISH GRADE IS LANDSCAPING OR PARKING AREA ONLY
DUCTILE IRON OR POLY-ETHYLENE VINYL PIPE
CLEAN FILL SAND
EXISTING SOIL
24" MIN. DEPTH WHERE LOADS ARE EXPECTED; 18" MIN. DEPTH ELSEWHERE
12" MIN. CLEAN FILL SAND OVERLAY
CLEAN FILL SAND AROUND OUTSIDE DIAMETER OF PIPE
6" MIN. CLEAN FILL SAND BEDDING

ON-SITE PRIVATE FIRE LINE BEDDING AND BACKFILL DETAIL

SCALE 1"=20'

20 10 0 20 40 60
SCALE: 1"=20'

GATEWAY ANNEX SCHOOL

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550 Airport Way, Camarillo, CA 93010

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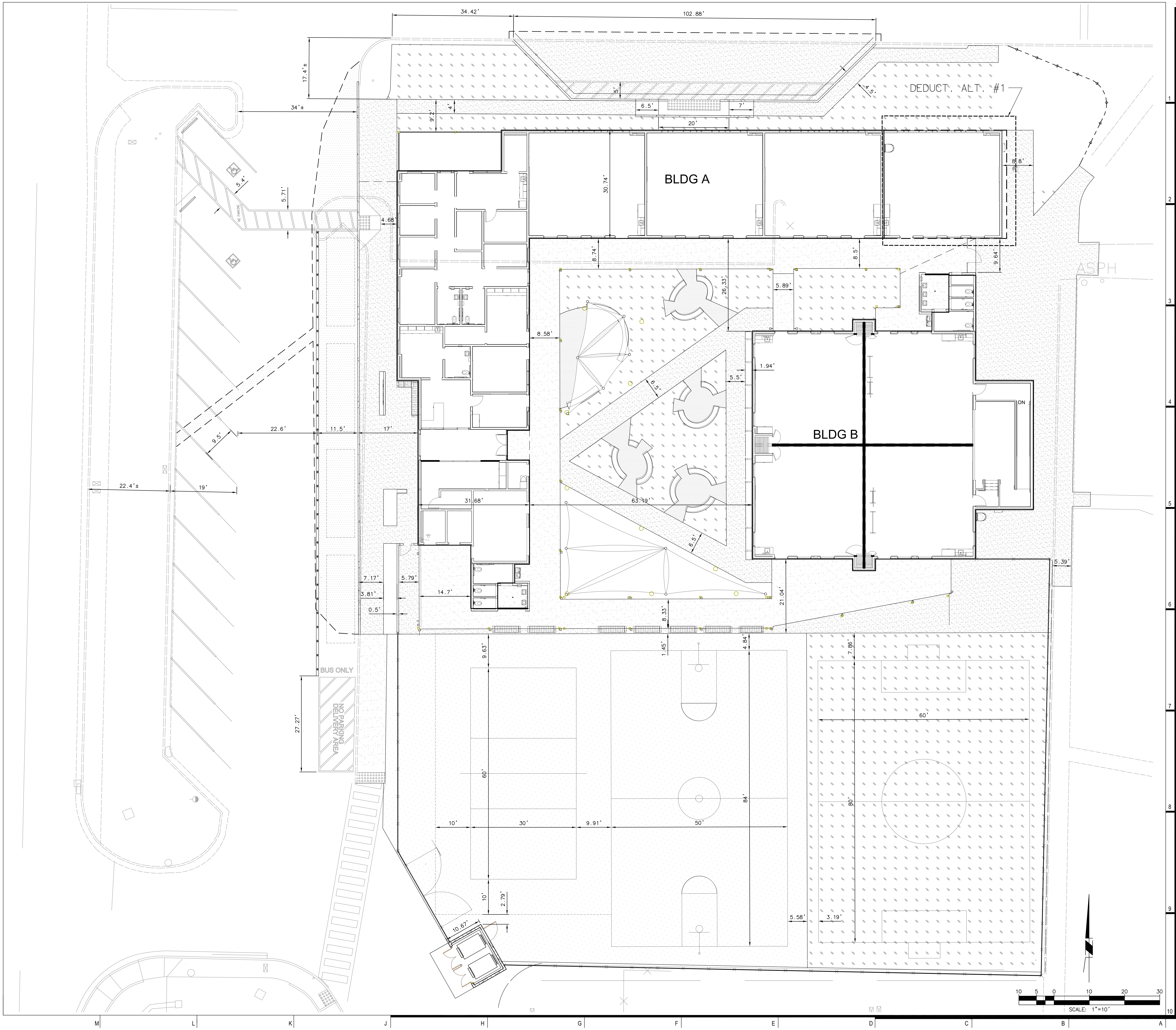
OVERALL UTILITY SITE PLAN
WATER AND SEWER

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

C-2



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LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL.31, 2023
STATE OF CALIFORNIA

DELANE
ENGINEERING
400 W. VENTURA BLVD. SUITE 265
CAMARILLO, CA 93010
PHONE: 310.546.5711-WWW.DELANEENGINEERING.COM

REGISTERED PROFESSIONAL ENGINEER
SCOTT DELANE UHLES
No. C-72391
CIVIL
STATE OF CALIFORNIA

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HORIZONTAL CONTROL PLAN

PERKINS—EASTMAN

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Costa Mesa, CA 92626
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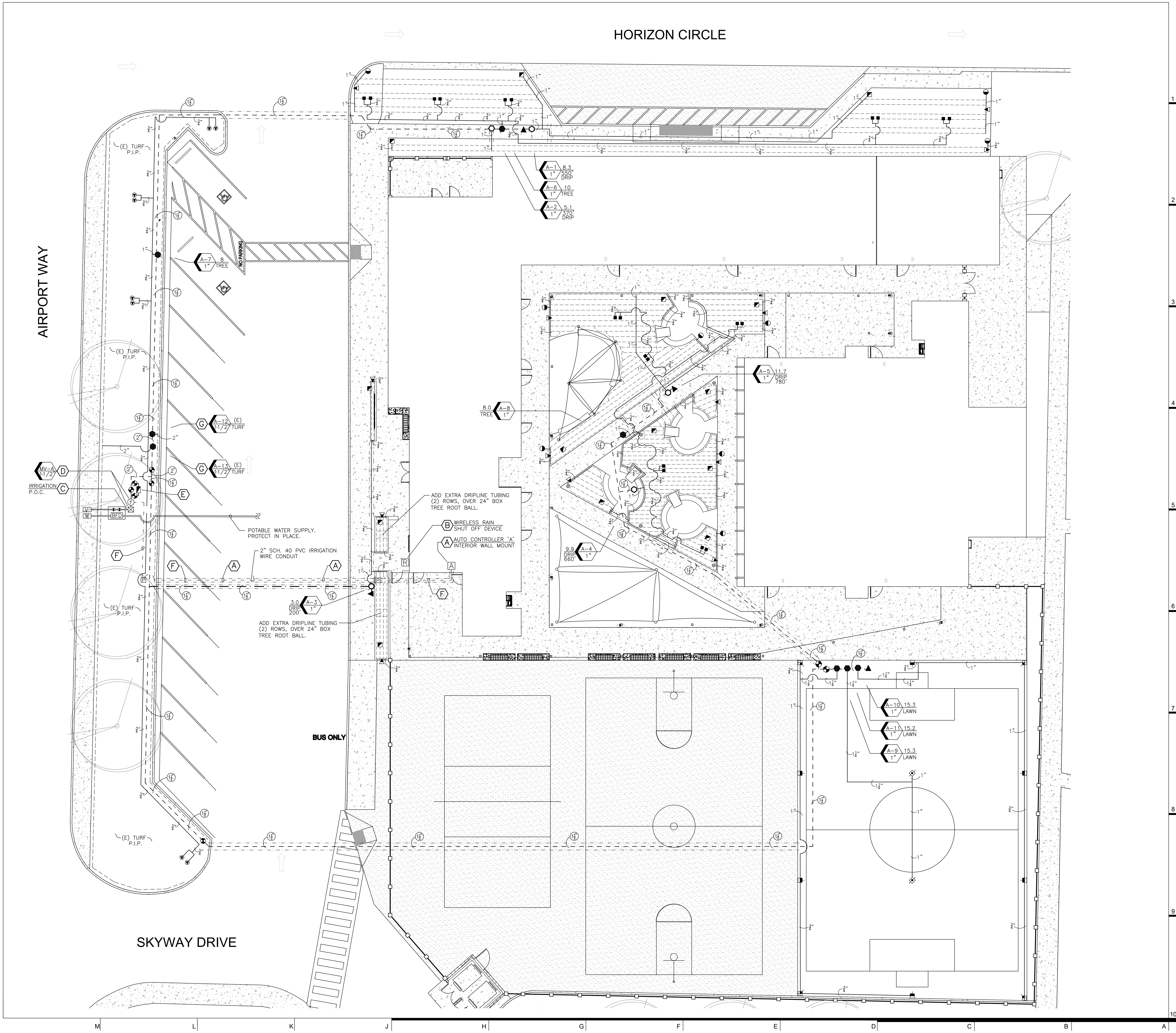
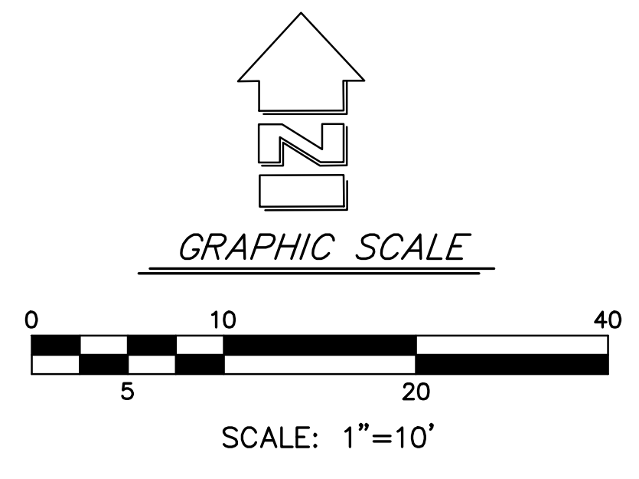
C-3





NOTE:
SEE SHEET L2 FOR IRRIGATION LEGENDS, NOTES AND MWELO COMPLIANCE INFORMATION.

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REN. JUL. 31, 2023

JORDAN, GILBERT & BAIN
LANDSCAPE ARCHITECTS, INC.
459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642-3641 FAX (805) 653-7874

Jordan, Gilbert & Bain Landscape Architects, Inc. © 2018

JOHN JAMES BAIN III #3193
John J. Bain
SIGNATURE
04-24
RENEWAL DATE
11-07-22
DATE

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IRRIGATION PLAN

PERKINS—
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

L1

PROJECT NOTES

1. FIELD VERIFY EXISTING STATIC WATER PRESSURE AND NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY WORK.
2. CONTACT UNDERGROUND SERVICE ALERT AT 1-800-227-2600 TO IDENTIFY AND LOCATE ALL ON-SITE UTILITIES PRIOR TO BEGINNING WORK. THE LANDSCAPE SUB CONTRACTOR SHALL COORDINATE WITH THE PROJECT SUPERINTENDENT AND REVIEW THE EXISTING SITE PRIOR TO BEGINNING WORK TO AVOID CONFLICTS WITH EXISTING UTILITIES AND PROPOSED NEW CONSTRUCTION.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY TRENCH SETTLING OR IRRIGATION HEAD SETTLING. ALL TRENCHES WILL BE BACK FILLED WITH CLEAN SOIL, COMPACTED AND REPLANTED WITH APPROVED SHRUB OR GROUND COVER TO MATCH EXISTING PLANTING. ALL HEADS THAT SETTLE WILL BE RAISED TO 1/2" ABOVE FINISH GRADE. PROVIDE ADDITIONAL SOIL AS NECESSARY AND HAND TAMP AROUND HEAD TO PREVENT FUTURE SETTLING. PROVIDE NEW SEED OR PLANT MATERIAL AS NEEDED TO COMPLETE REPAIR.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SLEEVING INSTALLED UNDER ALL PAVED SURFACES. PROVIDE SEPARATE INDIVIDUAL SLEEVES FOR MAINLINE, LATERALS, AND REMOTE CONTROL VALVE WIRES. LATERAL SLEEVING SHALL BE SIZED (3) PIPE SIZES LARGER THAN THE LATERAL PIPE TO BE SLEEVED.
5. THE IRRIGATION SYSTEM IS SHOWN DIAGRAMMATICALLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN LANDSCAPE PLANTERS WHENEVER POSSIBLE.
6. THE CONTRACTOR WILL BRAND INTO THE REMOTE CONTROL VALVE BOX LIDS THE NEW VALVE STATION NUMBER AND RELATED NEW AUTO CONTROLLER LETTER. PROVIDE CHRISTY STANDARD SIZE I.D. TAGS CONNECTED TO EACH VALVE SOLENOID WITH NEW STATION NUMBER AND RELATED NEW AUTO CONTROLLER LETTER.
7. THE CONTRACTOR SHALL INSTALL ALL IRRIGATION REMOTE CONTROL VALVES, GATE VALVES, AND QUICK COUPLING VALVES A MINIMUM DISTANCE OF 10'-0" FROM ALL TREE TRUNK LOCATIONS ILLUSTRATED ON PLANTING PLAN. CONFIRM LAYOUT OF PROPOSED TREE LOCATIONS PRIOR TO INSTALLING ANY VALVE.
8. UTILITIES MAY HAVE BEEN OMITTED ON THE IRRIGATION SHEETS. REVIEW CIVIL ENGINEER'S DRAWINGS AND EXERCISE CARE IN EXCAVATION WHILE PROTECTING EXISTING UTILITIES IN PLACE.
9. ALL REMOTE CONTROL VALVE AND MASTER VALVE WIRES USED FOR THIS PROJECT SHALL BE DIRECT BURY 14-GAUGE IRRIGATION WIRE INSTALLED 24" BELOW GRADE OR IN SLEEVES AS PER IRRIGATION PLAN. ACTIVE COMMON SHALL BE WHITE IN COLOR. SPARE COMMON WIRE SHALL BE WHITE IN COLOR WITH A RED STRIPE. MASTER VALVE COMMON WIRE SHALL BE YELLOW AND MASTER VALVE CONTROL WIRE SHALL BE BLUE. ALL REMOTE CONTROL VALVE CONTROL WIRES SHALL BE ORANGE IN COLOR.
10. PULL A CONTINUOUS 14-GAUGE SPARE COMMON WIRE, WHITE IN COLOR WITH A RED STRIPE, FROM AUTO CONTROLLER TO ALL REMOTE CONTROL VALVES AND WIRE SPLICE BOXES INSTALLED ON THIS PROJECT. LOOP THE WIRE INTO EACH VALVE BOX FOR EASY ACCESS. PULL A CONTINUOUS SOLID RED COLORED 14-GAUGE IRRIGATION WIRE FROM AUTO CONTROLLER TO ALL REMOTE CONTROL VALVE BOXES AND WIRE PULL BOXES ON THIS PROJECT. LOOP RED WIRE INTO EACH VALVE BOX FOR EASY ACCESS. BOTH WIRES SHALL BE TUCKED TO THE SIDE OF THE VALVE BOX SO AS NOT TO INTERFERE WITH THE MAINTENANCE OF THE REMOTE CONTROL VALVE WITHIN THE BOX.

MAXIMUM APPLIED WATER ALLOWANCE

MAWA = (ETo x 0.60 x Land. Area x 0.62) + (special use)
ETo = reference evapotranspiration of Camarillo of 46.1 (inches per year)
0.60 = evapotranspiration adjustment factor (standard number public schools)
Land. Area. = total square feet of landscape area for the site
0.62 = conversion factor (to gallons per square foot)

MAWA = (46.1 x 0.60 x 10,300 x 0.62) = 176,637 G.P.Y.

ESTIMATED APPLIED WATER USE FORMULA

$$EAWU = (ETo) \times (.62) \frac{(PF \times Land.\ Area)}{IE}$$

ETo = reference evapotranspiration of Camarillo of 46.1 (inches per year)
0.62 = conversion factor (to gallons per square foot)
PF = plant factor from WUCOLS
LA = landscaped area covered by sprinkler valve (sq. ft.)
IE = irrigation efficiency (0.75 rotary nozzles, 0.81 bubblers)
IE = irrigation efficiency – Special Use (1.0)

LOW WATER USE – SHRUB PLANTERS – DRIP IRRIGATION

$$EAWU = (46.1) \times (.62) \frac{(.3 \times 3{,}949)}{.81} = 41{,}804\ GPY$$

MEDIUM WATER USE – TREES – BUBBLERS

$$EAWU = (46.1) \times (.62) \frac{(.5 \times 144)}{.81} = 2{,}541\ GPY$$

SPECIAL USE – TURF RECREATION AREA – OVER HEAD ROTORS

$$EAWU = (46.1) \times (.62) \frac{(.7 \times 4{,}208)}{.75} \quad 112{,}255\ GPY$$

TOTAL EAWU = 156,600 GPY (88.7% OF MAWA)

IRRIGATION WATER USE SUMMARY

TOTAL EAWU = 156,600 GALLONS PER YEAR
TOTAL MAWA = 176,637 GALLONS PER YEAR

TOTAL VOLUME OF WATER UNDER MAWA = 20,037 GALLONS PER YEAR
TOTAL % OF WATER UNDER MAWA = 11.3%

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL / REMARKS	PSI	RAD	Q GPM	T GPM	H GPM	F GPM	DETAIL / SHEET NO.
=::=::=::=	SLEEVING	PACIFIC PLASTICS	SCH. 40 PVC – 3 PIPE SIZES LARGER THAN THE PIPE TO BE SLEEVED – 24" BELOW GRADE							1,2,3 / L5
═══	(E) COPPER PIPE	UNKNOWN	TYPE 'K' COPPER – 11/2" SIZE – SOLDER WELD – FROM WATER METER TO BACKFLOW ASSEMBLY – P.I.P.							N.A.
—··—··—	FLOW SENSING CABLE	RAIN MASTER	EV-CAB-SEN – INSTALLED IN A 1" SCH. 40 PVC ELECTRICAL CONDUIT – 24" BELOW FINISH GRADE							1 / L5 11 / L6
—·—·—	MAINLINE	PACIFIC PLASTICS	SIZE PER PLAN – SCH. 40 PVC – SOLVENT WELD – 24" BELOW GRADE							1,2,3,4 / L5
- - - - - - - -	SUB-SURFACE DRIPLINE	NETAFIM	TLCV9-12-XX – 'TECHLINE CV SERIES' DRIPLINE TUBING – 0.9 GPH EMITTERS @ 12" O.C. – INSTALL TUBING 4" BELOW FINISH GRADE – TECHLINE TUBING ROWS SPACED 18" APART FROM EACH OTHER IN GRID PATTERN OR WHEN A SHRUB HEDGE ROW IS PLANTED – INSTALL (2) ROWS OF TUBING WITH SHRUB ROOT BALLS CENTERED IN BETWEEN TUBING.							1,2,3,4, / L6
———	LATERAL	PACIFIC PLASTICS	SCH. 40 PVC – 3/4" SIZE UNLESS OTHERWISE NOTED ON PLAN – SOLVENT WELD – 12" BELOW GRADE							1,2,3 / L5
NO SYMBOL	FLEXIBLE PVC HOSE	GPH IRRIGATION	MODEL GPVCSSAR050IRR – 3/8" PVC FLEXIBLE IRRIGATION HOSE – INSTALL AS PER DETAILS							10 / L5
W	DOMESTIC WATER METER	UNKNOWN	PROTECT IN PLACE							N.A.
V	IRRIGATION ONLY WATER METER	UNKNOWN	1" SIZE – PROTECT IN PLACE							N.A.
☒	NORMALLY CLOSED MASTER VALVE	SUPERIOR	3200 SERIES – 1-1/2" SIZE – INSTALL IN A RECTANGULAR VALVE BOX							10 / L6
ⓕ	FLOW SENSOR	RAIN BIRD	MODEL FS150P – SCH. 40 PVC BODY – SOLVENT WELD – INSTALL IN RECTANGULAR VALVE BOX							11 / L6
◩	AUTOMATIC FERTILIZER DISPENSER	EZ-FLO	MODEL EZ-005-FX INSTALLED IN A CARSON JUMBO VALVE BOX MODEL 1730-18 (32"L X 18"H X 19"W) INSTALL ALL REQUIRED EZ-FLO FITTINGS. MODEL CBV-200, ON TO THE MAINLINE AS PER MANUF. SPECS.							15 / L5
A	AUTO CONTROLLER	RAIN BIRD	ESP-16LXMEF – 16 STATION AUTO CONTROLLER IN A FACTORY PLASTIC WALL MOUNT ENCLOSURE. INSTALL WIRELESS RAIN SHUT OFF DEVICE TO AUTO CONTROLLER PER MANUFACTURER'S SPECIFICATIONS DIRECTLY ABOVE AUTO CONTROLLER ON BUILDING WALL HIGH ENOUGH TO AVOID VANDALISM.							5 / L6
R	RAIN SHUT OFF DEVICE	RAIN BIRD	WIRELESS MODEL WR2 – MOUNT ON BUILDING EXTERIOR WALL AT ELEVATION TO AVOID VANDALISM							N.A.
⬢	REMOTE CONTROL VALVE	RAIN BIRD	PESB SERIES – SIZES NOTED – IN A RECTANGULAR VALVE BOX							7 / L5
⬡	DRIP RCV ASSEMBLY	RAIN BIRD	XCZ-100-PRB-COM – 1" SIZE – IN A JUMBO VALVE BOX							8 / L5
▲	QUICK COUPLER	RAIN BIRD	44-RC – 1" SIZE – IN 10" ROUND VALVE BOX							6 / L5
◈	SCH. 80 PVC BALL VALVE	COLONIAL / LASCO	VXX101N-SC SERIES – LINE SIZE – INSTALLED IN A RECTANGULAR VALVE BOX							5 / L5
◐━◑	(E) REDUCED PRES. BACKFLOW	WILKINS	975XLSE W/ PRESSURE REGULATOR – 1-1/2" SIZE – INSTALLED IN SECURITY ENCLOSURE – PROTECT IN PLACE							N.A.
▼	DRIP SYSTEM FLUSH VALVE	SPEARS/KBI/EQUAL	3/4" SCH. 80 PVC ECONOMY BALL VALVE, SOCKET INLET & OUTLET, IN VALVE BOX WITH 3'-0" OF FLEXIBLE PVC HOSE							12 / L5
◪	DRIP AIR RELIEF VALVE	NETAFIM	MODEL TLAVRV – INSTALLED ON BURIED TUBING GRID @ HIGH POINT – IN A ROUND VALVE BOX WITH GRAVEL SUMP							16 / L5
◐	DRIP SYSTEM INDICATOR	TORO	570Z-12P-PRXCOM-O-T-5Q – ACTIVATE X-FLOW WATER SHUT OFF DEVICE IN RISER TO PREVENT WATER FLOW TO NOZ.							11 / L5
P	WIRE PULL / SPLICE BOX	CARSON	1419-12 – FORM A 3'-0" LONG WIRE LOOP WITH VALVE BOX CAVITY							9 / L5
Q T H F						Q	T	H	F	
				PSI	RAD	GPM	GPM	GPM	GPM	
F: ▼	ROOT WATERING SYSTEM	RAIN BIRD	RWS-B-C-1404 / RWS-SOCK / RWSGRATE	30	1				1.00	14 / L5
Q: ⊞ T: ◪ H: ⬓	POP UP TURF ROTOR	RAIN BIRD	5004+PCSAM-5000MPR-35Q,35T,35H	40	34	1.00	1.38	1.98		13 / L5
F: ◈	POP UP TURF ROTOR	RAIN BIRD	5004+FCSAM-5000MPR-35Q,35T,35H	40	34				3.82	13 / L5
F: ■	TREE FLOOD BUBBLER	GPH IRRIGATION (1.0 GPM BUBBLER)	MODEL GPCBCV10 BUBBLER EQUIPPED WITH BUILT IN CHECK VALVE, BLACK IN COLOR. INSTALL (2) BUBBLERS PER EACH TREE AND EXISTING TREES USING IRRIGATION SIZE (3/8" IPS) FLEXIBLE PVC HOSE, G.P.H. MODEL GPVCSSAR050IRR (BLACK IN COLOR) WITH (2) SOLVENT WELD G.P.H. MODEL G436073B BLACK PVC MALE ADAPTERS. CUT LENGTH OF FLEXIBLE PVC TUBING STARTING FROM RIGID PVC LATERAL SUPPLY TO LENGTH NEEDED TO INSTALL EMITTER WITHIN PLANT BASIN IN THE FIELD. USE I.P.S. PIPE PRIMER MODEL 'P-70' AND I.P.S. SOLVENT CEMENT MODEL '795' FOR ALL FLEXIBLE PVC TUBING WELDS TO BLACK COLORED G.P.H. MALE ADAPTERS. SECURE TUBING TO SLOPE / FINISH GRADE SURFACE WITH 6" LONG GALV. STEEL STAPLES INSTALLED 3'-0" O.C.	30	1				1.00	10 / L5
NO SYMBOL	POP UP SPRAY HEAD	RAIN BIRD	1804SAM-PRS W/ HE-VAN SERIES ADJUSTABLE SERIES NOZZLE – USE TO REPLACE ANY (E) POP UP HEAD DAMAGED DUE TO NEW CONSTRUCTION WORK.							11 / L5

MWELO COMPLIANCE STATEMENT

THE LANDSCAPE DESIGN ILLUSTRATED ON THESES PLANS COMPLIES WITH THE MANDATORY ELEMENTS OF THE STATE OF CALIFORNIA "STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE" STANDARDS.

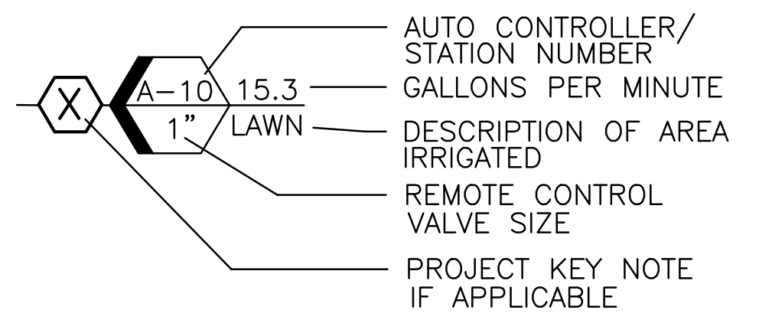
John J Bain	3193	6-22-22
LANDSCAPE ARCHITECT	LICENSE NUMBER	DATE

IRRIGATION CALCULATIONS

DESCRIPTION	RCV A-10 15.3 GPM
AVAILABLE STATIC WATER PRESSURE @ P.O.C.	75.0 PSI
LOSS AT 1" WATER METER	1.2 PSI
LOSS THROUGH 1.5" COPPER SERVICE LINE	0.2 PSI
LOSS AT BACKFLOW DEVICE (1.5")	12.5 PSI
PRESSURE REGULATOR SET @ 55 PSI	55.0 PSI
LOSS THROUGH 1" MASTER VALVE/1" FLOW SENSOR	2.0 PSI
LOSS THROUGH 350 LINEAR FEET OF 1.5" MAINLINE	2.7 PSI
LOSS AT RCV	2.4 PSI
LOSS RCV TO LAST HEAD (LATERALS)	3.2 PSI
LOSS THROUGH PVC FITTINGS	1.2 PSI
LOSS DUE TO ELEVATION CHANGE	0.0 PSI
TOTAL PRESSURE LOSS FROM PRESSURE REGULATOR	11.5 PSI
AVAILABLE OPERATING PRESSURE	43.5 PSI

NOTE:
IRRIGATION CALCULATIONS ARE BASED ON A MINIMUM STATIC WATER PRESSURE AVAILABLE ON SITE OF 75.0 PSI. CONTRACTOR TO VERIFY AVAILABLE STATIC WATER PRESSURE ON SITE AND NOTIFY LANDSCAPE ARCHITECT OF RESULTS PRIOR TO BEGINNING ANY WORK.

REMOTE CONTROL VALVE KEY


X
A-10
15.3
1"
LAWN
AUTO CONTROLLER/ STATION NUMBER
GALLONS PER MINUTE
DESCRIPTION OF AREA IRRIGATED
REMOTE CONTROL VALVE SIZE
PROJECT KEY NOTE IF APPLICABLE

SEASONAL IRRIGATION APPLICATION SCHEDULE

HYDROZONE DESCRIPTION	WINTER		SPRING		SUMMER		FALL	
	MINUTES	DAYS ON	MINUTES	DAYS ON	MINUTES	DAYS ON	MINUTES	DAYS ON
LOW WATER SHRUBS – DRIP	10	2	20	3	30	3	20	3
MEDIUM WATER TREES – BUBBLERS	5	2	5	3	10	3	5	3
HIGH WATER TURF – ROTORS	20	2	20	3	30	3	20	3

ESTIMATED APPLIED WATER USE

VALVE NUMBER/ HYDROZONE	EXPOSURE TO SUN/ DESCRIPTION OF SPRINKLER	AVERAGE IRRIGATION EFFICIENCY	CAMARILLO ETo	PLANT WATER USE TYPE	PLANT FACTOR	LANDSCAPE AREA IN SQUARE FEET	ESTIMATED APPLIED WATER USE IN GALLONS PER YEAR
1, 2, 3, 4, 5	DRIPLINE – SHRUBS	.81	46.1	LOW	.3	3,949	41,804
6, 7, 8	BUBBLERS – TREES	.81	46.1	MED	.5	144	2,541
9, 10, 11	ROTORS – SPECIAL USE TURF	.75	46.1	HIGH	.7	4,208	112,255
					TOTALS	10,300	156,600

PROJECT KEY NOTES

SYMBOL DESCRIPTION

A WALL MOUNTED 16 STATION AUTO CONTROLLER:
CONTRACTOR SHALL INSTALL A 16 STATION WALL MOUNTED AUTO CONTROLLER ON THE INSIDE WALL OF A CUSTODIAL CLOSET WITHIN THE BUILDING. EXACT LOCATION ON THE WALL SHALL BE DETERMINED IN THE FIELD BY THE DISTRICT REPRESENTATIVE. INSTALL 120 VOLT, 60 HERTZ, 2 AMP, ELECTRICAL POWER SUPPLY TO AUTO CONTROLLER LOCATION. AUTO CONTROLLER POWER SUPPLY SHALL BE GROUNDED BY ELECTRICIAN TO SATISFY MANUFACTURER'S SPECIFICATIONS. ALL ELECTRICAL WORK MUST BE PERFORMED BY A LICENSED ELECTRICIAN AND AS PER CALIFORNIA BUILDING CODE. INSTALL A CONTINUOUS 2" ELECTRICAL CONDUIT WITH SWEEP ELBOWS AS NEEDED STARTING FROM THE BASE OF THE WALL MOUNTED AUTO CONTROLLER TO THE (E) LANDSCAPE PLANTER LOCATED ON THE WEST SIDE OF THE ASPHALT PARKING LOT. INSTALL A WIRE PULL BOX OVER THE 2" PVC WIRE CONDUIT AND SWEEP ELBOW FOR MAINTENANCE PURPOSES. THE 2" CONDUIT, WHEN INSTALLED BELOW GRADE, SHALL BE SCH. 40 PVC ELECTRICAL CONDUIT INSTALLED 24" BELOW FINISH GRADE. ALL WALL MOUNTED CONDUIT WITHIN THE CUSTODIAL CLOSET INCLUDING JUNCTION BOXES SHALL BE EMT OR APPROVED METAL. THE CONTINUOUS 2" ELECTRICAL CONDUIT WILL PROVIDE ACCESS FOR ALL 14 GAUGE IRRIGATION WIRES AS WELL AS THE FLOW SENSING CABLE FROM THE AUTO CONTROLLER TO THE LANDSCAPE PLANTER. THE IRRIGATION WIRES WILL BE DIRECT BURIED TO ALL REMOTE CONTROL VALVES ONCE OUT OF THE 2" SCH. 40 PVC ELECTRICAL SWEEP ELBOW AND CONDUIT SEGMENT. INSTALL A 1" SCH. 40 PVC ELECTRICAL SWEEP ELBOWS INTO AND OUT OF ALL VALVE BOXES AND A CONTINUOUS 1" SCH. 40 PVC ELECTRICAL CONDUIT FROM THE WIRE PULL BOX TO THE FLOW SENSOR VALVE BOX LOCATION. CONNECT THE FLOW SENSOR TO THE FLOW SENSING CABLE USING 3M MODEL DBR-Y6 WATER PROOF WIRE SPLICES. CALIBRATE FLOW SENSOR TO AUTO CONTROLLER AS PER MANUFACTURER'S SPECIFICATIONS.

B WIRELESS RAIN SENSOR FOR AUTO CONTROLLER 'A':
MOUNT WIRELESS RAIN SHUT OFF DEVICE ON EXTERIOR BUILDING WALL WITHIN OPERATING RANGE OF WIRELESS RAIN SENSOR RECEIVER. POSITION RAIN SENSOR AT AN ELEVATION ON THE BUILDING WALL THAT IS SAFE FROM VANDALISM AS WELL AS FREE OF ANY BUILDING OVERHANG TO ALLOW THE DEVICE TO BE IN DIRECT CONTACT TO RAINFALL. PROVIDE ALL REQUIRED BATTERIES AND ANCHORS TO SECURE RAIN SHUT OFF DEVICE INTO BUILDING WALL AND POSITION WITHIN RAIN SENSOR RECEIVER OPERATING RANGE AS PER RAIN BIRD SPECIFICATIONS.

C IRRIGATION POINT OF CONNECTION:
FIELD VERIFY THE EXACT LOCATION OF THE (E) 1" IRRIGATION ONLY WATER METER AND THE 1-1/2" WILKINS 975XL REDUCED PRESSURE BACKFLOW ASSEMBLY COMPLETE WITH A 1-1/2" WILKINS 500 SERIES BRASS PRESSURE REGULATING VALVE SET AT 60.0 PSI. THE IRRIGATION BACKFLOW ASSEMBLY IS WITHIN AN (E) SECURITY ENCLOSURE AND IS POSITIONED NEXT TO THE (E) DOMESTIC SUPPLY REDUCED PRESSURE BACKFLOW ASSEMBLY. PROTECT BOTH REDUCED PRESSURE BACKFLOW ASSEMBLIES AND SECURITY ENCLOSURE IN PLACE. CUT AND REMOVE THE REMNANT (E) PVC IRRIGATION MAINLINE PIPING FROM THE OUTLET OF THE (E) 1-1/2" REDUCED PRESSURE BACKFLOW ASSEMBLY TO ALLOW FOR THE INSTALLATION OF THE NEW IRRIGATION MAINLINE PIPING AND COMPONENTS. INSTALL A 3'-0" LONG SEGMENT OF 1-1/2" SCH. 40 PVC IRRIGATION MAINLINE FROM THE DOWNSTREAM SIDE OF THE 1-1/2" BACKFLOW ASSEMBLY. INSTALL A 1-1/2" BRASS NORMALLY CLOSED MASTER VALVE IN A SEPARATE RECTANGULAR VALVE BOX. INSTALL A NEW 1-1/2" PVC RAIN BIRD FLOW SENSOR DOWNSTREAM OF MASTER VALVES IN A SEPARATE VALVE BOX. CUT 1-1/2" PVC MAINLINE PIPE SEGMENT LENGTHS INTO AND OUT OF THE FLOW SENSOR AS PER RAIN BIRD SPECIFICATIONS. ON DOWNSTREAM SIDE OF COMPLETE FLOW SENSOR ASSEMBLY, ENLARGE IRRIGATION MAINLINE TO 2" CLASS 315 PVC. TRENCH AND INSTALL 2" CLASS 315 PVC AS PER IRRIGATION PLAN. INSTALL A LIQUID FERTILIZER DISPENSER IN A MANIFOLD, COMPLETE WITH (3) SCH. 80 PVC BALL VALVES, TO ISOLATE LIQUID FERTILIZER DISPENSER FROM IRRIGATION MAINLINE SOURCE WHEN NOT IN USE. TRENCH AND INSTALL REMAINDER OF NEW 2" AND 1-1/2" PVC IRRIGATION MAINLINE AS PER IRRIGATION PLAN.

D 1-1/2" NORMALLY CLOSED MASTER VALVE & 1-1/2" PVC SOLVENT WELD FLOW SENSOR
INSTALL 1-1/2" NORMALLY CLOSED MASTER VALVE IN A SEPARATE RECTANGULAR VALVE BOX ON NEW 1-1/2" SCH. 40 PVC IRRIGATION MAINLINE DOWNSTREAM OF (E) 1-1/2" REDUCED PRESSURE BACKFLOW ASSEMBLY. MASTER VALVE SHALL BE WIRED TO NEW AUTO CONTROLLER USING (1) YELLOW AND (1) BLUE COLORED 14-GAUGE DIRECT BURY IRRIGATION WIRES. INSTALL A 1-1/2" RAIN BIRD PVC FLOW SENSOR DOWN STREAM OF 1-1/2" MASTER VALVE WITH MEASURED PIPE SEGMENTS INTO AND OUT OF FLOW SENSOR AS PER RAIN BIRD SPECIFICATIONS. TRENCH AND INSTALL A 1" SCH. 40 PVC ELECTRICAL CONDUIT FROM WIRE PULL BOX TO FLOW SENSOR VALVE BOX. INSTALL 1" SCH. 40 PVC ELECTRICAL SWEEP ELBOWS INTO AND OUT OF ALL VALVE BOXES. INSTALL RAINMASTER MODEL EV-CAB-SEN FROM AUTO CONTROLLER THROUGH 2" CONDUIT TO WIRE PULL BOX THEN THROUGH 1" PVC WIRE CONDUIT TO FLOW SENSOR IN ONE CONTINUOUS WIRE PULL WITHOUT SPLICES. CONNECT 14-GAUGE SHIELDED WIRES, (1) BLACK AND (1) RED, TO APPROPRIATE TERMINALS ON AUTO CONTROLLER. CONNECT RED AND BLACK WIRES WITHIN SHIELDED CABLE TO FLOW SENSOR USING 3M MODEL DBR-Y6 WATER PROOF WIRE SPLICES OR APPROVED EQUAL AS PER RAIN BIRD SPECIFICATIONS. CALIBRATE FLOW SENSOR TO AUTO CONTROLLER AS PER RAIN BIRD SPECIFICATIONS PRIOR TO FINAL IRRIGATION COVERAGE TEST WITH LANDSCAPE ARCHITECT.

E EZ-FLO AUTOMATIC FERTILIZER DISPENSER:
INSTALL EZ-FLO FERTILIZER DISPENSER ON TO PVC MAINLINE AS PER MANUFACTURER'S SPECIFICATIONS AND DETAILS. THE PVC TANK SHALL BE INSTALLED BELOW GRADE AND COVERED WITH A JUMBO VALVE BOX, CARSON MODEL 1730-18 (MINIMUM DIMENSIONS OF 30"L X 18"H X 19"W). INSTALL (3) SCH 80 PVC BALL VALVES ON MAINLINE IN SEPARATE VALVE BOXES WITH MAINLINE SEGMENTS ARRAINGED TO CREATE A SUB-MAINLINE OR BY-PASS TO ISOLATE LIQUID FERTILIZER DISPENSER FROM PRIMARY MAINLINE DISCHARGE WHEN TANK IS NOT IN USE. THE EXACT LOCATION OF THE LIQUID FERTILIZER TANK SHALL BE SPOTTED IN THE FIELD BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. TANK MUST BE POSITIONED UPSTREAM OF THE CLOSEST REMOTE CONTROL VALVE LOCATION ON IRRIGATION MAINLINE.

F FLOW SENSING CABLE IN A 1" SCH. 40 PVC ELECTRICAL CONDUIT:
INSTALL RAIN MASTER FLOW SENSING CABLE, MODEL 'EV-CAB-SEN', IN A 1" SCH. 40 PVC ELECTRICAL CONDUIT INSTALLED 24" BELOW FINISH GRADE. INSTALL CABLE PULL BOXES, CARSON MODEL 1419-12 AT ALL CHANGES OF CABLE DIRECTION. PROVIDE 1" SWEEP ELBOWS INTO AND OUT OF ALL CABLE PULL BOXES AND INTO FLOW SENSOR VALVE BOX. CONNECT CABLE TO AUTO CONTROLLER AS PER MANUFACTURER'S SPECIFICATIONS. SPLICE CABLE TO FLOW SENSOR LEAD WIRES WITH 3M WATER RESISTANT WIRE CONNECTORS, MODEL DBR-6Y OR APPROVED EQUAL.

G FIELD VERIFY THE EXACT LOCATION OF THE (E) REMOTE CONTROL VALVES OPERATING THE (E) LAWN SPRINKLER SYSTEM – REMOVE (E) RCV'S AND REPLACE WITH NEW RCV'S:
FIELD VERIFY THE EXACT LOCATION OF THE (E) REMOTE CONTROL VALVES OPERATING THE (E) POP UP LAWN SPRINKLER SYSTEM THAT IS TO BE PROTECTED IN PLACE. THESE VALVES WILL BE ABANDONED ONCE THE NEW IRRIGATION MAINLINE IS INSTALLED. INSTALL (2) NEW 1-1/2" REMOTE CONTROL VALVES ON NEW IRRIGATION MAINLINE AT THE SAME OR CLOSE TO THE SAME LOCATION AS THE TWO (E) REMOTE CONTROL VALVES. EXCAVATE AND REMOVE THE OLD REMOTE CONTROL VALVES AND VALVE BOXES AND DISPOSE OF THE OLD EQUIPMENT OFF SITE. INSTALL (2) NEW 1-1/2" REMOTE CONTROL VALVES ONTO NEW IRRIGATION MAINLINE. TRENCH AND INSTALL 2" SCH. 40 PVC LATERAL PIPING FROM OUTLET OF NEW 1-1/2" REMOTE CONTROL VALVES AND RECONNECT TO SEVERED LATERAL SUPPLY LINE TO RESUPPLY THE (E) TURF IRRIGATION SYSTEM WITH WATER. REPAIR ANY DAMAGE TO THE (E) POP UP SPRAY HEADS OR PVC LATERALS DAMAGED IN THE TURF PLANTER AS A RESULT TO NEW CONSTRUCTION.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-982
REN. JUL. 31, 2023

JORDAN, GILBERT & BAIN
LANDSCAPE ARCHITECTS, INC.
459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642-3641 FAX (805) 653-7874

Jordan, Gilbert & Bain Landscape Architects, Inc. © 2018

JOHN JAMES BAIN III #3193
SIGNATURE
04-24
RENEWAL DATE
11-07-22
DATE

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

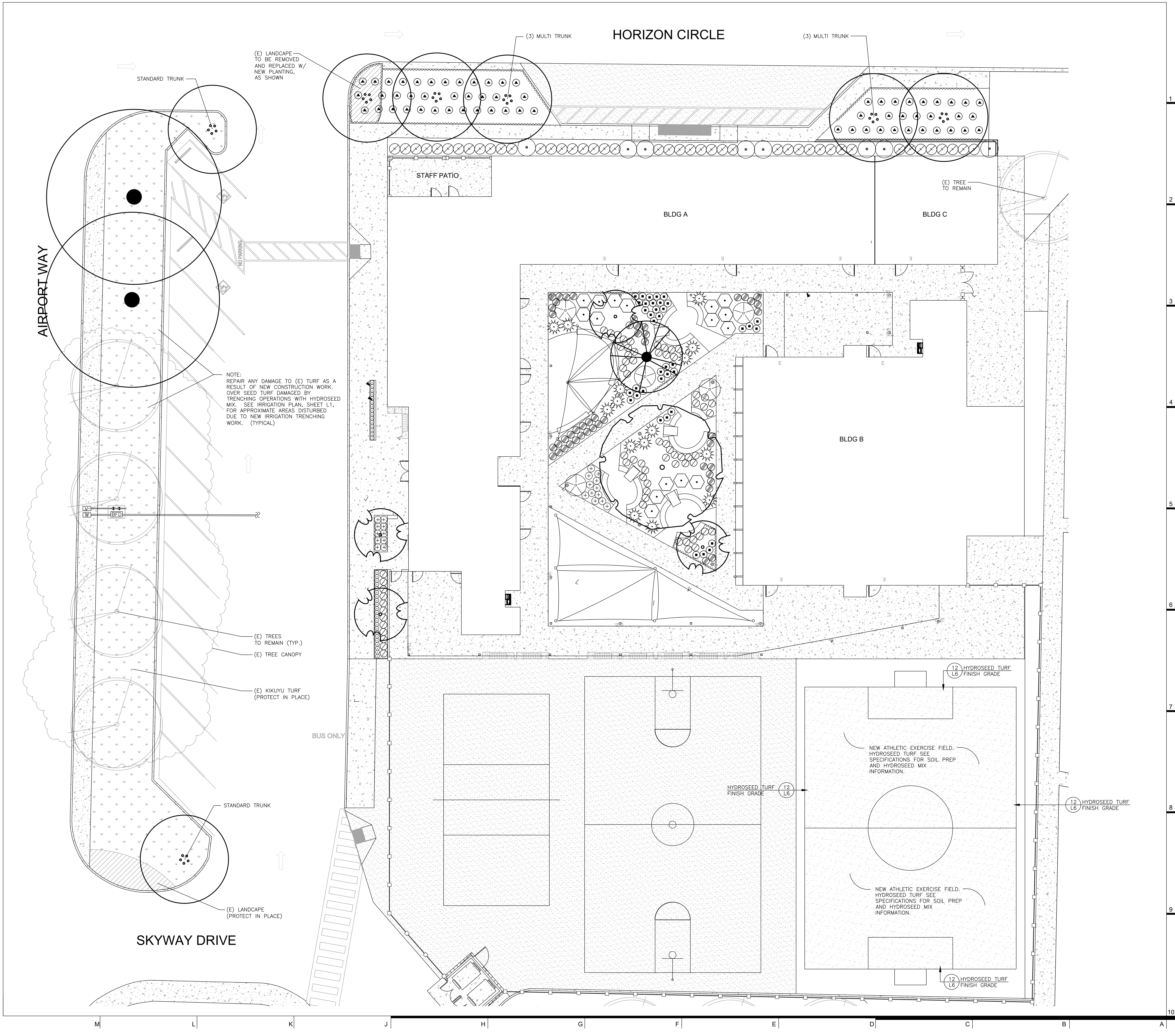
JOB 88910.00
SCALE AS NOTED
PM
DATE 07/01/2022

IRRIGATION LEGEND AND NOTES

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

L2


HORIZON CIRCLE
(3) MULTI TRUNK
(E) LANDCAPE TO BE REMOVED AND REPLACED W/ NEW PLANTING, AS SHOWN
(3) MULTI TRUNK
STANDARD TRUNK
AIRPORT WAY
STAFF PATIO
BLDG A
BLDG C
(E) TREE TO REMAIN
NO PARKING
BLDG B
V
W
BFD
(E) TREES TO REMAIN (TYP.)
(E) TREE CANOPY
(E) KIKUYU TURF (PROTECT IN PLACE)
BUS ONLY
12 L6 HYDROSEED TURF FINISH GRADE
HYDROSEED TURF FINISH GRADE 12 L6
12 L6 HYDROSEED TURF FINISH GRADE
12 L6 HYDROSEED TURF FINISH GRADE
STANDARD TRUNK
(E) LANDCAPE (PROTECT IN PLACE)
SKYWAY DRIVE
1
2
3
4
5
6
7
8
9
10
M
L
K
J
H
G
F
E
D
C
B
A

NOTE:
REPAIR ANY DAMAGE TO (E) TURF AS A RESULT OF NEW CONSTRUCTION WORK. OVER SEED TURF DAMAGED BY TRENCHING OPERATIONS WITH HYDROSEED MIX. SEE IRRIGATION PLAN, SHEET L1, FOR APPROXIMATE AREAS DISTURBED DUE TO NEW IRRIGATION TRENCHING WORK. (TYPICAL)

NEW ATHLETIC EXERCISE FIELD. HYDROSEED TURF SEE SPECIFICATIONS FOR SOIL PREP AND HYDROSEED MIX INFORMATION.

NEW ATHLETIC EXERCISE FIELD. HYDROSEED TURF SEE SPECIFICATIONS FOR SOIL PREP AND HYDROSEED MIX INFORMATION.

IDENTIFICATION STAMP
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APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

C-982
REN. JUL. 31, 2023

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459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642–3641 FAX (805) 653–7874

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JOHN JAMES BAIN III #3193
SIGNATURE
04–24
RENEWAL DATE
11–07–22
DATE

GATEWAY ANNEX SCHOOL
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	07/01/2022
△	
△	
△	
△	
△	

NOTE:
SEE SHEET L4 FOR LEGEND

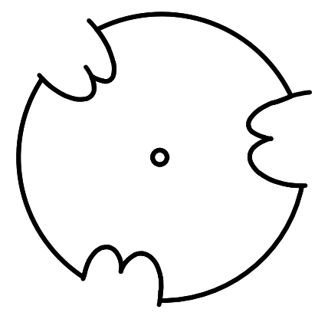
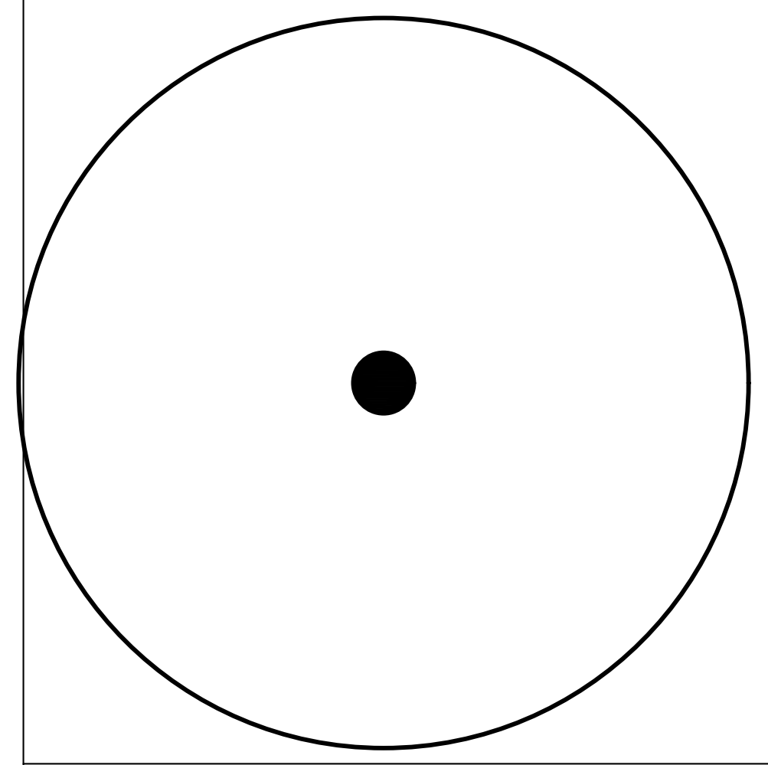
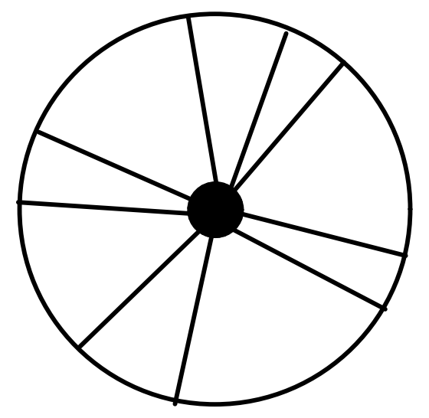
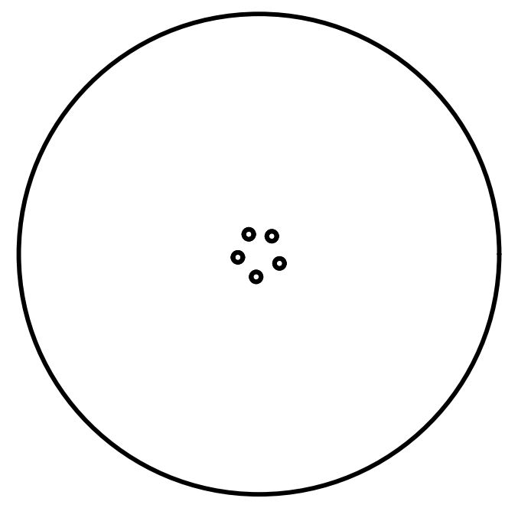
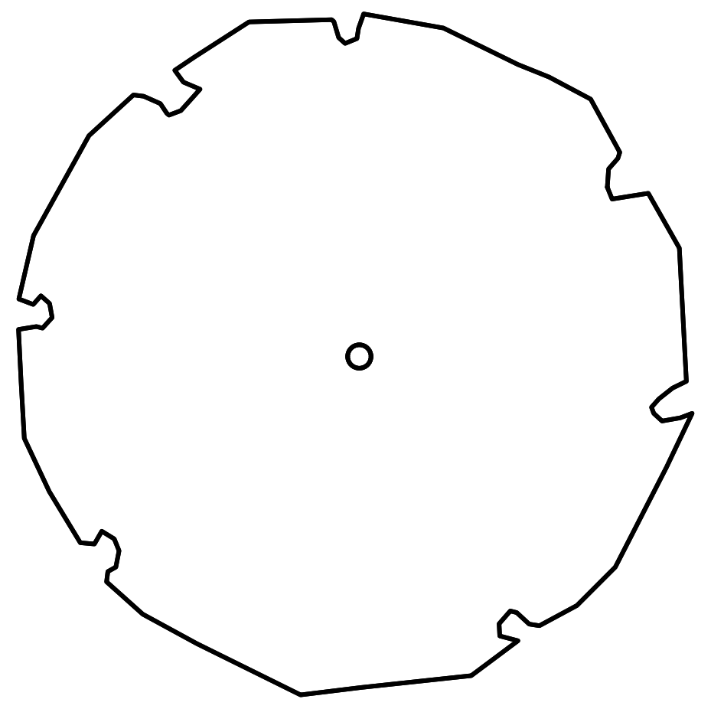
GRAPHIC SCALE
0 10 40
5 20
SCALE: 1"=10'

PLANTING PLAN

PERKINS— EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

L3

TREE LEGEND				
	BOTANICAL NAME COMMON NAME	WUCOLS	SIZE	QUANTITY
	CERCIS CANADENSIS 'FOREST PANSY' FOREST PANSY REDBUD	LOW	24" BOX	4
	FICUS RUBIGINOSA RUSTYLEAF FIG	MED	24" BOX	2
	KOELREUTERIA PANICULATA GOLDENRAIN TREE	MED	24" BOX	1
	LAGERSTROEMIA 'TUSCARORA' (DARK PINK FLOWER) CRAPE MYRTLE (5) MULTI-TRUNK SPECIMENS (2) STANDARD TRUCK SPECIMENS	LOW	24" BOX	7
	PARKINSONIA ACULEATA 'DESERT MUSEUM' (STD) DESERT MUSEUM PALO VERDE	MED	24" BOX	1

SHRUB LEGEND				
	BOTANICAL NAME COMMON NAME	WUCOLS	SIZE	QUANTITY
✳	ACACIA COGNATA 'COUSIN ITT' COUSIN ITT ACACIA	LOW	5 GAL	15
⊠	CAMELLIA JAPONICA 'DEBUTANTE' LIGHT PINK FLOWER CAMELLIA	LOW	5 GAL	8
⬡	COTONEASTER DAMMERI 'CORAL BEAUTY' CORAL BEAUTY COTONEASTER	LOW	5 GAL	16
⊙	HEMEROCALLIS 'BITSY' BITSY DAYLILY	MED	5 GAL	37
▣	LANTANA CAMERA 'CHERRY BANDANA' CHERRY BANDANA LANTANA	LOW	5 GAL	38
▲	LANTANA MONTEVIDENSIS PURPLE TRAILING LANTANA	LOW	5 GAL	52
⊛	LOROPETALUM CHINENSE 'RASPBERRY' PLUM DELIGHT LOROPETALUM	LOW	5 GAL	5
⊘	NANDINA DOMESTICA 'GULF STREAM' GULF STREAM BAMBOO	LOW	5 GAL	74
▨	PENNISETUM ALOPCUROIDES 'LITTLE BUNNY' MINIATURE FOUNTAIN GRASS	LOW	5 GAL	47
⊗	TRACHELOSPERMUM JASMINOIDES STAR JASMINE	LOW	5 GAL	44
⊕	TRADESCANTIA PALLIDE 'PURPLE HEART' PURPLE SPIDERWORT	LOW	1 GAL	22
	DECOMPOSED GRANITE (TAN COLOR) – 3" LAYER OVER WEED BARRIER	N/A	S.F.	2,606
⬚	HYDROSEED TURF	HIGH	S.F.	1,370
▭	EXISTING KIKUYU TURF – TO REMAIN	HIGH	S.F.	4,000
▨	EXISTING PLANTER – TO REMAIN	MEDIUM	S.F.	170

GRAPHIC SCALE

SCALE: 1"=10'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

JORDAN, GILBERT & BAIN
LANDSCAPE ARCHITECTS, INC.
459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642-3641 FAX (805) 653-7874

Jordan, Gilbert & Bain Landscape Architects, Inc. © 2018

JOHN JAMES BAIN III #3193
SIGNATURE
04-24
RENEWAL DATE
11-07-22
DATE

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

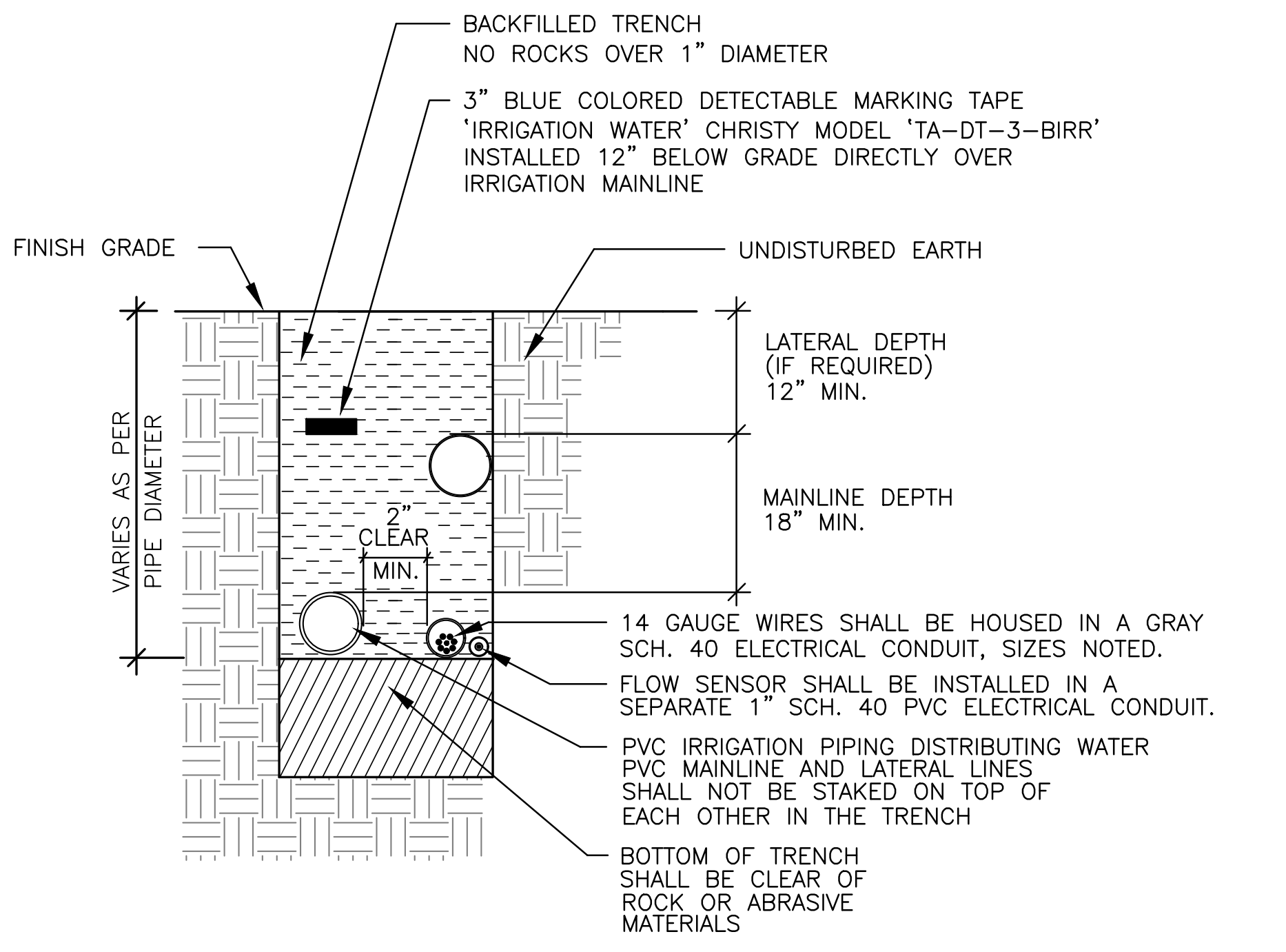
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	07/01/2022
△	
△	
△	
△	
△	

PLANTING LEGEND AND NOTES

PERKINS EASTMAN

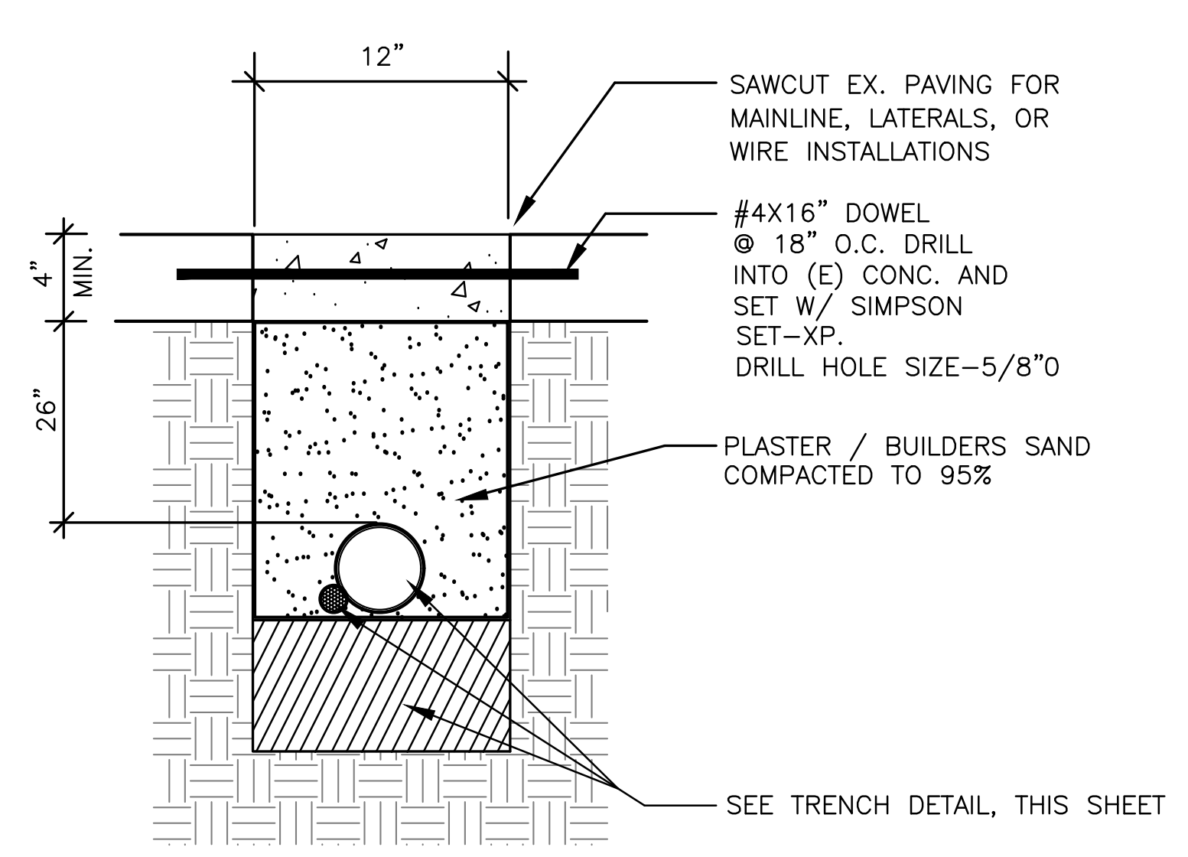
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

L4


BACKFILLED TRENCH
NO ROCKS OVER 1" DIAMETER
3" BLUE COLORED DETECTABLE MARKING TAPE 'IRRIGATION WATER' CHRISTY MODEL 'TA-DT-3-BIRR' INSTALLED 12" BELOW GRADE DIRECTLY OVER IRRIGATION MAINLINE
FINISH GRADE
UNDISTURBED EARTH
LATERAL DEPTH (IF REQUIRED) 12" MIN.
MAINLINE DEPTH 18" MIN.
VARIES AS PER PIPE DIAMETER
2" CLEAR MIN.
14 GAUGE WIRES SHALL BE HOUSED IN A GRAY SCH. 40 ELECTRICAL CONDUIT, SIZES NOTED.
FLOW SENSOR SHALL BE INSTALLED IN A SEPARATE 1" SCH. 40 PVC ELECTRICAL CONDUIT.
PVC IRRIGATION PIPING DISTRIBUTING WATER PVC MAINLINE AND LATERAL LINES SHALL NOT BE STAKED ON TOP OF EACH OTHER IN THE TRENCH
BOTTOM OF TRENCH SHALL BE CLEAR OF ROCK OR ABRASIVE MATERIALS

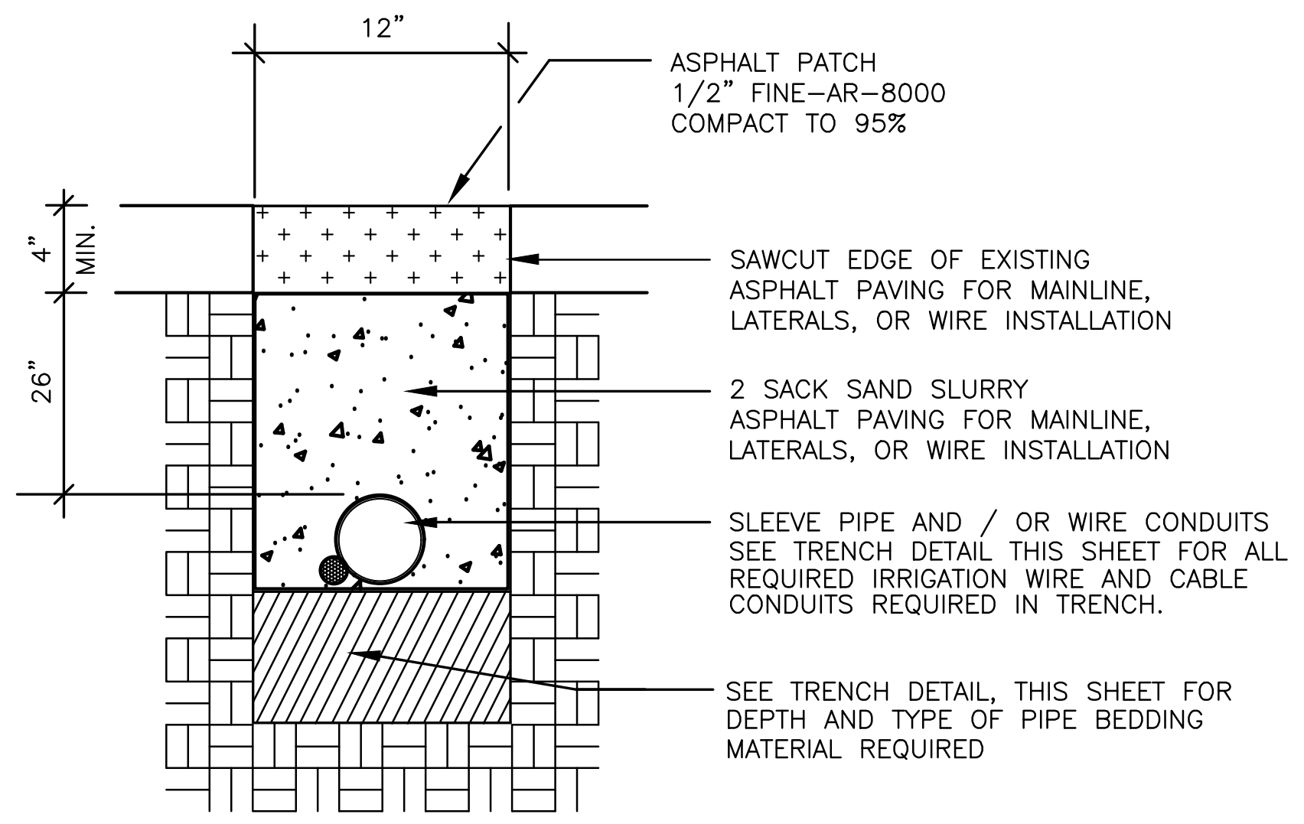
NOT TO SCALE

1 IRRIGATION PIPING TRENCH SECTION


12"
4" MIN.
26"
SAWCUT EX. PAVING FOR MAINLINE, LATERALS, OR WIRE INSTALLATIONS
#4X16" DOWEL @ 18" O.C. DRILL INTO (E) CONC. AND SET W/ SIMPSON SET-XP. DRILL HOLE SIZE-5/8"0
PLASTER / BUILDERS SAND COMPACTED TO 95%
SEE TRENCH DETAIL, THIS SHEET

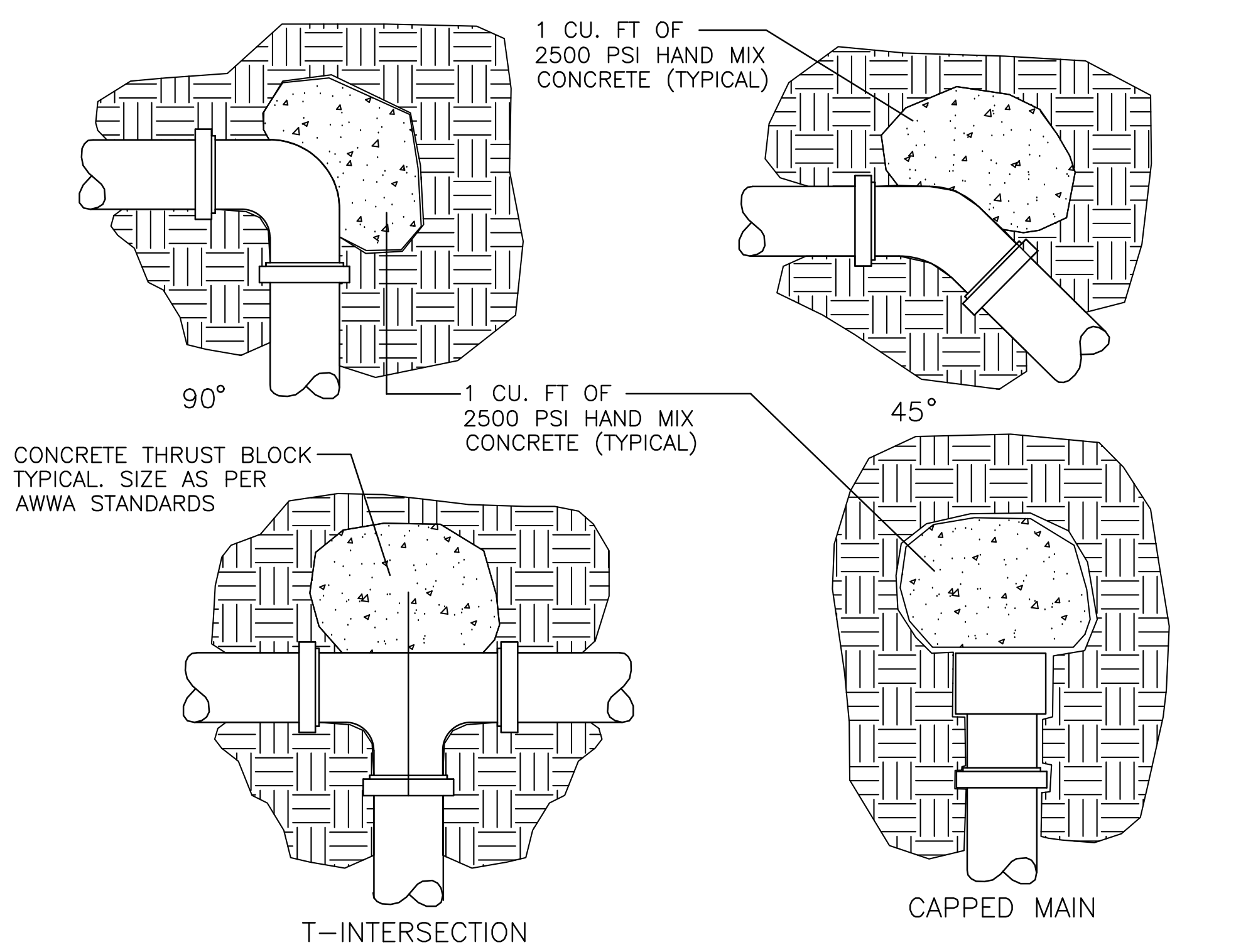
NOT TO SCALE

2 IRRIGATION TRENCH SECTION WITH CONCRETE CUT


12"
4" MIN.
26"
ASPHALT PATCH 1/2" FINE-AR-8000 COMPACT TO 95%
SAWCUT EDGE OF EXISTING ASPHALT PAVING FOR MAINLINE, LATERALS, OR WIRE INSTALLATION
2 SACK SAND SLURRY ASPHALT PAVING FOR MAINLINE, LATERALS, OR WIRE INSTALLATION
SLEEVE PIPE AND / OR WIRE CONDUITS SEE TRENCH DETAIL THIS SHEET FOR ALL REQUIRED IRRIGATION WIRE AND CABLE CONDUITS REQUIRED IN TRENCH.
SEE TRENCH DETAIL, THIS SHEET FOR DEPTH AND TYPE OF PIPE BEDDING MATERIAL REQUIRED

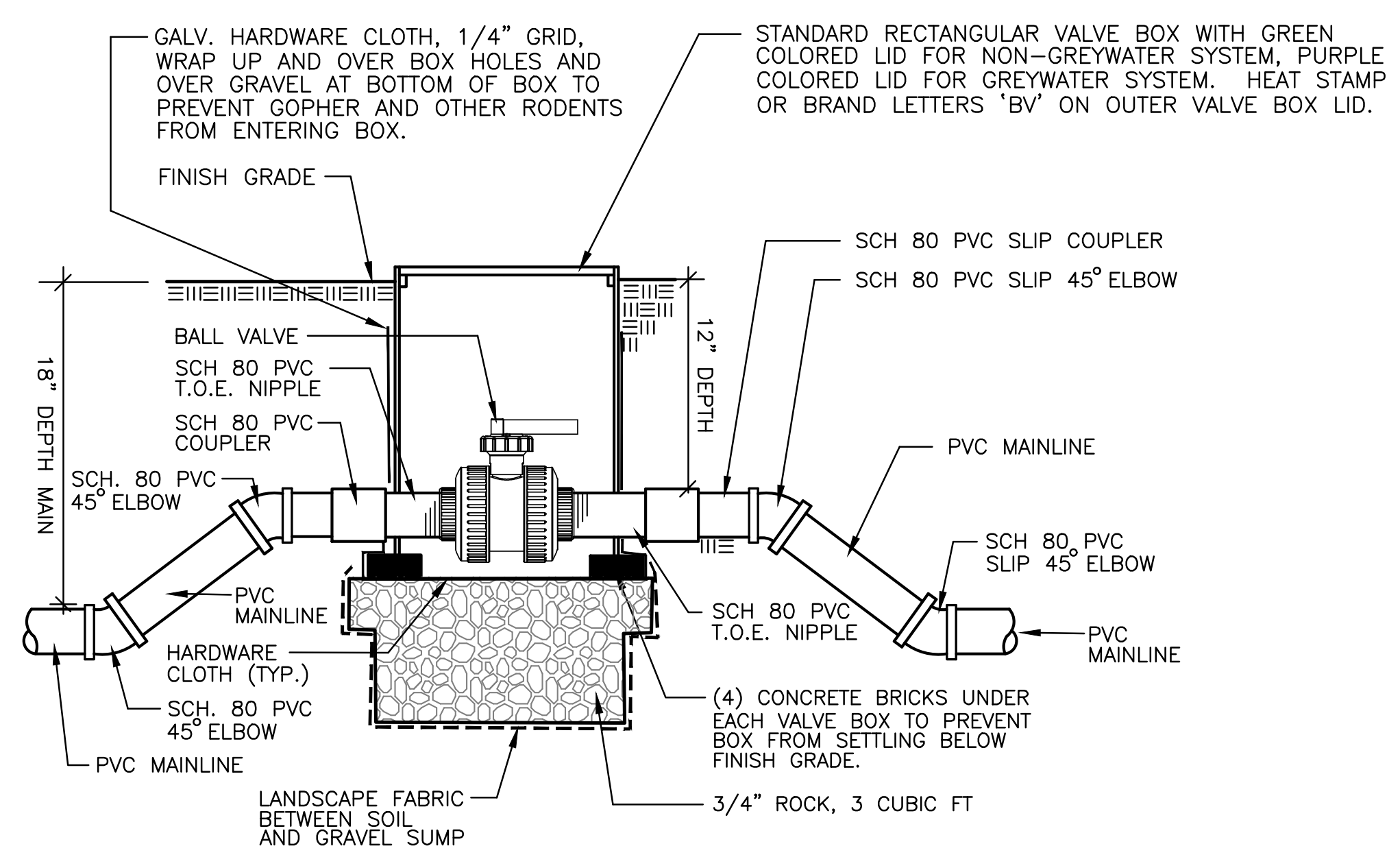
NOT TO SCALE

3 TRENCH SECTION WITH ASPHALT CUT


1 CU. FT OF 2500 PSI HAND MIX CONCRETE (TYPICAL)
90°
1 CU. FT OF 2500 PSI HAND MIX CONCRETE (TYPICAL)
45°
CONCRETE THRUST BLOCK TYPICAL. SIZE AS PER AWWA STANDARDS
T-INTERSECTION
CAPPED MAIN

NOT TO SCALE

4 CONCRETE THRUST BLOCK FOR IRRIGATION MAINLINE

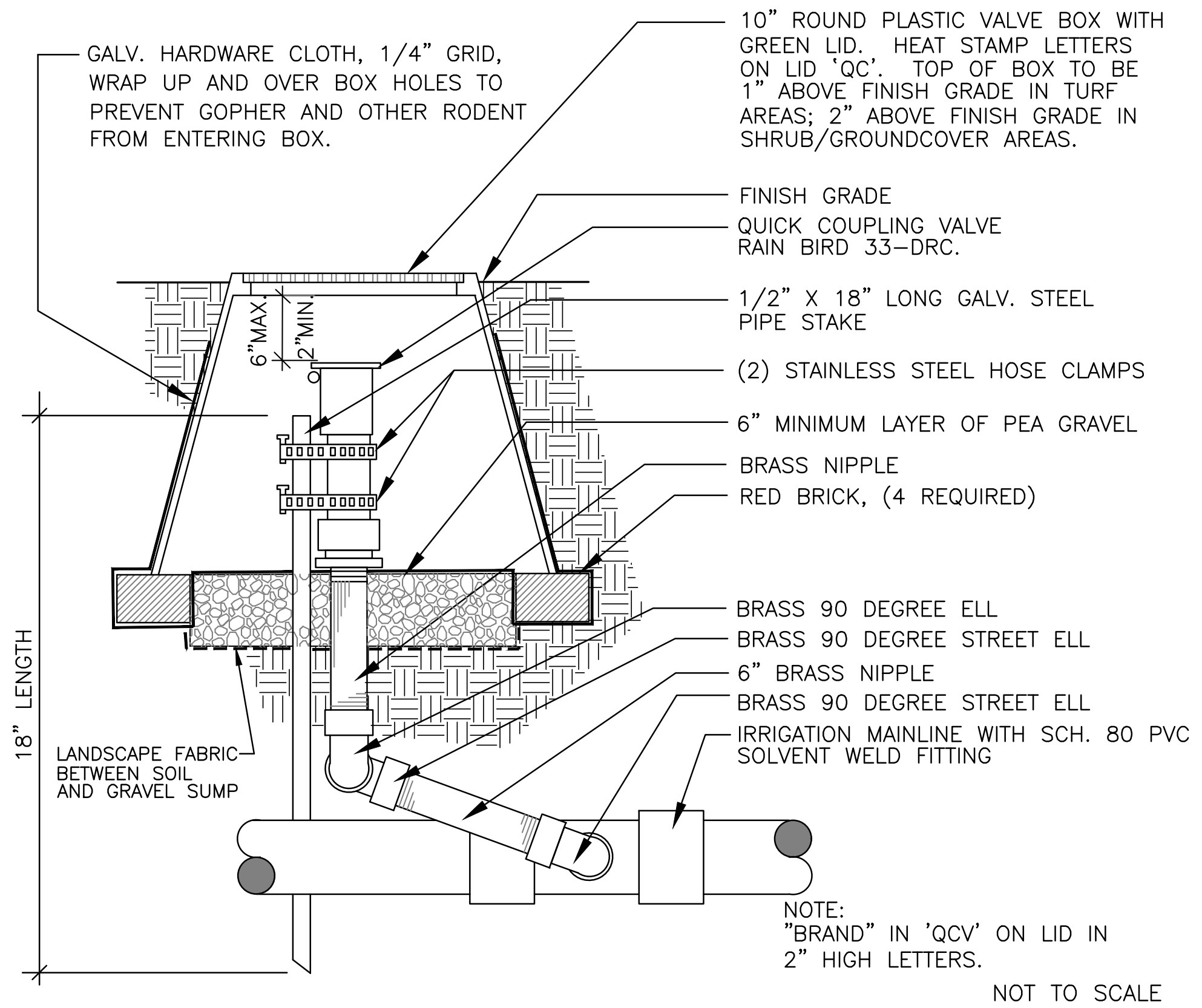

GALV. HARDWARE CLOTH, 1/4" GRID, WRAP UP AND OVER BOX HOLES AND OVER GRAVEL AT BOTTOM OF BOX TO PREVENT GOPHER AND OTHER RODENTS FROM ENTERING BOX.
STANDARD RECTANGULAR VALVE BOX WITH GREEN COLORED LID FOR NON-GREYWATER SYSTEM, PURPLE COLORED LID FOR GREYWATER SYSTEM. HEAT STAMP OR BRAND LETTERS 'BV' ON OUTER VALVE BOX LID.
FINISH GRADE
SCH 80 PVC SLIP COUPLER
SCH 80 PVC SLIP 45° ELBOW
18" DEPTH MAIN
12" DEPTH
BALL VALVE
SCH 80 PVC T.O.E. NIPPLE
SCH 80 PVC COUPLER
SCH. 80 PVC 45° ELBOW
PVC MAINLINE
SCH 80 PVC SLIP 45° ELBOW
PVC MAINLINE
HARDWARE CLOTH (TYP.)
SCH 80 PVC T.O.E. NIPPLE
PVC MAINLINE
SCH. 80 PVC 45° ELBOW
(4) CONCRETE BRICKS UNDER EACH VALVE BOX TO PREVENT BOX FROM SETTLING BELOW FINISH GRADE.
PVC MAINLINE
LANDSCAPE FABRIC BETWEEN SOIL AND GRAVEL SUMP
3/4" ROCK, 3 CUBIC FT

NOTES:

1. BOX TO BE INSTALLED AS TO ALLOW FOR PROPER OPERATION OF BALL VALVE. INSTALL AT RIGHT ANGLE TO HARDSCAPE EDGE, INSTALL VALVE BODY IN BOX POSITIONED TO ALLOW LEVER TO CLOSE VALVE WITHOUT CONFLICT WITH SIDE OF VALVE BOX.
2. INSTALL VALVE BOX EXTENSIONS AS REQUIRED TO ACHIEVE PROPER VALVE INSTALLATION AT MAIN LINE DEPTH.
3. HARDWARE CLOTH: GALVANIZED WELDED STEEL, MESH SHAPE SQUARE 1/4" x 1/4" IN SIZE, GAUGE 23 (MINIMUM THICKNESS SIZE).

NOT TO SCALE

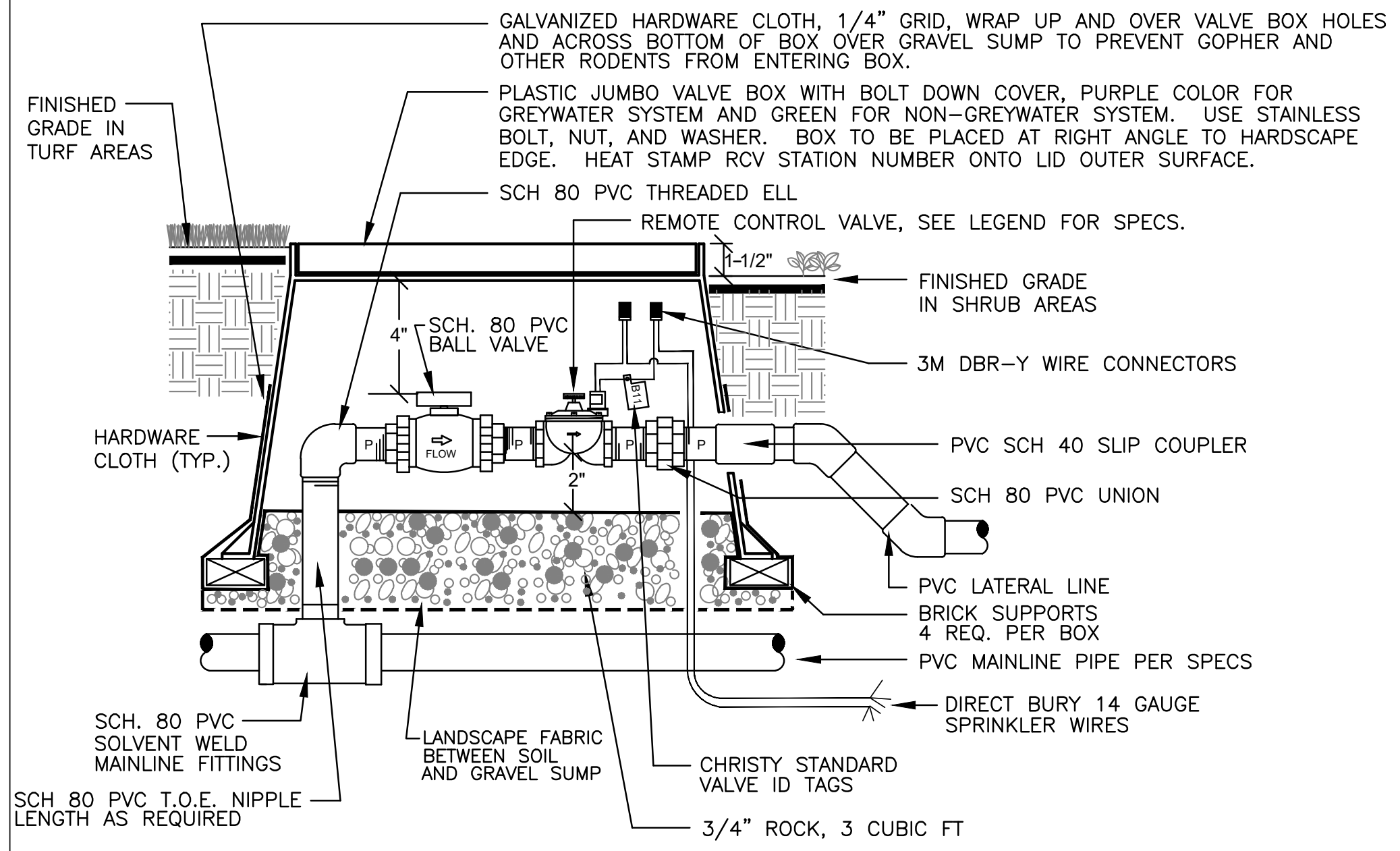
5 SCH. 80 PVC BALL VALVE ON IRRIGATION MAINLINE


GALV. HARDWARE CLOTH, 1/4" GRID, WRAP UP AND OVER BOX HOLES TO PREVENT GOPHER AND OTHER RODENT FROM ENTERING BOX.
10" ROUND PLASTIC VALVE BOX WITH GREEN LID. HEAT STAMP LETTERS ON LID 'QC'. TOP OF BOX TO BE 1" ABOVE FINISH GRADE IN TURF AREAS; 2" ABOVE FINISH GRADE IN SHRUB/GROUNDCOVER AREAS.
FINISH GRADE
QUICK COUPLING VALVE RAIN BIRD 33-DRC.
1/2" X 18" LONG GALV. STEEL PIPE STAKE
(2) STAINLESS STEEL HOSE CLAMPS
6" MINIMUM LAYER OF PEA GRAVEL
BRASS NIPPLE
RED BRICK, (4 REQUIRED)
6"MAX.
2"MIN.
18" LENGTH
BRASS 90 DEGREE ELL
BRASS 90 DEGREE STREET ELL
6" BRASS NIPPLE
BRASS 90 DEGREE STREET ELL
IRRIGATION MAINLINE WITH SCH. 80 PVC SOLVENT WELD FITTING
LANDSCAPE FABRIC BETWEEN SOIL AND GRAVEL SUMP

NOTE:
"BRAND" IN 'QCV' ON LID IN 2" HIGH LETTERS.

NOT TO SCALE

6 QUICK COUPLER

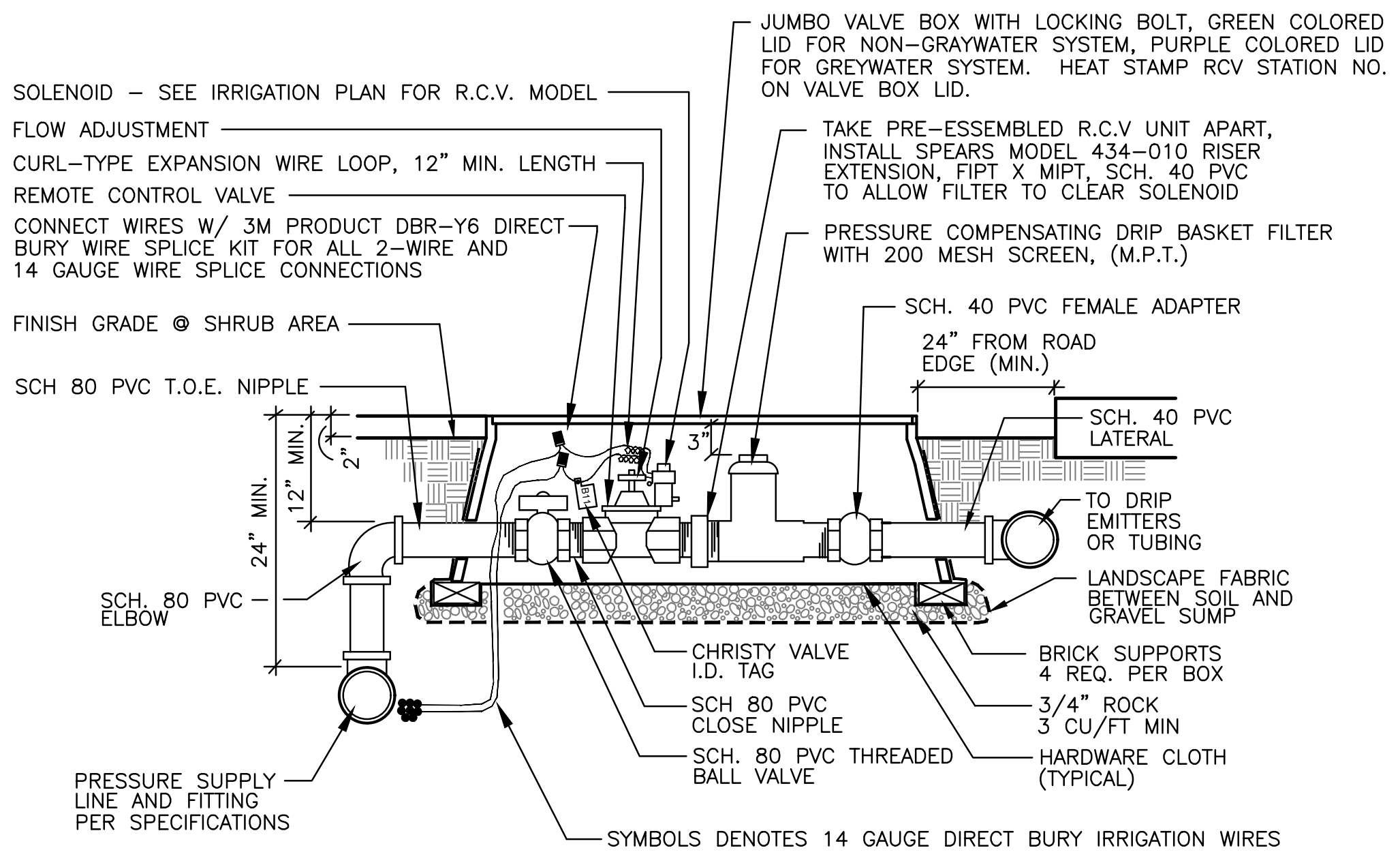

GALVANIZED HARDWARE CLOTH, 1/4" GRID, WRAP UP AND OVER VALVE BOX HOLES AND ACROSS BOTTOM OF BOX OVER GRAVEL SUMP TO PREVENT GOPHER AND OTHER RODENTS FROM ENTERING BOX.
FINISHED GRADE IN TURF AREAS
PLASTIC JUMBO VALVE BOX WITH BOLT DOWN COVER, PURPLE COLOR FOR GREYWATER SYSTEM AND GREEN FOR NON-GREYWATER SYSTEM. USE STAINLESS BOLT, NUT, AND WASHER. BOX TO BE PLACED AT RIGHT ANGLE TO HARDSCAPE EDGE. HEAT STAMP RCV STATION NUMBER ONTO LID OUTER SURFACE.
SCH 80 PVC THREADED ELL
REMOTE CONTROL VALVE, SEE LEGEND FOR SPECS.
1-1/2"
FINISHED GRADE IN SHRUB AREAS
4"
SCH. 80 PVC BALL VALVE
3M DBR-Y WIRE CONNECTORS
HARDWARE CLOTH (TYP.)
FLOW
2"
PVC SCH 40 SLIP COUPLER
SCH 80 PVC UNION
PVC LATERAL LINE
BRICK SUPPORTS 4 REQ. PER BOX
PVC MAINLINE PIPE PER SPECS
DIRECT BURY 14 GAUGE SPRINKLER WIRES
SCH. 80 PVC SOLVENT WELD MAINLINE FITTINGS
LANDSCAPE FABRIC BETWEEN SOIL AND GRAVEL SUMP
CHRISTY STANDARD VALVE ID TAGS
SCH 80 PVC T.O.E. NIPPLE LENGTH AS REQUIRED
3/4" ROCK, 3 CUBIC FT

NOTES:

1. PRIOR TO BEGINNING TRENCHING OPERATIONS, LAYOUT NEW MAINLINE AND VALVE LOCATIONS USING MARKING FLAGS OR TEMPORARY PAINT AND OBTAIN APPROVAL FROM C.V.U.S.D. REPRESETATIVE.
2. EQUIPMENT SHALL BE INSTALLED SUCH THAT THERE IS NO LEVERAGE OR STRESS ON THE VALVE ASSEMBLY. PIPE SHALL NOT COME INTO CONTACT WITH VALVE BOX.
3. USE A NON-HARDENING TEFLON PIPE SEALANT ON ALL THREADED CONNECTIONS.
4. HARDWARE CLOTH: GALVANIZED WELDED STEEL, MESH SHAPE SQUARE 1/4" x 1/4" IN SIZE, GAUGE 23 (MINIMUM THICKNESS SIZE).
5. ONCE WIRES HAVE BEEN PULLED THROUGH CONDUIT, SEAL ENDS OFF WITH WATER PROOF CONDUIT SEALER TO PREVENT WATER COLLECTION INTO CABLE / WIRE CONDUIT.

NOT TO SCALE

7 REMOTE CONTROL VALVE ASSEMBLY

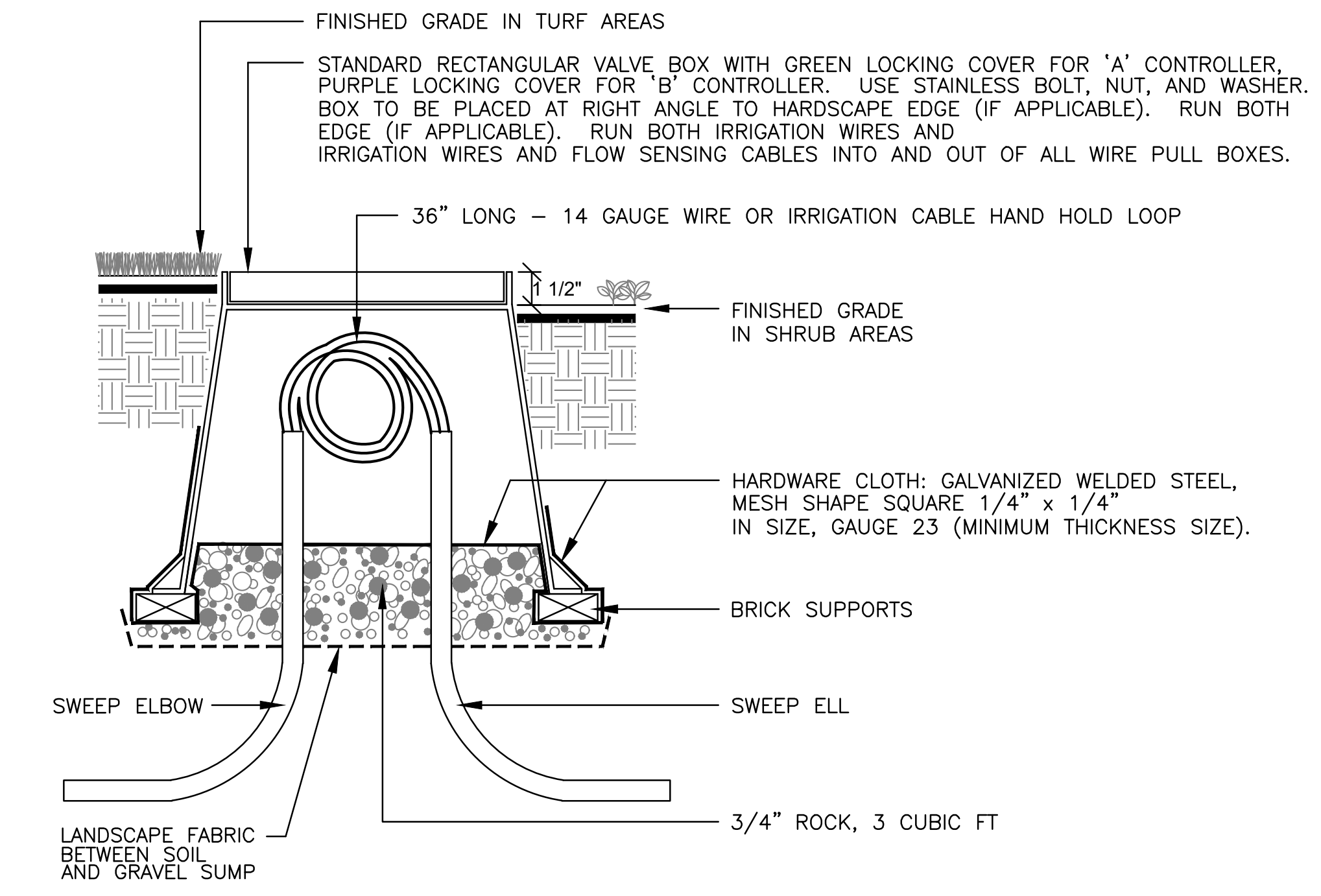

SOLENOID – SEE IRRIGATION PLAN FOR R.C.V. MODEL
FLOW ADJUSTMENT
CURL-TYPE EXPANSION WIRE LOOP, 12" MIN. LENGTH
REMOTE CONTROL VALVE
CONNECT WIRES W/ 3M PRODUCT DBR-Y6 DIRECT BURY WIRE SPLICE KIT FOR ALL 2-WIRE AND 14 GAUGE WIRE SPLICE CONNECTIONS
FINISH GRADE @ SHRUB AREA
SCH 80 PVC T.O.E. NIPPLE
JUMBO VALVE BOX WITH LOCKING BOLT, GREEN COLORED LID FOR NON-GRAYWATER SYSTEM, PURPLE COLORED LID FOR GREYWATER SYSTEM. HEAT STAMP RCV STATION NO. ON VALVE BOX LID.
TAKE PRE-ESSEMBLED R.C.V UNIT APART, INSTALL SPEARS MODEL 434-010 RISER EXTENSION, FIPT X MIPT, SCH. 40 PVC TO ALLOW FILTER TO CLEAR SOLENOID
PRESSURE COMPENSATING DRIP BASKET FILTER WITH 200 MESH SCREEN, (M.P.T.)
SCH. 40 PVC FEMALE ADAPTER
24" FROM ROAD EDGE (MIN.)
SCH. 40 PVC LATERAL
2"
3"
12" MIN.
24" MIN.
TO DRIP EMITTERS OR TUBING
LANDSCAPE FABRIC BETWEEN SOIL AND GRAVEL SUMP
SCH. 80 PVC ELBOW
CHRISTY VALVE I.D. TAG
SCH 80 PVC CLOSE NIPPLE
SCH. 80 PVC THREADED BALL VALVE
BRICK SUPPORTS 4 REQ. PER BOX
3/4" ROCK 3 CU/FT MIN
HARDWARE CLOTH (TYPICAL)
PRESSURE SUPPLY LINE AND FITTING PER SPECIFICATIONS
SYMBOLS DENOTES 14 GAUGE DIRECT BURY IRRIGATION WIRES

NOTES:

1. PRIOR TO BEGINNING TRENCHING OPERATIONS, LAYOUT NEW MAINLINE AND VALVE LOCATIONS USING MARKING FLAGS OR TEMPORARY PAINT AND OBTAIN APPROVAL FROM C.V.U.S.D. REPRESETATIVE.
2. EQUIPMENT SHALL BE INSTALLED SUCH THAT THERE IS NO LEVERAGE OR STRESS ON THE VALVE ASSEMBLY. PIPE SHALL NOT COME INTO CONTACT WITH VALVE BOX.
3. USE A NON-HARDENING TEFLON PIPE SEALANT ON ALL THREADED CONNECTIONS.
4. HARDWARE CLOTH: GALVANIZED WELDED STEEL, MESH SHAPE SQUARE 1/4" x 1/4" IN SIZE, GAUGE 23 (MINIMUM THICKNESS SIZE).
5. ONCE WIRES HAVE BEEN PULLED THROUGH CONDUIT, SEAL ENDS OFF WITH WATER PROOF CONDUIT SEALER TO PREVENT WATER COLLECTION INTO CABLE / WIRE CONDUIT.

NOT TO SCALE

8 DRIP REMOTE CONTROL VALVE ASSEMBLY


FINISHED GRADE IN TURF AREAS
STANDARD RECTANGULAR VALVE BOX WITH GREEN LOCKING COVER FOR 'A' CONTROLLER, PURPLE LOCKING COVER FOR 'B' CONTROLLER. USE STAINLESS BOLT, NUT, AND WASHER. BOX TO BE PLACED AT RIGHT ANGLE TO HARDSCAPE EDGE (IF APPLICABLE). RUN BOTH EDGE (IF APPLICABLE). RUN BOTH IRRIGATION WIRES AND IRRIGATION WIRES AND FLOW SENSING CABLES INTO AND OUT OF ALL WIRE PULL BOXES.
36" LONG – 14 GAUGE WIRE OR IRRIGATION CABLE HAND HOLD LOOP
1/2"
FINISHED GRADE IN SHRUB AREAS
HARDWARE CLOTH: GALVANIZED WELDED STEEL, MESH SHAPE SQUARE 1/4" x 1/4" IN SIZE, GAUGE 23 (MINIMUM THICKNESS SIZE).
BRICK SUPPORTS
SWEEP ELBOW
SWEEP ELL
3/4" ROCK, 3 CUBIC FT
LANDSCAPE FABRIC BETWEEN SOIL AND GRAVEL SUMP

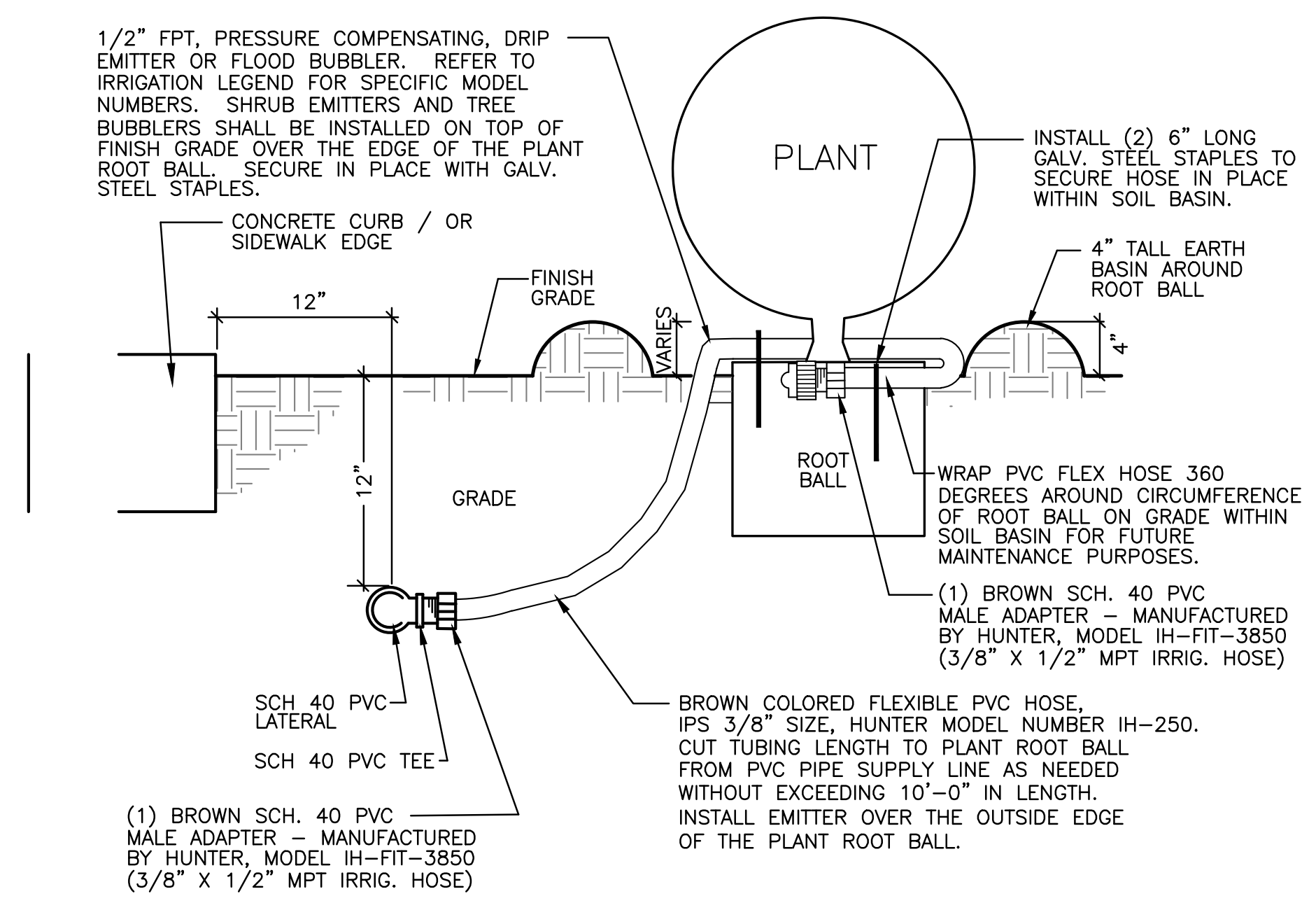
NOTE:

1. USE RAINBOW TECHNOLOGY 'DUCT SEAL PUTTY' TO PLUG OPEN CONDUIT / WIRES WITHIN VALVE BOX TO PREVENT WATER FROM ENTERING CONDUIT OPENING.

9 WIRE SPLICE BOX OR WIRE PULL BOX

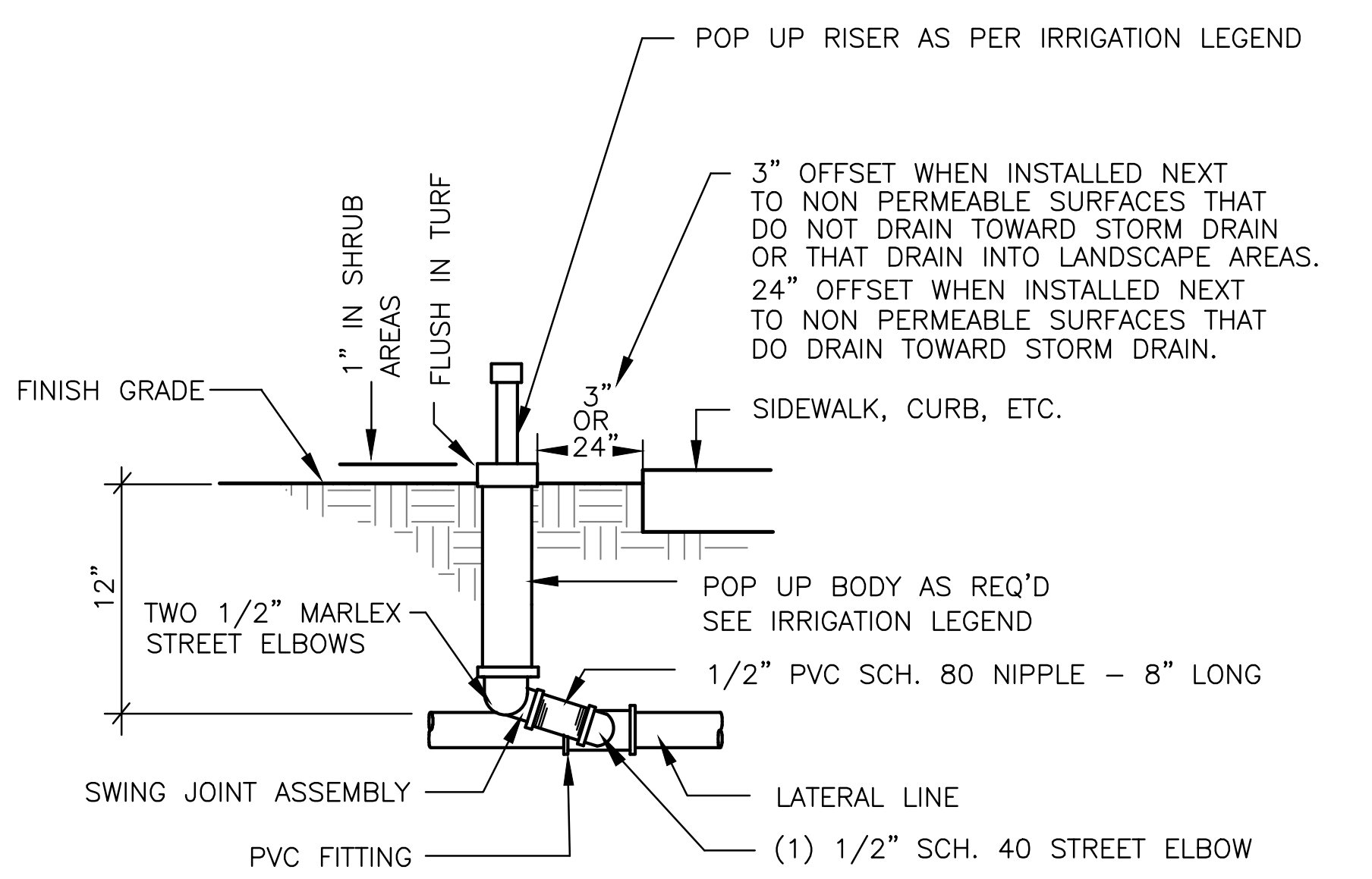
NOTES:

1. USE WELD-ON PRIMER MODEL 'P-70' AND WELD-ON SOLVENT WELD GLUE MODEL '795 CLEAR', OR APPROVED EQUAL, TO ATTACH HUNTER BROWN PVC MALE ADAPTERS TO FLEXIBLE PVC HOSE.
2. INSTALL (1) EMITTER DETAIL PER EACH SHRUB IN PLANTER.
3. INSTALL (2) TREE BUBBLER DETAILS ON OPPOSING SIDES OF EACH TREE ROOT BALL IN PLANTER.


1/2" FPT, PRESSURE COMPENSATING, DRIP EMITTER OR FLOOD BUBBLER. REFER TO IRRIGATION LEGEND FOR SPECIFIC MODEL NUMBERS. SHRUB EMITTERS AND TREE BUBBLERS SHALL BE INSTALLED ON TOP OF FINISH GRADE OVER THE EDGE OF THE PLANT ROOT BALL. SECURE IN PLACE WITH GALV. STEEL STAPLES.
PLANT
INSTALL (2) 6" LONG GALV. STEEL STAPLES TO SECURE HOSE IN PLACE WITHIN SOIL BASIN.
CONCRETE CURB / OR SIDEWALK EDGE
FINISH GRADE
4" TALL EARTH BASIN AROUND ROOT BALL
12"
VARIES
4"
12"
GRADE
ROOT BALL
WRAP PVC FLEX HOSE 360 DEGREES AROUND CIRCUMFERENCE OF ROOT BALL ON GRADE WITHIN SOIL BASIN FOR FUTURE MAINTENANCE PURPOSES.
(1) BROWN SCH. 40 PVC MALE ADAPTER – MANUFACTURED BY HUNTER, MODEL IH-FIT-3850 (3/8" X 1/2" MPT IRRIG. HOSE)
SCH 40 PVC LATERAL
SCH 40 PVC TEE
BROWN COLORED FLEXIBLE PVC HOSE, IPS 3/8" SIZE, HUNTER MODEL NUMBER IH-250. CUT TUBING LENGTH TO PLANT ROOT BALL FROM PVC PIPE SUPPLY LINE AS NEEDED WITHOUT EXCEEDING 10'-0" IN LENGTH. INSTALL EMITTER OVER THE OUTSIDE EDGE OF THE PLANT ROOT BALL.
(1) BROWN SCH. 40 PVC MALE ADAPTER – MANUFACTURED BY HUNTER, MODEL IH-FIT-3850 (3/8" X 1/2" MPT IRRIG. HOSE)

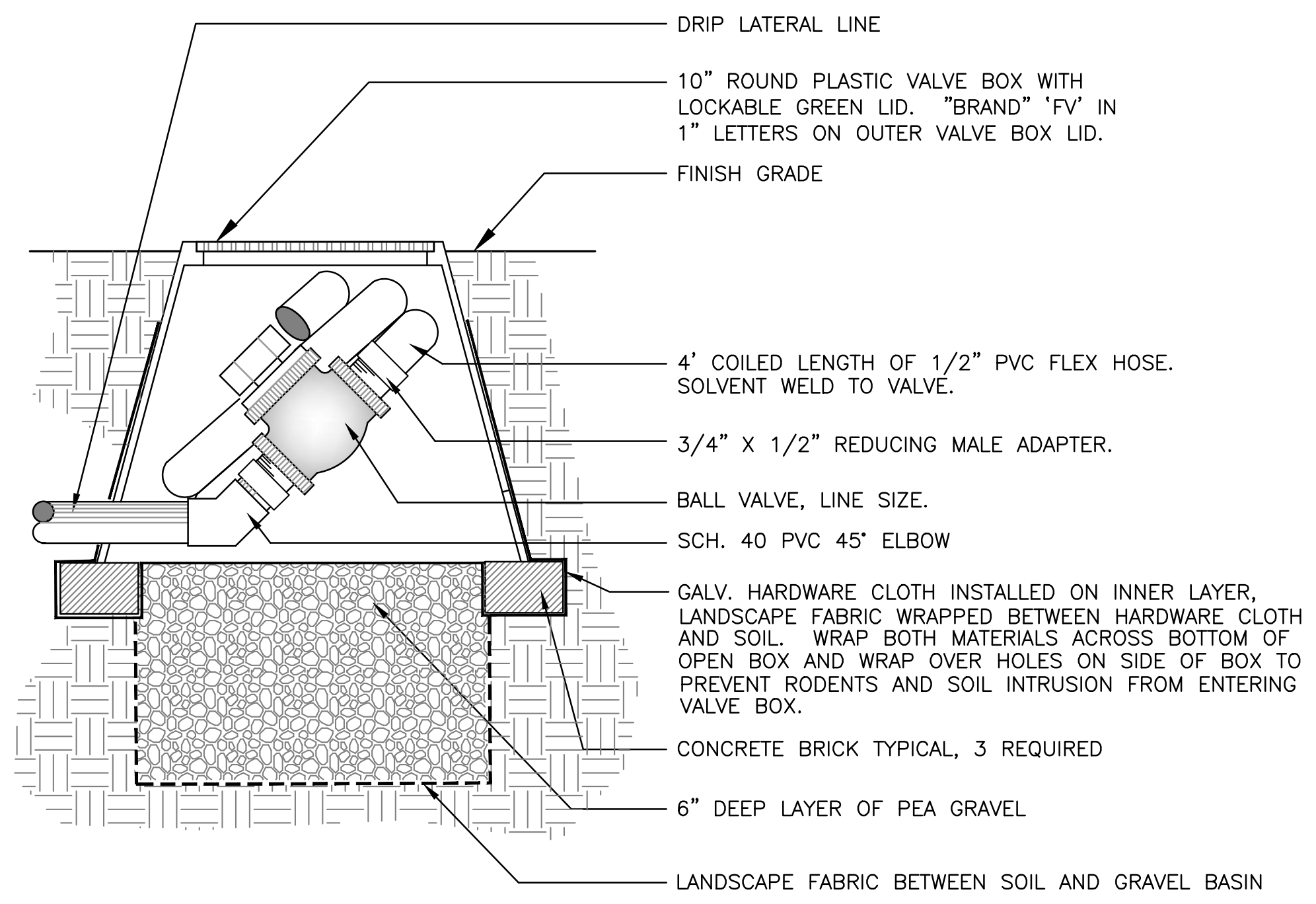
NOT TO SCALE

10 TREE FLOOD BUBBLER ON PVC FLEX HOSE


POP UP RISER AS PER IRRIGATION LEGEND
3" OFFSET WHEN INSTALLED NEXT TO NON PERMEABLE SURFACES THAT DO NOT DRAIN TOWARD STORM DRAIN OR THAT DRAIN INTO LANDSCAPE AREAS. 24" OFFSET WHEN INSTALLED NEXT TO NON PERMEABLE SURFACES THAT DO DRAIN TOWARD STORM DRAIN.
1" IN SHRUB AREAS
FLUSH IN TURF
FINISH GRADE
3" OR 24"
SIDEWALK, CURB, ETC.
12"
TWO 1/2" MARLEX STREET ELBOWS
POP UP BODY AS REQ'D SEE IRRIGATION LEGEND
1/2" PVC SCH. 80 NIPPLE – 8" LONG
SWING JOINT ASSEMBLY
LATERAL LINE
PVC FITTING
(1) 1/2" SCH. 40 STREET ELBOW

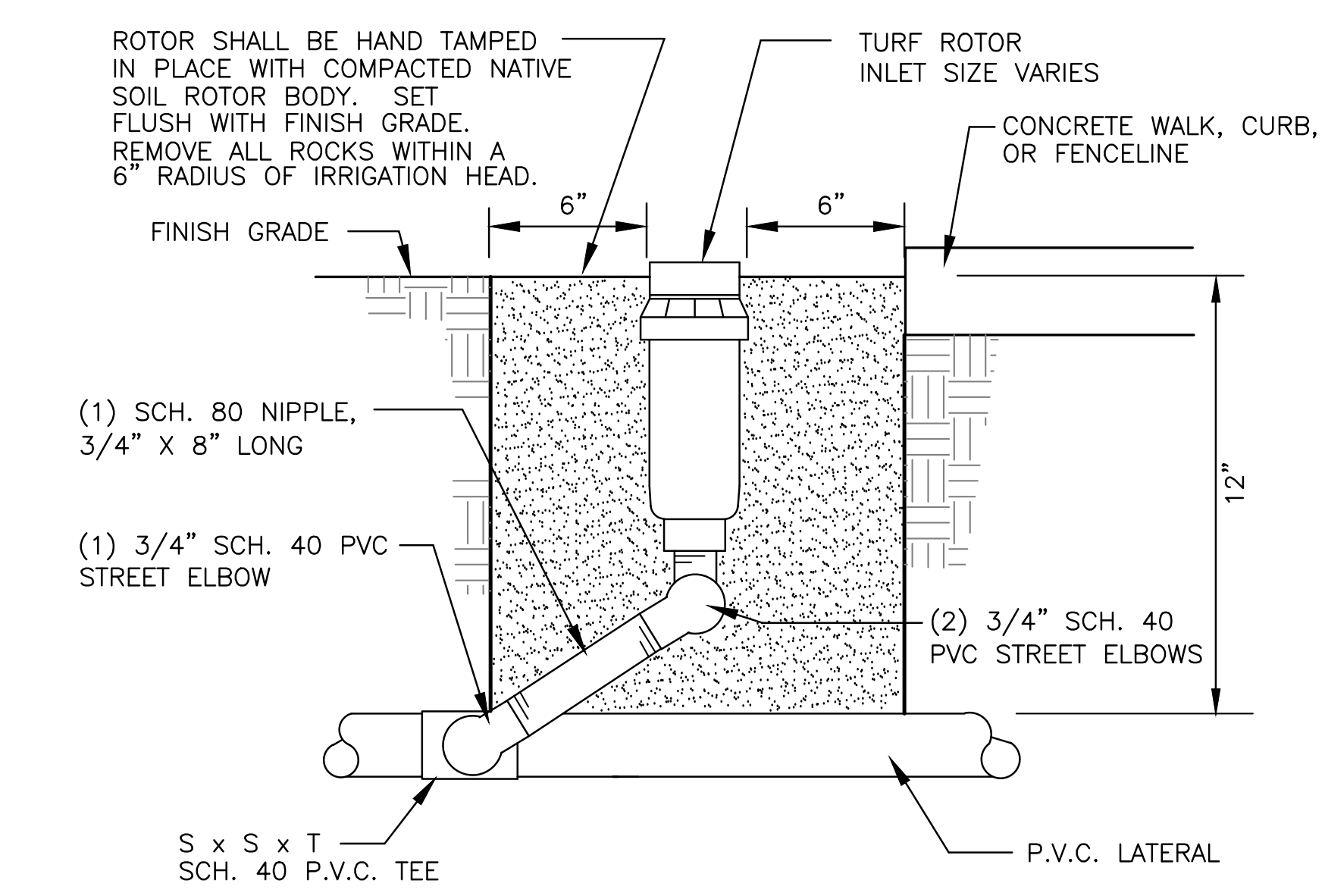
NOT TO SCALE

11 POP UP SPRAY HEAD OR DRIP SYSTEM INDICATOR


DRIP LATERAL LINE
10" ROUND PLASTIC VALVE BOX WITH LOCKABLE GREEN LID. "BRAND" 'FV' IN 1" LETTERS ON OUTER VALVE BOX LID.
FINISH GRADE
4' COILED LENGTH OF 1/2" PVC FLEX HOSE. SOLVENT WELD TO VALVE.
3/4" X 1/2" REDUCING MALE ADAPTER.
BALL VALVE, LINE SIZE.
SCH. 40 PVC 45° ELBOW
GALV. HARDWARE CLOTH INSTALLED ON INNER LAYER, LANDSCAPE FABRIC WRAPPED BETWEEN HARDWARE CLOTH AND SOIL. WRAP BOTH MATERIALS ACROSS BOTTOM OF OPEN BOX AND WRAP OVER HOLES ON SIDE OF BOX TO PREVENT RODENTS AND SOIL INTRUSION FROM ENTERING VALVE BOX.
CONCRETE BRICK TYPICAL, 3 REQUIRED
6" DEEP LAYER OF PEA GRAVEL
LANDSCAPE FABRIC BETWEEN SOIL AND GRAVEL BASIN

NOT TO SCALE

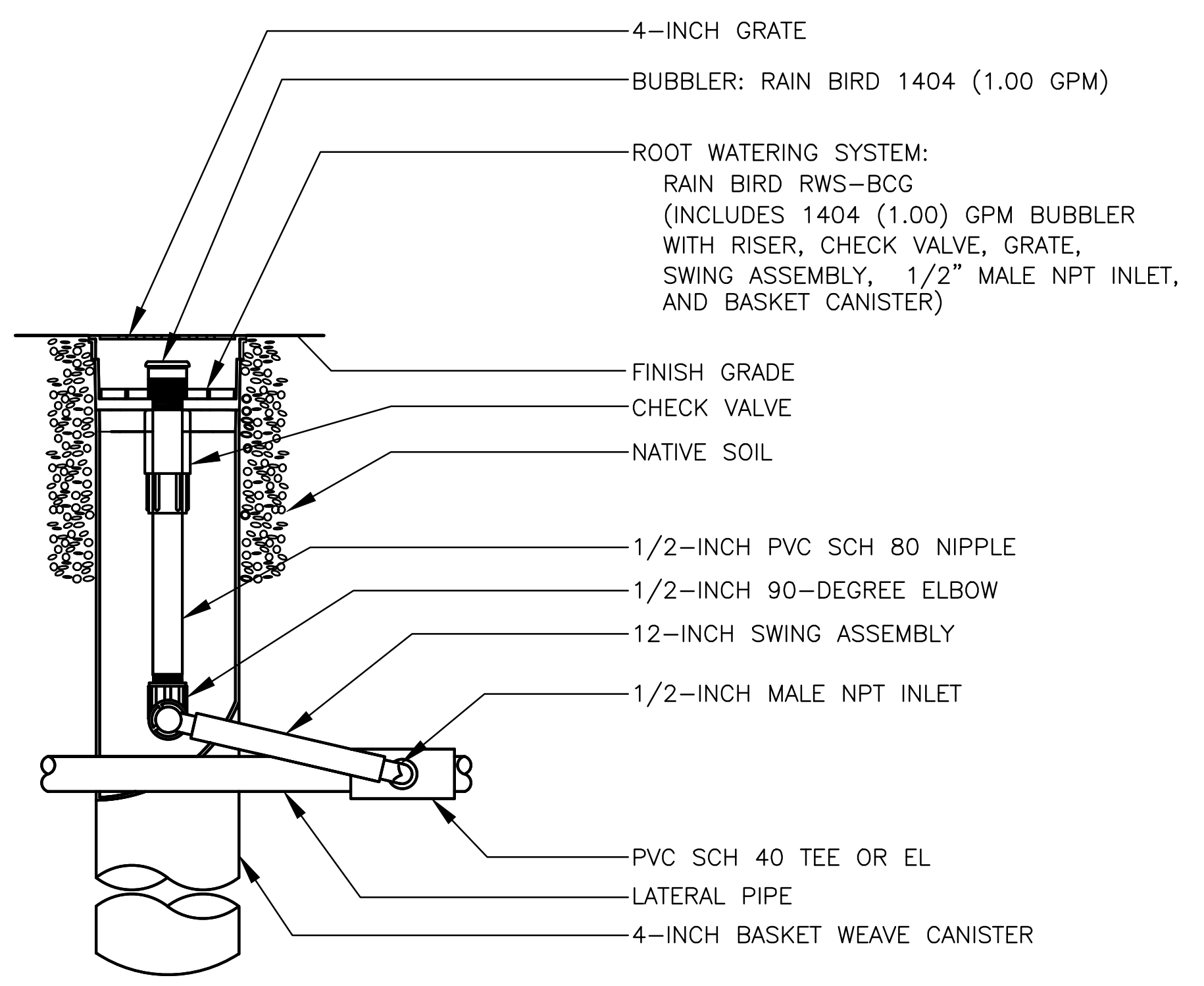
12 DRIP SYSTEM FLUSH VALVE


ROTOR SHALL BE HAND TAMPED IN PLACE WITH COMPACTED NATIVE SOIL ROTOR BODY. SET FLUSH WITH FINISH GRADE. REMOVE ALL ROCKS WITHIN A 6" RADIUS OF IRRIGATION HEAD.
TURF ROTOR INLET SIZE VARIES
CONCRETE WALK, CURB, OR FENCELINE
6"
6"
FINISH GRADE
(1) SCH. 80 NIPPLE, 3/4" X 8" LONG
12"
(1) 3/4" SCH. 40 PVC STREET ELBOW
(2) 3/4" SCH. 40 PVC STREET ELBOWS
S x S x T SCH. 40 P.V.C. TEE
P.V.C. LATERAL

NOTE:
SWING JOINT ASSEMBLY SIZE SHALL MATCH INLET SIZE OF SPRINKLER BODY. SIZE OF SPRINKLER HEAD INLET. (TYPICAL)

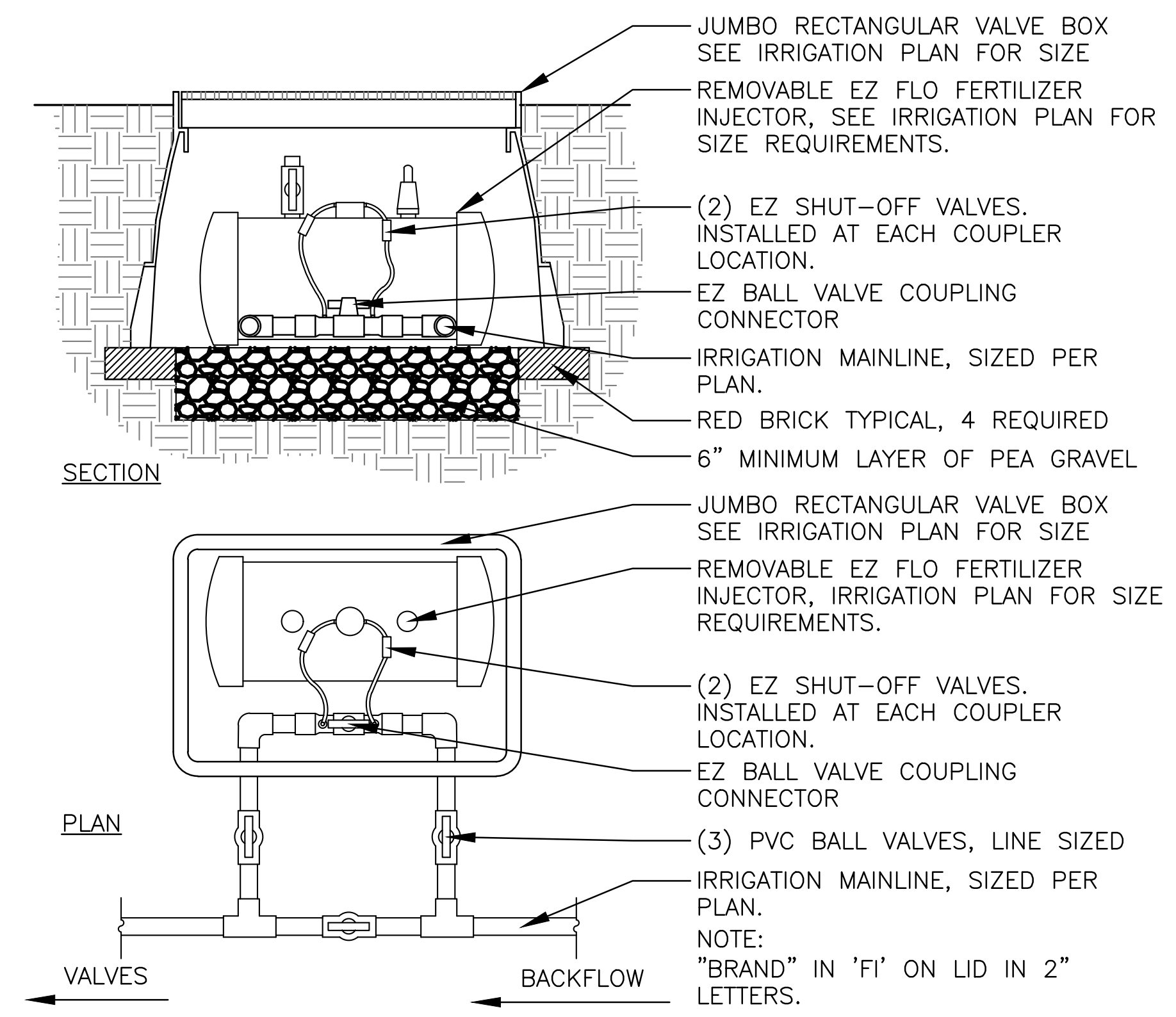
NOT TO SCALE

13 i-20 POP UP TURF ROTORS – 3/4" INLET


4-INCH GRATE
BUBBLER: RAIN BIRD 1404 (1.00 GPM)
ROOT WATERING SYSTEM: RAIN BIRD RWS-BCG (INCLUDES 1404 (1.00) GPM BUBBLER WITH RISER, CHECK VALVE, GRATE, SWING ASSEMBLY, 1/2" MALE NPT INLET, AND BASKET CANISTER)
FINISH GRADE
CHECK VALVE
NATIVE SOIL
1/2-INCH PVC SCH 80 NIPPLE
1/2-INCH 90-DEGREE ELBOW
12-INCH SWING ASSEMBLY
1/2-INCH MALE NPT INLET
PVC SCH 40 TEE OR EL
LATERAL PIPE
4-INCH BASKET WEAVE CANISTER

NOT TO SCALE

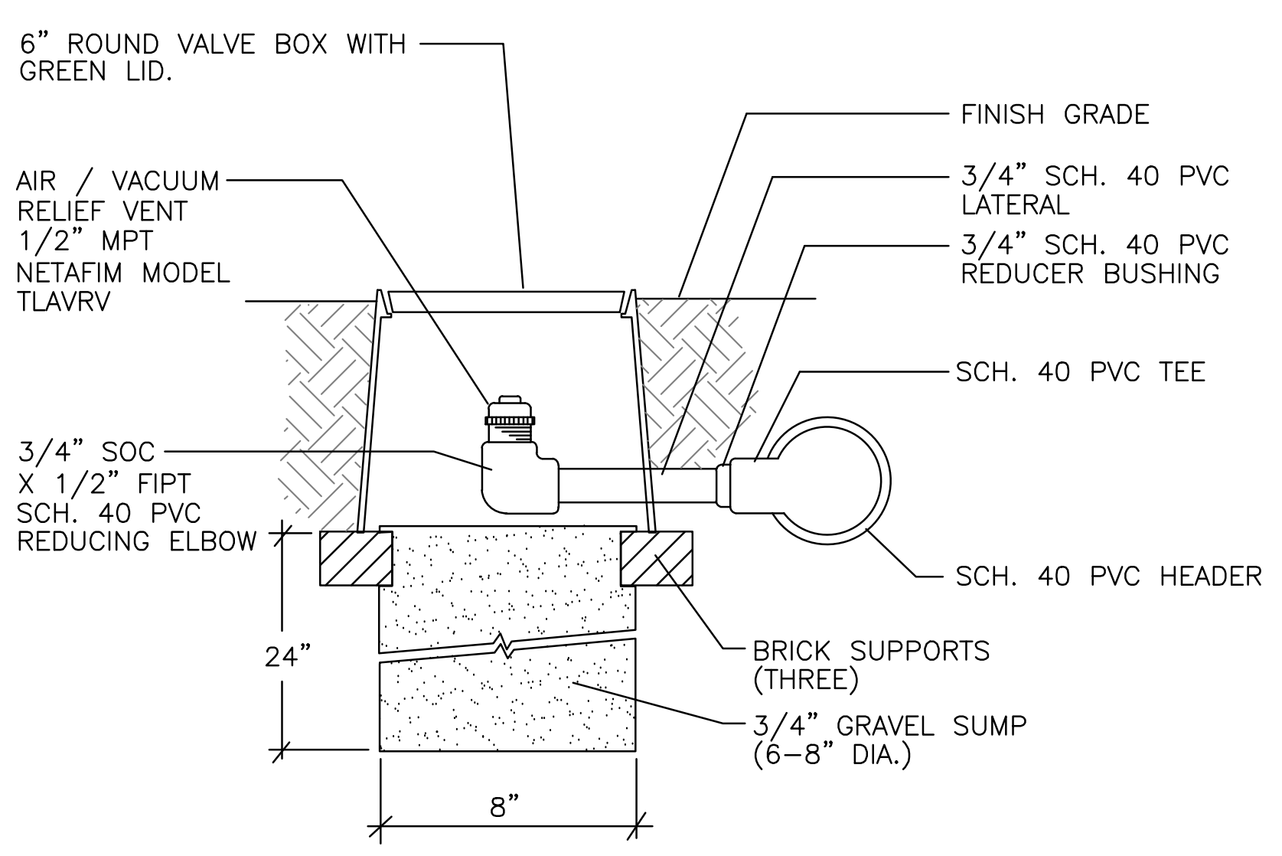
14 ROOT WATERING SYSTEM


JUMBO RECTANGULAR VALVE BOX SEE IRRIGATION PLAN FOR SIZE
REMOVABLE EZ FLO FERTILIZER INJECTOR, SEE IRRIGATION PLAN FOR SIZE REQUIREMENTS.
(2) EZ SHUT-OFF VALVES. INSTALLED AT EACH COUPLER LOCATION.
EZ BALL VALVE COUPLING CONNECTOR
IRRIGATION MAINLINE, SIZED PER PLAN.
RED BRICK TYPICAL, 4 REQUIRED
6" MINIMUM LAYER OF PEA GRAVEL
SECTION
JUMBO RECTANGULAR VALVE BOX SEE IRRIGATION PLAN FOR SIZE
REMOVABLE EZ FLO FERTILIZER INJECTOR, IRRIGATION PLAN FOR SIZE REQUIREMENTS.
(2) EZ SHUT-OFF VALVES. INSTALLED AT EACH COUPLER LOCATION.
EZ BALL VALVE COUPLING CONNECTOR
PLAN
(3) PVC BALL VALVES, LINE SIZED
IRRIGATION MAINLINE, SIZED PER PLAN.
VALVES
BACKFLOW

NOTE:
"BRAND" IN 'FI' ON LID IN 2" LETTERS.

NOT TO SCALE

15 LIQUID FERTILIZER DISPENSER ASSEMBLY


6" ROUND VALVE BOX WITH GREEN LID.
FINISH GRADE
AIR / VACUUM RELIEF VENT 1/2" MPT NETAFIM MODEL TLAVRV
3/4" SCH. 40 PVC LATERAL
3/4" SCH. 40 PVC REDUCER BUSHING
SCH. 40 PVC TEE
3/4" SOC X 1/2" FIPT SCH. 40 PVC REDUCING ELBOW
SCH. 40 PVC HEADER
24"
BRICK SUPPORTS (THREE)
3/4" GRAVEL SUMP (6-8" DIA.)
8"

NOTE:
DRIPLINE TUBING WITH AIR / VACUUM RELIEF VALVE SYSTEM CAN ONLY BE INSTALLED ON THE NON-GREYWATER IRRIGATION SYSTEM.

NOT TO SCALE

16 DRIPLINE TUBING SYSTEM – AIR / VACUUM RELIEF VALVE

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

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APP: 03-122398 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-982
REN. JUL. 31, 2023
STATE OF CALIFORNIA

JORDAN, GILBERT & BAIN
LANDSCAPE ARCHITECTS, INC.
459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642-3641 FAX (805) 653-7874

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REGISTERED LANDSCAPE ARCHITECT
JOHN JAMES BAIN III #3193
SIGNATURE
04-24
RENEWAL DATE
11-07-22
DATE
STATE OF CALIFORNIA

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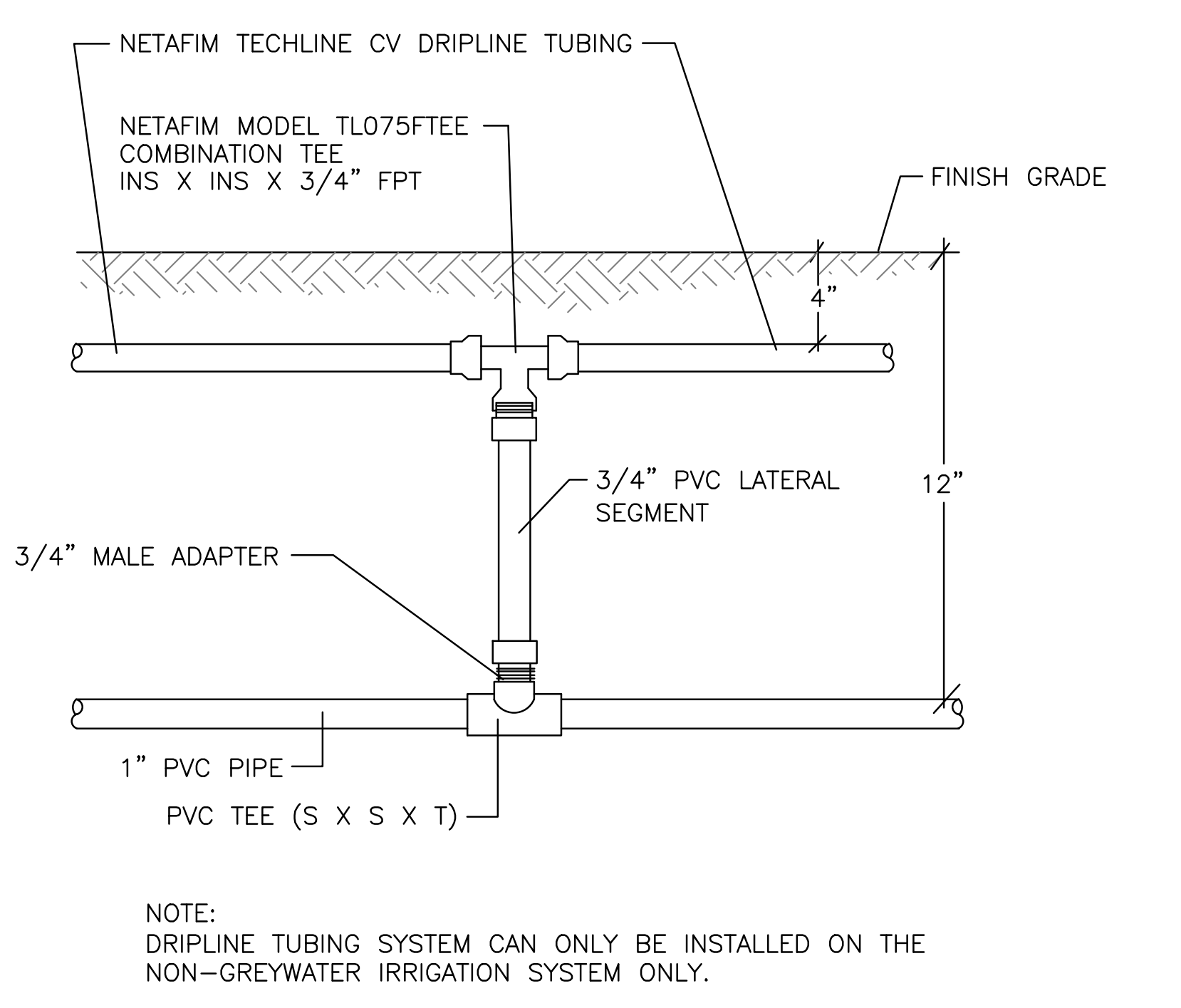
△	

IRRIGATION / PLANTING DETAILS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

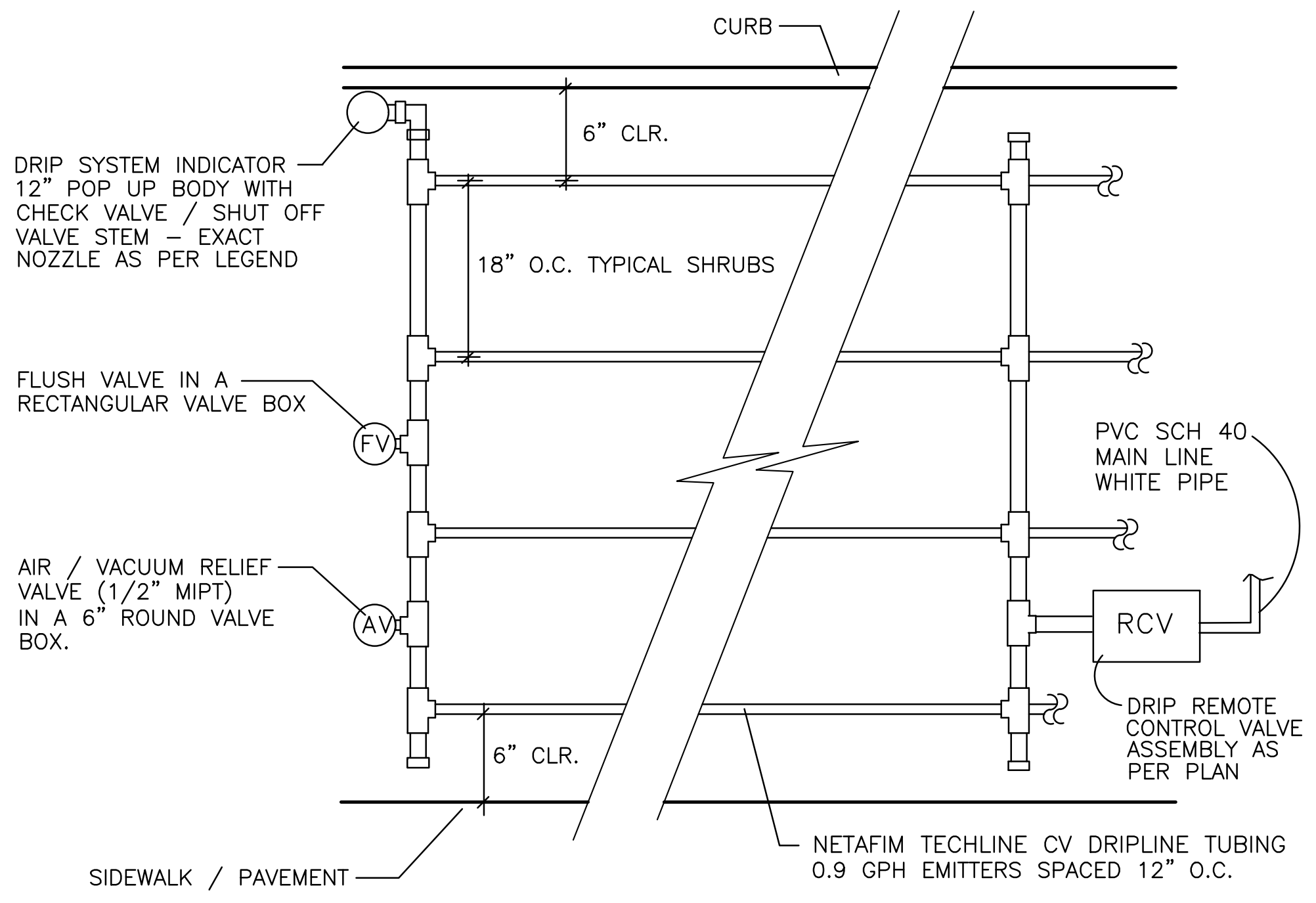
L5


NETAFIM TECHLINE CV DRIPLINE TUBING
NETAFIM MODEL TL075FTEE COMBINATION TEE INS X INS X 3/4" FPT
FINISH GRADE
4"
12"
3/4" PVC LATERAL SEGMENT
3/4" MALE ADAPTER
1" PVC PIPE
PVC TEE (S X S X T)

NOTE:
DRIPLINE TUBING SYSTEM CAN ONLY BE INSTALLED ON THE NON-GREYWATER IRRIGATION SYSTEM ONLY.

NOT TO SCALE

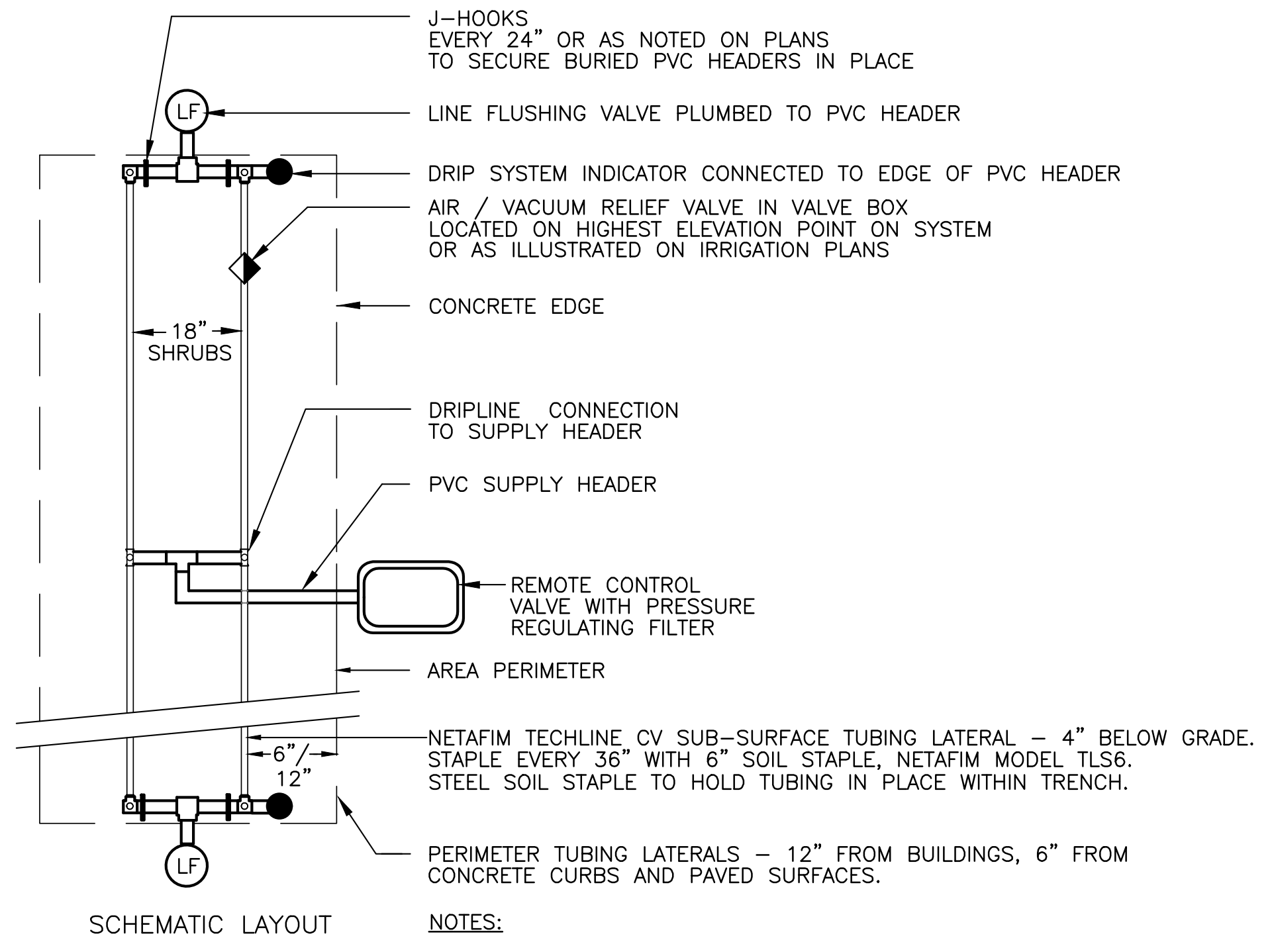
1 DRIPLINE CONNECTION SECTION (PVC SUPPLY TO TUBING)


CURB
6" CLR.
DRIP SYSTEM INDICATOR 12" POP UP BODY WITH CHECK VALVE / SHUT OFF VALVE STEM – EXACT NOZZLE AS PER LEGEND
18" O.C. TYPICAL SHRUBS
FLUSH VALVE IN A RECTANGULAR VALVE BOX
FV
PVC SCH 40 MAIN LINE WHITE PIPE
AIR / VACUUM RELIEF VALVE (1/2" MIPT) IN A 6" ROUND VALVE BOX.
AV
RCV
DRIP REMOTE CONTROL VALVE ASSEMBLY AS PER PLAN
6" CLR.
SIDEWALK / PAVEMENT
NETAFIM TECHLINE CV DRIPLINE TUBING 0.9 GPH EMITTERS SPACED 12" O.C.

NOTE:
DRIPLINE TUBING SYSTEM CAN ONLY BE INSTALLED ON THE NON-GREYWATER IRRIGATION SYSTEM ONLY.

NOT TO SCALE

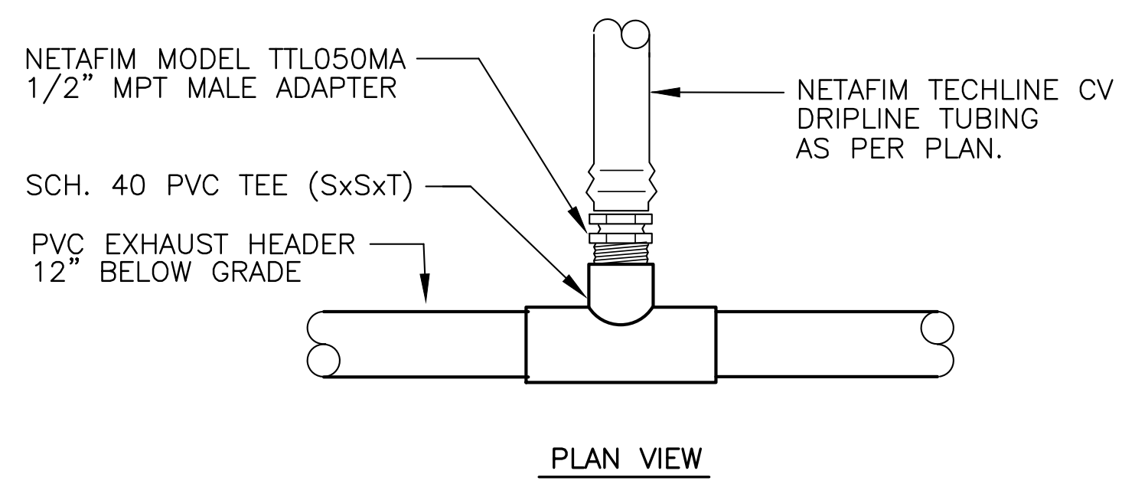
2 DRIPLINE TUBING SCHEMATIC DRAWING


J–HOOKS EVERY 24" OR AS NOTED ON PLANS TO SECURE BURIED PVC HEADERS IN PLACE
LF
LINE FLUSHING VALVE PLUMBED TO PVC HEADER
DRIP SYSTEM INDICATOR CONNECTED TO EDGE OF PVC HEADER
AIR / VACUUM RELIEF VALVE IN VALVE BOX LOCATED ON HIGHEST ELEVATION POINT ON SYSTEM OR AS ILLUSTRATED ON IRRIGATION PLANS
CONCRETE EDGE
18" SHRUBS
DRIPLINE CONNECTION TO SUPPLY HEADER
PVC SUPPLY HEADER
REMOTE CONTROL VALVE WITH PRESSURE REGULATING FILTER
AREA PERIMETER
NETAFIM TECHLINE CV SUB–SURFACE TUBING LATERAL – 4" BELOW GRADE. STAPLE EVERY 36" WITH 6" SOIL STAPLE, NETAFIM MODEL TLS6. STEEL SOIL STAPLE TO HOLD TUBING IN PLACE WITHIN TRENCH.
6"/12"
PERIMETER TUBING LATERALS – 12" FROM BUILDINGS, 6" FROM CONCRETE CURBS AND PAVED SURFACES.
LF
SCHEMATIC LAYOUT

NOTES:

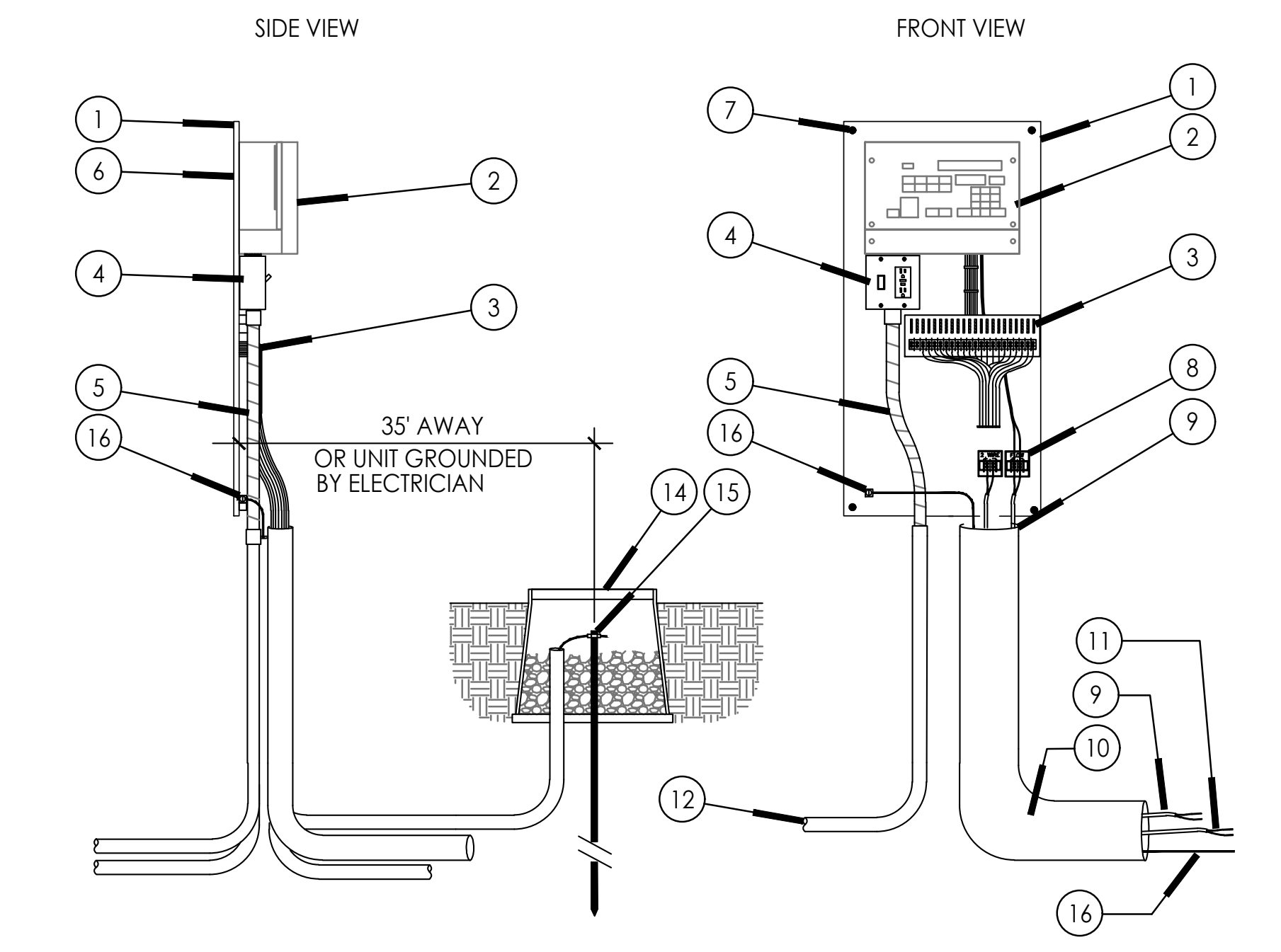
1. FOR DRIPLINE TUBING OFFSET SPACING, REFER TO THE IRRIGATION LEGEND AND DETAILS.
2. DRIPLINE TUBING SYSTEM CAN ONLY BE INSTALLED ON THE NON-GREYWATER IRRIGATION SYSTEM.

3 TYPICAL SUB–SURFACE TUBING PLUMBED WITH CENTER FEED


NETAFIM MODEL TTL050MA 1/2" MPT MALE ADAPTER
NETAFIM TECHLINE CV DRIPLINE TUBING AS PER PLAN.
SCH. 40 PVC TEE (SxSxT)
PVC EXHAUST HEADER 12" BELOW GRADE
PLAN VIEW

NOTE:
DRIPLINE TUBING SYSTEM CAN ONLY BE INSTALLED ON THE NON-GREYWATER IRRIGATION SYSTEM.

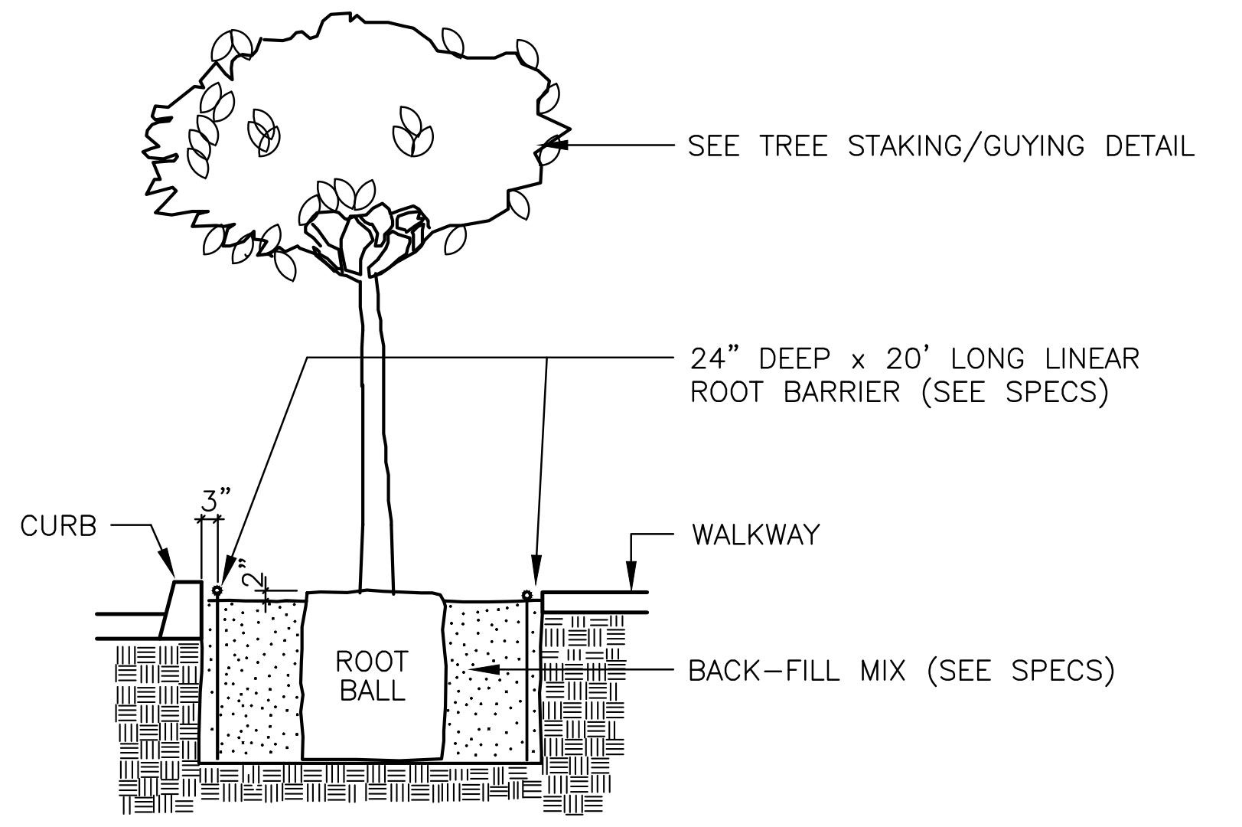
4 DRIPLINE TUBING CONNECTION TO PVC EXHAUST HEADER



① ALUMINUM BACKBOARD. 16"W x 32" H.
② ALUMINUM BACKBOARD IF REQUIRED.
③ TERMINAL STRIP FOR VALVE WIRES.
④ POWER SWITCH / GFCI RECEPTACLE.
⑤ ELECTRICAL FLEX CONDUIT FOR POWER.
⑥ WATERPROOF FACTORY ENCLOSURE
⑦ FOUR BOLT HOLES LINE UP WITH BOLTS ON THE STRONG BOX - 18" WIDE ENCLOSURES.
⑧ FLOW SENSOR TERMINAL BOARD.
⑨ 1" CONDUIT AND SWEEP ELL WITH FLOW SENSOR CABLE.
⑩ 2" CONDUIT AND SWEEP ELL FOR TWO WIRE CABLE, FLOW SENSING CABLE, AND #6 GROUND WIRE.
⑪ 14 GAUGE WIRES
⑫ 1" CONDUIT AND SWEEP ELL FOR 110 VAC POWER LINE.
⑬ NOT USED.
⑭ 10" ROUND VALVE BOX AROUND GROUND ROD. FILL WITH 3/4" CRUSHED ROCK.
⑮ 5/8" X 8' GROUND ROD WITH #6 GROUND WIRE AND CLAMP. LOCATE 35' FROM ENCLOSURE.
⑯ #6 GROUND WIRE SECURED TO BACKBOARD GROUNDING TERMINAL.

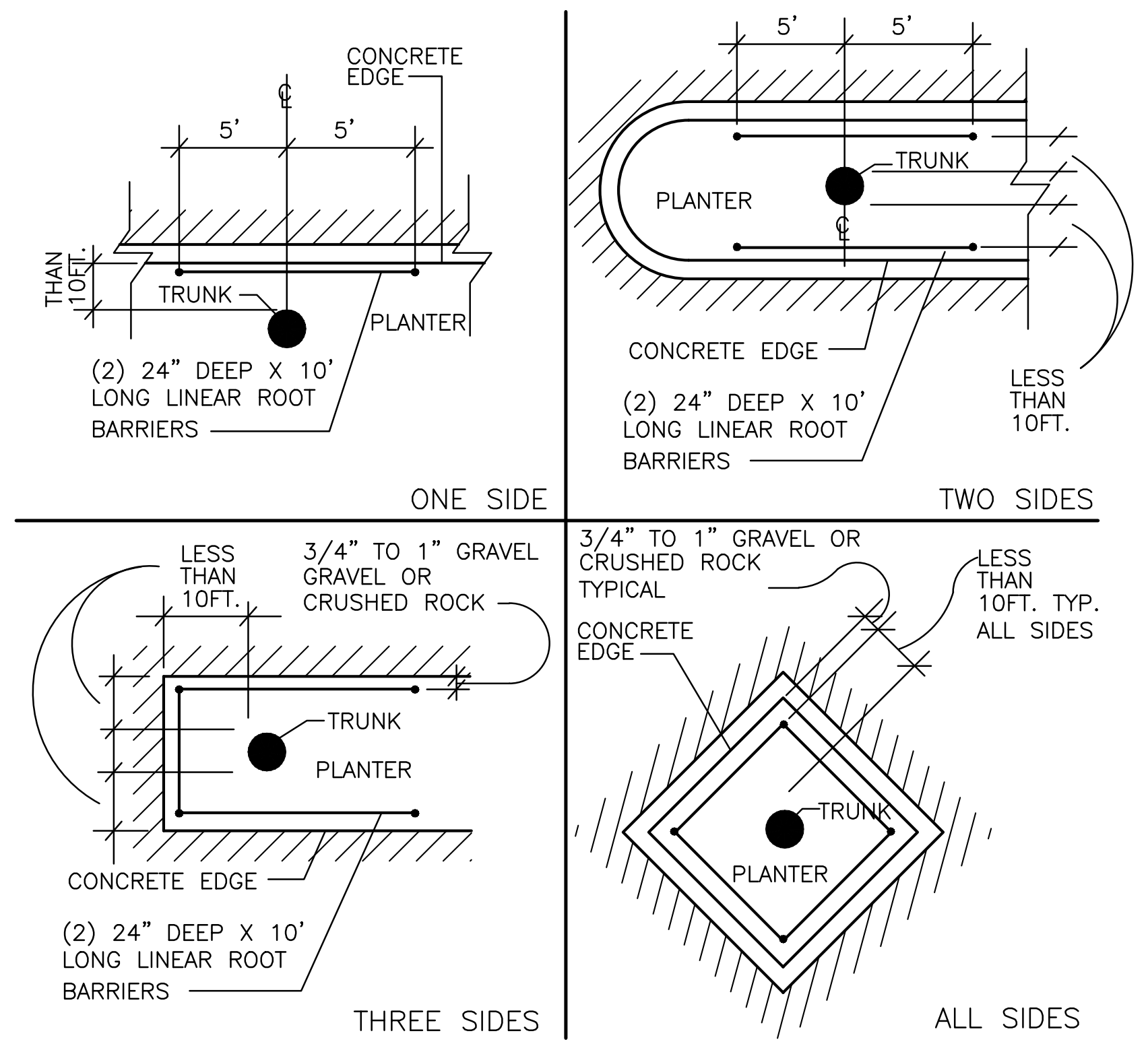
NOT TO SCALE

5 AUTO CONTROLLER – INTERIOR WALL MOUNT


SEE TREE STAKING/GUYING DETAIL
24" DEEP x 20' LONG LINEAR ROOT BARRIER (SEE SPECS)
CURB
3"
2"
WALKWAY
ROOT BALL
BACK–FILL MIX (SEE SPECS)

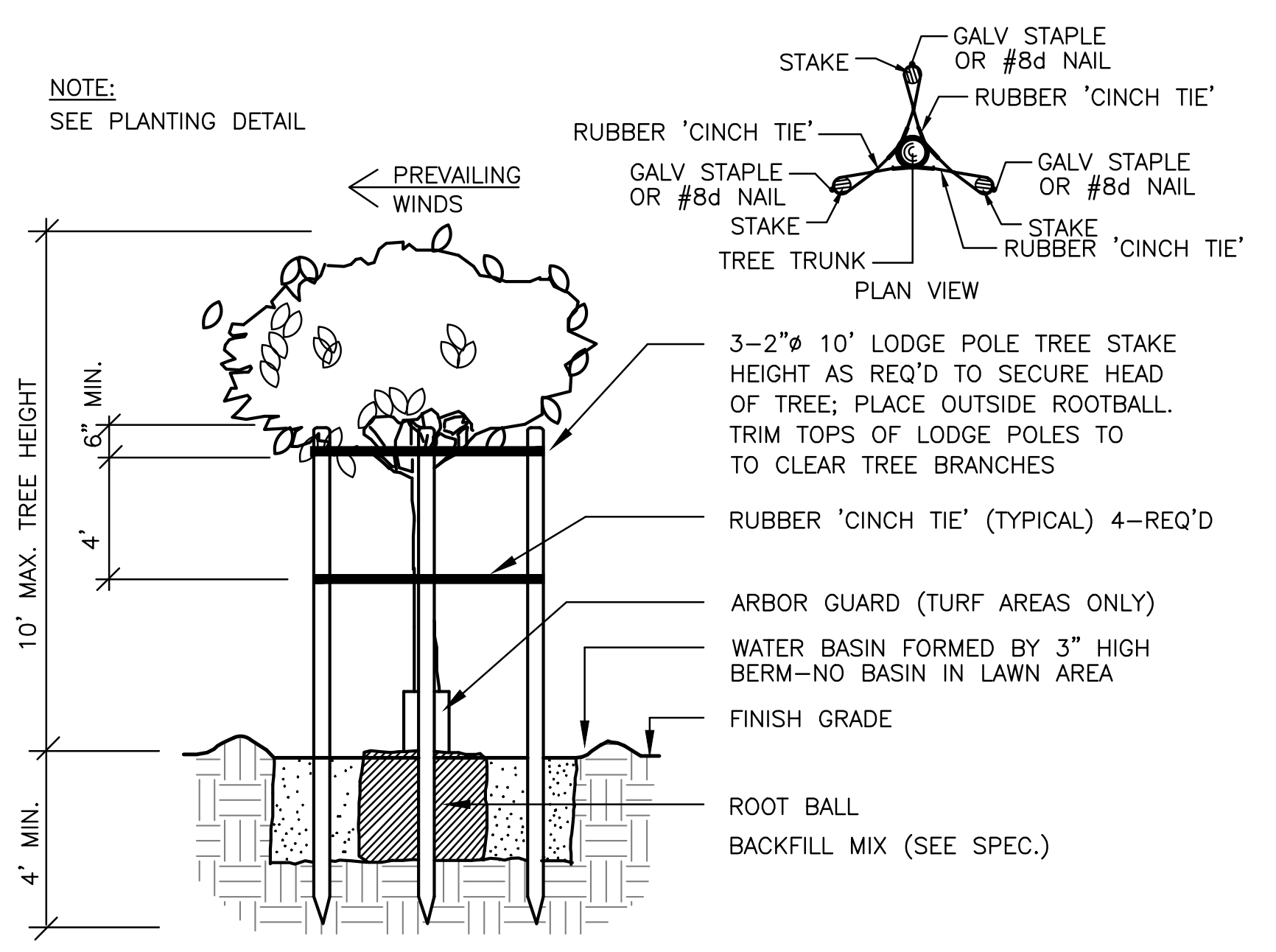
NOT TO SCALE

6 TREE ROOT BARRIER SECTION N.T.S.


CONCRETE EDGE
5'
5'
THAN 10FT.
TRUNK
PLANTER
(2) 24" DEEP X 10' LONG LINEAR ROOT BARRIERS
ONE SIDE
5'
5'
PLANTER
TRUNK
CONCRETE EDGE
(2) 24" DEEP X 10' LONG LINEAR ROOT BARRIERS
LESS THAN 10FT.
TWO SIDES
LESS THAN 10FT.
3/4" TO 1" GRAVEL GRAVEL OR CRUSHED ROCK
TRUNK
PLANTER
CONCRETE EDGE
(2) 24" DEEP X 10' LONG LINEAR ROOT BARRIERS
THREE SIDES
3/4" TO 1" GRAVEL OR CRUSHED ROCK TYPICAL
CONCRETE EDGE
LESS THAN 10FT. TYP. ALL SIDES
TRUNK
PLANTER
ALL SIDES

NOT TO SCALE

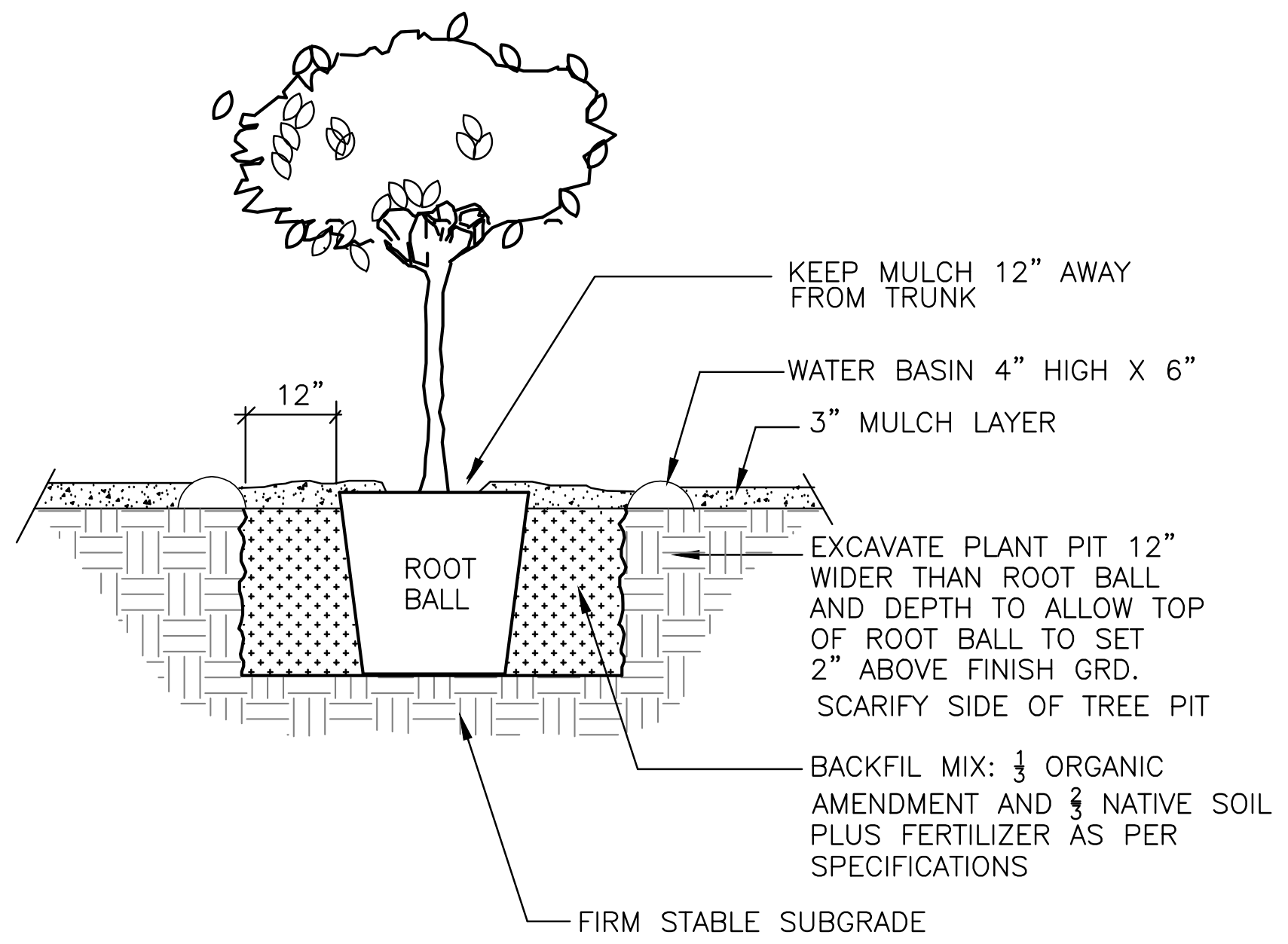
7 TREE ROOT BARRIER – PLAN VIEW


STAKE
GALV STAPLE OR #8d NAIL
RUBBER 'CINCH TIE'
RUBBER 'CINCH TIE'
GALV STAPLE OR #8d NAIL
GALV STAPLE OR #8d NAIL
STAKE
STAKE
TREE TRUNK
RUBBER 'CINCH TIE'
PLAN VIEW
PREVAILING WINDS
10' MAX. TREE HEIGHT
6" MIN.
4'
4' MIN.
3–2"ø 10' LODGE POLE TREE STAKE HEIGHT AS REQ'D TO SECURE HEAD OF TREE; PLACE OUTSIDE ROOTBALL. TRIM TOPS OF LODGE POLES TO TO CLEAR TREE BRANCHES
RUBBER 'CINCH TIE' (TYPICAL) 4–REQ'D
ARBOR GUARD (TURF AREAS ONLY)
WATER BASIN FORMED BY 3" HIGH BERM–NO BASIN IN LAWN AREA
FINISH GRADE
ROOT BALL
BACKFILL MIX (SEE SPEC.)

NOTE:
SEE PLANTING DETAIL

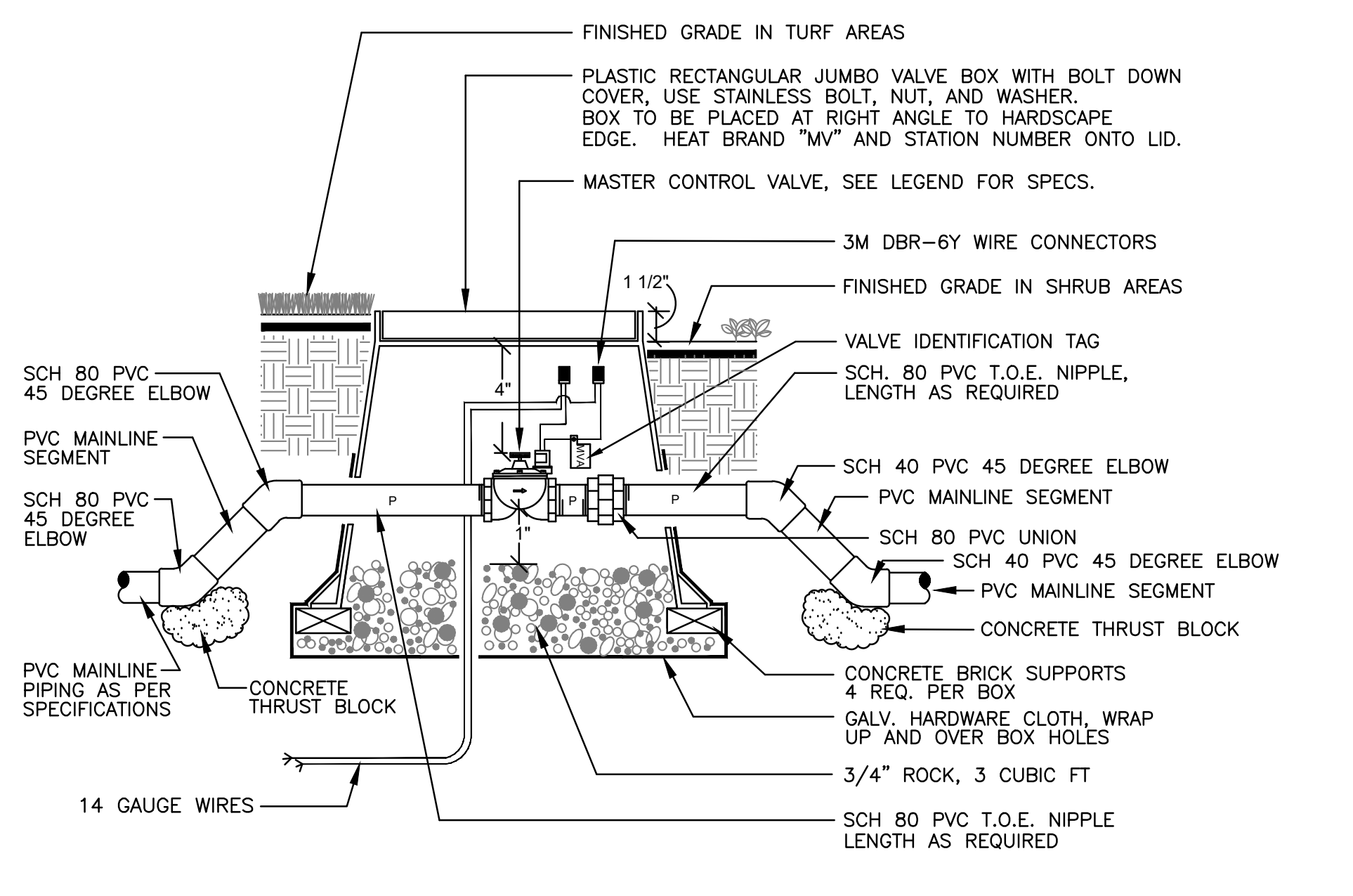
NOT TO SCALE

8 24" BOX TREE STAKING


KEEP MULCH 12" AWAY FROM TRUNK
WATER BASIN 4" HIGH X 6"
3" MULCH LAYER
12"
ROOT BALL
EXCAVATE PLANT PIT 12" WIDER THAN ROOT BALL AND DEPTH TO ALLOW TOP OF ROOT BALL TO SET 2" ABOVE FINISH GRD. SCARIFY SIDE OF TREE PIT
BACKFIL MIX: 1/3 ORGANIC AMENDMENT AND 2/3 NATIVE SOIL PLUS FERTILIZER AS PER SPECIFICATIONS
FIRM STABLE SUBGRADE

NOT TO SCALE

9 24" BOX TREE PLANTING DETAIL


FINISHED GRADE IN TURF AREAS
PLASTIC RECTANGULAR JUMBO VALVE BOX WITH BOLT DOWN COVER, USE STAINLESS BOLT, NUT, AND WASHER. BOX TO BE PLACED AT RIGHT ANGLE TO HARDSCAPE EDGE. HEAT BRAND "MV" AND STATION NUMBER ONTO LID.
MASTER CONTROL VALVE, SEE LEGEND FOR SPECS.
3M DBR–6Y WIRE CONNECTORS
1 1/2"
FINISHED GRADE IN SHRUB AREAS
VALVE IDENTIFICATION TAG
4"
SCH. 80 PVC T.O.E. NIPPLE, LENGTH AS REQUIRED
SCH 80 PVC 45 DEGREE ELBOW
PVC MAINLINE SEGMENT
SCH 80 PVC 45 DEGREE ELBOW
SCH 40 PVC 45 DEGREE ELBOW
PVC MAINLINE SEGMENT
SCH 80 PVC UNION
SCH 40 PVC 45 DEGREE ELBOW
PVC MAINLINE SEGMENT
CONCRETE THRUST BLOCK
1"
P
MVA
PVC MAINLINE PIPING AS PER SPECIFICATIONS
CONCRETE THRUST BLOCK
CONCRETE BRICK SUPPORTS 4 REQ. PER BOX
GALV. HARDWARE CLOTH, WRAP UP AND OVER BOX HOLES
3/4" ROCK, 3 CUBIC FT
14 GAUGE WIRES
SCH 80 PVC T.O.E. NIPPLE LENGTH AS REQUIRED

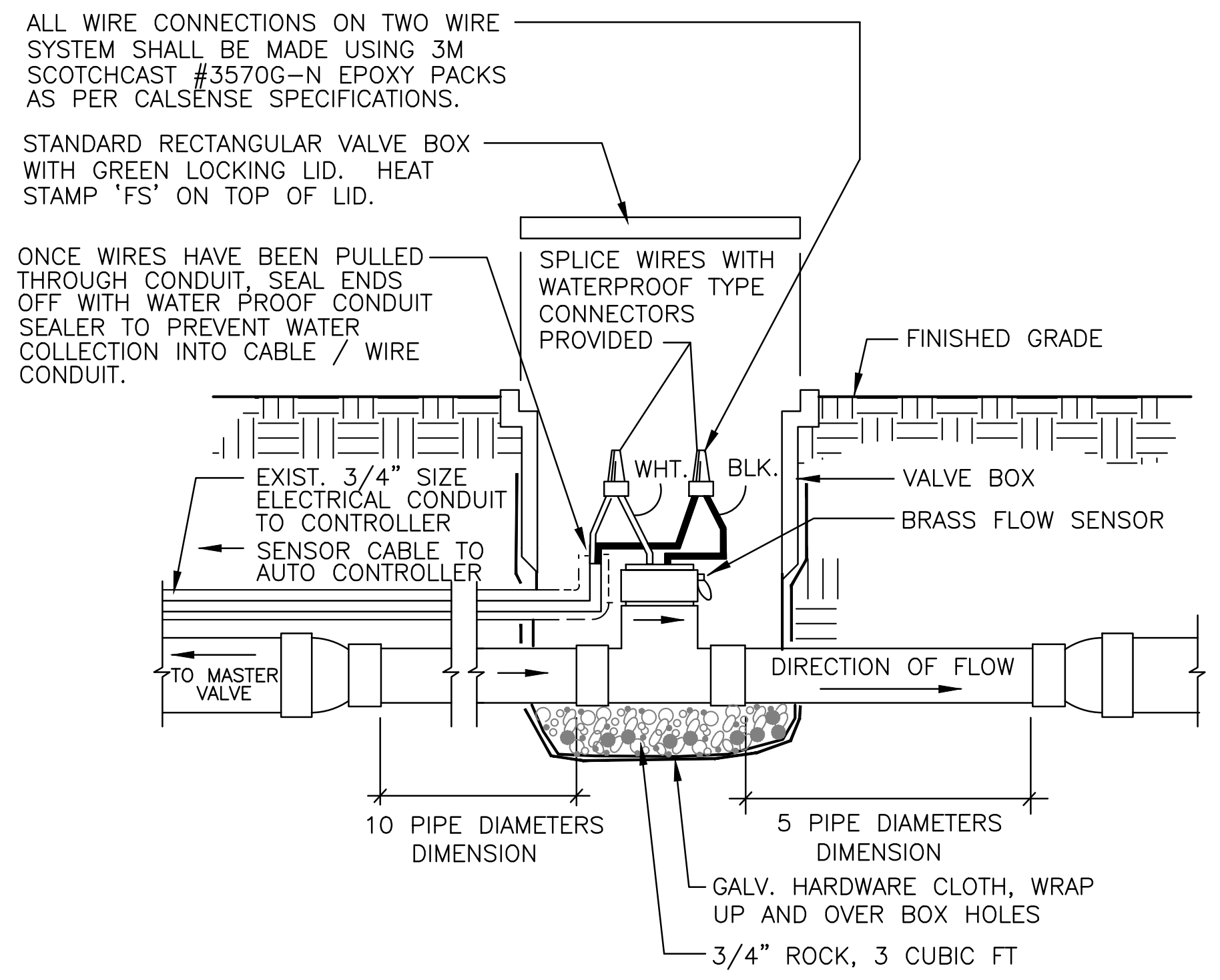
SECTION VIEW - N.T.S.

NOTES:

1. INSTALL MASTER VALVE A MINIMUM OF 36" AWAY FROM BACKFLOW DEVICE DISCHARGE LINE UNLESS OTHERWISE NOTED.
2. EQUIPMENT SHALL BE INSTALLED SUCH THAT THERE IS NO LEVERAGE OR STRESS ON THE VALVE ASSEMBLY. PIPE SHALL NOT COME INTO CONTACT WITH VALVE BOX.
3. USE A NON–HARDENING TEFLON PIPE SEALANT ON ALL THREADED CONNECTIONS.

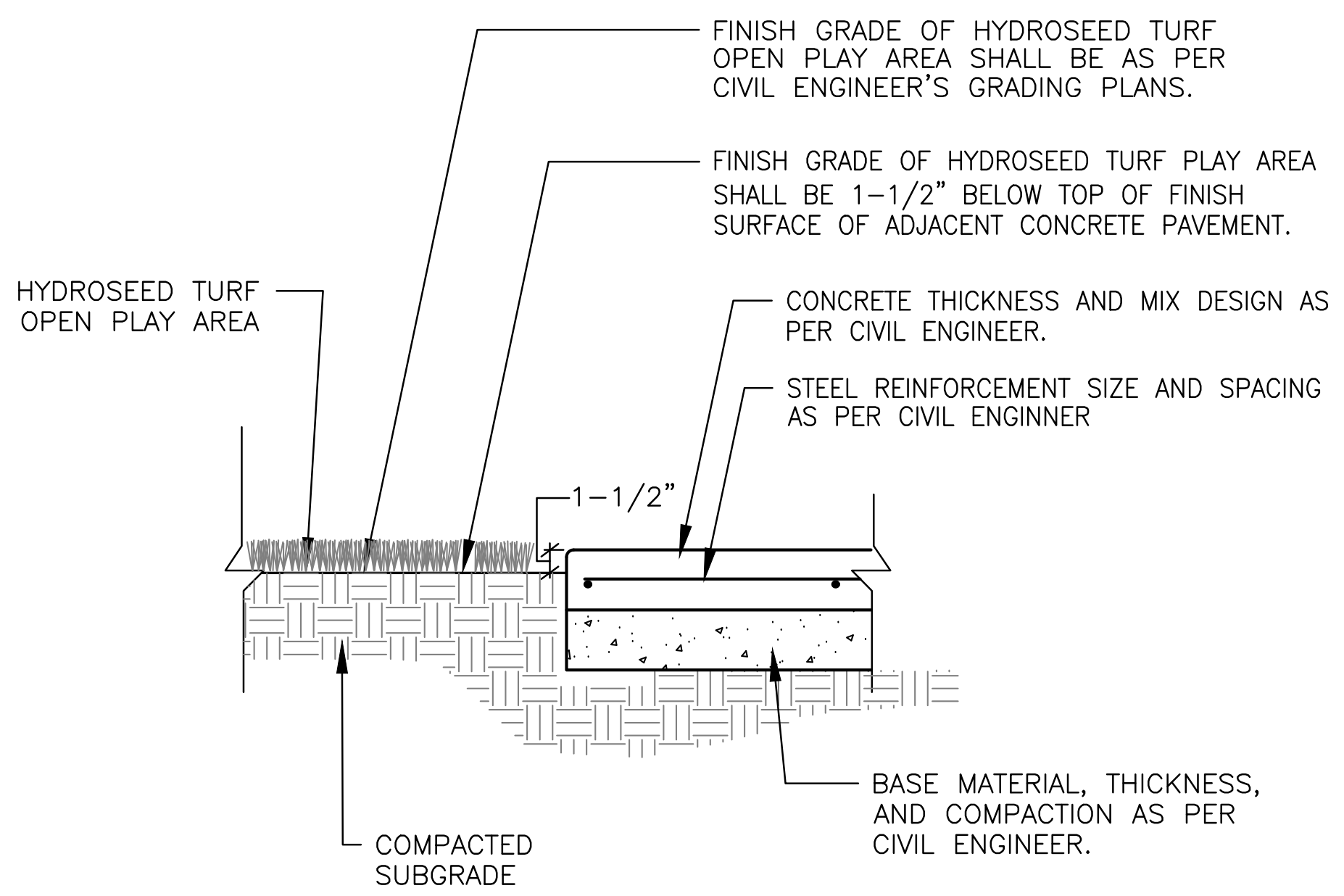
NOT TO SCALE

10 NORMALLY CLOSED MASTER VALVE


ALL WIRE CONNECTIONS ON TWO WIRE SYSTEM SHALL BE MADE USING 3M SCOTCHCAST #3570G–N EPOXY PACKS AS PER CALSENSE SPECIFICATIONS.
STANDARD RECTANGULAR VALVE BOX WITH GREEN LOCKING LID. HEAT STAMP 'FS' ON TOP OF LID.
ONCE WIRES HAVE BEEN PULLED THROUGH CONDUIT, SEAL ENDS OFF WITH WATER PROOF CONDUIT SEALER TO PREVENT WATER COLLECTION INTO CABLE / WIRE CONDUIT.
SPLICE WIRES WITH WATERPROOF TYPE CONNECTORS PROVIDED
FINISHED GRADE
WHT.
BLK.
EXIST. 3/4" SIZE ELECTRICAL CONDUIT TO CONTROLLER
SENSOR CABLE TO AUTO CONTROLLER
VALVE BOX
BRASS FLOW SENSOR
TO MASTER VALVE
DIRECTION OF FLOW
10 PIPE DIAMETERS DIMENSION
5 PIPE DIAMETERS DIMENSION
GALV. HARDWARE CLOTH, WRAP UP AND OVER BOX HOLES
3/4" ROCK, 3 CUBIC FT

NOT TO SCALE

11 FLOW SENSOR ON PVC MAINLINE


FINISH GRADE OF HYDROSEED TURF OPEN PLAY AREA SHALL BE AS PER CIVIL ENGINEER'S GRADING PLANS.
FINISH GRADE OF HYDROSEED TURF PLAY AREA SHALL BE 1–1/2" BELOW TOP OF FINISH SURFACE OF ADJACENT CONCRETE PAVEMENT.
HYDROSEED TURF OPEN PLAY AREA
CONCRETE THICKNESS AND MIX DESIGN AS PER CIVIL ENGINEER.
STEEL REINFORCEMENT SIZE AND SPACING AS PER CIVIL ENGINNER
1–1/2"
BASE MATERIAL, THICKNESS, AND COMPACTION AS PER CIVIL ENGINEER.
COMPACTED SUBGRADE

NOT TO SCALE

12 OPEN TURF PLAY AREA ADJACENT TO PAVEMENT

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459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642–3641 FAX (805) 653–7874

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JOHN JAMES BAIN III #3793
04-24
RENEWAL DATE
11-07-22
DATE

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LANDSCAPE DETAILS

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3194 D Airport Loop Drive
Costa Mesa, CA 92626
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www.perkinseastman.com

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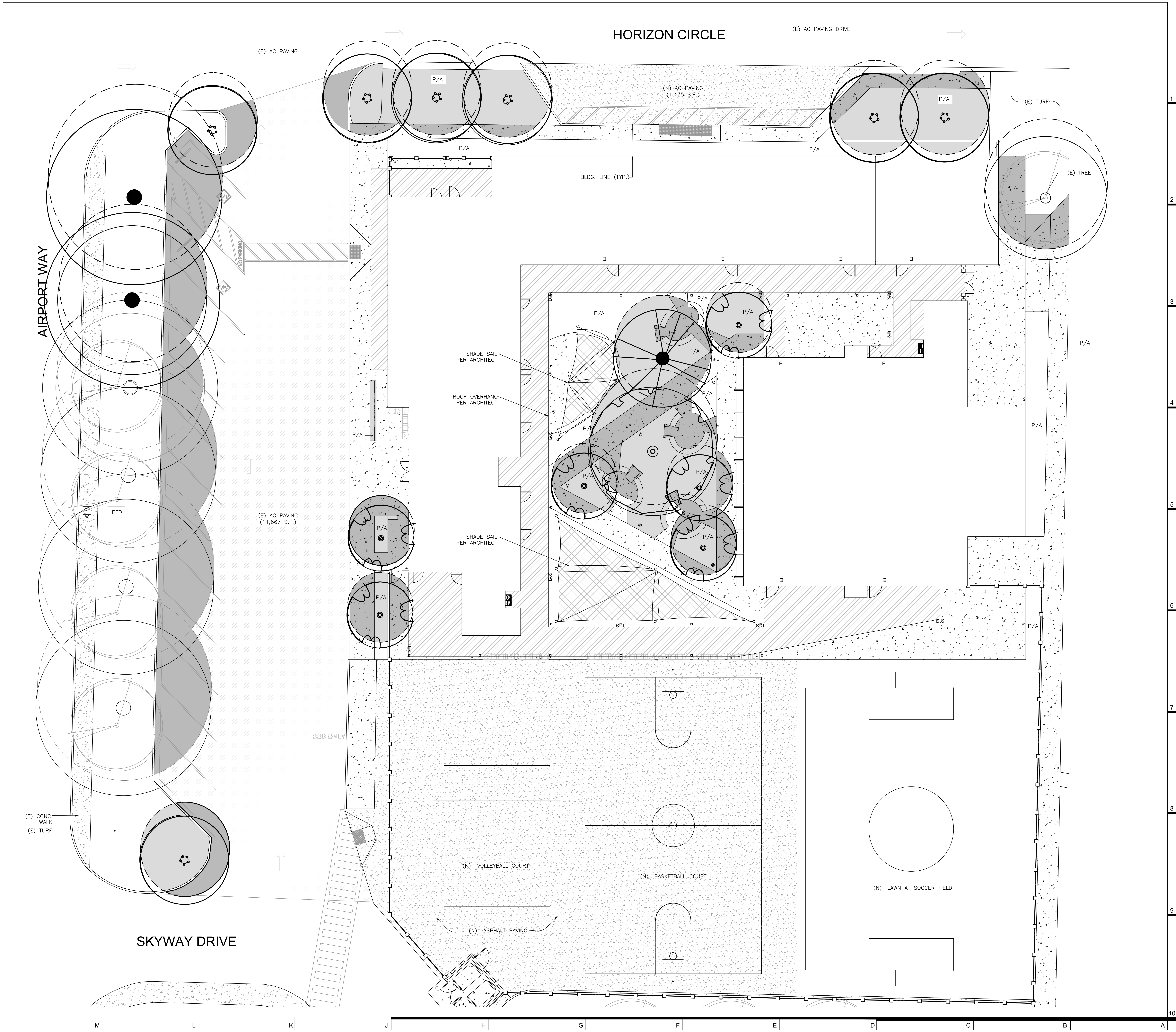

NOTE:
SEE SHEET L8 FOR LEGEND

GRAPHIC SCALE
0 5 10 20 40
SCALE: 1"=10'

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NO. C-9824
REN. JUL. 31, 2023

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John J Bain
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LANDSCAPE SHADING PLAN

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
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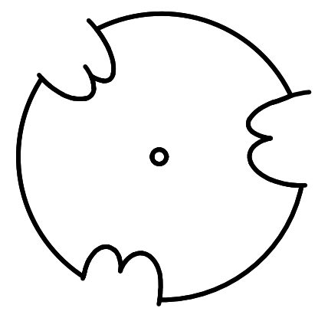
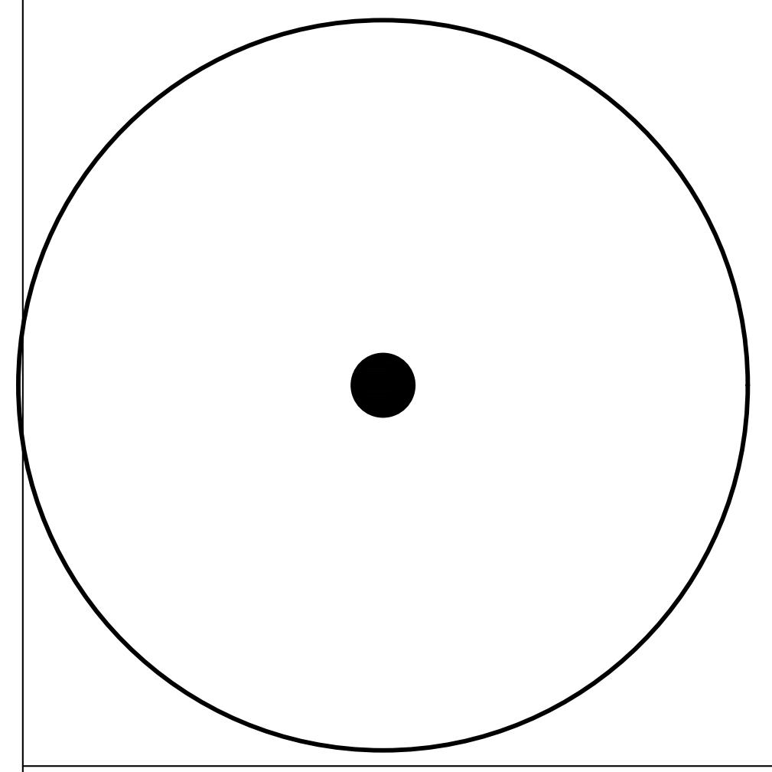
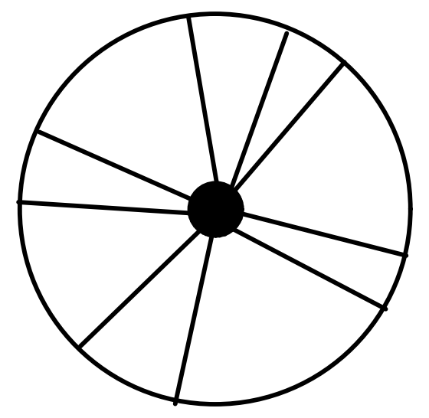
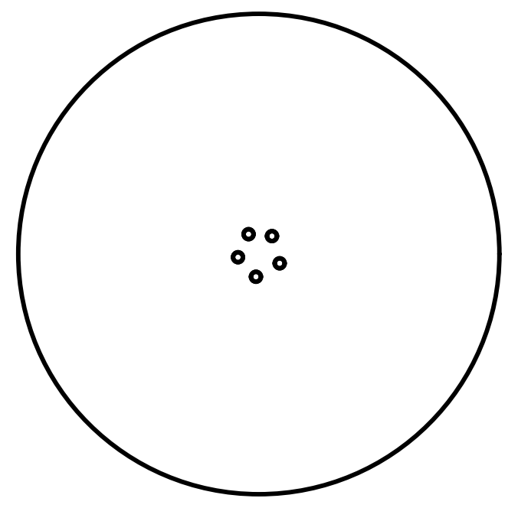
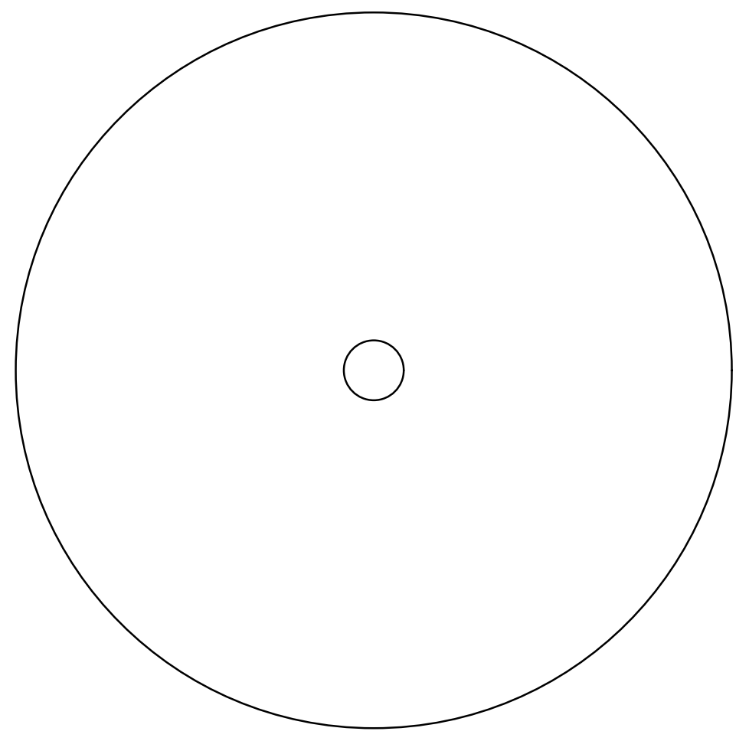
www.perkinseastman.com

L7

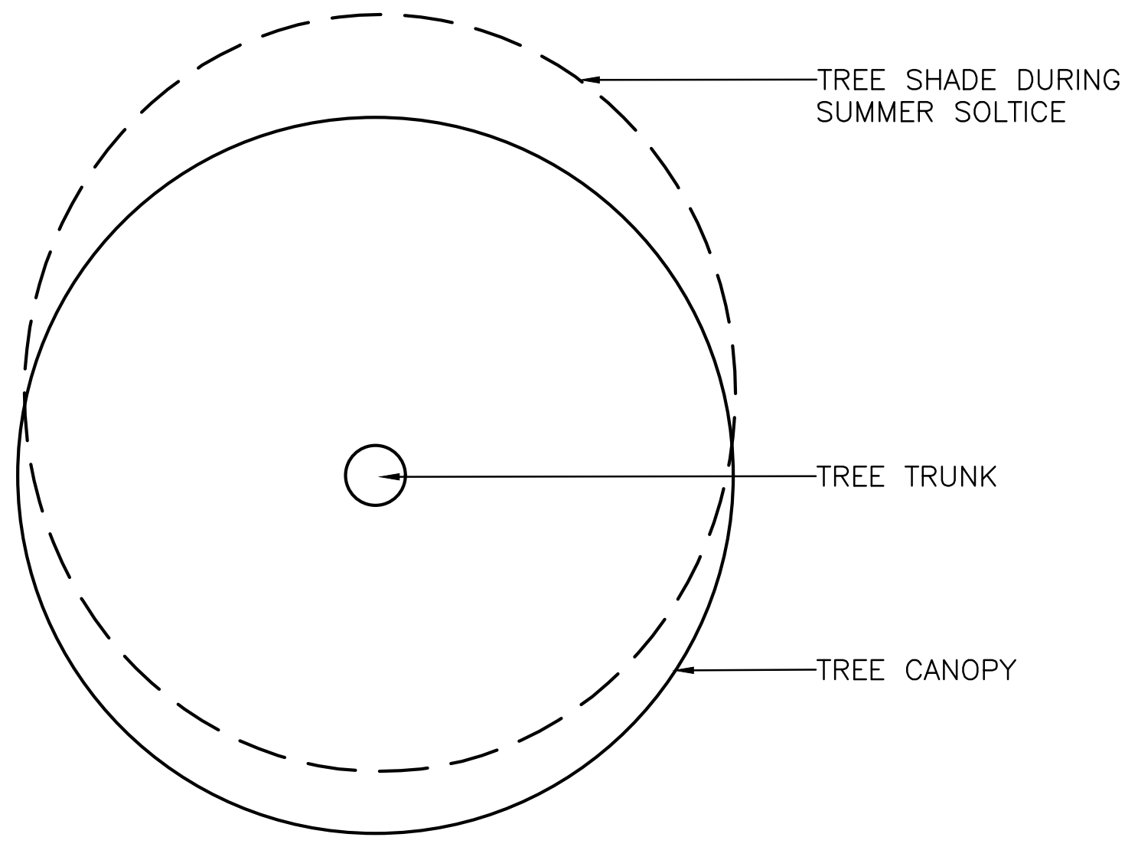
TREE LEGEND

	BOTANICAL NAME COMMON NAME	WUCOLS	SIZE	QUANTITY
	CERCIS CANADENSIS 'FOREST PANSY' FOREST PANSY REDBUD	LOW	24" BOX	4
	FICUS RUBIGINOSA RUSTYLEAF FIG	MED	24" BOX	2
	KOELREUTERIA PANICULATA GOLDENRAIN TREE	MED	24" BOX	1
	LAGERSTROEMIA 'TUSCARORA' (DARK PINK FLOWER) CRAPE MYRTLE (5) MULTI-TRUNK SPECIMENS (2) STANDARD TRUCK SPECIMENS	LOW	24" BOX	7

EXISTING TREE LEGEND

	BOTANICAL NAME COMMON NAME	WUCOLS	QUANTITY
	FICUG RUBIGINOSA RUSTYLEAF FIG	MED	4

- ▨ CONCRETE PAVING THAT IS NOT UNDER ARCHITECTURE OVERHANG OR SHADE SAIL **(9,089 S.F.)**
- ▨ NEW AC PAVING **(1,435 S.F.)**
- ▨ (EX) AC PAVING AT PARKING **(11,667 S.F.)**
- ▨ SHADE PROVIDED BY ARCHITECTURE ROOF OVERHANG **(3,860 S.F.)**
- ■ TREE SHADE – AT (EX) PARKING LOT
- ■ TREE SHADE – AT NEW CONCRETE PAVING
- ■ TREE SHADE – AT NEW PLANTING AREA
- ▨ SHADE SAIL – AT NEW CONCRETE PAVING



SHADE TREES [DSA–AA] – CALGREEN CODE 5.106.12

PARKING LOT SHADE CALCULATIONS

TOTAL PARKING AREA (ASPHALT) = 11,617 sf
SHADE = 2,715 sf

23% SHADE COVERAGE
50% REQUIRED **(SHADE NOT MET)**

PAVING AREA SHADE CALCULATIONS

TOTAL NEW PAVING (CONCRETE) = 9,089 sf

SHADE COVERAGE (TREE CANOPY) = 2,053 sf
SHADE COVERAGE (SHADE SAIL) = 973 sf
SHADE COVERAGE (ROOF OVERHANG) = 4,300 sf
(See Architecture Plans

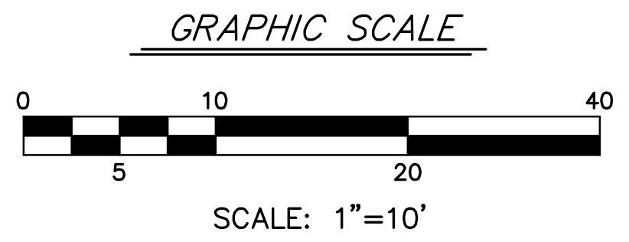
TOTAL SHADE= 6,510 sf

22% SHADE COVERAGE (TREE CANOPY ONLY)
20% REQUIRED **(SHADE MET)**

LANDSCAPE AREA SHADE CALCULATIONS

TOTAL NEW LANDSCAPING AREA = 4,211 sf
SHADE = 3,145 sf

75% SHADE COVERAGE
20% REQUIRED **(SHADE MET)**



SCALE: 1"=10'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023

JORDAN, GILBERT & BAIN
LANDSCAPE ARCHITECTS, INC.
459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642–3641 FAX (805) 653–7874

Jordan, Gilbert & Bain Landscape Architects, Inc. © 2018

JOHN JAMES BAIN III #3193
SIGNATURE
04-24
RENEWAL DATE
11-07-22
DATE

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

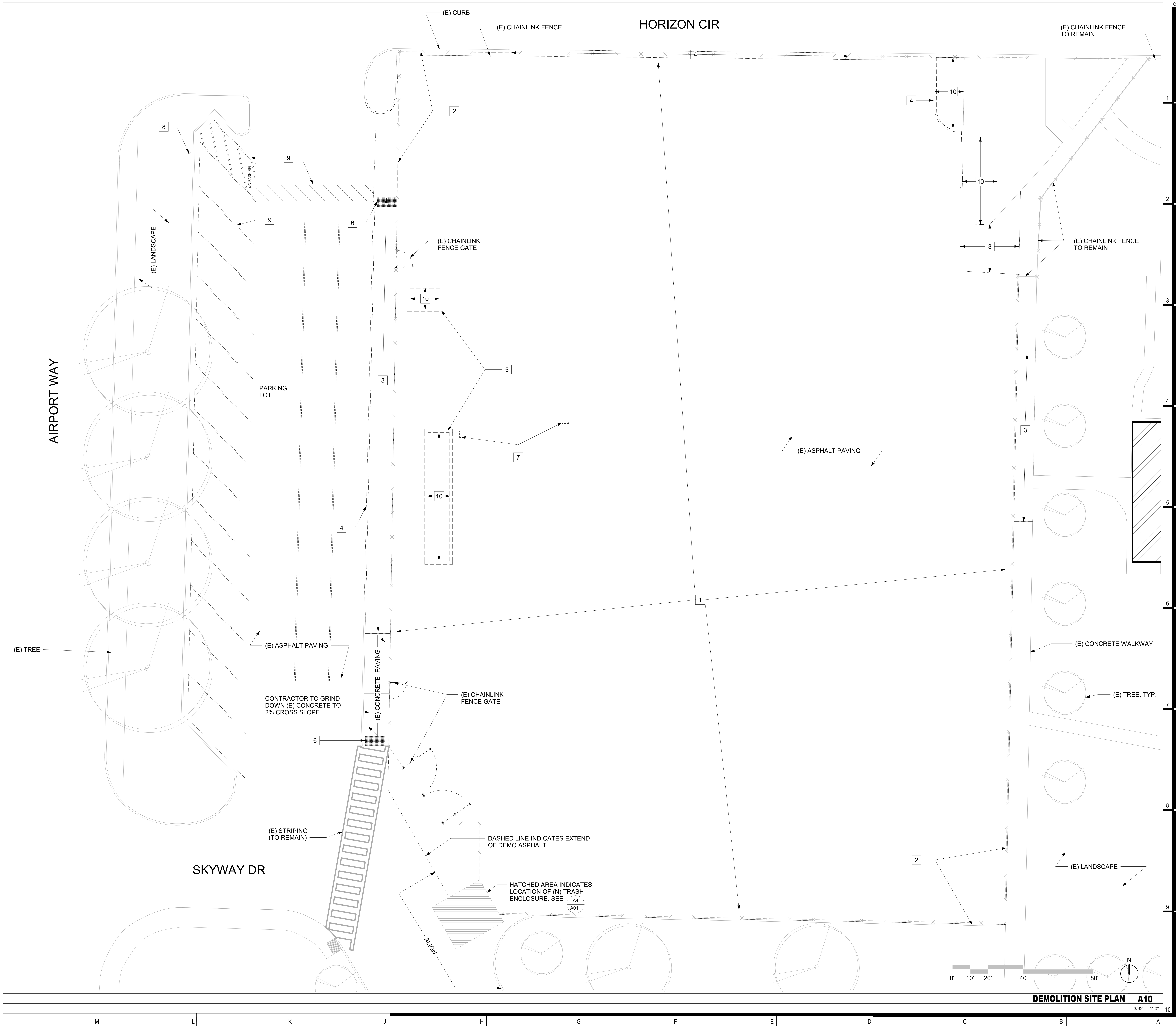
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	07/01/2022
△	
△	
△	
△	
△	

LANDSCAPE SHADING PLAN
LEGEND AND NOTES

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

L8



DEMOLITION SITE PLAN **A10**

3/32" = 1'-0"

DEMOLITION NOTES

1. ITEMS ARE EXISTING UNLESS NOTED OTHERWISE
2. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAS BEEN APPROVED BY DSA.

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BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023

DEMOLITION KEYNOTES

x ►

1	REMOVE AND DISPOSE ASPHALT
2	REMOVE AND DISPOSE CHAINLINK FENCE AND GATES
3	REMOVE AND DISPOSE CONCRETE PAVING
4	REMOVE AND DISPOSE CONCRETE CURB
5	REMOVE AND DISPOSE PLANTER
6	REMOVE AND DISPOSE TRUNCATED DOMES
7	REMOVE AND DISPOSE PANEL
8	REMOVE AND DISPOSE ACC PARKING SIGN
9	REMOVE STRIPING
10	REMOVE AND DISPOSE LANDSCAPE

GATEWAY ANNEX SCHOOL

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△	

DEMOLITION SITE PLAN

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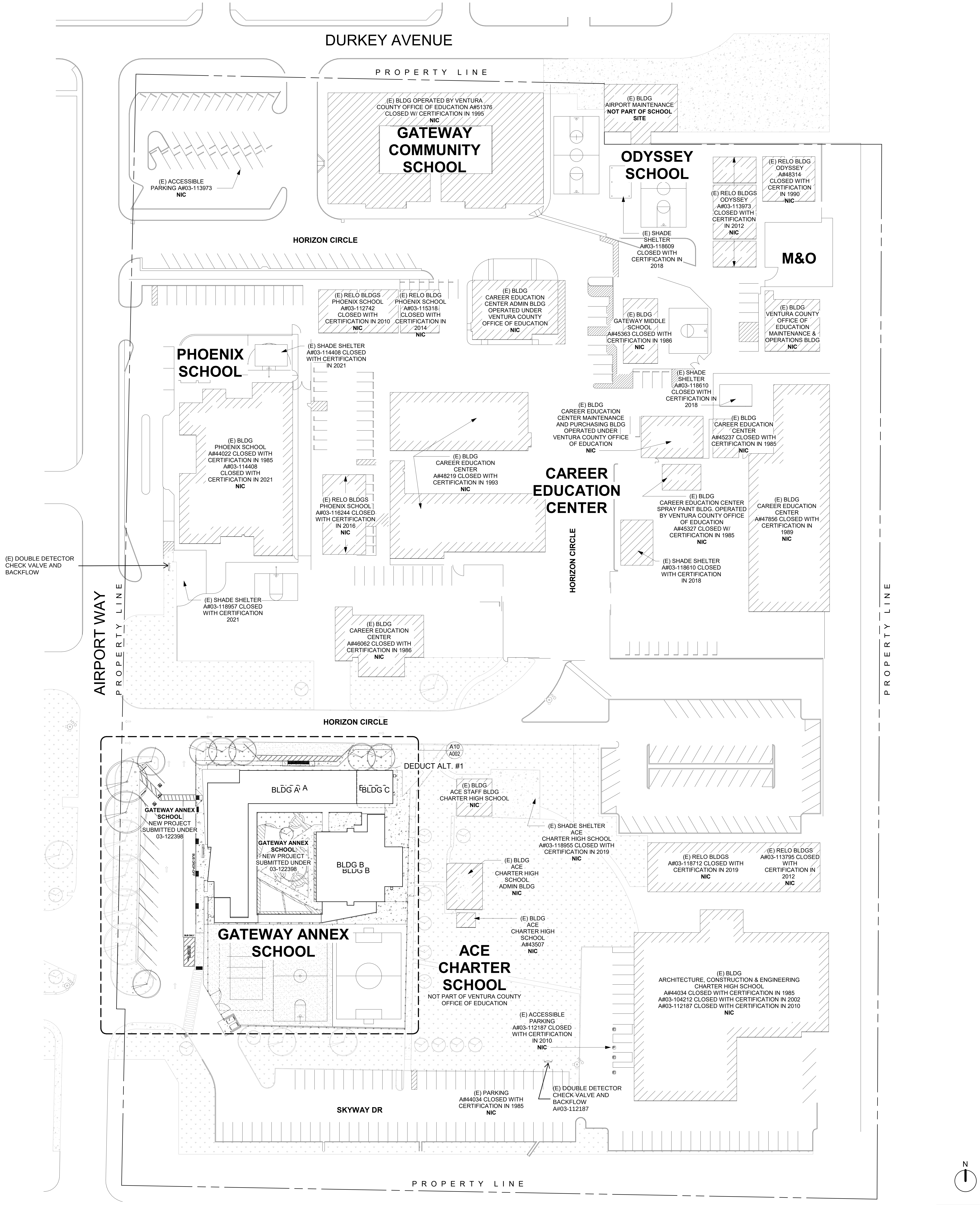
AD001


DURKEY AVENUE
PROPERTY LINE
(E) BLDG OPERATED BY VENTURA COUNTY OFFICE OF EDUCATION A#51376 CLOSED W/ CERTIFICATION IN 1995 NIC
GATEWAY COMMUNITY SCHOOL
(E) BLDG AIRPORT MAINTENANCE NOT PART OF SCHOOL SITE
ODYSSEY SCHOOL
(E) RELO BLDG ODYSSEY A#48314 CLOSED WITH CERTIFICATION IN 1990 NIC
(E) RELO BLDGS ODYSSEY A#03-113973 CLOSED WITH CERTIFICATION IN 2012 NIC
(E) ACCESSIBLE PARKING A#03-113973 NIC
(E) SHADE SHELTER A#03-118609 CLOSED WITH CERTIFICATION IN 2018
M&O
HORIZON CIRCLE
(E) RELO BLDGS PHOENIX SCHOOL A#03-112742 CLOSED WITH CERTIFICATION IN 2010 NIC
(E) RELO BLDG PHOENIX SCHOOL A#03-115318 CLOSED WITH CERTIFICATION IN 2014 NIC
(E) BLDG CAREER EDUCATION CENTER ADMIN BLDG OPERATED UNDER VENTURA COUNTY OFFICE OF EDUCATION NIC
(E) BLDG GATEWAY MIDDLE SCHOOL A#45363 CLOSED WITH CERTIFICATION IN 1986 NIC
(E) BLDG VENTURA COUNTY OFFICE OF EDUCATION MAINTENANCE & OPERATIONS BLDG NIC
PHOENIX SCHOOL
(E) SHADE SHELTER A#03-114408 CLOSED WITH CERTIFICATION IN 2021
(E) SHADE SHELTER A#03-118610 CLOSED WITH CERTIFICATION IN 2018
(E) BLDG CAREER EDUCATION CENTER MAINTENANCE AND PURCHASING BLDG OPERATED UNDER VENTURA COUNTY OFFICE OF EDUCATION NIC
(E) BLDG CAREER EDUCATION CENTER A#45237 CLOSED WITH CERTIFICATION IN 1985 NIC
(E) BLDG PHOENIX SCHOOL A#44022 CLOSED WITH CERTIFICATION IN 1985 A#03-114408 CLOSED WITH CERTIFICATION IN 2021 NIC
(E) BLDG CAREER EDUCATION CENTER A#48219 CLOSED WITH CERTIFICATION IN 1993 NIC
CAREER EDUCATION CENTER
(E) BLDG CAREER EDUCATION CENTER SPRAY PAINT BLDG. OPERATED BY VENTURA COUNTY OFFICE OF EDUCATION A#45327 CLOSED W/ CERTIFICATION IN 1985 NIC
(E) BLDG CAREER EDUCATION CENTER A#47856 CLOSED WITH CERTIFICATION IN 1989 NIC
(E) RELO BLDGS PHOENIX SCHOOL A#03-116244 CLOSED WITH CERTIFICATION IN 2016 NIC
(E) DOUBLE DETECTOR CHECK VALVE AND BACKFLOW
(E) SHADE SHELTER A#03-118610 CLOSED WITH CERTIFICATION IN 2018
HORIZON CIRCLE
AIRPORT WAY
PROPERTY LINE
(E) SHADE SHELTER A#03-118957 CLOSED WITH CERTIFICATION 2021
(E) BLDG CAREER EDUCATION CENTER A#46062 CLOSED WITH CERTIFICATION IN 1986 NIC
PROPERTY LINE
HORIZON CIRCLE
A10
A002
DEDUCT ALT. #1
BLDG A
BLDG C
GATEWAY ANNEX SCHOOL NEW PROJECT SUBMITTED UNDER 03-122398
GATEWAY ANNEX SCHOOL NEW PROJECT SUBMITTED UNDER 03-122398
BUS DROP-OFF
BUS ONLY
BLDG B
GATEWAY ANNEX SCHOOL
(E) BLDG ACE STAFF BLDG CHARTER HIGH SCHOOL NIC
(E) SHADE SHELTER ACE CHARTER HIGH SCHOOL A#03-118955 CLOSED WITH CERTIFICATION IN 2019 NIC
(E) BLDG ACE CHARTER HIGH SCHOOL ADMIN BLDG NIC
(E) RELO BLDGS A#03-118712 CLOSED WITH CERTIFICATION IN 2019 NIC
(E) RELO BLDGS A#03-113795 CLOSED WITH CERTIFICATION IN 2012 NIC
(E) BLDG ACE CHARTER HIGH SCHOOL A#43507 NIC
ACE CHARTER SCHOOL
NOT PART OF VENTURA COUNTY OFFICE OF EDUCATION
(E) BLDG ARCHITECTURE, CONSTRUCTION & ENGINEERING CHARTER HIGH SCHOOL A#44034 CLOSED WITH CERTIFICATION IN 1985 A#03-104212 CLOSED WITH CERTIFICATION IN 2002 A#03-112187 CLOSED WITH CERTIFICATION IN 2010 NIC
(E) ACCESSIBLE PARKING A#03-112187 CLOSED WITH CERTIFICATION IN 2010 NIC
(E) PARKING A#44034 CLOSED WITH CERTIFICATION IN 1985 NIC
(E) DOUBLE DETECTOR CHECK VALVE AND BACKFLOW A#03-112187
SKYWAY DR
PROPERTY LINE
N

SITE PLAN **A10**
1" = 40'-0"

SITE LEGEND

▭	NEW BUILDING
▨	EXISTING BUILDING
░	SITE CONCRETE
▧	SITE CONCRETE, ACCENT COLOR
⌄	GRASS
░	EXISTING ASPHALT
⌄	EXISTING GRASS
░	EXISTING CONCRETE
—×—×—	EXISTING CHAIN LINK FENCE
—×—×—	NEW CHAIN LINK FENCE
○	EXTERIOR LIGHT FIXTURE
— — — —	AREA OF WORK

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002
2. VENTURA COUNTY OFFICE OF EDUCATION OWNS AND OPERATES SEVERAL SCHOOLS ON THEIR PARCEL. EACH SCHOOL HAS A SEPARATE CAMPUS & PRINCIPAL AND IS NOT PART OF THIS PROJECT.
3. THE SOUTHEAST PORTION OF THE SITE IS LEASED AND OPERATED BY ACE CHARTER SCHOOL AND IS NOT PART OF THIS PROJECT.

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BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△	
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△	
△	

SITE PLAN

PERKINS — EASTMAN

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Costa Mesa, CA 92626
T. +1 714 427 0277
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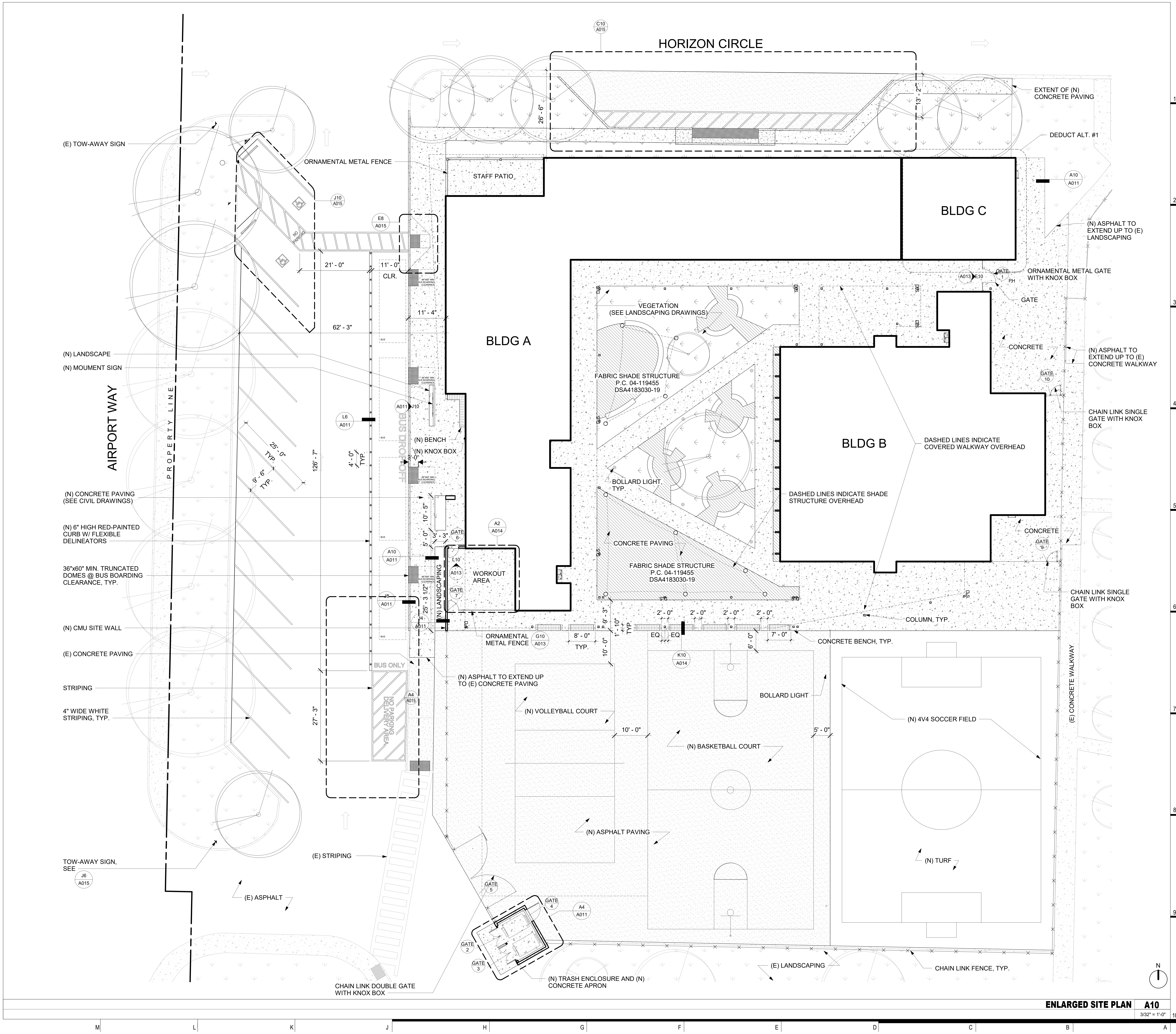
A001



ENLARGED SITE PLAN **A10**

3/32" = 1'-0"

SITE LEGEND

☐	NEW BUILDING
▨	EXISTING BUILDING
	SITE CONCRETE
▨	SITE CONCRETE, ACCENT COLOR
	GRASS
	EXISTING ASPHALT
	EXISTING GRASS
	EXISTING CONCRETE
—×—×—	EXISTING CHAIN LINK FENCE
—×—×—	NEW CHAIN LINK FENCE
○	EXTERIOR LIGHT FIXTURE
– – – –	AREA OF WORK

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002

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ENLARGED SITE PLAN

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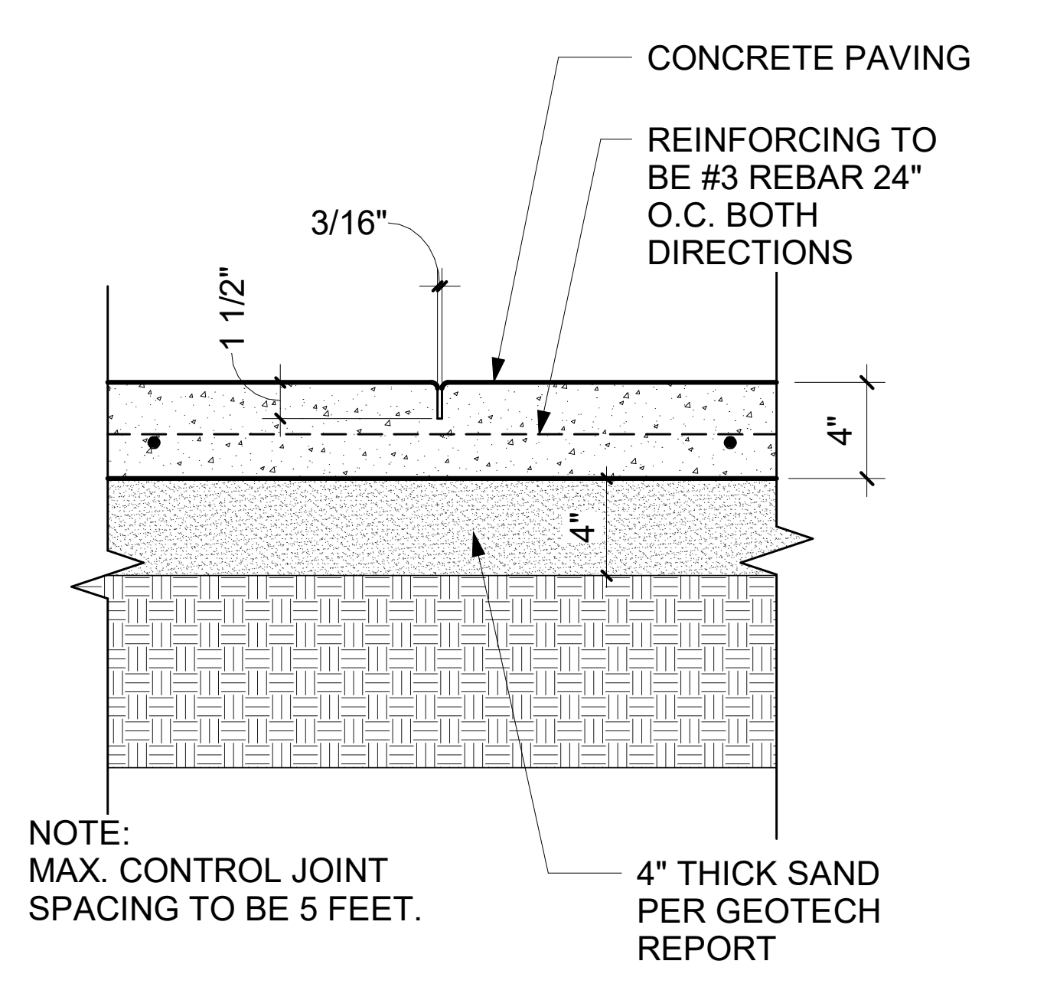
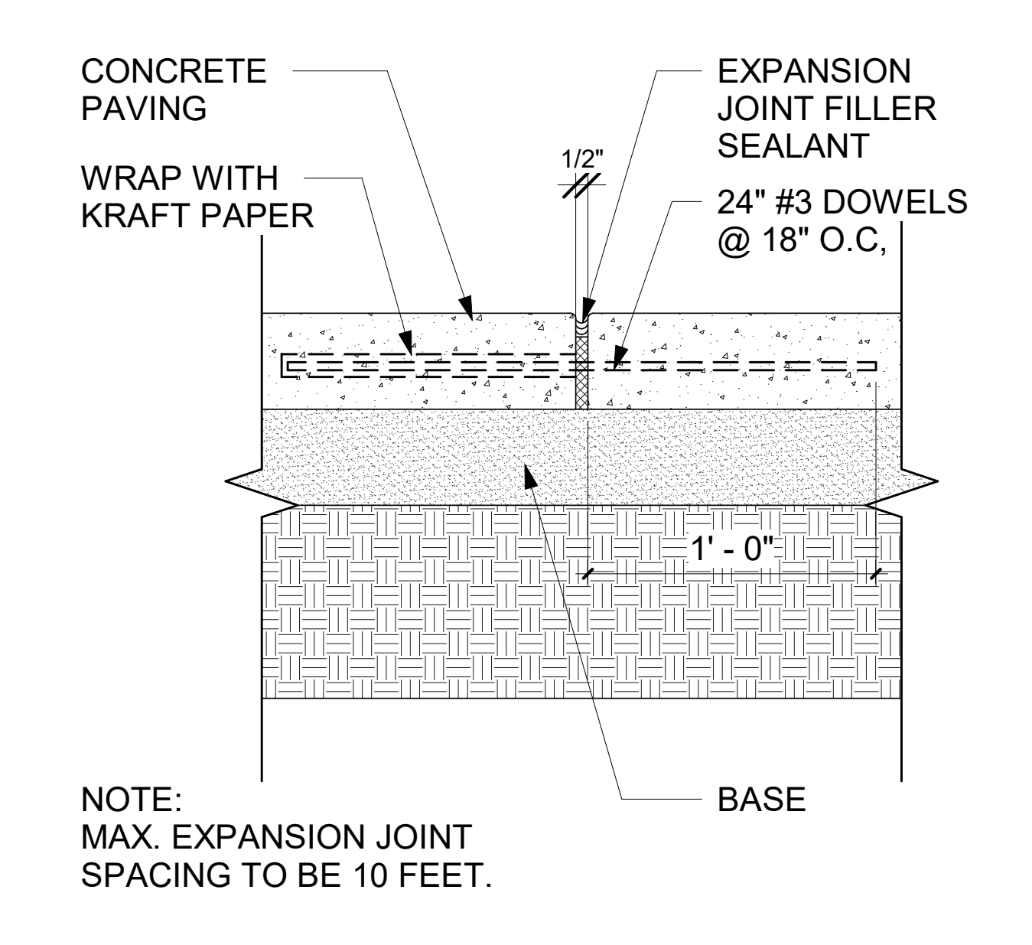
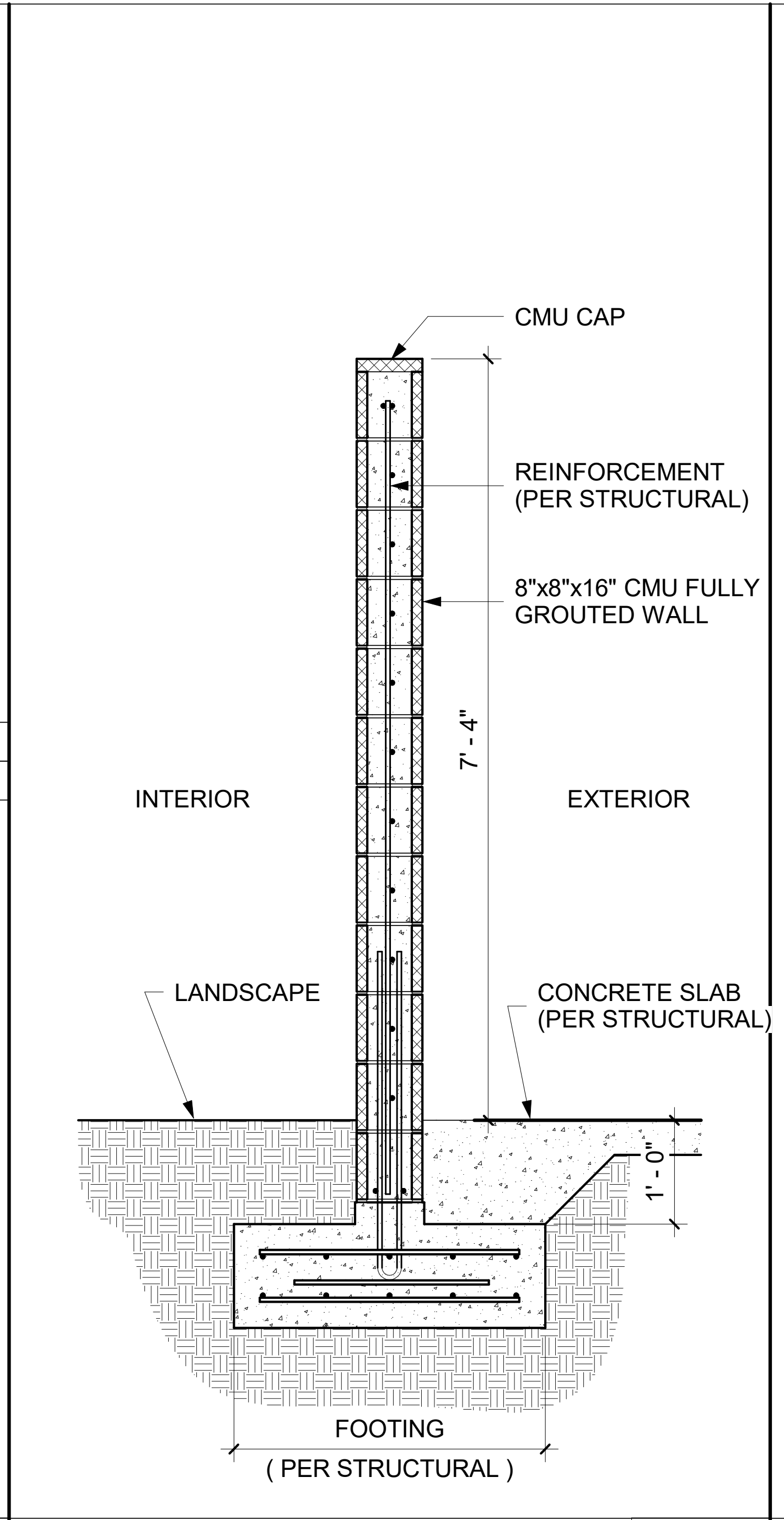
A002


CONCRETE PAVING
REINFORCING TO BE #3 REBAR 24" O.C. BOTH DIRECTIONS
3/16"
1 1/2"
4"
4"
NOTE: MAX. CONTROL JOINT SPACING TO BE 5 FEET.
4" THICK SAND PER GEOTECH REPORT

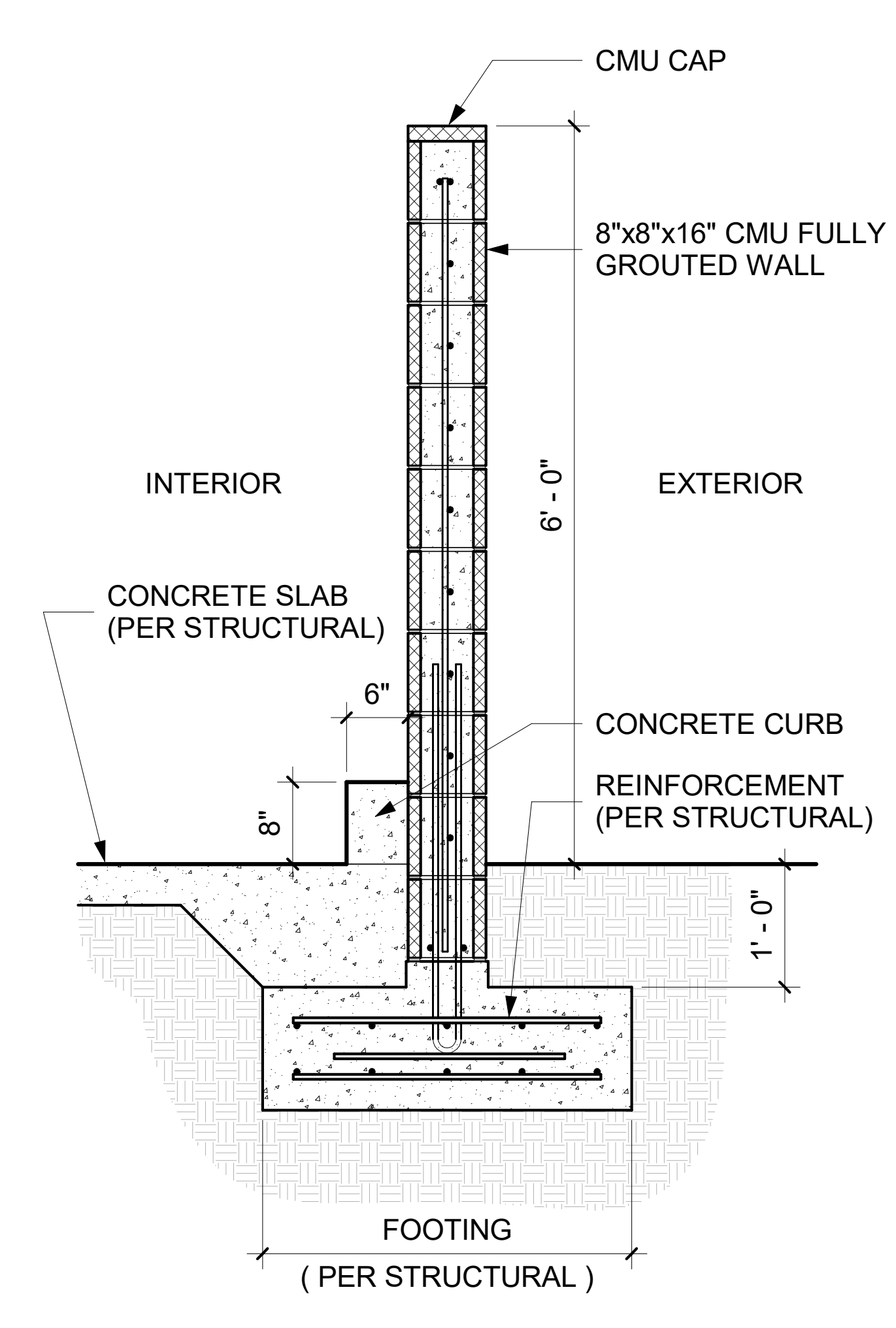
CONCRETE CONTROL JOINT L2
1 1/2" = 1'-0"


CONCRETE PAVING
WRAP WITH KRAFT PAPER
1/2"
EXPANSION JOINT FILLER SEALANT
24" #3 DOWELS @ 18" O.C.
1' - 0"
NOTE: MAX. EXPANSION JOINT SPACING TO BE 10 FEET.
BASE

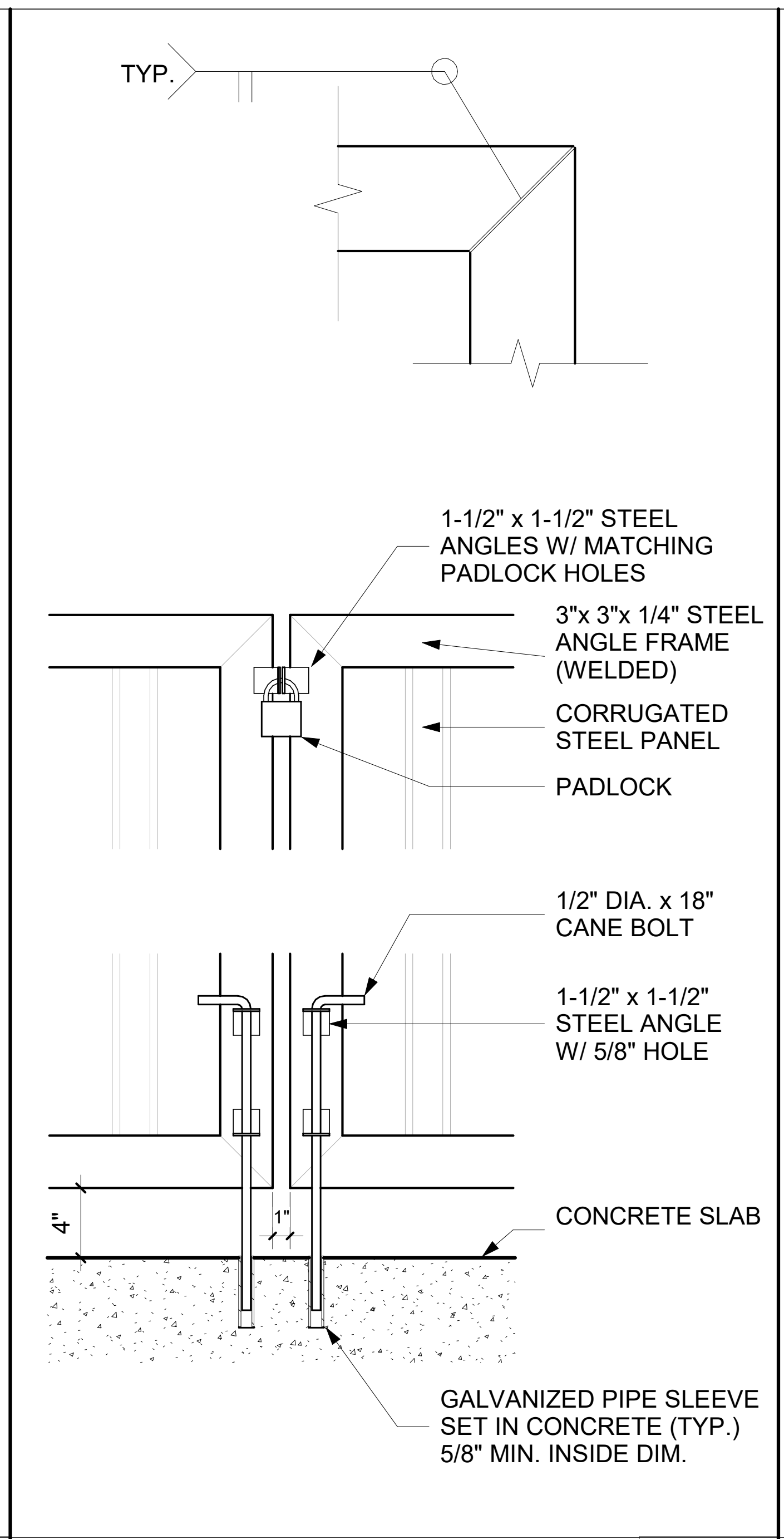
CONCRETE EXPANSION JOINT L4
1 1/2" = 1'-0"


CMU CAP
REINFORCEMENT (PER STRUCTURAL)
8"x8"x16" CMU FULLY GROUTED WALL
7' - 4"
INTERIOR
EXTERIOR
LANDSCAPE
CONCRETE SLAB (PER STRUCTURAL)
1' - 0"
FOOTING (PER STRUCTURAL)

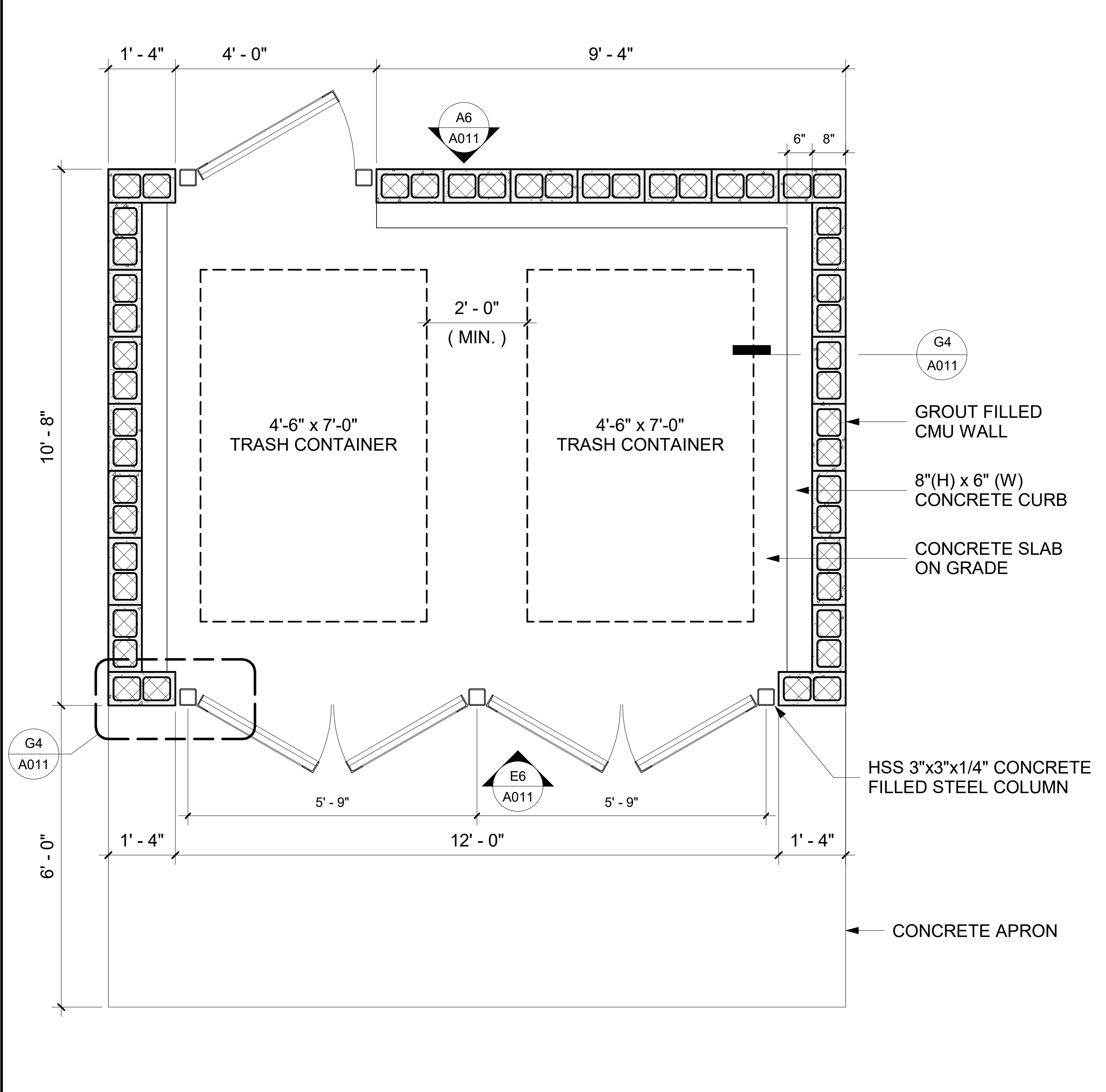
CMU SITE WALL J4
3/4" = 1'-0"


CMU CAP
8"x8"x16" CMU FULLY GROUTED WALL
6' - 0"
INTERIOR
EXTERIOR
CONCRETE SLAB (PER STRUCTURAL)
6"
8"
CONCRETE CURB
REINFORCEMENT (PER STRUCTURAL)
1' - 0"
FOOTING (PER STRUCTURAL)

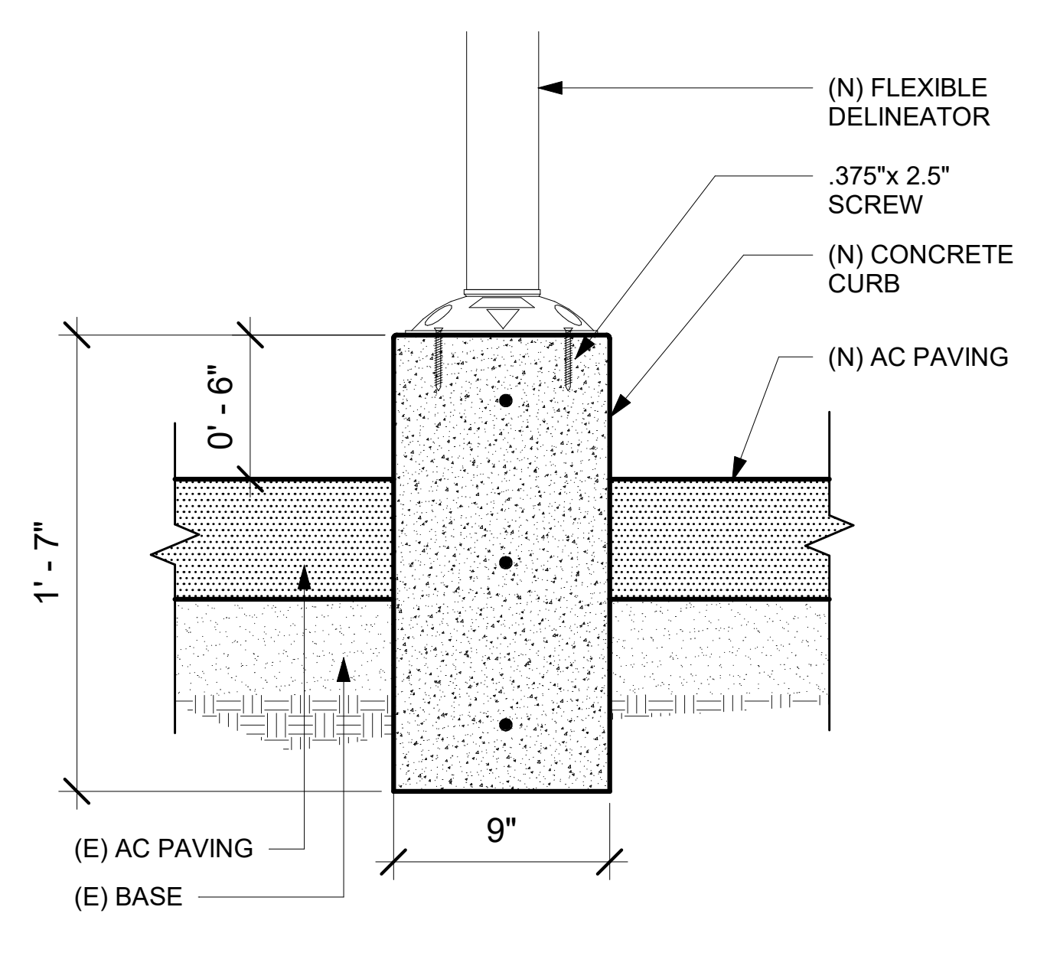
TRASH ENCLOSURE - WALL SECTION G4
3/4" = 1'-0"


TYP.
1-1/2" x 1-1/2" STEEL ANGLES W/ MATCHING PADLOCK HOLES
3"x 3"x 1/4" STEEL ANGLE FRAME (WELDED)
CORRUGATED STEEL PANEL
PADLOCK
1/2" DIA. x 18" CANE BOLT
1-1/2" x 1-1/2" STEEL ANGLE W/ 5/8" HOLE
CONCRETE SLAB
4"
GALVANIZED PIPE SLEEVE SET IN CONCRETE (TYP.) 5/8" MIN. INSIDE DIM.

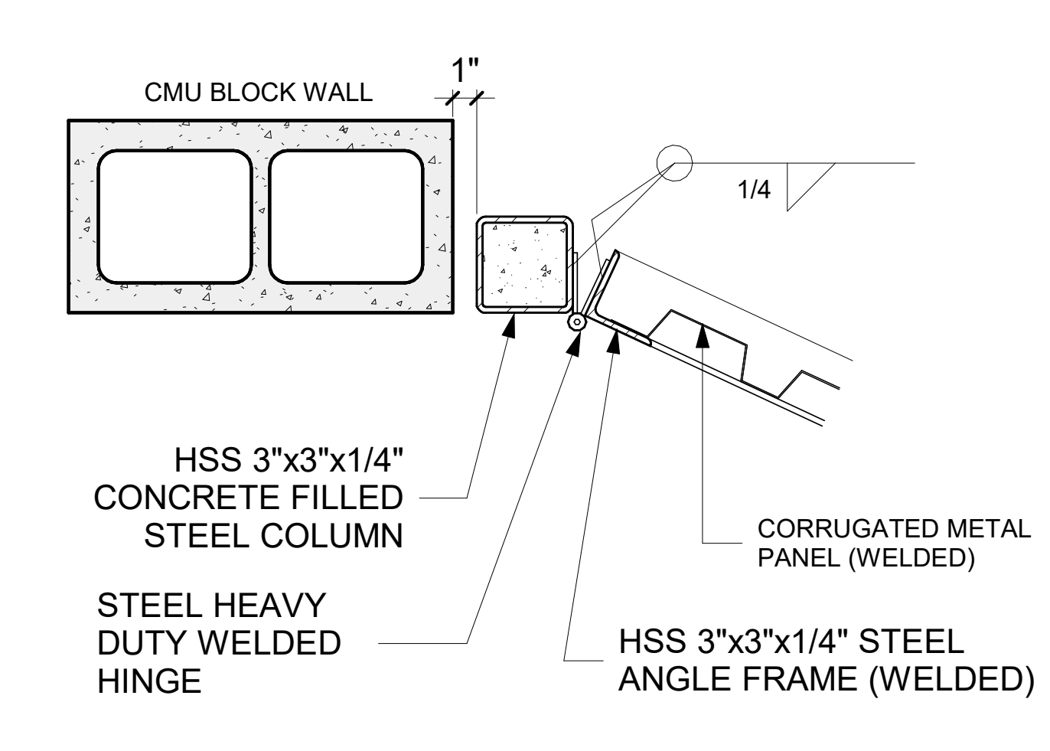
TRASH ENCLOSURE - LATCH & BOLT E4
1 1/2" = 1'-0"



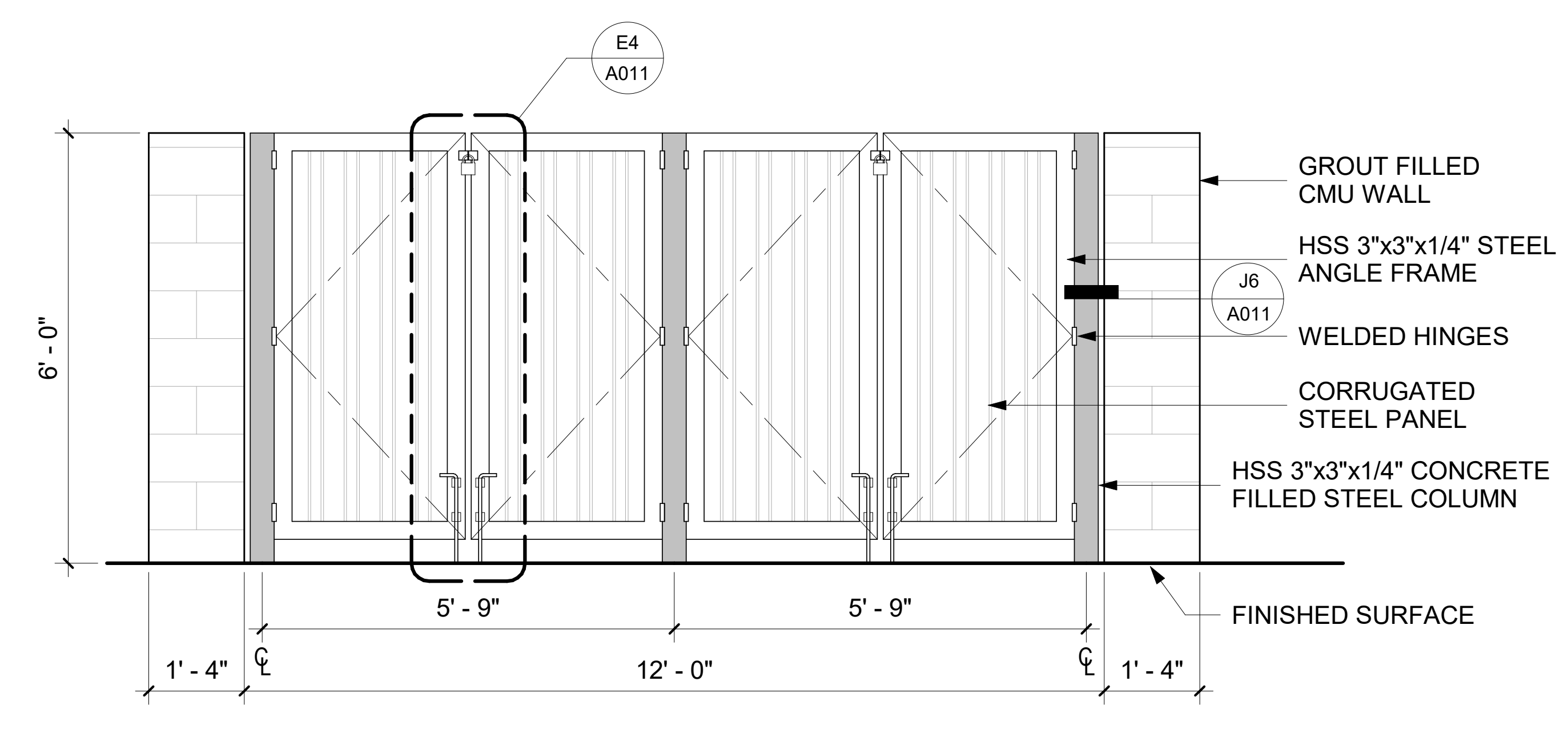
TRASH ENCLOSURE - FLOOR PLAN A4
1/2" = 1'-0"



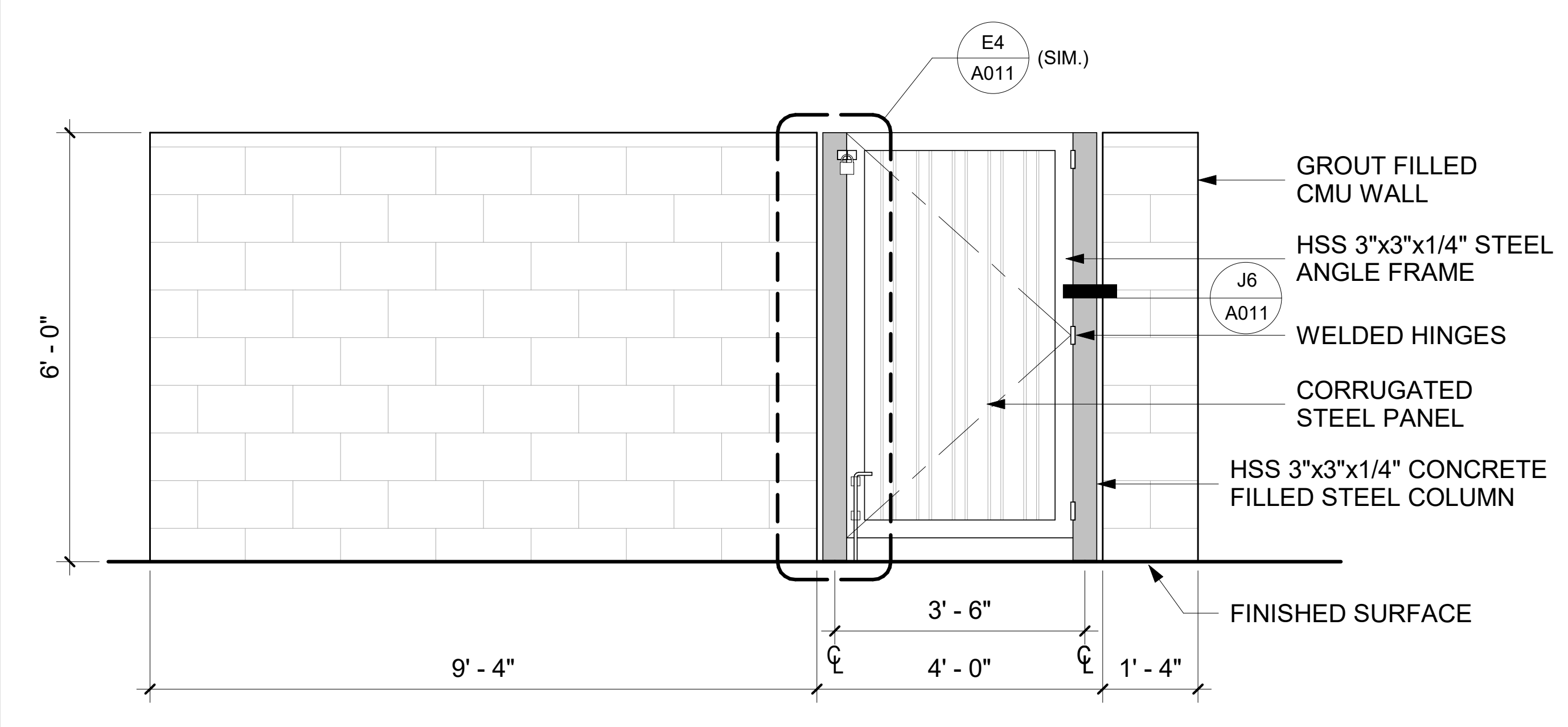
CONC. CURB AT AC PAVING L6
1 1/2" = 1'-0"


CMU BLOCK WALL
1"
1/4
HSS 3"x3"x1/4" CONCRETE FILLED STEEL COLUMN
CORRUGATED METAL PANEL (WELDED)
STEEL HEAVY DUTY WELDED HINGE
HSS 3"x3"x1/4" STEEL ANGLE FRAME (WELDED)

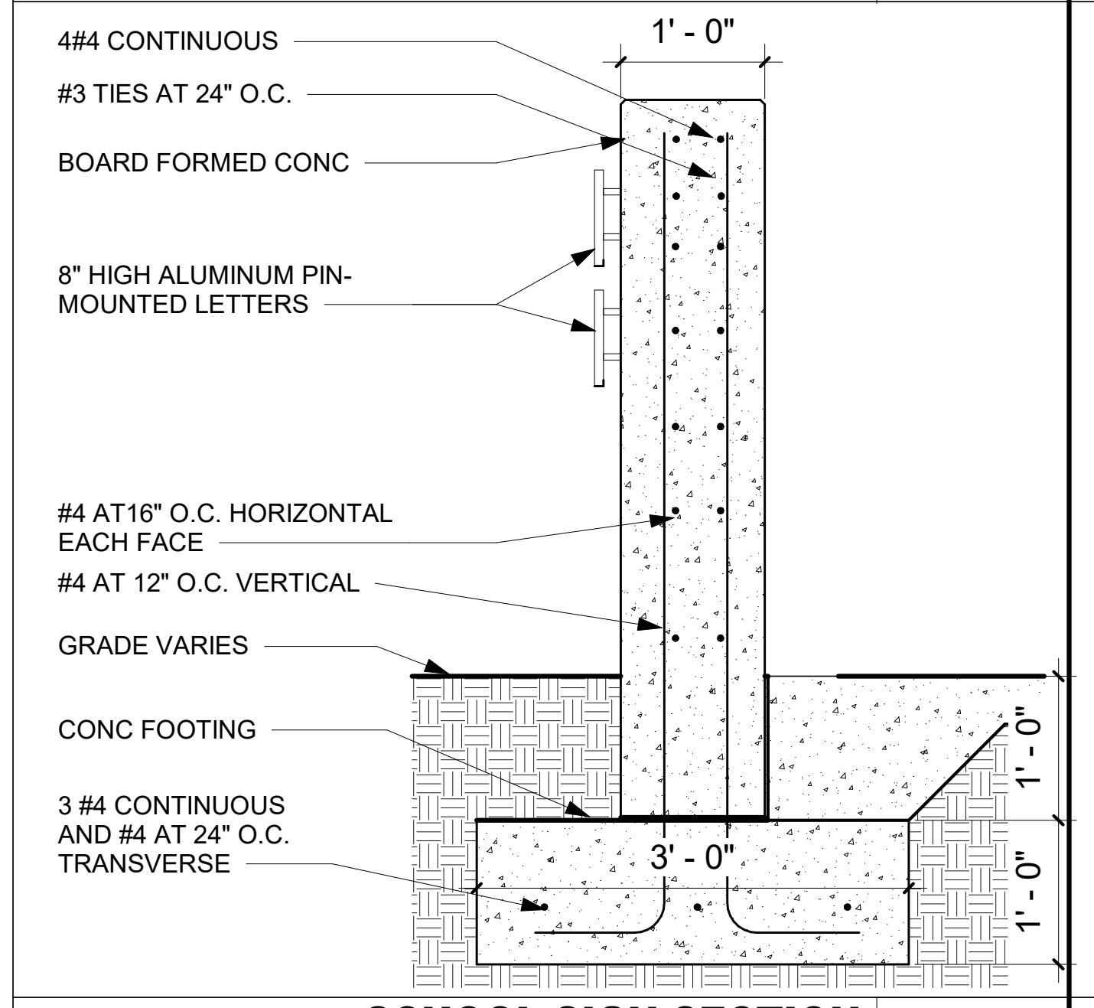
TRASH ENCLOSURE - GATE HINGE J6
1 1/2" = 1'-0"



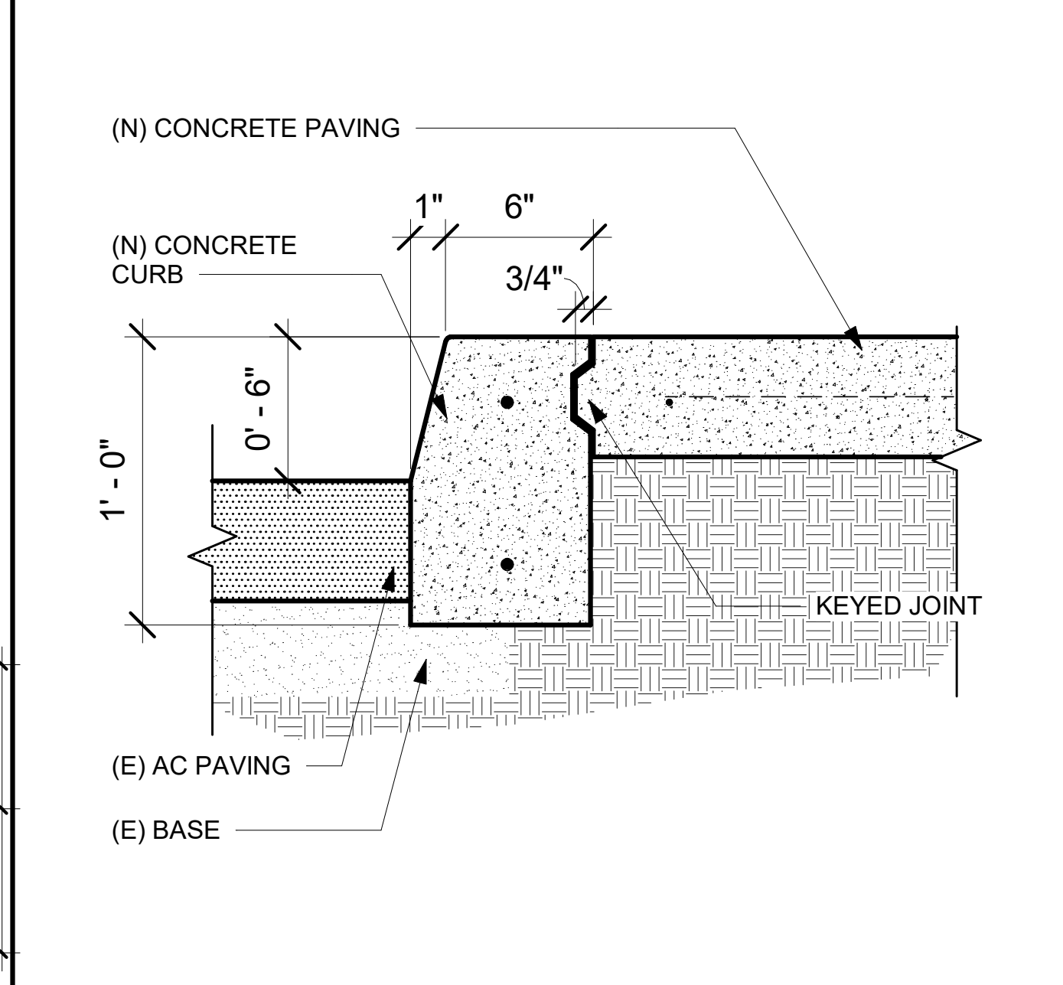
TRASH ENCLOSURE - ELEVATION E6
1/2" = 1'-0"



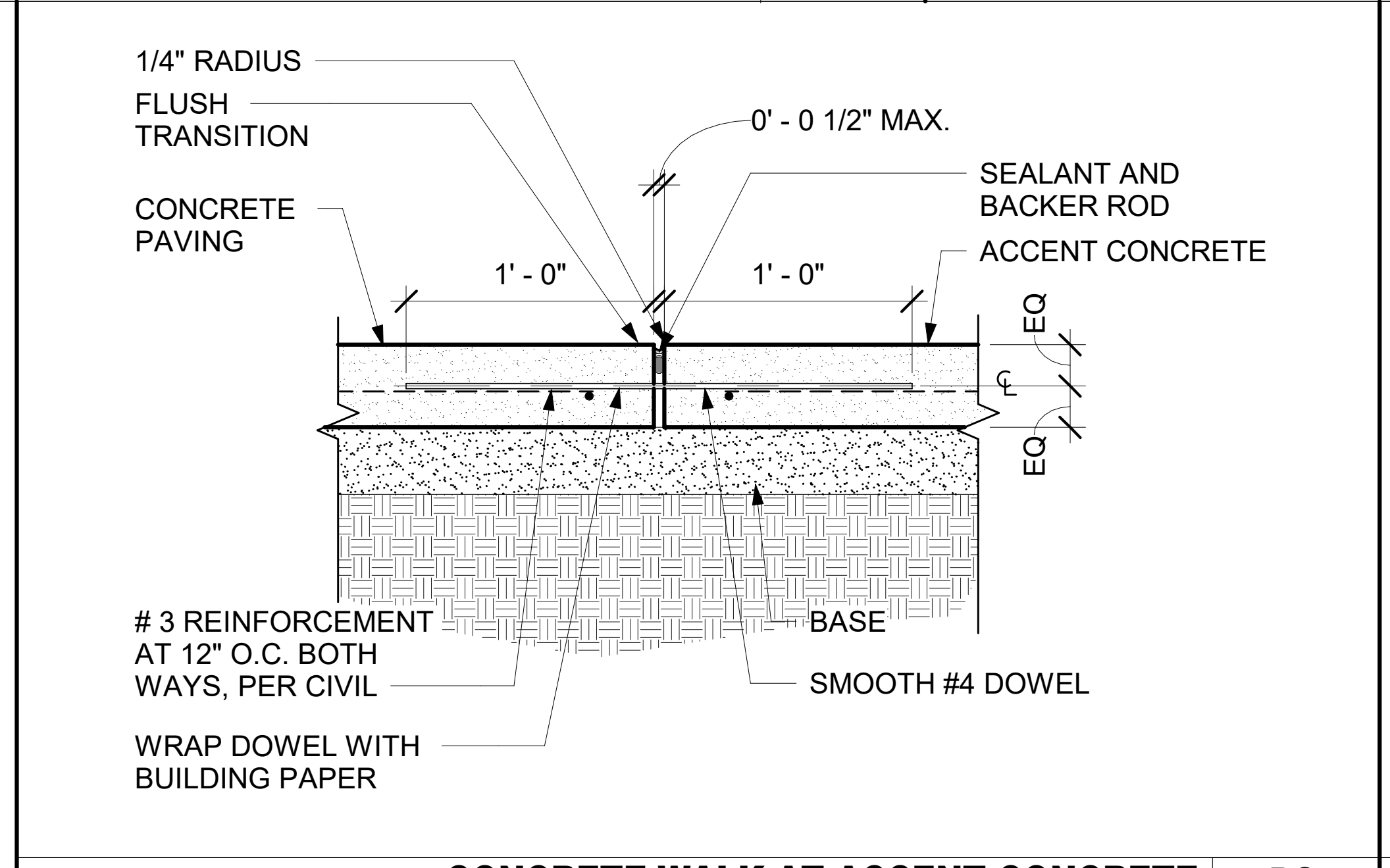
TRASH ENCLOSURE - ELEVATION A6
1/2" = 1'-0"



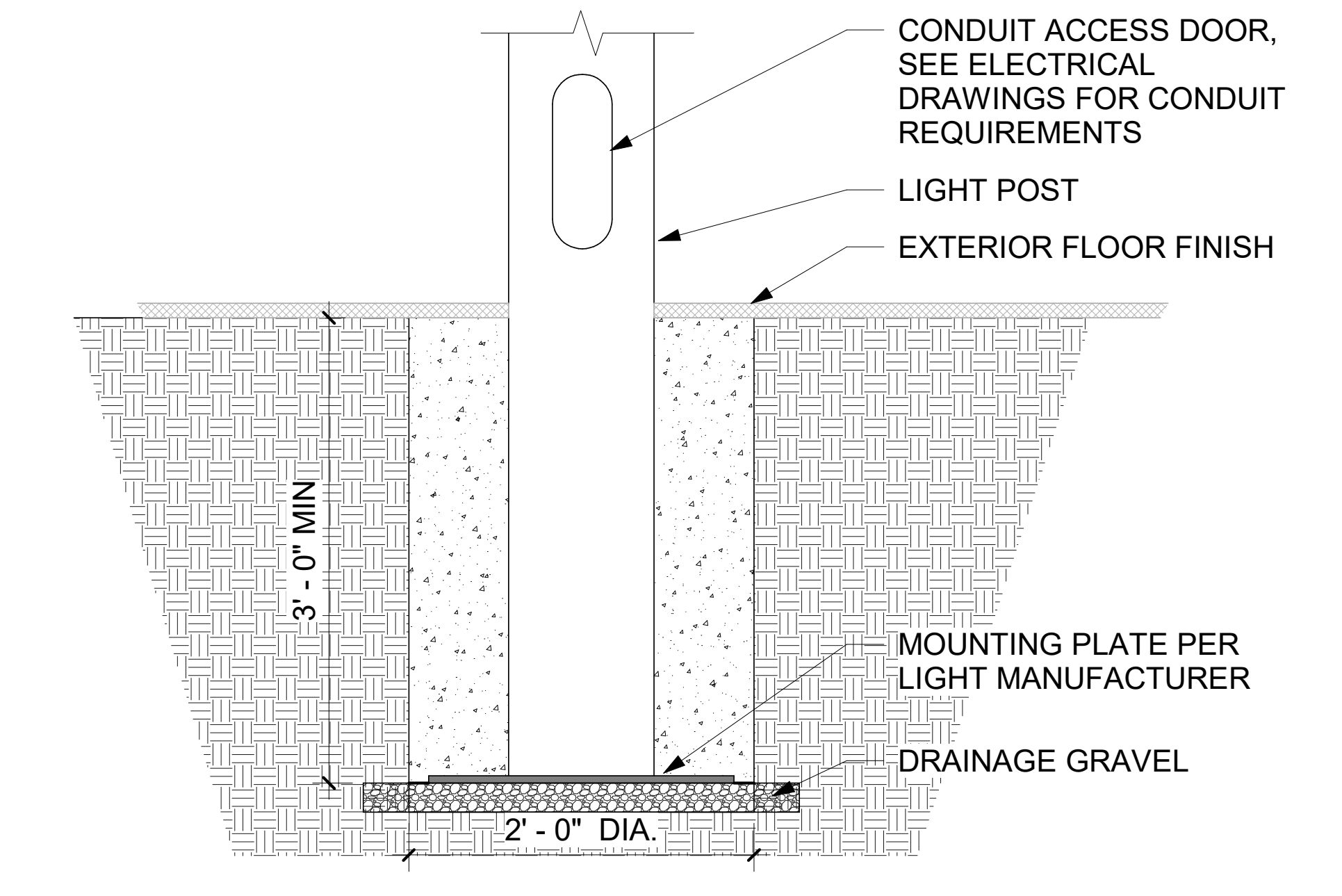
SCHOOL SIGN SECTION L8
3/4" = 1'-0"



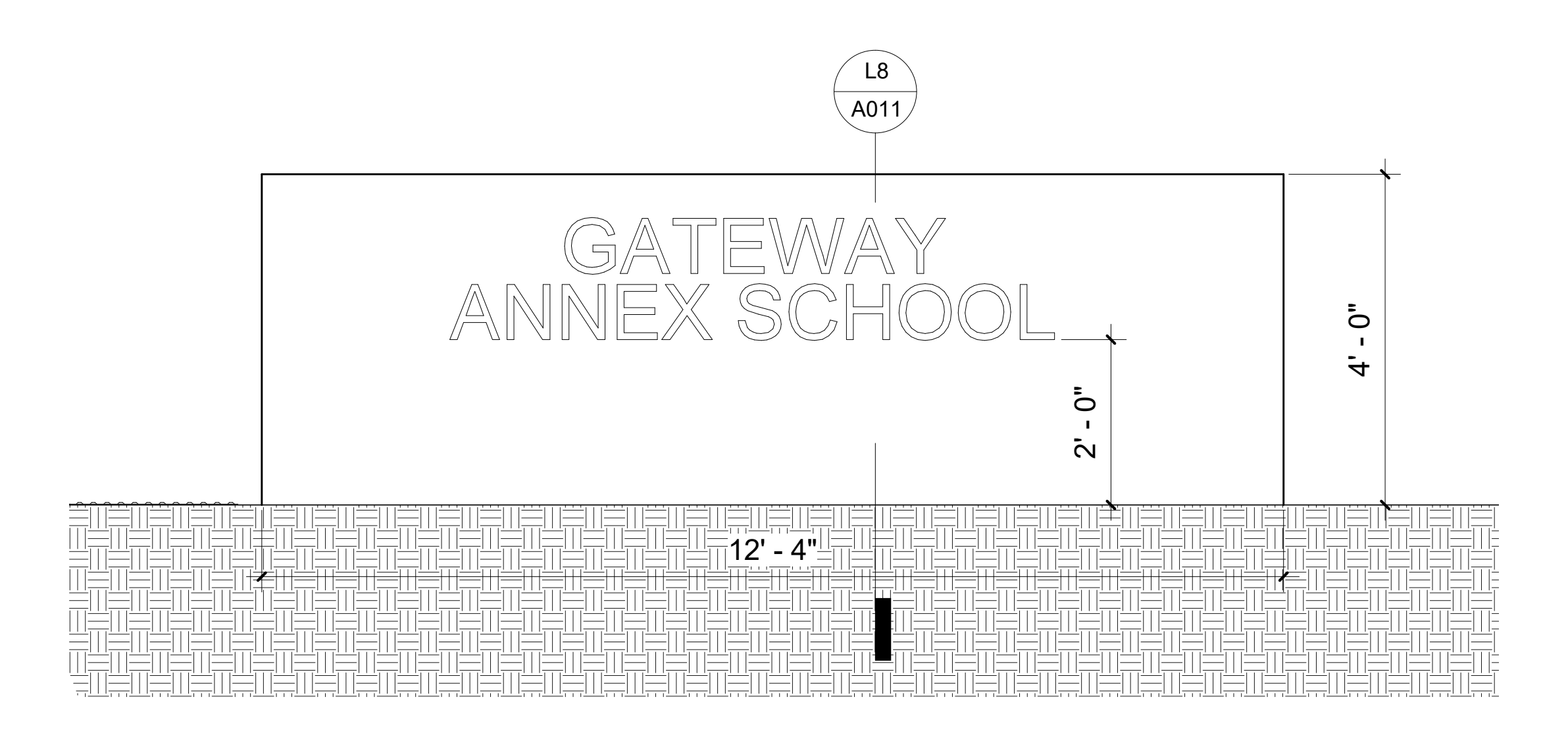
CONC. CURB AT AC PAVING J8
1 1/2" = 1'-0"



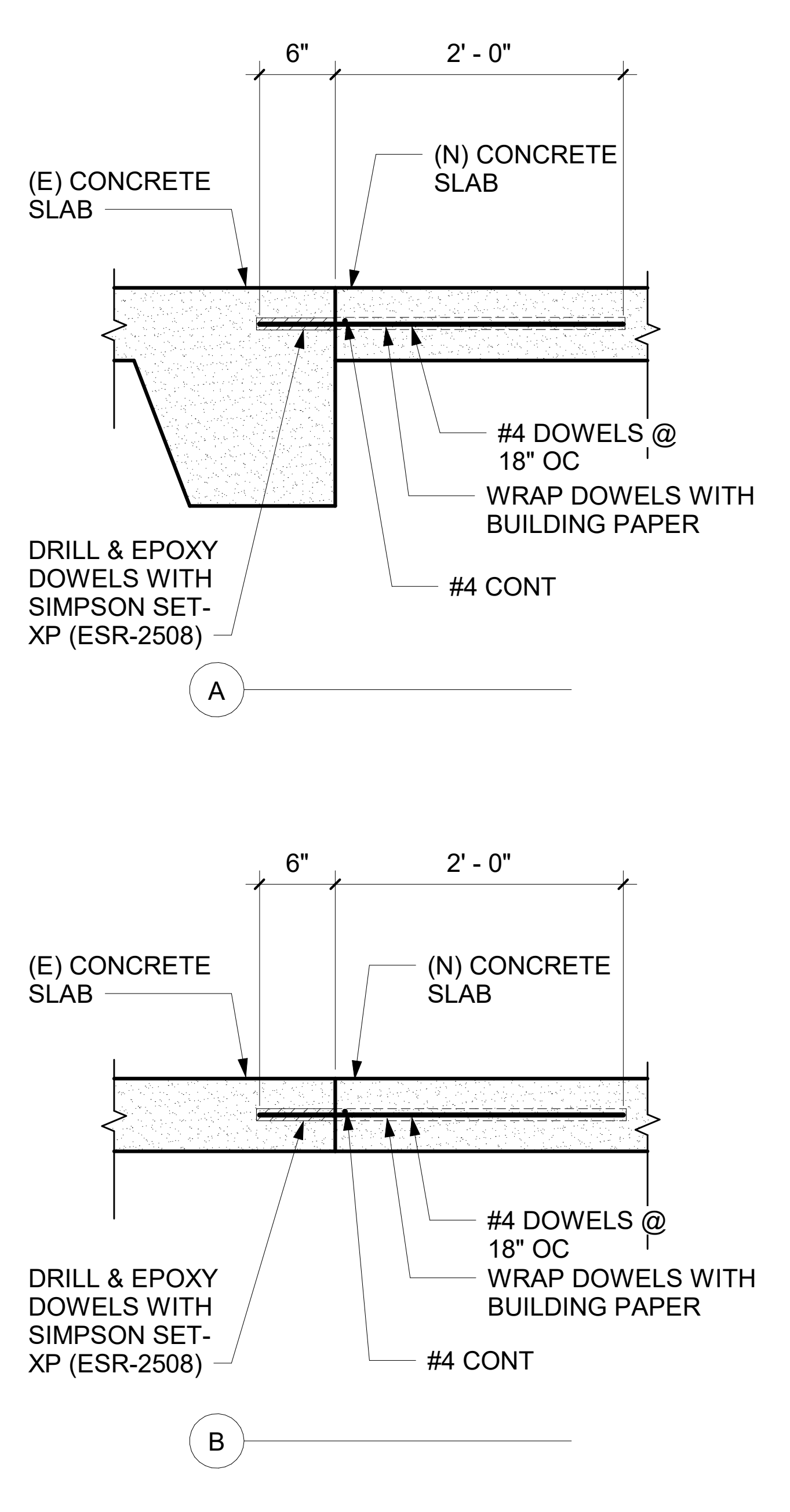
CONCRETE WALK AT ACCENT CONCRETE D8
1 1/2" = 1'-0"


CONDUIT ACCESS DOOR, SEE ELECTRICAL DRAWINGS FOR CONDUIT REQUIREMENTS
LIGHT POST
EXTERIOR FLOOR FINISH
3' - 0" MIN
MOUNTING PLATE PER LIGHT MANUFACTURER
DRAINAGE GRAVEL
2' - 0" DIA.

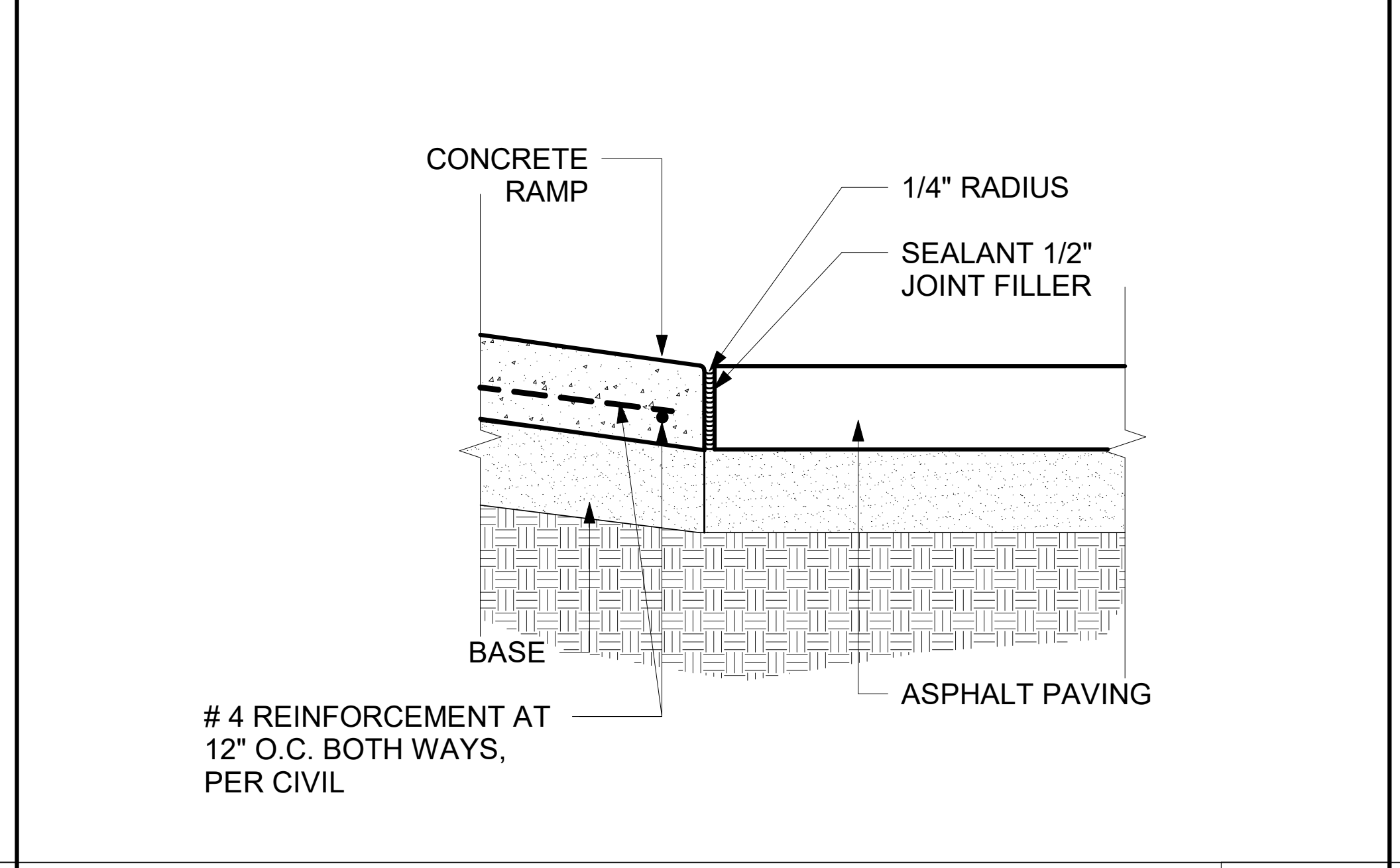
LIGHT POST FOUNDATION A8
1" = 1'-0"



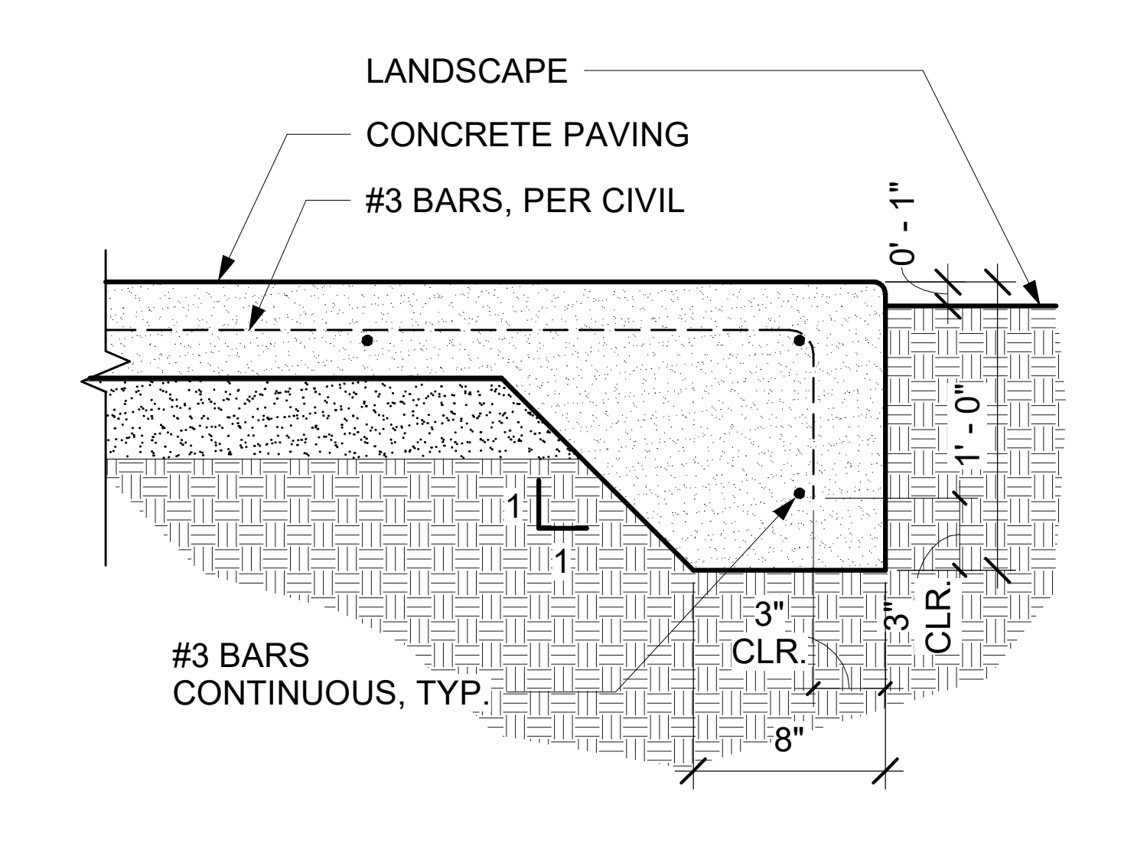
MONUMENT SIGN J10
1/2" = 1'-0"


6"
2' - 0"
(E) CONCRETE SLAB
(N) CONCRETE SLAB
#4 DOWELS @ 18" OC
WRAP DOWELS WITH BUILDING PAPER
DRILL & EPOXY DOWELS WITH SIMPSON SET-XP (ESR-2508)
#4 CONT
A
6"
2' - 0"
(E) CONCRETE SLAB
(N) CONCRETE SLAB
#4 DOWELS @ 18" OC
WRAP DOWELS WITH BUILDING PAPER
DRILL & EPOXY DOWELS WITH SIMPSON SET-XP (ESR-2508)
#4 CONT
B

CONCRETE TO (E) CONCRETE G10
1" = 1'-0"


CONCRETE RAMP
1/4" RADIUS
SEALANT 1/2" JOINT FILLER
BASE
# 4 REINFORCEMENT AT 12" O.C. BOTH WAYS, PER CIVIL
ASPHALT PAVING

RAMP TERMINATION AT ASPHALT D10
1 1/2" = 1'-0"



TYP. CONCRETE PAVING AT LANDSCAPE A10
1 1/2" = 1'-0"

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C-9

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

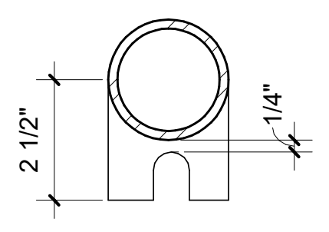
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022

SITE DETAILS

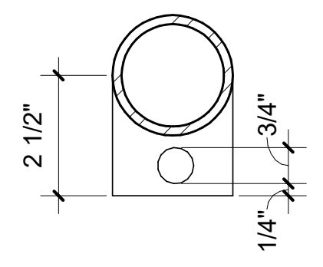
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

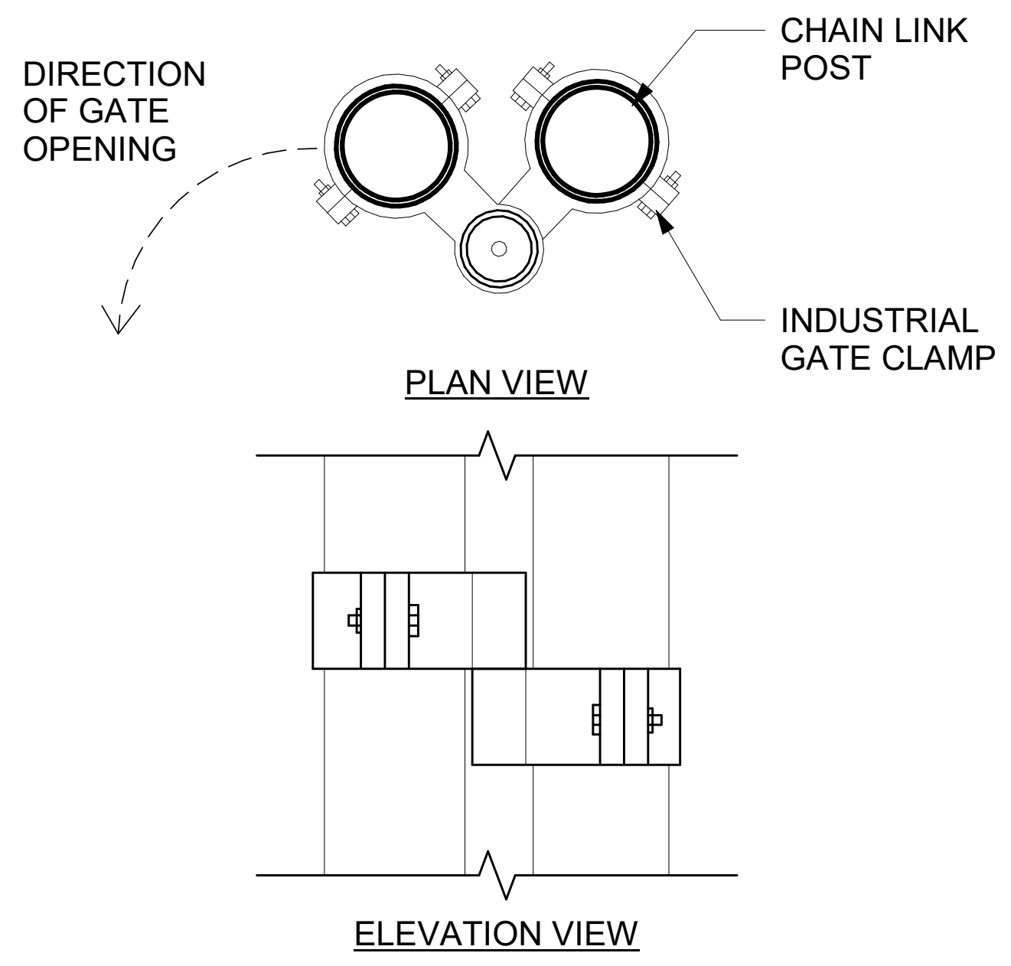
A011



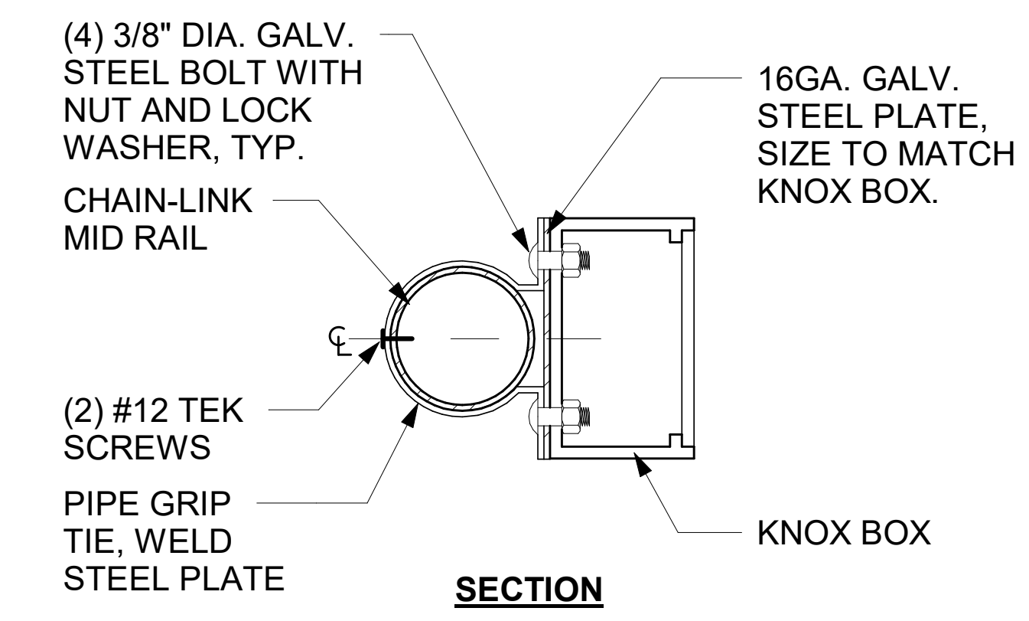
CANE BOLT HOLDER L2
3" = 1'-0"



CANE BOLT BRACKET J2
3" = 1'-0"

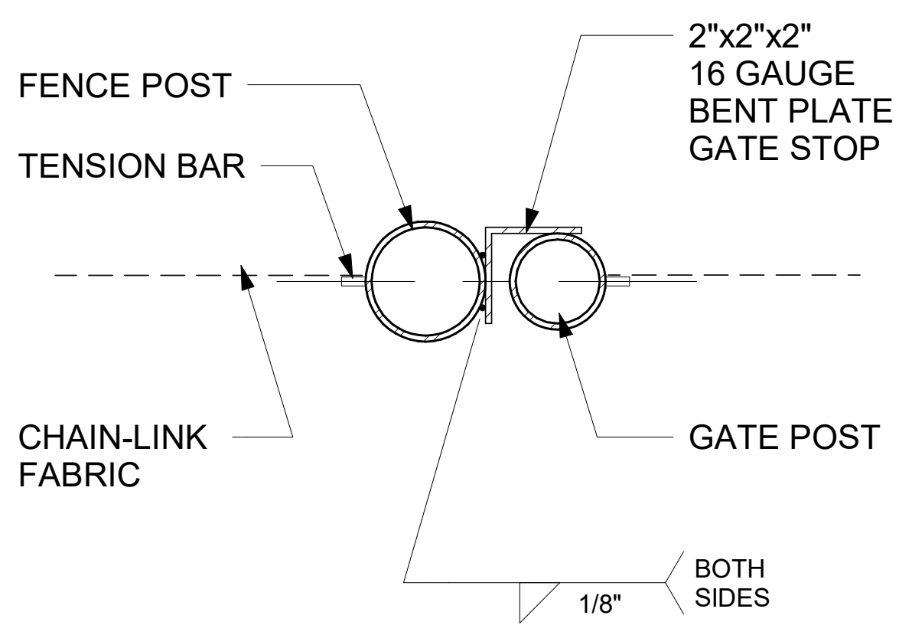


CHAIN-LINK GATE HINGE G2
3" = 1'-0"


(4) 3/8" DIA. GALV. STEEL BOLT WITH NUT AND LOCK WASHER, TYP.
CHAIN-LINK MID RAIL
(2) #12 TEK SCREWS
PIPE GRIP TIE, WELD STEEL PLATE
16GA. GALV. STEEL PLATE, SIZE TO MATCH KNOX BOX.
KNOX BOX
SECTION

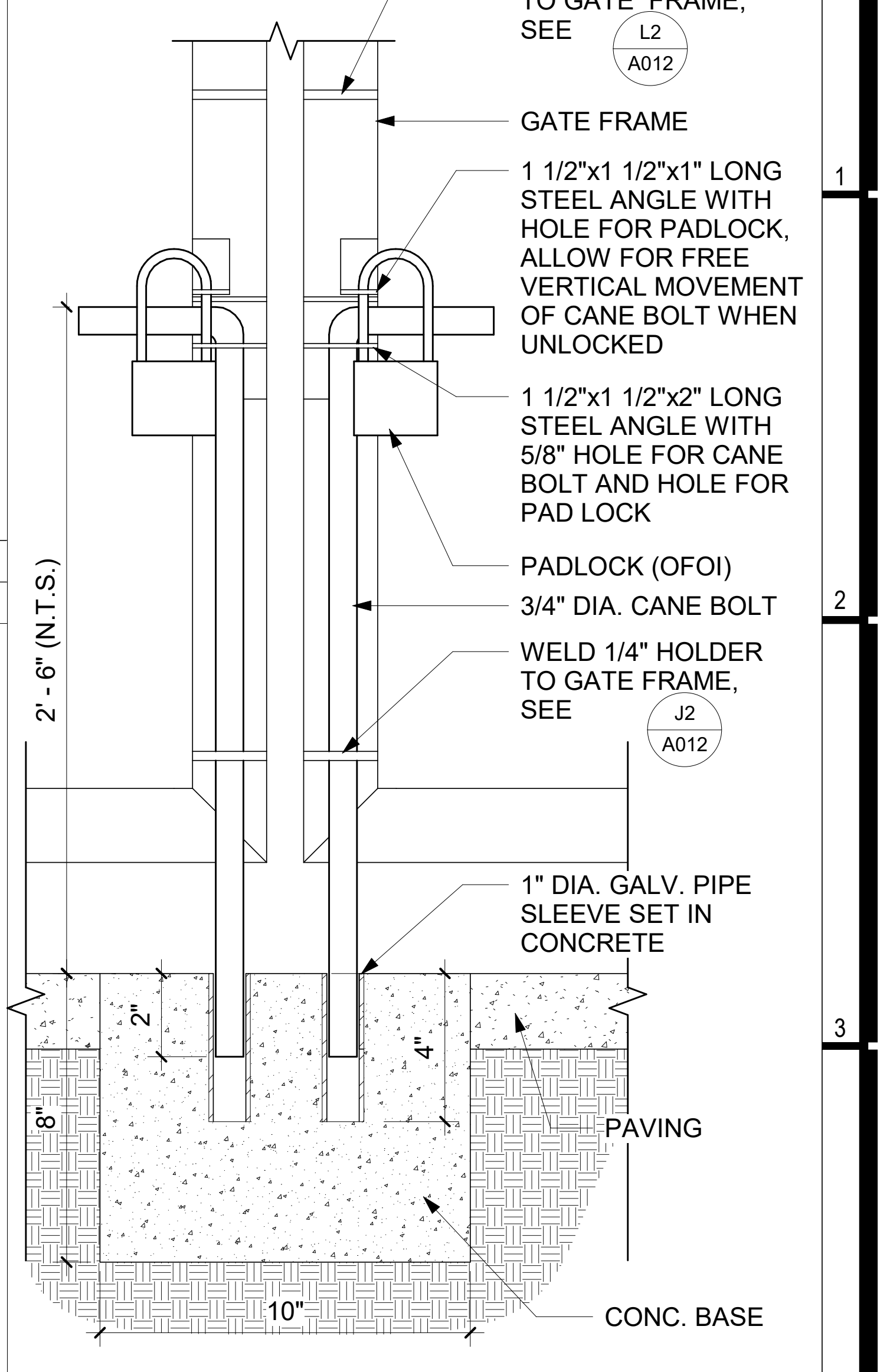
MODEL: KNOXBOX 3200 SERIES

CHAIN-LINK FENCE KNOX BOX E2
3" = 1'-0"



CHAIN LINK GATE STOP C2
3" = 1'-0"

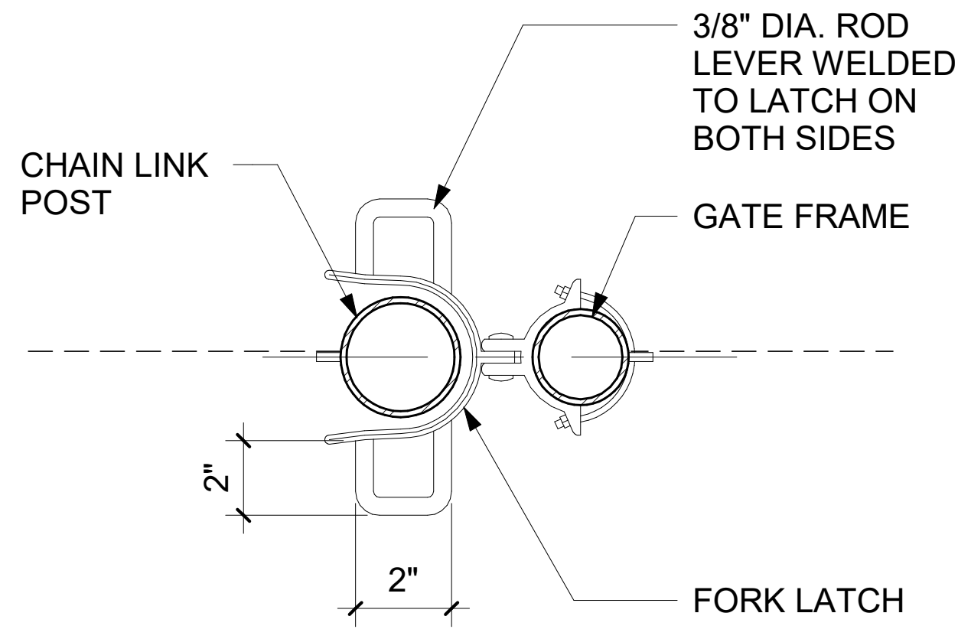
NOTE: CANE BOLTS NOT USED AT GATES IN THE PATH OF EGRESS TRAVEL


WELD 1/4" BRACKET TO GATE FRAME, SEE L2 A012
GATE FRAME
1 1/2"x1 1/2"x1" LONG STEEL ANGLE WITH HOLE FOR PADLOCK, ALLOW FOR FREE VERTICAL MOVEMENT OF CANE BOLT WHEN UNLOCKED
1 1/2"x1 1/2"x2" LONG STEEL ANGLE WITH 5/8" HOLE FOR CANE BOLT AND HOLE FOR PAD LOCK
PADLOCK (OFOI)
3/4" DIA. CANE BOLT
WELD 1/4" HOLDER TO GATE FRAME, SEE J2 A012
1" DIA. GALV. PIPE SLEEVE SET IN CONCRETE
PAVING
CONC. BASE
2' - 6" (N.T.S.)
2"
4"
8"
10"

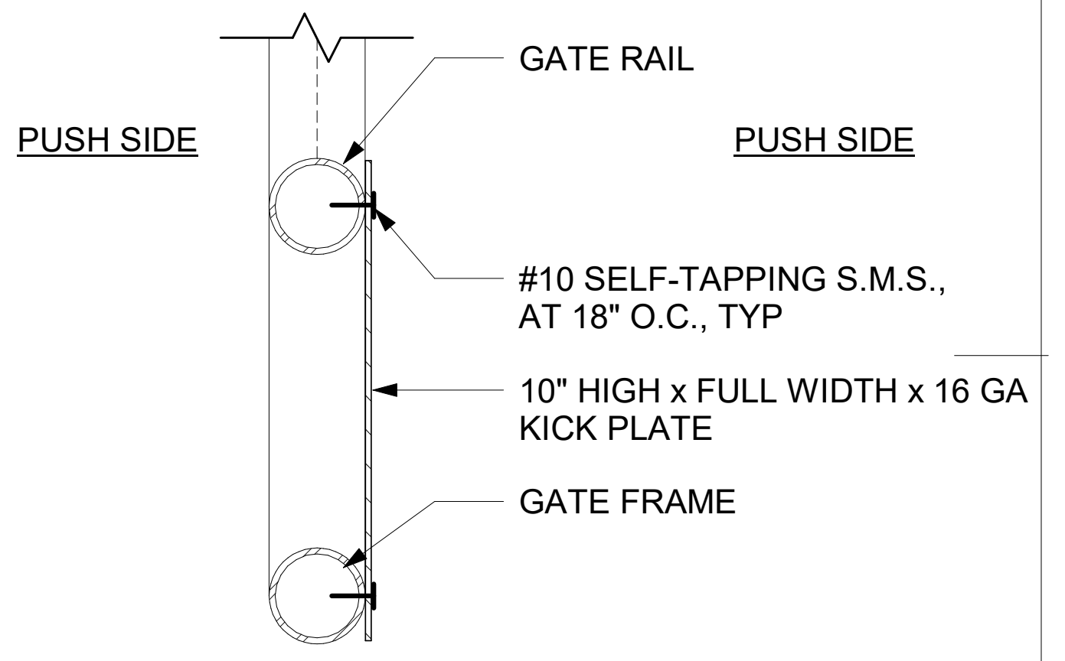
DESCRIPTION	STD. GALV. PIPE
INTERMEDIATE POST	1 1/2" DIA. STD.
CORNER / END POST	2" DIA. STD.
DOUBLE SWING GATE POST	3 1/2" DIA. STD.

NOTES:
1. REFER TO PLANS AND DETAILS FOR POST LOCATIONS.

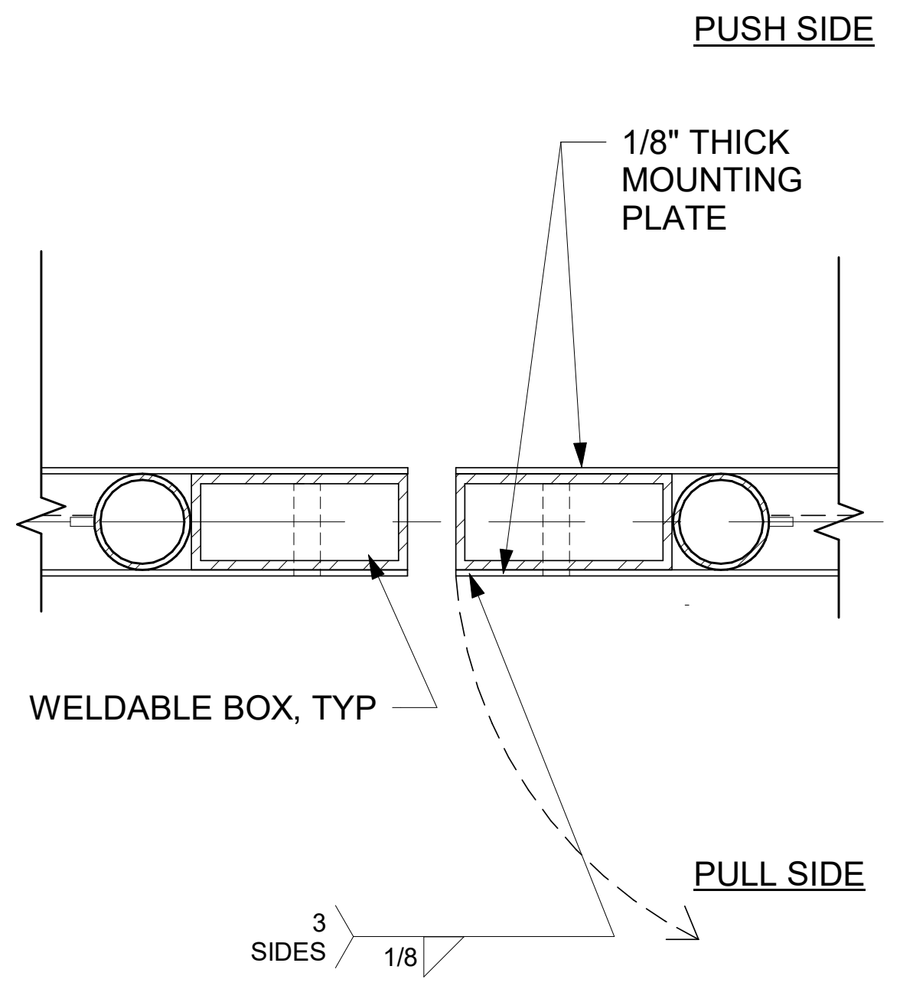
CHAIN LINK POST SCHEDULE J4
N.T.S.



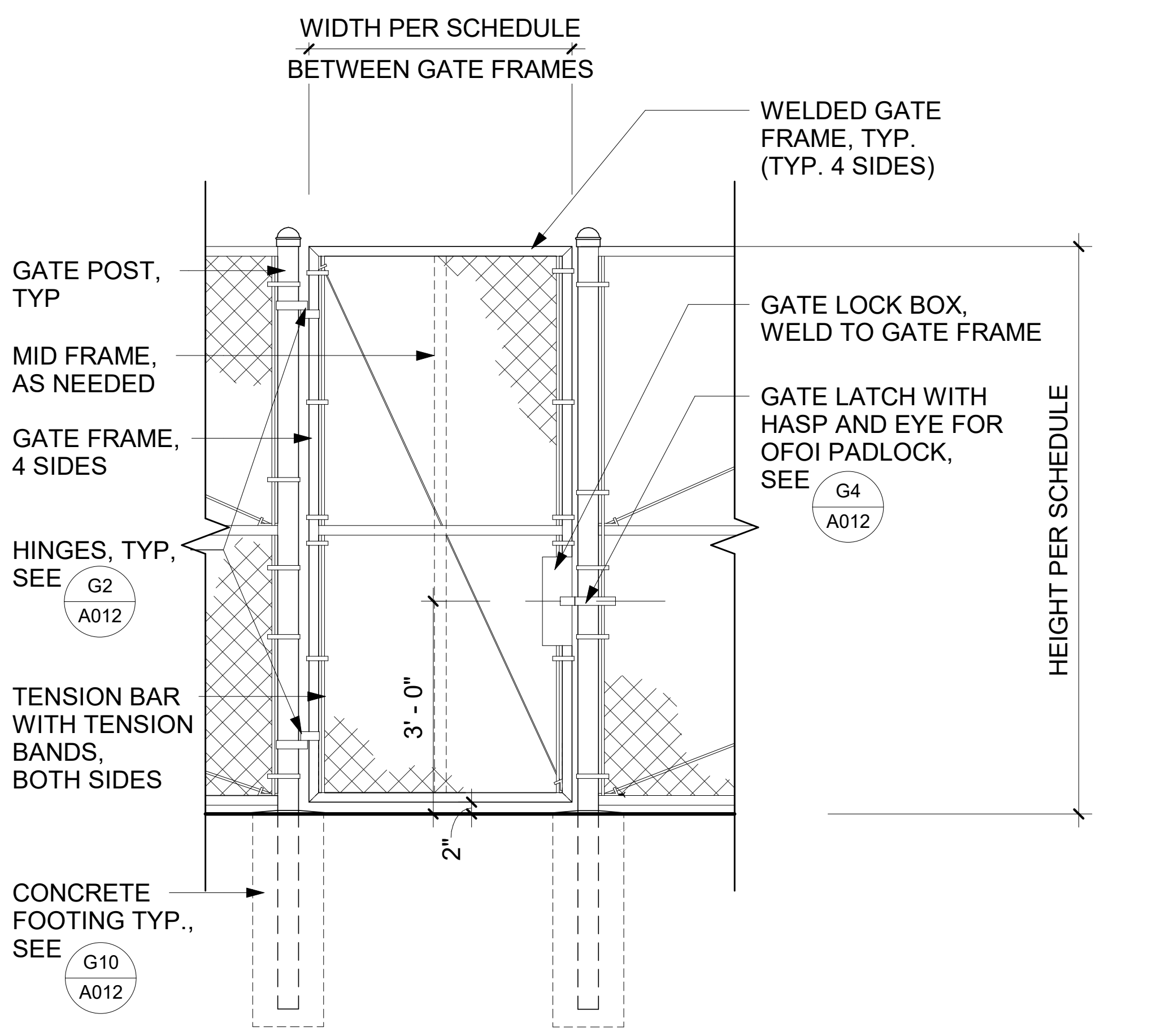
CHAIN-LINK GATE LATCH G4
3" = 1'-0"


PUSH SIDE
PUSH SIDE
GATE RAIL
#10 SELF-TAPPING S.M.S., AT 18" O.C., TYP
10" HIGH x FULL WIDTH x 16 GA KICK PLATE
GATE FRAME

CHAIN-LINK GATE KICK PLATE E4
3" = 1'-0"

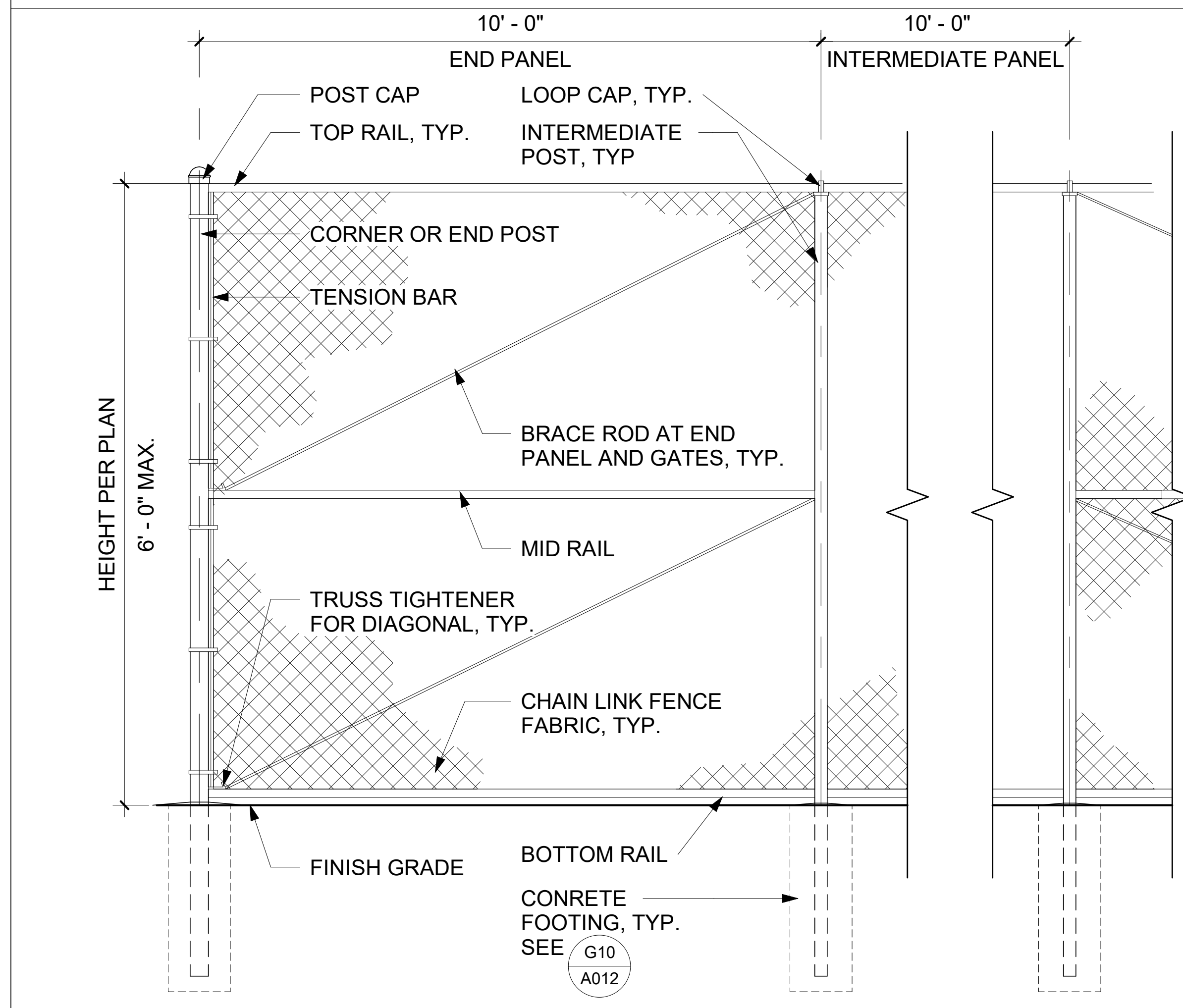


CHAIN-LINK DOUBLE GATE C4
3" = 1'-0"

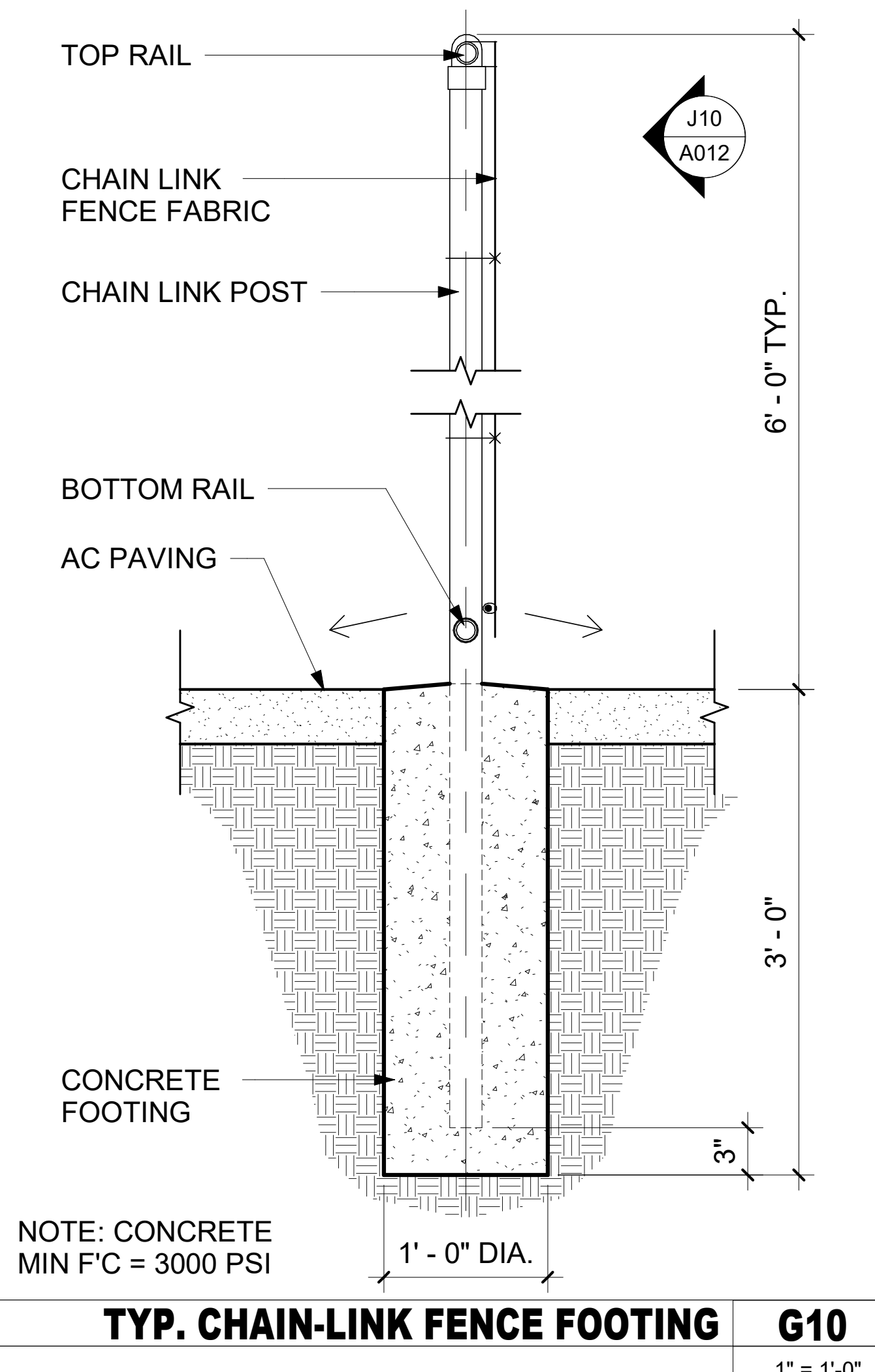

WIDTH PER SCHEDULE BETWEEN GATE FRAMES
WELDED GATE FRAME, TYP. (TYP. 4 SIDES)
GATE POST, TYP
MID FRAME, AS NEEDED
GATE FRAME, 4 SIDES
HINGES, TYP, SEE G2 A012
TENSION BAR WITH TENSION BANDS, BOTH SIDES
CONCRETE FOOTING TYP., SEE G10 A012
GATE LOCK BOX, WELD TO GATE FRAME
GATE LATCH WITH HASP AND EYE FOR OFOI PADLOCK, SEE G4 A012
HEIGHT PER SCHEDULE
3' - 0"
2"

SERVICE GATE: GATE TYPE 1

CHAIN-LINK SINGLE GATE A7
1/2" = 1'-0"

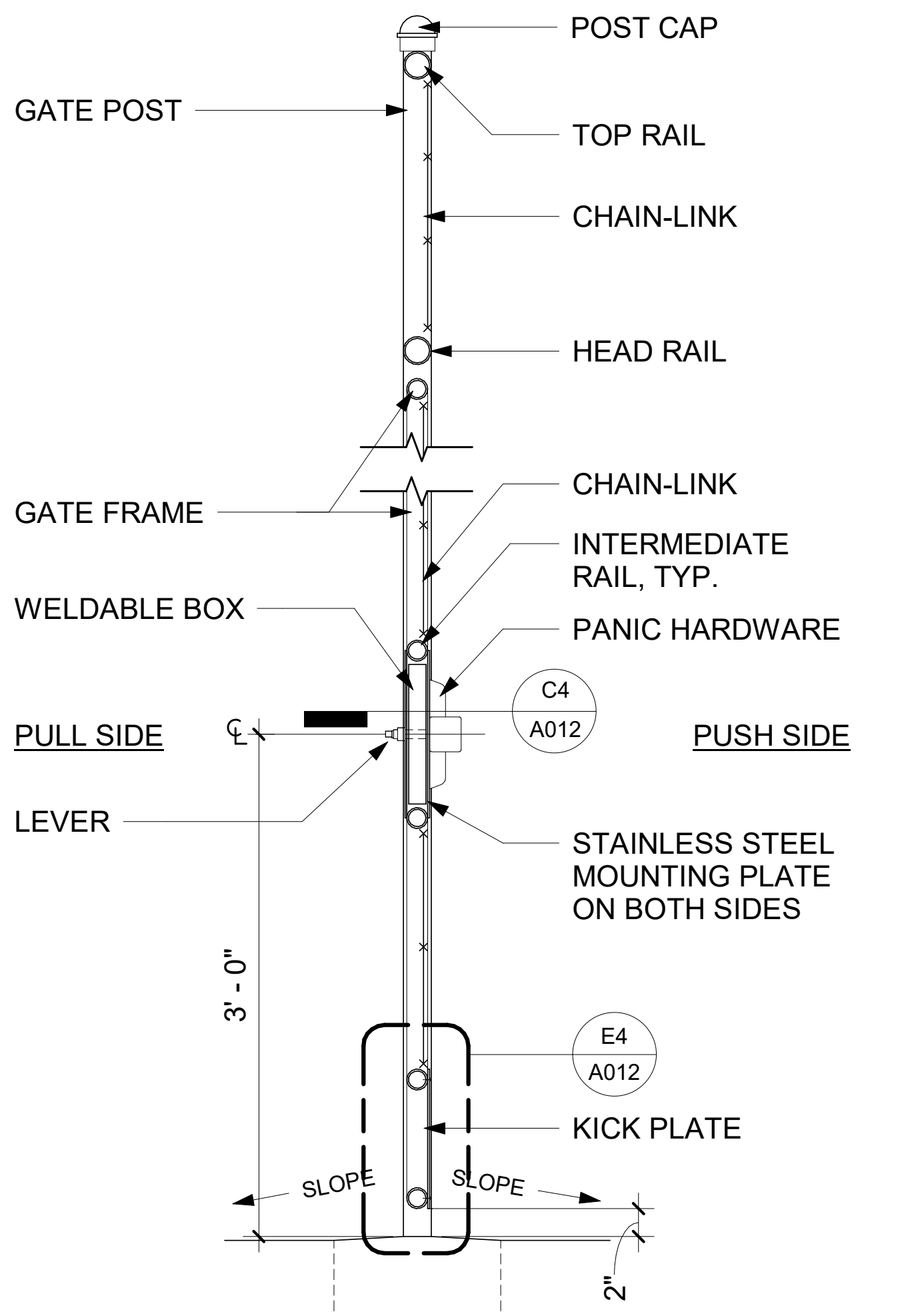


TYP. CHAIN-LINK FENCE ELEVATION J10
1/2" = 1'-0"

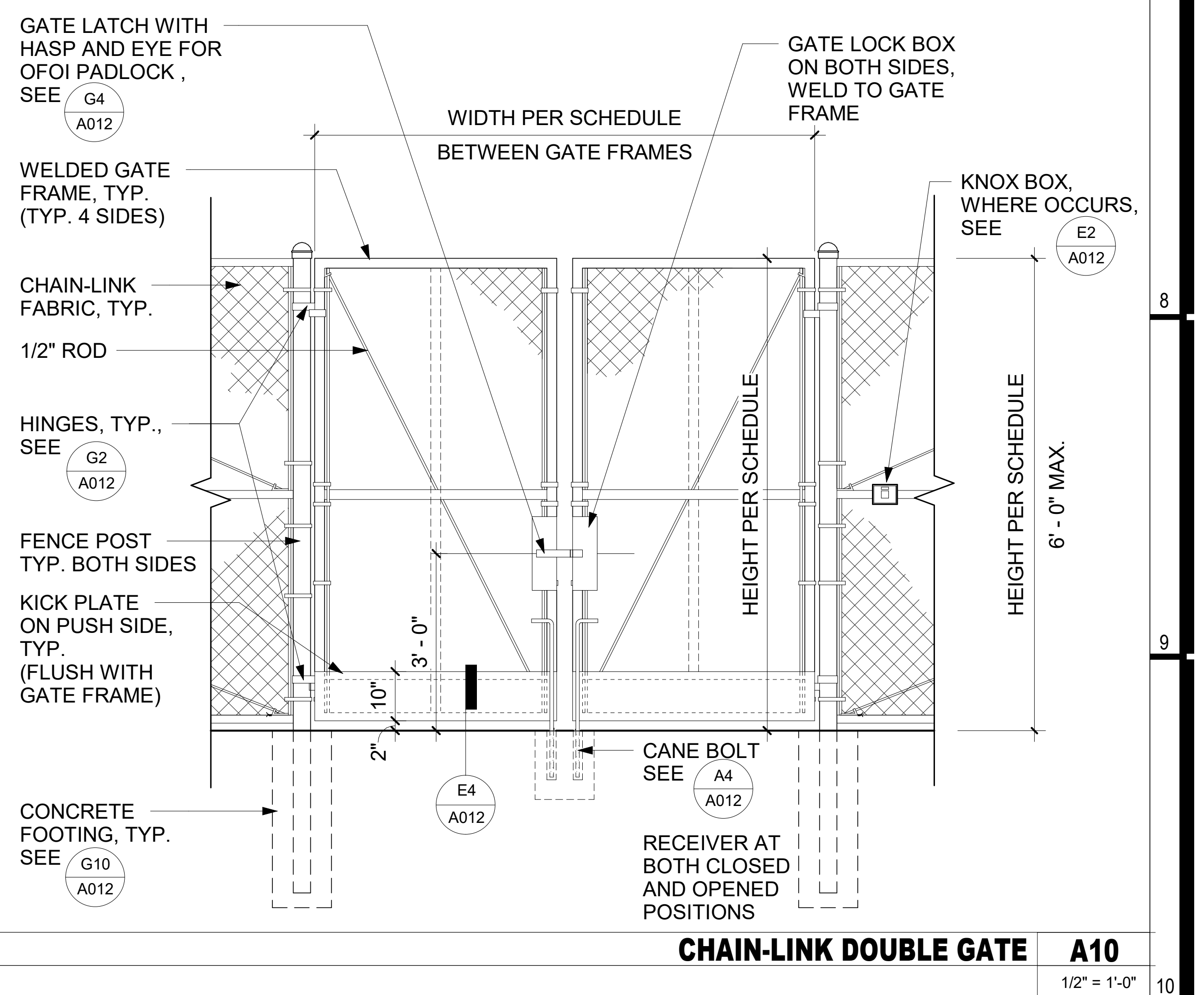


NOTE: CONCRETE MIN F'C = 3000 PSI

TYP. CHAIN-LINK FENCE FOOTING G10
1" = 1'-0"



CHAIN-LINK GATE SECTION E10
1" = 1'-0"


GATE LATCH WITH HASP AND EYE FOR OFOI PADLOCK , SEE G4 A012
WIDTH PER SCHEDULE BETWEEN GATE FRAMES
GATE LOCK BOX ON BOTH SIDES, WELD TO GATE FRAME
WELDED GATE FRAME, TYP. (TYP. 4 SIDES)
KNOX BOX, WHERE OCCURS, SEE E2 A012
CHAIN-LINK FABRIC, TYP.
1/2" ROD
HINGES, TYP., SEE G2 A012
FENCE POST TYP. BOTH SIDES
KICK PLATE ON PUSH SIDE, TYP. (FLUSH WITH GATE FRAME)
CONCRETE FOOTING, TYP. SEE G10 A012
E4 A012
CANE BOLT SEE A4 A012
RECEIVER AT BOTH CLOSED AND OPENED POSITIONS
HEIGHT PER SCHEDULE
HEIGHT PER SCHEDULE
6' - 0" MAX.
3' - 0"
10"
2"

CHAIN-LINK DOUBLE GATE A10
1/2" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
C-98
REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022

CHAIN-LINK FENCE AND GATE DETAILS

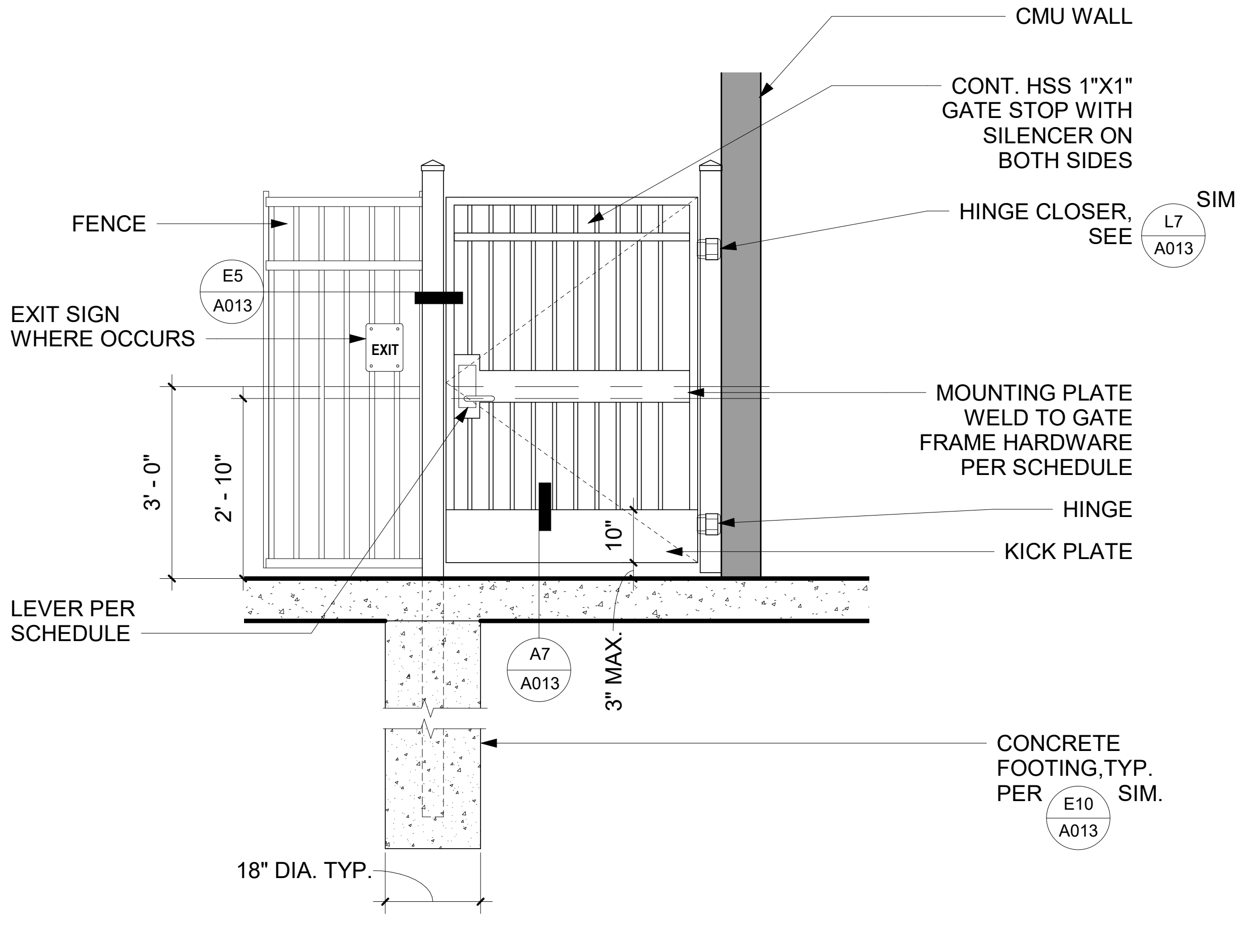
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A012

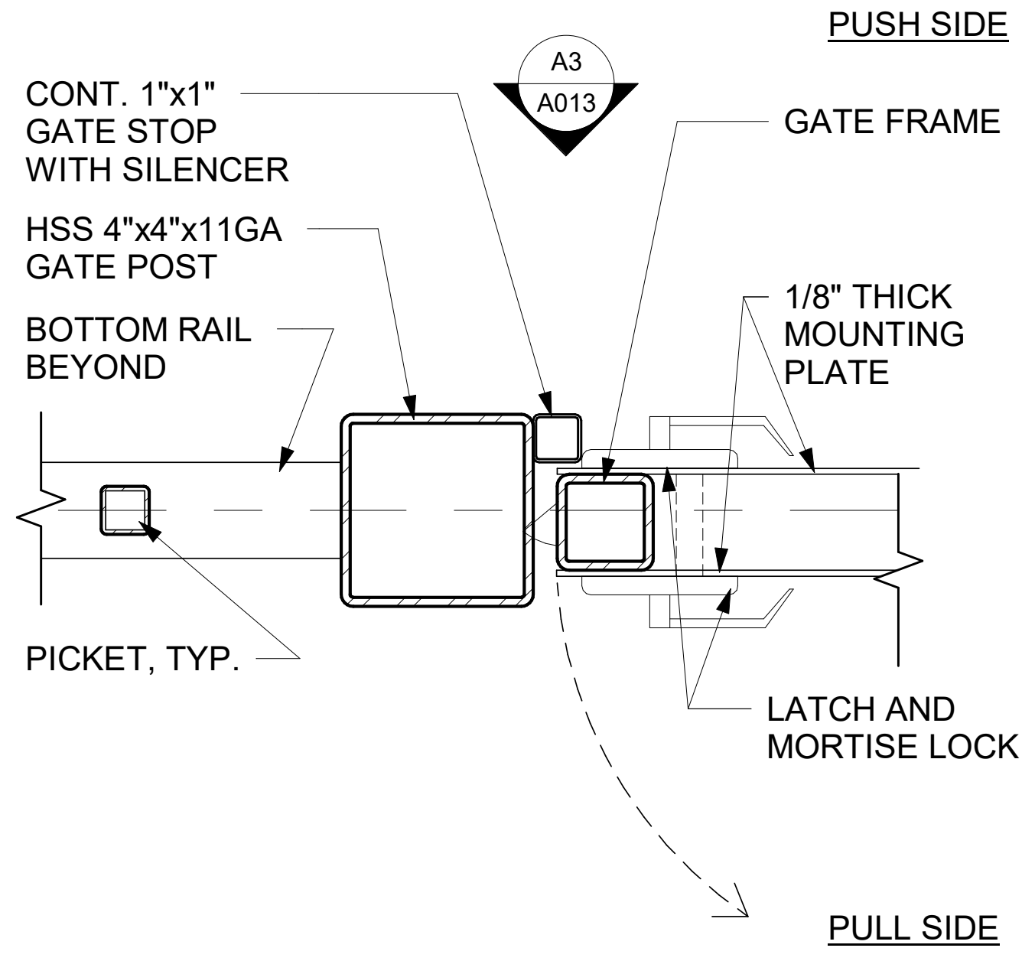
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-982[illegible]
REN. JUL.31, 2023


CMU WALL
CONT. HSS 1"X1" GATE STOP WITH SILENCER ON BOTH SIDES
FENCE
HINGE CLOSER, SEE L7 A013 SIM
E5 A013
EXIT SIGN WHERE OCCURS
EXIT
MOUNTING PLATE WELD TO GATE FRAME HARDWARE PER SCHEDULE
3' - 0"
2' - 10"
10"
HINGE
KICK PLATE
LEVER PER SCHEDULE
A7 A013
3" MAX.
CONCRETE FOOTING,TYP. PER E10 A013 SIM.
18" DIA. TYP.

GATE ELEVATION A3

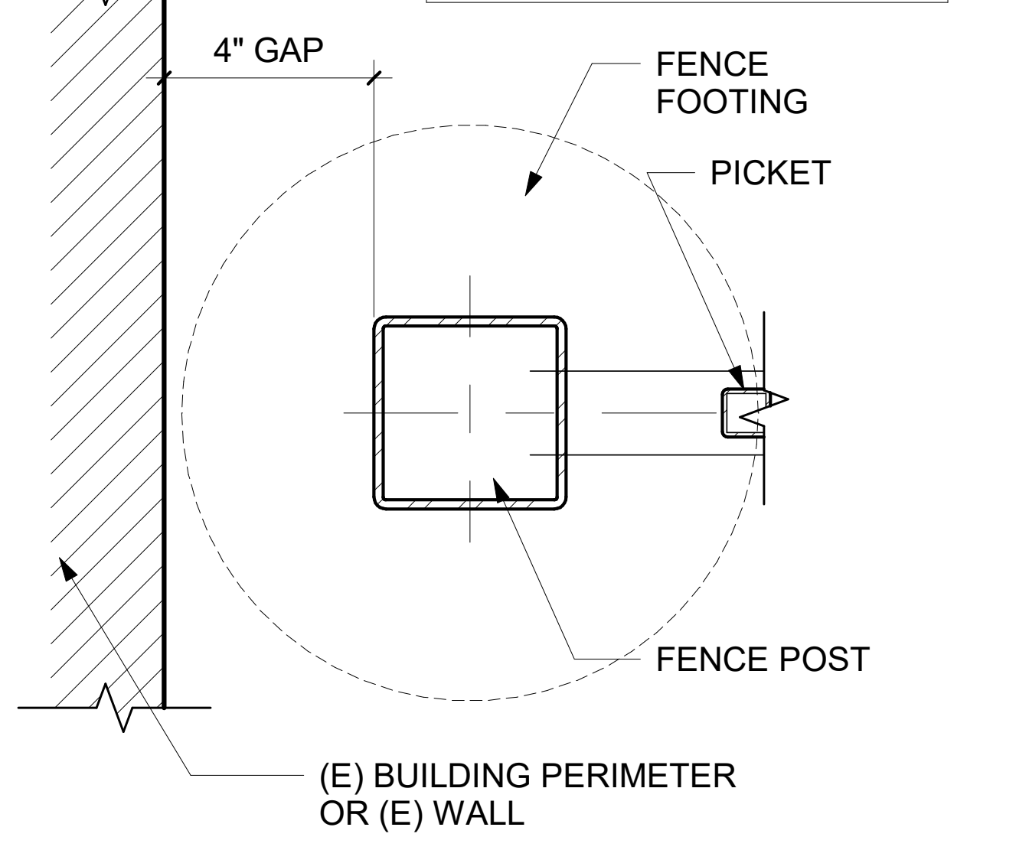
1/2" = 1'-0"



ORNAMENTAL GATE WITH LEVER AND LOCK E5

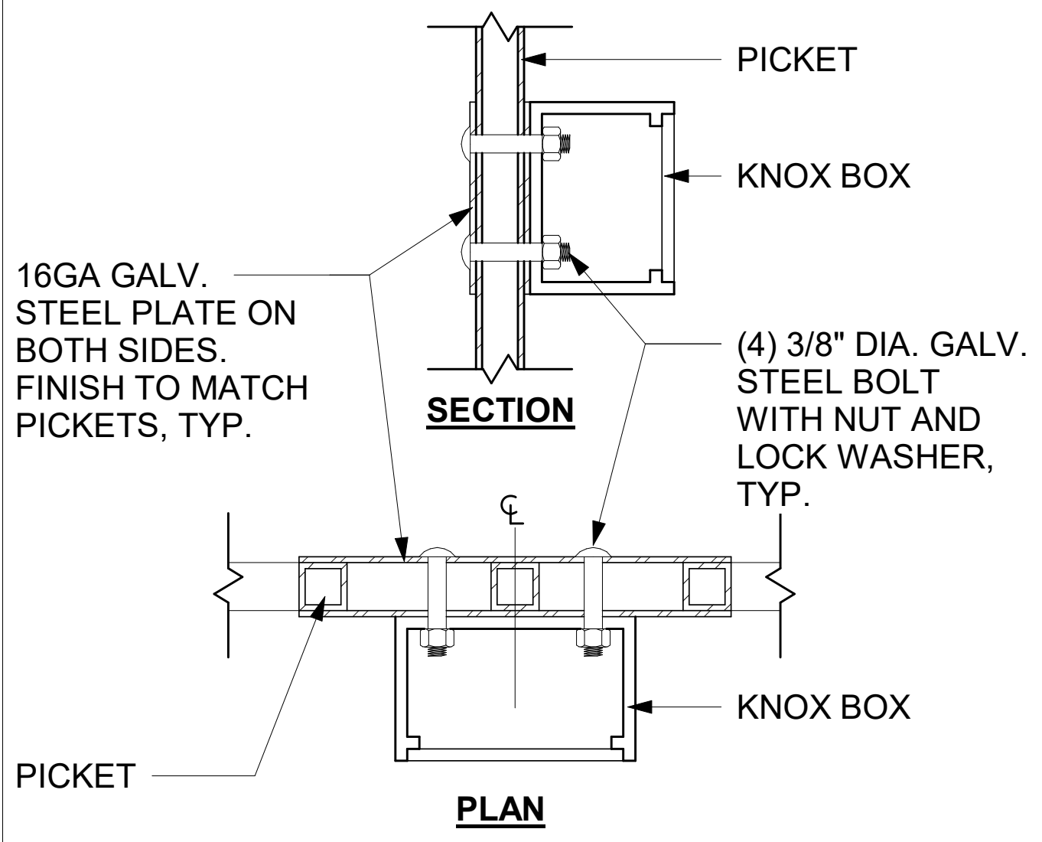
3" = 1'-0"

NOTE: FENCE POST SIZE PER SPECIFICION 32 3119; 3.06



ORNAMENTAL FENCE POST AT BUILDING C5

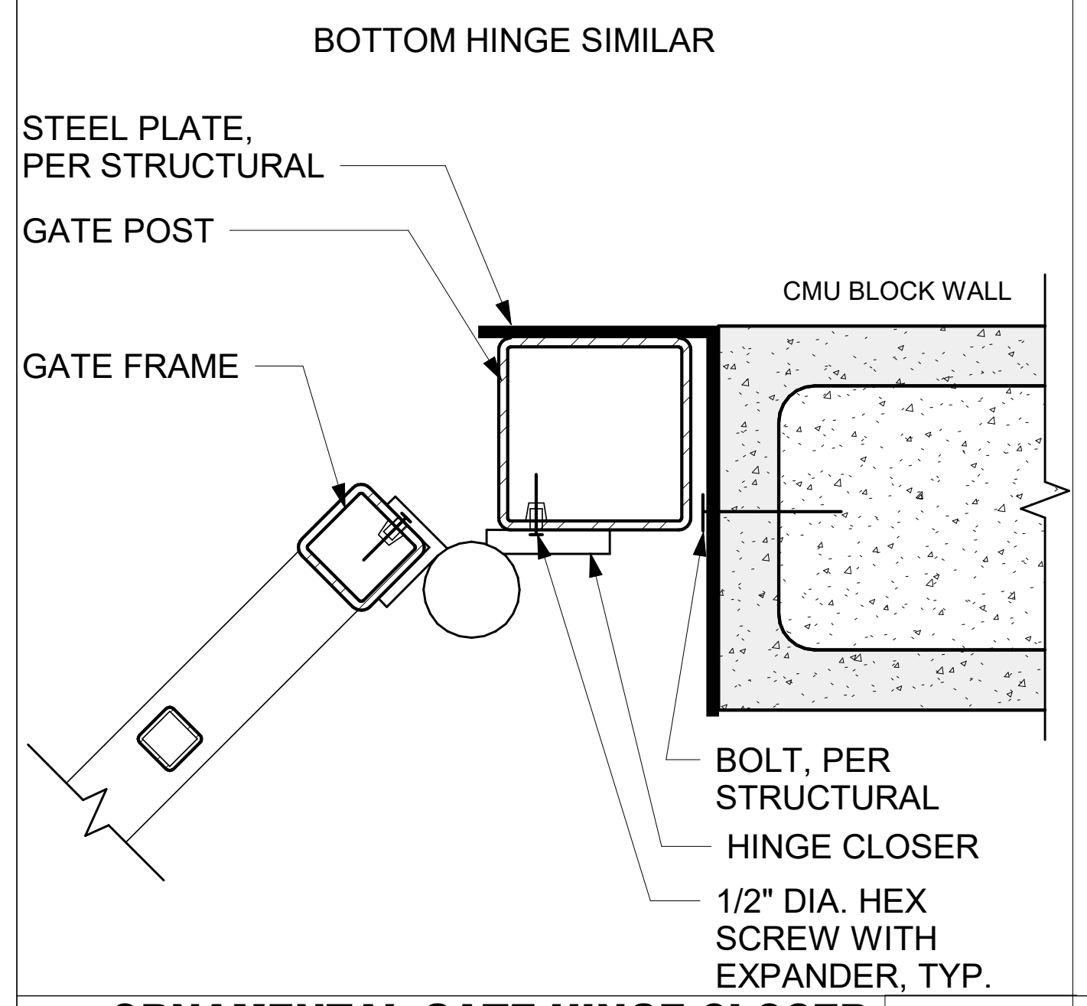
3" = 1'-0"


PICKET
KNOX BOX
16GA GALV. STEEL PLATE ON BOTH SIDES. FINISH TO MATCH PICKETS, TYP.
SECTION
(4) 3/8" DIA. GALV. STEEL BOLT WITH NUT AND LOCK WASHER, TYP.
℄
KNOX BOX
PICKET
PLAN

MODEL: KNOXBOX 3200 SERIES

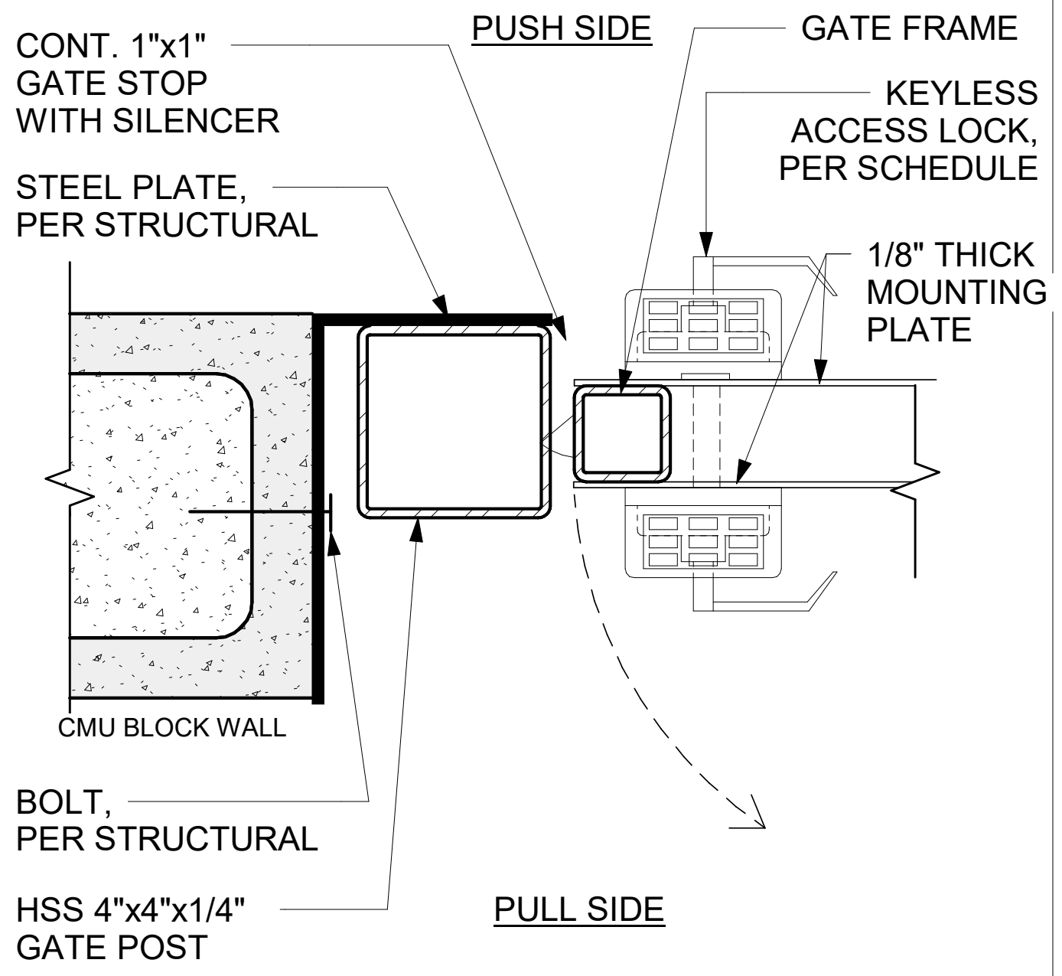
ORNAMENTAL METAL FENCE KNOX BOX A5

3" = 1'-0"



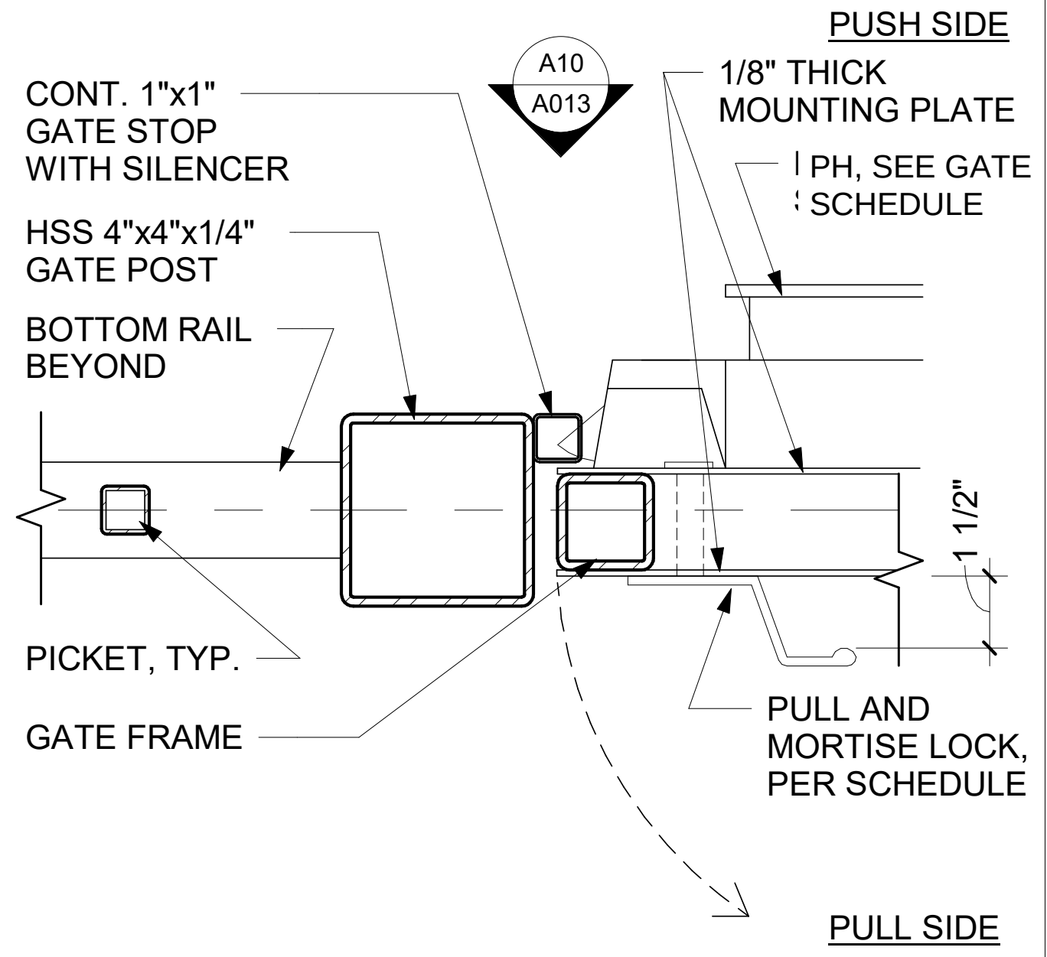
ORNAMENTAL GATE HINGE CLOSER L7

3" = 1'-0"


CONT. 1"x1" GATE STOP WITH SILENCER
PUSH SIDE
GATE FRAME
KEYLESS ACCESS LOCK, PER SCHEDULE
STEEL PLATE, PER STRUCTURAL
1/8" THICK MOUNTING PLATE
CMU BLOCK WALL
BOLT, PER STRUCTURAL
HSS 4"x4"x1/4" GATE POST
PULL SIDE

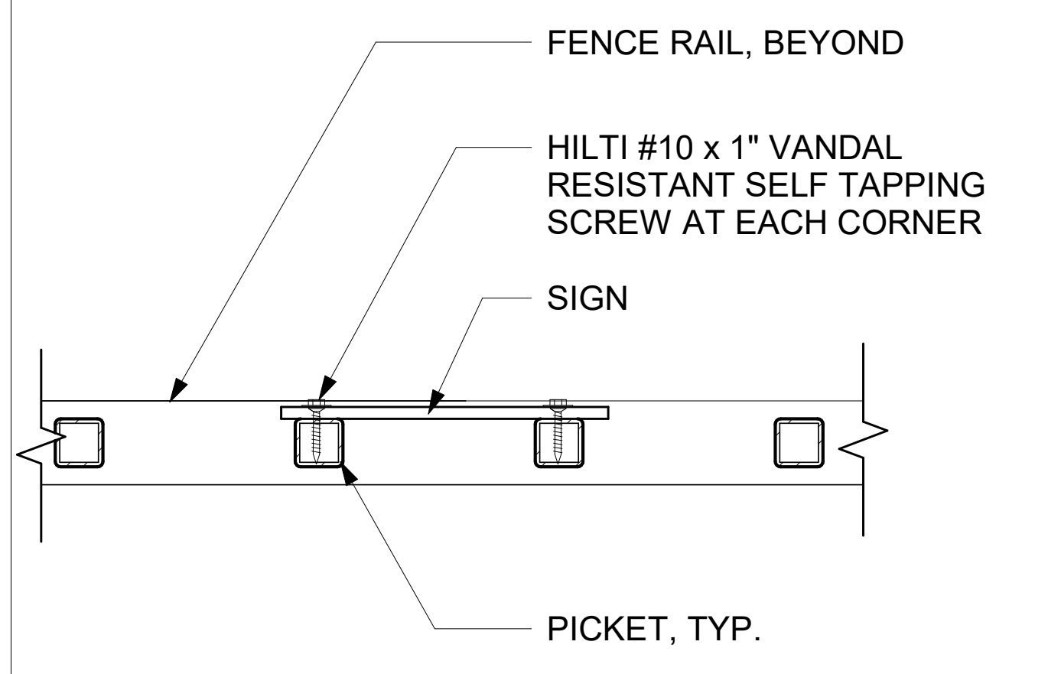
ORNAMENTAL METAL GATE J7

3" = 1'-0"



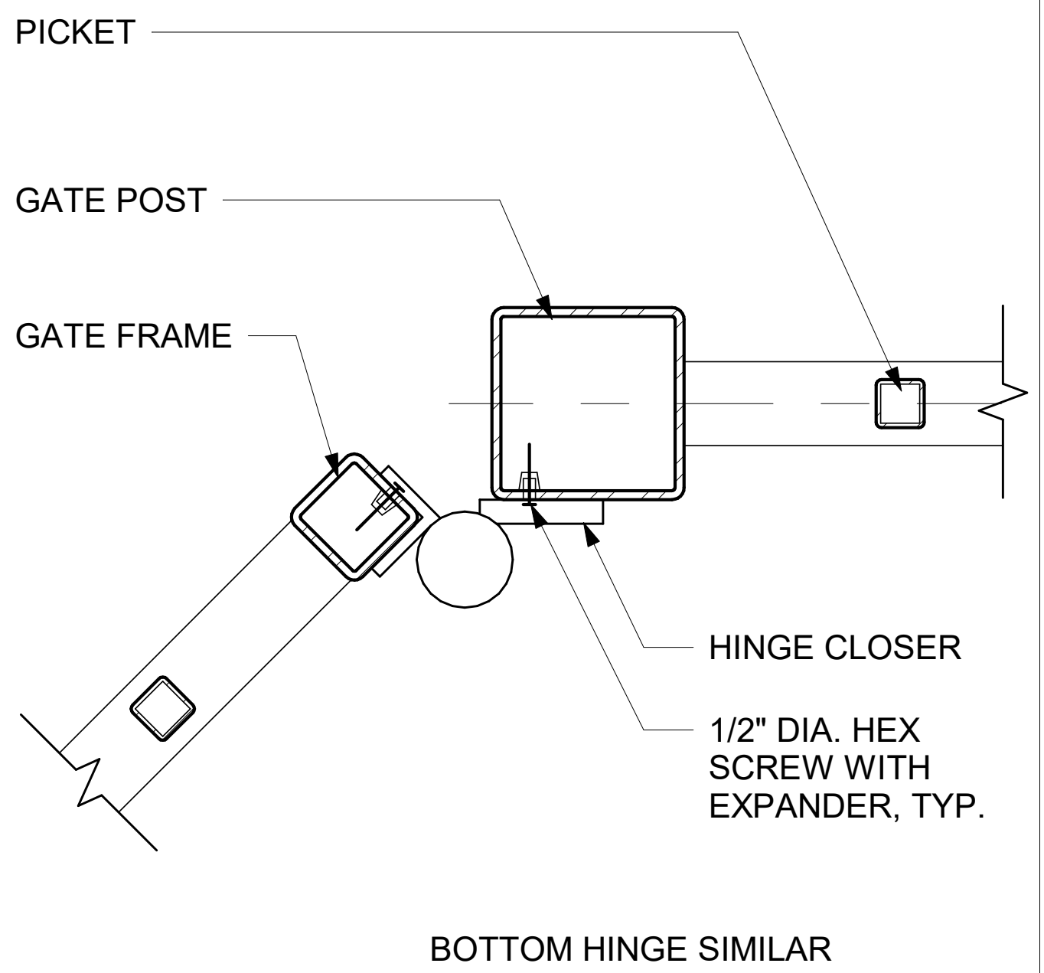
ORNAMENTAL GATE W/ PANIC HARDWARE G7

3" = 1'-0"


FENCE RAIL, BEYOND
HILTI #10 x 1" VANDAL RESISTANT SELF TAPPING SCREW AT EACH CORNER
SIGN
PICKET, TYP.

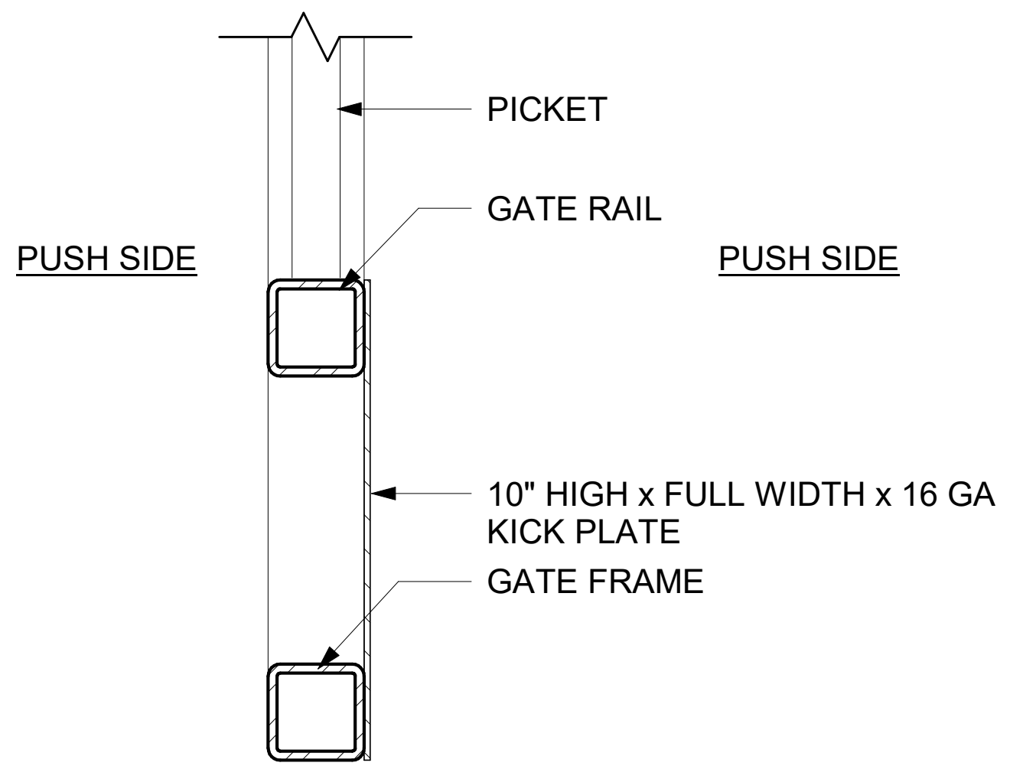
ORNAMENTAL METAL FENCE SIGN MOUNTING E7

3" = 1'-0"



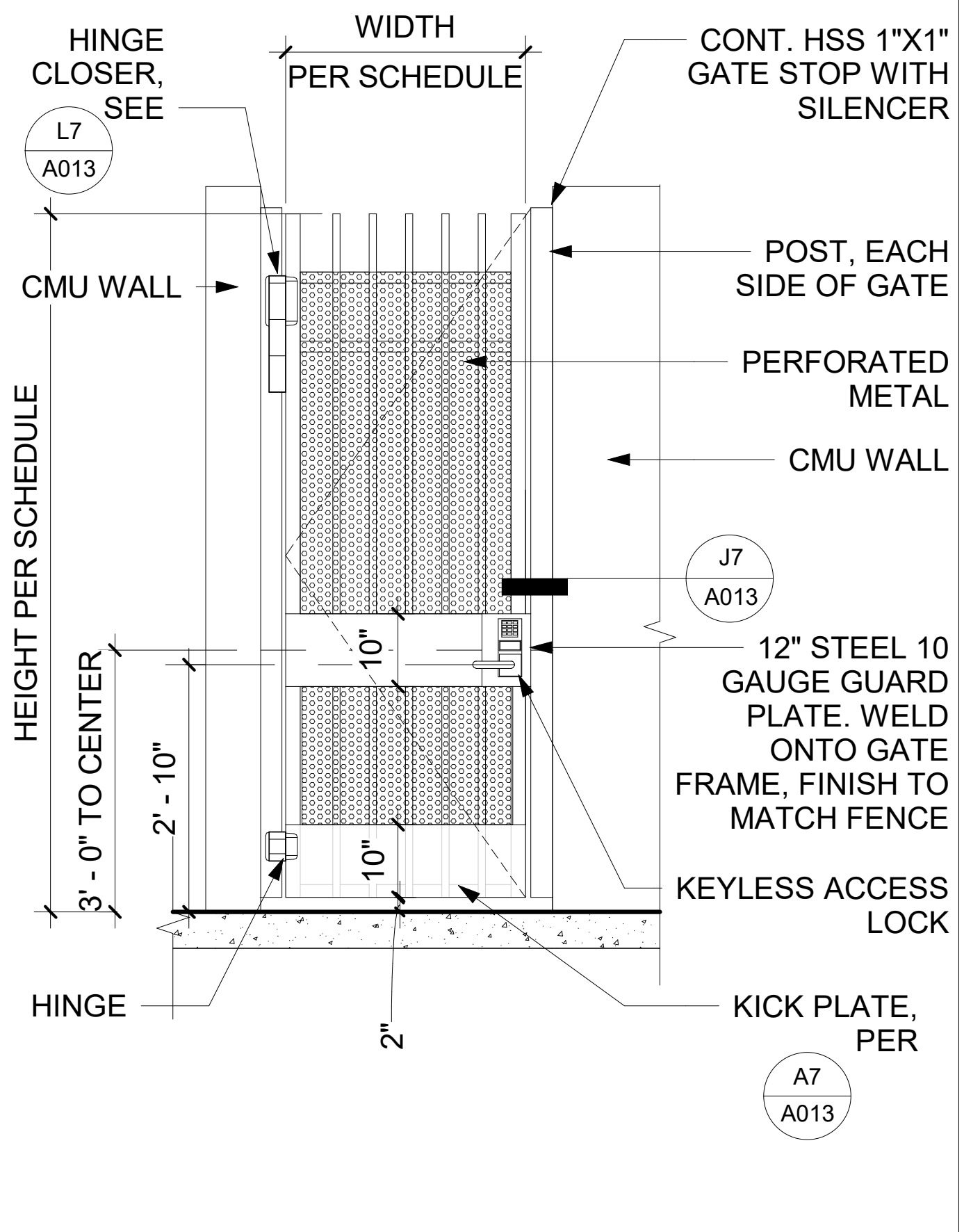
ORNAMENTAL GATE HINGE CLOSER C7

3" = 1'-0"



ORNAMENTAL METAL GATE KICK PLATE A7

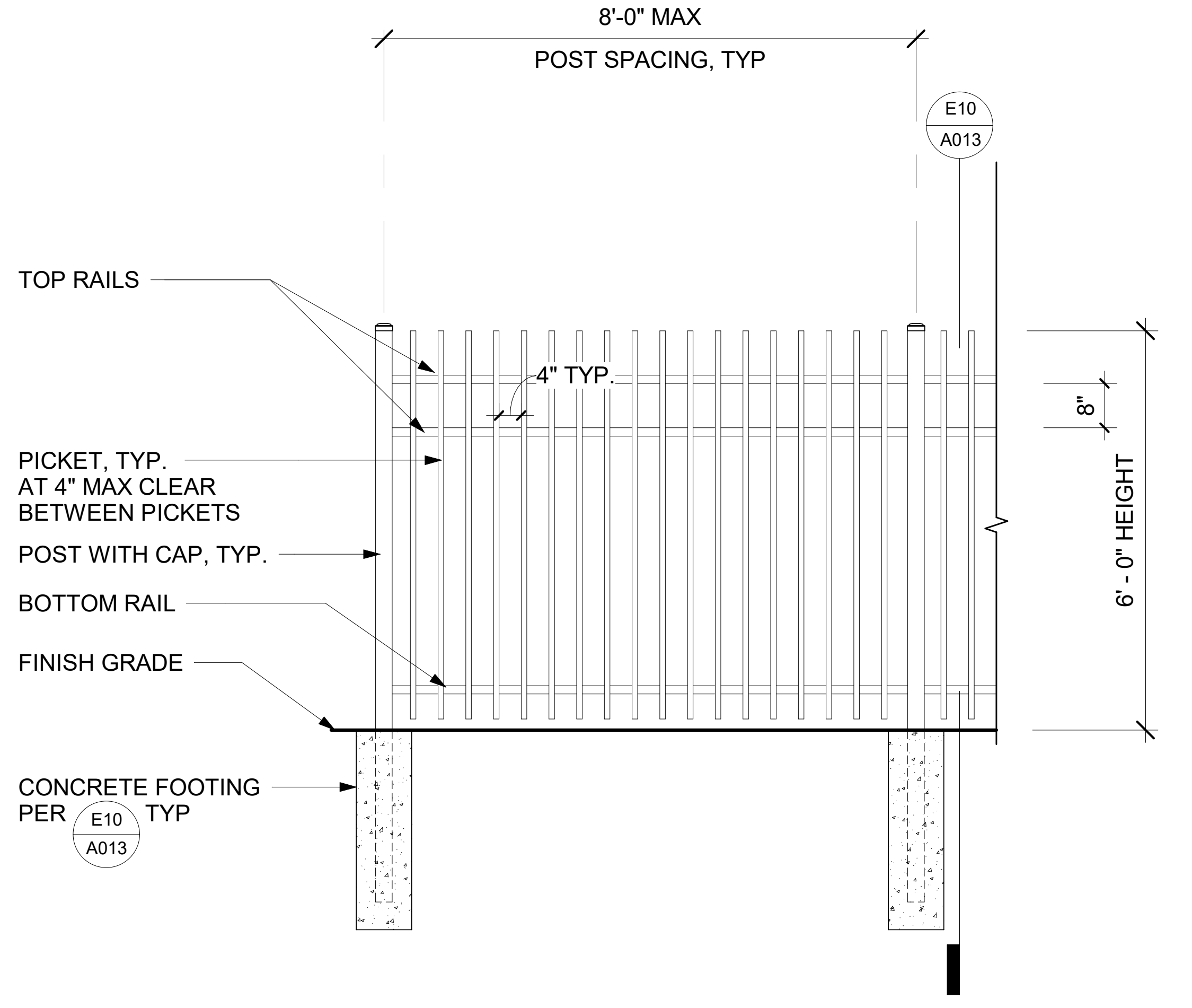
3" = 1'-0"



NOTE: GATE OPENING FORCE IS 5 POUNDS MAXIMUM

ORNAMENTAL METAL SINGLE GATE L10

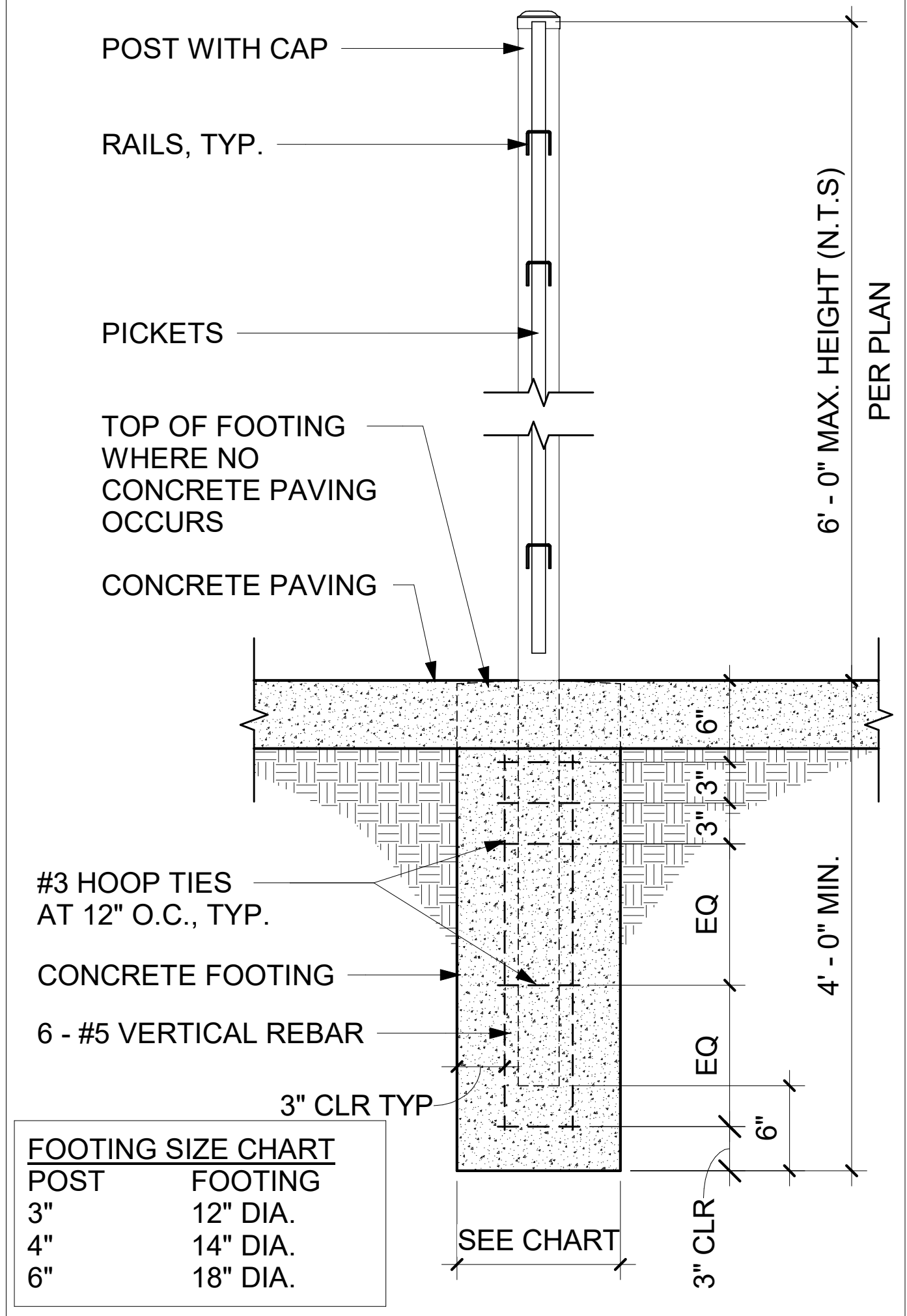
1/2" = 1'-0"



NOTE: PICKETS AND POSTS SHALL BE SPACED EQUALLY

TYP. ORNAMENTAL METAL FENCE ELEVATION G10

1/2" = 1'-0"

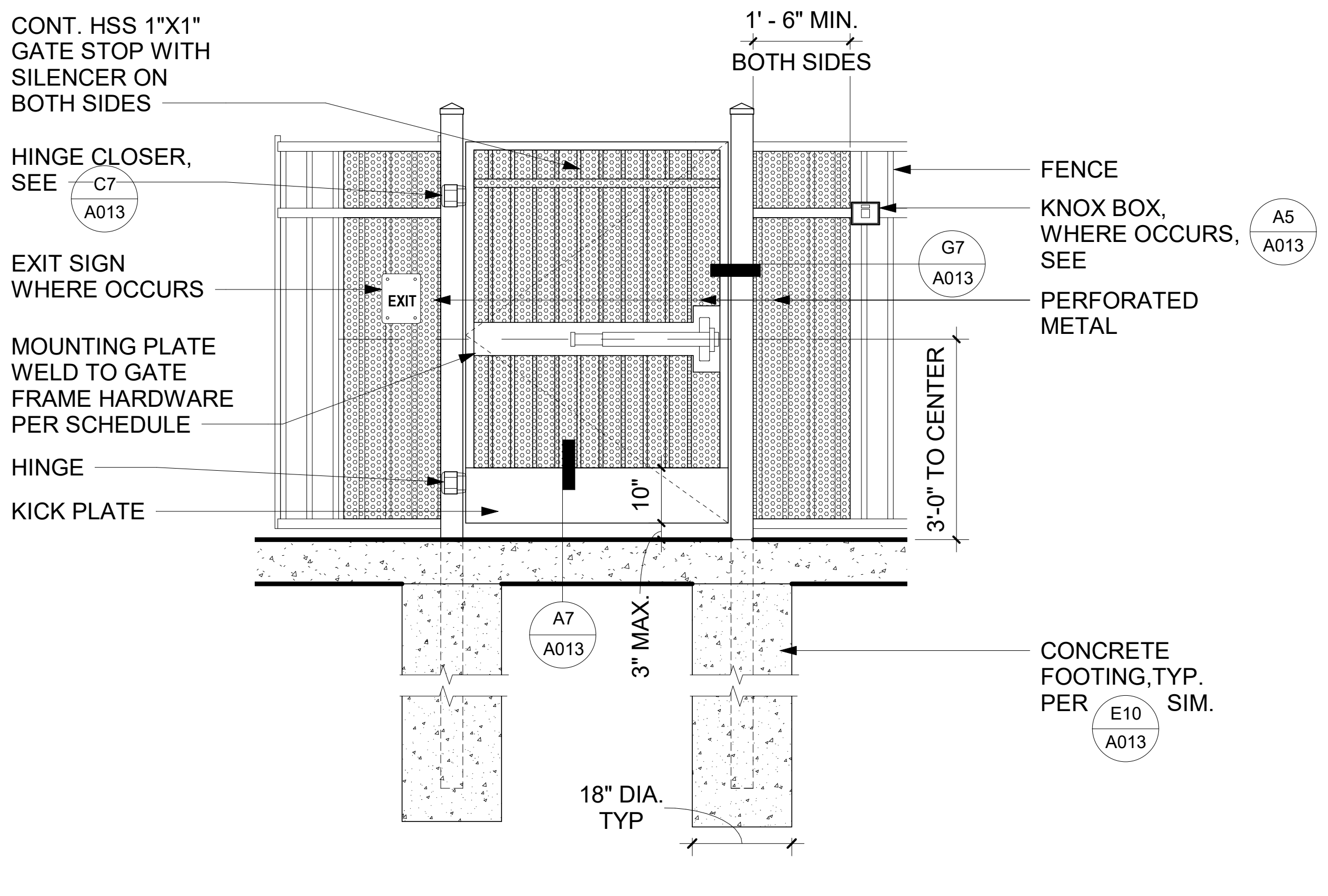


FOOTING SIZE CHART

POST	FOOTING
3"	12" DIA.
4"	14" DIA.
6"	18" DIA.

TYP. METAL FENCE FOOTING E10

1" = 1'-0"


CONT. HSS 1"X1" GATE STOP WITH SILENCER ON BOTH SIDES
1' - 6" MIN. BOTH SIDES
FENCE
HINGE CLOSER, SEE C7 A013
KNOX BOX, WHERE OCCURS, SEE A5 A013
G7 A013
EXIT SIGN WHERE OCCURS
EXIT
PERFORATED METAL
MOUNTING PLATE WELD TO GATE FRAME HARDWARE PER SCHEDULE
3'-0" TO CENTER
HINGE
10"
KICK PLATE
A7 A013
3" MAX.
CONCRETE FOOTING,TYP. PER E10 A013 SIM.
18" DIA. TYP

GATE ELEVATION PH A10

1/2" = 1'-0"

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
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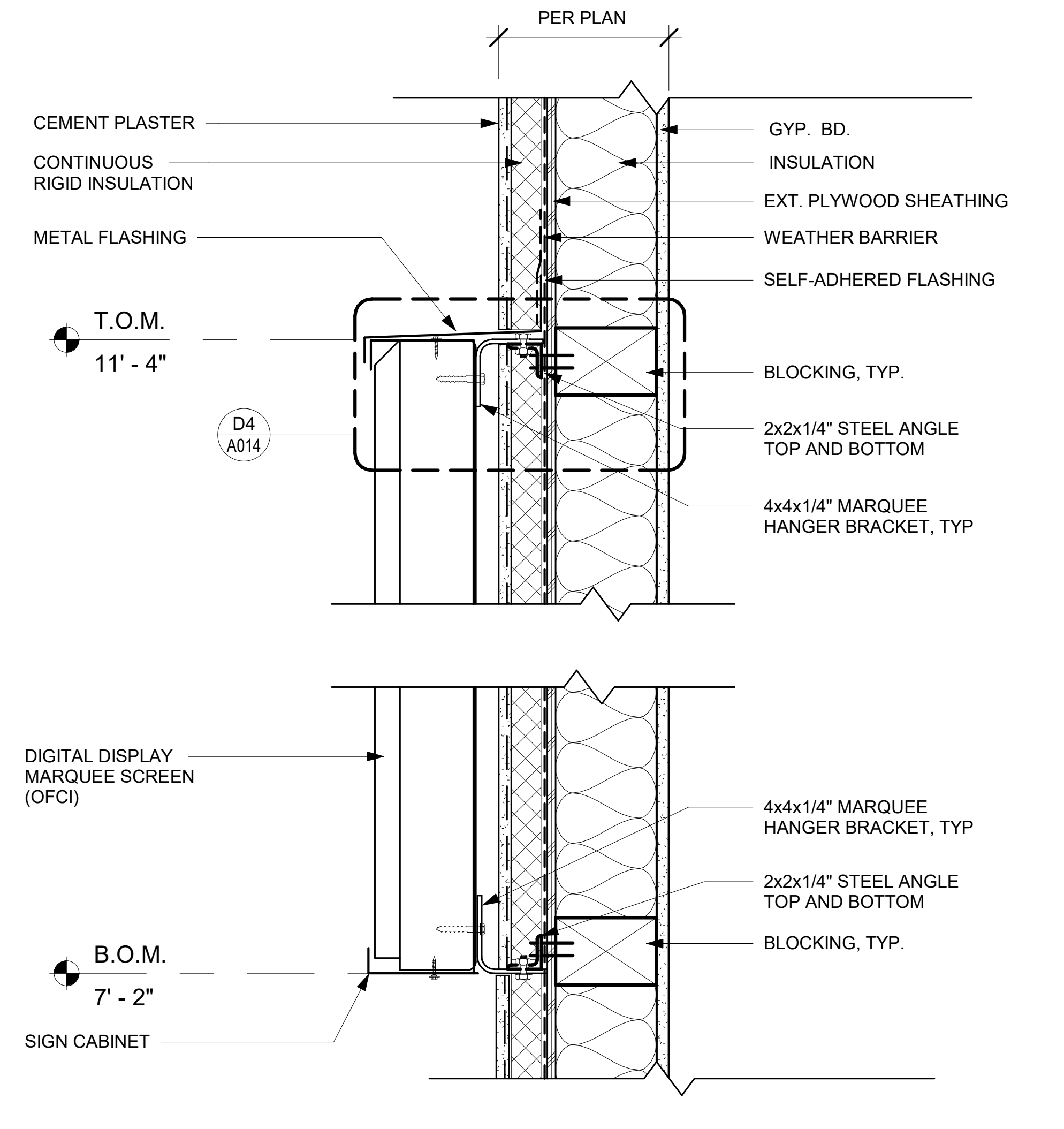
PM	
DATE	12/07/2022
△	
△	
△	
△	
△	

ORNAMENTAL METAL FENCING AND GATE DETAILS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

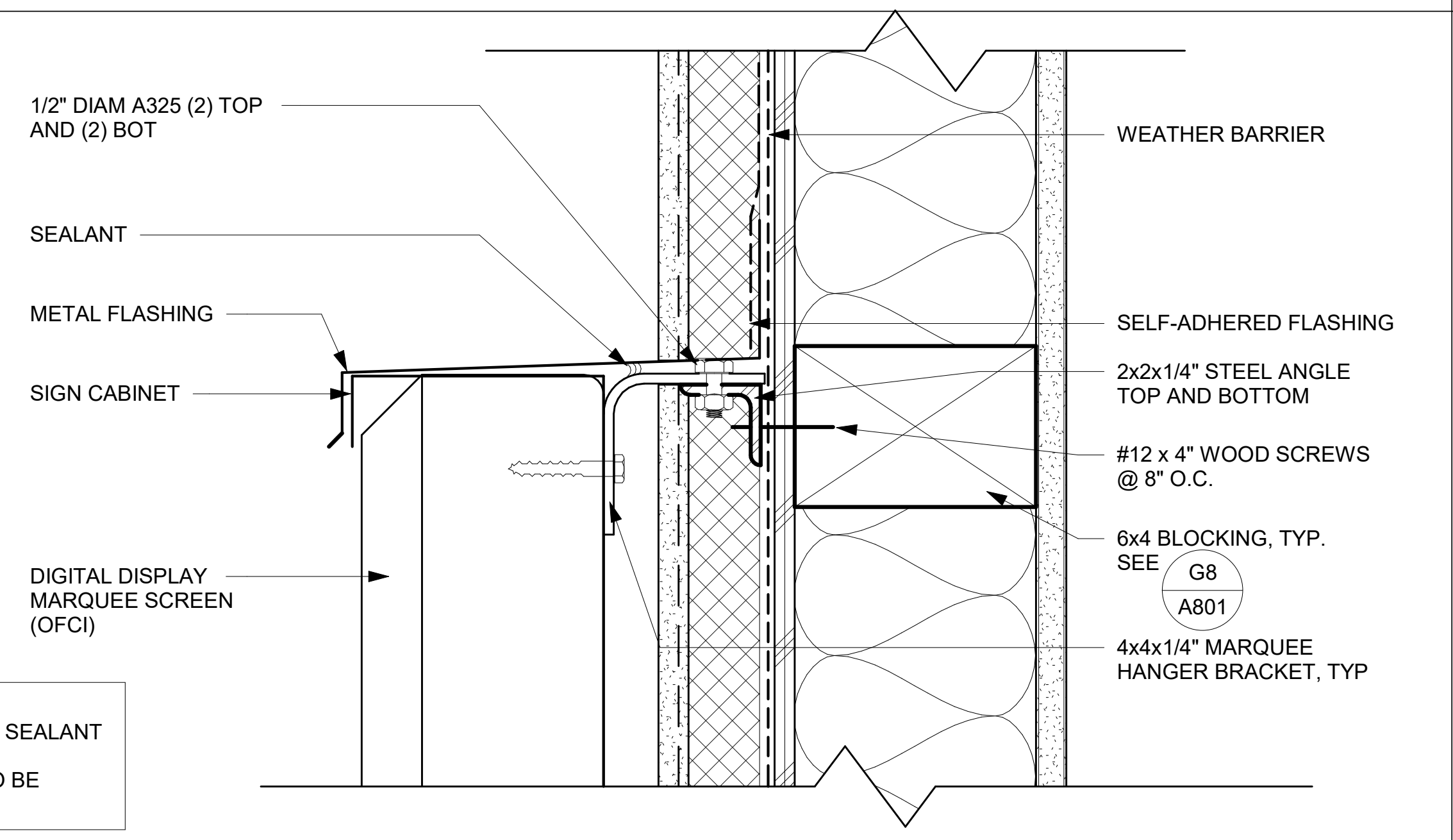
A013


PER PLAN
CEMENT PLASTER
CONTINUOUS RIGID INSULATION
METAL FLASHING
GYP. BD.
INSULATION
EXT. PLYWOOD SHEATHING
WEATHER BARRIER
SELF-ADHERED FLASHING
T.O.M.
11' - 4"
D4
A014
BLOCKING, TYP.
2x2x1/4" STEEL ANGLE TOP AND BOTTOM
4x4x1/4" MARQUEE HANGER BRACKET, TYP
DIGITAL DISPLAY MARQUEE SCREEN (OFCI)
4x4x1/4" MARQUEE HANGER BRACKET, TYP
2x2x1/4" STEEL ANGLE TOP AND BOTTOM
BLOCKING, TYP.
B.O.M.
7' - 2"
SIGN CABINET

NOTE:-
- FASTENERS AND EXPOSED STEEL TO BE GALVANIZED.
- CONTRACTOR TO PROVIDE POWER AND DATA CONNECTIONS AT EXTERIOR DISPLAY LOCATION
- DIGITAL MARQUEE TO BE 200LBS MAX.

MARQUEE SECTION K4

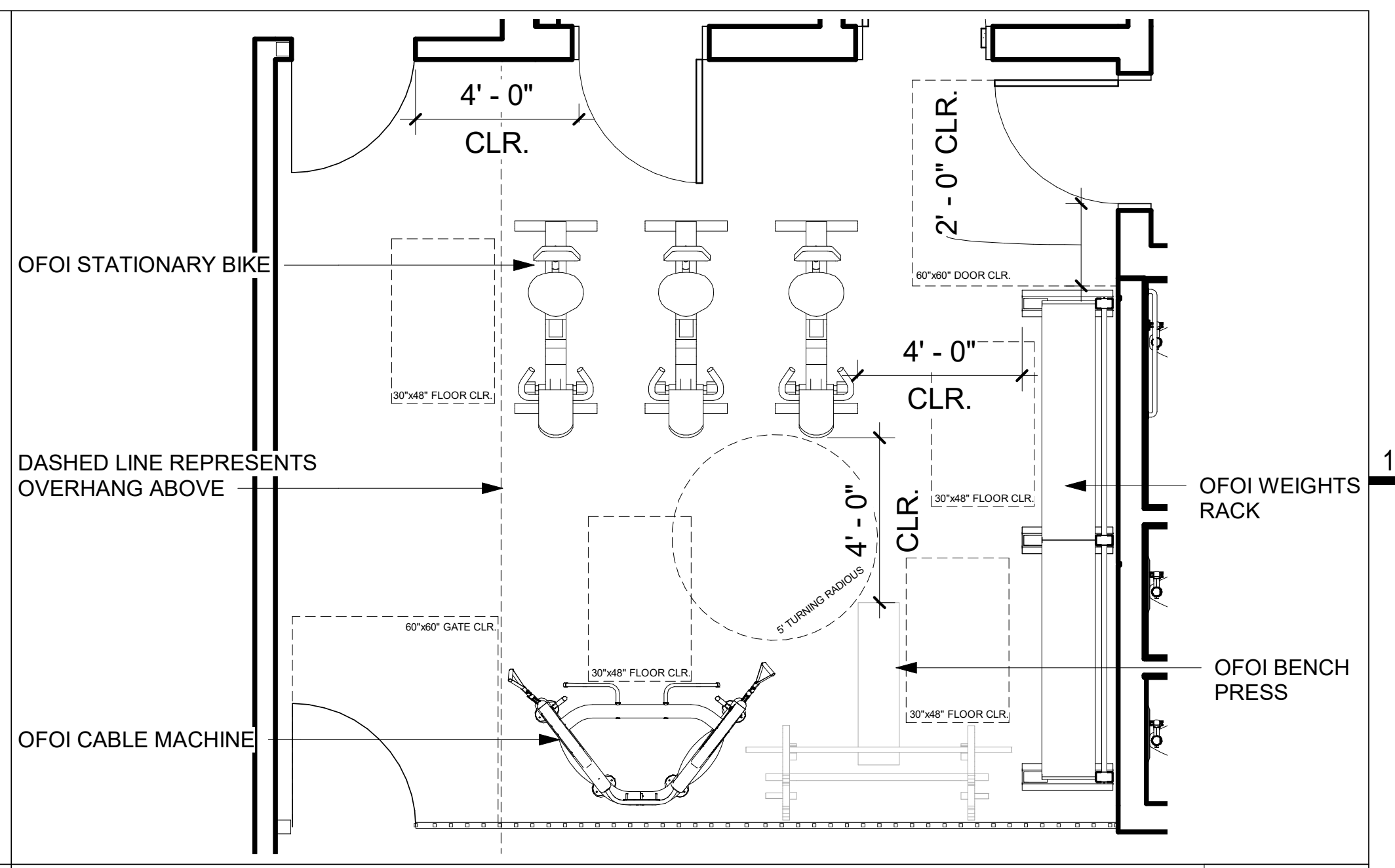
1 1/2" = 1'-0"


1/2" DIAM A325 (2) TOP AND (2) BOT
SEALANT
METAL FLASHING
SIGN CABINET
DIGITAL DISPLAY MARQUEE SCREEN (OFCI)
WEATHER BARRIER
SELF-ADHERED FLASHING
2x2x1/4" STEEL ANGLE TOP AND BOTTOM
#12 x 4" WOOD SCREWS @ 8" O.C.
6x4 BLOCKING, TYP. SEE
G8
A801
4x4x1/4" MARQUEE HANGER BRACKET, TYP

NOTE:
1. USE CLEAR SILICONE SEALANT AS NEEDED.
2. DIGITAL MARQUEE TO BE 200LBS MAX.

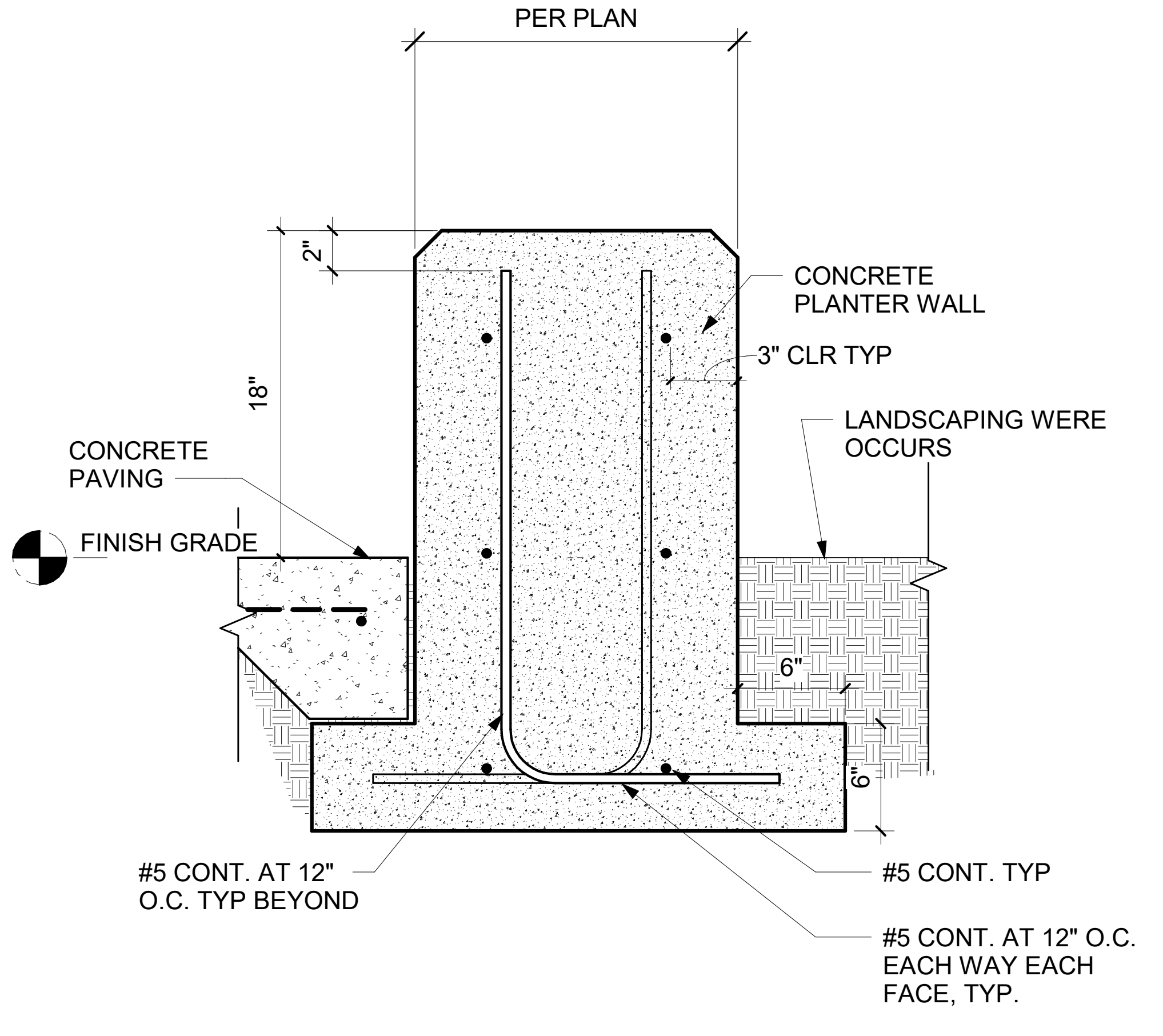
MARQUEE MOUNTING DETAIL D4

3" = 1'-0"



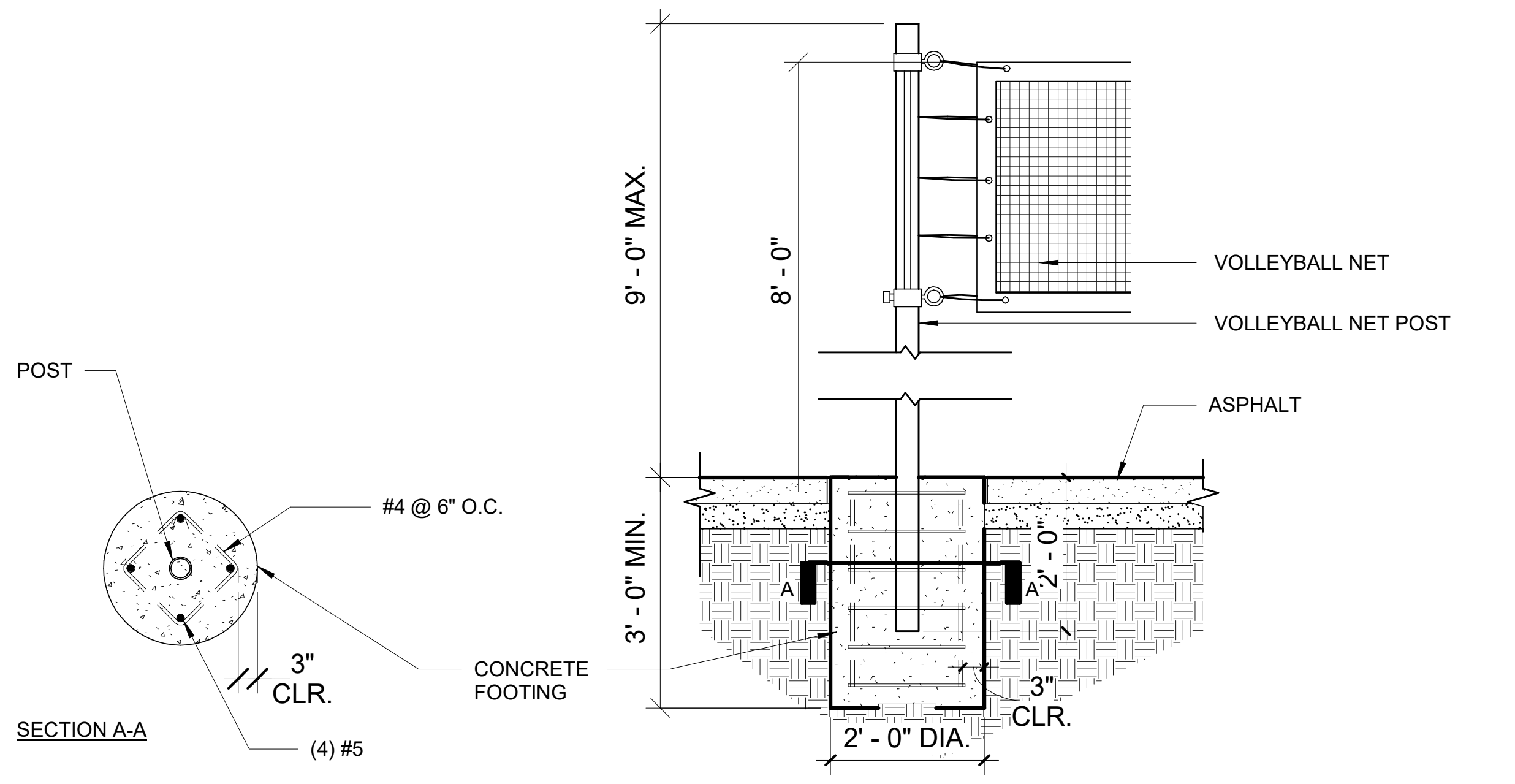
WORKOUT SPACE ENLARGED PLAN A2

1/4" = 1'-0"



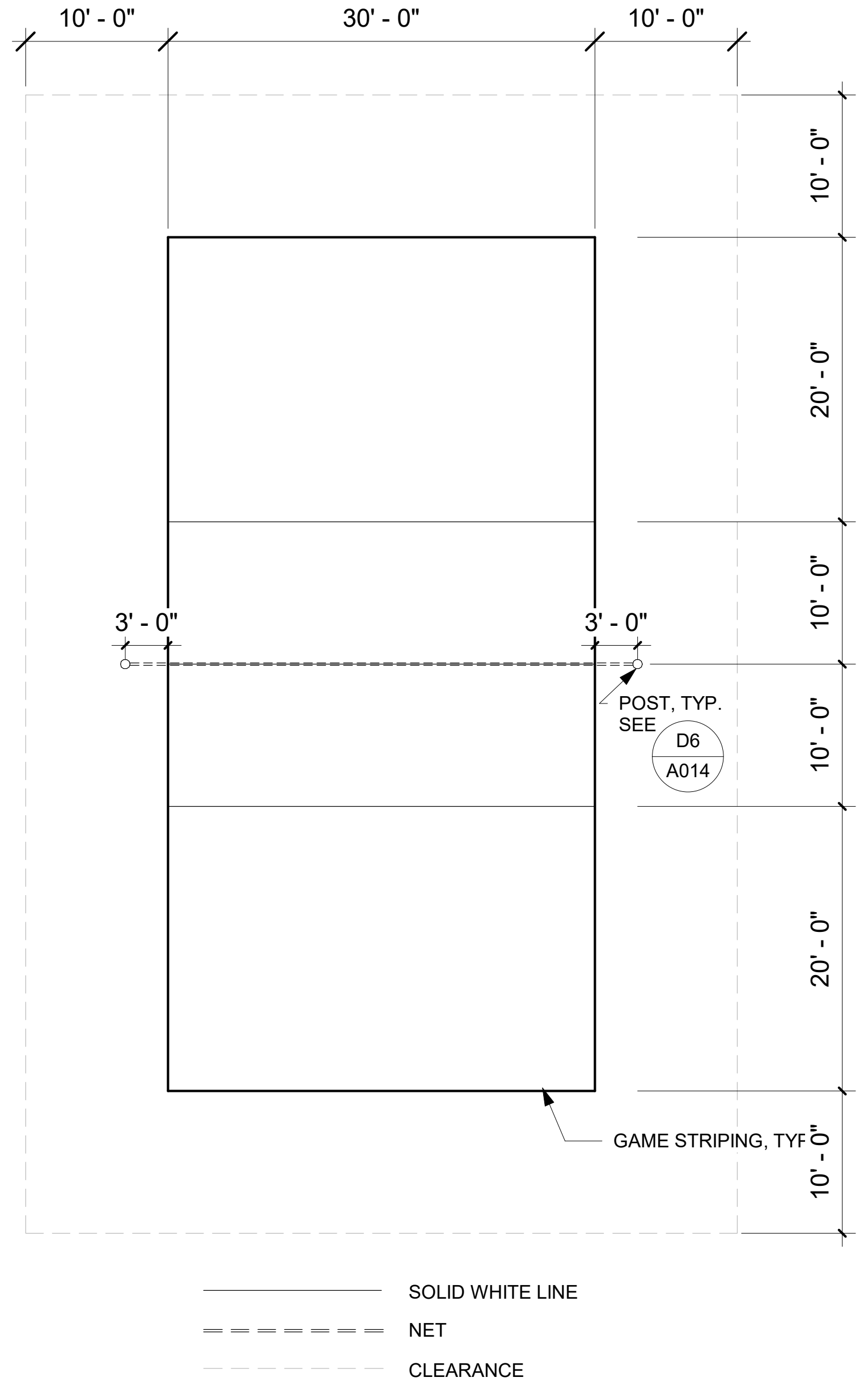
CONCRETE BENCH K7

1 1/2" = 1'-0"



VOLLEYBALL NET POST D6

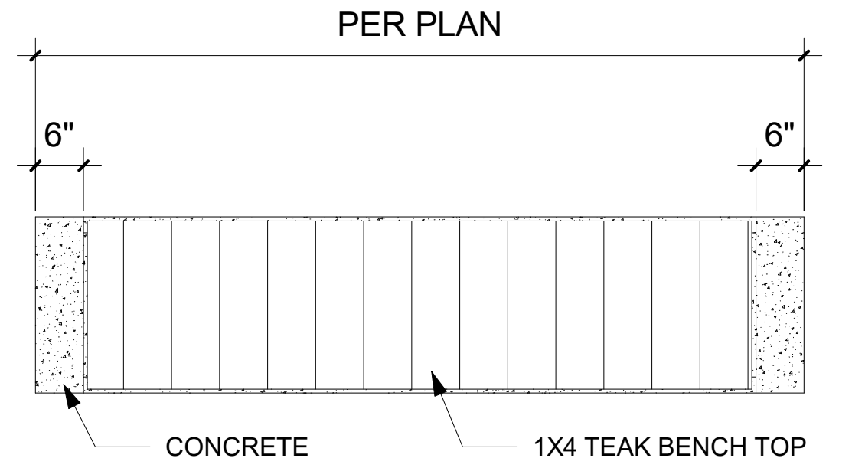
1/2" = 1'-0"



NOTES:
1. DIMENSIONS SHOWN ARE TYPICAL - COURT IS SYMETRICAL.
2. FOR VOLLEYBALL NET AND POST, SEE D6/A014

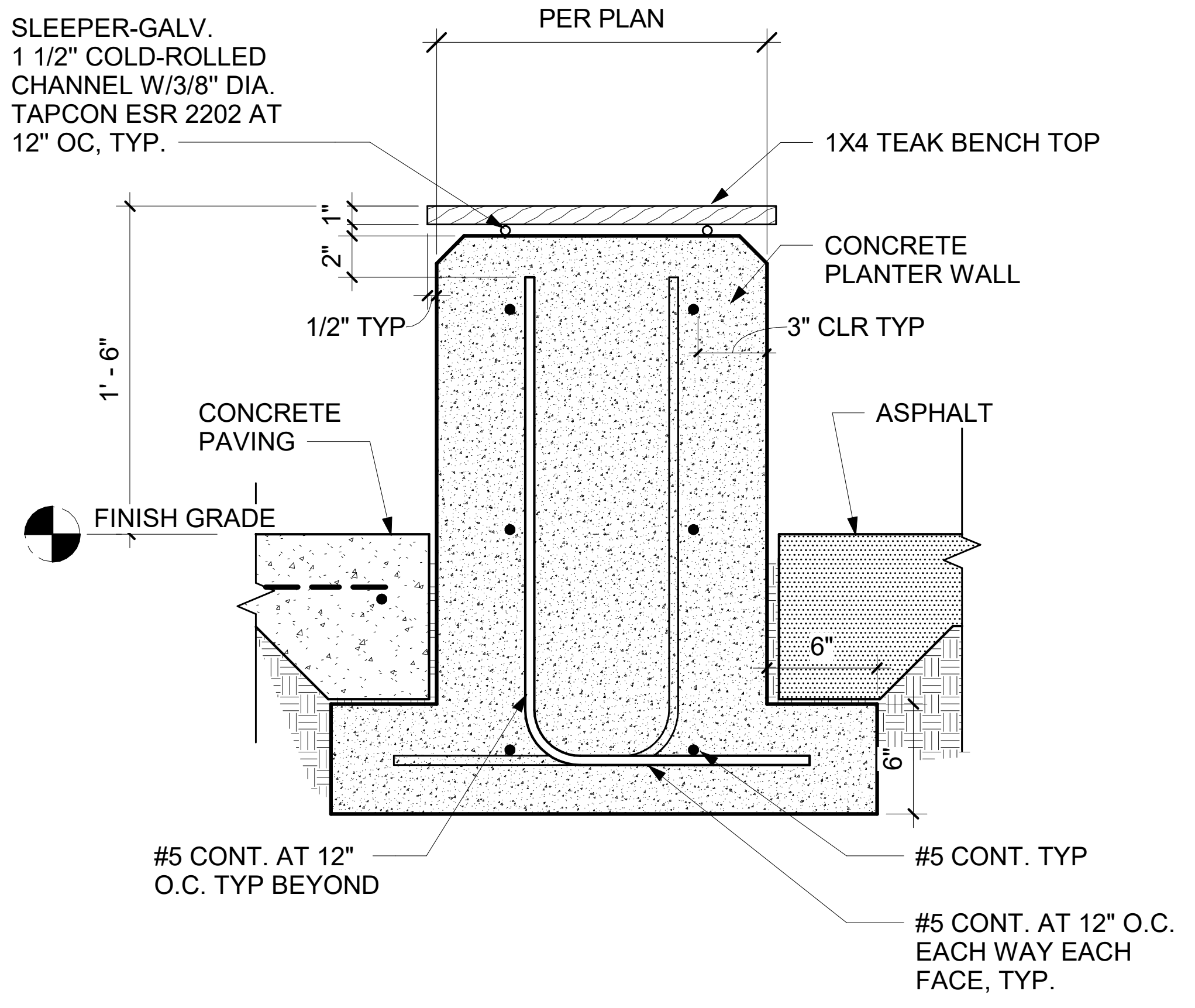
VOLLEYBALL COURT A6

1" = 10'-0"



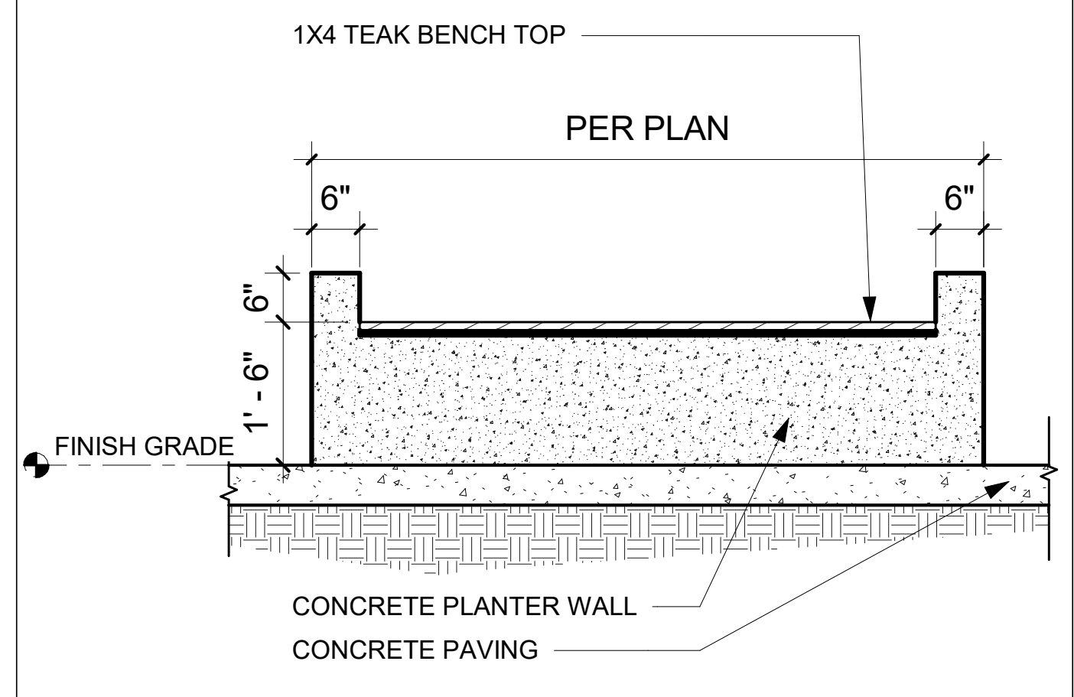
CONCRETE BENCH PLAN H8

1/2" = 1'-0"


SLEEPER-GALV. 1 1/2" COLD-ROLLED CHANNEL W/3/8" DIA. TAPCON ESR 2202 AT 12" OC, TYP.
PER PLAN
1X4 TEAK BENCH TOP
1"
2"
CONCRETE PLANTER WALL
1/2" TYP
3" CLR TYP
1' - 6"
CONCRETE PAVING
ASPHALT
FINISH GRADE
6"
6"
#5 CONT. AT 12" O.C. TYP BEYOND
#5 CONT. TYP
#5 CONT. AT 12" O.C. EACH WAY EACH FACE, TYP.

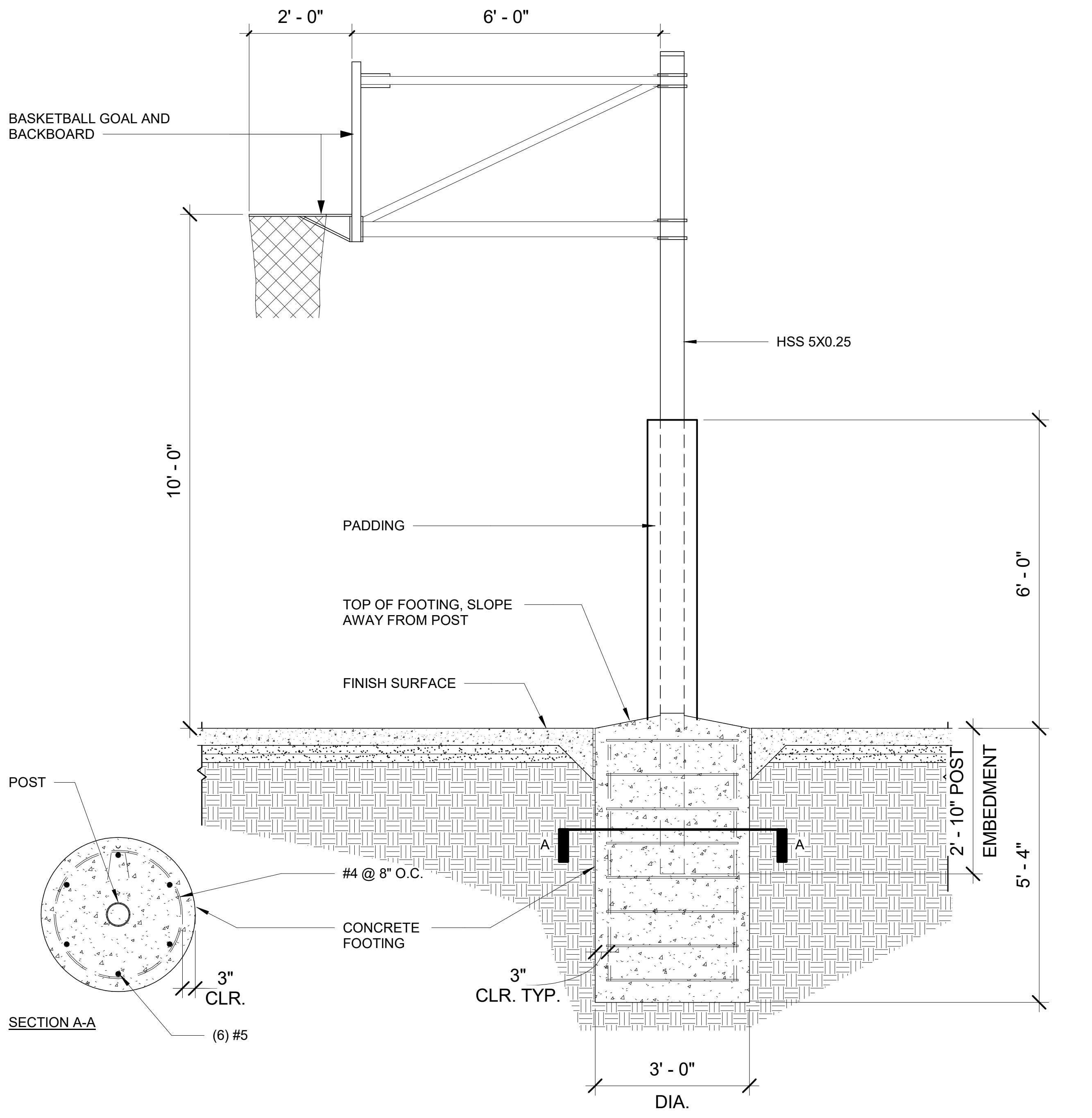
CONCRETE BENCH WITH WOOD TOP K10

1 1/2" = 1'-0"



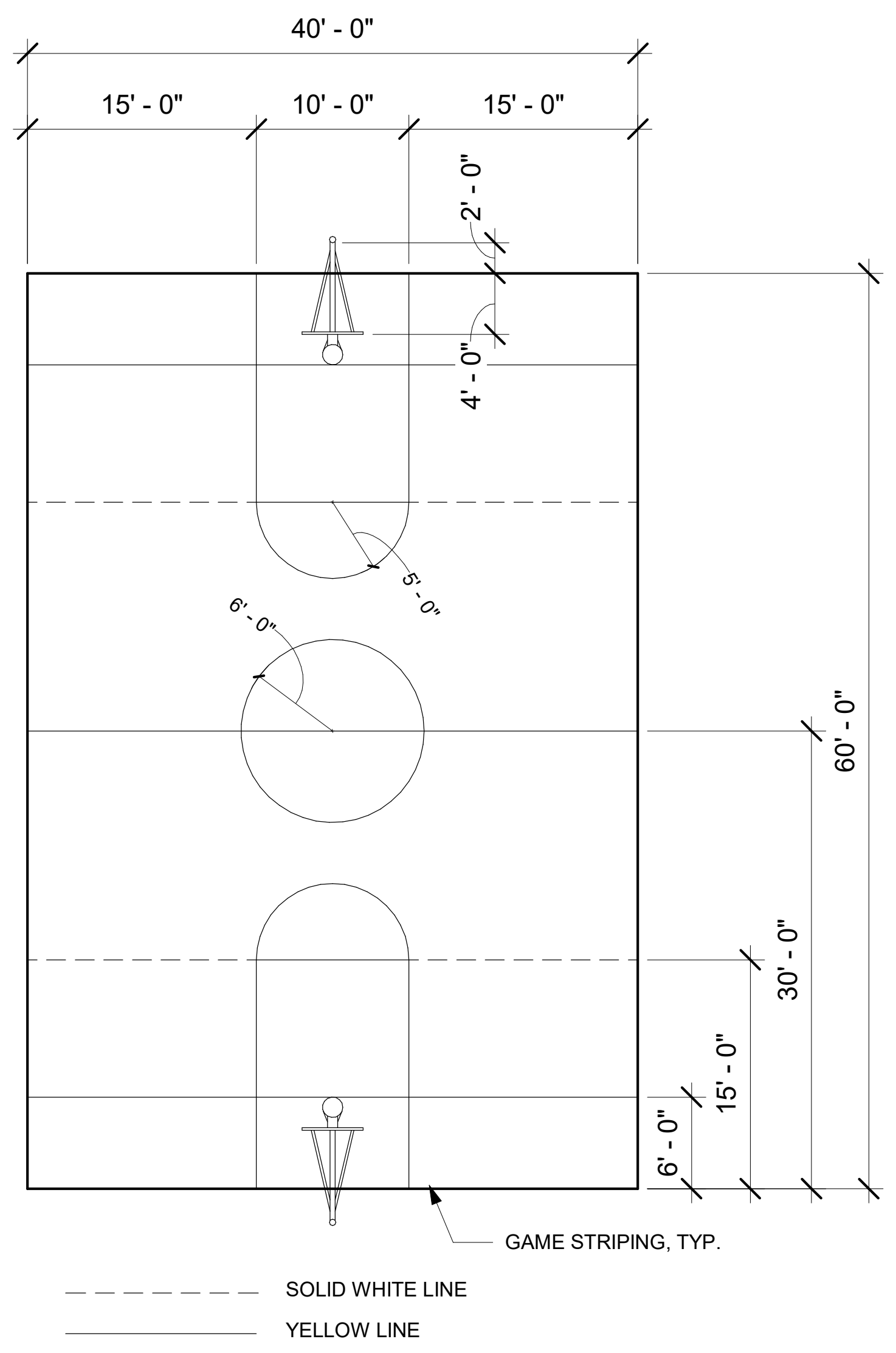
CONCRETE BENCH WITH WOOD TOP H10

1/2" = 1'-0"



BASKETBALL POST AND GOAL D10

1/2" = 1'-0"



NOTES:
1. DIMENSIONS SHOWN ARE TYPICAL - COURT IS SYMETRICAL.
2. FOR BASKETBALL POST AND BACKBOARD, SEE D10/A014

BASKETBALL COURT A10

1" = 10'-0"

MARKINGS NOTES

1. GAME STRIPING TO BE 2" WIDE PAINTED STRIPES
2. STRIPING TO BE WHITE UNLESS NOTED OTHERWISE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-982[illegible]
REN. JUL. 31, 2023
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△	
△	
△	
△	
△	

MISCELLANEOUS SITE DETAILS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A014

SITE LEGEND

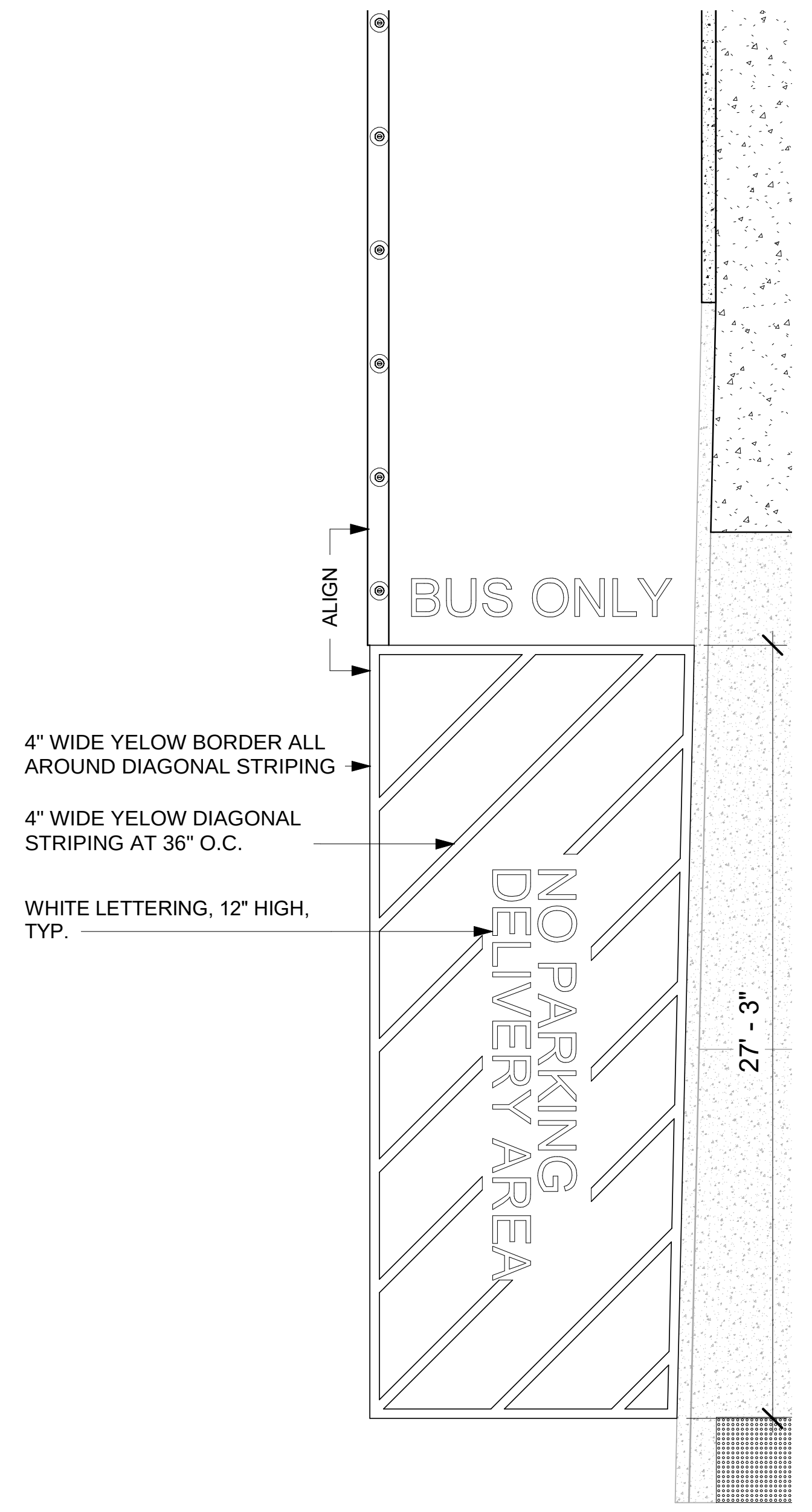
☐	NEW BUILDING
▨	EXISTING BUILDING
░	SITE CONCRETE
▨	SITE CONCRETE, ACCENT COLOR
░	GRASS
☐	EXISTING ASPHALT
░	EXISTING GRASS
░	EXISTING CONCRETE
—·—	EXISTING CHAIN LINK FENCE
—×—	NEW CHAIN LINK FENCE
○	EXTERIOR LIGHT FIXTURE
– – –	AREA OF WORK

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023
STATE OF CALIFORNIA

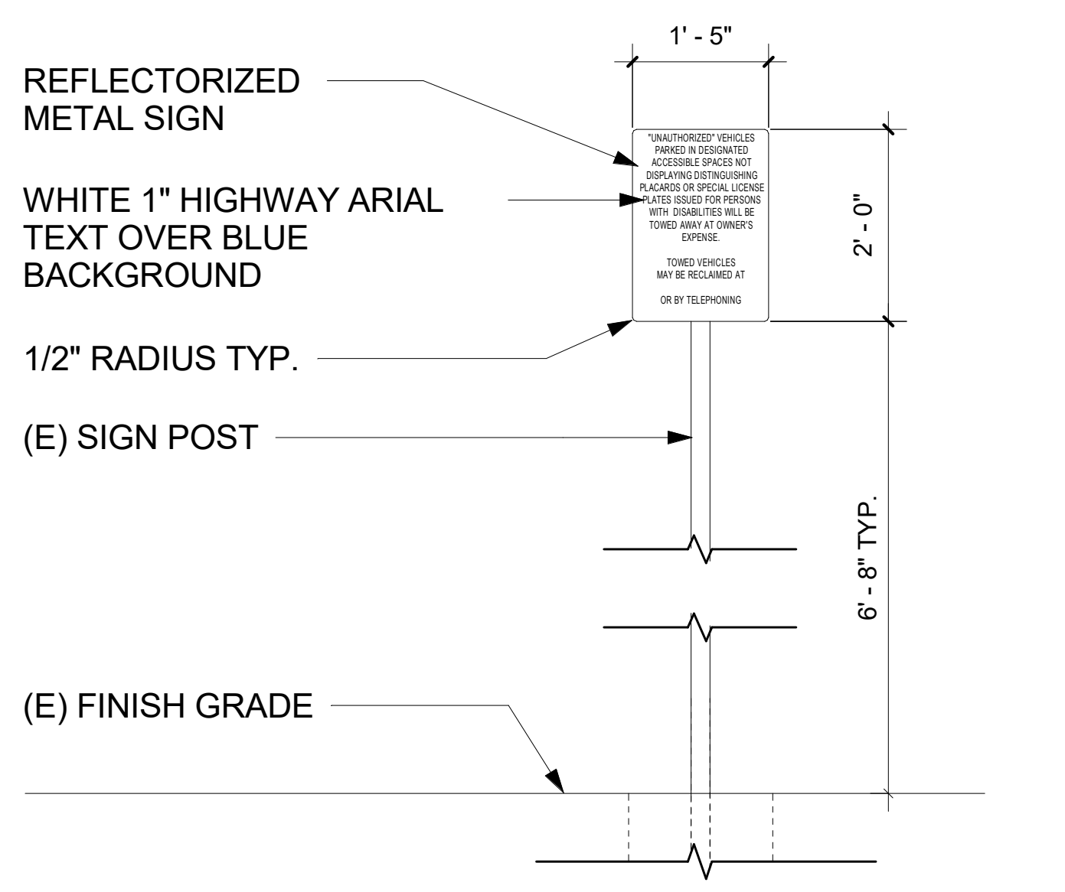


ALIGN
BUS ONLY
4" WIDE YELLOW BORDER ALL AROUND DIAGONAL STRIPING
4" WIDE YELLOW DIAGONAL STRIPING AT 36" O.C.
WHITE LETTERING, 12" HIGH, TYP.
NO PARKING
DELIVERY AREA
27' - 3"

DELIVERY AREA A4
3/16" = 1'-0"

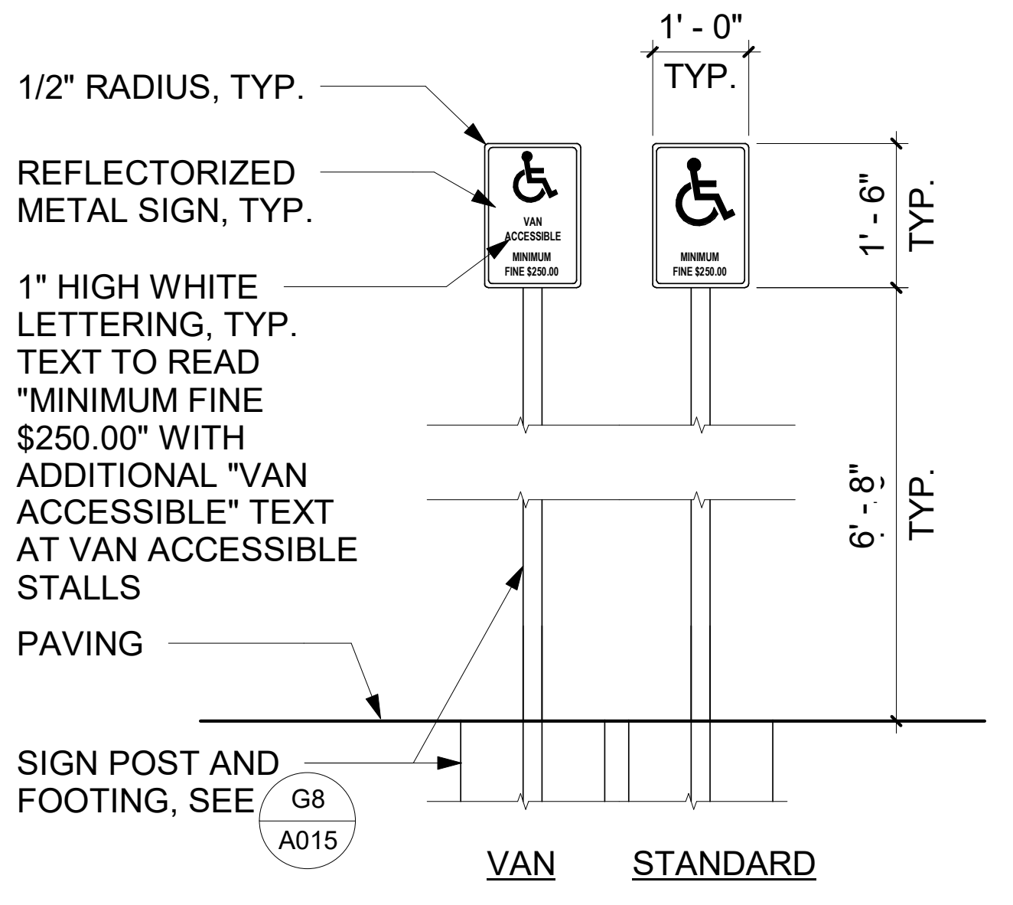
SIGN NOTES:

"UNAUTHORIZED" VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR SPECIAL LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT THE OWNER'S EXPENSE. TOWED VEHICLES MAY BE



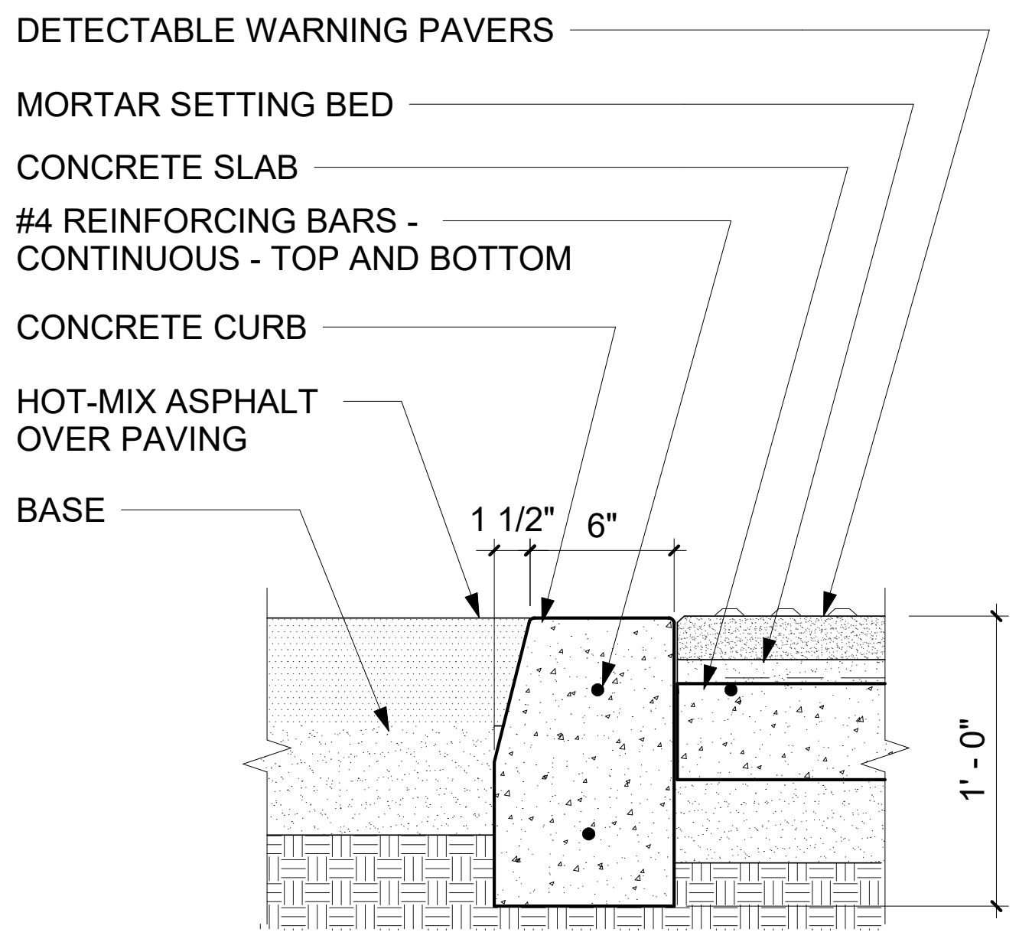
REFLECTORIZED METAL SIGN
WHITE 1" HIGHWAY ARIAL TEXT OVER BLUE BACKGROUND
1/2" RADIUS TYP.
(E) SIGN POST
(E) FINISH GRADE
1' - 5"
2' - 0"
6' - 8" TYP.
"UNAUTHORIZED" VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR SPECIAL LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT OWNER'S EXPENSE.
TOWED VEHICLES MAY BE RECLAIMED AT
OR BY TELEPHONING

TOW AWAY SIGN J6
1/2" = 1'-0"



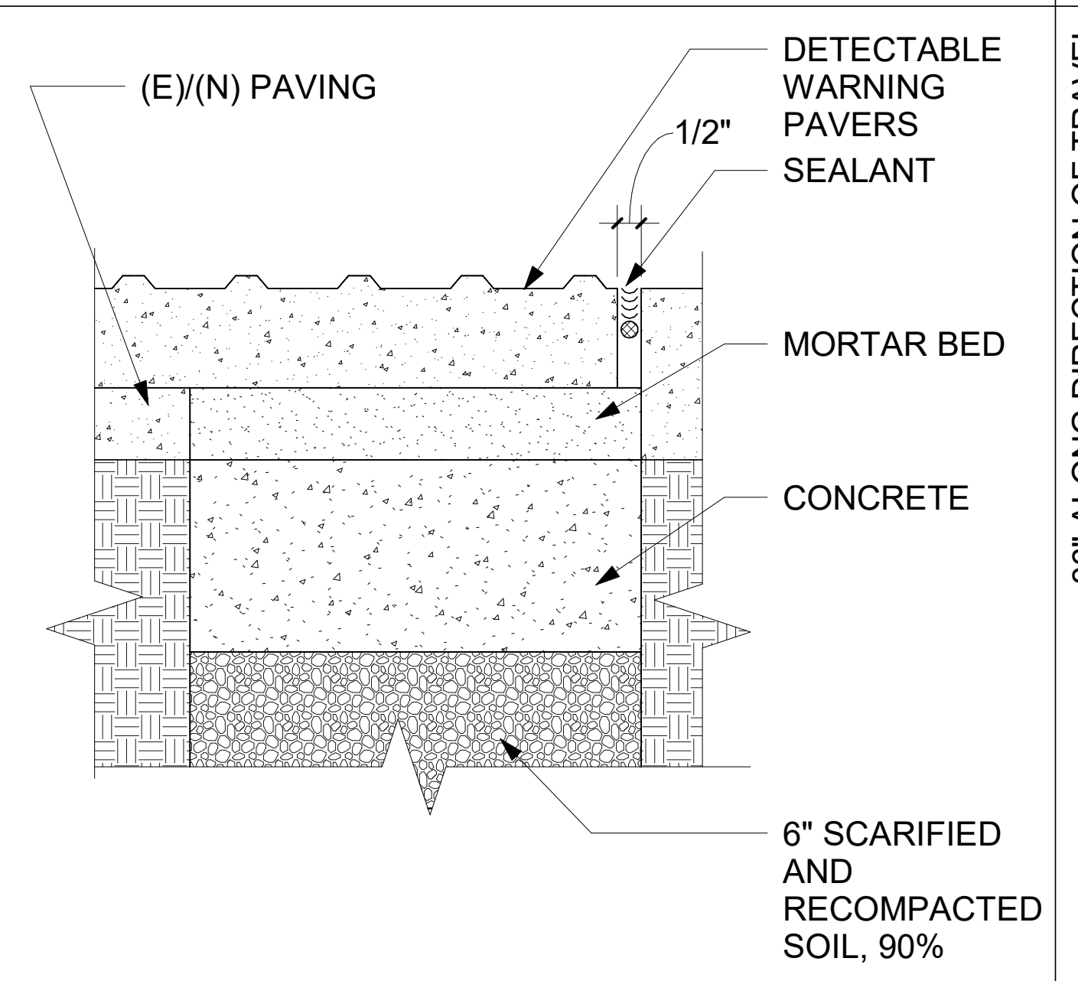
1/2" RADIUS, TYP.
REFLECTORIZED METAL SIGN, TYP.
1" HIGH WHITE LETTERING, TYP. TEXT TO READ "MINIMUM FINE $250.00" WITH ADDITIONAL "VAN ACCESSIBLE" TEXT AT VAN ACCESSIBLE STALLS
PAVING
SIGN POST AND FOOTING, SEE G8 A015
1' - 0"
TYP.
1' - 6" TYP.
6' - 8" TYP.
VAN
STANDARD

ACCESSIBLE PARKING STALL SIGN G6
1/2" = 1'-0"



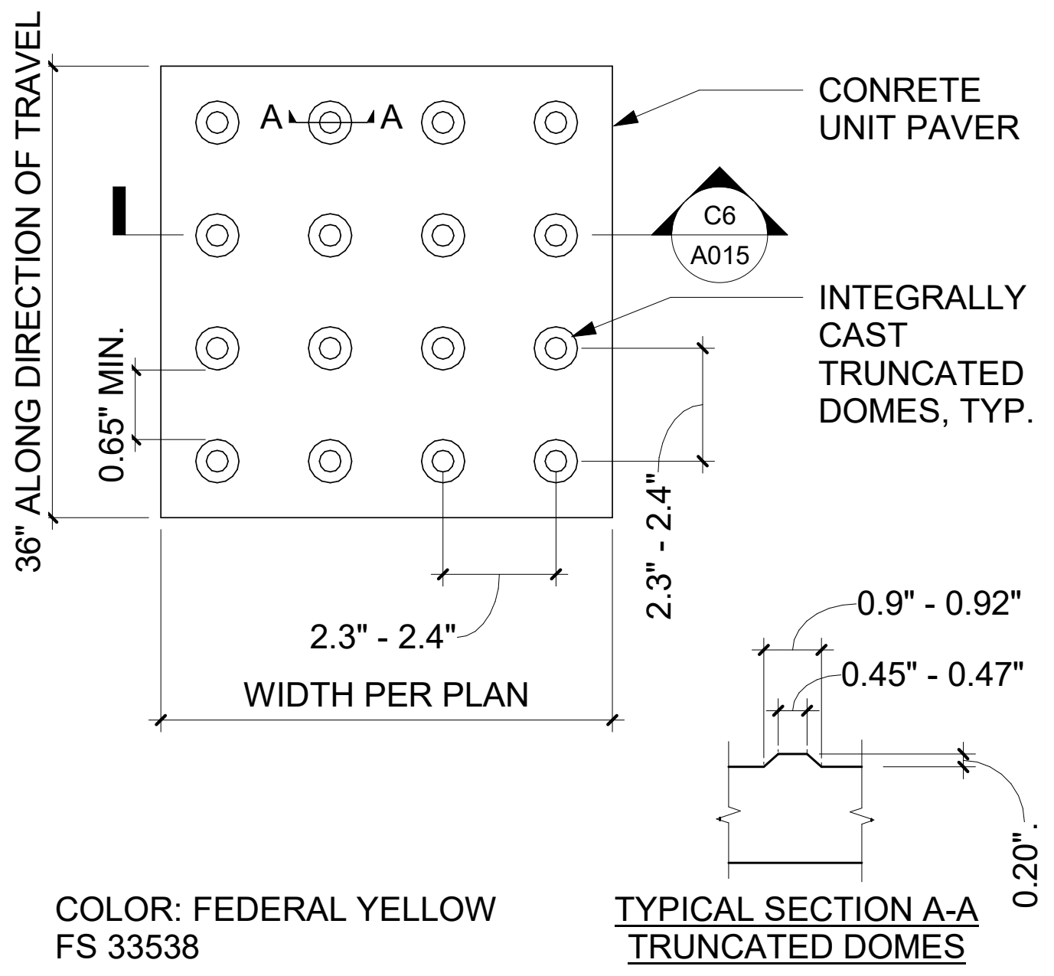
DETECTABLE WARNING PAVERS
MORTAR SETTING BED
CONCRETE SLAB
#4 REINFORCING BARS - CONTINUOUS - TOP AND BOTTOM
CONCRETE CURB
HOT-MIX ASPHALT OVER PAVING
BASE
1 1/2"
6"
1' - 0"

CONC. CURB AT RAMP - ASPHALT E6
1 1/2" = 1'-0"



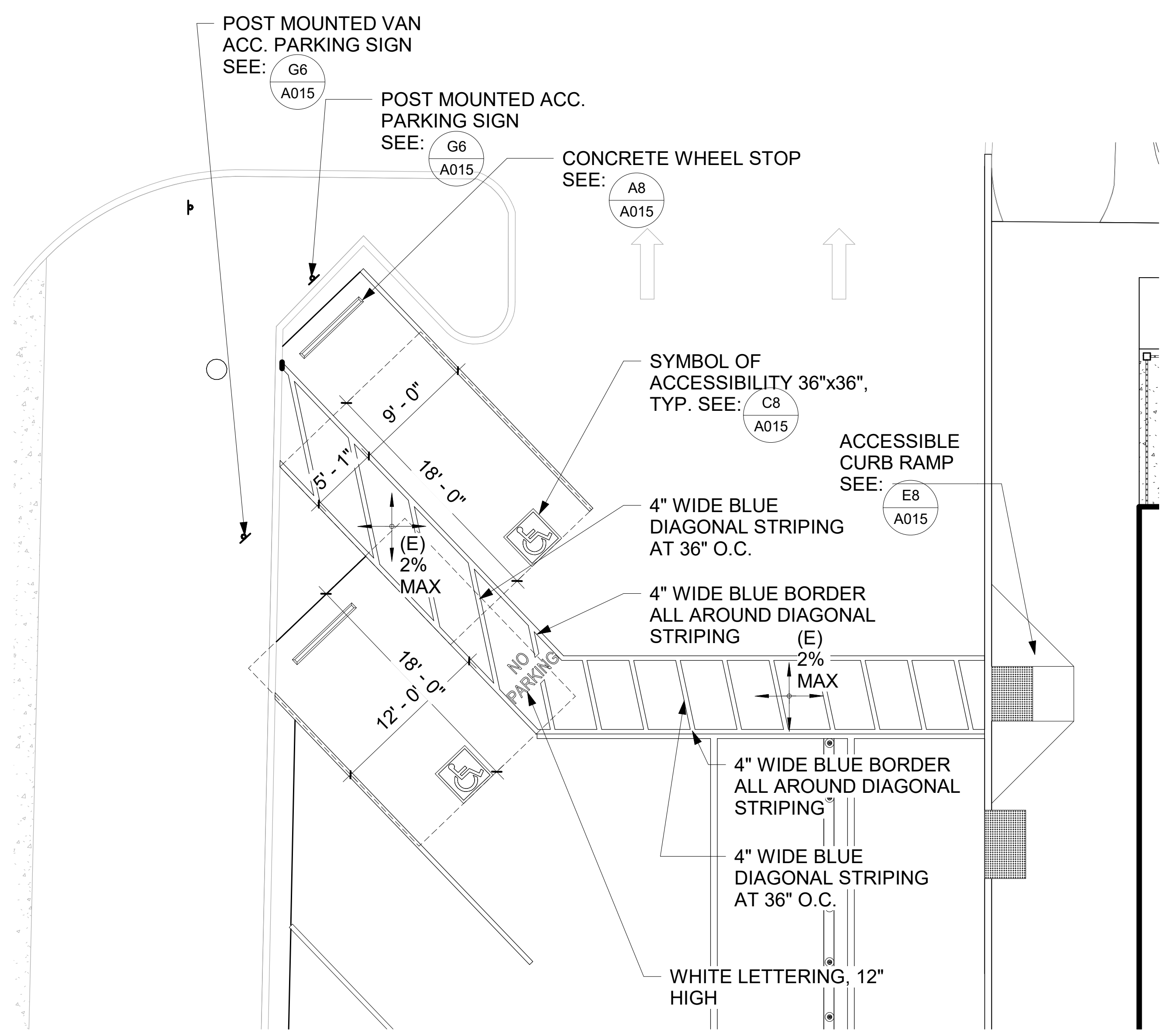
(E)/(N) PAVING
1/2"
DETECTABLE WARNING PAVERS
SEALANT
MORTAR BED
CONCRETE
6" SCARIFIED AND RECOMPACTED SOIL, 90%

DETECTABLE WARNING PAVERS SECTION C6
3" = 1'-0"



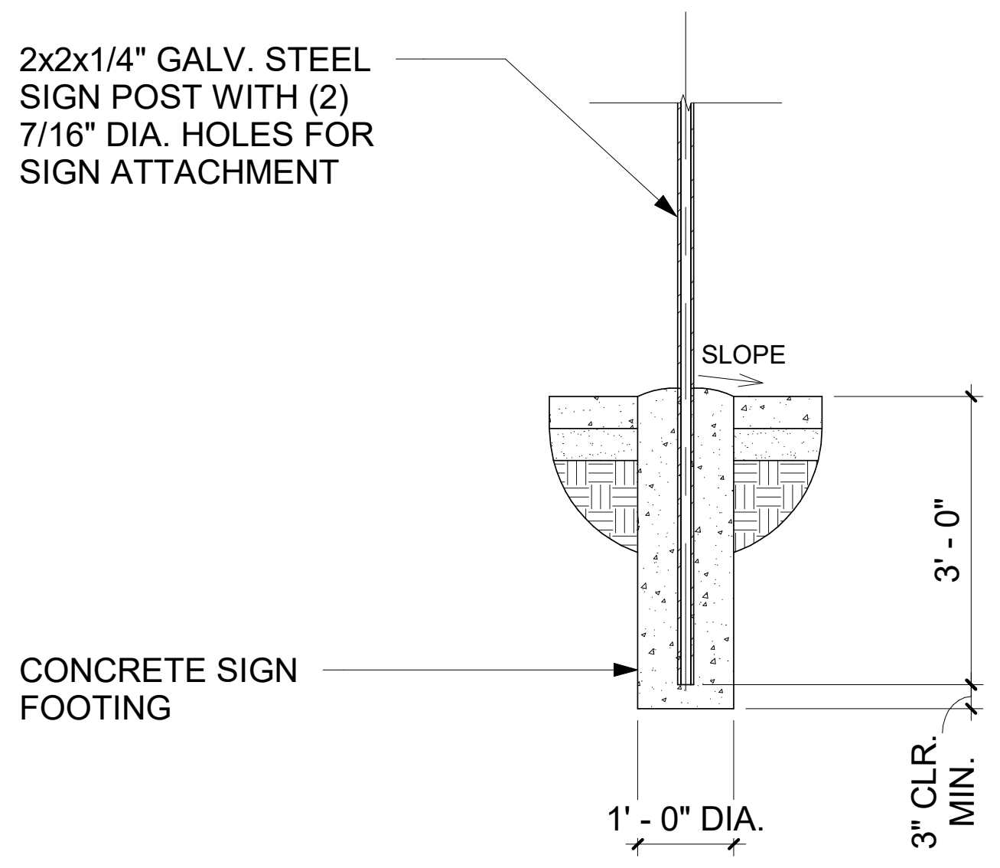
A
A
36" ALONG DIRECTION OF TRAVEL
0.65" MIN.
CONRETE UNIT PAVER
C6 A015
INTEGRALLY CAST TRUNCATED DOMES, TYP.
2.3" - 2.4"
2.3" - 2.4"
WIDTH PER PLAN
0.9" - 0.92"
0.45" - 0.47"
0.20"
COLOR: FEDERAL YELLOW FS 33538
TYPICAL SECTION A-A TRUNCATED DOMES

DETECTABLE WARNING PAVERS A6
3" = 1'-0"



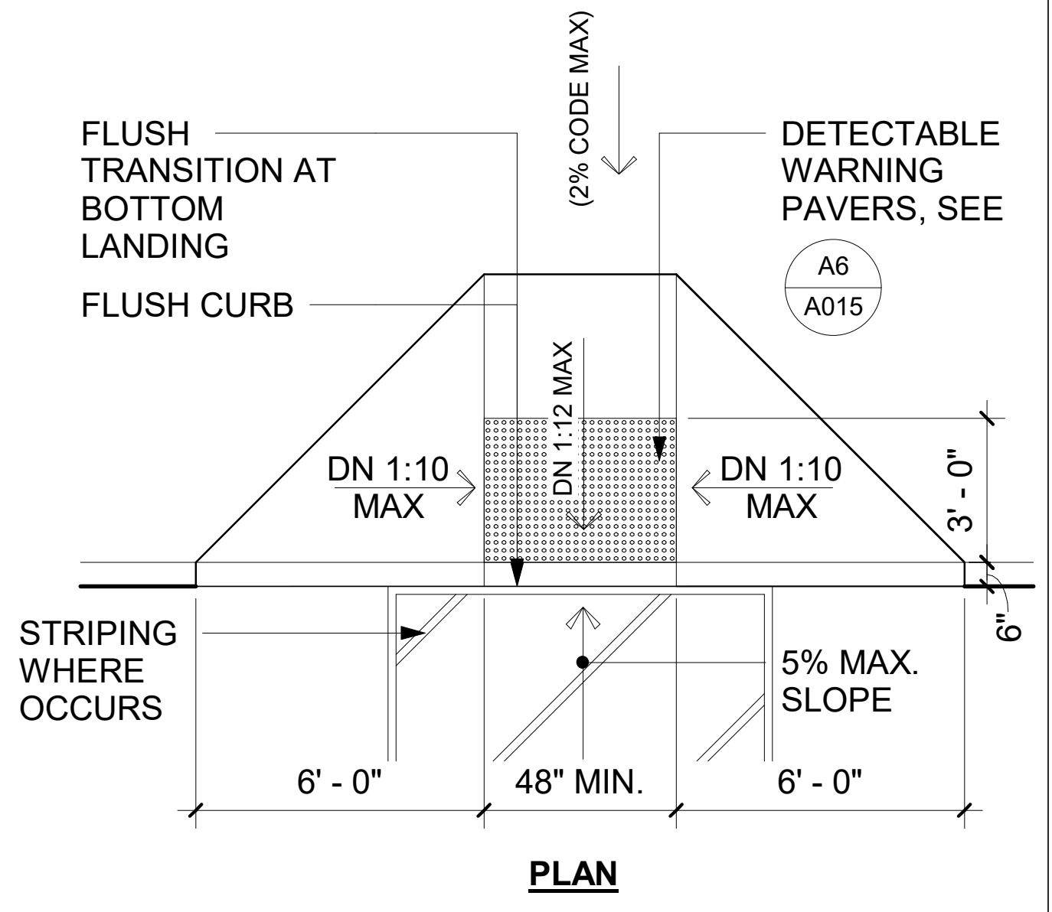
POST MOUNTED VAN ACC. PARKING SIGN SEE: G6 A015
POST MOUNTED ACC. PARKING SIGN SEE: G6 A015
CONCRETE WHEEL STOP SEE: A8 A015
SYMBOL OF ACCESSIBILITY 36"x36", TYP. SEE: C8 A015
ACCESSIBLE CURB RAMP SEE: E8 A015
4" WIDE BLUE DIAGONAL STRIPING AT 36" O.C.
4" WIDE BLUE BORDER ALL AROUND DIAGONAL STRIPING
(E) 2% MAX
(E) 2% MAX
4" WIDE BLUE BORDER ALL AROUND DIAGONAL STRIPING
4" WIDE BLUE DIAGONAL STRIPING AT 36" O.C.
WHITE LETTERING, 12" HIGH
9' - 0"
18' - 0"
5' - 1"
18' - 0"
12' - 0"
NO PARKING

ENLARGED PARKING J10
1/8" = 1'-0"



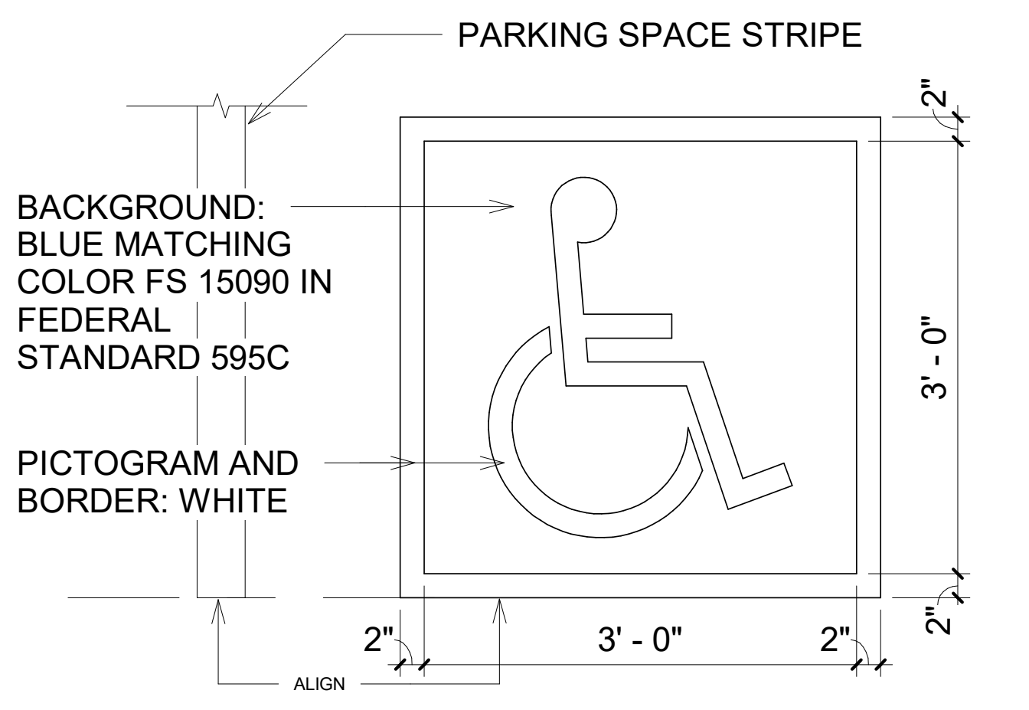
2x2x1/4" GALV. STEEL SIGN POST WITH (2) 7/16" DIA. HOLES FOR SIGN ATTACHMENT
SLOPE
CONCRETE SIGN FOOTING
3' - 0"
1' - 0" DIA.
3" CLR. MIN.

SIGN FOOTING G8
1/2" = 1'-0"



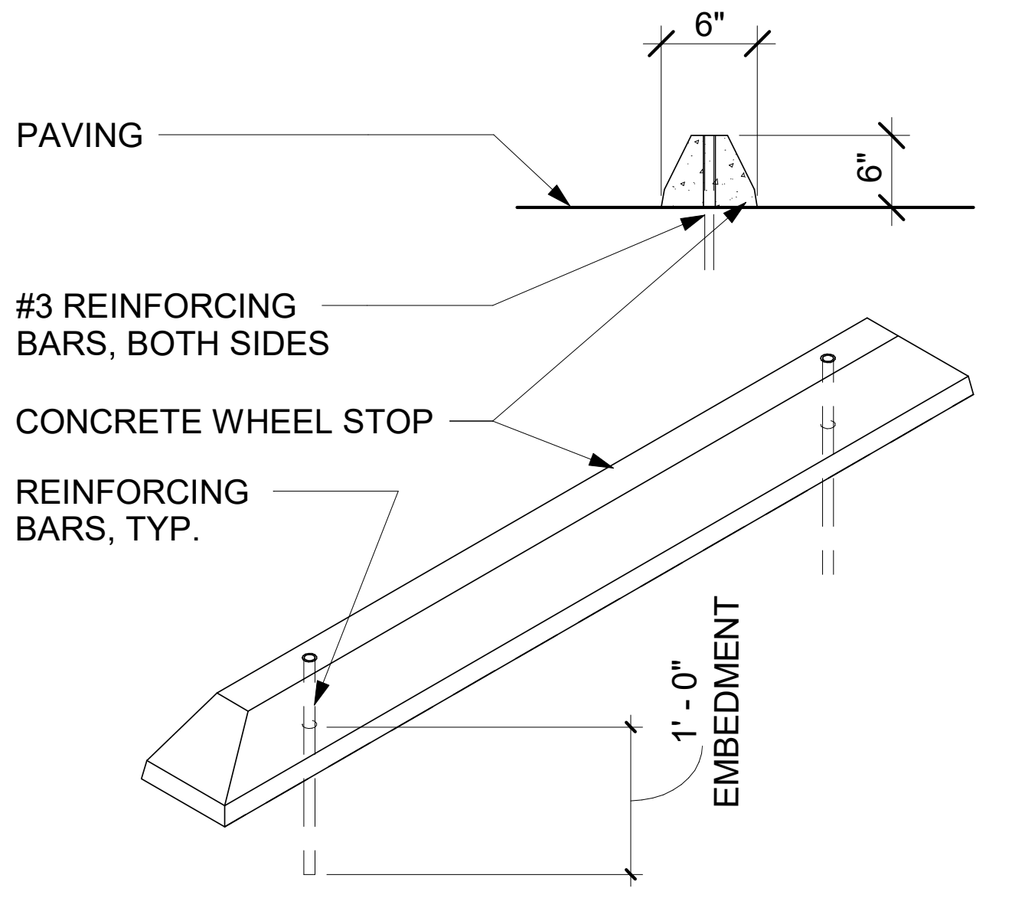
ACCESSIBLE CURB RAMP E8
1/4" = 1'-0"

NOTE:
INTERNATIONAL SYMBOL OF ACCESSIBILITY TO MATCH PROPORTIONS PER CBC FIGURE 11B-703.7.2.1.

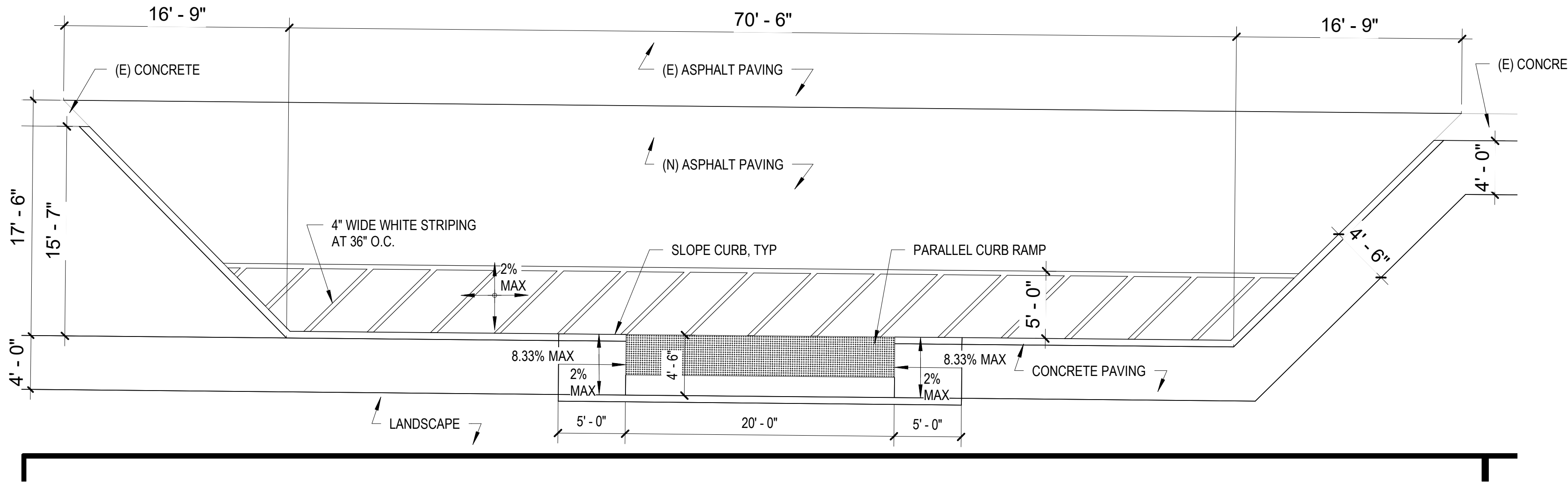


PARKING SPACE STRIPE
BACKGROUND: BLUE MATCHING COLOR FS 15090 IN FEDERAL STANDARD 595C
PICTOGRAM AND BORDER: WHITE
2"
3' - 0"
2"
2"
3' - 0"
2"
ALIGN

PAVEMENT SYMBOL C8
3/4" = 1'-0"



PRECAST CONC. WHEEL STOP A8
3/4" = 1'-0"



ENLARGED PARENT DROP-OFF C10
1/8" = 1'-0"

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PARKING DETAILS

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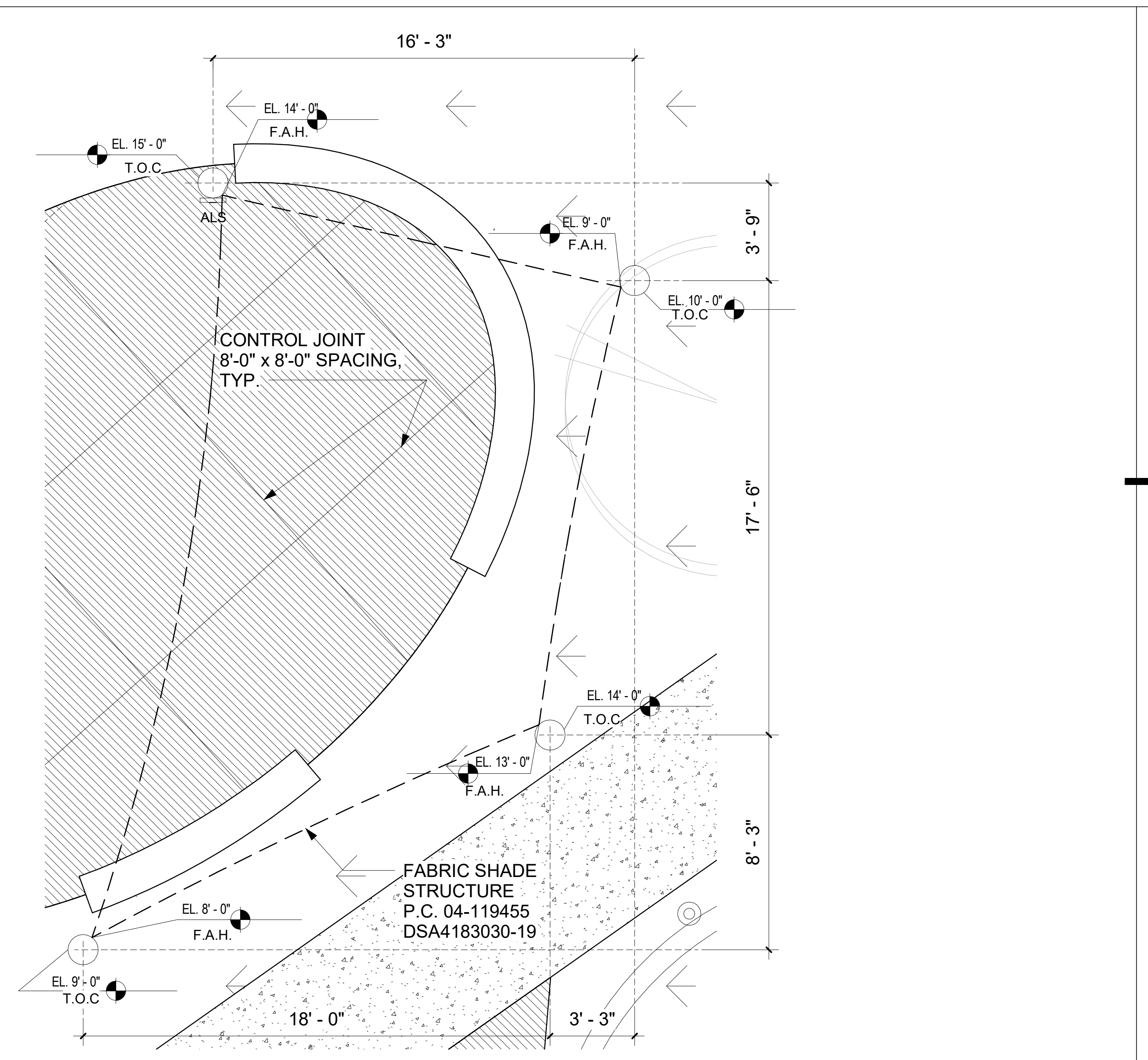
A015

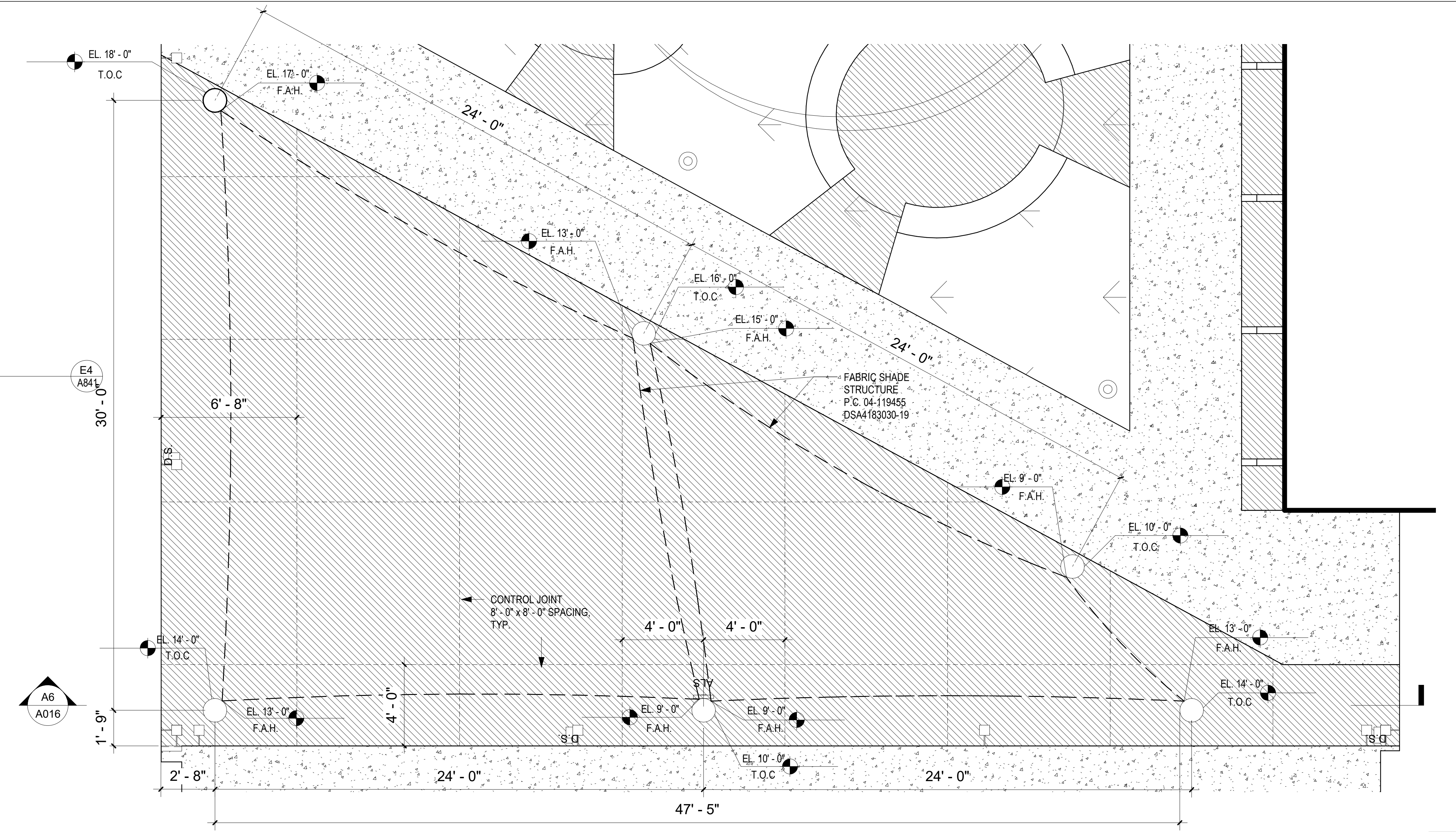
M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10



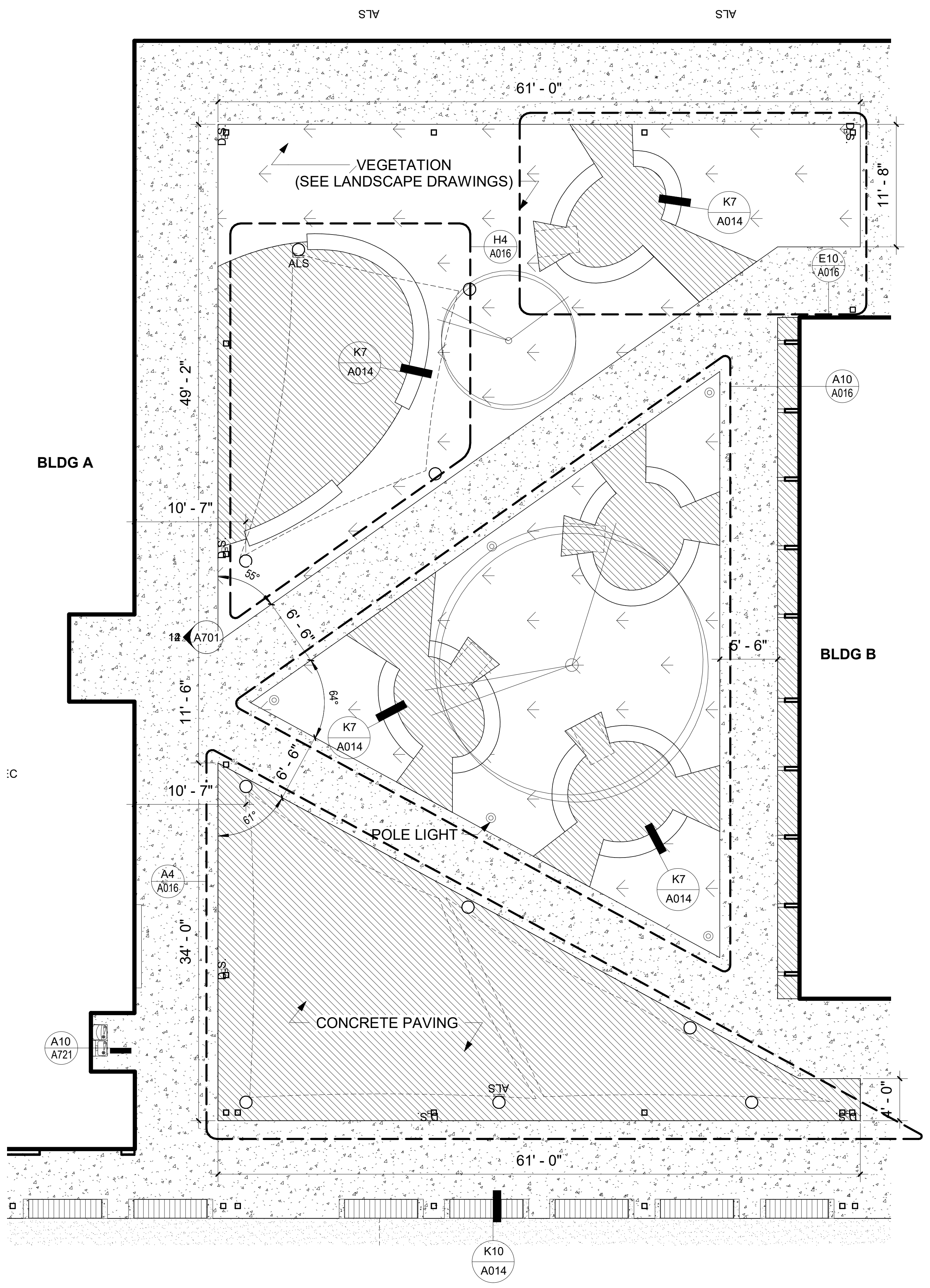
SHADE STRUCTURE B ENLARGED PLAN H4

1/4" = 1'-0"



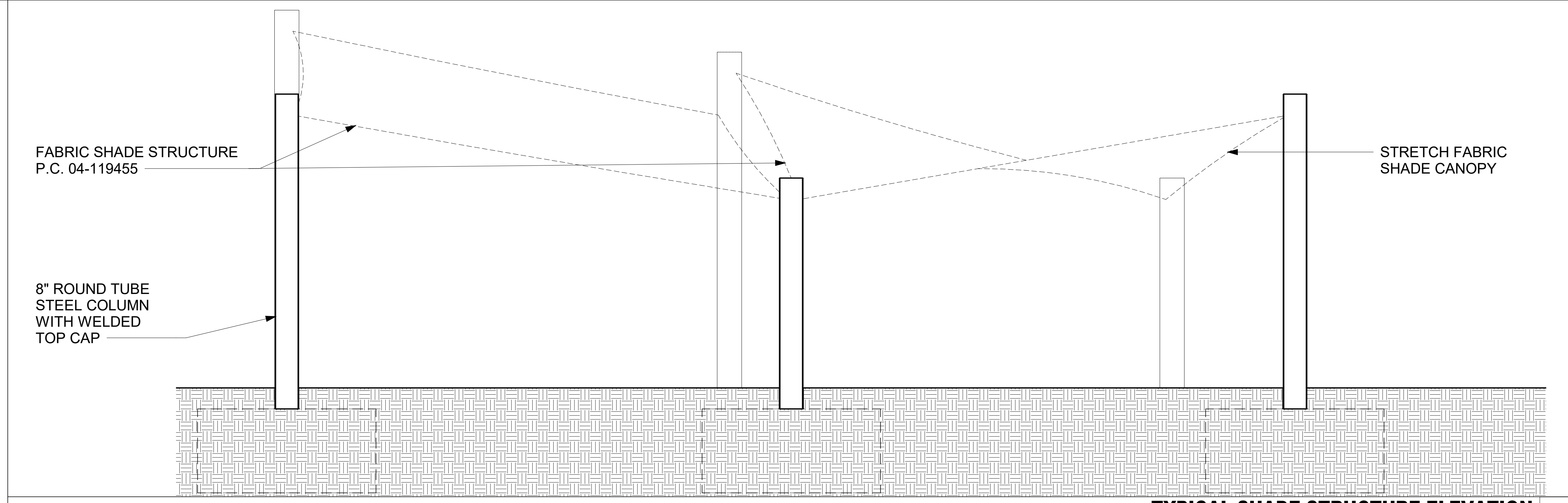
SHADE STRUCTURE A ENLARGED PLAN A4

1/4" = 1'-0"



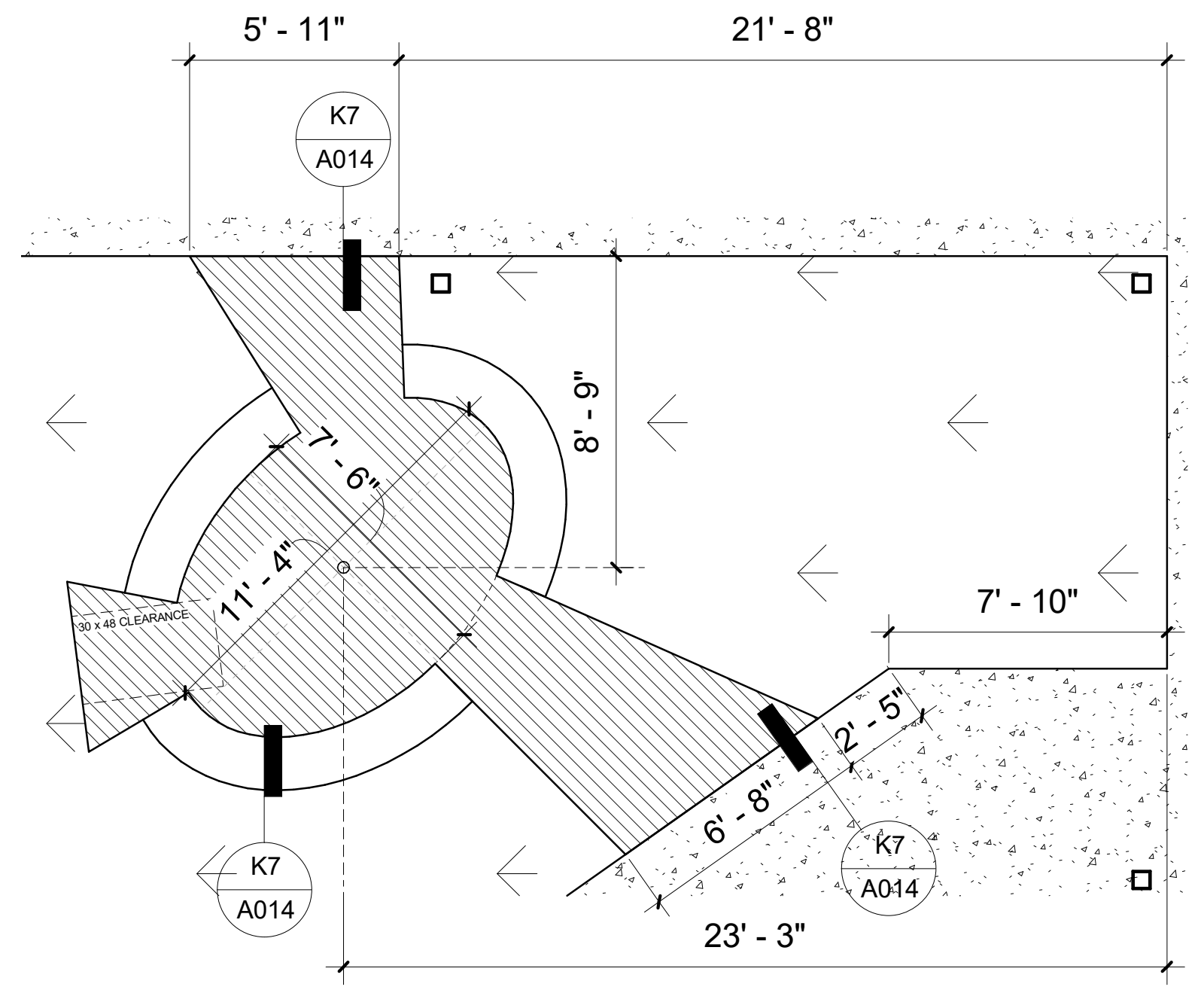
COURTYARD ENLARGED PLAN H10

1/8" = 1'-0"



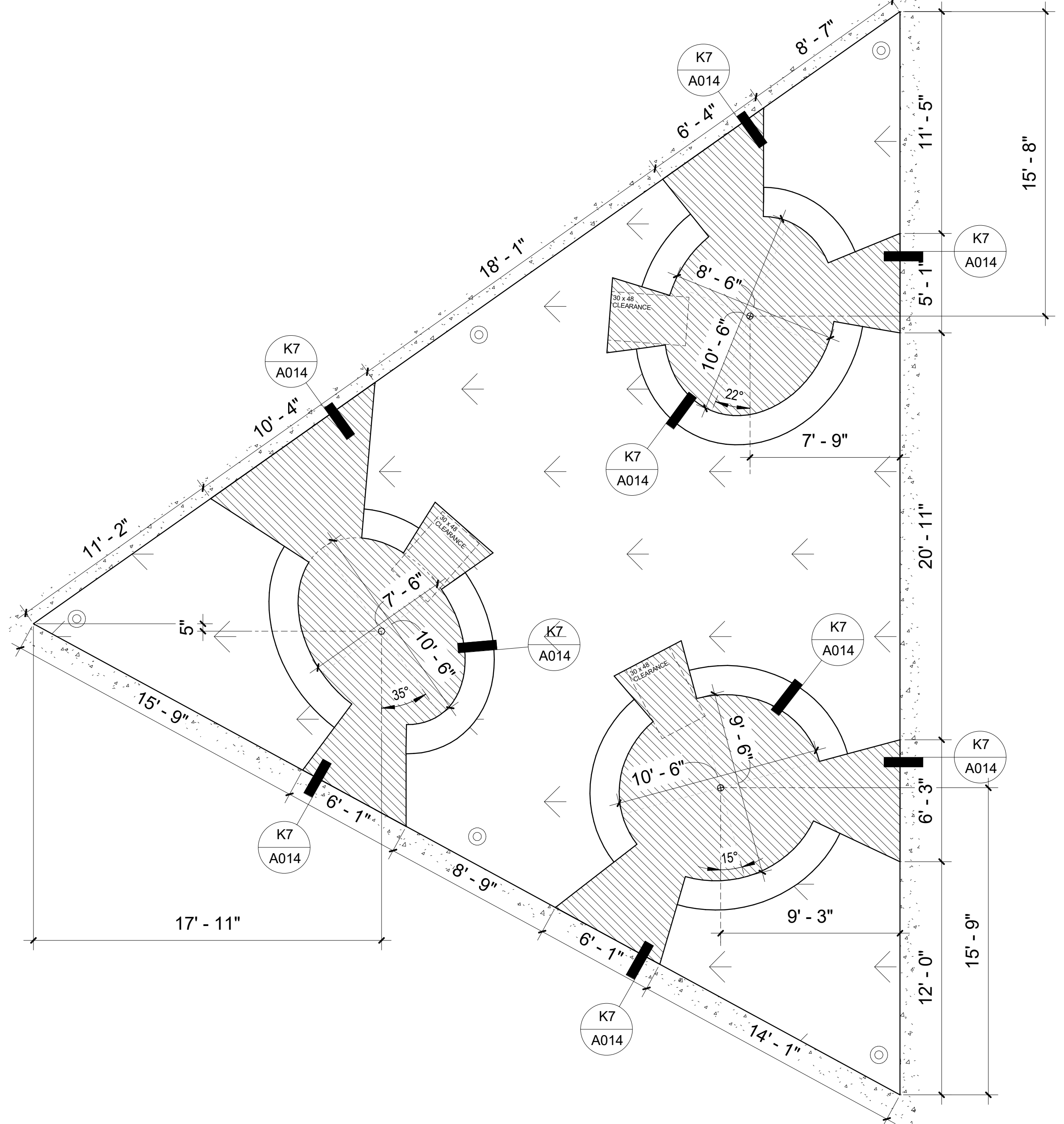
TYPICAL SHADE STRUCTURE ELEVATION A6

1/4" = 1'-0"



COURTYARD ENLARGED PLAN - SEATING E10

3/16" = 1'-0"



COURTYARD ENLARGED PLAN - CENTRAL SPACE A10

3/16" = 1'-0"

SHADE SHELTER LEGEND

▭	NEW BUILDING
░	SITE CONCRETE
▨	SITE CONCRETE, ACCENT COLOR
⩔	GRASS
⩔	EXISTING GRASS
░	EXISTING CONCRETE
○	EXTERIOR LIGHT FIXTURE

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REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL.31, 2023

NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002

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SHADE STRUCTURES
ENLARGED PLANS

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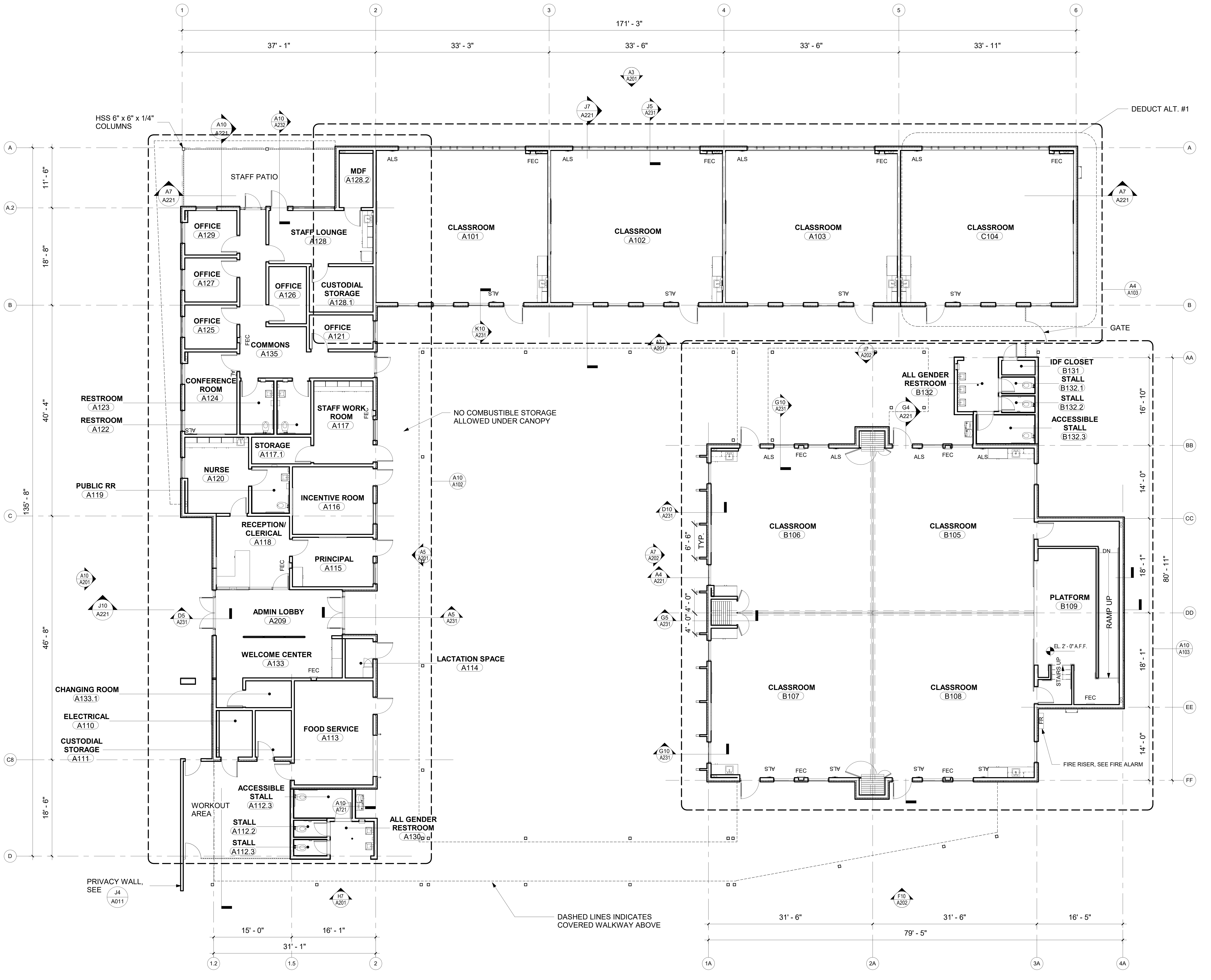

OVERALL FLOOR PLAN A10
1/8" = 1'-0"

FLOOR PLAN LEGEND

W.1	WALL TYPE
100 / 1 — Room # — Door #	DOOR NUMBER
ST	STOREFRONT TYPE
▭	NEW NON-RATED WALL
▭	1 HR RATED FIRE BARRIER WALL
	NEW DOOR
FEC	FIRE EXTINGUISHER CABINET
ALS	ASSISTIVE LISTENING SIGNAGE

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REN. JUL. 31, 2023

FLOOR PLAN NOTES

1. ITEMS ARE NEW UNLESS NOTED OTHERWISE
2. GRID LINE IS TO FACE OF STUD U.N.O.
3. DIMENSIONS ARE MEASURED TO FACE OF STUD AND GRID LINES, UNLESS NOTED OTHERWISE
4. FOR CLASSROOM TYPE A, SEE ENLARGED PLAN A10 / A303
5. FOR CLASSROOM TYPE B, SEE ENLARGED PLAN A10 / A304
6. SEE STOREFRONT WINDOW SCHEDULE AND ENLARGED FLOOR PLANS FOR STOREFRONT WINDOW SIZES
7. ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM THE INSIDE, SEE SECTION 08 7100 IN SPECS.
8. ALL FURNITURE OF/OI
9. ALL DOOR OPENINGS ARE TO BE 6 INCHES MINIMUM FROM ADJACENT WALL U.N.O.

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OVERALL FLOOR PLAN

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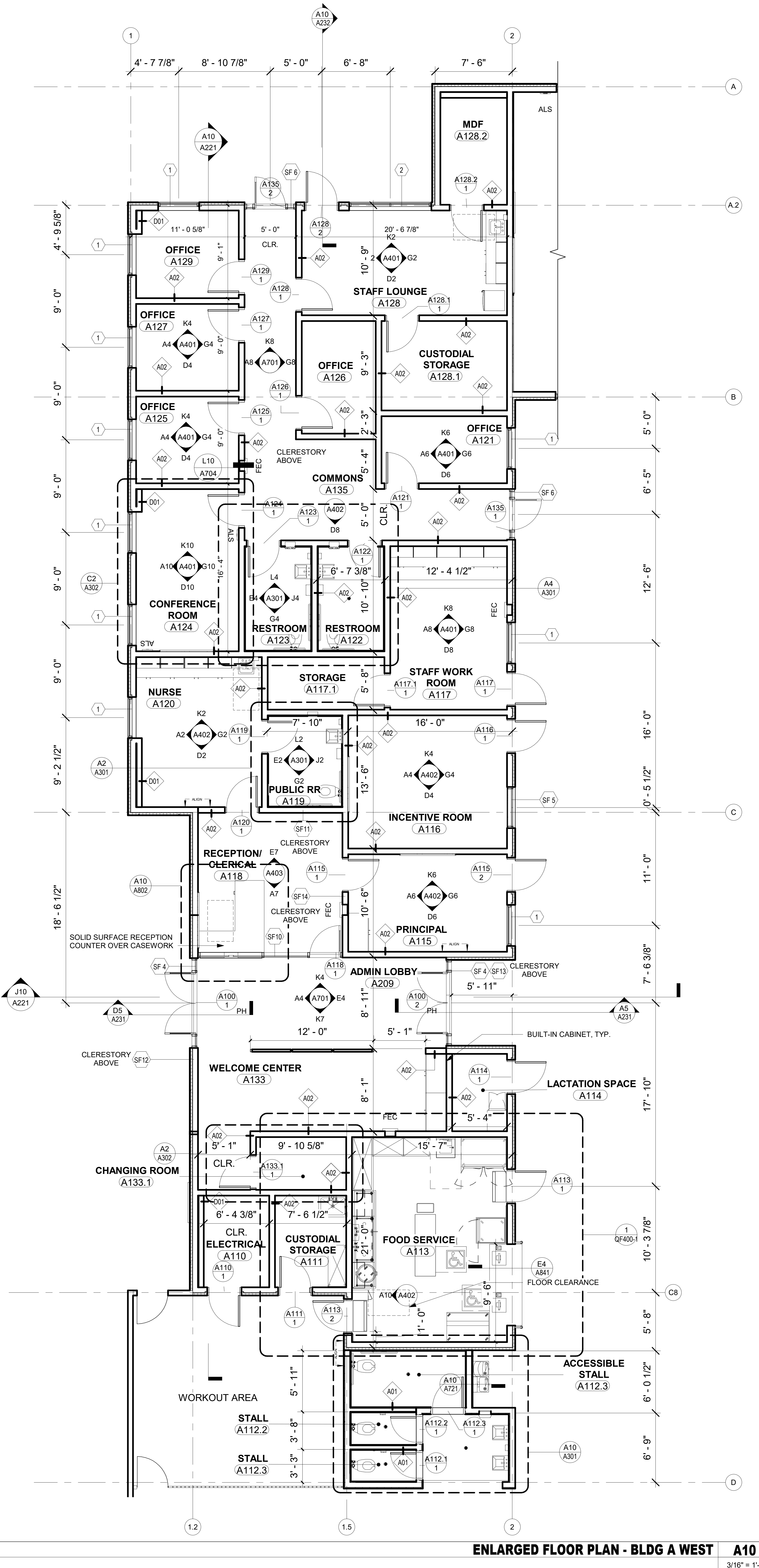
A101



ENLARGED FLOOR PLAN - BLDG A WEST A10
3/16" = 1'-0"

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FLOOR PLAN LEGEND

W.1	WALL TYPE
100 — Room # 1 — Door #	DOOR NUMBER
ST	STOREFRONT TYPE
▭	NEW NON-RATED WALL
▭	1 HR RATED FIRE BARRIER WALL
	NEW DOOR
FEC	FIRE EXTINGUISHER CABINET
ALS	ASSISTIVE LISTENING SIGNAGE

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FLOOR PLAN NOTES

1. ITEMS ARE NEW UNLESS NOTED OTHERWISE
2. GRID LINE IS TO FACE OF STUD U.N.O.
3. DIMENSIONS ARE MEASURED TO FACE OF STUD AND GRID LINES, UNLESS NOTED OTHERWISE
4. FOR CLASSROOM TYPE A, SEE ENLARGED PLAN A10/A303
5. FOR CLASSROOM TYPE B, SEE ENLARGED PLAN A10/A304
6. SEE STOREFRONT WINDOW SCHEDULE AND ENLARGED FLOOR PLANS FOR STOREFRONT WINDOW SIZES
7. ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM THE INSIDE, SEE SECTION 08 7100 IN SPECS.
8. ALL FURNITURE OF/OI
9. ALL DOOR OPENINGS ARE TO BE 6 INCHES MINIMUM FROM ADJACENT WALL U.N.O.

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ENLARGED FLOOR PLAN - BLDG
A

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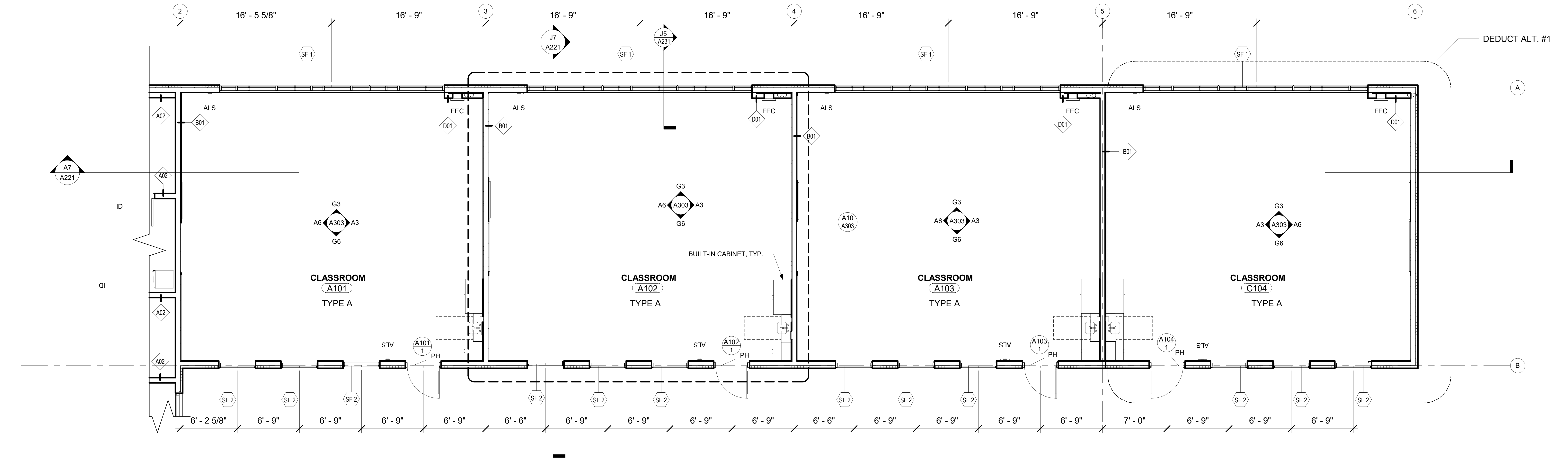
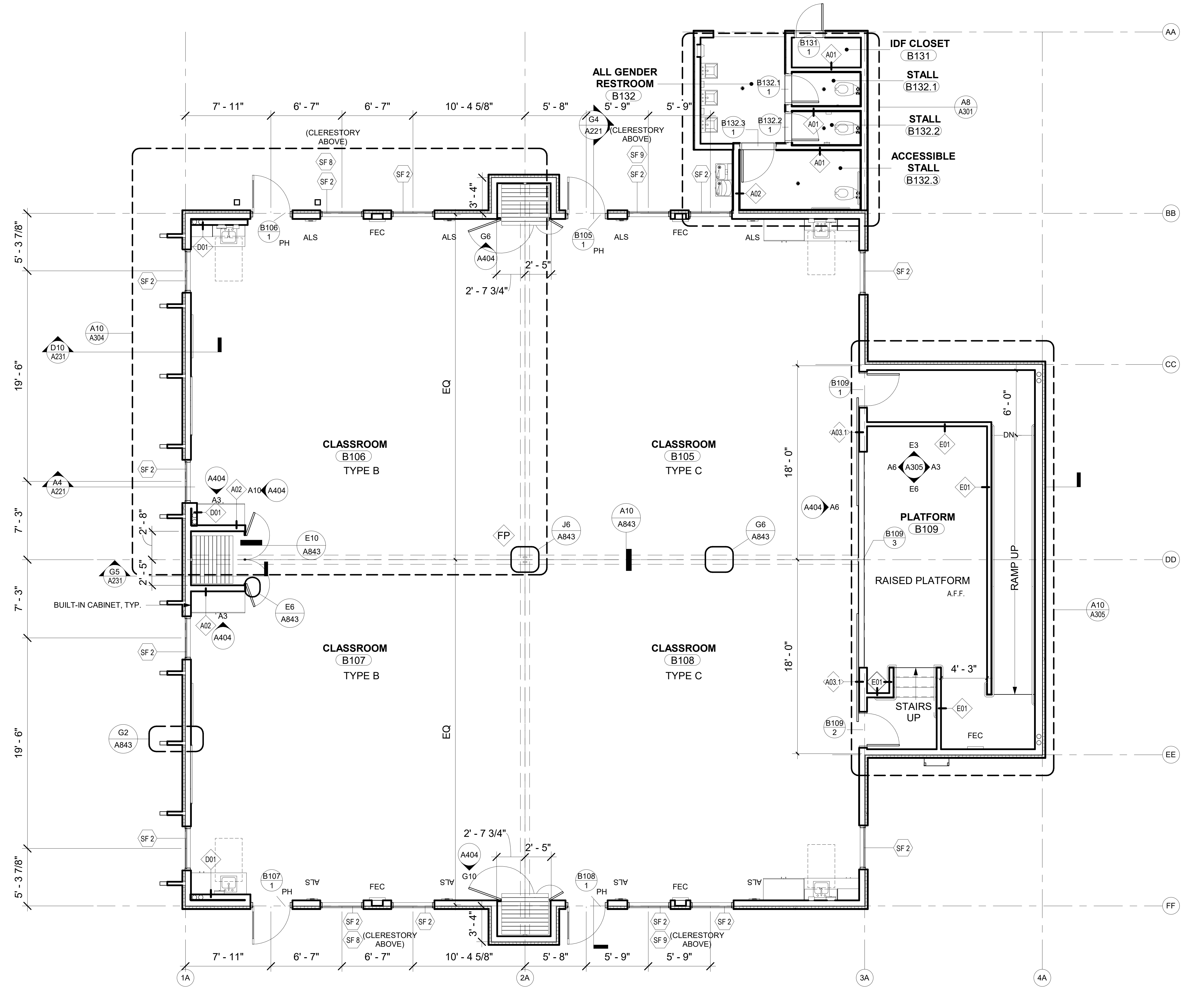
A102



ENLARGED FLOOR PLAN - BLDG A NORTH **A4**

3/16" = 1'-0"



ENLARGED FLOOR PLAN - BLDG B **A10**

3/16" = 1'-0"

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REN. JUL. 31, 2023

FLOOR PLAN LEGEND

W.1	WALL TYPE
100 / 1 — Room # — Door #	DOOR NUMBER
ST	STOREFRONT TYPE
▭	NEW NON-RATED WALL
▨	1 HR RATED FIRE BARRIER WALL
	NEW DOOR
FEC	FIRE EXTINGUISHER CABINET
ALS	ASSISTIVE LISTENING SIGNAGE

FLOOR PLAN NOTES

1. ITEMS ARE NEW UNLESS NOTED OTHERWISE
2. GRID LINE IS TO FACE OF STUD U.N.O.
3. DIMENSIONS ARE MEASURED TO FACE OF STUD AND GRID LINES, UNLESS NOTED OTHERWISE
4. FOR CLASSROOM TYPE A, SEE ENLARGED PLAN A10 / A303
5. FOR CLASSROOM TYPE B, SEE ENLARGED PLAN A10 / A304
6. SEE STOREFRONT WINDOW SCHEDULE AND ENLARGED FLOOR PLANS FOR STOREFRONT WINDOW SIZES
7. ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM THE INSIDE, SEE SECTION 08 7100 IN SPECS.
8. ALL FURNITURE OF/OI
9. ALL DOOR OPENINGS ARE TO BE 6 INCHES MINIMUM FROM ADJACENT WALL U.N.O.

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ENLARGED FLOOR PLANS -
BLDGS A, B AND C

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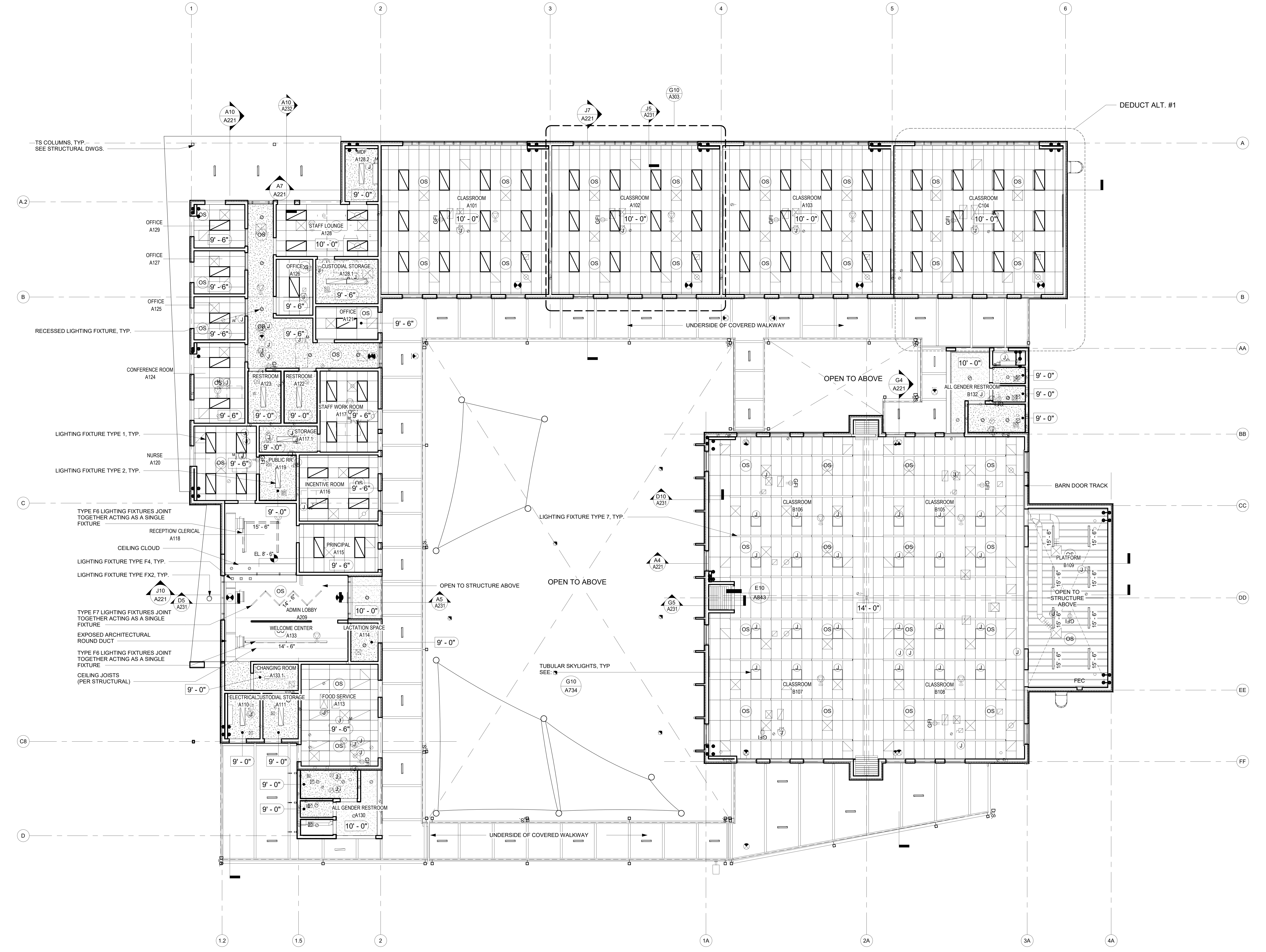
A103



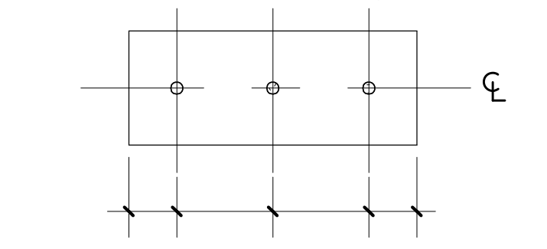
3646 SF OF COVERED WALKWAYS

DS-RP-LEVEL 1 A10
1/8" = 1'-0"

CEILING PLAN LEGEND

▭	ACOUSTICAL TILE CEILING	A10 A821
▨	PLASTER FINISH CEILING	E10 A824
▨	GYPSUM BOARD CEILING	J10 A824
☒	CEILING DIFFUSER/REGISTER - SEE MECH	
▭	LIGHT FIXTURES, SEE ELECT	
9' - 0"	HEIGHT OF THE BASE OF THE PENDANT FIXTURE A.F.F.	

TYPICAL LIGHTING FIXTURE SPACING, U.N.O.



△	ACCESS PANEL
◎	PENDANT LIGHT

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LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
REN. JUL. 31, 2023

CEILING NOTES

1. FOR TYPICAL CEILING DETAILS, SEE SHEETS A821-A826.
2. HEIGHTS INDICATED ARE TO THE UNDERSIDE OF THE FINISH CEILING OR SOFFIT FROM THE FINISH FLOOR OF BUILDINGS.
3. PROVIDE ACCESS PANELS AT GYPSUM BOARD CEILINGS WHERE REQUIRED FOR PLUMBING, MECHANICAL, AND SPRINKLER ACCESS OR AS REQUIRED BY CODE.
4. PROVIDE ACCESS PANELS AT EACH SPRINKLER HEAD IN ATTIC/CONCEALED SPACES.
5. LIGHT FIXTURES AND AIR DIFFUSERS/REGISTERS ARE SHOWN FOR LOCATIONS ONLY. SEE ELECTRICAL AND MECHANICAL PLANS FOR ACTUAL TYPES AND SIZES.
6. SEE ELECTRICAL PLANS FOR EXIT SIGN LOCATIONS.
7. PROVIDE MOLD AND WATER RESISTANT GYPSUM BOARD AT RESTROOM.
8. PROVIDE SWAY BRACING WHERE FIXTURES ARE SUSPENDED OVER 1'-0" AND WHERE ITEMS CANNOT SWING FREELY IN A 45 DEGRESS ARC.
9. LIGHT FIXTURES ARE TO BE CENTERED IN THE ROOM UNLESS NOTED OTHERWISE.
10. PAINT ALL EXPOSED CONDUITS AND PIPES.

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REFLECTED CEILING PLAN

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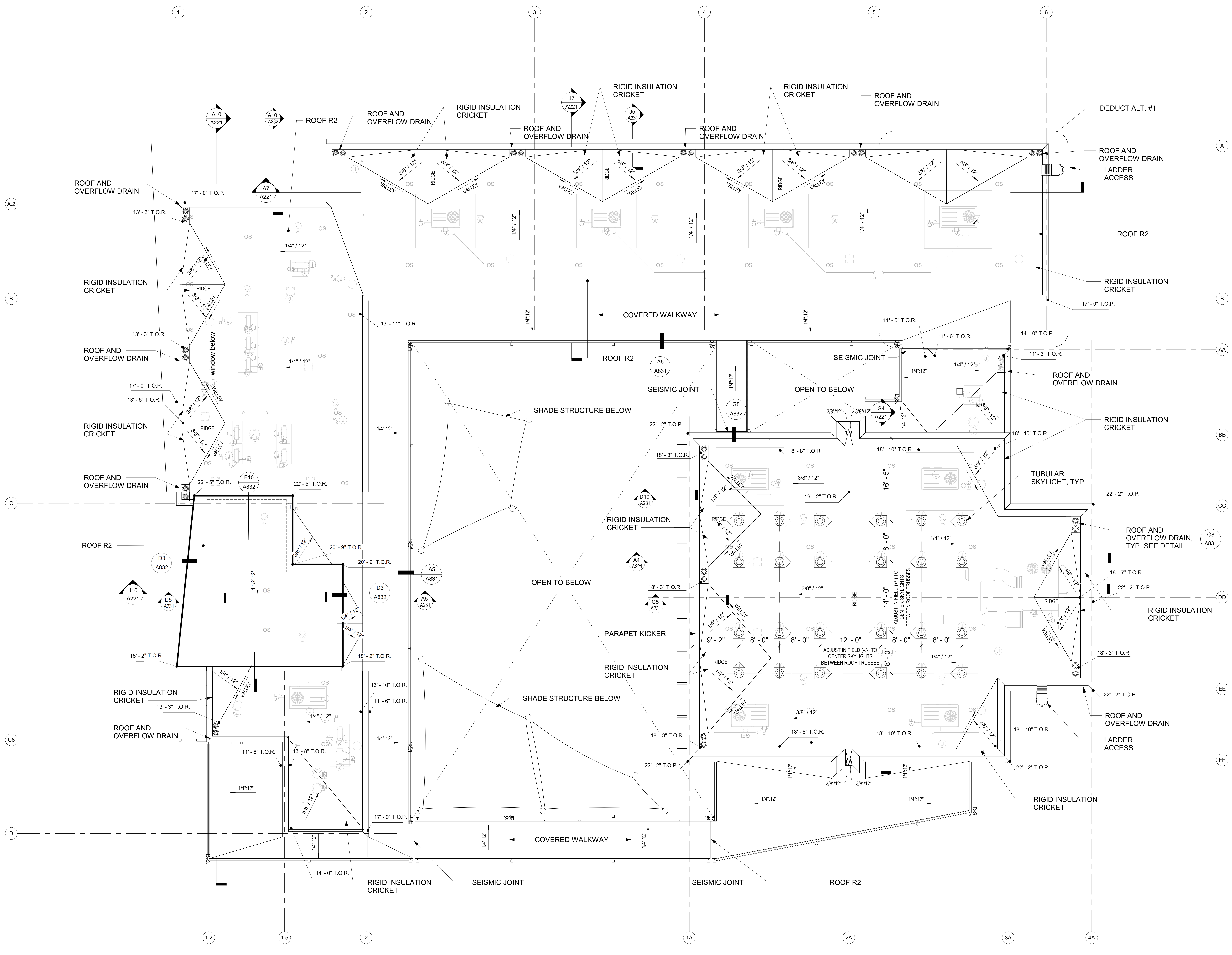
A121



ROOF PLAN

A10

1/8" = 1'-0"

N

ROOF LEGEND

▭ SINGLE-PLY PVC ROOF

ROOF ASSEMBLY TYPES

ROOF
XX

R2.
-SINGLE-PLY PVC ROOFING
-WEATHER BARRIER
-2" OF RIGID INSULATION
-15/32" PLYWOOD SHEATING

GENERAL ROOF NOTES

TUBULAR SKYLIGHT
ANSI CCRR-0131

FALL ARREST ANCHORAGE
CONNECTOR, SEE A3 / A832

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ROOF PLAN

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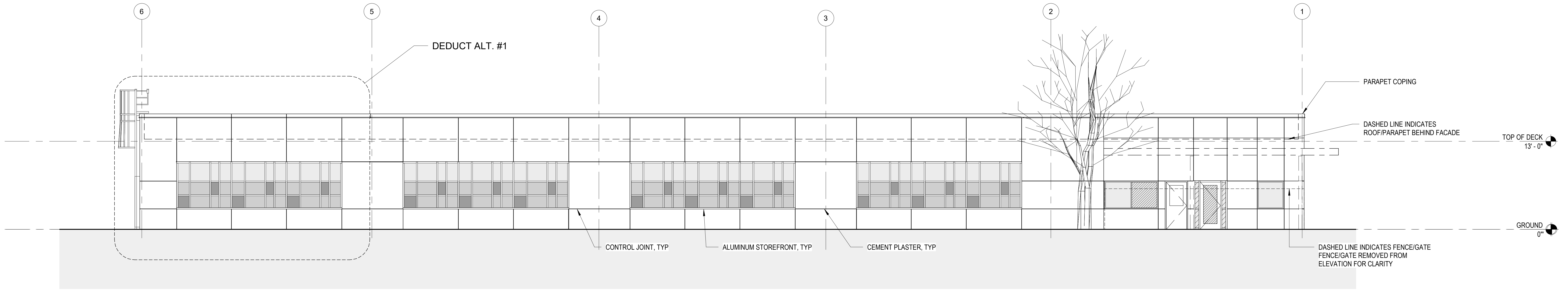
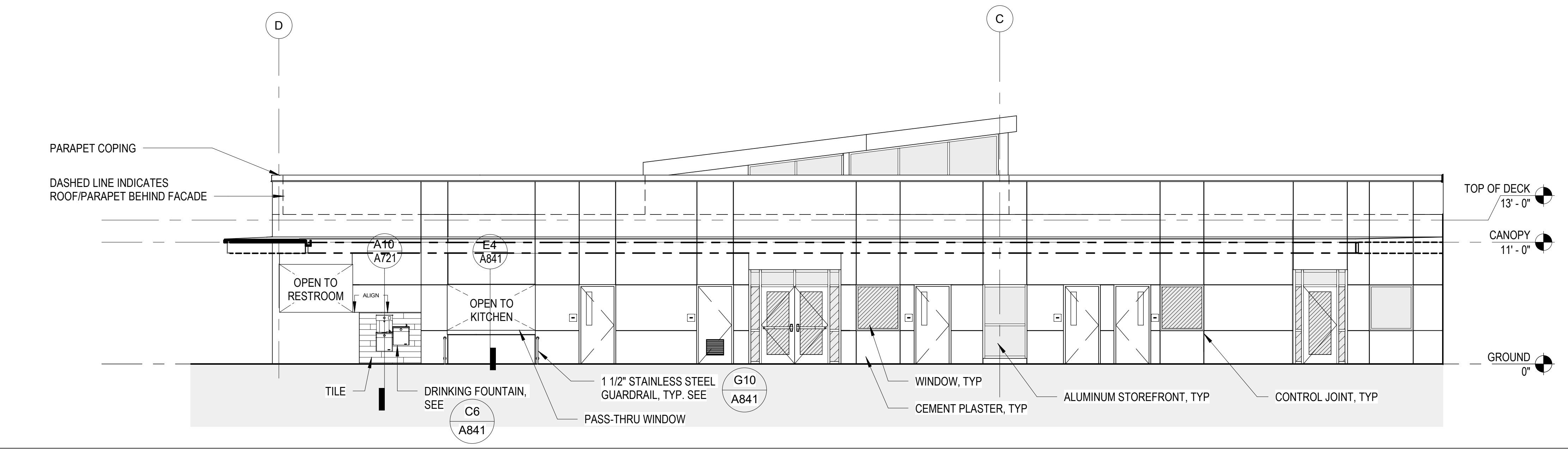


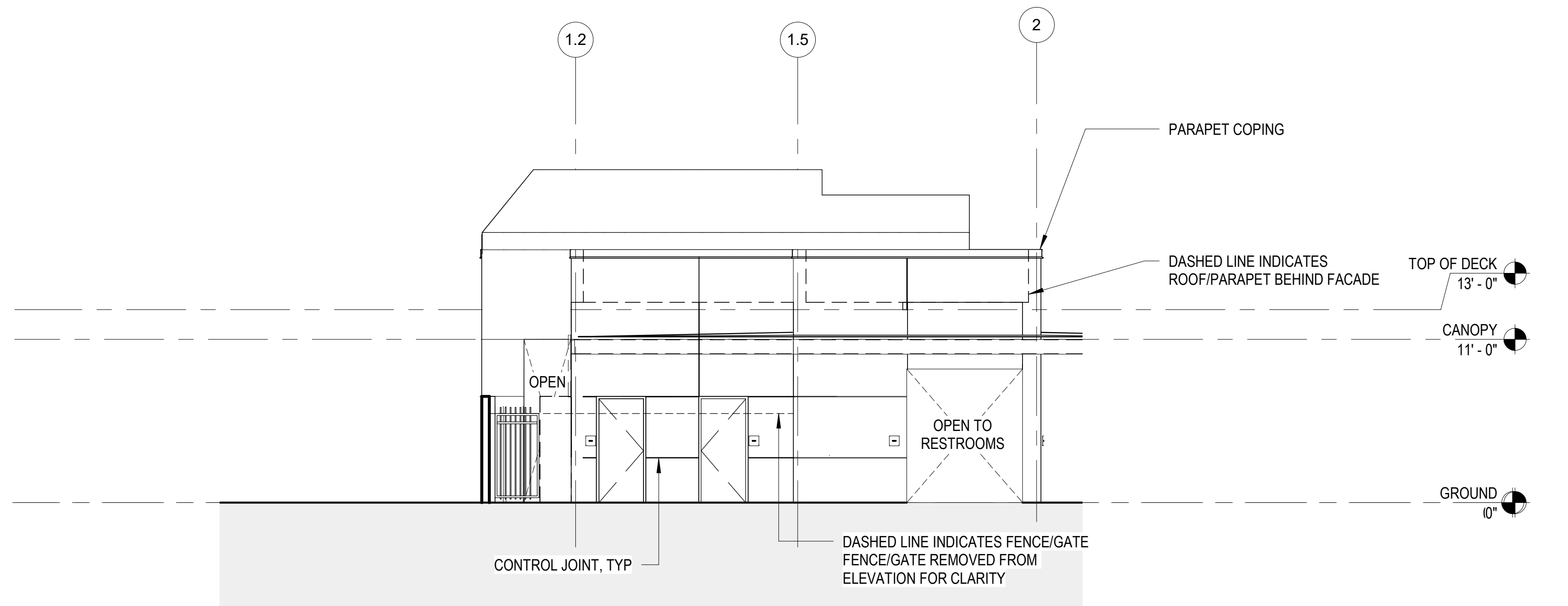
BLDG A - NORTH ELEVATION **A3**

1/8" = 1'-0"



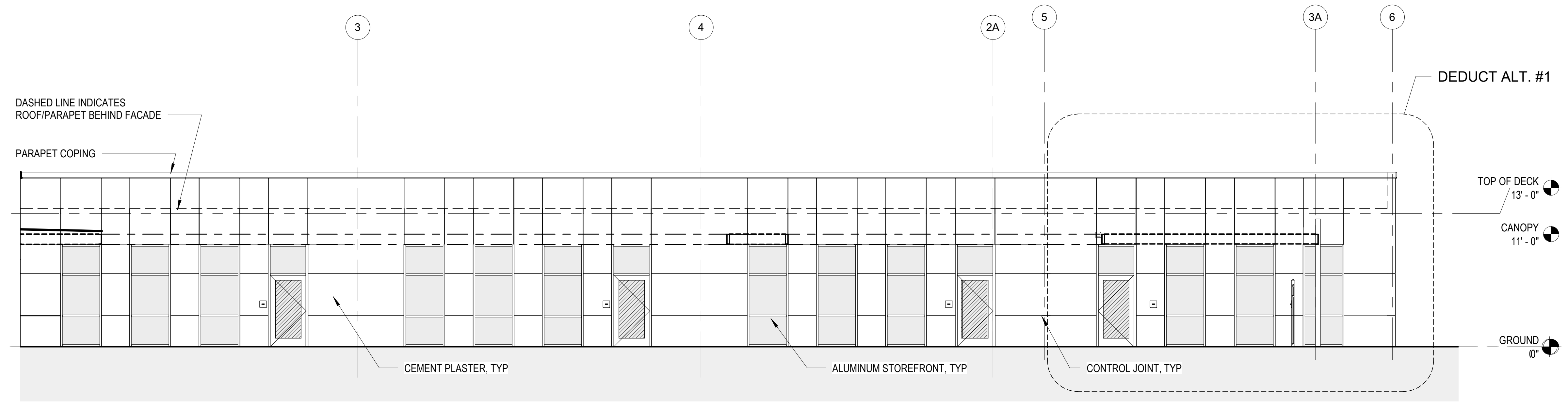
BLDG A - EAST ELEVATION **A5**

1/8" = 1'-0"



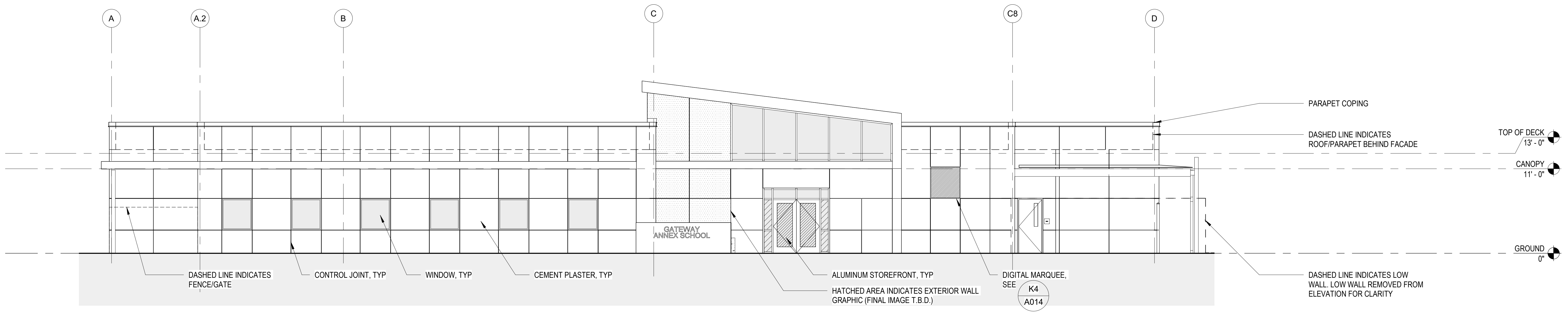
BLDG A - SOUTH ELEVATION **H7**

1/8" = 1'-0"



BLDG A - SOUTH ELEVATION **A7**

1/8" = 1'-0"



BLDG A - WEST ELEVATION **A10**

1/8" = 1'-0"

GLAZING LEGEND

▨	GLAZING TYPE I
▨	GLAZING TYPE II
░	GLAZING WITH FILM: FASARA - MILKY MILKY LIGHT GREY 2H2MAMML
▓	GLAZING WITH FILM: FASARA - CROSS HAIRLINE MILKY SH2CHML

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
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△	
△	
△	
△	

EXTERIOR ELEVATIONS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A201

GLAZING LEGEND

▨	GLAZING TYPE I
▨	GLAZING TYPE II
▒	GLAZING WITH FILM: FASARA - MILKY MILKY LIGHT GREY 2H2MAMML
▓	GLAZING WITH FILM: FASARA - CROSS HAIRLINE MILKY SH2CHML

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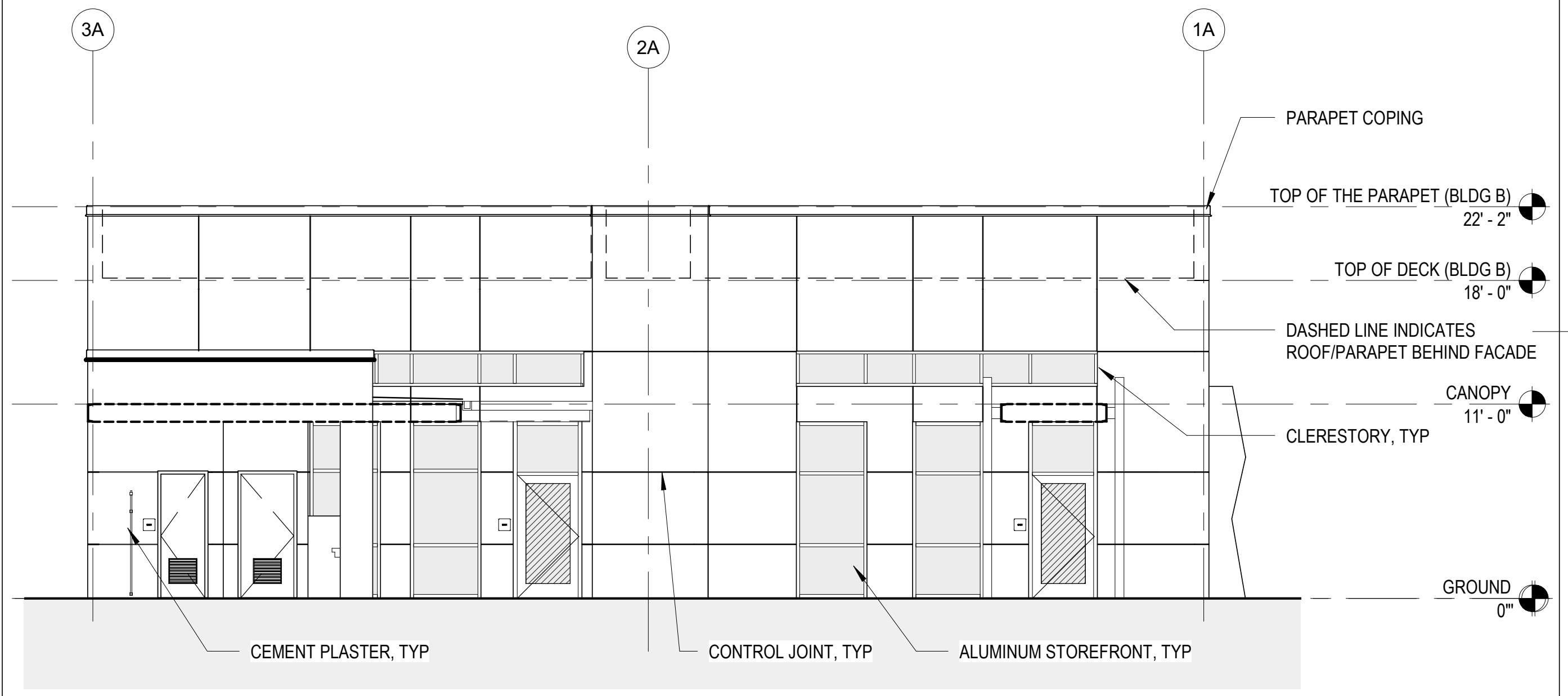
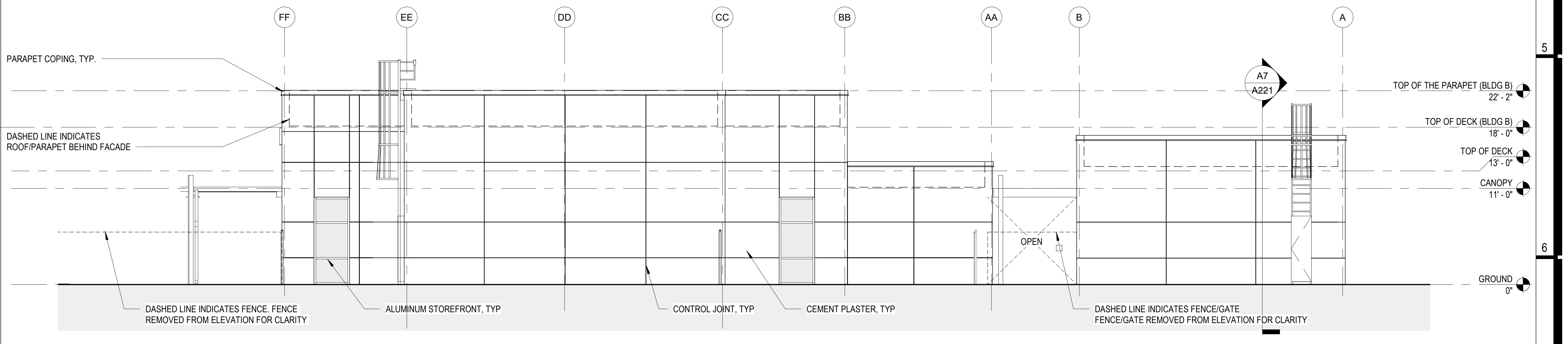
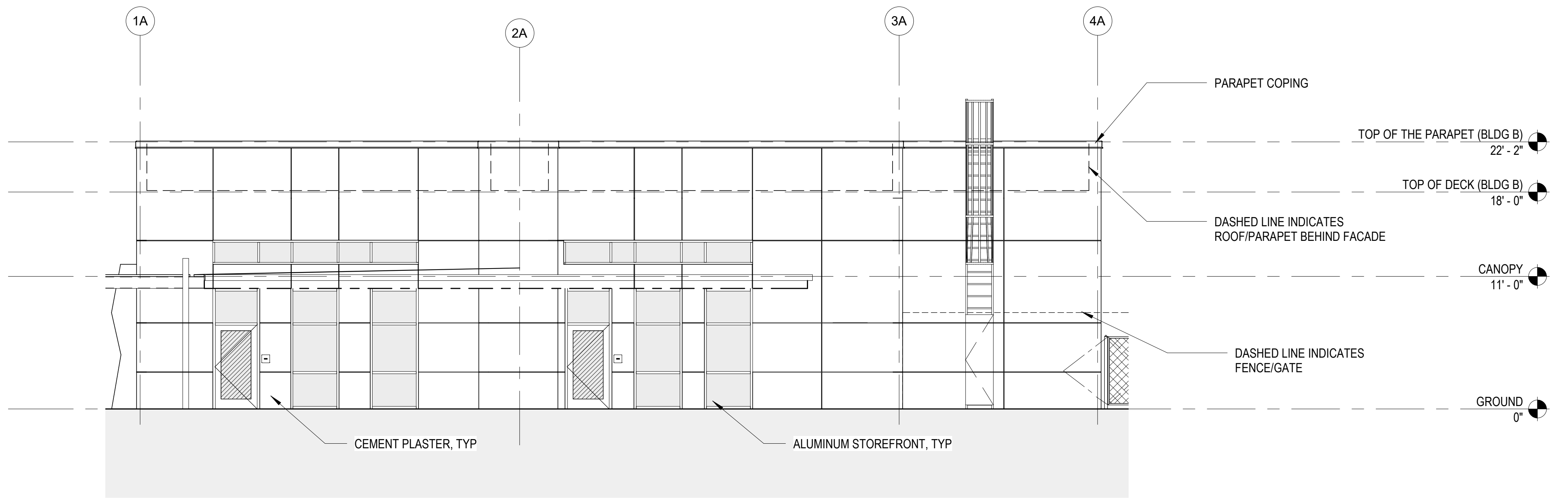
REN. JUL. 31, 2023



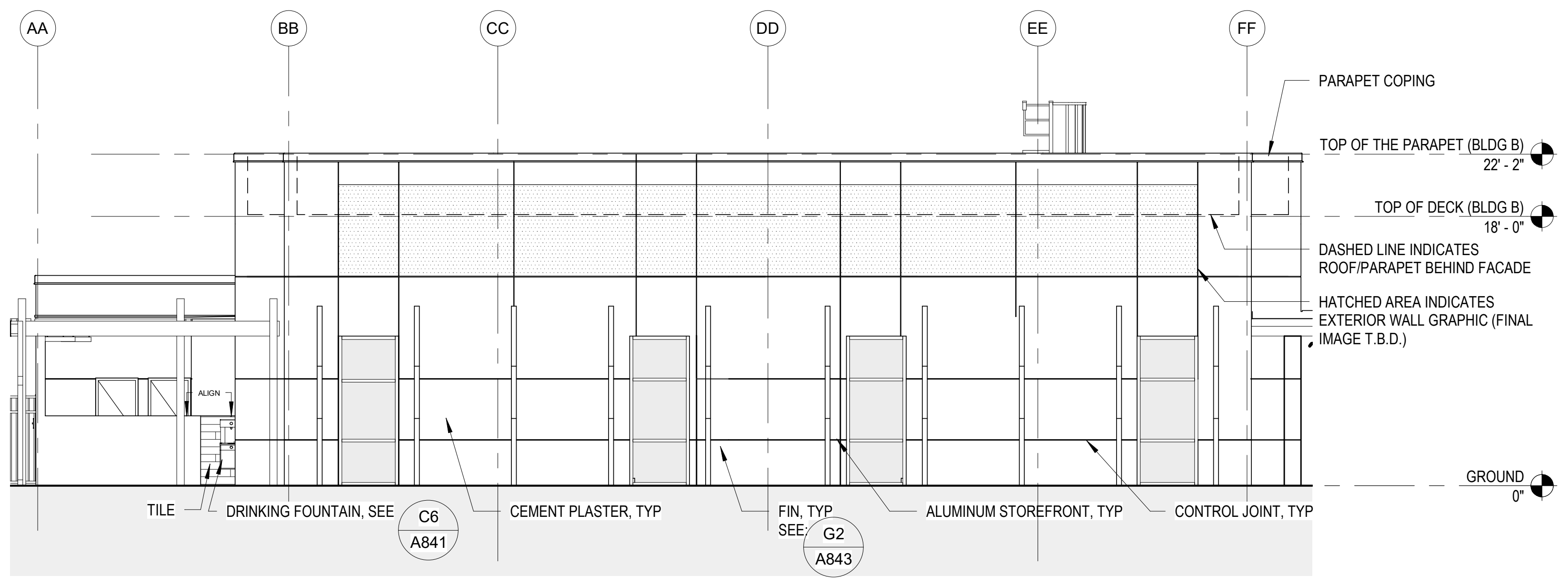
BLDG B - NORTH ELEVATION J7
1/8" = 1'-0"


FF
EE
DD
CC
BB
AA
B
A
A7
A221
PARAPET COPING, TYP.
DASHED LINE INDICATES ROOF/PARAPET BEHIND FACADE
TOP OF THE PARAPET (BLDG B)
22' - 2"
TOP OF DECK (BLDG B)
18' - 0"
TOP OF DECK
13' - 0"
CANOPY
11' - 0"
GROUND
0"
OPEN
DASHED LINE INDICATES FENCE. FENCE REMOVED FROM ELEVATION FOR CLARITY
ALUMINUM STOREFRONT, TYP
CONTROL JOINT, TYP
CEMENT PLASTER, TYP
DASHED LINE INDICATES FENCE/GATE FENCE/GATE REMOVED FROM ELEVATION FOR CLARITY

BLDGS A & B - EAST ELEVATION 1
1/8" = 1'-0"



BLDG B - SOUTH ELEVATION1 F10
1/8" = 1'-0"


AA
BB
CC
DD
EE
FF
PARAPET COPING
TOP OF THE PARAPET (BLDG B)
22' - 2"
TOP OF DECK (BLDG B)
18' - 0"
DASHED LINE INDICATES ROOF/PARAPET BEHIND FACADE
HATCHED AREA INDICATES EXTERIOR WALL GRAPHIC (FINAL IMAGE T.B.D.)
ALIGN
GROUND
0"
TILE
DRINKING FOUNTAIN, SEE C6 A841
CEMENT PLASTER, TYP
FIN, TYP SEE: G2 A843
ALUMINUM STOREFRONT, TYP
CONTROL JOINT, TYP

BLDG B - WEST ELEVATION A7
1/8" = 1'-0"

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EXTERIOR ELEVATIONS

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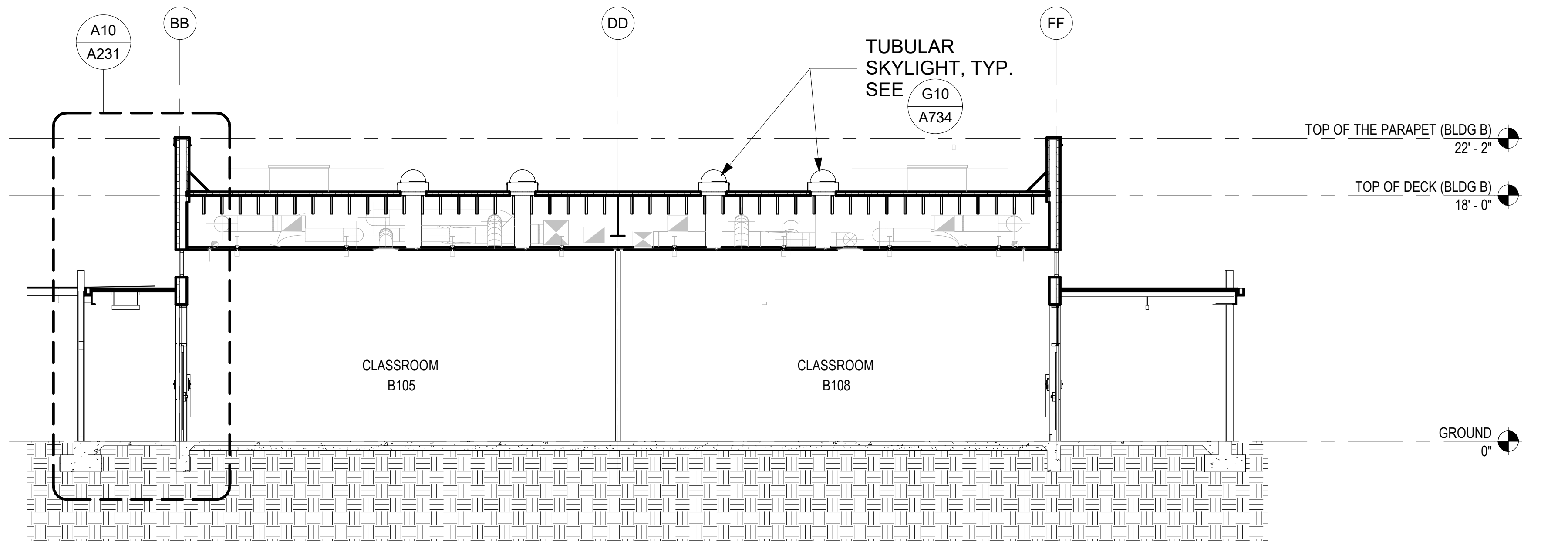
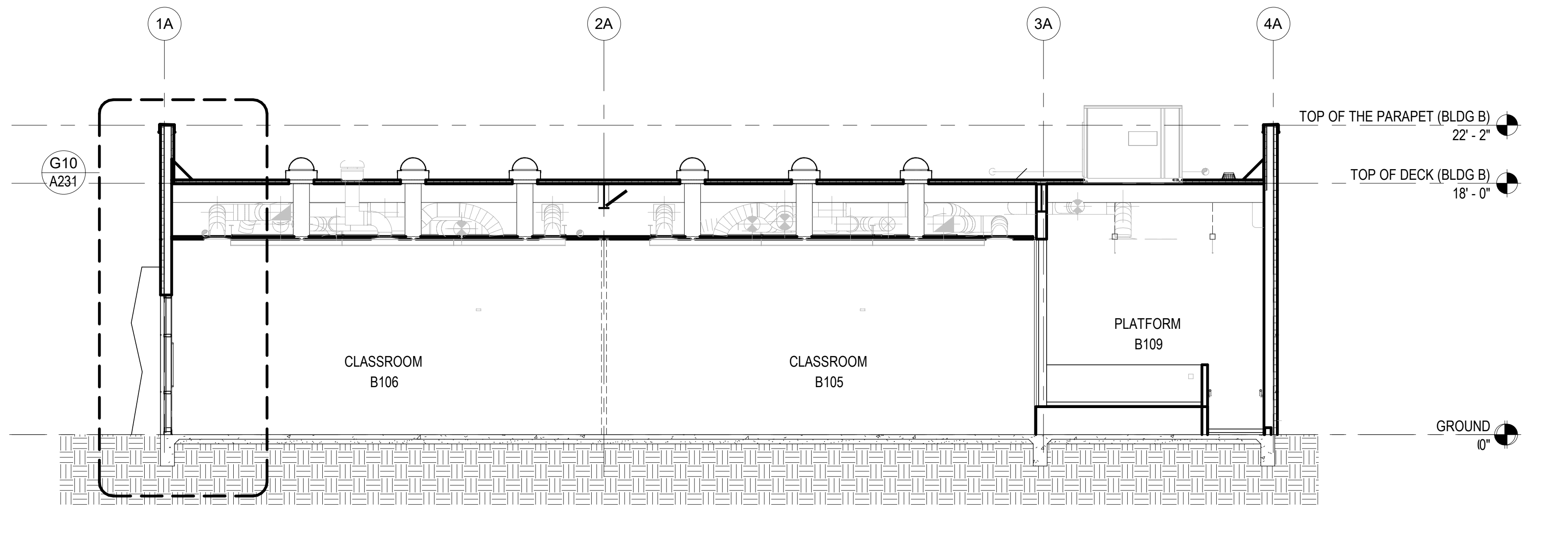
www.perkinseastman.com

A202



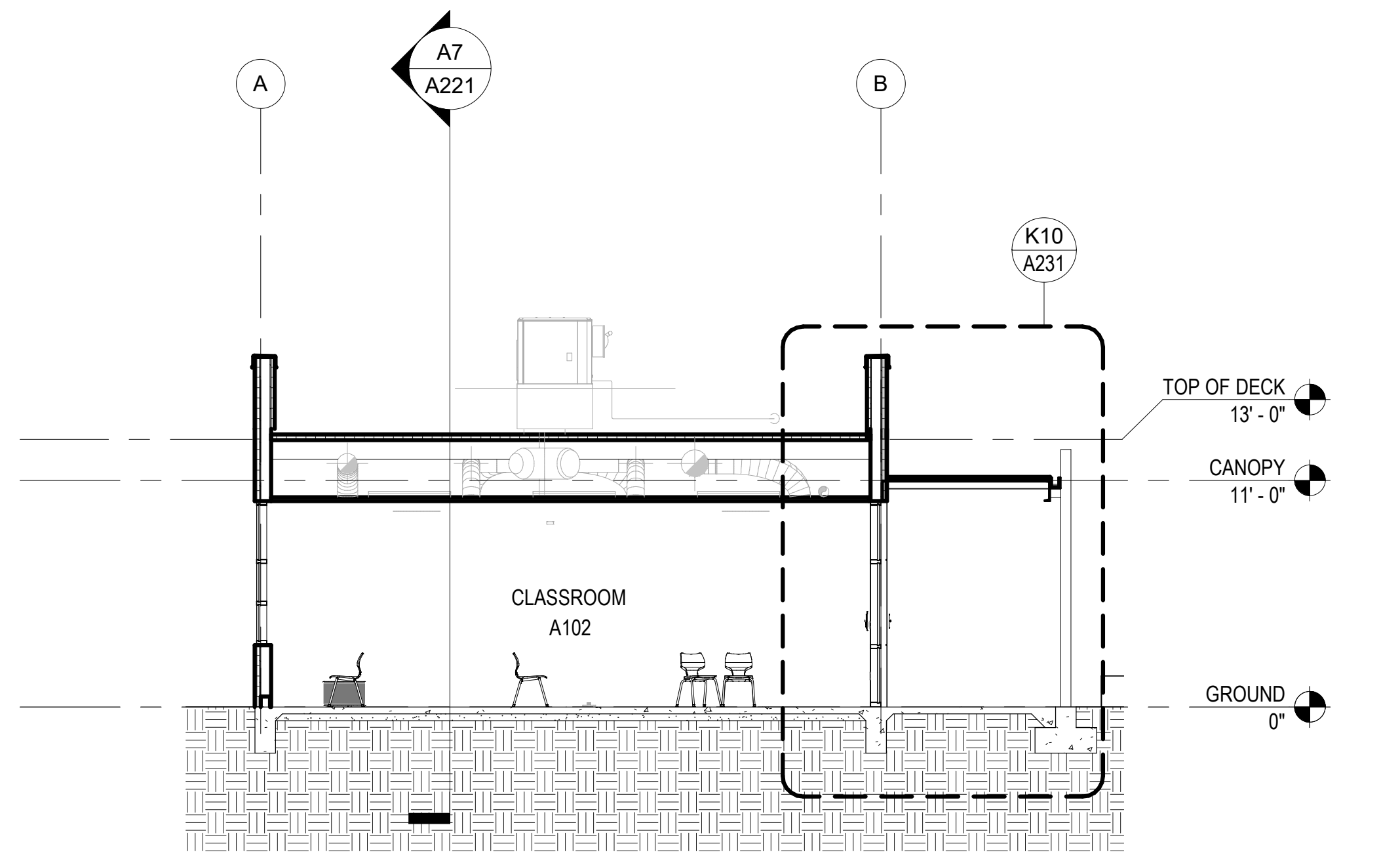
NS SECTION 4-CLASSROOM **G4**

1/8" = 1'-0"



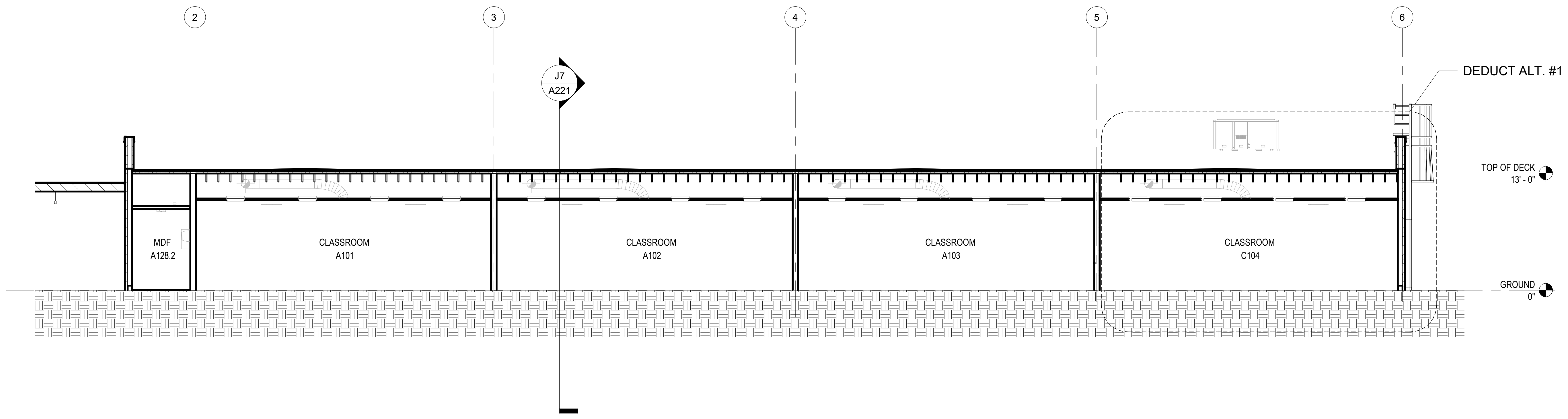
EW SECTION 4-CLASSROOM **A4**

1/8" = 1'-0"



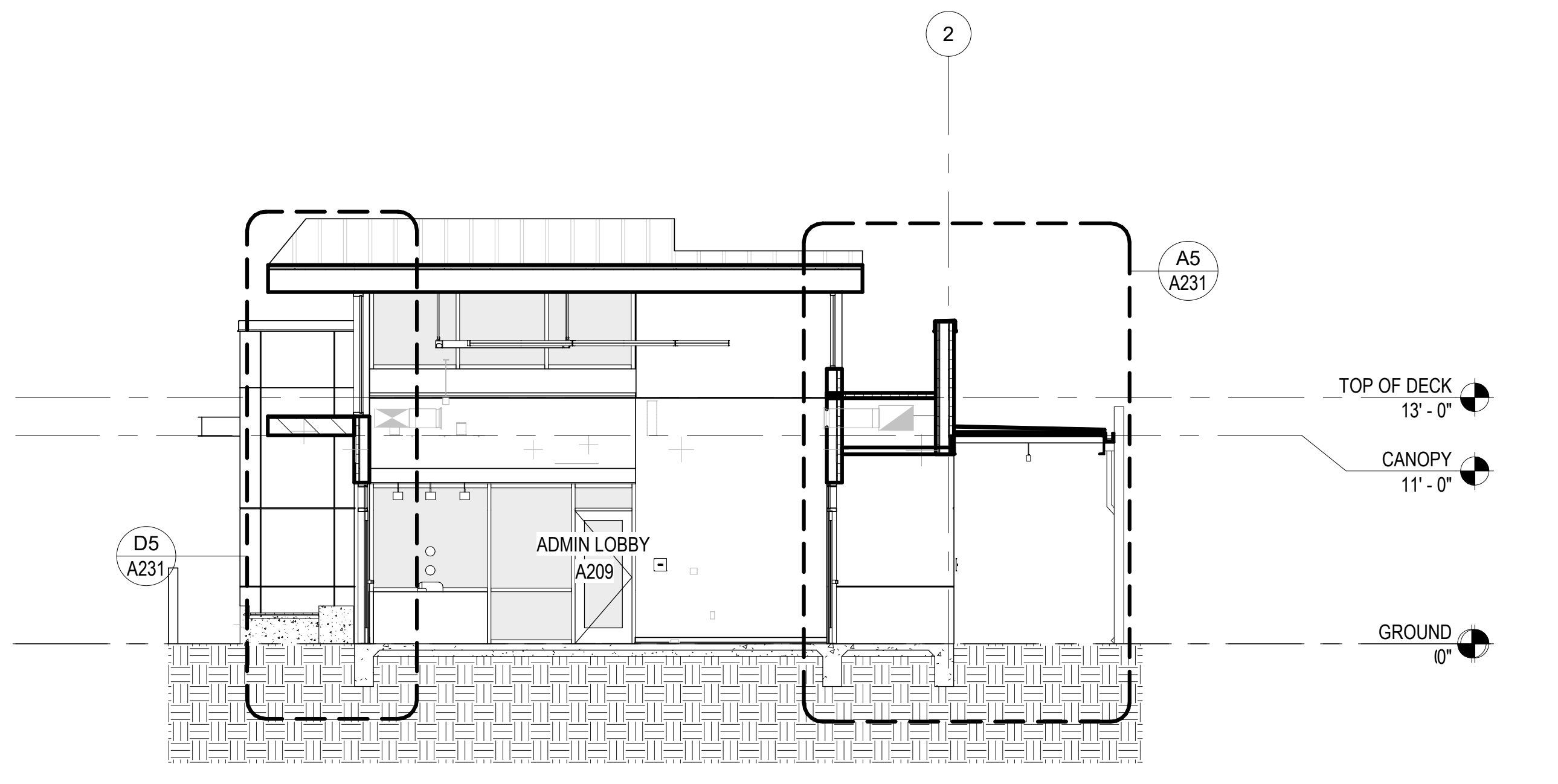
NS SECTION NORTH CLASSROOM **J7**

1/8" = 1'-0"



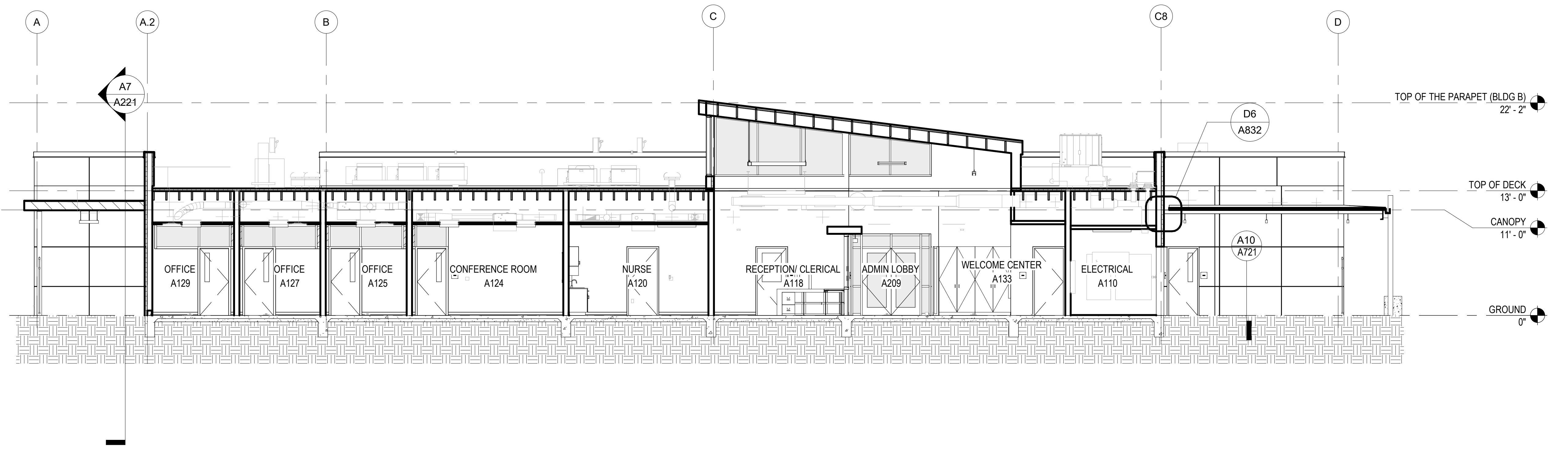
EW SECTION NORTH CLASSROOM **A7**

1/8" = 1'-0"



EW SECTION COURTYARD **J10**

1/8" = 1'-0"



NS SECTION ADMIN BUILDING **A10**

1/8" = 1'-0"

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NO. C-9824
REN. JUL. 31, 2023

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VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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BUILDING SECTIONS

PERKINS — EASTMAN

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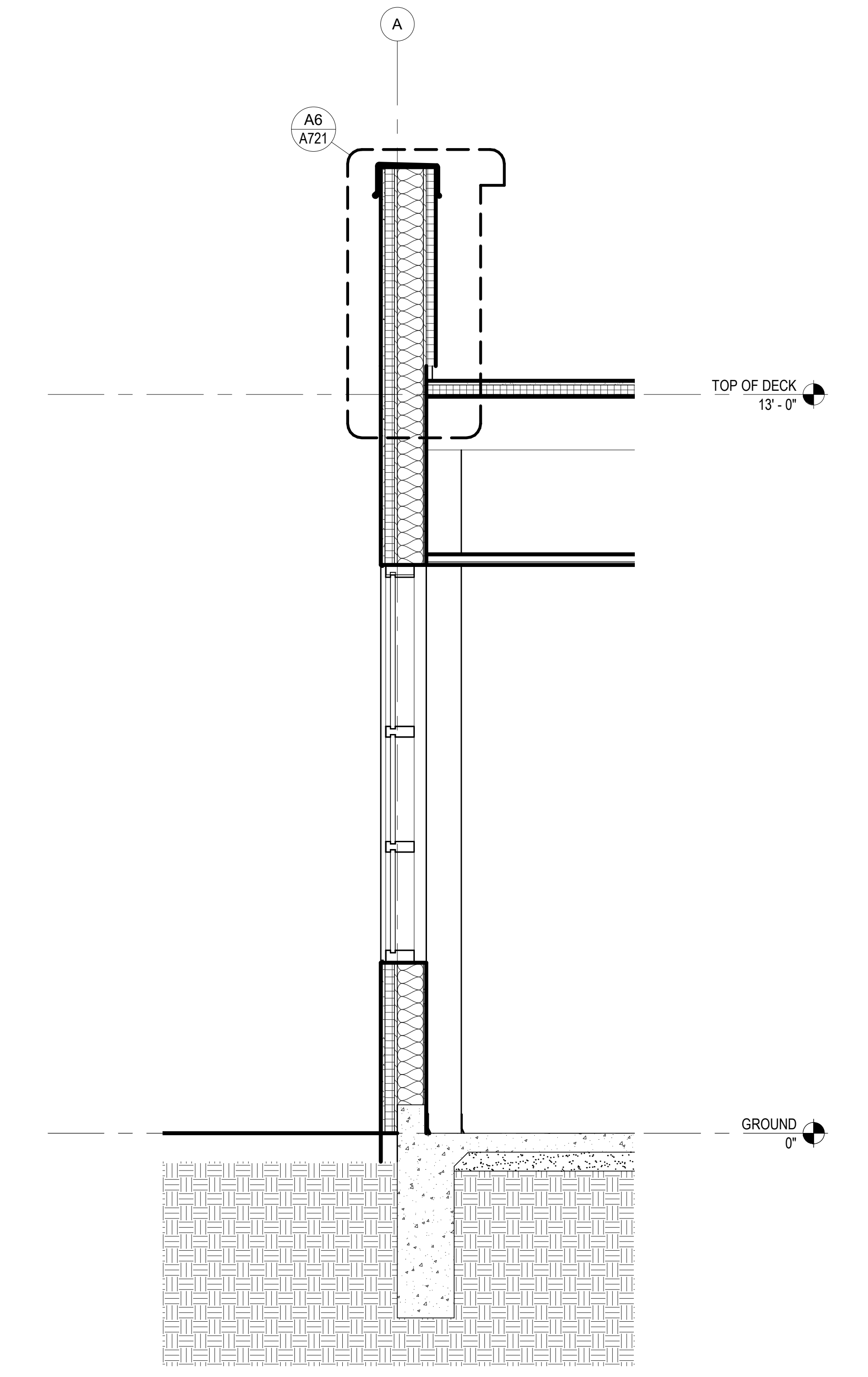
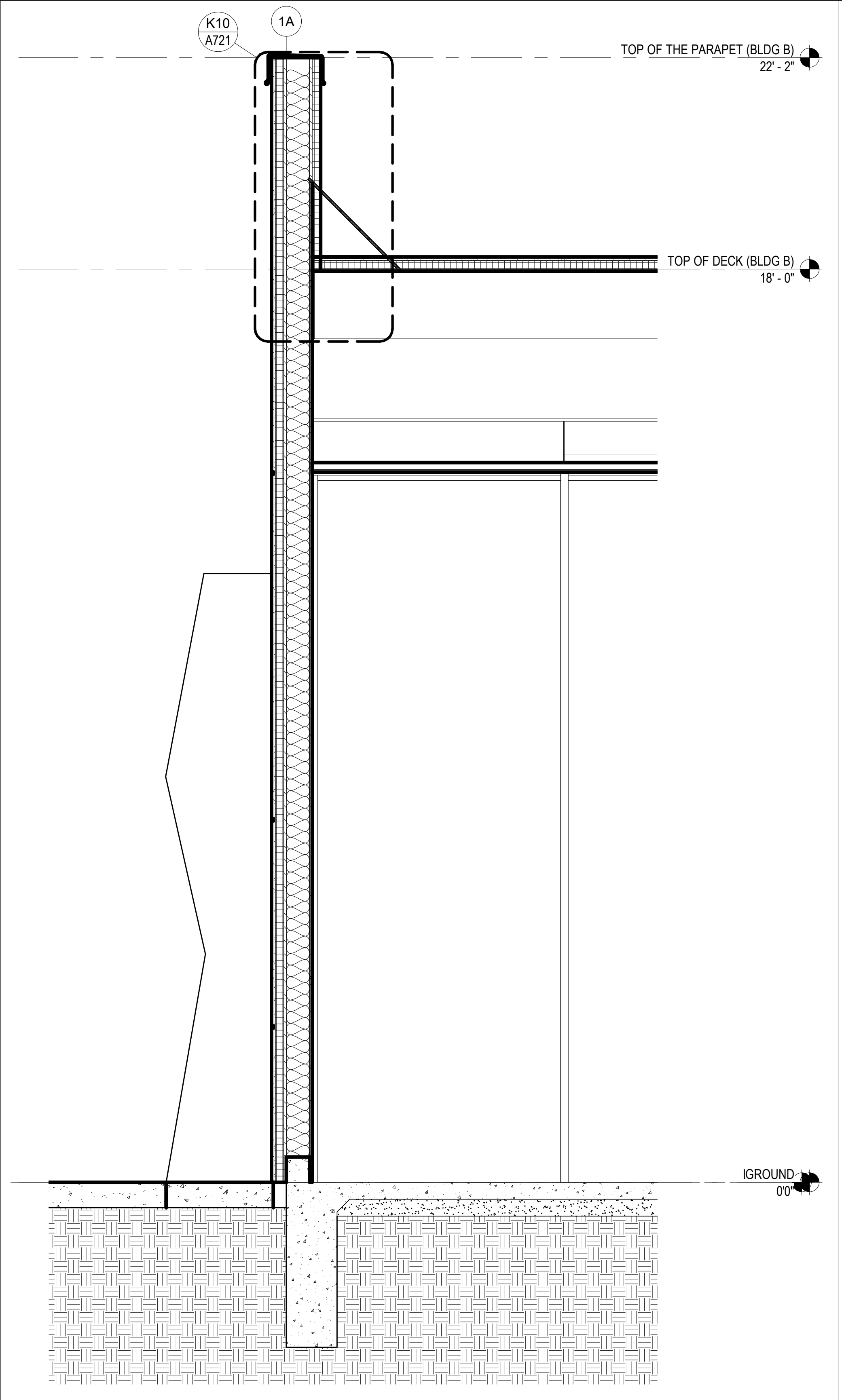
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A221



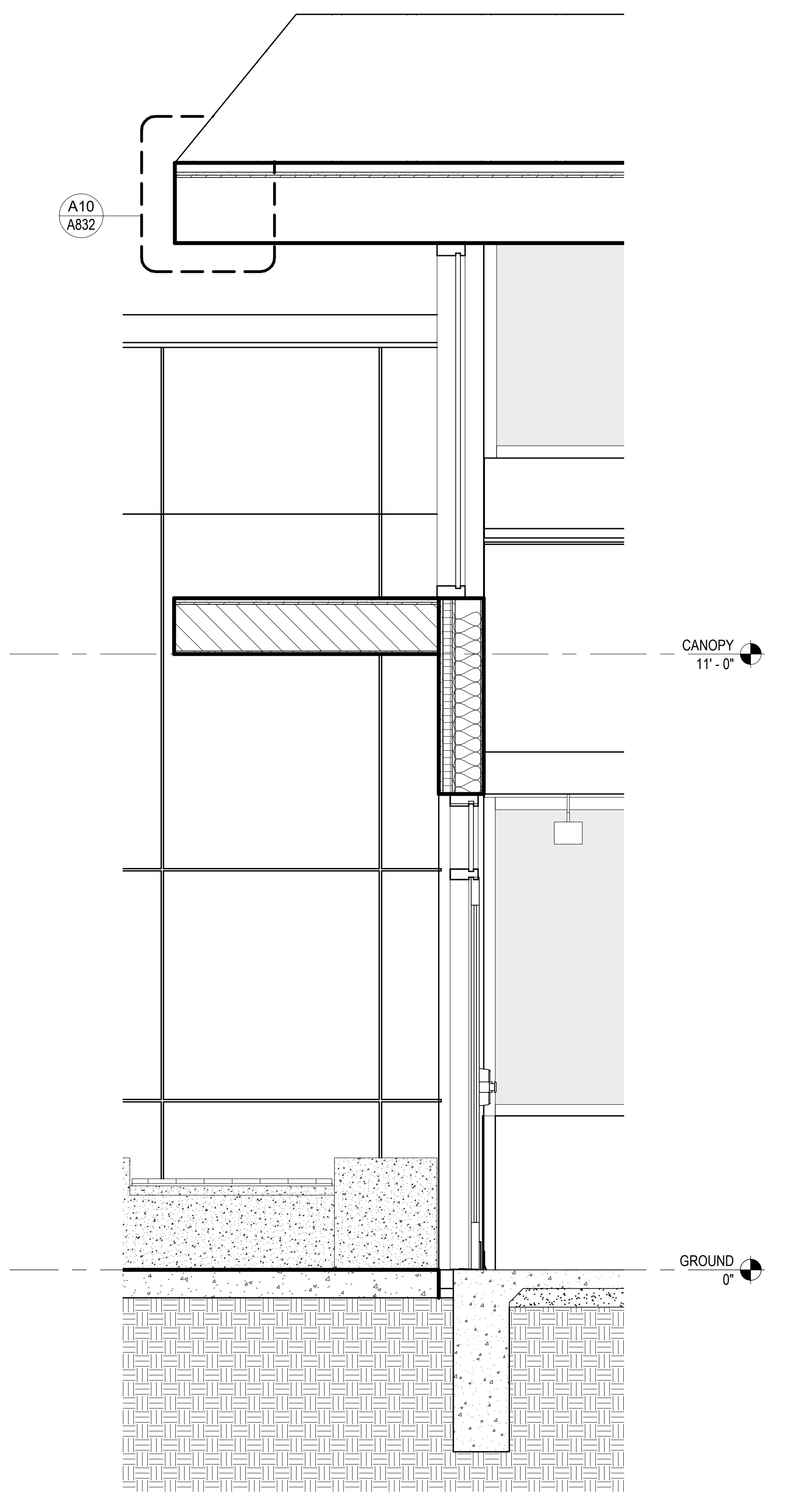
WALL SECTION - NORTH CLASSROOMS J5

1/2" = 1'-0"



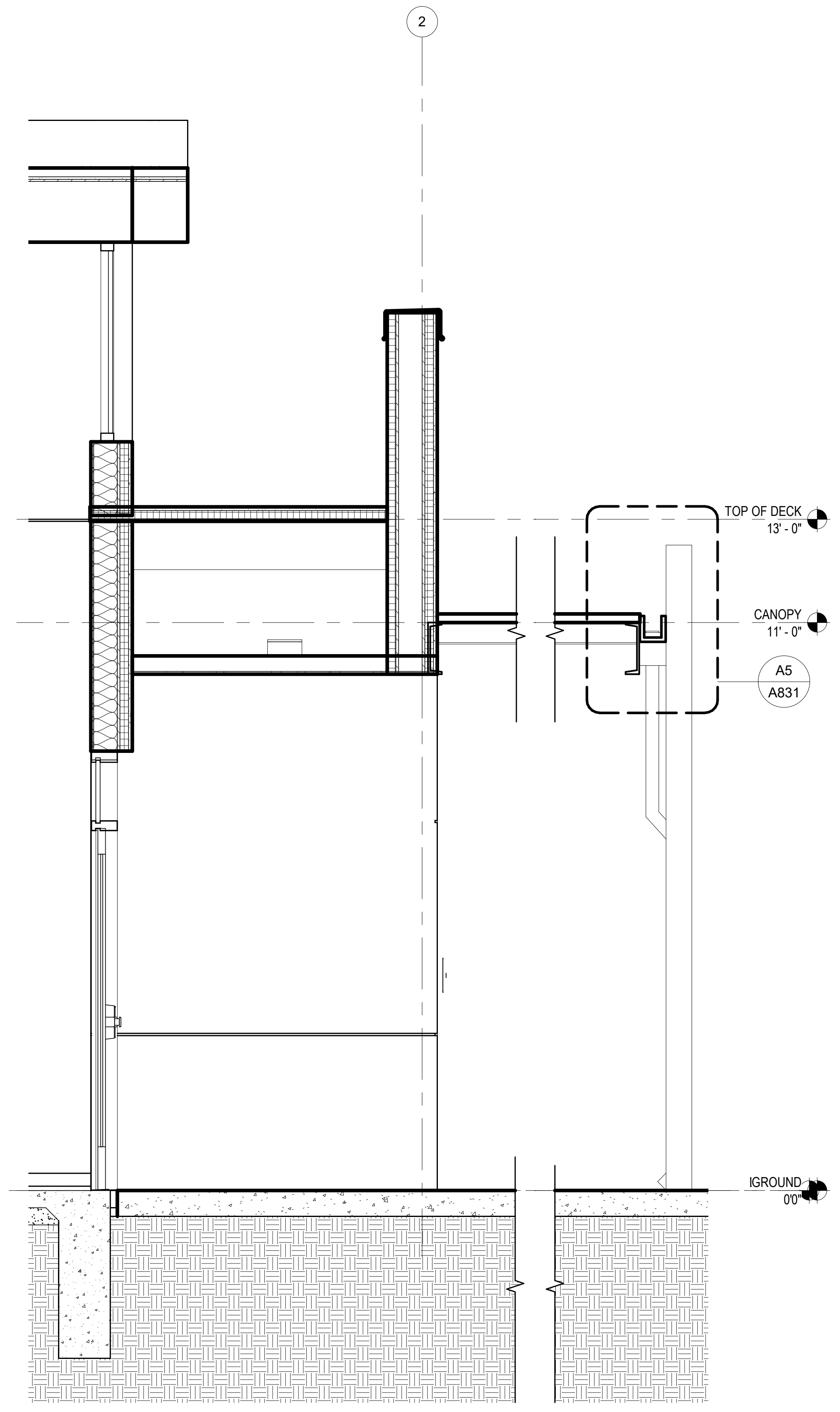
WALL SECTION - PARTITION POCKET G5

1/2" = 1'-0"



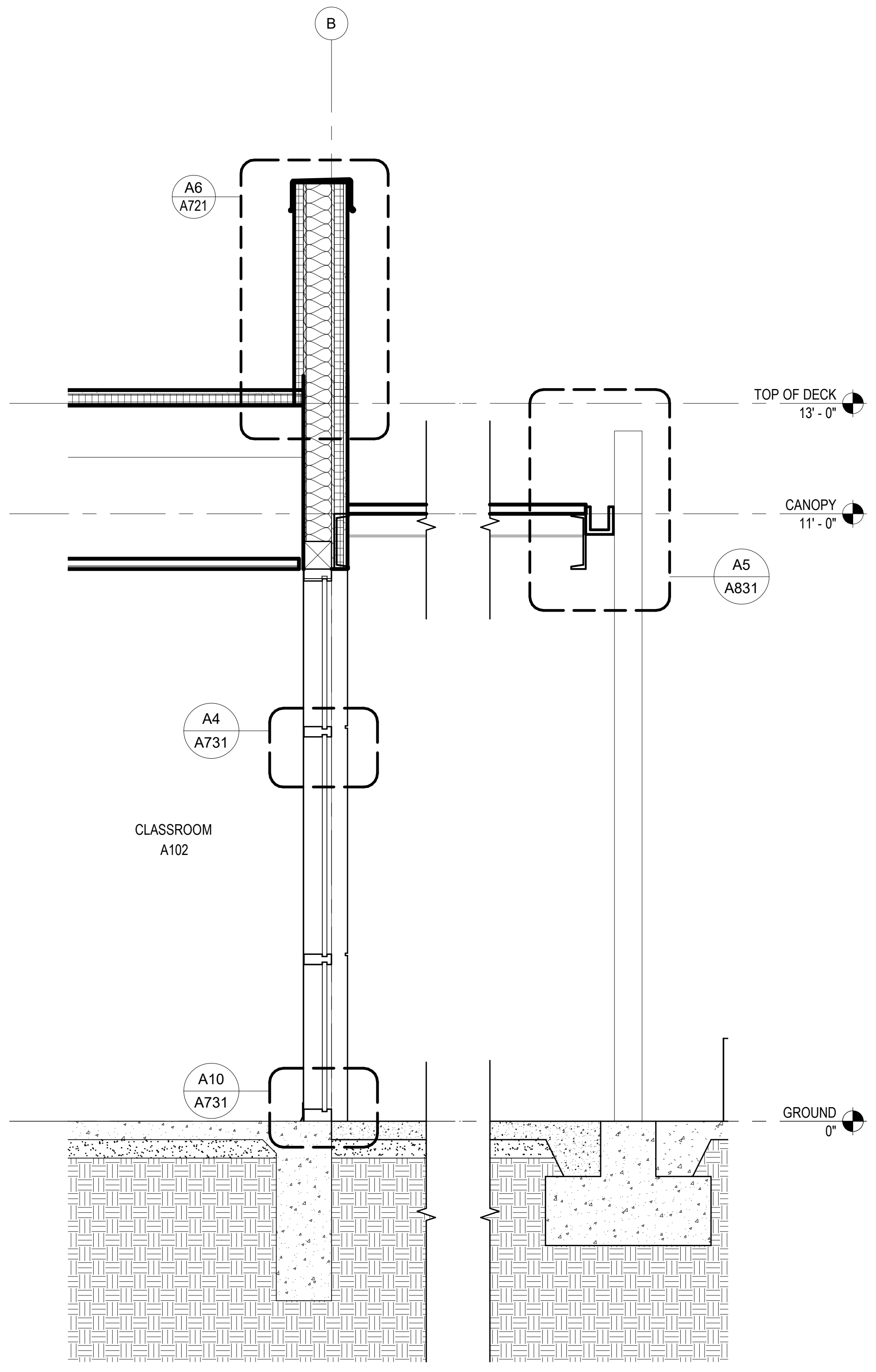
WALL SECTION - FRONT ENTRANCE D5

1/2" = 1'-0"



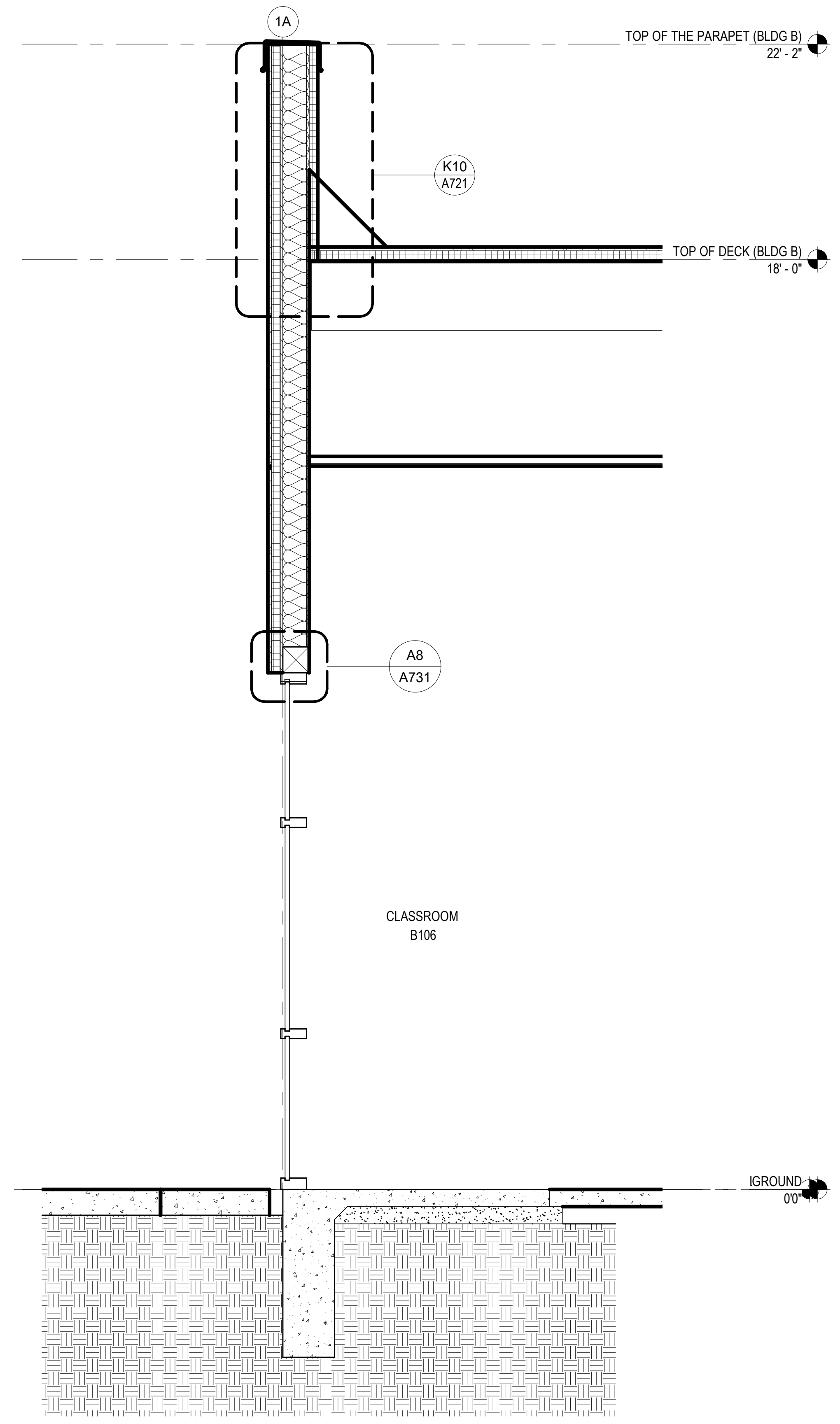
WALL SECTION - COURTYARD A5

1/2" = 1'-0"



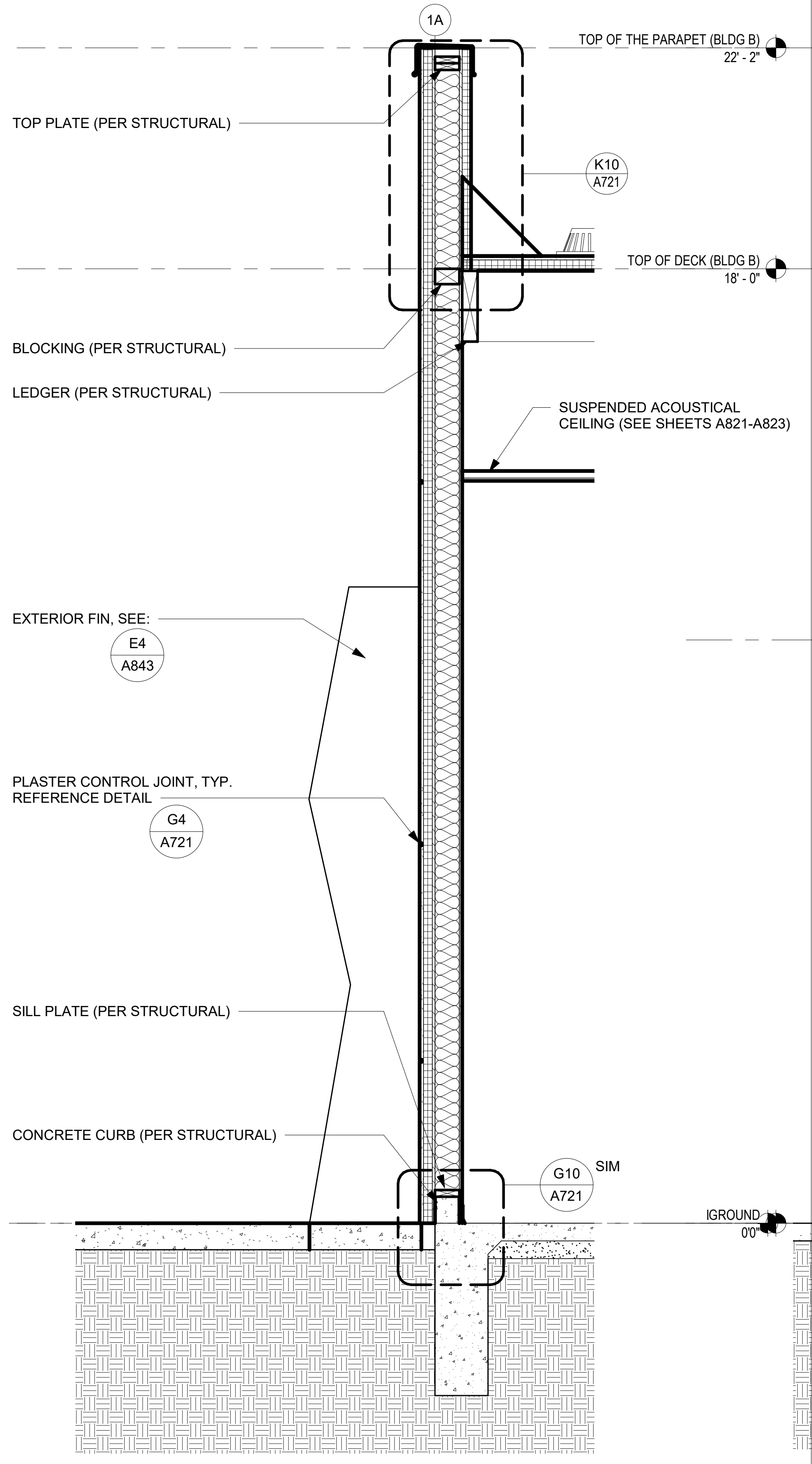
WALL SECTION - CANOPY K10

1/2" = 1'-0"



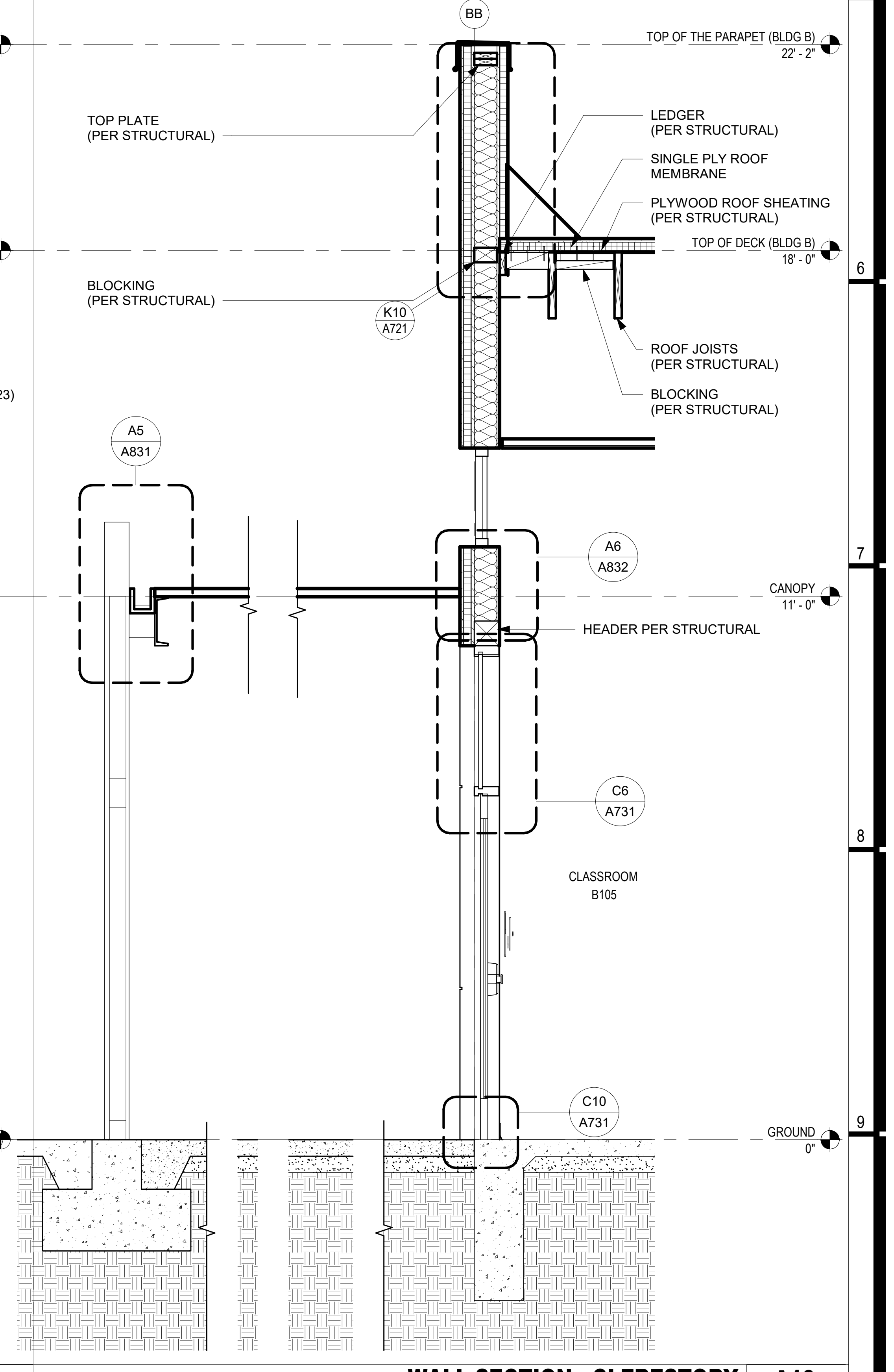
WALL SECTION - STOREFRONT G10

1/2" = 1'-0"


1A
TOP OF THE PARAPET (BLDG B)
22' - 2"
TOP PLATE (PER STRUCTURAL)
K10
A721
TOP OF DECK (BLDG B)
18' - 0"
BLOCKING (PER STRUCTURAL)
LEDGER (PER STRUCTURAL)
SUSPENDED ACOUSTICAL
CEILING (SEE SHEETS A821-A823)
EXTERIOR FIN, SEE:
E4
A843
PLASTER CONTROL JOINT, TYP.
REFERENCE DETAIL
G4
A721
SILL PLATE (PER STRUCTURAL)
CONCRETE CURB (PER STRUCTURAL)
G10
A721
SIM
IGROUND
0'0"

WALL SECTION - FINS D10

1/2" = 1'-0"



WALL SECTION - CLERESTORY A10

1/2" = 1'-0"

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

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EXTERIOR WALL SECTIONS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A231

IDENTIFICATION STAMP
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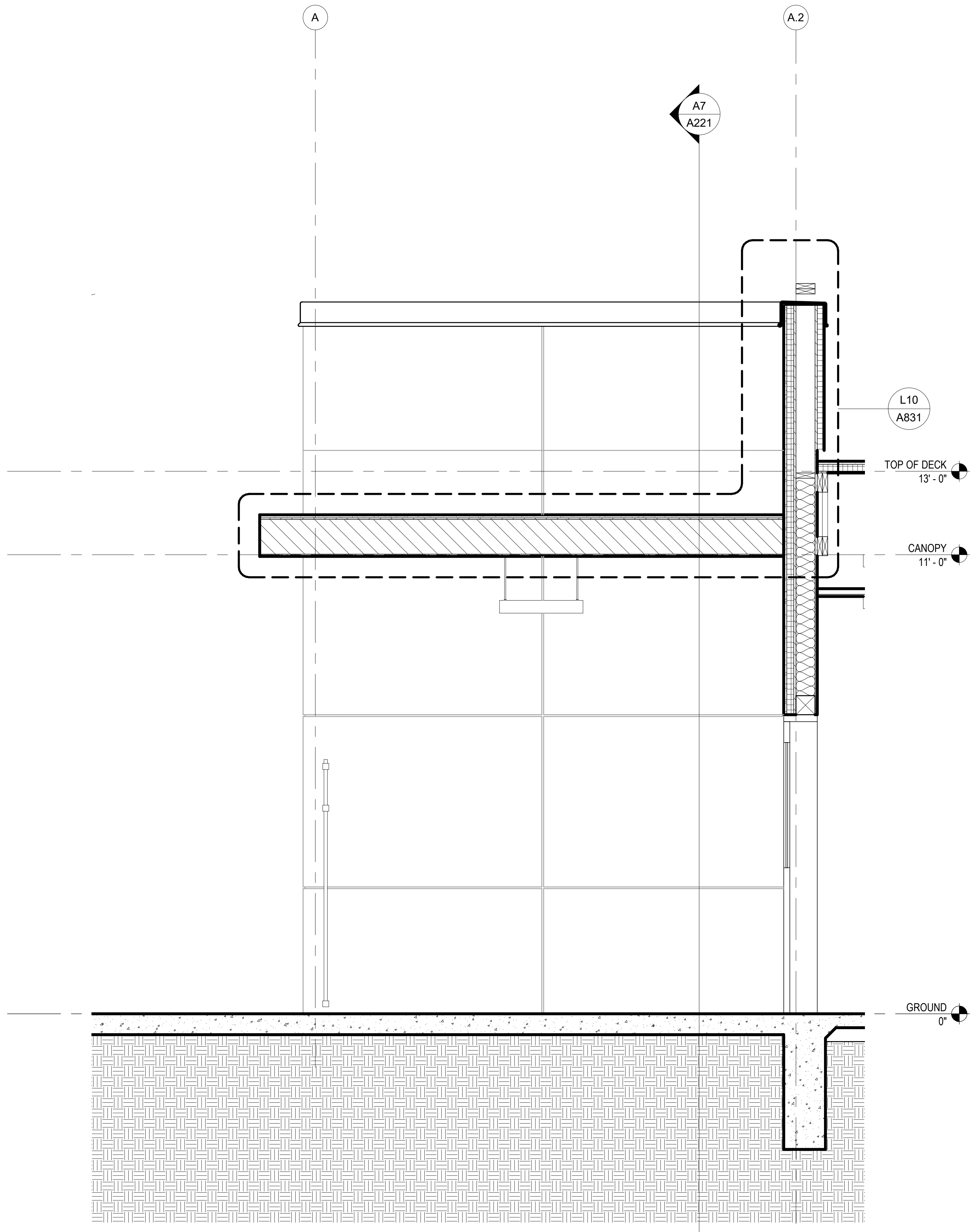

WALL SECTION - STAFF PATIO **A10**
1/2" = 1'-0"

GATEWAY ANNEX SCHOOL

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EXTERIOR WALL SECTIONS

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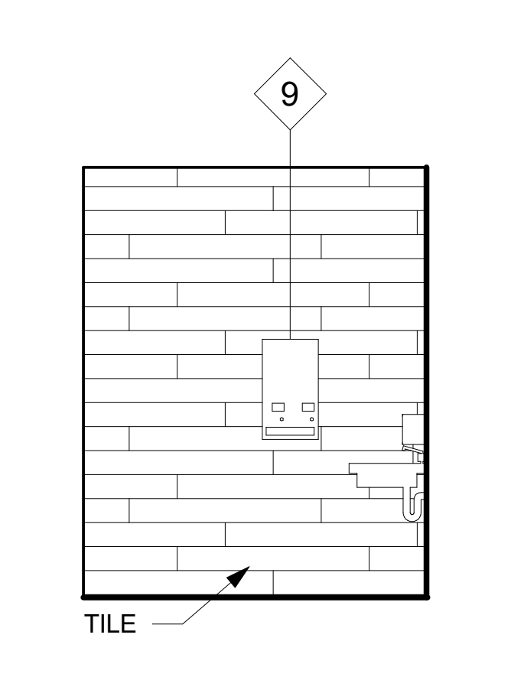
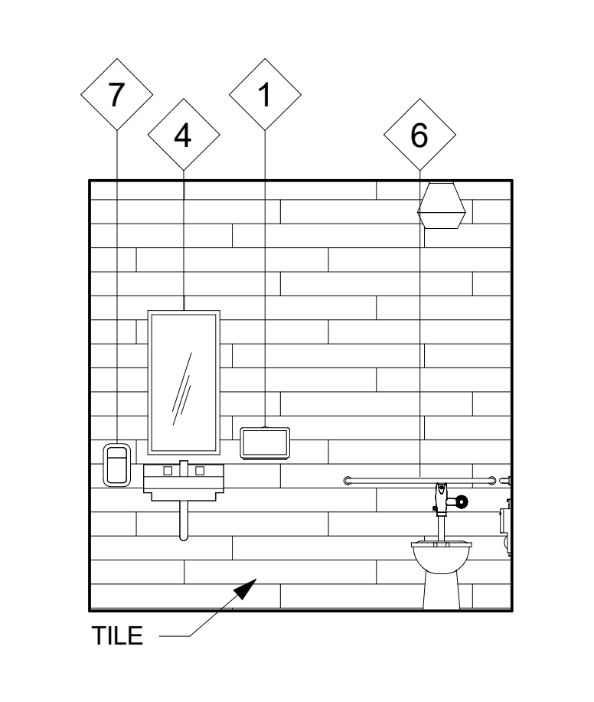
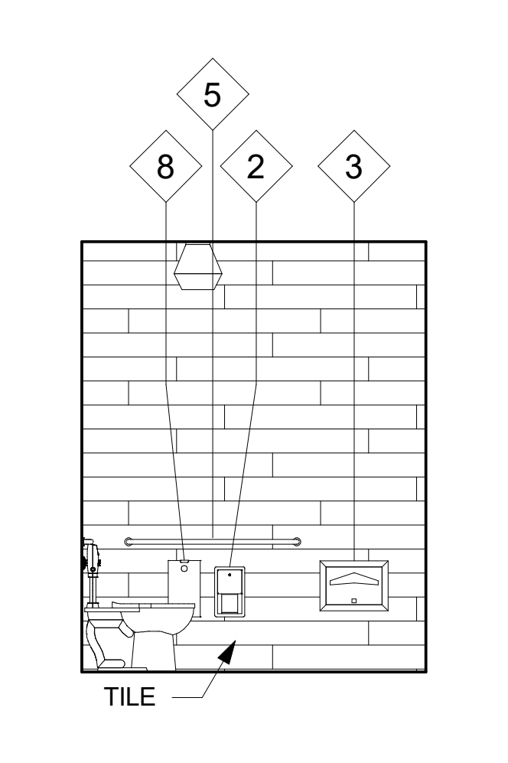
A232



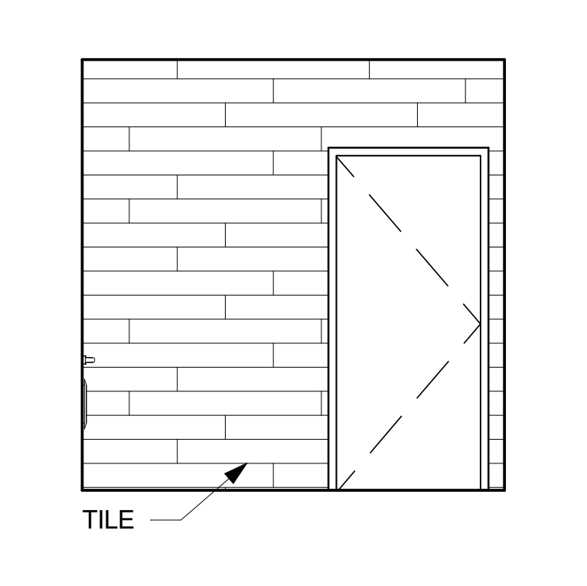
PUBLIC RESTROOM - NORTH L2
1/4" = 1'-0"



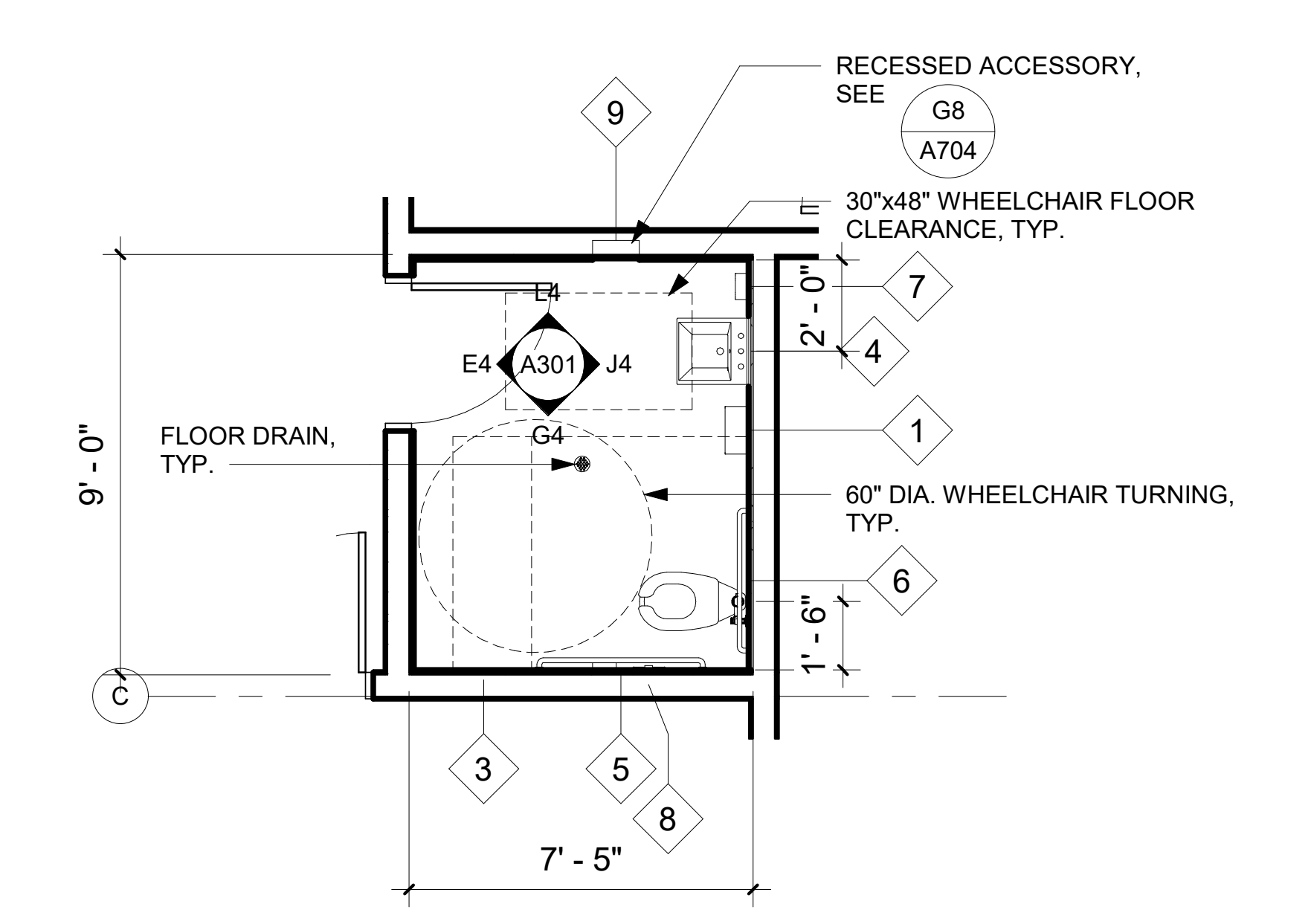
PUBLIC RESTROOM - EAST J2
1/4" = 1'-0"



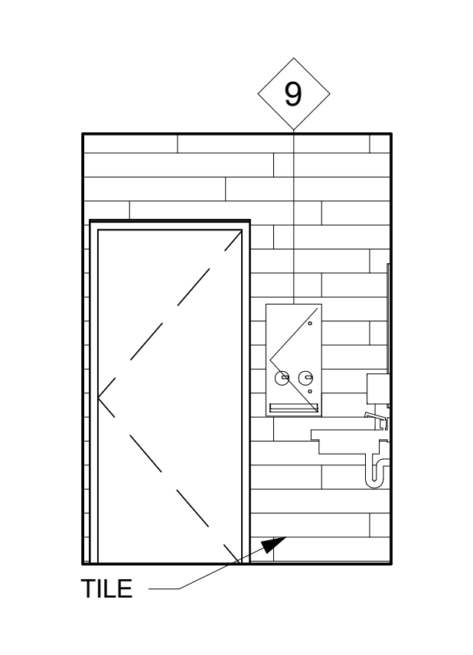
PUBLIC RESTROOM - SOUTH G2
1/4" = 1'-0"



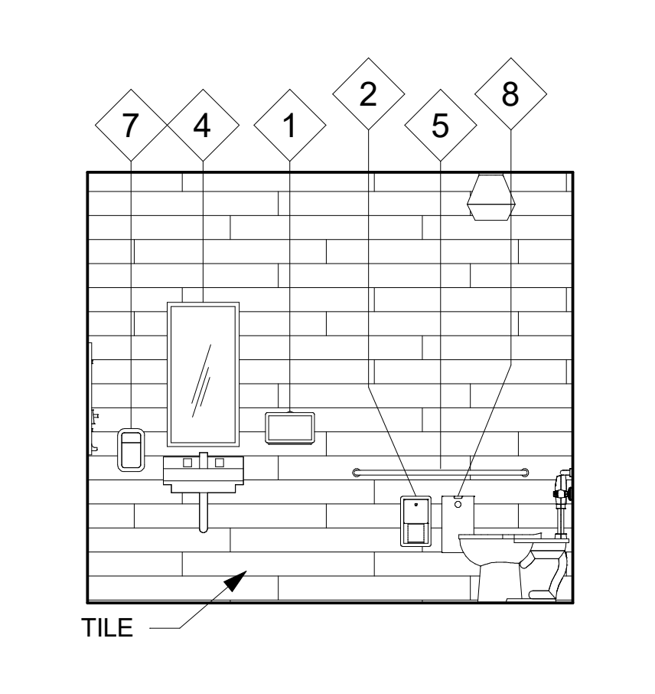
PUBLIC RESTROOM - WEST E2
1/4" = 1'-0"


9
RECESSED ACCESSORY, SEE G8 A704
30"x48" WHEELCHAIR FLOOR CLEARANCE, TYP.
7
4
1
60" DIA. WHEELCHAIR TURNING, TYP.
6
FLOOR DRAIN, TYP.
9' - 0"
2' - 0"
1' - 6"
L4
E4
A301
J4
G4
C
3
5
8
7' - 5"

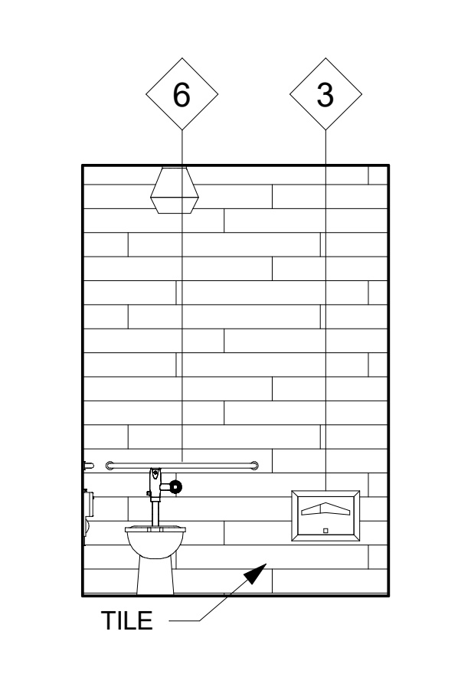
ENLARGED FLOOR PLAN - A119 PUBLIC RESTROOM A2
1/4" = 1'-0"



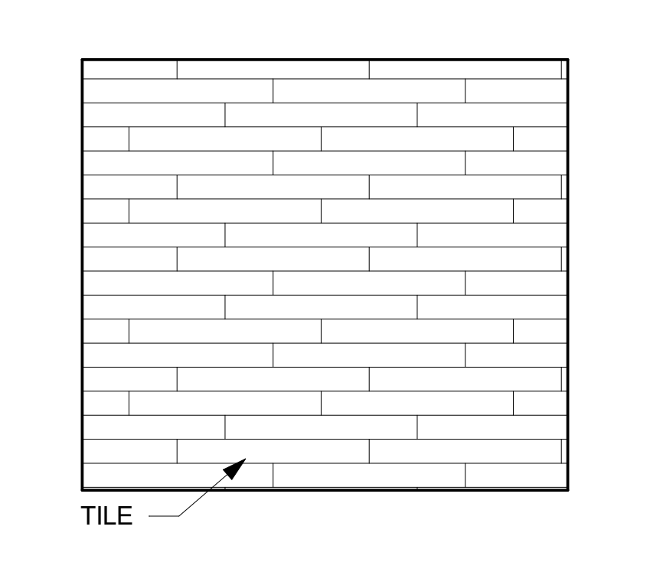
STAFF RESTROOM - NORTH L4
1/4" = 1'-0"



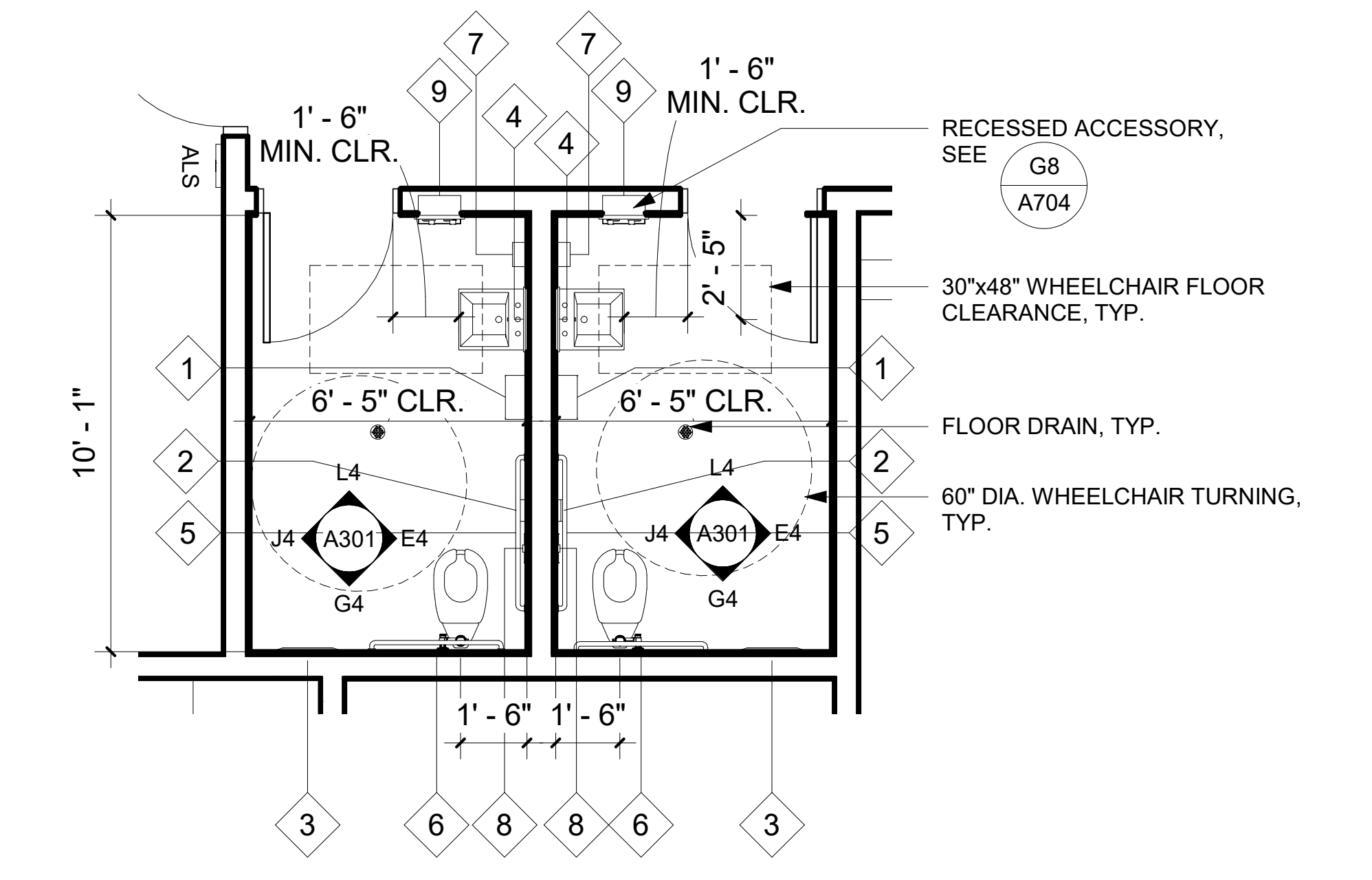
STAFF RESTROOM - EAST J4
1/4" = 1'-0"



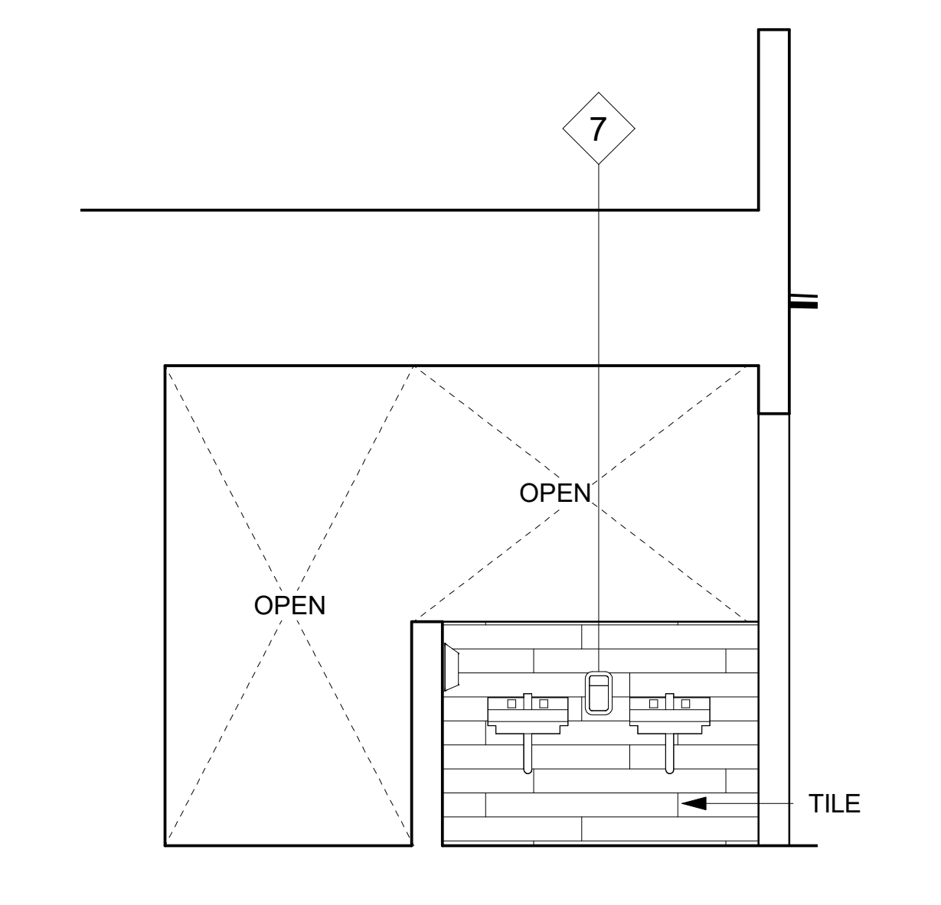
STAFF RESTROOM - SOUTH G4
1/4" = 1'-0"



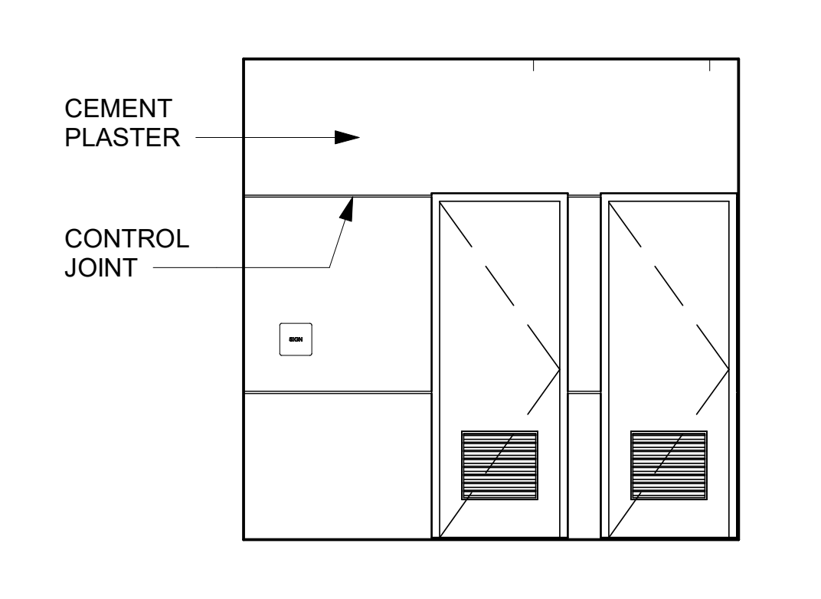
STAFF RESTROOM - WEST E4
1/4" = 1'-0"



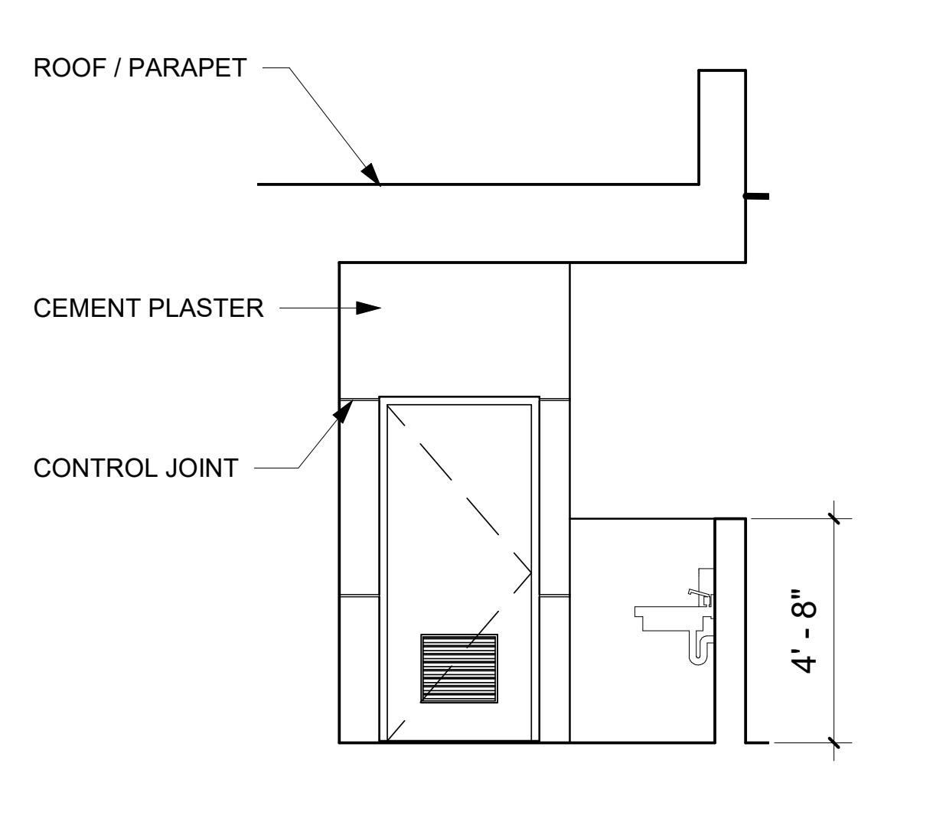
ENLARGED FLOOR PLAN - A122/A123 STAFF RESTROOMS A4
1/4" = 1'-0"



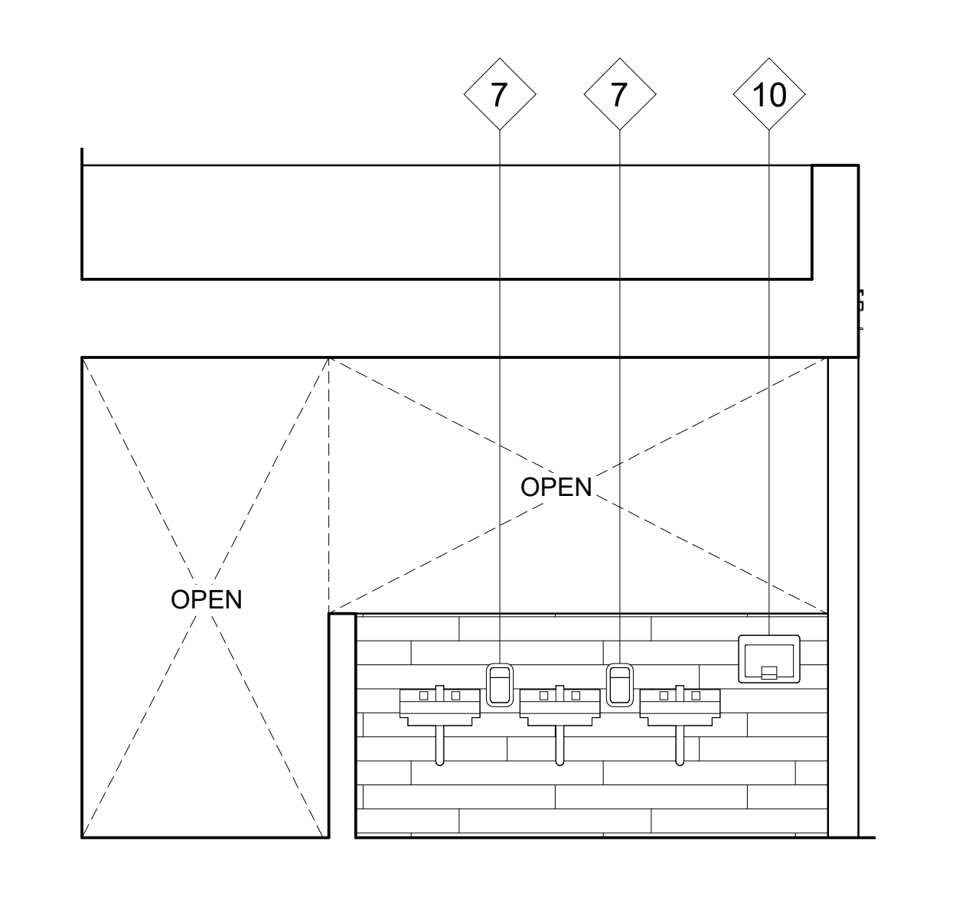
STUDENT RESTROOM - EAST L6
1/4" = 1'-0"



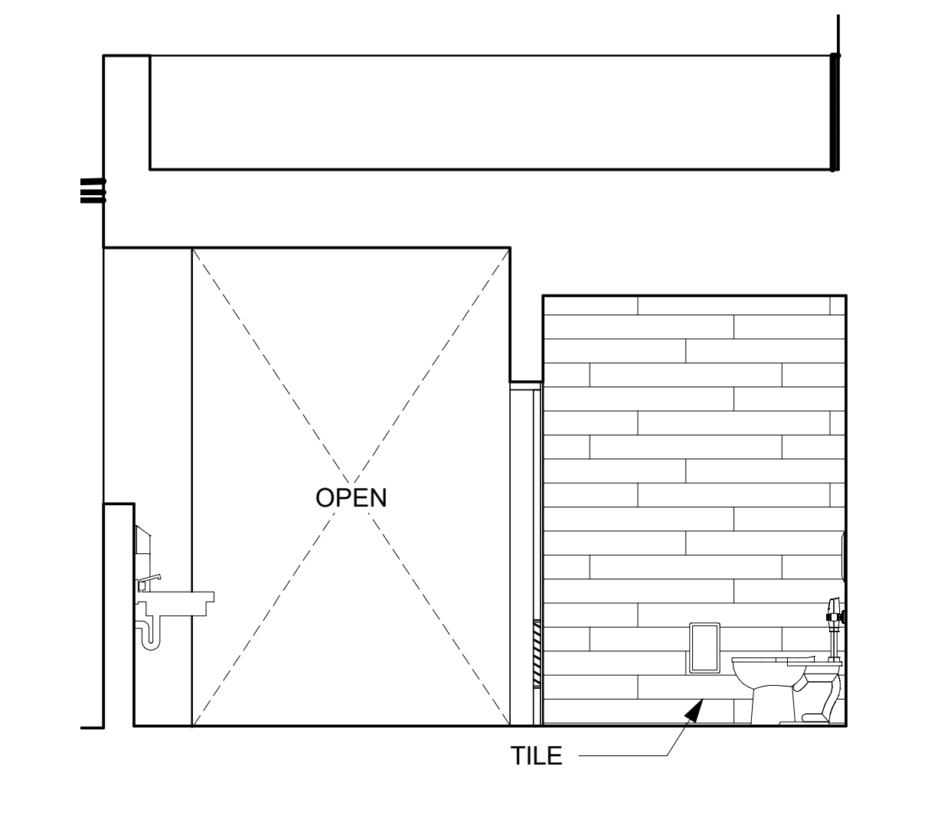
STUDENT RESTROOM - EAST J6
1/4" = 1'-0"



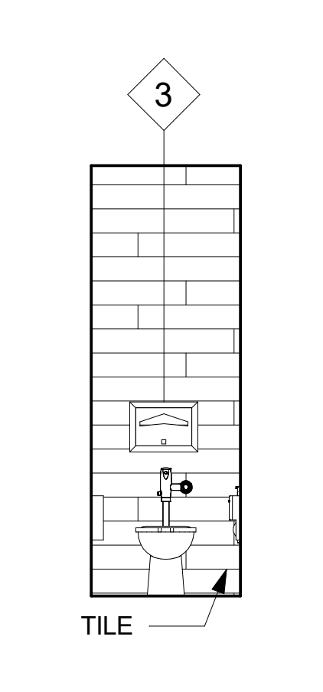
STUDENT RESTROOM - SOUTH G6
1/4" = 1'-0"



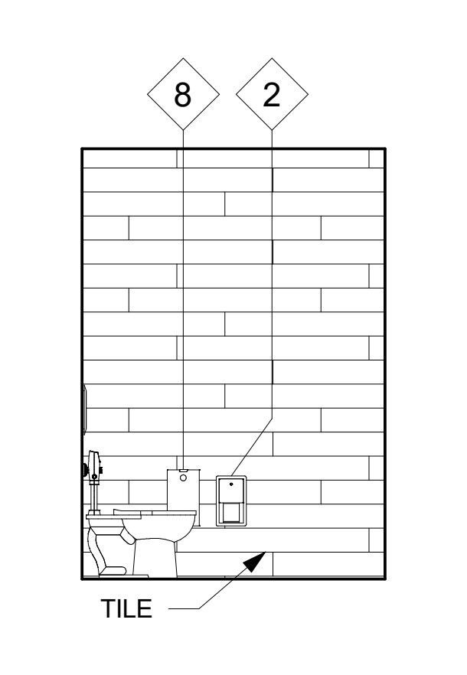
STUDENT RESTROOM - WEST E6
1/4" = 1'-0"



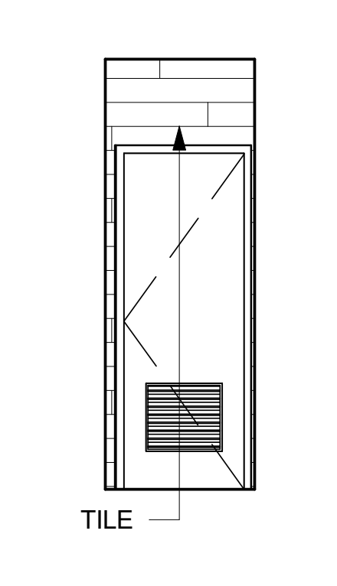
STUDENT TOILET - NORTH L8
1/4" = 1'-0"



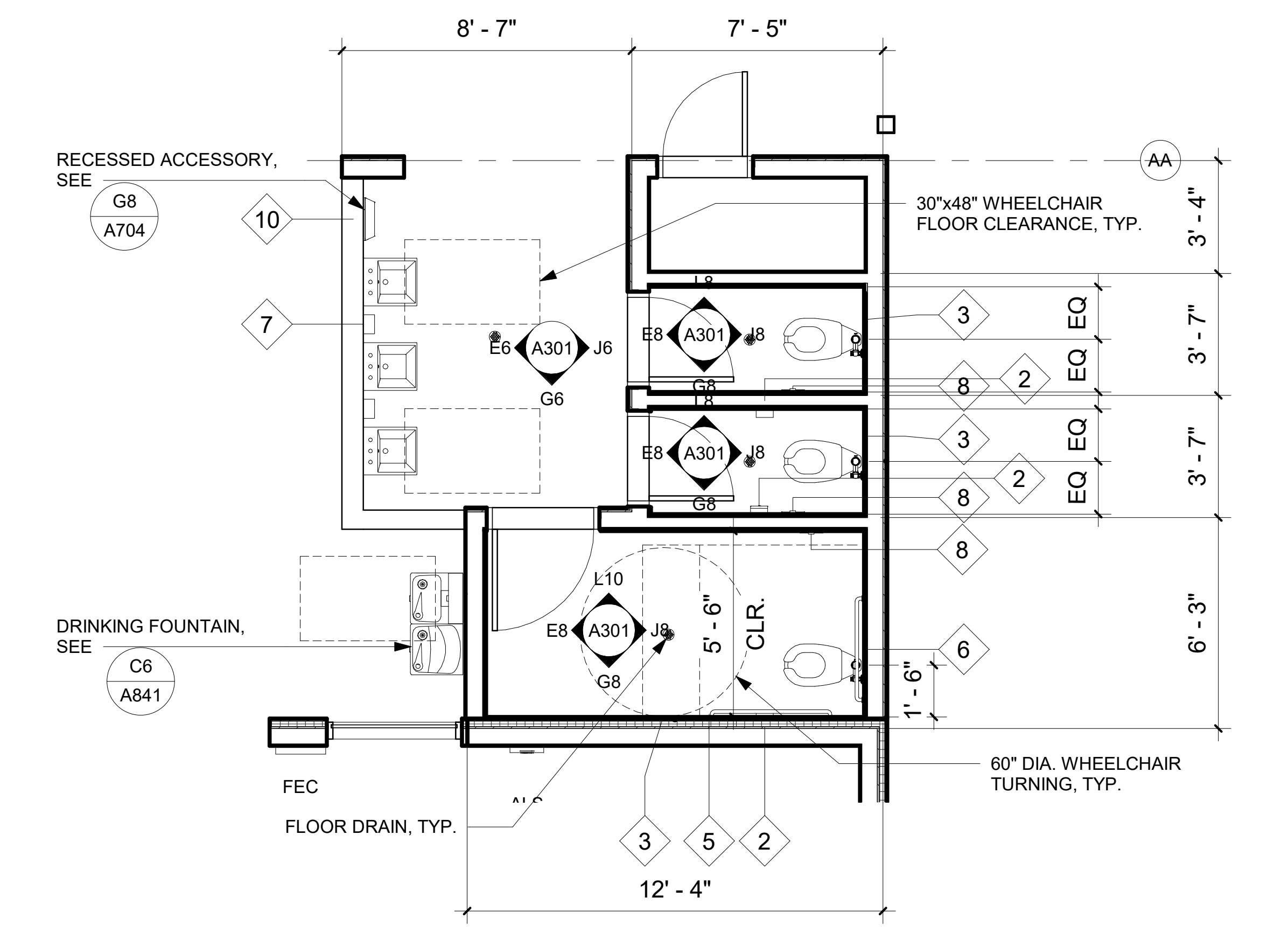
STUDENT TOILET - EAST J8
1/4" = 1'-0"



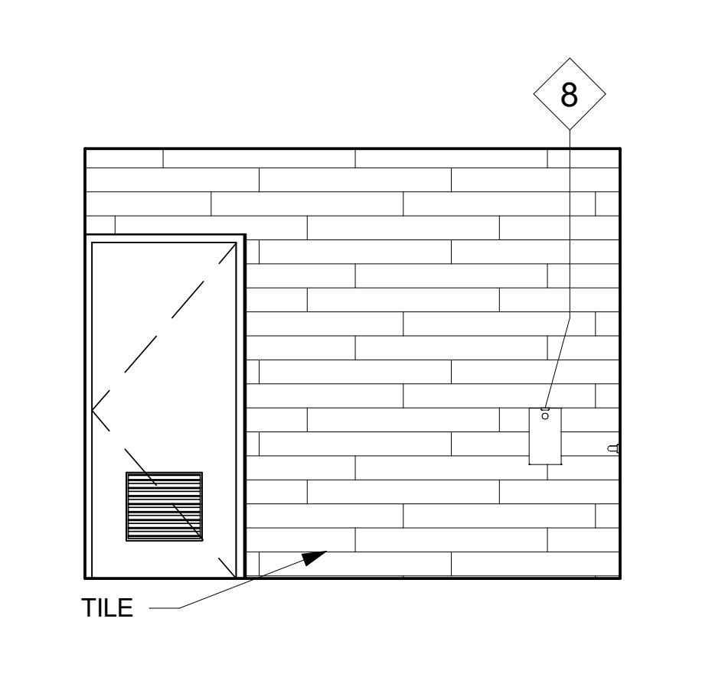
STUDENT TOILET - SOUTH G8
1/4" = 1'-0"



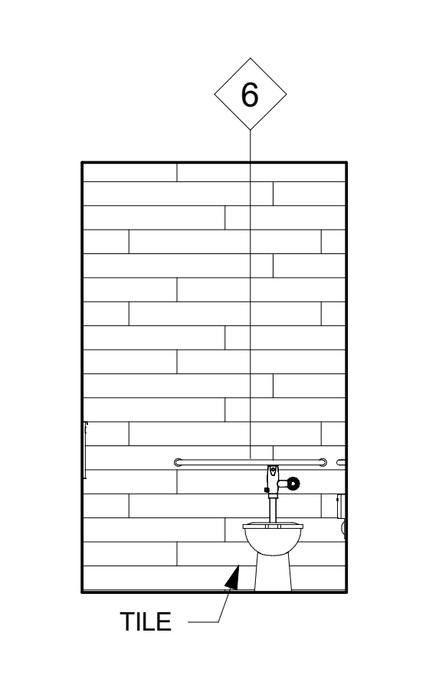
STUDENT TOILET - WEST E8
1/4" = 1'-0"



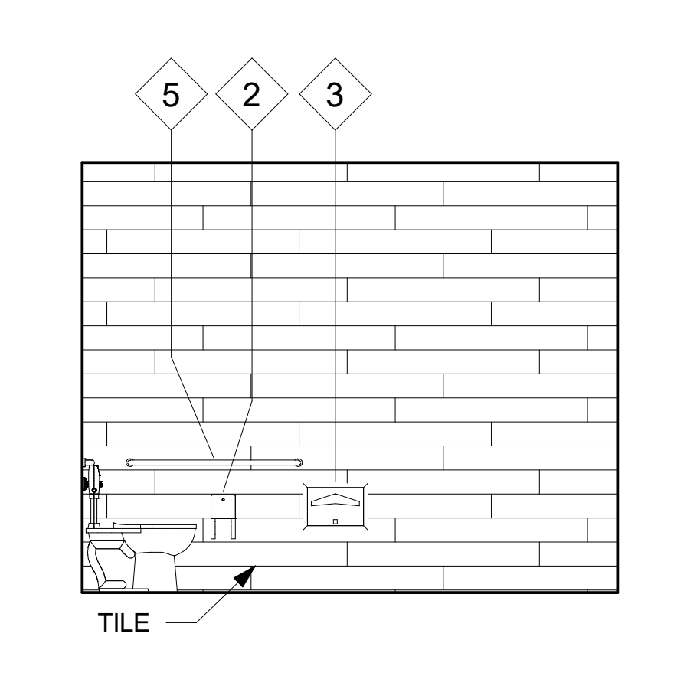
ENLARGED FLOOR PLAN - A132 EAST RESTROOMS A8
1/4" = 1'-0"



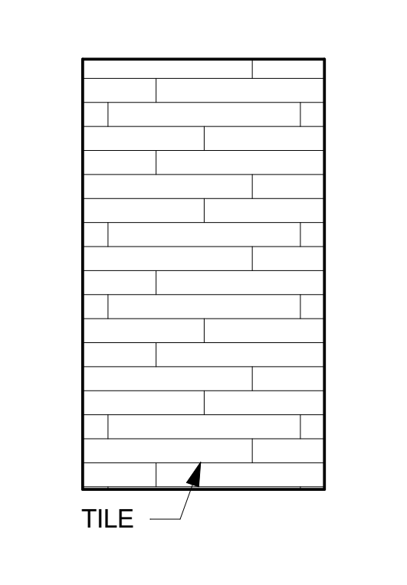
STUDENT ACCESSIBLE TOILET - NORTH L10
1/4" = 1'-0"



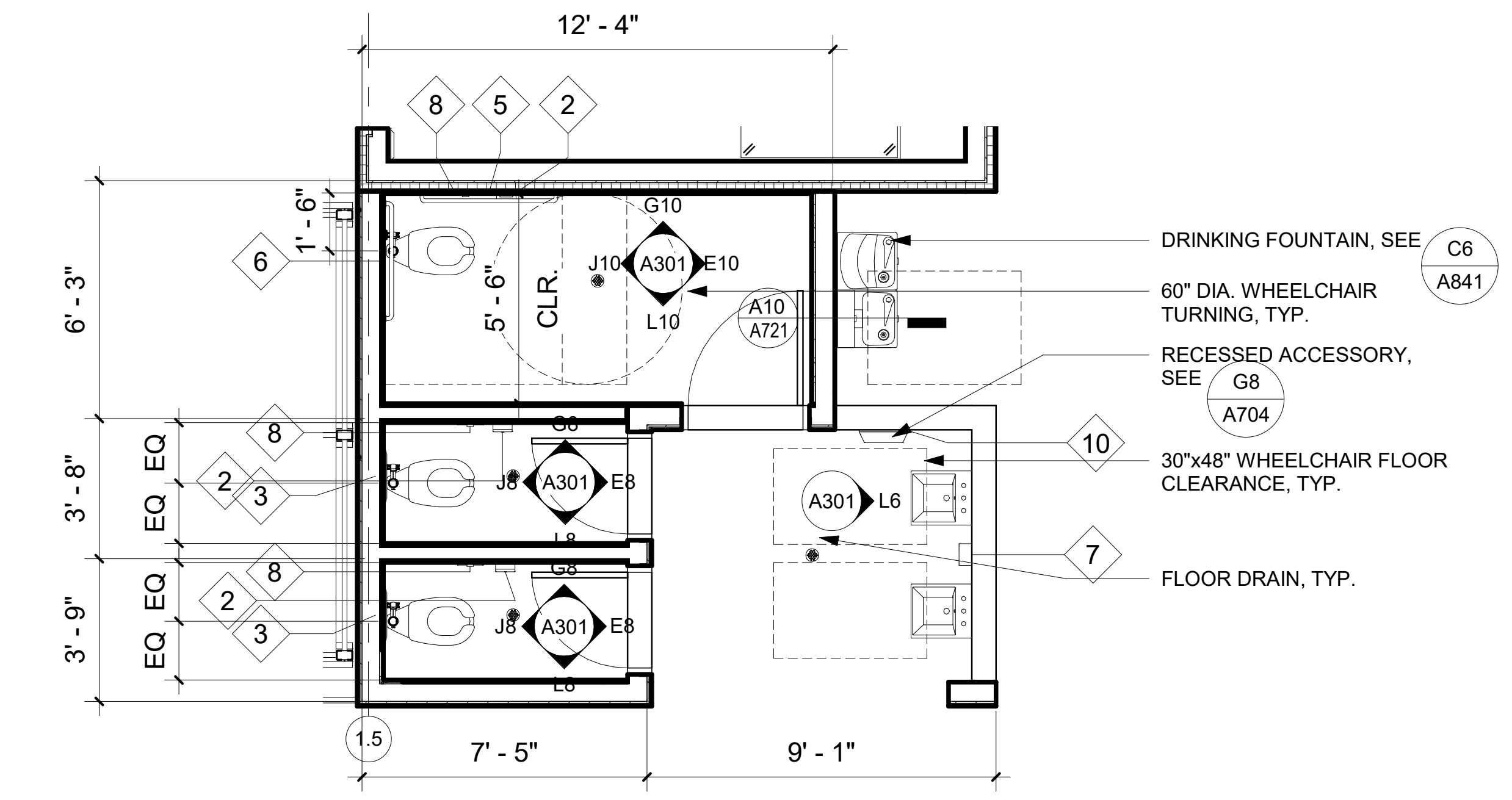
STUDENT ACCESSIBLE TOILET - EAST J10
1/4" = 1'-0"



STUDENT ACCESSIBLE TOILET - SOUTH G10
1/4" = 1'-0"



STUDENT ACCESSIBLE TOILET - WEST E10
1/4" = 1'-0"



ENLARGED FLOOR PLAN - A130 WEST RESTROOMS A10
1/4" = 1'-0"

ACCESSORIES...

#	DESCRIPTION	MODEL	BASIS OF DESIGN
1	PAPER TOWEL DISPENSER - SURFACE MOUNTED	B-262	BOBRICK
2	TOILET TISSUE DISPENSER - RECESSED	B-4388	BOBRICK
3	TOILET SEAT COVER DISPENSER	B-5221	BOBRICK
4	GLASS MIRROR WITH FRAME - 18" x 36"	B-2908	BOBRICK
5	GRAB BAR 42"	B-6806	BOBRICK
6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL. 31, 2023

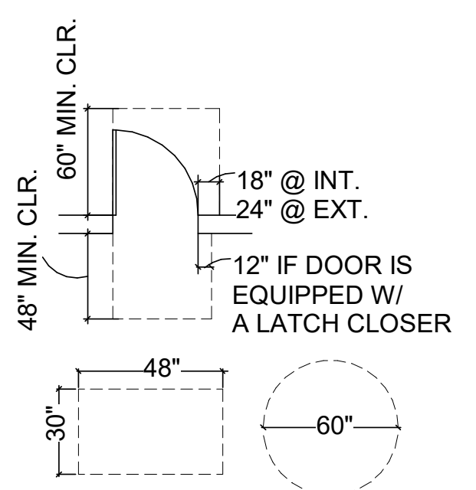
RESTROOM FLOOR PLAN NOTES

1. GRAB BAR MOUNTING DETAIL SEE A10 A302
2. FOR RECESSED ACCESSORIES SEE - A302
3. FOR TYPICAL ACCESSORY MOUNTING HEIGHT SEE F10 A302
4. FOR TYPICAL TILE PATTERN SEE A7 A302

ELEVATION LEGEND

▭	SOAP DISPENSER
⊠	PAPER TOWEL DISPENSER

TYP. CLEARANCES



DOOR LANDING CLEARANCE

FLOOR CLEARANCE

TILES

DALTILE PORTFOLIO
TL-1 DOVE GREY PF04 MATTE
TL-2 ASH GREY PF05 MATTE
TL-3 SKYLINE BLEND PF12

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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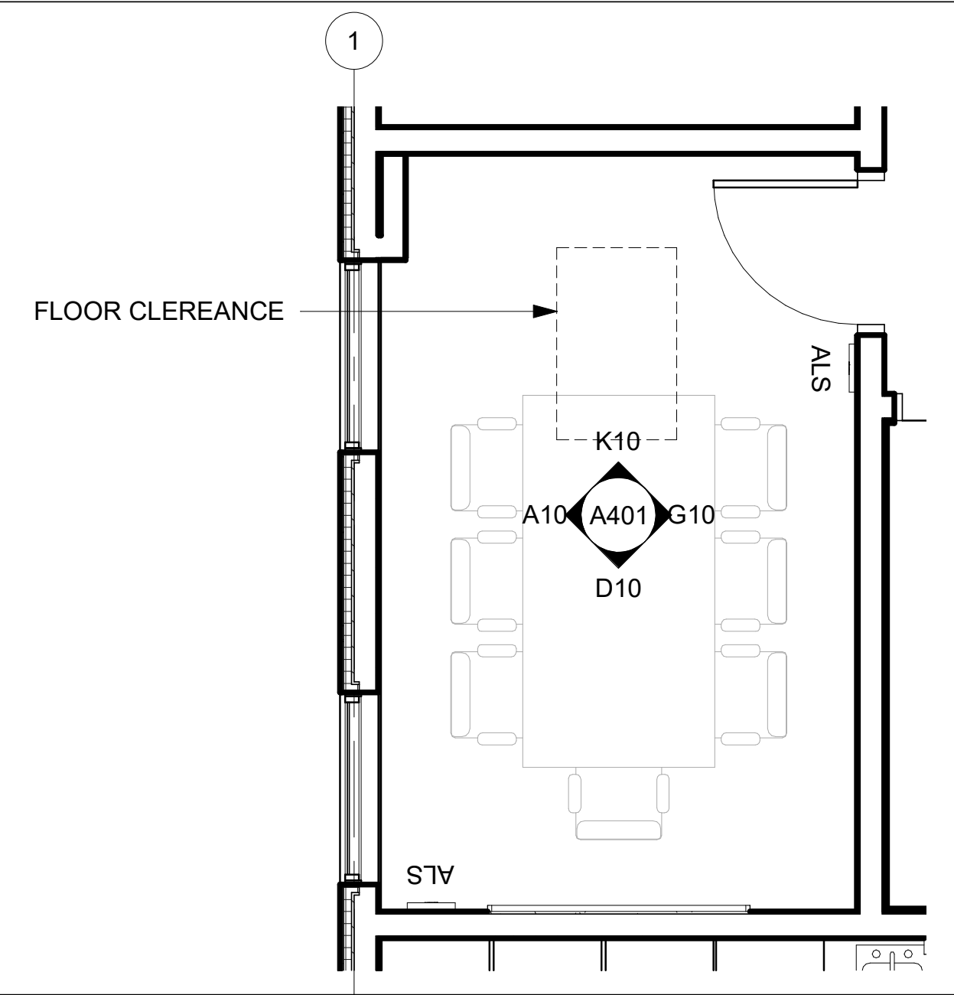
ENLARGED RESTROOM FLOOR PLANS & ELEVATIONS

PERKINS — EASTMAN

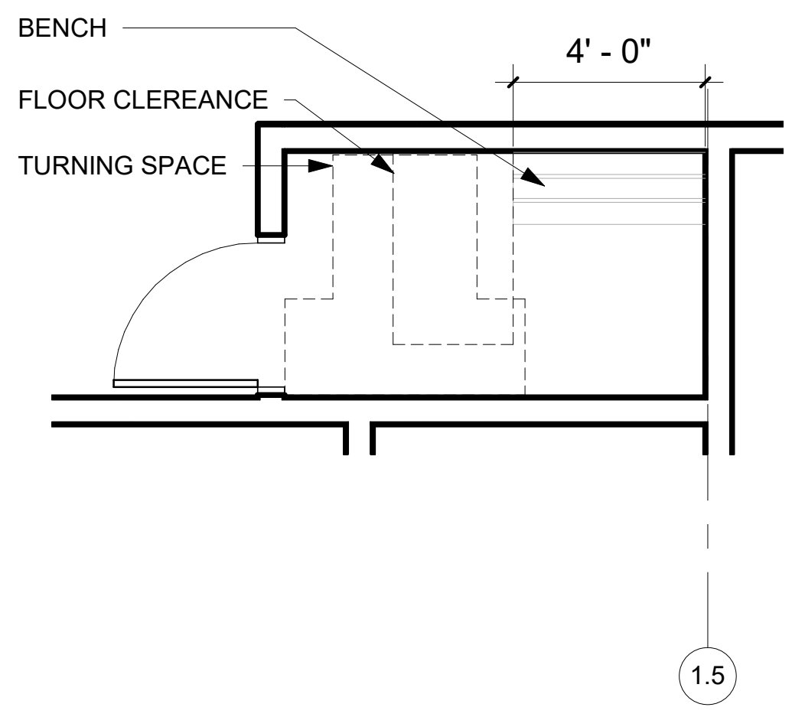
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A301



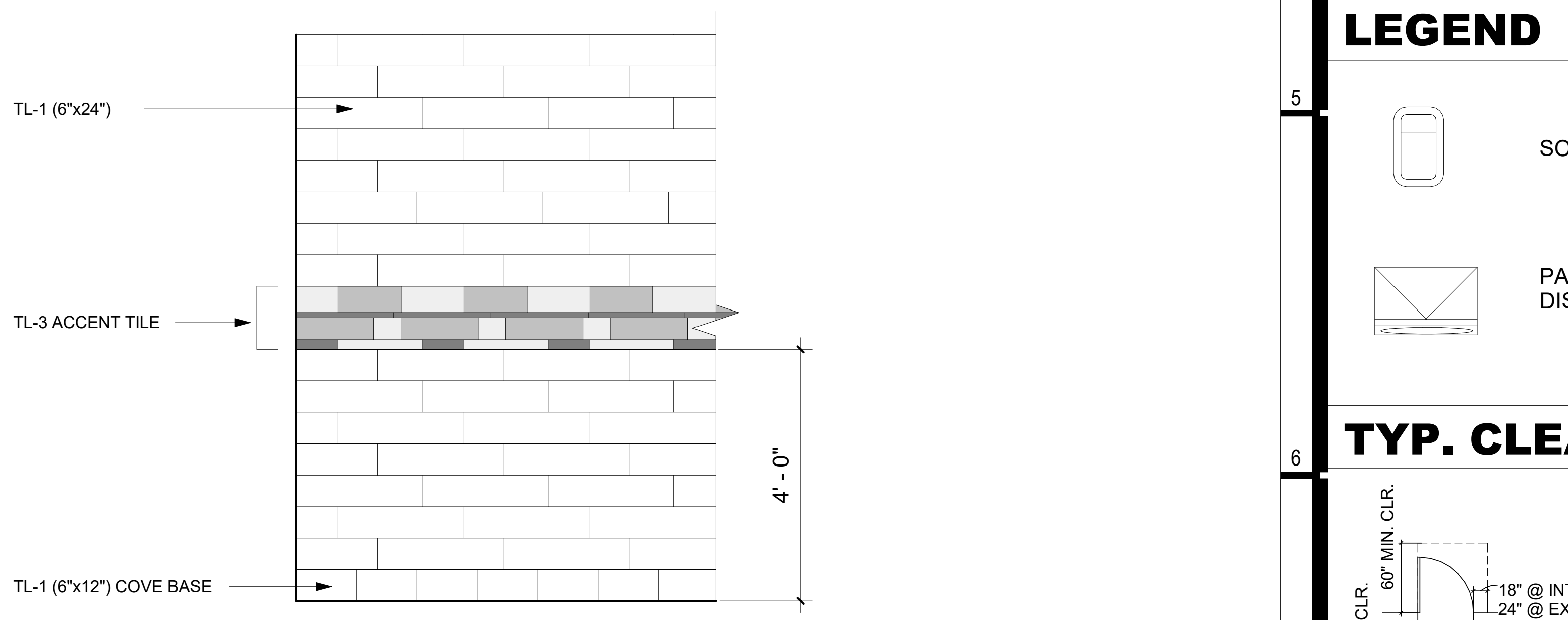
ENLARGED CONFERENCE ROOM FLOOR PLAN C2

1/4" = 1'-0"



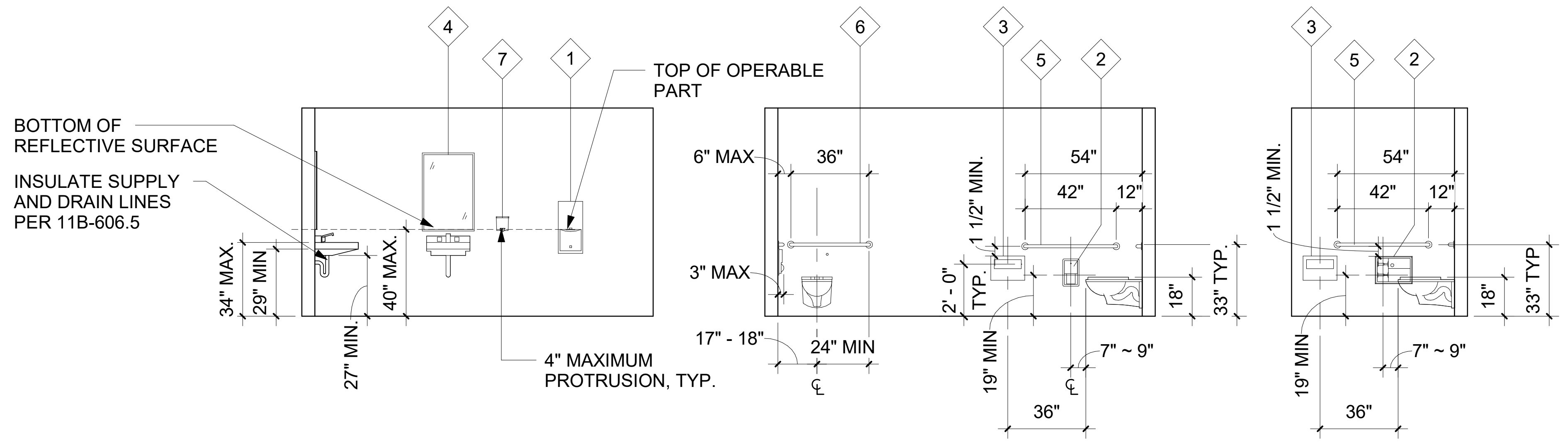
ENLARGED CHANGING ROOM FLOOR PLAN A2

1/4" = 1'-0"



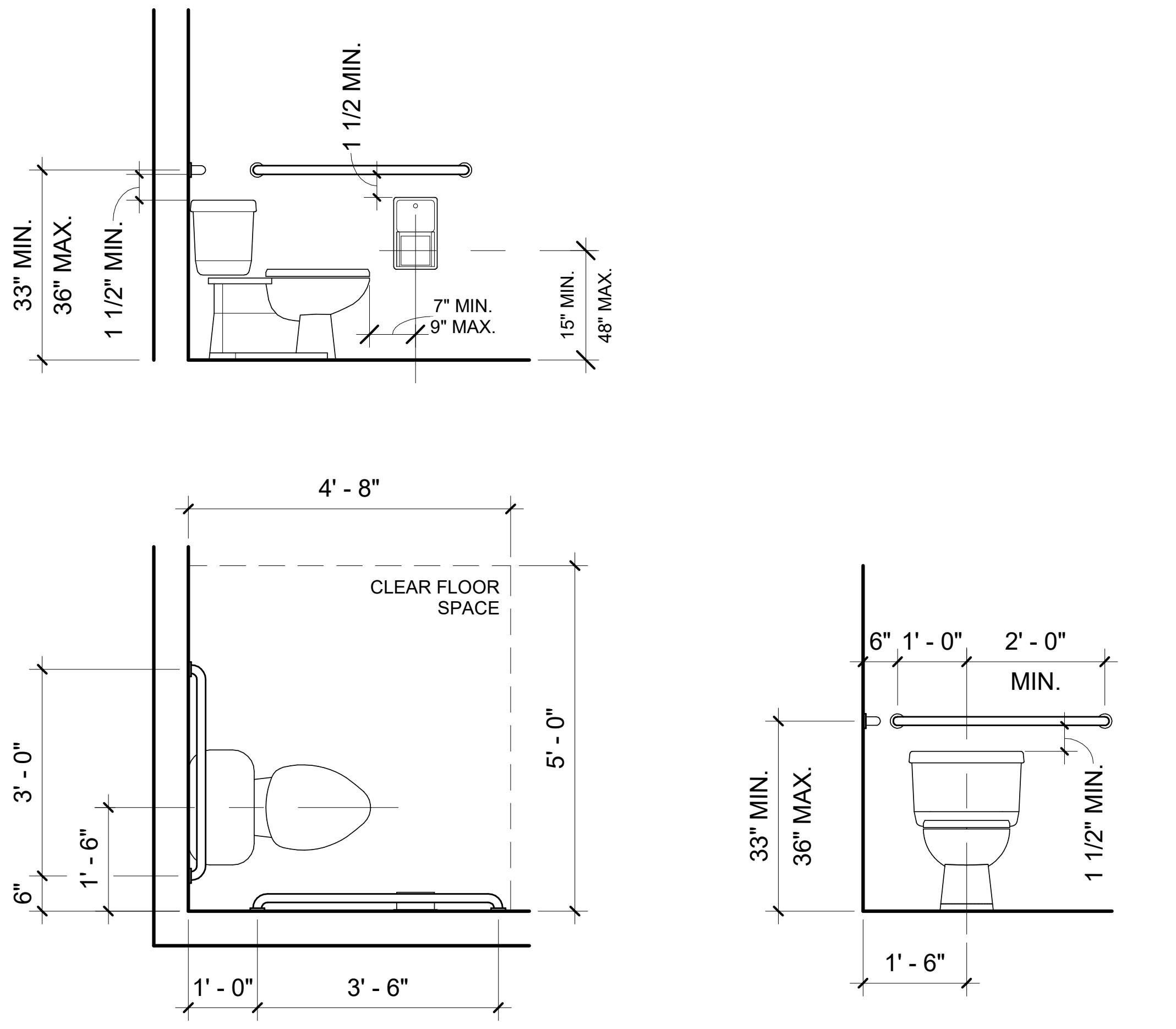
TYPICAL TILE PATTERN LAYOUT A7

1/2" = 1'-0"



ACCESSORY MOUNTING HEIGHTS F10

1/4" = 1'-0"



RESTROOM MOUNTING DIMENSIONS A10

1/2" = 1'-0"

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BRIAN PAUL DOUGHERTY
NO. C-98[illegible]
REN. JUL. 31, 2023

ACCESSORIES...

#	DESCRIPTION	MODEL	BASIS OF DESIGN
1	PAPER TOWEL DISPENSER - SURFACE MOUNTED	B-262	BOBRICK
2	TOILET TISSUE DISPENSER - RECESSED	B-4388	BOBRICK
3	TOILET SEAT COVER DISPENSER	B-5221	BOBRICK
4	GLASS MIRROR WITH FRAME - 18" x 36"	B-2908	BOBRICK
5	GRAB BAR 42"	B-6806	BOBRICK
6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

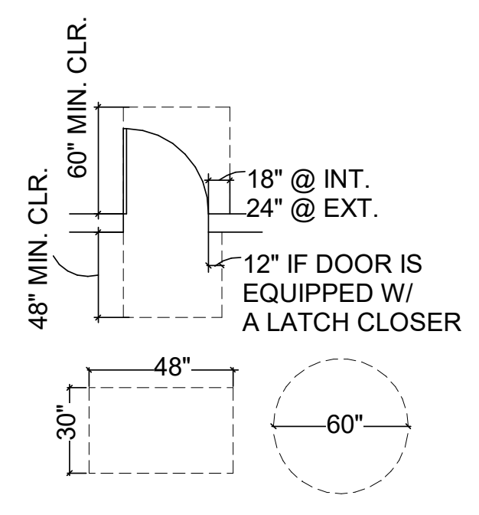
RESTROOM FLOOR PLAN NOTES

1. GRAB BAR MOUNTING DETAIL SEE A10 / A302
2. FOR RECESSED ACCESSORIES SEE - / A302
3. FOR TYPICAL ACCESSORY MOUNTING HEIGHT SEE F10 / A302
4. FOR TYPICAL TILE PATTERN SEE A7 / A302

ELEVATION LEGEND

▭	SOAP DISPENSER
⊠	PAPER TOWEL DISPENSER

TYP. CLEARANCES



DOOR LANDING CLEARANCE

FLOOR CLEARANCE

TILES

DALTILE PORTFOLIO
TL-1 DOVE GREY PF04 MATTE
TL-2 ASH GREY PF05 MATTE
TL-3 SKYLINE BLEND PF12

GATEWAY ANNEX SCHOOL

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ENLARGED RESTROOM FLOOR PLANS & ELEVATIONS

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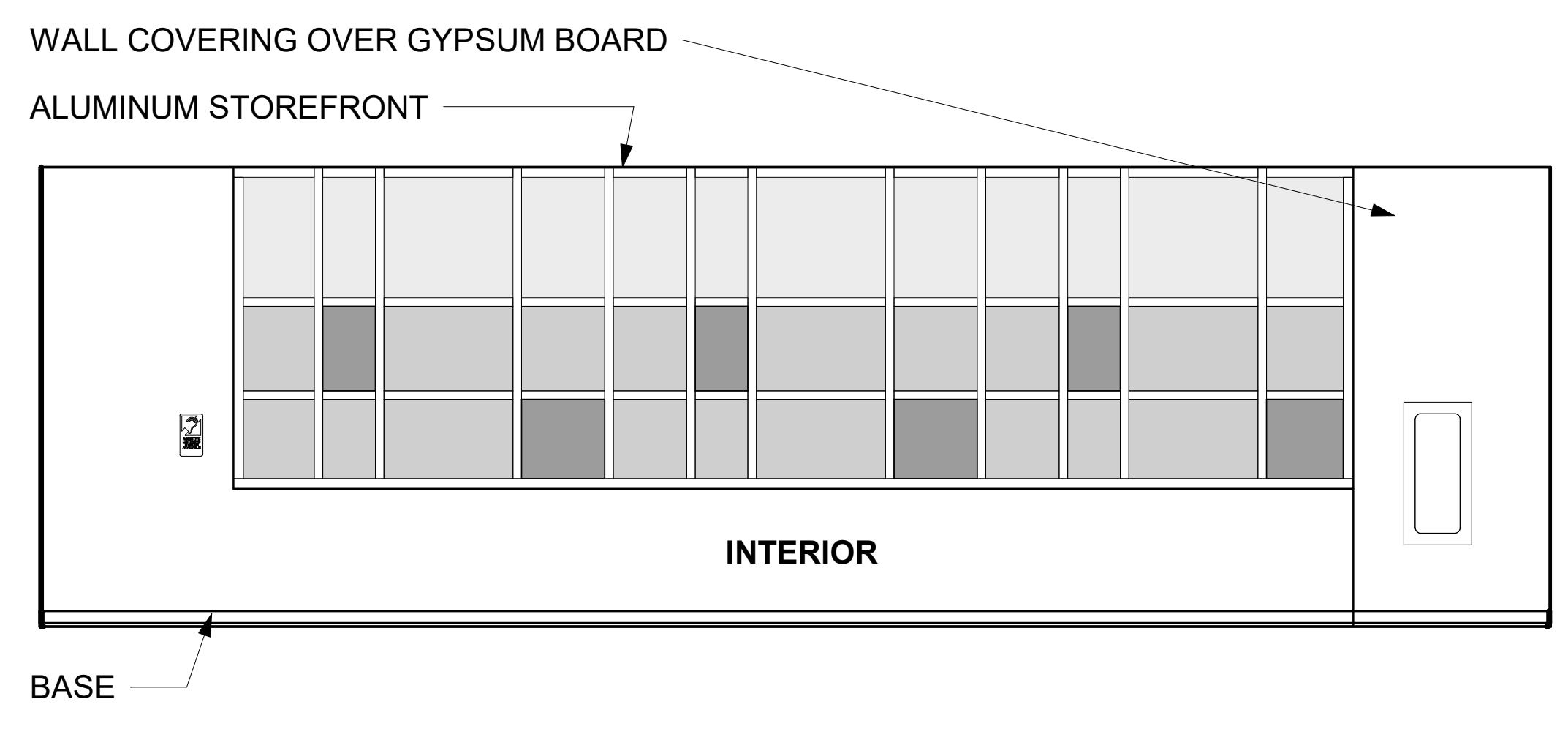
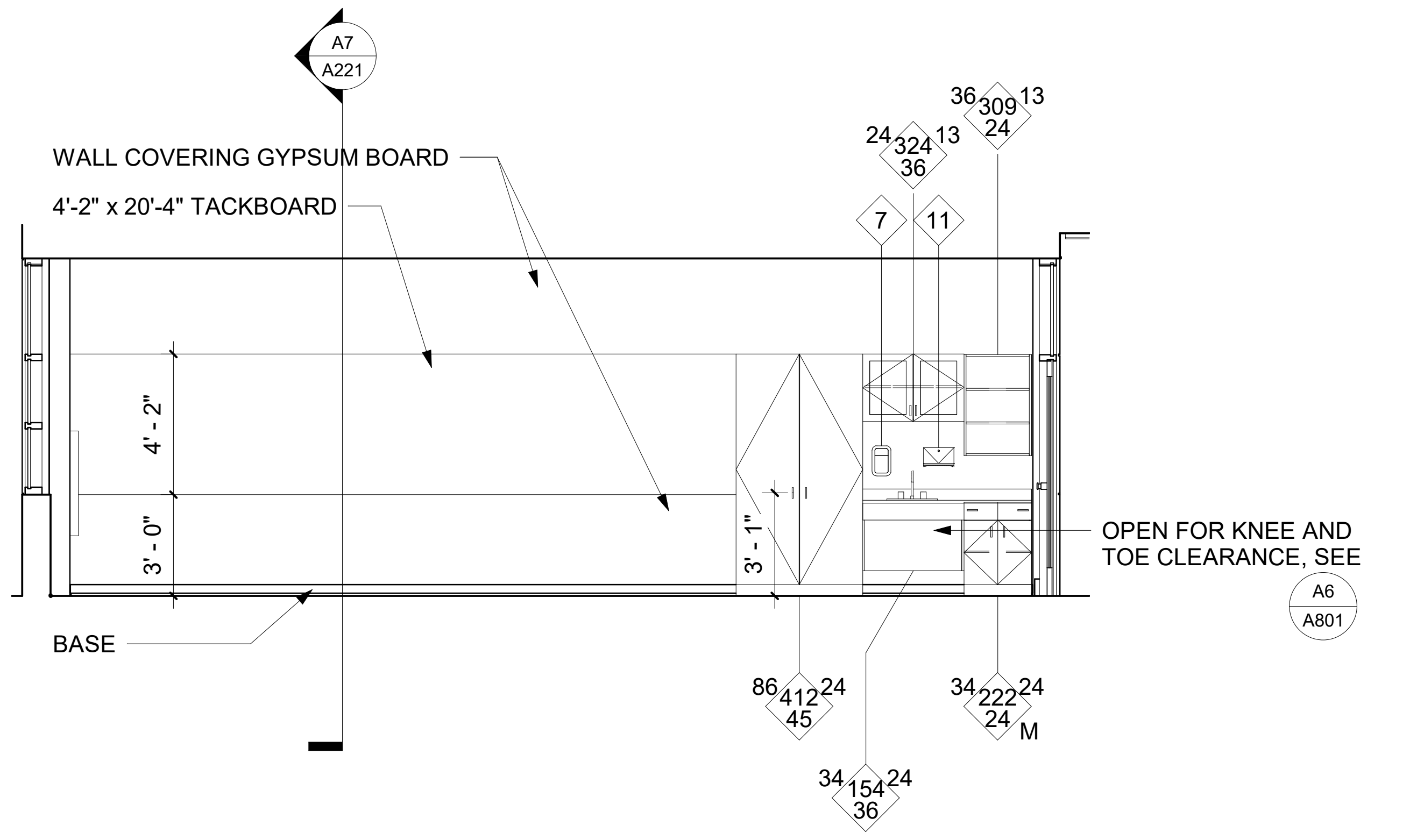
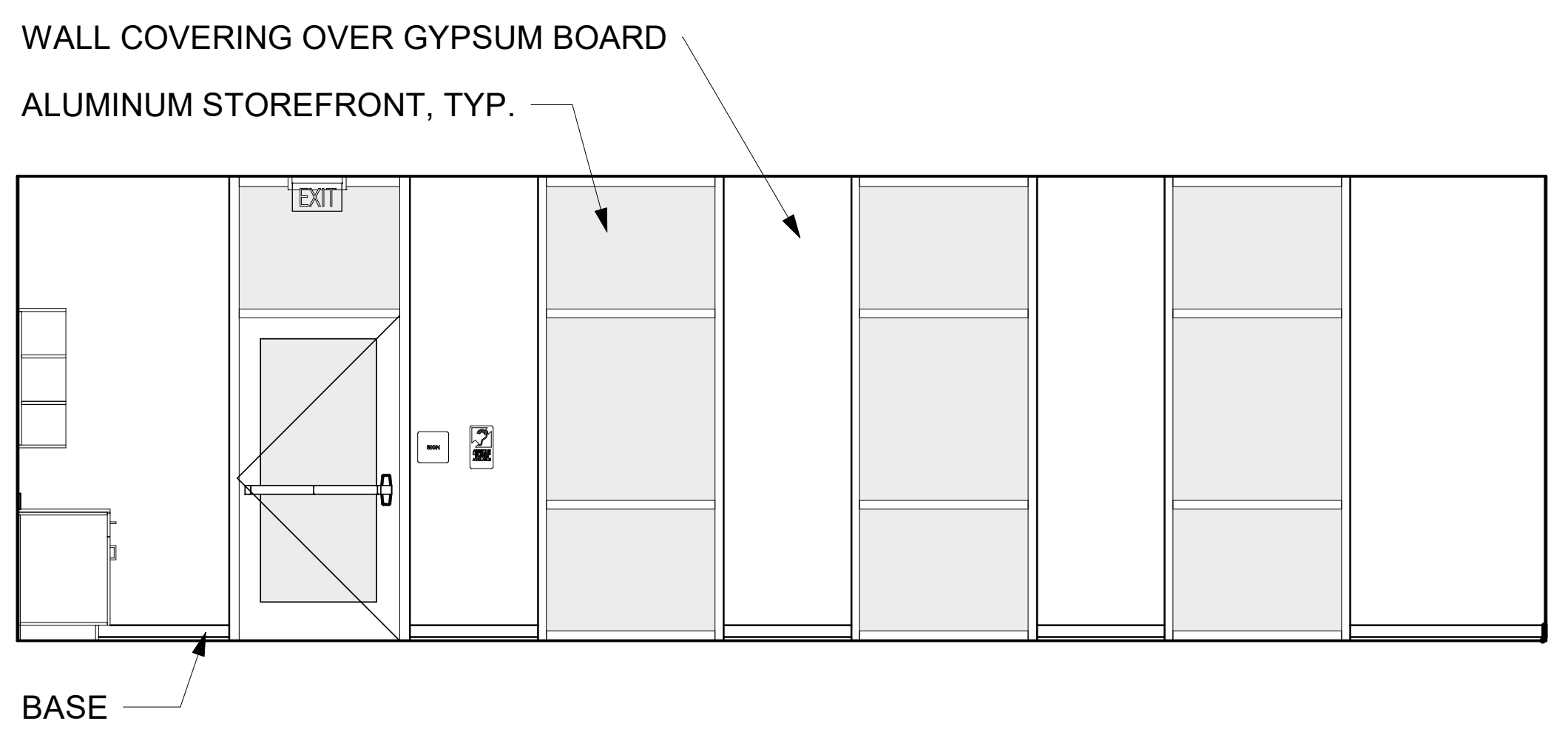
A302



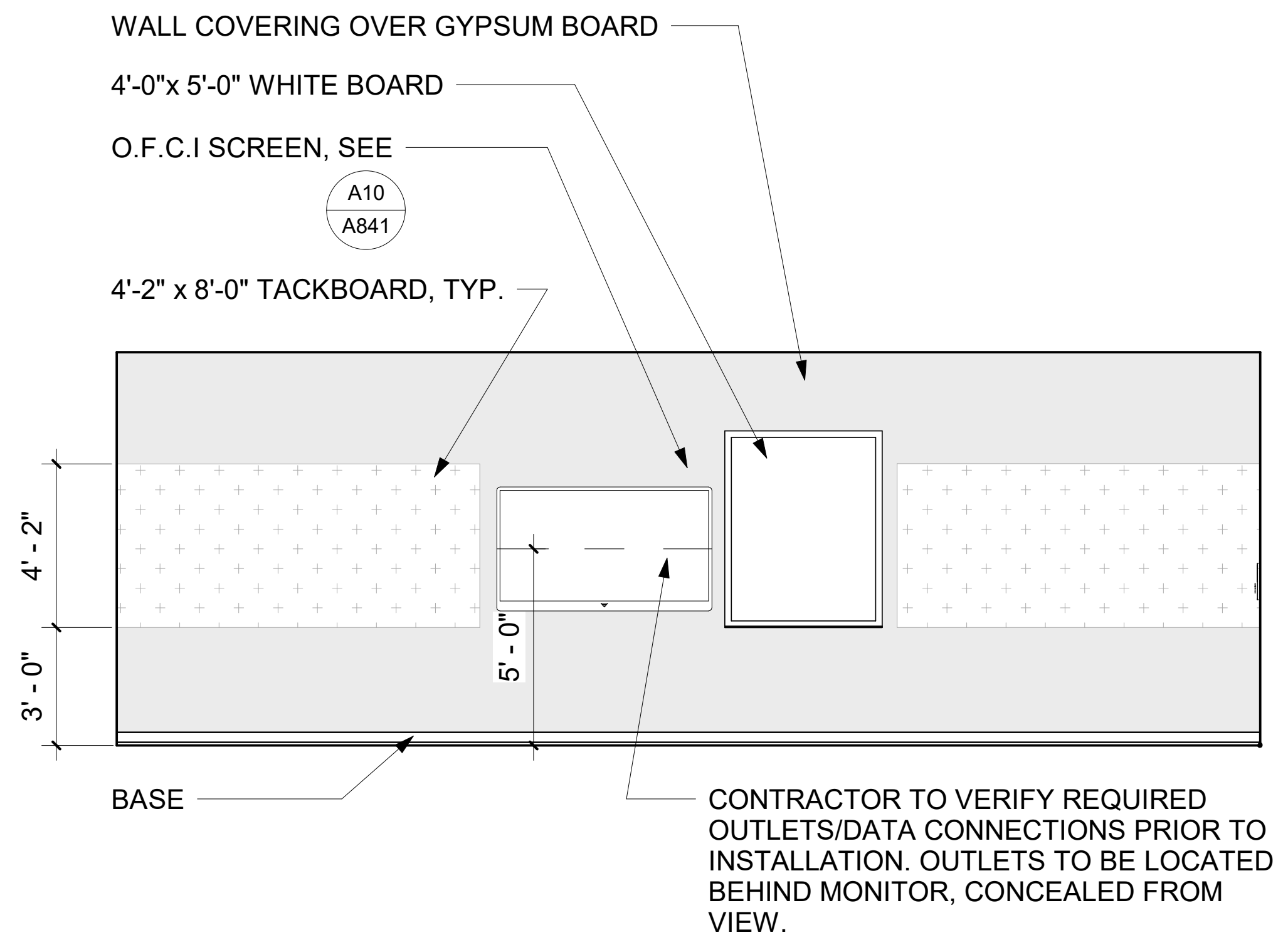
CLASSROOM TYPE A - NORTH **G3**
1/4" = 1'-0"



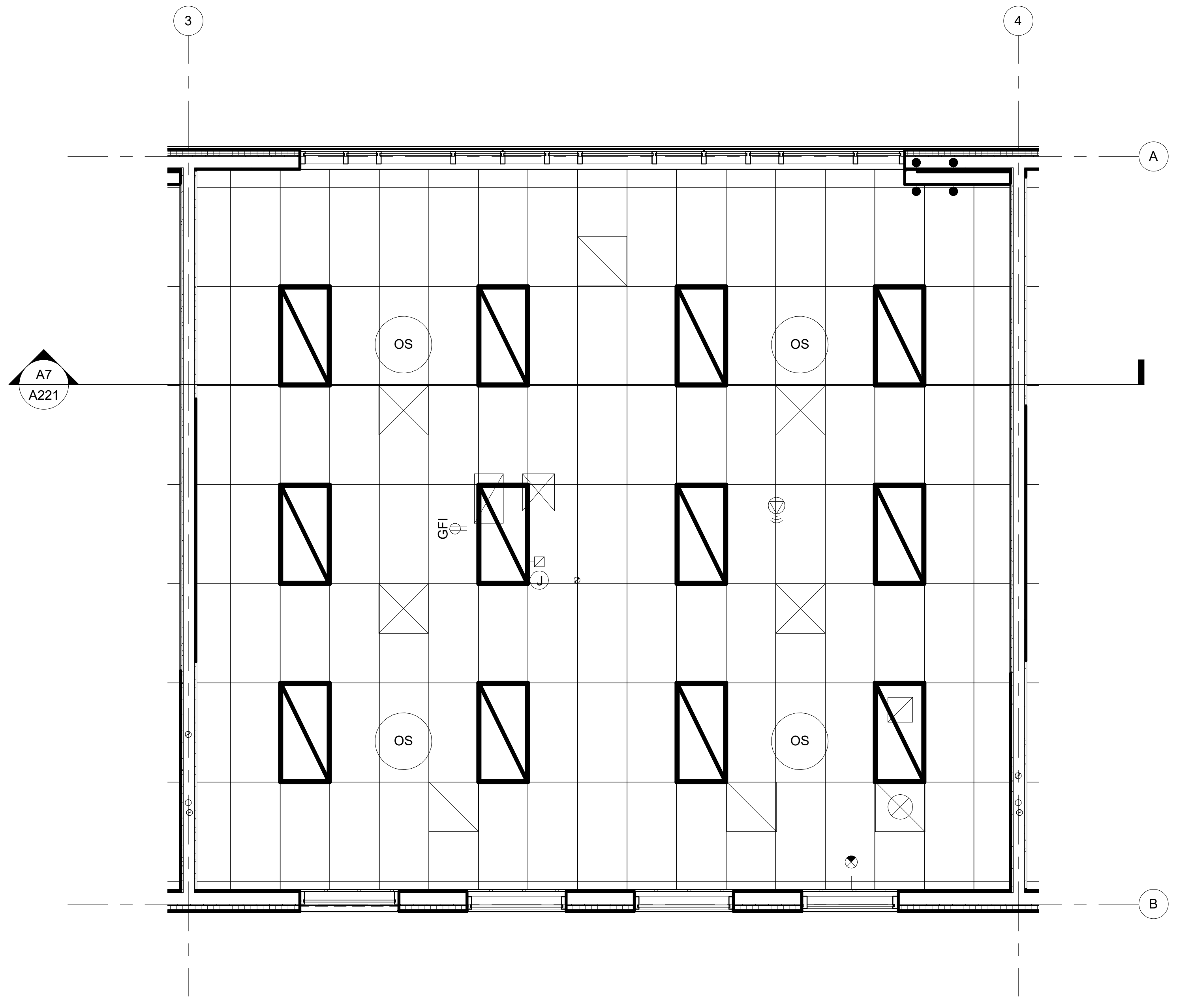
CLASSROOM TYPE A - EAST **A3**
1/4" = 1'-0"



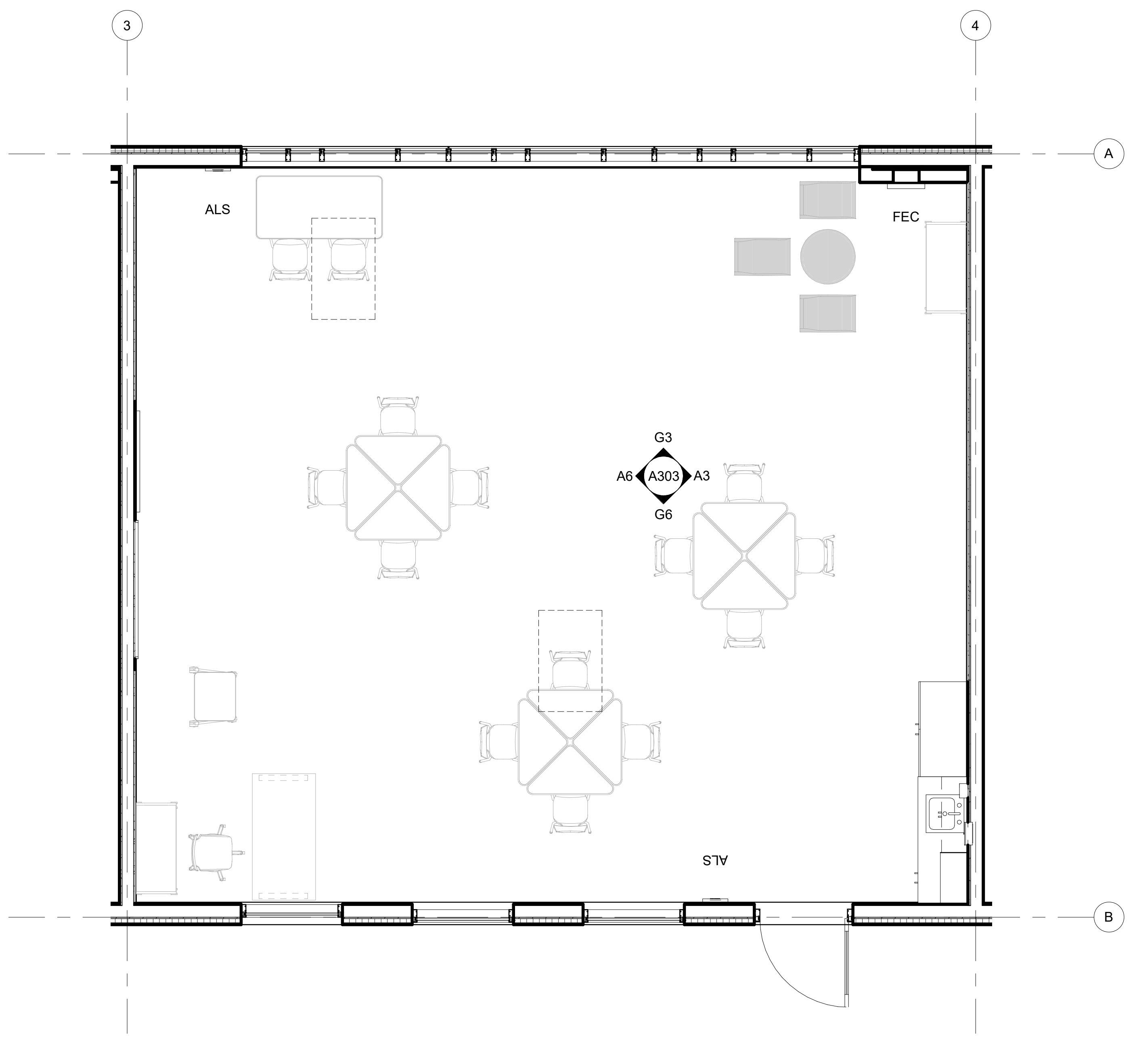
CLASSROOM TYPE A - SOUTH **G6**
1/4" = 1'-0"


WALL COVERING OVER GYPSUM BOARD
4'-0"x 5'-0" WHITE BOARD
O.F.C.I SCREEN, SEE
A10
A841
4'-2" x 8'-0" TACKBOARD, TYP.
4' - 2"
3' - 0"
5' - 0"
BASE
CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION. OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

CLASSROOM TYPE A - WEST **A6**
1/4" = 1'-0"



REFLECTED CEILING PLAN - CLASSROOM TYPE A **G10**
1/4" = 1'-0"



ENLARGED FLOOR PLAN - CLASSROOM TYPE A **A10**
1/4" = 1'-0"

INT. ELEVATION LEGEND

CASEWORK TAG:

UNIT HEIGHT — 34
UNIT WIDTH — 48
LOCK — L
UNIT DEPTH — 18
WIC DESIGNATION — 102
MODIFICATION TO STYLE — M

CASEWORK NOTES:

1. PROVIDE LOCKS FOR CABINET DRAWNERS AND DOORS, TYP.
2. REFER TO MANUAL OF MILLWORK BY WOODWORK INSTITUTE OF CALIFORNIA FOR WIC DESIGNATION.
3. FOR CASEWORK SEE A801

ELEVATION LEGEND

▯	SOAP DISPENSER
✉	PAPER TOWEL DISPENSER

ACCESSORIES...

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2	TOILET TISSUE DISPENSER - RECESSED	B-4388	BOBRICK
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6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

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BRIAN PAUL DOUGHERTY
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REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL

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ENLARGED FLOOR PLAN & ELEVATIONS - CLASSROOM TYPE A

PERKINS EASTMAN

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A303

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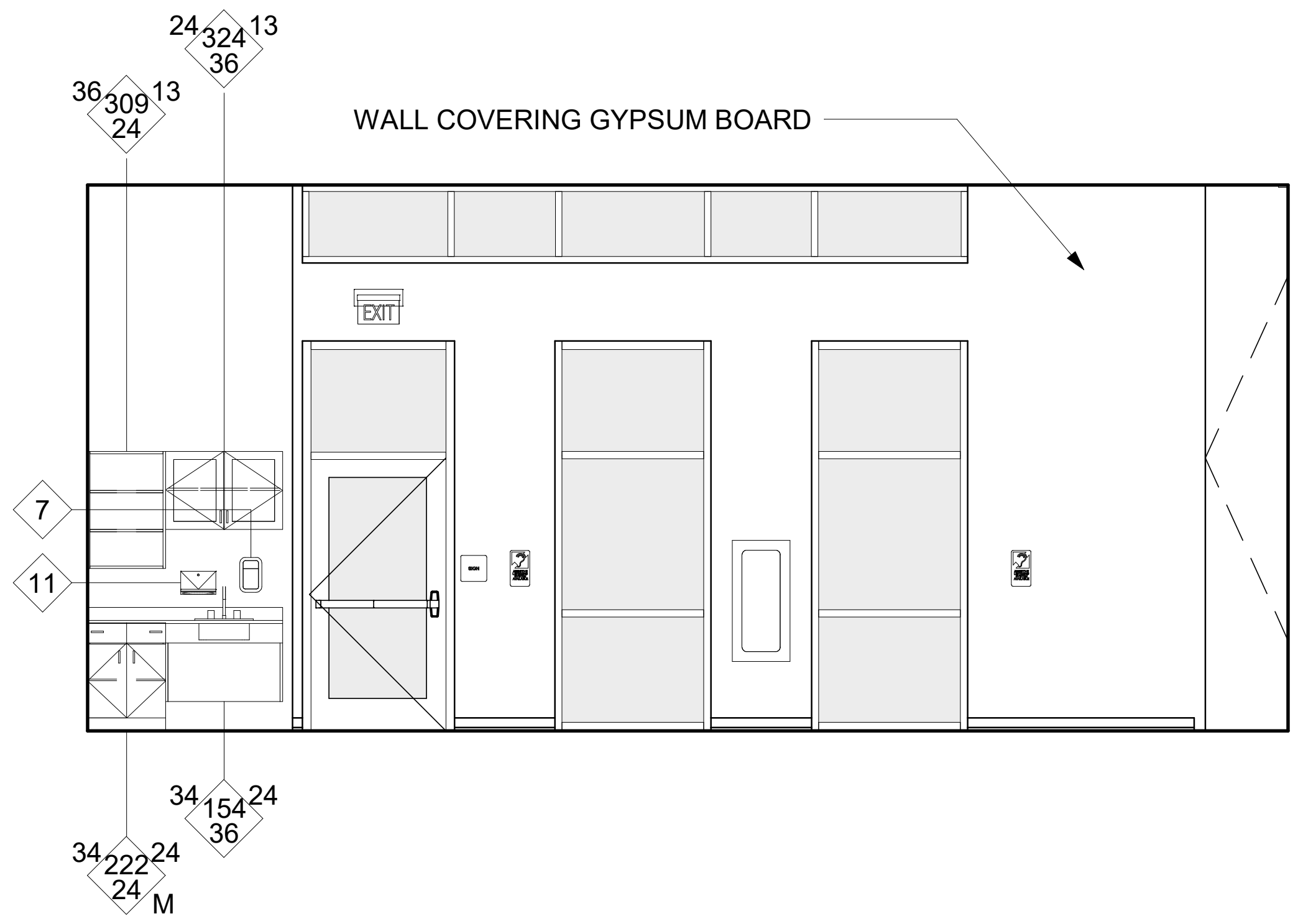
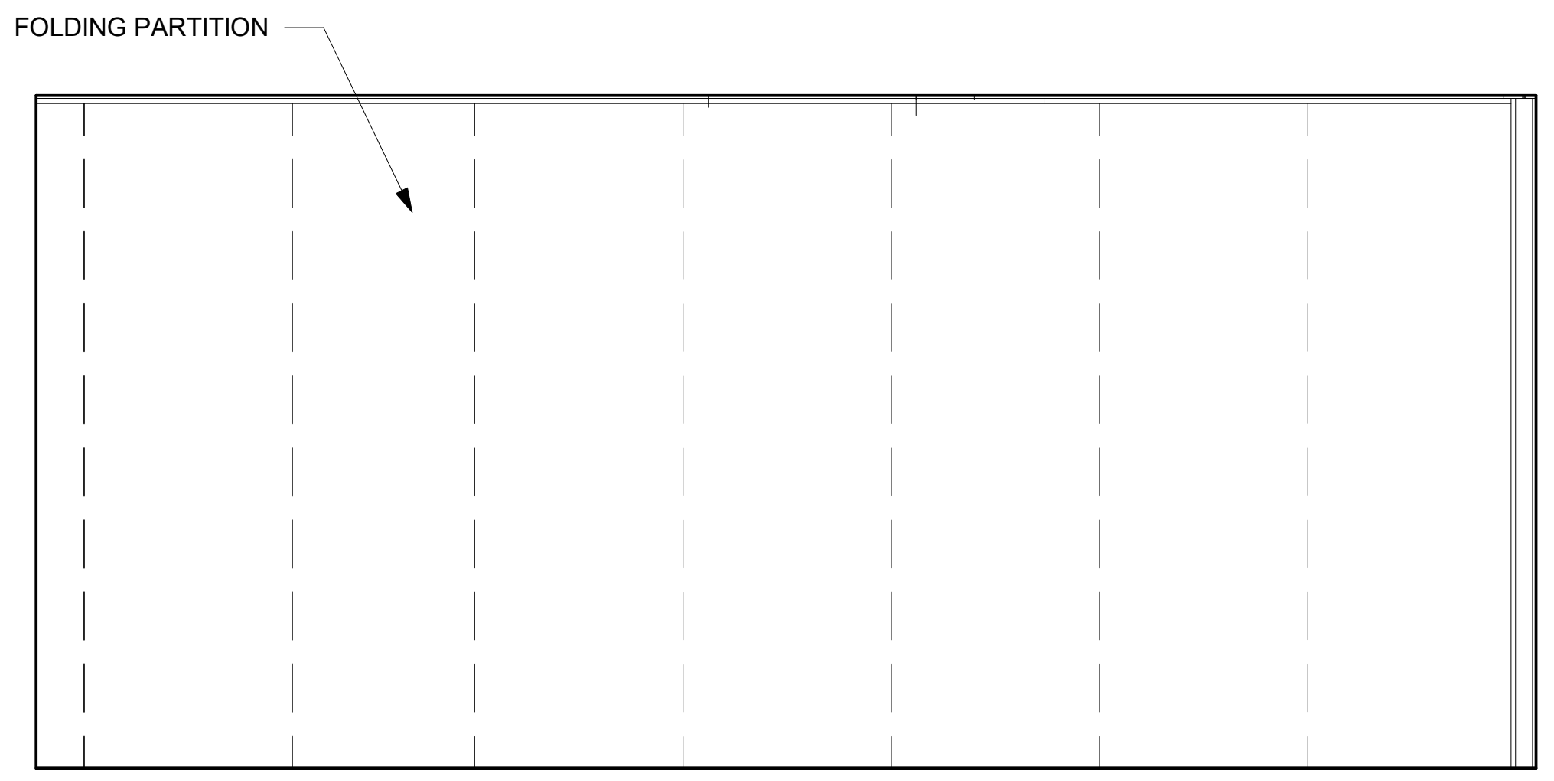
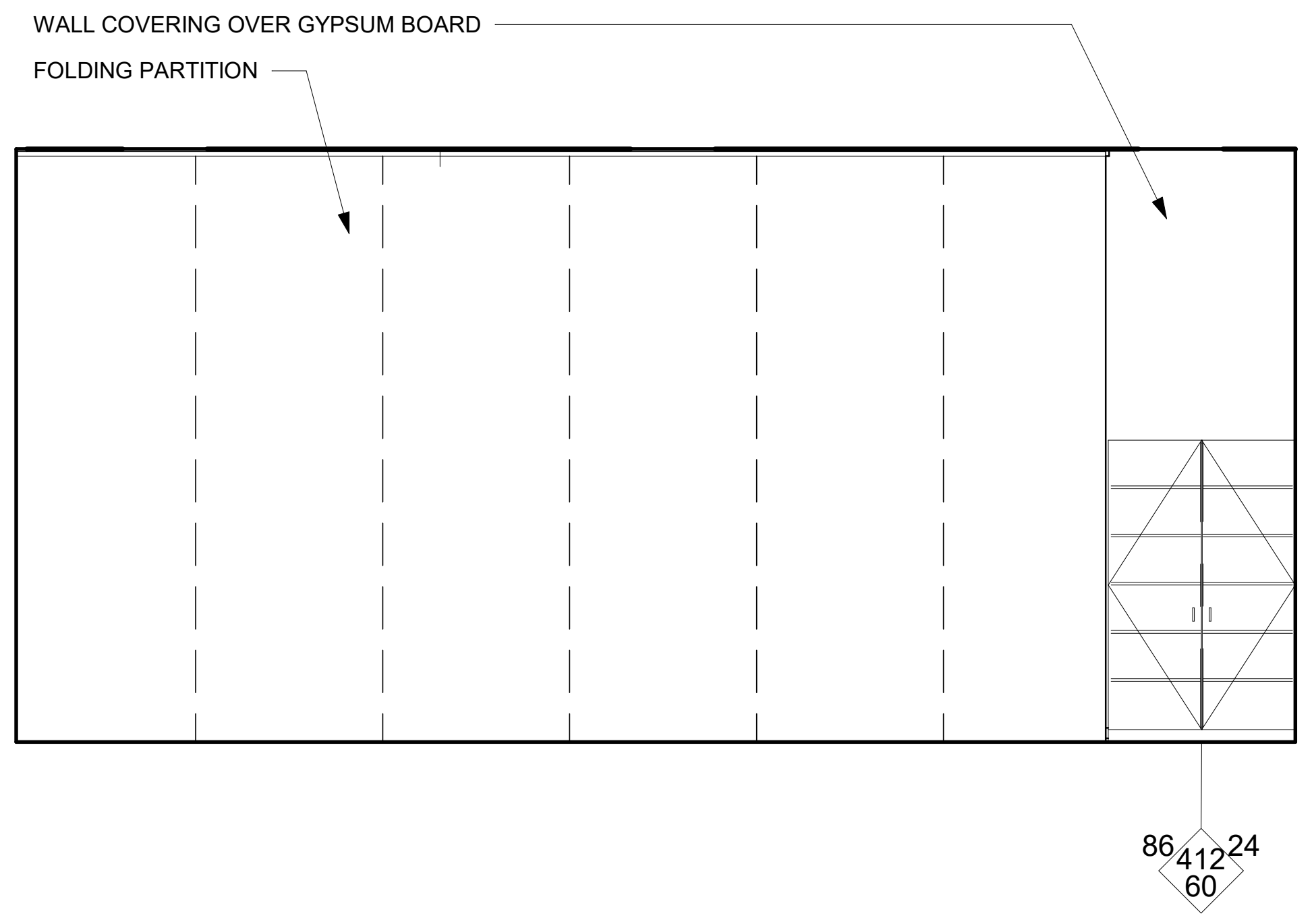
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023



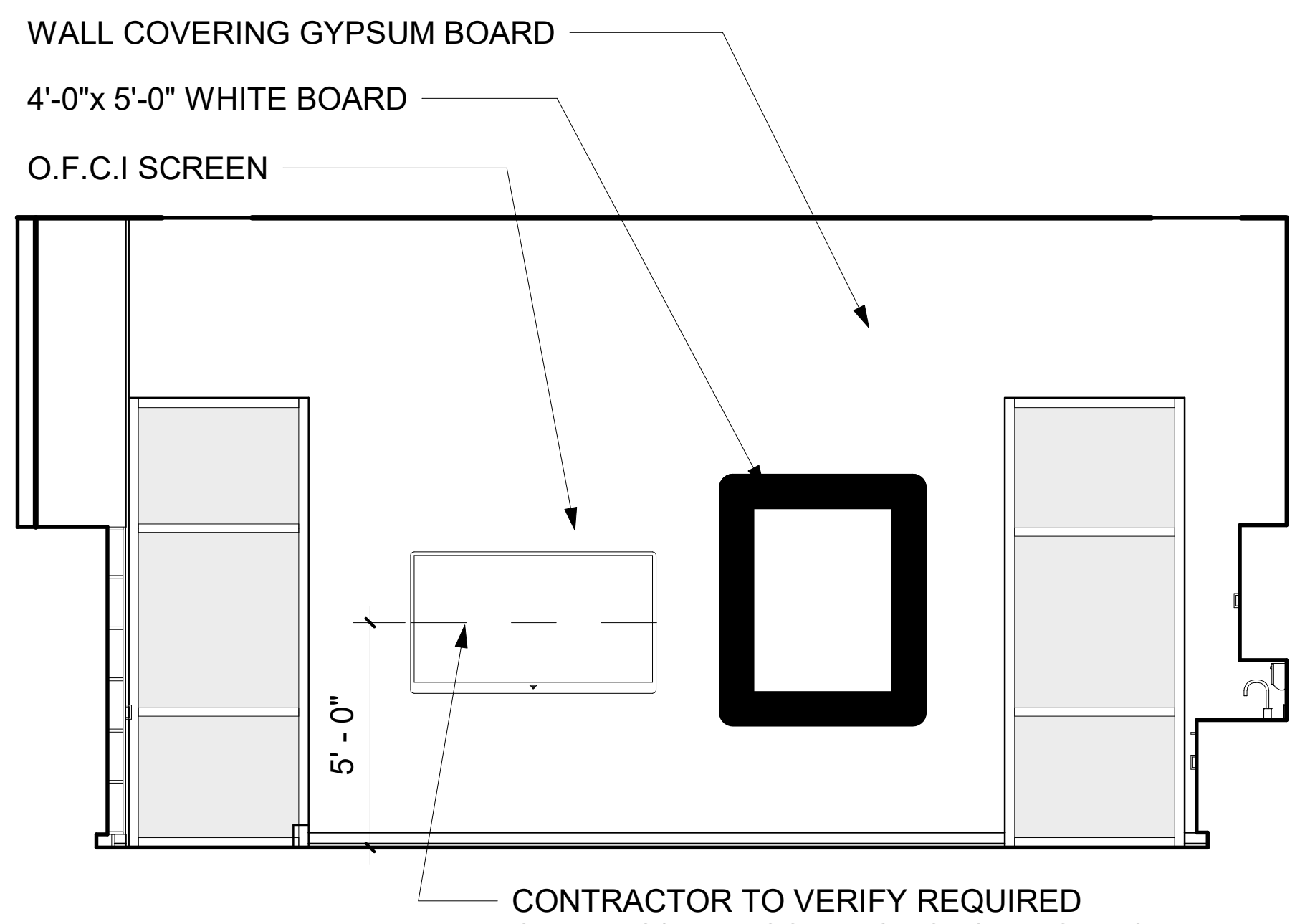
CLASSROOM TYPE B - NORTH G3
1/4" = 1'-0"



CLASSROOM TYPE B - EAST A3
1/4" = 1'-0"

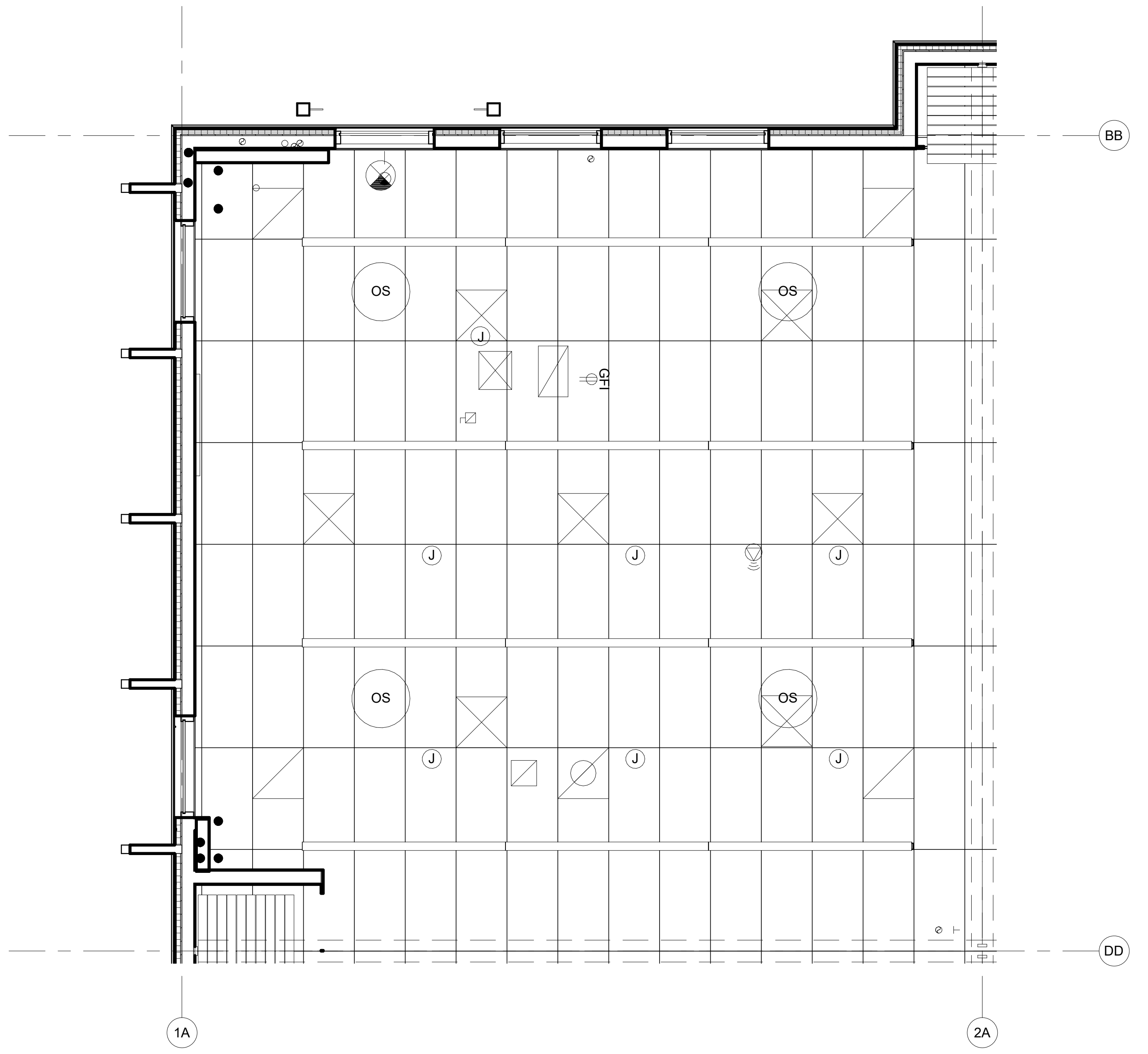


CLASSROOM TYPE B - SOUTH G6
1/4" = 1'-0"

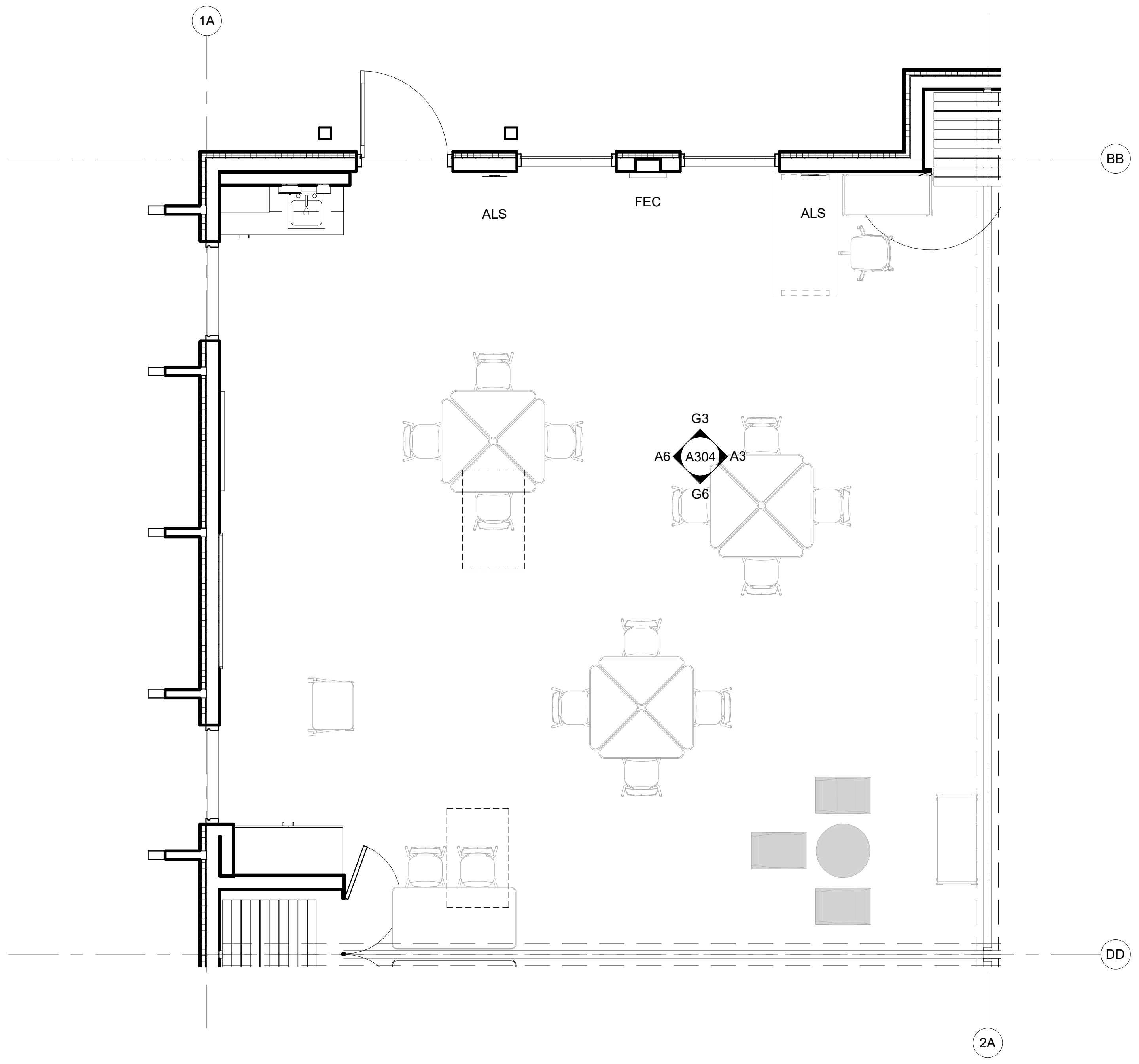


CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION. OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

CLASSROOM TYPE B - WEST A6
1/4" = 1'-0"



REFLECTED CEILING PLAN - CLASSROOM TYPE B G10
1/4" = 1'-0"



ENLARGED FLOOR PLAN - CLASSROOM TYPE B A10
1/4" = 1'-0"

GATEWAY ANNEX SCHOOL

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ENLARGED FLOOR PLAN & ELEVATIONS - CLASSROOM TYPE B

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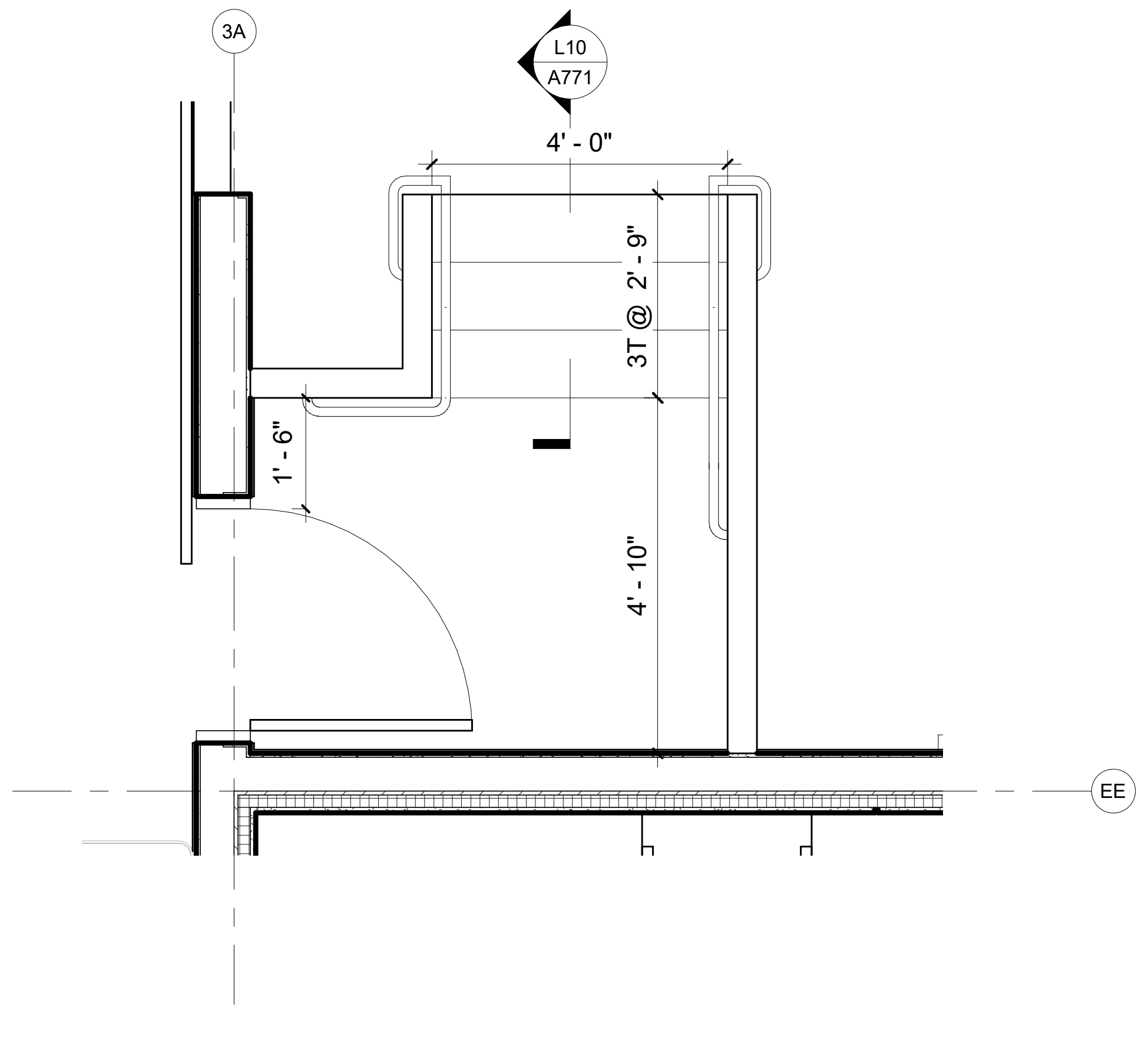
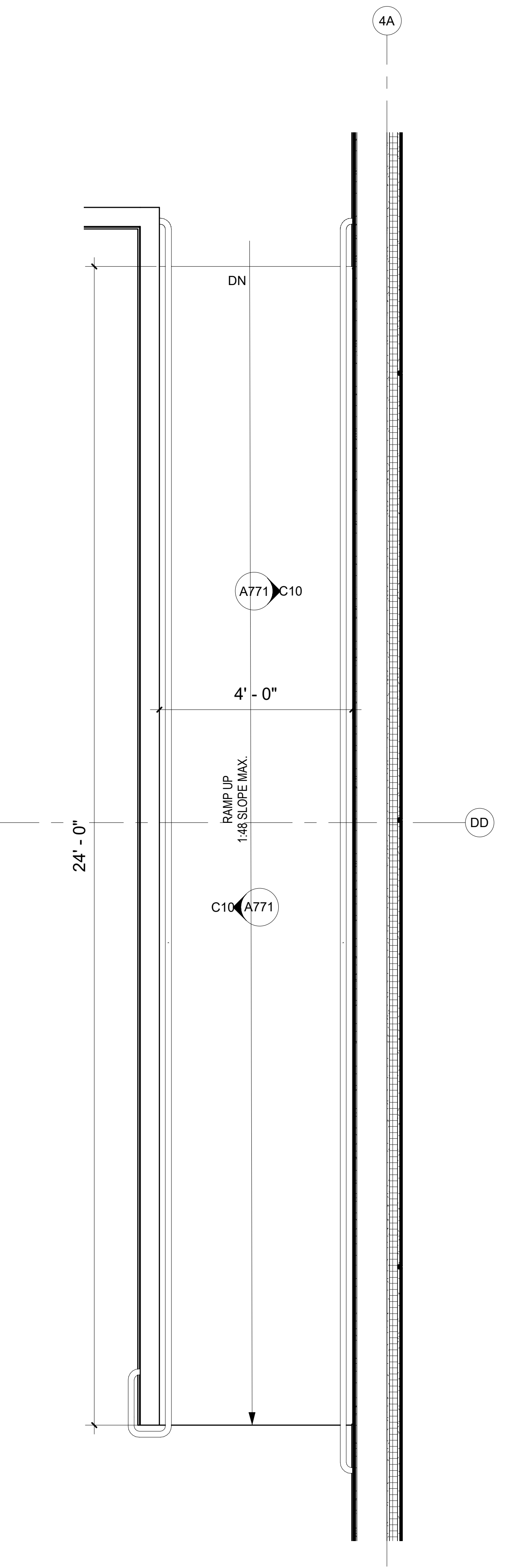
A304



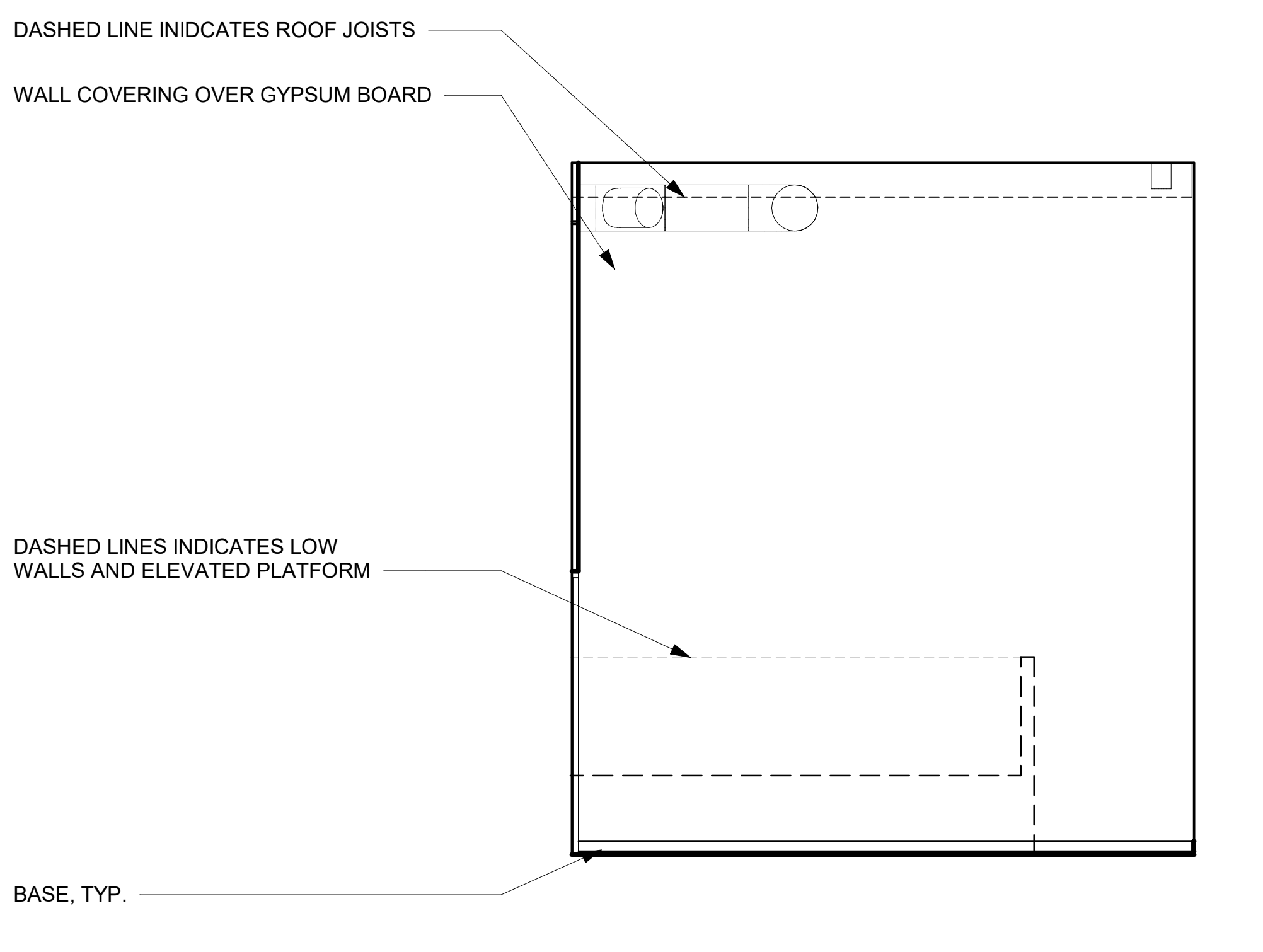
ENLARGED STAIR PLAN K3

1/2" = 1'-0"



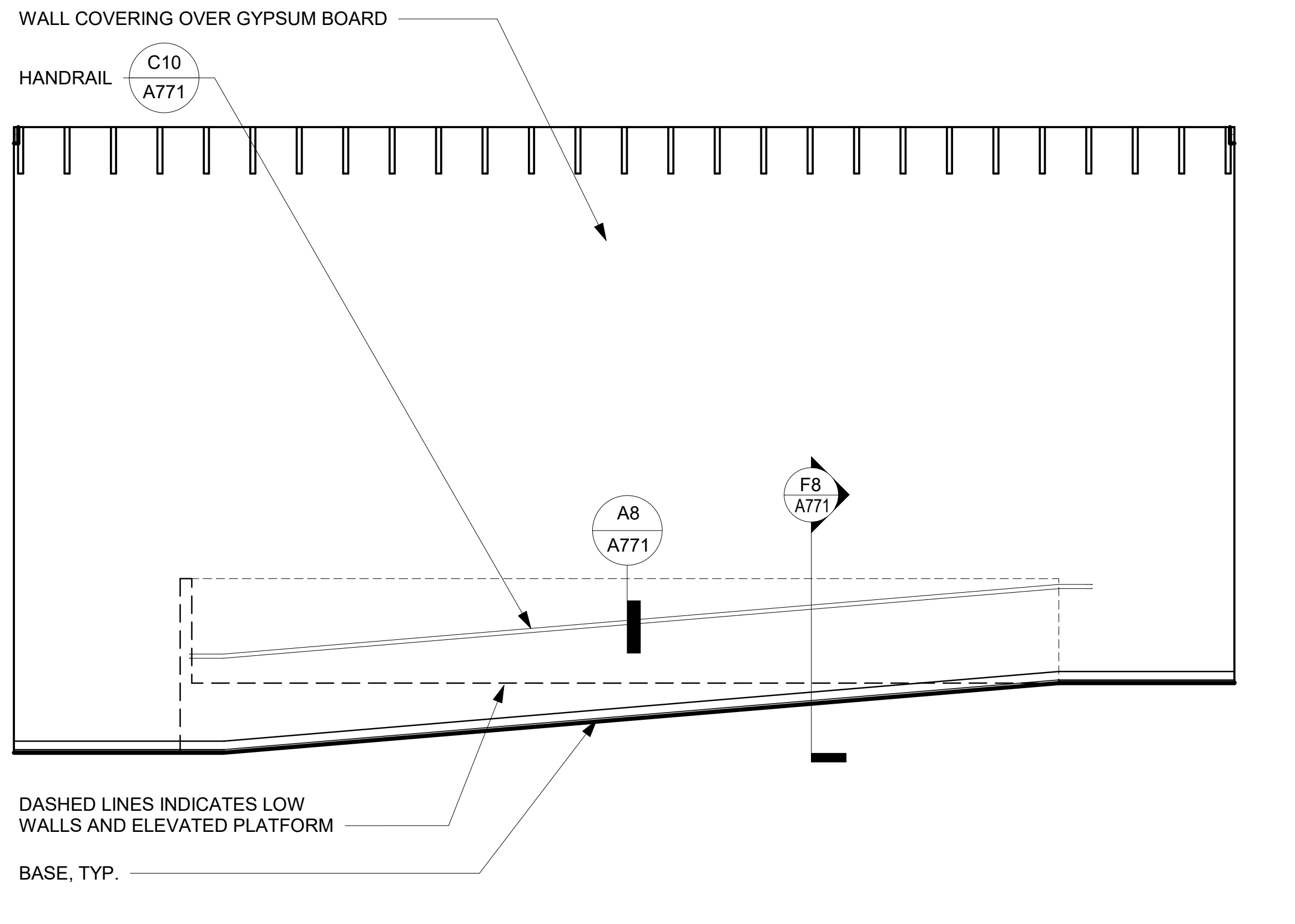
ENLARGED RAMP PLAN H6

1/2" = 1'-0"


DASHED LINE INIDCATES ROOF JOISTS
WALL COVERING OVER GYPSUM BOARD
DASHED LINES INDICATES LOW WALLS AND ELEVATED PLATFORM
BASE, TYP.

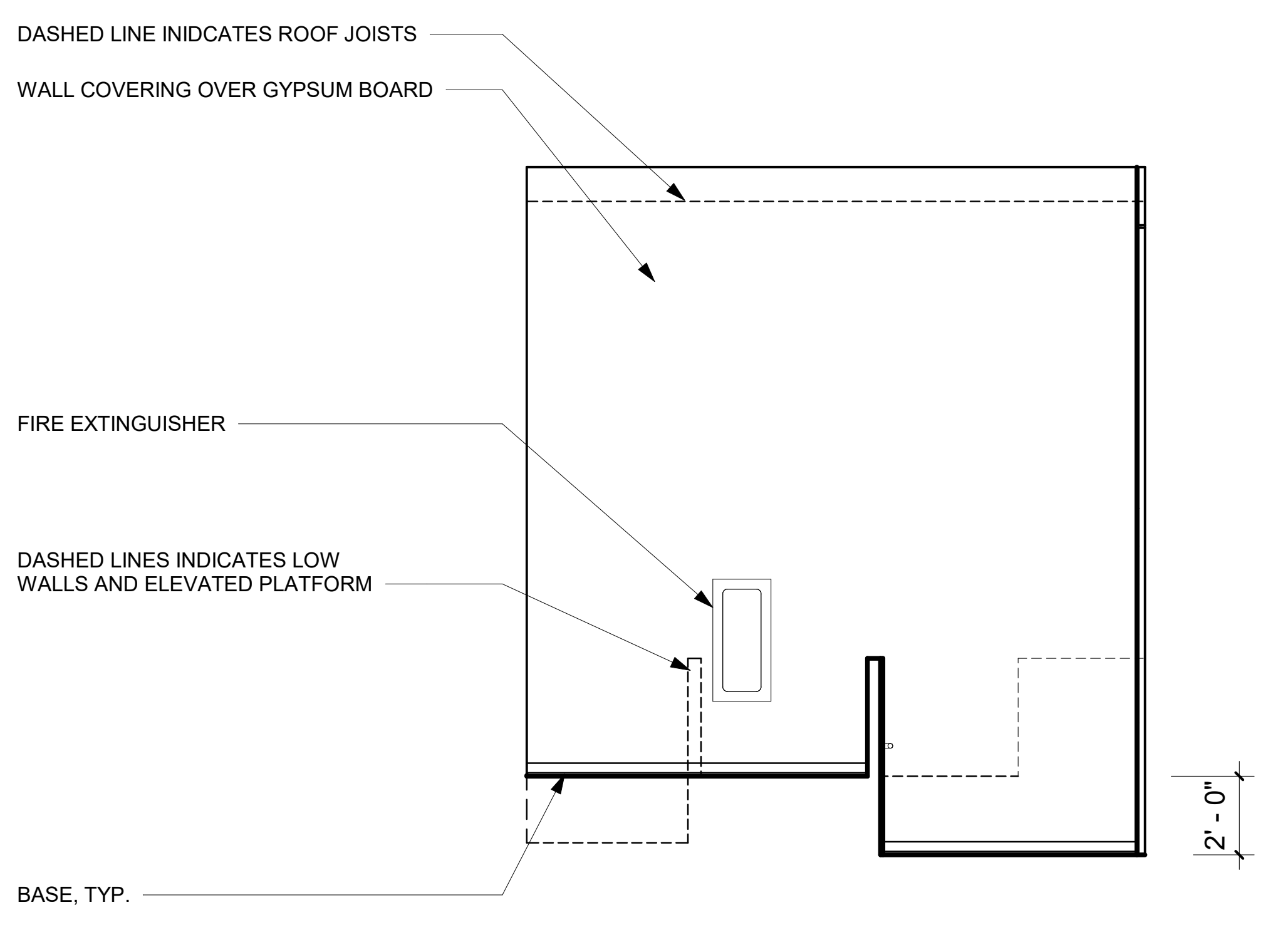
STORAGE - NORTH E3

1/4" = 1'-0"


WALL COVERING OVER GYPSUM BOARD
HANDRAIL
C10
A771
A8
A771
F8
A771
DASHED LINES INDICATES LOW WALLS AND ELEVATED PLATFORM
BASE, TYP.

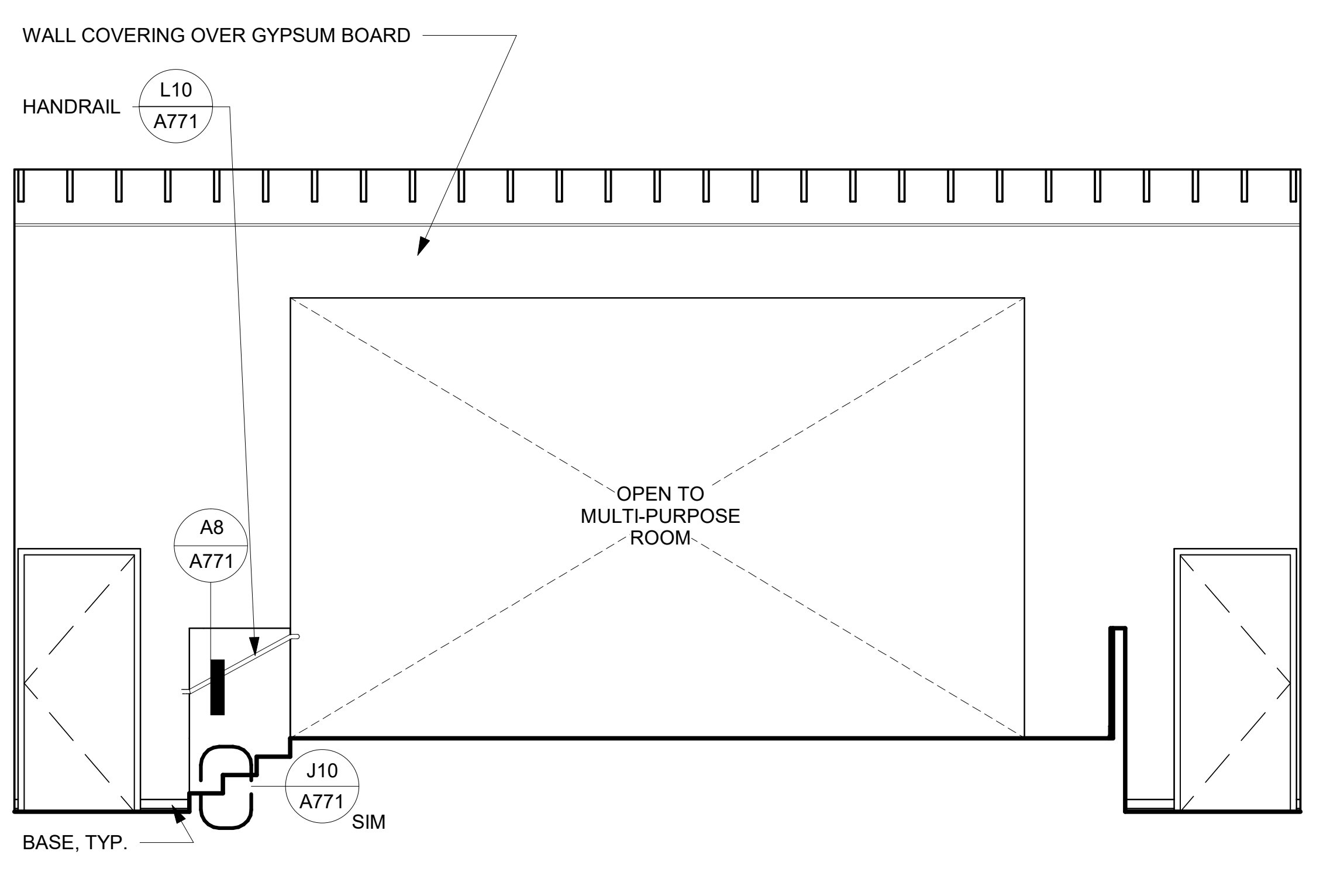
STORAGE - EAST A3

1/4" = 1'-0"


DASHED LINE INIDCATES ROOF JOISTS
WALL COVERING OVER GYPSUM BOARD
FIRE EXTINGUISHER
DASHED LINES INDICATES LOW WALLS AND ELEVATED PLATFORM
BASE, TYP.
2' - 0"

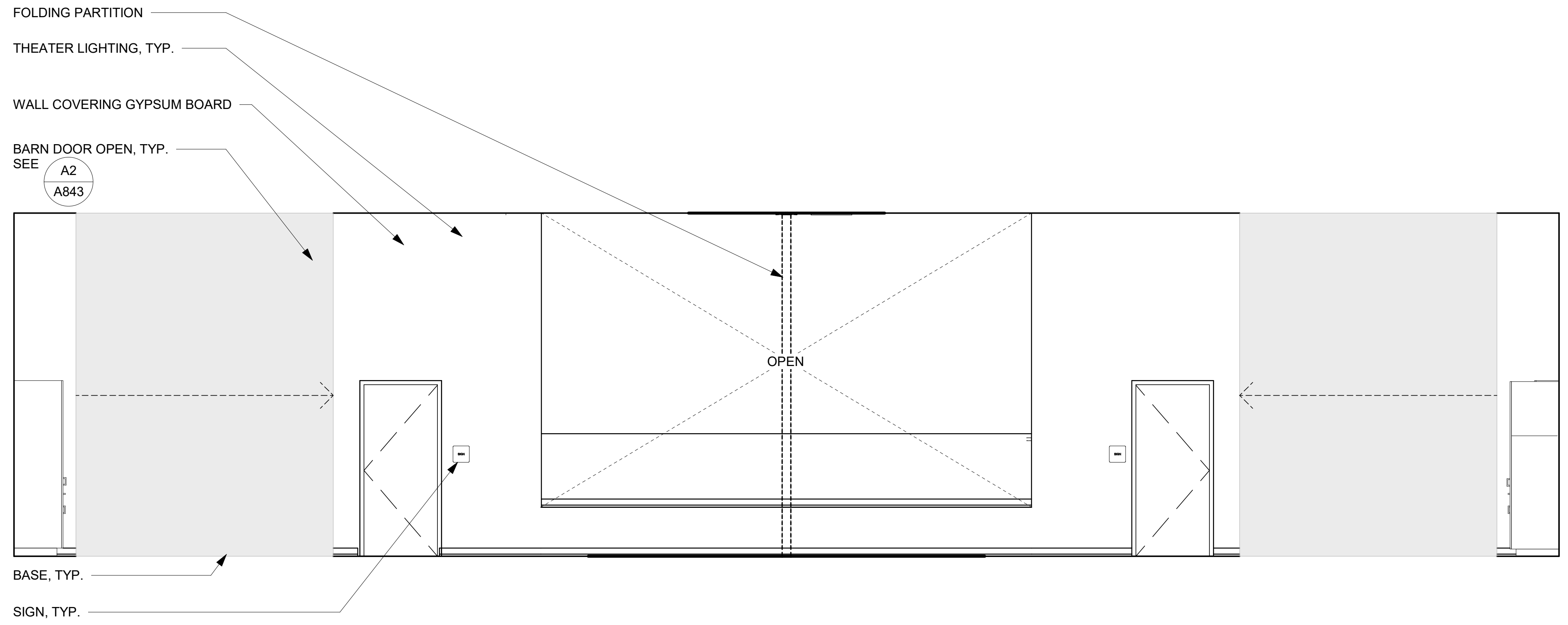
STORAGE - SOUTH E6

1/4" = 1'-0"



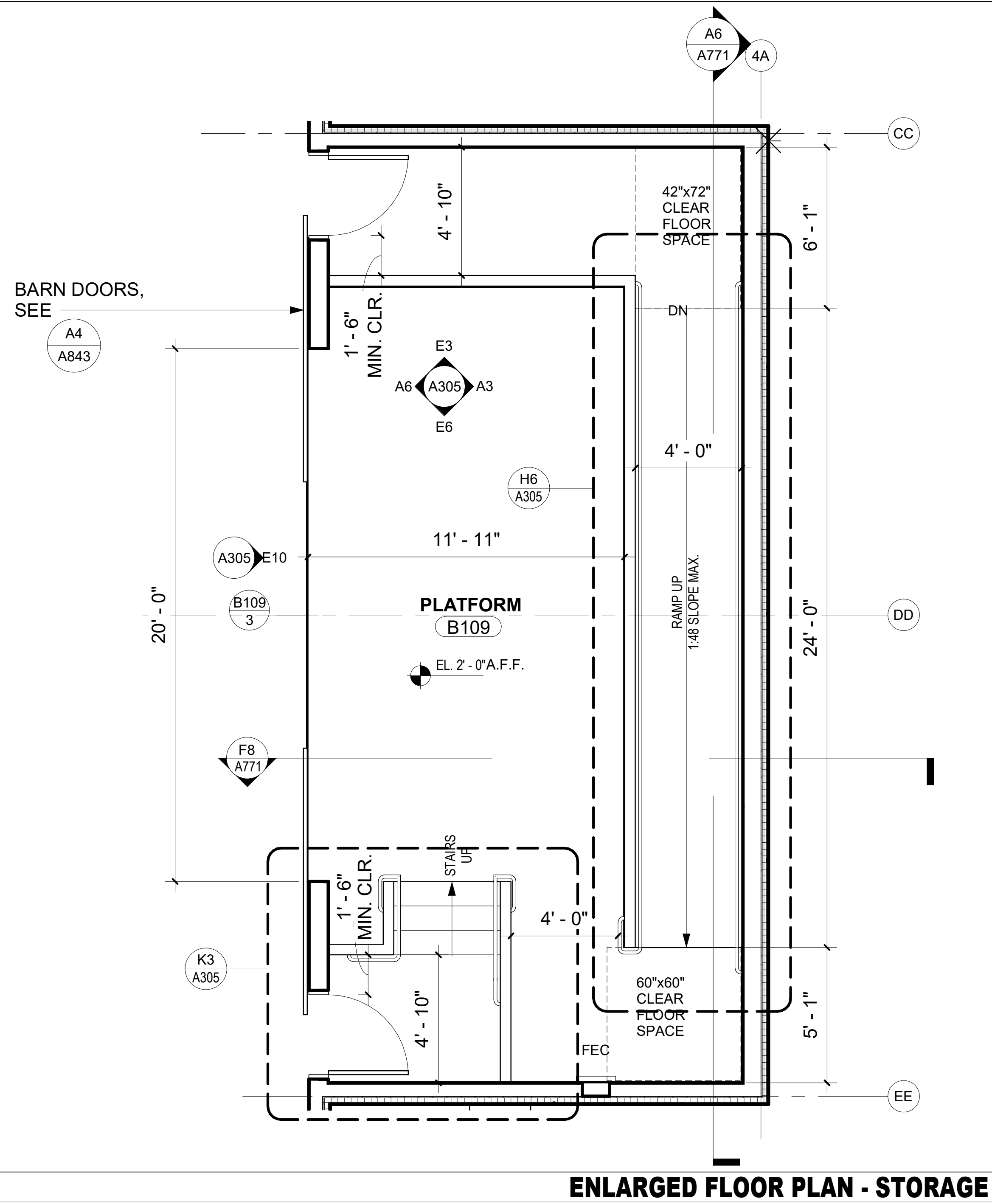
STORAGE - WEST A6

1/4" = 1'-0"



BUILDING B - EAST BARN DOORS OPEN E10

1/4" = 1'-0"



ENLARGED FLOOR PLAN - STORAGE A10

1/4" = 1'-0"

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LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL.31, 2023
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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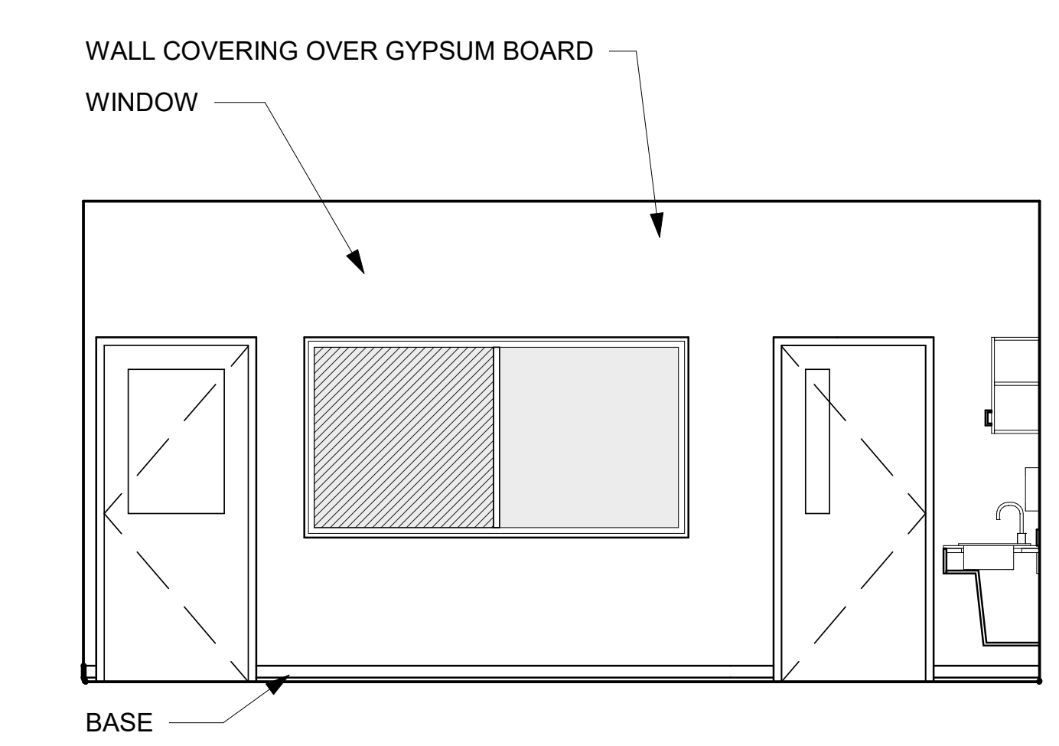
ENLARGED STAIRS PLANS AND SECTIONS

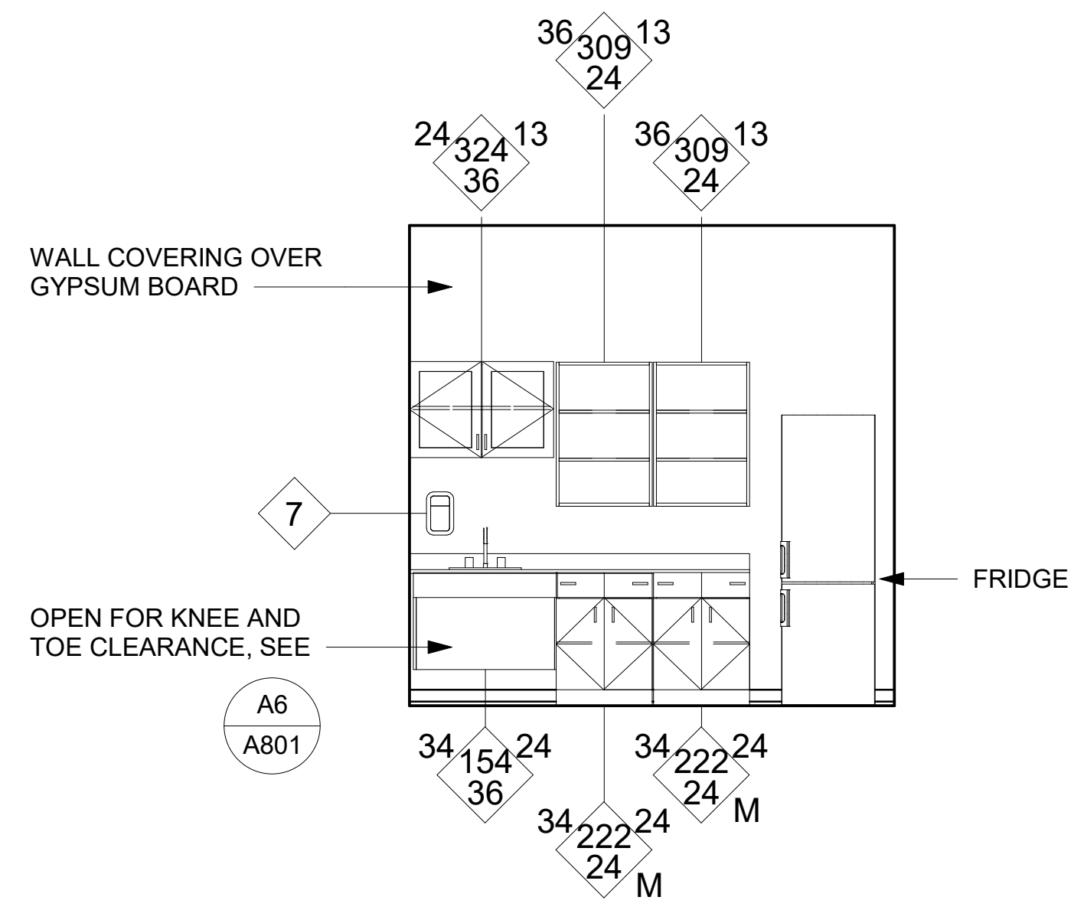
PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

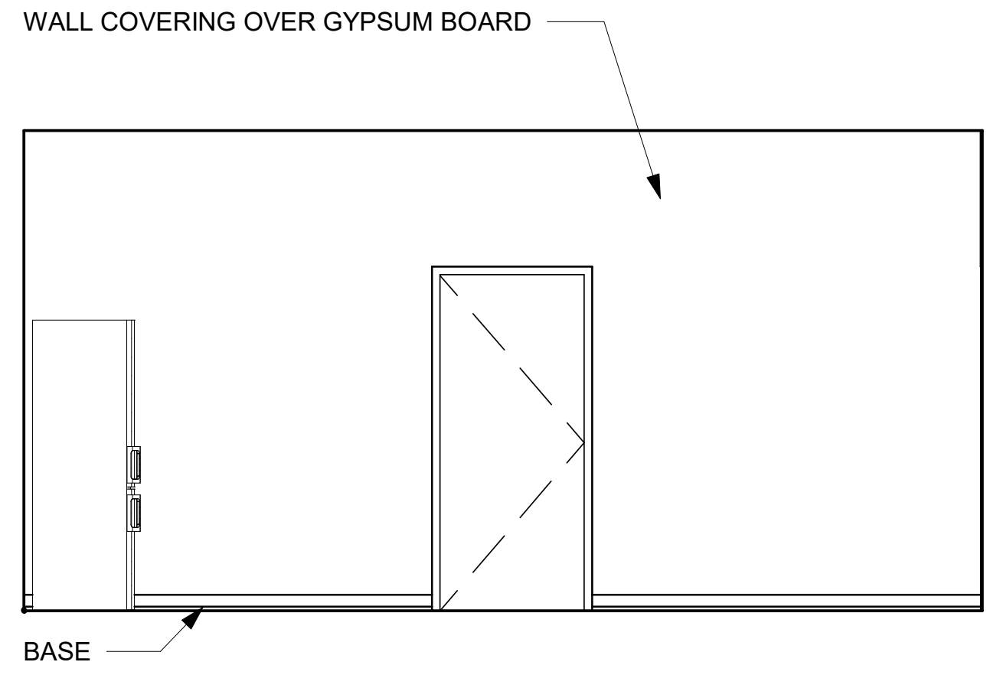
A305



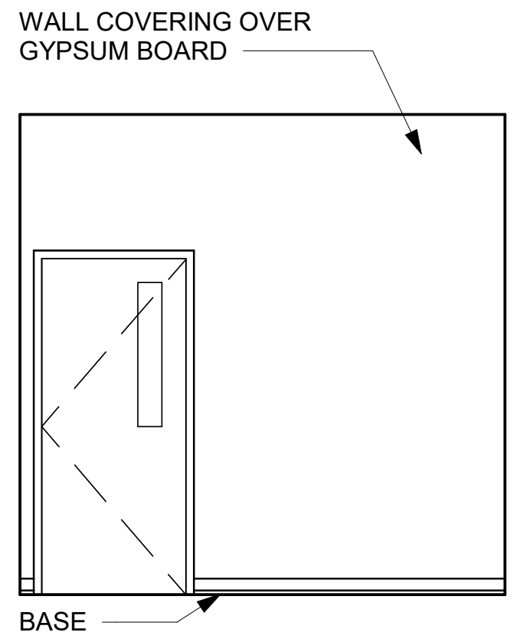
NORTH - STAFF WORK ROOM K2
1/4" = 1'-0"



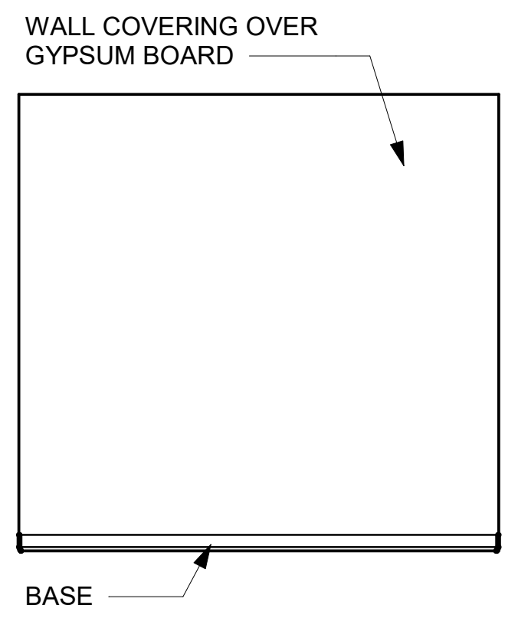
EAST - STAFF WORK ROOM G2
1/4" = 1'-0"



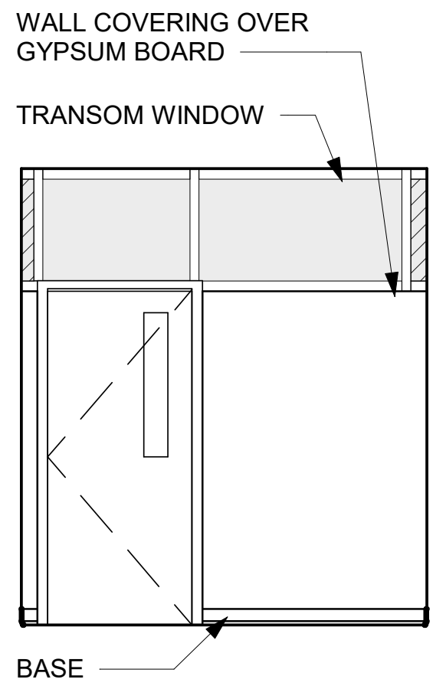
SOUTH - STAFF WORK ROOM D2
1/4" = 1'-0"



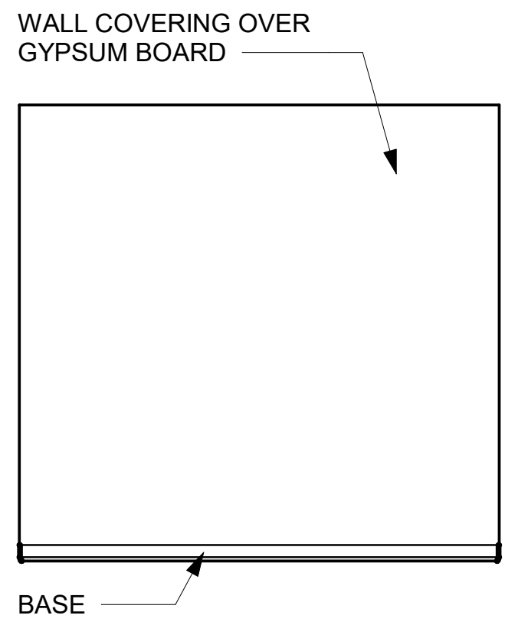
WEST - STAFF WORK ROOM A2
1/4" = 1'-0"



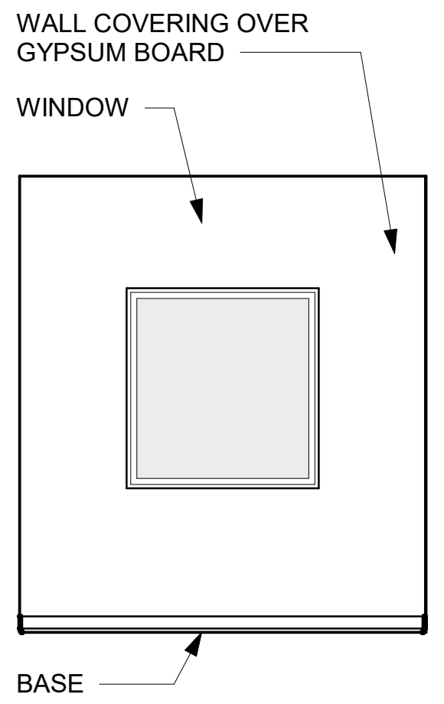
NORTH - OFFICE 2 AND 3 K4
1/4" = 1'-0"



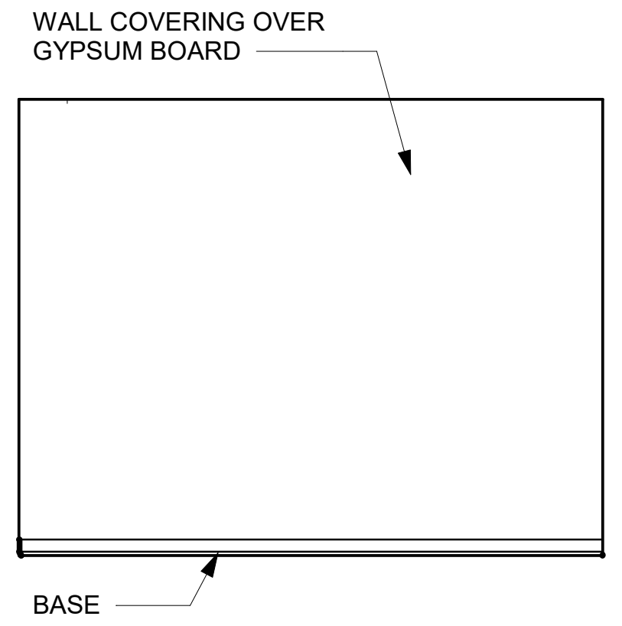
EAST - OFFICE 2 AND 3 G4
1/4" = 1'-0"



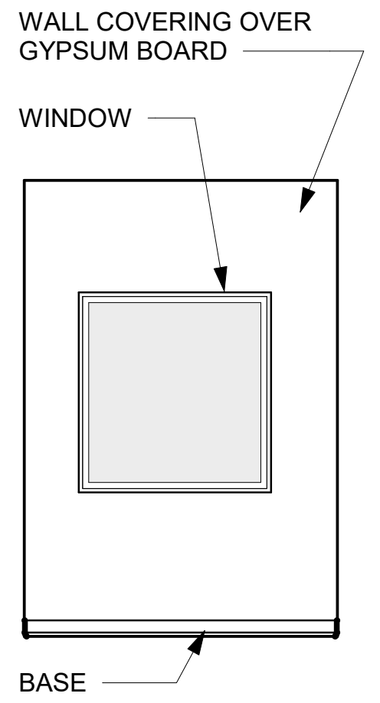
SOUTH - OFFICE 2 AND 3 D4
1/4" = 1'-0"



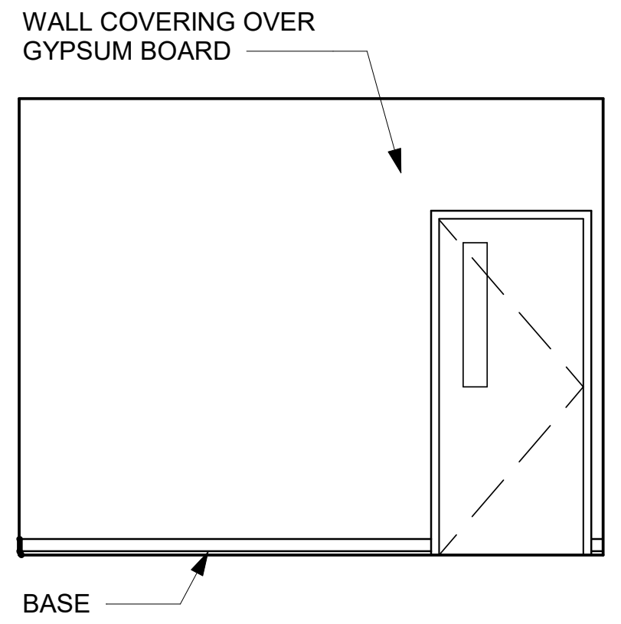
WEST - OFFICE 2 AND 3 A4
1/4" = 1'-0"



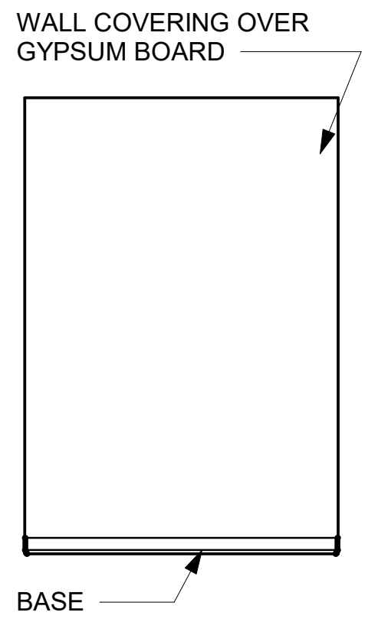
NORTH - OFFICE 4 K6
1/4" = 1'-0"



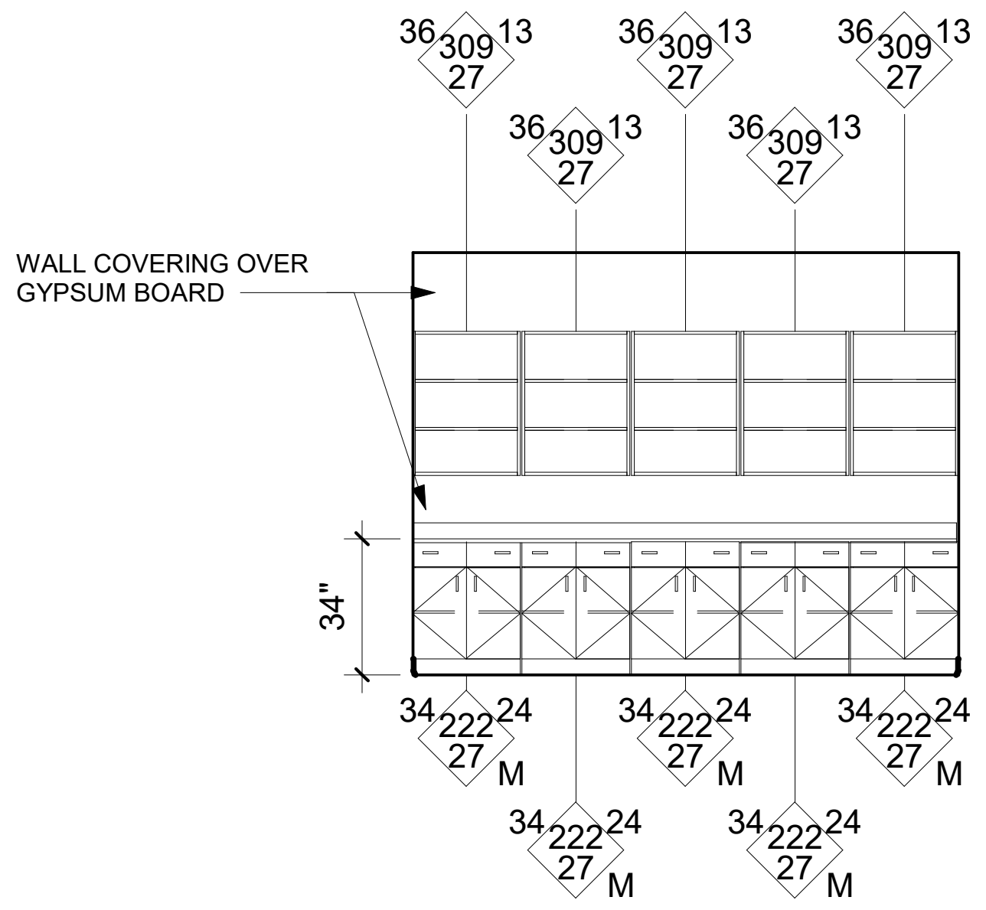
EAST - OFFICE 4 G6
1/4" = 1'-0"



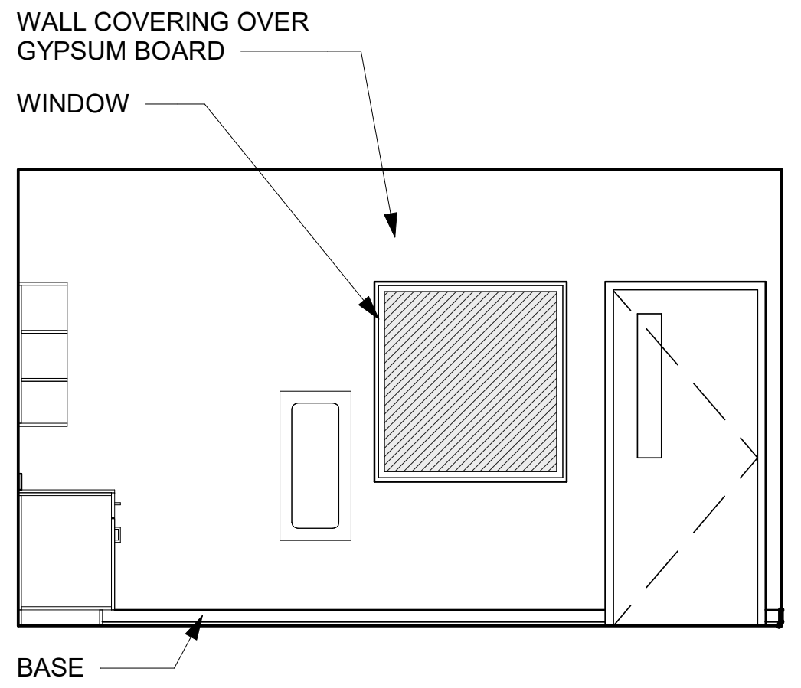
SOUTH - OFFICE 4 D6
1/4" = 1'-0"



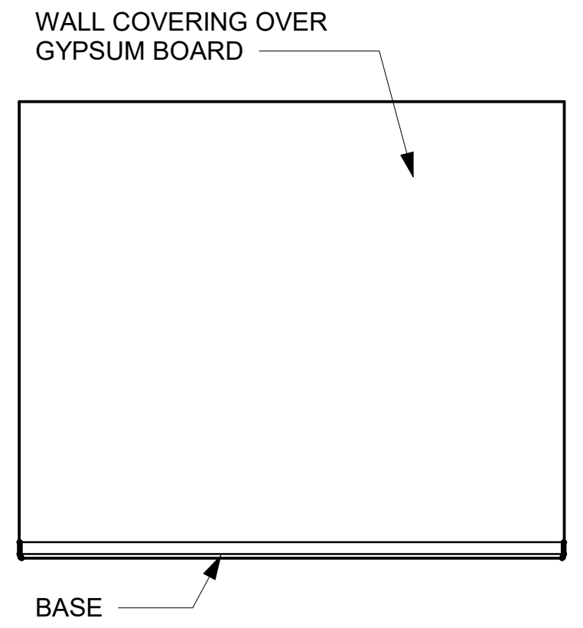
WEST - OFFICE 4 A6
1/4" = 1'-0"



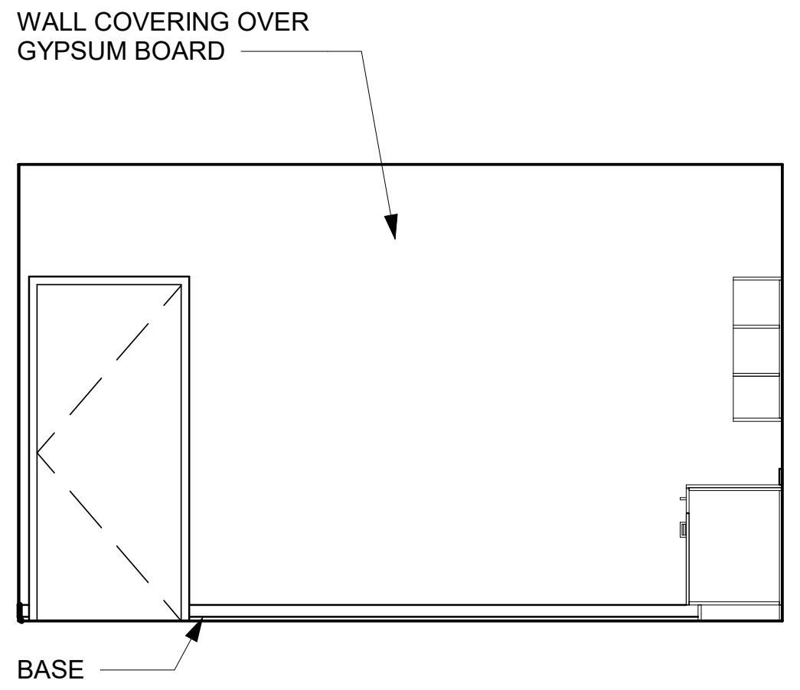
NORTH - STAFF LOUNGE K8
1/4" = 1'-0"



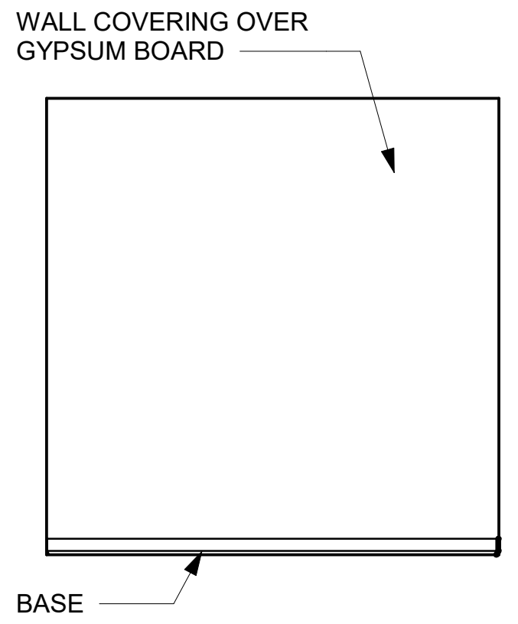
EAST - STAFF LOUNGE G8
1/4" = 1'-0"



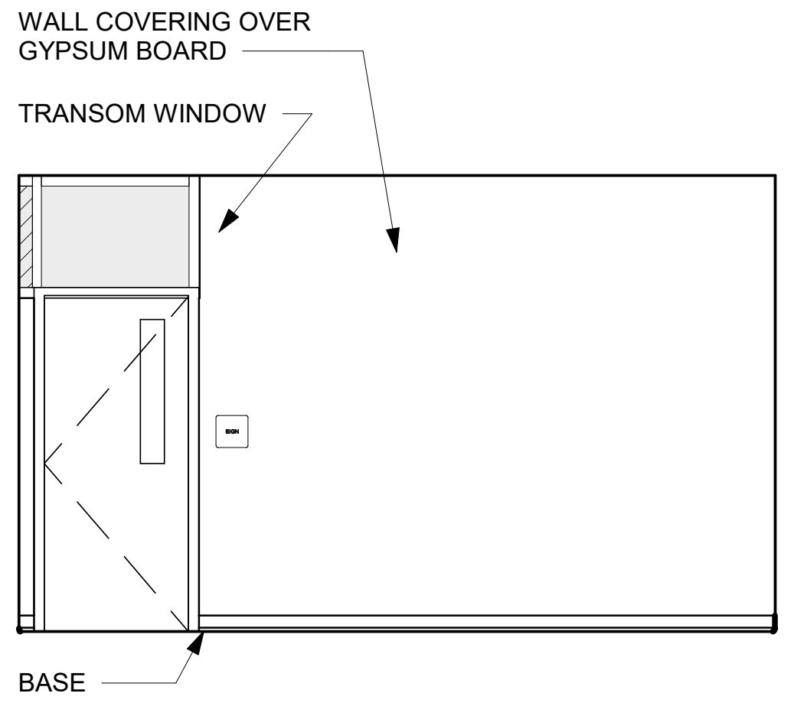
SOUTH - STAFF LOUNGE D8
1/4" = 1'-0"



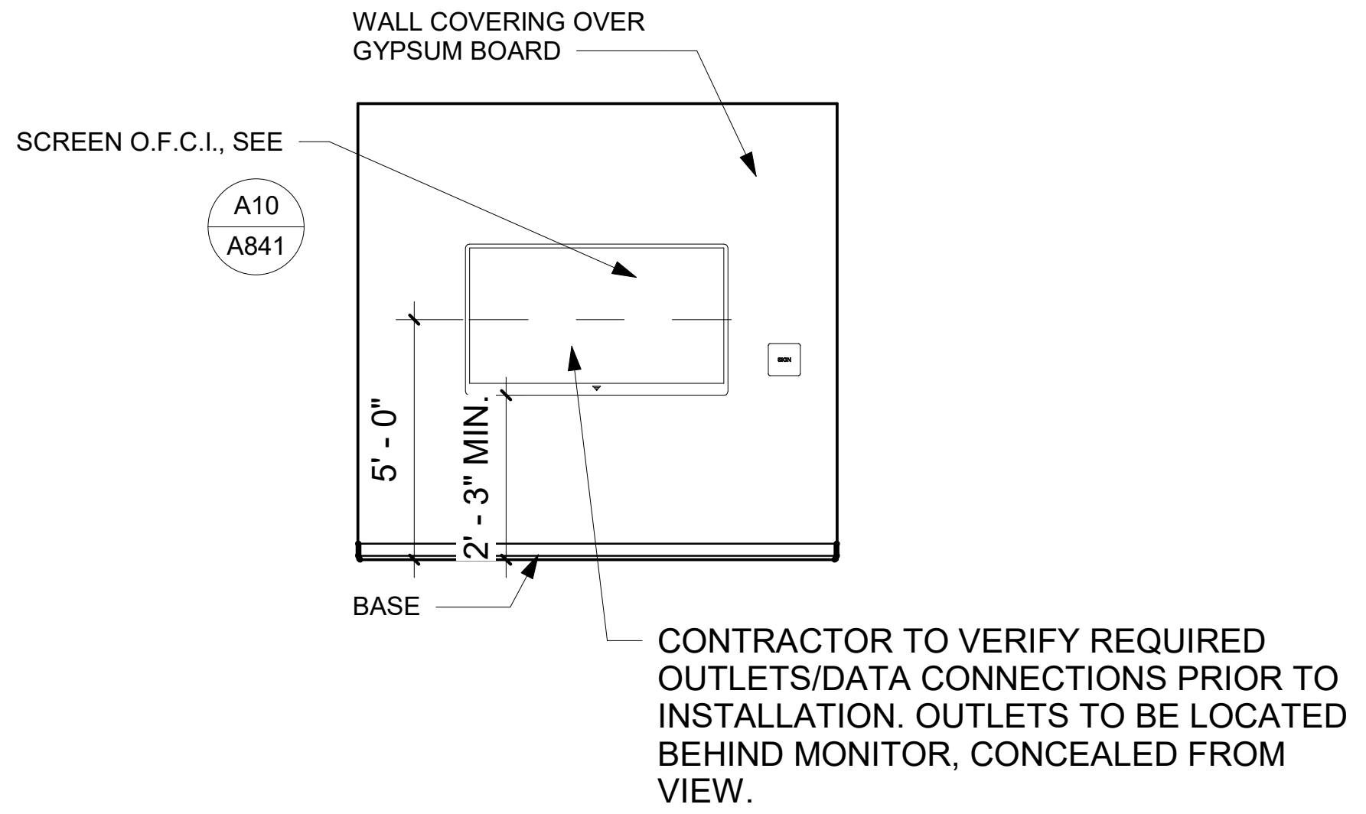
WEST - STAFF LOUNGE A8
1/4" = 1'-0"



NORTH - CONFERENE ROOM K10
1/4" = 1'-0"

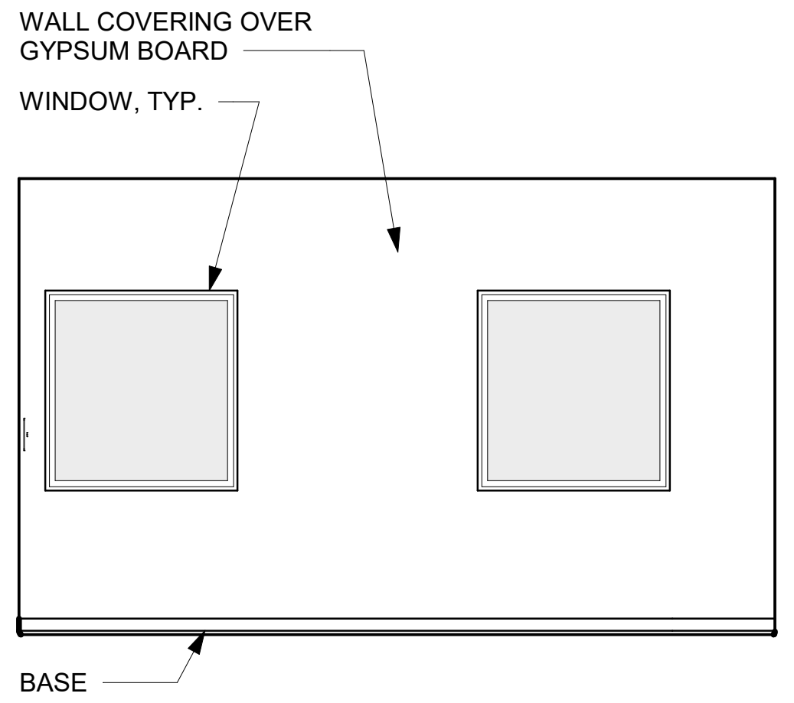


EAST - CONFERENCE ROOM G10
1/4" = 1'-0"



CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION. OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

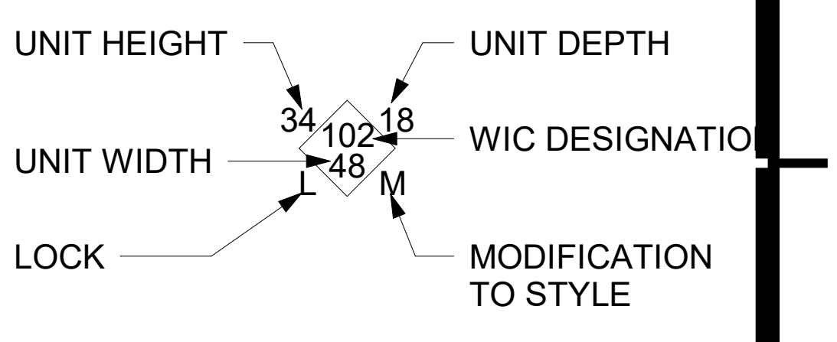
SOUTH - CONFERENCE ROOM D10
1/4" = 1'-0"



WEST - CONFERENCE ROOM A10
1/4" = 1'-0"

INT. ELEVATION LEGEND

CASEWORK TAG:



CASEWORK NOTES:

1. PROVIDE LOCKS FOR CABINET DRAWNERS AND DOORS, TYP.
2. REFER TO MANUAL OF MILLWORK BY WOODWORK INSTITUTE OF CALIFORNIA FOR WIC DESIGNATION.
3. FOR CASEWORK SEE A801

ELEVATION LEGEND

▯ SOAP DISPENSER

✉ PAPER TOWEL DISPENSER

ACCESSORIES...

#	DESCRIPTION	MODEL	BASIS OF DESIGN
1	PAPER TOWEL DISPENSER - SURFACE MOUNTED	B-262	BOBRICK
2	TOILET TISSUE DISPENSER - RECESSED	B-4388	BOBRICK
3	TOILET SEAT COVER DISPENSER	B-5221	BOBRICK
4	GLASS MIRROR WITH FRAME - 18" x 36"	B-2908	BOBRICK
5	GRAB BAR 42"	B-6806	BOBRICK
6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

GLAZING LEGEND

▨ GLAZING TYPE I

▨ GLAZING TYPE II

░ GLAZING WITH FILM: FASARA - MILKY MILKY LIGHT GREY 2H2MAMML

▓ GLAZING WITH FILM: FASARA - CROSS HAIRLINE MILKY SH2CHML

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL. 31, 2023
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
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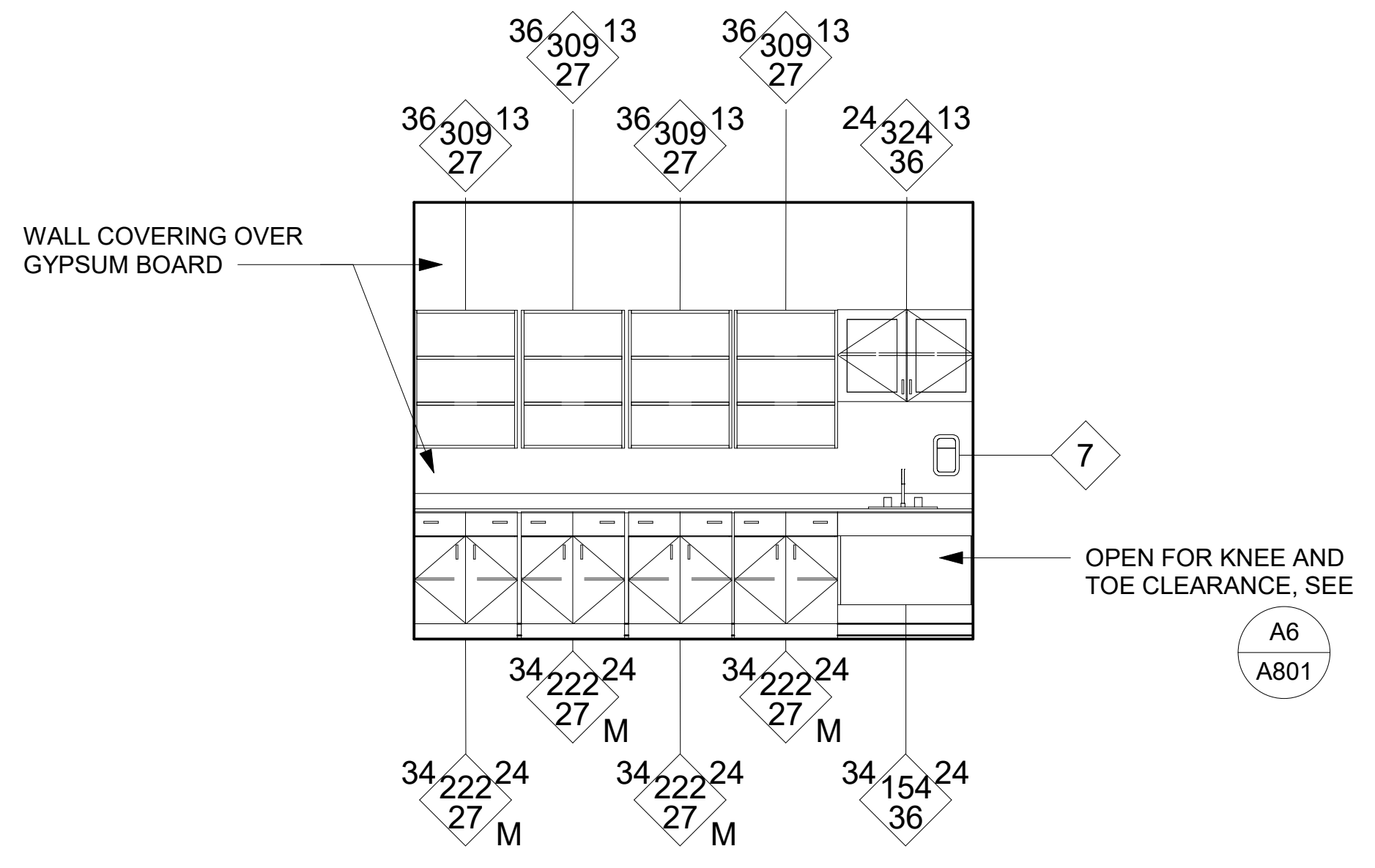
INTERIOR ELEVATIONS - BLDG A

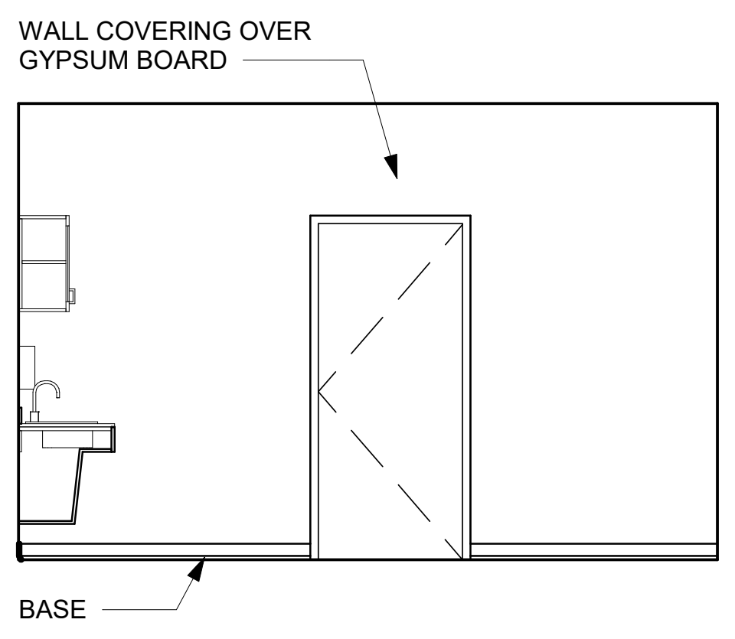
PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

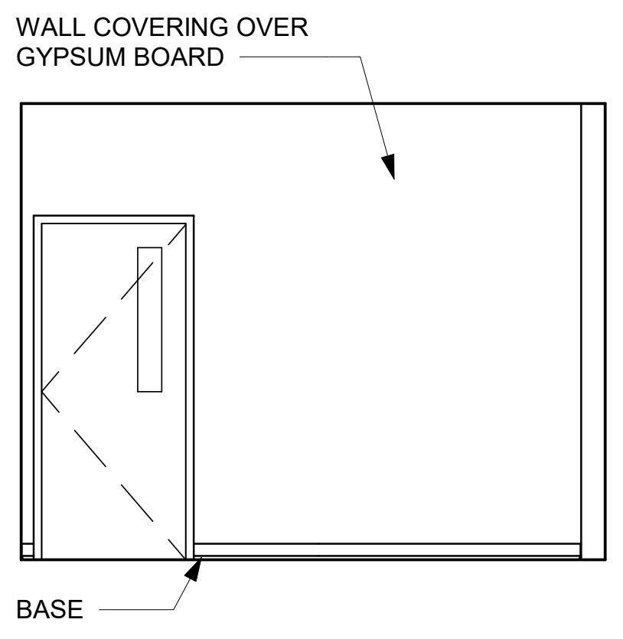
A401



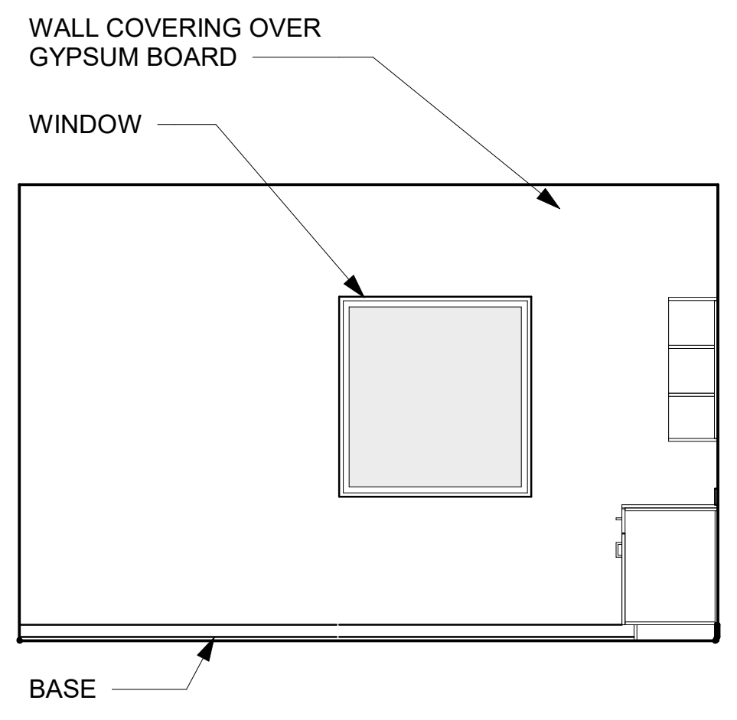
NORTH - NURSE **K2**
1/4" = 1'-0"



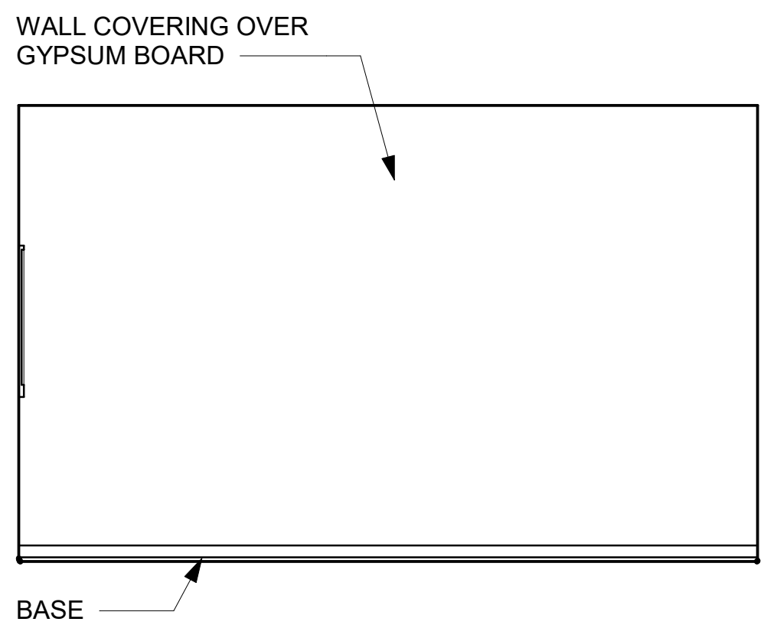
EAST - NURSE **G2**
1/4" = 1'-0"



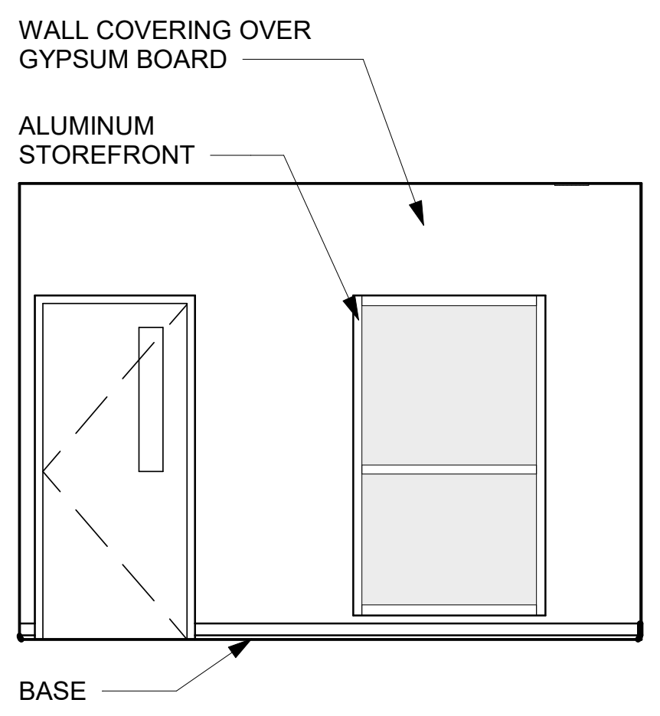
SOUTH - NURSE **D2**
1/4" = 1'-0"



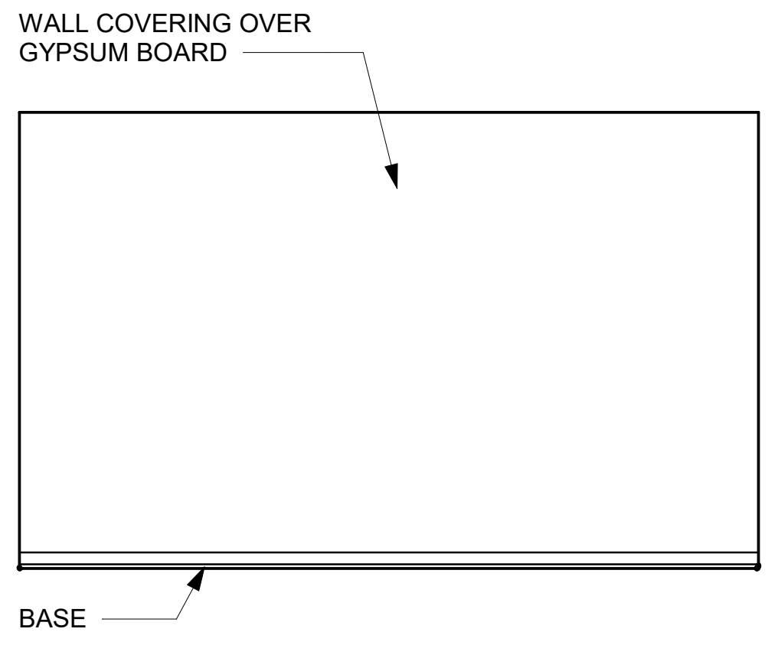
WEST - NURSE **A2**
1/4" = 1'-0"



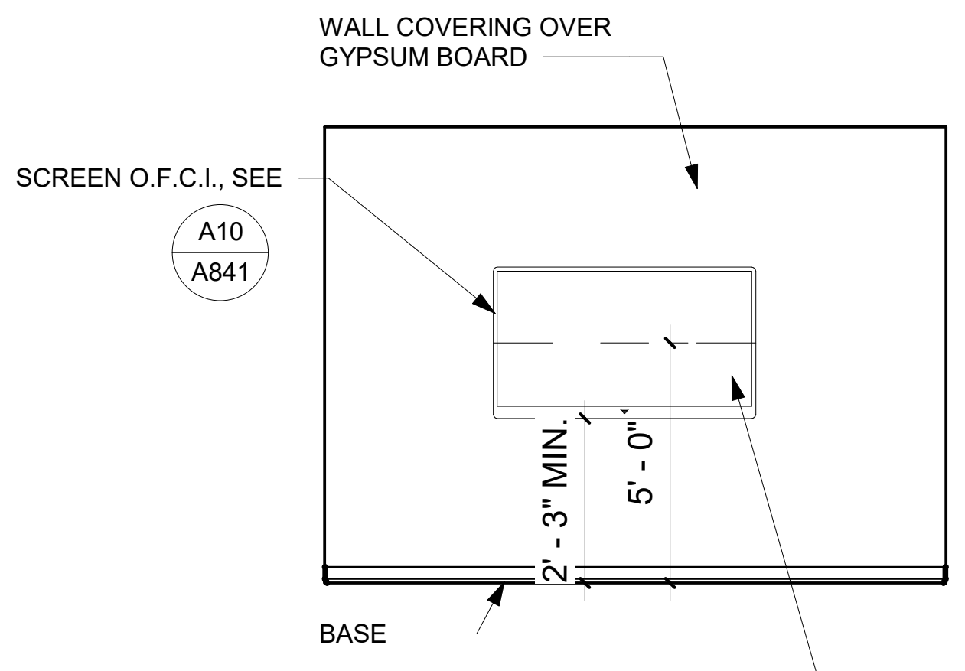
NORTH - INCENTIVE ROOM **K4**
1/4" = 1'-0"



EAST - INCENTIVE ROOM **G4**
1/4" = 1'-0"

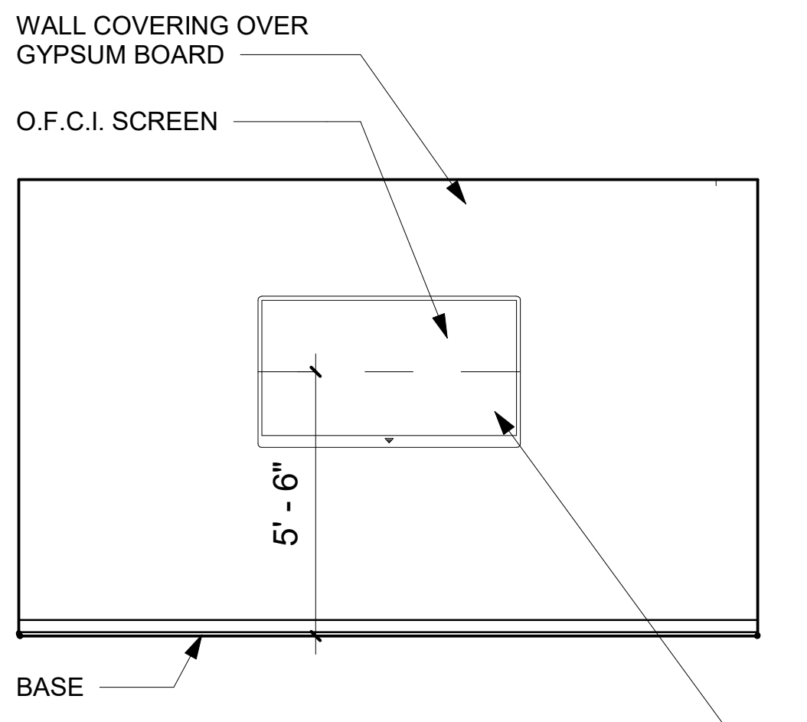


SOUTH - INCENTIVE ROOM **D4**
1/4" = 1'-0"



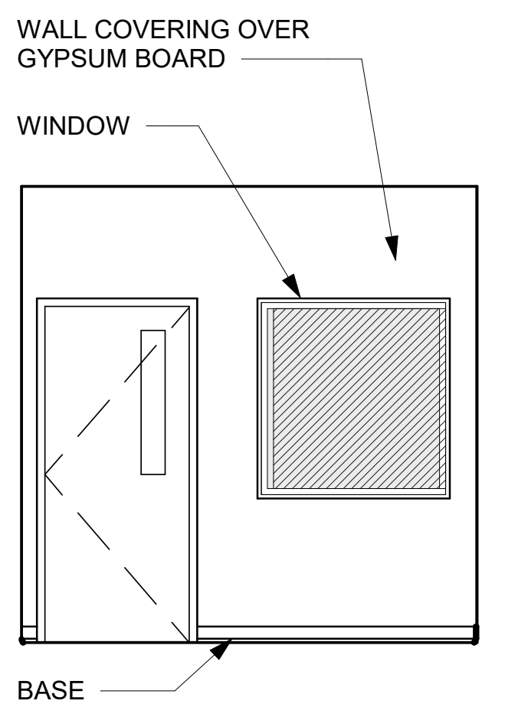
CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION. OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

WEST - INCENTIVE ROOM **A4**
1/4" = 1'-0"

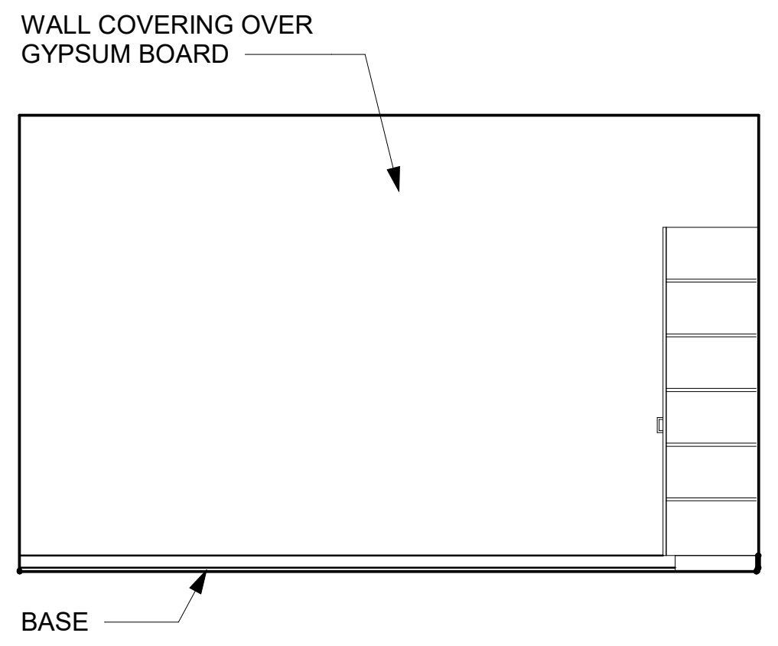


CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION. OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

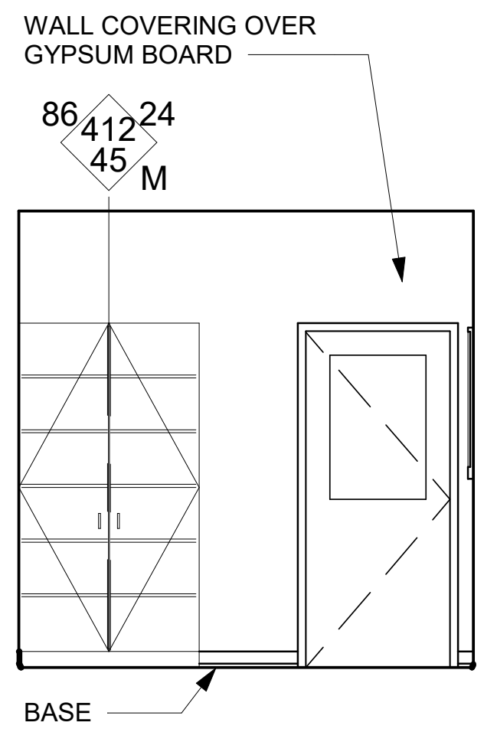
NORTH - PRINCIPAL'S OFFICE **K6**
1/4" = 1'-0"



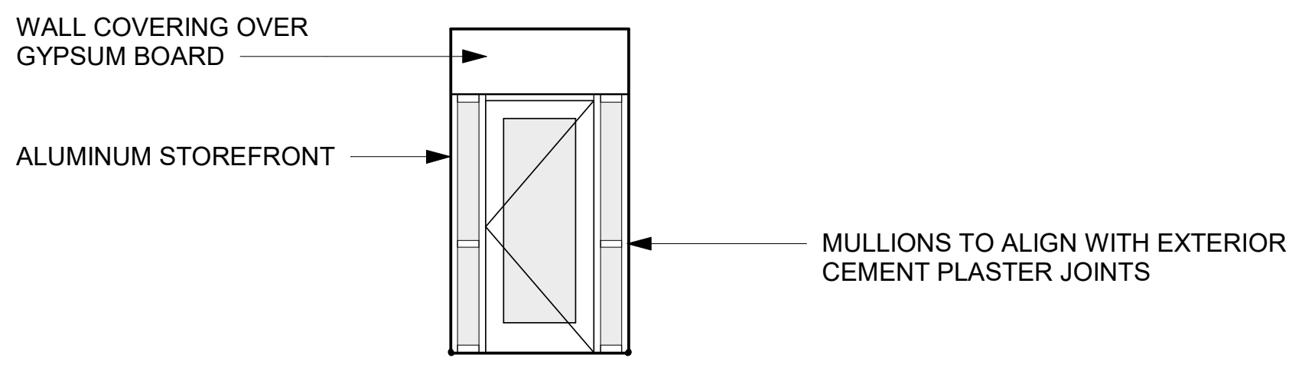
EAST - PRINCIPAL'S OFFICE **G6**
1/4" = 1'-0"



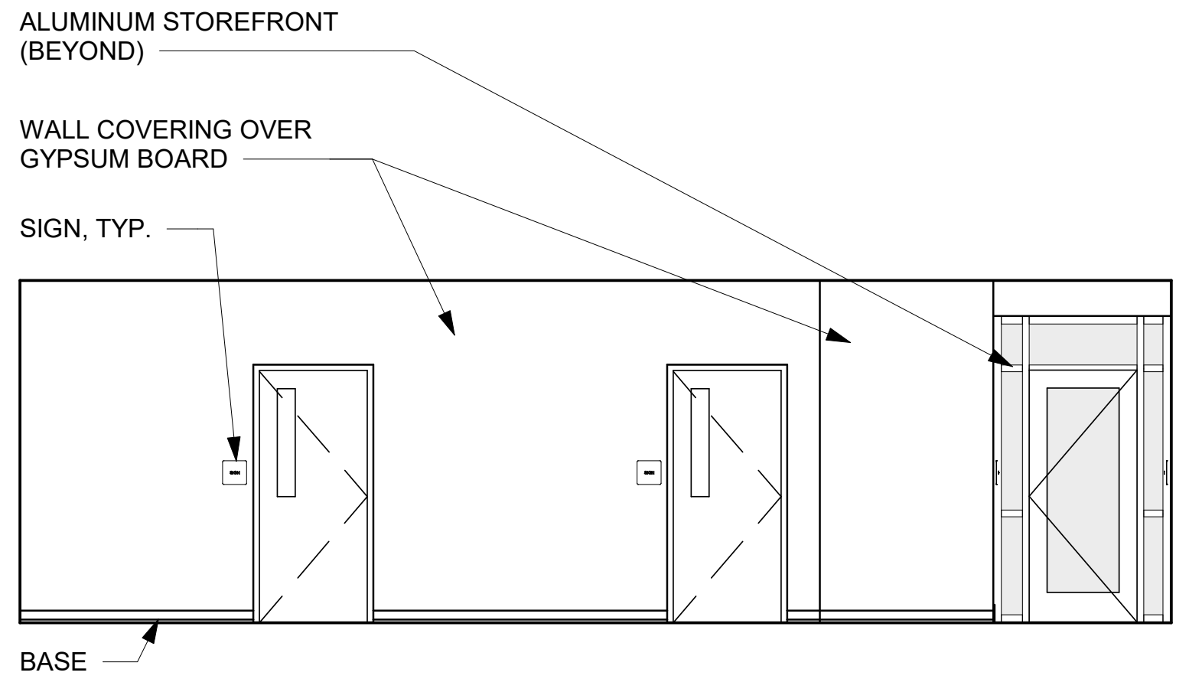
SOUTH - PRINCIPAL'S OFFICE **D6**
1/4" = 1'-0"



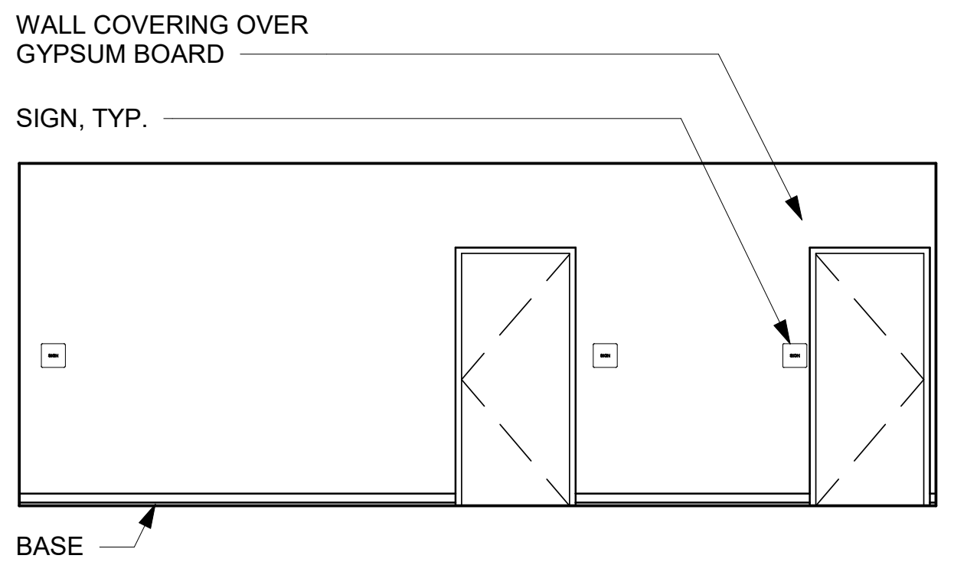
WEST - PRINCIPAL'S OFFICE **A6**
1/4" = 1'-0"


WALL COVERING OVER GYPSUM BOARD
ALUMINUM STOREFRONT
MULLIONS TO ALIGN WITH EXTERIOR CEMENT PLASTER JOINTS

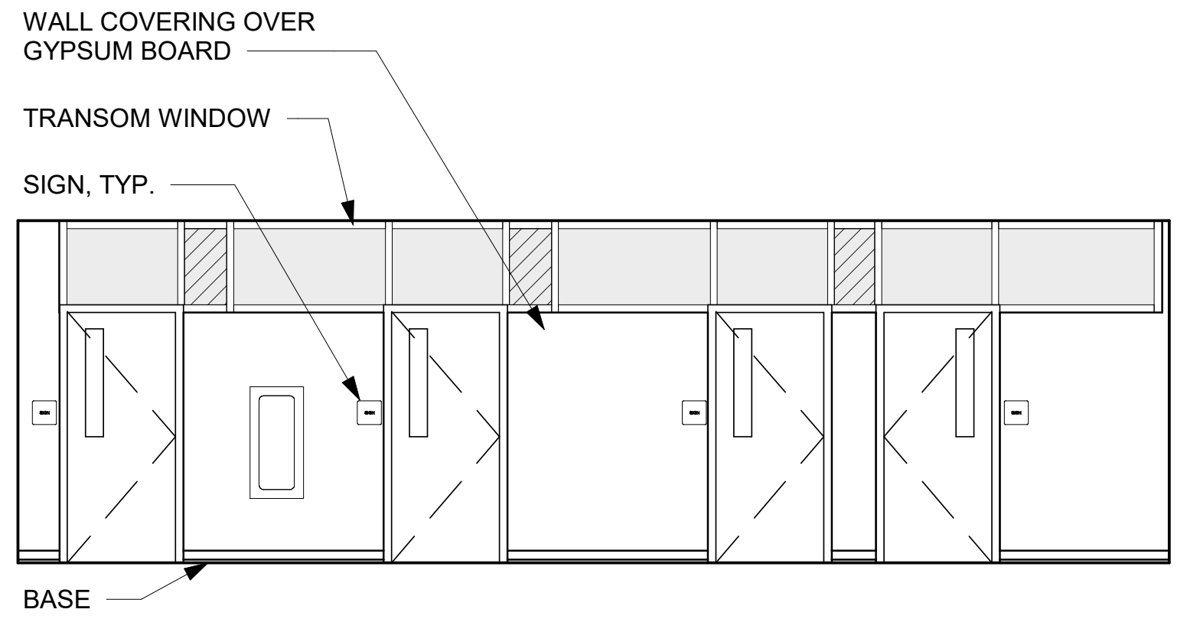
NORTH - COMMONS **K8**
3/16" = 1'-0"



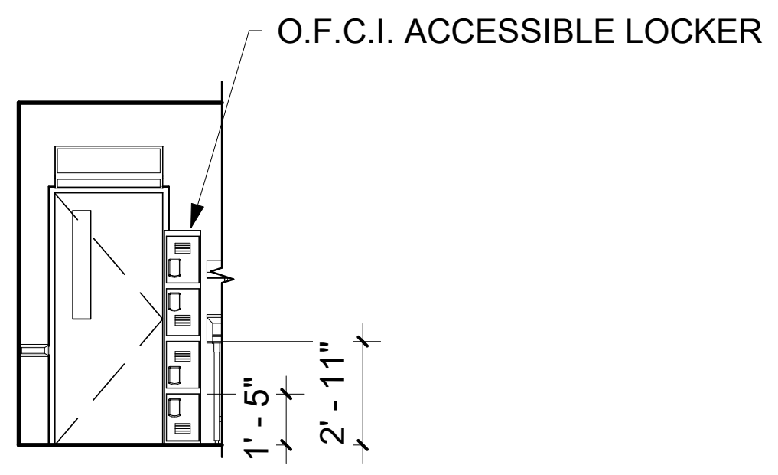
EAST - COMMONS **G8**
3/16" = 1'-0"



SOUTH - COMMONS **D8**
3/16" = 1'-0"



WEST - COMMONS **A8**
3/16" = 1'-0"



WEST - KITCHEN **A10**
3/16" = 1'-0"

INT. ELEVATION LEGEND

CASEWORK TAG:

UNIT HEIGHT
UNIT DEPTH
UNIT WIDTH
WIC DESIGNATION
LOCK
MODIFICATION TO STYLE
34 102 48 18 L M

CASEWORK NOTES:

1. PROVIDE LOCKS FOR CABINET DRAWNERS AND DOORS, TYP.
2. REFER TO MANUAL OF MILLWORK BY WOODWORK INSTITUTE OF CALIFORNIA FOR WIC DESIGNATION.
3. FOR CASEWORK SEE A801

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
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LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023
STATE OF CALIFORNIA

ELEVATION LEGEND

▯ SOAP DISPENSER

✉ PAPER TOWEL DISPENSER

ACCESSORIES...

#	DESCRIPTION	MODEL	BASIS OF DESIGN
1	PAPER TOWEL DISPENSER - SURFACE MOUNTED	B-262	BOBRICK
2	TOILET TISSUE DISPENSER - RECESSED	B-4388	BOBRICK
3	TOILET SEAT COVER DISPENSER	B-5221	BOBRICK
4	GLASS MIRROR WITH FRAME - 18" x 36"	B-2908	BOBRICK
5	GRAB BAR 42"	B-6806	BOBRICK
6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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DATE	12/07/2022
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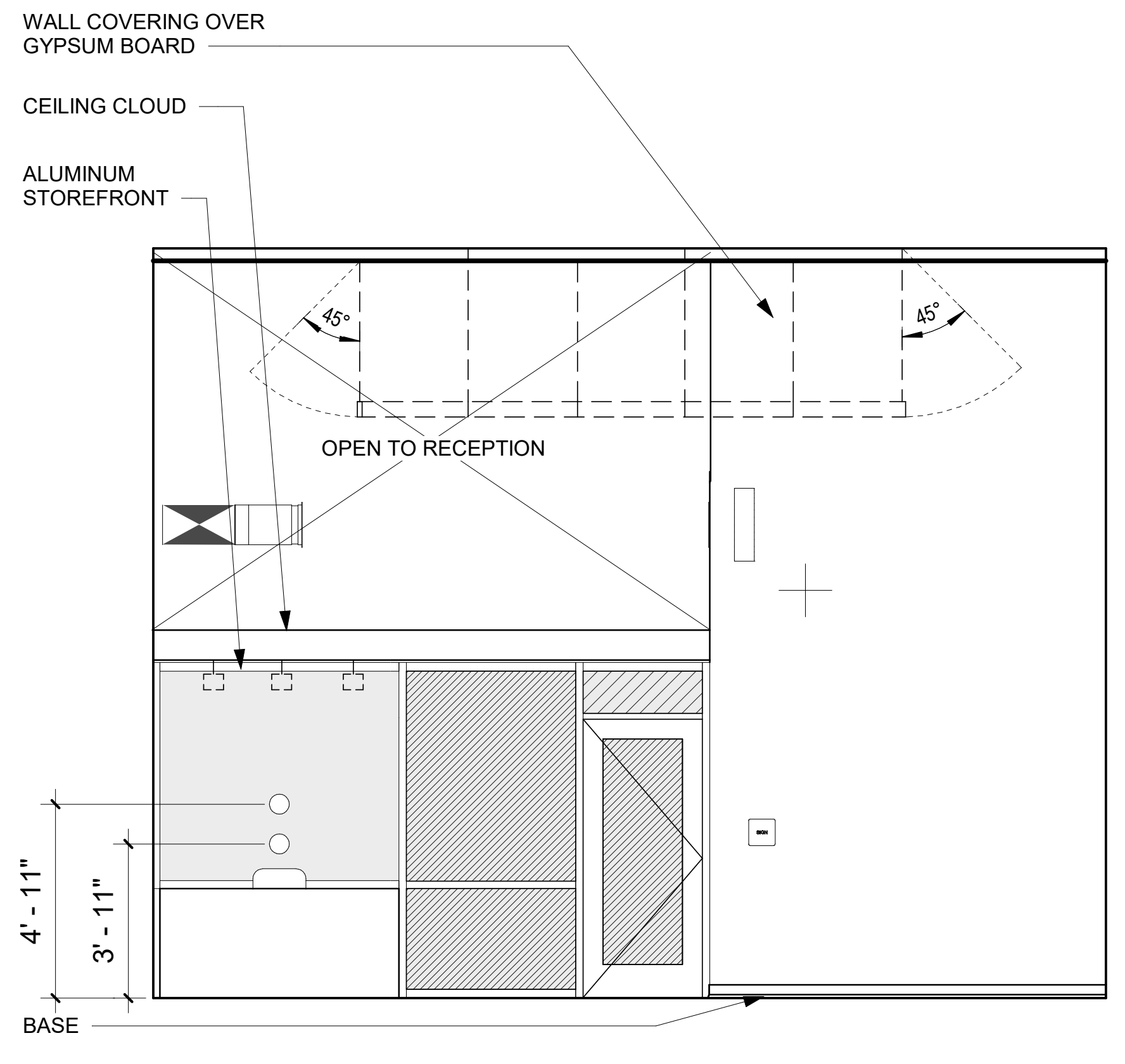
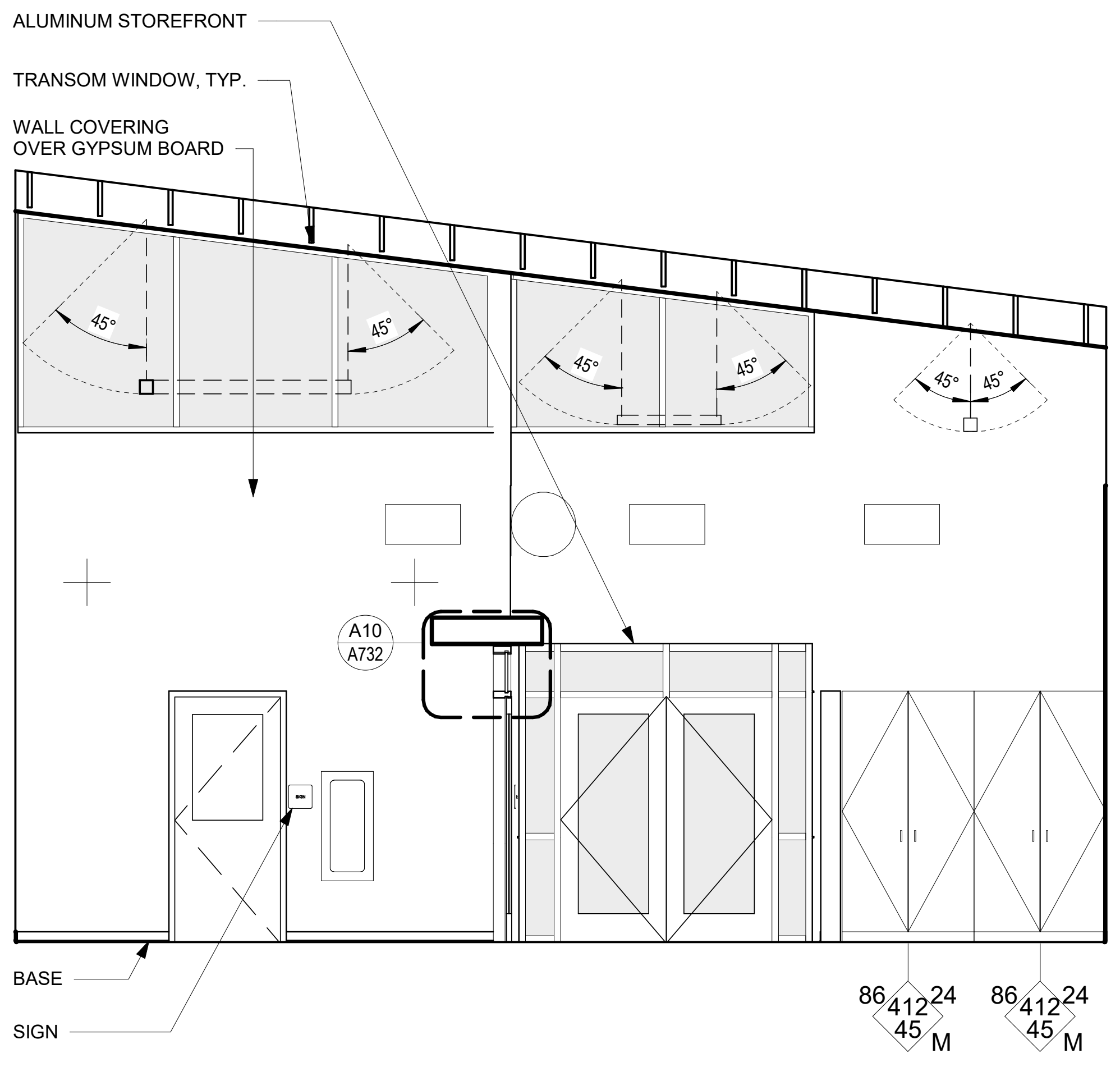
INTERIOR ELEVATIONS - BLDG A

PERKINS — EASTMAN

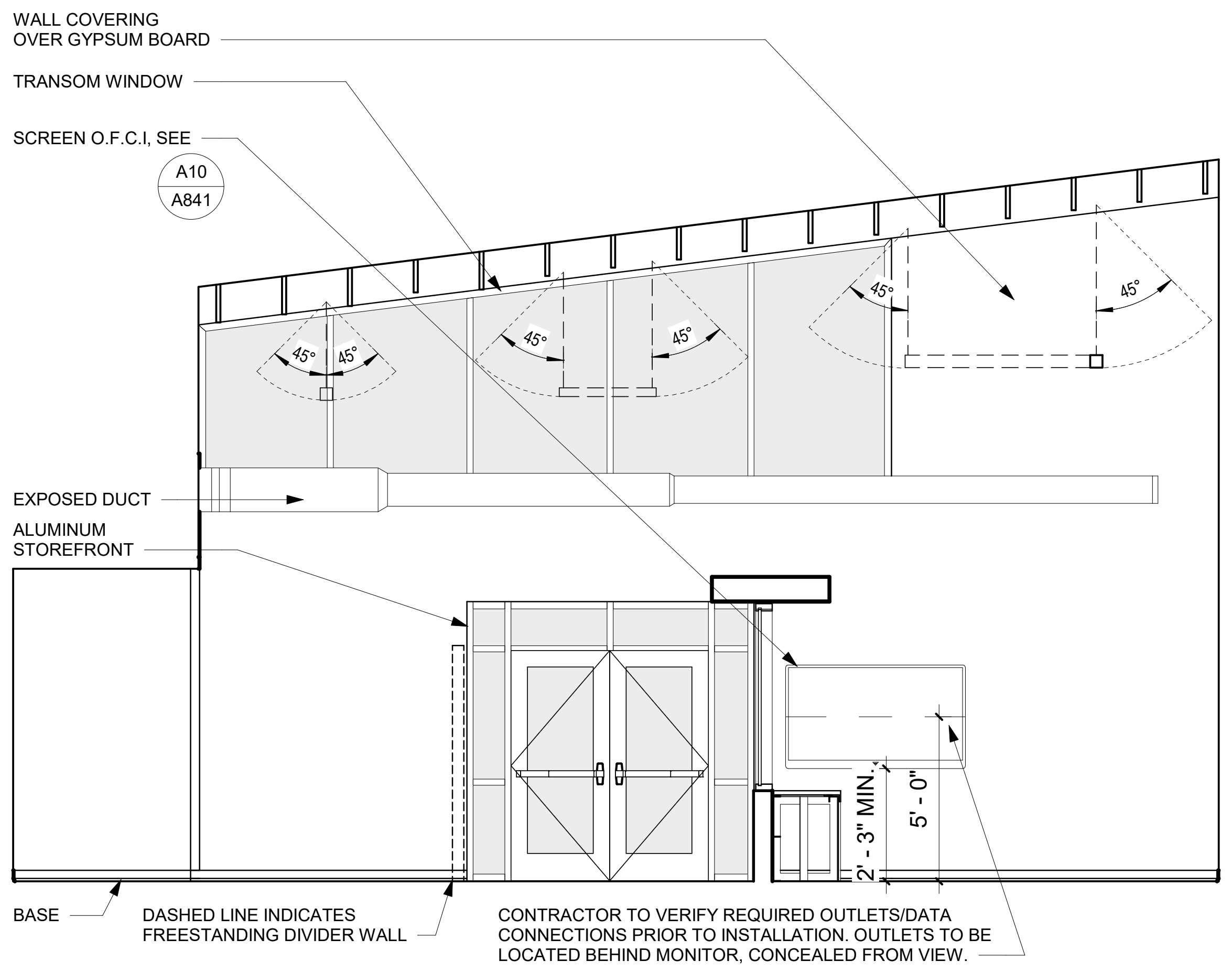
A402



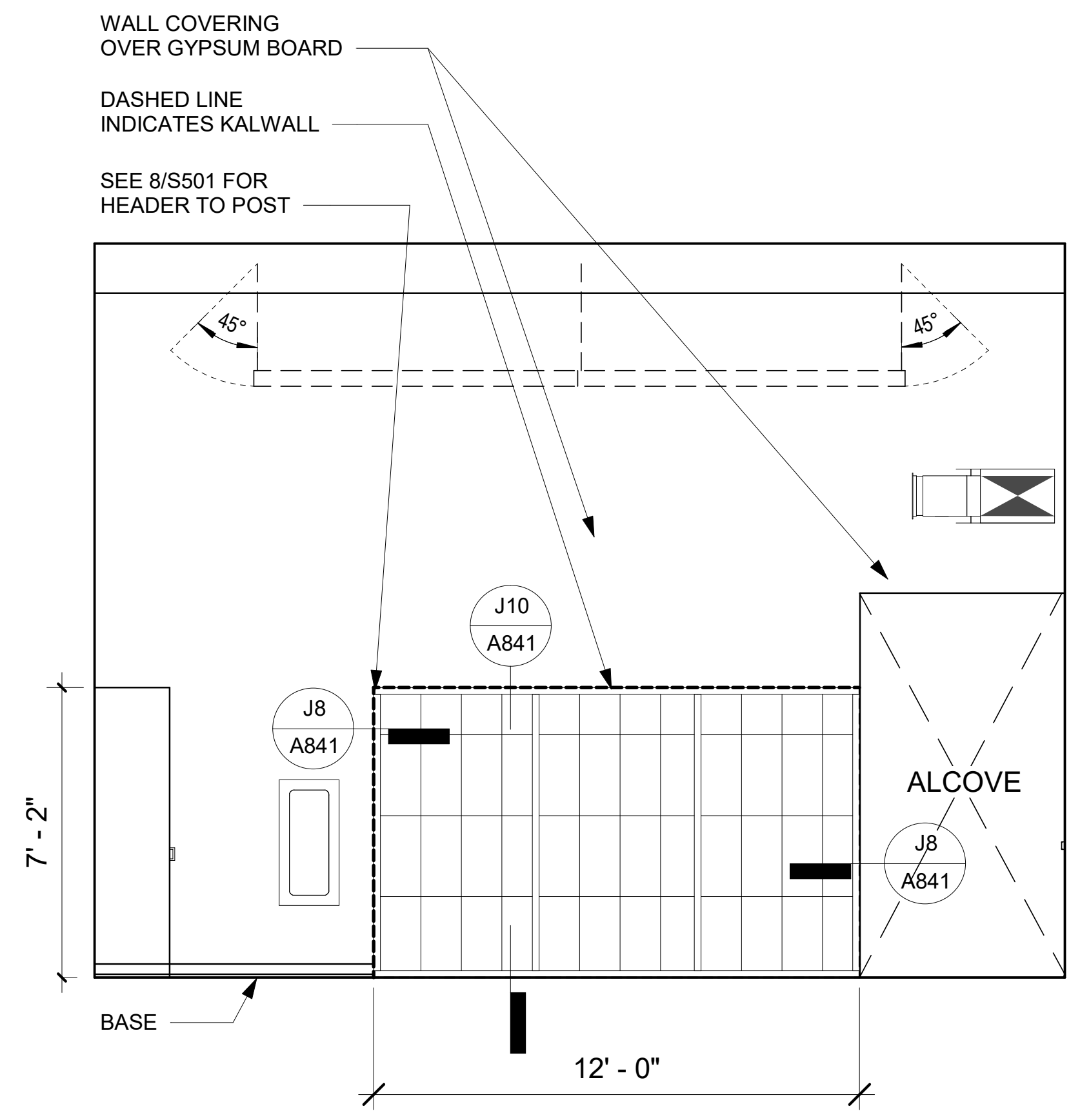
NORTH - ENTRANCE **K4**
1/4" = 1'-0"



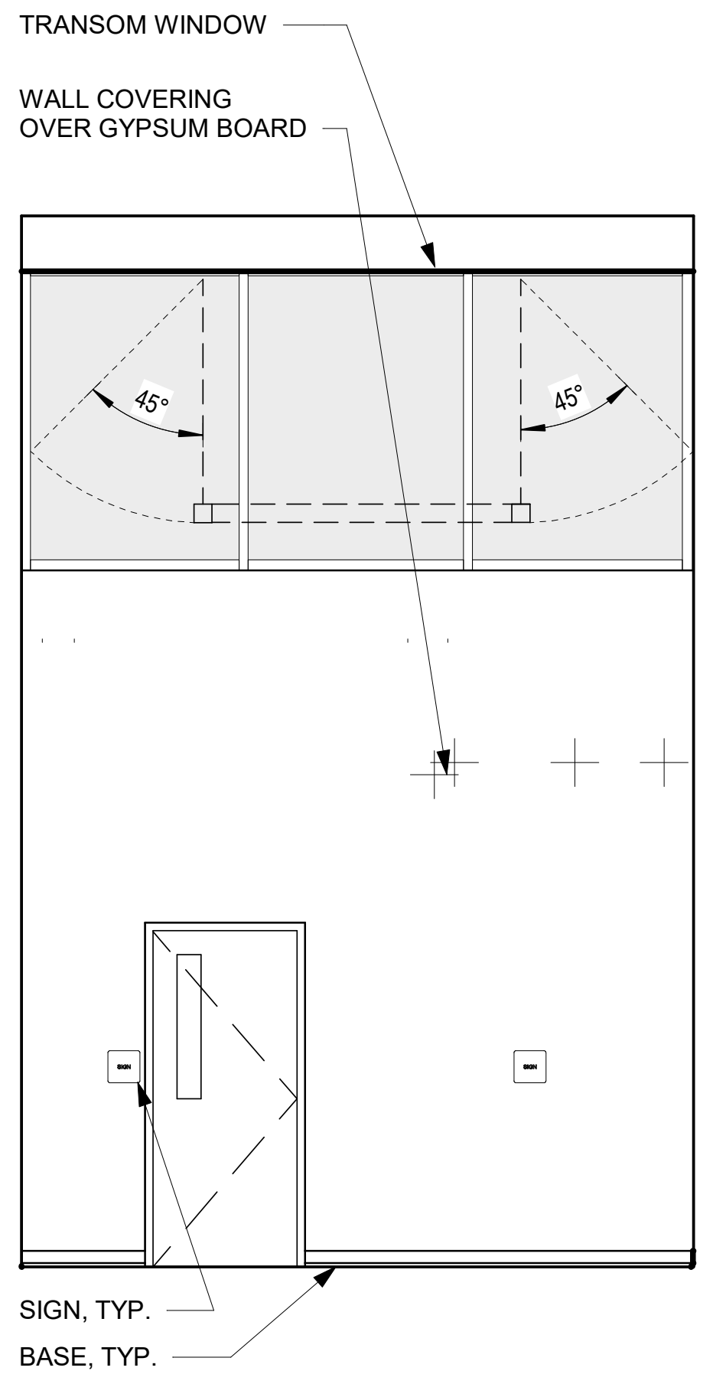
EAST - ENTRANCE **E4**
1/4" = 1'-0"


WALL COVERING OVER GYPSUM BOARD
TRANSOM WINDOW
SCREEN O.F.C.I, SEE
A10
A841
45°
45°
45°
45°
45°
45°
EXPOSED DUCT
ALUMINUM STOREFRONT
2' - 3" MIN.
5' - 0"
BASE
DASHED LINE INDICATES FREESTANDING DIVIDER WALL
CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION. OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

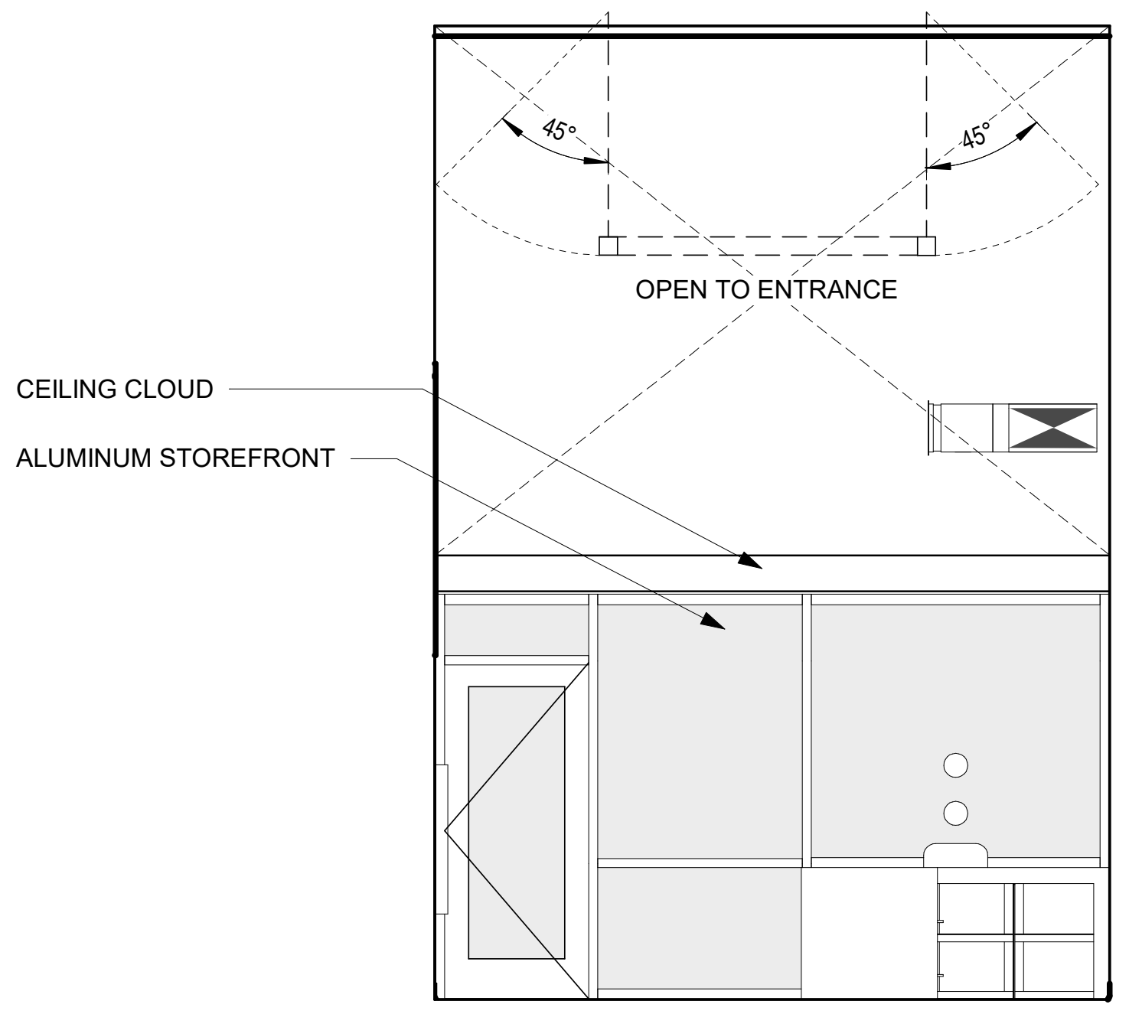
WEST - ENTRANCE **A4**
1/4" = 1'-0"


WALL COVERING OVER GYPSUM BOARD
DASHED LINE INDICATES KALWALL
SEE 8/S501 FOR HEADER TO POST
45°
45°
J10
A841
J8
A841
ALCOVE
J8
A841
7' - 2"
BASE
12' - 0"

SOUTH - ENTRANCE **K7**
1/4" = 1'-0"



NORTH - RECEPTION **E7**
1/4" = 1'-0"



SOUTH - RECEPTION **A7**
1/4" = 1'-0"

1 2 3 4 5 6 7 8 9 10

M L K J H G F E D C B A

IDENTIFICATION STAMP
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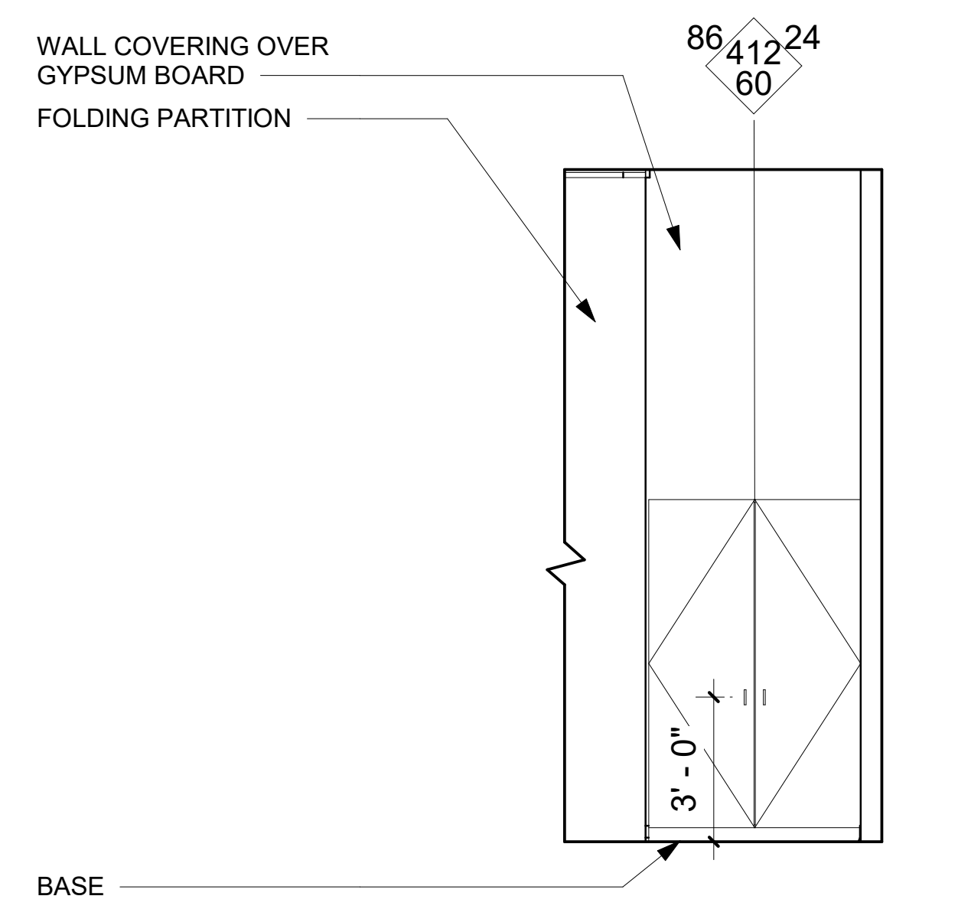
INTERIOR ELEVATIONS - BLDG A

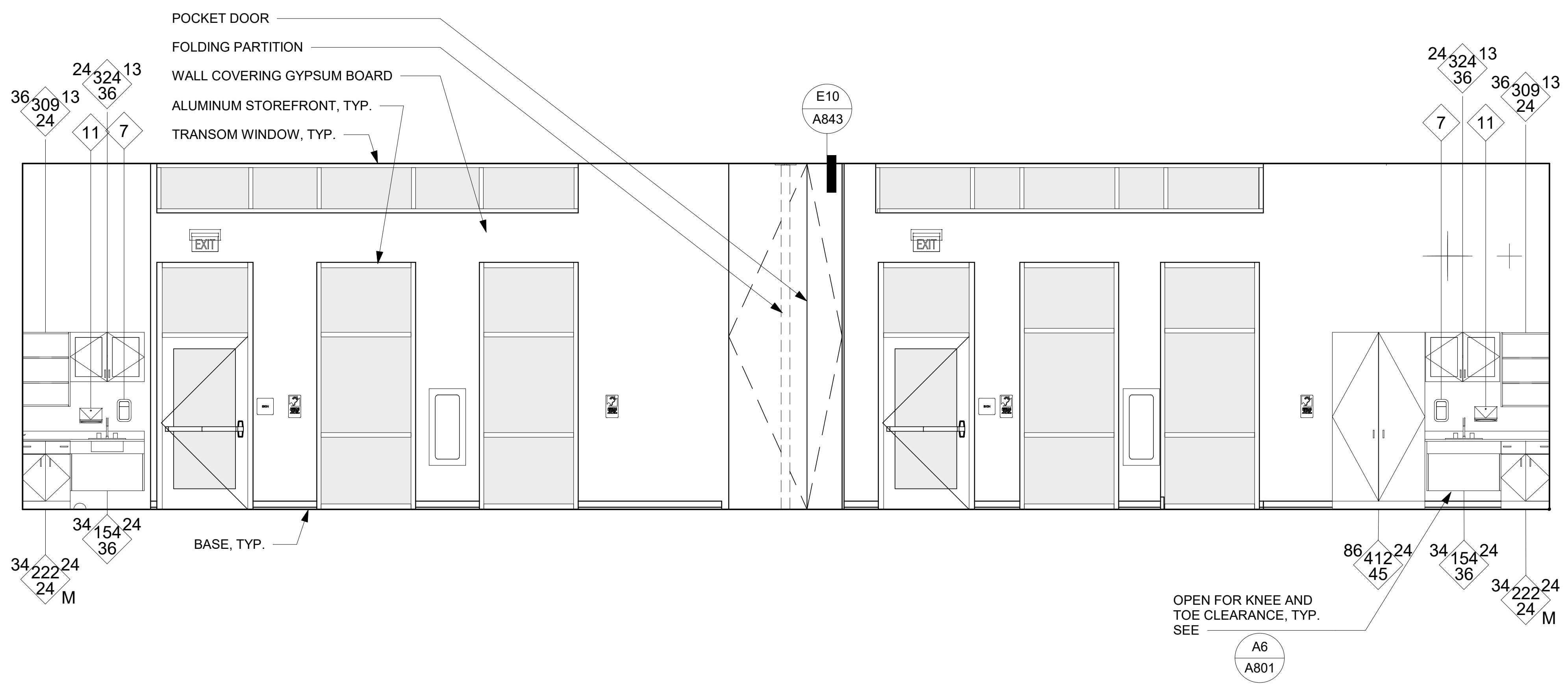
PERKINS —
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

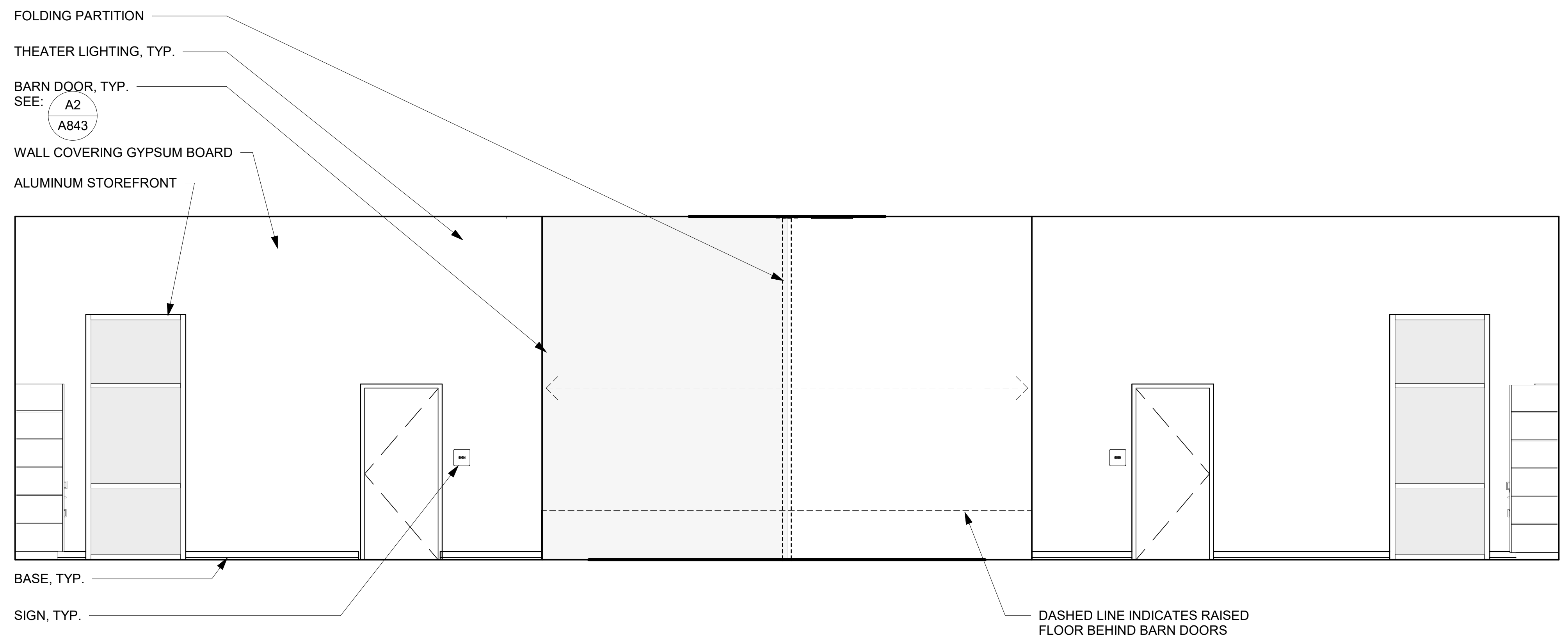
A403



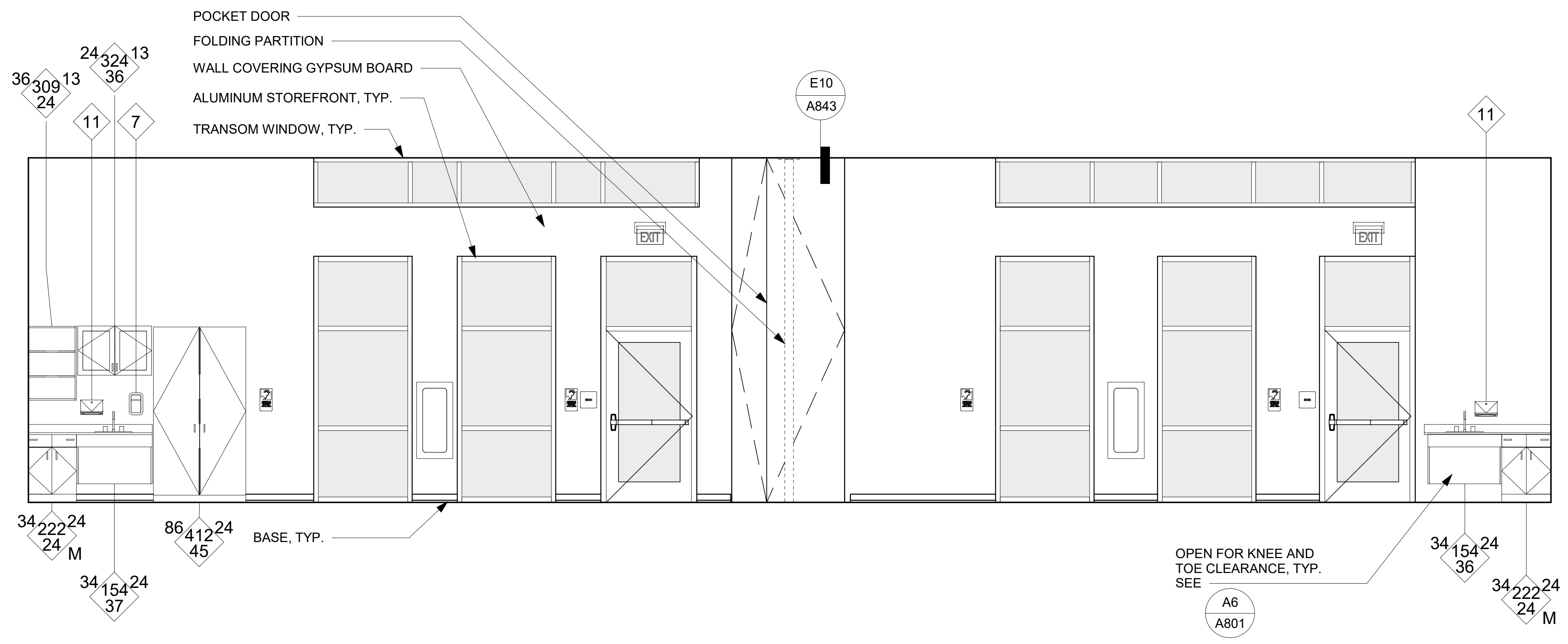
CLASSROOM TYPE B - SOUTH A3
1/4" = 1'-0"



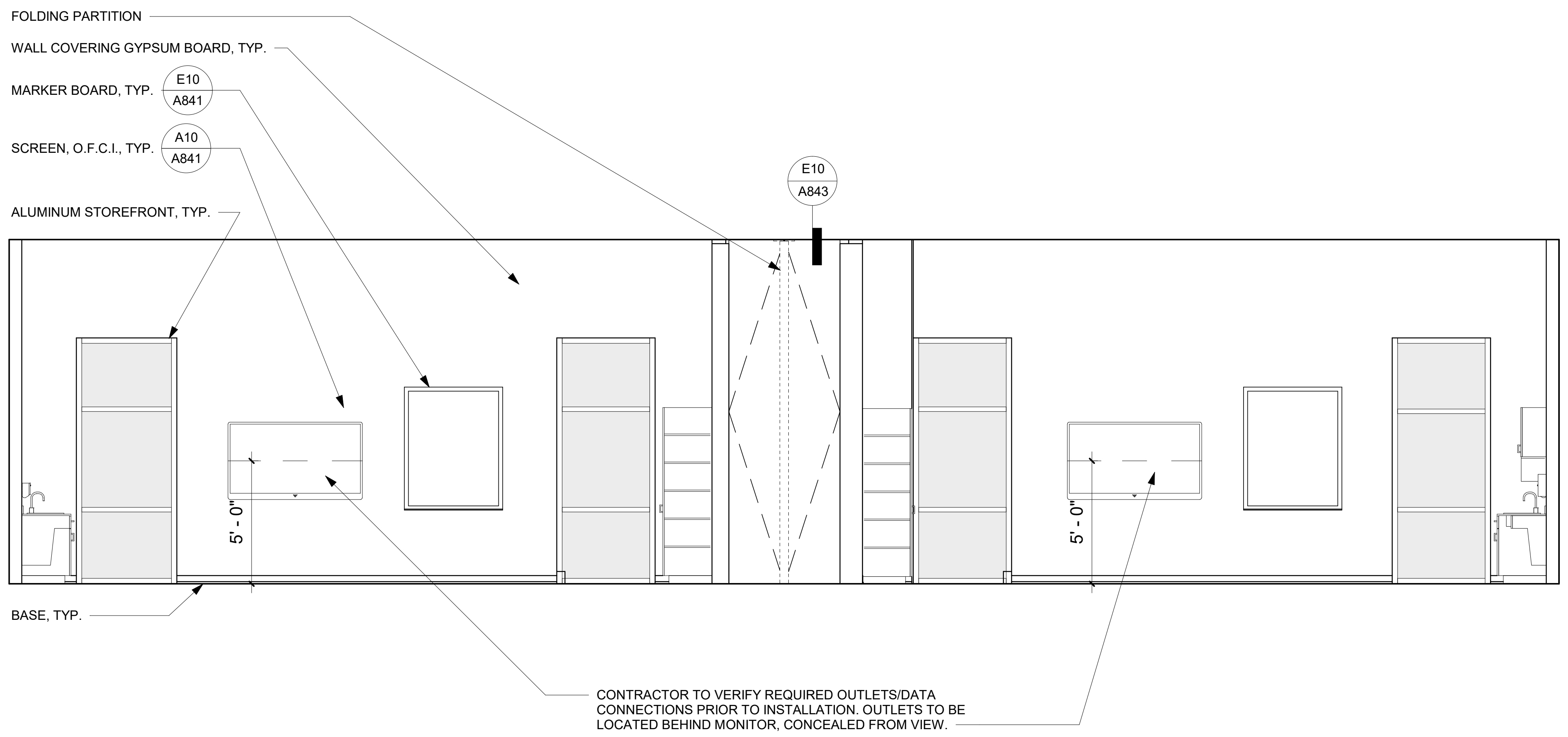
BUILDING B - NORTH G6
1/4" = 1'-0"



BUILDING B - EAST A6
1/4" = 1'-0"



BUILDING B - SOUTH G10
1/4" = 1'-0"



FOLDING PARTITION
WALL COVERING GYPSUM BOARD, TYP.
MARKER BOARD, TYP.
E10
A841
SCREEN, O.F.C.I., TYP.
A10
A841
ALUMINUM STOREFRONT, TYP.
E10
A843
5'-0"
5'-0"
BASE, TYP.
CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION. OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

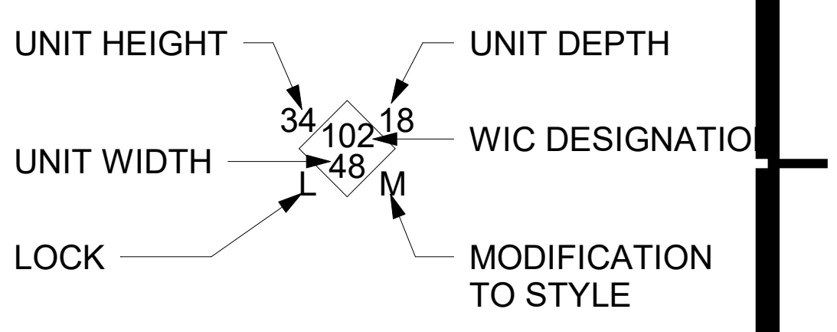
BUILDING B - WEST A10
1/4" = 1'-0"

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

INT. ELEVATION LEGEND

CASEWORK TAG:



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3. FOR CASEWORK SEE A801

ELEVATION LEGEND

▯ SOAP DISPENSER

✉ PAPER TOWEL DISPENSER

ACCESSORIES...

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5	GRAB BAR 42"	B-6806	BOBRICK
6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

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INTERIOR ELEVATIONS - BLDG B

PERKINS — EASTMAN

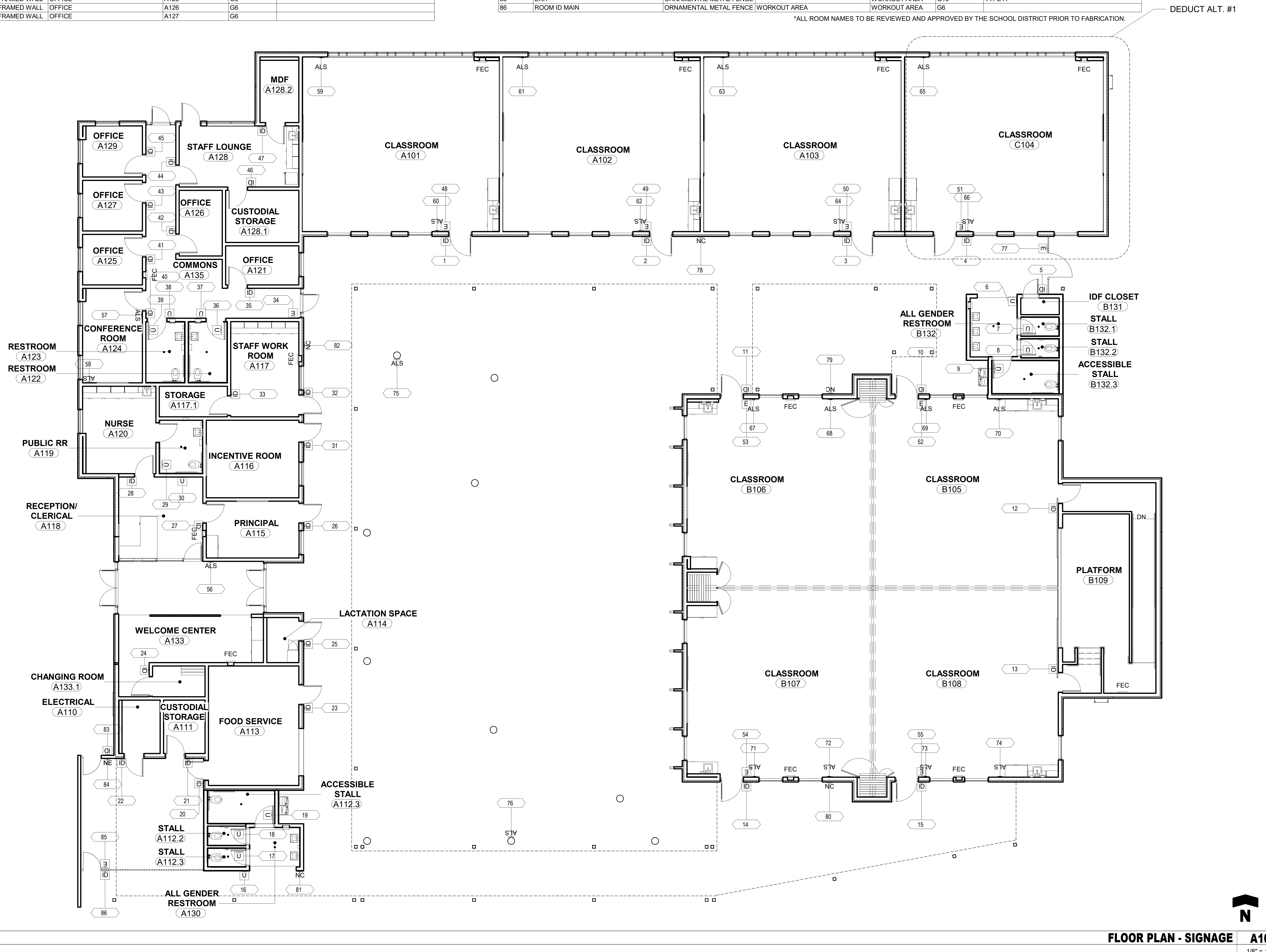
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A404

SIGNAGE SCHEDULE						
SIGN MARK	TYPE	MOUNTING CONDITION	MESSAGE SCHEDULE	ROOM NUMBER	SIGN DETAIL NUMBER (A502)	COMMENTS
1	ROOM ID MAIN	WOOD STUD FRAMED WALL	CLASSROOM	A101	G6	
2	ROOM ID MAIN	WOOD STUD FRAMED WALL	CLASSROOM	A102	G6	
3	ROOM ID MAIN	WOOD STUD FRAMED WALL	CLASSROOM	A103	G6	
4	ROOM ID MAIN	WOOD STUD FRAMED WALL	CLASSROOM	C104	G6	
5	ROOM ID MAIN	WOOD STUD FRAMED WALL	IDF CLOSET	B131	G6	
6	ROOM ID UNISEX RESTROOM	WOOD STUD FRAMED WALL		A132	A8	
7	DOOR MOUNTED RESTROOM SYMBOL	DOOR		A132.1	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
8	DOOR MOUNTED RESTROOM SYMBOL	DOOR		A132.2	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
9	DOOR MOUNTED RESTROOM SYMBOL	DOOR		A132.3	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
10	ROOM ID MAIN	WOOD STUD FRAMED WALL	CLASSROOM	B105	G6	
11	ROOM ID MAIN	WOOD STUD FRAMED WALL	CLASSROOM	B106	G6	
12	ROOM ID MAIN	WOOD STUD FRAMED WALL	RAMP TO PLATFORM	B109	G6	
13	ROOM ID MAIN	WOOD STUD FRAMED WALL	STAIR TO PLATFORM	B109	G6	
14	ROOM ID MAIN	WOOD STUD FRAMED WALL	CLASSROOM	B107	G6	
15	ROOM ID MAIN	WOOD STUD FRAMED WALL	CLASSROOM	B108	G6	
16	ROOM ID UNISEX RESTROOM	WOOD STUD FRAMED WALL		A112	A8	
17	DOOR MOUNTED RESTROOM SYMBOL	DOOR		112.1	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
18	DOOR MOUNTED RESTROOM SYMBOL	DOOR		112.2	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
19	DOOR MOUNTED RESTROOM SYMBOL	DOOR		112.3	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
20	ROOM ID MAIN	WOOD STUD FRAMED WALL	FOOD SERVICE	A113	G6	
21	ROOM ID MAIN	WOOD STUD FRAMED WALL	STORAGE	A111	G6	
22	ROOM ID MAIN	WOOD STUD FRAMED WALL	ELECTRICAL ROOM	A110	G6	
23	ROOM ID MAIN	WOOD STUD FRAMED WALL	FOOD SERVICE	A113	G6	
24	ROOM ID MAIN	WOOD STUD FRAMED WALL	CHANGING ROOM	A133.1	G6	
25	ROOM ID MAIN	WOOD STUD FRAMED WALL	LACTATION SPACE	A114	G6	
26	ROOM ID MAIN	WOOD STUD FRAMED WALL	PRINCIPAL'S OFFICE	A115	G6	
27	ROOM ID MAIN	WOOD STUD FRAMED WALL	PRINCIPAL'S OFFICE	A115	G6	
28	ROOM ID MAIN	WOOD STUD FRAMED WALL	NURSE	A120	G6	
29	DOOR MOUNTED RESTROOM SYMBOL	DOOR		A119	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
30	ROOM ID UNISEX RESTROOM	WOOD STUD FRAMED WALL		A119	A8	
31	ROOM ID MAIN	WOOD STUD FRAMED WALL	INCENTIVE ROOM	A116	G6	
32	ROOM ID MAIN	WOOD STUD FRAMED WALL	STAFF WORK ROOM	A117	G6	
33	ROOM ID MAIN	WOOD STUD FRAMED WALL	STORAGE	A117.1	G6	
34	EXIT	GLASS		A135	G10	TYPE A
35	ROOM ID MAIN	WOOD STUD FRAMED WALL	OFFICE	A121	G6	
36	DOOR MOUNTED RESTROOM SYMBOL	DOOR		A122	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
37	Room ID RR Unisex	WOOD STUD FRAMED WALL		A122	A8	
38	Room ID RR Unisex	WOOD STUD FRAMED WALL		A123	A8	
39	DOOR MOUNTED RESTROOM SYMBOL	DOOR		A123	C8	MOUNTED 5'-0" A.F.F. TO CENTERLINE OF SIGN
40	ROOM ID MAIN	WOOD STUD FRAMED WALL	CONFERENCE ROOM	A124	G6	
41	ROOM ID MAIN	WOOD STUD FRAMED WALL	OFFICE	A125	G6	
42	ROOM ID MAIN	WOOD STUD FRAMED WALL	OFFICE	A126	G6	
43	ROOM ID MAIN	WOOD STUD FRAMED WALL	OFFICE	A127	G6	

SIGNAGE SCHEDULE						
SIGN MARK	TYPE	MOUNTING CONDITION	MESSAGE SCHEDULE	ROOM NUMBER	SIGN DETAIL NUMBER (A502)	COMMENTS
44	ROOM ID MAIN	WOOD STUD FRAMED WALL	STAFF LOUNGE	A128	G6	
45	ROOM ID MAIN	WOOD STUD FRAMED WALL	OFFICE	A129	G6	
46	ROOM ID MAIN	WOOD STUD FRAMED WALL	CUSTODIAL STORAGE	A122.1	G6	
47	ROOM ID MAIN	WOOD STUD FRAMED WALL	MDF	A122.2	G6	
48	EXIT	GLASS		A101	G10	TYPE A
49	EXIT	GLASS		A102	G10	TYPE A
50	EXIT	GLASS		A103	G10	TYPE A
51	EXIT	GLASS		C104	G10	TYPE A
52	EXIT	GLASS		B105	G10	TYPE A
53	EXIT	GLASS		B106	G10	TYPE A
54	EXIT	GLASS		B107	G10	TYPE A
55	EXIT	GLASS		B108	G10	TYPE A
56	Assisted Listening	WOOD STUD FRAMED WALL		A209	J10	
57	Assisted Listening	WOOD STUD FRAMED WALL		A124	J10	
58	Assisted Listening	WOOD STUD FRAMED WALL		A124	J10	
59	Assistive Listening	WOOD STUD FRAMED WALL		A101	J10	
60	Assistive Listening	WOOD STUD FRAMED WALL		A101	J10	
61	Assistive Listening	WOOD STUD FRAMED WALL		A102	J10	
62	Assistive Listening	WOOD STUD FRAMED WALL		A102	J10	
63	Assistive Listening	WOOD STUD FRAMED WALL		A103	J10	
64	Assistive Listening	WOOD STUD FRAMED WALL		A103	J10	
65	Assistive Listening	WOOD STUD FRAMED WALL		A104	J10	
66	Assistive Listening	WOOD STUD FRAMED WALL		A104	J10	
67	Assistive Listening	WOOD STUD FRAMED WALL		B106	J10	
68	Assistive Listening	WOOD STUD FRAMED WALL		B106	J10	
69	Assistive Listening	WOOD STUD FRAMED WALL		B105	J10	
70	Assistive Listening	WOOD STUD FRAMED WALL		B105	J10	
71	Assistive Listening	WOOD STUD FRAMED WALL		B107	J10	
72	Assistive Listening	WOOD STUD FRAMED WALL		B107	J10	
73	Assistive Listening	WOOD STUD FRAMED WALL		B108	J10	
74	Assistive Listening	WOOD STUD FRAMED WALL		B108	J10	
75	Assisted Listening	WOOD STUD FRAMED WALL		COURTYARD	J10	
76	Assisted Listening	WOOD STUD FRAMED WALL		COURTYARD	J10	
77	EXIT	ORNAMENTAL METAL FENCE		COURTYARD	G10	TYPE A
78	No Combustible Materials	WOOD STUD FRAMED WALL		COURTYARD	G4	
79	No Combustible Materials	WOOD STUD FRAMED WALL		COURTYARD	G4	
80	No Combustible Materials	WOOD STUD FRAMED WALL		COURTYARD	G4	
81	No Combustible Materials	WOOD STUD FRAMED WALL		COURTYARD	G4	
82	No Combustible Materials	WOOD STUD FRAMED WALL		COURTYARD	G4	
83	ROOM ID MAIN	CMU	DELIVERY AND MAINTENANCE ONLY	WORKOUT AREA	G6	
84	NO EXIT	CMU		WORKOUT AREA	E8	
85	EXIT	ORNAMENTAL METAL FENCE		WORKOUT AREA	G10	TYPE A
86	ROOM ID MAIN	ORNAMENTAL METAL FENCE	WORKOUT AREA	WORKOUT AREA	G6	

*ALL ROOM NAMES TO BE REVIEWED AND APPROVED BY THE SCHOOL DISTRICT PRIOR TO FABRICATION.



FLOOR PLAN - SIGNAGE A10
1/8" = 1'-0"

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DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98[illegible]
REN. JUL. 31, 2023

SIGNAGE LEGEND

ID	IDENTIFICATION SIGNAGE
E	EXIT SIGNAGE SIM
ER	EXIT ROUTE SIGNAGE
OCC	OCCUPANCY LOAD SIGNAGE
U	ALL GENDER RESTROOM SIGNAGE
FR	FIRE RISER SIGNAGE
ALS	ASSISTIVE LISTENING SIGNAGE

SIGNAGE NOTES

1. FINISH:
   CHARACTERS, SYMBOLS, PICTOGRAMS AND THEIR BACKGROUNDS SHALL HAVE A NON-GLARE FINISH.
2. FOR MOUNTING HEIGHTS REFER TO DETAIL A2/A502
3. FOR BRAILLE SEE DETAIL E2/A502
4. SIGNAGE CORNERS TO BE 1/2" RADIUS
5. RAISED LETTERS MAY NOT BE SURFACE APPLIED AND MUST BE INTEGRAL.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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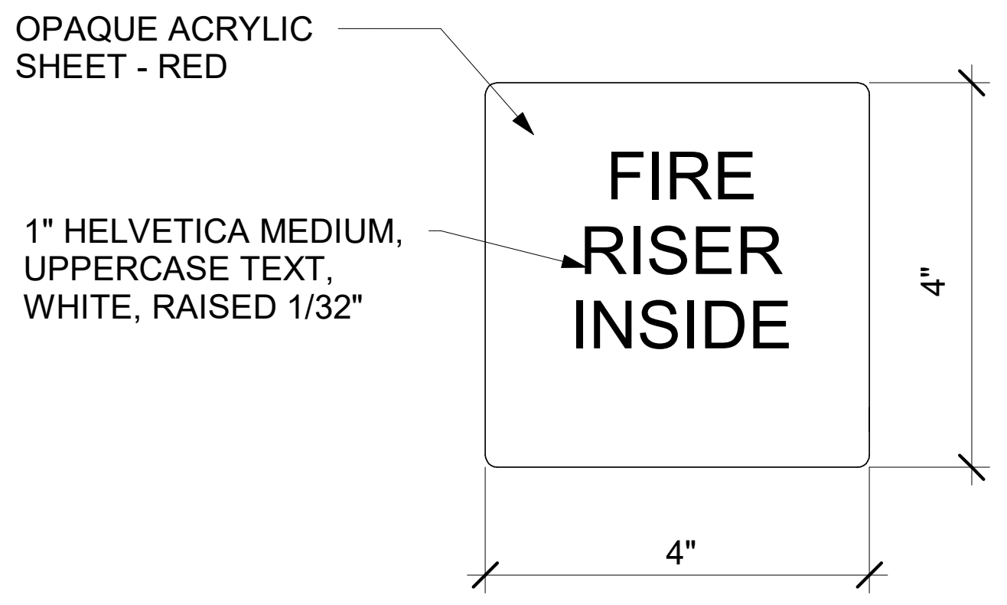
△	
△	
△	
△	
△	

SIGNAGE FLOOR PLAN AND SCHEDULE

PERKINS EASTMAN

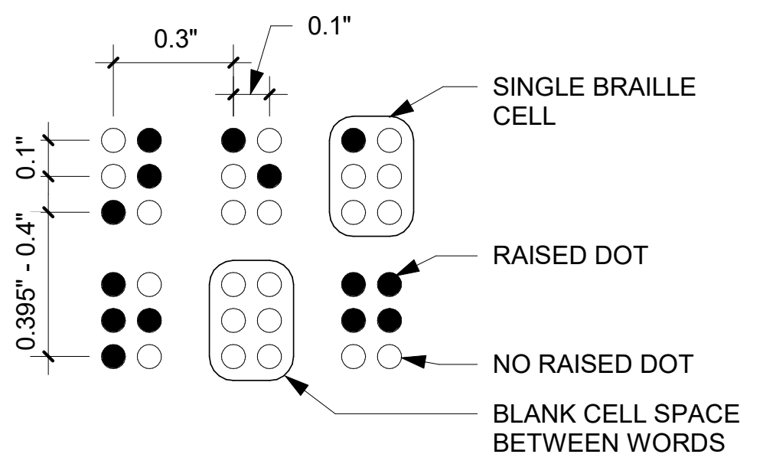
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A501

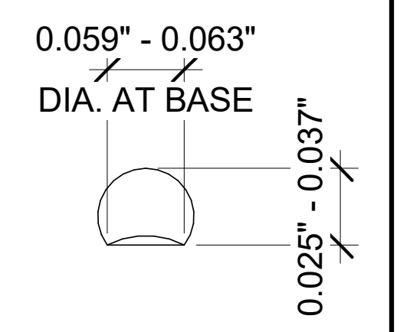

OPAQUE ACRYLIC SHEET - RED
1" HELVETICA MEDIUM, UPPERCASE TEXT, WHITE, RAISED 1/32"
FIRE RISER INSIDE
4"
4"

NOTE:
PROVIDE SIGN AT THE DOOR WHERE FIRE RISER IS LOCATED

DOOR MOUNTED FIRE RISER SIGNAGE **G2**
3" = 1'-0"



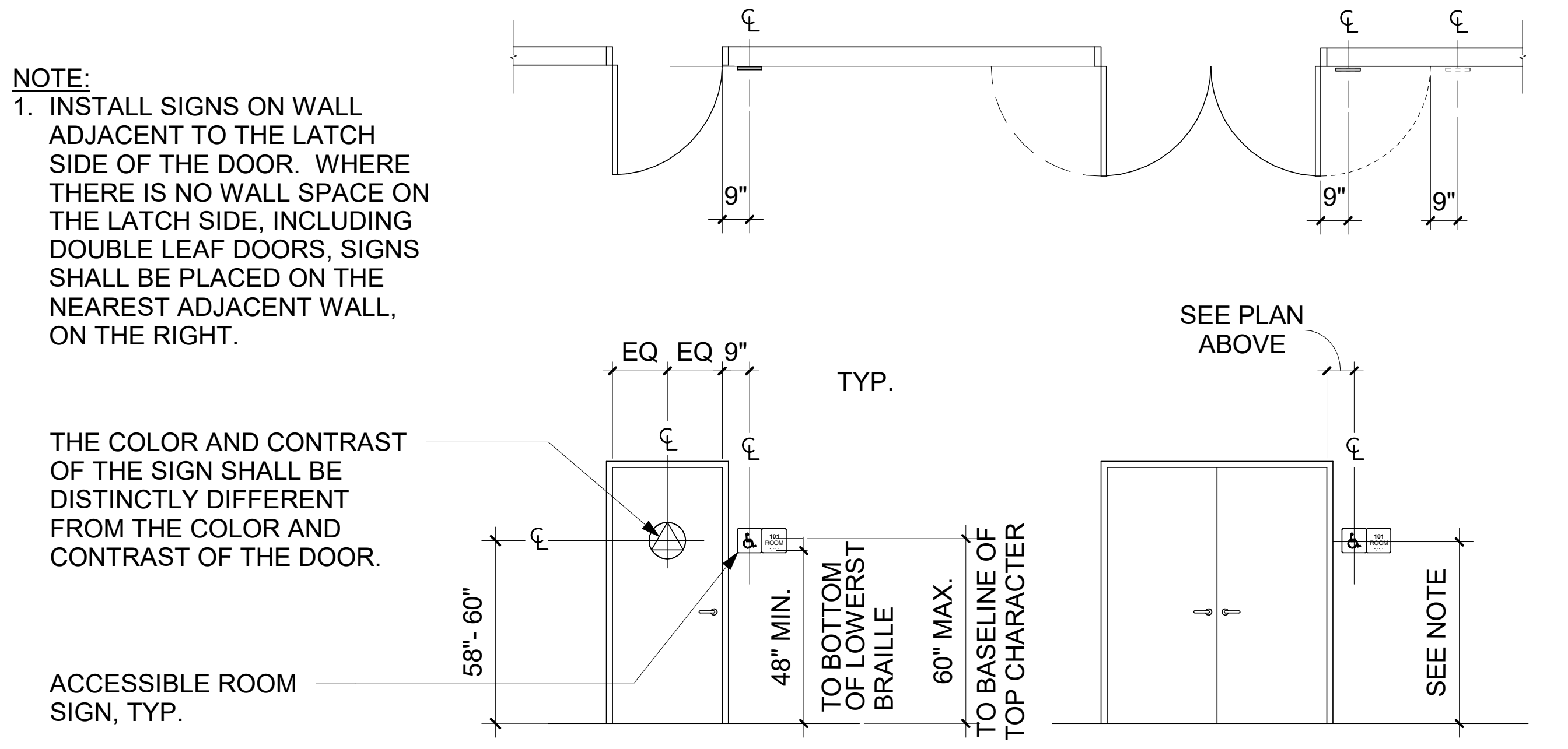
CONTRACTED CALIFORNIA GRADE 2 BRAILLE. IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS, MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. BRAILLE DOTS SHALL BE RAISED 1/40" MIN. ABOVE THE BACKGROUND, WITH ROUNDED OR EASED EDGES.



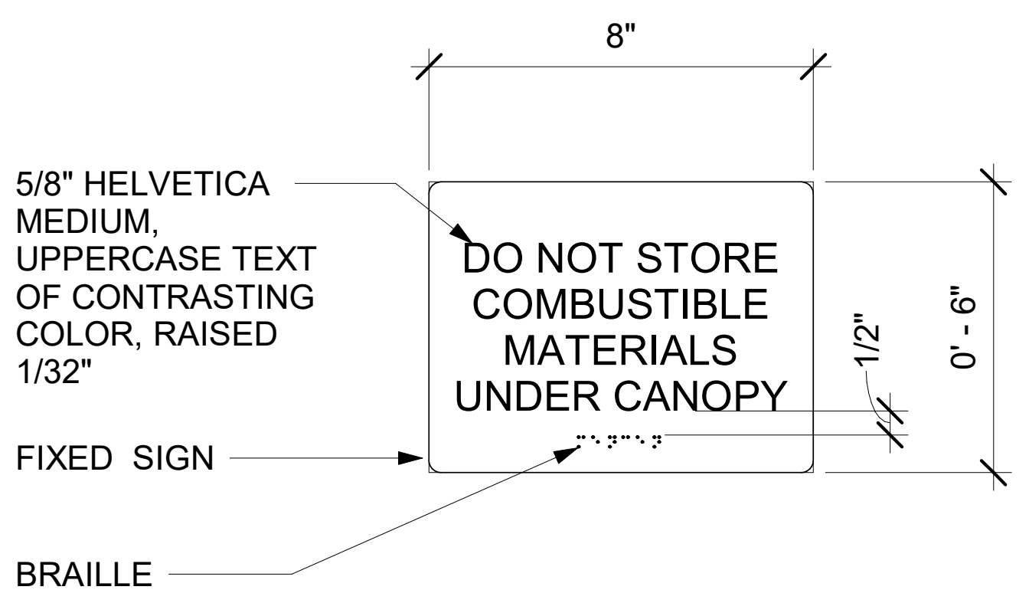
BRAILLE DOT

BRAILLE SYMBOL **E2**
1 : 1

NOTE:
1. INSTALL SIGNS ON WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, ON THE RIGHT.

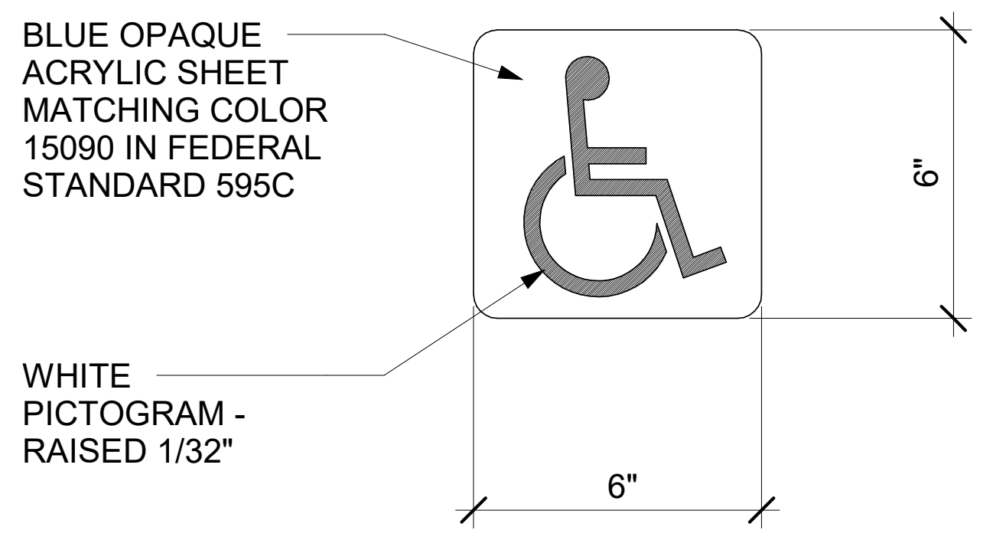

THE COLOR AND CONTRAST OF THE SIGN SHALL BE DISTINCTLY DIFFERENT FROM THE COLOR AND CONTRAST OF THE DOOR.
ACCESSIBLE ROOM SIGN, TYP.
℄
9"
9"
9"
EQ EQ 9"
TYP.
SEE PLAN ABOVE
58"- 60"
48" MIN.
TO BOTTOM OF LOWERST BRAILLE
60" MAX.
TO BASELINE OF TOP CHARACTER
SEE NOTE

WALL MOUNTED SIGNAGE LOCATION **A2**
1/4" = 1'-0"

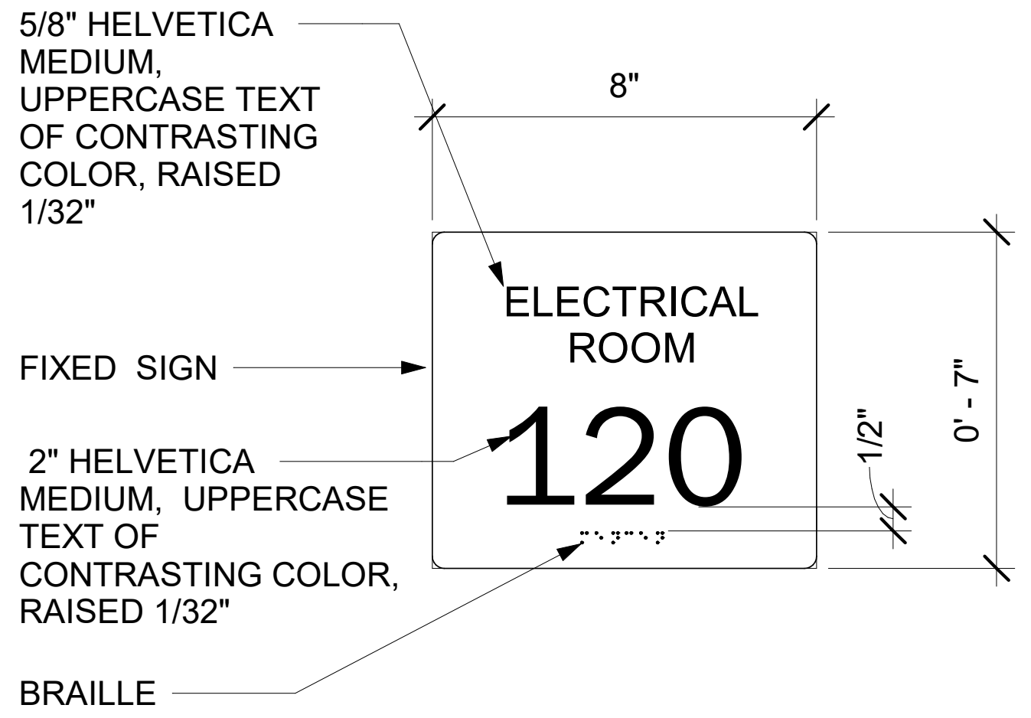

8"
5/8" HELVETICA MEDIUM, UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
FIXED SIGN
BRAILLE
DO NOT STORE COMBUSTIBLE MATERIALS UNDER CANOPY
1/2"
0' - 6"

NOTE:
ADD 1 1/2" TO HEIGHT FOR EACH ADDITIONAL LINE OF TEXT

NO COMBUSTIBLE MATERIALS SIGN **G4**
3" = 1'-0"

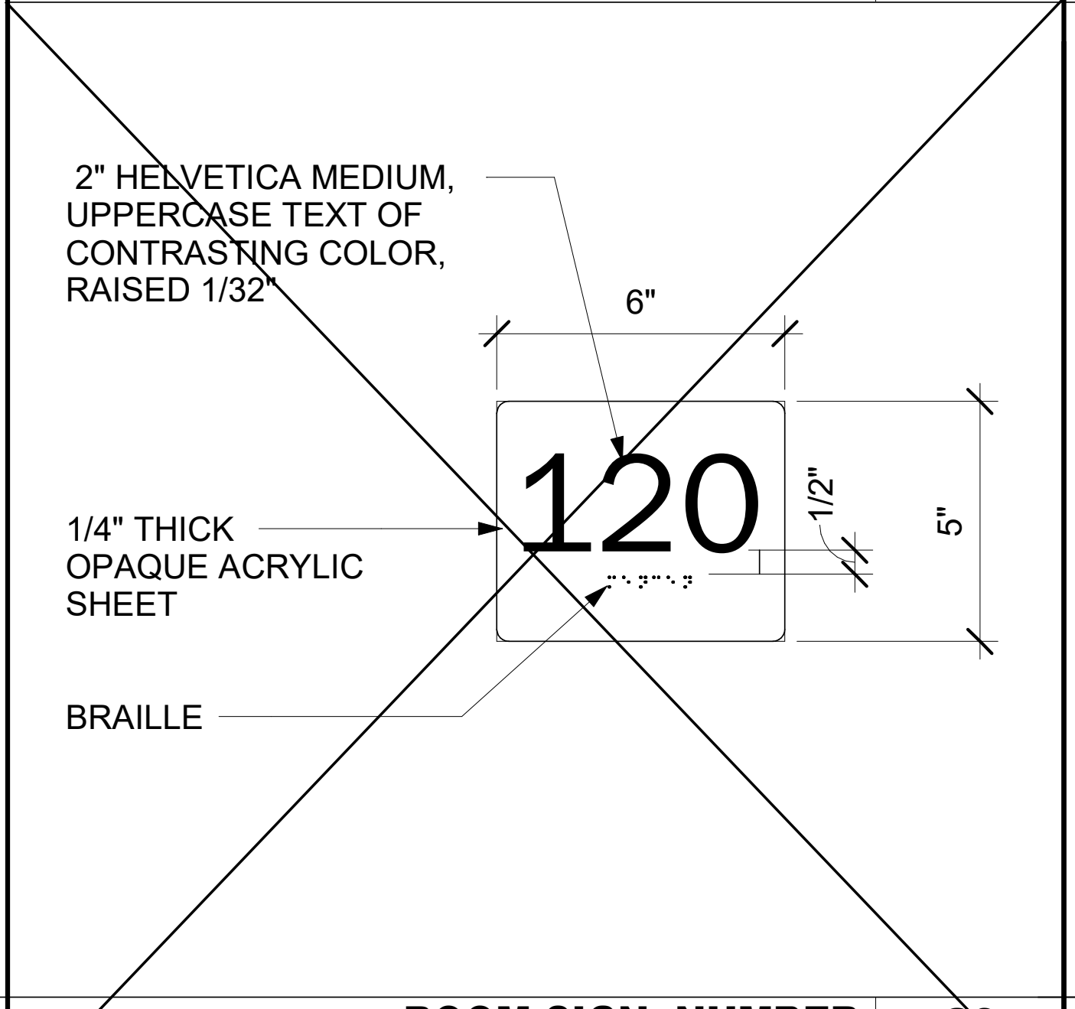

BLUE OPAQUE ACRYLIC SHEET MATCHING COLOR 15090 IN FEDERAL STANDARD 595C
WHITE PICTOGRAM - RAISED 1/32"
6"
6"

ACCESSIBLE ENTRANCE SIGNAGE **E4**
3" = 1'-0"

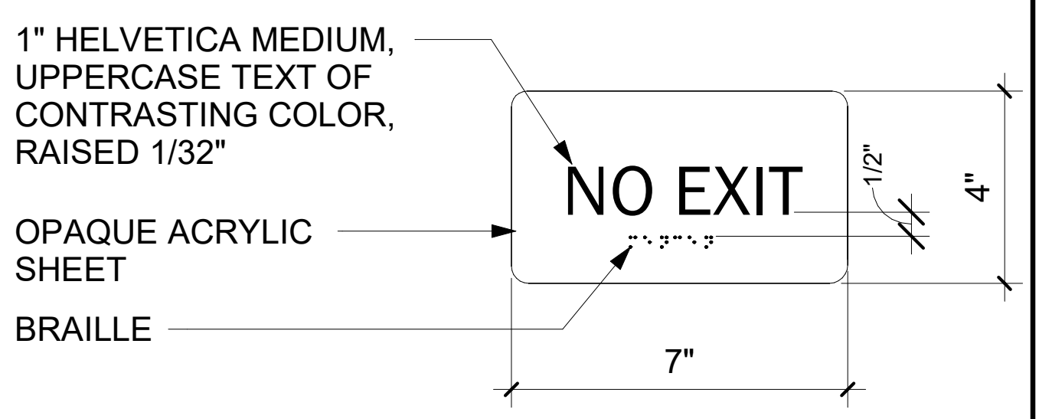

5/8" HELVETICA MEDIUM, UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
8"
FIXED SIGN
2" HELVETICA MEDIUM, UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
BRAILLE
ELECTRICAL ROOM
120
1/2"
0' - 7"

NOTE:
ADD 1 1/2" TO HEIGHT FOR EACH ADDITIONAL LINE OF TEXT

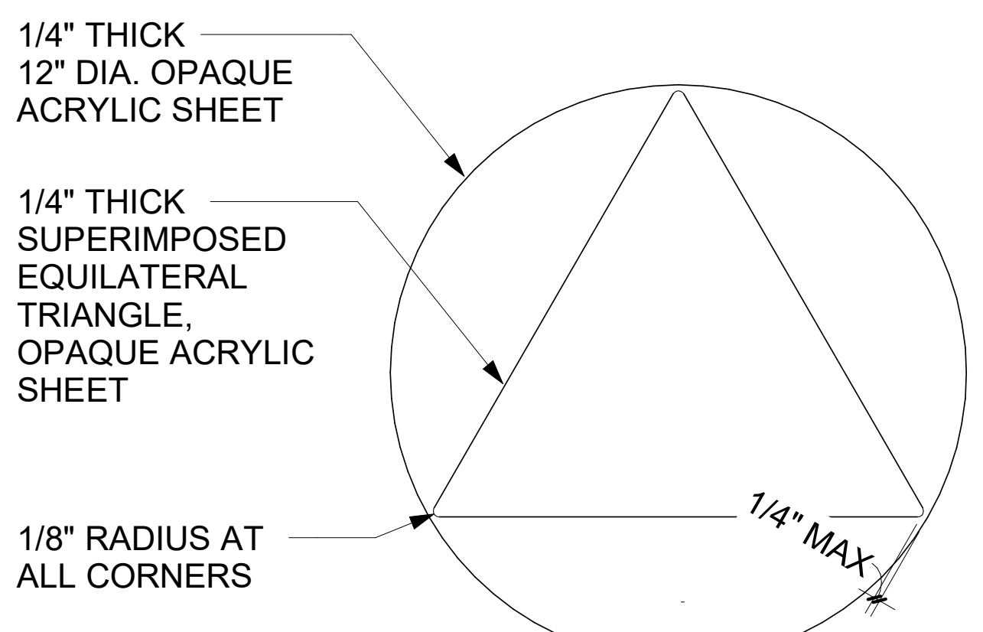
ROOM SIGN, TEXT **G6**
3" = 1'-0"


2" HELVETICA MEDIUM, UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
6"
1/4" THICK OPAQUE ACRYLIC SHEET
BRAILLE
120
1/2"
5"

ROOM SIGN, NUMBER **G8**
3" = 1'-0"

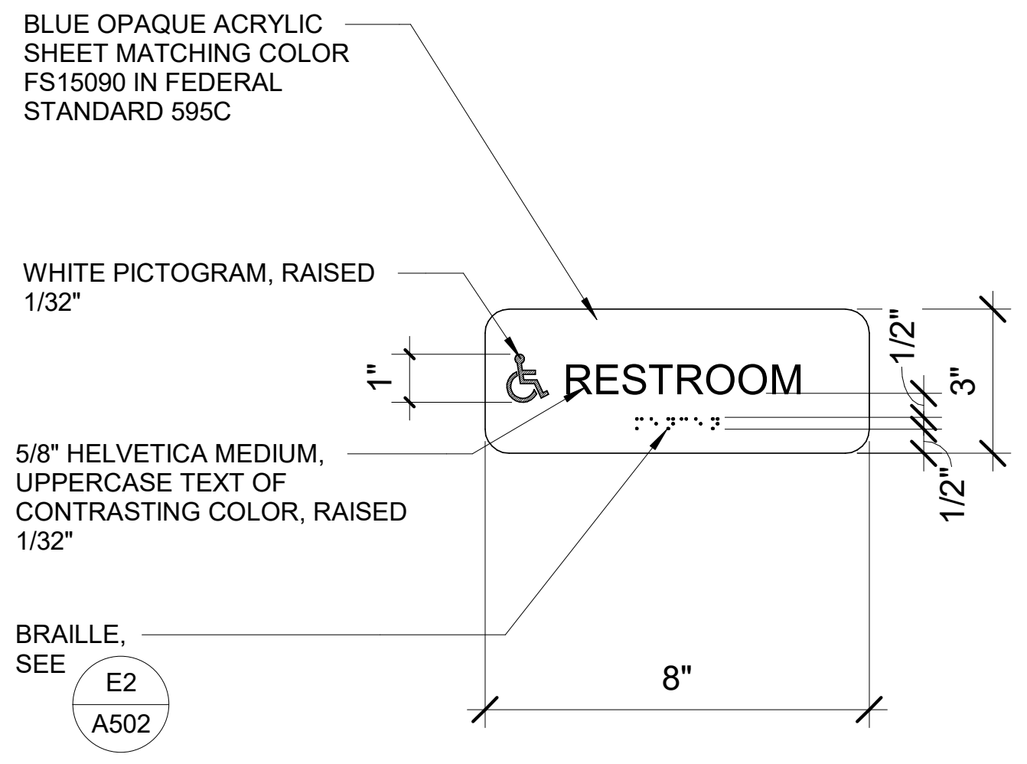

1" HELVETICA MEDIUM, UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
OPAQUE ACRYLIC SHEET
BRAILLE
NO EXIT
1/2"
4"
7"

NO EXIT SIGNAGE **E8**
3" = 1'-0"

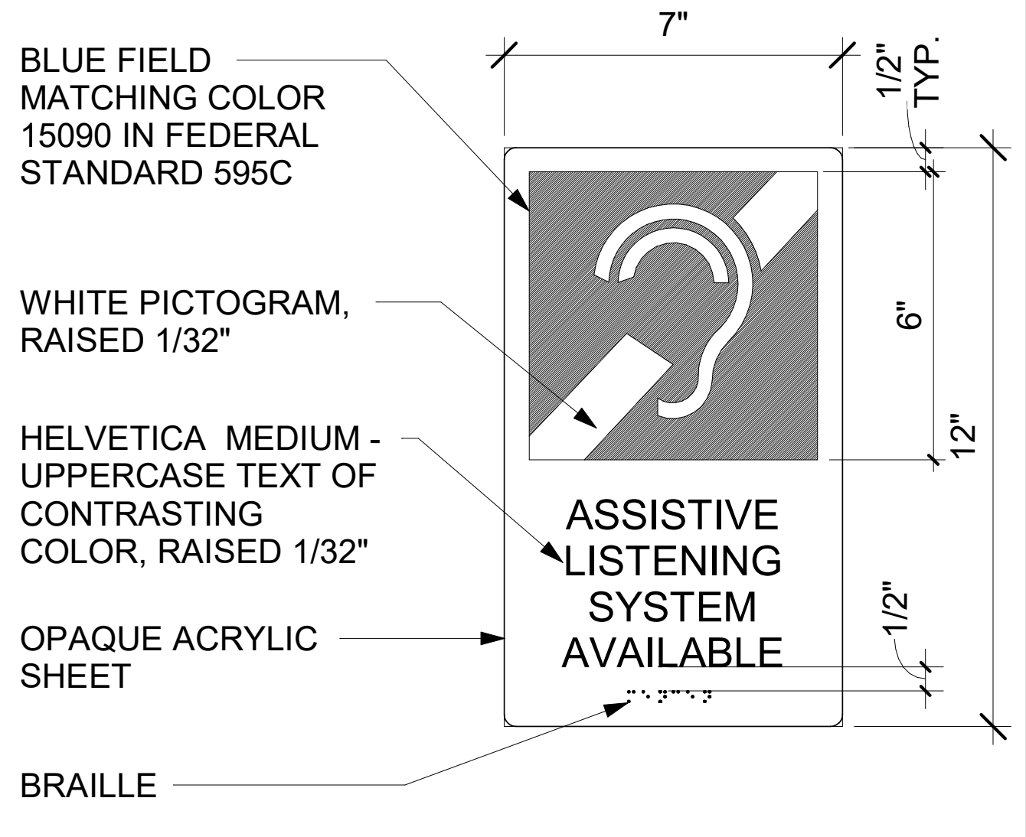

1/4" THICK 12" DIA. OPAQUE ACRYLIC SHEET
1/4" THICK SUPERIMPOSED EQUILATERAL TRIANGLE, OPAQUE ACRYLIC SHEET
1/8" RADIUS AT ALL CORNERS
1/4" MAX.

NOTE:
- TRIANGLE SYMBOL TO BE CONTRASTING IN COLOR TO CIRCULAR SYMBOL WHICH IS TO BE CONTRASTING IN COLOR TO THE DOOR IT IS MOUNTED ON
- ALL EDGES TO BE ROUNDED TO A 1/16" RADIUS

DOOR MOUNTED RESTROOM SYMBOL **C8**
GENDER NEUTRAL
3" = 1'-0"

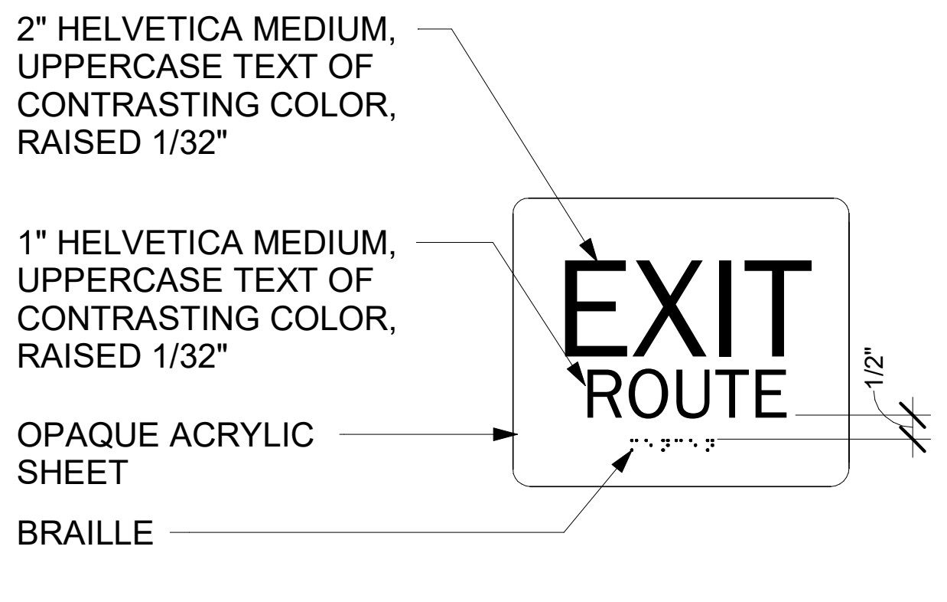

BLUE OPAQUE ACRYLIC SHEET MATCHING COLOR FS15090 IN FEDERAL STANDARD 595C
WHITE PICTOGRAM, RAISED 1/32"
5/8" HELVETICA MEDIUM, UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
BRAILLE, SEE E2 A502
RESTROOM
1"
1/2"
3"
1/2"
8"

WALL MOUNTED RESTROOM SIGNAGE **A8**
GENDER NEUTRAL
3" = 1'-0"


BLUE FIELD MATCHING COLOR 15090 IN FEDERAL STANDARD 595C
WHITE PICTOGRAM, RAISED 1/32"
HELVETICA MEDIUM - UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
OPAQUE ACRYLIC SHEET
BRAILLE
7"
1/2" TYP.
6"
12"
1/2"
ASSISTIVE LISTENING SYSTEM AVAILABLE

NOTE:
1. TEXT HEIGHT: 5/8"

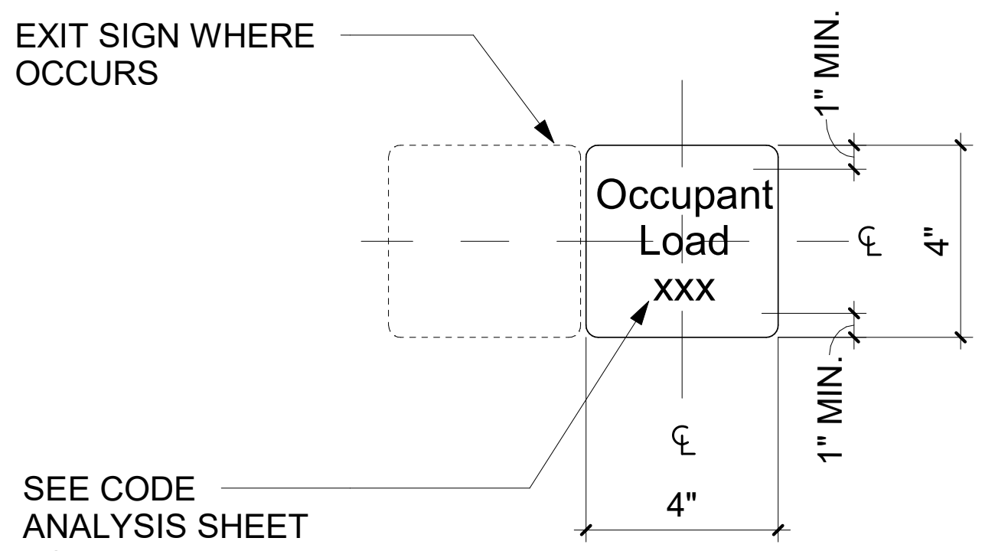
ASSISTIVE LISTENING SYSTEM SIGN **J10**
3" = 1'-0"


2" HELVETICA MEDIUM, UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
1" HELVETICA MEDIUM, UPPERCASE TEXT OF CONTRASTING COLOR, RAISED 1/32"
OPAQUE ACRYLIC SHEET
BRAILLE
EXIT
ROUTE
1/2"

SIGN TYPE TEXT

TYPE A: EXIT
TYPE B: EXIT STAIR DOWN
TYPE C: EXIT STAIR UP
TYPE D: EXIT RAMP DOWN
TYPE E: EXIT RAMP UP
TYPE F: EXIT ROUTE
TYPE G: TO EXIT

EXIT SIGNAGE **G10**
3" = 1'-0"



NOTE:
1. TEXT HEIGHT: 5/8""
2. LOCATE PER INTERIOR ELEVATIONS OR AS DIRECTED BY OWNER.

OCCUPANT LOAD SIGNAGE **E10**
3" = 1'-0"

SIGNAGE LEGEND

ID	IDENTIFICATION SIGNAGE
E	EXIT SIGNAGE SIM
ER	EXIT ROUTE SIGNAGE
OCC	OCCUPANCY LOAD SIGNAGE
U	ALL GENDER RESTROOM SIGNAGE
FR	FIRE RISER SIGNAGE
ALS	ASSISTIVE LISTENING SIGNAGE

SIGNAGE NOTES

1. FINISH: CHARACTERS, SYMBOLS, PICTOGRAMS AND THEIR BACKGROUNDS SHALL HAVE A NON-GLARE FINISH.
2. FOR MOUNTING HEIGHTS REFER TO DETAIL A2 A502
3. FOR BRAILLE SEE DETAIL E2 A502
4. SIGNAGE CORNERS TO BE 1/2" RADIUS
5. RAISED LETTERS MAY NOT BE SURFACE APPLIED AND MUST BE INTEGRAL.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98[illegible]
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

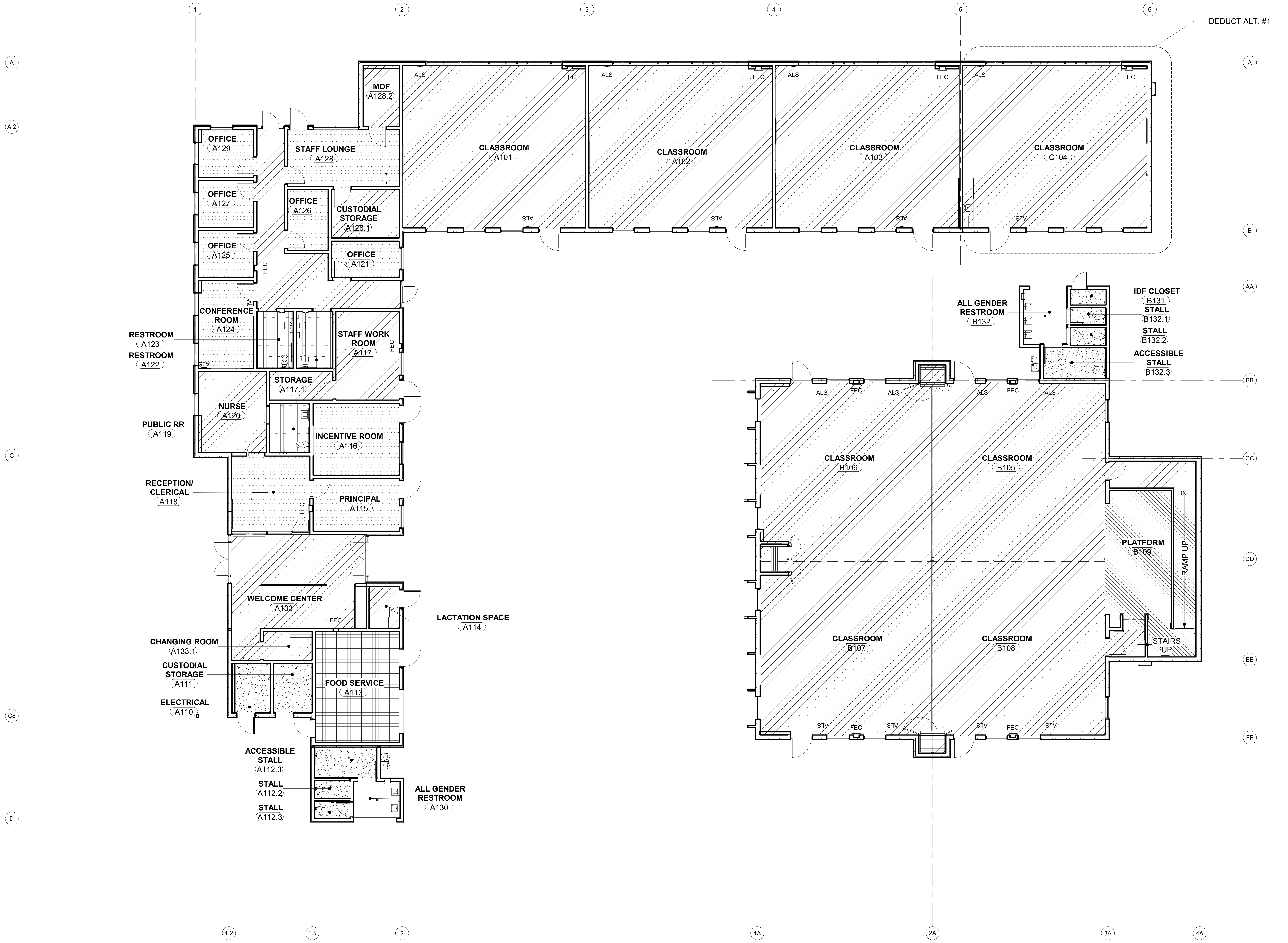
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△	
△	
△	
△	
△	

SIGNAGE DETAILS

PERKINS —
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A502



LEVEL 1 FLOOR PLAN - FINISH FLOOR PLAN A10

1/8" = 1'-0"

FINISH FLOOR PLAN LEGEND

▤	QUARRY TILE T-3
▦	QUARRY TILE T-4
▨	VCT-1
▧	VCT-2
░	SEALED CONCRETE
☐	CARPET

FINISH ABBREVIATION

CPT	CARPET
RB	RESILIENT BASE
VCT	12"x12" VINYL COMPOSITION TILE

COLOR SELECTION

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550 Airport Way, Camarillo, CA 93010

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FINISH AND FLOOR PATTERN PLANS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A601

FINISH SCHEDULE

ROOM #	ROOM NAME	FLOORING		WALL FINISH				CEILING	REMARKS
		FIELD	BASE	NORTH	SOUTH	EAST	WEST		
A101	CLASSROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A102	CLASSROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A103	CLASSROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A110	ELECTRICAL	SC	RB	PT-1	PT-1	PT-1	PT-1	GWB	
A111	CUSTODIAL STORAGE	SC	RB	PT-1	PT-1	PT-1	PT-1	GWB	
A112.2	STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
A112.3	ACCESSIBLE STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
A112.3	STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
A113	FOOD SERVICE	VCT	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A114	LACTATION SPACE	VCT	RB	PT-1	PT-1	PT-1	PT-1	PLASTER	
A115	PRINCIPAL	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A116	INCENTIVE ROOM	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A117	STAFF WORK ROOM	VCT	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A117.1	STORAGE	VCT	RB	PT-1	PT-1	PT-1	PT-1	PLASTER	
A118	RECEPTION/ CLERICAL	CP	RB	PT-1	PT-1	PT-1	PT-1	PG	
A119	PUBLIC RR	FT	CB	TILE	TILE	TILE	TILE	PLASTER	
A120	NURSE	VCT	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A121	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A122	RESTROOM	FT	CB	TILE	TILE	TILE	TILE	PLASTER	
A123	RESTROOM	FT	CB	TILE	TILE	TILE	TILE	PLASTER	
A124	CONFERENCE ROOM	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A125	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A126	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A127	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A128	STAFF LOUNGE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A128.1	CUSTODIAL STORAGE	VCT	RB	PT-1	PT-1	PT-1	PT-1	GWB	
A128.2	MDF	SC	RB	PT-1	PT-1	PT-1	PT-1	GWB	
A129	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT	
A130	ALL GENDER RESTROOM	SC	RB	PT-1	TILE	PT-1	PT-1	PLASTER	
A133	WELCOME CENTER	VCT-1	RB	KALWALL	PT-1	PT-1	PT-1	PG	
A133.1	CHANGING ROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	PLASTER	
A135	COMMONS	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	PLASTER	
A209	ADMIN LOBBY	VCT-1	RB	PT-1	KALWALL	PT-1	PT-1	PG	
B105	CLASSROOM	VCT-1	RB	PT-1	FOLDING PARTITION	PT-1	FOLDING PARTITION	ACT	
B106	CLASSROOM	VCT-1	RB	PT-1	FOLDING PARTITION	FOLDING PARTITION	PT-1	ACT	
B107	CLASSROOM	VCT-1	RB	FOLDING PARTITION	PT-1	FOLDING PARTITION	PT-1	ACT	
B108	CLASSROOM	VCT-1	RB	FOLDING PARTITION	PT-1	PT-1	FOLDING PARTITION	ACT	
B109	PLATFORM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT	
B131	IDF CLOSET	SC	RB	PT-1	PT-1	PT-1	PT-1	GWB	
B132	ALL GENDER RESTROOM	SC	RB	PT-1	PT-1	PT-1	TILE	PLASTER	
B132.1	STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
B132.2	STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
B132.3	ACCESSIBLE STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
C104	CLASSROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT	

Grand total: 44

FINISH LEGEND

CB	COVED BASE TILE
CP	CARPET
FT	FLOOR TILE
WT	WALL TILE
SC	SEALED CONCRETE
PG	PAINT GLOSS
PSG	PAINT SEMI-GLOSS
RB	RESILIENT BASE
VCT	VINYL COMPISITION TILE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL.31,2023

GENERAL NOTES

1. PROVIDE CORNERGUARDS AS SHOWN ON INTERIOR ELEVATIONS.
2. 8'-0" AFF. IMPACT RESISTANT GYPSUM BOARD SHALL BE PROVIDED FULL HEIGHT AT ROOF ACCESS LADDER AREAS AND LUMBER/PROJECT STORAGE.
3. PAINT EXPOSED STEEL, ALL VISIBLE SIDES, IN ROOMS WHERE OCCURS.
4. WHERE EXPOSED CEILINGS ARE SCHEDULED TO BE PAINTED, INCLUDE FRAMING, DECK, STRUCTURAL STEEL, CONDUIT, DUCTWORK, AND PIPING. ARCHITECT TO CHOOSE UP TO THREE (3) COLORS FOR EXPOSED CEILINGS.
5. WHERE ROOM FINISH SCHEDULE INDICATES TILE, USE CEMENTITIOUS BACKER BOARD SUBSTRATE IN LIEU OF GYPSUM BOARD.
6. EXTEND FINISHES BEHIND CASEWORK AND OTHER HIDDEN SURFACES.
7. ROOM FINISHES SHALL MEET CALIFORNIA BUILDING CODE CHAPTER 8 INTERIOR FINISHES TESTED IN ACCORDANCE WITH NFPA 286 AND CLASSIFIED IN ACCORDANCE WITH ASTM E84 OR UL 723.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
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DATE	12/07/2022
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△	
△	

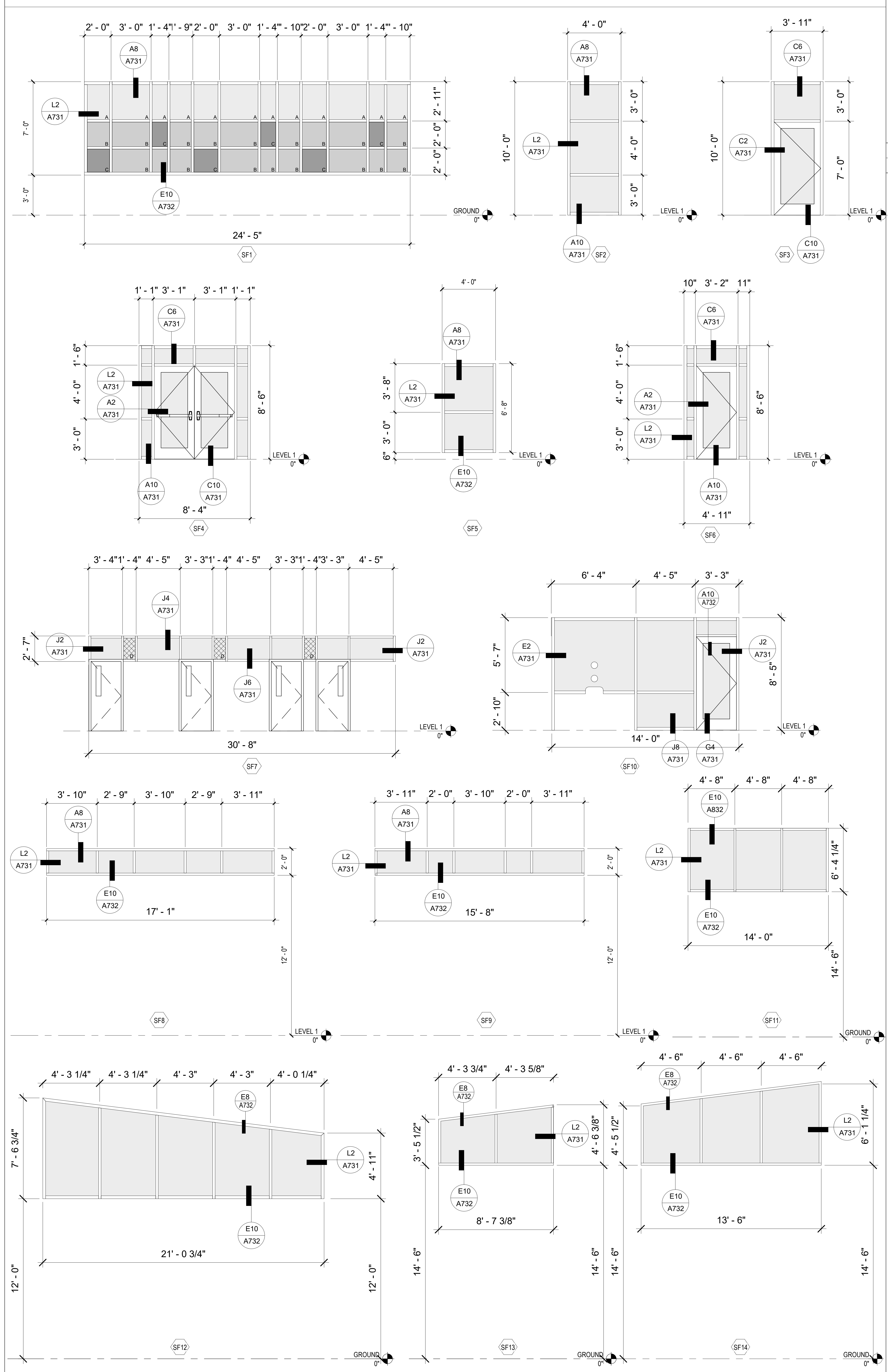
INTERIOR FINISH SCHEDULE

PERKINS
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A602

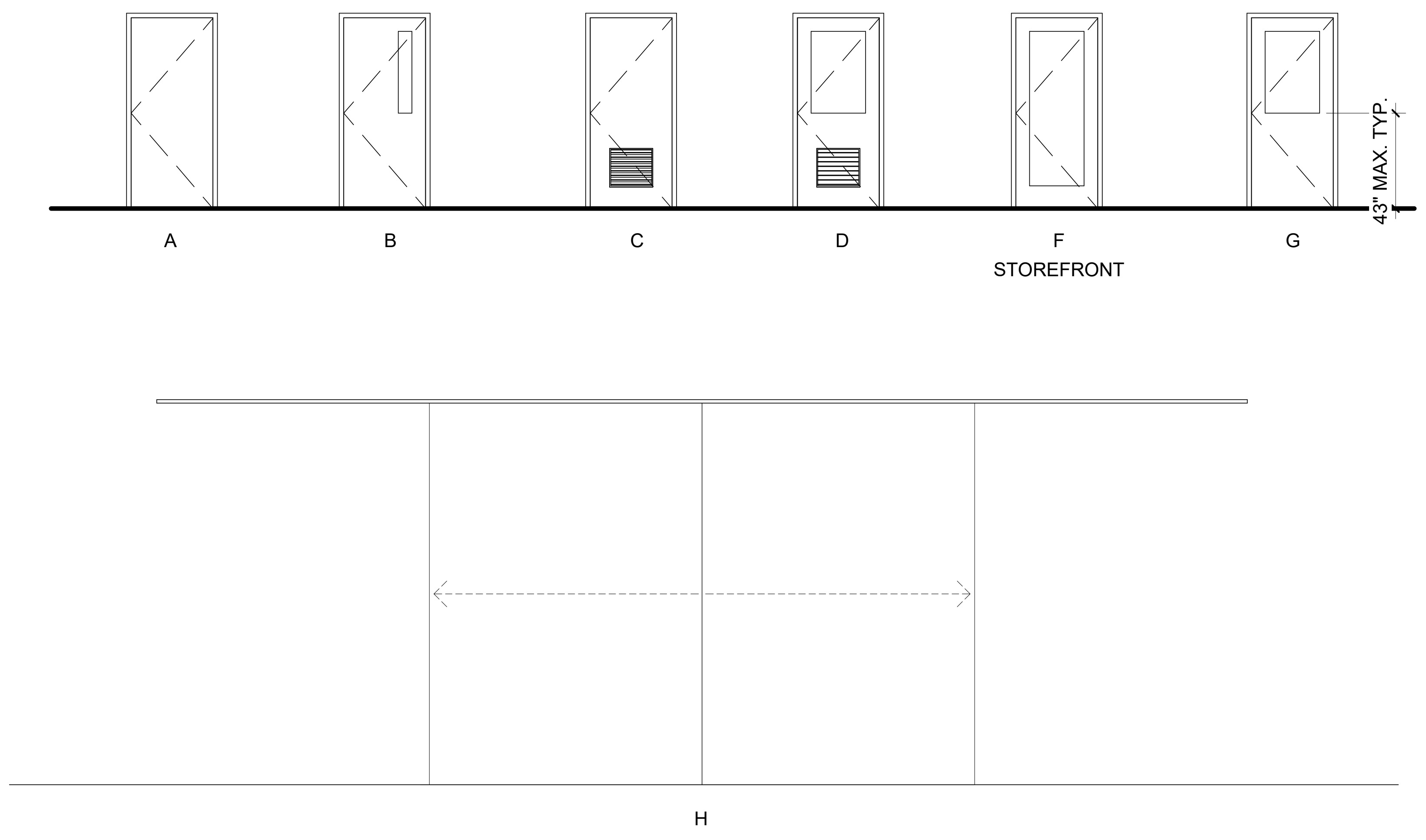
WINDOW SCHEDULE								
	SIZE		FRAME		DETAILS			
TYPE	WIDTH	HEIGHT	MATERIAL	LABEL	HEAD	JAMB	SILL	REMARKS
1	4' - 0"	4' - 2"	AL		L6/A731	L4/A731	L8/A731	
2	8' - 0"	4' - 2"	AL		L6/A731	L4/A731	L8/A731	



STOREFRON SCHEDULE G10
1/4" = 1'-0"

GATE SCHEDULE											
			DOOR					FRAME			
			SIZE					DETAILS (A011, A012)			
GATE	DOOR #	Hardware Set	WIDTH	HEIGHT	MATERIAL	FINSH	PH	GATE	HINGE	LATCH	COMMENTS
GATE	1	SET 1A	4' - 0"	6' - 0"			PH	A10/A013	C7/A013	G7/A013	KNOX BOX
GATE	2	see E4/A011	5' - 5"	6' - 6"				E6/A011	J6/A011	E4/A011	
GATE	3	see E4/A011	5' - 5"	6' - 6"				E6/A011	J6/A011	E4/A011	
GATE	4	see E4/A011	4' - 0"	6' - 0"				A6/A011	J6/A011	E4/A011	
GATE	5	see A4/A012, G4/A012	20' - 0"	6' - 0"				A10/A012	G2/A012	G4/A012	KNOX BOX, PADLOCK OFCI
GATE	6	SET 1B	3' - 0"	6' - 0"				L10/A013	L7/A013	J7/A013	
GATE	7	SET 1C	3' - 0"	6' - 0"				A3/A013	L7/A013	E5/A013	
GATE	9	see A4/A012	3' - 0"	6' - 0"				A7/A012	G2/A012	G4/A012	KNOX BOX, PADLOCK OFCI
GATE	10	see A4/A012	3' - 0"	6' - 0"				A7/A012	G2/A012	G4/A012	KNOX BOX, PADLOCK OFCI

DOOR SCHEDULE															
			DOOR							FRAME					
			SIZE									DETAILS (A731)			
ROOM #	DOOR #	Hardware Set	WIDTH	HEIGHT	TYPE	MATERIAL	FINSH	RATING LABEL	PH	MATERIAL	FINISH	HEAD	JAMB	THRESH OLD	COMMENTS
A100	1	A582R.1	6' - 0"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
A100	2	A585R.1	6' - 0"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
A101	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
A102	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
A103	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
A104	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
A110	1	453.1	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A111	1	455.1	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A112.1	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
A112.2	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
A112.3	1	405	3' - 0"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
A113	1	442.2	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A113	2	442.2	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A114	1	443.1	3' - 0"	7' - 0"	C	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A115	1	030	3' - 0"	7' - 0"	G	HM	P-1			HM	P-1	L10/A731	J10/A731	G6/A731	
A115	2	442.1	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A116	1	443.1	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A117	1	443.1	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A117.1	1	040	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G2/A731	
A118	1	A032.7	3' - 0"	7' - 0"	F	AL	A-1			AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
A119	1	020	3' - 0"	7' - 0"	A	HM				HM	P-1	L10/A731	J10/A731	G10/A731	
A120	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A121	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A122	1	020	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G10/A731	
A123	1	020	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G10/A731	
A124	1	012	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A125	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A126	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A127	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A128	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A128	2	443.1	3' - 0"	7' - 0"	G	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A128.1	1	040	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A128.2	1	040	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A129	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A133.1	1	020	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G2/A731	
A135	1	A482.1	3' - 0"	7' - 0"	F	AL	A-1			AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
A135	2	A482.1	3' - 0"	7' - 0"	F	AL	A-1			AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
B105	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
B106	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
B107	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
B108	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
B109	1	044	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G2/A731	
B109	2	044	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G2/A731	
B109	3	-	20' - 0"	14' - 0"			P-1				P-1	A4/A843	-	A4/A843	BARN DOOR
B131	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
B132.1	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
B132.2	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
B132.3	1	405	3' - 0"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	



DOOR SCHEDULE
1/4" = 1'-0"

DOOR SCHEDULE NOTES

GENERAL NOTES:

1. PROVIDE FIRE RESISTIVE GLAZING WHERE FIRE RATING IS REQUIRED. ALL FIRE RATED GLASS WILL HAVE MAX. AREA OF 100 SQUARE INCHES.
2. MAXIMUM EFFORT TO OPERATE EXTERIOR DOORS IS 5 LBS.
3. ADJUST OPENING FORCE OF THE DOOR TO 5 LB.
4. DOOR LOCATIONS & CLEARANCES - SEE: A8/A521 SYMBOL G002
5. DOOR FINISH TO BE SEMI-GLOSS
6. OPERATBLE FLOOR HARDWARE PARTS SHALL BE POSITIONED AT MINIMUM OF 34" AND MAXIMUM OF 44" ABOVE THE FINISH FLOOR OR GROUND

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL. 31, 2023

DOOR SCHEDULE LEGEND

MATERIAL

HM	HOLLOW METAL
AL	ALUMINUM
SS	STAINLESS STEEL
MTL	METAL
CL	CHAINLINK
SCW	SOLID CORE WOOD
FR	FIRE RESIST. GLAZING
T	TEMPERED GLAZING

FINISH

P-1	PAINT (SEMI-GLOSS)
PC-1	POWER-COATED
A-1	CLEAR AC-2

STOREFRONT LEGEND

A	NO FILM
B	FASARA - MILKY MILKY LIGHT GREY 2H2MAMML
C	FASARA - CROSS HAIRLINE MILKY SH2CHML

STOREFRONT WINDOW NOTES

1. DIMENSION FOR STOREFRONT WINDOWS ARE MEASURED FROM EDGE OF ROUGH OPENING TO CENTER OF MUSSION, TYP.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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PM	
DATE	12/07/2022
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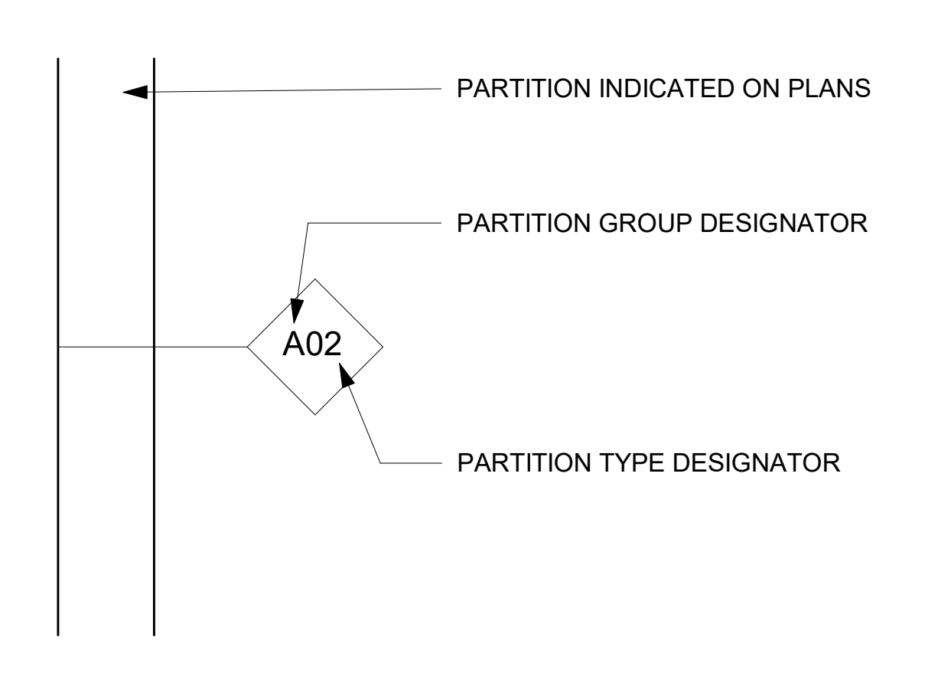
DOOR, GATE, WINDOW AND
STOREFRONT SCHEDULES

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A701

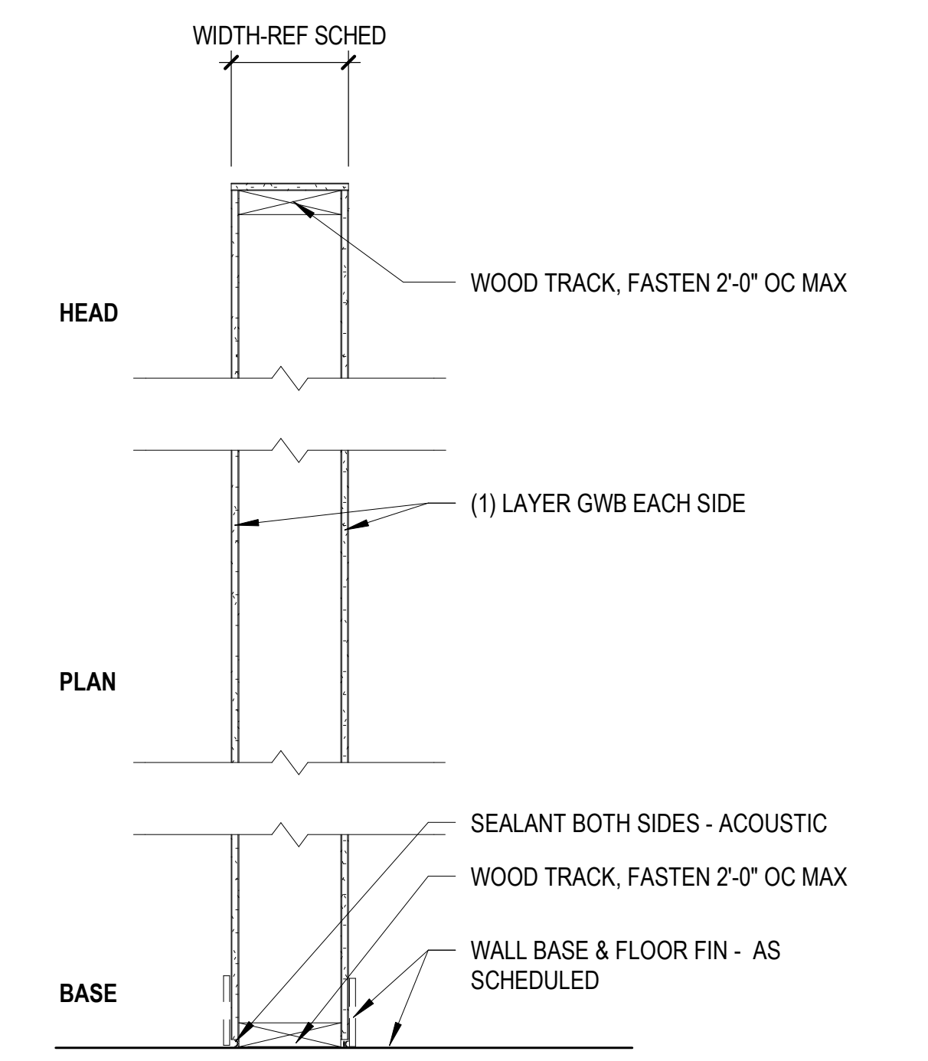
PARTITION TYPE SYMBOL


PARTITION INDICATED ON PLANS
PARTITION GROUP DESIGNATOR
A02
PARTITION TYPE DESIGNATOR

PARTITION TYPE NOTES

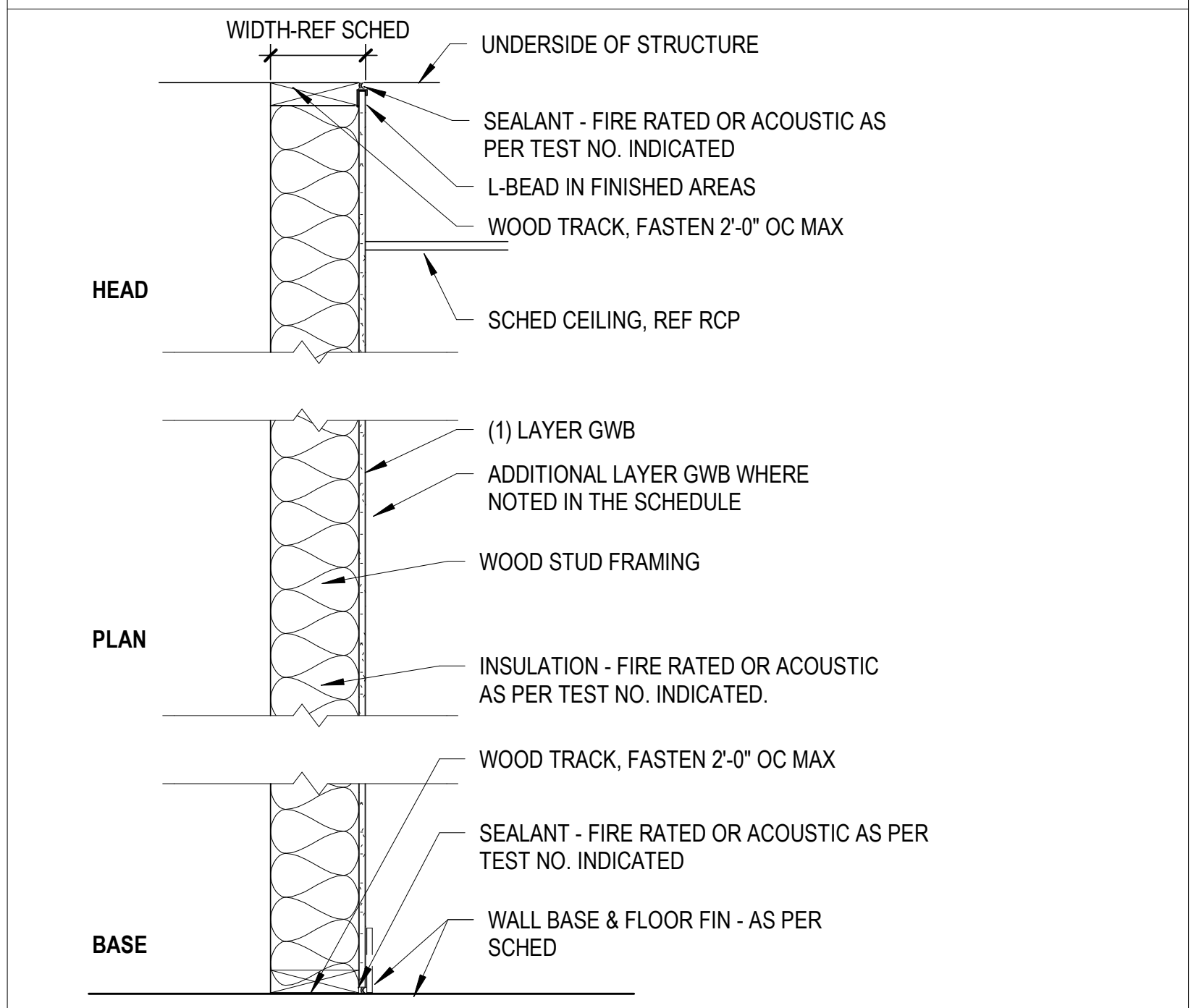
1. REFER TO FLOOR PLANS FOR INTERIOR PARTITION TYPE LOCATIONS.
2. ALL PARTITIONS ARE DIMENSIONED TO THE OF FACE OF STUD EXCEPT FOR EXISTING WALLS WHICH ARE DIMENSIONED TO FINISH FACE.
3. IN ALL TOILET ROOMS PROVIDE, MOISTURE AND MOLD RESISTANT GYP. BD. ON ALL WALLS AND CEILINGS.
4. IN ALL ROOMS OTHER THAN TOILET ROOMS WHICH CONTAIN SINKS OR OTHER PLUMBING FIXTURES PROVIDE MOISTURE RESISTANT GYP. BD. ON THE WET WALL AND RETURN 4'-0" ON THE SIDE WALLS.
5. AT VERTICAL SURFACES THAT ARE SCHEDULED TO RECEIVE TILE FINISHES, PROVIDE ONE LAYER OF CEMENTITIOUS BACKER BOARD IN PLACE OF THE OUTSIDE LAYER OF GYPSUM BOARD ON THE SCHEDULED PARTITION. ON RATED WALLS AND OTHER VERTICAL SURFACES THAT ARE SCHEDULED TO RECEIVE TILE FINISHES, PROVIDE ONE LAYER OF CEMENTITIOUS BACKER BOARD IN ADDITION TO THE OUTSIDE LAYER OF GYPSUM BOARD ON THE SCHEDULED PARTITION TO MAINTAIN RATED WALL CONSTRUCTION.
6. ALL GYPSUM BOARD SHALL BE 5/8” THICK, UNO. ABUSE RESISTANT GYPSUM BOARD ON EXPOSED FACE OF WALLS, TYPICAL. AT FIRE RATED ASSEMBLIES, PROVIDE TYPE ‘X’ GYP. BD. MINIMUM, OR AS REQUIRED BY FIRE RATED ASSEMBLY. GYPSUM CEILINGS ANS SOFFITS PROVIDE 5/8" THICK, UNO.
7. FOR FIRE RATED ASSEMBLIES, OBTAIN AND FULLY CONFORM TO DESIGN REQUIREMENTS OF UNDERWRITERS LABORATORIES, INC(UL) FOR EACH PARTITION ASSEMBLY, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY A DETAIL OR NOTE, AS ALLOWED BY UL DESIGN.
8. FIRE-RESISTANCE-RATED & STC-RATED PARTITIONS SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE TESTED ASSEMBLY UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY DETAIL OR NOTE.
9. STC-RATED PARTITION CONSTRUCTION SHALL HAVE ALL PENETRATIONS AND INTERSECTIONS SEALED AIR TIGHT WITH ACOUSTICAL SEALANT.
10. SEPARATE METALLIC OUTLETS OR SWITCH BOXES LOCATED ON OPPOSITE SIDES OF WALLS OR PARTITIONS BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES (U.L, INC.).
11. REFER TO SPECIFICATIONS FOR SPACING CRITERIA AND METAL STUD GAUGES, UNO.
12. REFER TO FINISH SCHEDULE AND REFLECTED CEILING PLANS FOR THE CEILING TYPE AND HEIGHT. COORDINATE HEIGHTS OF GYP. BD. WITH CEILING HEIGHTS AND WITH PARTITION DETAILS INDICATED.
13. REFER TO FINISH SCHEDULE, FURNITURE PLANS, INTERIOR ELEVATIONS, INTERIOR DETAILS AND ARCHITECTURAL CASEWORK DETAILS FOR WALL FINISHES AND WALL MOUNTED ACCESSORIES TO COORDINATE BLOCKING REQUIREMENTS. PROVIDE ADEQUATE BACKUP AND BLOCKING FOR ALL WALL OR CEILING MOUNTED EQUIPMENT, ARCHITECTURAL WOODWORK, CASEWORK, LIGHTING, OR OTHER MISCELLANEOUS ITEMS & EQUIPMENT MEP & FP TO ASSURE A PROPER INSTALLATION. ALL BLOCKING TO BE NON COMBUSTIBLE IF THE CONSTRUCTION TYPE IS NONE COMBUSTIBLE.
14. ALL DOOR OPENINGS ARE TO BE 6 INCHES MINIMUM FROM ADJACENT WALL U.N.O.
15. REFER TO LIFE SAFETY PLANS AND THE PROJECT CODE ANALYSIS SUMMARY FOR FURTHER WALL, FLOOR/CEILING ASSEMBLY RATING REQUIREMENTS.
16. MAINTAIN CONTINUOUS SMOKE/ FIRE RATED PARTITION AT INTERSECTIONS OF RATED WALLS AND NON-RATED WALLS. WRAP GYPSUM BOARD AT JAMBS AND HEAD OF NON-RATED DOORWAYS AND OPENINGS IN RATED WALLS AS REQUIRED TO MAINTAIN WALL RATING.
17. ALL PARTITION THICKNESSES SHOWN ARE ACTUAL DIMENSIONS. FINISHED FACES OF PARTITIONS TO RUN FLUSH, CONTINUOUS AND SMOOTH, U.N.O.
18. ALL GYP. BD. WALL AND CEILING CONTROL JOINTS SHALL BE PROVIDED PER THE PROJECT SPECIFICATIONS. COORDINATE ALL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
19. ALL GYP. BD. WALL AND CEILING CONTROL JOINTS AT RATED CONDITIONS SHALL BE INSTALLED PER GYPSUM ASSOCIATION GUIDELINES (GA-234-08). UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY DETAIL OR NOTE. COORDINATE ALL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
20. REFER TO STRUCTURAL DRAWINGS FOR SPECIFICATIONS & REINFORCEMENT REQUIREMENTS OF MASONRY PARTITIONS.
21. REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.
22. **IN ALL ELECTRICAL ROOMS, INSTALL FRT PLYWOOD FLOOR TO CEILING ON ALL WALLS IN ADDITION TO WALL TYPE REQUIREMENTS. COORDINATE WITH ELECTRICAL CONTRACTOR.**
23. **IN ALL LOW VOLTAGE & TELE/DATA ROOMS, INSTALL FRT PLYWOOD FLOOR TO CEILING ON ALL WALLS IN ADDITION TO WALL TYPE REQUIREMENTS. COORDINATE WITH LOW VOLTAGE CONTRACTOR.**
24. **ALL OUTSIDE GYPSUM BOARD VERTICAL CORNERS IN CORRIDORS ARE TO RECEIVE 1 1/2" X 1 1/2" STAINLESS STEEL CORNER GUARDS 18 GA 48" TALL.**

TYPE E - PARTIAL HT. - 1 LAYER GWB EACH SIDE


WIDTH-REF SCHED
HEAD
WOOD TRACK, FASTEN 2'-0" OC MAX
(1) LAYER GWB EACH SIDE
PLAN
SEALANT BOTH SIDES - ACOUSTIC
WOOD TRACK, FASTEN 2'-0" OC MAX
WALL BASE & FLOOR FIN - AS SCHEDULED
BASE

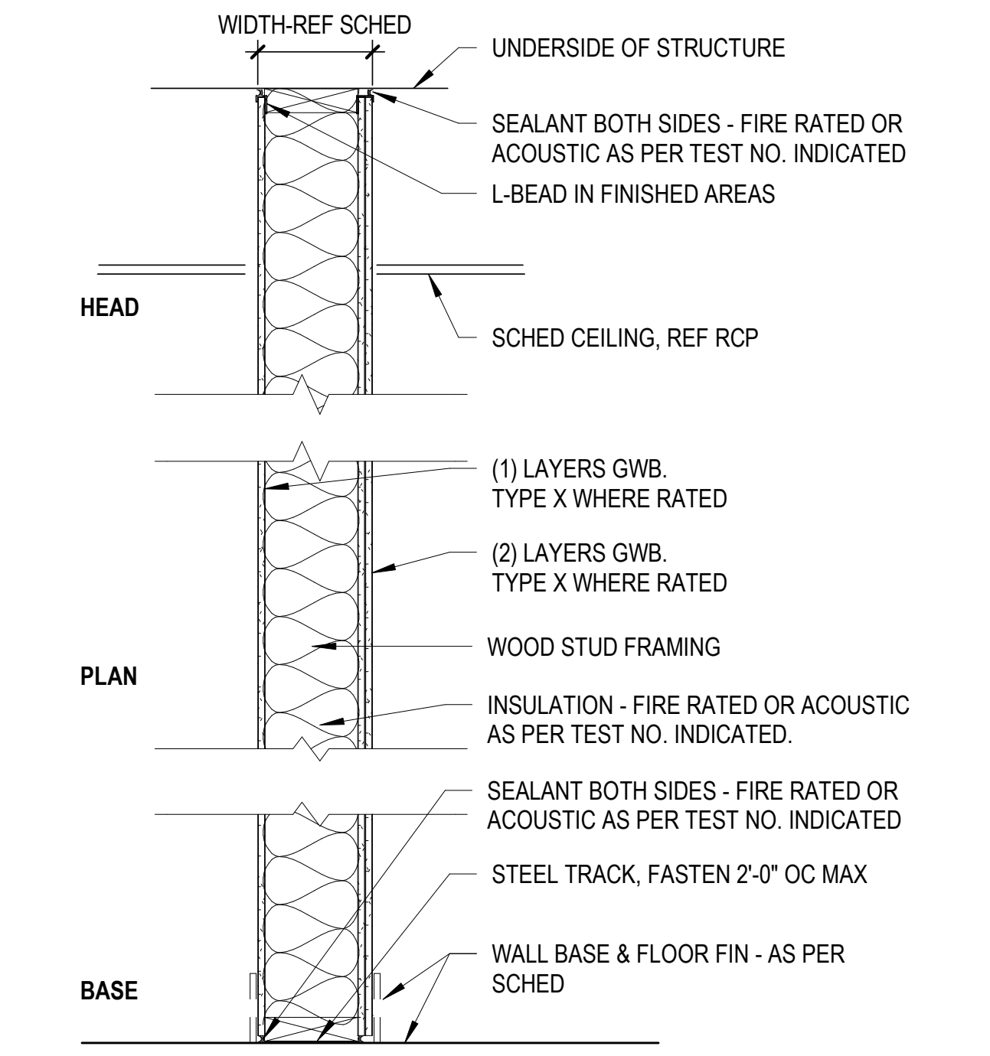
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
E01	4 3/4"	3 1/2"		NONE			

TYPE D - FULL HT. - GWB 1 SIDE


WIDTH-REF SCHED
UNDERSIDE OF STRUCTURE
SEALANT - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
L-BEAD IN FINISHED AREAS
WOOD TRACK, FASTEN 2'-0" OC MAX
HEAD
SCHED CEILING, REF RCP
(1) LAYER GWB
ADDITIONAL LAYER GWB WHERE NOTED IN THE SCHEDULE
WOOD STUD FRAMING
PLAN
INSULATION - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED.
WOOD TRACK, FASTEN 2'-0" OC MAX
SEALANT - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
WALL BASE & FLOOR FIN - AS PER SCHED
BASE

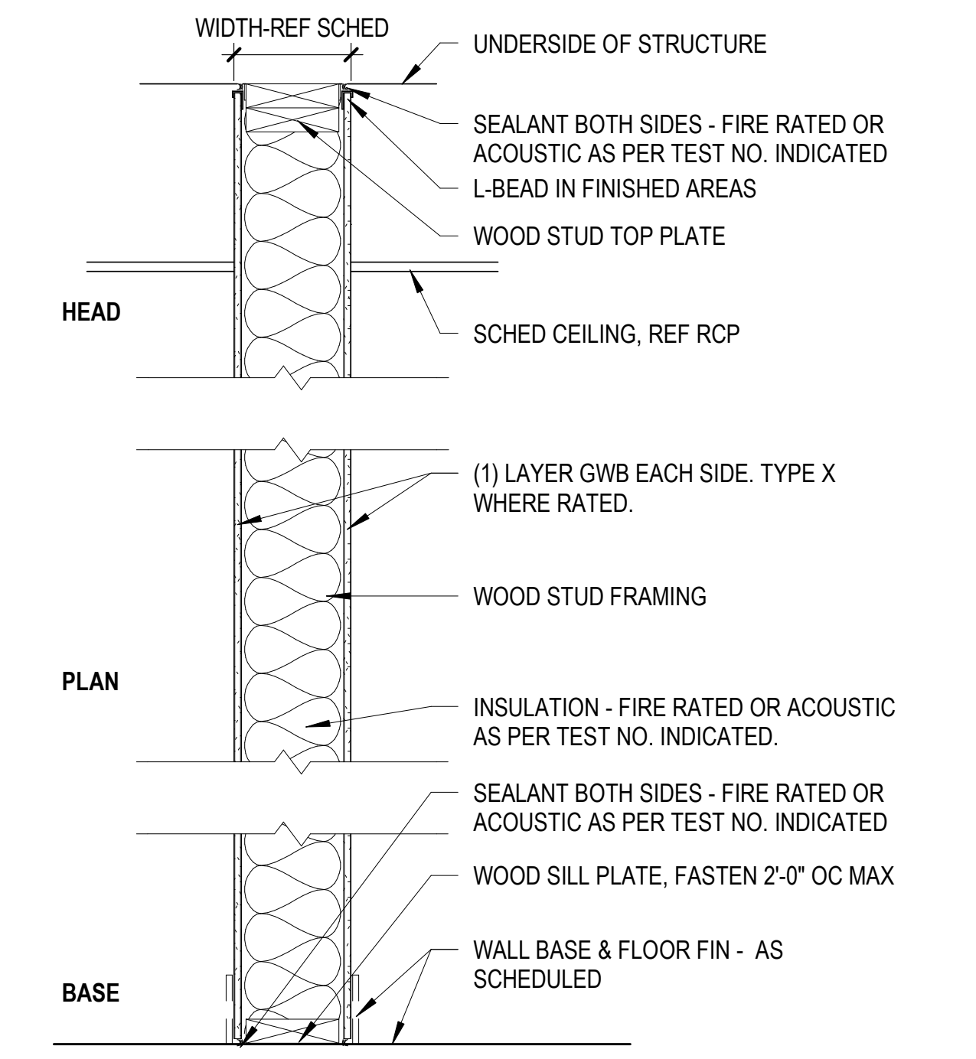
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
D01	6 1/8"	5 1/2"		NONE			

TYPE B - FULL HT. - 2 LAYERS GWB EACH SIDE


WIDTH-REF SCHED
UNDERSIDE OF STRUCTURE
SEALANT BOTH SIDES - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
L-BEAD IN FINISHED AREAS
HEAD
SCHED CEILING, REF RCP
(1) LAYERS GWB. TYPE X WHERE RATED
(2) LAYERS GWB. TYPE X WHERE RATED
WOOD STUD FRAMING
PLAN
INSULATION - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED.
SEALANT BOTH SIDES - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
STEEL TRACK, FASTEN 2'-0" OC MAX
WALL BASE & FLOOR FIN - AS PER SCHED
BASE

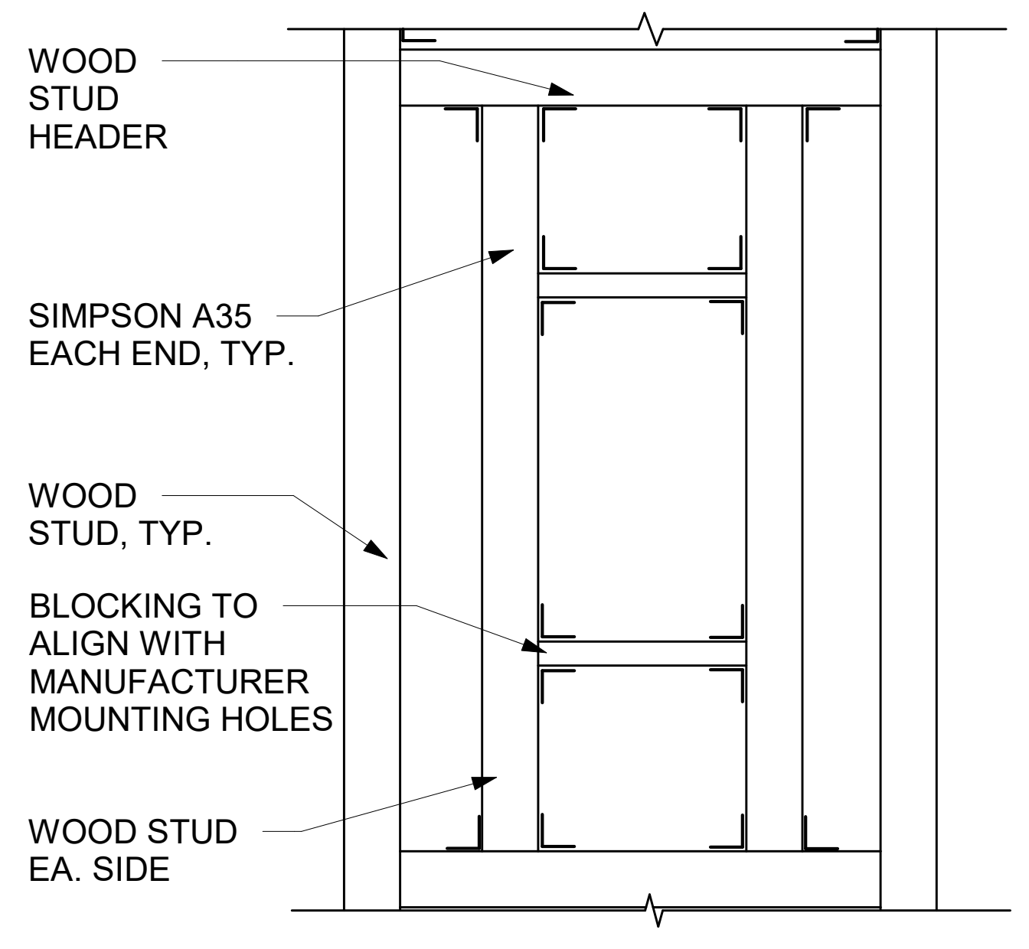
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
B01	7 3/8"	5 1/2"	0	NONE	35		

TYPE A - FULL HT. - 1 LAYER GWB EACH SIDE


WIDTH-REF SCHED
UNDERSIDE OF STRUCTURE
SEALANT BOTH SIDES - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
L-BEAD IN FINISHED AREAS
WOOD STUD TOP PLATE
HEAD
SCHED CEILING, REF RCP
(1) LAYER GWB EACH SIDE. TYPE X WHERE RATED.
WOOD STUD FRAMING
PLAN
INSULATION - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED.
SEALANT BOTH SIDES - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
WOOD SILL PLATE, FASTEN 2'-0" OC MAX
WALL BASE & FLOOR FIN - AS SCHEDULED
BASE

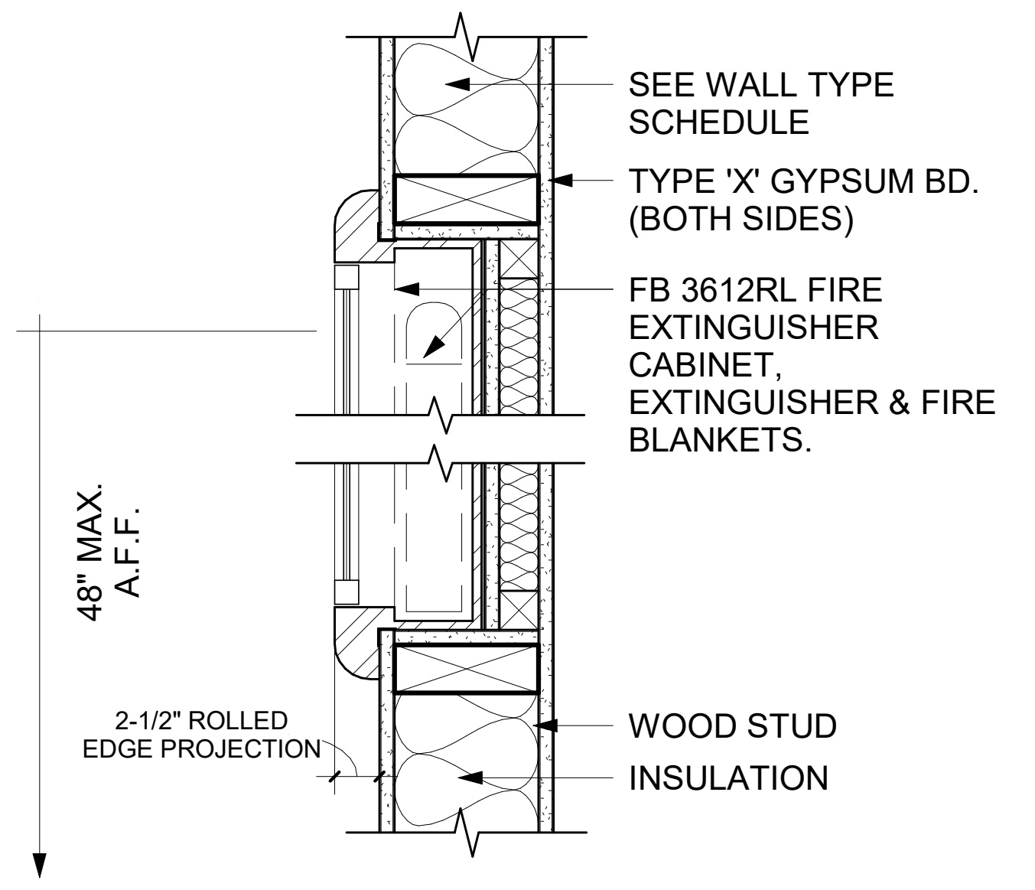
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
A01	4 3/4"	3 1/2"		NONE			
A02	6 3/4"	5 1/2"	0	NONE	40		
A03.1	8 3/4"	7 1/2"		NONE			

PARTITION TYPES **A4**
N.T.S.

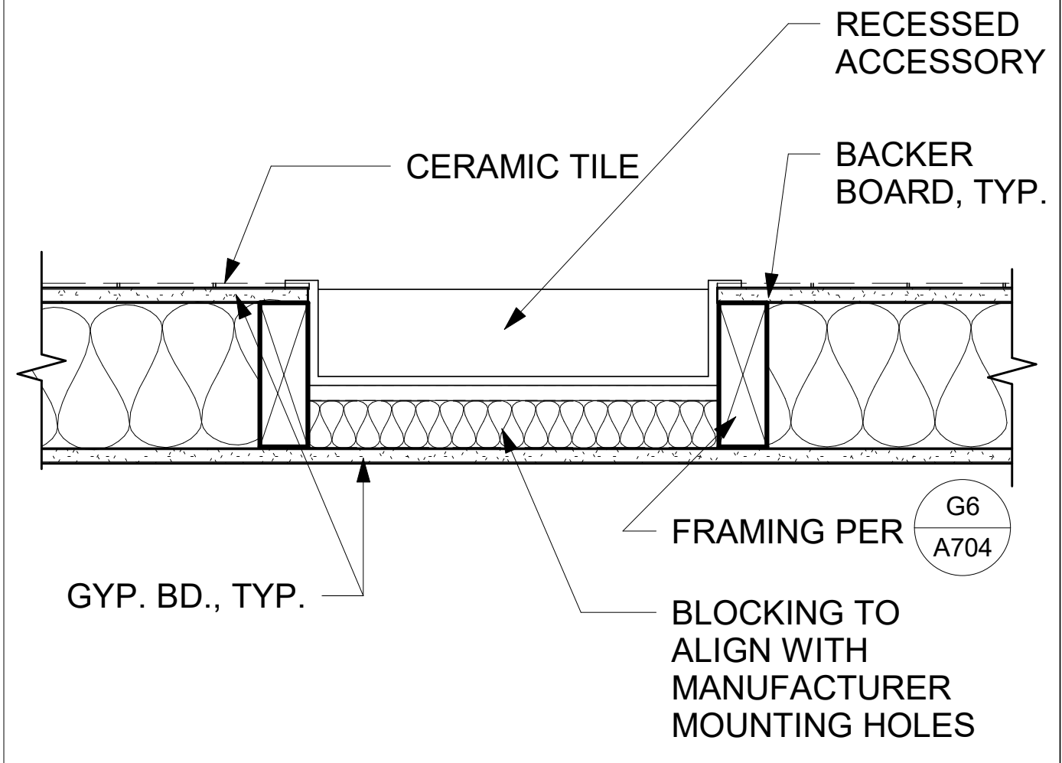

WOOD STUD HEADER
SIMPSON A35 EACH END, TYP.
WOOD STUD, TYP.
BLOCKING TO ALIGN WITH MANUFACTURER MOUNTING HOLES
WOOD STUD EA. SIDE

RECESSED ACCESSORY FRAMING **G6**
1" = 1'-0"

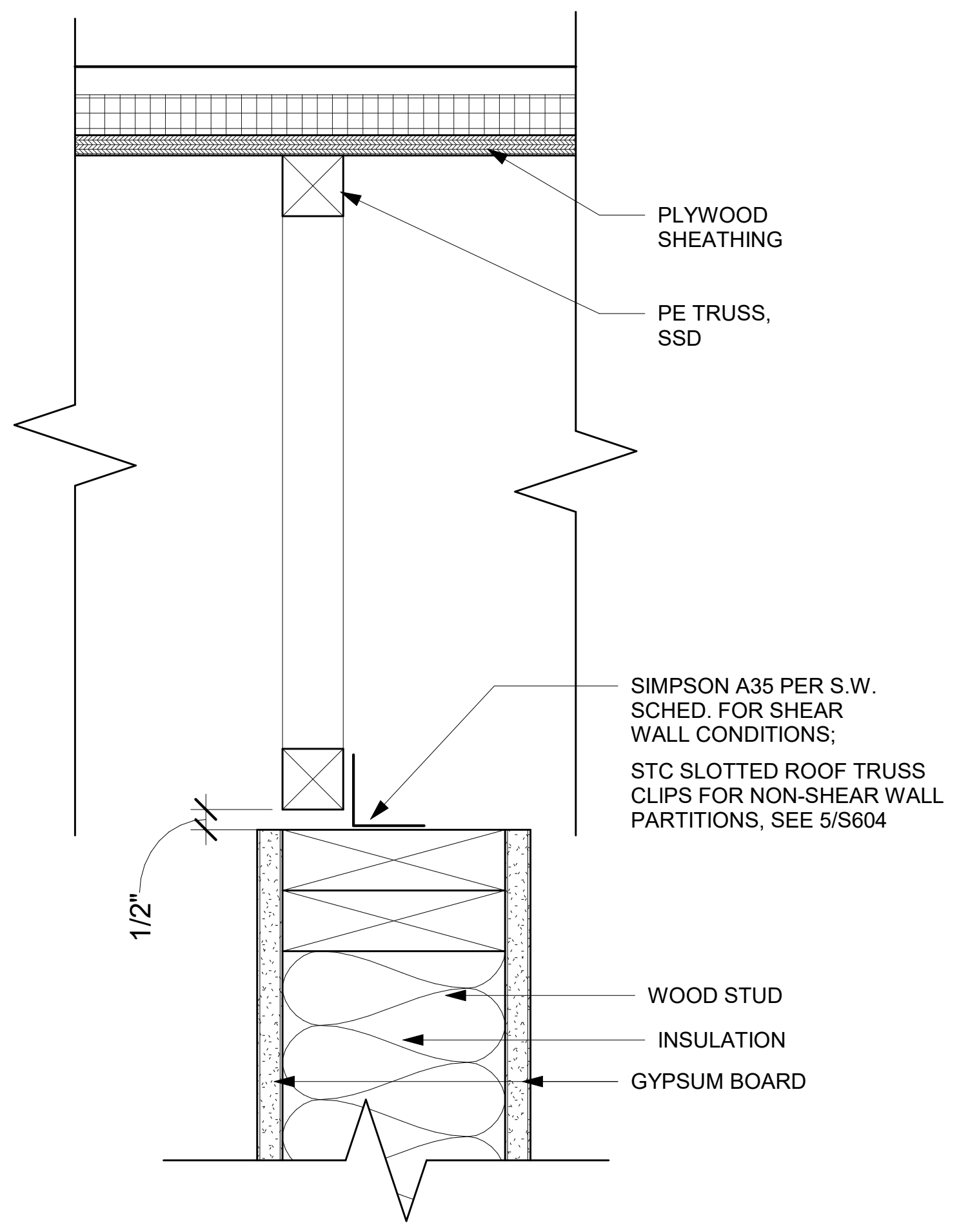
NO GYP. BD. REQ'D BEHIND CABINET
AT NON-RATED WALL ASSEMBLY


SEE WALL TYPE SCHEDULE
TYPE 'X' GYPSUM BD. (BOTH SIDES)
FB 3612RL FIRE EXTINGUISHER CABINET, EXTINGUISHER & FIRE BLANKETS.
48" MAX. A.F.F.
2-1/2" ROLLED EDGE PROJECTION
WOOD STUD
INSULATION

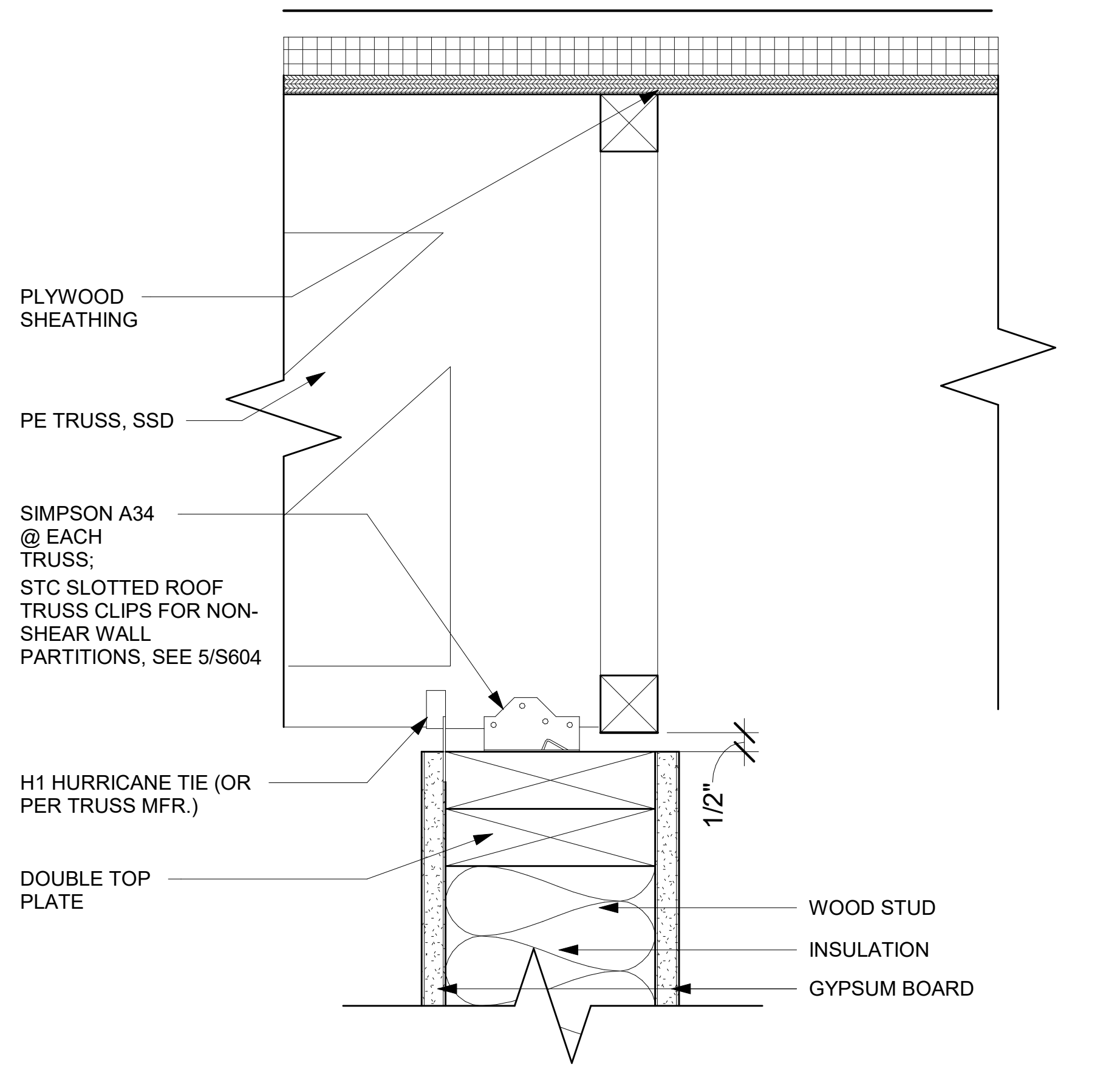
SEMI-RECESSED F.E.C. **L10**
1 1/2" = 1'-0"



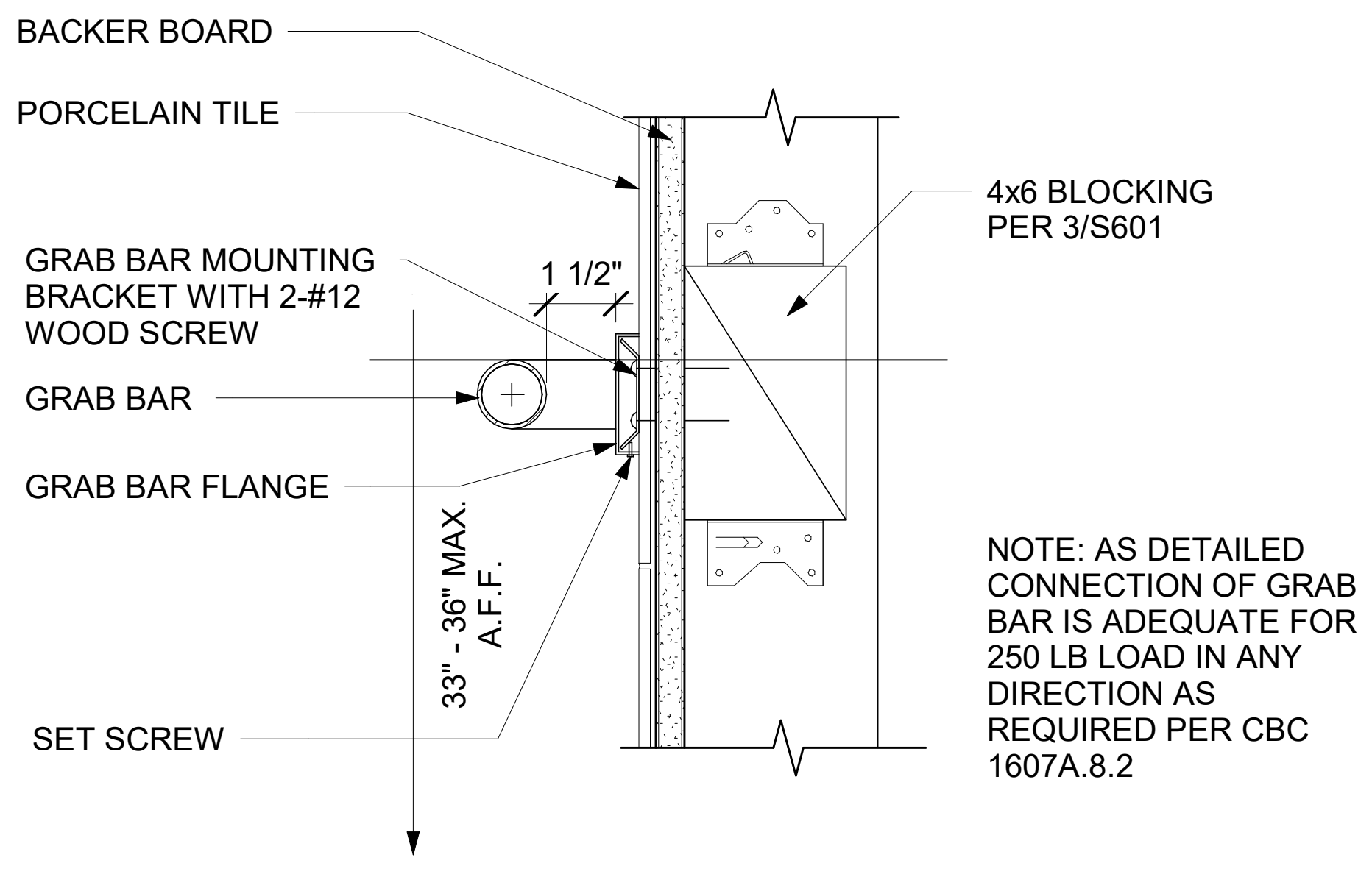
RECESSED ACCESSORY **G8**
1 1/2" = 1'-0"


PLYWOOD SHEATHING
PE TRUSS, SSD
SIMPSON A35 PER S.W. SCHED. FOR SHEAR WALL CONDITIONS;
STC SLOTTED ROOF TRUSS CLIPS FOR NON-SHEAR WALL PARTITIONS, SEE 5/S604
1/2"
WOOD STUD
INSULATION
GYPSUM BOARD

WALL HEAD PARALLEL TO TRUSS **D8**
3" = 1'-0"

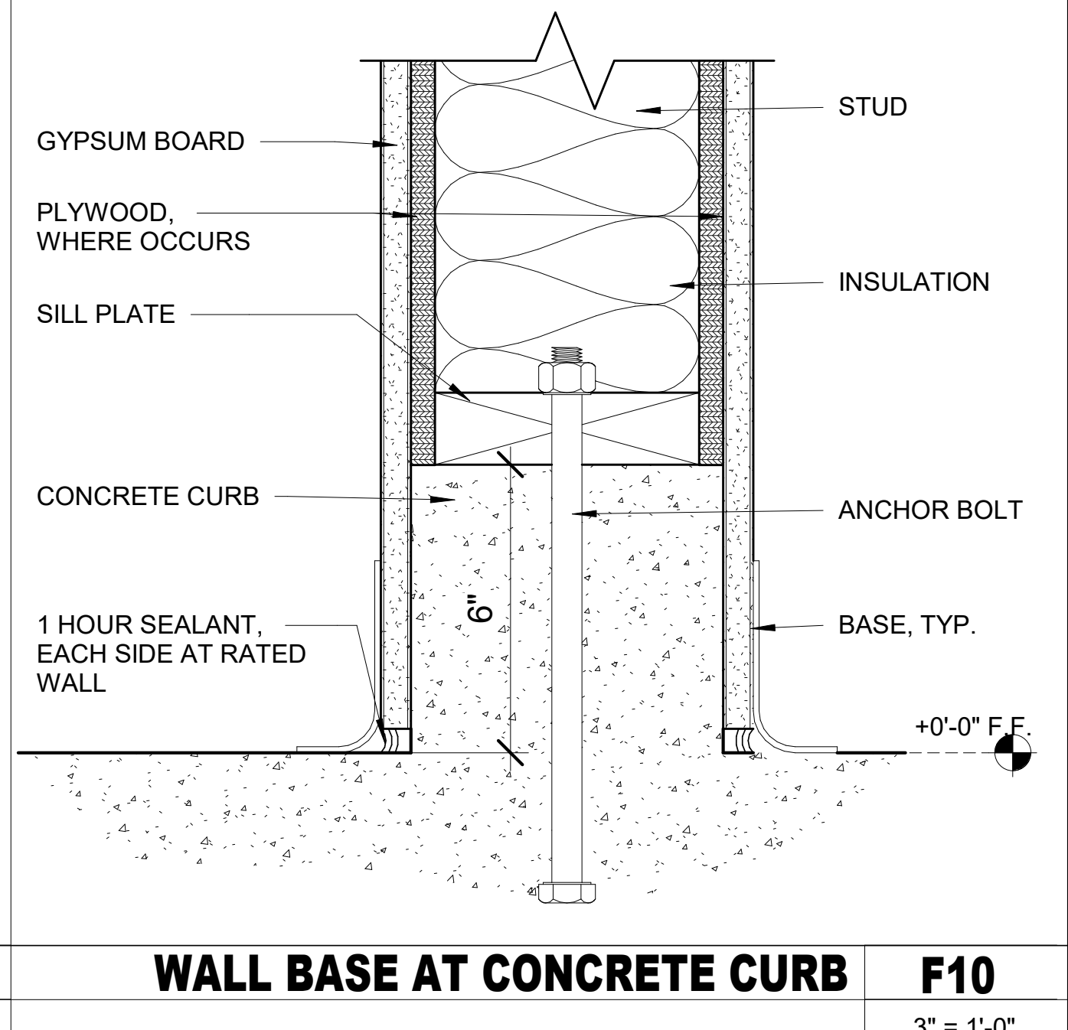

PLYWOOD SHEATHING
PE TRUSS, SSD
SIMPSON A34 @ EACH TRUSS;
STC SLOTTED ROOF TRUSS CLIPS FOR NON-SHEAR WALL PARTITIONS, SEE 5/S604
H1 HURRICANE TIE (OR PER TRUSS MFR.)
DOUBLE TOP PLATE
1/2"
WOOD STUD
INSULATION
GYPSUM BOARD

WALL HEAD PERPENDICULAR TO TRUSS **A8**
3" = 1'-0"

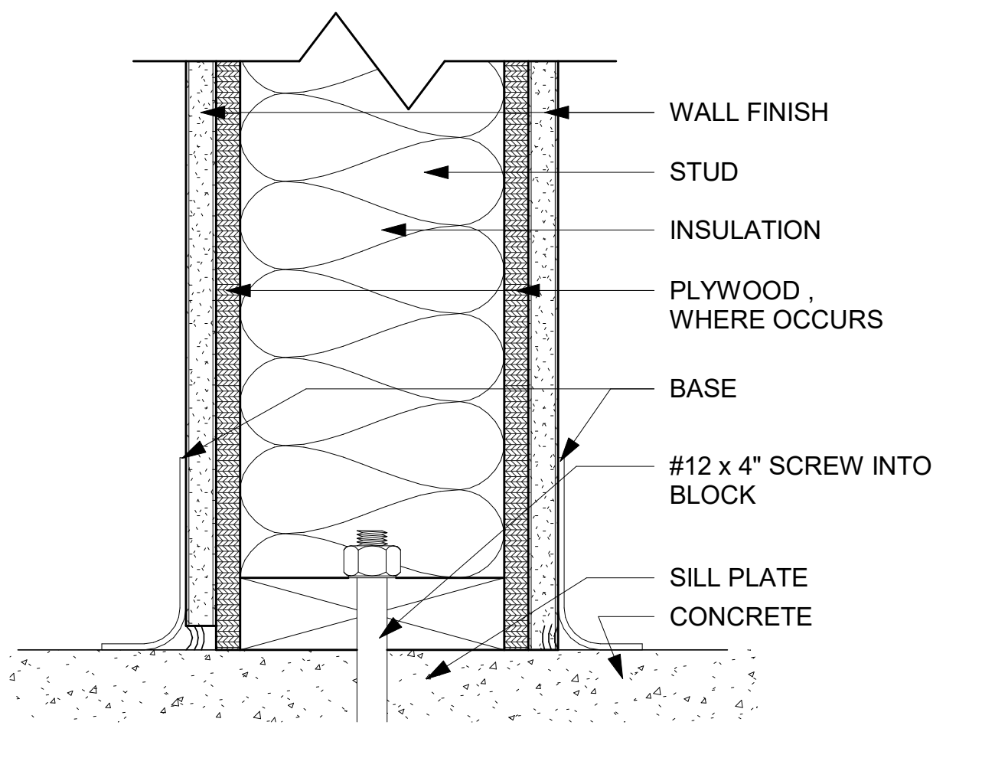


NOTE: AS DETAILED CONNECTION OF GRAB BAR IS ADEQUATE FOR 250 LB LOAD IN ANY DIRECTION AS REQUIRED PER CBC 1607A.8.2

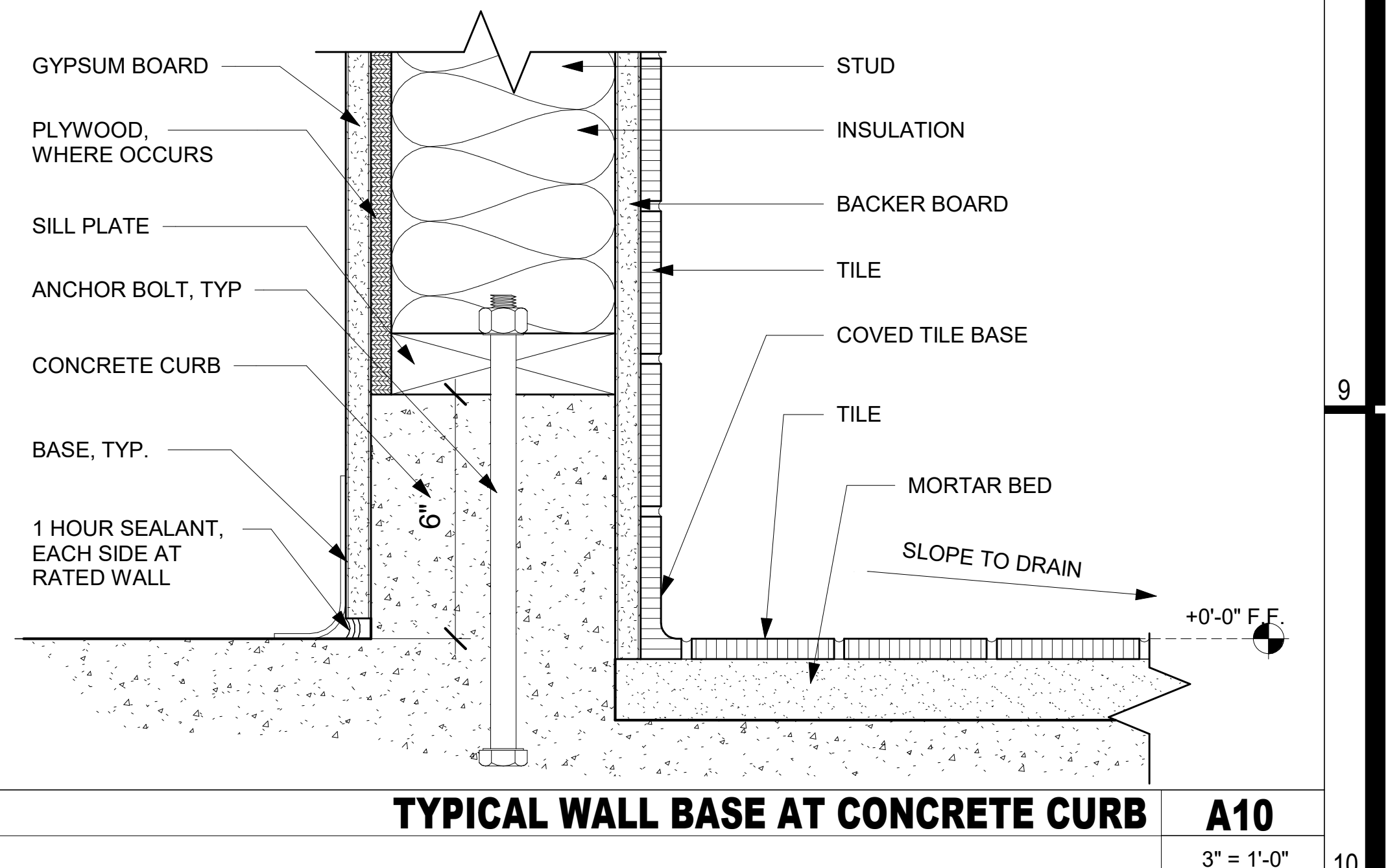
GRAB BAR MOUNTING WS WALL **H10**
3" = 1'-0"



WALL BASE AT CONCRETE CURB **F10**
3" = 1'-0"



TYP. NON BEARING WALL BASE **D10**
3" = 1'-0"



TYPICAL WALL BASE AT CONCRETE CURB **A10**
3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-982[illegible]
REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

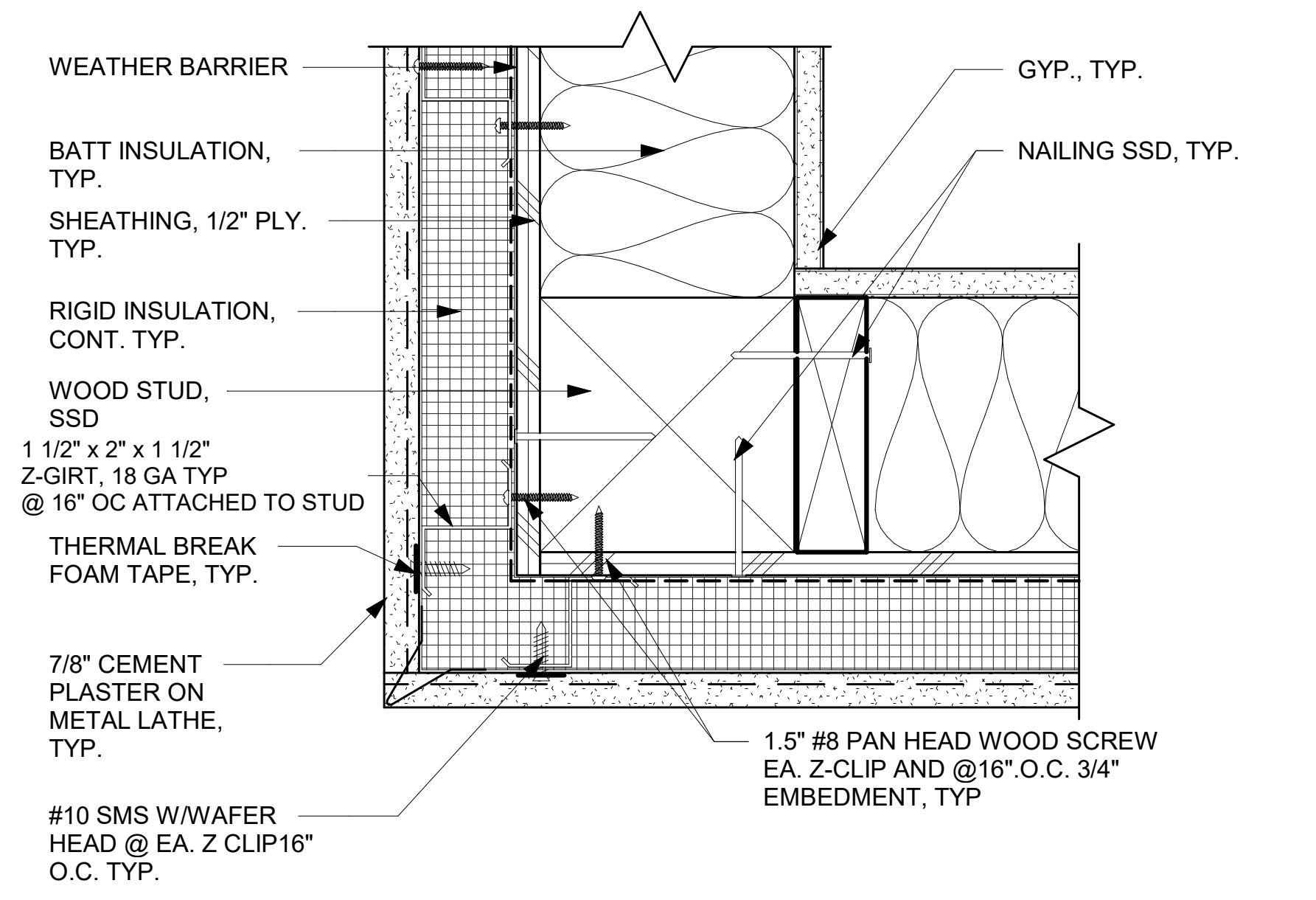
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022

INTERIOR WALL SCHEDULE
AND DETAILS

PERKINS EASTMAN

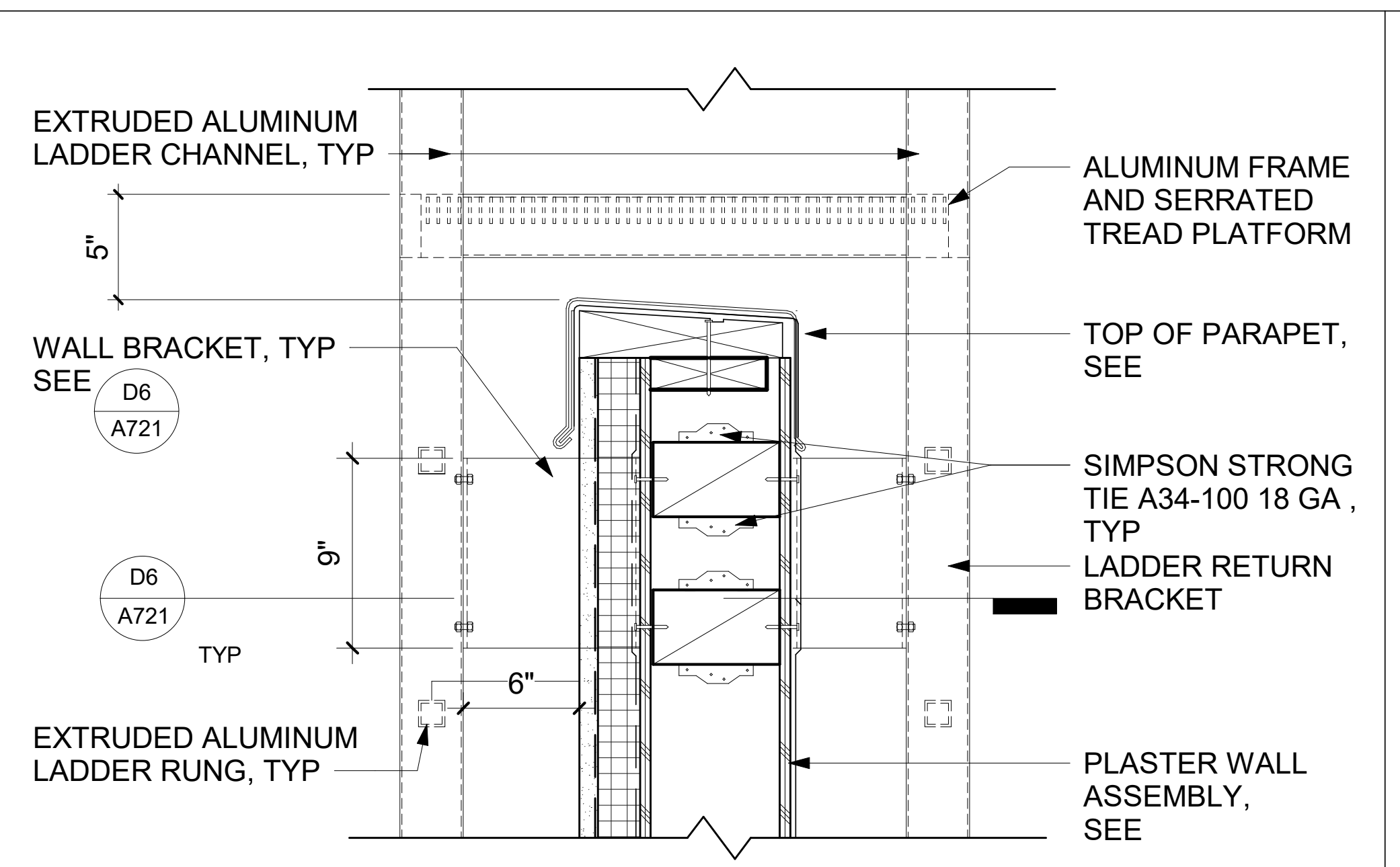
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A704


WEATHER BARRIER
BATT INSULATION, TYP.
SHEATHING, 1/2" PLY. TYP.
RIGID INSULATION, CONT. TYP.
WOOD STUD, SSD
1 1/2" x 2" x 1 1/2" Z-GIRT, 18 GA TYP @ 16" OC ATTACHED TO STUD
THERMAL BREAK FOAM TAPE, TYP.
7/8" CEMENT PLASTER ON METAL LATHE, TYP.
#10 SMS W/WAFER HEAD @ EA. Z CLIP16" O.C. TYP.
GYP., TYP.
NAILING SSD, TYP.
1.5" #8 PAN HEAD WOOD SCREW EA. Z-CLIP AND @16".O.C. 3/4" EMBEDMENT, TYP

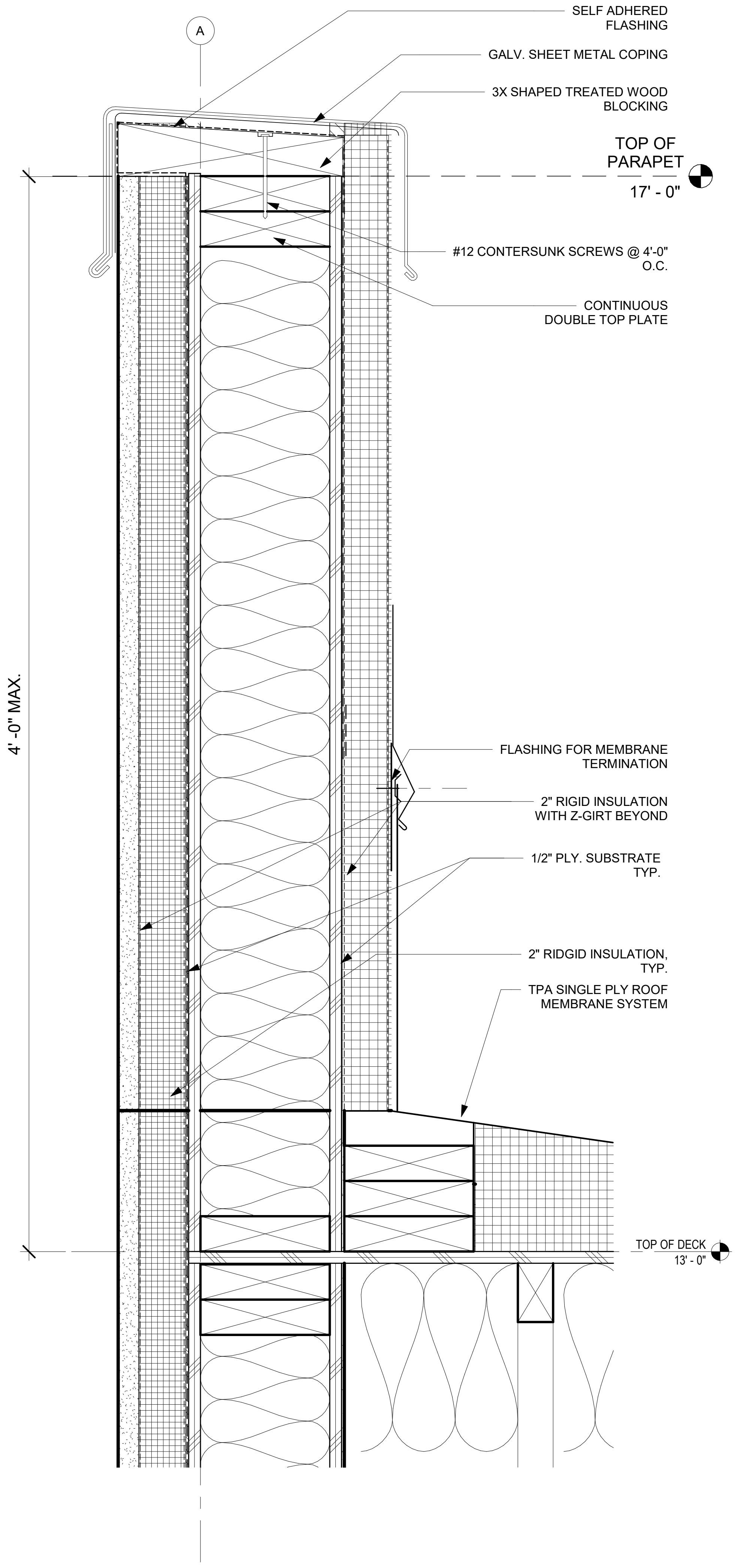
EXT. CEMENT PLASTER CORNER DETAIL **G2**

INSULATED CEMENT PLASTER WALL ASSEMBLY - PWA 106 3" = 1'-0"


EXTRUDED ALUMINUM LADDER CHANNEL, TYP
5"
WALL BRACKET, TYP SEE D6 A721
D6 A721
TYP
9"
6"
EXTRUDED ALUMINUM LADDER RUNG, TYP
ALUMINUM FRAME AND SERRATED TREAD PLATFORM
TOP OF PARAPET, SEE
SIMPSON STRONG TIE A34-100 18 GA , TYP
LADDER RETURN BRACKET
PLASTER WALL ASSEMBLY, SEE

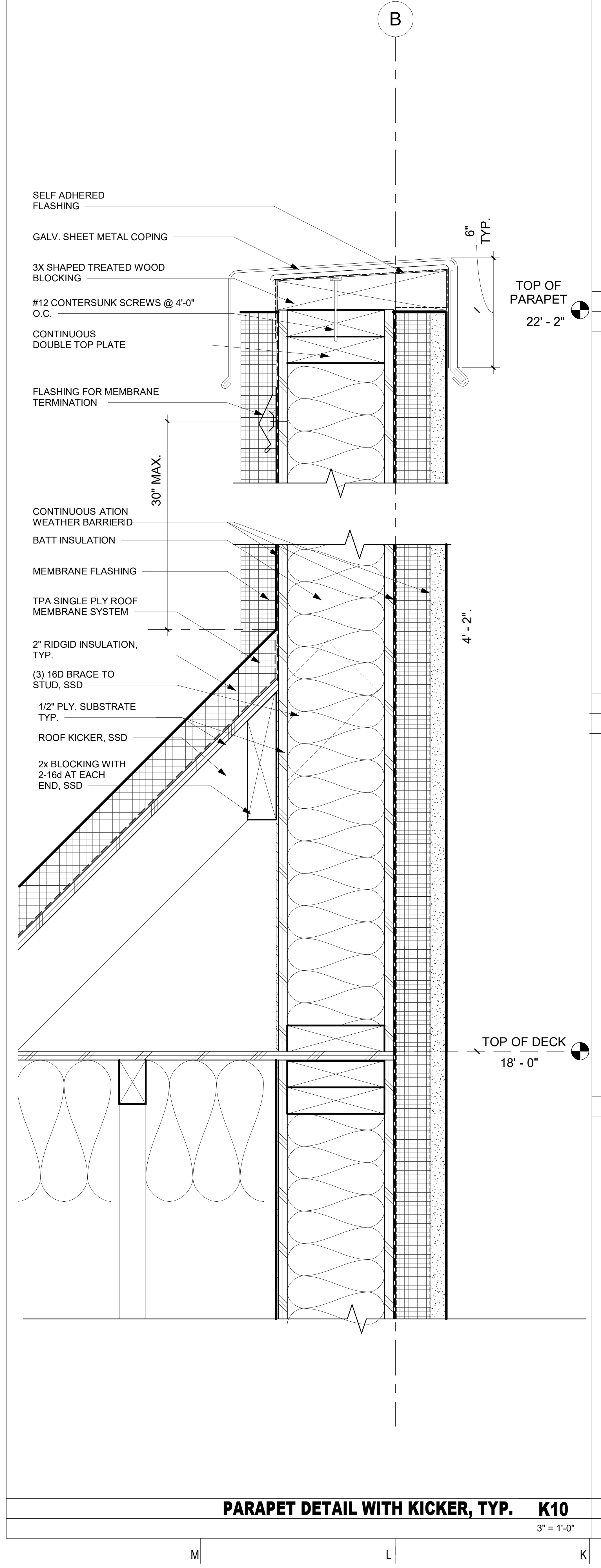
ROOF ACCESS LADDER - PLATFORM OVER PARAPET **D2**

1 1/2" = 1'-0"


A
SELF ADHERED FLASHING
GALV. SHEET METAL COPING
3X SHAPED TREATED WOOD BLOCKING
TOP OF PARAPET 17' - 0"
#12 CONTERSUNK SCREWS @ 4'-0" O.C.
CONTINUOUS DOUBLE TOP PLATE
4' -0" MAX.
FLASHING FOR MEMBRANE TERMINATION
2" RIGID INSULATION WITH Z-GIRT BEYOND
1/2" PLY. SUBSTRATE TYP.
2" RIDGID INSULATION, TYP.
TPA SINGLE PLY ROOF MEMBRANE SYSTEM
TOP OF DECK 13' - 0"

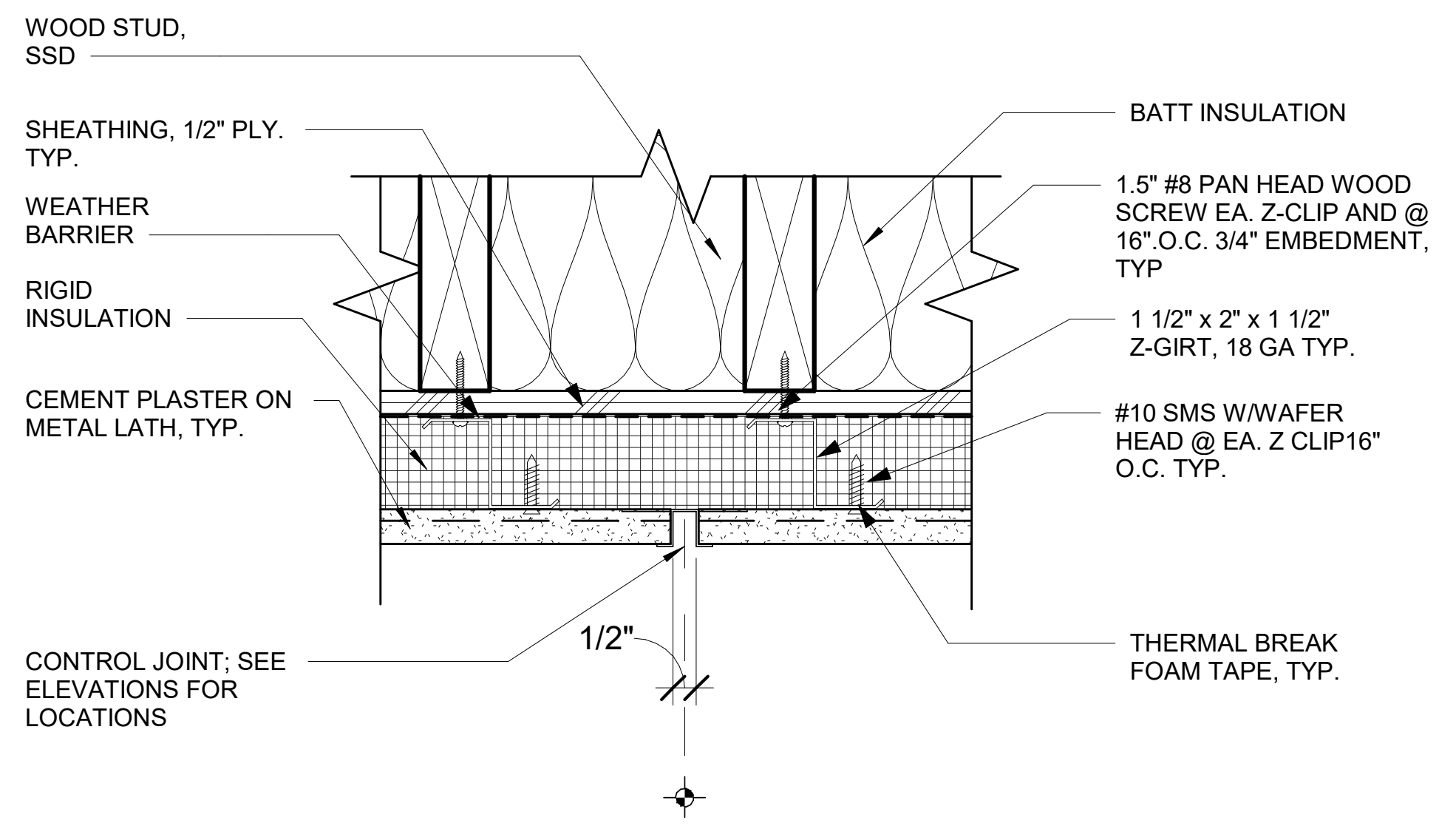
PARAPET DETAIL TYP. **A6**

3" = 1'-0"


B
SELF ADHERED FLASHING
GALV. SHEET METAL COPING
3X SHAPED TREATED WOOD BLOCKING
#12 CONTERSUNK SCREWS @ 4'-0" O.C.
CONTINUOUS DOUBLE TOP PLATE
FLASHING FOR MEMBRANE TERMINATION
6" TYP.
TOP OF PARAPET 22' - 2"
30" MAX.
CONTINUOUS .ATION WEATHER BARRIERID
BATT INSULATION
MEMBRANE FLASHING
TPA SINGLE PLY ROOF MEMBRANE SYSTEM
2" RIDGID INSULATION, TYP.
(3) 16D BRACE TO STUD, SSD
1/2" PLY. SUBSTRATE TYP.
ROOF KICKER, SSD
2x BLOCKING WITH 2-16d AT EACH END, SSD
4' - 2".
TOP OF DECK 18' - 0"

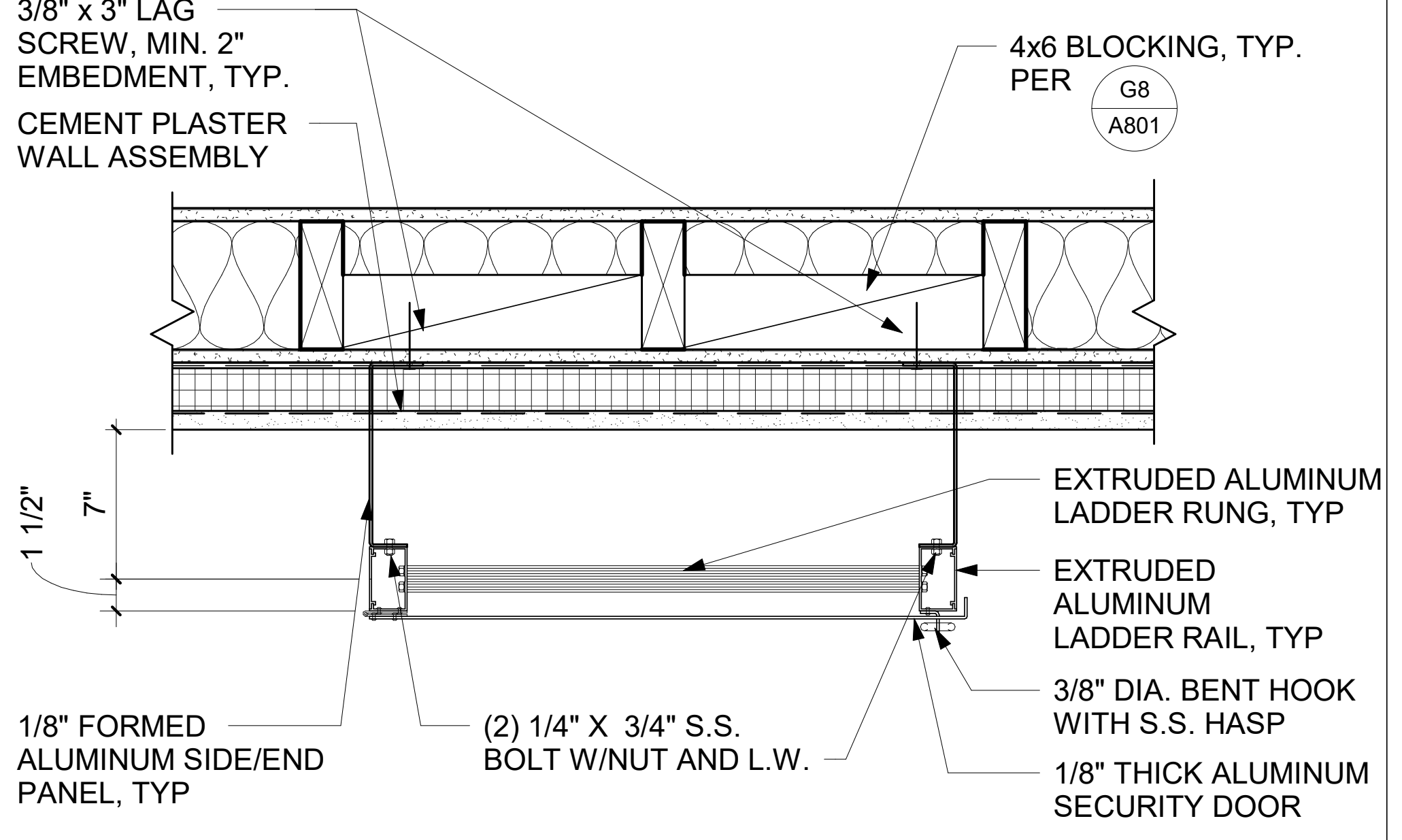
PARAPET DETAIL WITH KICKER, TYP. **K10**

3" = 1'-0"


WOOD STUD, SSD
SHEATHING, 1/2" PLY. TYP.
WEATHER BARRIER
RIGID INSULATION
CEMENT PLASTER ON METAL LATH, TYP.
CONTROL JOINT; SEE ELEVATIONS FOR LOCATIONS
1/2"
BATT INSULATION
1.5" #8 PAN HEAD WOOD SCREW EA. Z-CLIP AND @ 16".O.C. 3/4" EMBEDMENT, TYP
1 1/2" x 2" x 1 1/2" Z-GIRT, 18 GA TYP.
#10 SMS W/WAFER HEAD @ EA. Z CLIP16" O.C. TYP.
THERMAL BREAK FOAM TAPE, TYP.

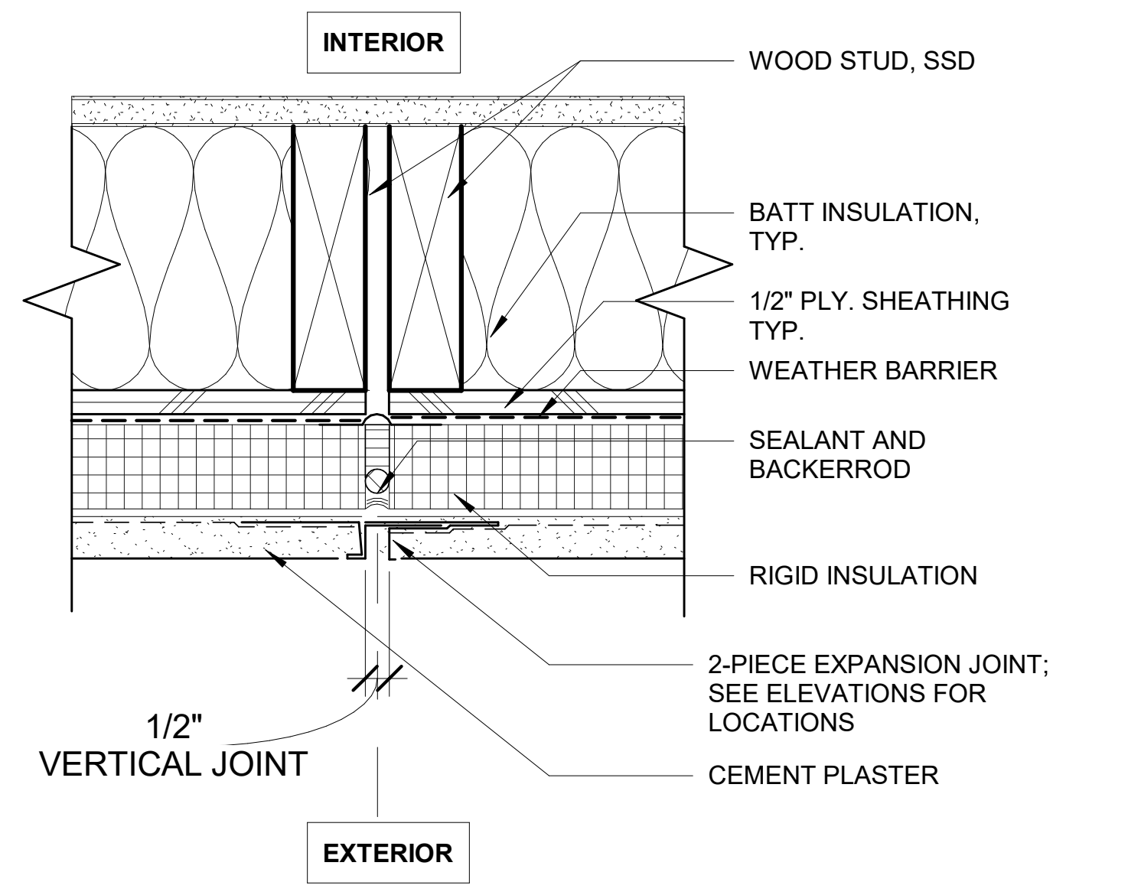
TYPICAL PLASTER CONTROL JOINT **G4**

3" = 1'-0"


3/8" x 3" LAG SCREW, MIN. 2" EMBEDMENT, TYP.
CEMENT PLASTER WALL ASSEMBLY
4x6 BLOCKING, TYP. PER G8 A801
1 1/2"
7"
1/8" FORMED ALUMINUM SIDE/END PANEL, TYP
(2) 1/4" X 3/4" S.S. BOLT W/NUT AND L.W.
EXTRUDED ALUMINUM LADDER RUNG, TYP
EXTRUDED ALUMINUM LADDER RAIL, TYP
3/8" DIA. BENT HOOK WITH S.S. HASP
1/8" THICK ALUMINUM SECURITY DOOR

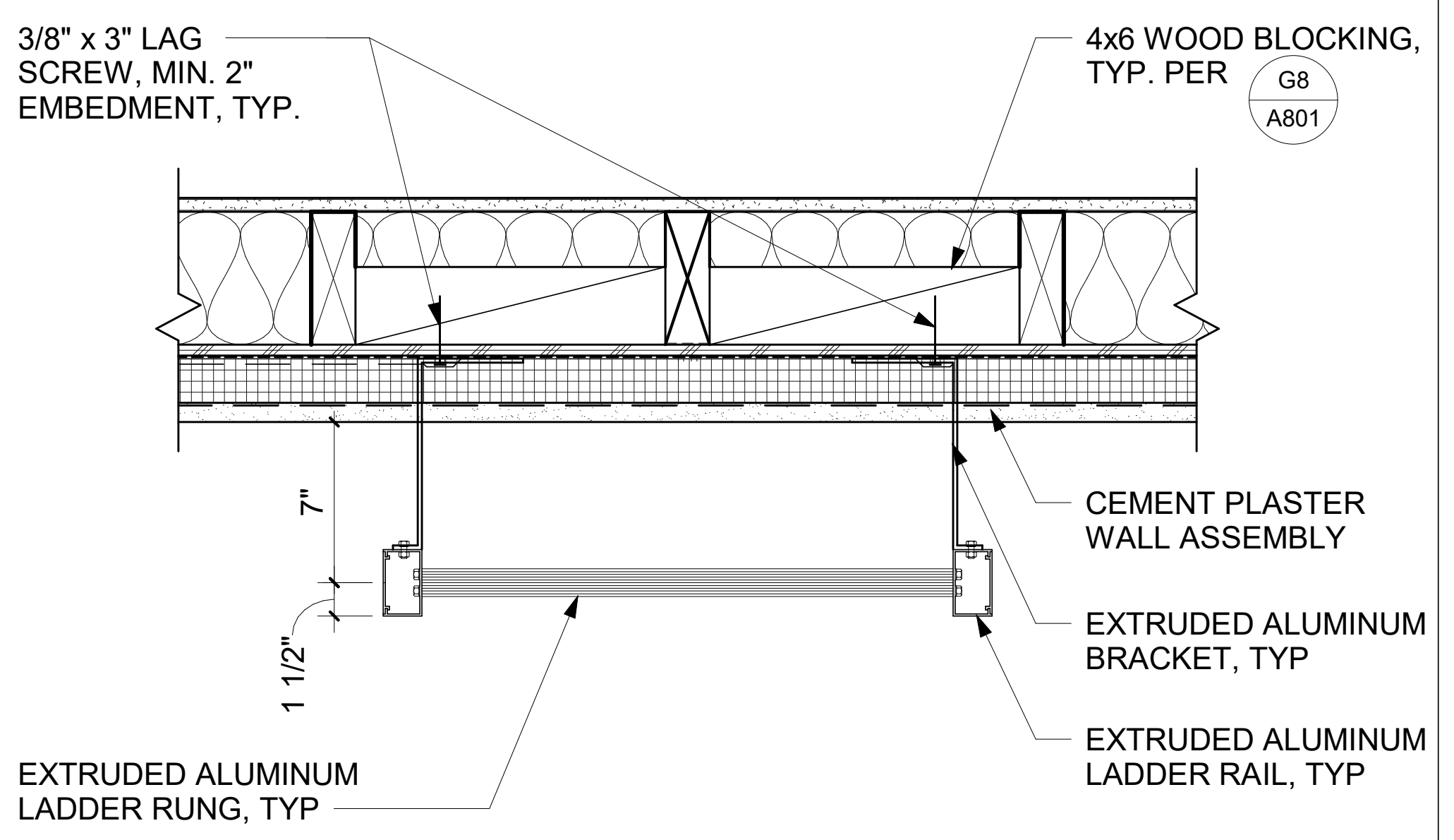
ROOF ACCESS LADDER - SECURITY DOOR **D4**

1 1/2" = 1'-0"



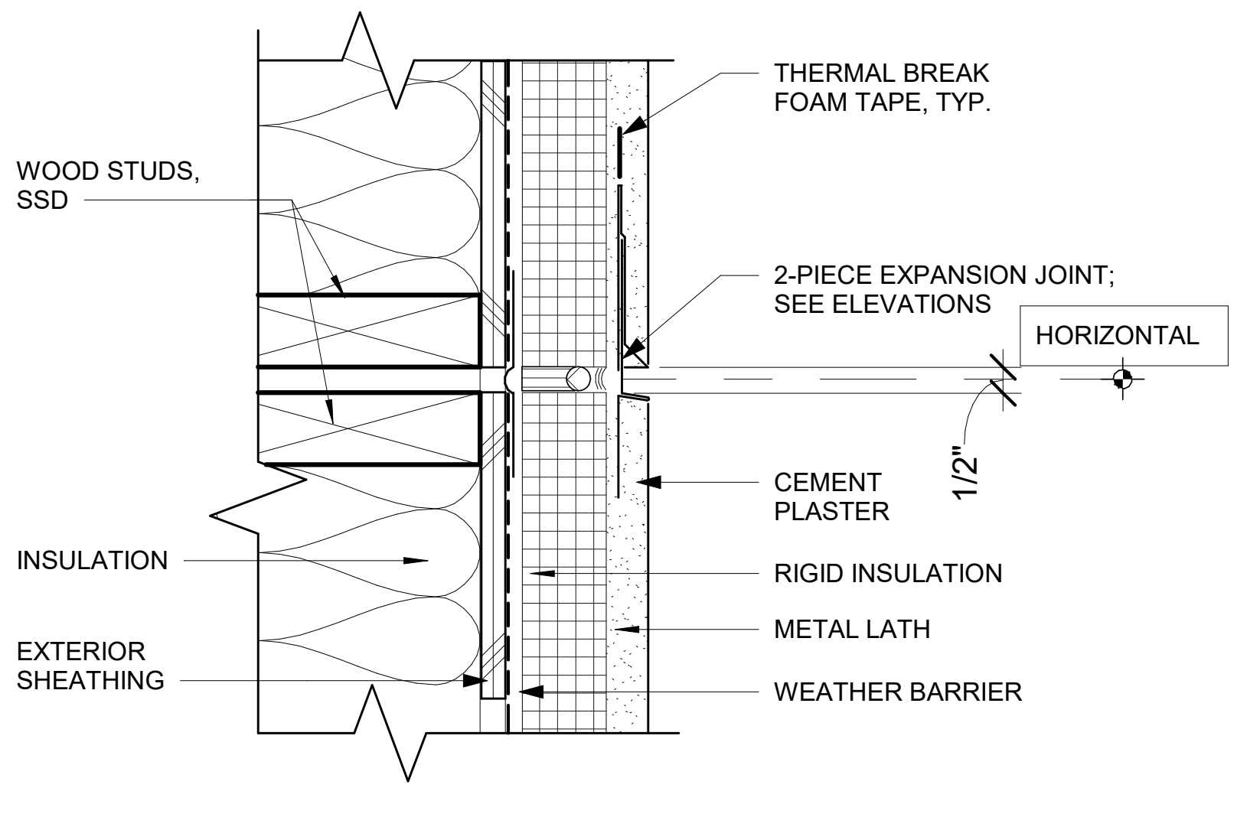
TYPICAL PLASTER EXPANSION JOINT **G6**

3" = 1'-0"


3/8" x 3" LAG SCREW, MIN. 2" EMBEDMENT, TYP.
4x6 WOOD BLOCKING, TYP. PER G8 A801
7"
1 1/2"
CEMENT PLASTER WALL ASSEMBLY
EXTRUDED ALUMINUM BRACKET, TYP
EXTRUDED ALUMINUM LADDER RAIL, TYP
EXTRUDED ALUMINUM LADDER RUNG, TYP

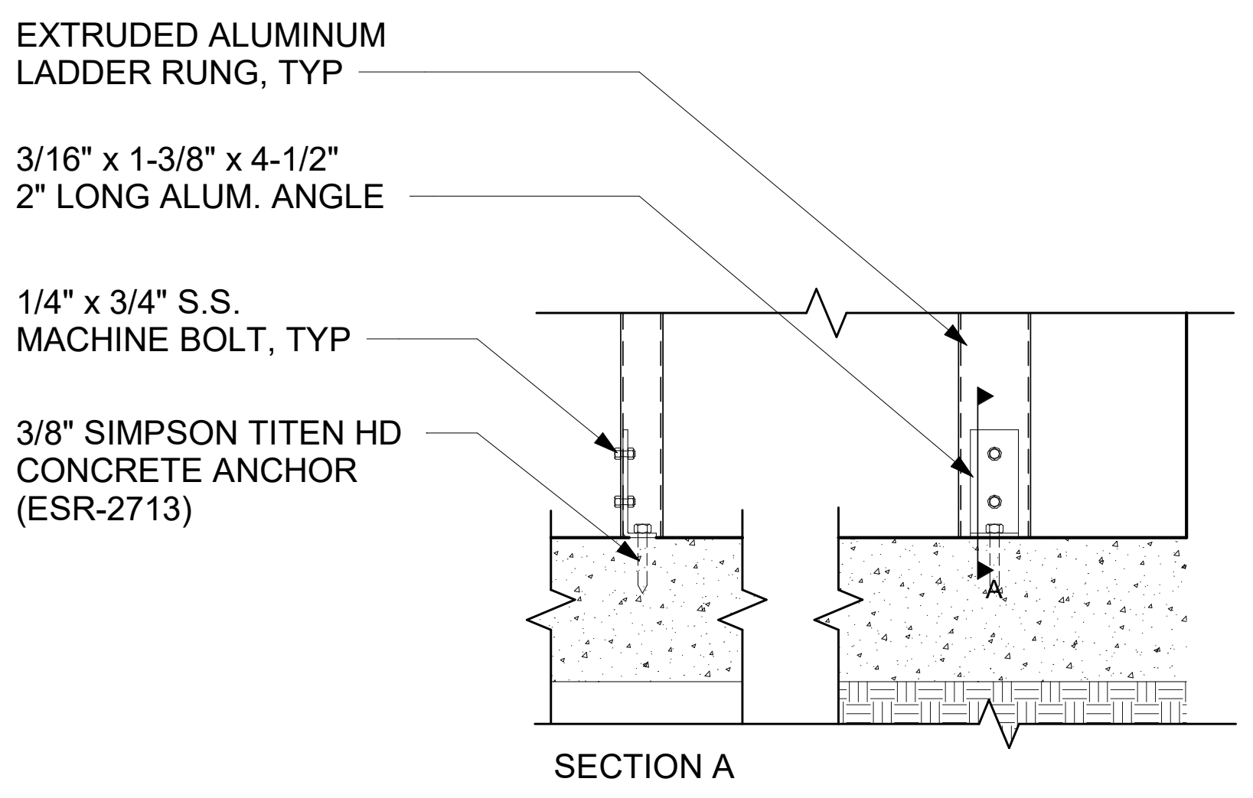
ROOF ACCESS LADDER - WALL BRACKET **D6**

1 1/2" = 1'-0"



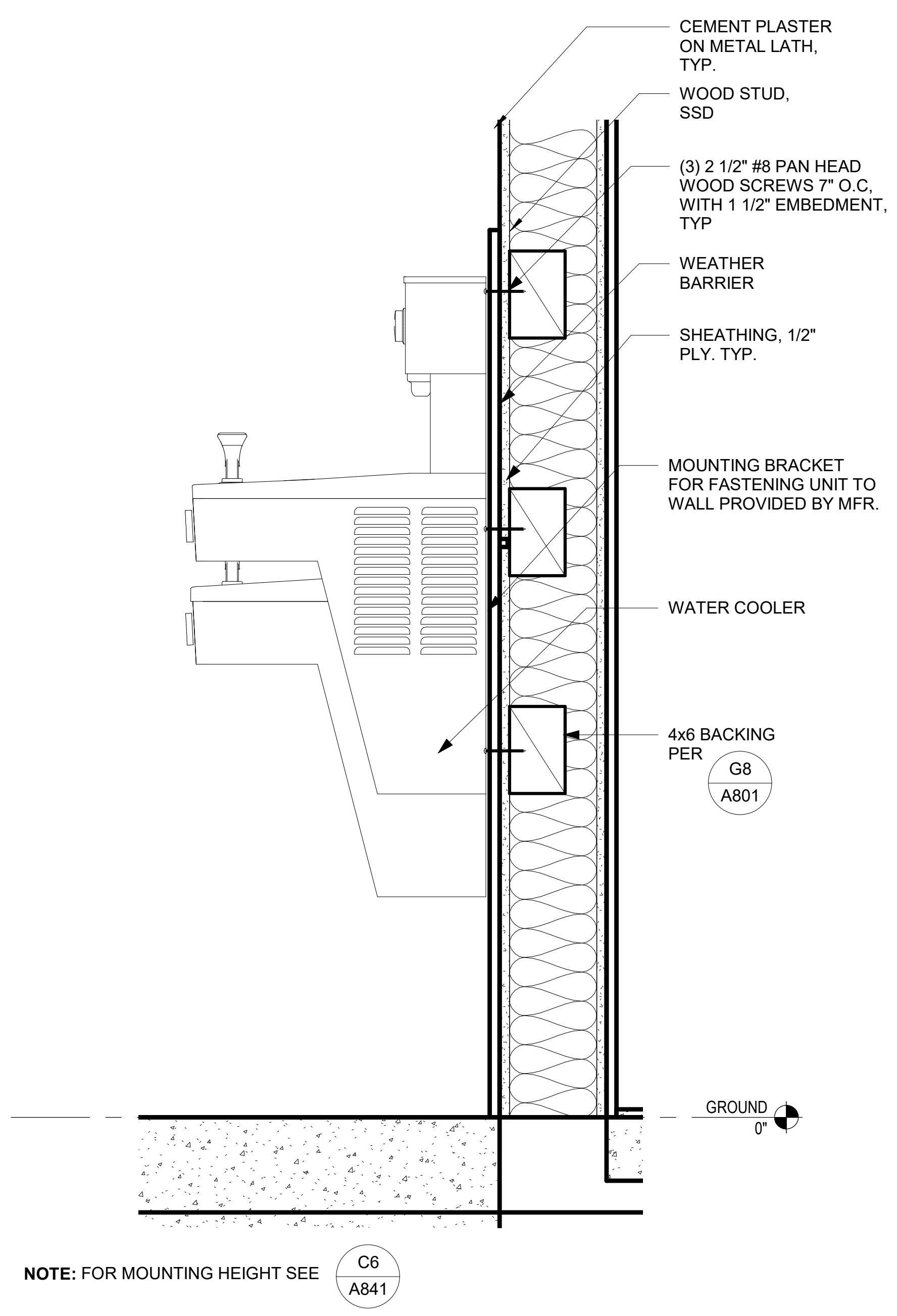
TYPICAL PLASTER EXPANSION JOINT **G8**

3" = 1'-0"


EXTRUDED ALUMINUM LADDER RUNG, TYP
3/16" x 1-3/8" x 4-1/2" 2" LONG ALUM. ANGLE
1/4" x 3/4" S.S. MACHINE BOLT, TYP
3/8" SIMPSON TITEN HD CONCRETE ANCHOR (ESR-2713)
A
SECTION A

ROOF ACCESS LADDER - FLOOR BRACKET **D8**

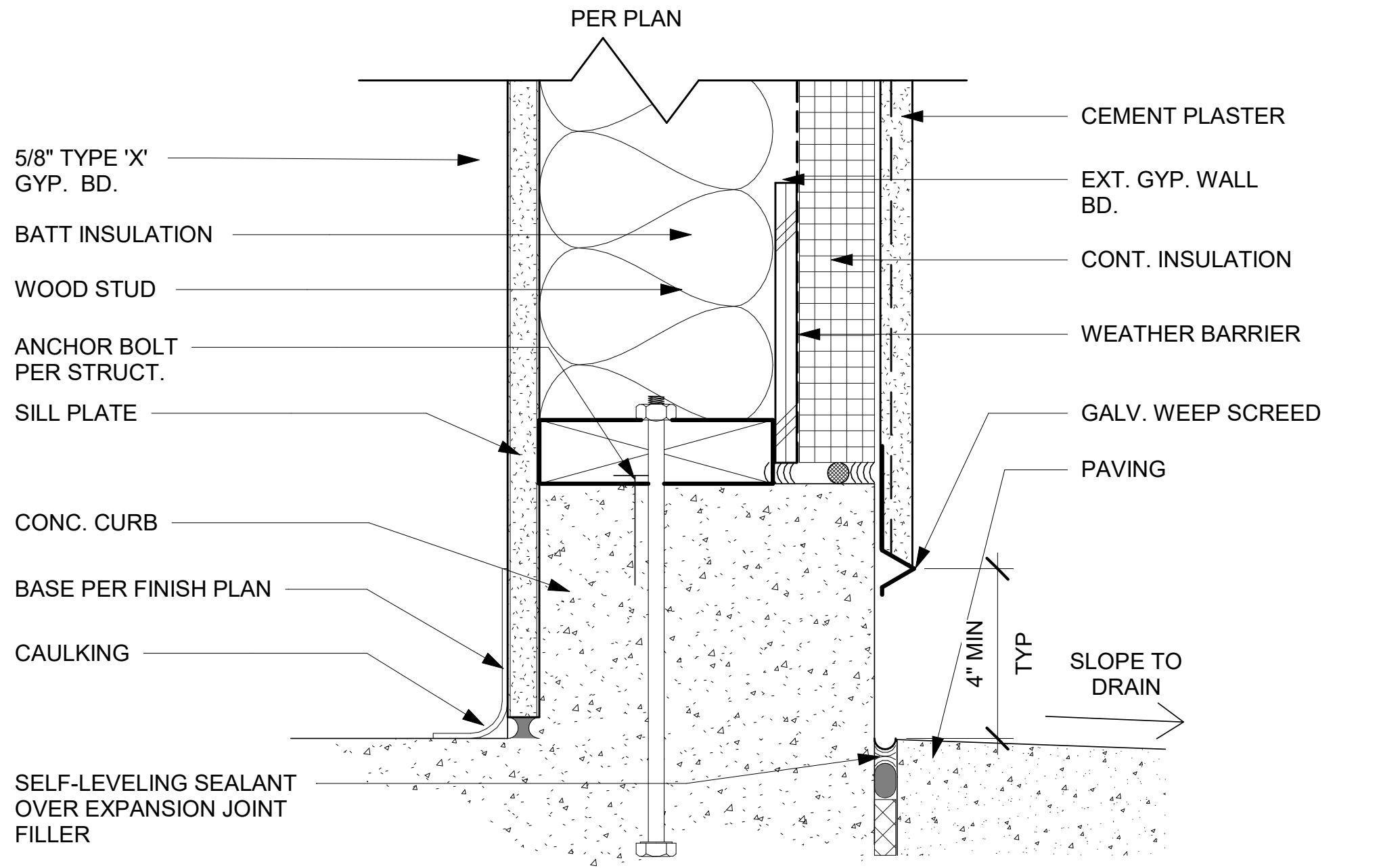
1 1/2" = 1'-0"


CEMENT PLASTER ON METAL LATH, TYP.
WOOD STUD, SSD
(3) 2 1/2" #8 PAN HEAD WOOD SCREWS 7" O.C, WITH 1 1/2" EMBEDMENT, TYP
WEATHER BARRIER
SHEATHING, 1/2" PLY. TYP.
MOUNTING BRACKET FOR FASTENING UNIT TO WALL PROVIDED BY MFR.
WATER COOLER
4x6 BACKING PER G8 A801
GROUND 0"

NOTE: FOR MOUNTING HEIGHT SEE C6 A841

DRINKING FOUNTAIN **A10**

1 1/2" = 1'-0"



EXT. PLASTER WALL AT WALL BASE **G10**

3" = 1'-0"

GENERAL NOTES EXTERIOR FINISHES

1. FOR MOUNTING BRACKET, FASTENER AND SPACING WITH ICC ESR#, & WEATHER BARRIER DETAIL, REFER TO K8/A501 K10/A501
2. CONTINUOUS INSULATION SHALL BE 2" THICK, TYP. ON WALLS.
3. PROVIDE CONC. CURB AT ALL EXTERIOR PERIMETER WALLS, RESTROOM, AND JANITOR ROOM, TYP.
4. EXTERIOR WALL METAL STUD SIZE PER STRUCT -/S101A -/S101B -/S701 -/S721
5. [BOD HARDIEPLANK SMOOTH LAP SIDING] THICKNESS OF THE WALL CEMENT SIDING IS 5/16", TYP - ICC ESR-1844
6. FOR PLASTER: 18GA Z-FURRING, FASTENER AND SPACING & WEATHER BARRIER DETAIL, REFER TO G2/A501

   INSTALL PLASTER WALL ASSEMBLY PWA 106 W/ ASTM-106 & ASTM C-926.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL. 31, 2023

BUILDING SECTION NOTES

GENERAL NOTES:

1. THICKNESS OF CONTINUOUS RIGID INSULATION: 2" = R13 (XPS 1"=R6.5)
2. THICKNESS OF BATT INSULATION AT WALL: R19
3. ROOF ASSEMBLY SEE -/A531
4. PENDANT LIGHT FIXTURE SWAY BRACING, SEE -/A543
5. LOCATION OF IMPACT RESISTANT GYP. BOARD, REFER TO INTERIOR ELEVATIONS.

BUILDING SECTION LEGEND

▥ 1 HR RATED WALL - REFER TO FLOOR PLAN

EXTERIOR WALL ASSEMBLY SCHEDULE

1. TYPE A:
   FIBER CEMENT SIDING O/ WEATHER BARRIER #2, O/ 2" RIGID INSULATION, O/ WEATHER BARRIER #1 O/ EXTERIOR SHEATHING.
   A2/- A4/- A6/- A8/-
2. TYPE C:
   CEMENT PLASTER O/ WEATHER BARRIER #3 O/ EXTERIOR SHEATHING O/ RIGID INSULATION O/ WEATHER BARRIER #1 O/ EXTERIOR SHEATHING
   G2/- G4/- G8/- G10/-

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

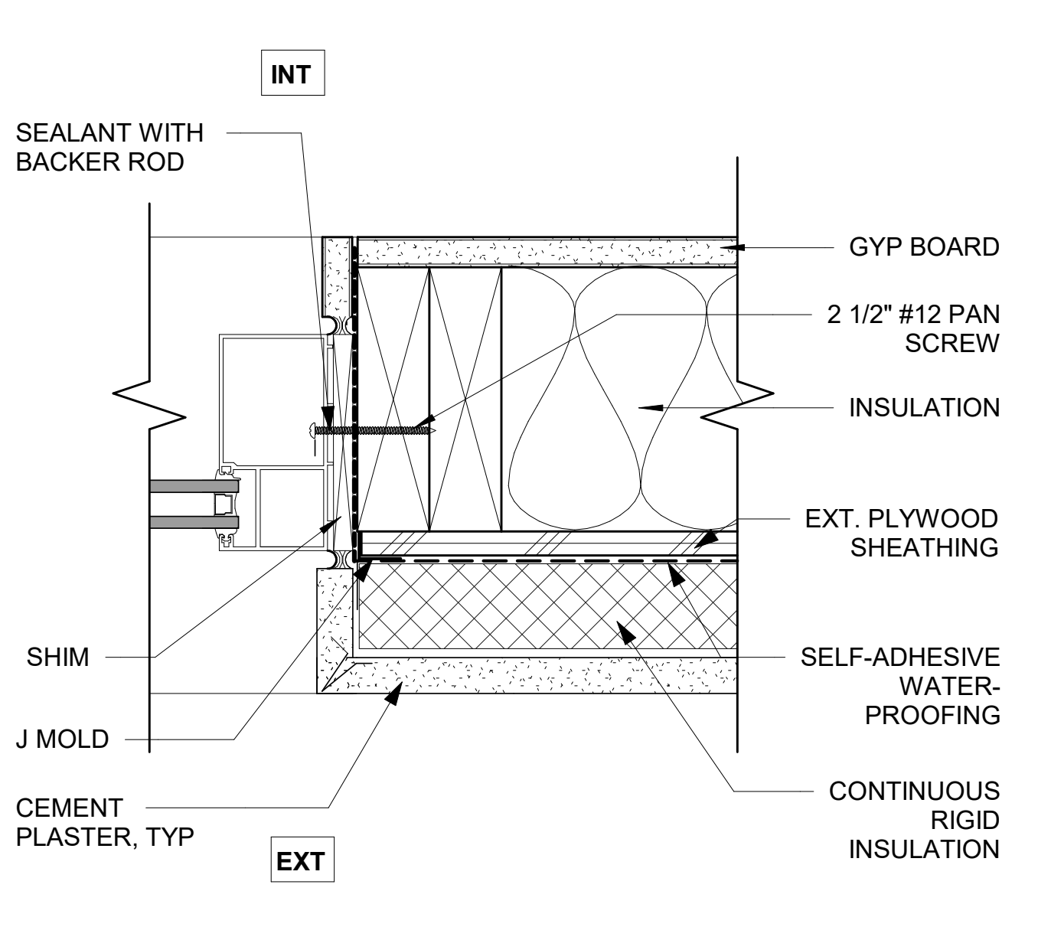
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△	
△	
△	
△	
△	

EXTERIOR WALL DETAILS

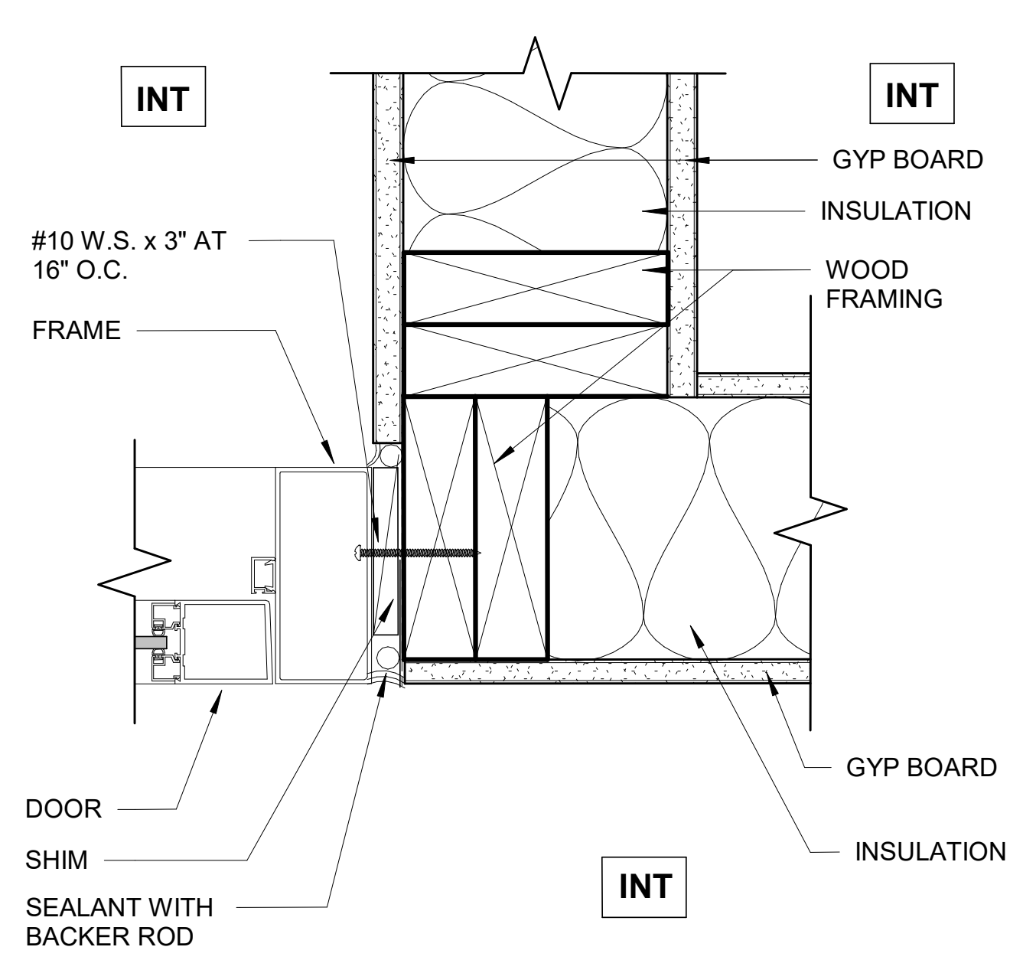
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

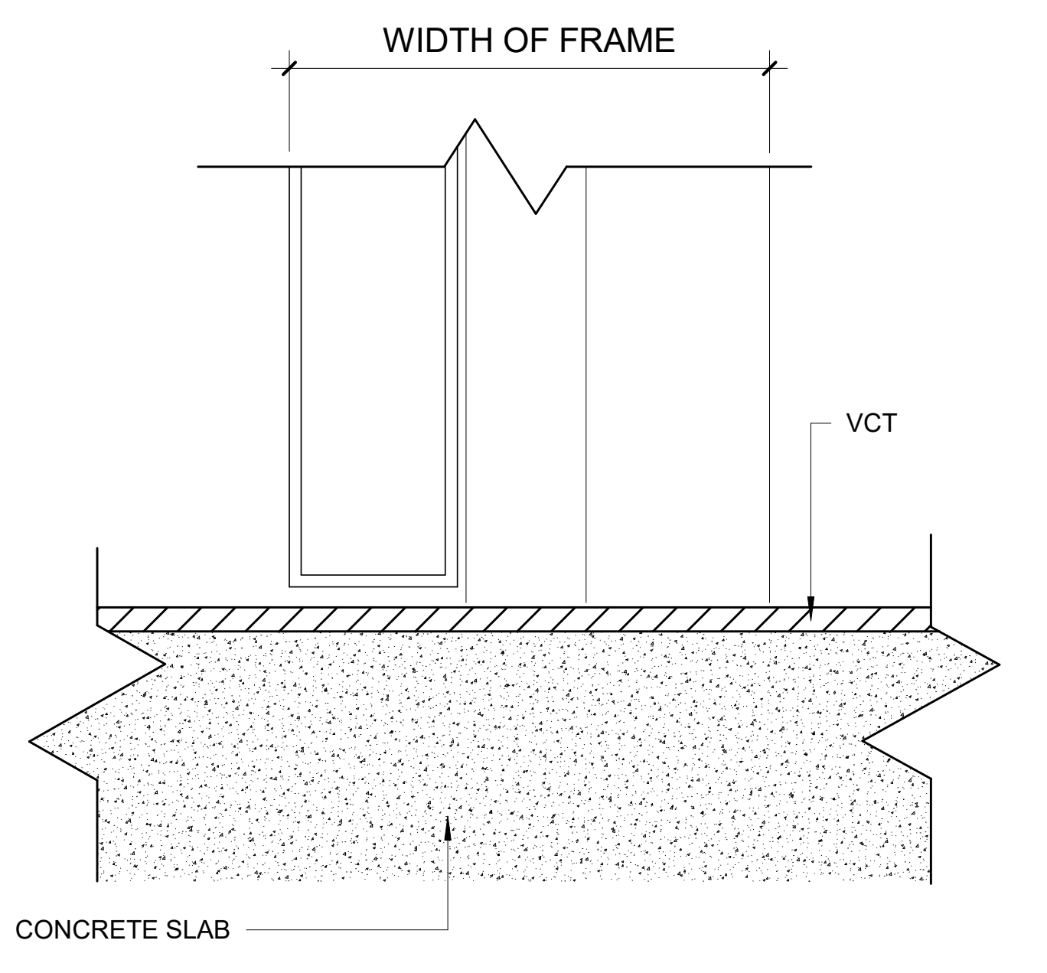
A721



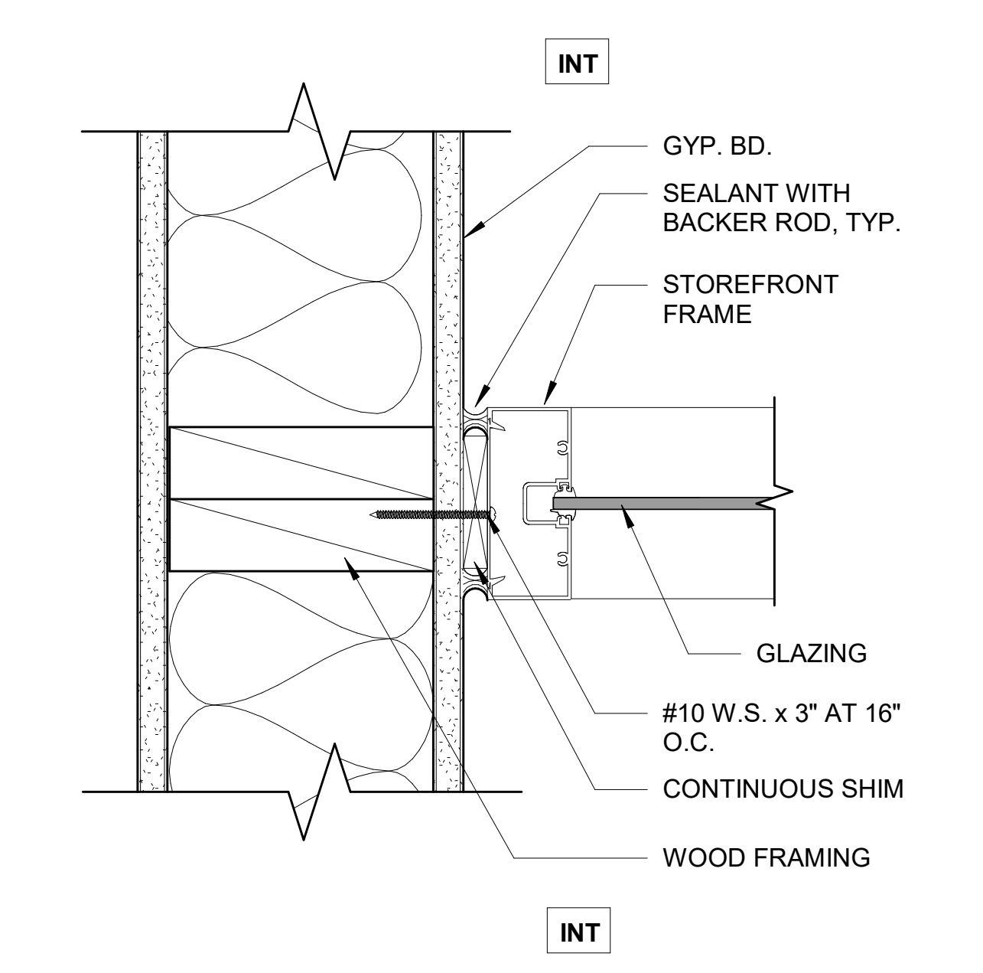
STOREFRONT JAMB L2
3" = 1'-0"



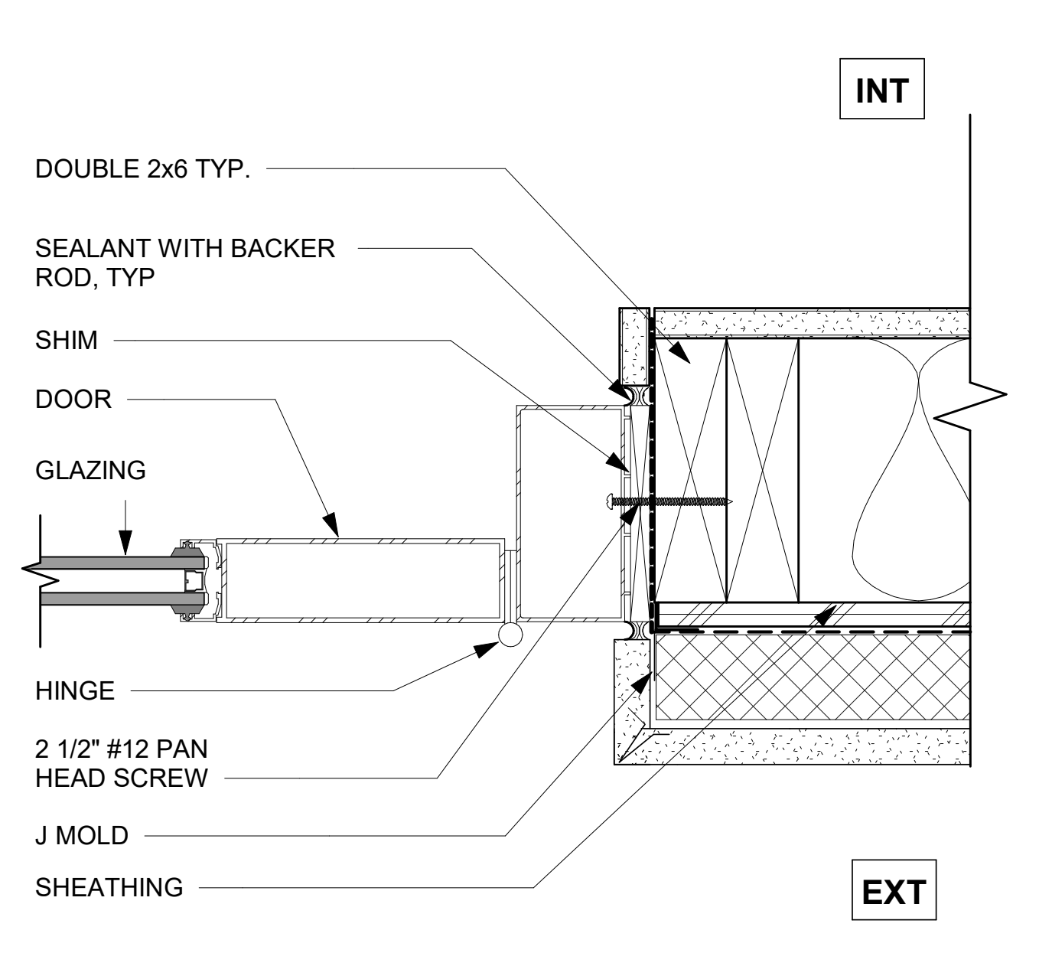
INTERIOR DOOR STOREFRONT JAMB J2
3" = 1'-0"



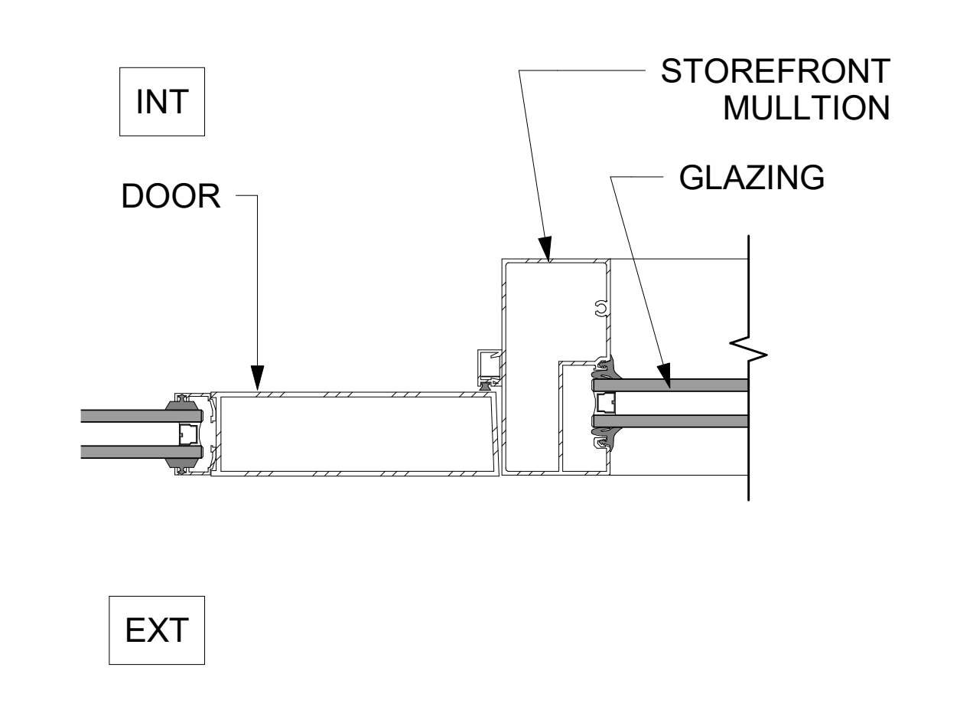
THRESHOLD - VCT TO VCT G2
6" = 1'-0"



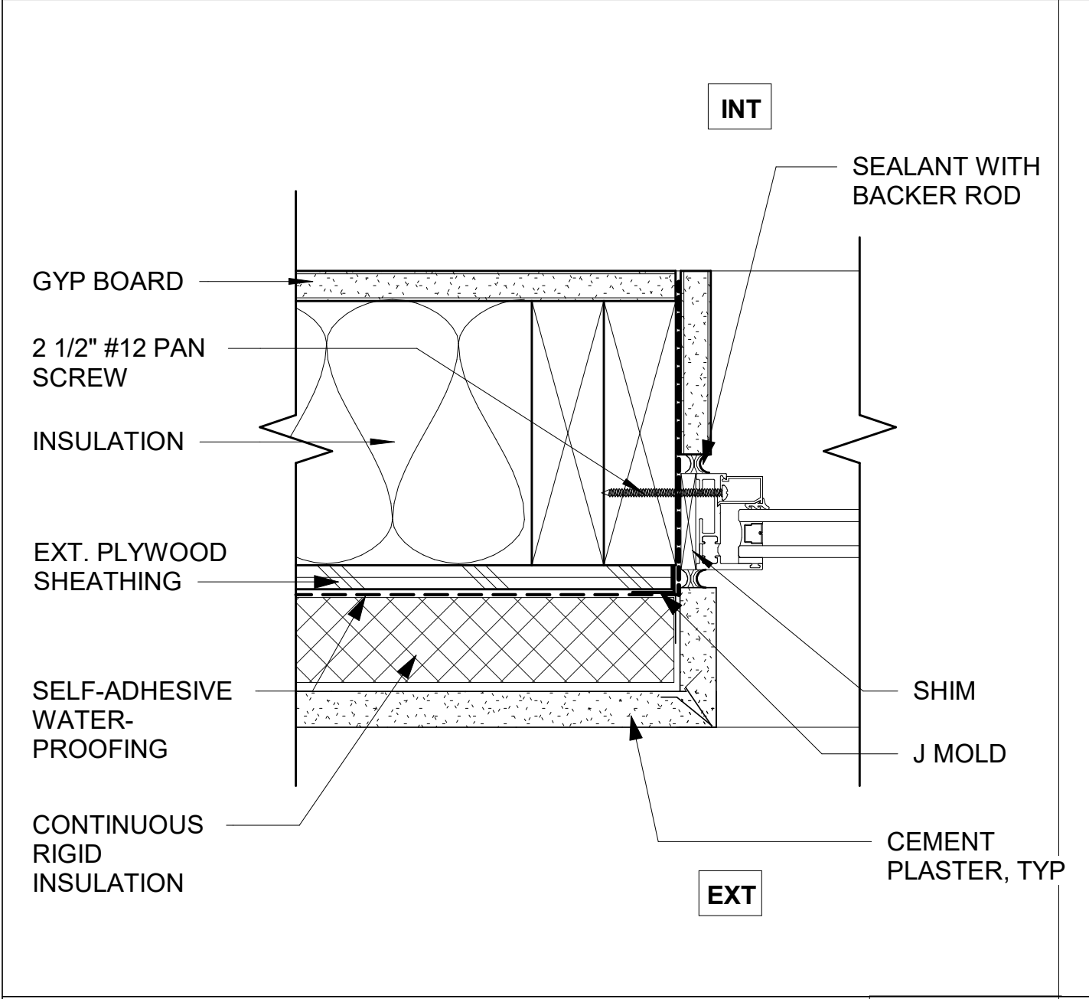
INTERIOR STOREFRONT JAMB E2
3" = 1'-0"



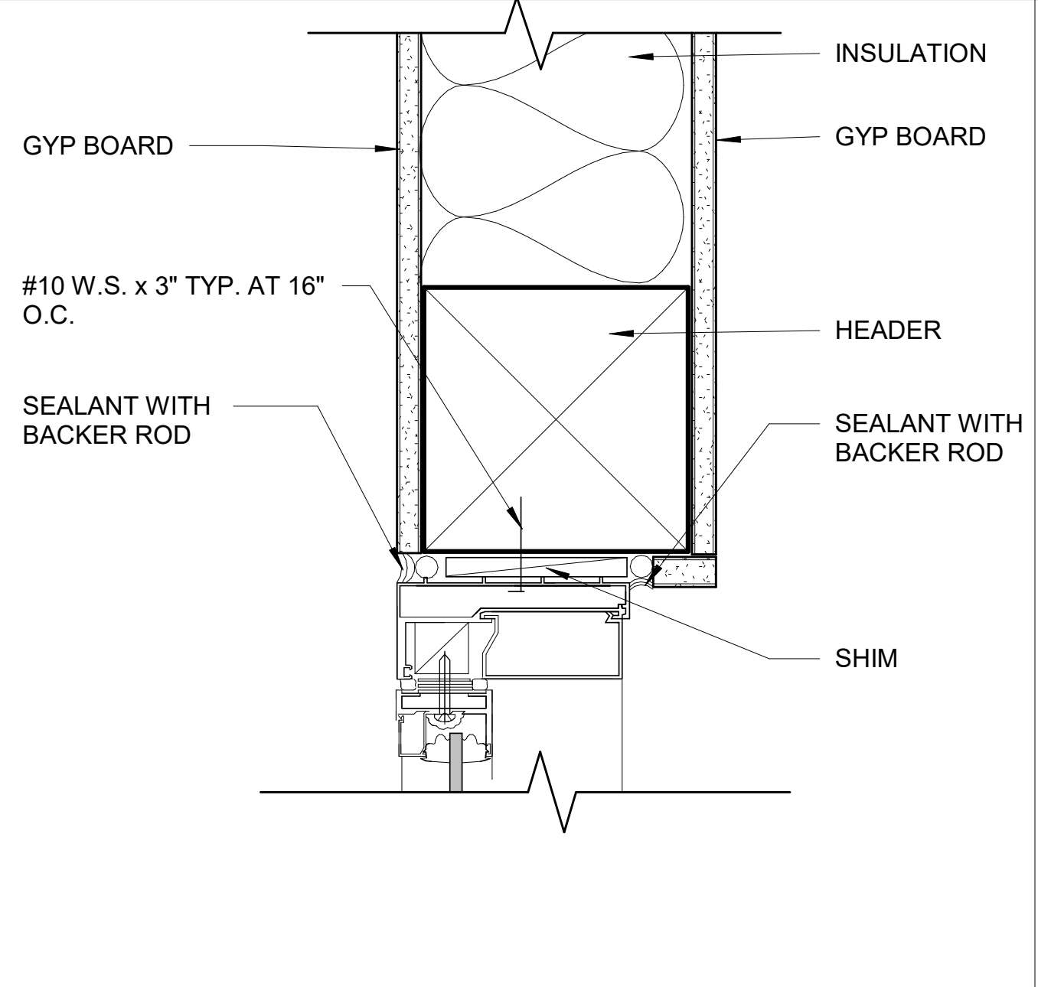
STOREFRONT DOOR HINGE JAMB C2
3" = 1'-0"



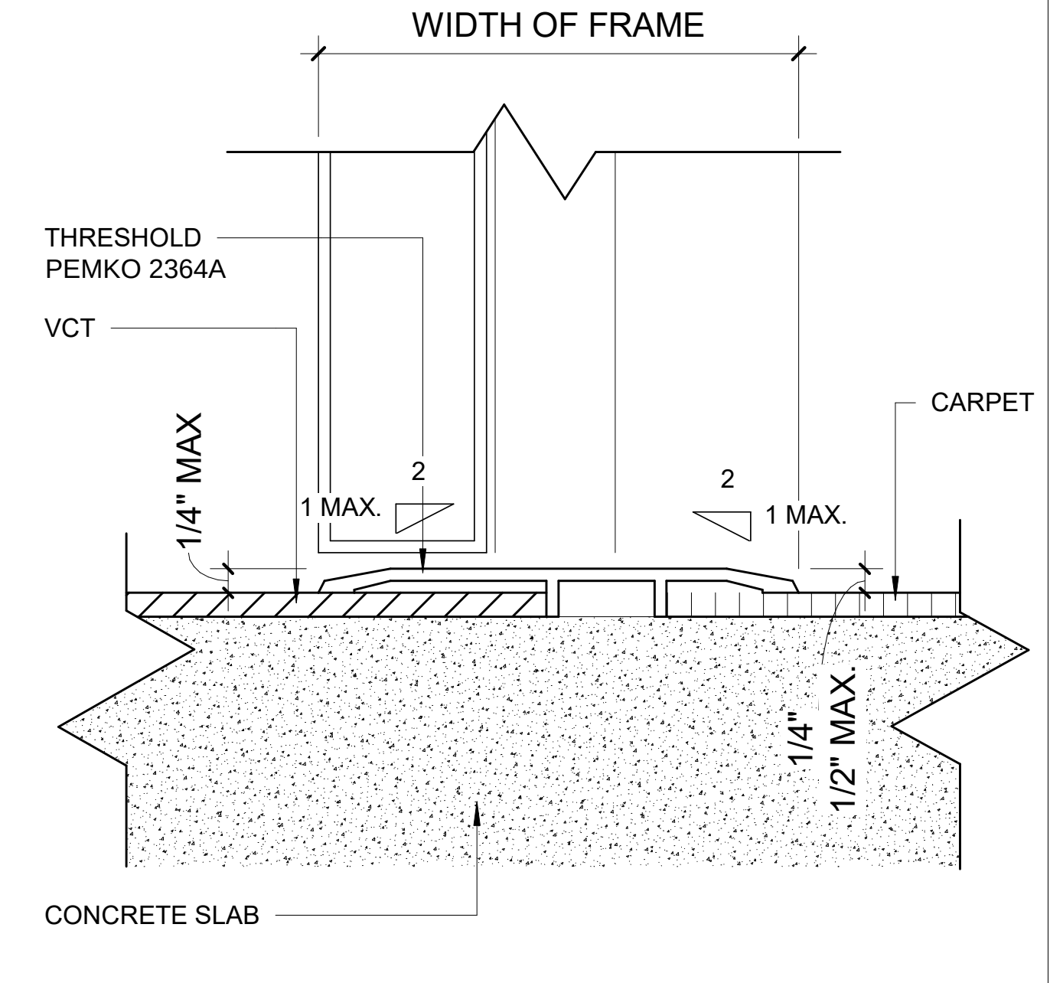
STOREFRONT DOOR JAMB A2
3" = 1'-0"



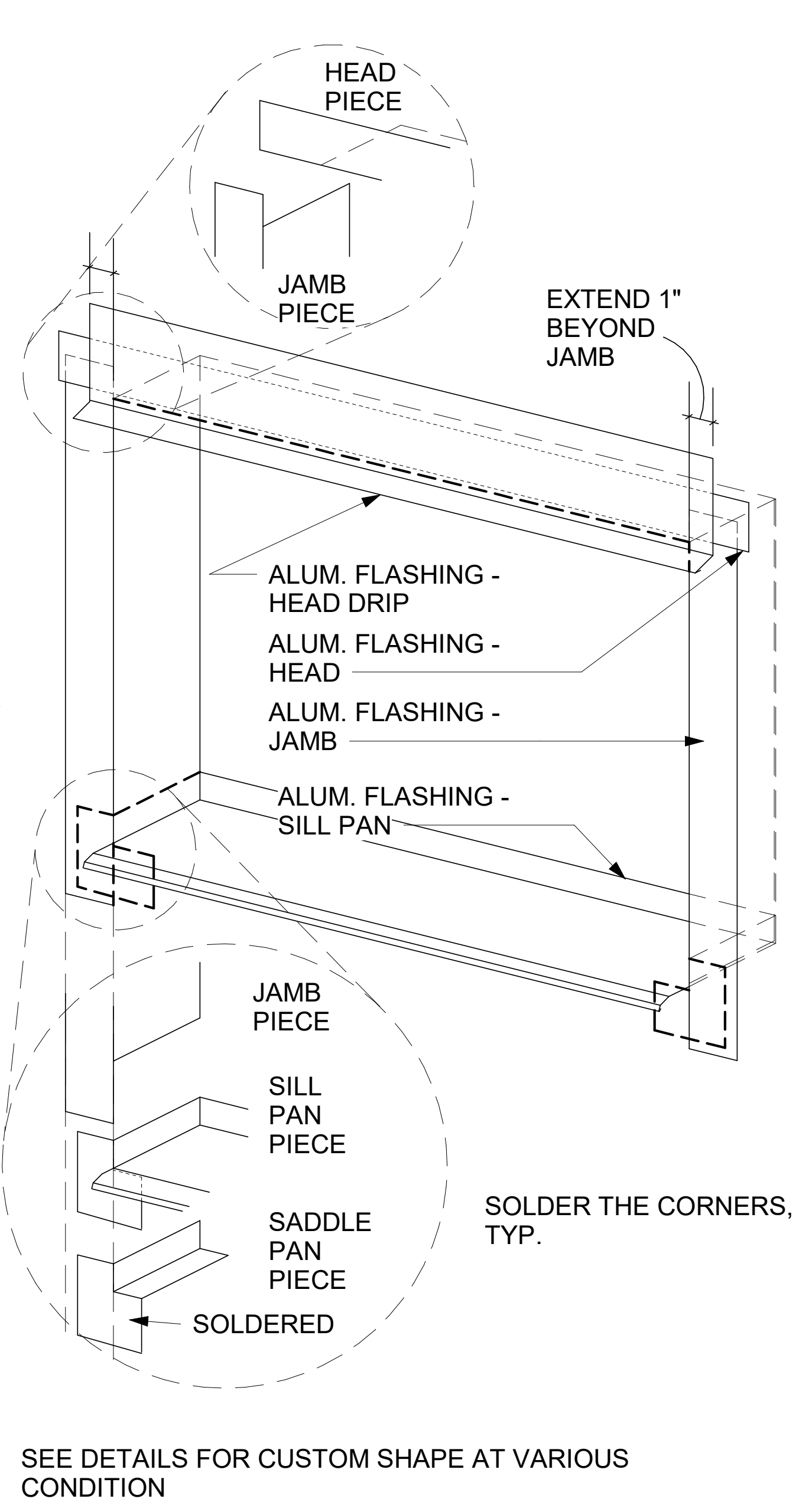
EXTERIOR FIXED WINDOW SILL, TYP L4
3" = 1'-0"



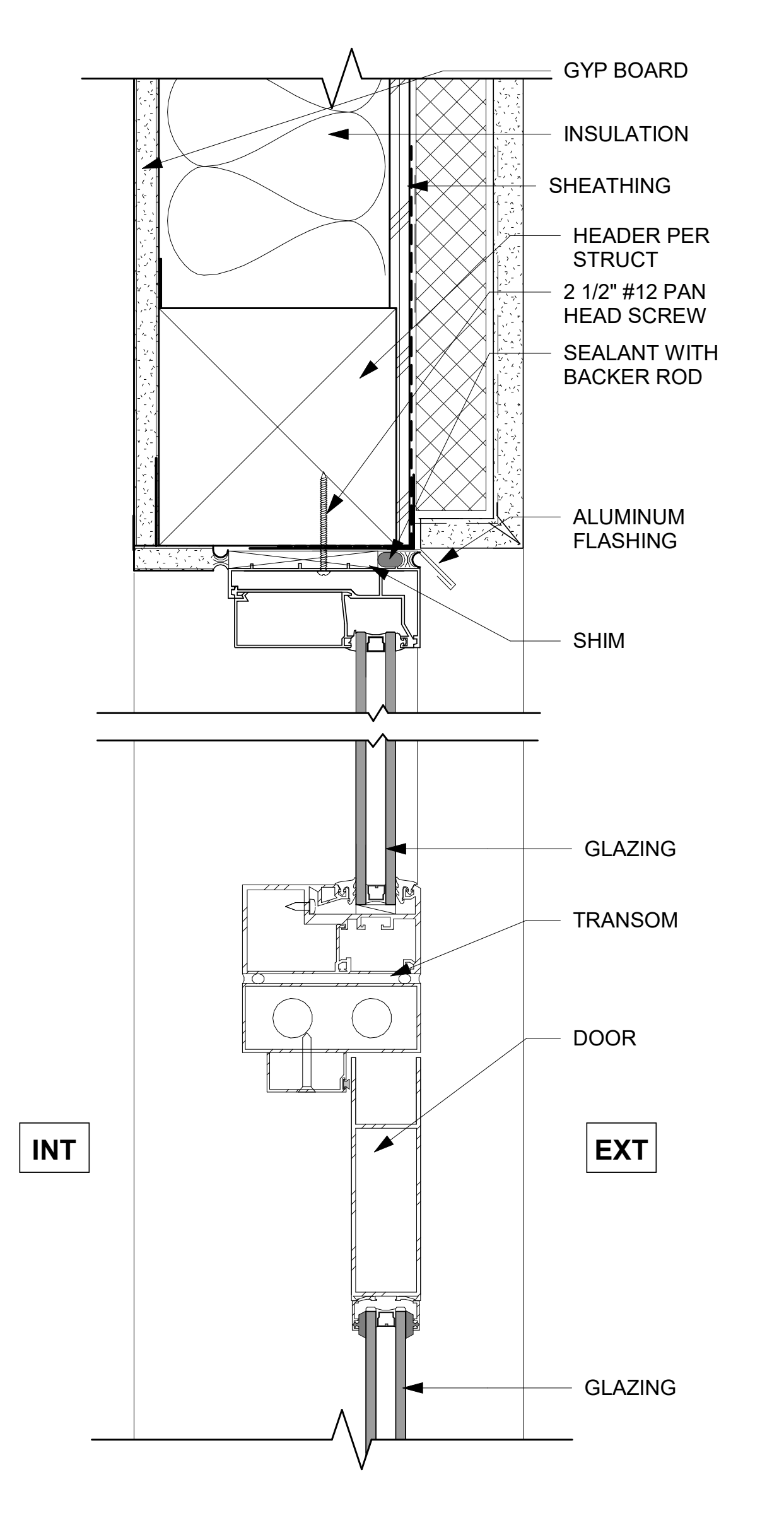
INTERIOR STOREFRONT WINDOW J4
3" = 1'-0"



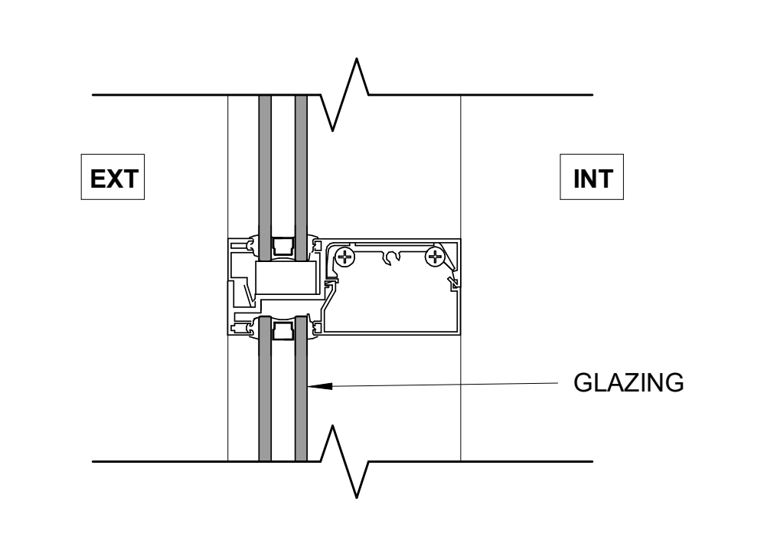
THRESHOLD - CRP TO VCT G4
6" = 1'-0"



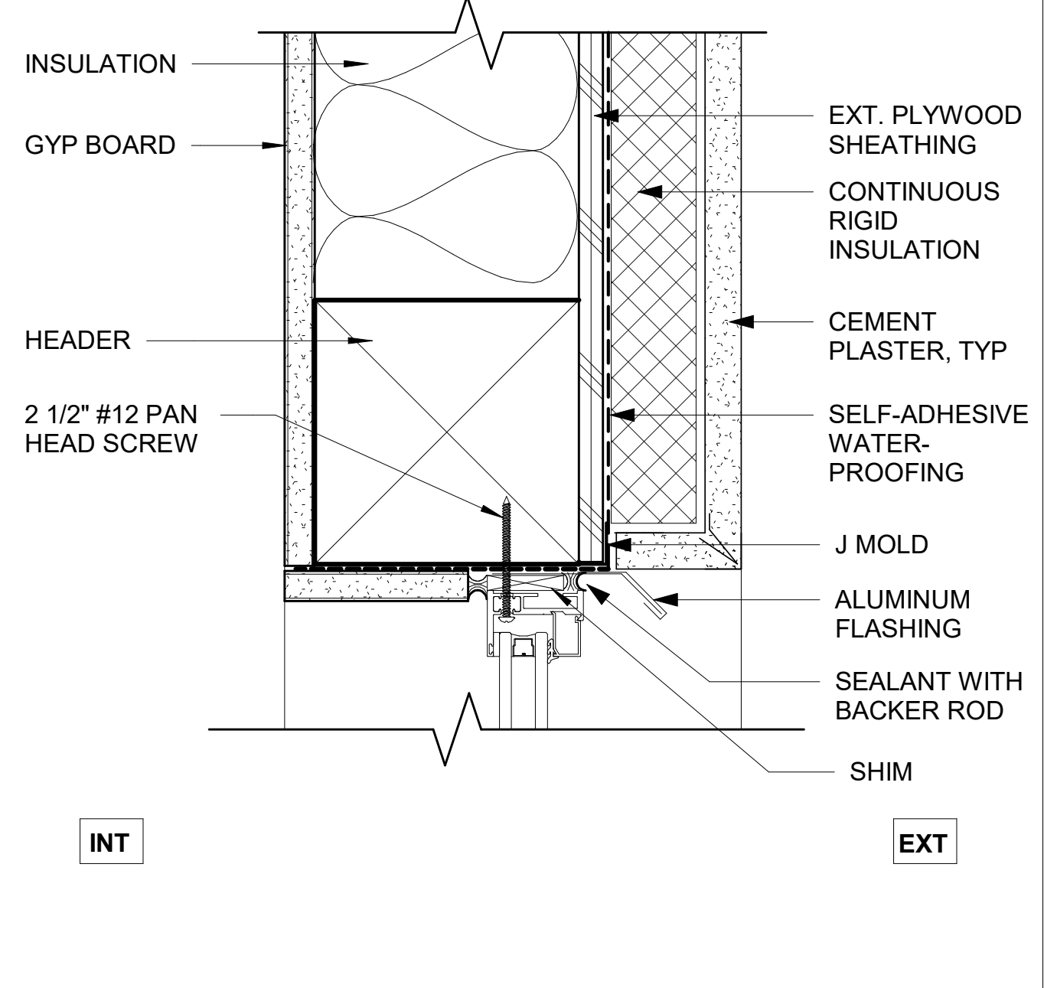
TYP. WINDOW FLASHING E6
1/2" = 1'-0"



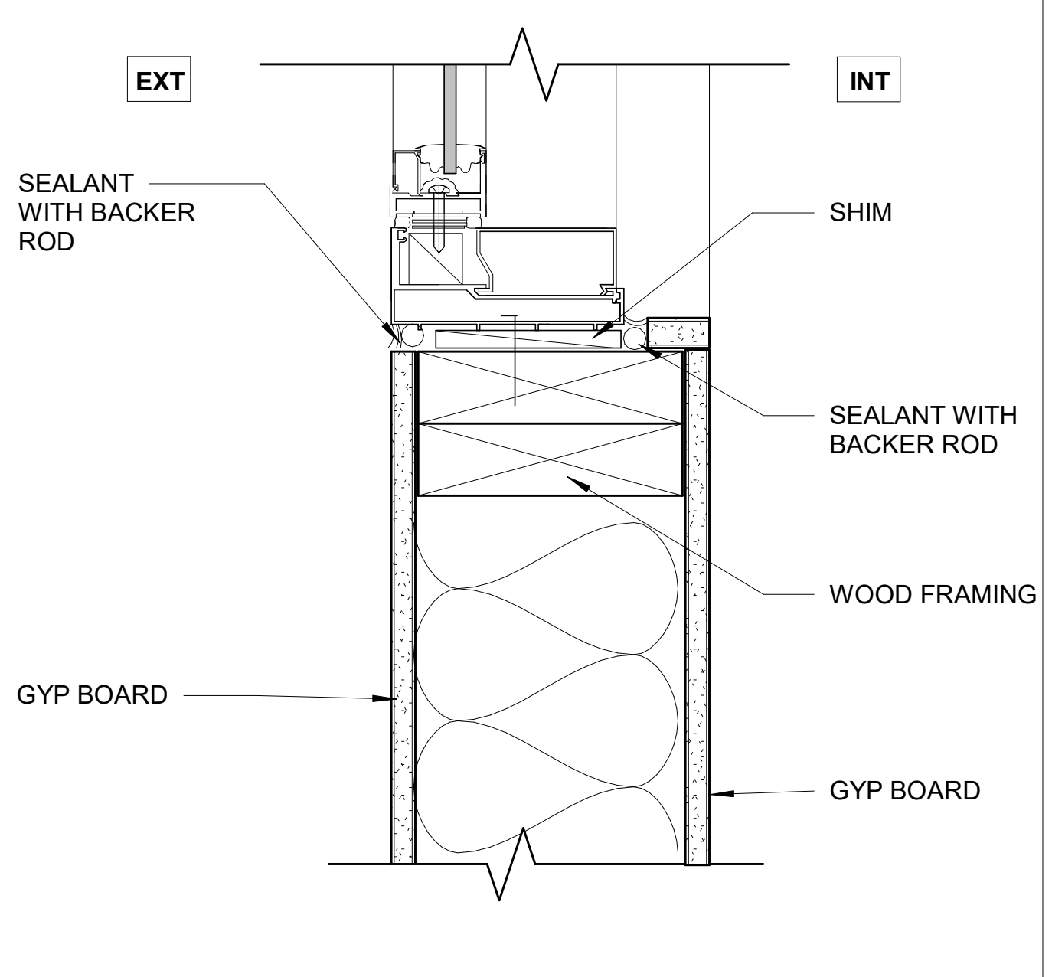
STOREFRONT DOOR HEAD - TRANSOM EXTERIOR C6
3" = 1'-0"



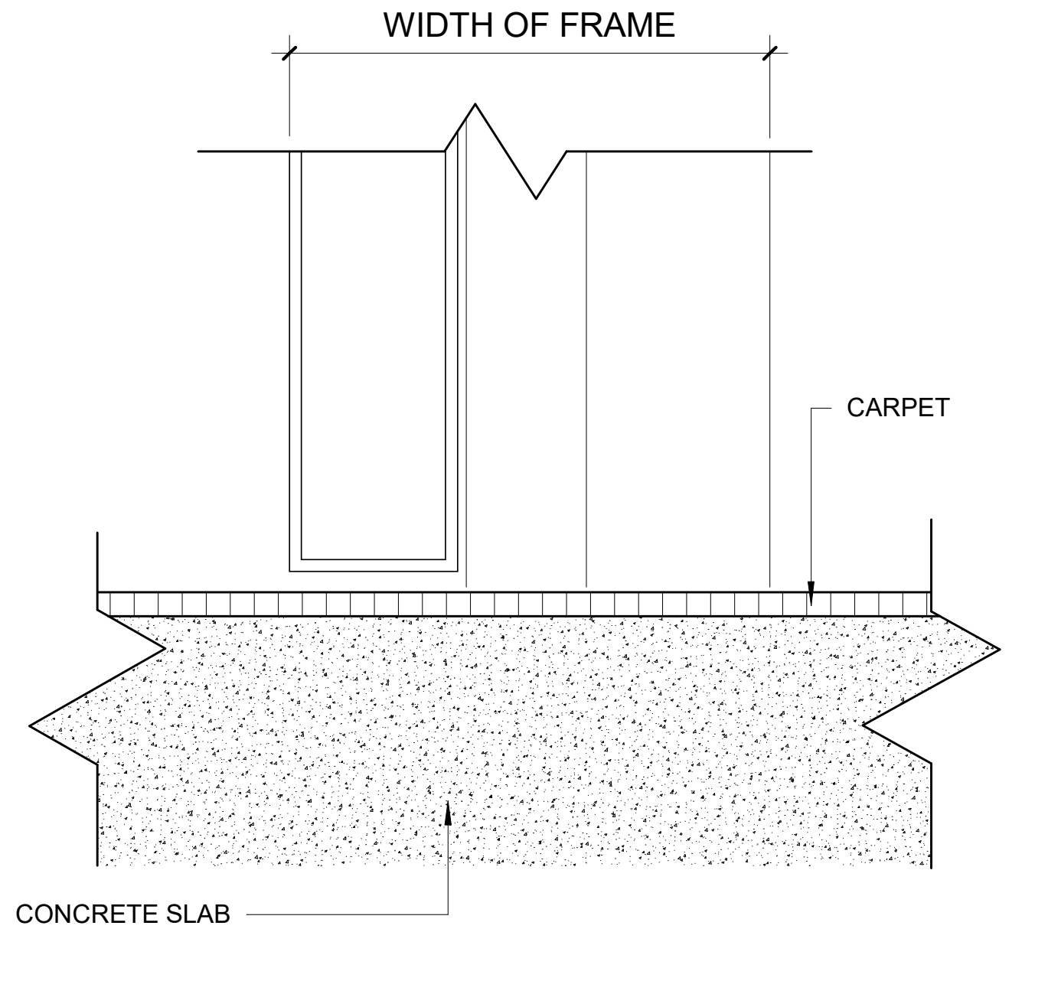
STOREFRONT HORIZONTAL MULLION A4
3" = 1'-0"



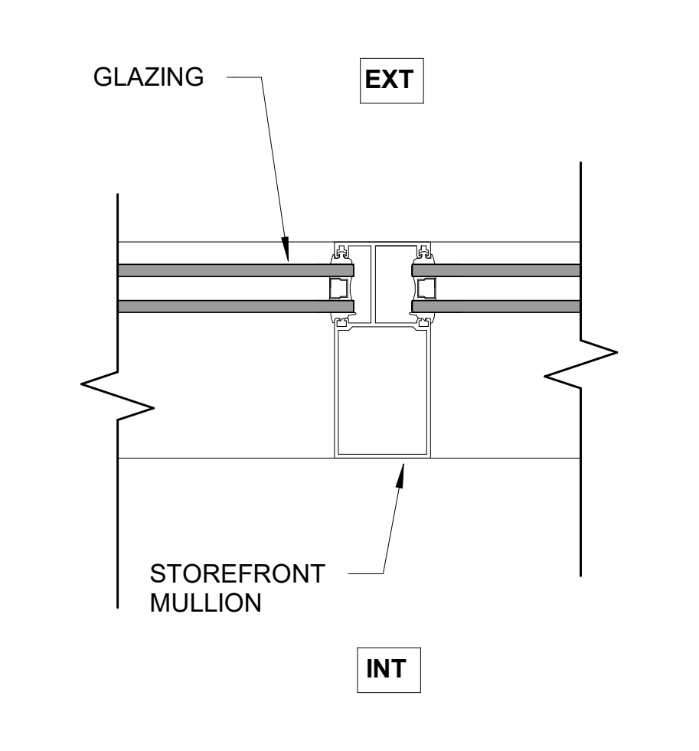
EXTERIOR FIXED WINDOW HEAD, TYP. L6
3" = 1'-0"



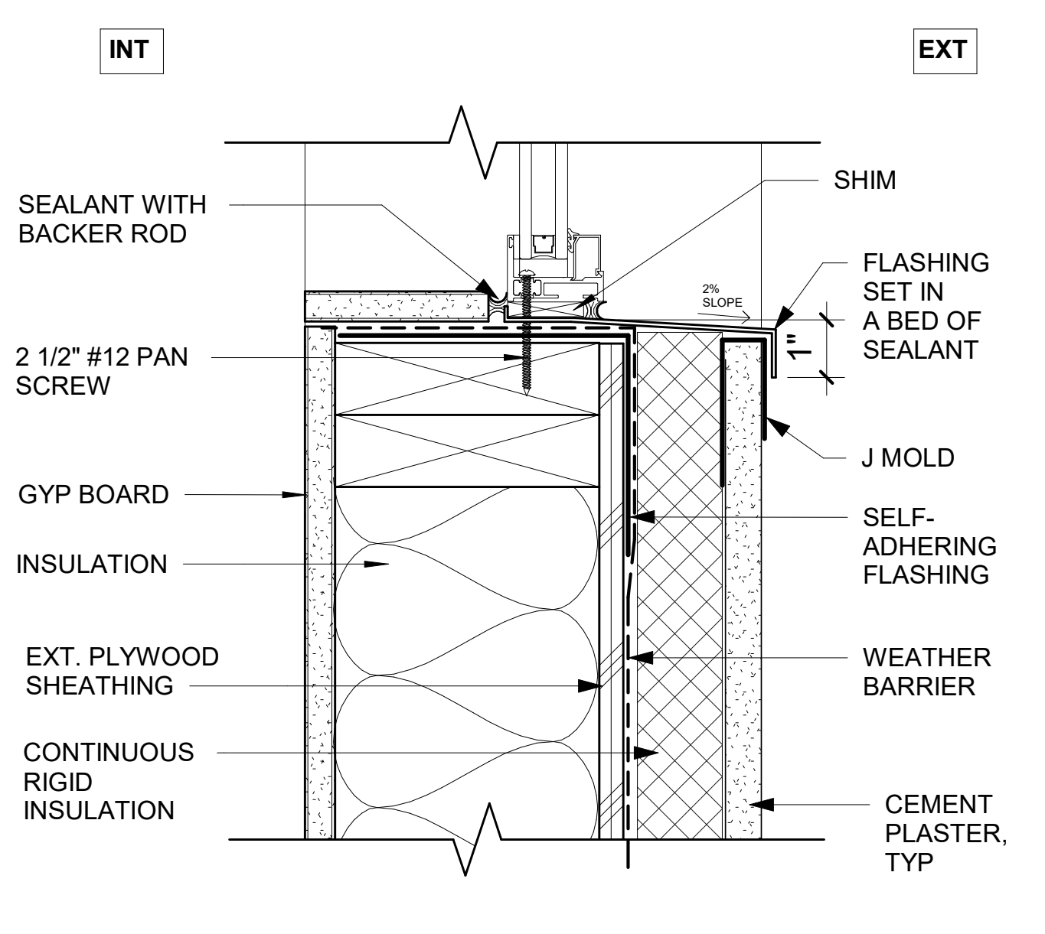
INTERIOR STOREFRONT WINDOW J6
3" = 1'-0"



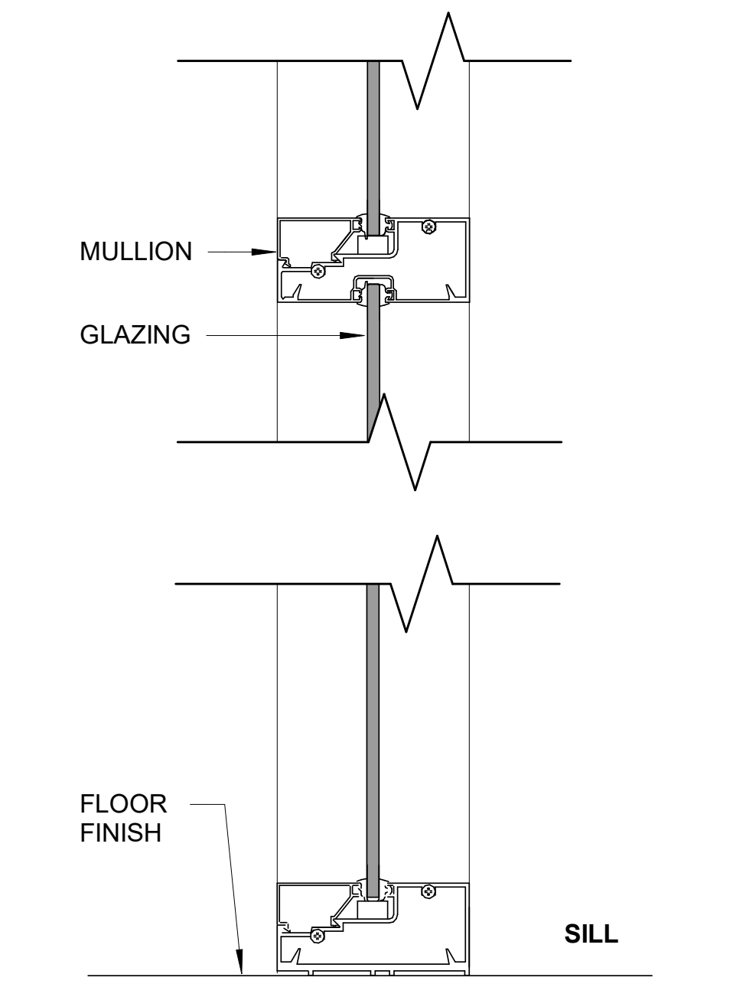
THRESHOLD - CRP TO CRP G6
6" = 1'-0"



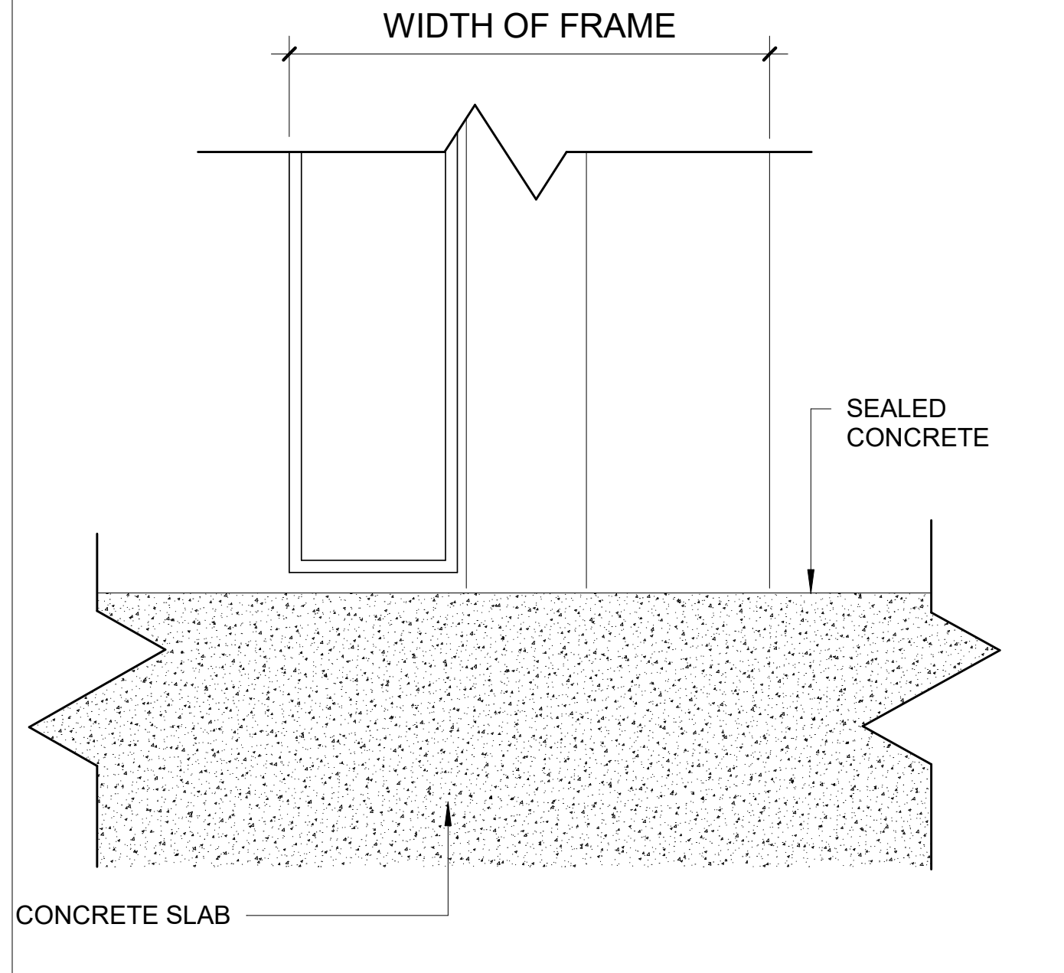
STOREFRONT VERTICAL MULLION A6
3" = 1'-0"



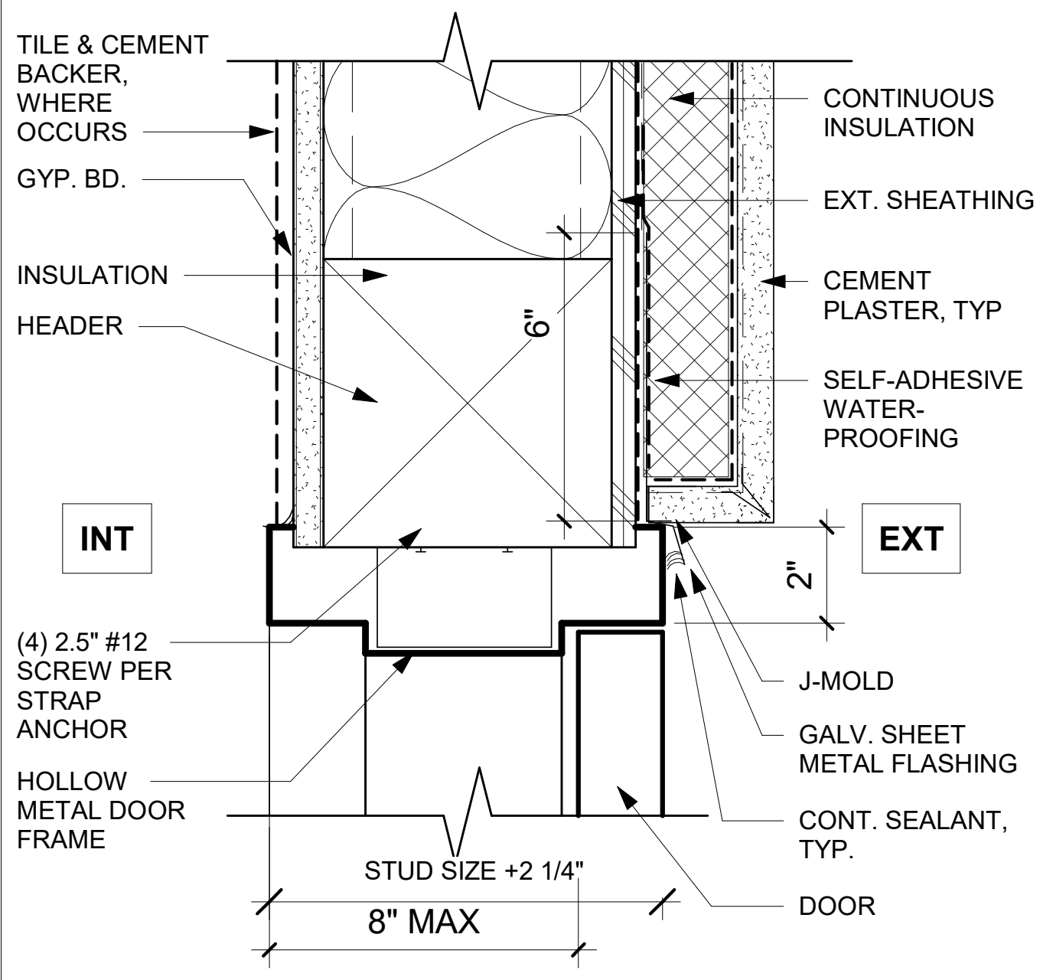
EXTERIOR FIXED WINDOW SILL, TYP L8
3" = 1'-0"



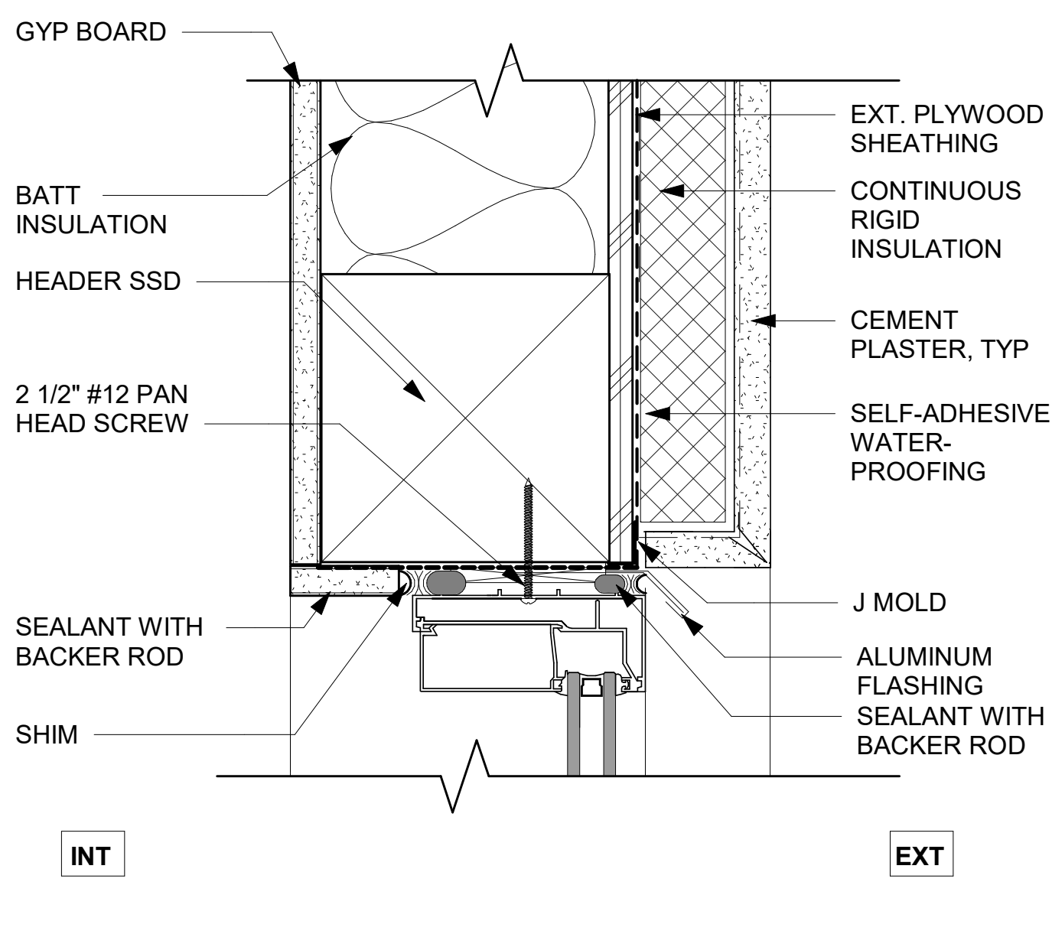
INTERIOR STOREFRONT J8
3" = 1'-0"



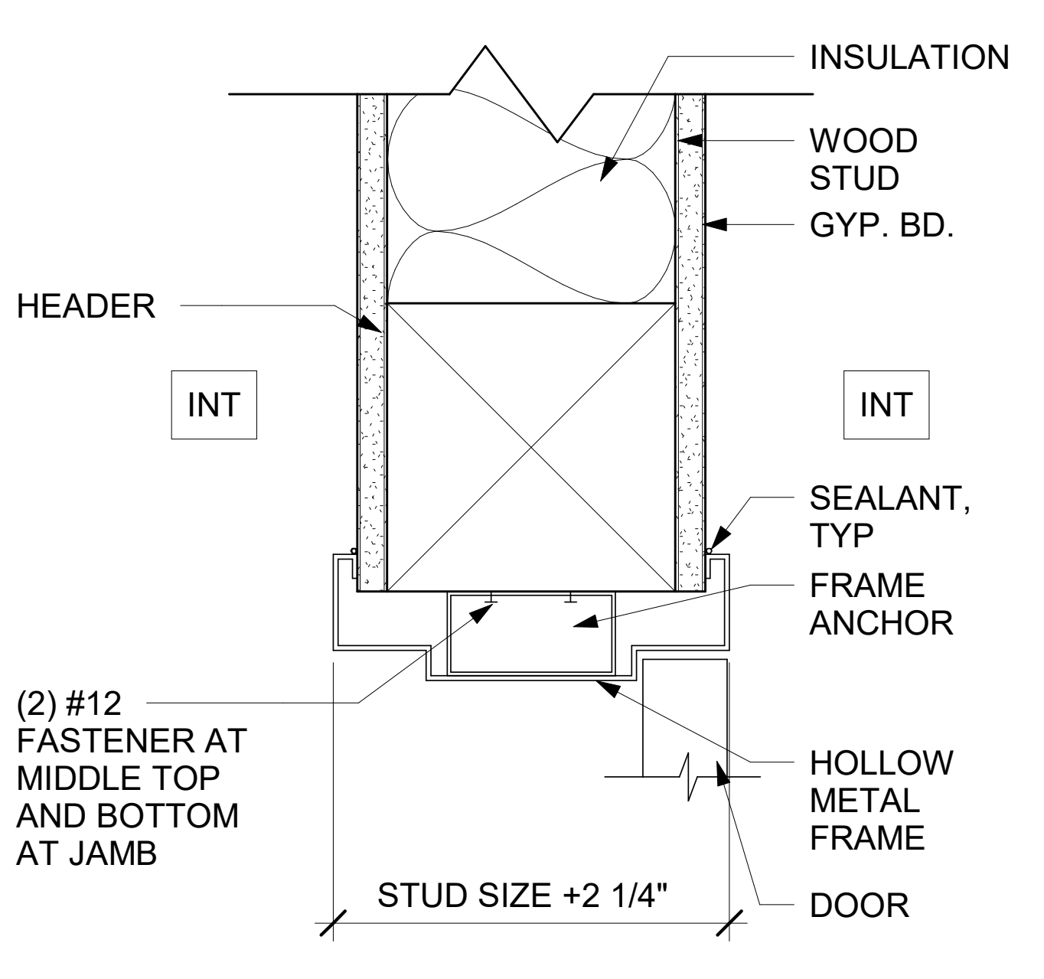
THRESHOLD - CONCRETE TO CONCRETE G8
6" = 1'-0"



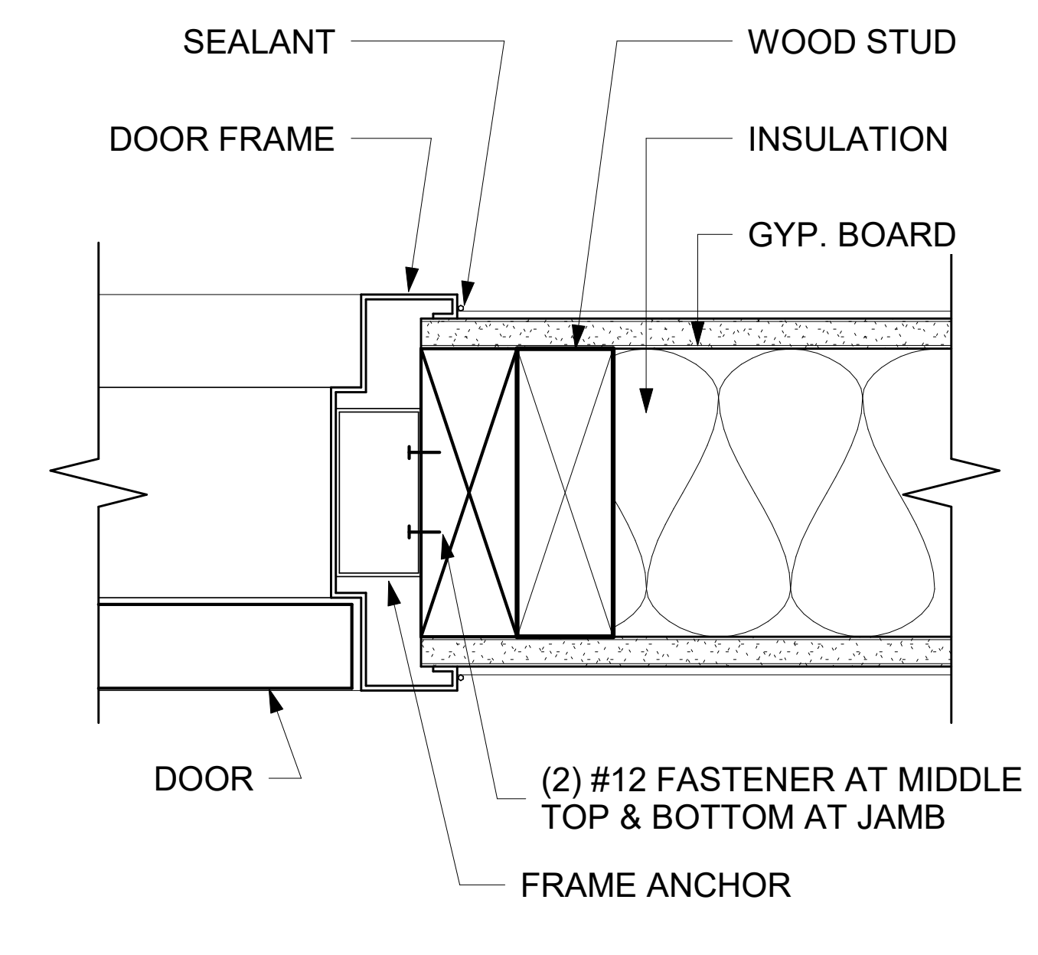
H.M. DR EXT_6" STUDS E8
3" = 1'-0"



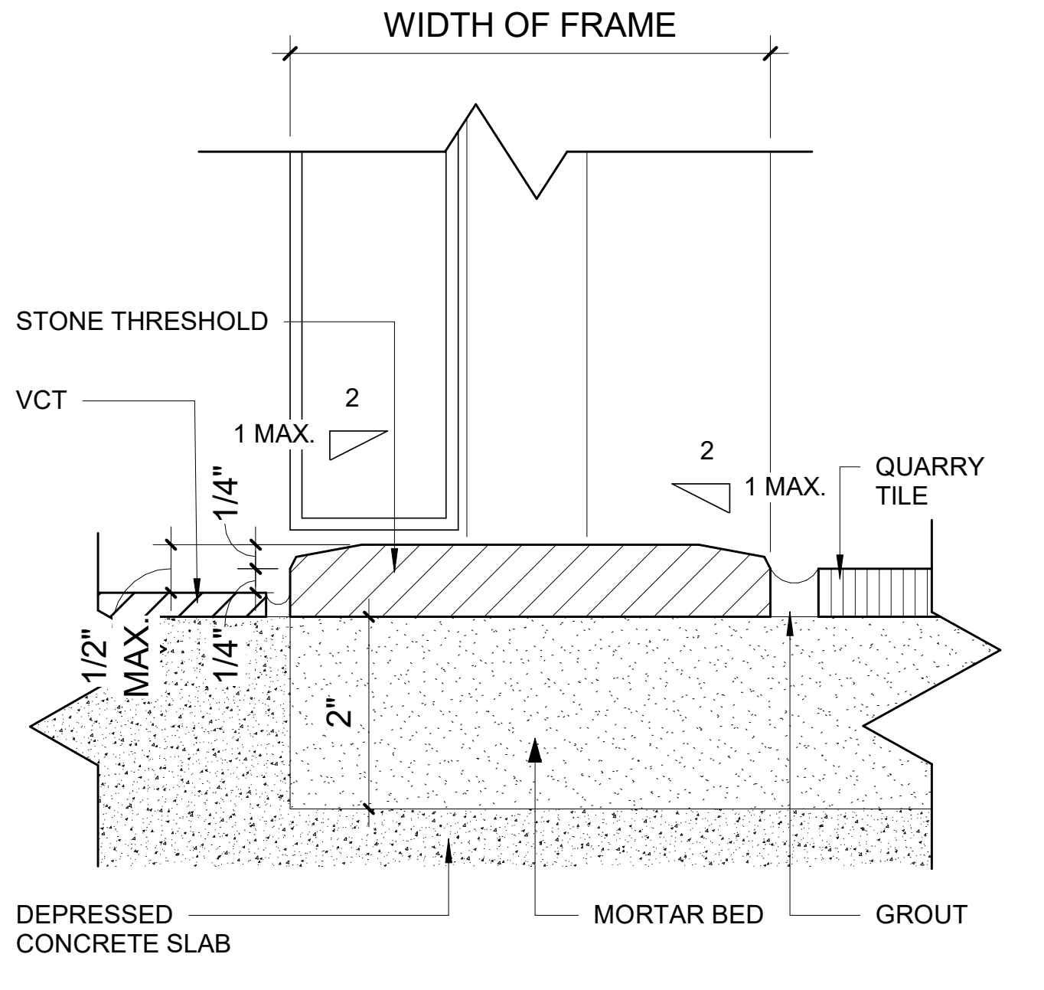
EXTERIOR STOREFRONT HEAD A8
3" = 1'-0"



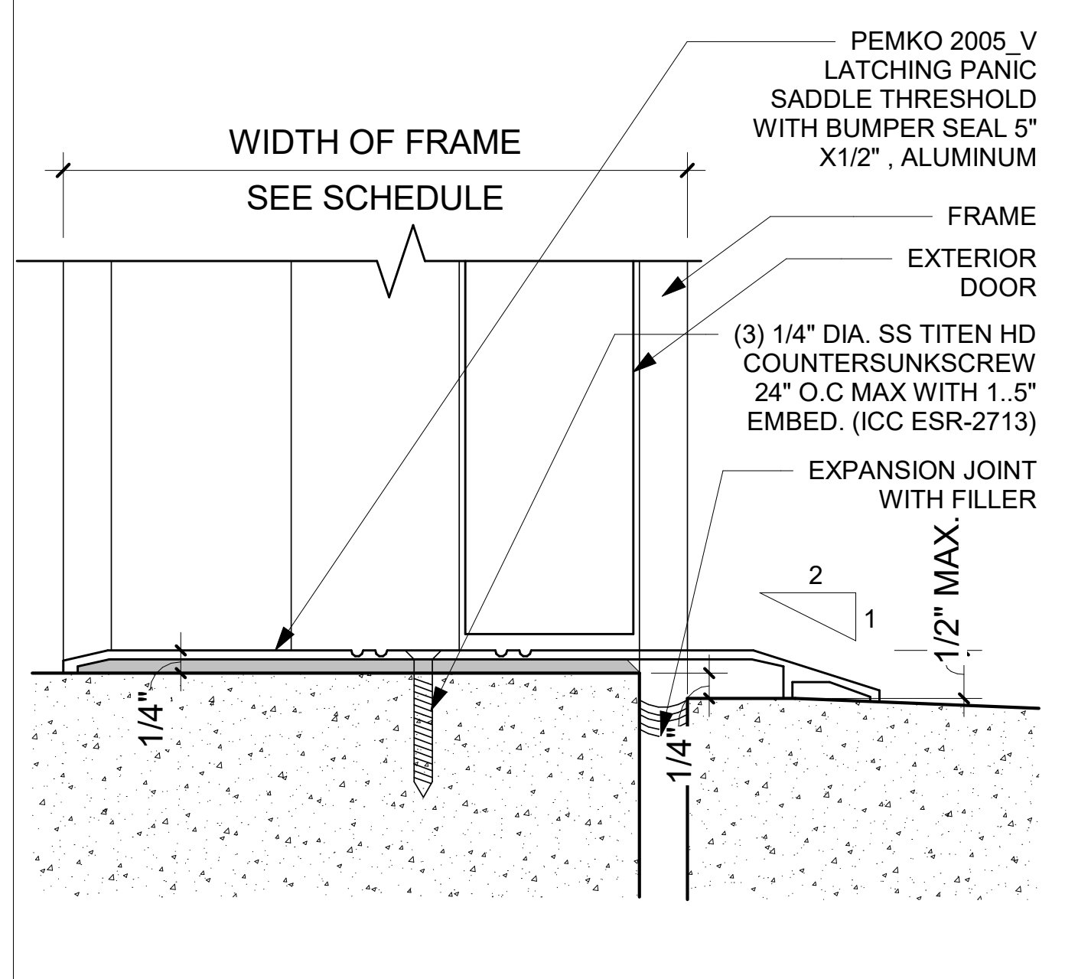
INTERIOR DOOR HEAD L10
3" = 1'-0"



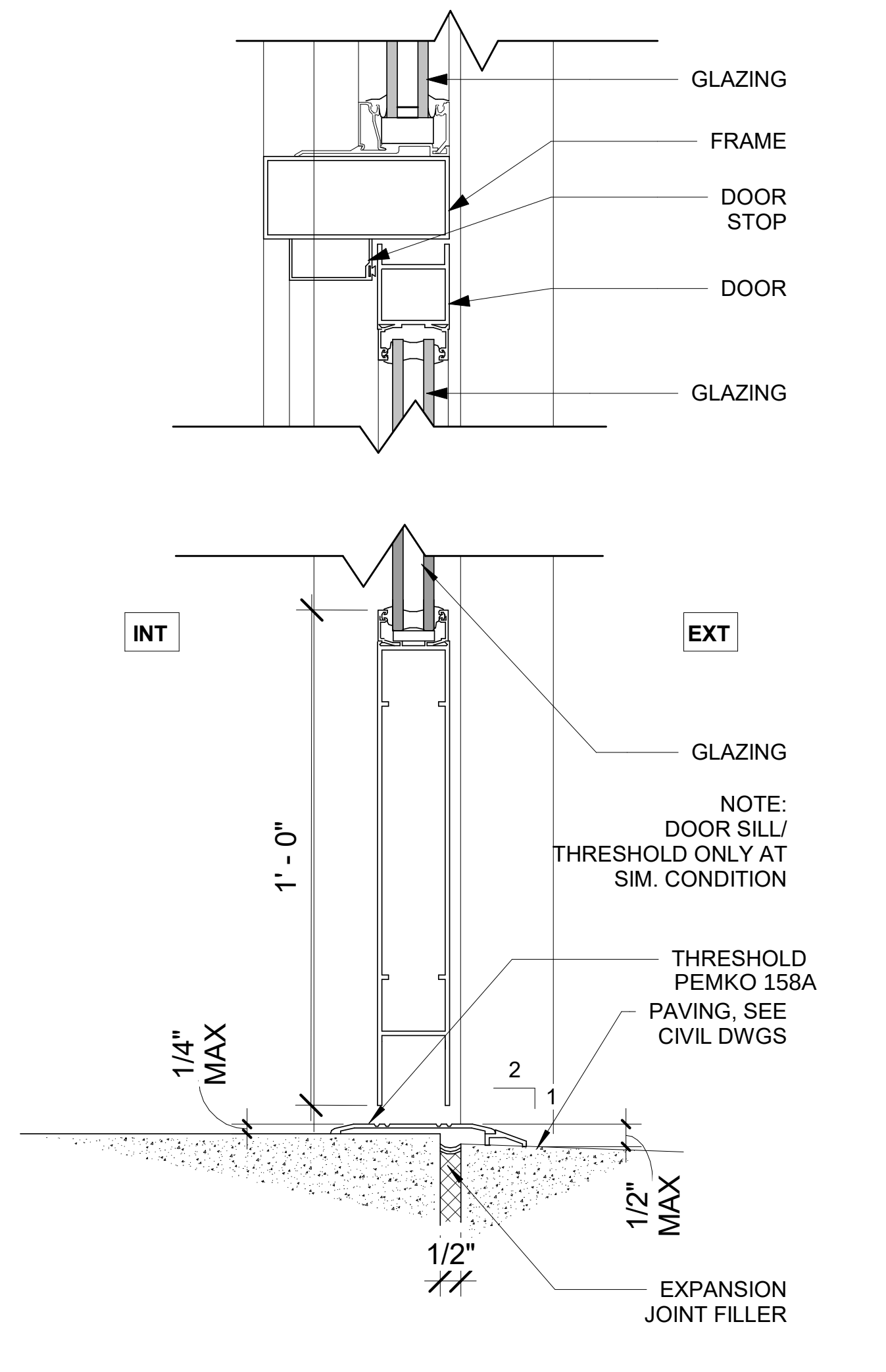
INTERIOR DOOR JAMB J10
3" = 1'-0"



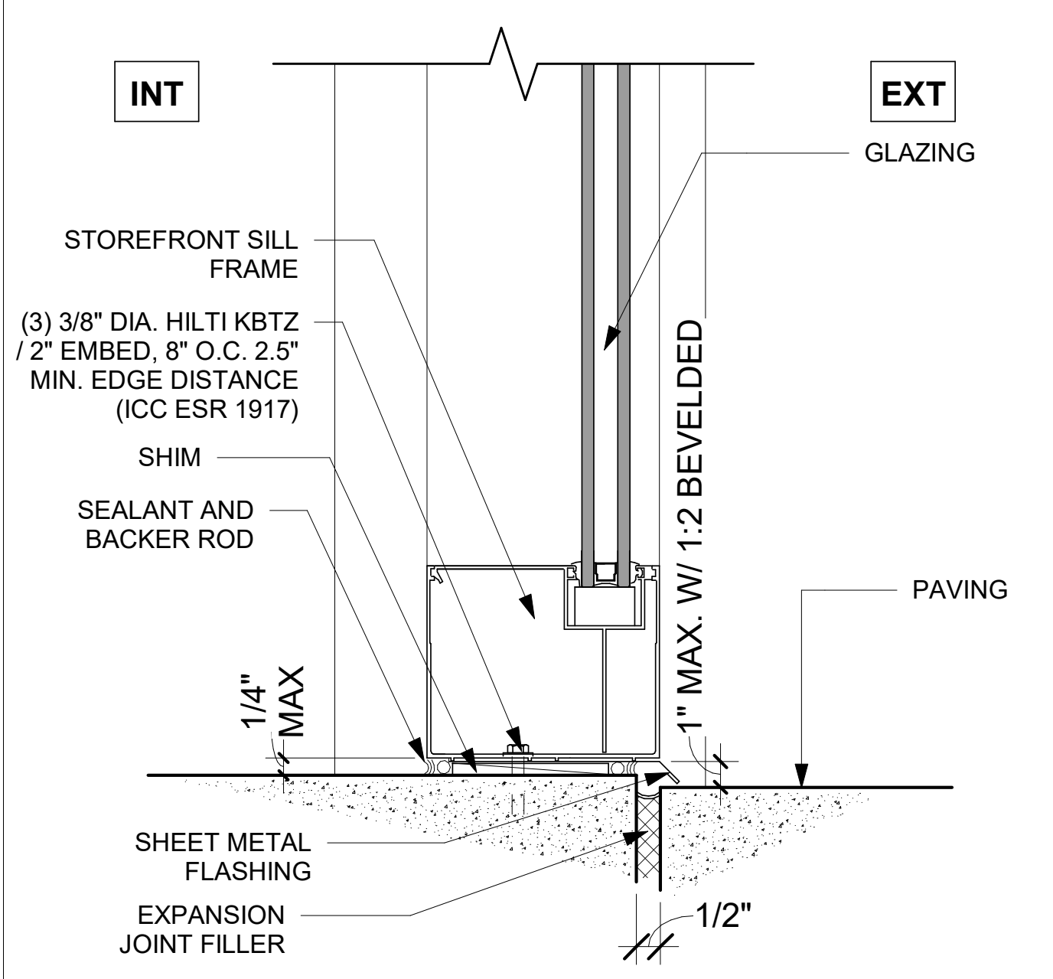
THRESHOLD - QT TO VCT G10
6" = 1'-0"


WIDTH OF FRAME
SEE SCHEDULE
PEMKO 2005_V LATCHING PANIC SADDLE THRESHOLD WITH BUMPER SEAL 5" X1/2" , ALUMINUM
FRAME
EXTERIOR DOOR
(3) 1/4" DIA. SS TITEN HD COUNTERSUNKSCREW 24" O.C MAX WITH 1 .5" EMBED. (ICC ESR-2713)
EXPANSION JOINT WITH FILLER
2
1
1/2" MAX
1/4"
1/4"

EXTERIOR DOOR THRESHOLD E10
6" = 1'-0"



EXT DOOR AT TRANSOM 1 C10
3" = 1'-0"



STOREFRONT AT SLAB A10
3" = 1'-0"

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BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

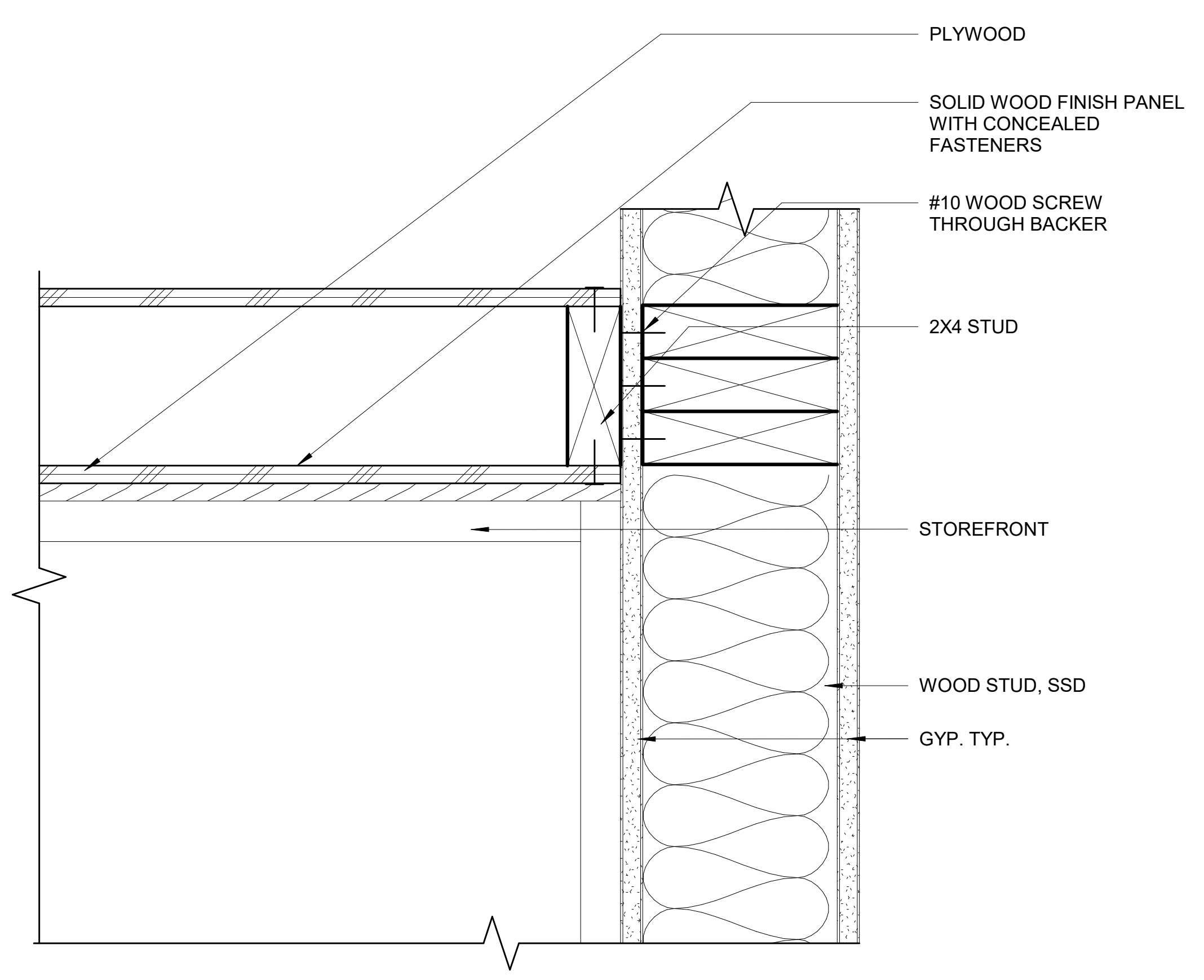
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022

DOOR AND WINDOW DETAILS

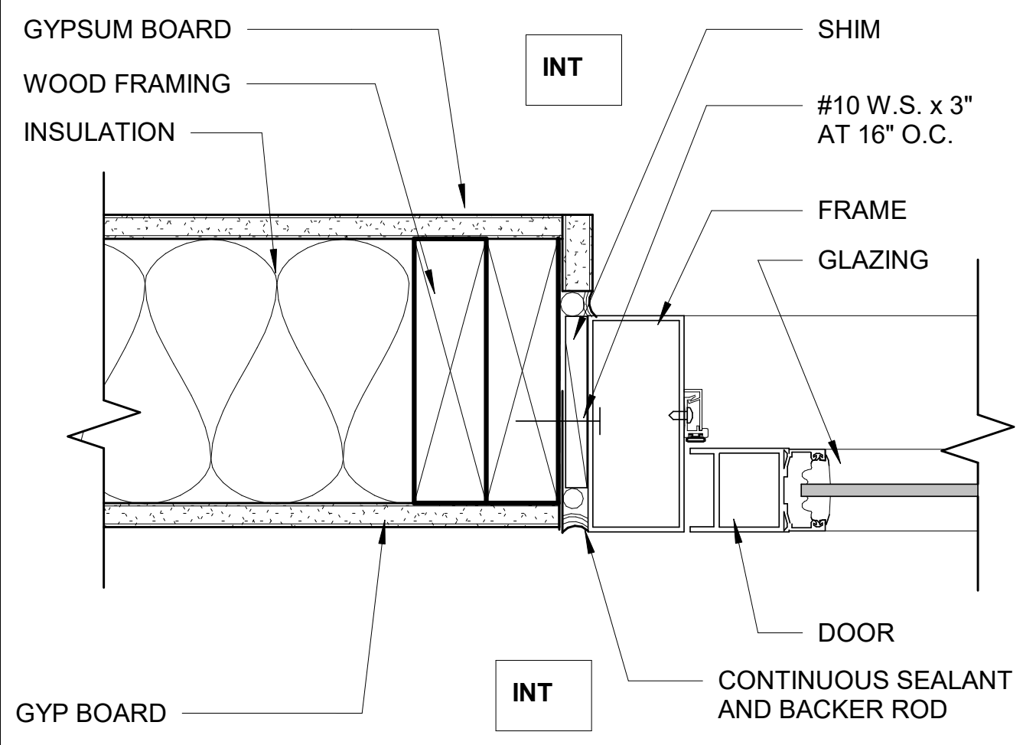
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

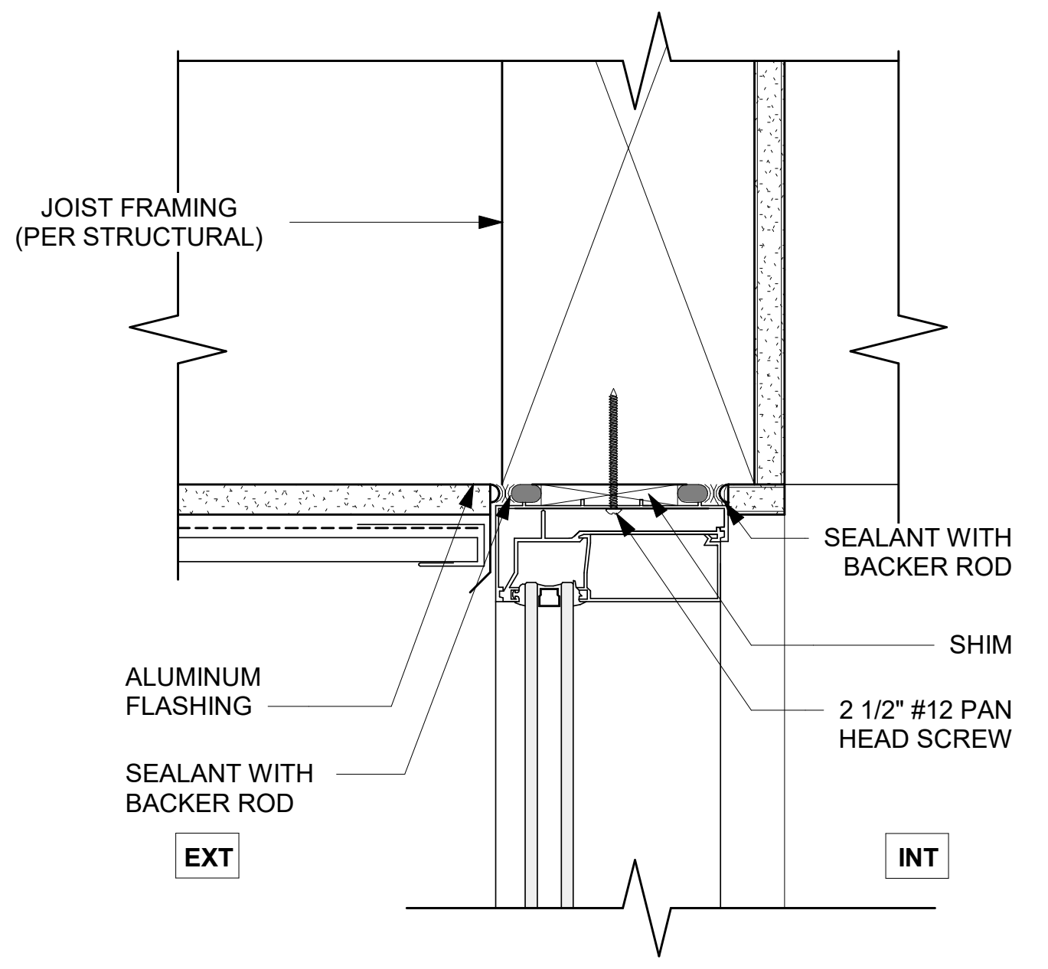
A731


PLYWOOD
SOLID WOOD FINISH PANEL WITH CONCEALED FASTENERS
#10 WOOD SCREW THROUGH BACKER
2X4 STUD
STOREFRONT
WOOD STUD, SSD
GYP. TYP.

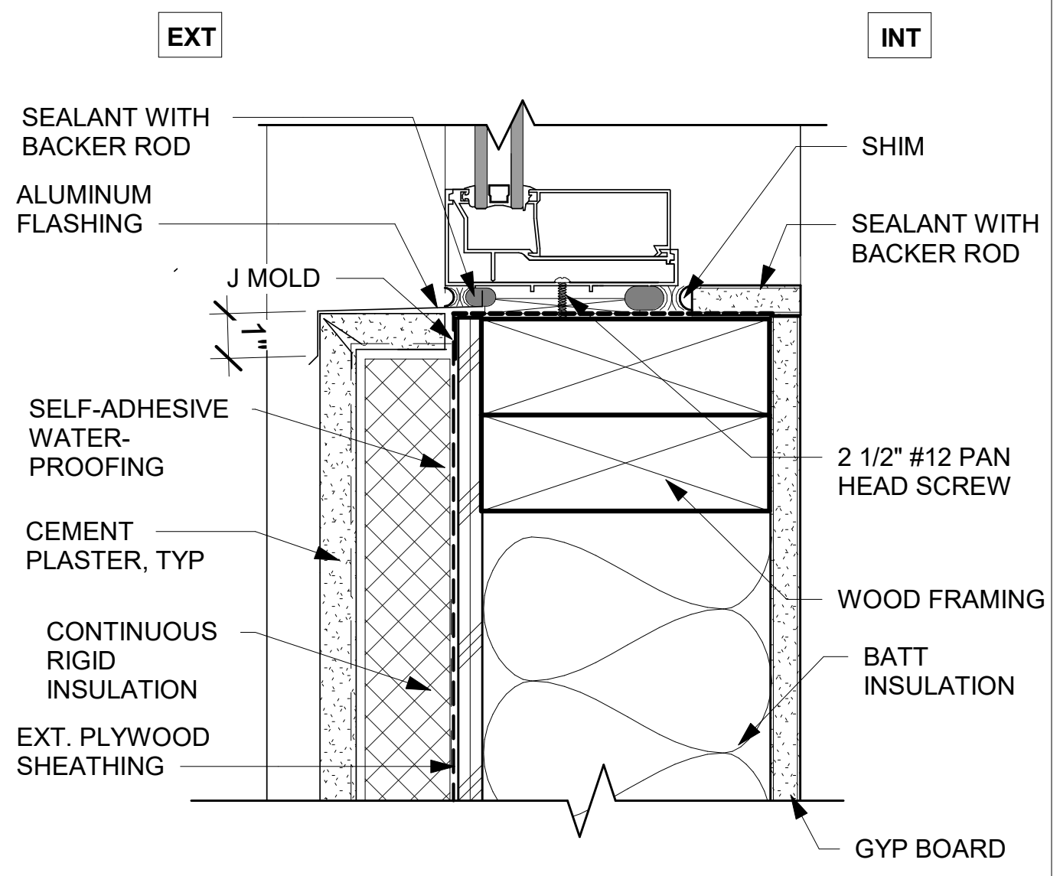
RECEPTION DESK CLOUD **A4**
3" = 1'-0"



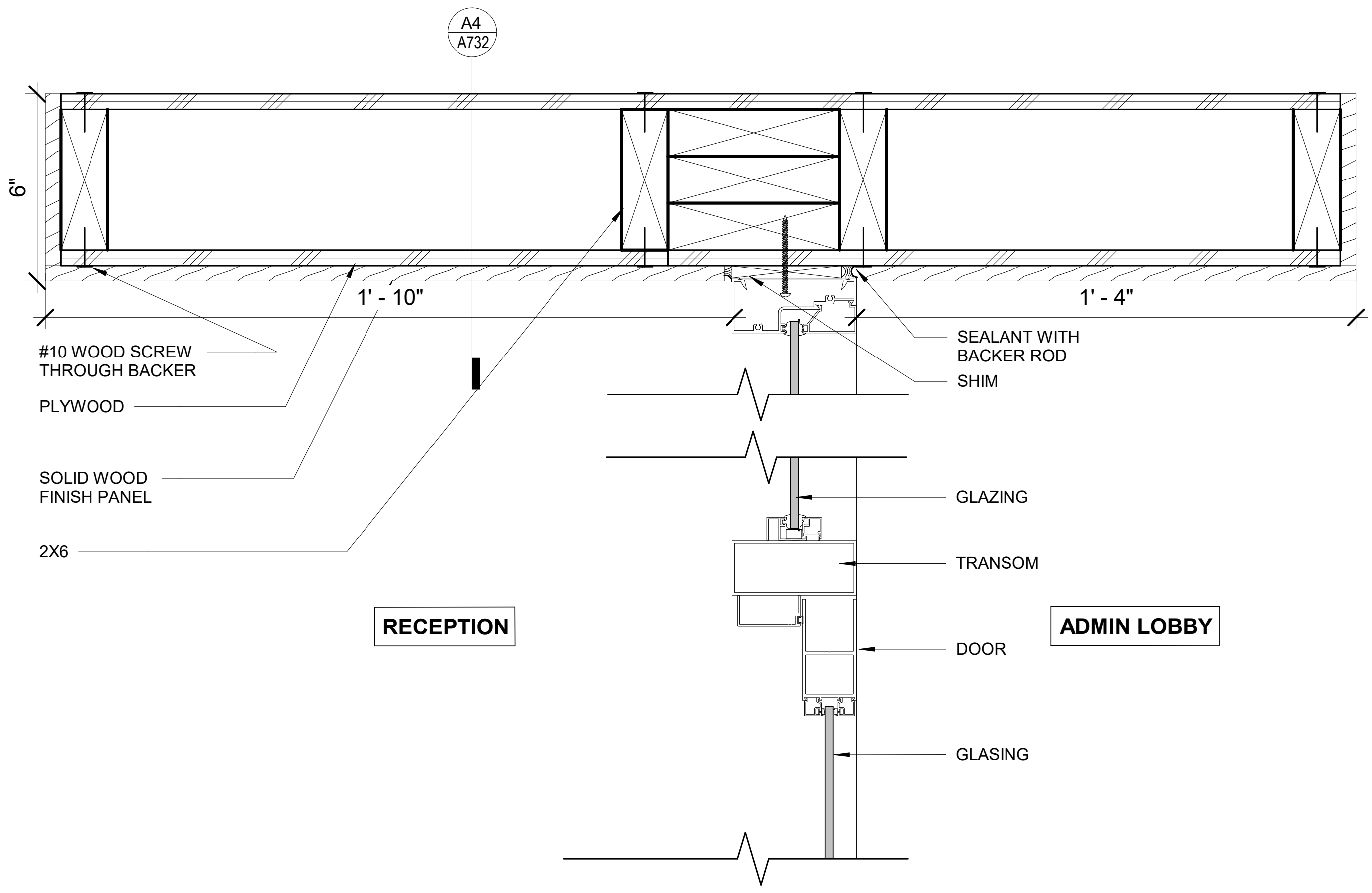
INT. STOREFRONT DOOR AT JAMB **A6**
3" = 1'-0"



EXTERIOR STOREFRONT HEAD - ENTRANCE **E8**
3" = 1'-0"



EXTERIOR STOREFRONT SILL **E10**
3" = 1'-0"



RECEPTOPN DESK STOREFRONT HEAD - TRANSOM INTERIOR **A10**
3" = 1'-0"

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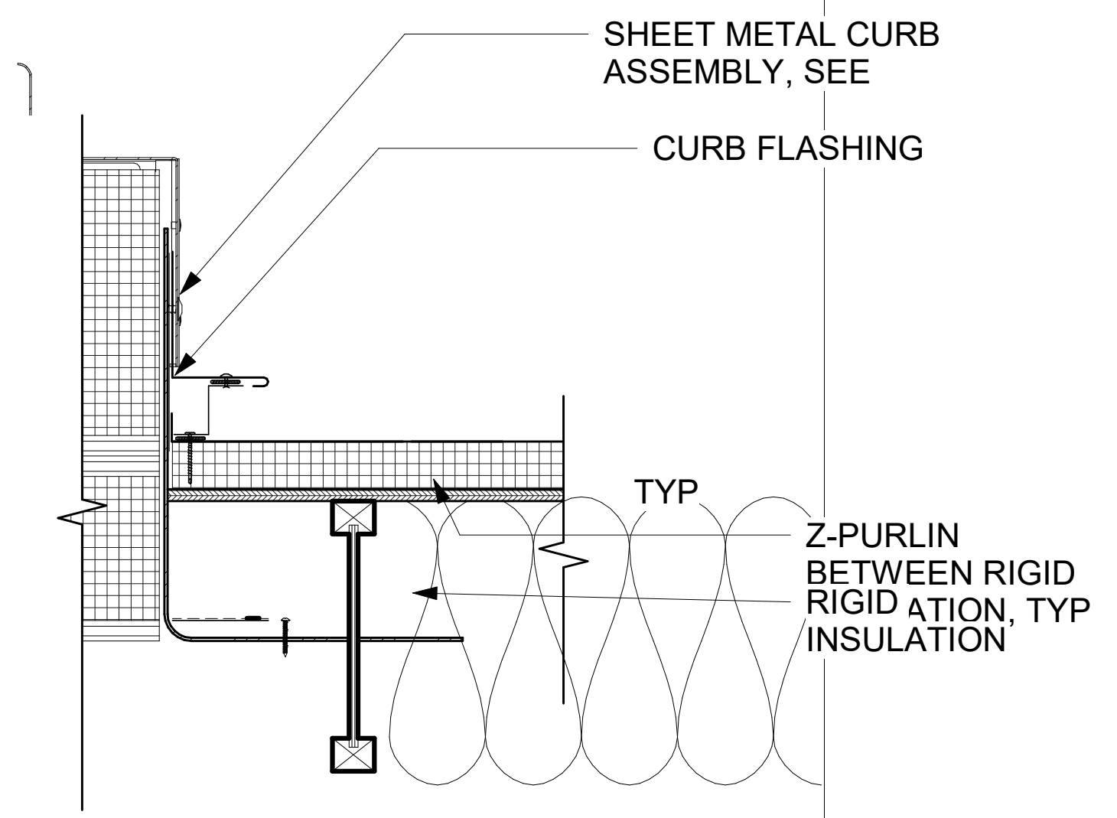
DOOR AND WINDOW DETAILS

PERKINS
EASTMAN

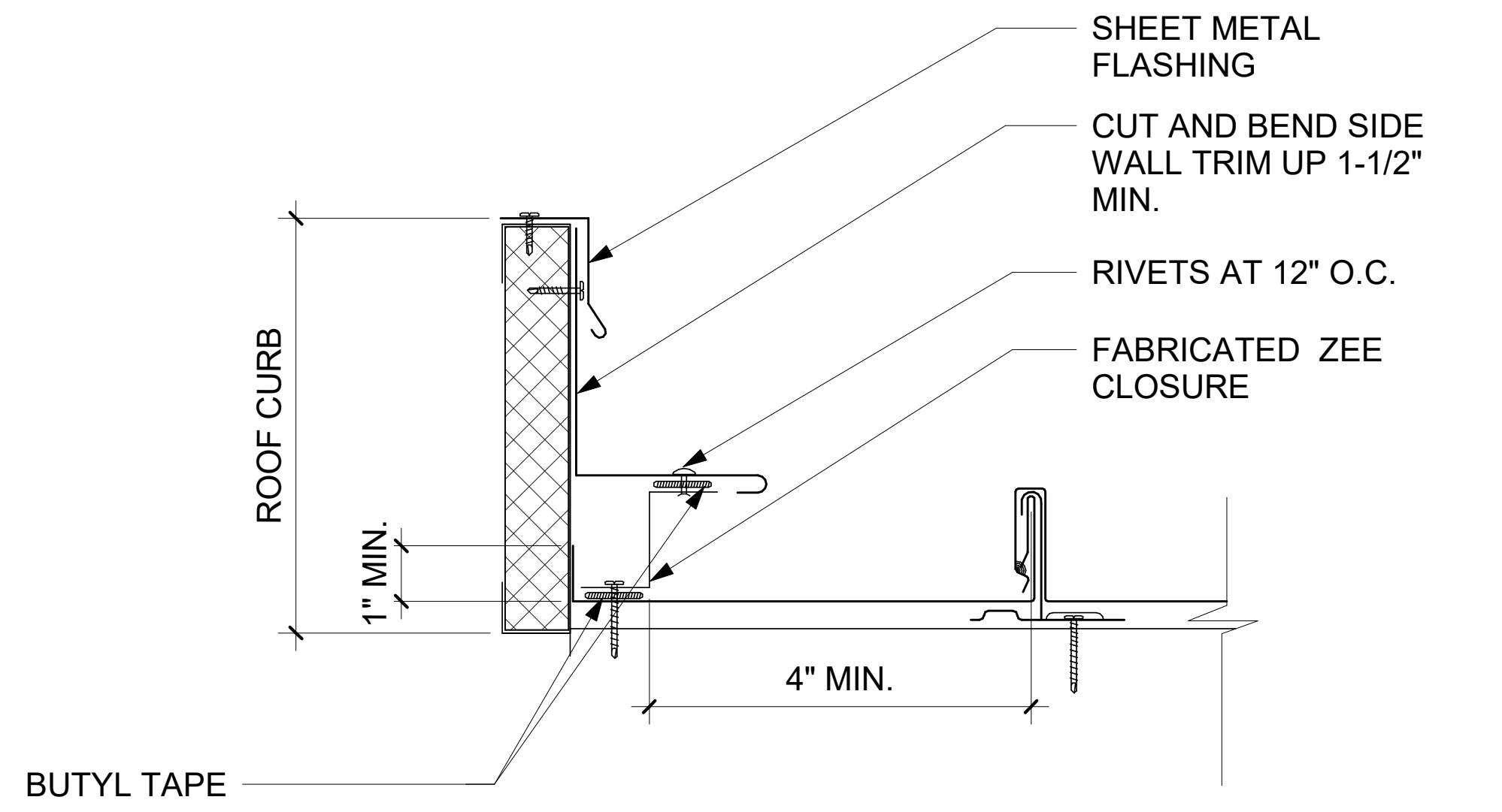
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A732



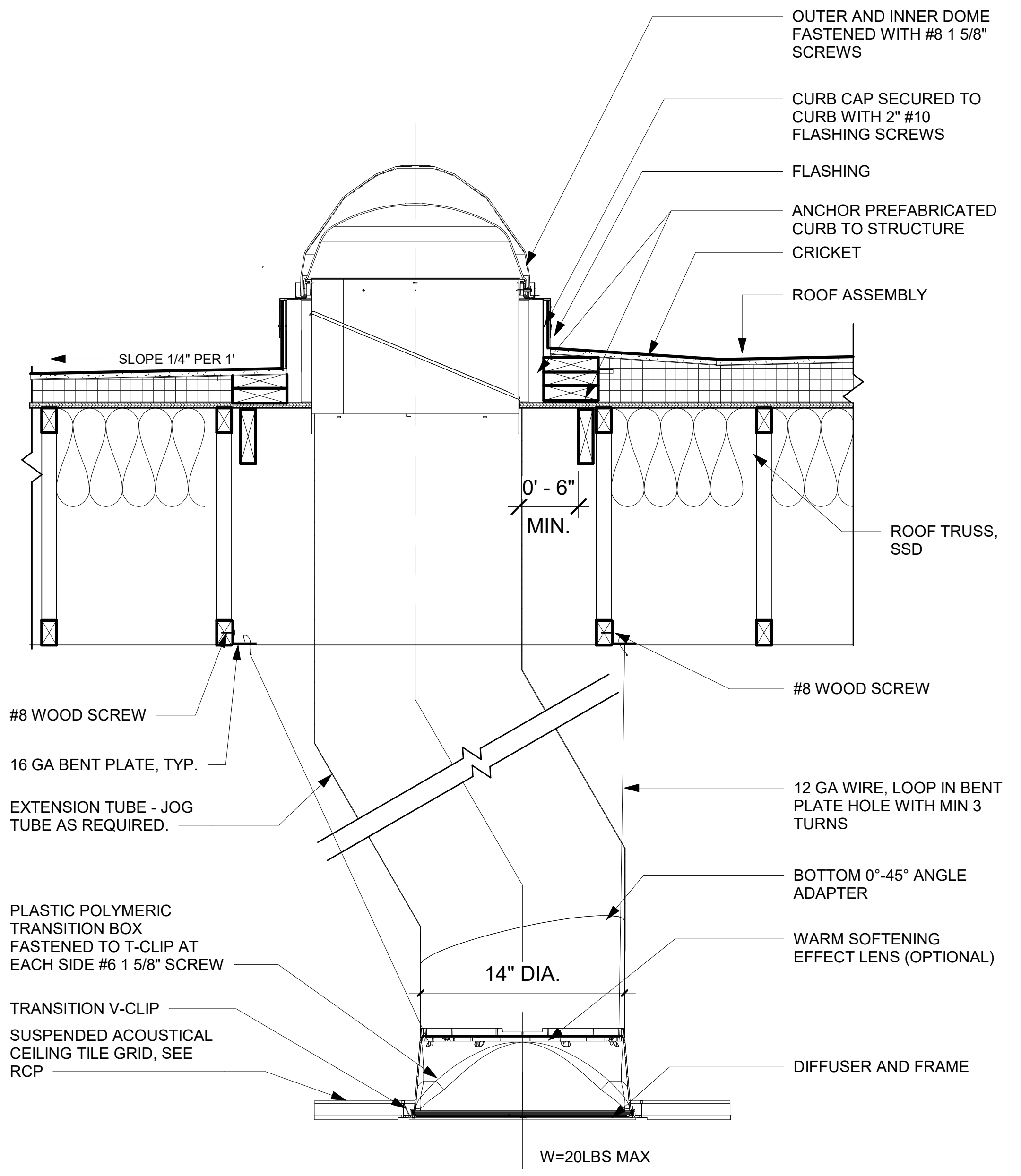
CURB MOUNTING DETAIL2 **1**

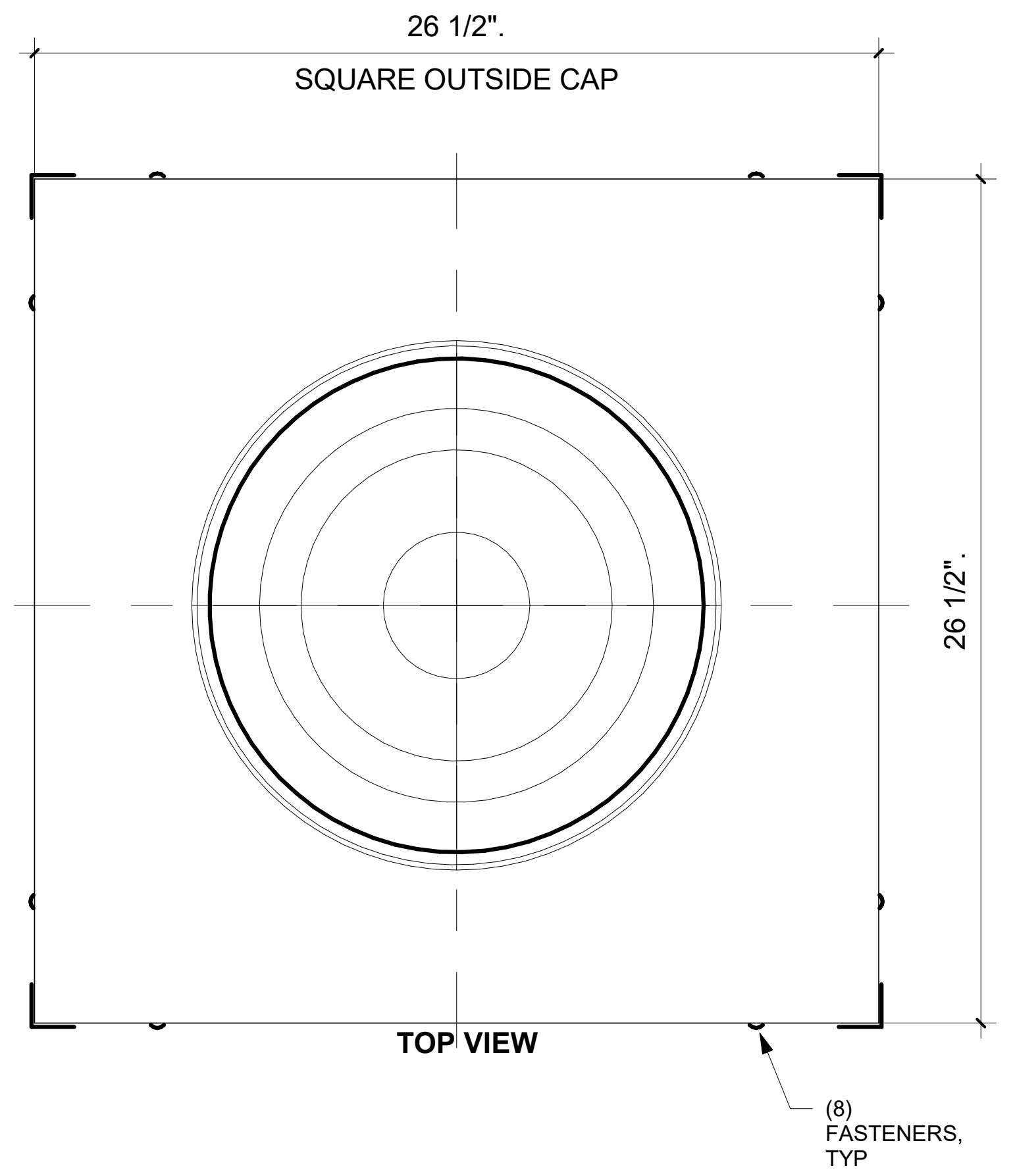
1 1/2" = 1'-0"



METAL ROOF CURB RAKE **A6**

3" = 1'-0"


OUTER AND INNER DOME FASTENED WITH #8 1 5/8" SCREWS
CURB CAP SECURED TO CURB WITH 2" #10 FLASHING SCREWS
FLASHING
ANCHOR PREFABRICATED CURB TO STRUCTURE
CRICKET
ROOF ASSEMBLY
SLOPE 1/4" PER 1'
0' - 6" MIN.
ROOF TRUSS, SSD
#8 WOOD SCREW
#8 WOOD SCREW
16 GA BENT PLATE, TYP.
EXTENSION TUBE - JOG TUBE AS REQUIRED.
12 GA WIRE, LOOP IN BENT PLATE HOLE WITH MIN 3 TURNS
BOTTOM 0°-45° ANGLE ADAPTER
PLASTIC POLYMERIC TRANSITION BOX FASTENED TO T-CLIP AT EACH SIDE #6 1 5/8" SCREW
WARM SOFTENING EFFECT LENS (OPTIONAL)
14" DIA.
TRANSITION V-CLIP
SUSPENDED ACOUSTICAL CEILING TILE GRID, SEE RCP
DIFFUSER AND FRAME
W=20LBS MAX



TOP VIEW

NOTES:

1. ALL TUBE JOINTS AND SEAMS TAPED WITH 2" FOIL TAPE.
2. 6" MIN. CLEARANCE SHOULD BE MAINTAINED FROM ALL SOLATUBE COMPONENTS AND PLENUM COMPONENTS.
3. REP ESR-2253
4. CENTER SKYLIGHTS BETWEEN ROOF TRUSSES.

TUBULAR SKYLIGHT JOGGED AT CURB CAP HARD CEILING **G10**

AT PVC ROOF 1" = 1'-0"

ROOF ASSEMBLY TYPES ROOF XX

R1.
-STANDING SEAM METAL ROOFING
-WEATHER BARRIER
-2 LAYERS OF 2 1/2" OF RIGID INSULATION
-1/8" VAPOR PERMEABLE FELT
-1 1/2" METAL ROOF DECK
A2 A531 C2 A531

R2.
-STANDING SEAM METAL ROOFING
-WEATHER BARRIER
-2 LAYERS OF 2 1/2" OF RIGID INSULATION
-1/8" VAPOR PERMEABLE FELT
-1 1/2" METAL ROOF DECK
A2 A534 C2 A534

GENERAL ROOF NOTES

1. [BOD VERCO PLB-CD ACOUSTICAL CELLULAR DECK] IAPMO #0217 TYPICAL ACOUSTICAL METAL DECK DETAIL - REFER TO J2 A531
2. [BOD AEP SPAN SPAN-LOK HP] STANDING SEAM METAL ROOF: IAPMO ER #0309 J2 A532
3. DIRECTION OF DECK SPAN - REFER TO STRUCTURAL - S102A - S102B
4. METAL PANEL ZEE CLOSURE SHALL BE THE SAME GAUGE AS ROOF PANEL GAUGE: 22 GA

TUBULAR SKYLIGHT ANSI CCRR-0131

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TUBULAR SKYLIGHT DETAILS

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A734

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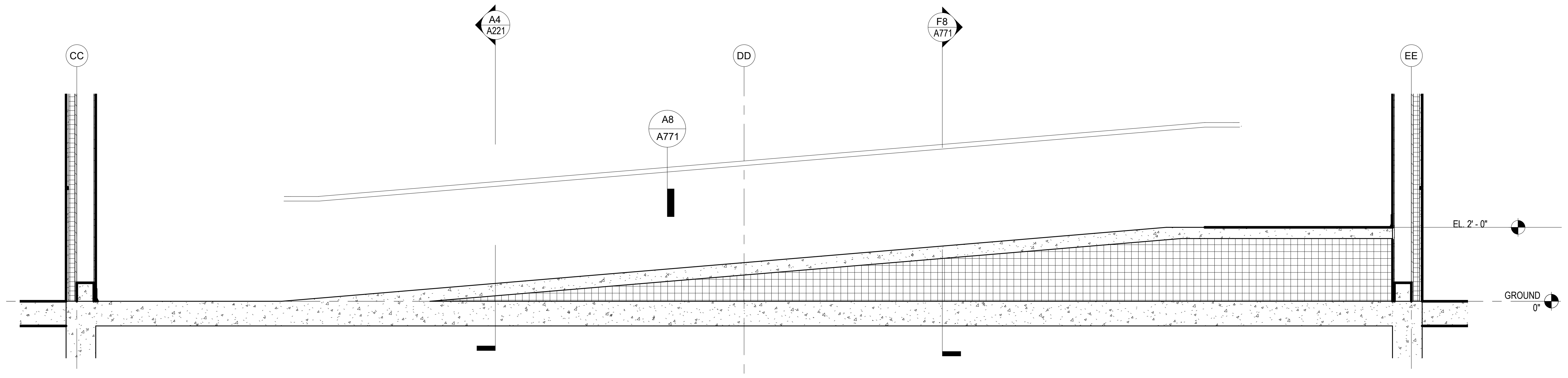
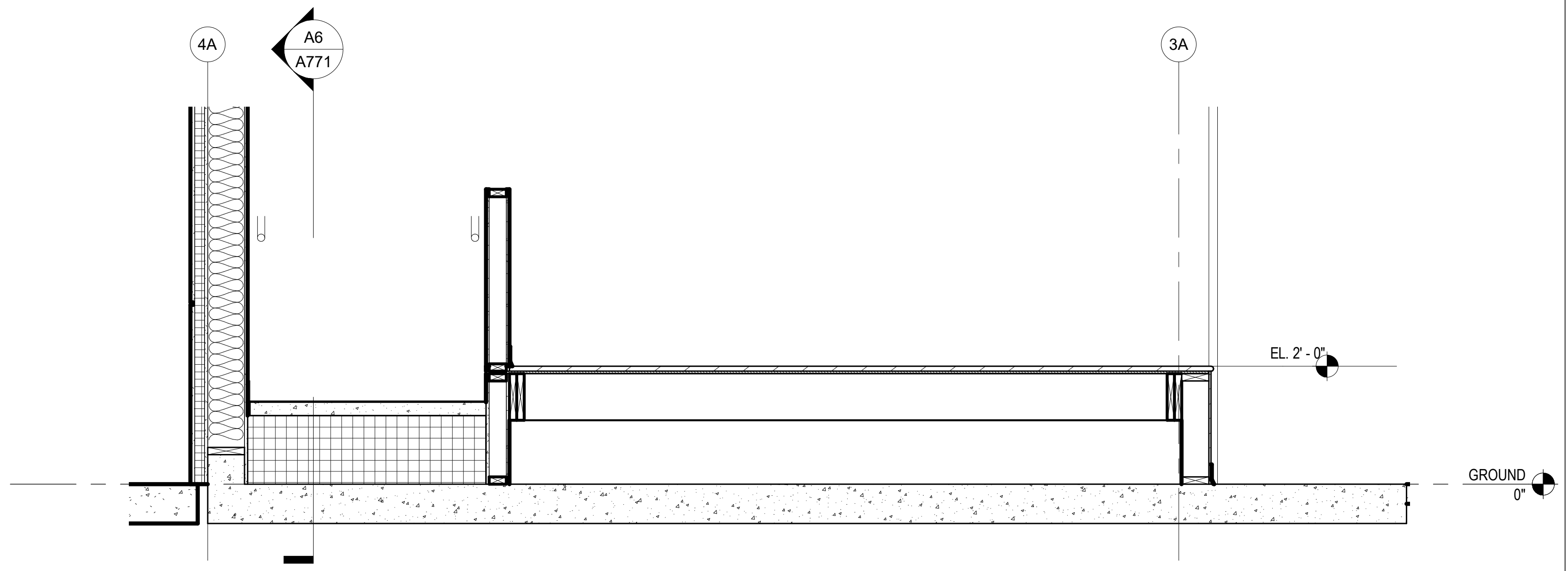


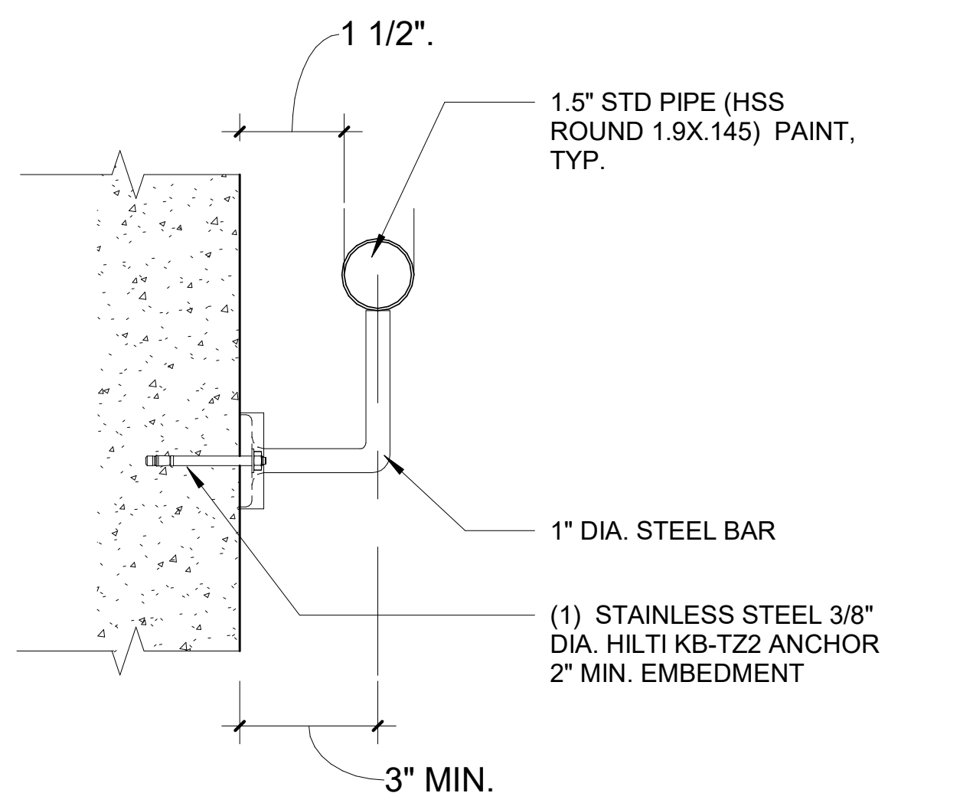
PLATFORM ACCESS RAMP A6

1/2" = 1'-0"



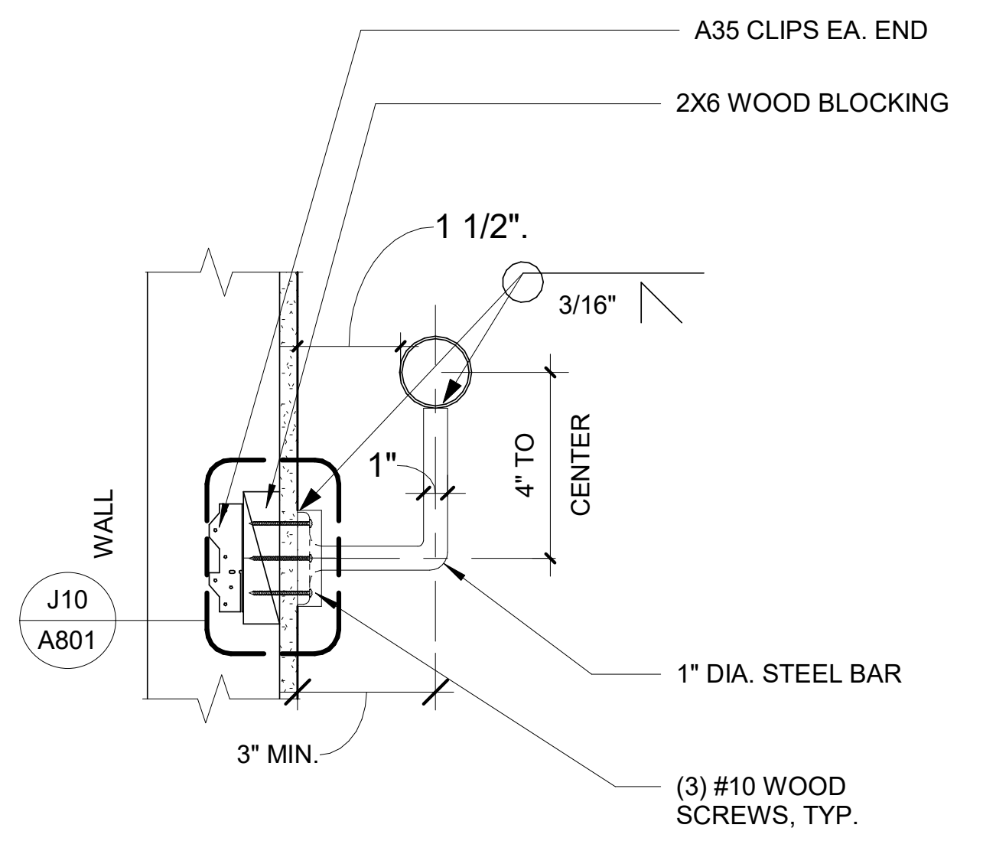
SECTION AT RAMP AND PLATFORM F8

1/2" = 1'-0"


1 1/2".
1.5" STD PIPE (HSS ROUND 1.9X.145) PAINT, TYP.
1" DIA. STEEL BAR
(1) STAINLESS STEEL 3/8" DIA. HILTI KB-TZ2 ANCHOR 2" MIN. EMBEDMENT
3" MIN.

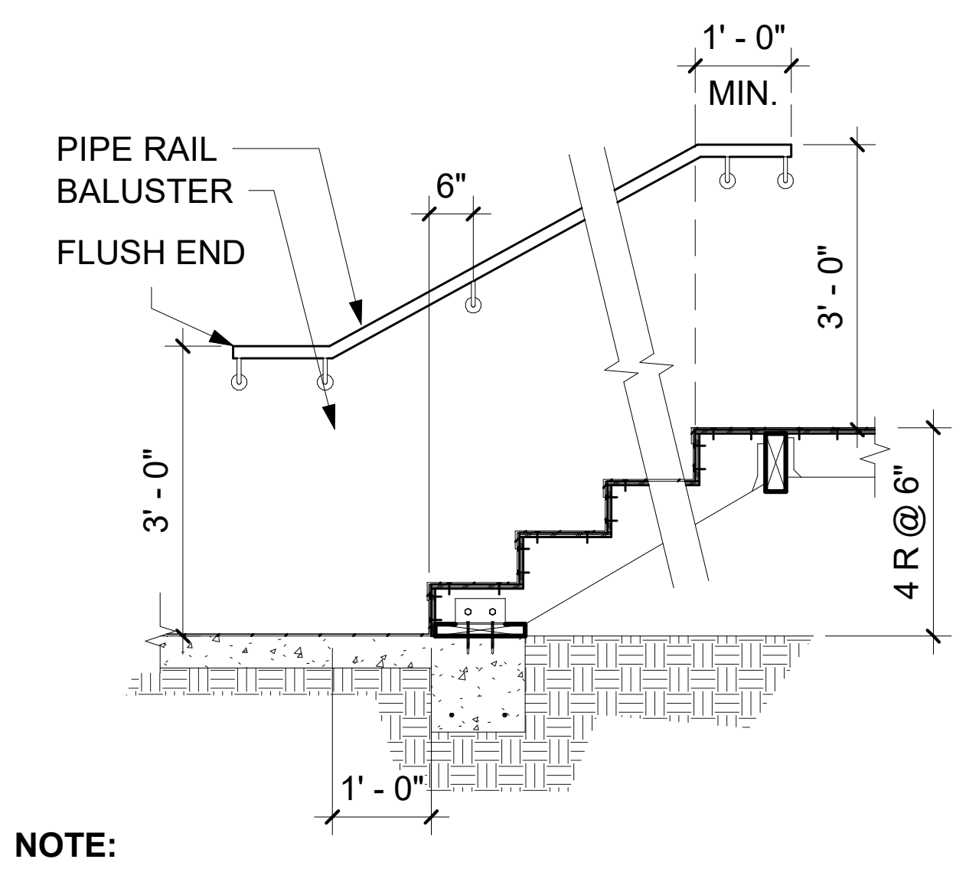
TYP. HANDRAIL EXTENSION AT RAMP C8

1 1/2" = 1'-0"



TYP. HANDRAIL EXTENSION AT RAMP A8

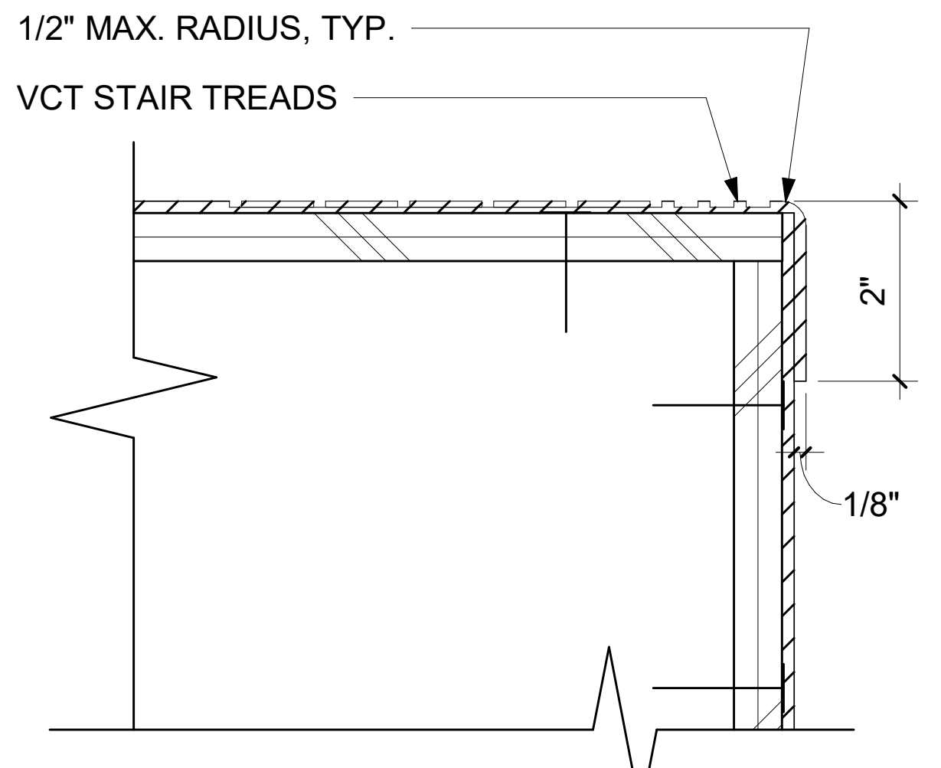
1 1/2" = 1'-0"



NOTE:
1. SEE 13/S622 AND 14/S622

STAIR AT PLATFORM L10

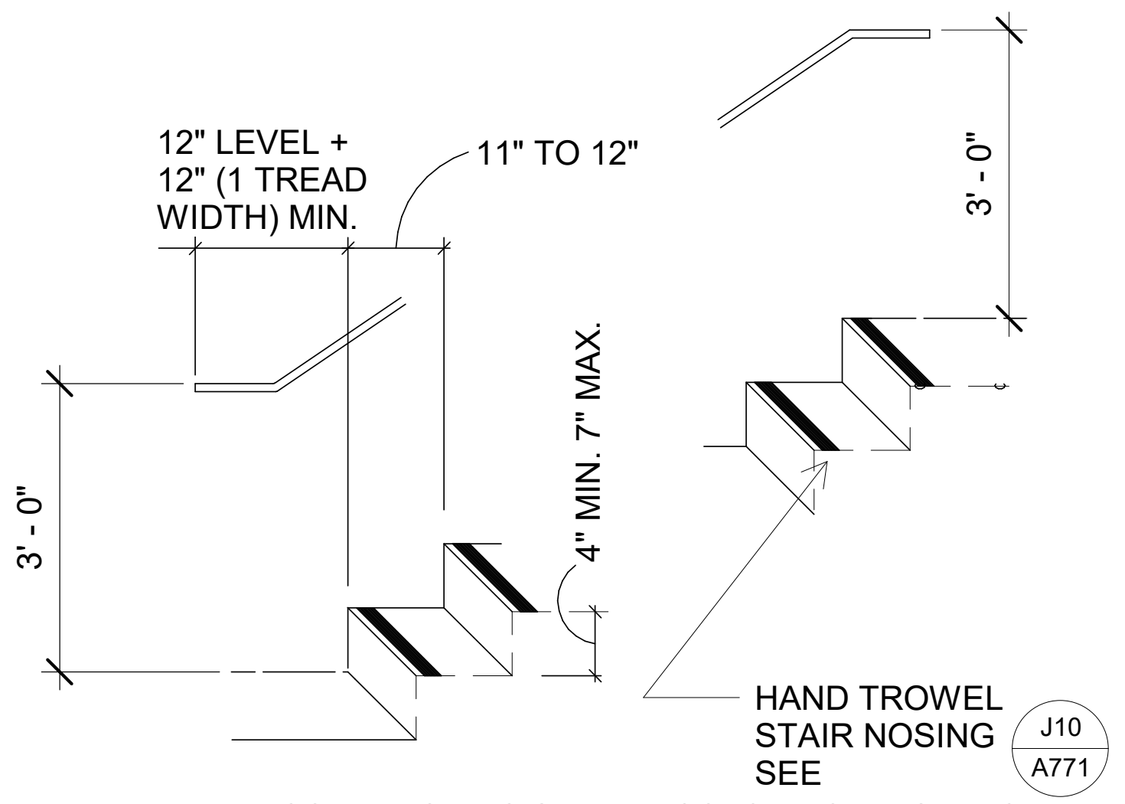
1/2" = 1'-0"



NOTE:
1. FOR INTERIOR STAIR: APPLY TO EACH TREADS EXCEPT FOR TOP AND BOTTOM.
2. SEE 13/S622 AND 14/S622

STAIR NOSING J10

6" = 1'-0"

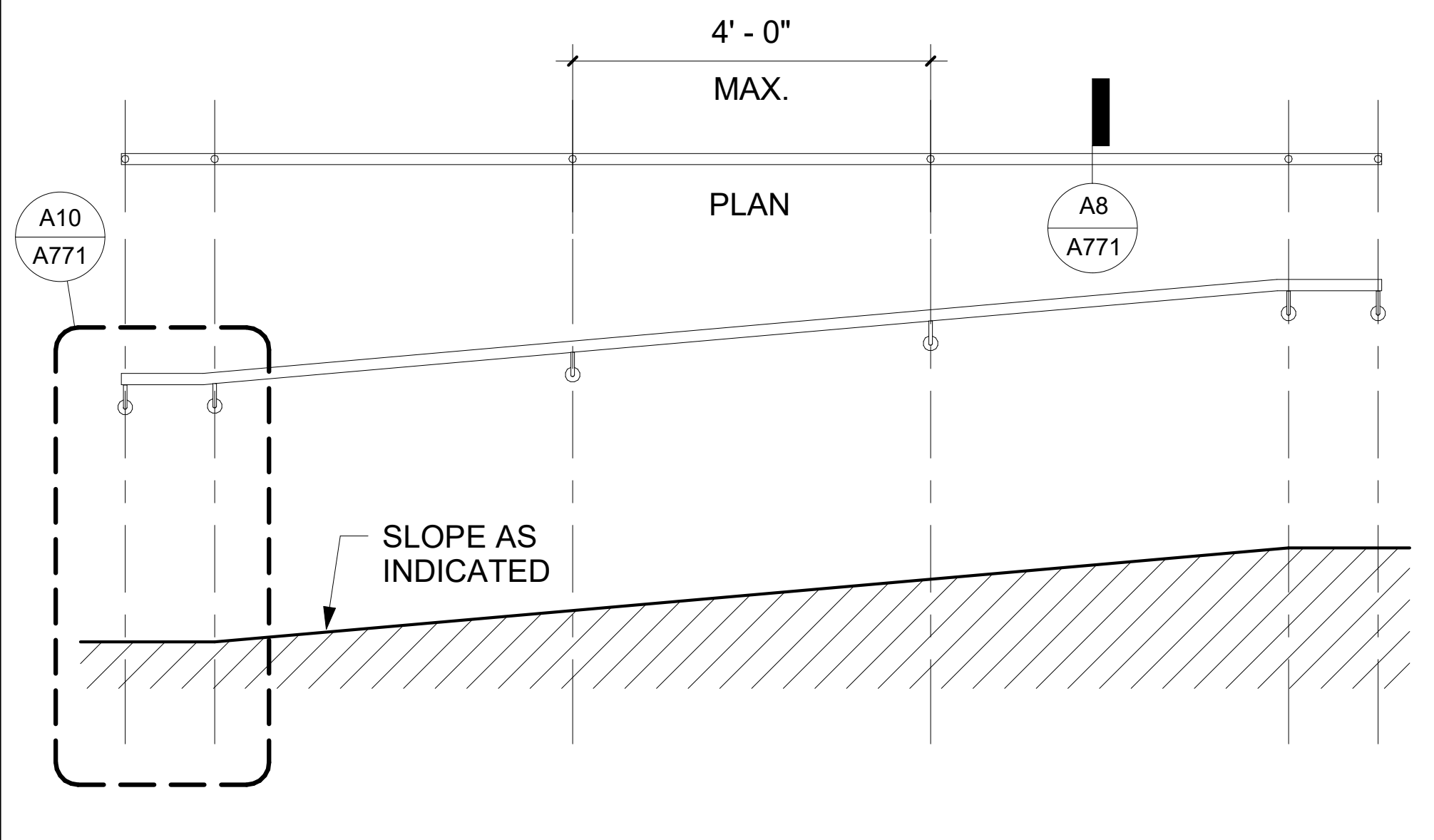

12" LEVEL + 12" (1 TREAD WIDTH) MIN.
11" TO 12"
3' - 0"
3' - 0"
4" MIN. 7" MAX.
HAND TROWEL STAIR NOSING SEE
J10
A771

2" WIDE CONTRASTING STRIPE, COLOR TO BE SELECTED BY ARCHITECT AND PAINTED ON CONCRETE

BALUSTER TO BE SPACED EVENLY AND TO BE PLACED CENTER OF STAIR THREAD

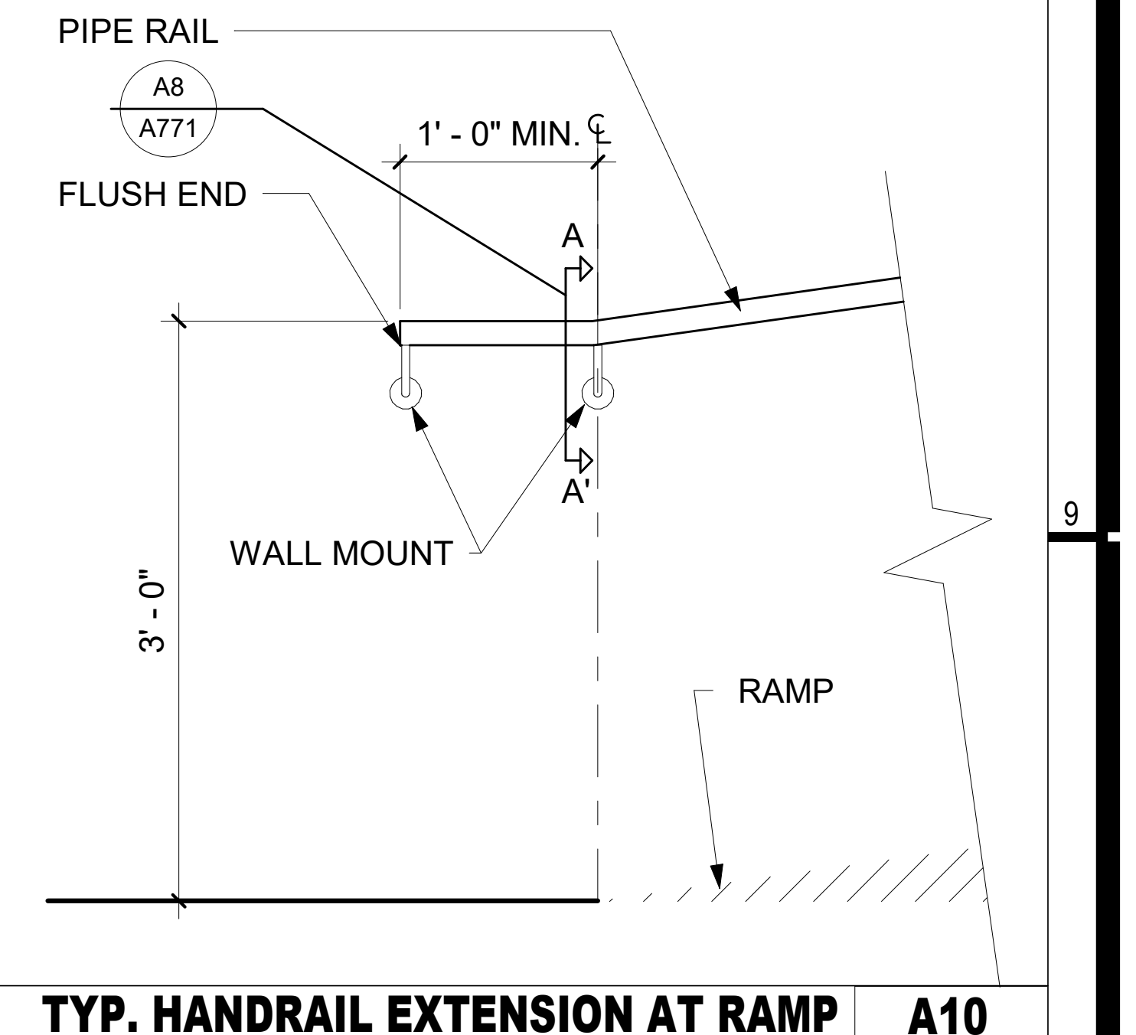
STAIR STRIPING & HANDRAILS F10

1/2" = 1'-0"



TYP. HANDRAIL AT RAMP C10

1/2" = 1'-0"



TYP. HANDRAIL EXTENSION AT RAMP A10

1" = 1'-0"

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Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

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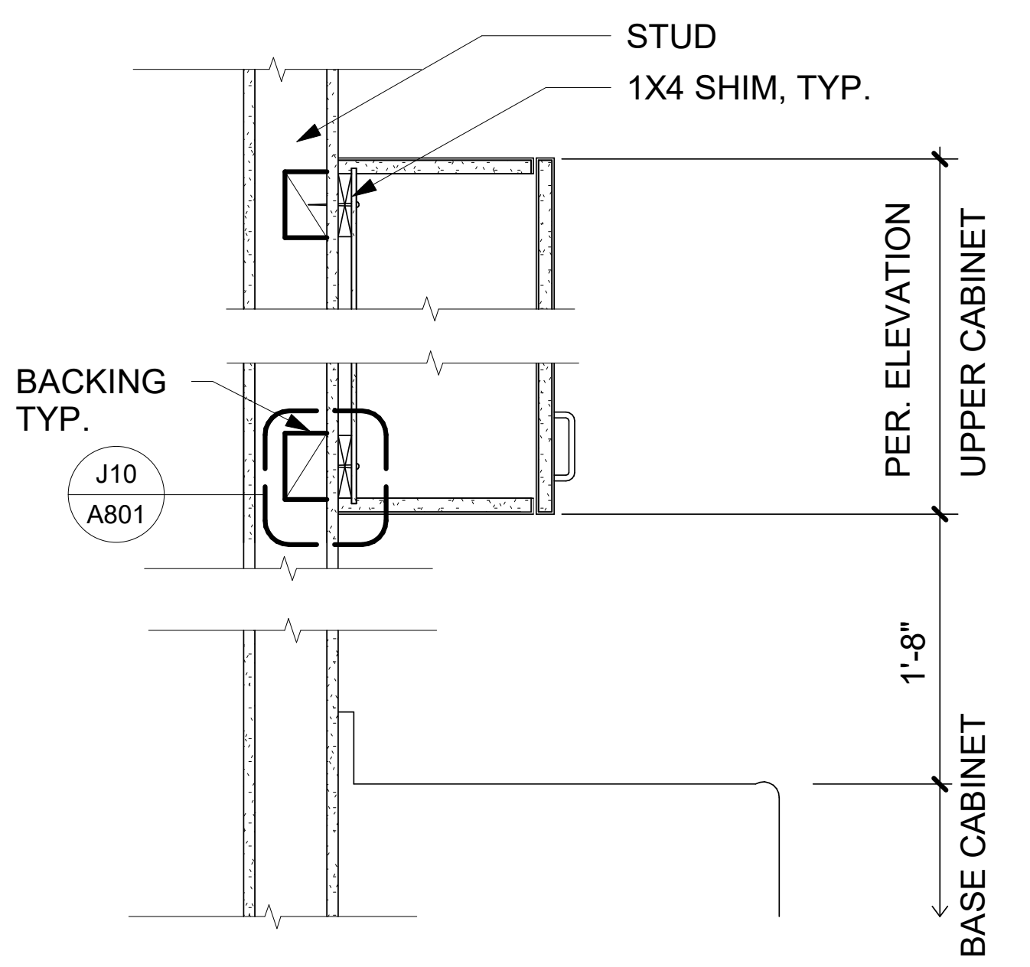
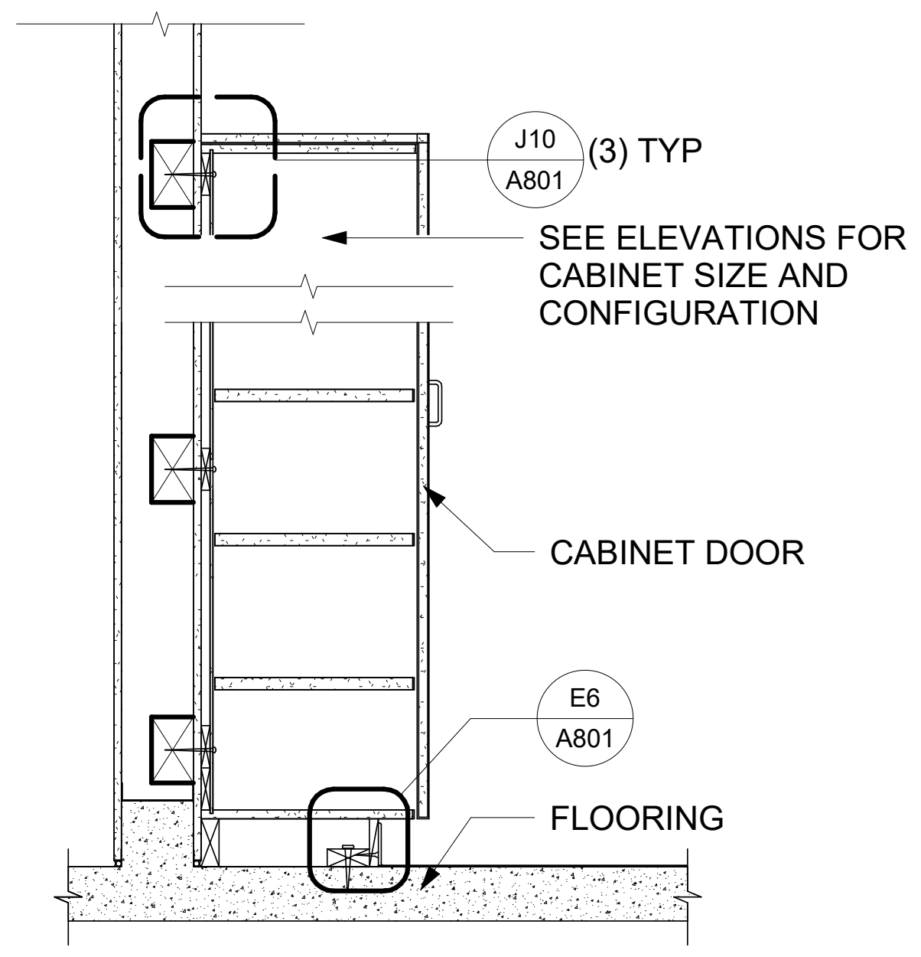
STAIR AND RAMP DETAILS

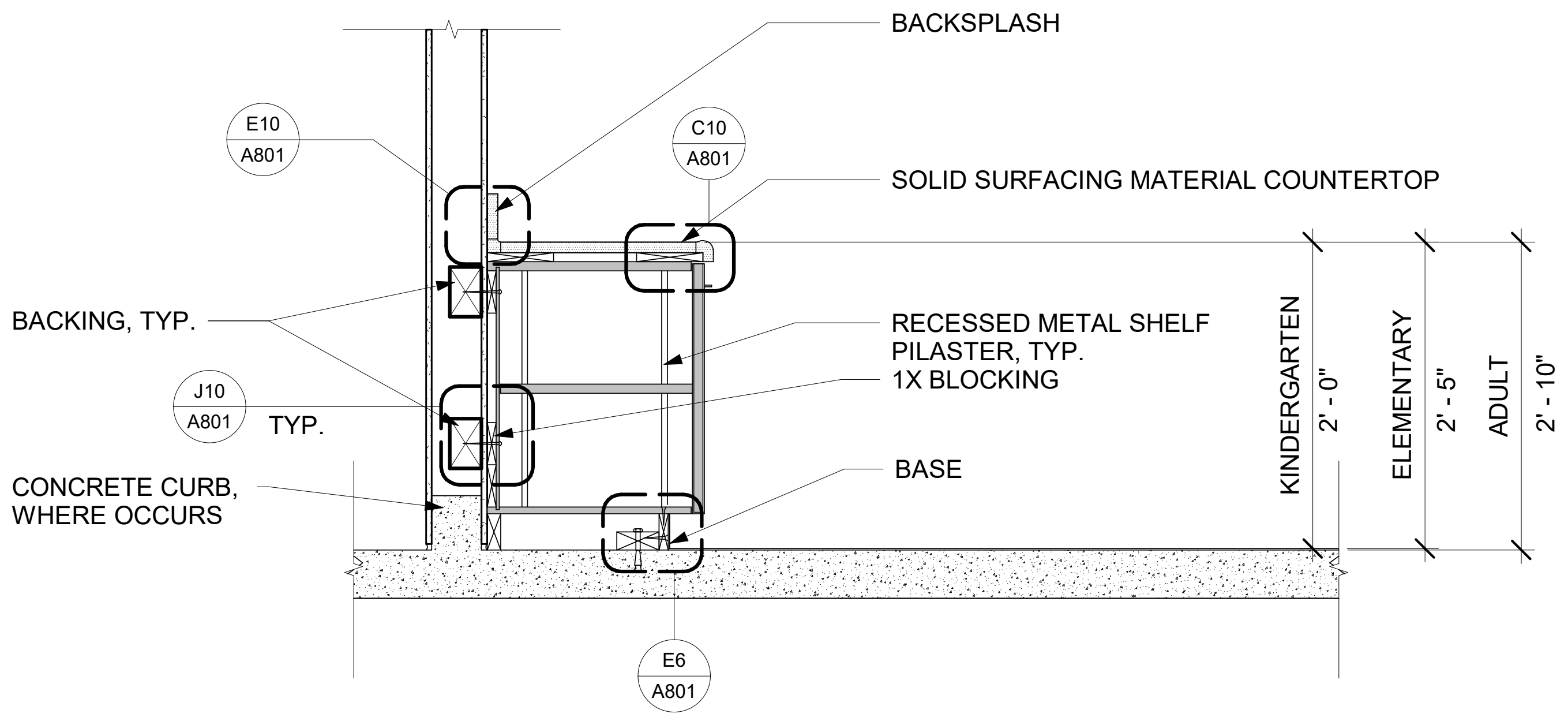
A771



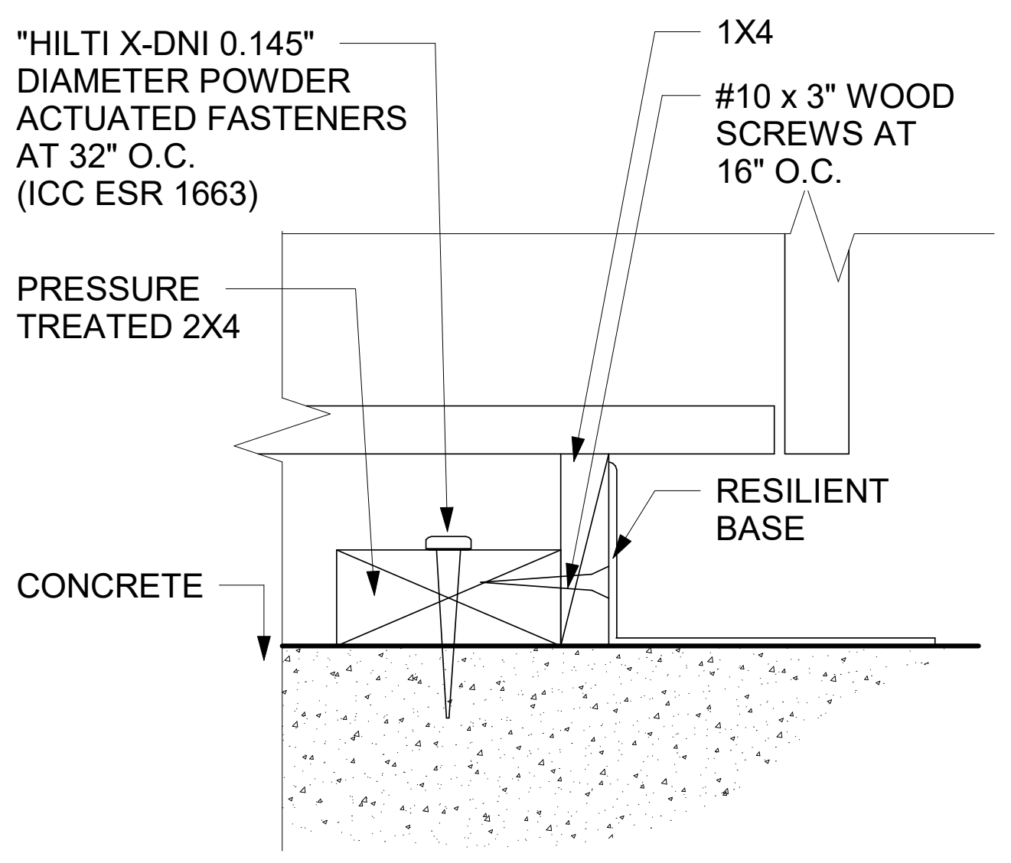
TYPICAL CASEWORK MOUNTING C2
UPPER CABINET 3/4" = 1'-0"



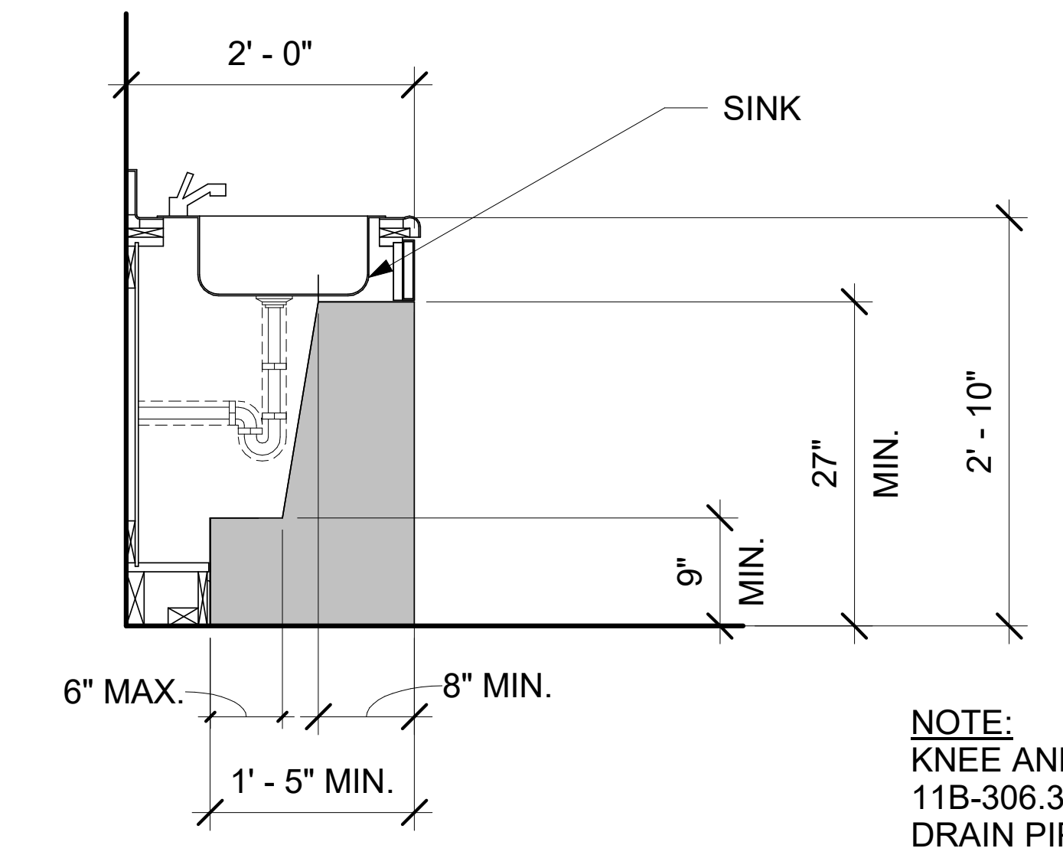
TYPICAL CASEWORK MOUNTING A2
TALL CABINET 3/4" = 1'-0"



TYPICAL CASEWORK MOUNTING A4
3/4" = 1'-0"

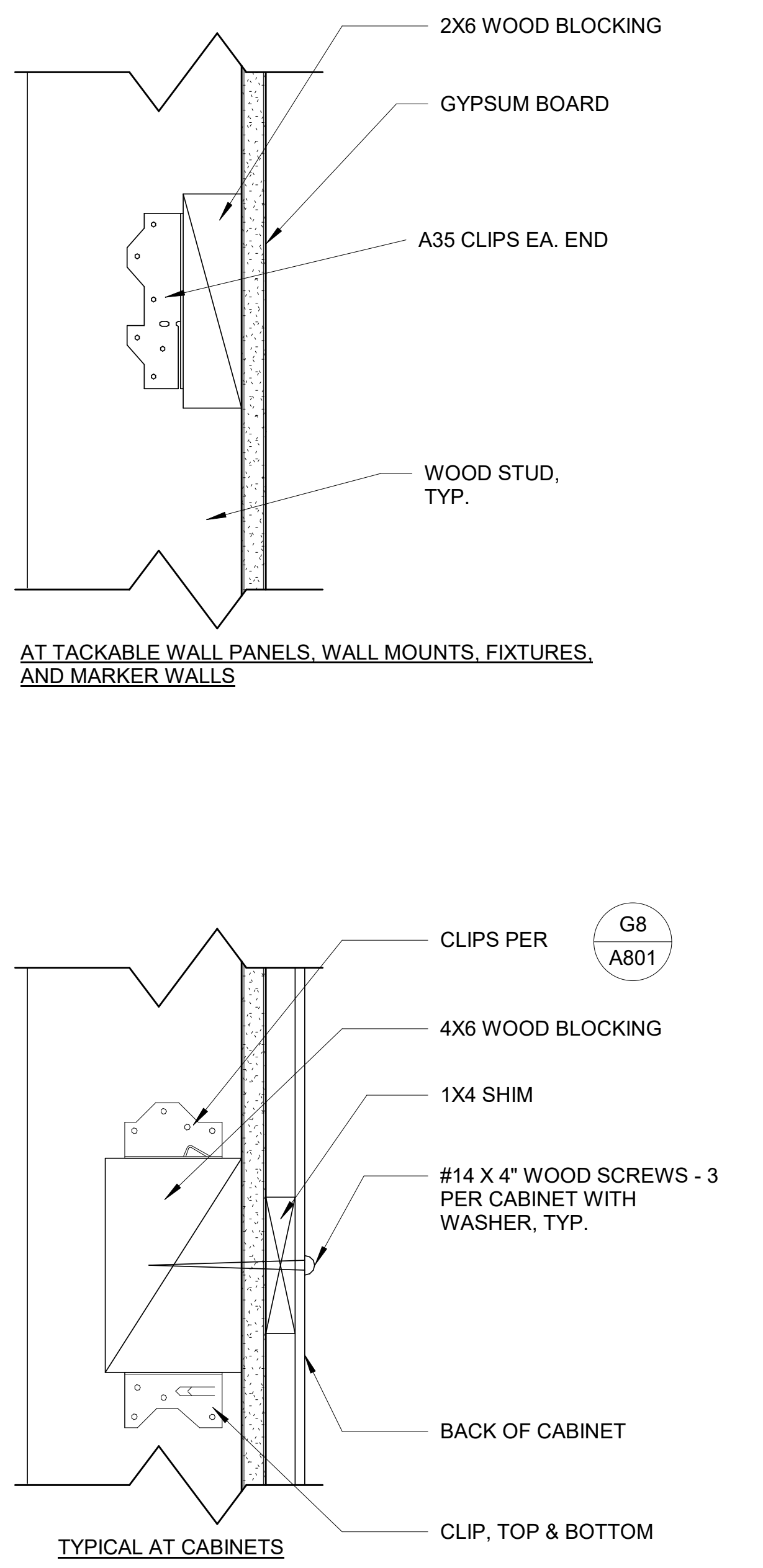

"HILTI X-DNI 0.145" DIAMETER POWDER ACTUATED FASTENERS AT 32" O.C. (ICC ESR 1663)
1X4
#10 x 3" WOOD SCREWS AT 16" O.C.
PRESSURE TREATED 2X4
RESILIENT BASE
CONCRETE

CABINET FLOOR ANCHOR - FRONT E6
3" = 1'-0"



NOTE:
KNEE AND TOE SPACE PER C.B.C. SECTION 11B-306.2 TO 11B-306.3.4 AND FIGURE 11B-306.3. WATER SUPPLY AND DRAIN PIPES UNDER SINKS SHALL BE INSULATED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER SINKS.

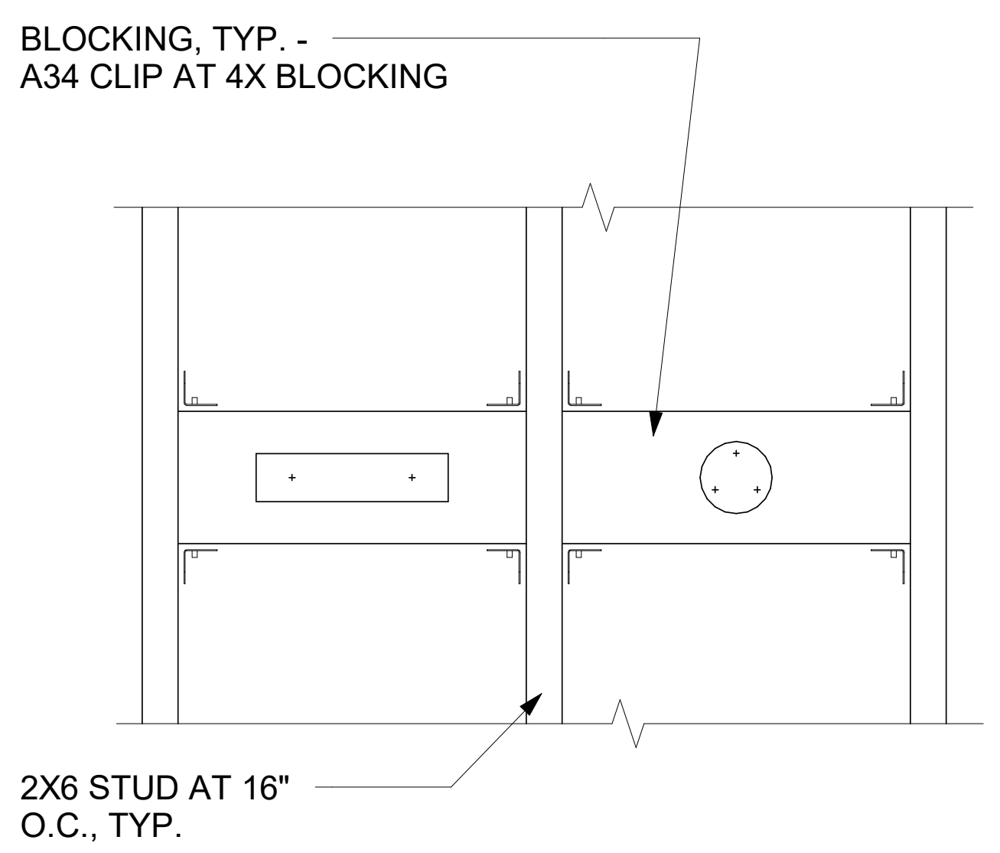
ACCESSIBLE KNEE AND TOE SPACE A6
3/4" = 1'-0"



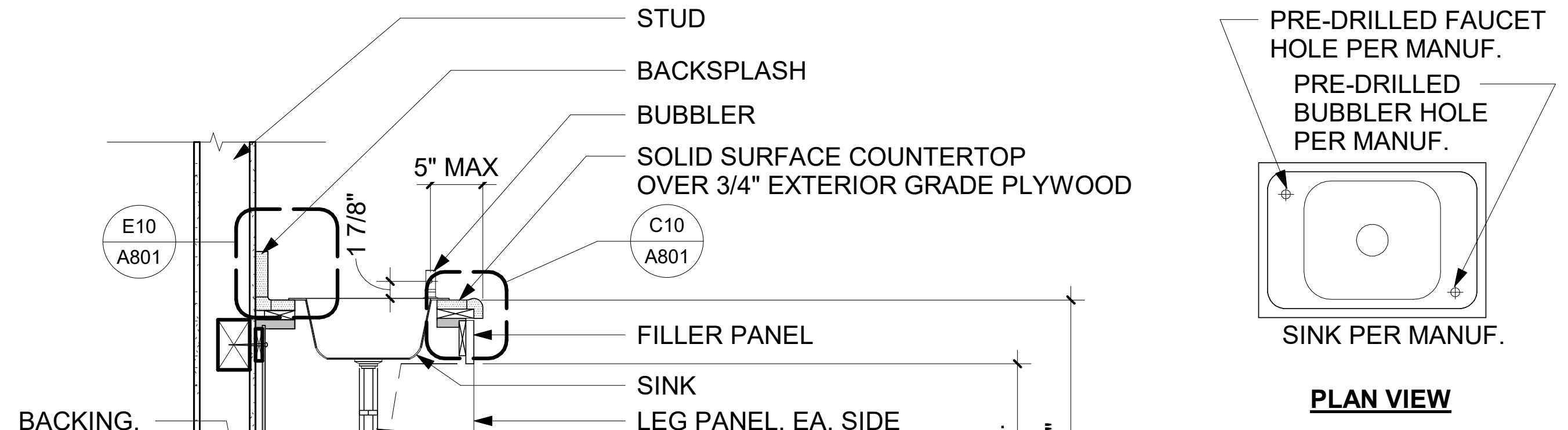
AT TACKABLE WALL PANELS, WALL MOUNTS, FIXTURES, AND MARKER WALLS

TYPICAL AT CABINETS

TYPICAL BACKING J10
3" = 1'-0"


BLOCKING, TYP. - A34 CLIP AT 4X BLOCKING
2X6 STUD AT 16" O.C., TYP.

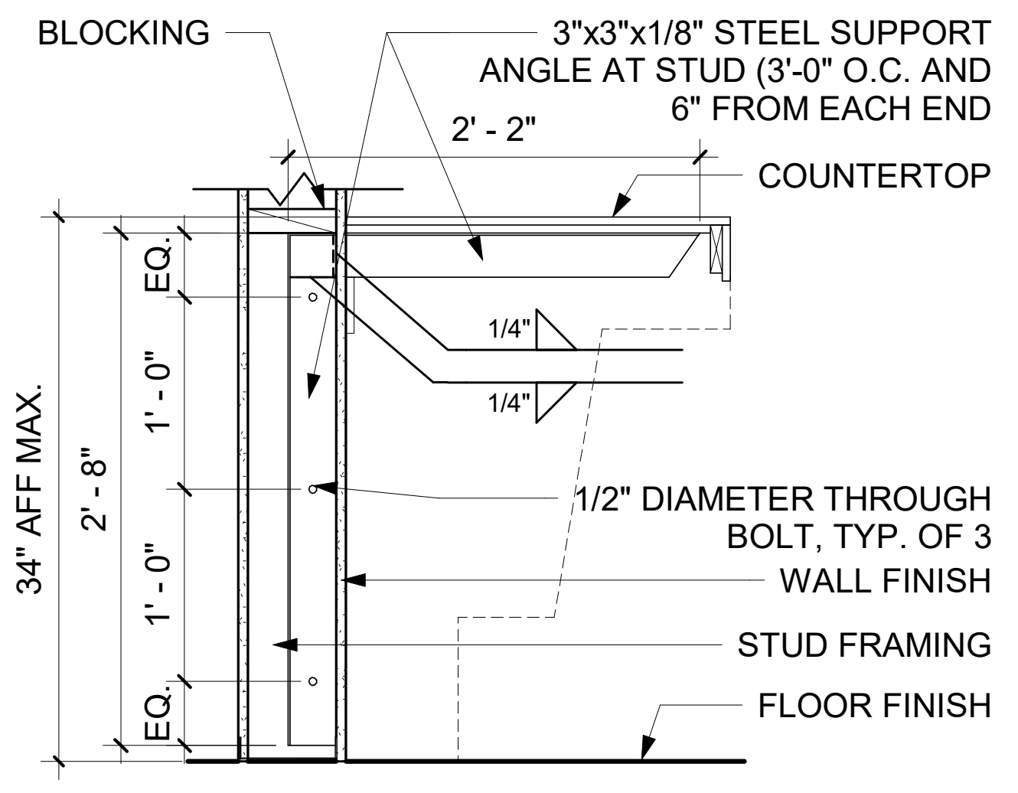
BACKING TO STUDS G8
1 1/2" = 1'-0"


STUD
BACKSPLASH
BUBBLER
SOLID SURFACE COUNTERTOP OVER 3/4" EXTERIOR GRADE PLYWOOD
5" MAX
1 7/8"
E10 A801
C10 A801
FILLER PANEL
SINK
LEG PANEL, EA. SIDE
BACKING, TYP.
J10 A801 TYP.
FIBER INSULATION WITH PROTECTIVE WRAP
FOR ACCESSIBLE CLEARANCES, SEE A6 A801
4"
2' - 3" MIN.
2' - 10"
E6 A801
PRE-DRILLED FAUCET HOLE PER MANUF.
PRE-DRILLED BUBBLER HOLE PER MANUF.
SINK PER MANUF.

PLAN VIEW

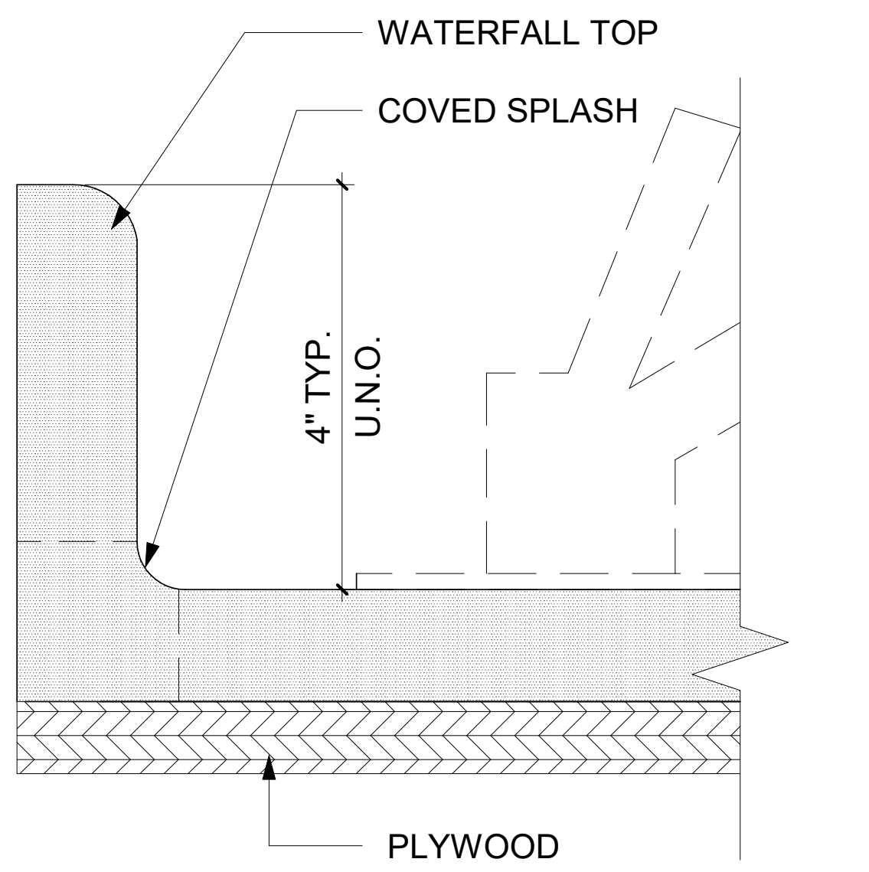
NOTE:
1. PROVIDE FAUCET WITH LEVER CONTROLS.
2. 24" MAX. REACH TO CONTROLS.
3. EXTEND FLOORING INSIDE SINK BASE CABINET.
4. MUST USE FORWARD APPROACH FOR BUBBLER ACCESSIBILITY.

ACCESSIBLE SINK CABINET A8
3/4" = 1'-0"

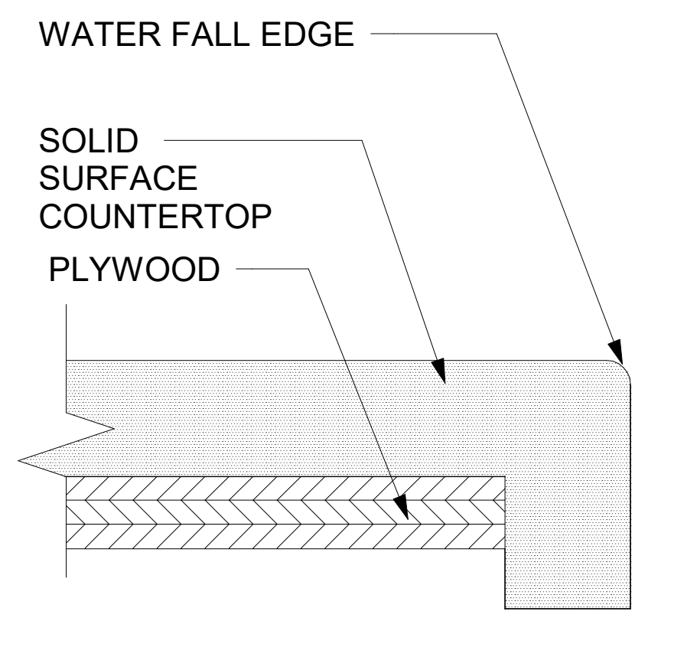

BLOCKING
3"x3"x1/8" STEEL SUPPORT ANGLE AT STUD (3'-0" O.C. AND 6" FROM EACH END
2' - 2"
COUNTERTOP
1/4"
1/4"
34" AFF MAX.
2' - 8"
EQ.
1' - 0"
1' - 0"
EQ.
1/2" DIAMETER THROUGH BOLT, TYP. OF 3
WALL FINISH
STUD FRAMING
FLOOR FINISH

NOTE:
FOR CLEARANCES, SEE A6 A801

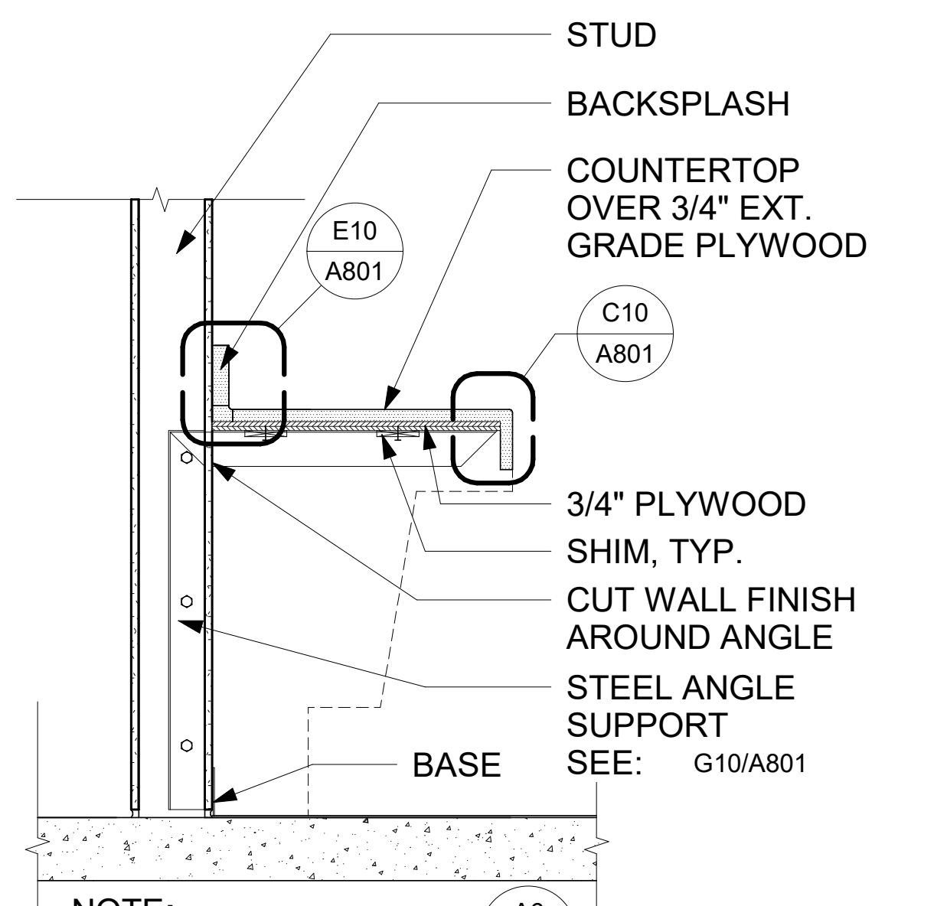
COUNTERTOP SUPPORT G10
1" = 1'-0"



BACKSPLASH E10
6" = 1'-0"



SOLID SURFACE COUNTERTOP EDGE C10
6" = 1'-0"


STUD
BACKSPLASH
COUNTERTOP OVER 3/4" EXT. GRADE PLYWOOD
E10 A801
C10 A801
3/4" PLYWOOD
SHIM, TYP.
CUT WALL FINISH AROUND ANGLE
STEEL ANGLE SUPPORT SEE: G10/A801
BASE

NOTE:
FOR CLEARANCES, SEE A6 A801

TYPICAL COUNTERTOP MOUNTING A10
3/4" = 1'-0"

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DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

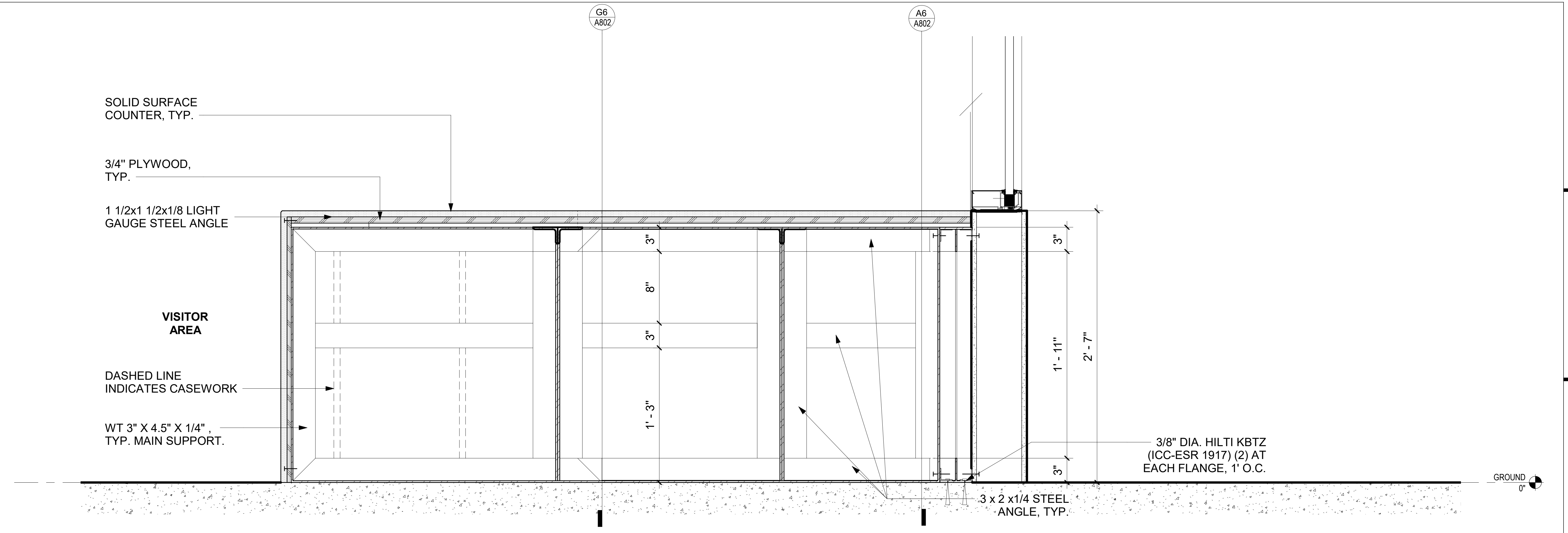
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022

CASEWORK DETAILS

PERKINS EASTMAN

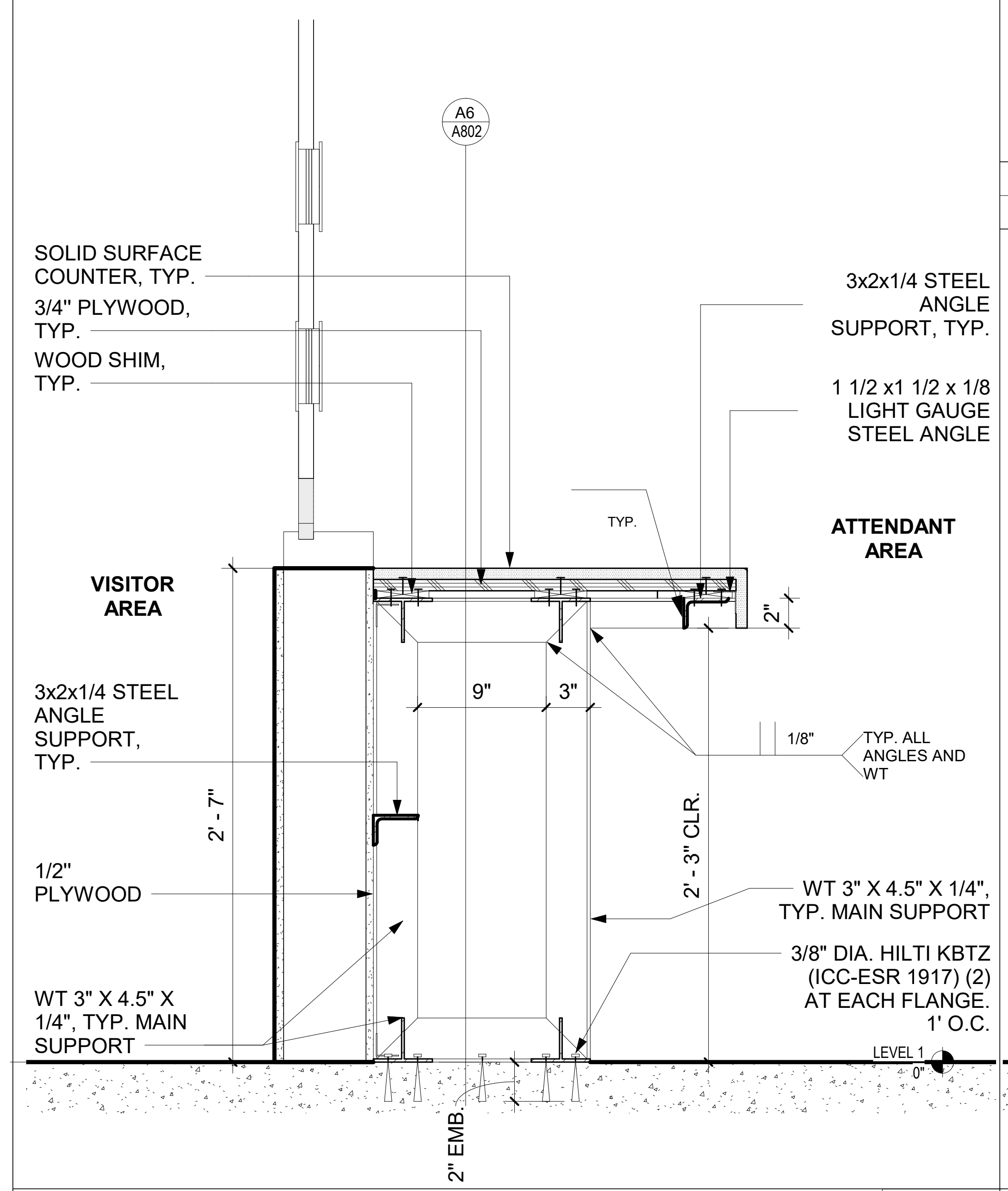
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A801


G6
A802
A6
A802
SOLID SURFACE COUNTER, TYP.
3/4" PLYWOOD, TYP.
1 1/2x1 1/2x1/8 LIGHT GAUGE STEEL ANGLE
VISITOR AREA
DASHED LINE INDICATES CASEWORK
WT 3" X 4.5" X 1/4" , TYP. MAIN SUPPORT.
3"
8"
3"
1' - 3"
3"
1' - 11"
2' - 7"
3"
3/8" DIA. HILTI KBTZ (ICC-ESR 1917) (2) AT EACH FLANGE, 1' O.C.
3 x 2 x1/4 STEEL ANGLE, TYP.
GROUND
0"

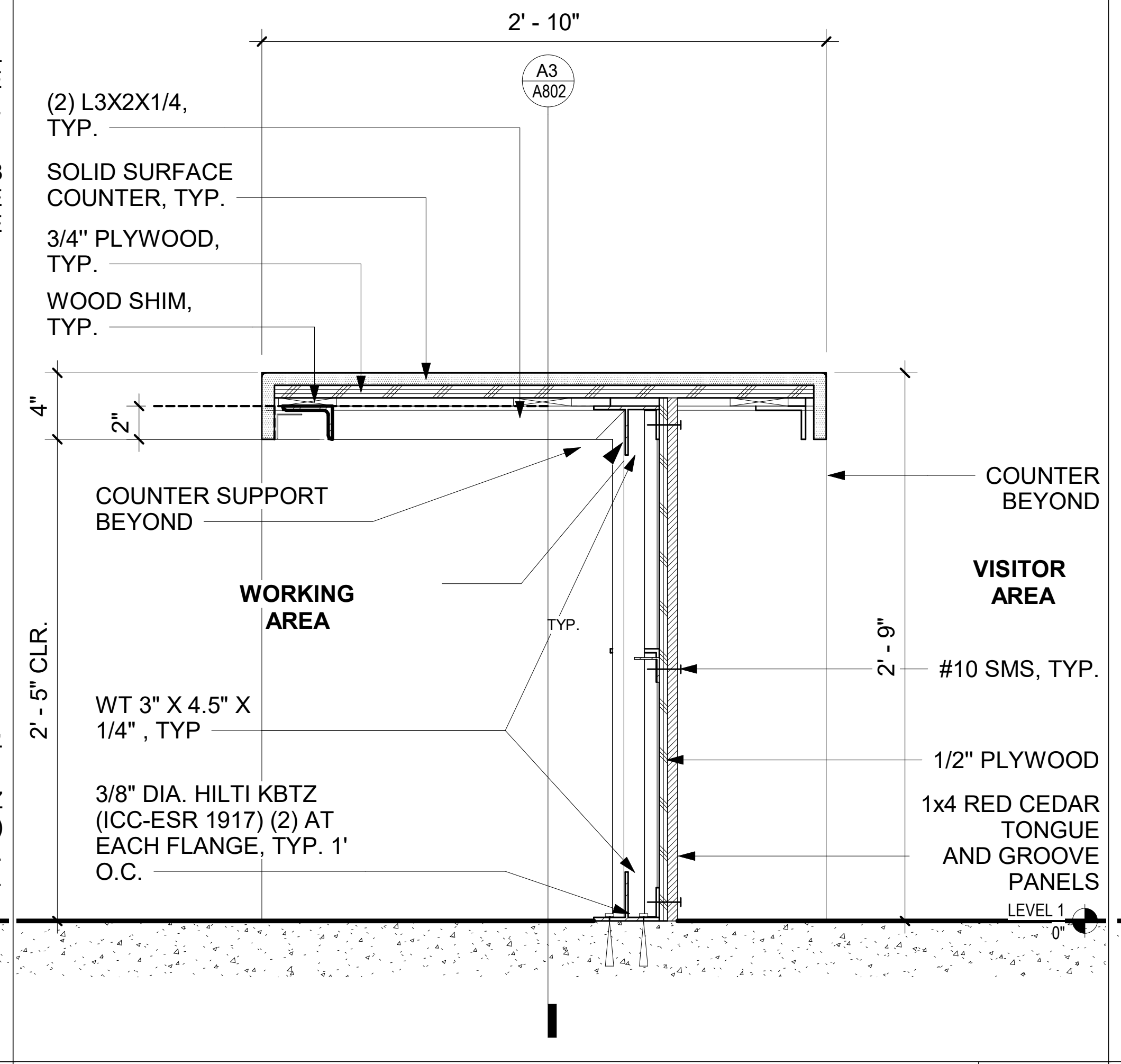
RECEPTIONIST DESK - SECTION 2 A3

1 1/2" = 1'-0"


A6
A802
SOLID SURFACE COUNTER, TYP.
3/4" PLYWOOD, TYP.
WOOD SHIM, TYP.
3x2x1/4 STEEL ANGLE SUPPORT, TYP.
1 1/2 x1 1/2 x 1/8 LIGHT GAUGE STEEL ANGLE
TYP.
ATTENDANT AREA
VISITOR AREA
2"
9"
3"
1/8"
TYP. ALL ANGLES AND WT
3x2x1/4 STEEL ANGLE SUPPORT, TYP.
2' - 7"
2' - 3" CLR.
1/2" PLYWOOD
WT 3" X 4.5" X 1/4", TYP. MAIN SUPPORT
3/8" DIA. HILTI KBTZ (ICC-ESR 1917) (2) AT EACH FLANGE. 1' O.C.
WT 3" X 4.5" X 1/4", TYP. MAIN SUPPORT
LEVEL 1
0"
2" EMB.

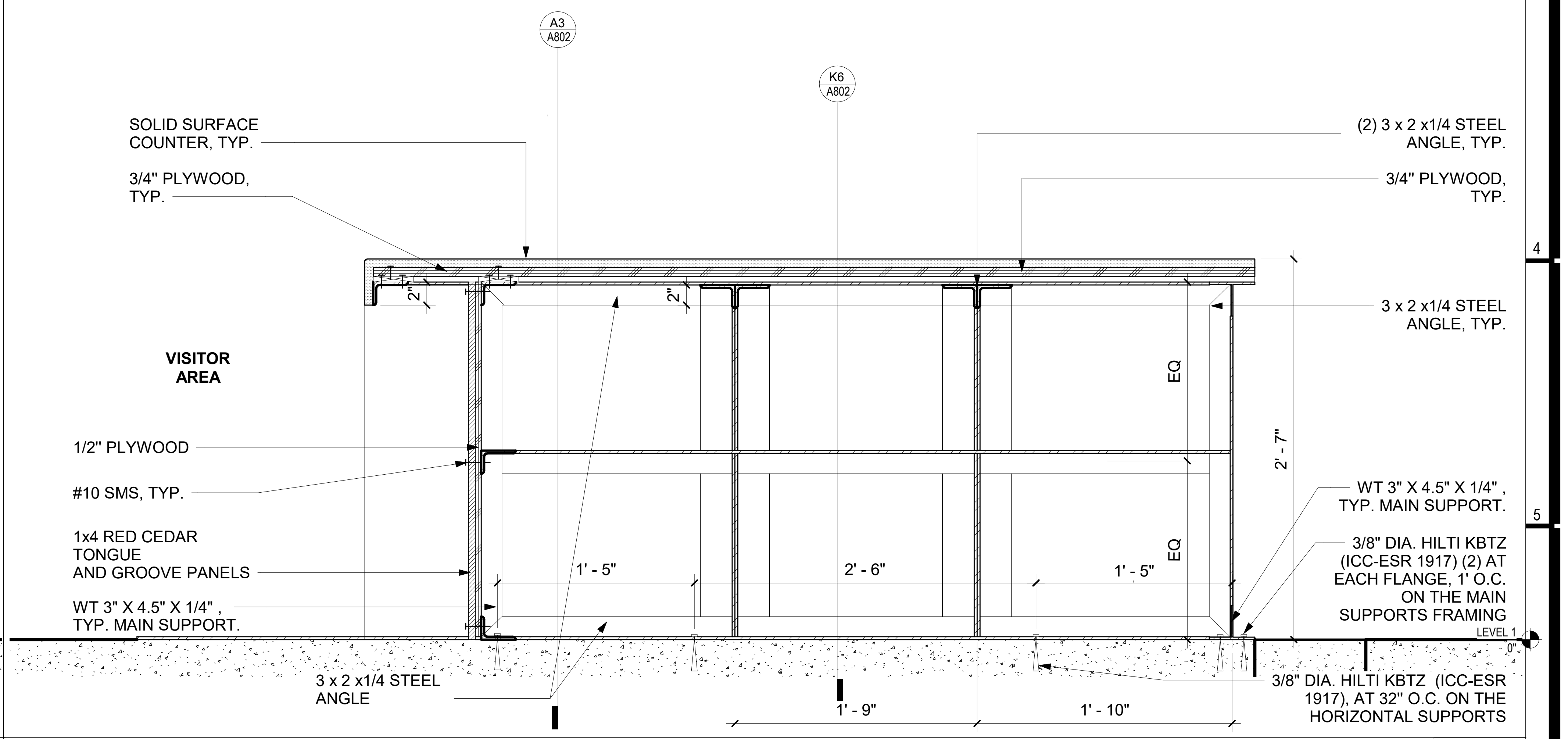
RECEPTION DESK - COUNTER K6

1 1/2" = 1'-0"



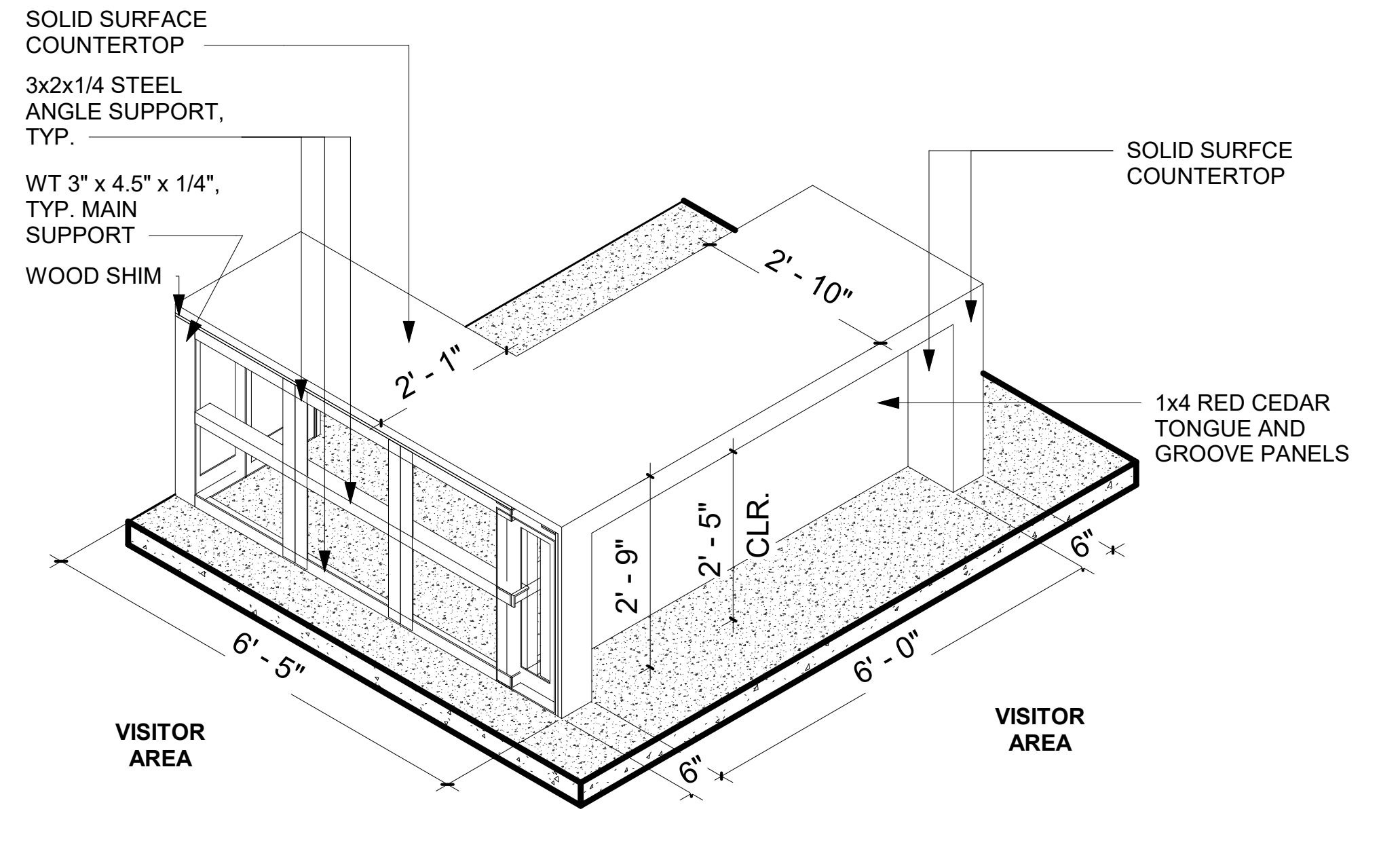
RECEPTION DESK - HIGH COUNTER SECTION G6

1 1/2" = 1'-0"

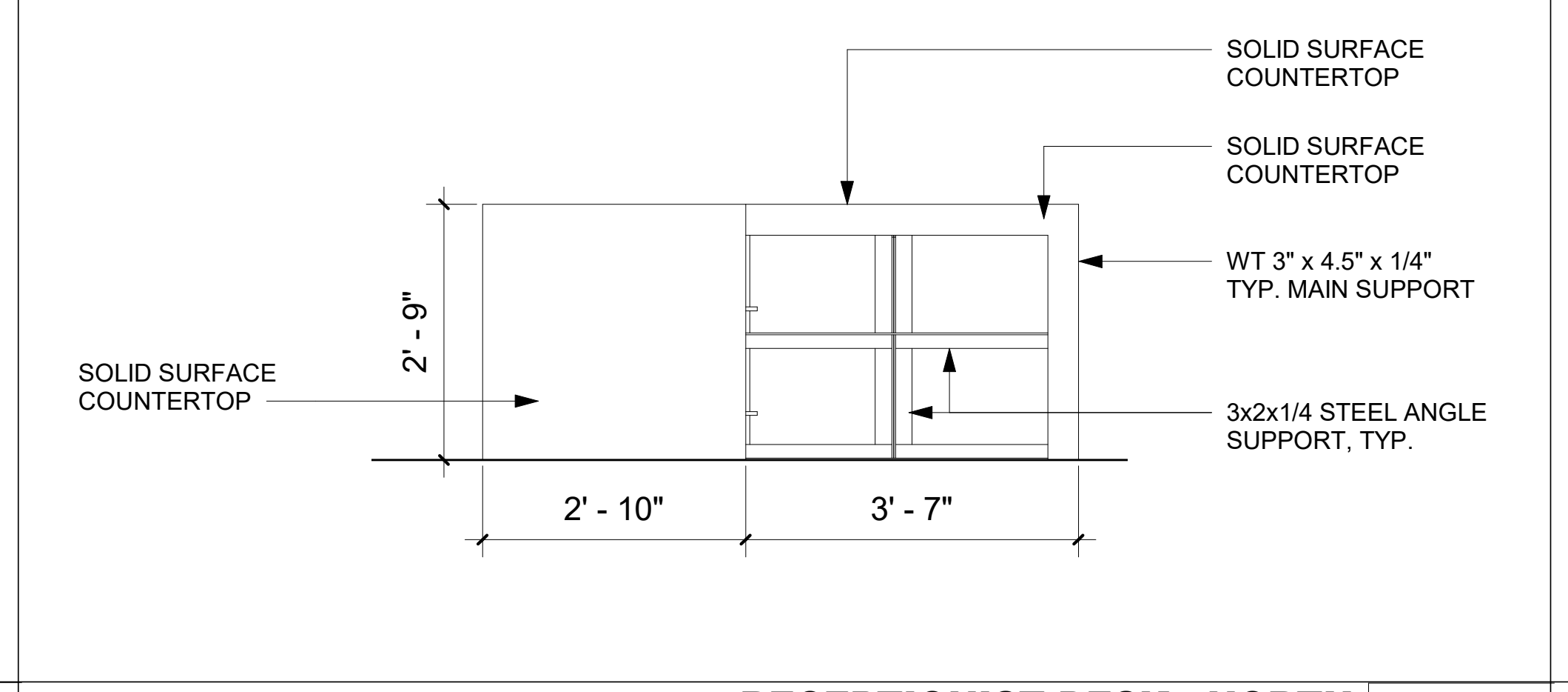

A3
A802
K6
A802
SOLID SURFACE COUNTER, TYP.
3/4" PLYWOOD, TYP.
(2) 3 x 2 x1/4 STEEL ANGLE, TYP.
3/4" PLYWOOD, TYP.
2"
2"
3 x 2 x1/4 STEEL ANGLE, TYP.
VISITOR AREA
EQ
EQ
2' - 7"
1/2" PLYWOOD
#10 SMS, TYP.
1x4 RED CEDAR TONGUE AND GROOVE PANELS
WT 3" X 4.5" X 1/4" , TYP. MAIN SUPPORT.
1' - 5"
2' - 6"
1' - 5"
WT 3" X 4.5" X 1/4" , TYP. MAIN SUPPORT.
3/8" DIA. HILTI KBTZ (ICC-ESR 1917) (2) AT EACH FLANGE, 1' O.C. ON THE MAIN SUPPORTS FRAMING
LEVEL 1
0"
3 x 2 x1/4 STEEL ANGLE
1' - 9"
1' - 10"
3/8" DIA. HILTI KBTZ (ICC-ESR 1917), AT 32" O.C. ON THE HORIZONTAL SUPPORTS

RECEPTION DESK - SECTION 1 A6

1 1/2" = 1'-0"

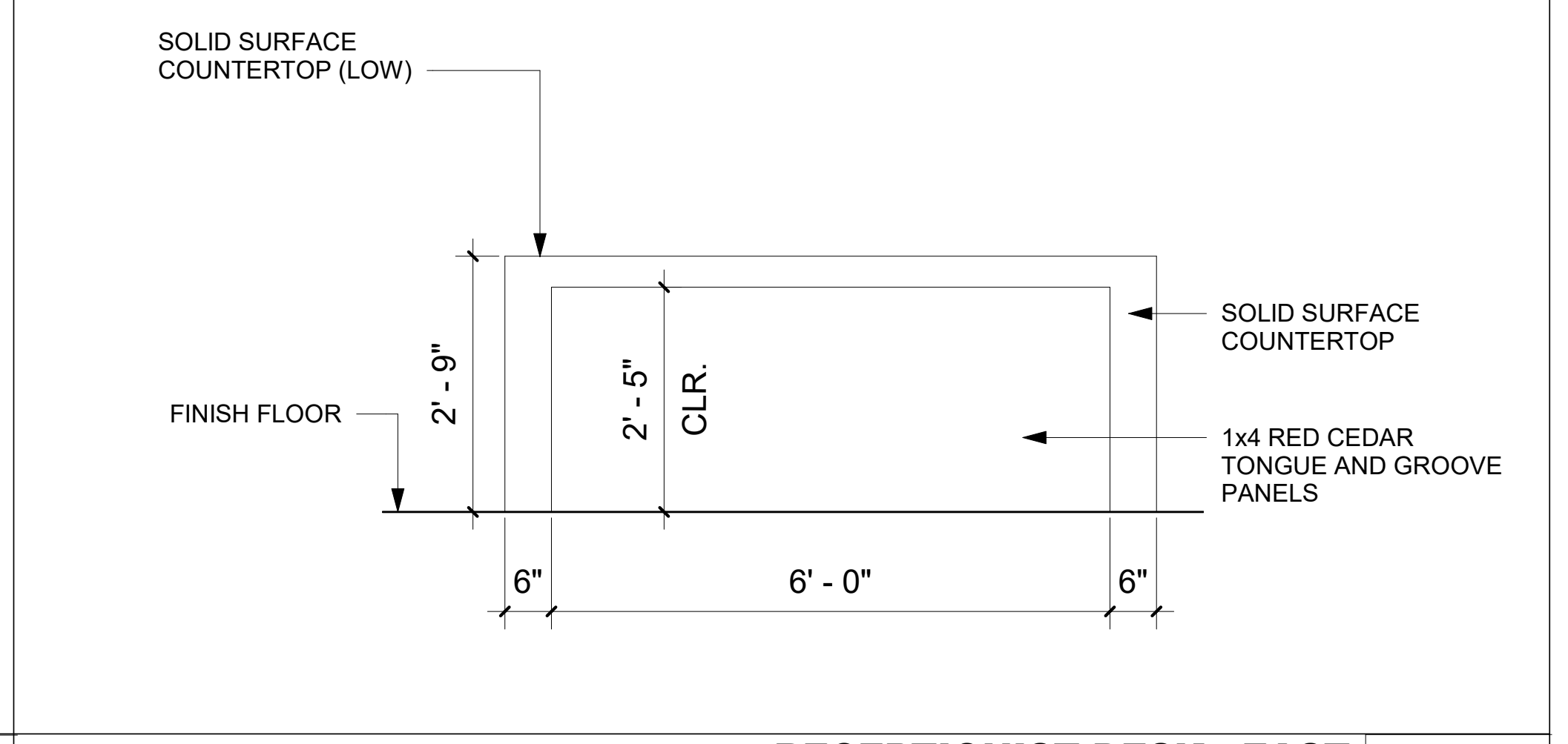


3D - 1. RECEPTION DESK K8



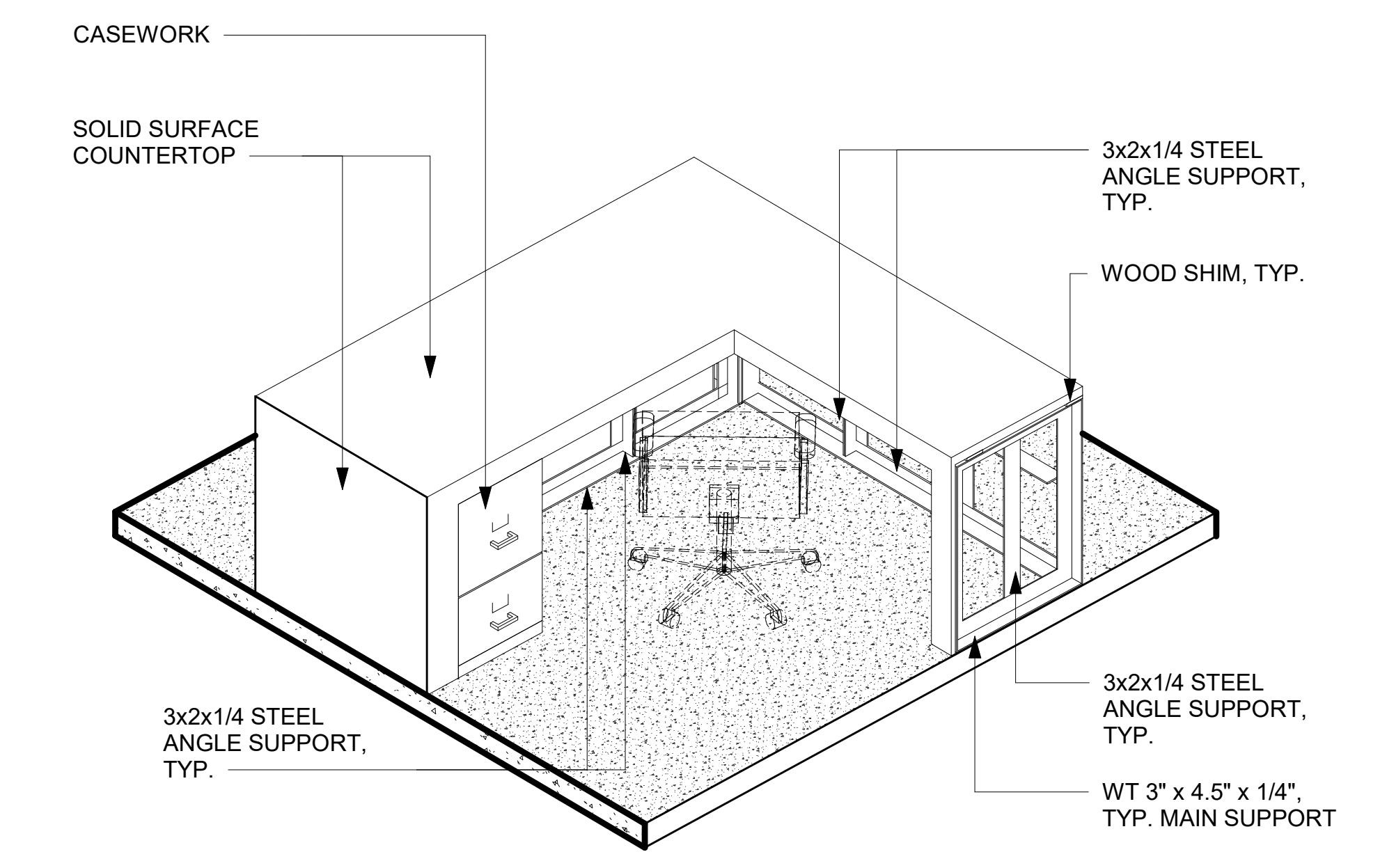
RECEPTIONIST DESK - NORTH G8

1/2" = 1'-0"

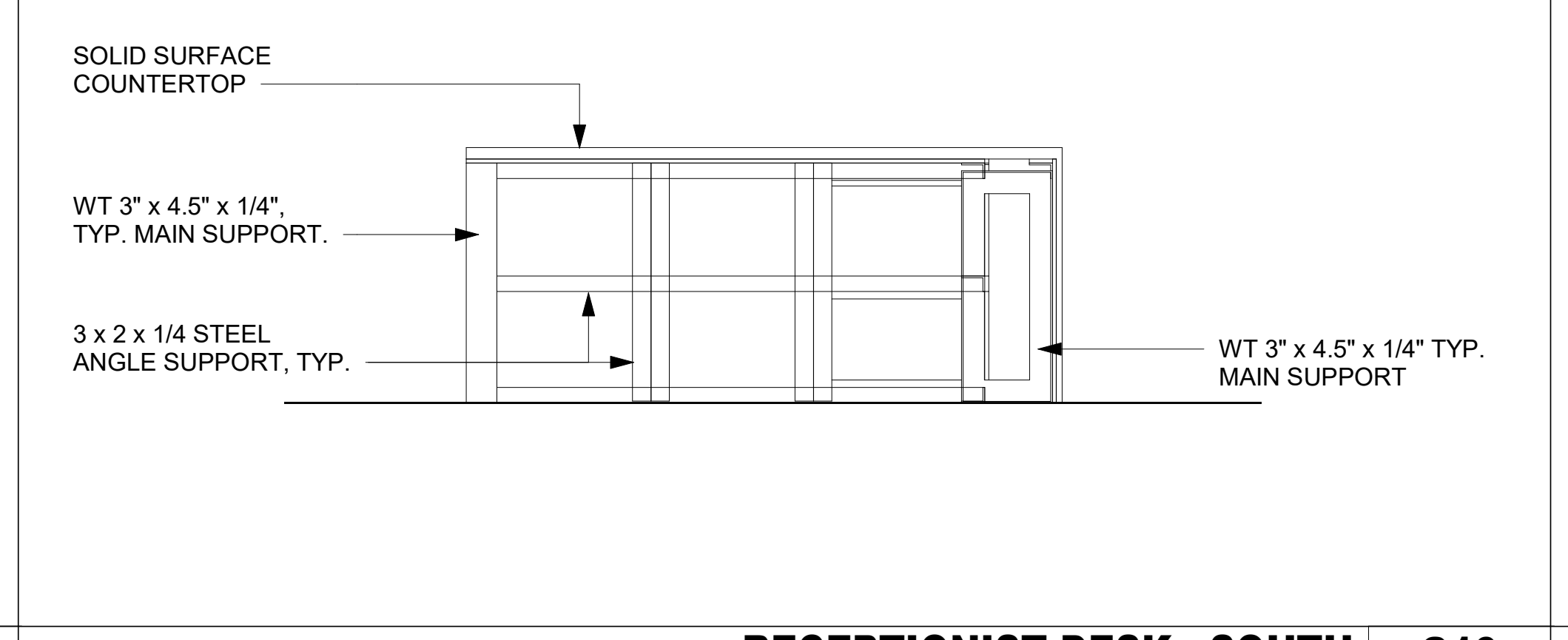

SOLID SURFACE COUNTERTOP (LOW)
SOLID SURFACE COUNTERTOP
FINISH FLOOR
2' - 9"
2' - 5"
CLR.
1x4 RED CEDAR TONGUE AND GROOVE PANELS
6"
6' - 0"
6"

RECEPTIONIST DESK - EAST D8

1/2" = 1'-0"

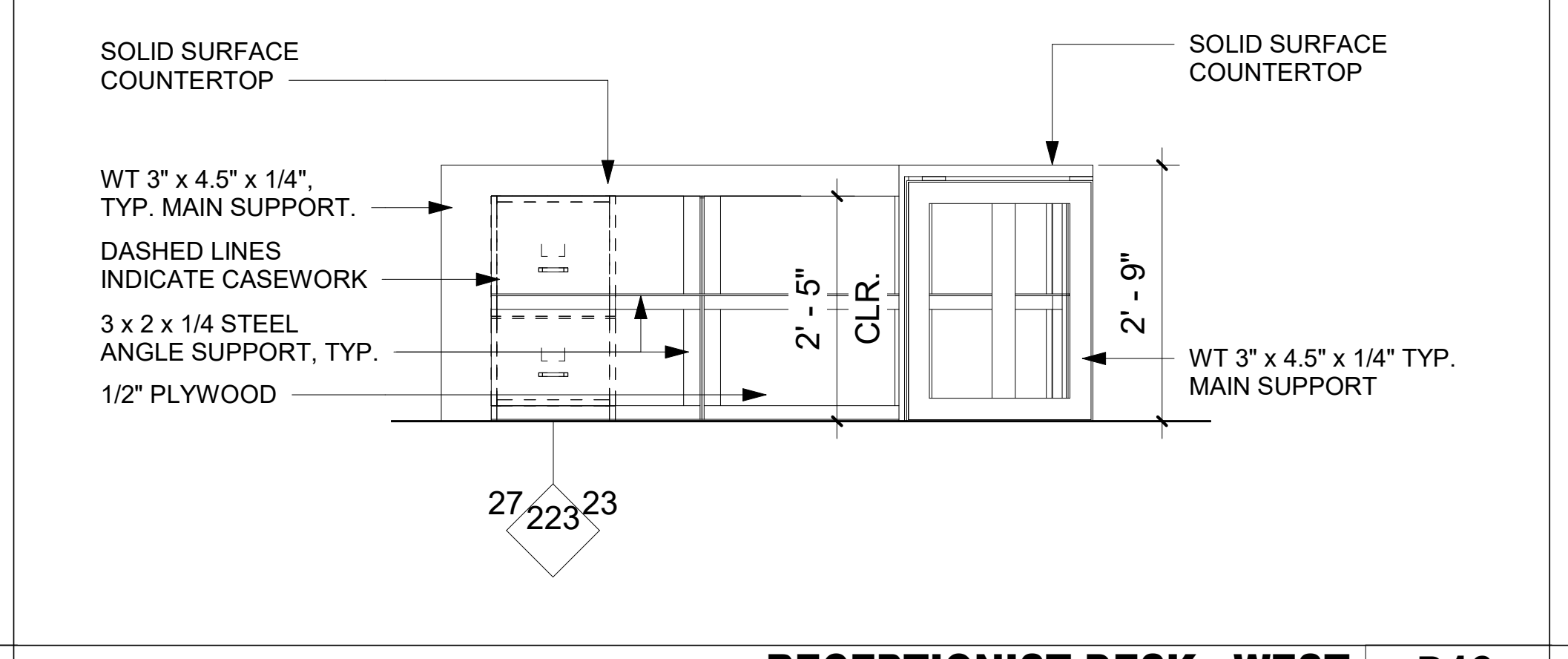

CASEWORK
SOLID SURFACE COUNTERTOP
3x2x1/4 STEEL ANGLE SUPPORT, TYP.
WOOD SHIM, TYP.
3x2x1/4 STEEL ANGLE SUPPORT, TYP.
3x2x1/4 STEEL ANGLE SUPPORT, TYP.
WT 3" x 4.5" x 1/4", TYP. MAIN SUPPORT

3D - 2. RECEPTION DESK K10


SOLID SURFACE COUNTERTOP
WT 3" x 4.5" x 1/4", TYP. MAIN SUPPORT.
3 x 2 x 1/4 STEEL ANGLE SUPPORT, TYP.
WT 3" x 4.5" x 1/4" TYP. MAIN SUPPORT

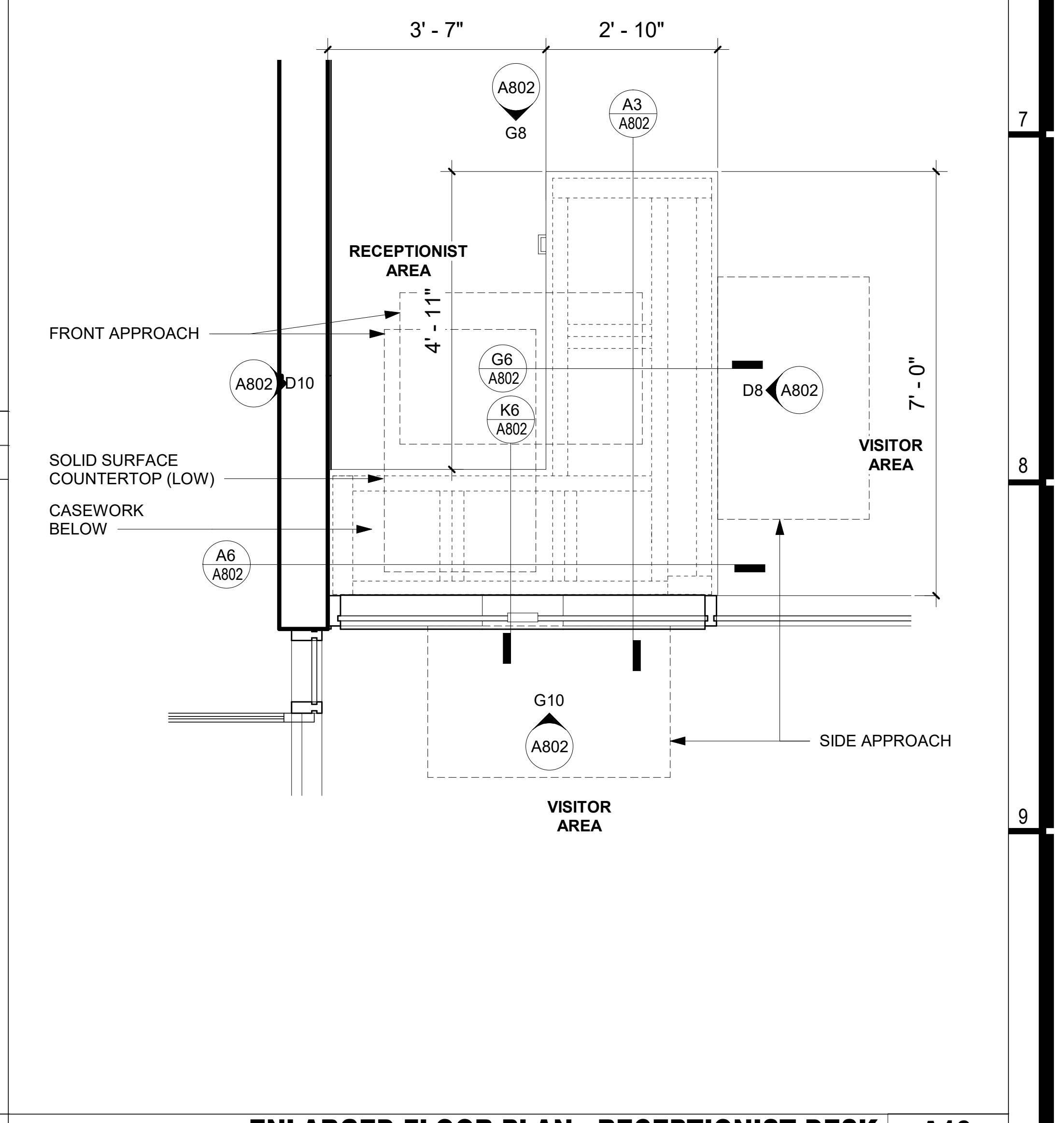
RECEPTIONIST DESK - SOUTH G10

1/2" = 1'-0"


SOLID SURFACE COUNTERTOP
SOLID SURFACE COUNTERTOP
WT 3" x 4.5" x 1/4", TYP. MAIN SUPPORT.
DASHED LINES INDICATE CASEWORK
3 x 2 x 1/4 STEEL ANGLE SUPPORT, TYP.
1/2" PLYWOOD
2' - 5"
CLR.
2' - 9"
WT 3" x 4.5" x 1/4" TYP. MAIN SUPPORT
27
223
23

RECEPTIONIST DESK - WEST D10

1/2" = 1'-0"



ENLARGED FLOOR PLAN - RECEPTIONIST DESK A10

1/2" = 1'-0"

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NO. C-98[illegible]
REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL

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550 Airport Way, Camarillo, CA 93010

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△	
△	
△	
△	
△	

RECEPTION DESK DETAILS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A802

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BRIAN PAUL DOUGHERTY

NOTES:

1. GENERAL REQUIREMENTS:
CBC SECTION 1617A.1.21 REQUIRES THE DESIGN AND INSTALLATION TO BE IN COMPLIANCE WITH ASTM C635, C636, AND E580, SECTION 5, AS AMENDED BY 2019 CBC SECTION 1617A.1.21

NOTE: AMENDMENTS IN CBC SECTION 1617A.1.21 REPLACE ASCE 7, SECTION 13.5.6.
THE REQUIREMENTS LISTED IN THESE DSA IR 25-2 (2019 CBC) NOTES APPLY TO FLAT AND LEVEL CEILING SYSTEMS WHOSE TOTAL WEIGHT, INCLUDING CEILING MOUNTED AIR TERMINALS, SERVICES AND LIGHT FIXTURES, DOES NOT EXCEED FOUR (4) PSF.

1.1 CEILING SYSTEM FOLLOWING CEILING SYSTEM(S) IS/ARE PART OF THE SCOPE OF THIS PROCECT:

MANUFACTURER:
USG

PRODUCT NAME:
FISSURED BASIC PANELS

EVALUATION REPORT TYPE AND NUMBER:
ESR-1222

MAIN RUNNER PART, MODEL, OR CATALOG NO.:
DXL-26

CROSS RUNNER PART, MODEL, CATALOG NO.:
DX/DXL424

2. SUSPENSION SYSTEM COMPONENTS:
SHALL COMPLY WITH ASTM C635 AND SECTION 5.1 OF ASTM E580.

2.1 THE CEILING GRID SYSTEM MUST BE RATED HEAVY DUTY AS DEFINED BY ASTM C635.

2.2 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 TENSILE STRENGTH = 70 KSI.

2.3 MAIN RUNNERS, CROSS RUNNERS, SPLICES, EXPANSION DEVICES, AND INTERSECTION CONNECTORS SHALL BE DESIGNED TO CARRY A MEAN ULTIMATE TEST LOAD OF NOT LESS THAN 180 LBS. IN COMPRESSION AND TENSION PER ASTM E580 SECTION 5.1.2.

3. SUSPENSION SYSTEM INSTALLATION:
SHALL COMPLY WITH ASTM C636 AND SECTION 5.2 OF ASTM E580.

3.1 #12 GAUGE HANGER WIRES MAY BE USED FOR UP TO AND INCLUDING A 4 FOOT BY 4 FOOT GRID SPACING AND SHALL BE ATTACHED TO MAIN RUNNERS.

3.2 PROVIDE 12 GAUGE 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 LEAST, FOR THE PERIMETER OF THE CEILING AREA (SEE J10/A422). PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

3.3 CEILING GRID MEMBERS SHALL BE ATTACHED TO TWO (2) ADJACENT WALLS PER ASTM E580, SECTION 5.2.3. CEILING GRID MEMBERS SHALL BE AT LEAST 3/4 INCH CLEAR OF OTHER WALLS. IF WALLS RUN DIAGONALLY TO CEILING GRID SYSTEM RUNNERS, ONE END OF MAIN AND CROSS RUNNERS SHOULD BE FREE, AND A MINIMUM OF 3/4 INCH CLEAR OF WALL.

3.4 THE WIDTH OF THE PERIMETER SUPPORTING CLOSURE ANGLE SHALL BE NOT LESS THAN TWO INCHES. GRID SYSTEMS WITH SPECIALTY OR PROPRIETARY ANGLES AND SUPPORT CLIPS MAY BE ACCEPTABLE IN ACCORDANCE WITH DSA ACCEPTANCE OF ELEVATION REPORTS PER DSA IR A-5.

3.5 AT THE PERIMETER OF THE CEILING AREA, WHERE MAIN OR CROSS RUNNERS ARE NOT CONNECTED TO THE ADJACENT WALL, PROVIDE INTERCONNECTION BETWEEN THE RUNNERS AT THE FREE END TO PREVENT LATERAL SPREADING. A METAL SPREADER STRUT OR A 16 GAUGE WIRE WITH A POSITIVE MECHANICAL CONNECTION TO THE RUNNER MAY BE USED AND PLACED WITHIN EIGHT (8) INCHES OF THE WALL. WHERE THE PERPENDICULAR DISTANCE FROM THE WALL TO THE FIRST PARALLEL RUNNER IS EIGHT (8) INCHES OR LESS, THIS INTERLOCK IS NOT REQUIRED.

4. LATERAL FORCE BRACING:
LATERAL FORCE BRACING IS REQUIRED PER THIS SECTION FOR ALL CEILING AREAS.

EXCEPTION: LATERAL FORCE BRACING MAY BE OMITTED FOR SUSPENDED ACOUSTICAL CEILING
SYSTEMS WITH A CEILING AREA OF 144 SQUARE FEET OR LESS, WHEN PERIMETER SUPPORT, IN ACCORDANCE WITH SECTION 3.3 OF THIS IR OR WITH ASTM E580 SECTIONS 5.2.2 AND 5.2.3, ARE PROVIDED AND PERIMETER WALLS ARE DESIGNED TO CARRY THE CEILING LATERAL FORCES.

4.1 PROVIDE LATERAL FORCE BRACING ASSEMBLIES CONSISTING OF A COMPRESSION STRUT AND FOUR (4) 12 GAUGE SPLAYED BRACING WIRES ORIENTED 90 DEGREES FROM EACH OTHER (SEE A10/A541).

4.2 SDS FOR THIS PROJECT IS 1.213g, THUS BRACE ASSEMBLY SPACING SHALL BE 8' x 12'
(DSA IR 25-2.13, TABLE 1)

4.3 THE SLOPE OF BRACING WIRES SHALL NOT EXCEED 45 DEGREES FROM THE PLANE OF THE CEILING AND WIRES SHALL BE TAUT. SPLICES IN WIRES ARE NOT PERMITTED WITHOUT DSA APPROVAL.

4.4 COMPRESSION STRUTS SHALL BE ADEQUATE TO RESIST THE VERTICAL COMPONENT INDUCED BY THE BRACING WIRES, AND SHALL NOT BE MORE THAN ONE (HORIZONTAL) IN SIX (VERTICAL) OUT OF PLUMB.

5. ATTACHMENT OF HANGER AND BRACING WIRES:

5.1 FASTEN HANGER WIRES WITH NOT LESS THAN THREE (3) TIGHT TURNS IN THREE (3) INCHES. HANGER WIRE LOOPS SHALL BE TIGHTLY WRAPPED AND SHARPLY BENT TO PREVENT ANY VERTICAL MOVEMENT OR ROTATION OF THE MEMBER WITHIN THE LOOPS (SEE ASTM E580, SECTION 5.2.7.2).

5.2 FASTEN BRACING WIRES WITH FOUR (4) TIGHT TURNS. MAKE ALL TIGHT TURNS WITHIN A DISTANCE OF ONE AND ONE-HALF (1-1/2) INCHES.

5.3 HANGER OR BRACING WIRE ANCHORED TO THE STRUCTURE SHOULD BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE ANCHOR ALIGNS AS CLOSELY AS POSSIBLE WITH THE DIRECTION OF THE WIRE.

5.4 SEPARATE ALL CEILING HANGER AND BRACING WIRES AT LEAST SIX (6) INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT, ETC.

5.5 HANGER WIRES SHALL NOT ATTACH TO OR BEND AROUND INTERFERING MATERIAL OR EQUIPMENT. PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO TYPICAL HANGER SPACING (SEE DETAIL A5/A542). PROVIDE ADDITIONAL HANGERS, STRUTS OR BRACES AS REQUIRED AT ALL CEILING BREAKS, SOFFITS, OR DISCONTINUOUS AREAS.

5.6 HANGER WIRES THAT ARE MORE THAN ONE (HORIZONTAL) IN SIX (VERTICAL) OUT OF PLUMB SHALL HAVE COUNTER-SLOPING WIRES. PERIMETER HANGER WIRES AT MAIN RUNNERS THAT ARE POSITIVELY ATTACHED TO THE PERIMETER CLOSURE ANGLE, COUNTER-SLOPING IS OPTIONAL.

NOTE: SEE ASTM C636, J10/A422, FOR COUNTER-SLOPING METHODS.

5.8 WHEN DRILLED-IN CONCRETE ANCHORS OR POWER ACTUATED FASTENERS ARE USED IN REINFORCED CONCRETE FOR HANGER WIRES, 1 OUT OF 10 WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED FOR 200 LBS. IN TENSION. WHEN DRILLED-IN CONCRETE ANCHORS ARE USED FOR BRACING WIRES, 1 OUT OF 2 WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED FOR 440 LBS. IN TENSION IN THE DIRECTION OF THE WIRE. POWER ACTUATED FASTENERS IN CONCRETE ARE NOT PERMITTED FOR BRACING WIRES.

NOTE: DRILLED-IN ANCHORS OR POWER ACTUATED FASTENERS REQUIRE DSA APPROVAL PRIOR TO USE IN PRESTRESSED CONCRETE.

6. CEILING FIXTURES, TERMINALS, AND DEVICES:
ALL FIXTURES, TERMINALS, AND OTHER DEVICES SHALL BE MOUNTED IN A MANNER THAT WILL NOT COMPROMISE CEILING PERFORMANCE IN ACCORDANCE WITH SECTION 13.5.6.2.2(5) OF ASCE 7-10 AS AMENDED BY 2013 CBC SECTION 1616A.1.20 (1616.10.16*) AND ASTM E580 SECTIONS 5.3 AND 5.4.

6.1 CEILING PANELS SHALL NOT SUPPORT ANY LIGHT FIXTURES, AIR TERMINALS OR DEVICES.

6.2 LIGHT FIXTURES:

6.2.1 ALL LIGHT FIXTURES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE FIXTURE. SCREWS OR APPROVED FASTENERS ARE REQUIRED. A MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH LIGHT FIXTURE, PER ASTM E580, SECTION 5.3.1.

6.2.2 LIGHT FIXTURES WEIGHING LESS THAN OR EQUAL TO 10 LB. SHALL HAVE A MINIMUM OF ONE (1) 12 GAUGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.

6.2.3 LIGHT FIXTURES WEIGHING GREATER THAN 10 LB. BUT LESS THAN OR EQUAL TO 56 LBS. MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO (2) 12 GAUGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE.

6.2.4 LIGHT FIXTURES WEIGHING GREATER THAN 56 LB. SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR (4) TAUT #12 GAUGE WIRES ATTACHED TO THE HOUSING AND TO THE STRUCTURE ABOVE. THE FOUR (4) TAUT #12 GAUGE WIRES, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, MUST BE CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE UNIT.

6.2.5 ALL FOUR FOOT X FOUR FOOT LIGHT FIXTURES MUST HAVE SLACK SAFETY WIRES AT EACH CORNER UNLESS SUPPORTED PER SECTION 6.2.4.

6.2.6 SURFACE-MOUNTED FIXTURES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES MADE OF MATERIAL WITH A MINIMUM 14 GAUGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A 12 GAUGE SUSPENSION WIRE SHALL BE ATTACHED TO EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE EIGHT (8) FEET OR LONGER. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED EIGHT (8) FEET.

6.2.7 SUPPORT PENDANT-MOUNTED LIGHT FIXTURES DIRECTLY FROM THE STRUCTURE ABOVE WITH HANGER WIRES OR CABLES PASSING THROUGH EACH PENDANT HANGER AND CAPABLE OF SUPPORTING TWO (2) TIMES THE WEIGHT OF THE FIXTURE. SEE IR 16-9 FOR ADDITIONAL REQUIREMENTS FOR PENDENT MOUNTED FIXTURES. IF THE PENDANT MOUNTED LIGHT FIXTURE IS DIRECTLY AND INDEPENDENTLY BRACED BELOW THE CEILING, I.E., AIRCRAFT CABLES TO WALLS, THEN A BRACE ASSEMBLY IS NOT REQUIRED ABOVE THE CEILING.

IF THE PENDANT MOUNTED LIGHT FIXTURE IS NOT DIRECTLY AND INDEPENDENTLY BRACED BELOW THE CEILING, THEN A BRACING ASSEMBLY, PER FIGURE 1, IS REQUIRED WHERE THE PENDANT HANGER PENETRATES THE CEILING. SPECIAL DETAILS ARE REQUIRED TO ATTACH THE PENDANT HANGER TO THE BRACING ASSEMBLY TO TRANSMIT THE HORIZONTAL FORCE. EXCEPTION: WHERE THE WEIGHT OF THE FIXTURE IS LESS THAN 20 POUNDS, THE COMPRESSION POST SHOWN IN FIGURE 1 IS NOT REQUIRED.

6.2.8 RIGID CONDUIT SHALL NOT BE USED FOR ATTACHMENT OF THE FIXTURES.

6.3 SERVICES WITHIN THE CEILING:

6.3.1 ALL FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE COMPONENT. SCREWS OR APPROVED FASTENERS ARE REQUIRED. A MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH COMPONENT.

6.3.2 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING LESS THAN OR EQUAL TO 20 LB. SHALL HAVE ONE (1) 12 GAUGE SLACK SAFETY WIRE ATTACHED TO THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.

6.3.3 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 20 LB. BUT LESS THAN OR EQUAL TO 56 LB. SHALL HAVE TWO (2) 12 GAUGE SLACK SAFETY WIRES ATTACHED TO THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.

6.3.4 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 56 LB. SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY NOT LESS THAN FOUR (4) TAUT 12 GAUGE WIRES ATTACHED TO THE TERMINAL OR SERVICE AND TO THE STRUCTURE ABOVE. THE FOUR (4) TAUT 12 GAUGE WIRES, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, MUST BE CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE UNIT.

6.4 OTHER DEVICES WITHIN THE CEILING:

6.4.1 ALL LIGHTWEIGHT MISCELLANEOUS DEVICES, SUCH AS STROBE LIGHTS, OCCUPANCY SENSORS, SPEAKERS, EXIT SIGNS, ETC., SHALL BE ATTACHED TO THE CEILING GRID PER SECTION 6.3.1. IN ADDITION, DEVICES WEIGHING MORE THAN 10 LBS. SHALL HAVE A 12 GAUGE SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE PER SECTION 6.2.2 OF THIS IR. DEVICES WEIGHING MORE THAN 20 LBS. SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE PER SECTION 6.3.4.

7. ADDITIONAL REQUIREMENTS:

7.1 FIRE RATED CEILINGS:
PROVIDE A DETAIL AND DESIGN NUMBER FOR RATED CEILING ASSEMBLIES FROM AN AUTHORIZED TESTING AGENCY. THE COMPONENTS AND INSTALLATION DETAILS MUST CONFORM IN EVERY RESPECT WITH THE LISTED DETAIL AND NUMBER. DETAILS SHALL CLEARLY DEPICT ALL COMPONENTS, INCLUDING INSULATION MATERIALS, FRAMING AND ATTACHMENT OF THE DESIGN SO THAT THE ASSEMBLY CAN BE CONSTRUCTED AND INSPECTED ACCORDINGLY. POP RIVETS, SCREWS, OR OTHER ATTACHMENTS ARE NOT ACCEPTABLE UNLESS SPECIFICALLY DETAILED ON THE DRAWINGS AND APPROVED BY U.L. AND STATE FIRE MARSHAL (SFM) RECOGNIZED LABORATORIES.

7.2 METAL AND OTHER PANELS:
METAL PANELS AND PANELS WEIGHING MORE THAN ONE-HALF (1/2) PSF, OTHER THAN MINERAL FIBER ACOUSTICAL TILE, ARE TO BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION RUNNERS.

7.4 SUSPENDED ACOUSTICAL CEILINGS BELOW GYPSUM BOARD CEILINGS:
WHERE GYPSUM BOARD OR OTHER CEILING FINISHES ARE ATTACHED TO THE FRAMING, SPECIFIC DETAILS WILL BE REQUIRED FOR THE VERTICAL HANGER WIRE AND LATERAL BRACING WIRE SUPPORT CONNECTIONS TO THE FRAMING.

7.5 CLEARANCE:
FOR CEILING INSTALLATIONS UTILIZING TILE PANELS OF MINERAL OR GLASS FIBER, IT IS NOT MANDATORY TO PROVIDE 3/4" CLEARANCE BETWEEN THE ACOUSTICAL TILE PANELS AND THE WALL ON THE SIDES OF HE CEILING WHICH ARE FREE TO SLIP. FOR ALL OTHER CEILING PANEL TYPES, PROVIDE 3/4"CLEARANCE BETWEEN THE CEILING PANEL AND THE WALL ON THE SIDES OF THE CEILING FREE TO SLIP. CLEARANCE BETWEEN CEILING GRID RUNNERS/MEMBERS AND WALL SHALL COMPLY WITH THE DETAILS ON THESE DRAWINGS REGARDLESS OF CEILING TILE MATERIAL.

8. RE-USE OF EXISTING CEILING HANGER WIRES AND BRACING WIRES:

8.1 THE GAUGE AND SPACING OF THE WIRES MUST COMPLY WITH THE CURRENT APPLICABLE CODES.

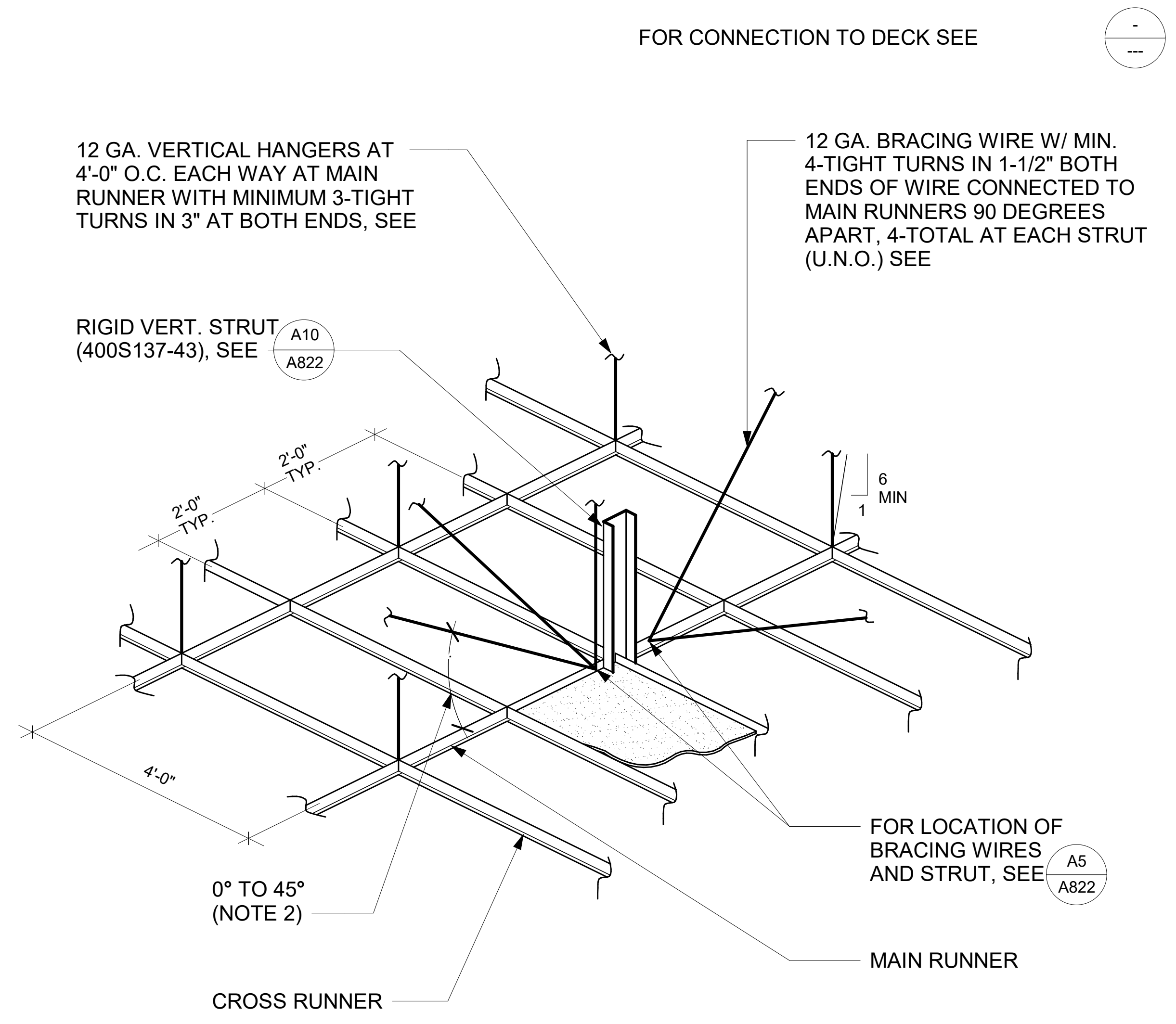
8.2 ALL EXISTING CEILING HANGER WIRE/ANCHOR ASSEMBLIES MUST BE TESTED TO 200 LBS.

8.3 ALL EXISTING BRACING WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED TO 440 LBS.

8.4 IF A NEW WIRE IS TO BE SPLICED TO AN EXISTING WIRE, THE FOLLOWING IS REQUIRED:
- THE ARCHITECT OR STRUCTURAL ENGINEER IN GENERAL RESPONSIBLE CHARGE MUST SUBMIT TO THE DSA FOR APPROVAL A DETAIL AND SPECIFICATION DESCRIBING HOW THE SPLICE IS TO BE MADE.
- ALL NEW WIRES, AFTER BEING SPLICED TO THE EXISTING WIRES, MUST BE FIELD TESTED PER SECTIONS 8.2 AND 8.3 ABOVE.
- ALL FIELD TESTS MUST BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.

TYPICAL SUSPENDED LAY-IN CEILING NOTES A6

12" = 1'-0"


FOR CONNECTION TO DECK SEE
-
---
12 GA. VERTICAL HANGERS AT 4'-0" O.C. EACH WAY AT MAIN RUNNER WITH MINIMUM 3-TIGHT TURNS IN 3" AT BOTH ENDS, SEE
12 GA. BRACING WIRE W/ MIN. 4-TIGHT TURNS IN 1-1/2" BOTH ENDS OF WIRE CONNECTED TO MAIN RUNNERS 90 DEGREES APART, 4-TOTAL AT EACH STRUT (U.N.O.) SEE
RIGID VERT. STRUT (400S137-43), SEE
A10
A822
2'-0" TYP.
2'-0" TYP.
6
1
MIN
4'-0"
FOR LOCATION OF BRACING WIRES AND STRUT, SEE
A5
A822
0° TO 45° (NOTE 2)
MAIN RUNNER
CROSS RUNNER

NOTES:

1. STRUTS SHALL NOT REPLACE HANGER WIRES.
2. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC. AND REMAIN STRAIGHT AND UNOBSTRUCTED.
3. PROVIDE ADDITIONAL COMPRESSION STRUTS AND WIRES AS REQUIRED TO ACCOMMODATE OTHER OBSTRUCTIONS IN CEILING SPACE. REFER TO MECH, PLUMB, FIRE PROTECTION, AND ELEC.

SUSPENDED CEILING - SUSPENSION AND BRACING ASSEMBLY A10

1/2" = 1'-0"

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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SCALE	AS NOTED
PM	
DATE	12/07/2022

TYP. LAY-IN CEILING DETAILS

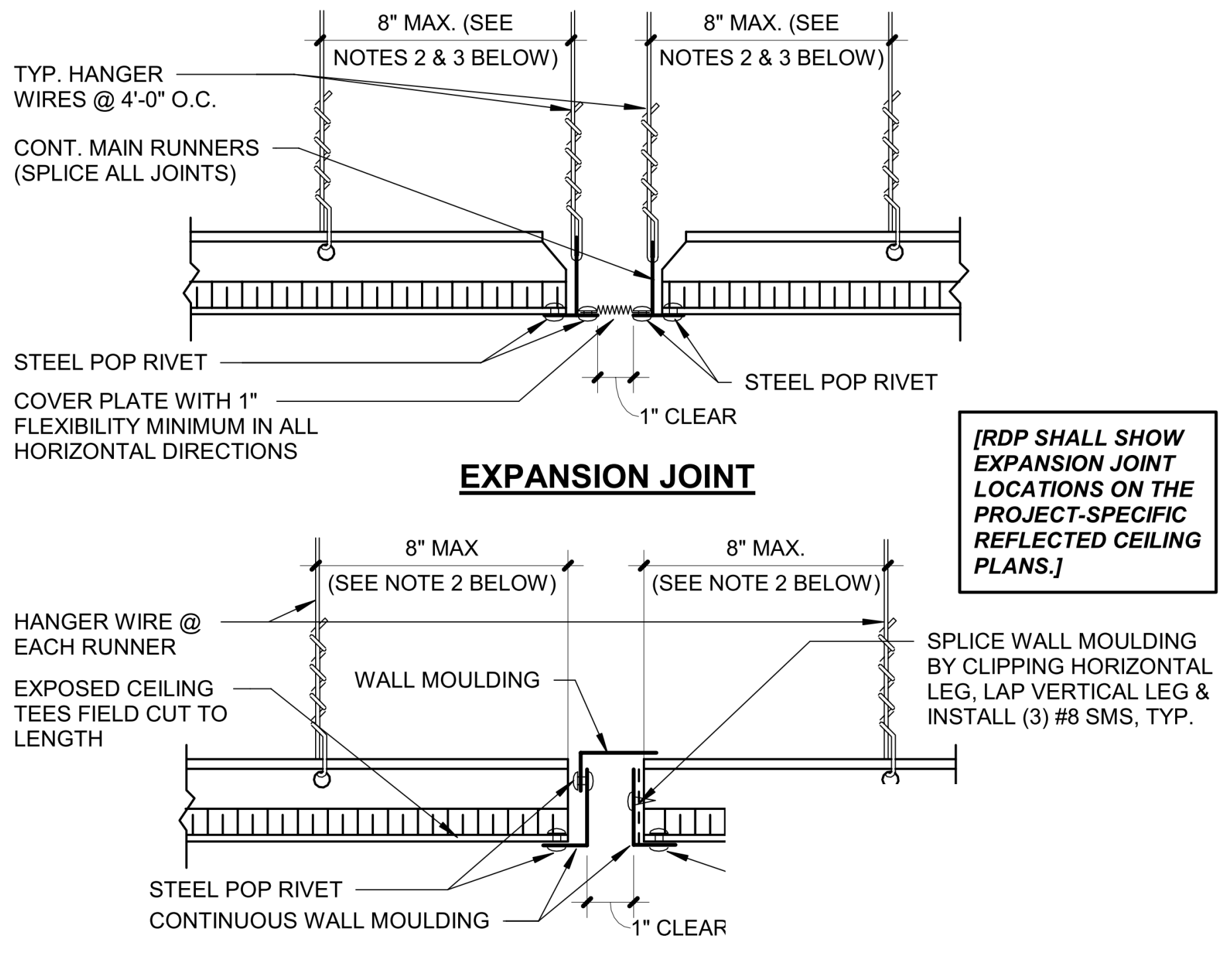
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A821

IR 25-2

SUPSENDED LAY-IN PANEL CEILING: 2019 CBC


8" MAX. (SEE NOTES 2 & 3 BELOW)
8" MAX. (SEE NOTES 2 & 3 BELOW)
TYP. HANGER WIRES @ 4'-0" O.C.
CONT. MAIN RUNNERS (SPLICE ALL JOINTS)
STEEL POP RIVET
COVER PLATE WITH 1" FLEXIBILITY MINIMUM IN ALL HORIZONTAL DIRECTIONS
STEEL POP RIVET
1" CLEAR
8" MAX (SEE NOTE 2 BELOW)
8" MAX. (SEE NOTE 2 BELOW)
HANGER WIRE @ EACH RUNNER
WALL MOULDING
EXPOSED CEILING TEES FIELD CUT TO LENGTH
SPLICE WALL MOULDING BY CLIPPING HORIZONTAL LEG, LAP VERTICAL LEG & INSTALL (3) #8 SMS, TYP.
STEEL POP RIVET
CONTINUOUS WALL MOULDING
1" CLEAR

EXPANSION JOINT

[RDP SHALL SHOW EXPANSION JOINT LOCATIONS ON THE PROJECT-SPECIFIC REFLECTED CEILING PLANS.]

EXPANSION JOINT ALT

NOTES:
1. DETAIL APPLIES TO EXPANSION JOINTS AT THE INTERSECTION OF CORRIDORS AND AT THE JUNCTIONS OF CORRIDORS AT LOBBIES AND OTHER SIMILAR AREAS.
2. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA.
3. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

Detail Title :	REV: 09/21/2015	Detail No.
EXPANSION JOINT (SCHOOL BUILDING)	REV: 03/2022	2.40

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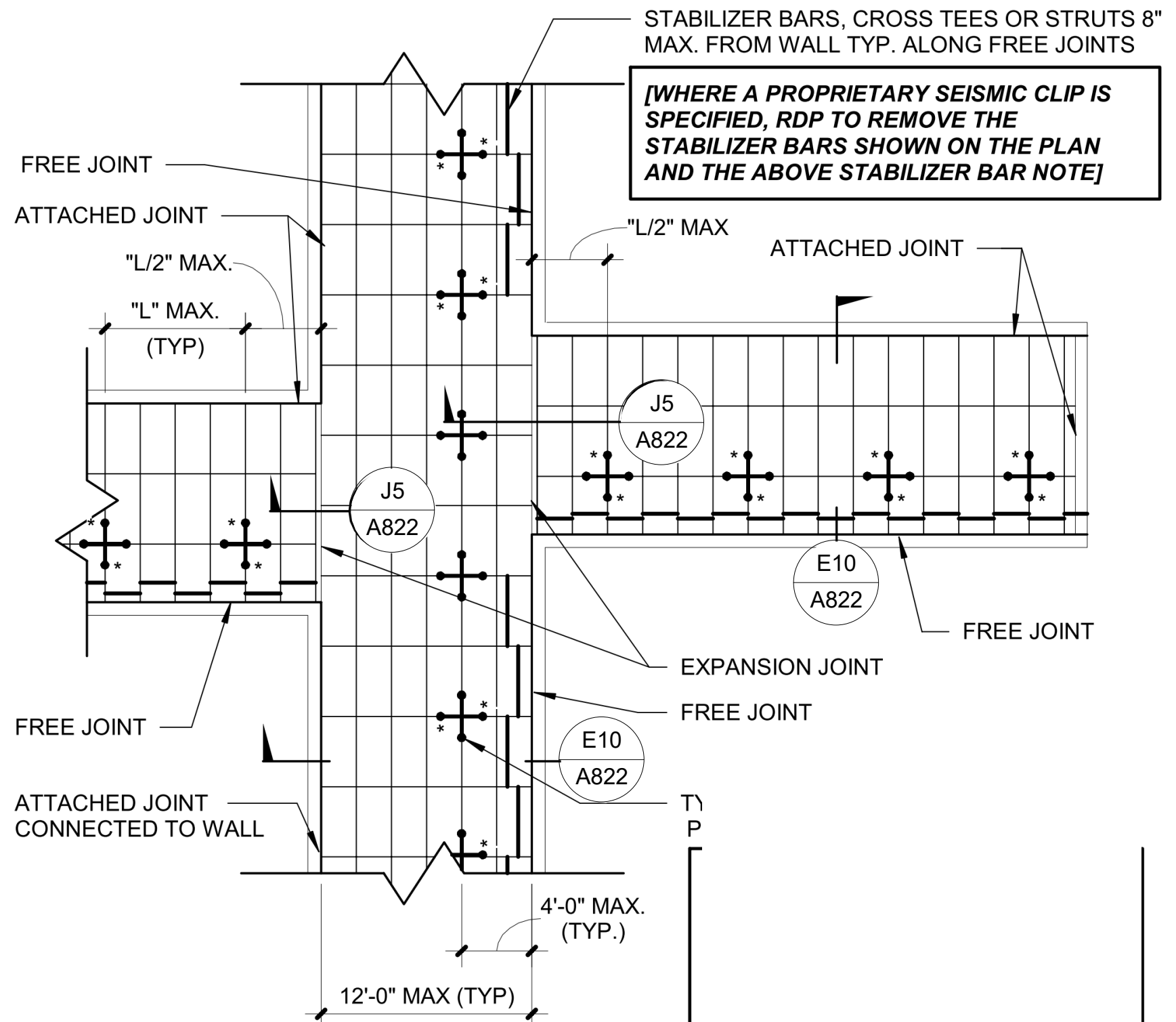
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

SUSPENDED ACOUSTICAL CEILING - EXPANSION JOINTS J5
1/4" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC



[WHERE A PROPRIETARY SEISMIC CLIP IS SPECIFIED, RDP TO REMOVE THE STABILIZER BARS SHOWN ON THE PLAN AND THE ABOVE STABILIZER BAR NOTE]

THE BRACING WIRES ONLY IN THE DIRECTION PERPENDICULAR TO THE CORRIDOR WALLS AS MARKED WITH AN ASTERISK (*). AT THE LOCATION NOTES HERE THE RESULTING SYMBOL WOULD APPEAR THUS:]

NOTES:
1. "L" IS MAX. BRACE ASSEMBLY SPACING PER CEILING PLAN DETAIL, FOR EXAMPLE, WHERE 8' x 12' SPACING IS SPECIFIED, USE "L" = 8'.

[RDP SHALL SHOW EXPANSION JOINT LOCATIONS ON THE PROJECT-SPECIFIC REFLECTED CEILING PLANS.]

[IN ALL CASES THE RDP SHALL REVISE THIS PLAN BY DELETING THE ASTERISK (*).]

Detail Title :	REV: 09/21/2015	Detail No.
CORRIDOR CEILING PLAN (SCHOOL BUILDING)	REV: 03/2022	2.30

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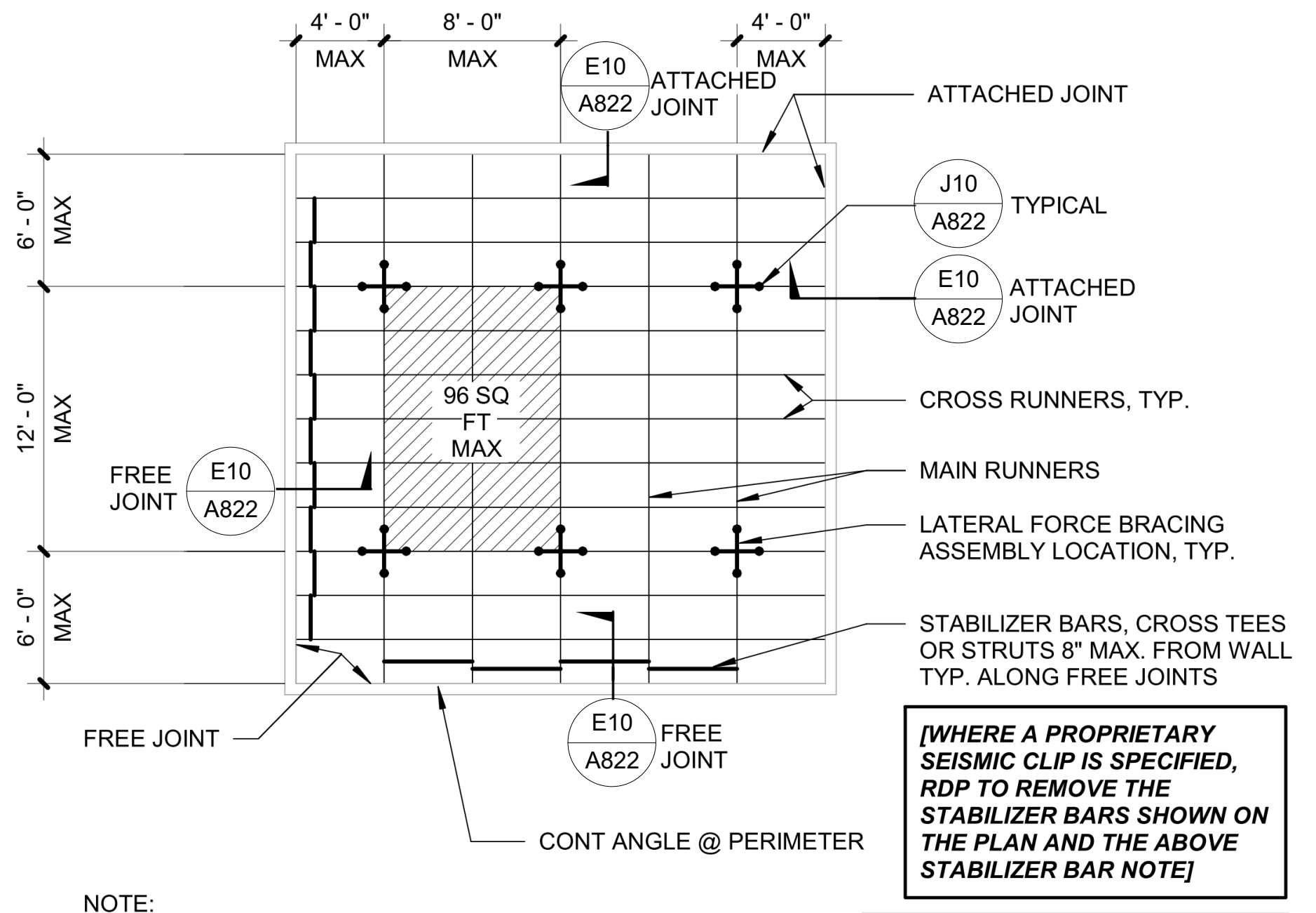
SUSPENDED ACOUSTICAL CEILING - CORRIDOR CEILING PLAN E5
1/4" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC



[WHERE A PROPRIETARY SEISMIC CLIP IS SPECIFIED, RDP TO REMOVE THE STABILIZER BARS SHOWN ON THE PLAN AND THE ABOVE STABILIZER BAR NOTE]

NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 96 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

[WHERE BRACING ASSEMBLY SPACING CHANGES OVER THE HEIGHT OF THE BUILDING, RDP SHALL INDICATE THE REQUIRED SPACING AT EACH LEVEL ON THE REFLECTED CEILING PLANS.]

Detail Title :	REV: 09/21/2015	Detail No.
TYP. CEILING PLAN FOR 8'-0"x12'-0" BRACE ASSEMBLY SPACING	REV: 03/2022	2.11

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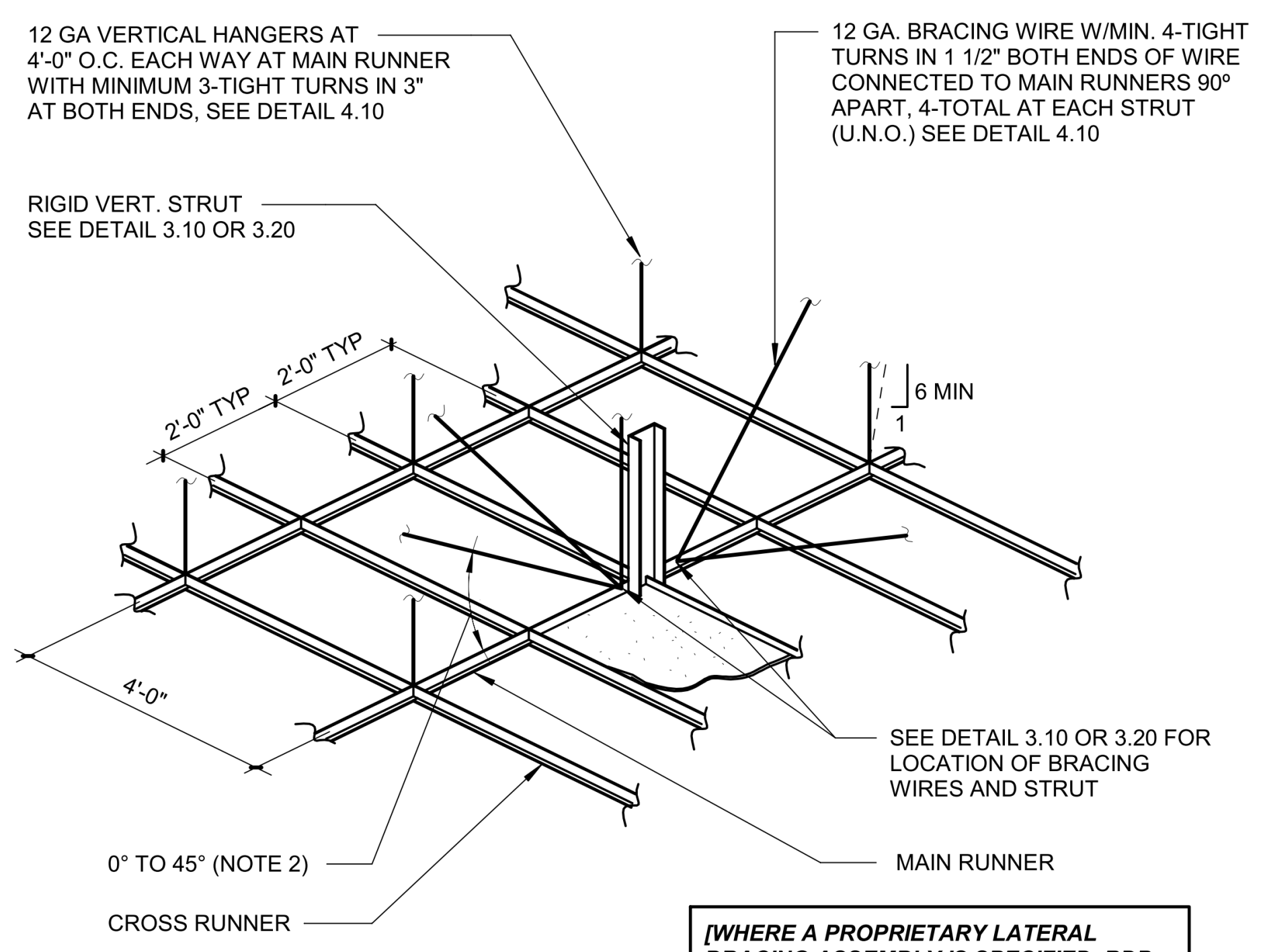
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

TYPICAL CEILING PLAN FOR 8'-0" x 12'-0" BRACE ASSEMBLY SPACING A5
1/4" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC


12 GA VERTICAL HANGERS AT 4'-0" O.C. EACH WAY AT MAIN RUNNER WITH MINIMUM 3-TIGHT TURNS IN 3" AT BOTH ENDS, SEE DETAIL 4.10
12 GA. BRACING WIRE W/MIN. 4-TIGHT TURNS IN 1 1/2" BOTH ENDS OF WIRE CONNECTED TO MAIN RUNNERS 90º APART, 4-TOTAL AT EACH STRUT (U.N.O.) SEE DETAIL 4.10
RIGID VERT. STRUT SEE DETAIL 3.10 OR 3.20
2'-0" TYP
2'-0" TYP
6 MIN
1
4'-0"
SEE DETAIL 3.10 OR 3.20 FOR LOCATION OF BRACING WIRES AND STRUT
0° TO 45° (NOTE 2)
MAIN RUNNER
CROSS RUNNER

NOTES:
1. STRUTS SHALL NOT REPLACE HANGER WIRES.
2. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC. AND REMAIN STRAIGHT AND UNOBSTRUCTED.

[WHERE A PROPRIETARY LATERAL BRACING ASSEMBLY IS SPECIFIED, RDP SHALL PROVIDE DETAILS AND SPECIFICATIONS FOR THE INSTALLATION OF THE ENTIRE ASSEMBLY INCLUDING SPACING, APPROVED GRID MANUFACTURER(S), ATTACHMENT TO THE CEILING GRID, BRACING MEMBER SIZES, ATTACHMENT TO THE FLOOR AND ROOF STRUCTURE, ETC.]

Detail Title :	REV: 09/21/2015	Detail No.
SUSPENSION AND LATERAL BRACING ASSEMBLY	REV: 03/10/2017 REV: 03/2022	2.35

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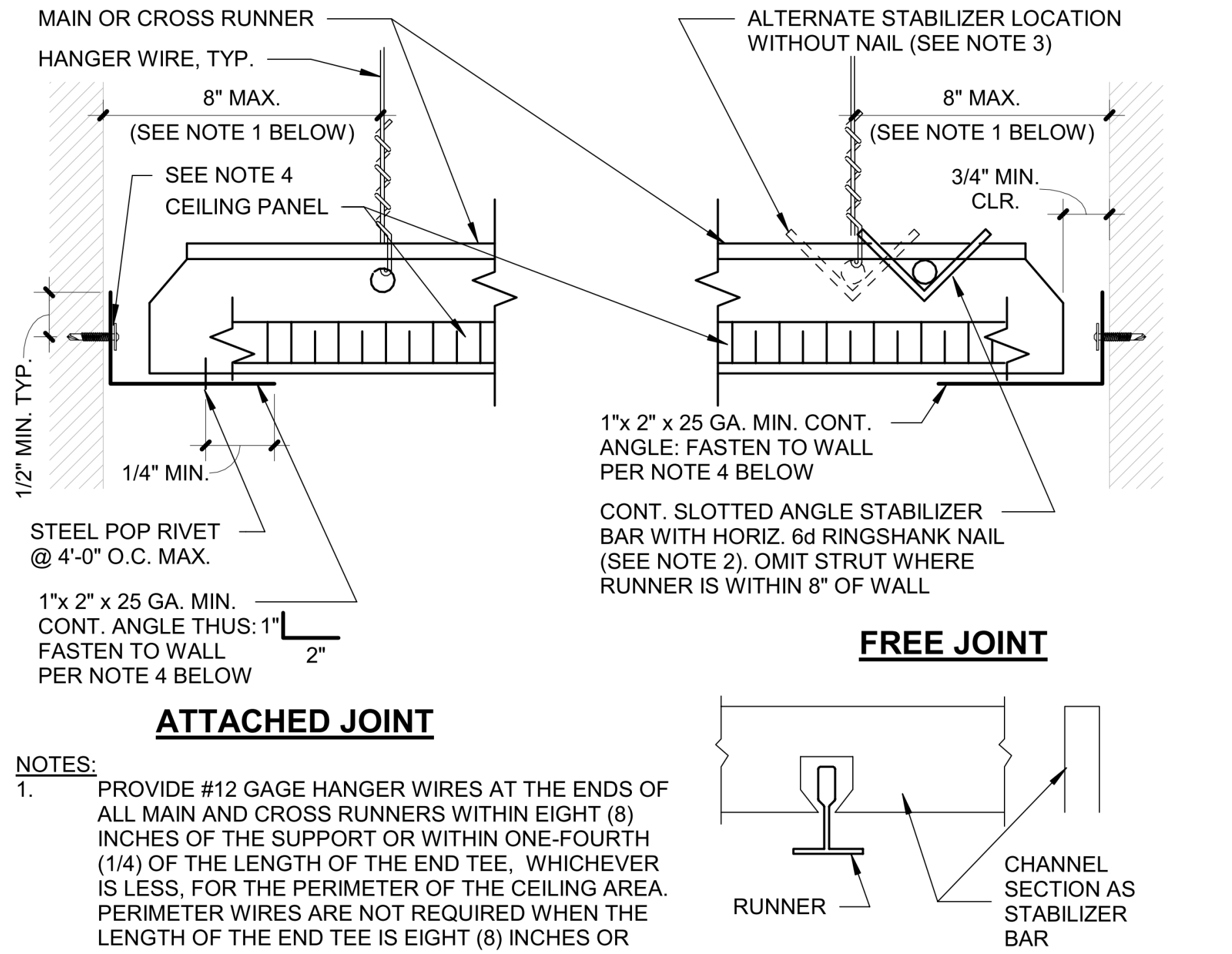
SUSPENDED ACOUSTICAL CEILING- SUSPENSION & BRACING ASSEMBLY J10
1/2" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC


MAIN OR CROSS RUNNER
HANGER WIRE, TYP.
8" MAX. (SEE NOTE 1 BELOW)
SEE NOTE 4
CEILING PANEL
1/2" MIN. TYP.
1/4" MIN.
STEEL POP RIVET @ 4'-0" O.C. MAX.
1"x 2" x 25 GA. MIN. CONT. ANGLE THUS: 1" 2" FASTEN TO WALL PER NOTE 4 BELOW
ALTERNATE STABILIZER LOCATION WITHOUT NAIL (SEE NOTE 3)
8" MAX. (SEE NOTE 1 BELOW)
3/4" MIN. CLR.
1"x 2" x 25 GA. MIN. CONT. ANGLE: FASTEN TO WALL PER NOTE 4 BELOW
CONT. SLOTTED ANGLE STABILIZER BAR WITH HORIZ. 6d RINGSHANK NAIL (SEE NOTE 2). OMIT STRUT WHERE RUNNER IS WITHIN 8" OF WALL
RUNNER
CHANNEL SECTION AS STABILIZER BAR

ATTACHED JOINT

FREE JOINT

STABILIZER (SEE NOTE 3)

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:
   - A. METAL STUD (20 GA. MIN.) WALL: (1) #10 SMS AT 24" O.C. MAX.
   - B. WOOD STUD WALL: #10x2" LONG WOOD SCREW AT 16" O.C. MAX.

[WHERE PROPRIETARY CLIPS ARE SPECIFIED, RDP SHALL REVISE THIS DETAIL ACCORDINGLY , WHICH INCLUDES REMOVING ALL REFERENCES TO STABILIZERS. RDP SHALL PROVIDE PRODUCT SPECIFIC INFORMATION INCLUDING SMALLER WALL ANGLE (IF APPLICABLE), ATTACHMENT OF THE CLIP TO THE RUNNERS AT THE ATTACHED AND FREE JOINTS, ATTACHMENT OF THE CLIP TO THE WALL ANGLE, AND CLEARANCE OF THE RUNNER TO WALL ANGLE AT THE FREE END.]

Detail Title :	REV: 09/21/2015	Detail No.
CEILING PERIMETER	REV: 03/10/2017 REV: 03/2022	2.60

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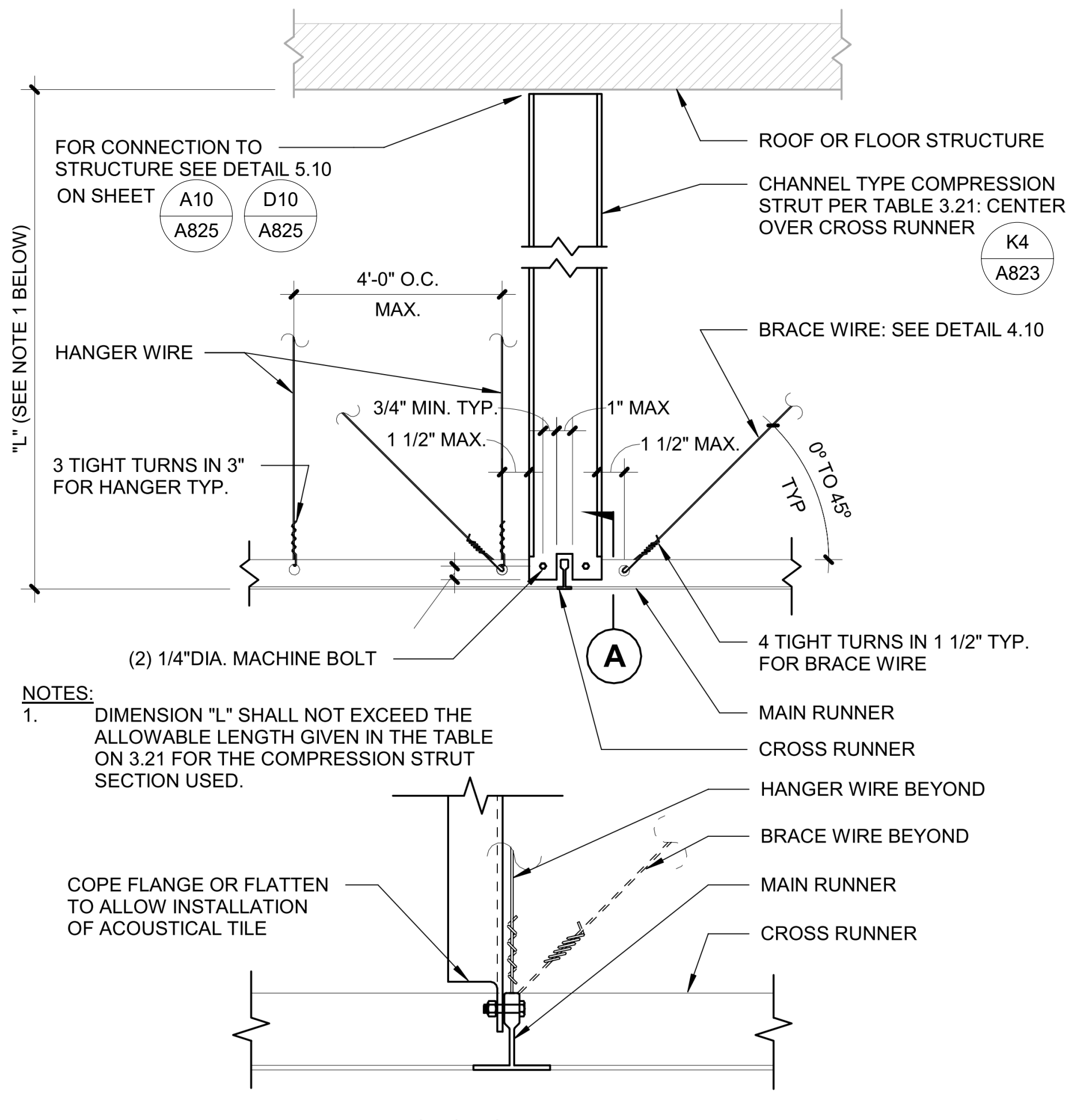
CEILING PERIMETER E10
6" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC


FOR CONNECTION TO STRUCTURE SEE DETAIL 5.10 ON SHEET
A10
A825
D10
A825
ROOF OR FLOOR STRUCTURE
CHANNEL TYPE COMPRESSION STRUT PER TABLE 3.21: CENTER OVER CROSS RUNNER
K4
A823
"L" (SEE NOTE 1 BELOW)
4'-0" O.C. MAX.
HANGER WIRE
BRACE WIRE: SEE DETAIL 4.10
3/4" MIN. TYP.
1" MAX
1 1/2" MAX.
1 1/2" MAX.
3 TIGHT TURNS IN 3" FOR HANGER TYP.
0° TO 45° TYP
(2) 1/4"DIA. MACHINE BOLT
A
4 TIGHT TURNS IN 1 1/2" TYP. FOR BRACE WIRE
MAIN RUNNER
CROSS RUNNER
HANGER WIRE BEYOND
BRACE WIRE BEYOND
COPE FLANGE OR FLATTEN TO ALLOW INSTALLATION OF ACOUSTICAL TILE
MAIN RUNNER
CROSS RUNNER

NOTES:
1. DIMENSION "L" SHALL NOT EXCEED THE ALLOWABLE LENGTH GIVEN IN THE TABLE ON 3.21 FOR THE COMPRESSION STRUT SECTION USED.

(A) SECTION
3" = 1'-0"

Detail Title :	REV: 09/21/2015	Detail No.
COMPRESSION STRUT - CHANNEL TYPE	REV: 03/2022	3.10

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DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

SUSPENDED ACOUSTICAL CEILING- STRUT A10
1/2" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL. 31, 202

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
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DATE	12/07/2022
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TYP. LAY-IN CEILING DETAILS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
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A822

1 2 3 4 5 6 7 8 9 10
M L K J H G F E D C B A

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC

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"

Detail Title :		Detail No.
COMPRESSION STRUT TABLE	REV: 09/21/2015 REV: 03/10/2017 REV: 03/2022	3.21

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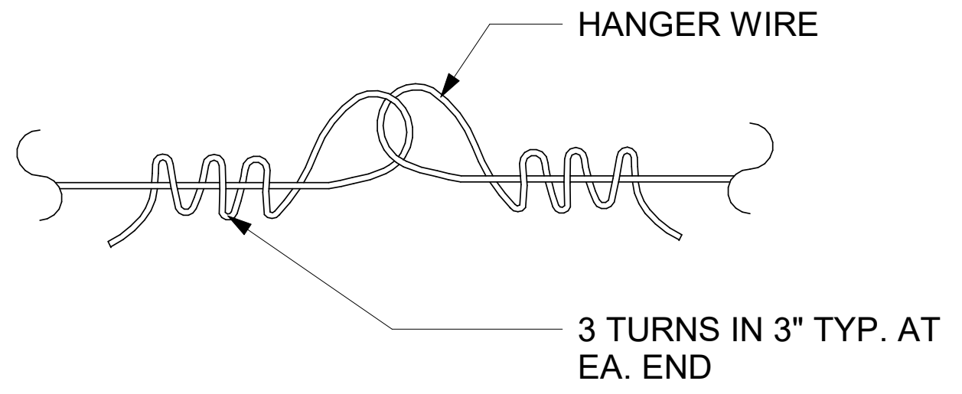
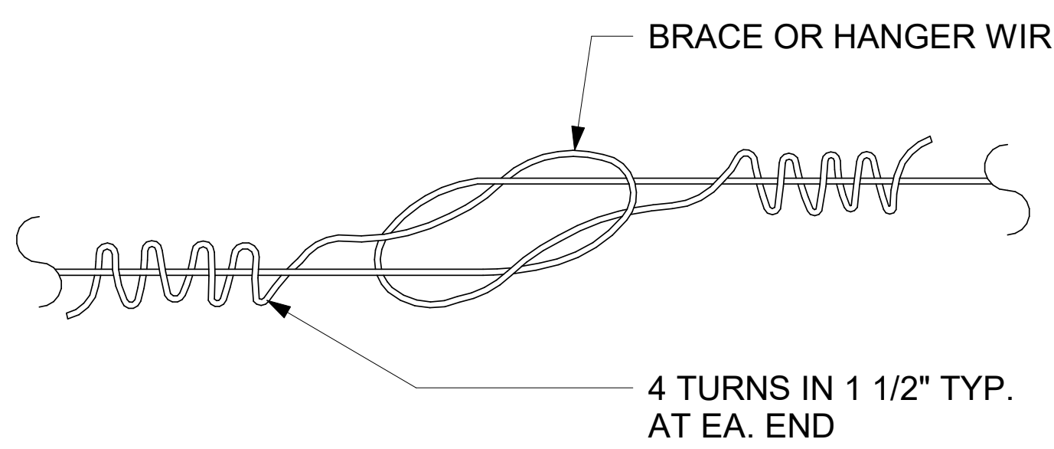
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

COMPRESSION STRUT TABLE K4

N.T.S.



HANGER WIRE ONLY

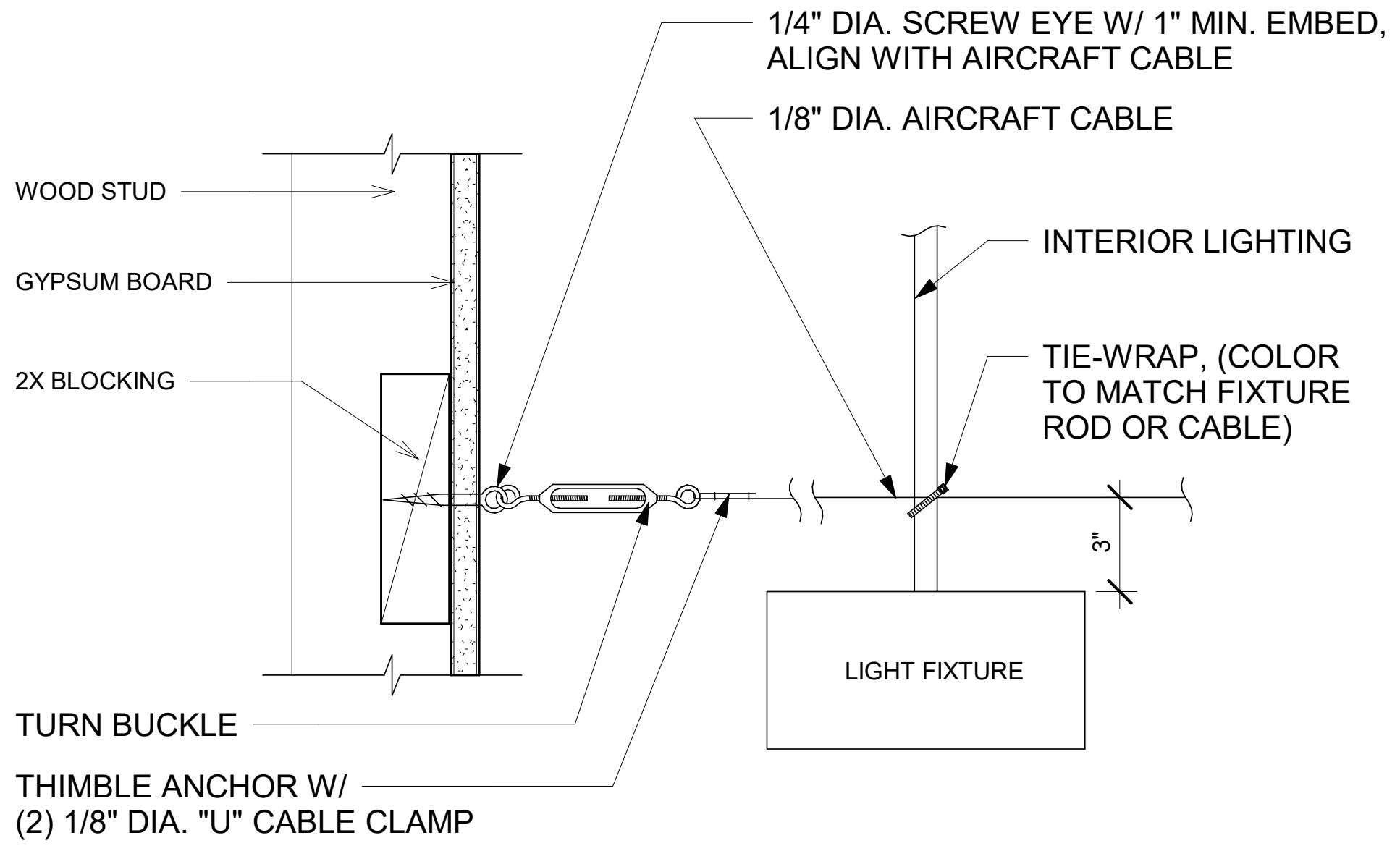


HANGER OR BRACE WIRE

NOTES
1. WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTED.

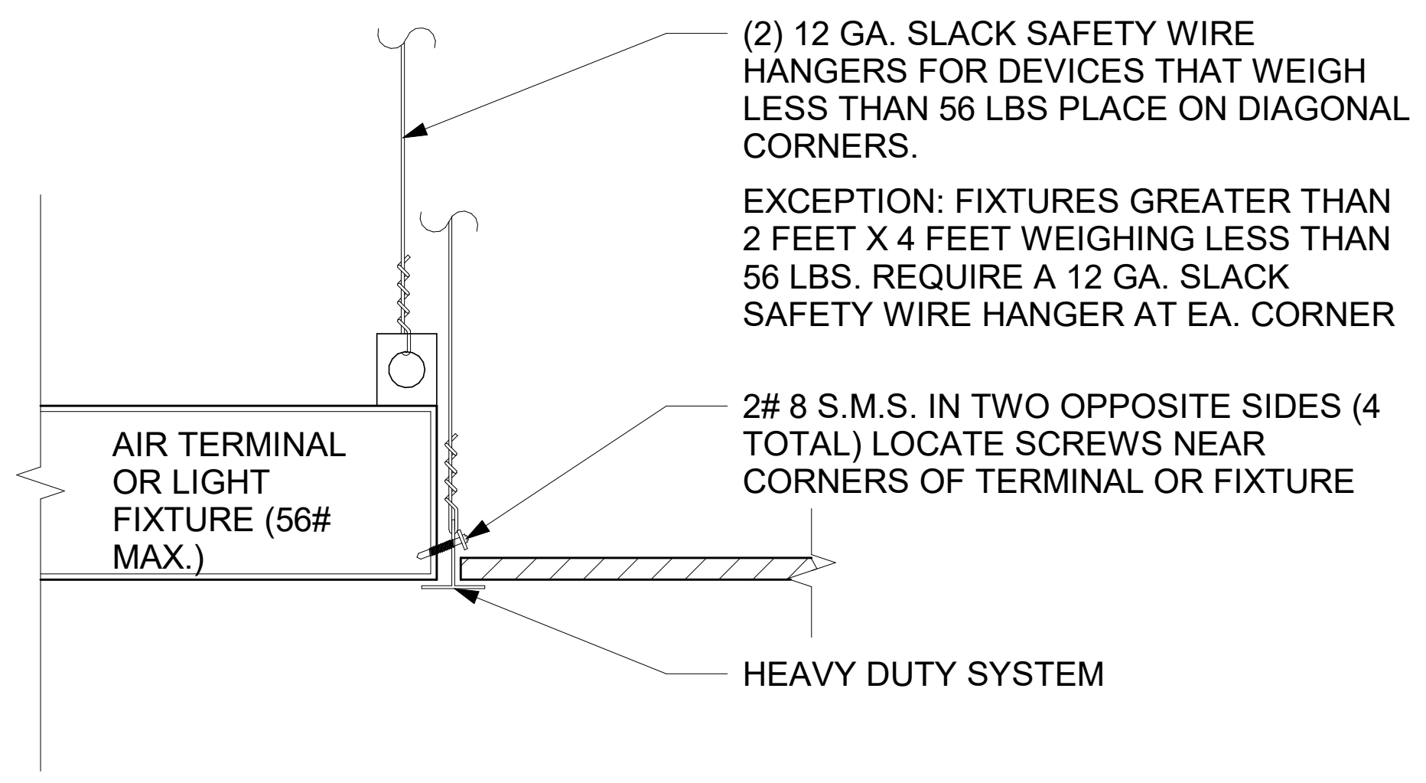
CEILING WIRE SPLICES D4

3" = 1'-0"


1/4" DIA. SCREW EYE W/ 1" MIN. EMBED, ALIGN WITH AIRCRAFT CABLE
1/8" DIA. AIRCRAFT CABLE
WOOD STUD
GYPSUM BOARD
2X BLOCKING
INTERIOR LIGHTING
TIE-WRAP, (COLOR TO MATCH FIXTURE ROD OR CABLE)
3"
LIGHT FIXTURE
TURN BUCKLE
THIMBLE ANCHOR W/ (2) 1/8" DIA. "U" CABLE CLAMP

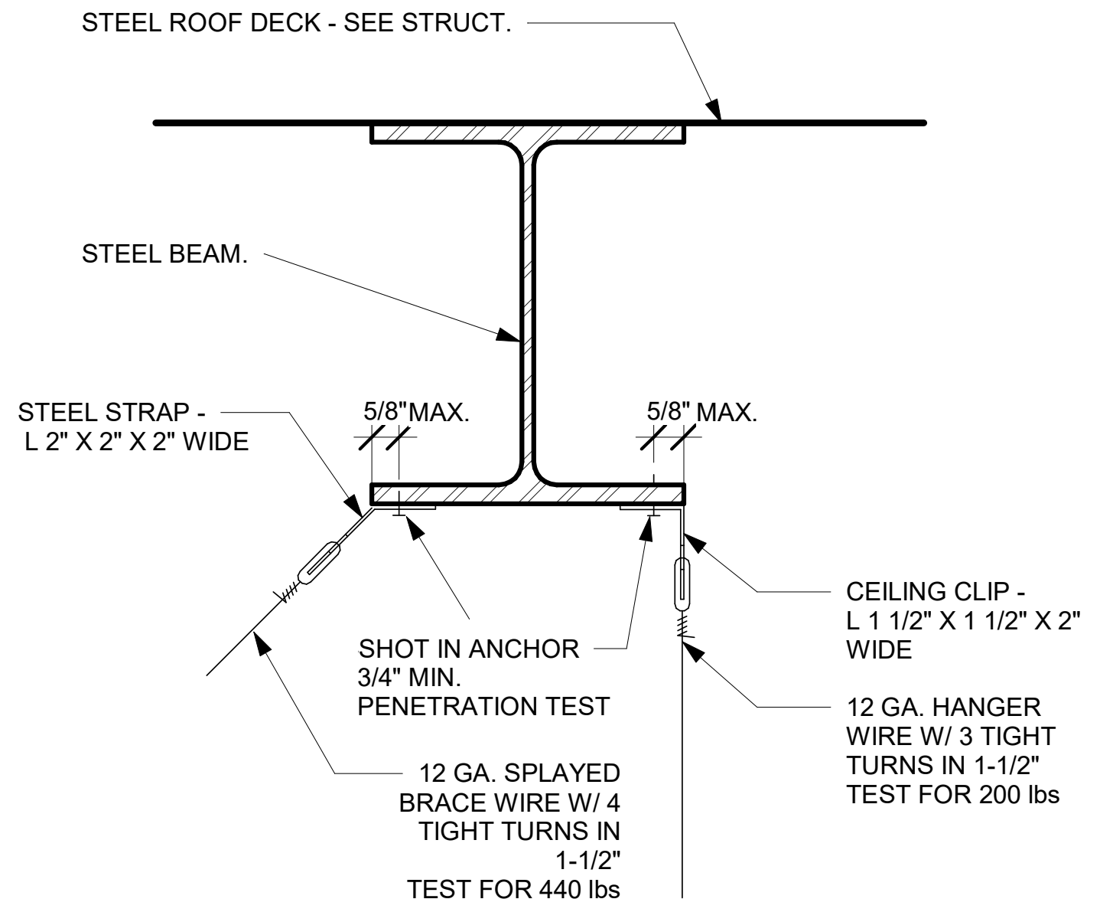
BRACING CABLE ATTACHMENT AT WOOD STUD A2

3" = 1'-0"


(2) 12 GA. SLACK SAFETY WIRE HANGERS FOR DEVICES THAT WEIGH LESS THAN 56 LBS PLACE ON DIAGONAL CORNERS.
EXCEPTION: FIXTURES GREATER THAN 2 FEET X 4 FEET WEIGHING LESS THAN 56 LBS. REQUIRE A 12 GA. SLACK SAFETY WIRE HANGER AT EA. CORNER
AIR TERMINAL OR LIGHT FIXTURE (56# MAX.)
2# 8 S.M.S. IN TWO OPPOSITE SIDES (4 TOTAL) LOCATE SCREWS NEAR CORNERS OF TERMINAL OR FIXTURE
HEAVY DUTY SYSTEM

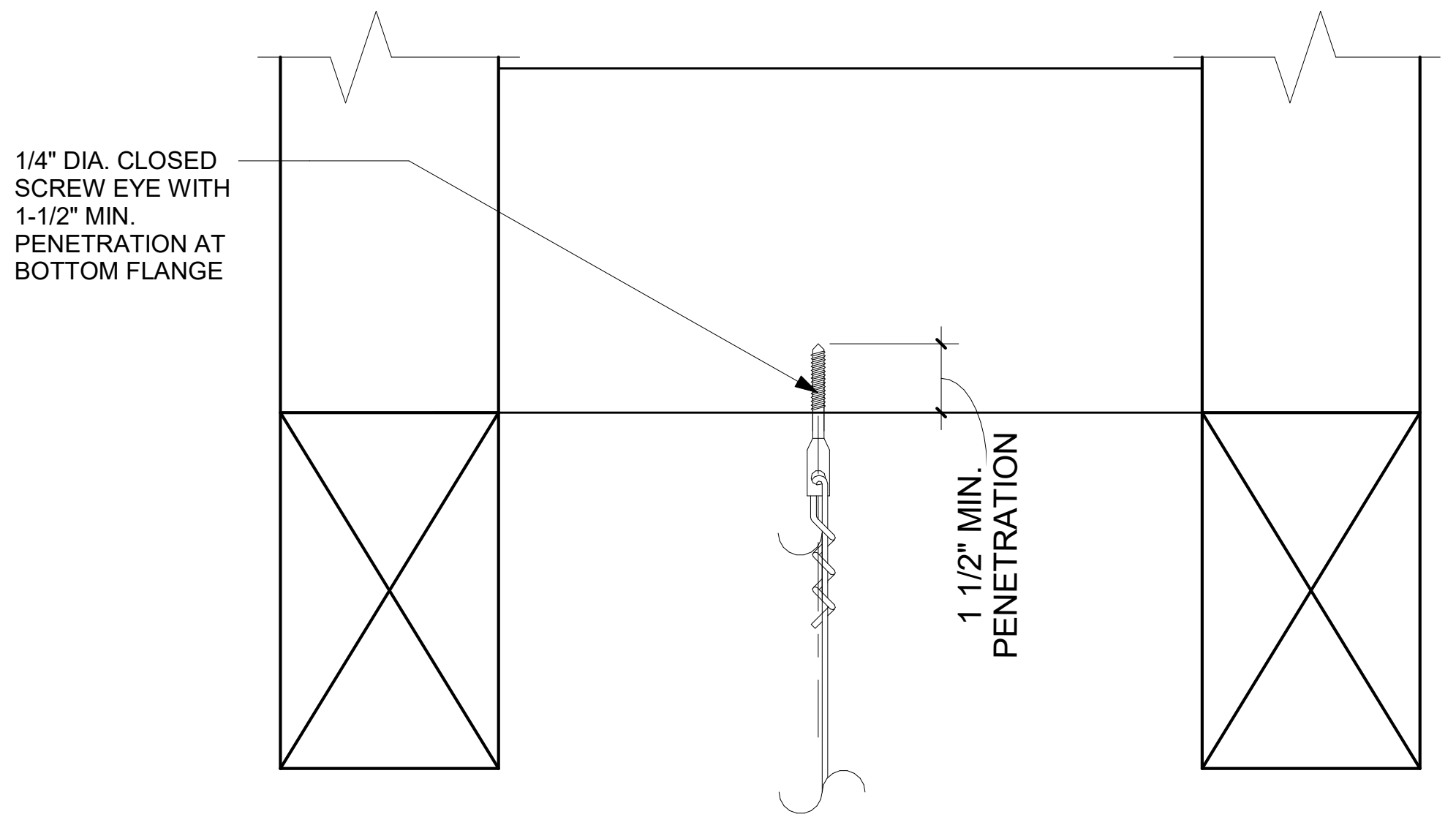
SUSPENDED ACOUSTICAL CEILING - LIGHT FIXTURES A4

1 1/2" = 1'-0"


STEEL ROOF DECK - SEE STRUCT.
STEEL BEAM.
STEEL STRAP - L 2" X 2" X 2" WIDE
5/8"MAX.
5/8" MAX.
CEILING CLIP - L 1 1/2" X 1 1/2" X 2" WIDE
SHOT IN ANCHOR 3/4" MIN. PENETRATION TEST
12 GA. HANGER WIRE W/ 3 TIGHT TURNS IN 1-1/2" TEST FOR 200 lbs
12 GA. SPLAYED BRACE WIRE W/ 4 TIGHT TURNS IN 1-1/2" TEST FOR 440 lbs

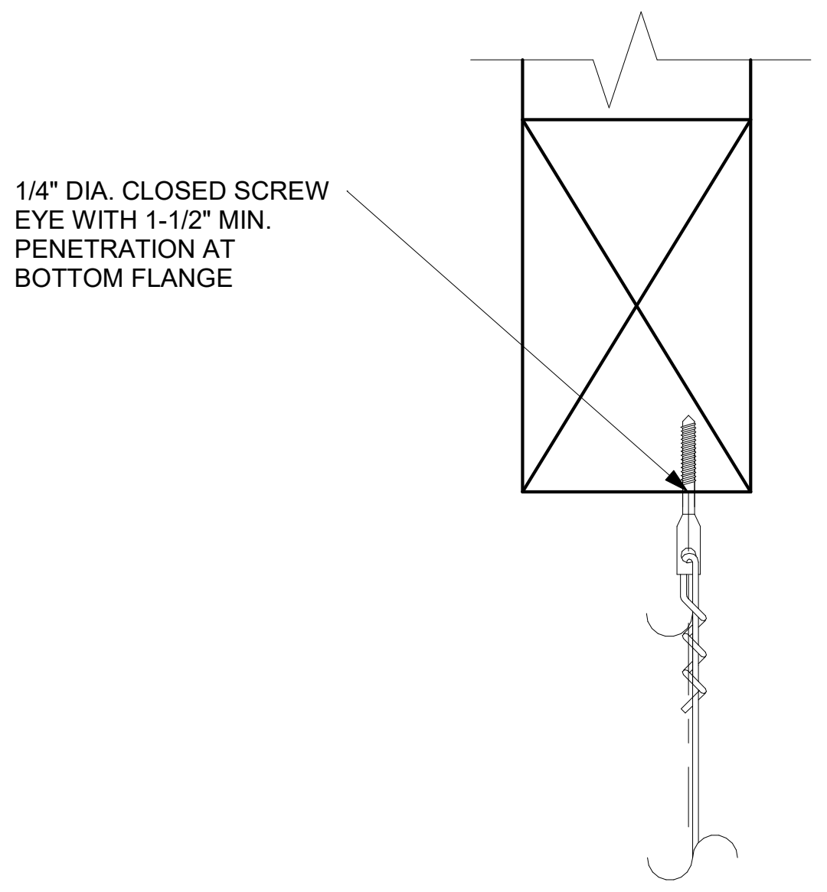
HANGER & SPLAY WIRE @ STL. BEAM D6

3" = 1'-0"


1/4" DIA. CLOSED SCREW EYE WITH 1-1/2" MIN. PENETRATION AT BOTTOM FLANGE
1 1/2" MIN. PENETRATION

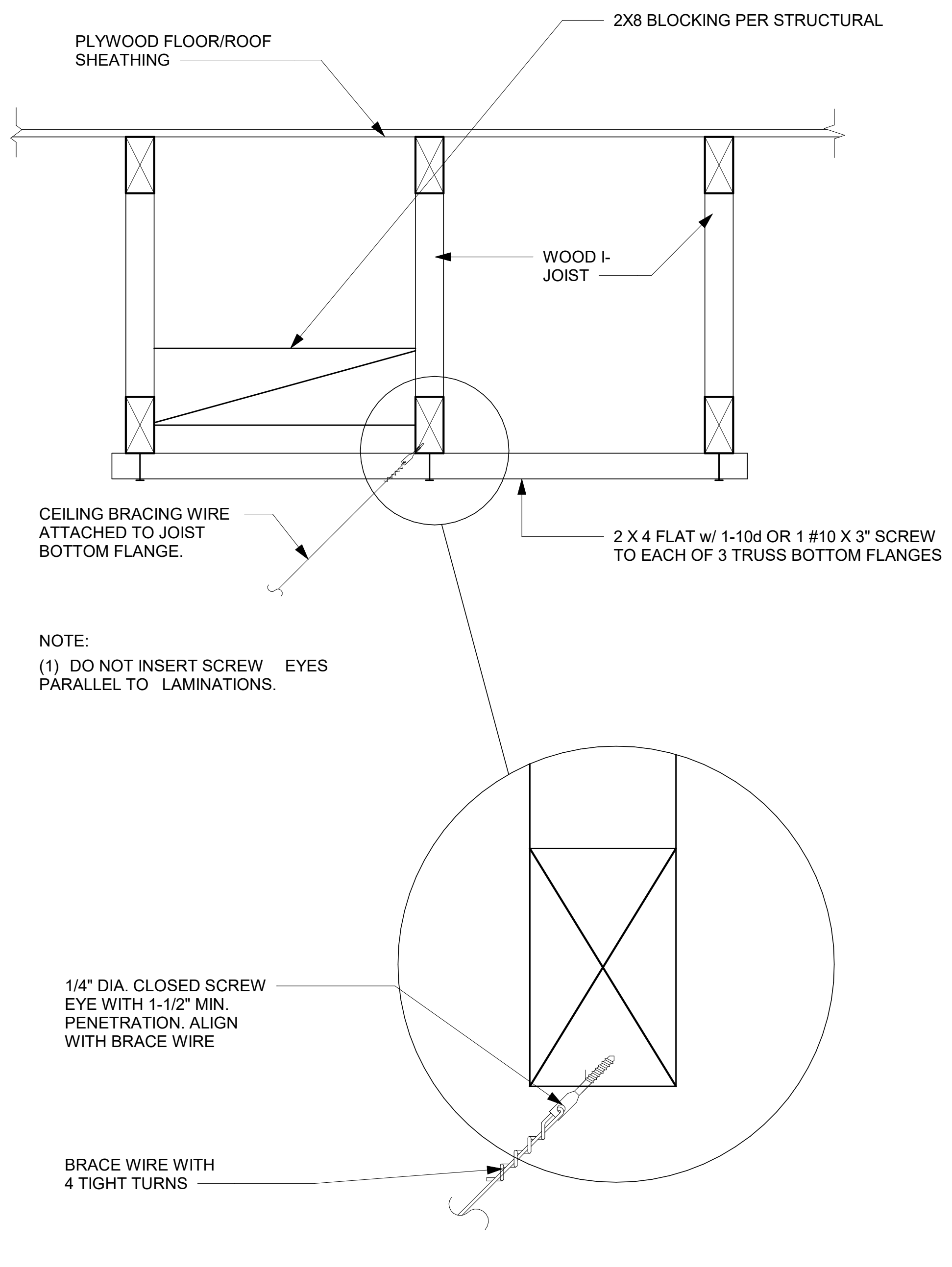
HANGER WIRE CONNECTION BETWEEN WOOD CHORD TRUSS K8

3" = 1'-0"


1/4" DIA. CLOSED SCREW EYE WITH 1-1/2" MIN. PENETRATION AT BOTTOM FLANGE

HANGER WIRE CONNECTION TO WOOD CHORD TRUSS K10

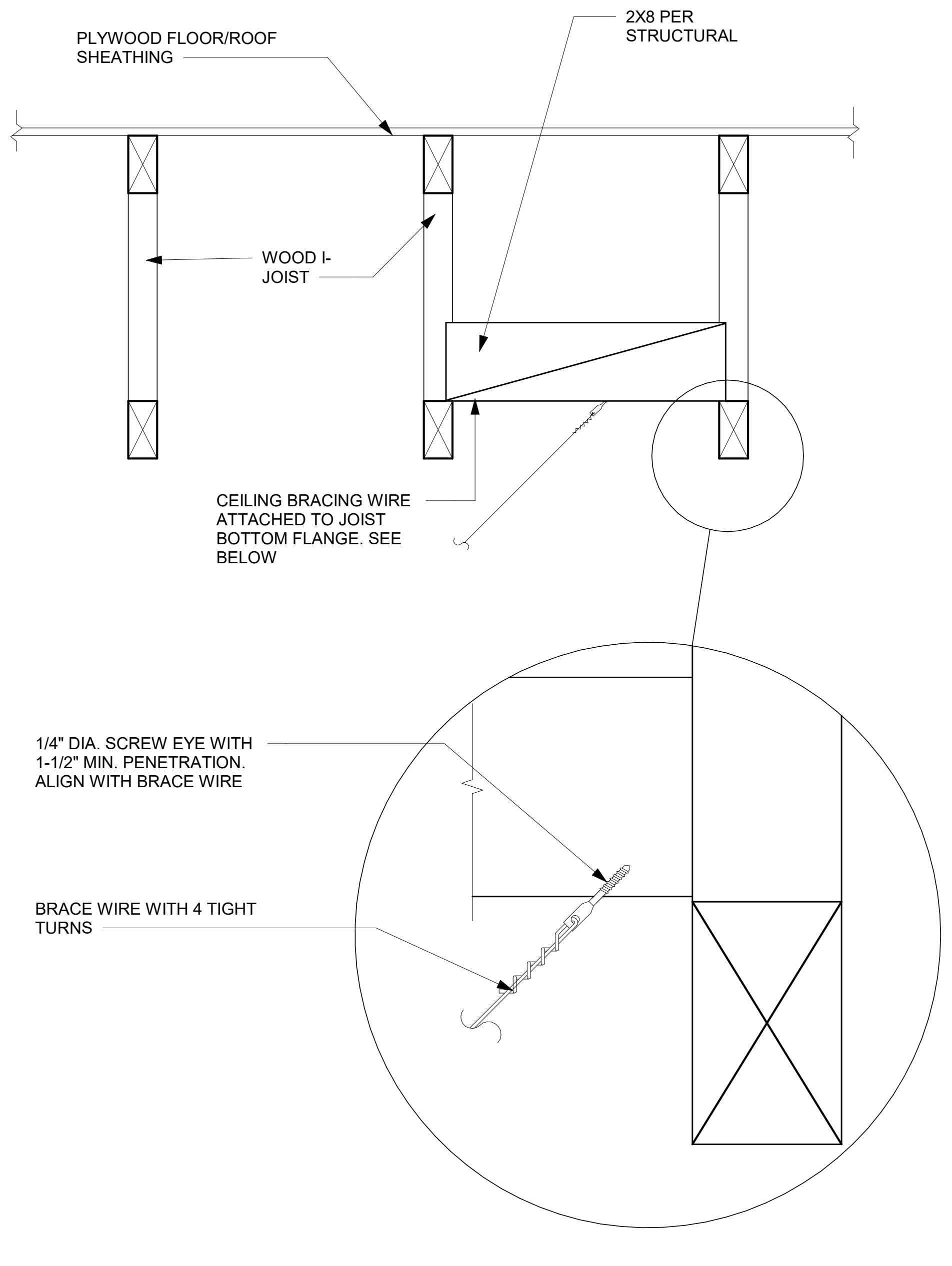
3" = 1'-0"


PLYWOOD FLOOR/ROOF SHEATHING
2X8 BLOCKING PER STRUCTURAL
WOOD I-JOIST
CEILING BRACING WIRE ATTACHED TO JOIST BOTTOM FLANGE.
2 X 4 FLAT w/ 1-10d OR 1 #10 X 3" SCREW TO EACH OF 3 TRUSS BOTTOM FLANGES
1/4" DIA. CLOSED SCREW EYE WITH 1-1/2" MIN. PENETRATION. ALIGN WITH BRACE WIRE
BRACE WIRE WITH 4 TIGHT TURNS

NOTE:
(1) DO NOT INSERT SCREW EYES PARALLEL TO LAMINATIONS.

BRACE WIRE CONNECTION TO WOOD CHORD TRUSS G10

1" = 1'-0"

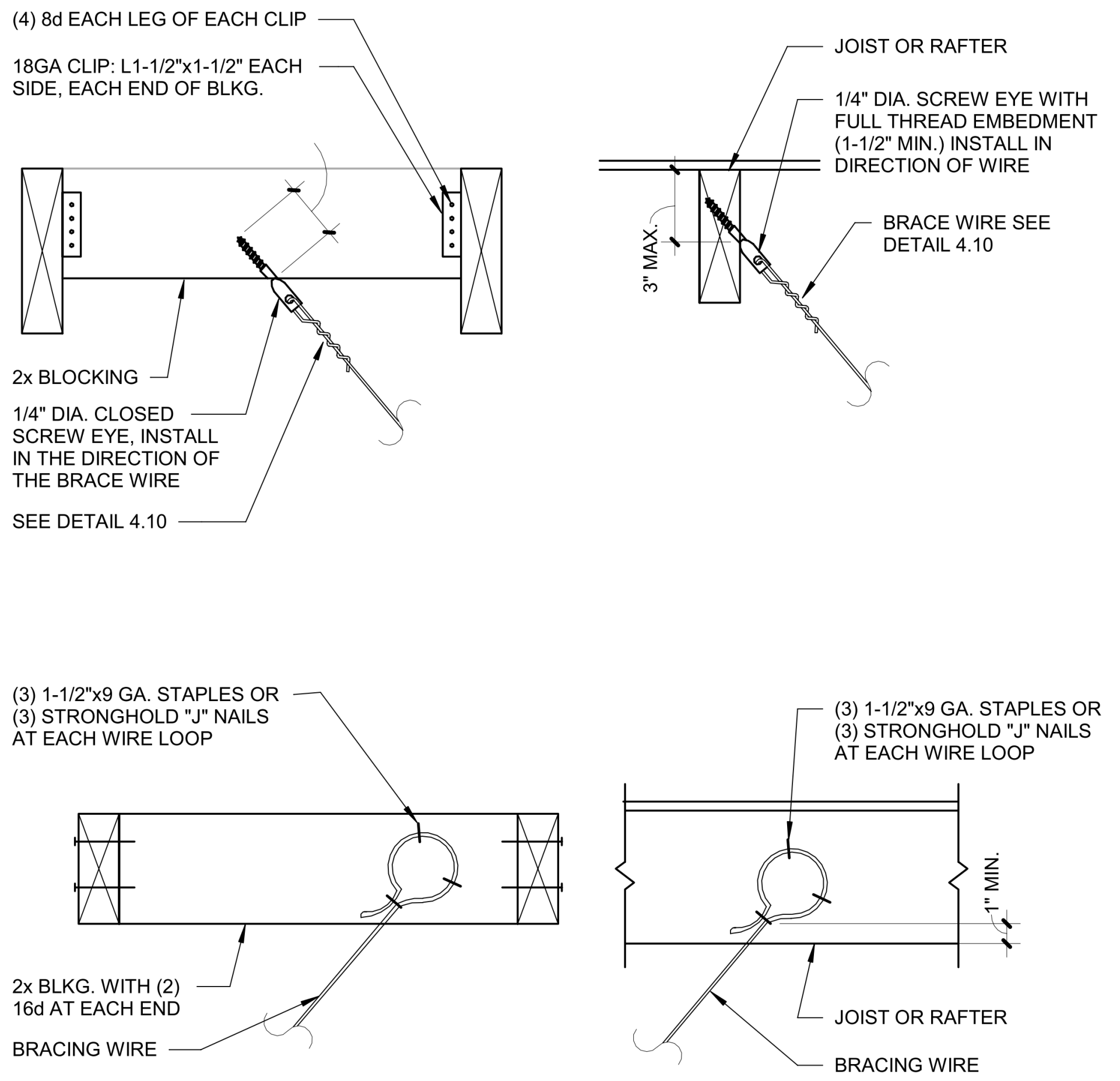

PLYWOOD FLOOR/ROOF SHEATHING
2X8 PER STRUCTURAL
WOOD I-JOIST
CEILING BRACING WIRE ATTACHED TO JOIST BOTTOM FLANGE. SEE BELOW
1/4" DIA. SCREW EYE WITH 1-1/2" MIN. PENETRATION. ALIGN WITH BRACE WIRE
BRACE WIRE WITH 4 TIGHT TURNS

BRACE WIRE CONNECTION BETWEEN WOOD CHORD TRUSS D10

1" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC


(4) 8d EACH LEG OF EACH CLIP
18GA CLIP: L1-1/2"x1-1/2" EACH SIDE, EACH END OF BLKG.
2x BLOCKING
1/4" DIA. CLOSED SCREW EYE, INSTALL IN THE DIRECTION OF THE BRACE WIRE
SEE DETAIL 4.10
JOIST OR RAFTER
1/4" DIA. SCREW EYE WITH FULL THREAD EMBEDMENT (1-1/2" MIN.) INSTALL IN DIRECTION OF WIRE
BRACE WIRE SEE DETAIL 4.10
3" MAX.
(3) 1-1/2"x9 GA. STAPLES OR (3) STRONGHOLD "J" NAILS AT EACH WIRE LOOP
2x BLKG. WITH (2) 16d AT EACH END
BRACING WIRE
(3) 1-1/2"x9 GA. STAPLES OR (3) STRONGHOLD "J" NAILS AT EACH WIRE LOOP
1" MIN.
JOIST OR RAFTER
BRACING WIRE

Detail Title :		Detail No.
BRACE WIRE CONNECTION TO SAWN TIMBER	REV: 09/21/2015 REV: 03/2022	4.35

IR 25-2 (Revised 03/18/22) Page 53 of 71
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

BRACE WIRE CONNECTION TO SAWN TIMBER A10

3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022

TYP. LAY-IN CEILING DETAILS

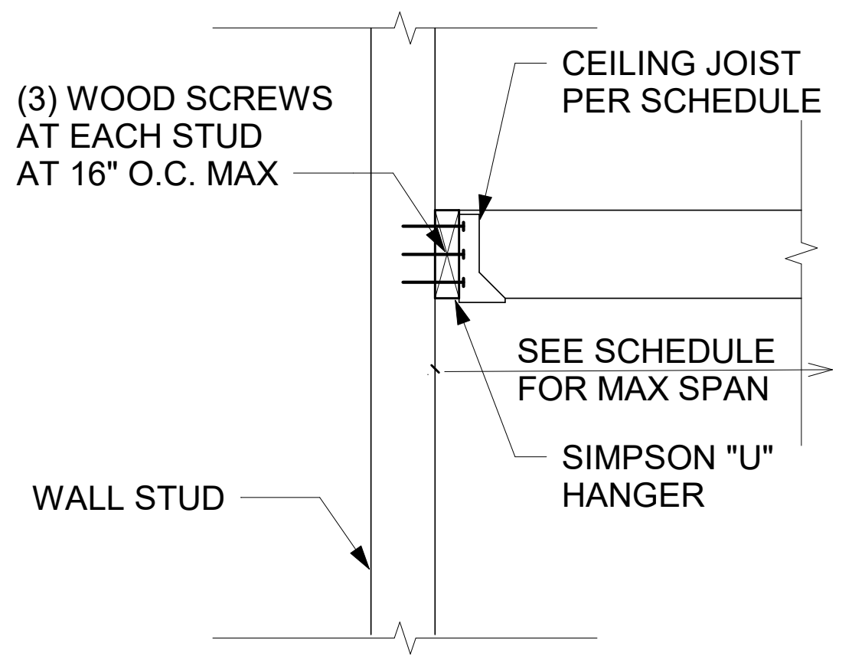
PERKINS — EASTMAN

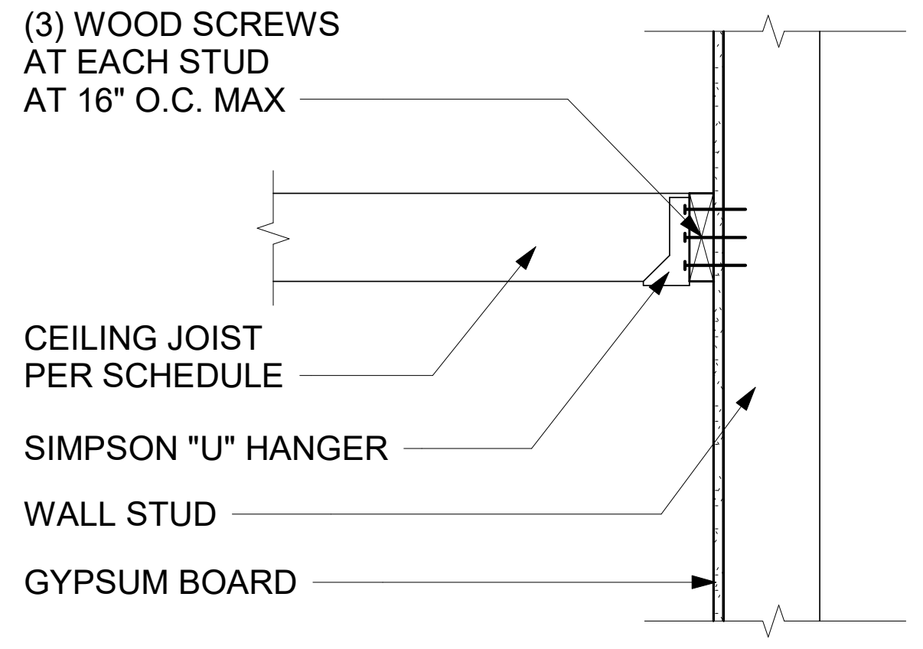
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A823

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL.31, 2023

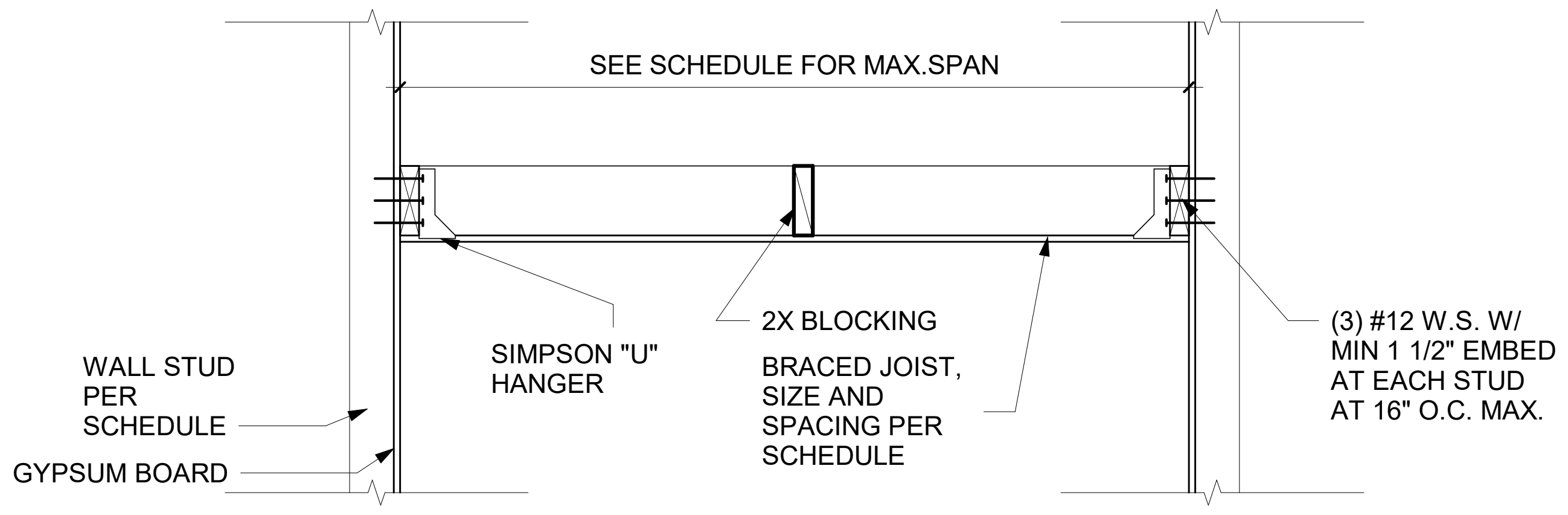




CEILING JOIST CONNECTION TO WALL THROUGH GYP BOARD

CEILING JOIST AT CONT. STUD WALL J6

1" = 1'-0"



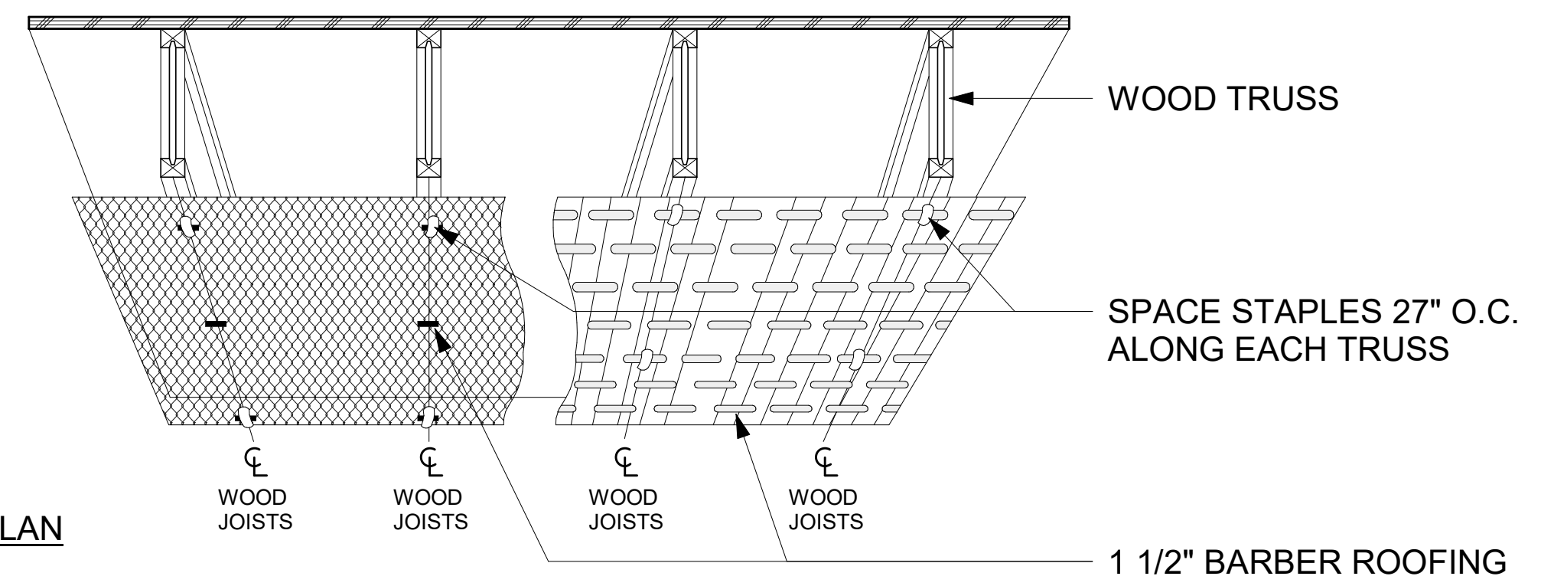
CEILING JOIST SCHEDULE		
SPAN	JOIST SIZE	SPACING
0'-0" - 8'-0"	2x4	@ 16" OC
8'-1" - 12'-0"	2x6	@ 16" OC
12'-1" - 15'-0"	2x8	@ 16" OC
15'-1" - 16'-0"	2x8	@ 12" OC

NOTE:
1. SCHEDULE IS FOR INTERIOR CEILING ONLY.
2. CEILING JOISTS ARE DESIGNED FOR ONE LAYER OF GYPSUM BOARD

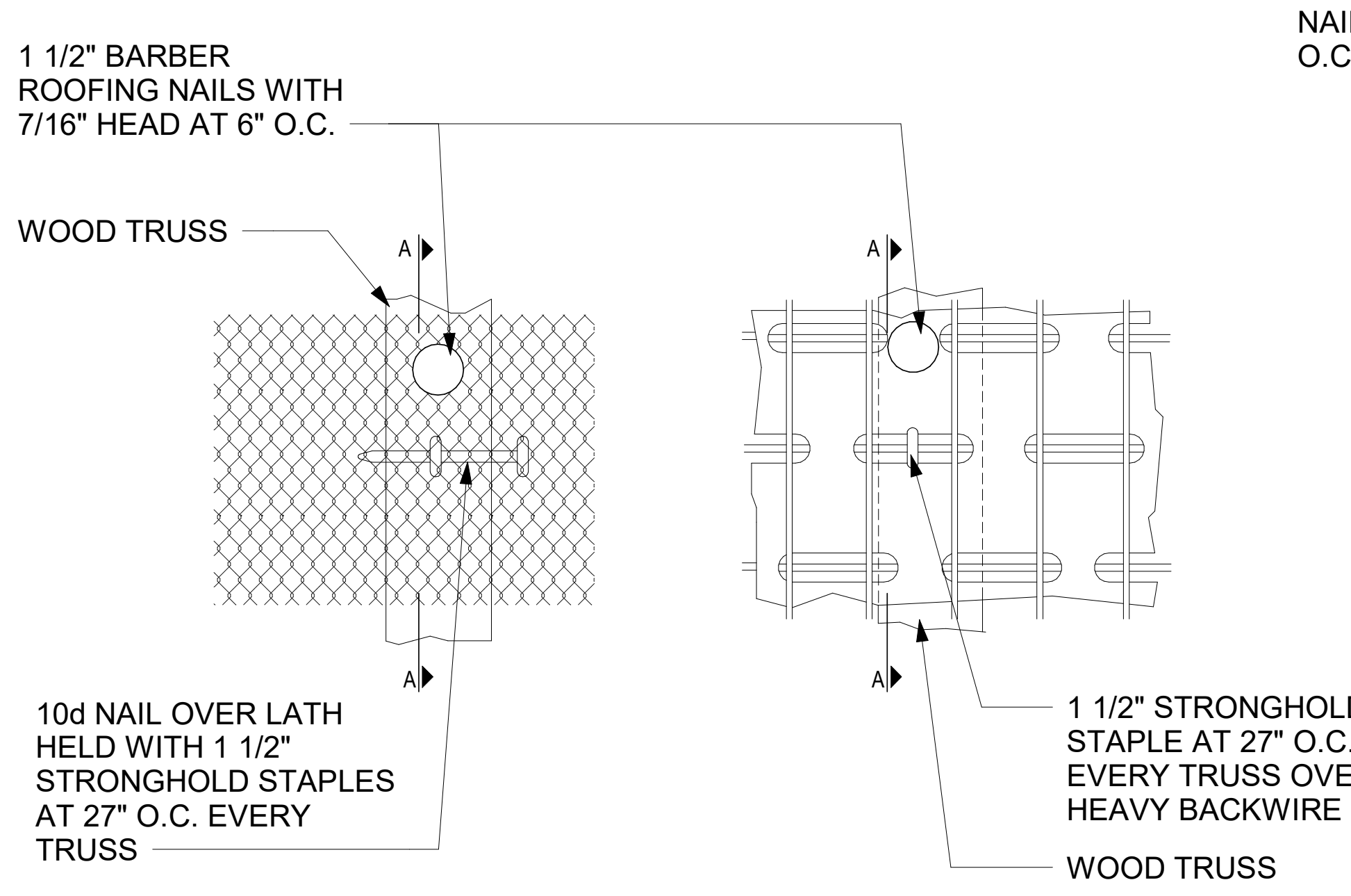
TYP. HARD LID CEILING FRAMING J10

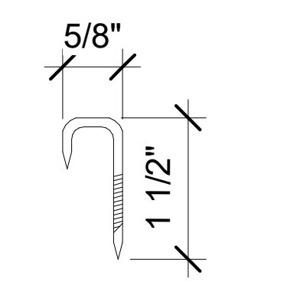
1" = 1'-0"

HORIZONTAL LATH NAILING



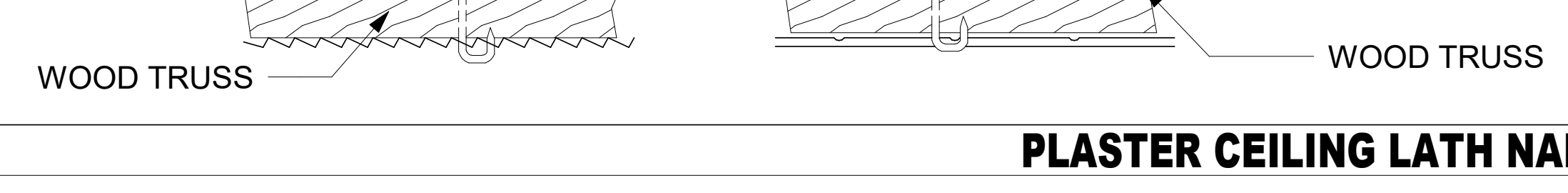
REFLECTED CEILING PLAN





EARTHQUAKE STAPLE
1 1/2" STRONGHOLD STAPLE 9 GAGE (ZINC PLATED)

LONGITUDINAL SECTION A-A OF TRUSS



PLASTER CEILING LATH NAILING E10

1" = 1'-0"

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
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△	
△	
△	
△	

TYP. GYPSUM BOARD CEILING DETAILS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A824

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC

STRUCTURAL SYSTEM OF FLOOR/ ROOF ABOVE SUSPENDED CEILING	APPLICABLE HANGER WIRE DETAIL	APPLICABLE BRACE WIRE DETAIL
BARE METAL DECK	4.20	4.30
CONCRETE OVER METAL DECK	4.21	4.30 & 4.31
CONCRETE SLAB, BEAM, OR JOIST	4.22	4.32
STRUCTURAL STEEL	4.23	4.33
METAL STUD WALL	4.24	4.34
SAWN TIMBER	4.25 & 4.29	4.35
WOOD I-JOIST	4.26	4.36 & 4.37
WOOD CHORD TRUSS	4.27 & 4.29	4.38 & 4.29
OPEN WEB STEEL JOIST	4.28 & 4.29	4.39 & 4.29

Detail Title :		Detail No.
HANGER AND BRACE WIRE CONNECTION TABLE	REV: 09/21/2015 REV: 03/2022	4.11

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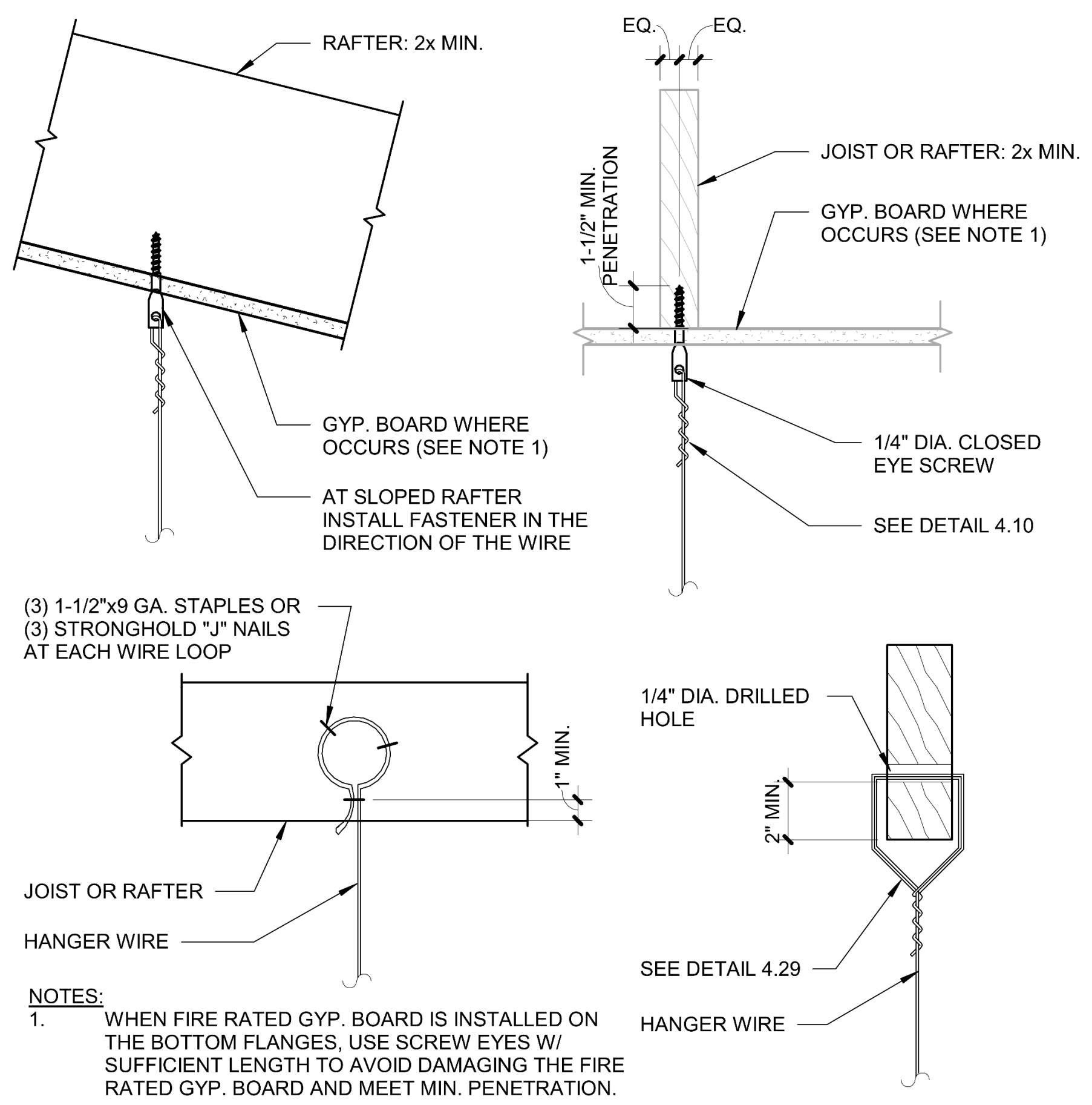
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

HANGER AND BRACING WIRE CONNECTION MATRIX K6

3" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC


RAFTER: 2x MIN.
EQ.
EQ.
1-1/2" MIN. PENETRATION
JOIST OR RAFTER: 2x MIN.
GYP. BOARD WHERE OCCURS (SEE NOTE 1)
GYP. BOARD WHERE OCCURS (SEE NOTE 1)
AT SLOPED RAFTER INSTALL FASTENER IN THE DIRECTION OF THE WIRE
1/4" DIA. CLOSED EYE SCREW
SEE DETAIL 4.10
(3) 1-1/2"x9 GA. STAPLES OR (3) STRONGHOLD "J" NAILS AT EACH WIRE LOOP
1/4" DIA. DRILLED HOLE
1" MIN.
2" MIN.
JOIST OR RAFTER
HANGER WIRE
SEE DETAIL 4.29
HANGER WIRE

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.

Detail Title :		Detail No.
HANGER WIRE CONNECTION TO SAWN TIMBER	REV: 09/21/2015 REV: 03/2022	4.25

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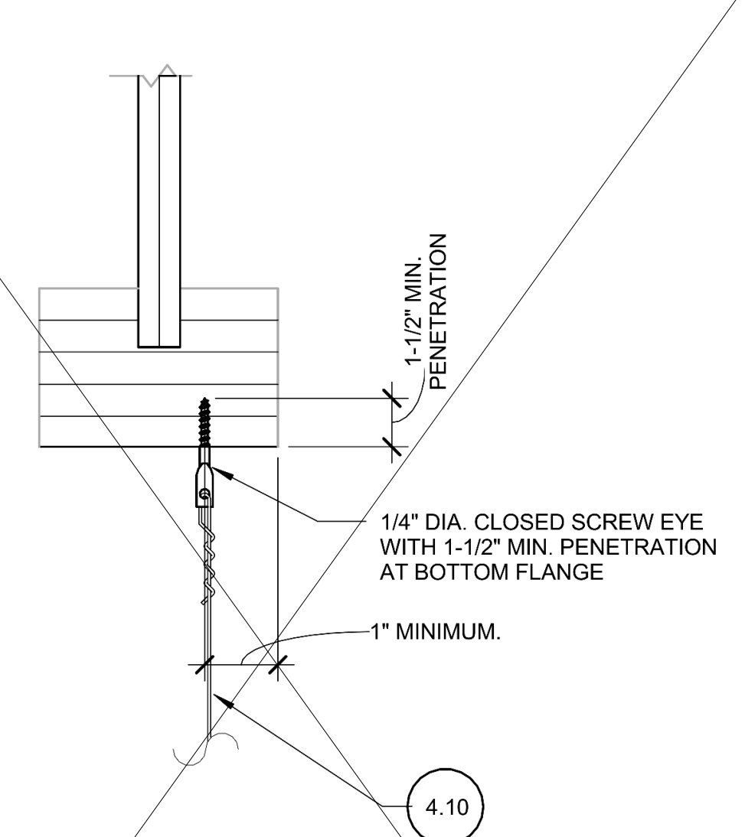
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

HANGER WIRE CONNECTION TO SAWN TIMBER G6

3" = 1'-0"

9/14/2015 2:16:05 PM


1-1/2" MIN. PENETRATION
1/4" DIA. CLOSED SCREW EYE WITH 1-1/2" MIN. PENETRATION AT BOTTOM FLANGE
1" MINIMUM.
4.10

NOTE:

(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.

Basis Document : DSA IR 25-2.13			Sheet No:
Sheet Title : HANGER WIRE CONNECTION TO WOOD I JOIST	rev.	09-21-15	4.26

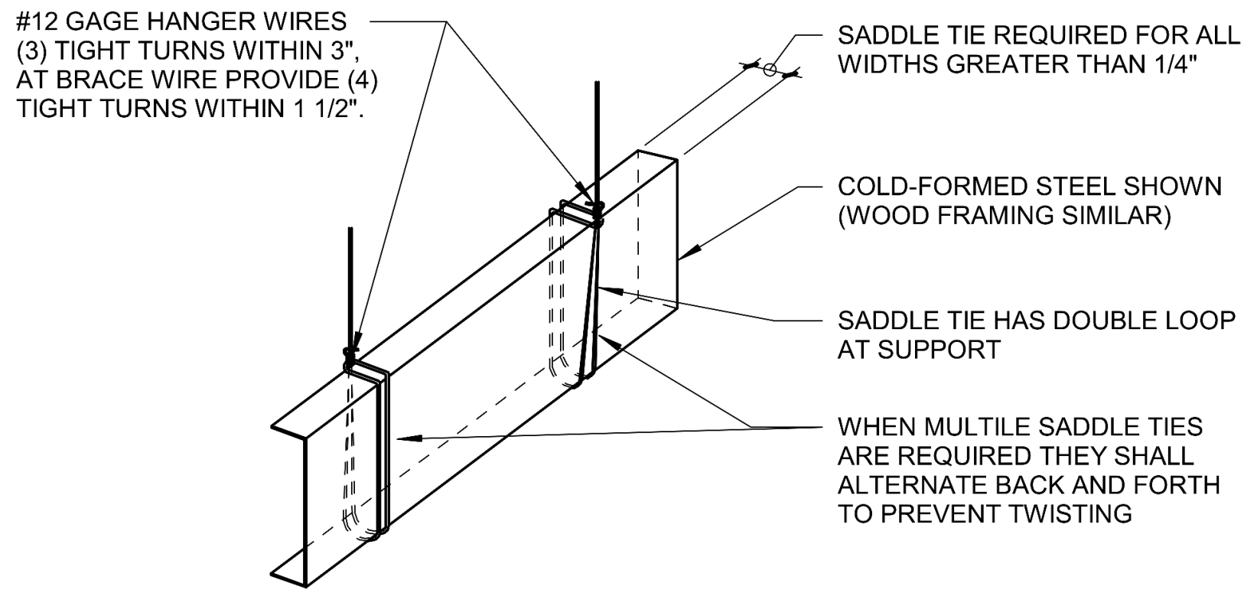
DSA IR 25-2.13 - Appendix A (rev 11/09/17) 30 of 51

HANGER WIRE CONNECTION TO WOOD I JOIST D6

3" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC


#12 GAGE HANGER WIRES (3) TIGHT TURNS WITHIN 3", AT BRACE WIRE PROVIDE (4) TIGHT TURNS WITHIN 1 1/2".
SADDLE TIE REQUIRED FOR ALL WIDTHS GREATER THAN 1/4"
COLD-FORMED STEEL SHOWN (WOOD FRAMING SIMILAR)
SADDLE TIE HAS DOUBLE LOOP AT SUPPORT
WHEN MULTILE SADDLE TIES ARE REQUIRED THEY SHALL ALTERNATE BACK AND FORTH TO PREVENT TWISTING

Detail Title :		Detail No.
TYPICAL SADDLE TIE DETAIL	REV: 09/21/2015 REV: 03/2022	4.29

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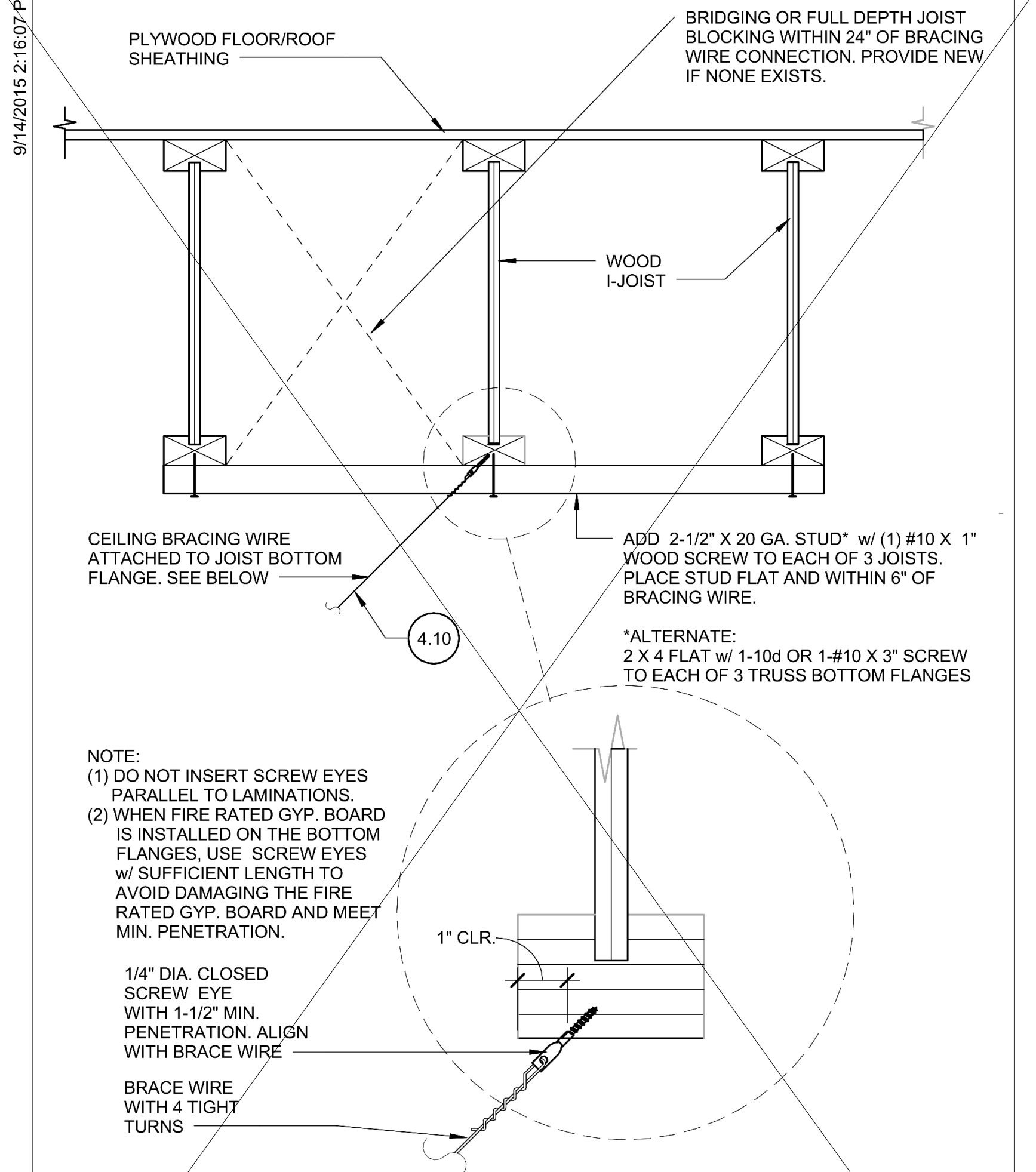
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

TYPICAL SADDLE TIE DETAIL A6

3" = 1'-0"

9/14/2015 2:16:07 PM


PLYWOOD FLOOR/ROOF SHEATHING
BRIDGING OR FULL DEPTH JOIST BLOCKING WITHIN 24" OF BRACING WIRE CONNECTION. PROVIDE NEW IF NONE EXISTS.
WOOD I-JOIST
CEILING BRACING WIRE ATTACHED TO JOIST BOTTOM FLANGE. SEE BELOW
4.10
ADD 2-1/2" X 20 GA. STUD* w/ (1) #10 X 1" WOOD SCREW TO EACH OF 3 JOISTS. PLACE STUD FLAT AND WITHIN 6" OF BRACING WIRE.
*ALTERNATE: 2 X 4 FLAT w/ 1-10d OR 1-#10 X 3" SCREW TO EACH OF 3 TRUSS BOTTOM FLANGES
1" CLR.
1/4" DIA. CLOSED SCREW EYE WITH 1-1/2" MIN. PENETRATION. ALIGN WITH BRACE WIRE
BRACE WIRE WITH 4 TIGHT TURNS

NOTE:
(1) DO NOT INSERT SCREW EYES PARALLEL TO LAMINATIONS.
(2) 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.

Basis Document : DSA IR 25-2.13			Sheet No:
Sheet Title : BRACE WIRE CONNECTION TO WOOD I - JOIST	rev.	09-21-15	4.37

DSA IR 25-2.13 - Appendix A (rev 11/09/17) 41 of 51

BRACE WIRE CONNECTION TO WOOD I - JOIST K10

3" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC

STRUCTURAL SYSTEM OF FLOOR/ ROOF ABOVE SUSPENDED CEILING	APPLICABLE DETAIL
BARE METAL DECK	5.20
CONCRETE OVER METAL DECK	5.21
CONCRETE SLAB, BEAM, OR JOIST	5.30
STRUCTURAL STEEL	5.40
SAWN TIMBER WITH GYPSUM BOARD	5.50
SAWN TIMBER WITHOUT GYPSUM BOARD	5.51
WOOD I-JOIST	5.52

Detail Title :		Detail No.
COMPRESSION STRUT CONNECTION TABLE	REV: 09/21/2015 REV: 03/2022	5.10

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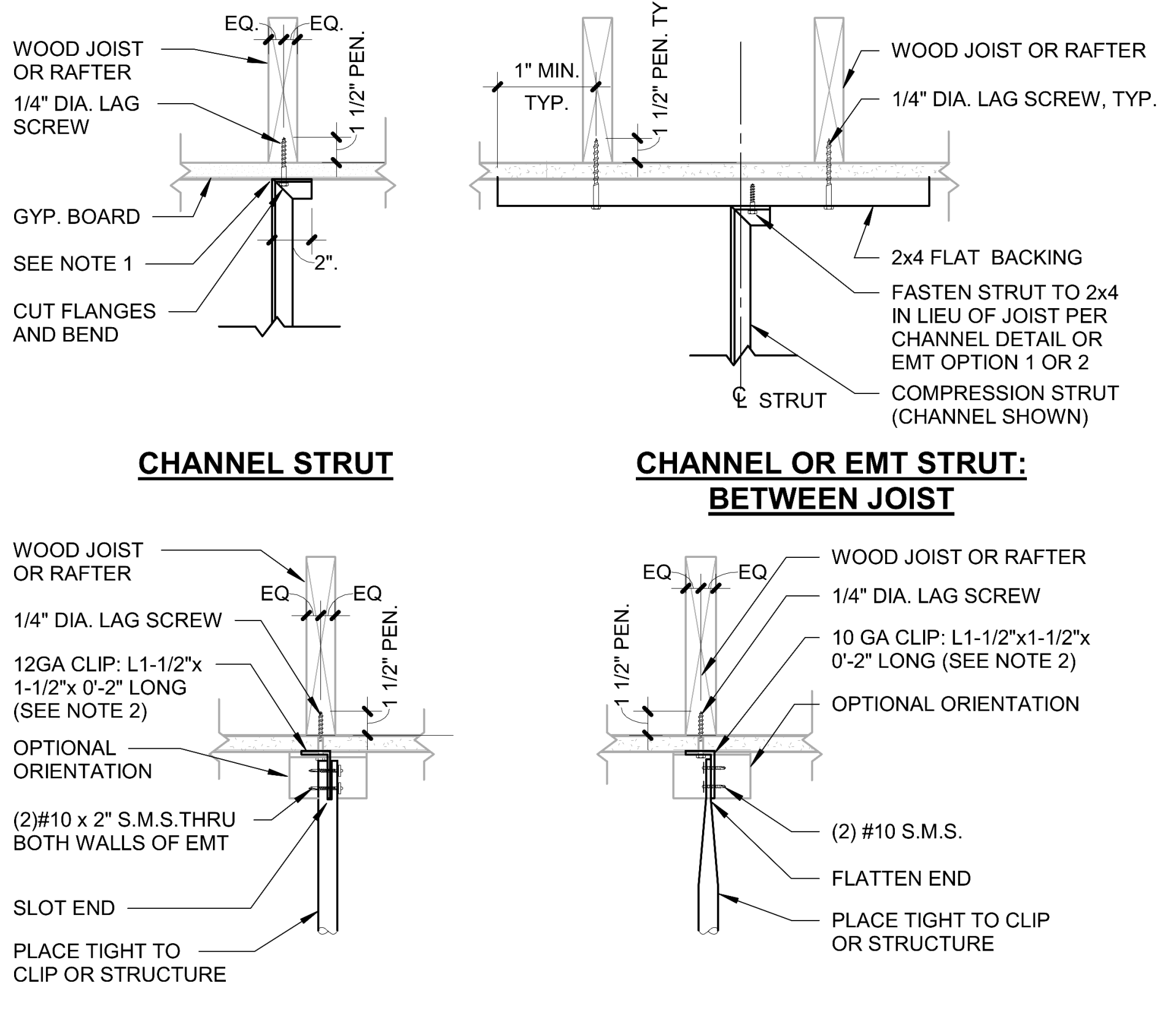
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

COMPRESSION STRUTT CONNECTION TO STRUCTURE G10

3" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC



CHANNEL STRUT

CHANNEL OR EMT STRUT: BETWEEN JOIST

EMT STRUT: OPTION 1

EMT STRUT: OPTION 2

NOTES:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF THE WOOD MEMBER.
2. FOR ANGLE ORIENTED IN THE STANDARD POSITION, VERTICAL LEG 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.

Detail Title :		Detail No.
STRUT CONNECTION TO SAWN TIMBER WITH GYPSUM BOARD	REV: 09/21/2015 REV: 03/2022	5.50

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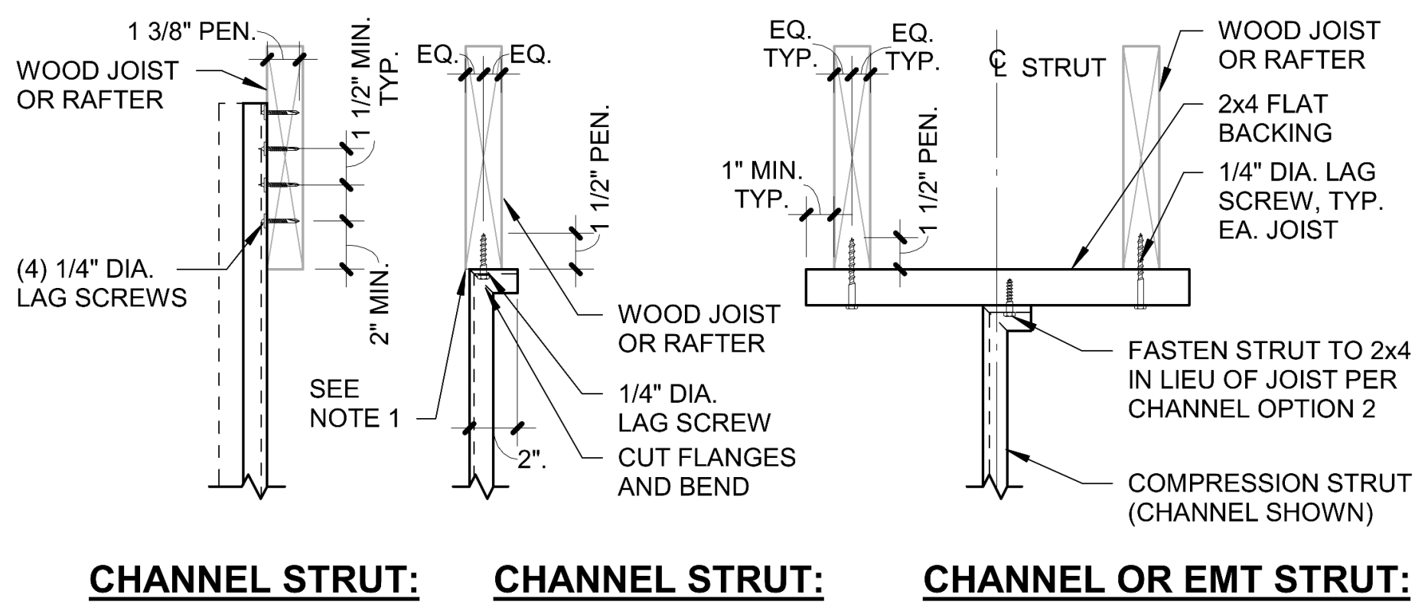
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

STRUT CONNECTION TO SAWN TIMBER WITH GYPSUM BOARD D10

3" = 1'-0"

IR 25-2

SUSPENDED LAY-IN PANEL CEILING: 2019 CBC



CHANNEL STRUT: OPTION 1

CHANNEL STRUT: OPTION 2

CHANNEL OR EMT STRUT: BETWEEN JOIST

NOTES:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. VERTICAL LEG OF MEMBER TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER.
3. SEE DETAIL 5.50 FOR ADDITIONAL INFORMATION.
4. PEN. = MINIMUM PENETRATION OF LAG SCREW THREADS INTO THE WOOD MEMBER.
5. NO. 14 WOOD SCREW MAY BE USED IN LIEU OF 1/4" LAG SCREW.

Detail Title :		Detail No.
STRUT CONNECTION TO SAWN TIMBER WITHOUT GYPSUM BOARD	REV: 09/21/2015 REV: 03/2022	5.51

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DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

STRUT CONNECTION TO SAWN TIMBER W/O GYPSUM BOARD A10

3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
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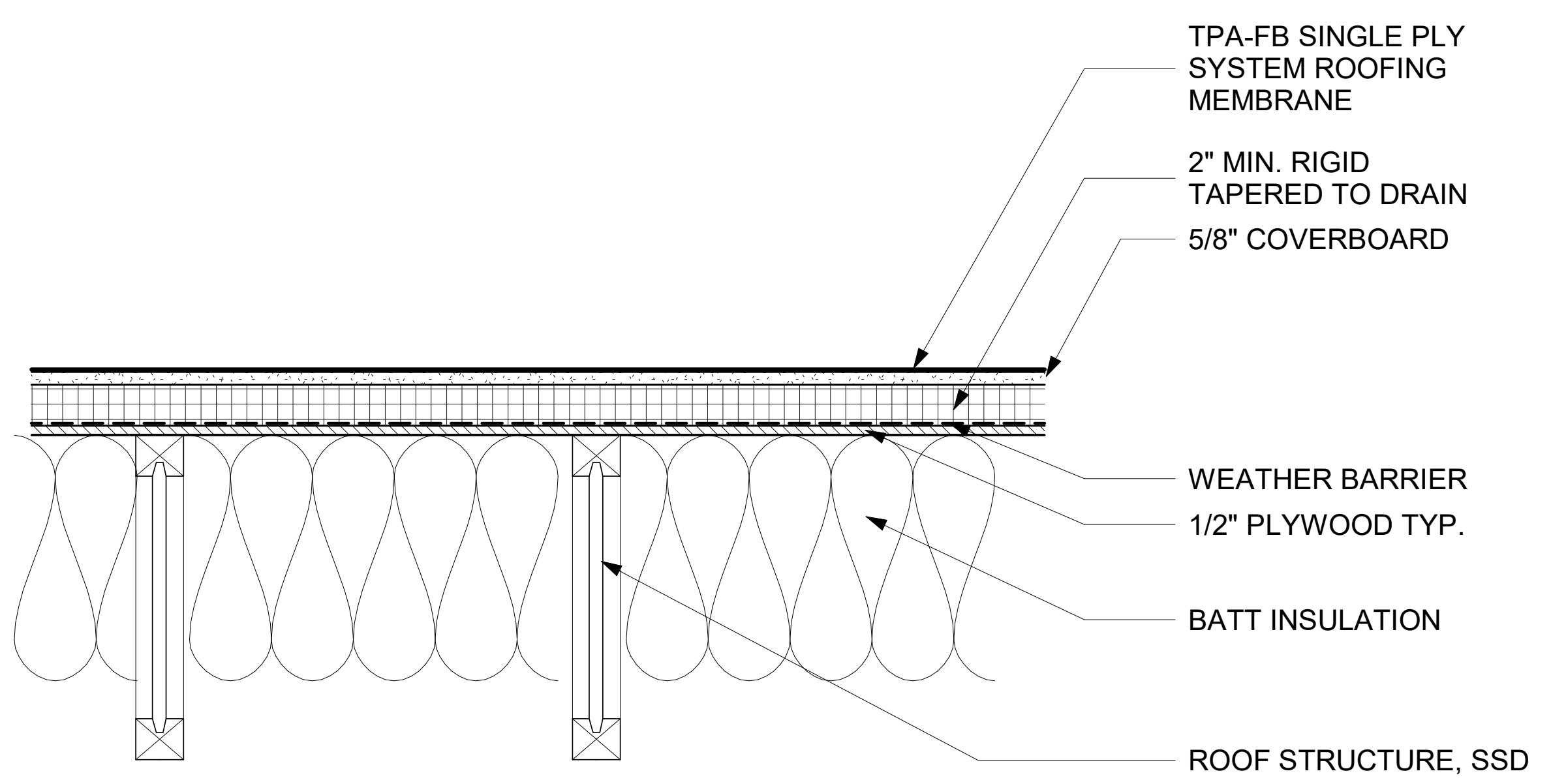
TYP. LAY-IN CEILING DETAILS

PERKINS EASTMAN

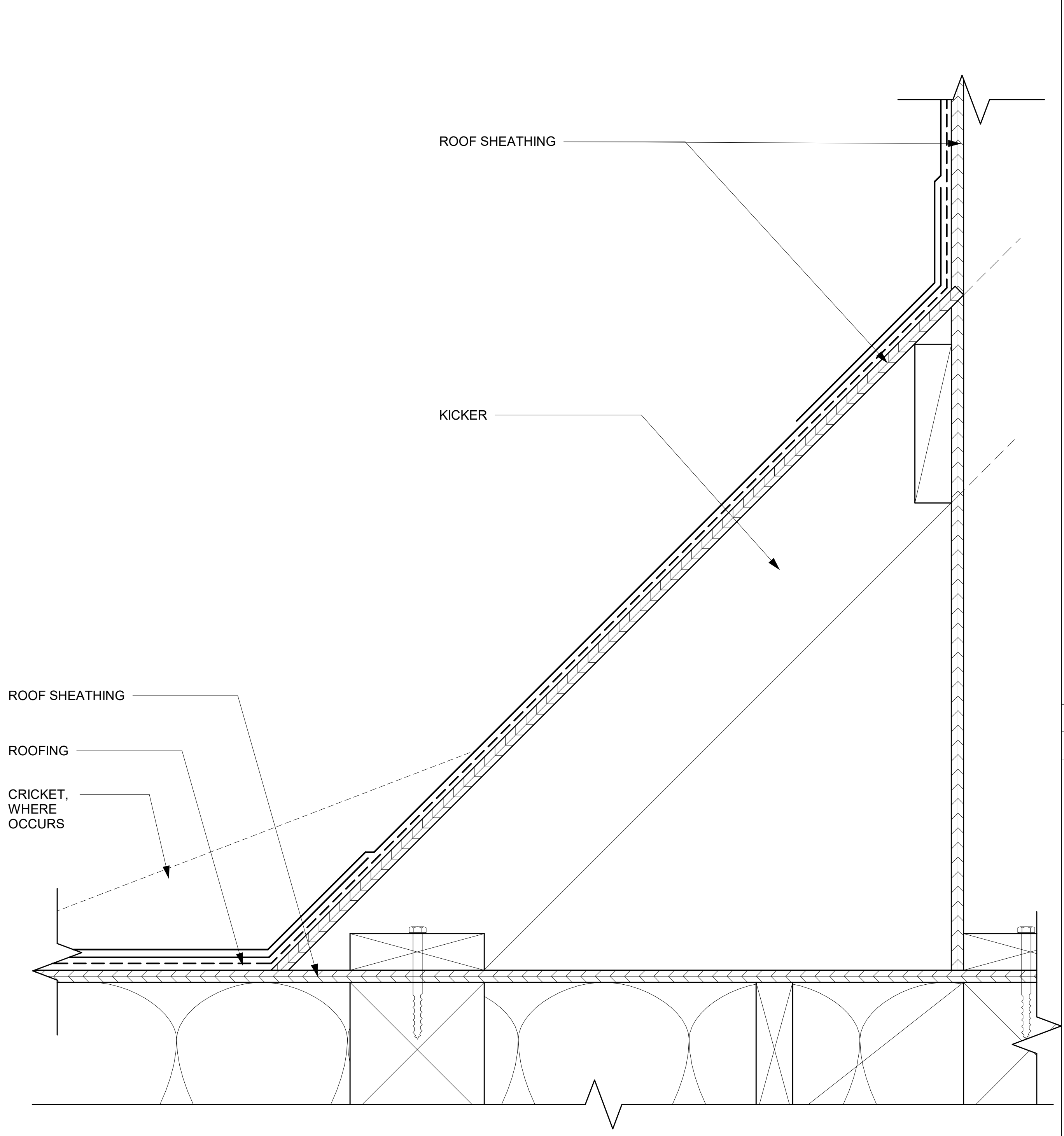
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A825



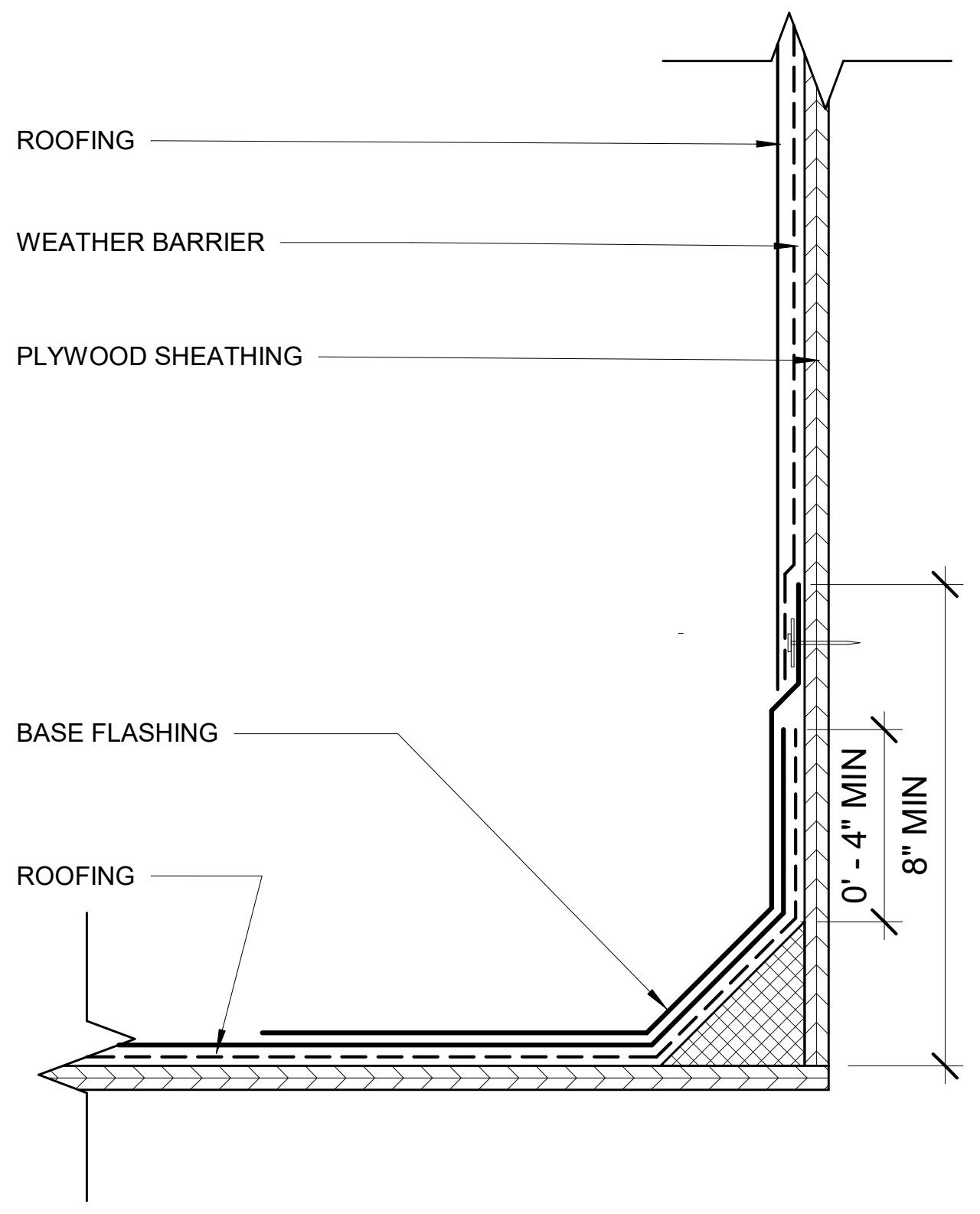
TYPICAL ROOF **G3**

1 1/2" = 1'-0"



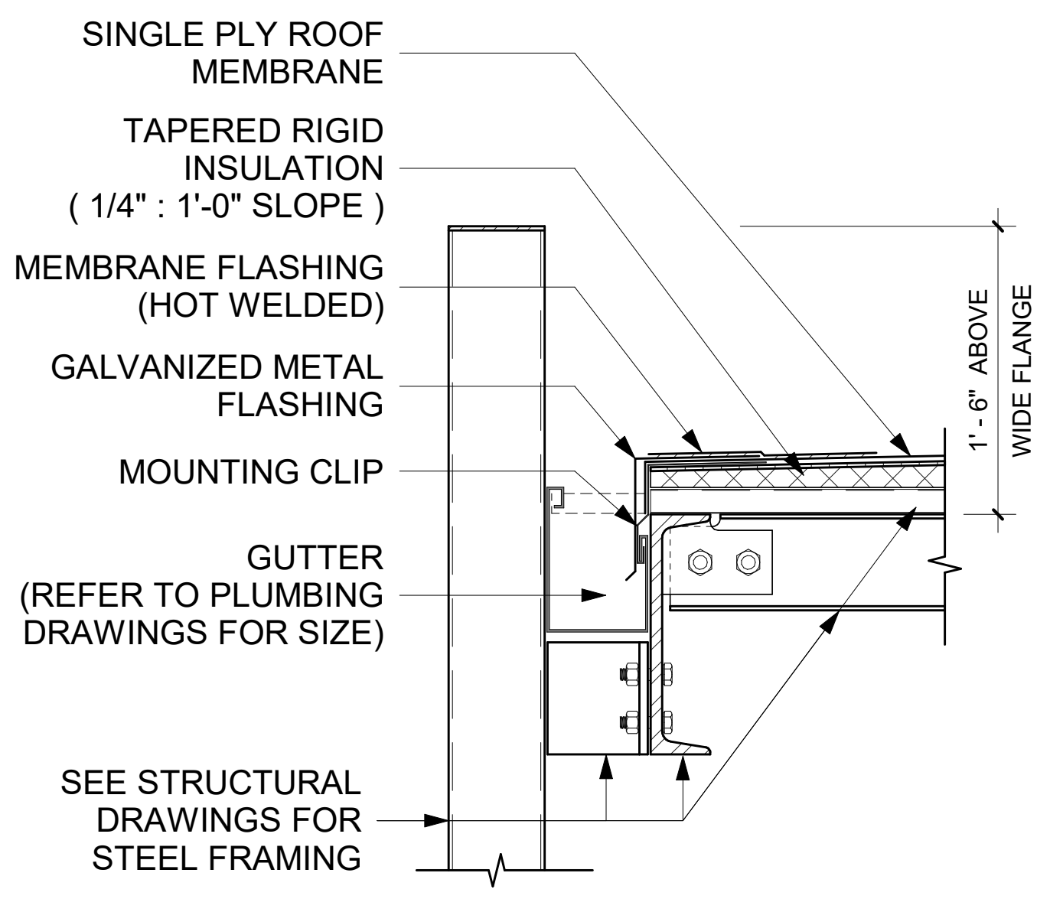
ROOF KICKER **C5**

3" = 1'-0"



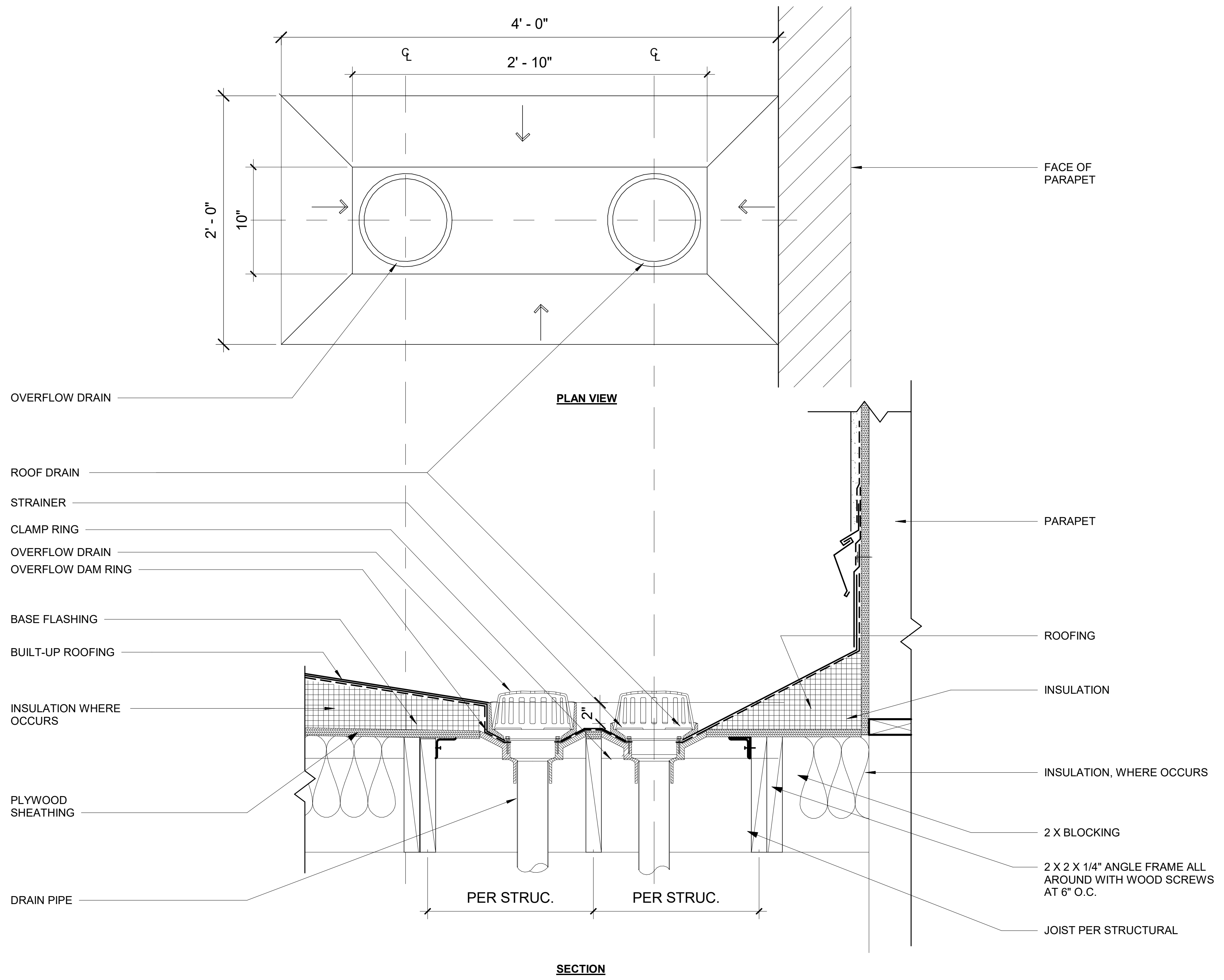
ROOF TO PARAPET **A3**

3" = 1'-0"


SINGLE PLY ROOF MEMBRANE
TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
MEMBRANE FLASHING (HOT WELDED)
GALVANIZED METAL FLASHING
MOUNTING CLIP
GUTTER (REFER TO PLUMBING DRAWINGS FOR SIZE)
SEE STRUCTURAL DRAWINGS FOR STEEL FRAMING
1'-6" ABOVE WIDE FLANGE

COVERED WALKWAY EDGE AND GUTTER **A5**

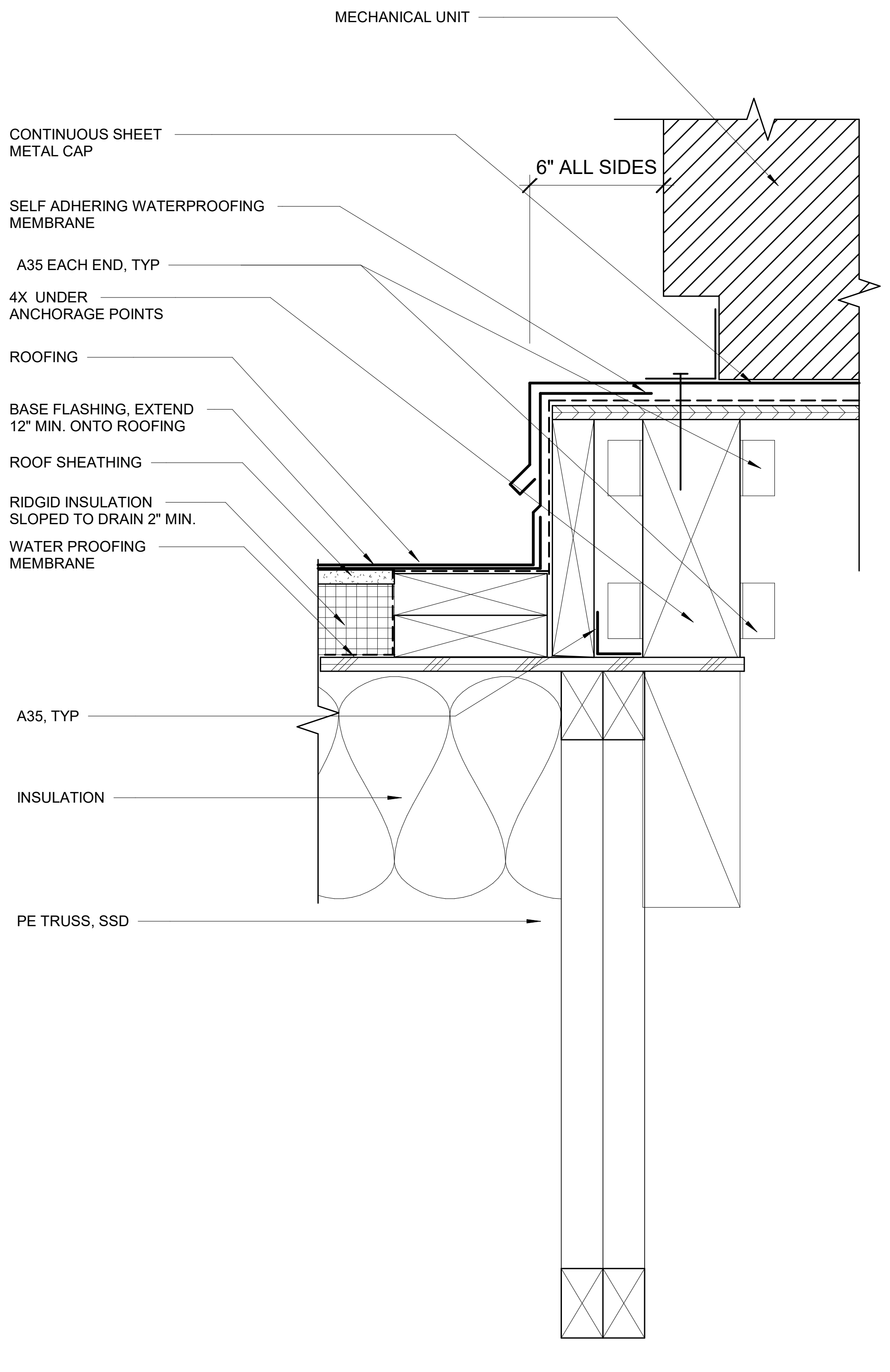
1" = 1'-0"



NOTES:
1. FOR ROOF DRAIN & OVERFLOW DRAIN SIZES, REFER TO PLUMBING DRAWINGS.
2. OVERFLOW DRAINS SHALL BE EQUAL SIZE AND DIAMETER AS ROOF DRAINS AND SHALL BE INSTALLED WITH INLET FLOWLINE 2" ABOVE THE LOW POINT OF ROOF.

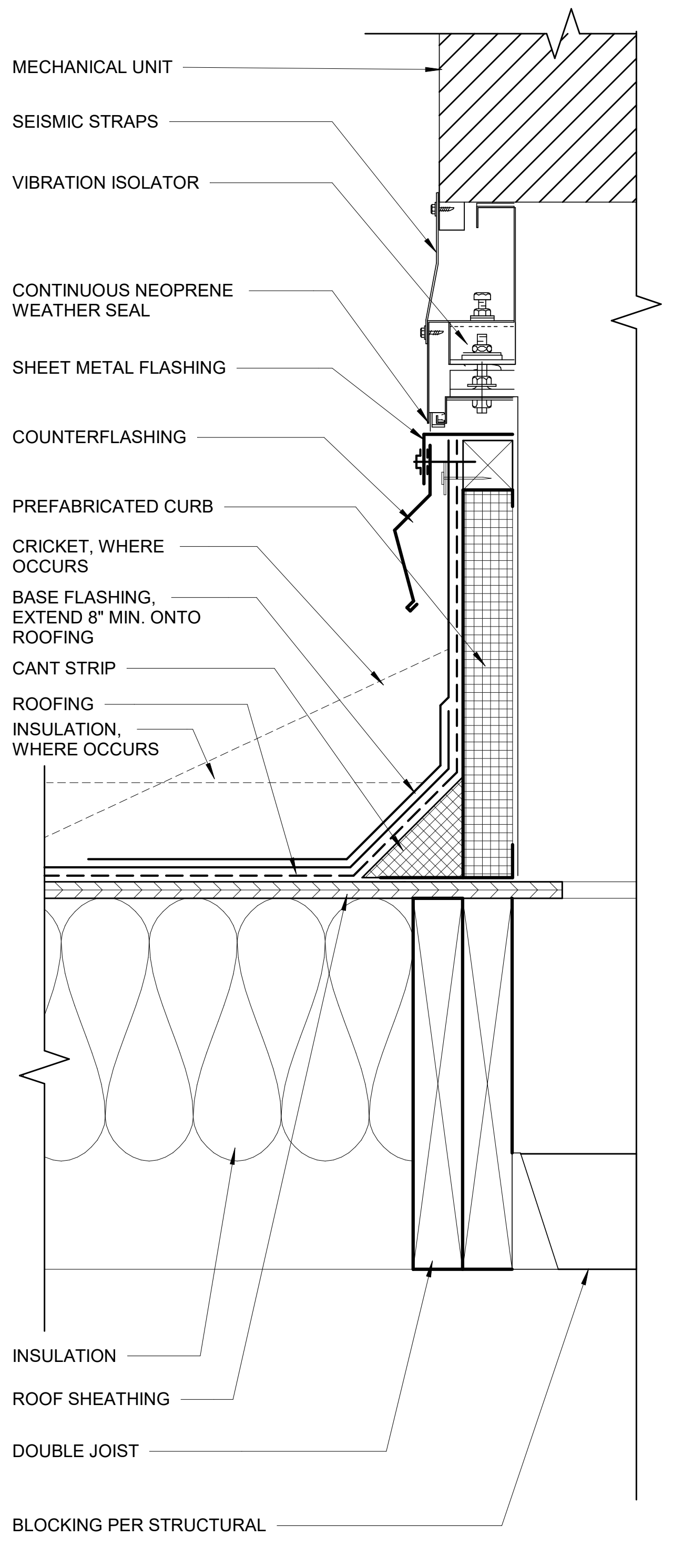
DOUBLE UNIT ROOF DRAIN **G8**

1 1/2" = 1'-0"


MECHANICAL UNIT
6" ALL SIDES
CONTINUOUS SHEET METAL CAP
SELF ADHERING WATERPROOFING MEMBRANE
A35 EACH END, TYP
4X UNDER ANCHORAGE POINTS
ROOFING
BASE FLASHING, EXTEND 12" MIN. ONTO ROOFING
ROOF SHEATHING
RIDGID INSULATION SLOPED TO DRAIN 2" MIN.
WATER PROOFING MEMBRANE
A35, TYP
INSULATION
PE TRUSS, SSD

MECHANICAL EQUIPMENT PLATFORM **C10**

3" = 1'-0"

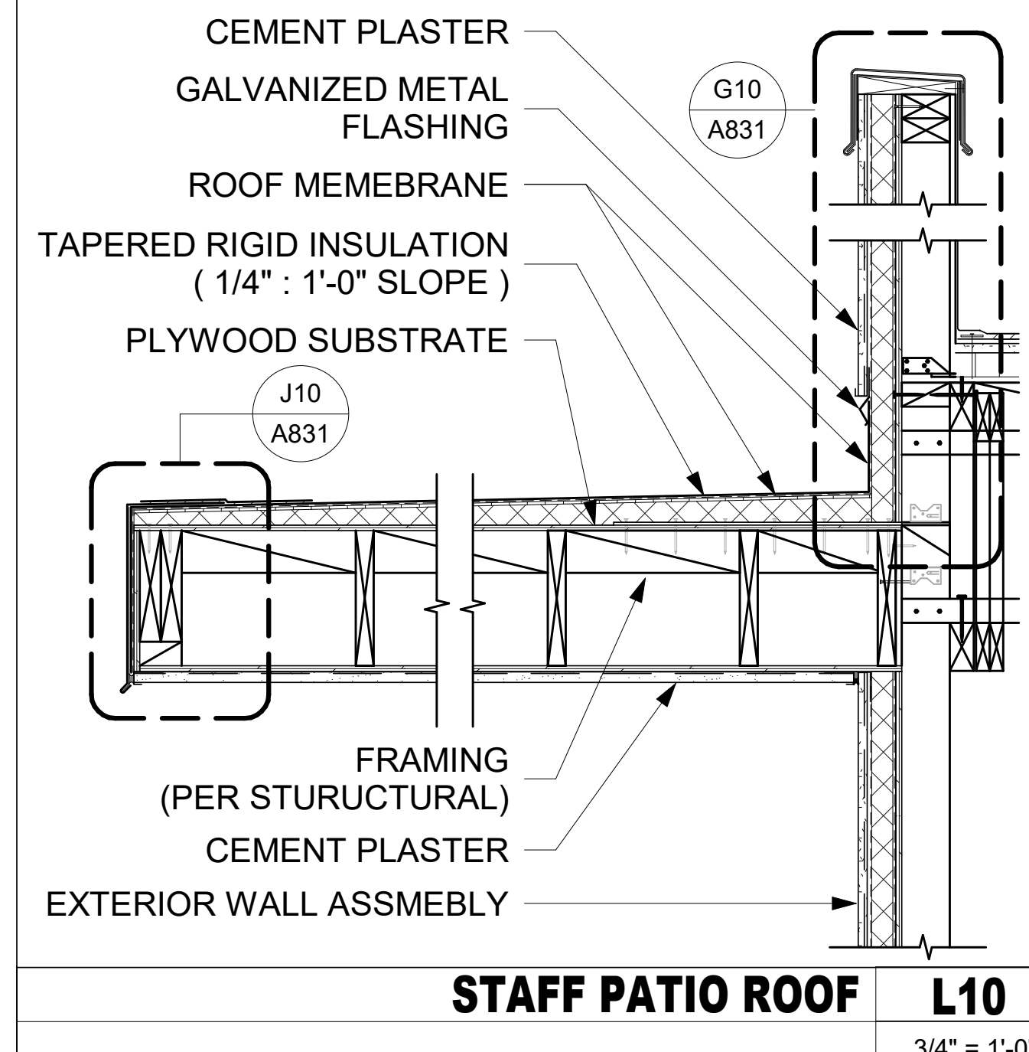


AT 2X ROOF JOIST

MECHANICAL EQUIPMENT CURB **A10**

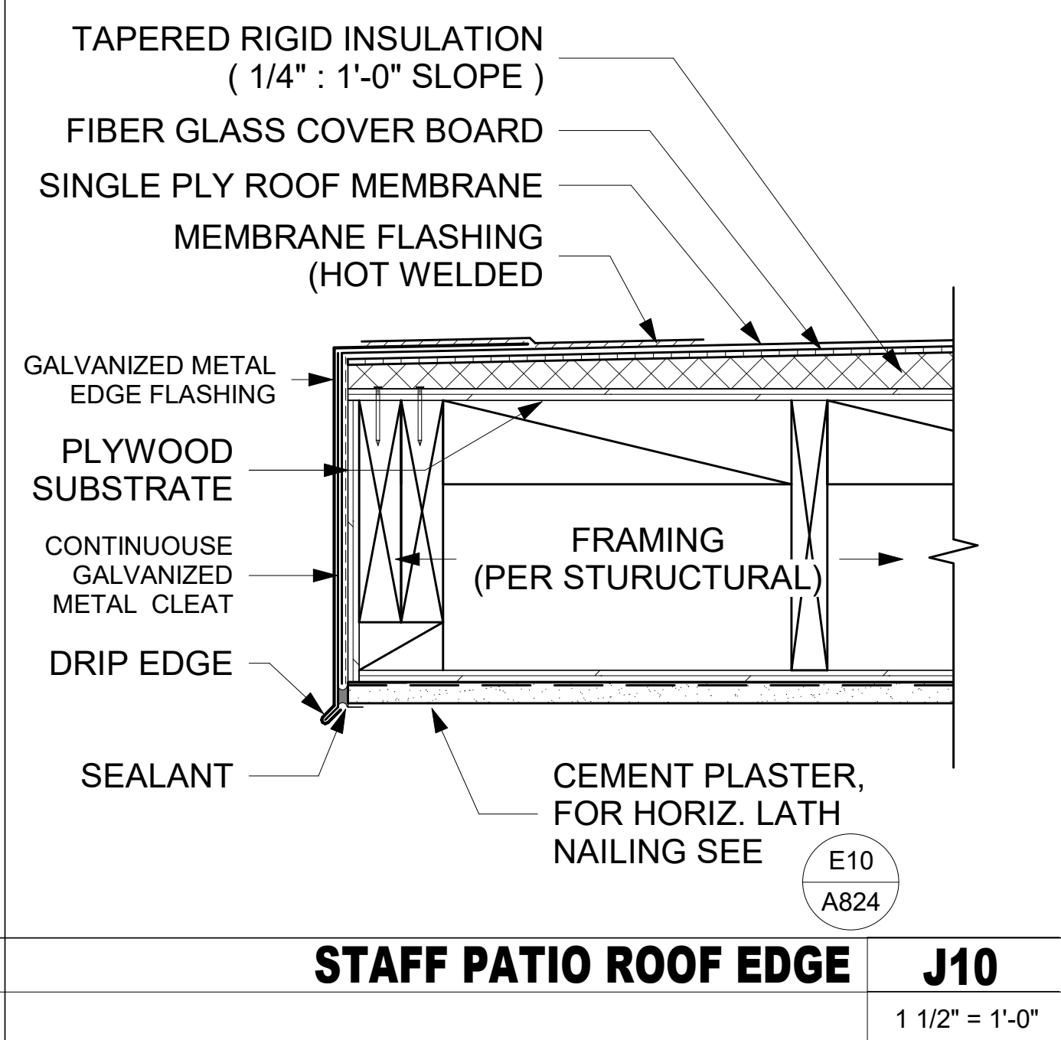
WITH VIBRATION ISOLATOR

3" = 1'-0"


CEMENT PLASTER
GALVANIZED METAL FLASHING
ROOF MEMEBRANE
TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
PLYWOOD SUBSTRATE
G10 A831
J10 A831
FRAMING (PER STURUCTURAL)
CEMENT PLASTER
EXTERIOR WALL ASSMEBLY

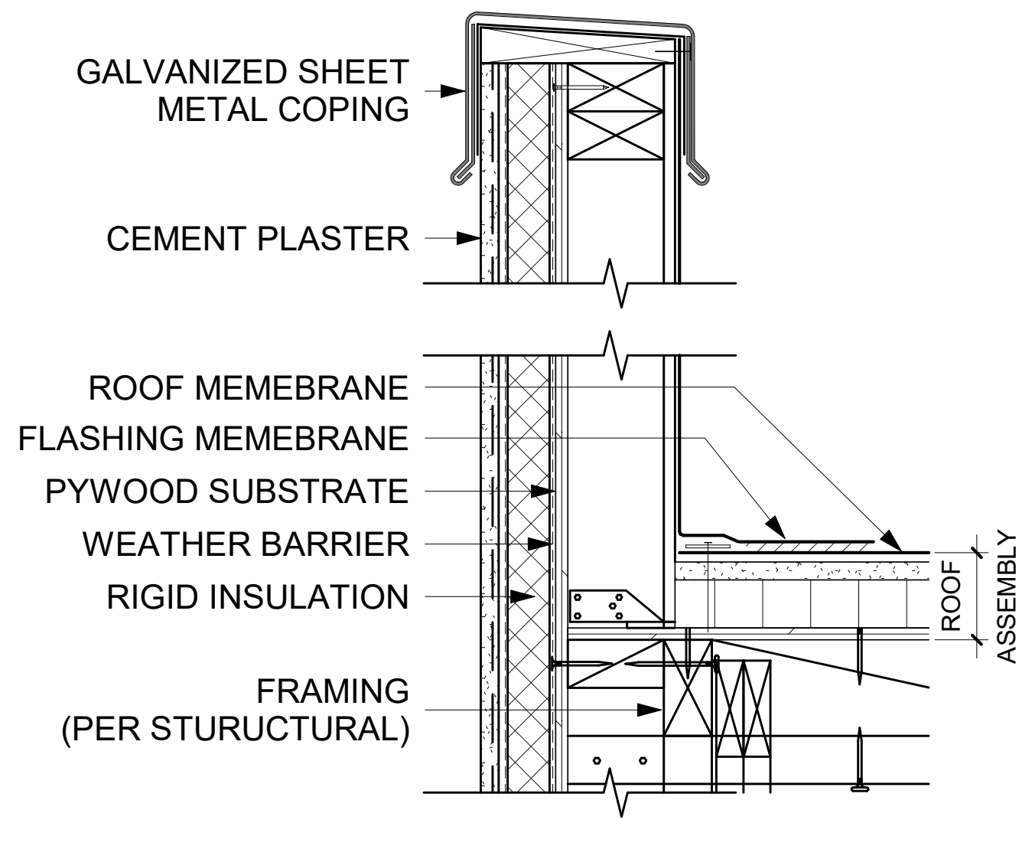
STAFF PATIO ROOF **L10**

3/4" = 1'-0"


TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
FIBER GLASS COVER BOARD
SINGLE PLY ROOF MEMBRANE
MEMBRANE FLASHING (HOT WELDED)
GALVANIZED METAL EDGE FLASHING
PLYWOOD SUBSTRATE
CONTINUOUSE GALVANIZED METAL CLEAT
DRIP EDGE
SEALANT
FRAMING (PER STURUCTURAL)
CEMENT PLASTER, FOR HORIZ. LATH NAILING SEE
E10 A824

STAFF PATIO ROOF EDGE **J10**

1 1/2" = 1'-0"



TYPICAL PARAPET **G10**

1 1/2" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

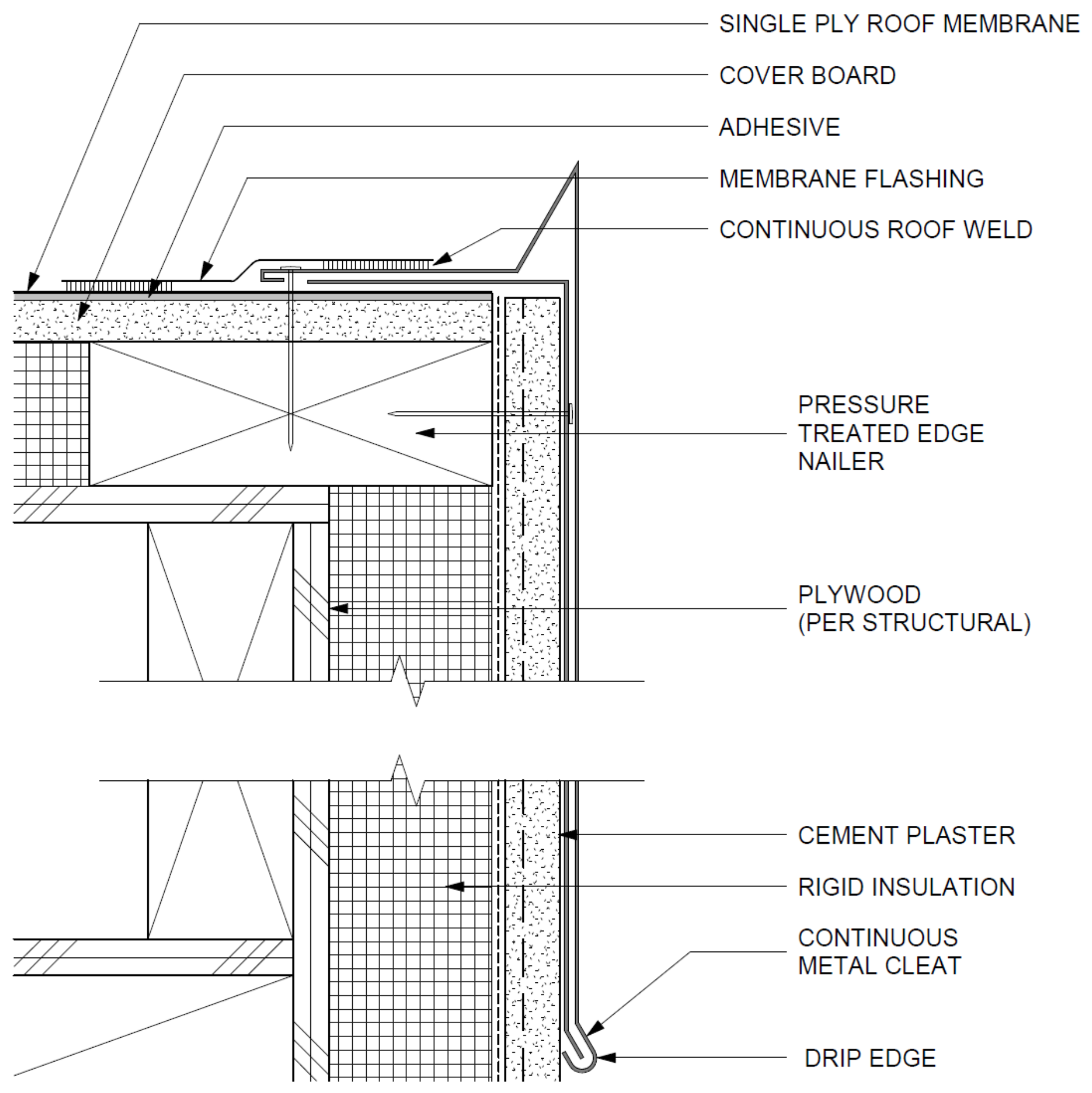
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△	
△	
△	
△	
△	

ROOF DETAILS

PERKINS — EASTMAN

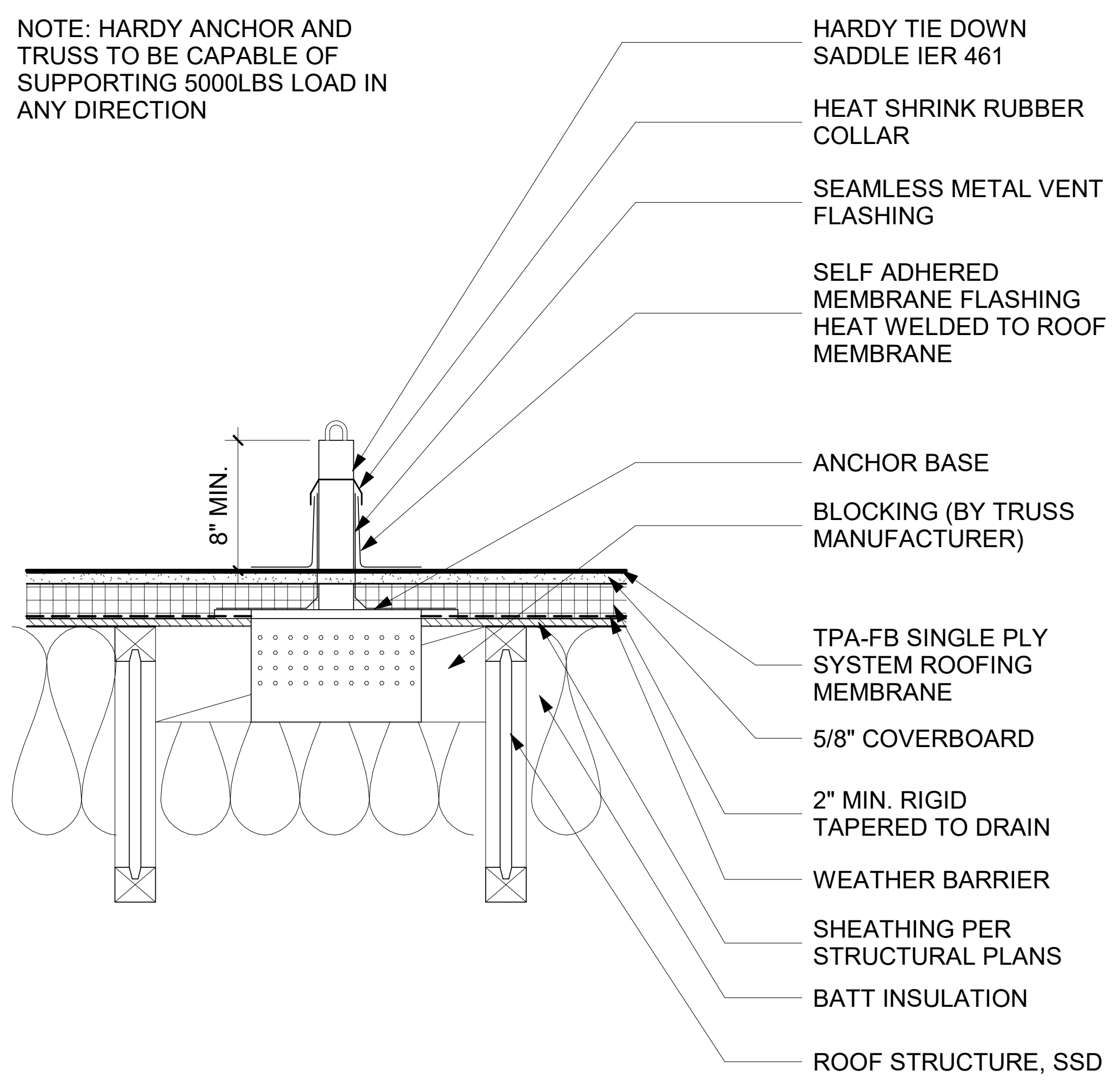
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A831

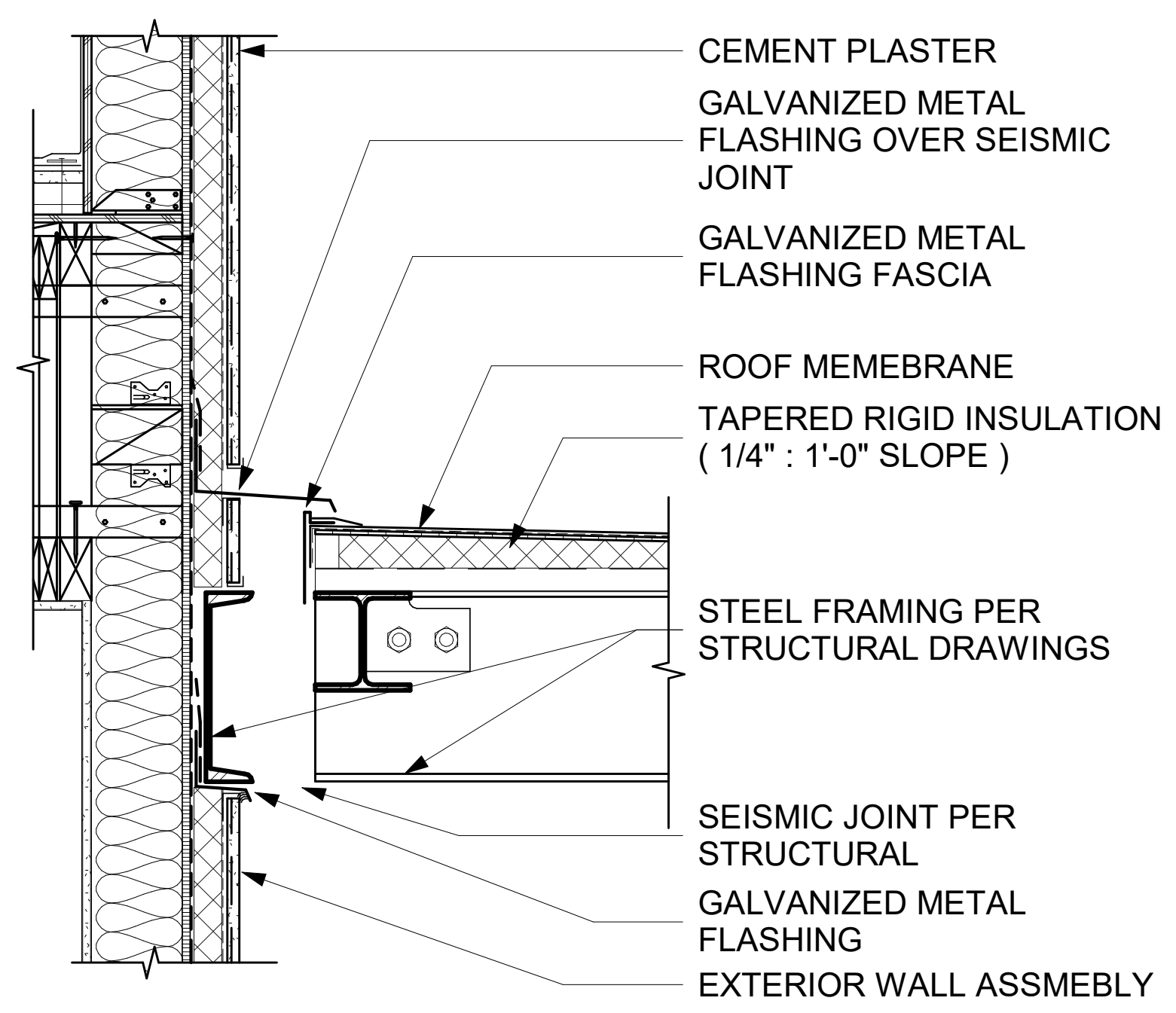


RAKE EDGE D3
6" = 1'-0"

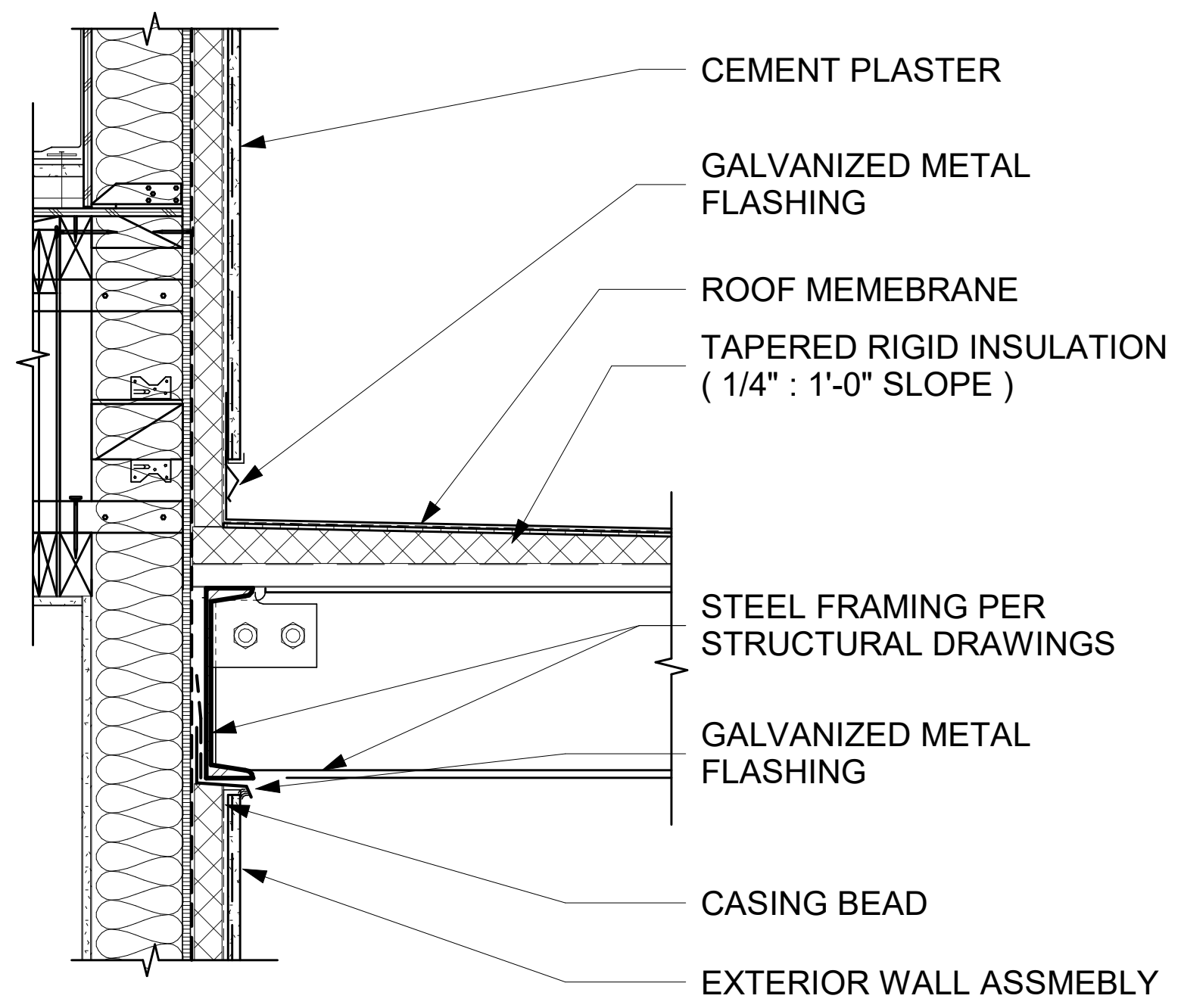
NOTE: HARDY ANCHOR AND TRUSS TO BE CAPABLE OF SUPPORTING 5000LBS LOAD IN ANY DIRECTION


HARDY TIE DOWN SADDLE IER 461
HEAT SHRINK RUBBER COLLAR
SEAMLESS METAL VENT FLASHING
SELF ADHERED MEMBRANE FLASHING HEAT WELDED TO ROOF MEMBRANE
8" MIN.
ANCHOR BASE
BLOCKING (BY TRUSS MANUFACTURER)
TPA-FB SINGLE PLY SYSTEM ROOFING MEMBRANE
5/8" COVERBOARD
2" MIN. RIGID TAPERED TO DRAIN
WEATHER BARRIER
SHEATHING PER STRUCTURAL PLANS
BATT INSULATION
ROOF STRUCTURE, SSD

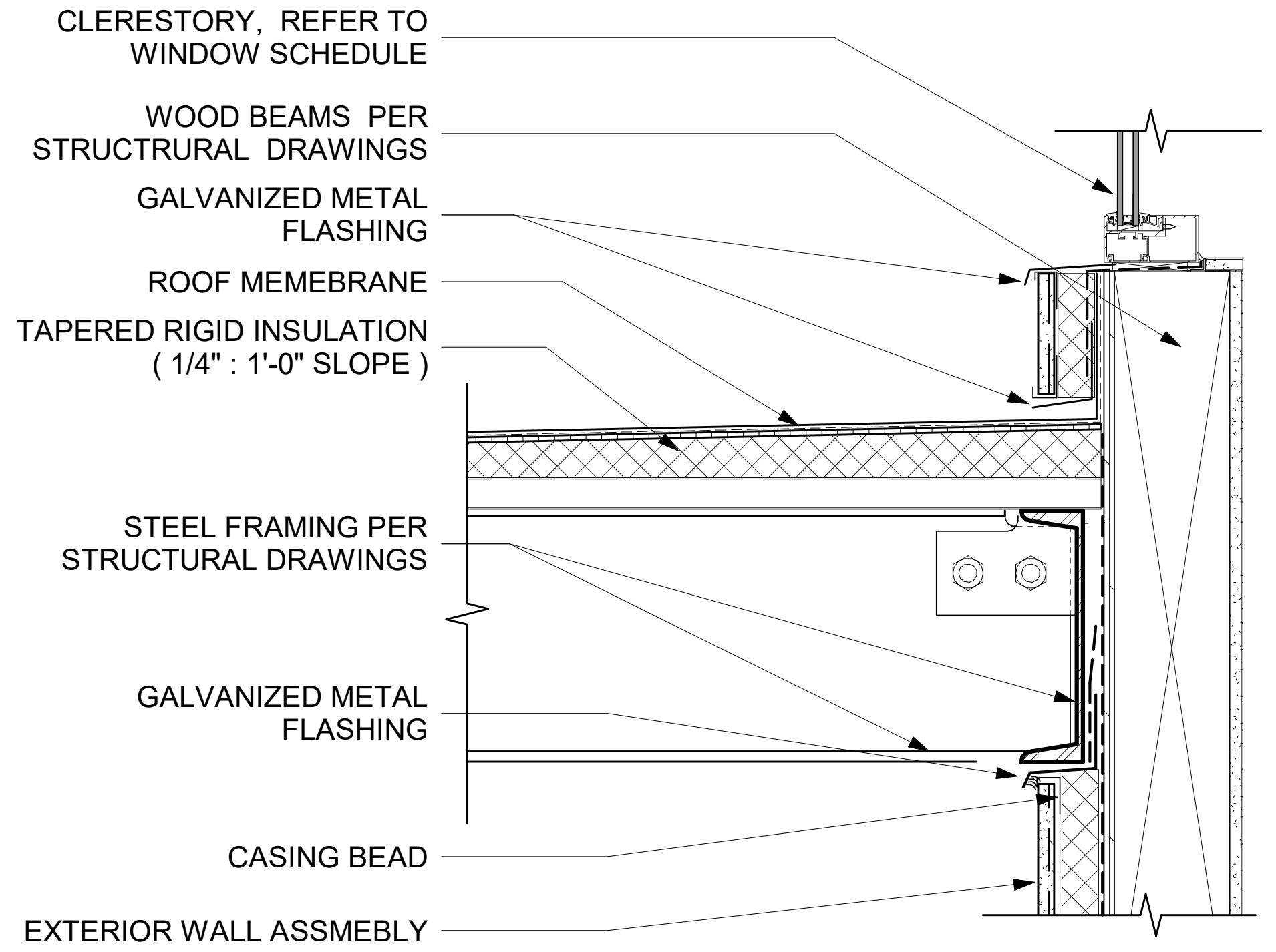
ROOF ANCHORAGE A3
1 1/2" = 1'-0"


CEMENT PLASTER
GALVANIZED METAL FLASHING OVER SEISMIC JOINT
GALVANIZED METAL FLASHING FASCIA
ROOF MEMEBRANE
TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
STEEL FRAMING PER STRUCTURAL DRAWINGS
SEISMIC JOINT PER STRUCTURAL
GALVANIZED METAL FLASHING
EXTERIOR WALL ASSMEBLY

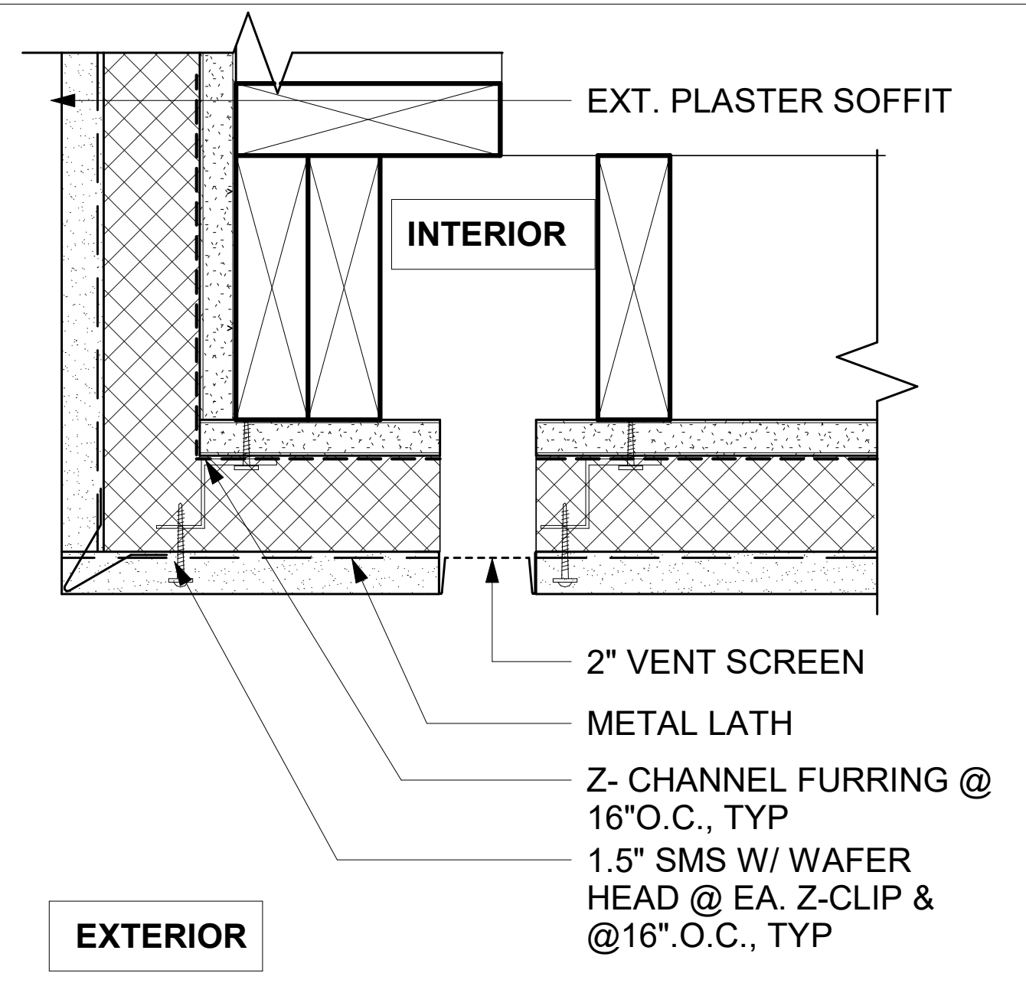
COVERED WALKWAY SEISMIC GAP @ EXT WALL G8
1" = 1'-0"


CEMENT PLASTER
GALVANIZED METAL FLASHING
ROOF MEMEBRANE
TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
STEEL FRAMING PER STRUCTURAL DRAWINGS
GALVANIZED METAL FLASHING
CASING BEAD
EXTERIOR WALL ASSMEBLY

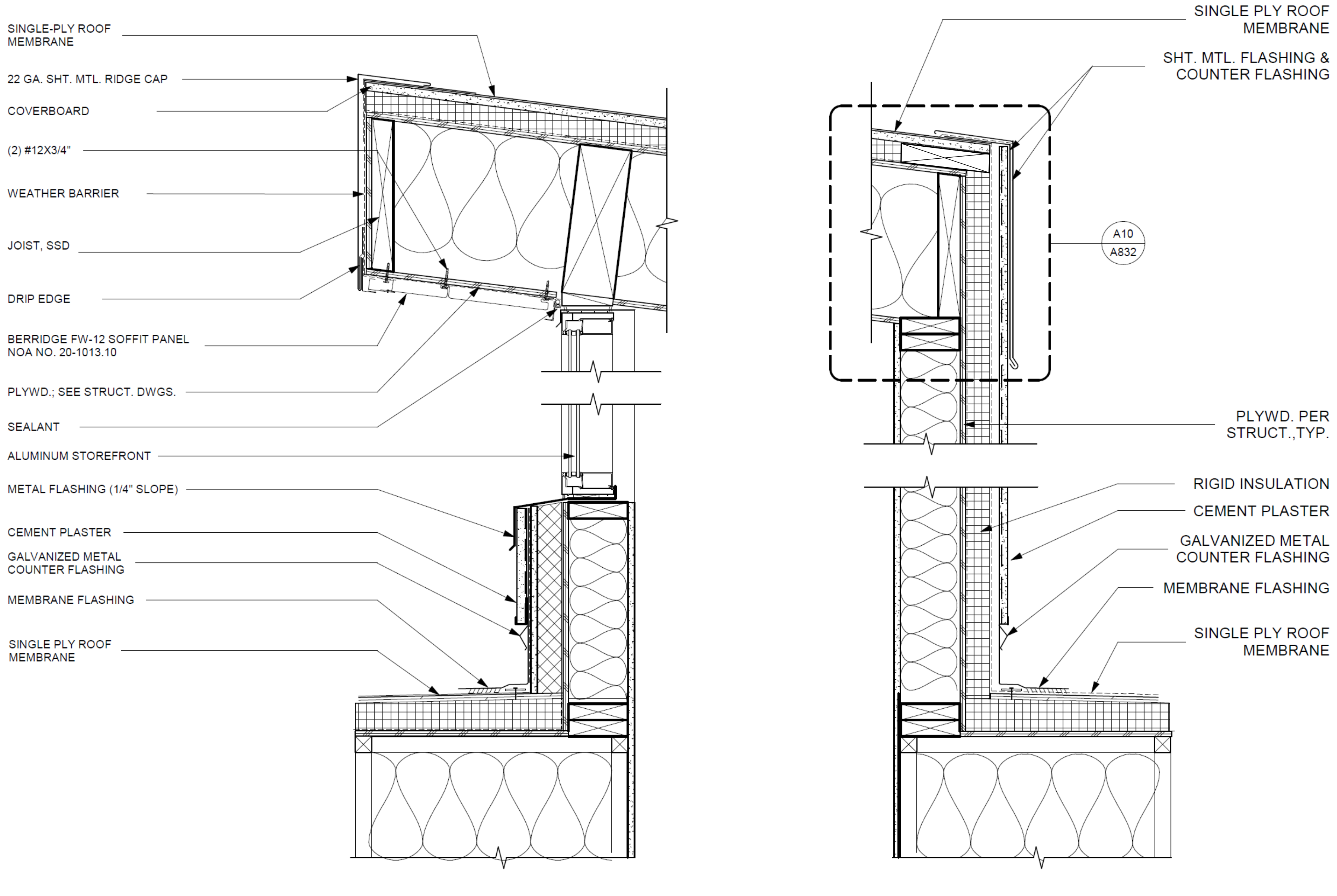
COVERED WALKWAY @ EXT WALL D6
1" = 1'-0"


CLERESTORY, REFER TO WINDOW SCHEDULE
WOOD BEAMS PER STRUCTURAL DRAWINGS
GALVANIZED METAL FLASHING
ROOF MEMEBRANE
TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
STEEL FRAMING PER STRUCTURAL DRAWINGS
GALVANIZED METAL FLASHING
CASING BEAD
EXTERIOR WALL ASSEMBLY

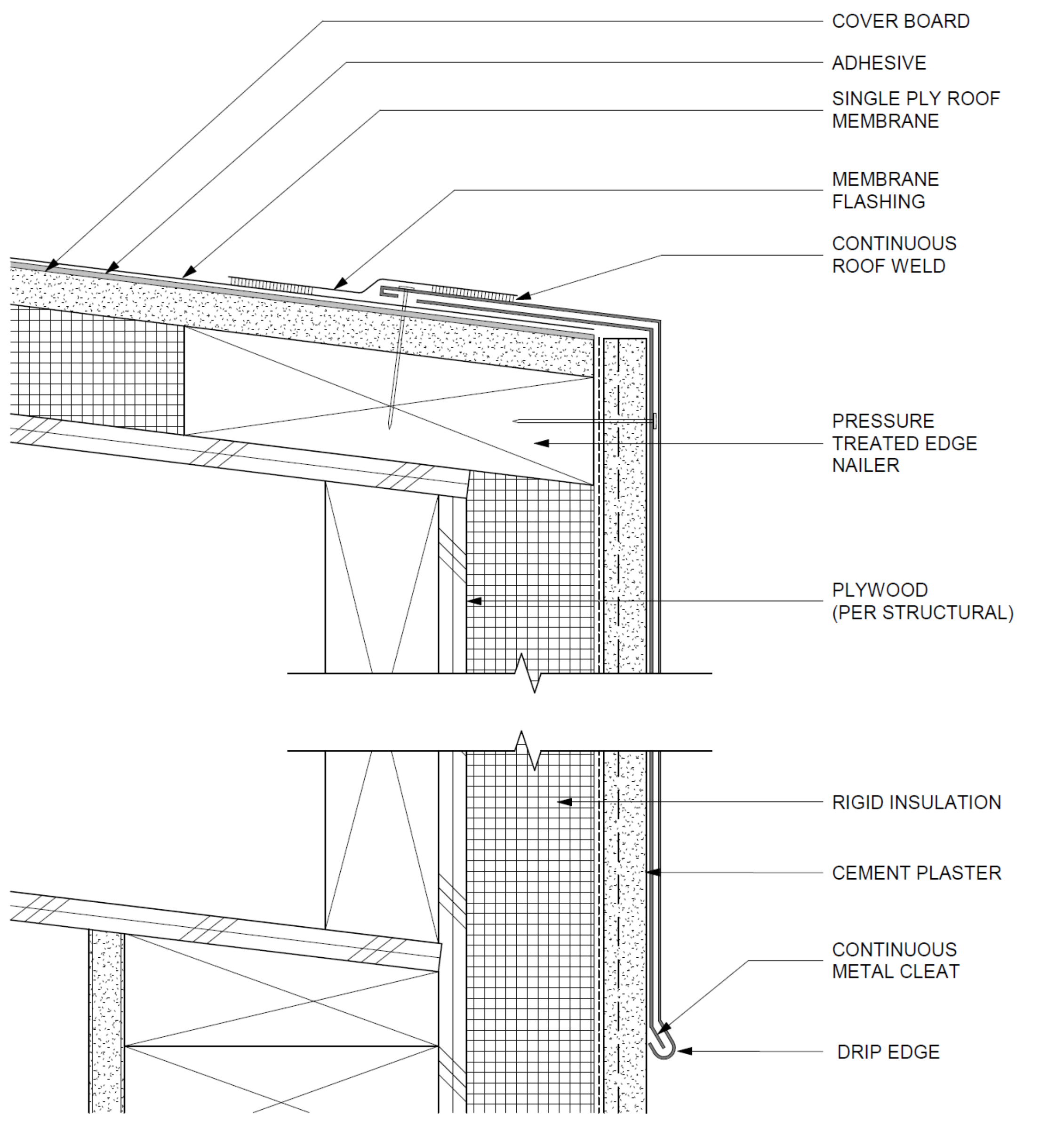
COVERED WALKWAY @ CLERESTORY A6
1 1/2" = 1'-0"


EXT. PLASTER SOFFIT
INTERIOR
2" VENT SCREEN
METAL LATH
Z- CHANNEL FURRING @ 16"O.C., TYP
1.5" SMS W/ WAFER HEAD @ EA. Z-CLIP & @16".O.C., TYP
EXTERIOR

TYP. EXT. PLASTER SOFFIT & VENT L10
3" = 1'-0"



SLOPED ROOF E10
1 1/2" = 1'-0"



DRIP EDGE A10
6" = 1'-0"

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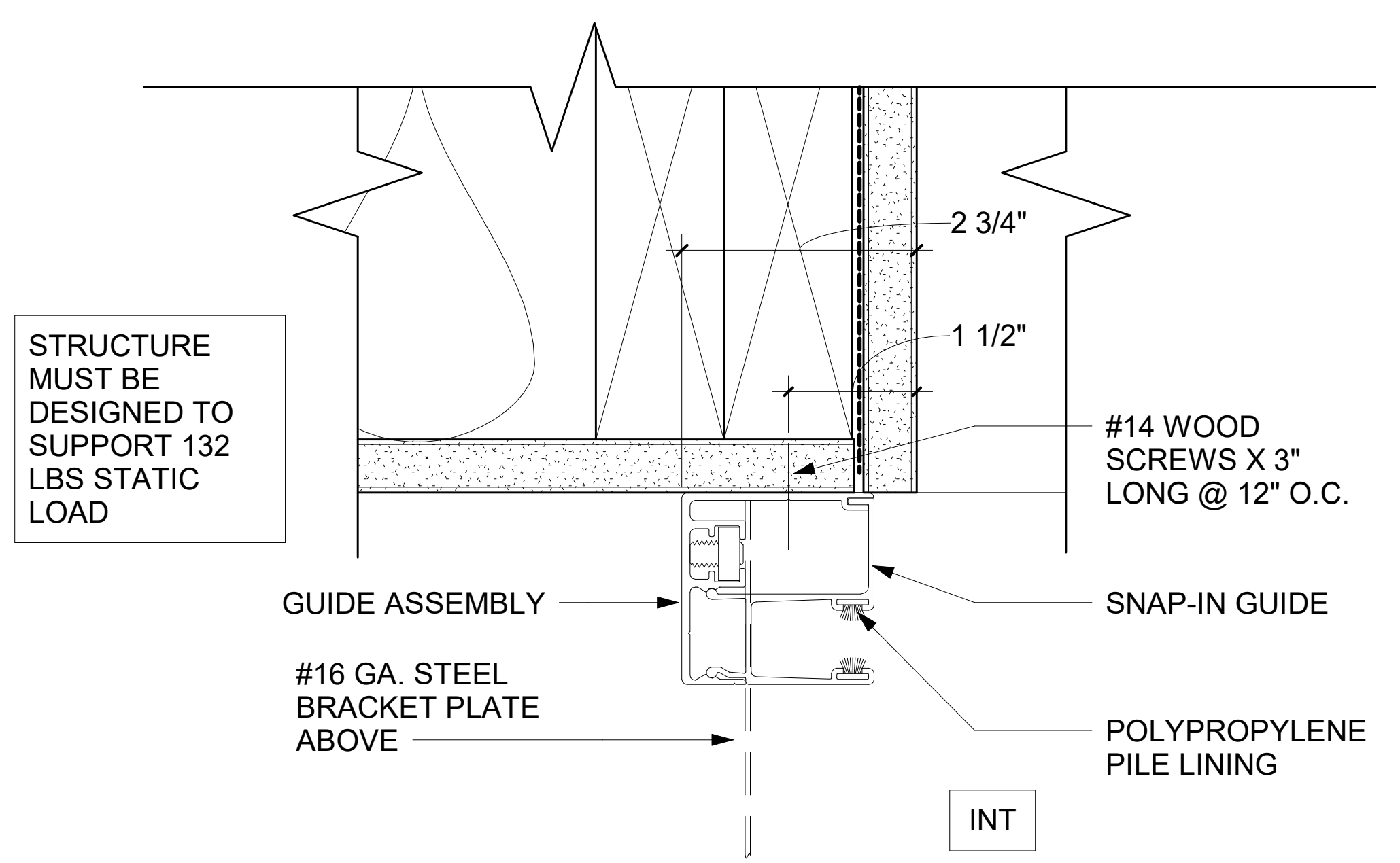
ROOF DETAILS

PERKINS EASTMAN

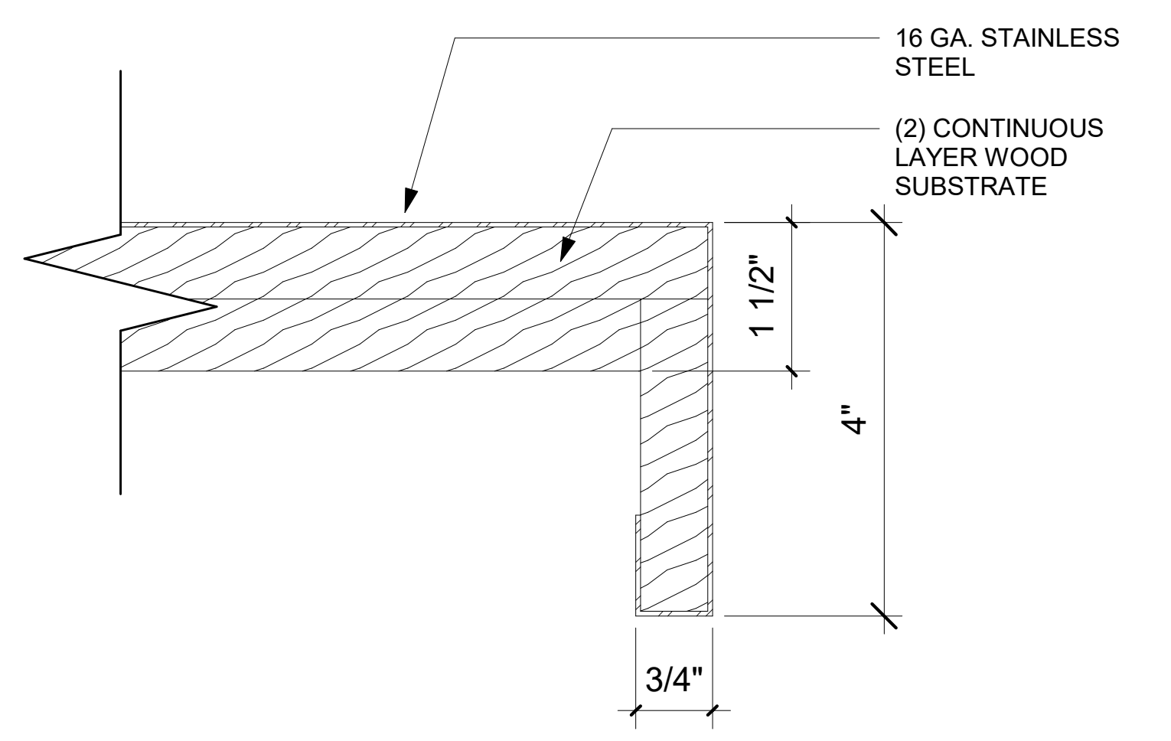
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A832

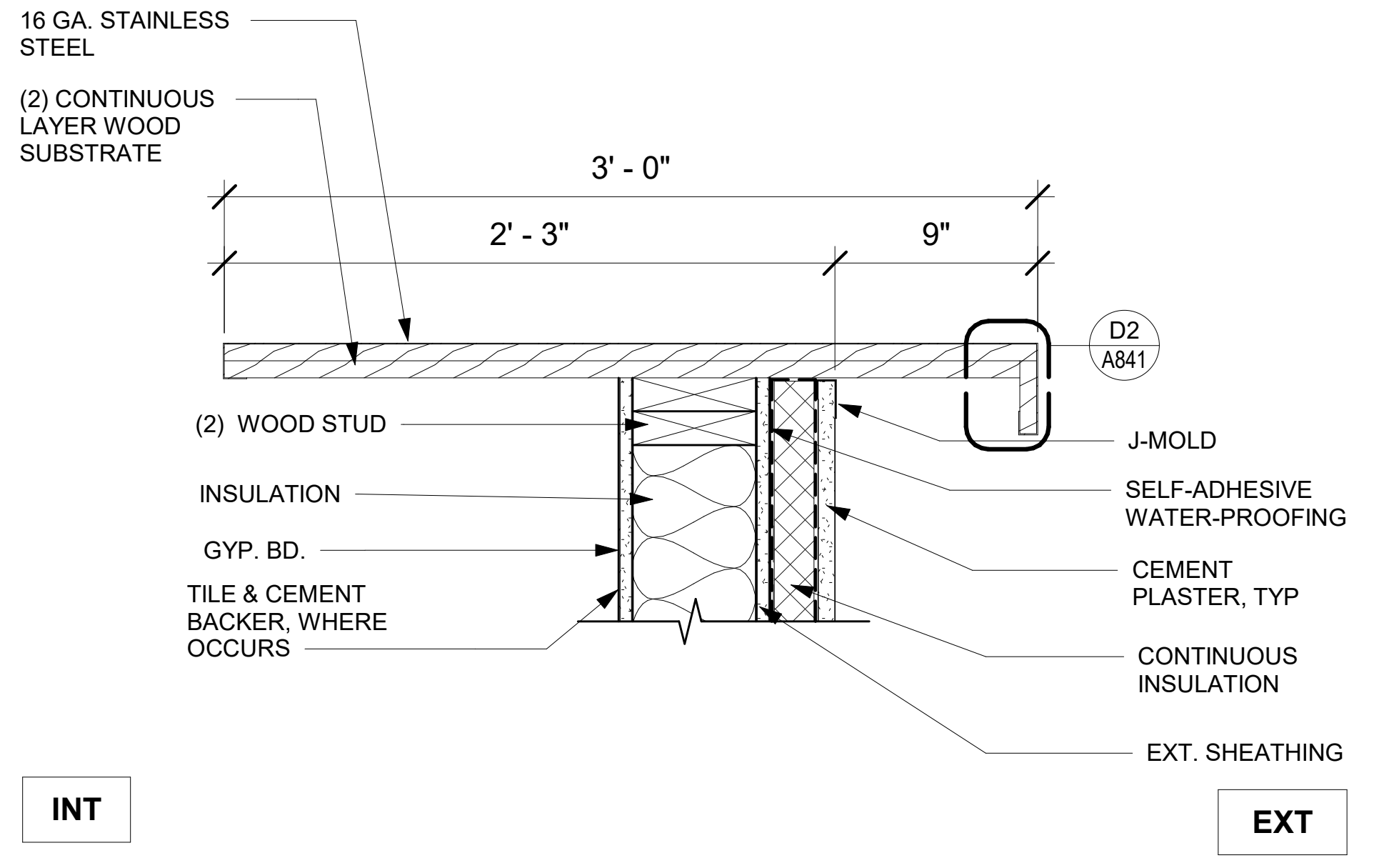


2 3/4"
1 1/2"
STRUCTURE MUST BE DESIGNED TO SUPPORT 132 LBS STATIC LOAD
#14 WOOD SCREWS X 3" LONG @ 12" O.C.
GUIDE ASSEMBLY
SNAP-IN GUIDE
#16 GA. STEEL BRACKET PLATE ABOVE
POLYPROPYLENE PILE LINING
INT

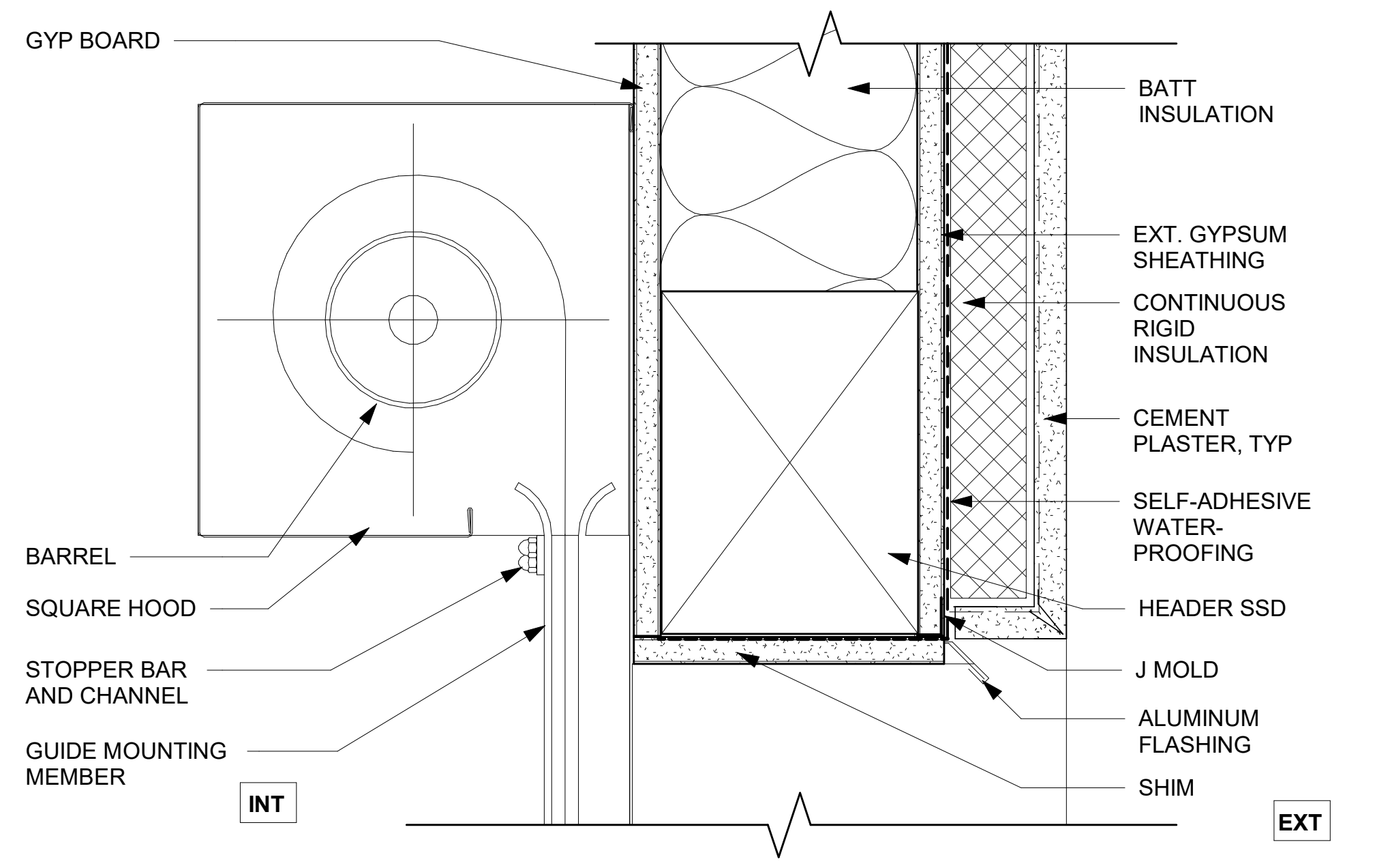
OVERHEAD DOOR CONCESSION STAND_WALL FASTENER (GUIDE) **K2**
6" = 1'-0"



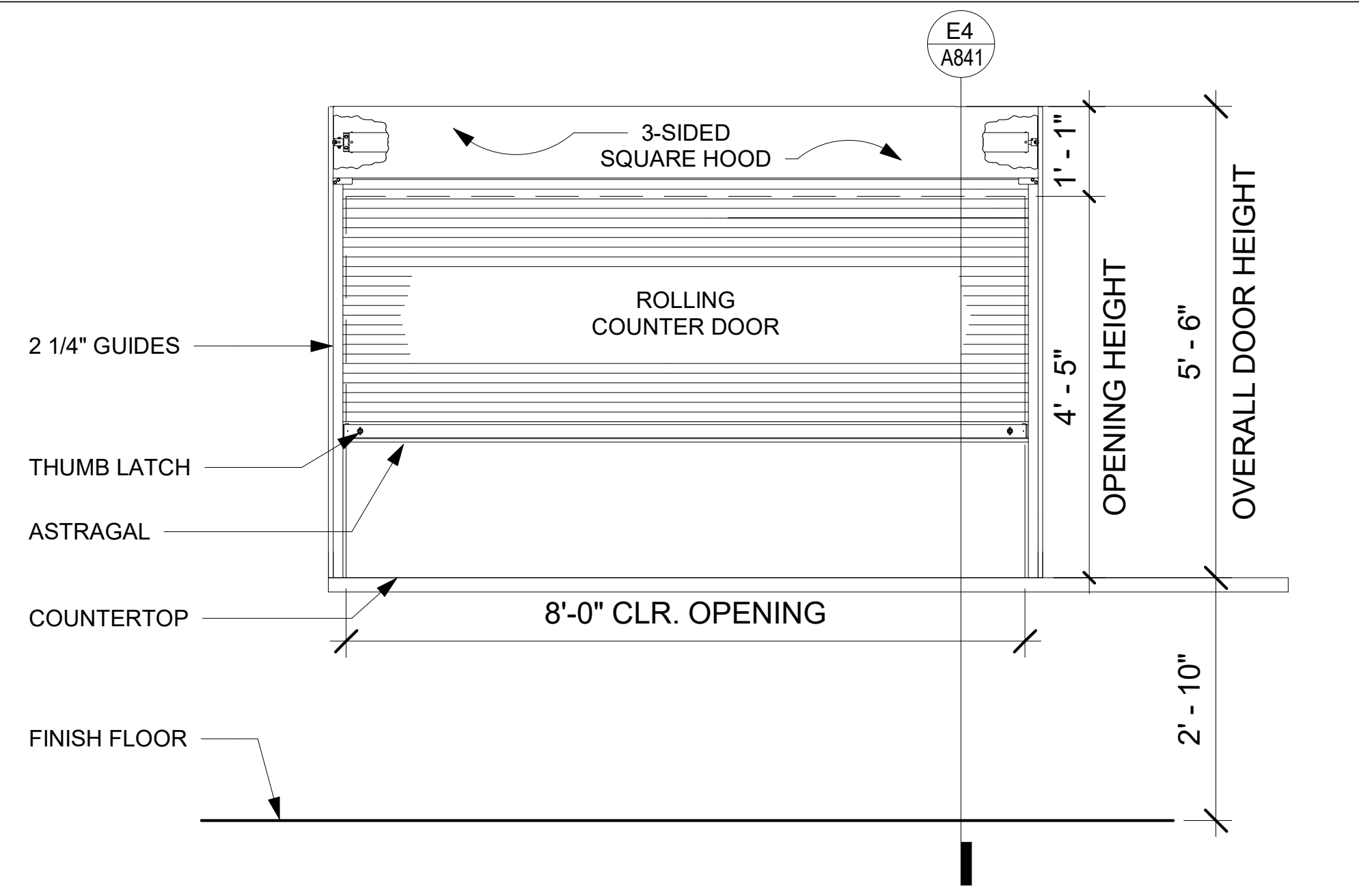
COUNTERTOP EDGE **D2**
6" = 1'-0"



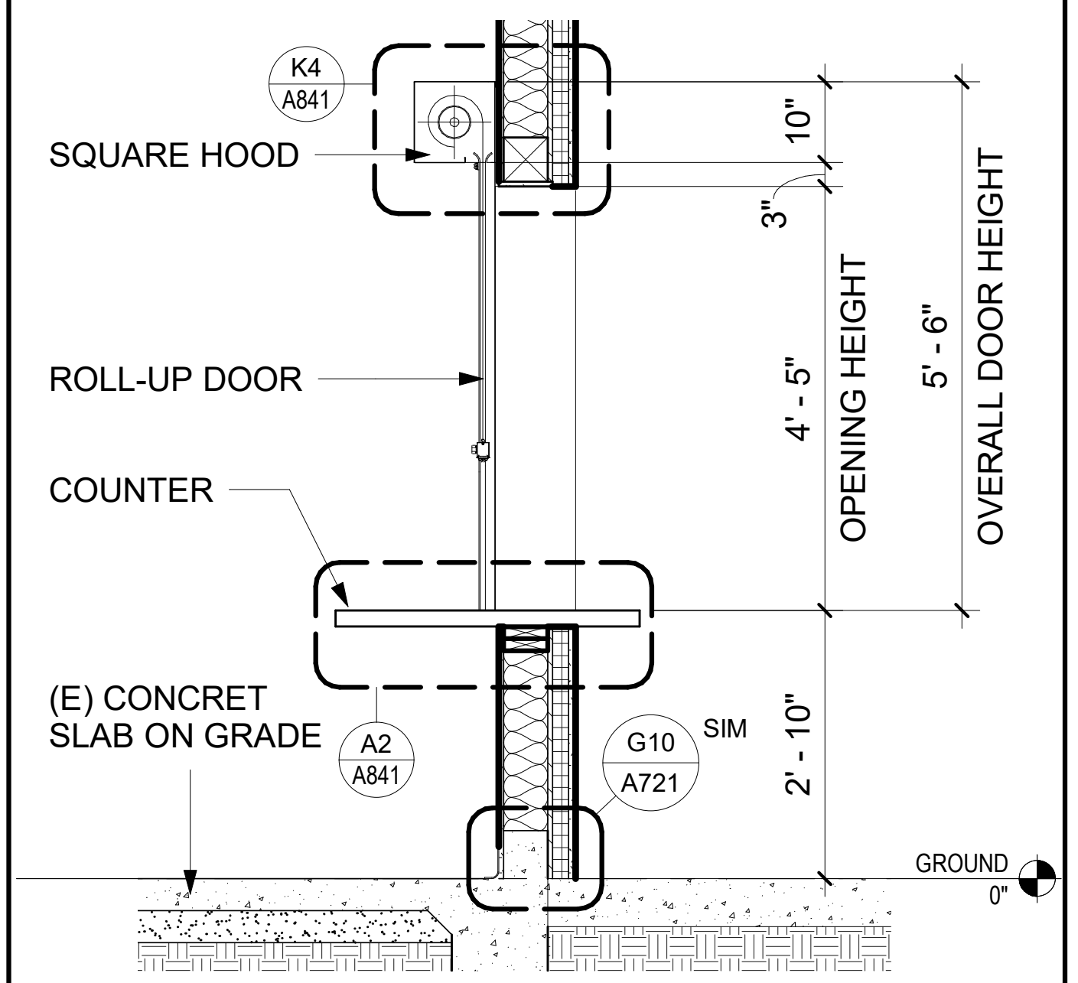
CONCESSION STAND COUNTERTOP **A2**
1 1/2" = 1'-0"



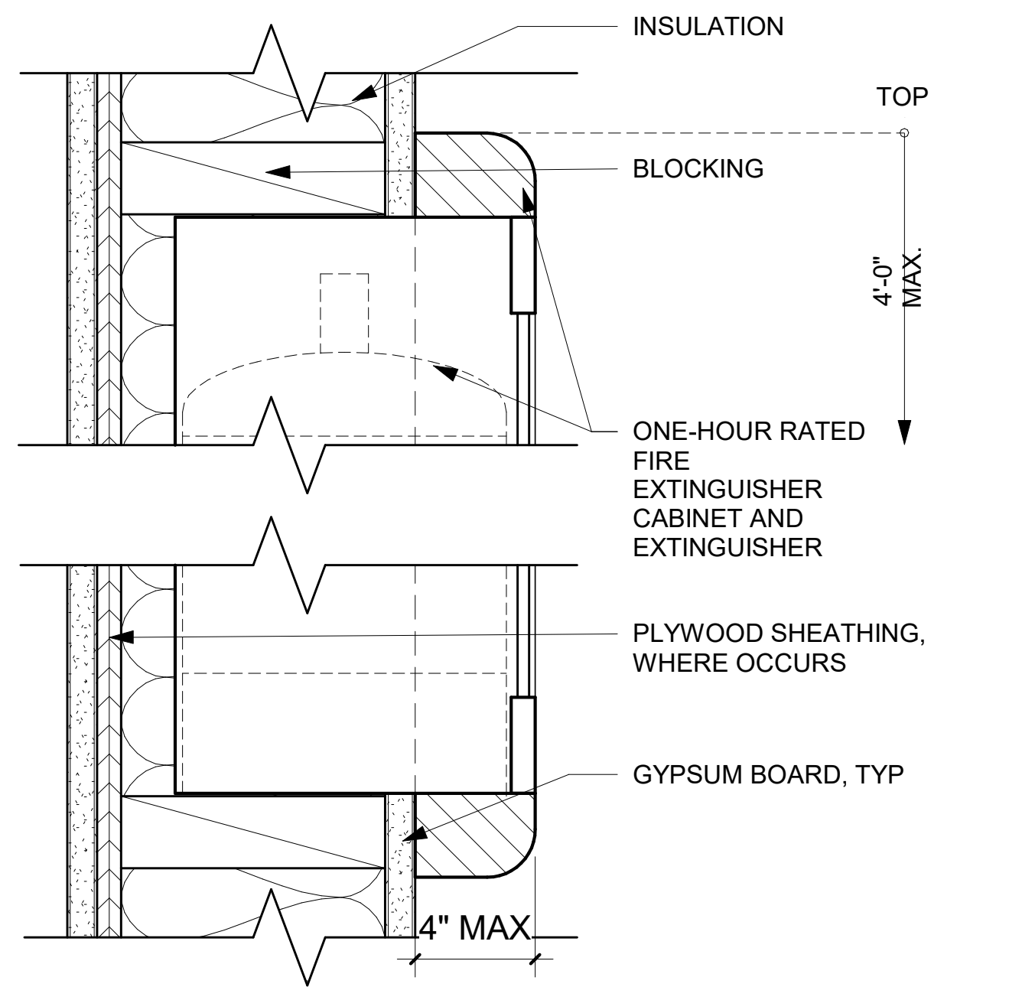
OVERHEAD DOOR CONCESSION STAND_HEAD **K4**
3" = 1'-0"



OVERHEAD DOOR CONCESSION STAND ELEVATION **G4**
1/2" = 1'-0"

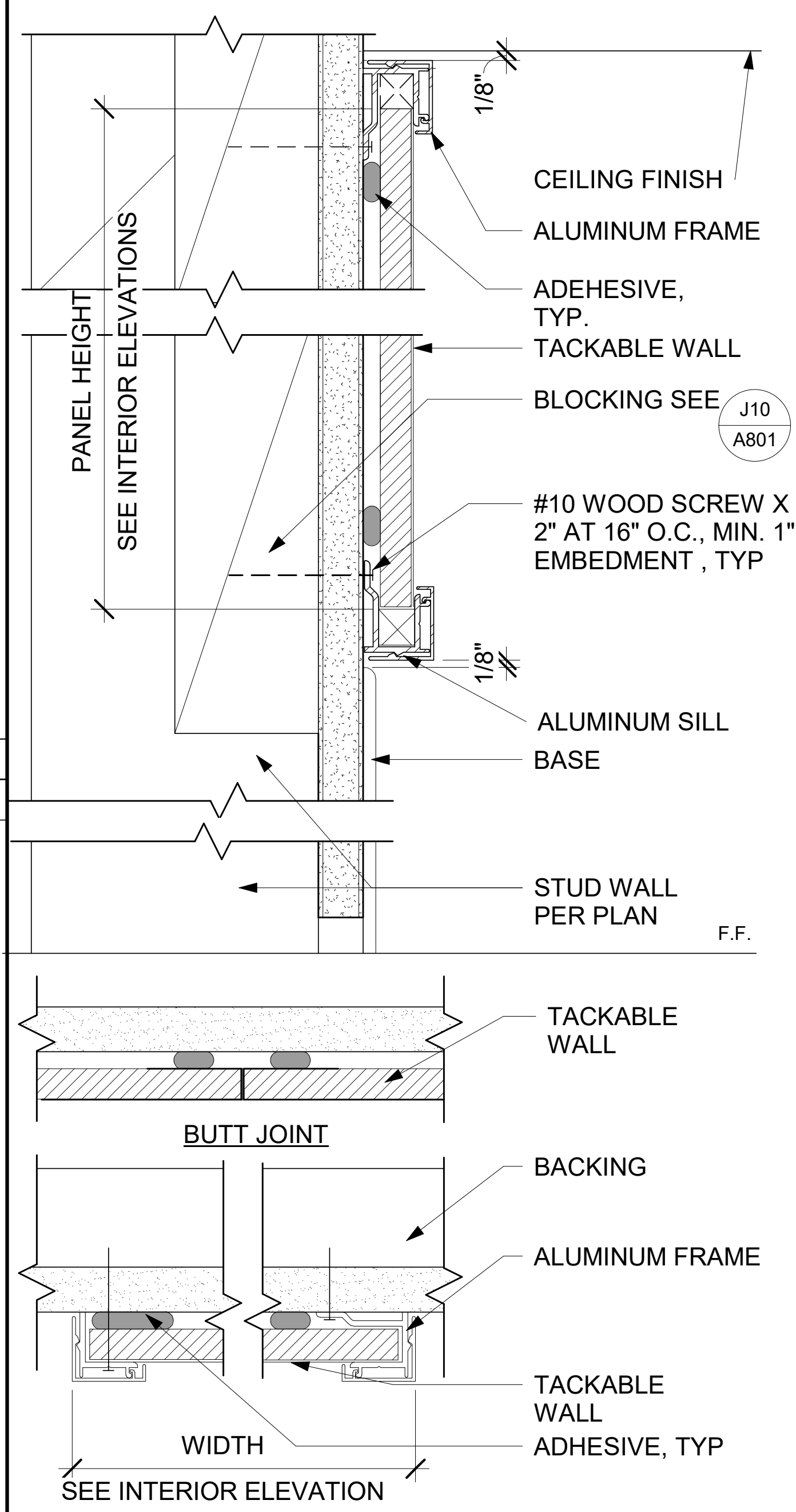


OVERHEAD DOOR CONCESSION STAND SECTION **E4**
1/2" = 1'-0"

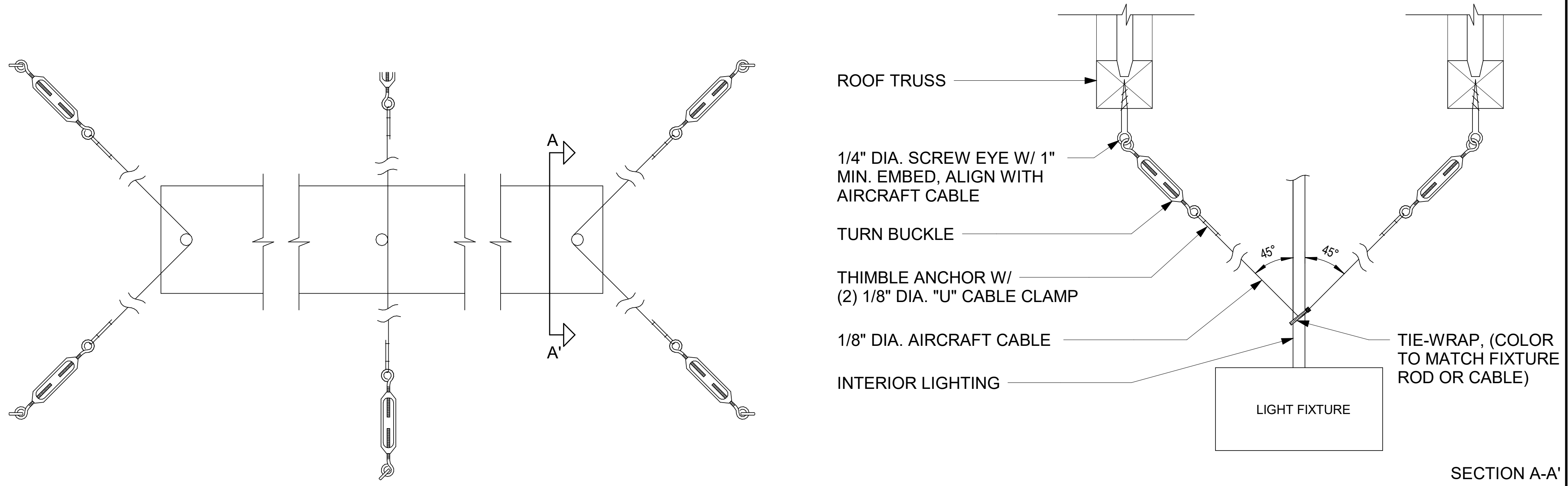


INSULATION
TOP
BLOCKING
4'-0" MAX.
ONE-HOUR RATED FIRE EXTINGUISHER CABINET AND EXTINGUISHER
PLYWOOD SHEATHING, WHERE OCCURS
GYPSUM BOARD, TYP
4" MAX

SEMI-RECESSED FIRE EXTINGUISHER **C4**
3" = 1'-0"

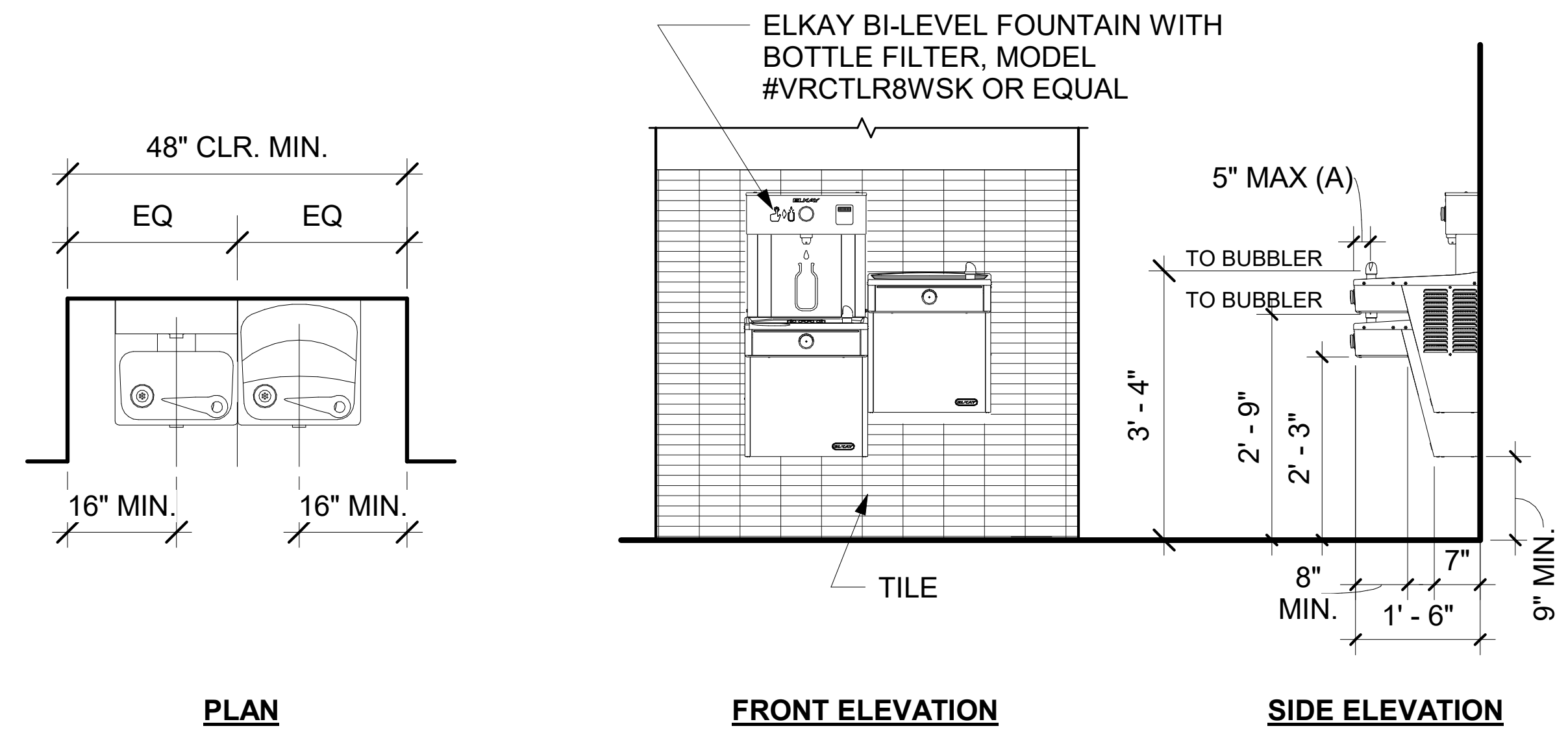


TACKABLE WALL **A6**
MARKER WALL SIMILAR
6" = 1'-0"

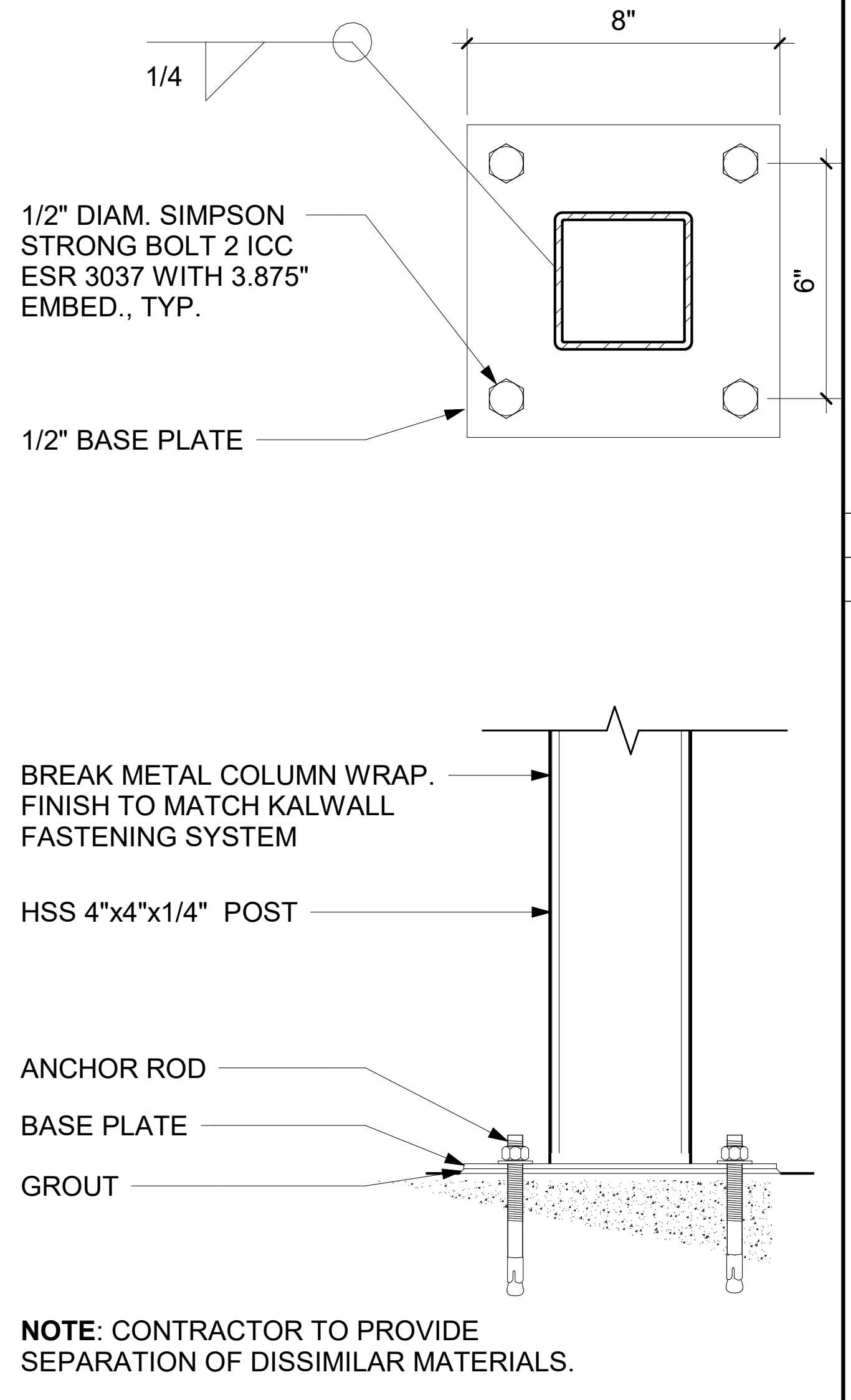


A
A'
ROOF TRUSS
1/4" DIA. SCREW EYE W/ 1" MIN. EMBED. ALIGN WITH AIRCRAFT CABLE
TURN BUCKLE
THIMBLE ANCHOR W/ (2) 1/8" DIA. "U" CABLE CLAMP
1/8" DIA. AIRCRAFT CABLE
INTERIOR LIGHTING
45°
45°
TIE-WRAP, (COLOR TO MATCH FIXTURE ROD OR CABLE)
LIGHT FIXTURE
SECTION A-A'

BRACING CABLE ATTACHMENT **G6**
3" = 1'-0"



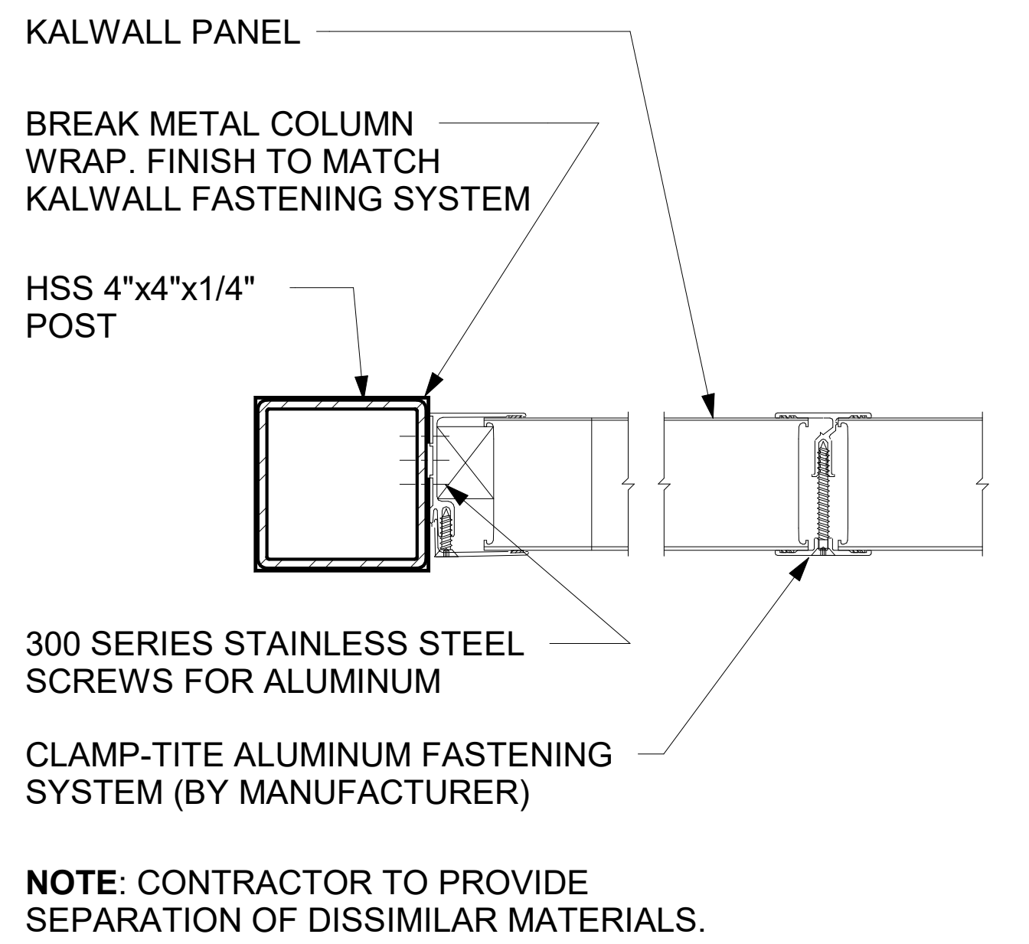
DRINKING FOUNTAIN **C6**
1/2" = 1'-0"



1/4
8"
6"
1/2" DIAM. SIMPSON STRONG BOLT 2 ICC ESR 3037 WITH 3.875" EMBED., TYP.
1/2" BASE PLATE
BREAK METAL COLUMN WRAP. FINISH TO MATCH KALWALL FASTENING SYSTEM
HSS 4"x4"x1/4" POST
ANCHOR ROD
BASE PLATE
GROUT

NOTE: CONTRACTOR TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS.

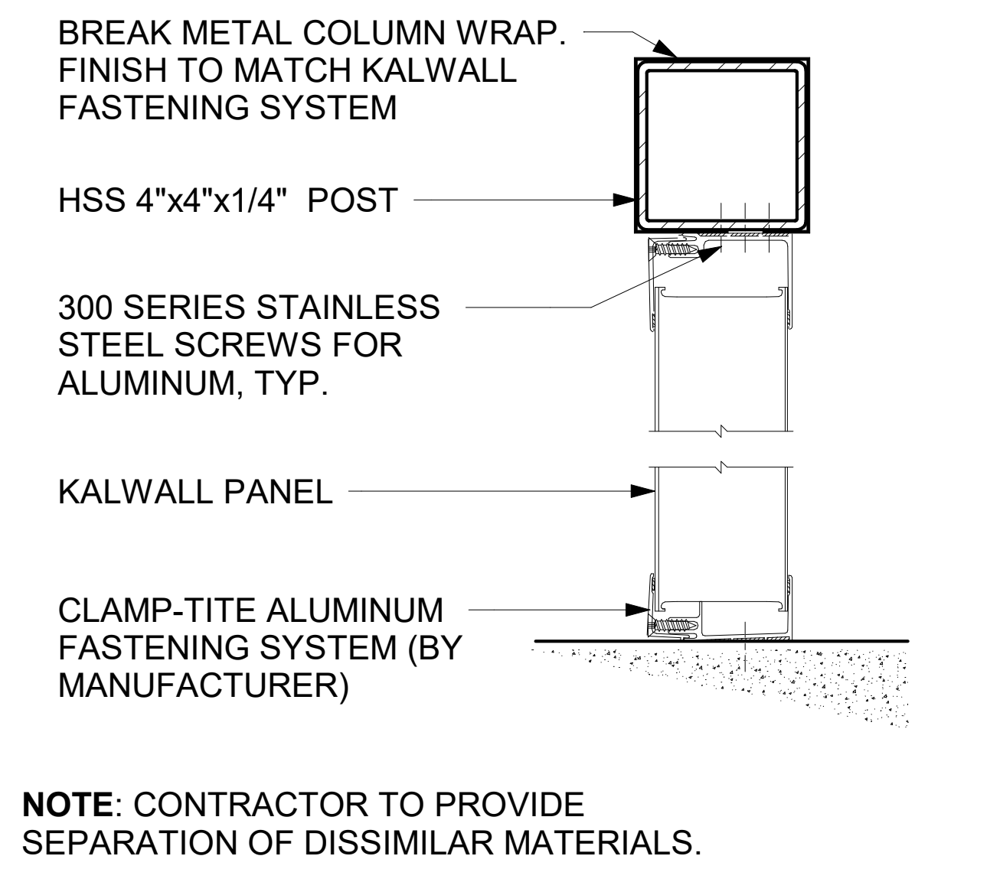
STEEL POST ATTACHMENT TO SLAB **L10**
3" = 1'-0"



KALWALL PANEL
BREAK METAL COLUMN WRAP. FINISH TO MATCH KALWALL FASTENING SYSTEM
HSS 4"x4"x1/4" POST
300 SERIES STAINLESS STEEL SCREWS FOR ALUMINUM
CLAMP-TITE ALUMINUM FASTENING SYSTEM (BY MANUFACTURER)

NOTE: CONTRACTOR TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS.

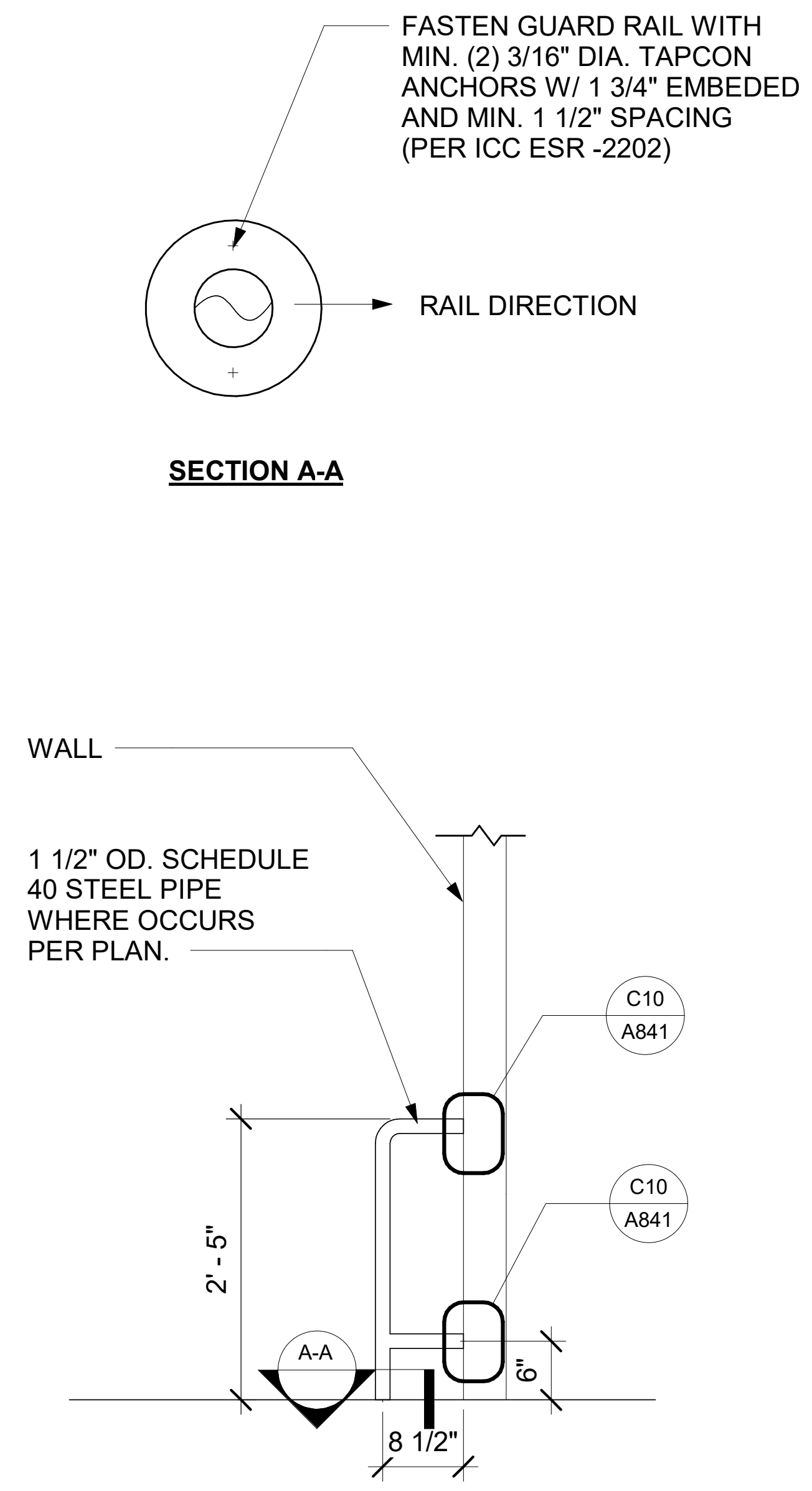
KALWALL PLAN **J8**
3" = 1'-0"



BREAK METAL COLUMN WRAP. FINISH TO MATCH KALWALL FASTENING SYSTEM
HSS 4"x4"x1/4" POST
300 SERIES STAINLESS STEEL SCREWS FOR ALUMINUM, TYP.
KALWALL PANEL
CLAMP-TITE ALUMINUM FASTENING SYSTEM (BY MANUFACTURER)

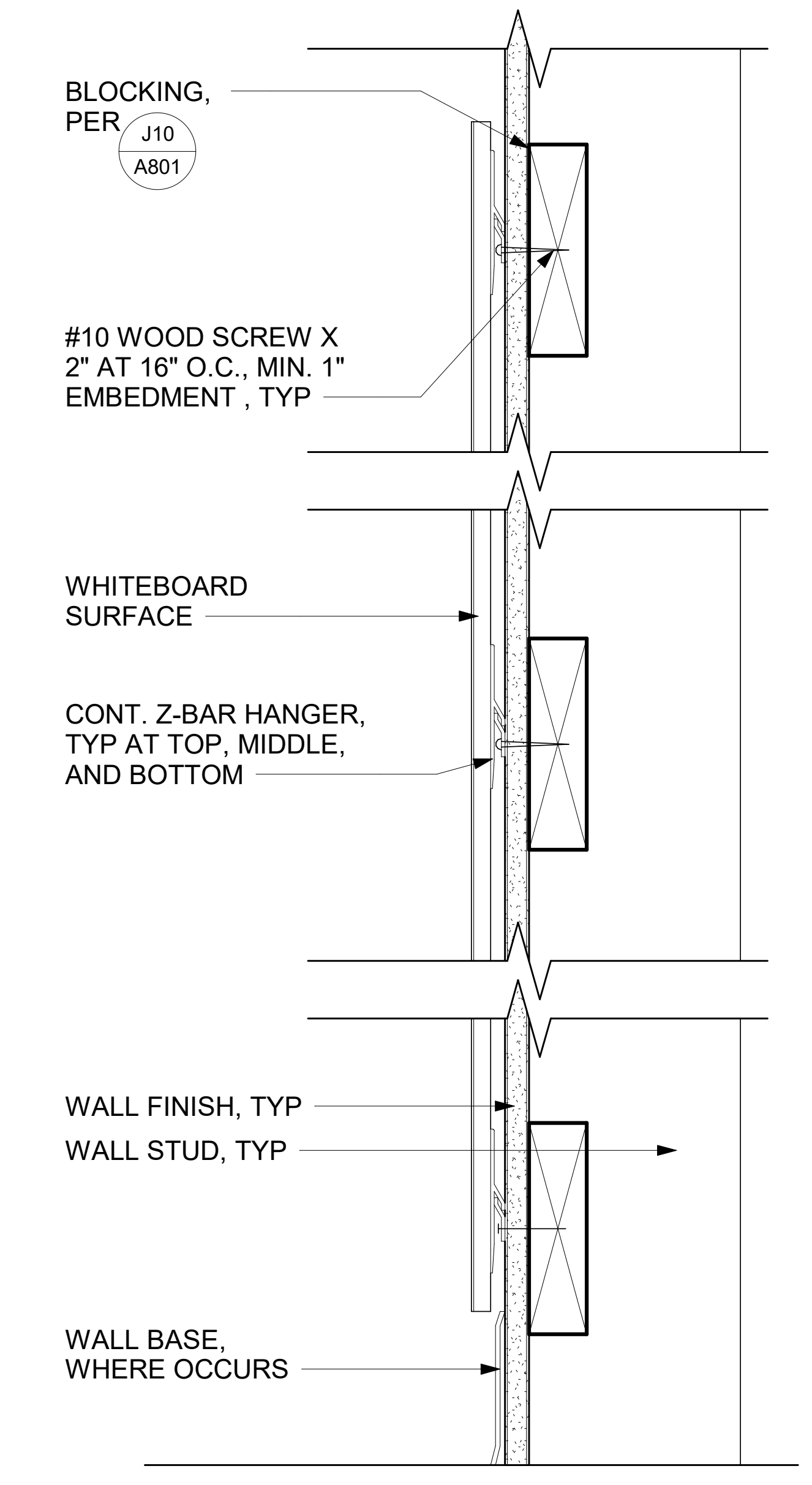
NOTE: CONTRACTOR TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS.

KALWALL SECTION **J10**
3" = 1'-0"



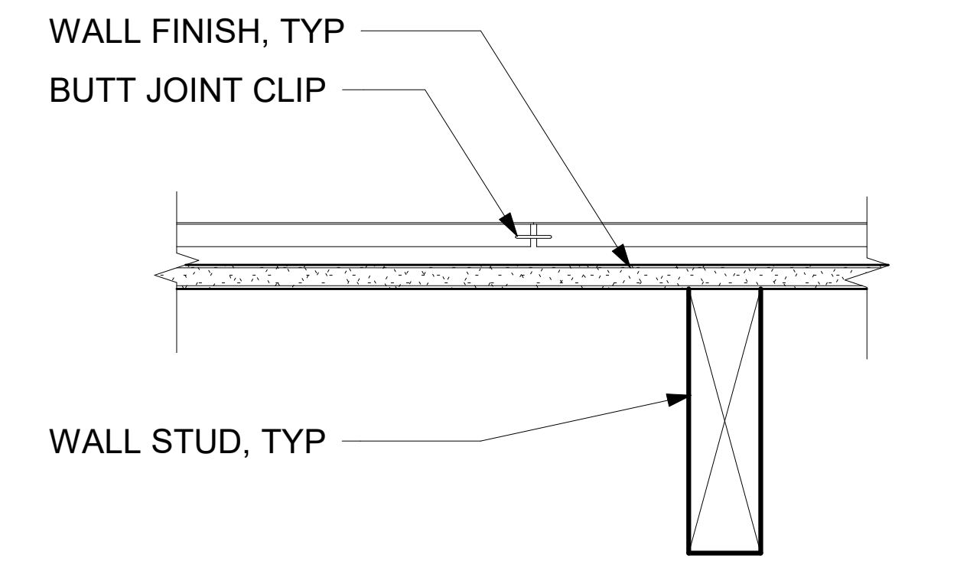
FASTEN GUARD RAIL WITH MIN. (2) 3/16" DIA. TAPCON ANCHORS W/ 1 3/4" EMBEDED AND MIN. 1 1/2" SPACING (PER ICC ESR -2202)
RAIL DIRECTION
SECTION A-A
WALL
1 1/2" OD. SCHEDULE 40 STEEL PIPE WHERE OCCURS PER PLAN.
C10
A841
C10
A841
2' - 5"
A-A
8 1/2"
6"

GUARD RAILS **G10**
3/4" = 1'-0"

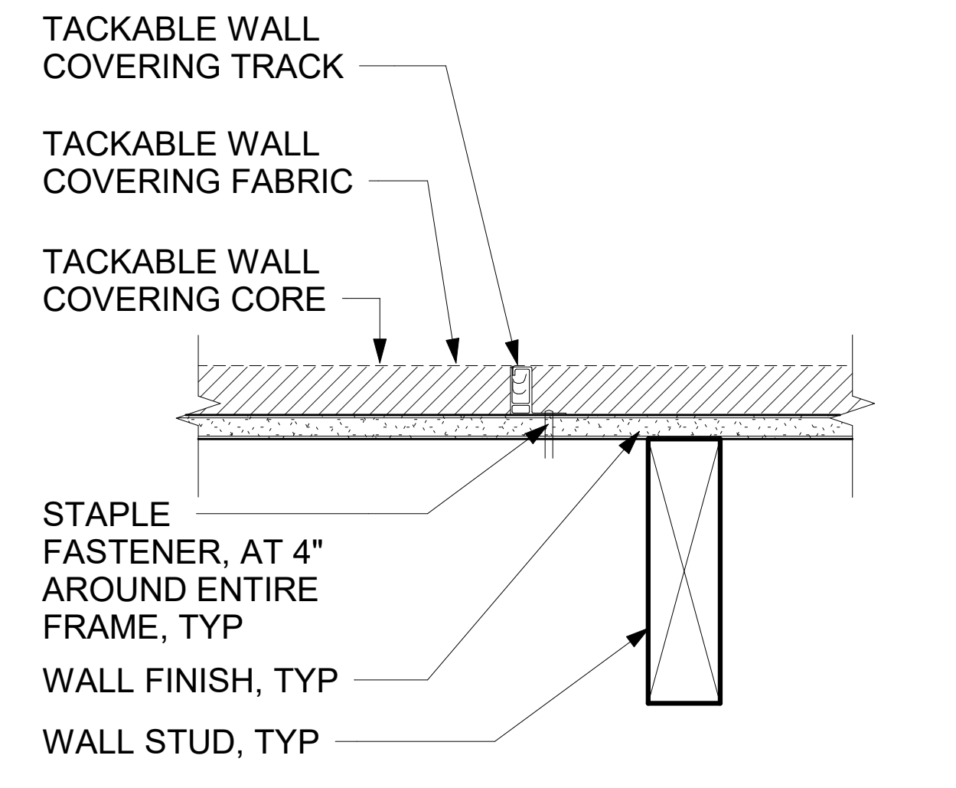


BLOCKING, PER
J10
A801
#10 WOOD SCREW X 2" AT 16" O.C., MIN. 1" EMBEDMENT , TYP
WHITEBOARD SURFACE
CONT. Z-BAR HANGER, TYP AT TOP, MIDDLE, AND BOTTOM
WALL FINISH, TYP
WALL STUD, TYP
WALL BASE, WHERE OCCURS

WHITEBOARD WALL - MOUNTING **E10**
3" = 1'-0"

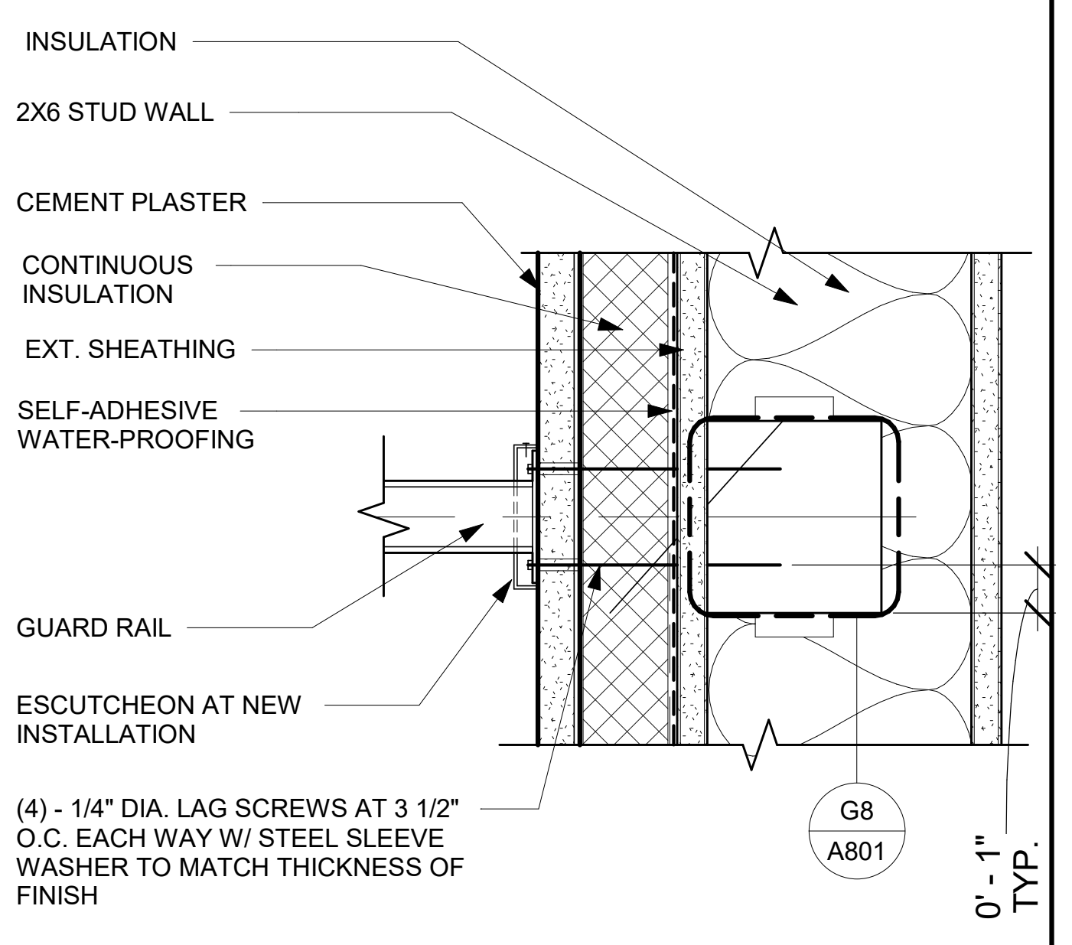


WHITE BOARD WALL - BUTT JOINT **C8**
3" = 1'-0"



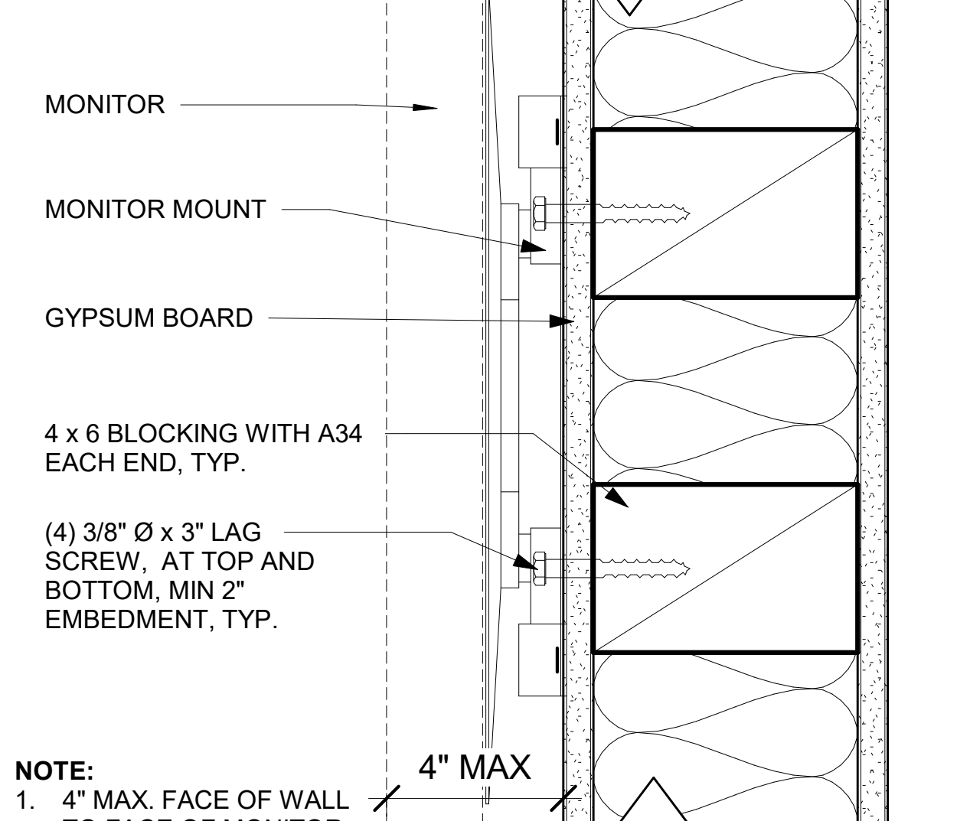
TACKABLE WALL COVERING TRACK
TACKABLE WALL COVERING FABRIC
TACKABLE WALL COVERING CORE
STAPLE FASTENER, AT 4" AROUND ENTIRE FRAME, TYP
WALL FINISH, TYP
WALL STUD, TYP

TACKABLE WALL - PANEL JOINT **A8**
3" = 1'-0"



INSULATION
2X6 STUD WALL
CEMENT PLASTER
CONTINUOUS INSULATION
EXT. SHEATHING
SELF-ADHESIVE WATER-PROOFING
GUARD RAIL
ESCUTCHEON AT NEW INSTALLATION
(4) - 1/4" DIA. LAG SCREWS AT 3 1/2" O.C. EACH WAY W/ STEEL SLEEVE WASHER TO MATCH THICKNESS OF FINISH
G8
A801
0' - 1" TYP.

PIPE GUARDRAIL MOUNTING **C10**
3" = 1'-0"



MONITOR
MONITOR MOUNT
GYPSUM BOARD
4 x 6 BLOCKING WITH A34 EACH END, TYP.
(4) 3/8" Ø x 3" LAG SCREW, AT TOP AND BOTTOM, MIN 2" EMBEDMENT, TYP.
4" MAX

NOTE:
1. 4" MAX. FACE OF WALL TO FACE OF MONITOR
2. MONITOR MAX. WEIGHT 100LBS MAX.

TYP. MONITOR BRACKET **A10**
3" = 1'-0"

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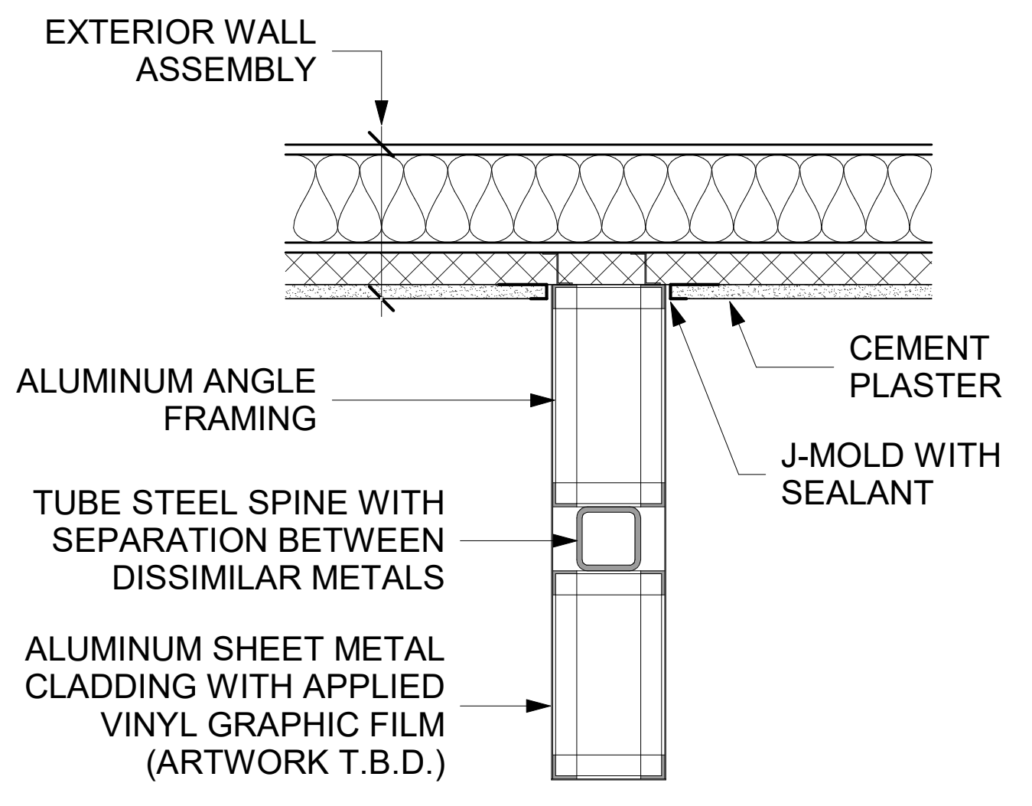
MISCELLANEOUS DETAILS

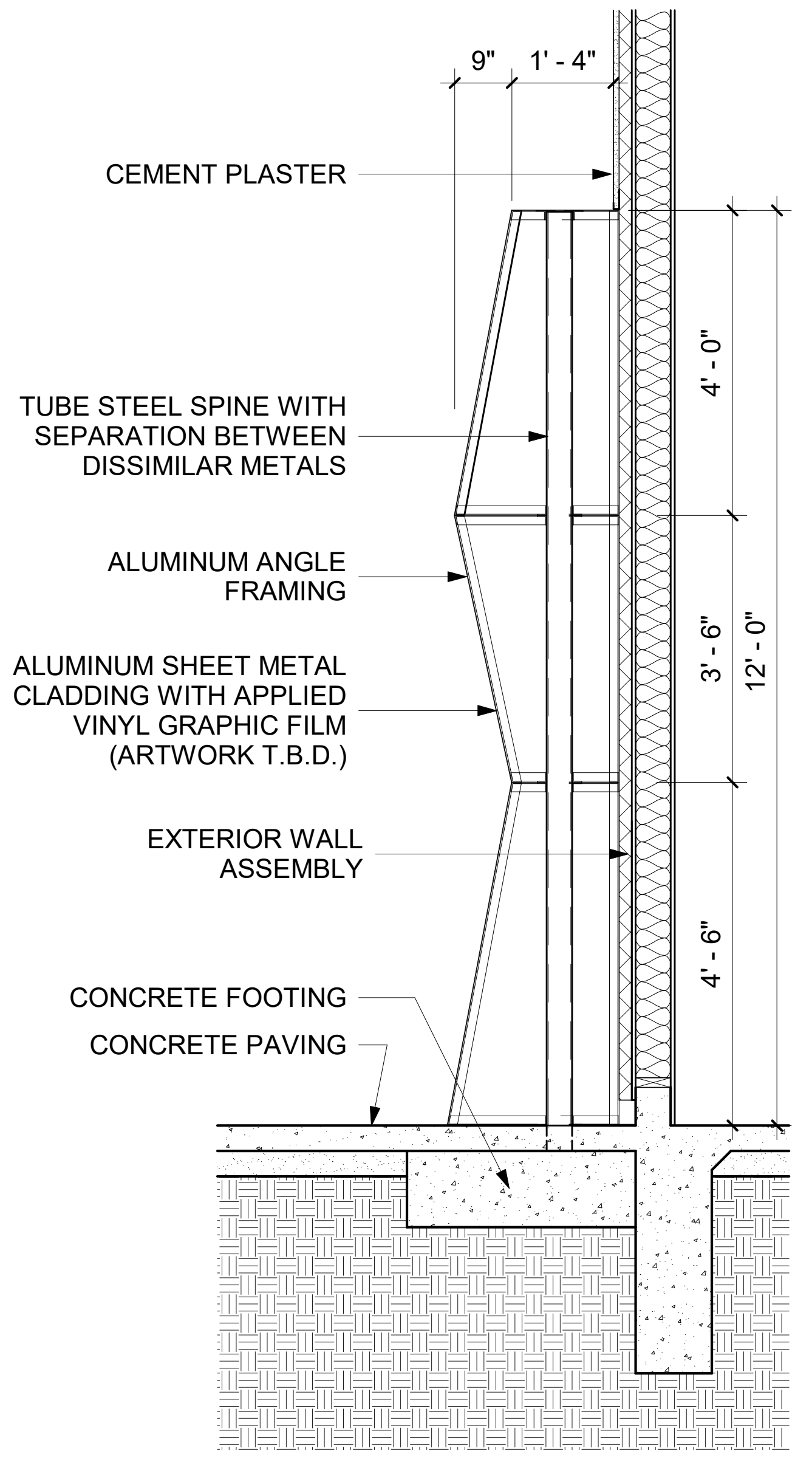
PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

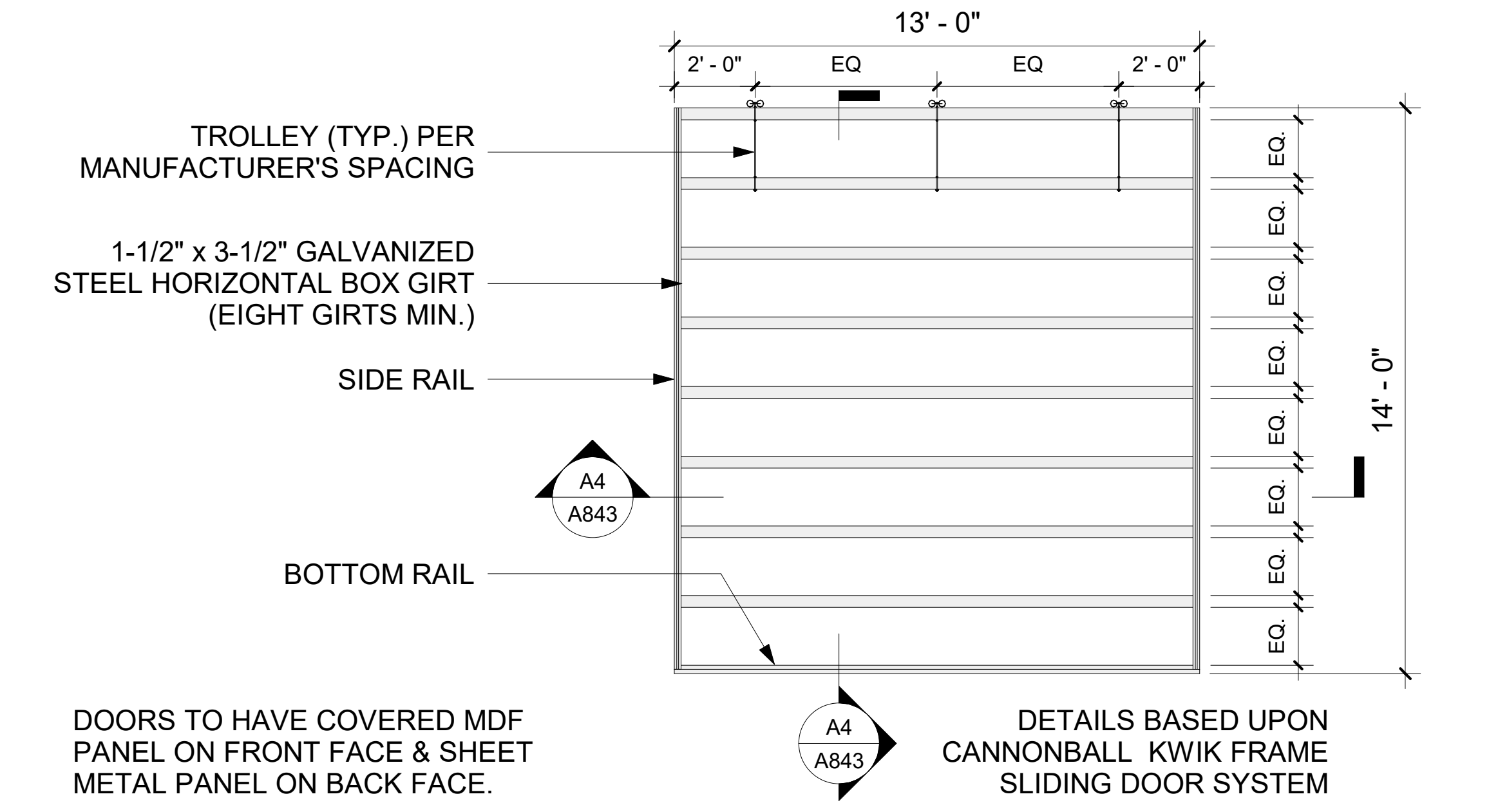
A841


EXTERIOR WALL ASSEMBLY
ALUMINUM ANGLE FRAMING
TUBE STEEL SPINE WITH SEPARATION BETWEEN DISSIMILAR METALS
ALUMINUM SHEET METAL CLADDING WITH APPLIED VINYL GRAPHIC FILM (ARTWORK T.B.D.)
CEMENT PLASTER
J-MOLD WITH SEALANT

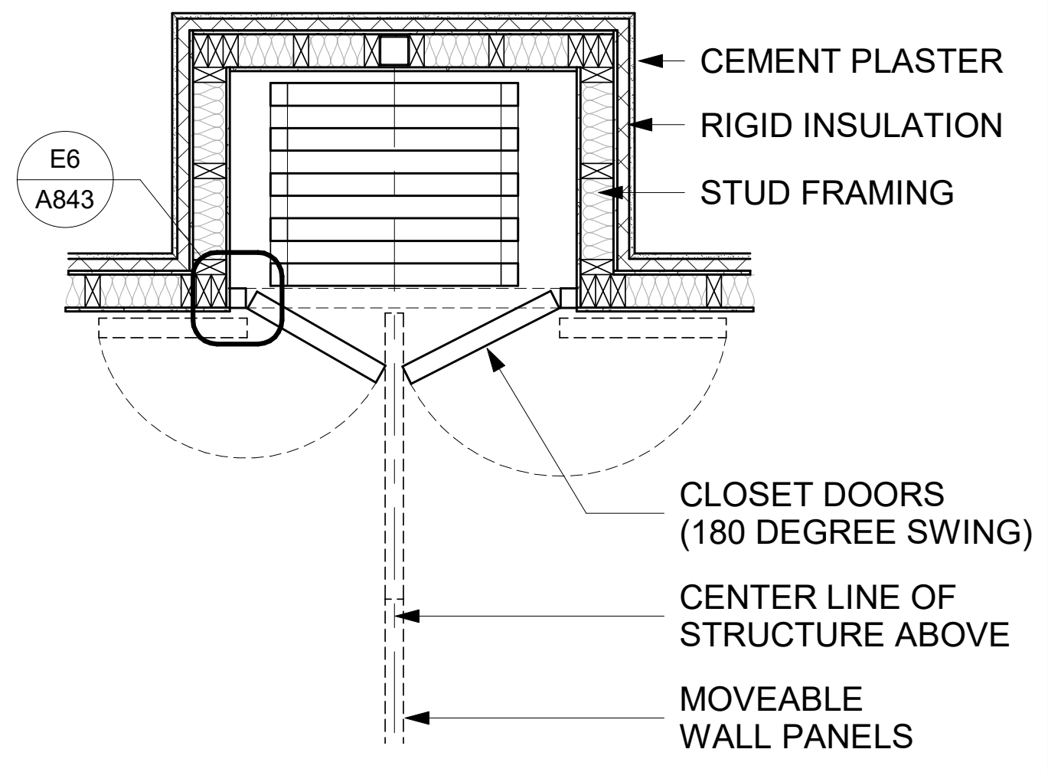
EXTERIOR FIN - PLAN VIEW G2
1" = 1'-0"


9"
1' - 4"
CEMENT PLASTER
TUBE STEEL SPINE WITH SEPARATION BETWEEN DISSIMILAR METALS
ALUMINUM ANGLE FRAMING
ALUMINUM SHEET METAL CLADDING WITH APPLIED VINYL GRAPHIC FILM (ARTWORK T.B.D.)
EXTERIOR WALL ASSEMBLY
CONCRETE FOOTING
CONCRETE PAVING
4' - 0"
3' - 6"
12' - 0"
4' - 6"

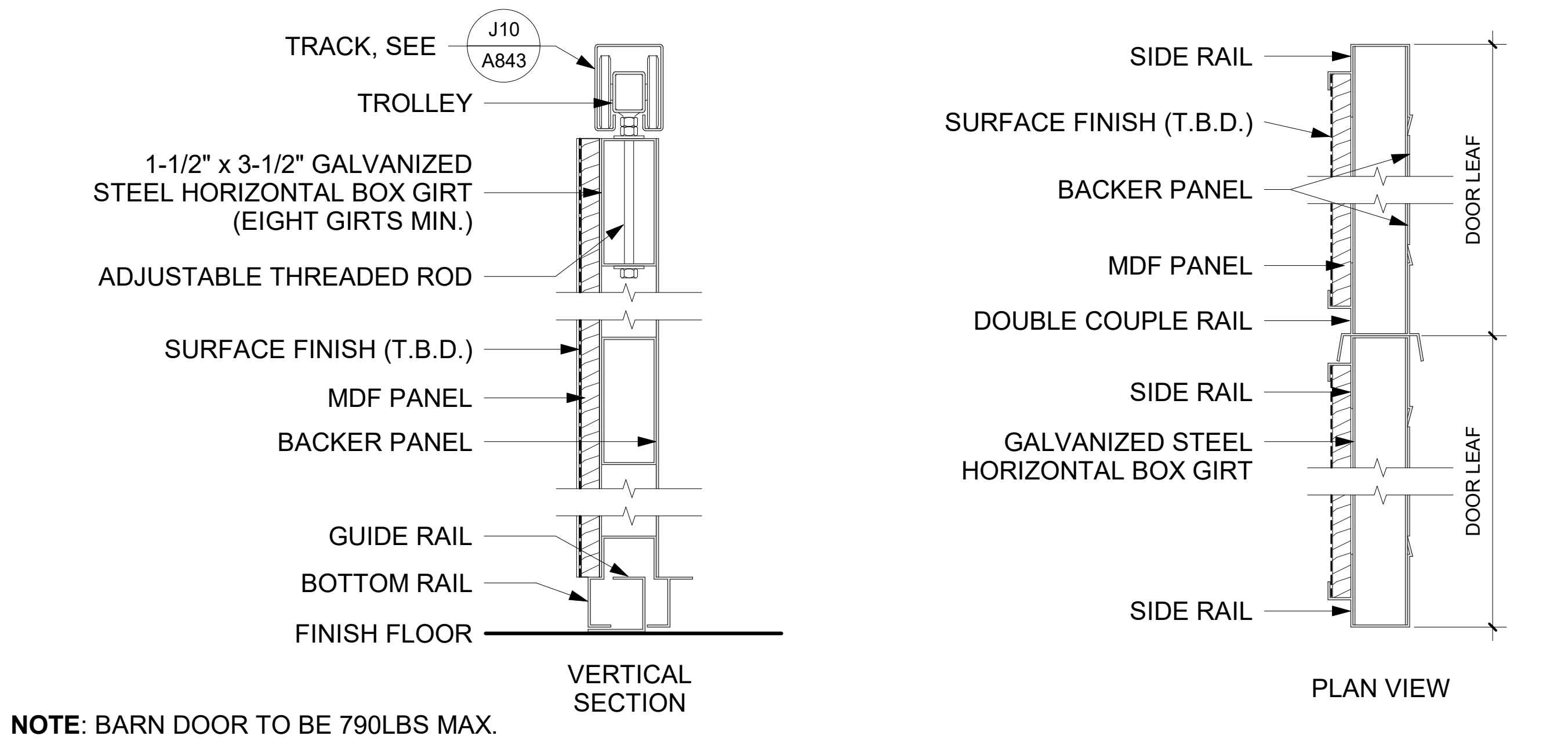
EXTERIOR FIN - SECTION E4
1/2" = 1'-0"


13' - 0"
2' - 0"
EQ
EQ
2' - 0"
TROLLEY (TYP.) PER MANUFACTURER'S SPACING
1-1/2" x 3-1/2" GALVANIZED STEEL HORIZONTAL BOX GIRT (EIGHT GIRTS MIN.)
SIDE RAIL
A4
A843
BOTTOM RAIL
EQ
EQ
EQ
EQ
EQ
EQ
EQ
EQ
14' - 0"
DOORS TO HAVE COVERED MDF PANEL ON FRONT FACE & SHEET METAL PANEL ON BACK FACE.
A4
A843
DETAILS BASED UPON CANNONBALL KWIK FRAME SLIDING DOOR SYSTEM

BARN DOOR FRAMING A2
1/4" = 1'-0"

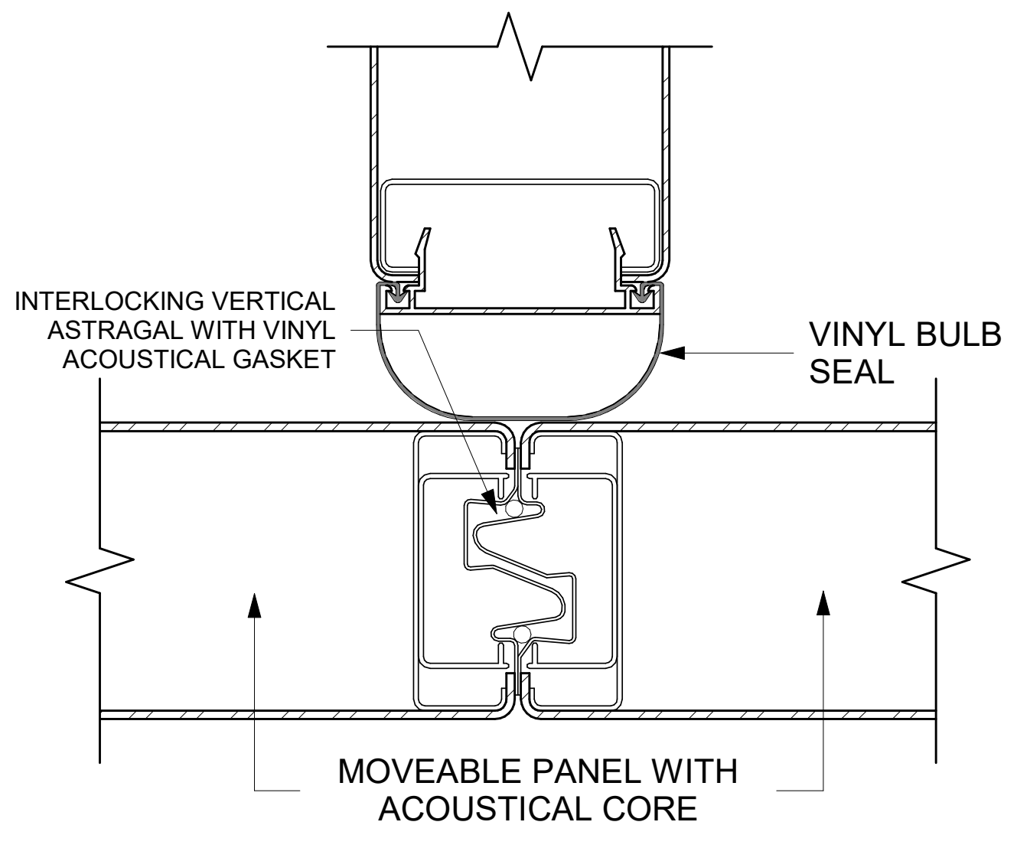


MODERFOLD CLOSET G4
3/8" = 1'-0"

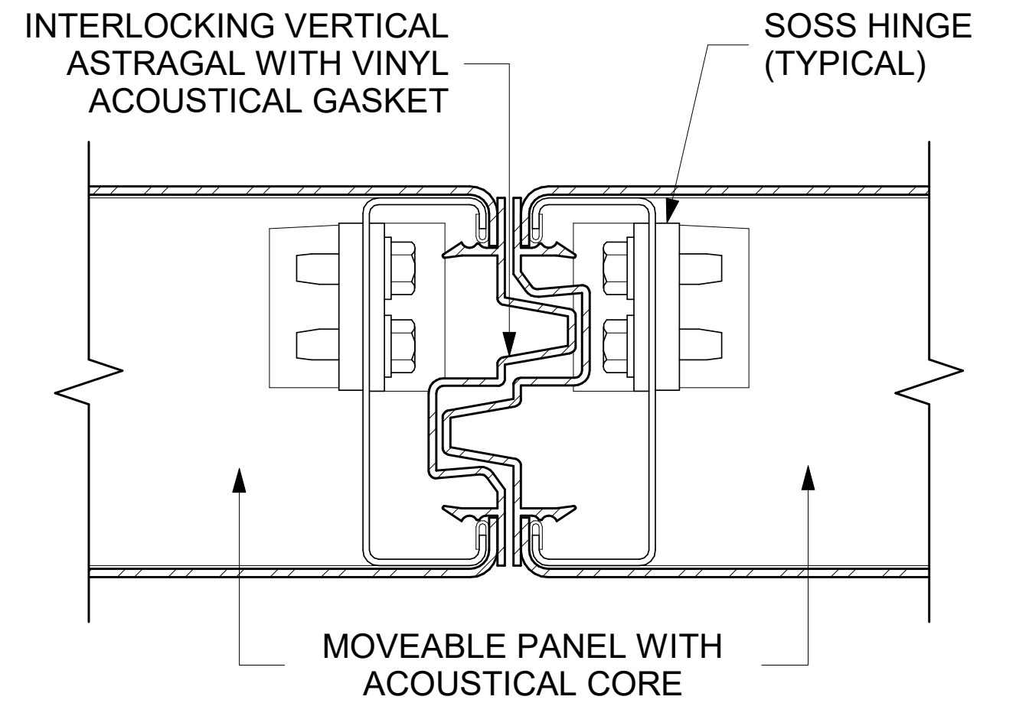


NOTE: BARN DOOR TO BE 790LBS MAX.

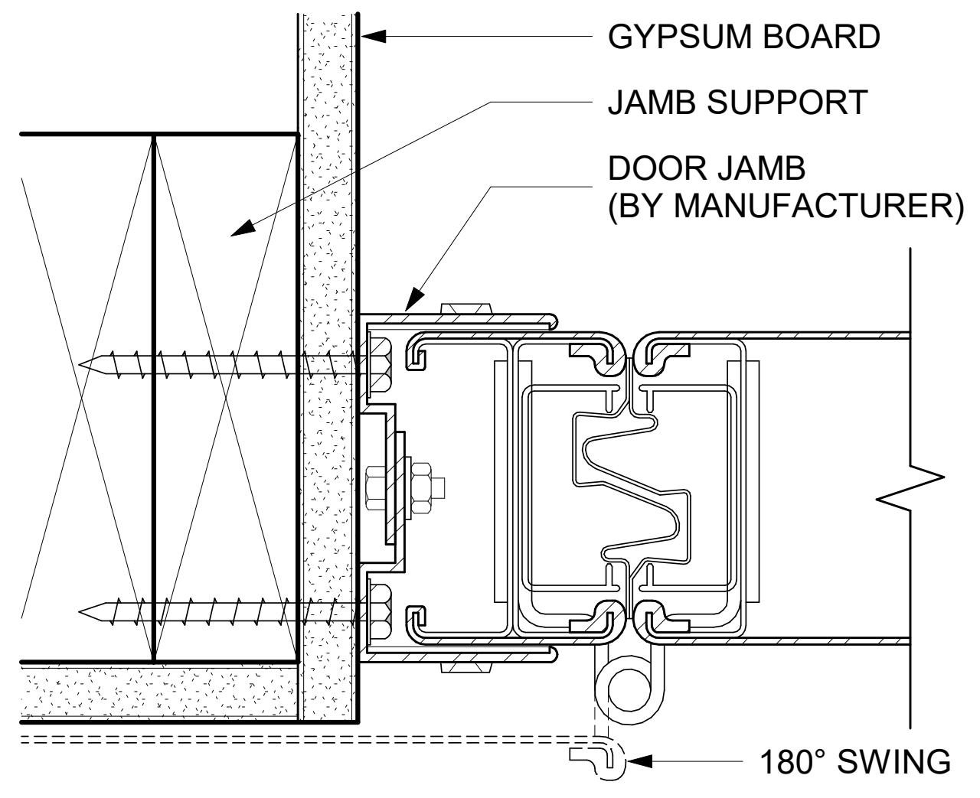
BARN DOORS - SECTION / PLAN VIEW A4
3" = 1'-0"


INTERLOCKING VERTICAL ASTRAGAL WITH VINYL ACOUSTICAL GASKET
VINYL BULB SEAL
MOVEABLE PANEL WITH ACOUSTICAL CORE

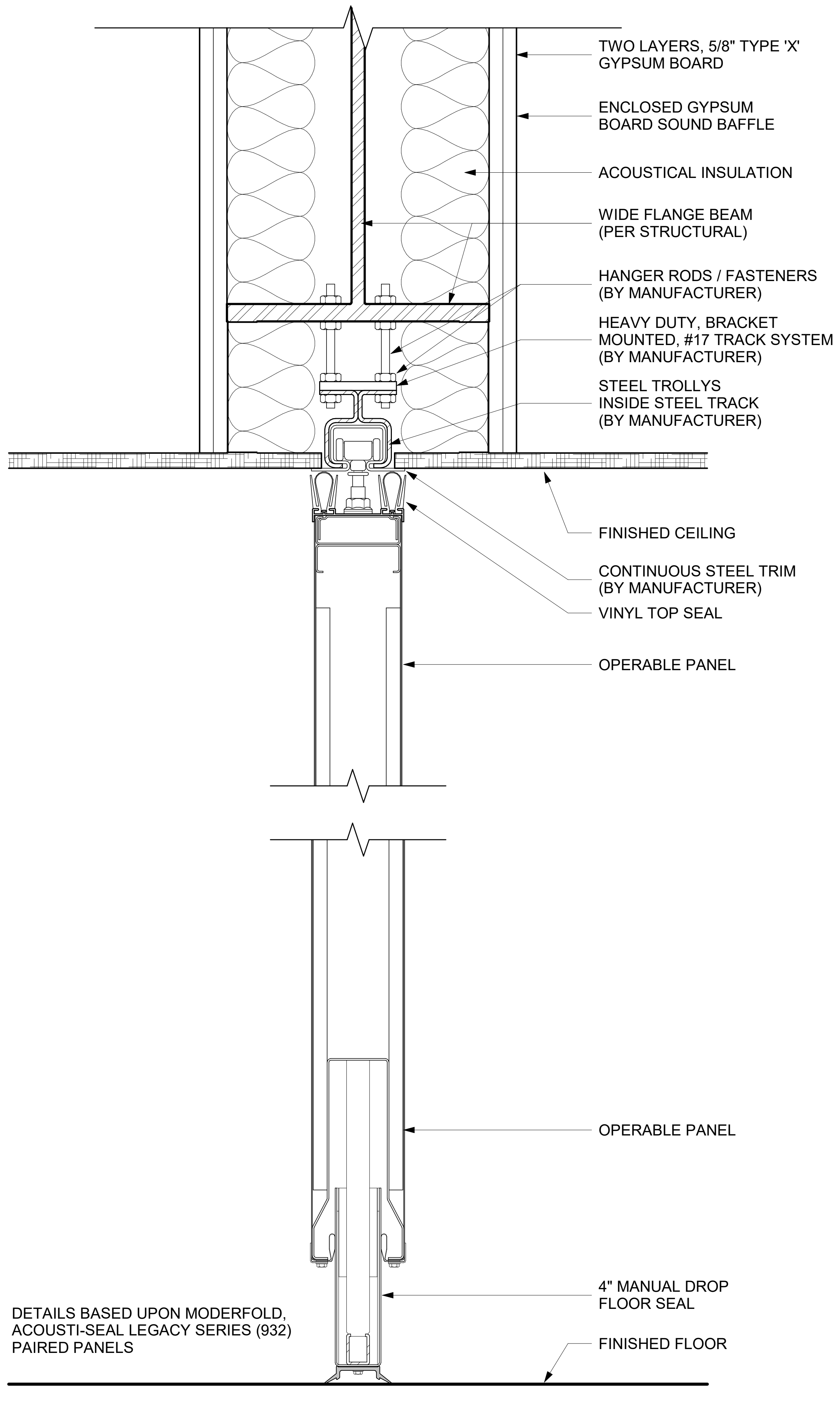
MODERNFOLD INTERSECTION J6
6" = 1'-0"


INTERLOCKING VERTICAL ASTRAGAL WITH VINYL ACOUSTICAL GASKET
SOSS HINGE (TYPICAL)
MOVEABLE PANEL WITH ACOUSTICAL CORE

MODERFOLD SOSS HINGE G6
6" = 1'-0"

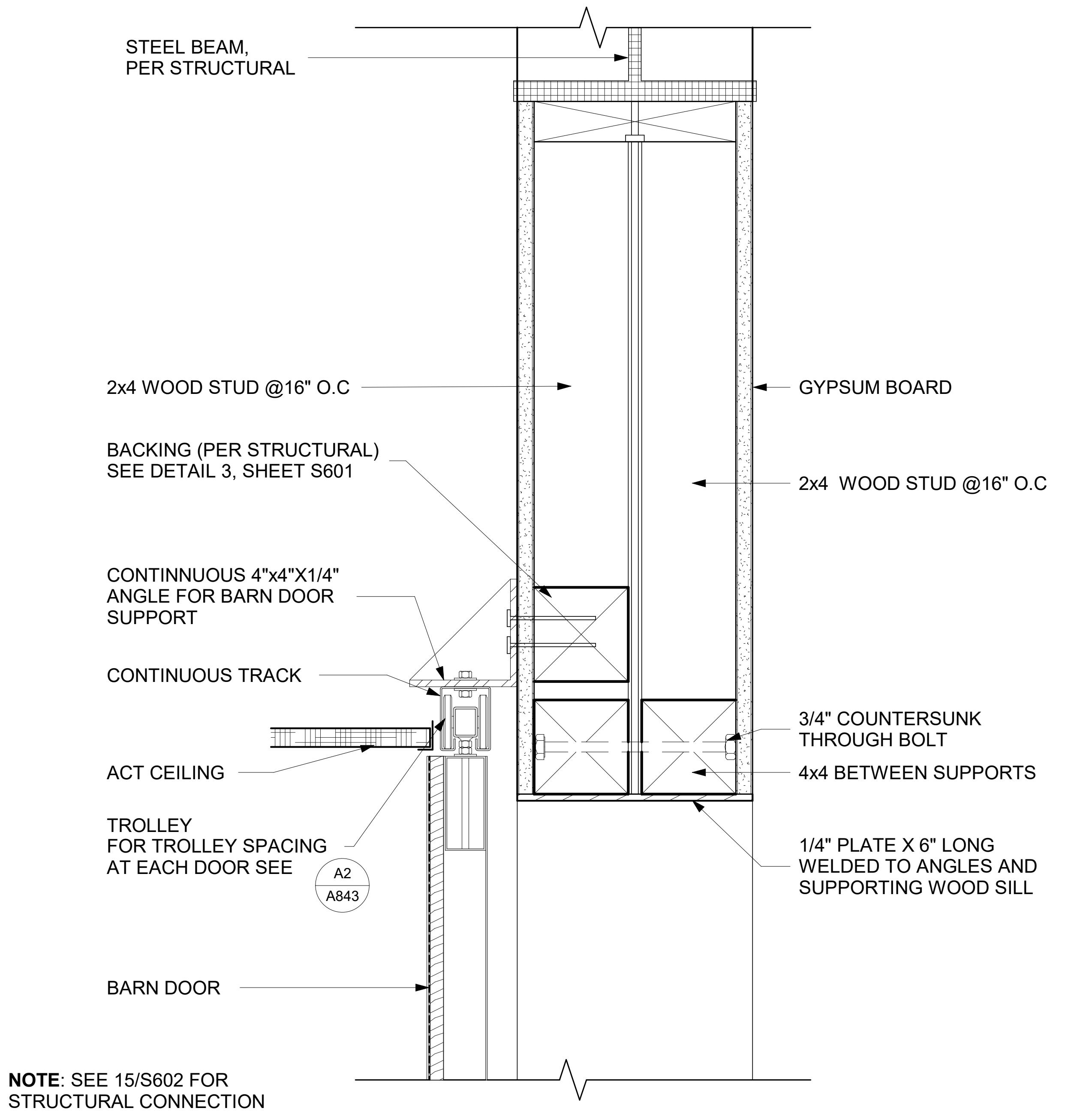


MODERFOLD DOOR JAMB E6
6" = 1'-0"


TWO LAYERS, 5/8" TYPE 'X' GYPSUM BOARD
ENCLOSED GYPSUM BOARD SOUND BAFFLE
ACOUSTICAL INSULATION
WIDE FLANGE BEAM (PER STRUCTURAL)
HANGER RODS / FASTENERS (BY MANUFACTURER)
HEAVY DUTY, BRACKET MOUNTED, #17 TRACK SYSTEM (BY MANUFACTURER)
STEEL TROLLYS INSIDE STEEL TRACK (BY MANUFACTURER)
FINISHED CEILING
CONTINUOUS STEEL TRIM (BY MANUFACTURER)
VINYL TOP SEAL
OPERABLE PANEL
OPERABLE PANEL
4" MANUAL DROP FLOOR SEAL
FINISHED FLOOR

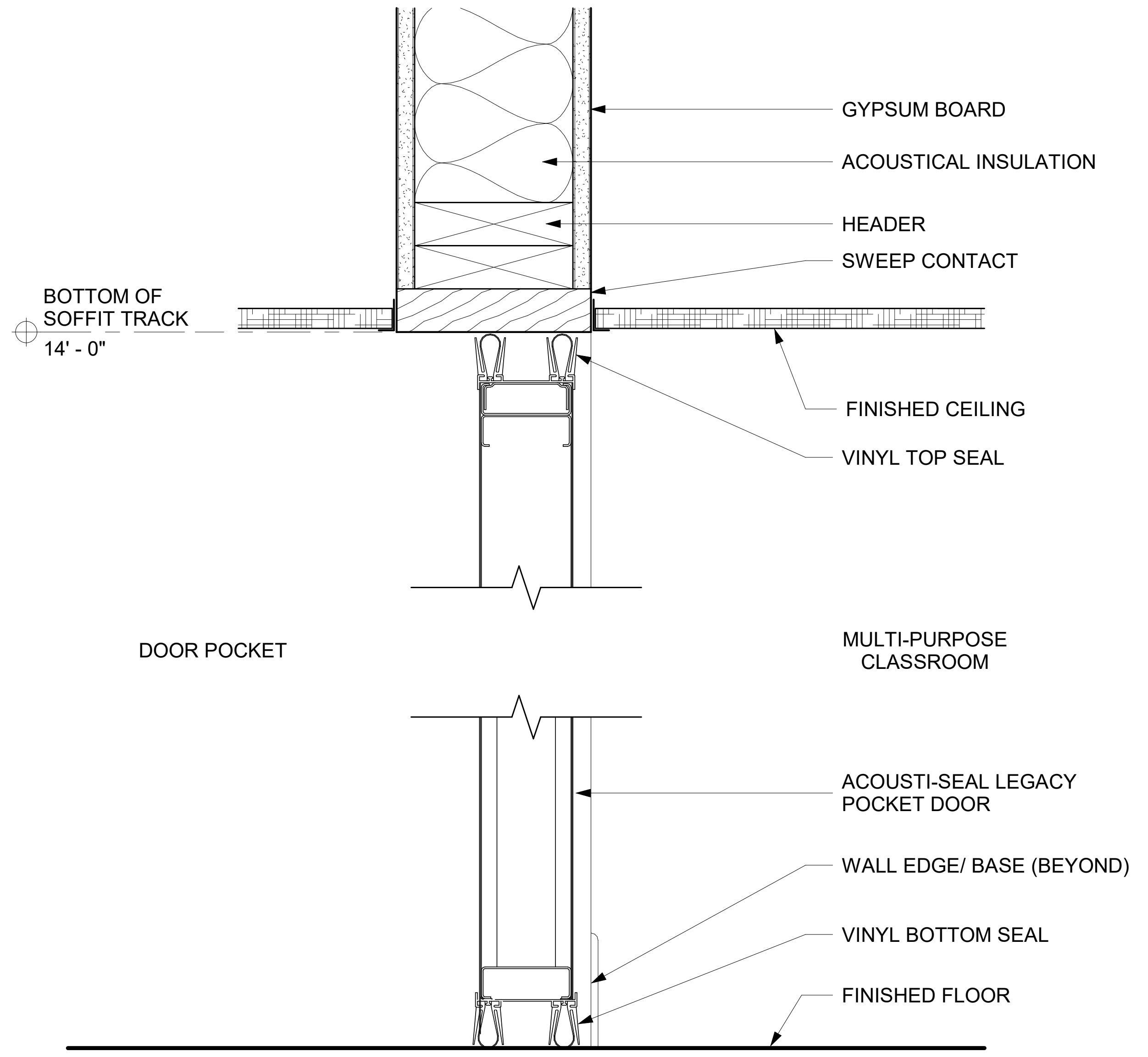
DETAILS BASED UPON MODERFOLD, ACOUSTI-SEAL LEGACY SERIES (932) PAIRED PANELS

MODERNFOLD TRACK HEAD A10
3" = 1'-0"


STEEL BEAM, PER STRUCTURAL
2x4 WOOD STUD @16" O.C
BACKING (PER STRUCTURAL) SEE DETAIL 3, SHEET S601
CONTINNUOUS 4"x4"X1/4" ANGLE FOR BARN DOOR SUPPORT
CONTINUOUS TRACK
ACT CEILING
TROLLEY FOR TROLLEY SPACING AT EACH DOOR SEE
A2
A843
BARN DOOR
GYPSUM BOARD
2x4 WOOD STUD @16" O.C
3/4" COUNTERSUNK THROUGH BOLT
4x4 BETWEEN SUPPORTS
1/4" PLATE X 6" LONG WELDED TO ANGLES AND SUPPORTING WOOD SILL

NOTE: SEE 15/S602 FOR STRUCTURAL CONNECTION

BARN DOOR TRACK SECTION J10
3" = 1'-0"



NOTE:
1. FOR LOCATION, SEE A404
2. POCKET DOOR JAMBS SHALL BE CONTINOUS CHANNELS ANCHORED TO A FIXED WALL. WELDED HINGE ANCHOR PLATS SHALL SUPPORT POCKET DOOR HINGES AND PERMIT A FULL 180-DEGREE SWING.

MODERNFOLD POCKET DOOR HEADER SECTION E10
3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98?4
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022

FOLDING PARTITION DETAILS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A843

Project #: 2021-101_R21   Plot Date: 1/17/2023 1:09:58 PM

STRUCTURAL COMPOSITE LUMBER (SCL)

1. STRUCTURAL COMPOSITE LUMBER (SCL) SHALL HAVE A CURRENT PRODUCT EVALUATION REPORT FROM THE INTERNATIONAL CODE COUNCIL (ICC) EVALUATION SERVICES, CBC SECTION 2303.1.9 AND ASTM D5456. FOR DRY SERVICE CONDITIONS WHERE MOISTURE CONTENT IN SERVICE IS LESS THAN 16%
   STRUCTURAL COMPOSITE LUMBER GRADES SHALL BE AS FOLLOWS:

BOISE CASCADE:	VERSA-LAM (ESR 1040, LARR 24998)
TRUS JOIST:	2.0E PARALLAM (ESR 1387, LARR 25202)
	1.9 E MICROLLAM (ESR 1387, LARR 25202)
	1.55E TIMBERSTRAND (ESR 1387, LARR 25202)
ROSEBURG:	RIGIDLAM LVL (ESR 1210, LARR 25680)
LOUISIANA PACIFIC:	SOLIDSTART LVL & LSL (ESR 2403, LARR 25783)

2. WHERE DOUBLE JOISTS ARE INDICATED ON PLANS, MANUFACTURER OR CONTRACTOR SHALL CONNECT THE JOISTS PER MANUFACTURER'S RECOMMENDATIONS.
3. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR STOCKING THE JOISTS ON SITE DURING CONSTRUCTION. JOISTS SHALL NOT BE IN CONTACT WITH THE GROUND.
4. SCL MAY BE NOTCHED OR DRILLED ONLY WHERE SPECIFICALLY SHOWN ON THE DESIGN DOCUMENTS OR WHERE SPECIFICALLY APPROVED BY THE SEOR AND BY THE PLAN CHECK AGENCY. WHERE APPROVED, NOTCHING/DRILLING SHALL BE IN ACCORDANCE WITH 2012 NDS SECTION 8.4.1.
5. THE MEMBER PROPERTIES SHALL BE AS FOLLOW:

	MICROLLAM LVL 1.9E WS	TIMBER STRAND LSL 1.55E	PARALLAM PSL 2.0E DF	PARALLAM PSL 2.2E DF
JOIST/BEAM ORIENTATION				
E (ksi)	1,900	1,550	2,000	2,200
Emin (ksi)	996	788	1,017	1,118
Fb (psi)	2,600	2,325	2,900	2,900
Fv (psi)	285	525	290	290
Fc-perp (psi)	750	900	750	750
FACE/PLANK ORIENTATION				
Fb (psi)	3,075	2,615	2,800	2,800
Fv (psi)	190	150	210	210
Fc-perp (psi)	480	375	475	475
AXIALFt (psi)	1,555	1,600	2,025	2,025
Fc (psi)	2,510	2,170	2,900	2,900

6. SUBSTITUTIONS OF ALTERNATE PRODUCTS WILL BE CONSIDERED ONLY IF THE FOLLOWING CONDITIONS ARE MET:
   - ALTERNATE PRODUCT AND MANUFACTURER SHALL HAVE AN ICC OR IAPMO APPROVAL.
   - DESIGN MUST MEET THE CONDITIONS ABOVE.
   - ANALYSIS, DRAWINGS AND DETAILS SHALL BE SIGNED AND STAMPED BY A CALIFORNIA CIVIL ENGINEER AND BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD (SEOR) FOR REVIEW, THEN TO THE PLAN CHECKING AGENCY FOR APPROVAL.
   - ALL COSTS INVOLVED FOR REDESIGN, REVIEW BY THE SEOR AND APPROVAL BY THE A PLANCHECKING AGENCY SHALL BE PAID FOR BY THE CONTRACTOR.
   - ALL COSTS INVOLVED FOR ANY NECESSARY MODIFICATIONS TO THE EXISTING APPROVED DRAWINGS BECAUSE OF THE SUBSTITUTION SHALL BE PAID FOR BY THE CONTRACTOR, INCLUDING ENGINEERING COSTS TO THE SEOR AND REVIEW COSTS TO THE DSA.
   - SUBSTITUTION SHALL BE SUBMITTED WITH ENOUGH TIME FOR REVIEW AND APPROVAL AS DESCRIBED ABOVE WITHOUT ANY NEGATIVE IMPACT ON THE CONSTRUCTION SCHEDULE, REVIEW TIME BY THE SEOR IS (10) BUSINESS DAYS FOR EACH SUBMITTAL. APPROVAL TIME BY THE PLAN CHECKING AGENCY VARIES AND SHALL BE VERIFIED BY THE CONTRACTOR.

GLUED LAMINATED TIMBER (GLULAM, GLB)

1. THE MANUFACTURE OF STRUCTURAL GLUED LAMINATED TIMBER SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF "TIMBER CONSTRUCTION STANDARDS" BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.
2. ALL GLUED LAMINATED MEMBERS SHALL BE DOUGLAS FIR AND WESTERN LARCH COMBINATION 24F-V8 WITH WATERPROOF RESORCINOL OR PHENOL RESORCINOL GLUE CONFORMING TO ASTM D2559. ALLOWABLE STRESS REQUIREMENTS ARE AS FOLLOWS:
   Fb = 2400 PSI TENSION IN TENSION ZONE
   = 2400 PSI TENSION IN COMPRESSION ZONE
   Fc± = 1650 PSI TENSION FACE
   = 650 PSI COMPRESSION FACE
   Fv_6 = 265 PSI
   E = 1.8x10 PSI
3. MEMBERS LEFT EXPOSED TO WEATHER SHALL BE ALASKA YELLOW CEDAR 20F-V13 AC/ AC COMBINATION. FINISH OF THE MEMBERS SHALL BE INDUSTRIAL APPEARANCE GRADE IN CONFORMANCE WITH THE STANDARD APPEARANCE GRADES OF THE A.I.T.C.
4. THE MANUFACTURER SHALL SUBMIT COMPLETE SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO ANY FABRICATION.
5. PROVIDE CAMBERS AS NOTED ON THE DRAWINGS.
6. TEMPERATURE OF GLUE-LAMINATED TIMBER IS NOT TO EXCEED 150°F IN SERVICE.
7. GLUED LAMINATED MEMBERS SHOWN ON THESE PLANS ARE FOR DRY CONDITIONS OF USE. (MOISTURE CONTENT LESS THAN 16%)
8. ALL GLULAM MEMBERS SHALL BE CONTINUOUSLY INSPECTED DURING FABRICATION BY SPECIAL INSPECTOR. TO FACILITATE THE INSPECTION REPORTS. EACH MEMBER SHALL BE STAMPED WITH AN IDENTIFYING MARK.
9. GLB CONNECTIONS SHALL BE SIMPSON 'GLT, GLS' UNO.

NAILING NOTES:

1. ALL NAILS TO BE COMMON UNLESS OTHERWISE SPECIFIED.
2. USE ONLY STAINLESS STEEL OR HOT DIP GALVANIZED (PER ASTM A 153 CLASS D) NAILS FOR TREATED WOOD CONNECTIONS.
3. ALL NAILS TO BE TRUESPEC HEAD ID FASTENERS AS MANUFACTURED BY TREE ISLAND STEEL (ICC ESR 1768, LARR 25895).
4. ALL SUBSTITUTIONS MUST BE SUBMITTED TO THE ENGINEER OF RECORD ALONG WITH A CURRENT ESR FOR APPROVAL.

TYPE 'D'	LENGTH (IN)	DIAMETER
8 COOLER	2 3/8	0.113
10 FRAMING LITE	3	0.120
16 FRAMING LITE	3 1/4	0.120
8 COMMON	2 1/2	0.131
10 FRAMING	3	0.131
16 SHORT	3 1/4	0.131
16 BOX	3 1/4	0.135
10 PLYWOOD	2 1/8	0.148
10 PLYWOOD	2 1/4	0.148
10 PLYWOOD	2 3/8	0.148
10 COMMON	3	0.148
16 SINKER	3 1/4	0.148
16 COMMON	3 1/2	0.162

TYPE 'HARDWARE'	LENGTH (IN)	DIAMETER
N8 HARDWARE	1 1/2	0.131
N10 HARDWARE	1 1/2	0.148
HARDWARE	2 1/2	0.131
HARDWARE	2 1/2	0.148
N16 HARDWARE	2 1/2	0.162

ENGINEERED WOOD PRODUCT (EWP) NOTES:

1. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF DESIGN CALCULATIONS AND LAYOUT DRAWINGS PREPARED BY THE MANUFACTURER FOR REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION PER DETAILED INSTALLATION SUGGESTIONS AND GUIDELINES OF THE MANUFACTURER.
3. CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER PRIOR TO ENCLOSING THE TRUSSES TO PROVIDE OPPORTUNITY FOR OBSERVATION OF THE INSTALLATION.
4. MANUFACTURER SHALL WARRANT ALL PRODUCTS SPECIFIED TO BE FREE FROM MANUFACTURING ERROR OR DEFECTS IN WORKMANSHIP AND MATERIALS.
5. TEMPORARY CONSTRUCTION LOADS WHICH CAUSE STRESSES BEYOND THE PRODUCT'S DESIGN LIMITS ARE NOT PERMITTED.
6. JOIST, TRUSSES AND BEAMS SHALL BE ERECTED AND INSTALLED PER THE CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTION 1709.
   A. NO BUILDING, STRUCTURE, OR PART THEREOF, OR ANY TEMPORARY SUPPORT OR SCAFFOLDING IN CONNECTION THEREWITH SHALL BE LOADED IN EXCESS OF ITS DESIGNED CAPACITY.
   B. BRACING:
      a. TRUSSES AND BEAMS SHALL BE BRACED LATERALLY AND PROGRESSIVELY DURING CONSTRUCTION TO PREVENT BUCKLING OR OVERTURNING.
      b. THE FIRST MEMBER SHALL BE PLUMBED, CONNECTED, BRACED AND/OR GUYED AGAINST SHIFTING BEFORE SUCCEEDING MEMBERS ARE ERECTED AND SECURED TO IT.
      c. THE TOTAL SYSTEM SHALL BE ADEQUATELY BRACED AND STABILIZED TO THE FOUNDATION, TO SUITABLE ANCHORS BURIED IN THE GROUND, OR BY OTHER EQUIVALENT METHOD(S).
      d. BEAMS, TRUSSES AND OTHER MATERIAL BEING LIFTED AND PLACED BY CRANES OR OTHER HOISTING APPARATUS SHALL NOT BE RELEASED FROM THE CRANE OR HOISTING APPARATUS UNTIL THE PERSON DETACHING THE LOAD HAS VERIFIED THAT THE LOAD HAS BEEN SECURED OR SUPPORTED TO PREVENT INADVERTENT MOVEMENT.
   C. WOOD FLOOR CONSTRUCTION:
      a. IN THE ERECTION OF A BUILDING HAVING DOUBLE WOOD FLOOR CONSTRUCTION, THE ROUGH FLOORING SHALL BE COMPLETED AS THE BUILDING PROGRESSES, INCLUDING THE TIER BELOW THE ONE ON WHICH FLOOR JOISTS ARE BEING INSTALLED.
      b. FOR SINGLE WOOD FLOOR OR OTHER FLOORING SYSTEMS, THE FLOOR IMMEDIATELY BELOW THE STORY WHERE THE FLOOR JOISTS ARE BEING INSTALLED SHALL BE KEPT PLANKED OR DECKED OVER.
   D. ERECTION GUIDE FOR TRUSSES AND BEAMS OVER 25 FEET LONG:
      a. THE EMPLOYER SHALL PROVIDE AN ERECTION PLAN AND PROCEDURE PREPARED BY A CIVIL ENGINEER CURRENTLY REGISTERED IN CALIFORNIA WHICH SHALL BE FOLLOWED AND KEPT AVAILABLE ON THE JOB SITE FOR INSPECTION BY THE DIVISION.

      NOTE:
      AUTHORITY CITED: SECTION 142.3, LABOR CODE. REFERENCE: SECTION 142.3, LABOR CODE.
7. ALL ENGINEERED WOOD PRODUCTS SHALL BE PROTECTED FROM THE WEATHER DURING CONSTRUCTION. WOOD PWJ SHALL BE STORED IN A VERTICAL ORIENTATION.
8. WOOD PWJ FLANGES MAY NOT BE NOTCHED OR CUT. ALL HOLES IN ENGINEERED WOOD PRODUCTS ARE ONLY AS DETAILED BY THE MANUFACTURER OR APPROVED BY THE STRUCTURAL ENGINEER.
9. MINIMUM BEARING LENGTHS SHALL BE SPECIFIED PER THE DESIGN CALCULATIONS. BEARING CROSS THE FULL WIDTH OF THE BEAM OR JOIST IS REQUIRED.

WOOD

1. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR-LARCH, VISUALLY GRADED OR MACHINE GRADED UNDER THE STANDARD GRADING RULES, NO. 17 OF THE WEST COAST LUMBER INSPECTION BUREAU, AND SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 23 OF THE CBC. ALL FRAMING SHALL BE LESS THAN 19% MOISTURE CONTENT AT TIME OF INSTALLATION AS WELL AS BEFORE ENCLOSURE. ALL FRAMING MEMBERS SHALL BE AS FOLLOWS:

SIZE AND APPLICATION	GRADE
2x TOP PLATES & SILLS	STANDARD OR NO. 2
2x4 STUDS (UP TO 9'-0")	STUD
2x4 STUDS (OVER 9'-0")	NO. 2, UNO
2x6 STUDS (UP TO 10'-0")	STUD
2x6 STUDS (OVER 10'-0")	NO. 2, UNO
6x AND LARGER BEAMS AND POST	NO. 1, UNO
JOIST AND ALL OTHER 2" TO 4" SAWN LUMBER	NO. 1 & BETTER, UNO

2. ALL WOOD BEARING ON CONCRETE OR MASONRY IN DIRECT CONTACT WITH EARTH SHALL BE PRESSURE TREATED DOUGLAS FIR IN ACCORDANCE WITH CBC 2303.1.9 AND 2304.12. ALL CUTS, HOLES & NOTCHES BE TREATED WITH A PRESERVATIVE APPROVED BY THE STRUCTURAL ENGINEER.
3. FASTENERS FOR PRESSURE-PRESERVATIVE TREATED WOOD SHALL BE HOT-DIPPED ZINC COATED GALVANIZED, STAINLESS STEEL, SILICON BRONZE OR COPPER PER CBC 2304.10.5. (EXCEPTION: PLAIN CARBON STEEL FASTENERS INCLUDING NUTS AND WASHERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED.)
4. ALL STRUCTURAL SHEATHING SHALL BE DOUGLAS FIR STANDARD GRADE STRUCTURAL I (4-PLY MIN) WITH EXTERIOR GLUE CONFORMING TO THE LATEST EDITIONS OF PS 1 AND PS 2 UNO. ALL PANELS SHALL BEAR LEGIBLE APA STAMPS. NO INDIVIDUAL SHEETS SHALL BE LESS THAN 2 FEET IN WIDTH. FULL SHEETS (4'-0"x8'-0") SHALL BE USED WHEREVER POSSIBLE.
5. ALL FLOOR AND ROOF SHEATHING SHALL BE LAID FACE GRAIN PERPENDICULAR TO FRAMING UNO. ALL SHEATHING SHALL BE APPROVED BY THE BUILDING INSPECTOR BEFORE COVERING.
6. UNLESS NOTED OTHERWISE, ALL WOOD SILL PLATE UNDER BEARING, EXTERIOR, OR SHEAR WALLS IN CONTACT WITH CONCRETE OR MASONRY SHALL BE BOLTED TO CONCRETE OR MASONRY WITH 5/8" Ø HEADED ANCHOR BOLTS w/ 7" MIN CONCRETE/MASONRY EMBED AT 4'-0" OC UNO, & AT 4" MIN AND 12" MAX FROM EACH END OF THE PLATES. A MINIMUM OF TWO ANCHOR BOLTS SHALL BE PLACED IN ANY ONE PIECE OF SILL PLATE.
7. ALL BOLT HEADS AND NUTS WHICH BEAR AGAINST THE FACE OF WOOD MEMBERS SHALL BE PROVIDED WITH 2"x2"x3/16" STEEL PLATE WASHERS UNO. ALL ANCHOR BOLTS FOR SHEAR WALLS SHALL BE PROVIDED WITH A 3"x3"x0.229" MIN STEEL PLATE WASHER UNO ON SHEAR WALL SCHEDULE.
8. ALL NAILS FOR CONNECTING WOOD MEMBERS SHALL BE COMMON NAILS. MINIMUM NAILING REQUIREMENTS OUTLINED IN TABLE 2304.10.1 SHALL BE FOLLOWED UNLESS NOTED OTHERWISE.
9. RETIGHTEN BOLTS BEFORE CLOSING-IN.
10. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE ARCHITECT OR STRUCTURAL ENGINEER AND THE JURISDICTION. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/16" SHEATHING. IF NAIL HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
11. ALL WOOD HARDWARE CONNECTORS SHALL BE SIMPSON STRONG-TIE UNLESS NOTED OTHERWISE.
12. PROVIDE FULL DEPTH BLOCKING AT 4'-0" OC BETWEEN ADJACENT JOISTS UNDER ALL PERPENDICULAR PARTITIONS. PROVIDE DOUBLE JOIST UNDER ALL PARALLEL PARTITIONS UNLESS NOTED OTHERWISE.
13. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED, NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE SEOR.
14. ROOF SHEATHING SHALL BE INSPECTED PRIOR TO PLACING INSULATION AND ROOFING.
15. SOLID BLOCKING (2x MIN) SHALL BE PLACED BETWEEN JOISTS OR RAFTERS AT ALL SUPPORTS & @ 8'-0" OC MAX.
16. ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554 GR 36. ALL BOLTS SHALL CONFORM TO ASTM A307 UNO.
17. HOLES FOR BOLTS SHALL BE BORED 1/32" TO 1/16" LARGER THAN NOMINAL BOLT DIAMETER. (THIS INCLUDES HOLES FOR ANCHOR RODS IN SILL PLATE).
18. JOIST CONNECTIONS SHALL BE SIMPSON 'LUS' UNLESS NOTED OTHERWISE.
19. ALL POSTS CONNECTION AT TOP AND BOTTOM SHALL BE SIMPSON 'CC' UNO.
20. ALL POST CONNECTIONS LOCATED DIRECTLY ON CONCRETE SHALL BE SIMPSON 'CB' UNLESS NOTED OTHERWISE.
21. FILL ALL NAIL HOLES OF WOOD CONNECTION HARDWARE (STRAPS, HANGERS, ETC.)
22. ALL NON-SHEAR WALLS SHALL HAVE BRACING PROVIDED BY ONE OF THE METHODS REQUIRED BY CODE SECTION 2308.9.3.
23. ALL LAG SCREWS AND WOOD SCREWS SHALL CONFORM TO ANSI/ASME B18.2.1 FOR LAG SCREWS & ANSI/ASME B18.6.1 FOR WOOD SCREWS
24. SECURE ALL EMBEDDED HARDWARE PRIOR TO FOUNDATION INSPECTION.
25. EACH SHEET OF SHEATHING SHALL BE IDENTIFIED WITH THE GRADE TRADE MARK OF AN APPROVED TESTING AND GRADING AGENCY. THE SHEATHING SHALL MEET THE REQUIREMENTS OF PRODUCT STANDARD (DOC) PSI AND PS2 OR APA PRP-108. INSTALL SHEATHING PANELS IN A DIRECTION AS SHOWN ON PLANS. PANELS WITH DIMENSION LESS THAN 24 INCHES IN ANY DIRECTION SHALL NOT BE USED UNLESS ALL EDGES ARE BLOCKED WITH MIN 2x FRAMING MEMBERS. PANELS INSTALLED AT LOCATIONS PERMANENTLY EXPOSED TO WEATHER SHALL BE GRADED WITH EXTERIOR EXPOSURE. THE LOWER GRADED VEENER IS INSTALLED FACING THE FRAMING.

ROOF SHEATHING	
THICKNESS & GRADE	19/32" C-D
EXPOSURE	EXPOSURE 1
PANEL INDEX	40/20
NAILING	10d @ 6" OC BN & EN; 10d @ 12" OC FN
BLOCKING	NONE
FLOOR SHEATHING T&G	
THICKNESS & GRADE	23/32" C-D
EXPOSURE	EXPOSURE 1
PANEL INDEX	48/24
NAILING	10d @ 6" OC BN & EN; 10d @ 12" OC FN
BLOCKING	NONE
EXTERIOR DECK SHEATHING T&G	
THICKNESS & GRADE	23/32" A-C
EXPOSURE	EXTERIOR EXPOSURE
PANEL INDEX	48/24
NAILING	10d @ 6" OC BN & EN; 10d @ 12" OC FN
BLOCKING	NONE
SHEAR PANEL	
THICKNESS	1/2" STRUCT 1 PER SHEAR WALL SCHEDULE
EXPOSURE	EXPOSURE 1
PANEL INDEX	16/0
NAILING	PER SHEAR WALL SCHEDULE
BLOCKING	BLOCKED, UNO

26. LAG SCREWS: ANSI/ASME STANDARD CUT B18.2.1-2012 2012 NDS FOR LAG SCREW DIMENSIONS. PRE-DRILL ALL HOLES. HOLE AT SHANK PORTION TO MATCH DIAMETER OF SHANK. HOLES AT THREADED PORTION TO BE 60 TO 70 PERCENT OF SHANK DIAMETER AND EQUAL TO LENGTH OF THREADED PORTION UNO. USE SOAP AND LUBRICANTS TO FACILITATE INSTALLATION. DRIVING WITH HAMMER IS NOT PERMITTED. EXPOSED STEEL SHALL BE HOT-DIPPED GALVANIZED.
27. LATERAL SUPPORT FOR BEAMS, RAFTERS AND JOISTS: CBC SECTION 2308.8.2 (JOISTS SHALL BE SUPPORTED LATERALLY AT THE ENDS AND AT EACH SUPPORT BY SOLID BLOCKING EXCEPT WHERE THE ENDS OF JOISTS ARE NAILED TO A HEADER, AND OR RIM JOIST OR TO AN ADJOINING STUD OR BY OTHER APPROVED MEANS. SOLID BLOCKING SHALL NOT BE LESS THAN 2 INCHES (51 mm) IN THICKNESS AND THE FULL DEPTH OF JOIST.)
28. BEAMS OR DRAG STRUTS: LAMINATED OR DOUBLE JOIST SHALL BE SPIKED TOGETHER WITH 16d NAILS AT 9" OC STAGGERED. IF USING 3 OR MORE JOIST TOGETHER, CONNECT WITH 1/2"Ø MACHINE BOLTS @ 24" OC STAGGERED.

REINFORCING STEEL (FOR CONCRETE & MASONRY)

1. REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 19A OF THE CODE, ASTM A615, GRADE 60 UNO.
2. BARS SHALL BE CLEAN OF RUST, GREASE, OR OTHER MATERIALS LIKELY TO IMPAIR BOND. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. WWF SHALL BE SUPPORTED ON APPROVED CHAIRS.
4. REINFORCING BAR SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS. LAP ALL HORIZONTAL BARS AT CORNERS AND INTERSECTIONS. STAGGER ALL SPLICES UNLESS NOTED OTHERWISE ON PLANS.
5. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.
6. WHERE WELDING OF REINFORCING IS APPROVED BY THE STRUCTURAL ENGINEER, IT SHALL BE DONE BY AWS CERTIFIED WELDERS USING E90XX OR APPROVED ELECTRODES. WELDING PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF STRUCTURAL WELDING CODE-REINFORCING STEEL", AWS-D1.4, LATEST REVISION. REINFORCING BARS TO BE WELDED SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-706.
7. BARS IN SLABS SHALL BE SECURELY SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, PRIOR TO PLACING CONCRETE.
8. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "A.C.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION.
9. COMPLETE AND DETAILED REINFORCING PLACEMENT DRAWINGS SHALL BE PREPARED AND SUBMITTED TO THE ARCHITECT FOR APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE CODES. THESE DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE PRIOR TO PLACING OF CONCRETE.
10. MILL TEST REPORTS FOR GRADE 60 BARS SHALL BE SUBMITTED PRIOR TO PLACEMENT OF CONCRETE.
11. PROVIDE INSPECTION OF CONCRETE PER SPECIAL INSPECTION NOTES SECTION. INSPECTION SHALL BE SCHEDULED SO THAT PLACEMENT OF REINFORCING STEEL, CONDUIT, SLEEVES, AND EMBEDDED ITEMS MAY BE CORRECTED PRIOR TO PLACEMENT OF OVERLYING GRIDS OR REINFORCING STEEL.
12. ALL GRADE 60 REINFORCING STEEL SHALL BE CLEARLY MARKED TO DIFFERENTIATE THEM FROM GRADE 40 REINFORCING STEEL IF CONCURRENTLY ON SITE.
13. CONCRETE PROTECTION FOR REINFORCEMENT
    - CAST-IN-PLACE CONCRETE (NON-PRESTRESSED). THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

	MIN COVER
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTh	3"
B. CONCRETE EXPOSED TO EARTH OR WEATHER:	
NO 6 BAR THRU NO 18 BAR	2"
NO 5 BAR, W31 OR D31 WIRE & SMALLER	1 1/2"
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS, JOISTS:	
NO 14 BAR AND NO 18 BAR	1 1/2"
NO 11 BAR AND SMALLER	3/4"
BEAMS AND COLUMNS:	
PRIMARY REINFORCEMENT, TIES, STIRRUPS, AND SPIRALS	1 1/2"

14. CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF 5 TONS OR 2%, WHICHEVER IS GREATER, OF REINFORCING STEEL TO BE FABRICATED AND/OR PLACED DURING THE PROGRESS OF WORK AS MAY BE DIRECTED BY THE ARCHITECT (STRUCTURAL ENGINEER). THE UNUSED PORTION SHALL BE CREDITED TO THE OWNER AT THE COMPLETION OF CONCRETE WORK.
15. LENTON MECHANICAL COUPLERS MAY BE USED IN PLACE OF LAP SPLICES. MIN CLEAR COVER TO THE COUPLERS MUST BE MAINTAINED PER NOTE 13. REFER TO IAPMO ER-0129 FOR CONDITIONS OF USE, SPECIAL INSPECTIONS, & REQUIREMENTS FOR PREPARING REBAR ENDS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED BY AN APPROVED AND LICENSED FABRICATOR IN ACCORDANCE WITH THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS (LATEST EDITION), AND WITH CHAPTER 22A OF THE CODE.
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE ASTM DESIGNATION AS INDICATED BELOW (UNO):

WF AND WT SHAPES	A992
PIPE COLUMNS	A53, GRADE B
HSS SECTIONS	A500, GRADE B
BOLTS	A325
BOLTS IN CONCRETE/MASONRY	A307
ANGLES, CHANNELS, PLATES	A36
ANCHOR RODS	F1554, GRADE 36 UNO

3. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS TO THE ARCHITECT OF ALL STEEL FOR ARCHITECTS AND STRUCTURAL ENGINEERS REVIEW AND APPROVAL BEFORE FABRICATION.
4. BOLT HOLES USED IN STEEL SHALL BE 1/16" LARGER IN DIAMETER THAN NOMINAL SIZE OF BOLT USED, EXCEPT AS NOTED.
5. ALL STRUCTURAL STEEL SURFACES THAT ARE ENCASED IN CONCRETE, OR MASONRY, SPRAY ON FIREPROOFING, OR ARE ENCASED BY BUILDING FINISH, SHALL BE LEFT UNPAINTED.
6. ALL WELDING IS TO BE DONE BY CERTIFIED WELDERS APPROVED USING E70XX ELECTRODES (UNO). ALL WELDS SHALL BE IN CONFORMITY WITH THE PROJECT SPECIFICATIONS AND THE CODE FOR WELDING IN BUILDING CONSTRUCTION (AWS D1.1 LATEST REVISION) OF THE AMERICAN WELDING SOCIETY. SEE SPECIAL INSPECTIONS SECTION FOR WELDING INSPECTION REQUIREMENTS.
7. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM SIZE WELDS AS SPECIFIED IN AISC MANUAL OF STEEL CONSTRUCTION 15TH EDITION, TABLE J2.4.
8. ALL EXPOSED STRUCTURAL STEEL AND MISCELLANEOUS METAL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
9. ALL GROOVE WELDS SHALL BE FULL PENETRATION UNLESS NOTED OTHERWISE.
10. WHERE FINISH IS ATTACHED TO STRUCTURAL STEEL PROVIDE 1/2"DIA. BOLT HOLES @ 48" OC @ W, C, L, MEMBERS AND 1/2"Ø. WELDED STUDS @ 48" OC @ TUBE & PIPE MEMBERS FOR ATTACHMENT OF NAILERS, SEE ARCHITECTURAL DRAWINGS FOR FINISHES SEISMIC LOAD RESISTING SYSTEM (SLRS) IS DEFINED AS THE ASSEMBLY OF STRUCTURAL ELEMENTS IN THE BUILDING THAT RESISTS SEISMIC LOADS, INCLUDING COLUMNS, BEAMS, GIRDERS, STRUCTS, COLLECTORS, CHORDS AND BRACES, AND THE CONNECTIONS BETWEEN THESE ELEMENTS SPECIFICALLY DESIGN TO RESIST SEISMIC FORCES, AS DESIGNATED ON THE DRAWINGS.
11. WELD MATERIALS USED IN SLRS WELD CONNECTIONS SHALL CONFORM TO THE FOLLOWING TOUGHNESS REQUIREMENTS:
    A. WELD CONNECTIONS SHALL BE MADE WITH A FILLER METAL THAT CAN PRODUCE WELDS THAT HAVE A MINIMUM CHARPHY V-NOTCH TOUGHNESS OF 20 FT-LB AT 0 DEGREES F AS DETERMINED BY THE APPROPIATE AWS CLASSIFICATION TEST METHOD.
    B. WELDED CONNECTIONS DESIGNATED AS 'DEMAND CRITICAL' SHALL BE MADE WITH A FILLER METAL CAPABLE OF PROVIDING A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LB AT 20 DEGRESS F AS DETERMINED BY THE APPROPIATE AWS CLASSIFICATION TEST METHOD, AND 40 FT-LB AT 70 DEGRESS F AS DETERMINED BY APPENDIX X OF ANSI/AISC 341.

STEEL DECK

1. ROOF AND FLOOR DECKS SHALL BE AS NOTED ON THE DRAWINGS. PROPERTIES ARE AS FOLLOWS:

DECK SIZE AND GAUGE	I (in4)	S (in3)
1 1/2" x 22 GA DECK	0.183	0.209
1 1/2" x 20 GA DECK	0.233	0.271
1 1/2" x 18 GA DECK	0.338	0.395
1 1/2" x 16 GA DECK	0.440	0.502
2" x 22 GA DECK	0.340	0.283
2" x 20 GA DECK	0.423	0.361
2" x 18 GA DECK	0.555	0.510
2" x 16 GA DECK	0.694	0.639
3" x 22 GA DECK	0.718	0.418
3" x 20 GA DECK	0.896	0.534
3" x 18 GA DECK	1.203	0.767
3" x 16 GA DECK	1.509	0.960

2. DECK SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND SHALL INDICATE HEADED STUD LAYOUT.
3. THE AMERICAN IRON AND STEEL INSTITUTE "SPECIFICATIONS FOR THE DESIGN OF LIGHT GAUGE STEEL STRUCTURAL MEMBERS" SHALL GOVERN THE DESIGN OF ALL DECK UNITS, STEEL DECK AND ALL OF ITS CLOSURES AND FLASHINGS SHALL CONFORM TO ASTM A653, GRADE 38, Fy 38,000 PSI MIN.
4. ACCEPTABLE STEEL DECK MANUFACTURERS ARE AS FOLLOWS:

VERCO MANUFACTURING, INC.	(IAPMO #0217, LARR #23789)
H.H. ROBERTSON COMPANY	(ICBO #2739, LARR #23597)
ASC PACIFIC	(ICBO # 2757, LARR #23783, 23784 AND 23803)

5. UNITS SHALL BE CONTINUOUS OVER THREE OR MORE SPANS, EXCEPT WHERE THE FRAMING DOES NOT PERMIT. SHORING MAY BE REQUIRED AT NON-CONTINUOUS SPANS. DECK SHOP DRAWINGS SHALL INDICATE WHERE SHORING WILL BE REQUIRED. DECK SHALL BEAR 2" MINIMUM AT ALL SUPPORTS.
6. ALL WELDING OF STEEL DECK SHALL BE DONE BY CERTIFIED LIGHT GAUGE WELDERS IN ACCORDANCE WITH AWS "SPECIFICATIONS FOR WELDING SHEET STEEL IN STRUCTURES", AWS D1.3-(LATEST EDITION).
7. UNITS SHALL BE FASTENED TO THE STEEL SUPPORTS AT THE END OF THE UNITS AND AT INTERMEDIATE SUPPORTS AND TO THE STEEL SUPPORTS AT THE SIDE BOUNDARIES BY 3/4" DIAMETER PUDDLE WELDS AT 1'-0" OC SHEAR STUDS WELDED THROUGH DECK MAY BE USED IN PLACE OF 3/4" DIAMETER PUDDLE WELDS.
8. THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BETWEEN SUPPORTS BY BUTTON PUNCHING AT 3'-0" OC MAX UNO. CONTRACTOR MAY DECREASE SPACING OF SIDE LAP ATTACHMENTS TO ACCOMMODATE CONSTRUCTION LOADING AS REQUIRED.
9. PROVIDE FLASHING AND CLOSURE PLATES AT ENDS OF ALL UNITS, AROUND COLUMNS, AND AT ALL PERIMETER LOCATIONS REQUIRING CONCRETE.

SOILS & FOUNDATIONS

1. FOUNDATIONS ARE DESIGNED BASED ON CHAPTER GEOTECHNICAL ENGINEERING REPORT PREPARED BY EARTH SYSTEMS PACIFIC, REPORT NUMBER 300852-003 DATED SEPTEMBER 3, 2021 AND REVISED MAY 18, 2022
   ALLOWABLE VERTICAL BEARING PRESSURE = 1800 PSF*
   ALLOWABLE LATERAL BEARING PRESSURE = 340 PCF
   *MAY BE INCREASED BY 1/3 FOR WIND AND SEISMIC LOAD CASES.
2. FOOTINGS SHALL BEAR ON FIRM NATURAL SOILS OR PROPERLY COMPACT FILL. MINIMUM DEPTH OF FOOTINGS BELOW LOWEST ADJACENT FINAL GRADE SHALL BE 12".
3. CONTRACTOR TO PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER, OR SEEPAGE, IF REQUIRED.
4. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED AND SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
5. EXCAVATION FOR FOOTINGS SHALL BE APPROVED BY THE INSPECTOR OR SOILS ENGINEER PRIOR TO PLACING THE CONCRETE AND REINFORCING. CONTRACTOR TO NOTIFY THE INSPECTOR WHEN INSPECTION OF EXCAVATION IS READY. INSPECTOR TO SUBMIT LETTER OF COMPLIANCE.
6. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACK FILL BEHIND RETAINING WALLS BEFORE CONCRETE OR GROUT HAS ATTAINED FULL DESIGN STRENGTH. CONTRACTORS SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION OF SUCH BRACING.
7. FOUNDATIONS SHALL BE PLACED AND ESTIMATED ACCORDING TO DEPTHS SHOWN ON DRAWINGS. SHOULD SOIL ENCOUNTERED AT THESE DEPTHS NOT BE APPROVED BY THE INSPECTOR OR SOILS ENGINEER, FOUNDATION ELEVATIONS WILL BE ALTERED BY CHANGE ORDER.
8. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS IN ACCORDANCE WITH THE SOILS REPORT AND APPROVED BY THE SOILS ENGINEER. FLOODING WILL NOT BE PERMITTED. ALL FILLS USED TO SUPPORT FOUNDATIONS SHALL BE INSPECTED BY THE SOILS ENGINEER REPRESENTATIVE PER CODE SECTION 3304
9. ALL ABANDONED FOOTINGS, UTILITIES, ETC. SHALL BE REMOVED UNLESS NOTED OTHERWISE. NEW FOOTINGS MUST EXTEND INTO UNDISTURBED SOILS. SLABS ON GRADE SHALL BE SUPPORTED ON NATURAL GRADE OR COMPACTED FILL.

CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19A OF THE CODE AND WITH THE PROVISIONS OF ACI 318, LATEST EDITION.
2. REINFORCED CONCRETE IS DESIGNED BY THE "ULTIMATE STRENGTH DESIGN METHOD".
3. CONCRETE MIXES SHALL BE DESIGNED BY THE CONCRETE SUPPLIER, STAMPED AND SIGNED BY A REGISTERED ENGINEER, AND APPROVED BY THE STRUCTURAL ENGINEER.

CONCRETE USE (MIN)	STRENGTH (PSI) AT 28 DAYS*	W/C RATIO (MAX) (MAX 15% FLY ASH)	MAX AGGREGATE	DENSITY
GRADE BEAMS / FOOTINGS	4500	0.45	1"	150
CONCRETE SLAB ON GRADE	4500	0.45	1"	150

*PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE II/V. USE f'c = 4500 PSI TYPE V CONCRETE WITH WATER CEMENT RATIO = 0.45 IF CONCRETE IS PLACED IN SOIL WITH SEVERE OR VERY SEVERE SULFATE EXPOSURE.

4. AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C-33 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER.
5. CONCRETE MIXING OPERATION, ETC. SHALL CONFORM TO ASTM C-94.
6. PLACEMENT OF CONCRETE SHALL CONFORM TO PROJECT SPECIFICATIONS. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL CONCRETE SURFACES AGAINST WHICH NEW CONCRETE IS TO BE PLACED.
7. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
8. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS. SEE THESE DRAWINGS FOR ADDITIONAL RESTRICTIONS ON THE PLACEMENT OF OPENINGS IN SLABS AND WALLS.
9. PIPES LARGER THAN 1 1/2" DIAMETER SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED BY STRUCTURAL ENGINEER. PIPES SHALL NOT DISPLACE OR INTERRUPT REINFORCING BARS, SPACE EMBEDDED PIPES AND SLEEVES AT A MINIMUM OF 3 DIAMETERS ON CENTER.
10. STRIPPING OF FORMS AND SHORING SHALL BE IN ACCORDANCE WITH ACI 318.

MASONRY

1. ALL MASONRY CONSTRUCTION SHALL BE GROUTED SOLID AND CONFORM WITH CBC CHAPTER 21A & WITH THE PROVISIONS OF TMS 402 & TMS 602, LATEST EDITION.
2. CONCRETE BLOCK SHALL BE HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C-90, GRADE N. MEDIUM WEIGHT UNITS.
3. CEMENT SHALL BE AS SPECIFIED FOR CONCRETE, TYPE II MIN.
4. REINFORCING BARS - SEE NOTES UNDER "REINFORCING STEEL" FOR REQUIREMENTS.
5. MORTAR SHALL BE TYPE M OR S WITH PROPORTIONS (BY VOLUME) OF 3 1/2 PARTS SAND, 1/2 PART HYDRATED LIME, 1 PART PORTLAND CEMENT AND SHALL COMPLY WITH ASTM C270 & TMS 602 TABLE SC-1. MORTAR COMPONENT TESTS ARE NOT REQUIRED.
6. GROUT SHALL CONSIST OF 3 PARTS SAND, 2 PARTS PEA GRAVEL, AND 1 PART PORTLAND CEMENT, AND SHALL COMPLY WITH ASTM C476 & TMS 602 TABLE SC-7. GROUT COMPONENT TESTS ARE NOT REQUIRED.
7. PROVIDE A MINIMUM OF 1/2" OR 1 BAR DIA, WHICHEVER IS GREATER, CLEAR BETWEEN MAIN REINFORCING AND MASONRY UNITS.
8. ALL CELLS WITH REINFORCING BARS SHALL BE GROUTED. UNLESS NOTED OTHERWISE, LAY MASONRY IN 1/2-UNIT RUNNING BOND. USE CLOSED-END UNITS AT CORNERS, OPENINGS, AND END WALLS.
9. WHERE MASONRY STACK BOND CONSTRUCTION IS SPECIFIED, ALL UNITS SHALL BE OPEN-ENDED AND SHALL BE GROUTED SOLID. USE CLOSED-END UNITS AT CORNERS, OPENINGS, AND END WALLS.
10. CONTRACTOR SHALL PROVIDE COMPLIANCE WITH THE SPECIFIED COMPRESSIVE STRENGTH f'm (DEFINED BELOW PER THE UNIT STRENGTH METHOD PER TMS 602 TABLE 2.
11. MINIMUM MATERIAL STRENGTHS SHALL BE USED FOR CMU CONSTRUCTION AS DEFINED BELOW:
    f'm = 2000 PSI
    COMPRESSIVE STRENGTH OF CMU = 2000 PSI
    COMPRESSIVE STRENGTH OF GROUT = 2000 PSI
12. MORTAR JOINTS ARE 3/8" THICK

PETRA SHEET INDEX

Sheet Number	Sheet Name
S001	GENERAL NOTES
S002	GENRAL NOTES & ABBREVIATIONS
S101	FOUNDATION PLAN
S102	ROOF FRAMING PLAN
S301	TYPICAL CONCRETE SLAB ON GRADE DETAILS
S302	TYPICAL CONCRETE FOOTING DETAILS
S303	CONCRETE FOOTING DETAILS
S401	TYPICAL MASONRY DETAILS
S402	TRASH ENCLOSURE
S501	TYPICAL STEEL FRAMING DETAILS
S502	TYPICAL STEEL DECK DETAILS
S601	TYPICAL WOOD CONNECTION DETAILS
S602	TYPICAL WOOD DETAILS
S603	TYPICAL WOOD DETAILS
S604	WOOD DETAILS
S612	TYPICAL SHEAR WALL DETAILS
S621	TYPICAL SHEAR WALL DETAILS
S622	TYP WOOD DIAPHRAGM, SHEAR & DRAG CONNECTION DETAILS

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.
3. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
4. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES:
   TITLE 24, PART 2 CALIFORNIA CODE OF REGULATIONS WITH 2019 CALIFORNIA AMENDMENTS AND LATEST REVISIONS REFERRED TO HERE AS "THE CODE", AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES & STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
5. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
   A. SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS, EXCEPT AS NOTED.
   B. SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON-BEARING PARTITIONS.
   C. SIZE AND LOCATION OF ALL CONCRETE CURBS, EQUIPMENT PADS, PITS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGE IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC.
   D. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS EXCEPT AS SHOWN.
   E. FLOOR AND ROOF FINISHES.
   F. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
6. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
   A. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN OR NOTED.
   B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
   C. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
   D. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
   E. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS.
7. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
8. OPENINGS, POCKETS, ETC., LARGER THAN 6" SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, WALLS, UNLESS SPECIALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., LARGER THAN 6" NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS. FOR ANY FURTHER RESTRICTIONS ON OPENINGS IN STRUCTURAL ELEMENTS, SEE APPLICABLE SECTIONS BELOW.
9. PIPES LARGER THAN 1 1/2" DIAMETER SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED. NO CONDUITS SHALL BE PLACED IN CONCRETE FILL OVER METAL DECKING.
10. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.
11. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
12. CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON FRAMED ROOF OR FLOOR. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND / OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.

LOADING

1. DESIGN LOADS
   ROOF LIVE LOAD = 20 PSF
2. WIND ANALYSIS PER CHAPTER 16A OF THE CODE
   RISK CATEGORY = III
   BASIC WIND SPEED, V = 100 mph
   EXPOSURE = C
   LOAD ON BUILDING SEE S002
3. SEISMIC ANALYSIS PER CHAPTER 16A OF THE CODE UTILIZING THE FOLLOWING:
   A. PROCEDURE - EQUIVALENT LATERAL FORCE ANALYSIS (Rho = 1.3)
   B. SYSTEM - WOOD SHEAR WALL

SEISMIC PARAMETERS			
S_S =	1.683g	S_{DS} =	1.213g
S_1 =	0.623g	S_{D1} =	1.059g
F_a =	1.00	DESIGN CATEGORY =	D
F_v =	2.50	SITE CLASS =	D
I_e =	1.25	V_s =	CS * W
R =	6.5	C_s =	0.216
C_d =	4.0	Ω_o =	4.0

STRUCTURAL OBSERVATIONS

1. PERIODIC STRUCTURAL OBSERVATION SHALL BE PERFORMED BY THE ENGINEER OF RECORD AT CRITICAL STAGES OF CONSTRUCTION IN ACCORDANCE WITH CBC 1704A. STRUCTURAL OBSERVATION DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS OF SPECIAL INSPECTION. SEE 'SPECIAL INSPECTION NOTES' FOR ITEMS REQUIRING INSPECTION.
2. NOTIFY THE ENGINEER AT SIGNIFICANT CONSTRUCTION STAGES 72 HOURS IN ADVANCE AND PROVIDE ACCESS FOR THE FOLLOWING STRUCTURAL OBSERVATIONS:
   A. FOUNDATIONS
      a. REINFORCEMENT
      b. OTHER EMBEDDED ELEMENTS
   B. STEEL FRAMING
      a. GENERAL
   C. CONCRETE
      a. REINFORCING LAYOUT
   D. MASONRY
      a. REINFORCING LAYOUT
   E. WOOD
      a. DIAPHRAGMS & SHEAR WALLS
      b. PROPRIETARY HOLDOWN SYSTEM

SUBMITTALS

1. THE FOLLOWING CHECKED DEFERRED SUBMITTAL ITEMS MUST BE REVIEWED AND APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT FOR COORDINATION. THE ARCHITECT SHALL FORWARD THE SUBMITTAL TO THE ENGINEER OF RECORD (EOR) FOR REVIEW. IN NO CASE SHALL DEFERRED SUBMITTAL ITEMS BE DELIVERED TO THE JOBSITE PRIOR TO REVIEW AND APPROVAL BY THE BUILDING OFFICIAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE TURN-AROUND TIME OF EACH PARTY AND TO MAKE APPROPRIATE TIME ALLOWANCES.
2. PLANS FOR THE DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED IN A TIMELY MANNER THAT ALLOWS A MINIMUM OF 15 WORKING DAYS FOR INITIAL PLAN REVIEW. ALL COMMENTS RELATED TO THE DEFERRED SUBMITTALS MUST BE ADDRESSED TO THE SATISFACTION OF THE PLAN CHECK DIVISION PRIOR TO THE APPROVAL OF THE SUBMITTAL ITEMS.

✓ STRUCTURAL STEEL SHOP DRAWINGS
✓ CONCRETE DESIGN MIXES.
✓ CMU GROUT & MORTAR DESIGN MIXES.
✓ ENGINEERED WOOD PRODUCTS INCLUDING I-JOISTS & GLULAMS.

✓ PREMANUFACTURED TRUSSES AND THEIR PARAPETS, SEE S002 AND S102 FOR LOADING.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

Exp. 6/30/23

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2021-101_R21
SCAL	AS NOTED
PM	
DATE	Issue Date

GENERAL NOTES

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
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S001

Project #: 2021-101_R21 Plot Date: 1/17/2023 1:10:01 PM

ABBREVIATIONS

#	POUND: NUMBER
&	AND
<	LESS THAN
>	GREATER THAN
@	AT
°	DEGREES
±	PLUS OR MINUS
Ø	DIAMETER
≤	LESS THAN OR EQUAL TO
≥	GREATER THAN OR EQUAL TO
A	AREA
AB	ANCHOR BOLT
ABV	ABOVE
ACI	AMERICAN CONCRETE INSTITUTE
ADA	AMERICANS WITH DISIBILITIES ACT
ADD'L	ADDITIONAL
ADH	ADHESIVE
ADJ	ADJACENT/ ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALUM	ALUMINUM
ANCH	ANCHOR
APPROX	APPROXIMATE/APPROXIMATELY
APPVD	APPROVED
AR	ANCHOR ROD
ARCH	ARCHITECTURAL; ARCHITECT
B / BOT / BOTT	BOTTOM
BAL	BALANCE
BC	BOTTOM CHORD
BD	BOARD
BEL	BELOW
BLD / BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAIL
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STEEL
BP	BASE PLATE
BRB	BUCKLING-RESTRAINED BRACE
BRBF	BUCKLING-RESTRAINED BRACED FRAME
BRDG	BRIDGING
BRG	BEARING
BS	BOTH SIDES
BSMT	BASEMENT
BTW	BETWEEN
BYND	BEYOND
C	CAMBER
CANT	CANTILEVER
CBC	CALIFORNIA BUILDING CODE
CBF	CONCENTRICALLY BRACED FRAME
CC	CENTER-TO-CENTER
CCR	CALIFORNIA CODE OF REGULATIONS
CF	CUBIC FEET
CG	CENTER OF GRAVITY
CHKD	CHECKERED
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR; CLEARANCE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE; CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE; COORDINATES
CP	COMPLETE PENETRATION
CTR	CENTER
CTRL JT	CONTROL JOINT
CVN	CHARPY V-NOTCH
CY	CUBIC YARD
d	PENNY(NAIL OR db)
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DBLR	DOUBLER
DEG	DEGREE
DEGF	DEGREE FAHRENHEIT
DEPR	DEPRESS; DEPRESSED; DEPRESSION
DEPT	DEPARTMENT
DET	DETAIL
DF	DOUGLAS FIR
DIA / ø	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DIM	DIMENSION
DIR	DIRECTION
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
DO	DITTO
DP	DEEP
DWG	DRAWING
DWL	DOWEL
(E) / EXIST	EXISTING
E	EAST
EA	EACH
EBF	ECCENTRICALLY BRACED FRAME
EF	EACH FACE
EFF	EFFECTIVE
EJ / EXP	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMB	EMBED; EMBEDMENT
EN	EDGE NAIL
ENGR	ENGINEER
EOP	EDGE OF PANEL
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE
ETC	ET CETERA
EW	EACH WAY
EXC	EXCAVATE
EXP	EXPANSION
EXT	EXTERIOR
F	FAHRENHEIT
F'c	CONCRETE COMPRESSIVE STRENGTH
F'm	MASONRY COMPRESSIVE STRENGTH
FAB	FABRICATE; FABRICATION; FABRICATOR
FB	FLAT BAR
Fb	ALLOWABLE BENDING STRESS
FCAW	FLUX CORED ARC WELDING
FD	FLOOR DRAIN
FDN / FOUND	FOUNDATION
FF	FINISH FLOOR; FAR FACE
FIN	FINISH
FJ	FLOOR JOIST
FLG	FLANGE
FLR	FLOOR
FN	FIELD NAILING
FO	FACE OF
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD

ABBREVIATIONS

FOW	FACE OF WALL
FP	FIREPROOF; FULL PENETRATION
FRMG	FRAMING
FS	FULL SIZE; FAR SIDE
FT	FEET/FOOT
FTG	FOOTING
FUTURE	FUTURE
Fy	YIELD STRENGTH
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERAL
GLB	GLUED-LAMINATED BEAM
GMAW	GAS METAL ARC WELDING
GR	GRADE
GRTG	GRATING
GYP BD	GYPSUM BOARD
HD	HOLDOWN
HDR	HEADER
HDWR	HARDWARE
HGR	HANGER
HK	HOOK
HORIZ	HORIZONTAL
HR	HARD ROCK; HANDRAIL
HS	HEADED STUD
HSB	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL STEEL
HT	HEIGHT
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HWS	HEADED WELD STUD
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IFC	INTERNATIONAL FIRE CODE
IMC	INTERNATIONAL MECHANCIAL CODE
INFO	INFORMATION
INSP	INSPECTION / INSPECTOR
INSUL	INSULATION
INT	INTERIOR
IPC	INTERNATIONAL PLUMBING CODE
JNT	JOINT
JST	JOIST
K	KIPS
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
LAM	LAMINATE
LB	LAG BOLT
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG / LONGIT	LONGITUDINAL
LP	LOWPOINT
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
LWC	LIGHTWEIGHT CONCRETE
M/E/P	MECHANICAL/ ELECTRICAL/ PLUMBING OR PROCESS
MAS	MASONRY
MAT	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MDF	MEDIUM DENSITY FIBERBOARD
MECH	MECHANICAL
MEZZ	MEZZANINE
MF	MOMENT FRAME
MFD	MANUFACTURED
MFG	MANUFACTURING
MFR	MANUFACTURER
MGR	MANAGER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MK	MARK
MOV	MOVEABLE
MT	MAGNETIC PARTICLE TESTING
MTL	METAL
MULTI	MULTIPLE
(N)	NEW
N	NORTH
NAT	NATURAL
NDT	NON-DESTRUCTIVE TESTING
NF	NEAR FACE
NIC	NOT IN CONTRACT
NIP	NOT IN PERMIT
NLG	NAILING
NO. / #	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTE	NOT TO EXCEED
NTS	NOT TO SCALE
NWD	NORMAL WEIGHT CONCRETE
o/	OVER
O/A	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
OWJ	OPEN WEB JOIST
PAR	PARALLEL
PC	PRECAST; PIECE; PILE CAP
PCF	POUNDS PER CUBIC FOOT
PCI	POUNDS PER CUBIC INCH
PE	PROFFESSIONAL ENGINEER
PJ	POUR JOINT; PANEL JOINT
PL	PLATE; PROPERTY LINE
PLB	PARALLAM BEAM
PLMB	PLUMBING
PLY / PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PS	PRESTRESS; PRESTRESSED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED / PORCELAIN TILE
PVMT	PAVEMENT
PWJ	PLYWOOD WEB JOIST
RAD	RADIUS
RAFT	RAFTER
RBS	REDUCED BEAM SECTION
RD	ROOF DRAIN; ROAD
REF	REFERENCE
REG	REGULAR
REINF	REINFORCING; REINFORCE
REMOV	REMOVE; REMOVEABLE
REQ	REQUIRED
RET	RETAINING
REV	REVISION
RF	ROOF
RJ	ROOF JOIST
RM	ROOM
RO	ROUGH OPENING

ABBREVIATIONS

RR	ROOF RAFTER
S	SOUTH
SAD	SEE ARCHITECTURAL DRAWINGS
SAW	SUBMERGED ARC WELDING
SCHED	SCHEDULE
SCL	STRUCTURAL COMPOSITE LUMBER
SCL	
SF	SQUARE FEET
SFRS	SEISMIC FORCE RESISTING SYSTEM
SHTG / SHT'G	SHEATHING
SIM	SIMILAR
SLRS	SEISMIC LOAD RESISTIVE SYSTEM
SLV	SLEEVE
SMS	SHEET METAL SCREW
SOG	SLAB ON GRADE
SPA/SPC	SPACES
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	SELECT STRUCTURAL; STAINLESS STEEL
SSH	SHORT SLOTTED HOLES
STAGG	STAGGER; STAGGERED
STD	STANDARD
STIFF	STIFFENER
STIRR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL
SW	SHEAR WALL
SYM	SYMMETRICAL
T	TOP
T&B	TOP AND BOTTOM
T&G	TONGUE & GROOVE
T/	TOP OF
TB	TIE BEAM
TEMP	TEMPERATURE / TEMPORARY
THK / THKN	THICK / THICKNESS
THRU	THROUGH
TL	TOTAL LOAD
TN	TOE NAIL
TOB	TOP OF BEAM
TOC	TOP OF CURB; TOP OF CONCRETE; TOP CHORD
TOF	TOP OF FOOTING
TOL	TOP OF LEDGER
TOS	TOP OF STEEL
TOSH	TOP OF SHEAR WALL
TOSL	TOP OF SLAB
TOW	TOP OF WALL
TRANS / TRANSV	TRANSVERSE
TS	TUBE STEEL
TSG	TAPERED STEEL GIRDER
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY, INC
UNO / UON	UNLESS NOTED OTHERWISE
UT	ULTRASONIC TEST
VERT	VERTICAL
VFY	VERIFY
VIF	VERIFY IN FIELD
W	WEST
w/	WITH
W/C	WATER/CEMENT
W/O	WITHOUT
WD	WOOD
WF	WIDE FLANGE
WP	WATERPROOF; WORK POINT
WPS	WELD PROCEDURE SPECIFICATIONS
WS	WATER STOP / WELDED STUD
WT / WHT	WEIGHT
WWF	WELDED WIRE FABRIC

EPOXY ANCHORS & REBAR IN HARDENED CONCRETE

1. EPOXY ANCHOR SYSTEMS:
   A. CONCRETE: SIMPSON SET-XP (ICC ESR-2508) USE ONLY ADHESIVE ANCHOR SYSTEMS THAT HAVE BEEN PRE-QUALIFIED IN ACCORDANCE WITH THE PROVISIONS OF ICC-ES AC308, APPROVED FOR USE IN CRACKED CONCRETE. ANCHOR SYSTEMS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE ICC-ES EVALUATION SERVICES REPORT FOR THE SPECIFIC ANCHOR, OR AS REQUIRED BY THE MANUFACTURER.
2. REINFORCEMENT BARS SHALL BE ASTM A615 GRADE 60 STEEL. THREADED RODS SHALL BE ASTM F1554 GR 36 (PLAIN) OR ASTM A193 GR B8 (STAINLESS).
3. REMOVE GREASE OIL, RUST AND ANY OTHER LAITANCE FROM RODS AND DOWELS PRIOR TO INSTALLATION.
4. THE SPECIAL INSPECTOR SHALL BE ON THE JOBSITE CONTINUOUSLY DURING ANCHOR INSTALLATIONS, UNLESS OTHERWISE NOTED IN ICC-ES ESR, TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYP, CONCRETE COMPRESSIVE STRENGTH, HOLE DIMENSIONS, ANCHOR SPACING, EDGE DISTANCES, SLAB THICKNESS, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE.
5. THE TENSION TESTING OF THE CHEMICAL ANCHORS SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY. IF ANY ANCHORS FAIL THE TENSION-TESTING REQUIREMENTS, THE ADDITIONAL TESTING REQUIREMENTS SHALL BE ACCEPTABLE TO THE ENFORCEMENT AGENCY.
6. TEST QUANTITY OF ANCHORS AS NOTED BELOW:

APPLICATION	QUANTITY
STRUCTURAL	100% OF BOLTS
NON-STRUCTURAL	50% OF BOLTS

7. ANCHORS TO BE TESTED SHALL BE SELECTED AT RANDOM BY THE SPECIAL INSPECTOR.
8. ALL TESTING SHALL BE PERFORMED A MINIMUM OF 24 HOURS AFTER INSTALLATION OF THE SUBJECT ANCHORS.
9. WHERE ADHESIVE ANCHOR SYSTEMS ARE USED TO INSTALL REINFORCING DOWEL BARS IN HARDENED CONCRETE, ONLY 25% OF THE DOWELS NEED BE TESTED IF THE FOLLOWING CONDITIONS ARE MET:
   A. THE DOWELS ARE USED EXCLUSIVELY TO TRANSMIT SHEAR FORCES ACROSS JOINTS BETWEEN EXISTING AND NEW CONCRETE.
   B. THE NUMBER OF DOWELS IN ANY ONE MEMBER EQUALS OR EXCEEDS 12.
   C. THE DOWELS ARE UNIFORMLY DISTRIBUTED ACROSS SEISMIC FORCE RESISTING MEMBERS (SUCH AS SHEAR WALLS, COLLECTORS AND DIAPHRAGMS)
10. TESTING OF SHEAR DOWELS ACROSS COLD JOINTS IN SLAB ON GRADE WHERE THE SLAB IS NOT PART OF THE LATERAL FORCE-RESISTING SYSTEM IS NOT REQUIRED.
11. REPLACE ANCHORS AND DOWELS THAT FAIL DURING TESTING AND RETEST. IF MORE THAN 10% OF THE TESTED DOWELS AND ANCHORS FAIL TO ACHIEVE THE SPECIFIED TEST LOAD, TEST 100% OF THE DOWELS AND ANCHORS IN THE LAST 2 DAYS OF ANCHOR INSTALLATION.
12. A HYDRAULIC CYLINDER SHALL BE USED TO APPLY THE TENSION TEST LOAD TO THE ANCHOR WITH THE CYLINDER SUPPORTED ON A LOADING PLATE HAVING A HOLE DIAMETER EQUAL TO 1.5 TO 2.0 TIMES THE ANCHOR HOLE DIAMETER (CONFINED CONFIGURATION) UNLESS OTHERWISE APPROVED BY ENFORCEMENT AGENCY.
13. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
   A. HYDRAULIC RAM METHOD: THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD.
14. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME TYPE, INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY.
15. ALL HOLES FOR POST-INSTALLED ANCHORS SHALL BE DRILLED, CLEANED ANd PREPARED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS OR THE APPLICABLE ICC-ESR. ALL DEBRIS SHALL BE REMOVED BY IN-HOLE BRUSHING COMBINED WITH VACUUM OR OIL-FREE COMPRESSED AIR. JETTING HOLES WITH WATER IS NOT PERMITTED. WHERE AN ANCHOR DOES NOT SET PROPERLY, OR FAILS A TENSION TEST, OR REINFORCEMENT IS ENCOUNTERED DURING DRILLING, THE DRILLED HOLE MAY NOT BE REUSED. ABANDONED HOLES SHALL BE FILLED WITH NON- SHRINK GROUT. THE MINIMUM SPACING BETWEEN AND ABANDONED HOLE AND A DRILLED HOLE USED FOR A POST-INSTALLED ANCHOR SHALL NOT BE LESS THAN 1 1/2 ANCHOR DIAMETERS UNLESS OTHERWISE APPROVED BY THE ENFORCEMENT AGENCY. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER OR RECORD WILL DETERMINE A NEW LOCATION.
16. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH ADHESIVE ANCHORS.
17. ADHESIVE ANCHORS TO BE INSTALLED OVERHEAD ANY DEPTH, OR HORIZONTALLY MORE THAN 8" DEEP, SHALL USE SIMPSON 'PISTON PLUG DELIVERY SYSTEM'. REFER TO ICC ESR-2538 FOR INSTALLATION SEQUENCE & PISTON PLUG SELECTION.
18. REQUIRED TEST LOADS SHALL BE DETERMINED AS SUMMARIZED IN THE TABLE BELOW:

TENSION LOADS (POUNDS)
SIMPSON SET-XP (ICC-ES ESR-2508)
CRACKED CONCRETE, SEISMIC (ASD) CONDITION B

NOMINAL BAR SIZE DIA (IN)	EMBEDMENT DEPTH, HEF (IN)	NORMAL - WEIGHT CONCRETE F'c = 3000 PSI (MIN.)
#4	2 3/4	3456
#4	6	7540
#5	5	7854
#5	7 1/2	11781
#6	9	16965

ADHESIVE THREADED ROD & REBAR (CONCRETE & MASONRY)

1. ADHESIVE ANCHOR SYSTEMS IN CONCRETE:
   A. SIMPSON SET-XP (ESR-2508).
   B. SIMPSON'S SET-3G (ESR-4057).
   C. HILTI 'HIT-RE 500 V3 (ESR-3814).
   D. USE ONLY ADHESIVE ANCHOR SYSTEMS THAT HAVE BEEN PRE-QUALIFIED IN ACCORDANCE WITH THE PROVISIONS OF ICC-ES AC308, APPROVED FOR USE IN CRACKED CONCRETE.ANCHOR SYSTEMS SHALL BE INSTALLED PER THE REQUIREMENTS OF THEICC-ES EVALUATION SERVICES REPORT FOR THE SPECIFIC ANCHOR, OR AS REQUIRED BY THE MANUFACTURER.
   E. INSTALLING PERSONEL FOR UPWARDLY INCLINED OR VERTICAL OVERHEAD INSTALLATIONS SHALL POSSESS SPECIAL ACI CERTIFIACTION FOR THAT TYPE OF INSTALATION.
2. ADHESIVE ANCHOR SYSTEMS IN MASONRY:
   A. SIMPSON 'SET-XP' (IAPMO ER-265)
   B. SIMPSON 'SET' (ICC ESR-1792)
   C. USE ONLY ADHESIVE ANCHOR SYSTEMS THAT HAVE BEEN PRE-QUALIFIED IN ACCORDANCE WITH THE PROVISIONS OF ICC-ES AC58 (CMU) OR AC60 (URM). INSTALL PER THE EVALUATION REPORT & AS REQUIRED BY MANUFACTURER.
3. REINFORCEMENT BARS SHALL BE ASTM A615 GRADE 60 STEEL OR ASTM 706. THREADED RODS SHALL BE ASTM F1554 GR 36 (PLAIN) OR ASTM A193 GR B8 (STAINLESS).
4. REMOVE GREASE OIL, RUST AND ANY OTHER LAITANCE FROM RODS AND DOWELS PRIOR TO INSTALLATION.
5. THE SPECIAL INSPECTOR SHALL BE ON THE JOBSITE CONTINUOUSLY DURING ANCHOR INSTALLATIONS, UNLESS OTHERWISE NOTED IN ICC-ES ESR, TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, HOLE DIMENSIONS, ANCHOR SPACING, EDGE DISTANCES, SLAB THICKNESS, ANCHOR EMBEDMENT, AND ADHESIVE TYPE.
6. THE TENSION TESTING OF ADHESIVE ANCHORS SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY. IF ANY ANCHORS FAIL THE TENSION-TESTING REQUIREMENTS, THE ADDITIONAL TESTING REQUIREMENTS SHALL BE ACCEPTABLE TO THE ENFORCEMENT AGENCY.
7. TEST QUANTITY OF ANCHORS AS NOTED BELOW:

APPLICATION	QUANTITY
STRUCTURAL	100% OF ANCHORS
NON-STRUCTURAL	50% OF ANCHORS

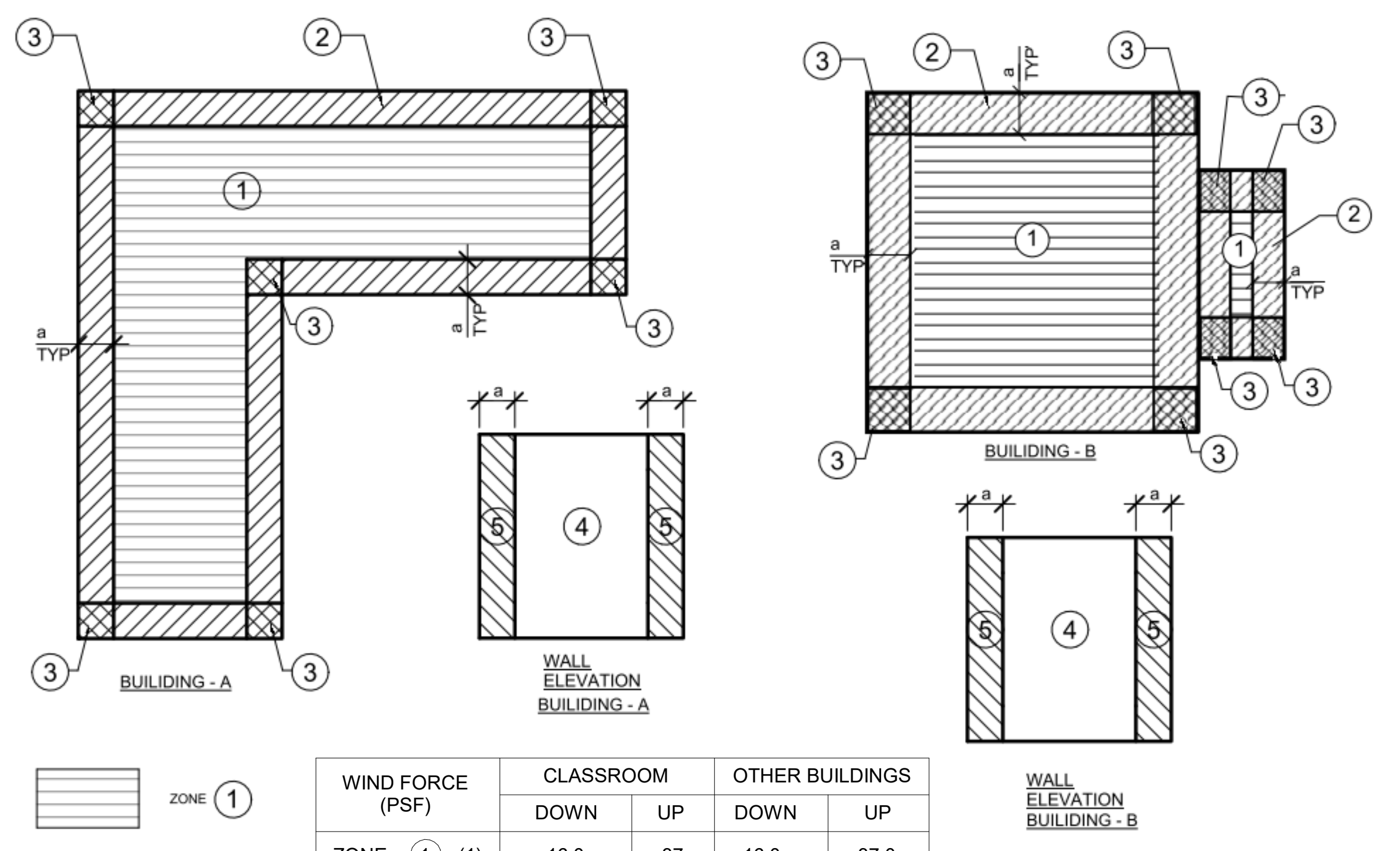
8. ANCHORS TO BE TESTED SHALL BE SELECTED AT RANDOM BY THE SPECIAL INSPECTOR.
9. ALL TESTING SHALL BE PERFORMED A MINIMUM OF 24 HOURS AFTER INSTALLATION OF THE SUBJECT ANCHORS.
10. WHERE ADHESIVE ANCHOR SYSTEMS ARE USED TO INSTALL REINFORCING DOWEL BARS IN HARDENED CONCRETE, ONLY 25% OF THE DOWELS NEED BE TESTED IF THE FOLLOWING CONDITIONS ARE MET:
    A. THE DOWELS ARE USED EXCLUSIVELY TO TRANSMIT SHEAR FORCES ACROSS JOINTS BETWEEN EXISTING AND NEW CONCRETE.
    B. THE NUMBER OF DOWELS IN ANY ONE MEMBER EQUALS OR EXCEEDS 12.
    C. THE DOWELS ARE UNIFORMLY DISTRIBUTED ACROSS SEISMIC FORCE RESISTING MEMBERS (SUCH AS SHEAR WALLS, COLLECTORS AND DIAPHRAGMS)
11. TESTING OF SHEAR DOWELS ACROSS COLD JOINTS IN SLAB ON GRADE WHERE THE SLAB IS NOT PART OF THE LATERAL FORCE-RESISTING SYSTEM IS NOT REQUIRED.
12. REPLACE ANCHORS AND DOWELS THAT FAIL DURING TESTING AND RETEST. IF MORE THAN 10% OF THE TESTED DOWELS AND ANCHORS FAIL TO ACHIEVE THE SPECIFIED TEST LOAD, TEST 100% OF THE DOWELS AND ANCHORS IN THE LAST 2 DAYS OF ANCHOR INSTALLATION.
13. A HYDRAULIC CYLINDER SHALL BE USED TO APPLY THE TENSION TEST LOAD TO THE ANCHOR WITH THE CYLINDER SUPPORTED ON A LOADING PLATE HAVING A HOLE DIAMETER EQUAL TO 1.5 TO 2.0 TIMES THE ANCHOR HOLE DIAMETER (CONFINED CONFIGURATION) UNLESS OTHERWISE APPROVED BY ENFORCEMENT AGENCY.
14. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
    A. HYDRAULIC RAM METHOD: THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD.
15. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME TYPE, INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY.
16. ALL HOLES FOR POST-INSTALLED ANCHORS SHALL BE DRILLED, CLEANED AND PREPARED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS OR THE APPLICABLE ICC-ESR. ALL DEBRIS SHALL BE REMOVED BY IN-HOLE BRUSHING COMBINED WITH VACUUM OR OIL-FREE COMPRESSED AIR. JETTING HOLES WITH WATER IS NOT PERMITTED. WHERE AN ANCHOR DOES NOT SET PROPERLY, OR FAILS A TENSION TEST, OR REINFORCEMENT IS ENCOUNTERED DURING DRILLING, THE DRILLED HOLE MAY NOT BE REUSED. ABANDONED HOLES SHALL BE FILLED WITH NON-SHRINK GROUT. THE MINIMUM SPACING BETWEEN AND ABANDONED HOLE AND A DRILLED HOLE USED FOR A POST-INSTALLED ANCHOR SHALL NOT BE LESS THAN 1 1/2 ANCHOR DIAMETERS UNLESS OTHERWISE APPROVED BY THE ENFORCEMENT AGENCY. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER OR RECORD WILL DETERMINE A NEW LOCATION.
17. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH ADHESIVE ANCHORS.
18. ADHESIVE ANCHORS TO BE INSTALLED OVERHEAD ANY DEPTH, OR HORIZONTALLY MORE THAN 8" DEEP, SHALL USE SIMPSON 'PISTON PLUG DELIVERY SYSTEM'. REFER TO (ESR-2538) FOR INSTALLATION SEQUENCE & PISTON PLUG SELECTION.
19. REQUIRED TEST LOADS SHALL BE DETERMINED AS 1.25 TIMES THE MAXIMUM DESIGN STRENGTH OF ANCHOR AS DETERMIND BY ACI 318 CH17.

MECHANICAL ANCHORS IN CONCRETE

1. MECHANICAL ANCHOR SYSTEMS:
   A. SIMPSON STRONG-BOLT 2 (ESR-3037).
   B. HILTI 'KB-TZ' (ESR-1917).
   C. SIMPSON TITEN HD (-ESR-2713).
   ONLY MECHANICAL ANCHOR SYSTEMS THAT HAVE BEEN PRE-QUALIFIED IN ACCORDANCE WITH THE PROVISIONS OF ICC-ES AC193, AND APPROVED FOR USE IN CRACKED CONCRETE. ANCHOR SYSTEMS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE ICC-ES EVALUATION SERVICES REPORT FOR THE SPECIFIC ANCHOR, OR AS REQUIRED BY THE MANUFACTURER.
   D. HILTI '"KWIK HUS-EZ"(ESR-3027).
   E. USE ONLY MECHANICAL ANCHOR SYSTEMS THAT HAVE BEEN PRE-QUALIFIED IN ACCORDANCE WITH THE PROVISIONS OF ICC-ES AC193, AND APPROVED FOR USE IN CRACKED CONCRETE. ANCHOR SYSTEMS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE ICC-ES EVALUATION SERVICES REPORT FOR THE SPECIFIC ANCHOR, OR AS REQUIRED BY THE MANUFACTURER.
   F. ANCHOR DIAMETER REFERS TO THE ANCHOR SIZE AND NOT THE DIAMETER OF THE HOLE. REFER TO THE MANUFACTURER'S INSTRUCTIONS FOR REQUIRED DIAMETER OF DRILLED HOLE.
   G. HILTI 'KB3' (ESR-1385)
2. WHERE THE MANUFACTURER'S INSTALLATION INSTRUCTIONS OR APPLICABLE ICC-ESR CALL FOR THE APPLICATION OF AN INSTALLATION TORQUE, THE SPECIFIED TORQUE SHALL BE APPLIED WITH A CALIBRATED TORQUE WRENCH. FOLLOWING ATTAINMENT OF10% OF THE SPECIFIED TORQUE, 100% OF THE SPECIFIED TORQUE SHALL BE REACHED WITHIN 7 OR FEWER COMPLETE TURNS OF NUT. THE SPECIFIED INSTALLATION TORQUE SHALL NOT BE EXCEEDED.
3. USE OF ZINC-COATED CARBON STEEL ANCHORS IS LIMITED TO DRY, INTERIOR LOCATIONS, UNLESS OTHERWISE NOTED. PROVIDE STAINLESS STEEL OR HOT-DIP GALVANIZED ANCHORS FOR APPLICATIONS EXPOSED TO EXTERIOR WEATHER CONDITIONS.
4. WHERE MECHANICAL ANCHORS ARE USED IN A STANDOFF CONFIGURATION (I.E., WHERE THE ATTACHMENT IS PREPARED FROM THE CONCRETE IN WHICH THE ANCHOR IS INSTALLED), A NUT AND WASHER SHALL BE PROVIDED AT THE CONCRETE SURFACE TO FACILITATE SETTING OF THE ANCHOR AND TO TRANSMIT AXIAL COMPRESSION LOADS INTO CONCRETE.
5. THE SPECIAL INSPECTOR SHALL BE ON THE JOBSITE CONTINUOUSLY DURING ANCHOR INSTALLATIONS, UNLESS OTHERWISE NOTED IN ICC-ES ESR, TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, HOLE DIMENSIONS, ANCHOR SPACINGS, EDGE DISTANCES, SLAB THICKNESS, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE.
6. THE TENSION TESTING OF THE MECHANICAL ANCHORS SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR AND REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY. IF ANY ANCHORS FAIL THE TENSION-TESTING REQUIREMENTS, THE ADDITIONAL TESTING REQUIREMENTS SHALL BE ACCEPTABLE TO THE ENFORCEMENT AGENCY.
7. TEST QUANTITY OF ANCHORS AS NOTED BELOW:

APPLICATION	QUANTITY
STRUCTURAL	100% OF BOLTS (10% FOR SILL PLATES)
NON-STRUCTURAL	50% OF BOLTS

8. ANCHORS TO BE TESTED SHALL BE SELECTED AT RANDOM BY THE INSPECTOR.
9. ALL TESTING SHALL BE PERFORMED A MINIMUM OF 24 HOURS AFTER INSTALLATION.
10. UNDERCUT ANCHORS THAT ALLOW VISUAL CONFIRMATION OF FULL SET NEED NOT TO BE TESTED, UNLESS OTHERWISE NOTED BY ENFORCEMENT AGENCY OR ENGINEER OF RECORD.
11. WHERE THE DESIGN TENSION ON ANCHORS IS LESS THAN 100 POUNDS AND THOSE ANCHORS ARE CLEARLY IDENTIFIED ON THE CONTRACT DOCUMENTS, ONLY 10 PERCENT OF THOSE ANCHORS NEED BE TESTED, UNLESS OTHERWISE NOTED BY ENFORCEMENT AGENCY OR ENGINEER OF RECORD.
12. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
    A. HYDRAULIC RAM METHOD: THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR MECHANICAL ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENTS IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
    B. TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN ONE-HALF (1/2) TURN OF THE NUT.
    C. USE OF CALIBRATED SPRING LOADED DEVICES.
13. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME TYPE, INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20 CONSECUTIVE ANCHOR PASS, THEN RESUME THE INITIAL TEST FREQUENCY.
14. WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND DRILLED-IN ANCHOR.
15. IF REBAR IS ENCOUNTERED DURING THE DRILLING, THE CONTRACTOR SHALL IMMEDIATELY TERMINATE DRILLING AND CONTACT THE ENGINEER OF RECORD. THE ENGINEER OF RECORD WILL AUTHORIZE USING ONE OF THE FOLLOWING PROCEDURES:
    A. IF THE ANCHOR MAY BE SHIFTED, FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT THE MINIMUM SPACING BETWEEN AN ABANDONED HOLE AND A DRILLED HOLE USED FOR A POST INSTALLED ANCHOR SHALL NOT BE LESS THAN 1-1/2 ANCHOR DIAMETERS UNLESS OTHERWISE APPROVED BY THE ENFORCEMENT AGENCY.
    B. IF THE ANCHOR LOCATION MAY NOT BE SHIFTED, CORE AN OVERSIZE HOLE AT THE DIRECTION OF THE ENGINEER OF RECORD AND GROUT AN APPROVED ANCHOR PLACE.
16. IF THE CONCRETE CRACKS DURING THE INSTALLATION OF THE ANCHOR, THE ANCHOR SHALL BE REMOVED OR ABANDONED.
17. MAXIMUM INSTALLATION TOREQUE SHALL BE PER MFR'S CODE EVALUATION REPORT.
18. FOR THE ANCHORS INSTALLED INTO CONCRETE USING SIMPSON STRONG-BOLT 2 (ICC ESR 3037, LAAR 25891)



▤ ZONE ①
▨ ZONE ②
▩ ZONE ③
☐ ZONE ④
▧ ZONE ⑤

WIND FORCE (PSF)	CLASSROOM		OTHER BUILDINGS	
	DOWN	UP	DOWN	UP
ZONE ① (1)	16.0	-37	16.0	-37.0
ZONE ② (1)	16.0	-48.7	16.0	-48.7
ZONE ③ (1)	16.0	-66.4	16.0	-66.4
	(+)	(-)	(+)	(-)
ZONE ④ (4)	23.2	-25.2	23.2	-25.2
ZONE ⑤ (4)	23.2	-31.1	23.2	-31.1
a	4'-0"		6'-0"	

PARAPET WIND PRESSURE	WINDWARD	+	LEEWARD	=	TOTAL
CASE A	23.22 PSF (ZONES)	-	(-31.09 PSF (ZONES 5))	=	54.31 PSF
CASE B	23.22 PSF (ZONES)	-	(-64.09 PSF (ZONES 3))	=	89.66 PSF

NOTES:
1. LOADS SHOWN ARE WIND LOADS FOR COMPONENTS AND CLADDING TO BE USED FOR THE DESIGN OF ROOFING ATTACHMENT, ROOF JOIST AND JOIST GIRDERS, IN ACCORDANCE WITH FIGURE 30.4-2A OF ASCE7
2. LOADS SHOWN ABOVE SHALL BE MULTIPLIED BY THE JOIST SPACING TO OBTAIN PLF LOADS ON INDIVIDUAL JOISTS
3. LOADS SHOWN ARE ULTIMATE WIND LOADS CALCULATED IN ACCORDANCE WITH ASCE7, CHAPTER 30, PART 1
4. LOADS SHOWN ARE WIND LOADS FOR COMPONENT AND CLADDING USED FOR WALL, STUDS, POST AND WALL ATTACHEMENTS 30.3-1 OF ASCE 7-16

① COMPONENTS ANC CLADDING WIND LOAD MAP

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PETER SARKIS
No. 5038
Exp. 6/30/23

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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GENRAL NOTES & ABBREVIATIONS

PERKINS EASTMAN

3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S002

Project #: 2021-101_R21 Plot Date: 1/17/2023 1:10:05 PM

FOUNDATION LEGEND:

INDICATES SHEAR PANEL EXTENT. SHEAR WALL MARK PER **3/S621**

2.5 4' - 0" INDICATES MINIMUM SHEAR PANEL LENGTH

4x4 INDICATES WOOD POST

INDICATES SLAB DEPRESSION PER **9/S301** U.N.O. ON PLAN

4'/3'/12' 2.5 INDICATES MINIMUM INDIVIDUAL SHEAR PANEL LENGTHS AROUND OPENINGS.

INDICATES SHEAR PANEL AROUND OPENING PER DET **1/S622**

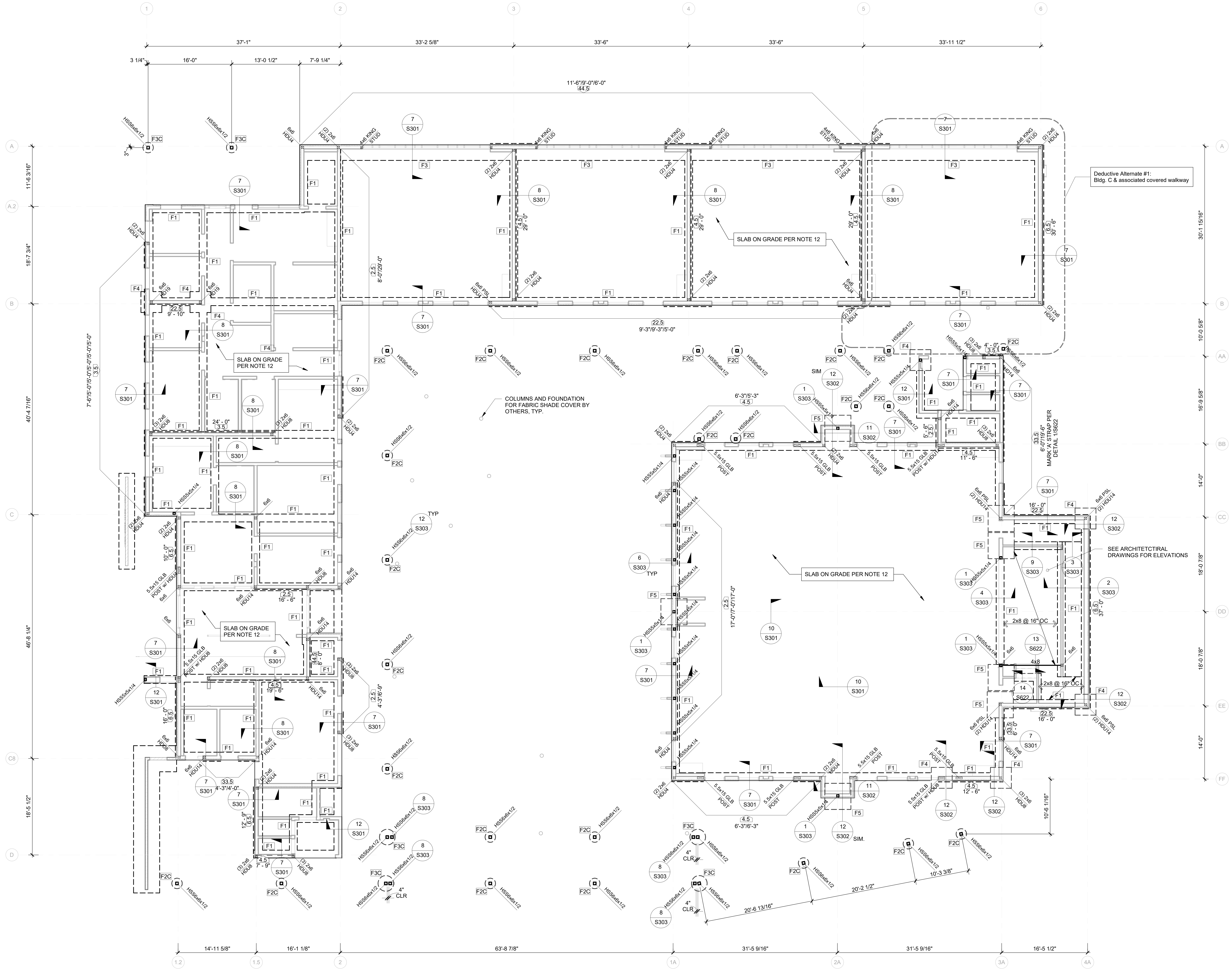
TOS = 0'-0" INDICATES TOP OF SLAB ELEVATION FROM 0'-0"

TOF = - X-X" INDICATES TOP OF FOOTING ELEVATION. TOF = -1' - 0", UNO.

PAD FOOTING SCHEDULE - SEE DETAIL 12/S302 AND 1/S303				
SYMBOL	WIDTH	LENGTH	DEPTH	REINFORCEMENT
F1	1'-6"	CONT	1'-3"	(2) #5 T&B
F2C	2'-0" ⌀		4'-6"	(8) #7 VERT
F3C	3'-0" ⌀		4'-6"	(14) #8 VERT
F3	3'-0"	CONT	1'-3"	(3) #5 T&B
F4	4'-0"	4'-0"	1'-3"	#5 BOTT EW @ 8" OC T&B
F5	5'-0"	5'-0"	1'-3"	#5 BOTT EW @ 6" OC T&B

FOUNDATION NOTES:

1. FOR GENERAL NOTES AND ABBREVIATIONS SEE SHEETS **S001** & **S002**.
2. FOR TYPICAL CONCRETE DETAILS SEE **S300** SERIES SHEETS.
3. FOR TYPICAL STEEL DETAILS SEE **S500** SERIES SHEETS.
4. FOR TYPICAL WOOD DETAILS SEE **S600** SERIES SHEETS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR CURBS, RAMPS, DRAINS, EXTERIOR SLABS, PITS, SWALES, TRENCHES, OPENINGS, DIMENSIONS, TOP OF SHEATHING & TOP OF PARAPET ELEVATIONS NOT SHOWN ON PLANS, ETC.
6. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS DEPRESSIONS, CURBS ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
7. SEE CIVIL & LANDSCAPE DRAWINGS FOR ELEVATIONS AND SLOPES.
8. CONTRACTOR TO VERIFY & COORDINATE LOCATIONS OF MECHANICAL AND ELECTRICAL UNITS WITH MECHANICAL AND ELECTRICAL ENGINEER.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ANY DISCREPANCY PRIOR TO POUR. NOTIFY THE ENGINEER FOR CORRECTIVE MEASURES.
10. ALL HOLDOWNS, ANCHOR BOLTS, STRAPS, POST BASES & REINFORCMENT MUST BE TIED IN PLACE PRIOR TO THE FOUNDATION INSPECTION & PLACEMENT OF CONCRETE.
11. DEPRESSED AREAS FOR TILE FLOORING SHALL HAVE ROUGHENED SURFACE TO ALLOW FOR BONDING OF MORTAR. REFER TO ARCHITECTURAL FOR LOCATIONS.
12. 5" THICK SLAB-ON-GRADE WITH #4 @ 18" OC EW AT MID-DEPTH OF SLAB. PROVIDE 15 MIL HDPE VAPOR BARRIER CENTERED IN 4" OF SAND PER GEOTECHNICAL REPORT. SEE DETAIL 3/S301.
13. ALL WALLS TO BE FRAMED WITH 2x6 STUDS, NO 2 OR BETTER.



FOUNDATION PLAN 1

1/8" = 1'-0"

N

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STRUCTURAL

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FOUNDATION PLAN

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S101

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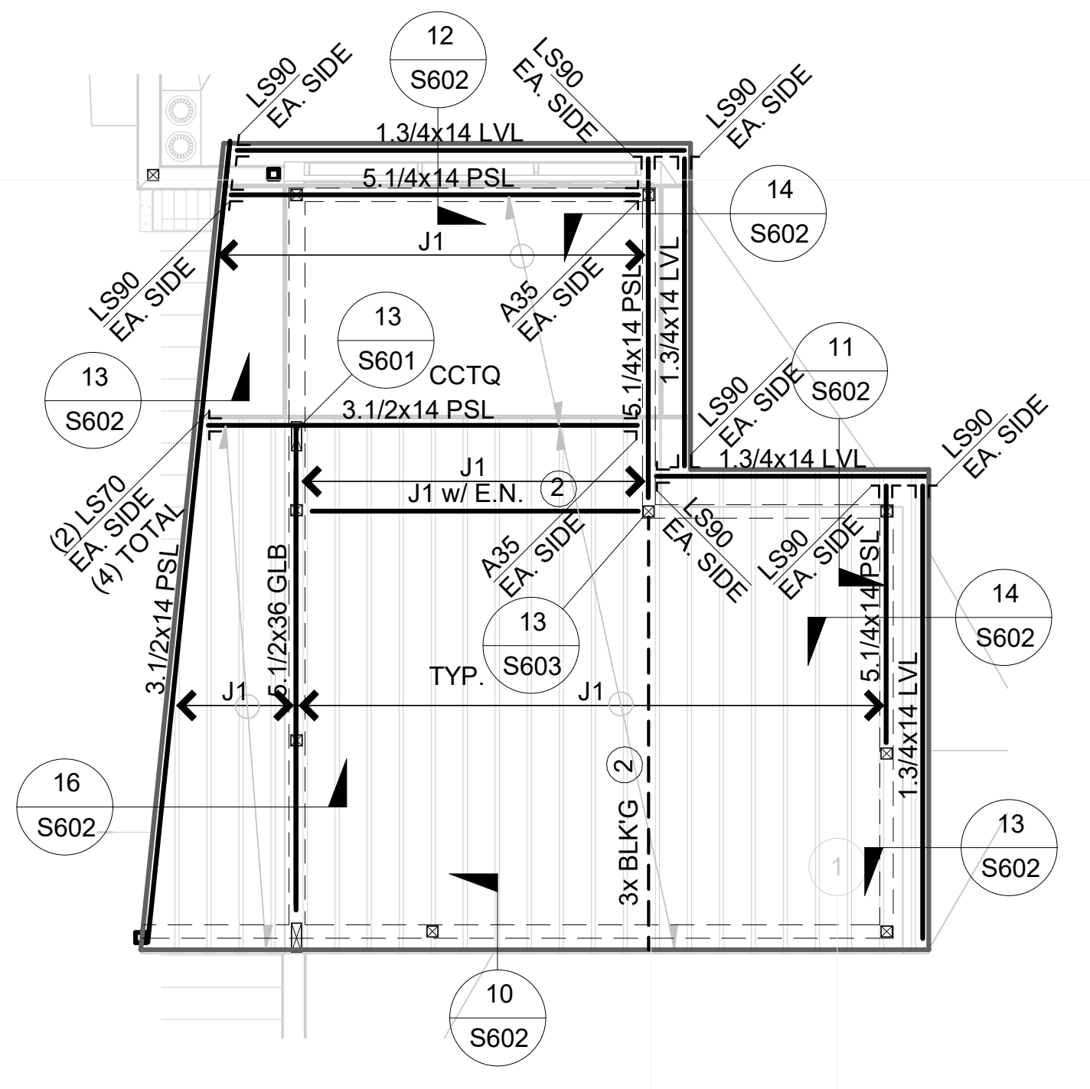
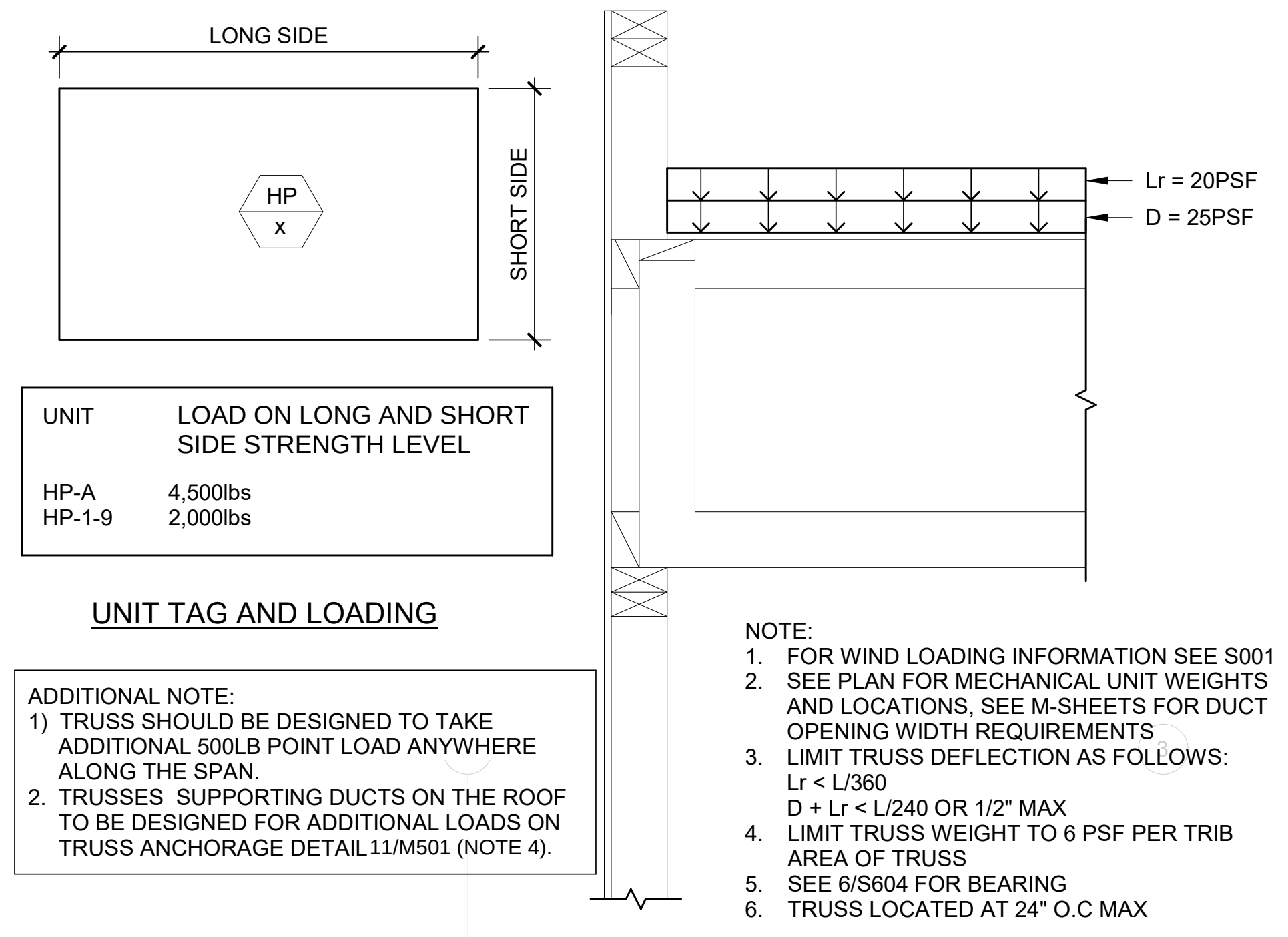


UPPER ROOF FRAMING PLAN

1/8" = 1'-0" 2



UNIT	LOAD ON LONG AND SHORT SIDE STRENGTH LEVEL
HP-A	4,500lbs
HP-1-9	2,000lbs

UNIT TAG AND LOADING

ADDITIONAL NOTE:
1) TRUSS SHOULD BE DESIGNED TO TAKE ADDITIONAL 500LB POINT LOAD ANYWHERE ALONG THE SPAN.
2. TRUSSES SUPPORTING DUCTS ON THE ROOF TO BE DESIGNED FOR ADDITIONAL LOADS ON TRUSS ANCHORAGE DETAIL 11/M501 (NOTE 4).

NOTE:
1. FOR WIND LOADING INFORMATION SEE S001
2. SEE PLAN FOR MECHANICAL UNIT WEIGHTS AND LOCATIONS, SEE M-SHEETS FOR DUCT OPENING WIDTH REQUIREMENTS
3. LIMIT TRUSS DEFLECTION AS FOLLOWS:
Lr < L/360
D + Lr < L/240 OR 1/2" MAX
4. LIMIT TRUSS WEIGHT TO 6 PSF PER TRIB AREA OF TRUSS
5. SEE 6/S604 FOR BEARING
6. TRUSS LOCATED AT 24" O.C MAX

TRUSS LOADING

SCALE: NTS 3

FRAMING NOTES:

1. FOR GENERAL NOTES AND ABBREVIATIONS SEE SHEETS **S001** & **S002**
2. FOR TYPICAL STEEL DETAILS SEE **S500** SERIES SHEETS
3. FOR TYPICAL WOOD DETAILS SEE **S600** SERIES SHEETS
4. REFER TO ARCHITECTURAL DRAWINGS FOR CURBS, RAMPS, DRAINS, EXTERIOR SLABS, PITS, SWALES, TRENCHES, OPENINGS, DIMENSIONS, TOP OF SHEATHING & TOP OF PARAPET ELEVATIONS NOT SHOWN ON PLANS, ETC.
5. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS DEPRESSIONS, CURBS ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
6. CONTRACTOR TO VERIFY & COORDINATE LOCATIONS OF MECHANICAL UNITS WITH MECHANICAL ENGINEER.
7. TYPICAL ROOF SHEATHING:
19/32 PLYWOOD SEE NOTES ON **S001**, UNBLOCKED 32/16 w/ 8d @6" OC BN, EN, & 12" OC FN PER DET **11/S622** (TYP. UNO)
8. PSL = PARALAM BEAM BY WEYERHAEUSER WITH E=2.0.10 6 PSI OR E=2.2.10 6 PSI AS SHOWN
9. LVL = LAMINATED VENEER LUMBER. PARALLEL STRAND LUMBER w/ 2.0E MAY BE USED IN LIEU OF LVL.
10. PROVIDE 1.5" GA 20 METAL DECK (8'-0" MAX SPAN) IN THE SPAN DIRECTION SHOWN. 2-SPAN OR 3-SPAN CONDITION REQUIRED
11. P.E. (PRE-ENGINEERED) GIRDER TRUSS DESIGNED FOR THE FOLLOWING POINT LOAD AT THE END OF THE CANTILEVERED BOTTOM CHORD. SEE DETAILS 9/S604 AND 10/S604 FOR MORE INFO.
D = 0.32 KIPS
Lr = 0.37 KIPS
12. ATTACH STRAP TO WALL TOP PLATE PER 3/S622. FIELD WELD STRAP TO TOP C-CHANNEL RIM BEAM WITH 4" MIN. FULL STRENGTH WELD
13. PROVIDE CMST12 STRAP (2-STRAPS WHERE INDICATED) CONNECTING P.E. ROOF TRUSS TOP CHORDS BETWEEN STEEL BEAMS w/ (43) 10d NAILS EA TRUSS. STRAP MAY BE APPLIED TO TOP OF TRUSS OVER SHEATHING, OR TO SIDE OF TRUSS TOP CHORD (THRU STEEL BEAM NAILER).
14. PROVIDE 2-CMST12 STRAPS, ONE EA SIDE OF WALL, CONNECTED TO SIDE OF WALL DOUBLE TOP PLATE w/ (43) 10d NAILS EA. STRAP AND WELD END OF STRAP TO SIDE OF STEEL COLUMN WITH FULL STRENGTH WELD.
15. DEFERRED SUBMITTAL FOR ROOF TRUSSES INCLUDING UPLIFT CONNECTION TO THE STRUCTURE, ALL TRUSS-TO-TRUSS CONNECTIONS, AND ALL OTHER REQUIRED HARDWARE. SEE **3/S102** FOR TRUSS DESIGN INFORMATION.
16. WHERE TRUSS MANUFACTURER SEEMS PARAPET BRACING IS NEEDED, SEE **16/S603** FOR BRACING AND LOADING.
17. SEE 12/S603 MIN. 3-1/2" TOP CHORD

FRAMING LEGEND

HDR	HEADER PER DETAILS 1 & 2/S601 ALIGN BOTTOM OF HEADER AT TOP OPENING
6x	FLUSH BEAM DEPTH OF BEAM MATCHES JOIST DEPTH. AT PERPENDICULAR WALL, PROVIDE POST TO MATCH BEAM WIDTH & WALL DEPTH, SEE DETAIL 3/S602
6x DROP	DROP BEAM, ALIGN TOP BEAM W/ BOTTOM OF JOISTS. AT PERPENDICULAR WALL, PROVIDE TRIMMER TO MATCH BEAM WIDTH & WALL DEPTH.
⊕	J# - ROOF JOISTS SEE JOIST SCHEDULE
	P.E. (PRE-ENGINEER) TRUSSES SEE DETAIL 3/S102 FOR LOADING
4x HDU ☒	INDICATES WOOD POST PER PLAN & HOLD DOWN PER SCHEDULE AND **4/S621**
▨	INDICATES BLOCKED DIAPHRAGM AT ALL PANELS EDGES w/ 3x BLOCKING & 10d @ 3" OC
TPS-X	INDICATES TOP PLATE SPLICE. IF NOT SHOWN TPS-1 SHALL BE APPLIED AT ALL TOP PLATE SPLICES, SEE **4/S612**
↞ →	INDICATES BEAM BRACE @ 4 FT OC FIRST AND LAST AT 2FT FROM SUPPORT. LOCATION ON PLANS IS ONLY SHOWN FOR REFERENCE. NOT ALL BRACES SHOWN. SEE **11/S603** AND **12/S603**

CONSTRUCTION NOTE KEY

① INDICATES SIMPSON MSTI60 STRAP, SEE DET 3/S622

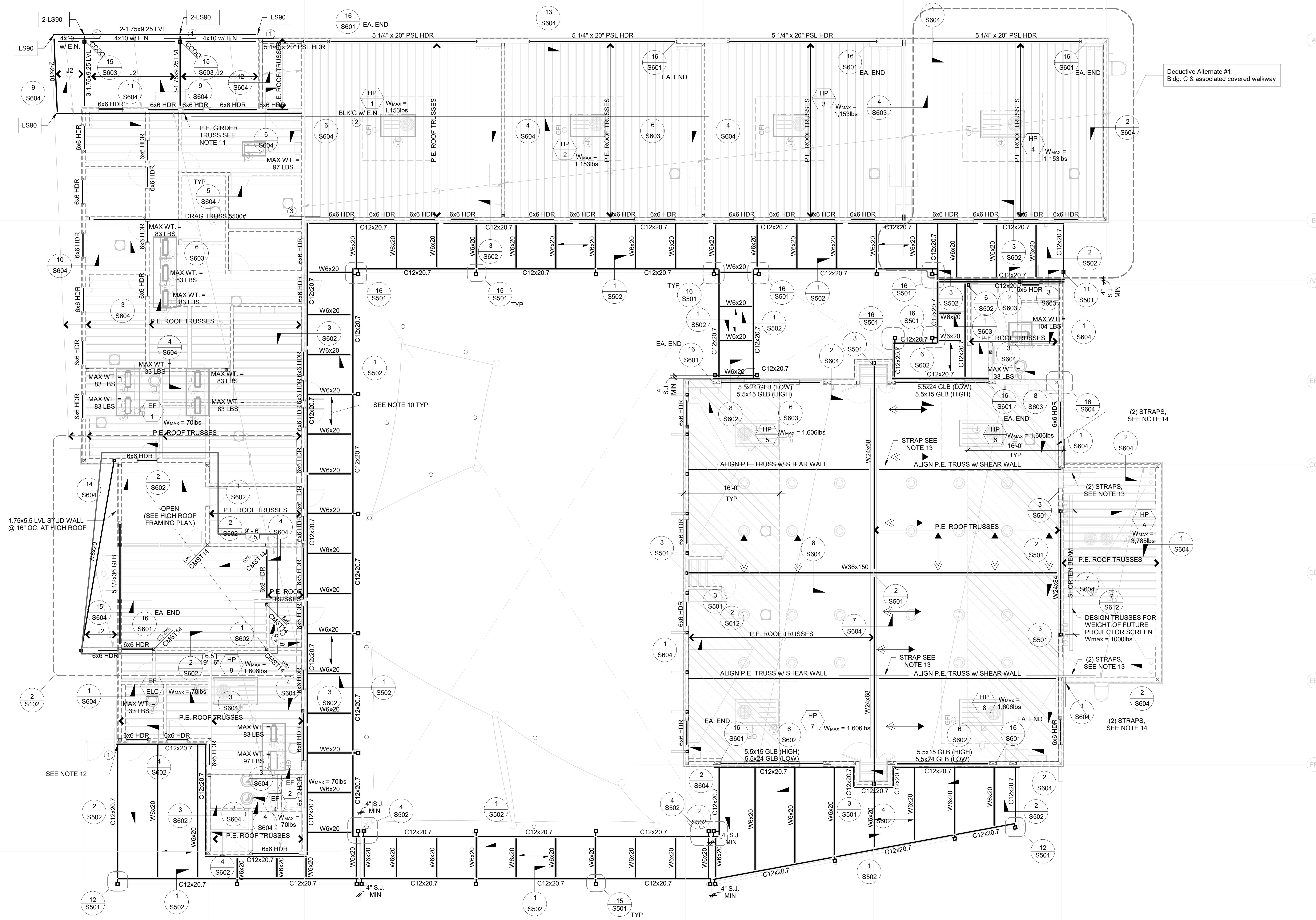
② INDICATES SIMPSON (2) CMST12 STRAP (LENGTH AS SHOWN), SEE DET 3/S622

③ INDICATES SIMPSON MSTC66 STRAP, SEE DET 3/S622

JOIST SCHEDULE

MARK	SIZE	SPACING	MAX LENGTH
J2	2x10	16" OC	16'-0"
J1	1.3/4" x 14" LVL	24" OC	24'-0"

NOTES:
1. EFFECTIVE JOIST SPACING SHALL BE MAINTAINED OVER THREE BAYS WHERE 24" MAX SPREAD BAY IS REQ'D.



ROOF FRAMING PLAN

1/8" = 1'-0" 1

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ROOF FRAMING PLAN

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S102

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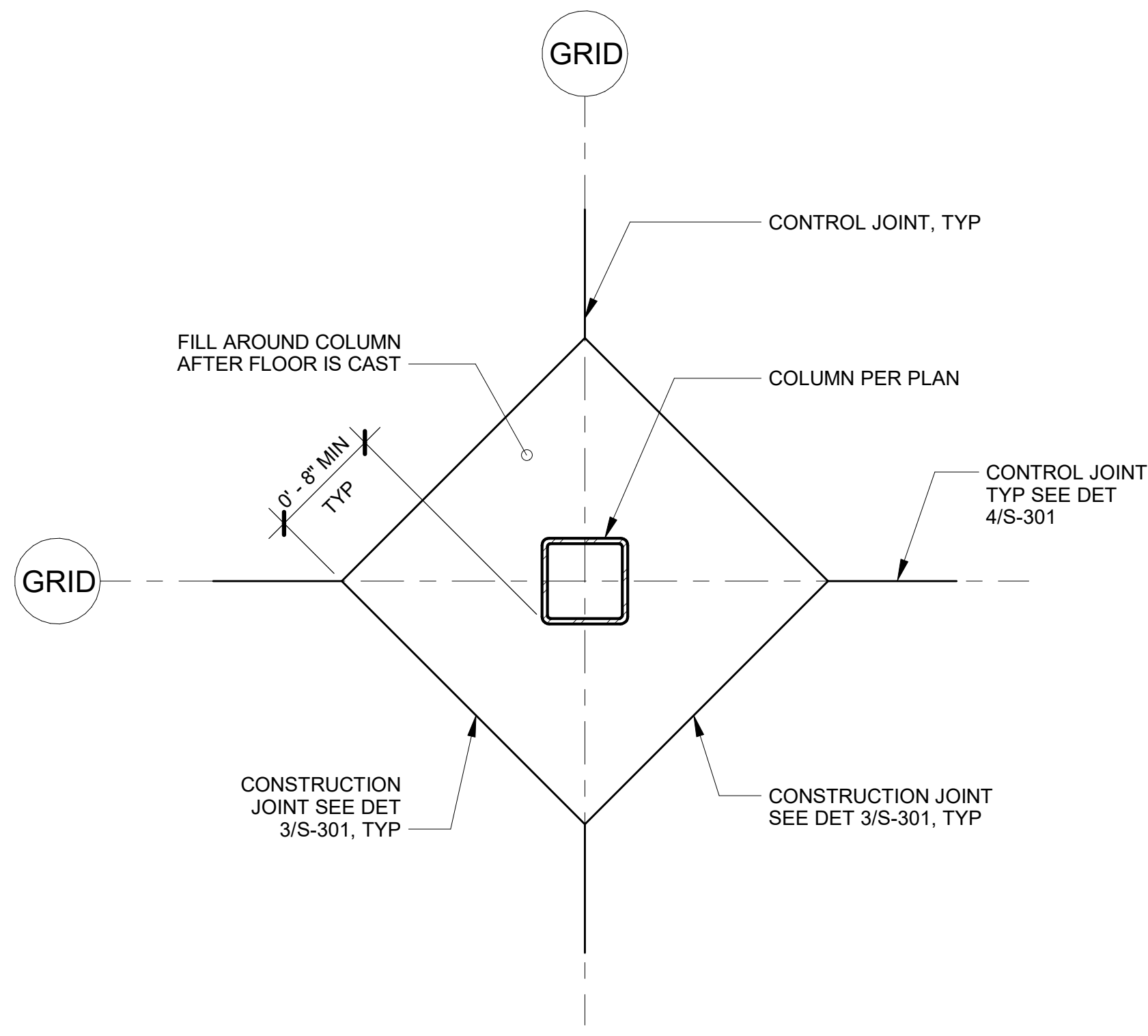
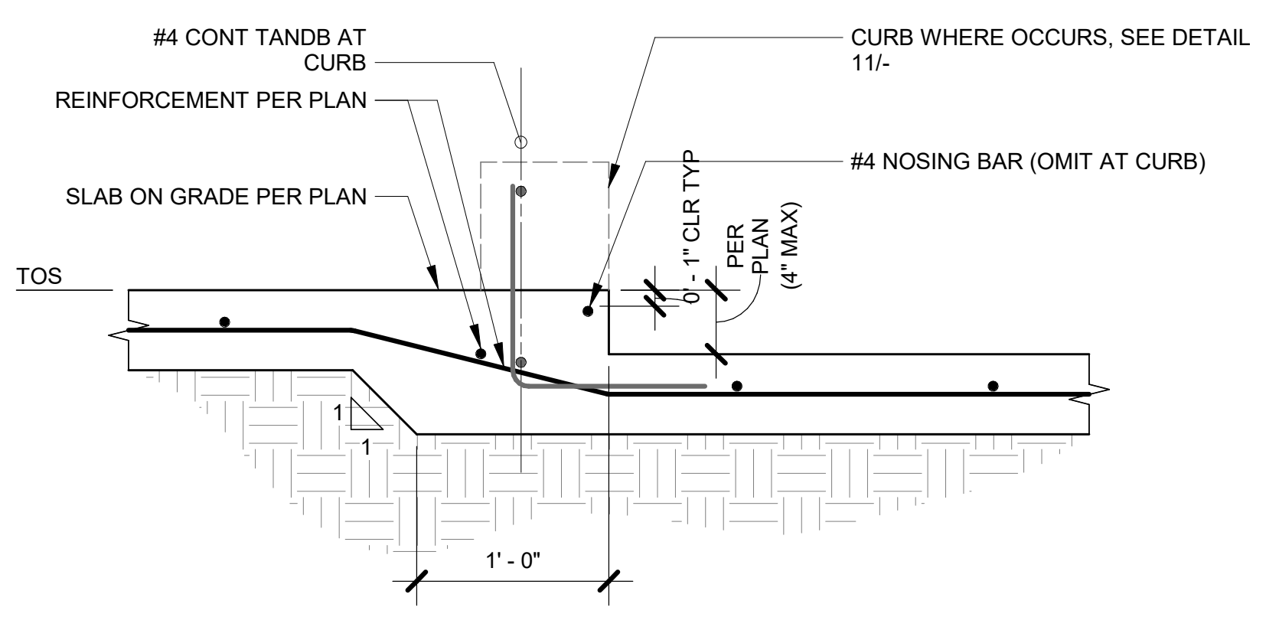

GRID
GRID
CONTROL JOINT, TYP
FILL AROUND COLUMN AFTER FLOOR IS CAST
COLUMN PER PLAN
0' - 8" MIN TYP
CONTROL JOINT, TYP SEE DET 4/S-301
CONSTRUCTION JOINT SEE DET 3/S-301, TYP
CONSTRUCTION JOINT SEE DET 3/S-301, TYP

LATE POUR AT COLUMN PAD

SCALE: NTS 13



DEPRESSION IN SLAB ON GRADE (4" MAX)

SCALE: NTS 9

CONCRETE CLASS "B" TENSION SPLICE

CLASS "B" TENSION LAP SPLICE LENGTH

fc (PSI)	BAR SIZE GR 60	#3	#4	#5	#6	#7	#8	#9	#10	#11
	BAR DIAMETER db (IN)	0.375	0.500	0.625	0.750	0.875	1.000	1.128	1.270	1.410
4500	TOP BAR	2'-0"	2'-8"	3'-4"	4'-1"	5'-11"	6'-9"	7'-7"	8'-6"	9'-5"
	BOTTOM BAR	1'-7"	2'-1"	2'-7"	3'-1"	4'-6"	5'-2"	5'-10"	6'-7"	7'-3"

NOTES:

1. ALL REINFORCING MUST MEET ONE OF THE FOLLOWING CONDITIONS:

A. CASE I: THE CLEAR SPACING OF THE BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN ONE BAR DIAMETER (db) CLEAR COVER NOT LESS THAN ONE BAR DIAMETER (db) AND STIRRUPS OR TIES THROUGHOUT THE SPLICE LENGTH.

B. OR CASE II: THE CLEAR SPACING OF THE BARS BEING SPLICED IS NOT LESS THAN TWO BAR DIAMETERS (2db) AND THE CLEAR COVER IS NOT LESS THAN ONE BAR DIAMETER (db).

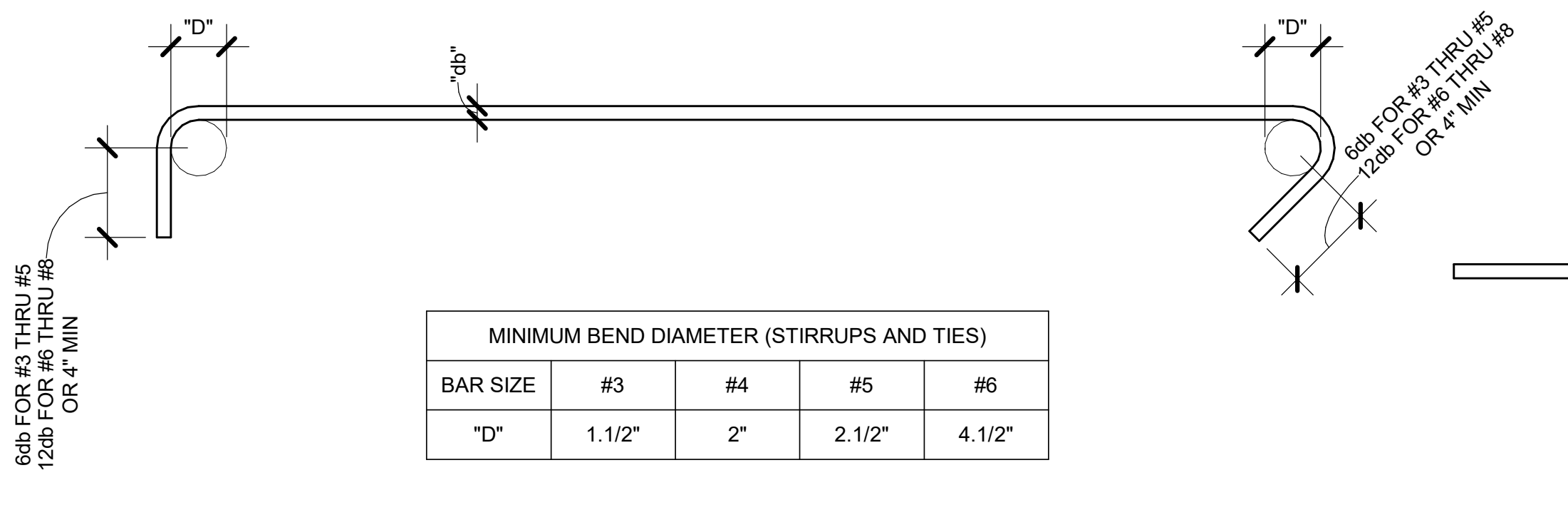
C. FOR ALL OTHER CASES MULTIPLY THE SPLICES SHOWN BY 1.5.

2. THE ABOVE VALUES ARE FOR NORMAL WEIGHT CONCRETE. THE ABOVE VALUES SHALL BE MULTIPLIED BY 1.3 FOR LIGHTWEIGHT CONCRETE.

3. THE ABOVE VALUES ARE FOR UNCOATED REINFORCEMENT.

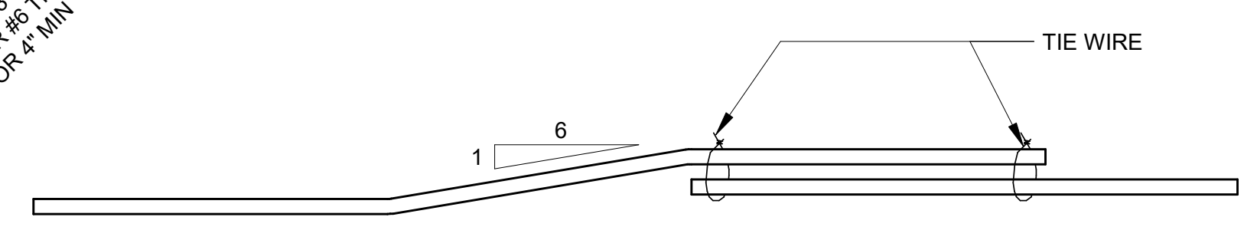
4. TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF NEW CONCRETE PLACED BELOW THE BAR.

5. BOTTOM BARS ARE ALL VERTICAL BARS AND HORIZONTAL REINFORCEMENT WITH LESS THAN 12" OF NEW CONCRETE PLACED BELOW THE BAR.

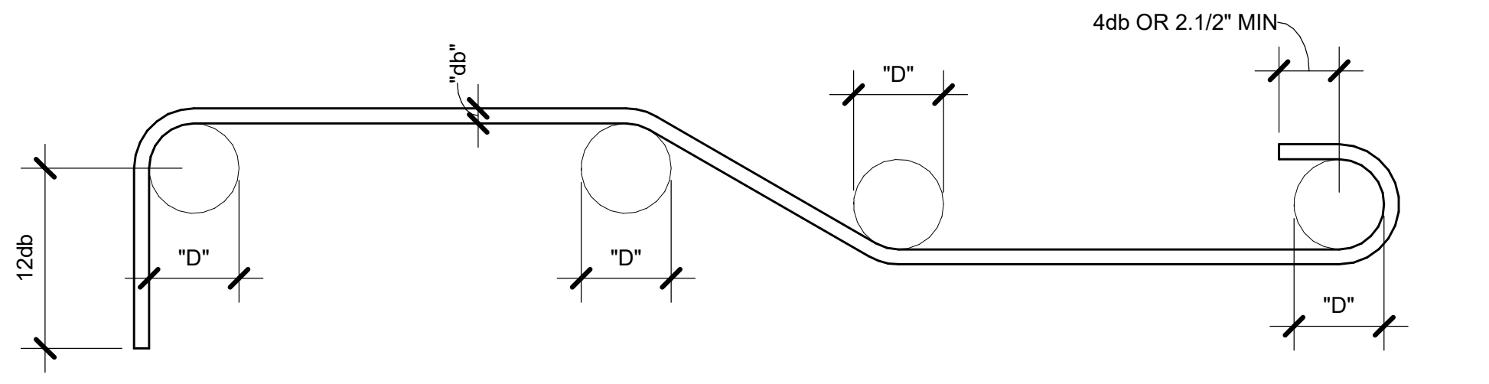


MINIMUM BEND DIAMETER (STIRRUPS AND TIES)				
BAR SIZE	#3	#4	#5	#6
"D"	1.1/2"	2"	2.1/2"	4.1/2"

STANDARD HOOK DETAIL FOR STIRRUPS AND TIES

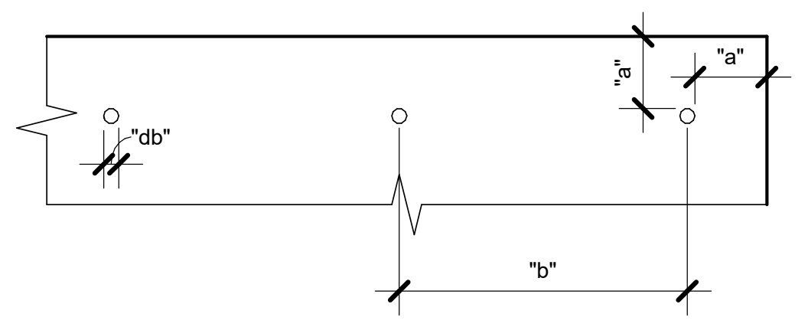


OFFSET AND SPLICES



MINIMUM BEND DIAMETER (PRINCIPAL REINFORCEMENT)			
BAR SIZE	#3 THRU #8	#9 THRU #11	#14 AND #18
"D"	6db	8db	10db

STANDARD HOOK DETAIL FOR PRINCIPAL REINFORCEMENT



WHERE: "a" IS THE CLEAR COVER

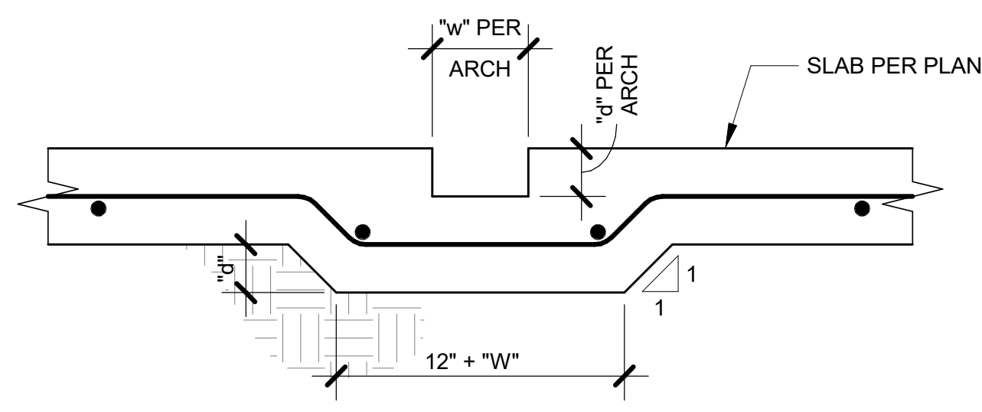
"b" IS THE CENTER TO CENTER SPACING

"db" IS THE BAR DIAMETER

SPLICE LENGTHS FOR BARS PLACED SHALL MEET THE FOLLOWING (SEE NOTE 1):	
CASE I	CASE II
a<db: ANY b	a>db: b>3db
a>db: b<3db	-

TYPICAL NWC (CLASS B) LAP SPLICE SCHEDULE

SCALE: NTS 2



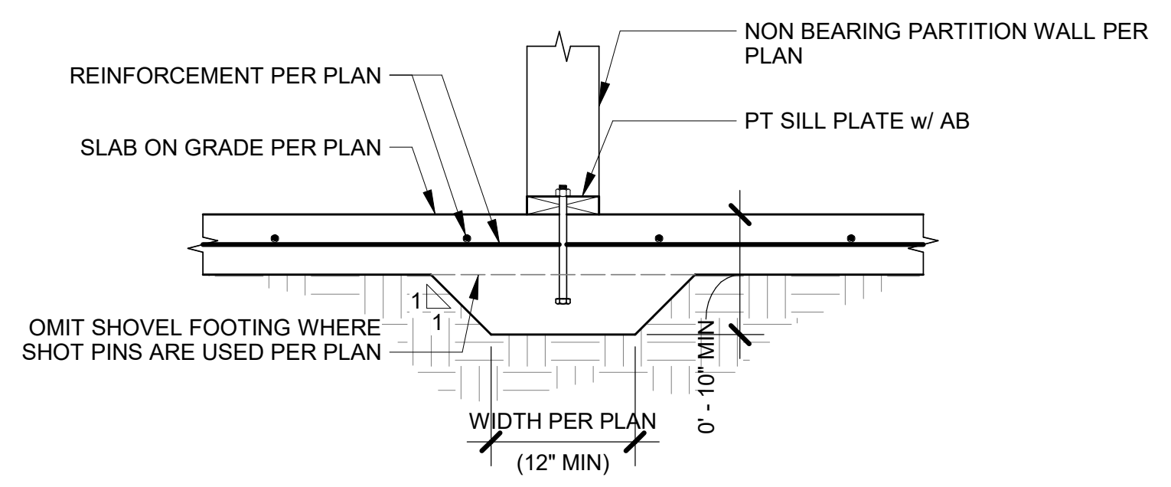
TRACK RECESS

SCALE: NTS 10

NOTE:

ALL SILLS SHALL BE 2x PT HEM FIR. SILL BOLTS SHALL BE NOT LESS THAN 5/8" DIA x 7" @ 4'-0" OC. LOCATE BOLTS 9" FROM THE END OF ANY PLATE. USE (2) BOLTS MINIMUM IN EVERY PLATE.

ALTERNATE:
IN LIEU OF BOLTS SHOWN, USE 0.145" DIA x 3" LONG POWDER DRIVEN PINS WITH 1-3/8" DIA WASHERS @ 32" OC. POWDER DRIVEN PINS MUST PENETRATE CONCRETE 1-1/2" MIN. USE LOW VELOCITY "HILTI" OR EQUAL. POWDER DRIVEN PINS NOT PERMITTED WHEN PARTITIONS REST ON CURBS.



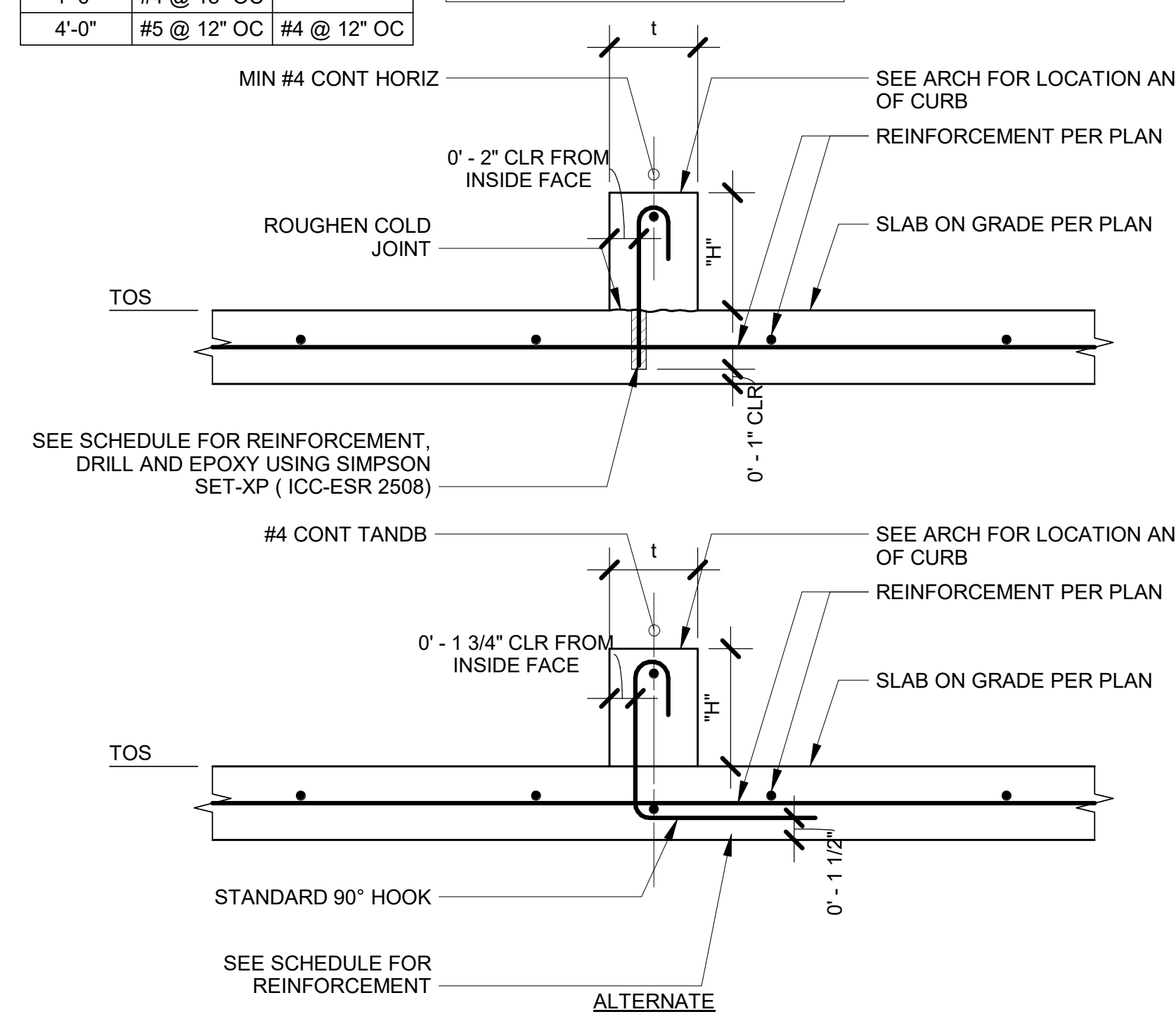
TYPICAL

NON-BEARING FOOTING AT PARTITION WALL

SCALE: NTS 15

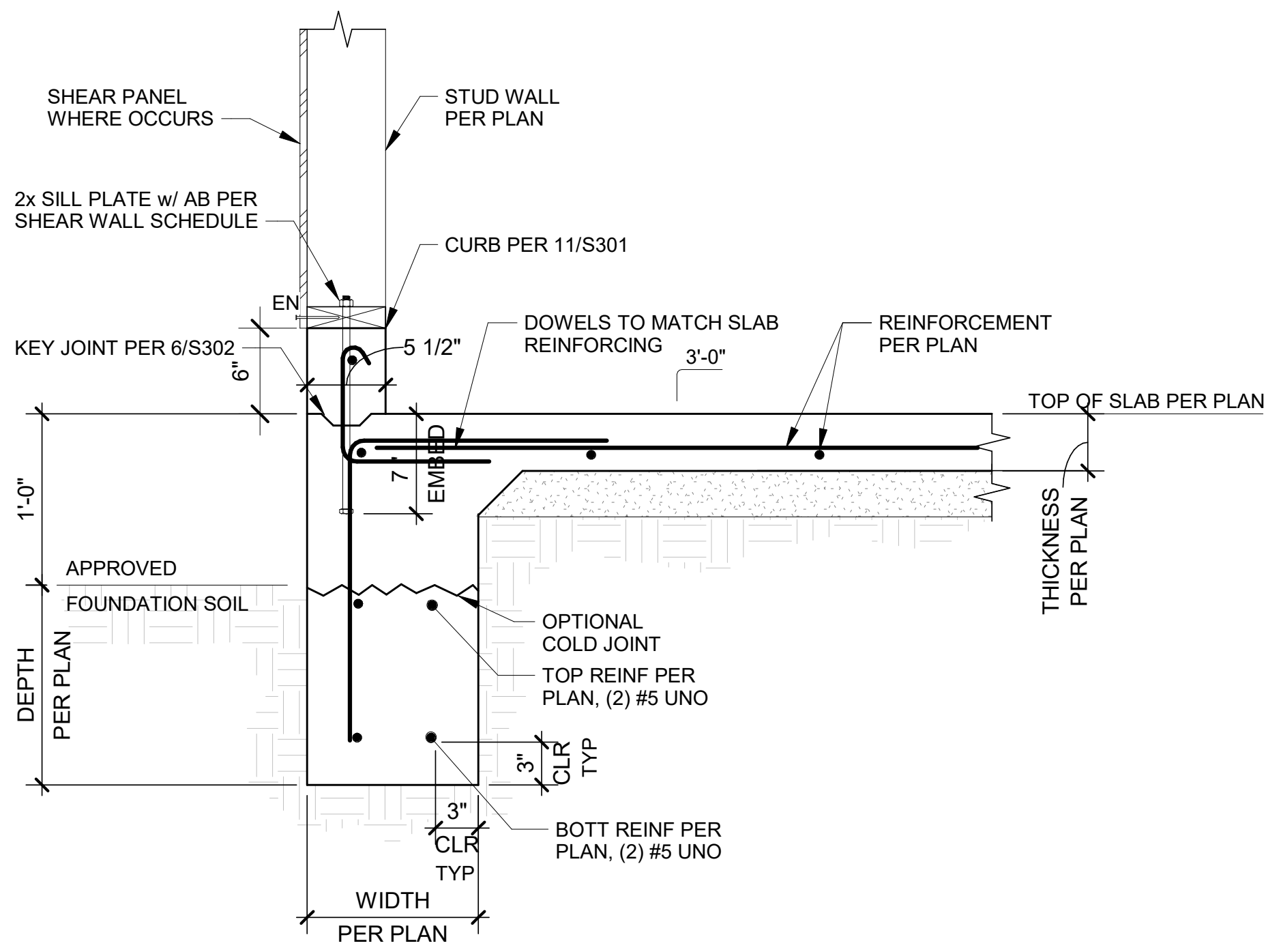
CURB REINFORCING SCHEDULE		
MAX "H"	VERTICAL	HORIZONTAL
8"	#3 @ 18" OC	-
1'-6"	#4 @ 18" OC	-
4'-0"	#5 @ 12" OC	#4 @ 12" OC

NOTE:
USE TWO CURTAINS OF HORIZONTAL & VERTICAL REINFORCING FOR t ≥ 12"


t
MIN #4 CONT HORIZ
SEE ARCH FOR LOCATION AND SIZE OF CURB
REINFORCEMENT PER PLAN
0' - 2" CLR FROM INSIDE FACE
ROUGHEN COLD JOINT
SLAB ON GRADE PER PLAN
"H"
TOS
0' - 1" CLR
SEE SCHEDULE FOR REINFORCEMENT, DRILL AND EPOXY USING SIMPSON SET-XP (ICC-ESR 2508)
#4 CONT TANDB
t
SEE ARCH FOR LOCATION AND SIZE OF CURB
REINFORCEMENT PER PLAN
0' - 1 3/4" CLR FROM INSIDE FACE
SLAB ON GRADE PER PLAN
"H"
TOS
0' - 1 1/2"
STANDARD 90° HOOK
SEE SCHEDULE FOR REINFORCEMENT
ALTERNATE

TYPICAL CURB DETAIL

SCALE: NTS 11

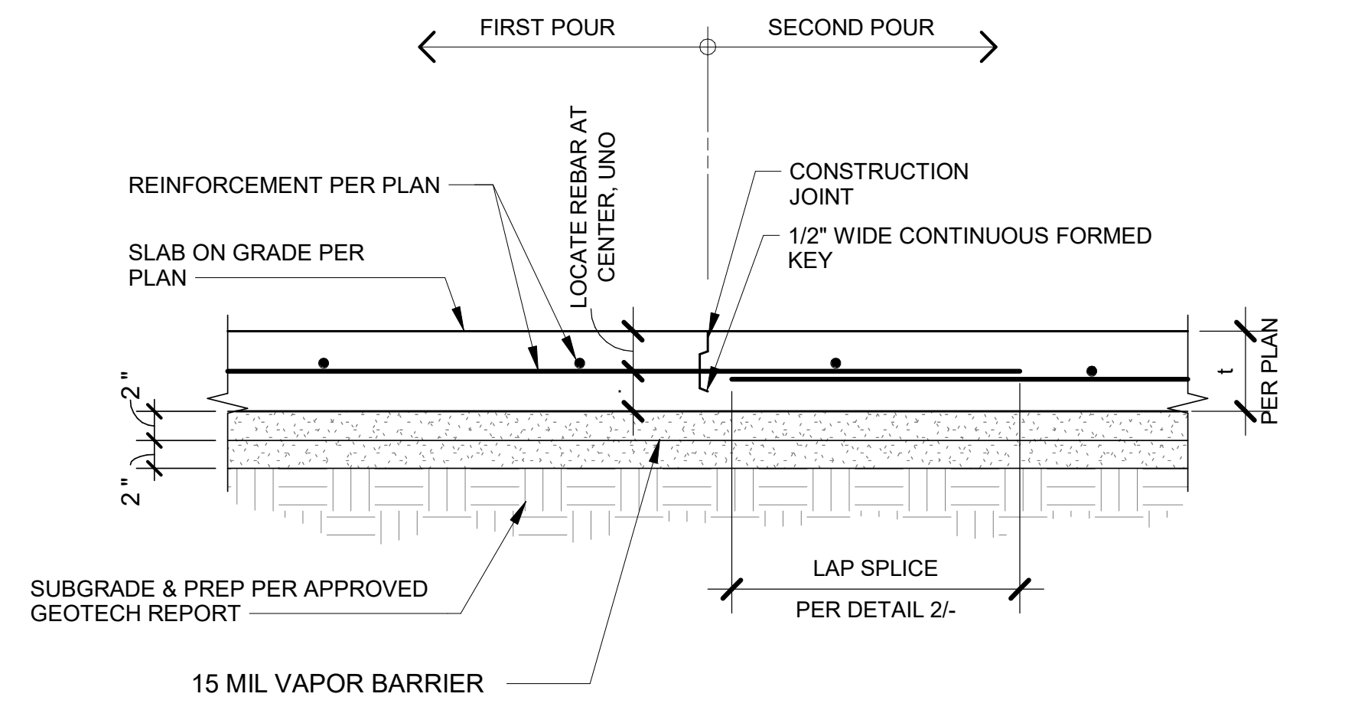


EDGE OF SLAB DETAIL

SCALE: NTS 7

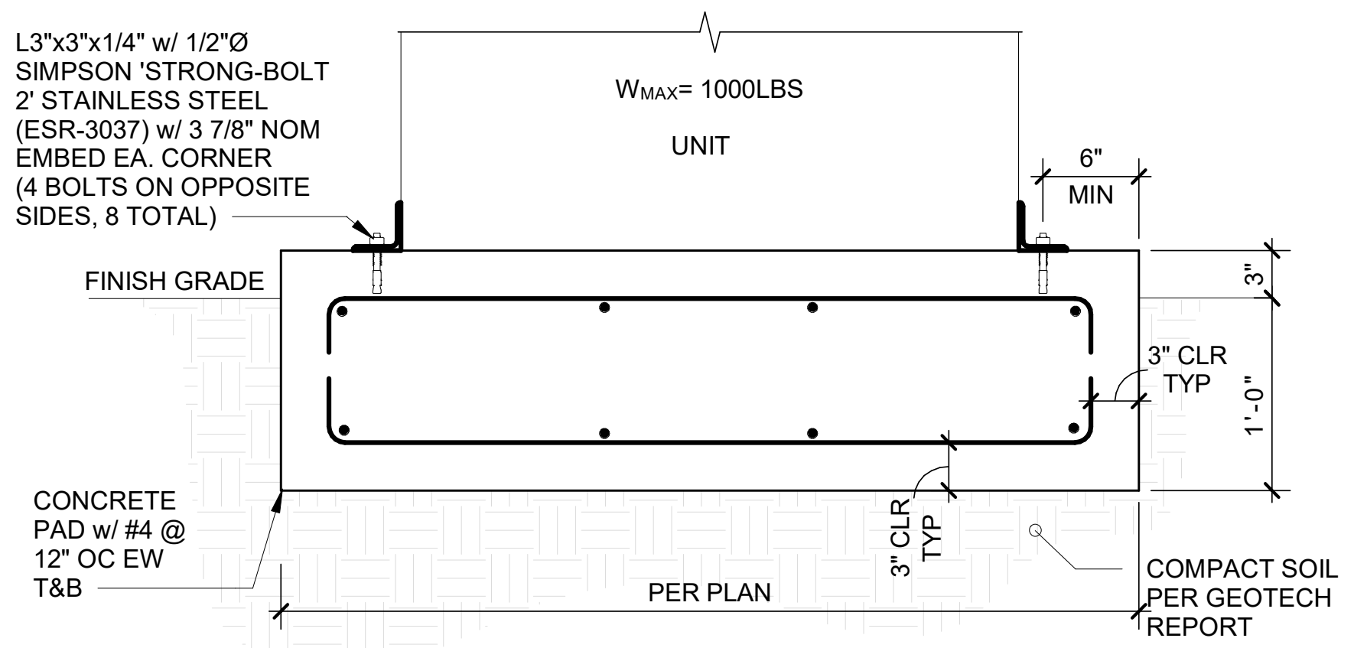
NOTE:

CONTRACTOR TO VERIFY VAPOR BARRIER IS NOT PUNCTURED.



TYPICAL INTERIOR SLAB ON GRADE

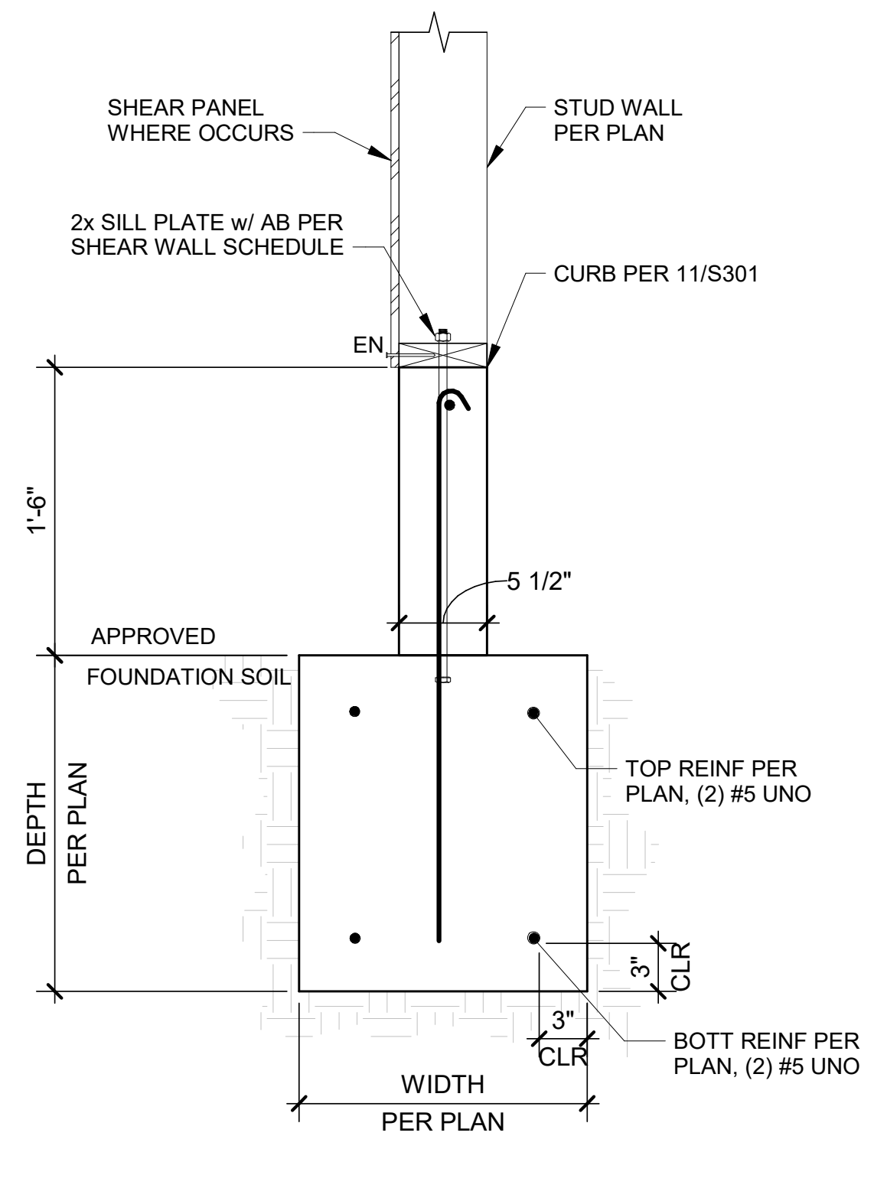
SCALE: NTS 3


L3"x3"x1/4" w/ 1/2"Ø SIMPSON 'STRONG-BOLT 2' STAINLESS STEEL (ESR-3037) w/ 3 7/8" NOM EMBED EA. CORNER (4 BOLTS ON OPPOSITE SIDES, 8 TOTAL)
W_{MAX}= 1000LBS
UNIT
6" MIN
FINISH GRADE
3"
3" CLR TYP
1'-0"
CONCRETE PAD w/ #4 @ 12" OC EW T&B
3" CLR TYP
PER PLAN
COMPACT SOIL PER GEOTECH REPORT

ISOLATED

MECH CONC PAD TO SLAB ON GRADE

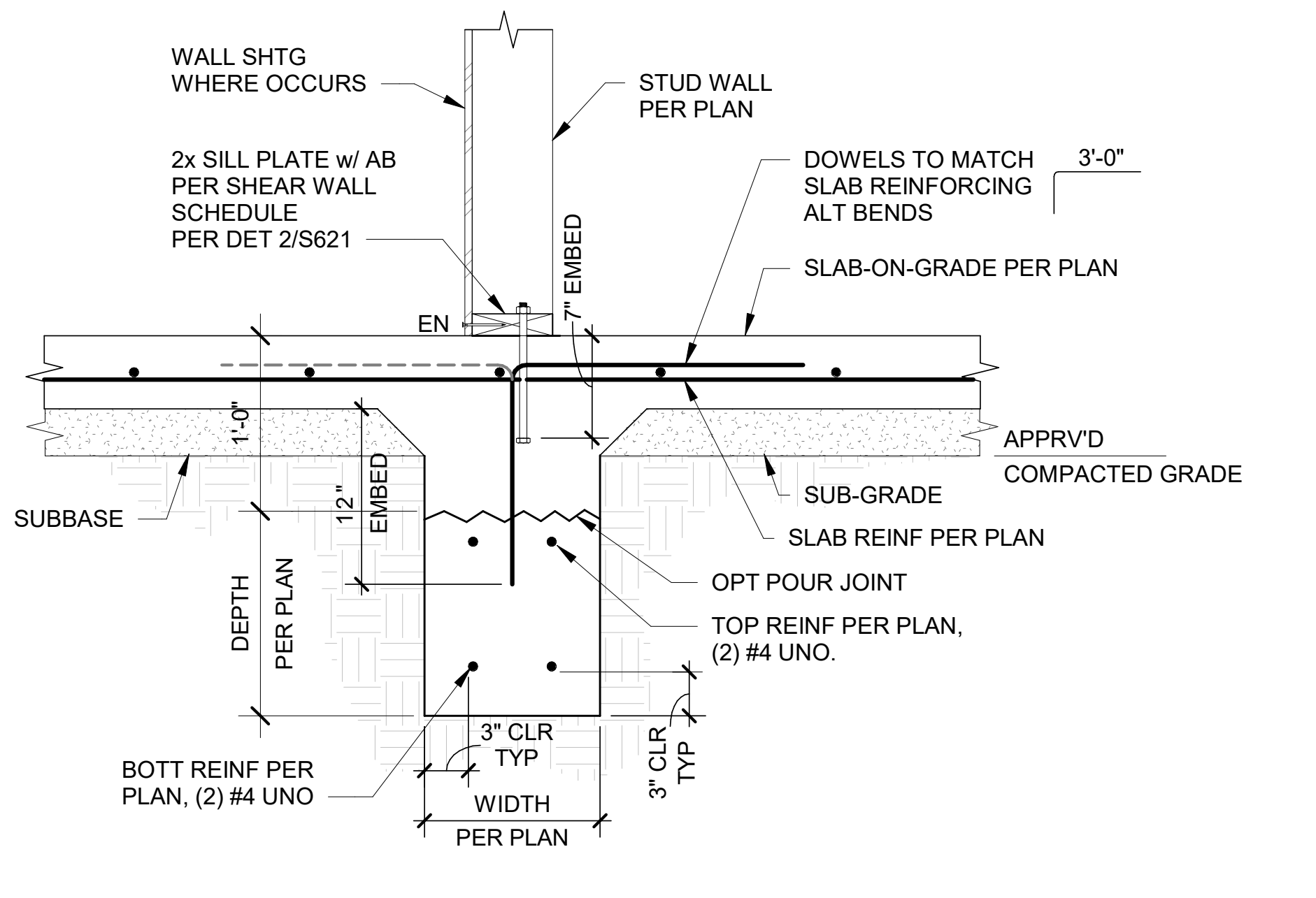
SCALE: NTS 16



CURB OVER FOOTING DETAILS

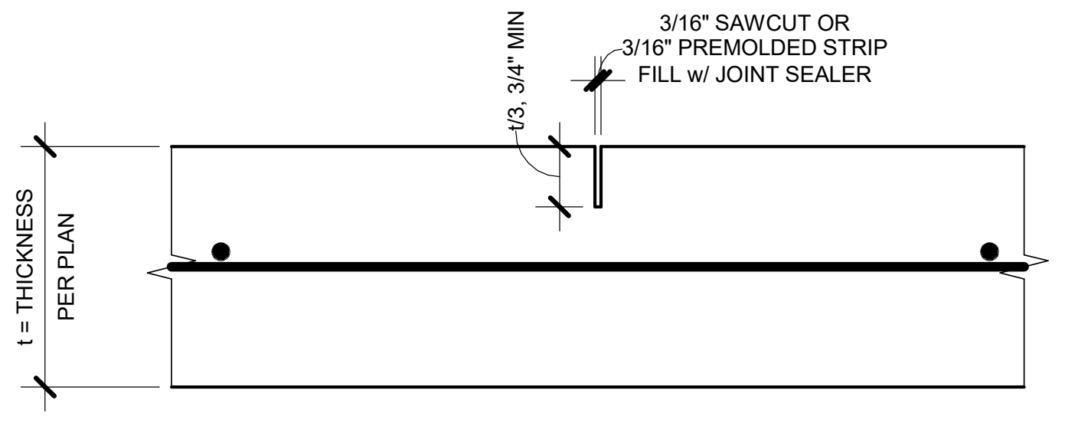
SCALE: NTS 12

NOTE: PROVIDE CURB PER 11/S301 AS NEEDED



INTERIOR STUD WALL FOOTING

SCALE: NTS 8



NOTES:

1. CONTROL JOINTS TO BE LOCATED AT COLUMN CENTER LINES AND AT 15'-0" OC MAX OR EVERY 400 SQUARE FEET, UNO.

2. IF SAW-CUT CONTROL JOINT TO BE USED, SAW-CUT NO LATER THAN 12 HOURS AFTER CONCRETE FINISHING.

INTERIOR CONTROL JOINTS

SCALE: NTS 4

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550 Airport Way, Camarillo, CA 93010

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SCAL	AS NOTED
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DATE	Issue Date
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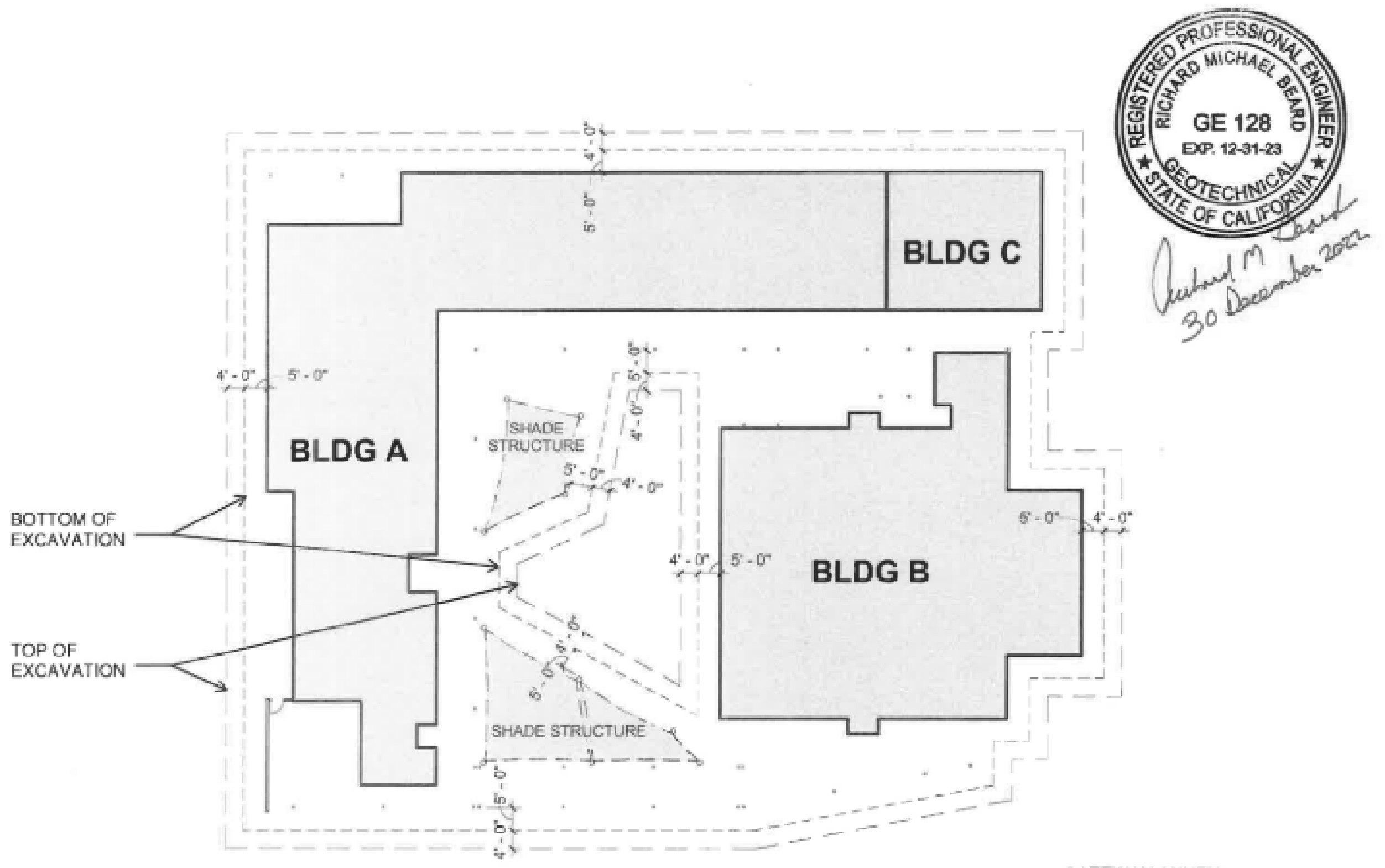
TYPICAL CONCRETE SLAB ON GRADE DETAILS

PERKINS EASTMAN

3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S301

Project #: 2021-101_R21 Plot Date: 1/17/2023 1:10:21 PM



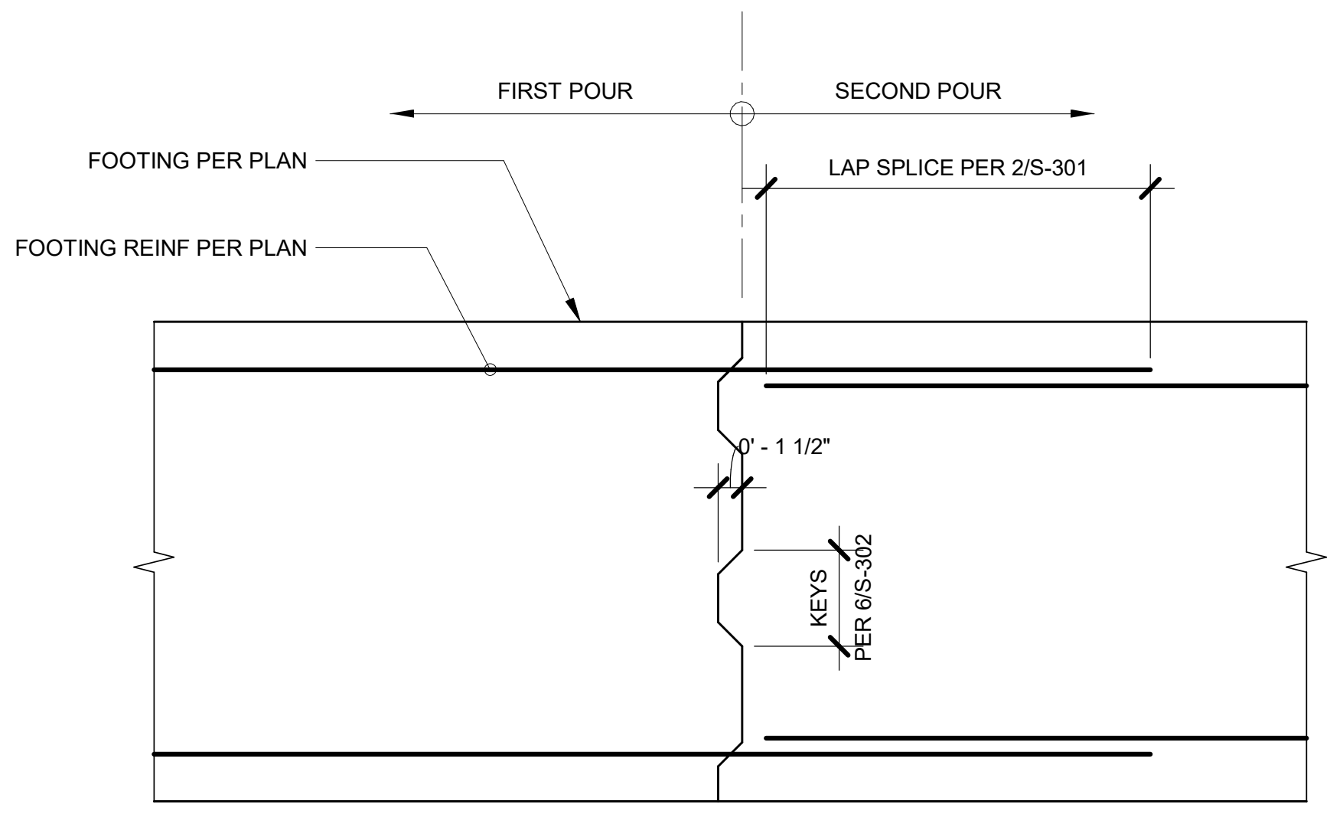
STRUCTURE OVEREXCAVATION & RECOMPACTION PLAN VIEW

GATEWAY ANNEX
PROJECT NO: 300852-003
EARTH SYSTEMS PACIFIC

10

NOTE:

AT CONTINUOUS FOOTING UNDER WALLS LOCATE JOINT AT 1/3 THE DISTANCE FROM THE ENDS AND AT LEAST 2' FROM EDGE OF OPENINGS.

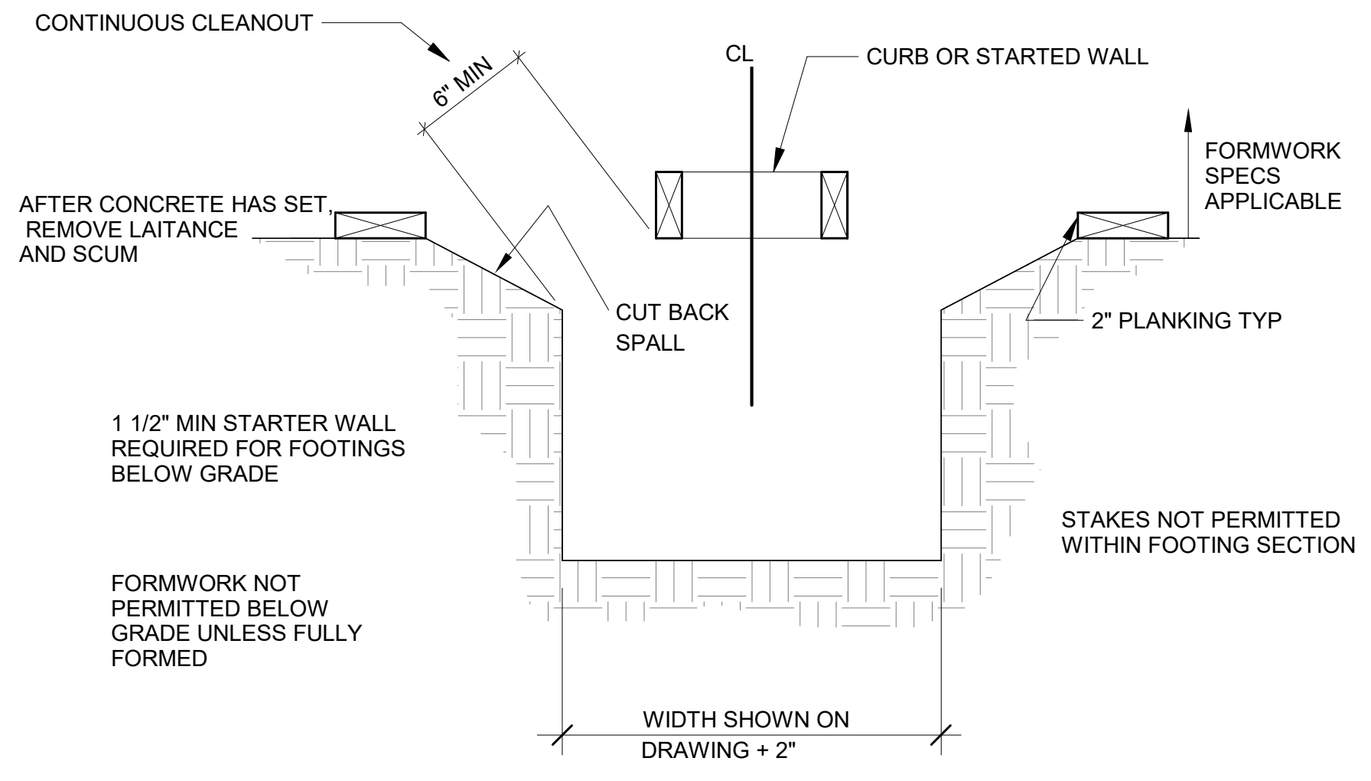


JOINT IN FOOTING

SCALE: NTS 5

NOTE:

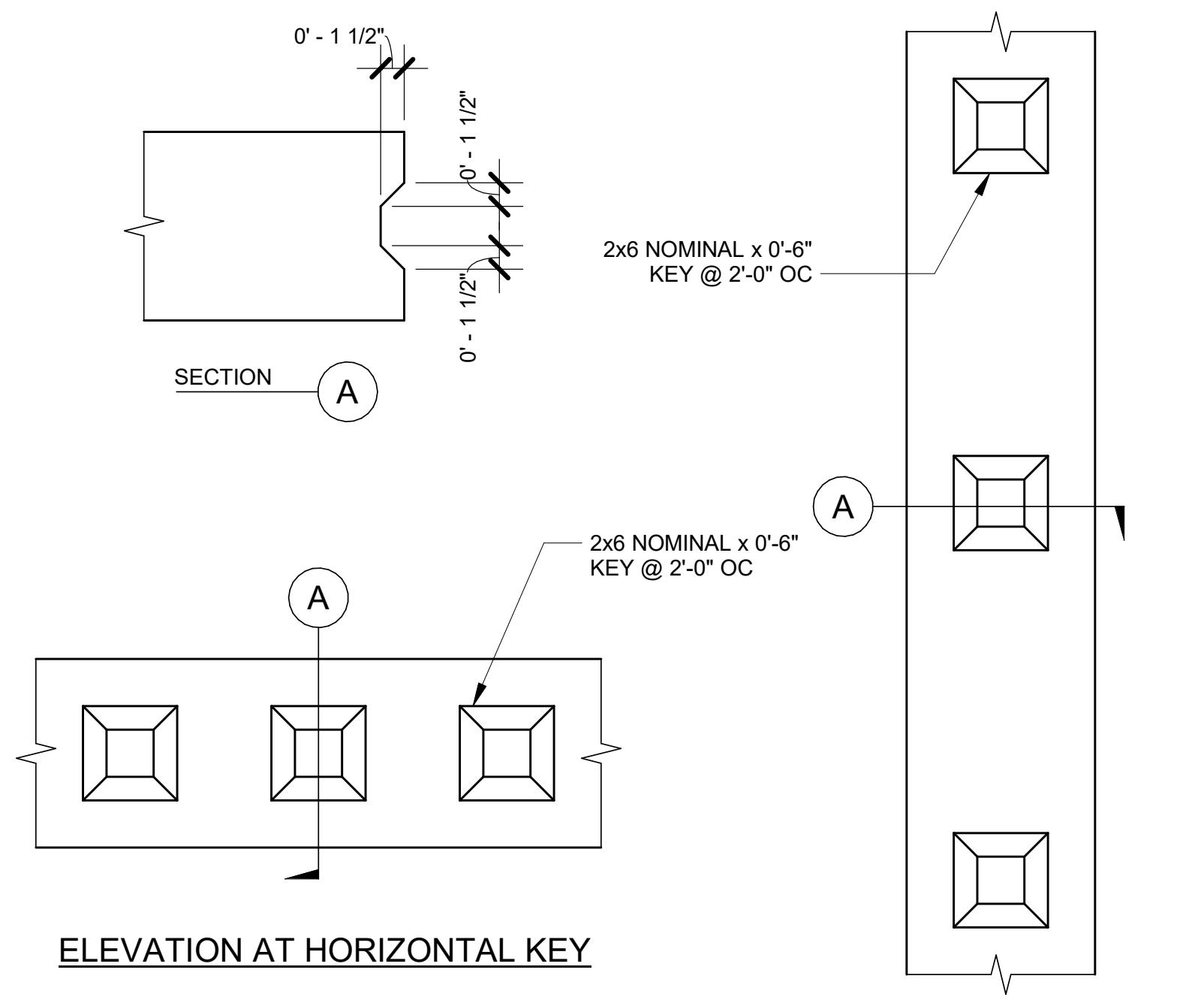
FOUNDATION CONCRETE MAY BE PLACED DIRECTLY INTO NEAT EXCAVATIONS PROVIDED THE FOUNDATION TRENCH WALLS ARE STABLE AS DETERMINED By THE ARCHITECT (STRUCTURAL ENGINEER), SUBJECT TO THE APPROVAL OF THE OFFICE OF THE STATE ARCHITECT. IN SUCH CASE, THE MINIMUM FORWORK SHOWN ON THE DRAWINGS IS MANDATORY TO INSURE CLEAN EXCAVATIONS IMMEDIATELY PRIOR TO AND DURING THE PLACING OF CONCRETE.


CONTINUOUS CLEANOUT
6" MIN
CL
CURB OR STARTED WALL
FORMWORK SPECS APPLICABLE
AFTER CONCRETE HAS SET, REMOVE LAITANCE AND SCUM
CUT BACK SPALL
2" PLANKING TYP
1 1/2" MIN STARTER WALL REQUIRED FOR FOOTINGS BELOW GRADE
STAKES NOT PERMITTED WITHIN FOOTING SECTION
FORMWORK NOT PERMITTED BELOW GRADE UNLESS FULLY FORMED
WIDTH SHOWN ON DRAWING + 2"

STARTED WALL - REQUIRED FOR ALL MASONRY AND CONCRETE WALLS

MANDATORY MINIMUM FORMWORK

SCALE: NTS 1


0' - 1 1/2"
0' - 1 1/2"
0' - 1 1/2"
SECTION
A
2x6 NOMINAL x 0'-6" KEY @ 2'-0" OC
2x6 NOMINAL x 0'-6" KEY @ 2'-0" OC
A
A

ELEVATION AT HORIZONTAL KEY

ELEVATION AT VERTICAL KEY

KEY JOINT

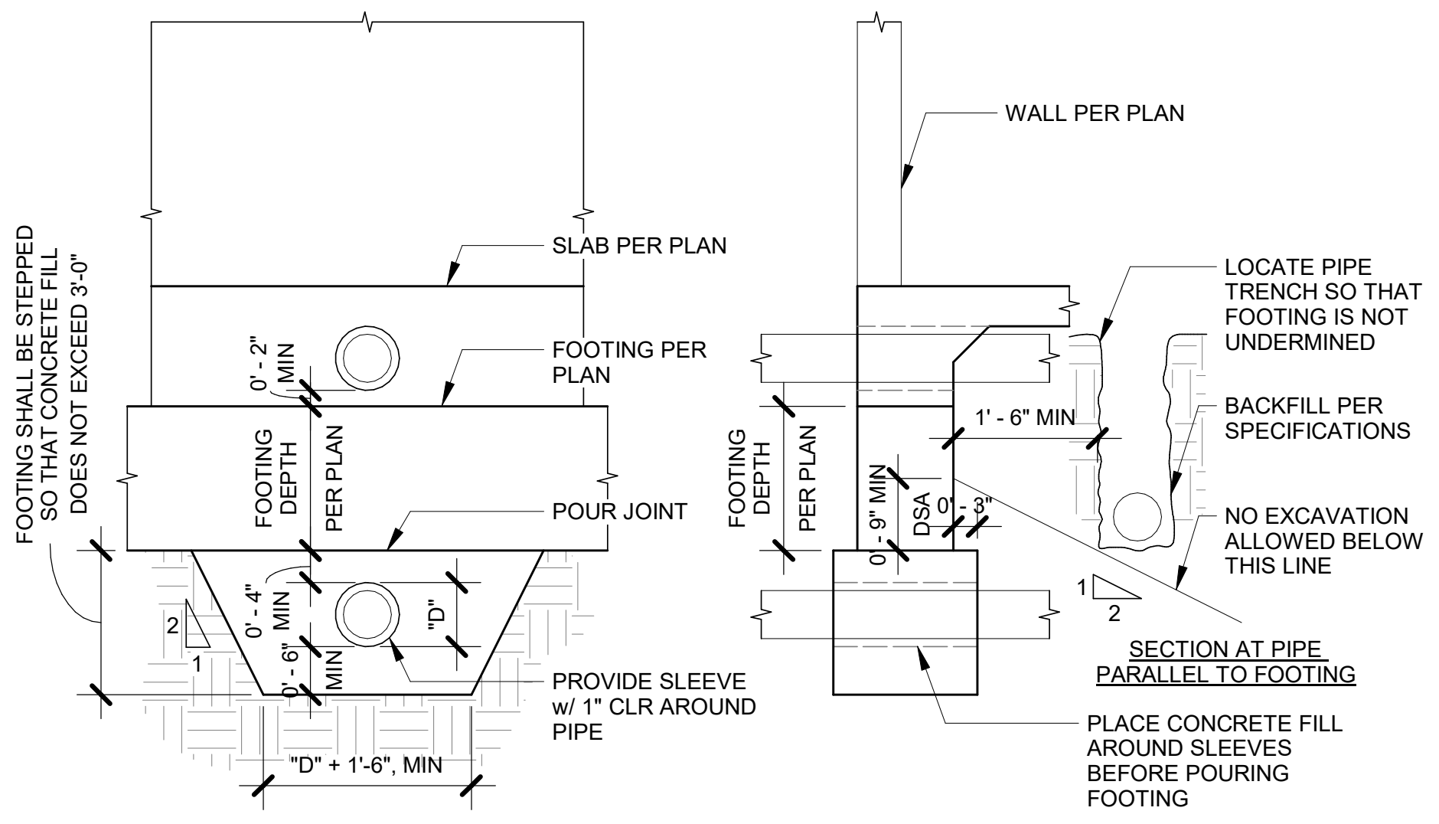
SCALE: NTS 6

NOTES:

1. WHEN SEVERAL PIPES ARE EMBEDDED, MAINTAIN 2 DIAMETERS OR 6" MIN HORIZONTAL DISTANCE BETWEEN PIPES (OUT TO OUT).

2. CONDUITS NEED TO BE SLEEVED PER THIS DETAIL. IT IS ACCEPTABLE TO GROUP CONDUITS OF THE SAME TRADE IN THE SAME SLEEVE.

3. NO PIPES SHALL PASS THRU FOOTING UNO, STEP FOOTING AS REQUIRED.


FOOTING SHALL BE STEPPED SO THAT CONCRETE FILL DOES NOT EXCEED 3'-0"
SLAB PER PLAN
0' - 2" MIN
FOOTING PER PLAN
FOOTING DEPTH PER PLAN
POUR JOINT
0' - 4" MIN
0' - 6" MIN
"D"
2
1
PROVIDE SLEEVE w/ 1" CLR AROUND PIPE
"D" + 1'-6", MIN
WALL PER PLAN
LOCATE PIPE TRENCH SO THAT FOOTING IS NOT UNDERMINED
1' - 6" MIN
BACKFILL PER SPECIFICATIONS
FOOTING DEPTH PER PLAN
0' - 9" MIN
DSA
0' - 3"
NO EXCAVATION ALLOWED BELOW THIS LINE
1
2
SECTION AT PIPE PARALLEL TO FOOTING
PLACE CONCRETE FILL AROUND SLEEVES BEFORE POURING FOOTING

ELEVATION AT PIPE PERPENDICULAR TO FOOTING

SECTION AT PIPE PERPENDICULAR TO FOOTING

PIPE FOOTING INTERFACE

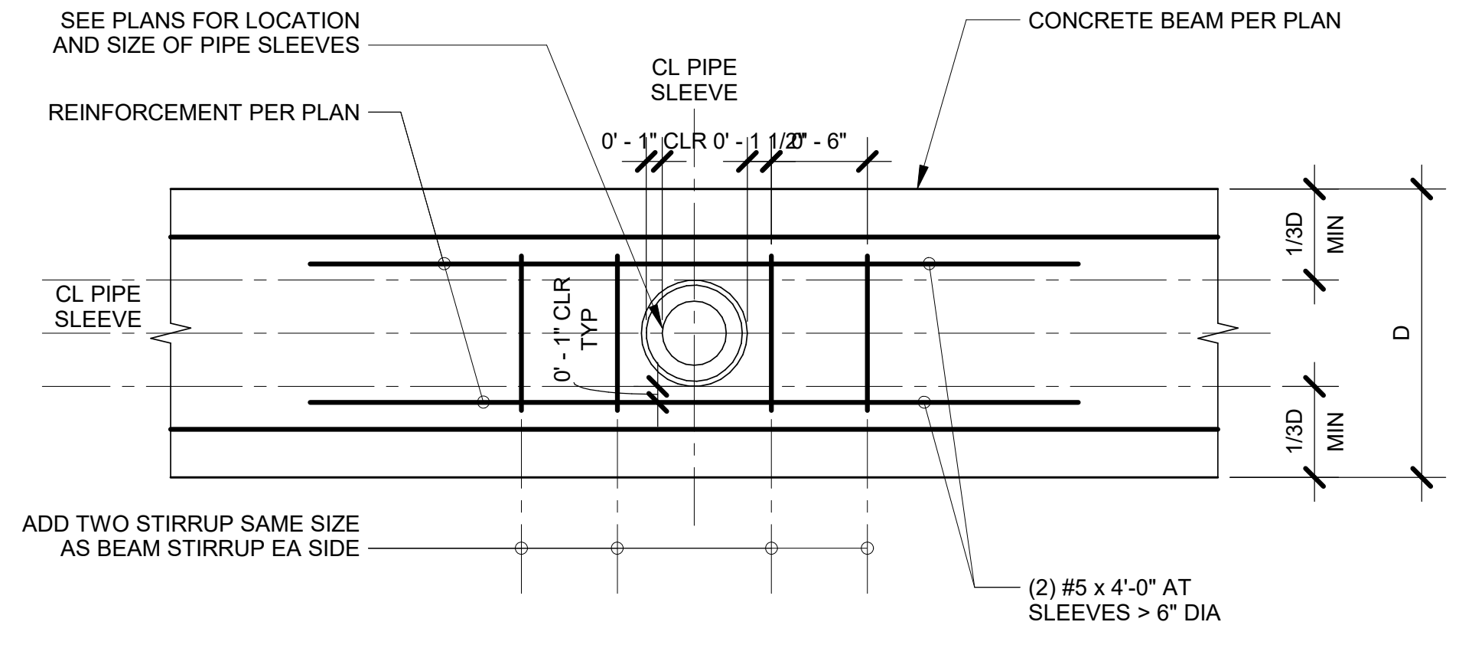
SCALE: NTS 2

NOTES:

1. PENETRATIONS THROUGH BEAMS ARE PERMITTED ONLY WITH THE REVIEW OF THE STRUCTURAL ENGINEER.

2. DETAIL FOR ELEVATED BEAM, SIMILAR FOR GRADE BEAM.

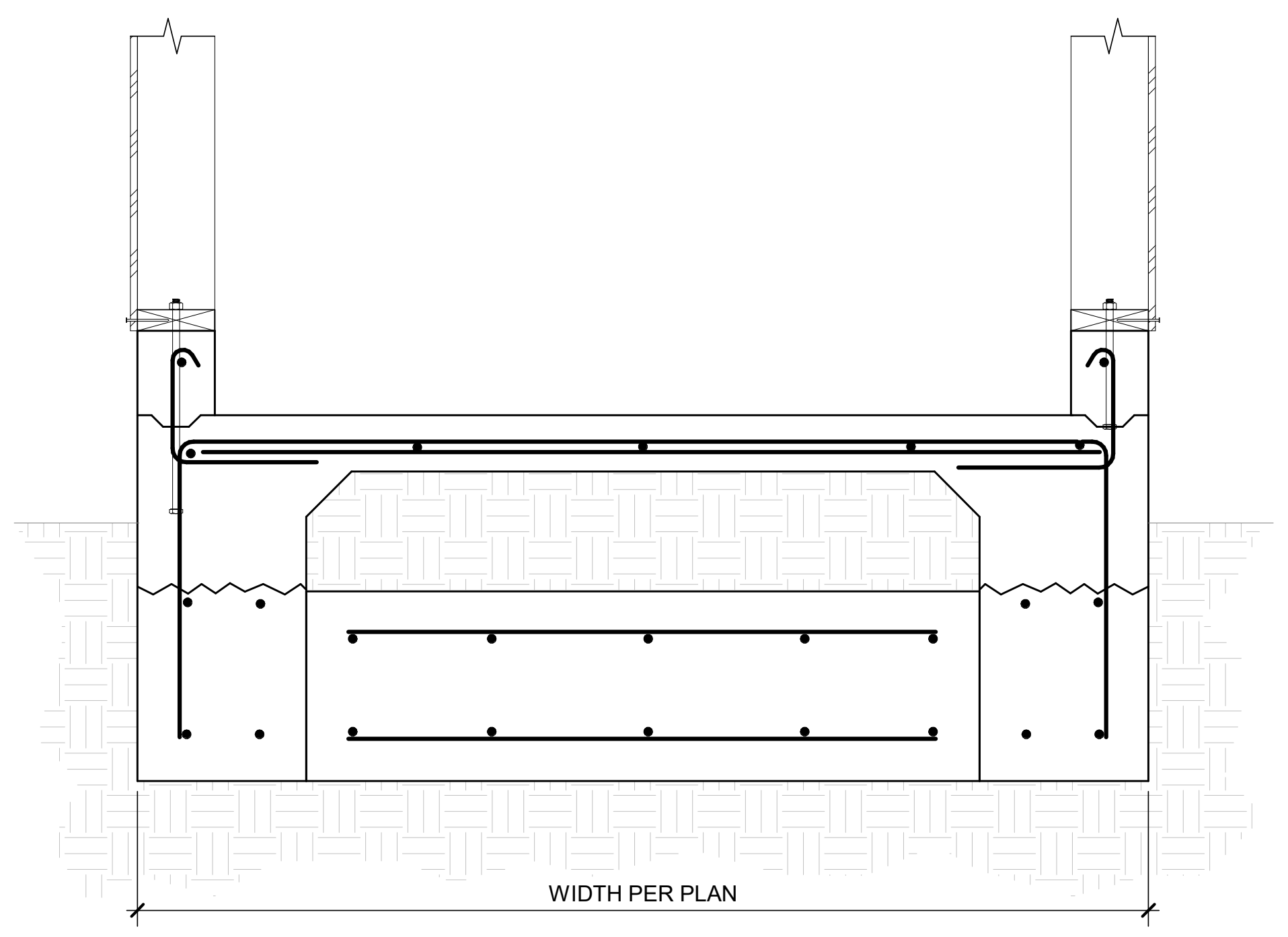
3. SCHEDULE 40 PIPE SLEEVE. SLEEVE DIA = D/3 MAX.



PIPE SLEEVE THROUGH FOUNDATION

SCALE: NTS 15

FOR INFO NOT SHOWN SEE 7/S301 AND 12/S302

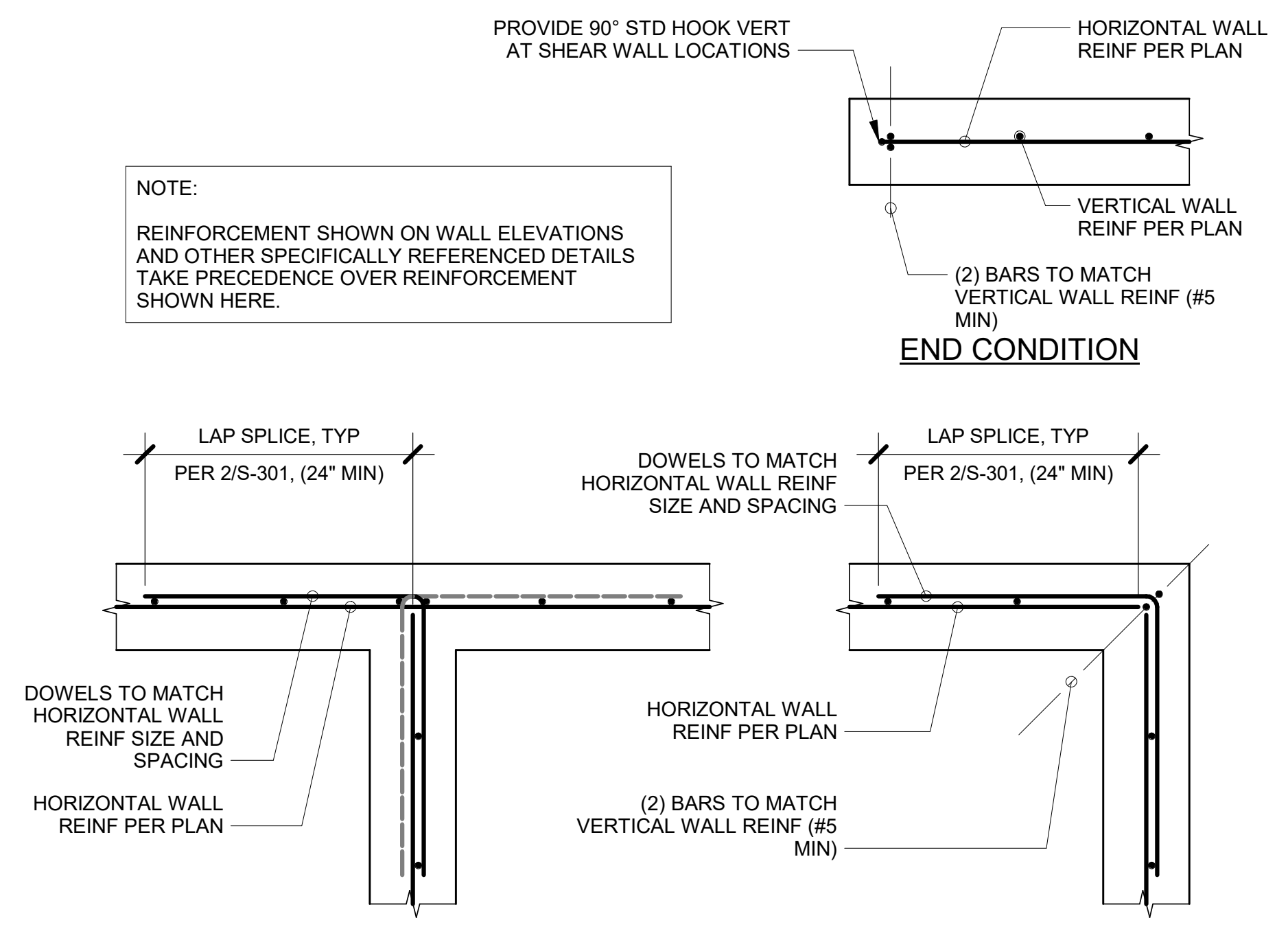


WALL FOOTING DETAIL

SCALE: NTS 11

NOTE:

REINFORCEMENT SHOWN ON WALL ELEVATIONS AND OTHER SPECIFICALLY REFERENCED DETAILS TAKE PRECEDENCE OVER REINFORCEMENT SHOWN HERE.


PROVIDE 90° STD HOOK VERT AT SHEAR WALL LOCATIONS
HORIZONTAL WALL REINF PER PLAN
VERTICAL WALL REINF PER PLAN
(2) BARS TO MATCH VERTICAL WALL REINF (#5 MIN)
LAP SPLICE, TYP
PER 2/S-301, (24" MIN)
DOWELS TO MATCH HORIZONTAL WALL REINF SIZE AND SPACING
HORIZONTAL WALL REINF PER PLAN
LAP SPLICE, TYP
PER 2/S-301, (24" MIN)
DOWELS TO MATCH HORIZONTAL WALL REINF SIZE AND SPACING
HORIZONTAL WALL REINF PER PLAN
(2) BARS TO MATCH VERTICAL WALL REINF (#5 MIN)

END CONDITION

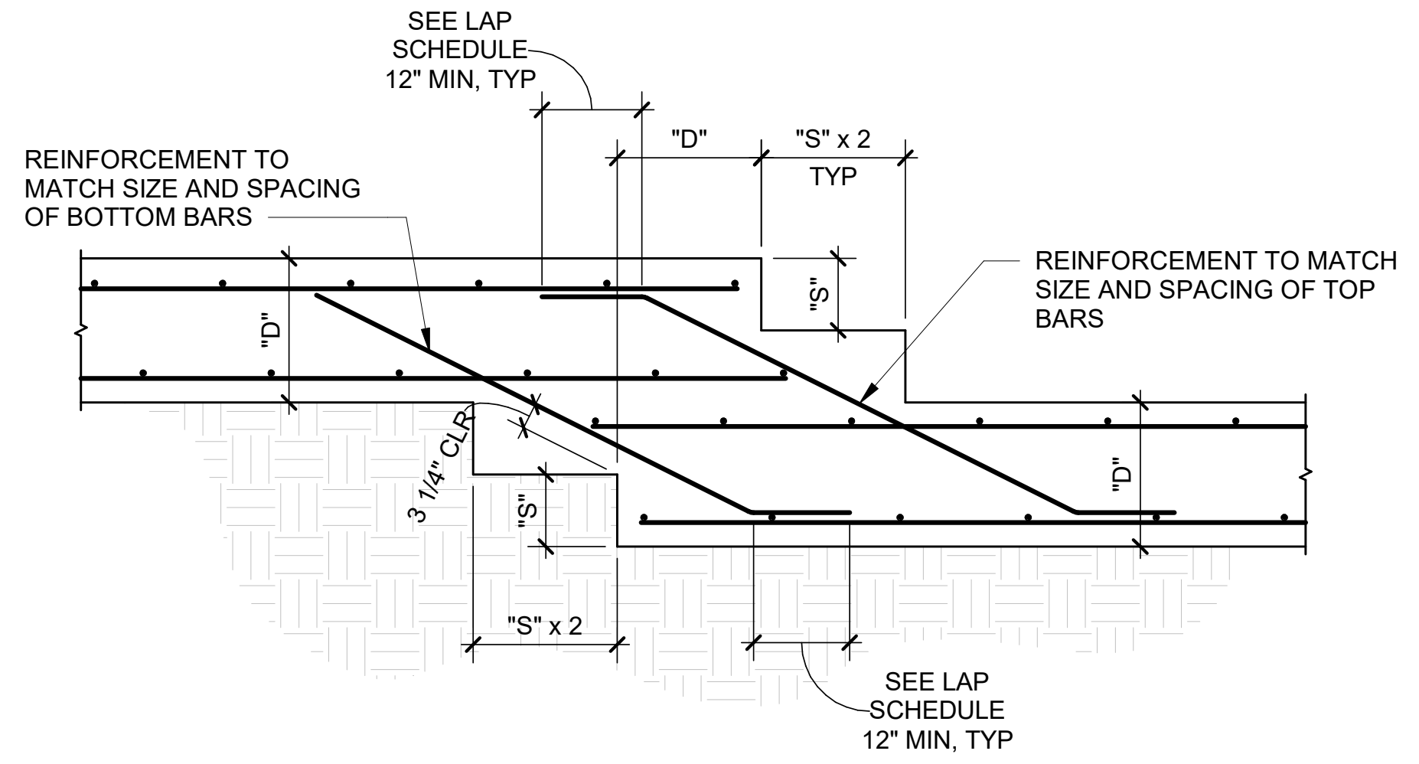
INTERSECTION

CORNER

WALL OR CURB INTERSECTION DETAIL (SINGLE LAYER OF REINFORCING)

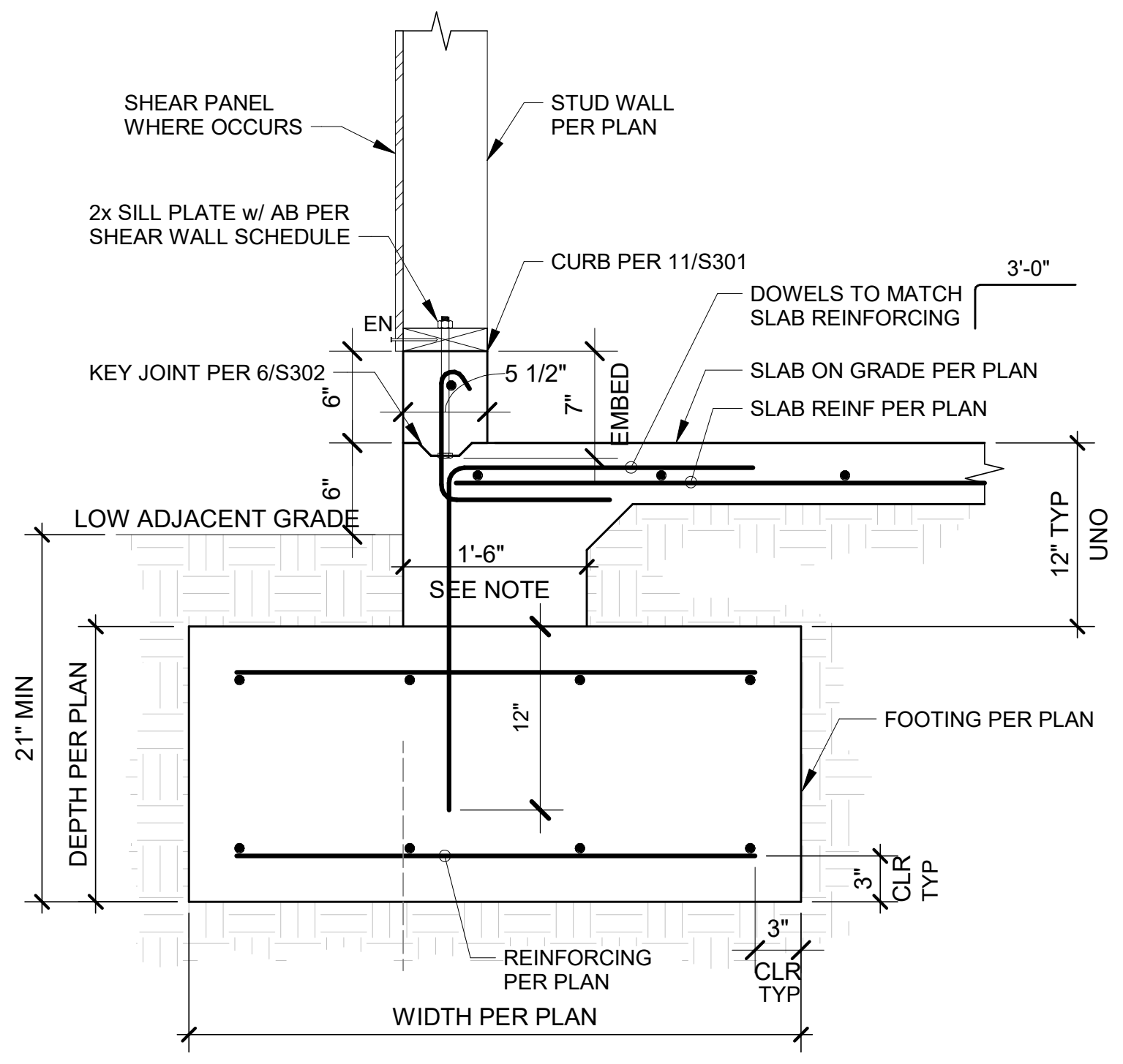
SCALE: NTS 7

S = 1'-6" MAX
D = DEPTH OF FOOTING


SEE LAP SCHEDULE 12" MIN, TYP
"D"
"S" x 2 TYP
REINFORCEMENT TO MATCH SIZE AND SPACING OF BOTTOM BARS
"S"
REINFORCEMENT TO MATCH SIZE AND SPACING OF TOP BARS
"D"
"D"
3 1/4" CLR
"S"
"S" x 2
SEE LAP SCHEDULE 12" MIN, TYP

TYP STEPPED FOOTING

1/2" = 1'-0" 3

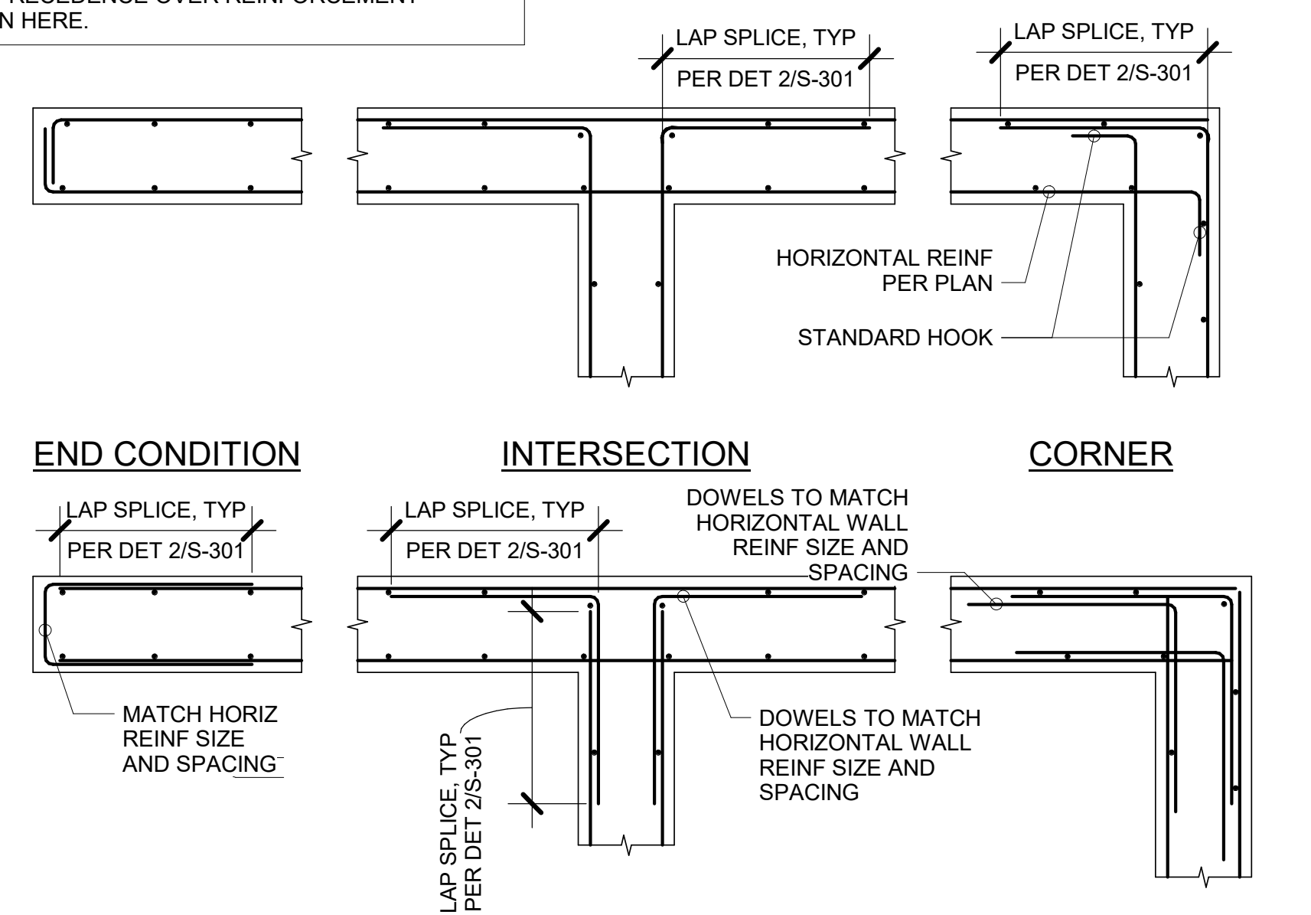


EXTERIOR STUD WALL FOOTING

SCALE: NTS 12

NOTE:

REINFORCEMENT SHOWN ON WALL ELEVATIONS AND OTHER SPECIFICALLY REFERENCED DETAILS TAKE PRECEDENCE OVER REINFORCEMENT SHOWN HERE.


LAP SPLICE, TYP
PER DET 2/S-301
LAP SPLICE, TYP
PER DET 2/S-301
HORIZONTAL REINF PER PLAN
STANDARD HOOK
LAP SPLICE, TYP
PER DET 2/S-301
LAP SPLICE, TYP
PER DET 2/S-301
DOWELS TO MATCH HORIZONTAL WALL REINF SIZE AND SPACING
MATCH HORIZ REINF SIZE AND SPACING
LAP SPLICE, TYP PER DET 2/S-301
DOWELS TO MATCH HORIZONTAL WALL REINF SIZE AND SPACING

END CONDITION

INTERSECTION

CORNER

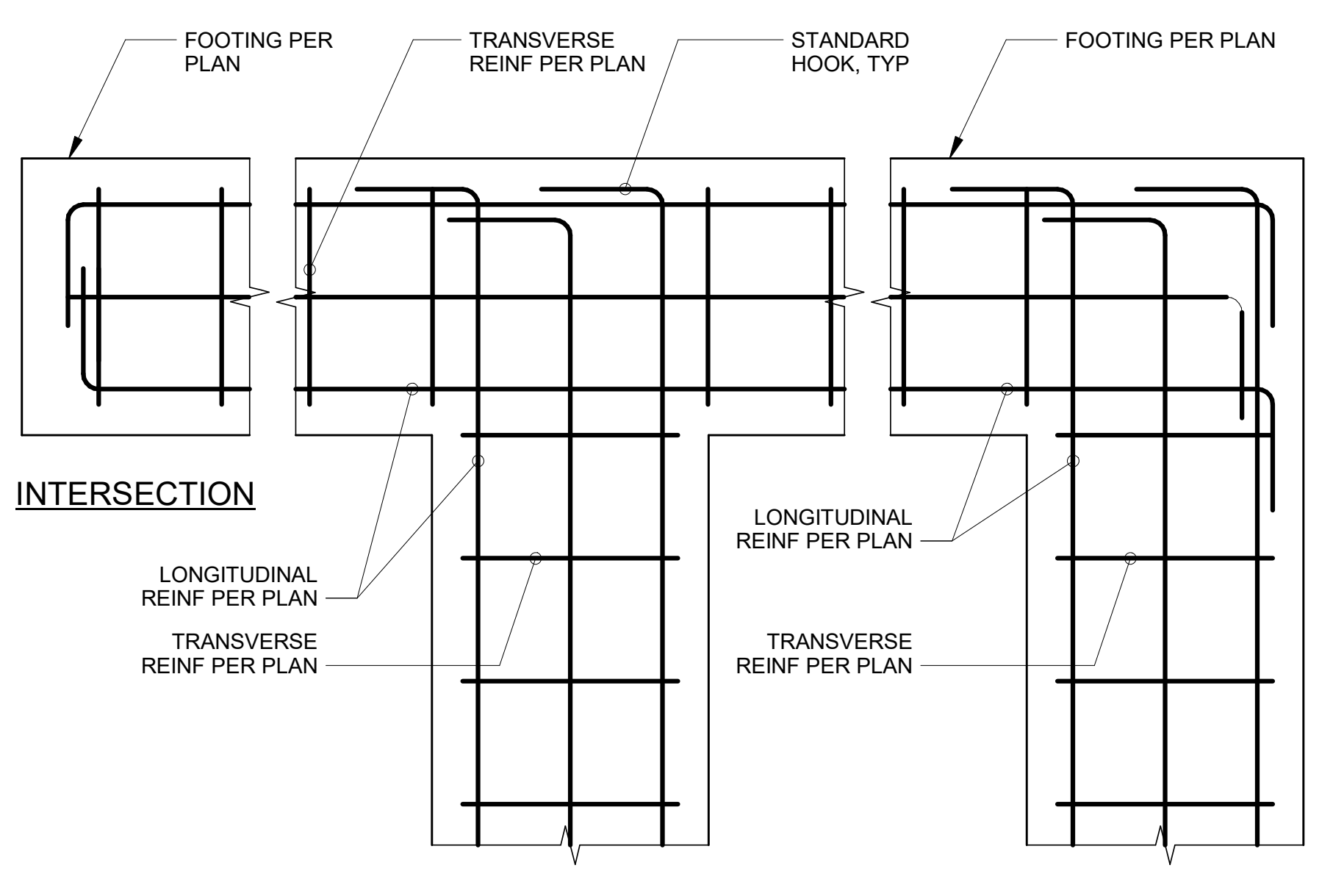
ALTERNATE END CONDITION

ALTERNATE INTERSECTION

ALTERNATE CORNER

WALL OR CURB INTERSECTION DETAIL (DOUBLE LAYER OF REINFORCING)

SCALE: NTS 8


FOOTING PER PLAN
TRANSVERSE REINF PER PLAN
STANDARD HOOK, TYP
FOOTING PER PLAN
LONGITUDINAL REINF PER PLAN
TRANSVERSE REINF PER PLAN
LONGITUDINAL REINF PER PLAN
TRANSVERSE REINF PER PLAN

INTERSECTION

INTERSECTION

CORNER

FOUNDATION INTERSECTION DETAIL

SCALE: NTS 4

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DATE: 02/21/2023

Exp. 6/30/23

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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TYPICAL CONCRETE FOOTING DETAILS

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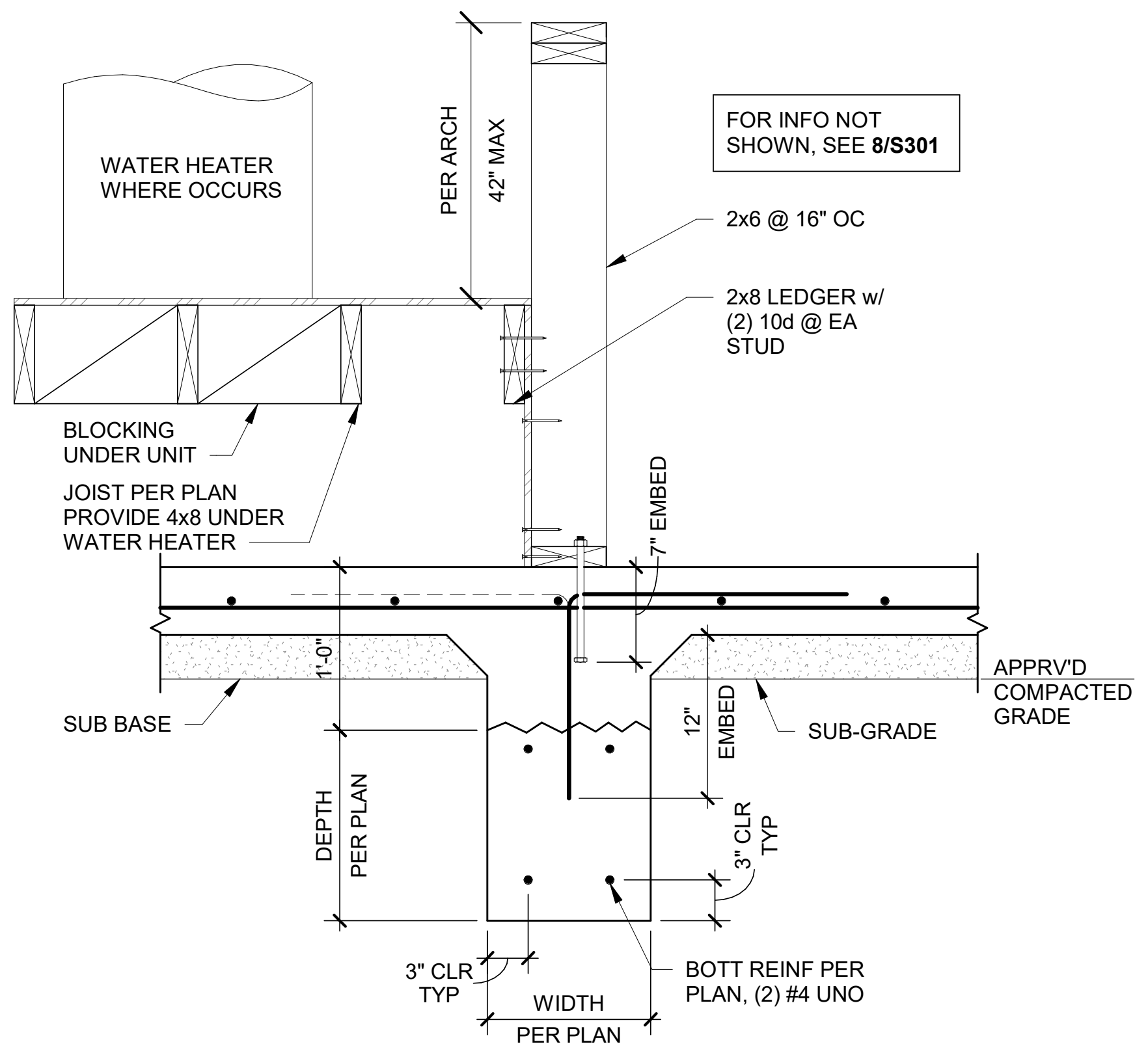
S302

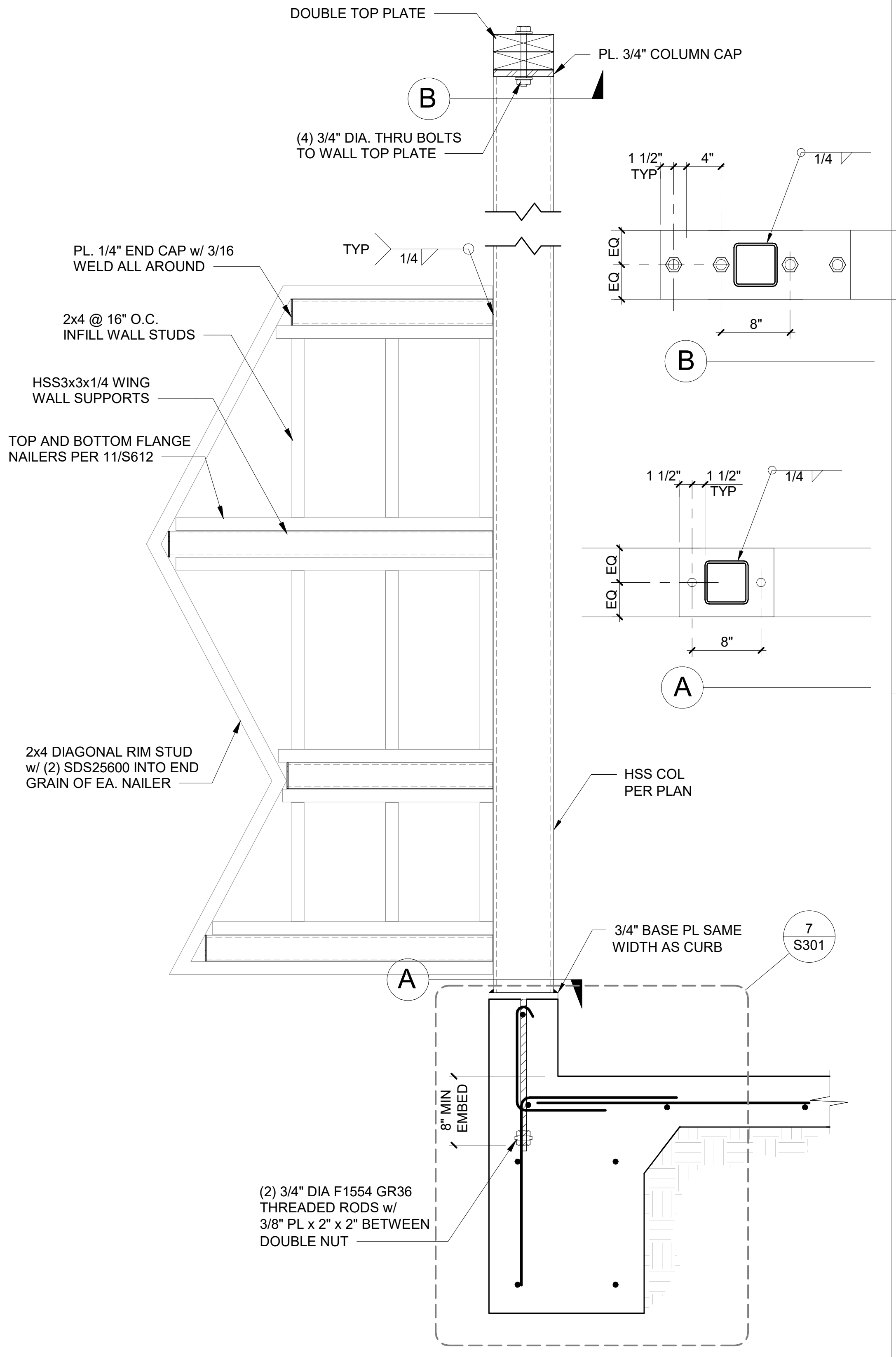
Project #: 2021-101_R21 Plot Date: 1/17/2023 1:10:25 PM


WATER HEATER WHERE OCCURS
PER ARCH
42" MAX
FOR INFO NOT SHOWN, SEE 8/S301
2x6 @ 16" OC
2x8 LEDGER w/ (2) 10d @ EA STUD
BLOCKING UNDER UNIT
JOIST PER PLAN PROVIDE 4x8 UNDER WATER HEATER
7" EMBED
1'-0"
APPRV'D COMPACTED GRADE
SUB BASE
12" EMBED
SUB-GRADE
DEPTH PER PLAN
3" CLR TYP
3" CLR TYP
WIDTH PER PLAN
BOTT REINF PER PLAN, (2) #4 UNO

PLATFORM TO WALL DETAIL

SCALE: NTS

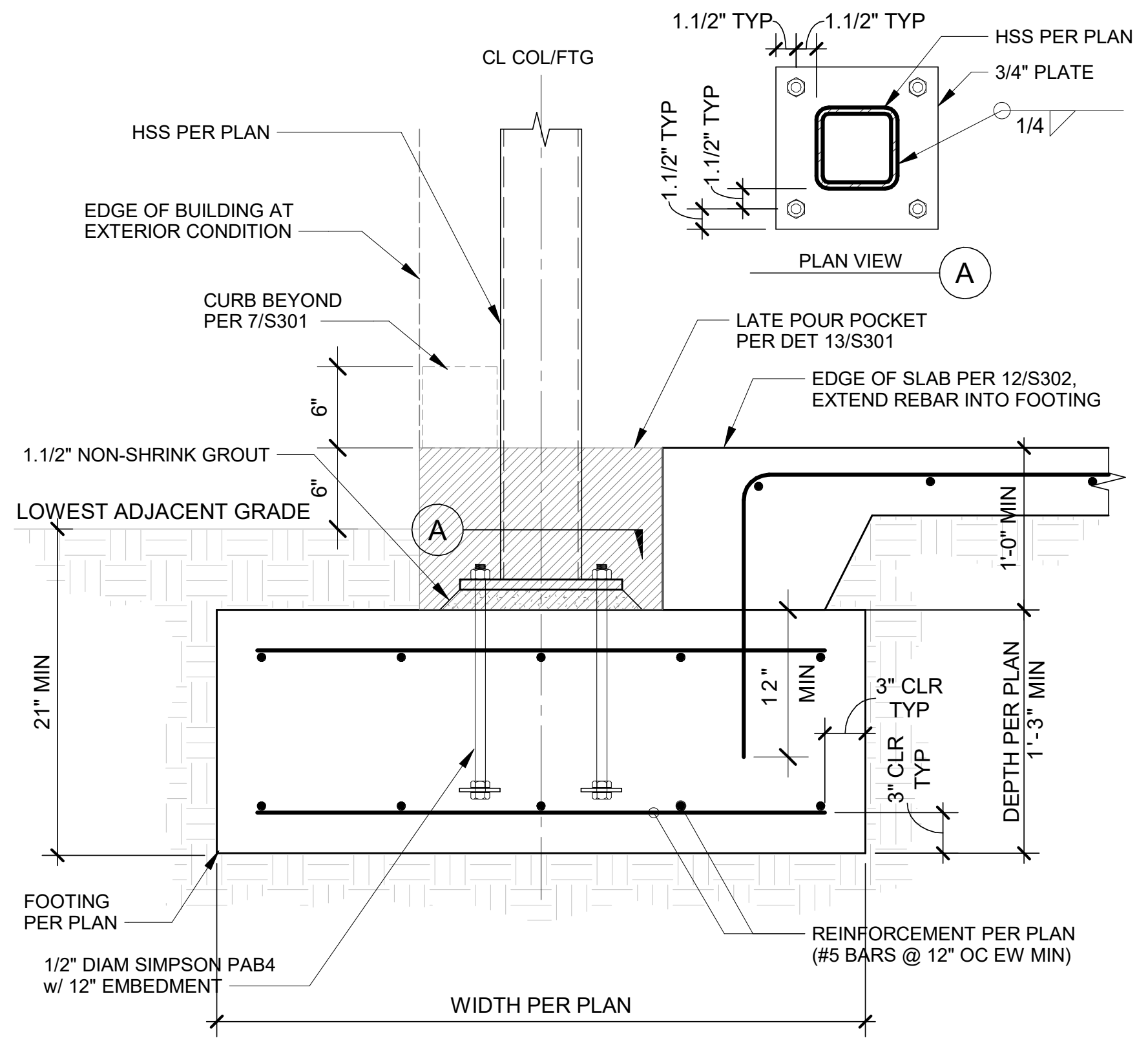
9


DOUBLE TOP PLATE
PL. 3/4" COLUMN CAP
B
(4) 3/4" DIA. THRU BOLTS TO WALL TOP PLATE
1 1/2" TYP
4"
1/4
EQ
EQ
8"
B
TYP
1/4
PL. 1/4" END CAP w/ 3/16 WELD ALL AROUND
2x4 @ 16" O.C. INFILL WALL STUDS
HSS3x3x1/4 WING WALL SUPPORTS
TOP AND BOTTOM FLANGE NAILERS PER 11/S612
1 1/2"
1 1/2" TYP
1/4
EQ
EQ
8"
A
2x4 DIAGONAL RIM STUD w/ (2) SDS25600 INTO END GRAIN OF EA. NAILER
HSS COL PER PLAN
3/4" BASE PL SAME WIDTH AS CURB
7
S301
A
8" MIN EMBED
(2) 3/4" DIA F1554 GR36 THREADED RODS w/ 3/8" PL x 2" x 2" BETWEEN DOUBLE NUT

WING WALL DETAIL

SCALE: NTS

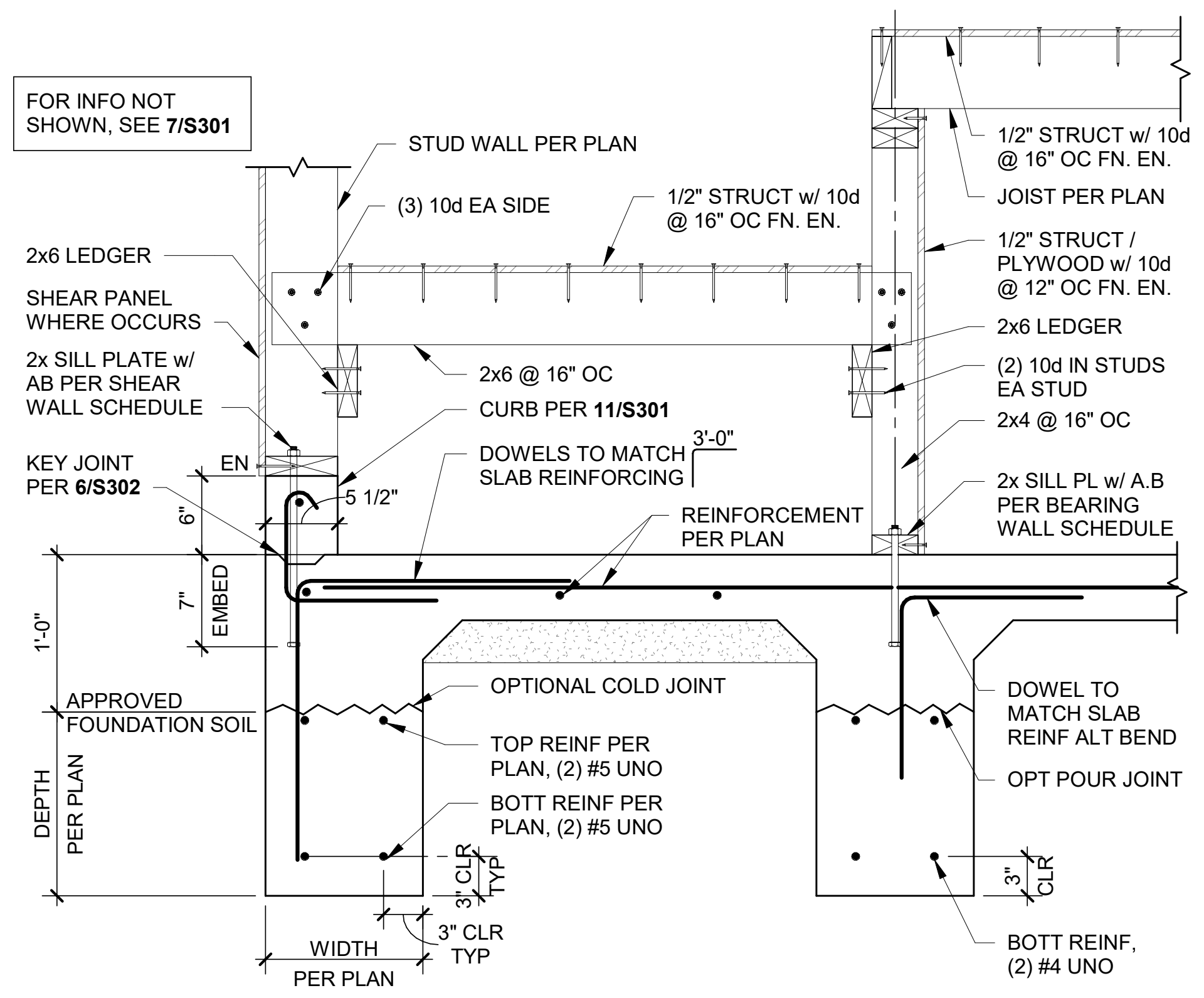
6



HSS COL TO SPREAD FOOTING/GRADE BEAM

SCALE: NTS

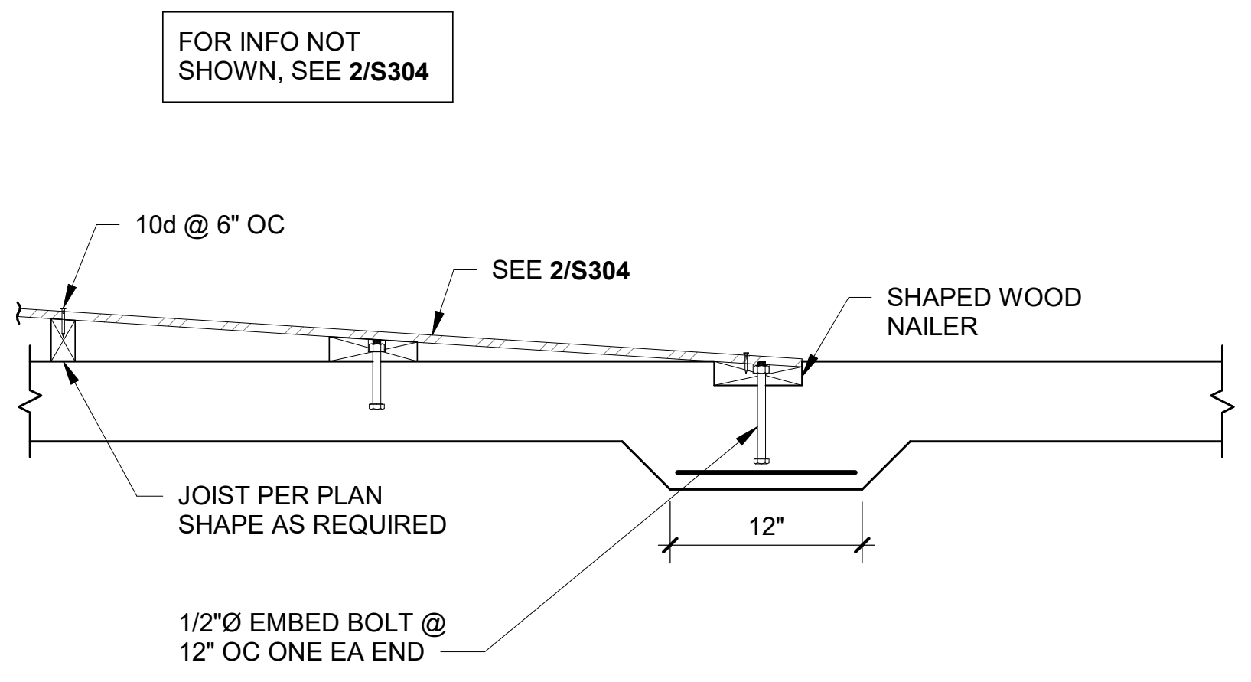
1


FOR INFO NOT SHOWN, SEE 7/S301
STUD WALL PER PLAN
(3) 10d EA SIDE
1/2" STRUCT w/ 10d @ 16" OC FN. EN.
1/2" STRUCT w/ 10d @ 16" OC FN. EN.
JOIST PER PLAN
1/2" STRUCT / PLYWOOD w/ 10d @ 12" OC FN. EN.
2x6 LEDGER
SHEAR PANEL WHERE OCCURS
2x SILL PLATE w/ AB PER SHEAR WALL SCHEDULE
2x6 @ 16" OC
CURB PER 11/S301
2x6 LEDGER
(2) 10d IN STUDS EA STUD
2x4 @ 16" OC
KEY JOINT PER 6/S302
EN
DOWELS TO MATCH SLAB REINFORCING
3'-0"
5 1/2"
6"
2x SILL PL w/ A.B PER BEARING WALL SCHEDULE
REINFORCEMENT PER PLAN
7" EMBED
1'-0"
APPROVED FOUNDATION SOIL
OPTIONAL COLD JOINT
DOWEL TO MATCH SLAB REINF ALT BEND
TOP REINF PER PLAN, (2) #5 UNO
OPT POUR JOINT
DEPTH PER PLAN
BOTT REINF PER PLAN, (2) #5 UNO
3" CLR TYP
3" CLR
WIDTH PER PLAN
3" CLR TYP
BOTT REINF, (2) #4 UNO

PLATFORM FRAMING

SCALE: NTS

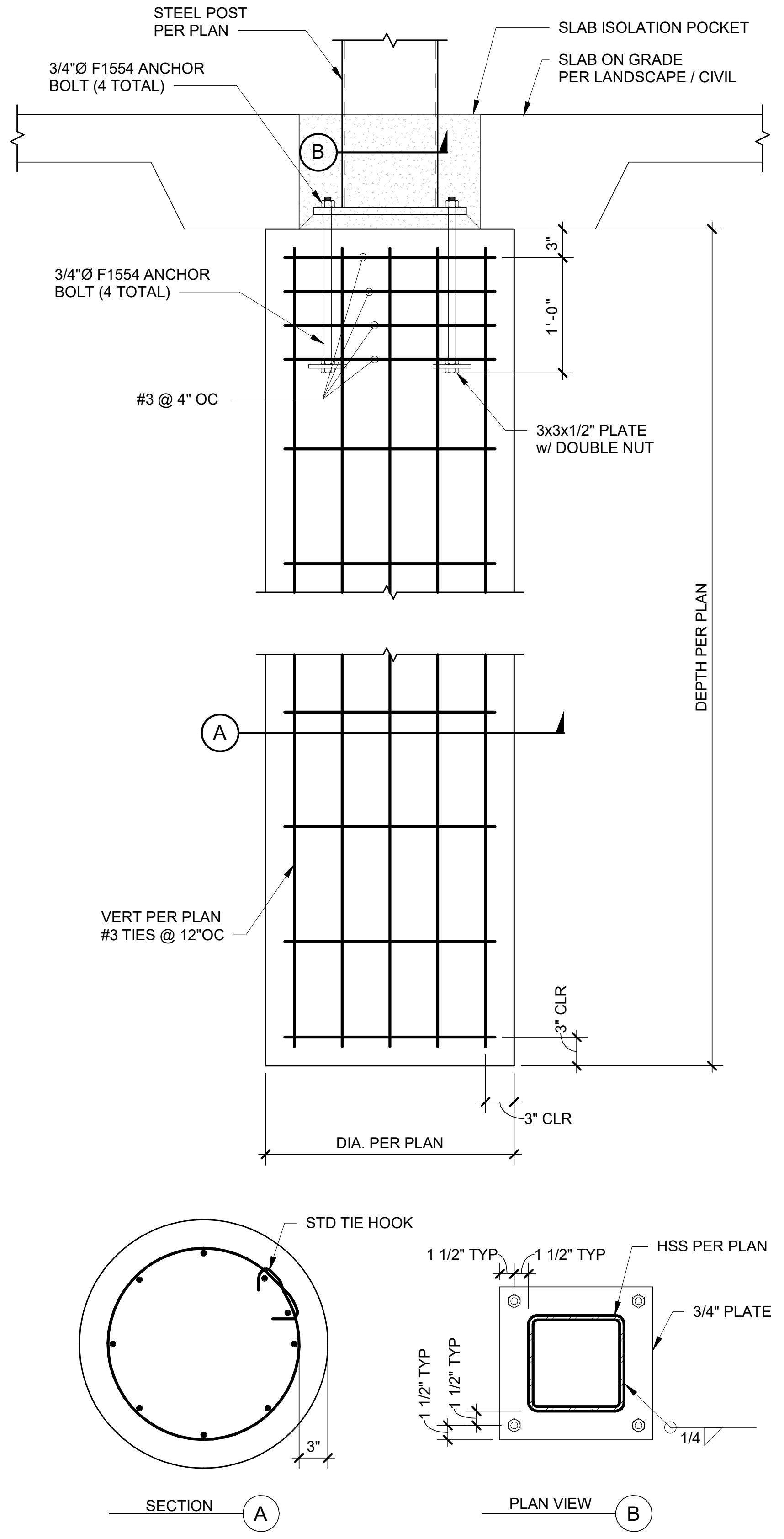
2


FOR INFO NOT SHOWN, SEE 2/S304
10d @ 6" OC
SEE 2/S304
SHAPED WOOD NAILER
JOIST PER PLAN SHAPE AS REQUIRED
12"
1/2"Ø EMBED BOLT @ 12" OC ONE EA END

DETAIL

SCALE: NTS

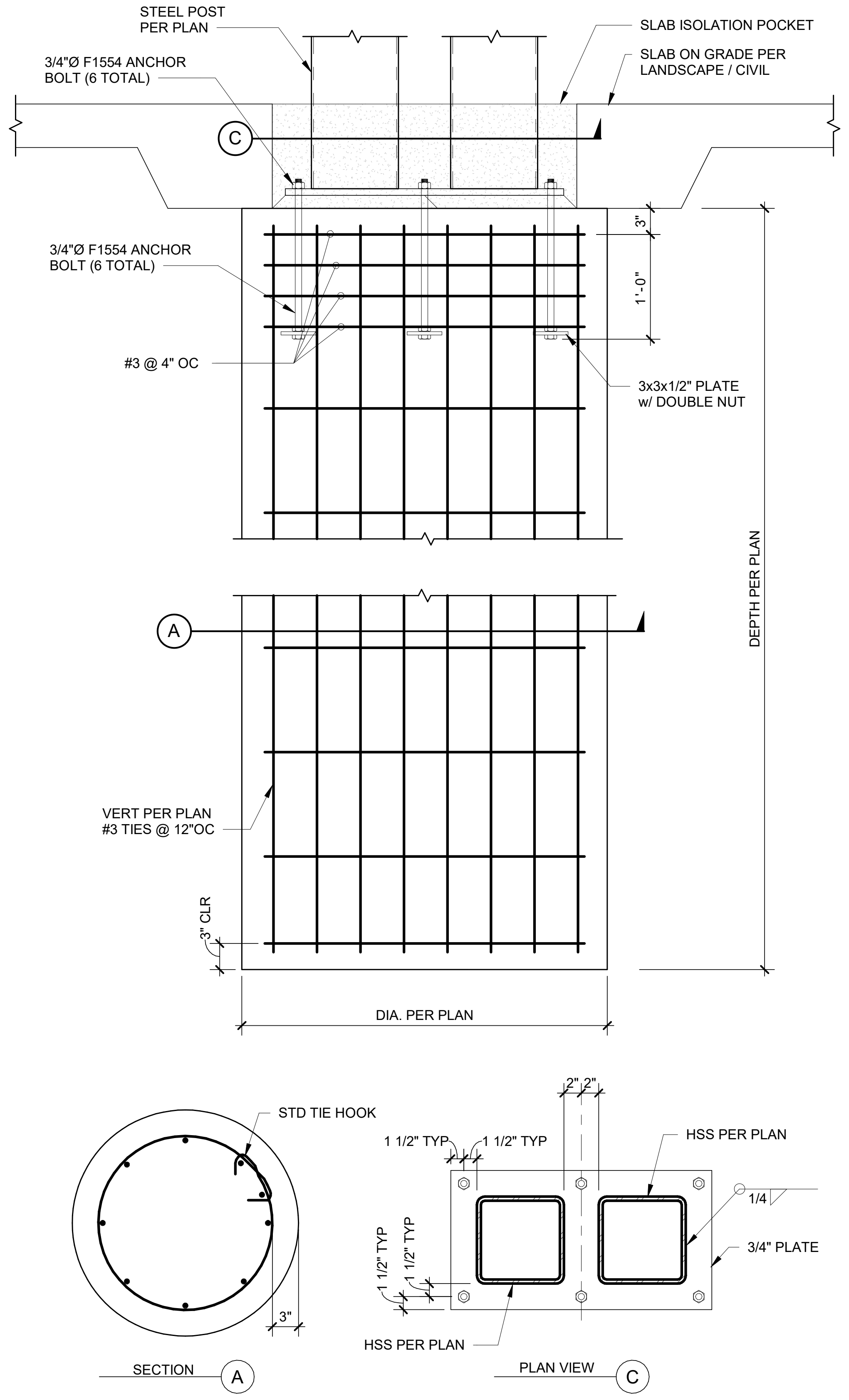
3



POLE FOOTING

SCALE: NTS

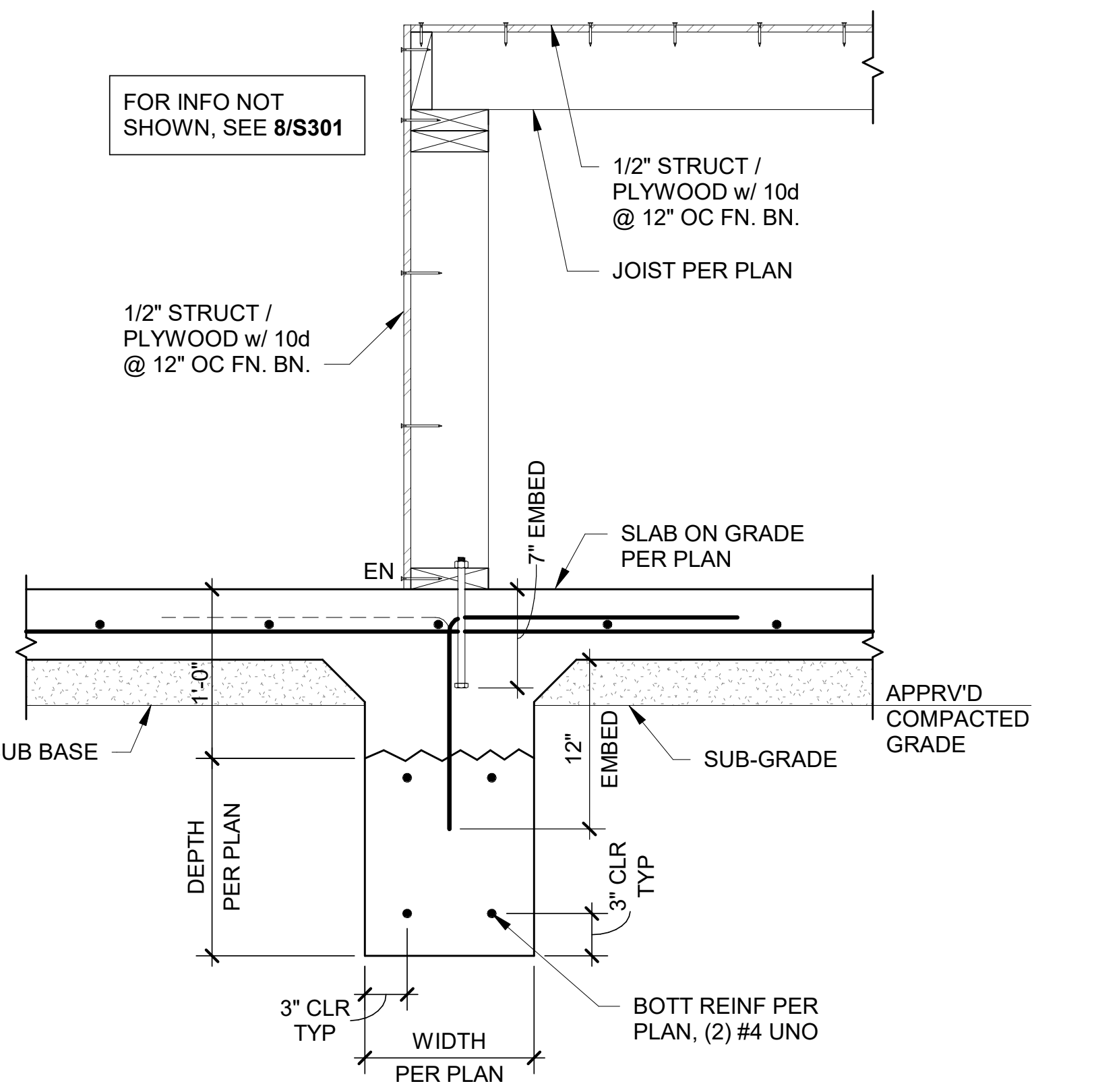
12



POLE FOOTING

SCALE: NTS

8


FOR INFO NOT SHOWN, SEE 8/S301
1/2" STRUCT / PLYWOOD w/ 10d @ 12" OC FN. BN.
JOIST PER PLAN
1/2" STRUCT / PLYWOOD w/ 10d @ 12" OC FN. BN.
7" EMBED
SLAB ON GRADE PER PLAN
EN
APPRV'D COMPACTED GRADE
SUB BASE
1'-0"
12" EMBED
SUB-GRADE
DEPTH PER PLAN
3" CLR TYP
3" CLR TYP
WIDTH PER PLAN
BOTT REINF PER PLAN, (2) #4 UNO

PLATFORM DETAIL

SCALE: NTS

4

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

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APP: 03-122398 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

Tel: (949) 748-7170

PETER SARKIS
No. 5038
Exp. 6/30/23

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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CONCRETE FOOTING DETAILS

PERKINS EASTMAN

3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S303

NOTE:
LAP SPLICE SHALL NOT BE UTILIZED FOR #8 OR LARGER REINF
USE LENTON REBAR SPLICES FOR #8 AND LARGER REINF
(ICC ER-3967). REBAR SPLICES SHALL BE STAGGERED 1'-0"

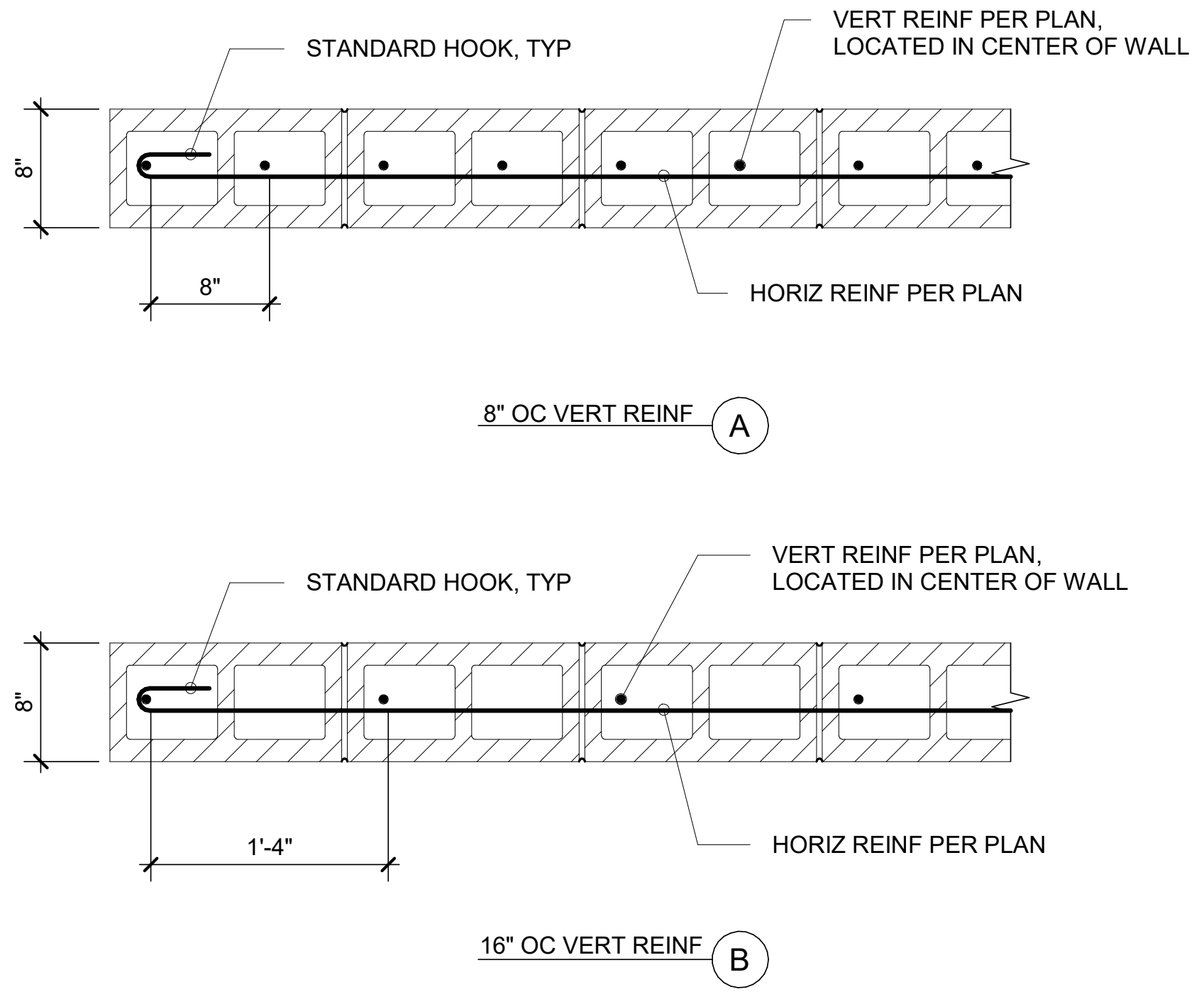
PART NO.	BAR SIZE
EL 25 A2	#8
EL 28 A2	#9

BAR SIZE	#3	#4	#5	#6	#7
LAP LENGTH	16"	26"	40"	74"	100"

STRENGTH DESIGN MASONRY LAP SPLICE

1" = 1'-0"

5



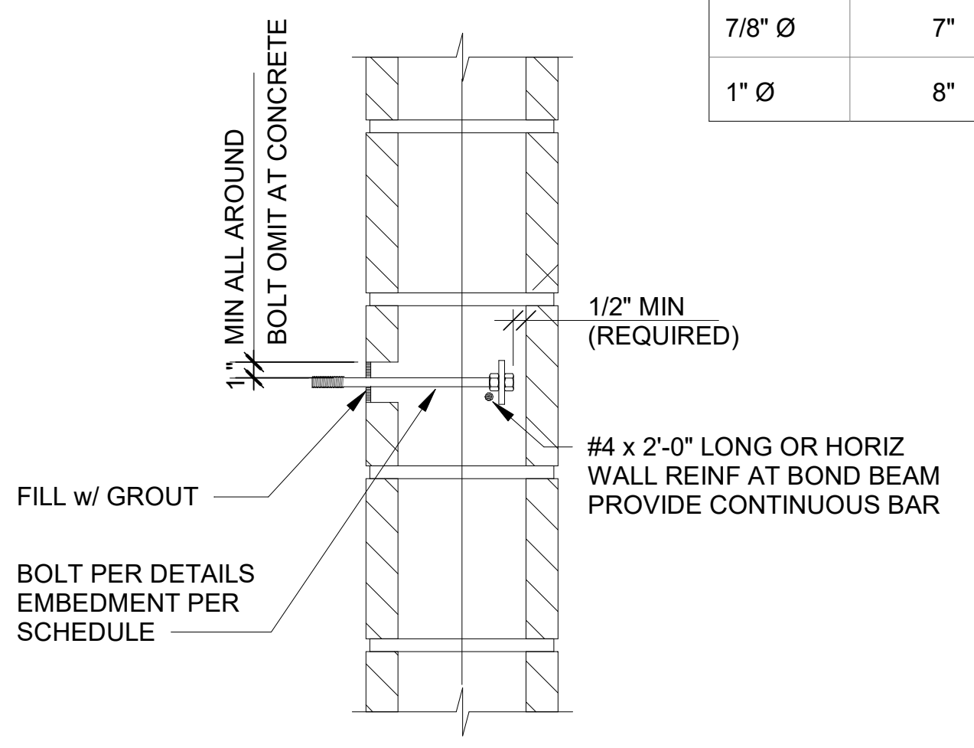
6" or 8" CMU REINFORCING LAYOUT

1" = 1'-0"

1

NOTE:
1. SIM @ CONCRETE
2. BOLTS SHALL CONFORM TO ACI 530 REQUIREMENTS

BOLT SIZE	EMBEDMENT	MIN WALL THICKNESS
1/2" Ø	4"	6"
5/8" Ø	5"	8"
3/4" Ø	6"	10"
7/8" Ø	7"	10'
1" Ø	8"	12"

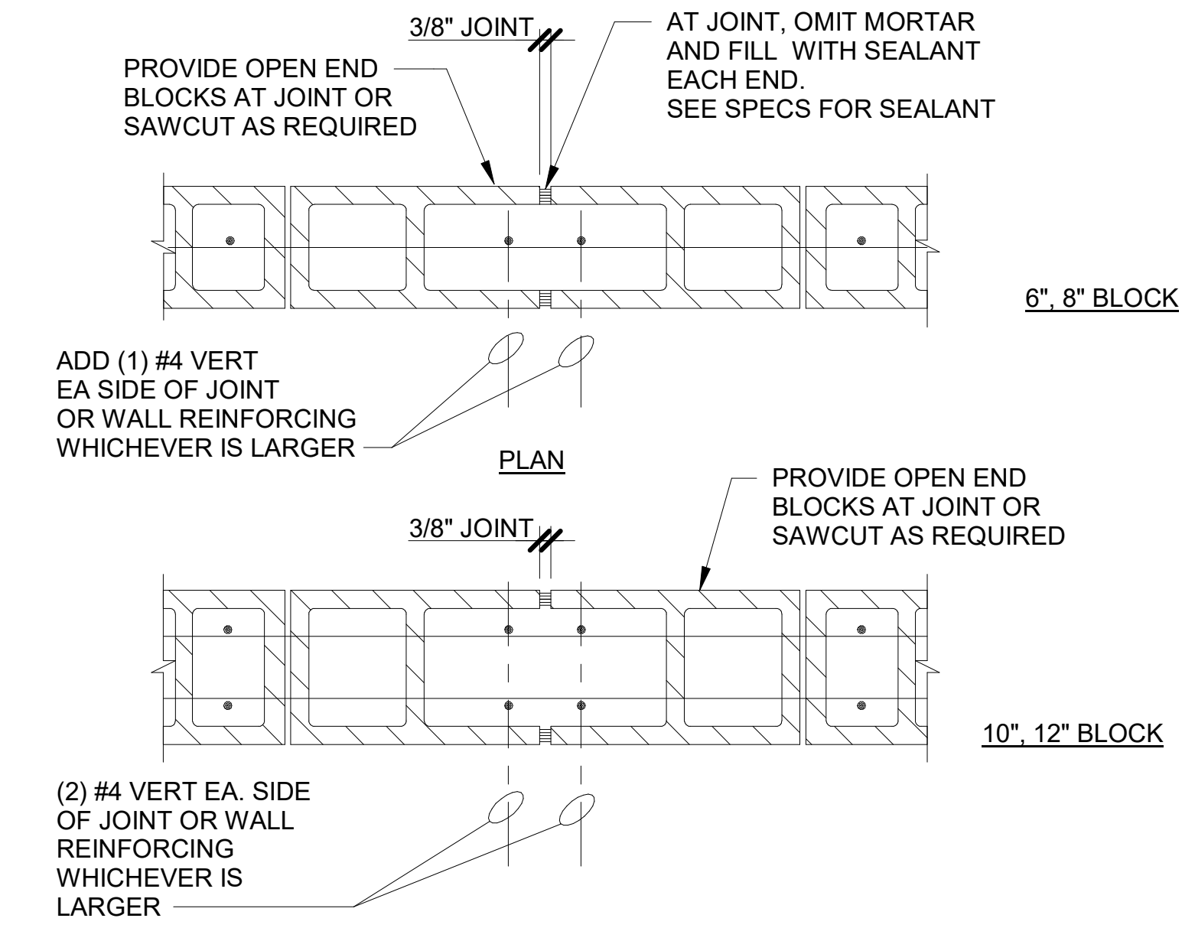

1" MIN ALL AROUND
BOLT OMIT AT CONCRETE
1/2" MIN (REQUIRED)
#4 x 2'-0" LONG OR HORIZ WALL REINF AT BOND BEAM PROVIDE CONTINUOUS BAR
FILL w/ GROUT
BOLT PER DETAILS EMBEDMENT PER SCHEDULE

TYPICAL ANCHOR BOLT IN CMU

1" = 1'-0"

6

NOTES:
1. PROVIDE JOINTS AT INTERVALS NOT TO EXCEED 30 FEET EXCEPT AS NOTED.
2. HORIZONTAL REINFORCING IS CONTINUOUS THROUGH JOINT.

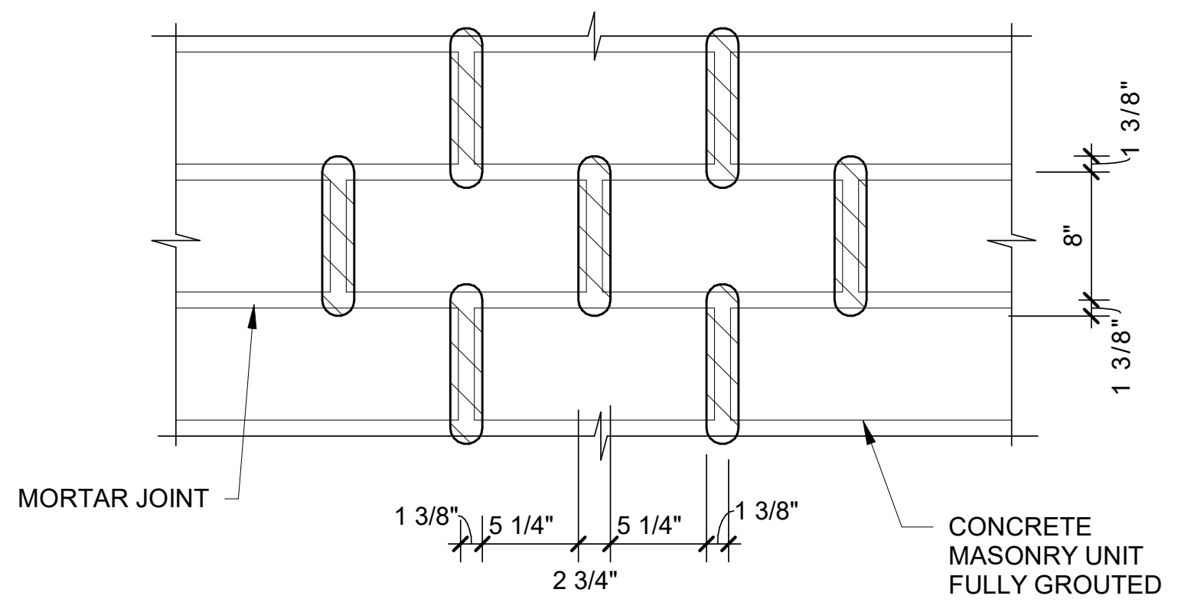

3/8" JOINT
PROVIDE OPEN END BLOCKS AT JOINT OR SAWCUT AS REQUIRED
AT JOINT, OMIT MORTAR AND FILL WITH SEALANT EACH END. SEE SPECS FOR SEALANT
6", 8" BLOCK
ADD (1) #4 VERT EA SIDE OF JOINT OR WALL REINFORCING WHICHEVER IS LARGER
PLAN
3/8" JOINT
PROVIDE OPEN END BLOCKS AT JOINT OR SAWCUT AS REQUIRED
10", 12" BLOCK
(2) #4 VERT EA. SIDE OF JOINT OR WALL REINFORCING WHICHEVER IS LARGER

CONTROL JOINT AT CMU WALL

1" = 1'-0"

2

NOTE:
ANCHOR INSTALLATION IS RESTRICTED TO NON-SHADED AREAS.

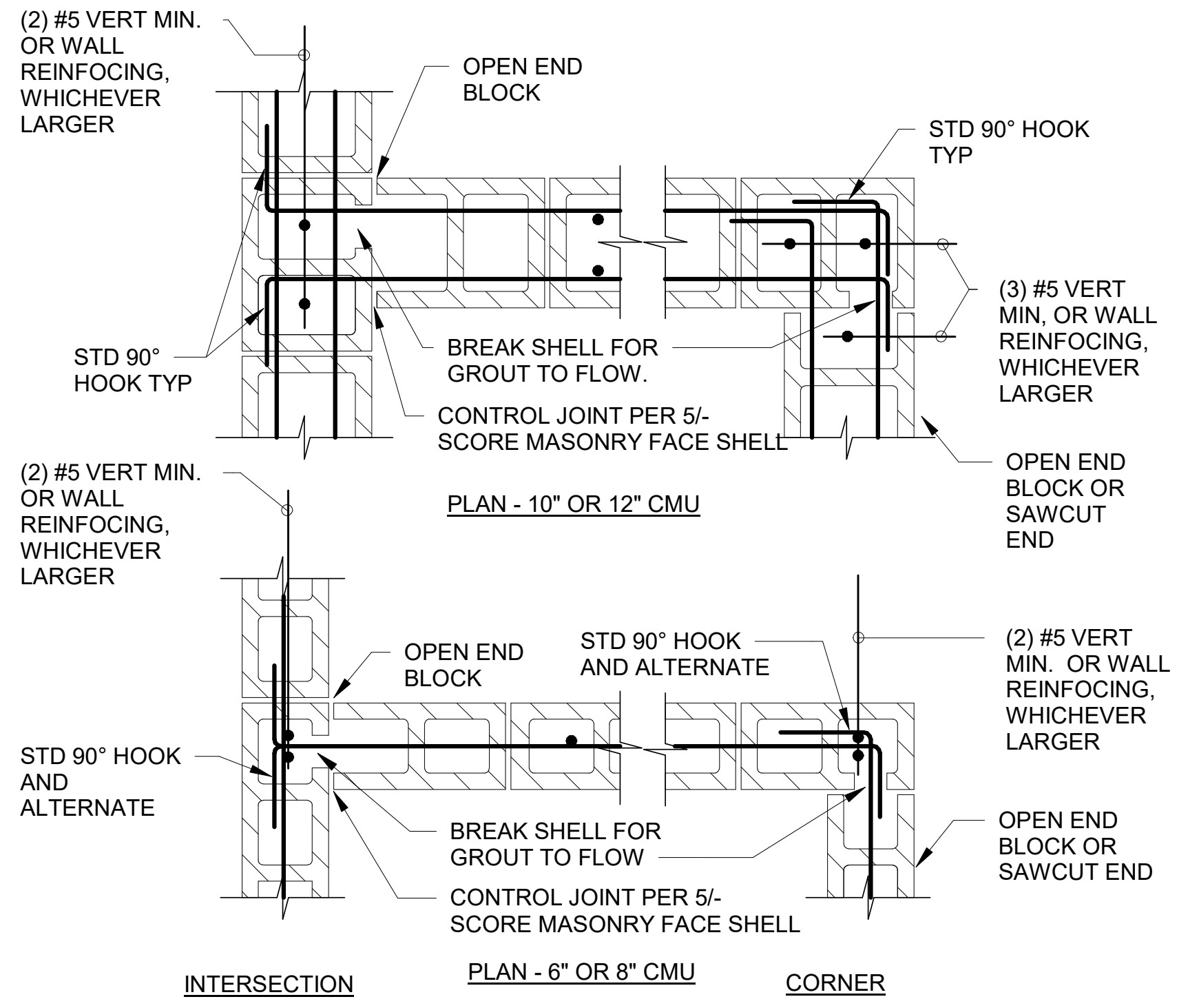


ACCEPTABLE LOCATIONS FOR POST INSTALLED ANCHORS

ANCHOR LOCATIONS IN GROUT-FILLED MASONRY WALL

1" = 1'-0"

7

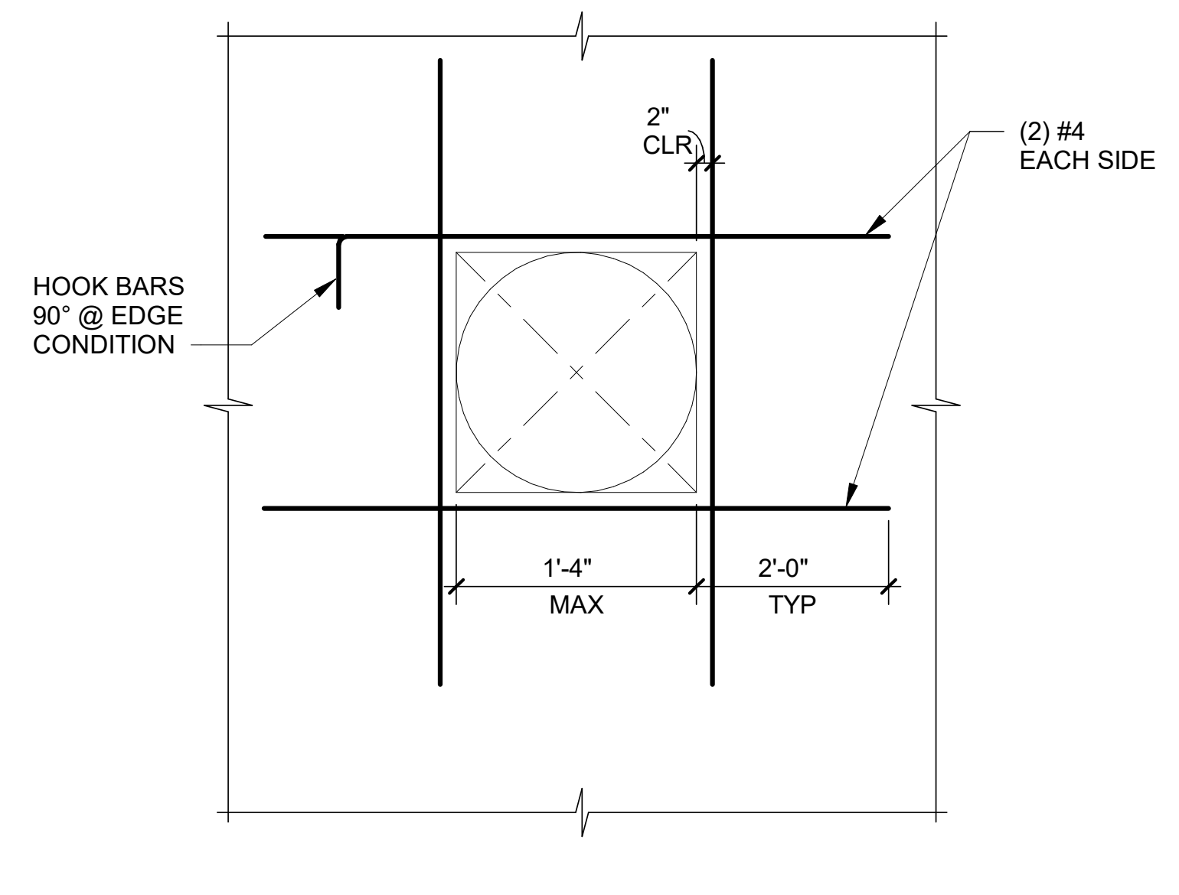

(2) #5 VERT MIN. OR WALL REINFOCING, WHICHEVER LARGER
OPEN END BLOCK
STD 90° HOOK TYP
(3) #5 VERT MIN. OR WALL REINFOCING, WHICHEVER LARGER
STD 90° HOOK TYP
BREAK SHELL FOR GROUT TO FLOW.
CONTROL JOINT PER 5/- SCORE MASONRY FACE SHELL
OPEN END BLOCK OR SAWCUT END
PLAN - 10" OR 12" CMU
(2) #5 VERT MIN. OR WALL REINFOCING, WHICHEVER LARGER
OPEN END BLOCK
STD 90° HOOK AND ALTERNATE
(2) #5 VERT MIN. OR WALL REINFOCING, WHICHEVER LARGER
STD 90° HOOK AND ALTERNATE
BREAK SHELL FOR GROUT TO FLOW
CONTROL JOINT PER 5/- SCORE MASONRY FACE SHELL
OPEN END BLOCK OR SAWCUT END
INTERSECTION
PLAN - 6" OR 8" CMU
CORNER

CMU WALL INTERSECTION DETAIL

1" = 1'-0"

3

NOTES:
1. SEE WALL ELEVATIONS OR PLANS FOR REINFORCEMENT AT OPENINGS OVER 16"x16".
2. CLUSTERS OF SMALL HOLES WITH OVERALL MEASUREMENT EXCEEDING 1'-0" SHOULD BE REINFORCED AS ONE OPENING.
3. CLUSTERS OF SMALL HOLES WITH OVERALL MEASUREMENT EXCEEDING 1'-0" SHOULD BE REINFORCED AS ONE OPENING.



CMU WALL OPENING

1" = 1'-0"

4

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STRUCTURAL

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TYPICAL MASONRY DETAILS

PERKINS — EASTMAN

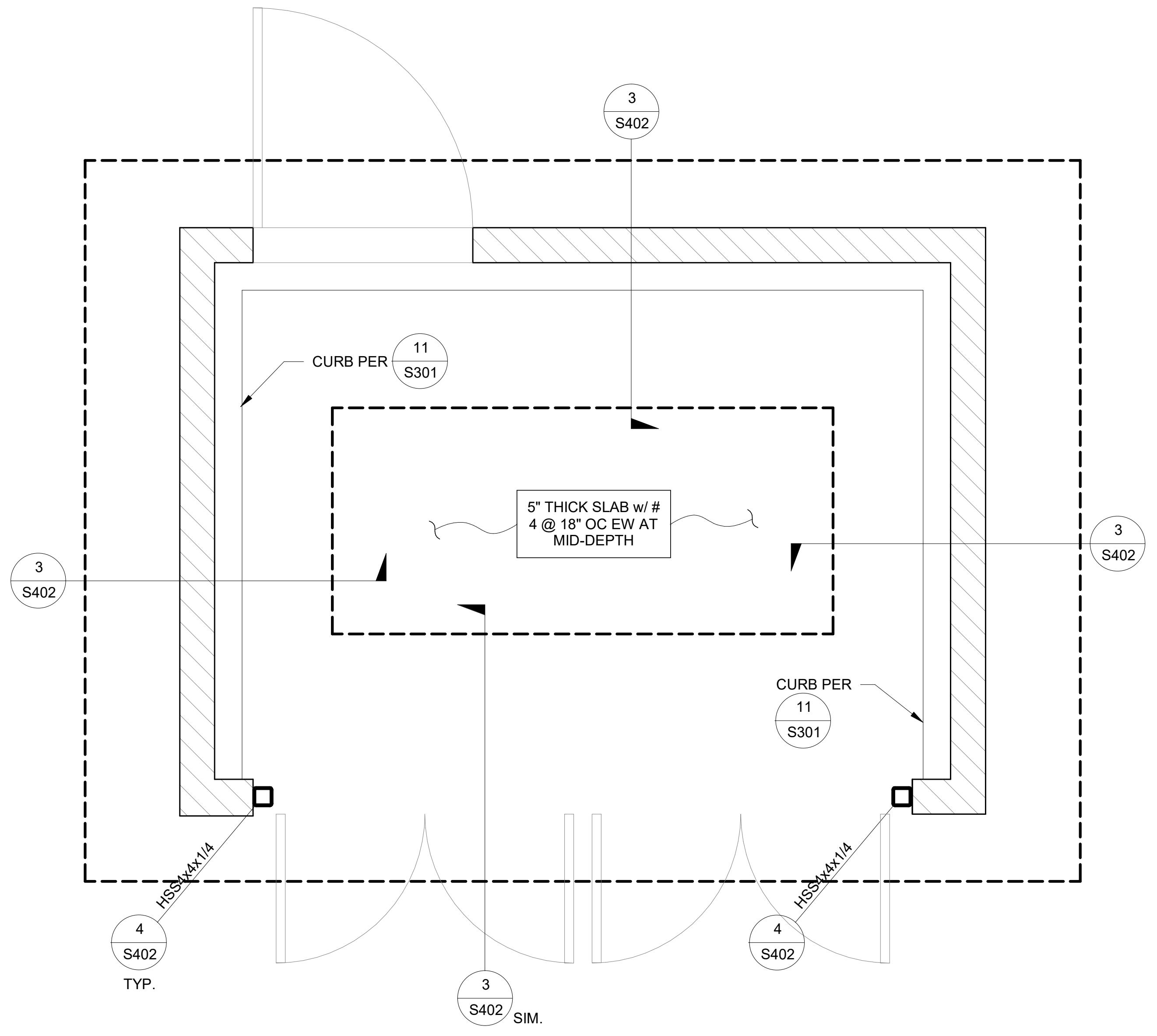
3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S401

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

Tel: (949) 748-7170

PETER SARKIS
No. 5038
Exp. 6/30/23



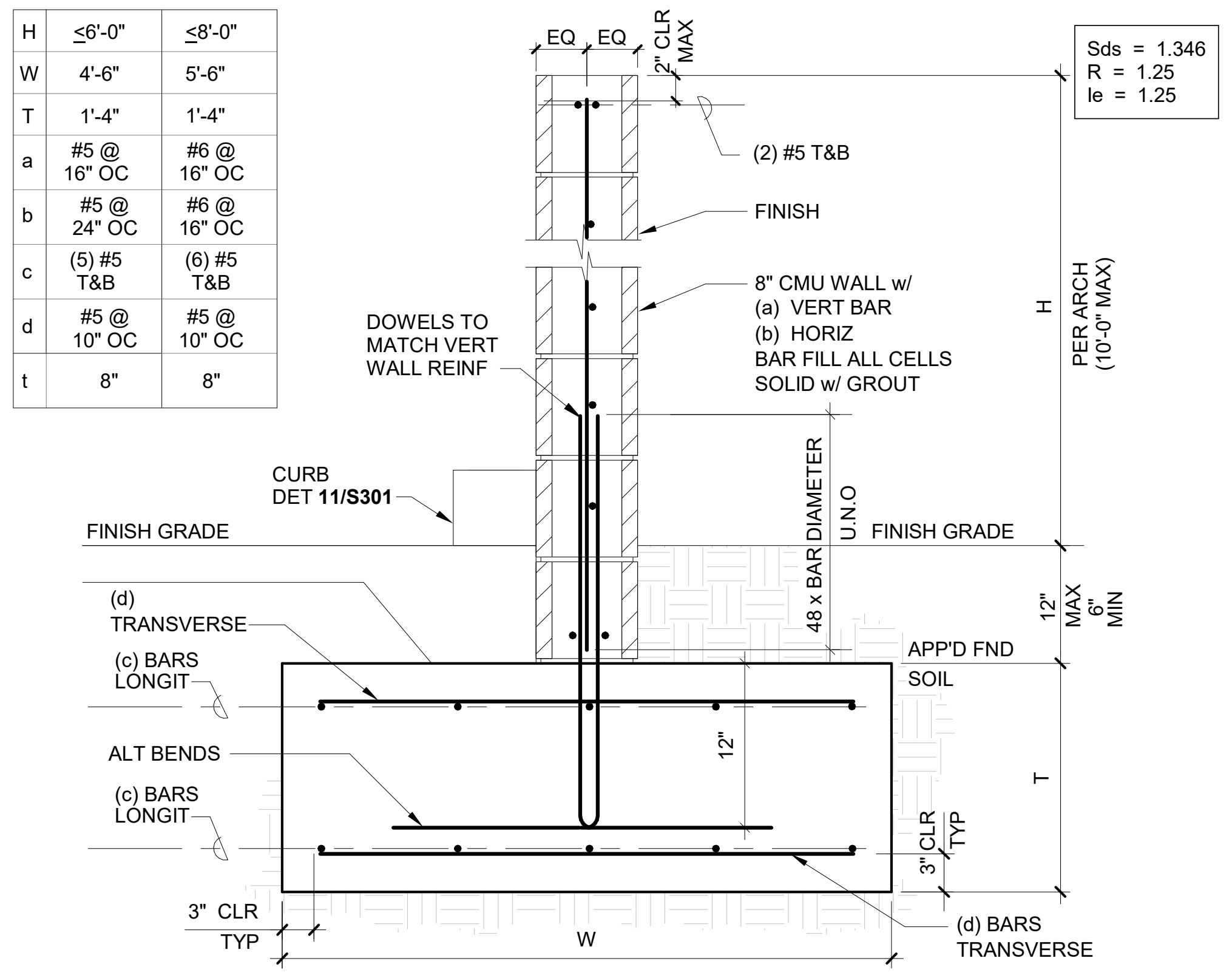
TRASH ENCLOSURE FOUNDATION PLAN

1/2" = 1'-0"

2

H	≤6'-0"	≤8'-0"
W	4'-6"	5'-6"
T	1'-4"	1'-4"
a	#5 @ 16" OC	#6 @ 16" OC
b	#5 @ 24" OC	#6 @ 16" OC
c	(5) #5 T&B	(6) #5 T&B
d	#5 @ 10" OC	#5 @ 10" OC
t	8"	8"

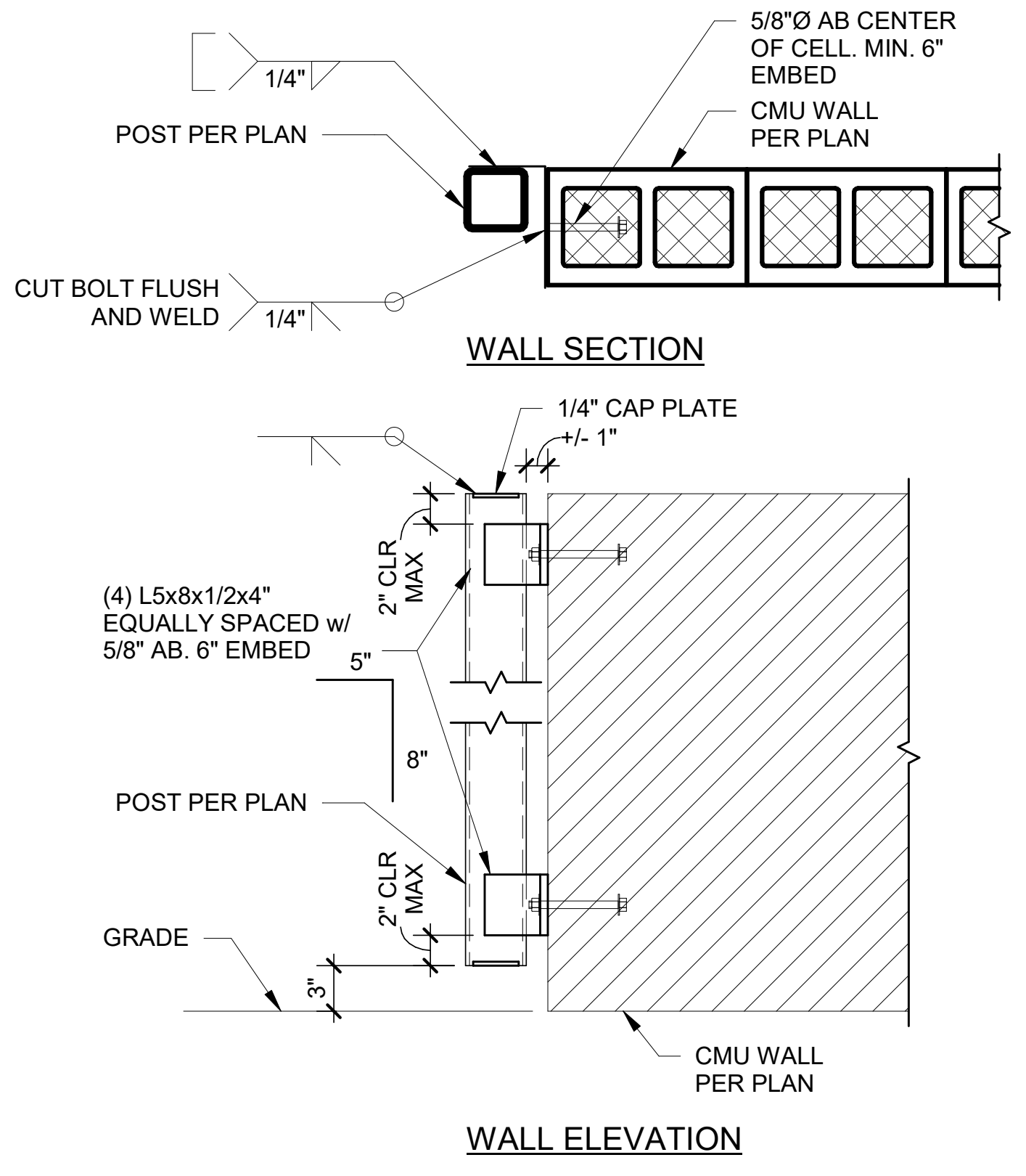
Sds = 1.346
R = 1.25
Ie = 1.25



TYP CATILEVERED CMU WALL

SCALE: NTS

3



WALL SECTION

WALL ELEVATION

COLUMN TO CMU WALL

SCALE: NTS

4

GATEWAY COMMUNITY SCHOOL - NEW
CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2021-101_R21
SCALE	AS NOTED
PM	
DATE	Issue Date
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TRASH ENCLOSURE

PERKINS EASTMAN

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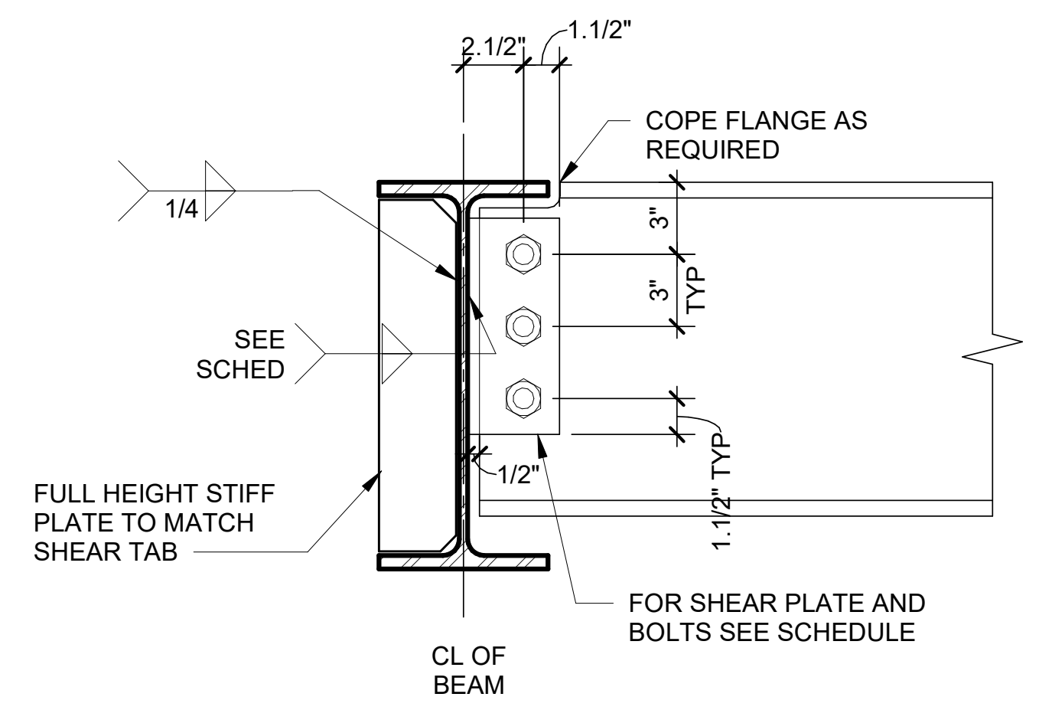
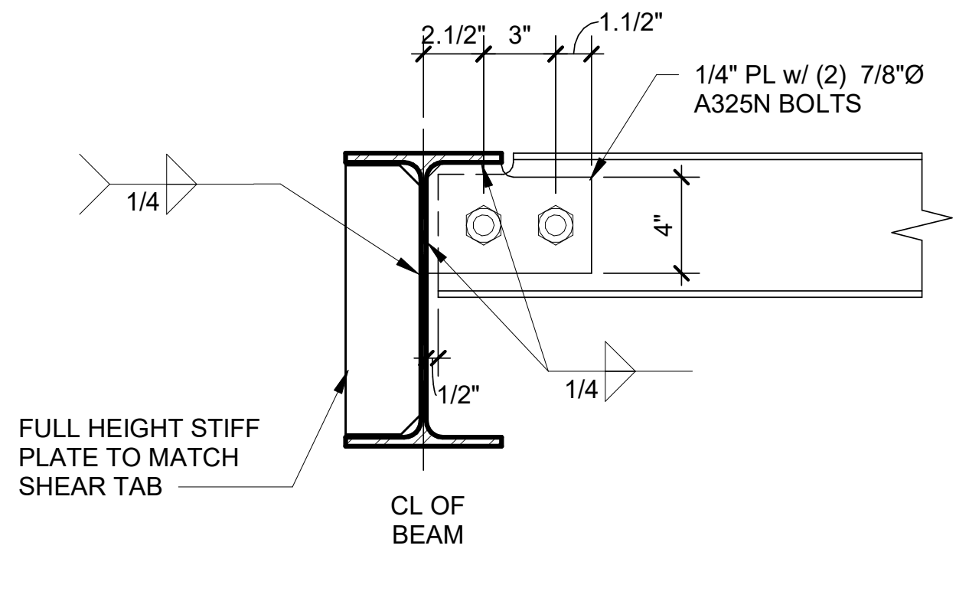
S402

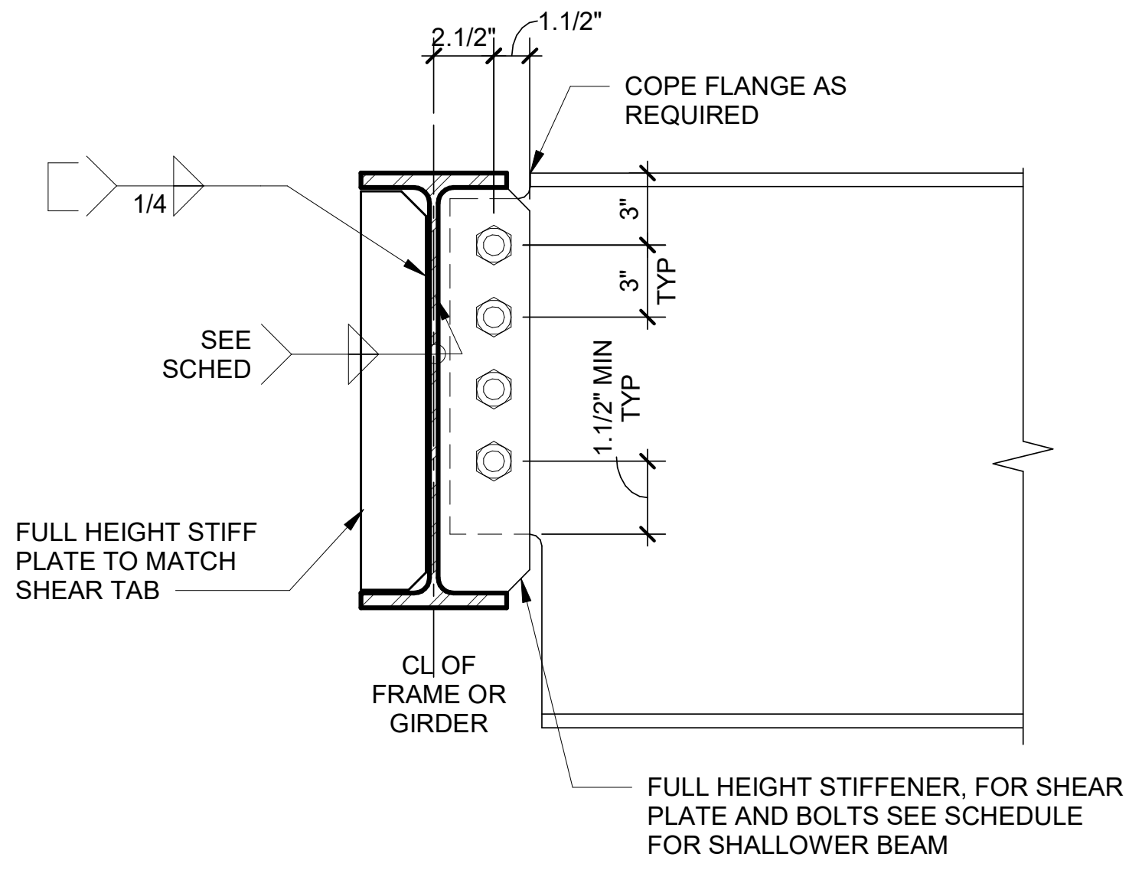
Project #: 2021-101_R21 Plot Date: 1/17/2023 1:10:35 PM


2.1/2"
1.1/2"
COPE FLANGE AS REQUIRED
1/4
3"
3" TYP
SEE SCHED
1.1/2" TYP
1/2"
FULL HEIGHT STIFF PLATE TO MATCH SHEAR TAB
FOR SHEAR PLATE AND BOLTS SEE SCHEDULE
CL OF BEAM

BEAM TO BEAM (D)


2.1/2"
3"
1.1/2"
1/4" PL w/ (2) 7/8"Ø A325N BOLTS
1/4
4"
1/2"
1/4
FULL HEIGHT STIFF PLATE TO MATCH SHEAR TAB
CL OF BEAM

W6x OR C6x CONNECTION (E)


2.1/2"
1.1/2"
COPE FLANGE AS REQUIRED
1/4
3"
3" TYP
SEE SCHED
1.1/2" MIN TYP
FULL HEIGHT STIFF PLATE TO MATCH SHEAR TAB
CL OF FRAME OR GIRDER
FULL HEIGHT STIFFENER, FOR SHEAR PLATE AND BOLTS SEE SCHEDULE FOR SHALLOWER BEAM

DEEPER BEAM TO SHALLOWER BEAM (B)

STANDARD BOLTED CONNECTION SCHEDULE

BEAM SIZE	NO. & SIZE OF BOLTS REQUIRED	SHEAR TAB	WELD SIZE	CONNECTION CAPACITY A325-SC
W12 C12	(3) 7/8"Ø	1/4"	1/4"	18.1K
W21	(5) 7/8"Ø	5/16"	1/4"	39.9K
W24	(6) 7/8"Ø	3/8"	5/16"	50.9K
W36	(9) 7/8"Ø	7/16"	3/8"	83.3K

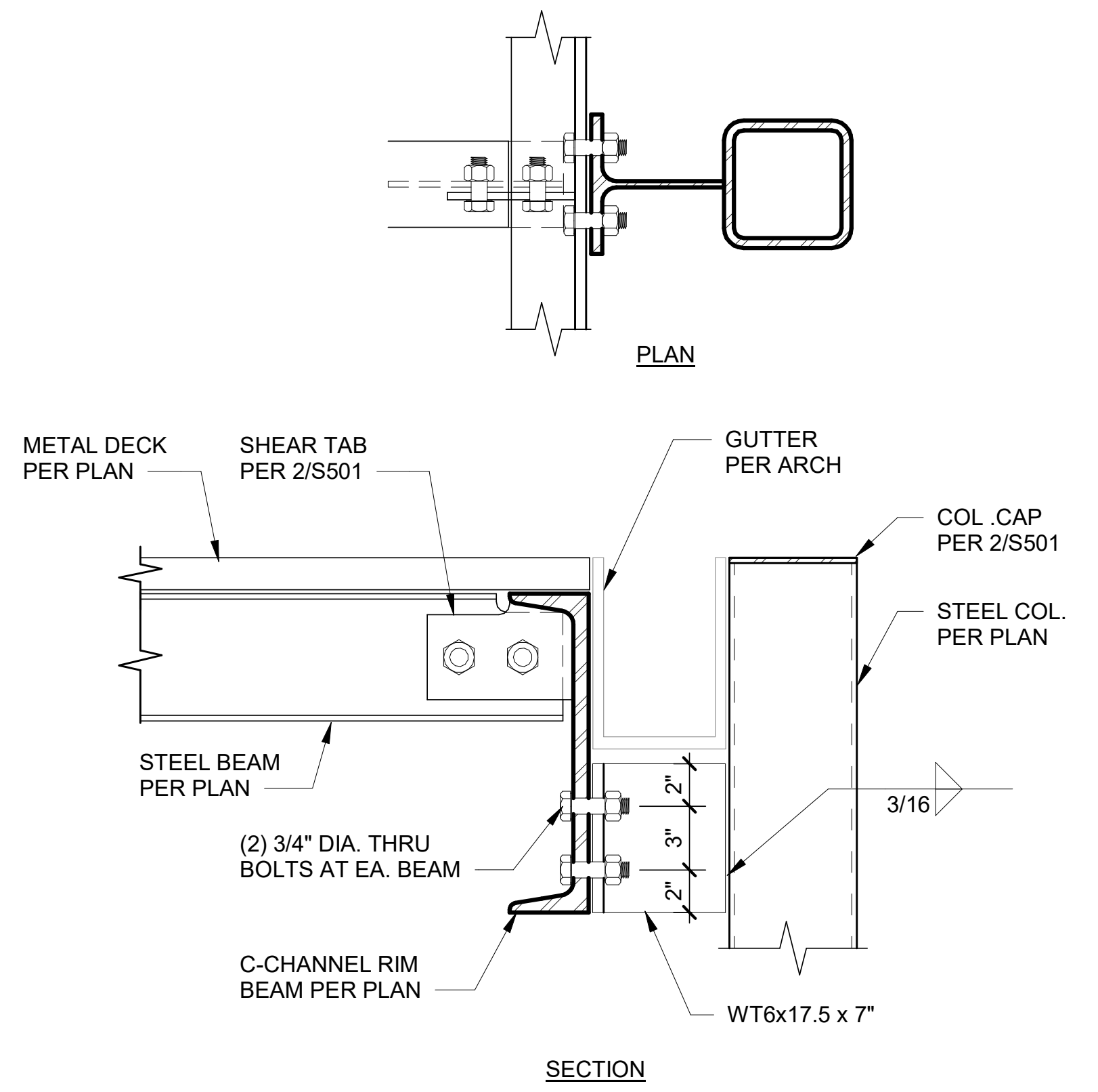
NOTES:

1. ALL BOLTS TO BE ASTM A325-SC FULLY PRETENSIONED AND INSPECTED PER AISC.
2. CONNECTION PLATES TO HAVE AISC STANDARD ROUND HOLES UNLESS NOTED OTHERWISE.
3. ALL CONNECTION PLATE MATERIAL TO BE A36.
4. X SHOWN ON PLANS INDICATES NUMBER OF BOLTS REQUIRED. IF NOT SHOWN THEN USE THE NUMBER OF BOLTS SHOWN IN THE TABLE ABOVE.

TYPICAL BOLTED BEAM CONNECTION DETAILS

1 1/2" = 1'-0"

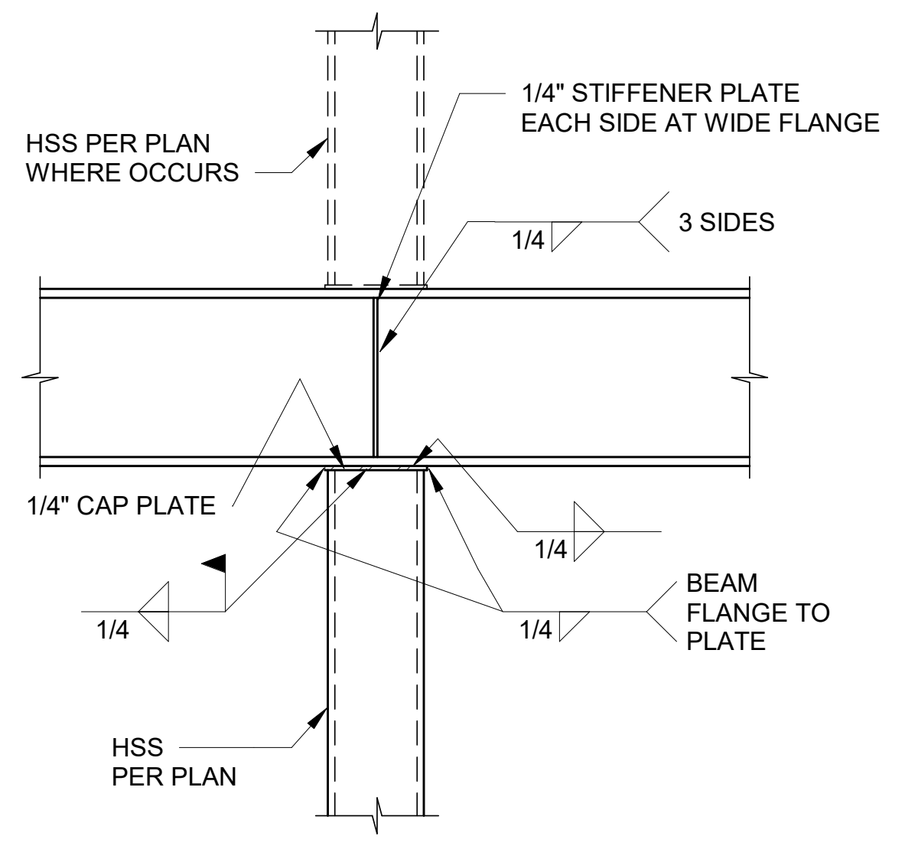
2



CANOPY BEAM TO COL CONNECTION

SCALE: NTS

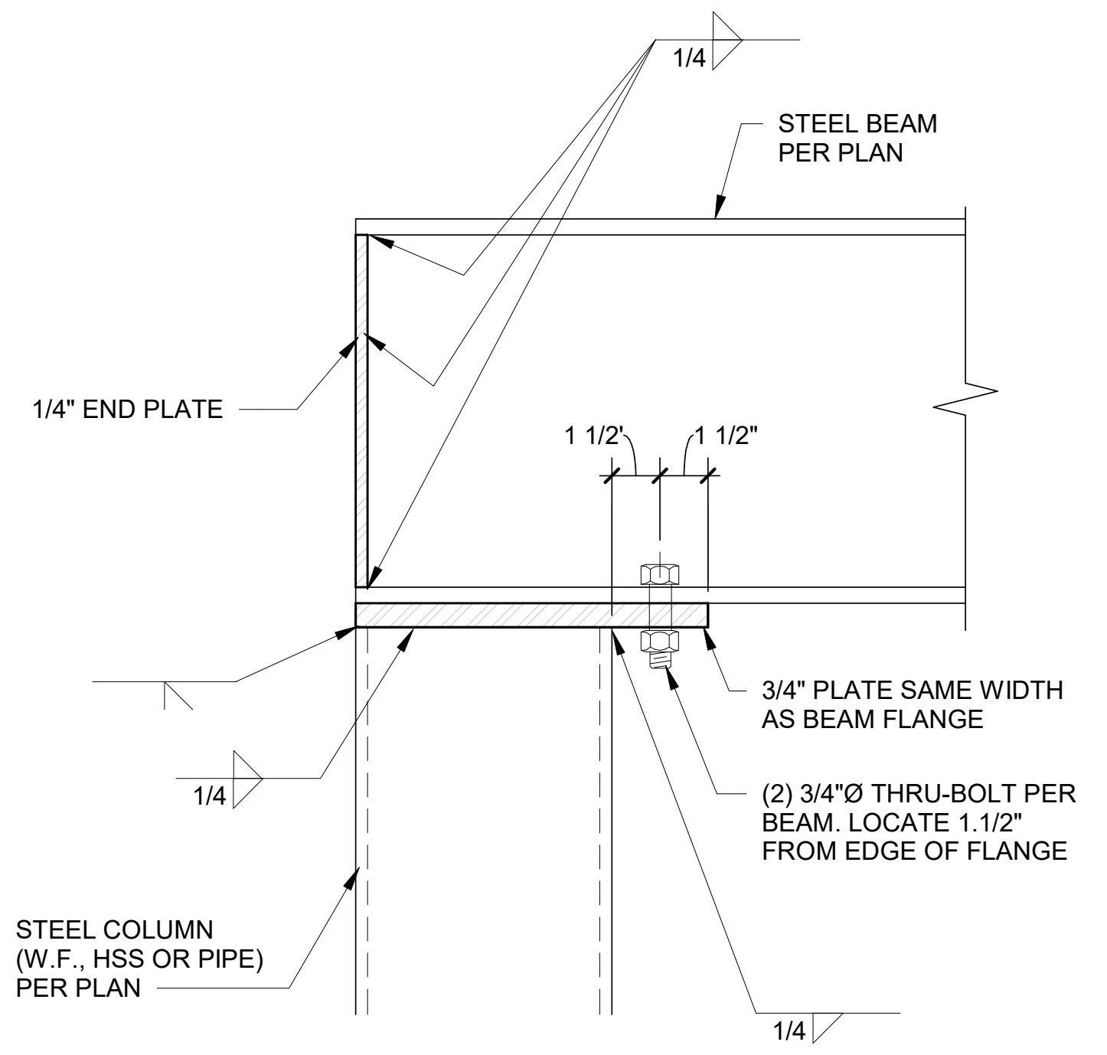
15


HSS PER PLAN WHERE OCCURS
1/4" STIFFENER PLATE EACH SIDE AT WIDE FLANGE
1/4
3 SIDES
1/4" CAP PLATE
1/4
1/4
1/4
BEAM FLANGE TO PLATE
HSS PER PLAN

CONTINUOUS BEAM OVER COLUMN

SCALE: NTS

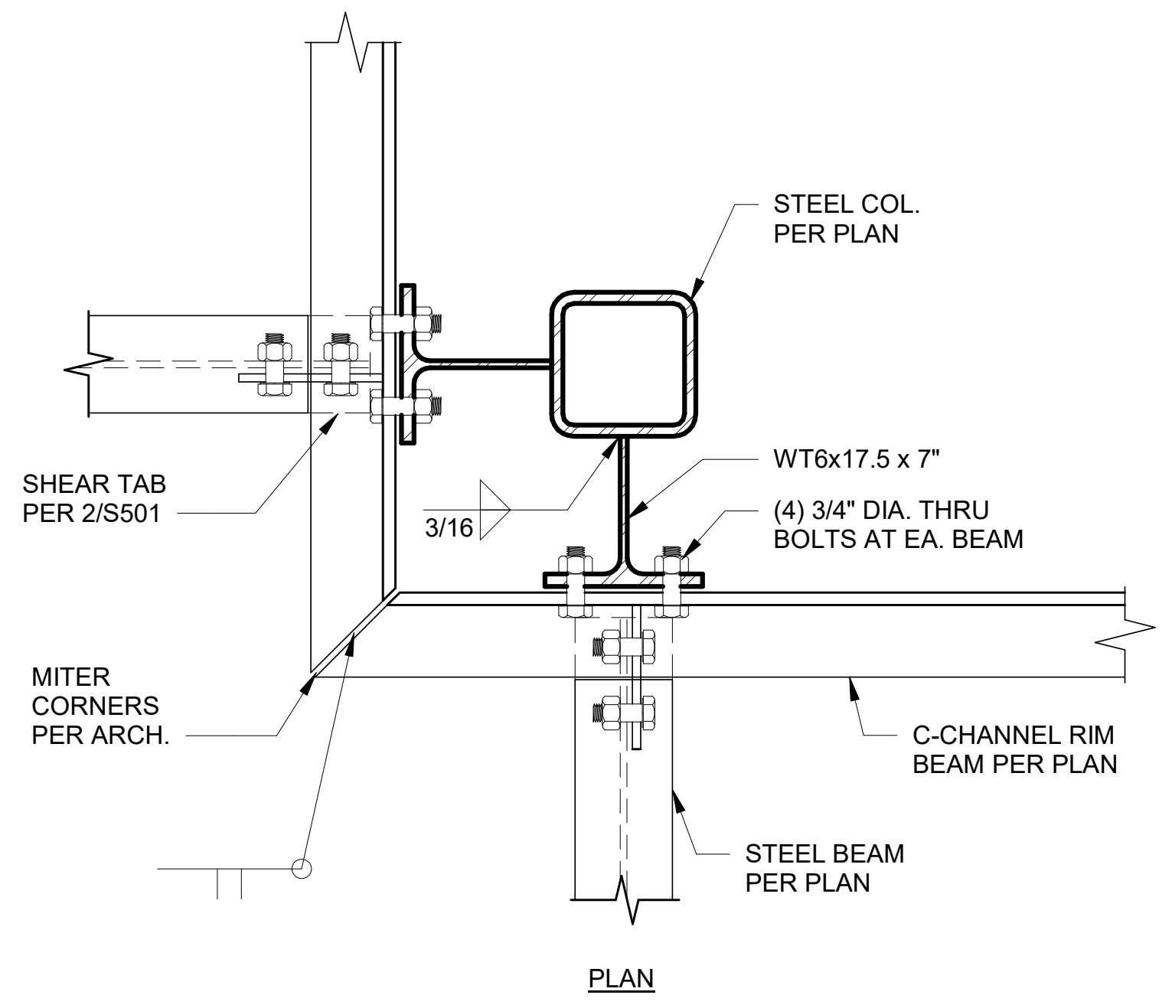
11


1/4
STEEL BEAM PER PLAN
1/4" END PLATE
1 1/2'
1 1/2"
3/4" PLATE SAME WIDTH AS BEAM FLANGE
1/4
(2) 3/4"Ø THRU-BOLT PER BEAM. LOCATE 1.1/2" FROM EDGE OF FLANGE
STEEL COLUMN (W.F., HSS OR PIPE) PER PLAN
1/4

WF BM w/ WD BM TO STEEL COL

SCALE: NTS

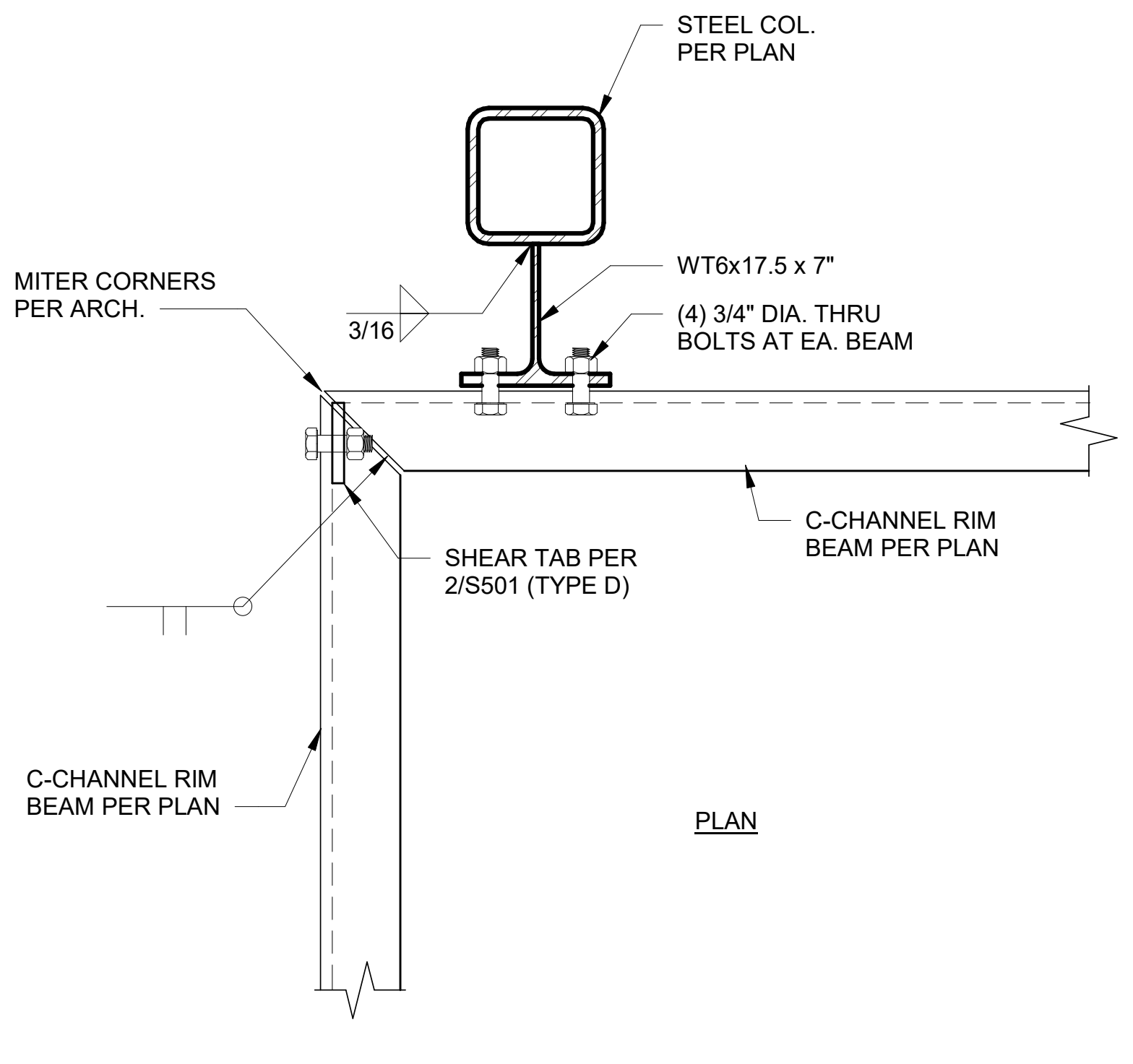
3



CANOPY BEAM TO COL CONNECTION

SCALE: NTS

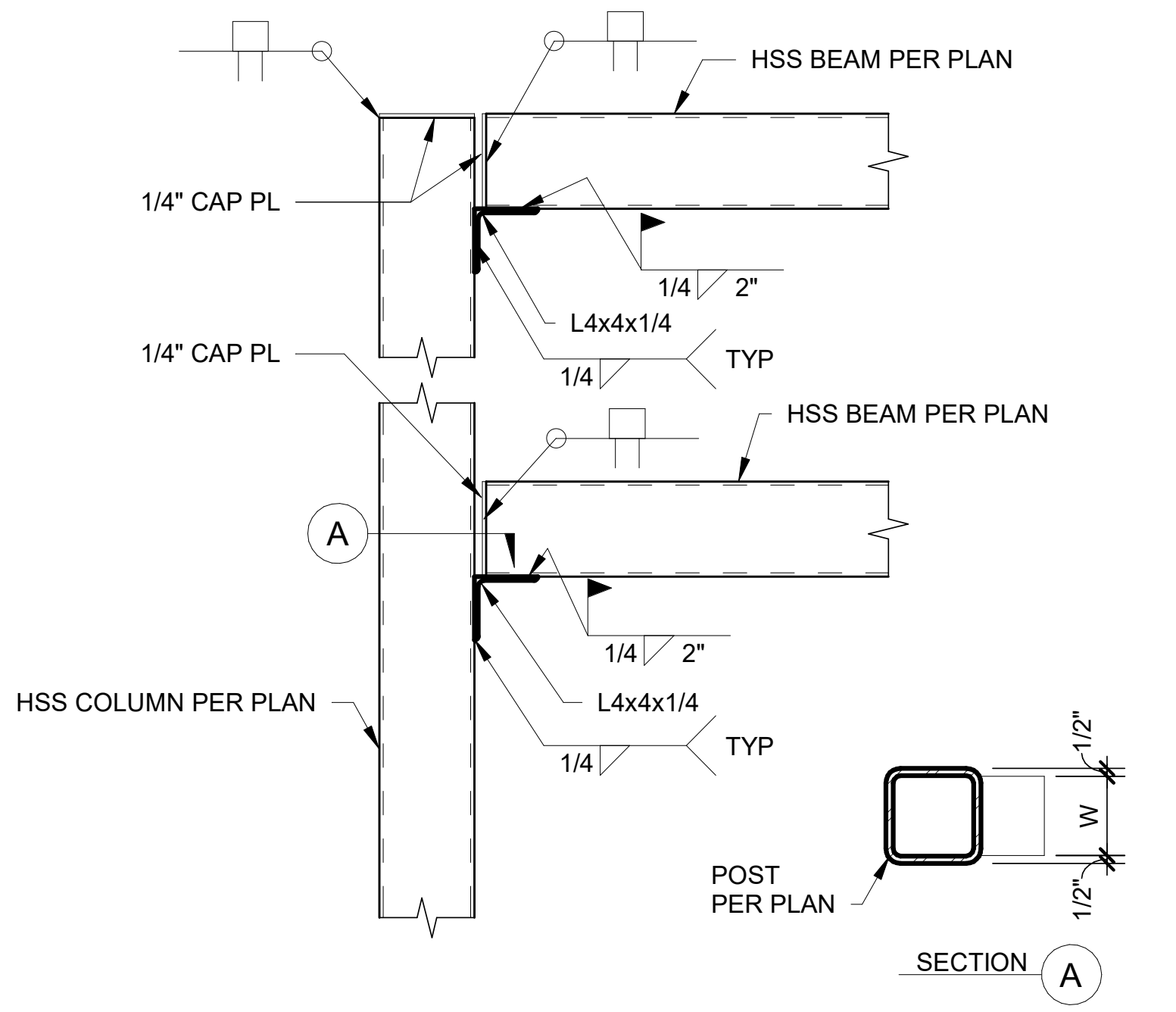
16


STEEL COL. PER PLAN
MITER CORNERS PER ARCH.
3/16
WT6x17.5 x 7"
(4) 3/4" DIA. THRU BOLTS AT EA. BEAM
SHEAR TAB PER 2/S501 (TYPE D)
C-CHANNEL RIM BEAM PER PLAN
C-CHANNEL RIM BEAM PER PLAN
PLAN

CANOPY BEAM TO COL CONNECTION

SCALE: NTS

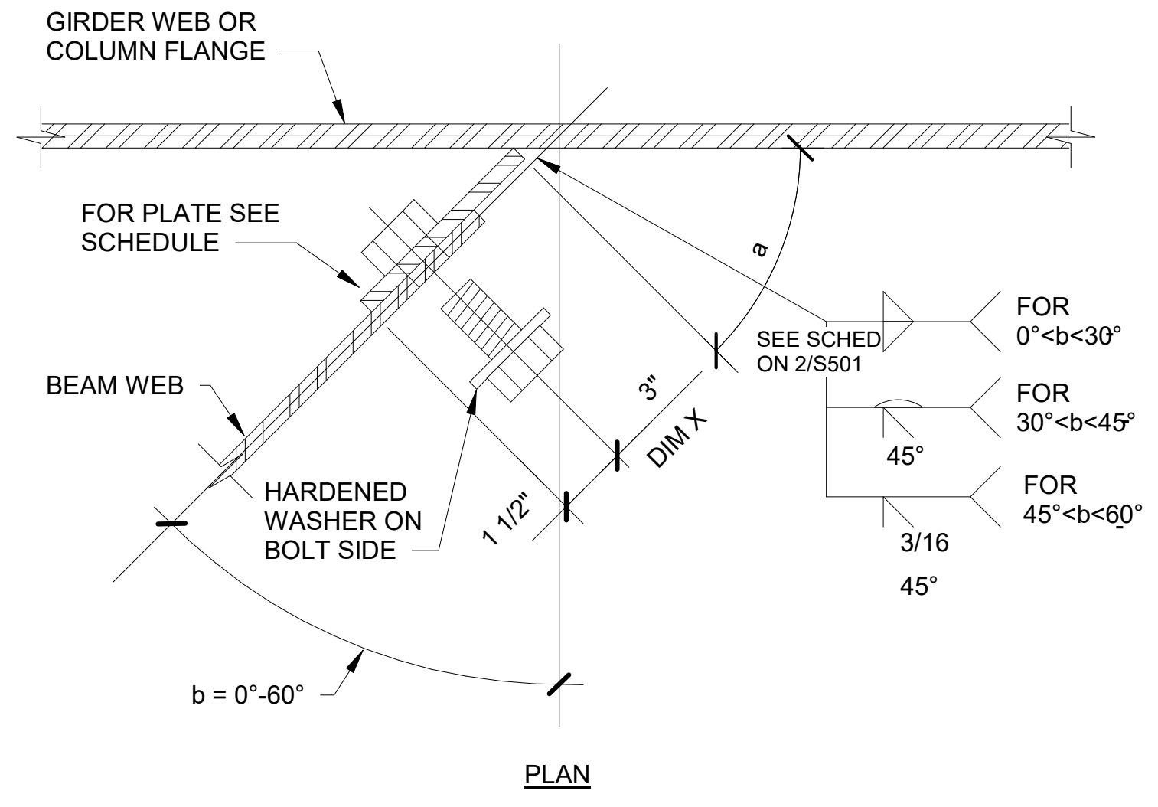
12



HSS COL TO HSS BEAM

SCALE: NTS

8



SKEWED BEAM CONNECTION

SCALE: NTS

4

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PETER SARKIS
No. 5038
Exp. 6/30/23

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2021-101_R21
SCAL	AS NOTED
PM	
DATE	Issue Date

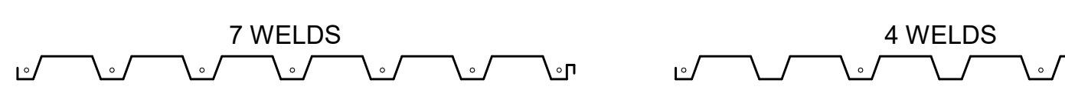
TYPICAL STEEL FRAMING DETAILS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

S501

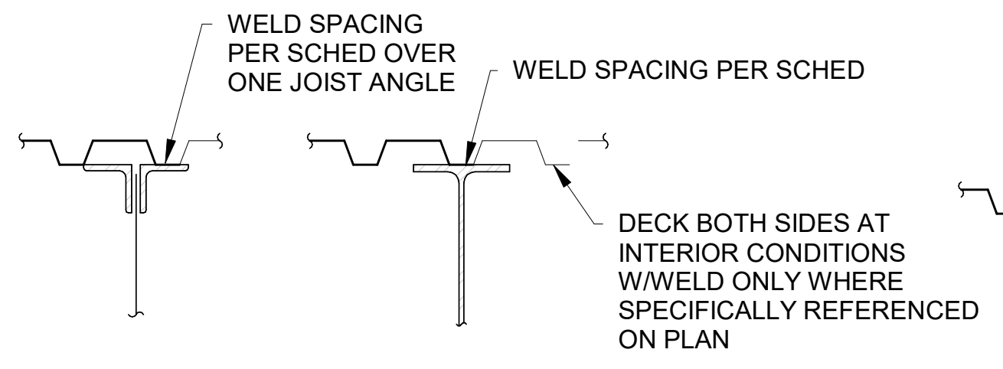
SCHEDULE			
DECKING [1]	# OF WELDS [2]	VSC SPACING SIDELAP ATTACHMENT	BOUNDARY WELD @ PARALLEL [3]
20GA	4	24"	18"oc



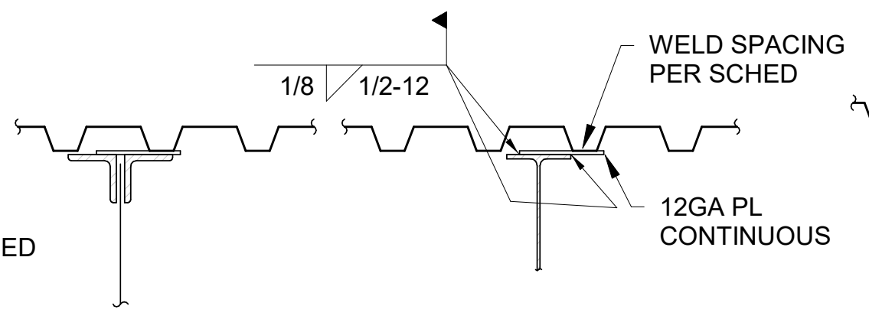
WELD PATTERN TO SUPPORTS

NOTES:

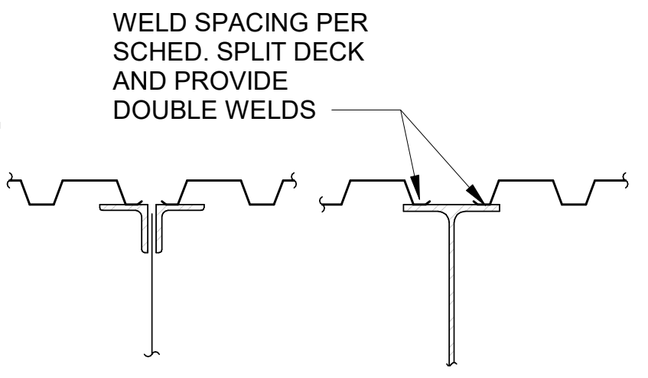
1. ROOF METAL DECK SHALL BE 1 1/2" VERCO PLB-36 WITH THE PUNCH-LOK SIDELAP SYSTEM, GAUGE AS SHOWN ON SCHED AND SHALL COMPLY WITH ICBO REPORT #2078P. IF SUBSTITUTE METAL DECK IS USED, IT SHALL HAVE ICBO APPROVED ALLOWABLE SHEAR VALUES EQUAL OR GREATER THAN THOSE SHOWN IN SCHED AND SHALL HAVE EQUIVALENT FIRE RESISTIVE PROPERTIES.
2. METAL DECK SHALL BE WELDED TO SUPPORTS BY 1/2"Ø EFFECTIVE PUDDLE WELDS AT FLUTES AS SHOWN ABOVE.
3. WHERE METAL DECK RUNS PARALLEL TO THE DIAPHRAGM PERIMETER, PLACE 1/2"Ø EFFECTIVE PUDDLE WELDS AT SPACING SHOWN IN SCHEDULE.
4. END OF DECK UNITS SHALL BE LAPPED 2" MINIMUM.
5. SEE DETAILS "A" TO "F" FOR DETAILS AT SUPPORTS.


WELD SPACING PER SCHED OVER ONE JOIST ANGLE
WELD SPACING PER SCHED
DECK BOTH SIDES AT INTERIOR CONDITIONS W/WELD ONLY WHERE SPECIFICALLY REFERENCED ON PLAN

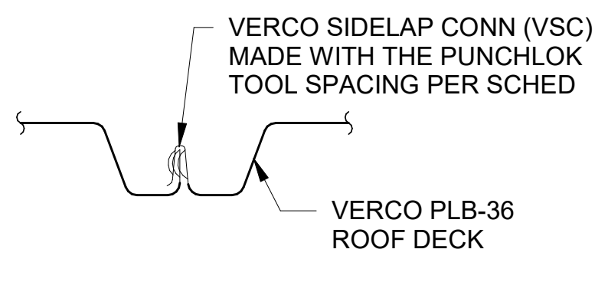
DECK PARALLEL (D)



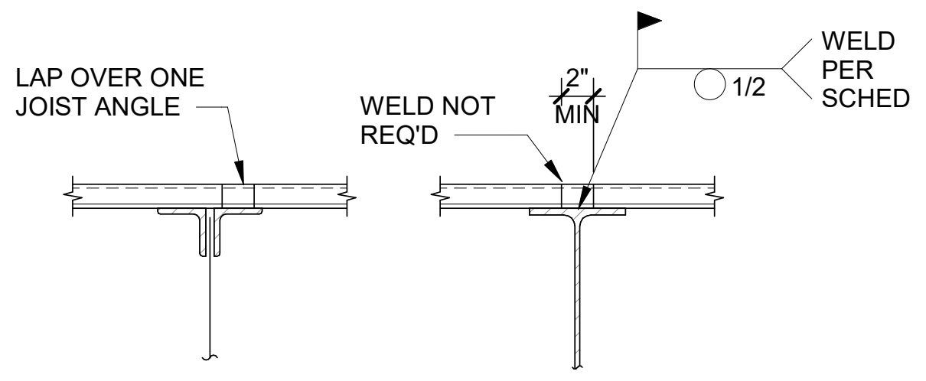
DECK PARALLEL (E)
(WHERE DECK RIB MISSES BEAM)



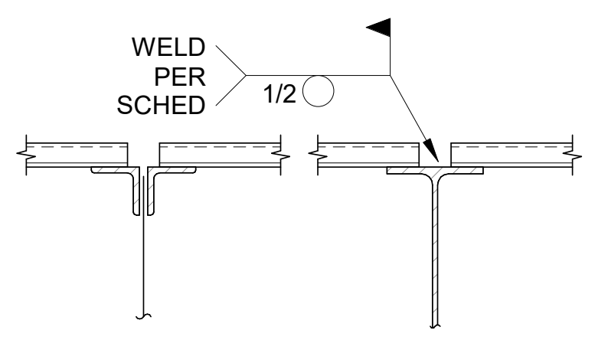
DECK PARALLEL (F)
(TWO WELDS. USE ONLY WHERE SPECIFICALLY REFERENCED ON PLAN)


VERCO SIDELAP CONN (VSC) MADE WITH THE PUNCHLOK TOOL SPACING PER SCHED
VERCO PLB-36 ROOF DECK

VERCO PUNCKLOK SYSTEM SIDELAP (A)



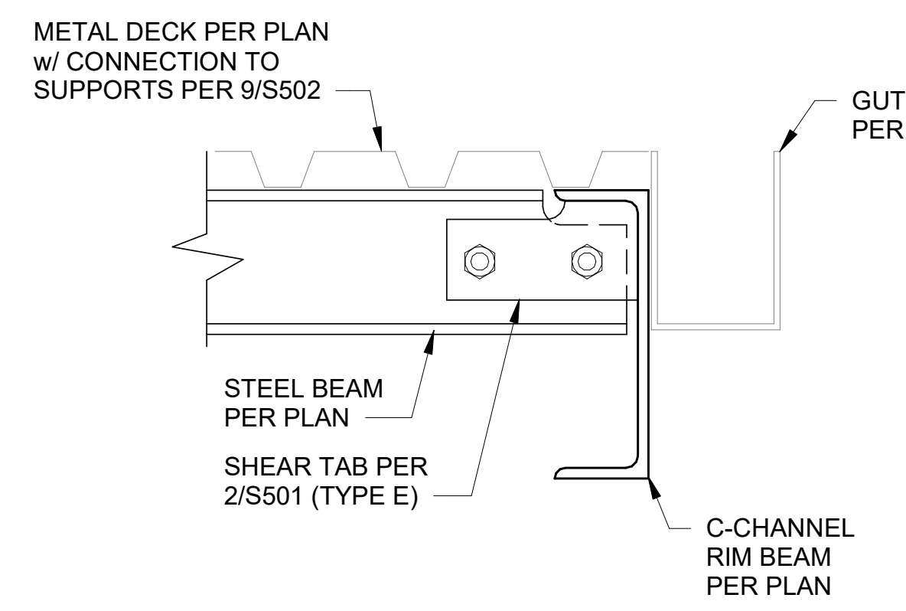
INTERIOR END LAP (B)



INTERIOR SKEWED JOINT (C)
(USE ONLY WHERE DECK CANNOT LAP)

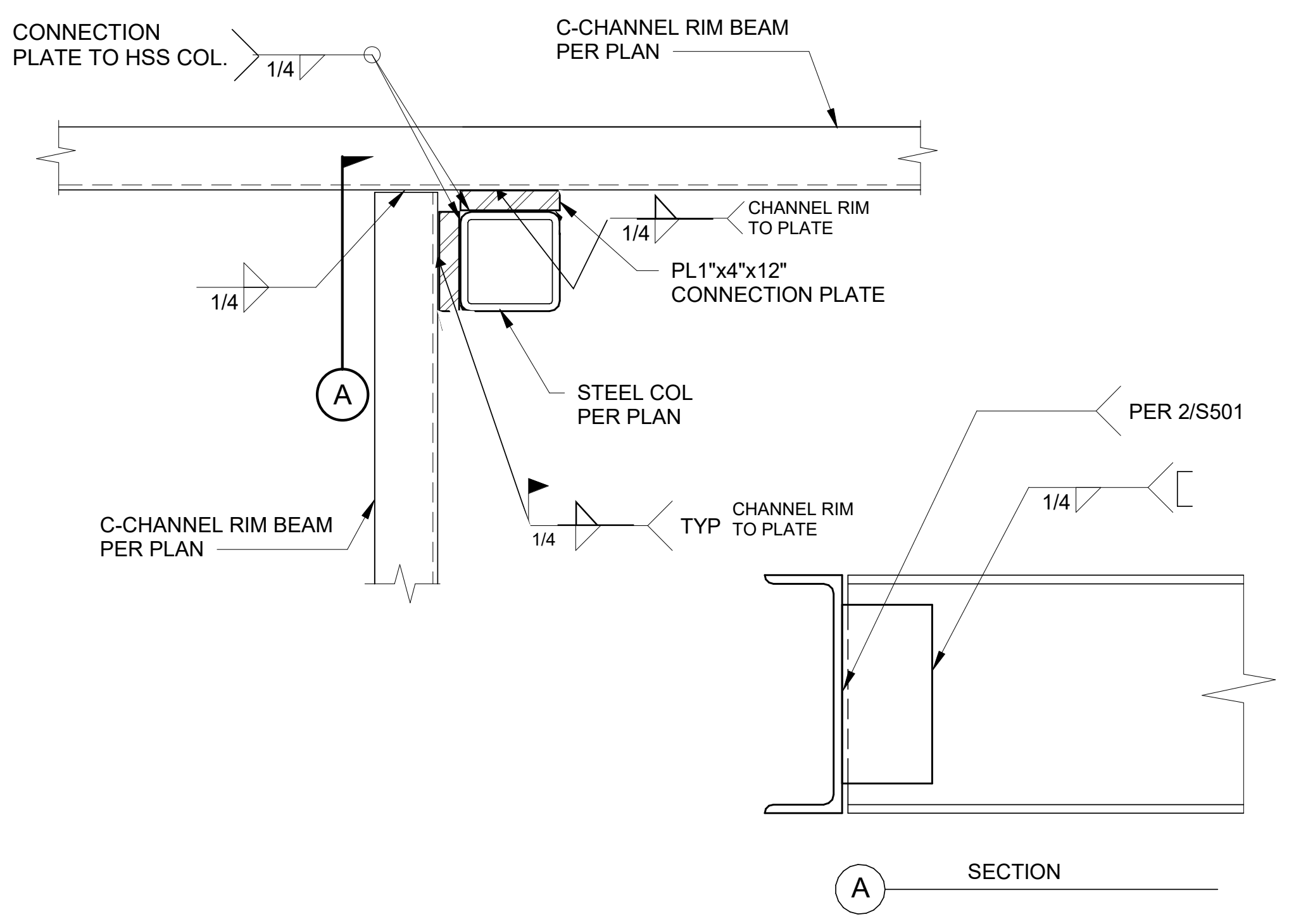
ROOF METAL DECK

SCALE: NTS 9


METAL DECK PER PLAN w/ CONNECTION TO SUPPORTS PER 9/S502
GUTTER PER ARCH
STEEL BEAM PER PLAN
SHEAR TAB PER 2/S501 (TYPE E)
C-CHANNEL RIM BEAM PER PLAN

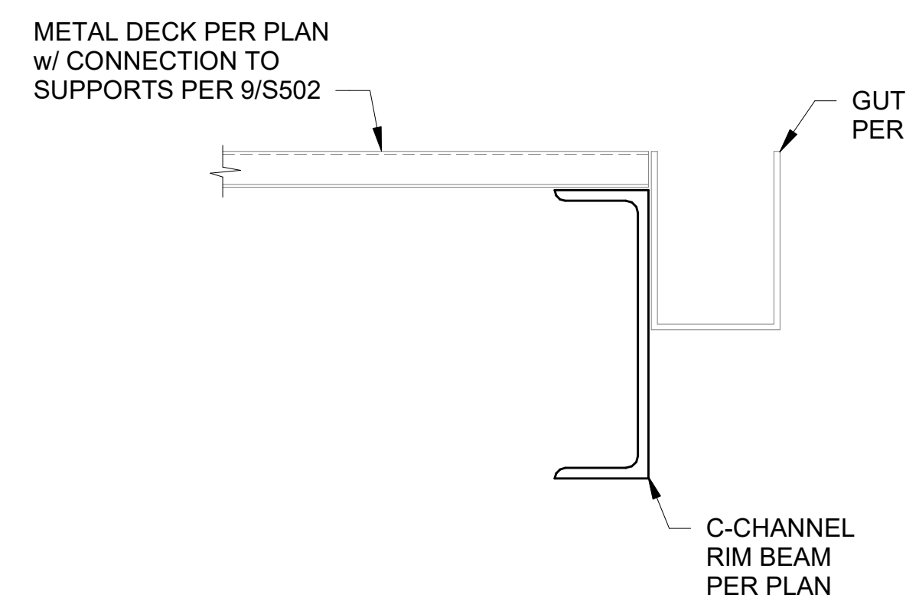
METAL DECK FRAMING DETAIL

SCALE: NTS 1


CONNECTION PLATE TO HSS COL.
1/4
C-CHANNEL RIM BEAM PER PLAN
1/4
CHANNEL RIM TO PLATE
PL1"x4"x12" CONNECTION PLATE
1/4
A
STEEL COL PER PLAN
PER 2/S501
1/4
C-CHANNEL RIM BEAM PER PLAN
1/4
TYP
CHANNEL RIM TO PLATE
A
SECTION

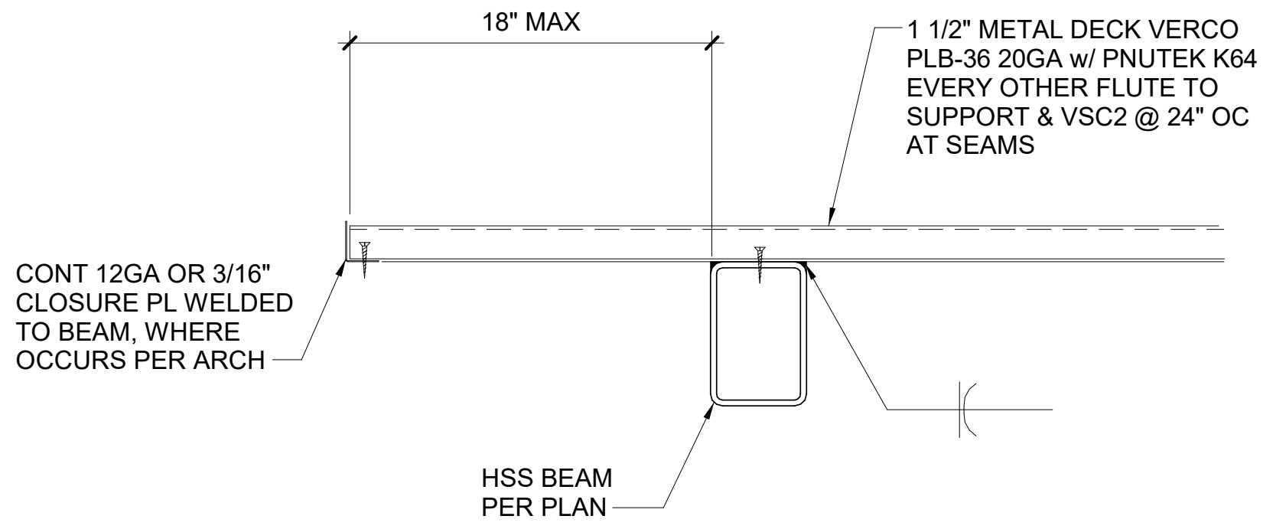
BEAM TO COLUMN CONNECTION

SCALE: NTS 6


METAL DECK PER PLAN w/ CONNECTION TO SUPPORTS PER 9/S502
GUTTER PER ARCH
C-CHANNEL RIM BEAM PER PLAN

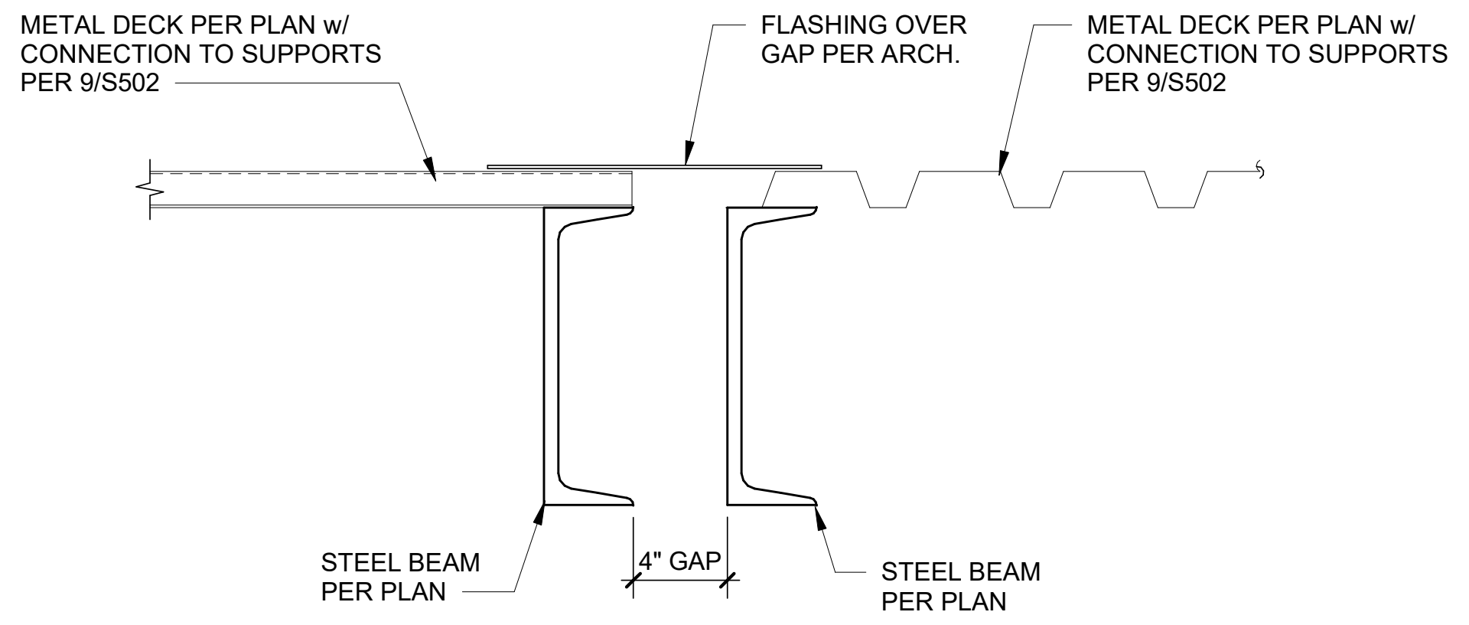
METAL DECK FRAMING DETAIL

SCALE: NTS 2


18" MAX
1 1/2" METAL DECK VERCO PLB-36 20GA w/ PNUTEK K64 EVERY OTHER FLUTE TO SUPPORT & VSC2 @ 24" OC AT SEAMS
CONT 12GA OR 3/16" CLOSURE PL WELDED TO BEAM, WHERE OCCURS PER ARCH
HSS BEAM PER PLAN

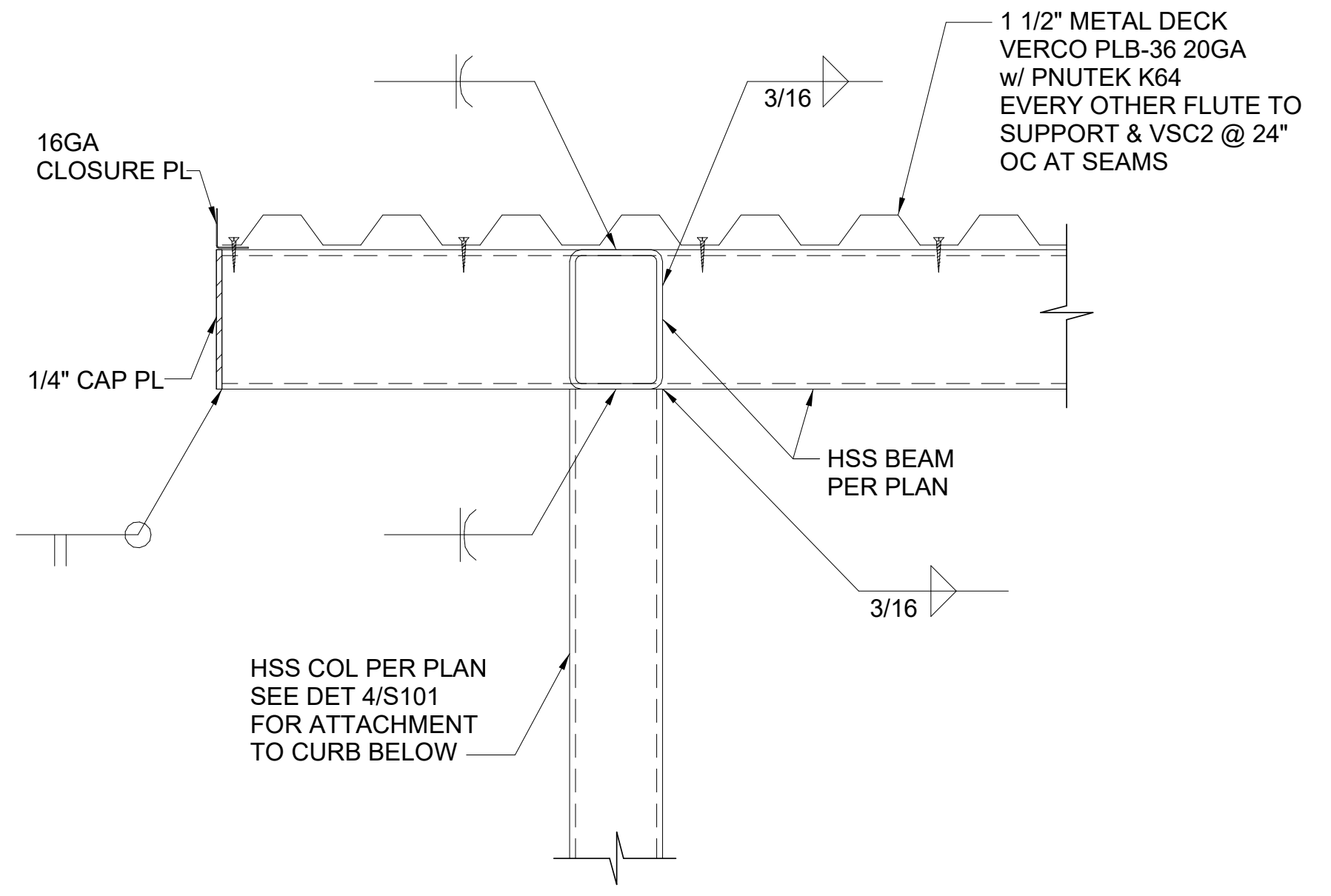
TRASH ENCLOSURE DECK PERP

SCALE: NTS 7


METAL DECK PER PLAN w/ CONNECTION TO SUPPORTS PER 9/S502
FLASHING OVER GAP PER ARCH.
METAL DECK PER PLAN w/ CONNECTION TO SUPPORTS PER 9/S502
STEEL BEAM PER PLAN
4" GAP
STEEL BEAM PER PLAN

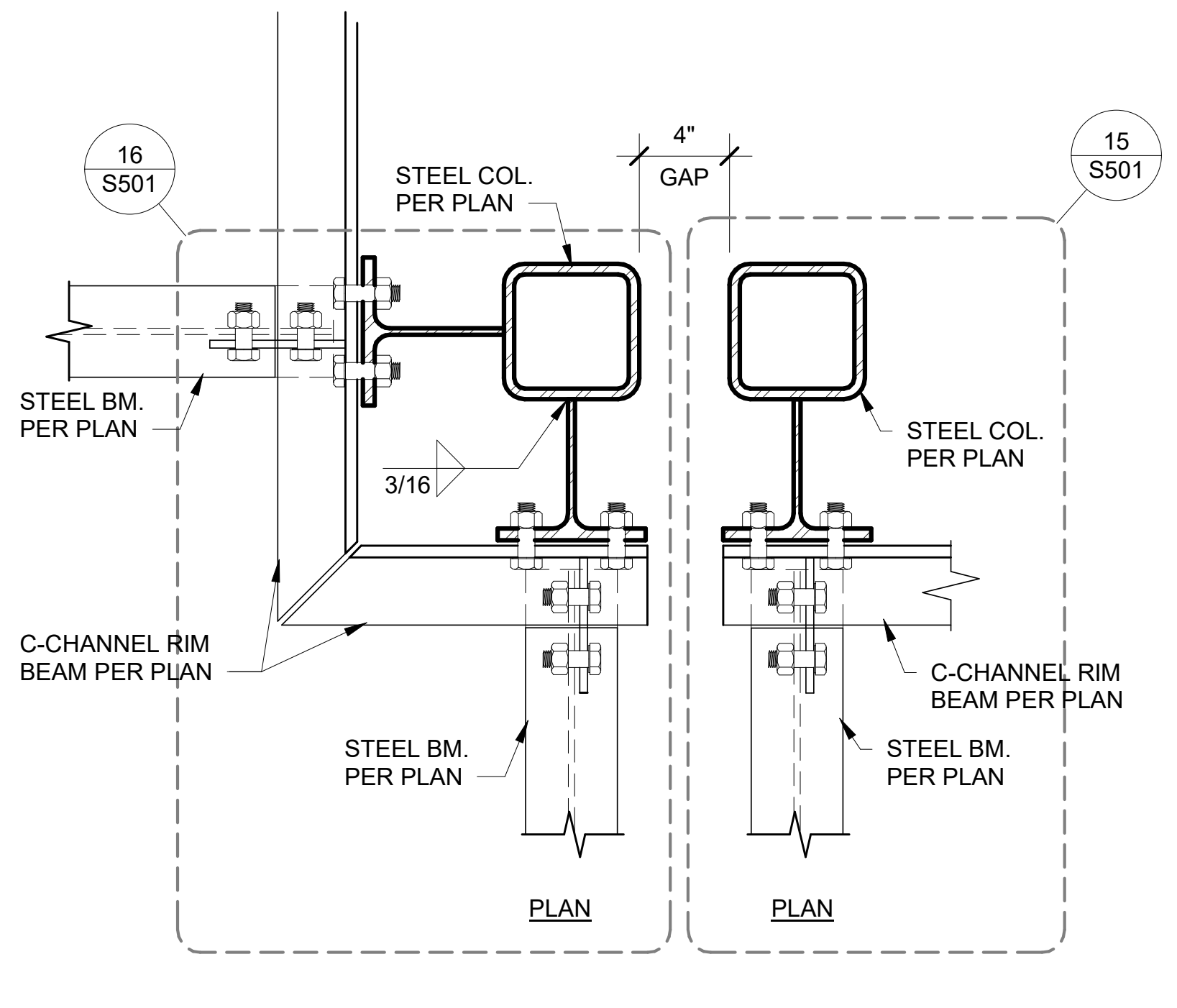
S502/03_METAL DECK SEISMICK JOINT

SCALE: NTS 3


16GA CLOSURE PL
3/16
1 1/2" METAL DECK VERCO PLB-36 20GA w/ PNUTEK K64 EVERY OTHER FLUTE TO SUPPORT & VSC2 @ 24" OC AT SEAMS
1/4" CAP PL
HSS BEAM PER PLAN
3/16
HSS COL PER PLAN SEE DET 4/S101 FOR ATTACHMENT TO CURB BELOW

TRASH ENCLOSURE DECK PARALLEL

SCALE: NTS 8



METAL DECK SEISMIC JOINT

SCALE: NTS 4

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PETER SARKIS
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STRUCTURAL

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
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TYPICAL STEEL DECK DETAILS

PERKINS — EASTMAN

3194 D Airport Loop
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Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S502

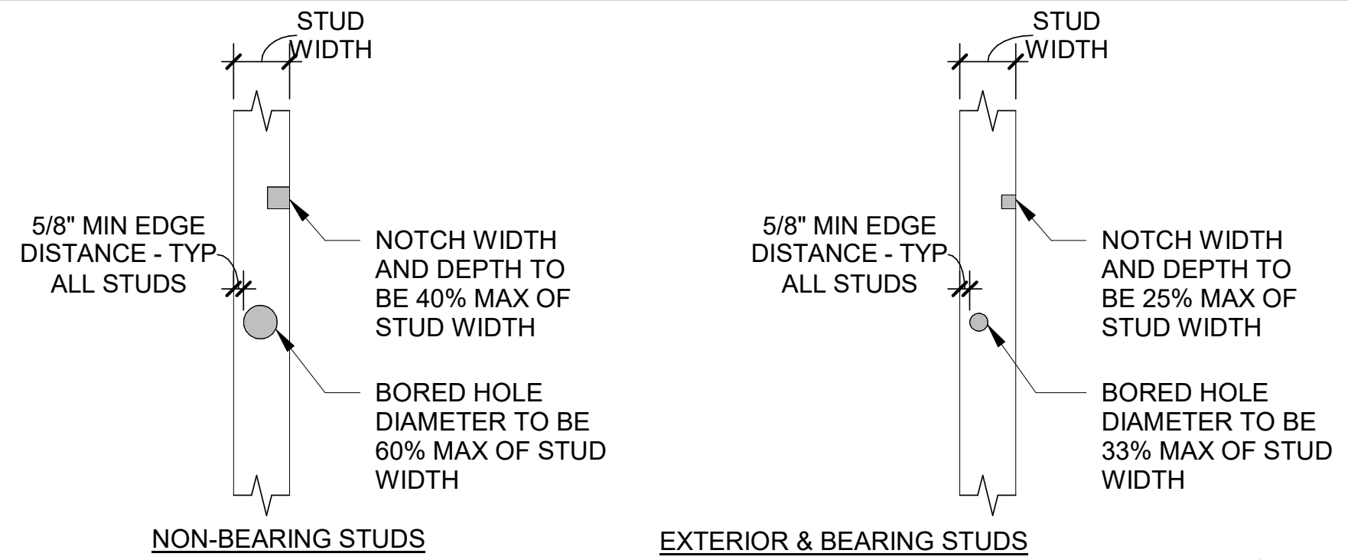
CONNECTION	MINIMUM NAILING
JOIST/TRUSS TO SILL OR GIRDER, TOE NAIL	(3) 8d OR (3) 3"x0.131"
BRIDGING TO JOIST, TOE NAIL EACH END	(2) 8d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL (OR PER SHEAR WALL SCHEDULE)	16d @ 16" OC OR 3"x0.131" @ 8" OC
TOP PLATE TO STUD, END NAIL	(2) 16d OC OR (3) 3"x0.131"
STUD TO SOLE PLATE, TOE NAIL OR STUD TO SOLE PLATE, END NAIL	(4) 8d OR (2) 16d
DOUBLE STUDS, FACE NAIL	16d @ 24" OC
DOUBLE TOP PLATES, FACE NAIL DOUBLE TOP PLATES, LAP SPLICE	16d @ 16" OC OR 3"x0.131" @ 12" OC SEE DETAILS
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	(3) 8d OR (3) 3"x0.131"
RIM JOIST TO TOP PLATE, TOE NAIL	8d @ 6" OC OR 3"x0.131" @ 6" OC
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	(3) 16d OR (3) 3"x0.131"
CONTINUOUS HEADER, TWO PIECES, ALONG EDGE	16d @ 16" OC
CEILING JOISTS TO PLATE, TOE NAIL	(3) 8d OR (5) 3"x0.131"
CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	(3) 16d OR (4) 3"x0.131"
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	(3) 16d OR (4) 3"x0.131"
RAFTER/TRUSS TO PLATE, TOE NAIL	(3) 8d OR (3) 3"x0.131"
1" DIAGONAL BRACE TO EACH STUD AND PLATE, FACE NAIL	(2) 8d OR (2) 3"x0.131"
BUILT-UP CORNER STUDS	16d @ 24" OC OR 3"x0.131" @ 16" OC

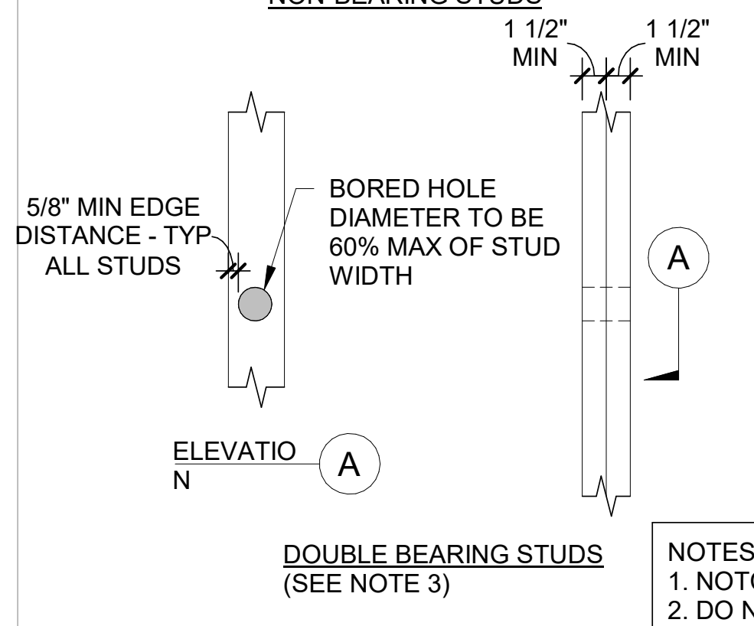
NOTE:
SEE CBC TABLE 2304.10.1 FOR INFORMATION NOT SHOWN.

TYPICAL NAILING SCHEDULE

1" = 1'-0"

13

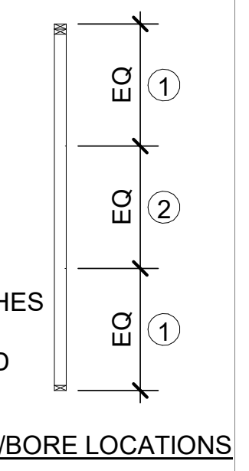

STUD WIDTH
5/8" MIN EDGE DISTANCE - TYP ALL STUDS
NOTCH WIDTH AND DEPTH TO BE 40% MAX OF STUD WIDTH
BORED HOLE DIAMETER TO BE 60% MAX OF STUD WIDTH
NON-BEARING STUDS
STUD WIDTH
5/8" MIN EDGE DISTANCE - TYP ALL STUDS
NOTCH WIDTH AND DEPTH TO BE 25% MAX OF STUD WIDTH
BORED HOLE DIAMETER TO BE 33% MAX OF STUD WIDTH
EXTERIOR & BEARING STUDS


5/8" MIN EDGE DISTANCE - TYP ALL STUDS
BORED HOLE DIAMETER TO BE 60% MAX OF STUD WIDTH
1 1/2" MIN
1 1/2" MIN
A
ELEVATION
A
DOUBLE BEARING STUDS
(SEE NOTE 3)

NOTCH/BORE % OF STUD	2x4	2x6
25%	7/8"	1.3/8"
33%	1.1/8"	1.3/4"
40%	1.3/8"	2.1/8"
60%	2"	3.1/4"

① ACCEPTABLE LOCATION OF NOTCHES

② ACCEPTABLE LOCATION OF BORED HOLES



NOTES:
1. NOTCHING AND BORING NOT TO OCCUR IN SAME STUD.
2. DO NOT OVERCUT NOTCHES OR BORED HOLES.
3. NO MORE THAN 2 SUCCESSIVE DOUBLE STUDS MAY HAVE 60% 60 MAX BORED HOLES.

TYPICAL STUD NOTCH/BORE

1" = 1'-0"

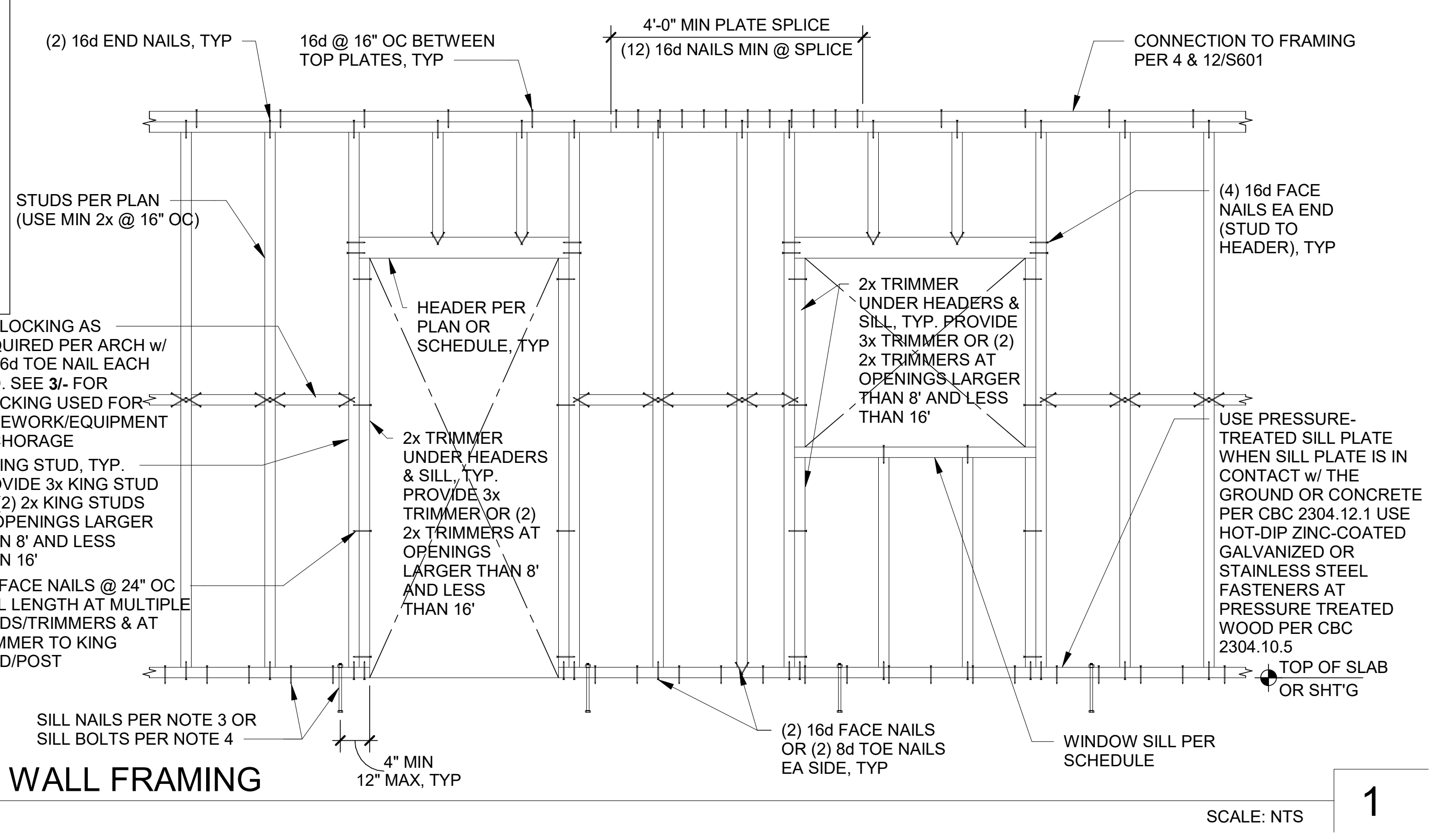
9

NOTE:
1. HEADERS, KING STUDS, AND OTHER REFERENCES ON PLAN GOVERN OVER THIS TYPICAL DETAIL.
2. INSTALL 1x6 DIAGONAL LET-IN BRACE AT 25'-0" AND AT EACH END IN ALL WALLS NOT SHEATHED, MAXIMUM SLOPE OF DIAGONAL BRACE SHALL BE 2 VERTICAL TO 1 HORIZONTAL.
3. NAIL SILL PLATE TO WOOD FRAMED FLOORS w/ 16d @ 8" OC TO JOIST OR BLOCKING BELOW SHEATHING. SEE DETAIL **3/S621**.
4. BOLT SILL PLATE TO CONCRETE SLAB w/ 5/8" Ø HEADED ANCHOR RODS @ 48" OC MAX, w/ 7" MIN EMBED INTO SLAB (NOT INCLUDING THICKNESS OF CURB WHERE OCCURS).
5. REFER TO DETAIL **2/S601** FOR BEARING AND EXTERIOR WALLS. FOR MINIMUM NAILING REQUIREMENTS, SEE CBC TABLE 2304.10.1 & DETAIL **13/S601**.

HEADER & SILL SCHEDULE

(SEE NOTE 1)

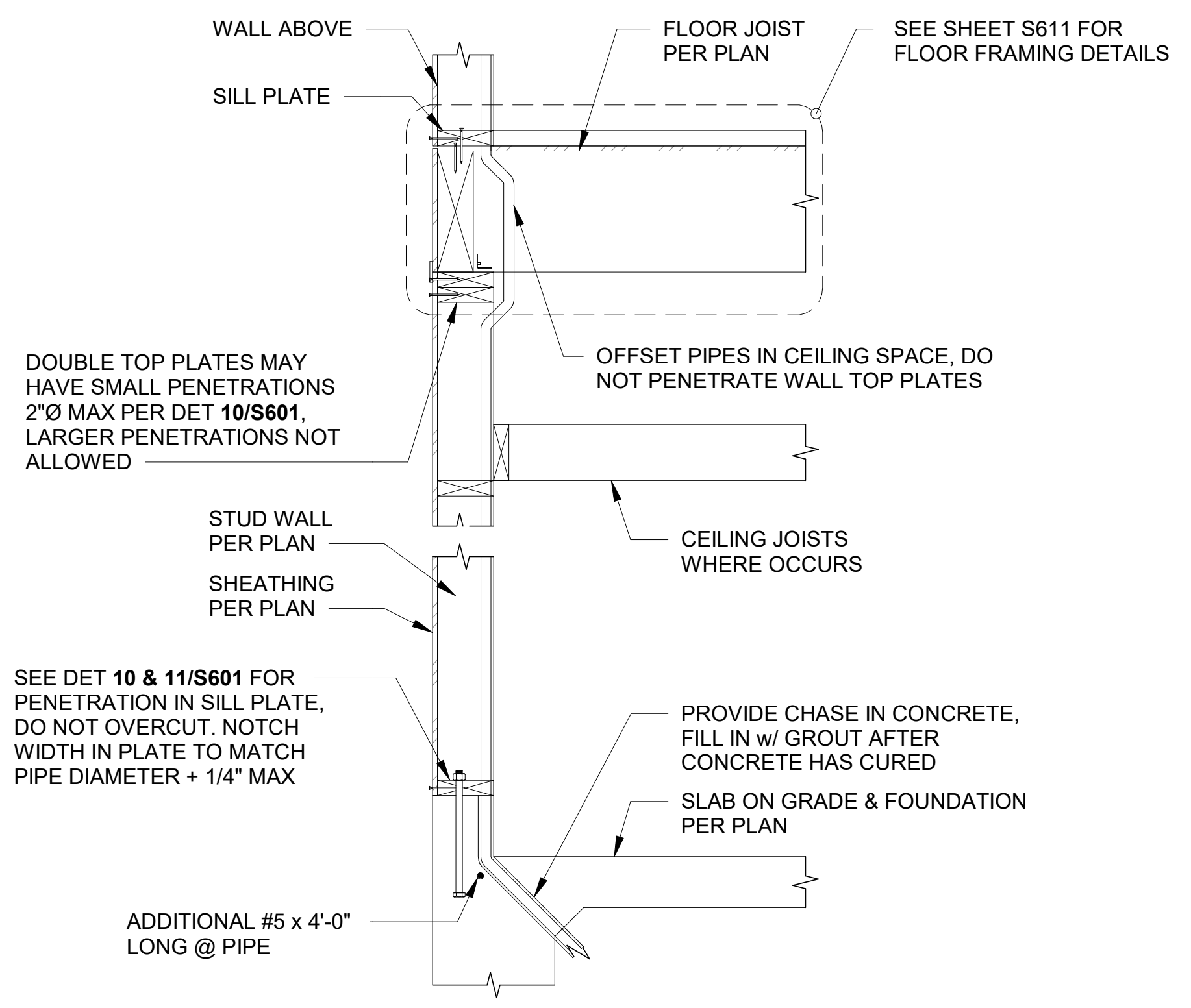
OPENING WIDTH	HEADER 4x FRAMING	HEADER 6x FRAMING	WINDOWS SILL WHERE OCCURS
UP TO 4'-0"	4x4	6x4 FLAT	2x
4'-1" TO 6'-0"	4x6	6x6	(2) 2x
6'-1" TO 8'-0"	4x8	6x8	(2) 2x
8'-1" TO 10'-0"	4x10	6x10	(3) 2x
10'-1" & UP	SEE PLANS		


(2) 16d END NAILS, TYP
16d @ 16" OC BETWEEN TOP PLATES, TYP
4'-0" MIN PLATE SPLICE
(12) 16d NAILS MIN @ SPLICE
CONNECTION TO FRAMING PER 4 & 12/S601
STUDS PER PLAN (USE MIN 2x @ 16" OC)
(4) 16d FACE NAILS EA END (STUD TO HEADER), TYP
HEADER PER PLAN OR SCHEDULE, TYP
2x TRIMMER UNDER HEADERS & SILL, TYP. PROVIDE 3x TRIMMER OR (2) 2x TRIMMERS AT OPENINGS LARGER THAN 8' AND LESS THAN 16'
2x BLOCKING AS REQUIRED PER ARCH w/ (2) 16d TOE NAIL EACH END. SEE 3/- FOR BLOCKING USED FOR CASEWORK/EQUIPMENT ANCHORAGE
2x KING STUD, TYP. PROVIDE 3x KING STUD OR (2) 2x KING STUDS AT OPENINGS LARGER THAN 8' AND LESS THAN 16'
2x TRIMMER UNDER HEADERS & SILL, TYP. PROVIDE 3x TRIMMER OR (2) 2x TRIMMERS AT OPENINGS LARGER THAN 8' AND LESS THAN 16'
USE PRESSURE-TREATED SILL PLATE WHEN SILL PLATE IS IN CONTACT w/ THE GROUND OR CONCRETE PER CBC 2304.12.1 USE HOT-DIP ZINC-COATED GALVANIZED OR STAINLESS STEEL FASTENERS AT PRESSURE TREATED WOOD PER CBC 2304.10.5
16d FACE NAILS @ 24" OC FULL LENGTH AT MULTIPLE STUDS/TRIMMERS & AT TRIMMER TO KING STUD/POST
TOP OF SLAB OR SHT'G
SILL NAILS PER NOTE 3 OR SILL BOLTS PER NOTE 4
4" MIN 12" MAX, TYP
(2) 16d FACE NAILS OR (2) 8d TOE NAILS EA SIDE, TYP
WINDOW SILL PER SCHEDULE

TYPICAL NON-BEARING WALL FRAMING

SCALE: NTS

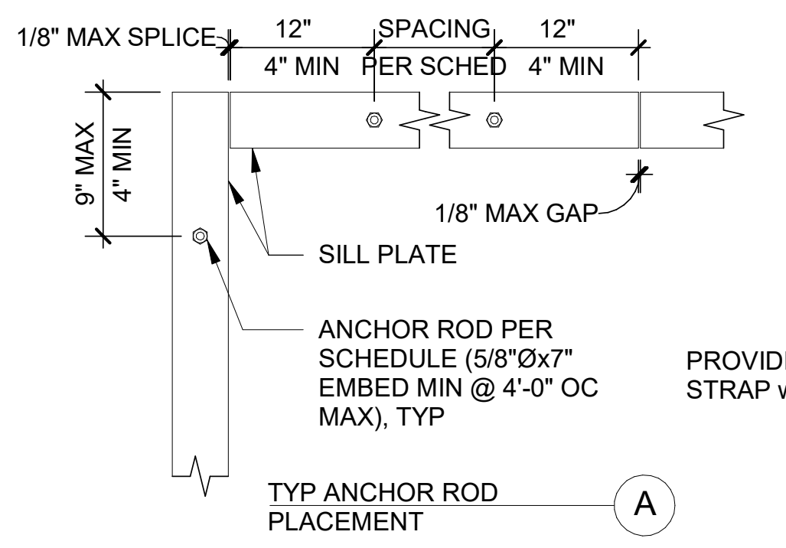
1


WALL ABOVE
SILL PLATE
FLOOR JOIST PER PLAN
SEE SHEET S611 FOR FLOOR FRAMING DETAILS
DOUBLE TOP PLATES MAY HAVE SMALL PENETRATIONS 2"Ø MAX PER DET 10/S601, LARGER PENETRATIONS NOT ALLOWED
OFFSET PIPES IN CEILING SPACE, DO NOT PENETRATE WALL TOP PLATES
STUD WALL PER PLAN
SHEATHING PER PLAN
CEILING JOISTS WHERE OCCURS
SEE DET 10 & 11/S601 FOR PENETRATION IN SILL PLATE, DO NOT OVERCUT. NOTCH WIDTH IN PLATE TO MATCH PIPE DIAMETER + 1/4" MAX
PROVIDE CHASE IN CONCRETE, FILL IN w/ GROUT AFTER CONCRETE HAS CURED
SLAB ON GRADE & FOUNDATION PER PLAN
ADDITIONAL #5 x 4'-0" LONG @ PIPE

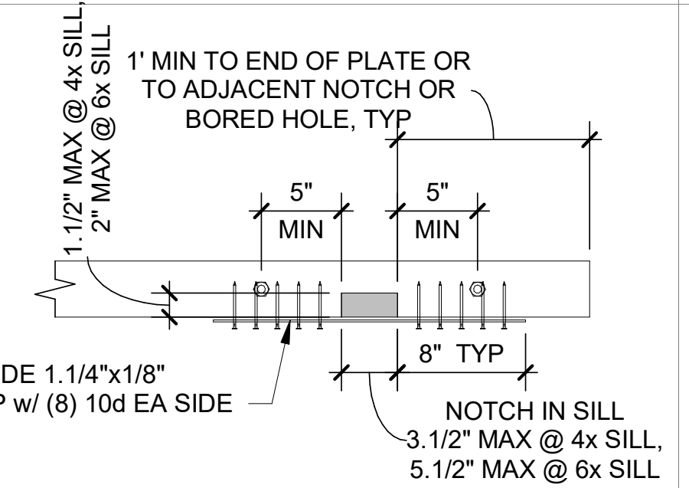
TYPICAL PIPE IN WOOD WALL

3/4" = 1'-0"

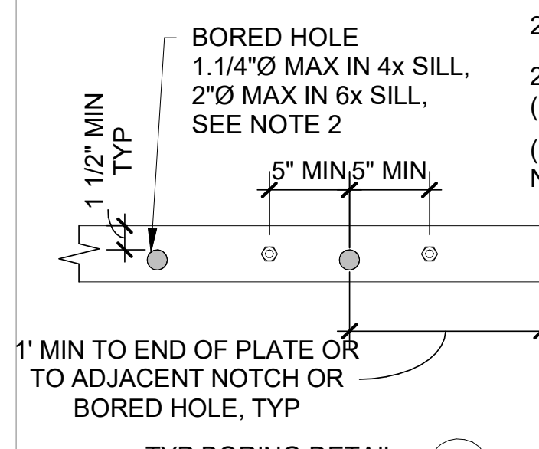
14



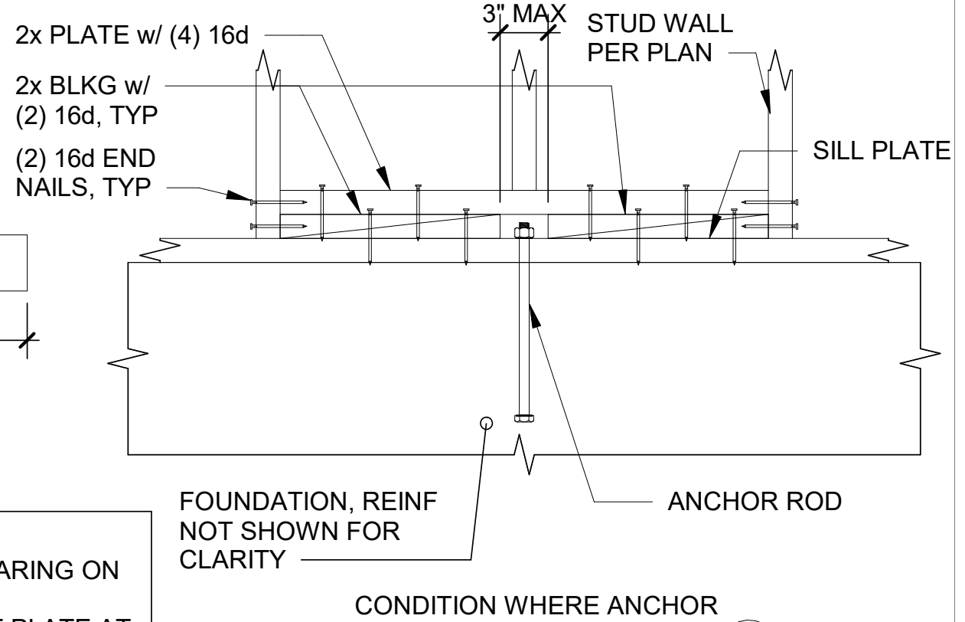
TYP ANCHOR ROD PLACEMENT Ⓐ


1.1/2" MAX @ 4x SILL, 2" MAX @ 6x SILL
1' MIN TO END OF PLATE OR TO ADJACENT NOTCH OR BORED HOLE, TYP
5" MIN
5" MIN
PROVIDE 1.1/4"x1/8" STRAP w/ (8) 10d EA SIDE
8" TYP
NOTCH IN SILL 3.1/2" MAX @ 4x SILL, 5.1/2" MAX @ 6x SILL

Ⓑ TYP NOTCHING DETAIL


BORED HOLE 1.1/4"Ø MAX IN 4x SILL, 2"Ø MAX IN 6x SILL, SEE NOTE 2
1 1/2" MIN TYP
5" MIN
5" MIN
1' MIN TO END OF PLATE OR TO ADJACENT NOTCH OR BORED HOLE, TYP

TYP BORING DETAIL Ⓒ



CONDITION WHERE ANCHOR ROD INTERFERES WITH STUD Ⓓ

NOTES:
1. PRESSURE TREAT ALL SILLS BEARING ON CONCRETE OR MASONRY.
2. SEE **11/S601** FOR STRAPPING OF PLATE AT LARGER OPENINGS.

TYPICAL SILL PLATE DETAILS

1" = 1'-0"

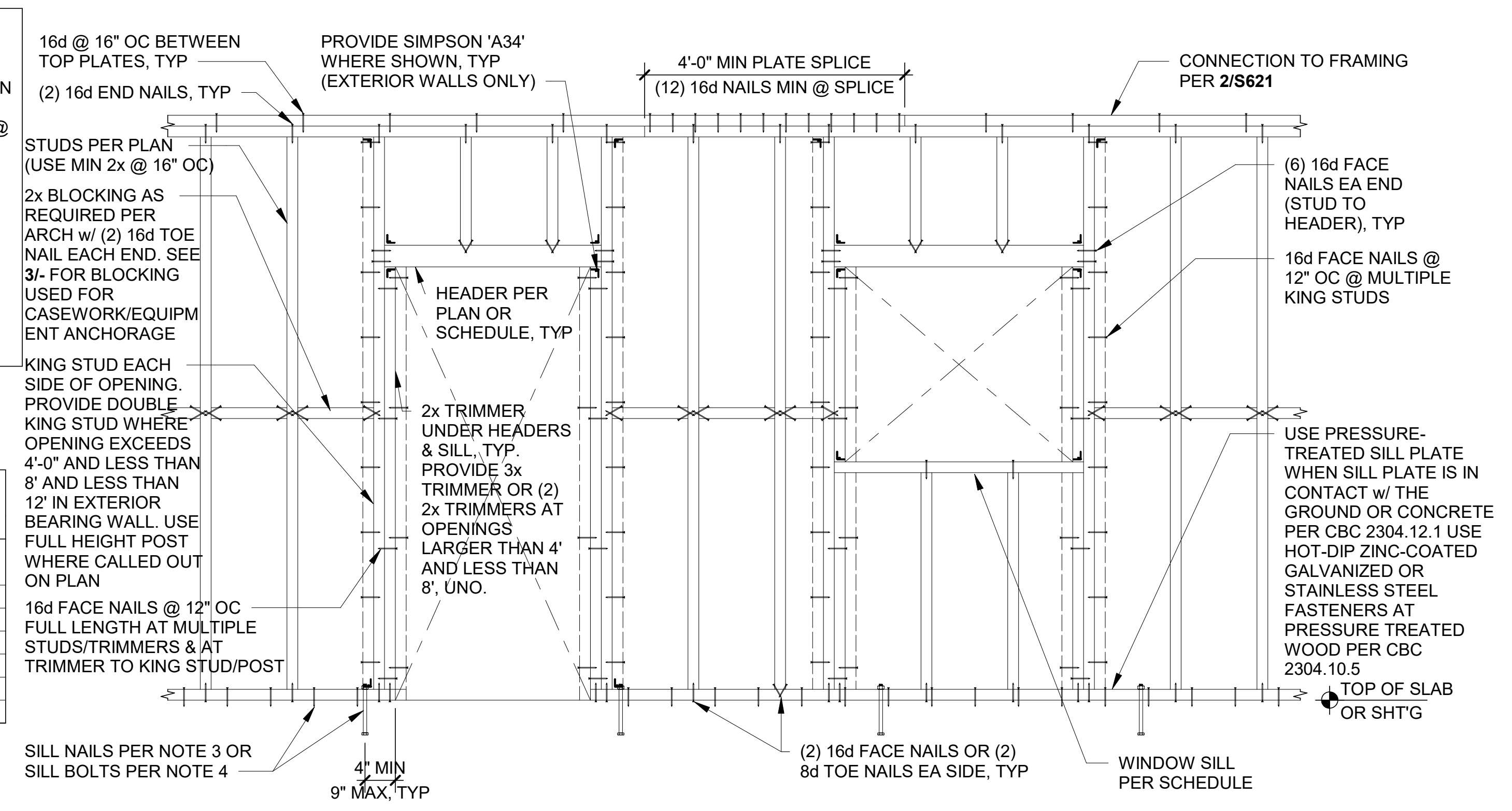
10

NOTE:
1. HEADERS, KING STUDS, AND OTHER REFERENCES ON PLAN GOVERN OVER THIS TYPICAL DETAIL.
2. REFER TO **7/S601** FOR TYPICAL HEADER CONNECTION FOR OPENINGS GREATER THAN 8' WIDE.
3. NAIL SILL PLATE TO WOOD FRAMED FLOORS w/ 16d @ 8" OC TO JOIST OR BLOCKING BELOW SHEATHING. SEE DETAIL **3/S621**.
4. BOLT SILL PLATE TO CONCRETE SLAB w/ 5/8" Ø HEADED ANCHOR RODS @ 48" OC MAX, w/ 7" MIN EMBED INTO SLAB (NOT INCLUDING THICKNESS OF CURB WHERE OCCURS).
5. REFER TO DETAIL **1/S601** FOR NON-BEARING WALLS.
6. FOR MINIMUM NAILING REQUIREMENTS, SEE CBC TABLE 2304.10.1 & DETAIL **13/S601**.
7. REFER TO DETAIL **2/S621** FOR SHEAR WALLS.

HEADER & SILL SCHEDULE

(SEE NOTE 1)

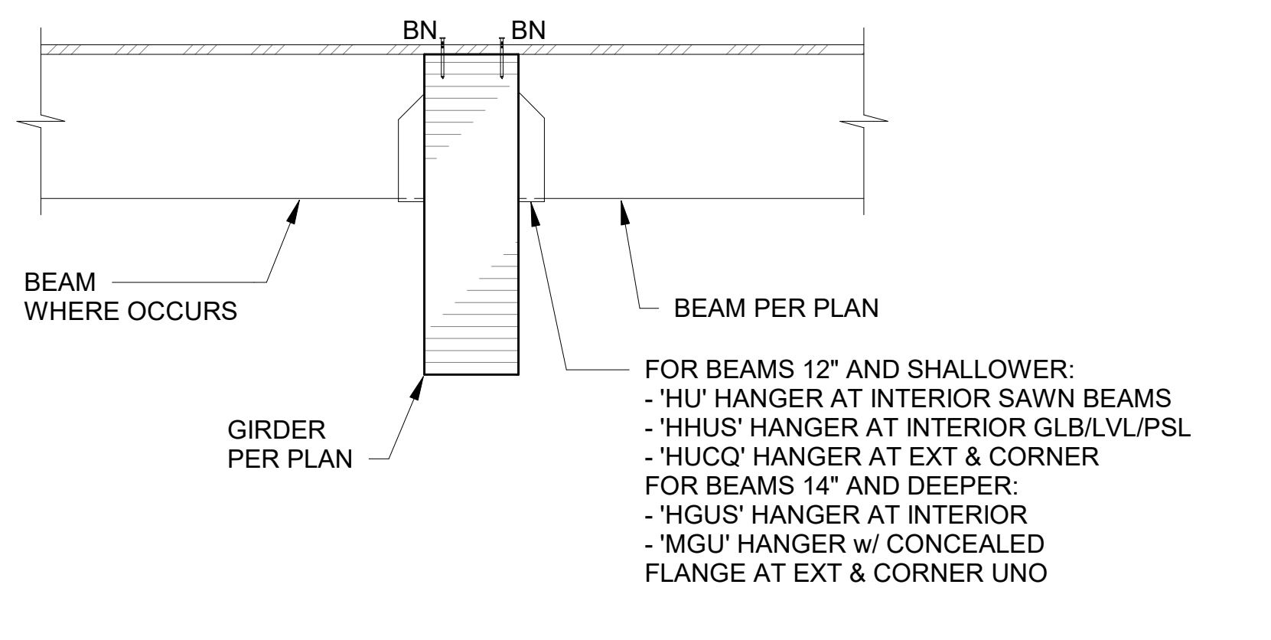
OPENING WIDTH	HDR @ EXT BEARING WALL (MAX GRAVITY LOAD = 0.45 klf)		SILL	
	4x WALL	6x WALL	4x WALL	6x WALL
UP TO 4'-0"	4x6	6x6	(2) 2x	2x
4'-1" TO 6'-0"	4x8	6x8	(3) 2x	(2) 2x
6'-1" TO 8'-0"	4x10	6x10	4x6	(2) 2x
8'-1" TO 10'-0"	4x14	6x12	4x8	(3) 2x
10'-1" & UP	SEE PLANS			


16d @ 16" OC BETWEEN TOP PLATES, TYP
(2) 16d END NAILS, TYP
PROVIDE SIMPSON 'A34' WHERE SHOWN, TYP (EXTERIOR WALLS ONLY)
4'-0" MIN PLATE SPLICE
(12) 16d NAILS MIN @ SPLICE
CONNECTION TO FRAMING PER 2/S621
STUDS PER PLAN (USE MIN 2x @ 16" OC)
2x BLOCKING AS REQUIRED PER ARCH w/ (2) 16d TOE NAIL EACH END. SEE 3/- FOR BLOCKING USED FOR CASEWORK/EQUIPMENT ANCHORAGE
(6) 16d FACE NAILS EA END (STUD TO HEADER), TYP
16d FACE NAILS @ 12" OC @ MULTIPLE KING STUDS
HEADER PER PLAN OR SCHEDULE, TYP
KING STUD EACH SIDE OF OPENING. PROVIDE DOUBLE KING STUD WHERE OPENING EXCEEDS 4'-0" AND LESS THAN 8' AND LESS THAN 12' IN EXTERIOR BEARING WALL. USE FULL HEIGHT POST WHERE CALLED OUT ON PLAN
2x TRIMMER UNDER HEADERS & SILL, TYP. PROVIDE 3x TRIMMER OR (2) 2x TRIMMERS AT OPENINGS LARGER THAN 4' AND LESS THAN 8', UNO.
USE PRESSURE-TREATED SILL PLATE WHEN SILL PLATE IS IN CONTACT w/ THE GROUND OR CONCRETE PER CBC 2304.12.1 USE HOT-DIP ZINC-COATED GALVANIZED OR STAINLESS STEEL FASTENERS AT PRESSURE TREATED WOOD PER CBC 2304.10.5
16d FACE NAILS @ 12" OC FULL LENGTH AT MULTIPLE STUDS/TRIMMERS & AT TRIMMER TO KING STUD/POST
TOP OF SLAB OR SHT'G
SILL NAILS PER NOTE 3 OR SILL BOLTS PER NOTE 4
4" MIN 9" MAX, TYP
(2) 16d FACE NAILS OR (2) 8d TOE NAILS EA SIDE, TYP
WINDOW SILL PER SCHEDULE

TYPICAL BEARING & EXTERIOR WALL FRAMING

SCALE: NTS

2

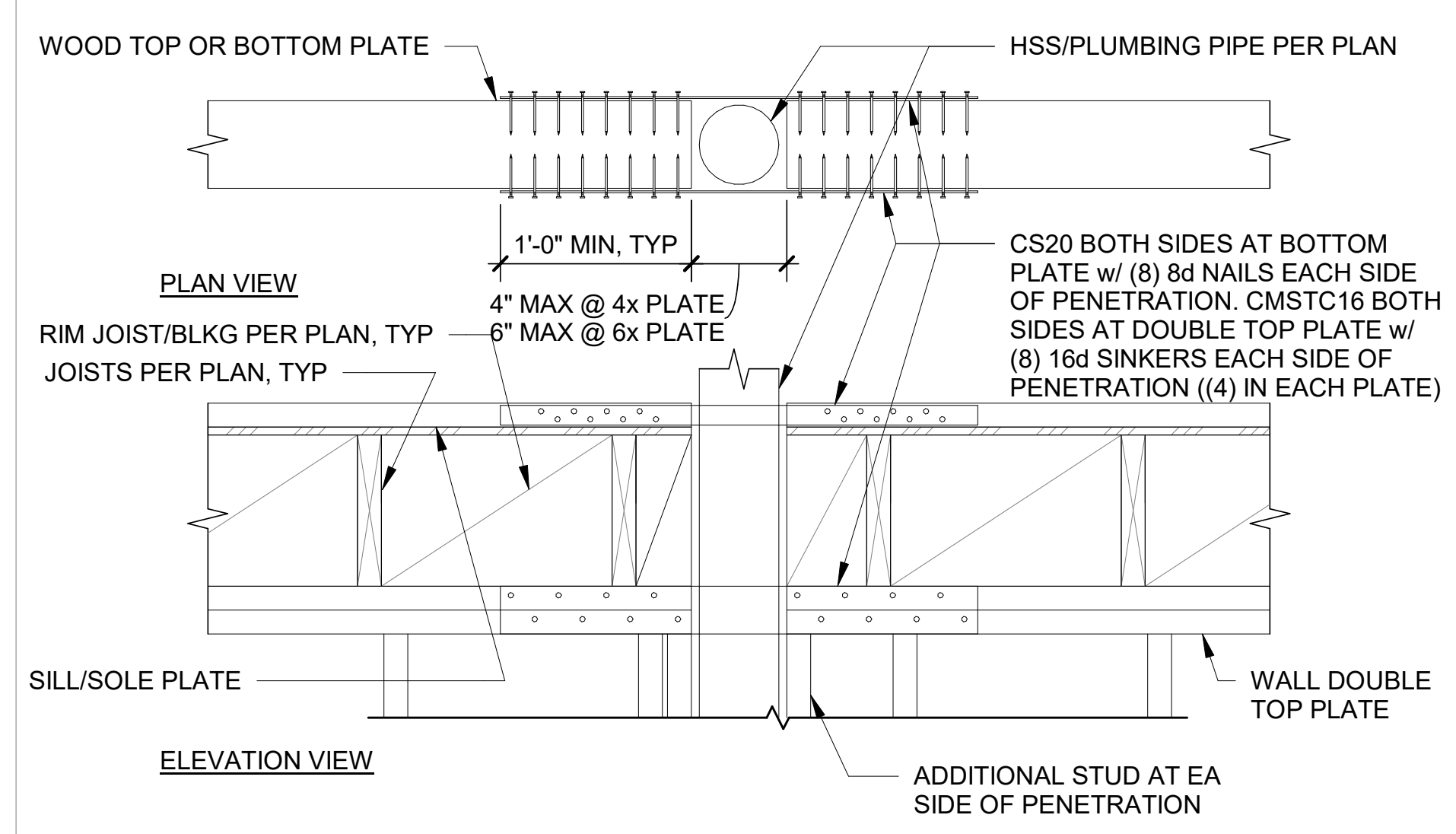

BN
BN
BEAM WHERE OCCURS
BEAM PER PLAN
GIRDER PER PLAN
FOR BEAMS 12" AND SHALLOWER:
- 'HU' HANGER AT INTERIOR SAWN BEAMS
- 'HHUS' HANGER AT INTERIOR GLB/LVL/PSL
- 'HUCQ' HANGER AT EXT & CORNER
FOR BEAMS 14" AND DEEPER:
- 'HGUS' HANGER AT INTERIOR
- 'MGU' HANGER w/ CONCEALED FLANGE AT EXT & CORNER UNO

TYPICAL BEAM TO BEAM

1" = 1'-0"

15

NOTES:
1. SEE DET **10/S601** FOR SMALL BORINGS IN SILL PLATE.
2. THIS DETAIL CAN BE USED FOR ALL OPENINGS IN TOP AND BOTTOM PLATES OF WALLS THAT ARE NOT PART OF THE LATERAL RESISTING SYSTEM AS DEFINED IN NOTE 3. SEE NOTE 4 FOR EXCEPTION.
3. FOR THE PURPOSE OF THIS DETAIL, THE LATERAL SYSTEM SHALL BE DEFINED AS ANY SHEAR WALL OR DRAG LINE (ANY WALL LOCATED IN THE SAME GRIDLINE AS A SHEAR WALL OR DRAG LINE).
4. EXCEPTION: THIS DETAIL CAN BE USED AT SHEAR WALL SILL & SOLE PLATES, AND WHERE SPECIFICALLY CALLED OUT ON PLANS.

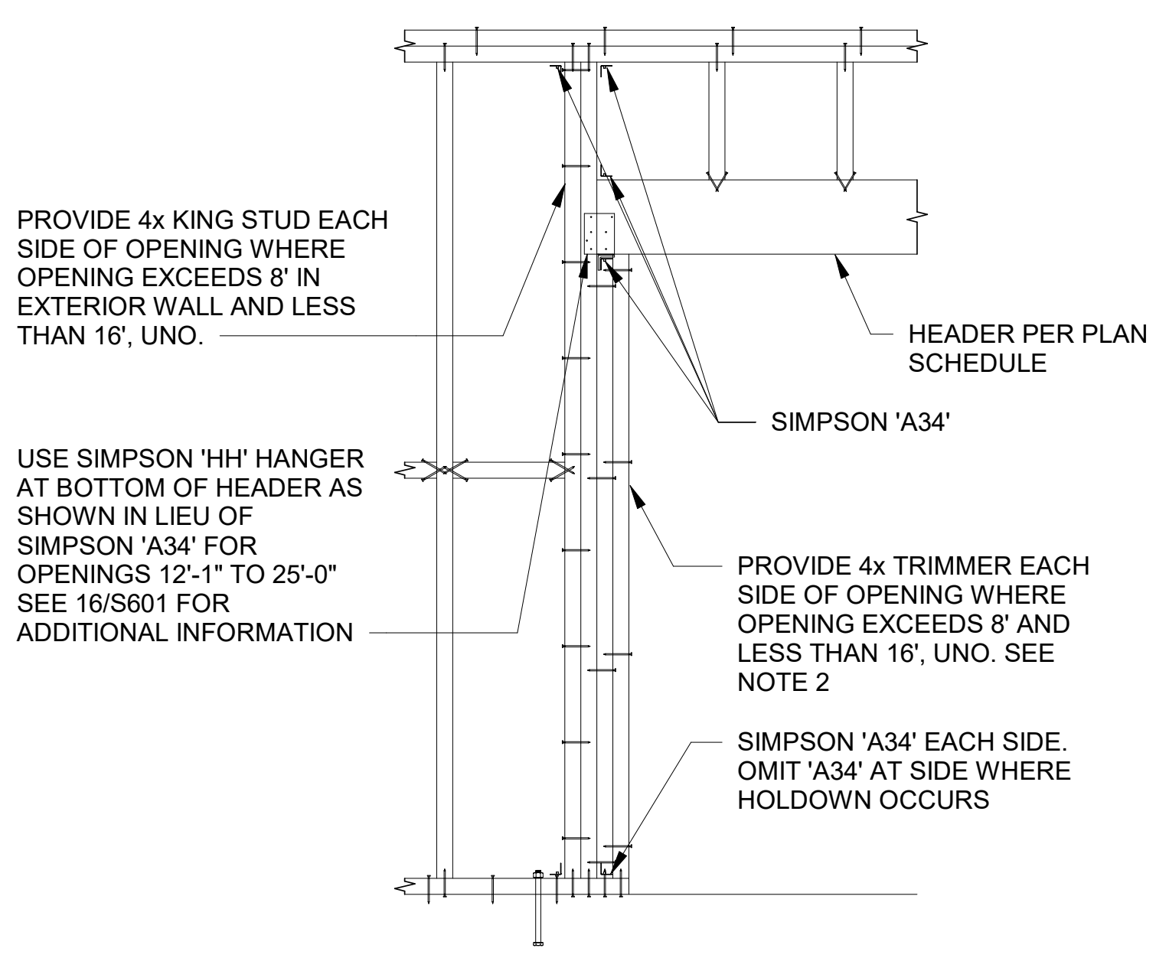

WOOD TOP OR BOTTOM PLATE
HSS/PLUMBING PIPE PER PLAN
1'-0" MIN, TYP
PLAN VIEW
4" MAX @ 4x PLATE
6" MAX @ 6x PLATE
CS20 BOTH SIDES AT BOTTOM PLATE w/ (8) 8d NAILS EACH SIDE OF PENETRATION. CMSTC16 BOTH SIDES AT DOUBLE TOP PLATE w/ (8) 16d SINKERS EACH SIDE OF PENETRATION ((4) IN EACH PLATE)
RIM JOIST/BLKG PER PLAN, TYP
JOISTS PER PLAN, TYP
SILL/SOLE PLATE
WALL DOUBLE TOP PLATE
ELEVATION VIEW
ADDITIONAL STUD AT EA SIDE OF PENETRATION

TYPICAL LARGE PENETRATION IN WALL TOP OR BOTTOM PLATE

1" = 1'-0"

11

NOTE:
1. THIS DETAIL SHOWS THE HARDWARE TO BE USED FOR EXTERIOR WALLS WITH OPENINGS WIDER THAN 8'-0", SEE **2/S601** FOR SMALLER OPENINGS.
2. TRIMMERS CAN BE OMITTED AT EXTERIOR NON-BEARING WALLS WHERE SIMPSON HH HANGER IS USED.
3. SEE **2/S601** FOR STRUCTURAL INFORMATION NOT SHOWN HERE.

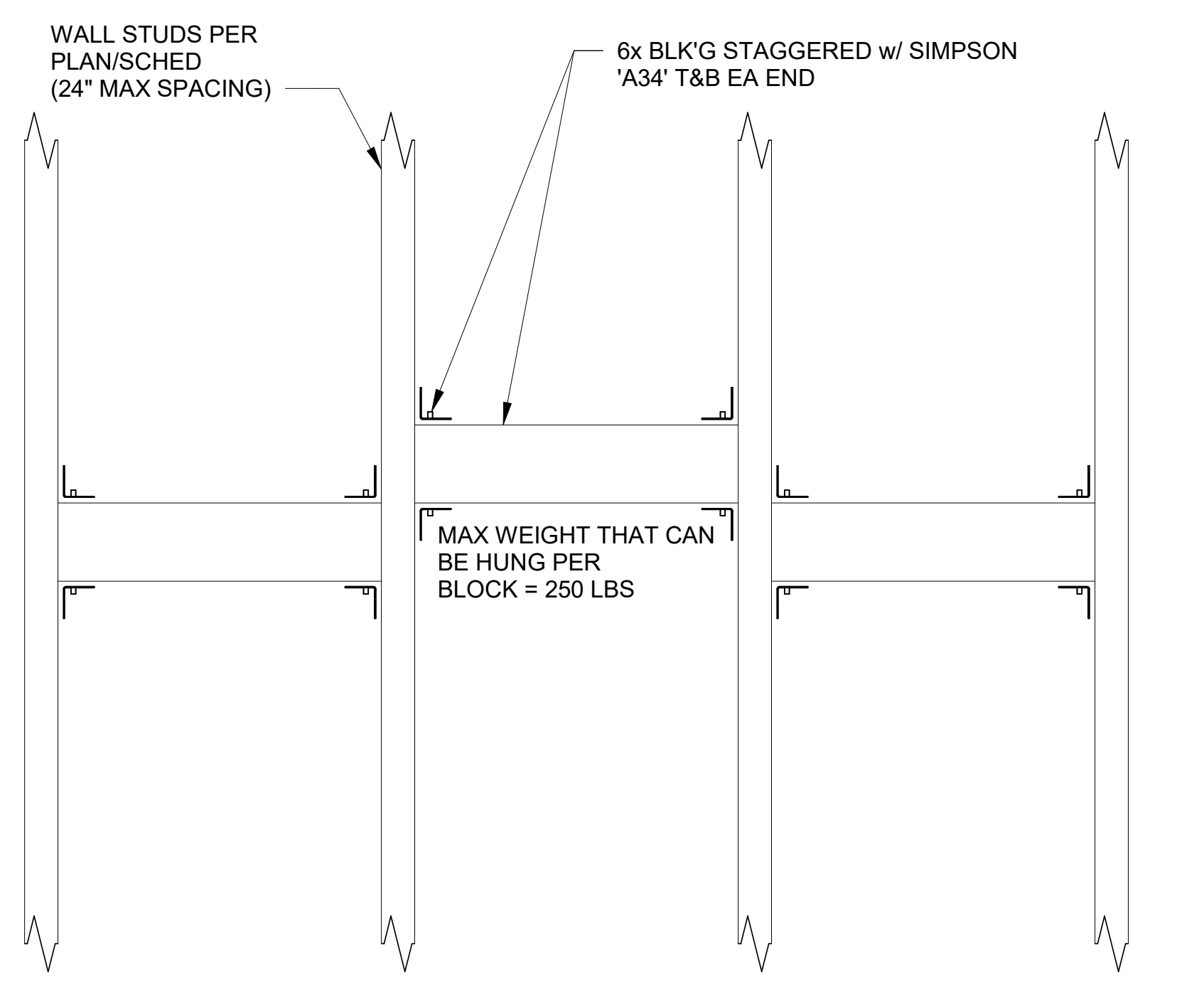

PROVIDE 4x KING STUD EACH SIDE OF OPENING WHERE OPENING EXCEEDS 8' IN EXTERIOR WALL AND LESS THAN 16', UNO.
HEADER PER PLAN OR SCHEDULE
SIMPSON 'A34'
USE SIMPSON 'HH' HANGER AT BOTTOM OF HEADER AS SHOWN IN LIEU OF SIMPSON 'A34' FOR OPENINGS 12'-1" TO 25'-0" SEE 16/S601 FOR ADDITIONAL INFORMATION
PROVIDE 4x TRIMMER EACH SIDE OF OPENING WHERE OPENING EXCEEDS 8' AND LESS THAN 16', UNO. SEE NOTE 2
SIMPSON 'A34' EACH SIDE. OMIT 'A34' AT SIDE WHERE HOLDOWN OCCURS

TYPICAL HEADER 8'-1" TO 12'-0" WIDE

1/2" = 1'-0"

7

MAX LOAD PER VERTICAL STUD IS 250 LBS , SPREAD LOADS ADQUATELY

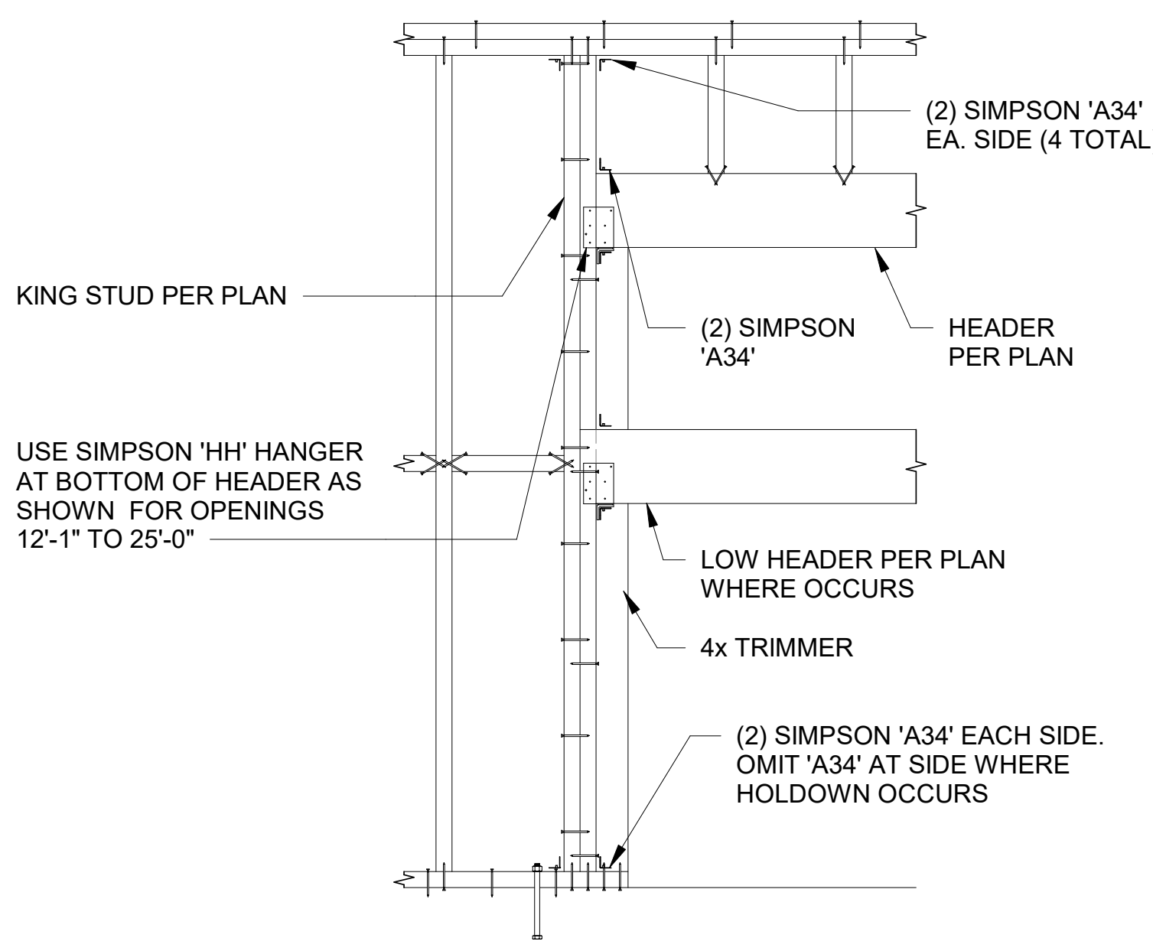

WALL STUDS PER PLAN/SCHED (24" MAX SPACING)
6x BLK'G STAGGERED w/ SIMPSON 'A34' T&B EA END
MAX WEIGHT THAT CAN BE HUNG PER BLOCK = 250 LBS

TYPICAL BACKING

1 1/2" = 1'-0"

3

NOTE:
1. THIS DETAIL SHOWS THE HARDWARE TO BE USED FOR EXTERIOR WALLS WITH OPENINGS WIDER THAN 12'-0"
2. SEE **2/S601** FOR STRUCTURAL INFORMATION NOT SHOWN HERE.

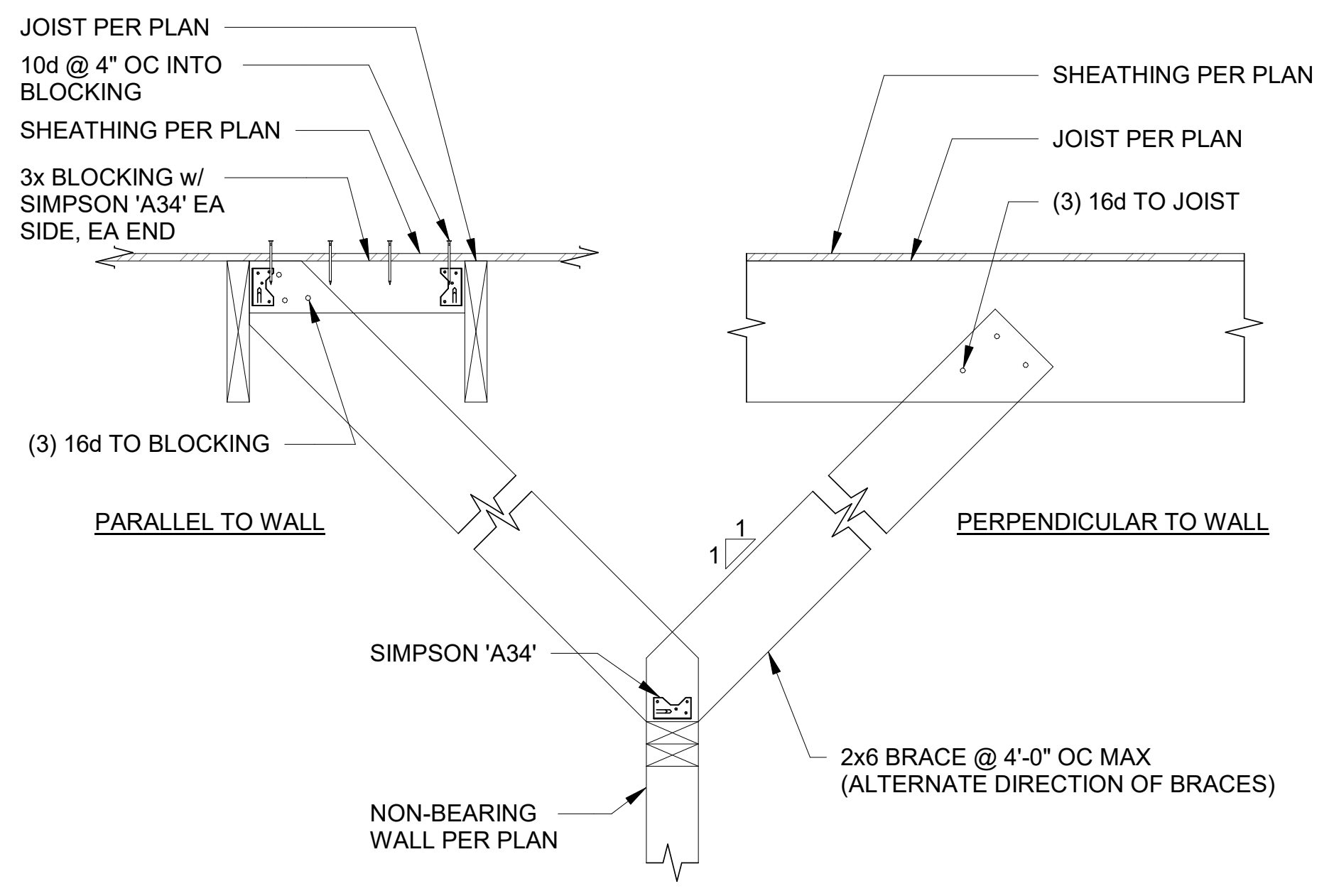

(2) SIMPSON 'A34' EA. SIDE (4 TOTAL)
KING STUD PER PLAN
(2) SIMPSON 'A34'
HEADER PER PLAN
USE SIMPSON 'HH' HANGER AT BOTTOM OF HEADER AS SHOWN FOR OPENINGS 12'-1" TO 25'-0"
LOW HEADER PER PLAN WHERE OCCURS
4x TRIMMER
(2) SIMPSON 'A34' EACH SIDE. OMIT 'A34' AT SIDE WHERE HOLDOWN OCCURS

TYPICAL HEADER 12'-0" TO 25'-0" WIDE

SCALE: NTS

16

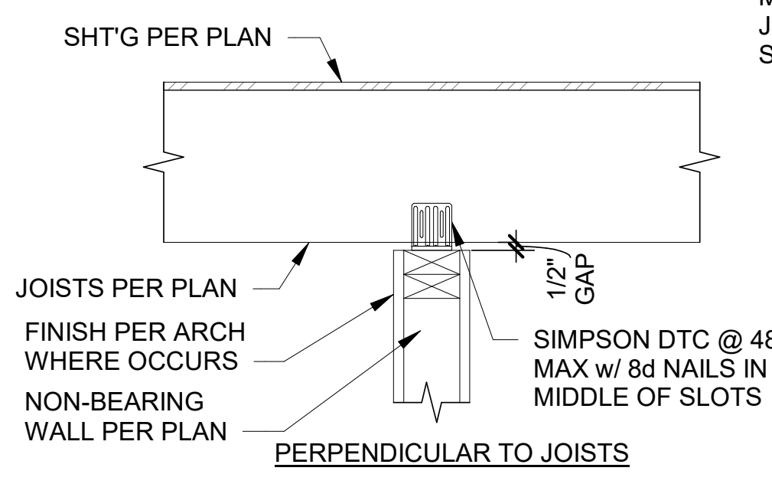
NOTE:
DO NOT INSTALL BRACES UNTIL DEAD LOAD IS IN PLACE.

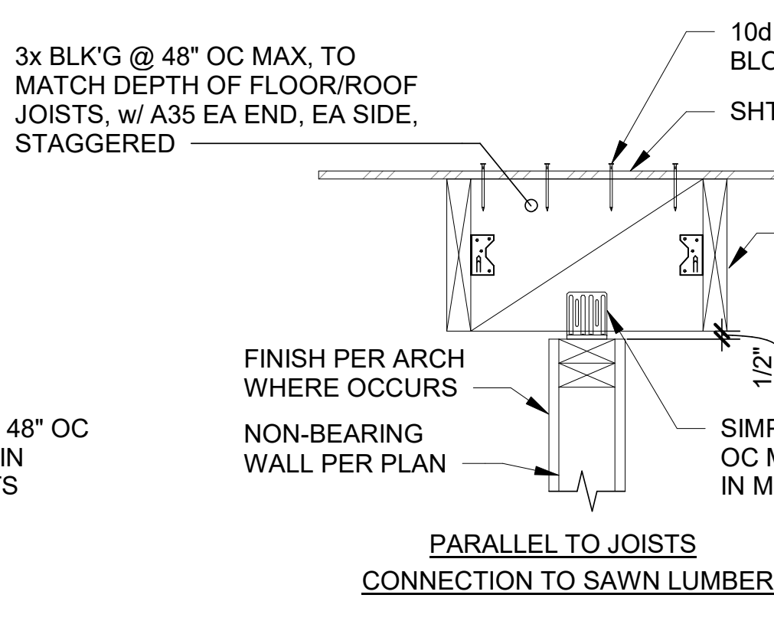


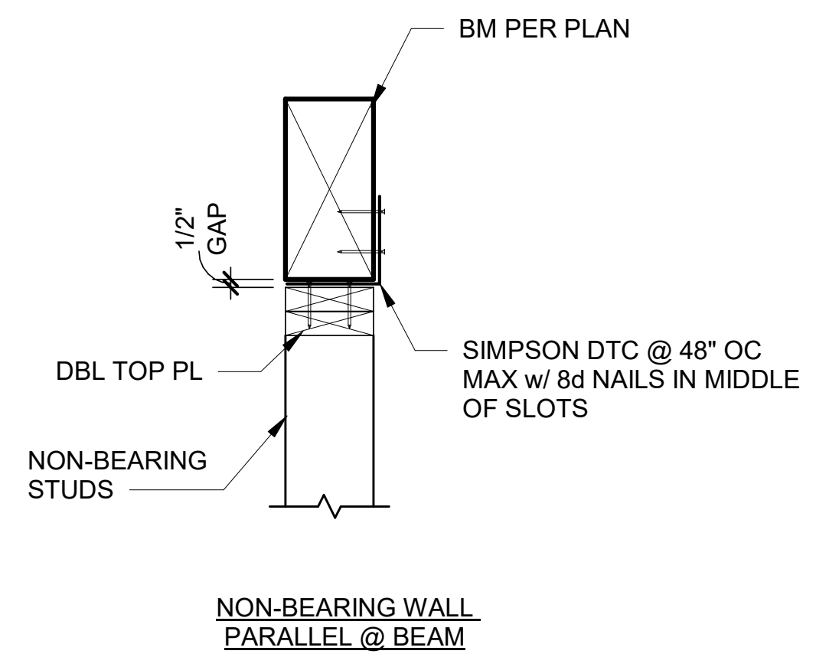
TYPICAL NON-BEARING WALL BRACING

1" = 1'-0"

12


SHT'G PER PLAN
JOISTS PER PLAN
FINISH PER ARCH WHERE OCCURS
NON-BEARING WALL PER PLAN
1/2" GAP
SIMPSON DTC @ 48" OC MAX w/ 8d NAILS IN MIDDLE OF SLOTS
PERPENDICULAR TO JOISTS


3x BLK'G @ 48" OC MAX, TO MATCH DEPTH OF FLOOR/ROOF JOISTS, w/ A35 EA END, EA SIDE, STAGGERED
10d @ 4" O.C. INTO BLOCKING
SHT'G PER PLAN
JOISTS PER PLAN
FINISH PER ARCH WHERE OCCURS
NON-BEARING WALL PER PLAN
1/2" GAP
SIMPSON DTC @ 48" OC MAX w/ 8d NAILS IN MIDDLE OF SLOTS
PARALLEL TO JOISTS
CONNECTION TO SAWN LUMBER


BM PER PLAN
1/2" GAP
DBL TOP PL
SIMPSON DTC @ 48" OC MAX w/ 8d NAILS IN MIDDLE OF SLOTS
NON-BEARING STUDS
NON-BEARING WALL PARALLEL @ BEAM

TYPICAL NON BEARING WALL TOP PLATE CONNECTION TO FRAMING

SCALE: NTS

4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

Tel: (949) 748-7170

No. 5038
Exp. 6/30/23

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2021-101_R21
SCALE	AS NOTED
PM	
DATE	Issue Date
△	
△	
△	
△	
△	

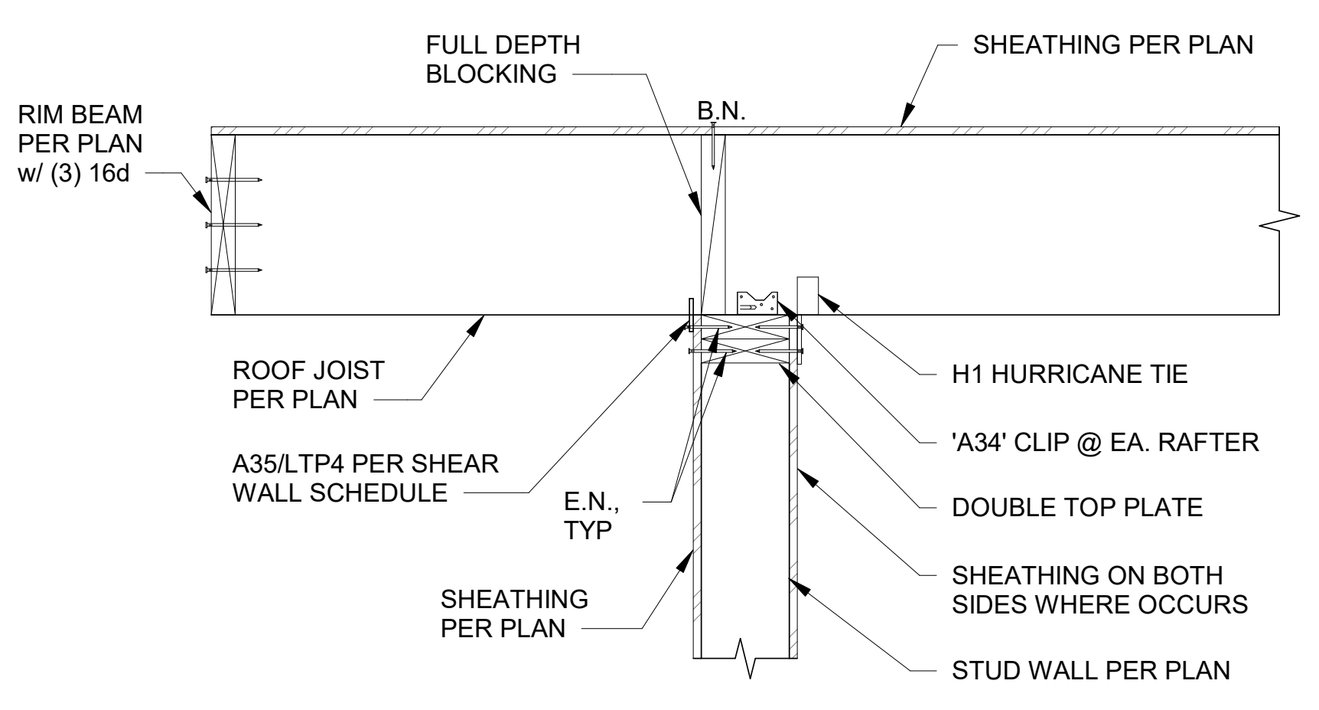
TYPICAL WOOD CONNECTION DETAILS

PERKINS EASTMAN

3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

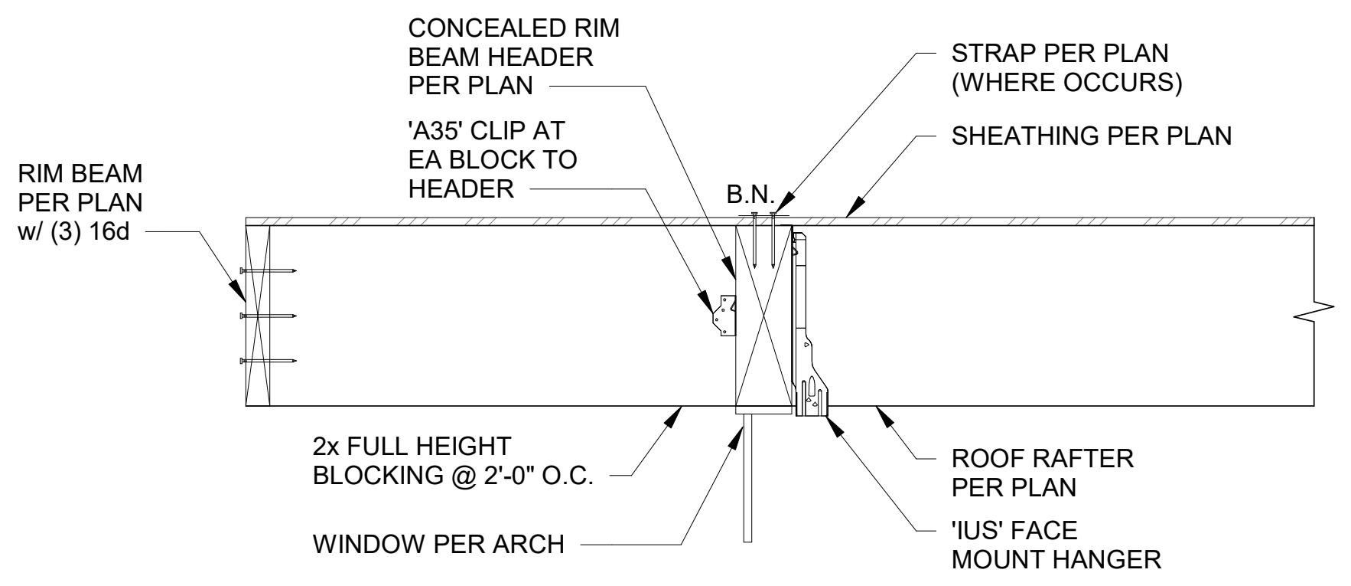
S601

Project #: 2021-101_R21 Plot Date: 1/17/2023 1:10:48 PM



EDGE OF ROOF DETAIL

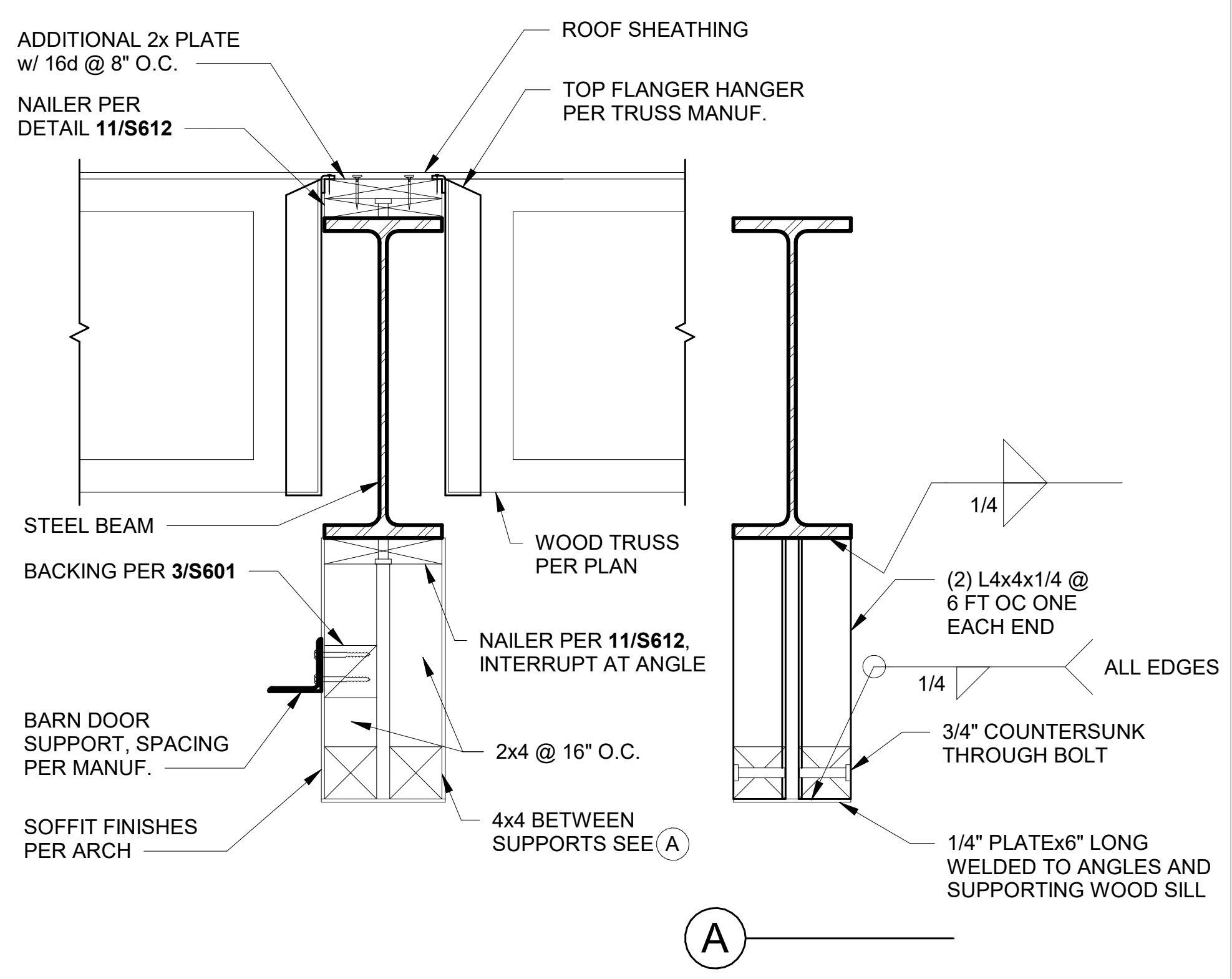
SCALE: NTS 13



CONCEALED RIM BEAM HEADER PER PLAN
'A35' CLIP AT EA BLOCK TO HEADER
STRAP PER PLAN (WHERE OCCURS)
SHEATHING PER PLAN
RIM BEAM PER PLAN w/ (3) 16d
B.N.
2x FULL HEIGHT BLOCKING @ 2'-0" O.C.
ROOF RAFTER PER PLAN
WINDOW PER ARCH
'IUS' FACE MOUNT HANGER

EDGE OF ROOF DETAIL

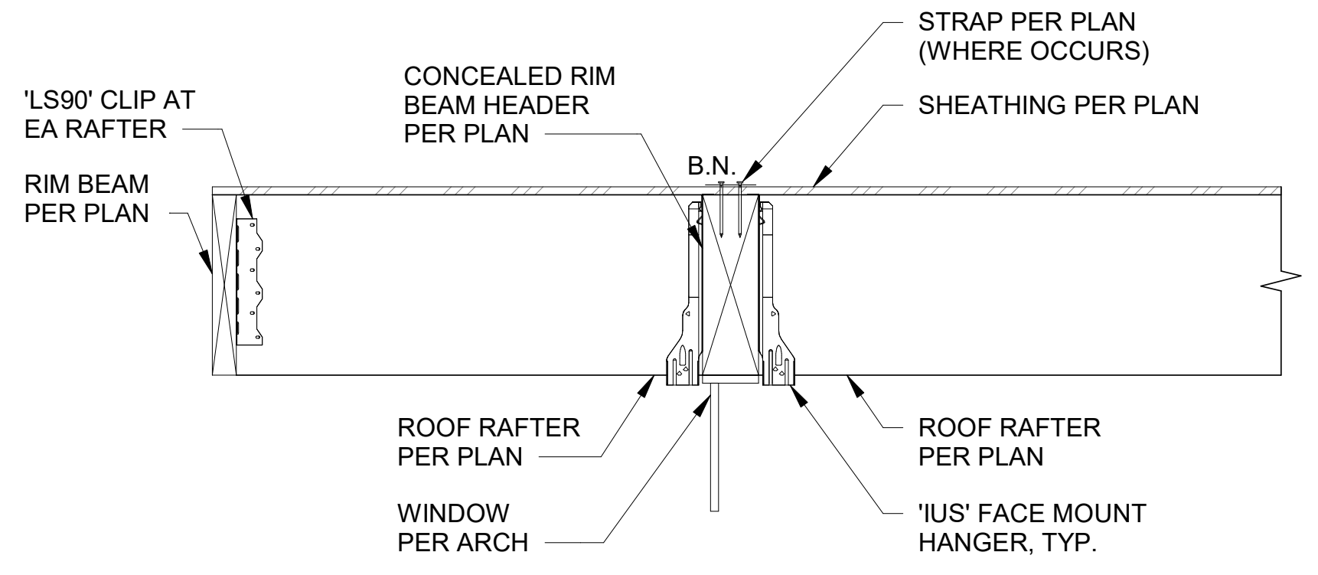
SCALE: NTS 14



ADDITIONAL 2x PLATE w/ 16d @ 8" O.C.
ROOF SHEATHING
NAILER PER DETAIL 11/S612
TOP FLANGER HANGER PER TRUSS MANUF.
STEEL BEAM
WOOD TRUSS PER PLAN
BACKING PER 3/S601
NAILER PER 11/S612, INTERRUPT AT ANGLE
BARN DOOR SUPPORT, SPACING PER MANUF.
2x4 @ 16" O.C.
SOFFIT FINISHES PER ARCH
4x4 BETWEEN SUPPORTS SEE A
1/4
(2) L4x4x1/4 @ 6 FT OC ONE EACH END
1/4
ALL EDGES
3/4" COUNTERSUNK THROUGH BOLT
1/4" PLATEx6" LONG WELDED TO ANGLES AND SUPPORTING WOOD SILL
A

BARN DOOR SUPPORT

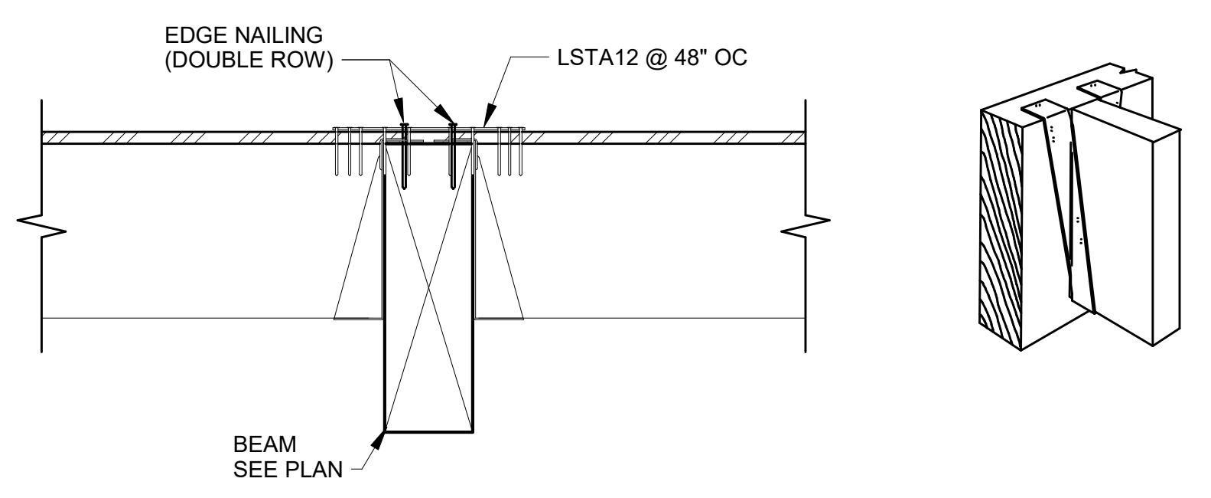
SCALE: NTS 15



EDGE OF ROOF DETAIL

SCALE: NTS 16

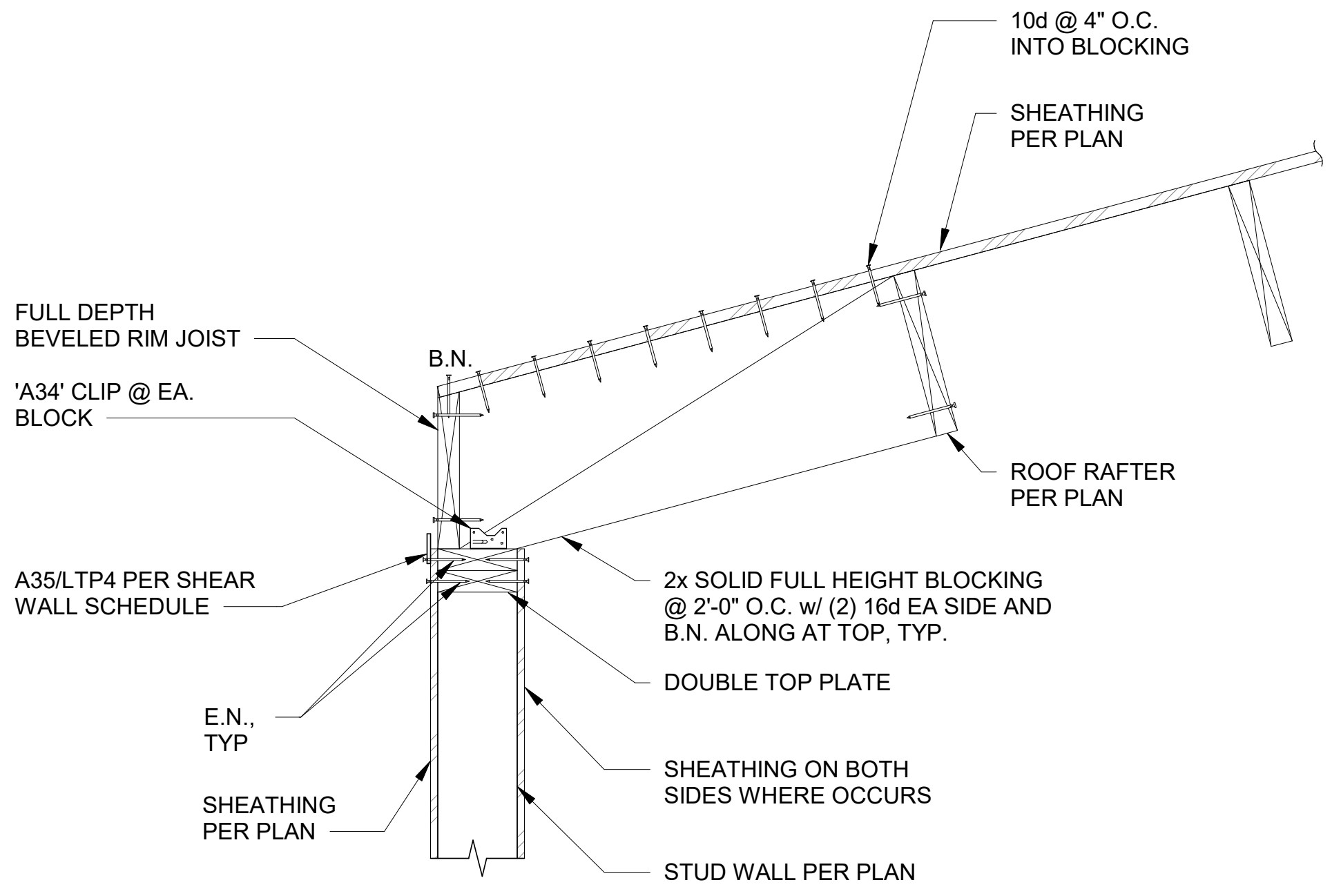
NOTE:
COUNTERSINK NUT FOR STUD BOLTS JUST ENOUGH SO TOP OF NUT IS FLUSH WITH BOTTOM OF SHEATHING +/-1/16".



HANGER SCHEDULE		
MEMBER	HANGER TYPE	REMARKS
2x	SIMPSON "LB" HANGER	U.N.O. ON PLAN
3x, 4x, 6x, PSL	SIMPSON "HUTF" HANGER	U.N.O. ON PLAN
3x, 4x, 6x, PSL	SIMPSON "B" HANGER	FOR NAILER/STEEL MEMBER CONN. (U.N.O.) AND CONNECTION TO OWJ

TYPICAL WOOD JOIST/HANGER SCHEDULE

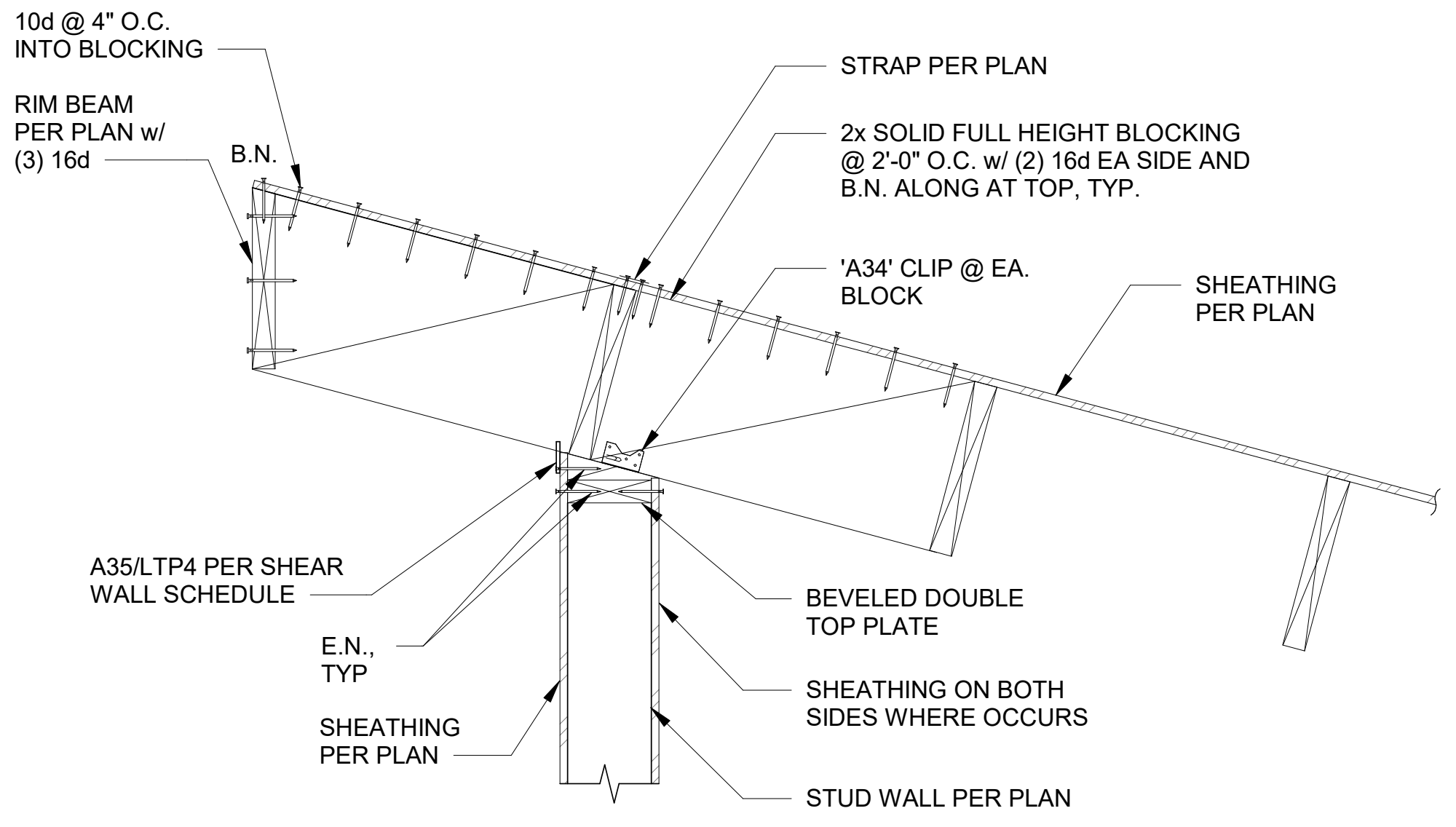
SCALE: NTS 9



10d @ 4" O.C. INTO BLOCKING
SHEATHING PER PLAN
FULL DEPTH BEVELED RIM JOIST
B.N.
'A34' CLIP @ EA. BLOCK
ROOF RAFTER PER PLAN
A35/LTP4 PER SHEAR WALL SCHEDULE
2x SOLID FULL HEIGHT BLOCKING @ 2'-0" O.C. w/ (2) 16d EA SIDE AND B.N. ALONG AT TOP, TYP.
DOUBLE TOP PLATE
E.N., TYP
SHEATHING PER PLAN
SHEATHING ON BOTH SIDES WHERE OCCURS
STUD WALL PER PLAN

EDGE OF ROOF DETAIL

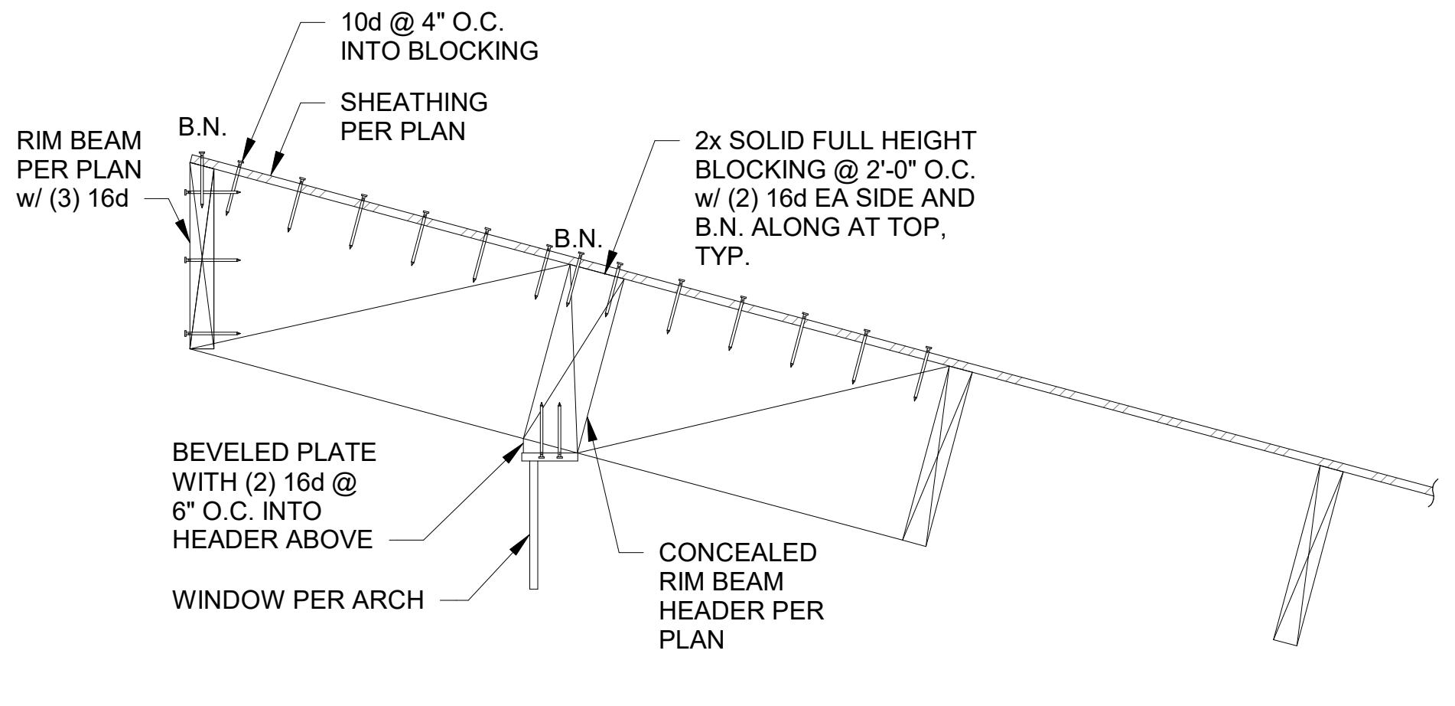
SCALE: NTS 10



10d @ 4" O.C. INTO BLOCKING
RIM BEAM PER PLAN w/ (3) 16d
B.N.
STRAP PER PLAN
2x SOLID FULL HEIGHT BLOCKING @ 2'-0" O.C. w/ (2) 16d EA SIDE AND B.N. ALONG AT TOP, TYP.
'A34' CLIP @ EA. BLOCK
SHEATHING PER PLAN
A35/LTP4 PER SHEAR WALL SCHEDULE
BEVELED DOUBLE TOP PLATE
E.N., TYP
SHEATHING ON BOTH SIDES WHERE OCCURS
SHEATHING PER PLAN
STUD WALL PER PLAN

EDGE OF ROOF DETAIL

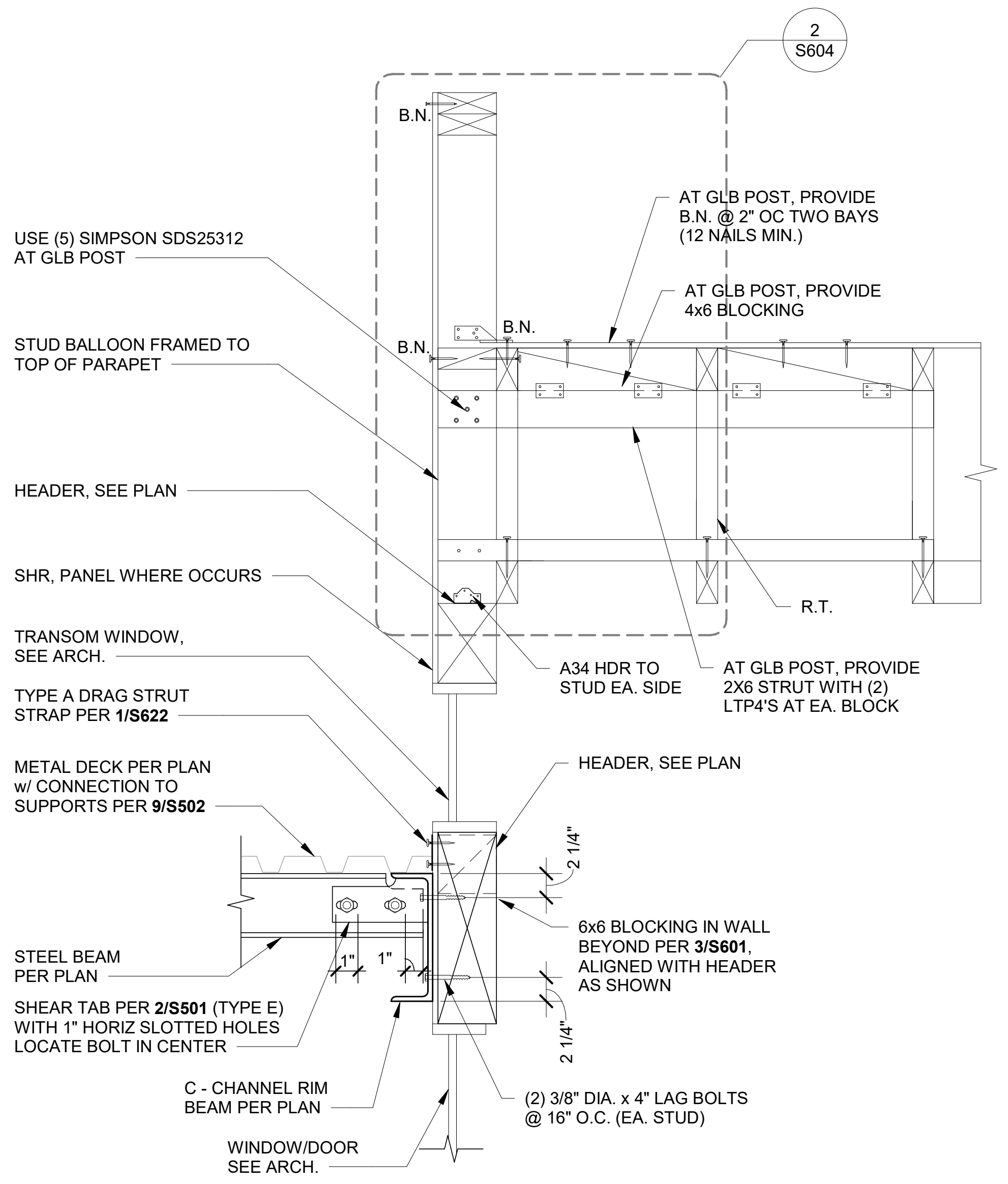
SCALE: NTS 11



10d @ 4" O.C. INTO BLOCKING
SHEATHING PER PLAN
RIM BEAM PER PLAN w/ (3) 16d
B.N.
B.N.
2x SOLID FULL HEIGHT BLOCKING @ 2'-0" O.C. w/ (2) 16d EA SIDE AND B.N. ALONG AT TOP, TYP.
BEVELED PLATE WITH (2) 16d @ 6" O.C. INTO HEADER ABOVE
WINDOW PER ARCH
CONCEALED RIM BEAM HEADER PER PLAN

EDGE OF ROOF DETAIL

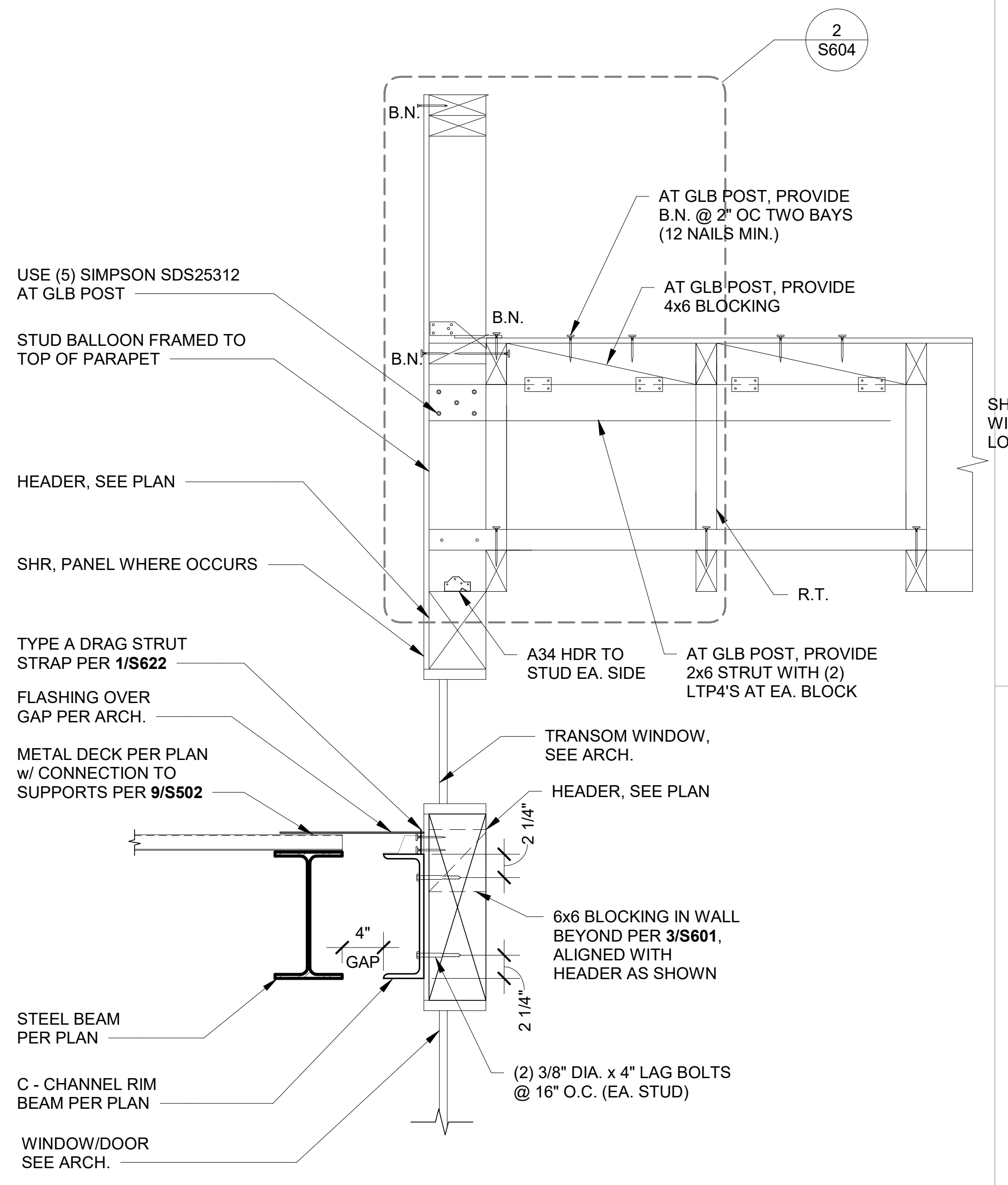
SCALE: NTS 12



2 S604
B.N.
USE (5) SIMPSON SDS25312 AT GLB POST
AT GLB POST, PROVIDE B.N. @ 2" OC TWO BAYS (12 NAILS MIN.)
AT GLB POST, PROVIDE 4x6 BLOCKING
B.N.
B.N.
STUD BALLOON FRAMED TO TOP OF PARAPET
HEADER, SEE PLAN
SHR. PANEL WHERE OCCURS
R.T.
TRANSOM WINDOW, SEE ARCH.
A34 HDR TO STUD EA. SIDE
AT GLB POST, PROVIDE 2X6 STRUT WITH (2) LTP4'S AT EA. BLOCK
TYPE A DRAG STRUT STRAP PER 1/S622
HEADER, SEE PLAN
METAL DECK PER PLAN w/ CONNECTION TO SUPPORTS PER 9/S502
2 1/4"
6x6 BLOCKING IN WALL BEYOND PER 3/S601, ALIGNED WITH HEADER AS SHOWN
STEEL BEAM PER PLAN
1"
1"
SHEAR TAB PER 2/S501 (TYPE E) WITH 1" HORIZ SLOTTED HOLES LOCATE BOLT IN CENTER
2 1/4"
C - CHANNEL RIM BEAM PER PLAN
(2) 3/8" DIA. x 4" LAG BOLTS @ 16" O.C. (EA. STUD)
WINDOW/DOOR SEE ARCH.

ROOF TRUSS PARALLEL W/ COVERED WALKWAY

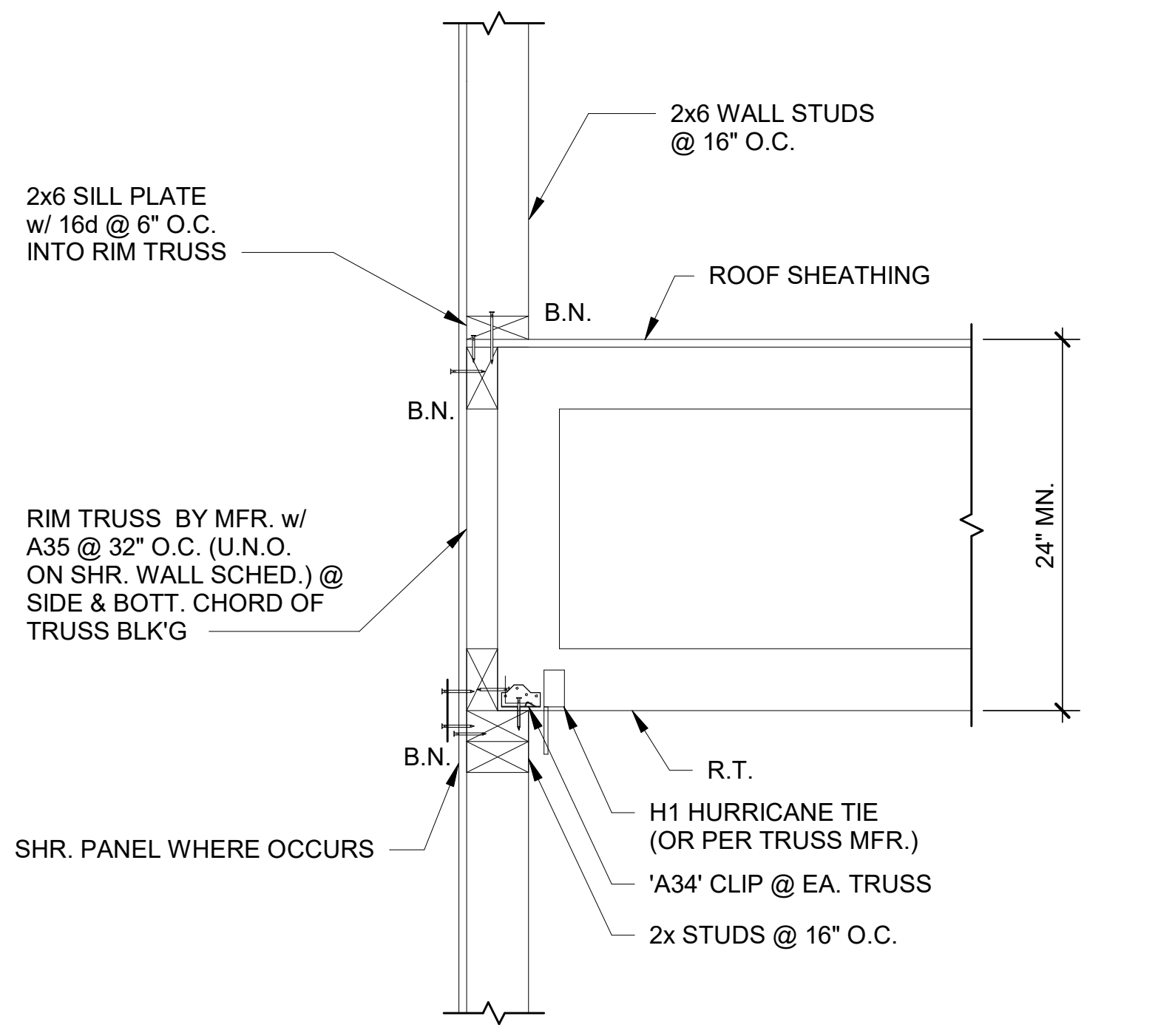
SCALE: NTS 6



2 S604
B.N.
AT GLB POST, PROVIDE B.N. @ 2" OC TWO BAYS (12 NAILS MIN.)
AT GLB POST, PROVIDE 4x6 BLOCKING
USE (5) SIMPSON SDS25312 AT GLB POST
B.N.
B.N.
STUD BALLOON FRAMED TO TOP OF PARAPET
HEADER, SEE PLAN
SHR. PANEL WHERE OCCURS
R.T.
A34 HDR TO STUD EA. SIDE
AT GLB POST, PROVIDE 2x6 STRUT WITH (2) LTP4'S AT EA. BLOCK
TYPE A DRAG STRUT STRAP PER 1/S622
FLASHING OVER GAP PER ARCH.
TRANSOM WINDOW, SEE ARCH.
METAL DECK PER PLAN w/ CONNECTION TO SUPPORTS PER 9/S502
HEADER, SEE PLAN
2 1/4"
4"
GAP
6x6 BLOCKING IN WALL BEYOND PER 3/S601, ALIGNED WITH HEADER AS SHOWN
STEEL BEAM PER PLAN
2 1/4"
C - CHANNEL RIM BEAM PER PLAN
(2) 3/8" DIA. x 4" LAG BOLTS @ 16" O.C. (EA. STUD)
WINDOW/DOOR SEE ARCH.

ROOF TRUSS PARALLEL W/ COVERED WALKWAY

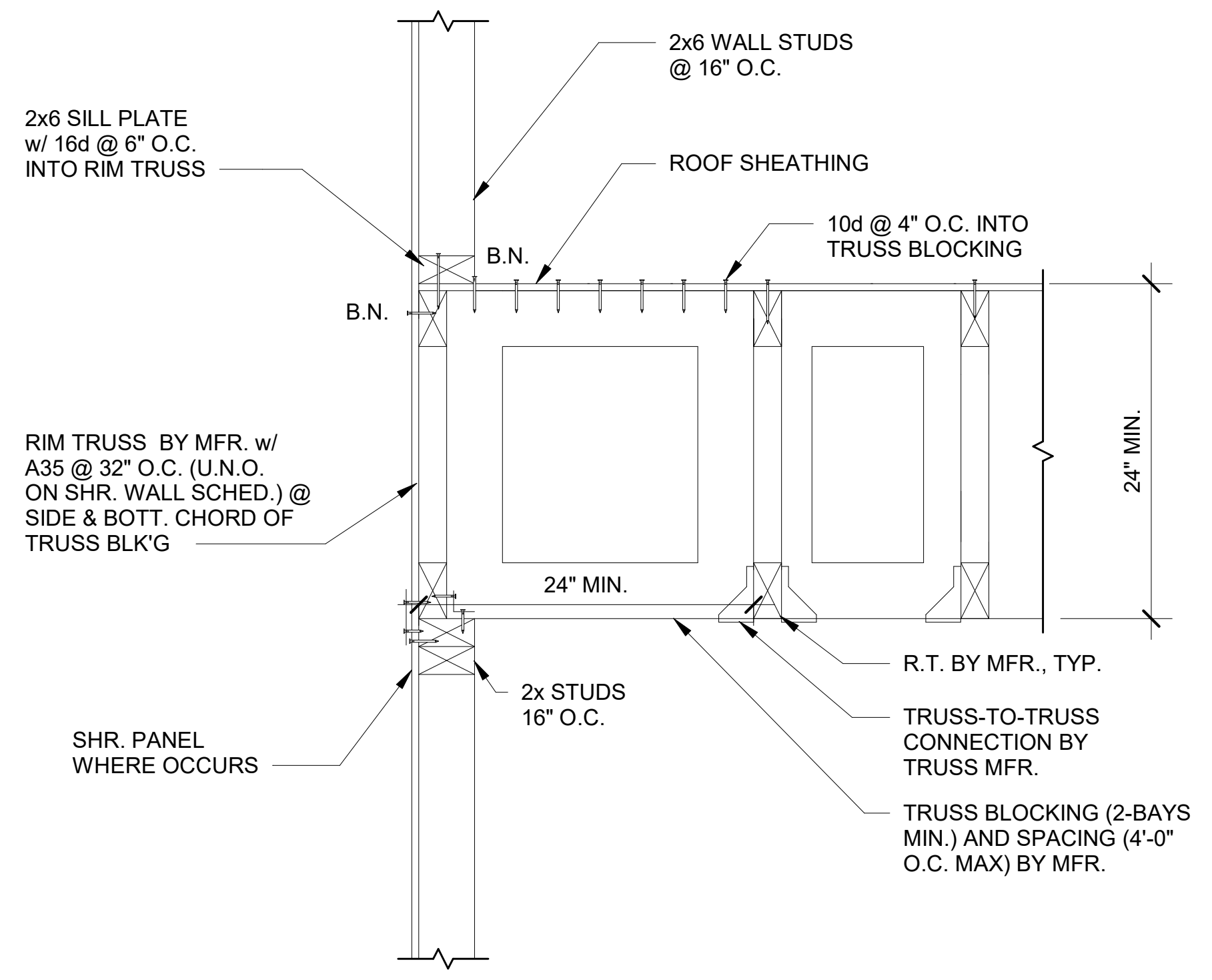
SCALE: NTS 8



2x6 WALL STUDS @ 16" O.C.
2x6 SILL PLATE w/ 16d @ 6" O.C. INTO RIM TRUSS
B.N.
ROOF SHEATHING
B.N.
24" MIN.
RIM TRUSS BY MFR. w/ A35 @ 32" O.C. (U.N.O. ON SHR. WALL SCHED.) @ SIDE & BOTT. CHORD OF TRUSS BLK'G
R.T.
B.N.
H1 HURRICANE TIE (OR PER TRUSS MFR.)
SHR. PANEL WHERE OCCURS
'A34' CLIP @ EA. TRUSS
2x STUDS @ 16" O.C.

ROOF TRUSS PERP TO UPPER WALL

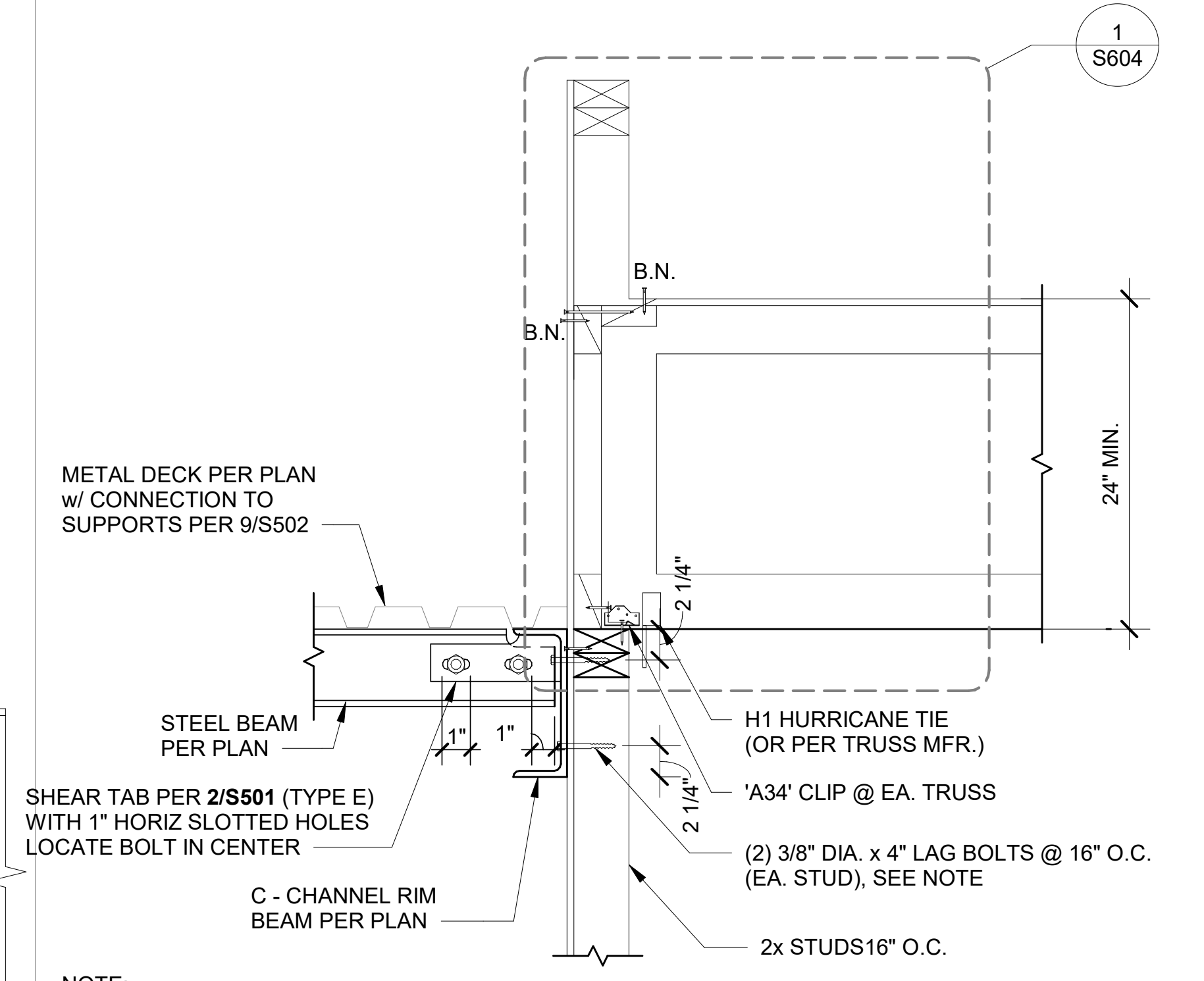
SCALE: NTS 1



2x6 WALL STUDS @ 16" O.C.
2x6 SILL PLATE w/ 16d @ 6" O.C. INTO RIM TRUSS
ROOF SHEATHING
B.N.
10d @ 4" O.C. INTO TRUSS BLOCKING
B.N.
24" MIN.
RIM TRUSS BY MFR. w/ A35 @ 32" O.C. (U.N.O. ON SHR. WALL SCHED.) @ SIDE & BOTT. CHORD OF TRUSS BLK'G
24" MIN.
R.T. BY MFR., TYP.
2x STUDS 16" O.C.
TRUSS-TO-TRUSS CONNECTION BY TRUSS MFR.
SHR. PANEL WHERE OCCURS
TRUSS BLOCKING (2-BAYS MIN.) AND SPACING (4'-0" O.C. MAX) BY MFR.

ROOF TRUSS PARALLEL TO UPPER WALL

SCALE: NTS 2

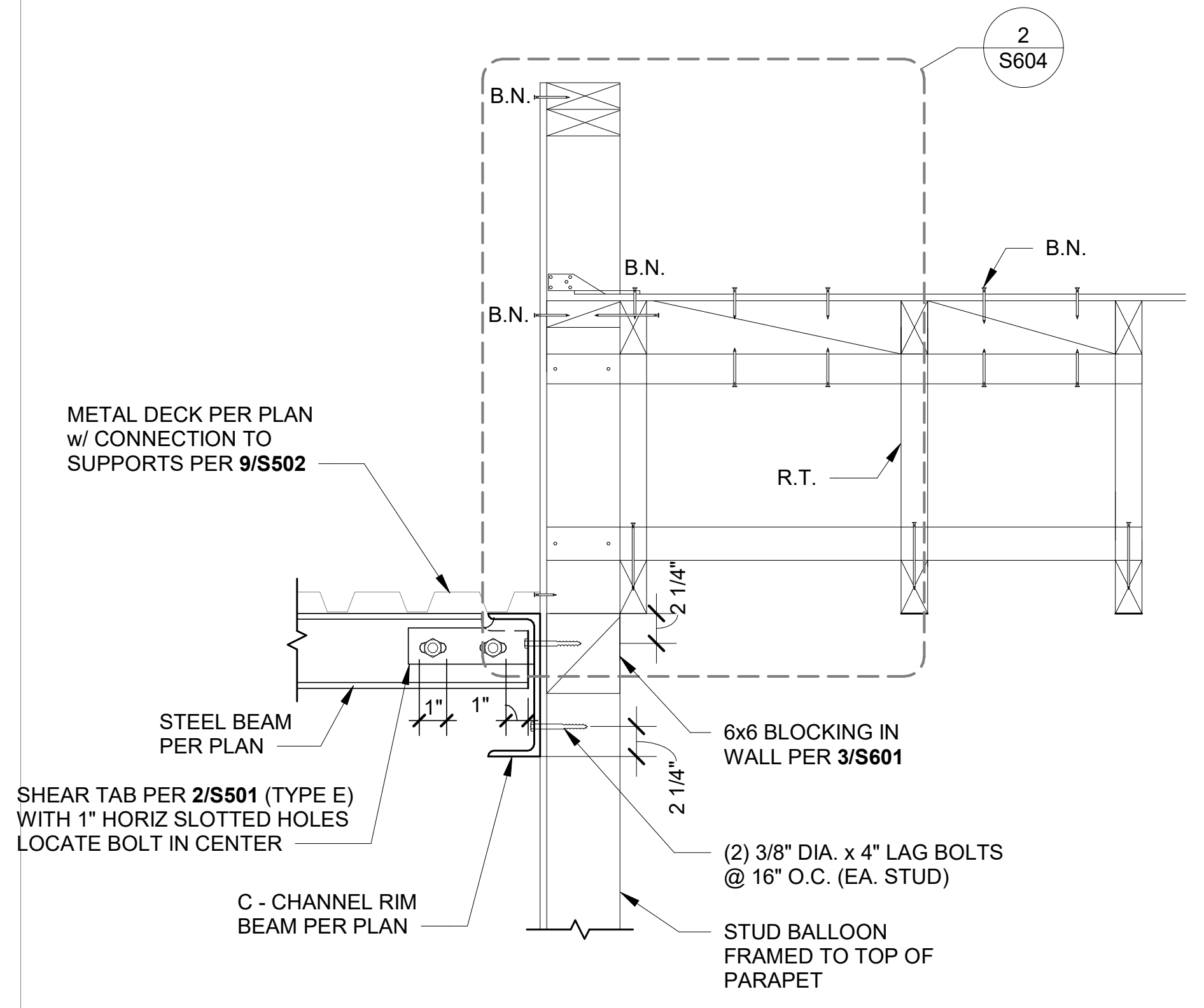


1 S604
B.N.
B.N.
24" MIN.
METAL DECK PER PLAN w/ CONNECTION TO SUPPORTS PER 9/S502
2 1/4"
STEEL BEAM PER PLAN
1"
1"
H1 HURRICANE TIE (OR PER TRUSS MFR.)
SHEAR TAB PER 2/S501 (TYPE E) WITH 1" HORIZ SLOTTED HOLES LOCATE BOLT IN CENTER
'A34' CLIP @ EA. TRUSS
2 1/4"
C - CHANNEL RIM BEAM PER PLAN
(2) 3/8" DIA. x 4" LAG BOLTS @ 16" O.C. (EA. STUD), SEE NOTE
2x STUDS16" O.C.

NOTE:
AT CONTRACTORS OPTION, 3/8" DIA. THRU BOLT, COUNTERSUNK 1" MAX. INTO BACKING PER 3/S601 IS ALSO ACCEPTABLE

ROOF TRUSS PERP W/ COVERED WALKWAY

SCALE: NTS 3



2 S604
B.N.
B.N.
B.N.
B.N.
METAL DECK PER PLAN w/ CONNECTION TO SUPPORTS PER 9/S502
R.T.
2 1/4"
STEEL BEAM PER PLAN
1"
1"
6x6 BLOCKING IN WALL PER 3/S601
SHEAR TAB PER 2/S501 (TYPE E) WITH 1" HORIZ SLOTTED HOLES LOCATE BOLT IN CENTER
2 1/4"
(2) 3/8" DIA. x 4" LAG BOLTS @ 16" O.C. (EA. STUD)
C - CHANNEL RIM BEAM PER PLAN
STUD BALLOON FRAMED TO TOP OF PARAPET

ROOF TRUSS PARALLEL W/ COVERED WALKWAY

SCALE: NTS 4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

Tel: (949) 748-7170

PETER SARKIS
No. 5038
Exp. 6/30/23
STRUCTURAL

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2021-101_R21
SCAL	AS NOTED
PM	
DATE	Issue Date

TYPICAL WOOD DETAILS

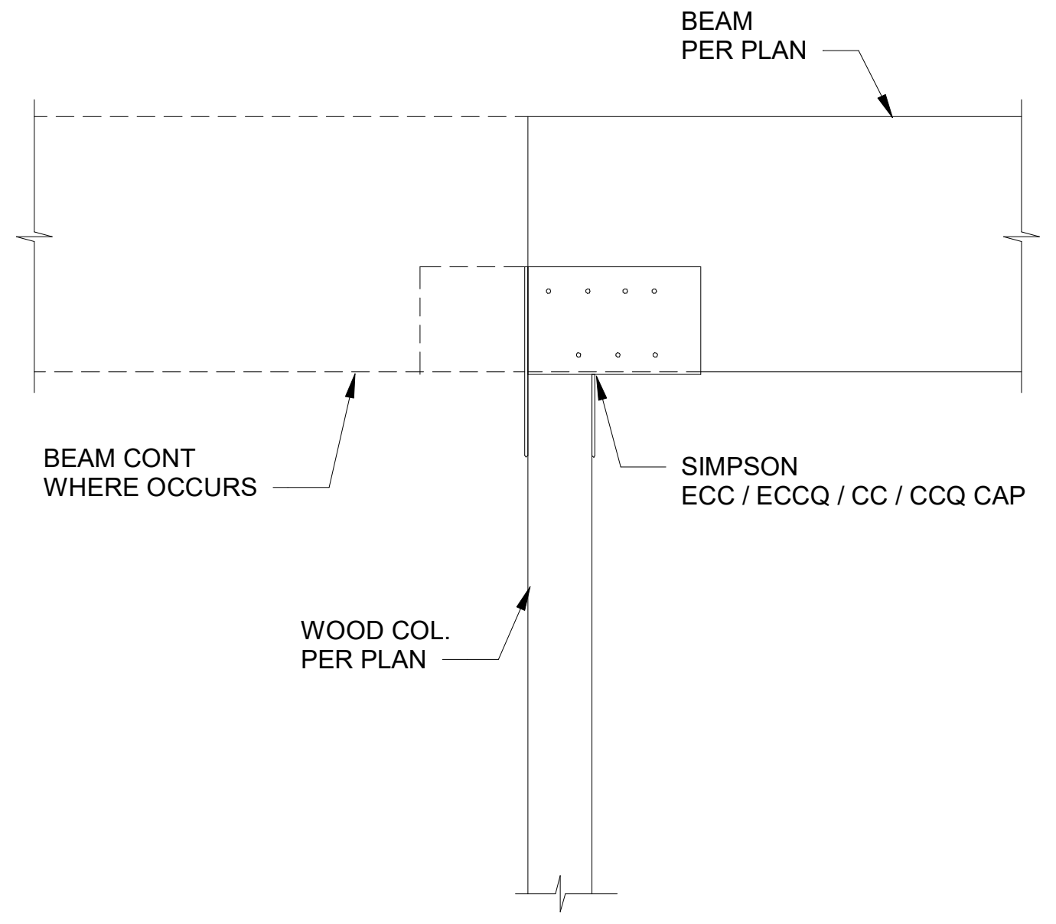
PERKINS EASTMAN

3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S602

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

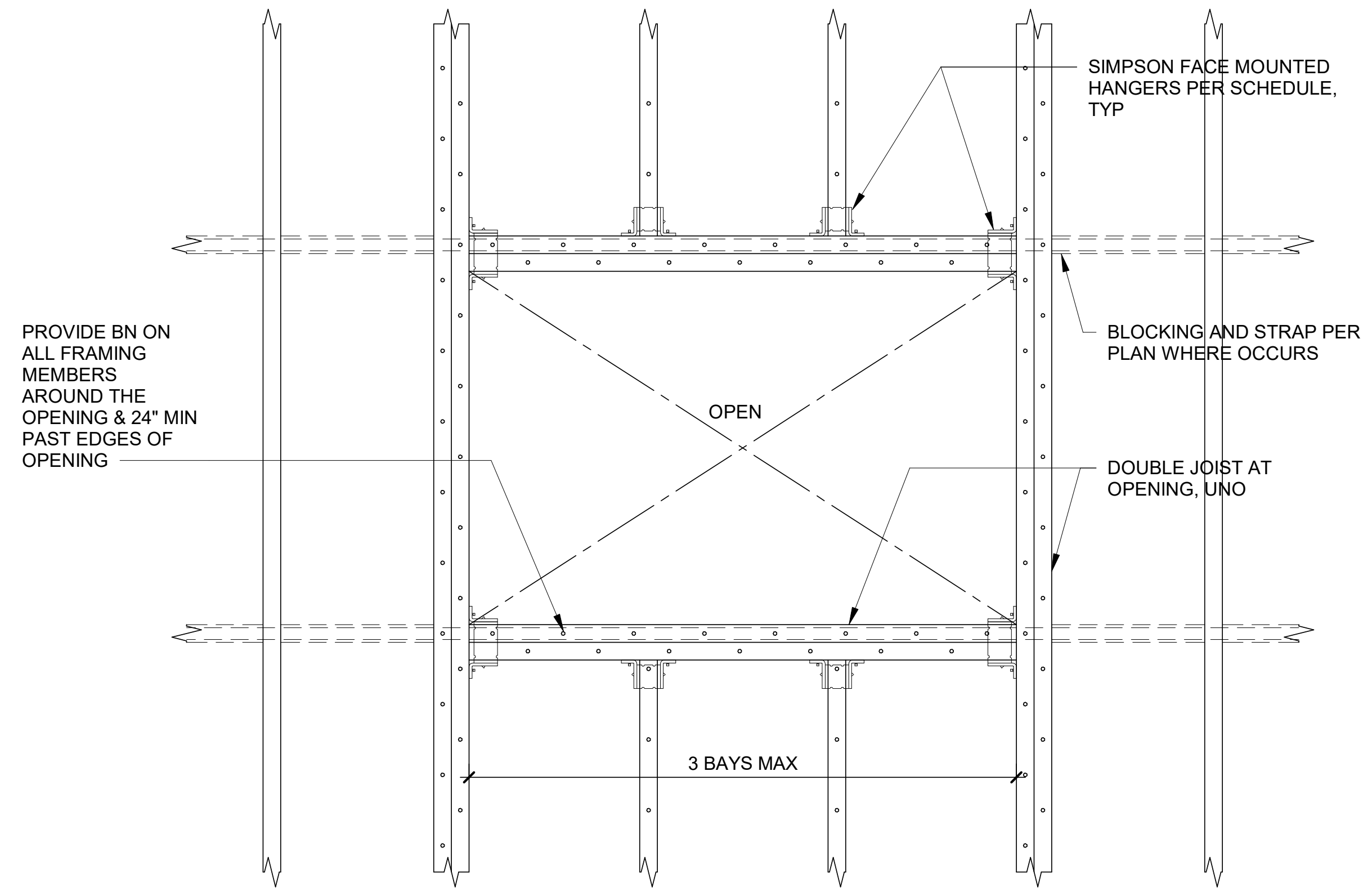


TYPICAL COLUMN CAP

SCALE: NTS

13

OPNINGS TO BE LOCATED MIN 4FT
FROM SHEAR WALL IN ANY DIRECTION

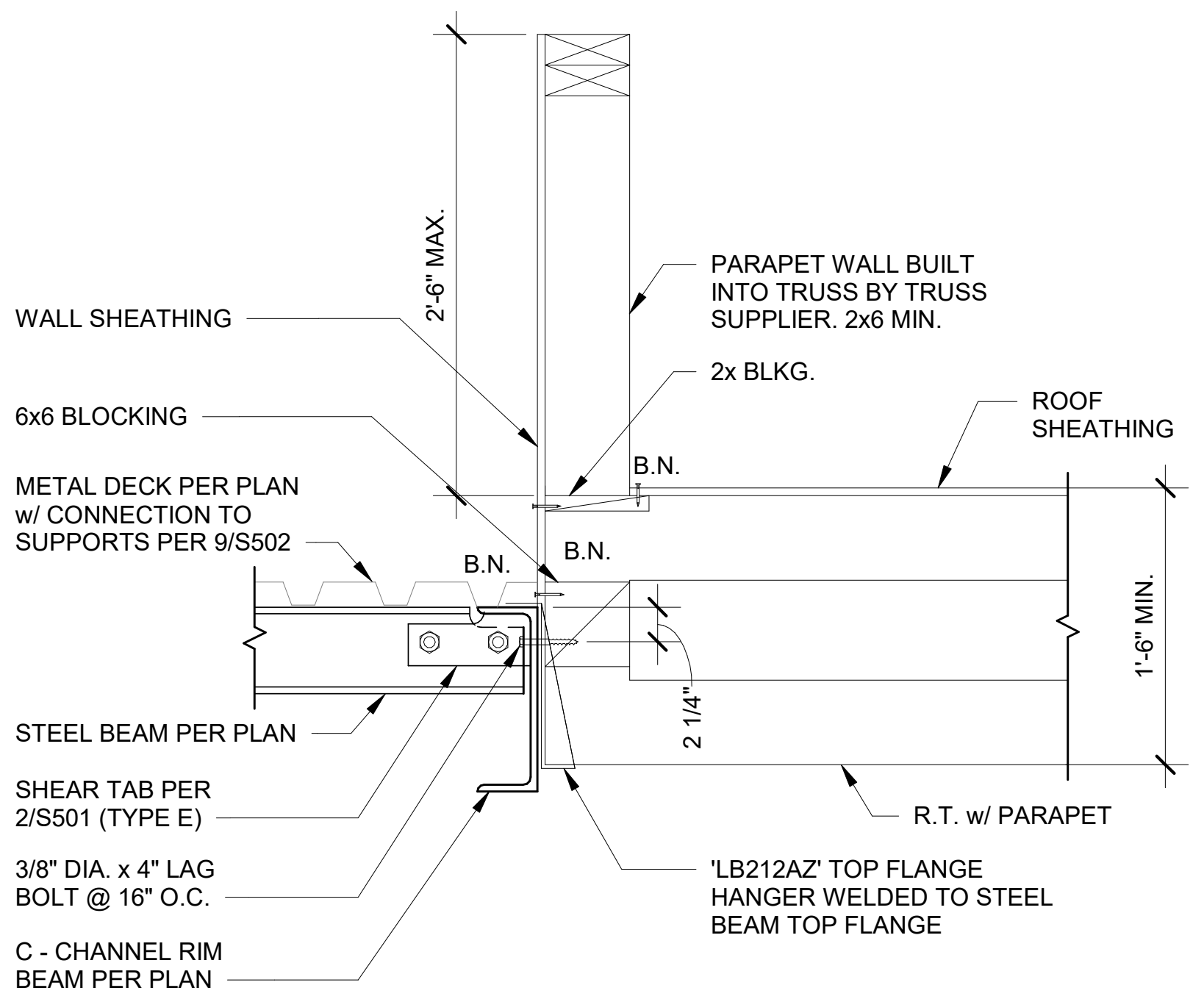


TYPICAL FLOOR/ROOF OPENING DETAIL

PLAN VIEW

SCALE: NTS

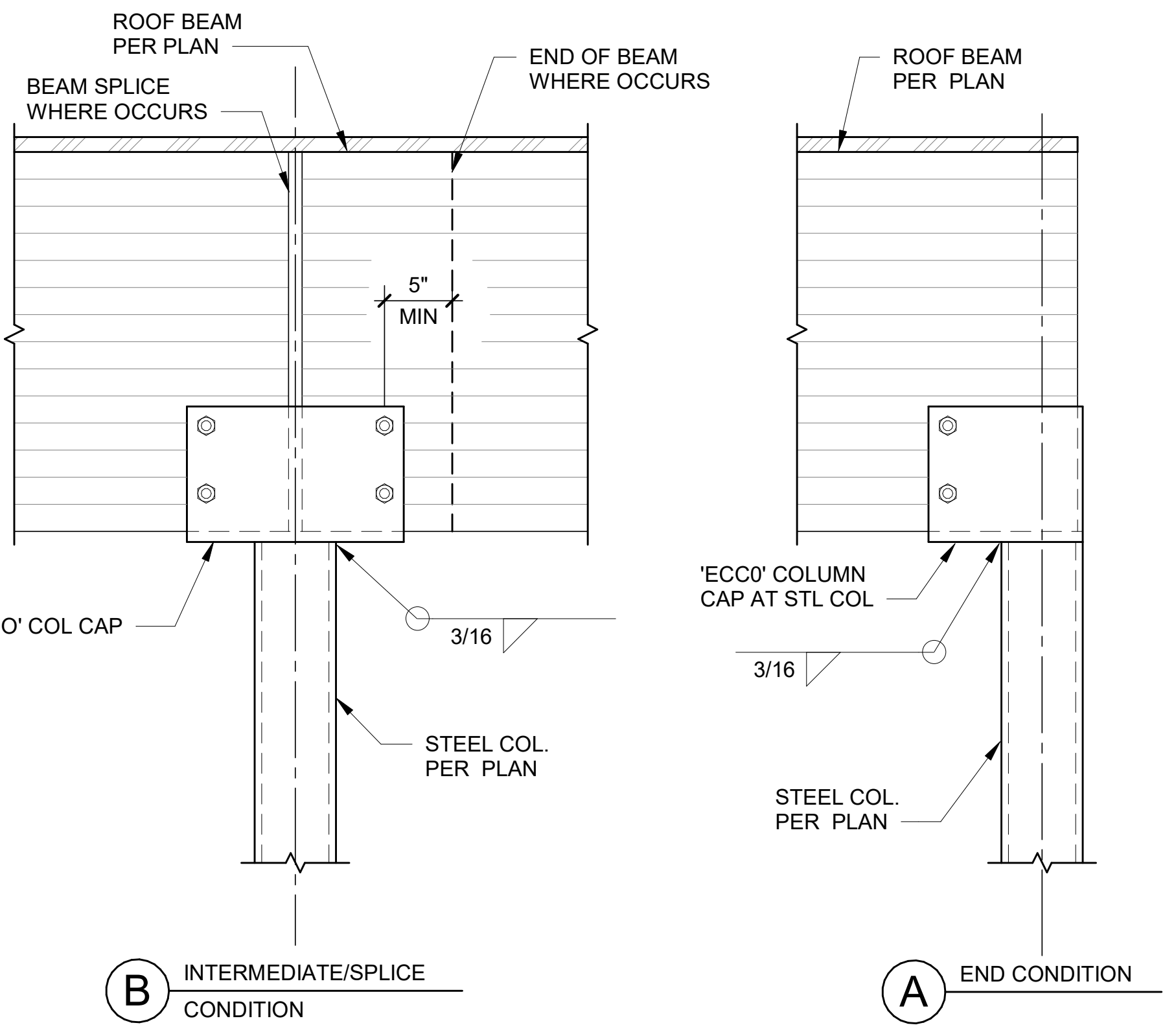
5



LOWER ROOF TRUSS DETAIL

SCALE: NTS

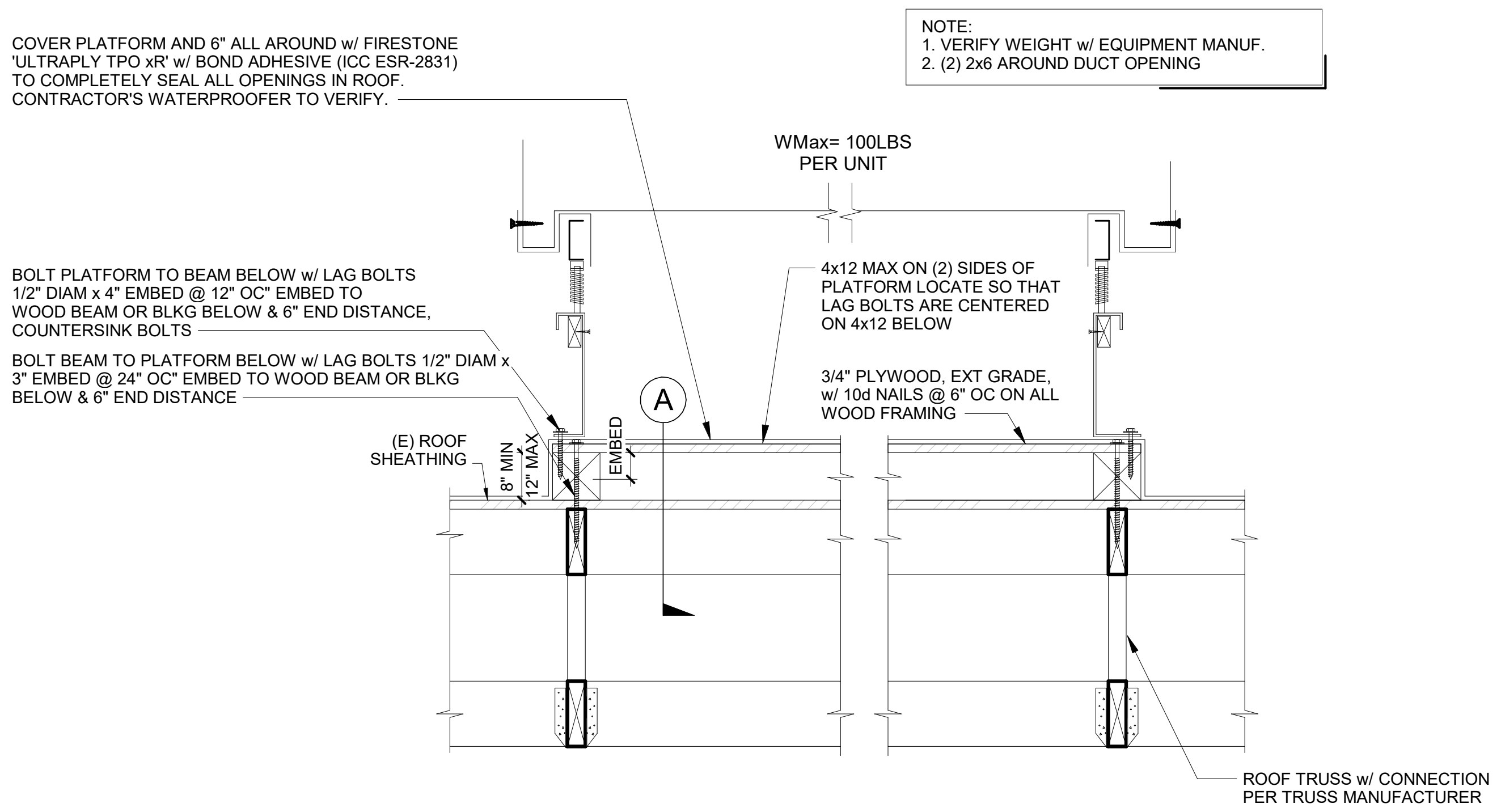
1



WOOD BEAM TO STEEL COLUMN CONNECTION

SCALE: NTS

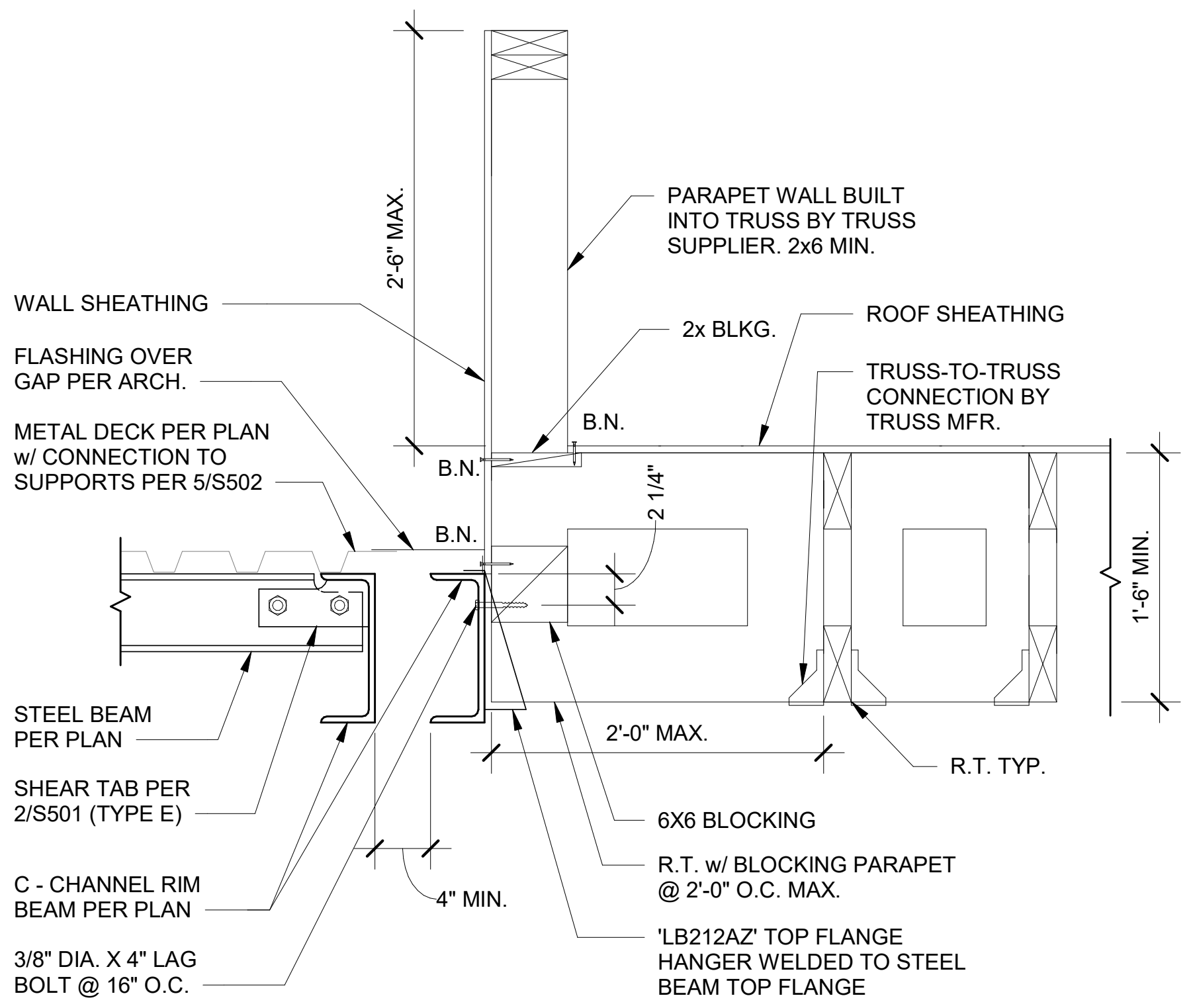
15


COVER PLATFORM AND 6" ALL AROUND w/ FIRESTONE
'ULTRAPLY TPO xR' w/ BOND ADHESIVE (ICC ESR-2831)
TO COMPLETELY SEAL ALL OPENINGS IN ROOF.
CONTRACTOR'S WATERPROOFER TO VERIFY.
NOTE:
1. VERIFY WEIGHT w/ EQUIPMENT MANUF.
2. (2) 2x6 AROUND DUCT OPENING
WMax= 100LBS
PER UNIT
BOLT PLATFORM TO BEAM BELOW w/ LAG BOLTS
1/2" DIAM x 4" EMBED @ 12" OC" EMBED TO
WOOD BEAM OR BLKG BELOW & 6" END DISTANCE,
COUNTERSINK BOLTS
4x12 MAX ON (2) SIDES OF
PLATFORM LOCATE SO THAT
LAG BOLTS ARE CENTERED
ON 4x12 BELOW
BOLT BEAM TO PLATFORM BELOW w/ LAG BOLTS 1/2" DIAM x
3" EMBED @ 24" OC" EMBED TO WOOD BEAM OR BLKG
BELOW & 6" END DISTANCE
3/4" PLYWOOD, EXT GRADE,
w/ 10d NAILS @ 6" OC ON ALL
WOOD FRAMING
A
(E) ROOF
SHEATHING
8" MIN
12" MAX
EMBED
ROOF TRUSS w/ CONNECTION
PER TRUSS MANUFACTURER

MECHANICAL UNIT PLATFORM

SCALE: NTS

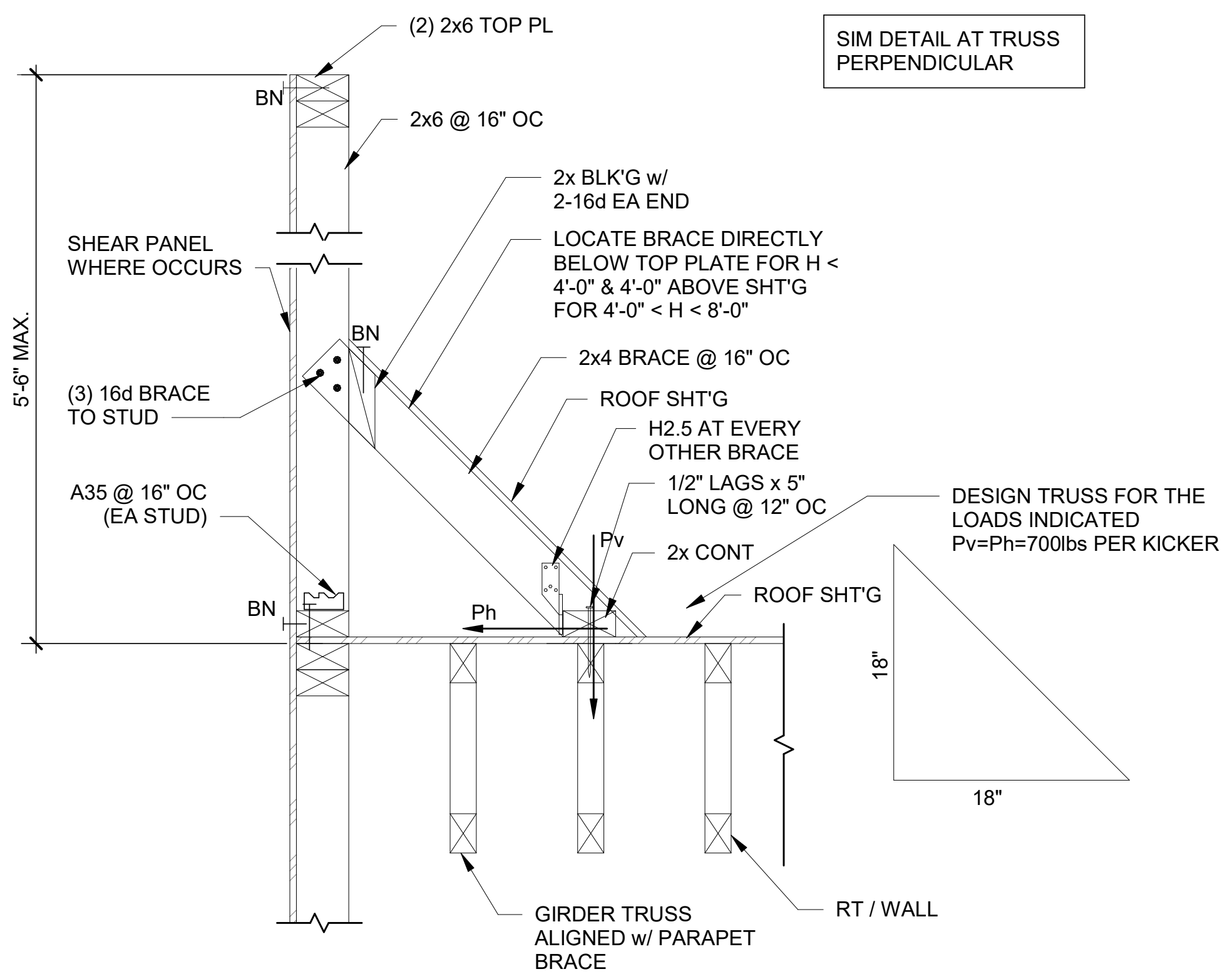
6



LOWER ROOF TRUSS DETAIL

SCALE: NTS

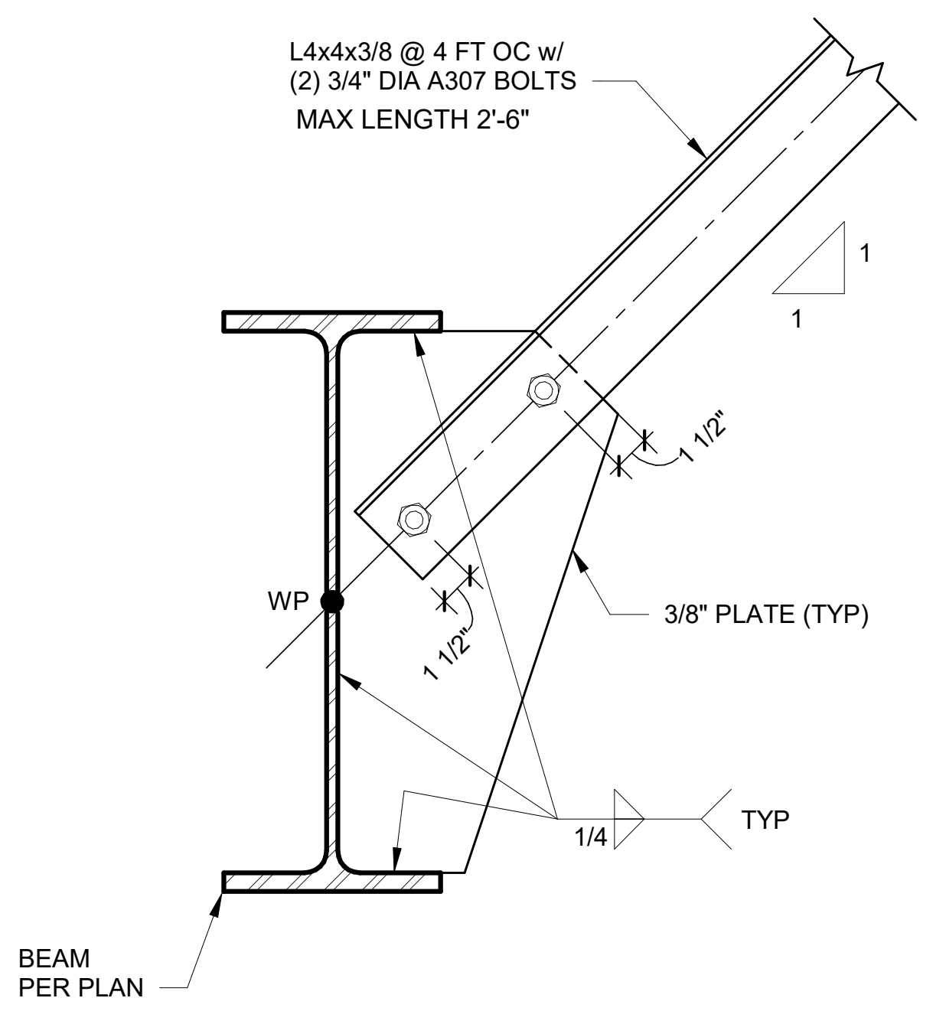
2



PARAPET KICKER

SCALE: NTS

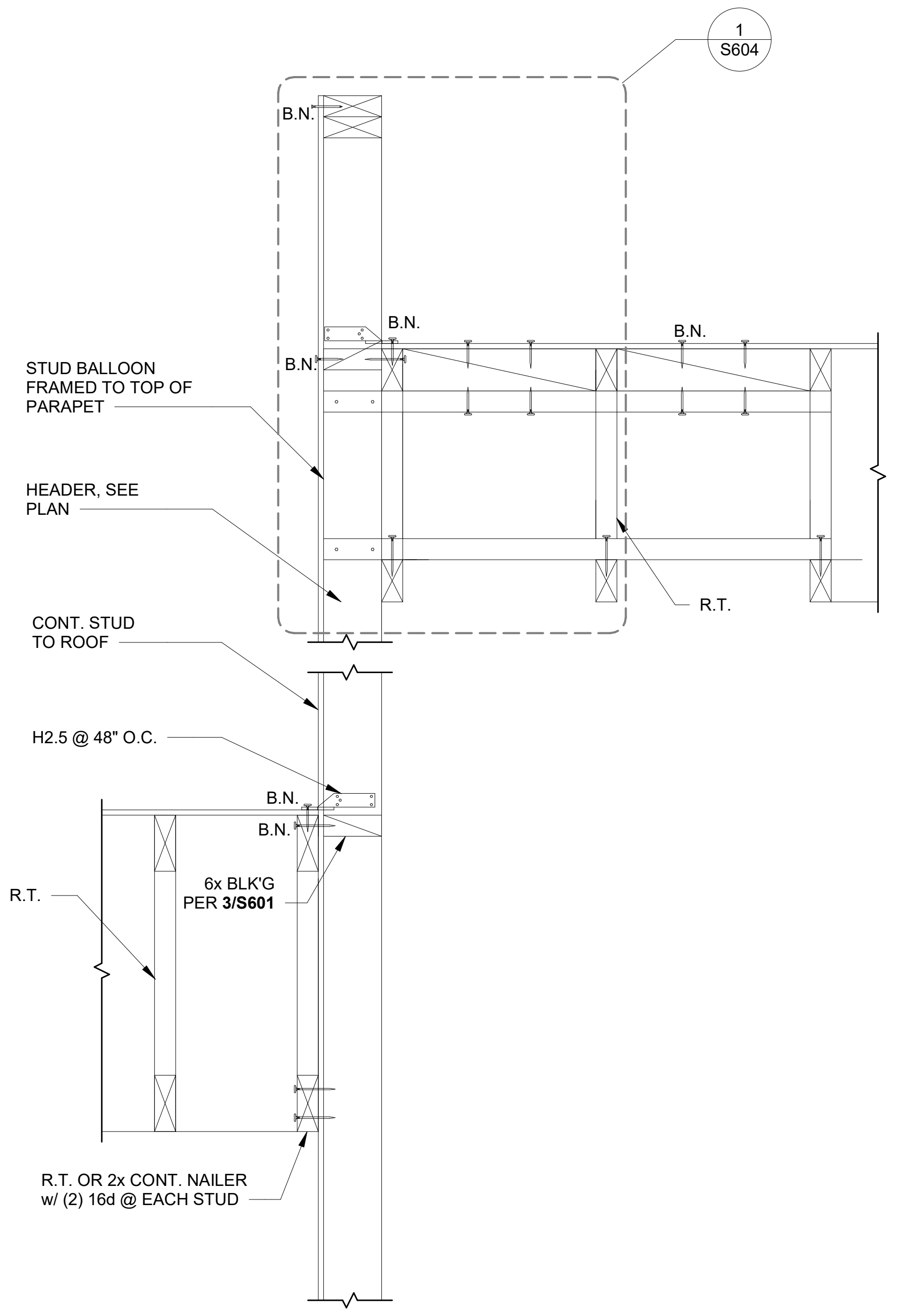
16



BEAM BRACE

SCALE: NTS

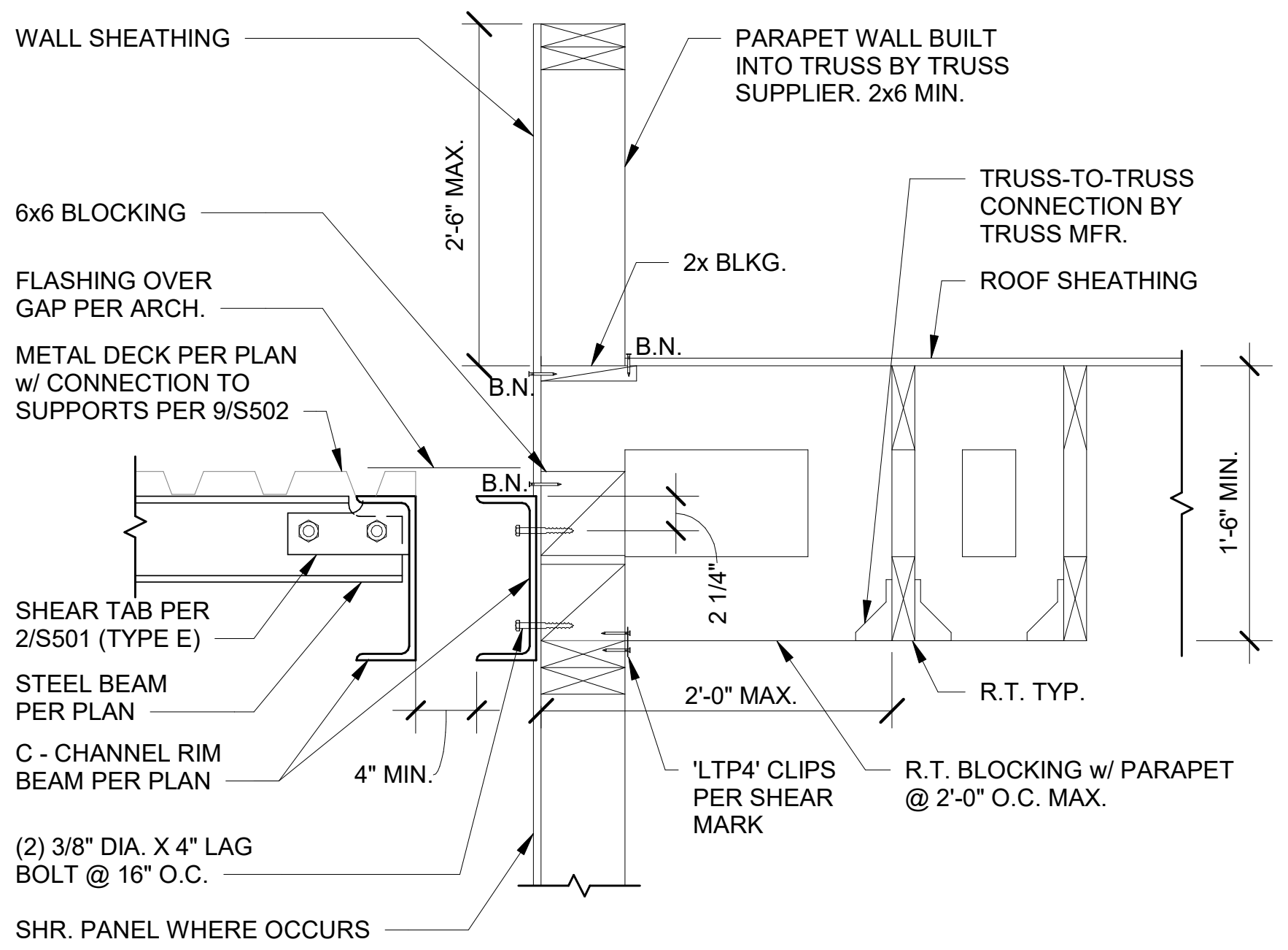
11



LOWER ROOF TRUSS DETAIL

SCALE: NTS

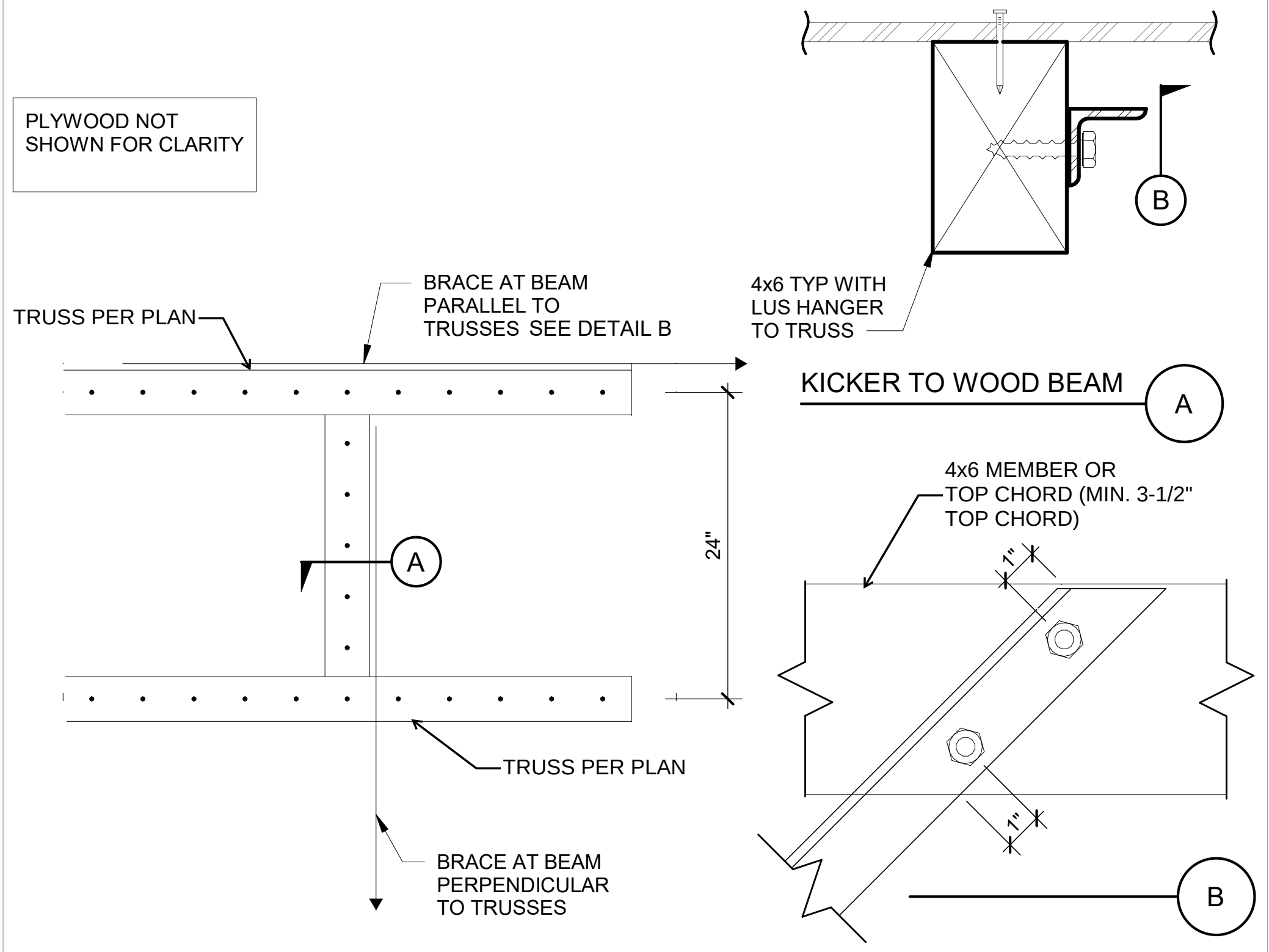
8



LOWER ROOF TRUSS DETAIL

SCALE: NTS

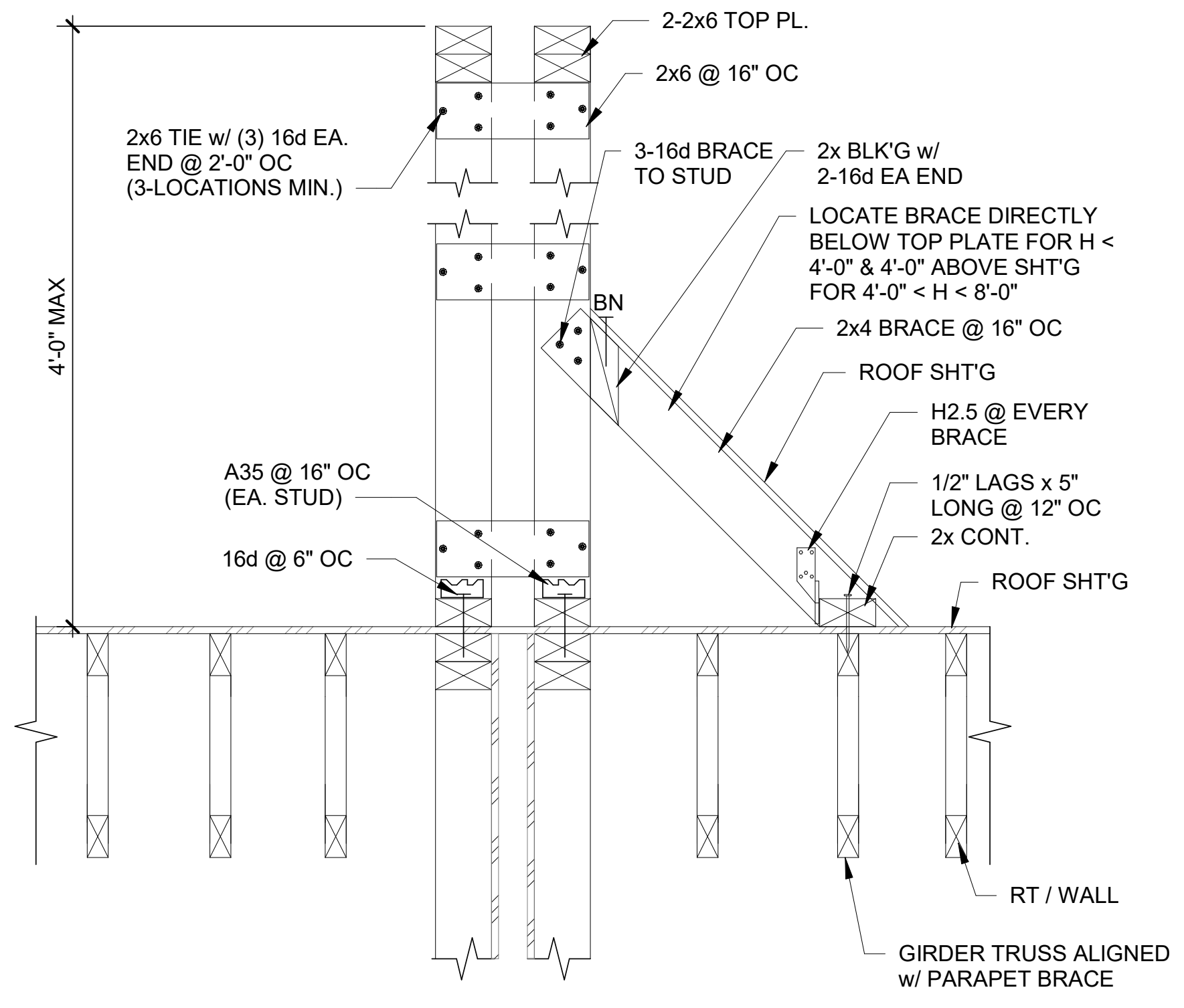
3



KICKER TO JOIST DETAIL

SCALE: NTS

12



INTERIOR PARAPET WALL

SCALE: NTS

4

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APP: 03-122398 INC:
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DATE: 02/21/2023

Tel: (949) 748-7170

PETER SARKIS
No. 5038
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GATEWAY COMMUNITY SCHOOL - NEW
CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

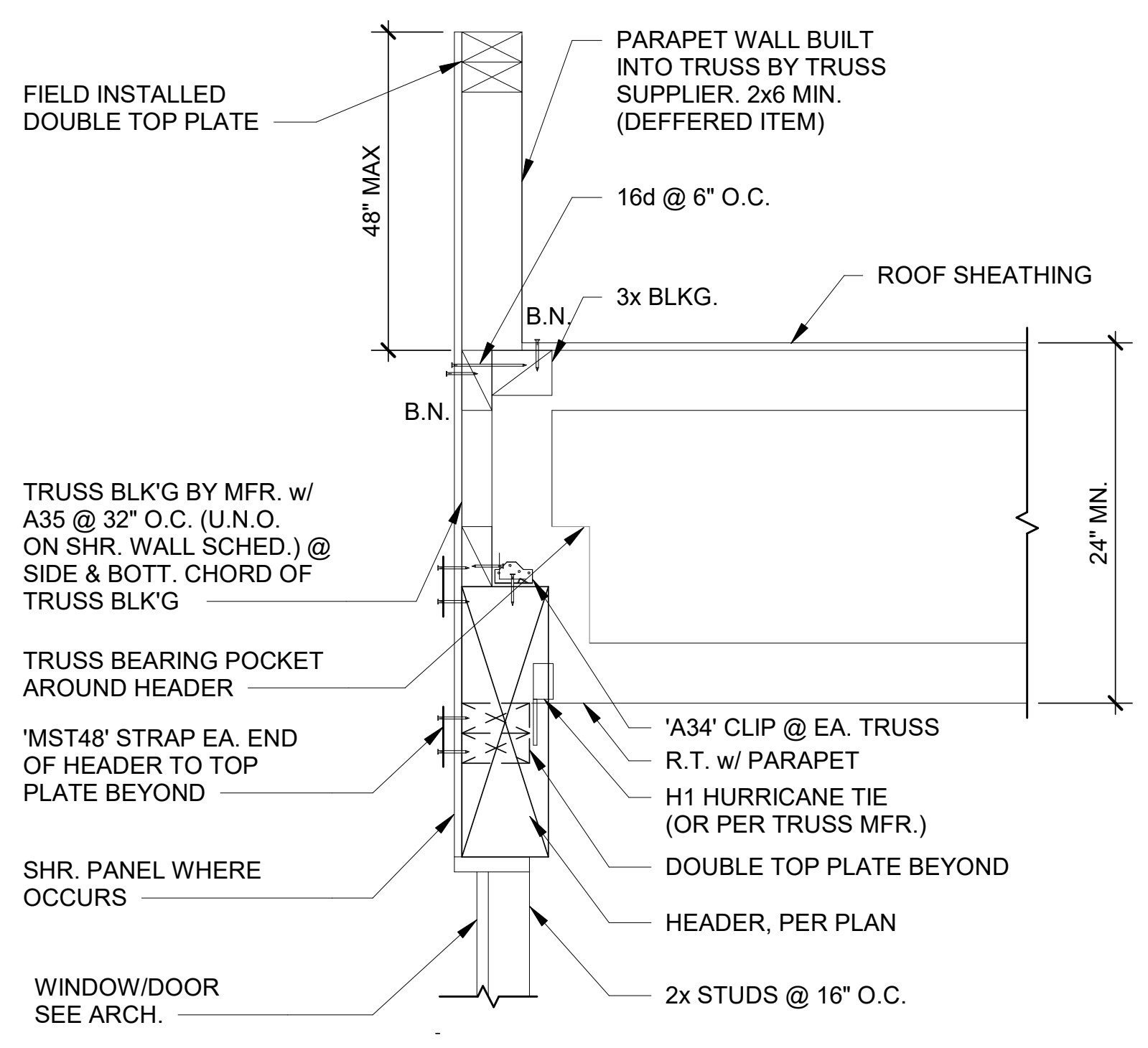
JOB	2021-101_R21
SCAL	AS NOTED
PM	
DATE	Issue Date
△	
△	
△	
△	
△	

TYPICAL WOOD DETAILS

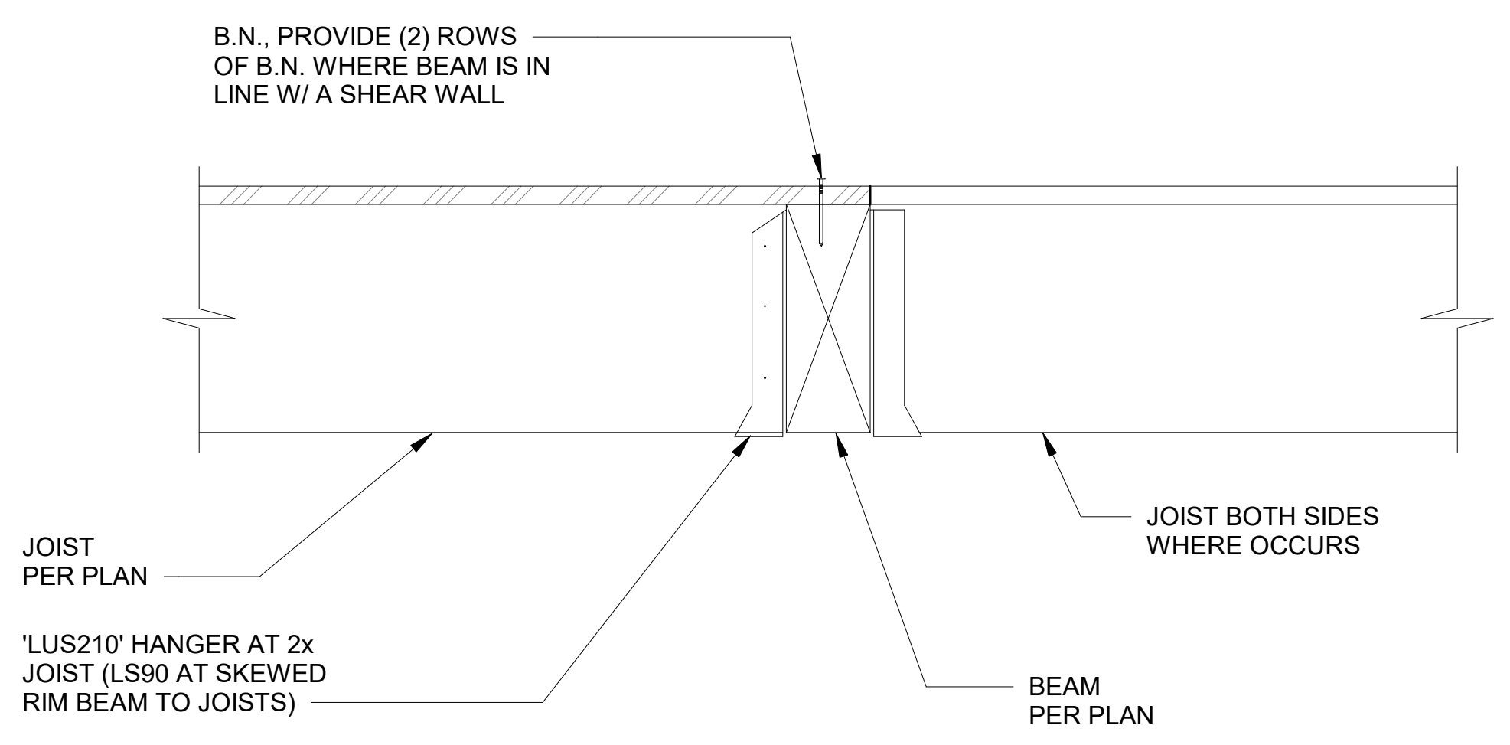
PERKINS EASTMAN

3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

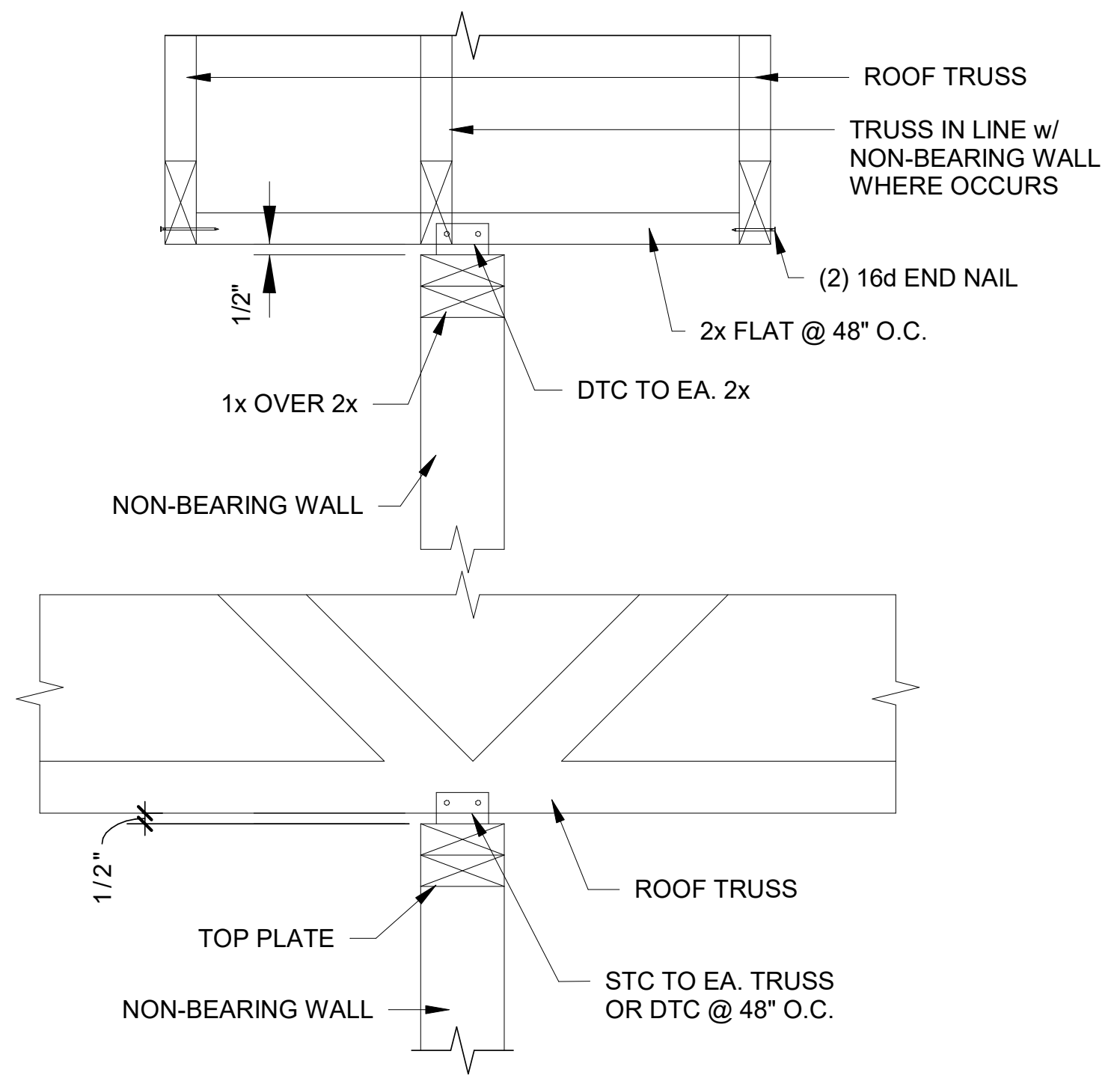
S603


FIELD INSTALLED DOUBLE TOP PLATE
PARAPET WALL BUILT INTO TRUSS BY TRUSS SUPPLIER. 2x6 MIN. (DEFFERED ITEM)
48" MAX
16d @ 6" O.C.
3x BLKG.
ROOF SHEATHING
B.N.
B.N.
24" MIN.
TRUSS BLK'G BY MFR. w/ A35 @ 32" O.C. (U.N.O. ON SHR. WALL SCHED.) @ SIDE & BOTT. CHORD OF TRUSS BLK'G
TRUSS BEARING POCKET AROUND HEADER
'MST48' STRAP EA. END OF HEADER TO TOP PLATE BEYOND
'A34' CLIP @ EA. TRUSS
R.T. w/ PARAPET
H1 HURRICANE TIE (OR PER TRUSS MFR.)
SHR. PANEL WHERE OCCURS
DOUBLE TOP PLATE BEYOND
HEADER, PER PLAN
WINDOW/DOOR SEE ARCH.
2x STUDS @ 16" O.C.

ROOF TRUSS PERP TO EXT HEADER
SCALE: NTS
13

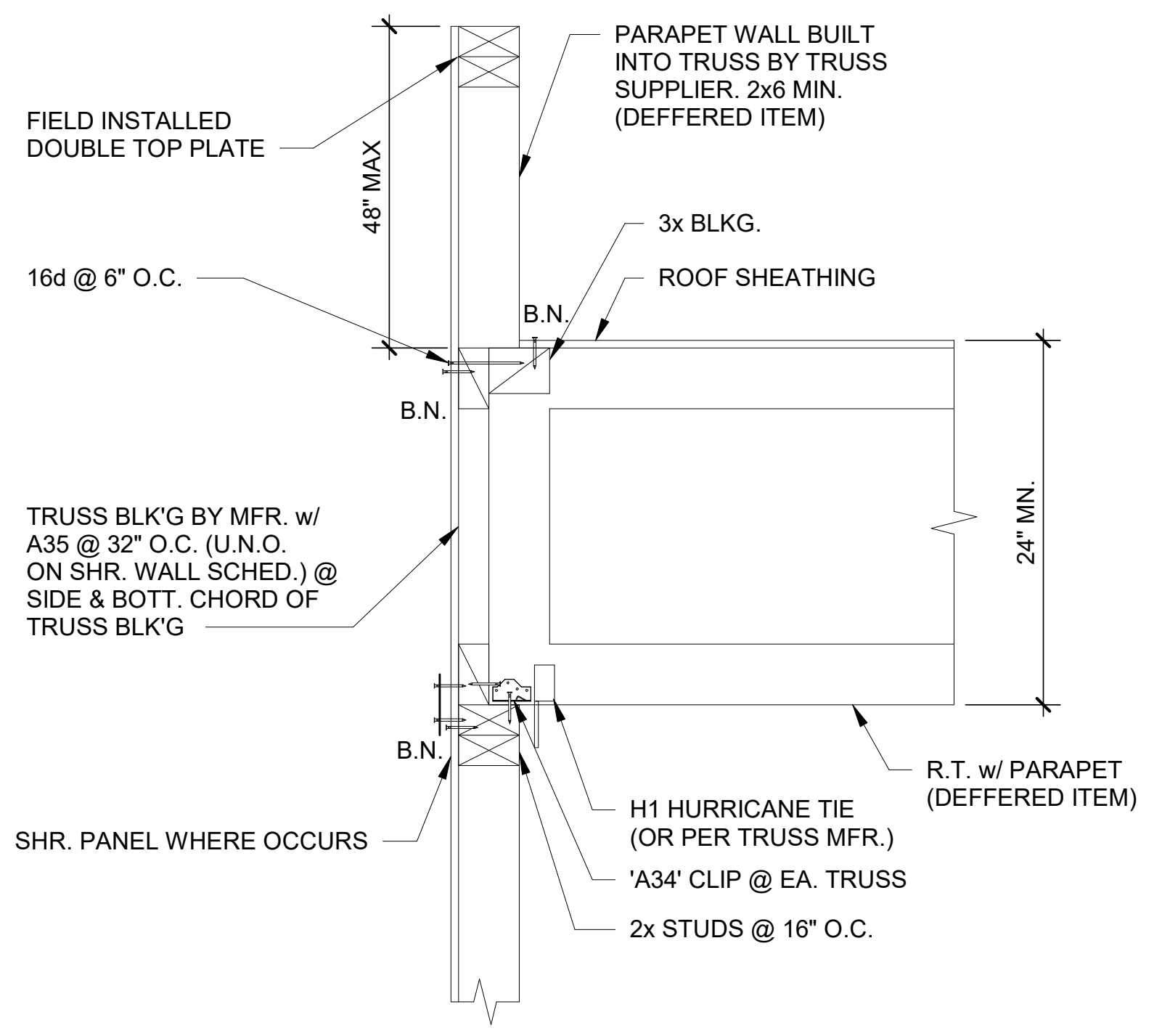

B.N., PROVIDE (2) ROWS OF B.N. WHERE BEAM IS IN LINE W/ A SHEAR WALL
JOIST PER PLAN
'LUS210' HANGER AT 2x JOIST (LS90 AT SKEWED RIM BEAM TO JOISTS)
JOIST BOTH SIDES WHERE OCCURS
BEAM PER PLAN

TYPICAL WOOD JOIST AT FLUSH WOOD BEAM
SCALE: NTS
9

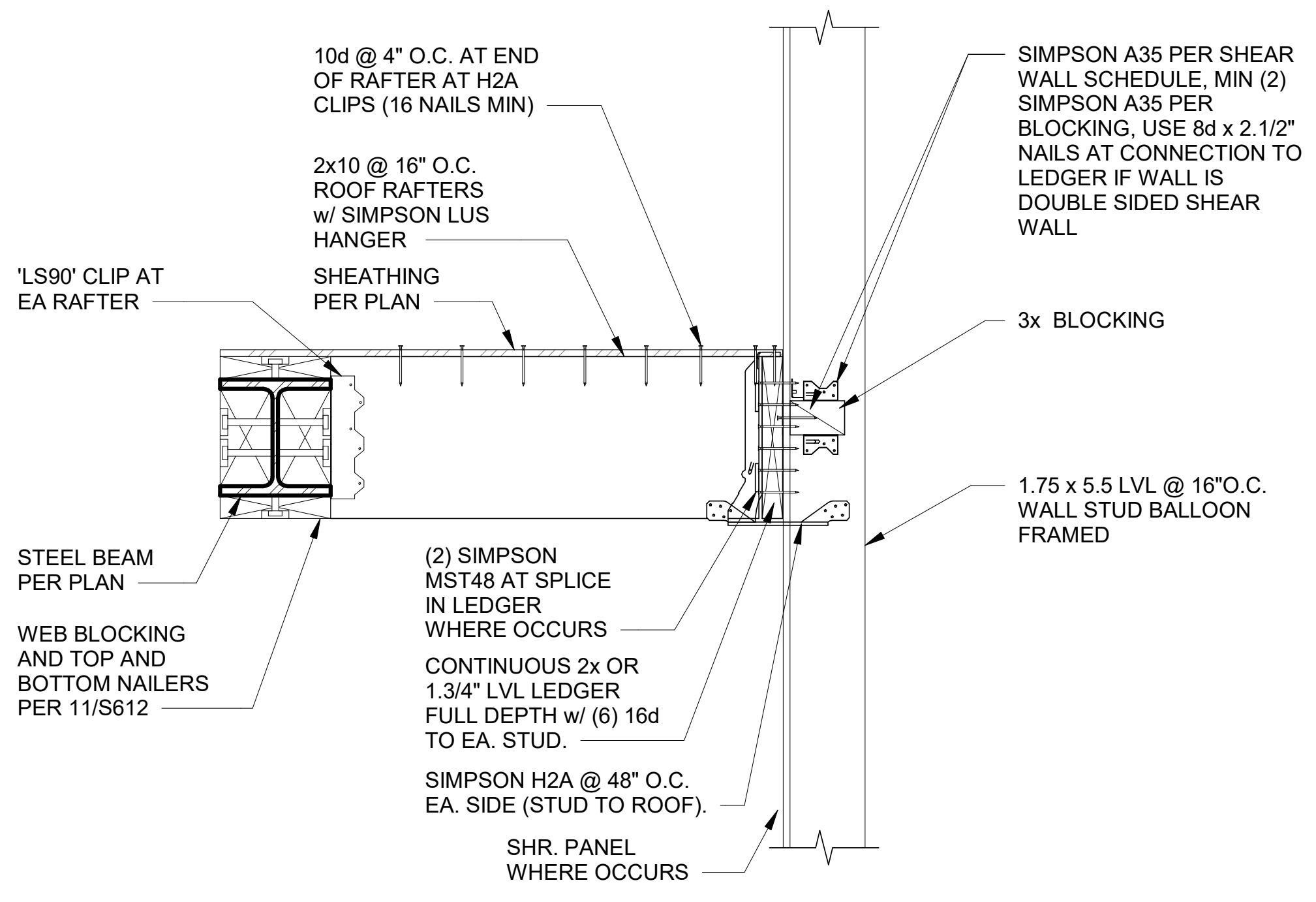


NOTE: TRUSS MANUFACTURER TO LIMIT DEFLECTION TO 1/2" NOT LOAD NON-STRUCTURAL WALLS AS INTENDED.

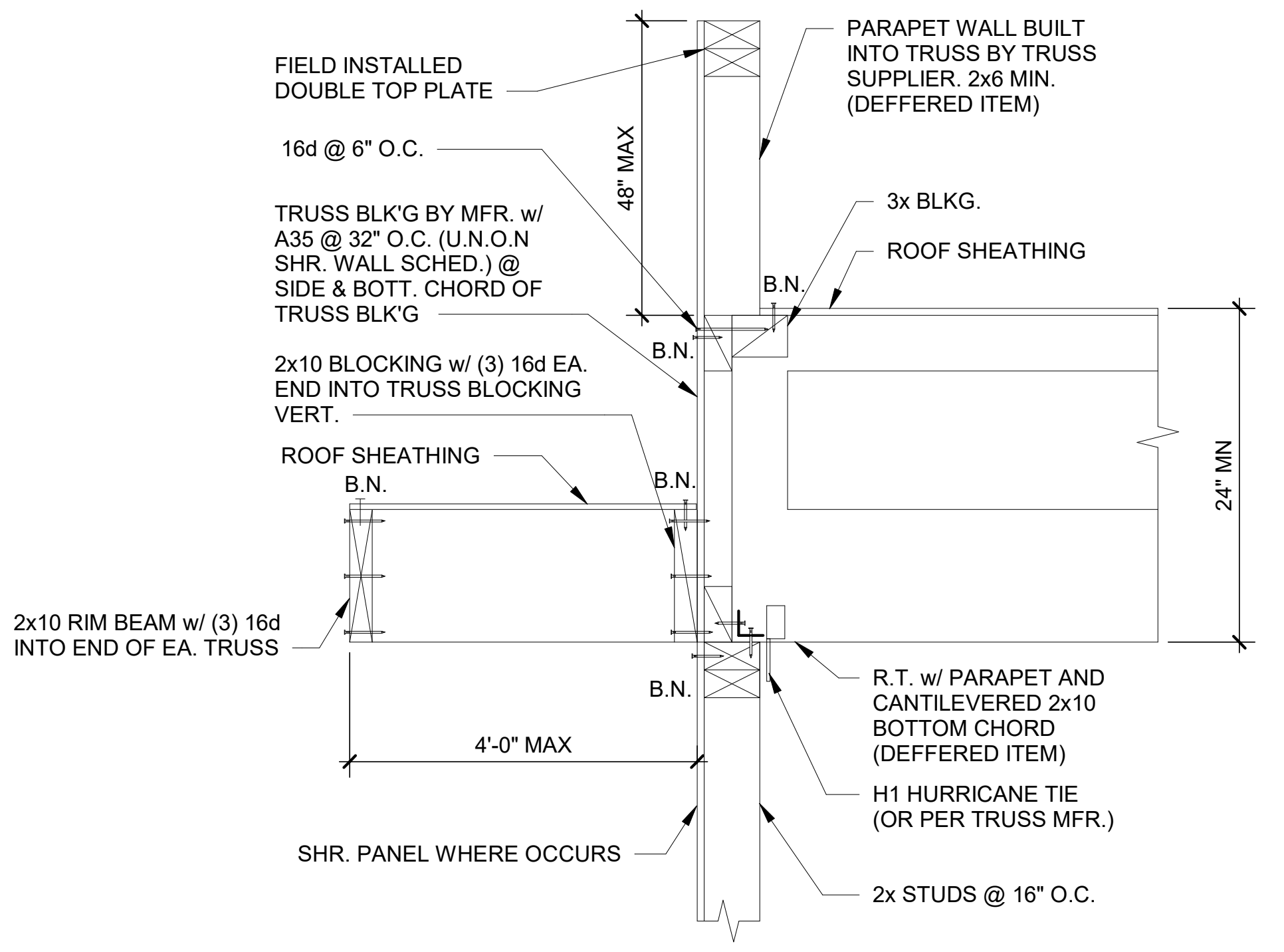
TRUSS TO NON-STRUCTURAL WALL
SCALE: NTS
5


FIELD INSTALLED DOUBLE TOP PLATE
PARAPET WALL BUILT INTO TRUSS BY TRUSS SUPPLIER. 2x6 MIN. (DEFFERED ITEM)
48" MAX
16d @ 6" O.C.
3x BLKG.
ROOF SHEATHING
B.N.
B.N.
24" MIN.
TRUSS BLK'G BY MFR. w/ A35 @ 32" O.C. (U.N.O. ON SHR. WALL SCHED.) @ SIDE & BOTT. CHORD OF TRUSS BLK'G
B.N.
R.T. w/ PARAPET (DEFFERED ITEM)
H1 HURRICANE TIE (OR PER TRUSS MFR.)
SHR. PANEL WHERE OCCURS
'A34' CLIP @ EA. TRUSS
2x STUDS @ 16" O.C.

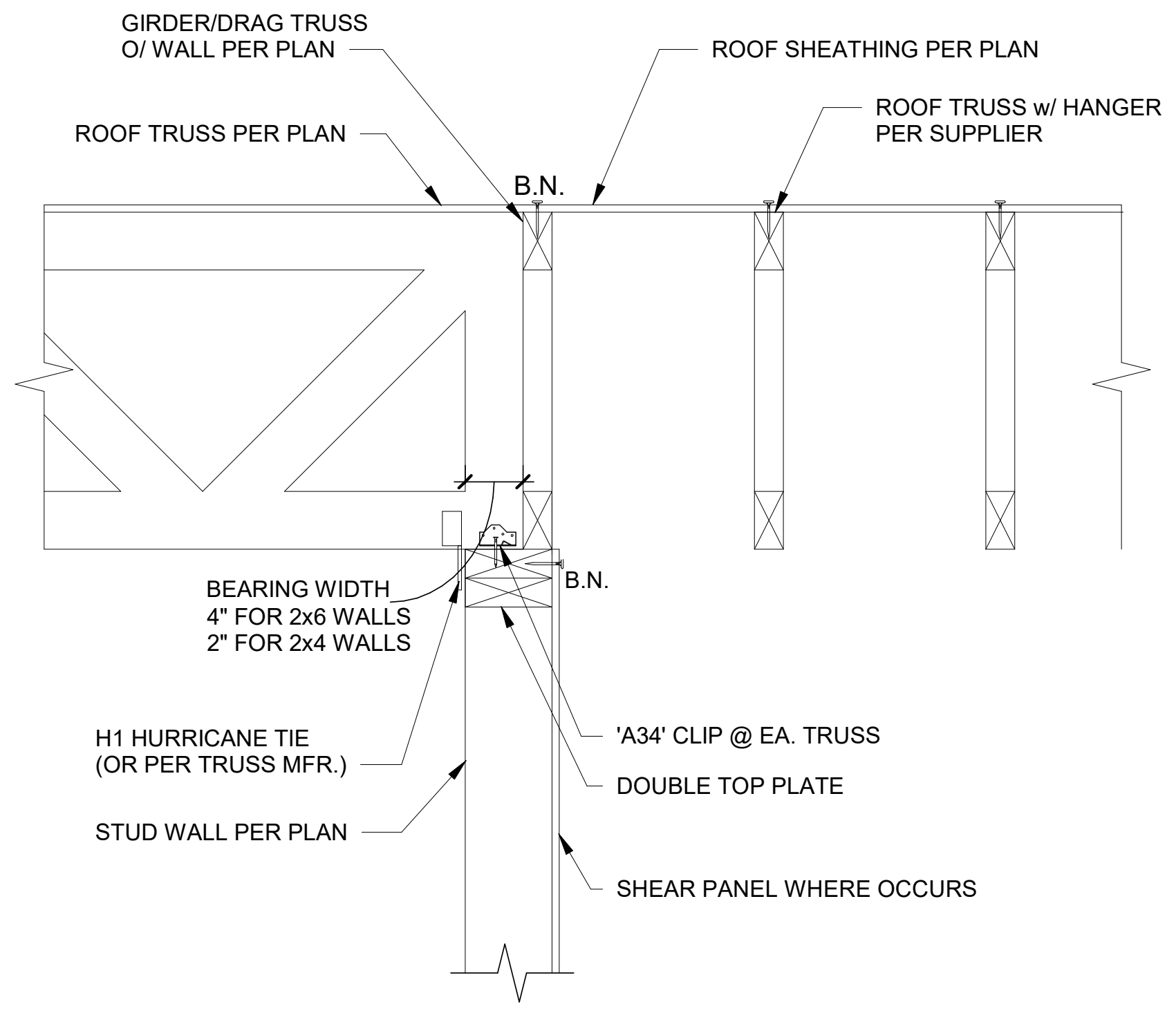
ROOF TRUSS PERP TO EXT WALL
SCALE: NTS
1


10d @ 4" O.C. AT END OF RAFTER AT H2A CLIPS (16 NAILS MIN)
2x10 @ 16" O.C. ROOF RAFTERS w/ SIMPSON LUS HANGER
'LS90' CLIP AT EA RAFTER
SHEATHING PER PLAN
SIMPSON A35 PER SHEAR WALL SCHEDULE, MIN (2) SIMPSON A35 PER BLOCKING, USE 8d x 2 1/2" NAILS AT CONNECTION TO LEDGER IF WALL IS DOUBLE SIDED SHEAR WALL
3x BLOCKING
STEEL BEAM PER PLAN
WEB BLOCKING AND TOP AND BOTTOM NAILERS PER 11/S612
(2) SIMPSON MST48 AT SPLICE IN LEDGER WHERE OCCURS
CONTINUOUS 2x OR 1.3/4" LVL LEDGER FULL DEPTH w/ (6) 16d TO EA. STUD.
SIMPSON H2A @ 48" O.C. EA. SIDE (STUD TO ROOF).
SHR. PANEL WHERE OCCURS
1.75 x 5.5 LVL @ 16"O.C. WALL STUD BALLOON FRAMED

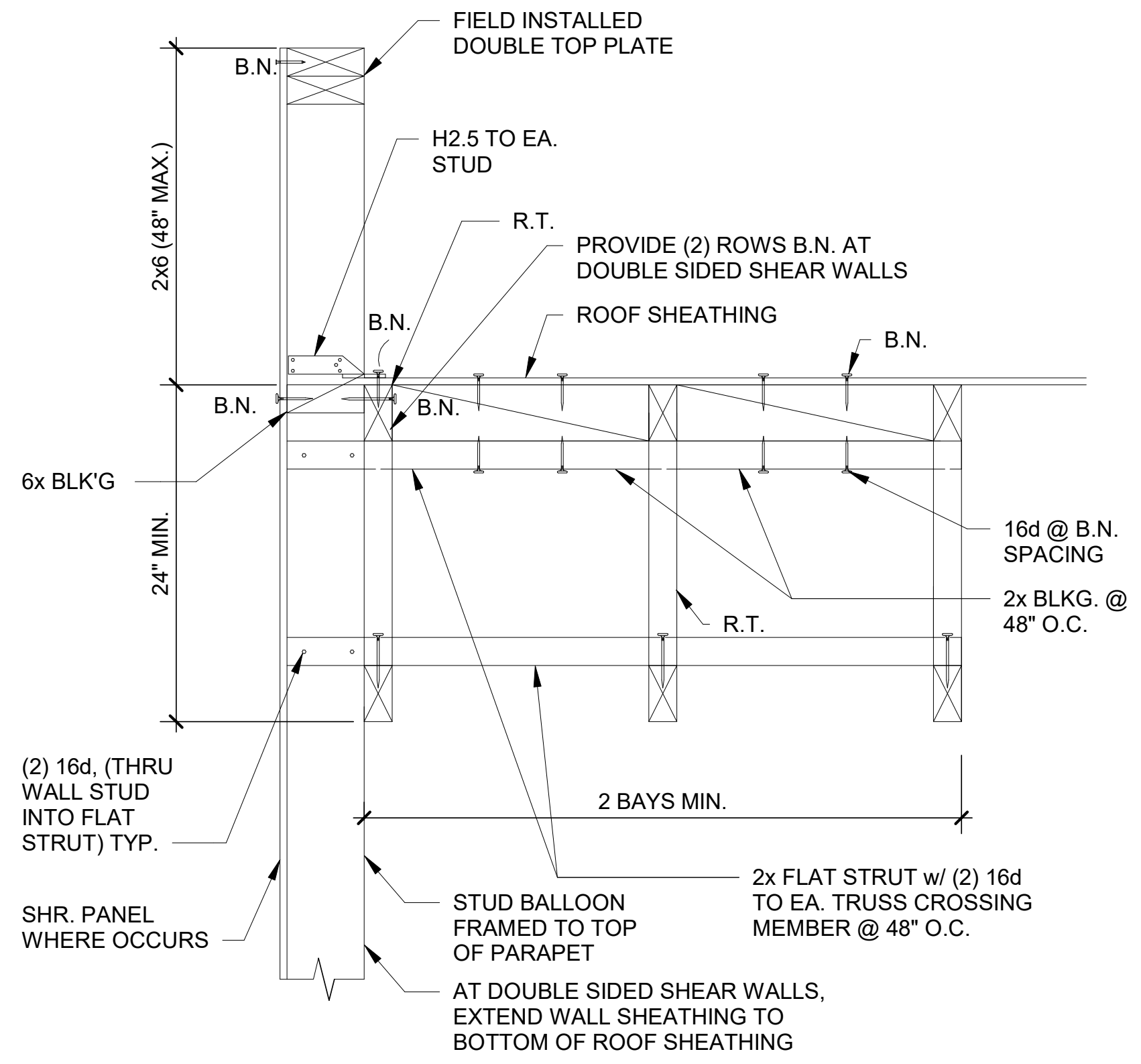
LOW EYEBROWN TO WALL
SCALE: NTS
14


FIELD INSTALLED DOUBLE TOP PLATE
PARAPET WALL BUILT INTO TRUSS BY TRUSS SUPPLIER. 2x6 MIN. (DEFFERED ITEM)
48" MAX
16d @ 6" O.C.
3x BLKG.
TRUSS BLK'G BY MFR. w/ A35 @ 32" O.C. (U.N.O.N SHR. WALL SCHED.) @ SIDE & BOTT. CHORD OF TRUSS BLK'G
ROOF SHEATHING
B.N.
B.N.
2x10 BLOCKING w/ (3) 16d EA. END INTO TRUSS BLOCKING VERT.
ROOF SHEATHING
B.N.
B.N.
24" MIN
2x10 RIM BEAM w/ (3) 16d INTO END OF EA. TRUSS
B.N.
R.T. w/ PARAPET AND CANTILEVERED 2x10 BOTTOM CHORD (DEFFERED ITEM)
4'-0" MAX
H1 HURRICANE TIE (OR PER TRUSS MFR.)
SHR. PANEL WHERE OCCURS
2x STUDS @ 16" O.C.

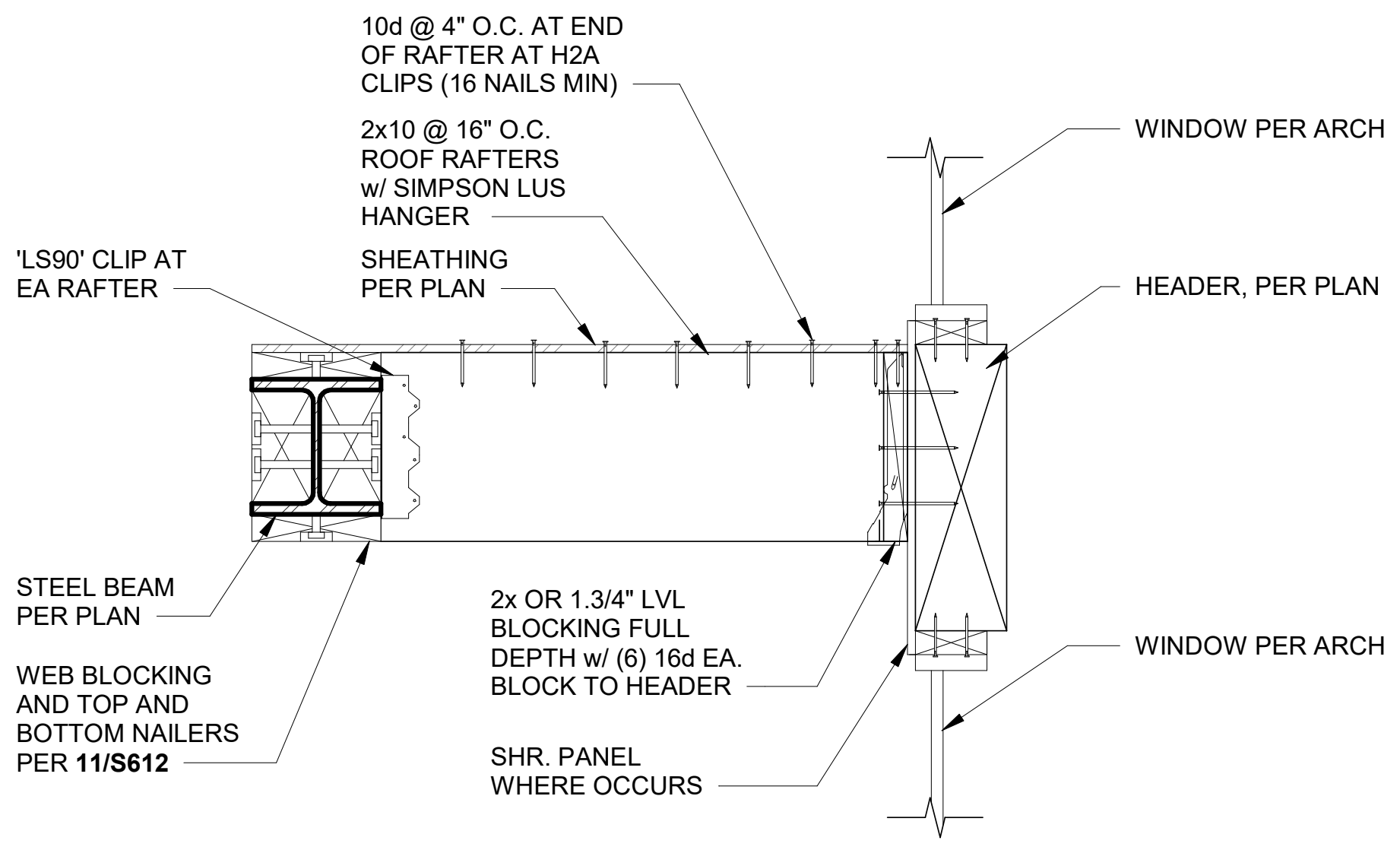
ROOF TRUSS PERP TO EXT WALL w/ EYEBROW
SCALE: NTS
10


GIRDER/DRAG TRUSS O/ WALL PER PLAN
ROOF SHEATHING PER PLAN
ROOF TRUSS PER PLAN
ROOF TRUSS w/ HANGER PER SUPPLIER
B.N.
B.N.
BEARING WIDTH 4" FOR 2x6 WALLS 2" FOR 2x4 WALLS
H1 HURRICANE TIE (OR PER TRUSS MFR.)
'A34' CLIP @ EA. TRUSS
DOUBLE TOP PLATE
STUD WALL PER PLAN
SHEAR PANEL WHERE OCCURS

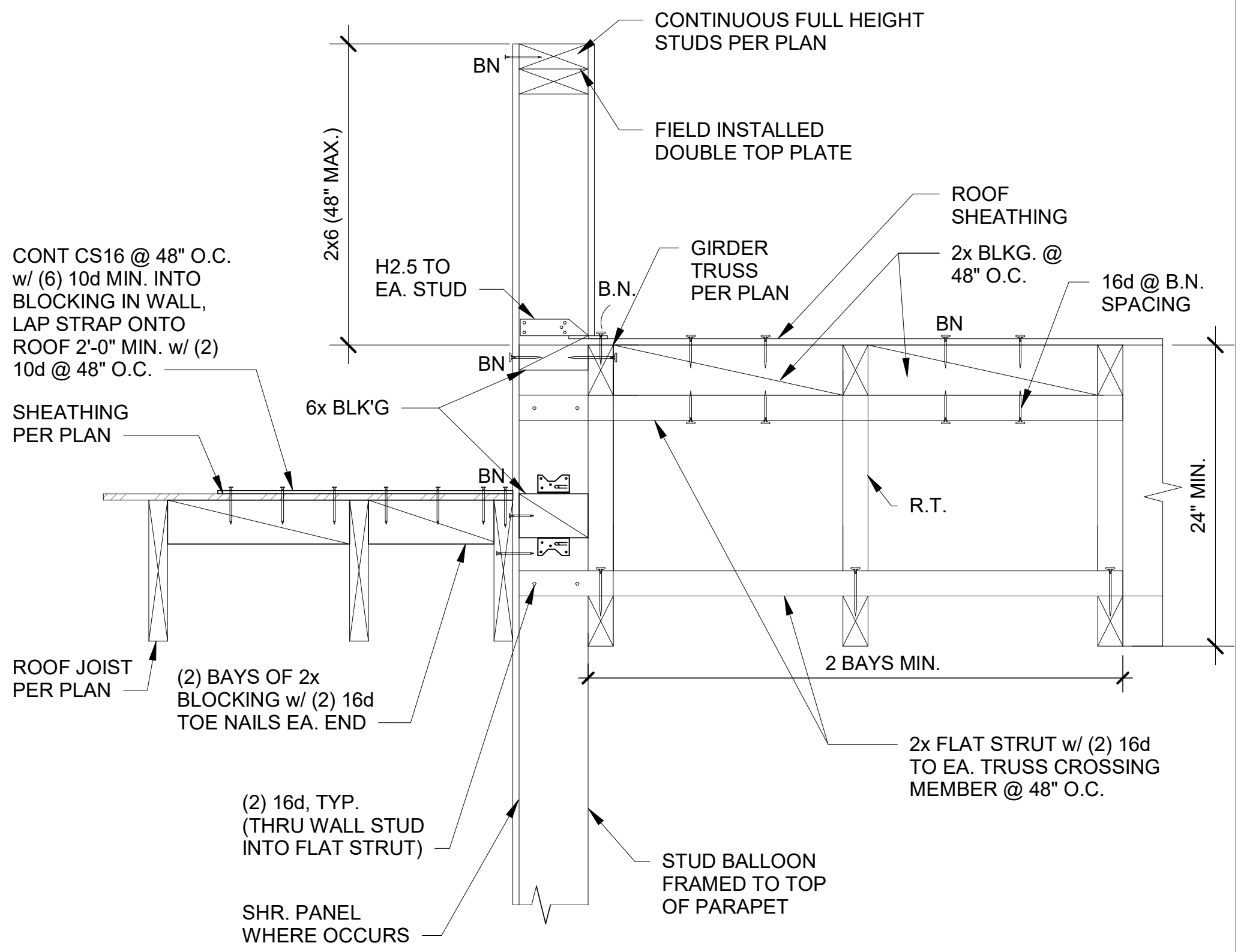
ROOF TRUSS PERP TO INT WALL
SCALE: NTS
6


B.N.
FIELD INSTALLED DOUBLE TOP PLATE
2x6 (48" MAX.)
H2.5 TO EA. STUD
R.T.
PROVIDE (2) ROWS B.N. AT DOUBLE SIDED SHEAR WALLS
B.N.
ROOF SHEATHING
B.N.
B.N.
B.N.
6x BLK'G
24" MIN.
16d @ B.N. SPACING
2x BLKG. @ 48" O.C.
R.T.
2 BAYS MIN.
(2) 16d, (THRU WALL STUD INTO FLAT STRUT) TYP.
SHR. PANEL WHERE OCCURS
STUD BALLOON FRAMED TO TOP OF PARAPET
2x FLAT STRUT w/ (2) 16d TO EA. TRUSS CROSSING MEMBER @ 48" O.C.
AT DOUBLE SIDED SHEAR WALLS, EXTEND WALL SHEATHING TO BOTTOM OF ROOF SHEATHING

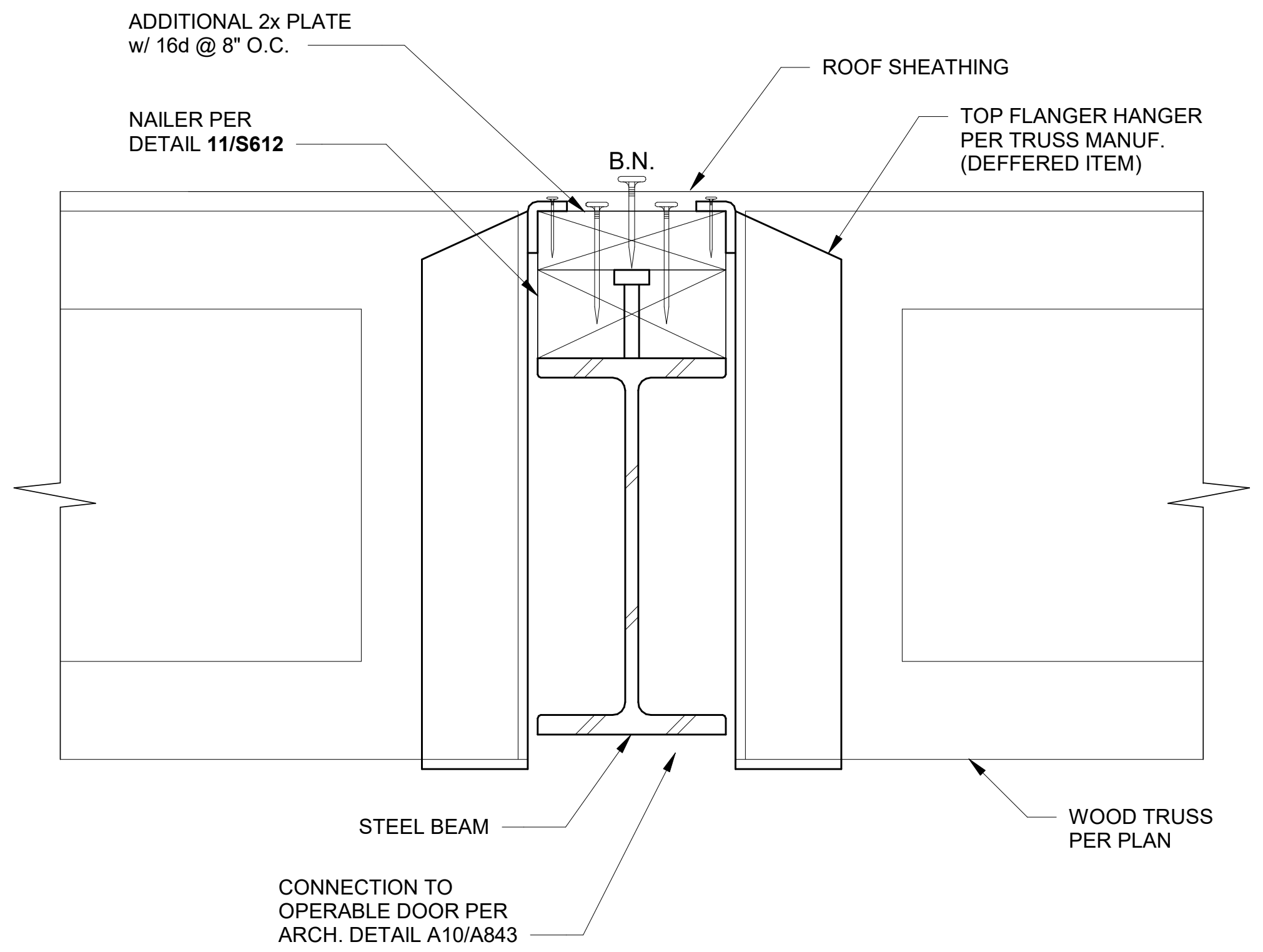
ROOF TRUSS PARALLEL TO EXT WALL
SCALE: NTS
2


10d @ 4" O.C. AT END OF RAFTER AT H2A CLIPS (16 NAILS MIN)
2x10 @ 16" O.C. ROOF RAFTERS w/ SIMPSON LUS HANGER
'LS90' CLIP AT EA RAFTER
SHEATHING PER PLAN
WINDOW PER ARCH
HEADER, PER PLAN
STEEL BEAM PER PLAN
WEB BLOCKING AND TOP AND BOTTOM NAILERS PER 11/S612
2x OR 1.3/4" LVL BLOCKING FULL DEPTH w/ (6) 16d EA. BLOCK TO HEADER
SHR. PANEL WHERE OCCURS
WINDOW PER ARCH

LOWER EYEBROWN TO HEADER
SCALE: NTS
15

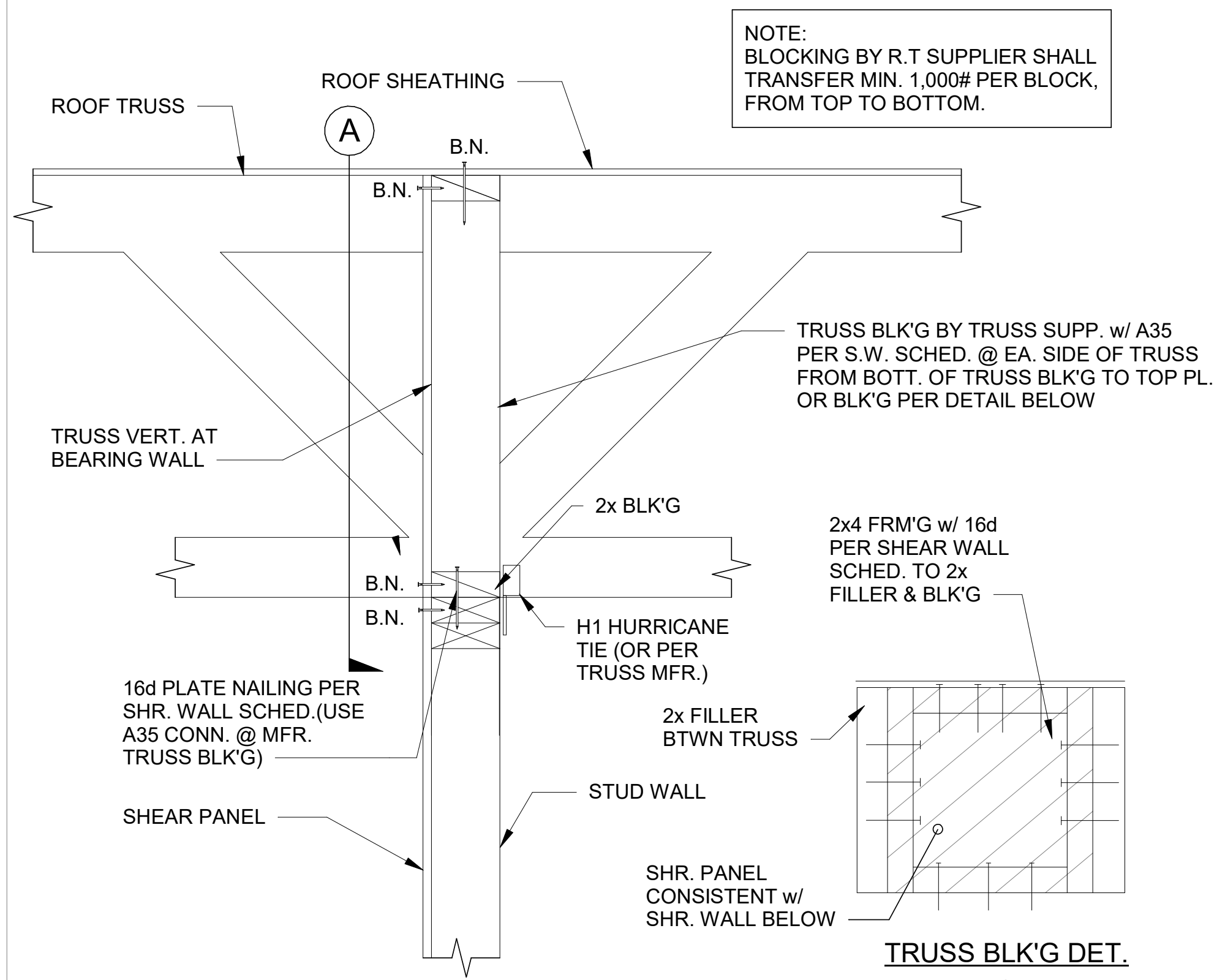

CONTINUOUS FULL HEIGHT STUDS PER PLAN
BN
FIELD INSTALLED DOUBLE TOP PLATE
2x6 (48" MAX.)
CONT CS16 @ 48" O.C. w/ (6) 10d MIN. INTO BLOCKING IN WALL, LAP STRAP ONTO ROOF 2'-0" MIN. w/ (2) 10d @ 48" O.C.
H2.5 TO EA. STUD
GIRDER TRUSS PER PLAN
B.N.
ROOF SHEATHING
2x BLKG. @ 48" O.C.
16d @ B.N. SPACING
BN
BN
6x BLK'G
SHEATHING PER PLAN
BN
24" MIN.
R.T.
ROOF JOIST PER PLAN
(2) BAYS OF 2x BLOCKING w/ (2) 16d TOE NAILS EA. END
2 BAYS MIN.
2x FLAT STRUT w/ (2) 16d TO EA. TRUSS CROSSING MEMBER @ 48" O.C.
(2) 16d, TYP. (THRU WALL STUD INTO FLAT STRUT)
SHR. PANEL WHERE OCCURS
STUD BALLOON FRAMED TO TOP OF PARAPET

ROOF TRUSS PARALLEL TO EXT WALL
SCALE: NTS
11


ADDITIONAL 2x PLATE w/ 16d @ 8" O.C.
ROOF SHEATHING
NAILER PER DETAIL 11/S612
B.N.
TOP FLANGER HANGER PER TRUSS MANUF. (DEFFERED ITEM)
STEEL BEAM
WOOD TRUSS PER PLAN
CONNECTION TO OPERABLE DOOR PER ARCH. DETAIL A10/A843

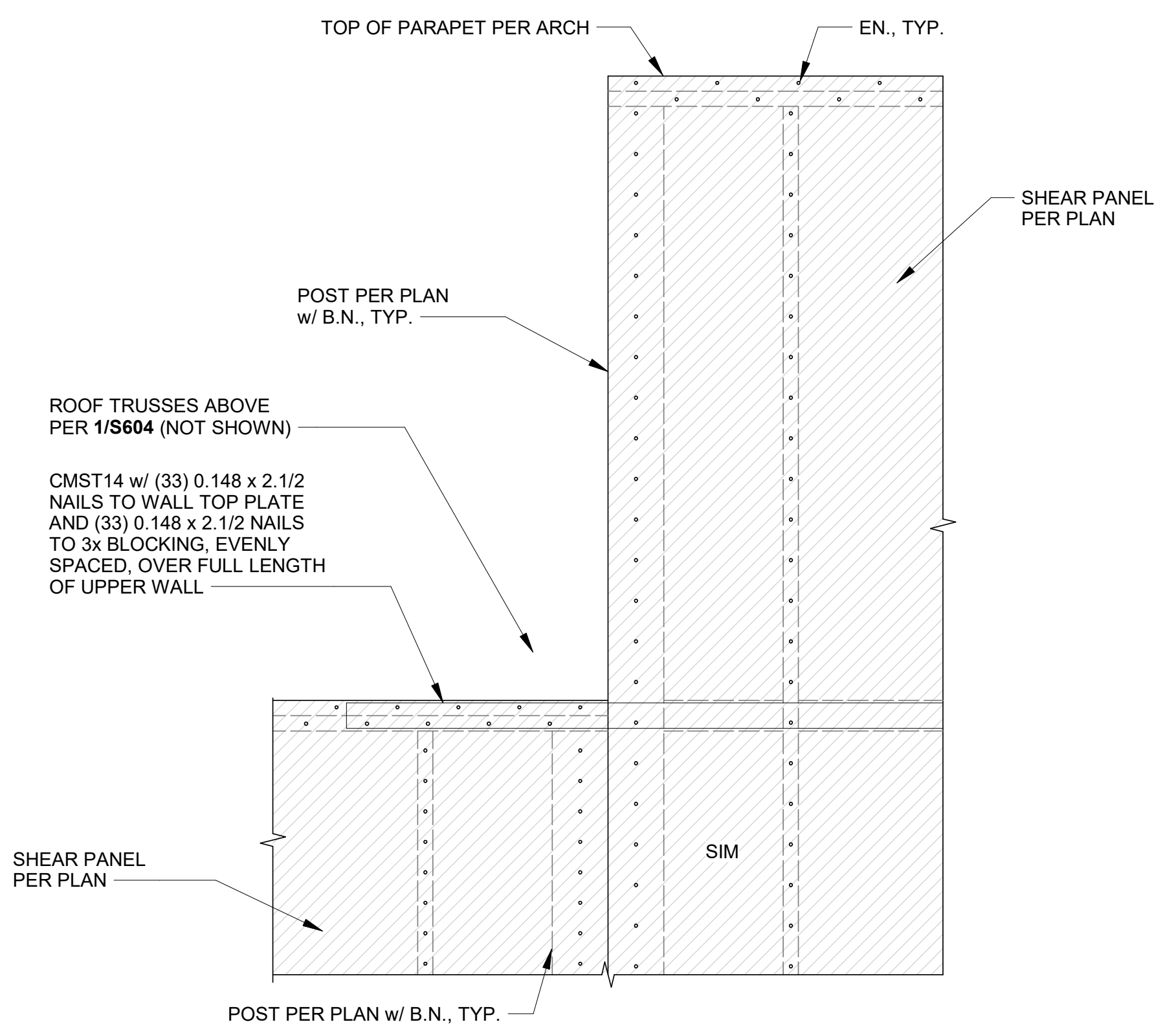
TYPICAL WOOD TRUSS TO STEEL BEAM
SCALE: NTS
7

NOTE:
BLOCKING BY R.T SUPPLIER SHALL TRANSFER MIN. 1,000# PER BLOCK, FROM TOP TO BOTTOM.

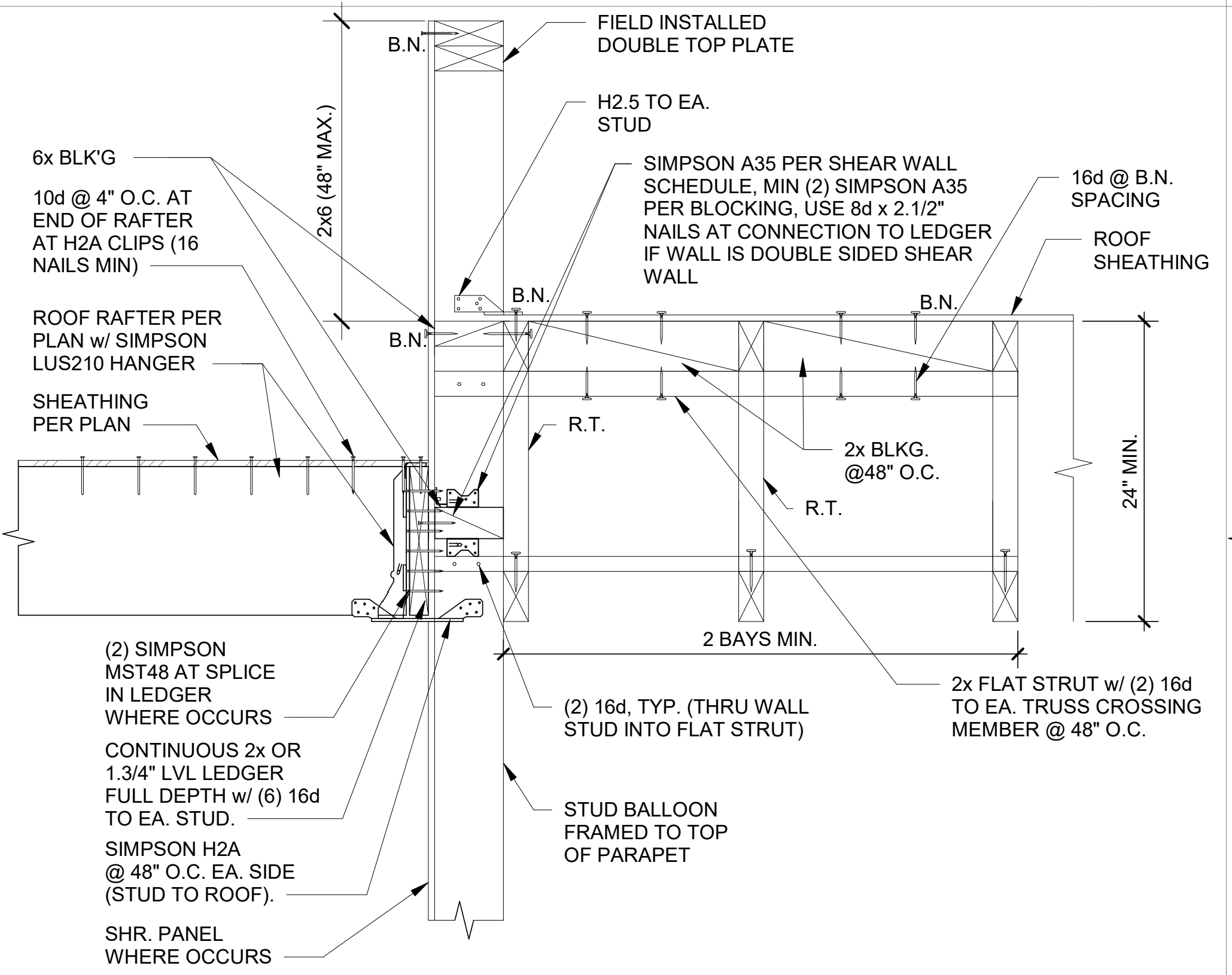

ROOF TRUSS
ROOF SHEATHING
A
B.N.
B.N.
TRUSS BLK'G BY TRUSS SUPP. w/ A35 PER S.W. SCHED. @ EA. SIDE OF TRUSS FROM BOTT. OF TRUSS BLK'G TO TOP PL. OR BLK'G PER DETAIL BELOW
TRUSS VERT. AT BEARING WALL
2x BLK'G
B.N.
B.N.
2x4 FRM'G w/ 16d PER SHEAR WALL SCHED. TO 2x FILLER & BLK'G
H1 HURRICANE TIE (OR PER TRUSS MFR.)
16d PLATE NAILING PER SHR. WALL SCHED.(USE A35 CONN. @ MFR. TRUSS BLK'G)
2x FILLER BTWN TRUSS
STUD WALL
SHEAR PANEL
SHR. PANEL CONSISTENT w/ SHR. WALL BELOW

TRUSS BLK'G DET.
ELEVATION A-A

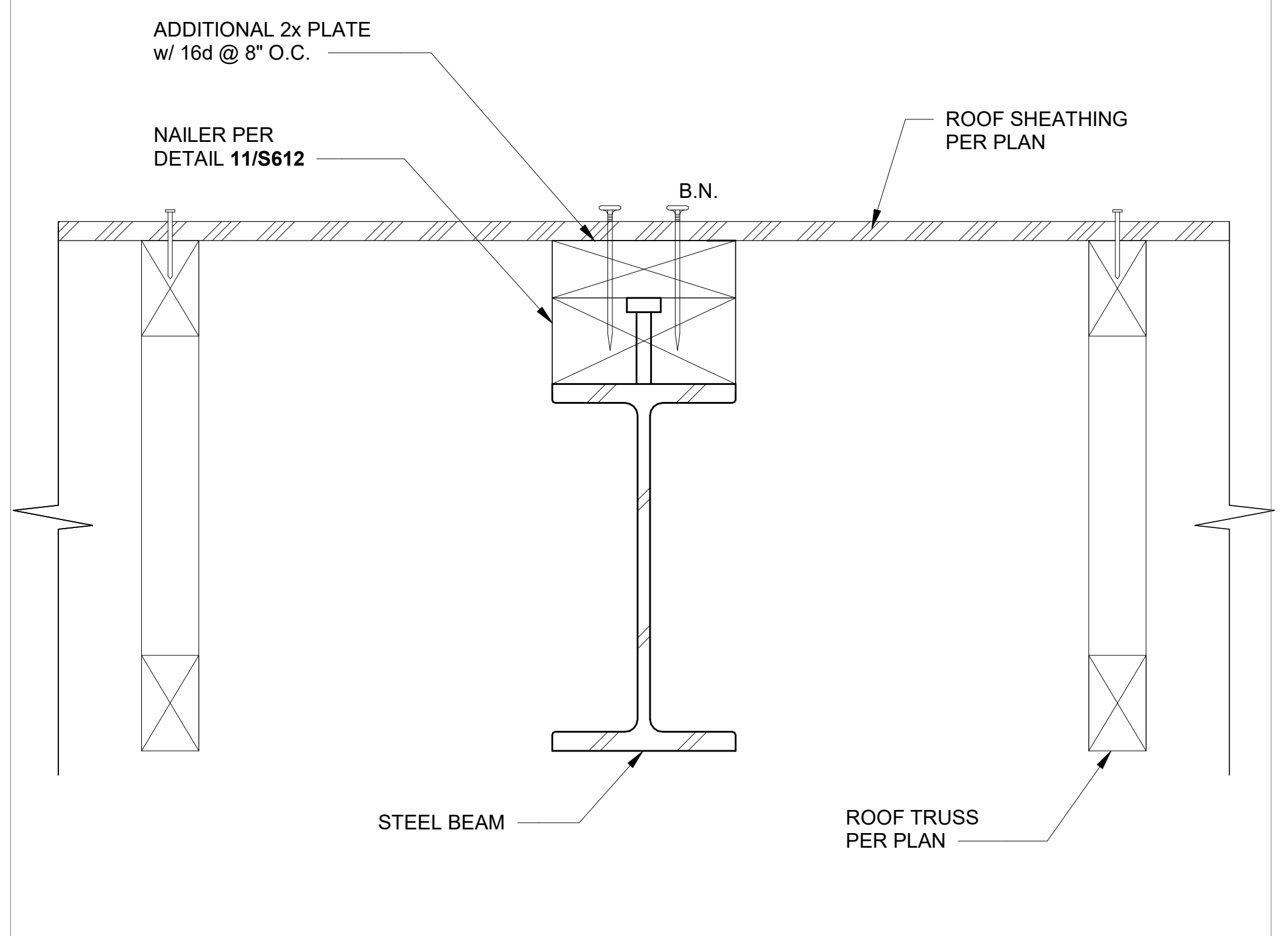
TRUSS BLOCKING
SCALE: NTS
3


TOP OF PARAPET PER ARCH
EN., TYP.
SHEAR PANEL PER PLAN
POST PER PLAN w/ B.N., TYP.
ROOF TRUSSES ABOVE PER 1/S604 (NOT SHOWN)
CMST14 w/ (33) 0.148 x 2.1/2 NAILS TO WALL TOP PLATE AND (33) 0.148 x 2.1/2 NAILS TO 3x BLOCKING. EVENLY SPACED, OVER FULL LENGTH OF UPPER WALL
SIM
SHEAR PANEL PER PLAN
POST PER PLAN w/ B.N., TYP.

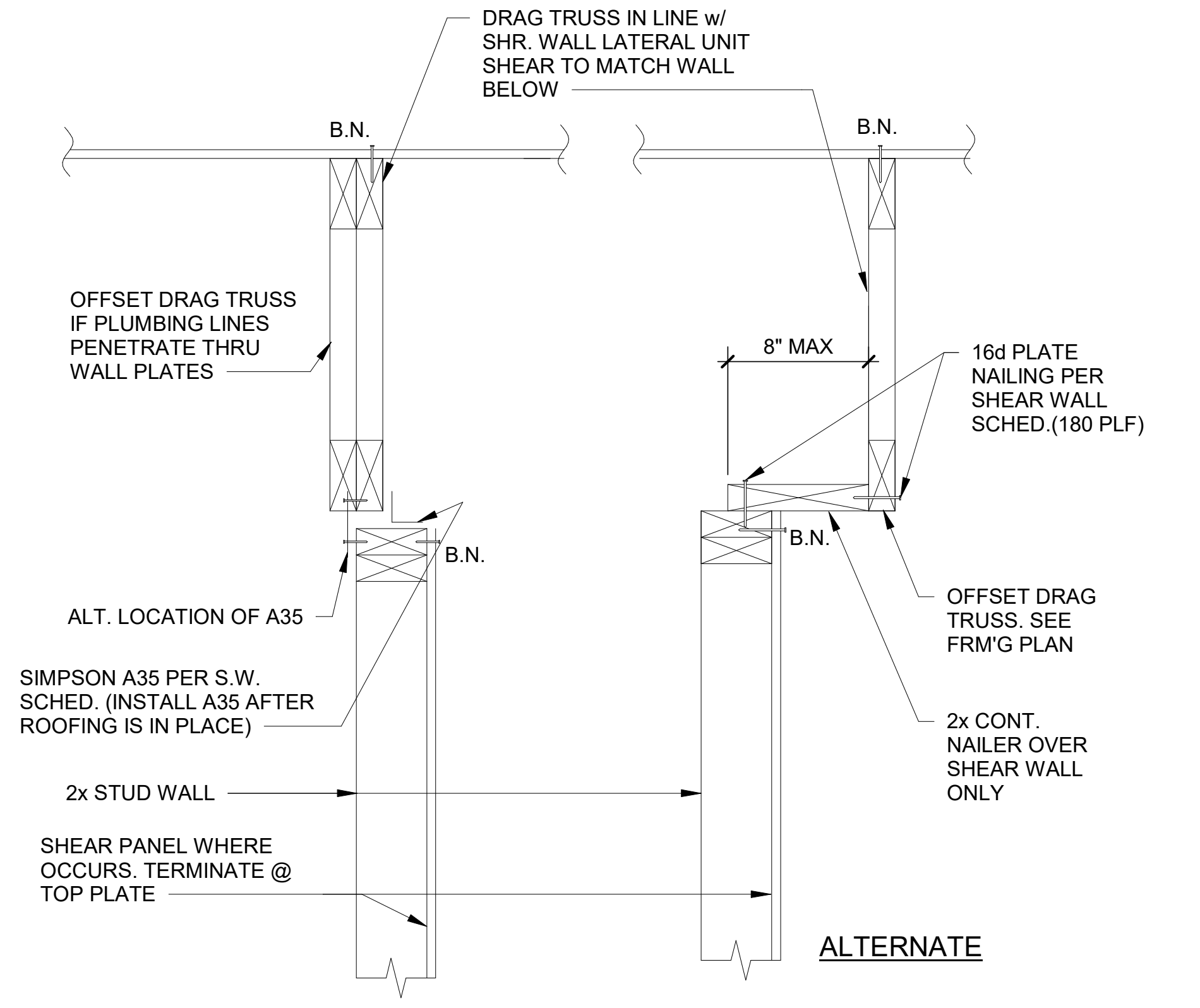
NAILING AT HIGH/LOW SHEAR WALL
SCALE: NTS
16


B.N.
FIELD INSTALLED DOUBLE TOP PLATE
2x6 (48" MAX.)
H2.5 TO EA. STUD
6x BLK'G
SIMPSON A35 PER SHEAR WALL SCHEDULE, MIN (2) SIMPSON A35 PER BLOCKING, USE 8d x 2.1/2" NAILS AT CONNECTION TO LEDGER IF WALL IS DOUBLE SIDED SHEAR WALL
16d @ B.N. SPACING
ROOF SHEATHING
10d @ 4" O.C. AT END OF RAFTER AT H2A CLIPS (16 NAILS MIN)
B.N.
B.N.
ROOF RAFTER PER PLAN w/ SIMPSON LUS210 HANGER
SHEATHING PER PLAN
R.T.
2x BLKG. @48" O.C.
R.T.
24" MIN.
(2) SIMPSON MST48 AT SPLICE IN LEDGER WHERE OCCURS
CONTINUOUS 2x OR 1.3/4" LVL LEDGER FULL DEPTH w/ (6) 16d TO EA. STUD.
SIMPSON H2A @ 48" O.C. EA. SIDE (STUD TO ROOF).
SHR. PANEL WHERE OCCURS
2 BAYS MIN.
(2) 16d, TYP. (THRU WALL STUD INTO FLAT STRUT)
2x FLAT STRUT w/ (2) 16d TO EA. TRUSS CROSSING MEMBER @ 48" O.C.
STUD BALLOON FRAMED TO TOP OF PARAPET

ROOF TRUSS PARALLEL TO EXT WALL
SCALE: NTS
12


ADDITIONAL 2x PLATE w/ 16d @ 8" O.C.
ROOF SHEATHING PER PLAN
NAILER PER DETAIL 11/S612
B.N.
STEEL BEAM
ROOF TRUSS PER PLAN

WOOD TRUSS PARALLEL TO STEEL BEAM
SCALE: NTS
8


DRAG TRUSS IN LINE w/ SHR. WALL LATERAL UNIT SHEAR TO MATCH WALL BELOW
B.N.
B.N.
OFFSET DRAG TRUSS IF PLUMBING LINES PENETRATE THRU WALL PLATES
8" MAX
16d PLATE NAILING PER SHEAR WALL SCHED.(180 PLF)
B.N.
B.N.
ALT. LOCATION OF A35
OFFSET DRAG TRUSS. SEE FRM'G PLAN
SIMPSON A35 PER S.W. SCHED. (INSTALL A35 AFTER ROOFING IS IN PLACE)
2x CONT. NAILER OVER SHEAR WALL ONLY
2x STUD WALL
SHEAR PANEL WHERE OCCURS. TERMINATE @ TOP PLATE
ALTERNATE

ROOF TRUSS PARALLEL TO INT WALL
SCALE: NTS
4

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PETER SARKIS
No. 5038
Exp. 6/30/23
STRUCTURAL

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2021-101_R21
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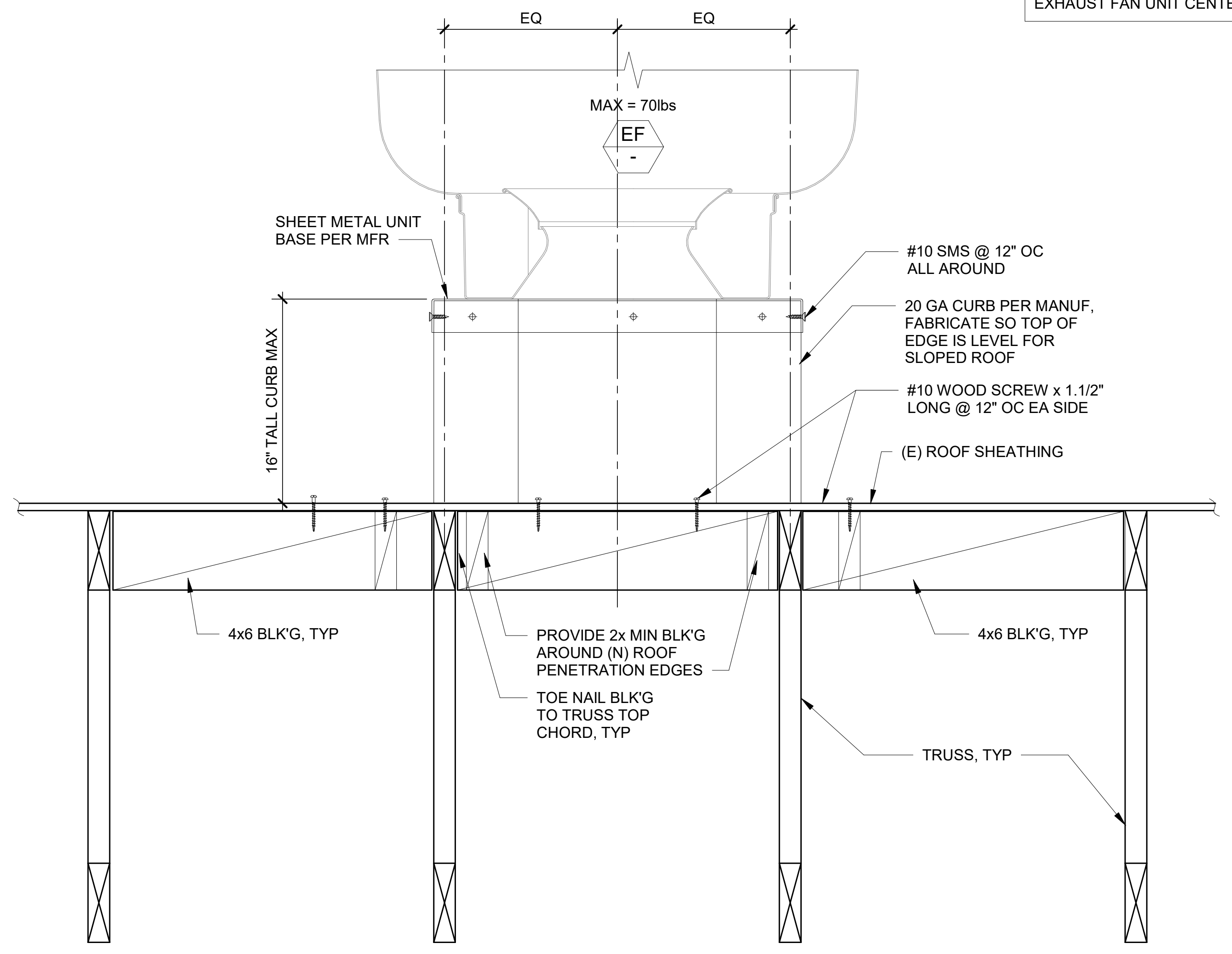
WOOD DETAILS

PERKINS EASTMAN

3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

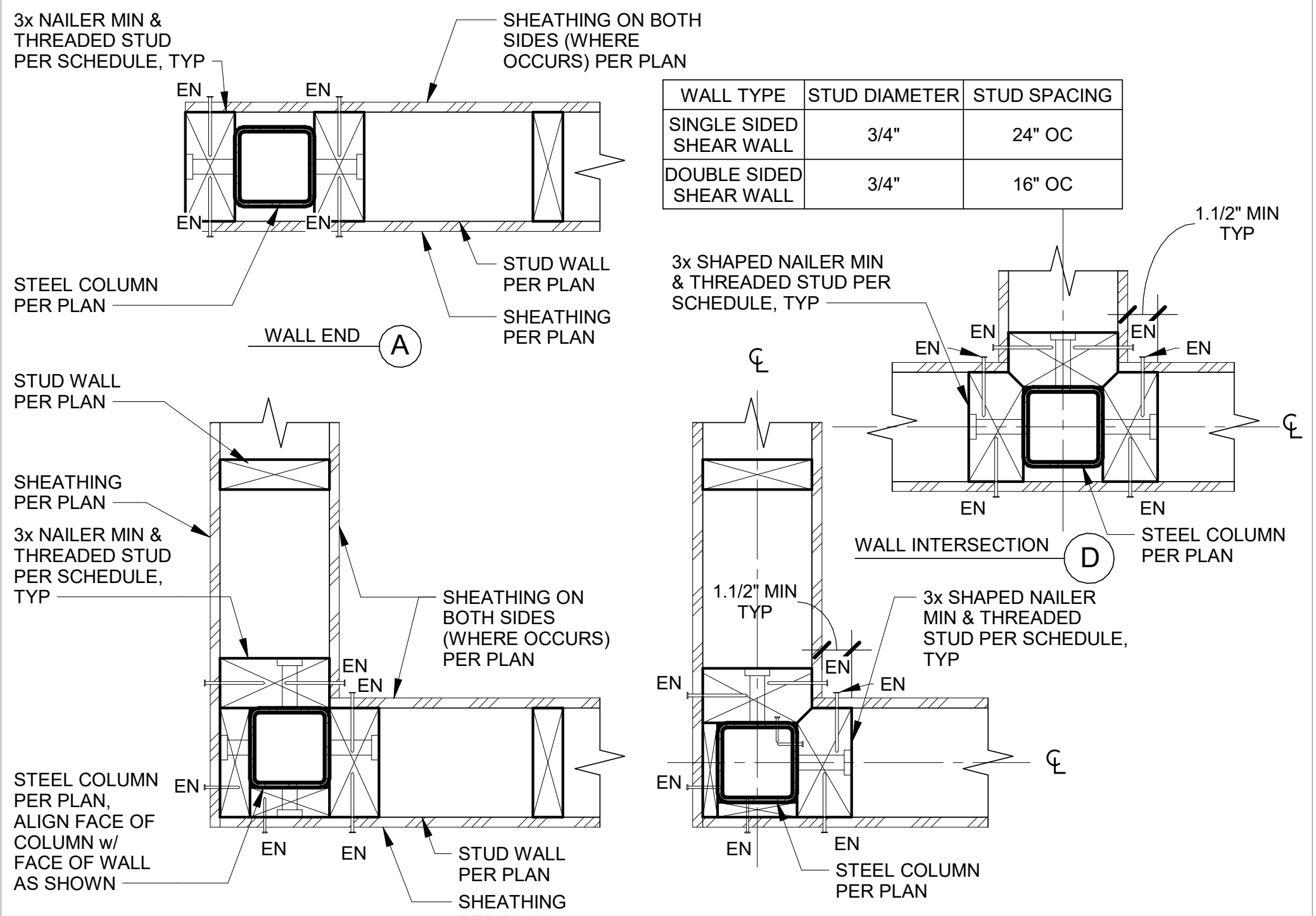
S604

NOTE:
CONTRACTOR TO VERIFY LOCATION OF (E) ROOF TRUSSES, AND TO PLACE EXHAUST FAN UNIT CENTERED IN BAY


EQ
EQ
MAX = 70lbs
EF
-
SHEET METAL UNIT BASE PER MFR
#10 SMS @ 12" OC ALL AROUND
20 GA CURB PER MANUF, FABRICATE SO TOP OF EDGE IS LEVEL FOR SLOPED ROOF
#10 WOOD SCREW x 1.1/2" LONG @ 12" OC EA SIDE
(E) ROOF SHEATHING
16" TALL CURB MAX
4x6 BLK'G, TYP
PROVIDE 2x MIN BLK'G AROUND (N) ROOF PENETRATION EDGES
TOE NAIL BLK'G TO TRUSS TOP CHORD, TYP
4x6 BLK'G, TYP
TRUSS, TYP

DUCT OPENING & EF SUPPORT

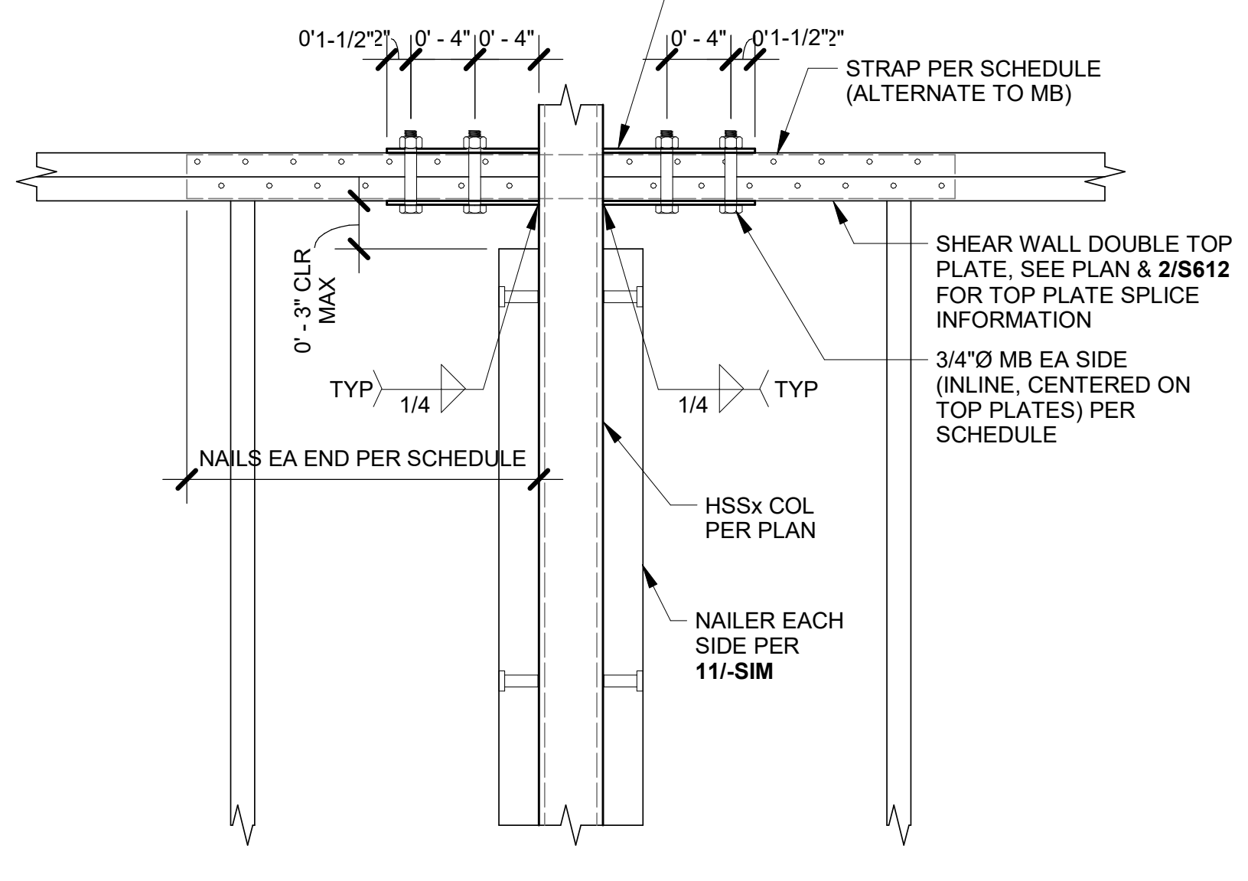
SCALE: NTS 10


3x NAILER MIN & THREADED STUD PER SCHEDULE, TYP
SHEATHING ON BOTH SIDES (WHERE OCCURS) PER PLAN
EN
STEEL COLUMN PER PLAN
STUD WALL PER PLAN
SHEATHING PER PLAN
WALL END A
STUD WALL PER PLAN
SHEATHING PER PLAN
3x NAILER MIN & THREADED STUD PER SCHEDULE, TYP
SHEATHING ON BOTH SIDES (WHERE OCCURS) PER PLAN
STEEL COLUMN PER PLAN, ALIGN FACE OF COLUMN w/ FACE OF WALL AS SHOWN
WALL CORNER B
1.1/2" MIN TYP
3x SHAPED NAILER MIN & THREADED STUD PER SCHEDULE, TYP
STEEL COLUMN PER PLAN
WALL CORNER ALT C
(SEE B FOR INFO NOT SHOWN)
3x SHAPED NAILER MIN & THREADED STUD PER SCHEDULE, TYP
WALL INTERSECTION D
℄

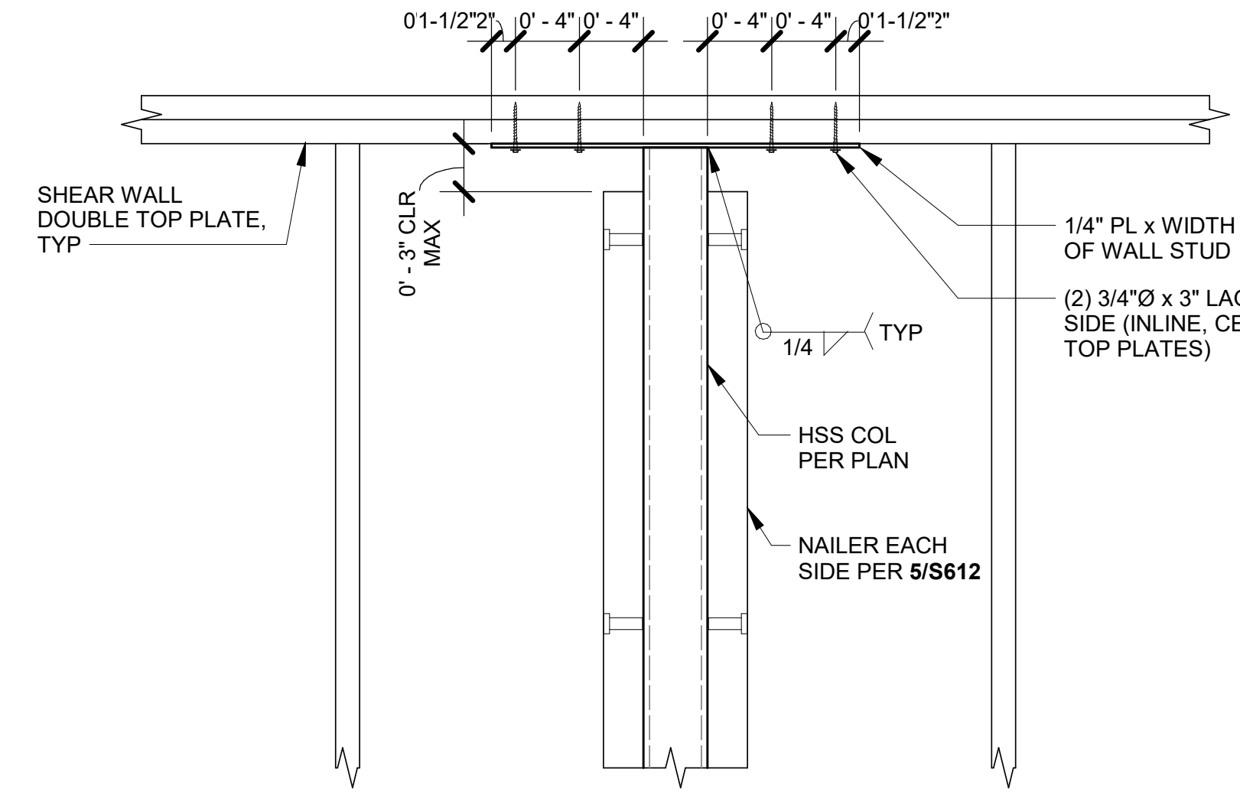
WALL TYPE	STUD DIAMETER	STUD SPACING
SINGLE SIDED SHEAR WALL	3/4"	24" OC
DOUBLE SIDED SHEAR WALL	3/4"	16" OC

TYPICAL WOOD NAILER TO STEEL COLUMN AT SHEAR WALLS

SCALE: NTS 5


PL 1/4" x WIDTH OF WALL STUD, EA SIDE, T&B (RADIUS CUT @ PIPE COL)
0'1-1/2"2"
0' - 4"
STRAP PER SCHEDULE (ALTERNATE TO MB)
SHEAR WALL DOUBLE TOP PLATE, SEE PLAN & 2/S612 FOR TOP PLATE SPLICE INFORMATION
3/4"Ø MB EA SIDE (INLINE, CENTERED ON TOP PLATES) PER SCHEDULE
0' - 3" CLR MAX
TYP
1/4
NAILS EA END PER SCHEDULE
HSSx COL PER PLAN
NAILER EACH SIDE PER 11/-SIM

HSS THRU TOP PLATES A


0'1-1/2"2"
0' - 4"
SHEAR WALL DOUBLE TOP PLATE, TYP
0' - 3" CLR MAX
1/4" PL x WIDTH OF WALL STUD
(2) 3/4"Ø x 3" LAG SCREWS EA SIDE (INLINE, CENTERED ON TOP PLATES)
1/4
TYP
HSS COL PER PLAN
NAILER EACH SIDE PER 5/S612

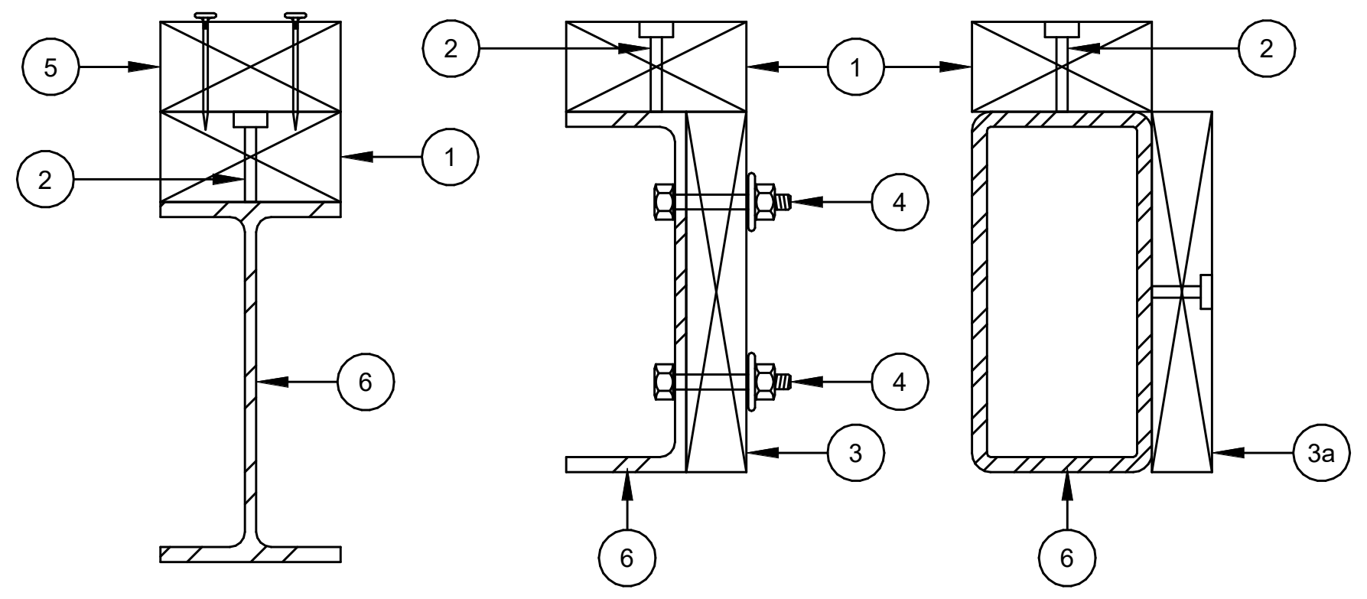
HSS STOPPING UNDER TOP PLATES B

TOP PLATE SPLICE	# OF MB EACH SIDE	STRAP (ALT TO MB) SEE NOTE 1
TPS-1	2	CMSTC16x4' (ONE SIDE OF WALL)
TPS-2	2	CMST14x6' (ONE SIDE OF WALL) w/ (33) 10dx2-1/2" NAILS EACH END
TPS-3	3	CMST12x7'-6" (ONE SIDE OF WALL) w/ (43) 10dx2-1/2" NAILS EACH END
TPS-4	4	CMST12x6' (BOTH SIDES OF WALL) w/ (32) 10dx2-1/2" NAILS EACH END (@ 6" WALLS ONLY)

NOTES:
1. IF STRAP IS USED AND INSTALLED OVER SHEATHING, USE 10d COMMON x 3" LONG NAILS.
2. SEE 11/S-601 FOR REINFORCING OF BOTTOM PLATE AT PENETRATION.

TYPICAL HSS COLUMN IN SHEAR WALL

SCALE: NTS 2



① 2x CONTINUOUS FULL WIDTH WOOD NAILER ON TOP OF BEAM

② 1/2" NELSON STUD @ 24" OC MAX w/ STANDARD CUT-WASHER. USE 5/8"Ø. STUD @ 12" O.C. BELOW SHEAR WALLS & @ MOMENT FRAMES, UNO ON FRAMING PLAN. (INSTALL 5/8" Ø. STUD @ 9" OC @ DBL-SIDED SHEAR WALLS.)

③ 2x SIDE NAILER

(3a) OPTIONAL SIDE NAILER

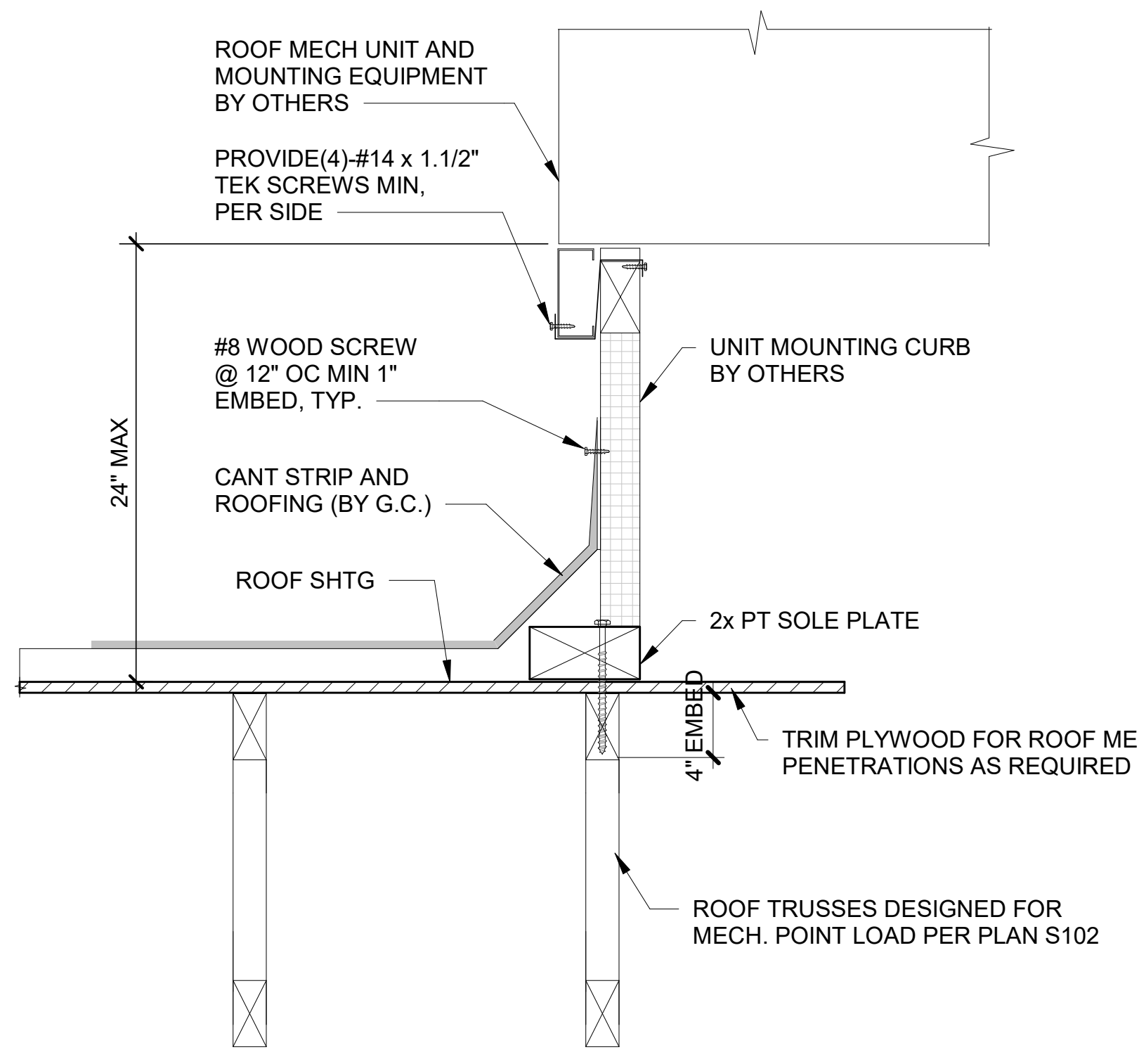
④ TWO ROWS OF 3/4" Ø THRU-BOLT @ 24" OC MAX STAGG.

⑤ OPTIONAL NAILER

⑥ STEEL BEAM PER PLAN

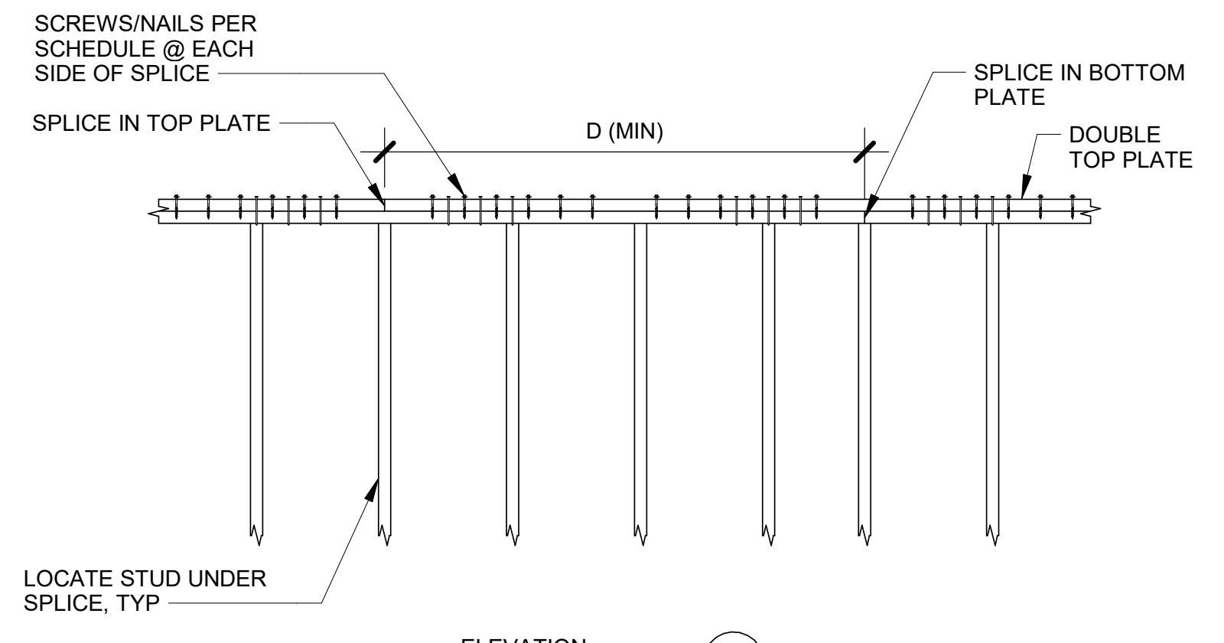
TYPICAL WOOD NAILER AT STEEL BEAM

SCALE: NTS 11

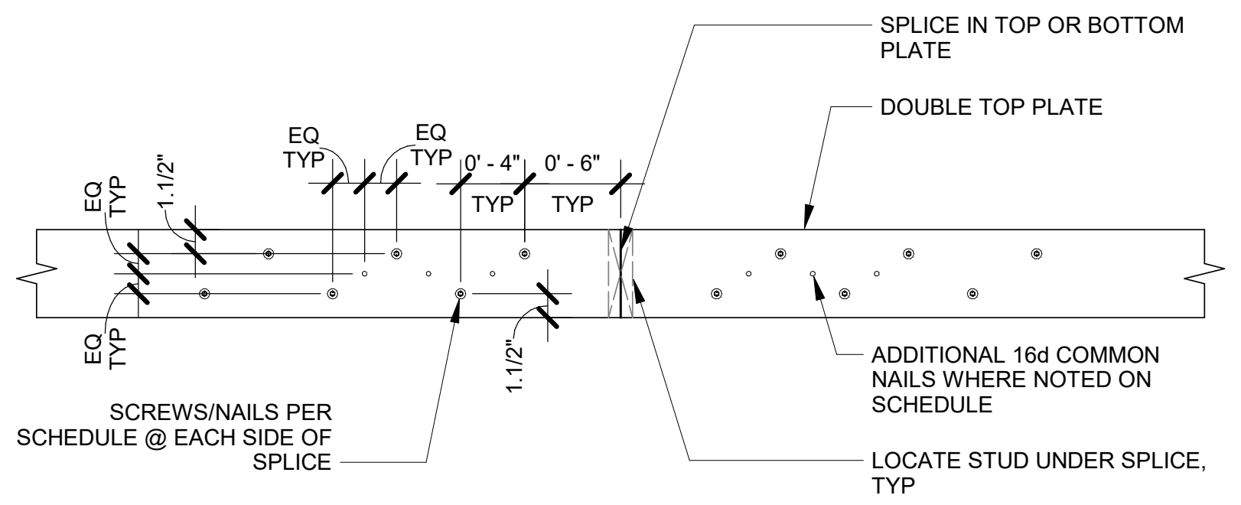

ROOF MECH UNIT AND MOUNTING EQUIPMENT BY OTHERS
PROVIDE(4)-#14 x 1.1/2" TEK SCREWS MIN, PER SIDE
#8 WOOD SCREW @ 12" OC MIN 1" EMBED, TYP.
UNIT MOUNTING CURB BY OTHERS
CANT STRIP AND ROOFING (BY G.C.)
ROOF SHTG
2x PT SOLE PLATE
24" MAX
4" EMBED
TRIM PLYWOOD FOR ROOF MECH PENETRATIONS AS REQUIRED
ROOF TRUSSES DESIGNED FOR MECH. POINT LOAD PER PLAN S102

MECHANICAL CURB SECTION DETAIL

SCALE: NTS 7


SCREWS/NAILS PER SCHEDULE @ EACH SIDE OF SPLICE
SPLICE IN TOP PLATE
D (MIN)
SPLICE IN BOTTOM PLATE
DOUBLE TOP PLATE
LOCATE STUD UNDER SPLICE, TYP

ELEVATION A


SPLICE IN TOP OR BOTTOM PLATE
DOUBLE TOP PLATE
EQ TYP
1.1/2"
0' - 4"
0' - 6"
TYP
ADDITIONAL 16d COMMON NAILS WHERE NOTED ON SCHEDULE
SCREWS/NAILS PER SCHEDULE @ EACH SIDE OF SPLICE
LOCATE STUD UNDER SPLICE, TYP

PLAN VIEW B

TOP PLATE SPLICE	FASTENERS	CAPACITY OF TOP PLATE	D (MIN)	NOTES
TPS-1	(5) 16d COMMON	2058#	4'-0"	TYPICAL UNO
TPS-2	(6) SIMPSON SDWH19300DB & (3) 16d COMMON	5472#	5'-0"	-
TPS-3	(8) SIMPSON SDWH19300DB & (3) 16d COMMON	7240#	6'-0"	-
TPS-4	(12) SIMPSON SDWH19300DB & (3) 16d COMMON	10944#	9'-0"	REQUIRES USE OF MIN (2) DF-#1 2x6 PLATES OR (2) DF-#2 3x6 PLATES

NOTES:
1. SEE IAPMO - 0192 FOR SIMPSON SDWH19300DB.
2. TOP PLATE SPLICE SHOULD BE MINIMUM "D" AWAY FROM THE ENDS OF TOP PLATES.
3. NO PENETRATION PER **11/S-601** ALLOWED IN SHEAR WALLS OR SHEAR WALL LINES.

TYPICAL TOP PLATE

SCALE: NTS 4

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No. 5038
Exp. 6/30/23

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2021-101_R21
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TYPICAL SHEAR WALL DETAILS

PERKINS EASTMAN

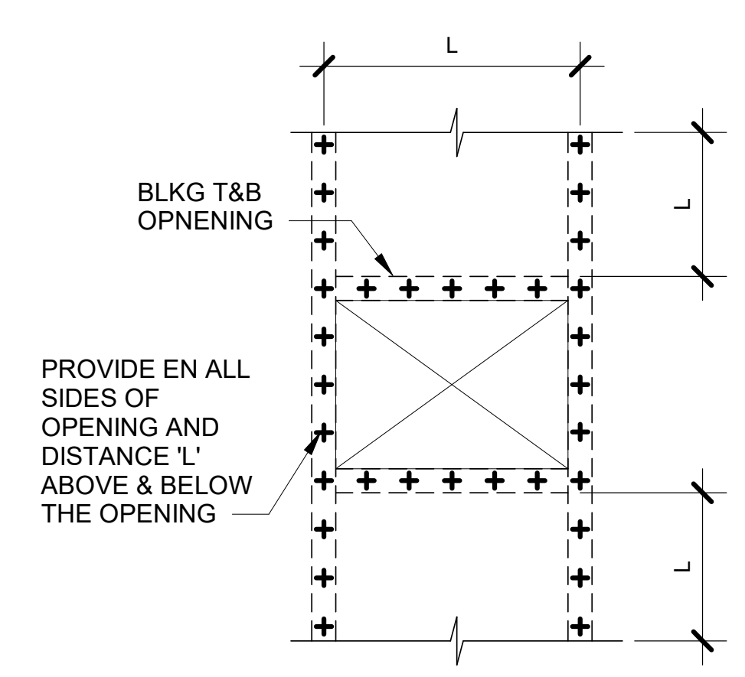
3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S612

Plot Date: 1/17/2023 1:11:05 PM

Project #: 2021-101_R21

NOTE:
PENETRATIONS THROUGH SHEAR WALLS ARE PERMITTED ONLY w/ THE REVIEW OF THE STRUCTURAL ENGINEER NOT ALLOWED AT FIRST BAY OF SHTG MAX ONE PENETRATION ALLOWED PER SHEAR WALL PANEL

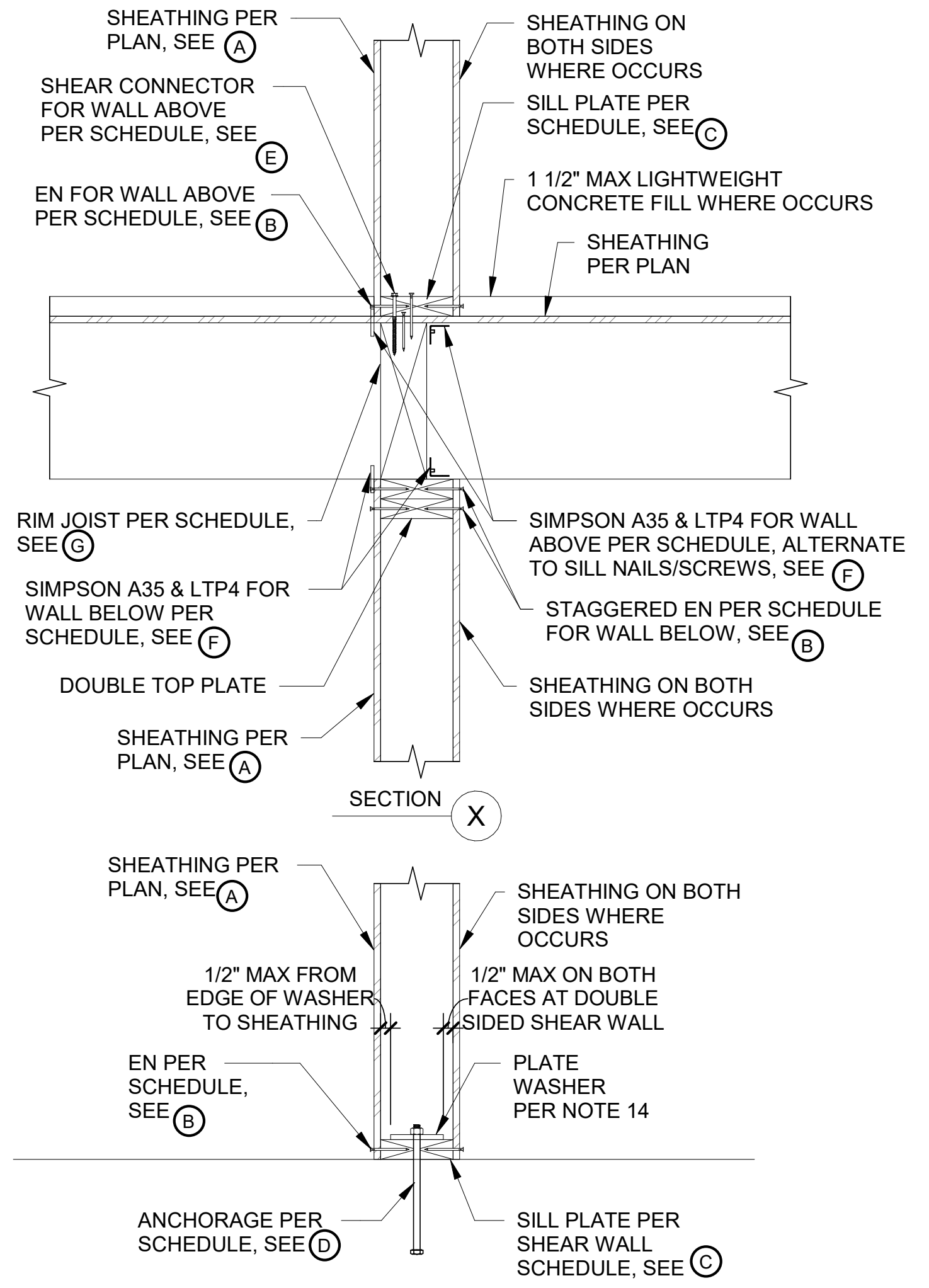

L
L
L
BLKG T&B OPENNING
PROVIDE EN ALL SIDES OF OPENING AND DISTANCE 'L' ABOVE & BELOW THE OPENING

A OPENING WIDTH LESS THAN OR EQUAL TO STUD SPACING

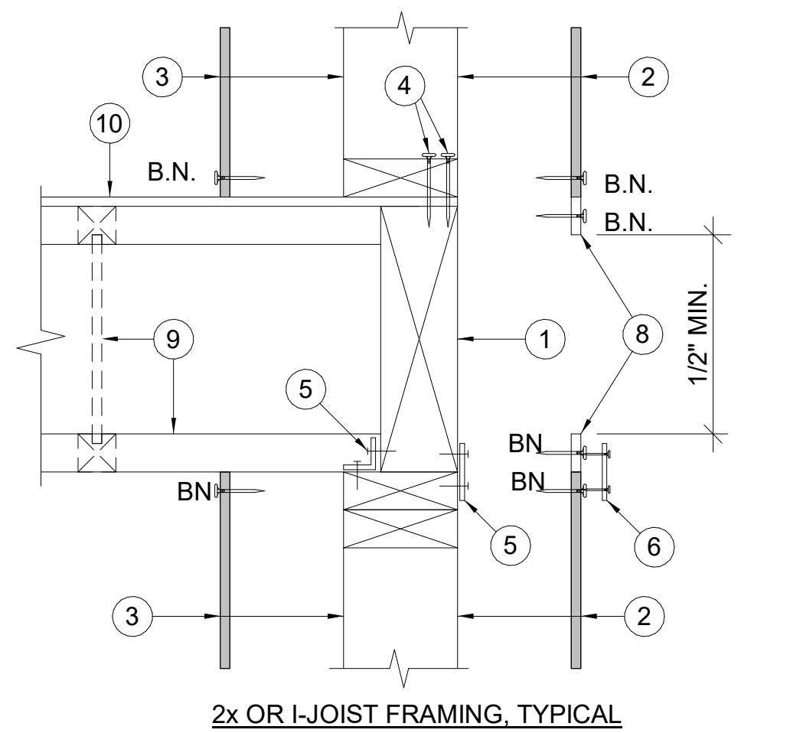
TYPICAL 4'-6" MAX OPENING IN SHEAR WALL

SCALE: NTS

14


SHEATHING PER PLAN, SEE A
SHEAR CONNECTOR FOR WALL ABOVE PER SCHEDULE, SEE E
EN FOR WALL ABOVE PER SCHEDULE, SEE B
SHEATHING ON BOTH SIDES WHERE OCCURS
SILL PLATE PER SCHEDULE, SEE C
1 1/2" MAX LIGHTWEIGHT CONCRETE FILL WHERE OCCURS
SHEATHING PER PLAN
RIM JOIST PER SCHEDULE, SEE G
SIMPSON A35 & LTP4 FOR WALL BELOW PER SCHEDULE, SEE F
DOUBLE TOP PLATE
SHEATHING PER PLAN, SEE A
SIMPSON A35 & LTP4 FOR WALL ABOVE PER SCHEDULE, ALTERNATE TO SILL NAILS/SCREWS, SEE F
STAGGERED EN PER SCHEDULE FOR WALL BELOW, SEE B
SHEATHING ON BOTH SIDES WHERE OCCURS
SECTION X
SHEATHING PER PLAN, SEE A
SHEATHING ON BOTH SIDES WHERE OCCURS
1/2" MAX FROM EDGE OF WASHER TO SHEATHING
1/2" MAX ON BOTH FACES AT DOUBLE SIDED SHEAR WALL
EN PER SCHEDULE, SEE B
PLATE WASHER PER NOTE 14
ANCHORAGE PER SCHEDULE, SEE D
SILL PLATE PER SHEAR WALL SCHEDULE, SEE C
SECTION Y

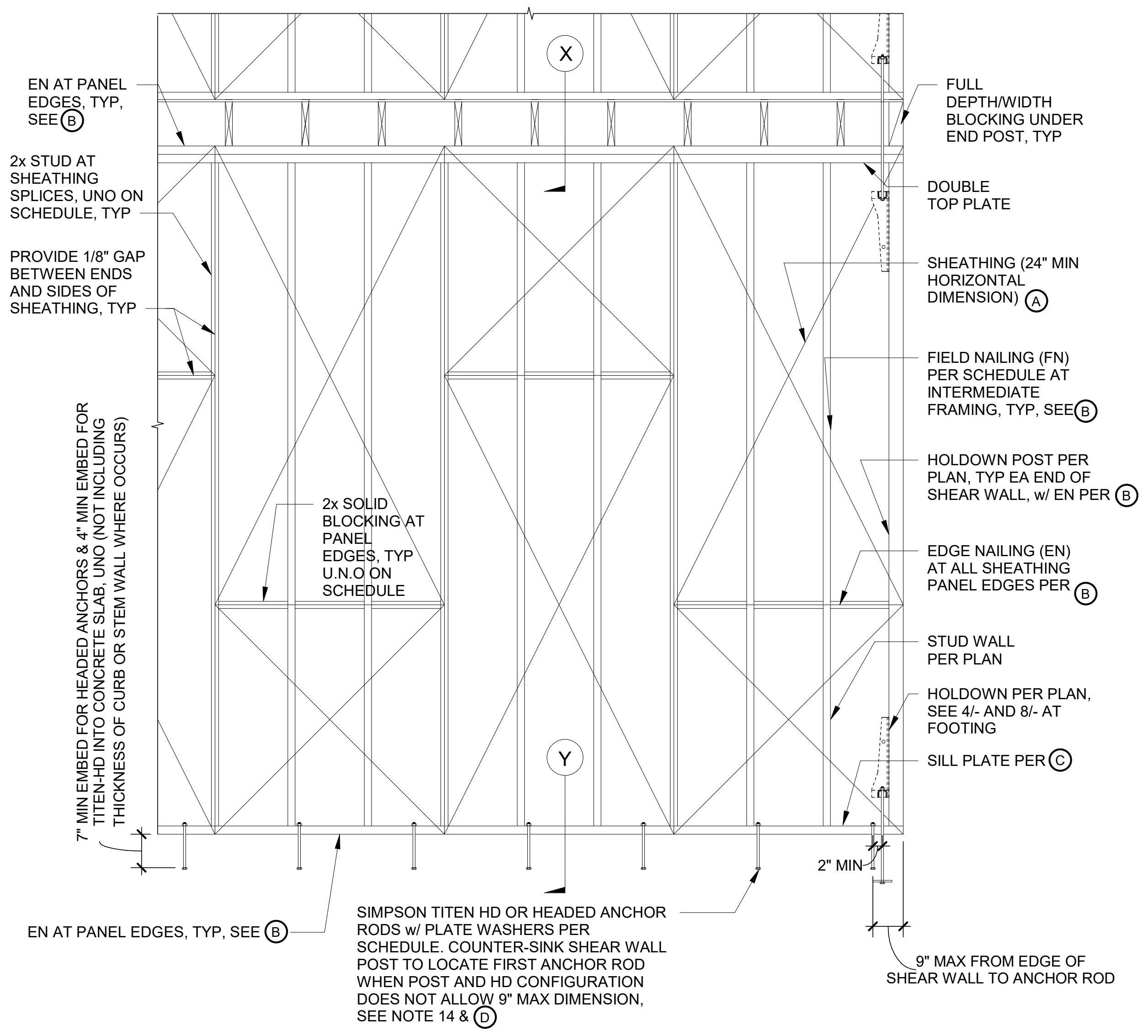
NOTE:
1. SIMILAR AT EXTERIOR WALLS.



2x OR I-JOIST FRAMING, TYPICAL EXTERIOR WALL (MARK 2.5 & STRONGER) & ALL SHEAR WALLS w/ OPENINGS

KEY NOTES

1. SHEAR TRANSFER CONTINUOUS RIM, SEE SHEAR WALL SCHED. FOR MINIMUM WIDTH.
2. WALL SHTG ON ONE SIDE OF WALL.
3. WALL SHTG ON SECOND SIDE OF WALL WHERE OCCURS.
4. SHEAR CONNECTOR NAILING, STAGGER AS REQ'D. PROVIDE MINIMUM 3/8" EDGE DISTANCE.
5. LOCATION OF SHEAR CONNECTOR HARDWARE SPACING PER SCHED.
6. SOME SHEAR CONNECTOR HARDWARE MAY BE APPLIED OVER SHEATHING WITH LONGER NAIL. SEE SCHED.
7. SHEAR TRANSFER RIM OR BLOCKING, SEE SHEAR WALL SCHED. FOR MINIMUM WIDTH.
8. EXTERIOR FACE OF WALL SHTG MAY BE EXTENDED 2" MINIMUM TO RIM IN ORDER TO OMIT SHEAR CONNECTIONS FOR SINGLE SIDED SHEAR WALL. (REDUCE 50% SHEAR TRANSFER NAILING FOR DOUBLE-SIDED SHEAR WALL.)
9. FRAMING PERPENDICULAR OR PARALLEL TO SHEAR WALL.
10. ROOF / FLOOR SHTG DIAPHRAGM NAILING NOT SHOWN FOR CLARITY


X
EN AT PANEL EDGES, TYP, SEE B
2x STUD AT SHEATHING SPLICES, UNO ON SCHEDULE, TYP
PROVIDE 1/8" GAP BETWEEN ENDS AND SIDES OF SHEATHING, TYP
7" MIN EMBED FOR HEADED ANCHORS & 4" MIN EMBED FOR TITEN-HD INTO CONCRETE SLAB, UNO (NOT INCLUDING THICKNESS OF CURB OR STEM WALL WHERE OCCURS)
2x SOLID BLOCKING AT PANEL EDGES, TYP U.N.O ON SCHEDULE
Y
EN AT PANEL EDGES, TYP, SEE B
FULL DEPTH/WIDTH BLOCKING UNDER END POST, TYP
DOUBLE TOP PLATE
SHEATHING (24" MIN HORIZONTAL DIMENSION) A
FIELD NAILING (FN) PER SCHEDULE AT INTERMEDIATE FRAMING, TYP, SEE B
HOLDOWN POST PER PLAN, TYP EA END OF SHEAR WALL, w/ EN PER B
EDGE NAILING (EN) AT ALL SHEATHING PANEL EDGES PER B
STUD WALL PER PLAN
HOLDOWN PER PLAN, SEE 4/- AND 8/- AT FOOTING
SILL PLATE PER C
2" MIN
9" MAX FROM EDGE OF SHEAR WALL TO ANCHOR ROD

SIMPSON TITEN HD OR HEADED ANCHOR RODS w/ PLATE WASHERS PER SCHEDULE. COUNTER-SINK SHEAR WALL POST TO LOCATE FIRST ANCHOR ROD WHEN POST AND HD CONFIGURATION DOES NOT ALLOW 9" MAX DIMENSION, SEE NOTE 14 & D

	SHEAR WALL ASSEMBLY				ANCHORAGE (D)	SHEAR CONNECTOR		RIM/BLOCKING BELOW (G)		CAPACITY	NOTES
MARK	SHEATHING (A)	SIDE(S)	NAILING (B) 1.5" MIN PENETRATION INTO FRAMING/BLOCKING	SILL PLATE (C)	HEADED ANCHOR ROD OR SIMPSON TITEN-HD	NAILS/SCREWS (E)	A35/LTP4 (F)	CONV	PWJ	ASD SEISMIC (PLF)	1, 2
NOTES	3, 4, 6	-	7, 8, 9, 10	8, 17, 18, 19	8, 14, 15, 16	7, 8, 11, 12, 13	20, 21	11, 12, 13, 22, 24	11, 12, 13, 23, 24	-	-
NONE	NO SHEATHING	-	-	2x	1/2"Ø @ 48" OC	16d @ 8" OC OR SIMPSON SDWS22500DB @ 16" OC	@ 32" OC	2x	1.3/4"x	-	-
6.5	1/2" STRUCT 1	1	10d @ 6" EN & @ 12" FN	2x	5/8"Ø @ 32" OC	16d @ 6" OC OR SIMPSON SDWS22500DB @ 14" OC	@ 16" OC	2x	1.3/4"x	340	-
4.5	1/2" STRUCT 1	1	10d @ 4" EN & @ 12" FN	3x	5/8"Ø @ 24" OC	16d @ 4" OC OR SIMPSON SDWS22500DB @ 8" OC	@ 10" OC	3x	1.3/4"x	510	5
3.5	1/2" STRUCT 1	1	10d @ 3" EN & @ 12" FN	3x	5/8"Ø @ 16" OC	(2) ROWS OF 16d @ 6" OC OR SIMPSON SDWS22500DB @ 6" OC	@ 8" OC	3x	1.3/4"x	665	5
2.5	1/2" STRUCT 1	1	10d @ 2" EN & @ 12" FN	3x	5/8"Ø @ 12" OC	(2) ROWS OF 16d @ 4" OC OR (2) ROWS OF SIMPSON SDWS22500DB @ 10" OC	@ 6" OC	3x	3.1/2"x	870	5
44.5	1/2" STRUCT 1	2	10d @ 4" EN & @ 12" FN	3x	5/8"Ø @ 16" OC	(2) ROWS OF SIMPSON SDWS22600DB @ 8" OC	(2) @ 10" OC	3x	3.1/2"x	1020	5, 6
33.5	1/2" STRUCT 1	2	10d @ 3" EN & @ 12" FN	3x	3/4"Ø @ 16" OC	(2) ROWS OF SIMPSON SDWS22600DB @ 6" OC	(2) @ 8" OC	3x	3.1/2"x	1330	5, 6
22.5	1/2" STRUCT 1	2	10d @ 2" EN & @ 12" FN	3x	3/4"Ø @ 12" OC	-	(2) @ 6" OC	3x	3.1/2"x	1740	5, 6

NOTES:

1. SEE WOOD GENERAL NOTES ON S-001 AND PLAN NOTES FOR MORE INFORMATION.
2. SEE PLAN FOR LOCATION OF SHEATHED WALLS. LENGTHS INDICATED ON PLANS ARE MINIMUM LENGTHS.
3. SHEATHING SHALL BE PLYWOOD OR OSB SIDING, WITH PLYWOOD INDEX OF 32/16 MINIMUM FOR 1/2" SHEATHING & 16/0 MIN FOR 3/8" SHEATHING.
4. PANELS SHALL NOT BE LESS THAN 8'x4', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. ALL EDGES OF ALL PANELS SHALL BE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.
5. USE 3x STUDS AND BLOCKING AT ADJOINING SHEATHING EDGES, STAGGER NAILS.
6. WHERE SHEATHING IS APPLIED ON BOTH FACES OF SHEAR WALL, OFFSET PANEL JOINTS TO FALL ON DIFFERENT FRAMING MEMBERS. ALTERNATIVELY, USE 3x MINIMUM STUD AND BLOCKING AT ADJOINING PANEL EDGES AND STAGGER NAILS AT ALL PANEL EDGES.
7. USE COMMON NAILS ONLY, BOX NAILS ARE NOT PERMITTED, UNO.
8. ALL FASTENERS AND CONNECTORS INSTALLED INTO OR AGAINST PRESSURE TREATED WOOD SHALL BE HOT DIP GALVANIZED PER CBC 2304.9.5.
9. SHEATHING NAILING SHALL BE STAGGERED WHEN NAILS ARE SPACED 4" OC OR LESS.
10. MINIMUM EDGE DISTANCE FOR NAILS SHALL BE 3/8" FROM PANEL EDGES.
11. MINIMUM EDGE DISTANCE FOR NAILS INTO WOOD MEMBER SHALL BE 3/4". MINIMUM SPACING BETWEEN STAGGERED ROWS SHALL BE 3/4".
12. MINIMUM EDGE DISTANCE OF SIMPSON SDWS INTO WOOD MEMBER SHALL BE 1.7/16". MINIMUM SPACING BETWEEN STAGGERED ROWS SHALL BE 5/8".
13. PROVIDE SCREW PENETRATION PER THIS SCHEDULE UNLESS A LONGER PENETRATION IS SHOWN. PRE-DRILL HOLES FOR SIMPSON SDWS FOR ENTIRE SCREW LENGTH WITH A DIAMETER EQUAL TO 50% OF THE SHANK DIAMETER WHEN SPACING IS 6" OC OR LESS, OR WHEN (2) ROWS OF SCREWS ARE SPECIFIED.

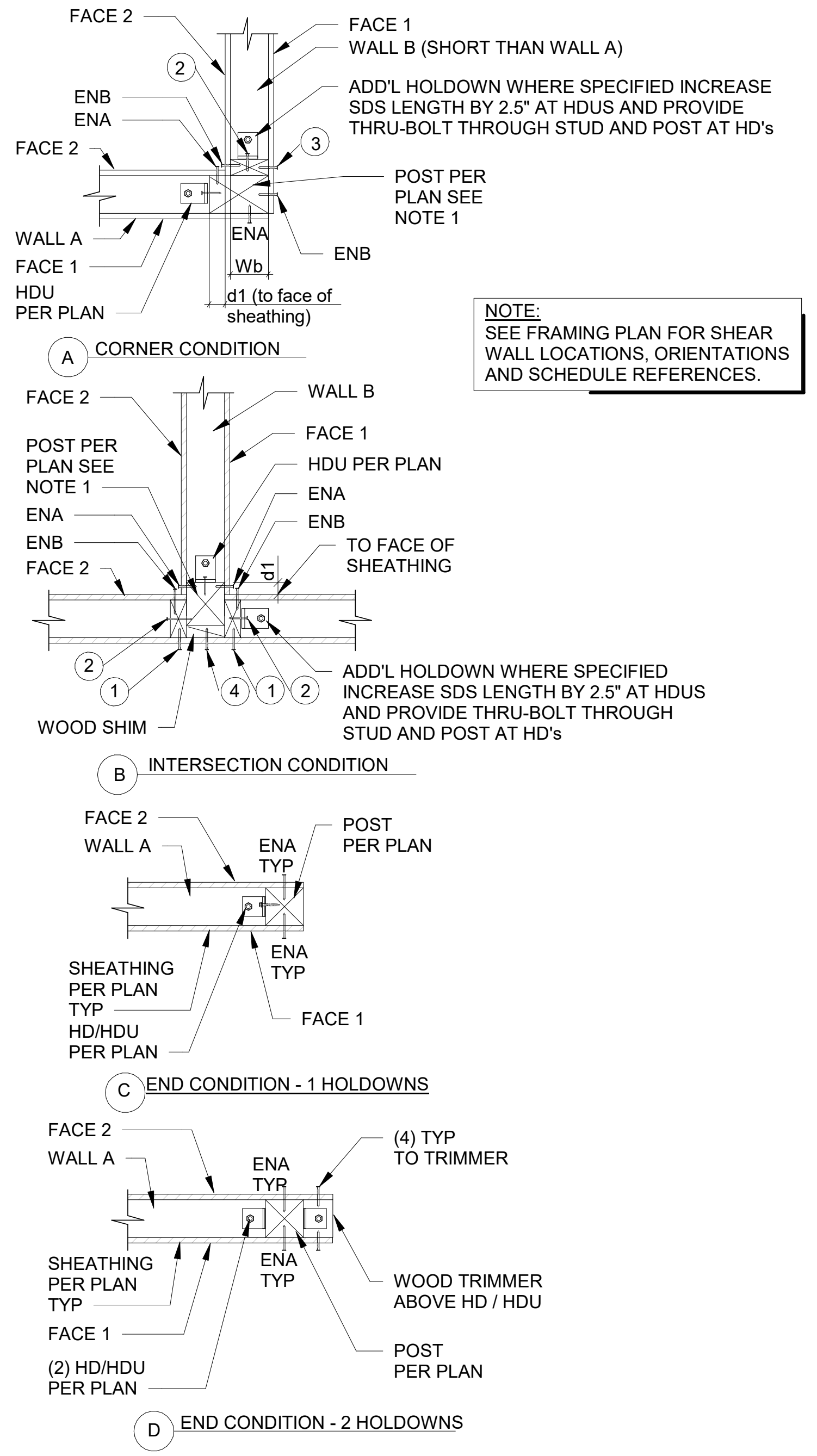
CONT:

14. ANCHOR RODS SHALL HAVE A STEEL PLATE WASHER UNDER EACH NUT NOT LESS THAN 1/4"x3"x3" IN SIZE. THE HOLE IN THE PLATE WASHER SHALL BE PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1.3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE SILL PLATE ON THE SIDE(S) WITH SHEATHING. THIS MAY REQUIRE A PLATE WASHER GREATER THAN 3" WIDE. SEE SECTION Y.
15. 15. TITEN HD ANCHOR SHALL HAVE 4" MINIMUM EMBED AND BE INSTALLED PER ICC ESR-2713.
16. INTERIOR, NON-SHEAR WALLS MAY USE 0.145"Øx2.875" SHOT PINS @ 24" OC IN LIEU OF BOLTS.
17. USE 3x SILL PLATE WHEN SILL PLATE IS IN CONTACT WITH CONCRETE.
18. IT IS ACCEPTABLE TO REPLACE THE 2x SILL PLATE PER SCHEDULE WITH A 3x OR (2) 2x SILL PLATE, PROVIDED THE SILL ATTACHMENT IS MADE WITH 40d BOX NAILS INSTEAD OF 16d NAILS, OR SDWS22600DB INSTEAD OF SDWS22500DB.
19. IT IS ACCEPTABLE TO USE (2) 2x SILL PLATES INSTEAD OF THE 3x SILL PLATE PER SCHEDULE, UNLESS THE SILL PLATE IS IN CONTACT WITH CONCRETE.
20. INSTALL HALF OF REQUIRED A35/LTP4 ON EACH SIDE OF RIM/BLOCKING PER SECTION X.
21. ORIENT LTP4 WITH THE LONG SIDE PARALLEL TO THE TOP PLATE. WHEN A35 OR LTP4 ARE APPLIED THRU THE SHEATHING, USE 8d COMMON NAILS (2.1/2" LONG). STAGGER A35/LTP4 WHEN THEY ARE INSTALLED ON BOTH SIDES OF THE RIM JOIST.
22. WHEN CONVENTIONAL FRAMING IS USED (SAWN LUMBER), USE 2x OR 3x SAWN LUMBER FOR RIM JOIST PER SCHEDULE.
23. WHEN FLOOR FRAMING CONSISTS OF ENGINEERED WOOD PRODUCT (PWJ, LSL,...), USE LSL OR PSL RIM JOIST PER SCHEDULE. EXCEPTION: SAWN LUMBER CAN BE USED FOR RIM JOISTS AT ROOF LEVEL.
24. USE CONVENTIONAL 4x OR LSL/LVL 3.1/2" RIM/BLOCKING OVER PERFORATED SHEAR WALL AROUND OPENING.

TYPICAL SHEAR WALL SCHEDULE

SCALE: NTS

3



NOTE:
SEE FRAMING PLAN FOR SHEAR WALL LOCATIONS, ORIENTATIONS AND SCHEDULE REFERENCES.

LEGEND

ENA = EDGE NAILING AS SCHEDULE FOR WALL A, WHERE OCCURS
ENB = EDGE NAILING AS SCHEDULE FOR WALL B, WHERE OCCURS
10d @ 6" OC EA STUD. OMIT IF THERE IS NO WALL A, FACE 1, TYP
IF WALL DOES NOT HAVE SHEATHING ON FACE 2, USE 2x STUD w/10d NAILS @ 6" OC STAGGERED
IF ENA IS 3" OR MORE, USE 2x STUD WITH 16d NAILS AT SPACING TO MATCH ENA IF ENA IS 2" OR LESS, USE 3x STUD WITH (2) STAGGERED ROWS OF SIMPSON SDWS OR SDWH SCREWS @ 8" OC (4" OC AVERAGE SPACING)

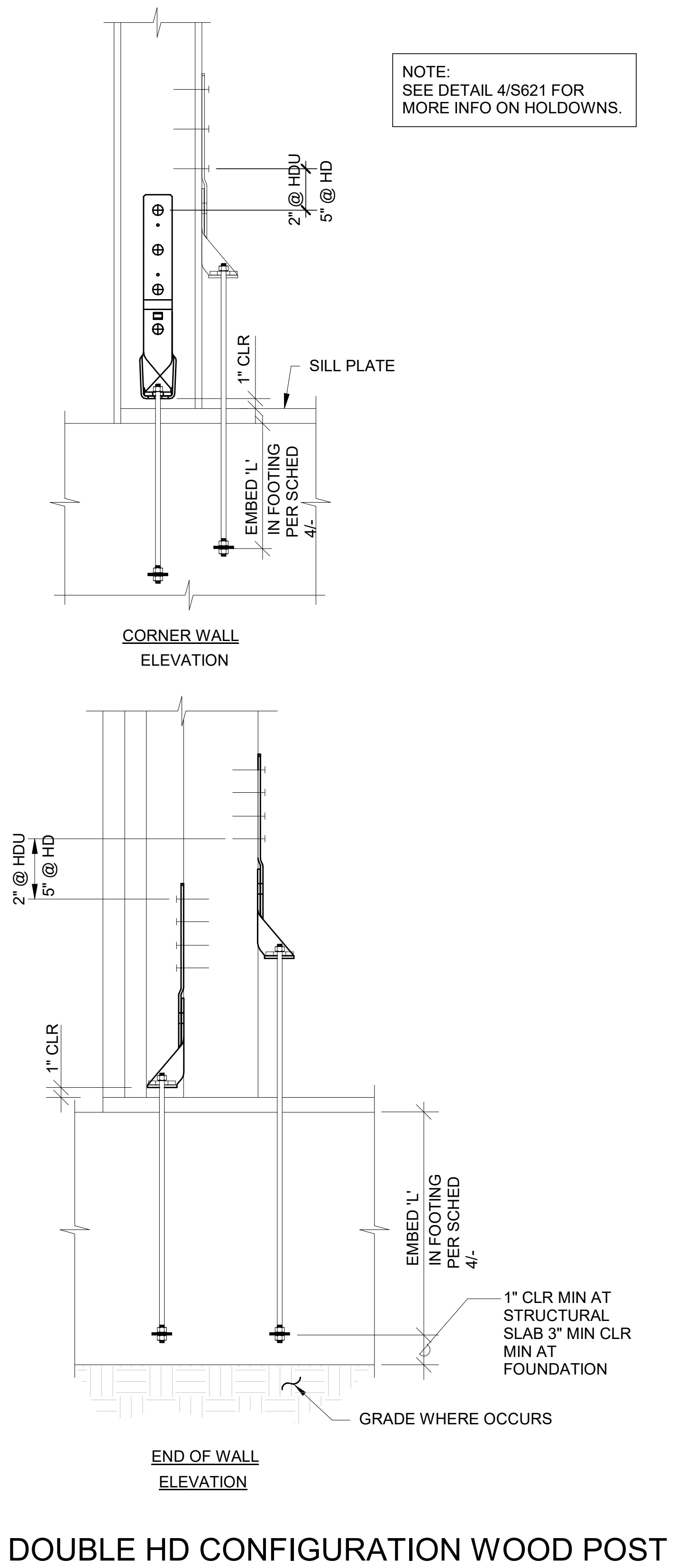
NOTES
1. (3) 10d @ 6" OC (4) 10d @ 12" OC
2. SEE ELEVATION ON 4/- FOR INFORMATION NOT SHOWN.

MIN SIZE OF POST SHALL BE AS SHOWN ON PLANS / SCHEDULE. ENLARGE SIZE AS REQUIRED TO ACHIEVE THE FILLOWING:
d1 = 1-1/2" MIN IF ENB SPACING IS 3" OR MORE
d1 = 2-1/2" MIN IF ENB SPACING IS 2" OR LESS

TYP SHEAR WALL STUD WALL FRAMING AT INTERSECTIONS (PLAN VIEW)

SCALE: NTS

16


2" @ HDU
5" @ HD
SILL PLATE
1" CLR
EMBED 'L' IN FOOTING PER SCHED 4/-
CORNER WALL ELEVATION
2" @ HDU
5" @ HD
1" CLR
EMBED 'L' IN FOOTING PER SCHED 4/-
1" CLR MIN AT STRUCTURAL SLAB 3" MIN CLR MIN AT FOUNDATION
GRADE WHERE OCCURS
END OF WALL ELEVATION

NOTE:
SEE DETAIL 4/S621 FOR MORE INFO ON HOLDOWNS.

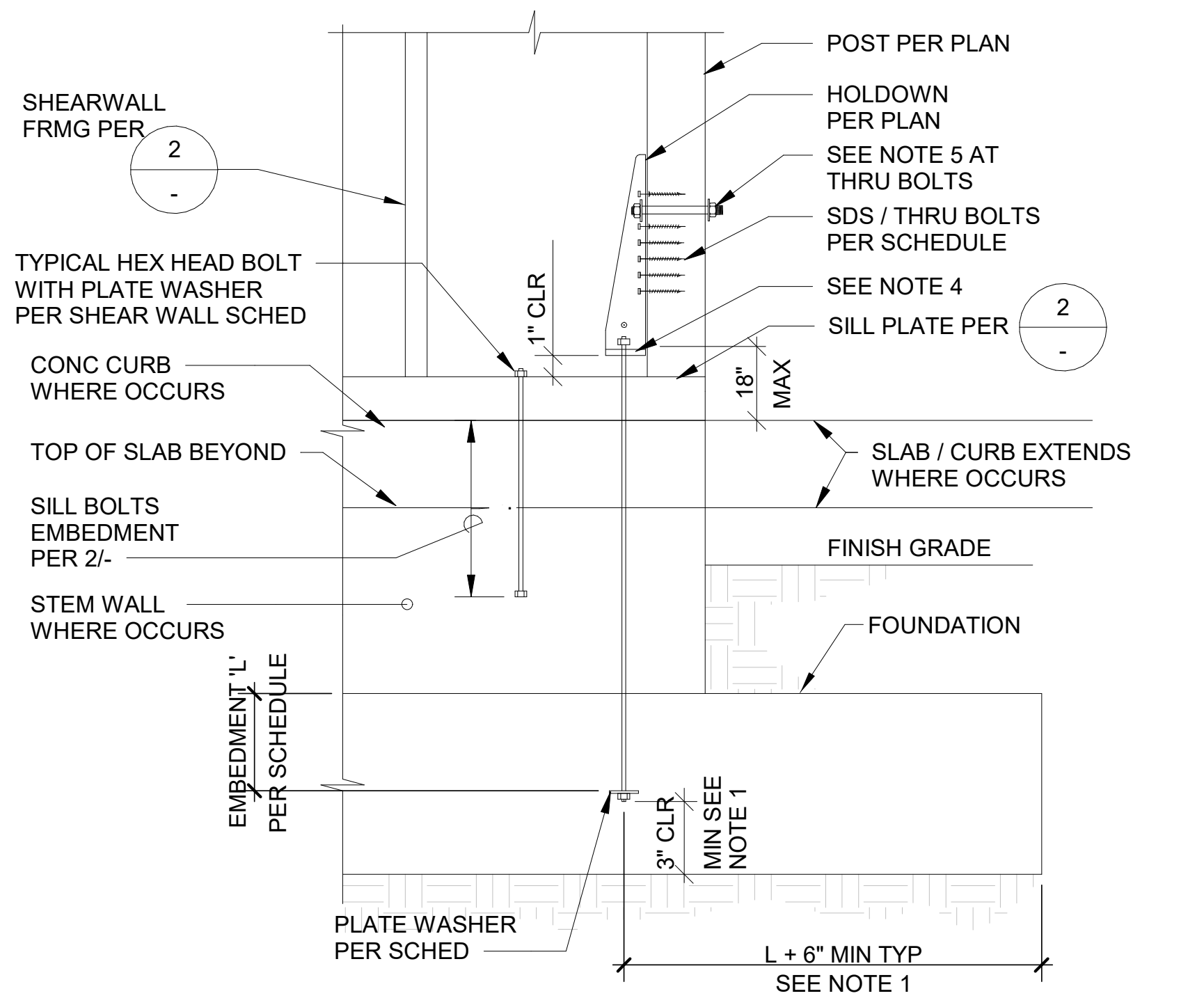
TYP DOUBLE HD CONFIGURATION WOOD POST

SCALE: NTS

8

NOTE:

1. PROVIDE 3" CLR COVER TO ALL RODS, REBAR AND STEEL PLATE. INCREASE FOOTING DEPTH AS REQUIRED TO PROVIDE COVER SHOWN.
2. USE HEAVY HEX ANCHOR NUT PROVIDE BY SIMPSON AT HDU11 AND HDU14
3. EMBEDMENT LENGTH SHOWN IS INTO THE FOOTING, AND DOES NOT INCLUDE THICKNESS OF CONCRETE SLABS, STEM WALLS OR CURBS
4. PROVIDE STANDARD CUT WASHER BETWEEN THE ANCHOR BOLT NUT AND THE HOLDOWN AT HD19 PER IAPMO ER-143.
5. MACHINE BOLTS SHALL BE A307, 45/ksi BOLTS PER SECTION 3.2.3.1 OF IAPMO ER-143. PROVIDE STANDARD CUT WASHER BETWEEN THE POST AND THE NUTS OF THE THRU BOLT AT HD19 PER 1APMO143.
6. POST SIZE NOTED IS MINIMUM POST SIZE. USE BIGGER POST WHERE SHOWN ON PLAN / DETAILS.
7. SEE 8 AT POST WITH MULTIPLE HOLDOWNS



BASE PLATES AND BOLTS SCHEDULE							
SIMPSON HOLDOWN (ICC-ESR-2330) IAPMO ER-143)	F1554 ANCHOR ROD			ATTACHMENT TO POST			
	SIZE	PL WASHER	EMBED 'L' SEE NOTE 3	SIZE	QUANTITY	MIN POST SIZE SEE NOTE 6	NOTES
HDU2 - SDS2.5	5/8"Ø	4x4x3/8	6"	SDS1/4x2.1/2	6	4x4 / 4x6	1
HDU4 - SDS2.5	5/8"Ø	4x4x3/8	7"	SDS1/4x2.1/2	10	4x4 / 4x6	1
HDU5 - SDS2.5	5/8"Ø	4x4x3/8	7"	SDS1/4x2.1/2	14	4x4 / 4x6	1
HDU8 - SDS2.5	7/8"Ø	4x4x3/8	10 1/2"	SDS1/4x2.1/2	20	4x4 / 6x6	1
HDU11 - SDS2.5	1"Ø	4x4x1/2	13"	SDS1/4x2.1/2	30	4x6 / 6x6	1,2
HDU14 - SDS2.5	1"Ø	4x4x1/2	15"	SDS1/4x2.1/2	36	4x8 / 6x6	1,2
HD19	1 1/4"Ø	4x4x1/2	18"	1"Ø BOLTS	5	4x8 / 6x6	1,4,5

TYPICAL HOLDOWN SCHEDULE

SCALE: NTS

4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

Tel: (949) 748-7170

PETER SARKIS
No. 5038
Exp. 6/30/23

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2021-101_R21
SCALE	AS NOTED
PM	
DATE	Issue Date
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△	
△	

TYPICAL SHEAR WALL DETAILS

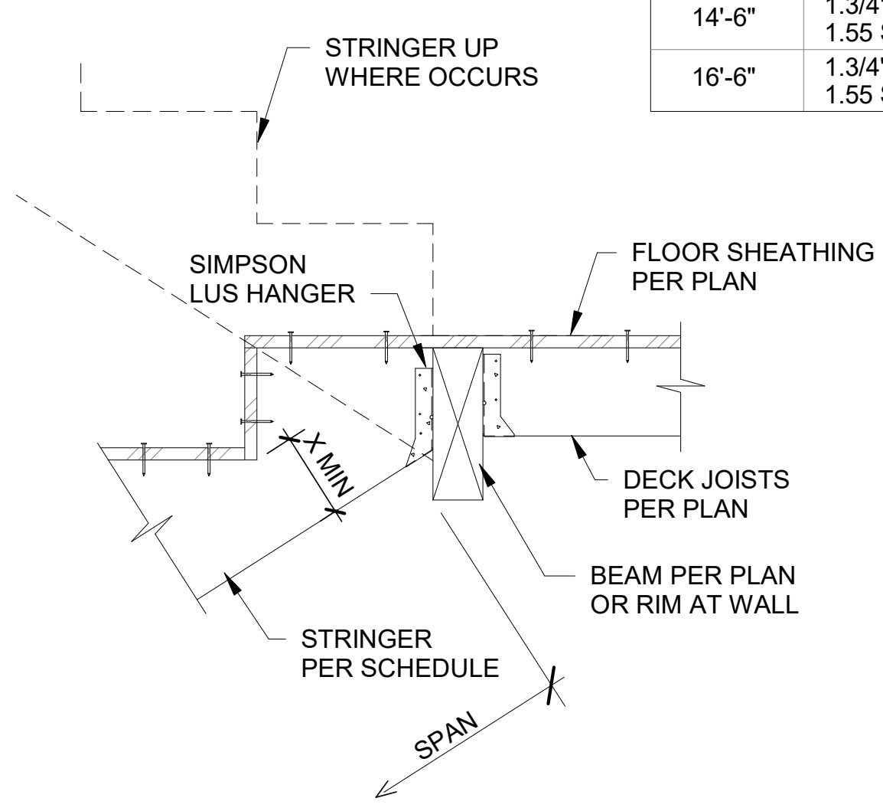
PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S621

Project #: 2021-101_R21 Plot Date: 1/17/2023 1:11:10 PM

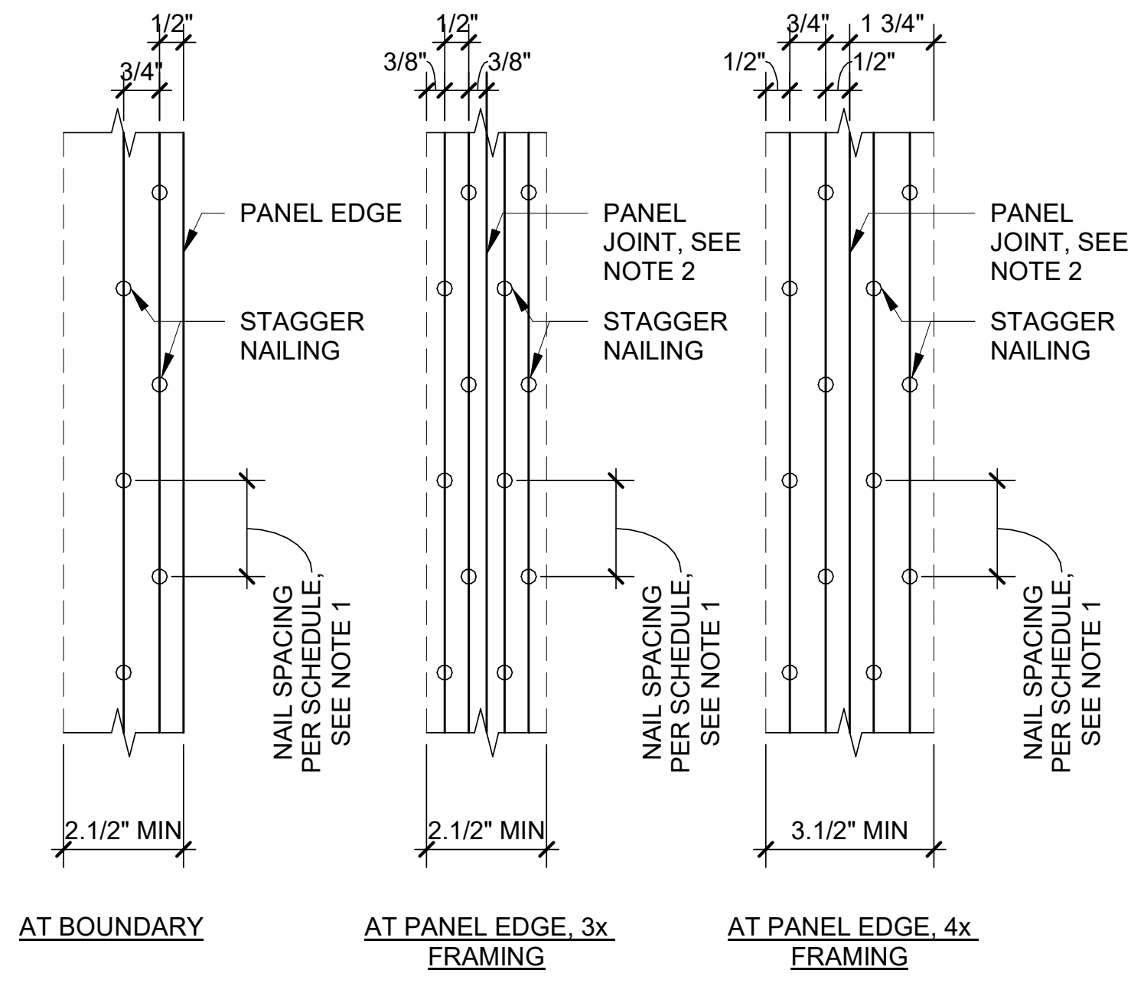
STAIR STRINGER SCHEDULE			
MAX SPAN	STRINGER	SPACING	X
10'-0"	1.3/4" LSL 1.55 SE LSL	16" OC	6"
11'-0"	1.3/4" LSL 1.55 SE LSL	12" OC	6"
12'-6"	1.3/4" LSL 1.55 SE LSL	12" OC	7"
14'-6"	1.3/4" LSL 1.55 SE LSL	12" OC	8"
16'-6"	1.3/4" LSL 1.55 SE LSL	12" OC	9"



WOOD STAIR LANDING

SCALE: NTS

13



NOTES:
1. WHEN THE DIAPHRAGM NAILING SPACING IS 3" OR LESS, STAGGER NAILS IN A ROW AS SHOWN AND PROVIDE MIN 3" NOMINAL FRAMING AT ADJOINING PANEL EDGES PER CBC 2306.2.1(1).
2. SPACE PANEL END AND EDGE JOINT 1/8". REDUCE SPACING BETWEEN LINES OF NAILS AS NECESSARY TO MAINTAIN MINIMUM 3/8" FASTENER EDGE MARGINS, MINIMUM SPACING BETWEEN LINES IS 3/8".

TYPICAL SHEATHING DIAPHRAGM NAILING

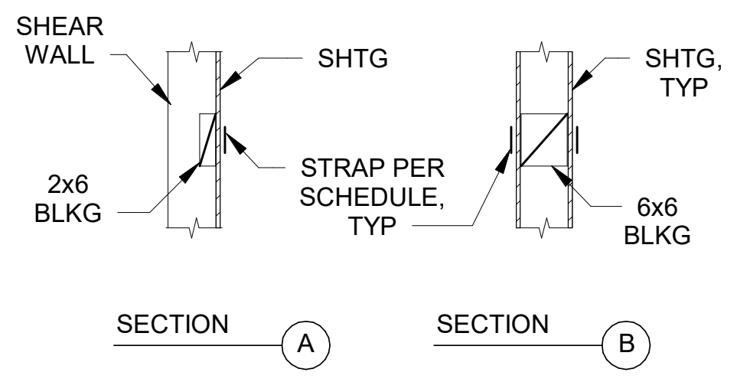
DETAIL WHERE NAILING SPACING IS 3" OR LESS

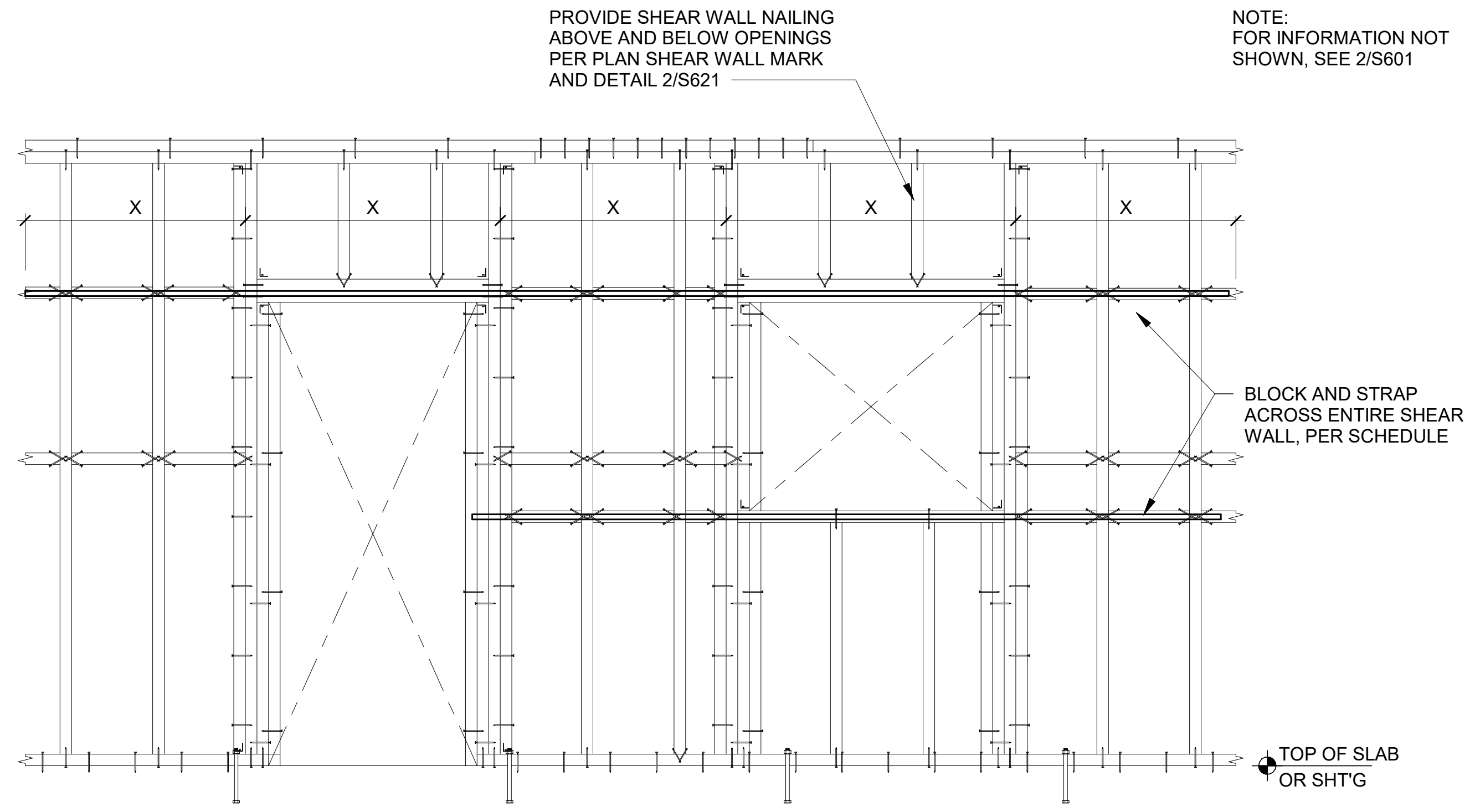
3" = 1'-0"

9

MARK	STRAP	SEE SECTION:	# OF NAILS OVER LENGTH 'X'
Ⓐ	CMST14	A	(76) 10d
Ⓑ	CMST12	A	(76) 10d
Ⓒ	(2) CMST12	B	(112) 10d PER STRAP

EVENLY DISTRIBUTE # OF NAILS OVER LENGTH 'X'





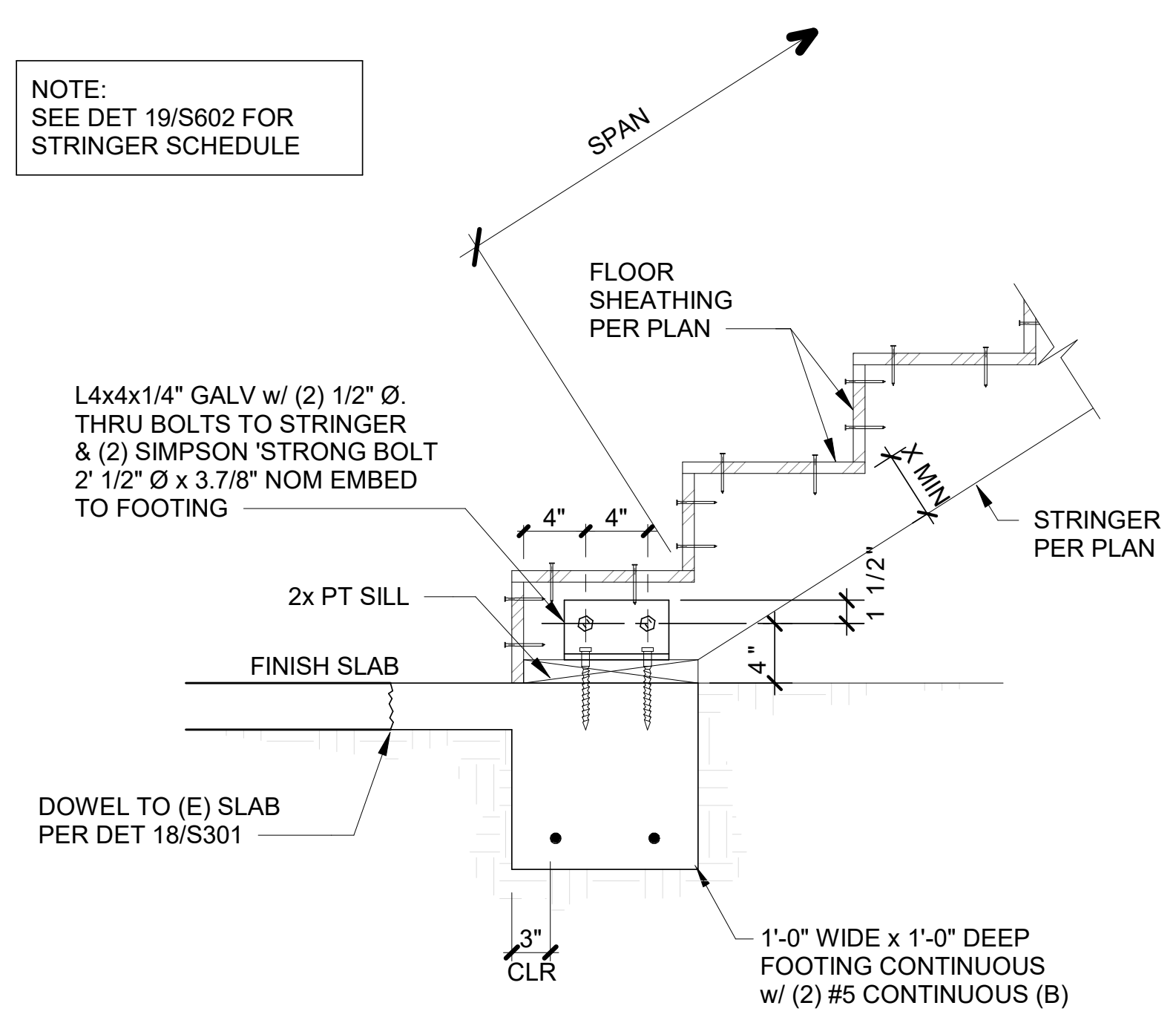
NOTE:
FOR INFORMATION NOT SHOWN, SEE 2/S601

FORCE TRANSFER AROUND OPENING SHEAR WALL

SCALE: NTS

1

NOTE:
SEE DET 19/S602 FOR STRINGER SCHEDULE

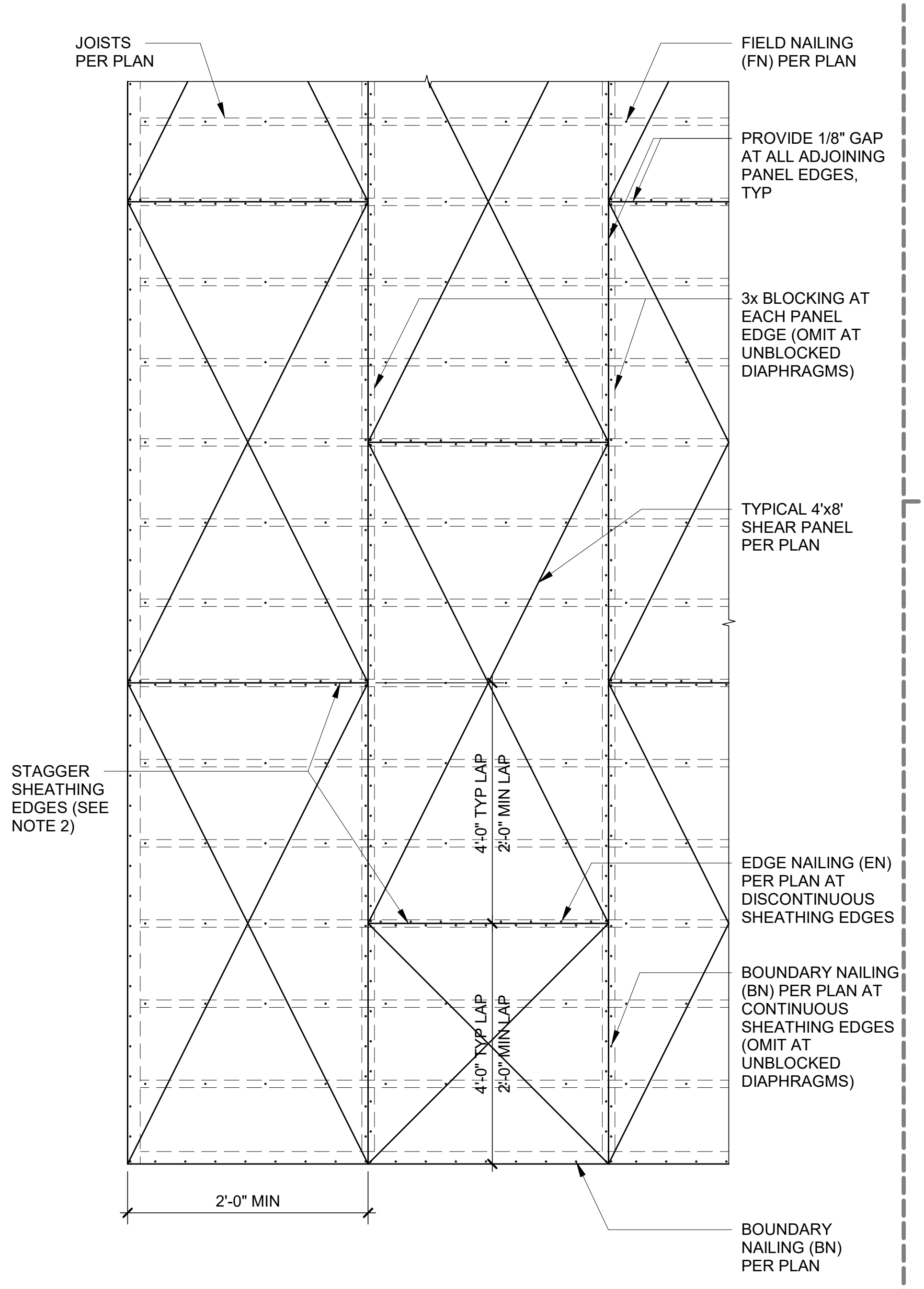


STAIR BASE CONNECTION

SCALE: NTS

14

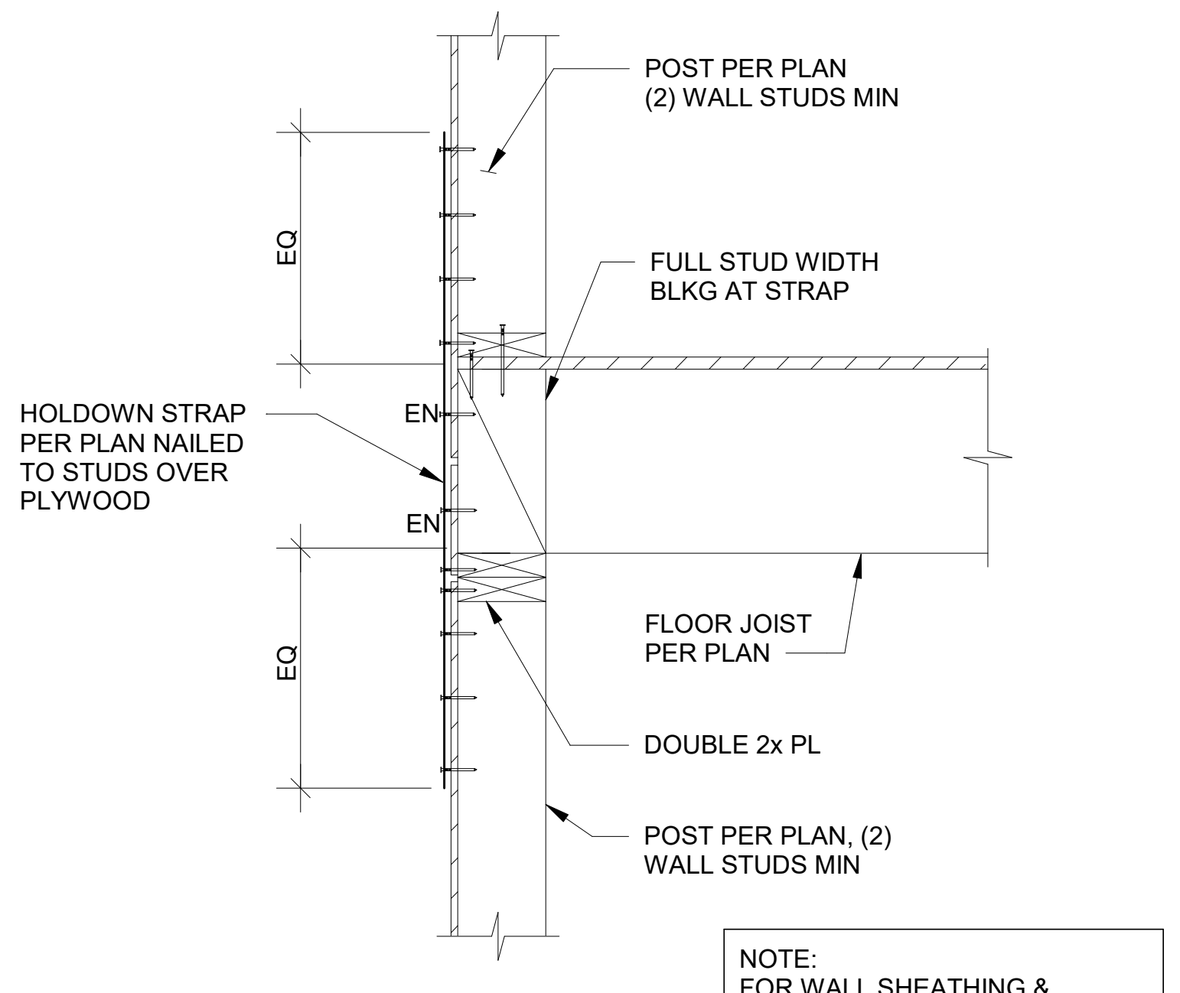
NOTES:
1. PROVIDE NAIL SIZE & SPACING AS NOTED ON PLANS.
2. ALL SHEATHING END JOINTS SHALL BE STAGGERED 2'-0" MIN AS INDICATED.
3. FACE GRAIN & LONG DIMENSION OF SHEATHING SHALL BE LAID PERPENDICULAR TO JOISTS.
4. PROVIDE 3/8" MIN EDGE DISTANCE FOR SHEATHING EDGE NAILING.
5. PROVIDE FRAMING OR BLOCKING UNDER ALL PANEL EDGES AT BLOCKED DIAPHRAGM.
6. USE BOUNDARY NAILING AT SHEAR WALLS, FRAMES & DRAG BEAMS.
7. NAIL AND GLUE FLOOR SHEATHING TO FRAMING MEMBERS.



TYPICAL SHEATHING NAILING

SCALE: NTS

11



NOTE:
FOR WALL SHEATHING & NAILING SEE PLAN & SCHEDULE

STRAP HD SCHEDULE					
STRAP TYPE	END LENGTH 'L1'	NAILS REQ'D WITHIN END LENGTH 'L1'	CAPACITY (KIPS)	LA CITY	EQUIVALENT HOLD DOWN @ FOUNDATION
CS14	16"	(30) 10d	2.49	1.87	HDU2
CD16	12"	(11) 10d	1.705	1.27	HDU2
(2) CS18	10"	(20) 10d	2.74	2.05	HDU2
(2) CS16	12"	(22) 10d	3.41	2.56	HDU4
CMST16	23"	(33) 16d SINKERS	4.59	3.44	HDU5
CMST14	30"	(38) 16d	6.49	4.86	HDU8
CMST12	39"	(50) 16d	9.22	6.92	HDU11

NOTES:

1 BASED ON LARR #25713 & ICC ESR #2105

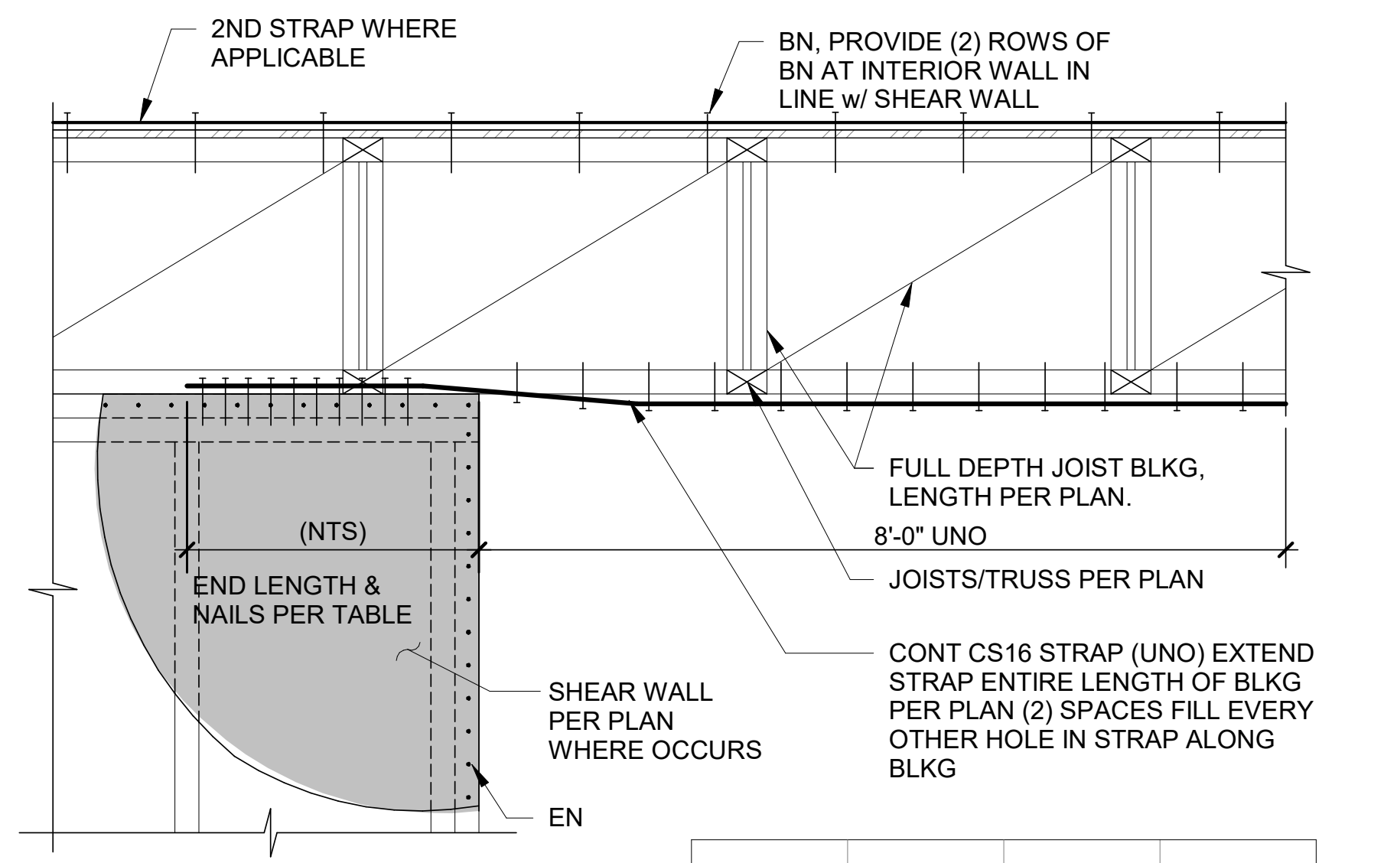
2 HOLD DOWN IS REQ'D AT FOUNDATION AT EACH FLOOR TO FLOOR STRAP / POST. SEE EQUIVALENT HD IN TABLE FOR HD'S TO FOUNDATION.

3 INSTALL STRAP OVER SHEATHING. SHEATHING EDGE NAILING REQ'D IN ADDITION TO STRAP NAILING.

HD STRAP BETWEEN FLOORS

SCALE: NTS

2



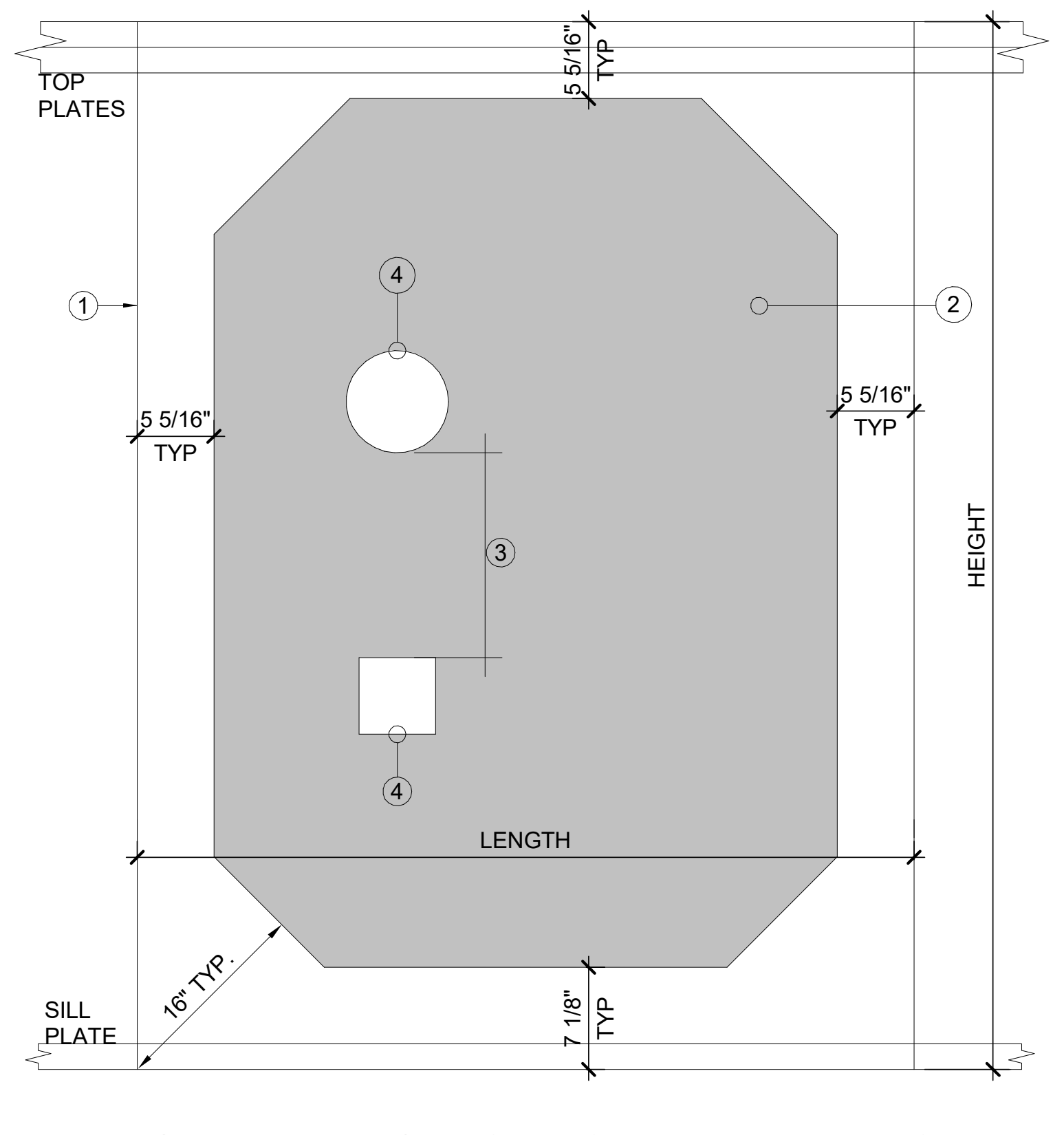
ENGINEER NOTE:
1. VERIFY CONNECTION BASED ON LOAD DEMAND
MSTI60 = 5070#
(2) CMST12 = 18430#
MSTC66 = 5850#
2. VALUES ARE FOR DOUGLAS FIR.
3. VALUES HAVE TO BE REDUCED FOR SEISMIC VALUES IN CERTAIN JURISDICTION

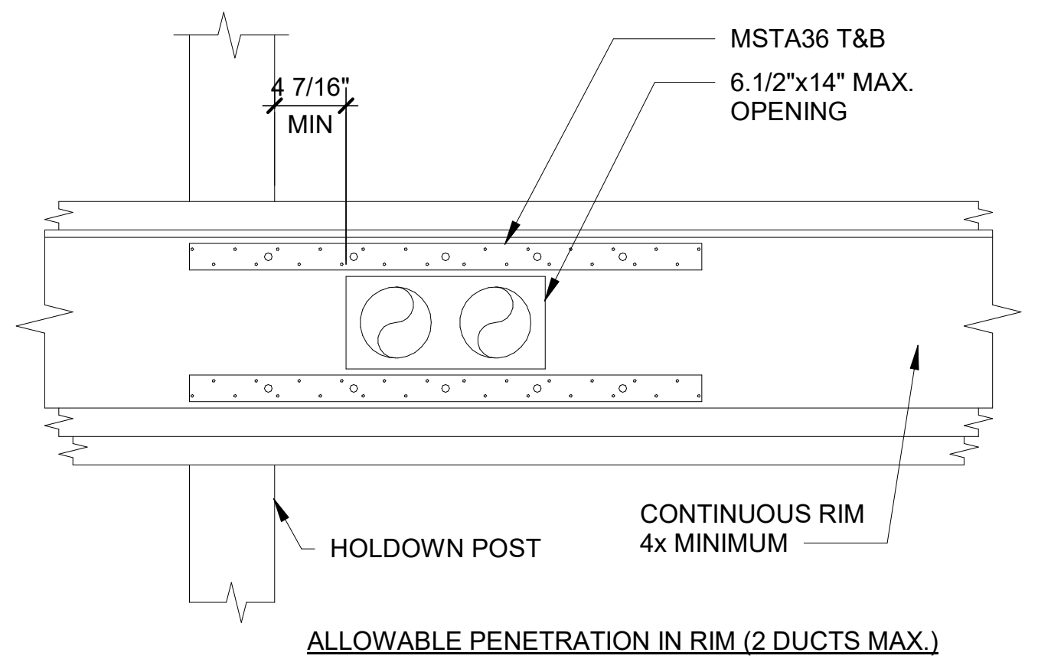
MARK	STRAP	END LENGTH	# OF NAILS
①	MSTI60	24"	(24) 10d
②	(2) CMST12	44"	(43) 10d
③	MSTC66	29"	(38) 10d

TYP DRAG STRAP AT END OF SHEAR WALL

1" = 1'-0"

3





ALLOWABLE PENETRATION IN RIM (2 DUCTS MAX.)

SEE DETAIL 14/S621 FOR ADDED REINF @ 3 DUCT PENTRATIONS

① STRUCTURAL SHEATHING PANEL PER PLAN.

② HOLES TO OCCUR ONLY IN CROSS-HATCHED REGION OF THE SHEATHING.

③ PROVIDE MINIMUM 16" IN ALL DIRECTIONS BETWEEN TWO SUCCESSIVE OPENINGS.

④ MAXIMUM SIZE OF ANY INDIVIDUAL OPENING IS 6" HIGH BY 6" LONG FOR SQUARE OPENNINGS AND 8" DIAMETER FOR CIRCULAR OPENINGS. HOLES ARE MEASURED FROM EDGE OF CUT TO EDGE OF CUT. DO NOT OVERCUT.

NOTE:
THE TOTAL COMBINED LENGTH OF ALL OPENINGS MUST BE LESS THAN 10% OF THE LENGTH OF THE SHEATHING SHOWN ON THE STRUCTURAL PLAN.
THE TOTAL COMBINED HEIGHT OF ALL OPENINGS MUST BE LESS THAN 10% OF THE HEIGHT OF SHEATHING (PLATE HEIGHT) SHOWN ON THE STRUCTURAL PLAN.

ALLOWABLE HOLES IN SHEAR PANEL & RIM

SCALE: NTS

8

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

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Tel: (949) 748-7170

PETER SARKIS
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VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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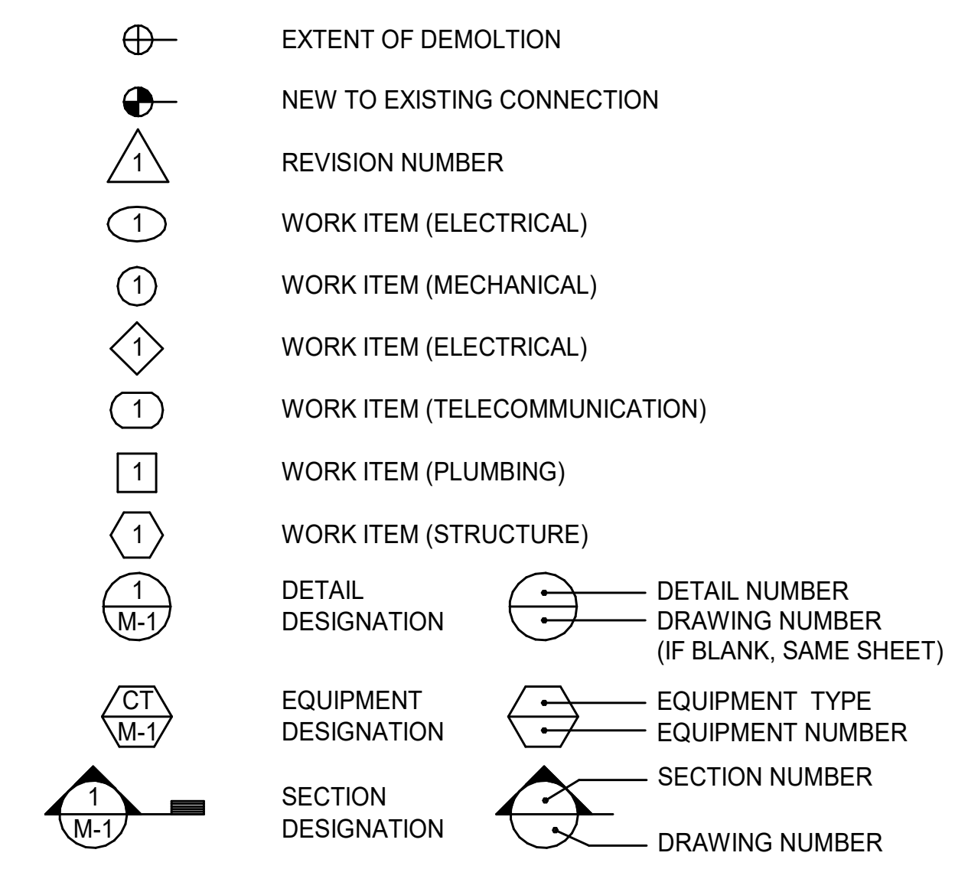
TYP WOOD DIAPHRAGM, SHEAR & DRAG CONNECTION DETAILS

PERKINS — EASTMAN

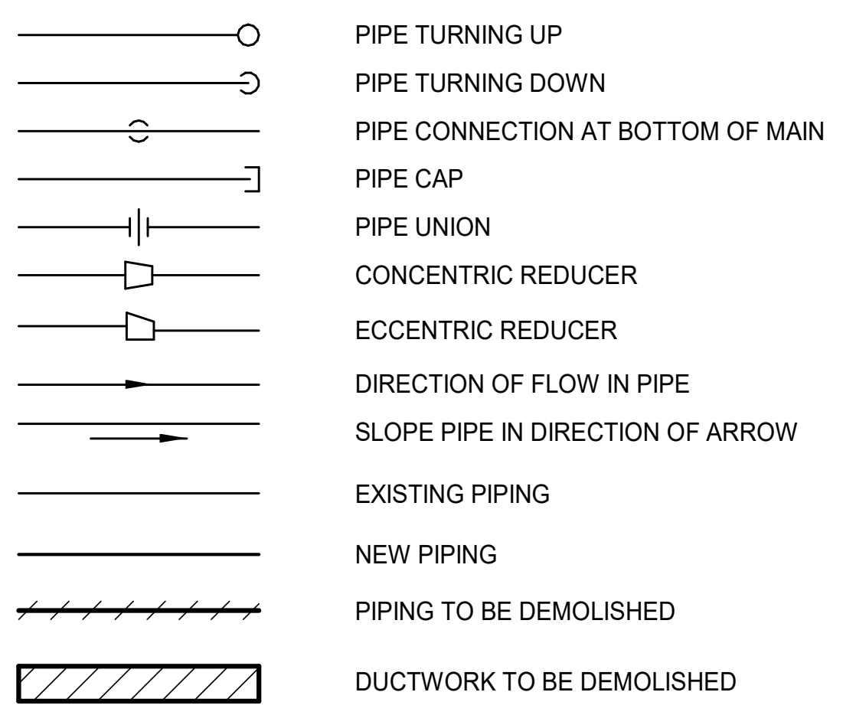
3194 D Airport Loop
Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.co

S622

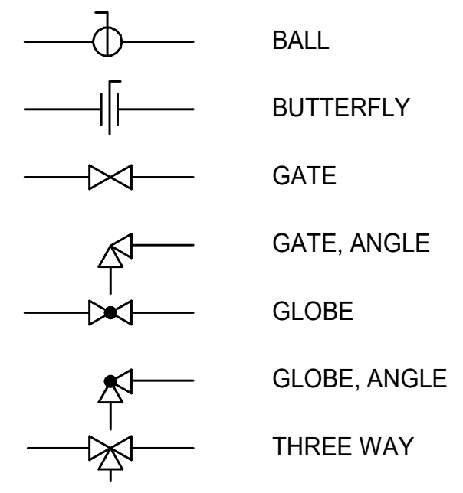
GENERAL SYMBOLS


- EXTENT OF DEMOLTION
- NEW TO EXISTING CONNECTION
- REVISION NUMBER
- WORK ITEM (ELECTRICAL)
- WORK ITEM (MECHANICAL)
- WORK ITEM (ELECTRICAL)
- WORK ITEM (TELECOMMUNICATION)
- WORK ITEM (PLUMBING)
- WORK ITEM (STRUCTURE)
- DETAIL DESIGNATION
- EQUIPMENT DESIGNATION
- SECTION DESIGNATION

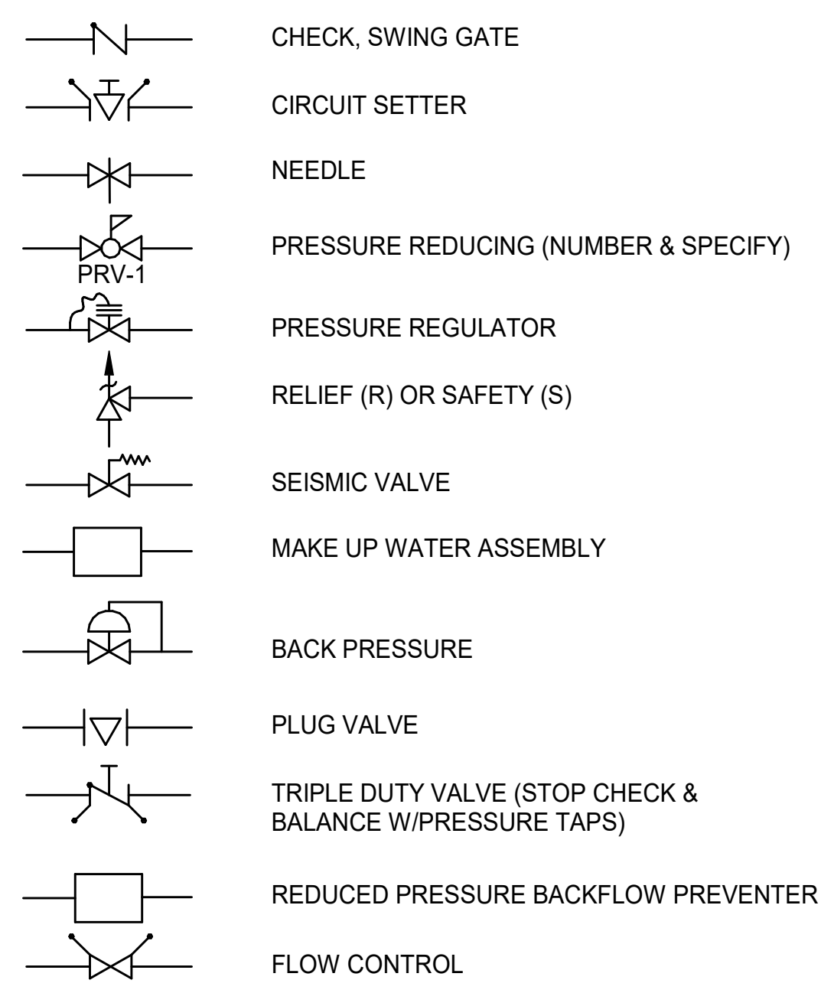
PIPING


- PIPE TURNING UP
- PIPE TURNING DOWN
- PIPE CONNECTION AT BOTTOM OF MAIN
- PIPE CAP
- PIPE UNION
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- DIRECTION OF FLOW IN PIPE
- SLOPE PIPE IN DIRECTION OF ARROW
- EXISTING PIPING
- NEW PIPING
- PIPING TO BE DEMOLISHED
- DUCTWORK TO BE DEMOLISHED

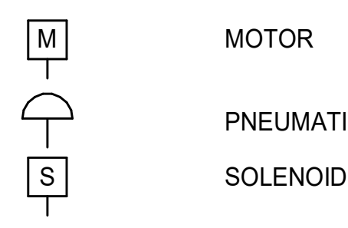
VALVES


- BALL
- BUTTERFLY
- GATE
- GATE, ANGLE
- GLOBE
- GLOBE, ANGLE
- THREE WAY

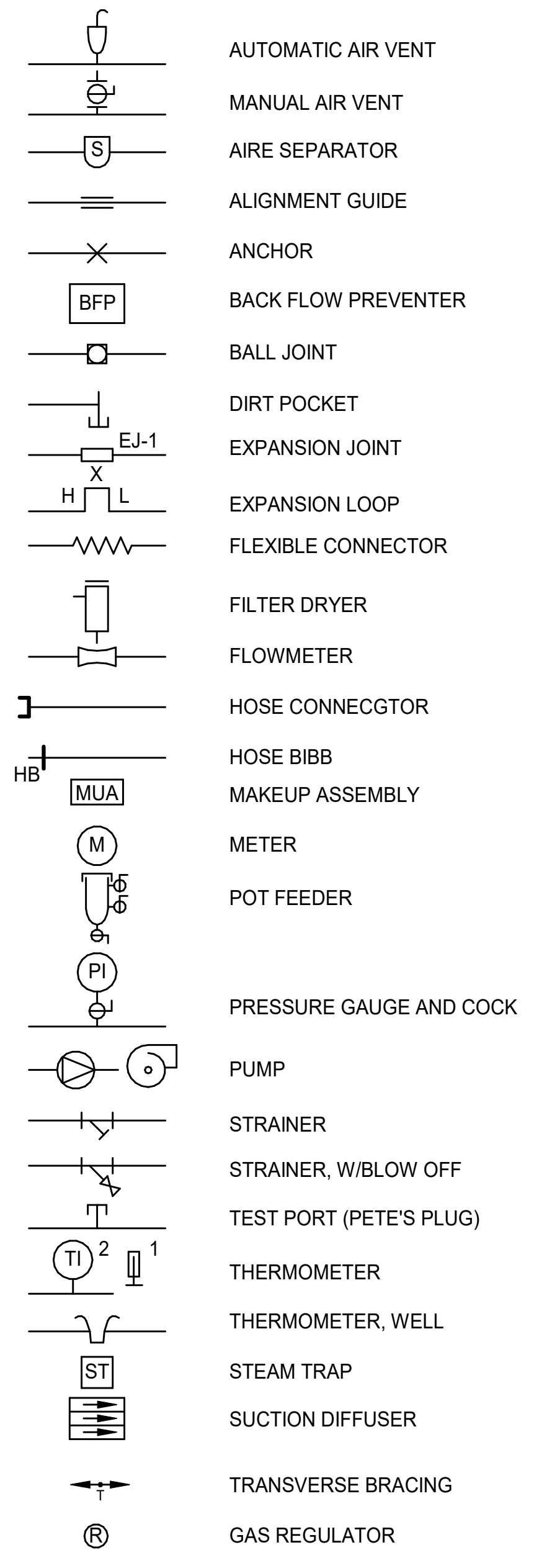
VALVES, SPECIAL DUTY


- CHECK, SWING GATE
- CIRCUIT SETTER
- NEEDLE
- PRESSURE REDUCING (NUMBER & SPECIFY)
- PRESSURE REGULATOR
- RELIEF (R) OR SAFETY (S)
- SEISMIC VALVE
- MAKE UP WATER ASSEMBLY
- BACK PRESSURE
- PLUG VALVE
- TRIPLE DUTY VALVE (STOP CHECK & BALANCE W/PRESSURE TAPS)
- REDUCED PRESSURE BACKFLOW PREVENTER
- FLOW CONTROL

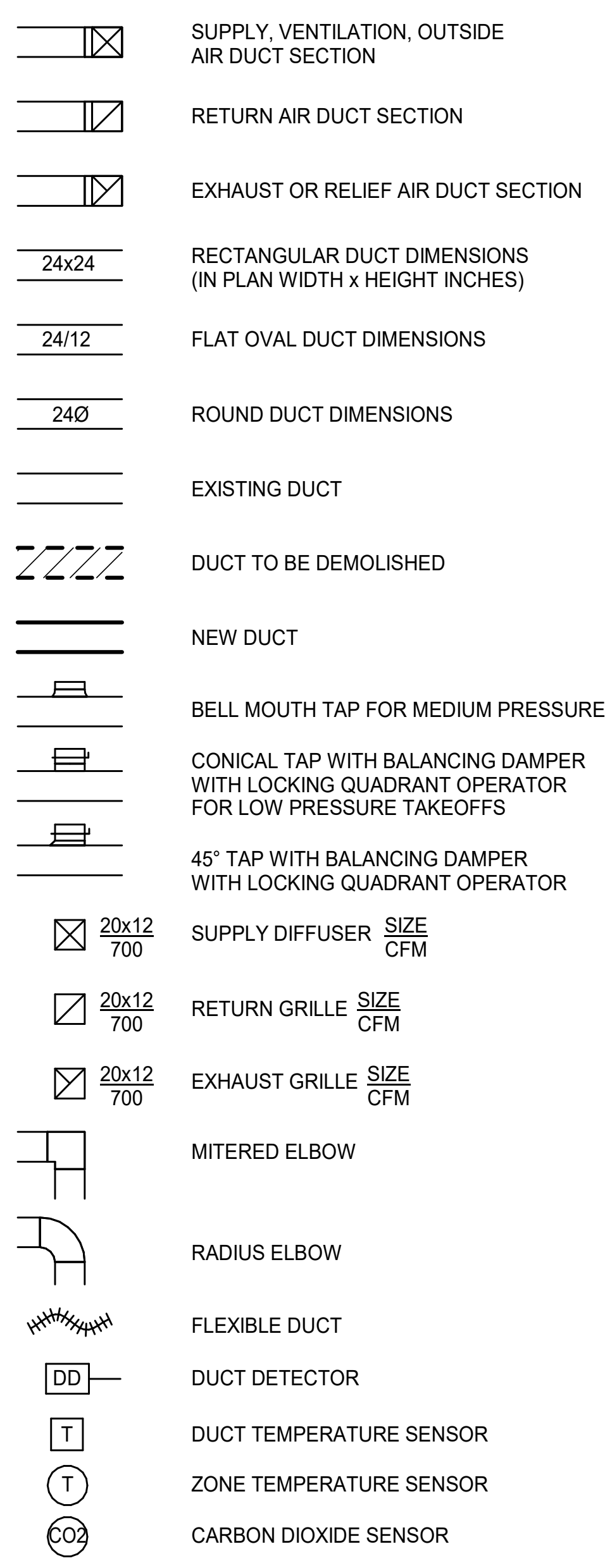
ACTUATORS


- MOTOR
- PNEUMATIC
- SOLENOID

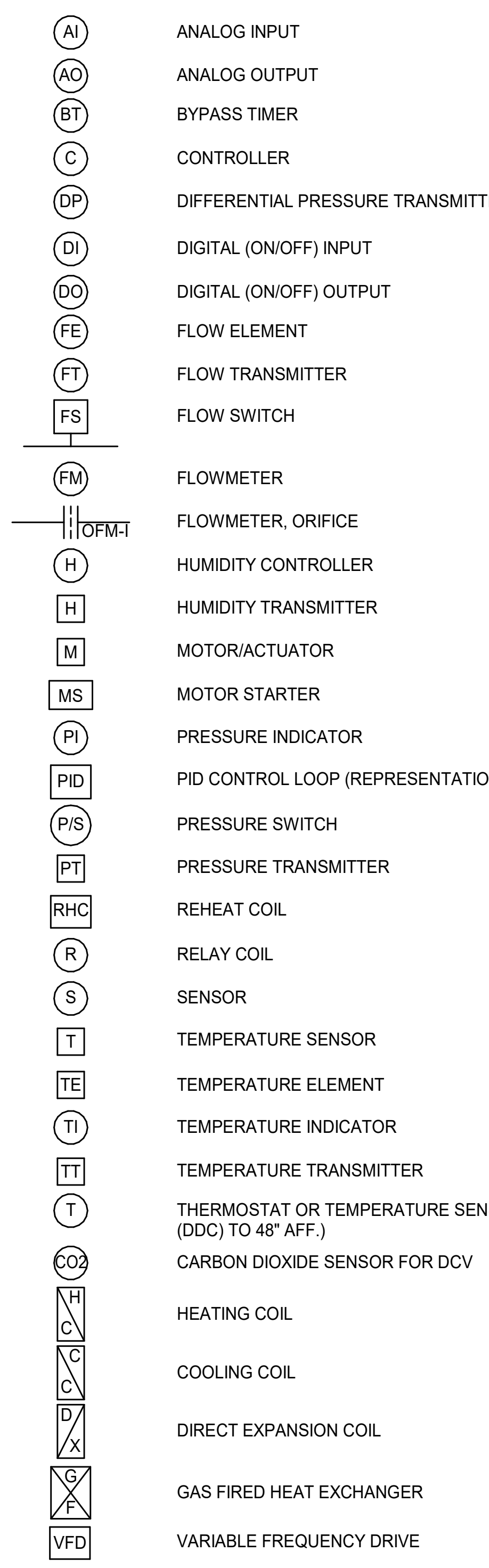
PIPING SPECIALTIES


- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- AIRE SEPARATOR
- ALIGNMENT GUIDE
- ANCHOR
- BACK FLOW PREVENTER
- BALL JOINT
- DIRT POCKET
- EXPANSION JOINT
- EXPANSION LOOP
- FLEXIBLE CONNECTOR
- FILTER DRYER
- FLOWMETER
- HOSE CONNECGTOR
- HOSE BIBB
- MAKEUP ASSEMBLY
- METER
- POT FEEDER
- PRESSURE GAUGE AND COCK
- PUMP
- STRAINER
- STRAINER, W/BLOW OFF
- TEST PORT (PETE'S PLUG)
- THERMOMETER
- THERMOMETER, WELL
- STEAM TRAP
- SUCTION DIFFUSER
- TRANSVERSE BRACING
- GAS REGULATOR

DUCTWORK SYMBOLS


- SUPPLY, VENTILATION, OUTSIDE AIR DUCT SECTION
- RETURN AIR DUCT SECTION
- EXHAUST OR RELIEF AIR DUCT SECTION
- RECTANGULAR DUCT DIMENSIONS (IN PLAN WIDTH x HEIGHT INCHES)
- FLAT OVAL DUCT DIMENSIONS
- ROUND DUCT DIMENSIONS
- EXISTING DUCT
- DUCT TO BE DEMOLISHED
- NEW DUCT
- BELL MOUTH TAP FOR MEDIUM PRESSURE
- CONICAL TAP WITH BALANCING DAMPER WITH LOCKING QUADRANT OPERATOR FOR LOW PRESSURE TAKEOFFS
- 45° TAP WITH BALANCING DAMPER WITH LOCKING QUADRANT OPERATOR
- SUPPLY DIFFUSER $\frac{\text{SIZE}}{\text{CFM}}$
- RETURN GRILLE $\frac{\text{SIZE}}{\text{CFM}}$
- EXHAUST GRILLE $\frac{\text{SIZE}}{\text{CFM}}$
- MITERED ELBOW
- RADIUS ELBOW
- FLEXIBLE DUCT
- DUCT DETECTOR
- DUCT TEMPERATURE SENSOR
- ZONE TEMPERATURE SENSOR
- CARBON DIOXIDE SENSOR

CONTROLS


- ANALOG INPUT
- ANALOG OUTPUT
- BYPASS TIMER
- CONTROLLER
- DIFFERENTIAL PRESSURE TRANSMITTER
- DIGITAL (ON/OFF) INPUT
- DIGITAL (ON/OFF) OUTPUT
- FLOW ELEMENT
- FLOW TRANSMITTER
- FLOW SWITCH
- FLOWMETER
- FLOWMETER, ORIFICE
- HUMIDITY CONTROLLER
- HUMIDITY TRANSMITTER
- MOTOR/ACTUATOR
- MOTOR STARTER
- PRESSURE INDICATOR
- PID CONTROL LOOP (REPRESENTATION)
- PRESSURE SWITCH
- PRESSURE TRANSMITTER
- REHEAT COIL
- RELAY COIL
- SENSOR
- TEMPERATURE SENSOR
- TEMPERATURE ELEMENT
- TEMPERATURE INDICATOR
- TEMPERATURE TRANSMITTER
- THERMOSTAT OR TEMPERATURE SENSOR (DDC) TO 48" AFF.)
- CARBON DIOXIDE SENSOR FOR DCV
- HEATING COIL
- COOLING COIL
- DIRECT EXPANSION COIL
- GAS FIRED HEAT EXCHANGER
- VARIABLE FREQUENCY DRIVE

ABBREVIATIONS

Ø	ROUND; DIAMETER; PHASE
#	POUNDS; NUMBER
@	AT
AAV	AUTOMATIC AIR VENT
AC	AIR CONDITIONING UNIT DESIGNATION
ACC	AIR COOLED CONDENSER
ACM	ABESTOS CONTAINING MATERIAL
ACP	ABESTOS CEMENT PIPE
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AIR HANDLER
AHU	AIR HANDLER UNIT
AHUC	AIR HANDLER UNIT CONTROLLER
AI	ANALOG INPUT
ALM	ALARM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AO	ANALOG OUTPUT
APD	AIR PRESSURE DROP (IN.W.G.)
ARCH	ARCHITECTRUAL
AS	AIR SEPARATOR
ASJ	ALL SERVICE JACKET
ASME	AMERIAN SOCIETY OF MECHANICAL ENGINEERS
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B	BOILER
BAS	BUILDING AUTOMATION SYSTEM
BAV	BALANCING VALVE
BDD	BACKDRAFT DAMPERS
BFP	BACKFLOW PREVENTER
BHP	BREAKE HORSEPOWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BTU	BRITISH THERMAL UNIT
BTUH	1000 BRITISH THERMAL UNITS PER HOUR
BUR	BUILT-UP ROOFING
BV	BALL VALVE
CA	COMPRESSED AIR
CC, C/C	COOLING COIL
CD	CONDENSATE DRAIN
CFF	CAP FOR FUTURE
CFM	CUBIC FEET PER MINUTE
CFT	CHEMICAL FEED TANK
CGWS/R	COGEN WATER SUPPLY/RETURN
CHCP	CHILLER CONTROL PANEL
CHW(R)(S)(T)	CHILLED WATER (RETURN)(SUPPLY)(TEMERATURE)
CLG	CEILING
CLR	CENTERLINE RADIUS
CO	CLEAN-OUT
CO2	CARBON DIOXIDE
COL	COLUMN
CONC	CONCRETE
CONN	CONNECT or CONNECTION
CONT	CONTINUATION
CONTR.	CONTRACTOR
CP	CONTROL PANEL
CR	CONDENSATE RETURN
CRAC	COMPUTER ROOM AIR CONDITIONER
CT	COOLING TOWER
CTL	CONTROL
CU	COPPER
CW	CITY WATER
CWP	CONDENSER WATER PUMP
CW(R)(S)(T)	CONDENSER WATER (RETURN)(SUPPLY)(TEMPERATURE)
D	DRAIN
D&LD	DEMOLISH & LEGALLY DISPOSE OF
DB	DRY BULB
DCV	DEMAND CONTROL VENTILATION
DCW	DOMESTIC CITY WATER
DDC	DIRECT DIGITAL CONTROL
DHW(R)	DOMENSTIC HOT WATER (RETURN)
DI	DISCRETE INPUT
DIA	DIAMETER
DISC	DISCONNECT
DN	DOWN
DO	DISCRETE OUTPUT
DP	DIFFERENTIAL PRESSURE
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSDUCER
DWDI	DOUBLE WIDTH, DOUBLE INLET
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DX	DIRECT EXPANSION
<E>	EXISTING
EA(T)	EXHAUST AIR (TEMPERATURE)
EAD	EXHAUST AIR DUCT
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EJ	EXPANSION JOINT
EL	EXPANSION LOOP
ELEV	ELEVATION
ELEC	ELECTRICAL
EMCS	ENERGY MANGEMENT& CONTROL SYSTEM
EMS	ENERGY MANGEMENT SYSTEM
EOD	EXTEND OF DEMOLTION
E/P	ELECTRO/PNEMATIC TRANSDUCER
EQ	EQUAL
EQUIP.	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE (IN.W.G.)
ET	EXPANSION TANK
EWS	EMERGENCY EYEWASH AND SHOWER
EWT	ENTERING WATER TEMPERATURE
<F>	FUTURE
F	FAHRENHEIT
F&I	FURNISH AND INSTALL
FA	FACE AREA
FAF	FORCED AIR FURNACE
FC	FLEXIBLE CONNECTION
FCO	FLOOR CLEAN OUT
FCU/FC	FAN COIL UNIT
FD	FIRE DAMPER
FDC	FIRE DEPARTMENT CONNECTION
FDD	FLUE DISCHARGE DEFLECTOR
FGR	FUEL GAS REGULATOR
FHC	FIRE HOSE CABINET
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FLR	FLOOR
FM	FLOW METER
FOV	FUEL OIL VENT
FPF	FINS PER FOOT
FRP	FIRBER REINFORCED POLYMER
FS	FLOW SWITCH
FSD	COMBINATION FIRE AND SMOKE DAMPER
FT	FLOW TRANSMITTER OR FEET
FW	FIRE WATER
G	GAS
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GF	GAS FURNACE
GPM	GALLONS PER MINUTE
GSM	GALVANIZED SHEET METAL
GV	GATE VALVE
H	HUMIDIFIER
HB	HOSE BIBB
HC	HEATING COIL
HDR	HEADER
HGR	HANGER
HHW(R)(S)(T)(P)	HEATING HOT WATER (RETURN)(SUPPLY)(PUMP)(TEMPERATURE)
HP	HEAT PUMP
HPCR	HIGH PRESSURE
HT	HEIGHT
HVAC	HEATING VENTILATING AND AIR CONDITIONING
HWP	HOT WATER PUMP
HX	HEAT EXCHANGER
HZ	HERTZ: CYCLES PER SECOND
IA	INSTRUMENT AIR
ICW	INDUSTRIAL COLD WATER
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN.	INCH
IN.W.G.	INCHES WATER GAUGE
IRL	IRRIGATION LINE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LPS	LOW PRESSURE STEAM
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE
MA(T)	MIXED AIR (TEMPERATURE)
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	1,000 BTU PER HOUR
MCC	MOTOR CONTROL CENTER
MD	MANUAL VOLUMN DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MMBTUH	MILLIONS BTU PER HOUR
MOCP	MAXIMUM OVER CURRENT PROTECTION
MOT	MOTORIZED
MPG	MEDIDUM PRESSURE GAS
MR	MECHANICAL ROOM
MT, MTD, MTG	MOUNT, MOUTED, MOUNTING
MUA	MAKE-UP AIR
<N>	NEW
N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
N.O.	NORMAL OPEN
NPSH(R)	NET POSITIVE SUCTION HEAD (REQUIRED)
N.T.S.	NOT TO SCALE
OA(G)	OUTSIDE AIR (GRILLE)
OA(T)	OUTSIDE AIR (TEMPERATURE)
OAD	OUTSIDE AIR DAMPER
OAI	OUTSIDE AIR INTAKE
OBD	OPPOSED BLADE DAMPER
O.C.	ON CENTER
OS&Y	OUTSIDE STEM & YOKE GATE VALVE
OV	OUTLET VELOCITY
OWS	OPERATOR'S WORK STATION
P	PUMP
PCHW(R)(S)(T)	PRIMARY CHW (RETURN)(SUPPLY)(TEMPERATURE)
PCHWP	PRIMARY CHW PUMP
PCR	PUMPED CONDESATE RETURN
PD	PRESSURE DROP
PE	PNEUMATIC TO ELECTRIC RELAY
PEC	PROGRAMMABLE EQUIPMENT CONTROLLER
PG	PIPE GUIDE
PHW(R)(S)	PRIMARY HOT WATER (RETURN)(SUPPLY)
P&ID	PROCESS & INSTRUMENTATION DIAGRAM
PIV	POST INDICATING VALVE
PLY OR PLYWD	PLYWOOD
POC	POINT OF CONNECTION
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PSI(G)	POUNDS PER SQUARE INCHE (GUAGE)
PS-N	PIPE SUPPORT DESIGNATION
PTDF	PRESSURE TREATED DOUGLAS FIR
PVC	POLYVINYL CHLORIDE
R	RELAY
<RR>	REMOVE AND RELOCATE
<REL>	RELOCATED
RA	RETURN AIR
RAD	RETURN AIR DUCT
RAG	RETURN AIR GRILLE
RA(T)	RETURN AIR (TEMPERATURE)
RD	ROOF DRAIN
REQ'D	REQUIRED
RF	RETURN AIR FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RIM	RIM ELEVATION
RIP	RETIRED-IN-PLACE
RLA	RATED LOAD AMPS
RO	REVERSE OSMOSIS
RPM	REVOLUTION PER MINUTE
RW	RECLAIMED WATER
RWL	RAIN WATER LEADER
SAD	SUPPLY AIR DUCT
S.A.D.	SE ARCHITECTURAL DRAWINGS
SAG	SUPPLY AIR GRILLE
SA(T)	SUPPLY AIR (TEMPERATURE)
SCBA	SELF-CONTAINED BREATHING APPARATUS
S.C.D.	SEE CIVL DRAWINGS
SCHW(R)(S)(T)	SECONDARY CHW (RETURN)(SUPPLY)(TEMPERATURE)
SCHWP	SECONDARY CHW PUMP
S.E.D.	SEE ELECTRICAL DRAWINGS
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SENS	SENSIBLE
SF	SUPPLY FAN
SHHW(R)(S)(T)	SECONDARY HEATING HOT WATER (RETURN)(SUPPLY)(TEMPERATURE)
SHP	SPLIT HEAT PUMP
SIM	SIMILAR
S.L.D.	SEE LANDSCAPE DRAWINGS
SM	SHEET METAL
SOLV	SOLENOID VALVE
SP	STATIC PRESURE
SPD	SPEED
S.P.D.	SEE PLUMBING DRAWINGS
SPECS	SPECIFICATIONS
SRV	SAFETY RELIEF VALVE
SS	SANITARY SEWER
S/S	START/STOP
S.S.D.	SEE STRUCTURAL DRAWINGS
SST	STAINLESS STEEL
ST	SOUND TRAP
STD	STANDARD
STM	STEAM
STRUCT	STRUCTURAL
STS	STATUS
SW	SWITCH
SXR	SQUARE TO ROUND TRANSITION
T	THERMOSTAT OR TEMERATURE SENSOR (DDC)
TBA	TO BE ABANDONED
TBR	RO BE REMOVED
TCHW(R)(S)(T))	TERTIARY CHW (RETURN)(SUPPLY)(TEMERATURE)
TCHWP	TERTIARY CHW PUMP
TCP	TEMPERATURE CONTROL PANEL
TDH	TOTAL DYNAMIC HEAD
TDV	TRIPLE DUTY VALVE
TEMP	TEMPERATURE
TI	TEMPERATURE INDICATOR
TOD	TOP OF DUCT
TP	TEST PLUG (PETE'S PLUG)
TR	THROUGH ROOF
TRANS	TRANSITION
TS	TEMPERATURE SENSOR
TSP	TOTAL STATIC PRESSURE (IN.W.G.)
TUC	TERMINAL UNIT CONTROLLER
TYP	TYPICAL
UH	UNIT HEATER
U.O.N.	UNLESS OTHERWISE NOTED
V OR VT	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VFD	FARIABLE FREQUENCEY DRIVE
VSD	VARIABLE SPEED DRIVE
VI	VIBRATION ISOLATOR
V.I.F.	VERIFY IN FIELD
VR	VENT RISER
W	WASTE
W/	WITH
WB	WET BULB
WC	WATER COLUMN
WP	WEATHER PROOF
WPD	WATER PRESSURE DROP (FT WATER)
WT	WEIGHT
XFMR	TRANSFORMER
XMTR	TRANSMITTER

SUMMARY OF WORK

1. INSTALL TEN (10) HEAT PUMPS ON ROOF WITH VIBRATION ISOLATION CURBS. INSTALL DUCTWORK DOWN THRU ROOF AND ROUTE ABOVE CEILING TO SPACES.
2. INSTALL TEN (10) SPLIT DX HEAT PUMPS ON ROOF AND ROUTE REFRIGERANT LINES DOWN TO CORRESPONDING FAN COIL UNIT.
3. INSTALL EIGHT (8) HORIZONTAL DUCTED FAN COIL UNITS ABOVE CEILING WITH VIBRATION ISOLATION. ROUTE REFRIGERANT LINES FROM CORRESPONDING SPLIT DX HEAT PUMP.
4. INSTALL TWO (2) WALL MOUNTED FAN COIL UNITS FOR MDF AND IDF ROOMS. ROUTE REFRIGERANT LINES FROM CORRESPONDING SPLIT DX HEAT PUMP.
5. INSTALL FIVE (5) EXHAUST FANS ON ROOF WITH CURBS. INSTALL EXHAUST AIR DUCT ROUTED ABOVE CEILING TO SPACES.
6. TEST & BALANCE HVAC EQUIPMENT AND SUBMIT REPORT FOR REVIEW.
7. COORDINATE WITH 3RD PARTY COMMISSIONING AGENT TO TEST AND COMMISSION HVAC EQUIPMENT AND PRODUCT ALL DOCUMENTATION REPORTS.

SCHOOL EQUIPMENT ANCHORAGE

M/E/P 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 2019 CBC SECTION 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE 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 CONNECTION 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 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 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 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., OSHPD 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: DETAIL ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP ☐ MD ☐ PP ☐ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # .

SHEET INDEX

SHEET NO.	DESCRIPTION
M001	MECHANCIAL SYMBOLS & ABBREVIATIONS
M002	MECHANICAL TITLE 24
M003	MECHANICAL TITLE 24
M004	MECHANICAL TITLE 24
M005	MECHANICAL TITLE 24
M101	MECHANICAL FIRST FLOOR PLAN - DUCT
M141	MECHANICAL ROOF PLAN
M501	MECHANICAL DETAILS
M502	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES
M602	MECHANICAL SCHEDULES
M701	MECHANICAL CONTROLS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL.31, 202

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

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MECHANCIAL SYMBOLS &
ABBREVIATIONS

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www.perkinseastman.com

M001

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.			
Project Name:	Gateway Annex	**Report Page:**	**(Page 1 of 40)**
Project Address:	550 Airport Way	**Date Prepared:**	11/3/2022

A. GENERAL INFORMATION

01	Project Location (city)	Camarillo	04	Total Conditioned Floor Area	15816
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1
☒ Office (B)		☐ Retail (M)	☒ Non-refrigerated Warehouse (S)		
☐ Hotel/ Motel Guest Rooms (R-1)		☐ School (E)	☐ Healthcare Facility (I)		
☐ High-Rise Residential (R-2/R-3)		☐ Relocatable Class Bldg (E)	☒ Other (write in)		See Table J

B. PROJECT SCOPE

This table Includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

01		02		03	
Air System(s)		Wet System Components		Dry System Components	
☒	Heating Air System	☐	Water Economizer	☒	Air Economizer
☒	Cooling Air System	☐	Pumps	☐	Electric Resistance Heat
Mechanical Controls		☐	System Piping	☒	Fan Systems
☒	Mechanical Controls (existing to remain, altered or new)	☐	Cooling Towers	☒	Ductwork (existing to remain, altered or new)
		☐	Chillers	☒	Ventilation
		☐	Boilers	☐	Zonal Systems/ Terminal Boxes

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Gateway Annex	**Report Page:**	**(Page 2 of 40)**
Project Address:	550 Airport Way	**Date Prepared:**	11/3/2022

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01		02		03		04		05		06		07		08	09
System Summary §110.1, §110.2, §140.4	AND	Pumps §140.4(k)	AND	Fans/ Economizers §140.4(c), §140.4(e)	AND	System Controls §110.2, §120.2, §140.4(f)	AND	Ventilation §120.1	AND	Terminal Box Controls §140.4(d)	AND	Distribution §120.3, §140.4(l)	AND	Cooling Towers §110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
No	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		DOES NOT COMPLY
Mandatory Measures Compliance (See Table Q for Details)										COMPLIES					

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Gateway Annex	**Report Page:**	**(Page 3 of 40)**
Project Address:	550 Airport Way	**Date Prepared:**	11/3/2022

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

This table is used to demonstrate compliance for mechanical equipment with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4(a), §140.4(b) and §140.4(k) or §141.0(b)2 for alterations.

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 / Title 20	Smallest Size Available[1] §140.4(a)	Equipment Sizing per Mechanical Schedule (kBtu/h) §140.4 (a&b)						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
FCU-SHP-1	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	9.89	15	0	11.83	10.8	8.43	8.83
FCU-SHP-2	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	9.89	15	0	10.9	10.8	11.32	11.55
FCU-SHP-3	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	7.91	12	0	8.62	7.92	8.22	6.87
FCU-SHP-4	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	9.89	15	0	11.52	10.8	7.67	8.66
FCU-SHP-5	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	11.86	18	0	13.97	13.5	10.11	10.69
FCU-SHP-6	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	7.91	12	0	8.68	7.92	3.86	5.34
FCU-SHP-7	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	9.89	15	0	11.07	10.8	12.66	13.45
FCU-SHP-8	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	9.89	15	0	11.99	10.8	5.54	11.33
FCU-SHP-IDF	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	9.89	15	0	11.81	10.8	0.08	1.69

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)

01	02	03	04	05	06	07	08	09	10	11
FCU-SHP-MDF	Unitary Heat Pumps	Air-cooled, pkg (1phase)	NA: Load Controls	12.52	19	0	14.18	12.24	0.08	1.69
HP-1	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	21.09	32	0	0	0.03	42.42	41.18
HP-2	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	21.09	32	0	0	0.03	41.69	40.78
HP-3	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	21.09	32	0	0	0.03	41.34	40.69
HP-4	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	21.09	32	0	0	0.03	43.32	41.15
HP-5	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	28.07	42.6	0	38.14	35.2	40.47	42.2
HP-6	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	28.07	42.6	0	38.18	35.2	35.8	38.54
HP-7	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	28.07	42.6	0	38.47	35.2	40.33	45
HP-8	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	28.07	42.6	0	39.37	35.2	81.56	80.7
HP-9	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	28.07	42.6	0	35.46	35.2	29.02	45.01
HP-A	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	NA: Load Controls	159.35	241.8	0	179.01	157.3	375.15	350.78

[1] FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per §140.4(a). Healthcare facilities are excepted.

[2] It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.

[3] If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.

[4] Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b).

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode				Cooling Mode		
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
FCU-SHP-1	<65,000		HSPF	7.7	8.2	SEER	14.0	19.5
FCU-SHP-2	<65,000		HSPF	7.7	8.2	SEER	14.0	19.5
FCU-SHP-3	<65,000		HSPF	7.7	8.2	SEER	14.0	19.5
FCU-SHP-4	<65,000		HSPF	7.7	8.2	SEER	14.0	19.5
FCU-SHP-5	<65,000		HSPF	7.7	8.2	SEER	14.0	19.2
FCU-SHP-6	<65,000		HSPF	7.7	8.2	SEER	14.0	19.5
FCU-SHP-7	<65,000		HSPF	7.7	8.2	SEER	14.0	19.5
FCU-SHP-8	<65,000		HSPF	7.7	8.2	SEER	14.0	19.5
FCU-SHP-IDF	<65,000		HSPF	7.7	8.2	SEER	14.0	19.5
FCU-SHP-MDF	<65,000		HSPF	7.7	8.2	SEER	14.0	18.5
HP-1	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-2	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-3	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-4	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-5	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-6	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-7	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-8	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-9	<65,000		HSPF	7.7	8.2	SEER	13.0	16
HP-A	>=240,000		COP	3.2	8.2	EER IEER	9.5 10.6	9.7 12

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G. PUMPS

This section does not apply to this project.

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(e) and §140.4(m) for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name:	FCU-SHP-1	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	450	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			450	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

System Name:	FCU-SHP-2	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	450	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			450	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	FCU-SHP-3	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	320	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			320	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

System Name:	FCU-SHP-4	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	450	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			450	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

System Name:	FCU-SHP-5	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	540	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			540	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	FCU-SHP-6	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	320	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			320	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

System Name:	FCU-SHP-7	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	450	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			450	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

System Name:	FCU-SHP-8	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	450	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			450	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	FCU-SHP-IDF	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	450	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			450	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

System Name:	FCU-SHP-MDF	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	380	BHP	0.1	NA	NA
Total System Design Supply Airflow (CFM):			380	Total System Design (B)HP:	0.1	**Maximum System Fan Power (B)HP:**	

System Name:	HP-1	**Economizer:[1]**	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1150	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1150	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	

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DATE: 02/21/2023

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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	HP-2	**Economizer:**[1]	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1150	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1150	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	
System Name:	HP-3	**Economizer:**[1]	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1150	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1150	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	
System Name:	HP-4	**Economizer:**[1]	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1150	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1150	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	

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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	HP-5	**Economizer:**[1]	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1450	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1450	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	
System Name:	HP-6	**Economizer:**[1]	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1450	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1450	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	
System Name:	HP-7	**Economizer:**[1]	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1450	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1450	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	

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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	HP-8	**Economizer:**[1]	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1450	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1450	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	
System Name:	HP-9	**Economizer:**[1]	NA: <=54 kBtu/h cooling	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	1450	BHP	0.69	NA	NA
Total System Design Supply Airflow (CFM):			1450	Total System Design (B)HP:	0.69	**Maximum System Fan Power (B)HP:**	
System Name:	HP-A	**Economizer:**[1]	Fixed Temperature	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	1	6500	BHP	4.22	NA	NA
Total System Design Supply Airflow (CFM):			6500	Total System Design (B)HP:	4.22	**Maximum System Fan Power (B)HP:**	

[1] *FOOTNOTES: Computer room economizers must meet requirements of §140.9(a) and will be documented on the NRCC-PRC-E document.*

[2] *The unit used for HP must be consistent for all fans within a system.*

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I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats §110.2(b) & (c)[1], §120.2(a)or §141.0(b)2E	Shut-Off Controls §120.2(e)	Isolation Zone Controls §120.2(g)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
FCU-SHP-1	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-2	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-3	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-4	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-5	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-6	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-7	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-8	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-IDF	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Continuous Heat/Cool	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
FCU-SHP-MDF	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Continuous Heat/Cool	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-1	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows

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STATE OF CALIFORNIA

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CALIFORNIA ENERGY COMMISSION

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I. SYSTEM CONTROLS

HP-2	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-3	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-4	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-5	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-6	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-7	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-8	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-9	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows
HP-A	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	NA: PTAC, PTHP, Rm AC, HP	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

*Notes: Controls with a * require a note in the space below explaining how compliance is achieved. EX: system 1: SA Temp Reset: Exempt because zones compliant with §140.4(d) ; EXCEPTION 1 to §140.4(f)

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J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3B for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventialtion systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☐	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☒	Check this box if the project included Nonresidential or Hotel/Motel spaces
	☐	Check this box if the project included new or altered high-rise residential dwelling units.
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per §120.1(c)2.

Nonresidential and Hotel/ Motel Ventilation Systems

04		05			06			07	
System Name	FCU-SHP-1	System Design OA CFM Airflow[1]		38	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Offices	Office space	254			38.1	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				38	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-2	System Design OA CFM Airflow[1]		104	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

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Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP-2	Janitor closet	318			0	318	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				0	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-3	System Design OA CFM Airflow[1]		58	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP-3	Corridor	389			58.4	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				58	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-4	System Design OA CFM Airflow[1]		79	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

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J. VENTILATION AND INDOOR AIR QUALITY

Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP-4	Conference/ meeting	158			79	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				79	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-5	System Design OA CFM Airflow[1]		118	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP--5	Occupiable storage rooms for dry materials	334			50.1	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				50	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-6	System Design OA CFM Airflow[1]		27	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

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J. VENTILATION AND INDOOR AIR QUALITY

Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP-6	Toilet, public	242			0	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				0	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-7	System Design OA CFM Airflow[1]		126	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP-7	Break room	357			178.5	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				178	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-8	System Design OA CFM Airflow[1]		0	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

IDENTIFICATION STAMP
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APP: 03-122398 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

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No. C-98[illegible]
REN. JUL. 31, 202[illegible]

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STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E
CALIFORNIA ENERGY COMMISSION

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J. VENTILATION AND INDOOR AIR QUALITY

Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP-8	Kitchenettes	399			0	119.7	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				0	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-IDF	System Design OA CFM Airflow[1]		0	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP-IDF	All others	62			0	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				0	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	FCU-SHP-MDF	System Design OA CFM Airflow[1]		0	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

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Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
FCU-SHP-MDF	All others	62			0	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				0	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-1	System Design OA CFM Airflow[1]		365	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom A101	Lecture/ postsecondary classroom	960			364.8	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-2	System Design OA CFM Airflow[1]		365	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

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Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom A102	Lecture/ postsecondary classroom	960			364.8	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-3	System Design OA CFM Airflow[1]		365	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom A103	Lecture/ postsecondary classroom	960			364.8	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-4	System Design OA CFM Airflow[1]		365	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

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J. VENTILATION AND INDOOR AIR QUALITY

Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom C104	Lecture/ postsecondary classroom	960			364.8	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				365	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-5	System Design OA CFM Airflow[1]		367	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom B106	Lecture/ postsecondary classroom	967			367.5	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				367	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-6	System Design OA CFM Airflow[1]		363	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

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CALIFORNIA ENERGY COMMISSION

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Project Name:	Gateway Annex	**Report Page:**	**(Page 23 of 40)**
Project Address:	550 Airport Way	**Date Prepared:**	11/3/2022

J. VENTILATION AND INDOOR AIR QUALITY

Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom B105	Lecture/ postsecondary classroom	955			362.9	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				363	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-7	System Design OA CFM Airflow[1]		370	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom B107	Lecture/ postsecondary classroom	975			370.5	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				370	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-8	System Design OA CFM Airflow[1]		988	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

Registration Number: Registration Date/Time: Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Gateway Annex	**Report Page:**	**(Page 24 of 40)**
Project Address:	550 Airport Way	**Date Prepared:**	11/3/2022

J. VENTILATION AND INDOOR AIR QUALITY

Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Classroom B108	Lecture/ postsecondary classroom	975			370.5	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				370	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-9	System Design OA CFM Airflow[1]		108	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
Admin Lobby	Reception area	722			108.3	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				108	18	Ventilation for this System Complies?		Yes
04		05			06			07	
System Name	HP-A	System Design OA CFM Airflow[1]		4864	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))	
08	09	10	11	12	13	14	15	16	

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Mechanical Systems

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CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Gateway Annex	**Report Page:**	**(Page 33 of 40)**
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L. DISTRIBUTION (DUCTWORK and PIPING)

The answers to the questions below apply to the following duct systems:	HP-5	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.	
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:	
		☐	Outdoors
		☐	In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces
		☐	In an unconditioned crawl space
		☐	In other unconditioned spaces
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	Duct system shall be sealed in acordance with the California Mechanical Code	
The answers to the questions below apply to the following duct systems:	HP-6	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.	
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:	
		☐	Outdoors
		☐	In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces
		☐	In an unconditioned crawl space
		☐	In other unconditioned spaces
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	Duct system shall be sealed in acordance with the California Mechanical Code	

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Mechanical Systems

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CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Gateway Annex	**Report Page:**	**(Page 34 of 40)**
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L. DISTRIBUTION (DUCTWORK and PIPING)

The answers to the questions below apply to the following duct systems:	HP-7	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.	
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:	
		☐	Outdoors
		☐	In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces
		☐	In an unconditioned crawl space
		☐	In other unconditioned spaces
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	Duct system shall be sealed in acordance with the California Mechanical Code	
The answers to the questions below apply to the following duct systems:	HP-8	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.	
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:	
		☐	Outdoors
		☐	In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces
		☐	In an unconditioned crawl space
		☐	In other unconditioned spaces
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	Duct system shall be sealed in acordance with the California Mechanical Code	

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Mechanical Systems

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L. DISTRIBUTION (DUCTWORK and PIPING)

The answers to the questions below apply to the following duct systems:	HP-9	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.	
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:	
		☐	Outdoors
		☐	In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces
		☐	In an unconditioned crawl space
		☐	In other unconditioned spaces
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	Duct system shall be sealed in acordance with the California Mechanical Code	
The answers to the questions below apply to the following duct systems:	HP-A	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.	
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:	
		☐	Outdoors
		☐	In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces
		☐	In an unconditioned crawl space
		☐	In other unconditioned spaces
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	Duct system shall be sealed in acordance with the California Mechanical Code	

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LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
REN. JUL. 31, 2021
STATE OF CALIFORNIA

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022

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REGISTERED PROFESSIONAL ENGINEER
JAMES ZWINGMAN
No. M35588
MECHANICAL
STATE OF CALIFORNIA

MECHANICAL TITLE 24

PERKINS — EASTMAN
3194 D Airport Loop Drive
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M004

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Mechanical Systems

NRCC-MCH-E

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CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
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M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title	Field Inspector	
	Pass	Fail
NRCI-MCH-01-E - Must be submitted for all buildings	☐	☐

STATE OF CALIFORNIA

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CALIFORNIA ENERGY COMMISSION

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O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title	Systems/Spaces To Be Field Verified	Field Inspector	
		Pass	Fail
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.	SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-0.75T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1.25T; SPLIT HEAT PUMP-0.75T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1.5T; HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-5T; HEAT PUMP-20T;	☐	☐

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O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title	Systems/Spaces To Be Field Verified	Field Inspector	
		Pass	Fail
NRCA-MCH-03-A - Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes'. If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".	SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-0.75T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1.25T; SPLIT HEAT PUMP-0.75T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1T; SPLIT HEAT PUMP-1.5T; HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-5T; HEAT PUMP-20T;	☐	☐
NRCA-MCH-05-A - Air Economizer Controls	HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-3T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-4T; HEAT PUMP-5T; HEAT PUMP-20T;	☐	☐
NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	HEAT PUMP-20T;	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

STATE OF CALIFORNIA

Mechanical Systems

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Q. MANDATORY MEASURES DOCUMENTATION LOCATION

This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	Yes	M-Sheets

---

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E

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Project Address:	550 Airport Way	**Date Prepared:**	11/3/2022

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company: Salas O'Brien Engineers	Signature Date: 2022-11-03
Address: 8825 Research Dr	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Irvine CA 92618	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: James Zwingman	Responsible Designer Signature:
Company: Salas O'Brien	Date Signed: 2022-11-03
Address: 8825 Research Dr	License: M35588
City/State/Zip: Irvine CA 92618	Phone: (949) 517-4922

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BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL. 31, 2021

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

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550 Airport Way, Camarillo, CA 93010

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No. M35588

MECHANICAL TITLE 24

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3194 D Airport Loop Drive
Costa Mesa, CA 92626
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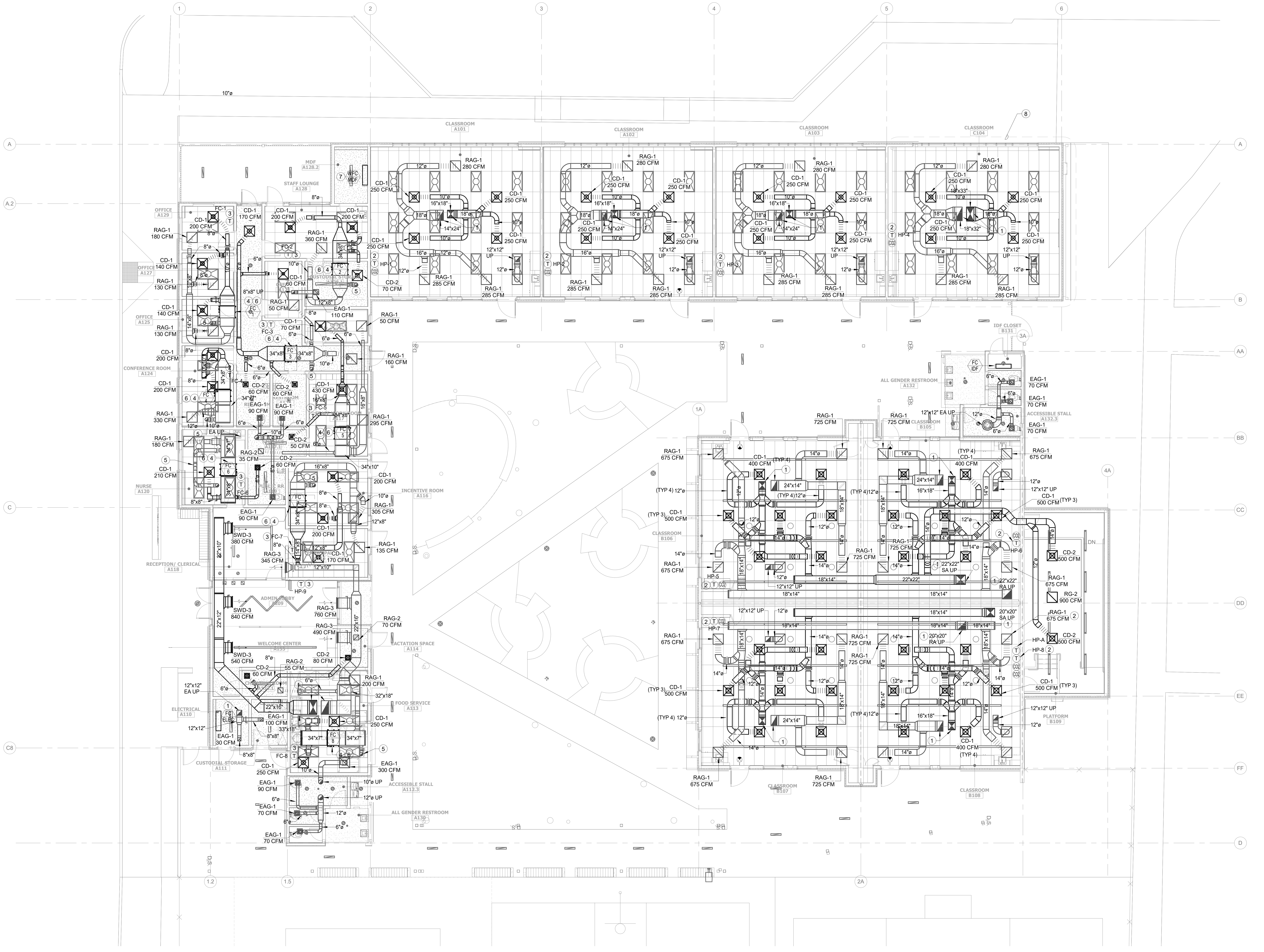
M005



1
M101
MECHANICAL - FIRST FLOOR PLAN - DUCT
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. RECTANGULAR DUCT IS ALLOWED TO CHANGE TO ROUND DUCT AS LONG AS THE ASPECT RATIO OF THE DUCTWORK IS KEPT.

B. CONTRACTOR SHALL ADHERE TO THE DUCT CONSTRUCTION GUIDELINES AS IDENTIFIED UNDER 2019 CMC 602.3 DUCTS, PLENUMS, OR FITTINGS OF METAL SHALL COMPLY WITH SMACNA HVAC CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.

C. ADJUST IN FIELD LOCATION OF DUCT PENETRATIONS BETWEEN ROOF TRUSSES.

REFERENCE SHEET NOTES

1. SA & RA UP TO ROOF WITH LAYOUT PER PLAN. INSTALL WITH 1" ACOUSTIC LINED DUCT ON RECTANGULAR DUCT.
2. F&I PROGRAMMABLE THERMOSTAT WITH CO2 SENSOR FOR DEMAND CONTROL VENTILATION (CLASSROOMS ONLY) ON WALL AND CONNECT TO CORRESPONDING A/C PER PLAN AND DETAIL 5/M-501.
3. F&I PROGRAMMABLE THERMOSTAT ON WALL AND CONNECT TO CORESPONDING A/C PER PLAN AND DETAIL 5/M-501.
4. F&I SUSPENDED FAN COIL INSTALLED WITH FILTER BOX PER DETAIL 2/M-501. INSTALL W/ 1" ACOUSTICALLY LINED SA & RA PLENUM BO. INSTALL REFRIGERANT LINES ABOVE CEILING ROUTED TO OUTDOOR HEAT PUMP PER DETAIL 9/M-501 AND MANUFACTURER'S REQUIREMENTS. TYP. INSTALL W/ SECONDARY DRAIN PAN WITH PIPE TERMINATION TO CORRIDOR WITH ESCUTCHEON PLATE.
5. 8" BRANCH W/ MANUAL BALANCING DAMPER DIA UP TO ROOF FOR OA.
6. F&I DUCT DETECTOR ON SA DUCT AND INTERLOCK WITH EQUIPMENT AND FA SYSTEM FOR SHUTDOWN UPON DETECTION OF SMOKE. SEE FIRE ALARM (FA) DRAWINGS.
7. F&I WALL MOUNTED FAN COILS FOR TELECOM ROOMS PER DETAIL 5/M502.
8. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

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BRIAN PAUL DOUGHERTY
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GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

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550 Airport Way, Camarillo, CA 93010

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No. M35588
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MECHANICAL FIRST FLOOR PLAN - DUCT

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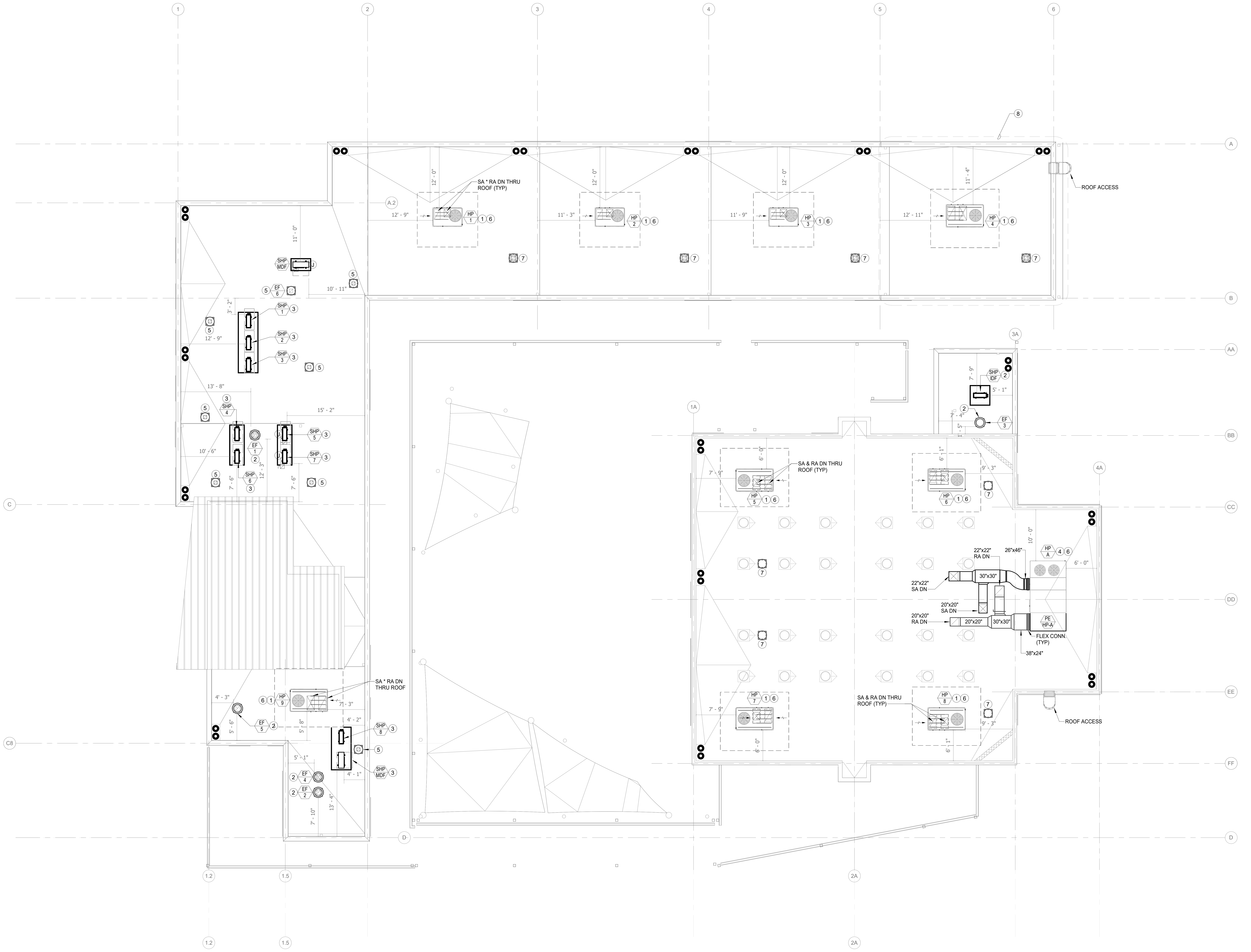
M101



1 M141 **MECHANICAL - ROOF PLAN**

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

GENERAL SHEET NOTES

A. RECTANGULAR DUCT IS ALLOWED TO CHANGE TO ROUND DUCT AS LONG AS THE ASPECT RATIO OF THE DUCTWORK IS KEPT.

B. CONTRACTOR SHALL ADHERE TO THE DUCT CONSTRUCTION GUIDELINES AS IDENTIFIED UNDER 2019 CMC 602.3 DUCTS, PLENUMS, OR FITTINGS OF METAL SHALL COMPLY WITH SMACNA HVAC CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.

REFERENCE SHEET NOTES

1. F&I HEAT PUMPS WITH SPRING ISOLATOR CURB PER DETAIL 3/M502 & 4/M502. SA AND RA DUCT WITH VERTICAL CONFIGURATION WITH FLEX CONNECTIONS. INSTALL WITH ECONOMIZER WITH BAROMETRIC RELIEF.
2. F&I DOWNBLAST EXHAUST FAN WITH CURB, BACKDRAFT DAMPER, AND BIRD SCREEN.
3. F&I SPLIT DX OUTDOOR HEAT PUMP ON HOUSEKEEPING PAD WITH SHEET METAL CAP PER DETAIL 6/M-501. CONNECT REFRIGERANT LINES FROM INDOOR FAN COIL. REFRIGERANT LINES ROUTED THROUGH FLOORS OR WALLS SHALL BE FIRE CAULKED PER DETAIL 9/M-501 AND 10/M-501.
4. F&I HEAT PUMP WITH SPRING ISOLATOR CURB PER 2/M502 AND STRUCTURAL DRAWINGS. SA AND RA WITH HORIZONTAL CONFIGURATION WITH FLEX CONNECTIONS. INSTALL WITH ECONOMIZER W/ POWER EXHAUST. INSTALL DUCT SUPPORT FOR ROOFTOP DUCT PER 11/M501.
5. F&I INTAKE VENT W/ BACKDRAFT & BIRD SCREEN FOR OA INTAKE FOR FAN COILS. GREENHECK GRSI (SIZE 8"). FRAME OPENING PER DETAIL 10/S612
6. F&I DUCT DETECTOR ON SA DUCT AND INTERLOCK WITH EQUIPMENT AND FA SYSTEM FOR SHUTDOWN UPON DETECTION OF SMOKE. SEE FIRE ALARM (FA) DRAWINGS.
7. F&I RELIEF VENT W/ BACKDRAFT DAMPER & BIRD SCREEN. GREENHECK GRSR (SIZE 12"). FRAME ROOF OPENING PER DETAIL 10/S612.
8. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
C-9
REN. JUL. 31, 2023
STATE OF CALIFORNIA

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
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DATE	11/07/2022
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REGISTERED PROFESSIONAL ENGINEER
JAMES ZENTHOEFER
No. M35698
MECHANICAL
STATE OF CALIFORNIA

MECHANICAL ROOF PLAN

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
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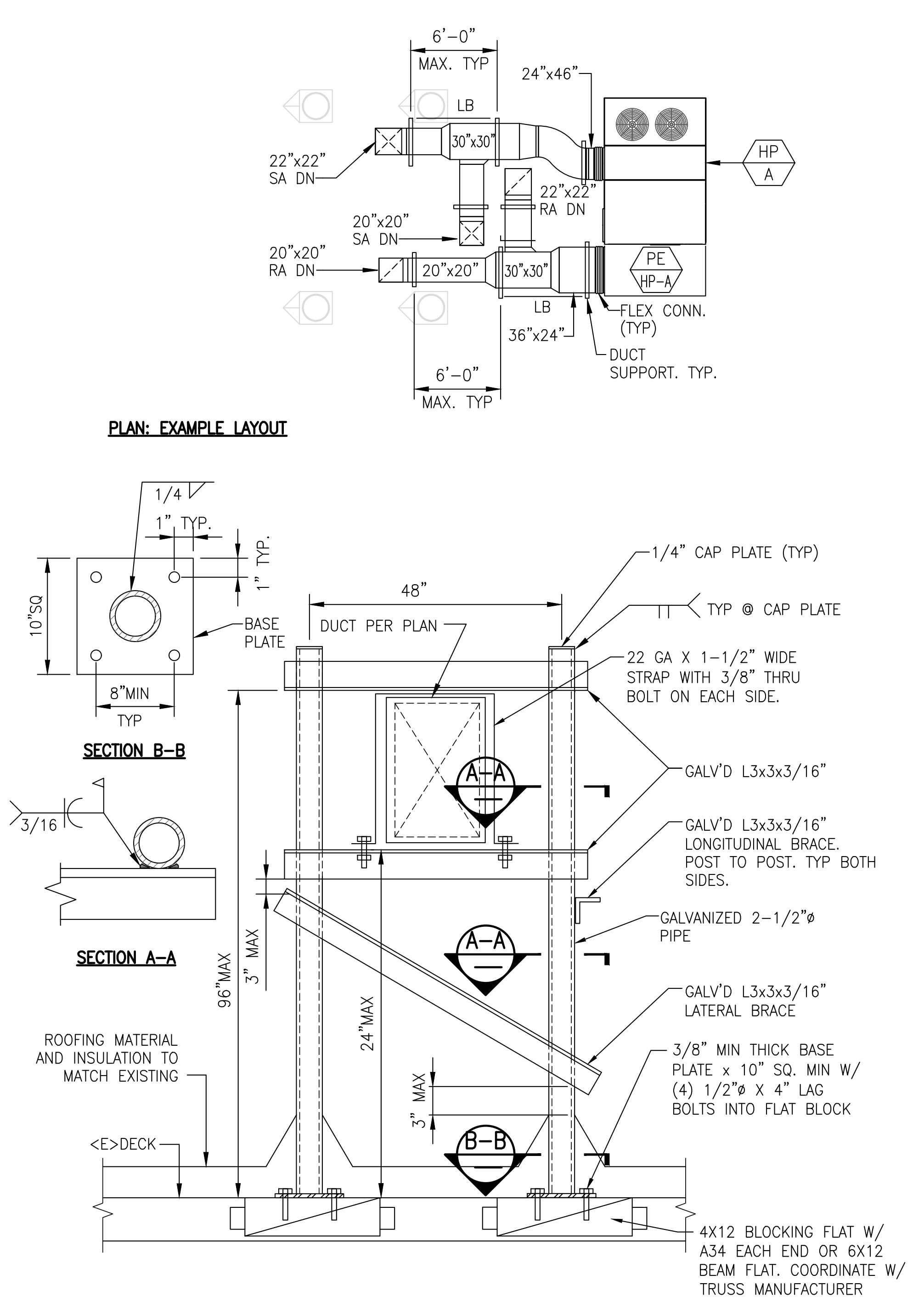
M141


6'-0"
MAX. TYP
24"x46"
22"x22"
SA DN
LB
30"x30"
HP
A
20"x20"
SA DN
22"x22"
RA DN
20"x20"
RA DN
20"x20"
30"x30"
PE
HP-A
LB
FLEX CONN. (TYP)
36"x24"
DUCT SUPPORT. TYP.
6'-0"
MAX. TYP
PLAN: EXAMPLE LAYOUT
1/4
1" TYP.
1" TYP.
10"SQ
BASE PLATE
8"MIN TYP
SECTION B-B
3/16
SECTION A-A
48"
DUCT PER PLAN
1/4" CAP PLATE (TYP)
TYP @ CAP PLATE
22 GA X 1-1/2" WIDE STRAP WITH 3/8" THRU BOLT ON EACH SIDE.
A-A
GALV'D L3x3x3/16"
GALV'D L3x3x3/16" LONGITUDINAL BRACE. POST TO POST. TYP BOTH SIDES.
GALVANIZED 2-1/2"ø PIPE
A-A
96"MAX
3" MAX
24"MAX
GALV'D L3x3x3/16" LATERAL BRACE
ROOFING MATERIAL AND INSULATION TO MATCH EXISTING
3/8" MIN THICK BASE PLATE x 10" SQ. MIN W/ (4) 1/2"ø X 4" LAG BOLTS INTO FLAT BLOCK
3" MAX
B-B
<E>DECK
4X12 BLOCKING FLAT W/ A34 EACH END OR 6X12 BEAM FLAT. COORDINATE W/ TRUSS MANUFACTURER

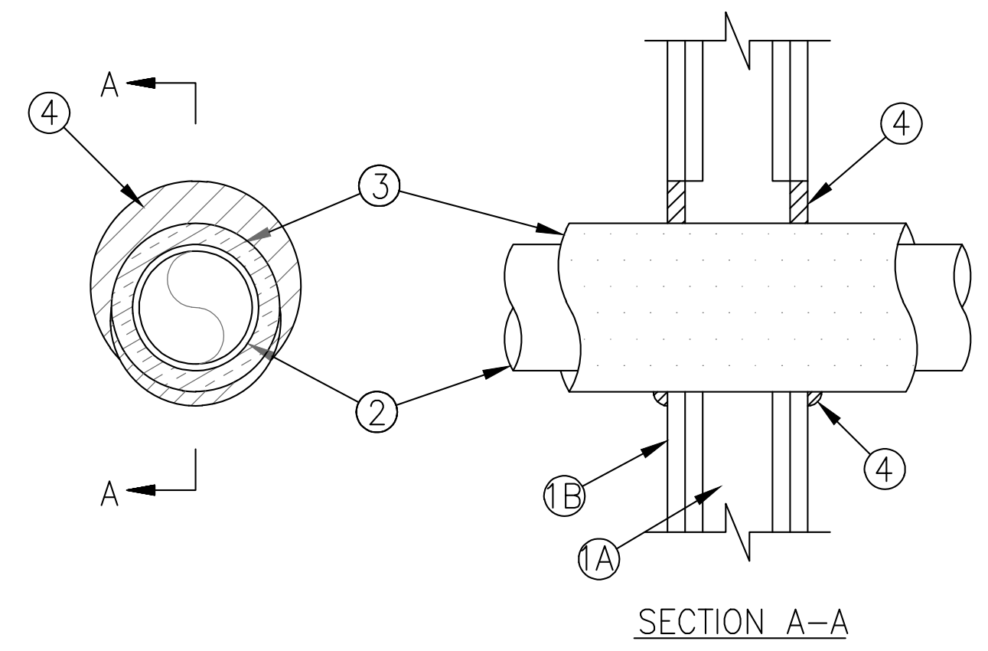
NOTES:
1. MAXIMUM SPACING BETWEEN SUPPORTS TO BE 6' MAX & PROVIDE SUPPORT AT EACH SIDE OF EACH TURN WITHIN 24". ALL SUPPORTS TO BE GALVANIZED.
2. REPAIR WATERPROOFING AND INSULATION AT (N) SUPPORT IS REQUIRED.
3. MAXIMUM WEIGHT IS 215 LBS PER SUPPORT.
4. TRUSS TO BE CAPABLE OF SUPPORTING 1000 LBS LOAD AT SUPPORTING POINTS

11 DUCT SUPPORT ON ROOF
SCHEMATIC

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

System No.
W-L-5028

ANSI/UL 1479 (ASTM E814)	CAN/ULC S115
F Ratings – 1 and 2 Hr (See Item 1)	F Ratings – 1 and 2 Hr (See Item 1)
T Ratings – 0, 3/4 and 1 Hr (See Item 3)	FT Ratings – 0, 3/4 and 1 Hr (See Item 3)
L Rating at Ambient – Less than 1 CFM/sq ft	FH Ratings – 1 and 2 Hr (See Item 1)
L Rating at 400 F – Less than 1 CFM/sq ft	FTH Ratings–0, 3/4 and 1 Hr (See Item 3)
	L Rating At Ambient – Less than 1 CFM/sq ft
	L Rating At 400F – Less than 1 CFM/sq ft



1. Wall Assembly – The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 OR W400 Series wall and Partition Designs in the UL fire resistance directory and shall include the following construction features:

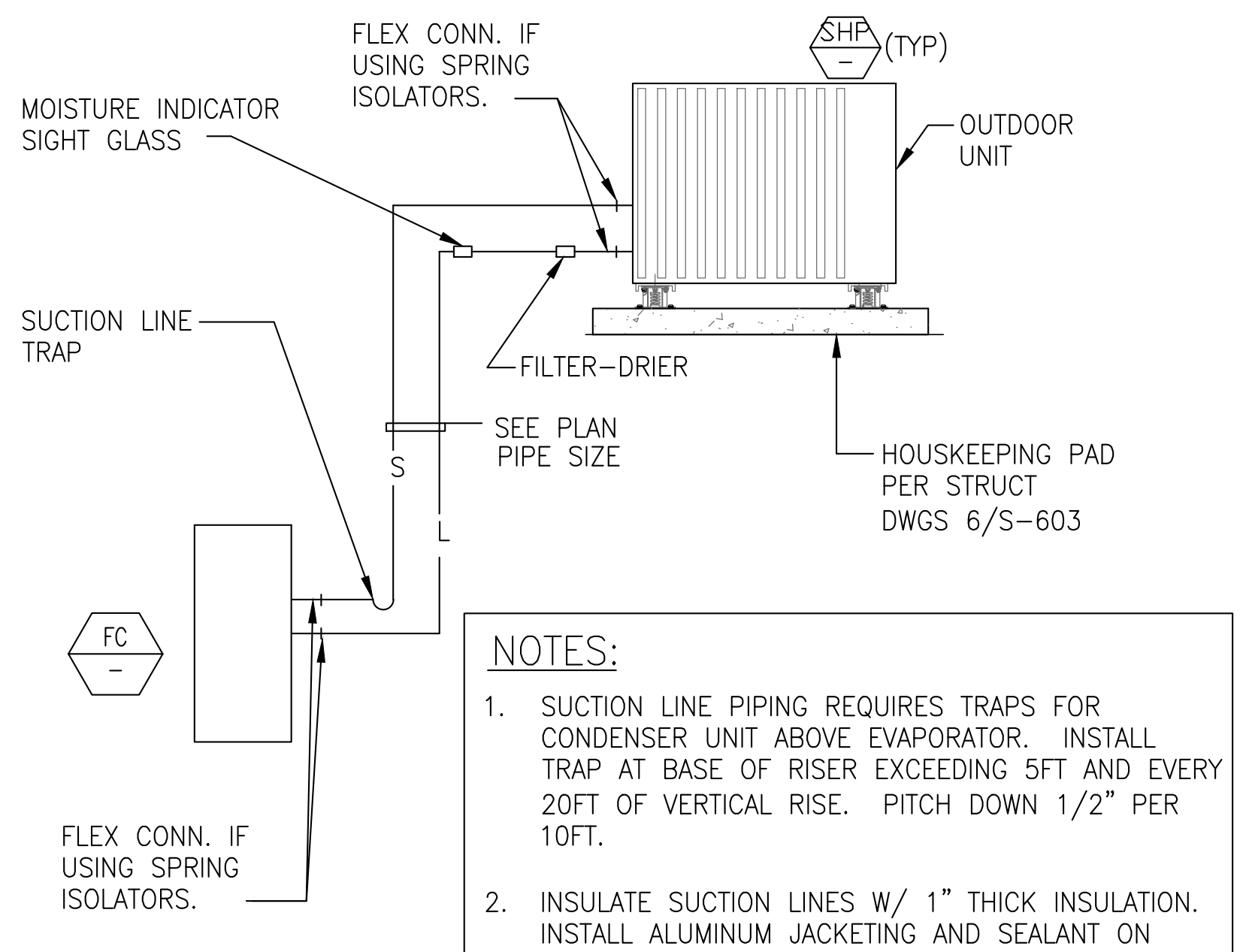
   A. Studs – Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in (51 by 102 mm) lumber spaced at 16 in. (406mm) OC. Steel studs to be min 2-1/2 in (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board – 5/8" in (16 mm) thick, 4ft (1.2 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fasteners and sheet orientation shall be specified in the individual Wall and Partition Design. Max diameter of opening is 7-1/2 in. (191 mm).
   The hourly F and FH Ratings of the fire stop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrants – One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of metallic pipes or tubing may be used:
   A. Steel Pipe – Nom 4 in. (102 mm) diameter (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Copper Tubing – Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tubing.
   C. Copper Pipe – Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier copper pipe.

3. Tube Insulation – Plastics+ – Min 1/2 in (13 mm) to max 1 in. (25 mm) thick acrylonitrite butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. An annual space of min 0 in. (point contact) to max 1-1/2 in. (38 mm) is required within the fire stop system. The T, FT, and FTH Ratings are 1 hr when the 1 in (25 mm) thick tube insulation is used and 3/4 in (19mm) thick tube insulation is used. When tube thickness is less than 3/4 in (19mm) the T, FT, and FTH Ratings are 0 Hr. See Plastics+ (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Components tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

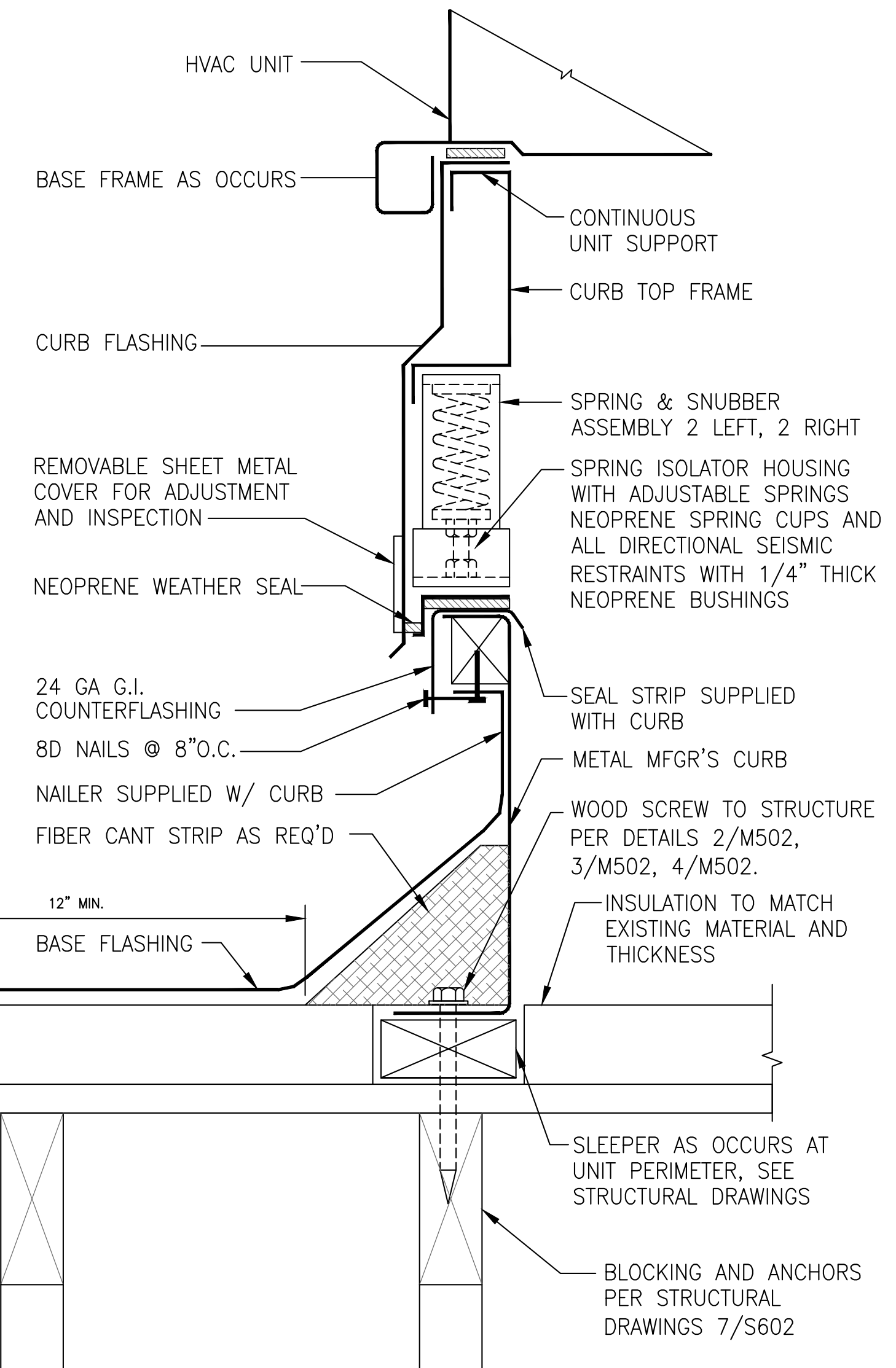
4. Fill, Void or Cavity Material – Sealant – Min 5/8 in (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point of contact location between pipe covering and gypsum board, a min 1/2 in (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall. Use Hilti Construction Chemicals, Div of Hilti Inc – FS-One Sealant or FS-One Max Intumescent Sealant.

10 PIPE THRU RATED WALL DETAIL
SCHEMATIC

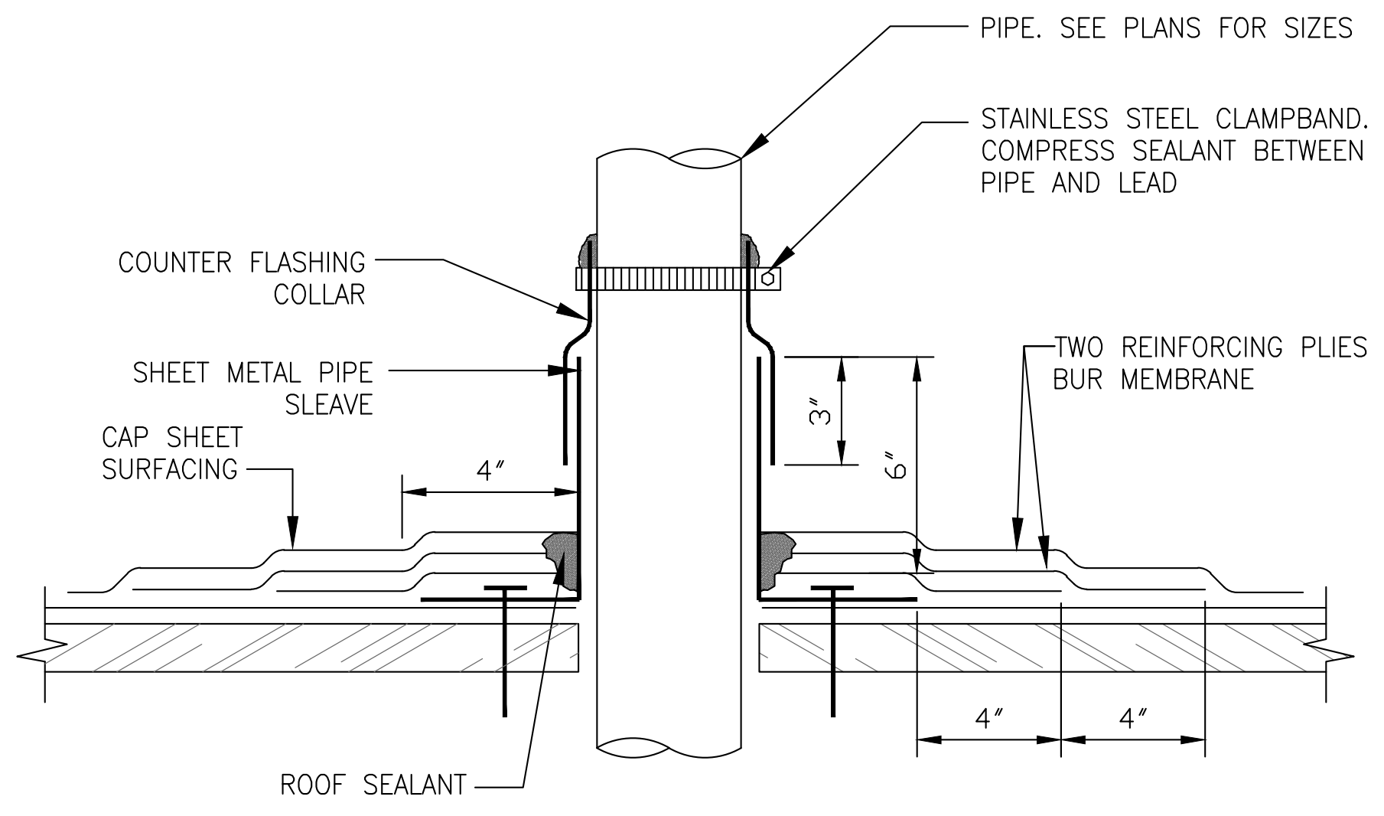

FLEX CONN. IF USING SPRING ISOLATORS.
SHP
(TYP)
MOISTURE INDICATOR SIGHT GLASS
OUTDOOR UNIT
SUCTION LINE TRAP
FILTER-DRIER
SEE PLAN PIPE SIZE
S
L
HOUSKEEPING PAD PER STRUCT DWGS 6/S-603
FC
FLEX CONN. IF USING SPRING ISOLATORS.

NOTES:
1. SUCTION LINE PIPING REQUIRES TRAPS FOR CONDENSER UNIT ABOVE EVAPORATOR. INSTALL TRAP AT BASE OF RISER EXCEEDING 5FT AND EVERY 20FT OF VERTICAL RISE. PITCH DOWN 1/2" PER 10FT.
2. INSULATE SUCTION LINES W/ 1" THICK INSULATION. INSTALL ALUMINUM JACKETING AND SEALANT ON SUCTION LINES OUTDOORS FOR CONDENSING UNITS AND BOTH LINES FOR HEAT PUMPS.
3. INSTALL WITH SERVICE PORTS AND LOCKABLE CAPS.

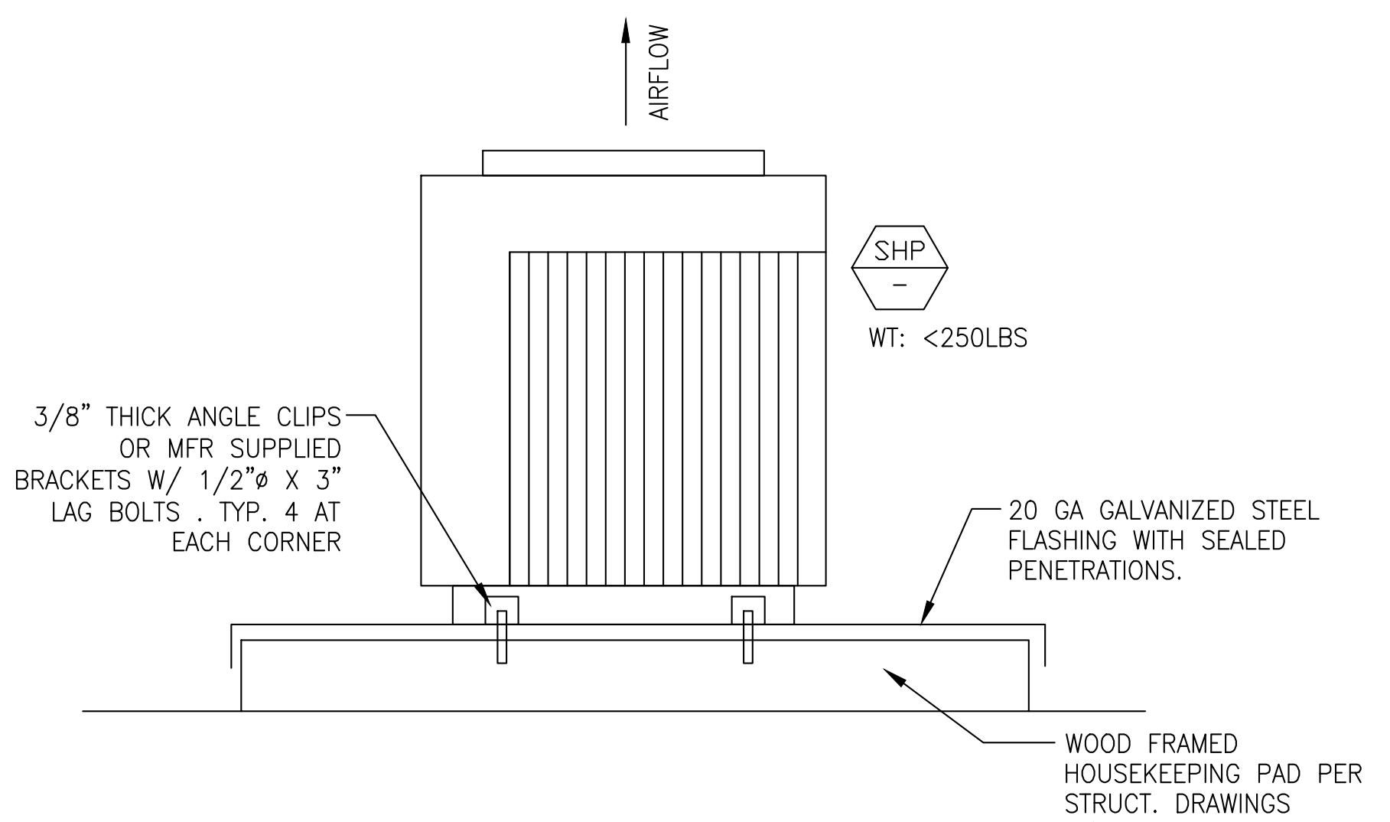
9 FC/CU/HP UNIT CONNECTION DETAIL
SCHEMATIC


HVAC UNIT
BASE FRAME AS OCCURS
CONTINUOUS UNIT SUPPORT
CURB TOP FRAME
CURB FLASHING
SPRING & SNUBBER ASSEMBLY 2 LEFT, 2 RIGHT
REMOVABLE SHEET METAL COVER FOR ADJUSTMENT AND INSPECTION
SPRING ISOLATOR HOUSING WITH ADJUSTABLE SPRINGS NEOPRENE SPRING CUPS AND ALL DIRECTIONAL SEISMIC RESTRAINTS WITH 1/4" THICK NEOPRENE BUSHINGS
NEOPRENE WEATHER SEAL
24 GA G.I. COUNTERFLASHING
SEAL STRIP SUPPLIED WITH CURB
8D NAILS @ 8"O.C.
METAL MFGR'S CURB
NAILER SUPPLIED W/ CURB
WOOD SCREW TO STRUCTURE PER DETAILS 2/M502, 3/M502, 4/M502.
FIBER CANT STRIP AS REQ'D
12" MIN.
INSULATION TO MATCH EXISTING MATERIAL AND THICKNESS
BASE FLASHING
SLEEPER AS OCCURS AT UNIT PERIMETER, SEE STRUCTURAL DRAWINGS
BLOCKING AND ANCHORS PER STRUCTURAL DRAWINGS 7/S602

8 SPRING ISOLATOR CURB DETAIL
SCHEMATIC

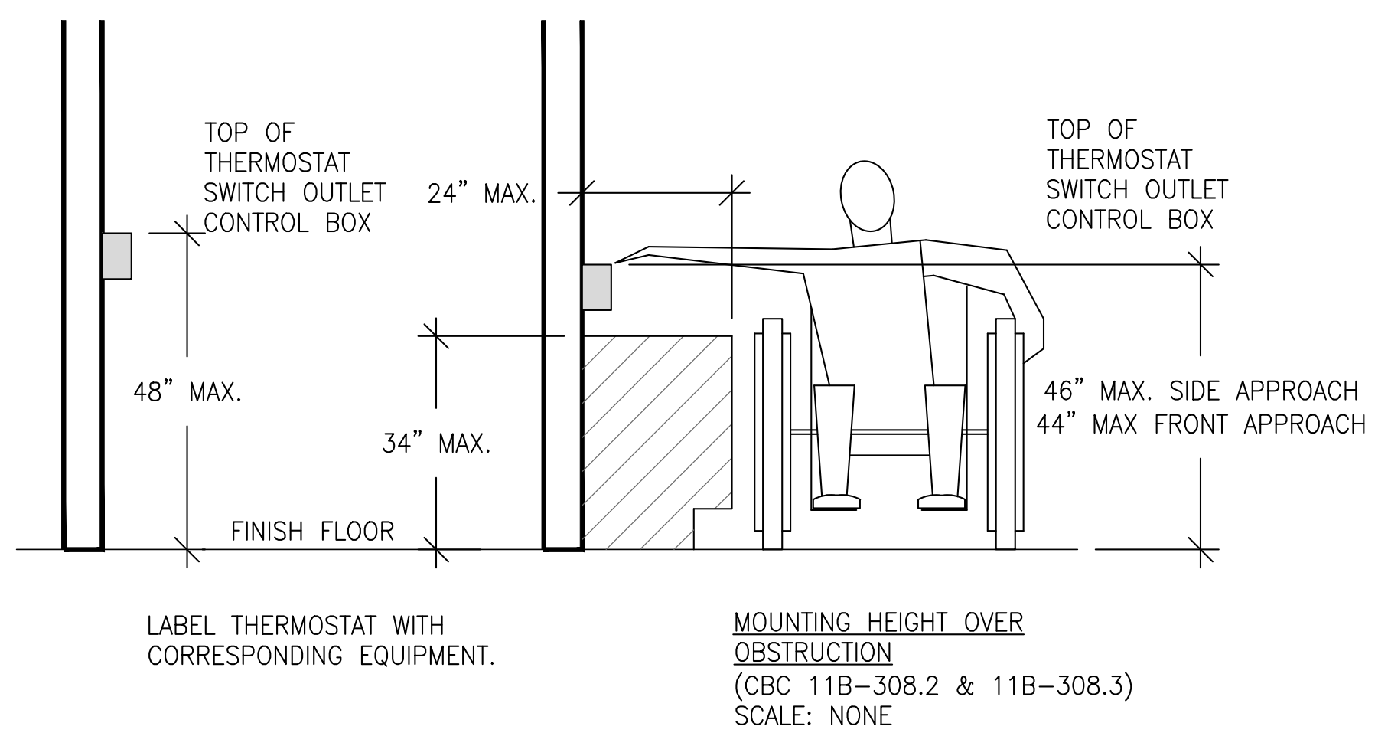

PIPE. SEE PLANS FOR SIZES
STAINLESS STEEL CLAMPBAND. COMPRESS SEALANT BETWEEN PIPE AND LEAD
COUNTER FLASHING COLLAR
SHEET METAL PIPE SLEAVE
TWO REINFORCING PLIES BUR MEMBRANE
CAP SHEET SURFACING
4"
3"
6"
4"
4"
ROOF SEALANT

7 PIPE THRU ROOF DETAIL
SCHEMATIC

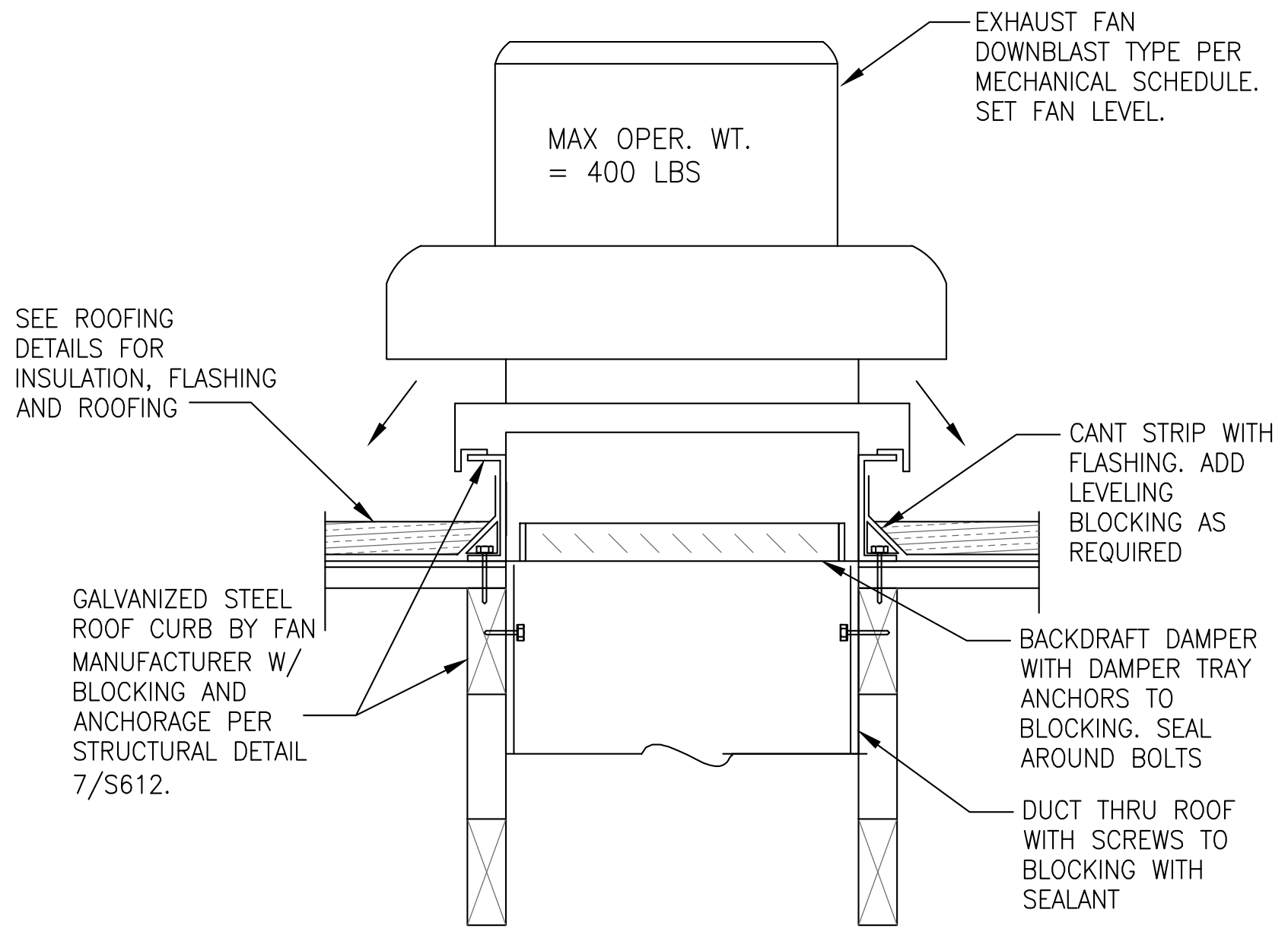

AIRFLOW
SHP
WT: <250LBS
3/8" THICK ANGLE CLIPS OR MFR SUPPLIED BRACKETS W/ 1/2"ø X 3" LAG BOLTS . TYP. 4 AT EACH CORNER
20 GA GALVANIZED STEEL FLASHING WITH SEALED PENETRATIONS.
WOOD FRAMED HOUSEKEEPING PAD PER STRUCT. DRAWINGS 6/S-603.

NOTES:
1. MAINTAIN UNIT CLEARANCES PER MANUFACTURER'S REQUIREMENTS.
2. INSTALL/REPAIR WATERPROOFING FOR ANCHORAGE.

6 SPLIT DX OUTDOOR UNIT MOUNTING DETAIL
SCHEMATIC


TOP OF THERMOSTAT SWITCH OUTLET CONTROL BOX
24" MAX.
TOP OF THERMOSTAT SWITCH OUTLET CONTROL BOX
48" MAX.
34" MAX.
46" MAX. SIDE APPROACH
44" MAX FRONT APPROACH
FINISH FLOOR
LABEL THERMOSTAT WITH CORRESPONDING EQUIPMENT.
MOUNTING HEIGHT OVER OBSTRUCTION
(CBC 11B-308.2 & 11B-308.3)
SCALE: NONE

5 THERMOSTAT MOUNTING DETAIL
SCHEMATIC

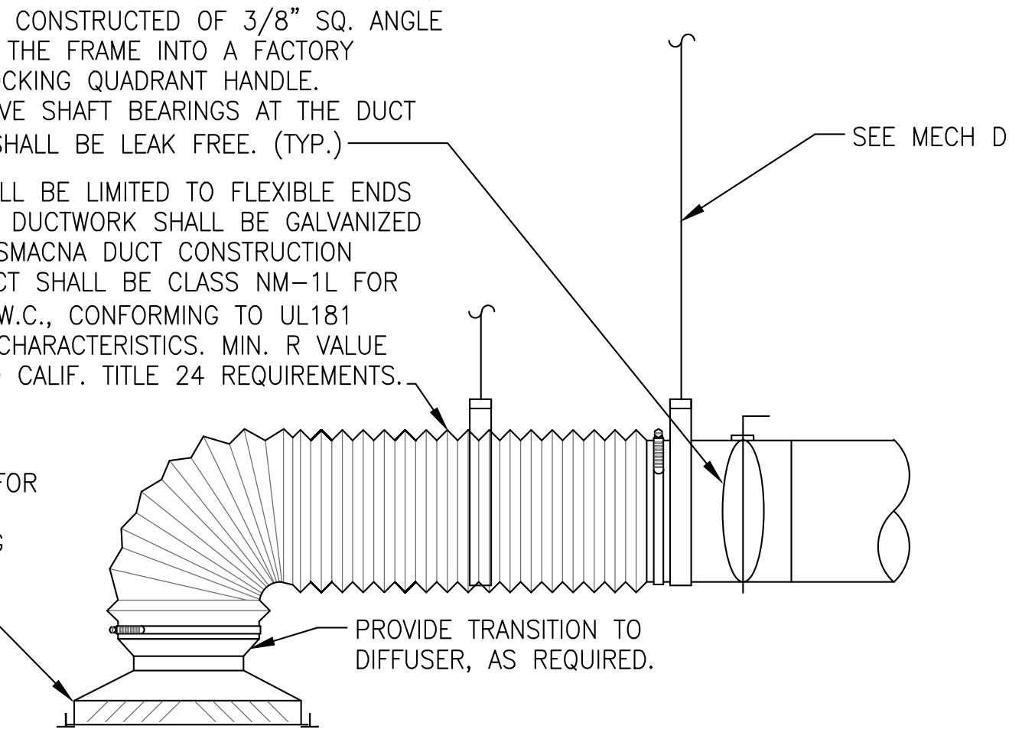

EXHAUST FAN DOWNBLAST TYPE PER MECHANICAL SCHEDULE. SET FAN LEVEL.
MAX OPER. WT. = 400 LBS
SEE ROOFING DETAILS FOR INSULATION, FLASHING AND ROOFING
CANT STRIP WITH FLASHING. ADD LEVELING BLOCKING AS REQUIRED
GALVANIZED STEEL ROOF CURB BY FAN MANUFACTURER W/ BLOCKING AND ANCHORAGE PER STRUCTURAL DETAIL 7/S612.
BACKDRAFT DAMPER WITH DAMPER TRAY ANCHORS TO BLOCKING. SEAL AROUND BOLTS
DUCT THRU ROOF WITH SCREWS TO BLOCKING WITH SEALANT

4 EXHAUST FAN MOUNTING DETAIL
SCHEMATIC

MANUAL VOLUME DAMPER. SHALL BE AT LEAST 2 GA. HEAVIER THEN THE DUCTWORK WHERE IT IS INSTALLED, GALV. STEEL. SHAFT CONSTRUCTED OF 3/8" SQ. ANGLE EXTENDING BEYOND THE FRAME INTO A FACTORY MOUNTED, HAND-LOCKING QUADRANT HANDLE. DAMPERS SHALL HAVE SHAFT BEARINGS AT THE DUCT PENETRATION AND SHALL BE LEAK FREE. (TYP.)

FLEXIBLE DUCT SHALL BE LIMITED TO FLEXIBLE ENDS ON DUCTWORK. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL PER SMACNA DUCT CONSTRUCTION STDS. FLEXIBLE DUCT SHALL BE CLASS NM-1L FOR PRESSURES TO 1" W.C., CONFORMING TO UL181 CLASS 1 BURNING CHARACTERISTICS. MIN. R VALUE SHALL CONFORM TO CALIF. TITLE 24 REQUIREMENTS.

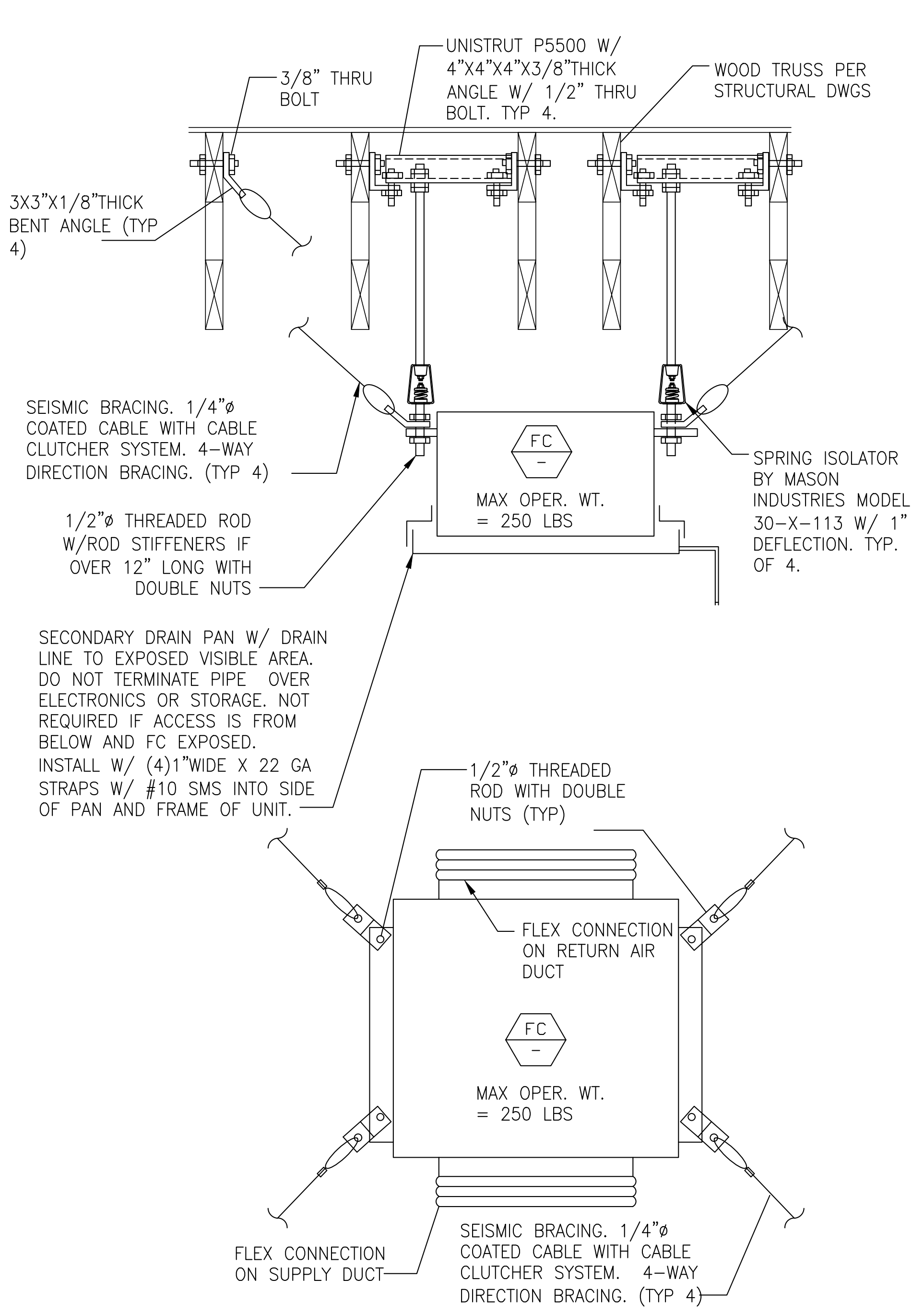
SEE ARCH. PLANS FOR CEILING TYPE. COORDINATE CEILING TYPE W/ DIFFUSER SELECTION.



NOTE:
ALL FASTENERS SHALL BE LOAD RATED.

INSTALLER SHALL NOT TURN OR BEND FLEXIBLE DUCT MORE THAN 90 DEG. FROM HORIZONTAL IN ANY DIRECTION. KINKS IN FLEXIBLE DUCT OR FAILURE TO SUPPORT FLEXIBLE DUCTWORK IN ACCORDANCE W/ SMACNA DUCT CONSTRUCTION MANUAL, METAL & FLEXIBLE, 2ND ED. SHALL BE CAUSE FOR REJECTION OF WORK BY OWNER. THE INSTALLER SHALL ROUTE DUCTWORK SUCH THAT FLEXIBLE DUCT SHALL NOT BE USED EXCEPT FOR CONNECTION TO AIR TERMINAL DEVICE. THE LENGTH OF THE FLEXIBLE DUCT SHALL NOT EXCEED FIVE FEET.

3 CEILING DIFFUSER/GRILLE DETAIL
SCHEMATIC


3/8" THRU BOLT
UNISTRUT P5500 W/ 4"X4"X4"X3/8"THICK ANGLE W/ 1/2" THRU BOLT. TYP 4.
WOOD TRUSS PER STRUCTURAL DWGS
3X3"X1/8"THICK BENT ANGLE (TYP 4)
SEISMIC BRACING. 1/4"ø COATED CABLE WITH CABLE CLUTCHER SYSTEM. 4-WAY DIRECTION BRACING. (TYP 4)
FC
MAX OPER. WT. = 250 LBS
SPRING ISOLATOR BY MASON INDUSTRIES MODEL 30-X-113 W/ 1" DEFLECTION. TYP. OF 4.
1/2"ø THREADED ROD W/ROD STIFFENERS IF OVER 12" LONG WITH DOUBLE NUTS
SECONDARY DRAIN PAN W/ DRAIN LINE TO EXPOSED VISIBLE AREA. DO NOT TERMINATE PIPE OVER ELECTRONICS OR STORAGE. NOT REQUIRED IF ACCESS IS FROM BELOW AND FC EXPOSED. INSTALL W/ (4)1"WIDE X 22 GA STRAPS W/ #10 SMS INTO SIDE OF PAN AND FRAME OF UNIT.
1/2"ø THREADED ROD WITH DOUBLE NUTS (TYP)
FLEX CONNECTION ON RETURN AIR DUCT
FC
MAX OPER. WT. = 250 LBS
FLEX CONNECTION ON SUPPLY DUCT
SEISMIC BRACING. 1/4"ø COATED CABLE WITH CABLE CLUTCHER SYSTEM. 4-WAY DIRECTION BRACING. (TYP 4)

NOTES:
1. PATCH AND PAINT CEILING AS REQUIRED FOR INSTALLATION.

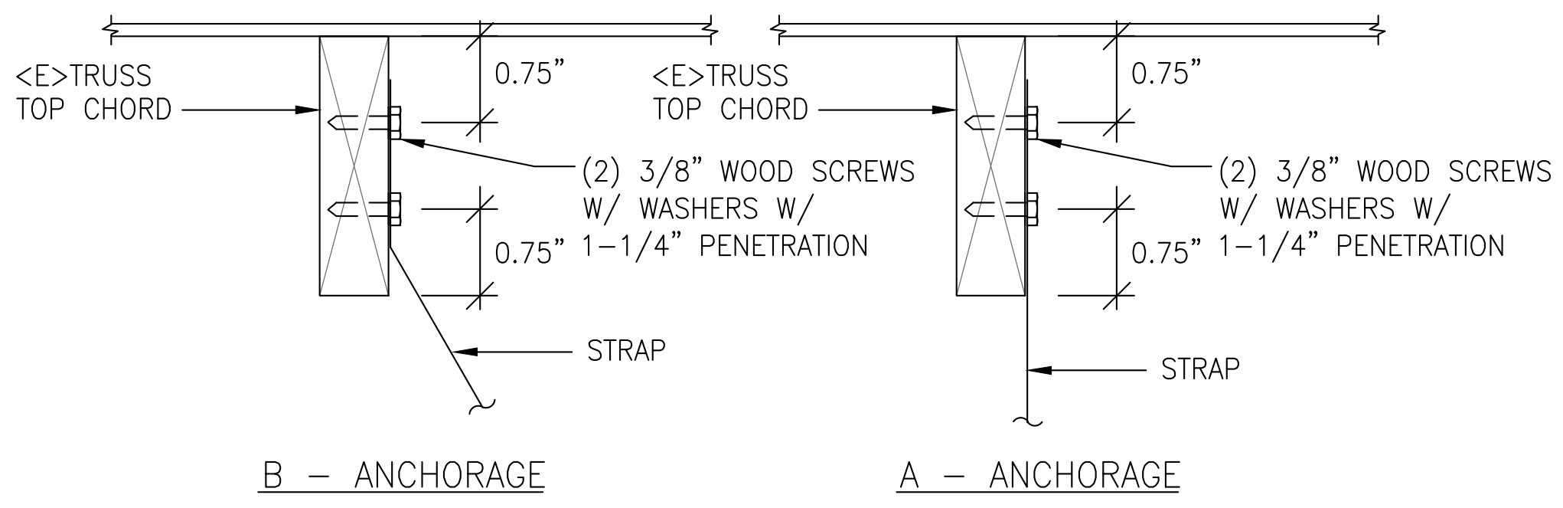
2 SUSPENDED FAN COIL DETAIL
SCHEMATIC

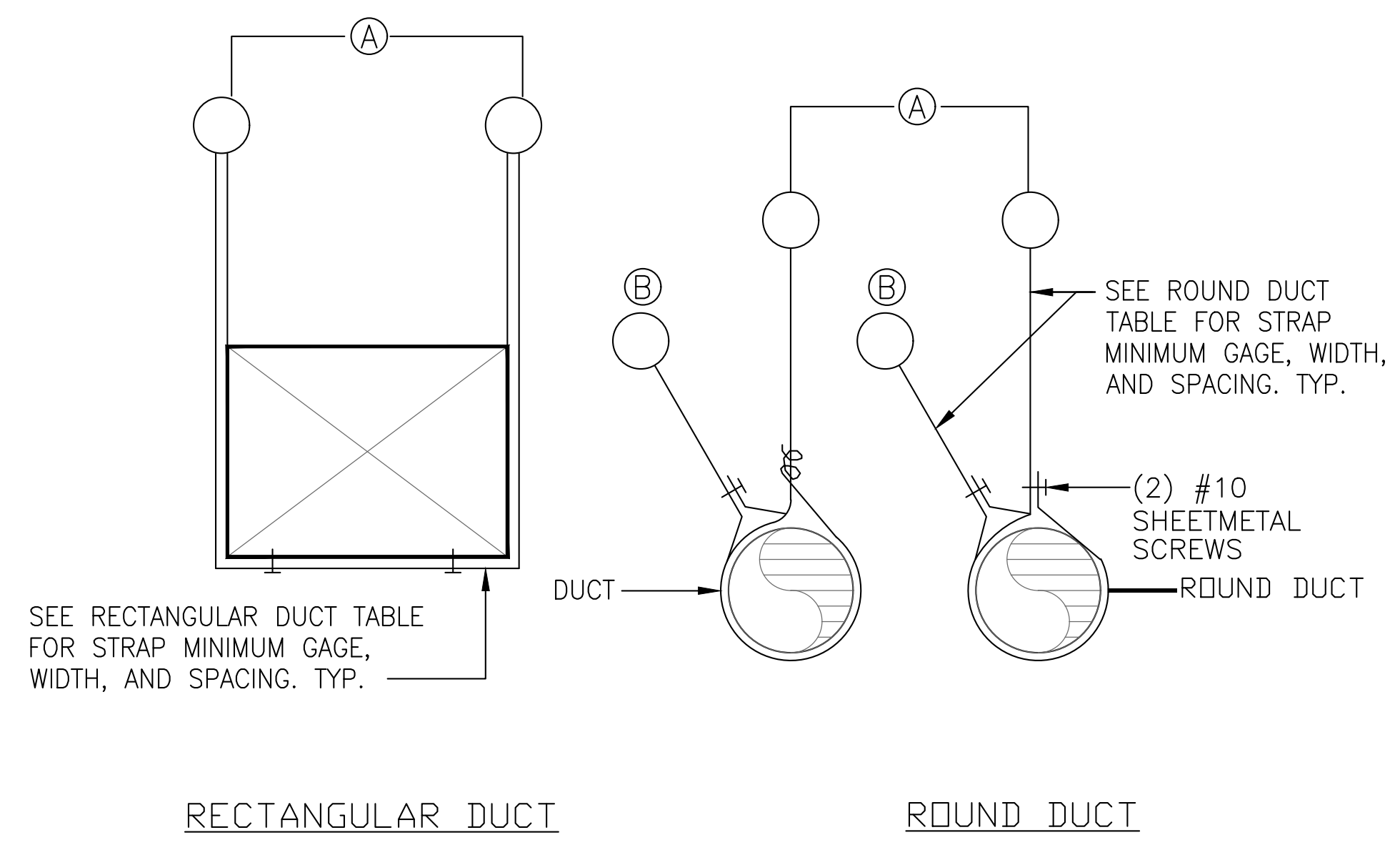
RECTANGULAR DUCT HANGERS MINIMUM SIZE

MAX HALF OF DUCT PERIMETER	PAIR AT 10FT SPACING		PAIR AT 8FT SPACING		PAIR AT 5FT SPACING	
	STRAP	ROD	STRAP	ROD	STRAP	ROD
P/2=30"	1" X 22GA	1/4"	1" X 22GA	1/4"	1" X 22GA	1/4"
P/2=72"	1" X 18GA	3/8"	1" X 20GA	1/4"	1" X 22GA	1/4"
P/2=96"	1" X 16GA	3/8"	1" X 18GA	3/8"	1" X 20GA	3/8"
P/2=120"	1.5" X 16GA	1/2"	1" X 16GA	3/8"	1" X 18GA	3/8"
P/2=168"	1.5" X 16GA	1/2"	1.5" X 16GA	1/2"	1" X 16GA	3/8"
P/2=192"	–	1/2"	1.5" X 16GA	1/2"	1" X 16GA	3/8"

MINIMUM HANGER SIZES FOR ROUND DUCT

DIAMETER	MAX SPACING	STRAP
10"& DN	12 FT	1" X 22GA
11"-18"	12 FT	1" X 22GA
19"-24"	12 FT	1" X 22GA
25"-36"	12 FT	1" X 20GA
37"-50"	12 FT	(2)1" X 20GA
51"-60"	12 FT	(2)1" X 18GA
61"-84"	12 FT	(2)1" X 16GA


<E>TRUSS TOP CHORD
0.75"
(2) 3/8" WOOD SCREWS W/ WASHERS W/ 1-1/4" PENETRATION
0.75"
STRAP
B – ANCHORAGE
<E>TRUSS TOP CHORD
0.75"
(2) 3/8" WOOD SCREWS W/ WASHERS W/ 1-1/4" PENETRATION
0.75"
STRAP
A – ANCHORAGE


A
SEE RECTANGULAR DUCT TABLE FOR STRAP MINIMUM GAGE, WIDTH, AND SPACING. TYP.
A
B
B
SEE ROUND DUCT TABLE FOR STRAP MINIMUM GAGE, WIDTH, AND SPACING. TYP.
(2) #10 SHEETMETAL SCREWS
DUCT
ROUND DUCT
RECTANGULAR DUCT
ROUND DUCT

NOTES:
1. HANGERS MUST NOT DEFORM DUCT SHAPES. SEE TABLE FOR MINIMUM SUPPORT SIZES.
2. TRAVERSE SEISMIC BRACING EVERY 30FT AND LONGITUDINAL EVERY 100FT.
3. ALL DUCTS THAT PASS THROUGH WALLS MUST BE BRACED ON MINIMUM ONE SIDE & WITHIN 18" OF WALL.

1 DUCT SUPPORT DETAIL
SCHEMATIC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION
VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022

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JAMES ZWINGMAN
No. M36588

MECHANICAL DETAILS

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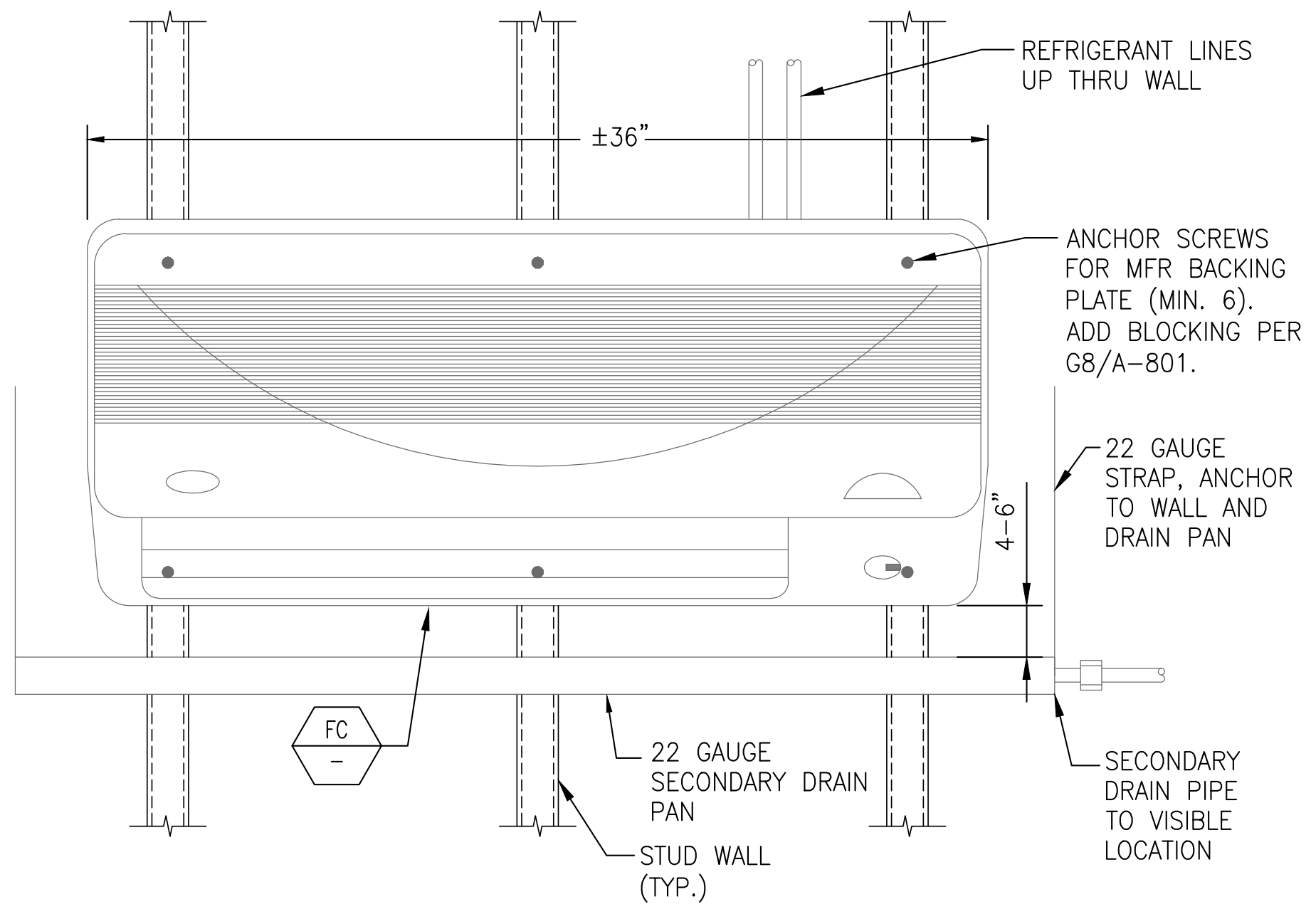
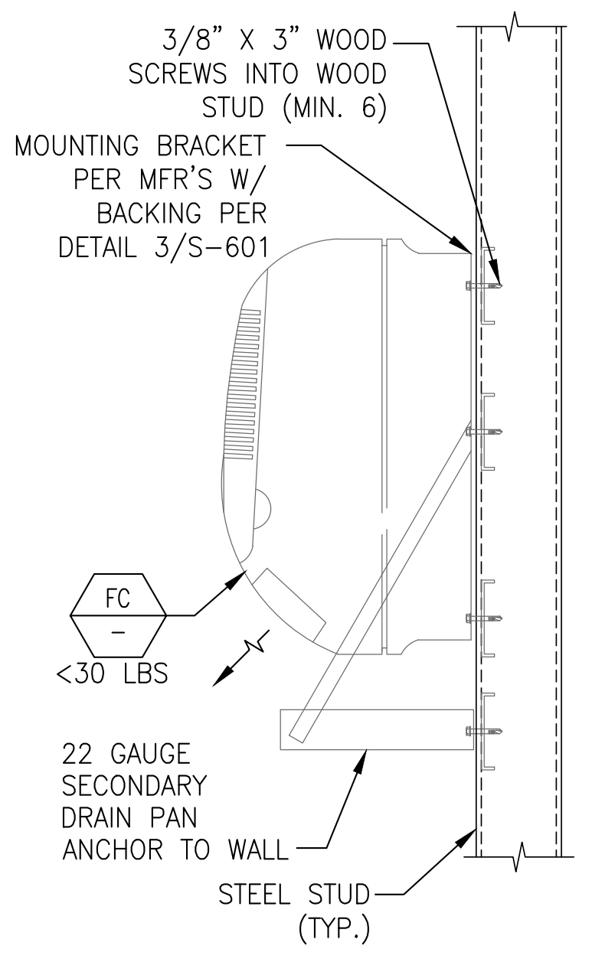
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

M501

K:\Drawings\Perkins Eastman Architects\2103238 Gateway Community School New 8-Classroom Bldg\2103238M501.dwg 1/19/2023 8:43 AM James Zwingman


REFRIGERANT LINES UP THRU WALL
±36"
ANCHOR SCREWS FOR MFR BACKING PLATE (MIN. 6). ADD BLOCKING PER G8/A-801.
22 GAUGE STRAP, ANCHOR TO WALL AND DRAIN PAN
4-6"
FC
–
22 GAUGE SECONDARY DRAIN PAN
STUD WALL (TYP.)
SECONDARY DRAIN PIPE TO VISIBLE LOCATION

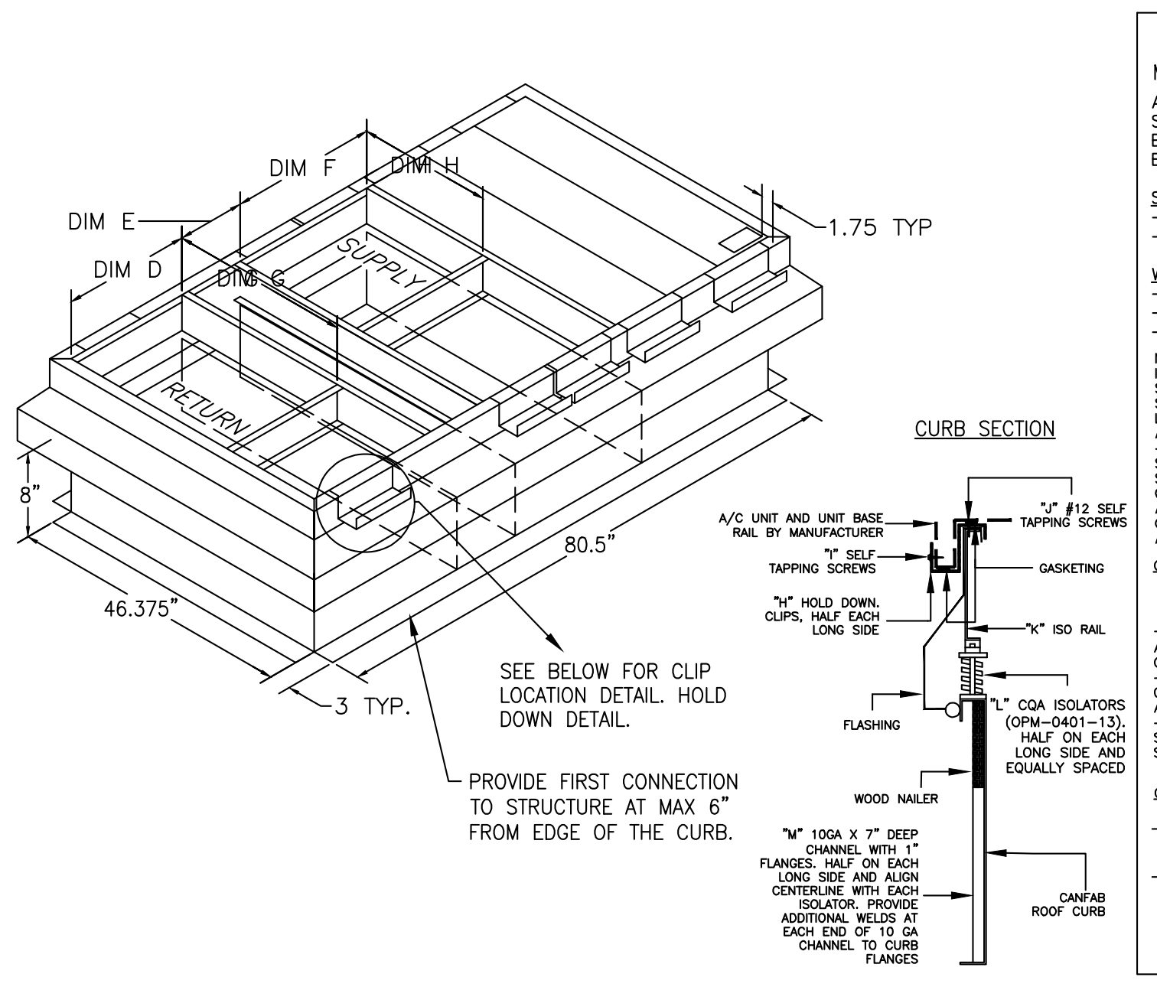
ELEVATION


3/8" X 3" WOOD SCREWS INTO WOOD STUD (MIN. 6)
MOUNTING BRACKET PER MFR'S W/ BACKING PER DETAIL 3/S-601
FC
–
<30 LBS
22 GAUGE SECONDARY DRAIN PAN ANCHOR TO WALL
STEEL STUD (TYP.)

SECTION

5 WALL FAN COIL DETAIL

SCALE: N.T.S.


DIM E
DIM F
DIM H
DIM D
DIM G
SUPPLY
RETURN
1.75 TYP
8"
80.5"
46.375"
3 TYP.
SEE BELOW FOR CLIP LOCATION DETAIL. HOLD DOWN DETAIL.
PROVIDE FIRST CONNECTION TO STRUCTURE AT MAX 6" FROM EDGE OF THE CURB.
CURB SECTION
A/C UNIT AND UNIT BASE RAIL BY MANUFACTURER
"I" SELF TAPPING SCREWS
"H" HOLD DOWN. CLIPS, HALF EACH LONG SIDE
FLASHING
WOOD NAILER
"M" 10GA X 7" DEEP CHANNEL WITH 1" FLANGES. HALF ON EACH LONG SIDE AND ALIGN CENTERLINE WITH EACH ISOLATOR. PROVIDE ADDITIONAL WELDS AT EACH END OF 10 GA CHANNEL TO CURB FLANGES
"J" #12 SELF TAPPING SCREWS
GASKETING
"K" ISO RAIL
"L" CQA ISOLATORS (OPM-0401-13). HALF ON EACH LONG SIDE AND EQUALLY SPACED
CANFAB ROOF CURB

MFR: CANFAB. PART NO. 6042-IC

ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

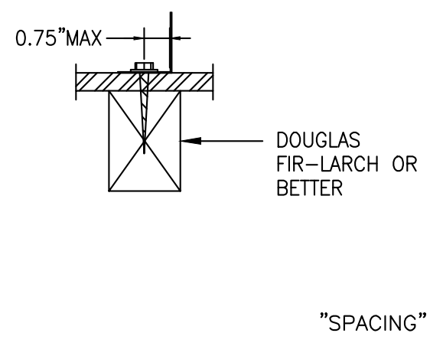
SEISMIC DESIGN CRITERIA
-SDS = 1.5 ap = 2.5
-I = 1.5 Rp = 2.0

WIND DESIGN CRITERIA
-MAX 60 FT TALL BUILDING
-EXPOSURE C
-175 MPH, 3 SECOND GUST WIND

NOTE:
INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

CURB CONSTRUCTION
1) ☒ WELDED
2) ☐ BOLTED
3) ☐ FINGERLOCK
-ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
-SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
-NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION
-14 GA GALVANIZED STEEL CURB.
-TOTAL CURB WEIGHT = 442 LBS



ATTACHMENT TO WOOD

QTY: 36 - 3/8"X4" LAG SCREWS, HALF EACH LONG SIDE.
QTY: 24 - 3/8"X4" LAG SCREWS, HALF EACH SHORT SIDE.

NOTE: SCREWS SHALL BE EQUALLY SPACED.

CLIP LOCATION DETAIL

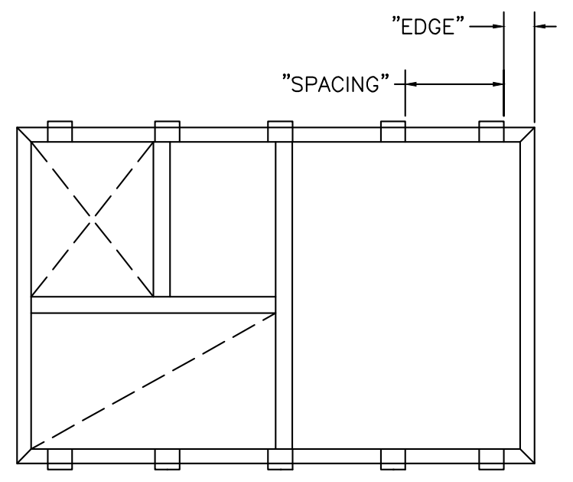
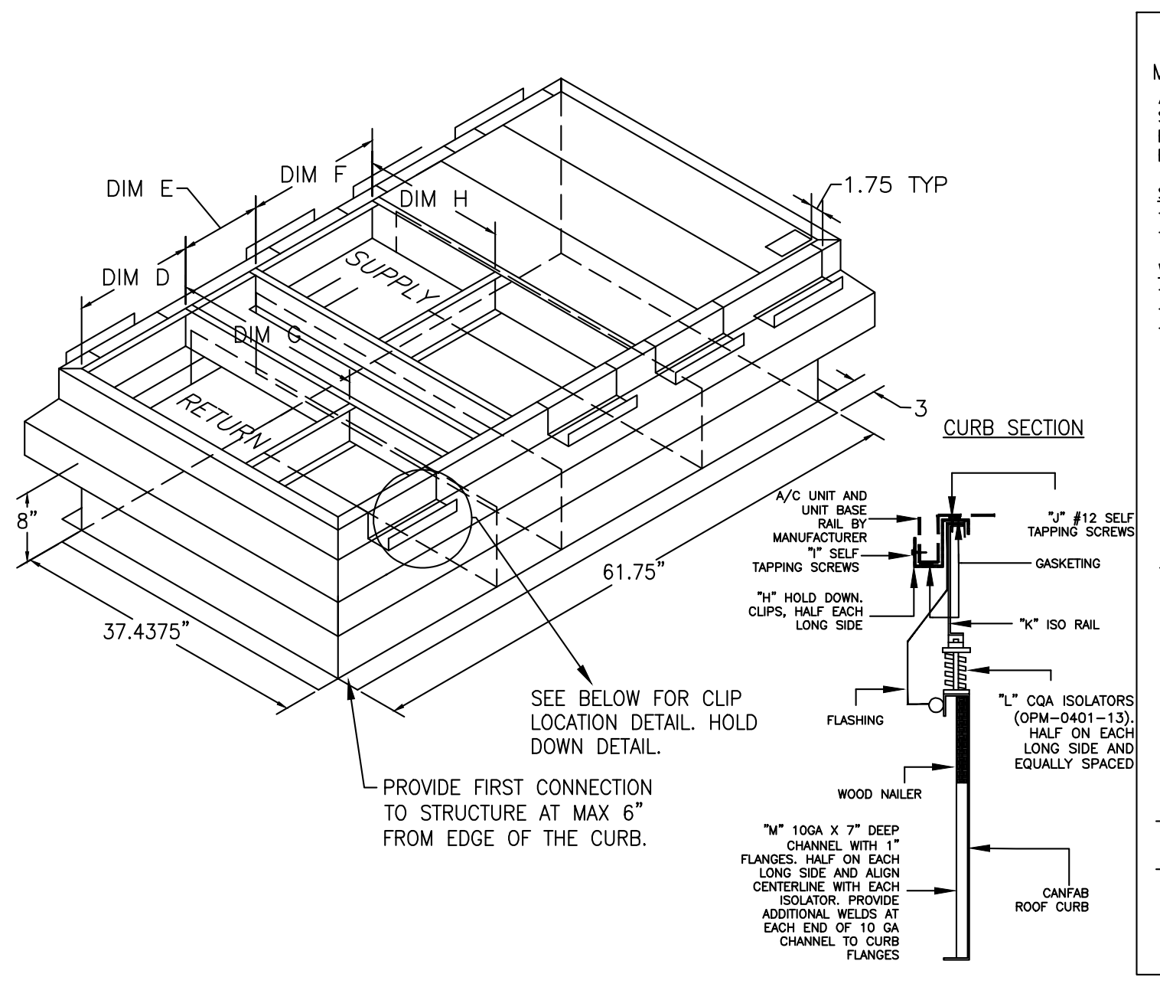


TABLE CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]
6042	7.75	17.125

4 HP-5, 6, 7, 8, 9 SPRING ISOLATOR CURB DETAIL

SCALE: N.T.S.


DIM E
DIM F
DIM H
DIM D
DIM G
SUPPLY
RETURN
1.75 TYP
3
8"
61.75"
37.4375"
SEE BELOW FOR CLIP LOCATION DETAIL. HOLD DOWN DETAIL.
PROVIDE FIRST CONNECTION TO STRUCTURE AT MAX 6" FROM EDGE OF THE CURB.
CURB SECTION
A/C UNIT AND UNIT BASE RAIL BY MANUFACTURER
"I" SELF TAPPING SCREWS
"H" HOLD DOWN. CLIPS, HALF EACH LONG SIDE
FLASHING
WOOD NAILER
"M" 10GA X 7" DEEP CHANNEL WITH 1" FLANGES. HALF ON EACH LONG SIDE AND ALIGN CENTERLINE WITH EACH ISOLATOR. PROVIDE ADDITIONAL WELDS AT EACH END OF 10 GA CHANNEL TO CURB FLANGES
"J" #12 SELF TAPPING SCREWS
GASKETING
"K" ISO RAIL
"L" CQA ISOLATORS (OPM-0401-13). HALF ON EACH LONG SIDE AND EQUALLY SPACED
CANFAB ROOF CURB

MFR: CANFAB. PART NO. 6038-IC

ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

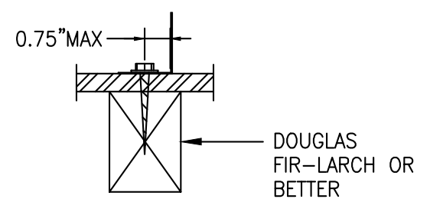
SEISMIC DESIGN CRITERIA
-SDS = 1.5 ap = 2.5
-I = 1.5 Rp = 2.0

WIND DESIGN CRITERIA
-MAX 60 FT TALL BUILDING
-EXPOSURE C
-175 MPH, 3 SECOND GUST WIND

NOTE:
INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

CURB CONSTRUCTION
1) ☒ WELDED
2) ☐ BOLTED
3) ☐ FINGERLOCK
-ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
-SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
-NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION
-14 GA GALVANIZED STEEL CURB.
-TOTAL CURB WEIGHT = 292 LBS



ATTACHMENT TO WOOD

QTY: 24 - 3/8"X4" LAG SCREWS, HALF EACH LONG SIDE.
QTY: 12 - 3/8"X4" LAG SCREWS, HALF EACH SHORT SIDE.

NOTE: SCREWS SHALL BE EQUALLY SPACED.

CLIP LOCATION DETAIL

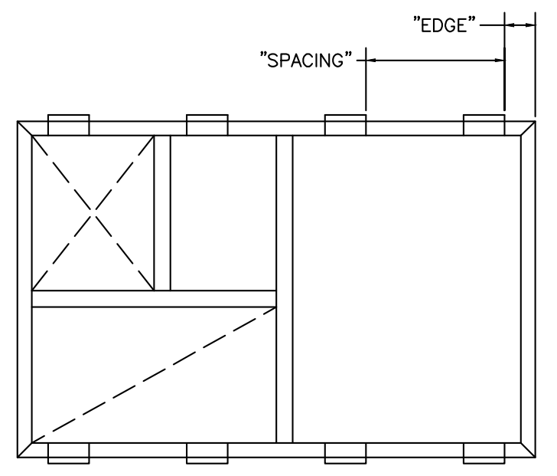
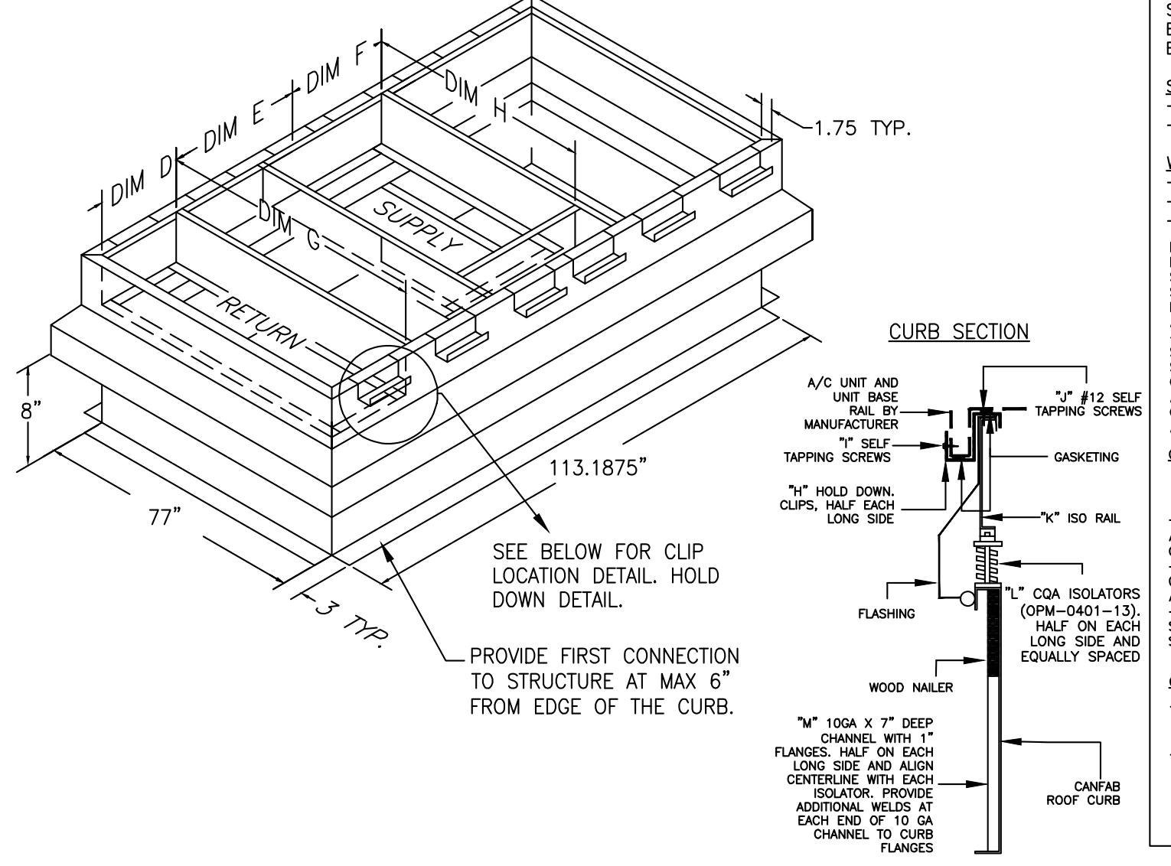


TABLE CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]
6038	7.75	16.58

3 HP-1, 2, 3, 4 SPRING ISOLATOR CURB DETAIL

SCALE: N.T.S.


DIM D
DIM E
DIM F
DIM H
DIM G
SUPPLY
RETURN
1.75 TYP.
8"
113.1875"
77"
3 TYP.
SEE BELOW FOR CLIP LOCATION DETAIL. HOLD DOWN DETAIL.
PROVIDE FIRST CONNECTION TO STRUCTURE AT MAX 6" FROM EDGE OF THE CURB.
CURB SECTION
A/C UNIT AND UNIT BASE RAIL BY MANUFACTURER
"I" SELF TAPPING SCREWS
"H" HOLD DOWN. CLIPS, HALF EACH LONG SIDE
FLASHING
WOOD NAILER
"M" 10GA X 7" DEEP CHANNEL WITH 1" FLANGES. HALF ON EACH LONG SIDE AND ALIGN CENTERLINE WITH EACH ISOLATOR. PROVIDE ADDITIONAL WELDS AT EACH END OF 10 GA CHANNEL TO CURB FLANGES
"J" #12 SELF TAPPING SCREWS
GASKETING
"K" ISO RAIL
"L" CQA ISOLATORS (OPM-0401-13). HALF ON EACH LONG SIDE AND EQUALLY SPACED
CANFAB ROOF CURB

MFR: CANFAB. PART NO. 6010-IC

ALL WORK SHALL CONFORM TO THE STANDARD OF 2018 INTERNATIONAL BUILDING CODE & 2019 CALIFORNIA BUILDING CODE.

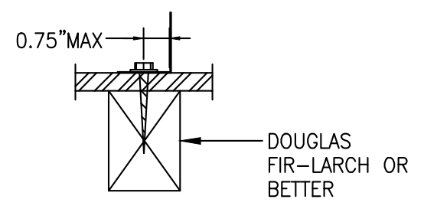
SEISMIC DESIGN CRITERIA
-SDS = 1.5 ap = 2.5
-I = 1.5 Rp = 2.0

WIND DESIGN CRITERIA
-MAX 60 FT TALL BUILDING
-EXPOSURE C
-175 MPH, 3 SECOND GUST WIND

NOTE:
INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THE ADEQUACY OF THE STRUCTURE FOR LOADS IMPOSED BY THE UNIT AND THE CURB IN ADDITION TO ALL OTHER LOADS.
-INSTALLER TO VERIFY WITH A LICENSED STRUCTURAL ENGINEER IN THE CORRESPONDING STATE THAT THE SEISMIC AND WIND DESIGN CRITERIA NOTED ON THIS DRAWING ARE ADEQUATE FOR THE SITE SPECIFIC VALUES. OTHERWISE, CONTACT CANNON FABRICATION FOR A SITE SPECIFIC ANALYSIS AND DRAWINGS.

CURB CONSTRUCTION
1) ☒ WELDED
2) ☐ BOLTED
3) ☐ FINGERLOCK
-ALL WELDING CONSTRUCTION CERTIFIED TO ANSI/AWS D1.3 STRUCTURAL WELDING CODE-SHEET METAL
-SELF-DRILLING SCREW SHALL MEET ASTM C1513 SPECIFICATION AND INSTALLED PER AISI-S100
-NO GAP IS ALLOWED BETWEEN TWO METAL SHEET SURFACES WHERE SHEET METAL SCREW IS CONNECTED

CURB AND UNIT INFORMATION
-14 GA GALVANIZED STEEL CURB.
-TOTAL CURB WEIGHT = 631 LBS



ATTACHMENT TO WOOD

QTY: 48 - 3/8"X4" LAG SCREWS, HALF EACH LONG SIDE.
QTY: 32 - 3/8"X4" LAG SCREWS, HALF EACH SHORT SIDE.

NOTE: SCREWS SHALL BE EQUALLY SPACED.

CLIP LOCATION DETAIL

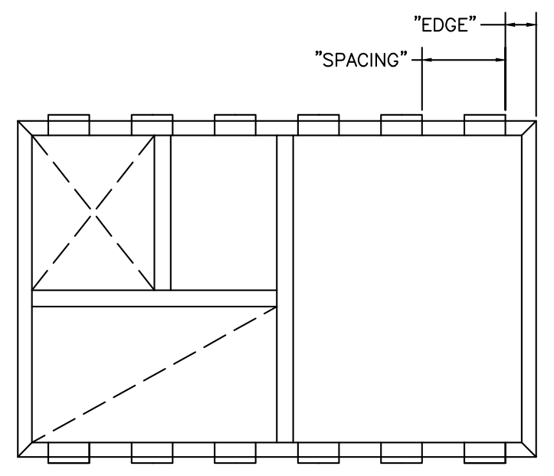
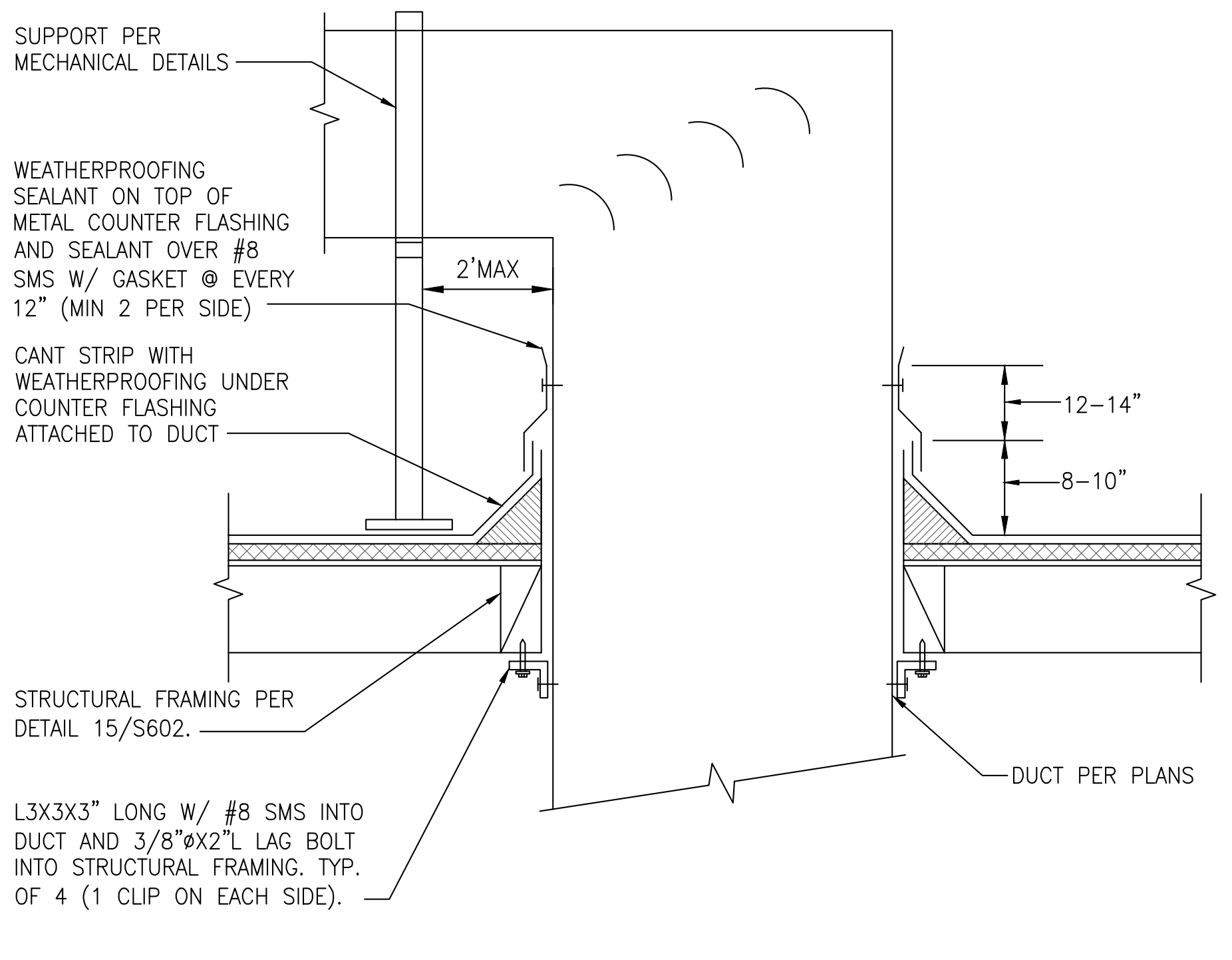


TABLE CLIP LOCATION

CURB	EDGE [IN]	SPACING [IN]
6010	7.75	18.4375

2 HP-A SPRING ISOLATOR CURB DETAIL

SCALE: N.T.S.


SUPPORT PER MECHANICAL DETAILS
WEATHERPROOFING SEALANT ON TOP OF METAL COUNTER FLASHING AND SEALANT OVER #8 SMS W/ GASKET @ EVERY 12" (MIN 2 PER SIDE)
2'MAX
CANT STRIP WITH WEATHERPROOFING UNDER COUNTER FLASHING ATTACHED TO DUCT
12-14"
8-10"
STRUCTURAL FRAMING PER DETAIL 15/S602.
DUCT PER PLANS
L3X3X3" LONG W/ #8 SMS INTO DUCT AND 3/8"øX2"L LAG BOLT INTO STRUCTURAL FRAMING. TYP. OF 4 (1 CLIP ON EACH SIDE).

1 DUCT THRU ROOF DETAIL

SCALE: N.T.S.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022
△	
△	
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JAMES ZWINGMAN
No. M35588
MECHANICAL

MECHANICAL DETAILS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

M502

K:\drawings\Perkins Eastman Architects\2103238 Gateway Community School New 8-Classroom Bldg\2103238M502.dwg 1/13/2023 4:34 PM Toan Pham

HEAT PUMP UNIT SCHEDULE

MARK	DESCRIPTION	MAKE	MODEL #	NOM. TONS	COMP. QTY	CONDENSER FAN (QTY)	D/X COOLING		HEATING		ELECTRICAL			REFRIG. TYPE	ENERGY EFFICIENCY RATIO (IEER/EER)	REFRIG. LINE SIZES (SUCT./LIQ.)	MAX. OPER. WT. (LBS)	STRUCT. ANCHOR DETAIL	NOTES
							TOTAL (MBH)	OUTSIDE AIR (DEG F)	SENSIBLE (MBH)	OUTSIDE AIR (DEG F)	VOLTAGE/ PHASE/HZ	MCA	MOP						
SHP-1	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	NTXSKS18A112AA	1.5	1	1	18,000	95	15,000	47	208-230V/ 1/60	9	16	R-410A	20.5 (SEER)/12.9	3/8" / 1/4"	83	6/S-603	1, 2, 3, 4, 5, 6
SHP-2	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	NTXSKS12A112AA	1	1	1	12,000	95	15,000	47	208-230V/ 1/60	9	16	R-410A	20.5 (SEER)/12.9	3/8" / 1/4"	83	6/S-603	1, 2, 3, 4, 5, 6
SHP-3	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	NTXSKS09A112AA	0.75	1	1	9,000	95	12,000	47	208-230V/ 1/60	9	15	R-410A	19.7 (SEER)/12.5	3/8" / 1/4"	83	6/S-603	1, 2, 3, 4, 5, 6
SHP-4	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	NTXSKS12A112AA	1	1	1	12,000	95	15,000	47	208-230V/ 1/60	9	16	R-410A	20.5(SEER)/12.9	3/8" / 1/4"	83	6/S-603	1, 2, 3, 4, 5, 6
SHP-5	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	NTXSKS15A112AA	1.25	1	1	15,000	95	18,000	47	208-230V/ 1/60	10	18	R-410A	19.2 (SEER)/13	3/8" / 1/4"	83	6/S-603	1, 2, 3, 4, 5, 6
SHP-6	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	NTXSKS09A112AA	0.75	1	1	9,000	95	12,000	47	208-230V/ 1/60	9	15	R-410A	19.7 (SEER)/12.5	3/8" / 1/4"	83	6/S-603	1, 2, 3, 4, 5, 6
SHP-7	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	NTXSKS15A112AA	1.25	1	1	15,000	95	18,000	47	208-230V/ 1/60	10	18	R-410A	19.2 (SEER)/13	3/8" / 1/4"	83	6/S-603	1, 2, 3, 4, 5, 6
SHP-8	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	NTXSKS18A112AA	1.5	1	1	18,000	95	15,000	47	208-230V/ 1/60	9	16	R-410A	20.5 (SEER)/12.9	3/8" / 1/4"	83	6/S-603	1, 2, 3, 4, 5, 6
SHP-MDF	WALL MOUNTED UNIT	TRANE-MITSUBISHI	TRUZA018KA70	1.5	1	1	18,000	95	19,000	47	208-230V/ 1/60	11	28	R-410A	20.8 (SEER)/12	1/2" / 1/4"	97	6/S-603	1, 2, 3, 4, 5, 6
SHP-IDF	WALL MOUNTED UNIT	TRANE-MITSUBISHI	TRUZA0121KA70	1	1	1	12,000	95	14,000	47	208-230V/ 1/60	11	28	R-410A	18.5 (SEER)/9.9	1/2" / 1/4"	104	6/S-603	1, 2, 3, 4, 5, 6

NOTES:

1) FACTORY START-UP
2) OUTDOOR CONDENSER UNIT RATED AT 95 DEGREE F
3) PRE-ENGINEERED ISOLATOR CURB.
4) FIELD INSTALLED SEISMIC RATED SPRING ISOLATORS OR SPRING ISOLATOR CURB.
5) BACNET CONTROL CARD
6) SINGLE OUTDOOR HEAT PUMP CONNECTED TO SINGLE FAN COIL.

FAN COIL UNIT SCHEDULE

MARK	DESCRIPTION	SERVICE AREA	MAKE	MODEL #	NOM. TONS	SUPPLY CFM	OUTSIDE AIR (CFM)	D/X COOLING			HEATING	ELECTRICAL		REFRIG. TYPE	REFRIG. LINE SIZES (SUCT./LIQ.)	MAX. OPER WT. (LBS)	STRUCT. ANCHOR DETAIL	NOTES
								TOTAL (BTU/HR)	SENS. (BTU/HR)	ENT AIR TEMP (DEG F)	SENSIBLE (BTU/HR)	VOLTAGE/ PH /HZ	MCA					
FC-1	INDOOR FAN COIL	OFFICES A125, A127, A129	MITSUBISHI	TPEADA0181AA70A	1.50	480	40	18,000	13,500	80.0/67.0	15,000	208/1/60	1.45	R-410A	3/8" / 1/4"	60	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-2	INDOOR FAN COIL	STAFF LOUNGE A128, CUSTODIAL STOR A128.1	MITSUBISHI	TPEADA0121AA70A	1.00	470	110	12,000	10,800	80.0/67.0	15,000	208/1/60	1.45	R-410A	3/8" / 1/4"	60	2/M-501	1, 2, 3, 5, 6, 8, 10
FC-3	INDOOR FAN COIL	NORTH CORRIDOR	MITSUBISHI	TPEADA0091AA70A	0.75	350	60	9,000	8,100	80.0/67.0	12,000	208/1/60	1.45	R-410A	3/8" / 1/4"	60	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-4	INDOOR FAN COIL	CONFERENCE RM A124	MITSUBISHI	TPEADA0121AA70A	1.00	400	70	12,000	10,800	80.0/67.0	15,000	208/1/60	1.45	R-410A	3/8" / 1/4"	60	2/M-501	1, 2, 3, 5, 6, 8, 10
FC-5	INDOOR FAN COIL	STAFF'S WORK RM A117, STORAGE A117.1	MITSUBISHI	TPEADA0151AA70A	1.25	550	170	15,000	13,500	80.0/67.0	18,000	208/1/60	1.69	R-410A	3/8" / 1/4"	64	2/M-501	1, 2, 3, 5, 6, 8, 10
FC-6	INDOOR FAN COIL	NURSE A120, PUBLIC RR A119	MITSUBISHI	TPEADA0091AA70A	0.75	270	30	9,000	8,100	80.0/67.0	12,000	208/1/60	1.45	R-410A	3/8" / 1/4"	60	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-7	INDOOR FAN COIL	PRINCIPAL'S OFFICE A115. INCENTIVE RM A116	MITSUBISHI	TPEADA0151AA70A	1.25	570	130	15,000	13,500	80.0/67.0	18,000	208/1/60	1.69	R-410A	3/8" / 1/4"	64	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-8	INDOOR FAN COIL	FOOD SERVICE A113	MITSUBISHI	TPEADA0181AA70A	1.50	500	300	18,000	13,500	80.0/67.0	15,000	208/1/60	1.45	R-410A	3/8" / 1/4"	60	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-MDF	WALL MOUNTED FAN COIL	MDF ROOM	MITSUBISHI	TPKA0A0181HA70A	1.5	400	0	18,000	12,240	80.0/67.0	19,000	208/1/60	1.00	R-410A	1/2" / 1/4"	32	5/M-502 & 3/S-601	3, 4, 5, 7, 8, 9, 11
FC-IDF	WALL MOUNTED FAN COIL	IDF ROOM	MITSUBISHI	TPKA0A0121HA70A	1.0	400	0	12,000	9,720	80.0/67.0	14,000	208/1/60	1.00	R-410A	1/2" / 1/4"	32	5/M-502 & 3/S-601	3, 4, 5, 7, 8, 9, 11

NOTES:

1) FIELD INSTALLED FILTER BOX W/ MERV 13 FILTERS (2" THICK) FILTERS.
2) SUSPENDED FROM STRUCTURAL SUPPORTS WITH SEISMIC RATED SPRING ISOLATORS.
3) BUILT-IN UNIT CONDENSATE PUMP
4) WALL MOUNTED WITH BRACKET
5) CONNECTED TO INDIVIDUALSINGLE OUTDOOR UNIT (HP/CU)
6) PROGRAMMABLE THERMOSTAT WITH OCCUPANCY SENSOR
7) PROGRAMMABLE THERMOSTAT
8) POWERED THRU OUTDOOR UNIT
9) NO VENTILATION SINCE UNOCCUPIED TELECOM/ELECTRICAL ROOM
10) VENTILATION PROVIDED BY SEPARATE AIR INTAKE CONNECTED TO RETURN WITH MANUAL BALANCING DAMPER.
11) F&I WALL MOUNTED FAN COILS FOR MDF/IDF ROOMS.

EXHAUST FAN SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	CFM	STATIC PRESS (IN.)	OPERATING POWER (HP)	MOTOR POWER (HP)	FAN RPM	MOTOR (V/PH/HZ)	EQUIP. WT. (LBS)	WT. W/ CURB & ACCESS. (LBS)	STRUCT. ANCHOR DETAIL	REMARKS
EF-1	ADMIN INTERIOR RESTROOMS A122 & 123, PUBLIC RR A119, STORAGE A117.1	GREENHECK	G-095-VG	300	0.60	0.08	0.17	1475	115-1-60	33	57	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN STORAGE
EF-2	ADMIN EXTERIOR RESTROOMS A112	GREENHECK	G-095-VG	300	0.60	0.08	0.17	1475	115-1-60	33	57	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN STORAGE
EF-3	CLUSTER RESTROOMS A132	GREENHECK	G-095-VG	300	0.60	0.08	0.17	1475	115-1-60	33	57	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN STORAGE
EF-4	FOOD SERVICE A113	GREENHECK	G-095-VG	300	0.50	0.08	0.17	1475	115-1-60	33	57	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN JAN CLOSET.
EF-5	JAN. CLOSET/ ELECTRICAL ROOM	GREENHECK	G-097-VG	130	0.50	0.08	0.25	1137	115-1-60	42	69	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN ELECTRICAL RM.
EF-6	JAN. CLOSET/ ELECTRICAL ROOM	GREENHECK	G-097-VG	110	0.50	0.08	0.25	1137	115-1-60	42	69	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN CUSTODIAL STOR.

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BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

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BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

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JAMES ZWINGMAN
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PACKAGED ROOFTOP HEAT PUMP UNIT SCHEDULE

MARK	DESCRIPTION	SERVICE AREA	MAKE	MODEL #	NOM. TONS	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	SUPPLY FAN ESP (IN)	SUPPLY FAN (BHP)	SUPPLY FAN MOTOR SIZE (HP)	COMP. QTY	CONDENSER FAN (QTY)	D/X COOLING				HEATING		ELECTRICAL			REFRIG. TYPE	FILTERS (MERV)	ENERGY EFFICIENCY RATIO (SEER/EER)	MAX. OPER. EQUIP. WT (LBS)	CURB WT (LBS)	ECONO-MIZER & POWER EXH (LBS)	TOTAL WT (LBS)	STRUCT. ANCHOR DETAIL	NOTES
													TOTAL (MBH)	SENSIBLE CAPACITY (MBH)	ENT AIR TEMP (DB/WB)	OUTSIDE AIR (DEG F)	SENSIBLE (MBH)	OUTSIDE AIR (DEG F)	VOLTAGE/ PHASE/HZ	MCA	MOP									
HP-1	PACKAGED HEAT PUMP UNIT	CLASSROOM A101	TRANE	WHC036H3R0B	3	1,100	350 DCV: 150	1.0	0.69	1.5	1	1	35.0	29.1	80 / 67	95	31	47	208-230V/ 3/60	20	30	R-410A	13 (2" DEEP)	16 (SEER)/12.5	793	292	68	1,153	3/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9
HP-2	PACKAGED HEAT PUMP UNIT	CLASSROOM A102	TRANE	WHC036H3R0B	3	1,100	350 DCV: 150	1.0	0.69	1.5	1	1	35.0	29.1	80 / 67	95	31	47	208-230V/ 3/60	20	30	R-410A	13 (2" DEEP)	16 (SEER)/12.5	793	292	68	1,153	3/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9
HP-3	PACKAGED HEAT PUMP UNIT	CLASSROOM A103	TRANE	WHC036H3R0B	3	1,100	350 DCV: 150	1.0	0.69	1.5	1	1	35.0	29.1	80 / 67	95	31	47	208-230V/ 3/60	20	30	R-410A	13 (2" DEEP)	16 (SEER)/12.5	793	292	68	1,153	3/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9
HP-4	PACKAGED HEAT PUMP UNIT	CLASSROOM C104	TRANE	WHC036H3R0B	3	1,100	350 DCV: 150	1.0	0.69	1.5	1	1	35.0	29.1	80 / 67	95	31	47	208-230V/ 3/60	20	30	R-410A	13 (2" DEEP)	16 (SEER)/12.5	793	292	68	1,153	3/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9, 10
HP-5	PACKAGED HEAT PUMP UNIT	CLASSROOM B106	TRANE	WHC048H3R0A	4	1,600	375 DCV: 150	1.0	0.74	1.5	1	1	46.5	35.9	80 / 67	95	43	47	208-230V/ 3/60	24	35	R-410A	13 (2" DEEP)	16.5 (SEER)/13	1,068	442	96	1,606	4/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9
HP-6	PACKAGED HEAT PUMP UNIT	CLASSROOM B105	TRANE	WHC048H3R0A	4	1,600	375 DCV: 150	1.0	0.74	1.5	1	1	46.7	35.9	80 / 67	95	43	47	208-230V/ 3/60	24	35	R-410A	13 (2" DEEP)	16.5 (SEER)/13	1,068	442	96	1,606	4/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9
HP-7	PACKAGED HEAT PUMP UNIT	CLASSROOM B107	TRANE	WHC048H3R0A	4	1,600	375 DCV: 150	1.0	0.74	1.5	1	1	46.9	35.9	80 / 67	95	43	47	208-230V/ 3/60	24	35	R-410A	13 (2" DEEP)	16.5 (SEER)/13	1,068	442	96	1,606	4/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9
HP-8	PACKAGED HEAT PUMP UNIT	CLASSROOM B108	TRANE	WHC048H3R0A	4	1,600	375 DCV: 150	1.0	0.74	1.5	1	1	46.7	35.9	80 / 67	95	43	47	208-230V/ 3/60	24	35	R-410A	13 (2" DEEP)	16.5 (SEER)/13	1,068	442	96	1,606	4/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9
HP-9	PACKAGED HEAT PUMP UNIT	ADMIN LOBBY 209 / WELCOME CTR A133	TRANE	WHC060H3R0A	5	1,900	180	1.0	1.16	1.5	1	1	58.8	51.3	80 / 67	95	26	47	208-230V/ 3/60	27	40	R-410A	13 (2" DEEP)	16.4 (SEER)/13	1,067	442	96	1,606	4/M502 & 7/S602	1, 2, 3, 4, 5, 6, 7, 9
HP-A	PACKAGED HEAT PUMP UNIT	ASSEMBLY SPACE / PLATFORM B109	TRANE	WSD240E3R0D	20	7,000	1830 DCV : 660	1.5	4.22	5	2	2	241.4	156.4	80 / 67	95	240	47	208-230V /3/60	115	150	R-410A	13 (2" DEEP)	12 (SEER)/9.7	2,384	631	770	3,785	2/M502 & 7/S602	1, 2, 3, 4, 5, 6, 8, 9

NOTES:

1) FACTORY START-UP
2) FAULT DIAGNOSTIC SOFTWARE AND PROGRAMMING
3) PRE-ENGINEERED SEISMIC ISOLATOR CURB.FIELD INSTALLED.
4) SINGLE ZONE VAV UNIT WITH SUPPLY FAN MODULATION.
5) BACNET CONTROL CARD
6) PROGRAMMABLE THERMOSTAT WITH OCCUPANCY SENSOR
7) FIELD INSTALLED ECONOMIZER WITH 100% BAROMETRIC RELIEFF. DEMAND CONTROL VENTILATION CAPABILITY WITH CO2 SENSOR
8) FIELD INSTALLED ECONOMIZER WITH MODULATING POWER EXHAUST. DEMAND CONTROL VENTILATION CAPABILITY WITH CO2 SENSOR
9) INSTALL WITH DUCT DETECTOR ON SA DUCT AND INTERLOCK WITH HVAC UNIT FOR SHUTDOWN OF EQUIPMENT. SEE FIRE ALARM DRAWINGS.
10) EQUIPMENT AND ALL ASSOCIATED DUCTWORK SHALL BE DEDUCT ALTERNATE DURING BIDDING.

ECONOMIZER AND POWER EXHAUST SCHEDULE

MARK	EQUIPMENT SERVED	MAKE	MODEL	HORSE - POWER (HP)	DISCHARGE CFM	ESP (IN. WG)	VOLT/PH/ HERTZ	FLA (AMPS)	MCA	MOCP (AMPS)	OPER. WEIGHT (LBS)	NOTES
PE-HP-A	HP-A	CANFAB	6114-MPE	3	6,500	0.5	208/3/60	9.2	11.5	20.7	736	1, 2, 3, 4

NOTES:

1) INTEGRATE WITH HVAC EQUIPMENT AND TEST TO ENSURE POWER EXHAUST OPERATES DURING ECONOMIZER MODE.
2) MODULATING POWER EXHAUST WITH VARIABLE SPEED DRIVE WITH PRESSURE TEST TUBE IN RETURN AIR DUCT.
3) DRY BULB SENSORS.
4) EQUIPMENT IS ATTACHED TO ROOFTOP EQUIPMENT AND DOES NOT REQUIRE STRUCTURAL SUPPORTS.

DIFFUSER/GRILLE SCHEDULE

TERMINAL MARK	NECK SIZE	SIZE (IN)	AIR FLOW PATTERN	CFM RANGE	MANUF.	MODEL	CONSTRUCTION TYPE	NOTES:
CD-1	8" DUCT DIA	8X8	4-WAY	75-140	KRUEGER	6500	STEEL	1, 2, 6
	10" DUCT DIA	8X8	4-WAY	140-250	KRUEGER	6500	STEEL	1, 2, 6
	12" DUCT DIA	10X10	4-WAY	251-425	KRUEGER	6500	STEEL	1, 2, 6
	14" DUCT DIA	12X12	4-WAY	426-625	KRUEGER	6500	STEEL	1, 2, 6
	16" DUCT DIA	14X14	4-WAY	626-900	KRUEGER	6500	STEEL	1, 2, 6
CD-2	6" DUCT DIA	6" DIA	4-WAY	50-110	KRUEGER	1240	STEEL	1, 5
	8" DUCT DIA	8" DIA	4-WAY	111-280	KRUEGER	1240	STEEL	1, 5
	10" DUCT DIA	10" DIA	4-WAY	281-500	KRUEGER	1240	STEEL	1, 5
	12" DUCT DIA	12" DIA	4-WAY	501-725	KRUEGER	1240	STEEL	1, 5
	14" DUCT DIA	14" DIA	4-WAY	726-1050	KRUEGER	1240	STEEL	1, 5
SWD-1	VARIOUS	18X10	2-WAY	300-500	KRUEGER	880	STEEL	4
	VARIOUS	24X12	2-WAY	501-900	KRUEGER	880	STEEL	4
RAG-1/EAG-1	6" DUCT DIA	6" DIA	1-WAY	75-140	KRUEGER	6690	STEEL	1, 2, 6, 8
	8" DUCT DIA	8" DIA	1-WAY	140-250	KRUEGER	6690	STEEL	1, 2, 6, 8
	10" DUCT DIA	10" DIA	1-WAY	251-425	KRUEGER	6690	STEEL	1, 2, 6, 8
	12" DUCT DIA	12" DIA	1-WAY	426-625	KRUEGER	6690	STEEL	1, 2, 6, 8
	14" DUCT DIA	14" DIA	1-WAY	626-900	KRUEGER	6690	STEEL	1, 2, 6, 8
	16" DUCT DIA	16" DIA	1-WAY	901-1300	KRUEGER	6690	STEEL	1, 2, 6, 8
RAG-2/EAG-2	DUCT SIZE	6X6	1-WAY	0-150	KRUEGER	S80-30	STEEL	1, 3, 4, 5
	DUCT SIZE	16X16	1-WAY	151-750	KRUEGER	S80-30	STEEL	1, 3, 4, 5
	DUCT SIZE	18X18	1-WAY	751-950	KRUEGER	S80-30	STEEL	1, 3, 4, 5
	DUCT SIZE	20X20	1-WAY	951-1250	KRUEGER	S80-30	STEEL	1, 3, 4, 5
	DUCT SIZE	30X30	1-WAY	1251-2500	KRUEGER	S80-30	STEEL	1, 3, 4, 5
RAG/EAG-3	VARIOUS	18X10	1-WAY	300-500	KRUEGER	80	STEEL	5
	VARIOUS	24X12	1-WAY	501-900	KRUEGER	80	STEEL	5

NOTES:

1) PROVIDE ALL NECESSARY TRANSITIONS FOR DIFFUSERS AND GRILLES. COORDINATE WITH SITE AND ARCHITECTURAL PLANS
2) PERFORATED FACE
3) BLADES PARALLEL TO LONG DIMENSION
4) DUCT SUPPORTED/MOUNTED
5) WALL/CEILING SURFACE MOUNTED
6) LAY-IN CEILING WITH BORDER
7) INSTALL WITH SOUND BOOT (ELBOW WITH MIN 6 FEET OF ROUND/RECTANGULAR DUCTWORK)
8) ALL OPEN OFFICE/AREAS SHALL HAVE 14" DIAMETER NECK FOR RETURN GRILLES. ALL OTHER ENCLOSED OFFICES SHALL MATCH THE SUPPLY SIZE.

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LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
REN. JUL. 31, 2021
STATE OF CALIFORNIA

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BUILDING ADDITION

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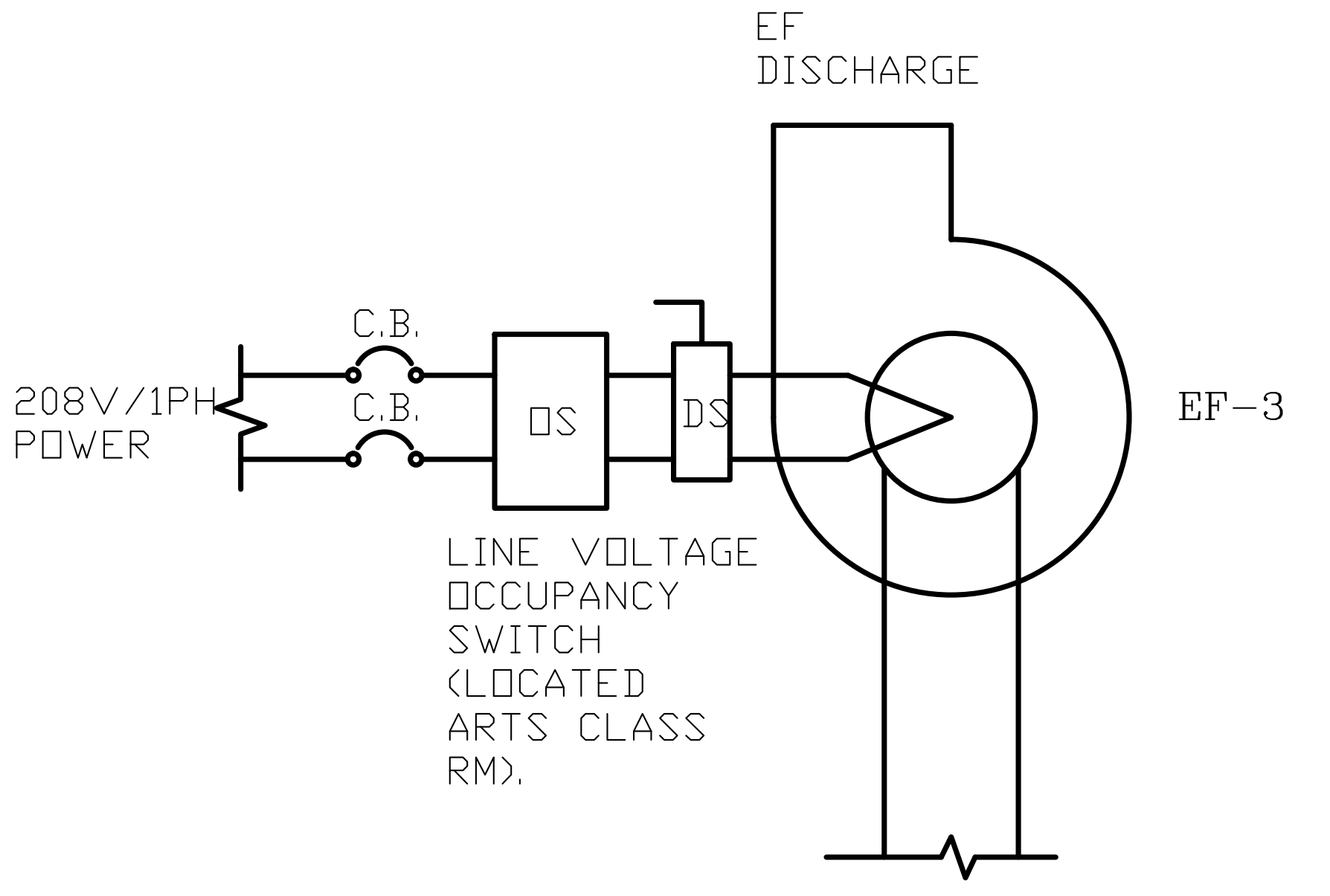
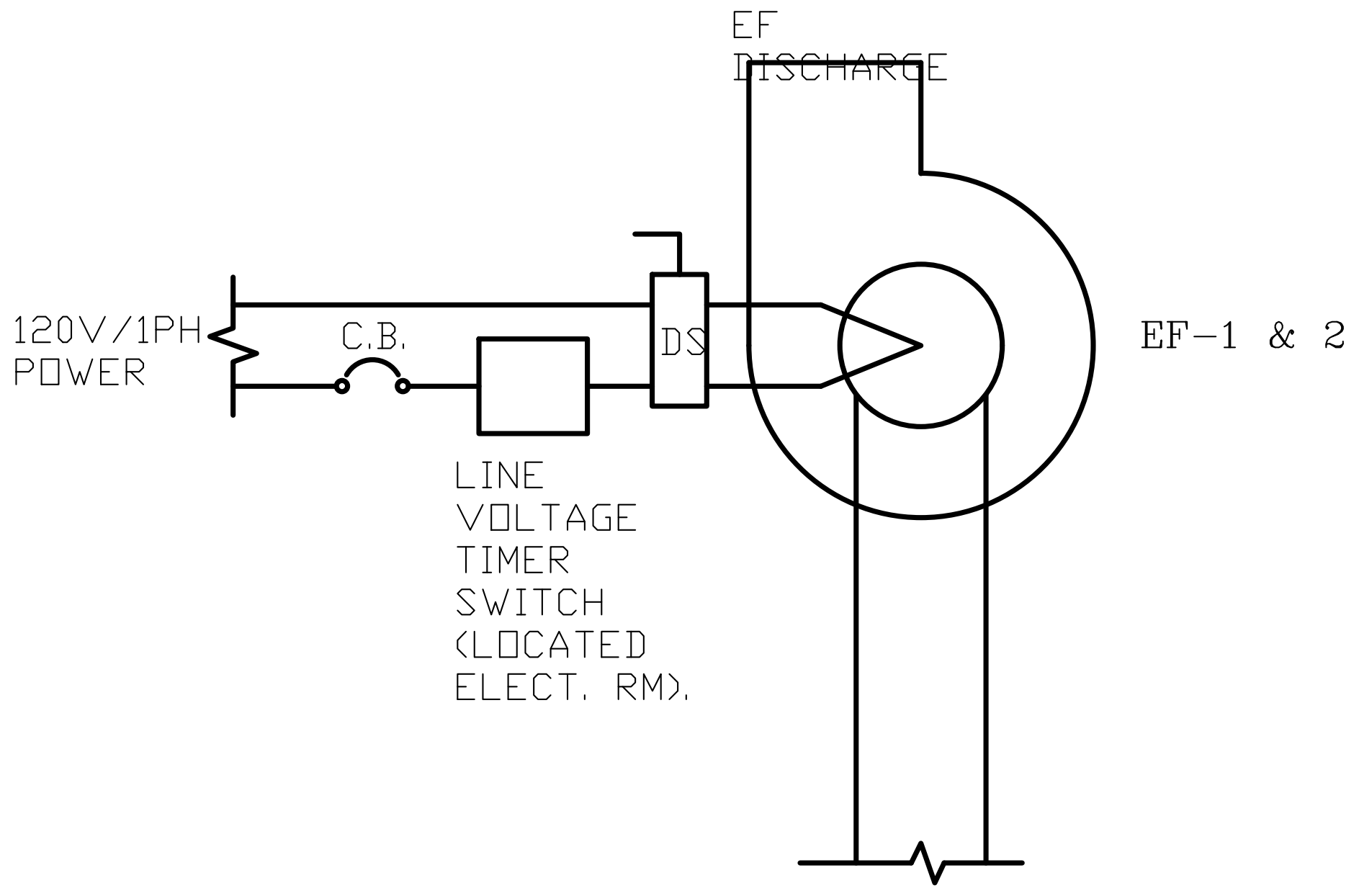


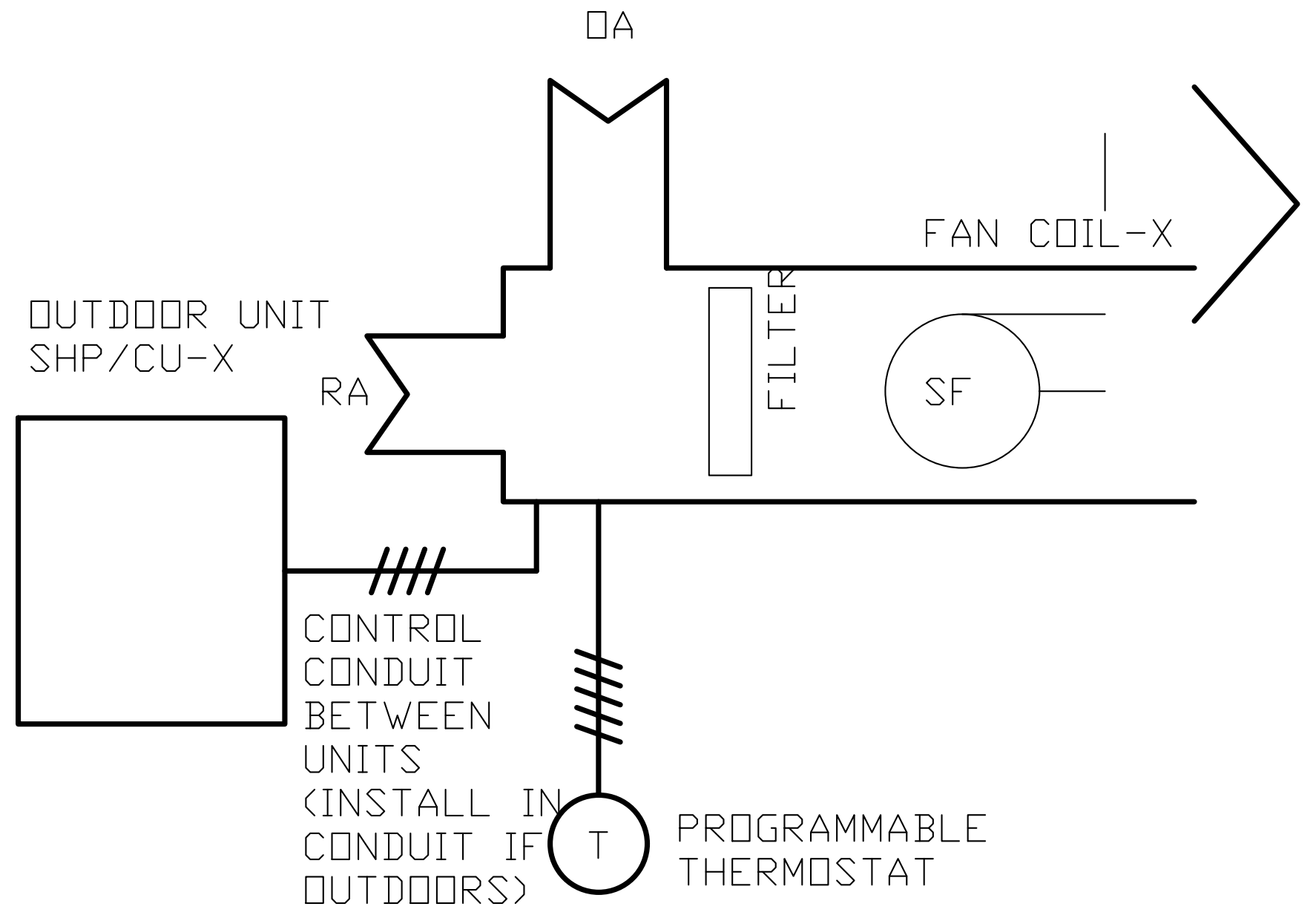
NOTES:
1. CONTROL DIAGRAMS ARE DIAGRAMMATICAL AND SHALL FOLLOW MANUFACTURER'S REQUIREMENTS FOR NUMBER OF WIRES AND TERMINATION POINTS.

5 PACKAGED HEAT PUMP CONTROL DIAGRAM
SCALE: N.T.S.



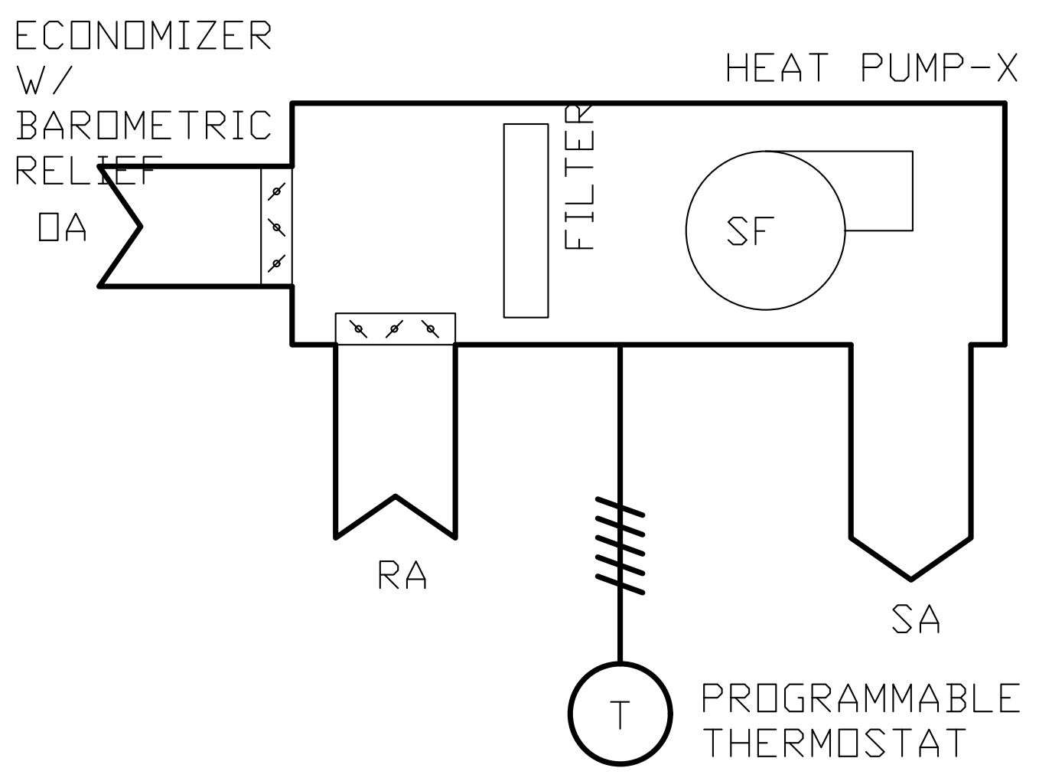
NOTES:
1. CONTROL DIAGRAMS ARE DIAGRAMMATICAL AND SHALL FOLLOW MANUFACTURER'S REQUIREMENTS FOR NUMBER OF WIRES AND TERMINATION POINTS.

4 EF CONTROL DIAGRAM
SCALE: N.T.S.



NOTES:
1. CONTROL DIAGRAMS ARE DIAGRAMMATICAL AND SHALL FOLLOW MANUFACTURER'S REQUIREMENTS FOR NUMBER OF WIRES AND TERMINATION POINTS.

3 SPLIT DX CONTROL DIAGRAM
SCALE: N.T.S.



NOTES:
1. CONTROL DIAGRAMS ARE DIAGRAMMATICAL AND SHALL FOLLOW MANUFACTURER'S REQUIREMENTS FOR NUMBER OF WIRES AND TERMINATION POINTS.

2 PACKAGED HEAT PUMP CONTROL DIAGRAM
SCALE: N.T.S.

SEQUENCE OF OPERATIONS

ROOFTOP PACKAGED UNIT FOR CLASSROOMS
UNOCCUPIED HOURS:
1. THE SYSTEM IS NOT OPERATIONAL AND AVAILABLE FOR TENANT CALLS AS NEEDED BY OVERRIDE COMMAND.

OCCUPIED HOURS:
1. OCCUPIED HOURS ENABLED BY SCHEDULE 6:30AM TO 6PM (ADJUSTABLE).
  1.A. SUPPLY FAN SHALL BE ENABLED TO RUN CONTINUOUSLY FOR VENTILATION REQUIREMENTS. THE SUPPLY FAN SHALL OPERATE FOR VENTILATION MODE. SUPPLY FAN SHALL OPERATE AT LOWEST SPEED WHEN TWO SPEED MOTOR IS IN OPERATION AND NO COOLING IS REQUIRED OR SINGLE STAGE OF COOLING IS REQUIRED. WHEN SECOND STAGE OF COOLING IS ENABLED, THE SUPPLY FAN SHALL OPERATE AT HIGH SPEED. THE OUTSIDE AIR DAMPERS SHALL MODULATE OR BE SET IN 2 POSITIONS WHEN THE SUPPLY FAN IS IN LOW OR HIGH SPEED OPERATION TO MAINTAIN VENTILATION PER SCHEDULE.
  1.B. DEMAND CONTROL VENTILATION:
    1.B.A. SYSTEM SHALL BE SET FOR MINIMUM VENTILATION PER EQUIPMENT SCHEDULE.
  1.C. COOLING MODE:
    1.C.A. THE SUPPLY FAN SHALL BE STARTED. THE CONDENSER UNIT WILL THEN BE STARTED AND ANY REFRIGERANT CONTROL SYSTEM AND COMPRESSORS SHALL BE STARTED TO ALLOW FOR COOLING UNIT UNIT THE SETPOINT IS MET. THE SYSTEM SHALL ENABLE A SINGLE COMPRESSOR (STAGE 1) AT A TIME TO MAINTAIN COOLING SETPOINTS. ENABLE SECOND COMPRESSOR IF SINGLE COMPRESSOR IS UNABLE TO SATISFY ZONE TEMPERATURE SETPOINT AFTER 10 MINUTES (ADJUSTABLE) OR SETPOINT IS GREATER THAN 1°F THAN ZONE TEMPERATURE. THE COMPRESSOR UNIT SHALL THEN TURN OFF ANY REFRIGERANT CONTROL SYSTEM AND COMPRESSORS.
    1.C.B. THE ZONE SHALL BE MAINTAINED AT TEMPERATURE SETPOINT OF 72°F (ADJUSTABLE). THE SYSTEM SHALL MAINTAIN A DEADBAND OF 3°F (ADJUSTABLE) BETWEEN HEATING AND COOLING SETPOINTS.
  1.D. HEATING MODE:
    1.C.A. THE SUPPLY FAN SHALL BE STARTED. THE CONDENSER UNIT WILL THEN BE STARTED AND ANY REFRIGERANT CONTROL SYSTEM INCLUDING REVERSING VALVES AND COMPRESSORS SHALL BE STARTED TO ALLOW FOR HEATING UNIT UNIT THE SETPOINT IS MET. THE SYSTEM SHALL ENABLE A SINGLE COMPRESSOR (STAGE 1) AT A TIME TO MAINTAIN HEATING SETPOINTS. ENABLE SECOND COMPRESSOR IF SINGLE COMPRESSOR IS UNABLE TO SATISFY ZONE TEMPERATURE SETPOINT AFTER 10 MINUTES (ADJUSTABLE) OR SETPOINT IS GREATER THAN 1°F THAN ZONE TEMPERATURE. THE COMPRESSOR UNIT SHALL THEN TURN OFF ANY REFRIGERANT CONTROL SYSTEM AND COMPRESSORS.
    1.C.B. THE ZONE SHALL BE MAINTAINED AT TEMPERATURE SETPOINT OF 69°F (ADJUSTABLE). THE SYSTEM SHALL MAINTAIN A DEADBAND OF 3°F (ADJUSTABLE) BETWEEN HEATING AND COOLING SETPOINTS.
  1.D. ECONOMIZER MODE (AS APPLICABLE):
    1.D.A. ECONOMIZER SHALL BE ENABLED AT OUTSIDE AIR TEMPERATURE OF 62°F AND CLOSE (MINIMUM VENTILATION SETPOINT) AT OUTSIDE AIR TEMPERATURE BELOW 53°F.
    1.D.B. ECONOMIZER MODE SHALL ALSO ENABLE POWER EXHAUST SYSTEM WHICH SHALL ENABLE THE EXHAUST FAN AND OPEN DAMPERS TO DISCHARGE AIR FROM OCCUPIED SPACE. THE POWER EXHAUST SHALL MODULATE BASED UPON BUILDING PRESSURE.
    1.D.C. ECONOMIZER MODE SHALL LOCKOUT HEATING AND COOLING FUNCTIONS FOR HVAC UNIT.
    1.D.D. DEMAND CONTROL VENTILATION:
      1.D.D.A. CO2 SENSORS MUST BE LOCATED IN BREATHING ZONE BETWEEN 3'-6" & 4'-6" AFF.
      1.D.D.B. CO2 SENS0RS MUST BE FACTORY CERTIFIED TO HAVE ACCURACY WITHIN PLUS OR MINUS 75 PPM AT 600 AND 100 PPM.
      1.D.D.C. ZONE SHALL START AT DCV MINIMUM VENTILATION VALUE AND WILL MODULATE OUTDOOR AIR DAMPER OPEN TO MAINTAIN CO2 VALUES LOWER THAN 1000 PPM (600 PPM OVER BASELINE OF 400 PPM). IF CO2 VALUE LEVELS ARE LOWER THAN 1000 PPM, THE OUTDOOR AIR DAMPER SHALL MODULATE CLOSE TO MINIMUM VENTILATION (OUTSIDE AIR) REQUIREMENTS.

FC/SHP/CU

UNOCCUPIED HOURS:
1. THE SYSTEM IS NOT OPERATIONAL AND AVAILABLE FOR TENANT CALLS AS NEEDED BY COMMAND BY OVERRIDE BUTTON.

OCCUPIED HOURS:
1. OCCUPIED HOURS ENABLED BY SCHEDULE BY SCHEDULE 6:30AM TO 6PM (ADJUSTABLE).
  1.A. SUPPLY FAN SHALL BE ENABLED TO RUN CONTINUOUSLY 24/7.
  1.B. COOLING MODE:
    1.B.A. THE SUPPLY FAN SHALL BE STARTED. THE CONDENSER UNIT WILL THEN BE STARTED AND ANY REFRIGERANT CONTROL SYSTEM AND COMPRESSORS SHALL BE STARTED TO ALLOW FOR COOLING UNIT UNIT THE SETPOINT IS MET. THE SYSTEM SHALL ENABLE A SINGLE COMPRESSOR (STAGE 1) AT A TIME TO MAINTAIN COOLING SETPOINTS OF ZONE TEMPERATURE. THE COMPRESSOR UNIT SHALL THEN TURN OFF ANY REFRIGERANT CONTROL SYSTEM AND COMPRESSORS.
    1.B.B. THE ZONE SHALL BE MAINTAINED AT TEMPERATURE SETPOINT OF 72°F (ADJUSTABLE). THE SYSTEM SHALL MAINTAIN A DEADBAND OF 1.5°F (ADJUSTABLE) BETWEEN HEATING AND COOLING SETPOINTS.
  1.C. HEATING MODE:
    1.C.A. THE SUPPLY FAN SHALL BE STARTED. THE CONDENSER UNIT WILL THEN BE STARTED AND ANY REFRIGERANT CONTROL SYSTEM INCLUDING REVERSING VALVES AND COMPRESSORS SHALL BE STARTED TO ALLOW FOR HEATING UNIT UNIT THE SETPOINT IS MET. THE SYSTEM SHALL ENABLE A SINGLE COMPRESSOR (STAGE 1) AT A TIME TO MAINTAIN HEATING SETPOINTS. ENABLE SECOND COMPRESSOR IF SINGLE COMPRESSOR IS UNABLE TO SATISFY ZONE TEMPERATURE SETPOINT AFTER 10 MINUTES (ADJUSTABLE) OR SETPOINT IS GREATER THAN 1°F THAN ZONE TEMPERATURE. THE COMPRESSOR UNIT SHALL THEN TURN OFF ANY REFRIGERANT CONTROL SYSTEM AND COMPRESSORS.
    1.C.B. THE ZONE SHALL BE MAINTAINED AT TEMPERATURE SETPOINT OF 69°F (ADJUSTABLE). THE SYSTEM SHALL MAINTAIN A DEADBAND OF 3°F (ADJUSTABLE) BETWEEN HEATING AND COOLING SETPOINTS.

EF-X
UNOCCUPIED HOURS:
1. THE SYSTEM IS NOT OPERATIONAL.

OCCUPIED HOURS:
1. OCCUPIED HOURS ENABLED BY SCHEDULE BY SCHEDULE 6:30AM TO 6PM (ADJUSTABLE).
  1.A. EXHAUST FAN SHALL BE ENABLED TO RUN CONTINUOUSLY BY SCHEDULE AND TURN OFF BY SCHEDULE. FAN HOURS SHALL BE ADJUSTED TO MATCH CORRESPONDING FAN COIL SCHEDULE TO OPERATE AT THE SAME TIME.

1 SEQUENCE OF OPERATION
SCALE: N.T.S.

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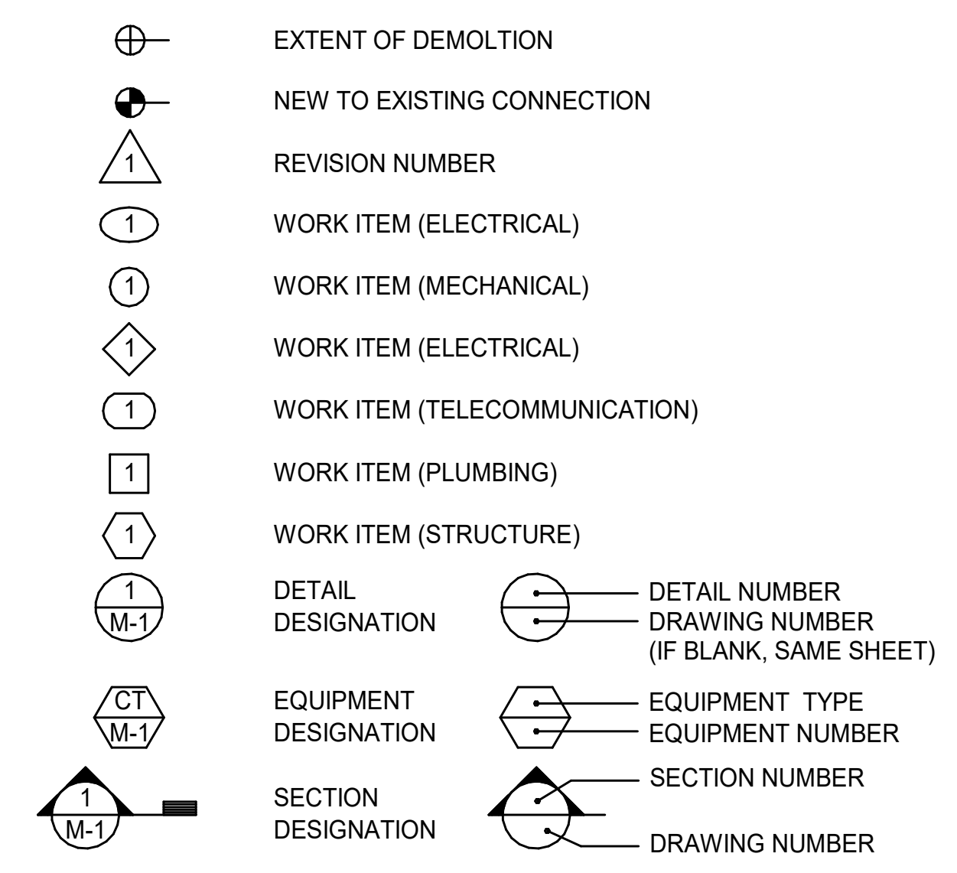
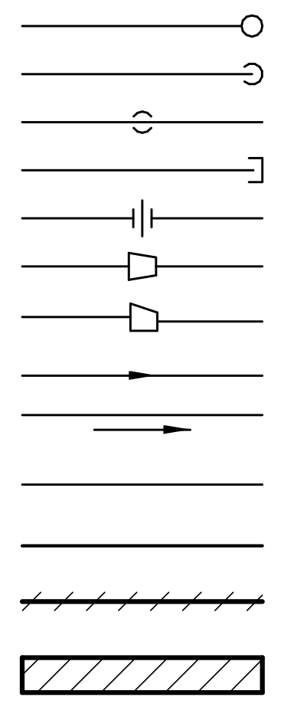
GENERAL SYMBOLS



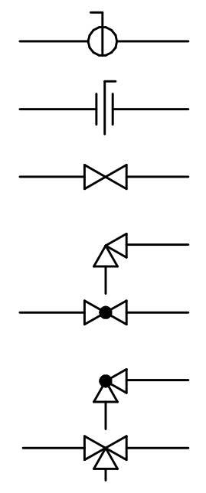
- EXTENT OF DEMOLTION
- NEW TO EXISTING CONNECTION
- REVISION NUMBER
- WORK ITEM (ELECTRICAL)
- WORK ITEM (MECHANICAL)
- WORK ITEM (ELECTRICAL)
- WORK ITEM (TELECOMMUNICATION)
- WORK ITEM (PLUMBING)
- WORK ITEM (STRUCTURE)
- DETAIL DESIGNATION — DETAIL NUMBER; DRAWING NUMBER (IF BLANK, SAME SHEET)
- EQUIPMENT DESIGNATION — EQUIPMENT TYPE; EQUIPMENT NUMBER
- SECTION DESIGNATION — SECTION NUMBER; DRAWING NUMBER

PIPING SYMBOLS



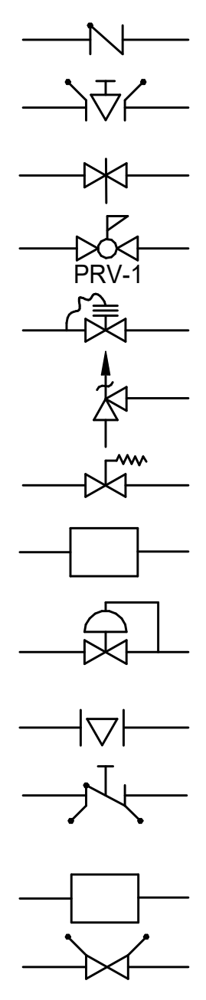
- PIPE TURNING UP
- PIPE TURNING DOWN
- PIPE CONNECTION AT BOTTOM OF MAIN
- PIPE CAP
- PIPE UNION
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- DIRECTION OF FLOW IN PIPE
- SLOPE PIPE IN DIRECTION OF ARROW
- EXISTING PIPING
- NEW PIPING
- PIPING TO BE DEMOLISHED
- DUCTWORK TO BE DEMOLISHED

VALVES



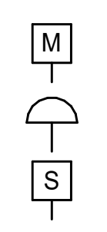
- BALL
- BUTTERFLY
- GATE
- GATE, ANGLE
- GLOBE
- GLOBE, ANGLE
- THREE WAY

VALVES, SPECIAL DUTY



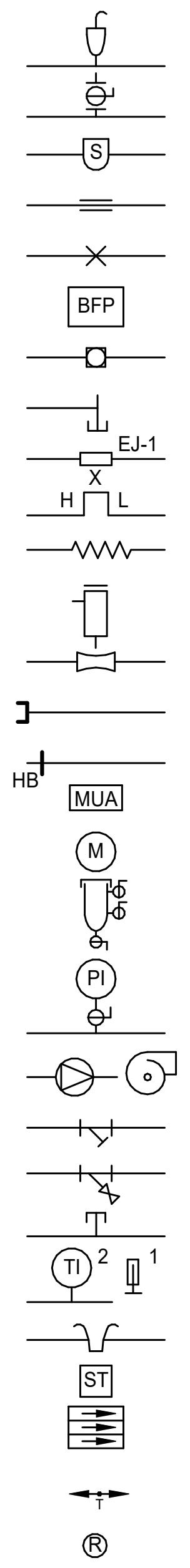
- CHECK, SWING GATE
- CIRCUIT SETTER
- NEEDLE
- PRESSURE REDUCING (NUMBER & SPECIFY)
- PRESSURE REGULATOR
- RELIEF (R) OR SAFETY (S)
- SEISMIC VALVE
- MAKE UP WATER ASSEMBLY
- BACK PRESSURE
- PLUG VALVE
- TRIPLE DUTY VALVE (STOP CHECK & BALANCE W/PRESSURE TAPS)
- REDUCED PRESSURE BACKFLOW PREVENTER
- FLOW CONTROL

ACTUATORS



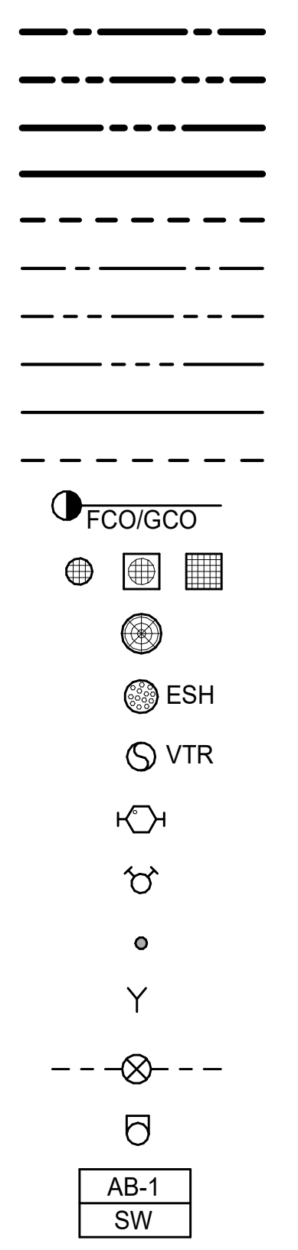
- MOTOR
- PNEUMATIC
- SOLENOID

PIPING SPECIALTIES



- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- AIRE SEPARATOR
- ALIGNMENT GUIDE
- ANCHOR
- BACK FLOW PREVENTER
- BALL JOINT
- DIRT POCKET
- EXPANSION JOINT
- EXPANSION LOOP
- FLEXIBLE CONNECTOR
- FILTER DRYER
- FLOWMETER
- HOSE CONNECGTOR
- HOSE BIBB
- MAKEUP ASSEMBLY
- METER
- POT FEEDER
- PRESSURE GAUGE AND COCK
- PUMP
- STRAINER
- STRAINER, W/BLOW OFF
- TEST PORT (PETE'S PLUG)
- THERMOMETER
- THERMOMETER, WELL
- STEAM TRAP
- SUCTION DIFFUSER
- TRANSVERSE BRACING
- GAS REGULATOR

PLUMBING



- DOMESTIC COLD WATER
- DOMESTIC HOT WATER SUPPLY
- DOMESTIC HOT WATER RETURN
- SANITARY, SOIL OR WASTE
- SANITARY, SOIL OR WASTE VENT
- EXISTING DOMESTIC COLD WATER
- EXISTING DOMESTIC HOT WATER SUPPLY
- EXISTING DOMESTIC HOT WATER RETURN
- EXISTING SANITARY, SOIL OR WASTE
- EXISTING SANITARY, SOIL OR WASTE VENT
- FLOOR/GRADE CLEAN-OUT
- FLOOR DRAIN
- ROOF DRAIN
- EMERGENCY SHOWER/EYEWASH
- VENT THROUGH ROOF
- SPRINKLER INSPECTOR TEST STATION
- FIRE HYDRANT
- SPRINKLER HEAD
- FUNNEL DRAIN, OPEN
- UNDERGROUND VALVE
- OVERFLOW
- BLOCK ID/RISER ID SOIL/WAST

ABBREVIATIONS

Ø	ROUND; DIAMETER; PHASE
@	AT
ACP	ABESTOS CEMENT PIPE
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASME	AMERICAN NATIONAL OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AW	ACID WASTE
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BOP	BOTTOM OF PIPE
CB	CATCH BASIN
CFF	CAP FOR FUTURE
CFH	CUBIC FEET PER HOUR
CI	CAST IRON
CIP	CAST IRON PIPE
CLG	CEILING
CO	CLEAN-OUT
CONC.	CONCENTRIC
CONN	CONNECT or CONNECTION
CONTR.	CONTRACTOR
COTG	CLEAN-OUT TO GRADE
CW	CITY WATER
D	INDIRECT DRAIN
DCW	DOMESTIC COLD WATER
DF	DRINKING FOUNTAIN
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRC.
DI	DRAIN INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DN	DOWN
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
E<E>	EXISTING
EL	ELEVATION
EOD	EXTENT OF DEMOLITION
EQ	EQUAL
EQUIP.	EQUIPMENT
FACP	FIRE ALARM CONTROL PANEL
FCO	FLOOR CLEAN-OUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FEC	FIRE DEPARTMENT CONNECTION
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
FLR	FLOOR
FO(R)(S)	FUEL OIL (RETURN)(SUPPLY)
FOV	FUEL OIL VENT
FP	FIRE PROTECTION
FS	FIRE SPRINKLER LINE
FSK	FLOOR SINK
FSP	FIRE STAND PIPE
FU	FIXTURE UNITS
FW	FIRE WATER
G	GAS
GA	GAUGE
GCO	GRADE CLEAN-OUT
GS	GAS STOVE
HB	HOSE BIBB
HT	HEIGHT
ICW	INDUSTRIAL COLD WATER
IE	INVERT ELEVATION
IG	INTERRRUPTIBLE GAS
IN.	INCH
IW	INDIRECT WASTE
LAV	LAVATORY
MAX.	MAXIMUM
MN.	MINIMUM
N<N>	NEW
NOX	OXIDE
NC	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
N.T.S.	NOT TO SCALE
OS&Y	OUTSIDE SCREW & YOKE
O.C.	ON CENTER
OD	OUTSIDE DIMENSION or OUTSIDE DIAMETER
OX	OXYGEN
PD	PRESSURE DROP
PIV	POST INDICATING VALVE
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PSI(G)	POUNDS PER SQUARE INCHE (GAUGE)
P&T	PRESSURE AND TEMPERATURE
R<R>	REMOVE
RCP	REINFORCED CONCRET PIPE
RD	ROOF DRAIN
RPBP	REDUCED PRESSURE TYPE BACKFLOW PREVENTOR
RW	RECYCLED WATER
RWL	RAIN WATER LEADER
SAN.	SANITARY
S.A.D.	SEE ARCHITECTURAL DRAWINGS
S.C.D.	SEE CIVIL DRAWINGS
SCO	SURFACE CLEDAN-OUT
SD	STORM DRAIN
S.E.D.	SEE ELECTRICAL DRAWINGS
SK	SINK
S.L.D.	SEE LANDSCAPE DRAWINGS
S.M.D.	SEE MECHANICAL DRAWINGS
SP	FIRE SPRINKLER
SPECS	SPECIFICATIONS
SS	SANITARY SEWER
S.S.D.	SEE STRUCTURAL DRAWINGS
STD	STANDARD
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
UR	URINAL
V OR VT	VENT
V.I.F.	VERIFY IN FIELD
VR	VENT RISER
VTR	VENT THROUGH ROOF
W	WATER
W/	TWITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEAN-OUT
WH	WATER HYDRANT
WSFU	WATER SUPPLY FIXTURE UNIT

SUMMARY OF WORK

NEW

1. FURNISH AND INSTALL PLUMBING FIXTURES AND ASSOCIATED PLUMBING UTILITIES PER PLAN.
2. FURNISH AND INSTALL ELECTRIC WATER TANK TYPE WATER HEATER WITH RECIRCULATION PUMP AND INSTANT WATER HEATERS AT SINKS.
3. COORDINATE WITH CIVIL ENGINEER TO PROVIDE UTILITIES TO NEW BUILDING.
4. FURNISH AND INSTALL ROOF DRAINS AND OVERFLOW DRAINS WITH CONNECTION TO SITE STORM DRAIN SYSTEM.

GENERAL NOTES

1. ALL WORK SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES.
2. CONTRACTOR IS RESPONSIBLE FOR ALL EQUIPMENT START-UP, FIRST YEAR MATERIAL AND LABOR WARRANTY.
3. PIPE HANGERS AND SUPPORTS SHALL BE UNISTRUT OR EQUAL , INCLUDING CHANNEL, HANGERS, STRAPS, ETC.
4. CONDENSATE DRAIN PIPING SHALL HAVE A MINIMUM SLOPE OF 1/8 INCH FOR EVERY FOOT OF HORIZONTAL RUN.
5. ALL DIMENSIONS ARE APPROXIMATE. THE DRAWINGS ARE DIAGRAMMATIC TO THE EXTENT THAT ALL FITTINGS, OFFSETS, ETC. ARE NOT SHOWN. THESE DRAWINGS ARE FOR THE GUIDANCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD FOR FABRICATION OF THE DUCTWORK, PENETRATIONS, CONDENSATE, CONDUIT, WIRING, AND ALL COMPONENTS INTO A COMPLETE AND OPERABLE SYSTEM.
6. CONTRACTOR SHALL NOTIFY OWNER OF ANY DISCREPANCIES IN WRITING. ANY ADJUSTMENT OF THE CONTRACT DOCUMENTS WITHOUT A DETERMINATION BY THE OWNER SHALL BE AT THE CONTRACTOR'S OWN RISK AND EXPENSE. THE MOST STRINGENT REQUIREMENTS SHALL APPLY AS DETERMINED BY THE OWNER.
7. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
8. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THIS WORK IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS.
9. UNLESS OTHERWISE NOTED, ARRANGE, PAY FOR, COORDINATE AND PROVIDE ALL PERMITS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.

SCHOOL EQUIPMENT ANCHORAGE

M/E/P 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 2019 CBC SECTION 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE 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 CONNECTION 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 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 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 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., OSHPD 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: DETAIL ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP ☐ MD ☐ PP ☐ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # .

SHEET INDEX

SHEET NO.	DESCRIPTION
P001	PLUMBING SYMBOLS, ABBREVIATIONS AND GENERAL NOTES
P101	PLUMBING 1ST FLOOR PLAN
P141	PLUMBING ROOF PLAN
P401	PLUMBING ENLARGED PLANS
P501	PLUMBING DETAILS
P601	PLUMBING SCHEDULES
P701	PLUMBING RISER DIAGRAM
P702	PLUMBING RISER DIAGRAM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL.31, 2021

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022

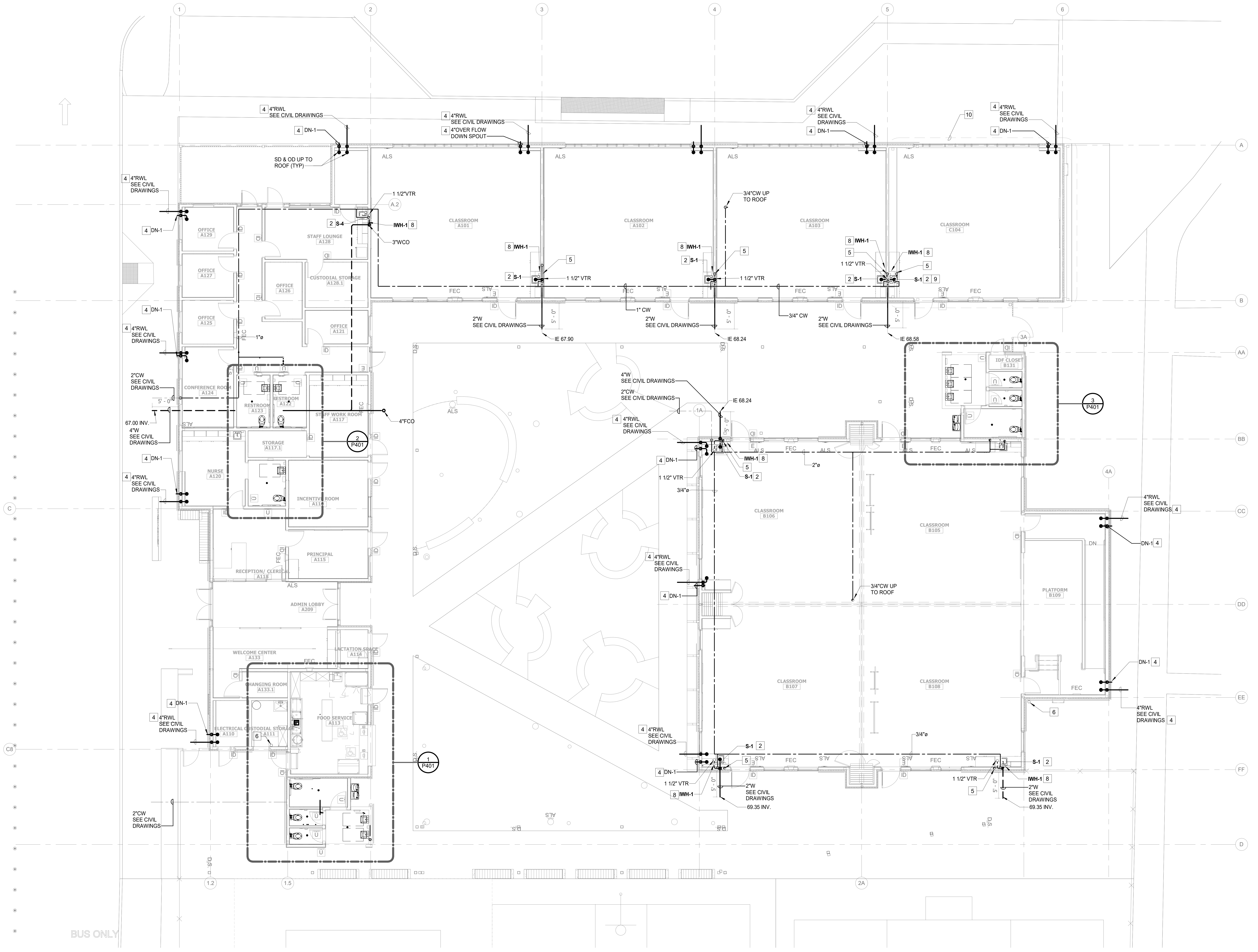
SALASO'BRIEN
expect a difference
305 South 11th Street
San Jose, California 95112-2218
877.725.2755 | 877.925.1477 (f)
WWW.SALASOBRIEN.COM
National Strength.
Local Action.

JAMES ZWINGMAN
No. M35588

PLUMBING SYMBOLS, ABBREVIATIONS AND GENERAL NOTES

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

P001



PLUMBING - FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. XXX

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REFERENCE SHEET NOTES

1. F&I WALL MOUNTED LAVATORY (LAV-1).
2. F&I DROP IN SINK.
3. NOT USED
4. 4"SD/OD UP TO ROOF. 4" SD DOWN W/ CONNECTION TO SD PER CIVIL & 4" OD TERMINATE AT DAYLIGHT TO 12" ABOVE FINISH GRADE.
5. CONDENSATE DRAIN DOWN FROM ROOF TO LAVATORY TAILPIECE.
6. FIRE WATER PIPE (6" DIAMETER) AND BUILDING ENTRY PER DETAIL 13/P-5.1. CONTRACTOR TO COORDINATE WITH CIVIL DRAWINGS AND FIRE PROTECTION DRAWINGS FOR EXACT SIZING AND INSTALLATION REQUIREMENTS.
7. MAIN CW SOV IN LOCKABLE ACCESS PANEL (AP-2).
8. F&I ELECTRIC INSTANT WATER HEATER BELOW LAVATORY/SINK WITH MIXING VALVE. SEE DETAIL 3/P-501.
9. DEDUCT ALTERNATE FOR ALL PLUMBING REQUIRED IN CLASSROOM C104.
10. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

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PLUMBING 1ST FLOOR PLAN

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

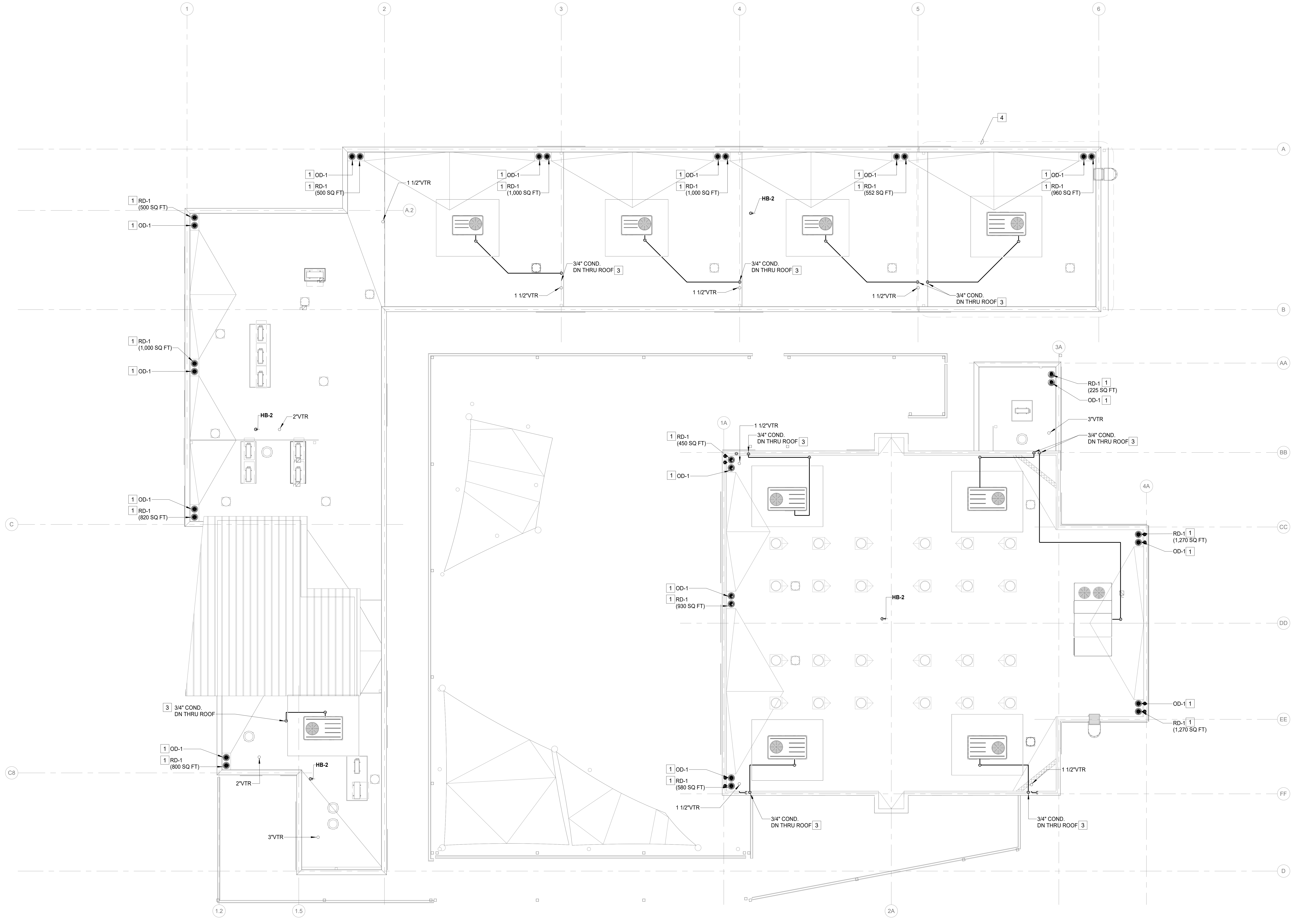
P101

VERTICAL RWL SIZING CALCULTION

RECOMMENDED SIZE (IN. DIA.)	MAXIMUM FLOW (GPM)	MAX ROOF AREA (SF) PER 2019 CPC TABLE 1103.1
3"	42	4,400
4"	79	9,200

NOTES:

1. CALCULATIONS ARE BASED THE 60 MINUTE STORM DURATION AND 100 YEAR RETURN PERIOD FOR CAMARILLO, CA.
   RAINFALL = 1.5 IN/HR
   FLOW = 0.016 GPM/SF
2. MAX ROOF AREA, FOR GUTTER SIZING, BASED ON AN 8" GUTTER WITH 1/8" PER LINEAR FOOT SLOPE. VALUES TAKEN FROM TABLE 1103.1.
3. FOR MAX ROOF AREA AND RWL SIZE, USING 2 IN/HR OF RAINFALL AS INPUT TO TABLE.
4. PER CPC TABLE 1103.1, FOR VERTICAL RAINWATER SIZING, MAXIMUM FLOW FOR 3" DIA. RWL IS 92 GPM AND 4" DIA. RWL IS 192 GPM



1/P141 **PLUMBING ROOF PLAN**
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. XXX

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NO. C-9824
REN. JUL. 31, 2021

REFERENCE SHEET NOTES

1. F&I ROOF DRAIN, OVERFLOW DRAIN PER DETAIL 4/P501.
2. HOSE BIBB W/ CW PIPE DOWN THRU ROOF WITH WATERPROOFING.
3. CONDENSATE DRAIN W/ P-TRAP FOR HVAC UNITS PER DETAIL 6/P501. SLOPE PIPE ON ROOF AND ROUTE THROUGH ROOF DOWN TO 1ST FLOOR LAVATORY TAILPIECE PER DETAIL 12/P501 OR JANITOR'S SINK FOR INDIRECT WASTE W/ 1" AIR GAP (TYP).
4. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

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MECHANICAL

PLUMBING ROOF PLAN

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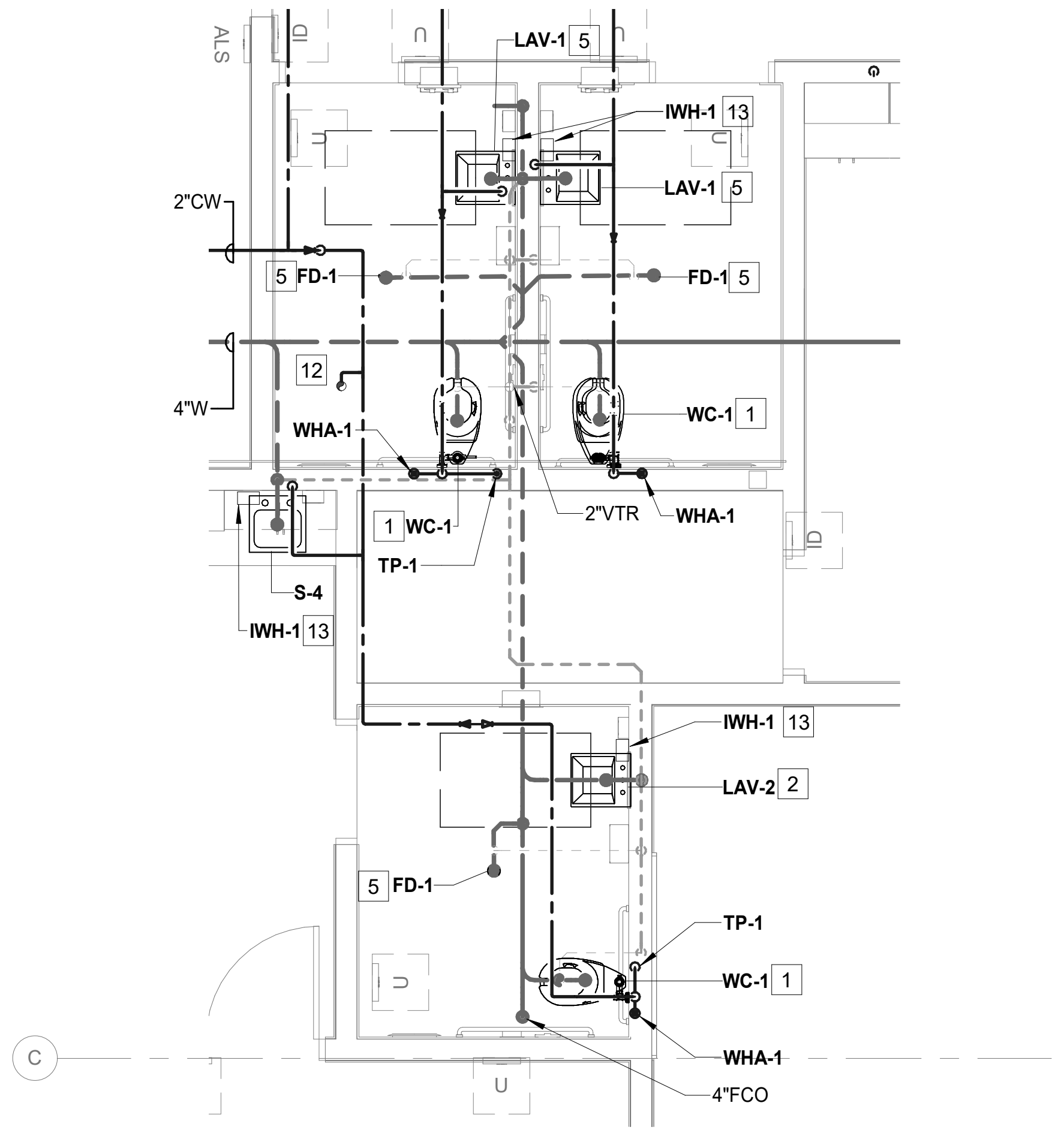
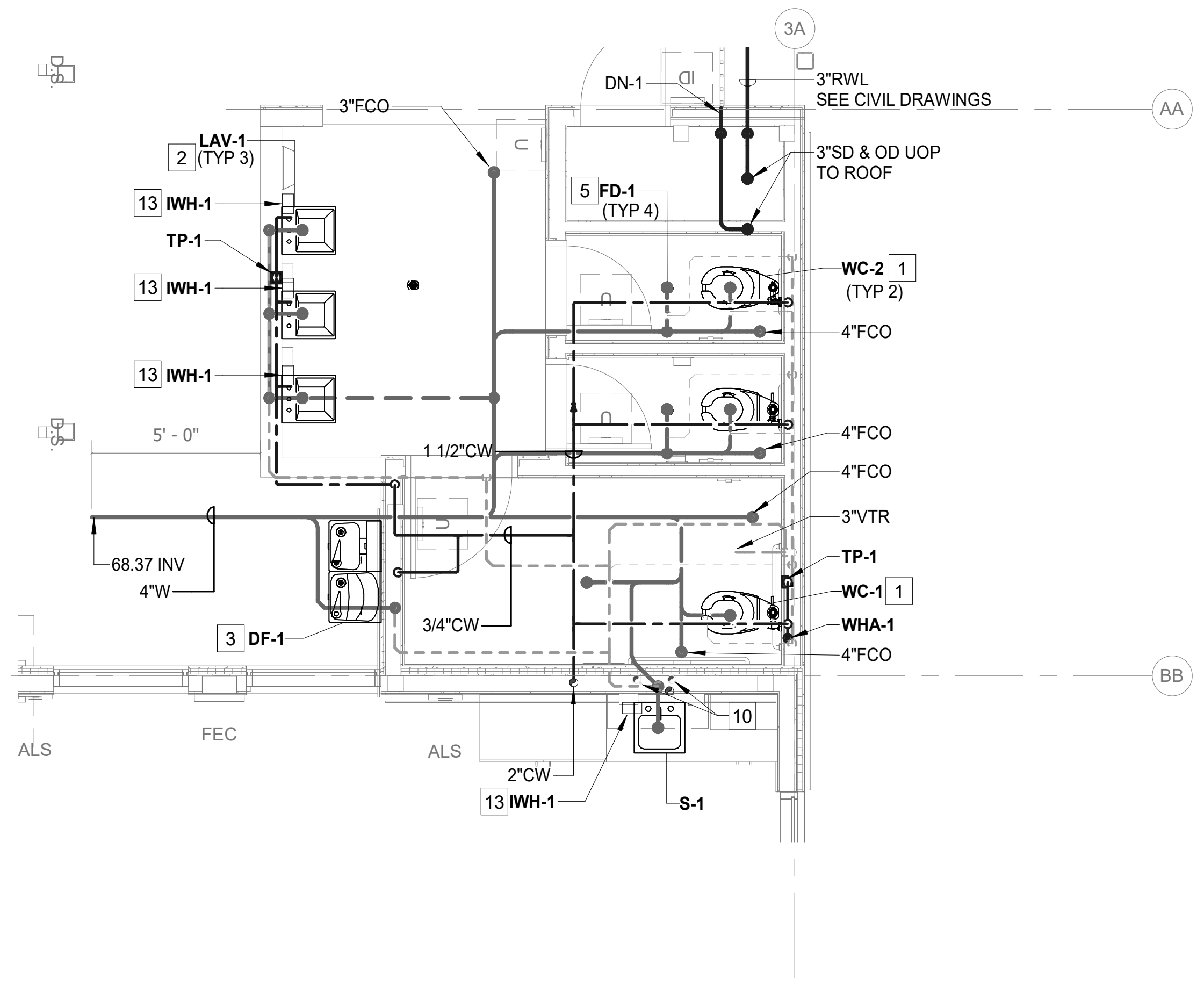
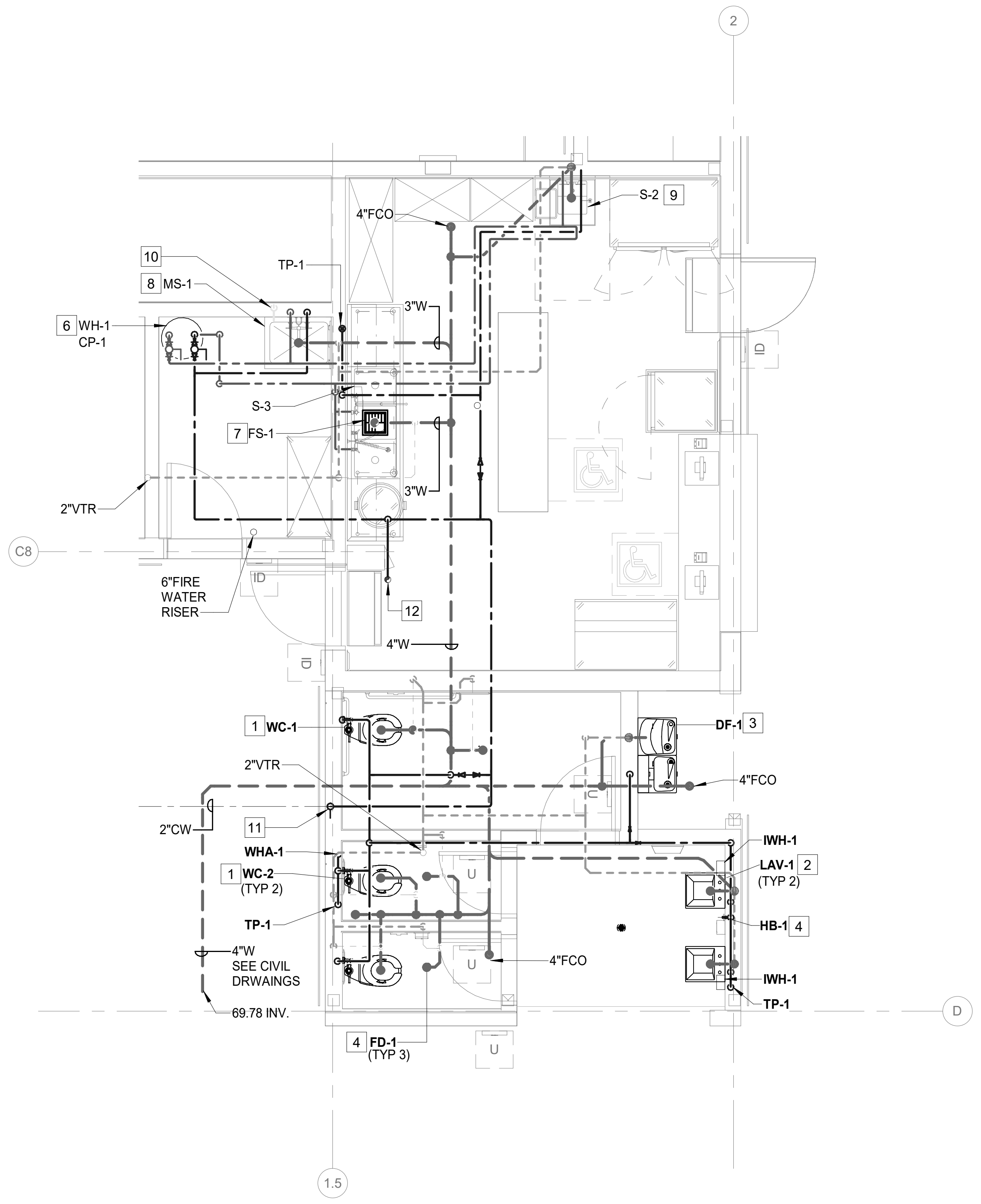
P141



2 P401 **PLUMBING - ENLARGED RESTROOM A122 & A123 PLAN**
SCALE: 1/4" = 1'-0"



3 P401 **PLUMBING - ENLARGED RESTROOM PLAN**
SCALE: 1/4" = 1'-0"



1 P401 **PLUMBING - ENLARGED FOOD SERVICE & RESTROOM PLAN**
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. ALL SANITARY SEWER PIPING SHALL BE SLOPED 1/4" PER LINEAR FOOT.

B. REFER TO PLUMBING SCHEDULE FOR PIPE CONNECTION SIZES OF INDIVIDUAL FIXTURES.

C. REFERE TO ARCHITECURAL FIXTRES FOR ADA FIXTURES ADN MOUNTING HEIGHTS.

D. CONTRACTOR SHALL PROVIDE TRAP PRIMER FOR ALL FLOOR DRAINS. SEE DETAIL 5/P501.

E. WATER HAMMER ARRESTORS SHALL BE INSTALLED WHERE QUICK-CLOSING VALVES ARE UTILIZED. WATER HAMMER ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFERENCE SHEET NOTES

1. F&I FLOOR MOUNTED WATER CLOSET (WC) PER PLANS AND SCHEDULES.
2. F&I WALL MOUNTED LAVATORY PER PLANS AND SCHEDULES.
3. F&I "HI-LO" ADA DRINKING FOUNTAIN.
4. F&I EXPOSED HOSE BIBB WITH INTEGRAL VACUUM BREAKER.
5. F&I FLOOR DRAIN WITH TRAP PRIMER. SEE DETAIL 5/P501
6. F&I ELECTRIC TANK TYPE WATER HEATER WITH STAND. INSTALL WITH SECONDARY PAN AND T&P VALVE WITH DISCHARGE TO INDIRECT WASTE. INSTALL WITH CIRCULATION PUMP. INSTALL PER DETAIL 9/P501 & 10/P501.
7. FLOOR SINK FOR UNDER THREE COMPARTMENT SINK (SEE FOOD SERVICE -QF DRAWINGS) WITH TRAP PRIMER CONNECTION.
8. MOP SINK (SEE FOOD SERVICE -QF DRAWINGS).
9. KITCHEN SINK (SEE FOOD SERVICE -QF DRAWINGS).
10. CONDENSATE DRAIN DOWN FROM ROOF TO LAVATORY TAILPIECE OR JANITOR'S SINK FOR INDIRECT WASTE W/ 1" AIR GAP (TYP).
11. MAIN CW SOV IN LOCKABLE ACCESS PANEL (AP-2).
12. 3/4"CW UP TO HOSE BIBB AT ROOF.
13. F&I ELECTRIC INSTANT WATER HEATER BELOW LAVATORY/SINK WITH MIXING VALVE. SEE DETAIL 3/P-501.

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SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL.31, 2021

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022

SALASO'BRIEN
|expect a difference|
305 South 11th Street
San Jose, California 95112-2218
877.725.2755 | 877.925.1477 (f)
WWW.SALASOBRIEN.COM
National **Strength.**
Local **Action.**

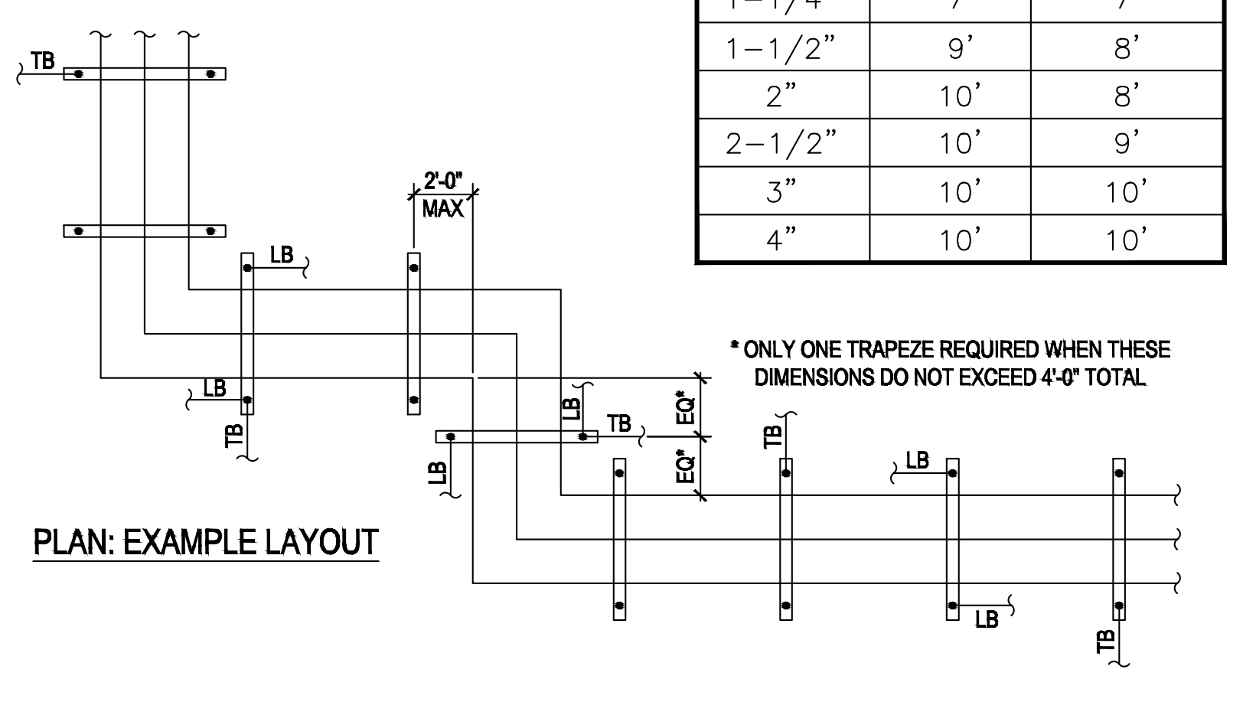
JAMES ZWINGMAN
No. M35588
MECHANICAL

PLUMBING ENLARGED PLANS

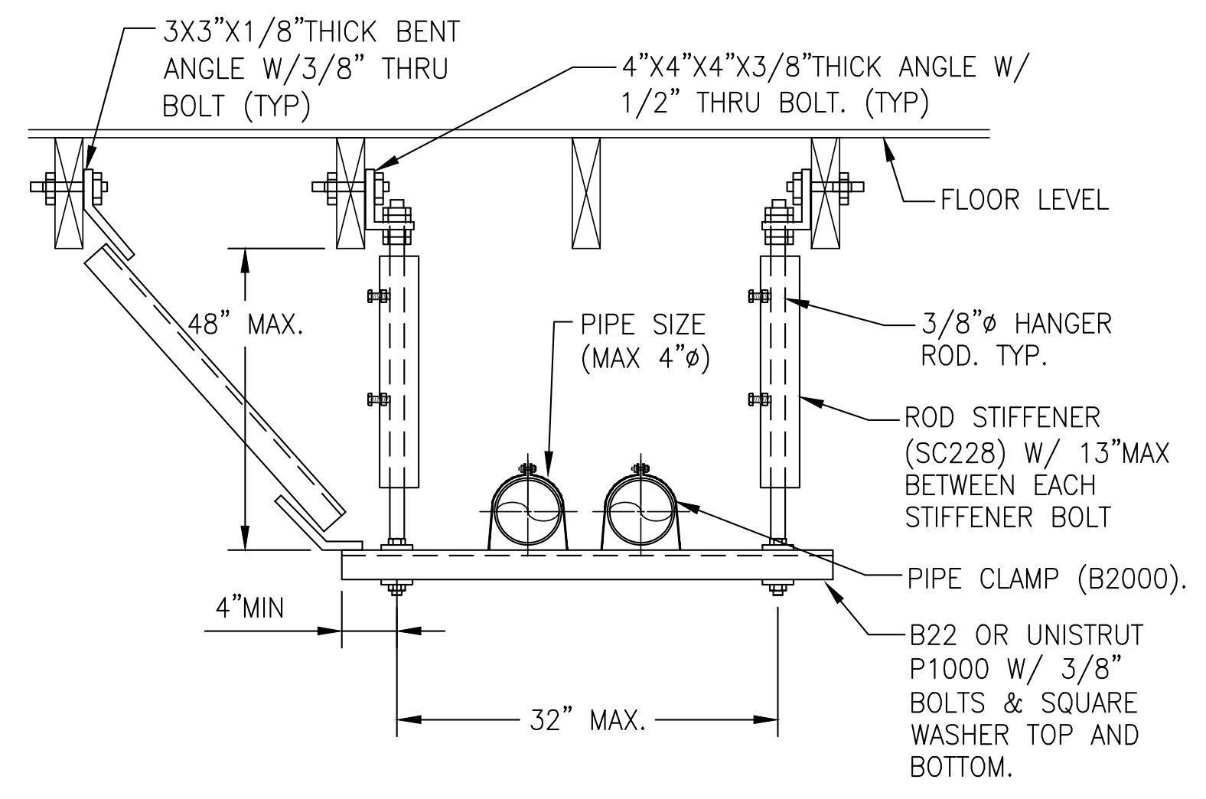
PERKINS — EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

P401

PIPE SUPPORT SPACING		
SIZE	STEEL	COPPER
1/2"	6'	5'
3/4"	6'	5'
1"	7'	6'
1-1/4"	7'	7'
1-1/2"	9'	8'
2"	10'	8'
2-1/2"	10'	9'
3"	10'	10'
4"	10'	10'


TB
2'-0" MAX
LB
EQ*
TB
LB
* ONLY ONE TRAPEZE REQUIRED WHEN THESE DIMENSIONS DO NOT EXCEED 4'-0" TOTAL

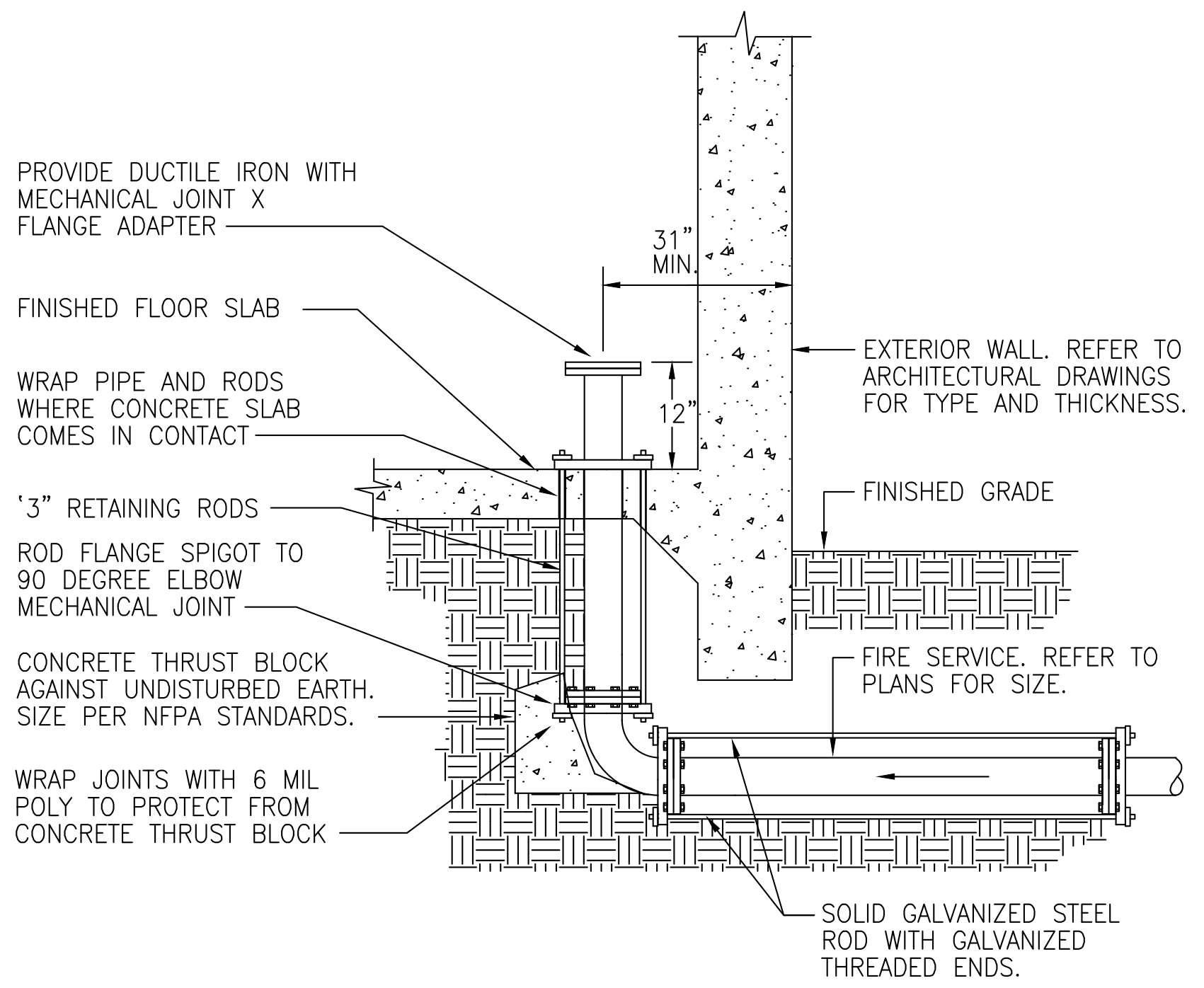
PLAN: EXAMPLE LAYOUT


3X3"X1/8"THICK BENT ANGLE W/3/8" THRU BOLT (TYP)
4"X4"X4"X3/8"THICK ANGLE W/ 1/2" THRU BOLT. (TYP)
FLOOR LEVEL
48" MAX.
PIPE SIZE (MAX 4"ø)
3/8"ø HANGER ROD. TYP.
ROD STIFFENER (SC228) W/ 13"MAX BETWEEN EACH STIFFENER BOLT
PIPE CLAMP (B2000).
4"MIN
B22 OR UNISTRUT P1000 W/ 3/8" BOLTS & SQUARE WASHER TOP AND BOTTOM.
32" MAX.

NOTES:
1. TOTAL UNIFORM WEIGHT OF ALL PIPING @ TRAPEZE SHALL NOT EXCEED 50 PLF.
2. PROVIDE TRANSVERSE BRACE (TB) @ EVERY 2 TRAPEZE MAX (PARALLEL TO TRAPEZE) OR EVERY 20FT MAX.
3. PROVIDE LONGITUDINAL BRACE PAIR (LB) EVERY 4 TRAPEZE MAX (PERPENDICULAR TO TRAPEZE).
4. PROVIDE NO LESS THAN ONE LONGITUDINAL BRACE PAIR (LB) PER SPAN OF PIPE OR EVERY 40FT MAX.
5. PROVIDE TRAPEZE @ 2'-0" MAX FROM LOCATIONS WHERE CONDUIT/PIPE CHANGES DIRECTION.
6. ALL STRUT COMPONENTS & PIPE CLAMPS SHALL BE MANUFACTURED BY UNISTRUT.
7. IF TRAPEZE SUPPORTS MULTIPLE PIPE SIZES, USE THE SMALLEST PIPE SUPPORT SPACING.

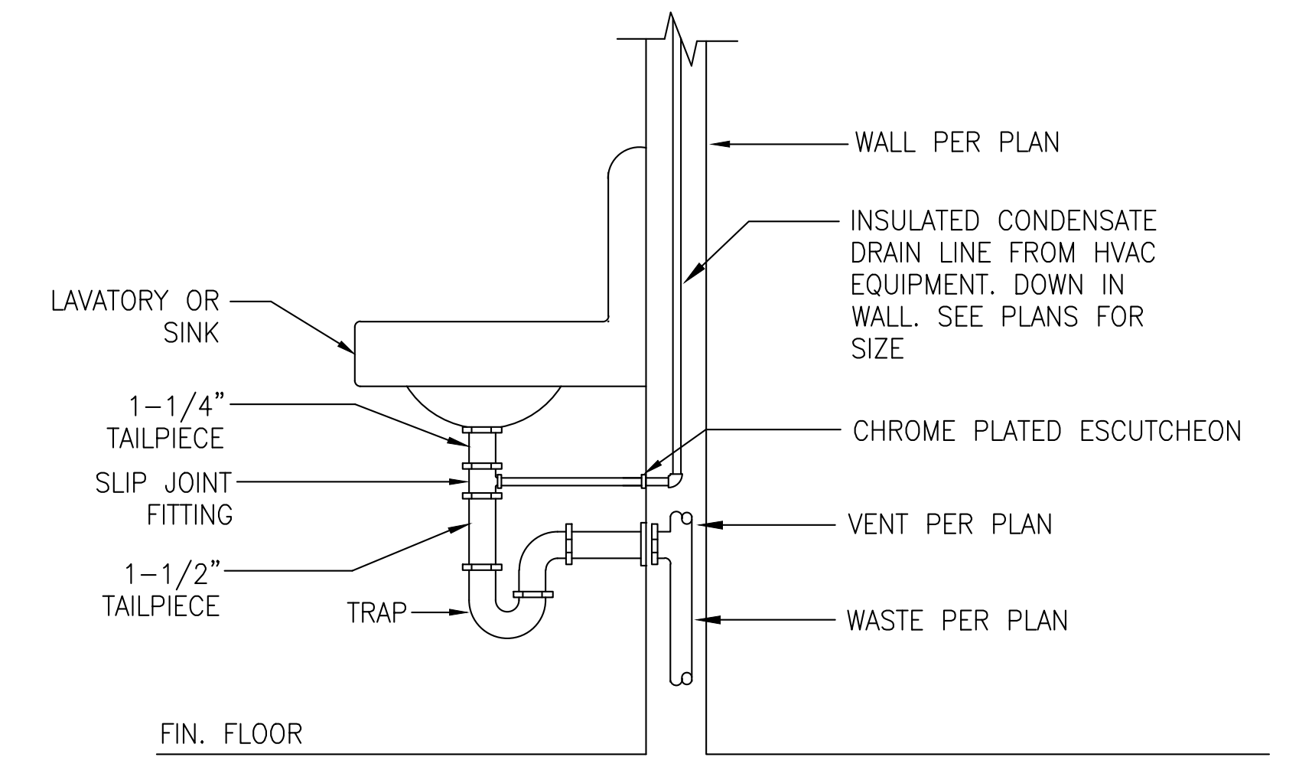
14 PIPE SUPPORT DETAIL

SCALE: N.T.S.


PROVIDE DUCTILE IRON WITH MECHANICAL JOINT X FLANGE ADAPTER
FINISHED FLOOR SLAB
WRAP PIPE AND RODS WHERE CONCRETE SLAB COMES IN CONTACT
'3" RETAINING RODS
ROD FLANGE SPIGOT TO 90 DEGREE ELBOW MECHANICAL JOINT
CONCRETE THRUST BLOCK AGAINST UNDISTURBED EARTH. SIZE PER NFPA STANDARDS.
WRAP JOINTS WITH 6 MIL POLY TO PROTECT FROM CONCRETE THRUST BLOCK
31" MIN.
12"
EXTERIOR WALL. REFER TO ARCHITECTURAL DRAWINGS FOR TYPE AND THICKNESS.
FINISHED GRADE
FIRE SERVICE. REFER TO PLANS FOR SIZE.
SOLID GALVANIZED STEEL ROD WITH GALVANIZED THREADED ENDS.

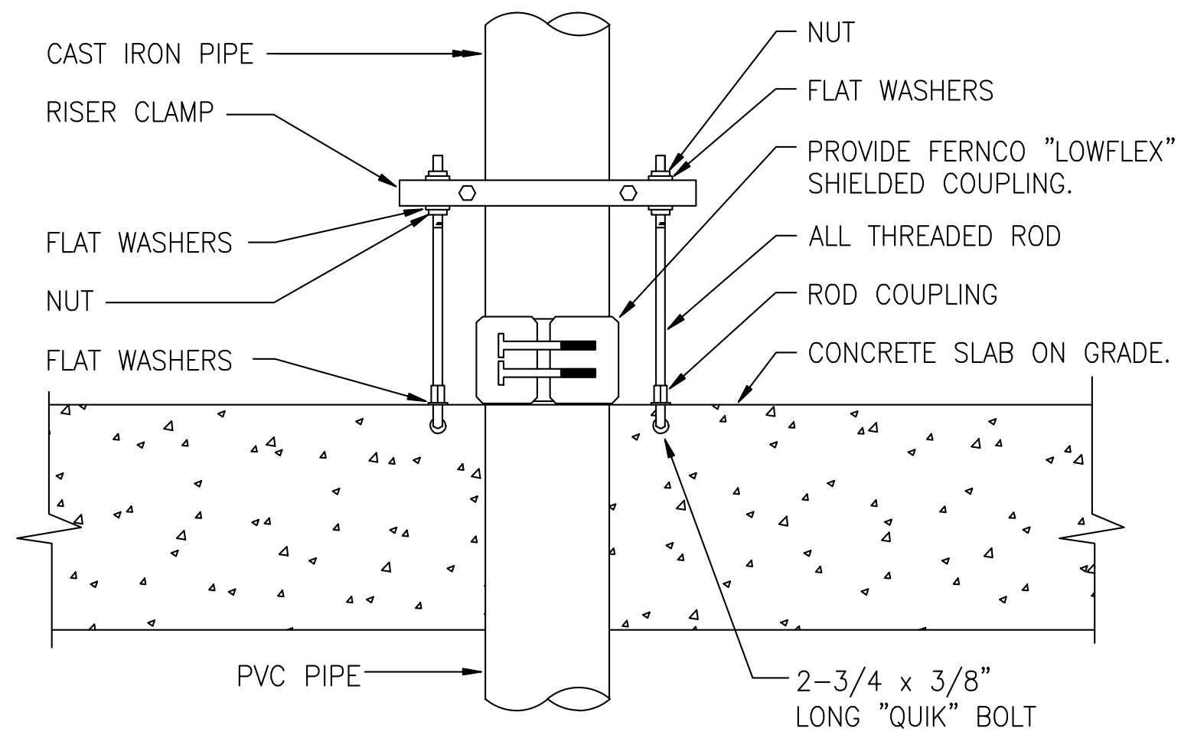
13 FIRE SPRINKLER ENTRY DETAIL

SCALE: N.T.S.



12 CONDENSATE TO LAVATORY DETAIL

SCALE: N.T.S.

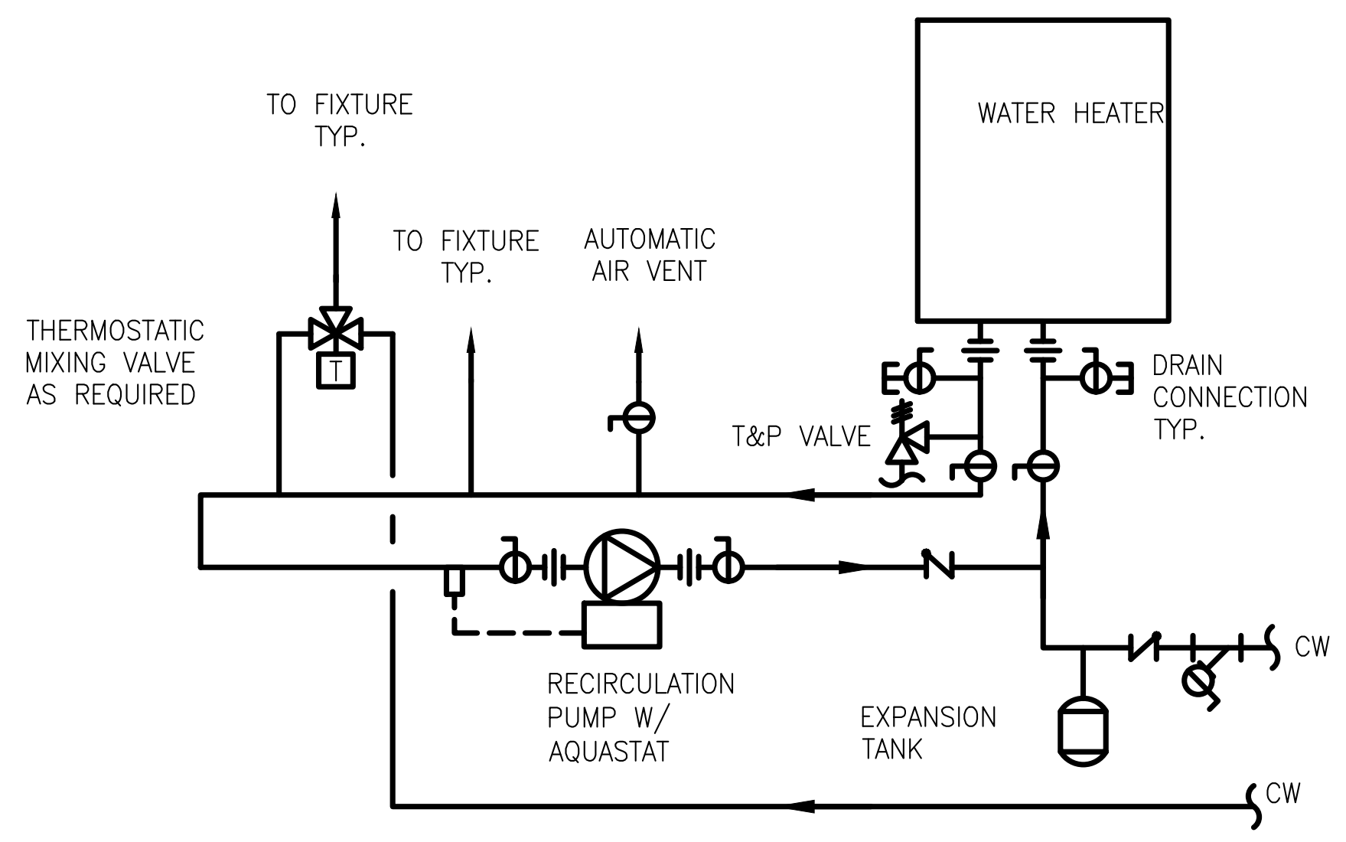


NOTE:
1. MAKE CONNECTION FROM PVC BELOW SLAB TO CAST IORN ABOVE SLAB WITH TRANSITION COUPLING.

2. THERE IS TO BE NO EXPOSED PVC ABOVE SLAB.

11 PVC TO CAST IRON CONNECTION

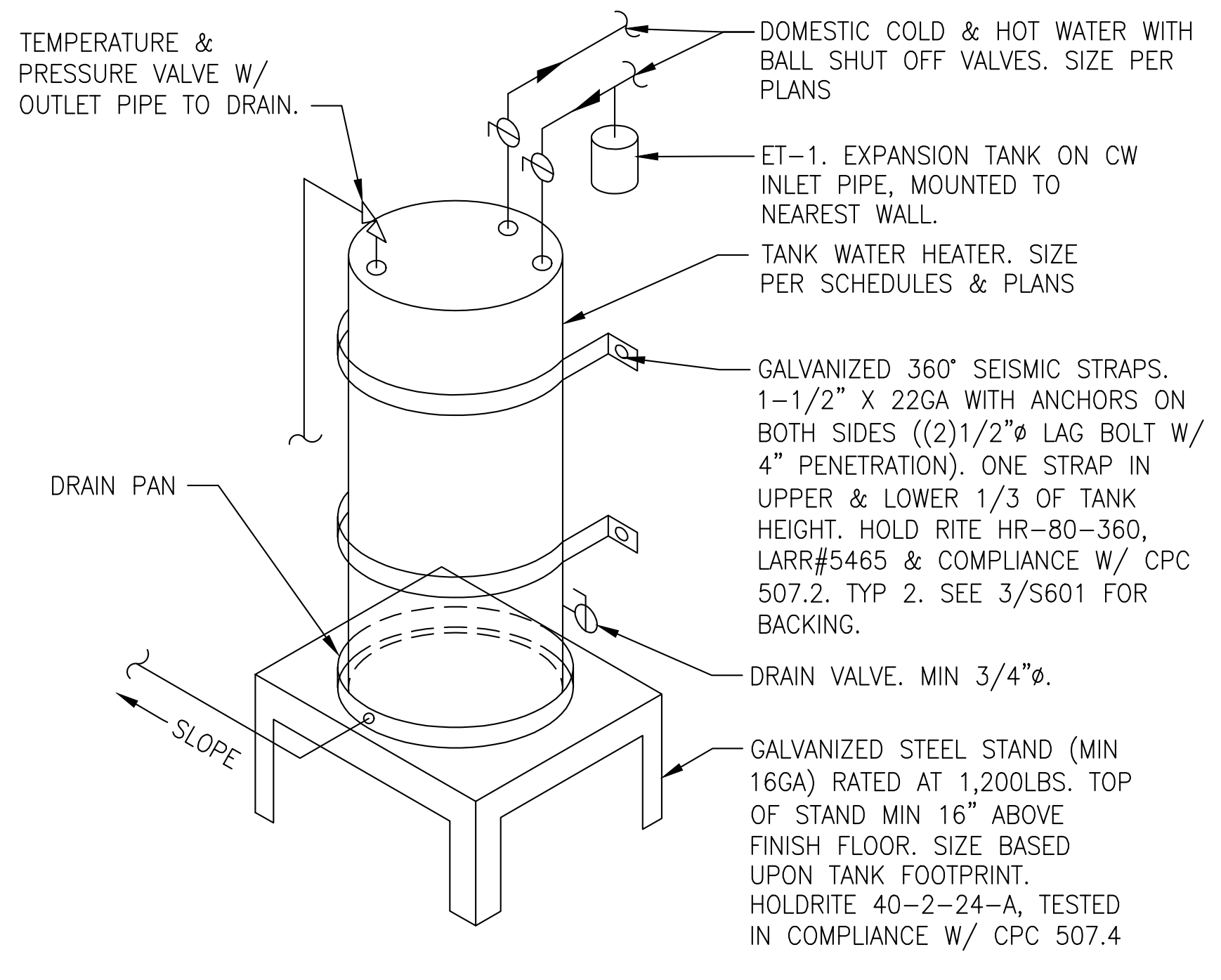
SCALE: N.T.S.



NOTES:
1. AIR VENTS TO BE INSTALLED AT HIGHEST LOCATION OF THE SYSTEM. PIPE DIAMETER OF VENT TO BE SAME SAME DIAMETER AS LOOP PIPING.
2. CONNECT RIGID PIPE TO TEMPERATURE & RELIEF (T&P) VALVE OUTLET AND ROUTE TO LEGAL DRAIN WITH 1" AIR GAP MIN.

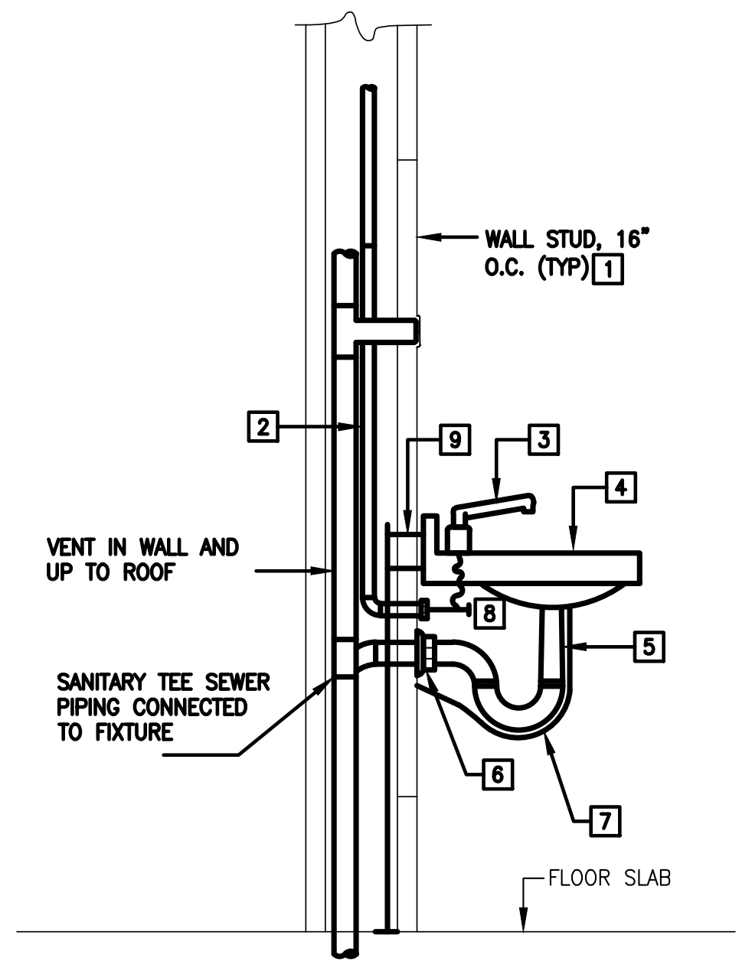
10 HOT WATER RECIRC. LOOP DETAIL

SCALE: N.T.S.


TEMPERATURE & PRESSURE VALVE W/ OUTLET PIPE TO DRAIN.
DRAIN PAN
SLOPE
DOMESTIC COLD & HOT WATER WITH BALL SHUT OFF VALVES. SIZE PER PLANS
ET-1. EXPANSION TANK ON CW INLET PIPE, MOUNTED TO NEAREST WALL.
TANK WATER HEATER. SIZE PER SCHEDULES & PLANS
GALVANIZED 360° SEISMIC STRAPS. 1-1/2" X 22GA WITH ANCHORS ON BOTH SIDES ((2)1/2"ø LAG BOLT W/ 4" PENETRATION). ONE STRAP IN UPPER & LOWER 1/3 OF TANK HEIGHT. HOLD RITE HR-80-360, LARR#5465 & COMPLIANCE W/ CPC 507.2. TYP 2. SEE 3/S601 FOR BACKING.
DRAIN VALVE. MIN 3/4"ø.
GALVANIZED STEEL STAND (MIN 16GA) RATED AT 1,200LBS. TOP OF STAND MIN 16" ABOVE FINISH FLOOR. SIZE BASED UPON TANK FOOTPRINT. HOLDRITE 40-2-24-A, TESTED IN COMPLIANCE W/ CPC 507.4

9 ELECTRIC TANK WATER HEATER DETAIL

SCALE: N.T.S.

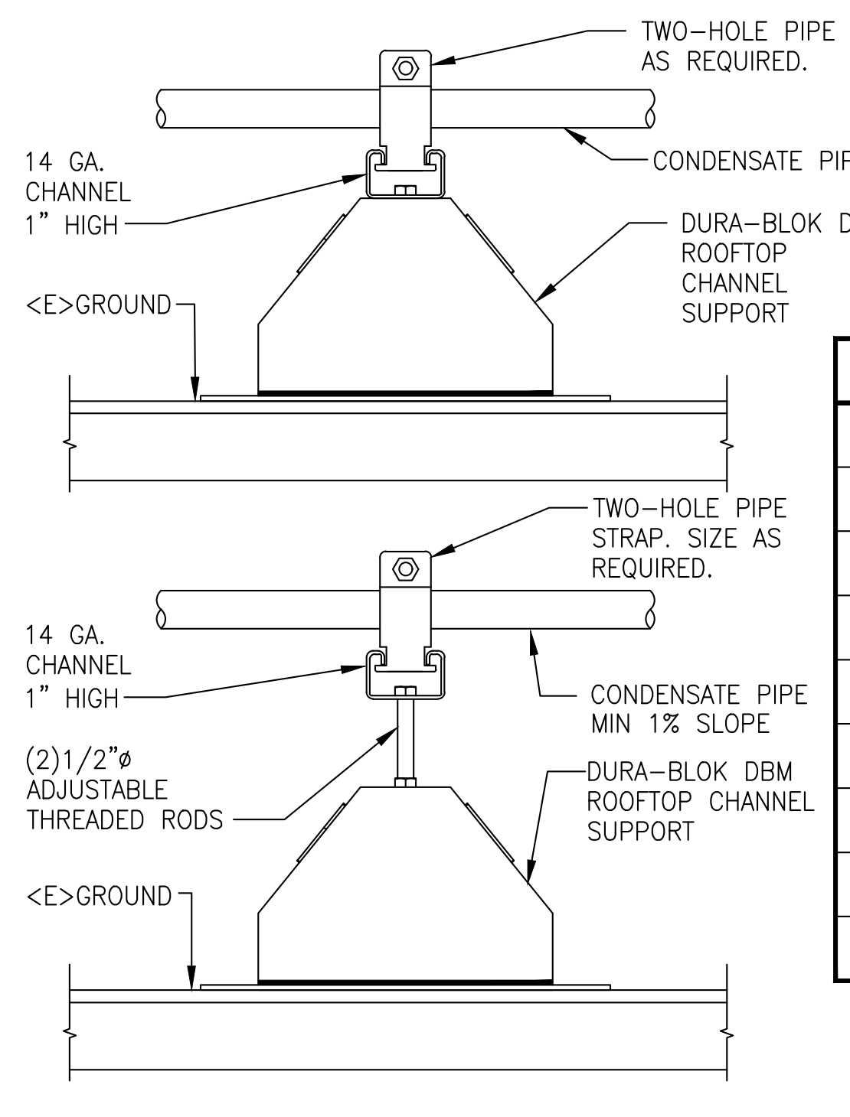

WALL STUD, 16" O.C. (TYP) 1
2
9
3
4
VENT IN WALL AND UP TO ROOF
8
5
SANITARY TEE SEWER PIPING CONNECTED TO FIXTURE
6
7
FLOOR SLAB

REFERENCE DETAIL NOTES

1. WALL STUD PER ARCHITECTURAL PLAN AT 16" O.C. (TYP.
2. CW PIPING. INSTALL BEHIND WALL, WHERE SPECIFIED ON FLOOR PLANS.
3. PROVIDE NEW FAUCET.
4. WALL MOUNTED LAVATORY SINK.
5. BRASS 'P' TRAP.
6. NEW NEOPRENE GASKET AND ESCUTCHEON PLATE.
7. PIPE/TRAP COVER, TYP.
8. NEW ANGLE STOP & WATER SUPPLY LINES.
9. PROVIDE AND INSTALL NEW BLOCKING PER DETAIL G8/A-801.

8 LAVATORY INSTALLATION DETAIL

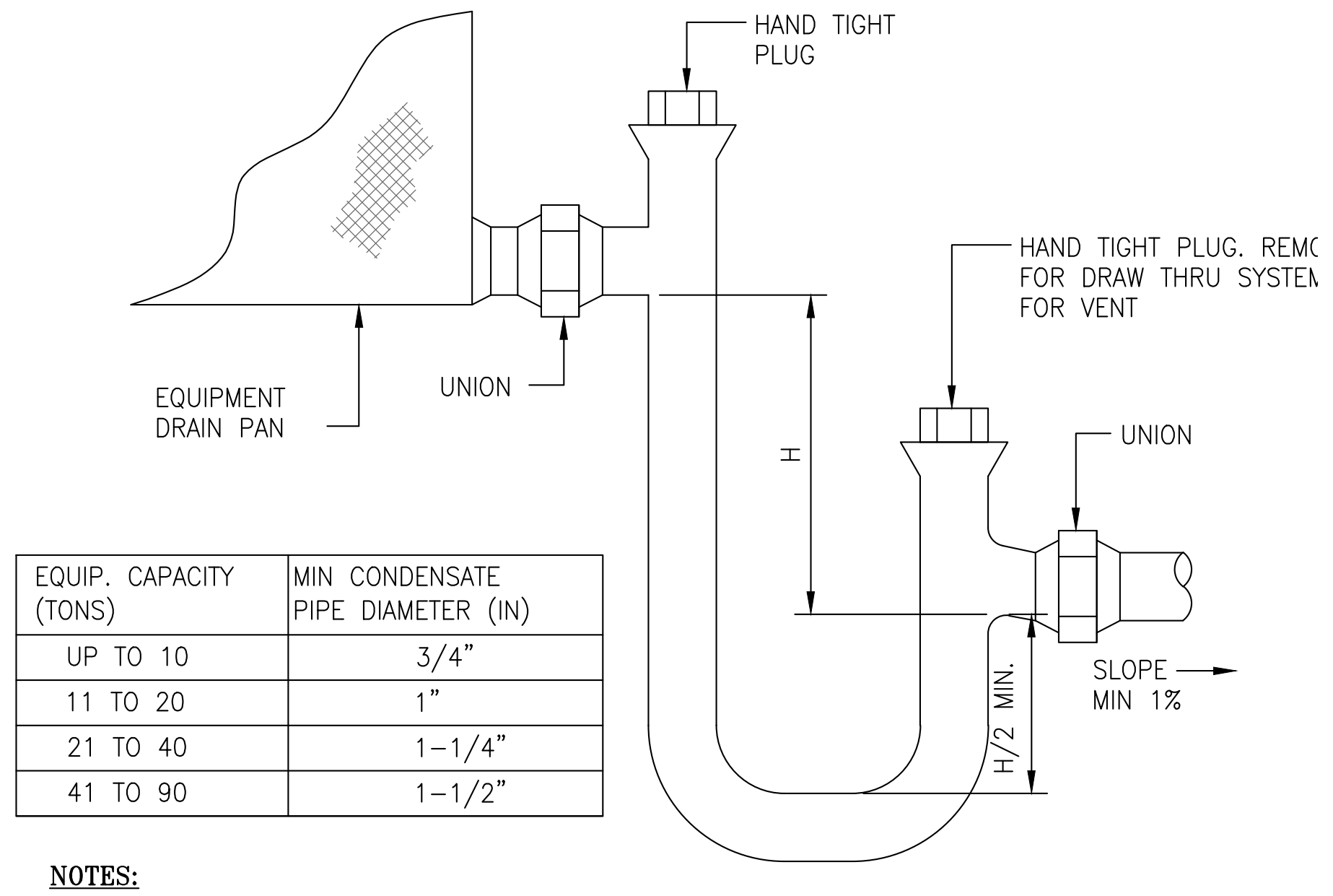
SCALE: N.T.S.


TWO-HOLE PIPE STRAP. SIZE AS REQUIRED.
CONDENSATE PIPE
14 GA. CHANNEL 1" HIGH
DURA-BLOK DB10 ROOFTOP CHANNEL SUPPORT
<E>GROUND
TWO-HOLE PIPE STRAP. SIZE AS REQUIRED.
14 GA. CHANNEL 1" HIGH
CONDENSATE PIPE MIN 1% SLOPE
(2)1/2"ø ADJUSTABLE THREADED RODS
DURA-BLOK DBM ROOFTOP CHANNEL SUPPORT
<E>GROUND

PIPE SUPPORT SPACING		
SIZE	STEEL	COPPER
1/2"	6'	5'
3/4"	6'	5'
1"	7'	6'
1-1/4"	7'	7'
1-1/2"	9'	8'
2"	10'	8'
2-1/2"	10'	9'
3"	10'	10'

7 PIPE ON ROOF DETAIL

SCALE: N.T.S.

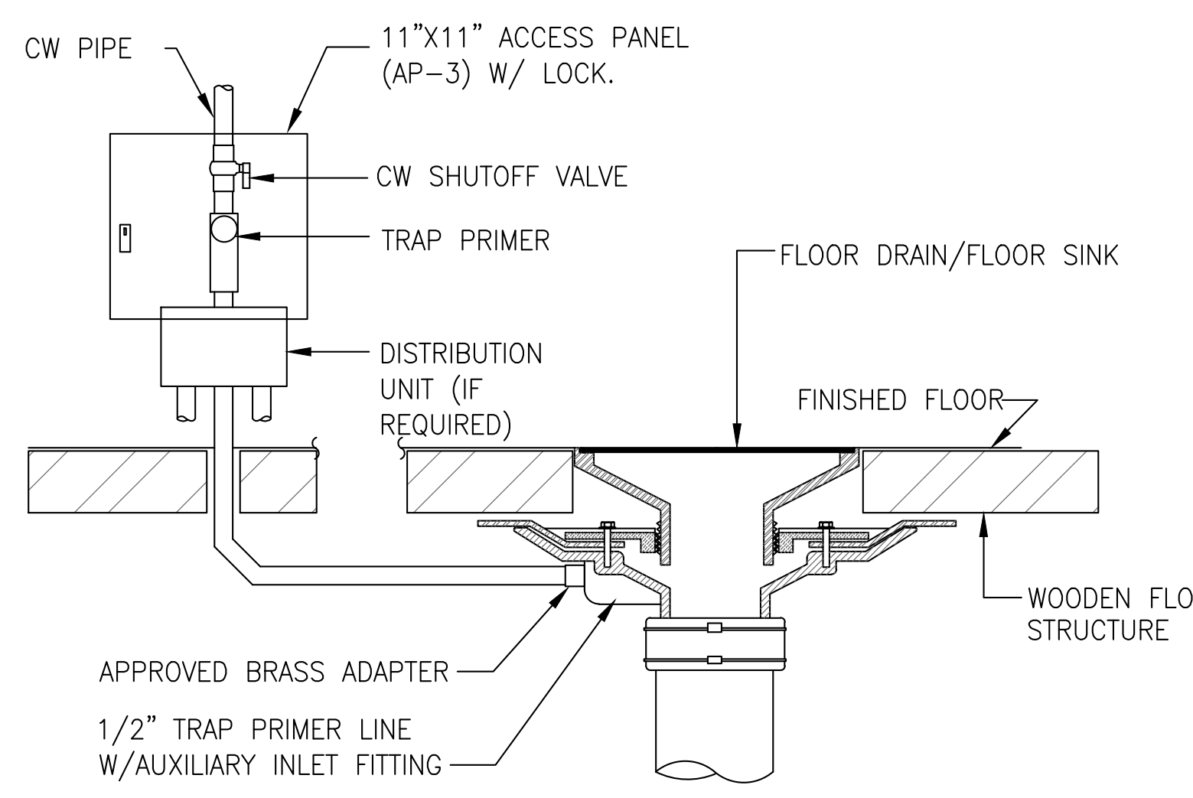


EQUIP. CAPACITY (TONS)	MIN CONDENSATE PIPE DIAMETER (IN)
UP TO 10	3/4"
11 TO 20	1"
21 TO 40	1-1/4"
41 TO 90	1-1/2"

NOTES:
1. H = FAN INLET STATIC + 1"
2. INSULATE CONDENSATE DRAIN LINES IN ATTIC SPACE, ABOVE DROP CEILINGS AND CONCEALED SPACES. USE 1" THICK INSULATION WITH ASJ.
3. USE STAINLESS STEEL/BRONZE BRAIDED FLEX CONNECTION IF HVAC UNIT USES SPRING ISOLATORS.

6 CONDENSATE TRAP DETAIL

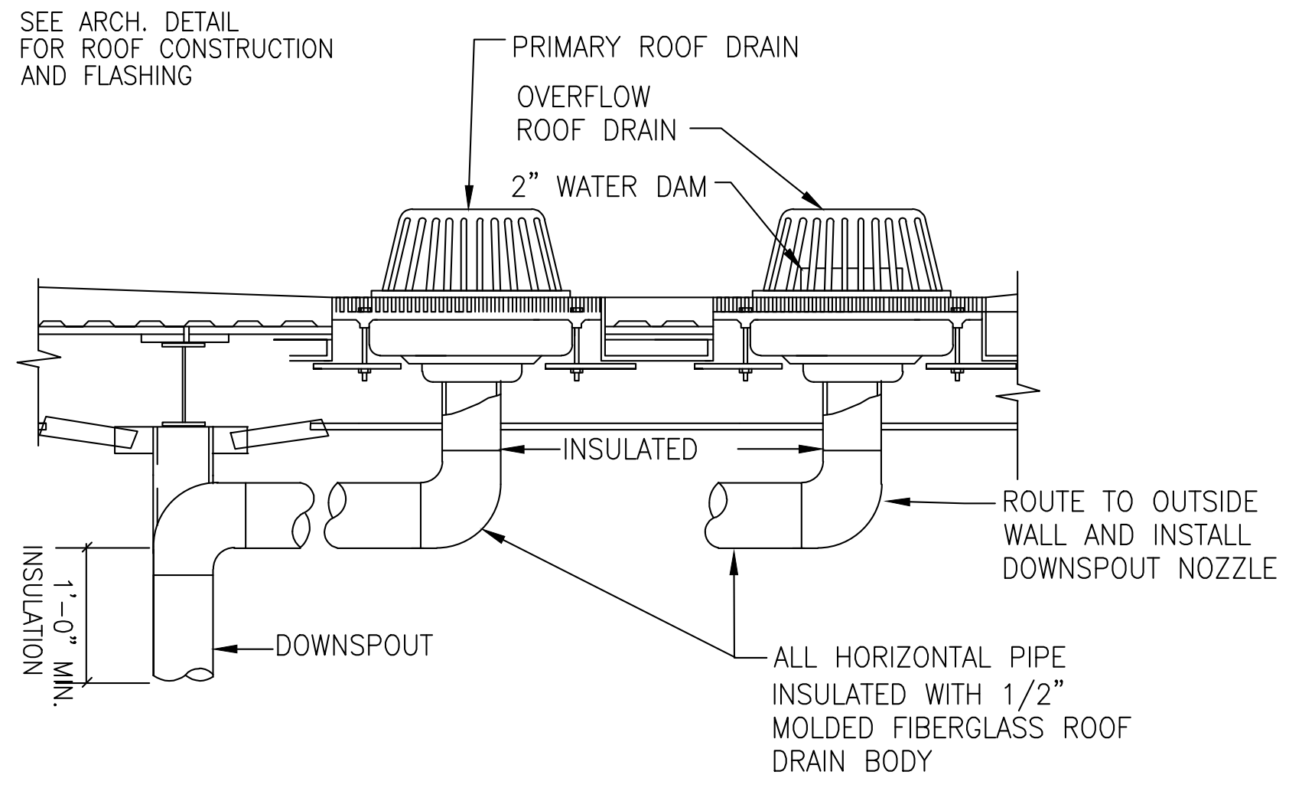
SCALE: N.T.S.


CW PIPE
11"X11" ACCESS PANEL (AP-3) W/ LOCK.
CW SHUTOFF VALVE
TRAP PRIMER
DISTRIBUTION UNIT (IF REQUIRED)
FLOOR DRAIN/FLOOR SINK
FINISHED FLOOR
WOODEN FLOOR STRUCTURE
APPROVED BRASS ADAPTER
1/2" TRAP PRIMER LINE W/AUXILIARY INLET FITTING

5 TRAP PRIMER DETAIL

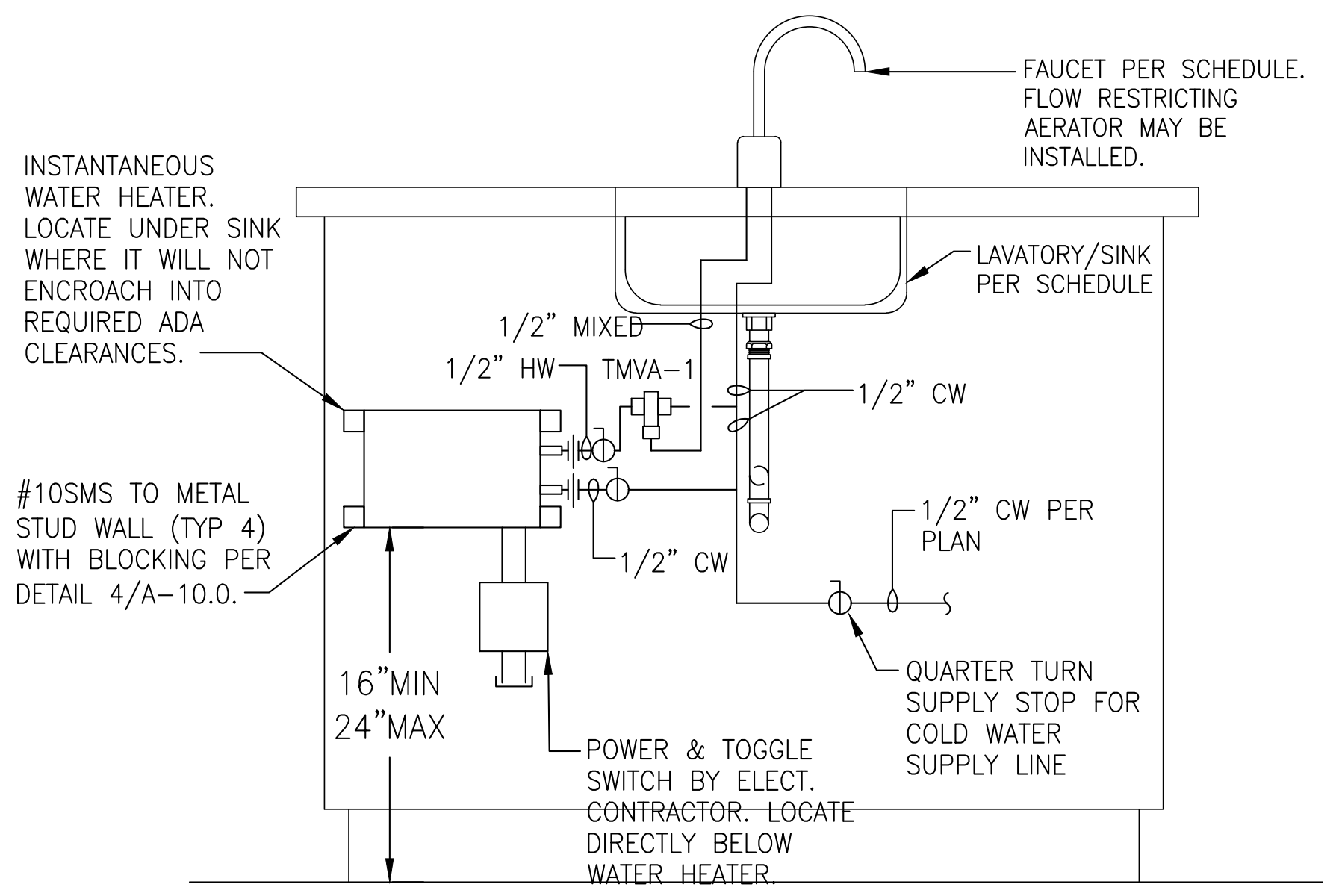
SCALE: N.T.S.

NOTE:
SEE ARCH. DETAIL FOR ROOF CONSTRUCTION AND FLASHING


PRIMARY ROOF DRAIN
OVERFLOW ROOF DRAIN
2" WATER DAM
INSULATED
ROUTE TO OUTSIDE WALL AND INSTALL DOWNSPOUT NOZZLE
1'-0" MIN. INSULATION
DOWNSPOUT
ALL HORIZONTAL PIPE INSULATED WITH 1/2" MOLDED FIBERGLASS ROOF DRAIN BODY

4 ROOF DRAIN AND OVERFLOW DRAIN DETAIL

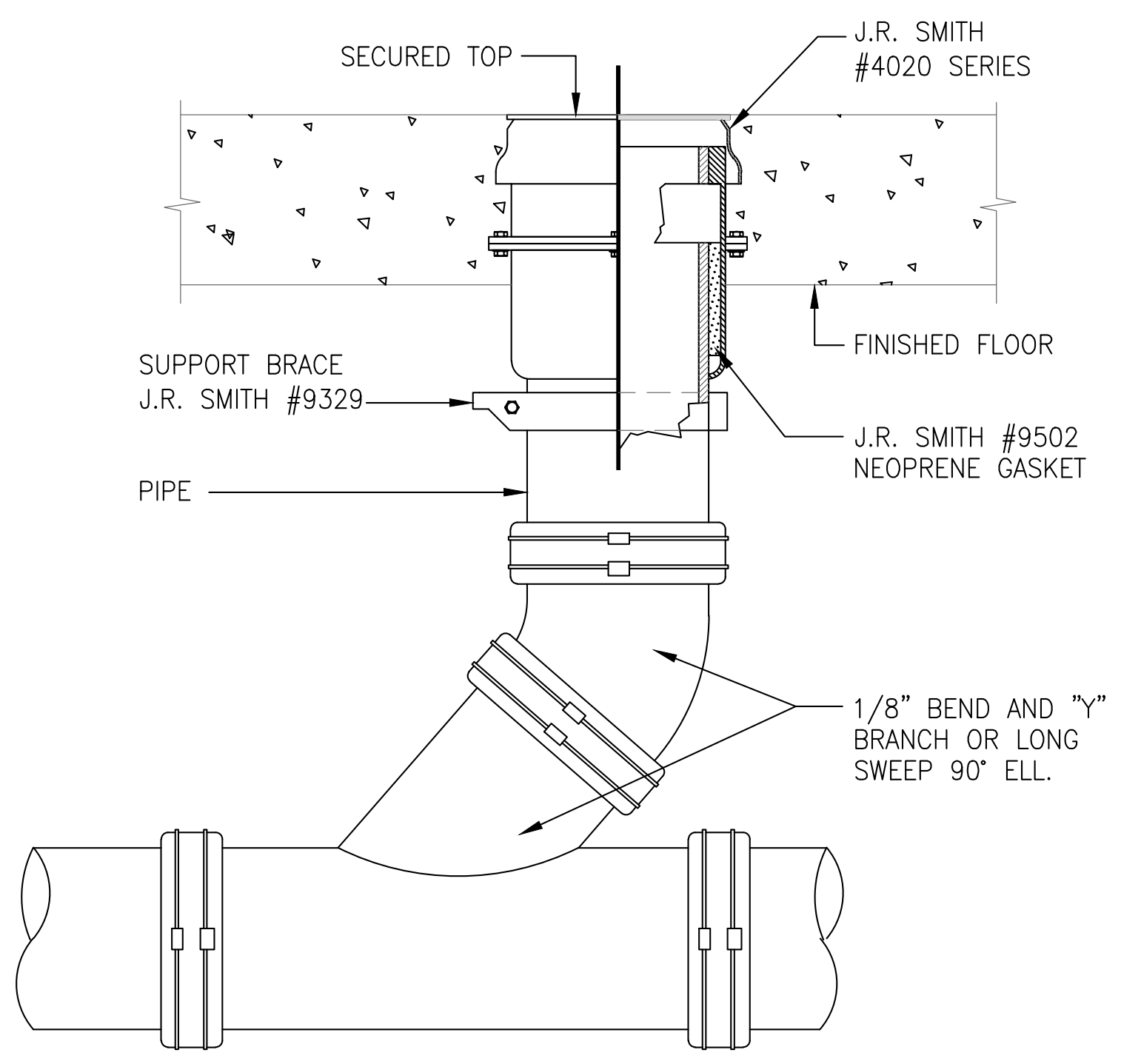
SCALE: N.T.S.


FAUCET PER SCHEDULE. FLOW RESTRICTING AERATOR MAY BE INSTALLED.
INSTANTANEOUS WATER HEATER. LOCATE UNDER SINK WHERE IT WILL NOT ENCROACH INTO REQUIRED ADA CLEARANCES.
LAVATORY/SINK PER SCHEDULE
1/2" MIXED
1/2" HW
TMVA-1
1/2" CW
#10SMS TO METAL STUD WALL (TYP 4) WITH BLOCKING PER DETAIL 4/A-10.0.
1/2" CW
1/2" CW PER PLAN
16"MIN 24"MAX
POWER & TOGGLE SWITCH BY ELECT. CONTRACTOR. LOCATE DIRECTLY BELOW WATER HEATER.
QUARTER TURN SUPPLY STOP FOR COLD WATER SUPPLY LINE

NOTES:
1. EXTERNAL MIXING VALVE SHALL NEED TO BE INSTALLED IF FAUCET DOES NOT HAVE INTERNAL MIXING VALVE.
2. INSTANT WATER HEATER OUTLET TEMPERATURE SETPOINT SHALL TEMPERED WATER WITH TEMPERATURE SETPOINT OF 105 DEGREES F. TEMPERED WATER ONLY IS ALLOWED IN STUDENT RESTROOM.

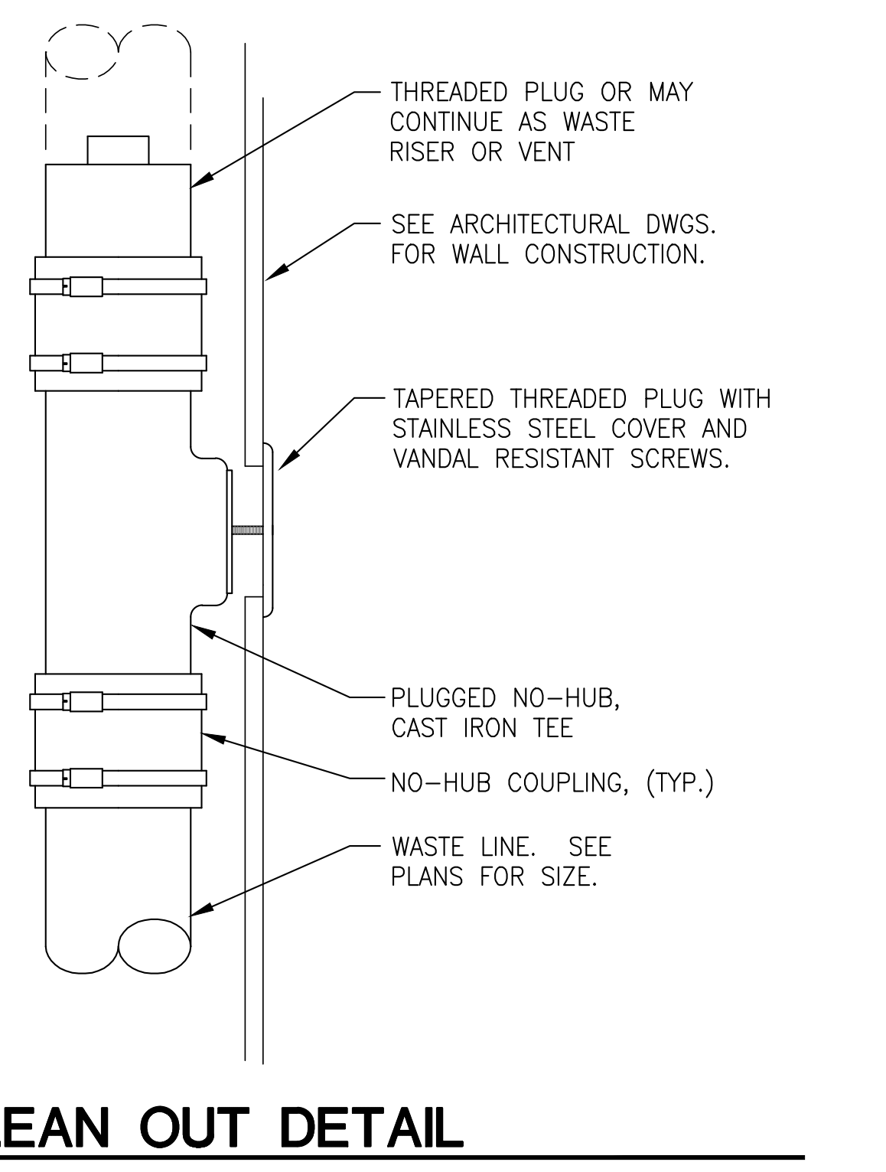
3 INSTANT WATER HEATER DETAIL

SCALE: N.T.S.


SECURED TOP
J.R. SMITH #4020 SERIES
FINISHED FLOOR
SUPPORT BRACE J.R. SMITH #9329
J.R. SMITH #9502 NEOPRENE GASKET
PIPE
1/8" BEND AND "Y" BRANCH OR LONG SWEEP 90° ELL.

2 FLOOR CLEAN OUT DETAIL

SCALE: N.T.S.


THREADED PLUG OR MAY CONTINUE AS WASTE RISER OR VENT
SEE ARCHITECTURAL DWGS. FOR WALL CONSTRUCTION.
TAPERED THREADED PLUG WITH STAINLESS STEEL COVER AND VANDAL RESISTANT SCREWS.
PLUGGED NO-HUB, CAST IRON TEE
NO-HUB COUPLING, (TYP.)
WASTE LINE. SEE PLANS FOR SIZE.

1 WALL CLEAN OUT DETAIL

SCALE: N.T.S.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

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PLUMBING
DETAILS

P501

K:\drawings\Perkins Eastman Architects\2103238 Gateway Community School New 8-Classroom Bldg\2103238P501.dwg 1/13/2023 4:35 PM Toan Pham

PIPING AND VALVE SCHEDULE

SERVICE	SIZE	PIPE SPECIFICATION	VALVE	
DOMESTIC COLD WATER, HOT WATER, HOT WATER RECIRCULATION	2" AND SMALLER INSIDE BUILDING	TYPE 'L' HARD DRAWN COPPER, ASTM B-88. SOLDRED JOINTS, NON-LEAD SOLDER	HAMMOND BRONZE BODY, BALL VALVE, MODEL NO., UP8501/8503 STANDARD-PORT, LOW LEAD COMPLIANT, 2 PIECE, 600 PSIG WOG	FITTINGS: WROUGHT FITTINGS ASTM B16.22. NON-LEAD SOLDER PER ASTM B32.
ROOF DRAIN	ALL SIZES ABOVE GROUND	ASTM A74 SERVICE WEIGHT CAST IRON		DWV FITTINGS SHALL CONFORM TO CPC AND BEAR THE COLLECTIVE TRADEMARK OF CISPI AND NSF.
ROOF DRAIN	ALL SIZES BELOW GROUND	ABS SCHEDULE 40 PIPE		DWV FITTINGS SHALL CONFORM TO ASTM D2321-2000 AND CPC.
WASTE, VENT	ALL SIZES INSIDE BUILDING AND UNDER SLAB WITHIN BLDG. FOOTPRINT	PVC SCHEDULE 40 DWV (SDR-25) AND FITTINGS SHALL CONFORM TO ASTM D3034 AND SOLVENT PER ASTM D2564 AND CPC.		

PIPE INSULATION SCHEDULE

SERVICE	SIZE	SPECIFICATION
DOMESTIC HOT WATER, HOT WATER RETURN	<1"ø = 1" THICK. 1 TO <4"ø = 1.5" THICK INSULATION W/ JACKET FOR PIPE INSIDE BUILDING & FLUIDS LESS THAN 140°F.	INSULATE ALL HOT WATER PIPE WITH GLASS FIBER PIPE INSULATION WITH FACTORY APPLIED WHITE VAPOR BARRIER JACKET, J-M MICRO-LOK 650 AP OR APPROVED EQUAL. THE INSULATION SHALL HAVE A FIRE HAZARD CLASSIFICATION OF 25/50, K FACTOR .24 AT 100° FAHRENHEIT MEAN, JACKET WITH TENSILE STRENGTH 35 PSI, MULLEN BUST 70 PSI, BEACH PUNCTURE 50 OZ. IN./IN., PERMEABILITY .02 PERM. INSULATION THICKNESS SHALL BE NO LESS THAN 1". COVER FITTINGS WITH PVC FITTING COVERS. ATTACH INSULATION AND FITTING COVERS PER MANUFACTURES' RECOMMENDATIONS. GLUE AND TAPE ALL INSULATION JOINTS.
HVAC CONDENSATE	0.5"ø TO <2"ø = 0.5" THICK INSULATION	CLOSED CELL FOAM OR RIDGID FIBERGLASS WITH ASJ.

BUILDING WATER CALCULATIONS

DEVELOPED LENGTH = 120 FT
25% DEVELOPED LENGTH = 30 FT
EQUIVALENT LENGTH (DEV. LENGTH + 25%) = 150 FT

HYDRAULIC CALCULATIONS

A	MIN PRESSURE AT CITY MAIN	80 PSI
B	PRESSURE SET AT REGULATOR	75 PSI
C	MIN PRESSURE AT FIXTURE	25 PSI
D	PRESSURE LOSS 2 INCH METER	5 PSI
E	PRESSURE LOSS 2 INCH BACKFLOW	7 PSI
F	PRESSURE LOSS 2 INCH PRV	0 PSI
G	PRESSURE LOSS SOFTENER OR MISC EQUIP.	0 PSI
H	PRESSURE LOSS ELEVATION 24 FT * 0.43	10.3 PSI
I	TOTAL PRESSURE LOSSES (C THRU H)	47.3 PSI
J	PRESS. AVAIL. FOR FRICTION LOSS (B MINUS I)	27.7 PSI
K	PRESSURE/100 FT ((J *100)/EQ LENGTH)	18.4 PSI

WATER HEATER SIZING CALCULATION

WATER HEATER SIZING
HOT WATER FIXTURES

Qty	Item	GPH/FIXTURE	GPH
2	HAND LAV (LAV-1) (5 GPH EACH)	5.0	10
1	MOP SINK (MS-1)	15.0	15
1	HAND WASH SINK	15	15
1	THREE COMPARTMENT SINK	25	25

SUBTOTAL:	65
LOAD FACTOR, COMMERCIAL	80%
TOTAL GPH:	52.0
STORAGE CAPACITY FACTOR	1.15
TOTAL TANK GAL:	60
TEMPERATURE RISE, °F	60
KW INPUT, MIN (GPH REQ'D @ TEMP RISE X 0.149)	7.75

WATER HEATER SIZING CALCULATION

WATER HEATER SIZING
HOT WATER FIXTURES

Qty	Item	GPH/FIXTURE	GPH
2	HAND LAV (LAV-1)	5.0	10
1	BREAK ROOM SINK	10	10
4	CLASSROOM SINK	10	40

SUBTOTAL:	60
LOAD FACTOR, COMMERCIAL	40%
TOTAL GPH	24.0
STORAGE CAPACITY FACTOR	1.15
TOTAL TANK GAL	27.6
TEMPERATURE RISE, °F	60
KW INPUT, MIN (GPH REQ'D @ TEMP RISE X 0.149)	3.6

WATER HEATER SIZING CALCULATION

WATER HEATER SIZING
HOT WATER FIXTURES

Qty	Item	GPH/FIXTURE	GPH
2	HAND LAV (LAV-1)	5.0	10
4	WASH SINK	10	40

SUBTOTAL:	50
LOAD FACTOR, COMMERCIAL	40%
TOTAL GPH	20.0
STORAGE CAPACITY FACTOR	1.15
TOTAL TANK GAL	23
TEMPERATURE RISE, °F	60
KW INPUT, MIN (GPH REQ'D @ TEMP RISE X 0.149)	2.98

PLUMBING FIXTURE SCHEDULE

FIXTURE ID	DESCRIPTION	MIN. CONNECTION SIZE (")				MAKE AND MODEL	FITTINGS	COMMENTS
		W	V	CW	HW			
LAV-1	LAVATORY (ADA COMPLIANT)	2	2	1/2	1/2	AMERICAN STANDARD LUCERNE 0355.012 WITH CONCEALED BRACKETS WITH 4" CENTERS	CHICAGO FAUCET 802-VE2805-665ABCP DECK MOUNTED TWO HOLE (4" CENTERS) METERING FAUCET WITH VANDAL PROOF PUSH BUTTON. 0.5 GPM. ADA COMPLIANT.	STRAINER. THERMOSTATIC MIXING VALVE (TMVA-1) FOR TEMPERED HOT WATER. SUPPLY STOPS. PRE-WRAPPED CAST P-TRAP INSULATION KIT WITH VALVE AND SUPPLY COVERS. INSTALL WITH BLOCKING PER G8/A-801.
S-1	SINK (DROP-IN)	2	2	1/2	1/2	JUST MFG CRA-ADA-1723-A-GR SINGLE COMPARTMENT 14" X 14" X 6" BASIN WITH CENTER DRAIN. 18GA TYPE 304 STAINLESS STEEL. ADA COMPLIANT.	CHICAGO FAUCET 786-E35VPCABCP DECK MOUNTED W/ 8" CENTERS & SWING GOOSENECK SPOUT. MANUAL 4" WRISTBLADE HANDLES. 1.5 GPM. CAL GREEN AND ADA COMPLIANT.	STRAINER. THERMOSTATIC MIXING VALVE. SUPPLY STOPS. MCQUIRE PRE-WRAPPED CAST P-TRAP INSULATION KIT WITH VALVE AND SUPPLY COVERS MODEL NO. PWV8090 FOR EXPOSED PIPING. CF 748-244ABCP DRINKING FOUNTAIN.
S-2	SINK (DROP-IN)	2	2	1/2	1/2	SEE WARMING KITCHEN DRAWINGS (QF-400-1)	SEE WARMING KITCHEN DRAWINGS (QF-400-1)	INSTALL WITH BLOCKING PER G8/A-801.
S-3	THREE COMPARTMENT SINK	3 (INDIR.)	2	3/4	3/4	SEE WARMING KITCHEN DRAWINGS (QF-400-1)	SEE WARMING KITCHEN DRAWINGS (QF-400-1)	GARBAGE DISPOSAL, INSINKERATOR EVOLUTION COMPACT, 3/4 HP UNDER SINK, 120V-1PH.
S-4	SINK (DROP-IN)	2	2	1/2	1/2	JUST MFG SL-1921-ADA-GR SINGLE COMPARTMENT 18" X 14" X 5.5" BASIN WITH CENTER DRAIN. 18GA TYPE 304 STAINLESS STEEL. ADA COMPLIANT.	CHICAGO FAUCET 434-ABCP DECK MOUNTED W/ SINGLE HOLE & SWING GOOSENECK SPOUT. SINGLE SWIVEL HANDLES. 1.5 GPM. CAL GREEN AND ADA COMPLIANT.	STRAINER. THERMOSTATIC MIXING VALVE. SUPPLY STOPS. MCQUIRE PRE-WRAPPED CAST P-TRAP INSULATION KIT WITH VALVE AND SUPPLY COVERS MODEL NO. PWV8090 FOR EXPOSED PIPING. GARBAGE DISPOSAL, 3/4 HP UNDER SINK, 120V-1PH FOR STAFF LOUNGE.
WC-1	WATER CLOSET, ADA, FLOOR MOUNTED, FLUSH VALVE TYPE	3	2	1	–	AMERICAN STANDARD MADERA, MODEL NO. 3461.001. FLOOR MOUNTED WITH ELONGATED BOWL AND TOP SPUD.	FLV-1: SLOAN ROYAL MANUAL FLUSHOMETER MODEL NO. 111-1.28. 1.28 GPF FLUSHMETER. OVERRIDE BUTTON. CAL-GREEN AND ADA COMPLIANT.	SEE ARCHITURAL PLANS FOR ACCESSIBLE MOUNTING REQUIREMENTS. SOLID PLASTIC, ELONGATED, WHITE COLOR, OPEN FRONT SEAT. OLSONITE 95SSCT 10CT.
WC-2	WATER CLOSET, NON-ADA, FLOOR MOUNTED FLUSH VALVE TYPE	3	2	1	–	AMERICAN STANDARD MADERA, MODEL NO. 3451.001. FLOOR MOUNTED WITH ELONGATED BOWL AND TOP SPUD.	FLV-1: SLOAN ROYAL MANUAL FLUSHOMETER MODEL NO. 111-1.28. 1.28 GPF FLUSHMETER. OVERRIDE BUTTON. CAL-GREEN AND ADA COMPLIANT.	SOLID PLASTIC, ELONGATED, WHITE COLOR, OPEN FRONT SEAT. OLSONITE 95SSCT 10CT.
DF-1	DRINKING FOUNTAIN	1-1/2	1-1/2	1/2	–	ELKAY WALL MOUNTED HI-LO DRINKING FOUNTAIN, MODEL VRCTLR8WSK. COOLER AND BOTTLE FILLER. 304 STAINLESS STEEL W/ BACK PLATE WITH PUSH BUTTON.		INDOOR/OUTDOOR INSTALLATION. VANDAL RESISTANT. 115V-1PH, FLA = 1AMP. INSTALL WITH BLOCKING PER G8/A-801.
WHA-1	WATER HAMMER ARRESTOR	–	–	1	–	SIOUX CHIEF MODEL NO. 655-D PER ANSI/ASSE 1010-2004 STANDARD.		PROVIDE ACCESS PANEL AND SHUT OFF VALVE.
FD-1	FLOOR DRAIN	2	1-1/2	1/2	–	ZURN MODEL ZN-415-B. CAST IRON BODY, NO HUB CONNECTION WITH 5" DIAMETER ROUND COVER.		PROVIDE TP-1 CONNECTION.
TP-1	AUTOMATIC TRAP PRIMER	–	–	1/2	–	MIFAB MODEL MR-500-NPB. CAST BRONZE TYPE WITH SHUT OFF VALVE.		INSTALL WITH ACCESS PANEL (AP-1).
AP-1	ACCESS PANEL	–	–	–	–	ZURN Z-1462-12-X-VP. 13-7/8" X 13-7/8" ACCESS PANEL FRAME W/ 11-3/8"X11-3/8" DOOR.		INSTALL ON PAINTED/STUCCO WALLS. STEEL CONSTRUCTION AND PAINTED TO MATCH ADJACENT WALL. VANDAL PROOF SCREWS.
TMVA-1	THERMOSTATIC MIXING VALVE ASSEMBLY	–	–	1/2	1/2	WATTS MODEL LFMMV. CAST COPPER SILICON BODY CONSTRUCTION WITH LOCKABLE & LOCKABLE TEMPERATURE ADJUSTMENT CAP.		LEAD FREE COMPLIANT WITH NSF-61-G. ASSE 1017, 1069, AND 1070 LISTED. TEMPERATURE RANGE ADJUSTMENT FROM 100 DEGREES F TO 150 DEGREES F. SET AT 105 DEGREES F HW OUTPUT FOR PUBLIC AREAS.
HB-1	HOSE BIBB	–	–	3/4	–	ACORN MODEL NO. 8151 WITH VACUUM BREAKER AND LOCKABLE DOOR.		
HB-2	HOSE BIBB	–	–	3/4	–	ACORN MODEL NO. 8125-LF WITH VACUUM BREAKER.		INSTALL FOR ROOF APPLICATIONS.
RD-1 / OD-1	ROOF DRAIN PRIMARY AND OVERFLOW	4/3	–	–	–	SIOUX CHIEF MODEL 868 SERIES		CAST IRON BODY, LOW PROFILE ENAMEL COATED CAST IRON DOME STRAINER, CAST IRON GRAVEL GUARD. 2' INTERNAL WATER DAM FOR OVERFLOW DRAIN. COORDINATE THE NECESSITY OF HARDWARE/CLAMP KIT AND ADJUSTABLE EXTENSION WITH ROOF CONSTRUCTION.
DN-1	OVERFLOW DOWNSPOUT NOZZLE	4/3	–	–	–	SIOUX CHIEF MODEL 834-64DNRV		NICKEL BRONZE WITH THREADED OR NO HUB OUTLET AND MOUNTING FLANGE TO SECURE NOZZLE TO WALL. PROVIDE AT 12" ABOVE FINISHED SLAB OR AS DIRECTED BY ARCHITECT.
MS-1	MOP SINK	3	2	3/4	3/4	SEE WARMING KITCHEN DRAWINGS (QF-400-1)		REMOVABLE VINYL RIM GUARD. LOW LEAD CERTIFIED.
FS-1	FLOOR SINK	3	2	1/2	–	ZURN MODEL NO. Z1752. 12" SQUARE WITH FLANGE. 10" DEEP.		STAINLESS STEEL 304 CONSTRUCTION W/ S.S. DOME STRAINER. FURNISH WITH TRAP PRIMER FROM CW TO FLOOR SINK OR ON TRAP. HEEL PROOF HALF GRATE.
CP-1	CIRCULATING PUMP	–	–	–	3/4	WILO MODEL NO. STAR S-21-ZFX CIRCULATING PUMP WITH 5 GPM @ 17FT & ECM MOTOR. AQUASTAT TEMPERATURE CONTROL.	BALL SHUT OFF VALVES AND CHECK VALVE.	POTABLE WATER APPLICATIONS AND LEAD FREE BRONZE. PROVIDE 120V/1PH (52 WATTS) TO PUMP WITH SWITCH. BALL VALVE AND CHECK VALVE. ADJUSTABLE TEMPERATURE SETPOINT AND SWITCH.

PLUMBING EQUIPMENT SCHEDULE

FIXTURE ID	DESCRIPTION	MIN. CONNECTION SIZE (")				MAKE	MODEL	GALLON CAPACITY	GPH/100°F TEMP RISE	THERMAL EFF. (%)	WEIGHT (LBS)	FLA	ELECT. (V/PH)	POWER (KW)	COMMENTS
		W	V	CW	HW										
DWH-1	DOMESTIC WATER HEATER	–	–	2	2	BOCK	CE080-1A	80	54	98	395	37.5	208/3	13.5	COMMERCIAL ELECTRIC TANK TYPE WATER HEATER WITH IMMERSION THERMOSTATS. MINIMUM OF 3 HEATING ELEMENTS. 3 YEAR MANUFACTURER WARRANTY. SET AT 135°F (ADJUSTABLE). LEAD FREE CONSTRUCTION NSF/ANSI 61 CERTIFIED. INSTALL WITH AMTROL ST-12 EXPANSION TANK (4.4 GAL).

PLUMBING EQUIPMENT SCHEDULE

FIXTURE ID	DESCRIPTION	MIN. CONNECTION SIZE (")				MAKE	MODEL	GPM MIN	GPM MAX	DEG (F) RISE @ 0.8 GPM	DEG (F) RISE @ 1.0 GPM	ELECT. (V/PH)	POWER (KW)	COMMENTS
		W	V	CW	HW									
IWH 1	WATER HEATER	–	–	1/2	1/2	CHROMOLITE	M-30L/208	0.35	2.0	53	43	208V/1	6.2	POINT OF USE ELECTRIC WATER HEATER WITH EXTERNAL THERMOSTATIC MIXING CONTROL. MOUNT IN CABINETS UNDER SINK WITH LOCAL SHUT OFF VALVE. COMMERCIAL GRADE COPPER TUBING. SHALL HAVE 3-YEARS PARTS WARRANTY. INSTALL PER MANUFACTURER'S REQUIREMENTS AND ALL APPLICABLE CODES.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL.31, 2021

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022
△	
△	
△	
△	
△	

SALASO'BRIEN
expect a difference
305 South 11th Street
San Jose, California 95112-2218
877.725.2755 | 877.925.1477 (f)
WWW.SALASOBRIEN.COM

National **Strength.**
Local **Action.**

JAMES ZWINGMAN
No. M35588
MECHANICAL

PLUMBING
SCHEDULES

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

P601

IDENTIFICATION STAMP
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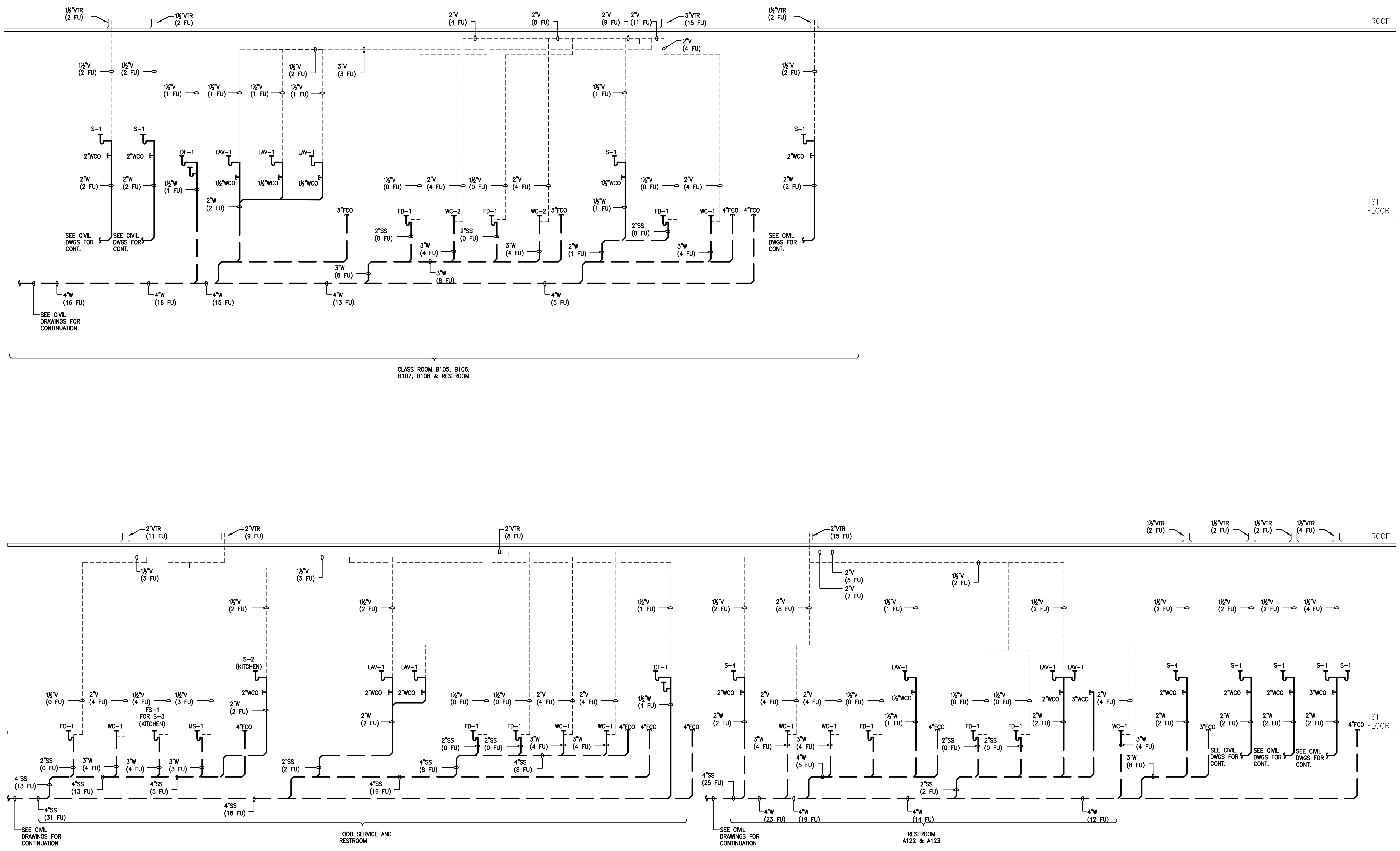
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY



1 SEWER AND VENT SYSTEM
SCALE: N.T.S.

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GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION

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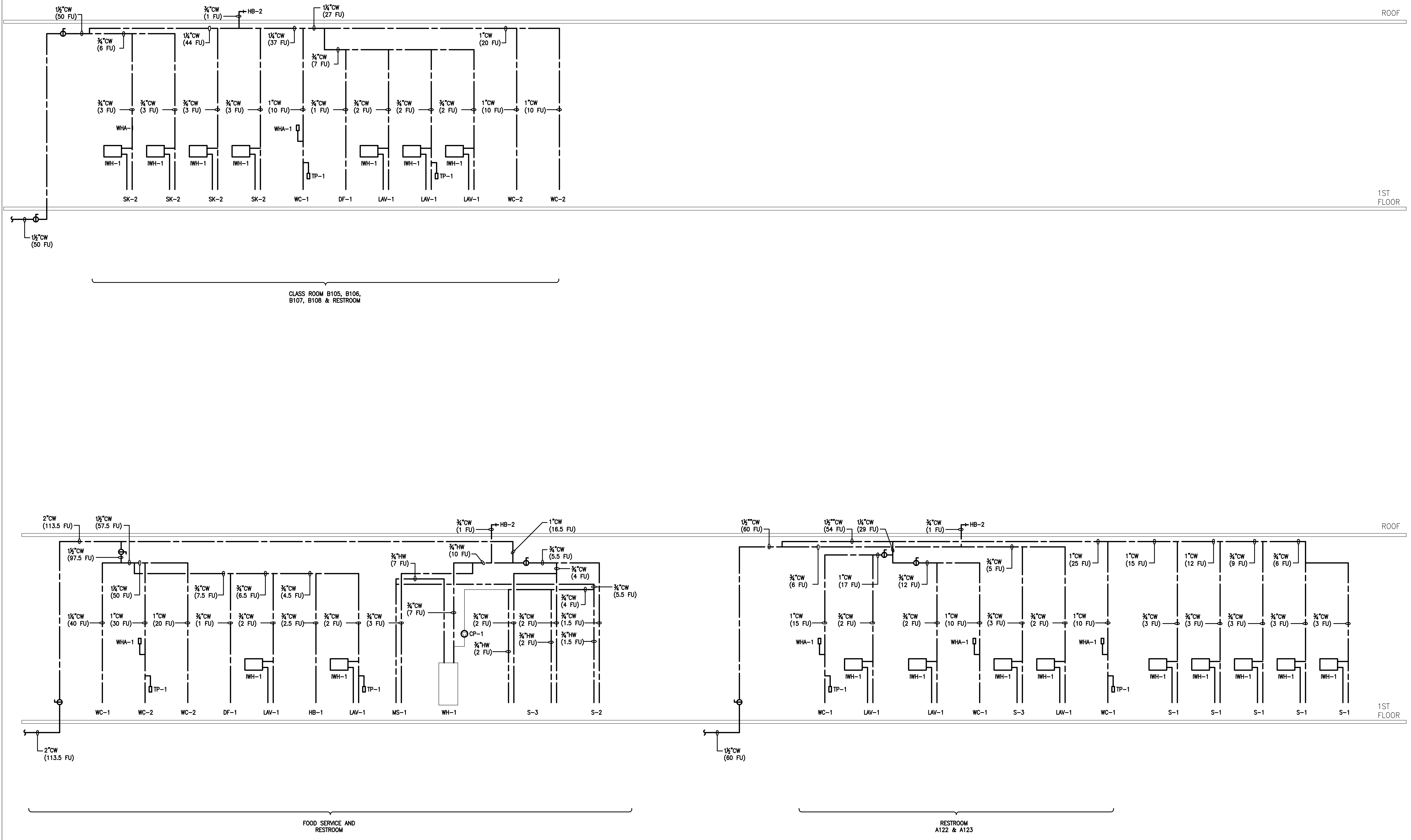
PLUMBING RISER DIAGRAM

P701



1 DOMESTIC WATER SYSTEM

SCALE: N.T.S.

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PLUMBING RISER DIAGRAM

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P702

GENERAL SYMBOLS

⊕—	EXTENT OF DEMOLTION
◕—	NEW TO EXISTING CONNECTION
△1	REVISION NUMBER
⬭1	WORK ITEM (ELECTRICAL)
①	WORK ITEM (MECHANICAL)
◇1	WORK ITEM (ELECTRICAL)
⬭1	WORK ITEM (TELECOMMUNICATION)
□1	WORK ITEM (PLUMBING)
⬡1	WORK ITEM (STRUCTURE)
1 / M-1	DETAIL DESIGNATION
	DETAIL NUMBER DRAWING NUMBER (IF BLANK, SAME SHEET)
CT / M-1	EQUIPMENT DESIGNATION
	EQUIPMENT TYPE EQUIPMENT NUMBER
1 / M-1	SECTION DESIGNATION
	SECTION NUMBER DRAWING NUMBER

ABBREVIATIONS

1/C	ONE CONDUCTOR
3/C	THREE CONDUCTOR
&	AND
@	AT
AFF	ABOVE FINISHED FLOOR
A OR AMP	AMPERES
ACM	ASBESTOS CONTAINING MATERIAL
AIC	AMPERE INTERRUPTING CAPACITY
AL, ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATC	AIR TERMINAL CABINET
AUX	AUXILIARY
AWG	AMERICAN WIRE GAGE
BAS	BUILDING AUTOMATION SYSTEM
BC	BARE COPPER
BKR	BREAKER
BLDG	BUILDING
BLTS	BUILDING LIGHTS
C	CONDUIT
CA	CABLE
CB	CIRCUIT BREAKER
CHG	CHARGING STATION
CKT	CIRCUIT
CL	CURRENT LIMITING
CLG	CEILING
CLR	CLEARANCE
CMS	COMBINATION MOTOR STARTER
C.O.	CONDUIT ONLY W /PULLROPE
CP	CENTRAL PLANT
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CTRL	CONTROL
D	DEDICATED
DP	DISTRIBUTION PANEL
DN	DOWN
EA	EACH
EASA	ELECTRICAL ASSOCIATION SERVICE OF AMERICA
EF	EXHAUST FAN
EHH	ELECTRIC HANDHOLE
ELEC	ELECTRICAL
EM	EMERGENCY; ON EMERGENCY POWER SUPPLY /PANEL
EMH	ELECTRIC MANHOLE
EMS	ENERGY MANAGEMENT SYSTEM
EQUIP	EQUIPMENT
<E>	EXISTING
<ERR>	EXISTING TO REMAIN AND RECONNECTED
EST	ESTIMATED
EX	EXAMPLE
<F>	FUTURE
FA	FORCE AIR
FDR	GROUND FAULT (CIRCUIT) INTERRUPTER
FLA	FULL LOAD AMPS
FLC	FULL LOAD CURRENT
FT, '	FEET
GND	GROUND
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GS	GROUND SENSOR CURRRENT TRANSFORMER
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HT	HEIGHT
HV	HIGH VOLTAGE
HZ	HERTZ
" , IN	INCHES
INS	INSULATION
ITSS	INFORMATION TECHNOLOGY SUPPORT SERVICE
JB, J	JUNCTION BOX
Kcmil	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
L	LENGTH
LCM	LOCAL CONTROL MODULE
LF	LINEAR FEET
LTG	LIGHTING
LTS	LIGHTS
LV	LOW VOLTAGE
MAX	MAXIMUM
MCP	MOTOR CIRCUIT PROTECTOR
MEZZ	MEZZANINE
CMH	COMMUNICATION MANHOLE
	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
MIN	NON-FUSED
MFG	MANUFACTURERS
MSB	MAIN SWITCHBOARD
MV	MEDIUM VOLTAGE
<N>	NEW (BOLD)
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OC	ON CENTER
OHE	OVERHEAD ELECTRIC
P	POWER
PB	PULLBOX
PF	POWER FACTOR
PH OR Ø	PHASE
PNL	PANEL
PPMH	PRIMARY POWER MANHOLE/ PULLBOX OR VAULT
PT	POTENTIAL TRANSFORMER
PV	PHOTOVOLTAIC
PWR	POWER
<R>	REMOVE
<RRN>	REMOVE & REPLACE W/ <N>
REC	RECEPTACLE
REF	REFERENCE
R/S	REMOVE AND SALVAGE OFF SITE
RM	ROOM
RMC	RIGID METALLIC CONDUIT
RSC	RIGID STEEL CONDUIT
RGS	RIGID GALVANIZED CONDUIT
S	SIGNAL
SA	SURGE ARRESTER
S.A.D.	SEE ARCHITECTURAL DRAWINGS
S.E.D.	SEE ELECTRICAL DRAWINGS
S.C.D.	SEE CIVIL DRAWINGS
SF	SQUARE FEET
SH, SHT	SHEET
SPEC	SPECIFICATIONS
SQ	SQUARE
S.S.D.	SEE STRUCTURAL DRAWINGS
STD	STANDARD
SVC	VOLTS ALTERNATING CURRENT
SW	SWITCH
SWBD	SWITCHBOARD
SWGR OR SWG	SWITCHGEAR
SSW	MV SELECTOR SWITCH
TEL	TELEPHONE
TR	TO REMAIN
TYP	TYPICAL
TX, XFMR	TRANSFORMER
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT-AMPERE
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
WP	WEATHERPROOF
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SYMBOLS

—o∽o—	FUSE
	TRANSFORMER
⏚	GROUND CONNECTION
—≺≺—	DRAWOUT OR PLUG-IN CONNECTION
—o⌒o—	CIRCUIT BREAKER
—o⌒o— LSIG	MOLDED CASE BREAKER W/ SOLDID STATE TRIP UNIT (LONG, SHORT, INSTANEOUS, GROUND)
	LOAD INTERRUPTER SWITCH/FUSE (CURRENT LIMITING FUSE)
M	PG&E METER W/ CT'S
M	CUSTOMER OWNED METER W/ CT'S
	CURRENT TRANSFORMER, RATION & QTY AS SHOWN
┳	25KV, 600A, JUNCTION ELBOW, DEAD BREAK
—●—	CABLE SPLICE
┴┴┴┴┴┴ , ┴┴┴┴	6-WAY AND 4-WAY JUNCTION
	DISCONNECT SWITCH
———	CONDUIT OR CABLE AS NOTED
- - - - - -	UNDERGROUND ELECTRICAL (OR OTHER UTILITY)
△ ,	TRANSFORMER
PM	POWER MONITORING SYSTEM WITH CONNECTION
⧄	FUSED DISCONNECT, HEAVY DUTY
□	DISCONNECT, HEAVY DUTY
⊠	COMBINATION MOTOR STARTER/ HEAVY DUTY WITH HOA & INDICATOR LIGHTS
M	MOTOR
∿∿∿	FLEX CONNECTION
—||—	CONTACT/STARTER
G	GROUNDING WELL, CHRISTY G5T WITH METALLIC INSPECTION COVER, UON (WITH ROD ELECTRODE: 3/4"x10' COPPER CLAD STEEL UON)
J	JUNCTION BOX
PC	PHOTOCELL
T	THERMOSTAT
◒	CONDUIT OPENING
⊗	EMPTY CONDUIT
VFD	VARIABLE FREQUENCY DRIVE, FURNISH BY MECHANICAL CONTRACTOR INSTALLED & CONNECTED BY ELECTRICAL CONTRACTOR
K	KIRT KEY INTERLOCK
E	ELECTRICALLY INTERCONNECTION LOCK
—●—	GROUNDING ROD ELECTRODE (3/4" x 10' COPPER CLAD UON)
⊞ ⊕ ⏀	GROUND, CEILING, WALL-MOUNTED DUPLEX RECEPTACLE 20A, 125V, 3WG, NEMA 5-20R
Φ_{USB}	DUPLEX RECEPTACLE WITH BUILT-IN USB PORT
Φ_{HP}	HORSEPOWER
┰┰	COPPER GROUND BAR
52	MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER
—○—	ELECTRICAL POLE
(#) ▽	VOICE OUTLET - "#" DENOTES QUANTITY OF PORTS
(#) ▼	DATA OUTLET - "#" DENOTES QUANTITY OF PORTS
(#,#)	VOICE & DATA OUTLET - FIRST "#" DENOTES QUANTITY OF VOICE PORTS. SECOND "#" DENOTES QUANTITY OF DATA PORTS.
(#,#)	FLOOR OUNTED VOICE & DATA OUTLET - FIRST "#" DENOTES QUANTITY OF VOICE PORTS. SECOND "#" DENOTES QUANTITY OF DATA PORTS.
S_C	SPEAKER (CEILING MOUNTED)
▽	WIRELESS ACCESS POINT (CEILING MOUNTED)
▽	WIRELESS ACCESS POINT (WALL MOUNTED)
▭	ELECTRICAL PANEL BOARD
▭	PULLBOX
⊠	RMS & STROBE
DS	DOOR SENSOR (INTRUSION DETECTION). PROVIDE WIRING, CONDUIT PATH AND JUNCTION BOX ONLY.
MS	MOTION DETECTOR (INTRUSION DETECTION). PROVIDE WIRING, CONDUIT PATH AND JUNCTION BOX ONLY.
CL	PRIMEX CLOCK, WIRELESS COMMUNICATION. PROVIDE WIRED POWER.
CR	CARD READER LOCATION INTERGRAL W/ LOCKSET (ACCESS CONTROL). PROVIDE CONDUIT, WIRING, AND ALL EQUIPMENT NECESSARY.
H	SECURITY SOUNDER (INTRUSION DETECTION). PROVIDE CONDUIT PATH AND JUNCTION BOX.
K	KEYPAD (INTRUSION DETECTION). PROVIDE CONDUIT PATH AND JUNCTION BOX.
I	INTERCOM (ACCESS CONTROL). PROVIDE CONDUIT, WIRING, AND ALL EQUIPMENT NECESSARY.
S	SLIDING GATE SENSOR
OS	OCCUPANCY SENSOR
	CAMERA LOCATION (SURVEILLANCE SYSTEM). PROVIDE CONDUIT, WIRING, AND ALL EQUIPMENT NECESSARY.

Φ \$	HALF-SWITCHED CONTROLLED RECEPTACLE. SWITCH PLATE TO BE PROVIDED WITH GFI COMBINATION
Ø, $Ø^{GFI}$	WALL-MOUNTED RECEPTACLE-ABOVE COUNTER, TYP, +44"AFF
Φ^{GFI}	GFI RECEPTACLE
Φ^{D}	DEDICATED RECEPTACLE
$_{WP}\Phi^{GFI, WR}$	DUPLEX GFI, WEATHER RESISTANT RECEPTACLE WITH WHILE-IN-USE WEATHERPROOF METALLIC COVER, 20A, 125V, 3WG, NEMA 5-20R
Φ^{C}	CONTROLLED RECEPTACLE, REFER TO WIRING DIAGRAM
⊕	DOUBLE DUPLEX RECEPTACLE
$\$^{a}$	SINGLE POLE SWITCH, +44" AFF. (LOWER CASE LETTER INDICATES CIRCUIT, LAMPS OR FAN CONTROLLED BY SWITCH)
$\$^{D}$	SWITCH - DIMMER
$\$^{T}$	SWITCH - TIMER OPERATED
$\$^{LV}$	SWITCH - LOW VOLTAGE DATALINE # INDICATES NUMBER SWITCHES. GDS, GREENGATE, OR APPROVED EQUAL
$\$^{HP}$	SWITCH - HORSE POWER RATED
	SPEAKER AND MICROPHONE AUDIO MONITORING SYSTEM. PROVIDE CONDUIT, WIRING, AND ALL EQUIPMENT NECESSARY.

SUMMARY OF WORK

PROVIDE AND INSTALL COMPLETE POWER, LIGHTING, AND LOW VOLTAGE INFRASTRUCTURE FOR THE NEW CLASSROOM BUILDING. SEE BELOW FOR A MORE DETAILED SCOPE:

POWER:
1. POWER TO RECEPTACLES, HVAC EQUIPMENT AND APPLIANCES.

LIGHTING:
1. LED LIGHTING.
2. CONTROLS TO MEET TITLE 24.

LOW VOLTAGE:
1. DATA RECEPTACLE DISTRIBUTION.
2. CLOCK, BELL, AND PA SYSTEM.

APLLICABLE CODES

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2020*
2019 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR*
2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
(2018 INTERNATIONAL BUILDING CODE, VOL. 1 & 2, AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
(2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
(2018 IAPMO UNIFORM MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
(2018 IAPMO UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
2019 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR
(2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
(2018 INTERNATIONAL EXISTING BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
2019 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR
TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
2016 ASME A17.1/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS (PER 2019 CBC PART 2 CH 35)
NOTE: CAL/OSHA ELEVATOR UNIT ENFORCES CCR TITLE 8 AND USES THE 2004 ASME A17.1 BY ADOPTION

PARTIAL LIST OF APPLICABLE STANDARDS
NFPA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED)......................2016 EDITION
NFPA 14 - STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS (CA AMENDED)....2016 EDITION
NFPA 17 - STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS...2017 EDITION
NFPA 17A - STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS..2017 EDITION
NFPA 20 - STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION.................2016 EDITION
NFPA 22 - STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION..2013 EDITION
NFPA 24 - STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND
THEIR APPURTENANCES (CA AMENDED)...2016 EDITION
NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)....................................2016 EDITION
NFPA 80 - STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES....................................2016 EDITION
NFPA 2001 - STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS (CA AMENDED)............2015 EDITION
UL 300 - STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR
PROTECTION OF COMMERCIAL COOKING EQUIPMENT...2005 (R2010)
UL 464 - AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS,
INCLUDING ACCESSORIES..2003 EDITION
UL 521 - STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS......................1999 EDITION
UL 1971 - STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED....................................2002 (R2010)
ICC 300 - STANDARD FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING, AND GRANDSTANDS........2017 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2019 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.

SEE CALIFORNIA BUILDING CODE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

*ALL PARTS OF THE 2019 CALIFORNIA BUILDING CODE BECOME EFFECTIVE JANUARY 1, 2020 EXCEPT THE EFFECTIVE DATE FOR THE USE OF THE 2019 BUILDING ENERGY EFFICIENCY STANDARDS (TITLE 24, PART 1, CHAPTER 10) IS JANUARY 8, 2019 AND THE EFFECTIVE DATE FOR THE USE OF THE CALIFORNIA ADMINISTRATIVE CODE (TITLE 24, PART 1, CHAPTER 4) IS JANUARY 8, 2019.

SHEET INDEX

SHEET NO.	DESCRIPTION
E001	STANDARDS, SYMBOLS & ABBREVIATIONS
E002	ELECTRICAL GENERAL NOTES
E003	ELECTRICAL TITLE 24
E004	ELECTRICAL TITLE 24
E503	ELECTRICAL DETAILS
ES101	ELECTRICAL SITE PLAN - NEW
ESP101	ELECTRICAL SITE PLAN - EM PHOTOMETRIC
E101	ELECTRICAL 1ST FLOOR PLAN
E121	ELECTRICAL 1ST FLOOR PLAN - AUXILIARY
E131	ELECTRICAL 1ST FLOOR LIGHTING PLAN
E132	ELECTRICAL 1ST FLOOR LIGHTING PLAN - EM PHOTOMETRICS
E141	ELECTRICAL ROOF PLAN - AUXILIARY
E311	ELECTRICAL ENLARGED PLANS
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS
E503	ELECTRICAL DETAILS
E601	ELECTRICAL SCHEDULES
E602	ELECTRICAL SCHEDULES
E603	ELECTRICAL SCHEDULES
E701	ELECTRICAL SINGLE LINE DIAGRAM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL.31, 2021

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022
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E001

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS, ADDENDA, DRAWINGS, AND SPECIFICATIONS. PRIOR TO SUBMITTING PROPOSAL, CONTRACTOR SHALL EXAMINE ARCHITECTURAL, STRUCTURAL AND MECHANICAL CONSTRUCTION DRAWINGS AND SPECIFICATIONS AND SHALL HAVE VISITED THE CONSTRUCTION SITE. HE/SHE SHALL BE FAMILIAR WITH THE EXISTING CONDITIONS UNDER WHICH HE/SHE WILL HAVE TO OPERATE AND WHICH WILL IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS/HER PART. DETERMINE THE SEQUENCE OF CONSTRUCTION THROUGHOUT THE PROJECT, INCLUDING TEMPORARY FACILITIES AND CONNECTIONS REQUIRED FOR THE DURATION OF THE PROJECT.

2. ALL TEMPORARY CONNECTIONS SHALL BE CONSIDERED PART OF THIS CONTRACT AND NO EXTRA CHARGES WILL BE ALLOWED. THIS SHALL INCLUDE MINOR ITEMS OF MATERIAL OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS AND INTENT OF THE PROJECT.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONS AND PROPERTY AND SHALL PROVIDE INSURANCE COVERAGE AS NECESSARY FOR LIABILITY, PERSONAL, AND PROPERTY DAMAGE, TO FULLY PROTECT THE OWNER, ARCHITECT, AND ENGINEER FROM ANY AND ALL CLAIMS RESULTING FROM THIS WORK.

4. THE CONTRACTOR SHALL PROVIDE TO THE ARCHITECT A CONSTRUCTION SCHEDULE OF ALL ELECTRICAL WORK. THE CONSTRUCTION SCHEDULE SHALL IDENTIFY ALL SIGNIFICANT MILESTONES WITH COMPLETION DATES.

5. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS AT THE PROJECT SITE INDICATING ALL MODIFICATIONS TO ELECTRICAL SYSTEMS. THE CONTRACTOR SHALL, AT THE CONCLUSION OF THE PROJECT, PROVIDE A SET OF REPRODUCIBLE (AUTOCAD), ACCURATE AND NEAT "AS-BUILT" DRAWINGS ACCEPTABLE TO THE ARCHITECT.

6. THESE DRAWINGS DO NOT REPRESENT THE EXACT LOCATIONS, SIZES OR EXTENT OF UTILITIES ON SITE. CONTRACTOR SHALL TAKE STANDARD PRECAUTIONS FOR WORK IN EXISTING FACILITIES.

7. EXISTING ELECTRICAL WIRING WHICH WILL NOT BE MADE OBSOLETE AND WHICH WILL BE DISTURBED DUE TO CONSTRUCTION CHANGES REQUIRED BY THIS CONTRACT SHALL BE RESTORED TO OPERATING CONDITION, AS REQUIRED AND/OR DIRECTED. WHERE REQUIRED, SHOWN AND/OR DIRECTED, OUTLETS AND CONDUIT RUNS SHALL BE RELOCATED. IN SOME CASES IT MAY BE NECESSARY TO EXTEND CONDUITS AND PULL IN NEW WIRING OR INSTALL JUNCTION BOXES AND SPLICE IN NEW WIRING OR REPLACE OLD WIRING WITH NEW.

8. CERTAIN REMODELING OF ELECTRICAL FACILITIES WILL BE REQUIRED IN THE EXISTING BUILDING. EXISTING CONDUIT RUNS ARE GENERALLY NOT SHOWN, ALTHOUGH A FULL ATTEMPT HAS BEEN MADE TO SHOW SOME EXISTING CONDITIONS, OF WHICH INFORMATION HAS BEEN TAKEN FROM EXISTING RECORD DRAWINGS AND/OR LIMITED FIELD INVESTIGATIONS. THE DRAWINGS SHOWING LOCATION OF EXISTING EQUIPMENT, OUTLETS, FIXTURES, ETC., ARE APPROXIMATE ONLY (CONTRACTOR TO FIELD VERIFY).

9. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY AND SHALL BE INSTALLED AS PER LISTING OR LABELING (IE. MAXIMUM FUSE SIZE MEANS FUSE PROTECTION IS REQUIRED).

10. ALL ELECTRICAL EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
    a. AMERICAN STANDARD ASSOCIATION (ASA)
    b. AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
    c. AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
    d. CALIFORNIA CODE OF REGULATIONS TITLE 24 (CCR)
    e. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
    f. INSULATED POWER CABLE ENGINEERS ASSOCIATIONS (IPCEA)
    g. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATIONS (NEMA)
    h. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
    i. ALL LOCAL CODE HAVING JURISDICTION

11. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTIONS AND INCIDENTAL COSTS NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING ALL CHARGES BY STATE, COUNTY AND LOCAL GOVERNMENTAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR THE ELECTRICAL UTILITY SYSTEM SHUT-DOWNS AND START-UP. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION REQUIRED WITH OTHER AGENCIES AND UTILITY COMPANIES.

12. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CROSSINGS ON NEW UTILITIES WITH THAT OF EXISTING ON SITE AND IN ADJACENT PROPERTIES. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS OR DISCREPANCIES FROM THIS PLAN.

13. CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH OTHER TRADE ON SITE. ANY COST TO PERFORM WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE DRAWINGS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING BID TIME FOR CLARIFICATIONS. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ARCHITECT/ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

14. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT. PROVIDE POWER AND CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON ELECTRICAL DRAWINGS AND DRAWINGS OF OTHER TRADES. CONTRACTOR SHALL REVIEW DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT. DISCONNECT SWITCHES, STARTERS, AND CONDUITS FOR CONTROL WIRING FOR MECHANICAL AND PLUMBING EQUIPMENT SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUITS TO THIS EQUIPMENT.

15. BEFORE ROUGH-IN, VERIFY ALL MOUNTING HEIGHTS AND EXACT LOCATIONS FOR ALL EQUIPMENT, ELECTRICAL CONNECTIONS, STUB-UPS, RECEPTACLES, OUTLETS, CONDUIT RUNS, ETC. WITH ARCHITECT AND OWNER. PLACE DEVICES LOCATED ABOVE COUNTERS, SHELVING, ETC. AND IN BATHROOMS SO AS NOT TO CONFLICT WITH EDGES OF WAINSCOTING, COUNTER SPLASH, SHELVING, ETC. ARCHITECTURAL DRAWINGS SHALL GOVERN. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATIONS OF ELECTRICAL DEVICES

16. MOUNTING HEIGHTS OF ALL CONTROL DEVICES TO BE USED BY OCCUPANT OF THE ROOM OR AREA SHALL BE MOUNTED AT THE FOLLOWING HEIGHTS:
    RECEPTACLES OUTLETS : +18” (TO BOTTOM OF OUTLETS)
    TELEPHONE/TV/DATA OUTLETS : +18” (TO BOTTOM OF OUTLETS)
    LIGHT SWITCHES : +44” (TO HIGHEST OPERABLE PART)
    OUTLETS ABOVE COUNTER : +44” (TO HIGHEST OPERABLE PART)
    MOUNTING HEIGHTS OF ALL DEVICES AND EQUIPMENT ARE FROM FINISHED FLOOR TO LOCATION OF DEVICE AS NOTED. EQUIPMENT INSTALLED IN LOCATIONS NOT APPROVED BY THE ARCHITECT SHALL BE RELOCATED AS DIRECTED BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

17. COORDINATE ALL OUTLET BOX INSTALLATION WITH ARCHITECTURAL WALL FINISH SCHEDULES. SPACE BETWEEN FACEPLATE AND DEVICE BOX SHALL NOT EXCEED 1/8”.

18. FOR RENOVATION WORK, THE CONTRACTOR SHALL CONCEAL ALL WORK WHERE POSSIBLE. ALL EXPOSED RACEWAY AND BOXES IN OCCUPIED AREAS OR ON EXTERIOR WALLS SHALL BE PAINTED TO MATCH ADJACENT FINISHES.

19. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING, PAINTING AND/OR OTHER REPAIR DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THIS SPECIFICATION. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC., AS REQUIRED.

20. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS. FURNISH AND INSTALL FIRE RATED BACKBOXES AS REQUIRED, MAINTAINING FIRE RATING OF CEILING OR WALLS WHERE RECESSED ELECTRIC EQUIPMENT SUCH AS LIGHT FIXTURES, SWITCHES, RECEPTACLES, PANEL, ETC. ARE INSTALLED IN RATED WALL OR CEILINGS. PENETRATIONS OF FIRE RATED WALLS, CEILINGS, OR FLOORS SHALL COMPLY WITH CBC CHAPTER 7 (714) REQUIREMENTS. CONDUIT PENETRATIONS THAT ARE NOT STUBBED-OUT INSIDE THE WALL SHALL MEET F AND T RATING. ALL FIRE PROOFING METHODS SHALL BE UL APPROVED.

21. ALL EXTERIOR EQUIPMENT SHALL BE NEMA 3R RATED. ALL WALL PENETRATIONS TO EXTERIOR WALLS SHALL BE SEALED WATER TIGHT.

22. PULLING TAPES: ALL RACEWAY WITHOUT CABLE OR WIRE SHALL BE INSTALLED WITH A MINIMUM 1100 LBS. STRENGTH TEST POLYESTER PULLING TAPE. PULLING TAPES SHALL BE DETECTABLE MULE-TAPE WITH SEQUENTIAL FOOTAGE MARKING.

23. RUN NO MORE THAN 3 CURRENT CARRYING CONDUCTORS IN ANY WIREWAY UNLESS DE-RATING IS APPROVED BY ENGINEER OR SHOWN ON DRAWINGS.

24. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER, #10 AWG MINIMUM, RATED FOR 600V, THHN/THWN, 75 DEGREE CELSIUS. ALL CONDUCTORS SHALL BE STRANDED, SOFT DRAWN ANNEALED COPPER WIRE 98% CONDUCTIVITY, BEARING THE UL LABEL. SYSTEM VOLTAGE SHALL BE IDENTIFIED AS TO VOLTAGE AND PHASE CONNECTIONS BY MEANS OF COLOR IMPREGNATED INSULATION OR APPROVED COLORED MARKING TAPE.

25. WHERE MULTI-HOMERUNS ARE INDICATED ON DRAWINGS INDICATING THE SAME CIRCUIT NUMBER, PROVIDE A JUNCTION BOX ABOVE THE ACCESSIBLE CEILING AND ROUTE ONE SET OF WIRES TO THE CIRCUIT BREAKER.

26. 2REFER TO THE SINGLE LINE DIAGRAM FOR THE CONDUIT AND CONDUCTOR SIZES HOMERUN TO ELECTRICAL PANELS. CONDUIT RUNS MAY NOT BE SHOWN ON DRAWINGS, BUT ARE PART OF THIS CONTRACT.

27. ALL CONDUIT RUNS INCLUDING STRAIGHT FEEDER AND BRANCH CIRCUIT SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

28. FINAL CONNECTIONS TO ALL EQUIPMENT SHALL BE PER MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIAL AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.

29. DO NOT COMBINE DIFFERENT SYSTEM VOLTAGES IN SAME CONDUIT (EG., 120/208V VS. 277/480V), UNLESS APPROVED BY ENGINEER OR SHOWN ON DRAWINGS.

30. ELECTRICAL SYSTEMS SHALL BE INSTALLED FOR FINAL INSPECTIONS. PROVIDE NEUTRAL TEST AND PROOF OF TORQUE DURING FINAL INSPECTION FOR ALL UNITS. FINAL TERMINATIONS OF CONDUCTORS TO ELECTRICAL EQUIPMENT AND DEVICES SHALL BE TORQUE WRENCH TIGHTENED TO THE MANUFACTURER'S RECOMMENDED SPECIFICATION, NO EXCEPTION.

31. CIRCUIT BREAKER TERMINALS IN SWITCHBOARDS AND LOAD CENTER SHALL BE UL LISTED AND APPROVED FOR USE WITH COPPER 75 DEGREE CELSIUS CONDUCTORS.

32. SIZES OF BREAKERS, SWITCHES, FUSES AND FEEDERS ARE BASED ON DESIGNED EQUIPMENT SIZES. THESE SIZES SHALL BE ADJUSTED TO SATISFY REQUIREMENTS OF ACTUAL INSTALLED OR SUBSTITUTE EQUIPMENT. UP SIZING OR DOWNSIZING OF FEEDERS SHALL BE PROVIDED WITHOUT ADDITIONAL COST TO THE OWNER.

33. AS REQUIRED ALL OVERSIZED FEEDERS THAT WERE ADJUSTED IN SIZE TO COMPENSATE FOR VOLTAGE DROP SHALL BE PROVIDED WITH ADAPTER LUGS OR SPLICE BOX. ADAPTER LUGS SHALL BE PROVIDED IF SIZE IS AVAILABLE. OTHERWISE PROVIDE CABLE SPLICES IN THE SPLICE BOX TO REDUCE CABLES TO THE MAXIMUM SIZE THAT THE BREAKER LUGS CAN ACCOMMODATE.

34. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAW-CUTTING, TRENCHING, BACKFILLING, COMPACTION AND PATCHING OF CONCRETE AND ASPHALT AS REQUIRED TO COMPLETE WORK. USE EXTREME CAUTION WHEN TRENCHING NEAR EXISTING UNDERGROUND UTILITY LINES. CONTRACTOR SHALL PROVIDE ALL REQUIRED CUTTING, PATCHING, PAINTING, AND REPAIRS NECESSARY TO RESTORE DAMAGED SURFACES TO EQUAL OR BETTER THAN ORIGINAL CONDITIONS EXISTING AT THE START OF WORK.

35. ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST HORIZONTAL FORCE ACTING IN ANY DIRECTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF ASCE7.

36. ALL INTERIOR AND ABOVE GRADE EXTERIOR CONDUIT INSTALLATION SHALL BE RIGID GALVANIZED STEEL, UNLESS EXCEPTED BY NOTE 37 BELOW.

37. ELECTRICAL METALLIC TUBING (EMT) MAY BE USED IN THE FOLLOWING CONDITIONS: INTERIOR APPLICATIONS, SMALLER THAN 2" TRADE SIZE DIAMETER AND INSTALLED EIGHT (8) FEET FROM FINISHED FLOOR OR HIGHER, OR INTERIOR APPLICATIONS, SMALLER THAN 2" TRADE SIZE DIAMETER AND ENTERING A PANEL FROM ABOVE.

38. CONNECTIONS TO VIBRATING EQUIPMENT (MOTOR, TRANSFORMER ENCLOSURE, ETC.) AND SEISMIC SEPARATIONS SHALL BE PROVIDED WITH LIQUID-TIGHT FLEXIBLE STEEL CONDUIT WITH WATERTIGHT CONNECTORS. MAXIMUM LENGTH OF CONDUIT SHALL BE SIX FEET, UNLESS OTHERWISE NOTED.

39. POLYVINYL CHLORIDE (PVC) SCHEDULE 40 MAY BE INSTALLED BENEATH SLAB AND UNDERGROUND INSTALLATION. INSTALL PVC COATED RIGID STEEL CONDUIT FOR TRANSITION FROM UNDERGROUND TO ABOVE GRADE INSTALLATION.

40. CONTRACTOR SHALL PROVIDE TERMINATIONS FOR ALL DATA/VOICE CABLES INDICATED AT OUTLET LOCATIONS INDICATED ON DRAWINGS.

41. CONTRACTOR SHALL PROVIDE AND INSTALL ACCESS PANELS IN NON-ACCESSIBLE CEILINGS WHERE REQUIRED TO ACCESS ELECTRICAL EQUIPMENT IN CEILING SPACE. ACCESS DOORS SHALL HAVE FIRE RATING EQUAL TO THE CEILING ASSEMBLY IN WHICH THEY ARE INSTALLED.

42. ALL FIRE LIFE SAFETY EQUIPMENT, SUCH AS FIRE ALARM CONTROL PANEL AND REMOTE POWER SUPPLIES SHALL BE PROVIDED WITH DEDICATED CIRCUITS. IDENTIFY CIRCUIT DESIGNATION AND PROVIDE PERMANENT LABELING, “FIRE ALARM CIRCUIT” ON ELECTRICAL PANEL. PROVIDE LOCKABLE CIRCUIT BREAKER.

43. CONTROL CONDUIT FOR ENERGY/BUILDING MANAGEMENT SYSTEM (E/BMS) SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.

44. ROUTE CONDUIT PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT A NEAT APPEARANCE.

45. WHEN A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT, CIRCUIT BREAKERS, ETC., ARISES ON THE DRAWINGS OR SPECIFICATIONS, CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL REQUIRED BY THE MOST STRINGENT CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO PROVIDE A COMPLETE AND OPERABLE SYSTEM, OR AS DIRECTED BY ENGINEER.

46. FOR SMALL AC MOTORS NOT HAVING BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE MANUAL MOTOR STARTERS WITH OVERLOAD HEATER ELEMENTS SIZED PER MANUFACTURER'S RECOMMENDATION. FOR SMALL AC MOTORS WITH BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE A HORSEPOWER RATED TOGGLE DISCONNECT SWITCH.

47. DISCONNECT SAFETY SWITCHES SHALL BE HEAVY DUTY AND BE RATED FOR THE NUMBER OF POLES, VOLTAGE, CURRENT AND HORSEPOWER RATING AS REQUIRED. PROVIDE FUSE PROTECTION BASED ON THE MOTOR NAMEPLATE RATINGS.

48. PROVIDE PERMANENT IDENTIFICATION (NAMEPLATES) FOR ALL ELECTRICAL PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, DISCONNECT SWITCHES, TRANSFORMERS, TERMINAL CABINETS, ETC.

49. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VERIFY TYPE OF CEILING SYSTEMS AND TO FURNISH APPROVED LIGHTING FIXTURES OF THE TYPE REQUIRED FOR MOUNTING IN SUBJECT CEILING. PROVIDE ALL NECESSARY MOUNTING KIT/HARDWARE TO PROVIDE A COMPLETE WORKING LIGHTING SYSTEM.

50. ALL FINAL ELECTRICAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE ELECTRICAL CONTRACTOR.

51. ALL SPLICES AND TERMINALS SHALL BE COMPRESSION TYPE, OF SEAMLESS PURE COPPER, TIN PLATED, LONG BARREL, INSPECTION WINDOW, TERMINALS WITH TWO-HOLE PAD (WITH NEMA DRILLING). CLEAN ALL SURFACES AND INSTALL WITH OXIDE INHIBITING COMPOUND BURNDY PENETROX-E OR EQUAL. APPLY COMPOUND BETWEEN BUS BAR AND LUG PAD AND BETWEEN CONDUCTOR AND LUG BARREL. INSTALL COMPRESSION CONNECTORS WITH A FULLY CIRCUMFERENTIAL COMPRESSION DIE BURNDY HYPRESS OR EQUAL.

52. LABEL ALL CONDUIT WHERE IT BEGINS, AND WHERE IT TERMINATES INTO A BOX, PANEL, DEVICE, LOAD, OR DISCONNECT. CONDUIT SHALL BE LABELED EVERY 30 FEET OR LESS. CONDUIT SHALL BE LABELED WHERE IT PENETRATES ANY WALL OR FLOOR. LABEL SHALL BE PERMANENT PRINTED LABELS (DESCRIBING SOURCE, CIRCUIT, AND LOAD) LEGIBLE FROM FLOOR WHERE POSSIBLE (STANDING POSITION).

53. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT OR INSTALLATION METHODS.

54. PROVIDE ARC-FLASH HAZARD WARNING LABELS ON ALL AFFECTED ELECTRICAL EQUIPMENT, INCLUDING SWITCHBOARDS, PANEL BOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS. MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS. LABEL SHALL BE FACTORY PRE-PRINTED OR MACHINE-PRINTED SELF-ADHESIVE VINYL MATERIAL; UV, CHEMICAL, WATER, HEAT AND ABRASION RESISTANT; PRODUCED USING MATERIALS RECOGNIZED BY UL 969. MINIMUM SIZE: 3.5 BY 5 INCHES.

55. UNLESS OTHERWISE NOTED, ARRANGE, PAY FOR, COORDINATE AND PROVIDE ALL PERMITS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.

56. ALL WORK IS <N> UNLESS OTHERWISE NOTED.

57. ELECTRICAL CONDUCTORS AND EQUIPMENT SUPPLIED BY POWER CONVERSION EQUIPMENT AS PART OF ADJUSTABLE SPEED DRIVE SYSTEM (VFD) AND SERVO DRIVE SYSTEM SHALL HAVE THERMOSET INSULATION TYPE XHHW, OR XHHW-2

DEMOLITION NOTES

1. REMOVE EXISTING EQUIPMENT IN CONFLICT WITH NEW CONDITIONS. REMOVE ALL WIRE NOT IN SERVICE AND FROM ABANDONED RACEWAYS. PROTECT EXISTING CIRCUITING PASSING THROUGH DEMOLITION AREAS. EXTEND AND/OR RELOCATE AS NECESSARY.

2. ALL ABANDONED EQUIPMENT INCLUDING LIGHT, RECEPTACLES, DATA, FIRE ALARM, ETC., SHALL BE COVERED WITH BLANK METAL PLATES AND PAINTED TO MATCH THE ADJACENT FINISH OF SURROUNDING WALLS OR CEILING TO THE SATISFACTION OF THE ARCHITECT/OWNER.

3. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL EQUIPMENT AFFECTED BY THE PROJECT. THIS INCLUDES REROUTING OR THE EXTENSION OF EXISTING CONDUIT AND FEEDER WHERE NECESSARY TO MAINTAIN OPERATIONAL OF ANY EXISTING EQUIPMENT.

4. CIRCUIT NUMBERS AND CONDUIT HOMERUNS SHOWN ON THESE DRAWINGS WERE TAKEN FROM EXISTING RECORD DRAWINGS. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING CIRCUITING AND CONDUIT HOMERUNS. ADJUST CIRCUIT NUMBERS ACCORDING TO THE ACTUAL CONDITIONS.

5. WHERE EXISTING CONDUIT IS TO BE ABANDONED OR DEMOLISHED, THE CONDUIT SHALL BE REMOVED IF IT IS EXPOSED, IN A CRAWL SPACE OR IN AN ACCESSIBLE CEILING. ABANDONED OR DEMOLISHED CONDUIT FEEDS UP THROUGH THE FLOOR SHALL BE CUT OFF AND PLUGGED FLUSH WITH THE FLOOR.

6. ALL ELECTRICAL EQUIPMENT INCLUDING LIGHT, RECEPTACLE, DATA, FIRE ALARM, ETC., THAT ARE TO BE REMOVED, SHALL BE REMOVED COMPLETELY, INCLUDING CONDUIT AND WIRING BACK TO THE LAST DEVICE REMAINING IN SERVICE, OR SOURCE.

7. EXISTING CIRCUITS WHICH ARE REMOVED AND NOT REUSED SHALL BE IDENTIFIED ON THE PANEL SCHEDULE AS “SPARE”.

8. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER PRIOR TO REMOVAL OF EXISTING ELECTRICAL EQUIPMENT AND TURN OVER REMOVED EQUIPMENT THAT THE OWNER REQUESTS IN AN “AS-FOUND” CONDITION.

9. ALL DEMOLITION WORK SHOWN, IF ANY, WAS PREPARED FOR THE CONVENIENCE OF THE CONTRACTOR. NO REPRESENTATION HAS BEEN MADE THAT ALL ITEMS THAT MAY REQUIRE DEMOLITION HAVE BEEN SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CAREFULLY EXAMINE THE SITE AND THE CONTRACT DOCUMENTS AND TO PERFORM ALL DEMOLITION AND RECONSTRUCTION WHICH MAY BE REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.

10. WHEN CALLED FOR, OR SCOPE OF WORK REQUIRES ELECTRICAL EQUIPMENT TO BE REMOVED, ALL CONDUIT, WIRE, BOXES, HANGERS, ETC. SHALL BE REMOVED COMPLETELY. ALL OPENINGS SHALL BE PATCHED, SEALED AND PAINTED TO MATCH THE ADJACENT FINISH.

SCHOOL EQUIPMENT ANCHORAGE

M/E/P 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 2019 CBC SECTION 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.

2. TEMPORARY OR MOVABLE 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 CONNECTION 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 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 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 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., OSHPD 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: DETAIL ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP ☐ MD ☐ PP ☐ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # .

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL.31, 202

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022
△	
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ELECTRICAL GENERAL NOTES

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E002

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.

Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION | Report Page: Page 1 of 8
Project Address: 550 AIRPORT WAY | Date Prepared: 6-27-2022

A. GENERAL INFORMATION

01	Project Location (city)	CAMARILLO	04	Total Conditioned Floor Area (ft^2)	6,886
02	Climate Zone	6	05	Total Unconditioned Floor Area (ft^2)	
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	

☑ Office ☐ Retail ☐ Warehouse ☐ Hotel/Motel ☑ School ☐ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☐ Healthcare ☐ Other (write in):

B. PROJECT SCOPE

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft^2)	Calculation Method	Area (ft^2)
☑ New Lighting System	Area Category	6,886		
☐ Altered Lighting System				
Total Area of Work (ft^2)	6,886			

C. COMPLIANCE RESULTS

Table Instructions: 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.	Allowed Lighting Power per §140.6(b) (Watts)						≥	Adjusted Lighting Power per §140.6(a) (Watts)				Compliance Results
	01	02	03	04		05		06	07		08	09
	Complete Building §140.6(c)1	Area Category §140.6(c)2	Area Category Additional §140.6(c)2G (+)	Tailored §140.6(c)3 (+)	=	**Total Allowed** (Watts)	≥	Total Designed (Watts)	Adjustments PAF Control Credits §140.6(a)2 (-)	=	**Total Adjusted** (Watts) *Includes Adjustments	**05 Must be ≥ 08** §140.6
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)			
Conditioned:		4,803.75			=	**4,803.75**	≥	5,021.9		=	**5,021.9**	**DOES NOT COMPLY**
Unconditioned:					=		≥			=		

Table Continued

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION | Report Page: Page 2 of 8
Project Address: 550 AIRPORT WAY | Date Prepared: 6-27-2022

Controls Compliance (See Table H for Details)	**COMPLIES**
Rated Power Reduction Compliance (See Table Q 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.

No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. INDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

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 Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector	
									Pass	Fail
F1	2X4 RECESSED LED	☐	☐	38	Mfr. Spec[2]	79	☐	3,002	☐	☐
F2	LED DOWNLIGHT	☐	☐		Mfr. Spec[2]	17	☐	0	☐	☐
F3	LED DOWNLIGHT	☐	☐	15.5	Mfr. Spec[2]	4	☐	62	☐	☐
F4	LED DOWNLIGHT	☐	☐	15.5	Mfr. Spec[2]	3	☐	46.5	☐	☐
F5	1X2 SURFACE LED	☐	☐		Mfr. Spec[2]	10	☐	0	☐	☐
F6	4" LINEAR PENDANT	☐	☐	26	Mfr. Spec[2]	4	☐	104	☐	☐
F7	2" LINEAR PENDANT	☐	☐	21	Mfr. Spec[2]	5	☐	105	☐	☐
F8	8FT RECESSED LED STRIP	☐	☐	30.4	Mfr. Spec[2]	48	☐	1,459.2	☐	☐
F9	4' LINEAR PENDANT	☐	☐	30.4	Mfr. Spec[2]	8	☐	243.2	☐	☐
							Total Designed Watts CONDITIONED SPACES:	**5,021.9**		

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION | Report Page: Page 3 of 8
Project Address: 550 AIRPORT WAY | Date Prepared: 6-27-2022

[1] FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B is adjusted to be 75% 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) Wattage used must be the maximum rated for the luminaire, not the lamp.

G. MODULAR LIGHTING SYSTEMS

This Section Does Not Apply

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)

*Table Instructions: Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Building Level Controls

01	02	03	
Mandatory Demand Response §110.12(c)	Shut-Off Controls §130.1(c)	Field Inspector	
		Pass	Fail
Not Required ≤ 10,000 SF	See Area/Space Level Controls	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector	
								Pass	Fail
CLASSROOM	Classroom, Lecture, Training, Vocational	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
STORAGE	Commercial and Industrial Storage	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
FOOD SERVICE A113	Kitchen, Food Preparation	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
LACTATION SPACE A114	Lounge	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
LOBBY	Main Entry Lobby	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
OFFICES	Office (≤ 250 square feet)	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION | Report Page: Page 4 of 8
Project Address: 550 AIRPORT WAY | Date Prepared: 6-27-2022

CONFERENCE ROOM A124	Convention, Conference, Multipurpose, and Meeting Center	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
STAFF LOUNGE	Lounge	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
CHANGING ROOM A133.1	Locker/Dressing Room	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
RESTROOM	Restroom	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
ELECTRICAL/IDF CLOSET	Electrical, Mechanical, Telephone Rooms	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐
CORRIDOR	Corridor	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to §130.1(d)2

13
Plan Sheet Showing Daylit Zones:
NOT APPLICABLE

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate 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/ft^2)	Area (ft^2)	Allowed Wattage (Watts)	Additional Allowances / Adjustment	
					Area Category	PAF
CLASSROOM	Classroom, Lecture, Training, Vocational	0.7	4,567	3,196.9	☐	☐
STORAGE	Commercial and Industrial Storage	0.6	462	277.2	☐	☐
FOOD SERVICE A113	Kitchen, Food Preparation	0.95	176	167.2	☐	☐
LACTATION SPACE A114	Lounge	0.65	24	15.6	☐	☐
LOBBY	Main Entry Lobby	0.85	256	217.6	☐	☐
OFFICES	Office (≤ 250 square feet)	0.7	668	467.6	☐	☐
CONFERENCE ROOM A124	Convention, Conference, Multipurpose, and Meeting Center	0.85	106	90.1	☐	☐

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION | Report Page: Page 5 of 8
Project Address: 550 AIRPORT WAY | Date Prepared: 6-27-2022

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft^2)	Area (ft^2)	Allowed Wattage (Watts)	Additional Allowances / Adjustment	
					Area Category	PAF
STAFF LOUNGE	Lounge	0.65	119	77.35	☐	☐
CHANGING ROOM A133.1	Locker/Dressing Room	0.45	26	11.7	☐	☐
RESTROOM	Restroom	0.65	218	141.7	☐	☐
ELECTRICAL/IDF CLOSET	Electrical, Mechanical, Telephone Rooms	0.4	88	35.2	☐	☐
CORRIDOR	Corridor	0.6	176	105.6	☐	☐
		TOTAL:	**6,886**	**4,803.75**	See Tables J or P for detail	

J. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This Section Does Not Apply

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This Section Does Not Apply

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This Section Does Not Apply

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This Section Does Not Apply

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS

This Section Does Not Apply

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This Section Does Not Apply

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This Section Does Not Apply

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION | Report Page: Page 6 of 8
Project Address: 550 AIRPORT WAY | Date Prepared: 6-27-2022

Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS

This Section Does Not Apply

R. 80% LIGHTING POWER FOR ALTERATIONS - CONTROLS EXCEPTIONS

This Section Does Not Apply

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This Section Does Not Apply

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://ww2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
●	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
○	●	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐
○	●	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐	☐
○	●	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	●	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION | Report Page: Page 7 of 8
Project Address: 550 AIRPORT WAY | Date Prepared: 6-27-2022

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
●	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
○	●	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
○	●	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	●	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐	☐
○	●	NRCA-ENV-03-F - Must be submitted for daylighting design power adjustment factors (PAF).	☐	☐

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION | Report Page: Page 8 of 8
Project Address: 550 AIRPORT WAY | Date Prepared: 6-27-2022

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete

Documentation Author Name:	Andy Chan	Documentation Author Signature:	
Company:	Salas O'Brien	Signature Date:	6-27-2022
Address:	305 S 11th Street	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	San Jose, CA 95112	Phone:	+1 (949) 517-4917

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:	Andy Chan	Responsible Designer Signature:	
Company :	Salas O'Brien	Date Signed:	6-27-2022
Address:	305 S 11th Street	License:	E18090
City/State/Zip:	San Jose, CA 95112	Phone:	+1 (949) 517-4917

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021
STATE OF CALIFORNIA

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022
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CHI KIT CHAN
No. E18090

ELECTRICAL TITLE 24

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Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

E003

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.2, §140.7, and §141.0(b)2L for outdoor lighting scopes using the prescriptive path.	
Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION	Report Page: Page 1 of 6
Project Address: 550 AIRPORT WAY	Date Prepared: 6-27-2022

A. GENERAL INFORMATION

01	Project Location (city)	CAMARILLO	04	Total Illuminated Hardscape Area (ft^2)	2,468
02	Climate Zone	6			
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 - Rural Areas	☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval
☐ LZ-1: Low - Developed Parkland	☑ LZ-3: Moderately High - Urban Areas	

B. PROJECT SCOPE

Table Instructions: Include any outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2L for alterations.

My project consists of:

01	02	
☑ New Lighting System	Must Comply with Allowances from §140.7.	
☐ 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

[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

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Calculation of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2L												Compliance Results			
01		02		03		04		05		06		07		08	09
General Hardscape Allowance §140.7(d)1	+	Per Application §140.7(d)2	+	Sales Frontage §140.7(d)2	+	Ornamental §140.7(d)2	+	Per Specific Area §140.7(d)2	OR	Existing Power §141.0(b)2L	=	**Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 Must be ≥ 08**
(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)		(See Table N)				(See Table F)	
	+		+		+		+		OR		=		≥	0	

Cutoff Compliance (See Table G for Details)	**Not Applicable**
Controls Compliance (See Table H for Details)	**DOES NOT COMPLY**

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSI19

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION	Report Page: Page 2 of 6
Project Address: 550 AIRPORT WAY	Date Prepared: 6-27-2022

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Linear lighting has been indicated on Table F. For these luminaires, wattage reported in F03 is in "W/lf" and Total Number Luminaires reported in F05 indicates total linear feet (lf) of that luminaire type.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: For new or altered lighting systems demonstrating compliance with §140.7 (ie Table I has expanded for input), include all luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L (ie Table N has expanded for input), include only new luminaires being installed and replacement luminaires being installed as part of the project scope (ie, do not include existing luminaires remaining or existing luminaires being moved).

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 Wattage is determined	Total number luminaires[2]	Luminaire Status[3]	Excluded per §140.7(a)	Design Watts	Cutoff Req. ≥ 6,200 initial lumen output §130.2(b)[4]	Field Inspector	
										Pass	Fail
FX1	2FT SURFACE LINEAR	☒ Linear			36	New	☐	0		☐	☐
FX2	RECESSED DOWNLIGHT	☐ Linear			2	New	☐	0		☐	☐
FX3	BOLLARD	☐ Linear				New	☐	0		☐	☐
							Total Designed Watts:	**0**			

* 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).

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSI19

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION	Report Page: Page 3 of 6
Project Address: 550 AIRPORT WAY	Date Prepared: 6-27-2022

[1] FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)

[2] For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet for the luminaire 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 cutoff requirements is required for luminaires with initial lumen output ≥ 6,200 unless exempted by §130.2(b).

G. CUTOFF REQUIREMENTS (BUG)

This Section Does Not Apply

H. OUTDOOR LIGHTING CONTROLS

Table Instructions: Complete this table demonstrating 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.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank. For each requirement in columns 02 through 04, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.*

Mandatory Controls

01	02	03	04	05	
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector	
				Pass	Fail
COVERED WALKWAY				☐	☐
MAIN ENTRANCE				☐	☐
NORTH PATIO				☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c).

I. LIGHTING POWER ALLOWANCE (per §140.7)

Table Continued

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSI19

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION	Report Page: Page 4 of 6
Project Address: 550 AIRPORT WAY	Date Prepared: 6-27-2022

Table Continued

Table Instructions	01				
Table Instructions: Please complete this table for areas using the allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lost it" Allowances are per Table 140.7-B. 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.	☐ General Hardscape Allowance	"Use it or lose it" Allowances (select all that apply)			
		☐ Per Application	☐ Sales Frontage	☐ Ornamental	☐ Per Specific Area
	Table I (below)	Table J	Table K	Table L	Table M

J. LIGHTING ALLOWANCE: PER APPLICATION

This Section Does Not Apply

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This Section Does Not Apply

L. LIGHTING ALLOWANCE: ORNAMENTAL

This Section Does Not Apply

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This Section Does Not Apply

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This Section Does Not Apply

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
●	○	NRCI-LTO-01-E - Must be submitted for all buildings.	☐	☐
●	○	NRCI-LTO-02-E - Must be submitted for a lighting control system; or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSI19

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION	Report Page: Page 5 of 6
Project Address: 550 AIRPORT WAY	Date Prepared: 6-27-2022

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
●	○	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	☐	☐

STATE OF CALIFORNIA

Outdoor Lighting

NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM BUILDING ADDITION	Report Page: Page 6 of 6
Project Address: 550 AIRPORT WAY	Date Prepared: 6-27-2022

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete

Documentation Author Name:	Andy Chan	Documentation Author Signature:	
Company:	Salas O'Brien	Signature Date:	6-27-2022
Address:	305 S 11th Street	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	San Jose, CA 95112	Phone:	+1 (949) 517-4917

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:	Andy Chan	Responsible Designer Signature:	
Company :	Salas O'Brien	Date Signed:	6-27-2022
Address:	305 S 11th Street	License:	E18090
City/State/Zip:	San Jose, CA 95112	Phone:	+1 (949) 517-4917

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LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021
STATE OF CALIFORNIA

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ELECTRICAL TITLE 24

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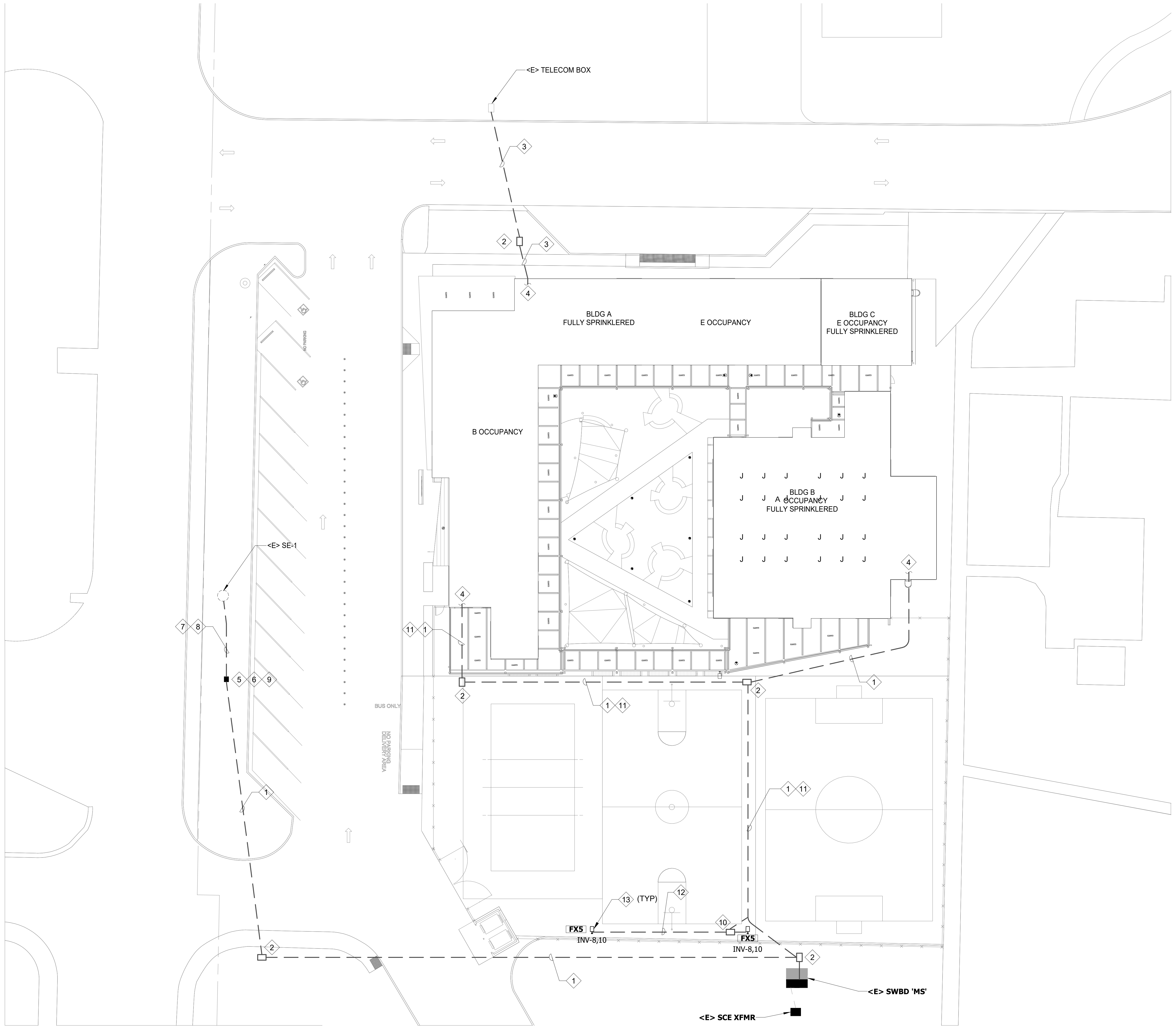
E004



1
ES101

ELECTRICAL - SITE PLAN - NEW

SCALE: 1" = 20'-0"

GENERAL SHEET NOTES

A. COORDINATE ALL TRENCHWORK WITH CIVIL DRAWINGS. DRAWINGS ARE DIAGRAMMATIC ONLY.

B. CONTRACTOR SHALL TRENCH ALL LIGHTING AND POWER CONDUITS WHERE POSSIBLE.

C. CONTRACTOR SHALL PROVIDE A MINIMUM OF 1"C FOR ALL UNDERGROUND LIGHTING AND POWER CONDUITS.

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REFERENCE SHEET NOTES

1. PROVIDE UNDERGROUND CONDUIT AND CONDUCTOR FOR DISTRIBUTION PANEL. REFER TO SINGLE LINE DIAGRAM FOR CONDUIT AND CONDUCTOR SIZE.
2. PROVIDE 24"X36" PULLBOX.
3. PROVIDE (2)2" CONDUIT FOR TELECOMMUNICATIONS.
4. REFER TO BUILDING PLANS FOR CONTINUATION.
5. CONTRACTOR SHALL MOUNT RE-LOCATED PANEL P3 ON UNISTRUT. REFER TO DETAIL 10 ON SHEET E502 FOR MOUNTING DETAIL.
6. CONTRACTOR SHALL MOUNT RE-LOCATED ALARM PANEL FOR SEWAGE EJECTOR (SE-1) ON UNIT STRUT.
7. PROVIDE 3/4"C - 3#10 & 1#10 GND TO RE-FEED EXISTING SEWAGE EJECTOR.
8. PROVIDE 1"C ROUTED UNDERGROUND FROM ALARM PANEL TO SEWAGE EJECTOR.
9. PROVIDE UTILITY WIRE CAGE ENCLOSURE BY GUARD SHACK ENCLOSURES OE EQ. ENCLOSURE TO PROVIDE 48" CLEARANCE SPACE IN FRONT FOR ACCESS AND MAINTENANCE.
10. PROVIDE 11"X17" PULLBOX FOR LIGHTING.
11. PROVIDE 1"C FOR LIGHT POLES IN SAME TRENCH AS CONDUIT FOR DISTRIBUTION PANEL.
12. PROVIDE CONDUIT AND CONDUCTOR FOR LIGHTING FIXTURE.
13. PROVIDE 1"C - 2#10 & 1#10 GND FOR LIGHTING FIXTURE FROM PANEL AND CIRCUIT AS SHOWN.

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REGISTERED PROFESSIONAL ENGINEER
CHI KIT CHAN
No. E18090
ELECTRICAL
STATE OF CALIFORNIA

ELECTRICAL SITE PLAN - NEW

PERKINS — EASTMAN

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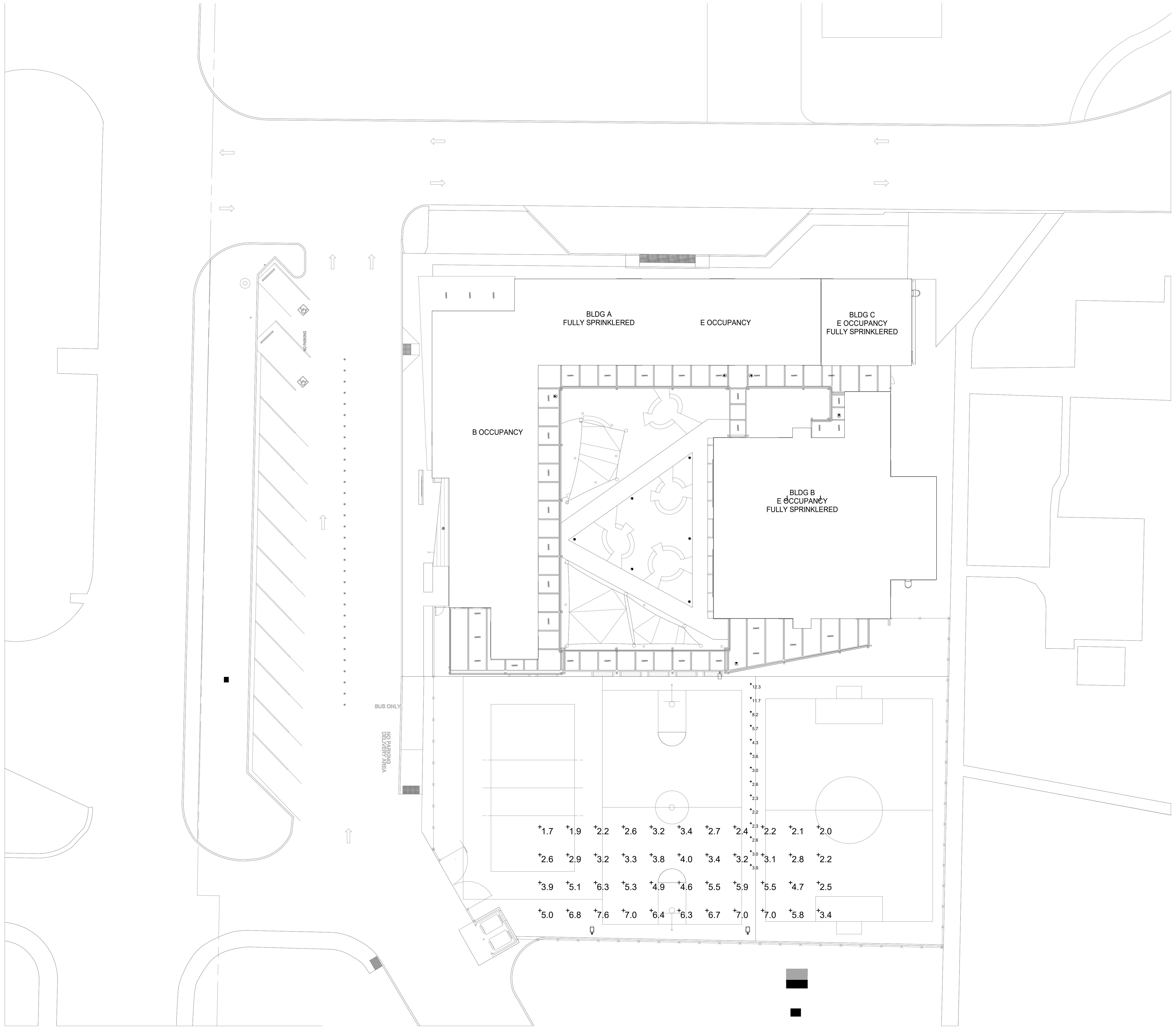

1
ESP101
ELECTRICAL - SITE PLAN - EM PHOTOMETRIC
SCALE: 1" = 20'-0"

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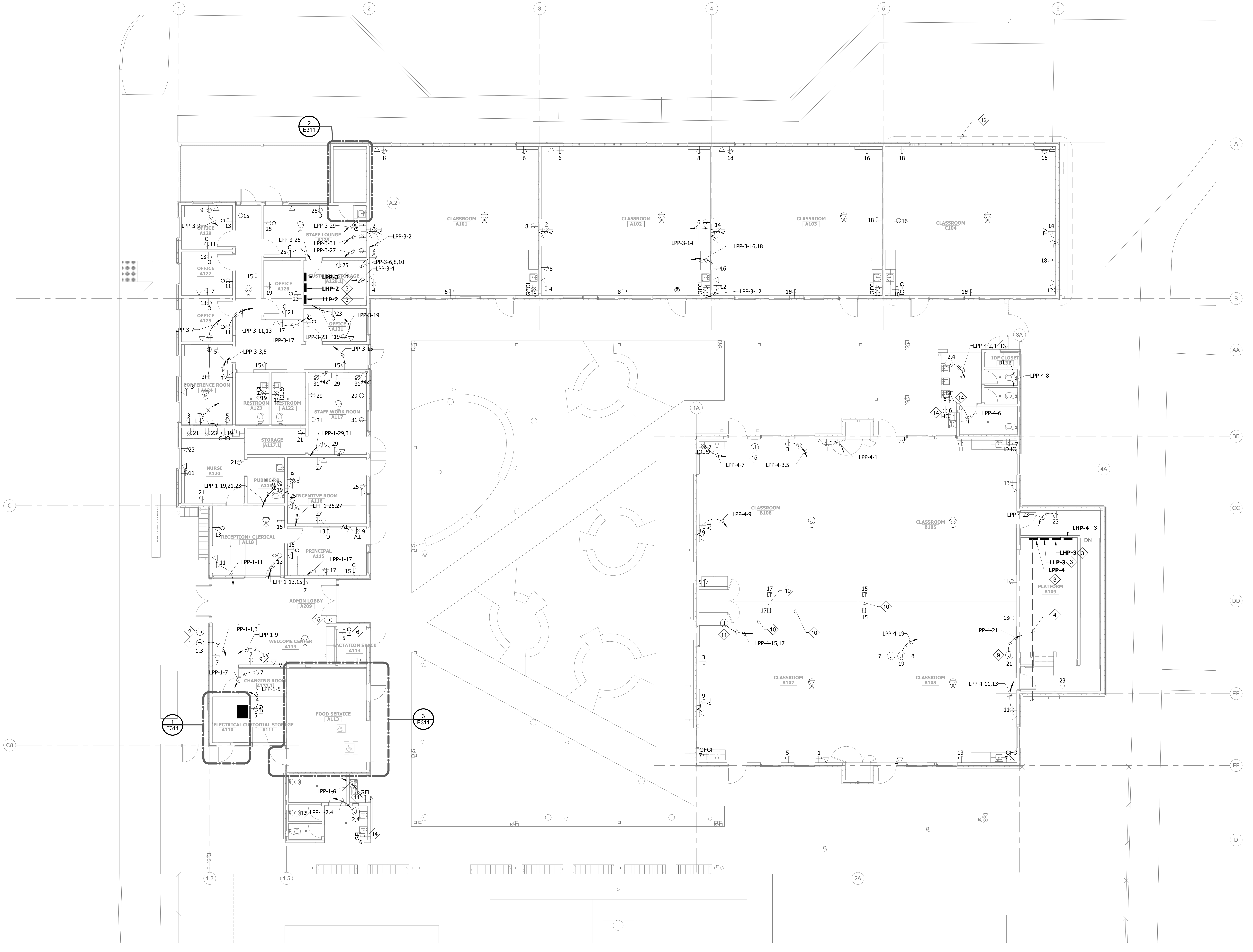

1 E101

ELECTRICAL - FIRST FLOOR PLAN

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

GENERAL SHEET NOTES

A. REFER TO GENERAL NOTES ON SHEET E001 FOR INSTALLATION.

REFERENCE SHEET NOTES

1. PROVIDE DEDICATED 208V/3PH CONNECTION FOR ILLUMINATED SIGN. PROVIDE 3/4"C - 3#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
2. PROVIDE 1"C FOR CONTROL FROM MDF CLOSET TO ILLUMINATED SIGN.
3. PROVIDE SURFACE MOUNTED PANELBOARD. REFER TO SINGLE LINE DIAGRAM ON SHEET E701 FOR RATING AND VOLTAGE.
4. PROVIDE UNDERGROUND CONDUIT AND CONDUCTORS TO FEED PANELBOARD. REFER TO SITE PLAN ON SHEET ES101 FOR CONTINUATION. REFER TO SINGLE LINE DIAGRAM ON SHEET E701 FOR CONDUIT AND CONDUCTOR SIZES.
5. PROVIDE 20A, 208V, 3PH CONNECTION FOR MECHANICAL EQUIPMENT. PROVIDE 3/4"C - 3#10 & 1#10 GND. PROVIDE 20A MOTOR RATED TOGGLE SWITCH MOUNTED ADJACENT TO EQUIPMENT AS A MEANS OF DISCONNECT. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL REQUIREMENTS.
6. PROVIDE DEDICATED 120V RECEPTACLE FOR UNDER COUNTER REF.
7. PROVIDE JUNCTION BOX WITH 3/4"C STUB UP TO THE CEILING FOR FUTURE DATA CONNECTION FOR PROJECTOR.
8. PROVIDE DEDICATED 120V CONNECTION FOR FUTURE PROJECTOR.
9. PROVIDE DEDICATED 120V CONNECTION FOR FUTURE PROJECTION SCREEN.
10. PROVIDE 1"C - 2#10 & 1#10 GND ROUTED IN THE SLAB AS SHOWN.
11. PROVIDE JUNCTION BOX IN WALL AS A PULL BOX FOR CONDUIT ROUTED IN THE SLAB.
12. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.
13. PROVIDE DEDICATED 208V, 1PH, 20A CONNECTION FOR HAND DRYER. PROVIDE 3/4"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
14. PROVIDE GFI RECEPTACLE WITH WEATHER PROOF, LOCKABLE, WHILE IN USE COVER.
15. PROVIDE JUNCTION BOX WITH 1"C AND PULLSTRING ROUTED 6" ABOVE CEILING FOR ALARM KEYPAD MOUNTED +42" AFF. COORDINATE EXACT LOCATION WITH ARCHITECT DISTRICT REPRESENTATIVE PRIOR TO ROUGH-IN.

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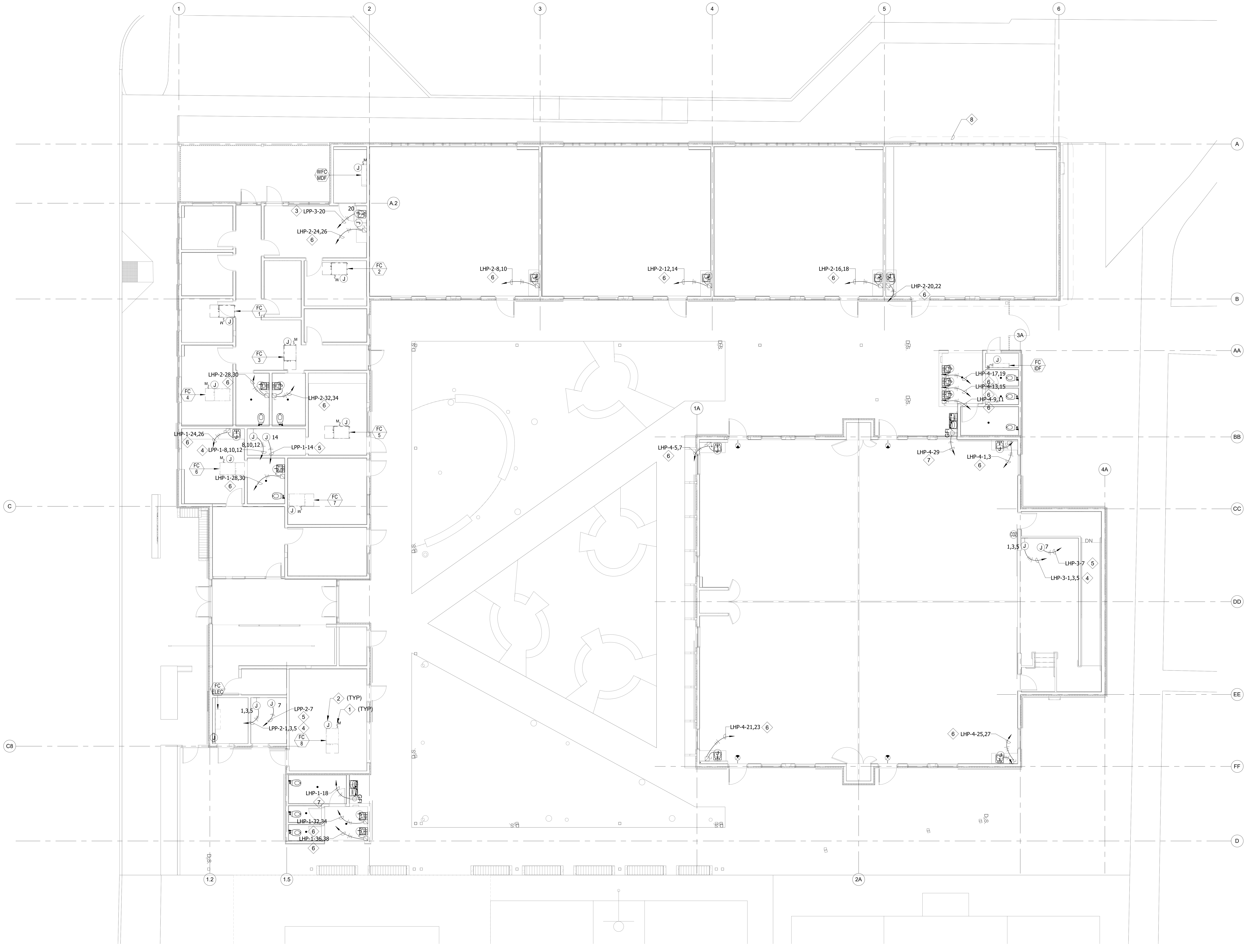
E101



1 / E121 **ELECTRICAL - FIRST FLOOR PLAN AUXILIARY**
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL REQUIREMENTS.

REFERENCE SHEET NOTES

1. PROVIDE MOTOR RATED TOGGLE SWITCH MOUNTED ADJACENT TO MECHANICAL EQUIPMENT. PROVIDE 3/4"C - 2#10 & 1#10 GND FROM CORRESPONDING OUTDOOR UNIT. COORDINATE EXACT REQUIREMENTS WITH MANUFACTURER.
2. PROVIDE JUNCTION BOX WITH 3/4"C FROM INDOOR UNIT TO OUTDOOR UNIT FOR CONTROLS WIRING.
3. PROVIDE 120V POWER FOR GARBAGE DISPOSAL. PROVIDE MOTOR RATED TOGGLE SWITCH WIRED AHEAD AS A MEANS OF CONTROL AND DISCONNECT. MOUNT SWITCH ABOVE COUNTER ADJACENT TO THE SINK. COORDINATE WITH ARCHITECT FOR EXACT LOCATION PRIOR TO ROUGH IN.
4. PROVIDE 208V, 3PH, 20A CONNECTION FOR WATER HEATER. PROVIDE MOTOR RATED TOGGLE SWITCH AS A MEANS OF DISCONNECT. PROVIDE 3/4"C - 3#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
5. PROVIDE 120V POWER FOR CIRCULATING PUMP. PROVIDE 3/4"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
6. PROVIDE 208V, 1PH, 40A CONNECTION FOR INSTANT WATER HEATER. PROVIDE 208V, 1PH, 60A FUSED DISCONNECT WITH 40A FUSE AS A MEANS OF DISCONNECT. PROVIDE 1"C - 2#8 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
7. PROVIDE RECEPTACLE FOR DRINKING FOUNTAIN LOCATED BEHIND DRINKING. PROVIDE GFI RECEPTACLE AHEAD OF RECEPTACLE LOCATED ADJACENT TO DRINKING FOUNTAIN.
8. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

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BUILDING ADDITION

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ELECTRICAL 1ST FLOOR PLAN -
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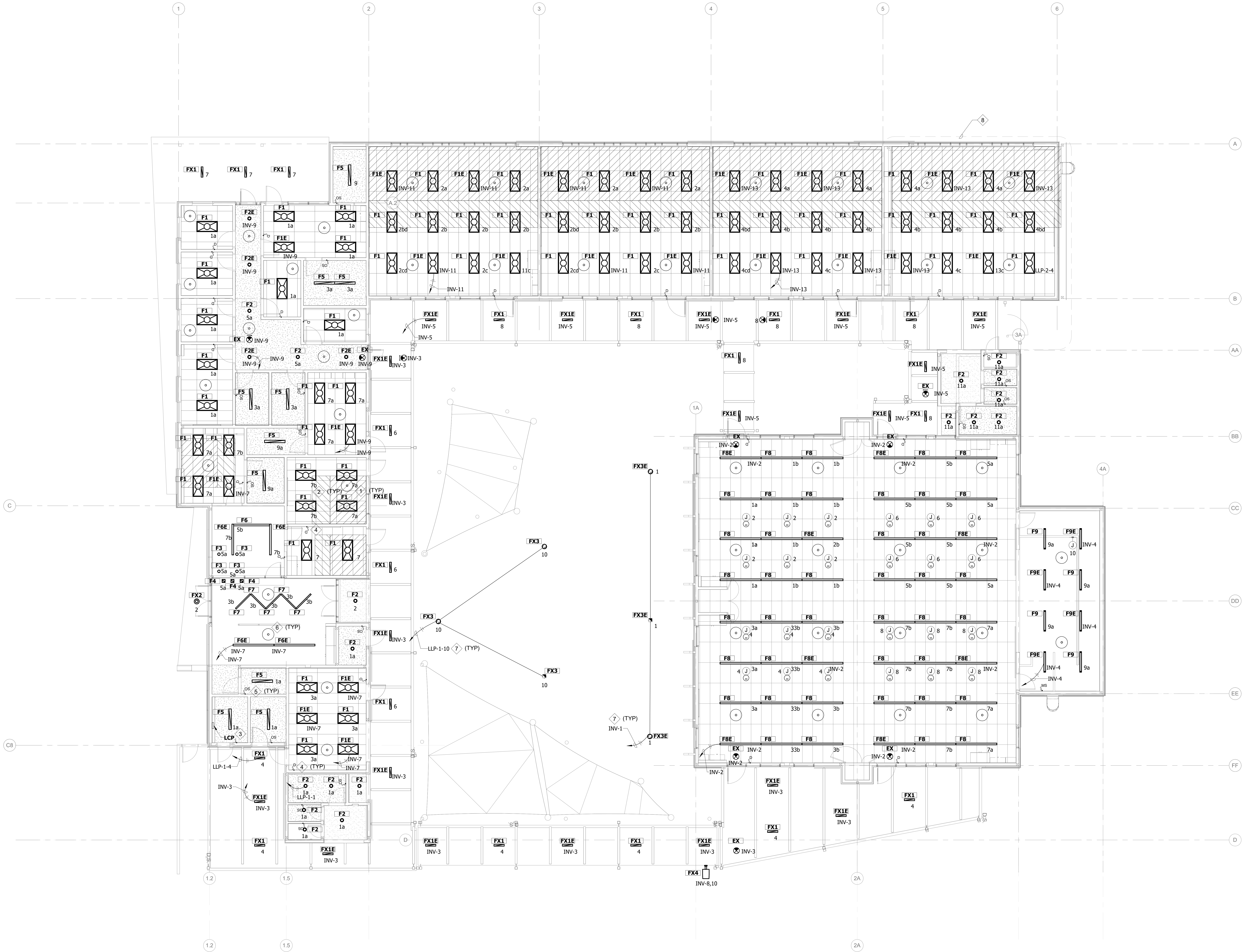
E121



1 E131 **LIGHTING FIRST FLOOR PLAN**
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. ALL EXIT SIGNS SHALL BE WIRED AHEAD OF LIGHTING CONTROLS.

B. ALL EMERGENCY LIGHTING SHALL HAVE UL 924 LISTED EMERGENCY RELAY TO DETECT LOSS OF POWER.

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NO. C-9824
REN. JUL. 31, 2021

REFERENCE SHEET NOTES

1. PRIMARY DAYLIT ZONE. FIXTURES IN THIS ZONE ARE PART OF PRIMARY DAYLIGHTING ZONE.
2. SECONDARY DAYLIT ZONE. FIXTURES IN THIS ZONE ARE PART OF SECONDARY LIGHTING ZONE.
3. PROVIDE LIGHTING CONTROL PANEL. REFER TO ENLARGED PLAN ON SHEET E311, DETAIL 1 FOR EXACT MODEL.
4. PROVIDE DIMMABLE LIGHT SWITCH WITH RAISE/LOWER AND ON/OFF CONTROL. PROVIDE NLIGHT #NPODM-DX-WH.
5. PROVIDE DUAL TECHNOLOGY LIGHT SWITCH WITH RAISE/LOWER AND ON/OFF CONTROL. PROVIDE SENSOR SWITCH #WSX-PDT-WH.
6. PROVIDE OCCUPANCY SENSOR WITH DAYLIGHT CONTROL, WHERE APPLICABLE. PROVIDE NLIGHT #NCM-PDT-10-RJB-ADCX.
7. PROVIDE ROUTING FOR BOLLARDS ROUTED UNDERGROUND. PROVIDE 1"C - 2#`0 & 1#10 GND FROM PANEL AND CIRCUIT AS SHOWN.
8. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

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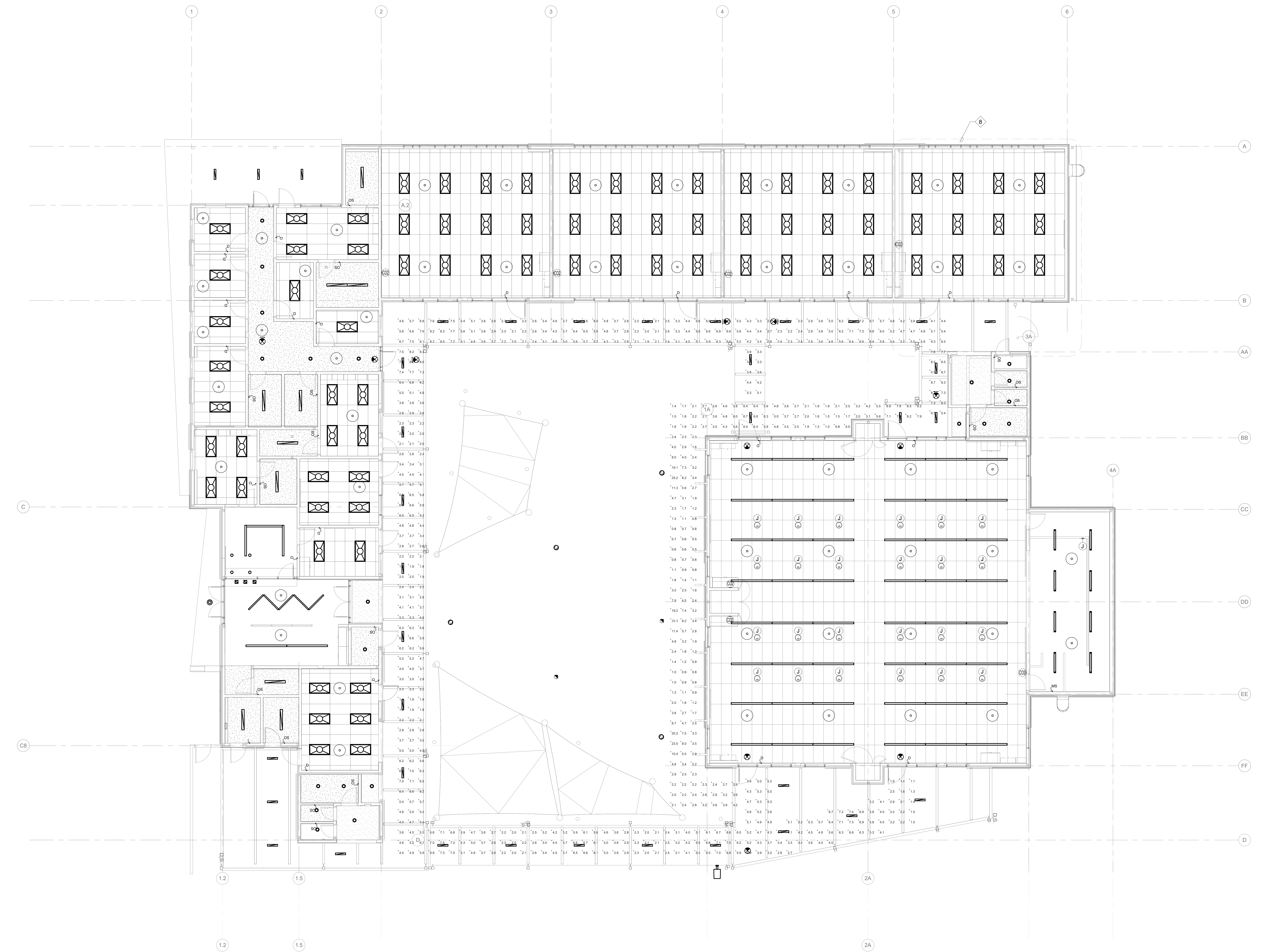
E131



1
E132
LIGHTING FIRST FLOOR PLAN PH
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. THIS SHEET IS PROVIDED FOR REFERENCE ONLY.

REFERENCE SHEET NOTES

1. PART OF DEDUCT ALT #1. SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

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GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
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ELECTRICAL 1ST FLOOR LIGHTING PLAN - EM PHOTOMETRICS

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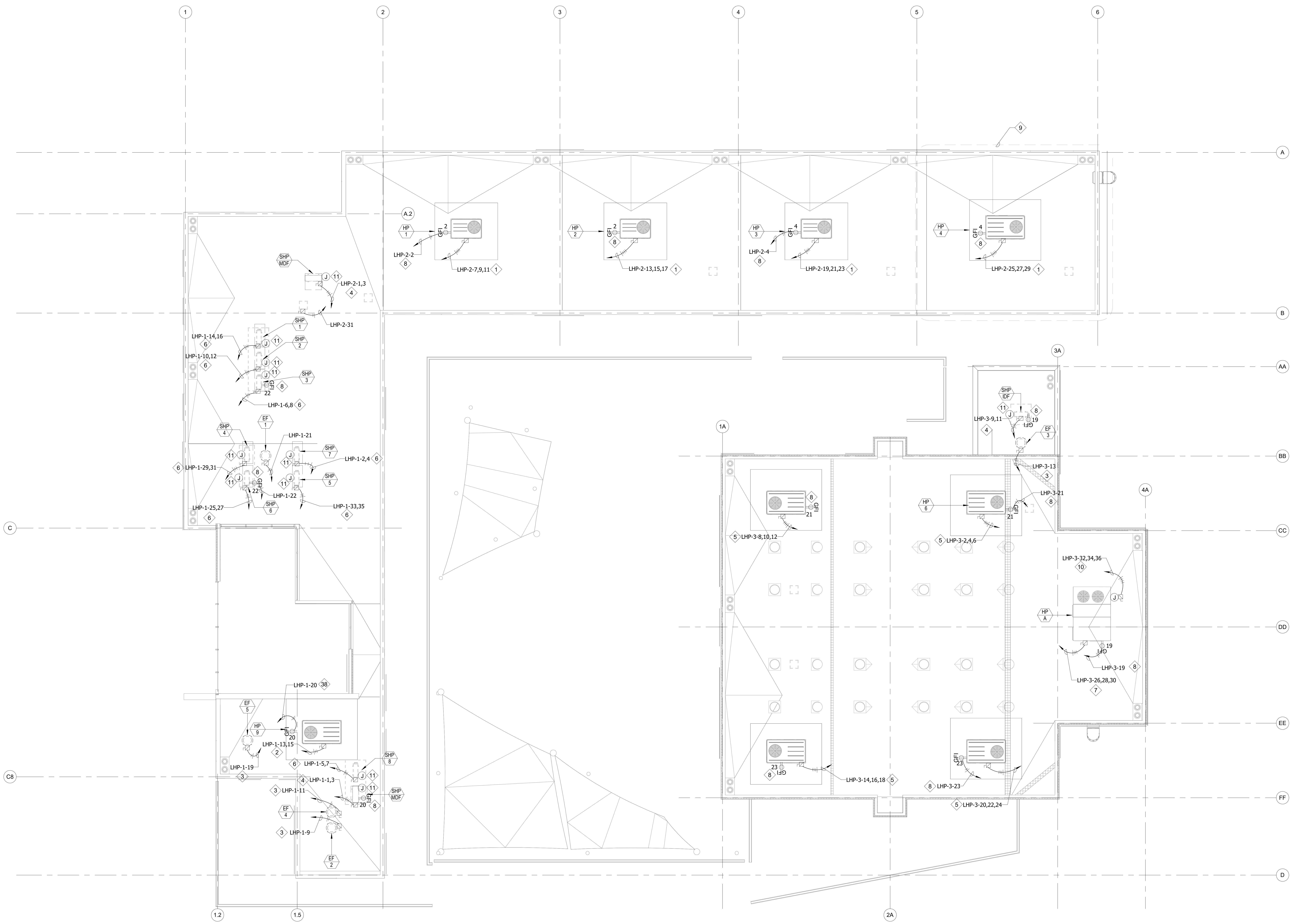
E132



1 / E141 **ELECTRICAL - ROOF PLAN**
SCALE: 1/8" = 1'-0"

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GENERAL SHEET NOTES

A. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL REQUIREMENTS.

B. CONDUITS ON ROOF SHALL BE MOUNTED ON DURABLOCKS.

REFERENCE SHEET NOTES

1. PROVIDE 208V, 3PH, 30A FUSED DISCONNECT WITH 30A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 3#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
2. PROVIDE 208V, 3PH, 60A FUSED DISCONNECT WITH 40A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 3#8 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
3. PROVIDE MOTOR RATED TOGGLE SWITCH MOUNTED ADJACENT TO MECHANICAL EQUIPMENT. PROVIDE 3/4"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
4. PROVIDE 208V, 3PH, 30A FUSED DISCONNECT WITH 25A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
5. PROVIDE 208V, 3PH, 60A FUSED DISCONNECT WITH 35A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 3#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
6. PROVIDE 208V, 3PH, 30A FUSED DISCONNECT WITH 15A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
7. PROVIDE 208V, 3PH, 200A FUSED DISCONNECT WITH 150A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 2"C - 3#1/0 & 1#6 GND FROM PANEL AND CIRCUIT SHOWN.
8. PROVIDE PEDESTAL MOUNTED RECEPTACLE WITH WHILE IN USE, WEATHER PROOF COVER. PROVIDE 1"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
9. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.
10. PROVIDE 208V, 3PH, 30A FUSED DISCONNECT WITH 20A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 3#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
11. PROVIDE JUNCTION BOX FOR INDOOR UNIT. PROVIDE 3/4"C FROM OUTDOOR UNIT TO ASSOCIATED INDOOR UNIT. REFER TO MANUFACTURER FOR COMPLETE INSTALLATION. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.

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BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022
△	
△	
△	
△	
△	

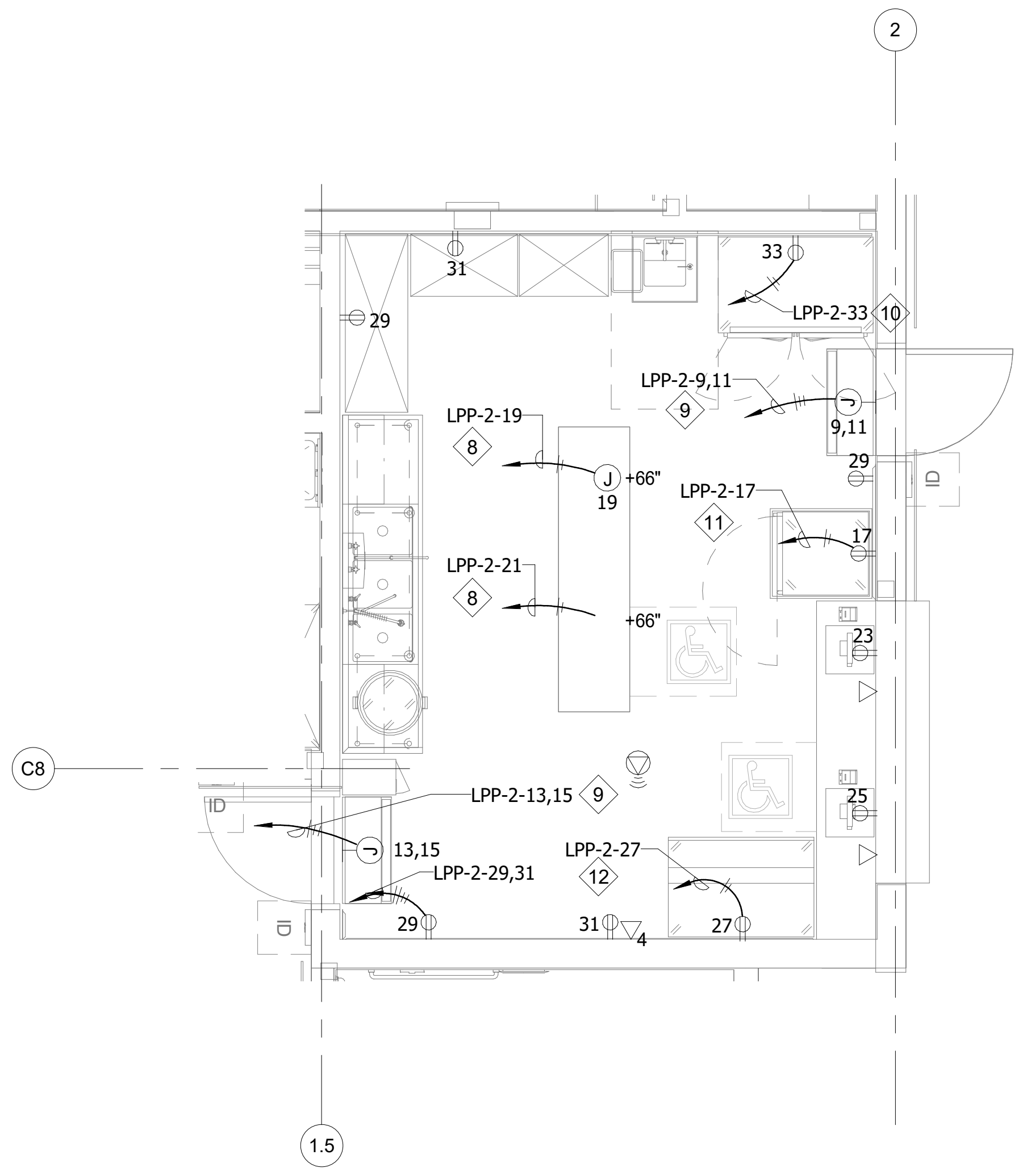
SALASO'BRIEN
|expect a difference|
305 South 11th Street
San Jose, California 95112-2218
877.725.2755 | 877.925.1477 (f)
WWW.SALASOBRIEN.COM
National **Strength.**
Local **Action.**

CHI KIT CHAN
No. E18090
ELECTRICAL

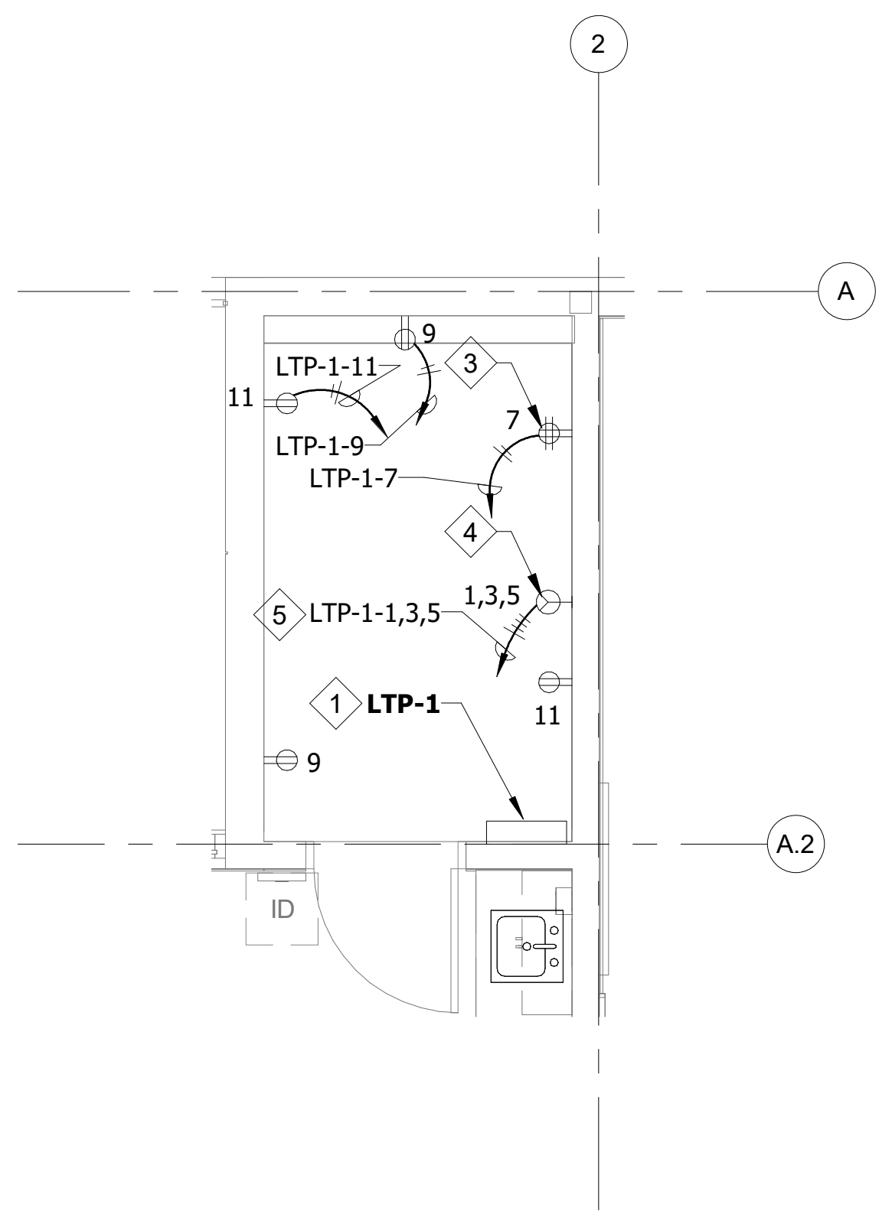
ELECTRICAL ROOF PLAN -
AUXILIARY

PERKINS — EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

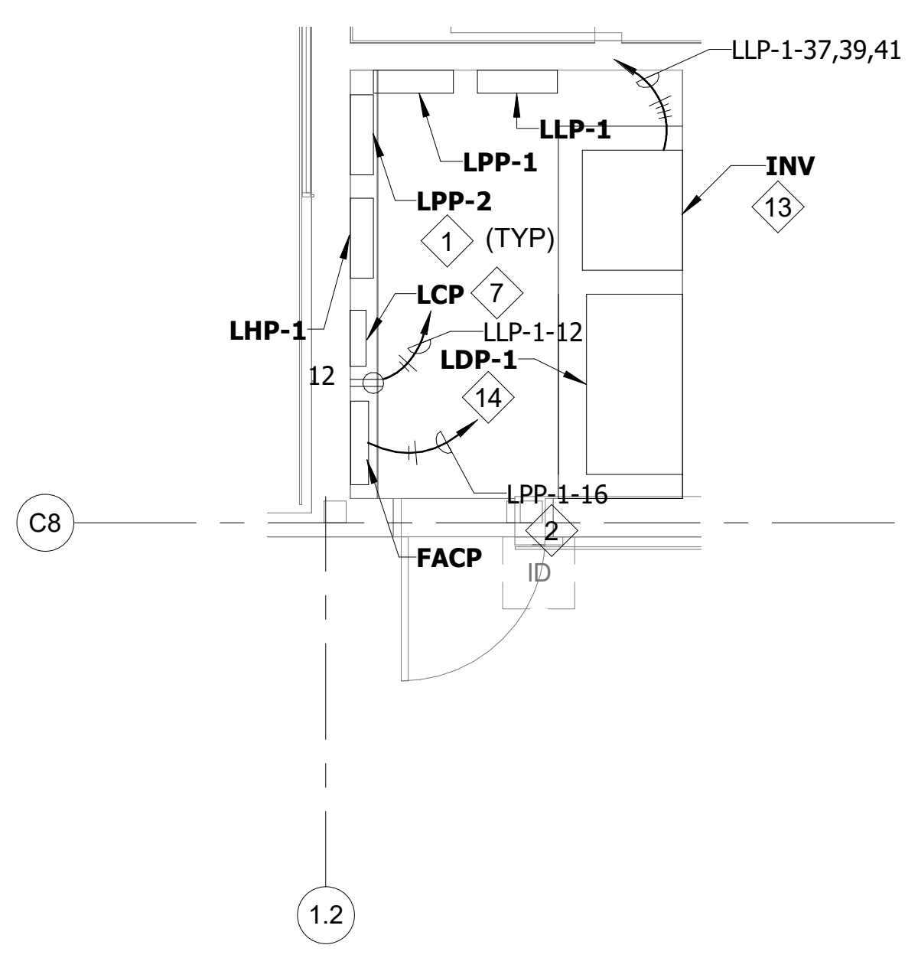
E141



3 ENLARGED KITCHEN
E311
SCALE: 1/4" = 1'-0"



2 ENLARGED MDF ROOM
E311
SCALE: 1/4" = 1'-0"



1 ENLARGED ELECTRICAL ROOM
E311
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO SINGLE LINE DIAGRAM ON SHEET E701 FOR ADDITIONAL INFORMATION.

B. REFER TO DETAIL 16 ON SHEET S301 FOR ELECTRICAL EQUIPMENT ANCHORING AND CONCRETE PAD. CONCRETE PAD TO EXTEND 6" AROUND FLOOR MOUNTED ELECTRICAL EQUIPMENT.

MAXIMUM ELECTRICAL EQUIPMENT WEIGHT: 1000LBS

C. REFER TO DETAIL 14 ON SHEET S621 FOR WALL MOUNTED PANELS BLOCKING AND MOUNTING.

REFERENCE SHEET NOTES

1. PROVIDE SURFACE MOUNTED PANELBOARD. REFER TO SINGLE LINE DIAGRAM ON SHEET E701 FOR PANELBOARD VOLTAGE AND RATING.
2. PROVIDE DEDICATED 120V CONNECTION FOR FACP PANEL.
3. PROVIDE DEDICATED NEMA 5-20R FOR IDF EQUIPMENT.
4. PROVIDE DEDICATED L6-30R FOR UPS.
5. PROVIDE 3/4"C - 3#10 & 1#10GND FROM PANEL AND CIRCUIT SHOWN.
6. PROVIDE DEDICATED 120V CONNECTION FOR LIGHTING CONTROL PANEL.
7. PROVIDE LIGHTING RELAY PANEL. PROVIDE NLIGHT ECLYPSE CONTROLLER #NECY-MVOLT-BAC-ADR-ENC-GFXK. LIGHTING RELAY PANEL SHALL BE CAPABLE OF ASTROMONICAL TIMECLOCK, BAC NET, AND OPEN ADR.
8. PROVIDE DROP CORD NEMA 5-20R RECEPTACLE WITH LOWEST POINT AS HEIGHT SHOWN.
9. PROVIDE 208V, 1PH, 20A CONNECTION WITH MOTOR RATED TOGGLE SWITCH AS A MEANS OF DISCONNECT FOR AIR CURTAIN. PROVIDE 3/4"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
10. PROVIDE DECIATED 120V, 20A RECEPTACLE FOR REFRIGERATOR.
11. PROVIDE DEDICATED 120V, 20A RECEPTACLE FOR WARMING CABINET.
12. PROVIDE DEDICATED 120, 20A RECEPTACLE FOR MILK COOLER.
13. PROVIDE FREE STANDING INVERTER WITH CONCRETE PAD EXTENDED 6" ALL SIDES. PROVIDE MYERS #3-IE-5-S-BA2020-AM-2YWT. PROVIDE 3/4"C - 3 #10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
14. PROVIDE FLOOR MOUNTED DISTRIBUTION BOARD WITH CONCRETE PAD EXTENDED 6" ON ALL SIDES. REFER TO SINGLE LINE DIAGRAM ON SHEET E701 FOR ADDITIONAL DETAILS.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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ELECTRICAL ENLARGED PLANS

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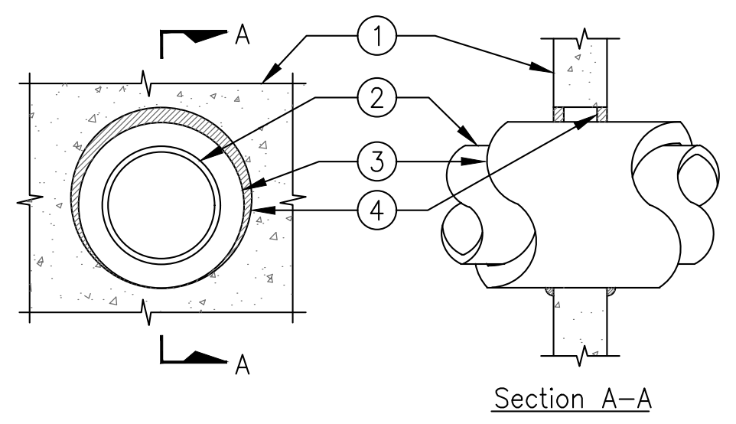
E311



System No. W-J-5031
F Rating - 1, 2, 3 & 4 Hr (See Item 1)
T Rating - 1, 2 & 3 Hr

① Wall Assembly – Min 4–7/8, 6–1/8, 7–3/8 or 8–5/8 in. thick lightweight or normal weight (100–150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 17–3/4 in.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

② Through Penetrants – One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
A. Steel Pipe – Nom 12 in. diam (or smaller) Schedule ST 40 (or heavier) steel pipe.
B. Iron Pipe – Nom 12 in. diam (or smaller) cast or ductile iron pipe.
C. Conduit – Nom 4 in. diam (or smaller) steel electrical metallic tubing.
D. Conduit – Nom 6 in. diam (or smaller) steel conduit.
E. Copper Tubing – Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
F. Copper Pipe – Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
When penetrants larger than 6 in. are used, wall assembly shall not be more than 2 hour fire rated.

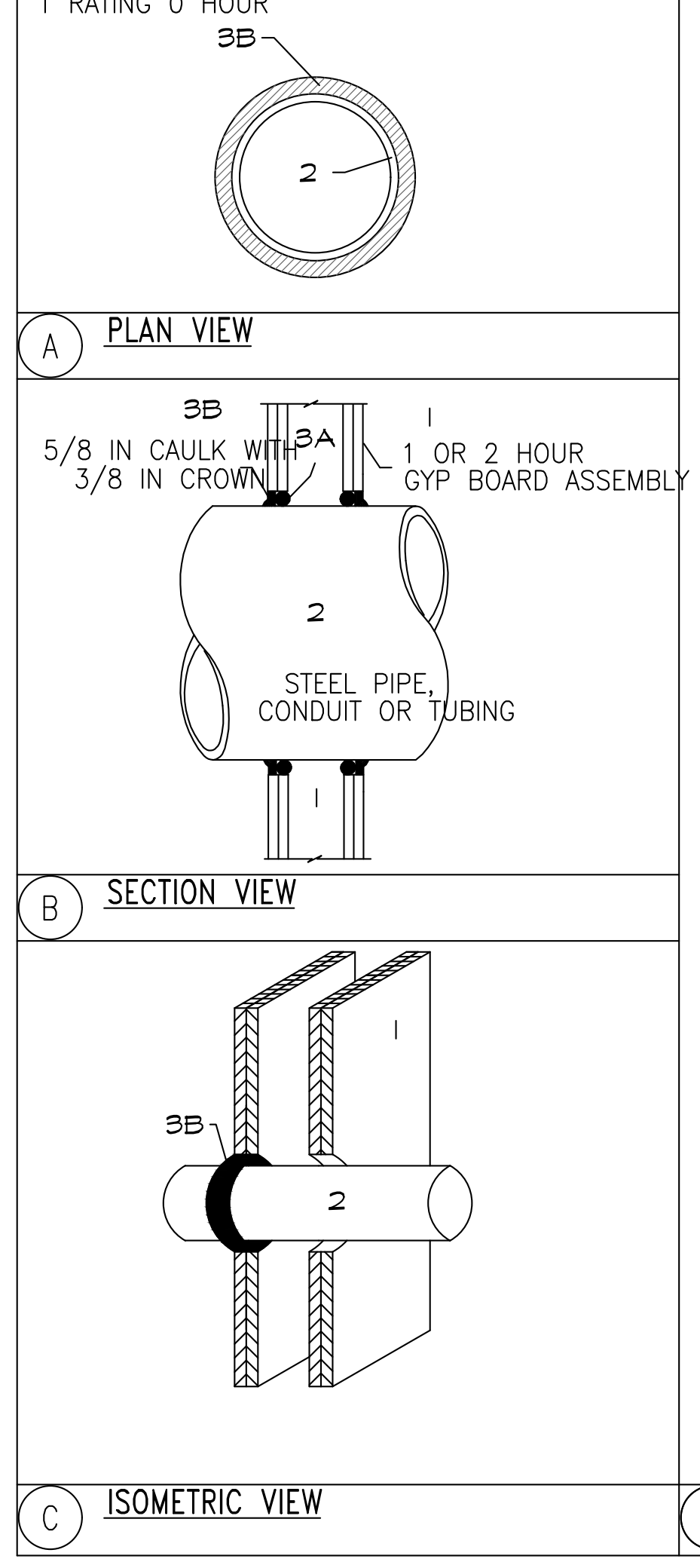
③ Pipe Covering* – Max 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory–applied self–sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space between the insulated pipe and the edge of the through opening shall be min 0 in. (point contact) to max 1 in.

See Pipe and Equipment Covering – Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

④ Fill, Void or Cavity Material* – Sealant – Min 5/8 in. thickness of fill material for 1 hr rated wall assemblies and 1 in. thickness of fill material for 2, 3 or 4 hr rated wall assemblies, respectively, applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and wall, a min. 1/2 in. diam bead of fill material shall be applied at the concrete/pipe covering interface on both surfaces of wall.
Passive Fire Protection Partners** – 4800DW

* Bearing the UL Classification Marking
** Formerly Firestop Systems Inc.

SYSTEM NO. W–L 1030
(FORMERLY SYSTEM NO. 471)
F RATINGS 1 AND 2 HR (SEE ITEM 1)
T RATING 0 HOUR


3B
2
3B
3A
1
5/8 IN CAULK WITH 3/8 IN CROWN
1 OR 2 HOUR GYP BOARD ASSEMBLY
2
STEEL PIPE, CONDUIT OR TUBING
1
1
3B
2

Ⓐ PLAN VIEW

Ⓑ SECTION VIEW

Ⓒ ISOMETRIC VIEW

1 WALL ASSEMBLY–THE 1 OR 2 HR RATED GYPSUM WALLBOARD/STUD ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND TO THE MANNER SPECIFIED TO THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRED RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS–WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NORM. 2 BY 4 INCH LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2–1/2 IN WIDE AND SPACED MAX. 24 IN OC.

B. WALLBOARD, GYPSUM* – 5/8 IN THICK, 4 FT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM. OF OPENING IS 5 IN.

2 THROUGH PENETRANTS–ONE METALLIC PIPE, CONDUIT OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUIT OR TUBING MAY BE USED:

A. STEEL PIPE–NOM. 6 IN DIAM. (OR SMALLER) SCHEDULE 5 (OR NEWER) STEEL PIPE.

B. CONDUIT–NOM. 4 IN DIAM. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR RIGID STEEL CONDUIT.

3 FIRESTOP SYSTEM–THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING;
A. PACKING MATERIAL–(OPTIONAL)–NOM. 1/2 IN. DIAM. POLYURETHANE BACKER AND FRICTION FITTED INTO THE OPENING. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

B. FILL, VELD OR CAVITY MATERIAL*–CAULK– FOR 2 HR FIRE–RATED ASSEMBLIES, MIN. 5/8 IN THICKNESS OF FILL MATERIAL APPLIED WITHIN ONNULUS ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 3/8 IN CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING 1 IN BEYOND THE PERIPHERY OF THE OPENING.

NELSON FIRESTOP PRODUCTS–TYPE CLK N/S (NON–SAG) CAULK OR LBS SEALANT.
*BEARING THE UL CLASSIFICATION MARKING

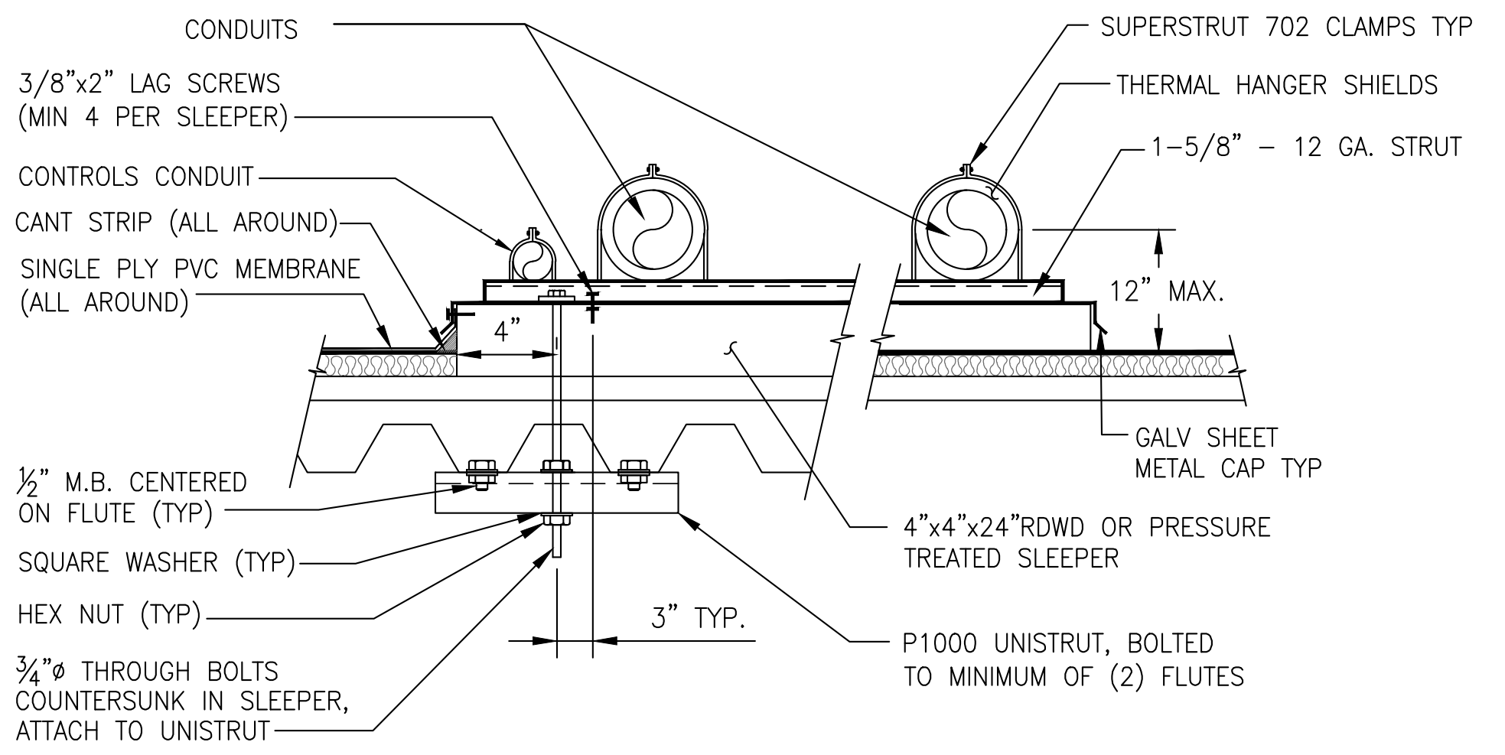
Ⓓ UL SYSTEM No. W–L–1030
DESCRIPTION REQUIREMENT

④ CONDUIT PENETRATION FIRE STOP SYSTEM

SCALE: N.T.S.

NOTE:

1. PROVIDE SUPPORTS ON BOTH SIDES OF ELBOWS.


CONDUITS
3/8"x2" LAG SCREWS (MIN 4 PER SLEEPER)
CONTROLS CONDUIT
CANT STRIP (ALL AROUND)
SINGLE PLY PVC MEMBRANE (ALL AROUND)
4"
½" M.B. CENTERED ON FLUTE (TYP)
SQUARE WASHER (TYP)
HEX NUT (TYP)
¾"ø THROUGH BOLTS COUNTERSUNK IN SLEEPER, ATTACH TO UNISTRUT
SUPERSTRUT 702 CLAMPS TYP
THERMAL HANGER SHIELDS
1–5/8" – 12 GA. STRUT
12" MAX.
GALV SHEET METAL CAP TYP
4"x4"x24"RDWD OR PRESSURE TREATED SLEEPER
3" TYP.
P1000 UNISTRUT, BOLTED TO MINIMUM OF (2) FLUTES

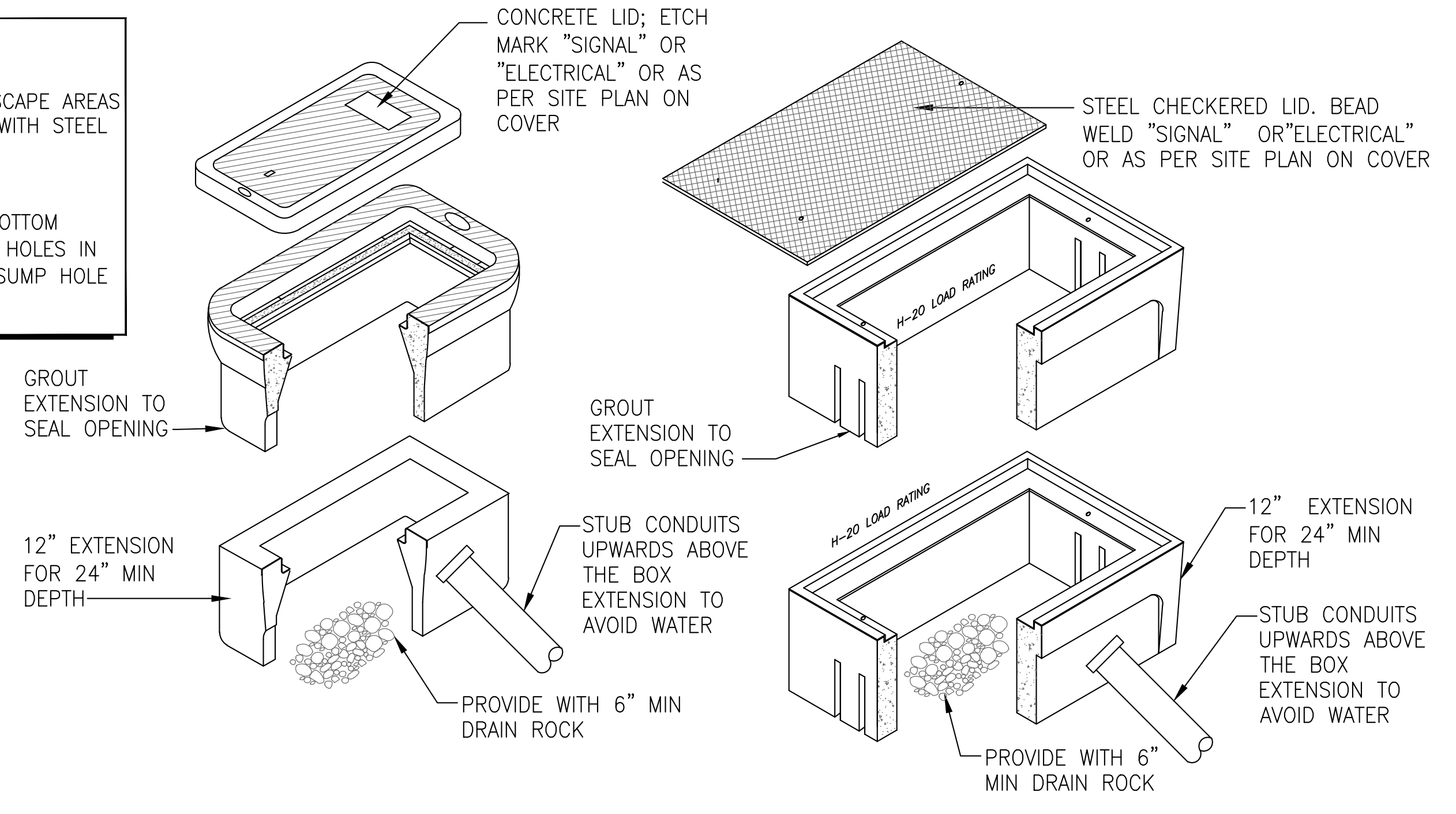
INTERMEDIATE SLEEPERS
EVERY 10'

⑥ METAL DECK CONDUIT SUPPORT

SCALE: N.T.S.

NOTES:

1. ALL PULLBOXES IN HARDSCAPE AREAS TO BE H20 LOAD RATED WITH STEEL LID U.O.N.
2. PROVIDE DRAINAGE IN ALL PULLBOXES. FOR SOLID BOTTOM BOXES CORE DRILL (3)2" HOLES IN BOTTOM (CORE DRILL IN SUMP HOLE WHERE AVAILABLE).

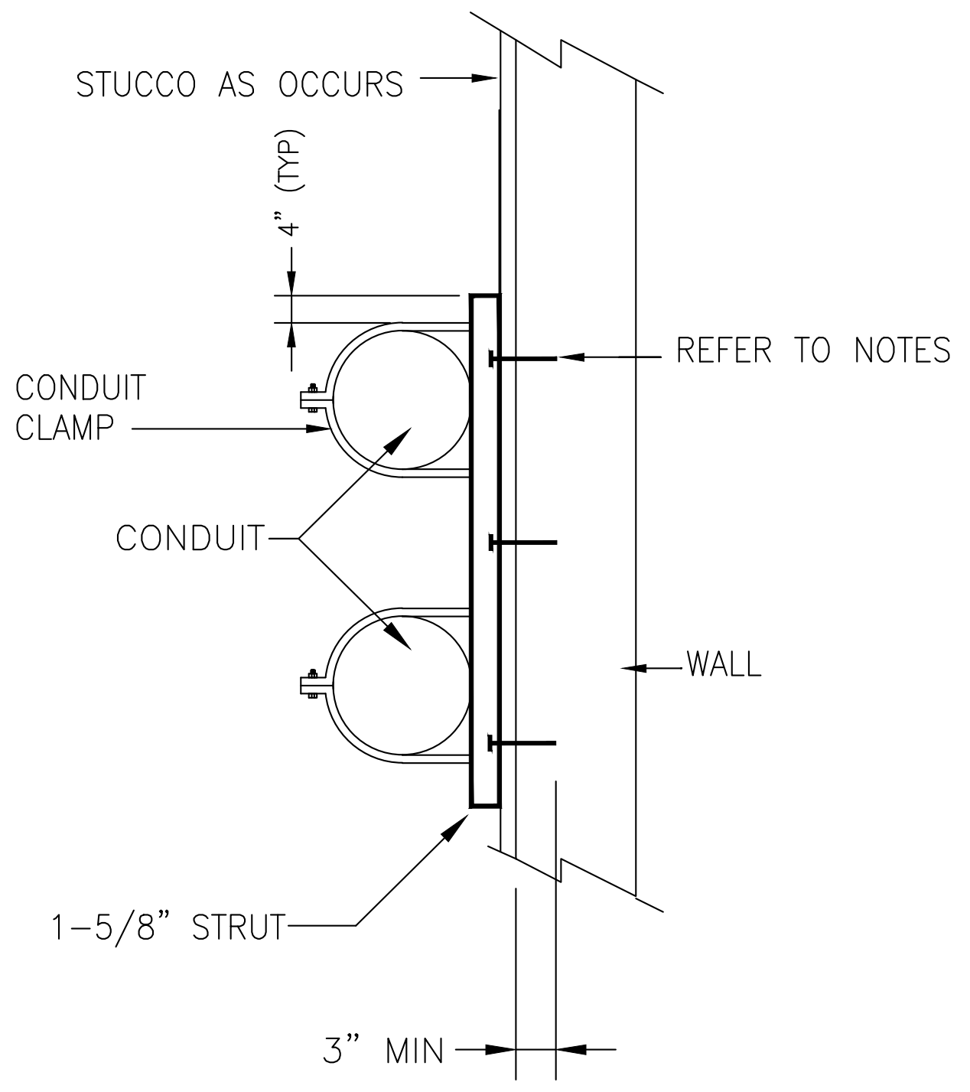

CONCRETE LID; ETCH MARK "SIGNAL" OR "ELECTRICAL" OR AS PER SITE PLAN ON COVER
GROUT EXTENSION TO SEAL OPENING
12" EXTENSION FOR 24" MIN DEPTH
STUB CONDUITS UPWARDS ABOVE THE BOX EXTENSION TO AVOID WATER
PROVIDE WITH 6" MIN DRAIN ROCK
STEEL CHECKERED LID. BEAD WELD "SIGNAL" OR"ELECTRICAL" OR AS PER SITE PLAN ON COVER
H–20 LOAD RATING
GROUT EXTENSION TO SEAL OPENING
H–20 LOAD RATING
12" EXTENSION FOR 24" MIN DEPTH
STUB CONDUITS UPWARDS ABOVE THE BOX EXTENSION TO AVOID WATER
PROVIDE WITH 6" MIN DRAIN ROCK

FOR LANDSCAPED AREAS

FOR HARDSCAPED AREAS

③ UNDERGROUND PULLBOX DETAIL

SCALE: N.T.S.



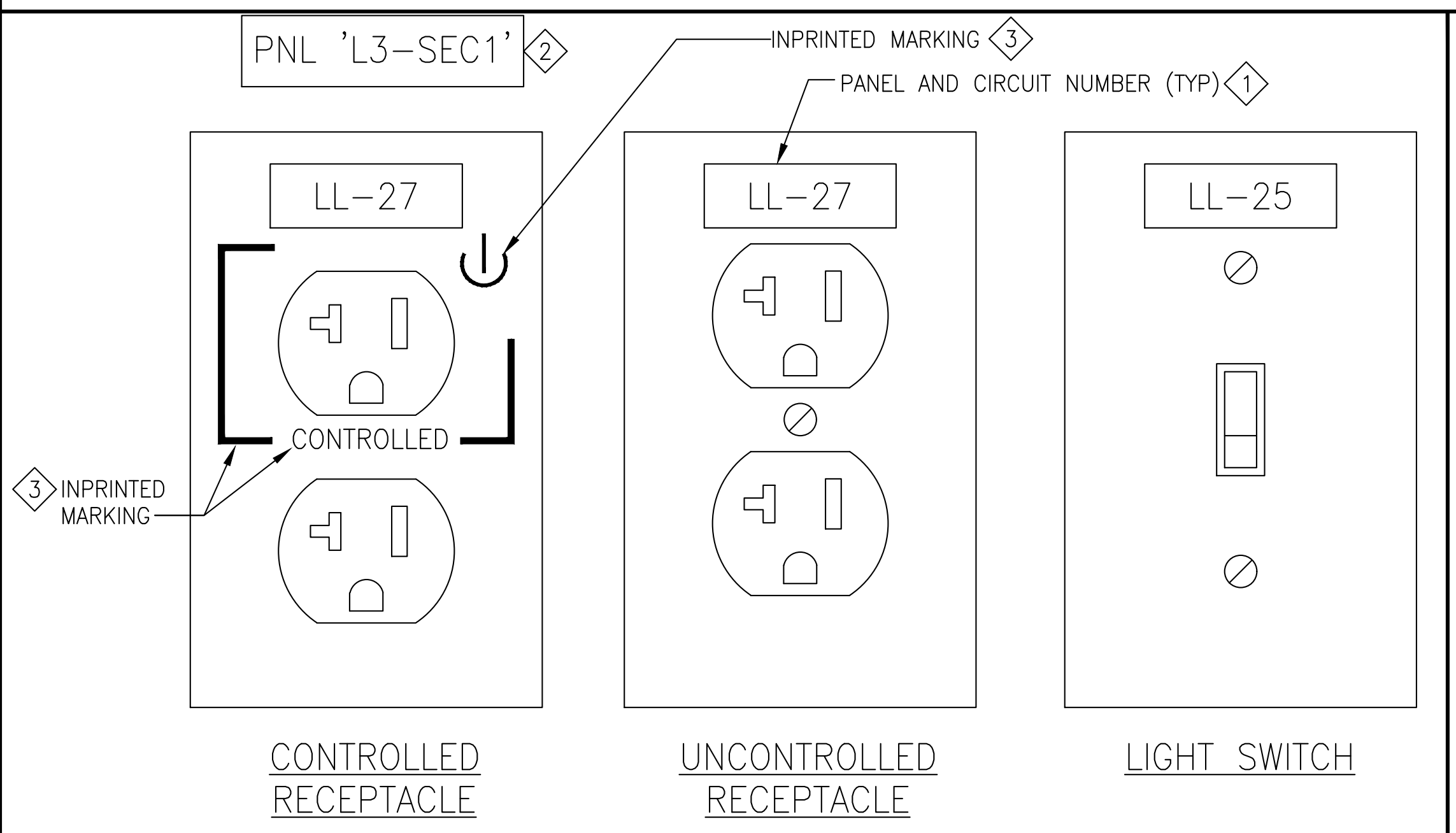
NOTES:

FOR WOOD FRAMING: USE ⅜" LAG BOLT CENTER IN STUD W/2½" EMBEDMENT (TYP)

1. LAG BOLT TO BE INSTALLED @ CENTER OF STUD OR PROVIDE 4x SOLID BLOCKING AS REQUIRED. PREDRILL HOLES.
2. UNISTRUT SUPPORTS TO BE AT 8' O.C.

⑤ CONDUIT SUPPORT DETAIL

SCALE: N.T.S.



NOTE:

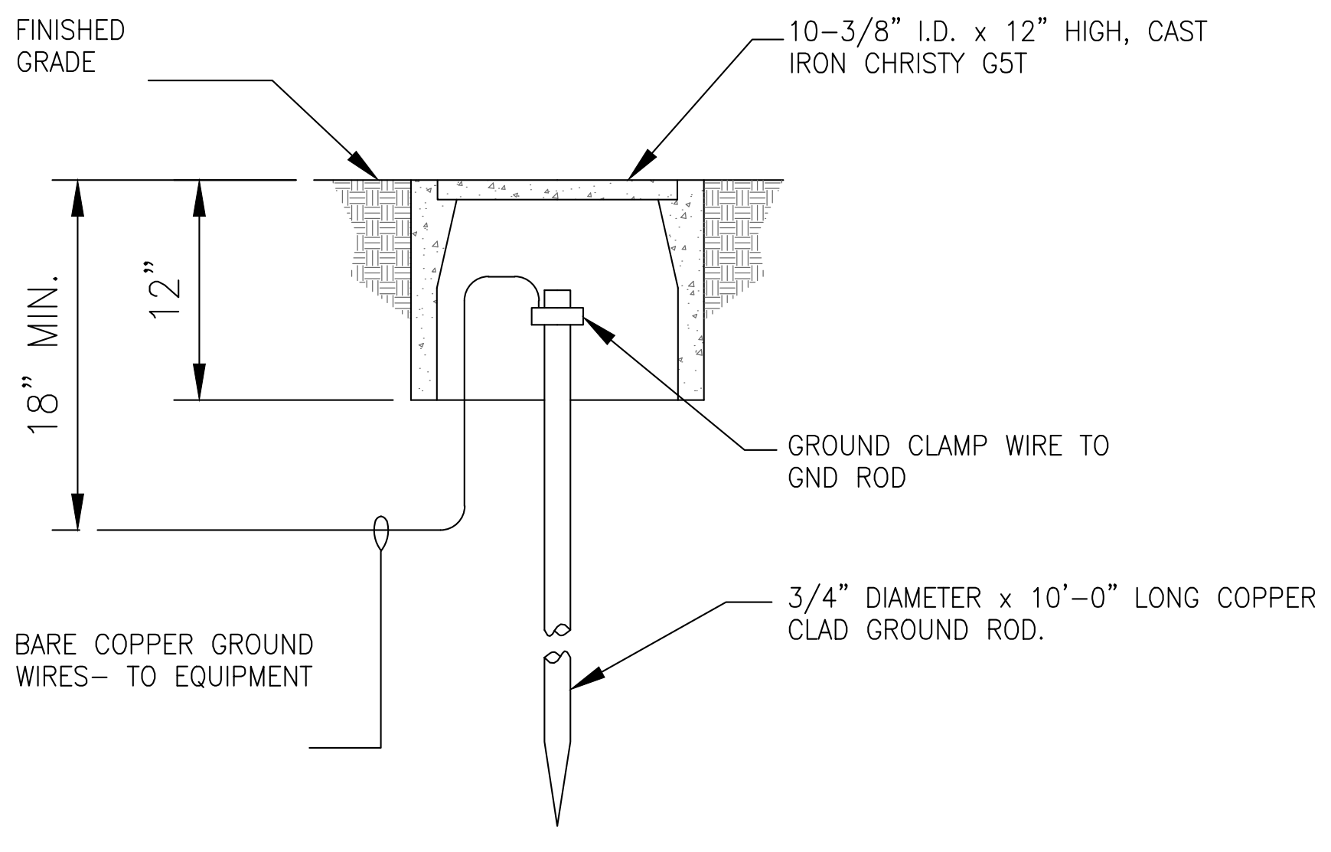
◇1 LABEL ALL DEVICES AND J–BOXES USING MACHINE CLEAR TAPE WITH BLACK LETTERS.

◇2 LABEL ALL ELECTRICAL EQUIPMENT, AS SHOWN ON FLOOR PLAN, WITH PERMANENT BLACK BAKELITE LABELS WITH WHITE LETTERS.

◇3 CONTROLLED RECEPTACLE WITH INPRINTED MARKING DIRECTLY ON RECEPTACLE LEVITON BRAND, OR APPROVED EQUAL.

② DEVICE LABELING

SCALE: N.T.S.


FINISHED GRADE
10–3/8" I.D. x 12" HIGH, CAST IRON CHRISTY G5T
18" MIN.
12"
GROUND CLAMP WIRE TO GND ROD
BARE COPPER GROUND WIRES– TO EQUIPMENT
3/4" DIAMETER x 10'–0" LONG COPPER CLAD GROUND ROD.

① GROUND ROD TEST WELL

SCALE: N.T.S.

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BRIAN PAUL DOUGHERTY

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ELECTRICAL
DETAILS

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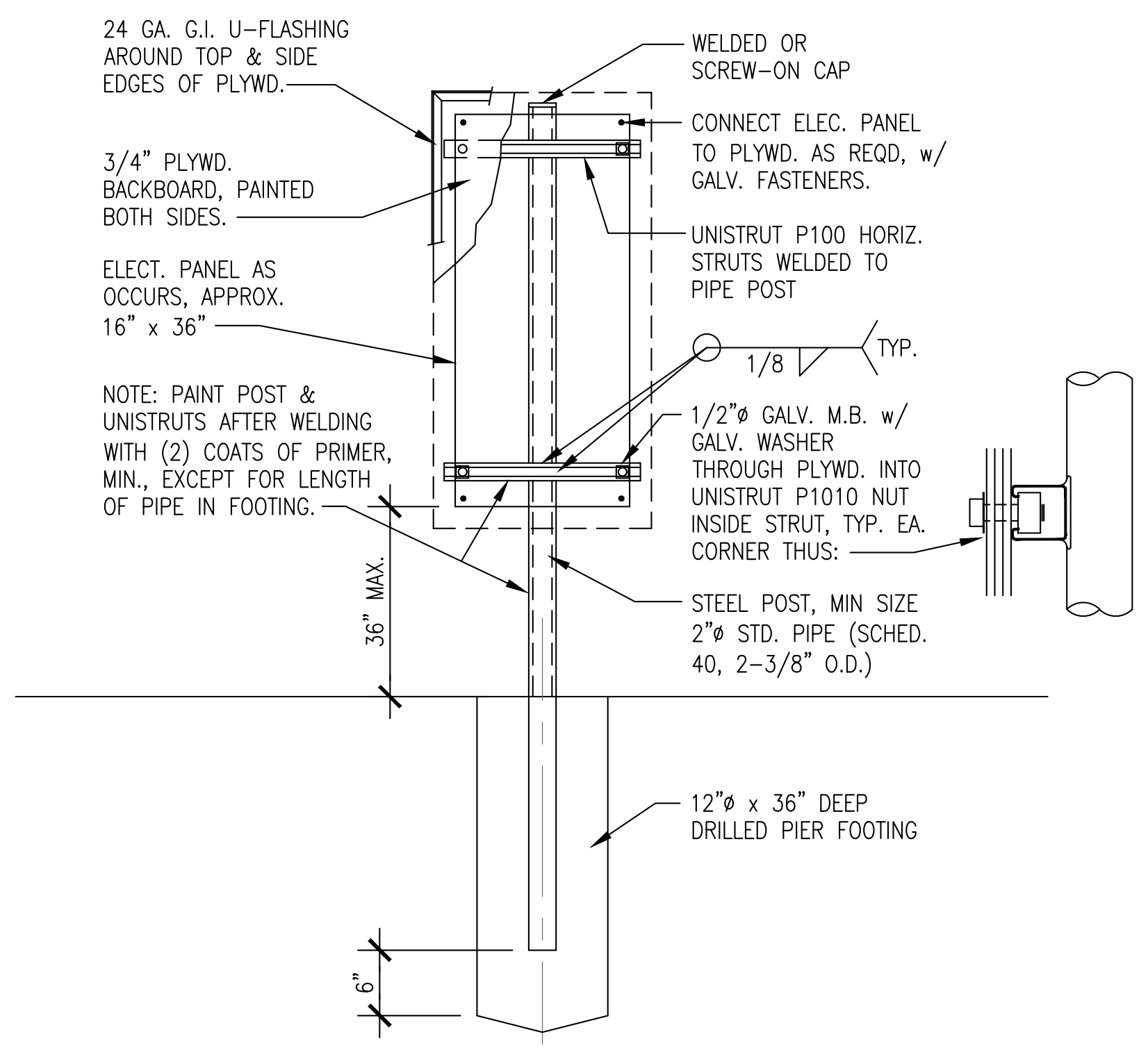
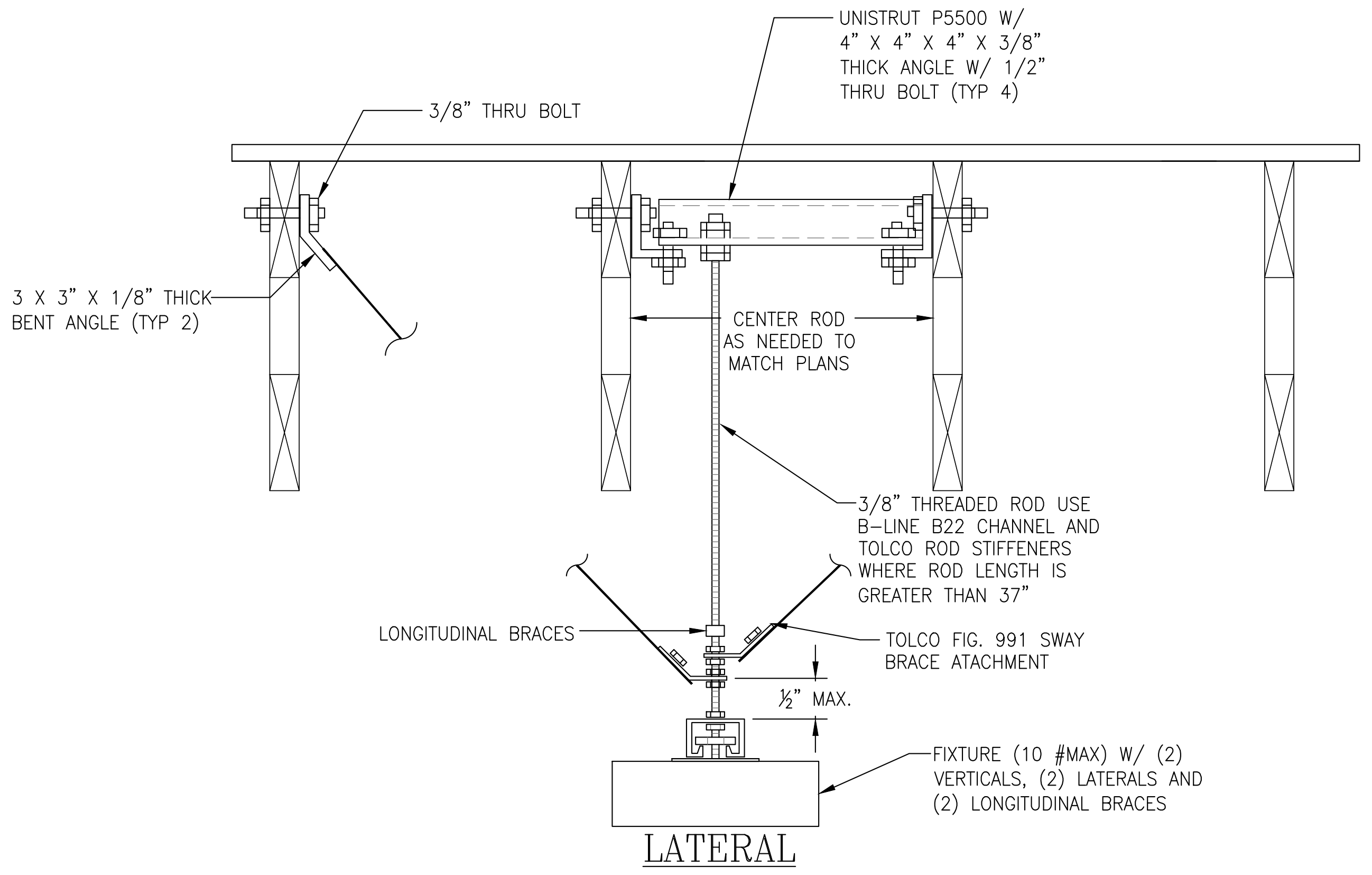
E501

K:\drawings\Perkins Eastman Architects\2103238 Gateway Community School New 8-Classroom Bldg\2103238E501.dwg 1/13/2023 4:35 PM Toan Pham


24 GA. G.I. U-FLASHING AROUND TOP & SIDE EDGES OF PLYWD.
3/4" PLYWD. BACKBOARD, PAINTED BOTH SIDES.
ELECT. PANEL AS OCCURS, APPROX. 16" x 36"
NOTE: PAINT POST & UNISTRUTS AFTER WELDING WITH (2) COATS OF PRIMER, MIN., EXCEPT FOR LENGTH OF PIPE IN FOOTING.
36" MAX.
6"
WELDED OR SCREW-ON CAP
CONNECT ELEC. PANEL TO PLYWD. AS REQD, w/ GALV. FASTENERS.
UNISTRUT P100 HORIZ. STRUTS WELDED TO PIPE POST
1/8
TYP.
1/2"ø GALV. M.B. w/ GALV. WASHER THROUGH PLYWD. INTO UNISTRUT P1010 NUT INSIDE STRUT, TYP. EA. CORNER THUS:
STEEL POST, MIN SIZE 2"ø STD. PIPE (SCHED. 40, 2-3/8" O.D.)
12"ø x 36" DEEP DRILLED PIER FOOTING

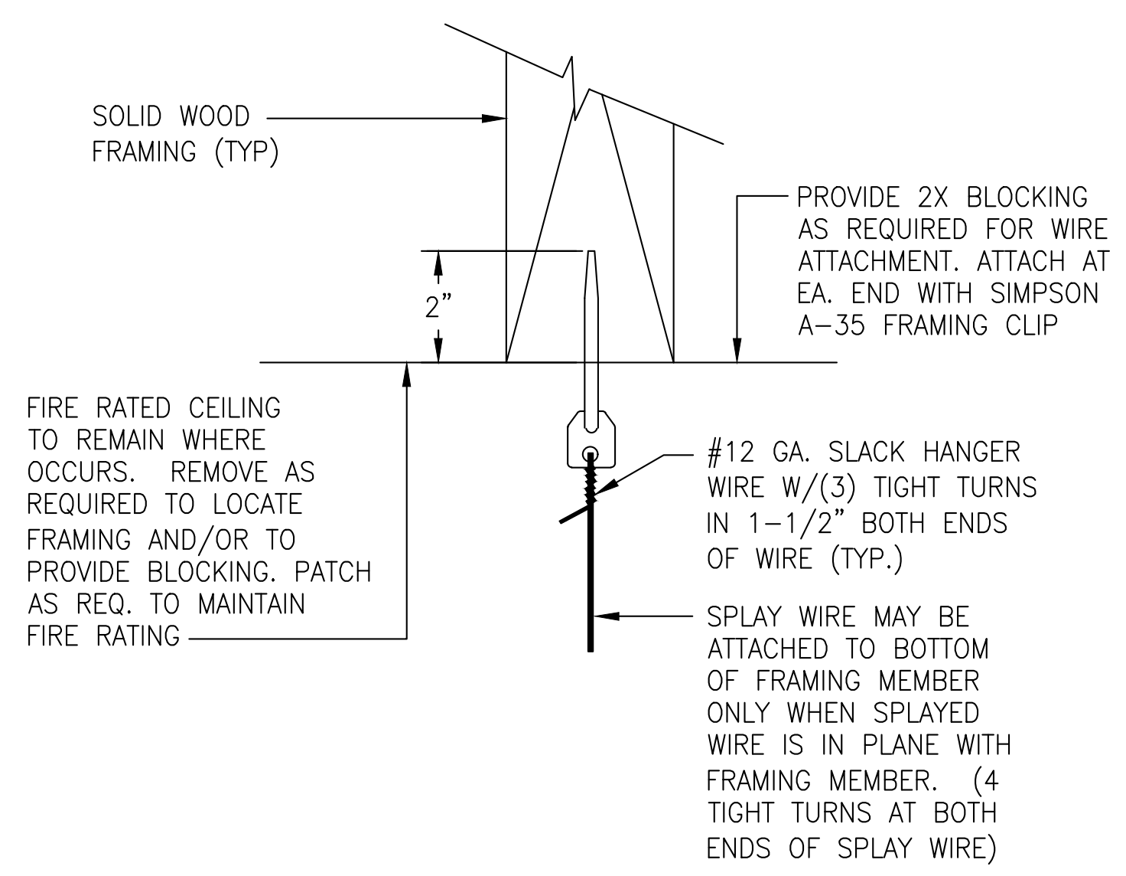
10 EXTERIOR PANEL MOUNTING

SCALE: N.T.S.

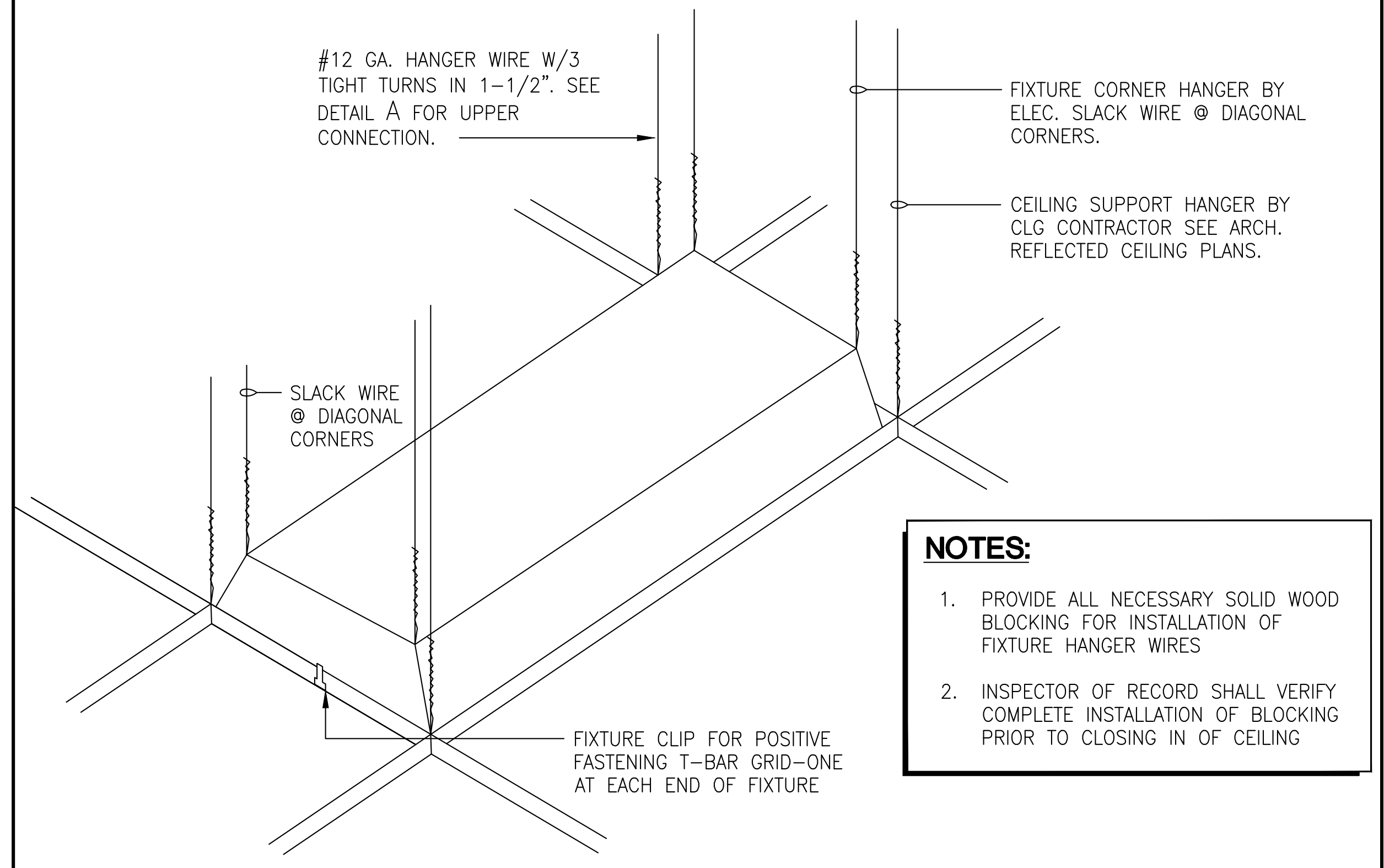

UNISTRUT P5500 W/ 4" X 4" X 4" X 3/8" THICK ANGLE W/ 1/2" THRU BOLT (TYP 4)
3/8" THRU BOLT
3 X 3" X 1/8" THICK BENT ANGLE (TYP 2)
CENTER ROD AS NEEDED TO MATCH PLANS
3/8" THREADED ROD USE B-LINE B22 CHANNEL AND TOLCO ROD STIFFENERS WHERE ROD LENGTH IS GREATER THAN 37"
LONGITUDINAL BRACES
TOLCO FIG. 991 SWAY BRACE ATACHMENT
½" MAX.
FIXTURE (10 #MAX) W/ (2) VERTICALS, (2) LATERALS AND (2) LONGITUDINAL BRACES
LATERAL

5 PENDANT MOUNT - OPEN CEILING

SCALE: N.T.S.


SOLID WOOD FRAMING (TYP)
2"
PROVIDE 2X BLOCKING AS REQUIRED FOR WIRE ATTACHMENT. ATTACH AT EA. END WITH SIMPSON A-35 FRAMING CLIP
FIRE RATED CEILING TO REMAIN WHERE OCCURS. REMOVE AS REQUIRED TO LOCATE FRAMING AND/OR TO PROVIDE BLOCKING. PATCH AS REQ. TO MAINTAIN FIRE RATING
#12 GA. SLACK HANGER WIRE W/(3) TIGHT TURNS IN 1-1/2" BOTH ENDS OF WIRE (TYP.)
SPLAY WIRE MAY BE ATTACHED TO BOTTOM OF FRAMING MEMBER ONLY WHEN SPLAYED WIRE IS IN PLANE WITH FRAMING MEMBER. (4 TIGHT TURNS AT BOTH ENDS OF SPLAY WIRE)

WOOD CEILING

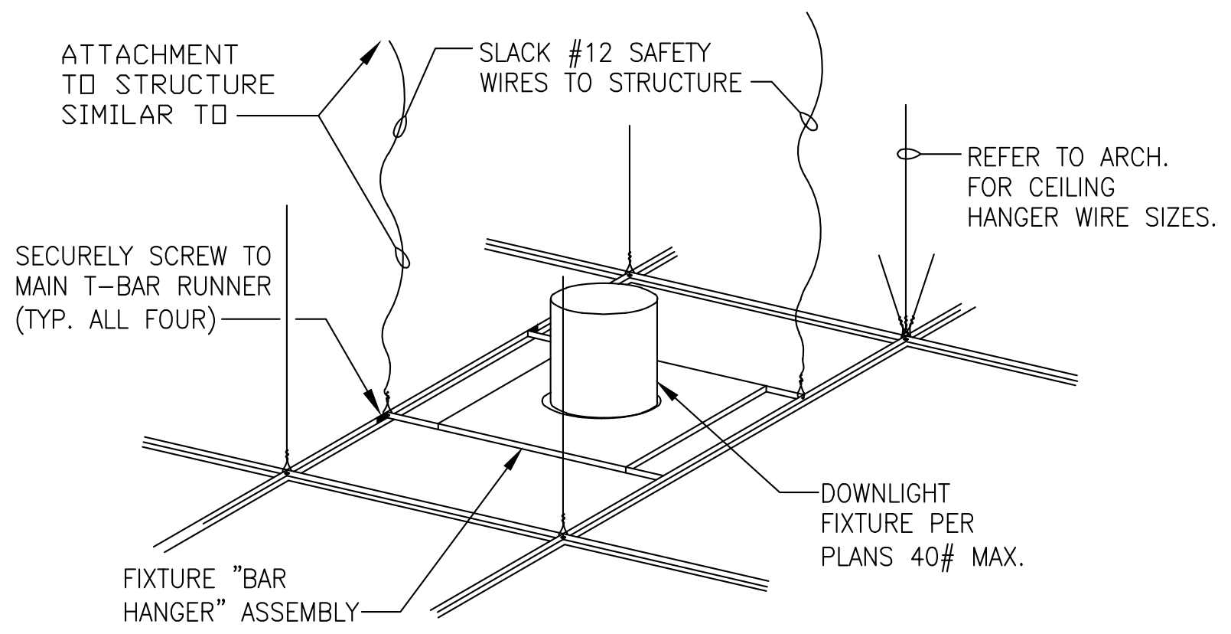

#12 GA. HANGER WIRE W/3 TIGHT TURNS IN 1-1/2". SEE DETAIL A FOR UPPER CONNECTION.
FIXTURE CORNER HANGER BY ELEC. SLACK WIRE @ DIAGONAL CORNERS.
CEILING SUPPORT HANGER BY CLG CONTRACTOR SEE ARCH. REFLECTED CEILING PLANS.
SLACK WIRE @ DIAGONAL CORNERS
FIXTURE CLIP FOR POSITIVE FASTENING T-BAR GRID-ONE AT EACH END OF FIXTURE

NOTES:

1. PROVIDE ALL NECESSARY SOLID WOOD BLOCKING FOR INSTALLATION OF FIXTURE HANGER WIRES
2. INSPECTOR OF RECORD SHALL VERIFY COMPLETE INSTALLATION OF BLOCKING PRIOR TO CLOSING IN OF CEILING

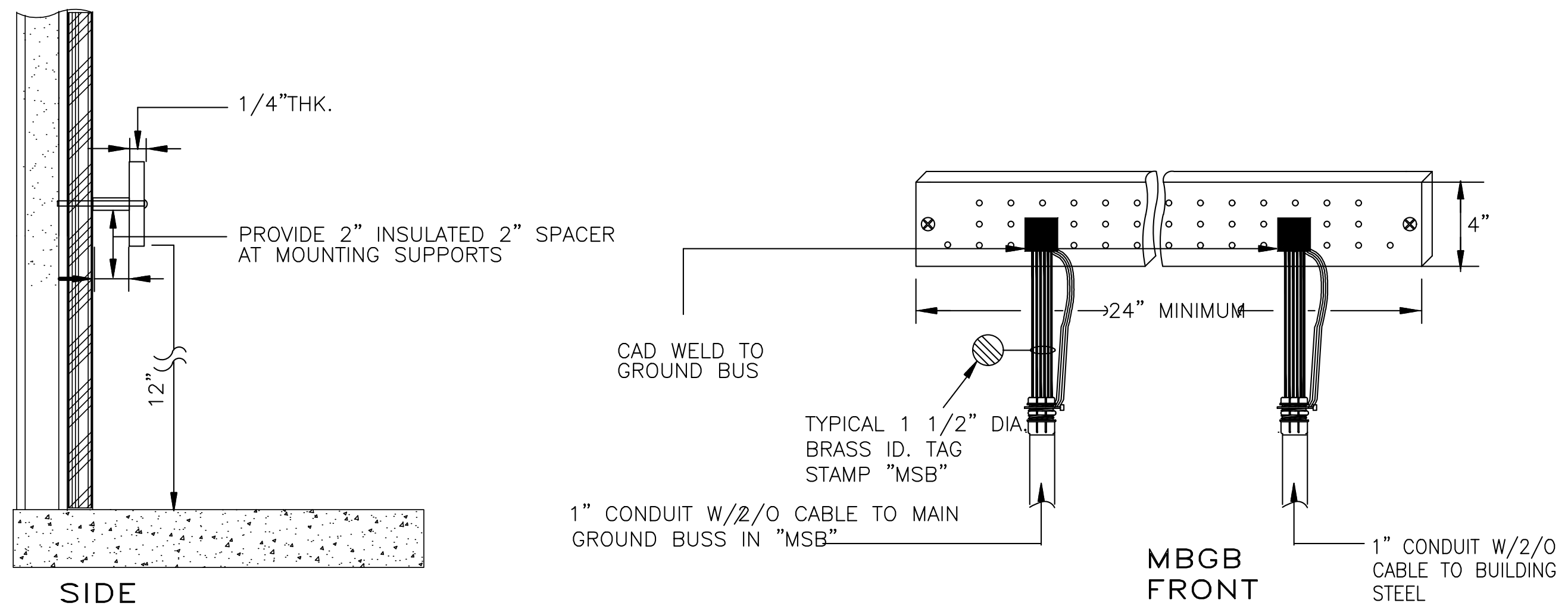
7 RECESSED TROFFER - GRID

SCALE: N.T.S.


ATTACHMENT TO STRUCTURE SIMILAR TO
SLACK #12 SAFETY WIRES TO STRUCTURE
REFER TO ARCH. FOR CEILING HANGER WIRE SIZES.
SECURELY SCREW TO MAIN T-BAR RUNNER (TYP. ALL FOUR)
DOWNLIGHT FIXTURE PER PLANS 40# MAX.
FIXTURE "BAR HANGER" ASSEMBLY

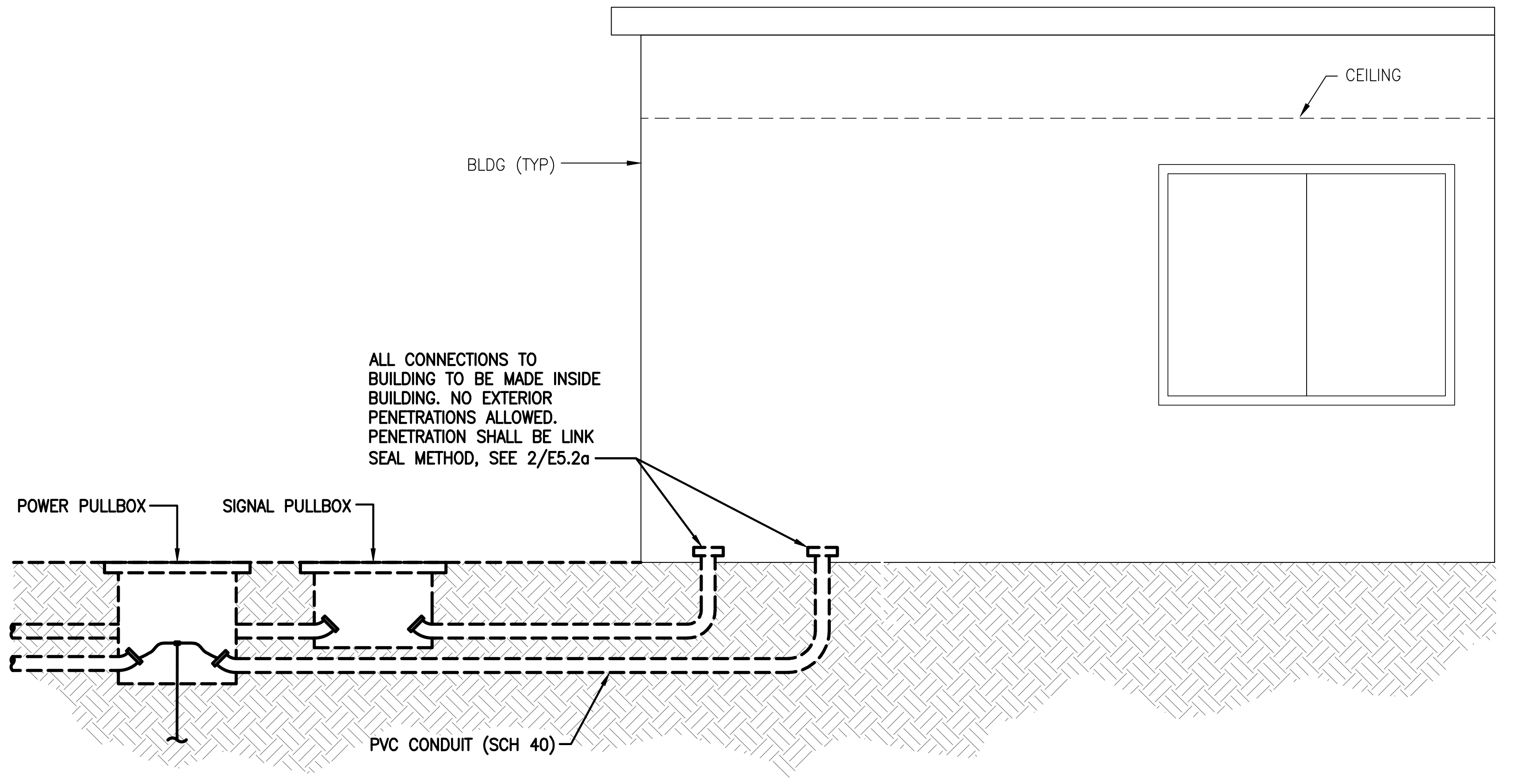
9 RECESSED DOWNLIGHT - GRID

SCALE: N.T.S.


1/4"THK.
PROVIDE 2" INSULATED 2" SPACER AT MOUNTING SUPPORTS
12"
SIDE
4"
24" MINIMUM
CAD WELD TO GROUND BUS
TYPICAL 1 1/2" DIA. BRASS ID. TAG STAMP "MSB"
1" CONDUIT W/2/O CABLE TO MAIN GROUND BUSS IN "MSB"
MBGB FRONT
1" CONDUIT W/2/O CABLE TO BUILDING STEEL

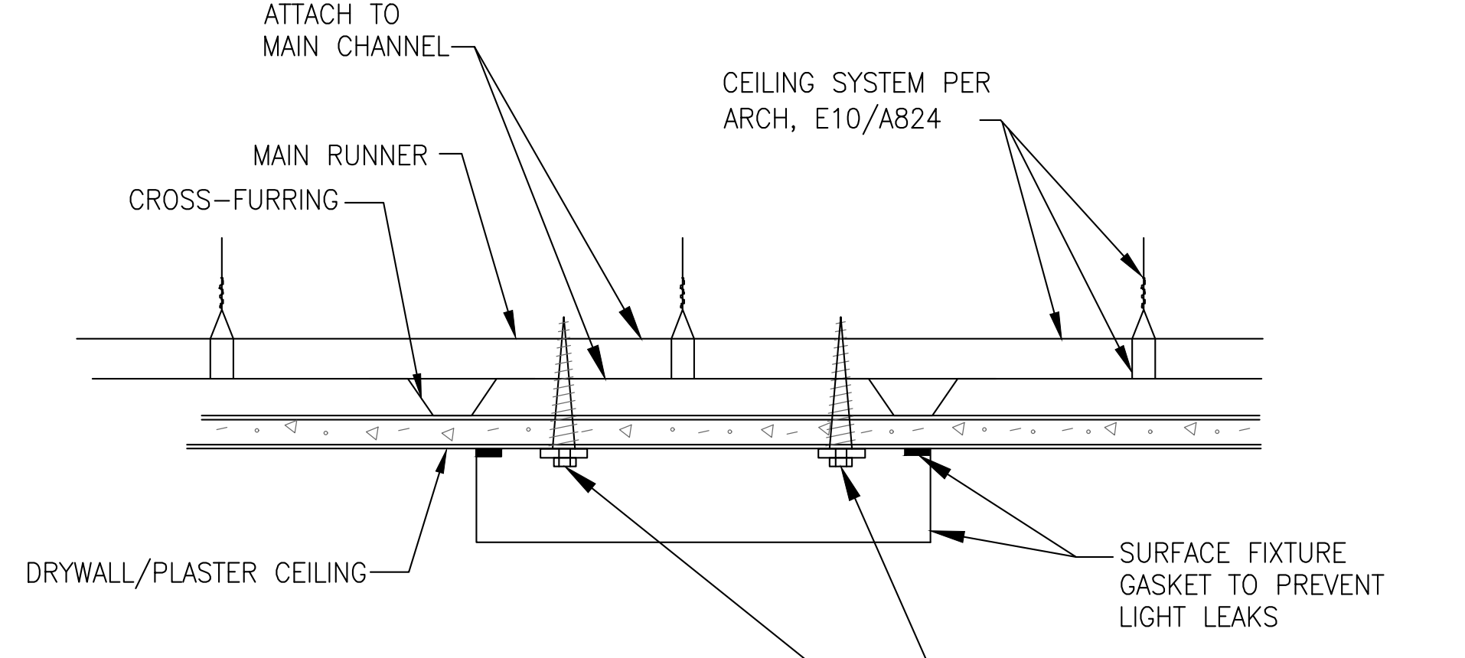
4 BUILDING GROUND BUS

SCALE: N.T.S.


CEILING
BLDG (TYP)
ALL CONNECTIONS TO BUILDING TO BE MADE INSIDE BUILDING. NO EXTERIOR PENETRATIONS ALLOWED. PENETRATION SHALL BE LINK SEAL METHOD, SEE 2/E5.2a
POWER PULLBOX
SIGNAL PULLBOX
PVC CONDUIT (SCH 40)

3 BUILDING INTERIOR CONDUIT DIAGRAM

SCALE: N.T.S.

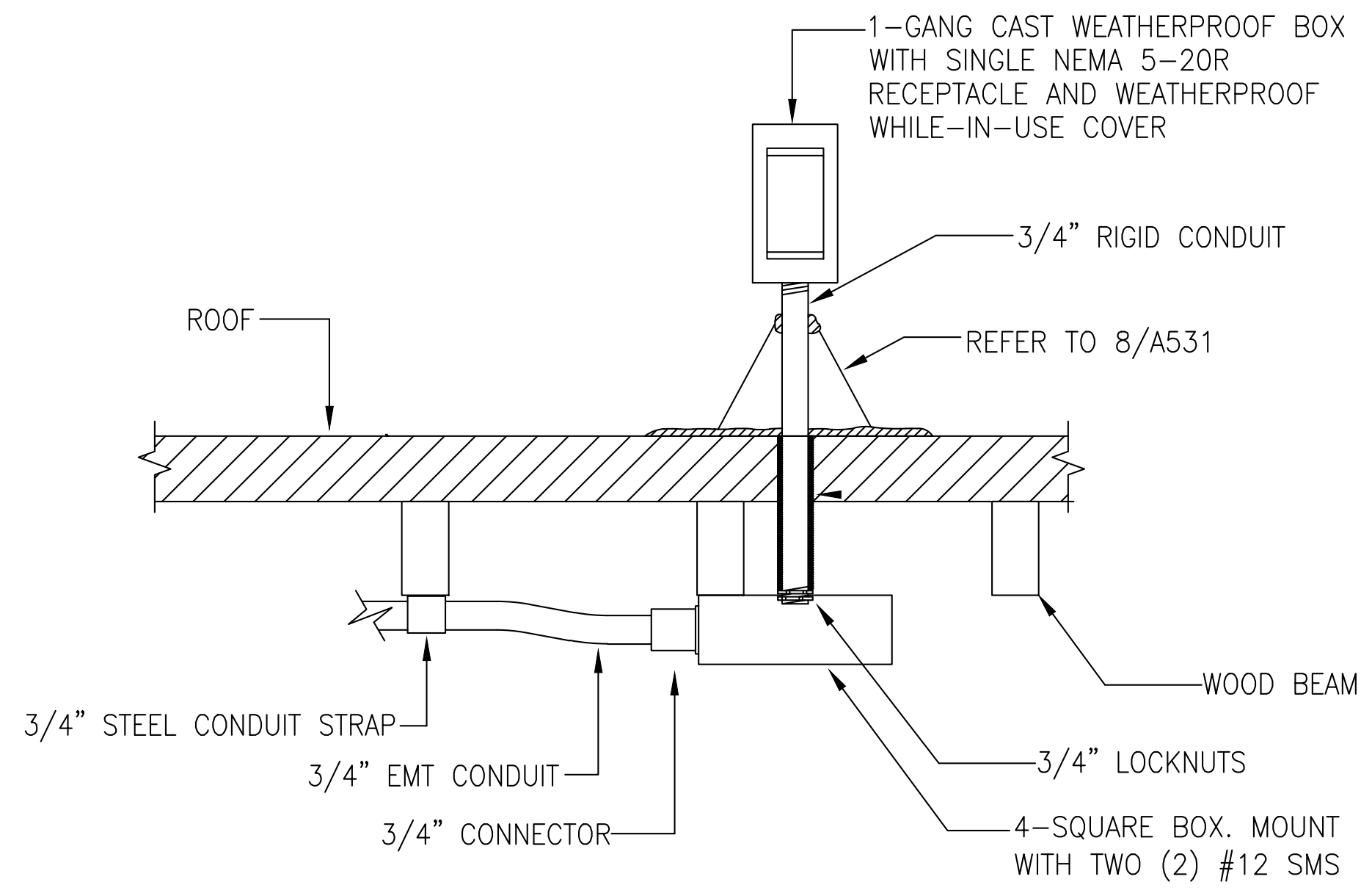

ATTACH TO MAIN CHANNEL
CEILING SYSTEM PER ARCH, E10/A824
MAIN RUNNER
CROSS-FURRING
DRYWALL/PLASTER CEILING
SURFACE FIXTURE GASKET TO PREVENT LIGHT LEAKS
4-1/4"ø x LENGTH AS REQUIRED LAG SCREWS WITH FENDER WASHERS, POSITIVE MECHANICAL FIXTURE CLAMP IS NOT ACCEPTABLE, SECURE TO CHANNEL.

NOTES:

1. COORDINATE ALL CEILING LOCATIONS WITH CEILING CONTRACTOR & REFLECTED CEILING PLAN.
2. ADD CHANNELS WHERE MAINS ARE ARE NOT AVAILABLE.

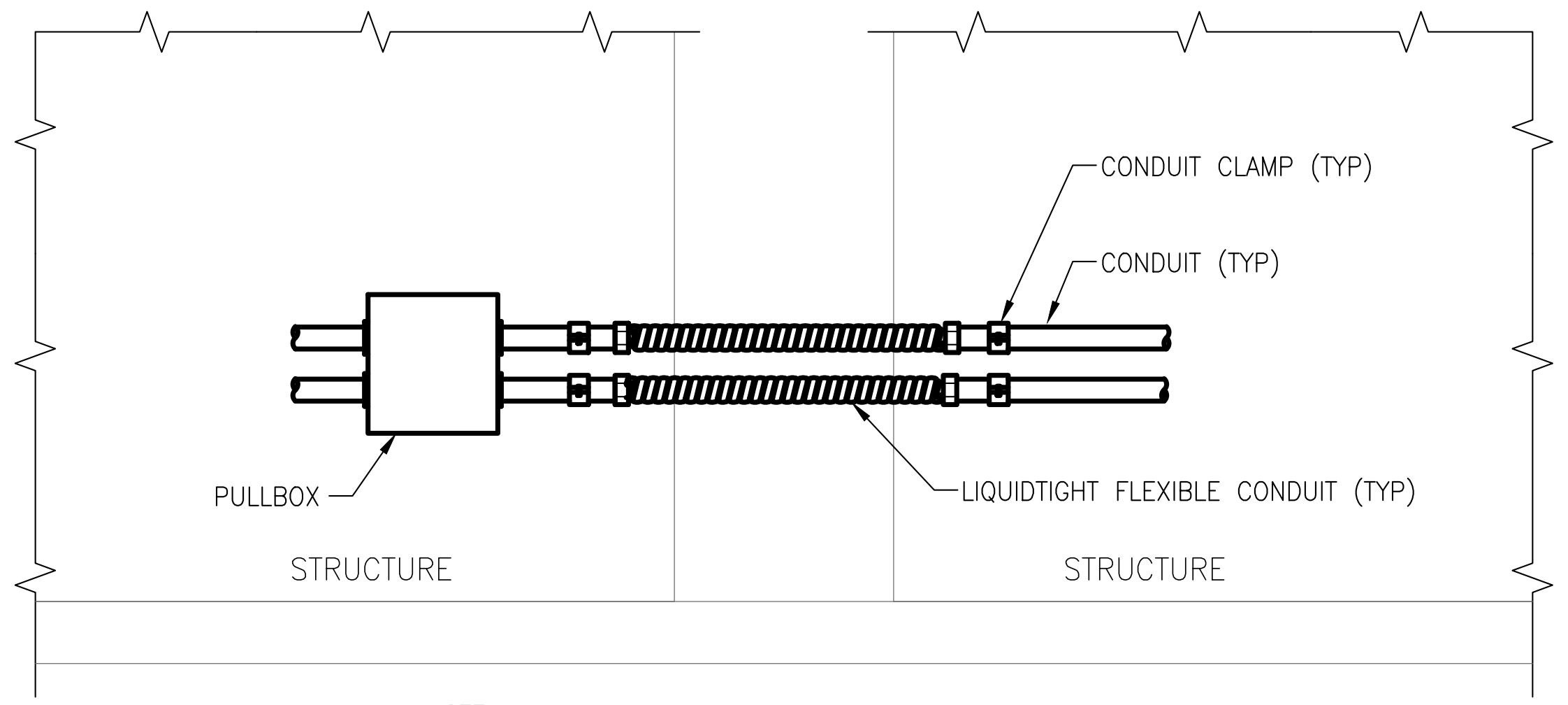
8 SURFACE MOUNTED FIXTURE

SCALE: N.T.S.


1-GANG CAST WEATHERPROOF BOX WITH SINGLE NEMA 5-20R RECEPTACLE AND WEATHERPROOF WHILE-IN-USE COVER
3/4" RIGID CONDUIT
ROOF
REFER TO 8/A531
WOOD BEAM
3/4" STEEL CONDUIT STRAP
3/4" EMT CONDUIT
3/4" CONNECTOR
3/4" LOCKNUTS
4-SQUARE BOX. MOUNT WITH TWO (2) #12 SMS

6 PEDESTAL ROOF REDCEPTACLE

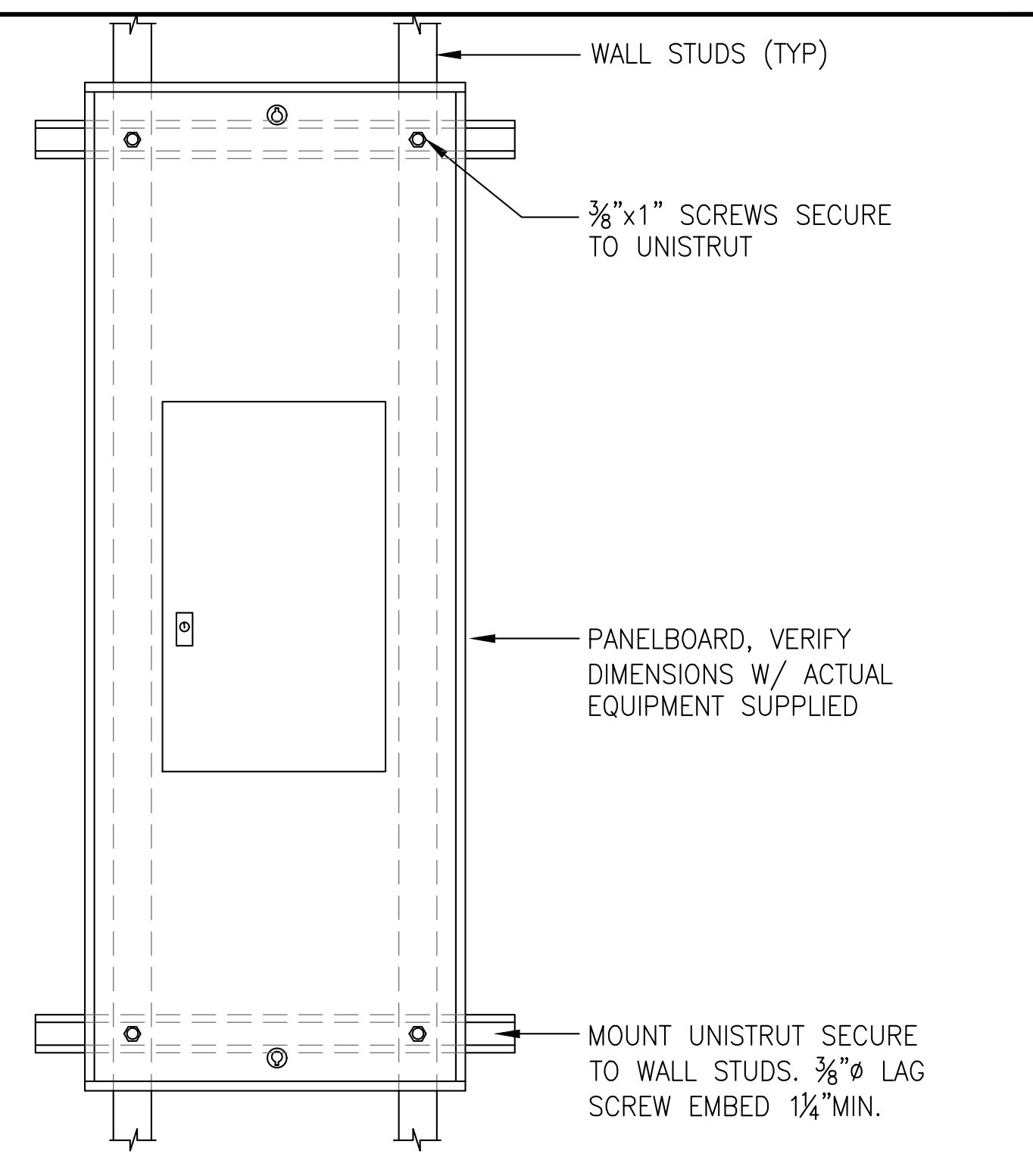
SCALE: N.T.S.



NOTE:
1. TRANSITION FOR CEILING OR WALL MOUNTED INSTANCES.
2. ALL EXPOSED EQUIPMENT TO BE PAINTED TO MATCH SURROUNDING SURFACES.
3. PROVIDE TRANSITION AT ALL SEISMIC JOINTS.

2 SEISMIC JOINT TRANSITION

SCALE: N.T.S.


WALL STUDS (TYP)
⅜"x1" SCREWS SECURE TO UNISTRUT
PANELBOARD, VERIFY DIMENSIONS W/ ACTUAL EQUIPMENT SUPPLIED
MOUNT UNISTRUT SECURE TO WALL STUDS. ⅜"ø LAG SCREW EMBED 1¼"MIN.

1 PANELBOARD MOUNTING ON STUDS

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NO. C-9824
REN. JUL.31, 2021

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No. E18090

ELECTRICAL
DETAILS

PERKINS — EASTMAN

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E502

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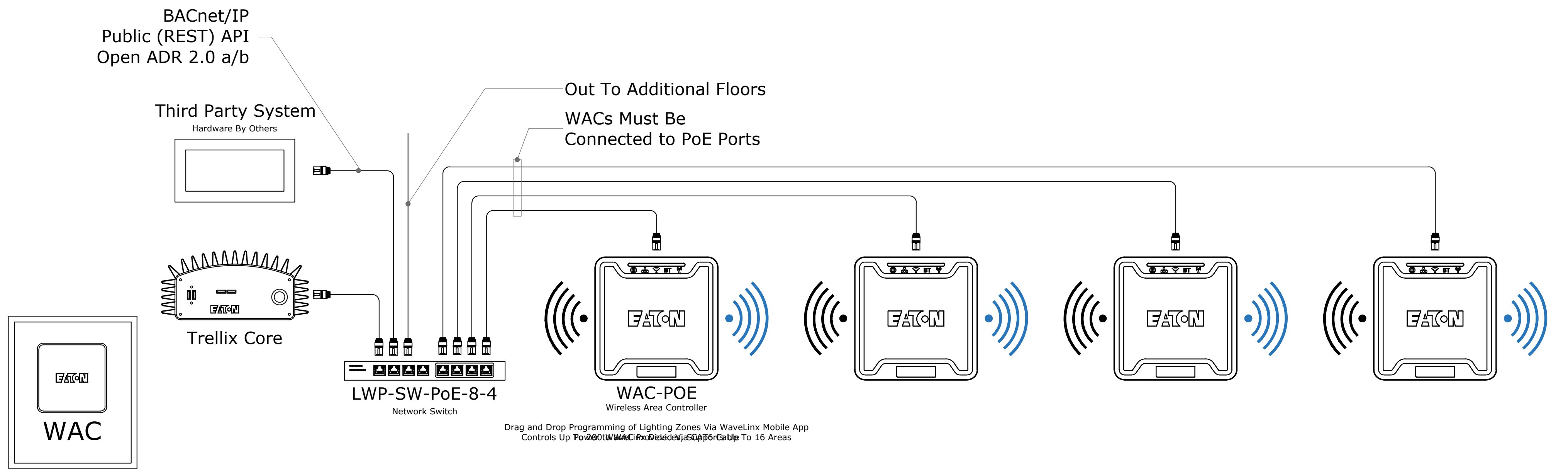
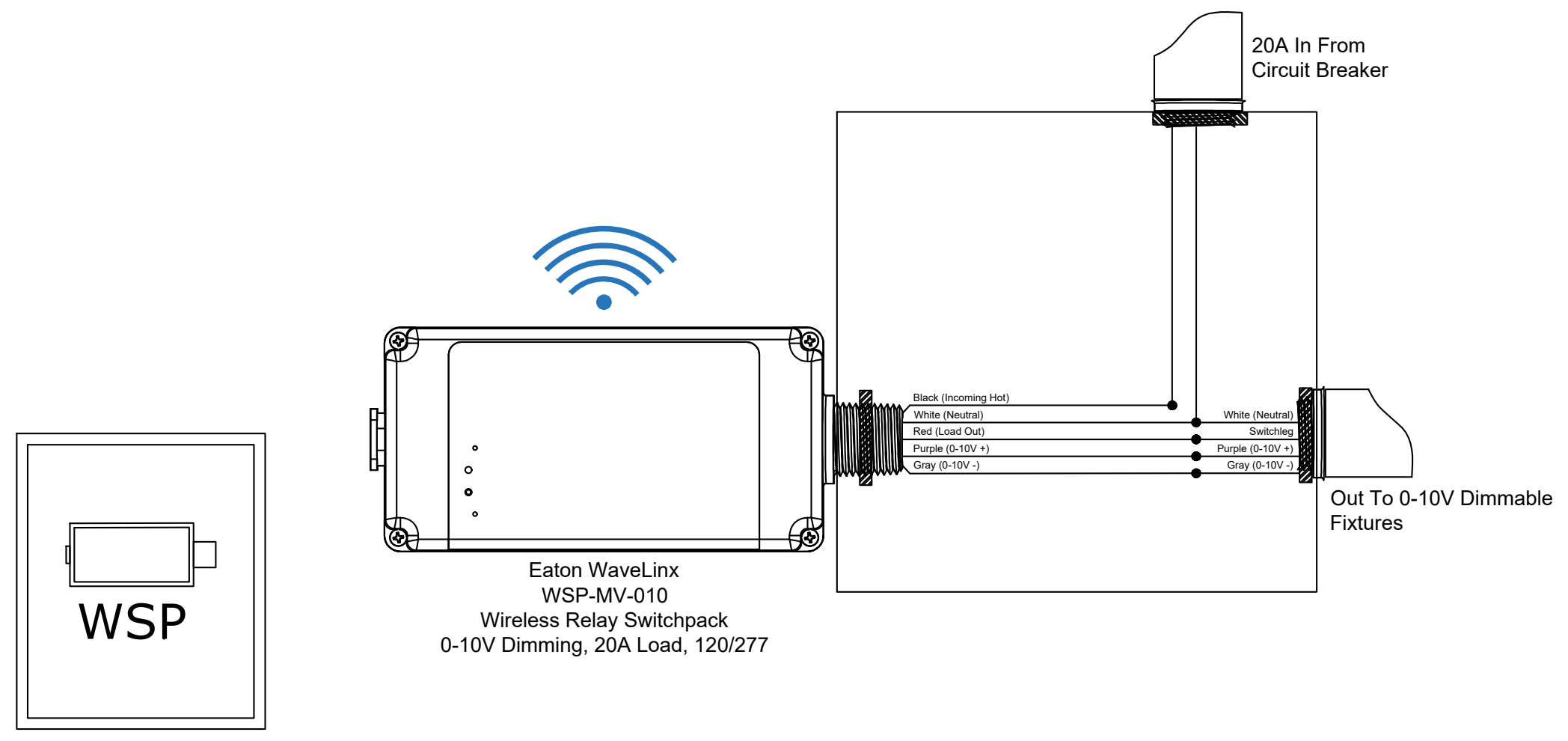
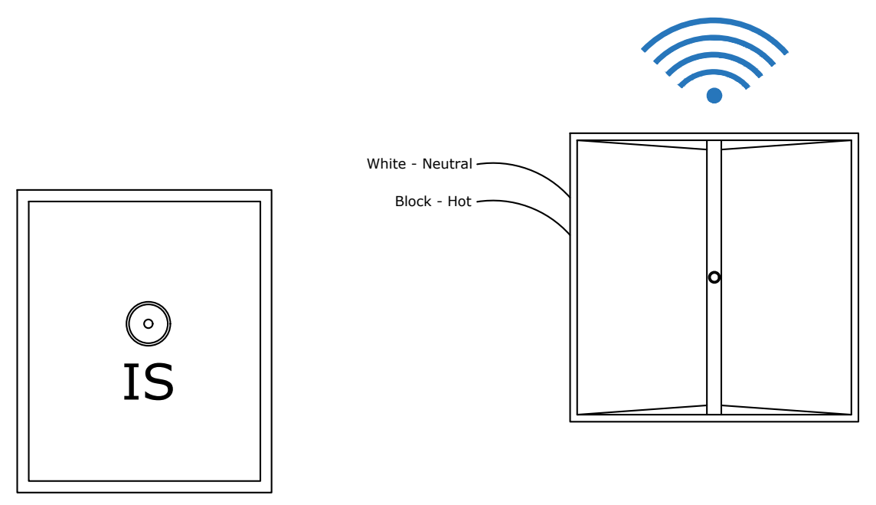


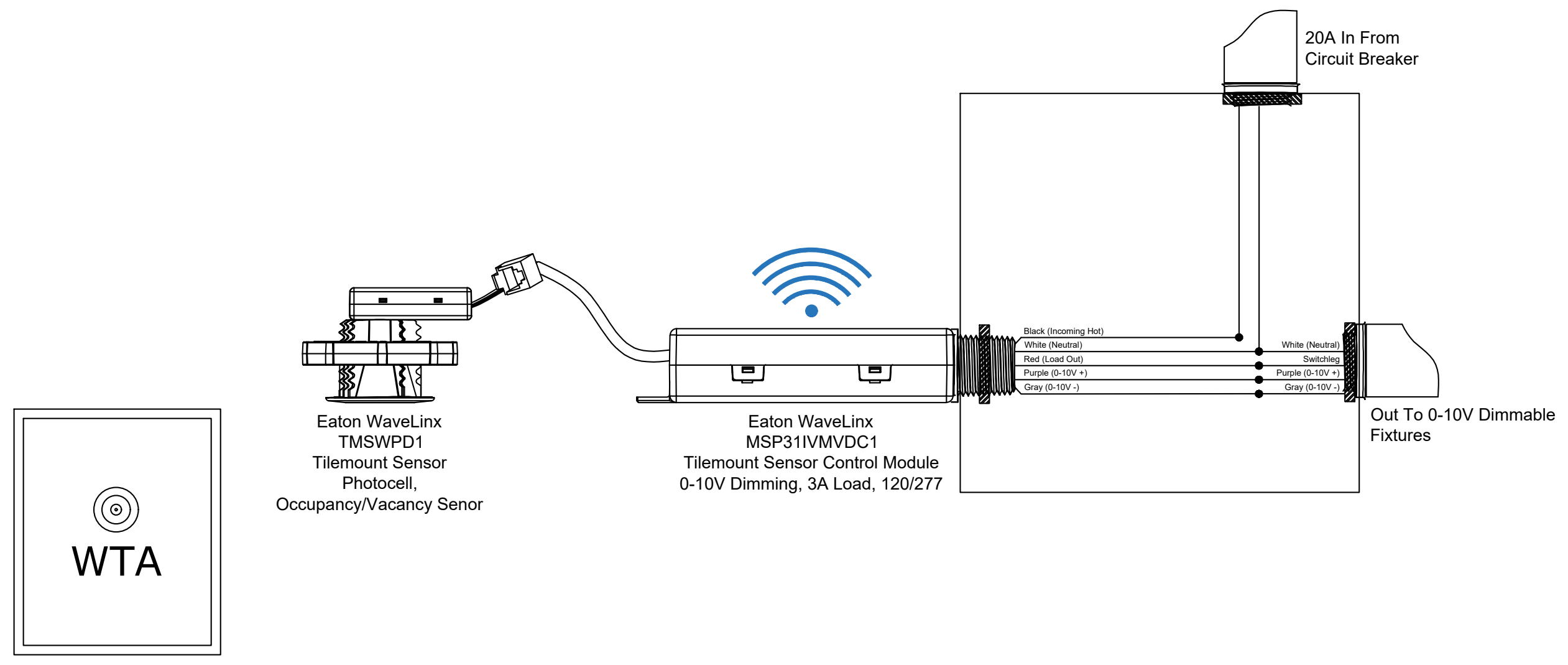
1 Model Number - WAC-PoE + Trellix Core
Controls Up To 200 WaveLinx Devices, Supports Up To 16 Areas



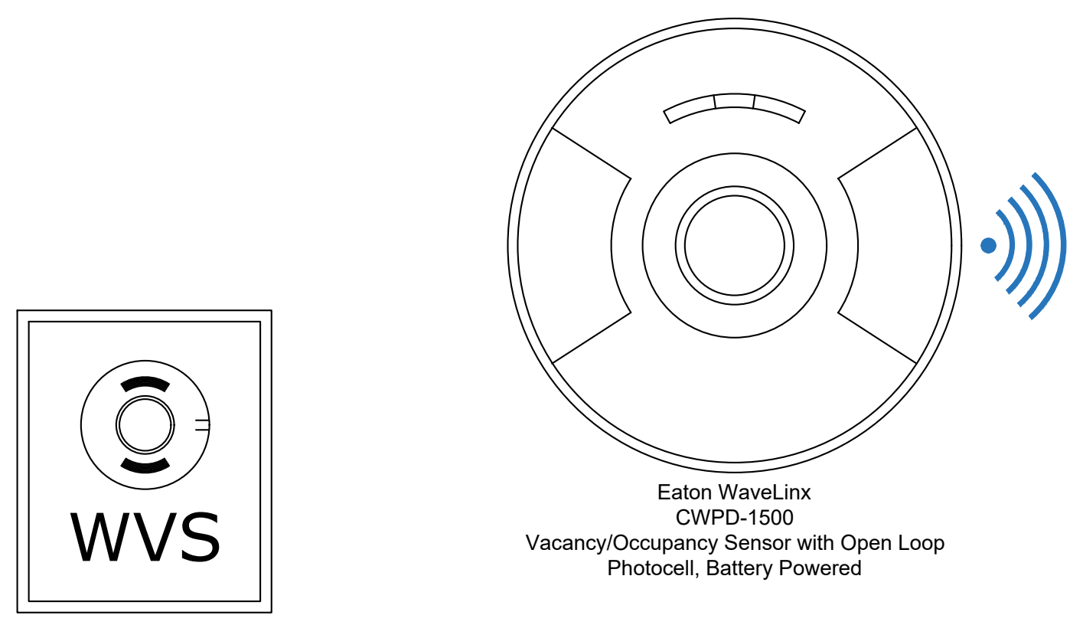
2 Model Number - WSP-MV-010
Wireless Relay Switchpack, 0-10V Dimming, 20A Load



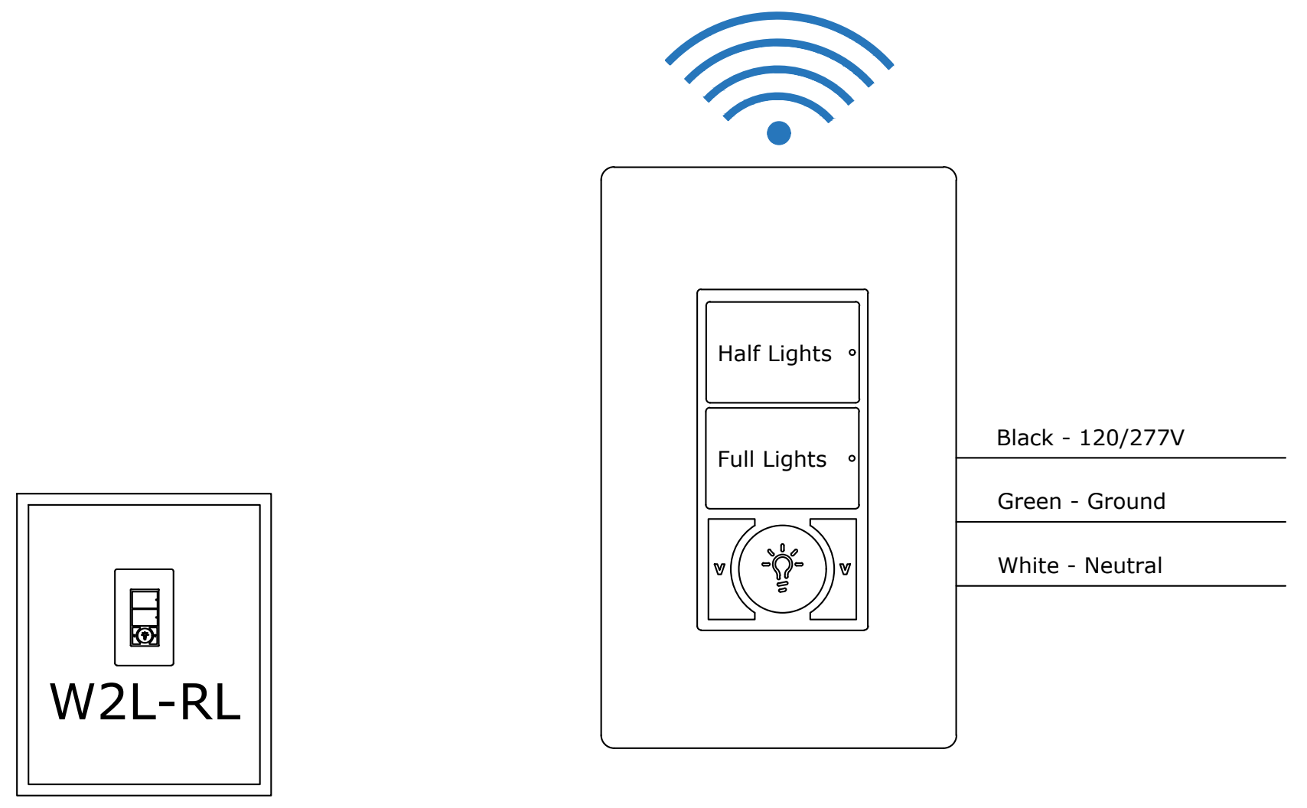
3 Model Number - WAA
Wireless Integral Occupancy/Vacancy and Photocell



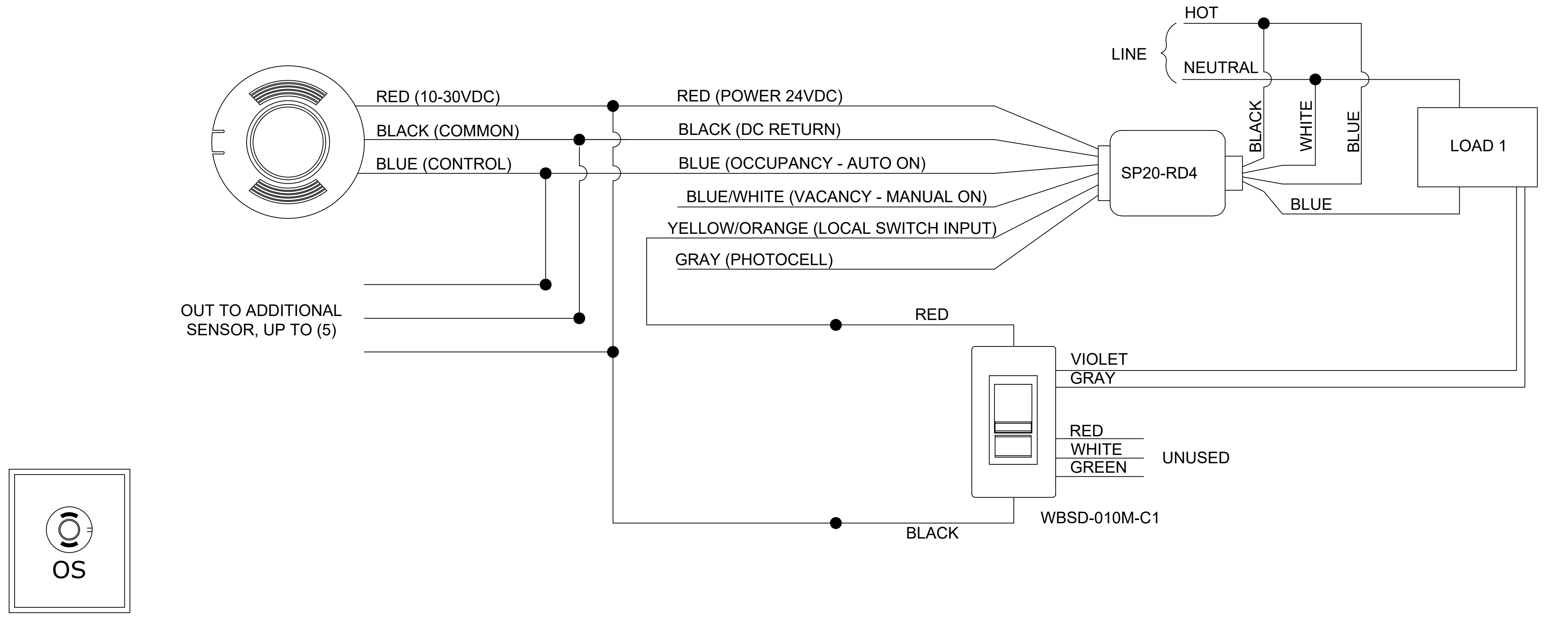
4 Model Number - WTA
Tile Mount Closed Loop Photocell, 3A Control Module Included


WVS
Eaton WaveLinx
CWPD-1500
Vacancy/Occupancy Sensor with Open Loop
Photocell, Battery Powered

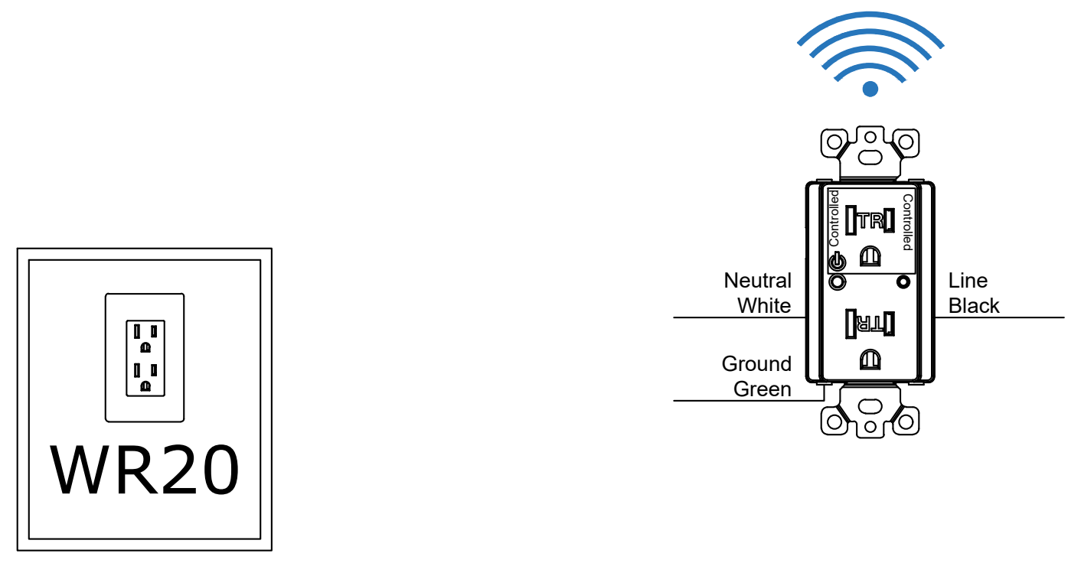
5 Model Number - CWPD-1500
Vacancy/Occupancy Sensor with Open Loop Photocell, Battery Powered



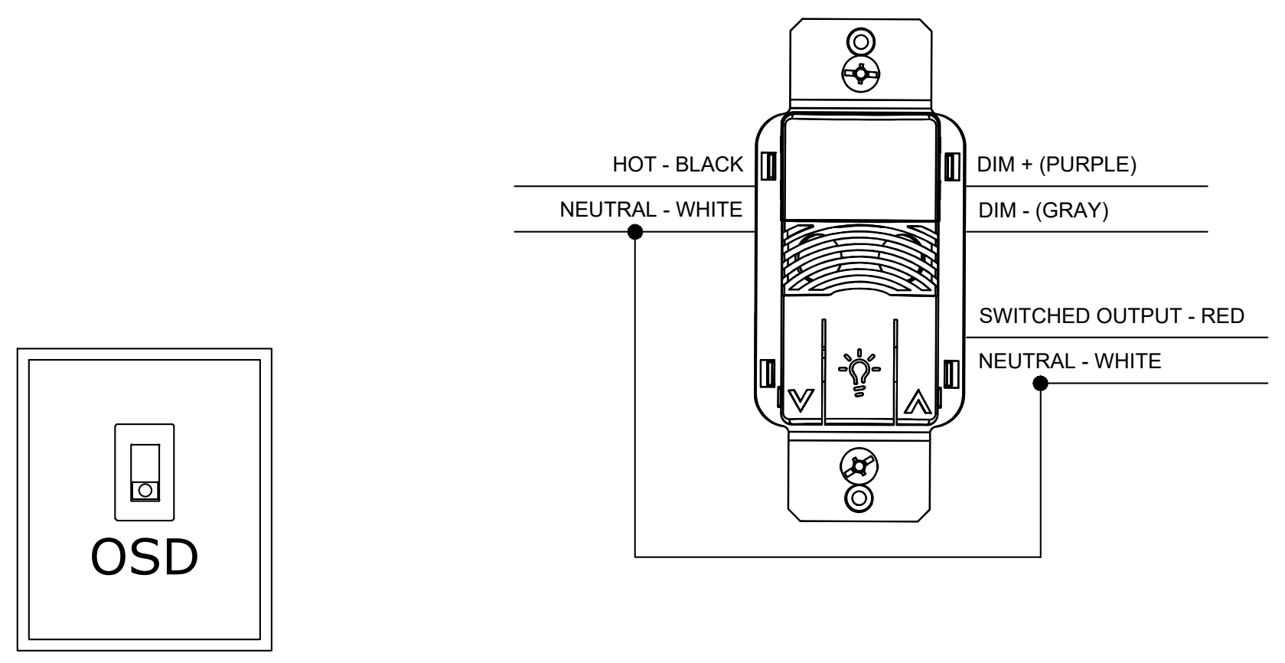
6 Model Number - W2L-RL-W
Wireless Wallstation, 2 Large Buttons, Raise/Lower, 120/277V Required



7 Sensor, Powerpack & 0-10v Dimmer Combo



8 Model Number - WR-20
Wireless Receptacle - Top Outlet Controlled, 20A



9 Model Number - OSW-D-010
Wallbox Dual Tech Vacancy Sensor and 0-10V Dimmer

1 LIGHTING CONTROL DIAGRAMS

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E503

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LIGHT FIXTURE SCHEDULE

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	MOUNTING	LAMP TYPE	VOLTS	WATTS	REMARKS
EX	LITHONIA LIGHTING	EDGX–X–G	EXIT SIGN	CEILING (RECESSED/ SURFACE)	LED	MVOLT	3	
F1	LITHONIA LIGHTING	2BLT4–40L–ADP–EZ1–E10WLCP–LP835–N100	2'X4' TROFFER FIXTURE	GRID	LED	MVOLT	38	
F1E	LITHONIA LIGHTING	2BLT4–40L–ADP–EZ1–E10WLCP–LP835–N100	SAME AS F1 EXCEPT EMERGENCY	GRID	LED	MVOLT	38	
F2	RAYON LIGHTING	RFL6–11L–35–011–6RLXX–6TLXX	6" CYLINDER FIXTURE	HARD–LID	LED	MVOLT	12.5	
F2E	RAYON LIGHTING	RFL6–11L–35–011–6RLXX–6TLXX	SAME AS F2 EXCEPT EMERGENCY	HARD–LID	LED	MVOLT	12.5	
F3	COOPER LIGHTING	LD6B15D010–EU6B10208035–6LBMXXX	6" DECORATIVE CYLINDER FIXTURE	HARD–LID	LED	MVOLT	15.5	
F4	COOPER LIGHTING	LDSQ6B15D010–EU6B10208035–6LBSQXXX	6" DECORATIVE SQUARE FIXTURE	HARD–LID	LED	MVOLT	15.5	
F5	LITHONIA LIGHTING	STL4–40L–EZ1–LP835–N100	1'X4' STRIP FIXTURE	SURFACE	LED	MVOLT	34.9	
F6	FOCAL POINT	FSM4LS–XX–375LF–35K–1C–UNV–L11–C48XX–XX–8'	4" LINEAR PENDANT FIXTURE	PENDANT	LED	MVOLT	26	
F7	FOCAL POINT	FSM2LS–XX–375LF–35K–1C–UNV–L11–C48XX–XX–6'	2" LINEAR PENDANT FIXTURE	PENDANT	LED	MVOLT	21	
F8	PRUDENTIAL LIGHTING	FLSH–LED4–SO–8'–TMW–SAL–LP–SC–UNV–DM01	8' LINEAR RECESSED FIXTURE	GRID SLOT	LED	MVOLT	30.4	
F8E	PRUDENTIAL LIGHTING	FLSH–LED4–SO–8'–TMW–SAL–LP–SC–UNV–DM01–EMHE	SAME AS F8 EXCEPT EMERGENCY	GRID SLOT	LED	MVOLT	30.4	
F9	FOCAL POINT	FSM4BS–XXXX–375DN–625UP–35K–1C–L11–C48XX–XX–XX–4'	4' LINEAR PENDANT FIXTURE	PENDANT	LED	MVOLT	37	
FX1	LITHONIA LIGHTING	CLX–L24–2500LM–SEF–FDL–WD–MVOLT–GZ1–35K–80CRI	2' SURFACE MOUNT EXTERIOR FIXTURE	CANOPY	LED	MVOLT	19.9	
FX2	COOPER LIGHTING	LD8B15D010–ER8B10208035–8LBMXXX	10" RECESSED EXTERIOR FIXTURE	HARD–LID	LED	MVOLT	19.9	
FX3	LITHONIA LIGHTING	DSXB–LED–16C–350–30K–SYM–MVOLT–PE–H36–XX	BOLLARD	GROUND	LED	MVOLT	20	
FX4	COOPER LIGHTING	GAN–SA4A–830–U–T4FT–ADJA–WM–XX–MS/X–L20	FLOOD LIGHT	WALL MOUNT	LED	MVOLT	129	
FX5	COOPER LIGHTING	FIXTURE: GAN–SA4A–830–U–T4FT–ADJA–XX–MS/X–L20 POLE: SSS–6–X–15–S–XX–XX–1–X	FLOOD LIGHT WITH POLE	POLE	LED	MVOLT	129	

INTERIOR LIGHTING FIXTURE NOTES

1. ALL FIXTURE DRIVERS SHALL BE U.L. APPROVED AND CERTIFIED PER C.E.C 2–111.
2. VERIFY CATALOG NUMBER PRIOR TO BIDDING OR PURCHASING.
3. ALL LED FIXTURE SHALL BE 3500 K UNLESS OTHERWISE NOTED.
4. SOME FIXTURES REQUIRE TO BE DIMMABLE. FIXTURE'S DIMMING BALLAST SHALL BE COMPATIBLE WITH DIMMER. SEE PLANS FOR LOCATIONS AND FIXTURES.
5. LUMINAIRE CATALOG NUMBERS USED TO ILLUSTRATE LUMINAIRE TYPE DO NOT NECESSARILY DENOTE REQUIRED MOUNTING. COORDINATE LUMINAIRE INSTALLATION WITH REFLECTED CEILING DRAWINGS. PROVIDE APPROPRIATE MOUNTING FRAME/KIT PER CEILING PLAN AND/OR FINISH.

FEEDER SCHEDULE

3-PHASE FEEDER SCHEDULE

FEEDER DESIGNATION ⬡XX	No. OF SETS	PHASE CONDUCTOR (PER SET)	'N' NEUTRAL CONDUCTOR (PER SET)	'G' GROUND CONDUCTOR (PER SET)	'SG' SYSTEM BONDING JUMPER (PER SET)	CONDUIT SIZE FOR 3-PHASE & GROUND (G OR GEC) (PER SET)	CONDUIT SIZE FOR 3-PHASE & NEUTRAL & GROUND (G OR GEC) (PER SET)
20	1	(3) #10	#10	#10	#8	3/4"C	3/4"C
30	1	(3) #10	#10	#10	#8	3/4"C	3/4"C
40	1	(3) #8	#8	#10	#8	3/4"C	3/4"C
50	1	(3) #6	#6	#10	#8	1"C	1"C
60	1	(3) #4	#4	#10	#8	1–1/4"C	1–1/4"C
70	1	(3) #4	#4	#8	#8	1–1/4"C	1–1/4"C
80	1	(3) #2	#2	#8	#8	1–1/2"C	1–1/2"C
90	1	(3) #2	#2	#8	#8	1–1/2"C	1–1/2"C
100	1	(3) #1	#1	#8	#6	1–1/2"C	2"C
125	1	(3) #1	#1	#6	#6	1–1/2"C	2"C
150	1	(3) #1/0	#1/0	#6	#6	1–1/2"C	2"C
175	1	(3) #2/0	#2/0	#6	#4	2"C	2"C
200	1	(3) #3/0	#3/0	#6	#4	2"C	2–1/2"C
225	1	(3) #4/0	#4/0	#4	#2	2–1/2"C	2–1/2"C
250	1	(3) #250 Kcmil	#250 Kcmil	#4	#2	2–1/2"C	3"C
300	1	(3) #350 Kcmil	#350 Kcmil	#4	#2	3"C	3"C
350	1	(3) #500 Kcmil	#500 Kcmil	#3	#1/0	4"C	4"C
400	1	(3) #600 Kcmil	#600 Kcmil	#3	#1/0	4"C	4"C
450	2	(3) #4/0	#4/0	#2	#1/0	2–1/2"C	2–1/2"C
500	2	(3) #250 Kcmil	#250 Kcmil	#2	#1/0	2–1/2"C	3"C
600	2	(3) #350 Kcmil	#350 Kcmil	#1	#2/0	3"C	3"C
700	2	(3) #500 Kcmil	#500 Kcmil	#1/0	#2/0	4"C	4"C
800	3	(3) #300 Kcmil	#300 Kcmil	#1/0	#2/0	3"C	3"C
1000	3	(3) #400 Kcmil	#400 Kcmil	#2/0	#3/0	3"C	3–1/2"C
1200	4	(3) #350 Kcmil	#350 Kcmil	#3/0	#3/0	3"C	3"C
1600	5	(3) #400 Kcmil	#400 Kcmil	#4/0	#3/0	3"C	3–1/2"C
2000	5	(3) #600 Kcmil	#600 Kcmil	#250 Kcmil	#3/0	4"C	4"C
2500	6	(3) #600 Kcmil	#600 Kcmil	#350 Kcmil	#3/0	4"C	4"C
3000	8	(3) #600 Kcmil	#600 Kcmil	#400 Kcmil	#3/0	4"C	4"C
4000	10	(3) #600 Kcmil	#600 Kcmil	#500 Kcmil	#3/0	4"C	4"C

EXAMPLES:

A. 300G = INDICATES (1) SET OF [3"C. – (3)#350 Kcmil + #4 GROUND CONDUCTOR].
B. 300SG = INDICATES (1) SET OF [3"C. – (3)#350 Kcmil + #2 GROUND CONDUCTOR].
C. 300NG = INDICATES (1) SET OF [3"C. – (3)#350 Kcmil + (1)#350 Kcmil NEUTRAL + #4 GROUND CONDUCTOR].
D. 300NSG = INDICATES (1) SET OF [3"C. – (3)#350 Kcmil + (1)#350 Kcmil NEUTRAL + #2 GROUND CONDUCTOR].
E. 600NG = INDICATES (2) SET OF [3"C. – (3)#350 Kcmil + (1)#350 Kcmil NEUTRAL + #1 GROUND CONDUCTOR].

NOTES:

1. ALL CONDUCTORS SHALL BE COPPER, THHN–2 or THWN–2.
2. NOT ALL FEEDERS ON THIS SCHEDULE ARE NECESSARILY USED ON THIS PROJECT.

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ELECTRICAL
SCHEDULES

E601

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PANEL ID: LHP-1

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 225 A **MAIN:** 225 A **TYPE:**
LOCATION ELECTRICAL 207 **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
SHP-MDF		2	20	1	850	850					2	20	2		SHP-7
				3			850	850			4				
SHP-8		2	20	5					850	850	6	20	2		SHP-3
				7	850	850					8				
EF-2		1	20	9			700	850			10	20	2		SHP-2
EF-4		1	20	11					700	850	12				
HP-9		2	20	13	750	850					14	20	2		SHP-1
				15			750	850			16				
SPARE		1	20	17					0	360	18	20	1		DRINKING FAOUNTAIN
EF-ELEC		1	20	19	700	360					20	20	1		ROOF RECEPTACLE
EF-1		1	20	21			700	360			22	20	1		ROOF RECEPTACLE
SPARE		1	20	23					0	250	24	20	2		INSTANT WATER HEATER
SHP-6		2	20	25	850	250					26				
				27			850	3120			28	20	2		INSTANT WATER HEATER
SHP-4		2	20	29					850	3120	30				
				31	850	3120					32	20	2		INSTANT WATER HEATER
SHP-5		2	20	33			850	3120			34				
				35					850	3120	36	20	2		INSTANT WATER HEATER
SPARE		1	20	37	0	3120					38				
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					14250 VA **121 A**		**13850 VA** **118 A**		**11800 VA** **98 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	38820 VA	100.00%	38820 VA		
Receptacle	1080 VA	100.00%	1080 VA	**CONNECTED LOAD**	**39900 VA**
				DEMAND LOAD	**39900 VA**
				AVG. CONNECTED CURRENT	**111 A**
				AVG. DEMAND CURRENT	**111 A**

NOTES:

Branch Panel: LDP-1

Location: ELECTRICAL 207
Supply From:
Mounting: FREE STANDING
Enclosure: TYPE 1
Volts: 208Y/120
Phases: 3
Wires: 4
A.I.C. Rating: 42KAIC
Mains Type: LSIG
Mains Rating: 1200 A
MCB Rating: 1200 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LTP-1	100 A	3	2027...	2440...					3	100 A	LLP-3	2
3						2027...	1792...						4
5								2027...	1898...				6
7	LPP-1	100 A	3	6574...	3652...					3	225 A	LHP-3	8
9						7034...	3664...						10
11								4380...	3675...				12
13	LPP-2	100 A	3	4160...	8116...					3	100 A	LPP-3	14
15						7040...	5040...						16
17								4240...	4320...				18
19	LLP-1	100 A	3	2647...	1045...					3	100 A	LLP-2	20
21						1408...	773 VA						22
23								1062...	200 VA				24
25	LHP-1	225 A	3	1425...	--					3	--	SPACE	26
27						1385...	--						28
29								1180...	--				30
31	LHP-2	225 A	3	2505...	--					3	--	SPACE	32
33						2455...	--						34
35								2015...	--				36
37	LPP-4	20 A	3	3770...	--					3	--	SPACE	38
39						2970...	--						40
41								2160...	--				42
			Total Load:	106480 VA		103075 VA		88950 VA					
			Total Amps:	905 A		877 A		741 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	3844 VA	100.00%	3844 VA		
Power	242000 VA	100.00%	242000 VA	**Total Conn. Load:**	298504 VA
Lighting	973 VA	125.00%	1217 VA	**Total Est. Demand:**	278960 VA
Receptacle	46540 VA	60.74%	28270 VA	**Total Conn. Current:**	829 A
Lighting - Dwelling Unit	5442 VA	70.83%	3855 VA	**Total Est. Demand Current:**	774 A

Notes:

PANEL ID: LLP-1

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 100 A **MAIN:** 100 A **TYPE:**
LOCATION ELECTRICAL 207 **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
LIGHTING - DWELLING UNIT		1	20	1	824	200					2	20	1		EXTERIOR ENTRY/COURTYARD
LIGHTING - DWELLING UNIT FOOD SERVICE...		1	20	3			143	119			4	20	1		SOUTH EXTERIOR LIGHTING
LIGHTING - DWELLING UNIT		1	20	5					364	60	6	20	1		WEST EXTEIROR LIGHTING
LIGHTING - DWELLING UNIT PRINCIPAL 211		1	20	7	456	123					8	20	1		NORTH EXTERIOR LIGHTING
LIGHTING STORAGE 208		1	20	9			86	60			10	20	1		EXTERIOR BOLLARD LIGHTING
SPARE		1	20	11					0	180	12	20	1		RECEPTACLE ELECTRICAL 207
SPARE		1	20	13	0	0					14	20	1		SPARE
SPARE		1	20	15			0	0			16	20	1		SPARE
SPARE		1	20	17					0	0	18	20	1		SPARE
SPARE		1	20	19	0	0					20	20	1		SPARE
SPARE		1	20	21			0	0			22	20	1		SPARE
SPARE		1	20	23					0	0	24	20	1		SPARE
SPARE		1	20	25	0	0					26	20	1		SPARE
SPARE		1	20	27			0	0			28	20	1		SPARE
SPARE		1	20	29					0	0	30	20	1		SPARE
SPARE		1	20	31	0	0					32	20	1		SPARE
SPARE		1	20	33			0	0			34	20	1		SPARE
SPARE		1	20	35					0	0	36	20	1		SPARE
INVERTER		3	30	37	1049	0					38	20	1		SPARE
				39			1006	0			40	20	1		SPARE
				41					467	0	42	20	1		SPARE
					2647 VA **23 A**		**1408 VA** **12 A**		**1062 VA** **9 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	1232 VA	100.00%	1232 VA		
Lighting	808 VA	125.00%	1009 VA	**CONNECTED LOAD**	**5115 VA**
Receptacle	180 VA	100.00%	180 VA	**DEMAND LOAD**	**5317 VA**
Lighting - Dwelling Unit	2946 VA	100.00%	2946 VA	**AVG. CONNECTED CURRENT**	**14 A**
				AVG. DEMAND CURRENT	**15 A**

NOTES:
WH

PANEL ID: LHP-3

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 400 A **MAIN:** 400 A **TYPE:**
LOCATION STORAGE 230 **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
WH-3		3	20	1	1500	2303					2	20	3		HP-6
				3			1500	2303			4				
				5					1500	2303	6				
CP-1		1	20	7	100	2303					8	20	3		HP-5
SHP-IDF		2	20	9			915	2303			10				
				11					915	2303	12				
EF-3		1	20	13	700	2303					14	20	3		HP-7
SPARE		1	20	15			0	2303			16				
SPARE		1	20	17					0	2303	18				
ROOF RECEPTACLE		1	20	19	360	2303					20	20	3		HP-8
ROOF RECEPTACLE		1	20	21			360	2303			22				
ROOF RECEPTACLE		1	20	23					360	2303	24				
SPARE		1	20	25	0	10651					26	20	3		HP-A
SPARE		1	20	27			0	10651			28				
SPARE		1	20	29					0	10651	30				
SPARE		1	20	31	0	1271					32	20	3		HP-A POWER EXHAUST
SPARE		1	20	33			0	1271			34				
SPARE		1	20	35					0	1271	36				
SPARE		1	20	37	0	12730					38	150	3		LHP-4
SPARE		1	20	39			0	12730			40				
SPARE		1	20	41					0	12840	42				
					36526 VA **304 A**		**36641 VA** **305 A**		**36751 VA** **306 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	108478 VA	100.00%	108478 VA		
Receptacle	1440 VA	100.00%	1440 VA	**CONNECTED LOAD**	**109918 VA**
				DEMAND LOAD	**109918 VA**
				AVG. CONNECTED CURRENT	**305 A**
				AVG. DEMAND CURRENT	**305 A**

NOTES:

PANEL ID: LHP-2

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 225 A **MAIN:** 225 A **TYPE:**
LOCATION CUSTODIAL STORAG... **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
SHP-MDF		2	20	1	915	360					2	20	1		ROOF RECEPTACLE
				3			915	360			4	20	1		ROOF RECEPTACLE
SPARE		1	20	5					0	0	6	20	1		SPARE
HP-1		3	30	7	1919	3120					8	20	2		INSTANT WATER HEATER
				9			1919	3120			10				
				11					1919	3120	12	20	2		INSTANT WATER HEATER
HP-2		3	30	13	1919	3120					14				
				15			1919	3120			16	20	2		INSTANT WATER HEATER
				17					1919	3120	18				
HP-3		3	30	19	1919	3120					20	20	2		INSTANT WATER HEATER
				21			1919	3120			22				
				23					1919	3120	24	20	2		INSTANT WATER HEATER
HP-4		3	30	25	1919	3120					26				
				27			1919	3120			28	20	2		INSTANT WATER HEATER
				29					1919	3120	30				
EF-6		1	20	31	500	3120					32	20	2		INSTANT WATER HEATER
SPARE		1	20	33			0	3120			34				
SPARE		1	20	35					0	0	36	20	1		SPARE
SPARE		1	20	37	0	0					38	20	1		SPARE
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					25051 VA **214 A**		**24551 VA** **210 A**		**20156 VA** **168 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	69038 VA	100.00%	69038 VA		
Receptacle	720 VA	100.00%	720 VA	**CONNECTED LOAD**	**69758 VA**
				DEMAND LOAD	**69758 VA**
				AVG. CONNECTED CURRENT	**194 A**
				AVG. DEMAND CURRENT	**194 A**

NOTES:

PANEL ID: LPP-1

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 100 A **MAIN:** 100 A **TYPE:**
LOCATION ELECTRICAL 207 **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
POWERED EXTERIOR SIGN		2	20	1	1664	250					2	20	2		POWER
				3			1664	250			4				
RECEPTACLE MDF ROOM 206		1	20	5					360	360	6	20	1		ELEC RM REC
CONV REC CHNG RM 133/WEL CEN 133		1	20	7	720	1500					8	20	3		WH-2
TV WEL CEN 133/PRINCPL 115		1	20	9			1500	1500			10				
RECEP DESK REC 118		1	20	11					720	1500	12				
CNTL REC 118/115		1	20	13	540	100					14	20	1		CP-1
CNTL CONV REC 118/115		1	20	15			540	500			16	20	1		FA PANEL 1
PRINCPL DESK 115		1	20	17					360	0	18	20	1		SPARE
RECEPTACLE RESTROOM 223		1	20	19	720	0					20	20	1		SPARE
RECEPTACLE NURSE 220		1	20	21			720	0			22	20	1		SPARE
RECEPTACLE NURSE 220		1	20	23					360	0	24	20	1		SPARE
RECEPTACLE INCENTIVE ROOM 212		1	20	25	360	0					26	20	1		SPARE
RECEPTACLE INCENTIVE ROOM 212		1	20	27			360	0			28	20	1		SPARE
RECEPTACLE STAFF'S LOUNGE 221		1	20	29					720	0	30	20	1		SPARE
RECEPTACLE STAFF'S LOUNGE 221		1	20	31	720	0					32	20	1		SPARE
SPARE		1	20	33			0	0			34	20	1		SPARE
SPARE		1	20	35					0	0	36	20	1		SPARE
SPARE		1	20	37	0	0					38	20	1		SPARE
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					6574 VA **58 A**		**7034 VA** **61 A**		**4380 VA** **37 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	8928 VA	100.00%	8928 VA		
Receptacle	9060 VA	100.00%	9060 VA	**CONNECTED LOAD**	**17988 VA**
				DEMAND LOAD	**17988 VA**
				AVG. CONNECTED CURRENT	**50 A**
				AVG. DEMAND CURRENT	**50 A**

NOTES:

PANEL ID: LLP-3

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 100 A **MAIN:** 100 A **TYPE:**
LOCATION **PANEL AIC:**

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
CLASSROOM LTG		1	20	1	620	600					2	20	1		SKYLIGHT
CLASSROOM LTG		1	20	3			620	600			4	20	1		SKYLIGHT
CLASSROOM LTG		1	20	5					620	600	6	20	1		SKYLIGHT
CLASSROOM LTG		1	20	7	620	600					8	20	1		SKYLIGHT
CLASSROOM LTG		1	20	9			72	500			10	20	1		SKYLIGHT
CLASSROOM LTG		1	20	11					700	0	12	20	1		SPARE
SPARE		1	20	13	0	0					14	20	1		SPARE
SPARE		1	20	15			0	0			16	20	1		SPARE
SPARE		1	20	17					0	0	18	20	1		SPARE
SPARE		1	20	19	0	0					20	20	1		SPARE
SPARE		1	20	21			0	0			22	20	1		SPARE
SPARE		1	20	23					0	0	24	20	1		SPARE
SPARE		1	20	25	0	0					26	20	1		SPARE
SPARE		1	20	27			0	0			28	20	1		SPARE
SPARE		1	20	29					0	0	30	20	1		SPARE
					2440 VA **20 A**		**1792 VA** **15 A**		**1898 VA** **16 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	2552 VA	100.00%	2552 VA		
Power	2900 VA	100.00%	2900 VA	**CONNECTED LOAD**	**6121 VA**
Lighting - Dwelling Unit	700 VA	100.00%	700 VA	**DEMAND LOAD**	**6121 VA**
				AVG. CONNECTED CURRENT	**17 A**
				AVG. DEMAND CURRENT	**17 A**

NOTES:

PANEL ID: LLP-2

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 100 A **MAIN:** 100 A **TYPE:**
LOCATION CUSTODIAL STORAG... **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
LIGHTING - DWELLING UNIT STAFF WORK...		1	20	1	380	608					2	20	1		LIGHTING - DWELLING UNIT CLASSROOM 1 81
LIGHTING		1	20	3			172	608			4	20	1		LIGHTING - DWELLING UNIT CLASSROOM 3 83
LIGHTING - DWELLING UNIT		1	20	5					200	0	6	20	1		SPARE
OTHER		1	20	7	60	0					8	20	1		SPARE
SPARE		1	20	9			0	0			10	20	1		SPARE
SPARE		1	20	11					0	0	12	20	1		SPARE
SPARE		1	20	13	0	0					14	20	1		SPARE
SPARE		1	20	15			0	0			16	20	1		SPARE
SPARE		1	20	17					0	0	18	20	1		SPARE
SPARE		1	20	19	0	0					20	20	1		SPARE
SPARE		1	20	21			0	0			22	20	1		SPARE
SPARE		1	20	23					0	0	24	20	1		SPARE
SPARE		1	20	25	0	0					26	20	1		SPARE
SPARE		1	20	27			0	0			28	20	1		SPARE
SPARE		1	20	29					0	0	30	20	1		SPARE
					1045 VA **9 A**		**773 VA** **7 A**		**200 VA** **2 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	60 VA	100.00%	60 VA		
Lighting	172 VA	125.00%	215 VA	**CONNECTED LOAD**	**2017 VA**
Lighting - Dwelling Unit	1796 VA	100.00%	1796 VA	**DEMAND LOAD**	**2059 VA**
				AVG. CONNECTED CURRENT	**6 A**
				AVG. DEMAND CURRENT	**6 A**

NOTES:

GENERAL SHEET NOTES

A. CONTRACTOR SHALL PROVIDE EITHER HANDLE TIES OR MULTI-POLE CIRCUIT BREAKERS FOR MULTI-WIRE BRANCH CIRCUITS WHERE THE BRANCH CIRCUITS ORIGINATES AS A SIMULTANEOUS DISCONNECTING MEANS AS REQUIRED PER CALIFORNIA ELECTRICAL CODE. CONTRACTOR SHALL REFLECT THESE CHANGES IN SUBMITALL TO BE APPROVED BY ENGINEER OF RECORD.

REFERENCE SHEET NOTES

1. PROVIDE RED CIRCUIT BREAKER AND RED LOCKABLE DEVICE FOR FIRE ALARM CIRUITS. MARK CIRCUIT BREAKER WITH 'FIRE ALARM' AS REQUIRED BY CODE.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-98[illegible]
REN. JUL. 31, 2021

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E602

PANEL ID: LPP-4 VOLTAGE: 208Y/120 SERVICE EQUIP: MOUNTING: Surface
SOURCE: LDP-1 AMPS: 100 A MAIN: 100 A TYPE:
LOCATION PANEL AIC: 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
RECEPTACLE CLASSROOM 5 177		1	20	1	720	750					2	20	2		POWER
RECEPTACLE CLASSROOM 5 177		1	20	3			360	750			4				
RECEPTACLE CLASSROOM 5 177		1	20	5					360	360	6	20	1		RECEPTACLE
RECEPTACLE CLASSROOM 5 177		1	20	7	720	360					8	20	1		RECEPTACLE IDF CLOSET 232
RECEPTACLE CLASSROOM 5 177		1	20	9			1000	0			10	20	1		SPARE
RECEPTACLE CLASSROOM 8 179		1	20	11					720	0	12	20	1		SPARE
RECEPTACLE CLASSROOM 8 179		1	20	13	720	0					14	20	1		SPARE
RECEPTACLE CLASSROOM 8 179		1	20	15			360	0			16	20	1		SPARE
RECEPTACLE CLASSROOM 5 177		1	20	17					360	0	18	20	1		SPARE
POWER CLASSROOM 8 179		1	20	19	500	0					20	20	1		SPARE
POWER CLASSROOM 8 179		1	20	21			500	0			22	20	1		SPARE
RECEPTACLE STORAGE 230		1	20	23					360	0	24	20	1		SPARE
SPARE		1	20	25	0	0					26	20	1		SPARE
SPARE		1	20	27			0	0			28	20	1		SPARE
SPARE		1	20	29					0	0	30	20	1		SPARE
SPARE		1	20	31	0	0					32	20	1		SPARE
SPARE		1	20	33			0	0			34	20	1		SPARE
SPARE		1	20	35					0	0	36	20	1		SPARE
SPARE		1	20	37	0	0					38	20	1		SPARE
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					3770 VA **32 A**		**2970 VA** **26 A**		**2160 VA** **18 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	2500 VA	100.00%	2500 VA		
Receptacle	6400 VA	100.00%	6400 VA	**CONNECTED LOAD**	**8900 VA**
				DEMAND LOAD	**8900 VA**
				AVG. CONNECTED CURRENT	**25 A**
				AVG. DEMAND CURRENT	**25 A**

NOTES:

PANEL ID: LPP-3 VOLTAGE: 208Y/120 SERVICE EQUIP: MOUNTING: Surface
SOURCE: LDP-1 AMPS: 100 A MAIN: 100 A TYPE:
LOCATION CUSTODIAL STORAG... PANEL AIC: 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
RECEPTACLE CONFERENCE ROOM 222		1	20	1	500	1000					2	20	1		RECEPTACLE CLASSROOM 1 81
RECEPTACLE CONFERENCE ROOM 222		1	20	3			720	720			4	20	1		RECEPTACLE CLASSROOM 1 81
RECEPTACLE CONFERENCE ROOM 222		1	20	5					360	1080	6	20	1		RECEPTACLE CLASSROOM 1 81
RECEPTACLE SMALL OFFICE 3 217		1	20	7	720	1080					8	20	1		RECEPTACLE CLASSROOM 1 81
RECEPTACLE SMALL OFFICE 1 215		1	20	9			360	720			10	20	1		RECEPTACLE CLASSROOM 1 81
RECEPTACLE SMALL OFFICE 3 217		1	20	11					540	720	12	20	1		RECEPTACLE CLASSROOM 3 83
RECEPTACLE SMALL OFFICE 3 217		1	20	13	540	1000					14	20	1		RECEPTACLE CLASSROOM 3 83
RECEPTACLE		1	20	15			720	1260			16	20	1		RECEPTACLE CLASSROOM 3 83
RECEPTACLE		1	20	17					180	900	18	20	1		RECEPTACLE CLASSROOM 3 83
RECEPTACLE SMALL OFFICE 5 225		1	20	19	720	1656					20	20	1		POWER STAFF WORK ROOM 213
RECEPTACLE SMALL OFFICE 5 225		1	20	21			360	0			22	20	1		SPARE
RECEPTACLE SMALL OFFICE 5 225		1	20	23					360	0	24	20	1		SPARE
RECEPTACLE STAFF WORK ROOM 213		1	20	25	720	0					26	20	1		SPARE
RECEPTACLE STAFF WORK ROOM 213		1	20	27			180	0			28	20	1		SPARE
RECEPTACLE STAFF WORK ROOM 213		1	20	29					180	0	30	20	1		SPARE
RECEPTACLE STAFF WORK ROOM 213		1	20	31	180	0					32	20	1		SPARE
SPARE		1	20	33			0	0			34	20	1		SPARE
SPARE		1	20	35					0	0	36	20	1		SPARE
SPARE		1	20	37	0	--					38	--	1		SPACE
SPARE		1	20	39			0	--			40	--	1		SPACE
SPARE		1	20	41					0	--	42	--	1		SPACE
					8116 VA **69 A**		**5040 VA** **43 A**		**4320 VA** **36 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	1656 VA	100.00%	1656 VA		
Receptacle	15820 VA	81.61%	12910 VA	**CONNECTED LOAD**	**17476 VA**
				DEMAND LOAD	**14566 VA**
				AVG. CONNECTED CURRENT	**49 A**
				AVG. DEMAND CURRENT	**40 A**

NOTES:

PANEL ID: LPP-2 VOLTAGE: 208Y/120 SERVICE EQUIP: MOUNTING: Surface
SOURCE: LDP-1 AMPS: 100 A MAIN: 100 A TYPE:
LOCATION ELECTRICAL 207 PANEL AIC: 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
WH-2		3	20	1	1500						2				
				3			1500	0			4	20	1		SPARE
				5					1500	0	6	20	1		SPARE
CP-1		1	20	7	100	0					8	20	1		SPARE
AIR CURTAIN - EAST		2	20	9			520	0			10	20	1		SPARE
				11					520	0	12	20	1		SPARE
AIR CURTAIN - WEST		2	20	13	520	0					14	20	1		SPARE
				15			520	0			16	20	1		SPARE
HOT HOLDING CABINET		1	20	17					1500	0	18	20	1		SPARE
DROP CORD		1	20	19	1500	0					20	20	1		SPARE
DROP CORD		1	20	21			1500	0			22	20	1		SPARE
POS SYSTEM		1	20	23					180	0	24	20	1		SPARE
POS SYSTEM		1	20	25	180	0					26	20	1		SPARE
MILK COOLER		1	20	27			1500	0			28	20	1		SPARE
CONV REC FOOD SERVICE		1	20	29					540	0	30	20	1		SPARE
CONV REC FOOD SERVICE		1	20	31	360	0					32	20	1		SPARE
REF		1	20	33			1500	0			34	20	1		SPARE
SPARE		1	20	35					0	0	36	20	1		SPARE
SPARE		1	20	37	0	0					38	20	1		SPARE
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					4160 VA **35 A**		**7040 VA** **59 A**		**4240 VA** **35 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	9680 VA	100.00%	9680 VA		
Receptacle	5760 VA	100.00%	5760 VA	**CONNECTED LOAD**	**15440 VA**
				DEMAND LOAD	**15440 VA**
				AVG. CONNECTED CURRENT	**43 A**
				AVG. DEMAND CURRENT	**43 A**

NOTES:

PANEL ID: INV VOLTAGE: 208Y/120 SERVICE EQUIP: MOUNTING: FREE...
SOURCE: LLP-1 AMPS: 50 A MAIN: 100 A TYPE: NEMA 1
LOCATION ELECTRICAL 207 PANEL AIC: 42 KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
EXTERIOR BOLLARDS		1	20	1	60	260					2	20	1		BLG D EM LTG
EXTERIOR CANOPY		1	20	3			227	72			4	20	1		BLG D BOH EM LTG
EXTERIOR CANOPY		1	20	5					167	0	6	20	1		SPARE
SW BLG A EM LTG		1	20	7	245	194					8	20	2		FLOOD LIGHTS
NW BLG A EM LTG		1	20	9			526	194			10				
N BLG B EM LTG		1	20	11					304	0	12	20	1		SPARE
NE BLG B/C EM LTG		1	20	13	304	0					14	20	1		SPARE
SPARE		1	20	15			0	0			16	20	1		SPARE
SPARE		1	20	17					0	0	18	20	1		SPARE
SPARE		1	20	19	0	0					20	20	1		SPARE
					1049 VA **9 A**		**1006 VA** **9 A**		**467 VA** **4 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	849 VA	100.00%	849 VA		
Lighting	471 VA	125.00%	589 VA	**CONNECTED LOAD**	**2522 VA**
Lighting - Dwelling Unit	1236 VA	100.00%	1236 VA	**DEMAND LOAD**	**2637 VA**
				AVG. CONNECTED CURRENT	**7 A**
				AVG. DEMAND CURRENT	**7 A**

NOTES:

PANEL ID: LHP-4 VOLTAGE: 208Y/120 SERVICE EQUIP: MOUNTING: Surface
SOURCE: LHP-3 AMPS: 150 A MAIN: 150 A TYPE:
LOCATION STORAGE 230 PANEL AIC: 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
INSTANT WATER HEATER		2	20	1	250	0					2	20	1		SPARE
				3			250	0			4	20	1		SPARE
INSTANT WATER HEATER		2	20	5					3120	0	6	20	1		SPARE
				7	3120	0					8	20	1		SPARE
INSTANT WATER HEATER		2	20	9			3120	0			10	20	1		SPARE
				11					3120	0	12	20	1		SPARE
INSTANT WATER HEATER		2	20	13	3120	0					14	20	1		SPARE
				15			3120	0			16	20	1		SPARE
INSTANT WATER HEATER		2	20	17					3120	0	18	20	1		SPARE
				19	3120	0					20	20	1		SPARE
INSTANT WATER HEATER		2	20	21			3120	0			22	20	1		SPARE
				23					3120	0	24	20	1		SPARE
INSTANT WATER HEATER		2	20	25	3120	0					26	20	1		SPARE
				27			3120	0			28	20	1		SPARE
DRINKING FOUNTAIN		1	20	29					360	0	30	20	1		SPARE
SPARE		1	20	31	0	0					32	20	1		SPARE
SPARE		1	20	33			0	0			34	20	1		SPARE
SPARE		1	20	35					0	0	36	20	1		SPARE
SPARE		1	20	37	0	0					38	20	1		SPARE
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					12730 VA **106 A**		**12730 VA** **106 A**		**12840 VA** **107 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	37940 VA	100.00%	37940 VA		
Receptacle	360 VA	100.00%	360 VA	**CONNECTED LOAD**	**38300 VA**
				DEMAND LOAD	**38300 VA**
				AVG. CONNECTED CURRENT	**106 A**
				AVG. DEMAND CURRENT	**106 A**

NOTES:

PANEL ID: LTP-1 VOLTAGE: 208Y/120 SERVICE EQUIP: MOUNTING: Surface
SOURCE: LDP-1 AMPS: 100 A MAIN: 60 A TYPE:
LOCATION MDF A128.2 PANEL AIC: 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
A/V RACK		3	30	1	1667	0					2	20	1		SPARE
				3			1667	0			4	20	1		SPARE
				5					1667	0	6	20	1		SPARE
RECEPTACLE		1	20	7	360	0					8	20	1		SPARE
RECEPTACLE		1	20	9			360	0			10	20	1		SPARE
RECEPTACLE		1	20	11					360	0	12	20	1		SPARE
SPARE		1	20	13	0	0					14	20	1		SPARE
SPARE		1	20	15			0	0			16	20	1		SPARE
SPARE		1	20	17					0	0	18	20	1		SPARE
SPARE		1	20	19	0	0					20	20	1		SPARE
					2027 VA **17 A**		**2027 VA** **17 A**		**2027 VA** **17 A**						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6080 VA	100.00%	6080 VA		
				CONNECTED LOAD	**6080 VA**
				DEMAND LOAD	**6080 VA**
				AVG. CONNECTED CURRENT	**17 A**
				AVG. DEMAND CURRENT	**17 A**

NOTES:

GENERAL SHEET NOTES

A. CONTRACTOR SHALL PROVIDE EITHER HANDLE TIES OR MULTI-POLE CIRCUIT BREAKERS FOR MULTI-WIRE BRANCH CIRCUITS WHERE THE BRANCH CIRCUITS ORIGINATES AS A SIMULTANEOUS DISCONNECTING MEANS AS REQUIRED PER CALIFORNIA ELECTRICAL CODE. CONTRACTOR SHALL REFLECT THESE CHANGES IN SUBMITALL TO BE APPROVED BY ENGINEER OF RECORD.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022
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△	
△	
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SALASO'BRIEN
expect a difference
305 South 11th Street
San Jose, California 95112-2218
877.725.2755 | 877.925.1477 (f)
WWW.SALASOBRIEN.COM
National Strength.
Local Action.

CHI KIT CHAN
No. E18090

ELECTRICAL SCHEDULES

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

E603

GENERAL SHEET NOTES

A. CONTRACTOR TO COORDINATE ALL SHUTDOWNS OF UTILITIES AND SYSTEMS WITH OWNER FOR TIMING AND DURATION.

B. REFER TO SHEET E001 FOR DEMOLITION NOTES AND MORE GENERAL NOTES.

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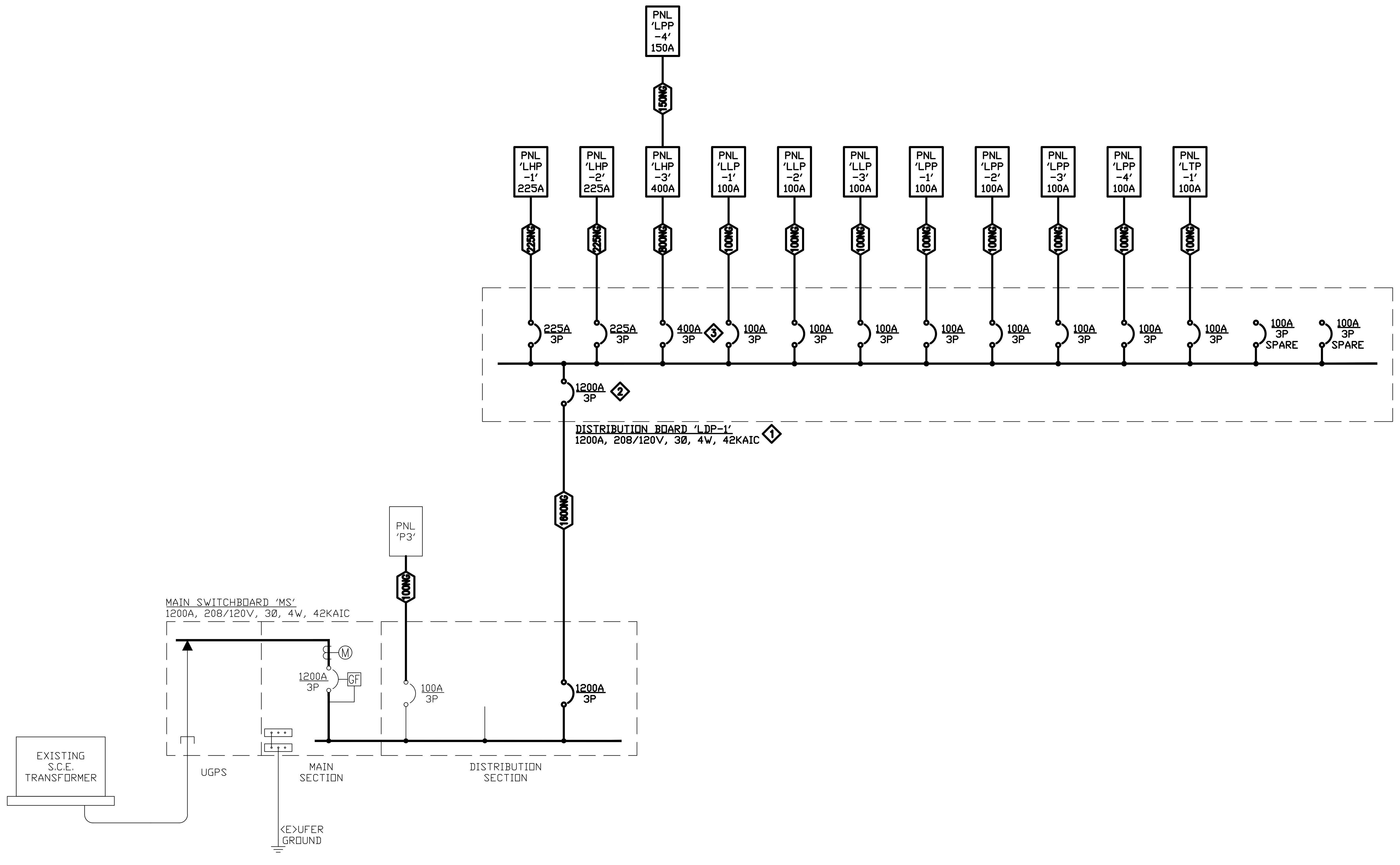
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9874
REN. JUL. 31, 2021

◇1 REFERENCE SHEET NOTES

1. PROVIDE SWITCHBOARD WITH VOLTAGE AND RATING AS SHOWN. REFER TO ENLARGED FLOOR PLAN FOR LOCATION.
2. PROVIDE LSIG CIRCUIT BREAKER. CIRCUIT BREAKER SHALL COORDINATE WITH UPSTREAM DEVICES.
3. PROVIDE 100% RATED CIRCUIT BREAKER WITH RATING SHOWN.



① SINGLE LINE DIAGRAM

SCALE: N.T.S.

SALASO'BRIEN

| expect a difference |

305 South 11th Street
San Jose, California 95112-2218
877.725.2755 | 877.925.1477 (f)
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CHI KIT CHAN
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GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	11/07/2022
△	
△	
△	
△	
△	

ELECTRICAL
SINGLE LINE DIAGRAM

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

E701

K:\drawings\Perkins Eastman Architects\2103238 Gateway Community School New 8-Classroom Bldg\2103238E701.dwg 1/13/2023 4:35 PM Toan Pham

1. APPLICABLE STANDARD NFPA 72, AS ADOPTED AND AMMENDED IN CBC Chapter 35

2. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAS BEEN APPROVED BY DSA.

3. UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.

4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.

5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.

6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.

7. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION.

8. WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80” MINIMUM AND 96” MAXIMUM FROM FINISHED FLOOR.

9. WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90” MINIMUM AND 100” MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6” TO A HORIZONTAL STRUCTURE.

10. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR FIVE dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIABLE SPACE WITHIN THE BUILDING.

11. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.

12. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.

13. VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISIBLE DEVICES WITHIN 55’ FROM EACH OTHER SHALL BE SYNCHRONIZED.

14. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.

15. ALL FIRE ALARM WIRING SHALL BE 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.

16. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.

17. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1’ FROM FIRE SPRINKLERS OR 3’ FROM ANY SUPPLY DIFFUSER. IN 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.

18. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, 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.

19. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.

20. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE “ON” POSITION. THE CIRCUIT BREAKER SHALL BE LABELED “FIRE ALARM CIRCUIT CONTROL.” CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.

21. THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED “SYSTEM RECORD OF COMPLETION” PER NFPA 72, FIGURE 17.8.2.

22. FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48” ABOVE THE FINISHED FLOOR.

23. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.

24. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.

25. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.

FIRE ALARM SYMBOL LEGEND

	DESCRIPTION	CSFM #	MANUFACTURER	MODEL
FACP	FIRE ALARM CONTROL PANEL	7165-0028:0516	NOTIFIER	N16E
ANN	FIRE ALARM ANNUNCIATOR PANEL	7165-0028:0516	NOTIFIER	RLD
Ⓢ	PHOTOELECTRIC SMOKE DETECTOR	7272-0028:0503	NOTIFIER	FSP-951-IV
F	FIRE ALARM PULL STATION WALL MOUNT 48" A.F.F.	7150-0028:199	NOTIFIER	NBG-12
T	SPRINKLER RISER FLOW SWITCH	7770-1653:0231	SYSTEM SENSOR	WFDN
FS	SPRINKLER RISER TAMPER SWITCH	7770-1209:149	NOTIFIER	PIBV2
⌖	CEILING FIRE SPEAKER/STROBE	7320-1653:0505	NOTIFIER	PC2WL(A)
⊠	FIRE SYSTEM STROBE	7125-1653:0504	NOTIFIER	SWL(A)
▽	FIRE SYSTEM SPEAKER / STROBE	7320-1653:0505	NOTIFIER	P2WL(A)
CM	CONTROL MODULE	7300-0028:0219	NOTIFIER	FCM-1(A)
○	BELL	7135-1653:125	NOTIFIER	SSM24-10
DD	DUCT DETECTOR	3242-1653:0209	FIRE LITE	D355PL(A)
▽	FIRE ALARM EXTERIOR SPEAKER	7320-1653:201	NOTIFIER	SPWK(A)

PROJECT SCOPE

PROVIDE A NEW AUTOMATIC FIRE ALARM SYSTEM FOR TWO NEW CLASSROOM BUILDINGS, 8300SF (BUILDING A/C), AND 5000SF (BUILDING B). COMBUSTIBLE ATTIC SPACES PROTECTED BY SPRINKLER IN LIEU OF HEAT DETECTION.

GENERAL NOTES

1. EACH ADDRESSABLE DEVICE NEEDS TO BE MARKED WITH ID NUMBER AND AS BUILT DRAWINGS SHOULD MATCH.
2. ANY ALARM IN THE BUILDING SHALL SHUT DOWN AIR HANDLING SYSTEM
3. ANY ALARM, SUPERVISORY, OR TROUBLE ALERT SHALL SOUND ON ANNUCIATOR
4. DUST CREATED SHALL BE VACUUMED SIMULTANEOUSLY.
5. SYSTEM SHALL PRODUCE CALIFORNIA TEMPORAL CODE 3 PATTERN.
6. FACP SHALL INCLUDE OPTIONAL IPDACT INTERFACE FOR COMMUNICATION TO CENTRAL STATION.

ABBREVIATIONS

A.F.F. - ABOVE FINISHED FLOOR
U.N.O. - UNLESS NOTED OTHERWISE
AC - ABOVE COUNTER
C - ABOVE CEILING
FACP - FIRE ALARM CONTROL PANEL

FIRE SYSTEM CONTRACTOR NOTES

1. THE FIRE ALARM WORK SHOWN TO BE PERFORMED ON THESE DRAWINGS IS FOR NEW SYSTEM, CABLE PATHS AND DEVICE ADDRESSING WILL BE LEFT TO FIRE SYSTEM CONTRACTORS.
2. EACH SLC SHALL BE CLASS A, STYLE 7 OR CLASS X FAULT TOLERANT.
3. ALL CONNECTED DEVICES SHALL BE FROM THE SAME MANUFACTURER OR RECOMMENDED BY THE MANUFACTURER WHENEVER POSSIBLE.
4. ALL NON-ADDRESSABLE DEVICES SHALL BE CONNECTED TO THE SLC BY AN ADDRESSABLE DRY CONTRACT MONITOR MODULE (TAMPER / FLOW SWITCHES).
5. IF CABLES ARE RAN OUTSIDE OF THE BUILDING A SURGE PROTECTOR SHALL BE INSTALLED TO PROTECT EQUIPMENT.
6. ONLY WOODEN OR FIBERGLASS LADDERS SHALL BE USED AND FIBERGLASS OR OTHER NON-CONDUCTIVE TYPE FISH TAPE IS ALLOWED.
7. CONTRACTOR SHALL PROVIDE 1" CONDUIT SLEEVED ABOVE CEILING THROUGH FIRE, SMOKE, OR SOUND BARRIER WALLS WHEN CABLE NEEDS TO ROUTE BETWEEN A CORRIDOR AND AN OFFICE OR OTHER SINGLE USE SPACES.
8. CONFIRM ALL VOLTAGE, AMP, BATTERY, AND CIRCUIT CALCULATIONS WITH FP ENGINEER PRIOR TO INSTALLATION
9. THE CONTRACTOR SHALL PROVIDE AN 11" X 17" PLACARD ABOVE THE NEW FACP INDICATING WHERE EACH HEAD IN THE BUILDING IS LOCATED.
10. A NEW HVAC SYSTEM SHALL BE INSTALLED, CONNECT RELAY TO CONTROL UNIT FOR ALARM SHUTDOWN. EXISTING UNIT TO REMAIN IN PLACE AND FUNCTIONAL UNTIL NEW UNIT IS OPERATING ACCORDINGLY. WHEN REMOVAL OF EXISTING HVAC SYSTEM IS PREFORMED REMOVE CONTROLLING RELAY FROM FACP AND FACP PROGRAMMING. COORDINATE WITH HVAC CONTRACTORS.
11. CONTRACTOR SHALL GIVE THE BUILDING SUPERVISOR ONE DAY NOTICE BEFORE SHUTTING DOWN THE HVAC SYSTEM FOR ANY REASON.
12. UPON SYSTEM COMPLETION CONTRACTOR SHALL BE RESPONSIBLE FOR TRAINING, PASSWORD, AND ANY DOCUMENTATION REGARDING SYSTEM FUNCTIONALITY TO BE TURNED OVER TO AT&T.

FIRE SYSTEM CONTRACTOR CABLE NOTES

PURPOSE	TYPE	FIRE RATE	CABLE COLOR	DESIGNATION
SLC,AUDIBLE	16 AWG UNSHIELDED TWISTED PAIR	PLENUM	RED	A
NAC	12 AWG UNSHIELDED TWISTED PAIR	PLENUM	RED	B
FACP POWER	12 AWG SHIELDED TWISTED PAIR	PLENUM	RED	C
CONTROL POINTS	14 AWG UNSHIELDED (4) CONDUCTOR	PLENUM	RED	D

FIRE ALARM SEQUENCE OF EVENTS MATRIX

X INDICATES ACTION WILL CAUSE SPECIFIC RESULTS
INDICATES ACTION WILL NOT CAUSE SPECIFIC RESULTS

	ACTIONS	DEVICE ACTIVATION											
		ACTIVATION OF ANY MANUAL PULL STATION (IN ZONE OF ALARM)	ACTIVATION OF ANY AREA SMOKE SENSOR (IN ZONE OF ALARM)	ACTIVATION OF SPRINKLER WATER FLOW SWITCH (IN ZONE OF ALARM)	ACTIVATION OF FIRE SPRINKLER TAMPER SWITCH	POWER SUPPLY PROBLEMS (PRIMARY, TROUBLE AND SECONDARY)	OPEN WIRE OR GROUND IN ANY SUPERVISED CIRCUIT	ACTIVATION OF AUDIO/VISUAL BYPASS SWITCH	ACTIVATION OF AHU SHUTDOWN BYPASS SWITCH	ACTIVATION OF DUCT DETECTOR	LOSS OF PRIMARY POWER	ACTIVATION OF ALARM SILENCE SWITCH	
	SYSTEM RESPONSE	A	B	C	D	E	F	G	H	I	J	K	
1	ACTIVATE ZONE COMBINATION SPEAKER/STROBES & STROBES	X	X	X						X			1
2	DE-ENERGIZE DOOR HOLD OPEN DEVICES	X	X	X						X			2
3	SHUTDOWN ASSOCIATED MECHANICAL UNIT/DAMPERS	X	X	X						X			3
4	ACTIVATE SYSTEM TROUBLE						X				X		4
5	ACTIVATE SYSTEM SUPERVISORY							X	X				5
6	RECORD EVENTS IN THE SYSTEM MEMORY	X	X	X	X	X	X	X	X	X	X		6
7	REPORT ALARM SIGNAL TO MONITORING SERVICE	X	X	X						X			7
8	REPORT TROUBLE SIGNAL TO MONITORING SERVICE				X	X	X				X		8
9	REPORT SUPERVISORY SIGNAL TO MONITORING SERVICE				X			X	X	X		X	9
10	DISABLE AUDIO/VISUAL APPLIANCES							X				X	10
11	DISABLE AHU SHUTDOWN MODULES	X	X	X					X	X			11
	SYSTEM RESPONSE	A	B	C	D	E	F	G	H	I	J	K	

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-98[illegible]
REN. JUL.31, 2021
STATE OF CALIFORNIA

LICENSED PROFESSIONAL ENGINEER
TIMOTHY ROBERT CAMPBELL
FP 2004
FIRE PROTECTION
STATE OF CALIFORNIA

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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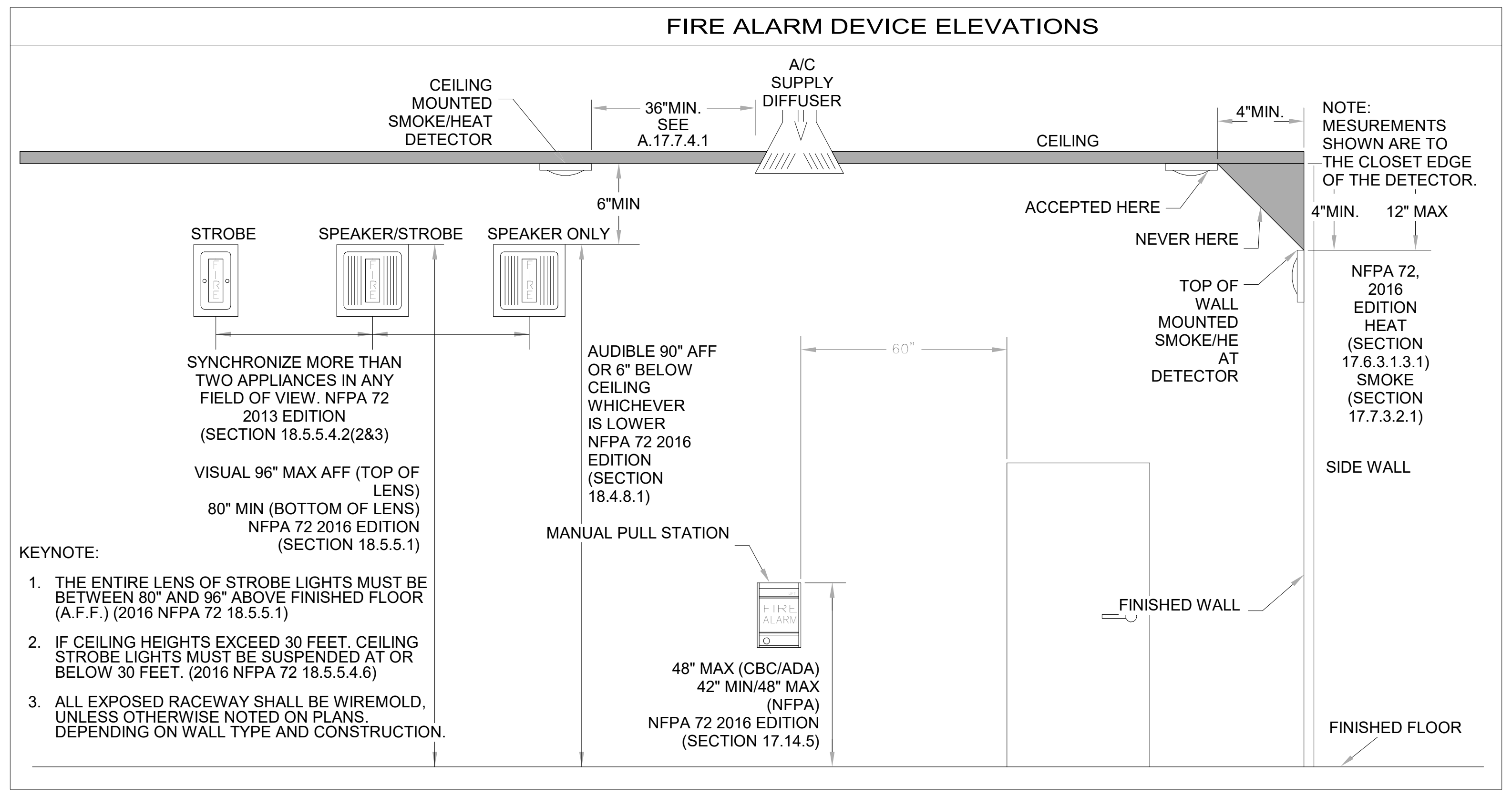
FIRE ALARM GENERAL

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FA001



NOTE: MESUREMENTS SHOWN ARE TO THE CLOSET EDGE OF THE DETECTOR.

SYNCHRONIZE MORE THAN TWO APPLIANCES IN ANY FIELD OF VIEW. NFPA 72 2013 EDITION (SECTION 18.5.5.4.2(2&3)

VISUAL 96" MAX AFF (TOP OF LENS) 80" MIN (BOTTOM OF LENS) NFPA 72 2016 EDITION (SECTION 18.5.5.1)

AUDIBLE 90" AFF OR 6" BELOW CEILING WHICHEVER IS LOWER NFPA 72 2016 EDITION (SECTION 18.4.8.1)

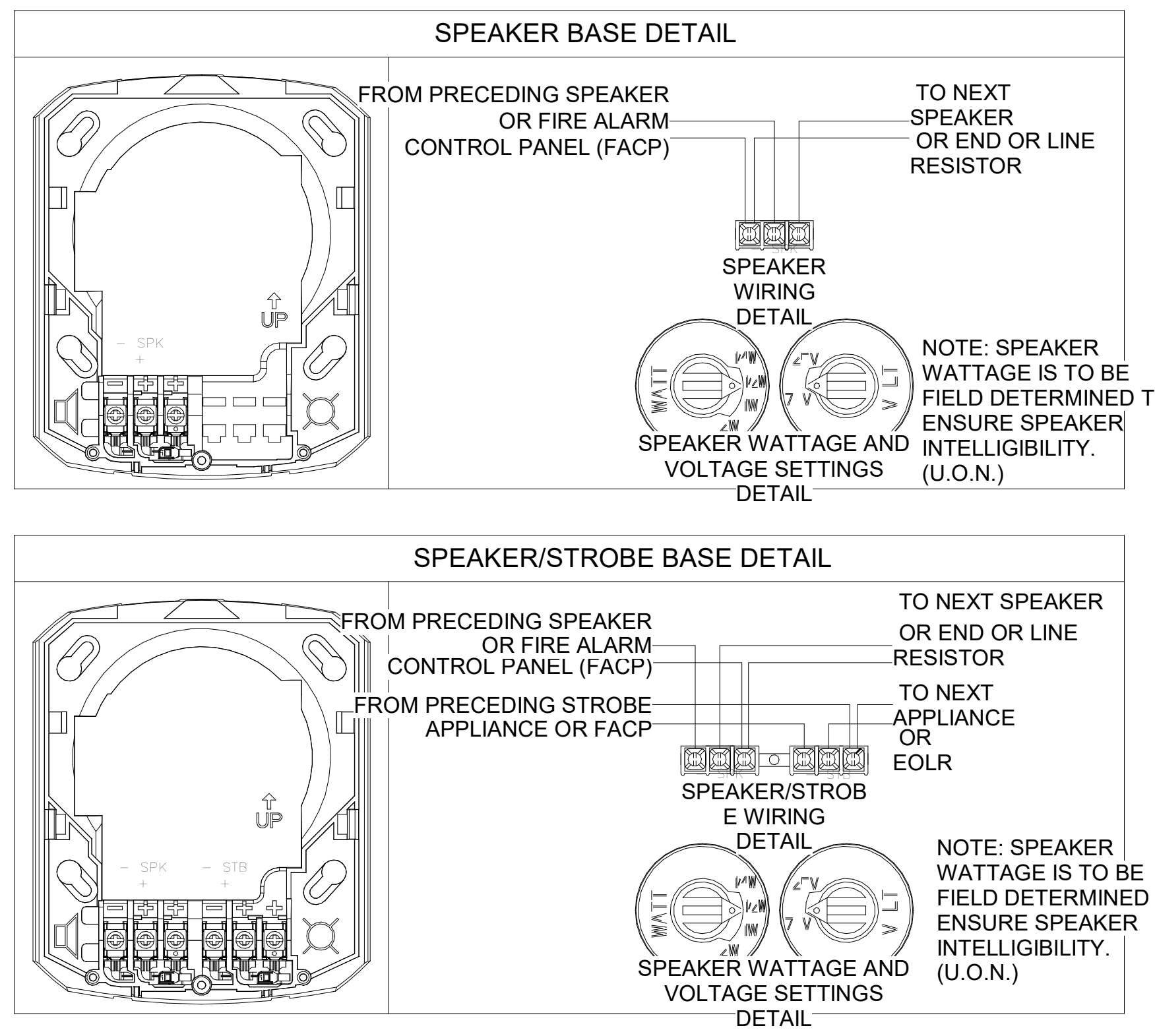
48" MAX (CBC/ADA) 42" MIN/48" MAX (NFPA) NFPA 72 2016 EDITION (SECTION 17.14.5)

NFPA 72, 2016 EDITION HEAT (SECTION 17.6.3.1.3.1) SMOKE (SECTION 17.7.3.2.1)

KEYNOTE:

1. THE ENTIRE LENS OF STROBE LIGHTS MUST BE BETWEEN 80" AND 96" ABOVE FINISHED FLOOR (A.F.F.) (2016 NFPA 72 18.5.5.1)
2. IF CEILING HEIGHTS EXCEED 30 FEET. CEILING STROBE LIGHTS MUST BE SUSPENDED AT OR BELOW 30 FEET. (2016 NFPA 72 18.5.5.4.6)
3. ALL EXPOSED RACEWAY SHALL BE WIREMOLD, UNLESS OTHERWISE NOTED ON PLANS. DEPENDING ON WALL TYPE AND CONSTRUCTION.

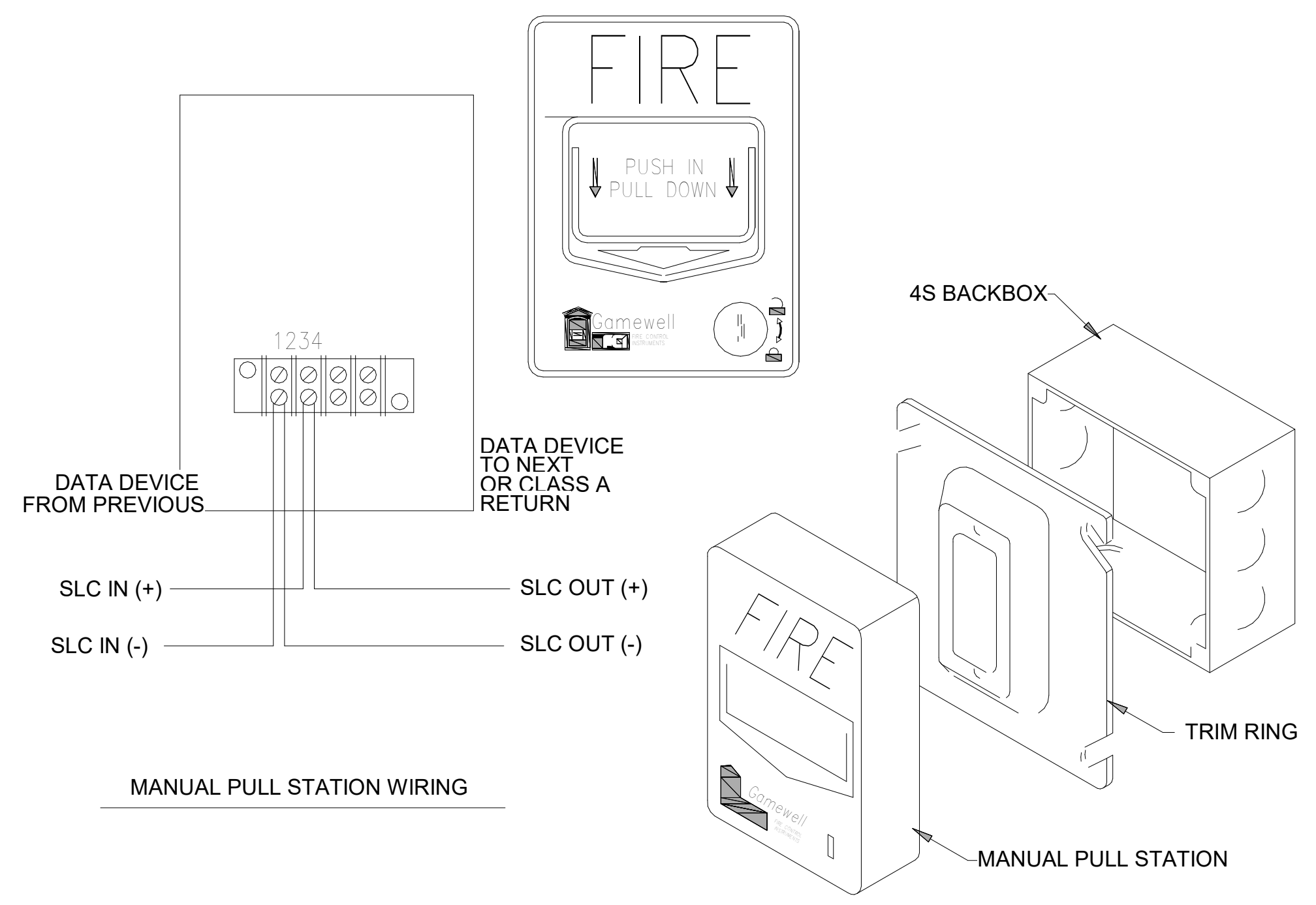
1
FA002
FIRE ALARM MOUNTING HEIGHTS
NOT TO SCALE


SPEAKER BASE DETAIL
FROM PRECEDING SPEAKER OR FIRE ALARM CONTROL PANEL (FACP)
TO NEXT SPEAKER OR END OR LINE RESISTOR
SPEAKER WIRING DETAIL
UP
SPK
WATT
V
SPEAKER WATTAGE AND VOLTAGE SETTINGS DETAIL
SPEAKER/STROBE BASE DETAIL
FROM PRECEDING SPEAKER OR FIRE ALARM CONTROL PANEL (FACP)
TO NEXT SPEAKER OR END OR LINE RESISTOR
FROM PRECEDING STROBE APPLIANCE OR FACP
TO NEXT APPLIANCE OR EOLR
SPEAKER/STROBE WIRING DETAIL
SPK
STB
SPEAKER WATTAGE AND VOLTAGE SETTINGS DETAIL

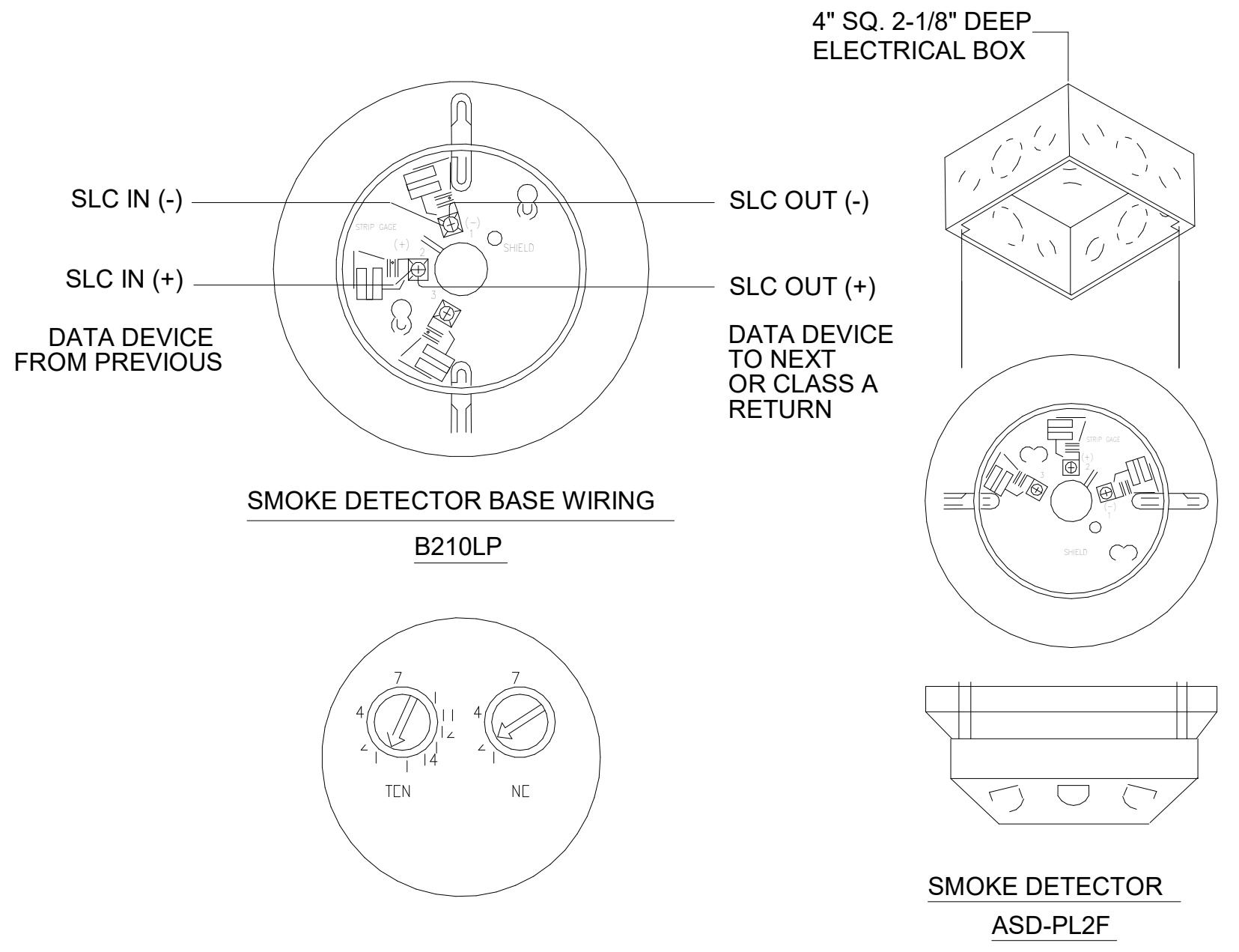
NOTE: SPEAKER WATTAGE IS TO BE FIELD DETERMINED TO ENSURE SPEAKER INTELLIGIBILITY. (U.O.N.)

NOTE: SPEAKER WATTAGE IS TO BE FIELD DETERMINED TO ENSURE SPEAKER INTELLIGIBILITY. (U.O.N.)

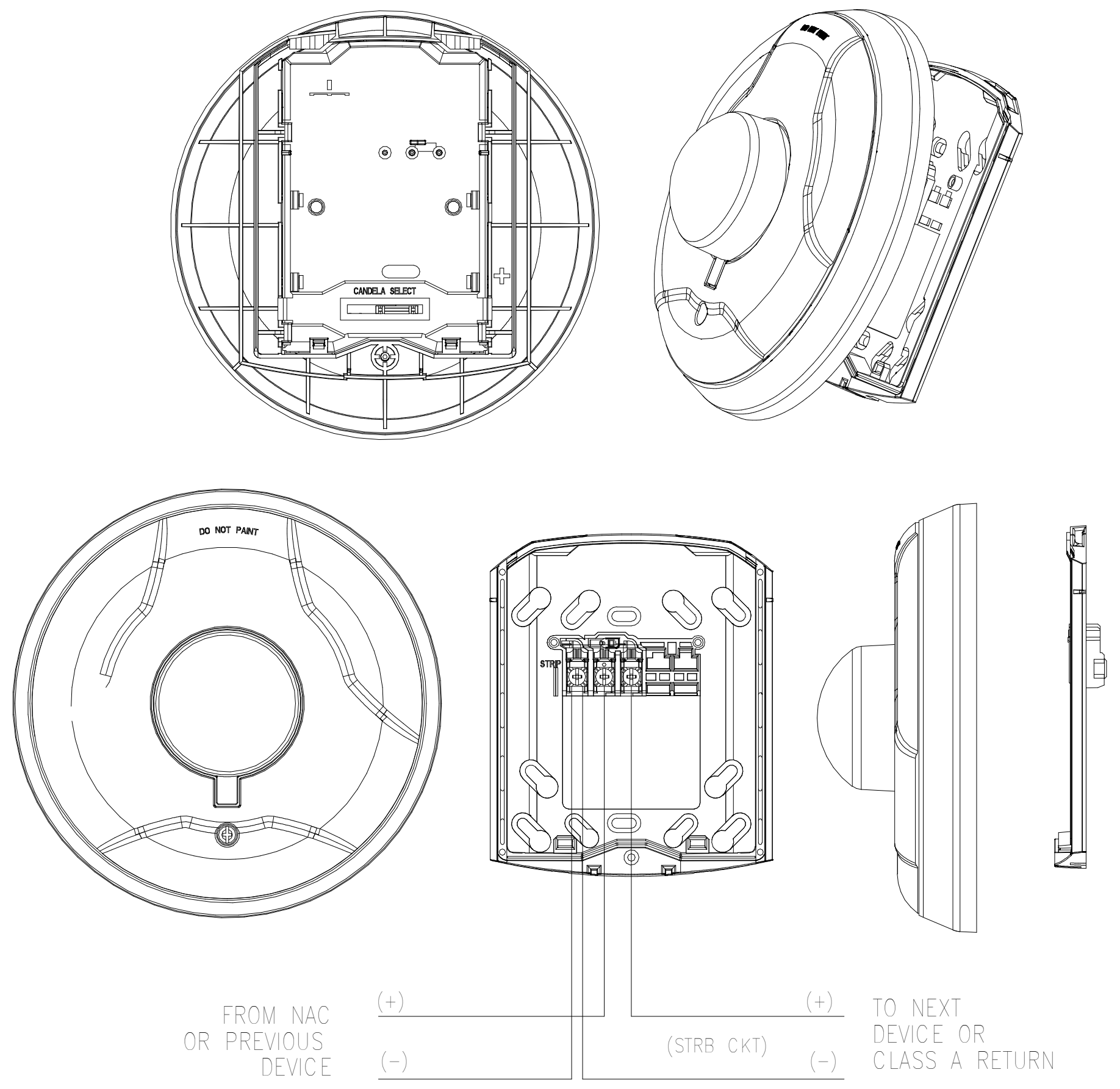
2
FA002
NOTIFICATION DEVICES DETAIL
NOT TO SCALE



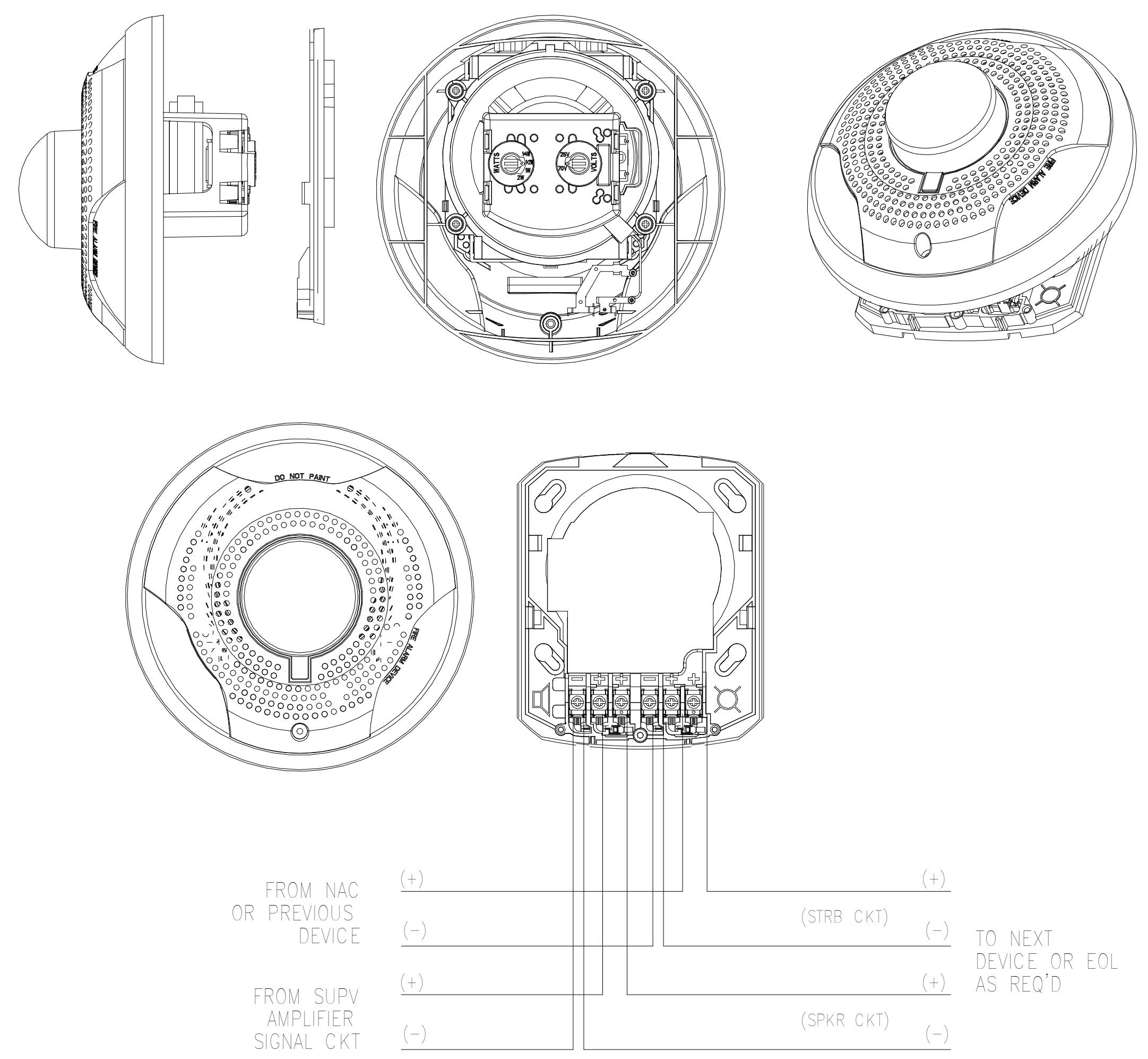
3
FA002
PULL STATION DETAIL
NOT TO SCALE


4" SQ. 2-1/8" DEEP ELECTRICAL BOX
SLC IN (-)
SLC IN (+)
DATA DEVICE FROM PREVIOUS
SLC OUT (-)
SLC OUT (+)
DATA DEVICE TO NEXT OR CLASS A RETURN
SMOKE DETECTOR BASE WIRING
B210LP
SMOKE DETECTOR
ASD-PL2F

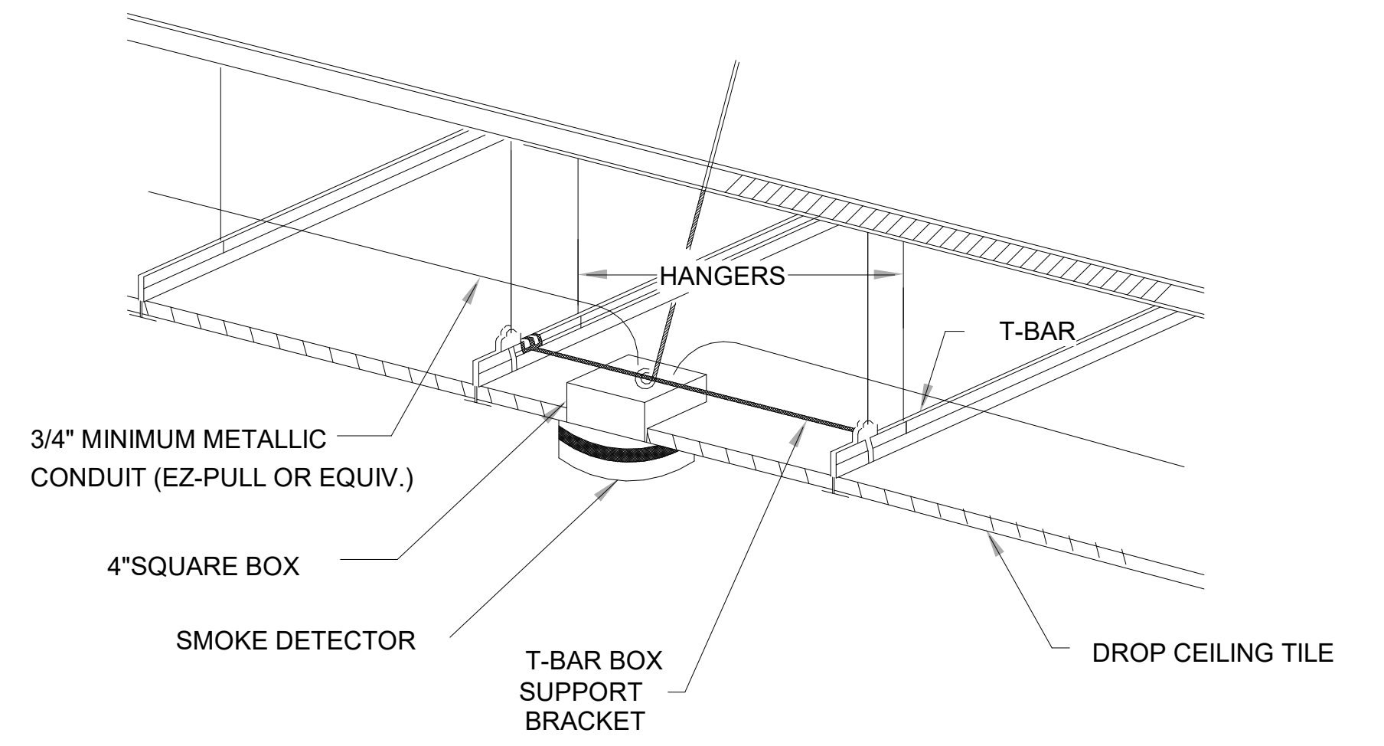
4
FA002
SMOKE DETECTOR DETAIL
NOT TO SCALE



5
FA002
STROBE DETAIL
NOT TO SCALE


FROM NAC OR PREVIOUS DEVICE
FROM SUPV AMPLIFIER SIGNAL CKT
(+)
(−)
(STRB CKT)
(SPKR CKT)
TO NEXT DEVICE OR EOL AS REQ'D

6
FA002
CEILING SPEAKER/STROBE DETAIL
NOT TO SCALE


HANGERS
T-BAR
3/4" MINIMUM METALLIC CONDUIT (EZ-PULL OR EQUIV.)
4"SQUARE BOX
SMOKE DETECTOR
T-BAR BOX SUPPORT BRACKET
DROP CEILING TILE

7
FA002
CEILING MOUNTING DETAIL
NOT TO SCALE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY

TIMOTHY ROBERT CAMPBELL
FP 2004

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	05/02/2022
△	
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△	
△	

FIRE ALARM DETAILS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FA002

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

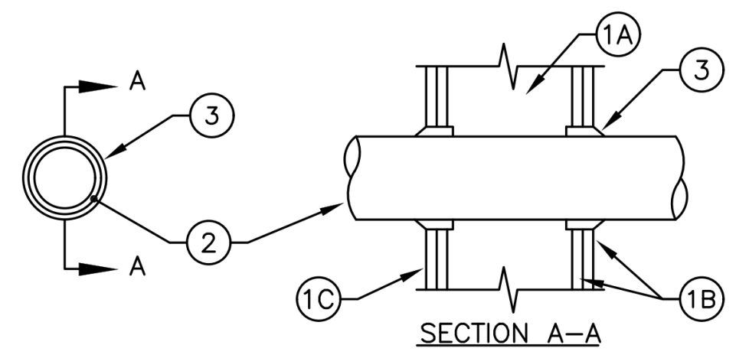
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL.31, 2021

TIMOTHY ROBERT CAMPBELL
FP 2004

THROUGH–PENETRATION FIRESTOP SYSTEMS (GYPSUM) WHERE APPLICABLE

SYSTEM NO. W–L–1001

F RATINGS – 1, 2, 3 AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS – 0, 1, 2, 3, AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT – LESS THAN 1 CFM/SQ. FT.
L RATING AT 400 F – LESS THAN CFM/SQ. FT.



1. WALL ASSEMBLY– THE 1, 2, 3 OR 4 HR FIRE–RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS – WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2H FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOMINAL 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MINIMUM 3–5/8 IN. WIDE BY 1–3/8 IN DEEP CHANNELS SPACED MAX. 24 IN. OC.
   B. WALLBOARD, GYPSUM* – NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM. OF OPENING IS 13–1/2 IN.
2. PIPE OR CONDUIT – NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 6 IN. DIAMETER (OR SMALLER) STEEL CONDUIT, NOM 4 IN. DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR TYPE L (OR HEAVIER) COPPER TUBING OR NOM 1 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPES OR FLEXIBLE STEEL CONDUIT IS USED, MAX F RATING OF FIRESTOP SYSTEM (ITEM 3) IS 2 H. STEEL PIPES OR CONDUITS LARGER THAN NOM 4 IN. DIAM MAY ONLY BE USED IN WALLS CONSTRUCTED USING STEEL CHANNEL STUDS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
3. FILL, VOID OR CAVITY MATERIAL* – CAULK – CAULK FILL MATERIAL TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN 1/4 IN. DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW: F MAX PIPE T

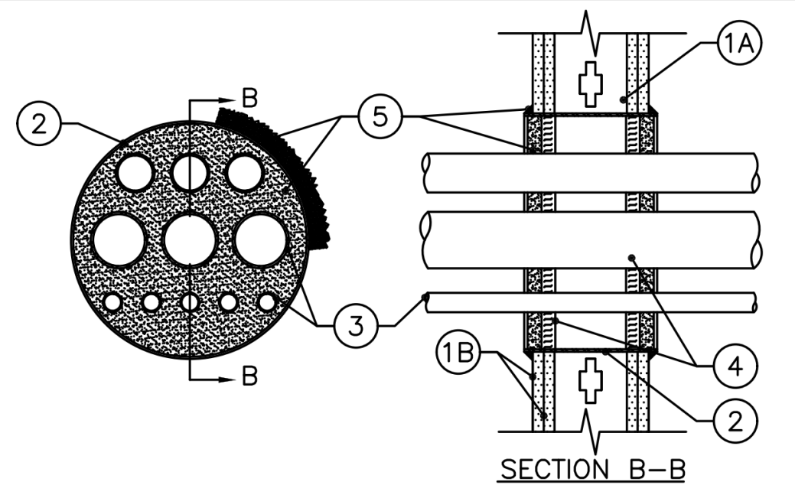
MAX PIPE OR CONDUIT DIA IN.	ANNULAR SPACE IN.	F RATING HR	T RATING HR
1	0 to 3/16	1 or 2	0+,1 or 2
1	1/4 to 1/2	3 or 4	3 or 4
4	0 to 1–1/2	1 or 2	0
6	1/4 to 1/2	3 or 4	0
12	3/16 to 3/8	1 or 2	0

+WHEN COPPER PIPE IS USED, T RATING IS 0 H.
3M COMPANY – CP 25WB+ CAULK OR FB–3000 WT SEALANT.
*BEARING THE UL CLASSIFICATION MARKING

SYSTEM NO. W–L–1016

(FORMERLY SYSTEM NO. 322)

F RATING–– 2 HR
T RATINGS––1, 1–1/2 AND 2 HR (SEE ITEM 3)
L RATING AT AMBIENT––2 CFM/sq ft
L RATING AT 400° F––LESS THAN 1 CFM/sq ft



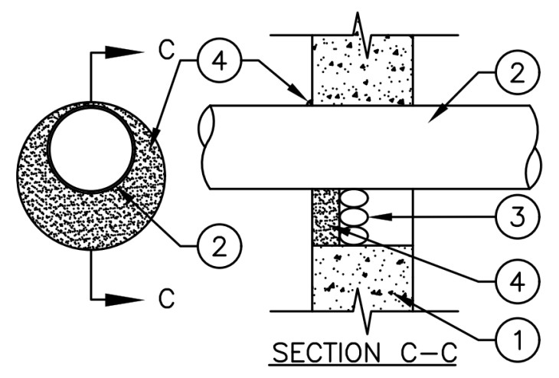
1. WALL ASSEMBLY – THE FIRE–RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS – WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3–5/8 IN. WIDE BY 1–3/8 IN DEEP CHANNELS SPACED MAX 24 IN. OC.
   B. GYPSUM BOARD* – TWO LAYERS OF NOM 5/8 IN. THICK GYPSUM WALLBOARD AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. MAX DIAM OF THROUGH OPENINGS CUT IN WALLBOARD LAYERS IS 12 IN. MAX DIMENSIONS FOR RECTANGULAR OPENING IS 12 IN. BY 9 IN.
   C. FASTENERS – WHEN WOOD STUD FRAMING IS EMPLOYED, GYPSUM WALLBOARD ATTACHED TO STUDS WITH CEMENT COATED NAILS AS SPECIFIED IN THE INDIVIDUAL U300–SERIES DESIGN. WHEN STEEL CHANNEL STUD FRAMING IS EMPLOYED, GYPSUM WALLBOARD ATTACHED TO STUDS WITH TYPE S SELF–DRILLING, SELF–TAPPING BUGLE–HEAD STEEL SCREWS AS SPECIFIED IN THE INDIVIDUAL U400–SERIES DESIGN.
2. STEEL SLEEVE – NO. 28 GAUGE GALV SHEET STEEL FORMED INTO MAX 12 IN. DIAM OR MAX 12 IN. BY 9 IN. SLEEVE WITH NOM 2 IN. OVERLAP AT SEAM. LENGTH OF SLEEVE TO BE APPROX 1 IN. GREATER THAN OVERALL THICKNESS OF WALL ASSEMBLY, SUCH THAT, WHEN INSTALLED, THE ENDS OF THE SLEEVE WILL PROJECT APPROX 1/2 IN. BEYOND THE SURFACE OF THE WALL ON BOTH SIDES OF THE WALL ASSEMBLY. MAX DIAM OF CIRCULAR THROUGH OPENINGS IN GYPSUM WALLBOARD LAYERS ON EACH SIDE OF WALL ASSEMBLY TO BE 12 IN. MAX DIMENSIONS FOR RECTANGULAR OPENING IS 12 IN. BY 9 IN. SLEEVE INSTALLED BY COILING THE SHEET STEEL TO A DIAM SMALLER THAN THE THROUGH OPENING, INSERTING THE COIL THROUGH THE OPENINGS AND RELEASING THE COIL TO LET IT UNCOIL AGAINST THE CIRCULAR CUTOUTS IN THE GYPSUM WALLBOARD LAYERS.
3. STEEL PIPE OR CONDUIT – NOM 3 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, STEEL CONDUIT OR STEEL ELECTRICAL METALLIC TUBING. MULTIPLE PIPES AND/OR CONDUIT PERMITTED IN SLEEVED OPENING PROVIDED A MIN SEPARATION OF 1/4 IN. IS MAINTAINED BETWEEN PIPES OR CONDUITS. PIPES AND/OR CONDUITS TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE MAX DIAM OF THE PIPES OR CONDUITS, AS TABULATED BELOW:
4. PACKING MATERIAL – MIN 1 IN. THICKNESS OF RIGID GLASS FIBER INSULATION OR MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO STEEL SLEEVE ON BOTH SIDES OF WALL ASSEMBLY AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED MIN 5/8 IN. FROM SURFACE OF WALL ON BOTH SIDES OF WALL ASSEMBLY.
5. FILL,VOID OR CAVITY MATERIALS* – CAULK – APPLIED TO FILL THE STEEL SLEEVE TO A MIN DEPTH OF 1 IN. ON BOTH SIDES OF WALL ASSEMBLY. A NOM 1/4 IN. DIAM CONTINUOUS BEAD OF CAULK SHALL BE APPLIED AROUND THE CIRCUMFERENCE OF THE STEEL SLEEVE AT ITS EGRESS FROM THE GYPSUM WALLBOARD LAYERS ON BOTH SIDES OF THE WALL ASSEMBLY. 3M COMPANY – CP 25WB+ CAULK OR FB–3000 WT SEALANT.
   *BEARING THE UL CLASSIFICATION MARKING

MAX PIPE OR CONDUIT DIAM IN.	T RATING HR
3	1
1	1–1/2
3/4	2

THROUGH–PENETRATION FIRESTOP SYSTEMS (CONCRETE) WHERE APPLICABLE

USYSTEM NO. C–AJ–1044

F RATINGS – 2, 3 AND 4 HR (SEE ITEMS 2A AND 4)
T RATINGS – 0HR
L RATINGS AT AMBIENT – 2 CFM/SQ FT
L RATINGS AT 400F – LESS THAN 1 CFM/SQ FT
W RATING – CLASS I (SEE ITEM 4)



1. FLOOR OR WALL ASSEMBLY – LIGHTWEIGHT OR NORMAL WEIGHT (100–150 PCF) CONCRETE. EXCEPT AS NOTED IN TABLE UNDER ITEM 4, MIN THICKNESS OF SOLID CONCRETE FLOOR OR WALL ASSEMBLY IS 4–1/2 IN. FLOOR MAY ALSO BE CONSTRUCTED OF ANY MIN 6 IN. THICK UL CLASSIFIED HOLLOW CORE PRECAST CONCRETE UNITS*. WHEN FLOOR IS CONSTRUCTED OF HOLLOW CORE PRECAST CONCRETE UNITS, PACKING MATERIAL (ITEM 3) AND CAULK FILL MATERIAL (ITEM4) TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF FLOOR, FLUSH WITH FLOOR SURFACE. WALL ASSEMBLY MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS IN SOLID LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE. FLOOR IS 32 IN. MAX DIAM OF OPENING IN FLOOR CONSTRUCTED OF HOLLOW–CORE PRECAST CONCRETE UNITS IS 7 IN. SEE CONCRETE BLOCKS (CAST) AND PRECAST CONCRETE UNITS (CFTV) CATEGORIES IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURES.

1A. STEEL SLEEVE (OPTIONAL, NOT SHOWN) – MAX 15 IN. ID (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX OF 2 IN. ABOVE TOP OF FLOOR OR BEYOND EITHER SURFACE OF WALL. MAX 16 IN ID (OR SMALLER) MIN 0.028 WALL THICKNESS (OR HEAVIER) GALVANIZED STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX OF 1/2 IN. BEYOND EITHER SURFACE OF FLOOR OR WALL.

2. THROUGH PENETRANTS – ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRE STOP SYSTEM. MAX ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND EDGE OF THROUGH OPENING OR SLEEVE IS DEPENDANT ON THE PARAMETERS SHOWN IN ITEM 4. MIN ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING IS ZERO IN. (POINT CONTACT). PIPE CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE – NOM 30 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE – NOM 30 IN. DIAM. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT – NOM. 6 IN. DIAM. (OR SMALLER) RIGID STEEL CONDUIT.
   D. CONDUIT – NOM 4 IN. DIAM. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
   E. COPPER – TUBING NOM. 6 IN. DIAM. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBE.
   F. COPPER PIPE – NOM 6 IN. DIAM. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
3. PACKING MATERIAL – POLYETHYLENE BACKER ROD OR NOM 1 IN. THICKNESS OF TIGHTLY–PACKED MINERAL WOOL BATT OR GLASS FIBER INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM 4).
4. FILL, VOID OR CAVITY MATERIAL* – CAULK OR SEALANT – APPLIED TO FILL THE ANNULAR SPACE FLUSH WITH TOP SURFACE OF FLOOR. IN WALL ASSEMBLIES, REQUIRED CAULK THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL, FLUSH WITH WALL SURFACE. AT POINT CONTACT LOCATION BETWEEN PENETRANT AND SLEEVE OR BETWEEN PENETRANT AND CONCRETE, A MIN 1/4 IN. DIAM BEAD OF CAULK SHALL BE APPLIED AT TOP SURFACE OF FLOOR AND AT BOTH SURFACES OF WALL. THE HOURLY F RATINGS AND THE MIN REQUIRED CAULK THICKNESSES ARE DEPENDANT UPON A NUMBER OF PARAMETERS, AS SHOWN IN THE FOLLOWING TABLE:

MIN. FLOOR OR WALL THKNS IN.	NOM PIPE TUBE OR CONDUIT DIAM IN.	MAX. ANNULAR SPACE IN.	MIN. CAULK THKNS IN.	T RATING HR
2 – 1/2	1/2 – 12	1–3/8	1/2	2
2 – 1/2	1/2 – 12	3–1/4	1	2
4 – 1/2	1/2 – 6	1–3/8	1/4(a)	2
4 – 1/2	1/2 – 12	1–1/4	1/2	3
4 – 1/2	1/2 – 20	2	1	3
4 – 1/2	1/2 – 20	2	1	3
4 – 1/2	1/2 – 12	3–1/4	1	3
4 – 1/2	22 – 30	2	2	3
5 – 1/2	1/2 – 6	1–3/8	1(b)	4

(a) MIN 2 IN THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE.

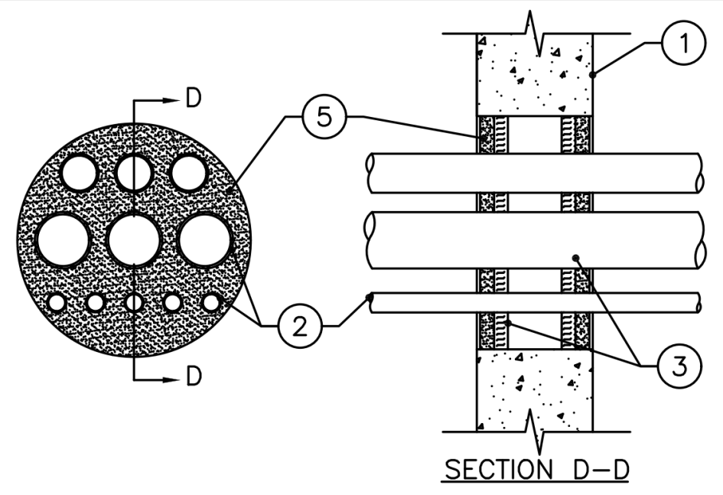
(b) MIN 1 IN THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. MIN 1 IN THICKNESS OF CAULK TO BE INSTALLED FLUSH WITH EACH SURFACE OF FLOOR OR WALL ASSEMBLY. 3M COMPANY – CP 25WB+ CAULK OR FB–3000 WT SEALANT. (NOTE: W RATING APPLIES ONLY WHEN FB–3000 WT SEALANT IS USED.)

* BEARING THE UL CLASSIFICATION MARKING

SYSTEM NO. W–J–1010

(FORMERLY SYSTEM NO. 321)

F RATING–– 3 HR
T RATINGS––1, 1–1/2 AND 2 HR (SEE ITEM 2)
L RATING AT AMBIENT––2 CFM/sq ft
L RATING AT 400° F––LESS THAN 1 CFM/sq ft



1. WALL ASSEMBLY – MIN 6 IN. THICK LIGHTWEIGHT OR NORMAL WEIGHT (100–150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS 12 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. STEEL PIPE OR CONDUIT – NOM 3 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, STEEL CONDUIT OR STEEL ELECTRICAL METALLIC TUBING. MULTIPLE PIPES AND/OR CONDUIT PERMITTED IN OPENING PROVIDED A MIN SEPARATION OF 1/4 IN. IS MAINTAINED BETWEEN PIPES OR CONDUITS. PIPES AND/OR CONDUITS TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE MAX DIAM OF THE PIPES OR CONDUITS, AS TABULATED BELOW:

MAX PIPE OR CONDUIT DIAM IN.	HR T RATING
3	1
1	1–1/2
3/4	2

3. PACKING MATERIAL – MIN 1 IN. THICK RIGID GLASS FIBER INSULATION OR MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING ON BOTH SIDES OF WALL ASSEMBLY AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED MIN 1 IN. FROM SURFACE OF WALL ON BOTH SIDES OF WALL ASSEMBLY.
4. FILL,VOID OR CAVITY MATERIALS* – CAULK – APPLIED TO FILL THE THROUGH OPENING TO A MIN DEPTH OF 1 IN. ON BOTH SIDES OF WALL ASSEMBLY. 3M COMPANY – CP 25WB+ CAULK OR FB–3000 WT SEALANT.

   *BEARING THE UL CLASSIFICATION MARKING

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	05/02/2022

FIRE ALARM DETAILS

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FA003

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
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BRIAN PAUL DOUGHERTY
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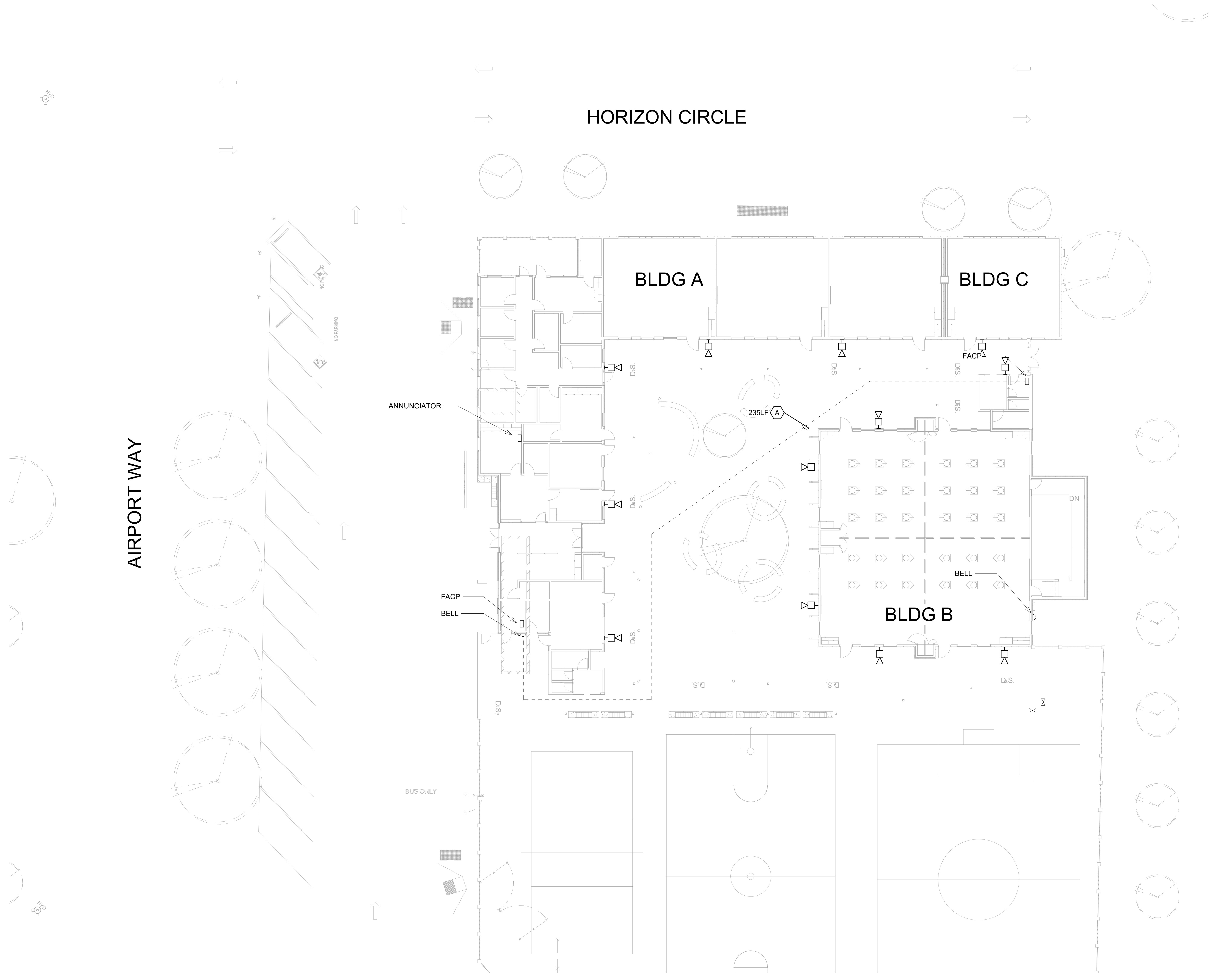
TIMOTHY ROBERT CAMPBELL
FP 2004



1
FA100
FIRE ALARM SITE PLAN
NOT TO SCALE

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
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FIRE ALARM SITE PLAN

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
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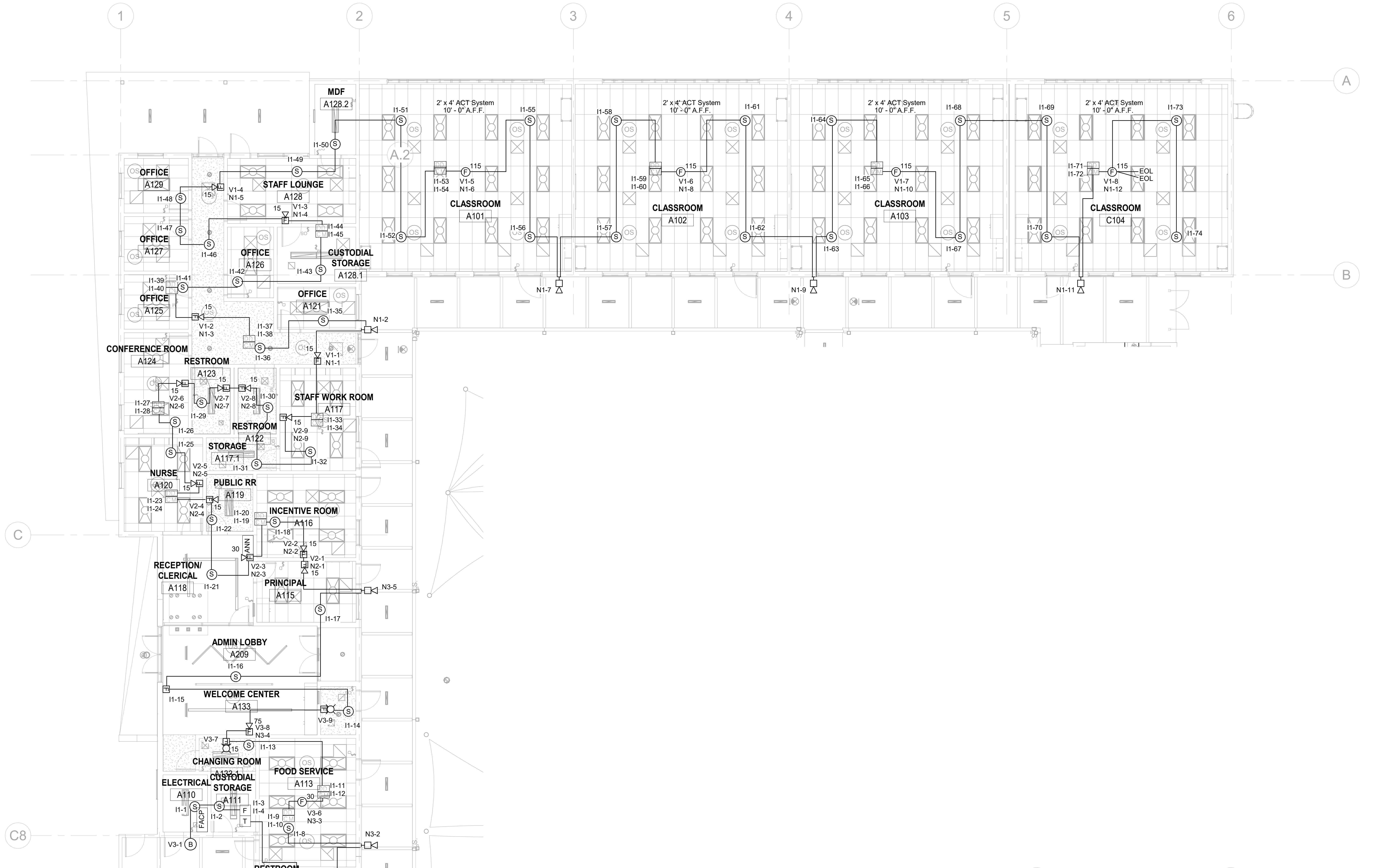
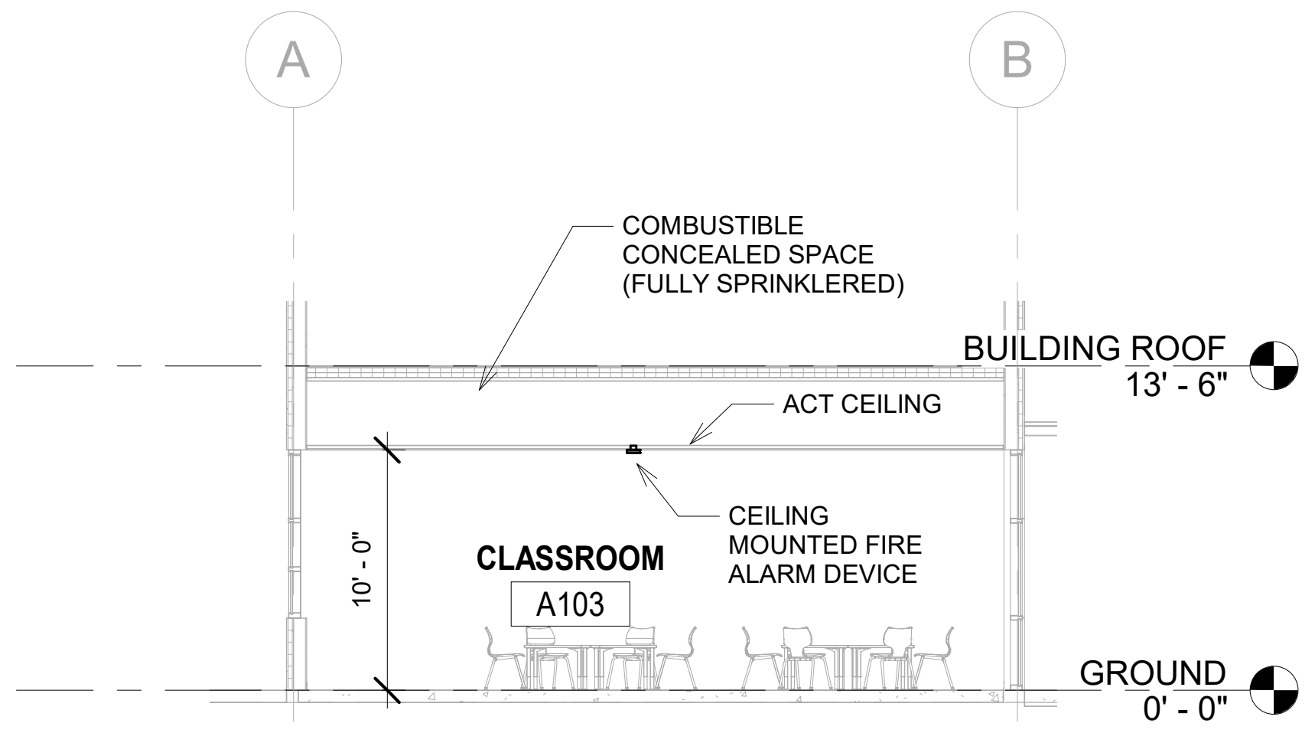
FA100



1 NEW BUILDING FIRE ALARM PLAN
FA201 1/8" = 1'-0"



2 FIRE ALARM SECTION - BLDG A
FA201 1/8" = 1'-0"

WALL LEGEND

- ▭ NEW NON-RATED WALL
- ▭ 1 HR RATED FIRE BARRIER WALL

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550 Airport Way, Camarillo, CA 93010

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NEW BUILDING FIRE ALARM PLAN

PERKINS — EASTMAN

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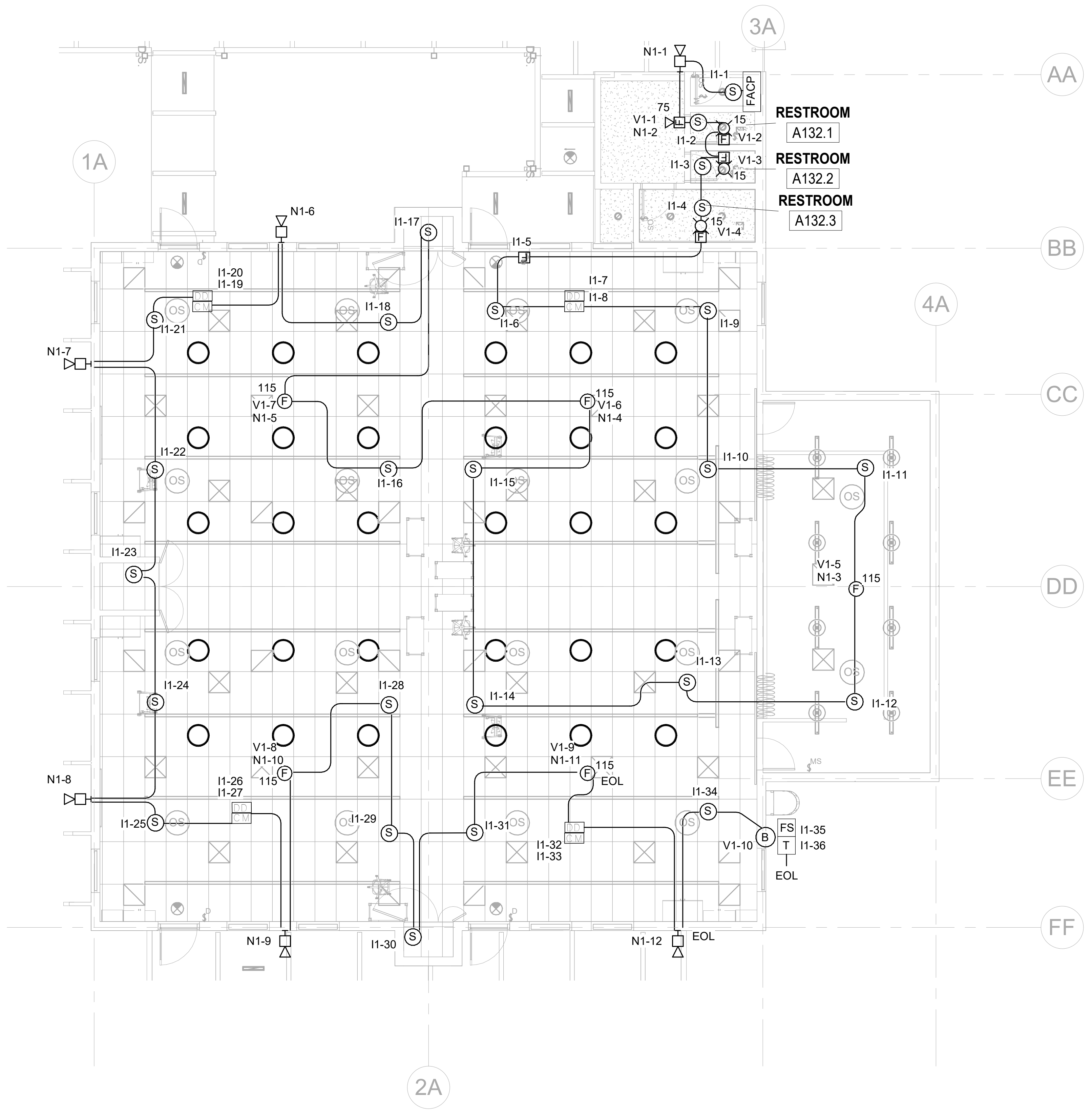
FA201



1 FOUR SQUARE FIRE ALARM PLAN
FA202 1/8" = 1'-0"

WALL LEGEND

▭	NEW NON-RATED WALL
▨	1 HR RATED FIRE BARRIER WALL

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VENTURA COUNTY OFFICE OF EDUCATION
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FOUR SQUARE BUILDING FIRE ALARM PLAN

PERKINS — EASTMAN

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www.perkinseastman.com

FA202

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2
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10

M L K J H G F E D C B A

Fire·Lite Alarms by Honeywell

MS-9600LS Battery Calculation

Secondary Power Source Requirements

	Standby Current (amps)					Secondary Alarm Current (amps)				
Device Type	**Qty**		**Current Draw**		**Total**	**Qty**		**Current Draw**		**Total**
Main Circuit Board	1	x	0.103000	=	0.10300	1	x	0.253000	=	0.25300
DACT-UD2	0	x	0.017000	=		0	x	0.029000	=	
SLC-2LS Expander Module	0	x	0.019000	=		0	x	0.026000	=	
4XTMF	0	x	0.005000	=		0	x	0.011000	=	
IPDACT-2	0	x	0.093000	=		0	x	0.136000	=	
IPDACT-2UD	0	x	0.098000	=		0	x	0.155000	=	
ANN-BUS Devices										
ANN-80(-W)	1	x	0.015000	=	0.015000	1	x	0.040000	=	0.040000
ANN-LED	0	x	0.028000	=		0	x	0.068000	=	
ANN-RLED	0	x	0.028000	=		0	x	0.068000	=	
ANN-RLY	0	x	0.015000	=		0	x	0.075000	=	
ANN-I/O	0	x	0.035000	=		0	x	0.200000	=	
ANN-S/PG	0	x	0.045000	=		0	x	0.045000	=	
ACS Annunciators										
ACM-8RF	0	x	0.030000	=		0	x	0.158000	=	
ACM-16ATF	0	x	0.040000	=		0	x	0.056000	=	
ACM-32AF	0	x	0.040000	=		0	x	0.056000	=	
AEM-16ATF	0	x	0.002000	=		0	x	0.018000	=	
AEM-32AF	0	x	0.002000	=		0	x	0.018000	=	
AFM-16ATF	0	x	0.040000	=		0	x	0.056000	=	
AFM-32AF	0	x	0.040000	=		0	x	0.056000	=	
AFM-16AF	0	x	0.025000	=		0	x	0.065000	=	
LDM-32F	0	x	0.040000	=		0	x	0.056000	=	
LDM-E32F	0	x	0.002000	=		0	x	0.018000	=	
LCD-80F	0	x	0.025000	=		0	x	0.064000	=	
Resettable Power										
4-wire Detector Heads	0	x	0.000000	=		0	x	0.000000	=	
Addressable Devices										
BEAM355	0	x	0.002000	=						
BEAM355S	0	x	0.002000	=						
BEAM1224	0	x	0.017000	=						
CP355	0	x	0.000300	=						
SD355	0	x	0.000300	=						
SD355T	45	x	0.000300	=	0.013500					
AD355	0	x	0.000300	=						
H355	0	x	0.000300	=						
H355R	0	x	0.000300	=						
H355HT	0	x	0.000300	=						
D350P	0	x	0.000300	=						
D350RP	0	x	0.000300	=						
D350PL	0	x	0.000300	=						
D350RPL	0	x	0.000300	=						
D355PL	13	x	0.000300	=	0.003900					
MMF-300	17	x	0.000400	=	0.006800					
MMF-300-10	0	x	0.003500	=						
MDF-300	0	x	0.000750	=						
MMF-301	0	x	0.000375	=						
MMF-302	0	x	0.000270	=						
MMF-302-6	0	x	0.002000	=						
BG-12LX	1	x	0.000300	=	0.000300					
CMF-300	0	x	0.000390	=						
CMF-300-6	0	x	0.002250	=						
CRF-300	0	x	0.000270	=						
CRF-300-6	0	x	0.001450	=						
CDRM-300	0	x	0.001300	=						
I300	0	x	0.000400	=						
ISO-6	0	x	0.002700	=						
B501BH-2	0	x	0.001000	=						
B501BHT-2	0	x	0.001000	=						
B224RB	0	x	0.000500	=						
B224BI	0	x	0.000450	=						
W-GATE	0	x	0.024000	=						
	Maximum alarm draw for Addressable devices (SLC 1)									0.40000
	Maximum alarm draw for Addressable devices (SLC 2)									0.00000
EOLR-1	0	x	0.020000	=		0	x	0.020000	=	
Auxiliary Power										
CMF-300 (Aux. Power)	0	x	0.001700	=		0	x	0.007000	=	
CMF-300-6 (Aux. Power)	0	x	0.008000	=		0	x	0.020000	=	
MMF-302 (Aux. Power)	0	x	0.012000	=		0	x	0.090000	=	
MMF-302-6 (Aux. Power)	0	x	0.050000	=		0	x	0.270000	=	
B200SR (Aux. Power)	0	x	0.000500	=		0	x	0.035000	=	
B200SR-LF (Aux. Power)	0	x	0.001000	=		0	x	0.125000	=	
SWIFT Wireless										
W-GATE	0	x	0.040000	=		0	x	0.040000	=	
W-DIS-D	0	x	0.030000	=		0	x	0.030000	=	
Miscellaneous Devices										
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
Output Circuits										
NAC/Output #1			0.000000	=				0.000000	=	
NAC/Output #2			0.000000	=				0.000000	=	
NAC/Output #3			0.000000	=				0.000000	=	
NAC/Output #4			0.000000	=				0.000000	=	
Current Draw from TB3 (non-alarm)			0.000000	=				0.000000	=	
Sum each column for totals	**Total Standby Current**				**0.14250**	**Total Alarm Current**				**0.69300**

Fire·Lite Alarms by Honeywell

MS-9600LS Battery Calculation

Calculation in Total Sheet

		Required Standby Time in Hours			
		24 Hours			
Standby Load Current (Amps)	**0.14250 Amps**	x	24	=	3.420 AH
		Required Alarm Time in Hours			
		5 Minutes			
Alarm Load Current (Amps)	**0.69300 Amps**	x	0.084	=	0.058 AH
			Standby and Alarm Load Subtotal	=	3.478 AH
			Derating Factor	=	x 1.2
			Total Ampere Hours Required	=	**4.17 AH**

Recommended Batteries:	**BAT-12120 - 12AH Batteries**

Battery Check
The batteries can be charged by the MS-9600LS Charger.
The batteries can be housed in the MS-9600LS Cabinet.

Current Draw Check
NAC#1 current is within the limitations of the circuit.
NAC#2 current is within the limitations of the circuit.
NAC#3 current is within the limitations of the circuit.
NAC#4 current is within the limitations of the circuit.
The standby current is within the limitations of the panel.
The alarm current is within output limitations of the panel.

FL-PS10 Battery Calculation

Secondary Power Source Requirements

	Standby Current (amps)					Secondary Alarm Current (amps)				
Device Type	**Qty**		**Current Draw**		**Total**	**Qty**		**Current Draw**		**Total**
Main Circuit Board **Choose EOLR used ↓** 4.7k	1	X	0.1560	=	0.1560	1	X	0.1850	=	0.1850
Main Circuit Board with ZNAC-PS Class A card	0	X	0.1490	=	0.0000	0	X	0.1590	=	0.0000
NAC / Output # 1	1	X	0.0860	=	0.0860	1	X	3.2660	=	3.2660
NAC / Output # 2	1	X	0.0860	=	0.0860	1	X	3.1870	=	3.1870
NAC / Output # 3	1	X	0.0860	=	0.0860	1	X	3.0600	=	3.0600
NAC / Output # 4	1	X	0.0000	=	0.0000	1	X	0.0000	=	0.0000
NAC / Output # 5	1	X	0.0000	=	0.0000	1	X	0.0000	=	0.0000
NAC / Output # 6	1	X	0.0000	=	0.0000	1	X	0.0000	=	0.0000
NAC / Output # 7	1	X	0.0000	=	0.0000	1	X	0.0000	=	0.0000
			Total Standby Load		**0.4140**			**Total Alarm Load**		**9.6980**

FL-PS10 Battery Calculation

Note 1: You are **fully responsible for verifying these calculations**.
Note 2: You only need to make entries in the **yellow** cells

Calculation in Total Sheet

		Required Standby Time in Hours			
		24 Hours			
Standby Load Current (Amps)	**0.4140 Amps**	X	24	=	9.936 AH
		Required Alarm Time in Hours			
		15 Minutes			
Alarm Load Current (Amps)	**9.6980 Amps**	X	0.25	=	2.425 AH
				Total Current Load	**12.36 AH**
	*Multiply by the Derating Factor		1.2	=	x 1.20
				Total Ampere Hours Required	**14.83 AH**

Recommended Batteries:	**BAT-12180 - 18AH Batteries**

FL-PS10 Circuit Detail

NAC / Output # 1

Device	**Qty**		**Non-Alarm Draw**		**Total**	**Qty**		**Alarm Draw**		**Total**
Ceiling Spk/Strobe 115cd	4	x	0.000000	=	0.000000	4	x	0.158000	=	0.632000
Spk Strobe 15cd	4	x	0.000000	=	0.000000	4	x	0.107000	=	0.428000
Am-50	1	x	0.086000	=	0.086000	1	x	2.206000	=	2.206000
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
			Total Standby Load		**0.086000**			**Total Alarm Load**		**3.266000**

NAC / Output # 2

Device	**Qty**		**Non-Alarm Draw**		**Total**	**Qty**		**Alarm Draw**		**Total**
Spk strobe 15cd	8	x	0.000000	=	0.000000	8	x	0.107000	=	0.856000
Spk strobe 30cd	1	x	0.000000	=	0.000000	1	x	0.125000	=	0.125000
Am-50	1	x	0.086000	=	0.086000	1	x	2.206000	=	2.206000
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
			Total Standby Load		**0.086000**			**Total Alarm Load**		**3.187000**

NAC / Output # 3

Device	**Qty**		**Non-Alarm Draw**		**Total**	**Qty**		**Alarm Draw**		**Total**
Spk Strobe 15cd	1	x	0.000000	=	0.000000	1	x	0.107000	=	0.107000
Horn Strobe 30cd	1	x	0.000000	=	0.000000	1	x	0.125000	=	0.125000
Strobe 15cd	4	x	0.000000	=	0.000000	4	x	0.107000	=	0.428000
Bell	1	x	0.000000	=	0.000000	1	x	0.053000	=	0.053000
Horn Strobe 75cd	1	x	0.000000	=	0.000000	1	x	0.141000	=	0.141000
Am-50	1	x	0.086000	=	0.086000	1	x	2.206000	=	2.206000
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
			Total Standby Load		**0.086000**			**Total Alarm Load**		**3.060000**

VOLTAGE LINE LOSS CALCULATIONS

JOB: GATEWAY NEW BUILDING
DATE: 6-23-2022
OLTAGE LINE LOSS FORMULA:
A) X (F) X (C) / (D)/ (E) = % LINE LOSS

)AMPS		(B)	WIRE GAUGE	12
-----		(C)	WIRE RESISTANCE	21.6
cd SPEAKER/STROBE (SPSCR)	0.053	(D)	CIRCULAR MILLS	6530.000
cd SPEAKER/STROBE (SPSCR)	0.094	(E)	VOLTS (DC)	24.000
cd SPEAKER/STROBE (SPSCR)	0.119	(F)	LINE WIRE FOOTAGE	(PER CIRCUIT)
cd STROBE (SCR)	0.043			
.5cd HORN/STROBE	0.202			

OTHER DATA

OWER SUPPLY FCPS2	15cd SPEAKER/ STROBE	30cd SPEAKER/ STROBE	75cd SPEAKER/ STROBE	115cd SPEAKER/ STROBE	15cd STROBE	TOTAL AMPS	LINE WIRE FOOTAGE	VOLTAGE LOSS	% LINE LOSS
RCUIT 1, N1	4	0	0	4	0	1.02	500	1.69	7.03%
RCUIT2, N2	8	1	0	0	0	0.52	500	0.86	3.57%
RCUIT 3, N3	1	1	1	0	4	0.44	500	0.72	3.02%
TAL	13	2	1	4	4	1.98			

Project Name	GATEWAY NEW BUILDING		
Panel	FLPS10		
Circuit Number	V1		
Area Covered	GATEWAY NEW BUILDING		
Nominal Speaker Voltage (25 or 70)		25	
Minimum Device Voltage (Calculated see notes)		20	
Total Circuit Current in amps	0.528	Wire Gauge	Ohm's Per 1000
Total Circuit Power	6.000		
Distance from source to 1st device	25	12	1.98
Wire Gauge for balance of circuit		12	1.98

Enter Power in Watts 2W = 2 1/2W =.5	TOTAL POWER	TOTAL WIRE LENGTH	Calculated TOTAL CURRENT	At Device	Voltage Drop from source	Percent Drop
Device 1	12.000	650	0.528	23.64	1.359	5.44%
Totals	6.000	650		End of Line Voltage		**23.64**

End of Line Method		
CIRCUIT IS WITHIN LIMITS		
Totals		Voltage Drop
Current	Distance	
0.528	650	**1.359**
End of Line Voltage		**23.64**
Percent Drop		5.44%

Standard Wire Resistance in Ohms per 1000 feet.
18=7.77 16=4.89 14=3.07 12=1.98 10=1.24
18-14 Awg = Solid Conductors 12-10 Awg = Stranded Conductors

Project Name	GATEWAY NEW BUILDING		
Panel	FLPS1		
Circuit Number	N2		
Area Covered	GATEWAY NEW BUILDING		
Nominal Speaker Voltage (25 or 70)		25	
Minimum Device Voltage (Calculated see notes)		20	
Total Circuit Current in amps	0.387	Wire Gauge	Ohm's Per 1000
Total Circuit Power	12.000		
Distance from source to 1st device	25	12	1.98
Wire Gauge for balance of circuit		16	4.89

Enter Power in Watts 2W = 2 1/2W =.5	TOTAL POWER	TOTAL WIRE LENGTH	Calculated TOTAL CURRENT	At Device	Voltage Drop from source	Percent Drop
Device 1	5.000	500	0.387	24.23	0.766	3.07%
Totals	12.000	500		End of Line Voltage		**24.23**

End of Line Method		
CIRCUIT IS WITHIN LIMITS		
Totals		Voltage Drop
Current	Distance	
0.387	500	**0.766**
End of Line Voltage		**24.23**
Percent Drop		3.07%

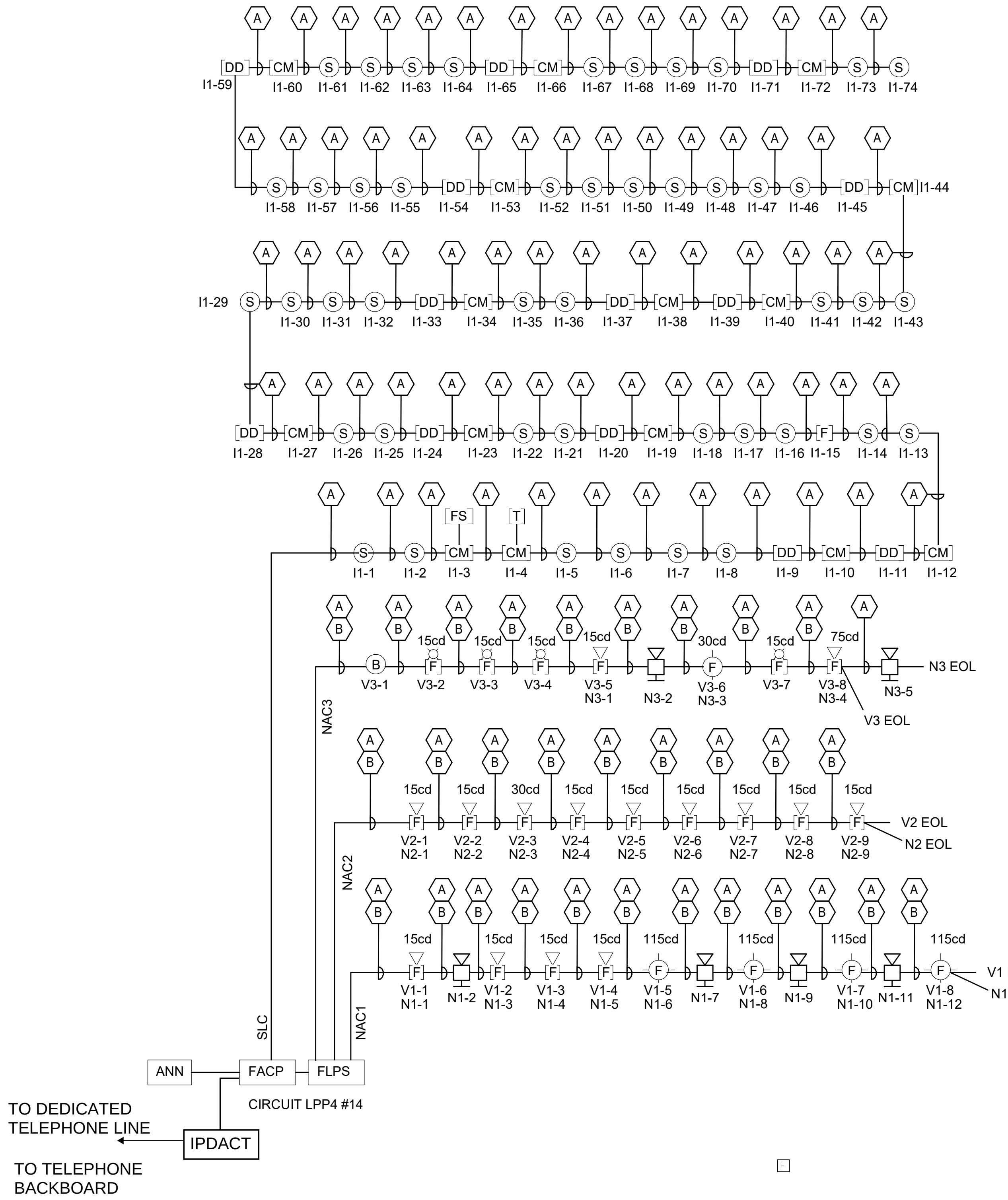
Standard Wire Resistance in Ohms per 1000 feet.
18=7.77 16=4.89 14=3.07 12=1.98 10=1.24
18-14 Awg = Solid Conductors 12-10 Awg = Stranded Conductors

Project Name	GATEWAY NEW BUILDING		
Panel	FCPS2		
Circuit Number	N3		
Area Covered	GATEWAY NEW BUILDING		
Nominal Speaker Voltage (25 or 70)		25	
Minimum Device Voltage (Calculated see notes)		20	
Total Circuit Current in amps	0.182	Wire Gauge	Ohm's Per 1000
Total Circuit Power	6.000		
Distance from source to 1st device	25	12	1.98
Wire Gauge for balance of circuit		16	4.89

Enter Power in Watts 2W = 2 1/2W =.5	TOTAL POWER	TOTAL WIRE LENGTH	Calculated TOTAL CURRENT	At Device	Voltage Drop from source	Percent Drop
Device 1	5.000	500	0.182	24.64	0.360	1.44%
Totals	6.000	500		End of Line Voltage		**24.64**

End of Line Method		
CIRCUIT IS WITHIN LIMITS		
Totals		Voltage Drop
Current	Distance	
0.182	500	**0.360**
End of Line Voltage		**24.64**
Percent Drop		1.44%

Standard Wire Resistance in Ohms per 1000 feet.
18=7.77 16=4.89 14=3.07 12=1.98 10=1.24
18-14 Awg = Solid Conductors 12-10 Awg = Stranded Conductors


I1-59
I1-60 I1-61 I1-62 I1-63 I1-64 I1-65 I1-66 I1-67 I1-68 I1-69 I1-70 I1-71 I1-72 I1-73 I1-74
I1-58 I1-57 I1-56 I1-55 I1-54 I1-53 I1-52 I1-51 I1-50 I1-49 I1-48 I1-47 I1-46 I1-45 I1-44
I1-29 I1-30 I1-31 I1-32 I1-33 I1-34 I1-35 I1-36 I1-37 I1-38 I1-39 I1-40 I1-41 I1-42 I1-43
I1-28 I1-27 I1-26 I1-25 I1-24 I1-23 I1-22 I1-21 I1-20 I1-19 I1-18 I1-17 I1-16 I1-15 I1-14 I1-13
FS
T
I1-1 I1-2 I1-3 I1-4 I1-5 I1-6 I1-7 I1-8 I1-9 I1-10 I1-11 I1-12
DD
CM
S
F
A
B
15cd
30cd
75cd
115cd
V3-1 V3-2 V3-3 V3-4 V3-5 N3-1 N3-2 V3-6 N3-3 V3-7 V3-8 N3-4 N3-5
N3 EOL
V3 EOL
NAC3
V2-1 N2-1 V2-2 N2-2 V2-3 N2-3 V2-4 N2-4 V2-5 N2-5 V2-6 N2-6 V2-7 N2-7 V2-8 N2-8 V2-9 N2-9
V2 EOL
N2 EOL
NAC2
V1-1 N1-1 N1-2 V1-2 N1-3 V1-3 N1-4 V1-4 N1-5 V1-5 N1-6 N1-7 V1-6 N1-8 N1-9 V1-7 N1-10 N1-11 V1-8 N1-12
V1 EOL
N1 EOL
NAC1
SLC
ANN
FACP
FLPS
CIRCUIT LPP4 #14
TO DEDICATED TELEPHONE LINE
IPDACT
TO TELEPHONE BACKBOARD

1 / FA301 NEW BUILDING FIRE ALARM RISER
NOT TO SCALE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
REN. JUL. 31, 2021

TIMOTHY ROBERT CAMPBELL
FP 2004

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	05/02/2022

FIRE ALARM RISER DIAGRAMS
AND CALCS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FA301

FIRE·LITE ALARMS
by Honeywell

MS-9600LS Battery Calculation

Secondary Power Source Requirements

Device Type	Standby Current (amps) Qty		Current Draw		Total	Secondary Alarm Current (amps) Qty		Current Draw		Total
Main Circuit Board	1	x	0.103000	=	0.10300	1	x	0.253000	=	0.25300
DACT-UD2	0	x	0.017000	=		0	x	0.029000	=	
SLC-2LS Expander Module	0	x	0.019000	=		0	x	0.026000	=	
4XTMF	0	x	0.005000	=		0	x	0.011000	=	
IPDACT-2	0	x	0.093000	=		0	x	0.136000	=	
IPDACT-2UD	0	x	0.098000	=		0	x	0.155000	=	
ANN-BUS Devices										
ANN-80(-W)	1	x	0.015000	=	0.015000	1	x	0.040000	=	0.040000
ANN-LED	0	x	0.028000	=		0	x	0.068000	=	
ANN-RLED	0	x	0.028000	=		0	x	0.068000	=	
ANN-RLY	0	x	0.015000	=		0	x	0.075000	=	
ANN-I/O	0	x	0.035000	=		0	x	0.200000	=	
ANN-S/PG	0	x	0.045000	=		0	x	0.045000	=	
ACS Annunciators										
ACM-8RF	0	x	0.030000	=		0	x	0.158000	=	
ACM-16ATF	0	x	0.040000	=		0	x	0.056000	=	
ACM-32AF	0	x	0.040000	=		0	x	0.056000	=	
AEM-16ATF	0	x	0.002000	=		0	x	0.018000	=	
AEM-32AF	0	x	0.002000	=		0	x	0.018000	=	
AFM-16ATF	0	x	0.040000	=		0	x	0.056000	=	
AFM-32AF	0	x	0.040000	=		0	x	0.056000	=	
AFM-16AF	0	x	0.025000	=		0	x	0.065000	=	
LDM-32F	0	x	0.040000	=		0	x	0.056000	=	
LDM-E32F	0	x	0.002000	=		0	x	0.018000	=	
LCD-80F	0	x	0.025000	=		0	x	0.064000	=	
Resettable Power										
4-wire Detector Heads	0	x	0.000000	=		0	x	0.000000	=	
Addressable Devices										
BEAM355	0	x	0.002000	=						
BEAM355S	0	x	0.002000	=						
BEAM1224	0	x	0.017000	=						
CP355	0	x	0.000300	=						
SD355	0	x	0.000300	=						
SD355T	24	x	0.000300	=	0.007200					
AD355	0	x	0.000300	=						
H355	0	x	0.000300	=						
H355R	0	x	0.000300	=						
H355HT	0	x	0.000300	=						
D350P	0	x	0.000300	=						
D350RP	0	x	0.000300	=						
D350PL	0	x	0.000300	=						
D350RPL	0	x	0.000300	=						
D355PL	4	x	0.000300	=	0.001200					
MMF-300	2	x	0.000400	=	0.000800					
MMF-300-10	0	x	0.003500	=						
MDF-300	0	x	0.000750	=						
MMF-301	0	x	0.000375	=						
MMF-302	0	x	0.000270	=						
MMF-302-6	0	x	0.002000	=						
BG-12LX	1	x	0.000300	=	0.000300					
CMF-300	0	x	0.000390	=						

Fire-Lite Alarms Page 1 12/21/2022

CMF-300-6	0	x	0.002250	=						
CRF-300	4	x	0.000270	=	0.001080					
CRF-300-6	0	x	0.001450	=						
CDRM-300	0	x	0.001300	=						
I300	0	x	0.000400	=						
ISO-6	0	x	0.002700	=						
B501BH-2	0	x	0.001000	=						
B501BHT-2	0	x	0.001000	=						
B224RB	0	x	0.000500	=						
B224BI	0	x	0.000450	=						
W-GATE	0	x	0.024000	=						
	Maximum alarm draw for Addressable devices (SLC 1)									0.40000
	Maximum alarm draw for Addressable devices (SLC 2)									0.00000
EOLR-1	0	x	0.020000	=		0	x	0.020000	=	
Auxiliary Power										
CMF-300 (Aux. Power)	0	x	0.001700	=		0	x	0.007000	=	
CMF-300-6 (Aux. Power)	0	x	0.008000	=		0	x	0.020000	=	
MMF-302 (Aux. Power)	0	x	0.012000	=		0	x	0.090000	=	
MMF-302-6 (Aux. Power)	0	x	0.050000	=		0	x	0.270000	=	
B200SR (Aux. Power)	0	x	0.000500	=		0	x	0.035000	=	
B200SR-LF (Aux. Power)	0	x	0.001000	=		0	x	0.125000	=	
SWIFT Wireless										
W-GATE	0	x	0.040000	=		0	x	0.040000	=	
W-DIS-D	0	x	0.030000	=		0	x	0.030000	=	
Miscellaneous Devices										
AM50	1	x	0.086000	=	0.086000	1	x	2.206000	=	2.206000
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
Output Circuits										
NAC/Output #1			0.000000	=				1.026000	=	1.026000
NAC/Output #2			0.000000	=				0.000000	=	
NAC/Output #3			0.000000	=				0.000000	=	
NAC/Output #4			0.000000	=				0.000000	=	
Current Draw from TB3 (non-alarm)			0.000000	=				0.000000	=	
Sum each column for totals	**Total Standby Current**				**0.21458**	**Total Alarm Current**				**3.92500**

FIRE·LITE ALARMS
by Honeywell

MS-9600LS Battery Calculation

Calculation in Total Sheet

		Required Standby Time in Hours 24 Hours			
Standby Load Current (Amps)	**0.21458 Amps**	x	24	=	5.150 AH
		Required Alarm Time in Hours 5 Minutes			
Alarm Load Current (Amps)	**3.92500 Amps**	x	0.084	=	0.330 AH
		Standby and Alarm Load Subtotal		=	5.480 AH
		Derating Factor		=	x 1.2
		Total Ampere Hours Required		=	**6.58 AH**

Recommended Batteries: BAT-12120 - 12AH Batteries

Battery Check
The batteries can be charged by the MS-9600LS Charger.
The batteries can be housed in the MS-9600LS Cabinet.

Current Draw Check
NAC#1 current is within the limitations of the circuit.
NAC#2 current is within the limitations of the circuit.
NAC#3 current is within the limitations of the circuit.
NAC#4 current is within the limitations of the circuit.
The standby current is within the limitations of the panel.
The alarm current is within output limitations of the panel.

FIRE·LITE ALARMS
by Honeywell

MS-9600LS Circuit Detail

NAC 1

Device	Qty		Non-Alarm Draw		Total	Qty		Alarm Draw		Total
Ceiling Speaker/Strobe	5	x	0.000000	=	0.000000	5	x	0.158000	=	0.790000
Speaker/Strobe	1	x	0.000000	=	0.000000	1	x	0.107000	=	0.107000
Strobe	3	x	0.000000	=	0.000000	3	x	0.043000	=	0.129000
		x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
Total Standby Load					**0.000000**	**Total Alarm Load**				**1.026000**

VOLTAGE LINE LOSS CALCULATIONS

JOB: GATEWAY FOURSQUARE
DATE: 6-23-2022
VOLTAGE LINE LOSS FORMULA:
(A) X (F) X (C) / (D)/ (E) = % LINE LOSS

(A)AMPS			OTHER DATA	
-------			-----------	
		(B)	WIRE GAUGE	12
		(C)	WIRE RESISTANCE	21.6
15cd SPEAKER/STROBE (SPSCR)	0.043	(D)	CIRCULAR MILLS	6530.000
75cd SPEAKER/STROBE (SPSCR)	0.107	(E)	VOLTS (DC)	24.000
115cd SPEAKER/STROBE (SPSCR)	0.129	(F)	LINE WIRE FOOTAGE	(PER CIRCUIT)
15cd STROBE (SCR)	0.043			

POWER SUPPLY FCPS1	15cd SPEAKER/ STROBE	75cd SPEAKER/ STROBE	115cd SPEAKER/ STROBE	15cd STROBE	TOTAL AMPS	LINE WIRE FOOTAGE	VOLTAGE LOSS	% LINE LOSS
--------------------------------	-----	-----	-----	-----	-----	-----	-----	-----
CIRCUIT 1, N1	0	1	5	3	0.88	500	1.46	6.07%
	-----	-----	-----	-----	-----			
TOTAL	0	1	5	3	0.88			

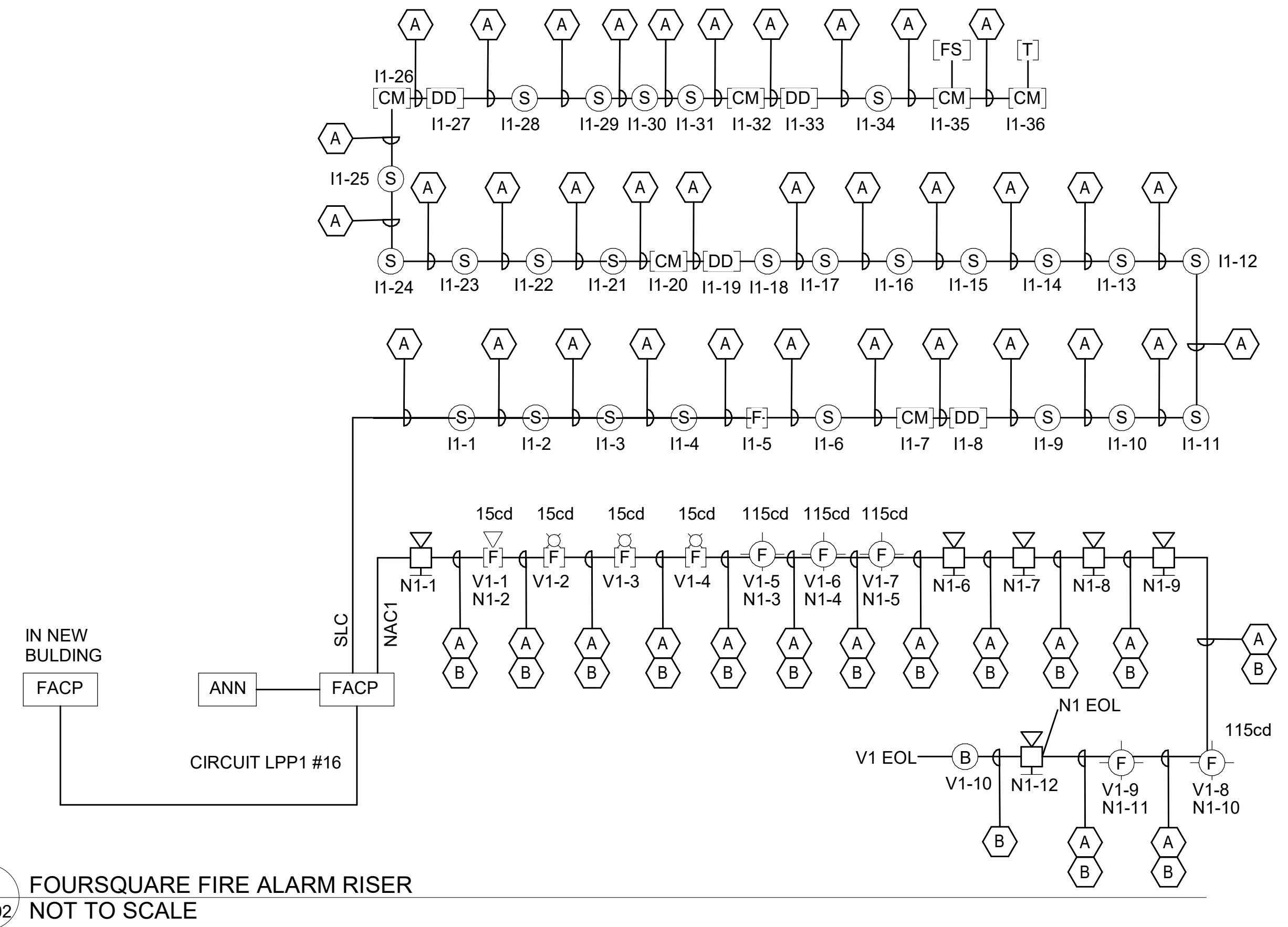
Project Name	GATEWAY COMMUNITY FOURSQUARE
Panel	FCPS1
Circuit Number	V1
Area Covered	FOURSQUARE

Nominal Speaker Voltage (25 or 70)			25	
Minimum Device Voltage (Calculated see notes)			20	
Total Circuit Current in amps	0.600		Wire	Ohm's
Total Circuit Power	7.000		Gauge	Per 1000
Distance from source to 1st device		25	16	4.89
Wire Gauge for balance of circuit			16	4.89

Enter Power in Watts 2W = 2 1/2W =.5	TOTAL POWER	TOTAL WIRE LENGTH	Calculated TOTAL CURRENT	At Device	Voltage Drop from source	Percent Drop
Device 1	15.000	500	0.600	22.07	2.934	11.74%
Totals	7.000	500		End of Line Voltage		**22.07**

End of Line Method		
CIRCUIT IS WITHIN LIMITS		
Totals		Voltage Drop
Current	Distance	
0.600	500	**2.934**
End of Line Voltage		**22.07**
Percent Drop		11.74%

Standard Wire Resistance in Ohms per 1000 feet.
18=7.77 16=4.89 14=3.07 12=1.98 10=1.24
18-14 Awg = Solid Conductors 12-10 Awg = Stranded Conductors



1 FA302 FOURSQUARE FIRE ALARM RISER
NOT TO SCALE

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FIRE ALARM RISER DIAGRAMS
AND CALCS

PERKINS
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FA302

APPLICABLE CODES

2019 CALIFORNIA BUILDING CODE
2019 CALIFORNIA FIRE CODE
NFPA 13 2016 EDITION
NFPA 24 2016 EDITION
NFPA 25 2014 EDITION
NFPA 72 2016 EDITION
TITLE 19
DSA GL-1

LEGEND

SYMBOL	DESCRIPTION
—	CROSSMAIN
—	BRANCHLINE
—⋈—	VALVE
XX	HYDRAULIC CALCULATION REFERENCE NUMBER
F	FLEXIBLE COUPLING - GRUVLOCK 7000 OR EQUIV.
╲	HANGER - SEE 4/FP401
✕	RESTRAINT - SEE 3/FP401
⌜ ⌝	ZONE OF INFLUENCE - SEE 1/FP201
←	LONGITUDINAL BRACE - SEE 4,5,7/FP402
↑	LATERAL BRACE - SEE 1,2,3,8/FP402
✛	4 WAY BRACE - SEE 6/FP402

VENTURA COUNTY FIRE PROTECTION DISTRICT
FIRE PREVENTION BUREAU
165 DURLEY AVENUE
CAMARILLO, CA 93010
www.vcfd.org
Office: 805-389-9738 Fax: 805-388-4356

FIRE PREVENTION FORM 625
FIRE-FLOW VERIFICATION

SECTION I – PROJECT INFORMATION
(To Be Completed by Applicant)

Project Name: Gateway Community School APN: 230-003-013
Project Address: 550 Airport Way City: Camarillo

SECTION II – INFORMATION ON FIRE-FLOW AVAILABILITY
(To Be Completed by Water Purveyor)

System Information:

Water Purveyor: City of Camarillo
Size & Location of Main: 8 Inch West of Parcel Distance to Parcel: 62 Feet
Size of Reservoir Serving Test Hydrants: 4 Million Gallons

Hydrant Information:

Location of Residual Hydrant: 515 Airport Way Distance to Parcel: * 205 Feet
Location of Flow Hydrant: 545 Airport Way Distance to Parcel: * 65 Feet
Type: Wet Size: 6 Inch # of Outlets: 1 4” 2 2 ½”
* Distance to parcel shall be measured along the vehicular access

Test Result Information:

Method Used to Obtain Results: Hydraulic Model ☐ Flow Test ☑
Date of Test: 1/31/2022 Time of Test: 08:45 ☑ AM ☐ PM
Static PSI: 62 Residual PSI: 46 Orifice: 2.5" Pitot: 41
Observed GPM: 1,144 Calculated GPM @ 20 psi: 1,927 Capacity Duration: ______ hrs

I have witnessed and/or reviewed this water flow information and by personal knowledge and/or on-site observation certify that the above information is correct.

Name: Andy Flores
Signature: Date: 1/31/2022
Title: Assistant Water Superintendent Company: City of Camarillo
Phone: (805) 383-5643

☐ Private on-site water system proposed. Separate plan submittal required.
☐ Water purveyor approves use of private water system. (Purveyor signature required above)

Fire District Record Number: ______________________

May 22, 2020 **Fire-flow Verification** 625-1

AUTOMATIC FIRE SPRINKLER LEGEND

SYMBOL	MANUFACTURER	SIN	TYPE	TEMP.	ORIFICE	K-FAC	MIN. PSI	FINISH	ESC
○	VIKING MICROFAST HP/QR	VK3001	SSU	200	1/2"	5.6	7 PSI	BRASS	N/A
●	VIKING MICROFAST HP/QR	VK3021	SSP	165	1/2"	5.6	7 PSI	CHROME	REC
◁	DRY SIDEWALL	VK178	DRY SW	175	1/2"	5.6	7 PSI	CHROME	REC
⊙	VIKING PEND/VIKING UPR	3021/3001	SSP/SSU	165/200	1/2"	5.6	7 PSI	CHROME	REC

* PENDANT SPRINKLER AT CEILING WITH UPRIGHT ABOVE CEILING AT SAME LOCATION

FIRE PROTECTION GENERAL NOTES:

1. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL TRADES. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC..
2. PROVIDE ACCESS PANELS WHERE REQUIRED FOR VALVES, TESTS, DRAINS, ETC. EXACT LOCATION MUST BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
3. ALL PIPING SHALL BE SLOPED AS PER SPECS, UNLESS NOTED OTHERWISE ON DRAWINGS.
4. PROVIDE PORTABLE FIRE EXTINGUISHERS, QUANTITY AND SPACING, IN ACCORDANCE WITH TITLE 19 CALIFORNIA CODE OF REGULATIONS. SEE ARCHITECTURAL FOR LOCATIONS.
5. ALL SPRINKLER PIPING AND SUPPLY PIPING MUST BE MOUNTED AS COORDINATED WITH MECHANICAL AND ELECTRICAL DISCIPLINES. PROVIDE INDIVIDUAL DROPS FOR SPRINKLERS IN CROPPED CEILINGS.
6. SEAL ALL THROUGH PENETRATIONS WITH A METHOD APPROVED BY BUILDING OFFICIAL.
7. CONTRACTOR MUST VISIT THE BUILDING SITE, DETERMINE THE EXISTING CONDITIONS, AND MAKE ALLOWANCES FOR SUCH IN BID.
8. ALL NEW PIPING MUST BE COORDINATED WITH ALL OTHER TRADES TO AVOID DUCTWORK, LIGHTING, ETC.
9. NOTE CAREFULLY THAT THE FIRE PROTECTION DRAWINGS ARE INTENDED TO INDICATE, ONLY DIAGRAMMATICALLY, THE EXTENT AND GENERAL CHARACTER AND LOCATIONS OF THE WORK INCLUDED. PROVIDE ALL WORK OBVIOUSLY INTENDED, BUT HAVING MINOR DETAILS OMITTED OR NOT SHOWN. COMPLETE AS REQUIRED TO PERFORM THE FUNCTIONS INTENDED. FOLLOW THE ARCHITECTURAL AND/OR CONSTRUCTION SET OF DRAWINGS AND SPECIFICATIONS FOR BUILDING DETAILS AND FIT THE WORK OF THE FIRE PROTECTION DRAWINGS AND SPECIFICATIONS THERETO.
10. ALL SPRINKLER DEFLECTOR DISTANCE REQUIREMENTS SHALL BE IN ACCORDANCE TO THE STANDARDS OUTLINED IN NFPA 13.
11. SPRINKLERS SHALL BE CENTERED (+/- 2") IN CEILING TILES (BOTH WAYS IF SQUARE TILES). SEE DETAILS 1/FP401 AND 2/FP401.
12. WHERE SURFACE MOUNTED LIGHT FIXTURES DESTRUCT THE DISCHARGE PATTERN OF SPRINKLERS, THE DEFLECTORS SHALL BE MOUNTED BELOW THE BOTTOM OF THE LIGHT FIXTURES NOT TO EXCEED 12" BELOW ASSOCIATED CEILINGS.
13. SUCCESSFUL BIDDER SHALL REVIEW COMPONENTS OF SPRINKLER SYSTEM WITH ENGINEER PRIOR TO AWARD OF CONTRACT.
14. ALL SYSTEMS MUST BE DRAINABLE THROUGH VALVES LOCATED AT 5' TO 7' A.F.F DISCHARGED OUTSIDE ON GRADE AT 12" A.F.G
15. CONTRACTOR TO BE RESPONSIBLE FOR REPAIRING OR REPLACING ITEMS DAMAGED DURING CONSTRUCTIONS.
16. ALL SYSTEMS TO BE LEFT IN SERVICE PRIOR TO THE END OF EACH WORKDAY.
17. SPRINKLER PIPE SHALL BE PER NFPA STANDARDS. ACCORDING TO THEIR LISTING, "DYNA-FLO", "EZ-FLO" AND XL TYPES ARE ALSO ACCEPTABLE. ALL PIPING SHALL HAVE A CORROSION RESISTANCE RATIO OF 1.0 OR GREATER, CRIMP TYPE INSTALLATIONS ARE NOT ACCEPTABLE.
18. PIPE LENGTHS SHOWN DO NOT INCLUDE FITTING LENGTH.
19. ARCHITECT, ENGINEER, AND FIRE PROTECTION CONTRACTOR SHALL AFFIX THEIR SEAL, STAMP, AND SIGN ALL SUBMITTALS. OR PROVIDE DOCUMENTATION PER DSA IR A-18.
20. CONTRACTOR TO PROVIDE A COMPLETED AND SIGNED CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR ABOVE GROUND PIPING TO THE LOCAL AUTHORITY.
21. CONTRACTOR TO PROVIDE UPDATED HYDRAULIC PLACARD ON SYSTEM RISER.
22. CONTRACTOR TO NOTIFY LOCAL AUTHORITY AND PROJECT INSPECTOR A MINIMUM OF 48 HOUR NOTICE FOR THE FOLLOWING TESTS
A. A TWO (2) HOUR, TWO HUNDRED (200) PSI HYDROSTATIC TEST
B. ALL CONTROL VALVES WILL BE FULLY OPENED AND CLOSED, BOTH BEFORE AND AFTER INSTALLATION

23. ALL SPRINKLER SYSTEM WORK COMPLETED UNDER THE SCOPE OF THIS PLAN REVIEW SHALL BE FIELD VERIFIED AND ACCEPTANCE TESTED IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS BY INSPECTION PERSONNEL.
24. ALL ARMOVERS TO BE 1" UNO.
25. UNDERGROUND MAINS AND LEAD-IN CONNECTIONS SHALL BE FLUSHED IN ACCORDANCE WITH NFPA 24 10.10.2.1.2 PRIOR TO CONNECTION TO DOWNSTREAM SYSTEM PIPING.
26. A COMPLETED AND SIGNED "CONTRACTOR'S MATERIALS & TEST CERTIFICATE FOR UNDERGROUND PIPING" SHALL BE INCLUDED IN SUBMITTAL.
27. PROVIDE SPARE SPRINKLER HEAD CABIENT, WRENCH, AND NO FEWER THAN 6 SPARE SPRINKLERS OF EACH TYPE.
28. THE END SPRINKLER ON EACH LINE SHALL BE RESTRAINED AGAINST EXCESSIVE VERTICAL AND LATERAL MOVEMENT (SEE 2/FP401).
29. THE INSPECTOR'S TEST PIPE SIZE SHALL BE 1", SMOOTH BORE, CORROSION RESISTANT ORIFICE, WITH 1/2" ORIFICE (EQUIVALENT OF SMALLEST SPRINKLER). THE DISCHARGE SHALL BE ROUTED TO THE EXTERIOR OF THE BUILDING.
30. A SELF-ADHESIVE LABEL SHALL BE PLACED ON THE FDC OR FIRE RISER AND SHALL INCLUDE THE DATE OF INSTALLATION AND/OR DATE SERVICE WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.
31. SPRINKLER CONTRACTOR SHALL COMPLETE AND SIGN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR THE ABOVEGROUND PIPING. THIS FORM SHALL BE GIVEN TO THE PROJECT INSPECTOR WHO WILL FORWARD TO DSA FOR FILING IN PROJECT RECORDS.
32. FIRE ALRM PANEL VALVE MONITORING AND WATER FLOW ALARM AND TROUBLE SIGNALS SHALL BE DISTINCTLY DIFFERENT AND AUTOMATICALLY BE TRANSMITTED TO AN APPROVED CENTRAL STATION MONITORING COMPANY. CONNECTION TO CENTRAL STATION TESTING SHALL BE VERIFED BY THE PROJECT INSPECTOR.
33. THE SPRINKLER FLOW SWITCH SHALL BE TESTED TO CONFIRM ALARM WILL SOUND WITHIN 90 SECONDS OF INITIAL FLOW FROM INSPECTOR'S TEST VALVE. TEST SHALL BE WITNESSED BY THE PROJECT INSPECTOR.
34. INSTALLATION OF SPRINKLER SYSTEM SHALL NOT BE STARTED UNTIL DRAWINGS, SPECIFICATIONS, CALCULATIONS, ETC HAVE BEEN APRROVED BY DSA.
35. ANY SUBSTITUTION OF FLEXIBLE TYPE PIPING IN LIEU OF RIGID PIPING OR ANY CHANGES TO SIZE, MANUFACTURER OR LENGTHS OF FLEXIBLE PIPING WILL REQUIRE RESUBMITTAL OF PIPING PLANS, PRODUCT DATA SHEETS, AND HYDRAULIC CALCULATIONS TO DSA-FLS FOR REVIEW AND APPROVAL.

EDUCATIONAL OCCUPANCY AFSS DESIGN CRITERIA

LIGHT HAZARD: CLASSROOMS; OFFICES; *AUDITORIUMS; LIBRARY READING AREAS WITHOUT HIGH STACKS

ORDINARY HAZARD GROUP 1: KITCHENS; MULTI-PURPOSE ROOMS; LARGE STORAGE AREAS; STAGES (AS DEFINED IN 2016 CBC 410.2)

ORDINARY HAZARD GROUP 2: SCIENCE LABS; VOCATIONAL SHOPS; STAGES 1000 SQ FT IN AREA OR >50FT IN HEIGHT, LIBRARY READING AREAS WITH HIGH STACKS

NFPA 13 A.5.1, A.5.3.1, A.5.3.2 *IF ALSO FUNCTIONS AS MULTI-PURPOSE ROOM, USE ORDINARY HAZARD GROUP 1.

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NO. C-98[illegible]
REN. JUL.31, 202[illegible]

TIMOTHY ROBERT CAMPBELL
FP 2004

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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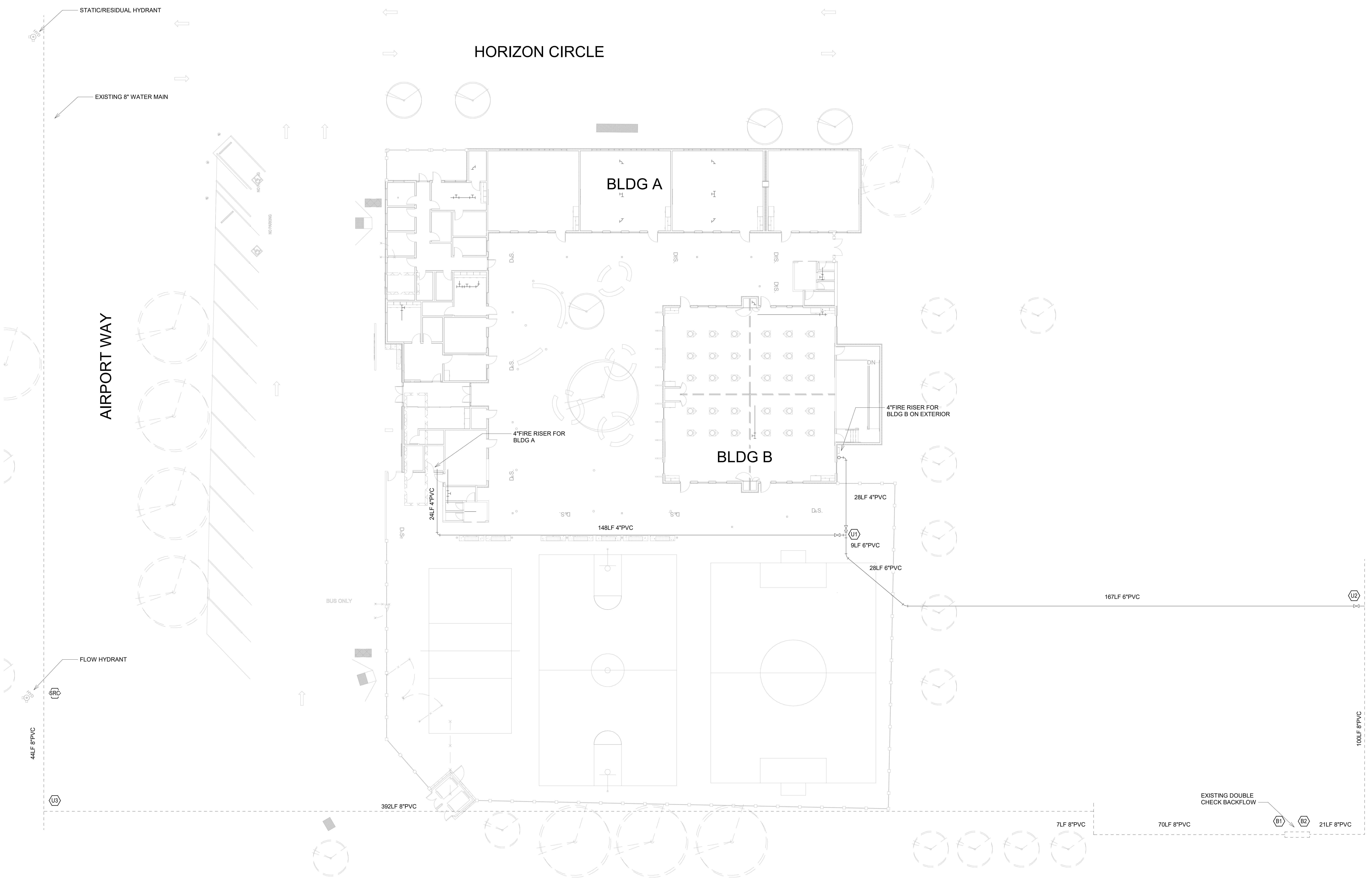
FIRE PROTECTION GENERAL

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FP001



SITE PLAN PROVIDED FOR HYDRAULIC
REFERENCE. SEE CIVIL DRAWINGS FOR
ADDITIONAL DETAISL

1 SITE PLAN
FP100 1/16" = 1'-0"

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FIRE PROTECTION SITE PLAN

PERKINS — EASTMAN

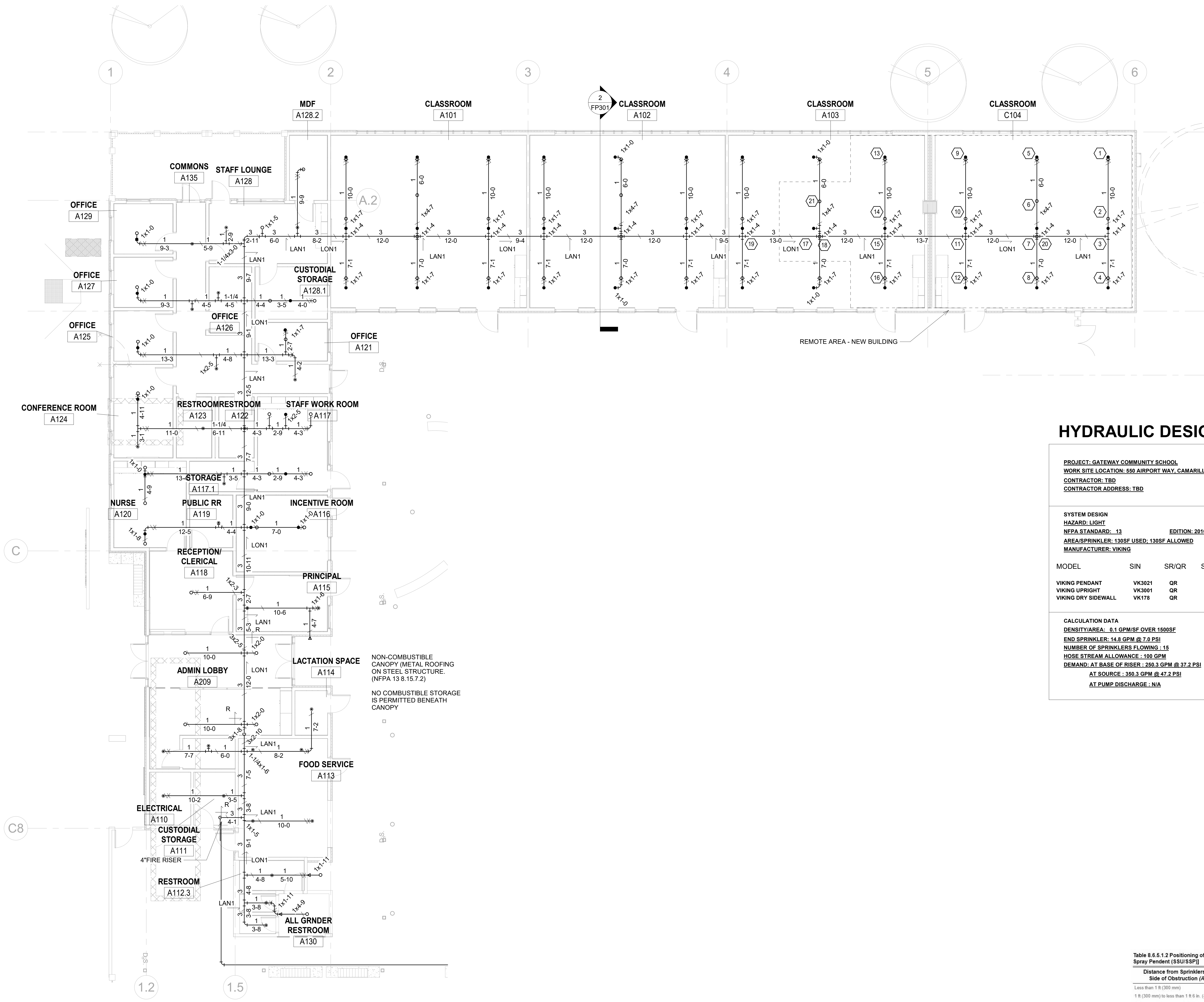
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FP100

AUTOMATIC FIRE SPRINKLER LEGEND

SYMBOL	MANUFACTURER	SIN	TYPE	TEMP.	ORIFICE	K-FAC	MIN. PSI	FINISH	ESC
○	VIKING MICROFAST HP/QR	VK3001	SSU	200	1/2"	5.6	7 PSI	BRASS	N/A
●	VIKING MICROFAST HP/QR	VK3021	SSP	165	1/2"	5.6	7 PSI	CHROME	REC
◁	DRY SIDEWALL	VK178	DRY SW	175	1/2"	5.6	7 PSI	CHROME	REC
⊙	VIKING PEND/VIKING UPR	3021/3001	SSP/SSU	165/200	1/2"	5.6	7 PSI	CHROME	REC

* PENDANT SPRINKLER AT CEILING WITH UPRIGHT ABOVE CEILING AT SAME LOCATION



1 NEW BUILDING SPRINKLER PLAN
FP201 1/8" = 1'-0"

HYDRAULIC DESIGN INFORMATION SIGN

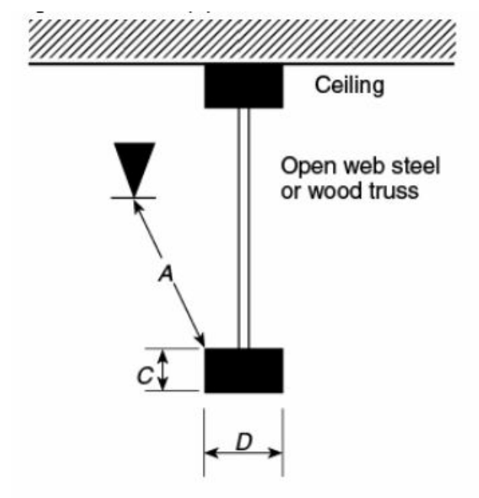
PROJECT: GATEWAY COMMUNITY SCHOOL
WORK SITE LOCATION: 550 AIRPORT WAY, CAMARILLO, CA
CONTRACTOR: TBD
CONTRACTOR ADDRESS: TBD

DATE: 09-19-22
SYSTEM: WET
REMOTE AREA #: 1 - BLDG A
AREA: CLASSROOM

SYSTEM DESIGN
HAZARD: LIGHT
NFPA STANDARD: 13 EDITION: 2016
AREA/SPRINKLER: 130SF USED; 130SF ALLOWED
MANUFACTURER: VIKING

MODEL	SIN	SR/QR	SIZE	K-FAC	ORIENT	TEMP	QTY
VIKING PENDANT	VK3021	QR	1/2"	5.6	PENDANT	165	124
VIKING UPRIGHT	VK3001	QR	1/2"	5.6	UPRIGHT	200	135
VIKING DRY SIDEWALL	VK178	QR	1/2"	5.6	SIDEWALL	175	3

CALCULATION DATA
DENSITY/AREA: 0.1 GPM/SF OVER 1500SF
END SPRINKLER: 14.8 GPM @ 7.0 PSI
NUMBER OF SPRINKLERS FLOWING : 15
HOSE STREAM ALLOWANCE : 100 GPM
DEMAND: AT BASE OF RISER : 250.3 GPM @ 37.2 PSI
AT SOURCE : 350.3 GPM @ 47.2 PSI
AT PUMP DISCHARGE : N/A



Elevation View of Truss
(Obstruction in horizontal orientation)
$A \geq 3C$ or $3D$
$A \leq 24$ in. (600 mm)
(Use dimension C or D, whichever is greater)

Table 8.6.5.1.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

Distance from Sprinklers to Side of Obstruction (A)	Maximum Allowable Distance of Deflector Above Bottom of Obstruction (B) [in. (mm)]
Less than 1 ft (300 mm)	0 (0)
1 ft (300 mm) to less than 1 ft 6 in. (450 mm)	2½ (65)
1 ft 6 in. (450 mm) to less than 2 ft (600 mm)	3½ (90)
2 ft (600 mm) to less than 2 ft 6 in. (750 mm)	5½ (140)
2 ft 6 (750 mm) in. to less than 3 ft (900 mm)	7½ (190)
3 ft (900 mm) to less than 3 ft 6 in. (1.1 m)	9½ (240)
3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)	12 (300)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	14 (350)
4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)	16½ (420)
5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)	18 (450)
5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)	20 (510)
6 ft (1.8 m) to less than 6 ft 6 in. (2.0 m)	24 (600)
6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)	30 (750)
7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)	35 (875)

2 OBSTRUCTION CRITERIA
FP201 NOT TO SCALE

WALL LEGEND

▭ NEW NON-RATED WALL

▨ 1 HR RATED FIRE BARRIER WALL

SYSTEM INFORMATION

TOTAL AREA: 7900SF

OCCUPANCY CLASSIFICATION:
CLASSROOMS, OFFICES - LIGHT HAZARD
KITCHEN - ORDINARY HAZARD GP I

OBSTRUCTION INFORMATION

CONTRACTOR SHALL MAINTAIN CLEARANCE REQUIREMENTS AS DEFINED IN 2016 NPFA 13, CHAPTER 8. OBSTRUCTED CONDITIONS SHALL BE CORRECTED PER THE DSA CCD APPROVAL PROCESS. SEE DETAIL 2, THIS SHEET.

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NEW BUILDING SPRINKLER PLAN

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FP201

AUTOMATIC FIRE SPRINKLER
LEGEND

SYMBOL	MANUFACTURER	SIN	TYPE	TEMP.	ORIFICE	K-FAC	MIN. PSI	FINISH	ESC
○	VIKING MICROFAST HP/QR	VK3001	SSU	200	1/2"	5.6	7 PSI	BRASS	N/A
●	VIKING MICROFAST HP/QR	VK3021	SSP	165	1/2"	5.6	7 PSI	CHROME	REC
◁	DRY SIDEWALL	VK178	DRY SW	175	1/2"	5.6	7 PSI	CHROME	REC
⊙	VIKING PEND/VIKING UPR	3021/3001	SSP/SSU	165/200	1/2"	5.6	7 PSI	CHROME	REC

* PENDANT SPRINKLER AT CEILING WITH UPRIGHT ABOVE CEILING AT SAME LOCATION

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DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
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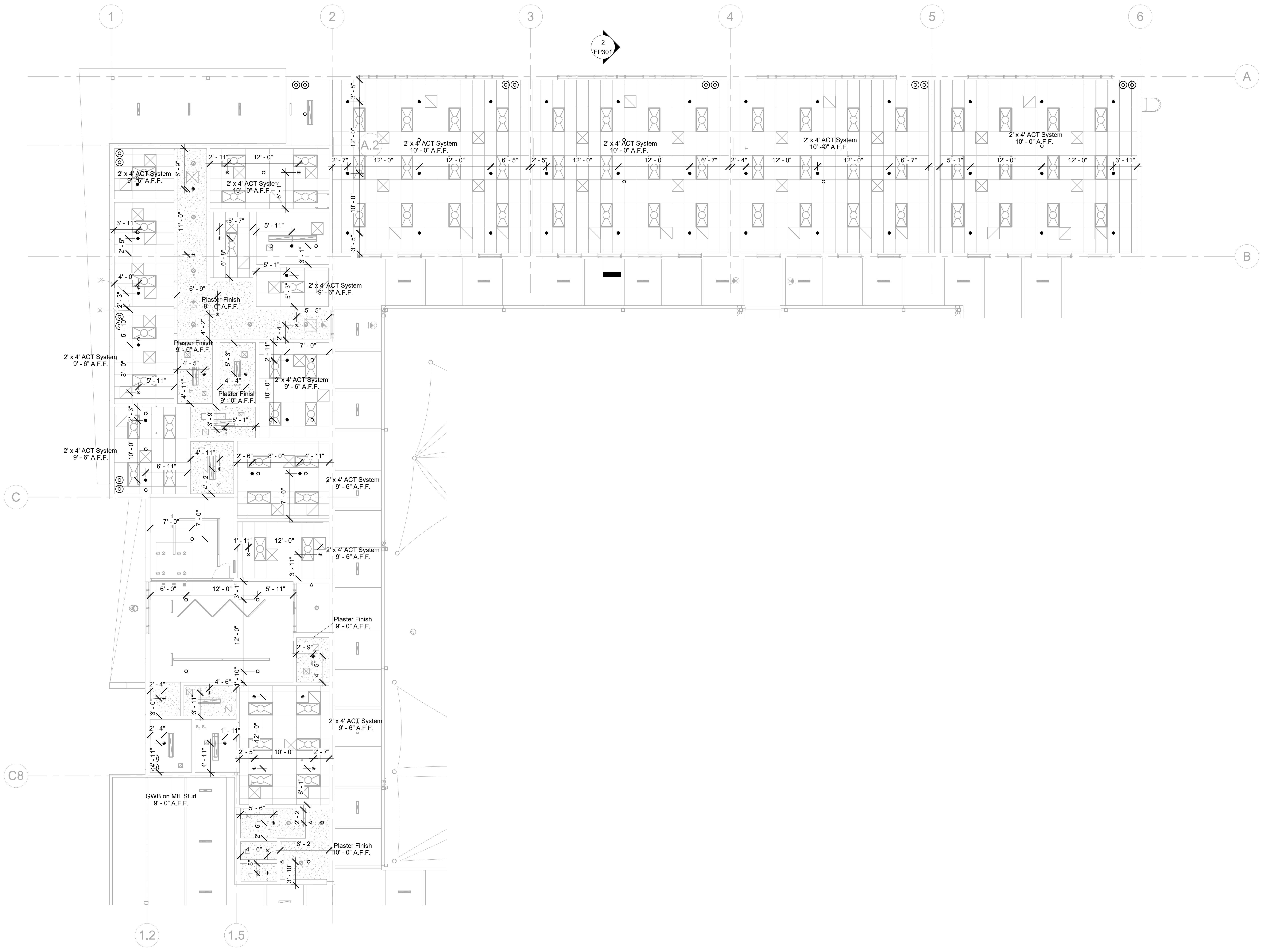
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

TIMOTHY ROBERT CAMPBELL
FP 2004



1 FP202 NEW BUILDING HEAD LAYOUT
1/8" = 1'-0"

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	05/02/2022
△	
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△	
△	
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NEW BUILDING HEAD LAYOUT

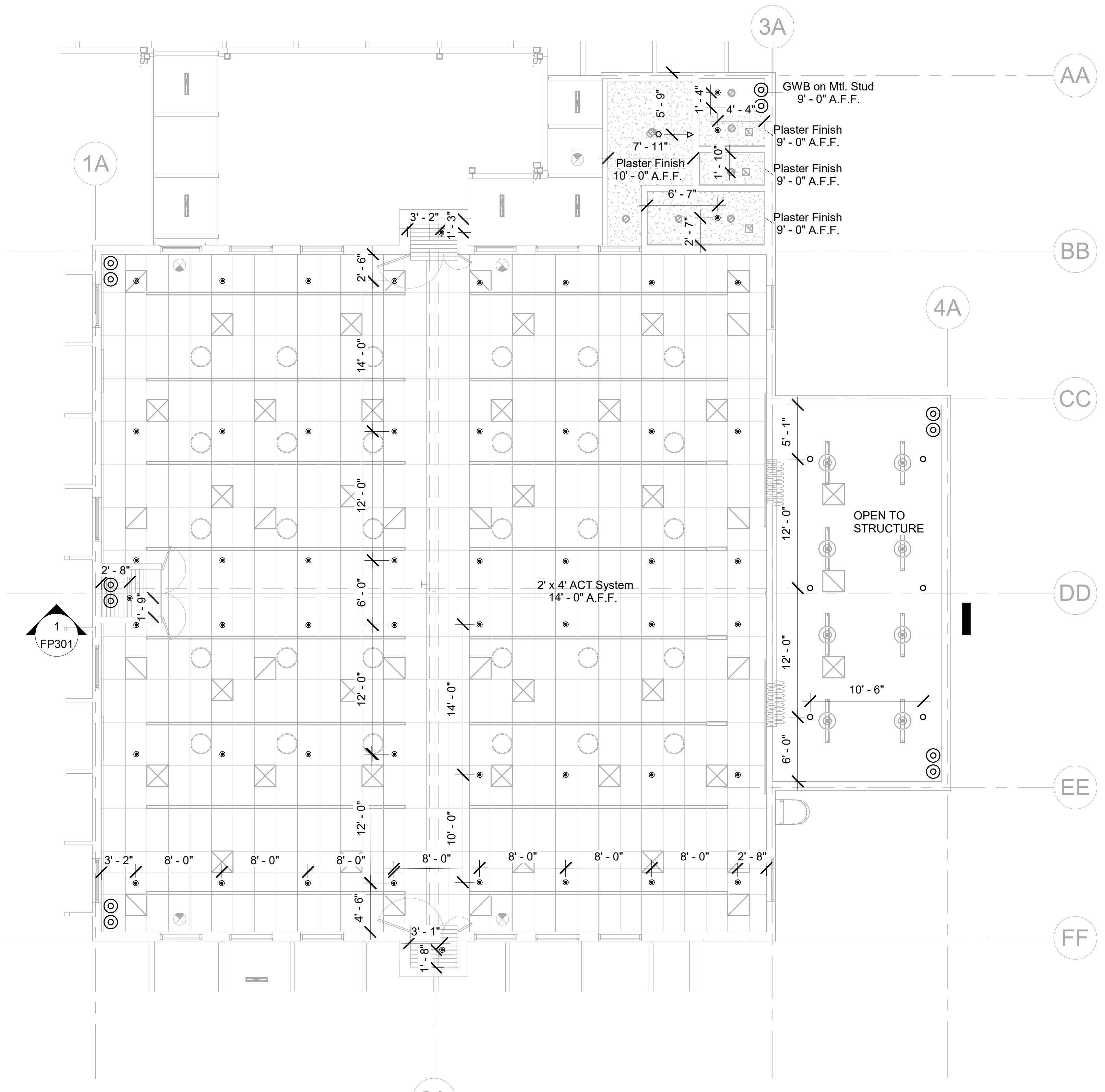
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

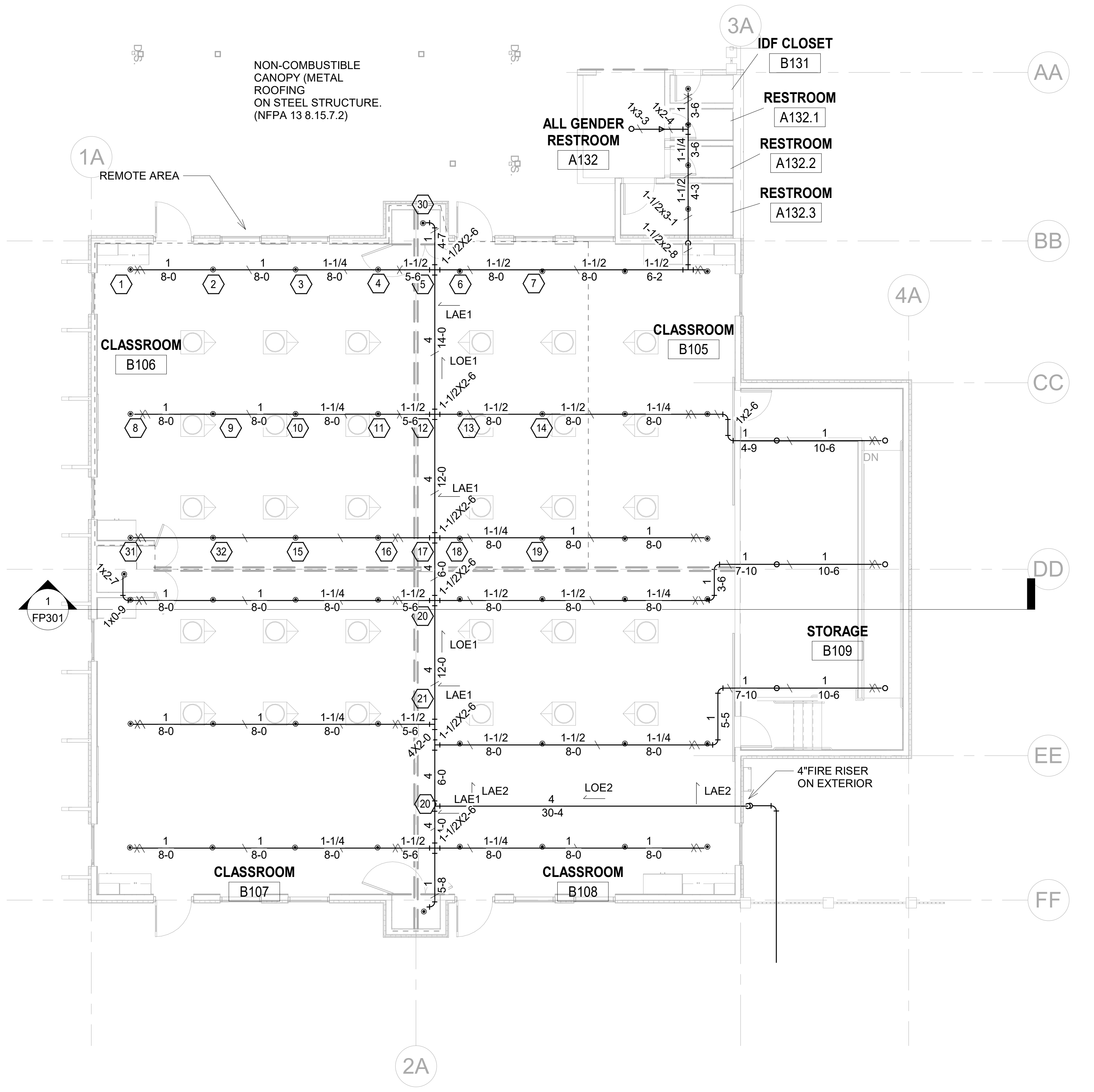
FP202

AUTOMATIC FIRE SPRINKLER LEGEND									
SYMBOL	MANUFACTURER	SIN	TYPE	TEMP.	ORIFICE	K-FAC	MIN. PSI	FINISH	ESC
○	VIKING MICROFAST HP/QR	VK3001	SSU	200	1/2"	5.6	7 PSI	BRASS	N/A
●	VIKING MICROFAST HP/QR	VK3021	SSP	165	1/2"	5.6	7 PSI	CHROME	REC
◁	DRY SIDEWALL	VK178	DRY SW	175	1/2"	5.6	7 PSI	CHROME	REC
⊙	VIKING PEND/VIKING UPR	3021/3001	SSP/SSU	165/200	1/2"	5.6	7 PSI	CHROME	REC

* PENDANT SPRINKLER AT CEILING WITH UPRIGHT ABOVE CEILING AT SAME LOCATION



2 FOUR SQUARE HEAD LAYOUT
FP203 1/8" = 1'-0"



1 FOUR SQUARE SPRINKLER PLAN
FP203 1/8" = 1'-0"

HYDRAULIC DESIGN INFORMATION SIGN

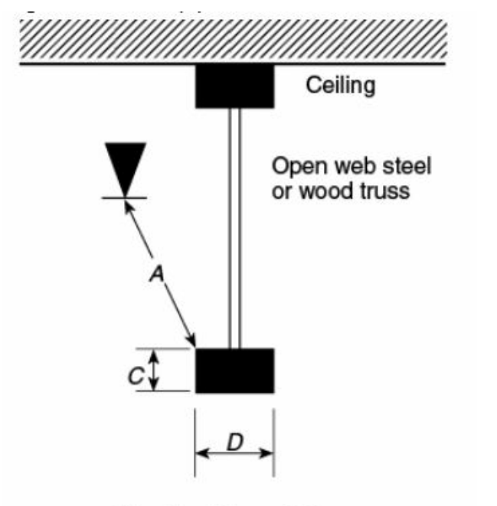
PROJECT: GATEWAY COMMUNITY SCHOOL
WORK SITE LOCATION: 550 AIRPORT WAY, CAMARILLO, CA
CONTRACTOR: TBD
CONTRACTOR ADDRESS: TBD

DATE: 09-19-22
SYSTEM: WET
REMOTE AREA #: 2
AREA: BLDG B MPR

SYSTEM DESIGN
HAZARD: ORDINARY HAZARD GP 1
NFPA STANDARD: 13 EDITION: 2016
AREA/SPRINKLER: 112SF USED; 130SF ALLOWED
MANUFACTURER: VIKING

MODEL	SIN	SR/QR	SIZE	K-FAC	ORIENT	TEMP	QTY
VIKING PENDANT	VK302	QR	1/2"	5.6	PENDANT	165	55
VIKING UPRIGHT	VK300	QR	1/2"	5.6	UPRIGHT	200	62
VIKING DRY SIDEWALL	VK178	QR	1/2"	5.6	SIDEWALL	175	1

CALCULATION DATA
DENSITY/AREA: 0.15 GPM/SF OVER 1500SF
END SPRINKLER: 16.8 GPM @ 9.0 PSI
NUMBER OF SPRINKLERS FLOWING : 19
HOSE STREAM ALLOWANCE : 250 GPM
DEMAND: AT BASE OF RISER : 383.8 GPM @ 27.7 PSI
AT SOURCE : 633.8 GPM @ 37.9 PSI
AT PUMP DISCHARGE : N/A



Elevation View of Truss
(Obstruction in horizontal orientation)
$A \geq 3C$ or $3D$
$A \leq 24$ in. (600 mm)
(Use dimension *C* or *D*, whichever is greater)

Table 8.6.5.1.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

Distance from Sprinklers to Side of Obstruction *(A)*	Maximum Allowable Distance of Deflector Above Bottom of Obstruction *(B)* [in. (mm)]
Less than 1 ft (300 mm)	0 (0)
1 ft (300 mm) to less than 1 ft 6 in. (450 mm)	2½ (65)
1 ft 6 in. (450 mm) to less than 2 ft (600 mm)	3½ (90)
2 ft (600 mm) to less than 2 ft 6 in. (750 mm)	5½ (140)
2 ft 6 (750 mm) in. to less than 3 ft (900 mm)	7½ (190)
3 ft (900 mm) to less than 3 ft 6 in. (1.1 m)	9½ (240)
3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)	12 (300)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	14 (350)
4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)	16½ (420)
5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)	18 (450)
5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)	20 (510)
6 ft (1.8 m) to less than 6 ft 6 in. (2.0 m)	24 (600)
6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)	30 (750)
7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)	35 (875)

3 OBSTRUCTION CRITERIA B
FP203 1/8" = 1'-0"

WALL LEGEND

▭	NEW NON-RATED WALL
▨	1 HR RATED FIRE BARRIER WALL

SYSTEM INFORMATION

TOTAL AREA: 4800SF

OCCUPANCY CLASSIFICATION:
CLASSROOMS/PLATFORM/MPR -
ORDINARY HAZARD GP I

OBSTRUCTION INFORMATION

CONTRACTOR SHALL MAINTAIN CLEARANCE REQUIREMENTS AS DEFINED IN 2016 NPFA 13, CHAPTER 8. OBSTRUCTED CONDITIONS SHALL BE CORRECTED PER THE DSA CCD APPROVAL PROCESS. SEE DETAIL 2, THIS SHEET.

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FP 2004

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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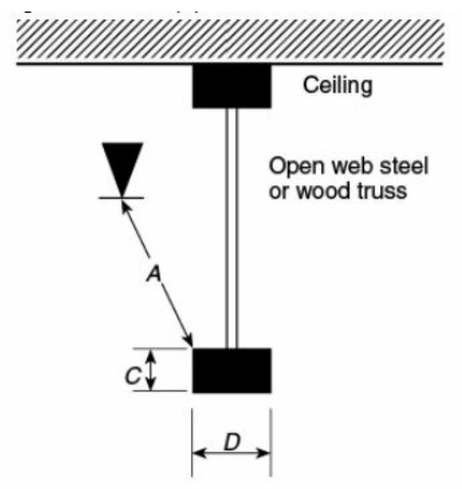
FOUR SQUARE BUILDING PLAN

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FP203



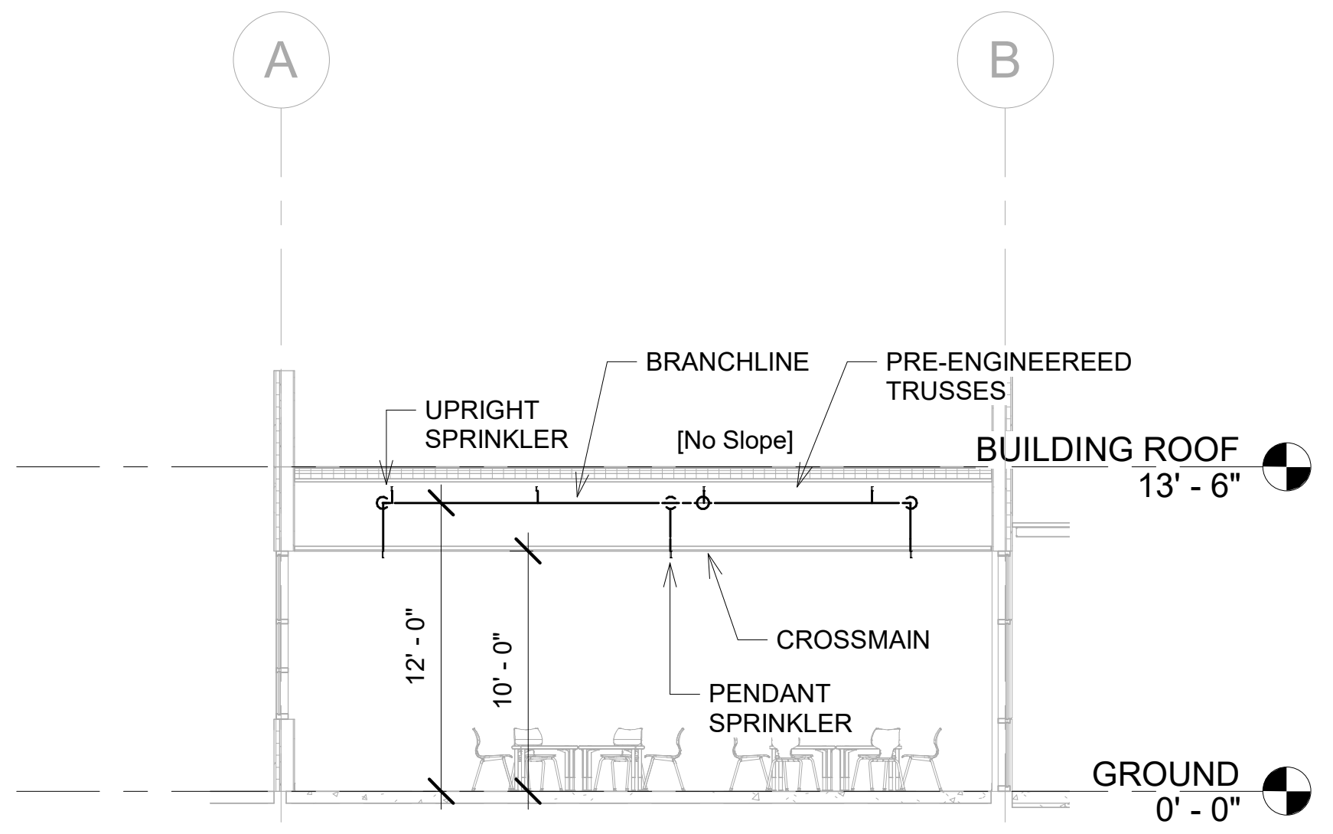
Elevation View of Truss
(Obstruction in horizontal orientation)

$A \geq 3C$ or $3D$
$A \leq 24$ in. (600 mm)
(Use dimension C or D, whichever is greater)

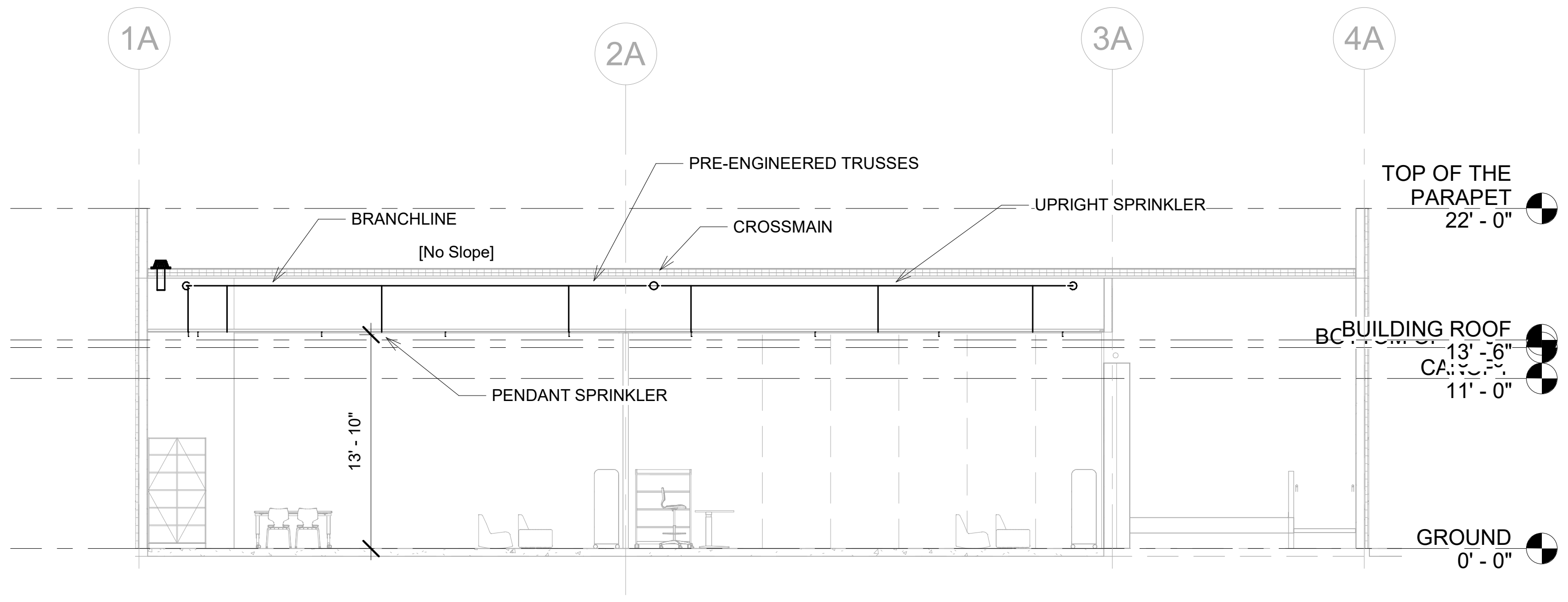
Table 8.6.5.1.2 Positioning of Sprinklers to Avoid Obstructions to Discharge [Standard Spray Upright/Standard Spray Pendent (SSU/SSP)]

Distance from Sprinklers to Side of Obstruction *(A)*	Maximum Allowable Distance of Deflector Above Bottom of Obstruction *(B)* [in. (mm)]
Less than 1 ft (300 mm)	0 (0)
1 ft (300 mm) to less than 1 ft 6 in. (450 mm)	2½ (65)
1 ft 6 in. (450 mm) to less than 2 ft (600 mm)	3½ (90)
2 ft (600 mm) to less than 2 ft 6 in. (750 mm)	5½ (140)
2 ft 6 (750 mm) in. to less than 3 ft (900 mm)	7½ (190)
3 ft (900 mm) to less than 3 ft 6 in. (1.1 m)	9½ (240)
3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)	12 (300)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	14 (350)
4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)	16½ (420)
5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)	18 (450)
5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)	20 (510)
6 ft (1.8 m) to less than 6 ft 6 in. (2.0 m)	24 (600)
6 ft 6 in. (2.0 m) to less than 7 ft (2.1 m)	30 (750)
7 ft (2.1 m) to less than 7 ft 6 in. (2.3 m)	35 (875)

3
FP301
OBSTRUCTION CRITERIA.
NOT TO SCALE



2
FP301
NEW BUILDING SECTION
1/8" = 1'-0"



1
FP301
FOUR SQUARE SECTION
1/8" = 1'-0"

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FIRE PROTECTION SECTIONS

PERKINS
EASTMAN

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Costa Mesa, CA 92626
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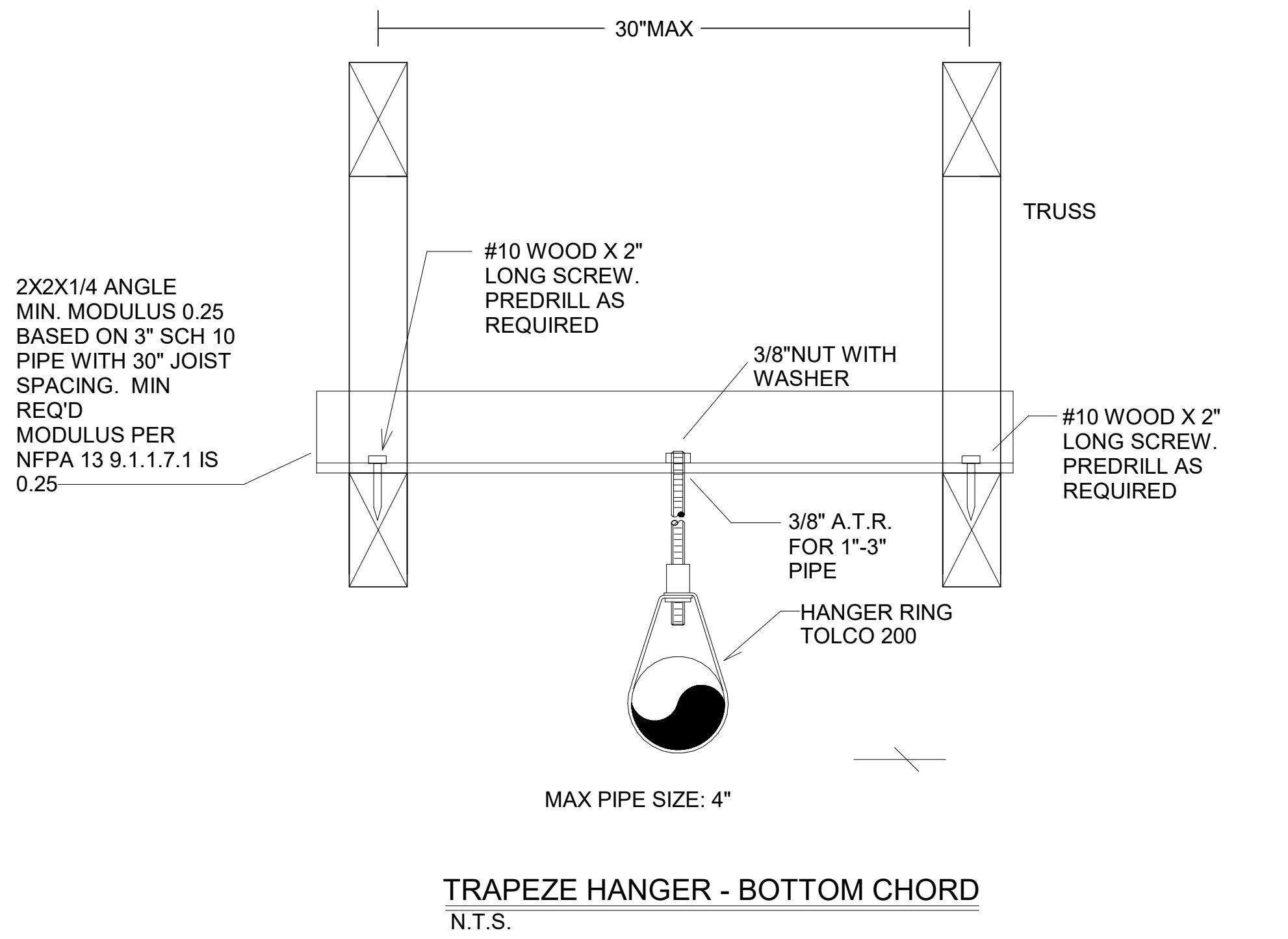
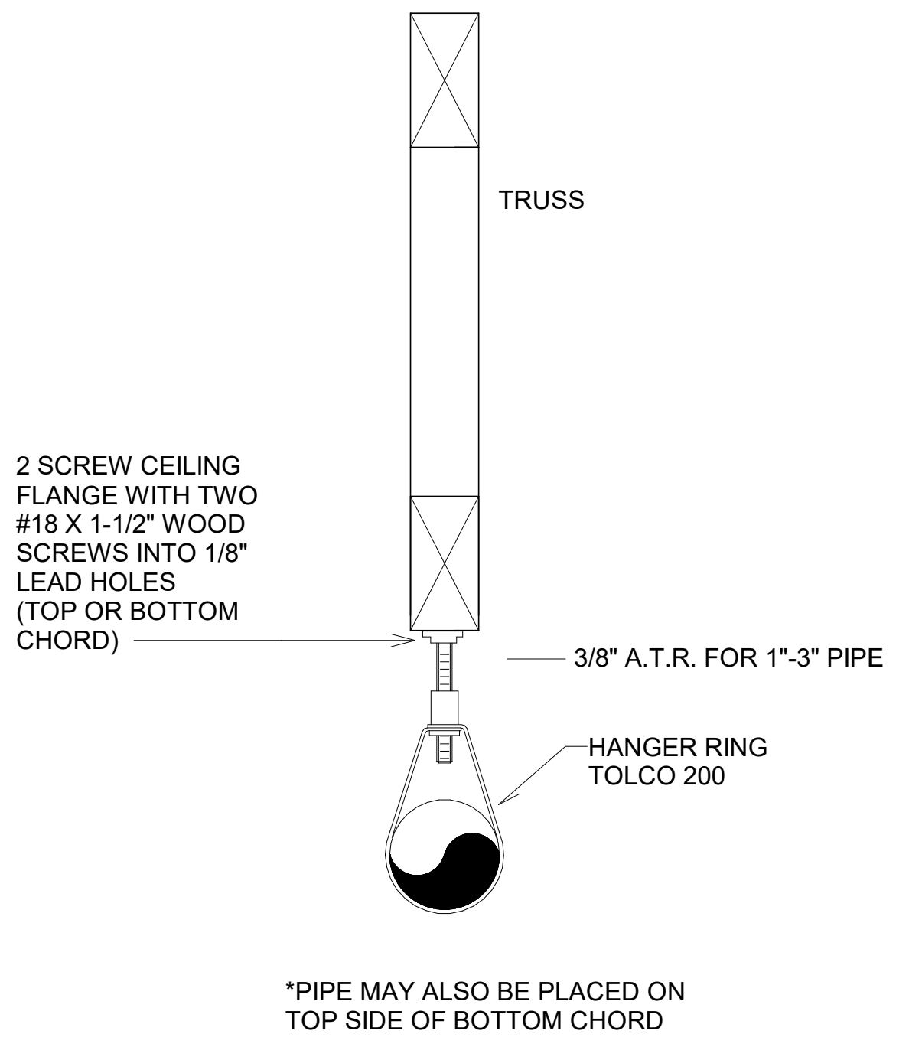
www.perkinseastman.com

FP301

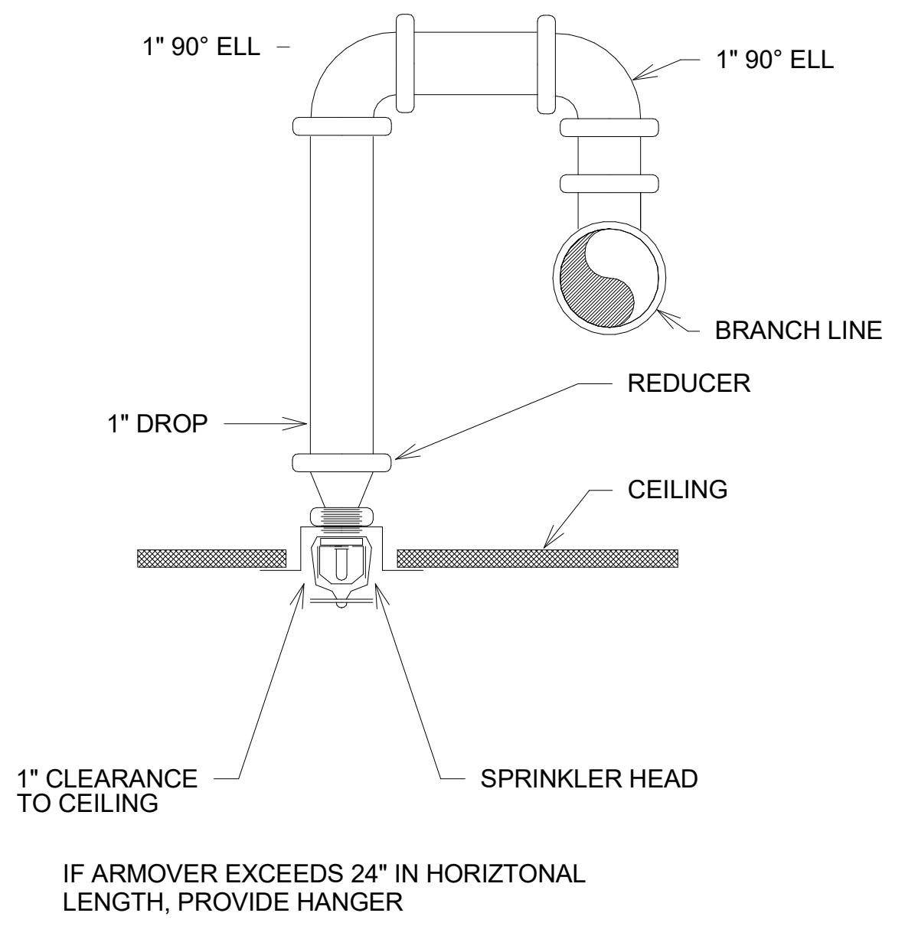

30"MAX
TRUSS
2X2X1/4 ANGLE MIN. MODULUS 0.25 BASED ON 3" SCH 10 PIPE WITH 30" JOIST SPACING. MIN REQ'D MODULUS PER NFPA 13 9.1.1.7.1 IS 0.25
#10 WOOD X 2" LONG SCREW. PREDRILL AS REQUIRED
3/8"NUT WITH WASHER
#10 WOOD X 2" LONG SCREW. PREDRILL AS REQUIRED
3/8" A.T.R. FOR 1"-3" PIPE
HANGER RING TOLCO 200
MAX PIPE SIZE: 4"

TRAPEZE HANGER - BOTTOM CHORD
N.T.S.


TRUSS
2 SCREW CEILING FLANGE WITH TWO #18 X 1-1/2" WOOD SCREWS INTO 1/8" LEAD HOLES (TOP OR BOTTOM CHORD)
3/8" A.T.R. FOR 1"-3" PIPE
HANGER RING TOLCO 200
*PIPE MAY ALSO BE PLACED ON TOP SIDE OF BOTTOM CHORD

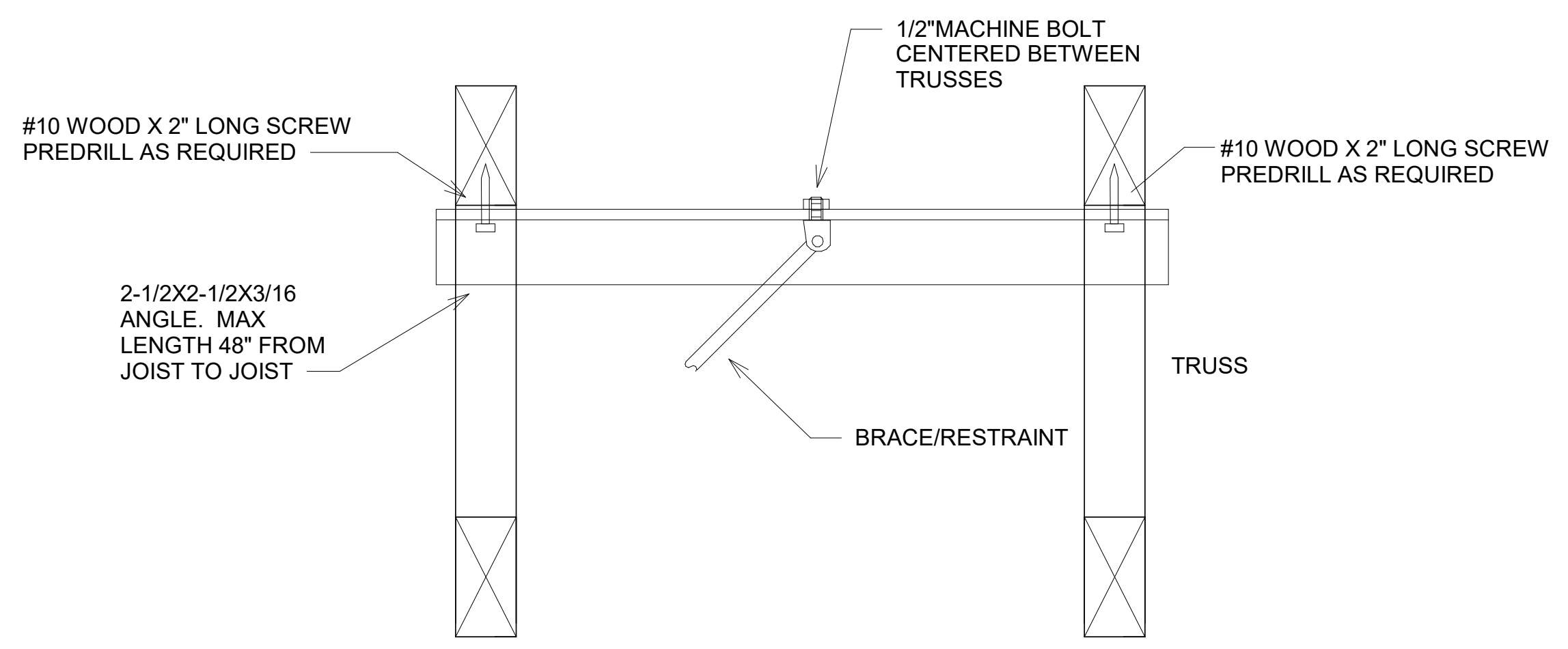
2" MAX PIPE SIZE
CEILING FLANGE
N.T.S.

1 FP401 PIPE HANGER DETAILS
NOT TO SCALE



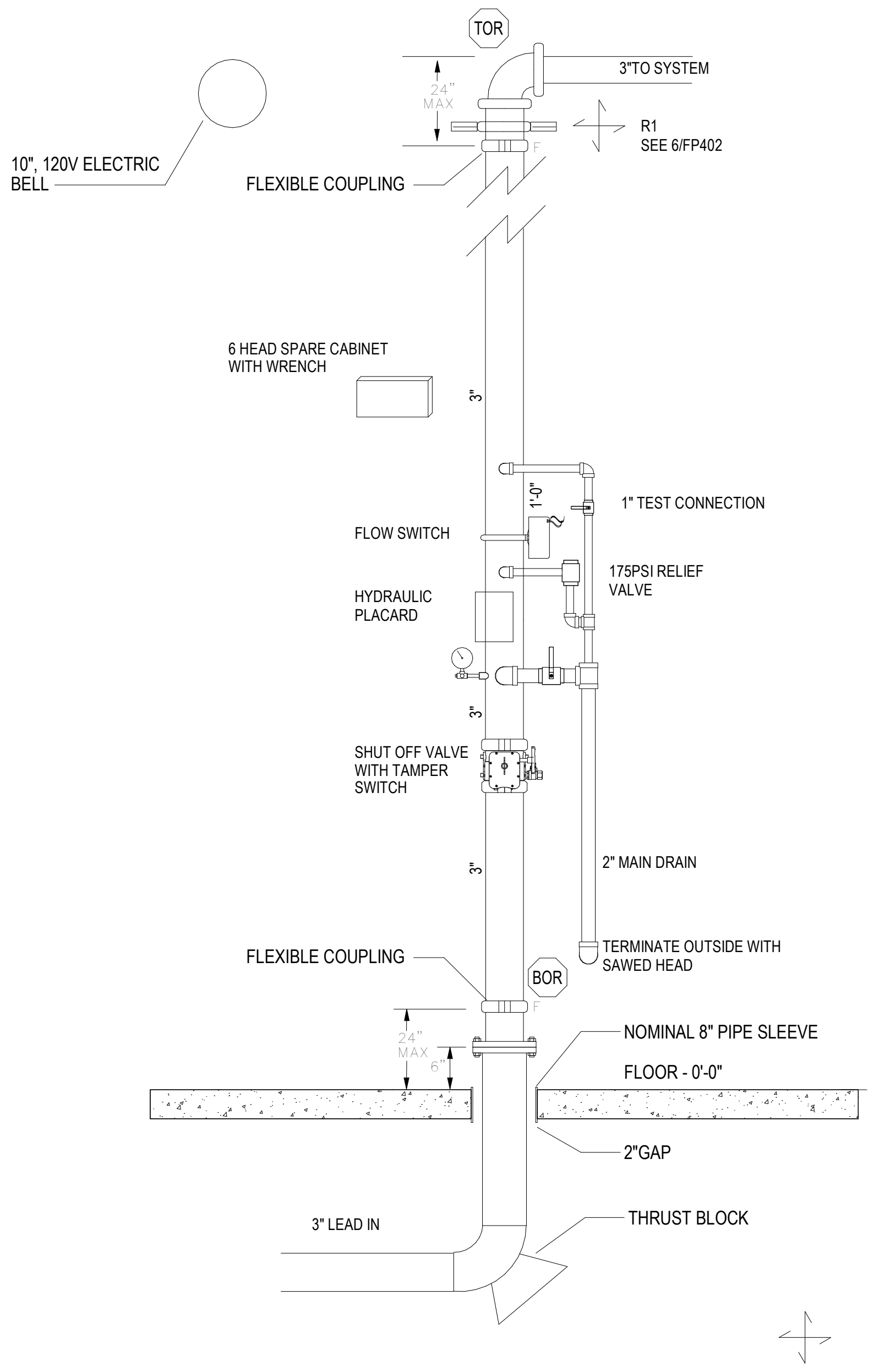
IF ARMOVER EXCEEDS 24" IN HORIZTONAL LENGTH, PROVIDE HANGER

2 FP401 ARMOVER DETAIL
NOT TO SCALE


1/2"MACHINE BOLT CENTERED BETWEEN TRUSSES
#10 WOOD X 2" LONG SCREW PREDRILL AS REQUIRED
#10 WOOD X 2" LONG SCREW PREDRILL AS REQUIRED
2-1/2X2-1/2X3/16 ANGLE. MAX LENGTH 48" FROM JOIST TO JOIST
TRUSS
BRACE/RESTRAINT

SEISMIC BRACE/RESTRAINT - LOADS PARALLEL OR PERPENDICULAR TO TRUSS
N.T.S.

3 FP401 SEISMIC CONNECTION - PARALLEL/PERPENDICULAR
NOT TO SCALE



4 FP401 WET SYSTEM RISER
NOT TO SCALE

4" - 90 DEG BEND = (3.8SF)(150PSI/100PSI)(1000PSF/2000PSF) = 2.9SF
4" - 45 DEG BEND = 2.9SF X 0.541 = 1.6SF
4" - 22.5 DEG BEND = 2.9SF X 0.276 = 0.8SF

6" - 90 DEG BEND = (7.9)(150PSI/100PSI)(1000PSF/2000PSF) = 5.9SF
6" - 45 DEG BEND = 5.9SF X 0.541 = 3.2SF
6" - 22.5 DEG BEND = 2.9SF X 0.276 = 1.6SF

BASED ON A WATER PRESSURE OF 150 PSI AND A SOIL RESISTANCE OF 2000 POUNDS PER SQUARE FOOT, AND A SAFETY FACTOR OF 1.5 IN ACCORDANCE WITH NFPA 13 TABLE A.10.6.1(B)

BLOCK HEIGHT SHALL BE EQUAL TO OR LESS THAN ONE-HALF THE TOTAL DEPTH TO THE BOTTOM OF THE BLOCK, BUT NOT LESS THAN THE PIPE DIAMETER.

BLOCK HEIGHT SHOULD BE CHOSE SO THAT THE CALCULATED BLOCK WIDTH VARIES BETWEEN ONE AND TWO TIMES THE HEIGHT.

TOLBrace™ Seismic Bracing Calculations

Project Address: Gateway School
550 Airport Way
Camarillo CA
Job #

Contractor: Salas O'brien
Address: 1255 Collier Road
Atlanta GA 30318
Phone:
License:

EATON
Powering Business Worldwide

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1" Sch.40
Type of Brace	Sch. 10
Angle of Brace	45° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1310 lbs (594 kg)

TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4LA Clamp	1000 lbs (454 kg)	707 lbs (321 kg)
Fig.980 Universal Swivel	2015 lbs (914 kg)	1425 lbs (646 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

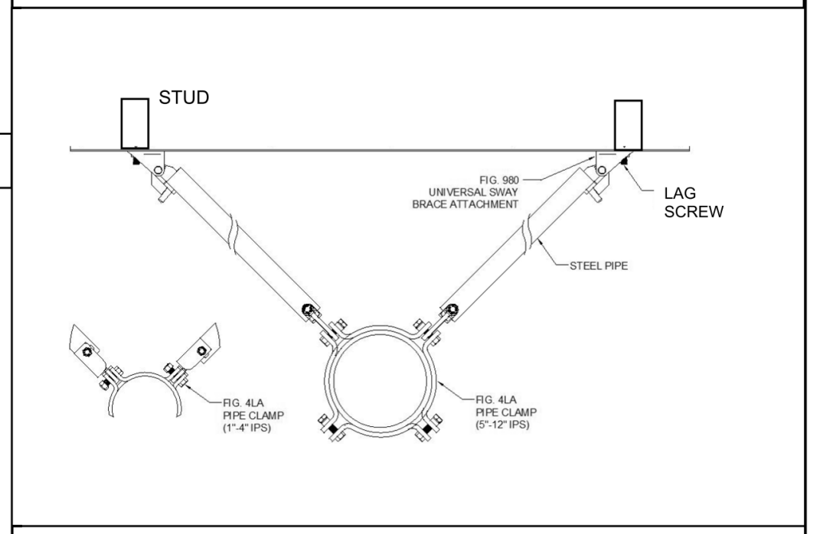
Fastener Information

Orientation to Connecting Surface: NFPA Type B

Fastener

Type	Lag-Screw
Diameter	1/2in.
Length	4-1/2in.
Maximum Load	355 lbs (161 kg)
Prying Factor	N/A

Seismic Brace Assembly Detail


STUD
FIG. 980 UNIVERSAL SWAY BRACE ATTACHMENT
LAG SCREW
STEEL PIPE
FIG. 4LA PIPE CLAMP (1"-4" IPS)
FIG. 4LA PIPE CLAMP (5"-12" IPS)

Brace Identification on Plans R
Brace Type Lateral [ ] Longitudinal [ ] 4-Way [X]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.7781

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	18 ft (5.5 m)	18 ft (5.5 m)	11.78 lb/ft (17.53 kg/m)	212 lbs (96 kg)

Subtotal Weight	212 lbs (96 kg)
Wp (incl. 15%)	244 lbs (111 kg)
Total (Fpw)	190 lbs (86 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	N/A

Main Size	Type/Sch.	Spacing (ft)
4"	Sch. 10	18

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5 FP401 SEISMIC BRACE R
1/8" = 1'-0"

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FIRE PROTECTION DETAILS

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Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FP401

TOLBrace™ Seismic Bracing Calculations

Project Address: Gateway School
550 Airport Way
Camarillo CA
Job #

Contractor: Salas O'brien
Address: 1255 Collier Road
Atlanta GA 30318
Phone:
License:

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length 7' 0" (2.134 m)
Diameter of Brace 1" Sch.40
Type of Brace Sch. 10
Angle of Brace 45° Min.
Least Rad. of Gyration 0.42" (11 mm)
L/R Value 200
Max Horizontal Load 1310 lbs (594 kg)

TOLCO™ Brace Components

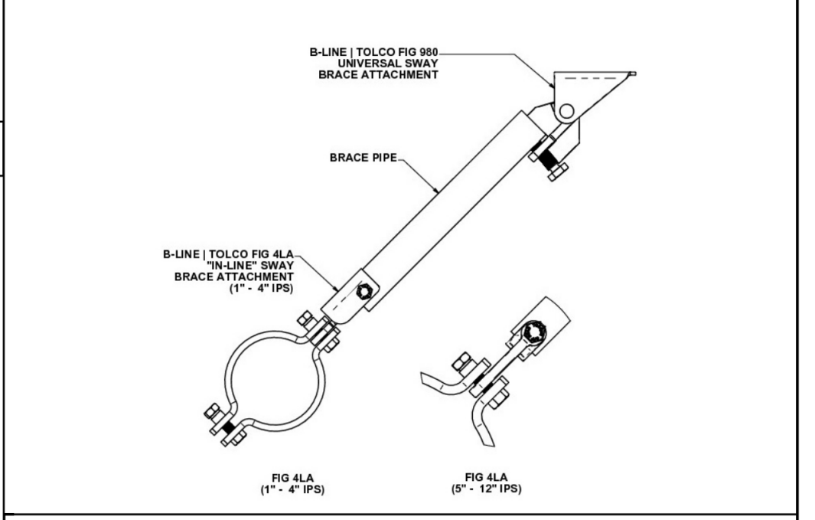
TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4LA Clamp	1000 lbs (454 kg)	707 lbs (321 kg)
Fig.980 Universal Swivel	2015 lbs (914 kg)	1425 lbs (646 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Fastener Information

Orientation to Connecting Surface NFPA Type B
Fastener
Type Dual Through-Bolts - Fig.906
Diameter 5/8in. (16 mm)
Length Minimum 4x Wood Member
Maximum Load 540 lbs (245 kg)
Prying Factor N/A

Seismic Brace Assembly Detail


B-LINE | TOLCO FIG 980 UNIVERSAL SWAY BRACE ATTACHMENT
BRACE PIPE
B-LINE | TOLCO FIG 4LA "IN-LINE" SWAY BRACE ATTACHMENT (1" - 4" IPS)
FIG 4LA (1" - 4" IPS)
FIG 4LA (5" - 12" IPS)

Brace Identification on Plans LAN1
Brace Type Lateral [X] Longitudinal [ ] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.7781

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
3" (80 mm)	Sch. 10	25 ft (7.6 m)	25 ft (7.6 m)	7.94 lb/ft (11.82 kg/m)	198 lbs (90 kg)
1" (25 mm)	Sch. 40	50 ft (15.2 m)	50 ft (15.2 m)	2.05 lb/ft (3.05 kg/m)	102 lbs (46 kg)

Subtotal Weight	300 lbs (136 kg)
Wp (incl. 15%)	345 lbs (156 kg)
Total (Fpw)	268 lbs (122 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	773 lb (350 kg)

Main Size	Type/Sch.	Spacing (ft)
3"	Sch. 10	25

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1
FP402
SEISMIC BRACE LAN1
1/8" = 1'-0"

TOLBrace™ Seismic Bracing Calculations

Project Address: Gateway School
550 Airport Way
Camarillo CA
Job #

Contractor: Salas O'brien
Address: 1255 Collier Road
Atlanta GA 30318
Phone:
License:

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length 7' 0" (2.134 m)
Diameter of Brace 1" Sch.40
Type of Brace Sch. 10
Angle of Brace 45° Min.
Least Rad. of Gyration 0.42" (11 mm)
L/R Value 200
Max Horizontal Load 1310 lbs (594 kg)

TOLCO™ Brace Components

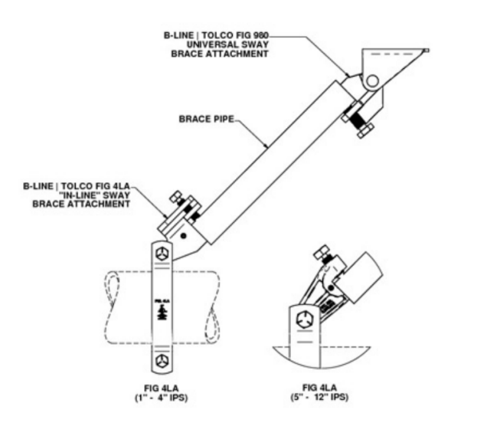
TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4LA Clamp	1000 lbs (454 kg)	707 lbs (321 kg)
Fig.980 Universal Swivel	2015 lbs (914 kg)	1425 lbs (646 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Fastener Information

Orientation to Connecting Surface NFPA Type B
Fastener
Type Dual Through-Bolts - Fig.906
Diameter 5/8in. (16 mm)
Length Minimum 4x Wood Member
Maximum Load 720 lbs (327 kg)
Prying Factor N/A

Seismic Brace Assembly Detail


B-LINE | TOLCO FIG 980 UNIVERSAL SWAY BRACE ATTACHMENT
BRACE PIPE
B-LINE | TOLCO FIG 4LA "IN-LINE" SWAY BRACE ATTACHMENT
FIG 4LA (1" - 4" IPS)
FIG 4LA (5" - 12" IPS)

Brace Identification on Plans LON1
Brace Type Lateral [ ] Longitudinal [X] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.7781

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
3" (80 mm)	Sch. 10	50 ft (15.2 m)	50 ft (15.2 m)	7.94 lb/ft (11.82 kg/m)	397 lbs (180 kg)

Subtotal Weight	397 lbs (180 kg)
Wp (incl. 15%)	457 lbs (207 kg)
Total (Fpw)	355 lbs (161 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	N/A

Main Size	Type/Sch.	Spacing (ft)
3"	Sch. 10	50

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2
FP402
SEISMIC BRACE LON1
1/8" = 1'-0"

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Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length 7' 0" (2.134 m)
Diameter of Brace 1" Sch.40
Type of Brace Sch. 10
Angle of Brace 45° Min.
Least Rad. of Gyration 0.42" (11 mm)
L/R Value 200
Max Horizontal Load 1310 lbs (594 kg)

TOLCO™ Brace Components

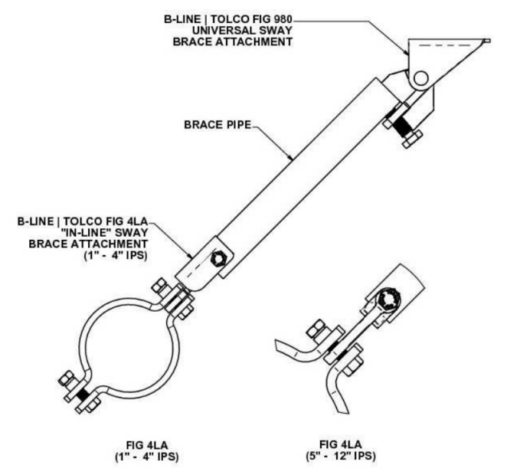
TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4LA Clamp	1000 lbs (454 kg)	707 lbs (321 kg)
Fig.980 Universal Swivel	2015 lbs (914 kg)	1425 lbs (646 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Fastener Information

Orientation to Connecting Surface NFPA Type B
Fastener
Type Dual Through-Bolts - Fig.906
Diameter 5/8in. (16 mm)
Length Minimum 4x Wood Member
Maximum Load 540 lbs (245 kg)
Prying Factor N/A

Seismic Brace Assembly Detail


B-LINE | TOLCO FIG 980 UNIVERSAL SWAY BRACE ATTACHMENT
BRACE PIPE
B-LINE | TOLCO FIG 4LA "IN-LINE" SWAY BRACE ATTACHMENT (1" - 4" IPS)
FIG 4LA (1" - 4" IPS)
FIG 4LA (5" - 12" IPS)

Brace Identification on Plans LAE1
Brace Type Lateral [X] Longitudinal [ ] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.7781

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	20 ft (6.1 m)	20 ft (6.1 m)	11.78 lb/ft (17.53 kg/m)	236 lbs (107 kg)
1.5" (40 mm)	Sch. 40	30 ft (9.1 m)	30 ft (9.1 m)	3.61 lb/ft (5.37 kg/m)	108 lbs (49 kg)
1.25" (32 mm)	Sch. 40	45 ft (13.7 m)	45 ft (13.7 m)	2.93 lb/ft (4.36 kg/m)	132 lbs (60 kg)
1" (25 mm)	Sch. 40	50 ft (15.2 m)	50 ft (15.2 m)	2.05 lb/ft (3.05 kg/m)	102 lbs (46 kg)

Subtotal Weight	578 lbs (262 kg)
Wp (incl. 15%)	665 lbs (302 kg)
Total (Fpw)	517 lbs (235 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	1635 lb (741 kg)

Main Size	Type/Sch.	Spacing (ft)
4"	Sch. 10	20

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3
FP402
SEISMIC BRACE LAE1
1/8" = 1'-0"

TOLBrace™ Seismic Bracing Calculations

Project Address: Gateway School
550 Airport Way
Camarillo CA
Job #

Contractor: Salas O'brien
Address: 1255 Collier Road
Atlanta GA 30318
Phone:
License:

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length 7' 0" (2.134 m)
Diameter of Brace 1" Sch.40
Type of Brace Sch. 10
Angle of Brace 45° Min.
Least Rad. of Gyration 0.42" (11 mm)
L/R Value 200
Max Horizontal Load 1310 lbs (594 kg)

TOLCO™ Brace Components

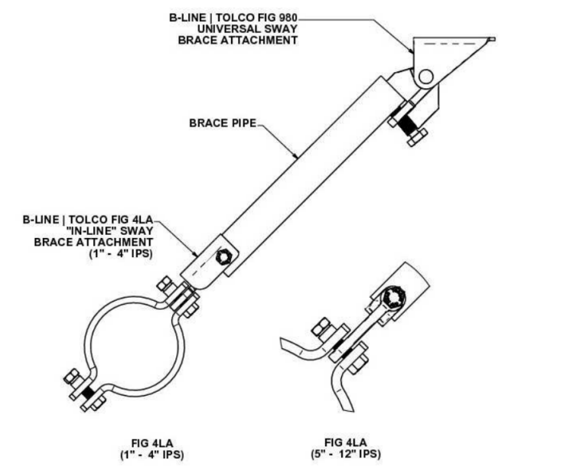
TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4LA Clamp	1000 lbs (454 kg)	707 lbs (321 kg)
Fig.980 Universal Swivel	2015 lbs (914 kg)	1425 lbs (646 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Fastener Information

Orientation to Connecting Surface NFPA Type B
Fastener
Type Dual Through-Bolts - Fig.906
Diameter 5/8in. (16 mm)
Length Minimum 4x Wood Member
Maximum Load 720 lbs (327 kg)
Prying Factor N/A

Seismic Brace Assembly Detail


B-LINE | TOLCO FIG 980 UNIVERSAL SWAY BRACE ATTACHMENT
BRACE PIPE
B-LINE | TOLCO FIG 4LA "IN-LINE" SWAY BRACE ATTACHMENT (1" - 4" IPS)
FIG 4LA (1" - 4" IPS)
FIG 4LA (5" - 12" IPS)

Brace Identification on Plans LAE2
Brace Type Lateral [X] Longitudinal [ ] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.7781

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	20 ft (6.1 m)	20 ft (6.1 m)	11.78 lb/ft (17.53 kg/m)	236 lbs (107 kg)

Subtotal Weight	236 lbs (107 kg)
Wp (incl. 15%)	271 lbs (123 kg)
Total (Fpw)	211 lbs (96 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	1635 lb (741 kg)

Main Size	Type/Sch.	Spacing (ft)
4"	Sch. 10	20

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SEISMIC BRACE LAE2
1/8" = 1'-0"

TOLBrace™ Seismic Bracing Calculations

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550 Airport Way
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Atlanta GA 30318
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Calculations based on 2016 NFPA Pamphlet #13

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Diameter of Brace 1" Sch.40
Type of Brace Sch. 10
Angle of Brace 45° Min.
Least Rad. of Gyration 0.42" (11 mm)
L/R Value 200
Max Horizontal Load 1310 lbs (594 kg)

TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4LA Clamp	1000 lbs (454 kg)	707 lbs (321 kg)
Fig.980 Universal Swivel	2015 lbs (914 kg)	1425 lbs (646 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Fastener Information

Orientation to Connecting Surface NFPA Type B
Fastener
Type Dual Through-Bolts - Fig.906
Diameter 5/8in. (16 mm)
Length Minimum 4x Wood Member
Maximum Load 720 lbs (327 kg)
Prying Factor N/A

Seismic Brace Assembly Detail

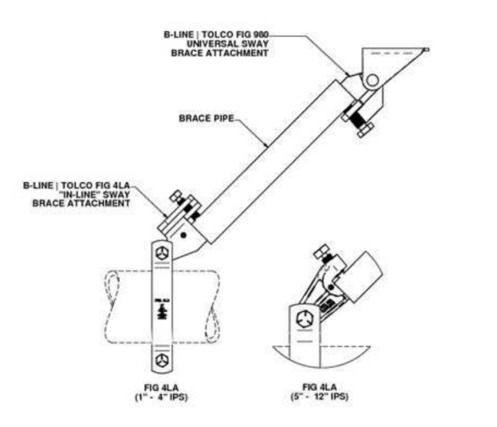
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FIG 4LA (5" - 12" IPS)

Brace Identification on Plans LOE1
Brace Type Lateral [ ] Longitudinal [X] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.7781

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	40 ft (12.2 m)	40 ft (12.2 m)	11.78 lb/ft (17.53 kg/m)	471 lbs (214 kg)

Subtotal Weight	471 lbs (214 kg)
Wp (incl. 15%)	542 lbs (246 kg)
Total (Fpw)	421 lbs (191 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	N/A

Main Size	Type/Sch.	Spacing (ft)
4"	Sch. 10	40

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SEISMIC BRACE LOE1
1/8" = 1'-0"

TOLBrace™ Seismic Bracing Calculations

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550 Airport Way
Camarillo CA
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Max Horizontal Load 1310 lbs (594 kg)

TOLCO™ Brace Components

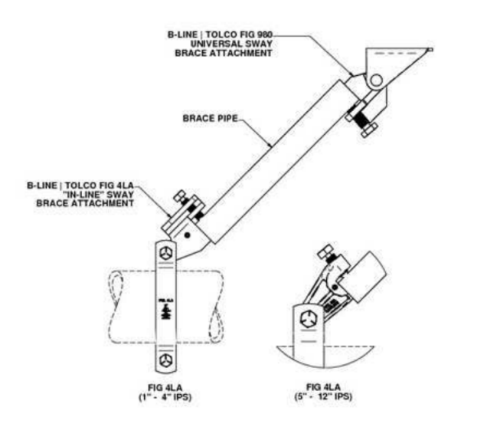
TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4LA Clamp	1000 lbs (454 kg)	707 lbs (321 kg)
Fig.980 Universal Swivel	2015 lbs (914 kg)	1425 lbs (646 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Fastener Information

Orientation to Connecting Surface NFPA Type B
Fastener
Type Dual Through-Bolts - Fig.906
Diameter 5/8in. (16 mm)
Length Minimum 4x Wood Member
Maximum Load 540 lbs (245 kg)
Prying Factor N/A

Seismic Brace Assembly Detail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BRACE PIPE
B-LINE | TOLCO FIG 4LA "IN-LINE" SWAY BRACE ATTACHMENT
FIG 4LA (1" - 4" IPS)
FIG 4LA (5" - 12" IPS)

Brace Identification on Plans LOE2
Brace Type Lateral [ ] Longitudinal [X] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.7781

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	30 ft (9.1 m)	30 ft (9.1 m)	11.78 lb/ft (17.53 kg/m)	353 lbs (160 kg)

Subtotal Weight	353 lbs (160 kg)
Wp (incl. 15%)	406 lbs (184 kg)
Total (Fpw)	316 lbs (143 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	N/A

Main Size	Type/Sch.	Spacing (ft)
4"	Sch. 10	30

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SEISMIC BRACE LOE2
1/8" = 1'-0"

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DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-982
REN. JUL.31, 2021

TIMOTHY ROBERT CAMPBELL
FP 2004

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	05/02/2022

FIRE PROTECTION SEISMIC DETAILS

PERKINS EASTMAN

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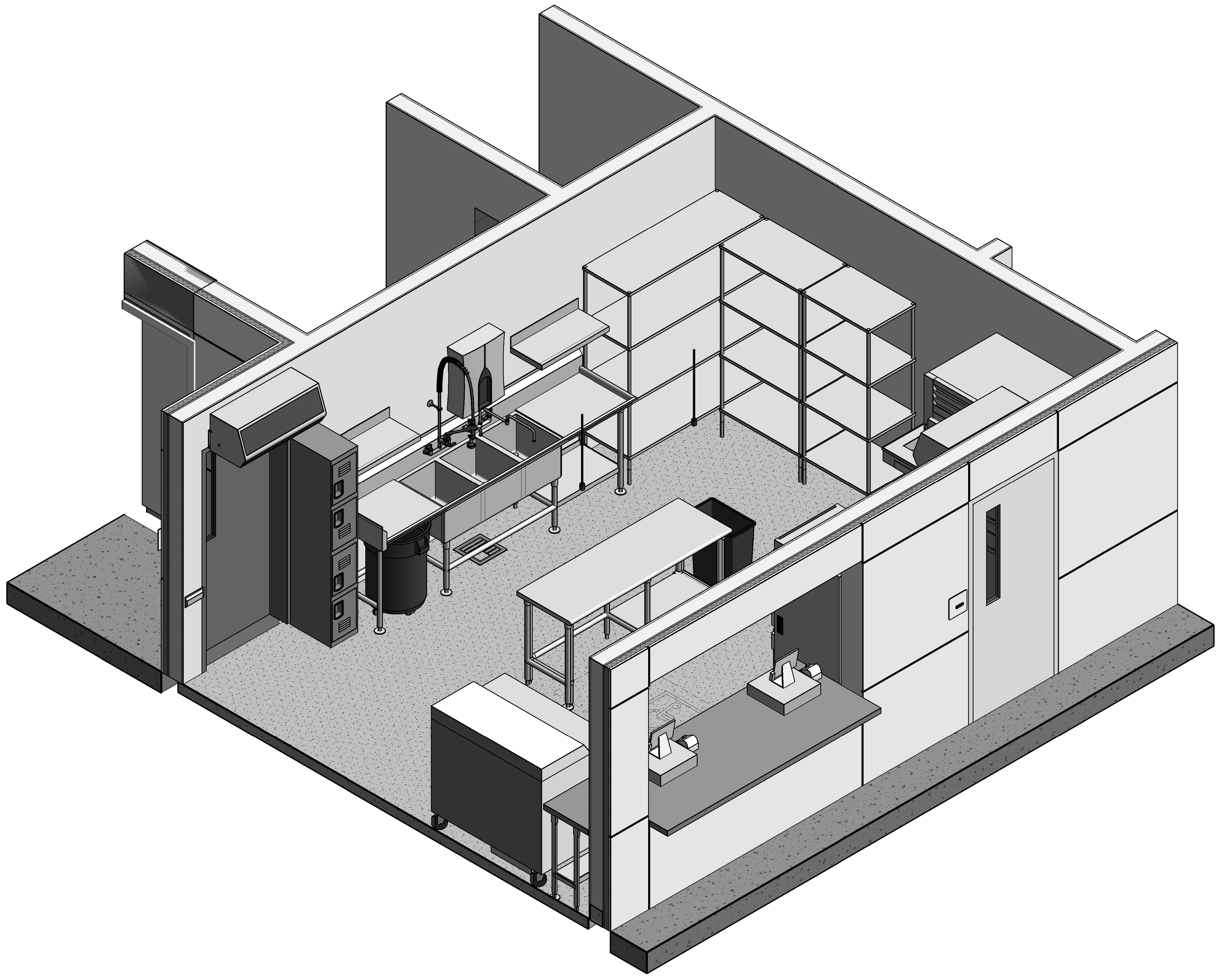
FP402



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STUDIOS
creating what's next in culinary design

Sheet Number	Sheet Name	04/15/2022 - 100% Design Development	05/13/2022 - 75% Construction Documents	06/21/2022 - 100% Construction Documents	10/28/2022 - DSA Revisions
QF000-1	Index Sheet	X	X	X	X
QF100-1	Foodservice Key Plan	X	X	X	X
QF400-1	Foodservice Equipment Plan	X	X	X	X
QF400-2	Foodservice Utility Schedule	X	X	X	X
QF400-3	Foodservice Building Conditions & Ventilation Plan	X	X	X	X
QF400-4	Foodservice Plumbing Plan	X	X	X	X
QF400-5	Foodservice Electrical Plan	X	X	X	X
QF500-1	Foodservice Elevations		X	X	X
QF501-1	Foodservice Details & Sections		X	X	X

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BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL.31, 2023

ABBREVIATIONS

ADA	Americans with Disabilities Act	EC	Electrical Contractor/Division	LEC	Laundry Equipment Contractor	QT	Quart
ADJ	Adjustable	EE	Electrical Engineer	LC	Load Center	QTY	Quantity
AMP	Amperage	EM	Emergency Power	LF	Linear Foot (or Feet)		
AFF	Above Finished Floor	EQ	Equal	LPH	Liters per Hour	RAD	Radius
ALT	Alternate	EQUIP	Equipment	LPG	Liquid Propane Gas	RCP	Receptacle
		ETR	Existing to Remain				
BFD	Backflow Prevention Device	ETL	Listing Equal to UL (Intertek)	MBH	Thousand British Thermal Units Per Hour	SC	Self-Contained
BFF	Below Finished Floor	EXH	Exhaust	MC	Mechanical Contractor/Mechanical Division	SF	Square Foot (or Feet)
BHP	Boiler Horsepower	EXIST	Existing	ME	Mechanical Engineer	SP	Static Pressure
BOH	Back of House			MFR	Manufacturer	SPEC	Specifications
BTC	Branch to Connection	°F	Degree Fahrenheit	MIN	Minimum	SST	Stainless Steel
BTU	British Thermal Unit	FAB	Fabricated	MISC	Miscellaneous	STD	Standard
BTUH	British Thermal Unit Per Hour	FD	Floor Drain	MUA	Make-Up Air	SW	Switch
		FFD	Funnel Floor Drain	MTD	Mounted	SYS	System
C	Degree Centigrade (note, need “degree” symbol in front of C)	FP	Fire Protection				
CFH	Cubic Feet Per Hour	FPM	Feet Per Minute	N2	Compressed Nitrogen Gas	TDO	Tangent Draw-Off
CFM	Cubic Feet Per Minute	FR	From	NA	Not Applicable	TLS	Table Limit Switch
CHR	Chilled or Condenser Water Return	FS	Floor Sink	NIC	Not in Contract	TYP	Typical
CHS	Chilled or Condenser Water Supply			NIKEC	Not in Kitchen Equipment Contract		
CLG	Ceiling	GA	Gauge	NSF	National Sanitation Foundation	UDS	Utility Distribution System
C02	Compressed Carbon Dioxide Gas	GAL	Gallon			UL	Underwriters Laboratory
CONN	Connection	GC	General Contractor	OC	On-Center	UV	Ultraviolet
CONV	Convenience Receptacle	GFCI	Ground Fault Circuit Interrupter	OFI	Owner or Operator Furnished Item		
CW	Cold Water	GPH	Gallon(s) Per Hour	OFCI	Owner or Operator Furnished/Contractor Installed	V	Volt
		GPM	Gallon(s) Per Minute	OFOI	Owner or Operator Furnished/Owner or Operator Installed	VAV	Variable Air Volume
DCR	Duplex Convenience Receptacle					VD	Volume Damper
DCV	Demand Control Ventilation	HVAC	Heating Ventilation & Air Conditioning	PB	Pull Box	VFD	Variable Frequency Drive
DEG	Degree (or Degrees)	HW	Hot Water	PC	Plumbing Contractor/Plumbing Division	VIF	Verify in Field
DFA	Down From Above	HZ	Hertz	PE	Plumbing Engineer		
DIA	Diameter			PH	Phase	W	Watts
DIM	Dimension	IW	Indirect Waste	POC	Point of Connection	WC	Water Column
DISC	Disconnect			POS	Point of Sale		
DWG	Drawing	JB	Junction Box	PREP	Preparation		
DW	Direct Waste			PRV	Pressure Regulating/Reducing Valve		
		KEC	Kitchen Equipment Contractor	PSI	Pounds-Per-Square-Inch		
EA	Each	KCAL	Kilocalorie				
		KW	Kilowatt				

NOTE: REFER TO ARCHITECTURAL / MECHANICAL / ELECTRICAL / PLUMBING / INTERIOR DESIGN DRAWINGS FOR ADDITIONAL ABBREVIATIONS SHOWN ON FOODSERVICE DRAWINGS BUT NOT INCLUDED IN THIS LIST.

TYPICAL HEALTH/HYGIENE-AUTHORITY FIT-OUT REQUIREMENTS

What follows are typical requirements from review authorities within food/beverage storage, preparation and service zones. These are offered for reference-only and do not necessarily constitute design or construction direction from Ricca Design Studios.

- Flooring surfaces/systems should be smooth, non-slip with commercial-grade durability, made of non-absorbent material, and easily cleanable in all the following zones:
- where food is prepared, packaged or stored
- where utensils are washed
- where refuse is stored
- within janitor rooms
- within washroom and hand washing areas
- Flooring surfaces should be coved at the intersection of the floor and wall with 3/8” (10mm) minimum radius and should extend up the wall minimum of six inches (6” or 152mm) in all foodservice rooms/zones. Mastic-applied vinyl is not acceptable.
- Floor drains should be installed in culinary zones for general area cleaning. Additional drains should be installed in floors that are more frequently sprayed-down in the cleaning process. Flooring should be sloped to the drain 1/16” (2mm) per foot within a six-foot (6’ or 1.8 M) radius.
- Wall and ceiling finishes within all foodservice rooms/zones where food is stored in unopened containers, and in dining and sales areas should be durable, smooth, non-absorbent, impervious and washable. Wall and ceiling finishes within food preparation and utensil washing areas should be light-colored with durability equal to demand. Wall finishes on interior surfaces of walk-in refrigeration cavities should also be light-colored with durability equal to demand. Cement board with Fiberglass Reinforced Panel finish is typical minimum wall finish in all preparation/wash-up zones. Wall areas adjacent to bar sinks should be smooth and easily cleanable. Conduits of all types should be installed within walls; when installed on surface of walls, they should be shrouded to facilitate ease of cleaning.
- Lighting in every zone where food is prepared, processed or packaged or where utensils are cleaned should be provided in an intensity of no less than 50 foot candles as measured 30” (762mm) above the finished floor, except the working surfaces of bars and bar work-boards where at least 10 foot-candles of light are required. Required light source must be shrouded with shatter-proof covers.
- Exhaust ventilation should be provided at or above all electric or gas cooking equipment and dishwashers that utilize hot water or chemicals for sanitization per local, regional and national code. Exhaust ventilation may be required above hot beverage equipment – confirm with local code. Washrooms, dressing rooms should be vented to the atmosphere by means of an openable, screened window, and air shaft or switch-activated exhaust fan per local building codes.
- Foodservice facility should be constructed, and maintained and operated to prevent entrance of animals, birds and vermin including rodents and insects.
- Delivery Doors leading to the exterior should be self-closing and open outward. Vestibules are typically required where large double-doors may enter-into a food preparation area. All exterior doors should be provided with an overhead air curtain, air curtain should produce a downward and outward airflow not less than three inches (3” of 75mm) thick at the nozzle with an air velocity no less than 1600FPM across entire opening.
- Circulation- minimum of thirty-six inches (36” or 914mm) is required for all aisles and working areas within foodservice and beverage preparation zones.
- Hand Washing sinks with single-use towels and hand cleanser should be provided within, or adjacent to, washrooms and should be equipped with an adequate supply of hot/cold running water. A dedicated hand washing station should be provided within each food preparation zone.
- Washrooms for use by foodservice employees should be provided and should be fit-out with self-closing doors.
- Ware Washing machines using hot water or chemical sanitizing rinse must conform to applicable National Sanitation Foundation (NSF) standards and shall be installed and operated in accordance with those standards.
- Refrigeration cavities must be equipped with a thermometer that is easily-readable and in proper working condition.
- Equipment installation- all equipment must meet National Sanitation Foundation (NSF) design and installation requirements. All foodservice equipment should be easily moveable, light enough to be easily-moved by one (1) person or installed on a raised minimum six inches (6” or 152mm) rounded stainless steel legs or sealed to a minimum four inches (4” or 101mm) stainless steel or galvanized steel channel base filled with lightweight concrete with minimum 3/8” (10mm) coved radius. If on an island, equipment should overhang the base at least three inches (3” or 75mm), but not more than the height of the base. Sealing to the finished floor is acceptable for equipment designed to be on level with floor such as roll-in refrigerator/freezers, large blast chiller/freezers, roll-in ovens and proofers.

Gaps between equipment base and top of channel base should be sealed with non-hardening silicone sealant. All equipment on counters, tables and shelves that are not easily moved are to be installed on approved four inch (4” of 101mm) legs or sealed to table, shelf, etc. (Verify with local code). All fabricated equipment, flashing, and back splashes must be sealed to walls and abutting equipment or moved away from adjacent fabricated equipment minimum of three inches (3” or 75 mm) or adjacent wall minimum of six inches (6” or 152mm). Dipper wells with running water should be provided for ice cream/frozen dessert with scooping required.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE IF EDUCATION
550 Airport Way, Camarillo CA, 93010

JOB	22074
SCALE	1" = 1'-0"
PM	RICCA
DATE	10/28/2022
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△	
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Index Sheet

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QF000-1

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BRIAN PAUL DOUGHERTY
NO. C-9824
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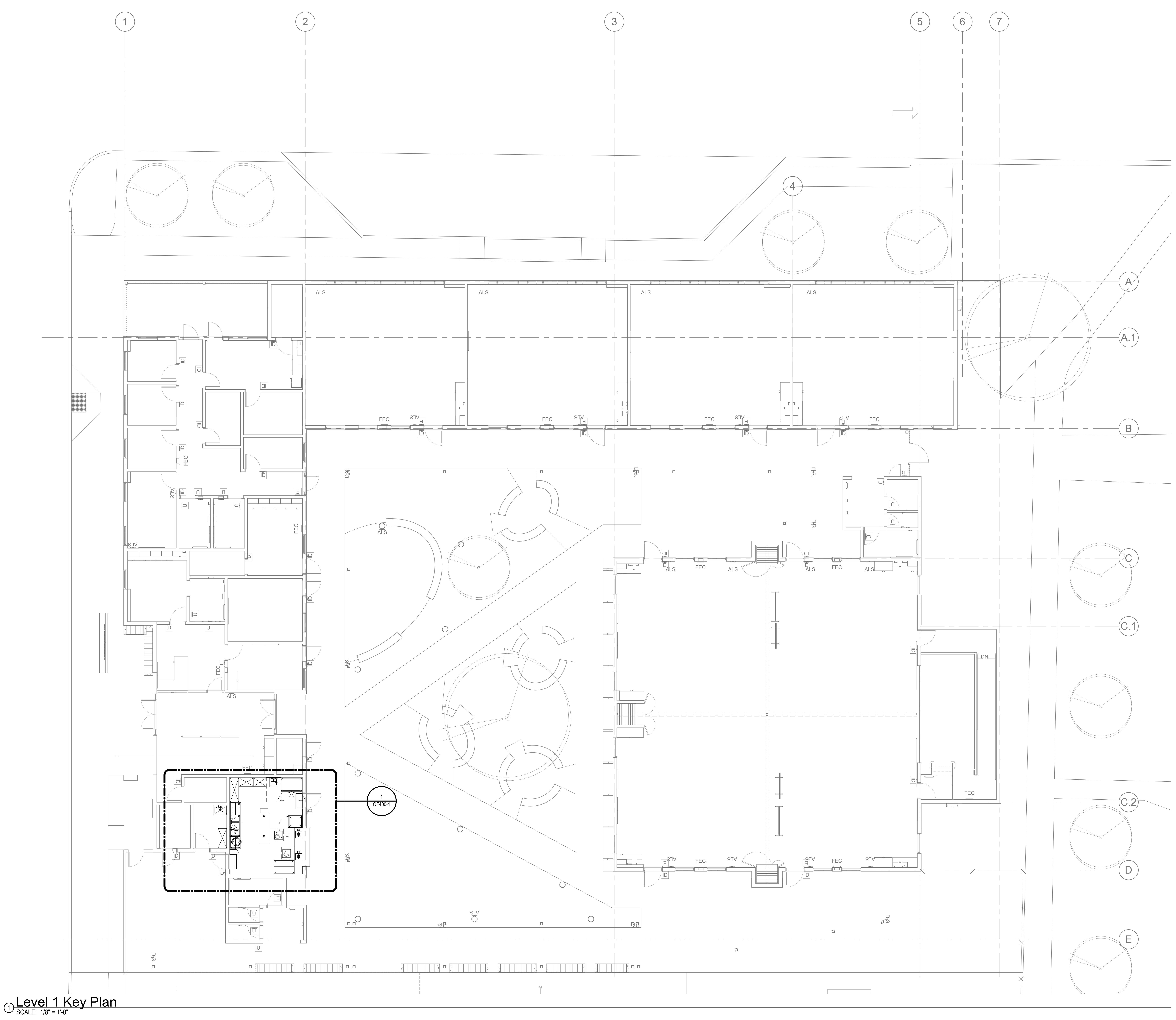

①Level 1 Key Plan
SCALE: 1/8" = 1'-0"

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE IF EDUCATION
550 Airport Way, Camarillo CA, 93010

JOB	22074
SCALE	1/8" = 1'-0"
PM	RICCA
DATE	10/28/2022
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Foodservice Key Plan

PERKINS EASTMAN
3194 D Airport Loop Drive
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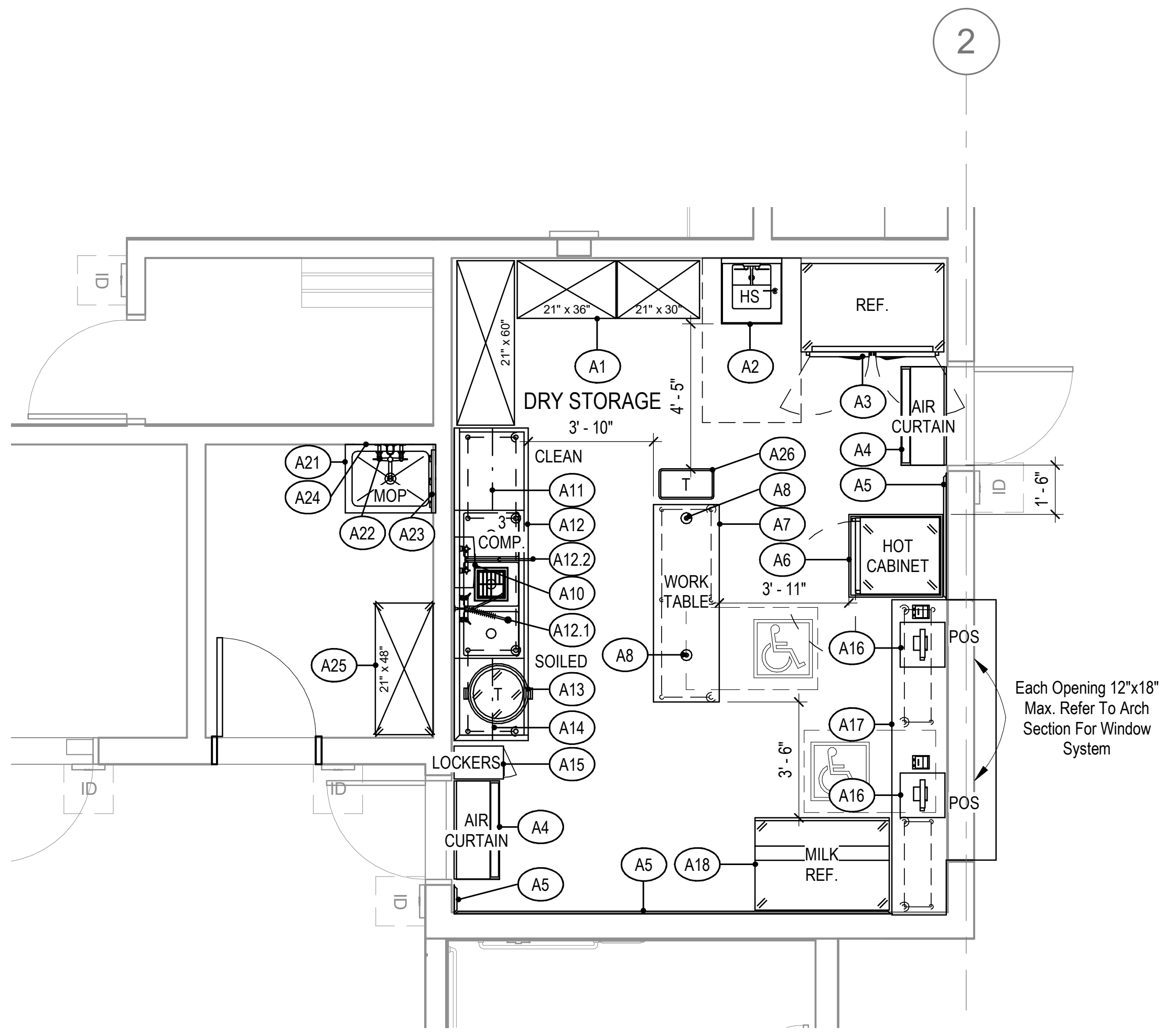
QF100-1



① Level 1 Equipment Plan
SCALE: 1/4" = 1'-0"

Foodservice Equipment Schedule - (A)

Item Number	Qty	Description	Remarks	Manufacturer	Model
A1	3	Dry Storage Shelving	Four Tier	Metro	MaxQ
A2	1	Hand Sink	With Soap And Towel Dispenser	Eagle Group	HSAP-14-ADA-FW
A3	1	Refrigerator, Reach-In	Mobile	Traulsen	G20000
A4	2	Air Curtain		Mars	NH236-1UA-TS
A5	3	Stainless Steel Wall Guard	Fabricated	Fabricated	Stainless Steel
A6	1	Hot Holding Cabinet	Mobile	Cres Cor	H137SUA12D
A7	1	Worktable		Eagle Group	T2472STE
A8	2	Drop Cord	By EC	By EC	NIKEC
A9	1	Spare Number			
A10	1	Chemical Dispensing System	By Purveyor	By Purveyor	NIKEC
A11	1	Wall Shelf, Single		Eagle Group	WS1224-14/3
A12	1	Three-Compartment Sink		Eagle Group	FFN2754-3-24-14/3
A12.1	1	Pre-Rinse Faucet		T&S Brass	B-0133-12-CR-B
A12.2	1	Pot Sink Faucet		T&S Brass	B-0292
A13	1	Trash Receptacle with Dolly, 20 Gallon	By Owner	Rubbermaid	FG262000Gray
A14	1	Wall Shelf, Single		Eagle Group	WS1224-14/3
A15	1	Locker, Quadruple	By Arch/ID	By Arch/ID	NIKEC
A16	2	POS System	By Owner	By Owner	NIKEC
A17	1	Stainless Steel Serving Counter	Fabricated	Fabricated	Stainless Steel
A18	1	Milk Cooler	Mobile	Beverage Air	SMF49HC-1-W
A19	1	Spare Number			
A20	1	Spare Number			
A21	1	Mop Sink		Advance Tabco	9-OP-28
A22	1	Service Faucet		T&S Brass	B-0655-BSTP
A23	1	Mop Holder		Advance Tabco	K-242
A24	1	Wall Flashing	Fabricated	Fabricated	Stainless Steel
A25	1	Chemical Storage Shelving	Four Tier, Mobile	Metro	MaxQ
A26	1	Trash Receptacle, 23 Gallon	By Owner	By Owner	NIKEC

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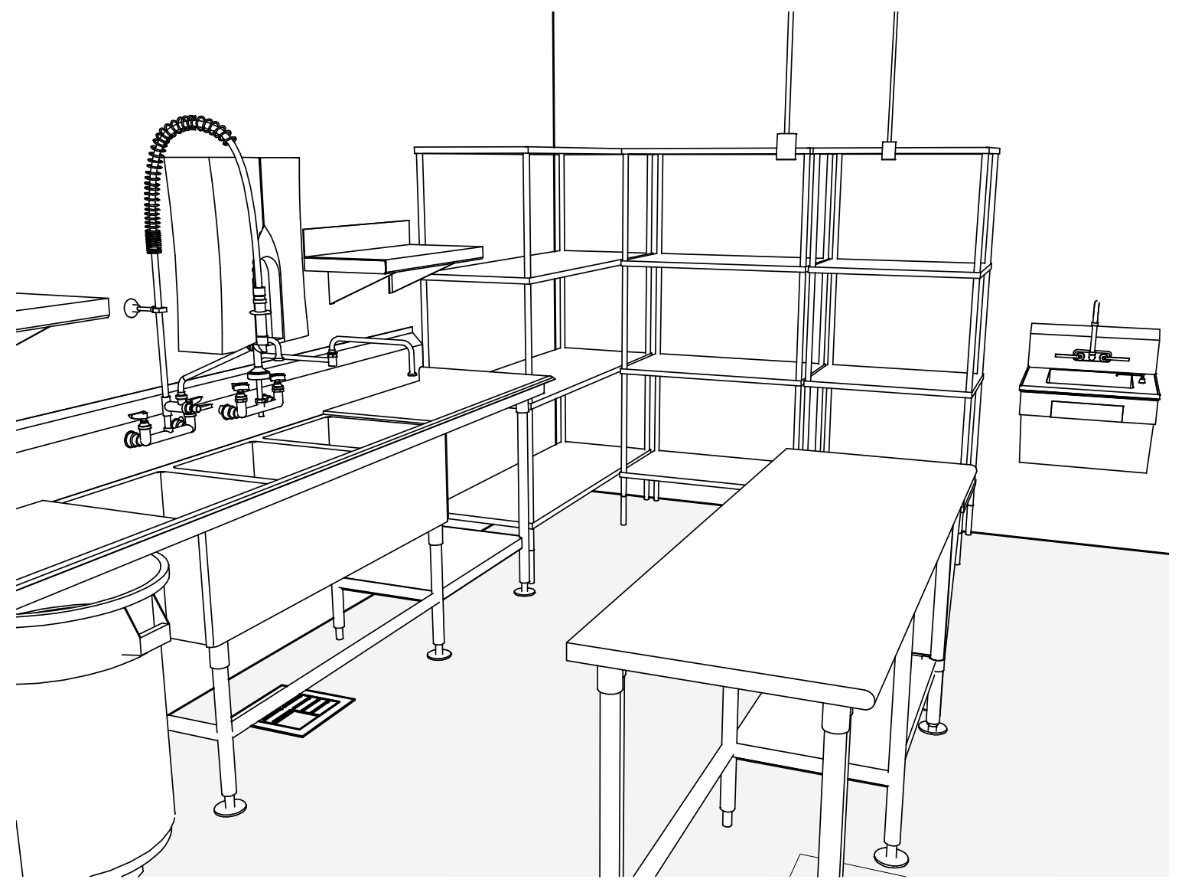
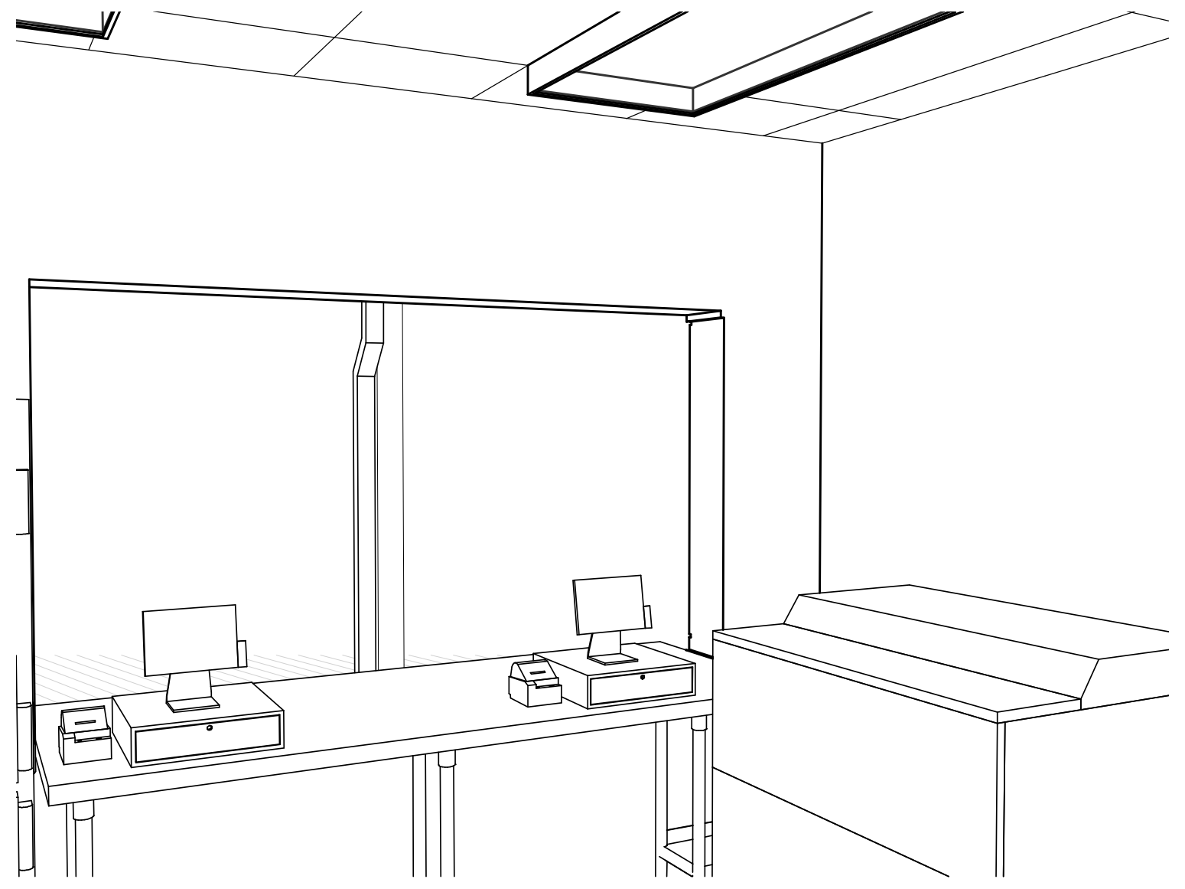
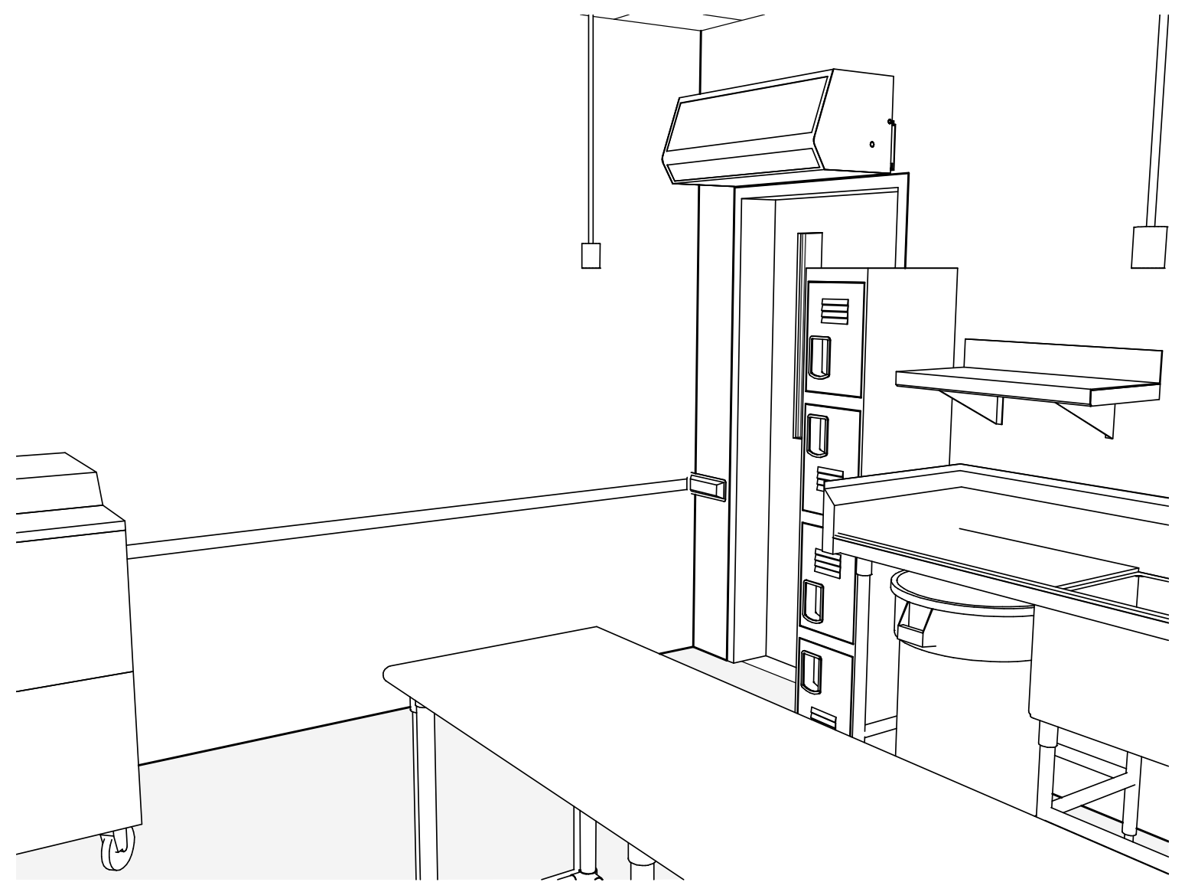
STATE OF CALIFORNIA



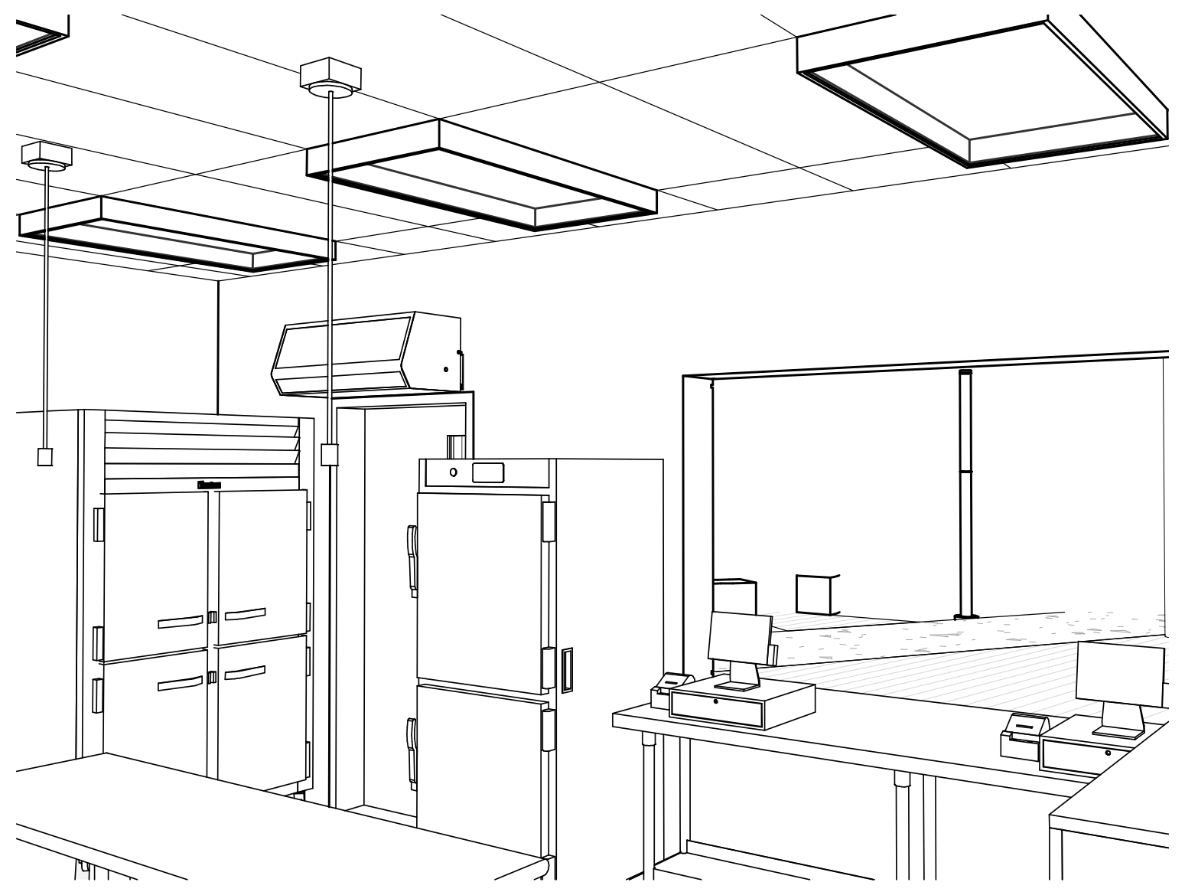
② Warewashing & Dry Storage



③ Serving Counter



⑤ Lockers & Prep



⑥ Serving Counter & Hot/Cold Storage

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE IF EDUCATION
550 Airport Way, Camarillo CA, 93010

JOB	22074
SCALE	1/4" = 1'-0"
PM	RICCA
DATE	10/28/2022
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△	

ricca design STUDIOS
5613 DTC Parkway | Suite 100
Greenwood Village, CO 80111
303.221.0500
www.ricca.com

Foodservice Equipment Plan

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

QF400-1

Foodservice Utility Schedule - (A1-A100)

						Electrical								Plumbing										Ventilation									
Item Number	QTY	Manufacturer	Model	Description	Remarks	Volts	PH	Amps	KW	HZ	Elec. Conn. Type	Elec. Rough-In AFF	Electrical Remarks	Cold Water Conn. Size	Cold Water Rough-In AFF	Hot Water Conn. Size	Hot Water Flow GPH	Hot Water Rough-In AFF	Direct Drain Conn. Size	Direct Drain Rough-In AFF	Indirect Drain Conn. Size	Gas Rough-In AFF	Plumbing Remarks	Exhaust Collar Size		Exhaust Volume	Exhaust Static Pressure	Supply Collar Size		Supply Volume	Supply Static Pressure	Ventilation Remarks	Item Number
																								Width	Depth			Width	Depth				
A1	3	Metro	MaxQ	Dry Storage Shelving	Four Tier																												A1
A2	1	Eagle Group	HSAP-14-ADA-FW	Hand Sink	With Soap And Towel Dispenser									1/2"	18"	1/2"	5	18"	1 1/2"	15"													A2
A3	1	Traulsen	G20000	Refrigerator, Reach-In	Mobile	115	1	7.4	0.85	60	PLUG	84"																					A3
A4	2	Mars	NH236-1UA-TS	Air Curtain		115	1	9	1.04	60	DIRECT	96"																					A4
A5	3	Fabricated	Stainless Steel	Stainless Steel Wall Guard	Fabricated																												A5
A6	1	Cres Cor	H137SUA12D	Hot Holding Cabinet	Mobile	120	1	12	1.44	60	PLUG	72"																					A6
A7	1	Eagle Group	T2472STE	Worktable																													A7
A8	2	By EC	NIKEC	Drop Cord	By EC	120	1	16	1.92	60	PLUG		DFA, Electrical Load To Be Determined By Electrical Engineer; Electrical Note E-A.6, Drop Cord To End At 72" A.F.F.																				A8
A9	1			Spare Number																													A9
A10	1	By Purveyor	NIKEC	Chemical Dispensing System	By Purveyor									1/2"	54"								Plumbing Note P-A.6										A10
A11	1	Eagle Group	WS1224-14/3	Wall Shelf, Single																													A11
A12	1	Eagle Group	FFN2754-3-24-14/3	Three-Compartment Sink																12"	1 1/2"		IW To Floor Sink										A12
A12.1	1	T&S Brass	B-0133-12-CR-B	Pre-Rinse Faucet										3/8"	18"	3/8"	50	18"															A12.1
A12.2	1	T&S Brass	B-0292	Pot Sink Faucet										3/4"	18"	3/4"	50	18"															A12.2
A13	1	Rubbermaid	FG262000Gray	Trash Receptacle with Dolly, 20 Gallon	By Owner																												A13
A14	1	Eagle Group	WS1224-14/3	Wall Shelf, Single																													A14
A15	1	By Arch/ID	NIKEC	Locker, Quadruple	By Arch/ID																												A15
A16	2	By Owner	NIKEC	POS System	By Owner	120	1	16	1.92	60	PLUG	24"	Data, Electrical Note E-A.6																				A16
A17	1	Fabricated	Stainless Steel	Stainless Steel Serving Counter	Fabricated	120	1	16	1.92	60	DIRECT	48"	One (1) GFCI Convenience Receptacle - Rating Assumes 20.0 Amp Circuit																				A17
A18	1	Beverage Air	SMF49HC-1-W	Milk Cooler	Mobile	115	1	3	0.35	60	PLUG	24"																				1480 BTU/hr Heat Removal	A18
A19	1			Spare Number																													A19
A20	1			Spare Number																													A20
A21	1	Advance Tabco	9-OP-28	Mop Sink															2"	0"			Direct Drain At Floor										A21
A22	1	T&S Brass	B-0655-BSTP	Service Faucet										1/2"	30"	1/2"	5	30"															A22
A23	1	Advance Tabco	K-242	Mop Holder																													A23
A24	1	Fabricated	Stainless Steel	Wall Flashing	Fabricated																												A24
A25	1	Metro	MaxQ	Chemical Storage Shelving	Four Tier, Mobile																												A25
A26	1	By Owner	NIKEC	Trash Receptacle, 23 Gallon	By Owner																												A26

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-982[illegible]
REN. JUL. 31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE IF EDUCATION
550 Airport Way, Camarillo CA, 93010

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Foodservice Utility Schedule

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www.perkinseastman.com

QF400-2

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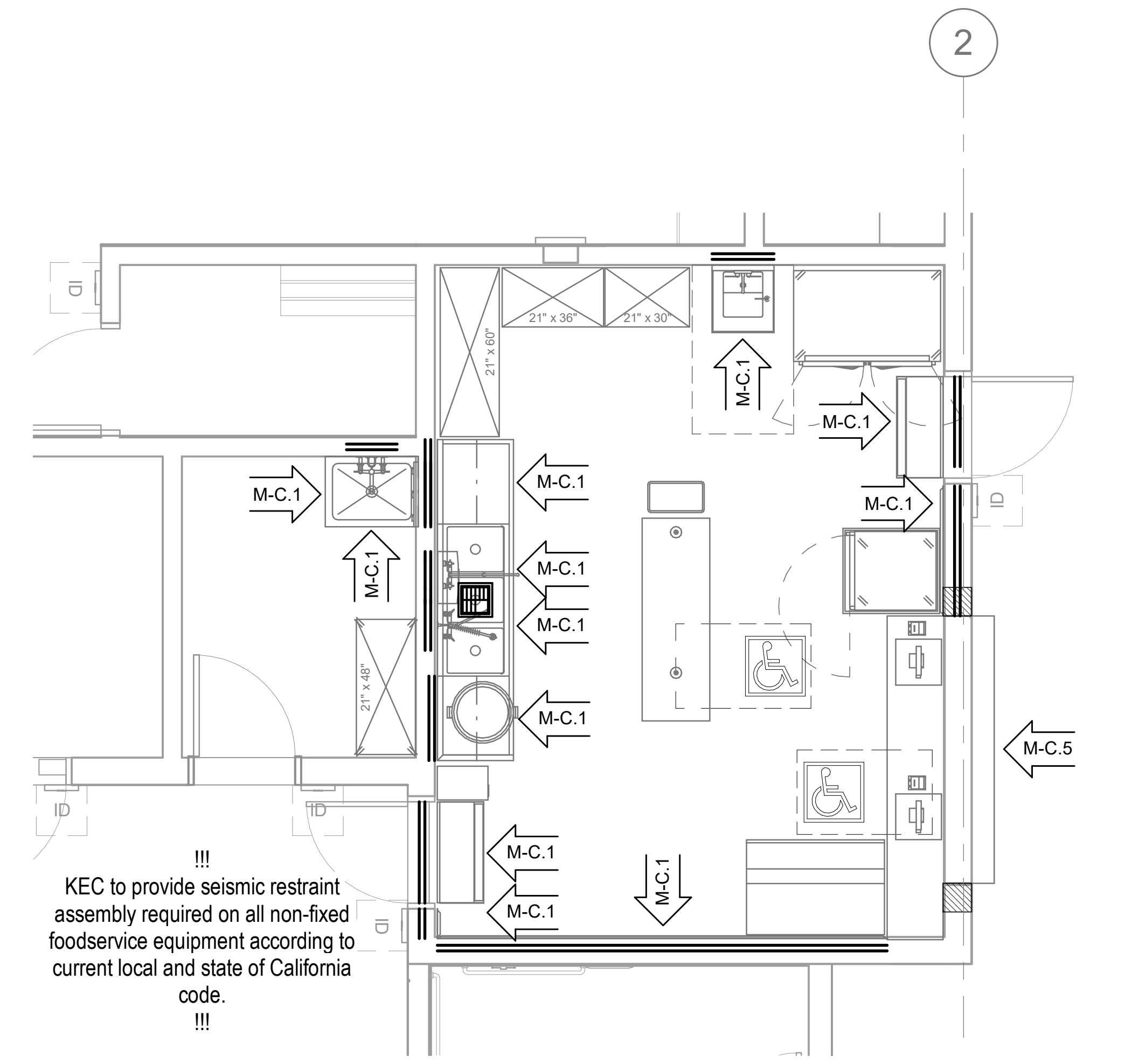
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023



!!!
KEC to provide seismic restraint assembly required on all non-fixed foodservice equipment according to current local and state of California code.
!!!

① Level 1 BC&V Plan
SCALE: 1/4" = 1'-0"

BUILDING CONDITIONS & VENTILATION NOTES

THE NOTES BELOW MAY APPLY TO ONE OR ALL DESIGN, CONSTRUCTION, OR CLOSE-OUT PHASES OF THIS PROJECT

M-A. GENERAL NOTES

1. THE ASSIGNED KITCHEN EQUIPMENT CONTRACTOR SHALL PERFORM A THOROUGH PROJECT REVIEW OF ALL CURRENT CONTRACT DOCUMENTS THAT APPLY TO FOODSERVICE ZONES AND EQUIPMENT. KITCHEN EQUIPMENT CONTRACTOR SHALL GENERATE ENGINEERING INDEPENDENT OF THIS SHEET CONFORMING TO FIELD CONDITIONS WHERE REQUIRED AND MANUFACTURER'S REQUIREMENTS FOR EQUIPMENT SPECIFIED AND THUS INTENDED TO BE PURCHASED AND SET-IN-PLACE.
2. ALL CONSTRUCTION AND MECHANICAL WORK SHOWN ON THIS PLAN MUST COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS, INCLUDING CURRENT INTERNATIONAL MECHANICAL CODE, AS THEY APPLY TO FOODSERVICE EQUIPMENT AND ZONES.
3. ALL WORK SERVICES, INTERCONNECTIONS, FIELD CONNECTIONS, AND FINAL CONNECTIONS INDICATED ON THIS PLAN SHALL BE COMPLETED BY CONTRACTORS OTHER THAN THE KITCHEN EQUIPMENT CONTRACTOR UNLESS SPECIFICALLY ASSIGNED TO THE KITCHEN EQUIPMENT CONTRACTOR.
4. THIS PLAN IS INTENDED TO SHOW SPECIAL BUILDING AND VENTILATION REQUIREMENTS FOR FOODSERVICE EQUIPMENT ONLY. REFER TO ARCHITECTURAL AND ENGINEERING PLANS FOR SCOPE OUTSIDE OF FOODSERVICE EQUIPMENT.
5. THIS DRAWING IS ISSUED FOR DESIGN INTENT PURPOSES ONLY. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED ROUGH-IN DRAWINGS AND APPROVED SHOP DRAWINGS FOR SUPPLEMENTAL COORDINATION AND INSTALLATION REQUIREMENTS FOR FOODSERVICE EQUIPMENT ON THIS PLAN.
6. ALL EQUIPMENT PROVIDED BY OTHERS -INCLUDING BY OWNER/OPERATOR/PURVEYOR- SHOWN ON THIS PLAN ARE MINIMUM GUIDELINES ONLY. KITCHEN EQUIPMENT CONTRACTOR TO VERIFY INFORMATION, TECHNICAL DATA, AND SPECIFICATIONS FOR THIS EQUIPMENT. GENERAL CONTRACTOR TO VERIFY AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.
7. EXISTING, TO-REMAIN-IN-PLACE, OR TO-BE-RELOCATED EQUIPMENT SHOWN ON THIS PLAN ARE MINIMUM GUIDELINES ONLY AND MUST BE VERIFIED. CONTACT OWNER/OPERATOR FOR INFORMATION, TECHNICAL DATA, AND SPECIFICATIONS FOR THIS EQUIPMENT. GENERAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR TO VERIFY, DISCONNECT, AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.
8. RECOMMEND TO PROVIDE MINIMUM LIVE LOADS OF 150 LBS. PER SQUARE FOOT (68KG PER.09 SQUARE METERS). PROVIDE REINFORCED SLAB FOR ANY FOODSERVICE EQUIPMENT THAT MAY EXCEED 150 LBS. PER SQUARE FOOT, SUCH AS A LARGE COMPRESSOR RACK, LARGE DISH MACHINE, LARGE OVENS, ETC.
9. RECOMMENDED MINIMUM FINISHED CEILING HEIGHTS IN KITCHEN AREAS AND FOR SPECIFIC FOODSERVICE EQUIPMENT ARE AS FOLLOWS:
   - A. KITCHEN AREAS WITH EXHAUST HOODS 9'-0" (2.75M)
   - B. WALK-IN COOLER/FREEZER AREAS 9'-0" (2.75M)
   - C. GENERAL AREAS 9'-0" (2.75M)
   - D. ICE MACHINE AREAS 10'-6" (3.2M)
10. ADEQUATE SPACE IS NEEDED ABOVE THE FINISHED CEILINGS FOR MECHANICAL AND ELECTRICAL WORK, ESPECIALLY ABOVE EXHAUST HOODS AND WALK-IN COOLER/FREEZERS. NOTIFY RICCA DESIGN STUDIOS IF HEIGHTS ARE LESS THAN RECOMMENDED MINIMUMS.
    - A. WALK-IN COOLER/FREEZER CEILING PANELS REQUIRE ADDITIONAL 18" (457MM) CLEARANCE ABOVE FOR INSTALLATION
    - B. ICE MACHINES REQUIRE 24" (609 MM) CLEARANCE ABOVE FOR INSTALLATION
11. ALL FLOOR SINKS AND FLOOR TROUGHS TO BE SET FLUSH WITH FINISHED FLOOR - UNLESS OTHERWISE DIRECTED BY LOCAL CODE. ALL FLOOR TROUGHS SERVING FOODSERVICE EQUIPMENT WITH LIQUID VOLUME IN TILTING OR IN VALVED DUMPING MANNER SHALL BE PLACED IN A LOCATION DIRECTLY RELATED TO MANUFACTURER'S REQUIRED POUR-PATH FOR EQUIPMENT TO BE SET IN PLACE. KITCHEN EQUIPMENT CONTRACTOR AND GENERAL CONTRACTOR TO FIELD-VERIFY LOCATION IN RELATION TO REQUIRED POUR PATH, AND IN HEIGHT PER PITCH-TO-DRAIN REQUIRED.
12. THE MOUNTED HEIGHT FOR THE BOTTOM EDGE OF EXHAUST HOODS TO BE SET AT 6'-8" MINIMUM (2032MM) ABOVE THE FINISHED FLOOR UNLESS OTHERWISE INDICATED. THE BOTTOM EDGE OF EXHAUST HOODS SHALL BE NO HIGHER THAN 7'-0" (2134MM) ABOVE FINISHED FLOOR.
13. MANUAL-PULL EXHAUST HOOD FIRE EVENT PULL STATION AND CONDUIT TO BE MOUNTED WITHIN WALL CAVITY AND SET TO 48" ABOVE FINISHED FLOOR (1220MM) AT CENTER. CONDUIT TO TERMINATE PER MANUFACTURER'S DRAWINGS. KITCHEN EQUIPMENT CONTRACTOR AND MECHANICAL CONTRACTOR TO VERIFY LOCATION WITH APPLICABLE FIRE CODE OFFICIALS PRIOR TO INSTALLATION.
14. GENERAL CONTRACTOR TO CONFIRM FOLLOWING IS COMPLETED PRIOR TO THE FOODSERVICE EQUIPMENT DELIVERY AND SET-IN-PLACE:
    - A. THE WALLS AND CEILINGS ARE INSTALLED AND FINISHED. WALLS AND CEILINGS MUST BE SMOOTH, EASILY CLEANABLE, NON-ABSORBENT, DURABLE, WITH FINISHES APPROVED BY LOCAL HEALTH CODE OFFICIALS.
    - B. THE FLOORING IS INSTALLED AND WASHED CLEAN. FLOORS MUST BE NON-SLIP, EASILY CLEANABLE, NON-POROUS, NON-ABSORBENT, AND DURABLE WITH FINISHES APPROVED BY LOCAL HEALTH CODE OFFICIALS. ALL VERTICAL INTERSECTIONS OF FLOORS-TO-WALLS SHALL HAVE COVED BASES INSTALLED.
    - C. CONFIRM IF A LOADING DOCK IS AVAILABLE.
    - D. COORDINATION WITH APPLICABLE TRADESPEOPLE FOR ANY DOOR/WINDOW OPENINGS AND/OR PASSAGEWAYS REQUIRED FOR THE DELIVERY OF FOODSERVICE EQUIPMENT.

M-B. MECHANICAL NOTES

MECHANICAL ENGINEER IS RESPONSIBLE FOR SPECIFYING THE FOLLOWING APPLICABLE EQUIPMENT AND PROVIDING THE FOLLOWING CONDITIONS. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING, INSTALLING, AND MAKING FINAL CONNECTIONS TO FOODSERVICE EQUIPMENT PER BELOW INSTRUCTIONS.

1. ALL COOKING EXHAUST HOOD ASSEMBLIES, DUCTING, COMPONENTS, ETC. SHALL BE TYPE I; ALL WARE WASHING ASSEMBLIES, DUCTING, COMPONENTS, ETC. SHALL BE TYPE II AS REQUIRED PER N.F.P.A.-96.
2. EXHAUST HOOD DUCT TRANSITIONS TO HOODS, FANS, MAKE-UP AIR UNITS, POLLUTION CONTROL UNITS, FIRE-RATED MATERIALS, COMPONENTS, ETC. MAKE ALL FINAL CONNECTIONS ON ALL HOODS.
3. BALANCED TEMPERED SUPPLY AIR AND EXHAUST AIR IN KITCHEN AREAS TO CONTAIN COOKING ODORS AND EFFLUENT AND PROVIDE A COMFORTABLE WORKING ENVIRONMENT. THESE ZONES SHALL BE DESIGNED FOR SLIGHTLY NEGATIVE PRESSURE PER CODE.
4. INDEPENDENT OF EXHAUST HOOD MAKE-UP AIR PLENUM DIFFUSERS AT A LOCATION MINIMUM 8'-0" (2.4M) (CASTING NO GREATER THAN 150 FPM VELOCITY) TO 15'-0" (4.6M) (CASTING NO GREATER THAN 300 FPM VELOCITY) AWAY FROM THE EXHAUST HOOD IN PLAN. 4-WAY CEILING DIFFUSERS SHALL NOT BE UTILIZED IN ANY COOKING ZONE WITHIN KITCHENS.
5. ALL EXHAUST DUCTWORK SEAMS AND JOINTS MUST BE FULLY-WELDED AND WATER/GREASE-TIGHT. ALL EXHAUST DUCTS MUST BE PITCHED PER CODES. ALUMINUM EXHAUST DUCTWORK SHALL NOT BE USED AS DUCTING MATERIAL.
6. ALL FIRE-RATED MATERIALS FOR EXHAUST HOODS, VENT DUCTS, VENT STACKS, AND HEAT-PRODUCING FOODSERVICE EQUIPMENT.
7. SWITCHES, CONTROLS FOR SUPPLY FANS AND EXHAUST FANS, DEMAND CONTROL VENTILATION SYSTEMS, AND HVAC COMPONENTS.
8. AUTOMATIC ACTIVATION OF THE EXHAUST HOOD(S) WHENEVER COOKING OCCURS PER CURRENT INTERNATIONAL MECHANICAL CODE IS THE RESPONSIBILITY OF THE MECHANICAL ENGINEER OF RECORD. VERIFY SPECIFIC REQUIREMENTS WITH LOCAL CODE AUTHORITIES.
9. ENSURE THAT ENTIRE KITCHEN EXHAUST SYSTEM FROM EXHAUST HOOD CANOPY TO FAN IS ASHRAE 90.1 SECTION 5,6,7-COMPLIANT PRIOR TO COMMENCEMENT OF CONSTRUCTION WHEN AND WHERE APPLICABLE. WHERE DEMAND CONTROL VENTILATION IS PLANNED, MECHANICAL ENGINEER TO VERIFY THAT VOLUME DAMPERS AND PEAK-DEMAND LIMITERS IN SIZE AND IN LOCATION ARE PLANNED AND CONTROLLED TO PROVIDE A FULLY-FUNCTIONAL SYSTEM AT TIME OF COMMISSIONING AND TURN-OVER.
10. ADDITIONAL AIR CHANGES/HEAT REMOVAL FOR AIR-COOLED AND FOR WATER-COOLED CONDENSING UNITS AND ICE MACHINES SHALL BE SUPPLIED PER MANUFACTURER'S RECOMMENDATIONS.
11. AT LEAST 1.5 TIMES ADDITIONAL VS STANDARD ROOM AIR CHANGES SHALL BE PLANNED WITHIN WARE WASHING ROOMS/ZONES.
12. WHERE DIRECT EXHAUST VENTING IS PERMITTED, PROVIDE A DOUBLE-WALLED GAS CHIMNEY TO THE ATMOSPHERE AS ALLOWED/REQUIRED BY LOCAL CODE. ANY FLUE OF EXCESSIVE LENGTH WITH BENDS OR OTHER RESTRICTIONS SHALL BE PROVIDED WITH A BOOSTER EXHAUST FAN INTERWIRED TO OPERATE WITH THE EQUIPMENT SERVED. BOOSTER FAN SHALL PROVIDE 0" S.P. AT CONNECTION TO EQUIPMENT.

M-C. GENERAL CONTRACTOR NOTES

THE ARCHITECT IS RESPONSIBLE FOR SPECIFYING THE FOLLOWING. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING THE FOLLOWING.

1. THE IN-WALL REINFORCING OR WALL BACKING FOR ALL WALL-MOUNTED AND RECESSED FOODSERVICE EQUIPMENT AND CONTROL PANELS.
2. TROUGH DIMENSIONS AND LOCATIONS ON THIS PLAN ARE FOR USE IN SLAB BLOCK-OUT PLANNING IF REQUIRED BY CONSTRUCTION SCHEDULE. FINAL SIZE AND LOCATION TO BE PROVIDED BY KEC WITHIN ISSUED SUBMITTALS.
3. REFER TO MANUFACTURER'S DRAWINGS IN QF701 WALK-IN BOX DETAILS SHEET SERIES FOR NECESSARY FLOOR CONDITIONS - INCLUDING DEPTHS, FLOOR CONSTRUCTION, AND FINISHES. ALL SUB-SLAB, SLAB, OR DEPRESSIONS SHALL BE PROVIDED WITH A SMOOTH AND TRANSIT-LEVEL FINISH. ONCE EQUIPMENT IS SET IN PLACE, REMAINING DEPRESSION TO BE INFILLED WITH GROUT.
4. MANDATORY FOR ALL WALK-IN FREEZER COMPARTMENTS THAT MEASURE OVER 30'-0" (9.144M) IN BOTH LENGTH AND WIDTH: PROVIDE FREEZE PREVENTION BELOW THE INSULATED FLOOR SLAB ON GRADE. SUGGESTIONS ARE DRAINAGE/VENTING SYSTEM, HEAT TRACE SYSTEM, AND/OR REFRIGERATION HEAT GAIN GLYCOL SYSTEM.
5. ALL OPENINGS IN WALLS AS INDICATED ON THIS PLAN.
6. ALL PADS OR CURBS FOR FOODSERVICE EQUIPMENT AND/OR ROOF-MOUNTED COMPRESSOR RACKS PER MANUFACTURER'S INSTRUCTIONS AND/OR DETAILS SHOWN IN THIS DOCUMENT SET.
7. ALL HOLES OR SLEEVES THROUGH ROOFS, FLOORS, WALLS, AND CEILINGS AS REQUIRED FOR THE INSTALLATION OF REFRIGERATION, DRINK, ELECTRICAL, OR PLUMBING LINES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING HOLES AND SLEEVES AFTER INSTALLATION OF THE LINES TO ENSURE A VERMIN-PROOF INSTALLATION.
8. WALL(S) AND CEILING, BEHIND, BELOW, AND AROUND TYPE 1 EXHAUST HOOD(S) SHALL CONFORM TO CURRENT N.F.P.A.- 96 AND ANY OTHER APPLICABLE CODE DEFINITION IN REGARD TO REQUIRED CLEARANCES TO COMBUSTIBLE, LIMITED, OR NON-COMBUSTIBLE MATERIALS. ARCHITECT, MECHANICAL ENGINEER, AND KEC TO VERIFY THAT PLANNED CLEARANCES CONFORM TO CODE PRIOR TO INSTALLATION OF EXHAUST CANOPY.
9. PROVIDE A TRANSIT-LEVEL FINISH BELOW THIS EQUIPMENT TO THE OUTER EDGE AS INDICATED IN PLAN.
10. ALL CONDUITS AND ROUTING OF CONDUITS FOR REMOTE REFRIGERATION LINES AS REQUIRED. ARCHITECT TO ASSIGN SCOPE AND SHOW ROUTING OF CONDUITS THROUGH BUILDING. CONDUITS SHALL HAVE A SMOOTH INTERIOR FINISH. VERIFY SIZES WITH KITCHEN EQUIPMENT CONTRACTOR.
11. ALL CONDUITS/CHASES AND ROUTING OF CONDUITS/CHASES FOR BEVERAGE LINES AS REQUIRED. ARCHITECT TO ASSIGN SCOPE AND SHOW ROUTING OF CHASES THROUGH BUILDING. CONDUITS/CHASES SHALL HAVE A SMOOTH INTERIOR FINISH AND MUST BE SEALED WATER-TIGHT. A MINIMUM RADIUS OF 30" (762 MM) AT ALL BENDS WITH SWEEPS WIDENING AS DIAMETER WIDENS (45-DEGREE JOINTS ARE NOT ALLOWED). AN ACCESSIBLE PULL BOX/PULL SLEEVE MAY BE REQUIRED IF OVER 75'-0" (23M) (VERIFY WITH OWNER/OPERATOR'S PURVEYOR) OR WHERE LOCATED IN FLOORS OR CONCEALED SPACES. THE TOTAL OF ALL BENDS BETWEEN PULL BOXES NOT TO EXCEED 180 DEGREES. STUB CONDUIT ENDS OUT 4" (100MM) FROM WALLS, CEILING, OR FINISHED FLOORS. RECOMMENDED CONDUIT SIZE IS 8" (200MM) DIAMETER FOR BEER, 6" (152MM) DIAMETER MINIMUM FOR OTHER BEVERAGES. SCHEDULE 40 PVC IS STANDARD FOR UNDER-SLAB APPLICATIONS, BUT METAL MAY BE REQUIRED ABOVE GRADE AND WITHIN CEILING PLENUMS. GENERAL CONTRACTOR TO VERIFY MATERIAL TYPE WITH LOCAL CODES AND REGULATIONS. CONDUIT CHASEWAYS SHALL BE SEALED WITH EXPANDING FOAM INSULATION AFTER INSTALLATION IS COMPLETE AND COVER TO A SMOOTH AND CLEANABLE CONDITION. WHERE BEVERAGE CONDUITS ARE REQUIRED TO RUN EXTERIOR OR OUTSIDE OF A TEMPERATURE-CONTROLLED SPACE, THEY SHALL BE INSTALLED IN A WEATHER-PROOF AND TEMPERATURE-RESISTANT MANNER.
12. ALL CONDUITS/CHASES AND ROUTING OF CONDUITS/CHASES FOR BULK CO2 TANK LINES AS REQUIRED. ARCHITECT TO ASSIGN SCOPE AND SHOW ROUTING OF CHASE THROUGH BUILDING. CONDUITS SHALL HAVE A SMOOTH INTERIOR FINISH. VERIFY SIZES WITH OWNER/OPERATOR'S LOCAL GAS (CO2) COMPANY. EXTERIOR FILL BOX CANNOT BE MORE THAN 50'-0" (15M) FROM DELIVERY TRUCK. TOTAL LINE RUN FROM BULK CO2 TANK TO EXTERIOR FILL BOX CANNOT BE MORE THAN 50'-0" (15M). PROVIDE CO2 DETECTOR AT THE BULK CO2. CONDUIT CHASEWAYS SHALL BE SEALED WITH EXPANDING FOAM INSULATION AFTER INSTALLATION IS COMPLETE AND COVER TO A SMOOTH AND CLEANABLE CONDITION.

M-D. ADDITIONAL NOTES

1. RUN REFRIGERATION LINES TO REMOTE REFRIGERATION SYSTEM AS INDICATED ON THE EQUIPMENT SCHEDULE. KEC TO FURNISH FIELD-COORDINATED REFRIGERATIONS RUN LINE DRAWINGS.
2. REMOTE REFRIGERATION SYSTEM ON WALK-IN BOX, KEC TO PROVIDE STRUCTRURAL SUPPORT FOR WEIGHT AND FOR MAINTENANCE. ARCHITECT TO PROVIDE ADEQUATE ACCESS FOR MAINTENANCE.
3. CEILING MOUNTED EQUIPMENT SHALL BE FULLY SUPPORTED FROM STRUCTURAL CEILING ABOVE AND PROVIDE ANTI-SWAY BRACING WELDED TO VERTICAL SUPPORTS.

BC&V Symbol Legend

▧	FLOOR DEPRESSION
▩	MASONRY PAD
▭	TRANSIT - LEVEL FINISH
▨	NON-COMBUSTIBLE WALL MATERIAL (VERIFY REQUIREMENTS with LOCAL CODES)
▨▭▨	FINISHED WALL OPENING
☰	WALL BACKING
⊠	SUPPLY DUCT
◪	EXHAUST DUCT
◒	DIRECT CONNECT FLUE
◐	AIR MOVEMENT / HEAT REMOVAL
⊂- - -⊃	BEVERAGE CONDUIT
○-·-·-	REFRIGERATION LINE CONNECTION
R / ITEM#	TAG INDICATING REMOTE REFRIGERATION LINE
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
DFA	DOWN FROM ABOVE
⇨	REFER to INDICATED NOTE

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Foodservice Building Conditions
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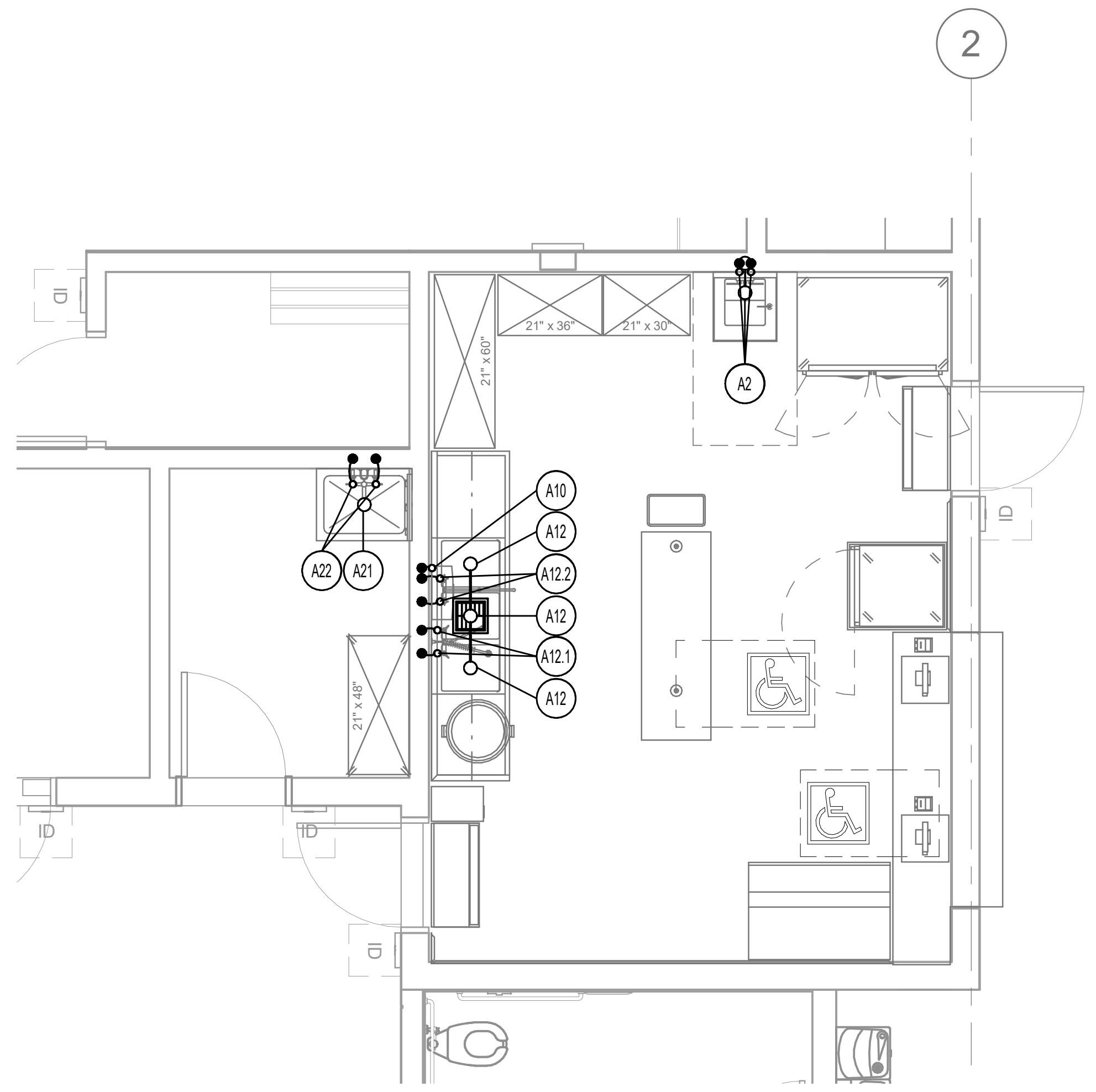

① Level 1 Plumbing Plan
SCALE: 1/4" = 1'-0"

PLUMBING NOTES

THE NOTES BELOW MAY APPLY TO ONE OR ALL DESIGN, CONSTRUCTION, OR CLOSE-OUT PHASES OF THIS PROJECT

P-A. GENERAL NOTES

1. THE ASSIGNED KITCHEN EQUIPMENT CONTRACTOR SHALL PERFORM A THOROUGH PROJECT REVIEW OF ALL CURRENT CONTRACT DOCUMENTS THAT APPLY TO FOODSERVICE ZONES AND EQUIPMENT. KITCHEN EQUIPMENT CONTRACTOR SHALL GENERATE ENGINEERING INDEPENDENT OF THIS SHEET CONFORMING TO FIELD CONDITIONS WHERE REQUIRED AND MANUFACTURER'S REQUIREMENTS FOR EQUIPMENT SPECIFIED AND THUS INTENDED TO BE PURCHASED AND SET-IN-PLACE.
2. ALL PLUMBING WORK SHOWN ON THIS PLAN MUST COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS THEY APPLY TO FOODSERVICE EQUIPMENT AND ZONES.
3. ALL WORK SERVICES, INTERCONNECTIONS, FIELD CONNECTIONS, AND FINAL CONNECTIONS INDICATED ON THIS PLAN SHALL BE COMPLETED BY CONTRACTORS OTHER THAN THE KITCHEN EQUIPMENT CONTRACTOR UNLESS SPECIFICALLY ASSIGNED TO THE KITCHEN EQUIPMENT CONTRACTOR.
4. THIS PLAN IS INTENDED TO SHOW PLUMBING REQUIREMENTS FOR FOODSERVICE EQUIPMENT ONLY. REFER TO ARCHITECTURAL/ENGINEERING PLANS FOR SCOPE OUTSIDE OF FOODSERVICE EQUIPMENT.
5. THIS DRAWING IS ISSUED FOR DESIGN INTENT PURPOSES ONLY. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED ROUGH-IN DRAWINGS AND APPROVED SHOP DRAWINGS FOR SUPPLEMENTAL COORDINATION AND INSTALLATION REQUIREMENTS FOR FOODSERVICE EQUIPMENT ON THIS PLAN.
6. ALL EQUIPMENT PROVIDED BY OTHERS -INCLUDING BY OWNER/OPERATOR/PURVEYOR- SHOWN ON THIS PLAN ARE MINIMUM GUIDELINES ONLY. VERIFY INFORMATION, TECHNICAL DATA, AND SPECIFICATIONS FOR THIS EQUIPMENT. GENERAL CONTRACTOR TO VERIFY AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.
7. EXISTING, TO-REMAIN-IN-PLACE, OR TO-BE-RELOCATED EQUIPMENT SHOWN ON THIS PLAN ARE MINIMUM GUIDELINES ONLY AND MUST BE VERIFIED. CONTACT OWNER/OPERATOR FOR INFORMATION, TECHNICAL DATA, AND SPECIFICATIONS FOR THIS EQUIPMENT. GENERAL CONTRACTOR TO VERIFY, DISCONNECT, AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.
8. GENERAL CONTRACTOR TO VERIFY, DISCONNECT, AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.

P-B. PLUMBING NOTES

PLUMBING ENGINEER IS RESPONSIBLE FOR SPECIFYING THE FOLLOWING. PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING, INSTALLING, AND MAKING FINAL CONNECTIONS TO FOODSERVICE EQUIPMENT AND SHALL PROVIDE THE FOLLOWING.

1. DRAIN-LINES, FITTINGS, VALVES, AND ALL PLUMBING COMPONENTS SERVICING FOODSERVICE EQUIPMENT SHALL BE CAPABLE TO WITHSTAND HOT WATER TEMPERATURES MORE THAN 140-200 DEGREES FAHRENHEIT, DRAIN TEMPERATURES OF 130 DEGREES FAHRENHEIT TO BOILING (SOMETIMES UNDER PRESSURE), AND STEAM (IF APPLICABLE) TEMPERATURES AS PER DESIGN PRESSURES. PROVIDE MINIMUM 6'-0" (1.8M) LENGTH CAST IRON PIPING FROM FLOOR SINKS TO WITHSTAND HOT WATER TEMPERATURES.
2. PRESSURE-REDUCING OR REGULATING VALVES, FAUCETS AND WATER INLETS, IN-LINE WATER FILTERS, VACUUM BREAKERS, BACKFLOW PREVENTERS, ANTI-SCALD VALVES, STAINLESS STEEL DOUBLE CHECK VALVES FOR SODA SYSTEM, ETC. NOT OTHERWISE SUPPLIED TO FOODSERVICE EQUIPMENT AS REQUIRED BY LOCAL CODES AND MANUFACTURER'S SPECIFICATIONS.
3. WASTE LINES, DIRECT AND INDIRECT, TO BE PITCHED DOWNWARD AND TO HAVE ADEQUATE CLEAN-OUT PROVISIONS PER CODE.
4. FLOOR SINKS SHOULD BE SPECIFIED AND INSTALLED WITH TOP GRATES AND REMOVABLE SEDIMENT BUCKET INCLUDED. FLOOR SINK TOP TO BE SET FLUSH WITH FINISHED FLOOR UNLESS DIRECTED OTHERWISE BY LOCAL CODE. PROVIDE ACID-RESISTANT FLOOR SINKS FOR EQUIPMENT THAT DISCHARGES CO2 (I.E. SODA AND WATER DISPENSERS). VERIFY COMPLIANCE WITH LOCAL CODES AND REGULATIONS.
5. AREA FLOOR DRAINS IN QUANTITY AND PROPOSED LOCATION AS COORDINATED WITH OWNER/OPERATOR. SLOPE FLOORS TO AREA DRAINS AT MINIMUM OF 1/16" (.40MM) PER FOOT (304MM) WITHIN A 6' (1.8M) RADIUS OR PER LOCAL CODE.
6. GREASE TRAPS, INCLUDING SIZING, AS REQUIRED. INSTALL GREASE TRAPS OUTSIDE OF BUILDING WHENEVER POSSIBLE. INSTALLATION WITHIN THE BUILDING MUST COMPLY WITH LOCAL CODES AND REGULATIONS. NOTIFY RICCA DESIGN STUDIOS WHEN INSTALLATION MUST BE WITHIN ANY KITCHEN AREAS OR FOODSERVICE ZONES.
7. PROVIDE AND INSTALL INDIRECT DRAIN LINE FROM WALK-IN OR ROOM COOLING EVAPORATOR COILS TO ASSIGNED FLOOR SINK. DRAIN LINES TO BE P-TRAPPED AT EJECTION POINT OUTSIDE OF COLD ZONE. DRAIN LINES WITHIN FREEZER CAVITIES TO BE INSULATED AND WRAPPED WITH HEAT TAPE PROVIDED BY E.C.
8. NOTES CONCERNING PLUMBING ROUGH-INS:
   - A. FURNISH AND INSTALL ALL WATER, WASTE, GAS, AND STEAM LINES AND SIZE SERVICE LINES TO PROVIDE FULL-FLOW VOLUME FOR ALL EQUIPMENT SUPPLIED BY RESPECTIVE MAINS AND BRANCHES. PROVIDE BRASS BALL VALVE (MINIMUM) STOP VALVES AND TAG ROUGH-INS WITH THE APPROPRIATE IDENTIFYING LABELS. SERVICE LINES STUBBED OUT OF WALLS, UP FROM FINISHED FLOORS, OR A CONCRETE CURB A MINIMUM OF 2" (50MM). VENT PIPES MUST BE CONCEALED IN WALLS OR COLUMN CHASE. USE A LOOP-VENT OR AIR GAP ASSEMBLY FOR ISLAND FIXTURES. ALL FLOOR PENETRATIONS MUST BE SEALED WATERTIGHT.
   - B. WASTE LINES SHOWN ARE DESIGNED TO COMPLY WITH THE BEST KNOWN AND GENERALLY-ACCEPTED HEALTH AND SANITARY CONDITIONS AND CODES. PLUMB LINES TO ENSURE NO INTERFERENCE WITH THE INTENDED USE OR SERVICING OF FOODSERVICE EQUIPMENT. RUN LINES BELOW EQUIPMENT AT THE HIGHEST POSSIBLE ELEVATION ABOVE FINISHED FLOOR. NO LINES ARE TO LAY ON OR BE SECURED TO THE FLOOR. FIELD-CUTTING OF ANY FOODSERVICE EQUIPMENT TO MAKE WAY FOR WASTE LINES WITHOUT CONSENT OF KITCHEN EQUIPMENT CONTRACTOR IS PROHIBITED.
   - C. SUPPLY 140-DEGREE FAHRENHEIT HOT WATER TO ALL WAREWASHING EQUIPMENT, 105-DEGREE FAHRENHEIT HOT WATER TO HAND-WASH SINKS AND 120-DEGREE FAHRENHEIT HOT WATER TO ALL OTHER EQUIPMENT UNLESS OTHERWISE INSTRUCTED BY CODE. INSULATE WATER AND STEAM LINES (IF REQUIRED) TO CONFORM WITH ACCEPTED PRACTICE. EXPOSED PIPES AND FITTINGS ABOVE A WORKING HEIGHT OF 34" (863MM) ABOVE FINISHED FLOOR SHALL BE CHROME-PLATED OR COVERED WITH A STAINLESS-STEELSLEEVE.
   - D. SIZE FUEL GAS SERVICE LINES TO PROVIDE THE REQUIRED BTU RATING INDICATED FOR THE EQUIPMENT, AT A LOW PRESSURE OF APPROXIMATELY 7" TO 9" WATER COLUMN. INSTALL AUTOMATIC MECHANICAL SHUT-OFF VALVES - FURNISHED BY FIRE SUPPRESSION SYSTEM CONTRACTOR - IN GAS SUPPLY LINES TO EQUIPMENT UNDER EXHAUST HOOD ASSEMBLIES.
   - E. PROVIDE CHILLED WATER (OR CONDENSER WATER) TO AND FROM COMPRESSOR FROM COOLING TOWER (OR BUILDING'S CONDENSER SYSTEM) AS SHOWN. PROVIDE RICCA DESIGN STUDIOS WITH CHILLED WATER TEMPERATURE TO PROPERLY ENGINEER REFRIGERATION EQUIPMENT. CHILLED WATER PRESSURE SHALL BE PROVIDED AT NO GREATER THAN 150 PSI.
9. NOTES CONCERNING PLUMBING CONNECTIONS:
   - A. ALL WATER, GAS, AND STEAM (WHERE APPLICABLE) SERVICES FOR PORTABLE AND COUNTERTOP EQUIPMENT MUST BE CONNECTED TO THE EQUIPMENT WITH A COMMERCIAL TYPE FLEXIBLE HOSE AND QUICK DISCONNECT FITTINGS TO MEET A.G.A. APPROVAL FOR COMMERCIAL KITCHEN EQUIPMENT.
   - B. WATER PROVIDED FOR STEAM-PRODUCING EQUIPMENT MUST HAVE A WATER HARDNESS NO GREATER THAN 2.0 GRAINS AND A PH LEVEL BETWEEN 7.0 AND 7.5.
   - C. WATER USED FOR COOLING WATER TO CONDENSING UNITS OR COMPRESSORS MUST BE TREATED TO INHIBIT THE FORMATION OF DEPOSITS IN THE CONDENSING TUBES.
   - D. STEAM (WHERE APPLICABLE) THAT COMES IN DIRECT CONTACT WITH FOOD, FOOD HOLDING EQUIPMENT, OR WAREWASHING EQUIPMENT MUST BE POTABLE STEAM.
   - E. INTERPIPE HOT WATER SUPPLY LINES BETWEEN BOOSTER HEATER AND WAREWASHING EQUIPMENT WHEN SPECIFIED SEPARATELY. LINES SHALL BE INSULATED THE LENGTH OF THE LINE-RUN.
   - F. INTERPIPE WATER LINES BETWEEN WATER WASH VENTILATOR ASSEMBLIES AND CONTROL PANELS. SUPPLY A MINIMUM OF 140-DEGREE FAHRENHEIT HOT WATER AT CONTROL PANEL. LINES SHALL BE INSULATED THE LENGTH OF THE LINE-RUN. REFER TO MANUFACTURER DRAWINGS FOR EXACT REQUIREMENTS.
   - G. INTERPIPE CENTRALIZED WASTE GREASE PLUMBING LINE FROM PUMPING/COLLECTION STATION TO GREASE WASTE COLLECTION TANK IN PITCHED MANNER PER MANUFACTURER'S DIRECTION. PROVIDE HEAT TRACE CABLE/TAPE ON LINE-RUN WHERE AMBIENT AIR TEMPERATURE ALONG LINE- RUN IS BELOW 70 DEGRESS FAHRENHEIT. HEAT TRACE CABLE/TAPE SHALL BE PROVIDED BY E.C.
   - H. WASTE CONNECTIONS FOR INDIVIDUAL SECTIONS OF WATER WASH VENTILATORS TO A MAIN DRAIN CONNECTION. REFER TO MANUFACTURER'S DRAWINGS FOR EXACT REQUIREMENTS.
   - I. INSTALL IN-LINE WATER FILTERS AS WELL AS INCOMING AND OUTGOING LINES AS FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR.
   - J. WATER PIPES BETWEEN THE BACKFLOW PREVENTER AND WATER FILTERS SHALL BE STAINLESS STEEL, NOT COPPER OR ALLOYS CONTAINING COPPER (SUCH AS BRASS).

9. NOTES CONCERNING PLUMBING CONNECTIONS:
   - K. WATER PIPES BETWEEN THE BACKFLOW PREVENTER AND WATER FILTER AT SODA SYSTEM CARBONATOR SHALL BE STAINLESS STEEL - NOT COPPER OR ALLOYS CONTAINING COPPER (SUCH AS BRASS). DRAIN PIPE AT SODA DISPENSERS SHALL BE STAINLESS STEEL OR PLASTIC PIPE WASTE LINE UNTIL A POINT WHERE THE WASTE HAS BEEN DILUTED BY AN UPSTREAM FIXTURE.
   - L. INTERCONNECT FOOD WASTE SYSTEMS PER MANUFACTURER'S DRAWINGS.
   - M. EQUIPMENT THAT IS CONNECTED TO POTABLE WATER AND UTILIZES AUTOMATICALLY DISPENSED CHEMICALS FOR CLEANING SHALL HAVE AN ACCESSIBLE BACK FLOW PREVENTION DEVICE INSTALLED.
   - N. DRAIN LINES FROM ICE BINS ARE TO BE INSULATED THE ENTIRE LINE-RUN TO FLOOR SINK.

P-C. ADDITIONAL NOTES

Plumbing Symbol Legend

○⌒○	HOT / COLD WATER ROUGH-IN and CONNECTION
○—○	DIRECT WASTE (DW) ROUGH-IN and CONNECTION
○—	INDIRECT WASTE (IW)
⊕—○	FUEL GAS ROUGH-IN and CONNECTION
◎—○	STEAM SUPPLY ROUGH-IN and CONNECTION
◎—○	STEAM CONDENSATE RETURN ROUGH-IN and CONNECTION
CS—○	COOLING WATER SUPPLY ROUGH-IN and CONNECTION
CR—○	COOLING WATER RETURN ROUGH-IN and CONNECTION
○+	HOSE BIBB, HOT or COLD WATER
○○+	HOSE BIBB, HOT and COLD WATER with MIXING VALVE and VACUUM BREAKER
Ⓐ—○	COMPRESSED AIR CONNECTION
▤	FLOOR SINK AND GRATE (FS)
▢FD	AREA FLOOR DRAIN (FD)
◎FFD	FUNNEL FLOOR DRAIN (FFD)
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BTC	BRANCH TO CONNECTION
DFA	DOWN FROM ABOVE
⇨	REFER to INDICATED NOTE

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GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE IF EDUCATION
550 Airport Way, Camarillo CA, 93010

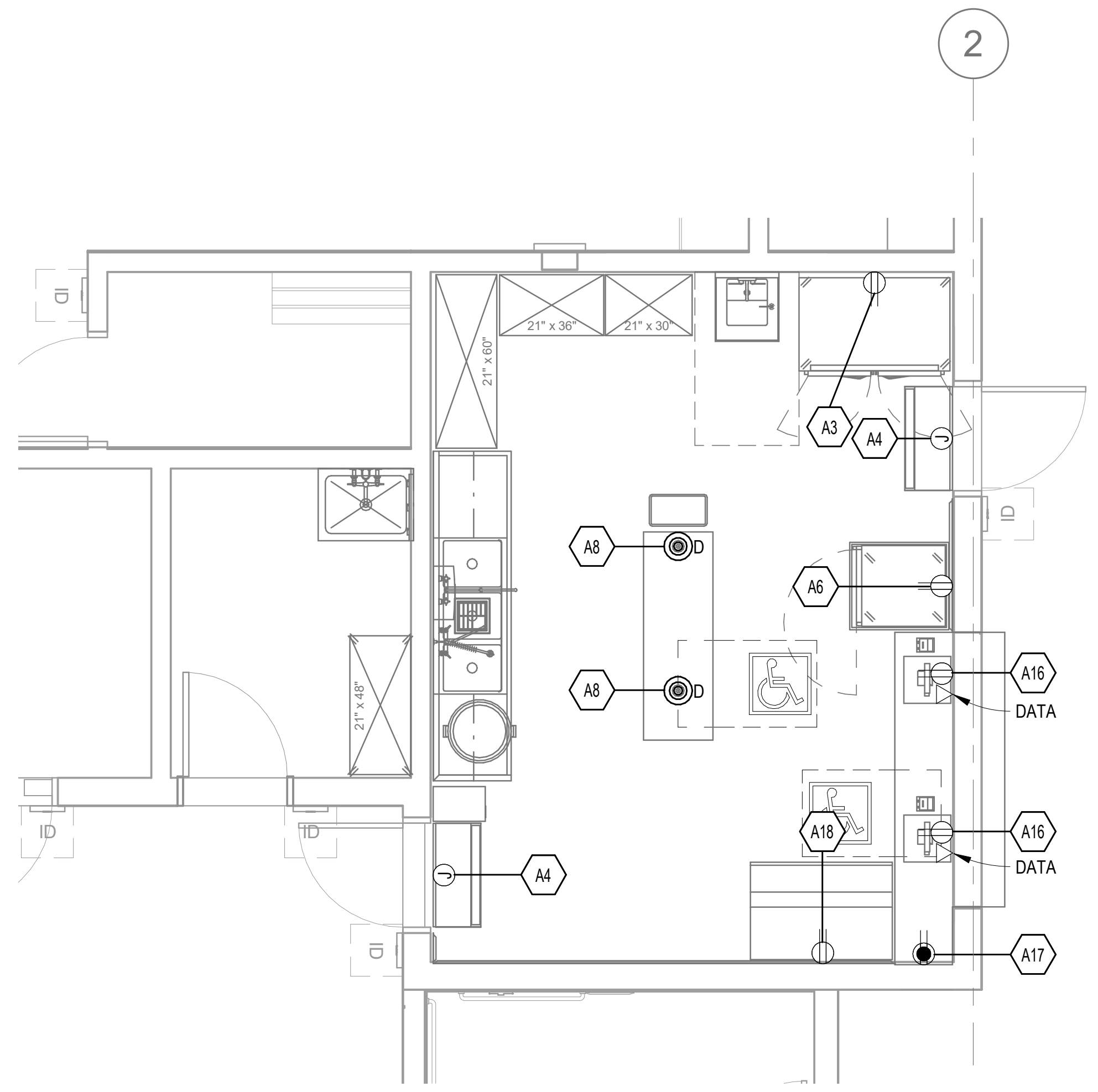
JOB	22074
SCALE	As indicated
PM	RICCA
DATE	10/28/2022

Foodservice Plumbing Plan

QF400-4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023
STATE OF CALIFORNIA



① Level 1 Electrical Plan
SCALE: 1/4" = 1'-0"

ELECTRICAL NOTES

THE NOTES BELOW MAY APPLY TO ONE OR ALL DESIGN, CONSTRUCTION, OR CLOSE-OUT PHASES OF THIS PROJECT

E-A. GENERAL NOTES

1. THE ASSIGNED KITCHEN EQUIPMENT CONTRACTOR SHALL PERFORM A THOROUGH PROJECT REVIEW OF ALL CURRENT CONTRACT DOCUMENTS THAT APPLY TO FOODSERVICE ZONES AND EQUIPMENT. KITCHEN EQUIPMENT CONTRACTOR SHALL GENERATE ENGINEERING INDEPENDENT OF THIS SHEET CONFORMING TO FIELD CONDITIONS WHERE REQUIRED AND MANUFACTURER'S REQUIREMENTS FOR EQUIPMENT SPECIFIED AND THUS INTENDED TO BE PURCHASED AND SET-IN-PLACE.
2. ALL ELECTRICAL WORK SHOWN ON THIS PLAN MUST COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS THEY APPLY TO FOODSERVICE EQUIPMENT AND ZONES.
3. ALL WORK SERVICES, INTERCONNECTIONS, FIELD CONNECTIONS, AND FINAL CONNECTIONS INDICATED ON THIS PLAN SHALL BE COMPLETED BY CONTRACTORS OTHER THAN THE KITCHEN EQUIPMENT CONTRACTOR UNLESS SPECIFICALLY ASSIGNED TO THE KITCHEN EQUIPMENT CONTRACTOR.
4. THIS PLAN IS INTENDED TO SHOW ELECTRICAL REQUIREMENTS FOR FOODSERVICE EQUIPMENT ONLY. ELECTRICAL INFORMATION IS BASED ON A 60 HERTZ ELECTRICAL SYSTEM AND IS INTENDED TO SHOW FOODSERVICE FIXTURES AND EQUIPMENT RECEPTACLE TYPES, LOCATIONS, LOADS, AND CONNECTION POSITIONS ONLY. FURNISH ANY ADDITIONAL RECEPTACLES AS REQUIRED BY LOCAL CODES OR AS REQUESTED BY OWNER. REFER TO ARCHITECTURAL/ENGINEERING PLANS FOR SCOPE OUTSIDE OF FOODSERVICE EQUIPMENT.
5. THIS DRAWING IS ISSUED FOR DESIGN INTENT PURPOSES ONLY. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED ROUGH-IN DRAWINGS AND APPROVED SHOP DRAWINGS FOR SUPPLEMENTAL COORDINATION AND INSTALLATION REQUIREMENTS FOR FOODSERVICE EQUIPMENT ON THIS PLAN.
6. ALL EQUIPMENT PROVIDED BY OTHERS -INCLUDING BY OWNER/OPERATOR/PURVEYOR- SHOWN ON THIS PLAN ARE MINIMUM GUIDELINES ONLY. VERIFY INFORMATION, TECHNICAL DATA, AND SPECIFICATIONS FOR THIS EQUIPMENT. GENERAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR TO VERIFY AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.
7. EXISTING, TO-REMAIN-IN-PLACE, OR TO-BE-RELOCATED EQUIPMENT SHOWN ON THIS PLAN ARE MINIMUM GUIDELINES ONLY AND MUST BE VERIFIED. CONTACT OWNER/OPERATOR FOR INFORMATION, TECHNICAL DATA, AND SPECIFICATIONS FOR THIS EQUIPMENT. GENERAL CONTRACTOR TO VERIFY, DISCONNECT, AND MAKE FINAL ROUGH-IN CONNECTIONS AS REQUIRED.
8. ENGINEERS SHALL PROVIDE AT LEAST 15% ADDITIONAL POWER THAN THE MINIMUM REQUIRED WITHIN KITCHEN/CULINARY ZONES FOR CURRENT OR FUTURE EQUIPMENT NEEDS.
9. ANY EXPOSED LOCATION SERVICE STUBBED UP OUT OF THE FLOOR MUST BE PROTECTED AND INSTALLED IN A MANNER THAT WILL PREVENT DAMAGE FROM WATER OR BY COLLISION WITH PORTABLE KITCHEN EQUIPMENT, HEAVILY-LOADED CARTS, OR FLOOR CLEANING EQUIPMENT.
10. PRIOR TO THE INSTALLATION OF FOODSERVICE EQUIPMENT, THE KITCHEN EQUIPMENT CONTRACTOR MUST CONFIRM THAT ELECTRICAL WIRING HAS BEEN PULLED THROUGH JUNCTION BOXES AND THAT LIGHTING FIXTURES ARE WORKING.

E-B. ELECTRICAL NOTES

ELECTRICAL ENGINEER IS RESPONSIBLE FOR SPECIFYING THE FOLLOWING. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING, INSTALLING, AND MAKING FINAL CONNECTIONS TO FOODSERVICE EQUIPMENT AND SHALL PROVIDE THE FOLLOWING.

1. ALL WIRING, WIRING CONDUITS, JUNCTION BOXES, ELECTRICAL RECEPTACLES, SWITCHES, COVER PLATES, PLUG MOLDING, ETC. AS SHOWN ON PLAN AND NOT PROVIDED BY OTHERS. RUN ALL OF THE ELECTRICAL SERVICE LINES IN WALLS OR CONCEALED WHEREVER POSSIBLE. ALL EXPOSED SERVICES, COMPONENTS, AND CONNECTIONS SHALL BE VAPOR AND WATER-TIGHT.
2. ALL DISCONNECTS OR OTHER DEVICES AS REQUIRED BY LOCAL CODES. DO NOT LOCATE DISCONNECTS OR OTHER DEVICES (OTHER THAN JUNCTION BOX CONNECTIONS OR CORD & PLUG RECEPTACLES) BEHIND COOKING EQUIPMENT OR BELOW EXHAUST HOOD ASSEMBLIES.
3. ALL SHUNT-TRIP CIRCUIT BREAKERS OR DISCONNECTIONS FOR FIRE SUPPRESSION SYSTEM SHUT-OFF OF ALL ELECTRICAL BELOW AND IN EXHAUST HOODS INTERWIRED WITH FIRE SUPPRESSION AS REQUIRED BY N.F.P.A. STANDARDS.
4. ALL RECEPTACLES, CORD & PLUG ASSEMBLIES TO BE NEMA-SIZED, UL-APPROVED, AND RATED FOR THE SERVICE INDICATED ON THESE PLANS. PROVIDE GFCI RECEPTACLES AS REQUIRED BY THE NEC AND LOCAL CODES. ENSURE THAT GFCI RECEPTACLES AND NOT BREAKERS-ONLY ARE ALLOWED FOR APPLICABLE FOODSERVICE EQUIPMENT.
5. AT ALL WALK-IN COOLER/FREEZER LOCATIONS SHOWN ON THIS PLAN:
   - A. ALL VAPOR-PROOF LIGHT FIXTURES, AS PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR.
   - B. ALL DISCONNECTS AND SWITCHES AT BLOWER COILS.
   - C. ALL VAPOR-PROOF DUPLEX CONVENIENCE RECEPTACLES AS INDICATED ON THIS PLAN.
   - D. ALL INTERCONNECTIONS FOR ELECTRICAL COMPONENTS IN THE WALK-IN COOLER/FREEZER COMPARTMENTS.
   - E. ALL INTERCONNECTIONS AND SWITCHES FOR FREEZER EVAPORATORS AND COMPRESSORS.
   - F. VERIFY EXACT WIRE SIZES WITH MANUFACTURERS SPECIFICATIONS. KITCHEN EQUIPMENT CONTRACTOR TO PROVIDE WIRING DIAGRAM FOR ALL WIRING REQUIRED FOR WALK-IN COOLER/FREEZER COMPARTMENTS.
6. ALL WIRING AND CONDUITS INTO WALK-IN COOLER/FREEZER COMPARTMENTS FOR THE FOLLOWING:
   - A. EACH EVAPORATOR COIL
   - B. EACH VAPOR-PROOF CEILING LIGHT
   - C. EACH PERSONNEL ALARM SWITCH AND LIGHT
   - D. EACH DOOR HEATER AND ANY FREEZER COIL DRAIN HEATERS REQUIRED
   - E. EACH HIGH-TEMPERATURE WARNING ALARM SYSTEM ALL PENETRATIONS MUST BE MADE THROUGH THE CEILING INSULATION AND ARE REQUIRED TO BE VAPOR-TIGHT. ALL CONDUIT TO RUN ABOVE THE WALK-IN COMPARTMENTS. INSTALLATION OF CONDUIT LINE-RUNS INSIDE OF WALK-IN COMPARTMENTS IS PROHIBITED.
7. ALL WIRING TO AND INTERWIRING BETWEEN EXHAUST HOOD COMPONENTS. INCLUDING, BUT NOT LIMITED TO: CONTROL SYSTEMS AND WIRING, DAMPERS, SOLENOIDS, LIGHTS, VFDS, FIRE SUPPRESSION SYSTEMS, BUILDING MANAGEMENT SYSTEM, ETC. AS SHOWN ON MANUFACTURER'S DRAWINGS AND ON MECHANICAL ENGINEER'S DRAWINGS.
8. SWITCHES/CONTROLS FOR EXHAUST HOODS, EXHAUST FANS, SUPPLY FANS, MAKEUP FANS, AND HVAC COMPONENTS AS SPECIFIED BY THE MECHANICAL ENGINEER.
9. ALL REQUIRED MATERIALS TO MAKE FINAL CONNECTIONS TO ALL FOODSERVICE EQUIPMENT SHOWN ON THIS PLAN.
10. FOR FLOOR PENETRATION ROUGH-INS, UTILIZE A SINGLE CONDUIT STUB-UP FOR MULTIPLE CIRCUITS WHEREVER POSSIBLE.
11. FLOOR RECEPTACLES IN FRONT-OF-HOUSE, NON-KITCHEN AREAS, BUT UTILIZED BY SERVICE TEAM, SHOULD BE VAPOR-PROOF FLUSH TYPE, UNLESS OTHERWISE NOTED. NO FLUSH TYPE RECEPTACLES SHALL BE INSTALLED IN KITCHEN AREAS.
12. INTERCONNECT/INTERWIRE FOOD WASTE SYSTEM CONTROL PANEL WITH FOOD WASTE SYSTEM COMPONENTS AS SHOWN ON MANUFACTURER'S DRAWINGS.
13. WHERE INDICATED, THIS COUNTER OR TABLE WILL BE PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR COMPLETELY PRE-WIRED WITH A BUILT-IN CIRCUIT BREAKER MINI-PANEL/LOAD CENTER- SIZED AS SPECIFIED BY THE ELECTRICAL ENGINEER- PER THE INDIVIDUAL EQUIPMENT REQUIREMENTS NOTED ON THE PLANS AND SCHEDULES. ALL FINAL CONNECTIONS, INCLUDING INTERWIRING BETWEEN COUNTER SEGMENTS, TO BE MADE BY THE ELECTRICAL CONTRACTOR. DATA LINE RUNS SHALL BE SEPARATE FROM ELECTRICAL CONDUIT AND TERMINATE WITHIN DATA PULL BOX. DATA LINE RUNS AND FINAL DATA CONNECTIONS BY ELECTRICAL CONTRACTOR.
14. WHERE INDICATED, THIS COUNTER OR TABLE WILL BE PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR COMPLETELY PRE-WIRED TO A BUILT-IN ACCESSIBLE PULL BOX, WITH PIGTAILS TAGGED WITH THE REQUIREMENTS AND IDENTIFICATION OF THE EQUIPMENT THEY SERVE. ELECTRICAL COMPONENTS PRE-WIRED TO THIS PULL BOX ARE AS NOTED ON THE PLANS AND SCHEDULES. ALL FINAL CONNECTIONS, INCLUDING INTERWIRING BETWEEN COUNTER SEGMENTS, TO BE MADE BY THE ELECTRICAL CONTRACTOR. DATA LINE RUNS SHALL BE SEPARATE FROM ELECTRICAL CONDUIT AND TERMINATE WITHIN DATA PULL BOX. DATA LINE RUNS AND FINAL DATA CONNECTIONS BY ELECTRICAL CONTRACTOR.
15. WHERE INDICATED, THIS COUNTER OR TABLE WILL BE PROVIDED BY THE GENERAL CONTRACTOR COMPLETELY PRE-WIRED TO A BUILT-IN ACCESSIBLE PULL BOX, WITH PIGTAILS TAGGED WITH THE REQUIREMENTS AND IDENTIFICATION OF THE EQUIPMENT THEY SERVE. ELECTRICAL COMPONENTS PRE-WIRED TO THIS PULL BOX ARE AS NOTED ON THE PLANS AND SCHEDULES. ALL FINAL CONNECTIONS, INCLUDING INTERWIRING BETWEEN COUNTER SEGMENTS, TO BE MADE BY THE ELECTRICAL CONTRACTOR. DATA LINE RUNS SHALL BE SEPARATE FROM ELECTRICAL CONDUIT AND TERMINATE WITHIN DATA PULL BOX. DATA LINE RUNS AND FINAL DATA CONNECTIONS BY ELECTRICAL CONTRACTOR.
16. CEILING-MOUNTED RETRACTABLE DROP CORD ASSEMBLY IN LOCATIONS SHOWN ON PLANS AND ELEVATIONS. RETRACTED CORD HEIGHT TO BE 6'-6" (2M) ABOVE FINISHED FLOOR. OVERALL CORD LENGTH NOT TO EXCEED FINISHED FLOOR TO FINISHED CEILING HEIGHT. E.C. TO PROVIDE CONCEALED UNI-STRUT REINFORCED SUPPORT TO STRUCTURE FOR DROP CORD OR RETRACTABLE CORD ASSEMBLY.

E-C. ADDITIONAL NOTES

Electrical Symbol Legend

⬡	TAG INDICATING DEVICE INSTALLED in EQUIPMENT (by KEC or MANUFACTURER)
▨	PRE-WIRED BREAKER PANEL INSTALLED in EQUIPMENT (by KEC or MANUFACTURER)
PB	PULL BOX INSTALLED in EQUIPMENT (by KEC or MANUFACTURER)
○	CONDUIT STUB with FINAL CONNECTIONS to EQUIPMENT
Ⓙ	JUNCTION BOX (JB) with FINAL CONNECTIONS to EQUIPMENT
◎	DUPLEX CONVENIENCE RECEPTACLE (DCR)
⊖	DUPLEX RECEPTACLE (DR)
▷	POWER RECEPTACLE, 1 PHASE
Y	POWER RECEPTACLE, 3 PHASE
◎D	DROP RECEPTACLE - CORD (DRC)
DRR	DROP RECEPTACLE - REEL (DRR)
⊘	FLOOR RECEPTACLE, FLUSH OR PEDESTAL MOUNTED
Ⓥ	VAPOR-PROOF LIGHT FIXTURE
▽	DATA
$	SWITCH (SW)
▭	LOW TEMP. LED LIGHT FIXTURE
—X—X—	PLUG MOULDING
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BTC	BRANCH TO CONNECTION
DFA	DOWN FROM ABOVE
⇨	REFER TO INDICATED NOTE

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GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE IF EDUCATION
550 Airport Way, Camarillo CA, 93010

JOB	22074
SCALE	As indicated
PM	RICCA
DATE	10/28/2022
△	
△	
△	
△	
△	

Foodservice Electrical Plan

PERKINS EASTMAN

3194 D Airport Loop Drive
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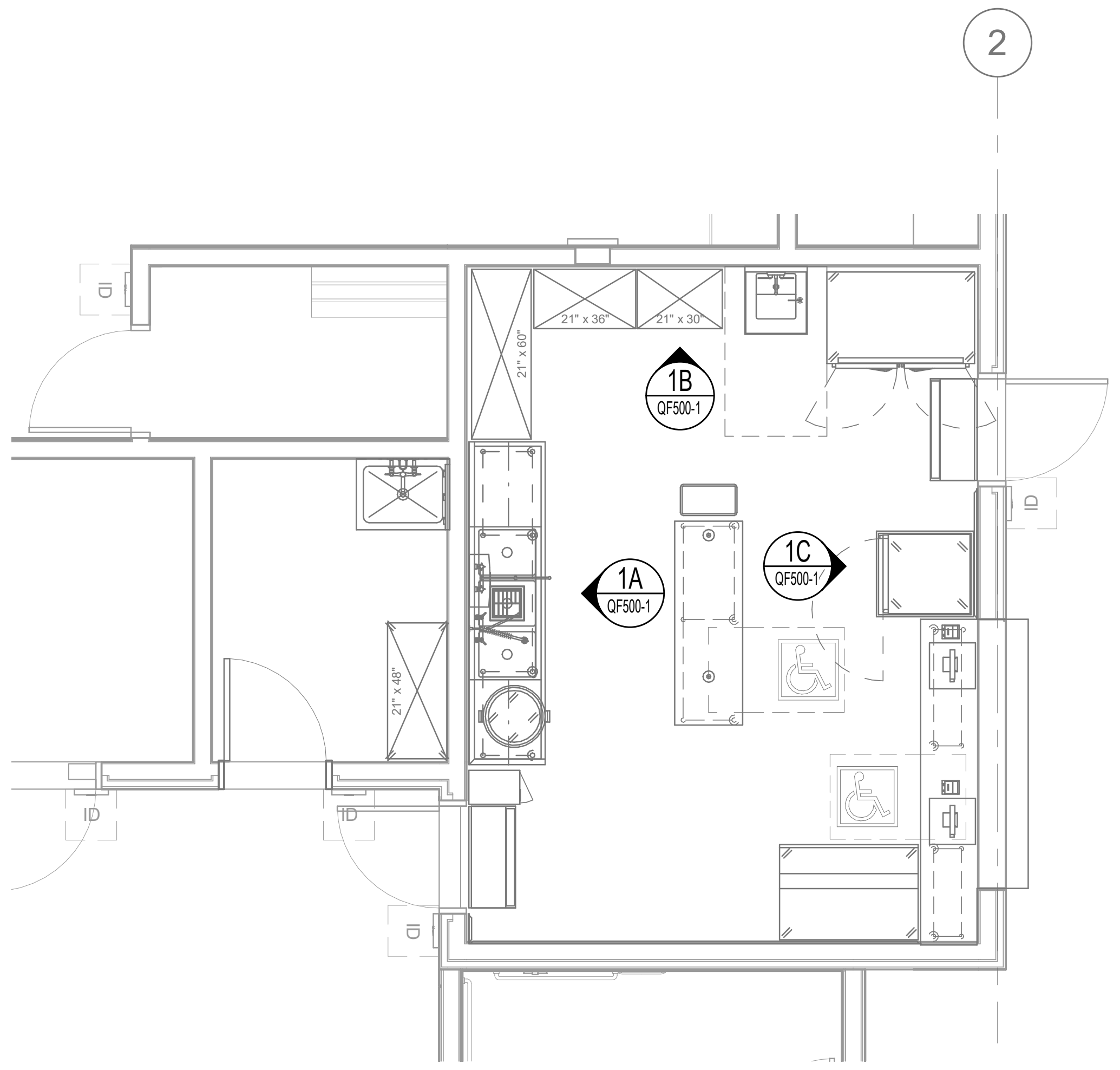
www.perkinseastman.com

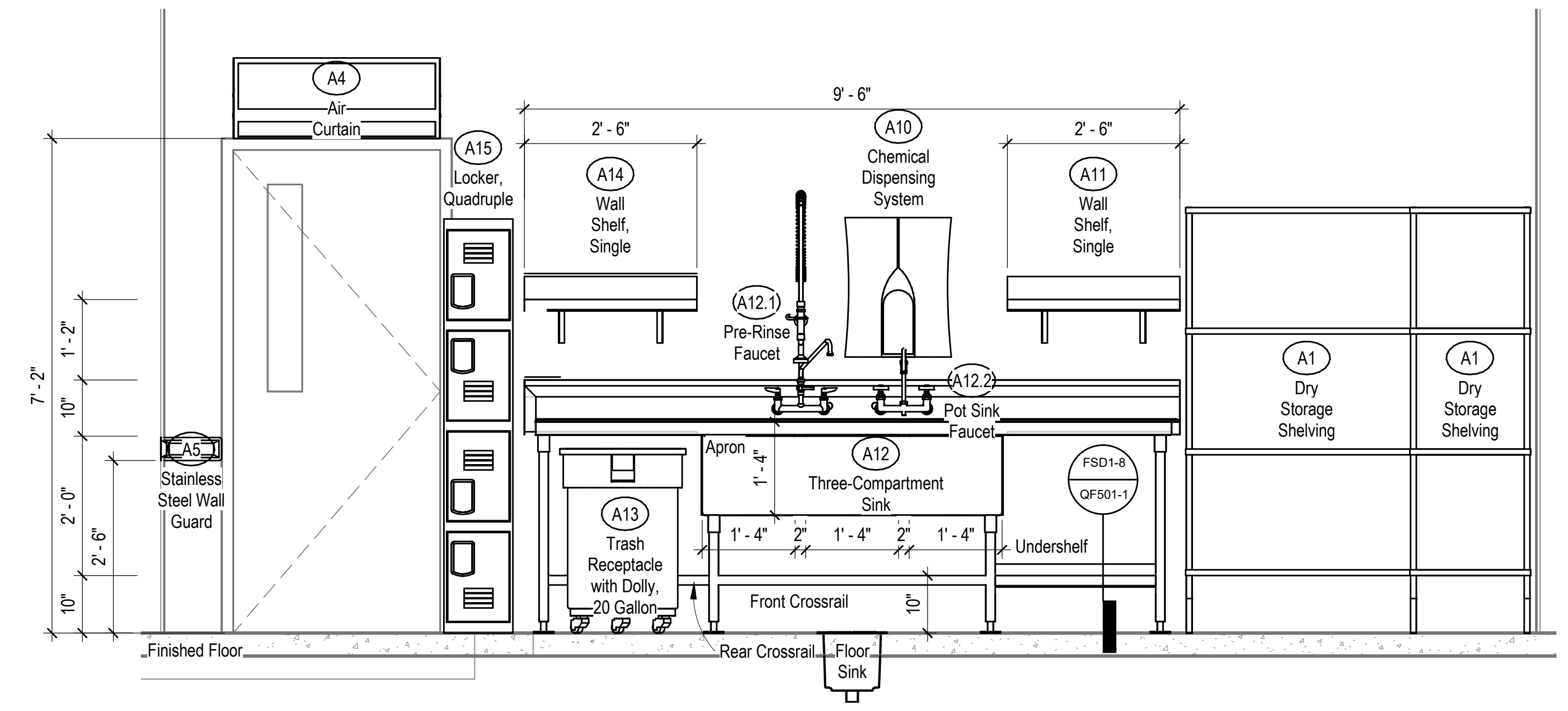
QF400-5

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

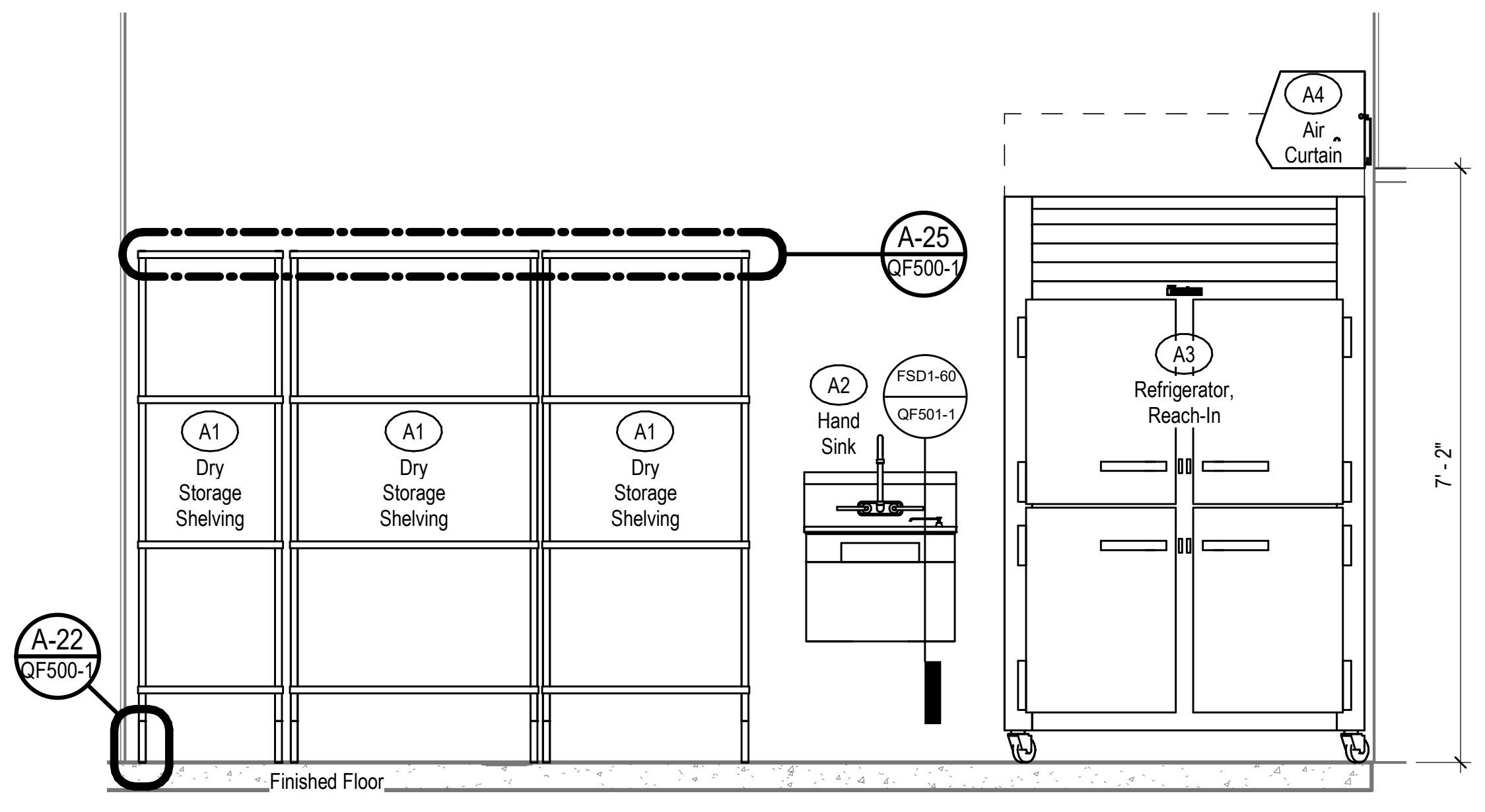
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2023



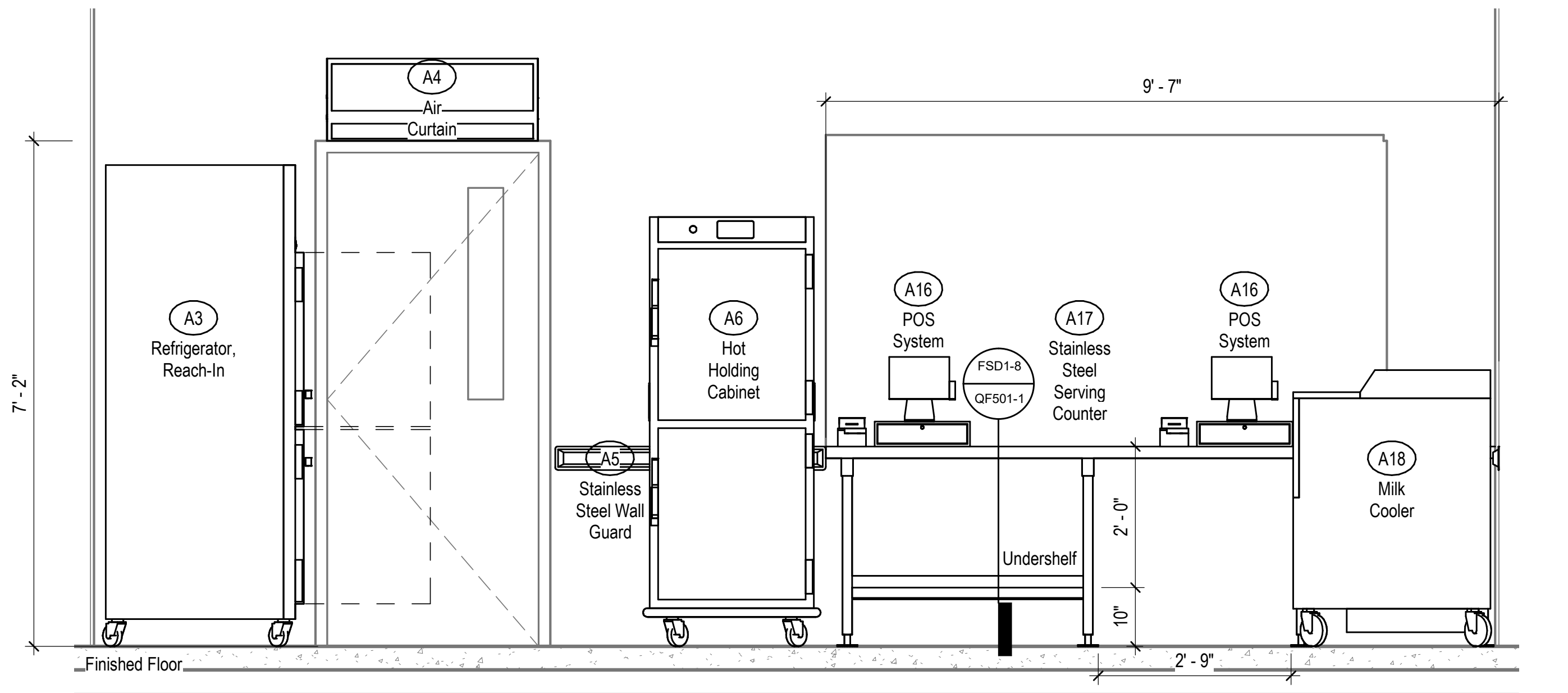
① Level 1 Elevation Plan
SCALE: 1/4" = 1'-0"



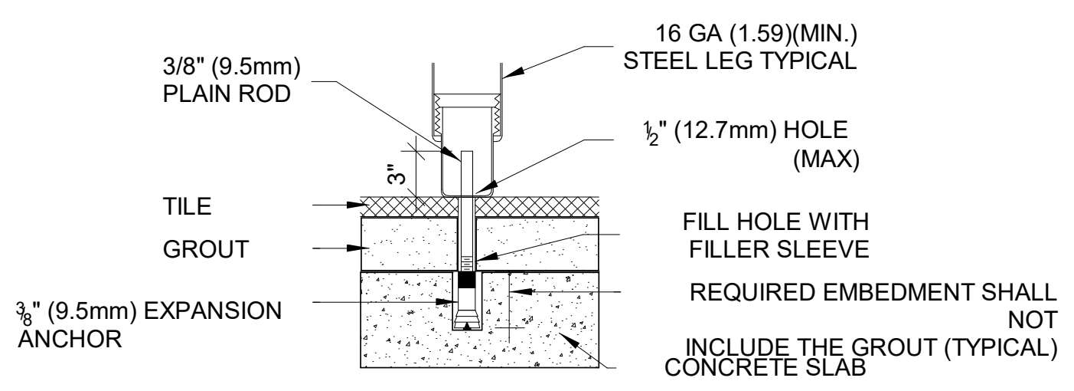
1A Warewashing
SCALE: 1/2" = 1'-0"



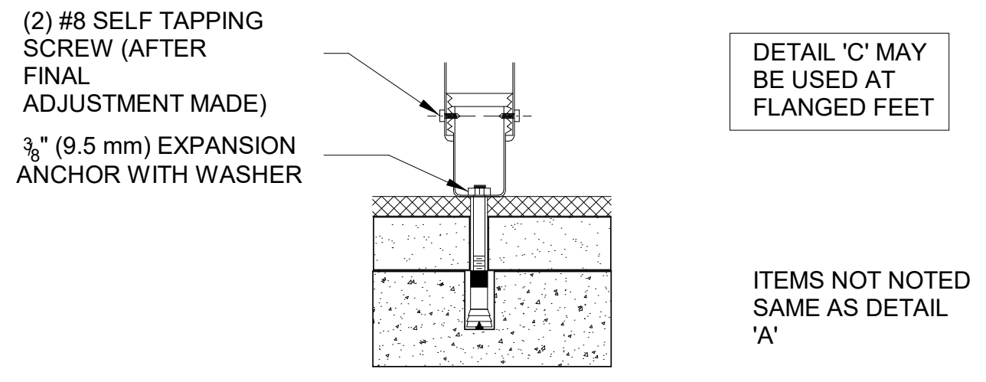
1B Dry Storage
SCALE: 1/2" = 1'-0"



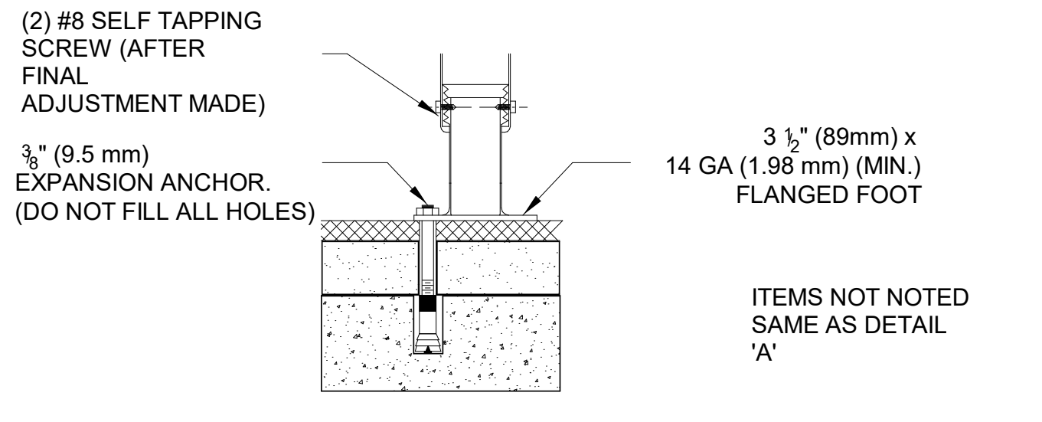
1C Serving Counter
SCALE: 1/2" = 1'-0"



DETAIL 'A' (BULLET LEG) SHEAR

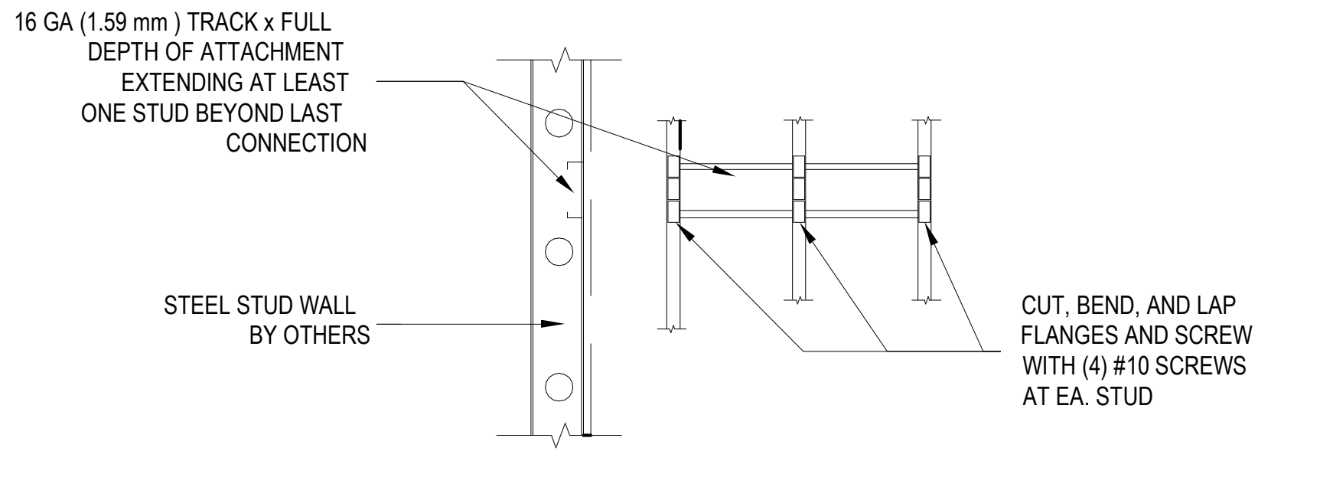


DETAIL 'B' (BULLET LEG) SHEAR AND UPLIFT

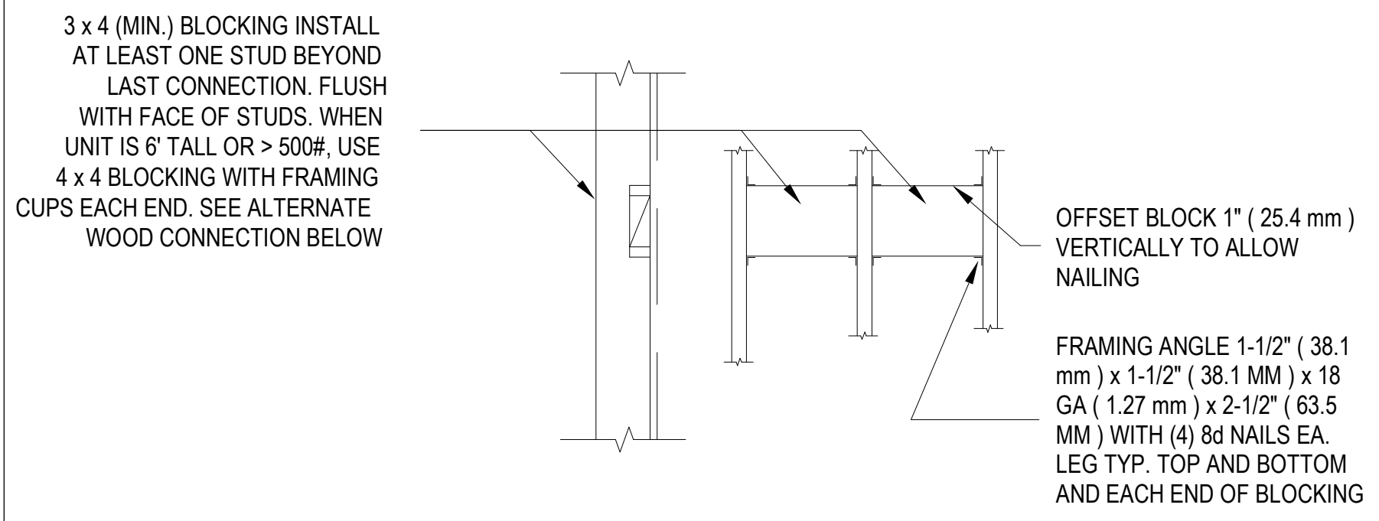


DETAIL 'C' (FLANGED FLOOR) SHEAR AND UPLIFT

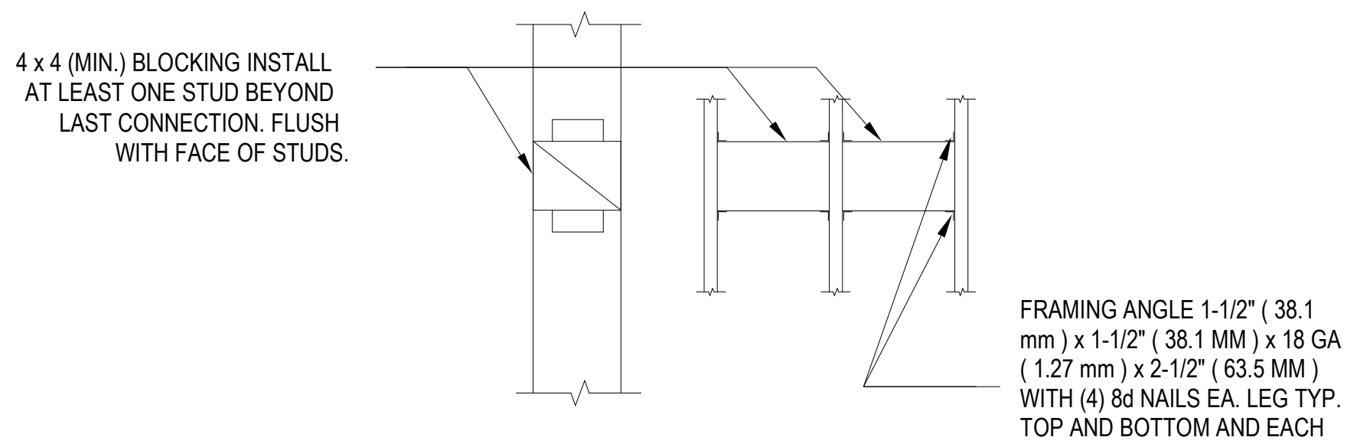
FIGURE A-22 FOOT DETAILS



CONNECTIONS TO STEEL

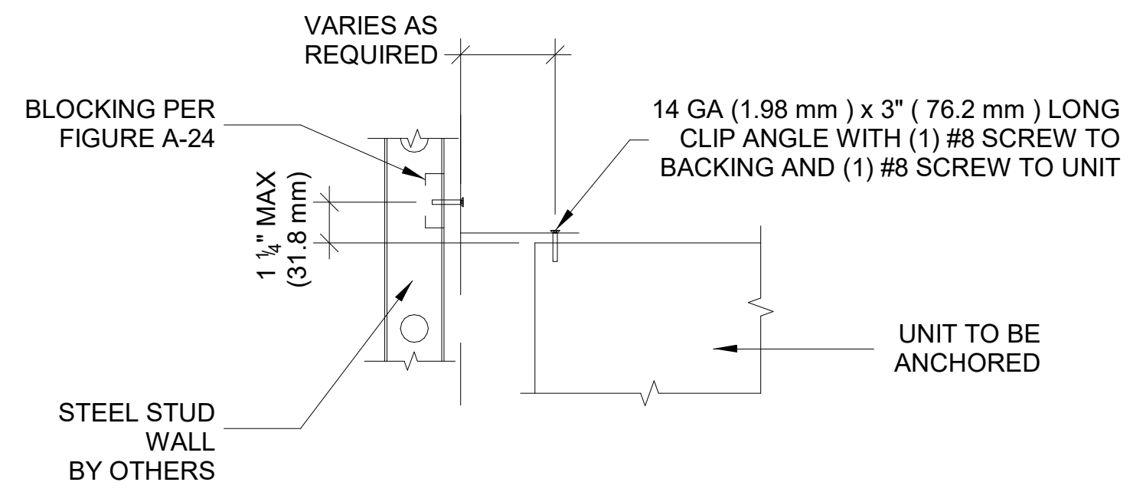

3 x 4 (MIN.) BLOCKING INSTALL
AT LEAST ONE STUD BEYOND
LAST CONNECTION. FLUSH
WITH FACE OF STUDS. WHEN
UNIT IS 6' TALL OR > 500#, USE
4 x 4 BLOCKING WITH FRAMING
CUPS EACH END. SEE ALTERNATE
WOOD CONNECTION BELOW
OFFSET BLOCK 1" (25.4 mm)
VERTICALLY TO ALLOW
NAILING
FRAMING ANGLE 1-1/2" (38.1
mm) x 1-1/2" (38.1 MM) x 18
GA (1.27 mm) x 2-1/2" (63.5
MM) WITH (4) 8d NAILS EA.
LEG TYP. TOP AND BOTTOM
AND EACH END OF BLOCKING

CONNECTIONS TO WOOD

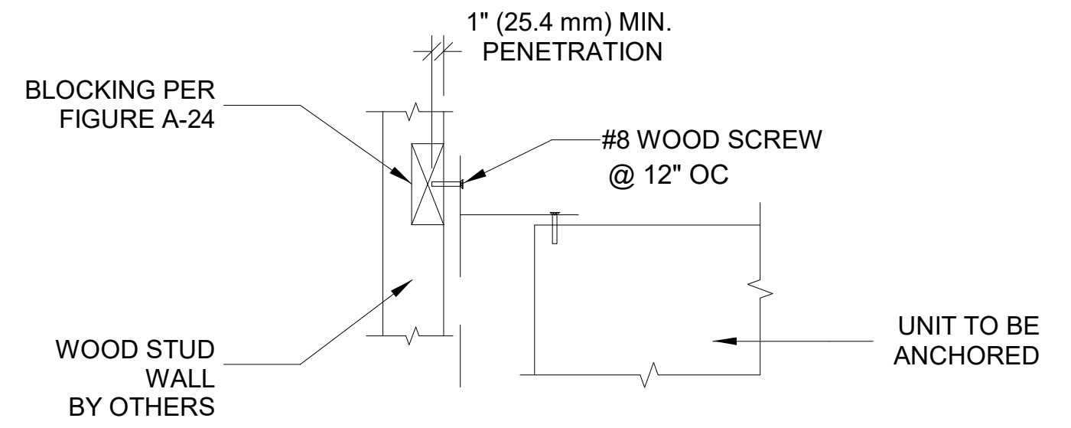

4 x 4 (MIN.) BLOCKING INSTALL
AT LEAST ONE STUD BEYOND
LAST CONNECTION. FLUSH
WITH FACE OF STUDS.
FRAMING ANGLE 1-1/2" (38.1
mm) x 1-1/2" (38.1 MM) x 18 GA
(1.27 mm) x 2-1/2" (63.5 MM)
WITH (4) 8d NAILS EA. LEG TYP.
TOP AND BOTTOM AND EACH
END OF BLOCKING

CONNECTIONS TO WOOD (ALT)

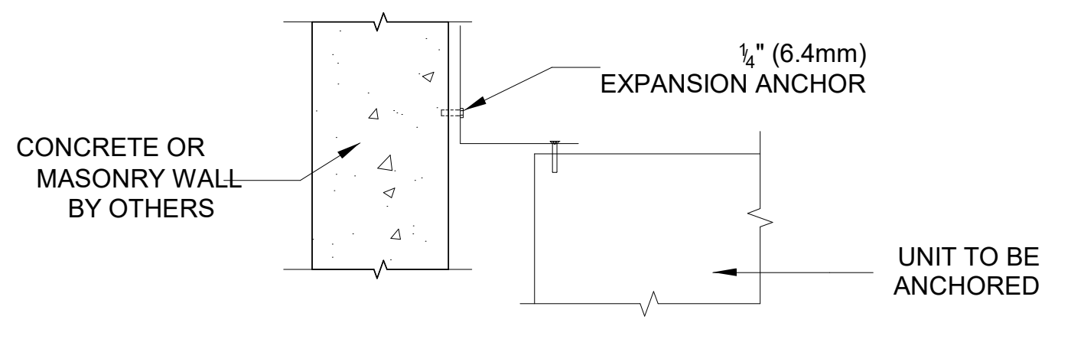
FIGURE A-24 WALL SUPPORT BACKING


VARIES AS
REQUIRED
BLOCKING PER
FIGURE A-24
14 GA (1.98 mm) x 3" (76.2 mm) LONG
CLIP ANGLE WITH (1) #8 SCREW TO
BACKING AND (1) #8 SCREW TO UNIT
1 ¼" MAX
(31.8 mm)
UNIT TO BE
ANCHORED
STEEL STUD
WALL
BY OTHERS

CONNECTIONS TO STEEL



CONNECTIONS TO WOOD



CONNECTIONS TO CONCRETE

FIGURE A-25 TOP ANGLE CONNECTION

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JOB	22074
SCALE	As indicated
PM	RICCA
DATE	10/28/2022
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Foodservice Elevations

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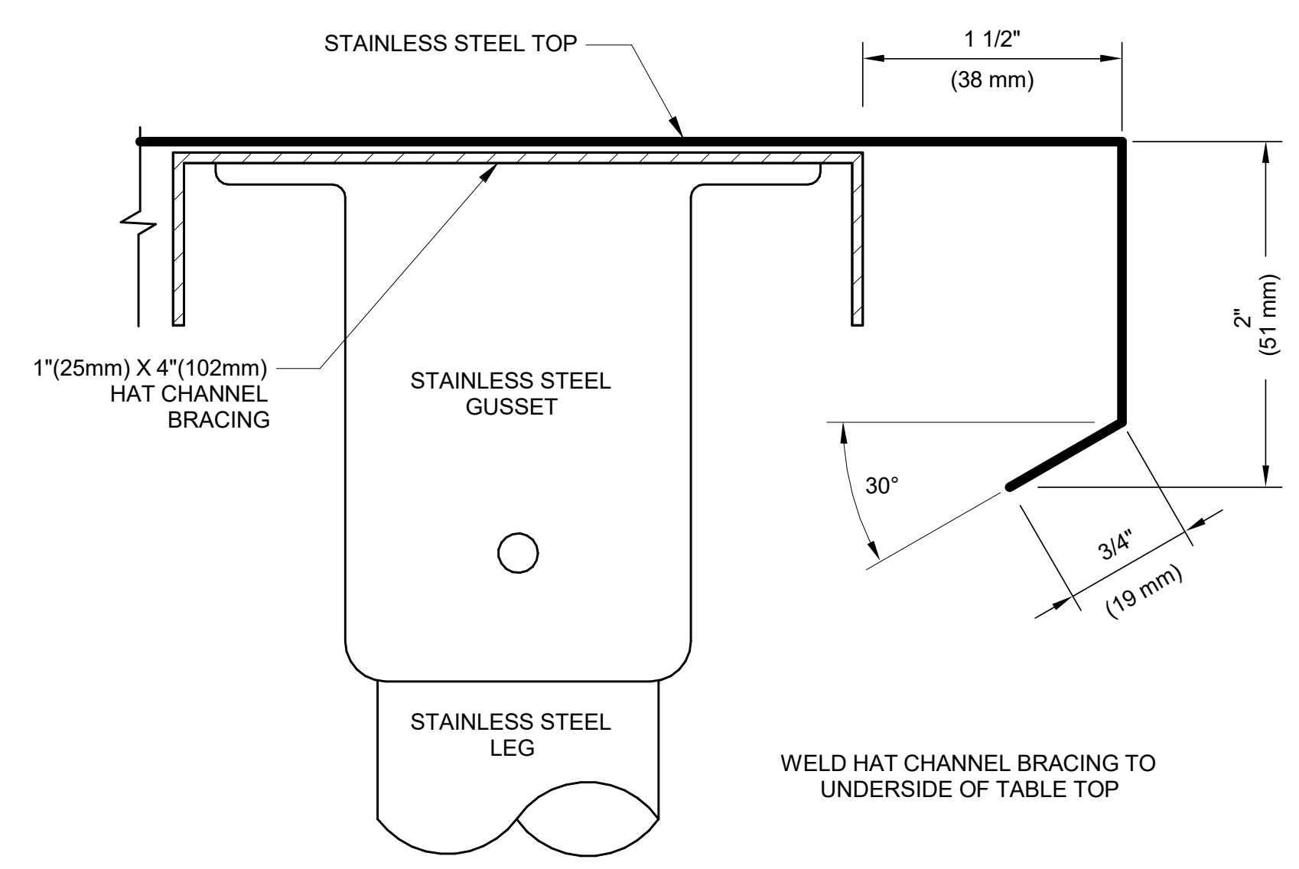


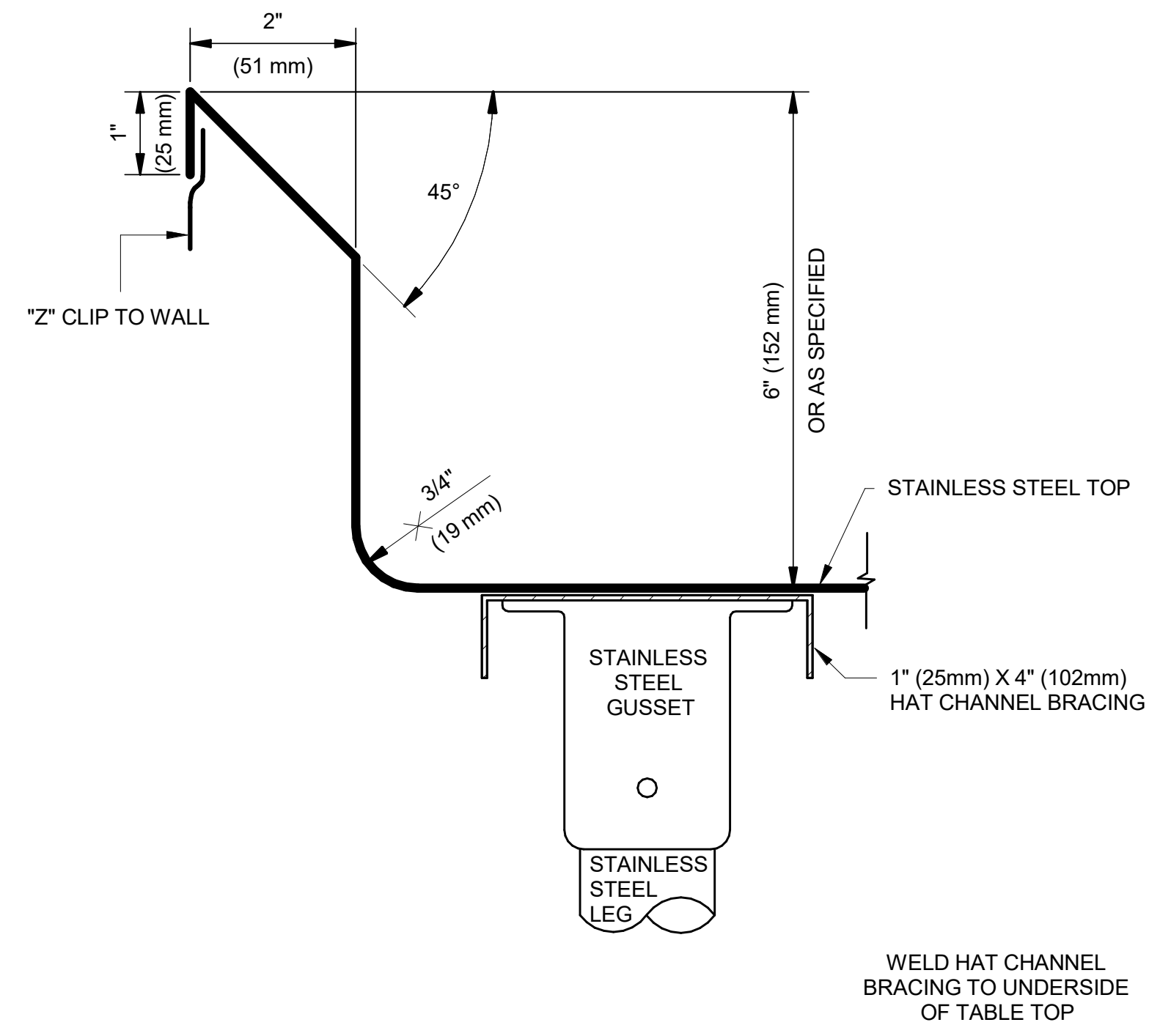
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

STRAIGHT TURN-DOWN EDGE

RICCA DESIGN STUDIOS

FSD1-1A


2"
(51 mm)
1" (25 mm)
45°
"Z" CLIP TO WALL
6" (152 mm) OR AS SPECIFIED
3/4" (19 mm)
STAINLESS STEEL TOP
STAINLESS STEEL GUSSET
1" (25mm) X 4" (102mm) HAT CHANNEL BRACING
STAINLESS STEEL LEG
WELD HAT CHANNEL BRACING TO UNDERSIDE OF TABLE TOP

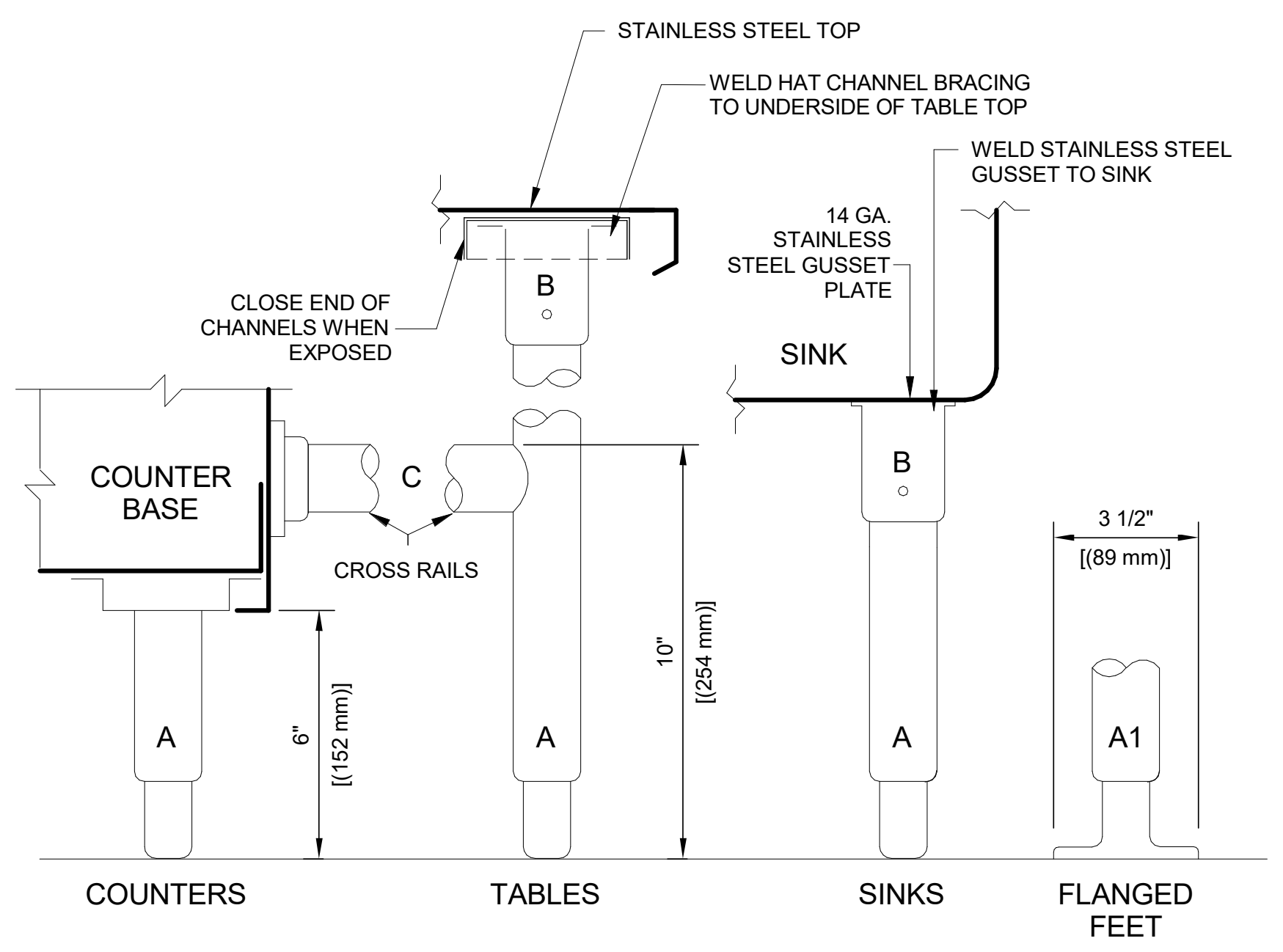
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

STANDARD SPLASH

RICCA DESIGN STUDIOS

FSD1-5A


STAINLESS STEEL TOP
WELD HAT CHANNEL BRACING TO UNDERSIDE OF TABLE TOP
WELD STAINLESS STEEL GUSSET TO SINK
14 GA. STAINLESS STEEL GUSSET PLATE
CLOSE END OF CHANNELS WHEN EXPOSED
B
SINK
B
COUNTER BASE
C
CROSS RAILS
3 1/2"
[(89 mm)]
10"
[(254 mm)]
6"
[(152 mm)]
A
A
A
A1
COUNTERS
TABLES
SINKS
FLANGED FEET

A LEGS TO BE 1-5/8" O.D. 16 GA STAINLESS STEEL ASSEMBLY WITH THREADED STAINLESS STEEL BULLET FEET WITH 2" (51mm) MINIMUM ADJUSTMENT

A1 WHERE SPECIFIED, LEGS TO BE 1 5/8" O.D. 16 GA. STAINLESS STEEL ASSEMBLY WITH THREADED STAINLESS STEEL ADJUSTABLE FLANGED FEET. ANCHOR TO FLOOR WITH STAINLESS STEEL FASTENERS. USE EPOXY GLUE WHERE FLOOR PENETRATIONS ARE PROHIBITED

B GUSSETS TO BE STAINLESS STEEL WITH SET SCREWS FOR SECURING LEGS. FULLY-WELD GUSSETS TO CHANNELS OR GUSSET PLATES

C CROSS-RAILS TO BE 1 5/8" O.D. 16 GA. STAINLESS STEEL TUBING FULLY WELDED TO LEGS. WHERE CROSS-RAILS JOIN CABINET BODY, PROVIDE FLANGE SECURED WITH STAINLESS STEEL SCREWS

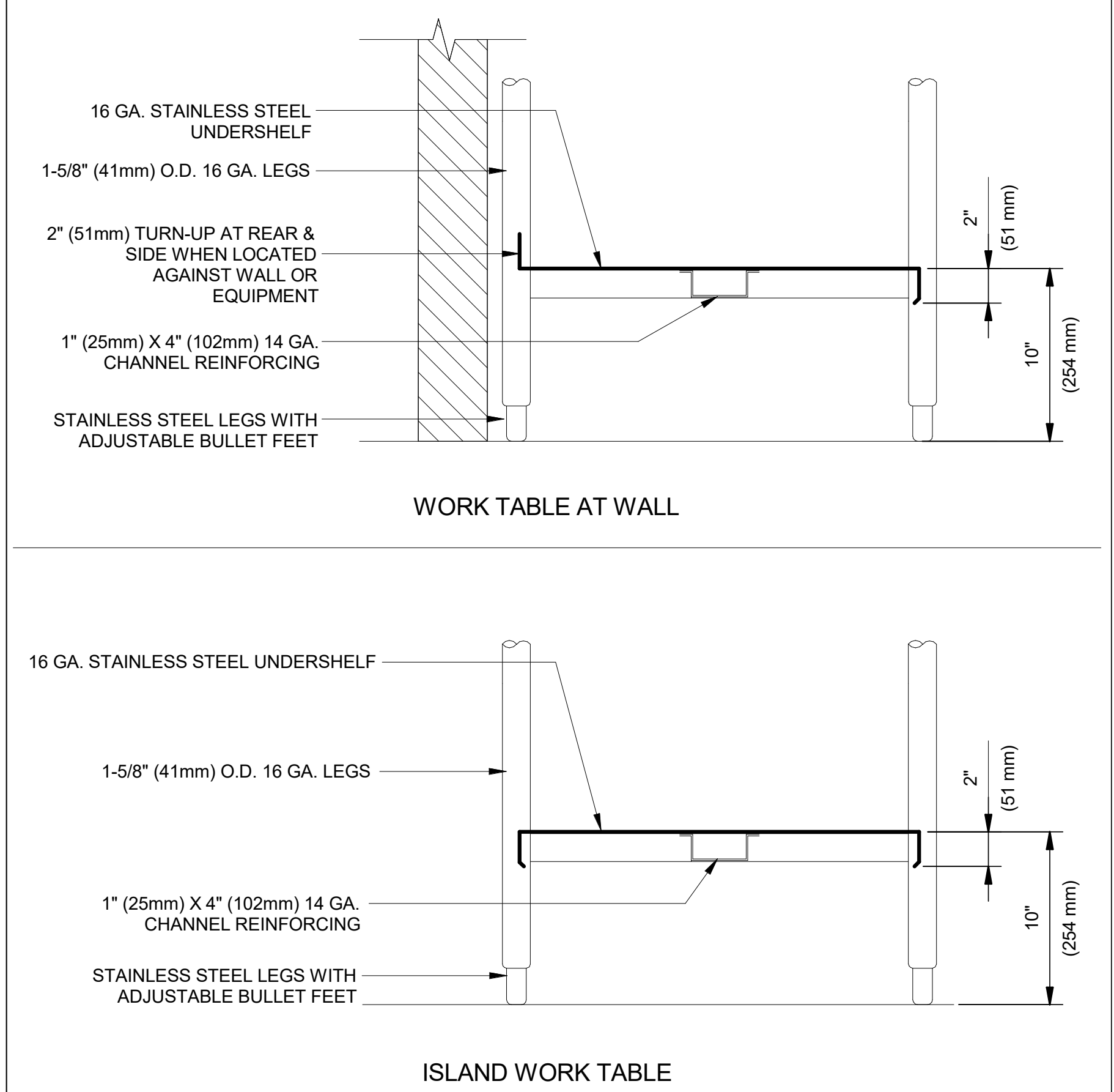
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

LEGS AND CROSSBRACING

RICCA DESIGN STUDIOS

FSD1-7


16 GA. STAINLESS STEEL UNDERSHELF
1-5/8" (41mm) O.D. 16 GA. LEGS
2" (51mm) TURN-UP AT REAR & SIDE WHEN LOCATED AGAINST WALL OR EQUIPMENT
1" (25mm) X 4" (102mm) 14 GA. CHANNEL REINFORCING
STAINLESS STEEL LEGS WITH ADJUSTABLE BULLET FEET
2" (51 mm)
10" (254 mm)
WORK TABLE AT WALL
16 GA. STAINLESS STEEL UNDERSHELF
1-5/8" (41mm) O.D. 16 GA. LEGS
1" (25mm) X 4" (102mm) 14 GA. CHANNEL REINFORCING
STAINLESS STEEL LEGS WITH ADJUSTABLE BULLET FEET
2" (51 mm)
10" (254 mm)
ISLAND WORK TABLE

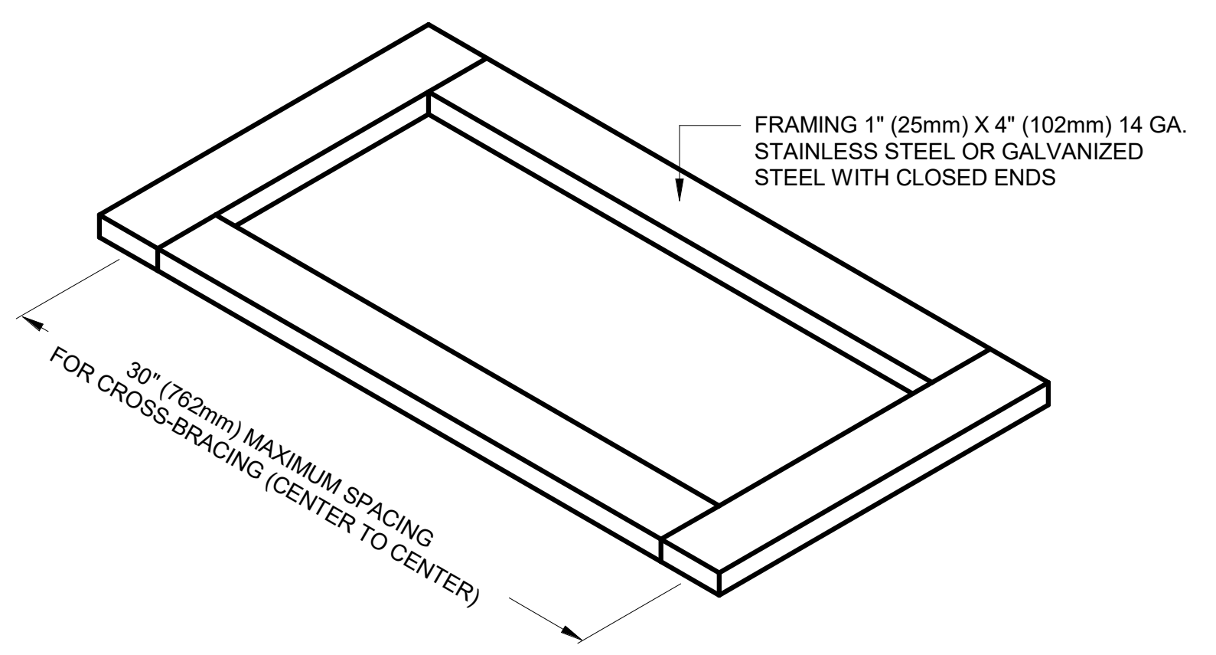
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

UNDERSHELF

RICCA DESIGN STUDIOS

FSD1-8


FRAMING 1" (25mm) X 4" (102mm) 14 GA. STAINLESS STEEL OR GALVANIZED STEEL WITH CLOSED ENDS
30" (762mm) MAXIMUM SPACING FOR CROSS-BRACING (CENTER TO CENTER)

AT STAINLESS STEEL TOP, WELD STUDS TO UNDERSIDE OF TOP AND SECURE TO FRAMING WITH LOCK WASHERS AND CAP NUTS

AT WOOD TOP, SECURE CHANNEL FRAMING TO TOP WITH OVAL HEAD STAINLESS STEEL SCREWS

PROVIDE WITH NSF APPROVED COMPONENT HARDWARE Q75-1366 LATEX SOUND DEADENING

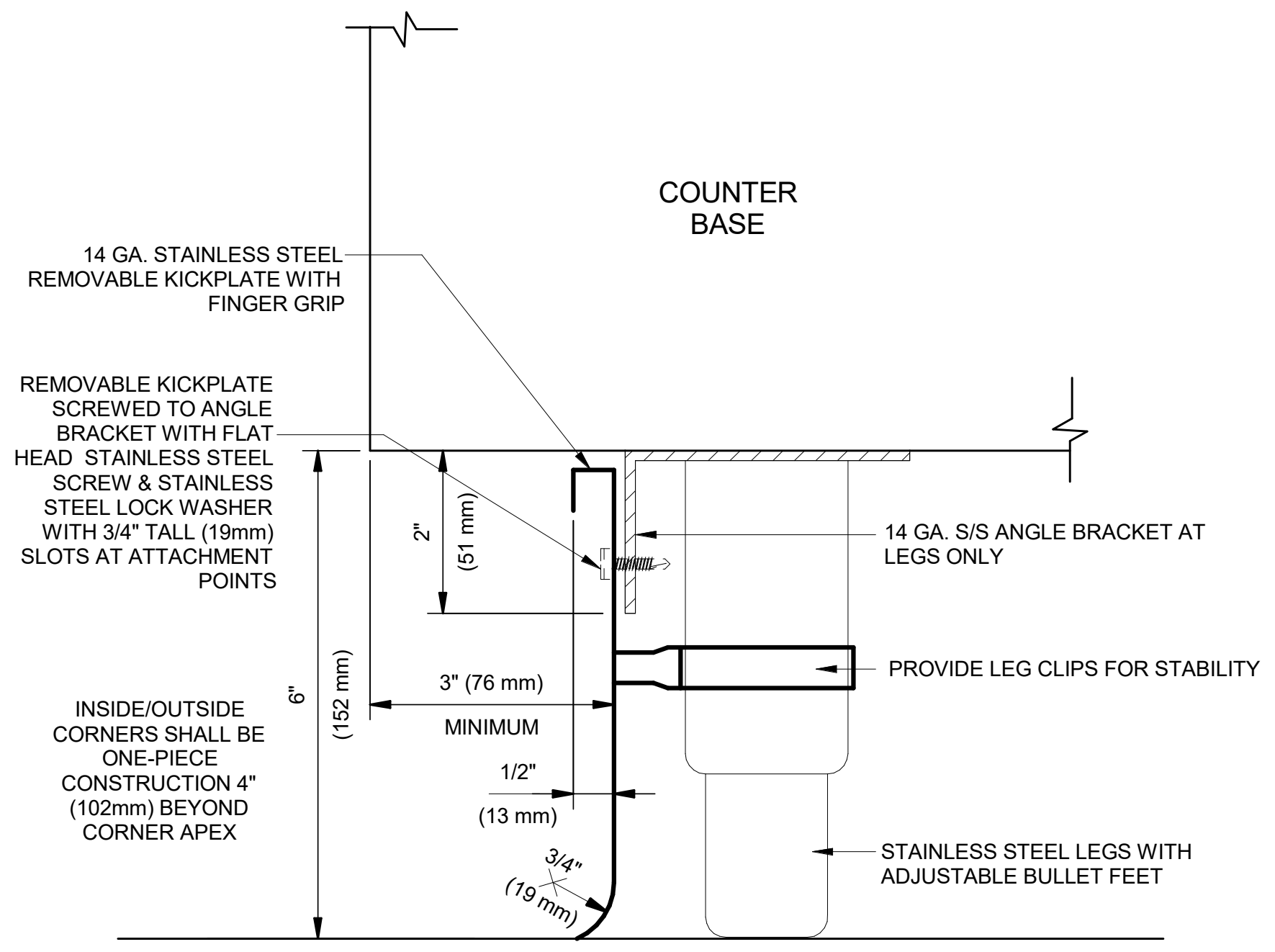
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

WORK TABLE TOP UNDERBRACING

RICCA DESIGN STUDIOS

FSD1-10


COUNTER BASE
14 GA. STAINLESS STEEL REMOVABLE KICKPLATE WITH FINGER GRIP
REMOVABLE KICKPLATE SCREWED TO ANGLE BRACKET WITH FLAT HEAD STAINLESS STEEL SCREW & STAINLESS STEEL LOCK WASHER WITH 3/4" TALL (19mm) SLOTS AT ATTACHMENT POINTS
2" (51 mm)
14 GA. S/S ANGLE BRACKET AT LEGS ONLY
PROVIDE LEG CLIPS FOR STABILITY
6" (152 mm)
3" (76 mm)
MINIMUM
1/2"
(13 mm)
3/4" (19 mm)
INSIDE/OUTSIDE CORNERS SHALL BE ONE-PIECE CONSTRUCTION 4" (102mm) BEYOND CORNER APEX
STAINLESS STEEL LEGS WITH ADJUSTABLE BULLET FEET

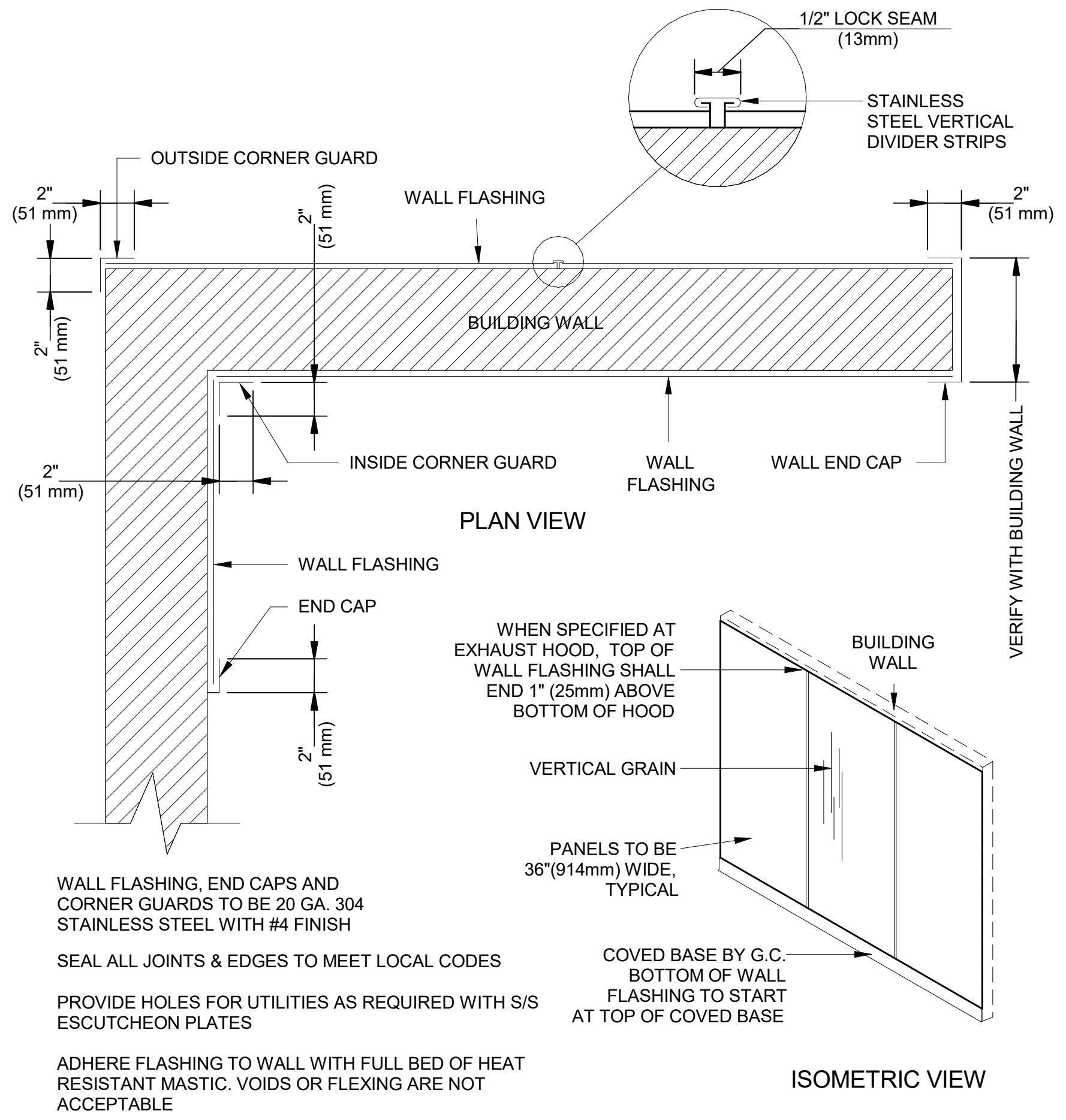
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

REMOVABLE KICK PLATE DETAIL

RICCA DESIGN STUDIOS

FSD1-23


1/2" LOCK SEAM (13mm)
STAINLESS STEEL VERTICAL DIVIDER STRIPS
OUTSIDE CORNER GUARD
2" (51 mm)
WALL FLASHING
2" (51 mm)
2" (51 mm)
BUILDING WALL
2" (51 mm)
INSIDE CORNER GUARD
WALL FLASHING
WALL END CAP
VERIFY WITH BUILDING WALL
2" (51 mm)
PLAN VIEW
WALL FLASHING
END CAP
2" (51 mm)
WHEN SPECIFIED AT EXHAUST HOOD, TOP OF WALL FLASHING SHALL END 1" (25mm) ABOVE BOTTOM OF HOOD
BUILDING WALL
VERTICAL GRAIN
PANELS TO BE 36"(914mm) WIDE, TYPICAL
COVED BASE BY G.C. BOTTOM OF WALL FLASHING TO START AT TOP OF COVED BASE
ISOMETRIC VIEW

WALL FLASHING, END CAPS AND CORNER GUARDS TO BE 20 GA. 304 STAINLESS STEEL WITH #4 FINISH

SEAL ALL JOINTS & EDGES TO MEET LOCAL CODES

PROVIDE HOLES FOR UTILITIES AS REQUIRED WITH S/S ESCUTCHEON PLATES

ADHERE FLASHING TO WALL WITH FULL BED OF HEAT RESISTANT MASTIC. VOIDS OR FLEXING ARE NOT ACCEPTABLE

VERIFY HEIGHT OF WALL FLASHING WITH SPECIFICATIONS

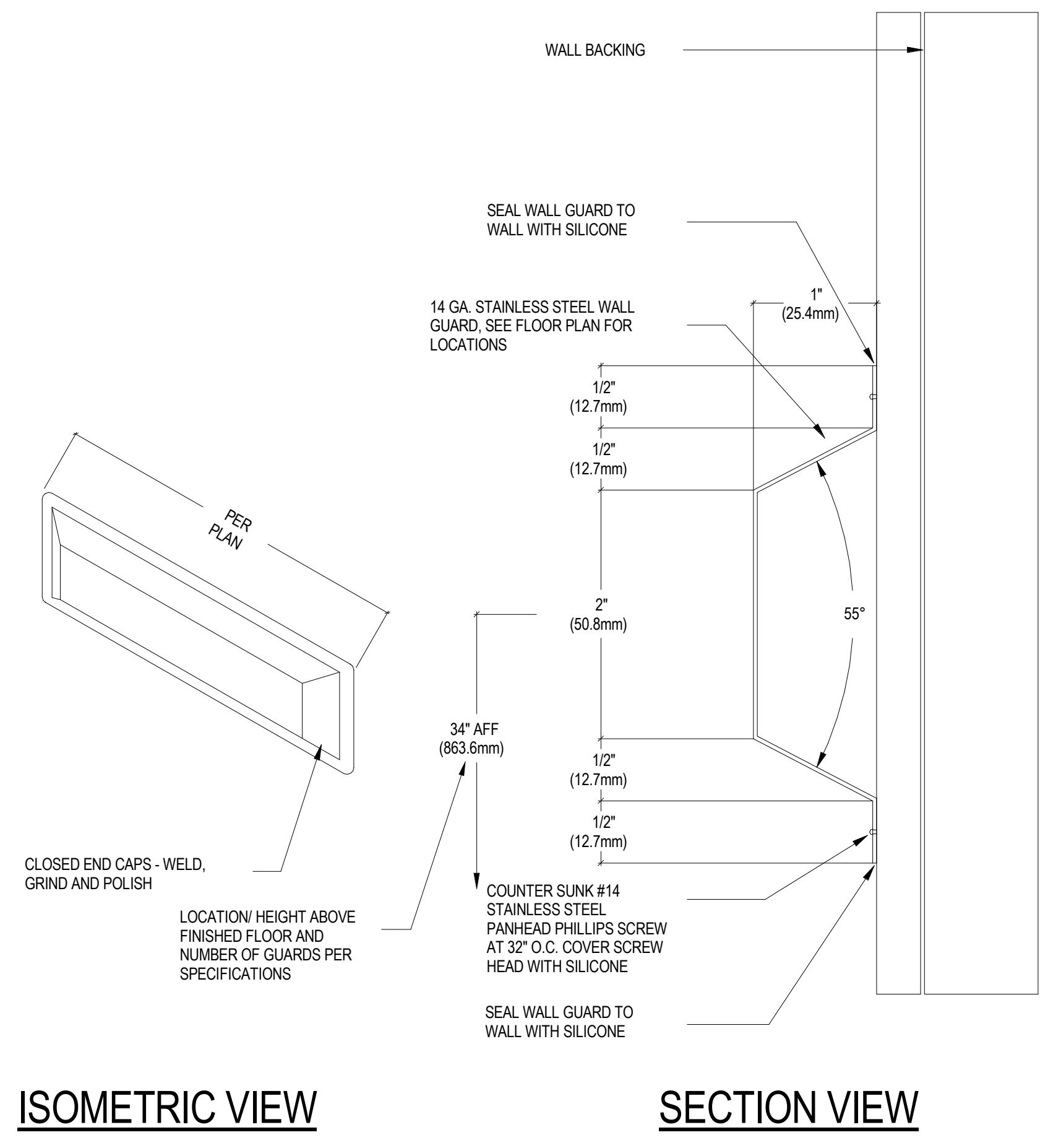
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

WALL FLASHING

RICCA DESIGN STUDIOS

FSD1-39


WALL BACKING
SEAL WALL GUARD TO WALL WITH SILICONE
14 GA. STAINLESS STEEL WALL GUARD, SEE FLOOR PLAN FOR LOCATIONS
1" (25.4mm)
1/2" (12.7mm)
1/2" (12.7mm)
2" (50.8mm)
55°
34" AFF (863.6mm)
1/2" (12.7mm)
1/2" (12.7mm)
PER PLAN
CLOSED END CAPS - WELD, GRIND AND POLISH
LOCATION/ HEIGHT ABOVE FINISHED FLOOR AND NUMBER OF GUARDS PER SPECIFICATIONS
COUNTER SUNK #14 STAINLESS STEEL PANHEAD PHILLIPS SCREW AT 32" O.C. COVER SCREW HEAD WITH SILICONE
SEAL WALL GUARD TO WALL WITH SILICONE
ISOMETRIC VIEW
SECTION VIEW

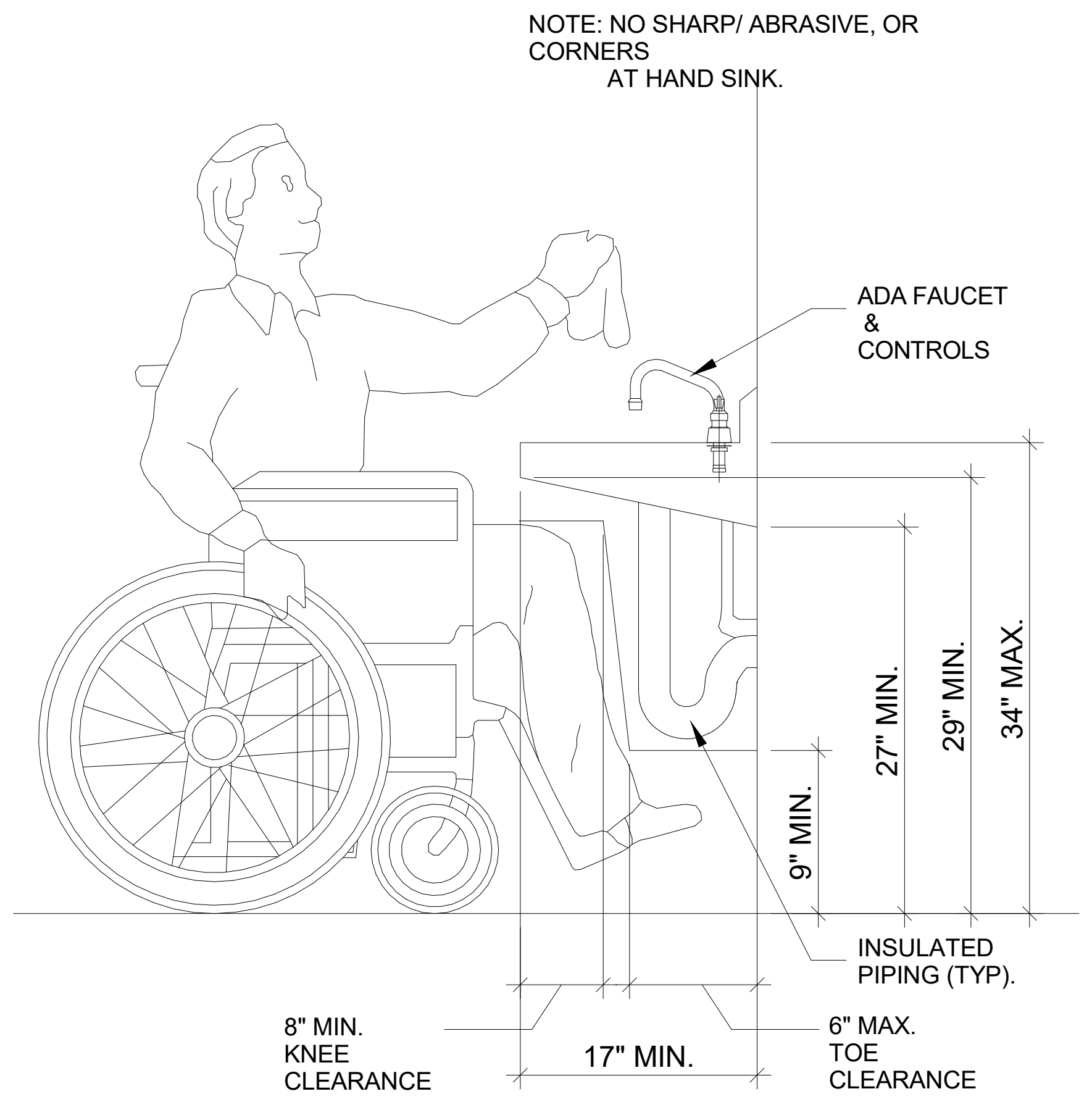
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

STAINLESS STEEL WALL GUARD

RICCA DESIGN STUDIOS *NOT TO SCALE*

FSD1-59



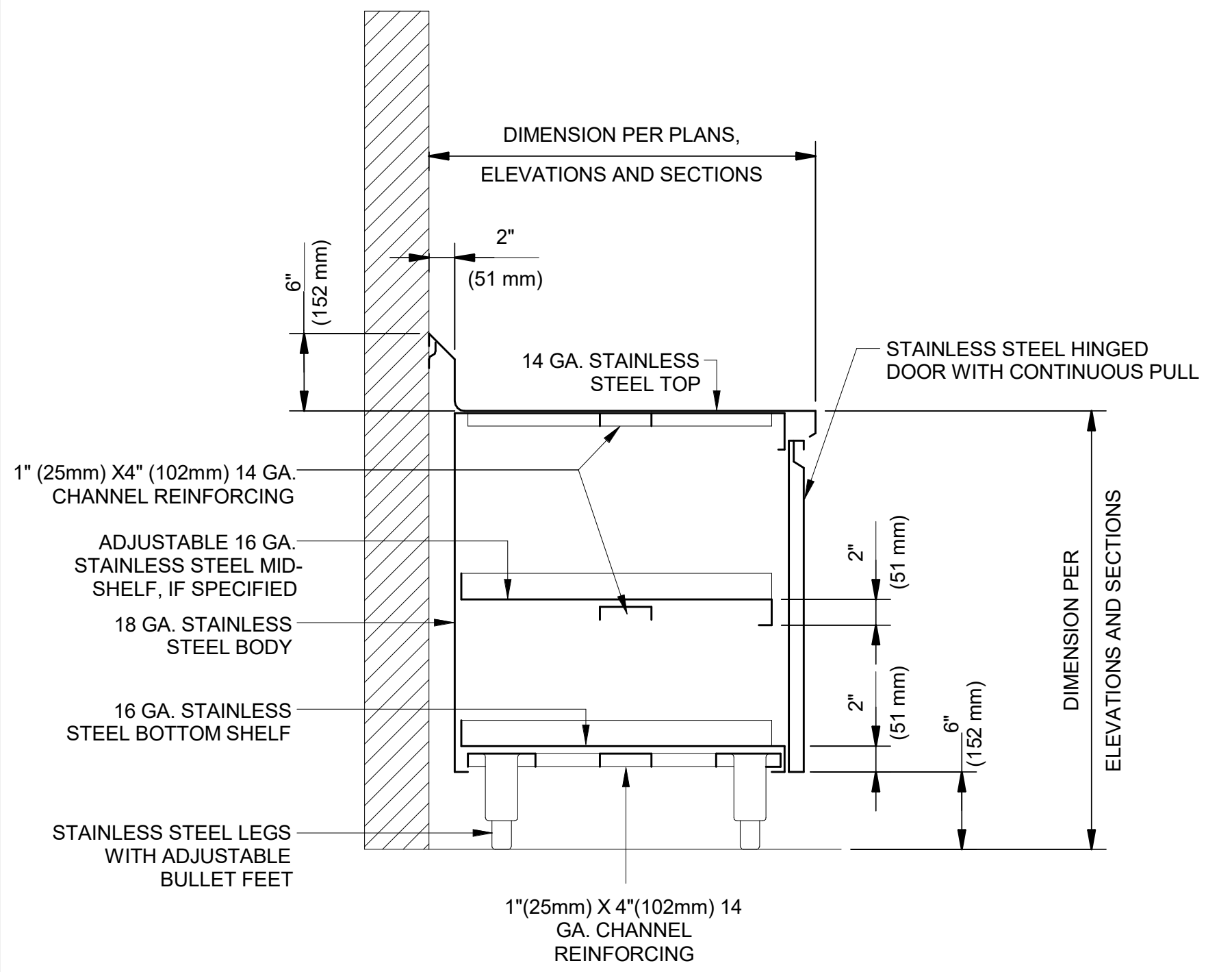
REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

ACCESSIBLE HAND SINK

RICCA DESIGN STUDIOS *NOT TO SCALE*

FSD1-60


DIMENSION PER PLANS, ELEVATIONS AND SECTIONS
6" (152 mm)
2" (51 mm)
14 GA. STAINLESS STEEL TOP
STAINLESS STEEL HINGED DOOR WITH CONTINUOUS PULL
1" (25mm) X4" (102mm) 14 GA. CHANNEL REINFORCING
ADJUSTABLE 16 GA. STAINLESS STEEL MID-SHELF, IF SPECIFIED
18 GA. STAINLESS STEEL BODY
16 GA. STAINLESS STEEL BOTTOM SHELF
2" (51 mm)
2" (51 mm)
6" (152 mm)
DIMENSION PER ELEVATIONS AND SECTIONS
STAINLESS STEEL LEGS WITH ADJUSTABLE BULLET FEET
1"(25mm) X 4"(102mm) 14 GA. CHANNEL REINFORCING

REFER TO WRITTEN SPECIFICATIONS AND FOODSERVICE PLANS FOR FURTHER INFORMATION

NSF FABRICATION SHALL COMPLY WITH NSF STANDARDS

WORK COUNTER

RICCA DESIGN STUDIOS

FSD5-1

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

BRIAN PAUL DOUGHERTY
NO. C-982
REN. JUL.31, 2023

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE IF EDUCATION
550 Airport Way, Camarillo CA, 93010

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DSA P.C. 04-119455

SITE SPECIFIC APPLICATION SITE PLAN SHALL INCLUDE:

1. ACTUAL DIMENSIONS OF SHADE STRUCTURES.
2. DIMENSIONS FROM ADJACENT STRUCTURES AND PROXIMITY OF ASSUMED OR ACTUAL PROPERTY LINES.
3. PROVIDE CODE ANALYSIS INCLUDING ACTUAL SHADE STRUCTURE AREA (SQ. FT.), OCCUPANCY TYPE (A-3), AND TYPE OF CONSTRUCTION (V-B). INDICATE OCCUPANT LOAD FACTOR per 2019 CBC, SECTION 1004.
4. INDICATE LOCATIONS OF FIRE EXTINGUISHER WITHIN 75 FEET.
5. SHOW LOCATIONS OF AUDIBLE FIRE ALARM.
6. INDICATE DIMENSIONS FROM THE ROOF TO THE HIGHER STRUCTURE OR TERRAIN FEATURE. MINIMUM DIMENSION OF 20' FOR SNOW LOAD MODEL (ASCE 7-16).
7. ACTUAL SITE ELEVATION (FT.) TO DETERMINE SITE OCCURS AT OR BELOW THE UPPER ELEVATION LIMIT FOR THE GROUND SNOW LOAD SHOWN IN ASCE 7-16 (FOR SNOW LOAD MODEL).
8. FOR RECESSED BASE PLATE (RBP) OPTION: ARCHITECT/ENGINEER OF RECORD TO SPECIFY THE LOWEST ANTICIPATED SERVICE TEMPERATURE (LAST). AS DEFINED IN AISC 341-10 SECTION A.3.4b, A4.1 AND A4.2 PER NOTE ON EACH INDIVIDUAL MODEL ENGINEERING DRAWING WHICH RELATES TO DEMAND CRITICAL WELD AND "L.A.S.T." TEMPERATURE (EITHER STRUCTURAL STEEL NOTE #14).
9. COMPLETE SCOPE OF WORK INCLUDING THE SHADE STRUCTURE MODEL NUMBER, P.C. NUMBER, AND SPECIFIC SIZE OF SHADE STRUCTURE.
10. ALL SADDLES, CLAMPS AND FITTINGS SHALL CONFORM TO THE GUIDELINES AS SPECIFIED IN APPENDICES "A, B & C" RESPECTIVELY IN ASCE 19-16, "STRUCTURAL APPLICATIONS OF STEEL CABLES FOR BUILDINGS."
11. ARCHITECTS OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN MAPPED GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.
12. ARCHITECTS OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN A MAPPED FIRE HAZARD SEVERITY ZONE OR WILDLAND INTERFACE AREA.

GENERAL NOTES

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN

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CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Ventura County Office of Education

PROJECT NAME:
Gateway Community School South Annex

LOCATION:
200 Horizon Circle
Camarillo, CA 93010

MODEL NUMBER:

SITE SPECIFIC APPLICATION TITLE SHEET SHALL INCLUDE:

PARTIAL LIST OF APPLICABLE CODES

- 2019 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 C.C.R.
- 2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
  (2018 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC) , PART 3, TITLE 24 C.C.R.
  (2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.
  (2018 IAPMO UNIFORM MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
  (2018 IAPMO UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.
- 2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
  (2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 C.C.R.
  (2018 INTERNATIONAL EXISTING BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 C.C.R.
- 2019 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 C.C.R.
- TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
- 2016 ASME A17.1/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS
  (PER 2019 CBC, PART 2, CHAPTER 35)

NOTE: CAL/OSHA ELEVATOR UNIT ENFORCES C.C.R. TITLE 8 AND USES THE 2004 ASME A17.1 BY ADOPTION

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED)	2016 EDITION
NFPA 14	STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS	2016 EDITION
NFPA 17	STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS	2017 EDITION
NFPA 17A	STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS	2017 EDITION
NFPA 20	STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION	2016 EDITION
NFPA 22	STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION	2013 EDITION
NFPA 24	STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES	2016 EDITION
NFPA 72	NATIONAL FIRE ALARM & SIGNALING CODE (CA AMENDED)	2016 EDITION
NFPA 80	STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 2001	STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2015 EDITION
UL 300	STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF COMMERCIAL COOKING EQUIPMENT	2005 (R2010)
UL 464	AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES	2003 EDITION
UL521	STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	1999 EDITION
UL 1971	STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED	2002 (R2010)
ICC 300	SANDARD FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING AND GRANDSTANDS	2017 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2019 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.

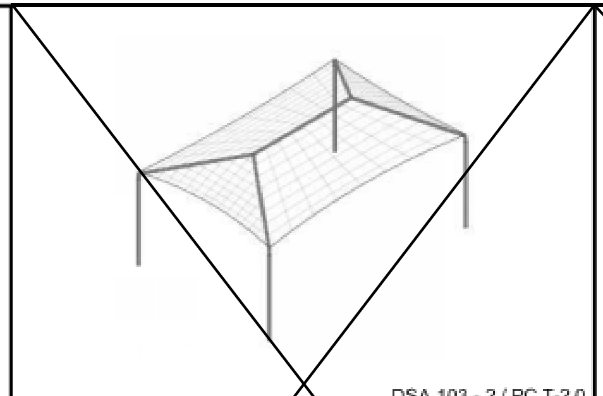
SEE CALIFORNIA BUILDING CODE, CHAPTER 35, FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

SEE INDIVIDUAL STRUCTURAL DRAWINGS FOR SPECIFIC DESIGN NOTES AND LOADING.

ALL WORK SHALL CONFORM TO 2019 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (C.C.R.).

ALL WORK SHALL BE IN COMPLIANCE WITH CFC CHAPTER 33 - FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.

BUILDING CODE DATA

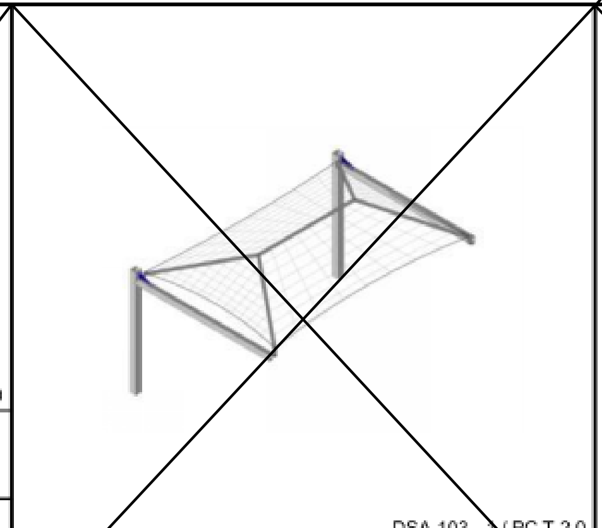

DSA 103 - 2 / PC T-2.0

~~MODEL: DSA4012030-19~~
~~STRUCTURE: 20'X30'X15'(MAX.) HIP UNIT~~
~~MAX. AREA - 600 SQ. FT.~~
~~MAX. OCCUPANCY = 40~~

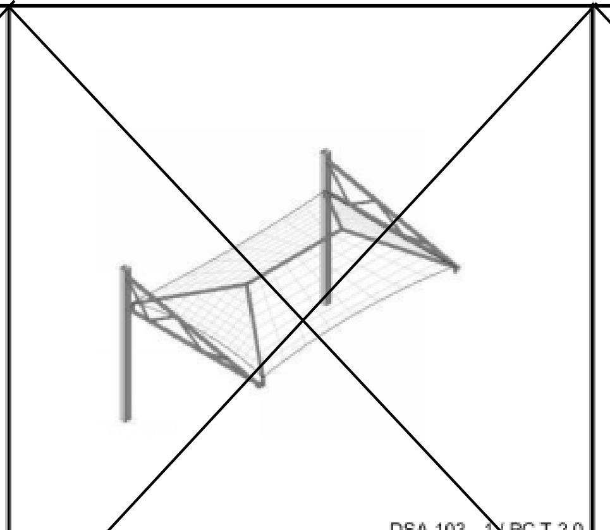
~~MODEL: DSA4013030-19~~
~~STRUCTURE: 30'X30'X15' HIP UNIT~~
~~MAX. AREA - 900 SQ. FT.~~
~~MAX. OCCUPANCY = 60~~

~~MODEL: DSA4013040-19~~
~~STRUCTURE: 30'X40'X15' HIP UNIT~~
~~MAX. AREA - 1200 SQ. FT.~~
~~MAX. OCCUPANCY = 80~~

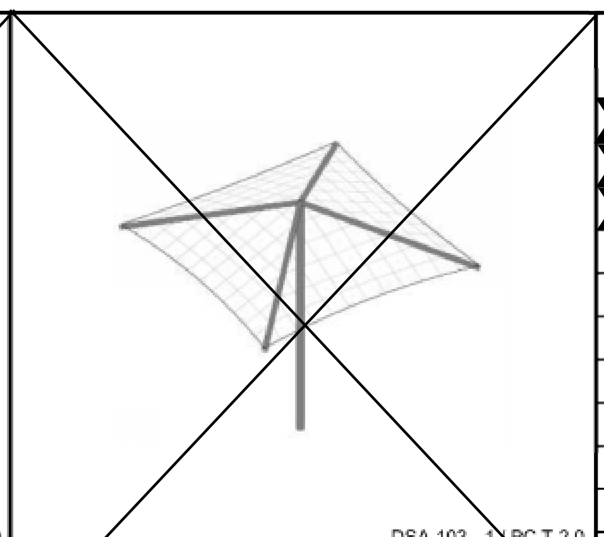
~~MODEL: DSA401S2030-19~~
~~STRUCTURE: 20'X30'X12' HIP (20 PSF SNOW LOAD)~~
~~MAX. AREA - 600 SQ. FT.~~
~~MAX. OCCUPANCY = 40~~


DSA 103 - 1 / PC T-2.0

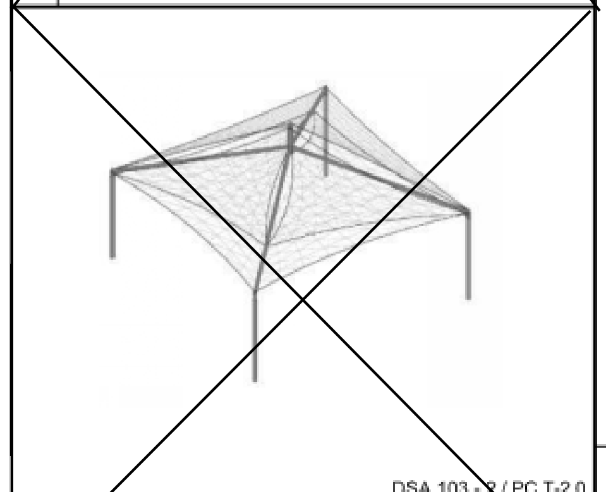
~~MODEL: DSA2022030-19~~
~~STRUCTURE: 20'X30'X14' FULL CANTI HIP SINGLE~~
~~MAX. AREA - 600 SQ. FT.~~
~~MAX. OCCUPANCY = 40~~


DSA 103 - 1 / PC T-2.0

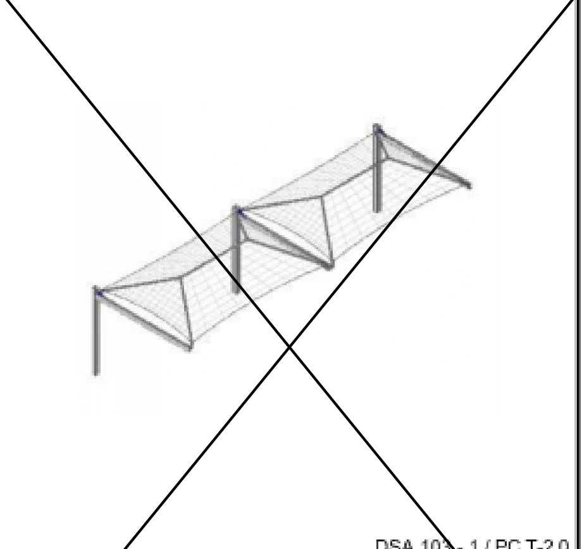
~~MODEL: DSA2062030-19~~
~~STRUCTURE: 20'X30'X14' TRI TRUSS HIP SINGLE WIDE~~
~~MAX. AREA - 600 SQ. FT.~~
~~MAX. OCCUPANCY = 40~~


DSA 103 - 1 / PC T-2.0

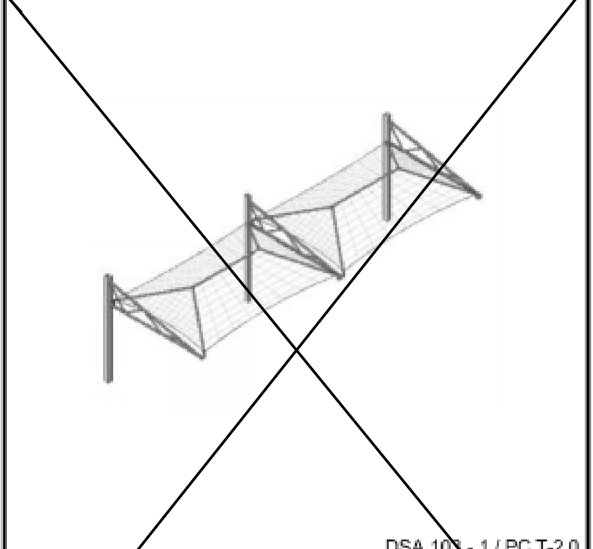
~~MODEL: DSA1031414-19~~
~~STRUCTURE: 14'X14'X12' SINGLE POST PYRAMID UNIT~~
~~MAX. AREA - 196 SQ. FT.~~
~~MAX. OCCUPANCY = 13~~


DSA 103 - 2 / PC T-2.0

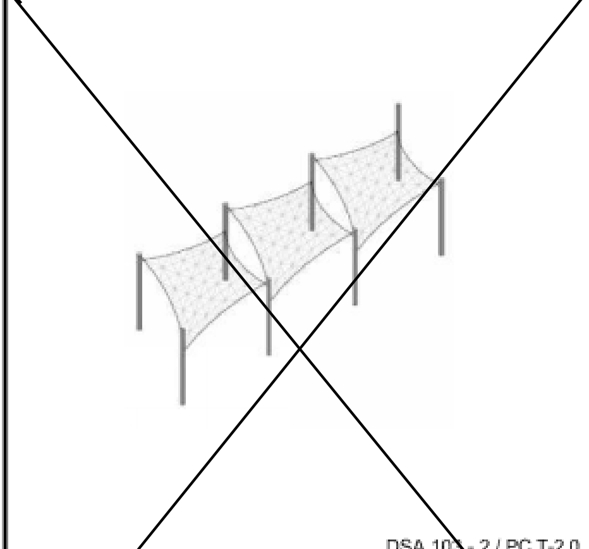
~~MODEL: DSA4073030-19~~
~~STRUCTURE: 30'X30'X14' (MAX) MARINER PEAK UNIT~~
~~MAX. AREA - 900 SQ. FT.~~
~~MAX. OCCUPANCY = 60~~


DSA 103 - 1 / PC T-2.0

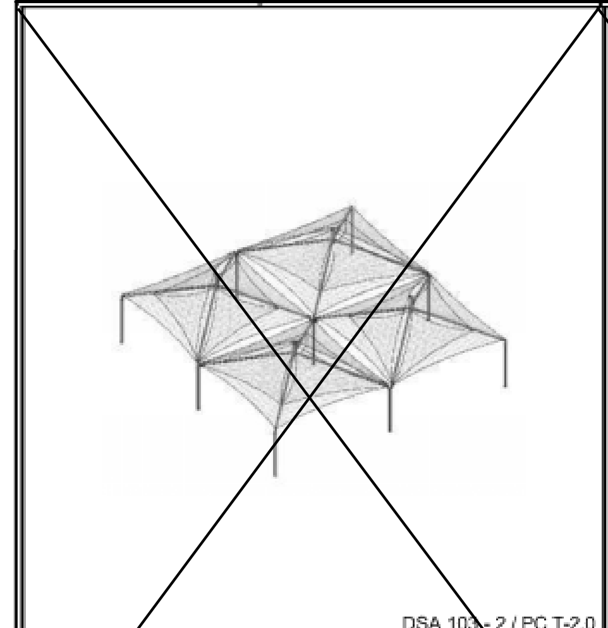
~~MODEL: DSA3022060-19~~
~~STRUCTURE: 20'X60'X14' FULL CANTI HIP JOINED~~
~~MAX. AREA - 1200 SQ. FT.~~
~~MAX. OCCUPANCY = 80~~
~~NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS~~


DSA 103 - 1 / PC T-2.0

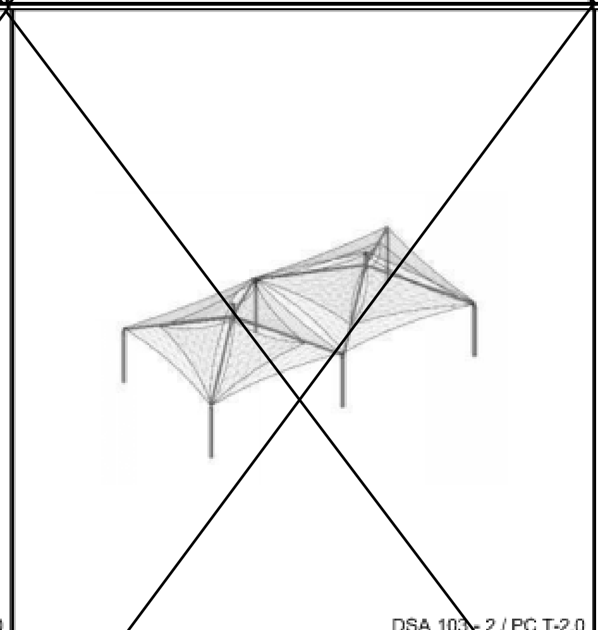
~~MODEL: DSA3052060-19~~
~~STRUCTURE: 20'X60'X14' T RI TRUSS HIP JOINED~~
~~MAX. AREA - 1200 SQ. FT.~~
~~MAX. OCCUPANCY = 80~~
~~NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS~~


DSA 103 - 2 / PC T-2.0

~~MODEL: DSA4182020-19~~
~~STRUCTURE: 20'X20'X14' TENSION SAILS JOINED~~
~~MAX. AREA/SAIL - 400 SQ. FT./SAIL~~
~~MAX. OCCUPANCY / SAIL = 26 / SAIL~~
~~NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS~~


DSA 103 - 2 / PC T-2.0

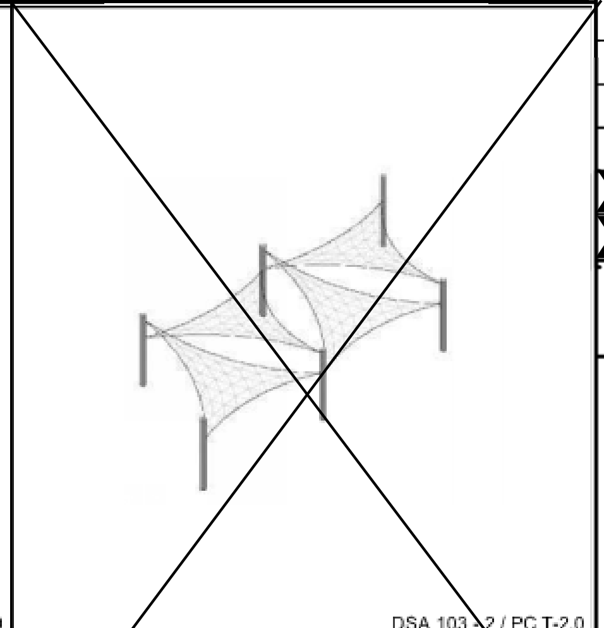
~~MODEL: DSA407Q6060-19~~
~~STRUCTURE: 60'X60'X12' MARINER PEAK QUAD~~
~~MAX. AREA - 3600 SQ. FT.~~
~~MAX. OCCUPANCY = 120~~
~~NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS~~


DSA 103 - 2 / PC T-2.0

~~MODEL: DSA407J3060-19~~
~~STRUCTURE: 20'X60'X12' MARINER PEAK JOINED~~
~~MAX. AREA - 1800 SQ. FT.~~
~~MAX. OCCUPANCY = 120~~
~~NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS~~

DSA 103 - 2 / PC T-2.0

X MODEL: DSA4183030-19
STRUCTURE: 30'X30'X14' TENSION SAILS JOINED
MAX. AREA/SAIL- 900 SQ. FT./SAIL
MAX. OCCUPANCY / SAIL = 60 /SAIL
NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS


DSA 103 - 2 / PC T-2.0

~~MODEL: DSA30730-19~~
~~STRUCTURE: 30'X30'X12' TENSION SAILS JOINED~~
~~MAX. AREA/SAIL - 480 SQ. FT. / SAIL~~
~~MAX. OCCUPANCY / SAIL = 120~~
~~NUMBER OF UNITS JOINED IS GOVERNED BY TOTAL AREA, OCCUPANCY AND SITE CONDITIONS~~

UNIT SELECTION AND DESCRIPTION

	DRAWING NUMBER	DRAWING DESCRIPTION	STRUCTURE TYPE	MAX SIZE	MODEL NUMBER
X	P.C. T-1.0	P.C. TITLE SHEET			
X	P.C. T-2.0	DSA 103 SAMPLE FORM			
X	P.C. T-2.1	DSA 103 SAMPLE FORM			
	P.C. T-3.0	DSA 103 SAMPLE FORM			
	P.C. T-3.1	DSA 103 SAMPLE FORM			
	1.1-1000	PRODUCT INFORMATION	HIP	20 X 30	DSA4012030-19
	1.2-2000	REACTIONS	HIP	20 X 30	DSA4012030-19
	2.1-1000	PRODUCT INFORMATION	HIP	30 X 30	DSA4013030-19
	2.2-2000	REACTIONS	HIP	30 X 30	DSA4013030-19
	3.1-1000	PRODUCT INFORMATION	HIP	30 X 40	DSA4013040-19
	3.2-2000	REACTIONS	HIP	30 X 40	DSA4013040-19
	4.1-1000	PRODUCT INFORMATION	HIP (20# SNOW LOAD)	20 X 30	DSA401S2030-19
	4.2-2000	REACTIONS	HIP (20# SNOW LOAD)	20 X 30	DSA401S2030-19
	5.1-1000	PRODUCT INFORMATION	SINGLE POST PYRAMID	14 X 14	DSA1031414-19
	5.2-2000	REACTIONS	SINGLE POST PYRAMID	14 X 14	DSA1031414-19
	6.1-1000	PRODUCT INFORMATION	MARINER	30 X 30	DSA4073030-19
	6.2-2000	REACTIONS	MARINER	30 X 30	DSA4073030-19
	7.1-1000	PRODUCT INFORMATION	JOINED MARINER	30 X 200	DSA407J3060-19
	7.2-2000	REACTIONS	JOINED MARINER	30 X 200	DSA407J3060-19
	8.1-1000	PRODUCT INFORMATION	QUAD MARINER	60 X 60	DSA407Q6060-19
	8.2-2000	REACTIONS	QUAD MARINER	60 X 60	DSA407Q6060-19
	9.1-1000	PRODUCT INFORMATION	FULL CANTILEVER	20 X 30	DSA2022030-19
	9.2-2000	REACTIONS	FULL CANTILEVER	20 X 30	DSA2022030-19
	10.1-1000	PRODUCT INFORMATION	FULL CANTILEVER JOINED	20 X 300	DSA3022060-19
	10.2-2000	REACTIONS	FULL CANTILEVER JOINED	20 X 300	DSA3022060-19
	11.1-1000	PRODUCT INFORMATION	TRI TRUSS CANTILEVER	20 X 30	DSA2062030-19
	11.2-2000	REACTIONS	TRI TRUSS CANTILEVER	20 X 30	DSA2062030-19
	12.1-1000	PRODUCT INFORMATION	TRI TRUSS CANTILEVER JOINED	20 X 300	DSA3052060-19
	12.2-2000	REACTIONS	TRI TRUSS CANTILEVER JOINED	20 X 300	DSA3052060-19
	13.1-1000	PRODUCT INFORMATION	THREE POINT SAILS	30 X 200	DSA30730-19
	13.2-2000	REACTIONS	THREE POINT SAILS	30 X 200	DSA30730-19
	14.1-1000	PRODUCT INFORMATION	FOUR-POINT SAILS	20 X 300	DSA4182020-19
	14.2-2000	REACTIONS	FOUR-POINT SAILS	20 X 300	DSA4182020-19
X	15.1-1000	PRODUCT INFORMATION	FOUR POINT SAILS	30 X 200	DSA4183030-19
X	15.2-2000	REACTIONS	FOUR POINT SAILS	30 X 200	DSA4183030-19

SHEET INDEX - P.C. DRAWINGS

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NO.C19168
REN. 10-31-21

ARCHITECT OF RECORD

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STRUCTURAL ENGINEER

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MARK ALBERT LOWE
No. 3693
Mark Lowe
12/04/2020

ENGINEER OF RECORD

~~APPROVED~~
~~DIV. OF THE STATE ARCHITECT~~
~~APP: 04-119455 PC~~
~~REVIEWED FOR~~
~~SS ☑ FLS ☑ ACS ☒ CG ☐~~
~~DATE: 03/26/2021~~

STRUCTURE TYPE:

SCALE : VARIES

DRAWING SIZE: **D**

PRE-CHECK (PC) DOCUMENT
Code : 2019 CBC
A separate project application for construction is required.

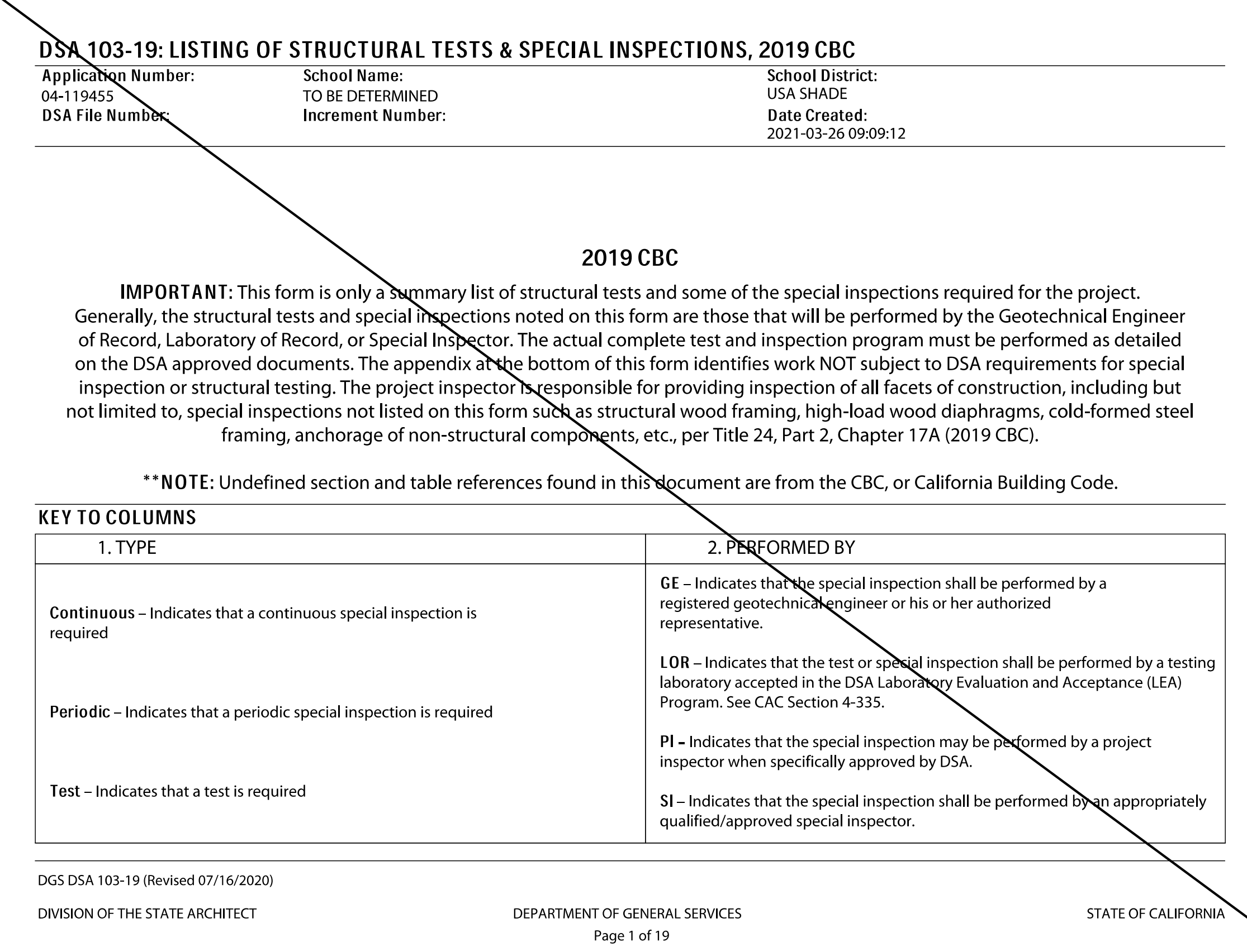
Eng. By :	**DWH**	**09/18/20**
Design By :	**DWH**	**09/18/20**
Approved By :	**DWH**	**09/18/20**

DRAWING DESCRIPTION:
P.C. TITLE SHEET

DWG.

SHEET **P.C. T-1.0**

REV.



DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2019 CBC

Application Number: 04-119455 **School Name:** TO BE DETERMINED **School District:** USA SHADE
DSA File Number: **Increment Number:** **Date Created:** 2021-03-26 09:09:12

2019 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 (2019 CBC).

NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code.

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required **Periodic** – Indicates that a periodic special inspection is required **Test** – Indicates that a test is required	**GE** – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative. **LOR** – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335. **PI -** Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA. **SI** – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

DGS DSA 103-19 (Revised 07/16/2020)
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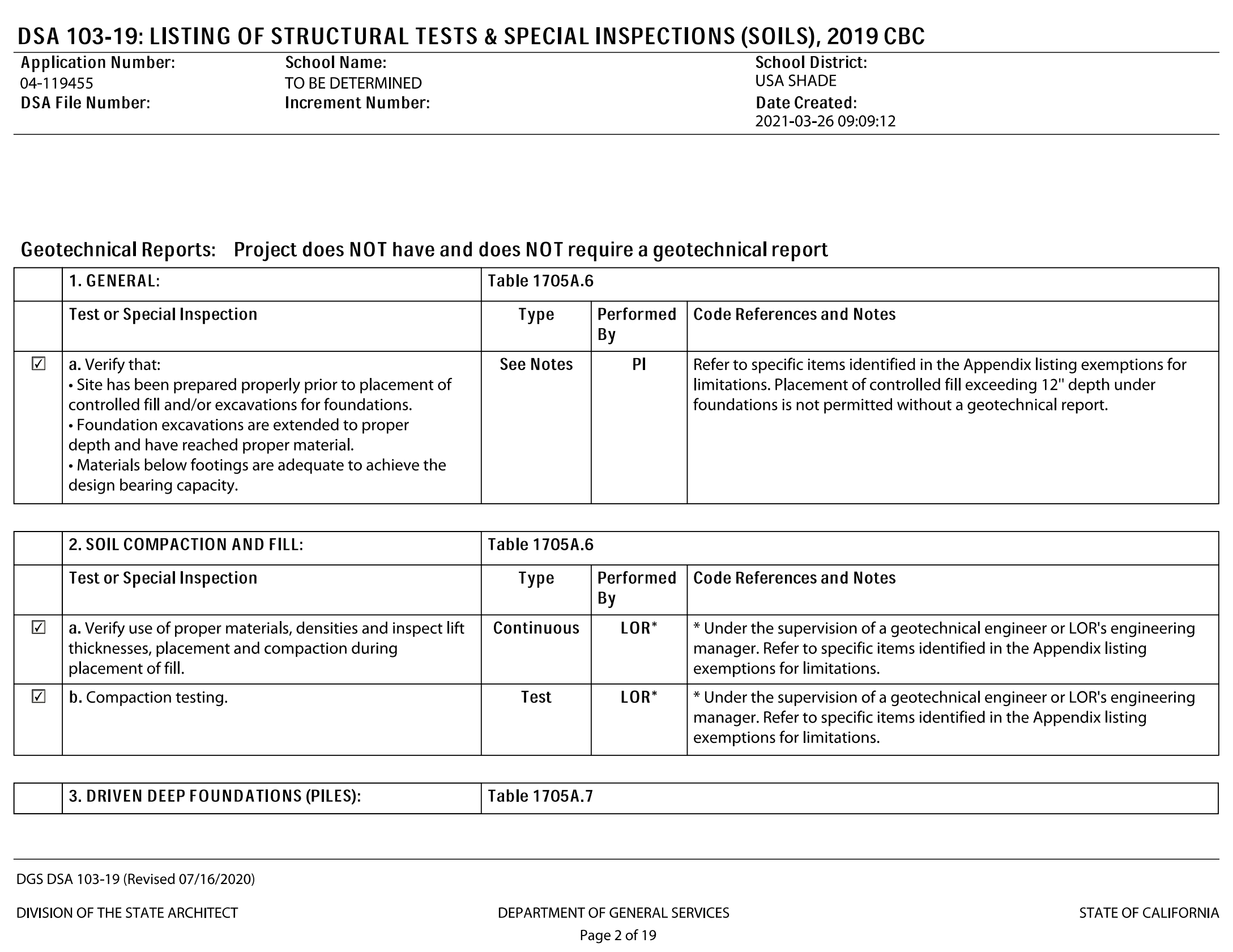

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Application Number: 04-119455 **School Name:** TO BE DETERMINED **School District:** USA SHADE
DSA File Number: **Increment Number:** **Date Created:** 2021-03-26 09:09:12

Geotechnical Reports: Project does NOT have and does NOT require a geotechnical report

	1. GENERAL:	**Table 1705A.6**		
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	See Notes	PI	Refer to specific items identified in the Appendix listing exemptions for limitations. Placement of controlled fill exceeding 12" depth under foundations is not permitted without a geotechnical report.

	2. SOIL COMPACTION AND FILL:	**Table 1705A.6**		
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify use of proper materials, densities and inspect lift thicknesses, placement and compaction during placement of fill.	Continuous	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**b.** Compaction testing.	Test	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.

	3. DRIVEN DEEP FOUNDATIONS (PILES):	**Table 1705A.7**

DGS DSA 103-19 (Revised 07/16/2020)
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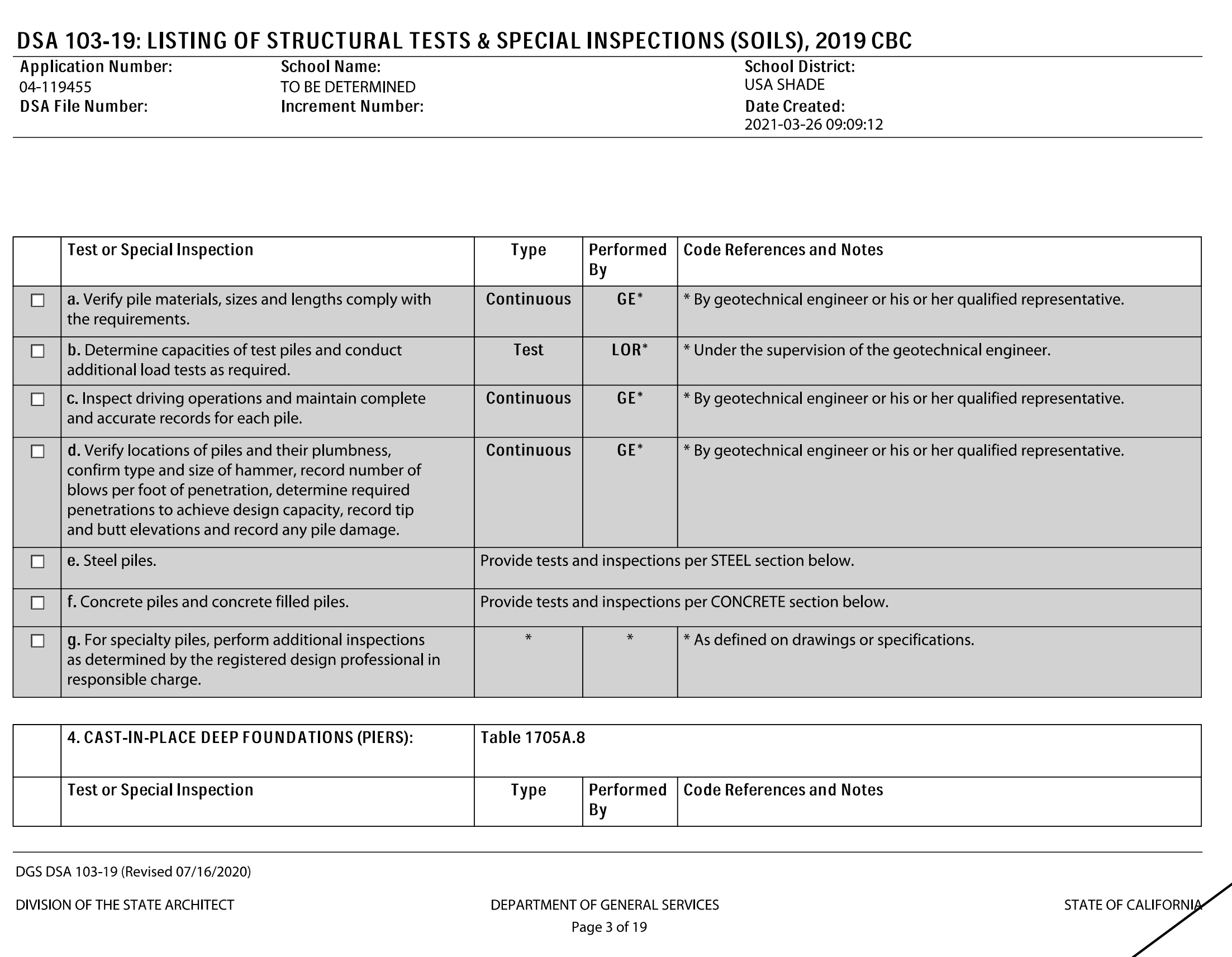

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Application Number: 04-119455 **School Name:** TO BE DETERMINED **School District:** USA SHADE
DSA File Number: **Increment Number:** **Date Created:** 2021-03-26 09:09:12

	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Verify pile materials, sizes and lengths comply with the requirements.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	**b.** Determine capacities of test piles and conduct additional load tests as required.	Test	LOR*	* Under the supervision of the geotechnical engineer.
☐	**c.** Inspect driving operations and maintain complete and accurate records for each pile.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	**d.** Verify locations of piles and their plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and record any pile damage.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	**e.** Steel piles.	Provide tests and inspections per STEEL section below.		
☐	**f.** Concrete piles and concrete filled piles.	Provide tests and inspections per CONCRETE section below.		
☐	**g.** For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge.	*	*	* As defined on drawings or specifications.

	4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):	**Table 1705A.8**		
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**

DGS DSA 103-19 (Revised 07/16/2020)
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA
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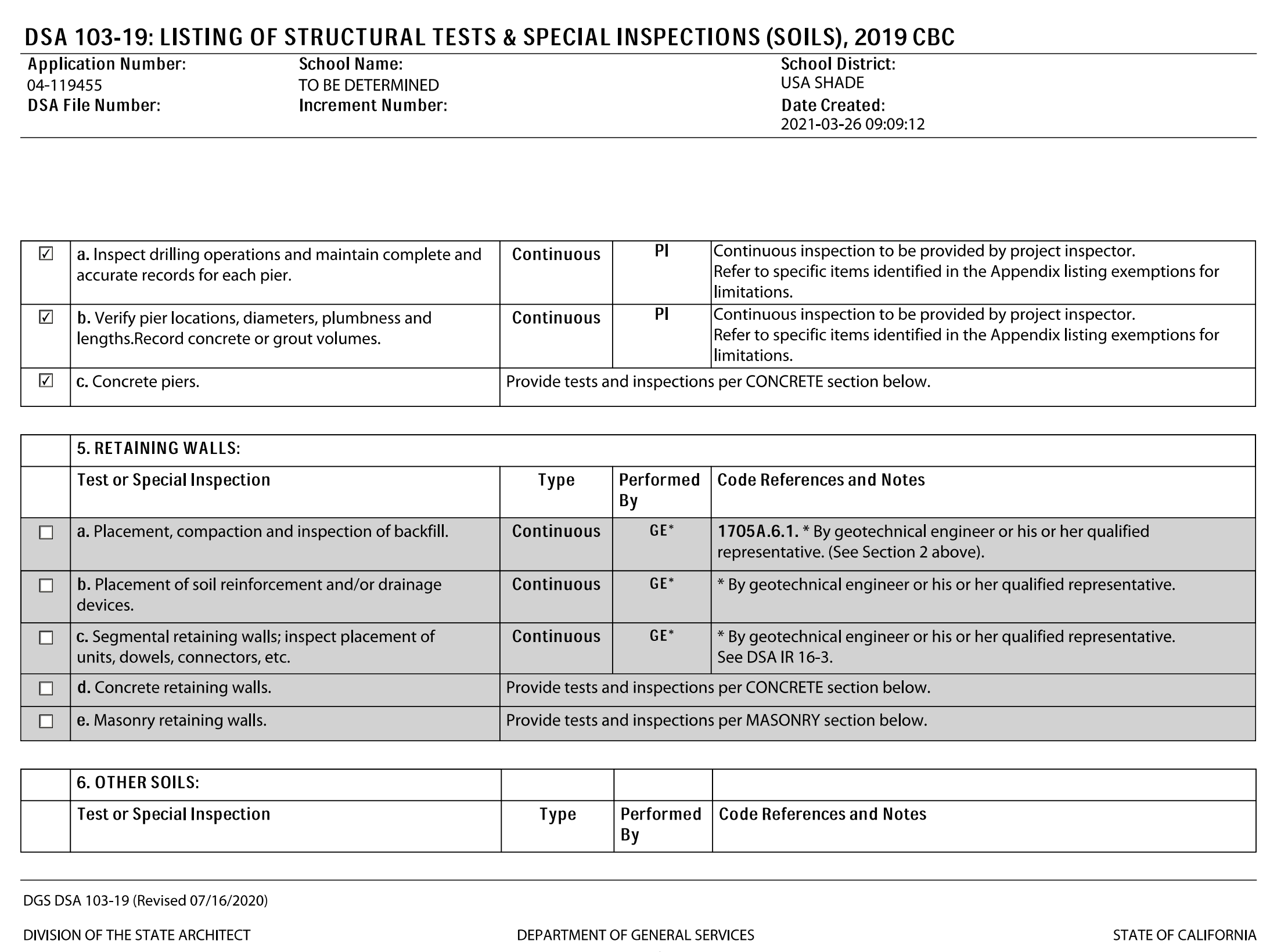

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Application Number: 04-119455 **School Name:** TO BE DETERMINED **School District:** USA SHADE
DSA File Number: **Increment Number:** **Date Created:** 2021-03-26 09:09:12

☑	**a.** Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	PI	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**b.** Verify pier locations, diameters, plumbness and lengths.Record concrete or grout volumes.	Continuous	PI	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**c.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		

	5. RETAINING WALLS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Placement, compaction and inspection of backfill.	Continuous	GE*	**1705A.6.1.** * By geotechnical engineer or his or her qualified representative. (See Section 2 above).
☐	**b.** Placement of soil reinforcement and/or drainage devices.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	**c.** Segmental retaining walls; inspect placement of units, dowels, connectors, etc.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. See DSA IR 16-3.
☐	**d.** Concrete retaining walls.	Provide tests and inspections per CONCRETE section below.		
☐	**e.** Masonry retaining walls.	Provide tests and inspections per MASONRY section below.		

	6. OTHER SOILS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**

DGS DSA 103-19 (Revised 07/16/2020)
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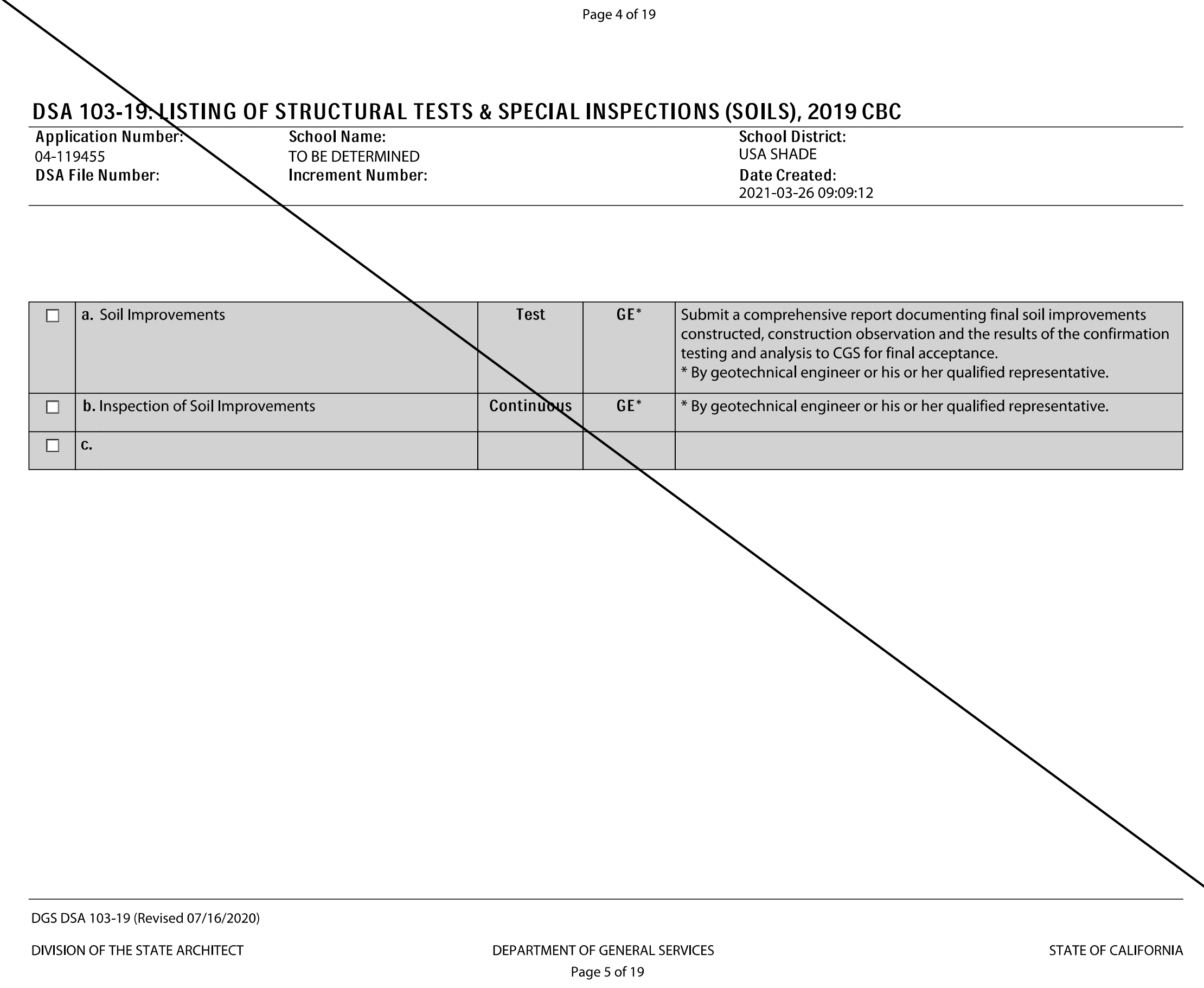

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Application Number: 04-119455 **School Name:** TO BE DETERMINED **School District:** USA SHADE
DSA File Number: **Increment Number:** **Date Created:** 2021-03-26 09:09:12

☐	**a.** Soil Improvements	Test	GE*	Submit a comprehensive report documenting final soil improvements constructed, construction observation and the results of the confirmation testing and analysis to CGS for final acceptance. * By geotechnical engineer or his or her qualified representative.
☐	**b.** Inspection of Soil Improvements	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	**c.**			

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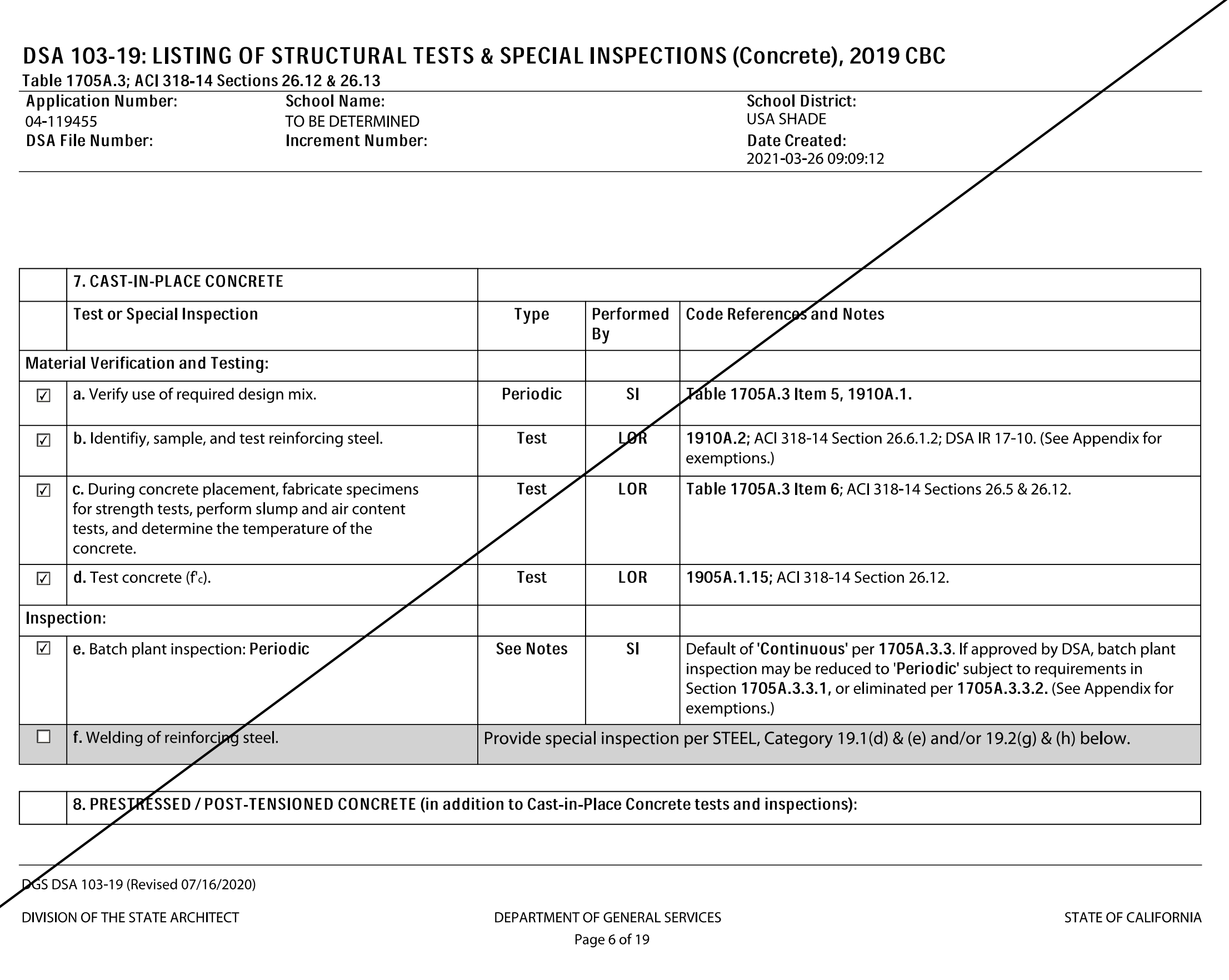

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

Table 1705A.3; ACI 318-14 Sections 26.12 & 26.13

Application Number: 04-119455 **School Name:** TO BE DETERMINED **School District:** USA SHADE
DSA File Number: **Increment Number:** **Date Created:** 2021-03-26 09:09:12

	7. CAST-IN-PLACE CONCRETE			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
Material Verification and Testing:				
☑	**a.** Verify use of required design mix.	Periodic	SI	**Table 1705A.3 Item 5, 1910A.1.**
☑	**b.** Identifiy, sample, and test reinforcing steel.	Test	LOR	**1910A.2**; ACI 318-14 Section 26.6.1.2; DSA IR 17-10. (See Appendix for exemptions.)
☑	**c.** During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	**Table 1705A.3 Item 6**; ACI 318-14 Sections 26.5 & 26.12.
☑	**d.** Test concrete (f'c).	Test	LOR	**1905A.1.15;** ACI 318-14 Section 26.12.
Inspection:				
☑	**e.** Batch plant inspection: **Periodic**	See Notes	SI	Default of '**Continuous**' per **1705A.3.3**. If approved by DSA, batch plant inspection may be reduced to '**Periodic**' subject to requirements in Section **1705A.3.3.1**, or eliminated per **1705A.3.3.2.** (See Appendix for exemptions.)
☐	**f.** Welding of reinforcing steel.	Provide special inspection per STEEL, Category 19.1(d) & (e) and/or 19.2(g) & (h) below.		

	8. PRESTRESSED / POST-TENSIONED CONCRETE (in addition to Cast-in-Place Concrete tests and inspections):

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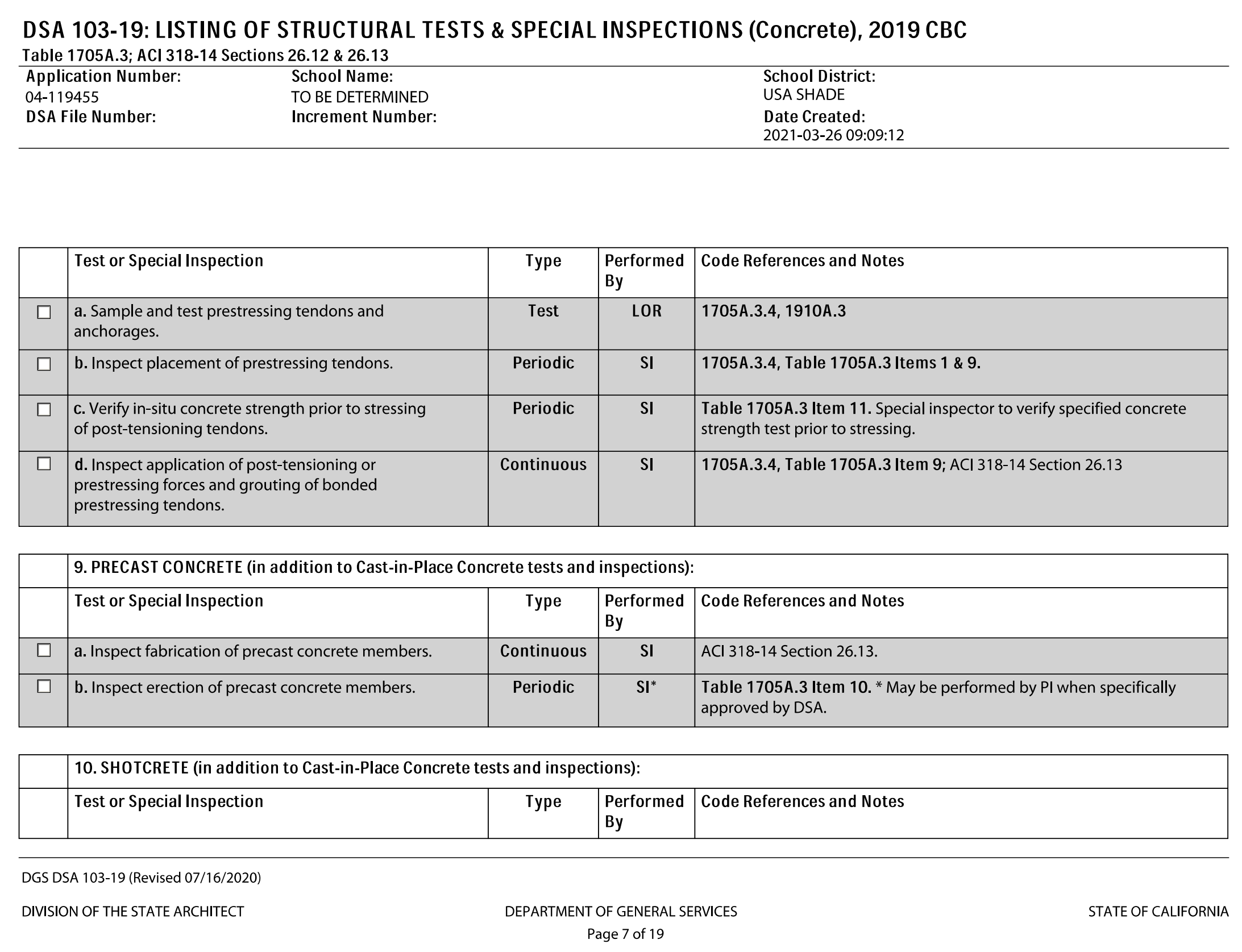

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

Table 1705A.3; ACI 318-14 Sections 26.12 & 26.13

Application Number: 04-119455 **School Name:** TO BE DETERMINED **School District:** USA SHADE
DSA File Number: **Increment Number:** **Date Created:** 2021-03-26 09:09:12

	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Sample and test prestressing tendons and anchorages.	Test	LOR	**1705A.3.4, 1910A.3**
☐	**b.** Inspect placement of prestressing tendons.	Periodic	SI	**1705A.3.4, Table 1705A.3 Items 1 & 9.**
☐	**c.** Verify in-situ concrete strength prior to stressing of post-tensioning tendons.	Periodic	SI	**Table 1705A.3 Item 11.** Special inspector to verify specified concrete strength test prior to stressing.
☐	**d.** Inspect application of post-tensioning or prestressing forces and grouting of bonded prestressing tendons.	Continuous	SI	**1705A.3.4, Table 1705A.3 Item 9;** ACI 318-14 Section 26.13

	9. PRECAST CONCRETE (in addition to Cast-in-Place Concrete tests and inspections):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Inspect fabrication of precast concrete members.	Continuous	SI	ACI 318-14 Section 26.13.
☐	**b.** Inspect erection of precast concrete members.	Periodic	SI*	**Table 1705A.3 Item 10.** * May be performed by PI when specifically approved by DSA.

	10. SHOTCRETE (in addition to Cast-in-Place Concrete tests and inspections):			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**

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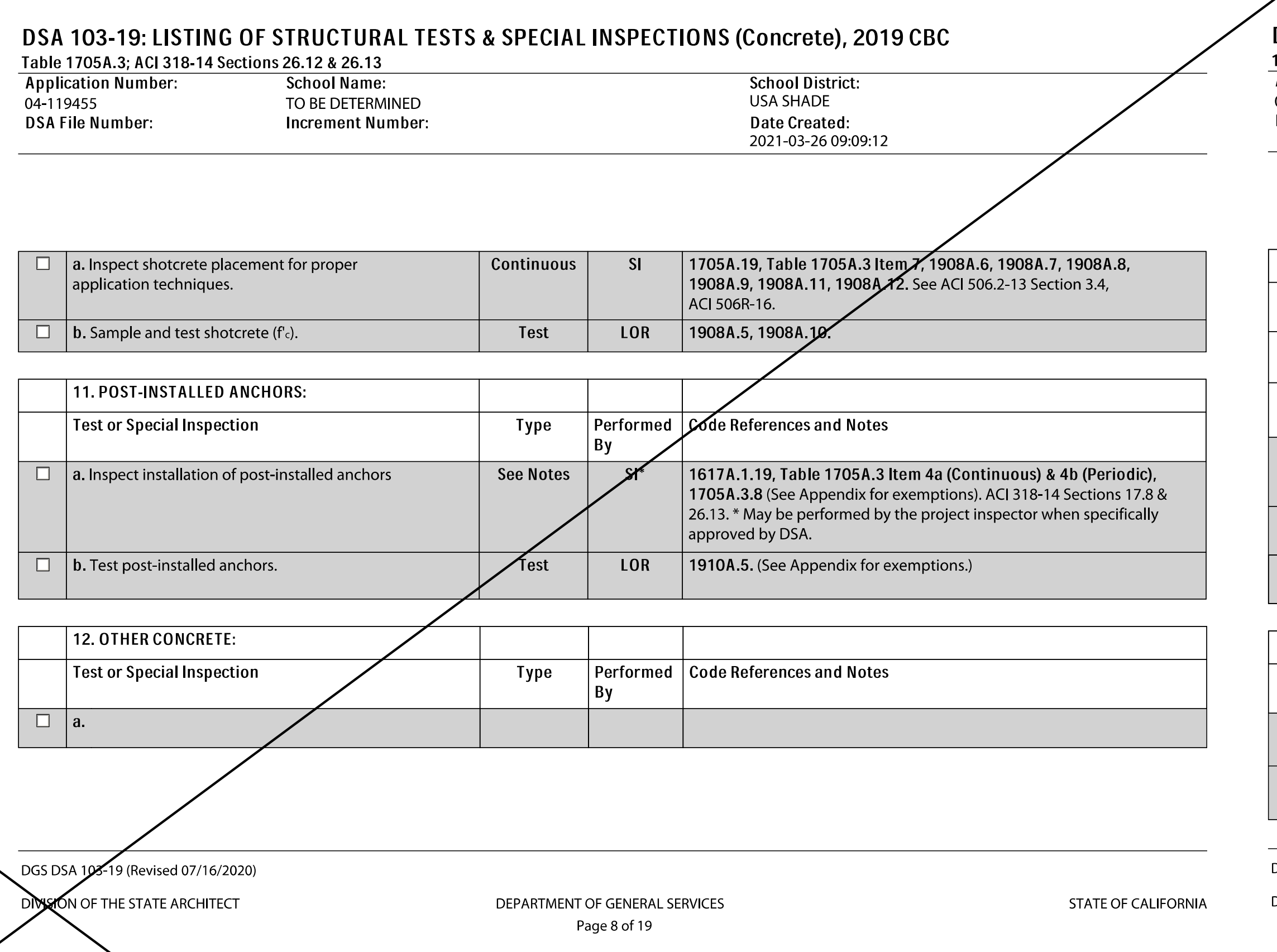

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

Table 1705A.3; ACI 318-14 Sections 26.12 & 26.13

Application Number: 04-119455 **School Name:** TO BE DETERMINED **School District:** USA SHADE
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☐	**a.** Inspect shotcrete placement for proper application techniques.	Continuous	SI	**1705A.19, Table 1705A.3 Item 7, 1908A.6, 1908A.7, 1908A.8, 1908A.9, 1908A.11, 1908A.12.** See ACI 506.2-13 Section 3.4, ACI 506R-16.
☐	**b.** Sample and test shotcrete (f'c).	Test	LOR	**1908A.5, 1908A.10.**

	11. 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 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 for exemptions.)

	12. OTHER CONCRETE:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.**			

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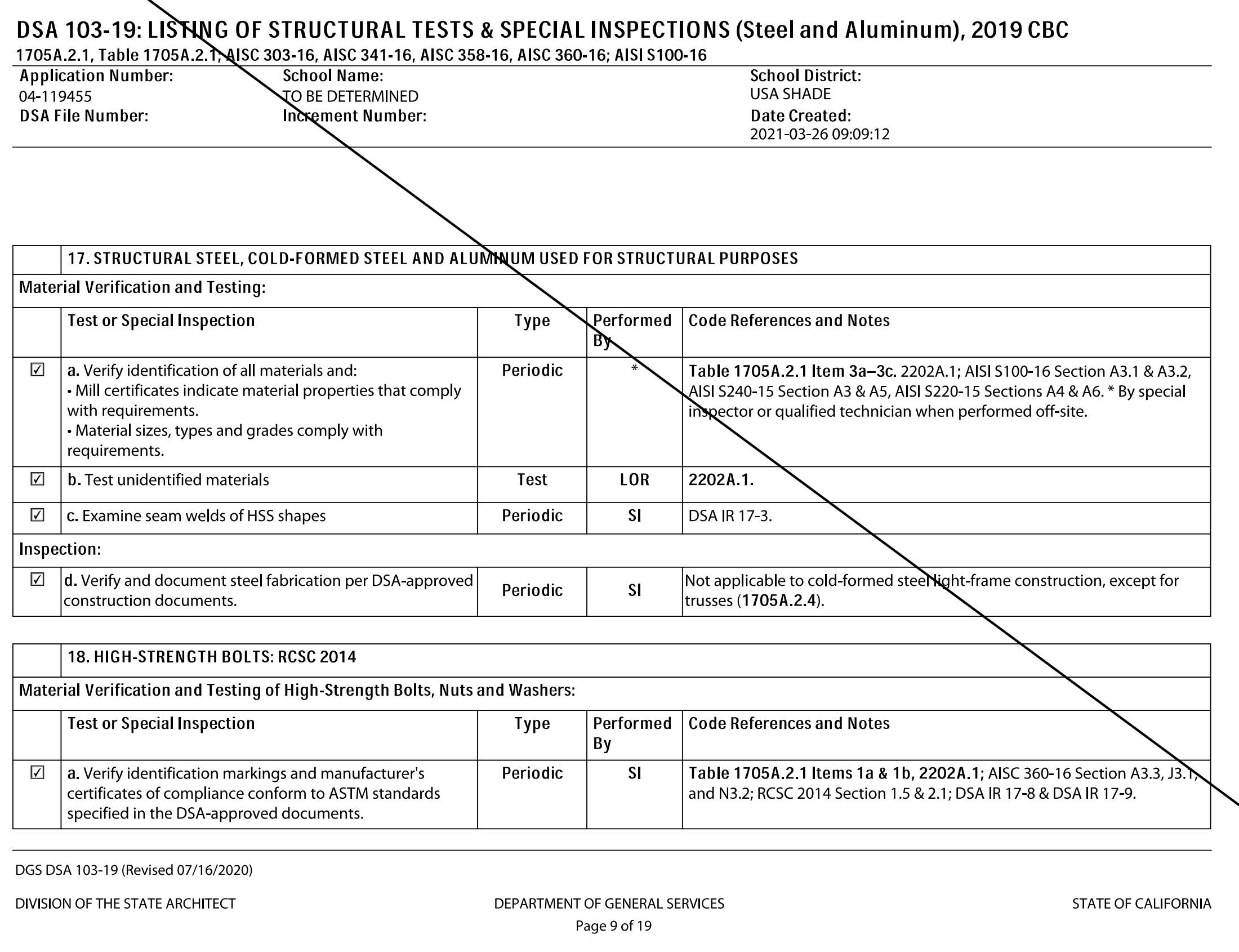

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

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	17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES			
Material Verification and Testing:				
	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 S100-16 Section A3.1 & A3.2, AISI S240-15 Section A3 & A5, AISI S220-15 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.
Inspection:				
☑	**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**).

	18. HIGH-STRENGTH BOLTS: RCSC 2014			
Material Verification and Testing of High-Strength Bolts, Nuts and Washers:				
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA-approved documents.	Periodic	SI	**Table 1705A.2.1 Items 1a & 1b, 2202A.1;** AISC 360-16 Section A3.3, J3.1, and N3.2; RCSC 2014 Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9.

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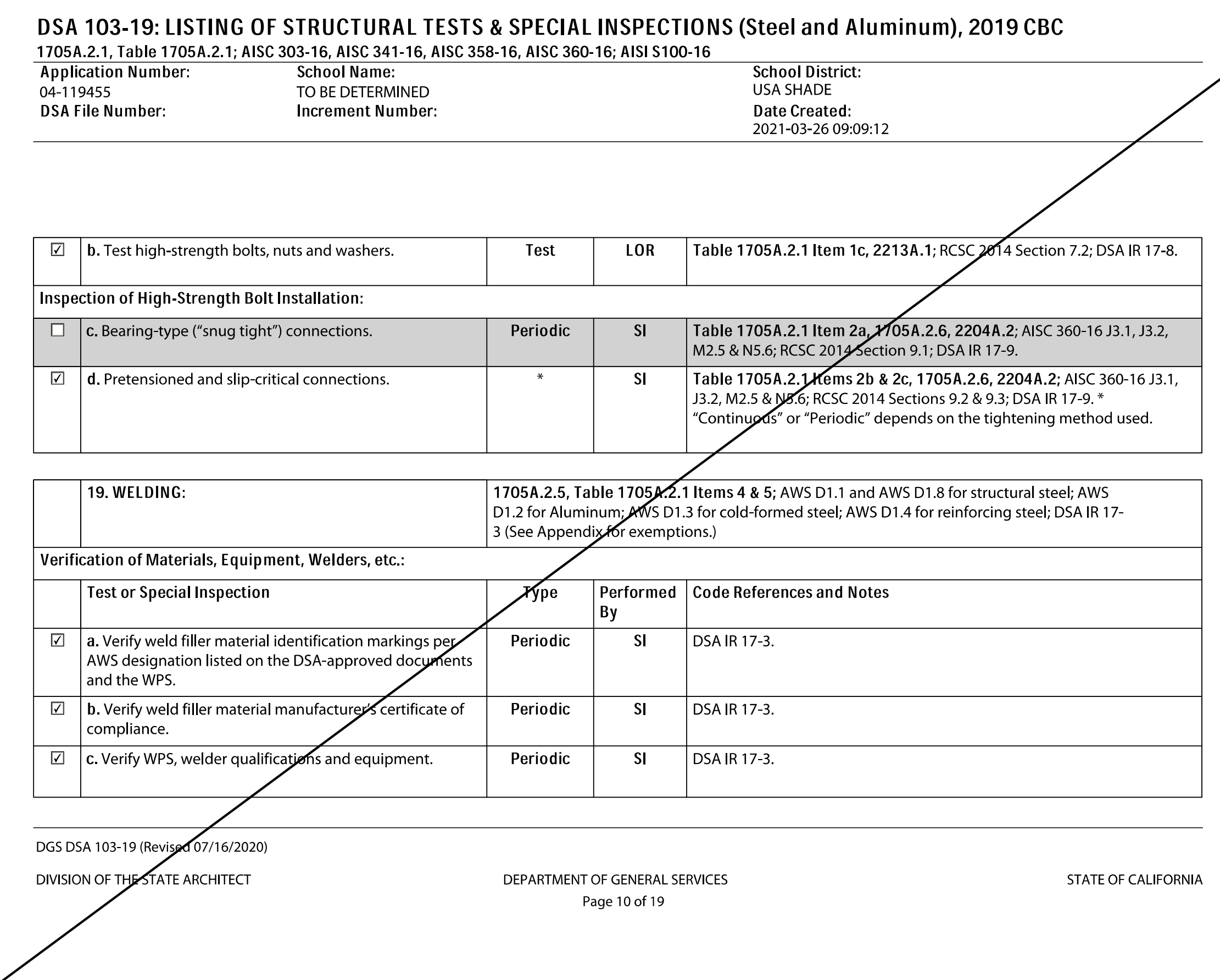

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

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☑	**b.** Test high-strength bolts, nuts and washers.	Test	LOR	**Table 1705A.2.1 Item 1c, 2213A.1**; RCSC 2014 Section 7.2; DSA IR 17-8.
Inspection of High-Strength Bolt Installation:				
☐	**c.** Bearing-type ("snug tight") connections.	Periodic	SI	**Table 1705A.2.1 Item 2a, 1705A.2.6, 2204A.2**; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 9.1; DSA IR 17-9.
☑	**d.** Pretensioned and slip-critical connections.	*	SI	**Table 1705A.2.1 Items 2b & 2c, 1705A.2.6, 2204A.2;** AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Sections 9.2 & 9.3; DSA IR 17-9. * "Continuous" or "Periodic" depends on the tightening method used.

	19. WELDING:	**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 (See Appendix for exemptions.)		
Verification of Materials, Equipment, Welders, etc.:				
	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	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.

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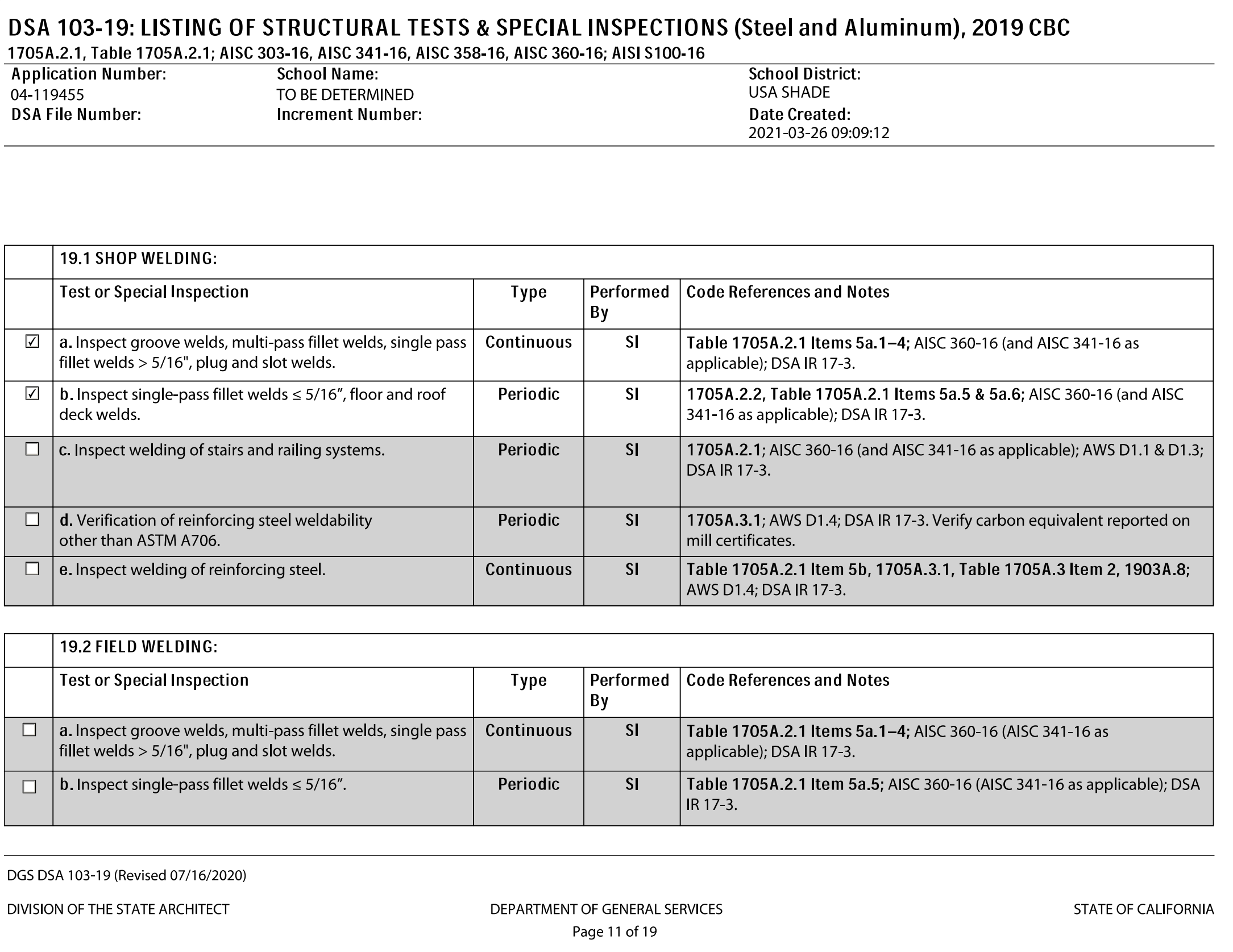

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

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	19.1 SHOP WELDING:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	**Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☐	**c.** Inspect welding of stairs and railing systems.	Periodic	SI	**1705A.2.1**; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
☐	**d.** Verification of reinforcing steel weldability other than ASTM A706.	Periodic	SI	**1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	**e.** Inspect welding of reinforcing steel.	Continuous	SI	**Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3.

	19.2 FIELD WELDING:			
	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 (AISC 341-16 as applicable); DSA IR 17-3.
☐	**b.** Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	**Table 1705A.2.1 Item 5a.5;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.

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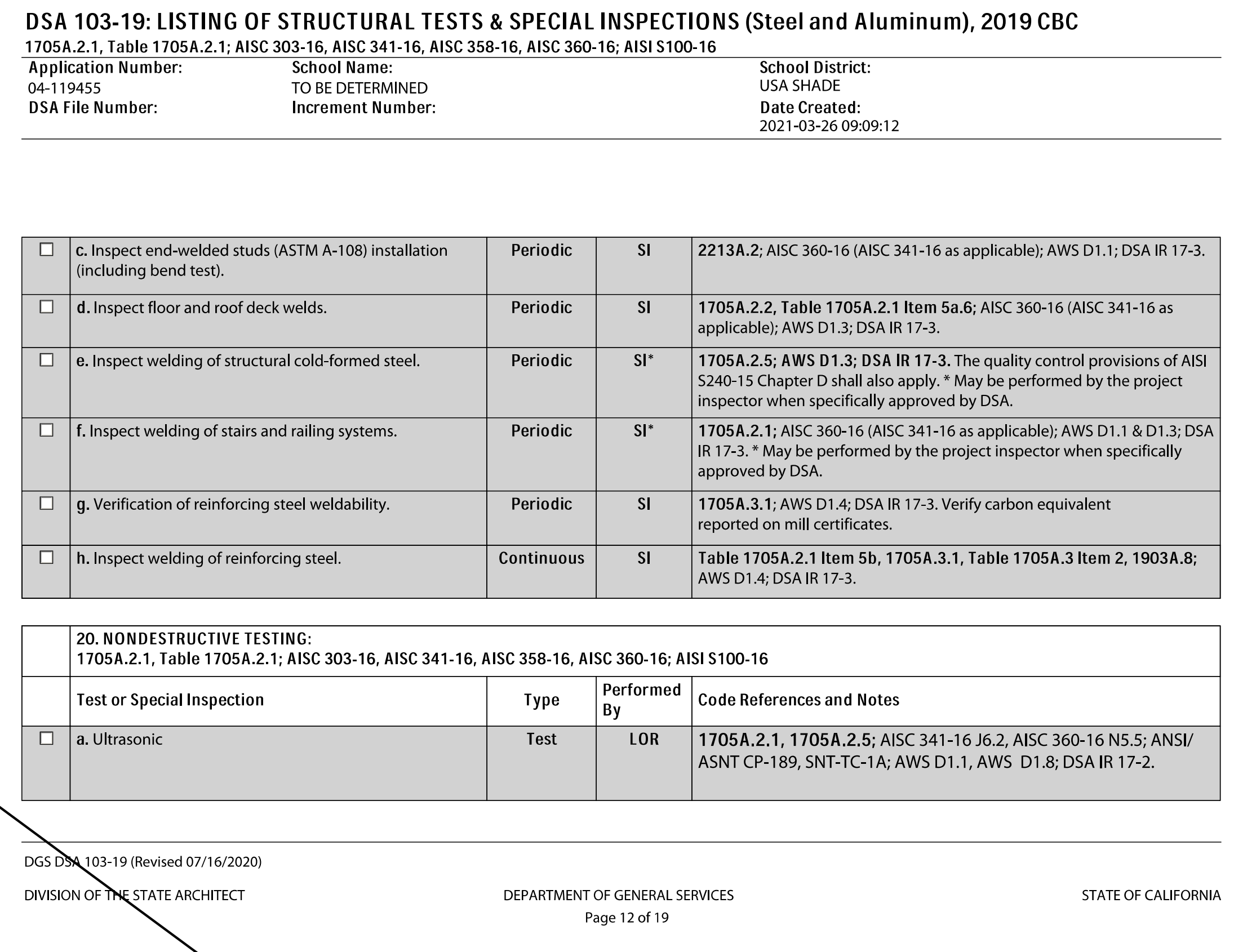

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

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☐	**c.** Inspect end-welded studs (ASTM A-108) installation (including bend test).	Periodic	SI	**2213A.2**; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1; DSA IR 17-3.
☐	**d.** Inspect floor and roof deck welds.	Periodic	SI	**1705A.2.2, Table 1705A.2.1 Item 5a.6**; AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3.
☐	**e.** Inspect welding of structural cold-formed steel.	Periodic	SI*	**1705A.2.5; AWS D1.3; DSA IR 17-3.** The quality control provisions of AISI S240-15 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA.
☐	**f.** Inspect welding of stairs and railing systems.	Periodic	SI*	**1705A.2.1;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
☐	**g.** Verification of reinforcing steel weldability.	Periodic	SI	**1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	**h.** Inspect welding of reinforcing steel.	Continuous	SI	**Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3.

	20. NONDESTRUCTIVE TESTING: **1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16**			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Ultrasonic	Test	LOR	**1705A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.

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THE SAMPLE DSA-103 FORM SHOWN ON THIS SHEET IS FOR ILLUSTRATION PURPOSES ONLY TO ASSIST IN THE COMPLETION OF FUTURE PROJECTS SPECIFIC FORM DSA-103. A CURRENT DSA-103 FORM IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL SAMPLE DSA-103 SHEETS ARE TO BE CROSSED OUT ON THIS DRAWING.

ADDITIONAL TESTING AND INSPECTION NOTES:

1. THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE SELECTED BY THE SCHOOL DISTRICT AND APPROVED BY DSA AND THE ARCHITECT OF RECORD.
2. THE SITE PROJECT INSPECTOR SHALL BE CLASS 2.
3. THE COSTS OF THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE BORN BY THE SCHOOL DISTRICT.
4. COPIES OF VERIFIED REPORTS SHALL BE SENT TO DSA, THE ARCHITECT, THE SCHOOL DISTRICT, THE CONTRACTOR, AND THE PROJECT INSPECTOR.
5. THE IN PLANT INSPECTOR SHALL BE WELDING SPECIAL INSPECTOR FOR MATERIAL VERIFICATION AND WELDING.
6. PER 2019 CBC, SECTION 1705A.3.3, BATCH PLANT INSPECTION MAY BE WAIVED WHEN THE FOLLOWING REQUIREMENTS ARE MET:
   - 6.1. A LICENSED WEIGHMASTER SHALL POSITIVELY IDENTIFY QUANTITY OF MATERIALS AND CERTIFY EACH LOAD BY A BATCH TICKET.
   - 6.2. BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY THE TRUCK DRIVER WITH LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR OF RECORD SHALL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK IT'S LOAD, AND TIME OF RECEIPT AT THE JOBSITE, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND SHALL MAINTAIN A COPY OF THE DAILY RECORD AS REQUIRED BY THE ENFORCEMENT AGENCY.

SAMPLE DSA 103 - STATEMENT OF STRUCTURAL TESTS AND INSPECTIONS FORM - FOR ALL UNITS EXCEPT CANTILEVER AND SINGLE POST UNITS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN

USASHADE
& Fabric Structures®

CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Ventura County Office of Education

PROJECT NAME:
Gateway Community School South Annex

LOCATION:
200 Horizon Circle
Camarillo, CA 93010

MODEL NUMBER:

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-119455 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 03/26/2021

STRUCTURE TYPE:

SCALE : VARIES

DRAWING SIZE: D

PRE-CHECK (PC) DOCUMENT
Code : 2019 CBC
A separate project application for construction is required.

Eng. By :	DWH	09/18/20
Design By :	DWH	09/18/20
Approved By :	DWH	09/18/20

DAVID HIGGINSON
NO.C19188
REN. 10-31-21

DRAWING DESCRIPTION:
DSA 103 SAMPLE FORMS

DWG.

SHEET P.C. T-2.0

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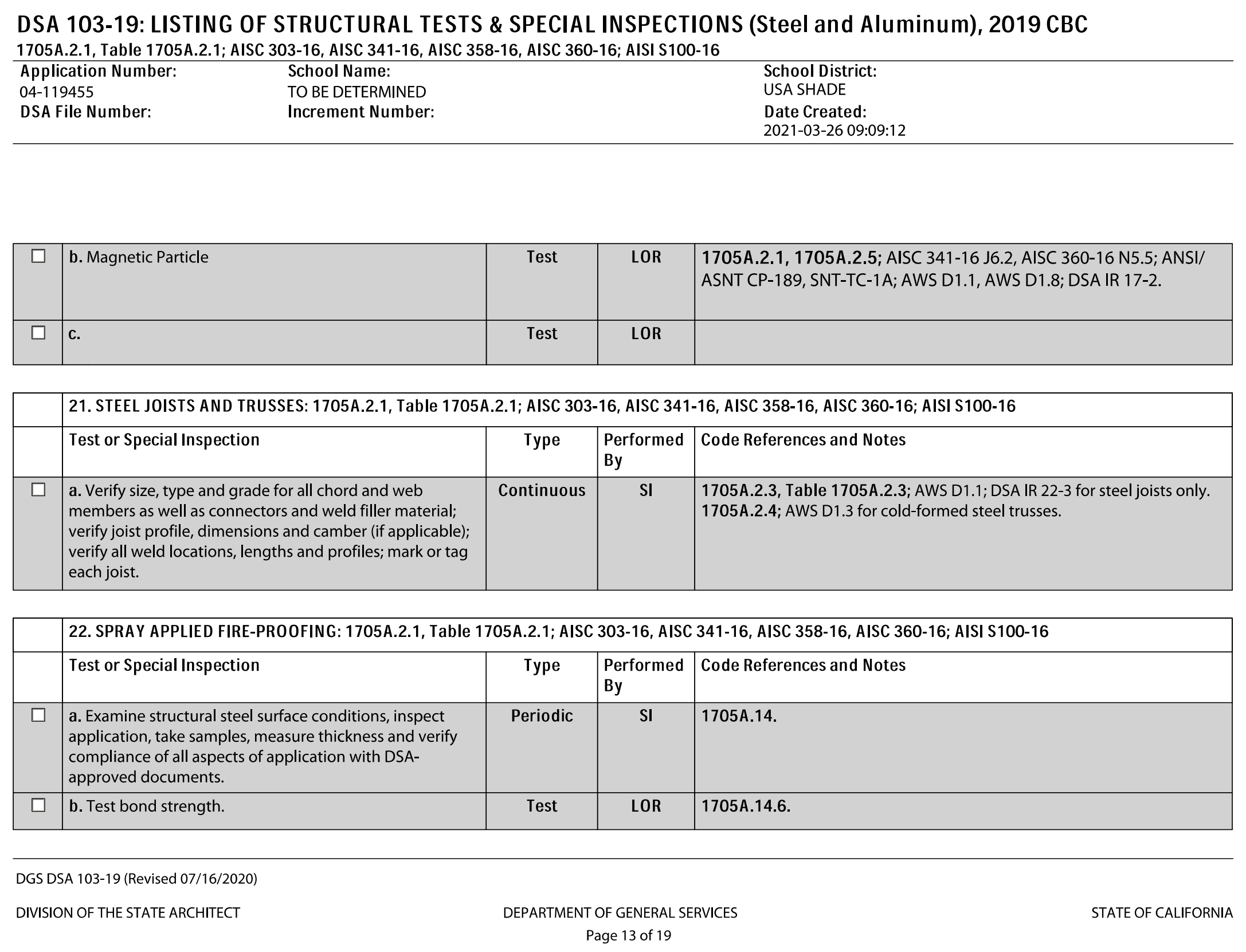

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

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☐	**b.** Magnetic Particle	Test	LOR	**1705A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.
☐	c.	Test	LOR	

	21. STEEL JOISTS AND TRUSSES: 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Verify size, type and grade for all chord and web members as well as connectors and weld filler material; verify joist profile, dimensions and camber (if applicable); verify all weld locations, lengths and profiles; mark or tag each joist.	Continuous	SI	**1705A.2.3, Table 1705A.2.3;** AWS D1.1; DSA IR 22-3 for steel joists only. **1705A.2.4;** AWS D1.3 for cold-formed steel trusses.

	22. SPRAY APPLIED FIRE-PROOFING: 1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Examine structural steel surface conditions, inspect application, take samples, measure thickness and verify compliance of all aspects of application with DSA-approved documents.	Periodic	SI	1705A.14.
☐	**b.** Test bond strength.	Test	LOR	1705A.14.6.

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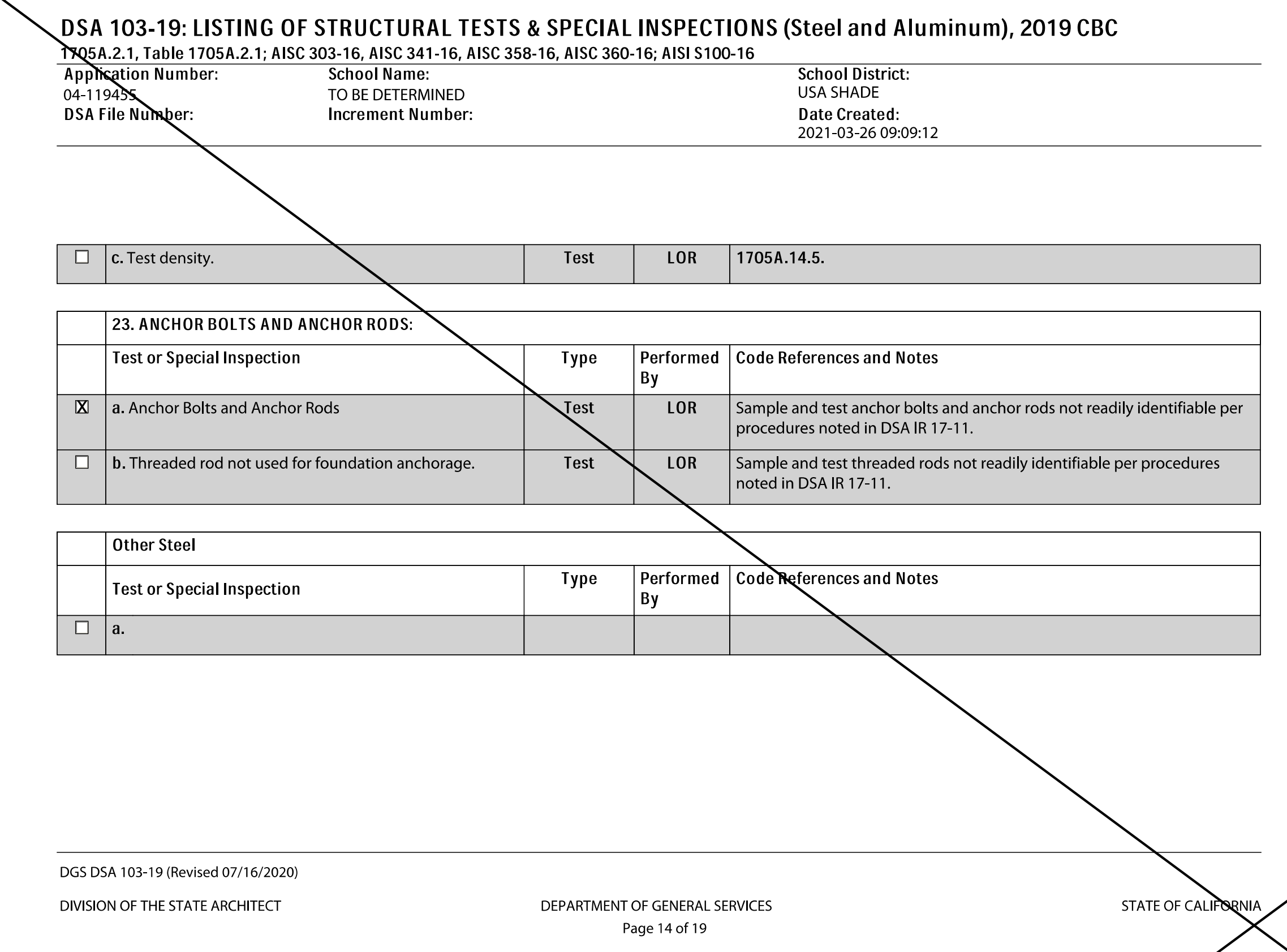

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

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☐	**c.** Test density.	Test	LOR	1705A.14.5.

	23. ANCHOR BOLTS AND ANCHOR RODS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☒	**a.** Anchor Bolts and Anchor Rods	Test	LOR	Sample and test anchor bolts and anchor rods not readily identifiable per procedures noted in DSA IR 17-11.
☐	**b.** Threaded rod not used for foundation anchorage.	Test	LOR	Sample and test threaded rods not readily identifiable per procedures noted in DSA IR 17-11.

	Other Steel			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	a.			

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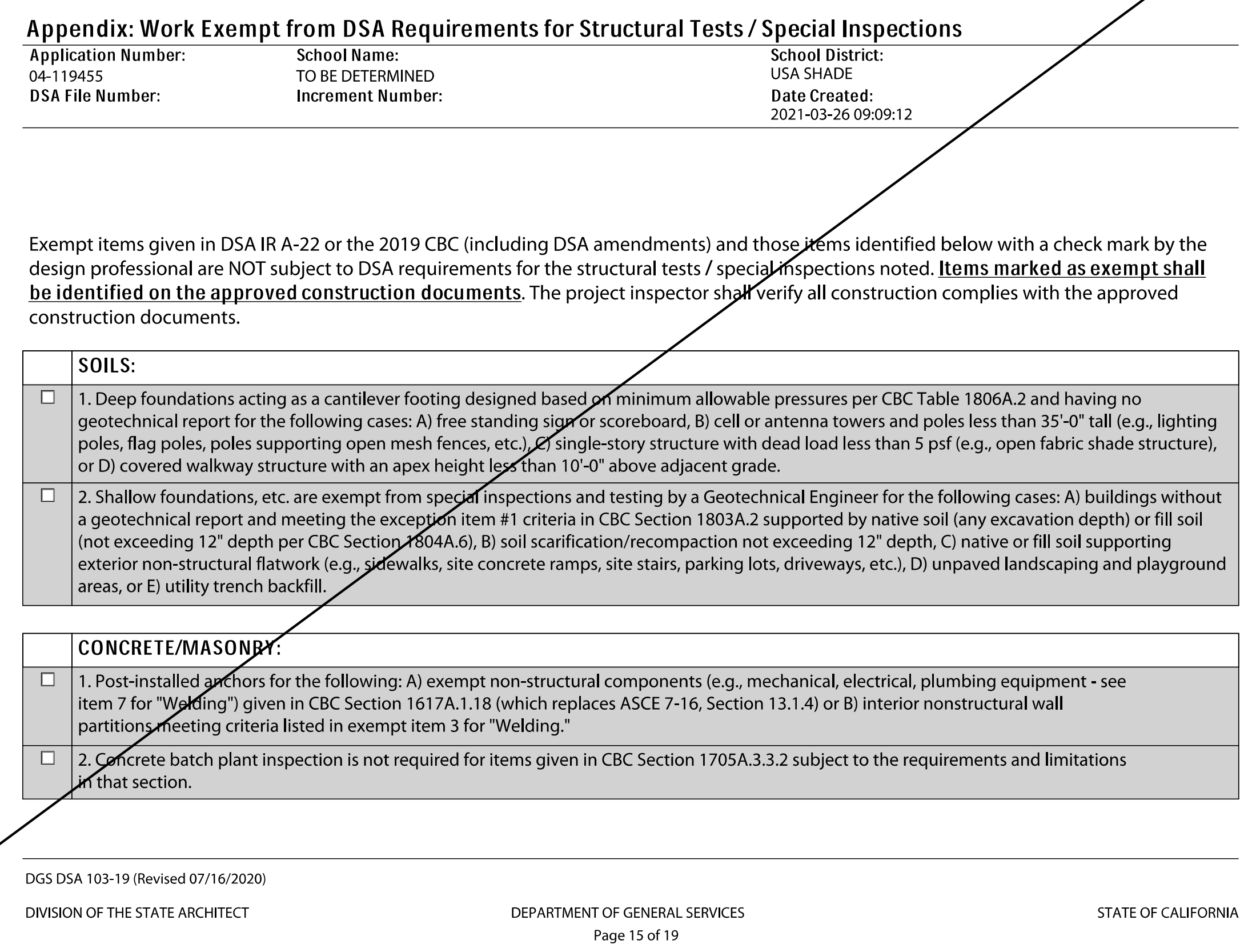

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number: 04-119455
School Name: TO BE DETERMINED
School District: USA SHADE
DSA File Number:
Increment Number:
Date Created: 2021-03-26 09:09:12

Exempt items given in DSA IR A-22 or the 2019 CBC (including DSA amendments) and those items identified below with a check mark by the design professional are NOT subject to DSA requirements for the structural tests / special inspections noted. **Items marked as exempt shall be identified on the approved construction documents**. The project inspector shall verify all construction complies with the approved construction documents.

	SOILS:
☐	1. Deep foundations acting as a cantilever footing designed based on minimum allowable pressures per CBC Table 1806A.2 and having no geotechnical report for the following cases: A) free standing sign or scoreboard, B) cell or antenna towers and poles less than 35'-0" tall (e.g., lighting poles, flag poles, poles supporting open mesh fences, etc.), C) single-story structure with dead load less than 5 psf (e.g., open fabric shade structure), or D) covered walkway structure with an apex height less than 10'-0" above adjacent grade.
☐	2. Shallow foundations, etc. are exempt from special inspections and testing by a Geotechnical Engineer for the following cases: A) buildings without a geotechnical report and meeting the exception item #1 criteria in CBC Section 1803A.2 supported by native soil (any excavation depth) or fill soil (not exceeding 12" depth per CBC Section 1804A.6), B) soil scarification/recompaction not exceeding 12" depth, C) native or fill soil supporting exterior non-structural flatwork (e.g., sidewalks, site concrete ramps, site stairs, parking lots, driveways, etc.), D) unpaved landscaping and playground areas, or E) utility trench backfill.

	CONCRETE/MASONRY:
☐	1. Post-installed anchors for the following: A) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment - see item 7 for "Welding") given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) or B) interior nonstructural wall partitions meeting criteria listed in exempt item 3 for "Welding."
☐	2. Concrete batch plant inspection is not required for items given in CBC Section 1705A.3.3.2 subject to the requirements and limitations in that section.

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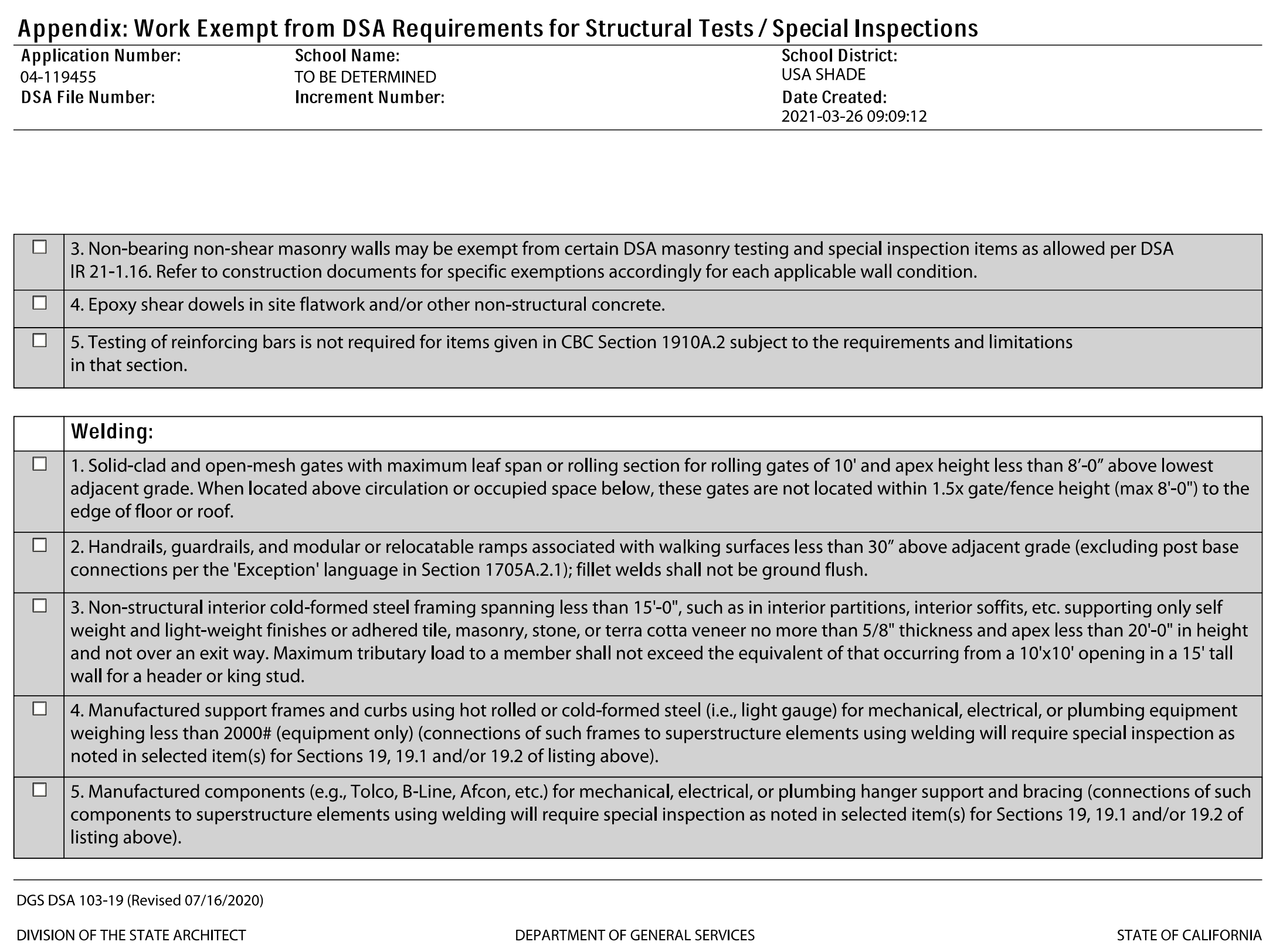

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number: 04-119455
School Name: TO BE DETERMINED
School District: USA SHADE
DSA File Number:
Increment Number:
Date Created: 2021-03-26 09:09:12

☐	3. Non-bearing non-shear masonry walls may be exempt from certain DSA masonry testing and special inspection items as allowed per DSA IR 21-1.16. Refer to construction documents for specific exemptions accordingly for each applicable wall condition.
☐	4. Epoxy shear dowels in site flatwork and/or other non-structural concrete.
☐	5. Testing of reinforcing bars is not required for items given in CBC Section 1910A.2 subject to the requirements and limitations in that section.

	Welding:
☐	1. Solid-clad and open-mesh gates with maximum leaf span or rolling section for rolling gates of 10' and apex height less than 8’-0” above lowest adjacent grade. When located above circulation or occupied space below, these gates are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof.
☐	2. Handrails, guardrails, and modular or relocatable ramps associated with walking surfaces less than 30” above adjacent grade (excluding post base connections per the 'Exception' language in Section 1705A.2.1); fillet welds shall not be ground flush.
☐	3. Non-structural interior cold-formed steel framing spanning less than 15'-0", such as in interior partitions, interior soffits, etc. supporting only self weight and light-weight finishes or adhered tile, masonry, stone, or terra cotta veneer no more than 5/8" thickness and apex less than 20'-0" in height and not over an exit way. Maximum tributary load to a member shall not exceed the equivalent of that occurring from a 10'x10' opening in a 15' tall wall for a header or king stud.
☐	4. Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections 19, 19.1 and/or 19.2 of listing above).
☐	5. Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections 19, 19.1 and/or 19.2 of listing above).

DGS DSA 103-19 (Revised 07/16/2020)

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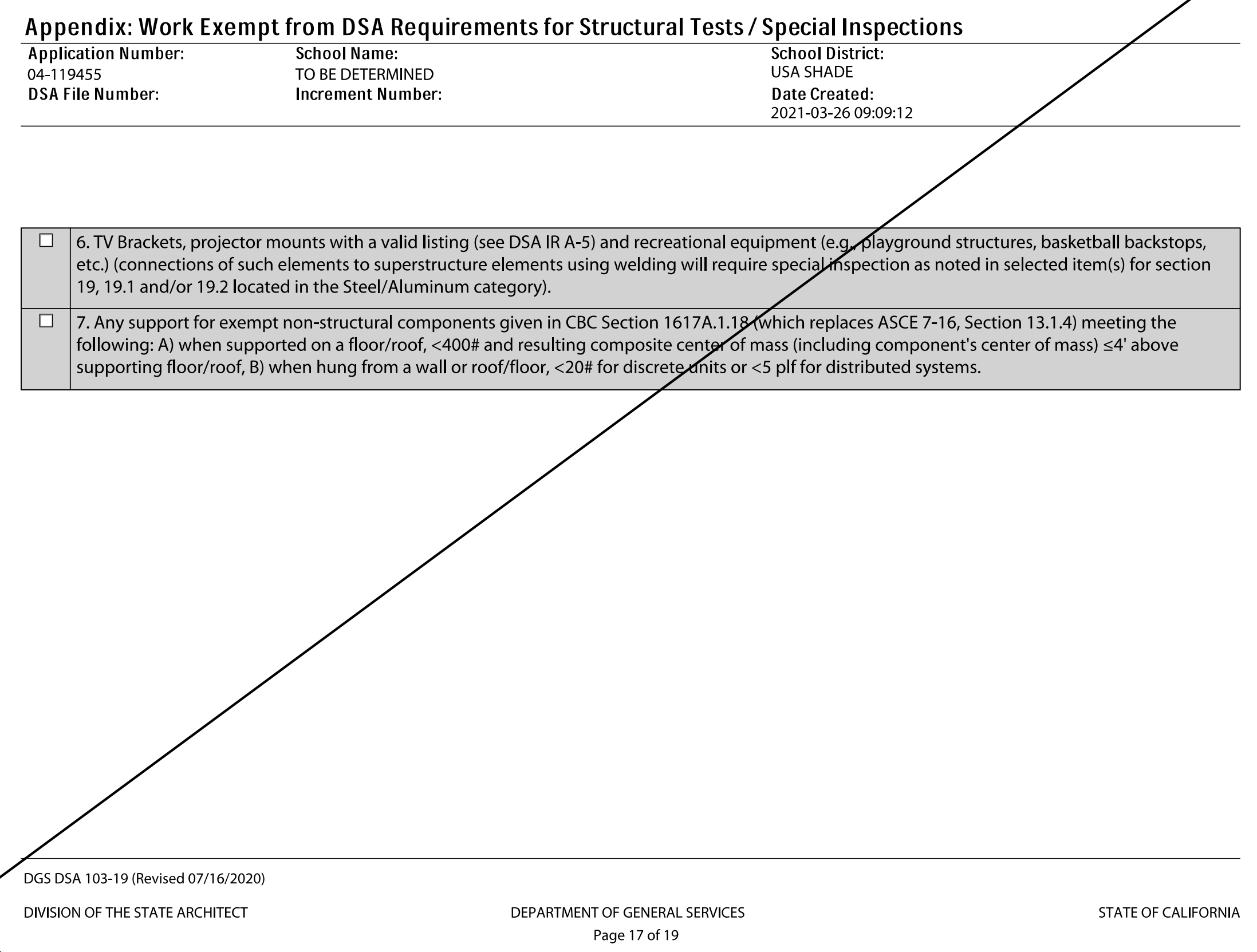

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number: 04-119455
School Name: TO BE DETERMINED
School District: USA SHADE
DSA File Number:
Increment Number:
Date Created: 2021-03-26 09:09:12

☐	6. TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 located in the Steel/Aluminum category).
☐	7. Any support for exempt non-structural components given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) meeting the following: A) when supported on a floor/roof, <400# and resulting composite center of mass (including component's center of mass) ≤4' above supporting floor/roof, B) when hung from a wall or roof/floor, <20# for discrete units or <5 plf for distributed systems.

DGS DSA 103-19 (Revised 07/16/2020)

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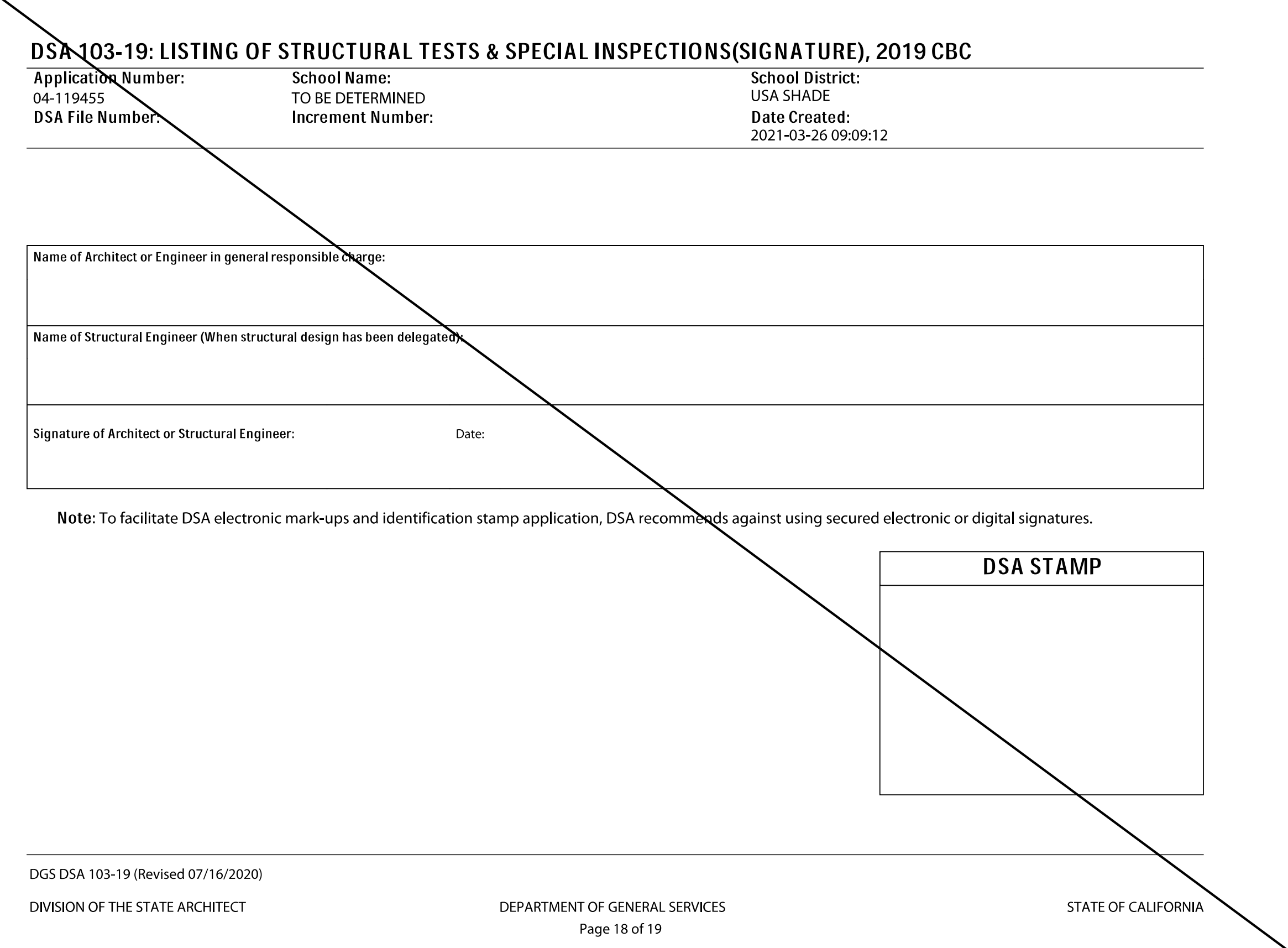

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS(SIGNATURE), 2019 CBC

Application Number: 04-119455
School Name: TO BE DETERMINED
School District: USA SHADE
DSA File Number:
Increment Number:
Date Created: 2021-03-26 09:09:12

Name of Architect or Engineer in general responsible charge:

Name of Structural Engineer (When structural design has been delegated):

Signature of Architect or Structural Engineer: Date:

Note: To facilitate DSA electronic mark-ups and identification stamp application, DSA recommends against using secured electronic or digital signatures.

DSA STAMP

DGS DSA 103-19 (Revised 07/16/2020)

DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

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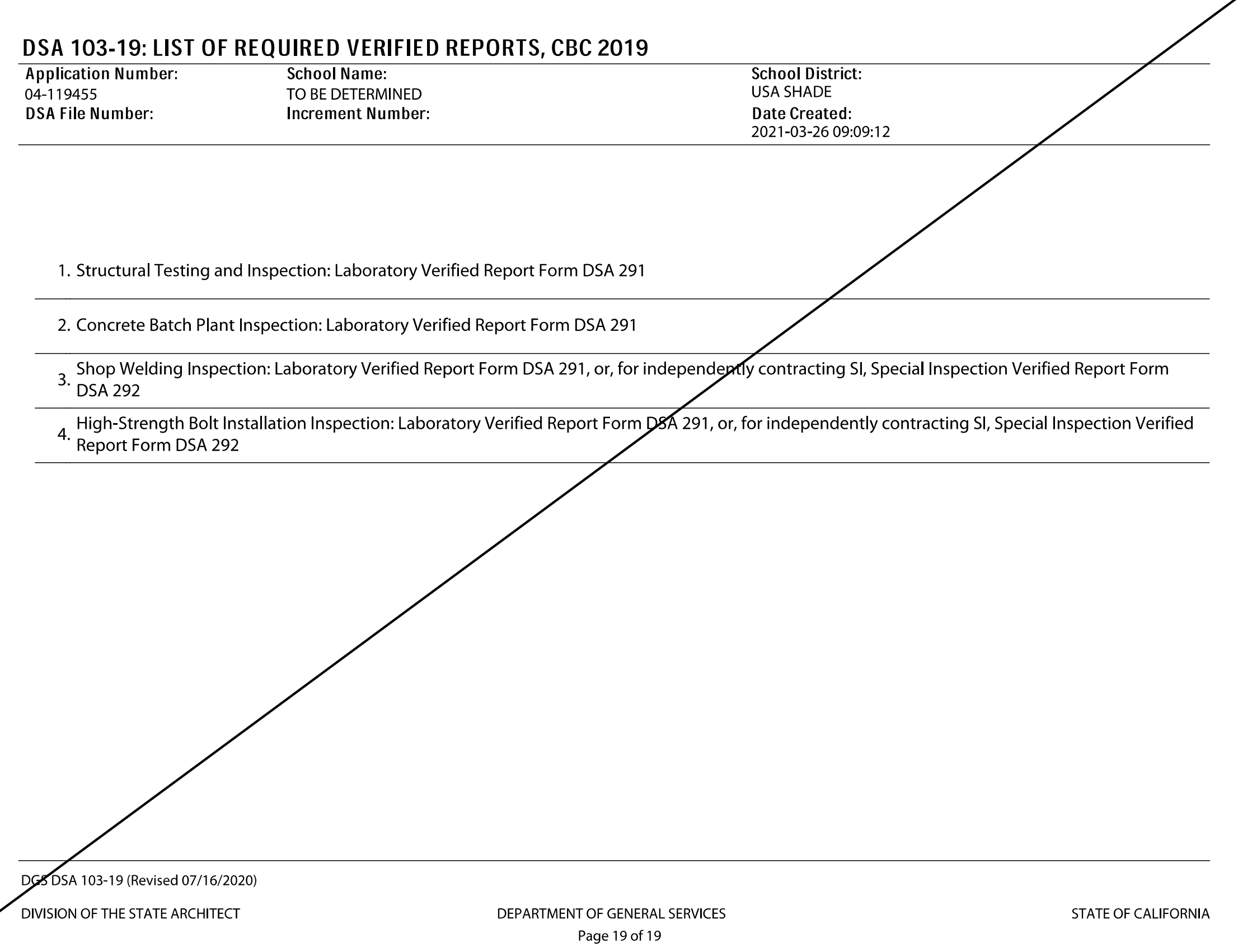

DSA 103-19: LIST OF REQUIRED VERIFIED REPORTS, CBC 2019

Application Number: 04-119455
School Name: TO BE DETERMINED
School District: USA SHADE
DSA File Number:
Increment Number:
Date Created: 2021-03-26 09:09:12

1. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
2. Concrete Batch Plant Inspection: Laboratory Verified Report Form DSA 291
3. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
4. High-Strength Bolt Installation Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

DGS DSA 103-19 (Revised 07/16/2020)

DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

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THE SAMPLE DSA-103 FORM SHOWN ON THIS SHEET IS FOR ILLUSTRATION PURPOSES ONLY TO ASSIST IN THE COMPLETION OF FUTURE PROJECTS SPECIFIC FORM DSA-103. A CURRENT DSA-103 FORM IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL SAMPLE DSA-103 SHEETS ARE TO BE CROSSED OUT ON THIS DRAWING.

ADDITIONAL TESTING AND INSPECTION NOTES:

1. THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE SELECTED BY THE SCHOOL DISTRICT AND APPROVED BY DSA AND THE ARCHITECT OF RECORD.
2. THE SITE PROJECT INSPECTOR SHALL BE CLASS 2.
3. THE COSTS OF THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE BORN BY THE SCHOOL DISTRICT.
4. COPIES OF VERIFIED REPORTS SHALL BE SENT TO DSA, THE ARCHITECT, THE SCHOOL DISTRICT, THE CONTRACTOR, AND THE PROJECT INSPECTOR.
5. THE IN PLANT INSPECTOR SHALL BE WELDING SPECIAL INSPECTOR FOR MATERIAL VERIFICATION AND WELDING.
6. PER 2019 CBC, SECTION 1705A.3.3, BATCH PLANT INSPECTION MAY BE WAIVED WHEN THE FOLLOWING REQUIREMENTS ARE MET:
   - 6.1. A LICENSED WEIGHMASTER SHALL POSITIVELY IDENTIFY QUANTITY OF MATERIALS AND CERTIFY EACH LOAD BY A BATCH TICKET.
   - 6.2. BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY THE TRUCK DRIVER WITH LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR OF RECORD SHALL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK IT'S LOAD, AND TIME OF RECEIPT AT THE JOBSITE, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND SHALL MAINTAIN A COPY OF THE DAILY RECORD AS REQUIRED BY THE ENFORCEMENT AGENCY.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN

USASHADE
& Fabric Structures®

CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Ventura County Office of Education

PROJECT NAME:
Gateway Community School South Annex

LOCATION:
200 Horizon Circle
Camarillo, CA 93010

MODEL NUMBER:

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-119455 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 03/26/2021

STRUCTURE TYPE:

SCALE : VARIES

DRAWING SIZE: **D**

PRE-CHECK (PC) DOCUMENT
Code : 2019 CBC
A separate project application for construction is required.

Eng. By :	**DWH**	**09/14/20**
Design By :	**DWH**	**09/14/20**
Approved By :	**DWH**	**09/14/20**

LICENSED ARCHITECT
DAVID HIGGINSON
NO.C19168
REN. 10-31-21

DRAWING DESCRIPTION:
DSA 103 SAMPLE FORMS

DWG.

SHEET **P.C. T-2.1**

REV.

SAMPLE DSA 103 - STATEMENT OF STRUCTURAL TESTS AND INSPECTIONS FORM - FOR ALL UNITS EXCEPT CANTILEVER AND SINGLE POST UNITS

GENERAL NOTES

DESIGN LOADS

BUILDING CODE	CBC 2019 (BASED ON IBC 2018)
LIVE LOADS	5 PSF
SNOW LOAD	5 PSF
WIND LOADS	115 MPH (3-Sec. Gust); EXPOSURE C; TOPOGRAPHIC FACTOR , Kzt = 1.0

1.- SPECIAL INSPECTION REQUIREMENTS SHALL FOLLOW THE ATTACHED SAMPLE TEST AND INSPECTION LIST (T & I LIST) APPROVED BY DSA. THE SHOP WELDING INSPECTION SHALL INCLUDE WELDING OF ALL STEEL MEMBERS AND IDENTIFICATION OF STEEL THROUGH MILL CERTIFICATE OR MATERIAL TESTING, UNCERTIFIED STEEL SHALL BE TESTED TO THE REQUIREMENTS OF CBC 2019 CHAPTER 17A. THE FIELD SPECIAL INSPECTION SHALL INCLUDE COMPRESSION CYLINDER TESTS FOR THE CONCRETE FOUNDATION.

2.- STRUCTURE SHALL BE IN THE LOCATION SHOWN ON THE SITE SPECIFIC DSA APPLICATION DRAWING.

3.- FOUNDATION DESIGN BASED ON CBC 2019, TABLE 1806A.2, SOIL CLASS 5 (ALLOWABLE FOUNDATION PRESSURE 1500 PSF)

4.- DESIGN PER FOLLOWING CODES: CBC 2019, ASCE 7-16, AISC 360-16, AISC 341-16, ACI 318-14, ASCE 55-16 & ASCE 19-16

STRUCTURAL STEEL

1.- FABRICATION OF THE STEEL STRUCTURES SHALL BE PERFORMED BY SHADE STRUCTURES OR AN AUTHORIZED LICENSEE. MATERIAL TESTING (OR MILL CERTIFICATES) AND INSPECTION OF WELDING SHALL BE CONDUCTED PER CBC 2019 SECTIONS 1704A, 1705A, 1705A.2, AND TABLE 1705A.2.1.

2.- ONLY CALIFORNIA LICENSED CONTRACTORS AUTHORIZED BY SHADE STRUCTURES SHALL INSTALL THE SHADE STRUCTURES.

3.- ALL WORK SHALL CONFORM TO CBC 2019 EDITION, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

4.- ALL STRUCTURAL SHAPES SHALL BE COLD FORMED HSS ASTM A500 GRADE B, UNLESS OTHERWISE NOTED. TYPICAL MECHANICAL PROPERTIES ACHIEVED FOR HSS PRODUCTS:

SQUARE AND RECTANGULAR	46,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS
ROUND PIPE	42,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

5.- ALL PLATES PRODUCTS SHALL COMPLY WITH ASTM A572 GRADE 50.

6.- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.

7.- ALL WELDING TO CONFORM WITH AMERICAN WELDING SOCIETY STANDARDS AND SHALL BE INSPECTED BY AN AWS/CWI INSPECTOR. AWS D1.1 FOR HOT ROLLED. AWS D1.3 FOR SHEET/COLD FORMED. AWS D1.8 SEISMIC SUPPLEMENT.

8.- ALL FULL PENETRATION WELD SHALL BE CONTINUOUSLY INSPECTED PER AWS D1.1 & D1.8.

9.- SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. FIELD CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS (IF REQUIRED). ALL FILLET WELDS SHALL BE A MINIMUM OF 3/16" ER70SX ELECTRODES UNLESS OTHERWISE NOTED. EITHER SMAW OR GMAW IS ACCEPTABLE.

10.- ALL STRUCTURAL STEEL (ITEMS FROM NOTE 4) SHALL BE POWDER COATED WITH ONE SHOP COAT (2.5 MILS MIN.) OF ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT, OR EQUIVALENT PAINT SYSTEM. THIS COAT IS A WEATHER RESISTANT POWDER COATING BASED ON POLYESTER TGIC (MANUFACTURED BY SHERWIN WILLIAMS, ASKO NOBEL, PPG OR TIGER DRYLAC). TO ACHIEVE OPTIMUM ADHESION, IT IS RECOMMENDED THAT THE PROPER TREATMENT AND DRYING TAKE PLACE BEFORE COATING. POLYESTER POWDER (TGIC) SPECIFICATIONS SHALL BE AS FOLLOWS:
- PENCIL HARDNESS (ASTM D-3363).
- HUMIDITY (ASTM D-2247).
- SOLVENT RESISTANCE (PCI METHOD) - 50 DBL RUBS SL. SOFTNESS.

11.- COLD-FORMED STEEL MEMBERS SHALL BE 55% ALUMINUM ZINC ALLOY COATED PER ASTM A792/A792M STANDARD IN ACCORDANCE TO AISI S200 TABLE A4-1, CP 90 COATING DESIGNATION. ALL EXPOSED STEEL FASTENERS SHALL BE STAINLESS STEEL (TYPE 304 MINIMUM), HOT DIP GALVANIZED (ASTM A153, CLASS D MINIMUM OR ASTM F2329), OR PROTECTED WITH CORROSION PREVENTIVE COATING THAT DEMONSTRATED NO MORE THAN 2% OF RED RUST IN MINIMUM 1,000 HOURS OF EXPOSURE IN SALT SPRAY TEST PER ASTM B117. ZINC-PLATED FASTENERS DO NOT COMPLY WITH THIS REQUIREMENT.

CONCRETE SPECIFICATION

1.- CONCRETE SHALL BE SAMPLED AND TESTED PER CBC 2019 SECTION 1903A & SHALL BE INSPECTED PER SECTION 1903A.

2.- CONCRETE TO BE F'c= 4500 PSI, TYPE V CEMENT, WATER/CEMENT RATIO OF 0.45, PER ACI 318-14 CHAPTER 5. REINFORCING STEEL TO BE Fy= 60000 PSI , MIN. GR. 60

3.- ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 55 (GALVANIZED PER ASTM A153, CLASS D MINIMUM OR ASTM F2329).
ANCHOR BOLT'S EMBEDMENT NEEDS TO BE AS FOLLOW:
A) ANCHOR BOLT Ø1 1/4" 30 IN (MINIMUM EMBEDMENT)

4.- CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.

5.- ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI, AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109, ASTM C939, ASTM C1090, ASTM C1107, WHEN APPLICABLE.

FABRIC SPECIFICATION

1.- FABRIC SHALL BE MANUFACTURED BY MULTIKNIT LTD. OR OTHER COMPANY WHO CAN MANUFACTURE FABRIC, WHICH MEETS THE SPECIFICATIONS LISTED ON PAGE 2000, AND SHALL BE FABRICATED FROM POLYETHYLENE MATERIALS.

2.- THE FABRIC SHALL RETAIN 80% OF ITS TENSILE AND TEARING STRENGTH AFTER ULTRAVIOLET EXPOSURE PER ASTM G53 USING A 313 NM LIGHT SOURCE FOR 500 HOURS WHILE MOISTENED FOR 1 HOUR EVERY 12 HOURS.

3.- PROVIDE CERTIFICATION BY MANUFACTURER AND STATE FIRE MARSHAL TO SCHOOL'S DISTRICT INSPECTOR OF RECORD AT SITE SPECIFIC INSTALLATION. COPY OF FIRE CERTIFICATION SHALL BE SENT TO DSA.

4.- FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE BY THE DISTRICT. FABRICS SAMPLES OF THE SAME MATERIAL WHICH ARE MAINTAINED AT THE PROJECTS SITE SHALL BE TESTED TO BE IN COMPLIANCE WITH ASTM D5034 AND D2261. THE ANNUAL TESTING ON THE APPROVED PLANS SHALL BE COMPARED TO THE FABRIC SPECIFICATIONS INDICATED IN NOTE 1 OF "FABRIC SPECIFICATION" ON THE APPROVED PLANS. THE FABRIC SHALL BE REPLACED WHEN THE TEST RESULTS RETURN LESS THAN 50% OF THE ULTIMATE VALUES IN NOTE 1 OF "FABRIC SPECIFICATION". FIRE TEST ON FABRIC: NFPA 701 TEST 2 AND ASTM E 84 EXTENDED 30 MINUTES TEST. FLAME SPREAD INDEX (FSI): 10. SMOKE DEVELOPED INDEX (SDI): 50. FABRIC IS ACCEPTABLE FOR USE IN WILDLIFE URBAN INTERFACE AREA.

5.- FABRIC TOP NEEDS TO BE REMOVED IF SNOW EXCEEDING 5 PSF ARE ANTICIPATED, FABRIC TOP NEEDS TO BE REMOVED IF WINDS EXCEEDING 115 MPH ARE ANTICIPATED.

6.- A VISUAL INSPECTION LOOKING FOR TEAR AND ABNORMAL WEAR IN FABRIC MATERIAL AND THREAD IS REQUIRED PRIOR TO RE-INSTALLATION. USA SHADE & FABRIC STRUCTURES SHALL BE NOTIFIED IF SIGNIFICANT DAMAGE IS PRESENT BEFORE RE-INSTALLATION.

AIRCRAFT CABLE

1.-FOR FABRIC ATTACHMENT USE 1/2" 6x19 GALV. CABLE PER ASTM A1023A, ASTM 1023M-02, WITH A BREAKING STRENGTH VALUE OF 20,700 LBS. CABLE SHALL BE TENSIONED TO 250 LBS MINIMUM. CABLE SHALL BE TENSIONED TO 250 LBS MINIMUM. THE MAXIMUM CALCULATED CABLE ALLOWABLE CAPACITY IS Sa=7056 LB.

2.- CABLES SHALL BE FED THROUGH THE FABRIC SLEEVES AROUND THE PERIMETER OF THE CANOPY AND TENSIONED UNTIL THE FABRIC PANELS (DESIGNED PURPOSELY UNDERSIZED) REACH A TAUT APPEARANCE. ANY LONG TERM CABLE SAG SHALL BE MINIMIZED DURING THE MAINTENANCE RE-TIGHTING VISITS AS REQUIRED.

CODE ANALYSIS

BUILDING	OCCUPANCY	CONST. TYPE	AREA (SQ. FT.)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
SHADE STRUCTURE					

MAXIMUM OCCUPANT LOAD (PER CBC 2019 TABLE 1604A.5)

-K-12:	250 PERSONS
-PUBLIC ASSEMBLY:	300 PERSONS
-EDUCATIONAL OCCUPANCIES ABOVE 12TH GRADE:	500 PERSONS

2019 CBC PC DESIGN NOTES

FLOOR LIVE LOAD	N/A	
ROOF LIVE LOAD	RLL	5 PSF

ALLOWABLE SOIL PRESSURE:

DL + LL (CONC FTG)	1500 PSF
DL + LL + SEISMIC (CONC FTG)	1500 PSF
LATERAL BEARING DESIGN VALUE	100 PSF/FT BELOW NATURAL GRADE, PER TABLE 1806A.2

TWO TIMES THE TABULAR VALUE IS USED (200 PSF/FT)
PER CBC SECTION 1806A.3.4.
ALLOWABLE PIER FRICTIONAL RESISTANCE 250 PSF MAXIMUM
BASED ON SECTION 1810A.3.3.1.4 (ONE-SIXTH OF THE BEARING VALUE).
UPLIFT FRICTIONAL RESISTANCE HAVE A SAFETY FACTOR OF 3.

ROOF SNOW LOAD	5 PSF
ICE LOAD	ZERO PSF
FLOOD HAZARD AREA	NO

WHEN A SITE SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOILS ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.

WIND DESIGN DIRECTIONAL PROCEDURE: ASCE 7-16, SECTION 27.3.2

-BASIC DESIGN WIND SPEED (3 SEC GUST)	V	115 MPH
-WIND EXPOSURE FACTOR	C	
-TOPOGRAPHIC FACTOR	Kzt	1
-RISK CATEGORY	II	
-VELOCITY PRESSURE EXPOSURE COEFFICIENT	Kz	0.88
-VELOCITY PRESSURE	qz	25.32 PSF

SEISMIC DESIGN:

-SITE CLASS	D	
	SS	3.00g
	S1	1.389g
-SPECTRAL RESPONSE COEFFICIENTS	SDS	2.00
	SD1	1.39

-LATERAL FORCE RESISTING SYSTEM G.2 ORDINARY CANTILEVERED COLUMN SYSTEM.

-SEISMIC IMPORTANCE FACTOR	I	1.0
-DESIGN BASE SHEAR	V	22638 LB
-SEISMIC RESPONSE COEFFICIENTS	Cs	1.6
-RESPONSE MODIFICATION FACTOR	R	1.25
-ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE	
-RISK CATEGORY	II	
-SEISMIC DESIGN CATEGORY		E
-SITE COEFFICIENT CATEGORY	Fa	1
	Fv	1.5

GEOHAZARD REPORT IS NOT REQUIRED FOR OPEN FABRIC STRUCTURES 1,600 SQF OR LESS COMPLYING WITH THE REQUIREMENTS OF IR A-4 SECTION 3.1.1. OPEN FABRIC SHADE STRUCTURES GREATER THAN 1,600 SQUARE FEET UP TO A MAXIMUM OF 4,000 SQUARE FEET AND COMPLYING WITH THE REQUIREMENTS NOTED IN IR A-4 SECTION 3.1.1 DO NOT REQUIRE A GEOHAZARD REPORT PROVIDED A GEOTECHNICAL REPORT INDICATES THAT NO LIQUEFACTION POTENTIAL EXISTS.

ARCHITECT OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

PC OPTIONS SHALL NOT INCLUDE LIQUEFIABLE SOIL (EXCEPTION: OPEN FABRIC SHADE STRUCTURES 1,600 SQUARE FEET OR LESS COMPLYING WITH REQUIREMENTS OF IR A-4 SECTION 3.1.1). IF STRUCTURE IS LOCATED IN AN AREA WITH LIQUEFIABLE SOIL OR SITE CLASS F, OVER-THE-COUNTER SUBMITTAL IS NOT ALLOWED AND REGULAR PROJECT SUBMITTAL IS REQUIRED. IF SITE IS NOT IN A MAPPED LIQUEFACTION HAZARD ZONE, IT MAY BE PRESUMED THAT NO LIQUEFACTION HAZARD EXISTS ON THAT SITE UNLESS A SITE-SPECIFIC GEOTECHNICAL REPORT IDENTIFIES SUCH HAZARD.

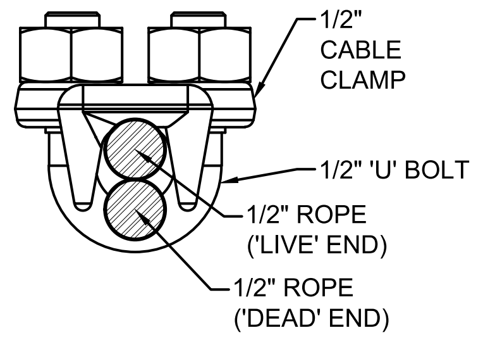
MINIMUM FOUNDATION SETBACK LIMIT IN ADJACENT SLOPE: THE DEPTH OF REQUIRED PIER EMBEDMENT SHALL START FROM AN ELEVATION THAT CORRESPONDS WITH A HORIZONTAL CLEAR DISTANCE OF 24'-6" THAT INTERSECT WITH THE SLOPE (DAYLIGHTING). IF SETBACK LIMITS ARE SMALLER THAN CBC REQUIRES, A SITE-SPECIFIC SOILS REPORT IS REQUIRED.

MINIMUM CLASS 2 PROJECT INSPECTOR REQUIRED.

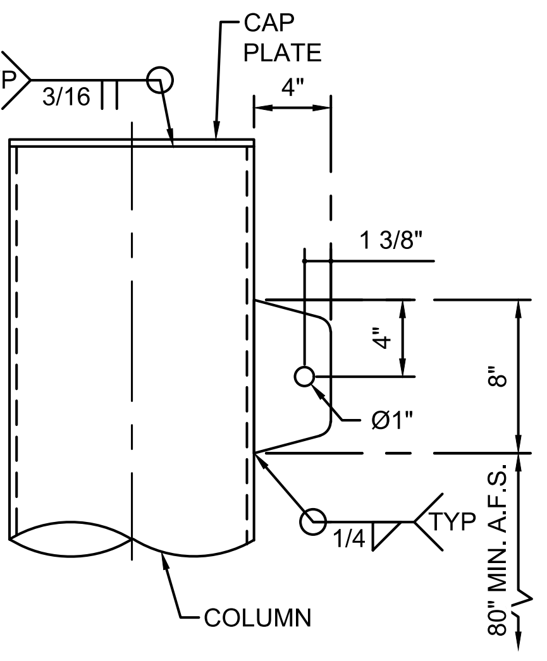
FOOTPRINT CONFIGURATION

1.- THE STRUCTURE CAN BE A SINGLE 4 POST TENSION SAIL.

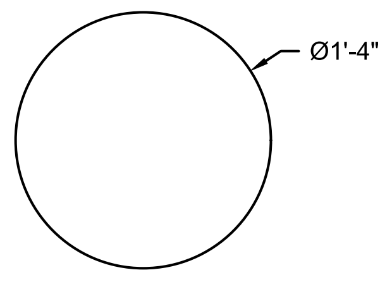
2.- THE STRUCTURE CAN BE PLACED FOLLOWING A CURVED CONFIGURATION AS LONG AS THE MAXIMUM DIMENSIONS ARE NOT EXCEEDED.



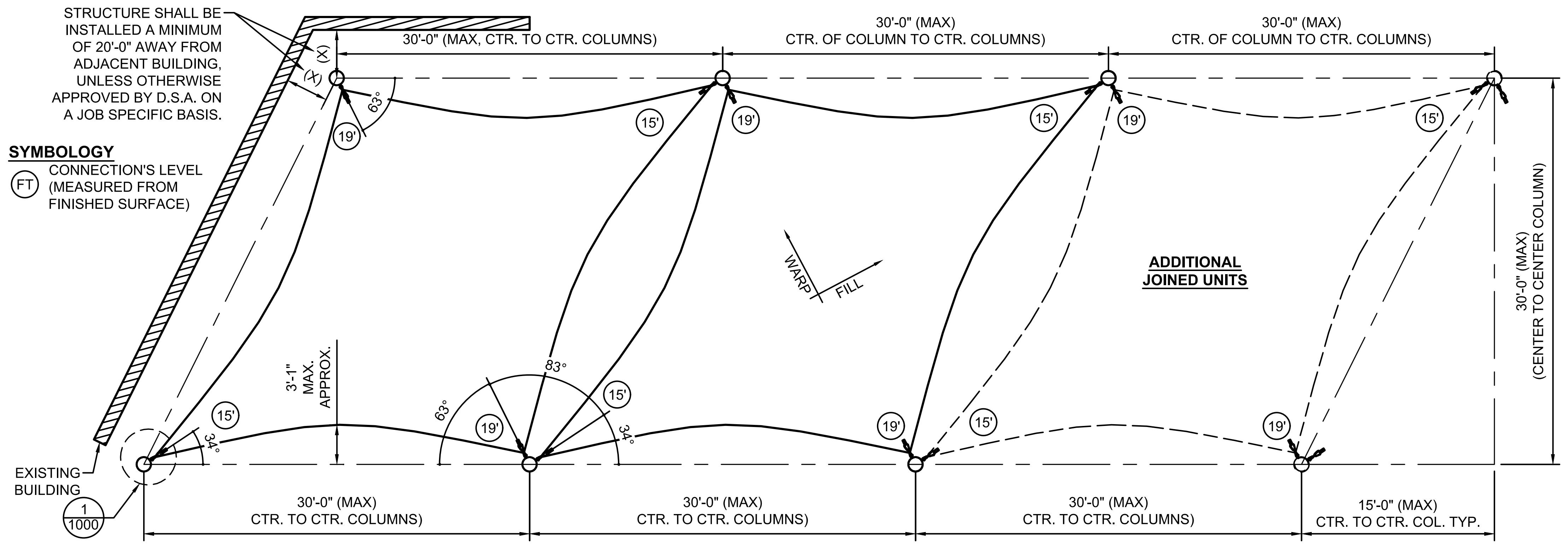
VIEW A-A
REFER TO DETAIL 1



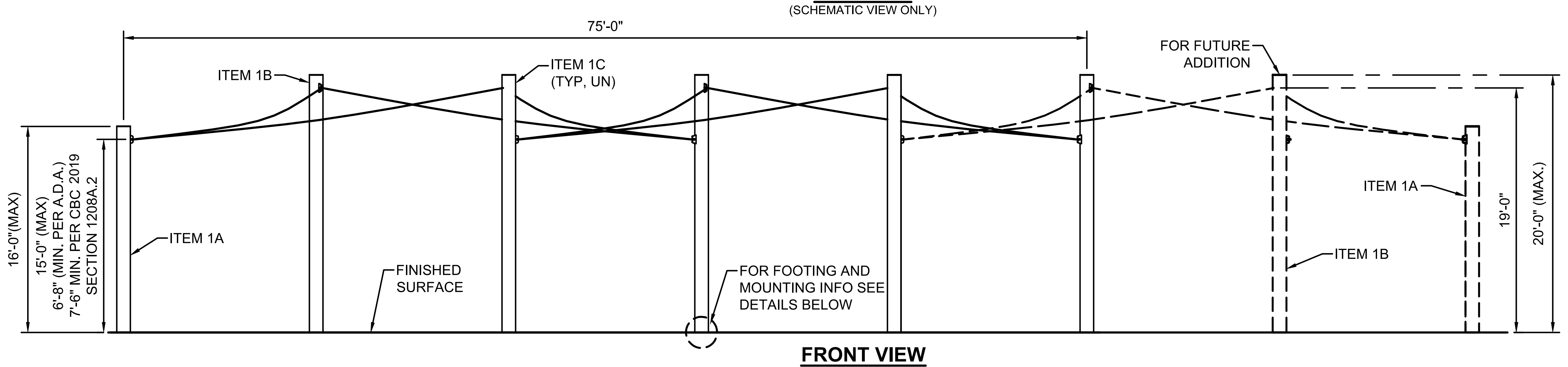
DETAIL 2
REFER TO SIDE VIEW



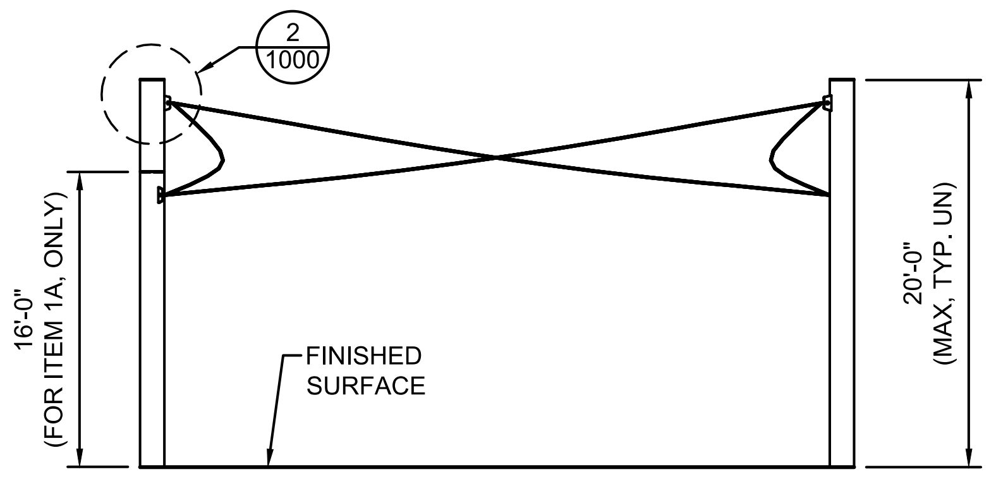
CAP PLATE
(3/8" THK)
(BOTTOM OF PIH COLUMNS)


STRUCTURE SHALL BE INSTALLED A MINIMUM OF 20'-0" AWAY FROM ADJACENT BUILDING, UNLESS OTHERWISE APPROVED BY D.S.A. ON A JOB SPECIFIC BASIS.
(X)
(X)
30'-0" (MAX, CTR. TO CTR. COLUMNS)
30'-0" (MAX) CTR. OF COLUMN TO CTR. COLUMNS)
30'-0" (MAX) CTR. OF COLUMN TO CTR. COLUMNS)
SYMBOLOGY
FT
CONNECTION'S LEVEL (MEASURED FROM FINISHED SURFACE)
63°
19'
15'
19'
15'
19'
15'
WARP
FILL
ADDITIONAL JOINED UNITS
30'-0" (MAX) (CENTER TO CENTER COLUMN)
3'-1" MAX. APPROX.
83°
63°
34°
34°
15'
19'
15'
19'
15'
19'
EXISTING BUILDING
1
1000
30'-0" (MAX) CTR. TO CTR. COLUMNS)
30'-0" (MAX) CTR. TO CTR. COLUMNS)
30'-0" (MAX) CTR. TO CTR. COLUMNS)
15'-0" (MAX) CTR. TO CTR. COL. TYP.

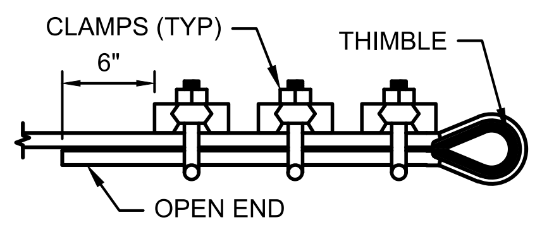
TOP VIEW
(SCHEMATIC VIEW ONLY)


75'-0"
ITEM 1B
ITEM 1C (TYP, UN)
FOR FUTURE ADDITION
16'-0"(MAX)
15'-0" (MAX) 6'-8" (MIN. PER A.D.A.) 7'-6" MIN. PER CBC 2019 SECTION 1208A.2
ITEM 1A
FINISHED SURFACE
FOR FOOTING AND MOUNTING INFO SEE DETAILS BELOW
ITEM 1A
ITEM 1B
19'-0"
20'-0" (MAX.)

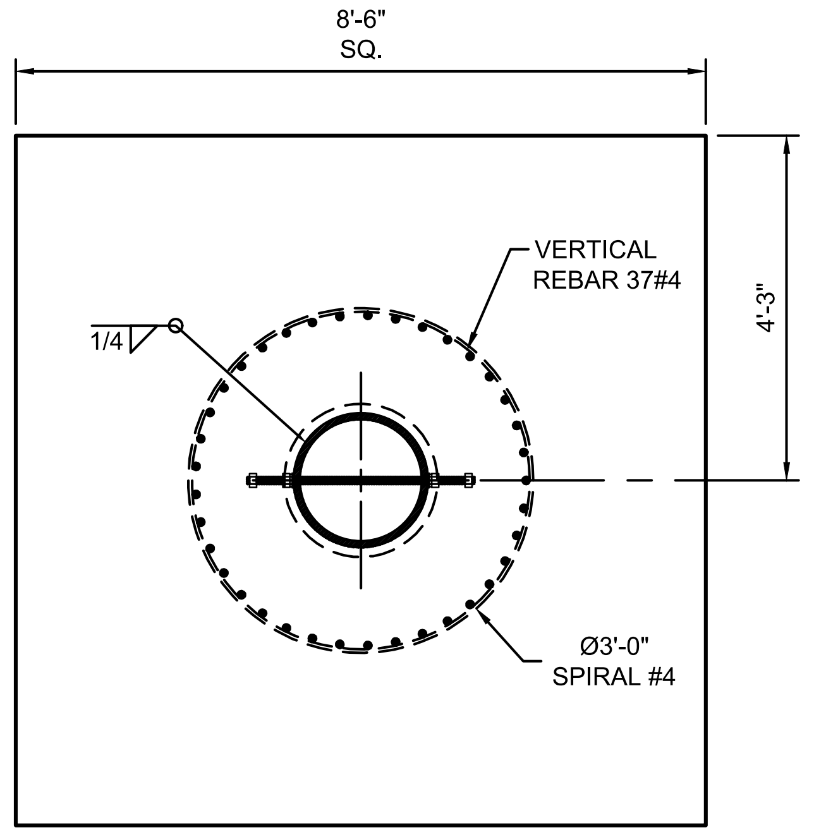
FRONT VIEW
(SCHEMATIC VIEW ONLY)



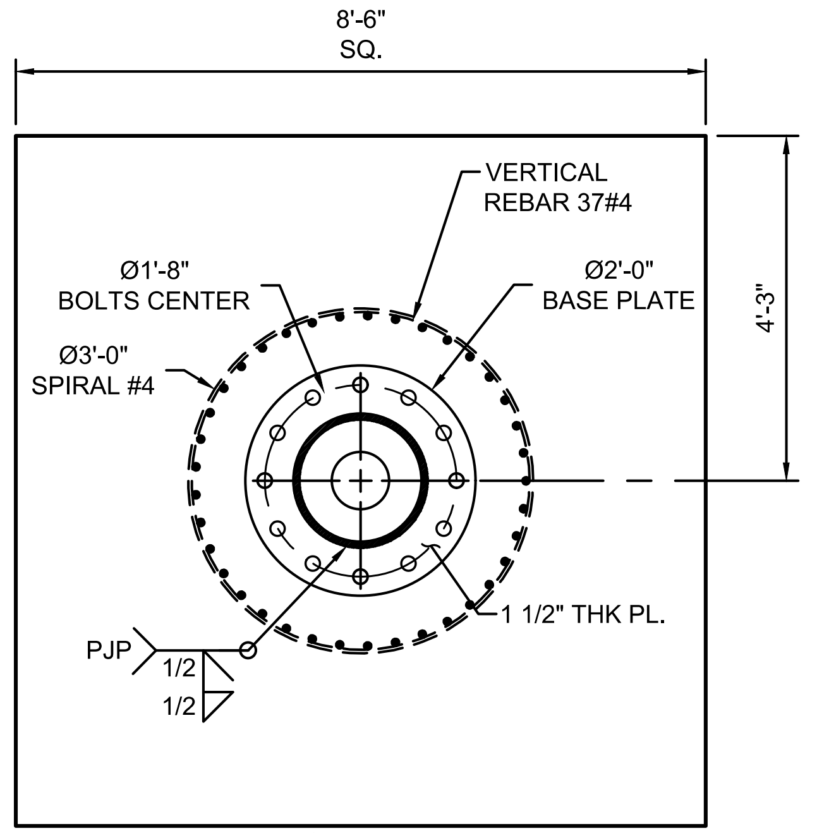
SIDE VIEW
(SCHEMATIC VIEW ONLY)



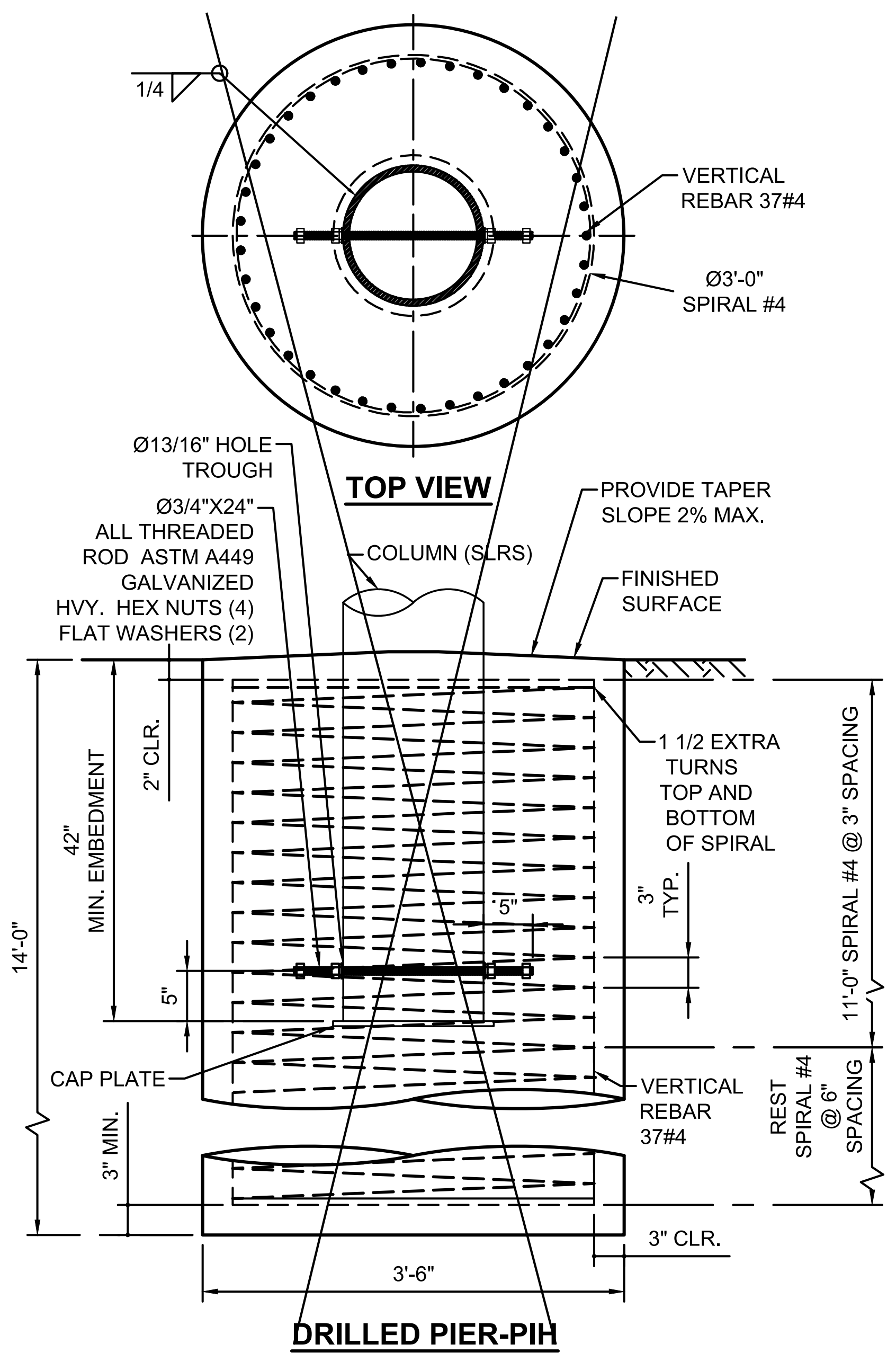
CABLE ASSEMBLY



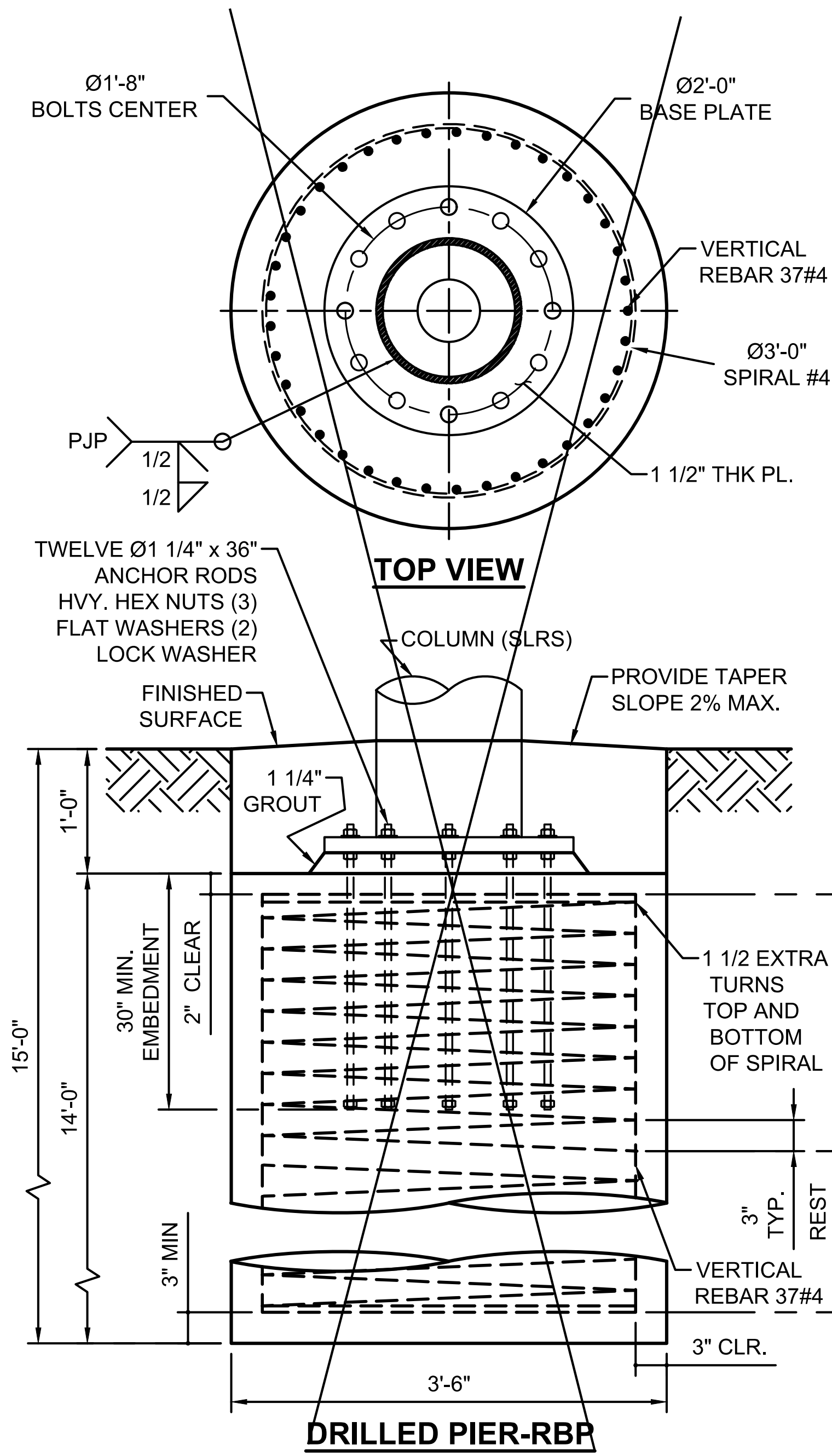
TOP VIEW



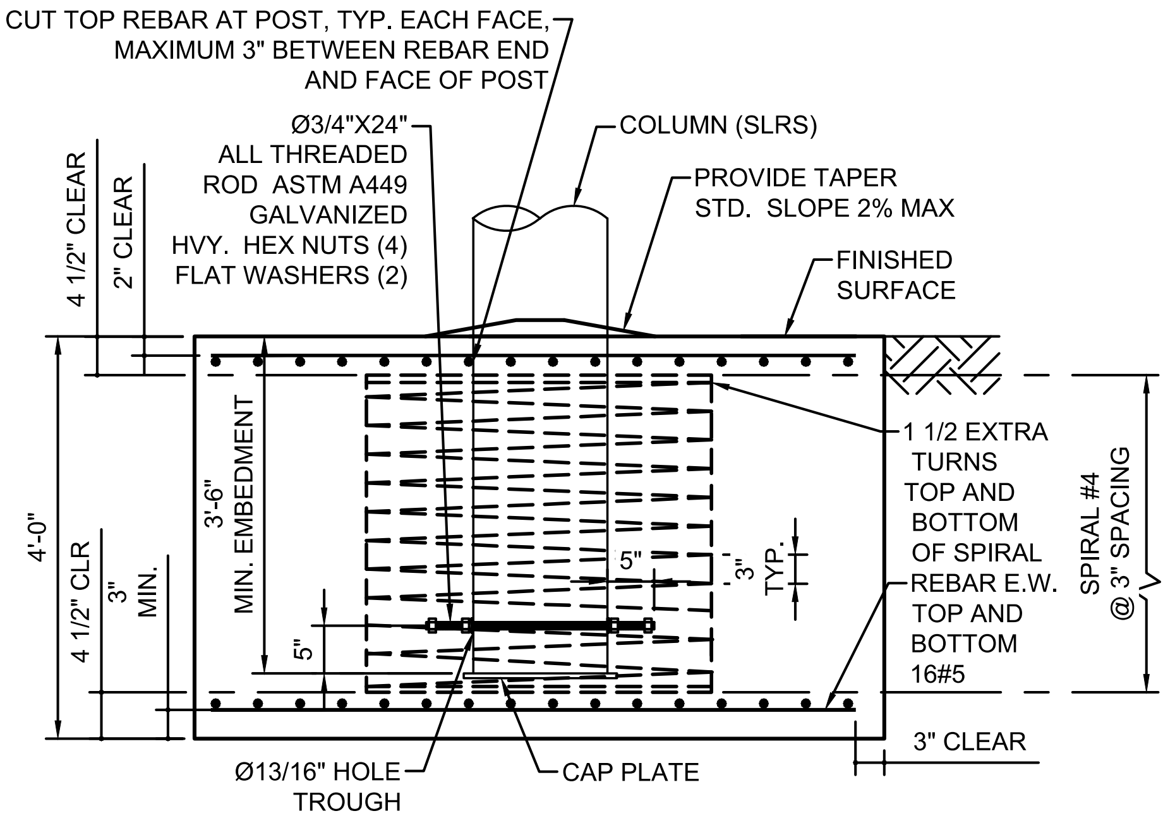
TOP VIEW


1/4
VERTICAL REBAR 37#4
Ø3'-0" SPIRAL #4
TOP VIEW
Ø13/16" HOLE TROUGH
Ø3/4"X24" ALL THREADED ROD ASTM A449 GALVANIZED HVY. HEX NUTS (4) FLAT WASHERS (2)
COLUMN (SLRS)
PROVIDE TAPER SLOPE 2% MAX.
FINISHED SURFACE
2" CLR.
42" MIN. EMBEDMENT
1 1/2 EXTRA TURNS TOP AND BOTTOM OF SPIRAL
11'-0" SPIRAL #4 @ 3" SPACING
3" TYP.
5"
5"
14'-0"
CAP PLATE
VERTICAL REBAR 37#4
REST SPIRAL #4 @ 6" SPACING
3" MIN.
3" CLR.
3'-6"

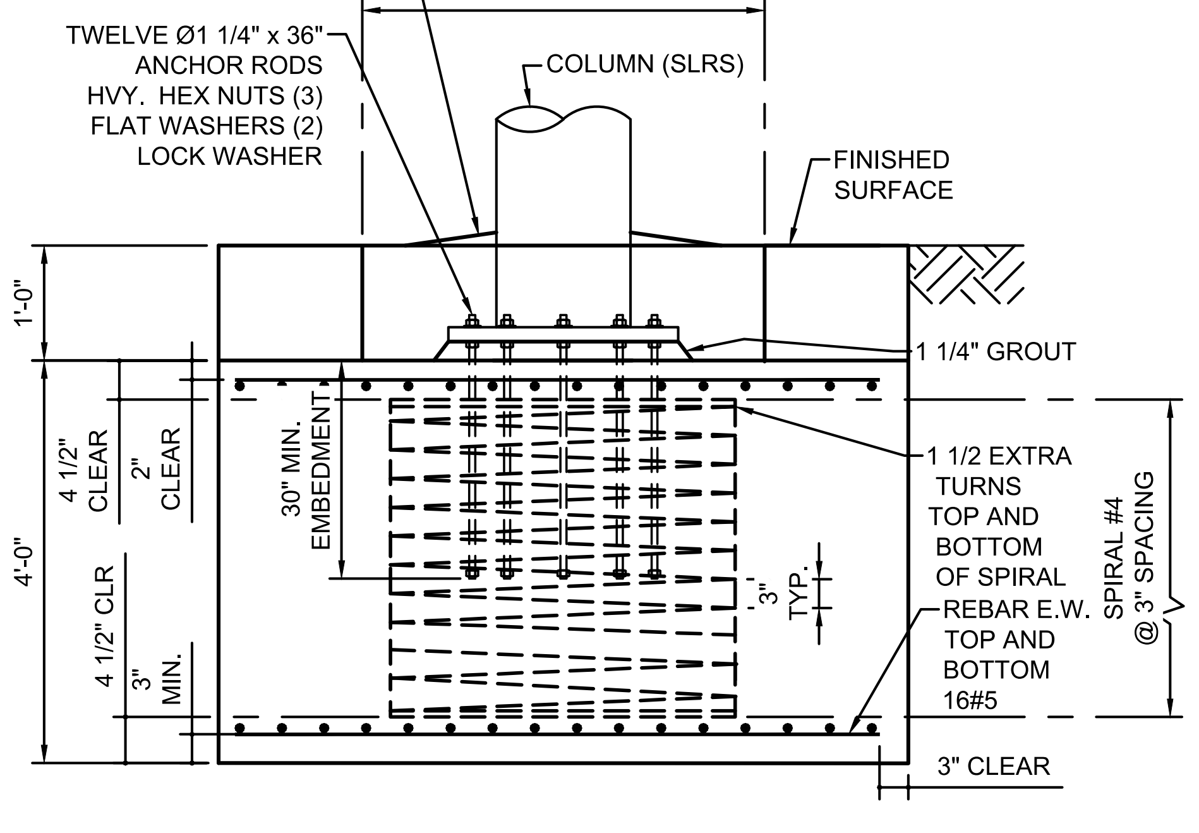
DRILLED PIER-PIH
(EMBEDDED, PIH)
(USE FOR NON-CONSTRAINED CASES)



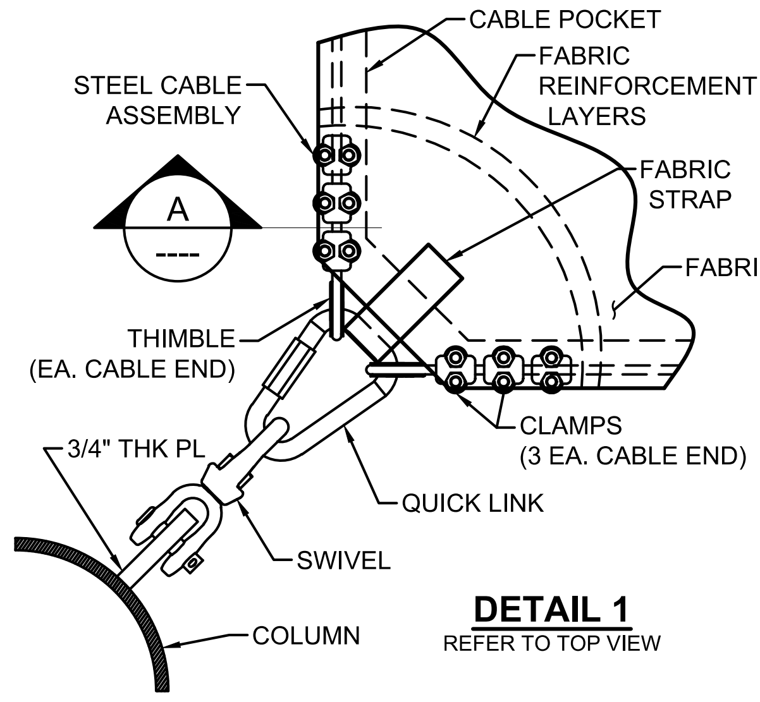
DRILLED PIER-RBP
(RECESSED BASE PLATE, RBP)
(USE FOR NON-CONSTRAINED CASES)
(OPTIONAL)


CUT TOP REBAR AT POST, TYP. EACH FACE, MAXIMUM 3" BETWEEN REBAR END AND FACE OF POST
Ø3/4"X24" ALL THREADED ROD ASTM A449 GALVANIZED HVY. HEX NUTS (4) FLAT WASHERS (2)
COLUMN (SLRS)
PROVIDE TAPER STD. SLOPE 2% MAX
FINISHED SURFACE
4 1/2" CLEAR
2" CLEAR
3'-6" MIN. EMBEDMENT
4'-0"
4 1/2" CLR
3" MIN.
5"
5"
3" TYP.
1 1/2 EXTRA TURNS TOP AND BOTTOM OF SPIRAL
REBAR E.W. TOP AND BOTTOM 16#5
SPIRAL #4 @ 3" SPACING
3" CLEAR
Ø13/16" HOLE TROUGH
CAP PLATE

ALTERNATE SPREAD FOOTING
(EMBEDDED, PIH)
(OPTIONAL)


PROVIDE TAPER STD. SLOPE 2% MAX
3'-6" SECOND POUR
TWELVE Ø1 1/4" x 36" ANCHOR RODS HVY. HEX NUTS (3) FLAT WASHERS (2) LOCK WASHER
COLUMN (SLRS)
FINISHED SURFACE
1'-0"
1 1/4" GROUT
4 1/2" CLEAR
2" CLEAR
30" MIN. EMBEDMENT
4'-0"
4 1/2" CLR
3" MIN.
3" TYP.
1 1/2 EXTRA TURNS TOP AND BOTTOM OF SPIRAL
REBAR E.W. TOP AND BOTTOM 16#5
SPIRAL #4 @ 3" SPACING
3" CLEAR

ALTERNATE SPREAD FOOTING
(RECESSED BASE PLATE, RBP)
(OPTIONAL)



DETAIL 1
REFER TO TOP VIEW

LIST OF MATERIALS

ITEM	QTY	DESCRIPTION	MATERIAL
1A	TBD	COLUMN	HSS 14.0 x 0.625
1B	TBD	COLUMN	HSS 14.0 x 0.625
1C	TBD	COLUMN	HSS 14.0 x 0.625
2	TBD	FABRIC TOP	FR COLOURSHADE Z25
3	TBD	Ø1/2" CABLE	GALVANIZED STEEL
4	TBD	Ø1/2" THIMBLE	GALVANIZED
5	TBD	Ø1/2" CABLE CLAMP	GALVANIZED
6	TBD	3/4" SWIVEL JAW END	GALVANIZED (W.L. = 7200 LB)
7	TBD	25/32" QUICK LINK	ZINC PLATED (W.L. = 6613 LB)
8	TBD	CAP PLATE (3/8" THK)	ASTM A572 GR. 50
9	TBD	GUSSET PLATE (3/4" THK)	ASTM A572 GR. 50

DAVID HIGGINSON
NO.C19166
REN. 10-31-21

MARK ALBERT LOWE
No. 3593
12/04/2020

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Ventura County Office of Education

PROJECT NAME:
Gateway Community School South Annex

LOCATION:
200 Horizon Circle
Camarillo, CA 93010

MODEL NUMBER:
DSA4183030-19

~~APPROVED~~
~~DIV. OF THE STATE ARCHITECT~~
~~APP: 04-119455 PC~~
~~REVIEWED FOR~~
~~SS ☑ FLS ☑ ACS ☒ CG ☐~~
~~DATE: 03/26/2021~~

STRUCTURE TYPE:
TENSION SAILS
DSA

SIZE: **MAXIMUM**
30' x 133' MAX. x 15'e

SCALE : NONE

DRAWING SIZE: **D**

PRE-CHECK (PC) DOCUMENT
Code : 2019 CBC
A separate project application for construction is required.

Eng. By :	**JO**	**06/26/20**
Design By :	**JO**	**06/26/20**
Approved By :	**JO**	**06/26/20**

DRAWING DESCRIPTION:
PRODUCT INFORMATION

DWG. **DSA4183030-19**

SHEET **15.1-1000**

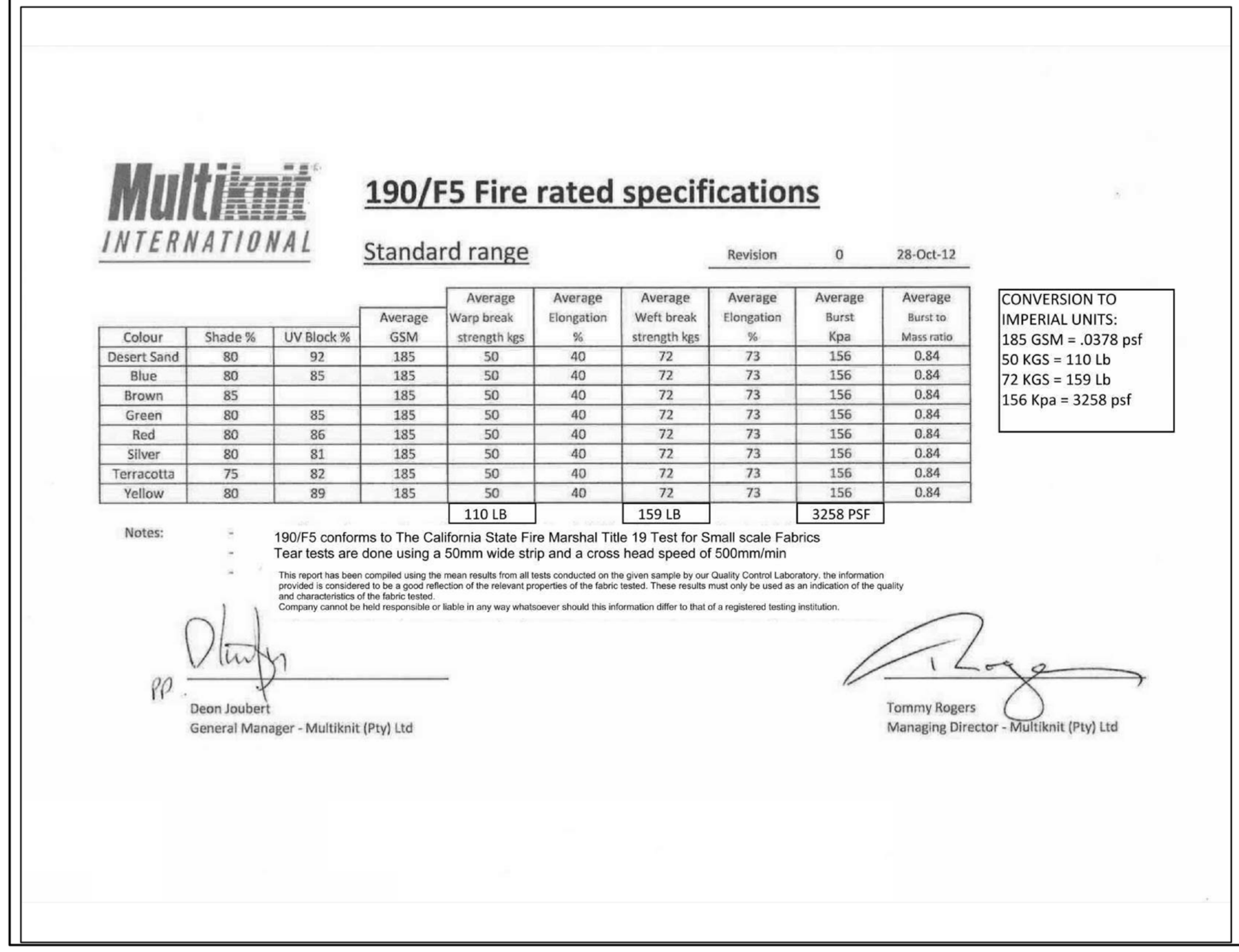
REV. **NC**

ENVELOPE JOINT REACTIONS

Shear resultant $= \sqrt{Px^2 + Py^2 + Pz^2}$ Moment resultant $= \sqrt{Mx^2 + My^2 + Mz^2}$

ASD REACTIONS

Node		Support Forces [kip]			Support Moments [kipft]				Support Forces [kip]	Support Moments [kipft]	Support Forces [kip]	Support Forces [kip]
No.		P_X	P_Y	P_Z	M_X	M_Y	M_Z		SHEAR RESULTANT	MOMENT RESULTANT	UPLIFT	AXIAL
						MAXIMUM REACTIONS			6.620	118.071	1.921	-5.007
Node		Support Forces [kip]			Support Moments [kipft]							
No.		P_X	P_Y	P_Z	M_X	M_Y	M_Z					
1	Max	4.635	3.291	0.629	0.000	73.212	0.260					
	Min	0.000	0.000	-2.225	-45.534	0.000	-0.330					
	Max P_X	4.635	2.365	-2.225	-38.044	73.212	-0.200	CO 10	5.204	82.507		-2.225
	Min P_X	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_Y	2.358	3.291	-2.150	-42.436	37.802	-0.024	CO 15	4.049	56.831		-2.150
	Min P_Y	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_Z	3.855	2.333	0.629	-34.982	60.674	-0.206	CO 5	4.506	70.036	0.629	
	Min P_Z	4.635	2.365	-2.225	-38.044	73.212	-0.200	CO 10	5.204	82.507		-2.225
	Max M_X	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Min M_X	4.068	2.914	-2.193	-45.534	65.407	0.089	CO 11	5.004	79.696		-2.193
	Max M_Y	4.635	2.365	-2.225	-38.044	73.212	-0.200	CO 10	5.204	82.507		-2.225
	Min M_Y	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max M_Z	3.162	2.230	0.541	-35.070	47.890	0.260	CO 33	3.869	59.358	0.541	
	Min M_Z	3.885	1.617	-1.534	-26.071	60.783	-0.330	CO 31	4.208	66.138		-1.534
6	Max	3.059	1.781	0.271	72.261	45.421	0.007					
	Min	0.000	-3.544	-4.438	-11.785	0.000	-0.082					
	Max P_X	3.059	-1.905	-3.130	38.784	43.880	0.006	CO 14	3.604	58.563		-3.130
	Min P_X	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_Y	0.456	1.781	-0.701	-11.785	9.182	0.004	CO 19	1.838	14.940		-0.701
	Min P_Y	2.341	-3.544	-3.763	72.261	45.421	-0.047	CO 10	4.247	85.351		-3.763
	Max P_Z	1.786	-2.390	0.271	46.998	32.238	-0.002	CO 4	2.984	56.992	0.271	
	Min P_Z	1.558	-2.272	-4.438	49.428	32.232	0.005	CO 11	2.755	59.009		-4.438
	Max M_X	2.341	-3.544	-3.763	72.261	45.421	-0.047	CO 10	4.247	85.351		-3.763
	Min M_X	0.456	1.781	-0.701	-11.785	9.182	0.004	CO 19	1.838	14.940		-0.701
	Max M_Y	2.341	-3.544	-3.763	72.261	45.421	-0.047	CO 10	4.247	85.351		-3.763
	Min M_Y	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max M_Z	1.236	-1.600	-1.254	31.736	22.312	0.007	CO 12	2.022	38.794		-1.254
	Min M_Z	1.842	-2.906	-0.739	60.934	36.731	-0.082	CO 5	3.441	71.149		-0.739
11	Max	3.056	6.365	1.921	0.000	43.142	0.186					
	Min	0.000	0.000	-4.992	-116.418	0.000	-0.289					
	Max P_X	3.056	3.228	-3.197	-59.753	33.567	-0.015	CO 14	4.445	68.536		-3.197
	Min P_X	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_Y	1.821	6.365	-4.219	-116.418	19.688	0.068	CO 11	6.620	118.071		-4.219
	Min P_Y	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_Z	2.272	4.579	1.921	-79.281	29.520	-0.160	CO 5	5.112	84.599	1.921	
	Min P_Z	2.909	4.750	-4.992	-88.023	37.836	-0.151	CO 10	5.570	95.810		-4.992
	Max M_X	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Min M_X	1.821	6.365	-4.219	-116.418	19.688	0.068	CO 11	6.620	118.071		-4.219
	Max M_Y	3.031	2.631	-3.787	-48.203	43.142	-0.289	CO 31	4.014	64.690		-3.787
	Min M_Y	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max M_Z	1.439	4.994	0.962	-90.295	13.544	0.186	CO 33	5.197	91.305	0.962	
	Min M_Z	3.031	2.631	-3.787	-48.203	43.142	-0.289	CO 31	4.014	64.690		-3.787
17	Max	2.112	1.252	1.906	112.264	22.198	0.258					
	Min	-2.609	-6.047	-4.941	-3.366	-38.236	-0.222					
	Max P_X	2.112	-1.324	-0.573	24.373	22.180	-0.007	CO 18	2.493	32.954		-0.573
	Min P_X	-2.609	-2.260	-3.635	43.586	-38.236	-0.222	CO 32	3.452	57.980		-3.635
	Max P_Y	-0.462	1.252	-0.564	-3.366	-5.444	-0.014	CO 19	1.335	6.401		-0.564
	Min P_Y	-1.496	-6.047	-4.270	112.264	-15.880	0.132	CO 10	6.229	113.382		-4.270
	Max P_Z	-1.867	-4.264	1.906	75.993	-24.734	-0.132	CO 4	4.655	79.917	1.906	
	Min P_Z	-2.578	-4.468	-4.941	84.512	-33.863	-0.090	CO 11	5.158	91.044		-4.941
	Max M_X	-1.496	-6.047	-4.270	112.264	-15.880	0.132	CO 10	6.229	113.382		-4.270
	Min M_X	-0.462	1.252	-0.564	-3.366	-5.444	-0.014	CO 19	1.335	6.401		-0.564
	Max M_Y	2.112	-1.329	-2.271	24.519	22.198	-0.007	CO 16	2.495	33.075		-2.271
	Min M_Y	-2.609	-2.260	-3.635	43.586	-38.236	-0.222	CO 32	3.452	57.980		-3.635
	Max M_Z	-0.776	-5.077	-3.113	94.130	-6.621	0.258	CO 31	5.136	94.363		-3.113
	Min M_Z	-2.609	-2.260	-3.635	43.586	-38.236	-0.222	CO 32	3.452	57.980		-3.635
23	Max	3.037	6.369	1.907	0.000	41.260	0.237					
	Min	0.000	0.000	-5.007	-116.532	0.000	-0.243					
	Max P_X	3.037	1.329	-2.257	-24.309	32.870	-0.006	CO 16	3.315	40.882		-2.257
	Min P_X	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_Y	1.677	6.369	-4.239	-116.532	17.180	0.122	CO 11	6.586	117.792		-4.239
	Min P_Y	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_Z	2.181	4.578	1.907	-79.284	28.020	-0.128	CO 5	5.071	84.090	1.907	
	Min P_Z	2.781	4.749	-5.007	-88.017	35.657	-0.103	CO 10	5.503	94.965		-5.007
	Max M_X	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Min M_X	1.677	6.369	-4.239	-116.532	17.180	0.122	CO 11	6.586	117.792		-4.239
	Max M_Y	2.918	2.634	-3.799	-48.245	41.260	-0.243	CO 31	3.931	63.482		-3.799
	Min M_Y	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max M_Z	1.006	5.464	-2.984	-99.006	8.229	0.237	CO 32	5.556	99.347		-2.984
	Min M_Z	2.918	2.634	-3.799	-48.245	41.260	-0.243	CO 31	3.931	63.482		-3.799
29	Max	2.113	1.252	1.921	112.155	22.207	0.204					
	Min	-2.716	-6.043	-4.927	-3.365	-40.001	-0.265					
	Max P_X	2.113	-1.323	-0.573	24.363	22.191	-0.006	CO 18	2.493	32.954		-0.573
	Min P_X	-2.716	-2.258	-3.624	43.552	-40.001	-0.265	CO 32	3.532	59.134		-3.624
	Max P_Y	-0.462	1.252	-0.565	-3.365	-5.435	-0.013	CO 19	1.335	6.392		-0.565
	Min P_Y	-1.635	-6.043	-4.251	112.155	-18.297	0.080	CO 10	6.260	113.638		-4.251
	Max P_Z	-1.957	-4.264	1.921	75.989	-26.231	-0.164	CO 4	4.692	80.389	1.921	
	Min P_Z	-2.704	-4.469	-4.927	84.521	-35.994	-0.137	CO 11	5.223	91.866		-4.927
	Max M_X	-1.635	-6.043	-4.251	112.155	-18.297	0.080	CO 10	6.260	113.638		-4.251
	Min M_X	-0.462	1.252	-0.565	-3.365	-5.435	-0.013	CO 19	1.335	6.392		-0.565
	Max M_Y	2.113	-1.329	-2.271	24.508	22.207	-0.006	CO 16	2.496	33.073		-2.271
	Min M_Y	-2.716	-2.258	-3.624	43.552	-40.001	-0.265	CO 32	3.532	59.134		-3.624
	Max M_Z	-0.911	-5.071	-3.094	93.988	-9.012	0.204	CO 31	5.152	94.419		-3.094
	Min M_Z	-2.716	-2.258	-3.624	43.552	-40.001	-0.265	CO 32	3.532	59.134		-3.624
35	Max	2.036	3.883	0.271	0.000	16.921	0.009					
	Min	-2.173	0.000	-4.486	-76.797	-44.308	-0.083					
	Max P_X	2.036	0.738	-0.703	-14.855	16.921	0.009	CO 18	2.166	22.516		-0.703
	Min P_X	-2.173	3.883	-3.752	-76.797	-44.308	-0.048	CO 11	4.450	88.662		-3.752
	Max P_Y	-2.173	3.883	-3.752	-76.797	-44.308	-0.048	CO 11	4.450	88.662		-3.752
	Min P_Y	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_Z	-1.474	2.703	0.271	-50.271	-28.977	-0.003	CO 5	3.079	58.024	0.271	
	Min P_Z	-1.358	2.573	-4.486	-53.238	-30.499	0.001	CO 10	2.909	61.355		-4.486
	Max M_X	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Min M_X	-2.173	3.883	-3.752	-76.797	-44.308	-0.048	CO 11	4.450	88.662		-3.752
	Max M_Y	2.036	0.738	-0.703	-14.855	16.921	0.009	CO 18	2.166	22.516		-0.703
	Min M_Y	-2.173	3.883	-3.752	-76.797	-44.308	-0.048	CO 11	4.450	88.662		-3.752
	Max M_Z	2.033	0.742	-2.377	-14.960	16.866	0.009	CO 16	2.164	22.545		-2.377
	Min M_Z	-1.529	3.219	-0.739	-64.214	-33.469	-0.083	CO 4	3.564	72.413		-0.739
39	Max	1.615	1.970	0.629	43.309	12.166	0.266					
	Min	-4.395	-2.694	-2.214	-17.824	-70.651	-0.307					
	Max P_X	1.615	-0.538	-0.414	8.562	12.166	-0.009	CO 18	1.702	14.877		-0.414
	Min P_X	-4.395	-2.148	-2.207	35.870	-70.651	-0.188	CO 11	4.892	79.235		-2.207
	Max P_Y	-0.919	1.970	-0.413	-17.824	-14.622	-0.017	CO 19	2.174	23.054		-0.413
	Min P_Y	-3.818	-2.694	-2.214	43.309	-62.716	0.103	CO 10	4.673	76.217		-2.214
	Max P_Z	-3.538	-2.017	0.629	31.658	-57.340	-0.206	CO 4	4.073	65.499	0.629	
	Min P_Z	-3.818	-2.694	-2.214	43.309	-62.716	0.103	CO 10	4.673	76.217		-2.214
	Max M_X	-3.818	-2.694	-2.214	43.309	-62.716	0.103	CO 10	4.673	76.217		-2.214
	Min M_X	-0.919	1.970	-0.413	-17.824	-14.622	-0.017	CO 19	2.174	23.054		-0.413
	Max M_Y	1.615	-0.538	-0.414	8.562	12.166	-0.009	CO 18	1.702	14.877		-0.414
	Min M_Y	-4.395	-2.148	-2.207	35.870	-70.651	-0.188	CO 11	4.892	79.235		-2.207
	Max M_Z	-2.649	-2.312	-1.526	37.202	-44.444	0.266	CO 31	3.516	57.959		-1.526
	Min M_Z	-3.527	-1.316	-1.484	22.976	-56.740	-0.307	CO 32	3.765	61.215		-1.484



Multiknit INTERNATIONAL

190/F5 Fire rated specifications

Standard range Revision 0 28-Oct-12

Colour	Shade %	UV Block %	Average GSM	Average Warp break strength kgs	Average Elongation %	Average Weft break strength kgs	Average Elongation %	Average Burst Kpa	Average Burst to Mass ratio
Desert Sand	80	92	185	50	40	72	73	156	0.84
Blue	80	85	185	50	40	72	73	156	0.84
Brown	85		185	50	40	72	73	156	0.84
Green	80	85	185	50	40	72	73	156	0.84
Red	80	86	185	50	40	72	73	156	0.84
Silver	80	81	185	50	40	72	73	156	0.84
Terracotta	75	82	185	50	40	72	73	156	0.84
Yellow	80	89	185	50	40	72	73	156	0.84
				110 LB		159 LB		3258 PSF	

CONVERSION TO IMPERIAL UNITS:
185 GSM = .0378 psf
50 KGS = 110 Lb
72 KGS = 159 Lb
156 Kpa = 3258 psf

Notes:
- 190/F5 conforms to The California State Fire Marshal Title 19 Test for Small scale Fabrics
- Tear tests are done using a 50mm wide strip and a cross head speed of 500mm/min
- This report has been compiled using the mean results from all tests conducted on the given sample by our Quality Control Laboratory, the information provided is considered to be a good reflection of the relevant properties of the fabric tested. These results must only be used as an indication of the quality and characteristics of the fabric tested.
Company cannot be held responsible or liable in any way whatsoever should this information differ to that of a registered testing institution.

PP
Deon Joubert
General Manager - Multiknit (Pty) Ltd

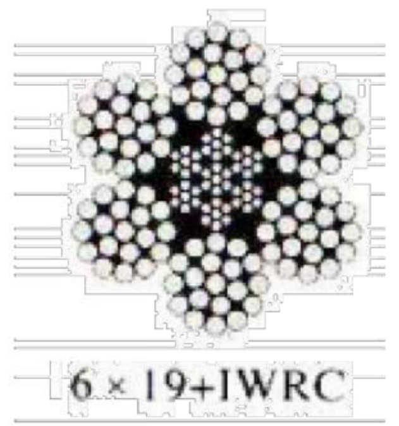
Tommy Rogers
Managing Director - Multiknit (Pty) Ltd

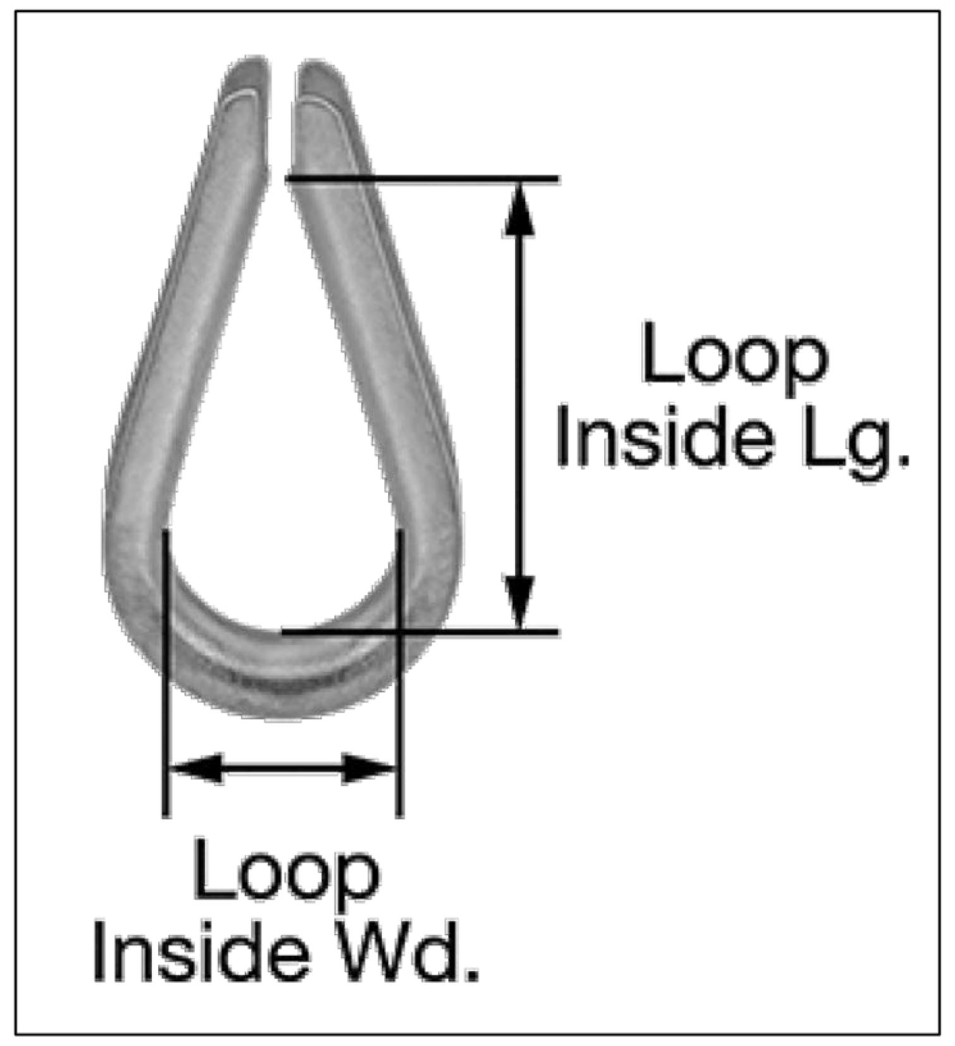
GALVANIZED IWRC

6 X 19 IWRC

IMPROVED PLOW STEEL / EXTRA IMPROVED PLOW STEEL

NOMINAL DIAMETER	MIN. BREAKING STRENGTH		WEIGHT	STOCK NUMBER
	IPS	EIPS*		
INCH	LBS	LBS	LBS/FT	6X19
1/4"	5,300	6,120	0.105	J42
5/16"	8,240	9,480	0.164	K42
3/8"	11,800	13,600	0.236	L42
7/16"	16,000	18,360	0.320	M42
1/2"	20,700	24,000	0.420	N42
9/16"	26,100	30,200	0.530	O42
5/8"	32,200	37,000	0.660	A42
3/4"	46,000	53,000	0.950	Q42
7/8"	62,200	71,600	1.290	R42
1"	80,800	93,000	1.680	S42
1 1/8"	101,800	117,000	2.130	T42
1 1/4"	125,000	143,800	2.630	U42
1 3/8"	150,400	172,800	3.180	V42
1 1/2"	178,000	206,000	3.780	W42

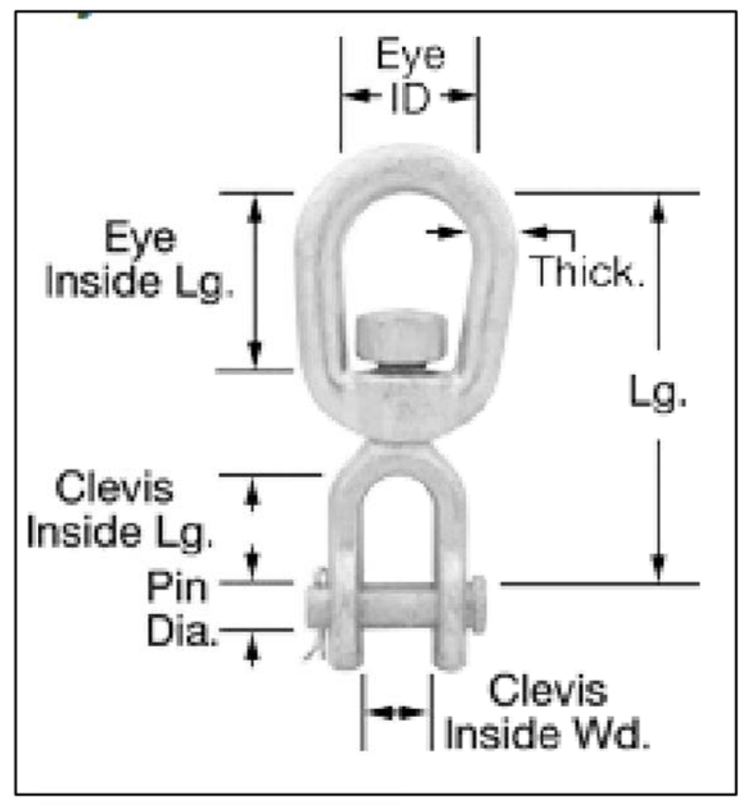




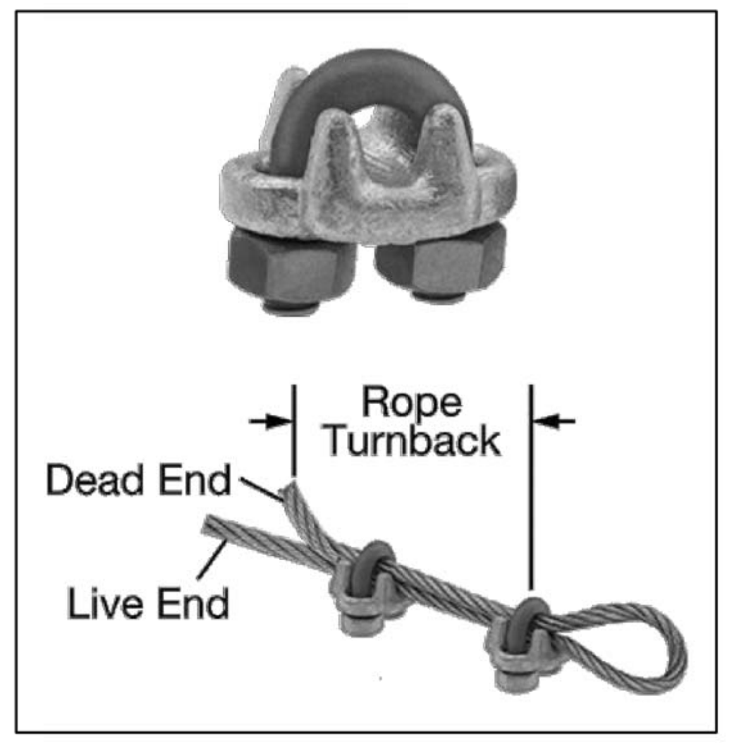
WIRE ROPE THIMBLE
FITTING TYPE: THIMBLE
MATERIAL: GALVANIZED STEEL
FOR WIRE ROPE DIAMETER" 1/2"
LOOP
INSIDE LENGTH: 1 7/8"
INSIDE WIDTH: 1 1/8"
SPECIFICATIONS MET FED. SPEC. FF-T-276B

BASIC LOAD CASES

DEAD LOAD	0.0378 PSF (FABRIC)
FLOOR LIVE LOAD	N/A
ROOF LIVE LOAD	5 PSF
ROOF SNOW LOAD	5 PSF
SUPERIMPOSED LOADS	N/A
WIND LOAD	
ULTIMATE DESIGN WIND SPEED (3 SEC GUST)	115 MPH
VELOCITY PRESSURE qz	25.32 PSF
COMPONENT AND CLADDING qz (CABLE AND CABLE HARDWARE ONLY)	25.32 PSF
SEISMIC LOAD	
SEISMIC RESPONSE COEFFICIENTS Cs	1.6
DESIGN BASE SHEAR	22638 LB

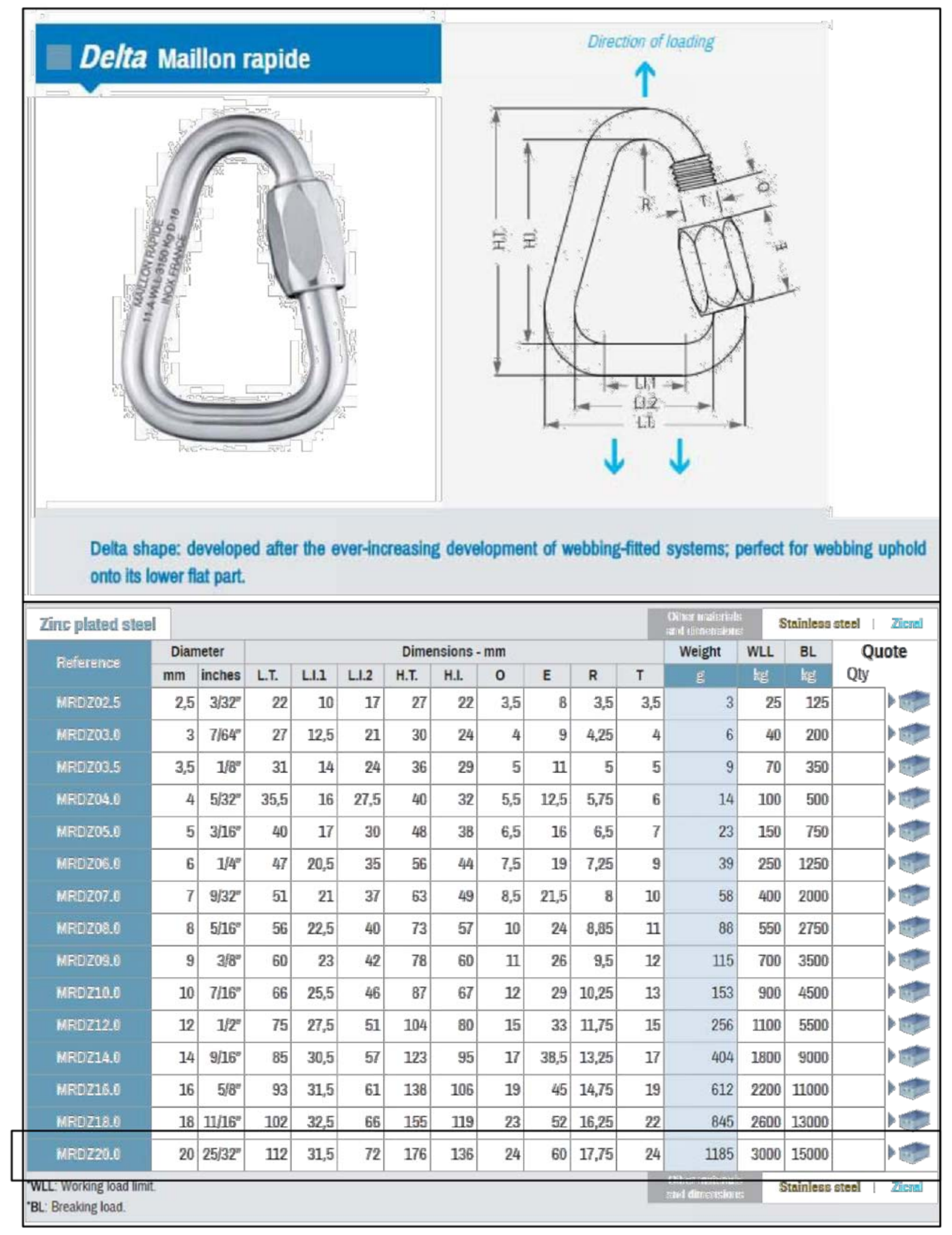


EYE-TO-CLEVIS SWIVEL
MATERIAL: GALVANIZED STEEL
LENGTH: 5 7/8"
EYE:
THICKNESS: 3/4"
INSIDE LENGTH: 1 3/4"
ID: 2"
CLEVIS
INSIDE WIDTH: 1 1/8"
INSIDE LENGTH: 1 3/4"
PIN DIAMETER: 3/4"
PIN TYPE: COTTER
CAPACITY: 7,200 LBS.
FABRICATION: FORGED
SPECIFICATIONS MET FED. SPEC. RR-C-271
FITTING TYPE: SWIVEL
ATTACHMENT TYPE: EYE-TO-CLEVIS



FORGED WIRE ROPE CLAMP

FITTING TYPE: ROPE CLAMP
FABRICATION: FORGED
MATERIAL: GALVANIZED STEEL
FOR WIRE ROPE DIAMETER: 1/2"
NUMBER OF CLAMPS REQUIRED: 3
ROPE TURNBACK: 11 1/2"
FOR WIRE ROPE CONSTRUCTION: 6 × 19
ATTACHMENT TYPE: LOOP
CLAMP
WIDTH: 2 5/16"
HEIGHT: 2 3/8"
THICKNESS: 1 15/16"
REQUIRED INSTALLATION TOOL: TORQUE WRENCH
REQUIRED TORQUE: 65 FT.-LBS.
CAPACITY: 80% OF THE ROPE'S CAPACITY
SPECIFICATIONS MET ASME B30.26, FED. SPEC. FF-C-450



Delta shape: developed after the ever-increasing development of webbing-fitted systems; perfect for webbing uphold onto its lower flat part.

Zinc plated steel

Reference	Diameter		Dimensions - mm									Weight	WLL	BL	Quote
	mm	inches	L.T.	L.I.1	L.I.2	H.T.	H.I.	O	E	R	T	g	kg	kg	Qty
MRDZ02.5	2,5	3/32"	22	10	17	27	22	3,5	8	3,5	3,5	3	25	125	
MRDZ03.0	3	7/64"	27	12,5	21	30	24	4	9	4,25	4	6	40	200	
MRDZ03.5	3,5	1/8"	31	14	24	36	29	5	11	5	5	9	70	350	
MRDZ04.0	4	5/32"	35,5	16	27,5	40	32	5,5	12,5	5,75	6	14	100	500	
MRDZ05.0	5	3/16"	40	17	30	48	38	6,5	16	6,5	7	23	150	750	
MRDZ06.0	6	1/4"	47	20,5	35	56	44	7,5	19	7,25	9	39	250	1250	
MRDZ07.0	7	9/32"	51	21	37	63	49	8,5	21,5	8	10	58	400	2000	
MRDZ08.0	8	5/16"	56	22,5	40	73	57	10	24	8,85	11	88	550	2750	
MRDZ09.0	9	3/8"	60	23	42	78	60	11	26	9,5	12	115	700	3500	
MRDZ10.0	10	7/16"	66	25,5	46	87	67	12	29	10,25	13	153	900	4500	
MRDZ12.0	12	1/2"	75	27,5	51	104	80	15	33	11,75	15	256	1100	5500	
MRDZ14.0	14	9/16"	85	30,5	57	123	95	17	38,5	13,25	17	404	1800	9000	
MRDZ16.0	16	5/8"	93	31,5	61	138	106	19	45	14,75	19	612	2200	11000	
MRDZ18.0	18	11/16"	102	32,5	66	155	119	23	52	16,25	22	845	2600	13000	
MRDZ20.0	20	25/32"	112	31,5	72	176	136	24	60	17,75	24	1185	3000	15000	

*WLL: Working load limit.
*BL: Breaking load.

Other materials and dimensions Stainless steel | Zicral

25/32 QUICK LINK UNITS CONVERSION

LT	LI1	LI2	HT	HI	O	E	R	T	WEIGHT	WORKING LOAD	BREAKING LOAD
[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[lb]	[lb]	[lb]
4.409	1.240	2.835	6.929	5.354	0.945	2.362	0.699	0.945	2.61	6613	33069

DAVID HIGGINSON
NO.C19188
REN. 10-31-21

MARK ALBERT LOWE
No. 3693
12/04/2020

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-122398 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/21/2023

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

USASHADE
& Fabric Structures®
CORPORATE HEADQUARTERS
2580 ESTERS BLVD. SUITE 100
DFW AIRPORT, TX, 75261
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Ventura County Office of Education

PROJECT NAME:
Gateway Community School South Annex

LOCATION:
200 Horizon Circle
Camarillo, CA 93010

MODEL NUMBER:
DSA4183030-19

~~APPROVED~~
~~DIV. OF THE STATE ARCHITECT~~
~~APP: 04-119455 PC~~
~~REVIEWED FOR~~
~~SS ☑ FLS ☑ ACS ☑ CG ☐~~
~~DATE: 03/26/2021~~

STRUCTURE TYPE:
TENSION SAILS
DSA

SIZE: MAXIMUM
30' x 133' MAX. x 15'e

SCALE : NONE

DRAWING SIZE: D

PRE-CHECK (PC) DOCUMENT
Code : 2019 CBC
A separate project application for construction is required.

Eng. By :	JO	06/26/20
Design By :	JO	06/26/20
Approved By :	JO	06/26/20

DRAWING DESCRIPTION:
REACTIONS

DWG. DSA4183030-19

SHEET 15.2-2000

REV. NC

DSA **140**

APPLICATION FOR SUBMITTAL OF POST-APPROVAL DOCUMENT

This application is for submittal of documents, after the initial approval of the project (post-approval documents), that require Division of the State Architect (DSA) review and approval.This form shall be completed by the Design Professional in General Responsible Charge of the project, in accordance with California Code of Regulations, Title 24, Part 1, Sections 4-317, 4-323 and 4-338 and in compliance with DSA IR A-6: Construction Change Document Submittal and Approval Process.

DSA documents referenced within this form are available on the DSA Forms or DSA Publications webpages.

1. SUBMITTAL TYPE: (Is this a resubmittal? Yes ☐ No ☑)

Deferred Submittal ☐
Addendum Number: 1
Revision Number:
CCD Number: Category A ☐ or B ☐

2. PROJECT INFORMATION:

School District/Owner: Ventura County Office of Education
DSA File Number: 56 44
Project Name/School: Gateway Annex School
DSA Application Number 03 122398

3. APPLICANT INFORMATION:

Date Submitted: 09/01/26
Attached Pages? No ☐ Yes ☑ Number of pages? 237
Firm Name: Perkins Eastman
Contact Name: David Peralta
Work Email: d.peralta@perkinseastman.com
Work Phone: (646) 225-6293
Firm Address: 3333 Michelson Dr, Suite 400
City: Irvine
State: CA
Zip Code: 92612

4. REASON FOR SUBMITTAL: (Check applicable boxes)

☑ For revision or addendum prior to construction.

☐ For a project currently under construction.

☐ For a project that has a form *DSA 301-N: Notification of Requirement for Certification*, *DSA 301-P: Posted Notification of Requirement for Certification* or a 90-Day Letter issued.

☐ To obtain DSA approval of an existing uncertified building or buildings.

☐ For Category B CCD this is: ☐ a voluntary submittal, ☐ a DSA required submittal (attach DSA notice requiring submission).

5. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE:

Name of the Design Professional In General Responsible Charge: Diego Matzkin

Professional License Number: C-27962
Discipline: Architecture

Design Professional in General Responsible Charge Statement: The attached post-approval documents have been examined by me for design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications. They are acceptable for incorporation into the construction of the project.

Signature:____

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE

6. CONFIRMATION, DESCRIPTION AND LISTING OF DOCUMENTS:

For addenda, revisions, or CCDs: CHECK THIS BOX ☑ to confirm that *all* post-approval documents have been stamped and signed by the Responsible Design Professional listed on form *DSA 1: Application for Approval of Plans and Specifications* for this project. (For *Deferred Submittals*, refer to *IR A-18: Use of Construction Documents Prepared by Other Professionals,* and *IR A-19: Design Professional's Signature and Seal (Stamp) on Construction Documents*, when applicable, for signature and seal requirements.)

Provide a brief description of construction scope for this post-approval document (attach additional sheets if needed):

The buildings have been moved 21' South to avoid existing easements conditions, resulting on landscape and playground changes, the buildings design has not been impacted by this change. Site Plans have been revised. Exit Path and Safe Dispersal Area revised. Door hardware specifications updated per district request. Revised Mechanical Units to address current equipment availability.See attached narrative describing additional changes to documents.

List of DSA-approved drawings affected by this post-approval document:

See attached list of drawings and specifications affected.

DSA USE ONLY

SSS____________ Date__________ ☐Approved ☐Disapproved ☐Not Required
Comments:______________________________

FLS____________ Date__________ ☐Approved ☐Disapproved ☐Not Required
Comments:______________________________

ACS____________ Date__________ ☐Approved ☐Disapproved ☐Not Required
Comments:______________________________

Returned
Date:
By:

DSA STAMP

STATEMENT OF GENERAL CONFORMANCE

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

(APPLICATION NO. 03-122398 FILE NO. 19-C6)

THIS DRAWINGS, PAGE OF SPECIFICATIONS / CALCULATIONS, OR THE ATTACHED LISTED OF ITEMS HAS BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND / OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:

1) DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMETNS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
2) COORDINATION WITH MY PLANS AND SPEFICATIONS AND IS ACCEPTABLE FOR INFORPORATION INTO THE CONSTRUCTION OF THIS PROJECT.

THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DETIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 8138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341 AND 4-344 OF TITLE 24, PART 1 (TITLE 24, PART 1, SECTION 4-317 (b))

I CERTIFY THAT: ☐ ALL DRAWINGS OR SHEETS ☒ ALL DRAWINGS LISTED UNDER "SHADE SHELTER" DSA P.C. A# 04-119455
☐ THIS DRAWINGS OR PAGE

☒ IS/ARE IN GENERAL CONFORMANCE ☐ IS/ARE IN GENERAL CONFORMANCE
☒ HAVE BEEN COORDINATED ☐ HAVE BEEN COORDINATED

	6/28/2022		
SIGNATURE	DATE	SIGNATURE	DATE
ARCHITECT OR ENGINEER DESIGNATED TO BE IN RESPONSIBLE CHARGE		ARCHITECT OR ENGINEER DESIGNATED TO BE IN RESPONSIBLE CHARGE	
BRIAN PAUL DOUGHERTY, FAIA			
PRINT NAME		PRINT NAME	
C-9824	7/31/2023		
LICENSE NUMBER	EXPIRATION DATE	LICENSE NUMBER	EXPIRATION DATE

VENTURA COUNTY OFFICE OF EDUCATION

GATEWAY ANNEX SCHOOL

550 Airport Way, Camarillo, CA 93010

CONSTRUCTION DOCUMENTS

12/07/2022

DIRECTORY

OWNER

VENTURA COUNTY OFFICE OF EDUCATION
5100 ADOLFO RD,
CAMARILLO, CA 93012
TEL: (805) 383-1900
CONTACT: DAVID FATEH, DIRECTOR, FACILITIES

ARCHITECT

PERKINS EASTMAN ARCHITECTS, DPC.
3194-D AIRPORT LOOP DRIVE
COSTA MESA, CA 92626
TEL: (714) 427-0277
CONTACT: BRIAN DOUGHERTY

CIVIL ENGINEER

DELANE ENGINEERING, INC.
400 W VENTURA BLVD., SUITE 265
CAMARILLO, CA 93010
TEL: (805) 330-9730

LANDSCAPE ARCHITECT

JORDAN, GILBERT & BRIAN LANDSCAPE ARCHITECTS INC.
459 N. VENTURA AVE.
VENTURA, CA 93001
TEL: (805) 642-3641

STRUCTURAL ENGINEER

PETER SARKIS S.E.
17981 SKYPARK CIRCLE, SUITE O
IRVINE, CA 92614
TEL: (949) 748-7170

MECHANICAL, ELECTRICAL, PLUMBING, & FIRE PREVENTION ENGINEER

SALAS O'BRIEN
8825 RESEARCH DRIVE
IRVINE, CA 92618
TEL: (949) 753-1553

FOOD SERVICES

RICCA DESIGN STUDIOS
5613 DTC PKWY SUITE 100
GREENWOOD VILLAGE, CO 80111
TEL: (303) 518-5381

GEOTECHNICAL ENGINEER

EARTH SYSTEMS PACIFIC
1731-A WALTER STREET
VENTURA, CA 93003
TEL: (805) 642-6727

PROJECT DATA

SCOPE OF WORK

CONSTRUCTION OF BUILDINGS A, B AND C WHICH INCLUDES A TOTAL OF 8 CLASSROOMS, SUPPORT SPACES, ASSOCIATED RESTROOMS, DRINKING FOUNTAINS, UPGRADES ALONG THE PATH OF TRAVEL, COVERED WALKWAYS, LANDSCAPED COURTYARD, SHADE STRUCTURES, NEW OUTDOOR RECREATION AREA, STUDENT DROP-OFF, NEW PERIMETER FENCING, NEW MONUMENT SIGN, AND EXTENSION OF UTILITY LINES TO SERVICE THE NEW BUILDINGS.

BID ALTERNATES

DEDUCTIVE ALTERNATIVE ITEM 1: DEDUCTION OF BUILDING C, WHICH INCLUDES ONE CLASSROOM AND ASSOCIATED COVERED WALKWAY.

DEFERRED APPROVAL

DESCRIPTION OF DEFERRED ITEMS

WOOD TRUSSES WITH METAL STRAPPING

SHEET INDEX

(155 SHEETS) △1

GENERAL

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G002	ABBREVIATIONS, SYMBOLS, & GENERAL NOTES
G003	SITE PLAN - CODE ANALYSIS
G004	SITE PLAN - LOCAL FIRE AUTHORITY
G005	FLOOR PLAN - EGRESS ANALYSIS

CIVIL

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C-2	OVERALL UTILITY SITE PLAN
C-3	HORIZONTAL CONTROL PLAN

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L1	IRRIGATION PLAN
L2	IRRIGATION LEGEND AND NOTES
L3	PLANTING PLAN
L4	PLANTING LEGEND AND NOTES
L5	IRRIGATION / PLANTING DETAILS
L6	LANDSCAPE DETAILS
L7	LANDSCAPE SHADING PLAN
L8	LANDSCAPE SHADING PLAN LEGEND & NOTES

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AD001	DEMOLITION SITE PLAN
A001	SITE PLAN
A002	ENLARGED SITE PLAN
A011	SITE DETAILS
A012	CHAIN-LINK FENCE AND GATE DETAILS
A013	ORNAMENTAL METAL FENCING & GATE DETAILS
A014	MISCELLANEOUS SITE DETAILS
A015	PARKING DETAILS
A016	SHADE STRUCTURES ENLARGED PLANS
A101	OVERALL FLOOR PLAN
A102	ENLARGED FLOOR PLAN - BLDG A
A103	ENLARGED FLOOR PLANS - BLDGS A, B, & C
A121	REFLECTED CEILING PLAN
A131	ROOF PLAN
A201	EXTERIOR ELEVATIONS
A202	EXTERIOR ELEVATIONS
A221	BUILDING SECTIONS
A231	EXTERIOR WALL SECTIONS
A232	EXTERIOR WALL SECTIONS
A301	ENLARGED RESTROOM FLOOR PLANS & ELEVATIONS
A302	ENLARGED RESTROOM FLOOR PLANS & ELEVATIONS
A303	ENLARGED FLOOR PLAN & ELEVATIONS - CLASSROOM TYPE A
A304	ENLARGED FLOOR PLAN & ELEVATIONS - CLASSROOM TYPE B
A305	ENLARGED STAIRS PLANS AND SECTIONS
A401	INTERIOR ELEVATIONS - BLDG A
A402	INTERIOR ELEVATIONS - BLDG A
A403	INTERIOR ELEVATIONS - BLDG A
A404	INTERIOR ELEVATIONS - BLDG B
A501	SIGNAGE FLOOR PLAN AND SCHEDULE
A502	SIGNAGE DETAILS
A601	FINISH AND FLOOR PATTERN PLANS
A602	INTERIOR FINISH SCHEDULE
A701	SCHEDULES
△1 A702	TYPICAL ASSEMBLIES - EXTERIOR WALLS
A704	INTERIOR WALL SCHEDULE AND DETAILS
A721	EXTERIOR WALL DETAILS
A731	DOOR AND WINDOW DETAILS
A732	DOOR AND WINDOW DETAILS
A734	TUBULAR SKYLIGHT DETAILS
A771	STAIR AND RAMP DETAILS
A801	CASEWORK DETAILS
A802	RECEPTION DESK DETAILS
A821	TYP. LAY-IN CEILING DETAILS
A822	TYP. LAY-IN CEILING DETAILS
A823	TYP. LAY-IN CEILING DETAILS
A824	TYP. GYPSUM BOARD CEILING DETAILS
A825	TYP. LAY-IN CEILING DETAILS
A831	ROOF DETAILS
A832	ROOF DETAILS
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A843	FOLDING PARTITION DETAILS

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S602	TYPICAL WOOD DETAILS
S603	TYPICAL WOOD DETAILS
S604	WOOD DETAILS
S612	WOOD DETAILS
S613 △1	WOOD DETAILS
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M004	MECHANICAL TITLE 24
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M601	MECHANICAL SCHEDULES
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E004	ELECTRICAL TITLE 24
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ESP101	ELECTRICAL SITE PLAN - EM PHOTOMETRIC

ELECTRICAL

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E121	ELECTRICAL 1ST FLOOR PLAN - AUXILIARY
E131	ELECTRICAL 1ST FLOOR LIGHTING PLAN
E132	ELECTRICAL 1ST FLOOR LIGHTING PLAN - EM PHOTOMETRICS
E141	ELECTRICAL ROOF PLAN - AUXILIARY
E311	ELECTRICAL ENLARGED PLANS
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS
E503	ELECTRICAL DETAILS
E601	ELECTRICAL SCHEDULES
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FA201	NEW BUILDING FIRE ALARM PLAN
FA202	FOUR SQUARE BUILDING FIRE ALARM PLAN
FA301	FIRE ALARM RISER DIAGRAMS AND CALCS
FA302	FIRE ALARM RISER DIAGRAMS AND CALCS
FP001	FIRE PROTECTION GENERAL
FP100	FIRE PROTECTION SITE PLAN
FP201	NEW BUILDING SPRINKLER PLAN
FP202	NEW BUILDING HEAD LAYOUT
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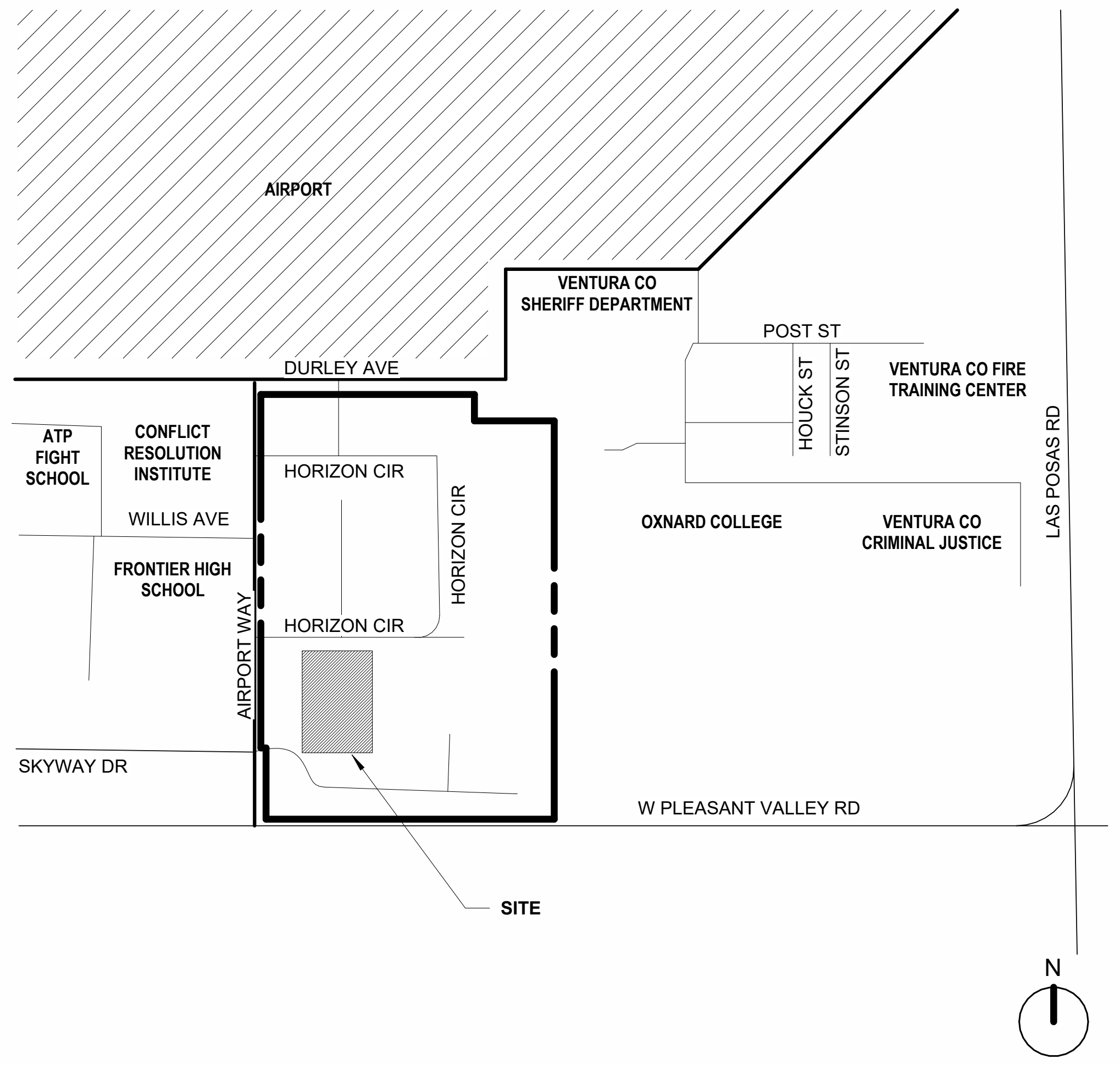
QF100-1	Foodservice Key Plan
QF400-1	Foodservice Equipment Plan
QF400-2	Foodservice Utility Schedule
QF400-3	Foodservice Building Conditions & Ventilation Plan
QF400-4	Foodservice Plumbing Plan
QF400-5	Foodservice Electrical Plan
QF500-1	Foodservice Elevations
QF501-1	Foodservice Details & Sections

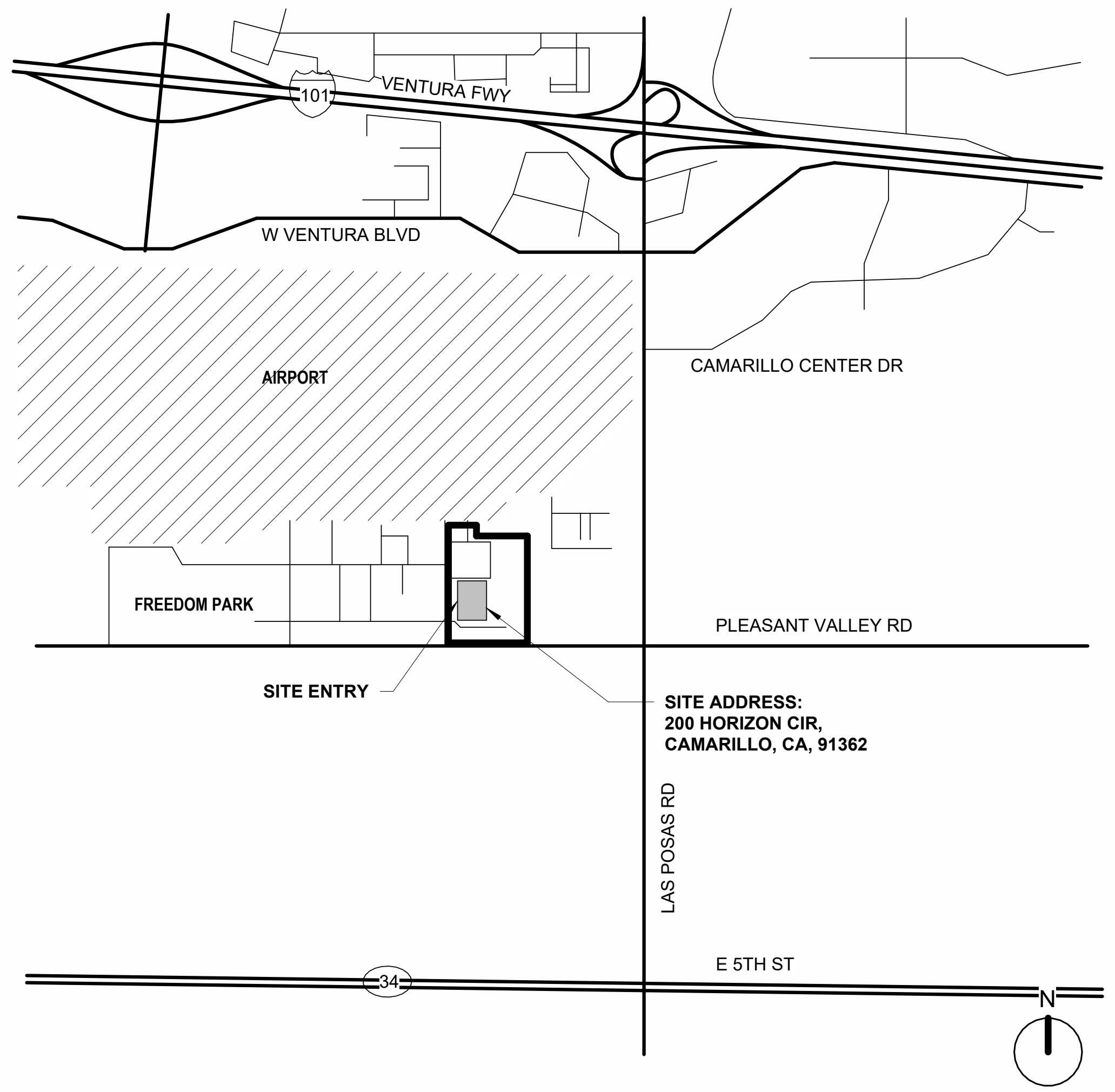
SHADE SHELTER_FOUR POINT SAILS_PC 04-119455

P.C. T-1.0	P.C. TITLE SHEET
P.C. T-2.0	DSA 103 SAMPLE FORM
P.C. T-2.1	DSA 103 SAMPLE FORM
15.1-1000	PRODUCT INFORMATION
15.2-2000	REACTIONS

VICINITY MAP



LOCATION MAP



GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

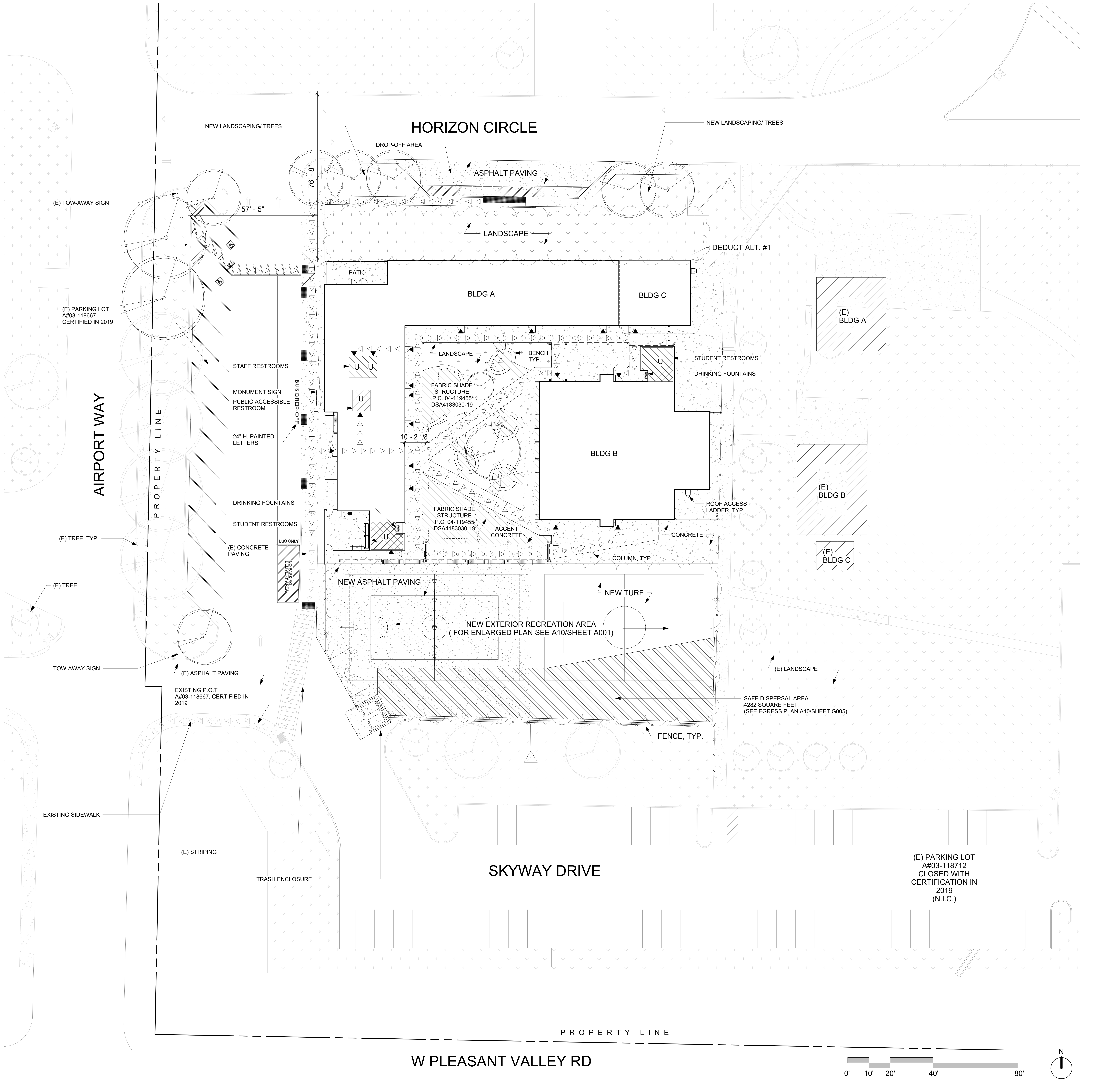
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△1 ADD 1	08/28/2026
△	
△	
△	
△	

COVER SHEET

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

G001



SITE PLAN - CODE ANALYSIS C10

1" = 20'-0"

CODE ANALYSIS:

ANNEX SCHOOL: BUILDING A, B, AND C

CONSTRUCTION TYPE: VB
ALLOWABLE NUMBER OF STORIES: 1
PROVIDED: 1

ALLOWABLE BUILDING HEIGHT
SPRINKLER: 40 FT
ACTUAL BUILDING HEIGHT: 23 FT

AUTOMATIC SPRINKLER SYSTEM:
BUILDINGS A, B AND C: YES

MIN. ROOF CLASS ASSEMBLY: TYPE B
(PER CBC TABLE 1505.1)
ROOF CLASS PROVIDED: TYPE A

OCCUPANCY: A

AREA BLDG A: 7,196 SF
AREA BLDB B: 4,994 SF
AREA BLDG C: 1,070 SF
SHADE SHELTERS: 1,050 SF

TOTAL AREA: 14,310 SF

ALLOWABLE AREA PER FLOOR: 24,000 SF
(CBC TABLE 506.2.4)

FIRE RATING REQUIREMENTS:
(PER CBC TABLE 601)
PRIMARY STRUCTURAL FRAME: 0
NON BEARING WALLS: 0
FLOOR CONSTRUCTION: 0
ROOF CONSTRUCTION: 0

PLUMBING COUNTS:	MEN	WOMEN	ALL-GENDER
TOTAL OCCUPANTS:	90	90	-
WATER CLOSET REQ.:	3	4	
PROVIDED:	-	-	9*
URINALS REQ.:	2*	0	
PROVIDED:	-	-	0
SINKS REQ.:	4	4	
PROVIDED:	-	-	8
D.F. REQ.:			3
PROVIDED:			4

*URINALS ARE PROVIDED BY WATER CLOSETS IN ALL-GENDER RESTROOMS

PARKING COUNT;
(CBC TABLE 11B-208.2)

TOTAL RE-STRIPED PARKING STALLS: 13

REQ. ACCESSIBLE STALLS: 1/25
PROVIDED: 1
REQ. VAN ACCESSIBLE STALLS: 1
PROVIDED: 1
TOTAL ACCESSIBLE STALLS PROVIDED: 2

SITE LEGEND

☐	NEW BUILDING
▨	EXISTING BUILDING
☐	SITE CONCRETE
■	SITE CONCRETE, ACCENT COLOR
░	EXISTING ASPHALT
☐	EXISTING GRASS
--------	AREA OF WORK
▩	ACCESSIBLE RESTROOM
	M: MEN W: WOMEN B: BOYS G: GIRLS U: UNISEX
▷ ▷ ▷ ▷	(E) ACCESSIBLE PATH OF TRAVEL, A#03-118667
▷ ▷ ▷ ▷	ACCESSIBLE PATH OF TRAVEL
▶	ACCESSIBLE ENTRANCE

- ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAX SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX, AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE FIRM AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT

- THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED 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 PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.
- DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002

DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 2027

GATEWAY ANNEX SCHOOL

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SITE PLAN - CODE ANALYSIS

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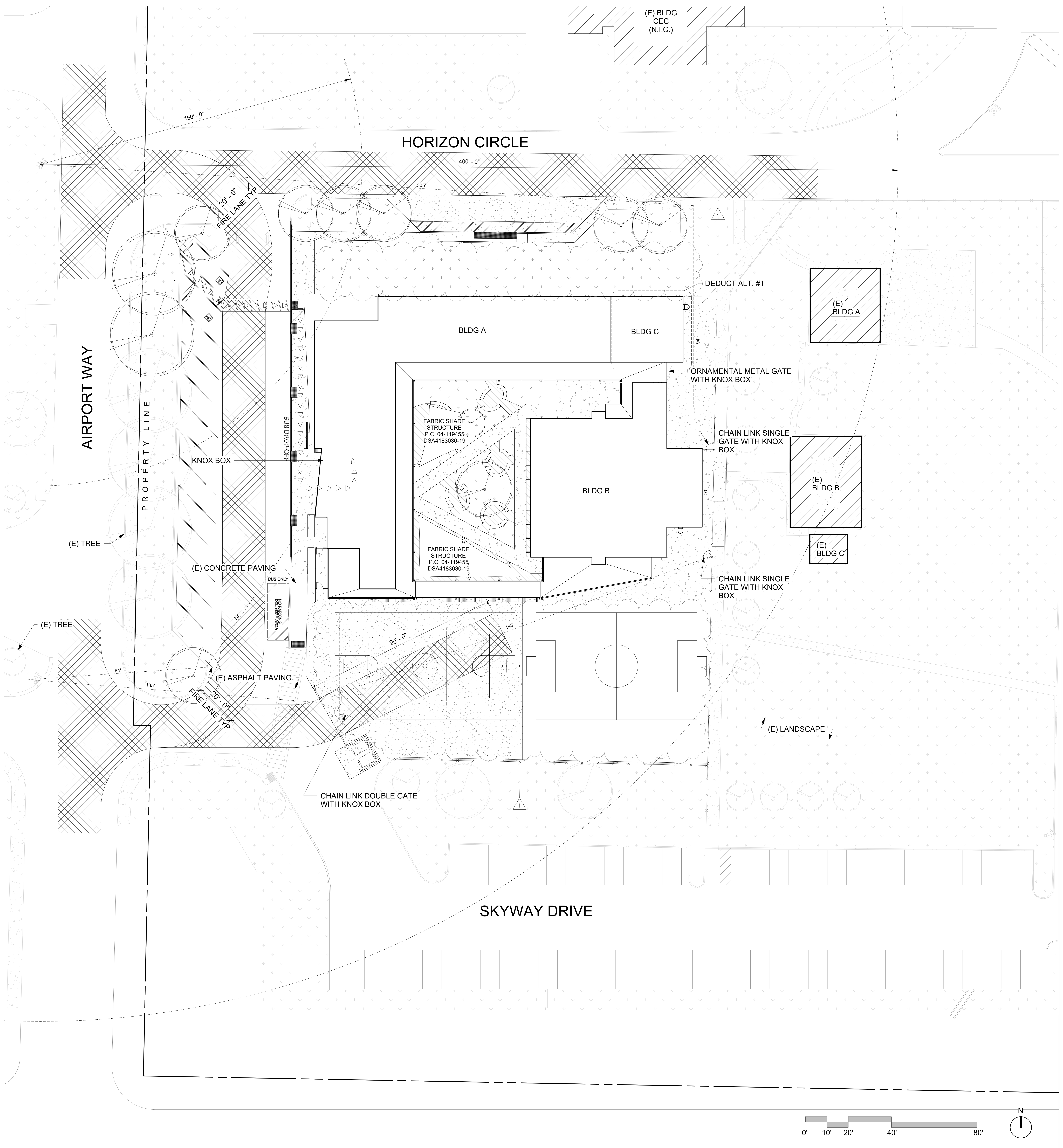
G003



SITE PLAN - LOCAL FIRE AUTHORITY D10
1" = 20'-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: Ventura County Office of Education

Project Name/School: Gateway Annex School

Project Address: 550 Airport Way, Camarillo, CA 93010

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: http://egis.fire.ca.gov/FHSZ/	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

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

School District Acceptance of Acceptable Design Alternates

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

Accepted by: ______________________ Title: ______________________

Signature: ______________________ Date: ______________________

LOCAL FIRE AUTHORITY (LFA) INFORMATION

LFA Agency Name: Ventura County Fire Department

LFA Review Official: Brandon Sube

Title: Fire Inspector II
Work Phone: (805) 914-7436

Work Email: Brandon.Sube@ventura.org

LFA Reviewer's Signature: Brandon Sube Digitally signed by Brandon Sube Date: 2023.01.04 08:59:33 -08'00' Date: 01/04/23

DGS DSA 810 (revised 12/29/20)
DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES
Page 2 of 4
STATE OF CALIFORNIA

SITE LEGEND

- ☐ NEW BUILDING
- ▨ EXISTING BUILDING
- ▨ FIRE ACCESS LANE
- HYD FIRE HYDRANT

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002

FIRE AUTHORITY NOTES

1. VEGETATION AND OTHER OBSTRUCTIONS OVERHANGING A FIRE ACCESS ROADWAY SHALL BE MAINTAINED TO A CLEAR HEIGHT OF 13'-6".
2. KNOX KEY SWITCHES, KNOX LOCKS, OR FRANGIBLE PADLOCKS/CHAINS SHALL BE PROVIDED FOR ALL GATES AND BARRIERS IN THE PATH OF VEHICLE OR FIREFIGHTER ACCESS.
3. THE CAMPUS IS IDENTIFIED WITH 6" HIGH ADDRESS NUMBERS EASILY VISIBLE FROM THE PUBLIC ROAD FRONTING THE PROPERTY. INDIVIDUAL STRUCTURES ARE IDENTIFIED WITH 6" HIGH ADDRESS NUMBERS OR LETTERS EASILY VISIBLE FROM THE PUBLIC WAY OR FIRE ACCESS ROADWAY.
4. ALL-WEATHER ACCESS ROADWAYS AND FIRE HYDRANTS SHALL BE IN PLACE AND OPERATIONAL BEFORE BRINGING COMBUSTIBLE BUILDING MATERIALS OR PORTABLE UNITS ON-SITE.
5. PIVS, DDCS, FDCS SHALL BE UNOBSTRUCTED AND VISIBLE FROM THE FIRE LANE OR PUBLIC ROAD. THEY SHALL BE PAINTED OSHA SAFETY RED.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
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SITE PLAN - LOCAL FIRE AUTHORITY

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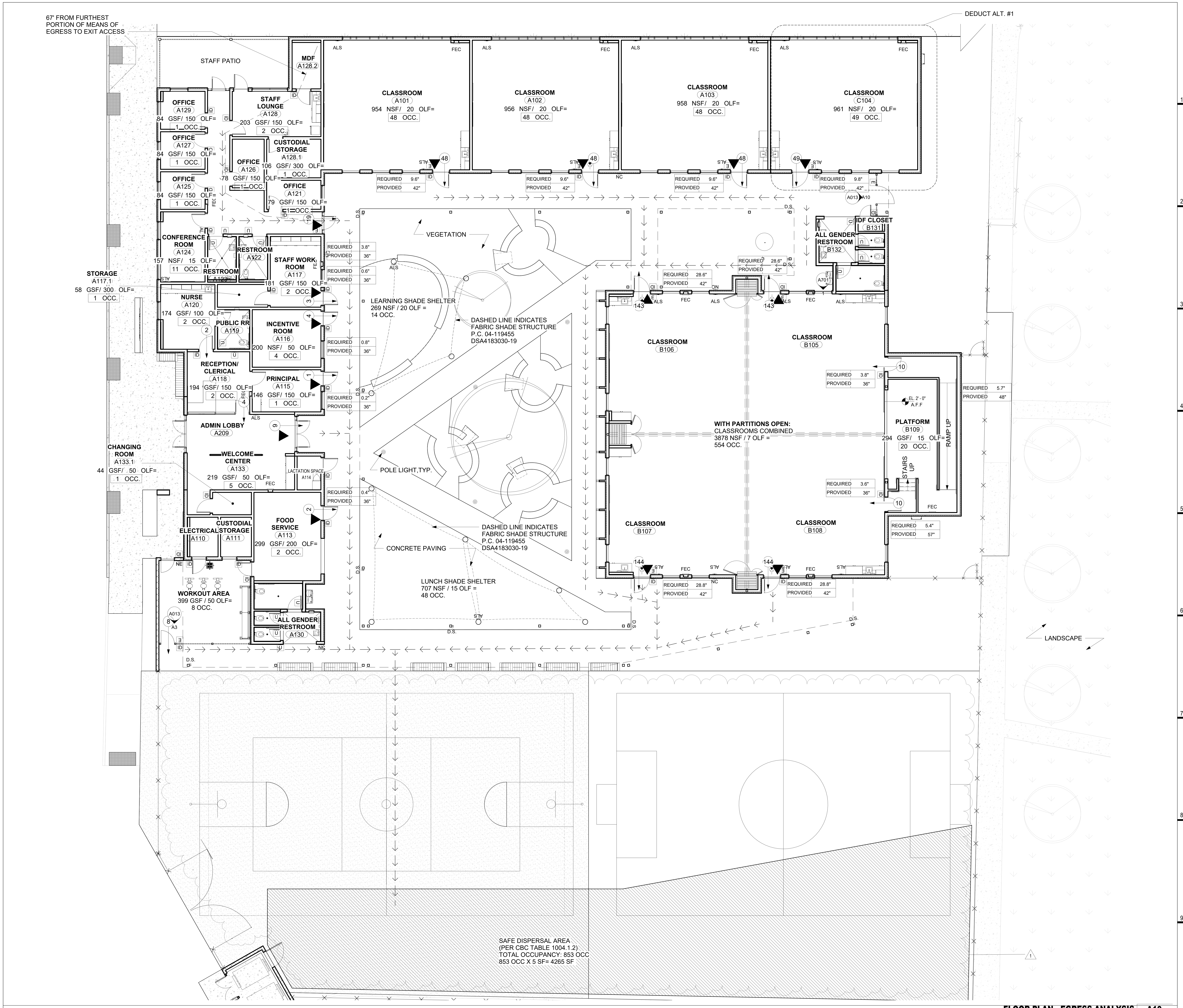
G004


67' FROM FURTHEST PORTION OF MEANS OF EGRESS TO EXIT ACCESS
DEDUCT ALT. #1
STAFF PATIO
MDF A128.2
STAFF LOUNGE A128 203 GSF/ 150 OLF= 2 OCC.
OFFICE A129 84 GSF/ 150 OLF= 1 OCC.
OFFICE A127 84 GSF/ 150 OLF= 1 OCC.
OFFICE A125 84 GSF/ 150 OLF= 1 OCC.
OFFICE A126 78 GSF/ 150 OLF= 1 OCC.
CUSTODIAL STORAGE A128.1 106 GSF/ 300 OLF= 1 OCC.
OFFICE A121 79 GSF/ 150 OLF= 1 OCC.
CLASSROOM A101 954 NSF/ 20 OLF= 48 OCC.
CLASSROOM A102 956 NSF/ 20 OLF= 48 OCC.
CLASSROOM A103 958 NSF/ 20 OLF= 48 OCC.
CLASSROOM C104 961 NSF/ 20 OLF= 49 OCC.
REQUIRED 9.6" PROVIDED 42"
REQUIRED 9.8" PROVIDED 42"
CONFERENCE ROOM A124 157 NSF/ 15 OLF= 11 OCC.
RESTROOM A122
RESTROOM A123
STAFF WORK ROOM A117 181 GSF/ 150 OLF= 2 OCC.
STORAGE A117.1 58 GSF/ 300 OLF= 1 OCC.
NURSE A120 174 GSF/ 100 OLF= 2 OCC.
PUBLIC RR A119
INCENTIVE ROOM A116 200 NSF/ 50 OLF= 4 OCC.
RECEPTION/ CLERICAL A118 194 GSF/ 150 OLF= 2 OCC.
PRINCIPAL A115 146 GSF/ 150 OLF= 1 OCC.
ADMIN LOBBY A209
CHANGING ROOM A133.1 44 GSF/ 50 OLF= 1 OCC.
WELCOME CENTER A133 219 GSF/ 50 OLF= 5 OCC.
LACTATION SPACE A114
ELECTRICAL A110
CUSTODIAL STORAGE A111
FOOD SERVICE A113 299 GSF/ 200 OLF= 2 OCC.
WORKOUT AREA 399 GSF / 50 OLF= 8 OCC.
ALL GENDER RESTROOM A130
VEGETATION
LEARNING SHADE SHELTER 269 NSF / 20 OLF = 14 OCC.
DASHED LINE INDICATES FABRIC SHADE STRUCTURE P.C. 04-119455 DSA4183030-19
POLE LIGHT,TYP.
CONCRETE PAVING
LUNCH SHADE SHELTER 707 NSF / 15 OLF = 48 OCC.
ALL GENDER RESTROOM B132
IDF CLOSET B131
CLASSROOM B106
CLASSROOM B105
CLASSROOM B107
CLASSROOM B108
WITH PARTITIONS OPEN: CLASSROOMS COMBINED 3878 NSF / 7 OLF = 554 OCC.
PLATFORM B109 294 GSF/ 15 OLF= 20 OCC.
RAMP UP
STAIRS UP
EL 2'-0" A.F.F
REQUIRED 28.6" PROVIDED 42"
REQUIRED 28.8" PROVIDED 42"
REQUIRED 5.7" PROVIDED 48"
REQUIRED 5.4" PROVIDED 57"
LANDSCAPE
SAFE DISPERSAL AREA (PER CBC TABLE 1004.1.2) TOTAL OCCUPANCY: 853 OCC 853 OCC X 5 SF= 4265 SF

FLOOR PLAN - EGRESS ANALYSIS A10
1/8" = 1'-0"

CODE ANALYSIS LEGEND

→ → → EXIT PATH

▶ EXIT ACCESS

(X)→ EXIT PATH
X = NUMBER OF OCCUPANTS

OCCUPANT LOAD:

ROOM NAME
ROOM #
GSF / __OLF =
__ OCC.

EXISTING OCCUPANT LOAD:
(A# 04-118580)

ROOM NAME
ROOM #
GSF / __OLF =
__ OCC.

MEANS OF EGRESS:
1. EGRESS WIDTH: CBC SECTION 1005.1
2. MIN. WIDTH 32" (PER SECTION 1010.1.1)

NUMBER OF EXITS REQUIRED: CBC TABLE 1006.3.1.**EXIT DOOR WIDTH:** (CBC SECTION 1005.1)

EXIT ACCESS TYPICAL CLASSROOM

1 EXITS
TOTAL OCCUPANTS: 49 OCC.
49 OCC x 0.2" = 9.8"
MIN WIDTH REQUIRED = 32"
PROVIDED WIDTH = 42"
THEREFORE OK

SAFE DISPERSAL AREA
(PER CBC TABLE 1004.1.2)

TOTAL OCCUPANCY: 494 OCC or 846 OCC

853 OCC x 5 SF = 4265 SF

LICENSED ARCHITECT
DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 2023
STATE OF CALIFORNIA

SIGNAGE LEGEND

ID	IDENTIFICATION SIGNAGE
E	EXIT SIGNAGE SIM
ER	EXIT ROUTE SIGNAGE
OCC	OCCUPANCY LOAD SIGNAGE
U	ALL GENDER RESTROOM SIGNAGE
FR	FIRE RISER SIGNAGE
ALS	ASSISTIVE LISTENING SIGNAGE

SIGNAGE NOTES

1. FINISH:
   CHARACTERS, SYMBOLS, PICTOGRAMS AND THEIR BACKGROUNDS SHALL HAVE A NON-GLARE FINISH.
2. FOR MOUNTING HEIGHTS REFER TO DETAIL A2/A502
3. FOR BRAILLE SEE DETAIL E2/A502
4. SIGNAGE CORNERS TO BE 1/2" RADIUS
5. RAISED LETTERS MAY NOT BE SURFACE APPLIED AND MUST BE INTEGRAL.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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FLOOR PLAN - EGRESS ANALYSIS

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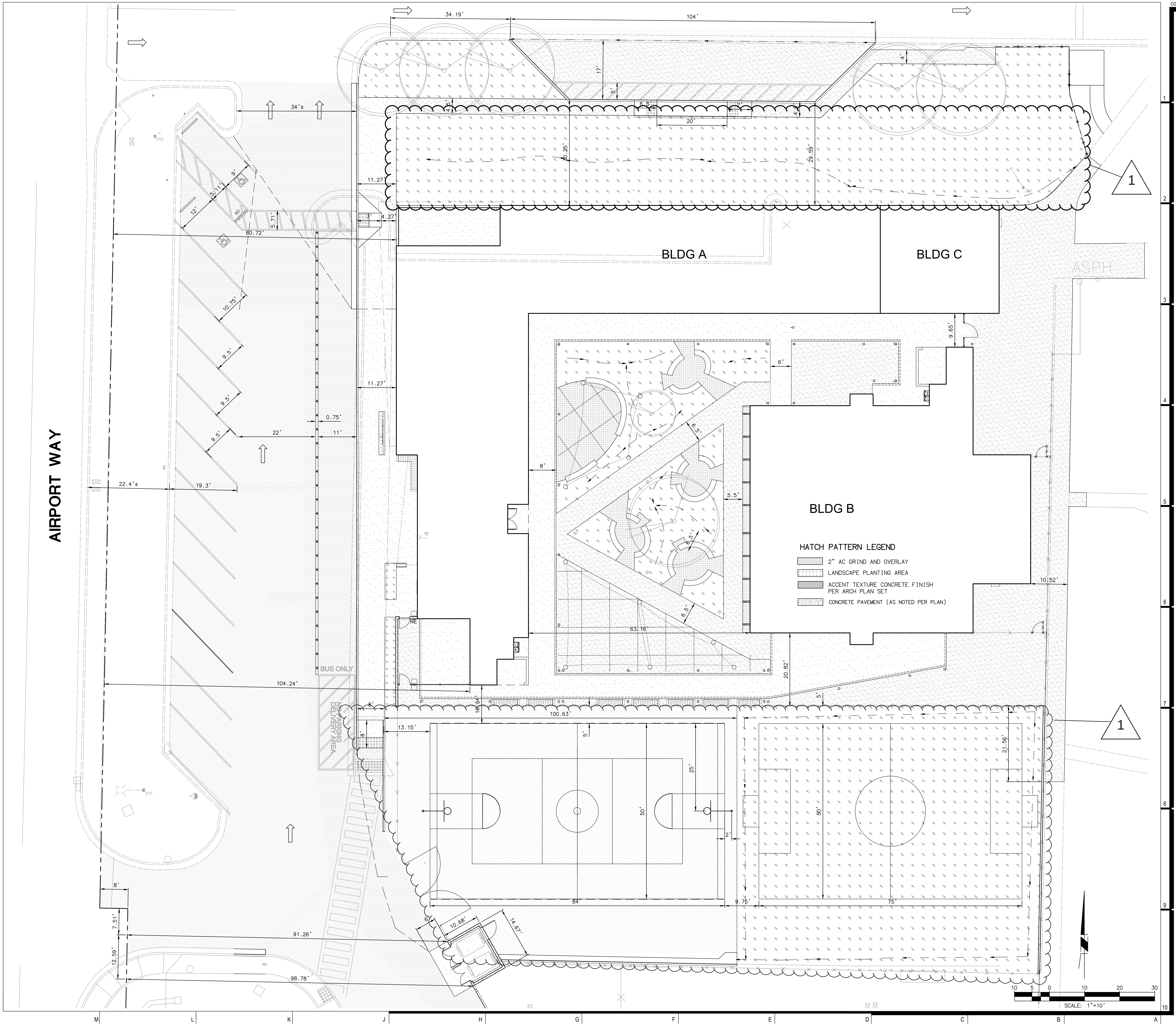
G005



LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021
STATE OF CALIFORNIA

DELANE
ENGINEERING
400 W. VENTURA BLVD. SUITE 265
CAMARILLO, CA 93010
PHONE: 310.546.5711-WWW.DELANEENGINEERING.COM

REGISTERED PROFESSIONAL ENGINEER
SCOTT DELANE UHLES
No C 72391
CIVIL
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL

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HORIZONTAL CONTROL PLAN

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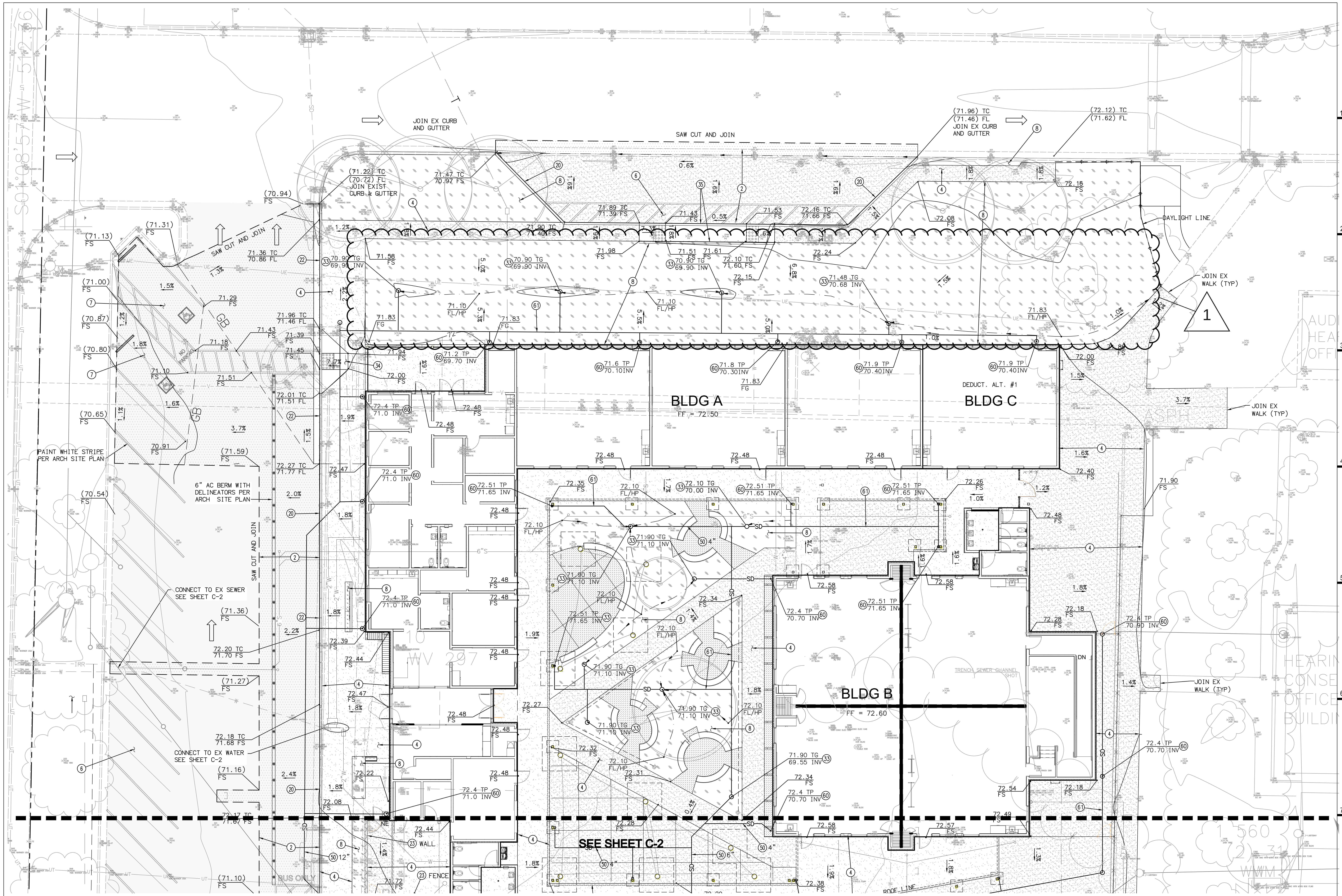
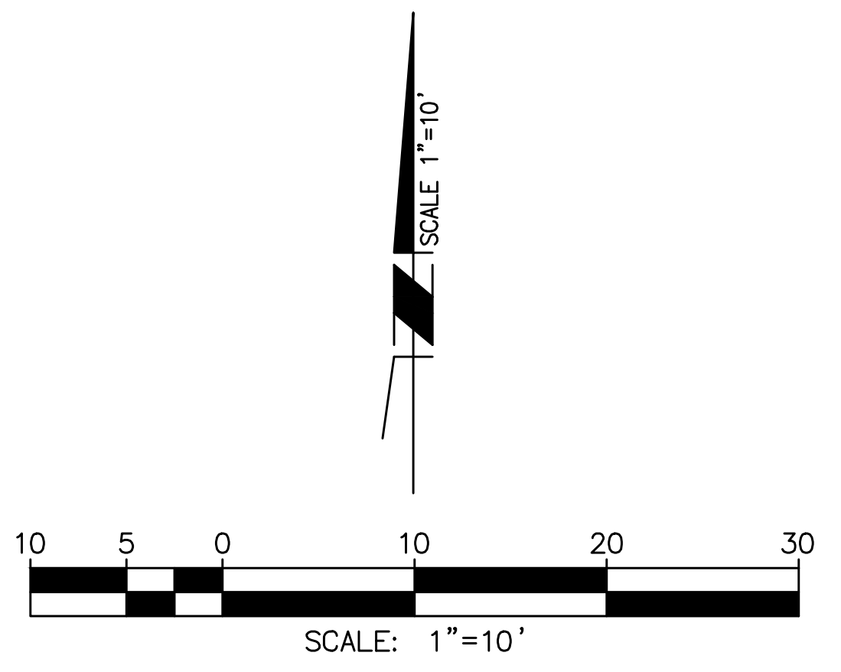
C-1


SAW CUT AND JOIN
JOIN EX CURB AND GUTTER
(71.22) TC (70.72) FL JOIN EXIST CURB & GUTTER
(71.96) TC (71.46) FL JOIN EX CURB AND GUTTER
(72.12) TC (71.62) FL
DAYLIGHT LINE
JOIN EX WALK (TYP)
1
BLDG A
FF = 72.50
BLDG C
DEDUCT. ALT. #1
BLDG B
FF = 72.60
PAINT WHITE STRIPE PER ARCH SITE PLAN
6" AC BERM WITH DELINEATORS PER ARCH SITE PLAN
CONNECT TO EX SEWER SEE SHEET C-2
CONNECT TO EX WATER SEE SHEET C-2
SEE SHEET C-2
TRENCH SEWER CHANNEL
BUS ONLY
WALL
FENCE
ROOF LINE

CONSTRUCTION NOTES

- ② CONSTRUCT 3" AC OVER 6" AGGREGATE BASE, ACTUAL SECTION TO BE DETERMINED BY SOILS ENGINEER BASED ON R-VALUE ANALYSIS
- ④ CONSTRUCT 4" CONCRETE OVER NATIVE SOIL COMPACTED TO 95%, MINIMUM RELATIVE COMPACTION PER ASTM D1557, PER SPPWC 112-2. SEE ARCH PLAN FOR FINISH, COLOR AND PATTERN ON WALKS AND PATIO AREAS
- ⑥ INSTALL PARKING LOT STRIPIN G PER ARCH SITE PLAN AND DETAILS
- ⑦ INSTALL ACCESSIBLE PARKING STALL PER CALTRANS RSP A90A,
- ⑧ LANDSCAPE, SEE LANDSCAPE ARCHITECTUAL PLANS
- ⑳ CONSTRUCT 6" CONCRETE CURB PER CITY OF CAMARILLO STD PLATE E-4.1 (REV D), TYPE A-1.
- ㉒ CONSTRUCT 6" CONCRETE CURB AND 18" GUTTER PER CITY OF CAMARILLO STD PLATE E-4.1 (REV D), TYPE A-2.
- ㉓ HARDSCAPE FEATURE, SEE ARCHITECTURAL PLANS
- ㉝ INSTALL 4" ATRIUM GRATE, NDS 75 OR APPROVED EQUAL
- ㉞ CONSTRUCT CURB RAMP, CASE A, TYPE 1, PER SPPWC STD PLAN 111-5 AND AS MODIFIED PER PLAN.
- ㉟ CONSTRUCT CURB RAMP, CASE B, TYPE 1, PER SPPWC STD PLAN 111-5 AND AS MODIFIED PER PLAN.
- ㊿ CONSTRUCT PVC STORM DRAIN (SDR 35), SIZE PER PLAN
- (60) CONNECT ROOF DRAIN DOWN SPOUT TO 4" PVC STORM DRAIN PER ROOF DRAIN DETAIL SHEET C-2
- (61) INSTALL 6" SDR 35 PVC PIPE

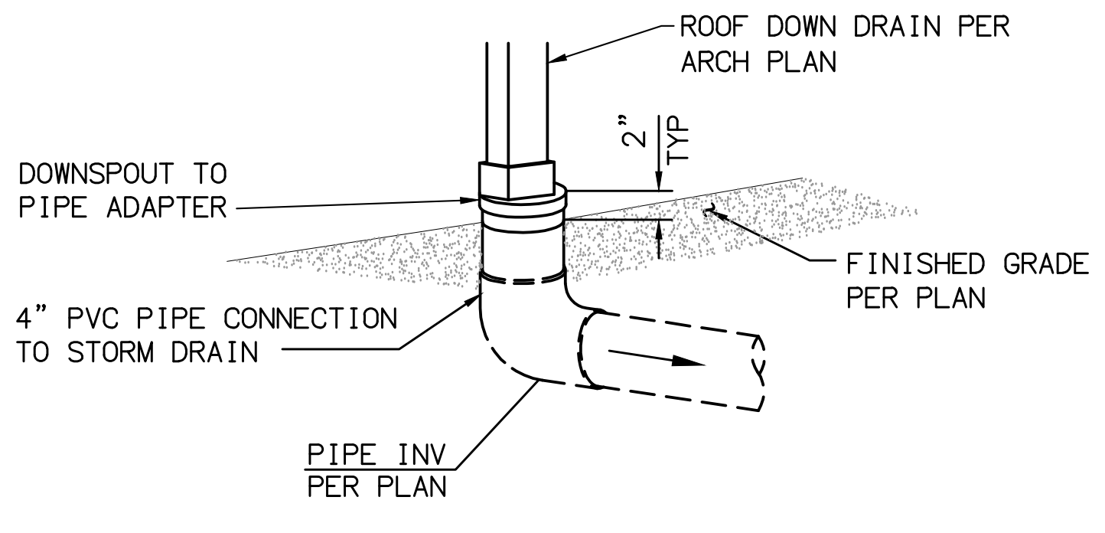


HATCH PATTERN LEGEND

▭	2" AC GRIND AND OVERLAY
⁚	LANDSCAPE PLANTING AREA
▨	ACCENT TEXTURE CONCRETE FINISH PER ARCH PLAN SET
░	CONCRETE PAVEMENT (AS NOTED PER PLAN)

NOTES:

1. SEE SHEET C-2 FOR UTILITY INFORMATION
2. OVER-EXCAVATION SHALL BE COMPLETED BASED ON THE GEOTECHNICAL REPORT DATED 9/3/2021 AND REVISED 5/18/2022, GRADING/DEVELOPMENT OF STRUCTURES. 5' BEYOND BUILDING FOOTPRINT AND 4' BELOW EXISTING GRADE. GEOGRID PLACED PRIOR TO PLACING FILL.


ROOF DOWN DRAIN PER ARCH PLAN
DOWNSPOUT TO PIPE ADAPTER
2" TYP
FINISHED GRADE PER PLAN
4" PVC PIPE CONNECTION TO STORM DRAIN
PIPE INV PER PLAN

ROOF DRAIN CONNECTION DETAIL

NTS

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

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ENGINEERED SITE PLAN
GRADING, DRAINAGE, AND
STORM DRAIN

PERKINS — EASTMAN

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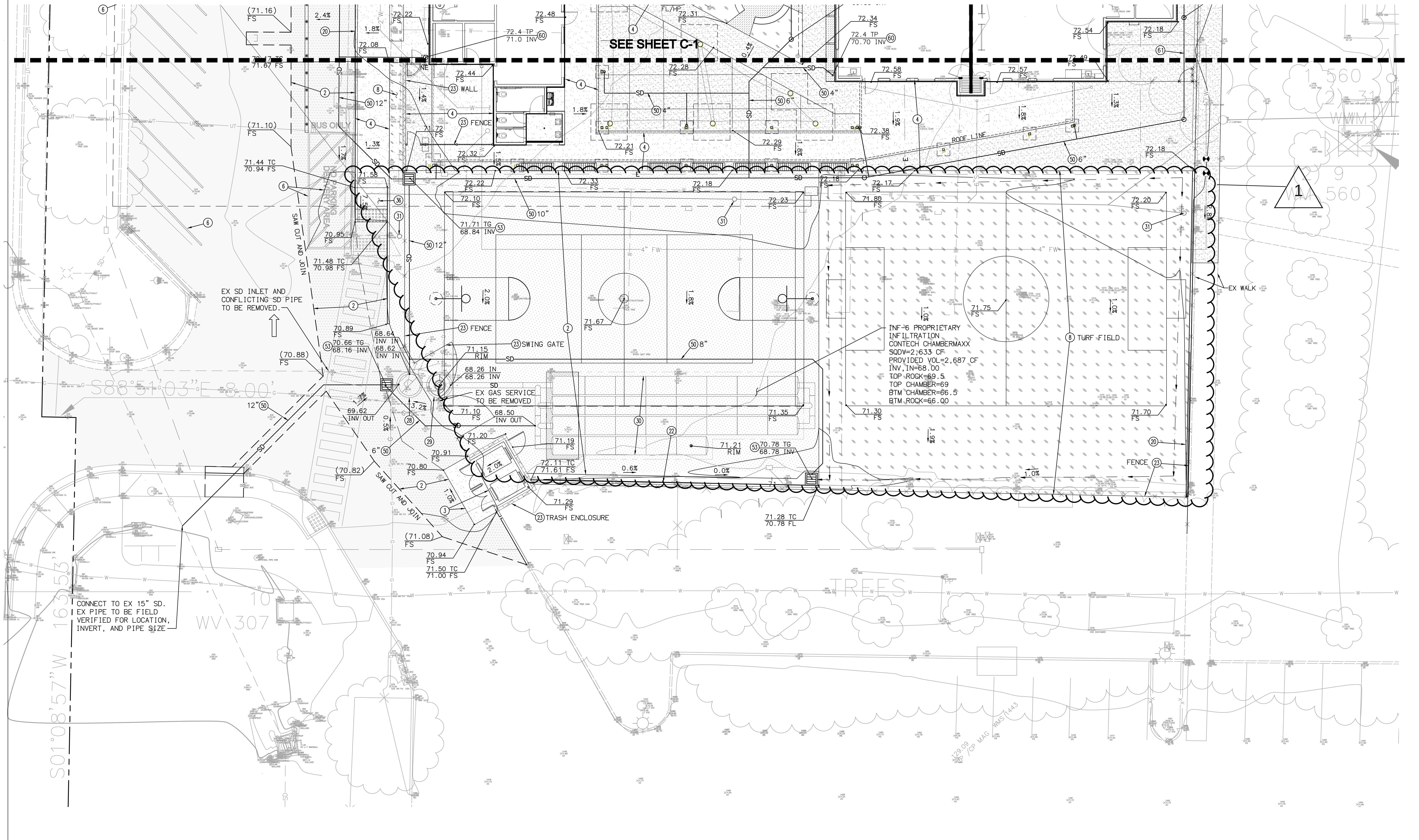
C-2


SEE SHEET C-1
BUS ONLY
NO PARKING
ROOF LINE
SAW CUT AND JOIN
EX SD INLET AND CONFLICTING SD PIPE TO BE REMOVED.
EX GAS SERVICE TO BE REMOVED
SWING GATE
FENCE
WALL
TURF FIELD
INF-6 PROPRIETARY INFILTRATION CONTECH CHAMBERMAXX SQDV=2,633 CF PROVIDED VOL=2,687 CF INV.IN=68.00 TOP ROCK=69.5 TOP CHAMBER=69 BTM CHAMBER=66.5 BTM ROCK=66.00
EX WALK
TRASH ENCLOSURE
CONNECT TO EX 15" SD. EX PIPE TO BE FIELD VERIFIED FOR LOCATION, INVERT, AND PIPE SIZE
S88°51'03"E 8.00'
S01°08'57"W
TREES
SD
1

CONSTRUCTION NOTES

② CONSTRUCT 3" AC OVER 6" AGGREGATE BASE, ACTUAL SECTION TO BE DETERMINED BY SOILS ENGINEER BASED ON R-VALUE ANALYSIS

③ CONSTRUCT 7" CONCRETE OVER 6" AGGREGATE BASE, ACTUAL SECTION TO BE DETERMINED BY SOILS ENGINEER BASED ON R-VALUE ANALYSIS

④ CONSTRUCT 4" CONCRETE OVER NATIVE SOIL COMPACTED TO 95%, MINIMUM RELATIVE COMPACTION PER ASTM D1557, PER SPPWC 112-2. SEE ARCH PLAN FOR FINISH, COLOR AND PATTERN ON WALKS AND PATIO AREAS

⑥ INSTALL PARKING LOT STRIPIN G PER ARCH SITE PLAN AND DETAILS

⑧ LANDSCAPE, SEE LANDSCAPE ARCHITECTUAL PLANS

⑳ CONSTRUCT 6" CONCRETE CURB PER CITY OF CAMARILLO STD PLATE E-4.1 (REV D), TYPE A-1.

㉒ CONSTRUCT 6" CONCRETE CURB AND 18" GUTTER PER CITY OF CAMARILLO STD PLATE E-4.1 (REV D), TYPE A-2.

㉓ HARDSCAPE FEATURE, SEE ARCHITECTURAL PLANS

㉘ CONNECT TO EXISTING STORM DRAIN PIPE AT SPRINGLINE

㉙ CONSTRUCT BOLLARDS PER PLAN AND DETAIL 29 ON SHEET 4.

㉚ INSTALL ADA PATH STRIPING, 4" STRIPING, BLUE PAINT, 4' SPACING DIAGNAL STRIPE

㉛ ADJUST MANHOLE TO FINISHED SURFACE PER SPPWC STD 205-2

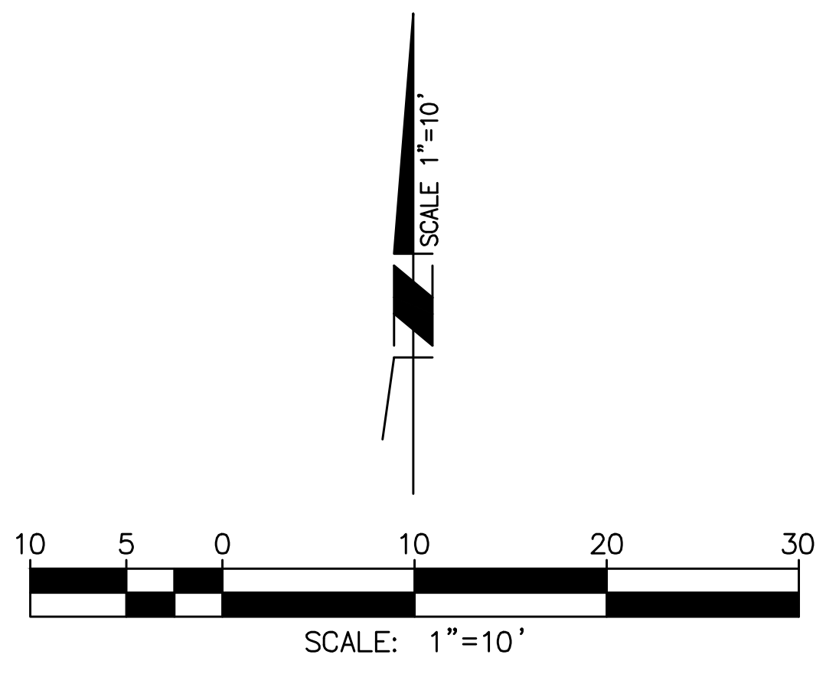
㊱ CONSTRUCT CURB RAMP, CASE D, TYPE 1, PER SPPWC STD PLAN 111-5 AND AS MODIFIED PER PLAN.

㊿ CONSTRUCT PVC STORM DRAIN (SDR 35), SIZE PER PLAN

(53) INSTALL 24"X24" DROP INLET W/HEEL PROOF GRATE (DI2424 JENSEN PRECAST) OR APPROVED EQUAL

(60) CONNECT ROOF DRAIN DOWN SPOUT TO 4" PVC STORM DRAIN PER ROOF DRAIN DETAIL SHEET C-2

(61) INSTALL 6" SDR 35 PVC PIPE



HATCH PATTERN LEGEND

▭	2" AC GRIND AND OVERLAY
⋰	LANDSCAPE PLANTING AREA
▨	ACCENT TEXTURE CONCRETE FINISH PER ARCH PLAN SET
░	CONCRETE PAVEMENT (AS NOTED PER PLAN)

NOTES:

1. SEE SHEET C-2 FOR UTILITY INFORMATION
2. OVER-EXCAVATION SHALL BE COMPLETED BASED ON THE GEOTECHNICAL REPORT DATED 9/3/2021 AND REVISED 5/18/2022, GRADING/DEVELOPMENT OF STRUCTURES. 5' BEYOND BUILDING FOOTPRINT AND 4' BELOW EXISTING GRADE. GEOGRID PLACED PRIOR TO PLACING FILL.

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

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GATEWAY ANNEX SCHOOL

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550 Airport Way, Camarillo, CA 93010

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DATE	7/01/2022
△1	8/28/2026
△	
△	
△	
△	

ENGINEERED SITE PLAN
GRADING, DRAINAGE, AND
STORM DRAIN

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
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www.perkinseastman.com

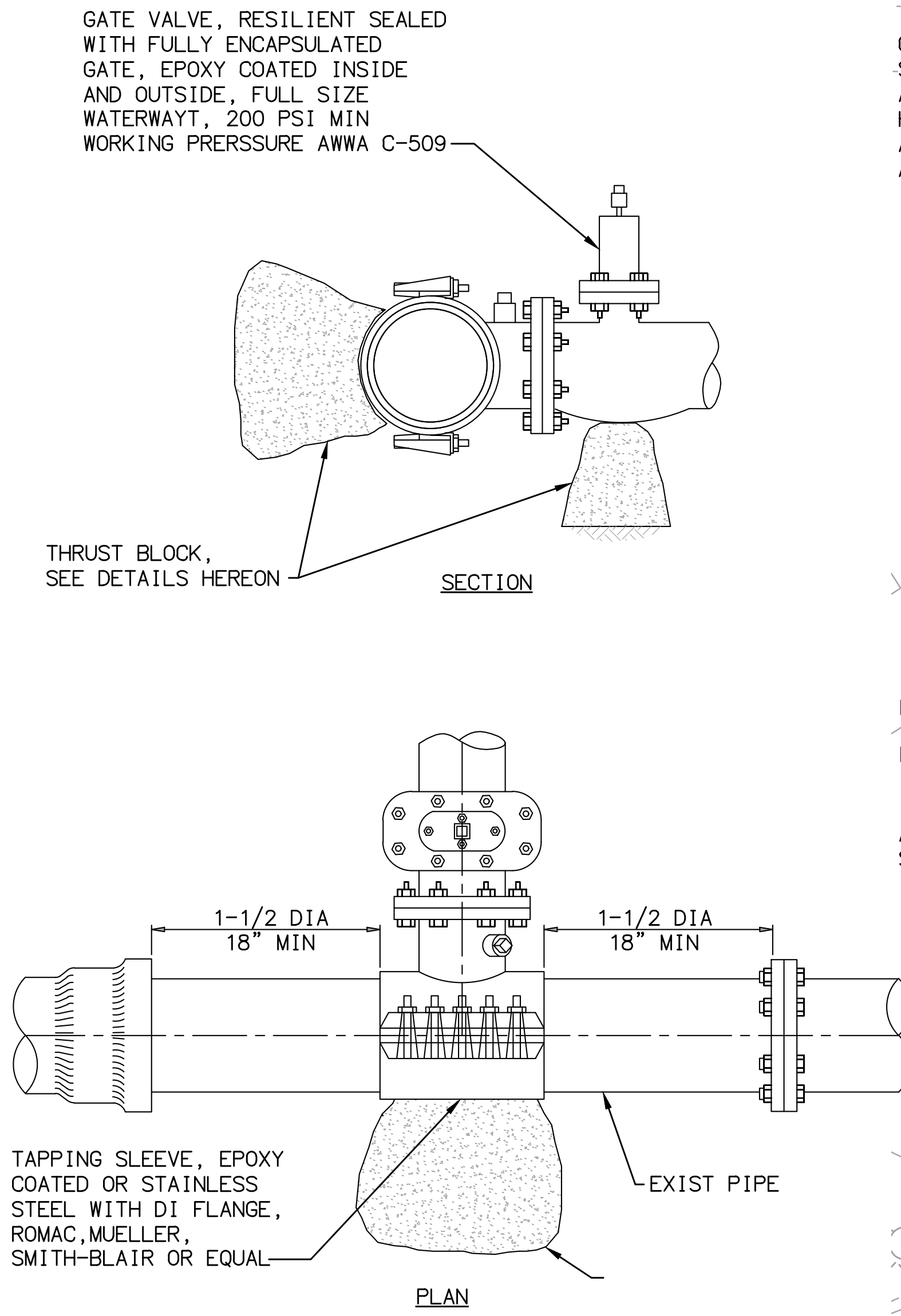
C-3

HATCH PATTERN LEGEND

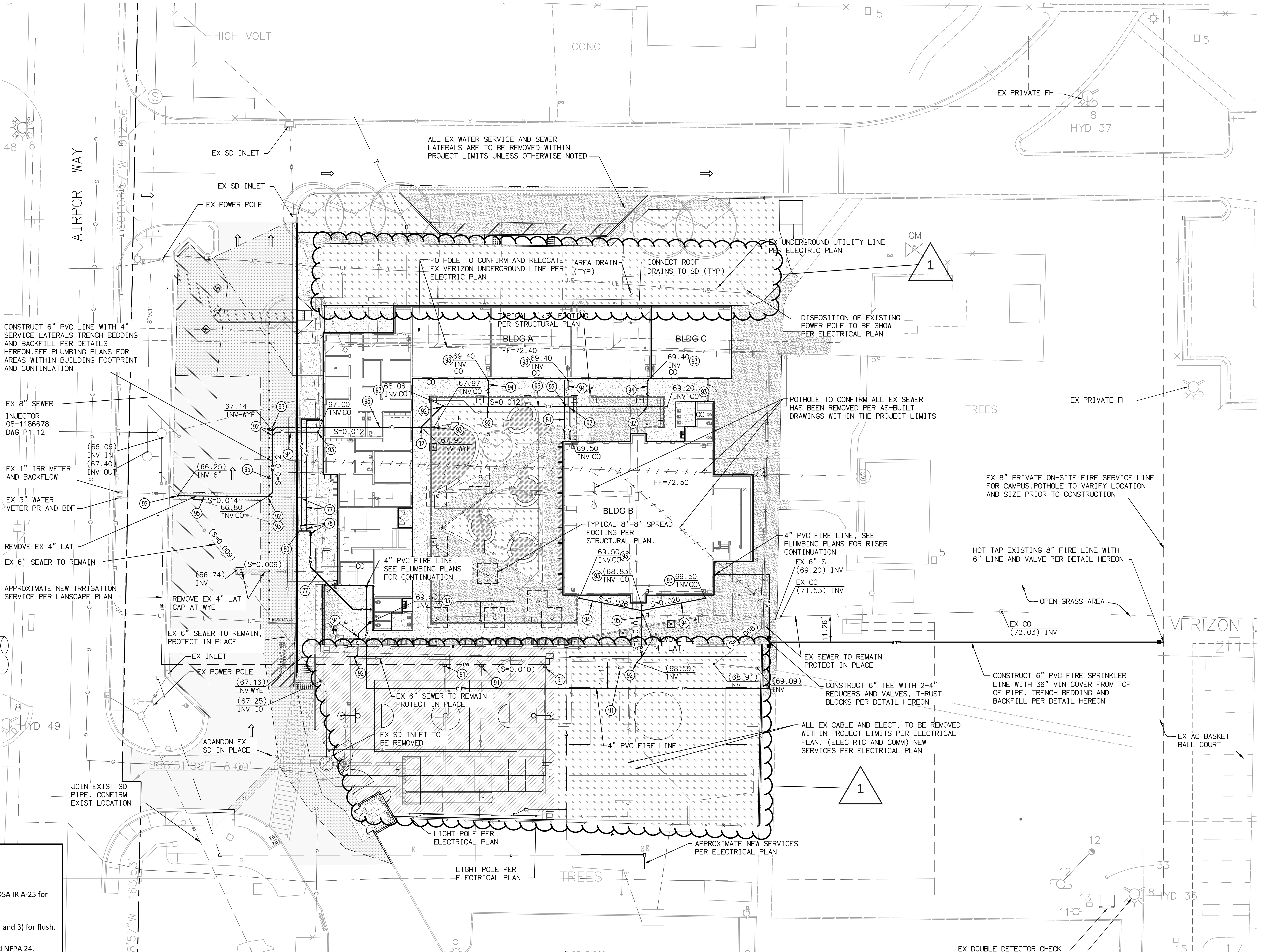
▭	2" AC GRIND AND OVERLAY
░	LANDSCAPE PLANTING AREA
▨	ACCENT TEXTURE CONCRETE FINISH PER ARCH PLAN SET
▒	CONCRETE PAVEMENT (AS NOTED PER PLAN)

HOT TAPPING NOTES:

1. PRIOR TO TAPPING THE WATER MAIN, THE TAPPING SLEEVE AND VALVE SHALL BE ATTACHED TO THE WATER MAIN AND PRESSURE TESTED FOR FIVE MINUTES AT 150 PSI
2. NEW LINE AND TAPPING SLEEVE MUST BE AT LEAST ONE SIZE SMALLER THAN EXISTING MAIN
3. TAPPING SLEEVE SHALL BE SEPARATED FROM NEAREST BELL, FLANGE, SERVICE CLAMP, CORP STOP OR OTHER FITTING BY A DISTANCE NO LESS THAN 1-1/2 PIPE DIAMETERS, WITH A MINIMUM OF 18"


GATE VALVE, RESILIENT SEALED WITH FULLY ENCAPSULATED GATE, EPOXY COATED INSIDE AND OUTSIDE, FULL SIZE WATERWAYT, 200 PSI MIN WORKING PRERSSURE AWWA C-509
THRUST BLOCK, SEE DETAILS HEREON
SECTION
1-1/2 DIA 18" MIN
1-1/2 DIA 18" MIN
TAPPING SLEEVE, EPOXY COATED OR STAINLESS STEEL WITH DI FLANGE, ROMAC,MUELLER, SMITH-BLAIR OR EQUAL
EXIST PIPE
PLAN

HOT TAP DETAIL


HIGH VOLT
CONC
AIRPORT WAY
S01°08'57"W 612.36'
EX PRIVATE FH
HYD 37
ALL EX WATER SERVICE AND SEWER LATERALS ARE TO BE REMOVED WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED
EX SD INLET
EX SD INLET
EX POWER POLE
EX UNDERGROUND UTILITY LINE PER ELECTRIC PLAN
GM
POTHOLE TO CONFIRM AND RELOCATE EX VERIZON UNDERGROUND LINE PER ELECTRIC PLAN
AREA DRAIN (TYP)
CONNECT ROOF DRAINS TO SD (TYP)
DISPOSITION OF EXISTING POWER POLE TO BE SHOW PER ELECTRICAL PLAN
TYPICAL 4'x4' FOOTING PER STRUCTURAL PLAN
BLDG A
FF=72.40
BLDG C
CONSTRUCT 6" PVC LINE WITH 4" SERVICE LATERALS TRENCH BEDDING AND BACKFILL PER DETAILS HEREON.SEE PLUMBING PLANS FOR AREAS WITHIN BUILDING FOOTPRINT AND CONTINUATION
EX 8" SEWER
INJECTOR 08-1186678 DWG P1.12
67.14 INV-WYE
(66.06) INV-IN
(67.40) INV-OUT
EX 1" IRR METER AND BACKFLOW
(66.25) INV 6"
EX 3" WATER METER PR AND BDF
S=0.014
66.80 INV CO
(S=0.009)
REMOVE EX 4" LAT
EX 6" SEWER TO REMAIN
(66.74) INV
(S=0.009)
APPROXIMATE NEW IRRIGATION SERVICE PER LANSCAPE PLAN
REMOVE EX 4" LAT CAP AT WYE
EX 6" SEWER TO REMAIN, PROTECT IN PLACE
EX INLET
EX POWER POLE
(67.16) INV WYE
(67.25) INV CO
ADANDON EX SD IN PLACE
JOIN EXIST SD PIPE. CONFIRM EXIST LOCATION
HYD 49
BUS ONLY
NO PARKING DELIVERY AREA
67.00 INV CO
68.06 INV CO
69.40 INV CO
67.97 INV CO
67.90 INV WYE
S=0.012
S=0.012
69.40 INV CO
69.20 INV CO
69.50 INV CO
POTHOLE TO CONFIRM ALL EX SEWER HAS BEEN REMOVED PER AS-BUILT DRAWINGS WITHIN THE PROJECT LIMITS
TREES
EX PRIVATE FH
FF=72.50
BLDG B
TYPICAL 8'-8' SPREAD FOOTING PER STRUCTURAL PLAN.
69.50 INV CO
(68.83) INV CO
69.50 INV CO
S=0.026
S=0.026
4" PVC FIRE LINE, SEE PLUMBING PLANS FOR CONTINUATION
69.50 INV CO
CO
4" PVC FIRE LINE, SEE PLUMBING PLANS FOR RISER CONTINUATION
EX 6" S (69.20) INV
EX CO (71.53) INV
EX 8" PRIVATE ON-SITE FIRE SERVICE LINE FOR CAMPUS.POTHOLE TO VARIFY LOCATION AND SIZE PRIOR TO CONSTRUCTION
HOT TAP EXISTING 8" FIRE LINE WITH 6" LINE AND VALVE PER DETAIL HEREON
OPEN GRASS AREA
EX CO (72.03) INV
VERIZON
11.26'
(S=0.008)
REMOVE EX 4" LAT
(S=0.010)
EX 6" SEWER TO REMAIN PROTECT IN PLACE
(68.59) INV
(68.91) INV
(69.09) INV
EX SEWER TO REMAIN PROTECT IN PLACE
CONSTRUCT 6" TEE WITH 2-4" REDUCERS AND VALVES, THRUST BLOCKS PER DETAIL HEREON
CONSTRUCT 6" PVC FIRE SPRINKLER LINE WITH 36" MIN COVER FROM TOP OF PIPE. TRENCH BEDDING AND BACKFILL PER DETAIL HEREON.
EX AC BASKET BALL COURT
EX SD INLET TO BE REMOVED
4" PVC FIRE LINE
ALL EX CABLE AND ELECT, TO BE REMOVED WITHIN PROJECT LIMITS PER ELECTRICAL PLAN. (ELECTRIC AND COMM) NEW SERVICES PER ELECTRICAL PLAN
1
1
LIGHT POLE PER ELECTRICAL PLAN
APPROXIMATE NEW SERVICES PER ELECTRICAL PLAN
LIGHT POLE PER ELECTRICAL PLAN
TREES
EX DOUBLE DETECTOR CHECK VALVE AND BACKFLOW
EX PRIVATE FH
HYD 35
S01°08'57"W 163.53'
77
78
80
81
91
92
93
94
95

NOTES:

UNDERGROUND PIPING FOR PRIVATE HYDRANTS & SPRINKLERS

1. Prior to installation, all plans and specifications shall be approved by DSA. Refer to DSA IR A-25 for design, installation and maintenance general requirements.

2. Inspections are required: 1) prior to pouring thrust blocks. 2) for hydrostatic testing, and 3) for flush.

3. Installation, inspection, and testing shall conform to 2016 editions CFC, NFPA 13 and NFPA 24.

4. Private fire hydrants shall be approved wet barrel style with a minimum of one 2 1/2" and one 4" outlet. The 4" outlet shall face the fire department access road. All outlets shall be provided with National Standard Threads NST). NFPA 24, 7.1.1.2.

5. Fire hydrant supply piping shall be a minimum of six inches in diameter. The center of the hose outlet shall be not less than 18" above final grade or, where located in a hose house, 12" above the floor. NFPA 24, 7.1.1 & 7.3.3.

6. Fire hydrants shall be a minimum of 40 feet from all structures. NFPA 24, 7.2.3.

7. A keyed gate valve shall be provided for each hydrant in an accessible location. Valves shall not be located in parking stalls. NFPA 24, 7.1.1.1

8. All piping shall be listed for use in fire protection service and comply with AWWA Standards (Class 150 minimum) Class 200 pipe shall be used where the pressure may exceed 150 psi. NFPA 24, 10.1.1

9. All bolted joints shall be cleaned and thoroughly coated with asphalt or other corrosion retarding material after installation. NFPA 24, 10.4.1.1

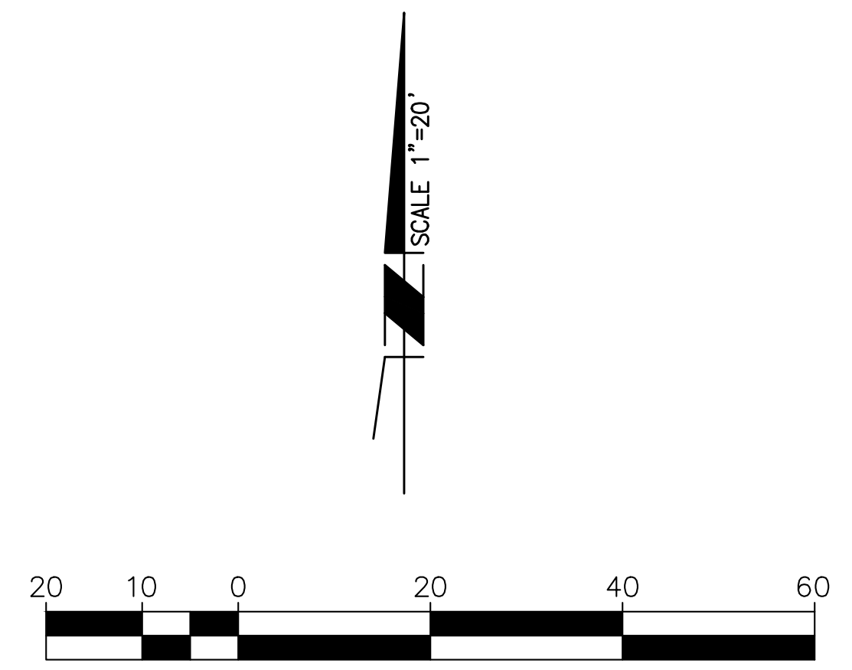
10. Backfill shall be well tamped layers to consist of 6" minimum bed of clean fill sand or pea gravel below and 12" above the pipe (total 18" minimum). NFPA 24, 10.9.1.

11. Fittings shall be of an approved type. NFPA 24, 10.2.1.

12. A minimum of 30" of cover, from finish grade to the top of the pipe, shall be provided. When surface loads are expected, a minimum of 36" cover shall be provided. NFPA 24, 10.4.2.2.2 &.3

13. Thrust blocks, or other approved method of thrust restraint, shall be provided wherever pipe changes direction. Back-fill between the joints to prevent movement of the pipe. Provide details and calculations for sizing thrust blocks based on actual soil conditions. NFPA 24, 10.6.

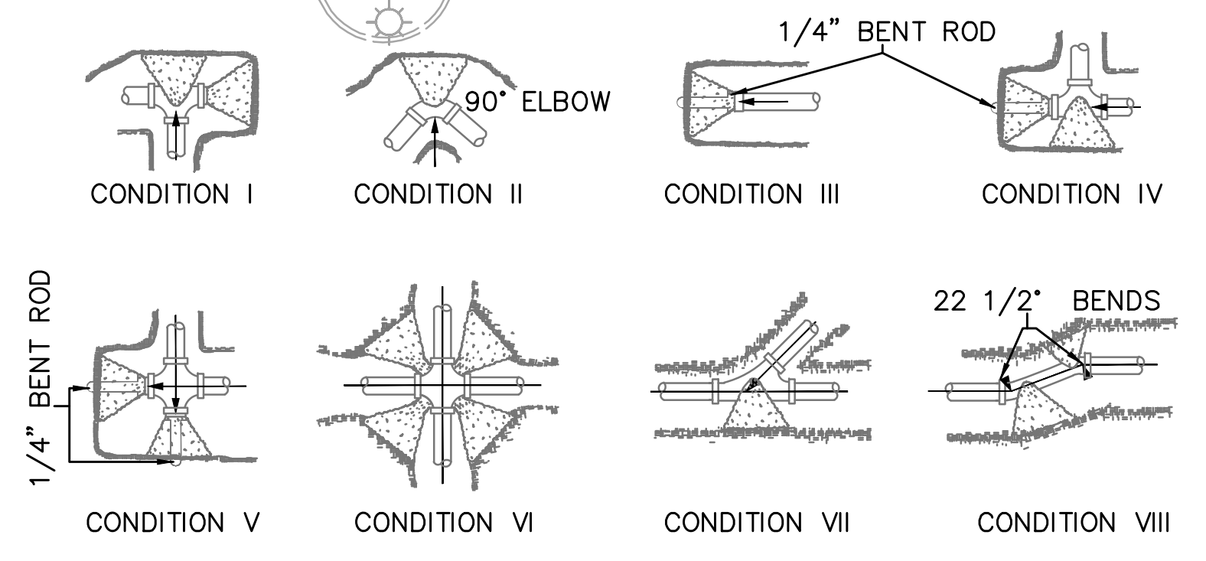
14. A hydrostatic test (200 psi for two hours or 50 psi over maximum static pressure, whichever is greater) shall be performed. NFPA 24, 10.10.2.2.1.



SCALE: 1"=20'

CAUTION:

THE CONTRACTOR SHALL POTHOLE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO STARTING ANY WET UTILITY CONSTRUCTION. PRIOR TO POTHOLING THE CONTRACTOR SHALL PROVIDE THE ENGINEER TWO WORKING DAYS NOTICE TO SURVEY AND VERIFY THE HORIZONTAL/VERTICAL LOCATION OF ALL EXISTING UTILITY CROSSINGS. CHANGES TO THE PROPOSED WET UTILITY ALIGNMENT COULD BE REQUIRED BASED ON THE ACTUAL UTILITY LOCATIONS.



NO SCALE

THRUST BLOCK BEARING AREA IN SQUARE FEET								
PIPE IN.	CONDITION							
	I	II	III	IV	V	VI	VII	VIII
4	2.0	2.9	2.0	2@2.0	2@2.0	4@1.6	2.0	2@1.6
6	4.3	6.0	4.3	2@4.3	2@4.3	4@3.3	4.3	2@3.3
8	7.4	10.5	7.4	2@7.4	2@7.4	4@5.7	7.4	2@5.7
10	12.1	17.1	12.1	2@12.1	2@12.1	4@9.3	12.1	2@9.3
12	17.2	24.3	17.2	2@17.2	2@17.2	4@13.2	17.2	2@13.2
14	20.7	29.3	20.7	2@20.7	2@20.7	4@15.8	20.7	2@15.8
16	26.7	37.8	26.7	2@26.7	2@26.7	4@20.5	26.7	2@20.5

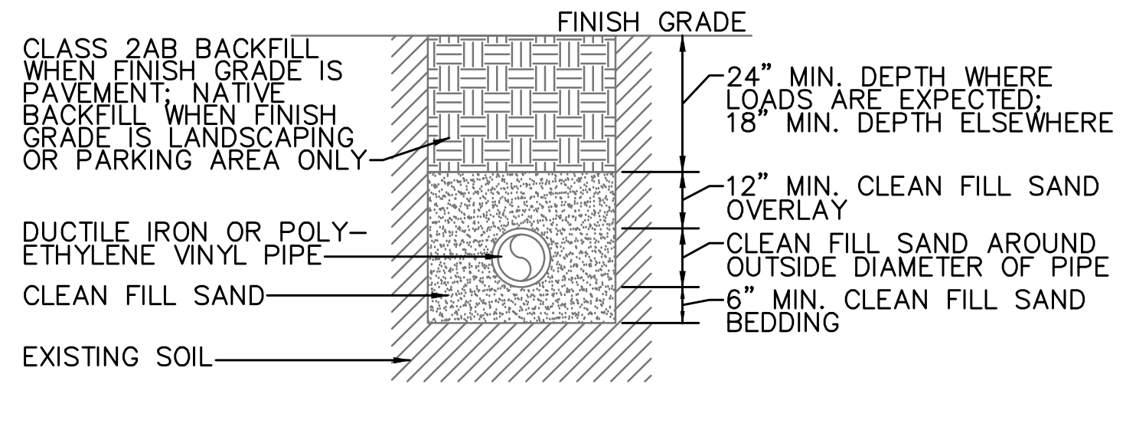
NOTES

1. PIPE FITTINGS SHALL BE WRAPPED WITH A LAYER OF 8-MIL POLYETHYLENE PLASTIC TUBE AND SEALED WITH 8-MIL UG TAPE
2. ALL BURIED BOLTS/JOINT ACCESSORIES SHALL BE COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION
3. THRUST BLOCK AREAS BASED ON 225 PSI PRESSURE AND 2,000 PSF ALLOWABLE SOIL PRESSURE WITH 2 1/2 FEET OF COVER MINIMUM. ADDITIONAL BEARING AREA REQUIRED FOR SPECIAL CONDITIONS SHALL BE APPROVED BY THE DISTRICT ENGINEER.
4. THRUST BLOCK BEARING FACES SHALL BE PLACED AGAINST UNDISTURBED SOIL, APPROVED COMPACTED BACKFILL OR CLASS 100-E-100 SLURRY.
5. THRUST BLOCKS SHALL BE NO LEANER THAN 1 PART CEMENT 2 1/2 PARTS SAND AND 5 PARTS STONE U.N.O.
6. TO FACILITATE FUTURE REMOVAL OF THRUST BLOCKS AND LINE EXTENSIONS:
   A. INSTALL 1/4" BENT ROD HANDLES.
   B. USE CARDBOARD SEPARATORS BETWEEN BLOCKS, IF NEEDED.

ON-SITE PRIVATE FIRE LINE THRUST BLOCK DETAILS

NOTE:

1. SEE SHEET C-1 FOR STORM DRAIN INFORMATION
2. FOR EXISTING ON-SITE SEWER AND WATER SERVICES, SEE TRITON TEMP SCHOOL AS-BUILT 2018
3. ALL EXISTING INVERT ELEVATIONS ARE BASED ON AS-BUILT RECORD DOCUMENTS. POTHOLE TO CONFIRM DEPTHS


FINISH GRADE
CLASS 2AB BACKFILL WHEN FINISH GRADE IS PAVEMENT; NATIVE BACKFILL WHEN FINISH GRADE IS LANDSCAPING OR PARKING AREA ONLY
DUCTILE IRON OR POLY-ETHYLENE VINYL PIPE
CLEAN FILL SAND
EXISTING SOIL
24" MIN. DEPTH WHERE LOADS ARE EXPECTED; 18" MIN. DEPTH ELSEWHERE
12" MIN. CLEAN FILL SAND OVERLAY
CLEAN FILL SAND AROUND OUTSIDE DIAMETER OF PIPE
6" MIN. CLEAN FILL SAND BEDDING

ON-SITE PRIVATE FIRE LINE BEDDING AND BACKFILL DETAIL

CONSTRUCTION NOTES

- ⑦⑦ CONSTRUCT 2" WATER SERVICE, THRUST BLOCKS PER DETAILS HEREON
- ⑦⑧ INSTALL 2" WATER VAVLE IN BOX
- ⑧⓪ CONNECT TO EX 3" WATER SERVICE WITH 2" SERVICE. REMOVE EX 3" WATER BEYOND NEW CONNECTION
- ⑧① WATER SERVICE CONNECTION FROM BLDG A TO BLDG B, SEE PLUMBING PLANS
- ⑨① EX 4" SEWER LAT TO BE REMOVED AND CAPPED AT EX WYE
- ⑨② INSTALL WYE FITTING
- ⑨③ INSTALL CLEAN OUT
- ⑨④ CONSTRUCT 4" SDR-35 SEWER LAT
- ⑨⑤ CONSTRUCT 6" SDR-35 SEWER LINE

BRIAN PAUL DOUGHERTY
LICENSED ARCHITECT
NO. C-9824
REN. JUL.31, 2021

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GATEWAY ANNEX SCHOOL

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OVERALL UTILITY SITE PLAN
WATER AND SEWER

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
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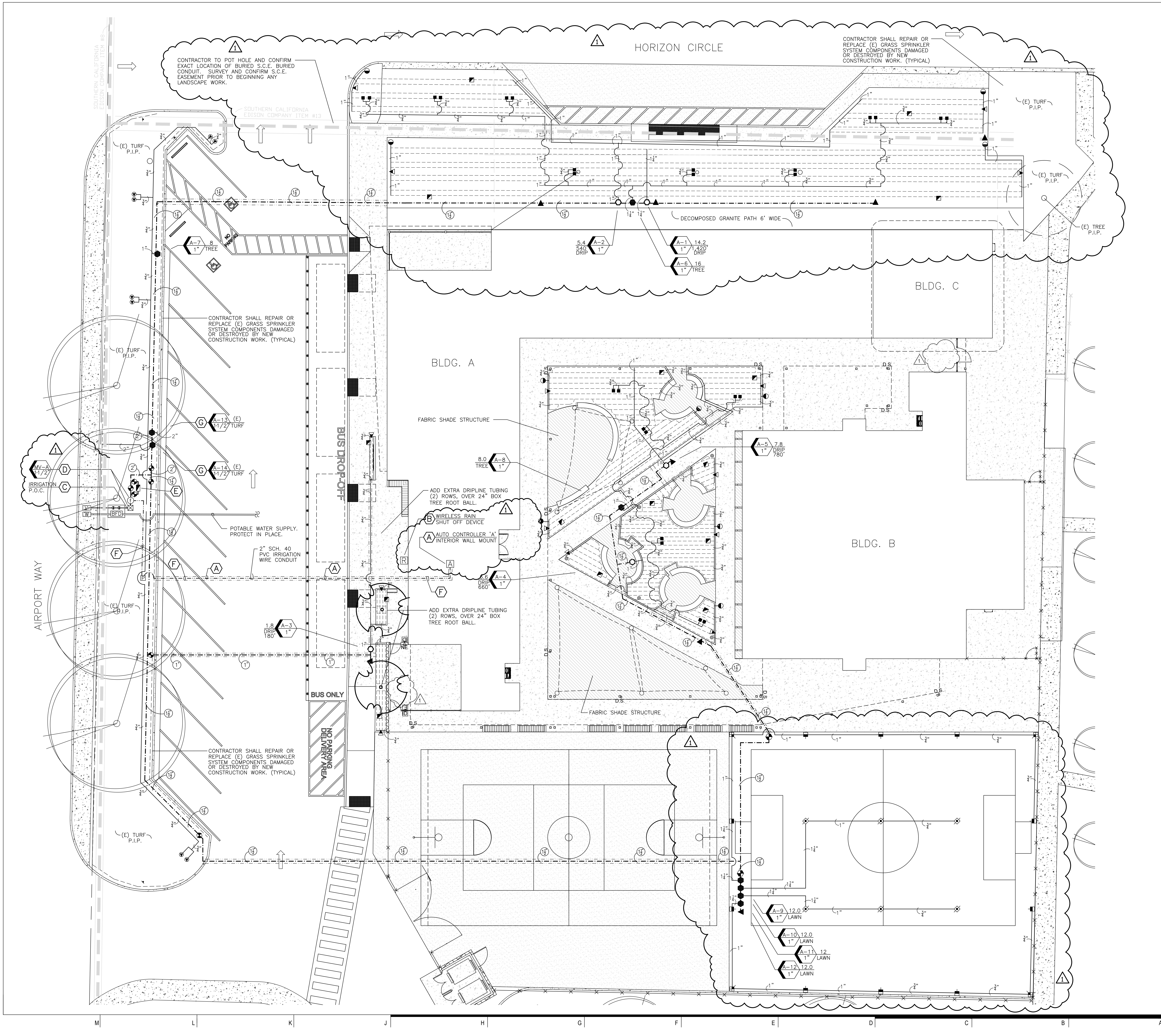
C-4
△1


HORIZON CIRCLE
CONTRACTOR TO POT HOLE AND CONFIRM EXACT LOCATION OF BURIED S.C.E. BURIED CONDUIT. SURVEY AND CONFIRM S.C.E. EASEMENT PRIOR TO BEGINNING ANY LANDSCAPE WORK.
CONTRACTOR SHALL REPAIR OR REPLACE (E) GRASS SPRINKLER SYSTEM COMPONENTS DAMAGED OR DESTROYED BY NEW CONSTRUCTION WORK. (TYPICAL)
SOUTHERN CALIFORNIA EDISON COMPANY ITEM #13
(E) TURF P.I.P.
(E) TREE P.I.P.
DECOMPOSED GRANITE PATH 6' WIDE
A-1 14.2 1" 1,420' DRIP
A-2 5.4 1" 540 DRIP
A-6 16 1" TREE
A-7 8 1" TREE
NO PARKING
BLDG. A
BLDG. B
BLDG. C
BUS DROP-OFF
BUS ONLY
NO PARKING DELIVERY AREA
FABRIC SHADE STRUCTURE
A-5 7.8 1" DRIP 780'
A-8 8.0 1" TREE
A-4 6.6 1" DRIP 660
A-3 1.8 1" DRIP 180'
A-13 1-1/2" (E) TURF
A-14 1-1/2" (E) TURF
MV-A 1-1/2"
IRRIGATION P.O.C.
POTABLE WATER SUPPLY. PROTECT IN PLACE.
2" SCH. 40 PVC IRRIGATION WIRE CONDUIT
ADD EXTRA DRIPLINE TUBING (2) ROWS, OVER 24" BOX TREE ROOT BALL.
B WIRELESS RAIN SHUT OFF DEVICE
A AUTO CONTROLLER 'A' INTERIOR WALL MOUNT
AIRPORT WAY
A-9 12.0 1" LAWN
A-10 12.0 1" LAWN
A-11 12 1" LAWN
A-12 12.0 1" LAWN
D.S.
M L K J H G F E D C B A
1 2 3 4 5 6 7 8 9 10

GRAPHIC SCALE

0 5 10 20 40

SCALE: 1"=10'

NOTE:
SEE SHEET L2 FOR IRRIGATION LEGENDS, NOTES AND MWELO COMPLIANCE INFORMATION.

JORDAN & BAIN
LANDSCAPE ARCHITECTS, INC.
459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642-3641 FAX (805) 653-7874

Jordan, Gilbert & Bain Landscape Architects, Inc. © 2018

JOHN JAMES BAIN III #3193
RENEWAL DATE 04-28
DATE 08-14-26

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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1	ADD 1	08/28/2026

IRRIGATION PLAN

PERKINS EASTMAN

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Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

L1

PROJECT NOTES

1. FIELD VERIFY EXISTING STATIC WATER PRESSURE AND NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY WORK.
2. CONTACT UNDERGROUND SERVICE ALERT AT 1-800-227-2600 TO IDENTIFY AND LOCATE ALL ON-SITE UTILITIES PRIOR TO BEGINNING WORK. THE LANDSCAPE SUB CONTRACTOR SHALL COORDINATE WITH THE PROJECT SUPERINTENDENT AND REVIEW THE EXISTING SITE PRIOR TO BEGINNING WORK TO AVOID CONFLICTS WITH EXISTING UTILITIES AND PROPOSED NEW CONSTRUCTION.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY TRENCH SETTLING OR IRRIGATION HEAD SETTLING. ALL TRENCHES WILL BE BACK FILLED WITH CLEAN SOIL, COMPACTED AND REPLANTED WITH APPROVED SHRUB OR GROUND COVER TO MATCH EXISTING PLANTING. ALL HEADS THAT SETTLE WILL BE RAISED TO 1/2" ABOVE FINISH GRADE. PROVIDE ADDITIONAL SOIL AS NECESSARY AND HAND TAMP AROUND HEAD TO PREVENT FUTURE SETTLING. PROVIDE NEW SEED OR PLANT MATERIAL AS NEEDED TO COMPLETE REPAIR.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SLEEVING INSTALLED UNDER ALL PAVED SURFACES. PROVIDE SEPARATE INDIVIDUAL SLEEVES FOR MAINLINE, LATERALS, AND REMOTE CONTROL VALVE WIRES. LATERAL SLEEVING SHALL BE SIZED (3) PIPE SIZES LARGER THAN THE LATERAL PIPE TO BE SLEEVED.
5. THE IRRIGATION SYSTEM IS SHOWN DIAGRAMMATICALLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN LANDSCAPE PLANTERS WHENEVER POSSIBLE.
6. THE CONTRACTOR WILL BRAND INTO THE REMOTE CONTROL VALVE BOX LIDS THE NEW VALVE STATION NUMBER AND RELATED NEW AUTO CONTROLLER LETTER. PROVIDE CHRISTY STANDARD SIZE I.D. TAGS CONNECTED TO EACH VALVE SOLENOID WITH NEW STATION NUMBER AND RELATED NEW AUTO CONTROLLER LETTER.
7. THE CONTRACTOR SHALL INSTALL ALL IRRIGATION REMOTE CONTROL VALVES, GATE VALVES, AND QUICK COUPLING VALVES A MINIMUM DISTANCE OF 10'-0" FROM ALL TREE TRUNK LOCATIONS ILLUSTRATED ON PLANTING PLAN. CONFIRM LAYOUT OF PROPOSED TREE LOCATIONS PRIOR TO INSTALLING ANY VALVE.
8. UTILITIES MAY HAVE BEEN OMITTED ON THE IRRIGATION SHEETS. REVIEW CIVIL ENGINEER'S DRAWINGS AND EXERCISE CARE IN EXCAVATION WHILE PROTECTING EXISTING UTILITIES IN PLACE.
9. ALL REMOTE CONTROL VALVE AND MASTER VALVE WIRES USED FOR THIS PROJECT SHALL BE DIRECT BURY 14-GAUGE IRRIGATION WIRE INSTALLED 24" BELOW GRADE OR IN SLEEVES AS PER IRRIGATION PLAN. ACTIVE COMMON SHALL BE WHITE IN COLOR. SPARE COMMON WIRE SHALL BE WHITE IN COLOR WITH A RED STRIPE. MASTER VALVE COMMON WIRE SHALL BE YELLOW AND MASTER VALVE CONTROL WIRE SHALL BE BLUE. ALL REMOTE CONTROL VALVE CONTROL WIRES SHALL BE ORANGE IN COLOR.
10. PULL A CONTINUOUS 14-GAUGE SPARE COMMON WIRE, WHITE IN COLOR WITH A RED STRIPE, FROM AUTO CONTROLLER TO ALL REMOTE CONTROL VALVES AND WIRE SPLICE BOXES INSTALLED ON THIS PROJECT. LOOP THE WIRE INTO EACH VALVE BOX FOR EASY ACCESS. PULL A CONTINUOUS SOLID RED COLORED 14-GAUGE IRRIGATION WIRE FROM AUTO CONTROLLER TO ALL REMOTE CONTROL VALVE BOXES AND WIRE PULL BOXES ON THIS PROJECT. LOOP RED WIRE INTO EACH VALVE BOX FOR EASY ACCESS. BOTH WIRES SHALL BE TUCKED TO THE SIDE OF THE VALVE BOX SO AS NOT TO INTERFERE WITH THE MAINTENANCE OF THE REMOTE CONTROL VALVE WITHIN THE BOX.

MAXIMUM APPLIED WATER ALLOWANCE

MAWA = (ETo x 0.60 x Land. Area x 0.62) + (special use)
ETo = reference evapotranspiration of Camarillo of 48.2 (inches per year)
0.60 = evapotranspiration adjustment factor (standard number public schools)
Land. Area. = total square feet of landscape area for the site
0.62 = conversion factor (to gallons per square foot)
Special Use Area. = total sq. feet of landscape area identified as 'special use'

MAWA = (48.2 x 0.60 x 14,315 x 0.62) + (48.2 x 1.0 x 6,480 x .62)
MAWA = 256,674 G.P.Y. + 193,648 G.P.Y. = 450,322 G.P.Y

ESTIMATED APPLIED WATER USE FORMULA

$$\text{EAWU} = (\text{ETo}) \times (.62)\,\frac{(\text{PF} \times \text{Land. Area})}{\text{IE}}$$

ETo = reference evapotranspiration of Camarillo of 46.1 (inches per year)
0.62 = conversion factor (to gallons per square foot)
PF = plant factor from WUCOLS
LA = landscaped area covered by sprinkler valve (sq. ft.)
IE = irrigation efficiency (0.75 rotary nozzles, 0.81 bubblers)
IE = irrigation efficiency – Special Use (1.0)

LOW WATER USE – SHRUB PLANTERS – DRIP IRRIGATION

$$\text{EAWU} = (48.2) \times (.62)\,\frac{(.3 \times 6{,}788)}{.81} = 75{,}131 \text{ GPY}$$

MEDIUM WATER USE – TREES – BUBBLERS

$$\text{EAWU} = (48.2) \times (.62)\,\frac{(.5 \times 425)}{.81} = 7{,}840 \text{ GPY}$$

SPECIAL USE – TURF RECREATION AREA – OVER HEAD ROTORS

$$\text{EAWU} = (48.2) \times (.62)\,\frac{(.7 \times 6{,}480)}{.75} = 180{,}738 \text{ GPY}$$

DECOMPOSED GRANITE PATHWAY

$$\text{EAWU} = (48.2) \times (.62)\,\frac{(.0 \times 1{,}047)}{0} = 0 \text{ GPY}$$

TOTAL EAWU = 263,709 GPY (% OF MAWA)

IRRIGATION WATER USE SUMMARY

TOTAL EAWU = 263,709 GALLONS PER YEAR
TOTAL MAWA = 450,322 GALLONS PER YEAR

TOTAL VOLUME OF WATER UNDER MAWA = 186,613 GALLONS PER YEAR
TOTAL % OF WATER UNDER MAWA = 58.6%

MWELO COMPLIANCE STATEMENT

THE LANDSCAPE DESIGN ILLUSTRATED ON THESES PLANS COMPLIES WITH THE MANDATORY ELEMENTS OF THE STATE OF CALIFORNIA "STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE" STANDARDS.

John J Bain — 3193 — 8-28-26
LANDSCAPE ARCHITECT — LICENSE NUMBER — DATE

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL / REMARKS	DETAIL / SHEET NO.
=::=::=	SLEEVING	PACIFIC PLASTICS	SCH. 40 PVC – 3 PIPE SIZES LARGER THAN THE PIPE TO BE SLEEVED – 24" BELOW GRADE	1,2,3 / L5
═══	(E) COPPER PIPE	UNKNOWN	TYPE 'K' COPPER – 11/2" SIZE – SOLDER WELD – FROM WATER METER TO BACKFLOW ASSEMBLY – P.I.P.	N.A.
—··—··—	FLOW SENSING CABLE	RAIN MASTER	EV-CAB-SEN – INSTALLED IN A 1" SCH. 40 PVC ELECTRICAL CONDUIT – 24" BELOW FINISH GRADE	1 / L5 11 / L6
—·—·—	MAINLINE	PACIFIC PLASTICS	SIZE PER PLAN – SCH. 40 PVC – SOLVENT WELD – 24" BELOW GRADE	1,2,3,4 / L5
- - - - - - -	SUB-SURFACE DRIPLINE	NETAFIM	TLCV6-12-XX – 'TECHLINE CV SERIES' DRIPLINE TUBING – 0.6 GPH EMITTERS @ 12" O.C. – INSTALL TUBING 4" BELOW FINISH GRADE – TECHLINE TUBING ROWS SPACED 18" APART FROM EACH OTHER IN GRID PATTERN OR WHEN A SHRUB HEDGE ROW IS PLANTED – INSTALL (2) ROWS OF TUBING WITH SHRUB ROOT BALLS CENTERED IN BETWEEN TUBING.	1,2,3,4, / L6
———	LATERAL	PACIFIC PLASTICS	SCH. 40 PVC – 3/4" SIZE UNLESS OTHERWISE NOTED ON PLAN – SOLVENT WELD – 12" BELOW GRADE	1,2,3 / L5
NO SYMBOL	FLEXIBLE PVC HOSE	GPH IRRIGATION	MODEL GPVCSSAR050IRR – 3/8" PVC FLEXIBLE IRRIGATION HOSE – INSTALL AS PER DETAILS	10 / L5
W	DOMESTIC WATER METER	UNKNOWN	PROTECT IN PLACE	N.A.
V	IRRIGATION ONLY WATER METER	UNKNOWN	1" SIZE – PROTECT IN PLACE	N.A.
☒	NORMALLY CLOSED MASTER VALVE	SUPERIOR	3200 SERIES – 1-1/2" SIZE – INSTALL IN A RECTANGULAR VALVE BOX	10 / L6
ⓕ	FLOW SENSOR	C.S.T.	MODEL FSI-T15-001 – SCH. 40 PVC BODY – SOLVENT WELD – INSTALL IN RECTANGULAR VALVE BOX	11 / L6
◪	AUTOMATIC FERTILIZER DISPENSER	EZ-FLO	MODEL EZ-005-FX INSTALLED IN A CARSON JUMBO VALVE BOX MODEL 1730-18 (32"L X 18"H X 19"W) INSTALL ALL REQUIRED EZ-FLO FITTINGS. MODEL CBV-200, ON TO THE MAINLINE AS PER MANUF. SPECS.	15 / L5
A	AUTO CONTROLLER	TORO	EGPi16-PLAST-RM-ISVC-5Y – 16 STATION AUTO CONTROLLER IN A FACTORY PLASTIC WALL MOUNT ENCLOSURE. INSTALL WIRELESS RAIN SHUT OFF DEVICE PER MANUFACTURER'S SPECIFICATIONS. INSTALL DEVICE AT ELEVATION ABOVE AUTO CONTROLLER ON BUILDING WALL HIGH ENOUGH TO AVOID VANDALISM.	5 / L6
R	RAIN SHUT OFF DEVICE	TORO	WIRELESS MODEL RS1000 – MOUNT ON BUILDING EXTERIOR WALL AT ELEVATION TO AVOID VANDALISM	N.A.
⬢	REMOTE CONTROL VALVE	RAIN BIRD	PESB SERIES – SIZES NOTED – IN A RECTANGULAR VALVE BOX	7 / L5
⬡	DRIP RCV ASSEMBLY	RAIN BIRD	XCZ-100-PRB-COM – 1" SIZE – IN A JUMBO VALVE BOX	8 / L5
▲	QUICK COUPLER	RAIN BIRD	44-RC – 1" SIZE – IN 10" ROUND VALVE BOX	6 / L5
◈	SCH. 80 PVC BALL VALVE	COLONIAL / LASCO	VXX101N-SC SERIES – LINE SIZE – INSTALLED IN A RECTANGULAR VALVE BOX	5 / L5
◐═◐	(E) REDUCED PRES. BACKFLOW	WILKINS	975XLSE W/ PRESSURE REGULATOR – 1-1/2" SIZE – INSTALLED IN SECURITY ENCLOSURE – PROTECT IN PLACE	N.A.
▽	DRIP SYSTEM FLUSH VALVE	SPEARS/KBI/EQUAL	3/4" SCH. 80 PVC ECONOMY BALL VALVE, SOCKET INLET & OUTLET, IN VALVE BOX WITH 3'-0" OF FLEXIBLE PVC HOSE	12 / L5
◩	DRIP AIR RELIEF VALVE	NETAFIM	MODEL TLAVRV – INSTALLED ON BURIED TUBING GRID @ HIGH POINT – IN A ROUND VALVE BOX WITH GRAVEL SUMP	16 / L5
◐	DRIP SYSTEM INDICATOR	TORO	570Z-12P-PRXCOM-O-T-5Q – ACTIVATE X-FLOW WATER SHUT OFF DEVICE IN RISER TO PREVENT WATER FLOW TO NOZ.	11 / L5
P	WIRE PULL / SPLICE BOX	CARSON	1419-12 – FORM A 3'-0" LONG WIRE LOOP WITH VALVE BOX CAVITY	9 / L5

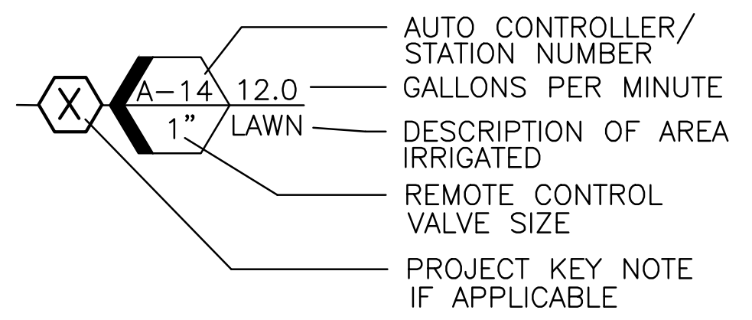
Q	T	H	F	DESCRIPTION	MANUFACTURER	MODEL / REMARKS	PSI	RAD	Q GPM	T GPM	H GPM	F GPM	DETAIL / SHEET NO.
			▼	ROOT WATERING SYSTEM	RAIN BIRD	RWS-B-C-1404 / RWS-SOCK / RWSGRATE	30	1				1.00	14 / L5
⊞	◪	⬓		POP UP TURF ROTOR	RAIN BIRD	5004+PCSAM-5000MPR-25Q,25T,25H	40	25	1.00	1.38	1.98		13 / L5
			◈	POP UP TURF ROTOR	RAIN BIRD	5004+FCSAM-5000MPR-25F	40	25				3.82	13 / L5
			■	TREE FLOOD BUBBLER	GPH IRRIGATION (1.0 GPM BUBBLER)	MODEL GPCBCV10 BUBBLER EQUIPPED WITH BUILT IN CHECK VALVE, BLACK IN COLOR. INSTALL (2) BUBBLERS PER EACH TREE AND EXISTING TREES USING IRRIGATION SIZE (3/8" IPS) FLEXIBLE PVC HOSE, G.P.H. MODEL GPVCSSAR050IRR (BLACK IN COLOR) WITH (2) SOLVENT WELD G.P.H. MODEL G436073B BLACK PVC MALE ADAPTERS. CUT LENGTH OF FLEXIBLE PVC TUBING STARTING FROM RIGID PVC LATERAL SUPPLY TO LENGTH NEEDED TO INSTALL EMITTER WITHIN PLANT BASIN IN THE FIELD. USE I.P.S. PIPE PRIMER MODEL 'P-70' AND I.P.S. SOLVENT CEMENT MODEL '795' FOR ALL FLEXIBLE PVC TUBING WELDS TO BLACK COLORED G.P.H. MALE ADAPTERS. SECURE TUBING TO SLOPE / FINISH GRADE SURFACE WITH 6" LONG GALV. STEEL STAPLES INSTALLED 3'-0" O.C.	30	1				1.00	10 / L5
NO SYMBOL				POP UP SPRAY HEAD	RAIN BIRD	1804SAM-PRS W/ HE-VAN SERIES ADJUSTABLE SERIES NOZZLE – USE TO REPLACE ANY (E) POP UP HEAD DAMAGED DUE TO NEW CONSTRUCTION WORK.							11 / L5

IRRIGATION CALCULATIONS

DESCRIPTION	RCV A-12 12.0 GPM
AVAILABLE STATIC WATER PRESSURE @ P.O.C.	75.0 PSI
LOSS AT 1" WATER METER	1.2 PSI
LOSS THROUGH 1.5" COPPER SERVICE LINE	0.2 PSI
LOSS AT BACKFLOW DEVICE (1.5")	12.5 PSI
PRESSURE REGULATOR SET @ 55 PSI	55.0 PSI
LOSS THROUGH 1" MASTER VALVE/1" FLOW SENSOR	2.0 PSI
LOSS THROUGH 350 LINEAR FEET OF 1.5" MAINLINE	2.7 PSI
LOSS AT RCV	2.4 PSI
LOSS RCV TO LAST HEAD (LATERALS)	3.2 PSI
LOSS THROUGH PVC FITTINGS	1.2 PSI
LOSS DUE TO ELEVATION CHANGE	0.0 PSI
TOTAL PRESSURE LOSS FROM PRESSURE REGULATOR	11.5 PSI
AVAILABLE OPERATING PRESSURE	43.5 PSI

NOTE:
IRRIGATION CALCULATIONS ARE BASED ON A MINIMUM STATIC WATER PRESSURE AVAILABLE ON SITE OF 75.0 PSI. CONTRACTOR TO VERIFY AVAILABLE STATIC WATER PRESSURE ON SITE AND NOTIFY LANDSCAPE ARCHITECT OF RESULTS PRIOR TO BEGINNING ANY WORK.

REMOTE CONTROL VALVE KEY


X
A-14
12.0
1"
LAWN
AUTO CONTROLLER/ STATION NUMBER
GALLONS PER MINUTE
DESCRIPTION OF AREA IRRIGATED
REMOTE CONTROL VALVE SIZE
PROJECT KEY NOTE IF APPLICABLE

SEASONAL IRRIGATION APPLICATION SCHEDULE

HYDROZONE DESCRIPTION	WINTER		SPRING		SUMMER		FALL	
	MINUTES	DAYS ON	MINUTES	DAYS ON	MINUTES	DAYS ON	MINUTES	DAYS ON
LOW WATER SHRUBS – DRIP	10	2	20	3	30	3	20	3
MEDIUM WATER TREES – BUBBLERS	5	2	5	3	10	3	5	3
HIGH WATER TURF – ROTORS	20	2	20	3	30	3	20	3

ESTIMATED APPLIED WATER USE

VALVE NUMBER/ HYDROZONE	EXPOSURE TO SUN/ DESCRIPTION OF SPRINKLER	AVERAGE IRRIGATION EFFICIENCY	CAMARILLO ETo	PLANT WATER USE TYPE	PLANT FACTOR	LANDSCAPE AREA IN SQUARE FEET	ESTIMATED APPLIED WATER USE IN GALLONS PER YEAR
1, 2, 3, 4, 5	DRIPLINE – SHRUBS	.81	46.1	LOW	.3	6.788	71,857
6, 7, 8	BUBBLERS – TREES	.81	46.1	MED	.5	144	2,541
9, 10, 11, 12	ROTORS – SPECIAL USE TURF	.75	46.1	HIGH	.7	6,480	180,738
					TOTALS	13,412	255,136

PROJECT KEY NOTES

SYMBOL — DESCRIPTION

A WALL MOUNTED 16-STATION AUTO CONTROLLER:
CONTRACTOR SHALL INSTALL A 16-STATION WALL MOUNTED AUTO CONTROLLER ON THE INSIDE WALL OF A CUSTODIAL CLOSET WITHIN THE BUILDING. EXACT LOCATION ON THE WALL SHALL BE DETERMINED IN THE FIELD BY THE DISTRICT REPRESENTATIVE. INSTALL 120 VOLT, 60 HERTZ, 2 AMP, ELECTRICAL POWER SUPPLY TO AUTO CONTROLLER LOCATION. AUTO CONTROLLER POWER SUPPLY SHALL BE GROUNDED BY ELECTRICIAN TO SATISFY MANUFACTURER'S SPECIFICATIONS. ALL ELECTRICAL WORK MUST BE PERFORMED BY A LICENSED ELECTRICIAN AND AS PER CALIFORNIA BUILDING CODE. INSTALL A CONTINUOUS 2" ELECTRICAL CONDUIT WITH SWEEP ELBOWS AS NEEDED STARTING FROM THE BASE OF THE WALL MOUNTED AUTO CONTROLLER TO THE (E) LANDSCAPE PLANTER LOCATED ON THE WEST SIDE OF THE ASPHALT PARKING LOT. INSTALL A WIRE PULL BOX OVER THE 2" PVC WIRE CONDUIT AND SWEEP ELBOW FOR MAINTENANCE PURPOSES. THE 2" CONDUIT, WHEN INSTALLED BELOW GRADE, SHALL BE SCH. 40 PVC ELECTRICAL CONDUIT INSTALLED 24" BELOW FINISH GRADE. ALL WALL MOUNTED CONDUIT WITHIN THE CUSTODIAL CLOSET INCLUDING JUNCTION BOXES SHALL BE EMT OR APPROVED METAL. THE CONTINUOUS 2" ELECTRICAL CONDUIT WILL PROVIDE ACCESS FOR ALL 14-GAUGE IRRIGATION WIRES AS WELL AS THE FLOW SENSING CABLE FROM THE AUTO CONTROLLER TO THE LANDSCAPE PLANTER. THE IRRIGATION WIRES WILL BE DIRECT BURIED TO ALL REMOTE CONTROL VALVES ONCE OUT OF THE 2" SCH. 40 PVC ELECTRICAL SWEEP ELBOW AND CONDUIT SEGMENT. INSTALL A 1" SCH. 40 PVC ELECTRICAL SWEEP ELBOWS INTO AND OUT OF ALL VALVE BOXES AND A CONTINUOUS 1" SCH. 40 PVC ELECTRICAL CONDUIT FROM THE WIRE PULL BOX TO THE FLOW SENSOR VALVE BOX LOCATION. CONNECT THE FLOW SENSOR TO THE FLOW SENSING CABLE USING 3M MODEL DBR-Y6 WATER PROOF WIRE SPLICES. CALIBRATE FLOW SENSOR TO AUTO CONTROLLER AS PER MANUFACTURER'S SPECIFICATIONS.

B WIRELESS RAIN SENSOR FOR AUTO CONTROLLER 'A':
MOUNT WIRELESS RAIN SHUT OFF DEVICE ON EXTERIOR BUILDING WALL WITHIN OPERATING RANGE OF WIRELESS RAIN SENSOR RECEIVER. POSITION RAIN SENSOR AT AN ELEVATION ON THE BUILDING WALL THAT IS SAFE FROM VANDALISM AS WELL AS FREE OF ANY BUILDING OVERHANG TO ALLOW THE DEVICE TO BE IN DIRECT CONTACT TO RAINFALL. PROVIDE ALL REQUIRED BATTERIES AND ANCHORS TO SECURE RAIN SHUT OFF DEVICE INTO BUILDING WALL AND POSITION WITHIN RAIN SENSOR RECEIVER OPERATING RANGE AS PER TORO SPECIFICATIONS.

C IRRIGATION POINT OF CONNECTION:
FIELD VERIFY THE EXACT LOCATION OF THE (E) 1" IRRIGATION ONLY WATER METER AND THE 1-1/2" WILKINS 975XL REDUCED PRESSURE BACKFLOW ASSEMBLY COMPLETE WITH A 1-1/2" WILKINS 500 SERIES BRASS PRESSURE REGULATING VALVE SET AT 60.0 PSI. THE IRRIGATION BACKFLOW ASSEMBLY IS WITHIN AN (E) SECURITY ENCLOSURE AND IS POSITIONED NEXT TO THE (E) DOMESTIC SUPPLY REDUCED PRESSURE BACKFLOW ASSEMBLY. PROTECT BOTH REDUCED PRESSURE BACKFLOW ASSEMBLIES AND SECURITY ENCLOSURE IN PLACE. CUT AND REMOVE THE REMNANT (E) PVC IRRIGATION MAINLINE PIPING FROM THE OUTLET OF THE (E) 1-1/2" REDUCED PRESSURE BACKFLOW ASSEMBLY TO ALLOW FOR THE INSTALLATION OF THE NEW IRRIGATION MAINLINE PIPING AND COMPONENTS. INSTALL A 3'-0" LONG SEGMENT OF 1-1/2" SCH. 40 PVC IRRIGATION MAINLINE FROM THE DOWNSTREAM SIDE OF THE 1-1/2" BACKFLOW ASSEMBLY. INSTALL A 1-1/2" BRASS NORMALLY CLOSED MASTER VALVE IN A SEPARATE RECTANGULAR VALVE BOX. INSTALL A NEW 1-1/2" PVC CREATIVE SENSOR TECHNOLOGY FLOW SENSOR DOWNSTREAM OF MASTER VALVES IN A SEPARATE VALVE BOX. CUT 1-1/2" PVC MAINLINE PIPE SEGMENT LENGTHS INTO AND OUT OF THE FLOW SENSOR AS PER MANUFACTUERS' SPECIFICATIONS. ON DOWNSTREAM SIDE OF COMPLETE FLOW SENSOR ASSEMBLY, ENLARGE IRRIGATION MAINLINE TO 2" CLASS 315 PVC. TRENCH AND INSTALL 2" CLASS 315 PVC AS PER IRRIGATION PLAN. INSTALL A LIQUID FERTILIZER DISPENSER IN A MANIFOLD, COMPLETE WITH (3) SCH. 80 PVC BALL VALVES, TO ISOLATE LIQUID FERTILIZER DISPENSER FROM IRRIGATION MAINLINE SOURCE WHEN NOT IN USE. TRENCH AND INSTALL REMAINDER OF NEW 2" AND 1-1/2" PVC IRRIGATION MAINLINE AS PER IRRIGATION PLAN.

D 1-1/2" NORMALLY CLOSED MASTER VALVE & 1-1/2" PVC SOLVENT WELD FLOW SENSOR
INSTALL 1-1/2" NORMALLY CLOSED MASTER VALVE IN A SEPARATE RECTANGULAR VALVE BOX ON NEW 1-1/2" SCH. 40 PVC IRRIGATION MAINLINE DOWNSTREAM OF (E) 1-1/2" REDUCED PRESSURE BACKFLOW ASSEMBLY. MASTER VALVE SHALL BE WIRED TO NEW AUTO CONTROLLER USING (1) YELLOW AND (1) BLUE COLORED 14-GAUGE DIRECT BURY IRRIGATION WIRES. INSTALL A 1-1/2" CREATIVE SENSOR TECHNOLOGY PVC FLOW SENSOR DOWN STREAM OF 1-1/2" MASTER VALVE WITH MEASURED PIPE SEGMENTS INTO AND OUT OF FLOW SENSOR AS PER MANUFACTURERS' SPECIFICATIONS. TRENCH AND INSTALL A 1" SCH. 40 PVC ELECTRICAL CONDUIT FROM WIRE PULL BOX TO FLOW SENSOR VALVE BOX. INSTALL 1" SCH. 40 PVC ELECTRICAL SWEEP ELBOWS INTO AND OUT OF ALL VALVE BOXES. INSTALL RAINMASTER MODEL EV-CAB-SEN FROM AUTO CONTROLLER THROUGH 2" CONDUIT TO WIRE PULL BOX THEN THROUGH 1" PVC WIRE CONDUIT TO FLOW SENSOR IN ONE CONTINUOUS WIRE PULL WITHOUT SPLICES. CONNECT 14-GAUGE SHIELDED WIRES, (1) BLACK AND (1) RED, TO APPROPRIATE TERMINALS ON AUTO CONTROLLER. CONNECT RED AND BLACK WIRES WITHIN SHIELDED CABLE TO FLOW SENSOR USING 3M MODEL DBR-Y6 WATER PROOF WIRE SPLICES OR APPROVED EQUAL AS PER TORO SPECIFICATIONS. CALIBRATE FLOW SENSOR TO AUTO CONTROLLER AS PER TORO SPECIFICATIONS PRIOR TO FINAL IRRIGATION COVERAGE TEST WITH LANDSCAPE ARCHITECT.

E EZ-FLO AUTOMATIC FERTILIZER DISPENSER:
INSTALL EZ-FLO FERTILIZER DISPENSER ON TO PVC MAINLINE AS PER MANUFACTURER'S SPECIFICATIONS AND DETAILS. THE PVC TANK SHALL BE INSTALLED BELOW GRADE AND COVERED WITH A JUMBO VALVE BOX, CARSON MODEL 1730-18 (MINIMUM DIMENSIONS OF 30"L X 18"H X 19"W). INSTALL (3) SCH 80 PVC BALL VALVES ON MAINLINE IN SEPARATE VALVE BOXES WITH MAINLINE SEGMENTS ARRAINGED TO CREATE A SUB-MAINLINE OR BY-PASS TO ISOLATE LIQUID FERTILIZER DISPENSER FROM PRIMARY MAINLINE DISCHARGE WHEN TANK IS NOT IN USE. THE EXACT LOCATION OF THE LIQUID FERTILIZER TANK SHALL BE SPOTTED IN THE FIELD BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. TANK MUST BE POSITIONED UPSTREAM OF THE CLOSEST REMOTE CONTROL VALVE LOCATION ON IRRIGATION MAINLINE.

F FLOW SENSING CABLE IN A 1" SCH. 40 PVC ELECTRICAL CONDUIT:
INSTALL TORO FLOW SENSING CABLE, MODEL 'EV-CAB-SEN', IN A 1" SCH. 40 PVC ELECTRICAL CONDUIT INSTALLED 24" BELOW FINISH GRADE. INSTALL CABLE PULL BOXES, CARSON MODEL 1419-12 AT ALL CHANGES OF CABLE DIRECTION. PROVIDE 1" SWEEP ELBOWS INTO AND OUT OF ALL CABLE PULL BOXES AND INTO FLOW SENSOR VALVE BOX. CONNECT CABLE TO AUTO CONTROLLER AS PER MANUFACTURER'S SPECIFICATIONS. SPLICE CABLE TO FLOW SENSOR LEAD WIRES WITH 3M WATER RESISTANT WIRE CONNECTORS, MODEL DBR-6Y OR APPROVED EQUAL.

G FIELD VERIFY THE EXACT LOCATION OF THE (E) REMOTE CONTROL VALVES OPERATING THE (E) LAWN SPRINKLER SYSTEM – REMOVE (E) RCV'S AND REPLACE WITH NEW RCV'S:
FIELD VERIFY THE EXACT LOCATION OF THE (E) REMOTE CONTROL VALVES OPERATING THE (E) POP UP LAWN SPRINKLER SYSTEM THAT IS TO BE PROTECTED IN PLACE. THESE VALVES WILL BE ABANDONED ONCE THE NEW IRRIGATION MAINLINE IS INSTALLED. INSTALL (2) NEW 1-1/2" REMOTE CONTROL VALVES ON NEW IRRIGATION MAINLINE AT THE SAME OR CLOSE TO THE SAME LOCATION AS THE TWO (E) REMOTE CONTROL VALVES. EXCAVATE AND REMOVE THE OLD REMOTE CONTROL VALVES AND VALVE BOXES AND DISPOSE OF THE OLD EQUIPMENT OFF SITE. INSTALL (2) NEW 1-1/2" REMOTE CONTROL VALVES ONTO NEW IRRIGATION MAINLINE. TRENCH AND INSTALL 2" SCH. 40 PVC LATERAL PIPING FROM OUTLET OF NEW 1-1/2" REMOTE CONTROL VALVES AND RECONNECT TO SEVERED LATERAL SUPPLY LINE TO RESUPPLY THE (E) TURF IRRIGATION SYSTEM WITH WATER. REPAIR ANY DAMAGE TO THE (E) POP UP SPRAY HEADS OR PVC LATERALS DAMAGED IN THE TURF PLANTER AS A RESULT TO NEW CONSTRUCTION.

DIEGO M. MATZKIN NO. C-27962 REN. OCT. 31, 20

JORDAN & BAIN
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JOHN JAMES BAIN III #3193
04-28 RENEWAL DATE
08-14-26 DATE

GATEWAY ANNEX SCHOOL
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

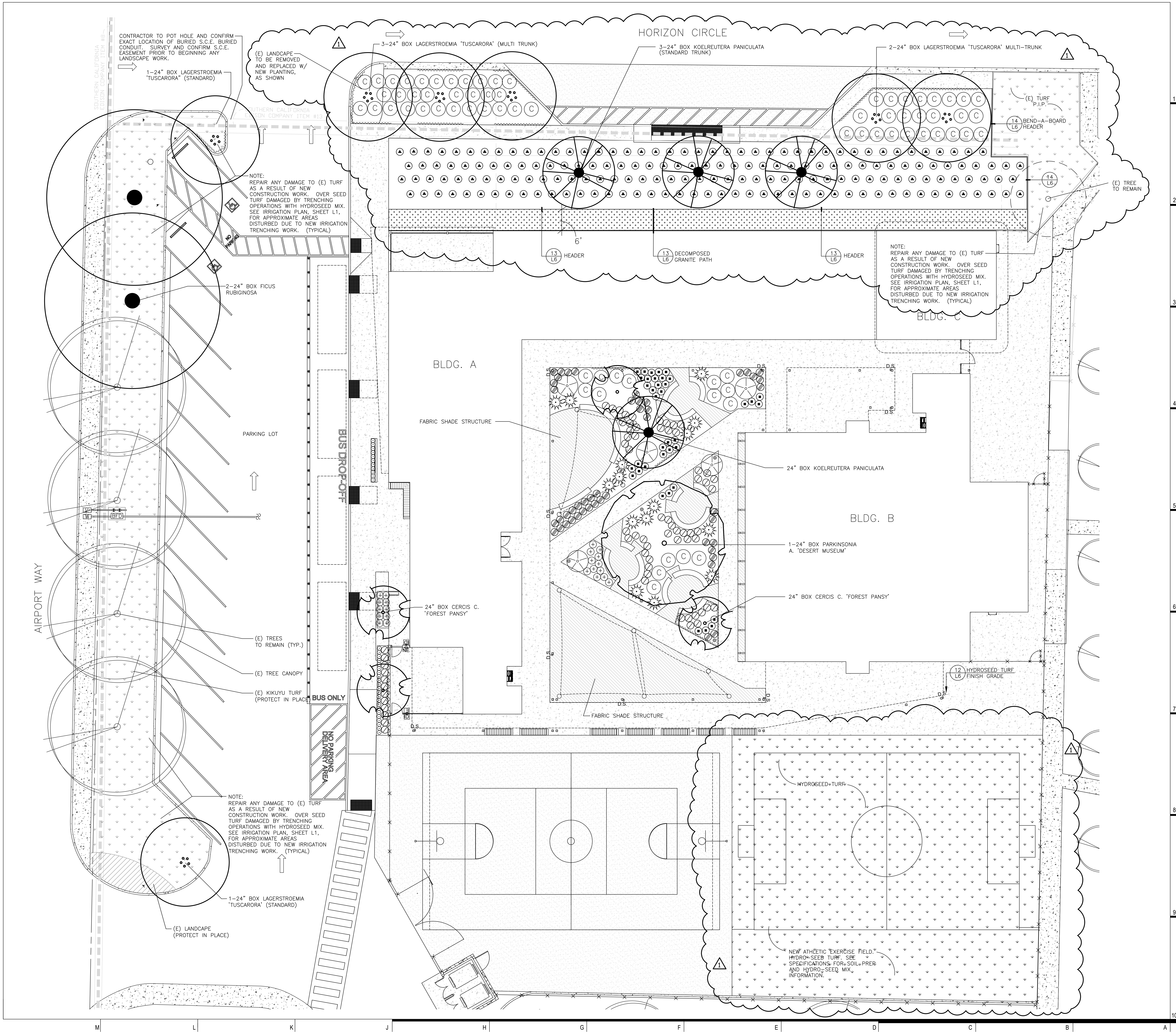
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

IRRIGATION LEGEND AND NOTES

PERKINS
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

L2


HORIZON CIRCLE
CONTRACTOR TO POT HOLE AND CONFIRM EXACT LOCATION OF BURIED S.C.E. BURIED CONDUIT. SURVEY AND CONFIRM S.C.E. EASEMENT PRIOR TO BEGINNING ANY LANDSCAPE WORK.
SOUTHERN CALIFORNIA EDISON COMPANY ITEM #8
SOUTHERN CALIFORNIA EDISON COMPANY ITEM #13
1–24" BOX LAGERSTROEMIA 'TUSCARORA" (STANDARD)
(E) LANDCAPE TO BE REMOVED AND REPLACED W/ NEW PLANTING, AS SHOWN
3–24" BOX LAGERSTROEMIA 'TUSCARORA' (MULTI TRUNK)
3–24" BOX KOELREUTERA PANICULATA (STANDARD TRUNK)
2–24" BOX LAGERSTROEMIA 'TUSCARORA' MULTI–TRUNK
1
(E) TURF P.I.P.
14 L6 BEND–A–BOARD HEADER
14 L6
(E) TREE TO REMAIN
NOTE: REPAIR ANY DAMAGE TO (E) TURF AS A RESULT OF NEW CONSTRUCTION WORK. OVER SEED TURF DAMAGED BY TRENCHING OPERATIONS WITH HYDROSEED MIX. SEE IRRIGATION PLAN, SHEET L1, FOR APPROXIMATE AREAS DISTURBED DUE TO NEW IRRIGATION TRENCHING WORK. (TYPICAL)
NO PARKING
6'
13 L6 HEADER
13 L6 DECOMPOSED GRANITE PATH
13 L6 HEADER
NOTE: REPAIR ANY DAMAGE TO (E) TURF AS A RESULT OF NEW CONSTRUCTION WORK. OVER SEED TURF DAMAGED BY TRENCHING OPERATIONS WITH HYDROSEED MIX. SEE IRRIGATION PLAN, SHEET L1, FOR APPROXIMATE AREAS DISTURBED DUE TO NEW IRRIGATION TRENCHING WORK. (TYPICAL)
BLDG. C
2–24" BOX FICUS RUBIGINOSA
BLDG. A
PARKING LOT
BUS DROP-OFF
FABRIC SHADE STRUCTURE
24" BOX KOELREUTERA PANICULATA
BLDG. B
1–24" BOX PARKINSONIA A. 'DESERT MUSEUM'
24" BOX CERCIS C. 'FOREST PANSY'
24" BOX CERCIS C. 'FOREST PANSY'
D.S.
AIRPORT WAY
(E) TREES TO REMAIN (TYP.)
(E) TREE CANOPY
(E) KIKUYU TURF (PROTECT IN PLACE)
BUS ONLY
NO PARKING DELIVERY AREA
12 L6 HYDROSEED TURF FINISH GRADE
FABRIC SHADE STRUCTURE
1
HYDROSEED TURF
NOTE: REPAIR ANY DAMAGE TO (E) TURF AS A RESULT OF NEW CONSTRUCTION WORK. OVER SEED TURF DAMAGED BY TRENCHING OPERATIONS WITH HYDROSEED MIX. SEE IRRIGATION PLAN, SHEET L1, FOR APPROXIMATE AREAS DISTURBED DUE TO NEW IRRIGATION TRENCHING WORK. (TYPICAL)
1–24" BOX LAGERSTROEMIA 'TUSCARORA' (STANDARD)
(E) LANDCAPE (PROTECT IN PLACE)
NEW ATHLETIC EXERCISE FIELD. HYDRO–SEED TURF. SEE SPECIFICATIONS FOR SOIL PREP AND HYDRO–SEED MIX INFORMATION.
1
1 2 3 4 5 6 7 8 9 10
M L K J H G F E D C B A

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JOHN JAMES BAIN III #3193
04–28
RENEWAL DATE
08–14–26
DATE

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB		88910.00
SCALE		AS NOTED
PM		
DATE		07/01/2022
1	ADD 1	05/15/2026

NOTE:
SEE SHEET L4 FOR LEGEND

N

GRAPHIC SCALE
0 5 10 20 40
SCALE: 1"=10'

PLANTING PLAN

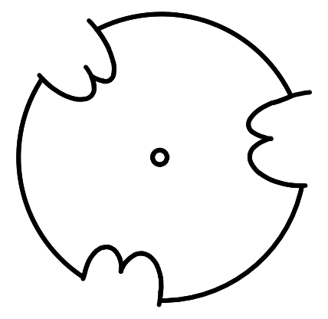
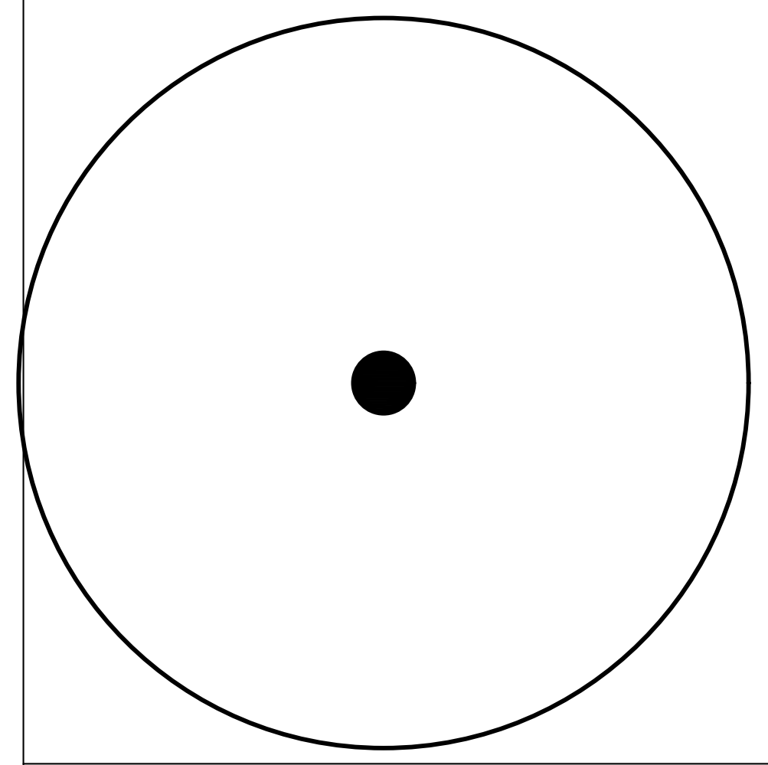
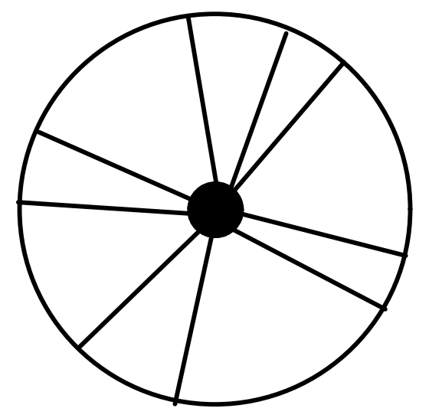
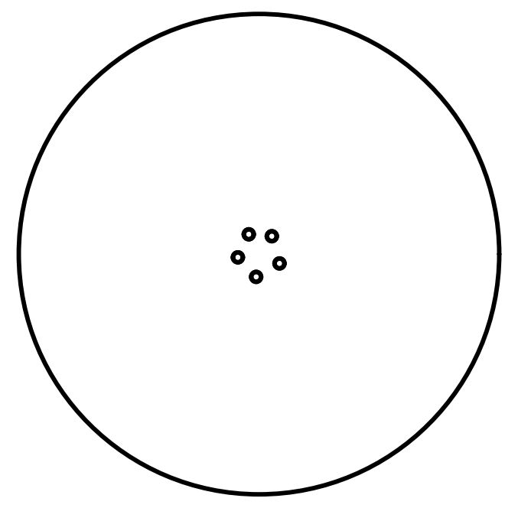
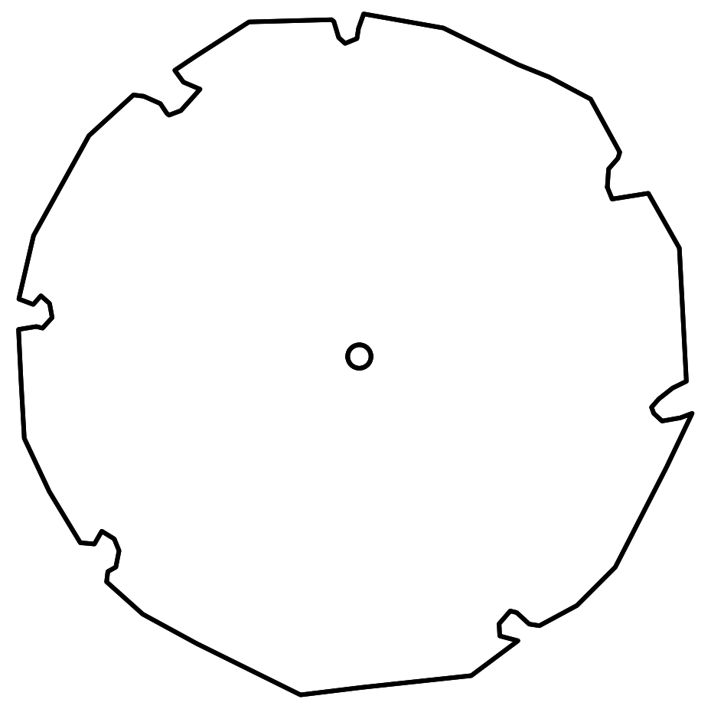
PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

L3

1

TREE LEGEND

	BOTANICAL NAME COMMON NAME	WUCOLS	SIZE	QUANTITY
	CERCIS CANADENSIS 'FOREST PANSY' STANDARD TRUNK FOREST PANSY REDBUD	LOW	24" BOX	4
	FICUS RUBIGINOSA STANDARD TRUNK RUSTYLEAF FIG	MED	24" BOX	2
	KOELREUTERIA PANICULATA STANDARD TRUNK GOLDENRAIN TREE	MED	24" BOX	41
	LAGERSTROEMIA 'TUSCARORA' (DARK PINK FLOWER) CRAPE MYRTLE (5) MULTI-TRUNK SPECIMENS (2) STANDARD TRUCK SPECIMENS	LOW	24" BOX	7
	PARKINSONIA ACULEATA 'DESERT MUSEUM' STANDARD TRUNK DESERT MUSEUM PALO VERDE	VERY LOW	24" BOX	1

1

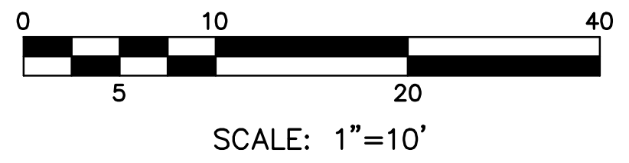
SHRUB LEGEND

	BOTANICAL NAME COMMON NAME	WUCOLS	SIZE	QUANTITY
✳	ACACIA COGNATA 'COUSIN ITT' COUSIN ITT ACACIA	LOW	5 GAL	15
Ⓒ	COTONEASTER DAMMERI 'CORAL BEAUTY' CORAL BEAUTY COTONEASTER	LOW	5 GAL	72
⊙	HEMEROCALLIS 'BITSY' BITSY DAYLILY	MED	5 GAL	33
⊡	LANTANA CAMERA 'CHERRY BANDANA' CHERRY BANDANA LANTANA	LOW	5 GAL	38
◬	LANTANA MONTEVIDENSIS PURPLE TRAILING LANTANA	LOW	5 GAL	174
⊛	LOROPETALUM CHINENSE 'RASPBERRY' PLUM DELIGHT LOROPETALUM	LOW	5 GAL	5
⊘	NANDINA DOMESTICA 'GULF STREAM' GULF STREAM BAMBOO	LOW	5 GAL	67
⦸	PENNISETUM ALOPCUROIDES 'LITTLE BUNNY' MINIATURE FOUNTAIN GRASS	LOW	5 GAL	47
⊕	TRADESCANTIA PALLIDE 'PURPLE HEART' PURPLE SPIDERWORT	LOW	1 GAL	22

⁘	DECOMPOSED GRANITE (TAN COLOR) – 3" LAYER OVER WEED BARRIER	N/A	S.F.	
∵	HYDROSEED TURF	HIGH	S.F.	
▭	EXISTING KIKUYU TURF – TO REMAIN	HIGH	S.F.	
▨	EXISTING PLANTER – TO REMAIN	MEDIUM	S.F.	
〰	TREE ROOT BARRIER – 24" DEEP SEE DETAIL #7 – SHEET L6	N/A	L.F.	

NOTE:
ALL SHRUB PLANTING AREAS WITHIN LIMIT OF WORK SHALL RECEIVE RONSTAR PRE–EMERGENT HERBICIDE APPLIED OVER EXPOSED SOIL, THEN COVERED WITH MIRAFI WEED FABRIC MODEL 'M–SCAPE–E' SECURED TO SOIL WITH 6" METAL SOIL STAPLES SPACED 5'–0" O.C. OVERLAP SEEMS OF WEED FABRIC BY 4" AND STAPLE ALONG SEEM WITH SOIL STAPLES @ 3'–0" O.C. COVER WEED FABRIC WITH A 3" THICK LAYER OF AGROMIN MODEL 'ES–2' WOOD MULCH. KEEP MULCH AWAY FROM TREE AND SHRUB CROWNS.

GRAPHIC SCALE



SCALE: 1"=10'

DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 202

JORDAN & BAIN
LANDSCAPE ARCHITECTS, INC.
459 NORTH VENTURA AVE., VENTURA CA 93001
(805) 642–3641 FAX (805) 653–7874

Jordan, Gilbert & Bain Landscape Architects, Inc. © 2018

JOHN JAMES BAIN III #3193
John J Bain
SIGNATURE
04–28
RENEWAL DATE
08–14–26
DATE

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB		88910.00
SCALE		AS NOTED
PM		
DATE		12/07/2022
1	ADD 1	08/28/2026

PLANTING LEGEND AND NOTES

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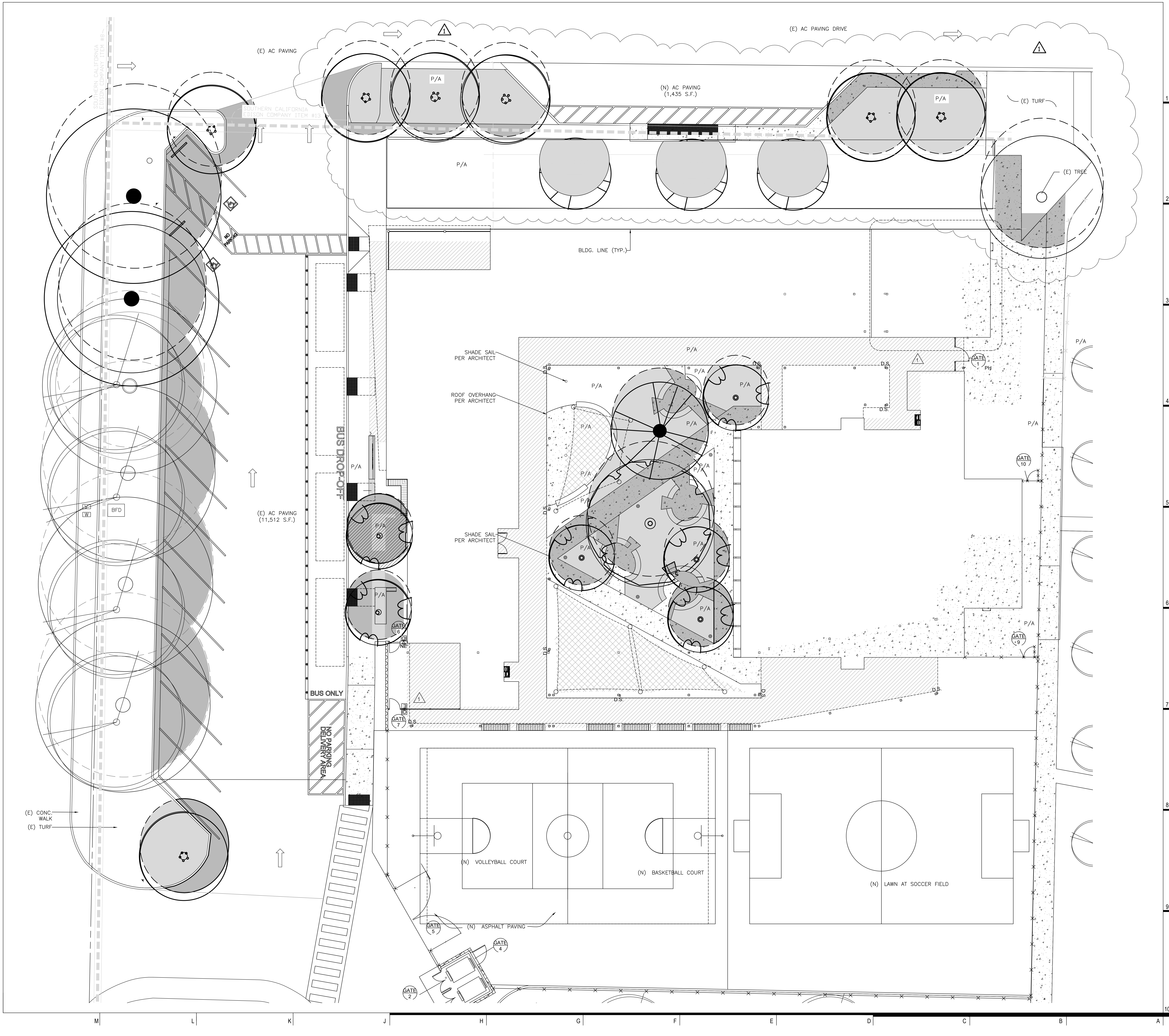
L4

2 3 4 5 6 7 8 9 10

M L K J H G F E D C B A



NOTE:
SEE SHEET L8 FOR LEGEND

GRAPHIC SCALE

0 10 40
5 20

SCALE: 1"=10'

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LANDSCAPE SHADING PLAN

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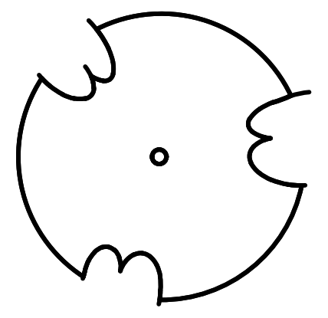
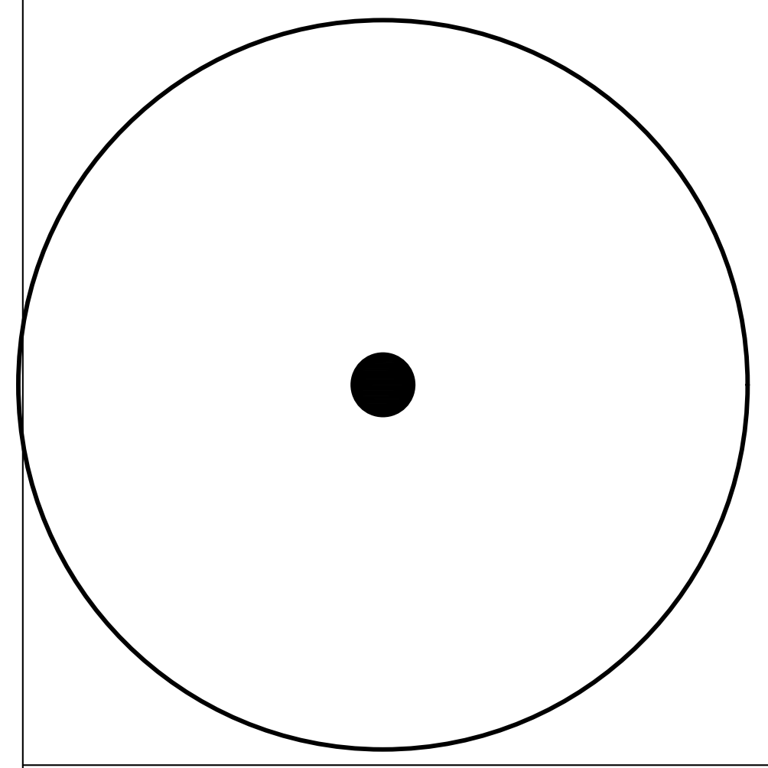
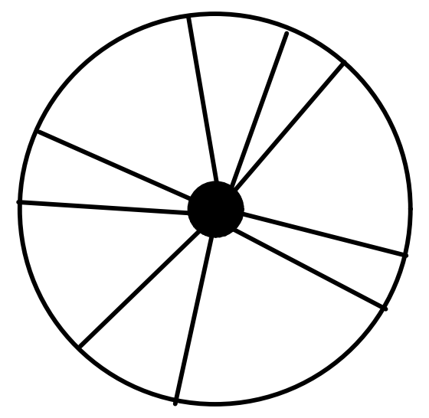
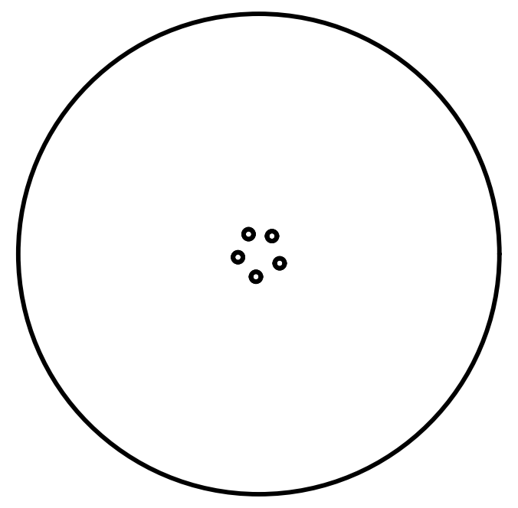
L7

△1

TREE LEGEND

	BOTANICAL NAME COMMON NAME	WUCOLS	SIZE	QUANTITY
	CERCIS CANADENSIS 'FOREST PANSY' FOREST PANSY REDBUD	LOW	24" BOX	4
	FICUS RUBIGINOSA RUSTYLEAF FIG	MED	24" BOX	2
	KOELREUTERIA PANICULATA GOLDENRAIN TREE	MED	24" BOX	1
	LAGERSTROEMIA 'TUSCARORA' (DARK PINK FLOWER) CRAPE MYRTLE (5) MULTI-TRUNK SPECIMENS (2) STANDARD TRUCK SPECIMENS	LOW	24" BOX	7

▤ CONCRETE PAVING THAT IS NOT UNDER ARCHITECTURE OVERHANG OR SHADE SAIL **(9,089 S.F.)**

▤ NEW AC PAVING **(1,435 S.F.)**

▤ (EX) AC PAVING AT PARKING **(11,667 S.F.)**

▨ SHADE PROVIDED BY ARCHITECTURE ROOF OVERHANG **(3,860 S.F.)**

■ TREE SHADE – AT (EX) PARKING LOT

■ TREE SHADE – AT NEW CONCRETE PAVING

□ TREE SHADE – AT NEW PLANTING AREA

▩ SHADE SAIL – AT NEW CONCRETE PAVING

SHADE TREES [DSA–AA] – CALGREEN CODE 5.106.12

PARKING LOT SHADE CALCULATIONS

TOTAL (E) PARKING AREA (ASPHALT) = 11,512sf
(E) SHADE = 1,621 sf = 14%
(N) SHADE ADDED = 988 SQ FT
TOTAL SHADE = 2,609 = 22%

PAVING AREA SHADE CALCULATIONS

TOTAL NEW PAVING (CONCRETE) = 9,089 sf

SHADE COVERAGE (TREE CANOPY) = 2,053 sf
SHADE COVERAGE (SHADE SAIL) = 973 sf
SHADE COVERAGE (ROOF OVERHANG) = 4,300 sf
(See Architecture Plans

TOTAL SHADE= 6,510 sf

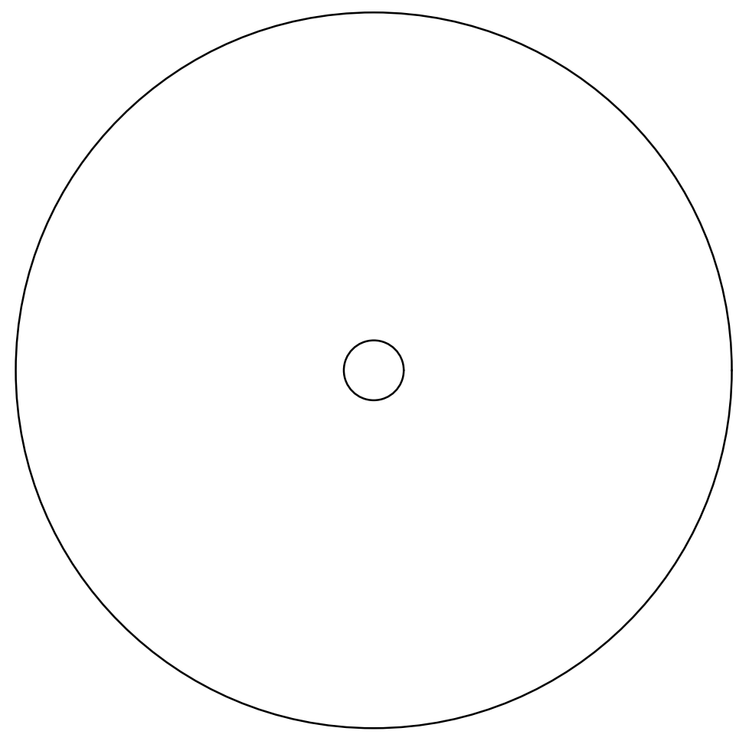
22% SHADE COVERAGE (TREE CANOPY ONLY)
20% REQUIRED **(SHADE MET)**

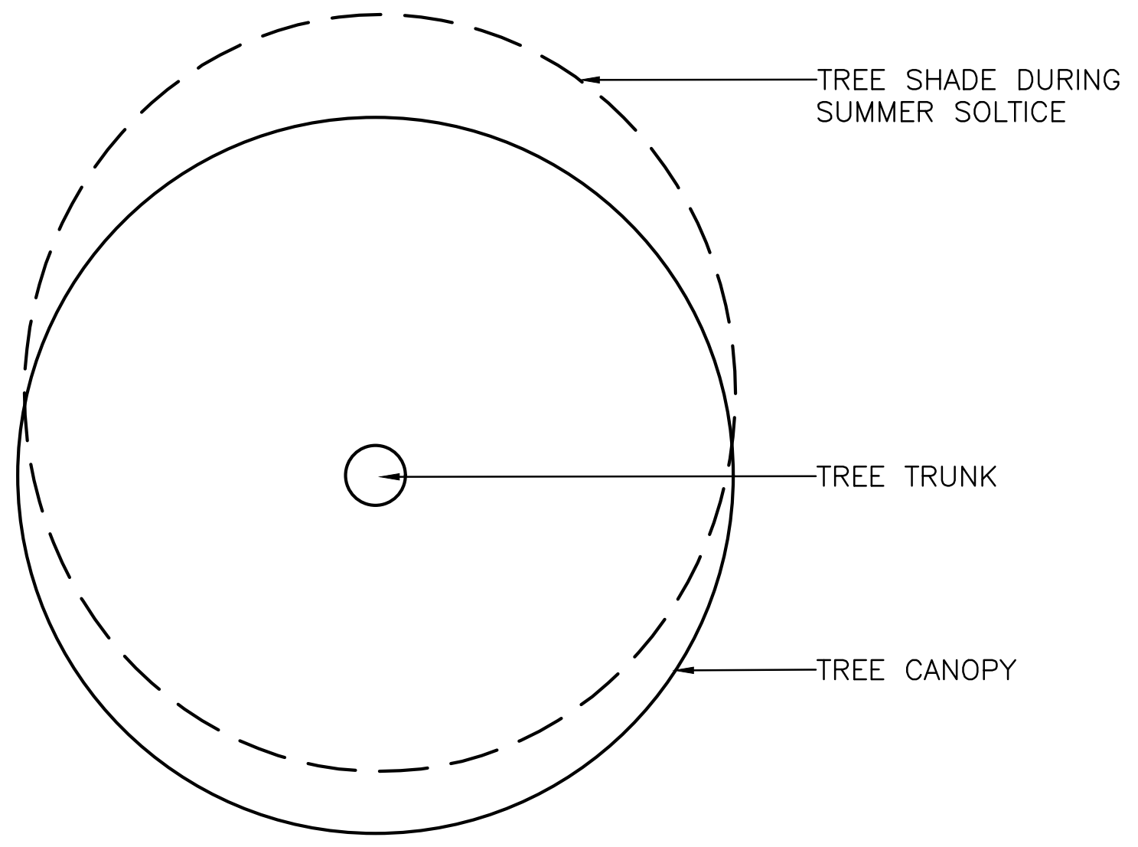
LANDSCAPE AREA SHADE CALCULATIONS

TOTAL NEW LANDSCAPING AREA = 7,578 sf
SHADE = 3,947 sf

52% SHADE COVERAGE
20% REQUIRED **(SHADE MET)**

EXISTING TREE LEGEND

	BOTANICAL NAME COMMON NAME	WUCOLS	QUANTITY
	FICUS RUBIGINOSA RUSTYLEAF FIG	MED	4



GRAPHIC SCALE
0 5 10 20 40
SCALE: 1"=10'

DIEGO M. MATZKIN
NO. C-27962
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GATEWAY ANNEX SCHOOL

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LANDSCAPE SHADING PLAN
LEGEND AND NOTES

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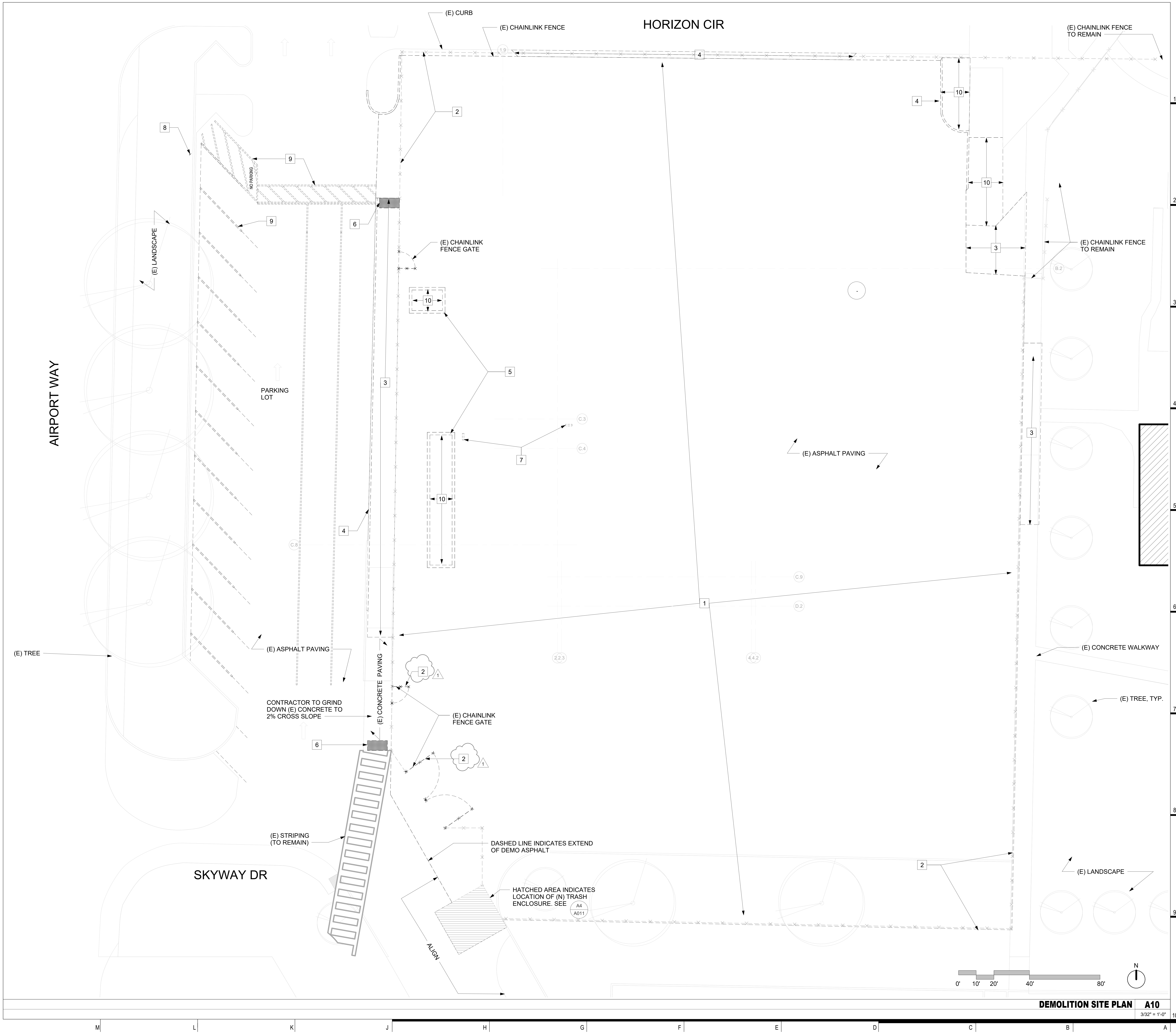

DEMOLITION SITE PLAN A10

3/32" = 1'-0"

DEMOLITION NOTES

1. ITEMS ARE EXISTING UNLESS NOTED OTHERWISE
2. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAS BEEN APPROVED BY DSA.

DIEGO M. MATZKIN
NO. C-27962

DEMOLITION KEYNOTES

x ►

1	REMOVE AND DISPOSE ASPHALT
2	REMOVE AND DISPOSE CHAINLINK FENCE AND GATES
3	REMOVE AND DISPOSE CONCRETE PAVING
4	REMOVE AND DISPOSE CONCRETE CURB
5	REMOVE AND DISPOSE PLANTER
6	REMOVE AND DISPOSE TRUNCATED DOMES
7	REMOVE AND DISPOSE PANEL
8	REMOVE AND DISPOSE ACC PARKING SIGN
9	REMOVE STRIPING
10	REMOVE AND DISPOSE LANDSCAPE

GATEWAY ANNEX SCHOOL

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DEMOLITION SITE PLAN

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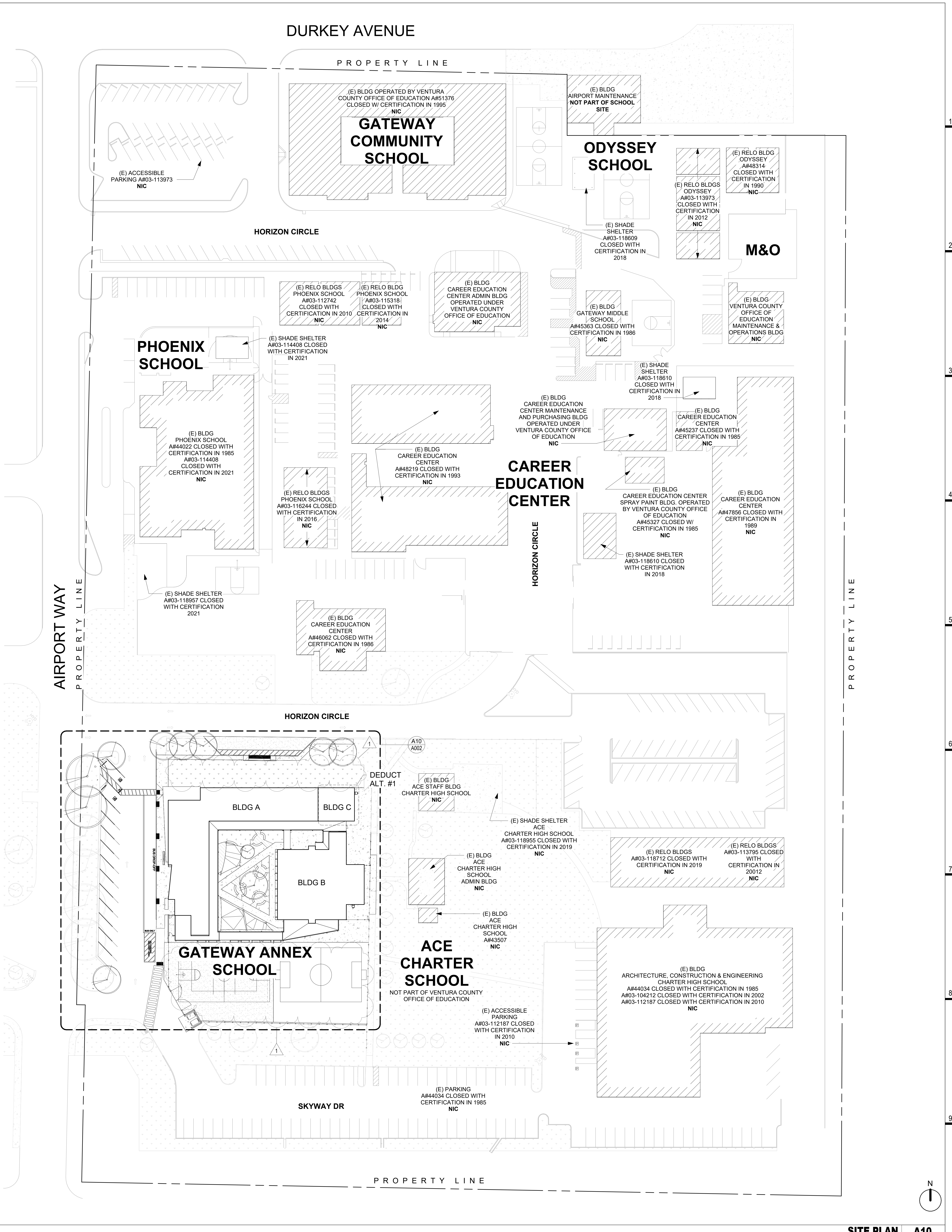
AD001


DURKEY AVENUE
PROPERTY LINE
(E) ACCESSIBLE PARKING A#03-113973 NIC
(E) BLDG OPERATED BY VENTURA COUNTY OFFICE OF EDUCATION A#51376 CLOSED W/ CERTIFICATION IN 1995 NIC
GATEWAY COMMUNITY SCHOOL
(E) BLDG AIRPORT MAINTENANCE NOT PART OF SCHOOL SITE
ODYSSEY SCHOOL
(E) RELO BLDGS ODYSSEY A#03-113973 CLOSED WITH CERTIFICATION IN 2012 NIC
(E) RELO BLDG ODYSSEY A#48314 CLOSED WITH CERTIFICATION IN 1990 NIC
(E) SHADE SHELTER A#03-118609 CLOSED WITH CERTIFICATION IN 2018
M&O
HORIZON CIRCLE
(E) RELO BLDGS PHOENIX SCHOOL A#03-112742 CLOSED WITH CERTIFICATION IN 2010 NIC
(E) RELO BLDG PHOENIX SCHOOL A#03-115318 CLOSED WITH CERTIFICATION IN 2014 NIC
(E) BLDG CAREER EDUCATION CENTER ADMIN BLDG OPERATED UNDER VENTURA COUNTY OFFICE OF EDUCATION NIC
(E) BLDG GATEWAY MIDDLE SCHOOL A#45363 CLOSED WITH CERTIFICATION IN 1986 NIC
(E) BLDG VENTURA COUNTY OFFICE OF EDUCATION MAINTENANCE & OPERATIONS BLDG NIC
PHOENIX SCHOOL
(E) SHADE SHELTER A#03-114408 CLOSED WITH CERTIFICATION IN 2021
(E) SHADE SHELTER A#03-118610 CLOSED WITH CERTIFICATION IN 2018
(E) BLDG CAREER EDUCATION CENTER MAINTENANCE AND PURCHASING BLDG OPERATED UNDER VENTURA COUNTY OFFICE OF EDUCATION NIC
(E) BLDG CAREER EDUCATION CENTER A#45237 CLOSED WITH CERTIFICATION IN 1985 NIC
(E) BLDG PHOENIX SCHOOL A#44022 CLOSED WITH CERTIFICATION IN 1985 A#03-114408 CLOSED WITH CERTIFICATION IN 2021 NIC
(E) BLDG CAREER EDUCATION CENTER A#48219 CLOSED WITH CERTIFICATION IN 1993 NIC
CAREER EDUCATION CENTER
(E) BLDG CAREER EDUCATION CENTER SPRAY PAINT BLDG. OPERATED BY VENTURA COUNTY OFFICE OF EDUCATION A#45327 CLOSED W/ CERTIFICATION IN 1985 NIC
(E) BLDG CAREER EDUCATION CENTER A#47856 CLOSED WITH CERTIFICATION IN 1989 NIC
(E) RELO BLDGS PHOENIX SCHOOL A#03-116244 CLOSED WITH CERTIFICATION IN 2016 NIC
HORIZON CIRCLE
(E) SHADE SHELTER A#03-118610 CLOSED WITH CERTIFICATION IN 2018
(E) SHADE SHELTER A#03-118957 CLOSED WITH CERTIFICATION 2021
AIRPORT WAY
PROPERTY LINE
(E) BLDG CAREER EDUCATION CENTER A#46062 CLOSED WITH CERTIFICATION IN 1986 NIC
PROPERTY LINE
HORIZON CIRCLE
A10
A002
1
DEDUCT ALT. #1
(E) BLDG ACE STAFF BLDG CHARTER HIGH SCHOOL NIC
BLDG A
BLDG C
(E) SHADE SHELTER ACE CHARTER HIGH SCHOOL A#03-118955 CLOSED WITH CERTIFICATION IN 2019 NIC
BUS DROP-OFF
BLDG B
(E) BLDG ACE CHARTER HIGH SCHOOL ADMIN BLDG NIC
(E) RELO BLDGS A#03-118712 CLOSED WITH CERTIFICATION IN 2019 NIC
(E) RELO BLDGS A#03-113795 CLOSED WITH CERTIFICATION IN 20012 NIC
(E) BLDG ACE CHARTER HIGH SCHOOL A#43507 NIC
BUS ONLY
GATEWAY ANNEX SCHOOL
ACE CHARTER SCHOOL
NOT PART OF VENTURA COUNTY OFFICE OF EDUCATION
(E) BLDG ARCHITECTURE, CONSTRUCTION & ENGINEERING CHARTER HIGH SCHOOL A#44034 CLOSED WITH CERTIFICATION IN 1985 A#03-104212 CLOSED WITH CERTIFICATION IN 2002 A#03-112187 CLOSED WITH CERTIFICATION IN 2010 NIC
(E) ACCESSIBLE PARKING A#03-112187 CLOSED WITH CERTIFICATION IN 2010 NIC
1
(E) PARKING A#44034 CLOSED WITH CERTIFICATION IN 1985 NIC
SKYWAY DR
PROPERTY LINE
N

SITE PLAN **A10**
1" = 40'-0"

SITE LEGEND

- ▭ NEW BUILDING
- ▨ EXISTING BUILDING
- SITE CONCRETE
- ▨ SITE CONCRETE, ACCENT COLOR
- GRASS
- EXISTING ASPHALT
- EXISTING GRASS
- EXISTING CONCRETE
- EXISTING CHAIN LINK FENCE
- NEW CHAIN LINK FENCE
- ○ EXTERIOR LIGHT FIXTURE
- AREA OF WORK

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002
2. VENTURA COUNTY OFFICE OF EDUCATION OWNS AND OPERATES SEVERAL SCHOOLS ON THEIR PARCEL. EACH SCHOOL HAS A SEPARATE CAMPUS & PRINCIPAL AND IS NOT PART OF THIS PROJECT.
3. THE SOUTHEAST PORTION OF THE SITE IS LEASED AND OPERATED BY ACE CHARTER SCHOOL AND IS NOT PART OF THIS PROJECT.

GATEWAY ANNEX SCHOOL

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△	
△	
△	

SITE PLAN

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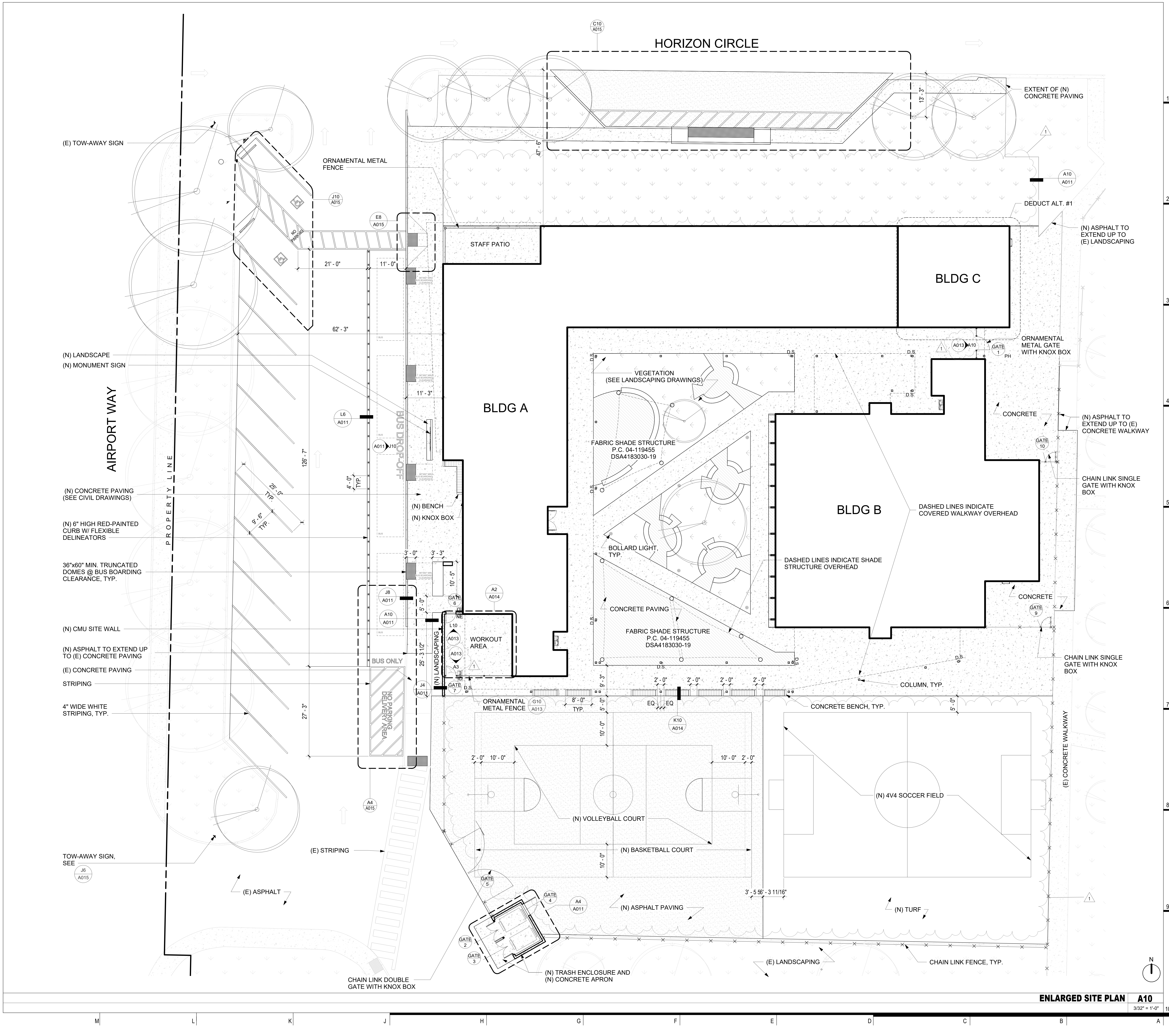
A001



ENLARGED SITE PLAN A10

3/32" = 1'-0"

SITE LEGEND

□	NEW BUILDING
▨	EXISTING BUILDING
░	SITE CONCRETE
▨	SITE CONCRETE, ACCENT COLOR
□	GRASS
░	EXISTING ASPHALT
□	EXISTING GRASS
░	EXISTING CONCRETE
—×—×—	EXISTING CHAIN LINK FENCE
—×—×—	NEW CHAIN LINK FENCE
○	EXTERIOR LIGHT FIXTURE
– – – –	AREA OF WORK

DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 202

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G002
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ENLARGED SITE PLAN

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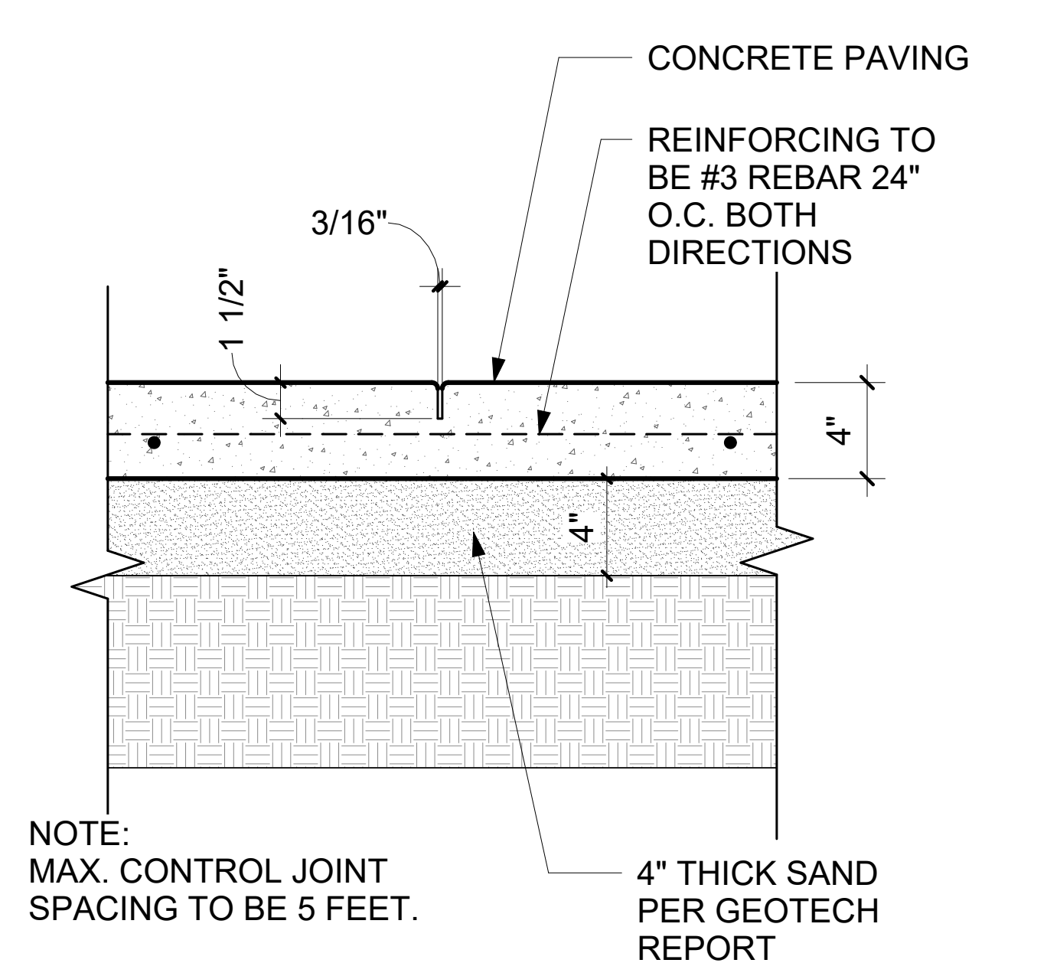
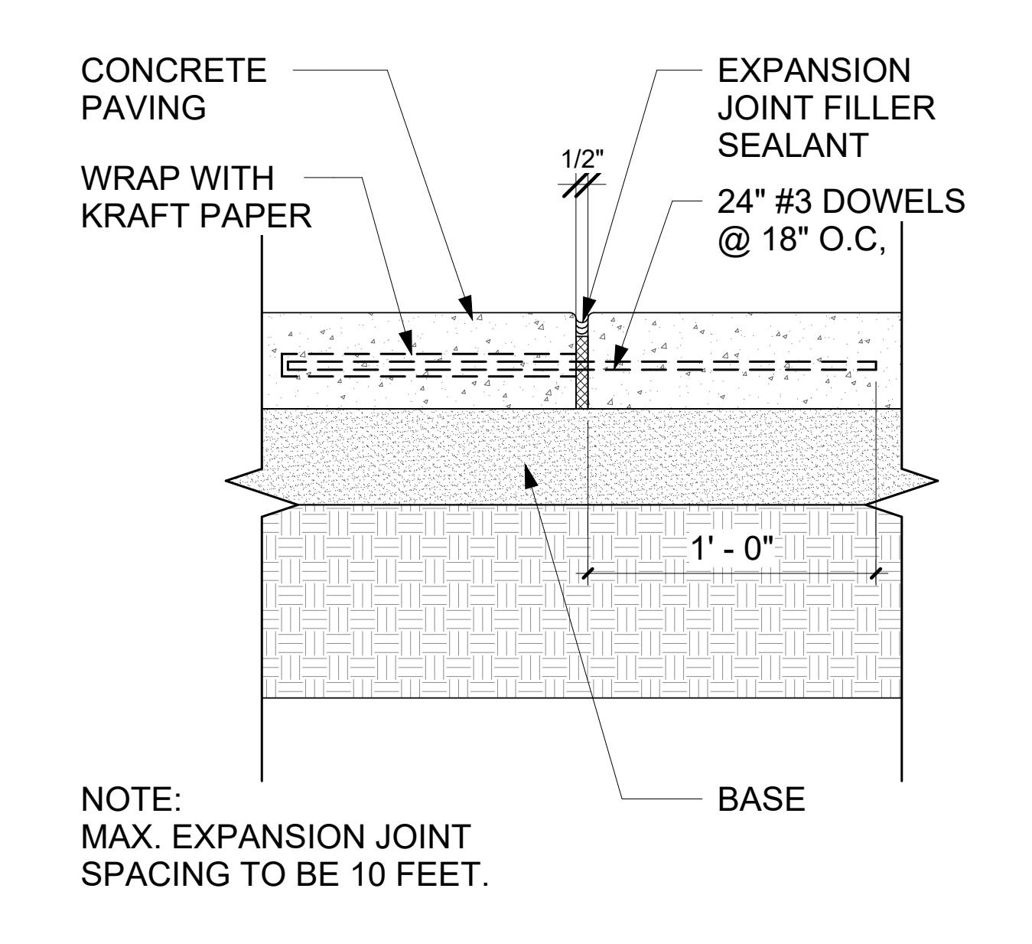
A002


CONCRETE PAVING
REINFORCING TO BE #3 REBAR 24" O.C. BOTH DIRECTIONS
3/16"
1/2"
4"
4"
NOTE:
MAX. CONTROL JOINT SPACING TO BE 5 FEET.
4" THICK SAND PER GEOTECH REPORT

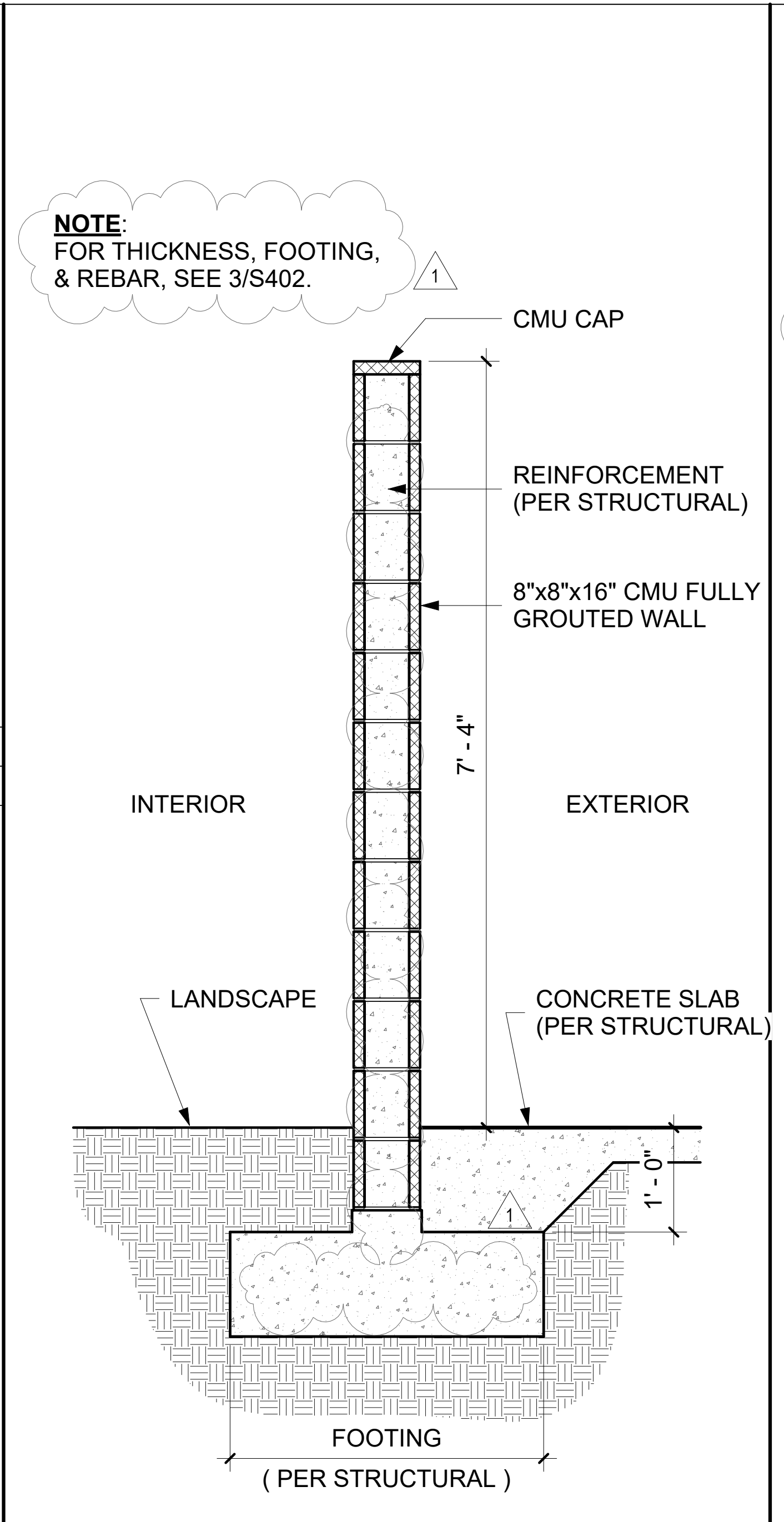
CONCRETE CONTROL JOINT **L2**

1 1/2" = 1'-0"



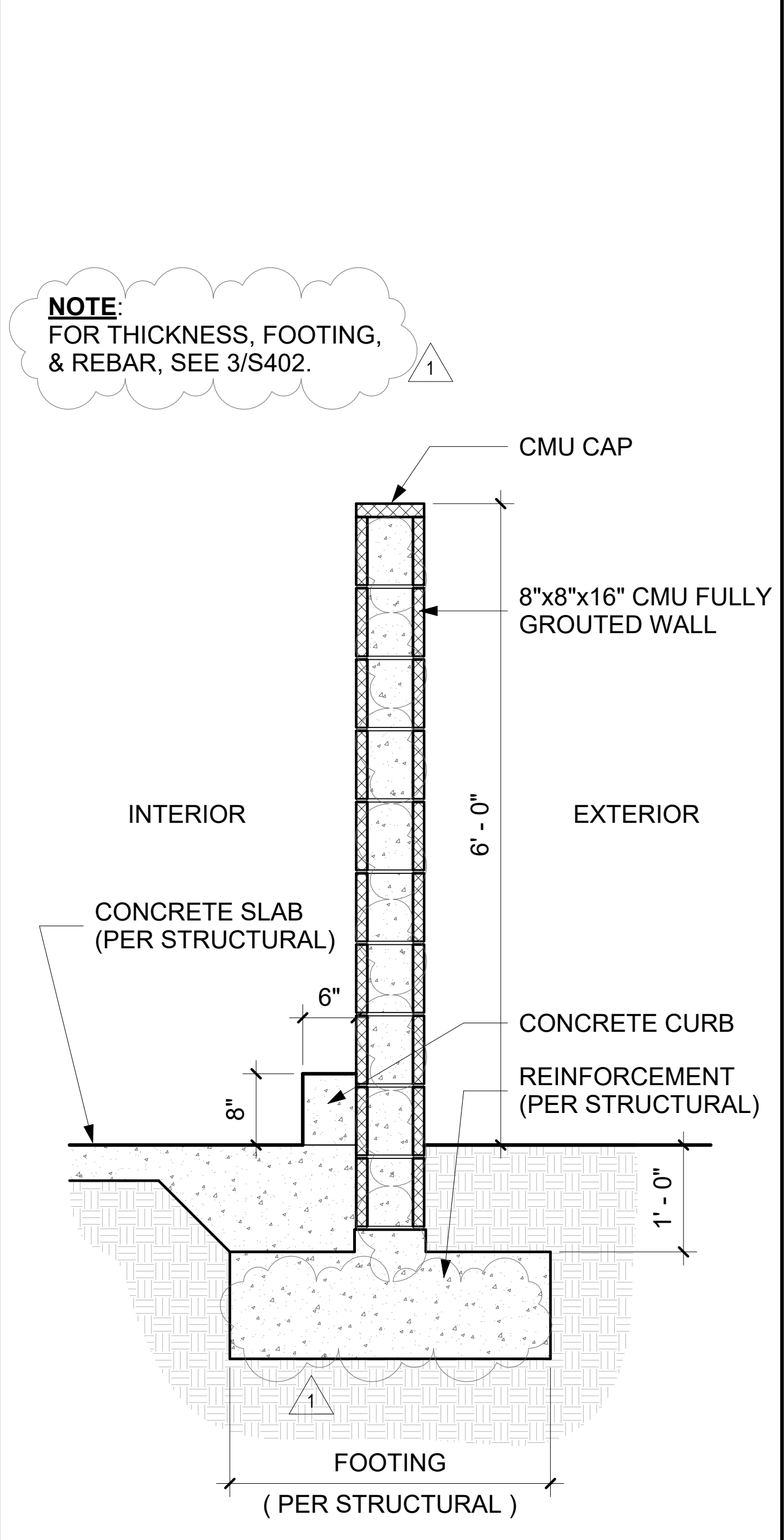
CONCRETE EXPANSION JOINT **L4**

1 1/2" = 1'-0"


NOTE:
FOR THICKNESS, FOOTING, & REBAR, SEE 3/S402.
1
CMU CAP
REINFORCEMENT (PER STRUCTURAL)
8"x8"x16" CMU FULLY GROUTED WALL
7' - 4"
INTERIOR
EXTERIOR
LANDSCAPE
CONCRETE SLAB (PER STRUCTURAL)
1' - 0"
1
FOOTING
(PER STRUCTURAL)

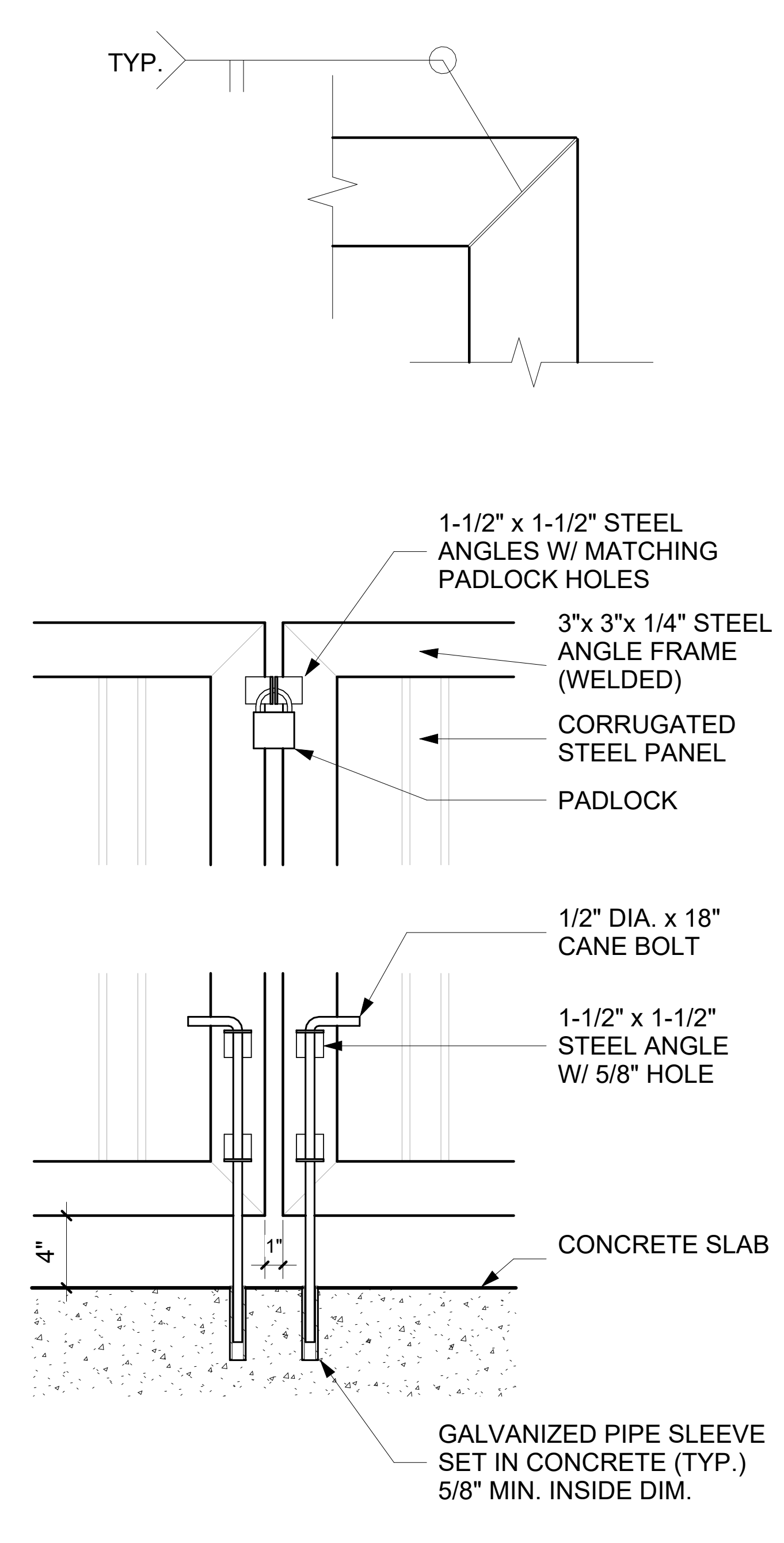
CMU SITE WALL **J4**

3/4" = 1'-0"


NOTE:
FOR THICKNESS, FOOTING, & REBAR, SEE 3/S402.
1
CMU CAP
8"x8"x16" CMU FULLY GROUTED WALL
6' - 0"
INTERIOR
EXTERIOR
CONCRETE SLAB (PER STRUCTURAL)
6"
8"
CONCRETE CURB
REINFORCEMENT (PER STRUCTURAL)
1' - 0"
1
FOOTING
(PER STRUCTURAL)

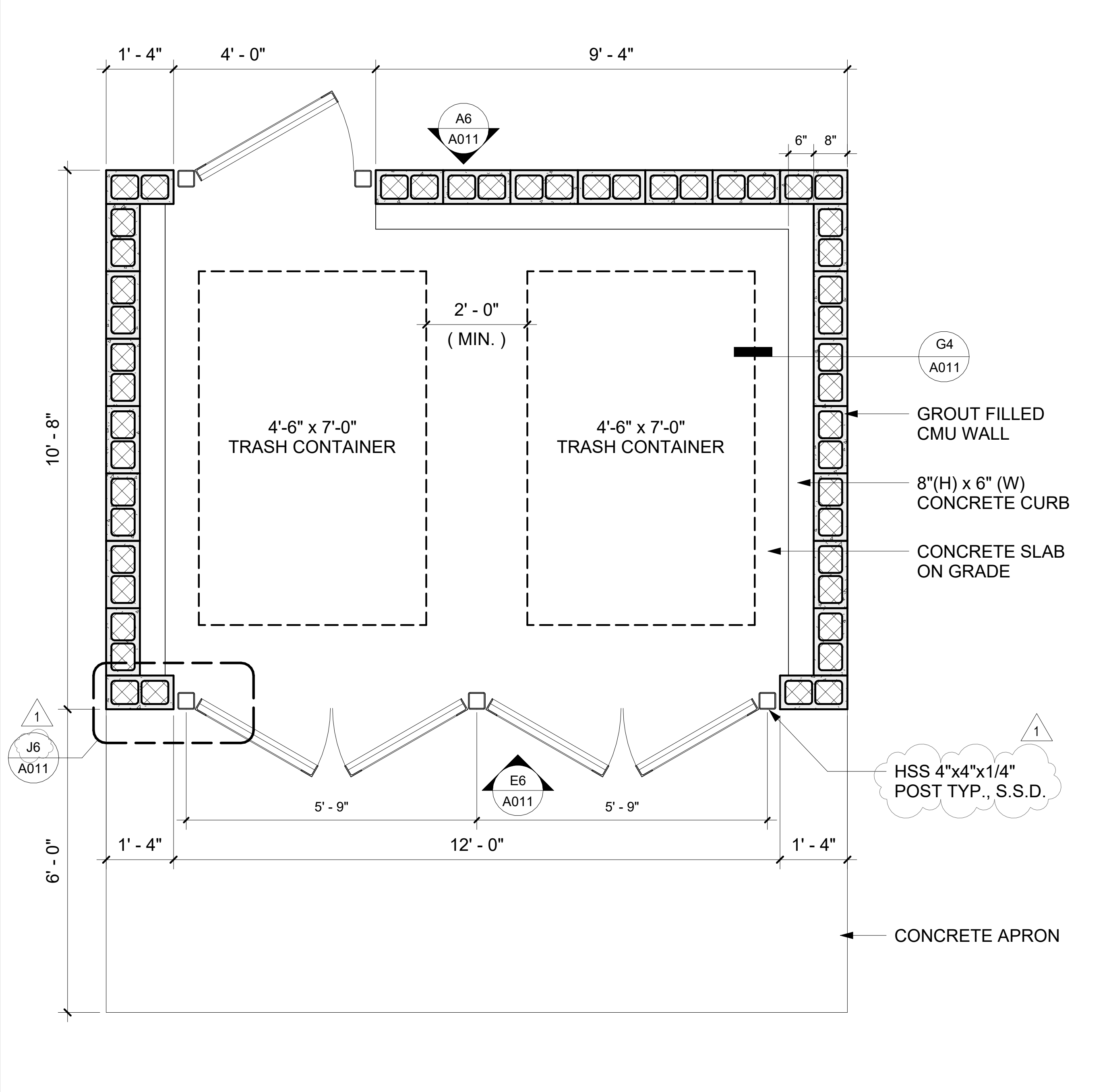
TRASH ENCLOSURE - WALL SECTION **G4**

3/4" = 1'-0"


TYP.
1-1/2" x 1-1/2" STEEL ANGLES W/ MATCHING PADLOCK HOLES
3"x 3"x 1/4" STEEL ANGLE FRAME (WELDED)
CORRUGATED STEEL PANEL
PADLOCK
1/2" DIA. x 18" CANE BOLT
1-1/2" x 1-1/2" STEEL ANGLE W/ 5/8" HOLE
CONCRETE SLAB
4"
GALVANIZED PIPE SLEEVE SET IN CONCRETE (TYP.) 5/8" MIN. INSIDE DIM.

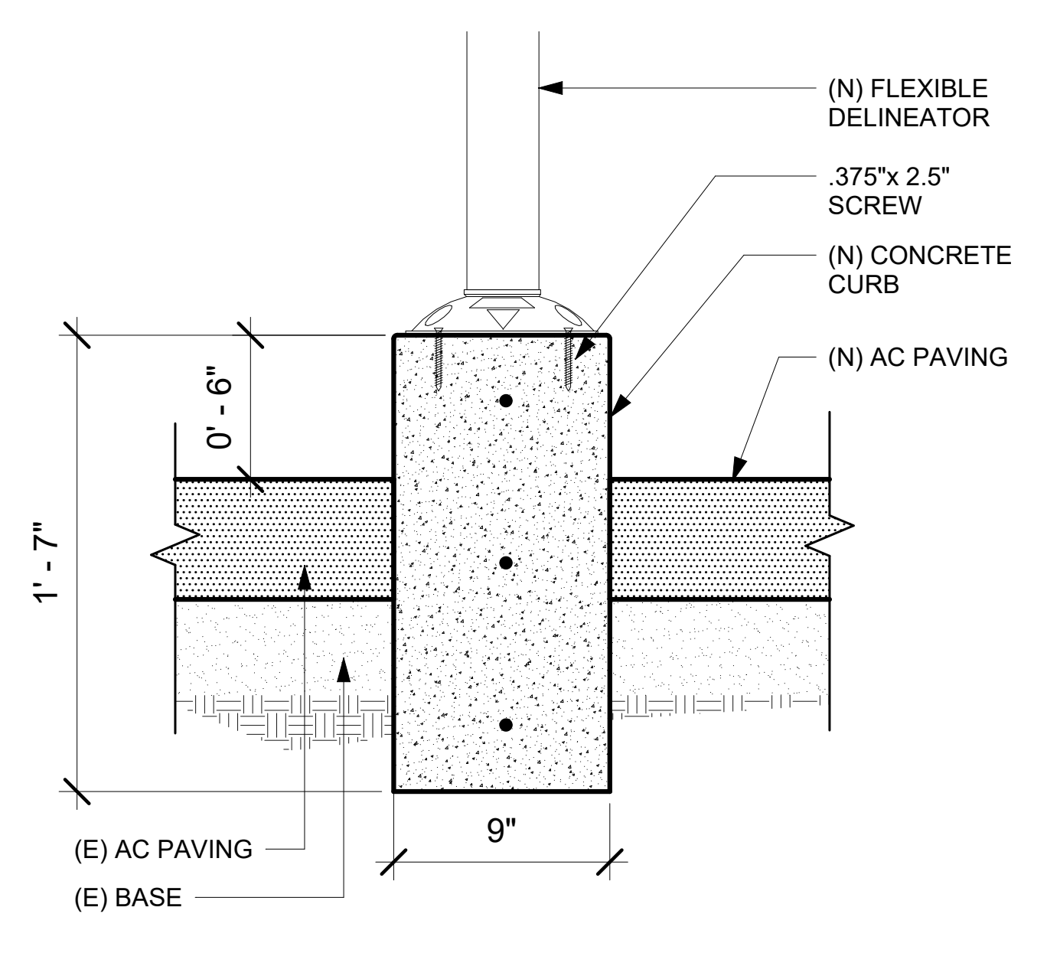
TRASH ENCLOSURE - LATCH & BOLT **E4**

1 1/2" = 1'-0"



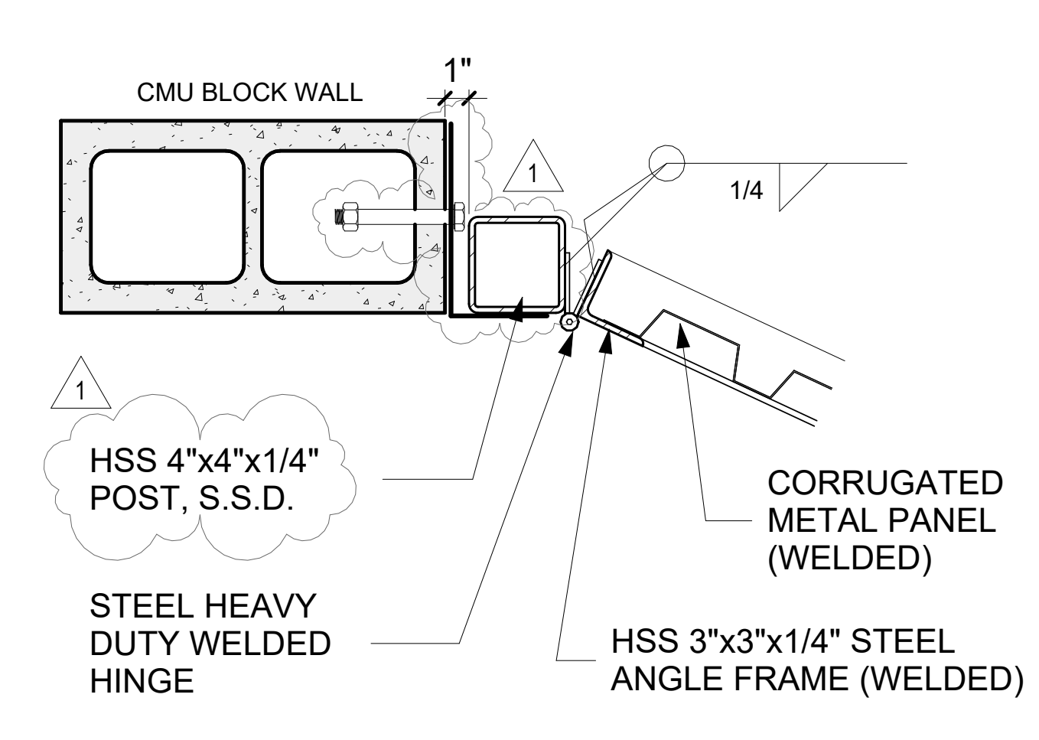
TRASH ENCLOSURE - FLOOR PLAN **A4**

1/2" = 1'-0"



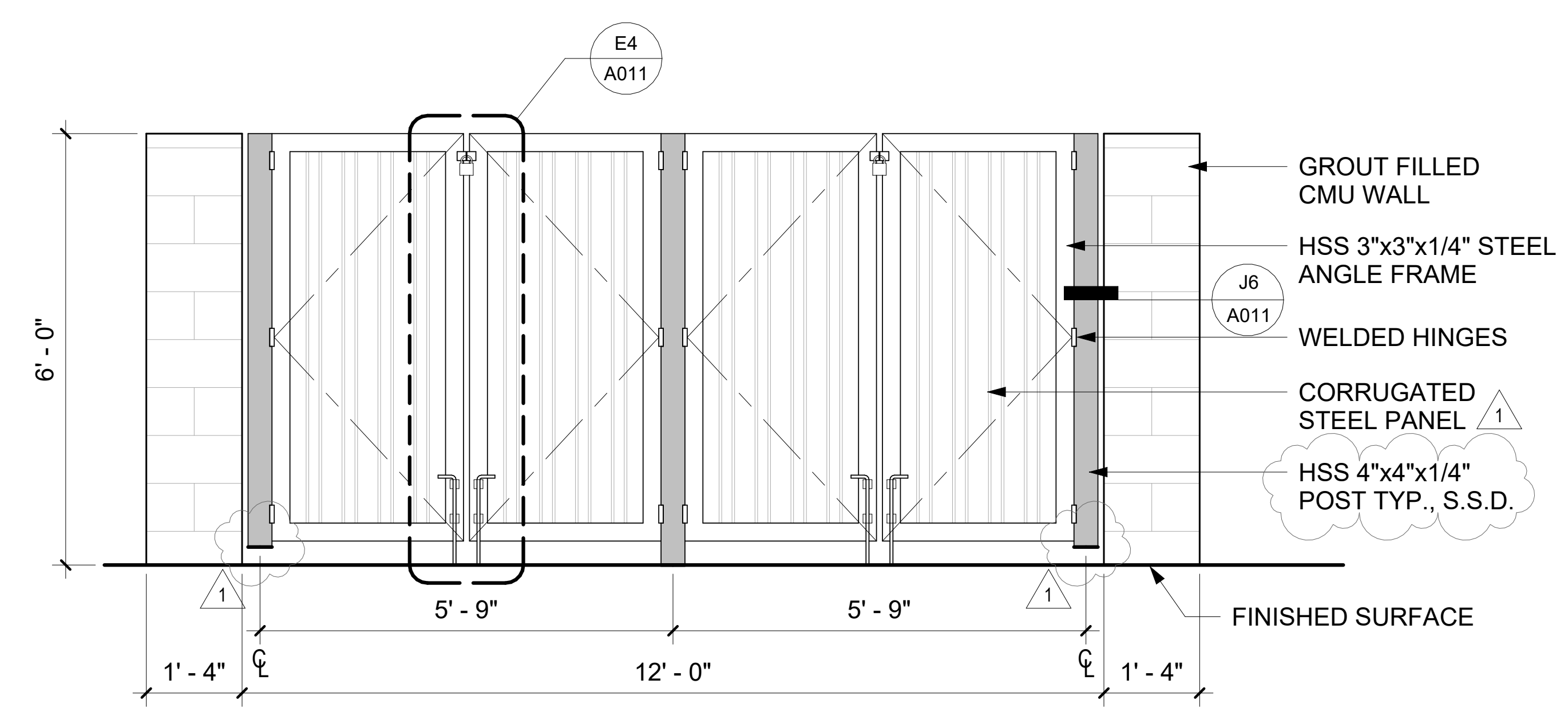
CONC. CURB AT AC PAVING **L6**

1 1/2" = 1'-0"


CMU BLOCK WALL
1"
1
1/4
1
HSS 4"x4"x1/4" POST, S.S.D.
CORRUGATED METAL PANEL (WELDED)
STEEL HEAVY DUTY WELDED HINGE
HSS 3"x3"x1/4" STEEL ANGLE FRAME (WELDED)

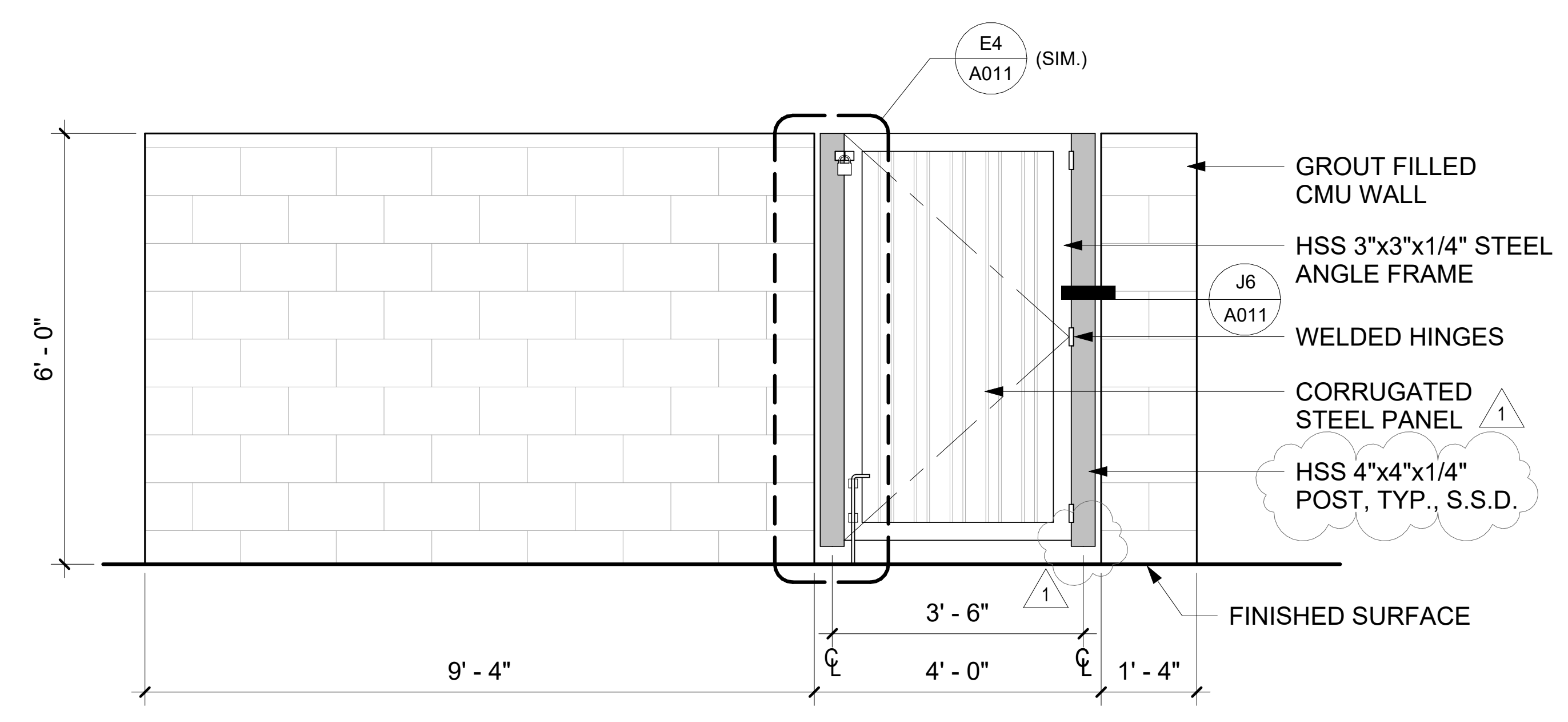
TRASH ENCLOSURE - GATE HINGE **J6**

1 1/2" = 1'-0"



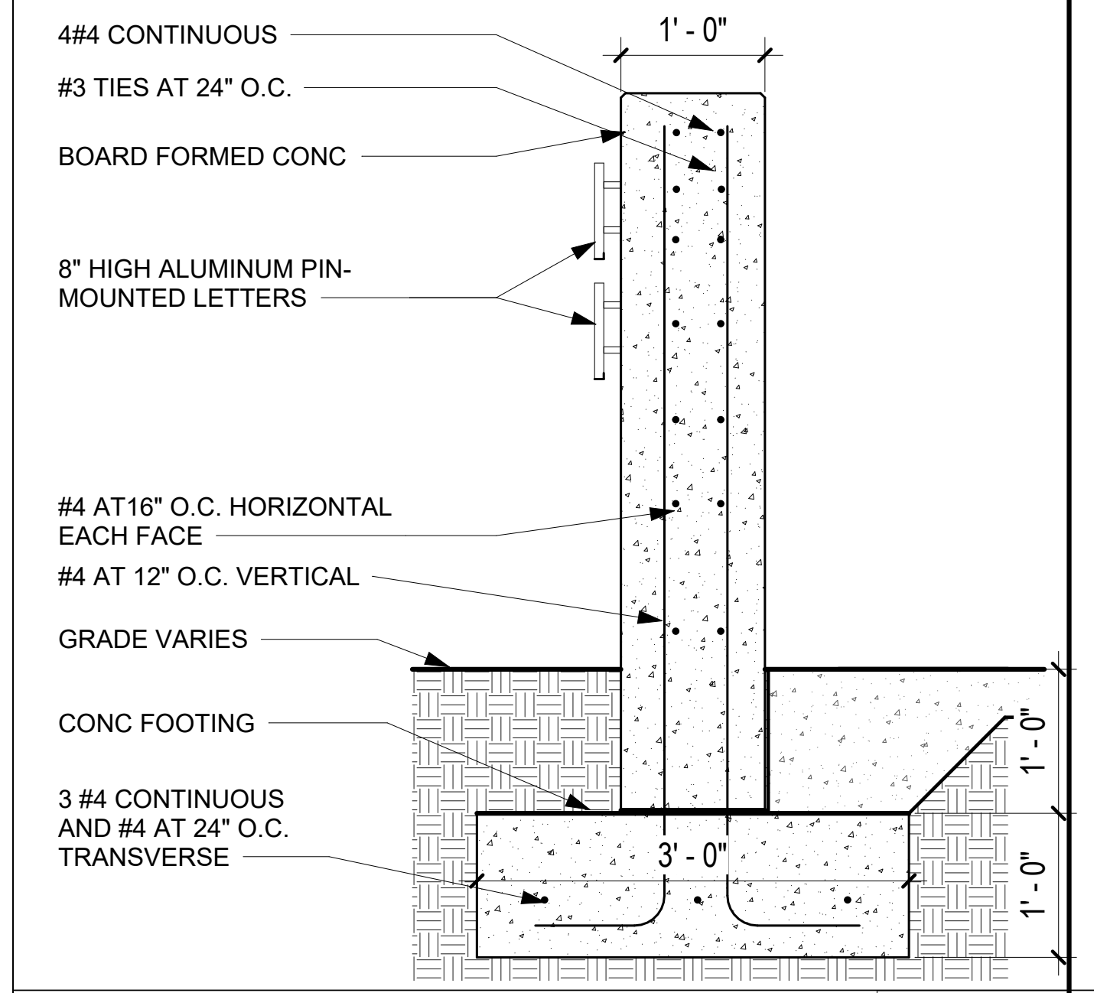
TRASH ENCLOSURE - ELEVATION **E6**

1/2" = 1'-0"



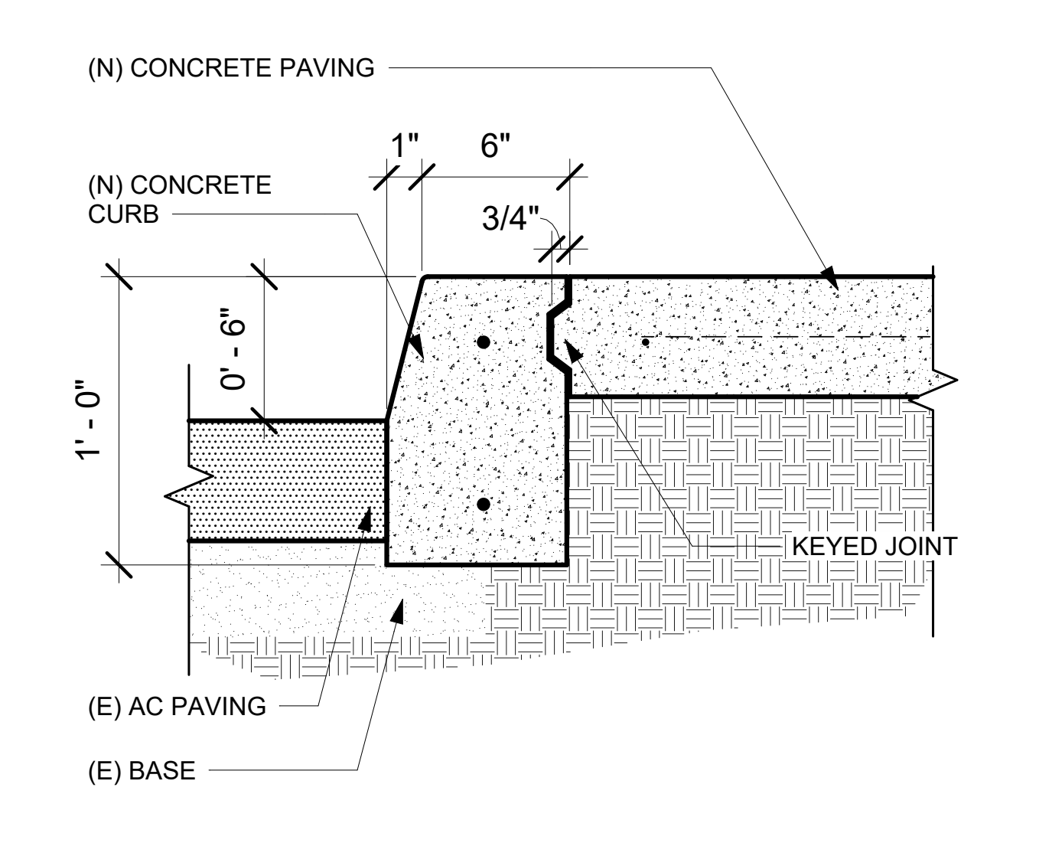
TRASH ENCLOSURE - ELEVATION **A6**

1/2" = 1'-0"



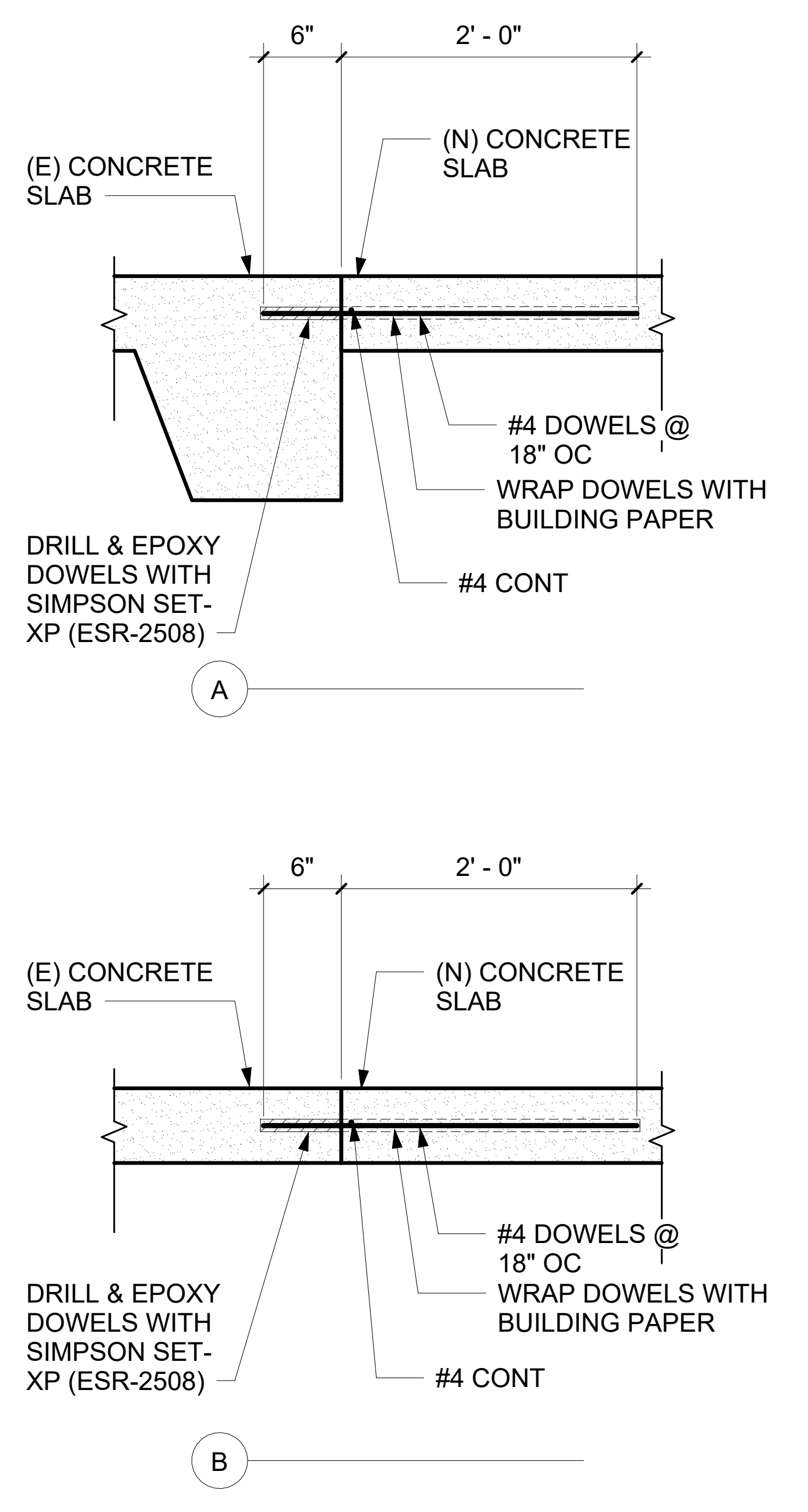
SCHOOL SIGN SECTION **L8**

3/4" = 1'-0"



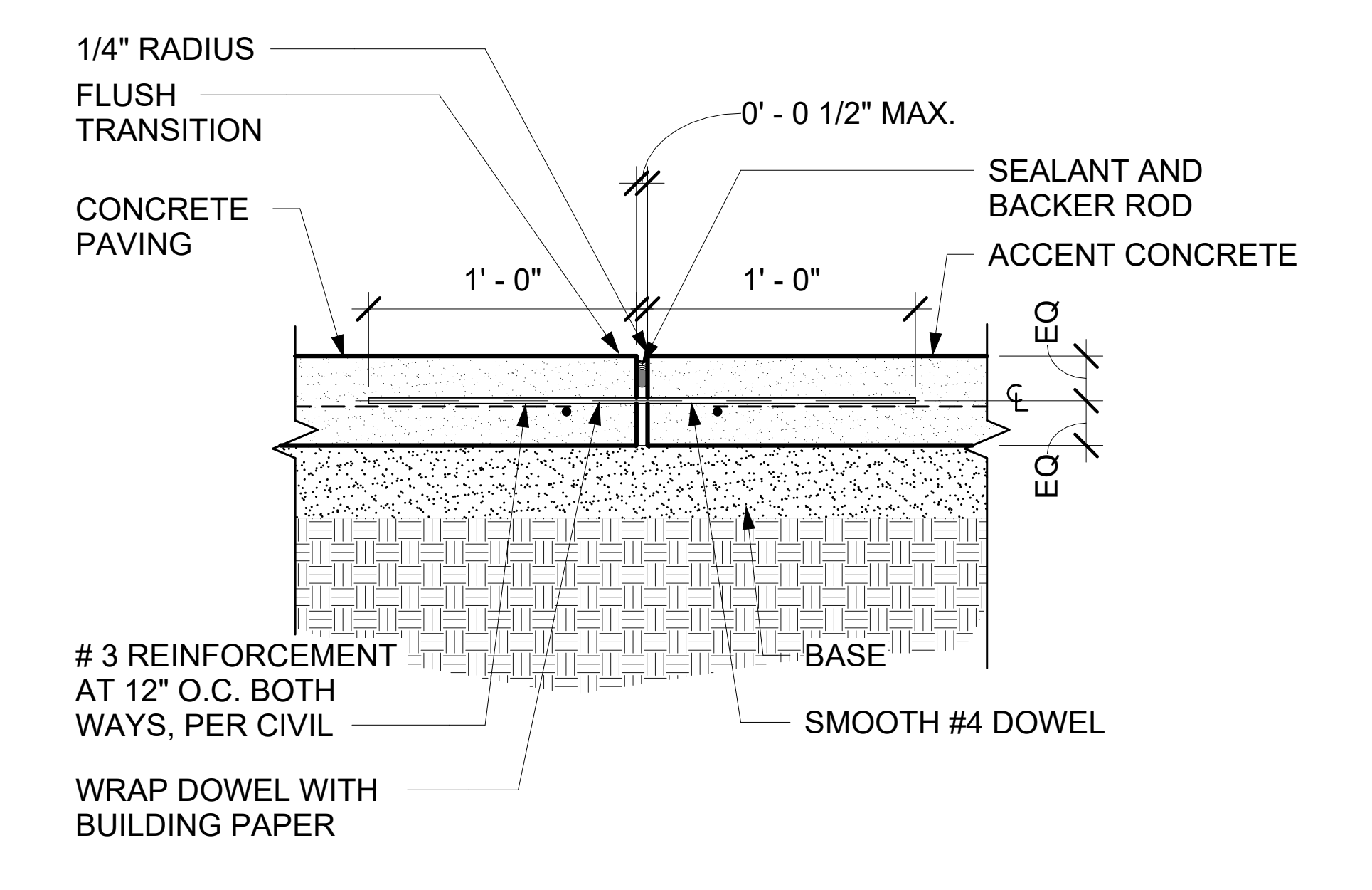
CONC. CURB AT AC PAVING **J8**

1 1/2" = 1'-0"


6"
2' - 0"
(E) CONCRETE SLAB
(N) CONCRETE SLAB
#4 DOWELS @ 18" OC
WRAP DOWELS WITH BUILDING PAPER
DRILL & EPOXY DOWELS WITH SIMPSON SET-XP (ESR-2508)
#4 CONT
A
6"
2' - 0"
(E) CONCRETE SLAB
(N) CONCRETE SLAB
#4 DOWELS @ 18" OC
WRAP DOWELS WITH BUILDING PAPER
DRILL & EPOXY DOWELS WITH SIMPSON SET-XP (ESR-2508)
#4 CONT
B

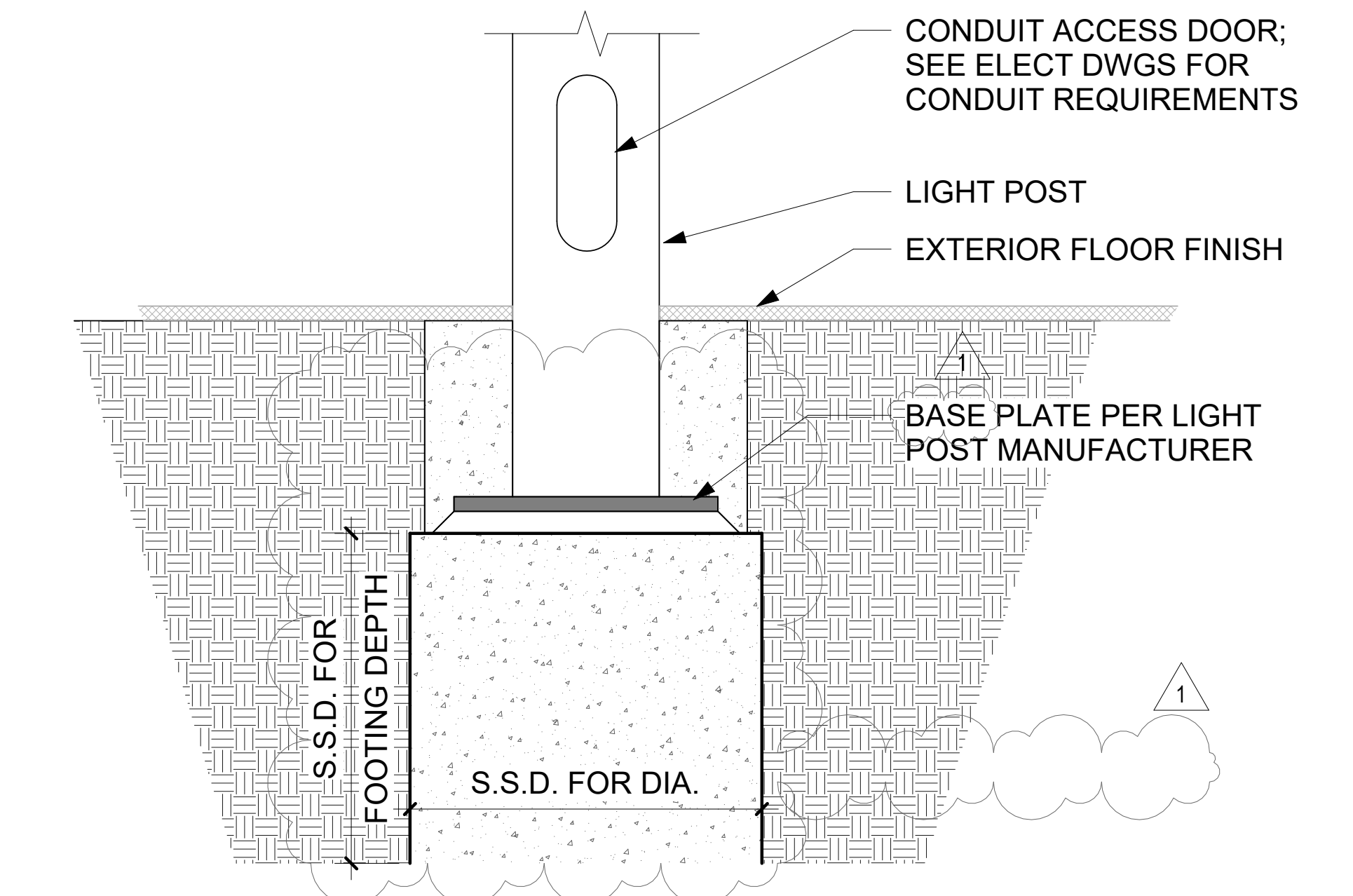
CONCRETE TO (E) CONCRETE **G10**

1" = 1'-0"



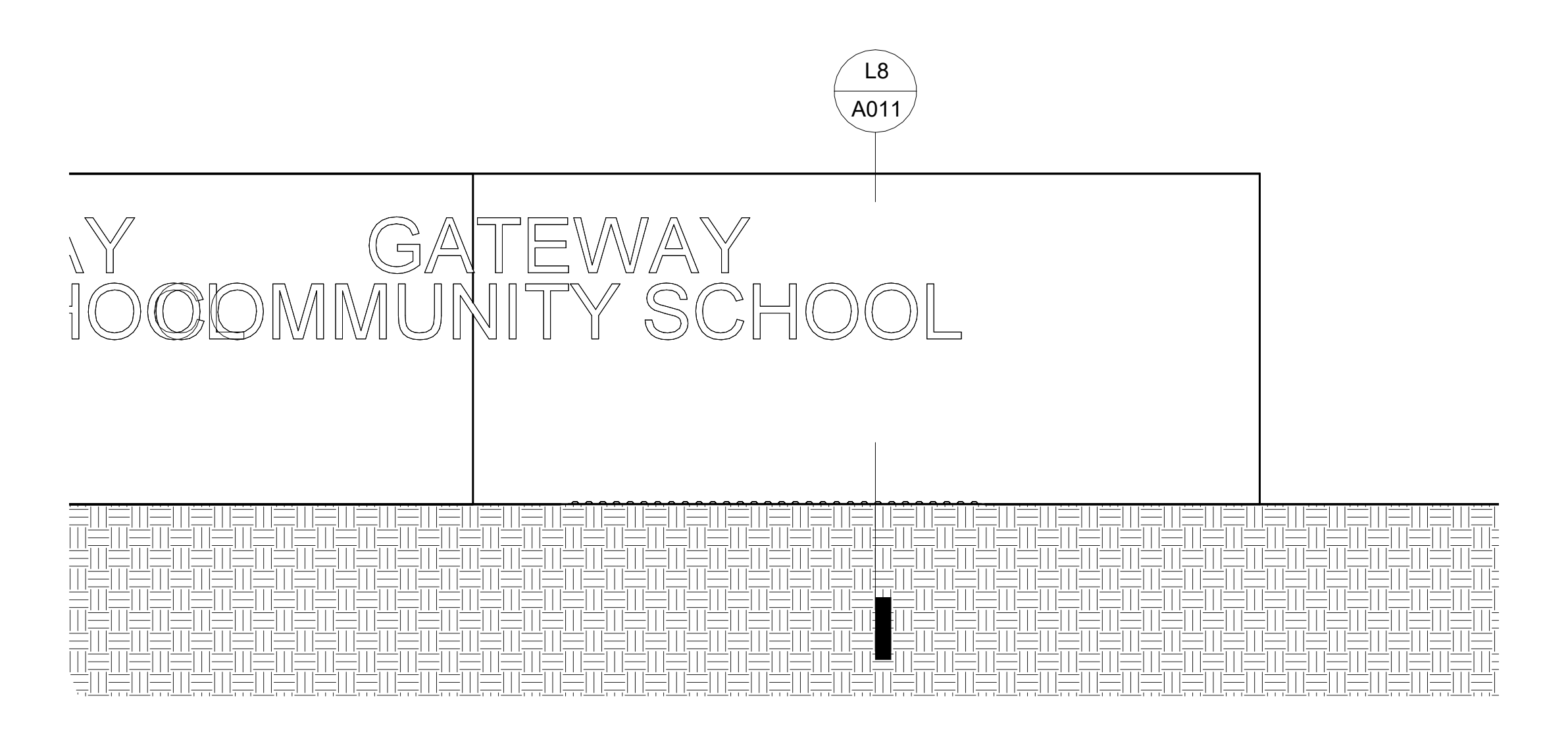
CONCRETE WALK AT ACCENT CONCRETE **D8**

1 1/2" = 1'-0"


CONDUIT ACCESS DOOR; SEE ELECT DWGS FOR CONDUIT REQUIREMENTS
LIGHT POST
EXTERIOR FLOOR FINISH
1
BASE PLATE PER LIGHT POST MANUFACTURER
S.S.D. FOR FOOTING DEPTH
S.S.D. FOR DIA.
1

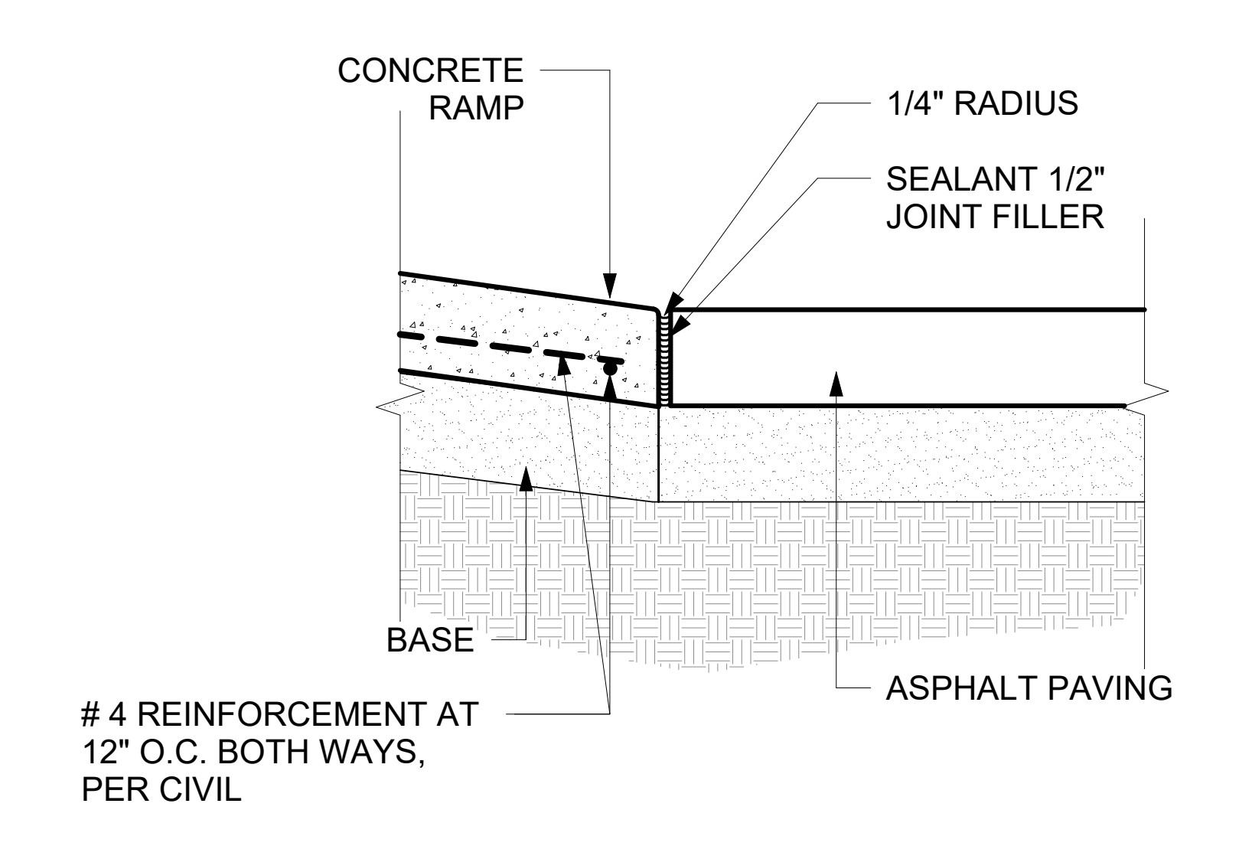
LIGHT POST FOUNDATION **A8**

1" = 1'-0"



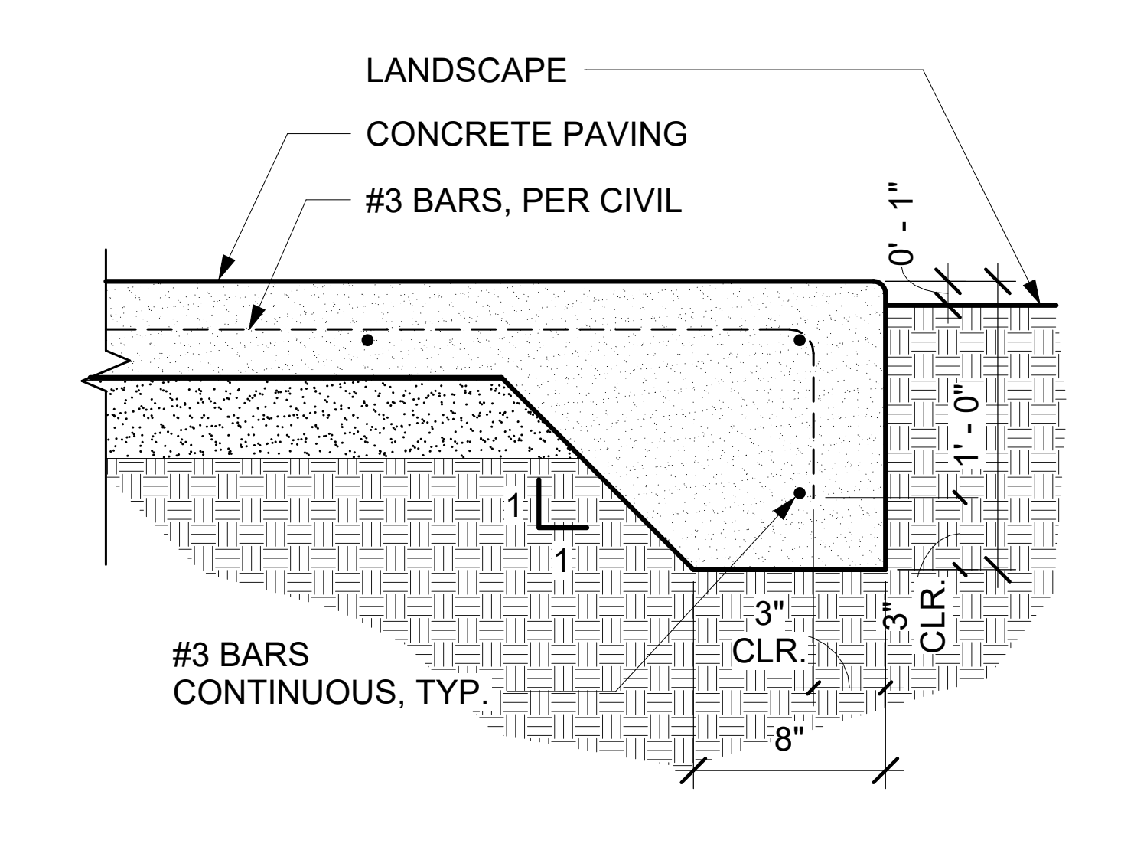
MONUMENT SIGN **J10**

1/2" = 1'-0"


CONCRETE RAMP
1/4" RADIUS
SEALANT 1/2" JOINT FILLER
BASE
ASPHALT PAVING
# 4 REINFORCEMENT AT 12" O.C. BOTH WAYS, PER CIVIL

RAMP TERMINATION AT ASPHALT **D10**

1 1/2" = 1'-0"



TYP. CONCRETE PAVING AT LANDSCAPE **A10**

1 1/2" = 1'-0"

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

LICENSED ARCHITECT
DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 2027
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

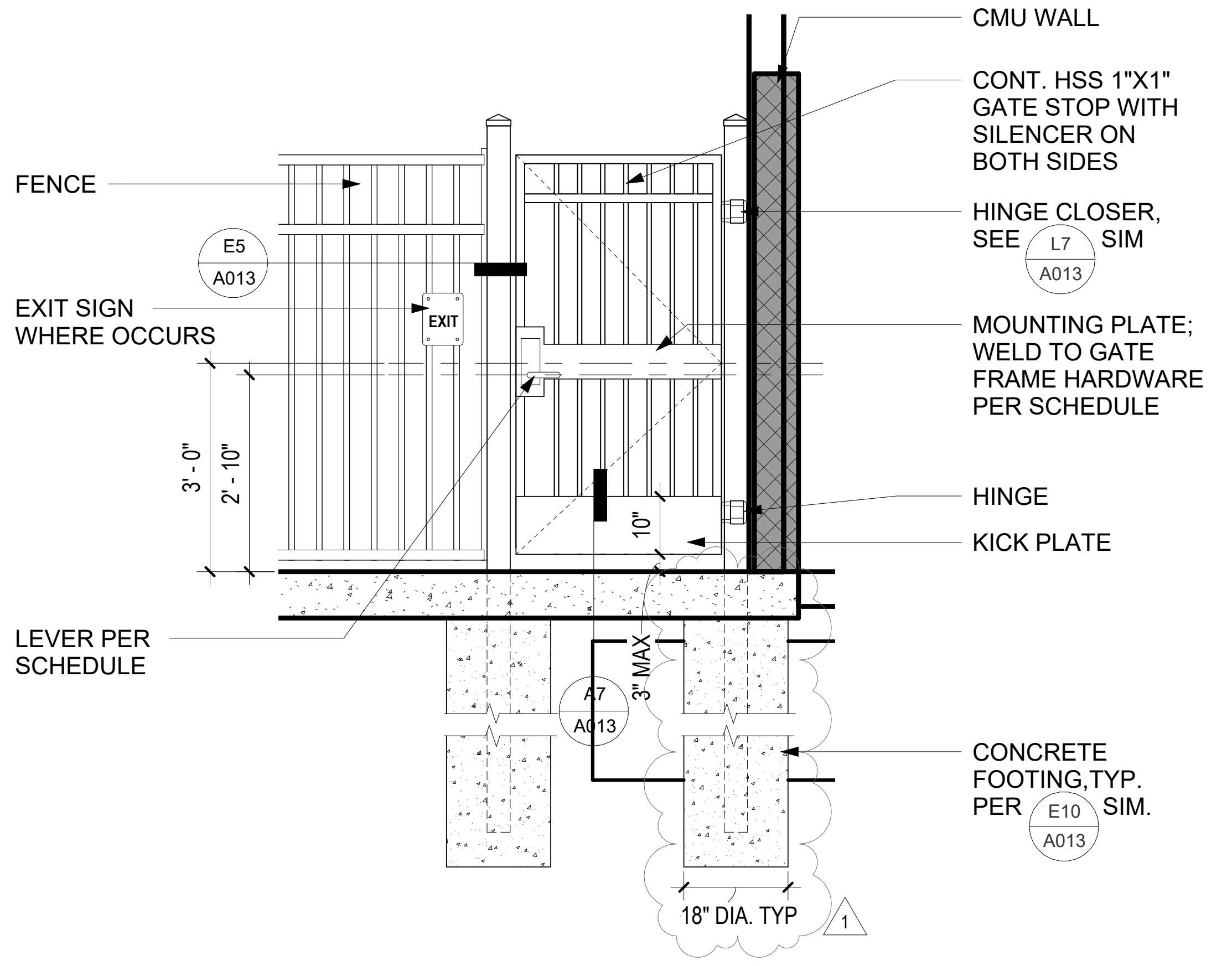
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

SITE DETAILS

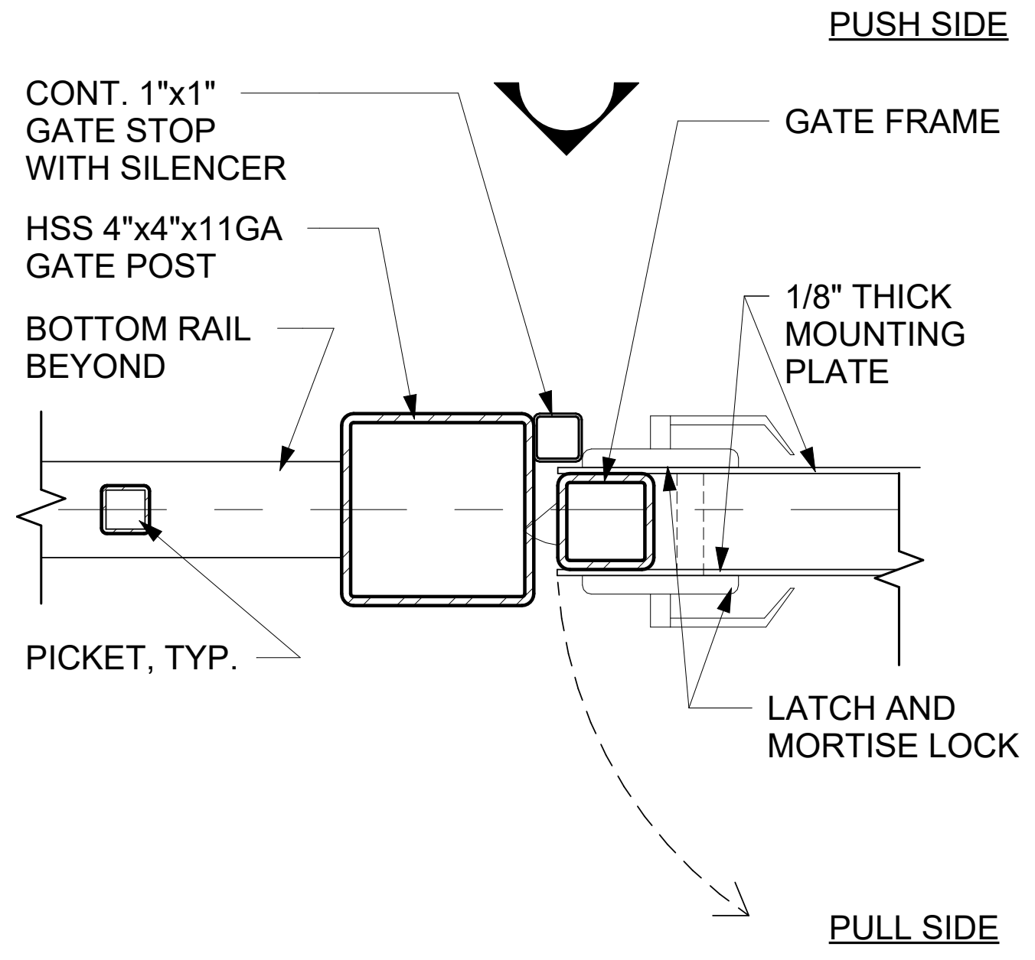
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

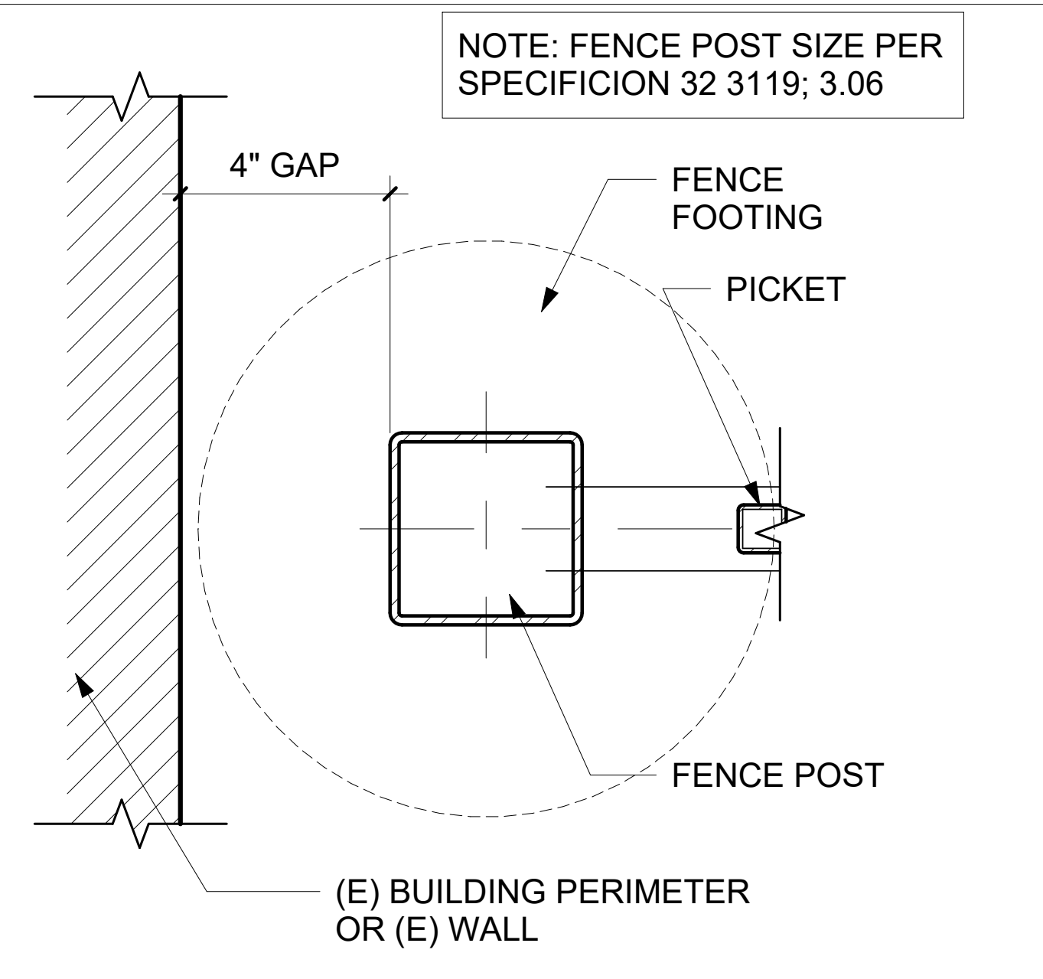
A011


CMU WALL
CONT. HSS 1"X1" GATE STOP WITH SILENCER ON BOTH SIDES
FENCE
E5 A013
HINGE CLOSER, SEE L7 A013 SIM
EXIT SIGN WHERE OCCURS
EXIT
MOUNTING PLATE; WELD TO GATE FRAME HARDWARE PER SCHEDULE
3' - 0"
2' - 10"
HINGE
10"
KICK PLATE
LEVER PER SCHEDULE
A7 A013
3" MAX
CONCRETE FOOTING,TYP. PER E10 A013 SIM.
18" DIA. TYP
1

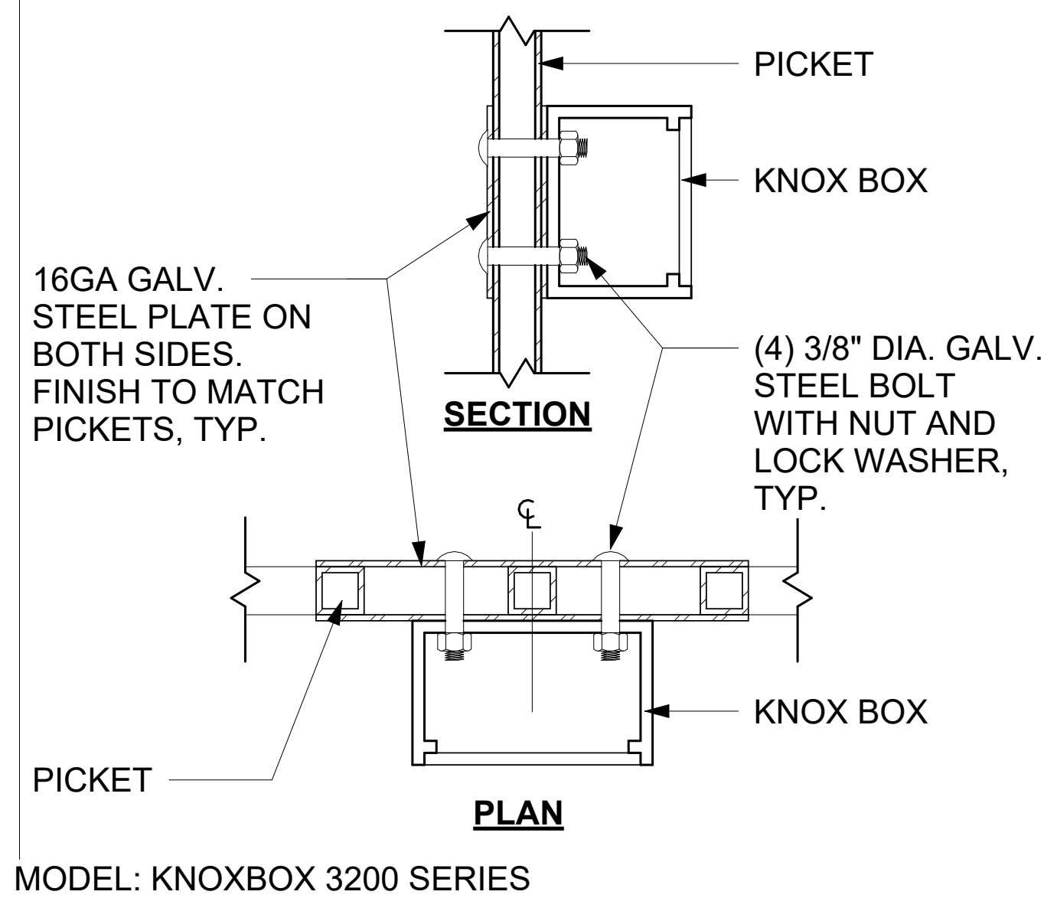
GATE ELEVATION A3
1/2" = 1'-0"



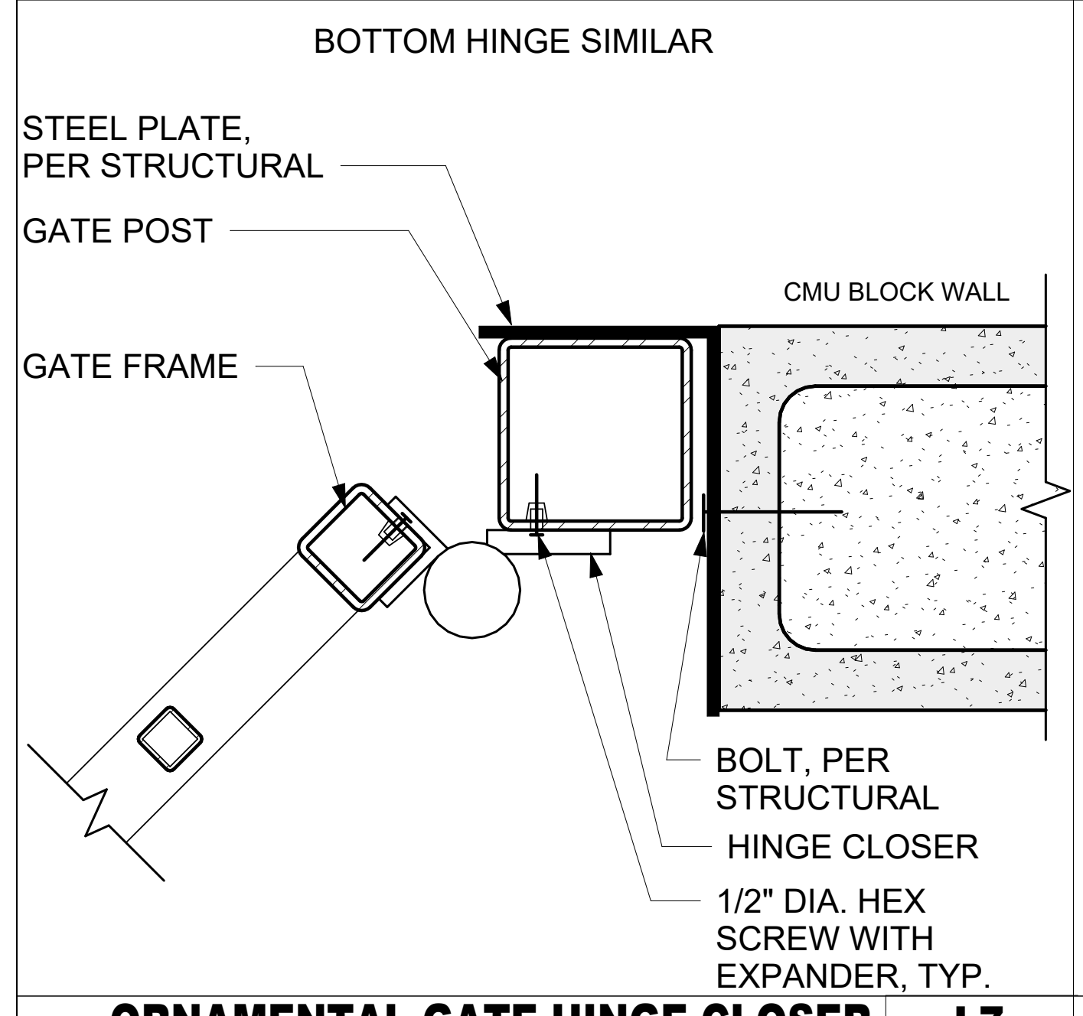
ORNAMENTAL GATE WITH LEVER AND LOCK E5
3" = 1'-0"


NOTE: FENCE POST SIZE PER SPECIFICION 32 3119; 3.06
4" GAP
FENCE FOOTING
PICKET
FENCE POST
(E) BUILDING PERIMETER OR (E) WALL

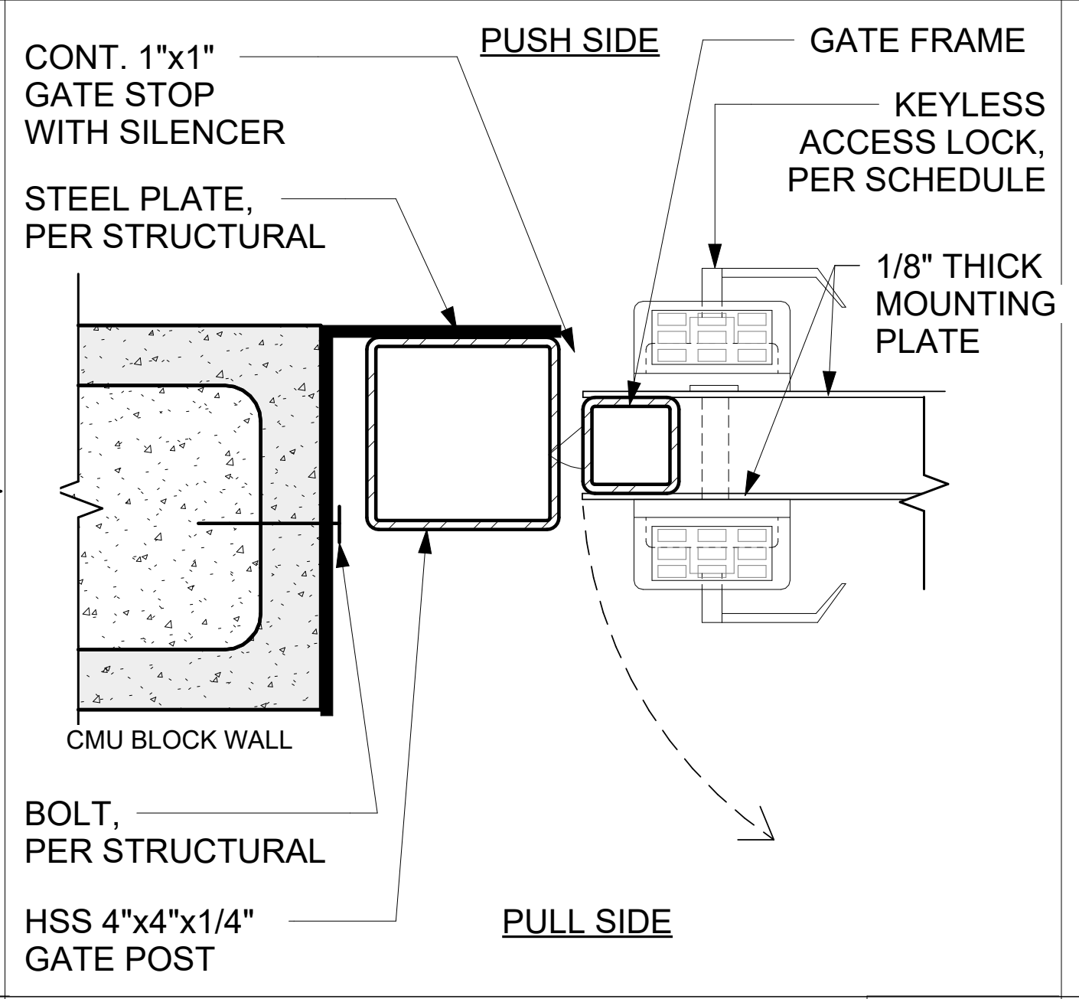
ORNAMENTAL FENCE POST AT BUILDING C5
3" = 1'-0"


PICKET
KNOX BOX
16GA GALV. STEEL PLATE ON BOTH SIDES. FINISH TO MATCH PICKETS, TYP.
(4) 3/8" DIA. GALV. STEEL BOLT WITH NUT AND LOCK WASHER, TYP.
SECTION
℄
KNOX BOX
PICKET
PLAN
MODEL: KNOXBOX 3200 SERIES

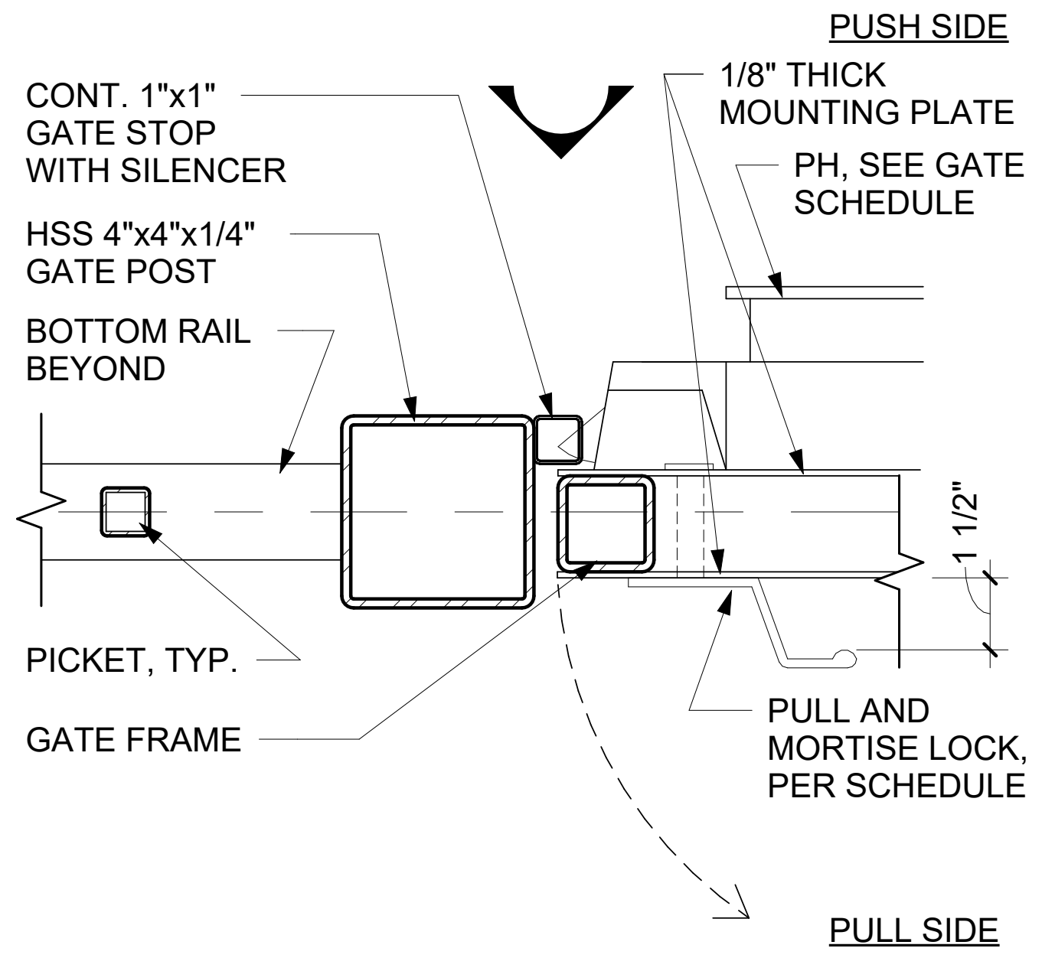
ORNAMENTAL METAL FENCE KNOX BOX A5
3" = 1'-0"



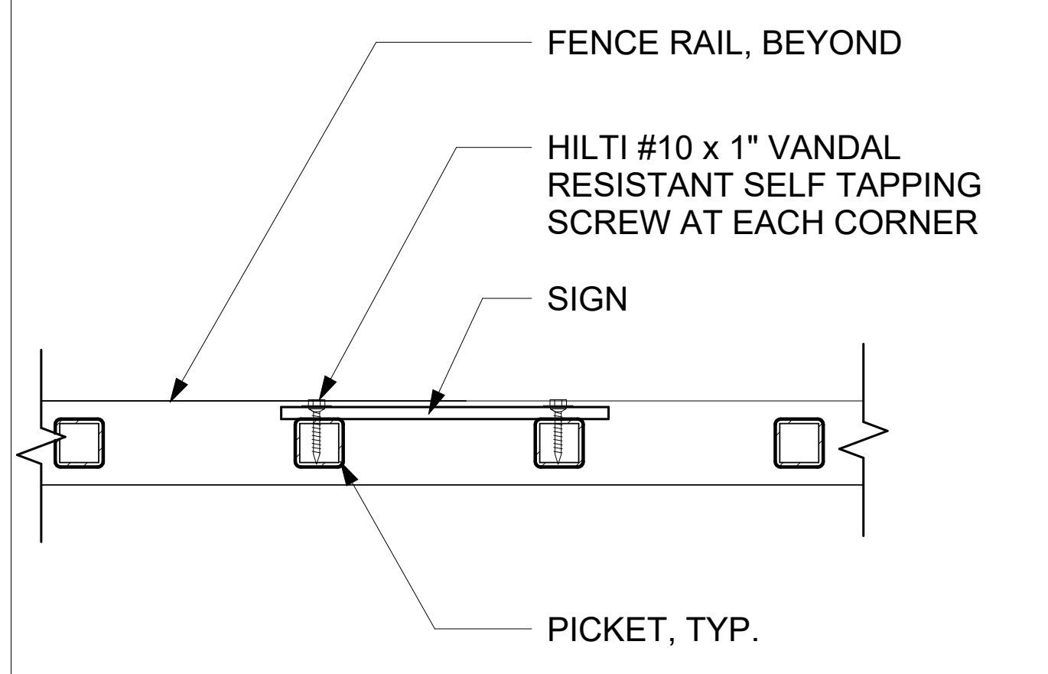
ORNAMENTAL GATE HINGE CLOSER L7


CONT. 1"x1" GATE STOP WITH SILENCER
PUSH SIDE
GATE FRAME
KEYLESS ACCESS LOCK, PER SCHEDULE
STEEL PLATE, PER STRUCTURAL
1/8" THICK MOUNTING PLATE
CMU BLOCK WALL
BOLT, PER STRUCTURAL
HSS 4"x4"x1/4" GATE POST
PULL SIDE

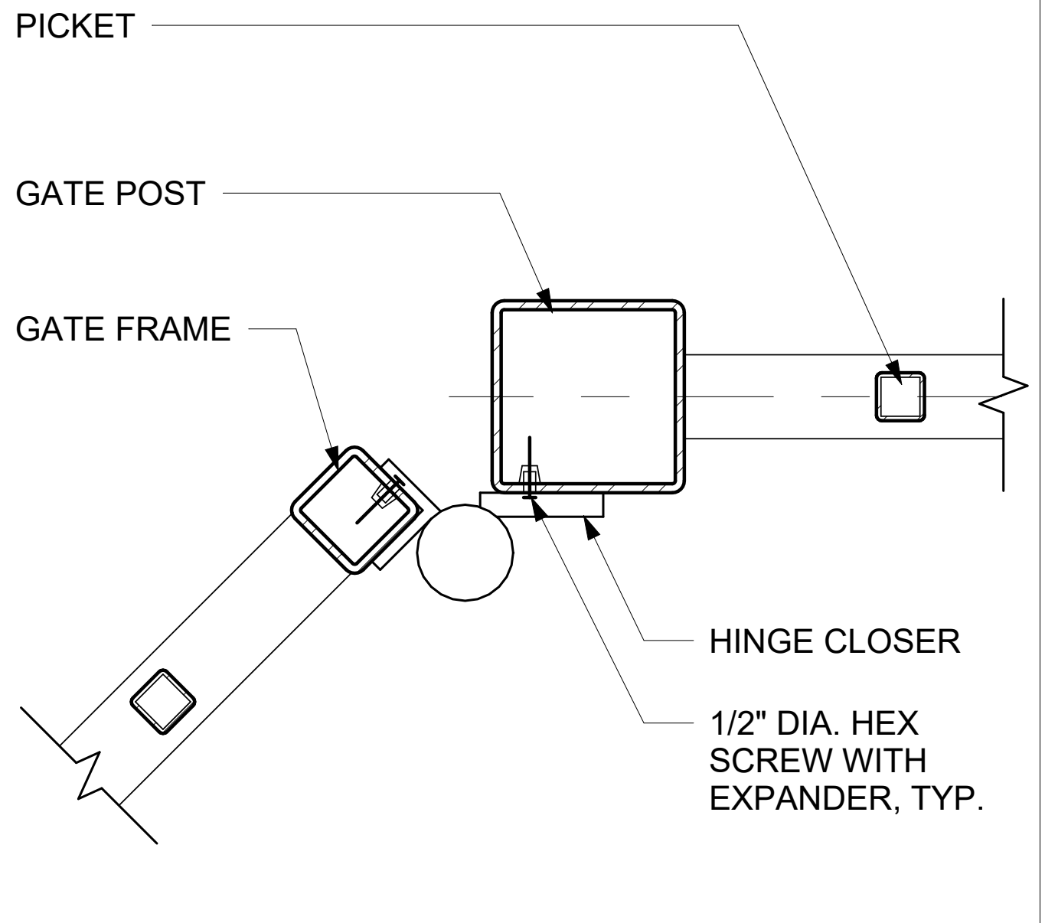
ORNAMENTAL METAL GATE J7
3" = 1'-0"



ORNAMENTAL GATE W/ PANIC HARDWARE G7
3" = 1'-0"

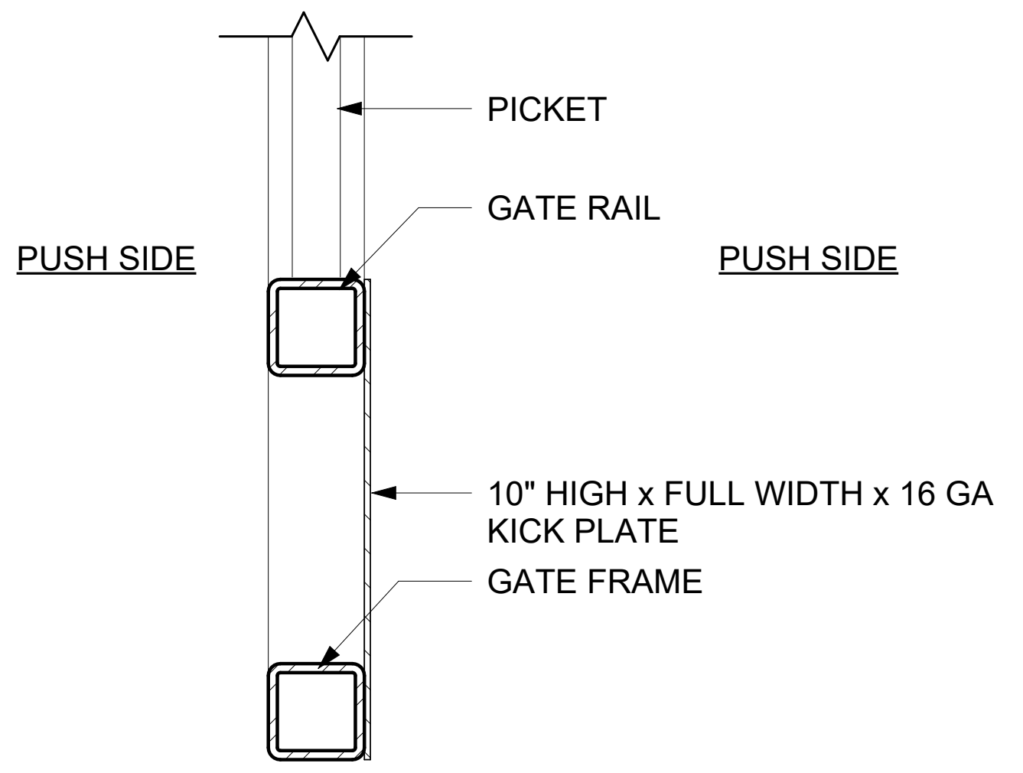

FENCE RAIL, BEYOND
HILTI #10 x 1" VANDAL RESISTANT SELF TAPPING SCREW AT EACH CORNER
SIGN
PICKET, TYP.

ORNAMENTAL METAL FENCE SIGN MOUNTING E7
3" = 1'-0"

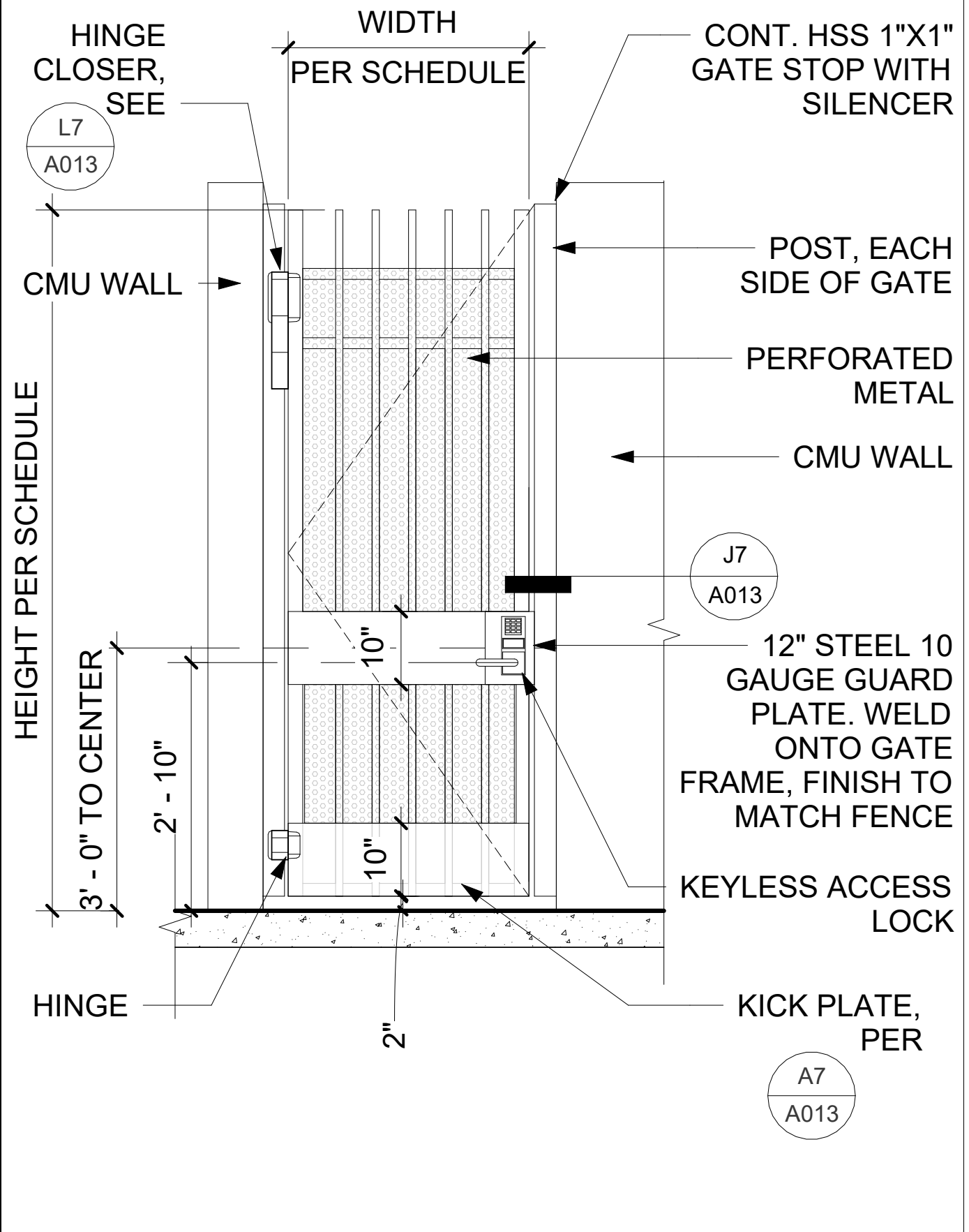


BOTTOM HINGE SIMILAR

ORNAMENTAL GATE HINGE CLOSER C7
3" = 1'-0"

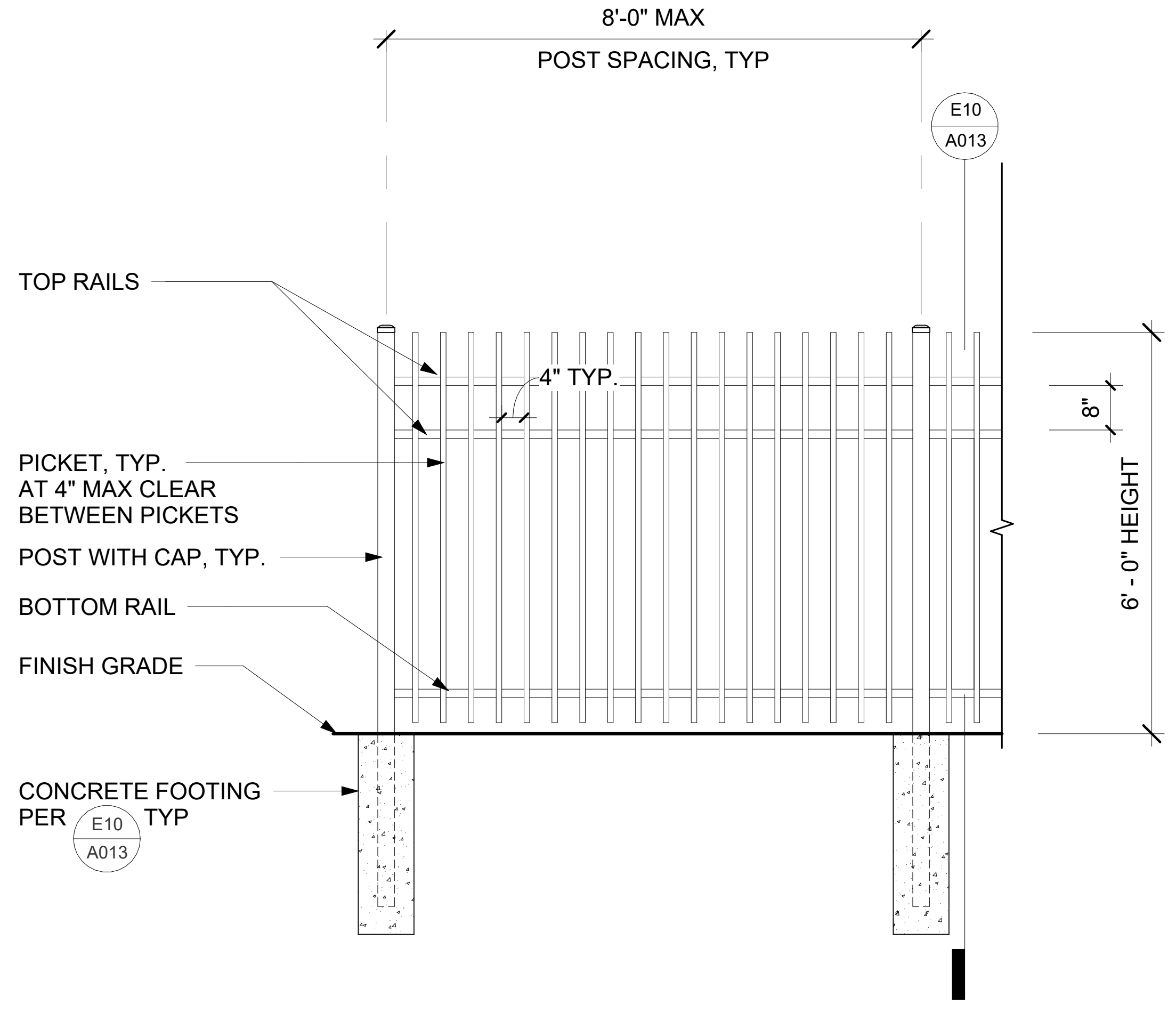


ORNAMENTAL METAL GATE KICK PLATE A7
3" = 1'-0"



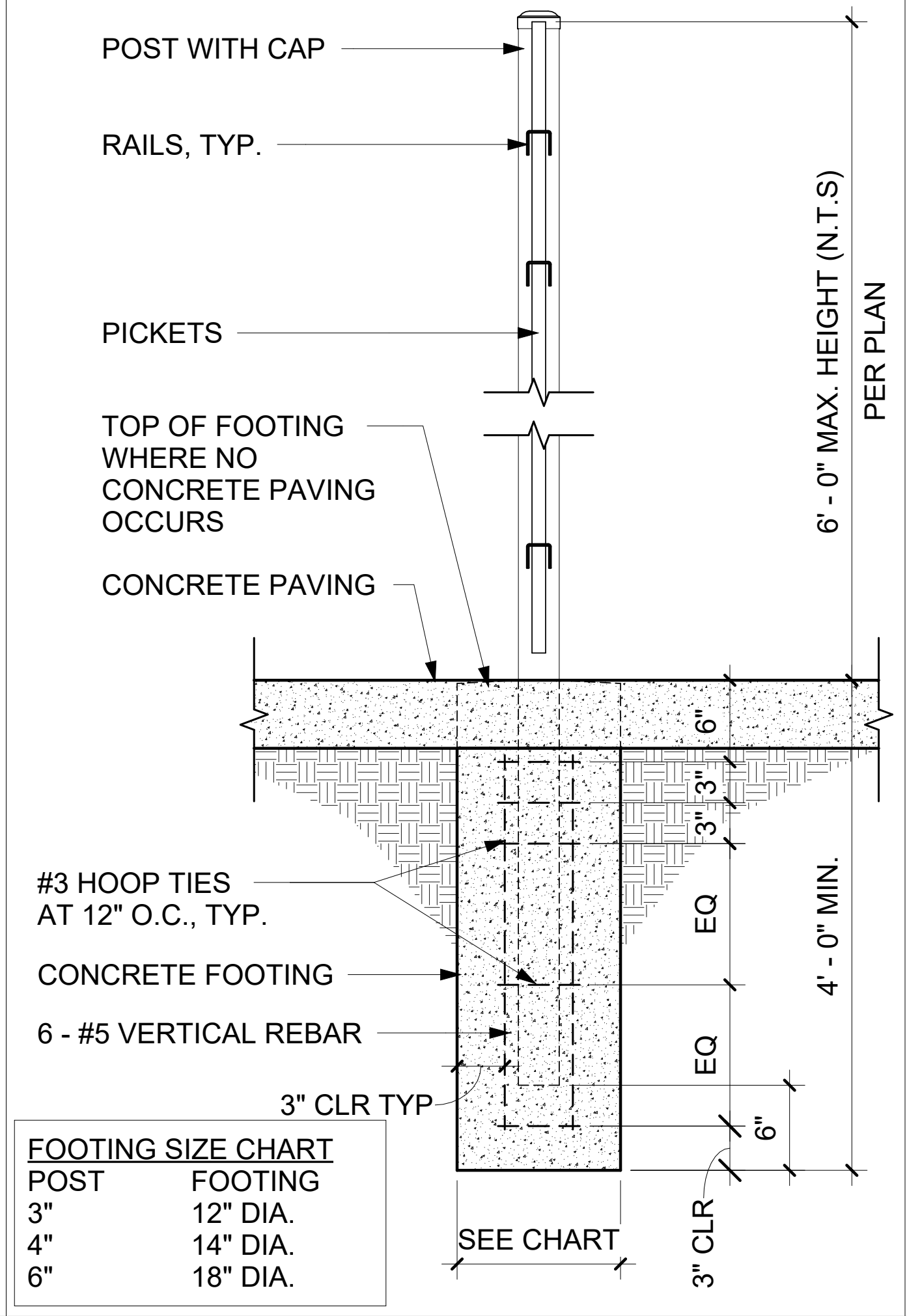
NOTE: GATE OPENING FORCE IS 5 POUNDS MAXIMUM

ORNAMENTAL METAL SINGLE GATE L10
1/2" = 1'-0"



NOTE: PICKETS AND POSTS SHALL BE SPACED EQUALLY

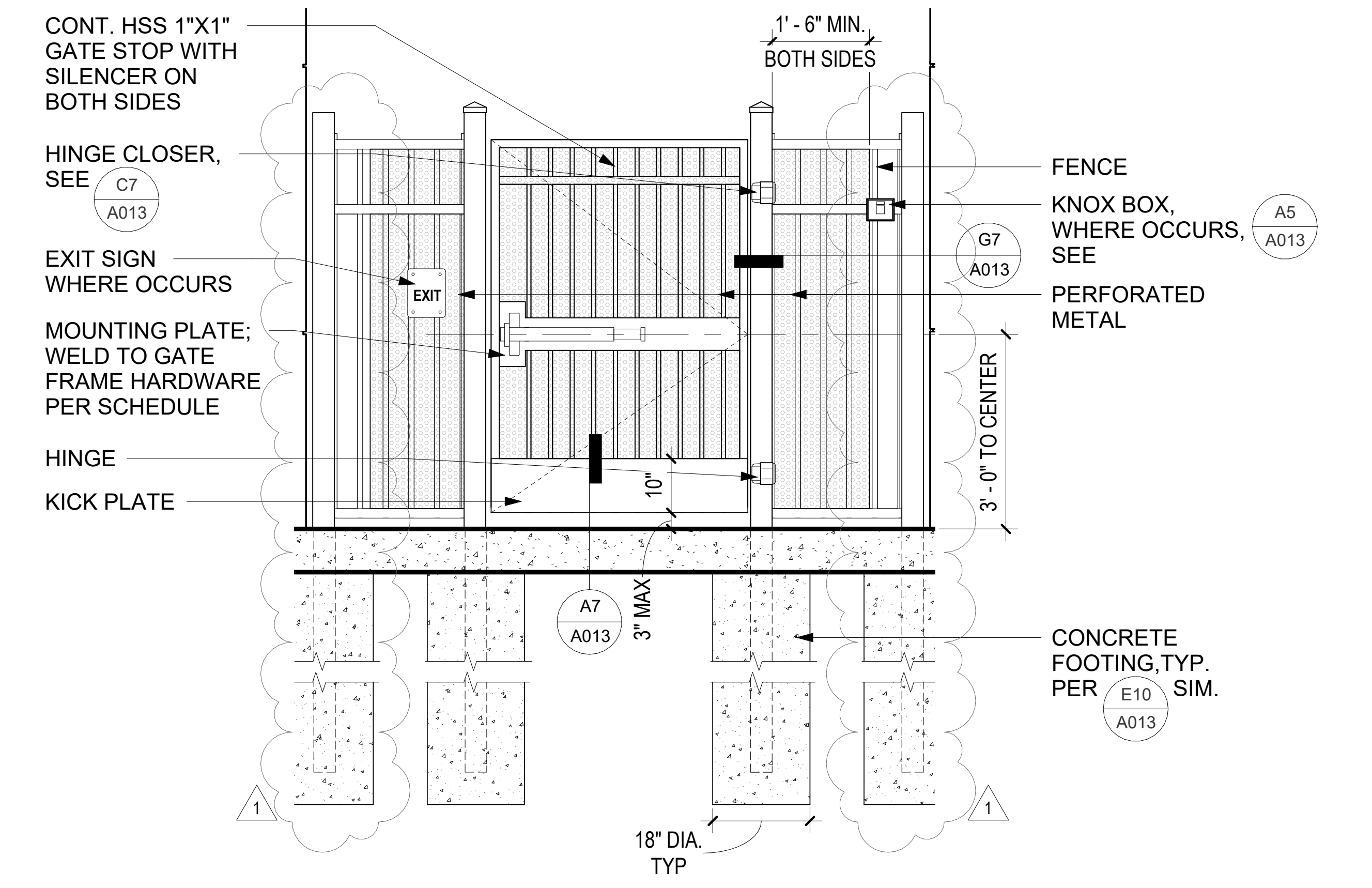
TYP. ORNAMENTAL METAL FENCE ELEVATION G10
1/2" = 1'-0"



FOOTING SIZE CHART

POST	FOOTING
3"	12" DIA.
4"	14" DIA.
6"	18" DIA.

TYP. METAL FENCE FOOTING E10
1" = 1'-0"


CONT. HSS 1"X1" GATE STOP WITH SILENCER ON BOTH SIDES
1' - 6" MIN. BOTH SIDES
HINGE CLOSER, SEE C7 A013
FENCE
KNOX BOX, WHERE OCCURS, SEE A5 A013
EXIT SIGN WHERE OCCURS
EXIT
G7 A013
PERFORATED METAL
MOUNTING PLATE; WELD TO GATE FRAME HARDWARE PER SCHEDULE
3' - 0" TO CENTER
HINGE
10"
KICK PLATE
A7 A013
3" MAX
CONCRETE FOOTING,TYP. PER E10 A013 SIM.
18" DIA. TYP
1
1

GATE ELEVATION PH A10
1/2" = 1'-0"

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
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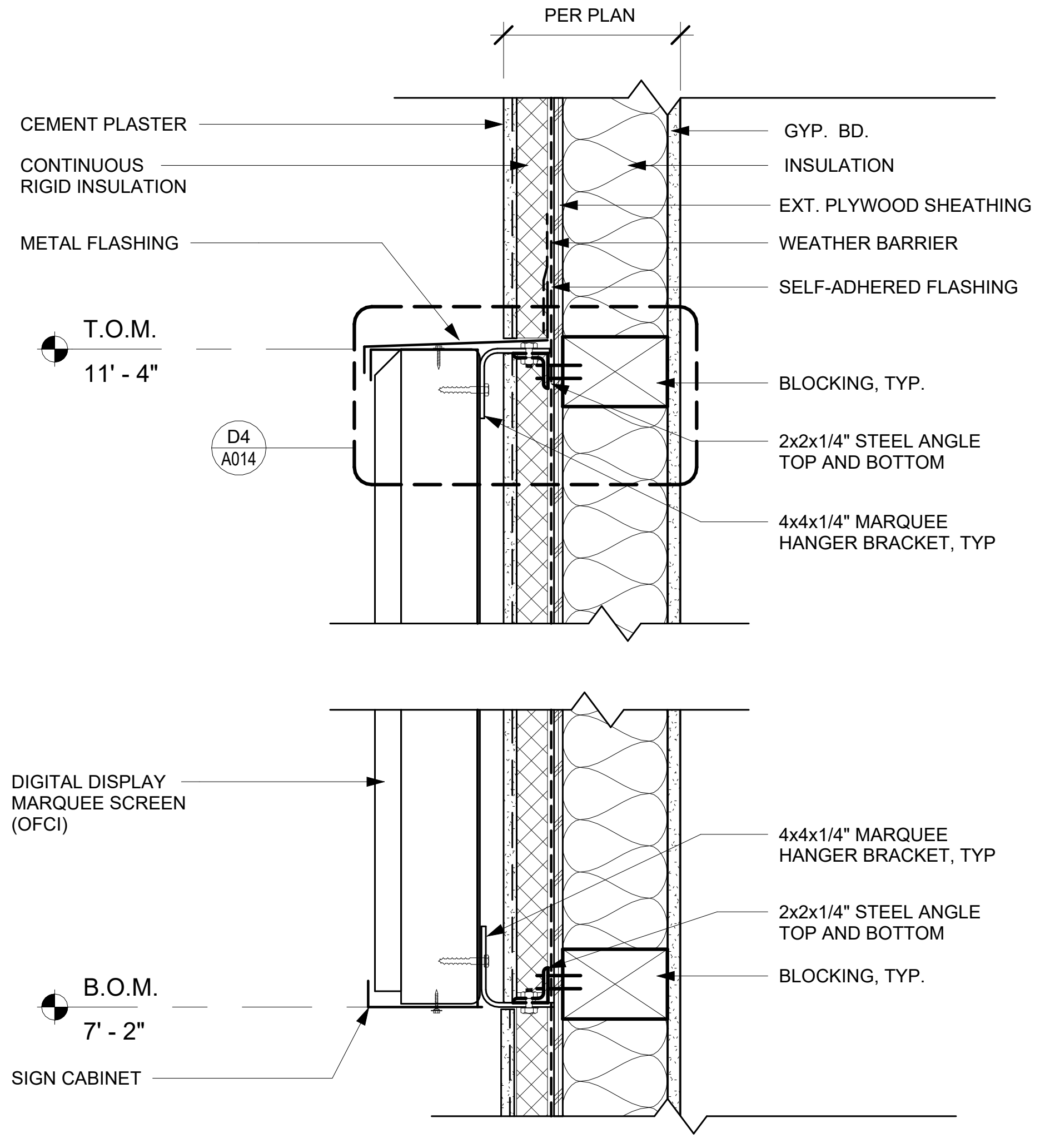
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

ORNAMENTAL METAL FENCING
& GATE DETAILS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

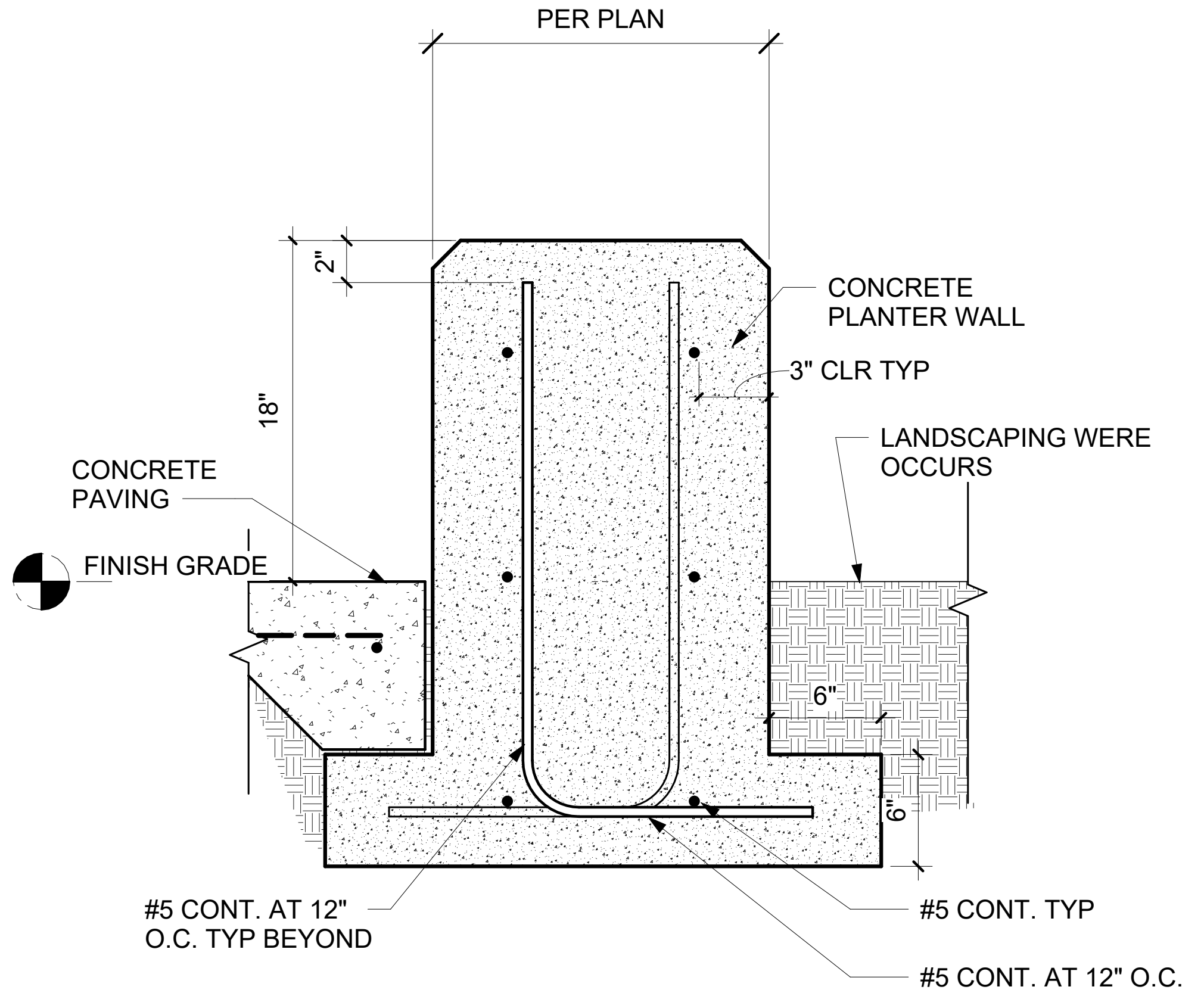
A013


PER PLAN
CEMENT PLASTER
CONTINUOUS RIGID INSULATION
METAL FLASHING
T.O.M.
11' - 4"
D4
A014
GYP. BD.
INSULATION
EXT. PLYWOOD SHEATHING
WEATHER BARRIER
SELF-ADHERED FLASHING
BLOCKING, TYP.
2x2x1/4" STEEL ANGLE TOP AND BOTTOM
4x4x1/4" MARQUEE HANGER BRACKET, TYP
DIGITAL DISPLAY MARQUEE SCREEN (OFCI)
4x4x1/4" MARQUEE HANGER BRACKET, TYP
2x2x1/4" STEEL ANGLE TOP AND BOTTOM
BLOCKING, TYP.
B.O.M.
7' - 2"
SIGN CABINET

NOTE:-
- FASTENERS AND EXPOSED STEEL TO BE GALVANIZED.
- CONTRACTOR TO PROVIDE POWER AND DATA CONNECTIONS AT EXTERIOR DISPLAY LOCATION
- DIGITAL MARQUEE TO BE 200LBS MAX.

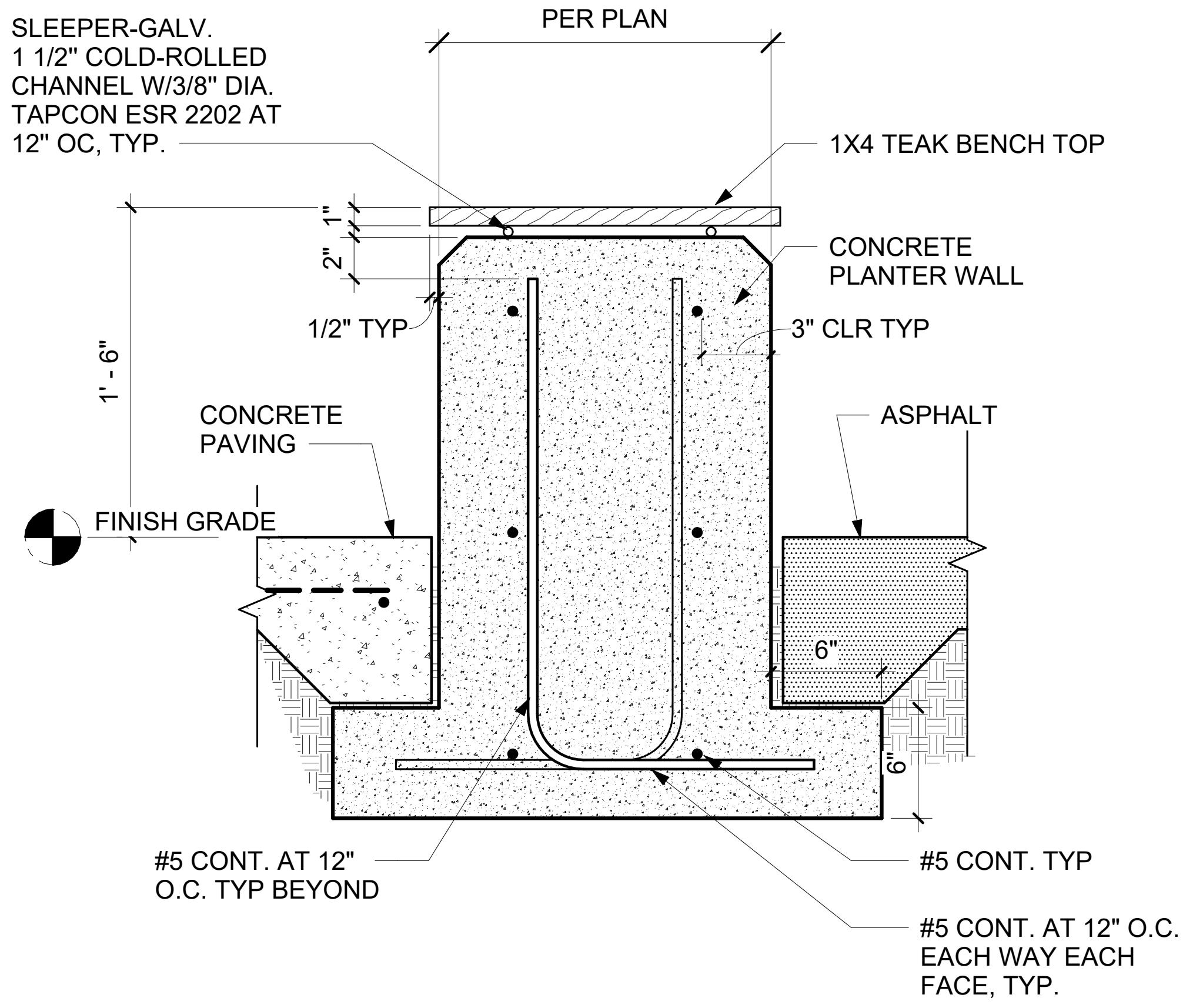
MARQUEE SECTION K4

1 1/2" = 1'-0"



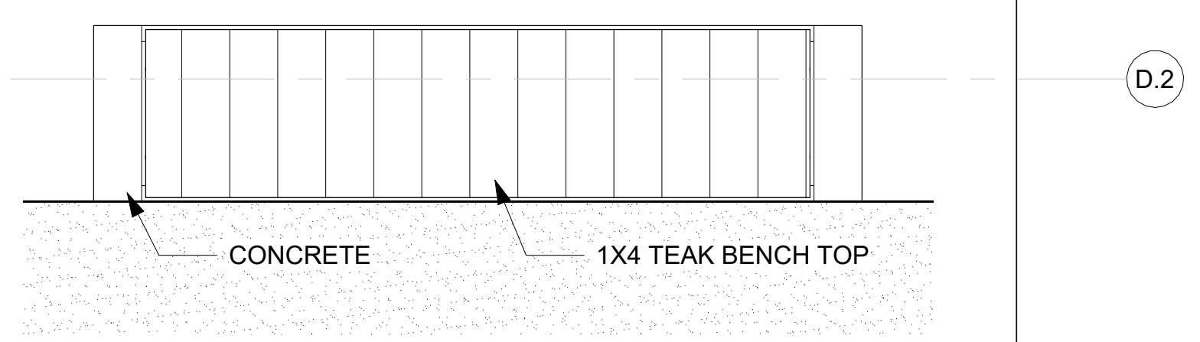
CONCRETE BENCH K7

1 1/2" = 1'-0"


SLEEPER-GALV. 1 1/2" COLD-ROLLED CHANNEL W/3/8" DIA. TAPCON ESR 2202 AT 12" OC, TYP.
PER PLAN
1X4 TEAK BENCH TOP
1"
2"
1/2" TYP
CONCRETE PLANTER WALL
3" CLR TYP
1' - 6"
CONCRETE PAVING
ASPHALT
FINISH GRADE
6"
6"
#5 CONT. AT 12" O.C. TYP BEYOND
#5 CONT. TYP
#5 CONT. AT 12" O.C. EACH WAY EACH FACE, TYP.

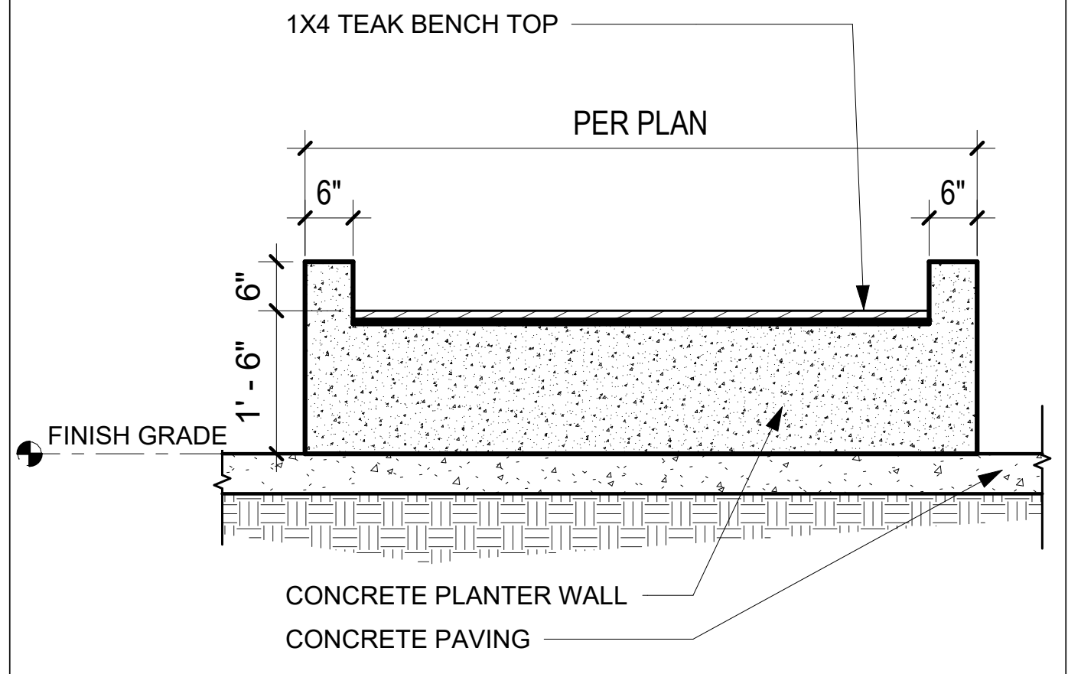
CONCRETE BENCH WITH WOOD TOP K10

1 1/2" = 1'-0"



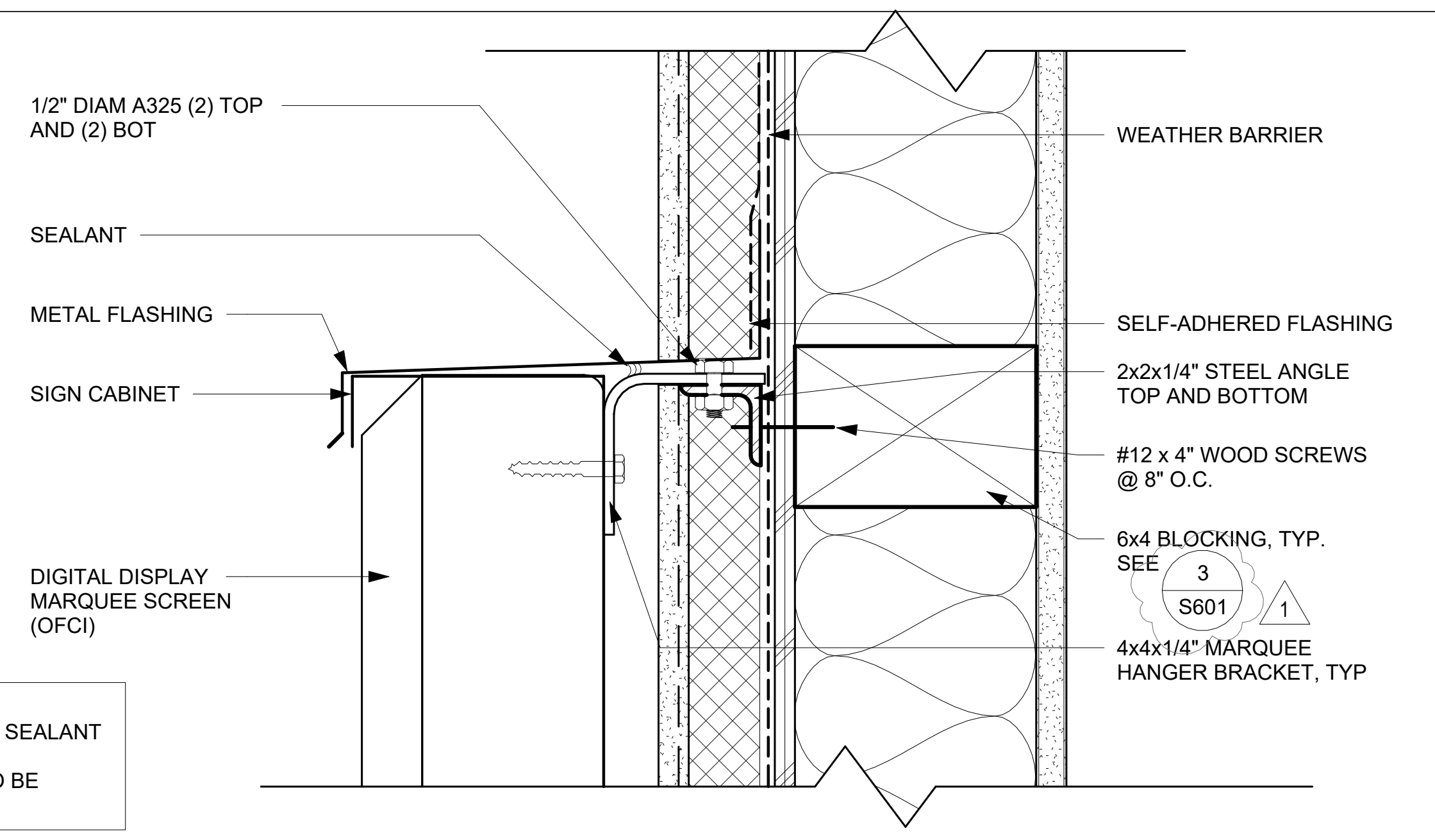
CONCRETE BENCH PLAN H8

1/2" = 1'-0"



CONCRETE BENCH WITH WOOD TOP H10

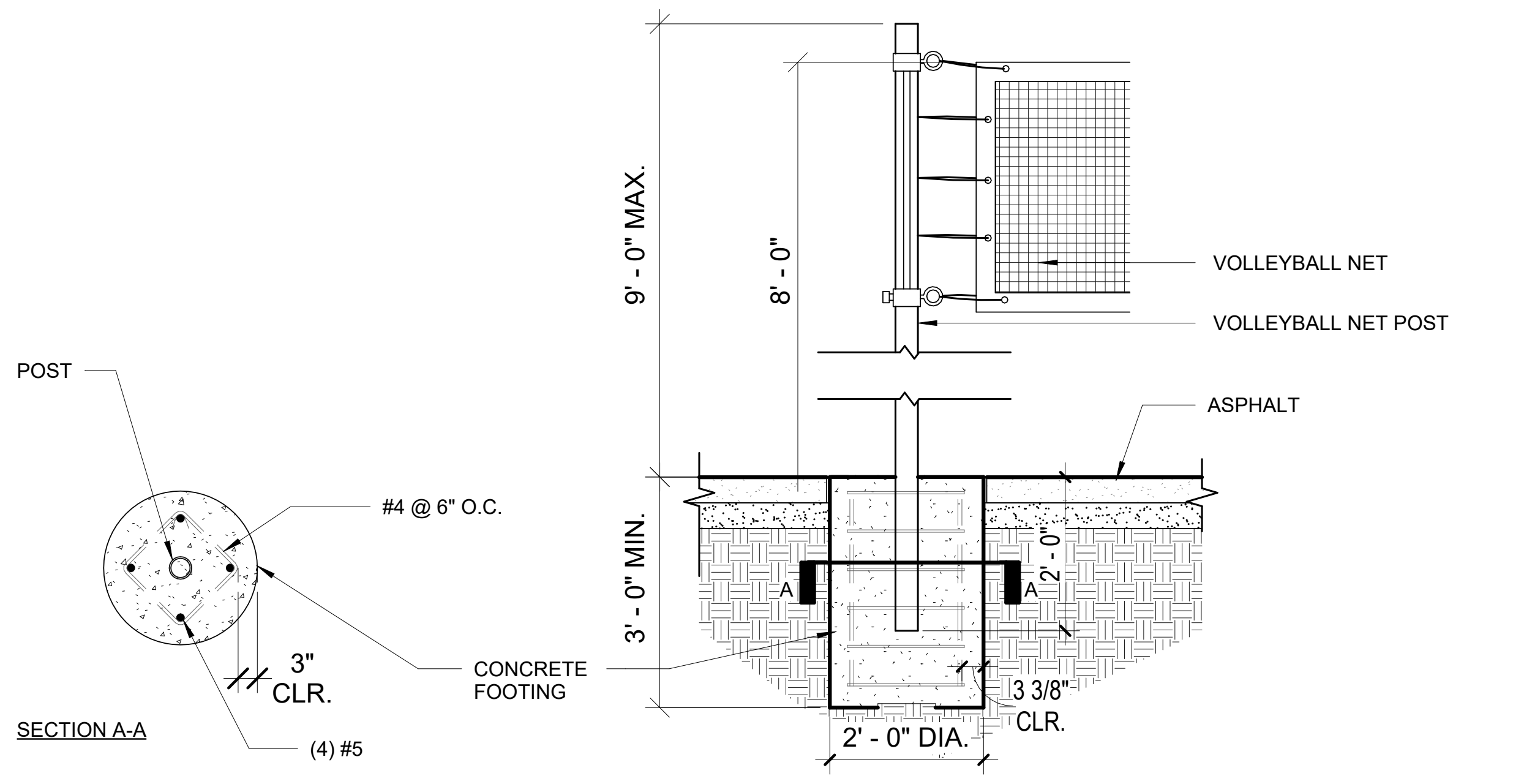
1/2" = 1'-0"


1/2" DIAM A325 (2) TOP AND (2) BOT
SEALANT
METAL FLASHING
SIGN CABINET
DIGITAL DISPLAY MARQUEE SCREEN (OFCI)
WEATHER BARRIER
SELF-ADHERED FLASHING
2x2x1/4" STEEL ANGLE TOP AND BOTTOM
#12 x 4" WOOD SCREWS @ 8" O.C.
6x4 BLOCKING, TYP. SEE
3
S601
1
4x4x1/4" MARQUEE HANGER BRACKET, TYP

NOTE:
1. USE CLEAR SILICONE SEALANT AS NEEDED.
2. DIGITAL MARQUEE TO BE 200LBS MAX.

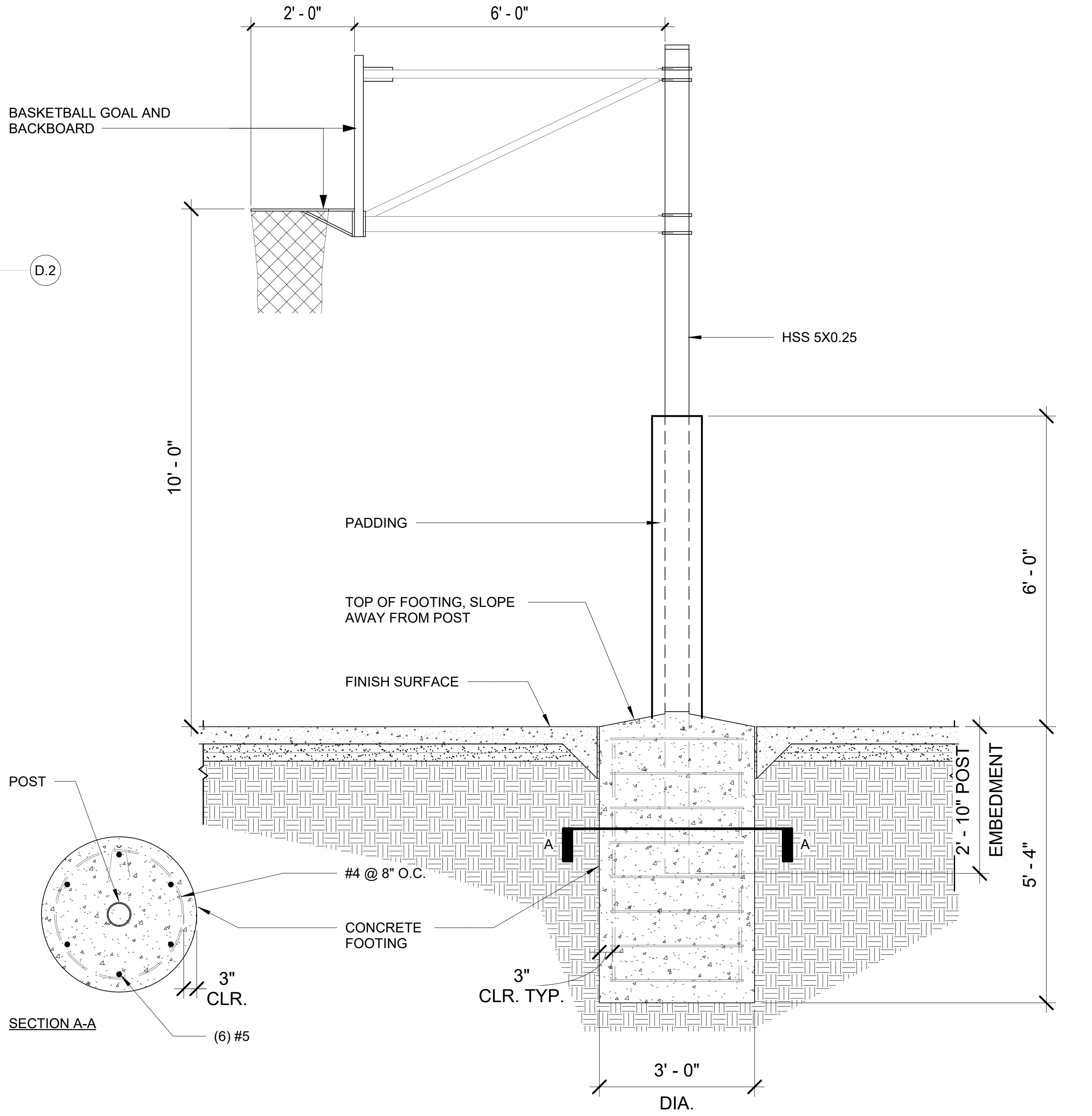
MARQUEE MOUNTING DETAIL D4

3" = 1'-0"



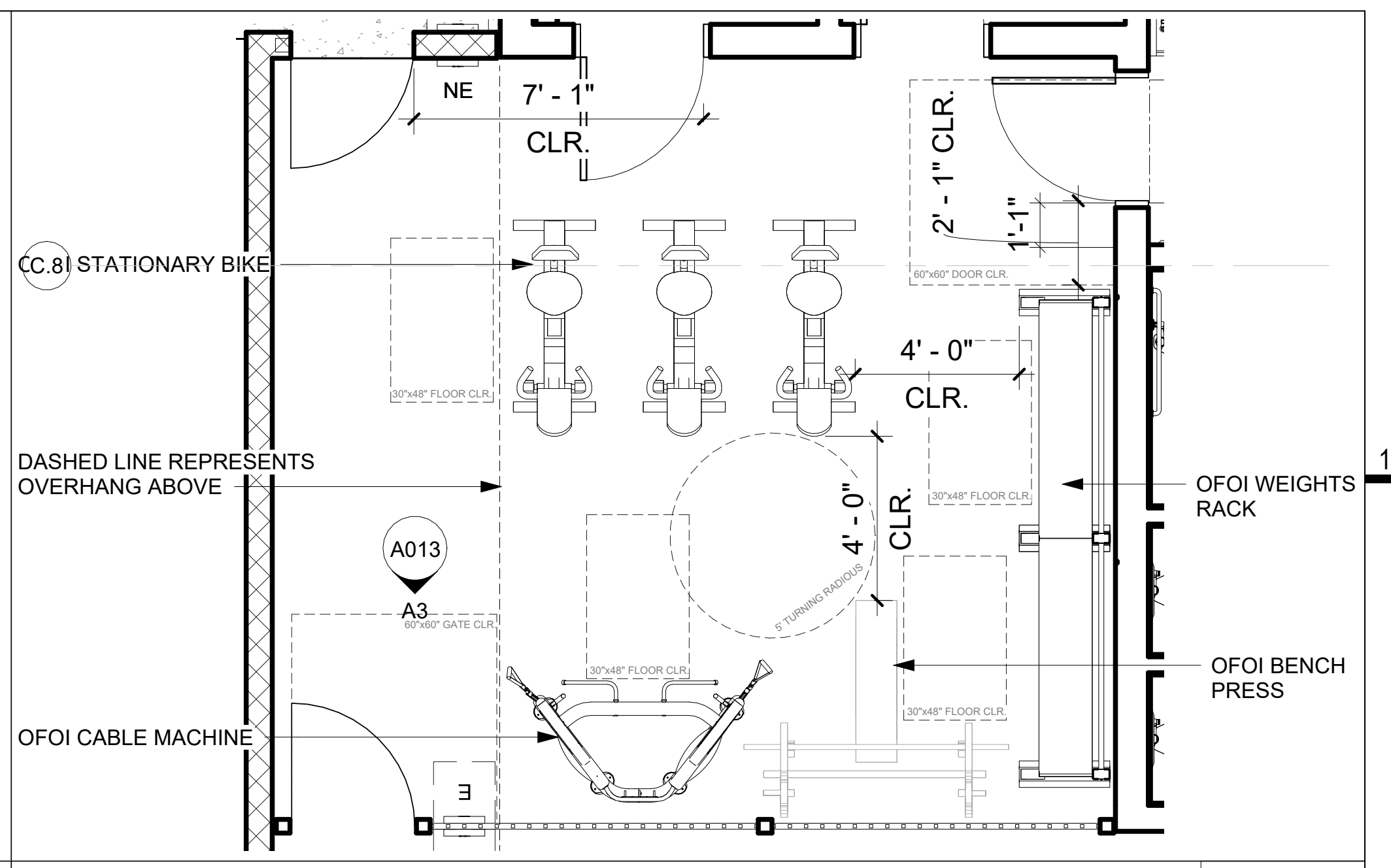
VOLLEYBALL NET POST D6

1/2" = 1'-0"



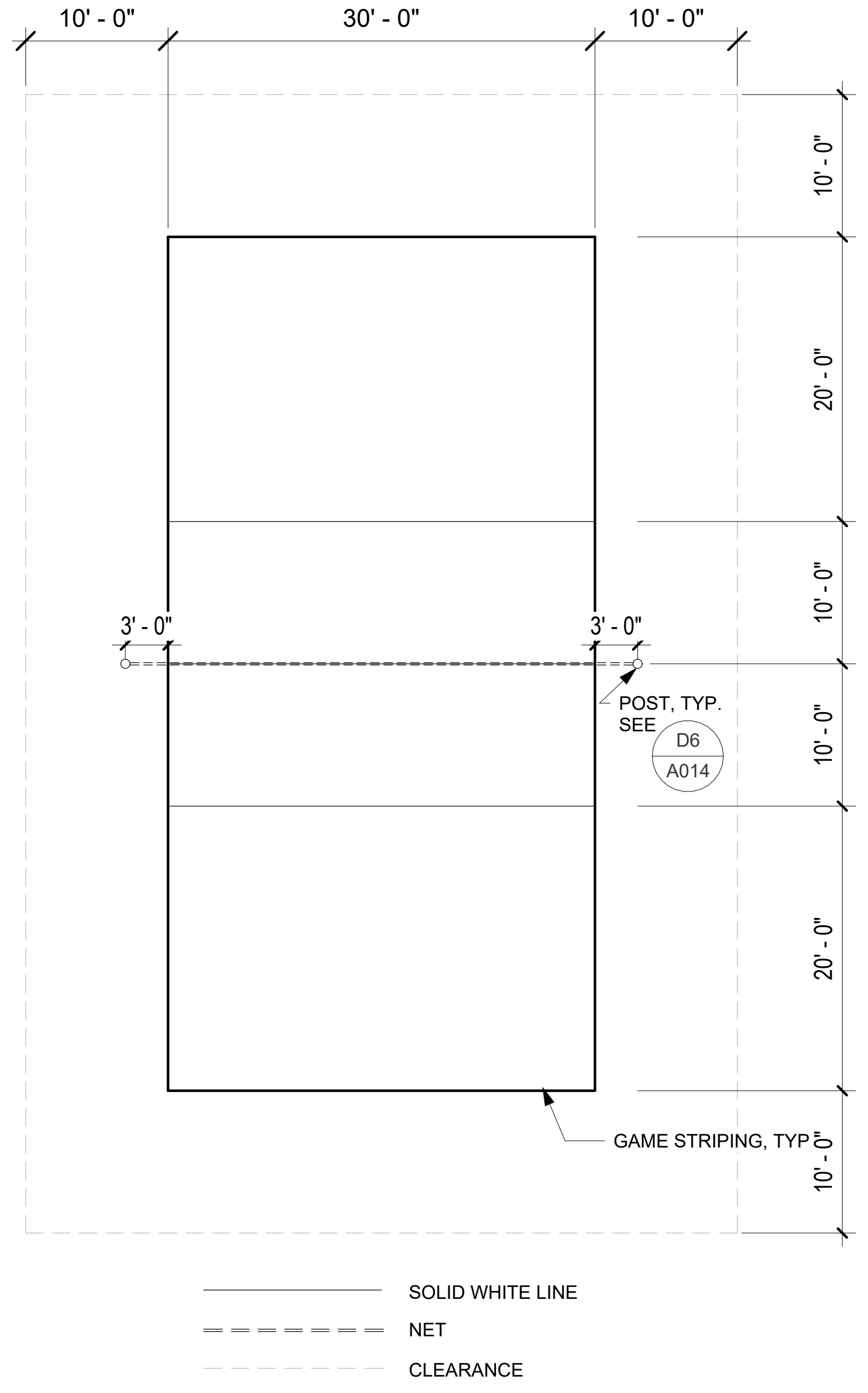
BASKETBALL POST AND GOAL D10

1/2" = 1'-0"



WORKOUT SPACE ENLARGED PLAN A2

1/4" = 1'-0"

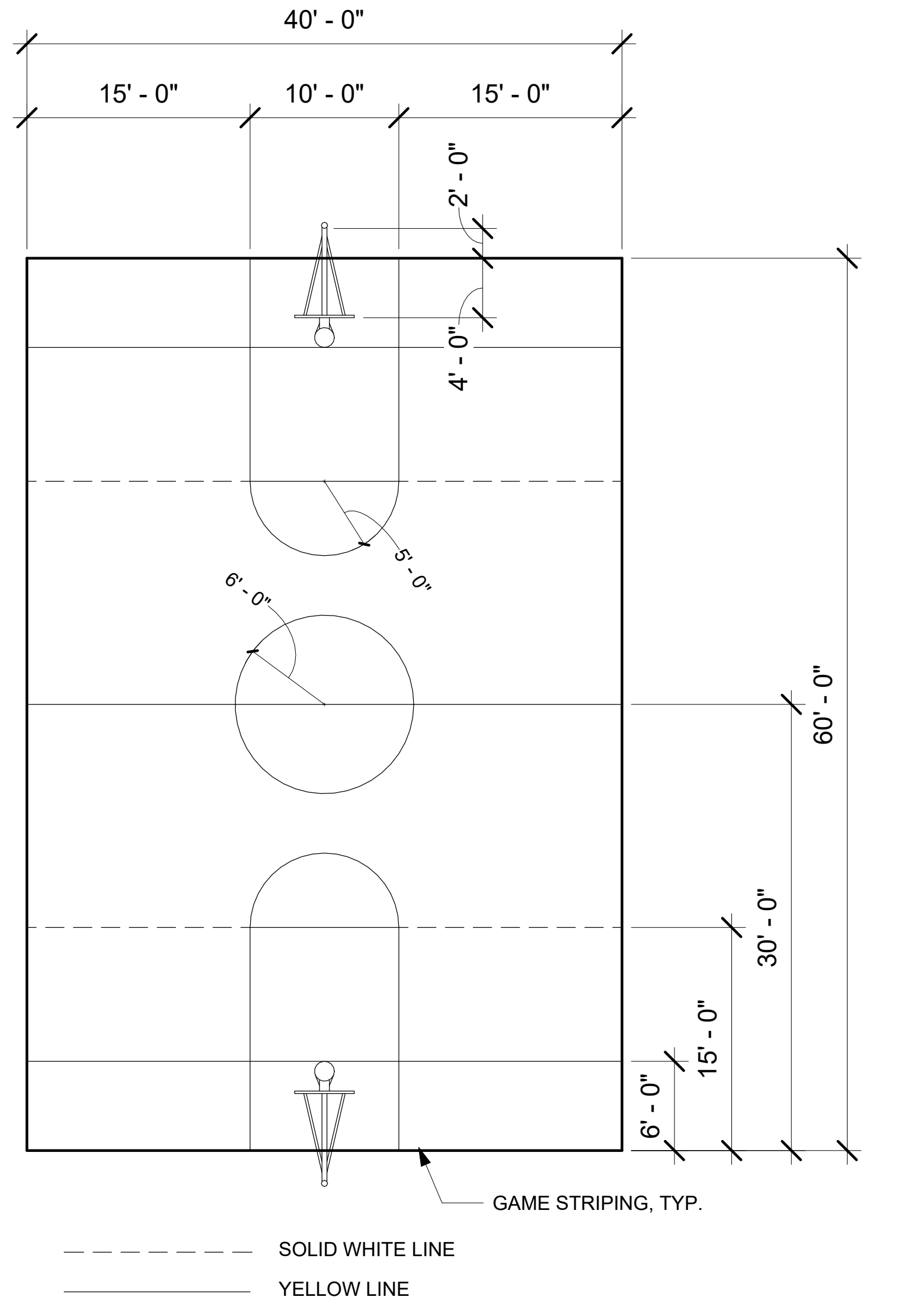


———	SOLID WHITE LINE
═ ═ ═	NET
— — —	CLEARANCE

NOTES:
1. DIMENSIONS SHOWN ARE TYPICAL - COURT IS SYMETRICAL.
2. FOR VOLLEYBALL NET AND POST, SEE D6/A014

VOLLEYBALL COURT A6

1" = 10'-0"



— — —	SOLID WHITE LINE
———	YELLOW LINE

NOTES:
1. DIMENSIONS SHOWN ARE TYPICAL - COURT IS SYMETRICAL.
2. FOR BASKETBALL POST AND BACKBOARD, SEE D10/A014

BASKETBALL COURT A10

1" = 10'-0"

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

MARKINGS NOTES

1. GAME STRIPING TO BE 2" WIDE PAINTED STRIPES
2. STRIPING TO BE WHITE UNLESS NOTED OTHERWISE

DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 202

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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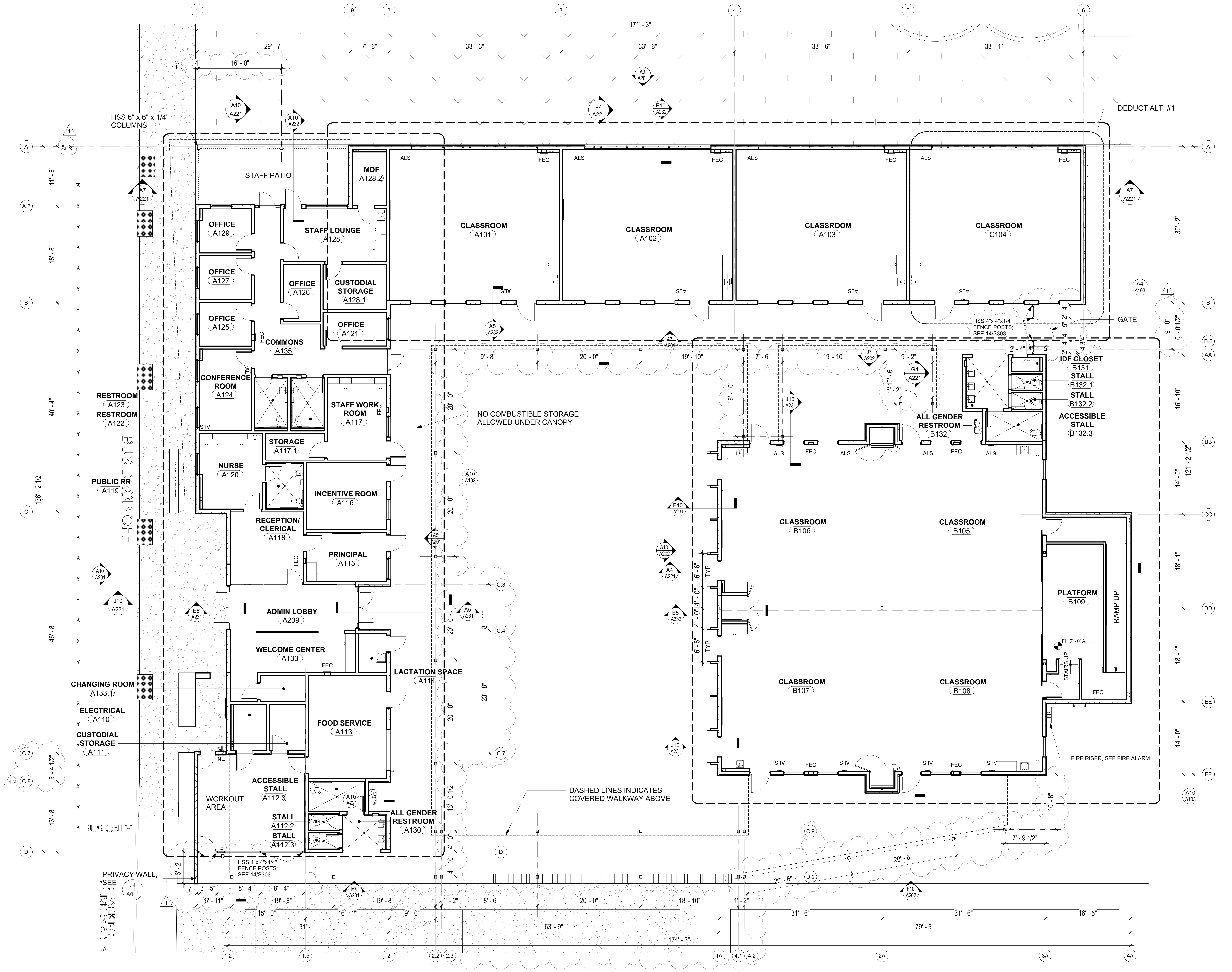
1 ADD 1	08/28/2026
△	
△	
△	
△	

MISCELLANEOUS SITE DETAILS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A014



OVERALL FLOOR PLAN A10

1/8" = 1'-0"

N

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FLOOR PLAN LEGEND

XXX	INTERIOR PARTITION TYPE
EWX.X	EXTERIOR WALL ASSEMBLY △1
100 — Room # 1 — Door #	DOOR NUMBER
SF X	STOREFRONT TYPE
X	WINDOW TYPE △1
▭	NEW NON-RATED WALL
▭	1 HR RATED FIRE BARRIER WALL
	NEW DOOR
FEC	FIRE EXTINGUISHER CABINET
ALS	ASSISTIVE LISTENING SIGNAGE

FLOOR PLAN NOTES

1. ITEMS ARE NEW UNLESS NOTED OTHERWISE.
2. GRID LINE IS TO FACE OF STUD U.N.O.
3. DIMENSIONS ARE MEASURED TO FACE OF STUD AND GRID LINES, UNLESS NOTED OTHERWISE.
4. FOR CLASSROOM TYPE A, SEE ENLARGED PLAN. A10/A303
5. FOR CLASSROOM TYPE B, SEE ENLARGED PLAN. A10/A304
6. SEE STOREFRONT WINDOW SCHEDULE AND ENLARGED FLOOR PLANS FOR STOREFRONT WINDOW SIZES.
7. ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM THE INSIDE, SEE SECTION 08 7100 IN SPECS.
8. ALL FURNITURE OF/OI.
9. ALL DOOR OPENINGS ARE TO BE 6 INCHES MINIMUM FROM ADJACENT WALL U.N.O.

LICENSED ARCHITECT
DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 20
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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SCALE	AS NOTED
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△1 ADD 1	08/28/2026
△	
△	
△	
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OVERALL FLOOR PLAN

PERKINS — EASTMAN

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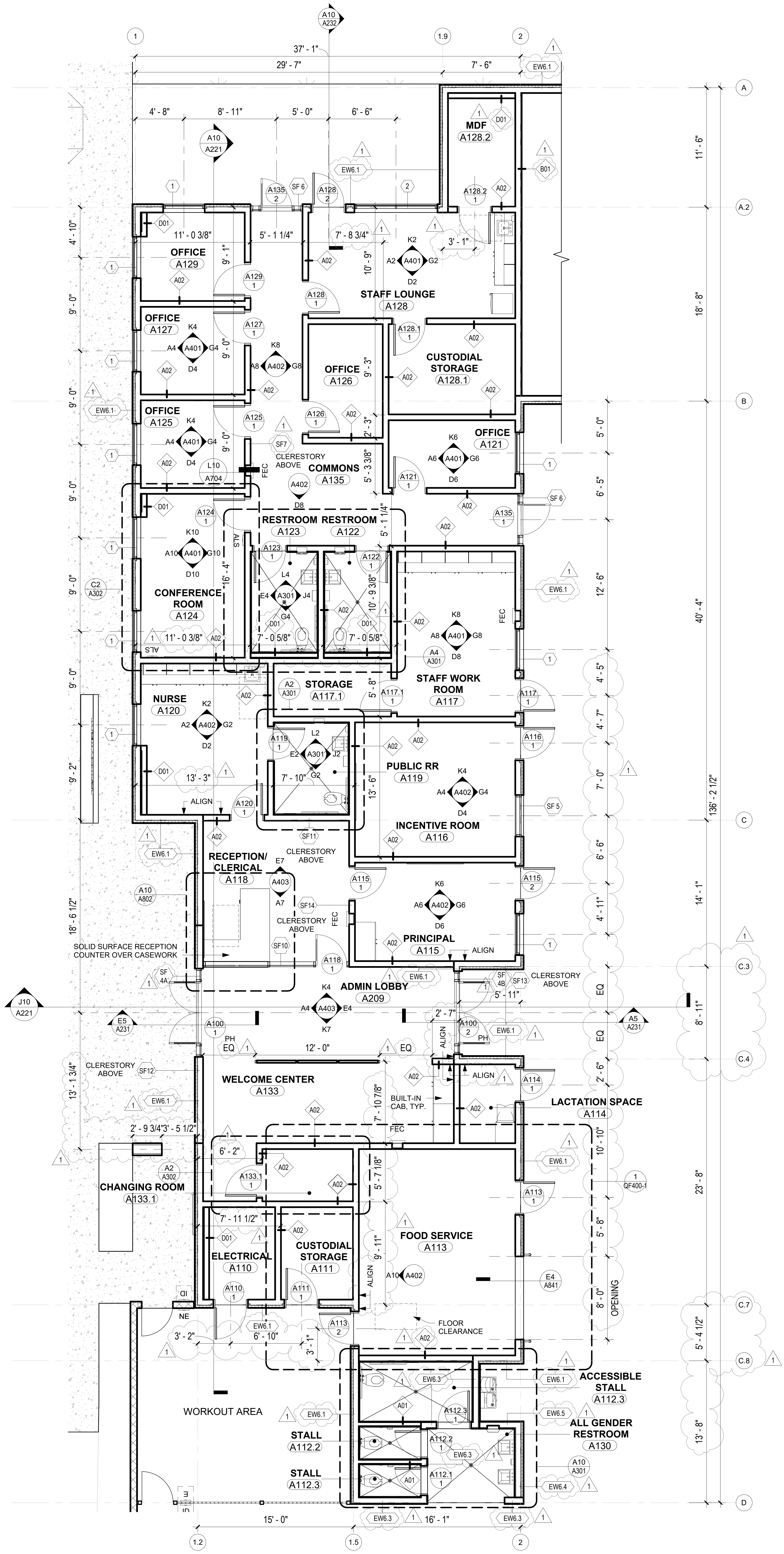
A101



ENLARGED FLOOR PLAN - BLDG A WEST A10

3/16" = 1'-0"

FLOOR PLAN LEGEND

XXX	INTERIOR PARTITION TYPE
EWX.X	EXTERIOR WALL ASSEMBLY
100 / 1 — Room # — Door #	DOOR NUMBER
SF X	STOREFRONT TYPE
X	WINDOW TYPE
▭	NEW NON-RATED WALL
▭	1 HR RATED FIRE BARRIER WALL
	NEW DOOR
FEC	FIRE EXTINGUISHER CABINET
ALS	ASSISTIVE LISTENING SIGNAGE

FLOOR PLAN NOTES

1. ITEMS ARE NEW UNLESS NOTED OTHERWISE.
2. GRID LINE IS TO FACE OF STUD U.N.O.
3. DIMENSIONS ARE MEASURED TO FACE OF STUD AND GRID LINES, UNLESS NOTED OTHERWISE.
4. FOR CLASSROOM TYPE A, SEE ENLARGED PLAN. A10 / A303
5. FOR CLASSROOM TYPE B, SEE ENLARGED PLAN. A10 / A304
6. SEE STOREFRONT WINDOW SCHEDULE AND ENLARGED FLOOR PLANS FOR STOREFRONT WINDOW SIZES.
7. ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM THE INSIDE, SEE SECTION 08 7100 IN SPECS.
8. ALL FURNITURE OF/OI.
9. ALL DOOR OPENINGS ARE TO BE 6 INCHES MINIMUM FROM ADJACENT WALL U.N.O.

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ENLARGED FLOOR PLAN - BLDG A

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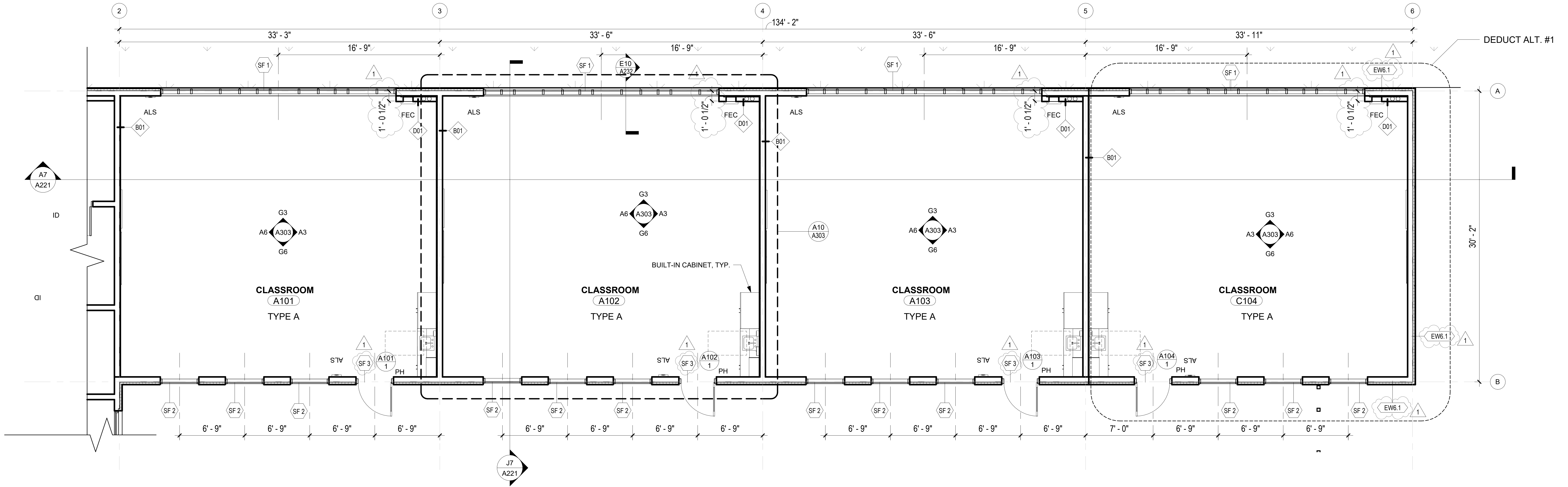
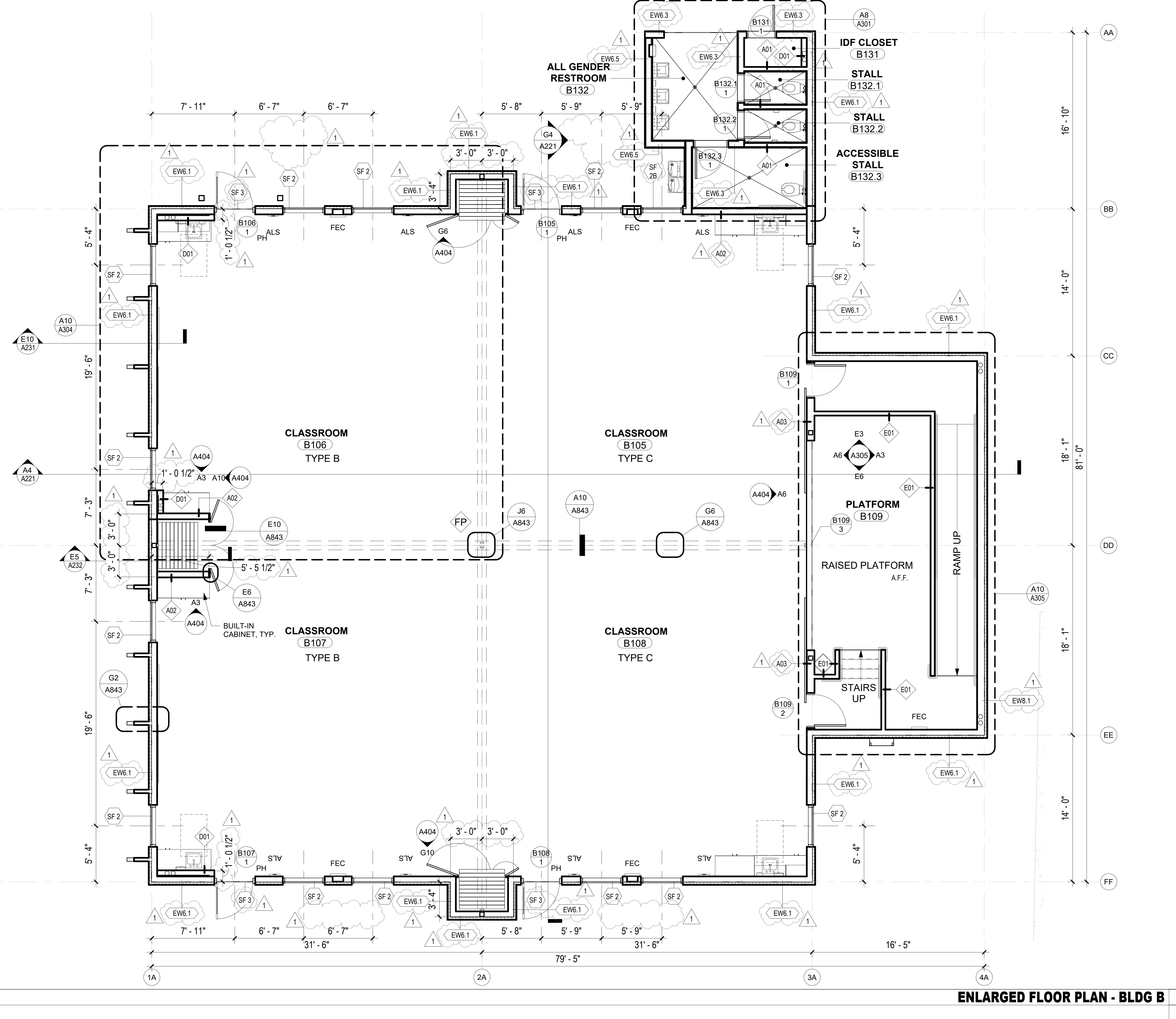
A102



ENLARGED FLOOR PLAN - BLDGS A & C NORTH **A4**

3/16" = 1'-0"



ENLARGED FLOOR PLAN - BLDG B **A10**

3/16" = 1'-0"

FLOOR PLAN LEGEND

XXX	INTERIOR PARTITION TYPE
EWX.X	EXTERIOR WALL ASSEMBLY 1
100 — Room # 1 — Door #	DOOR NUMBER
SF X	STOREFRONT TYPE
X	WINDOW TYPE 1
▭	NEW NON-RATED WALL
▭	1 HR RATED FIRE BARRIER WALL
	NEW DOOR
FEC	FIRE EXTINGUISHER CABINET
ALS	ASSISTIVE LISTENING SIGNAGE

LICENSED ARCHITECT
DIEGO M. MATZKIN
NO. C-27962
REN.OCT.31, 20
STATE OF CALIFORNIA

FLOOR PLAN NOTES

1. ITEMS ARE NEW UNLESS NOTED OTHERWISE.
2. GRID LINE IS TO FACE OF STUD U.N.O.
3. DIMENSIONS ARE MEASURED TO FACE OF STUD AND GRID LINES, UNLESS NOTED OTHERWISE.
4. FOR CLASSROOM TYPE A, SEE ENLARGED PLAN. A10 / A303
5. FOR CLASSROOM TYPE B, SEE ENLARGED PLAN. A10 / A304
6. SEE STOREFRONT WINDOW SCHEDULE AND ENLARGED FLOOR PLANS FOR STOREFRONT WINDOW SIZES.
7. ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM THE INSIDE, SEE SECTION 08 7100 IN SPECS.
8. ALL FURNITURE OF/OI.
9. ALL DOOR OPENINGS ARE TO BE 6 INCHES MINIMUM FROM ADJACENT WALL U.N.O.

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ENLARGED FLOOR PLANS - BLDGS A, B, & C

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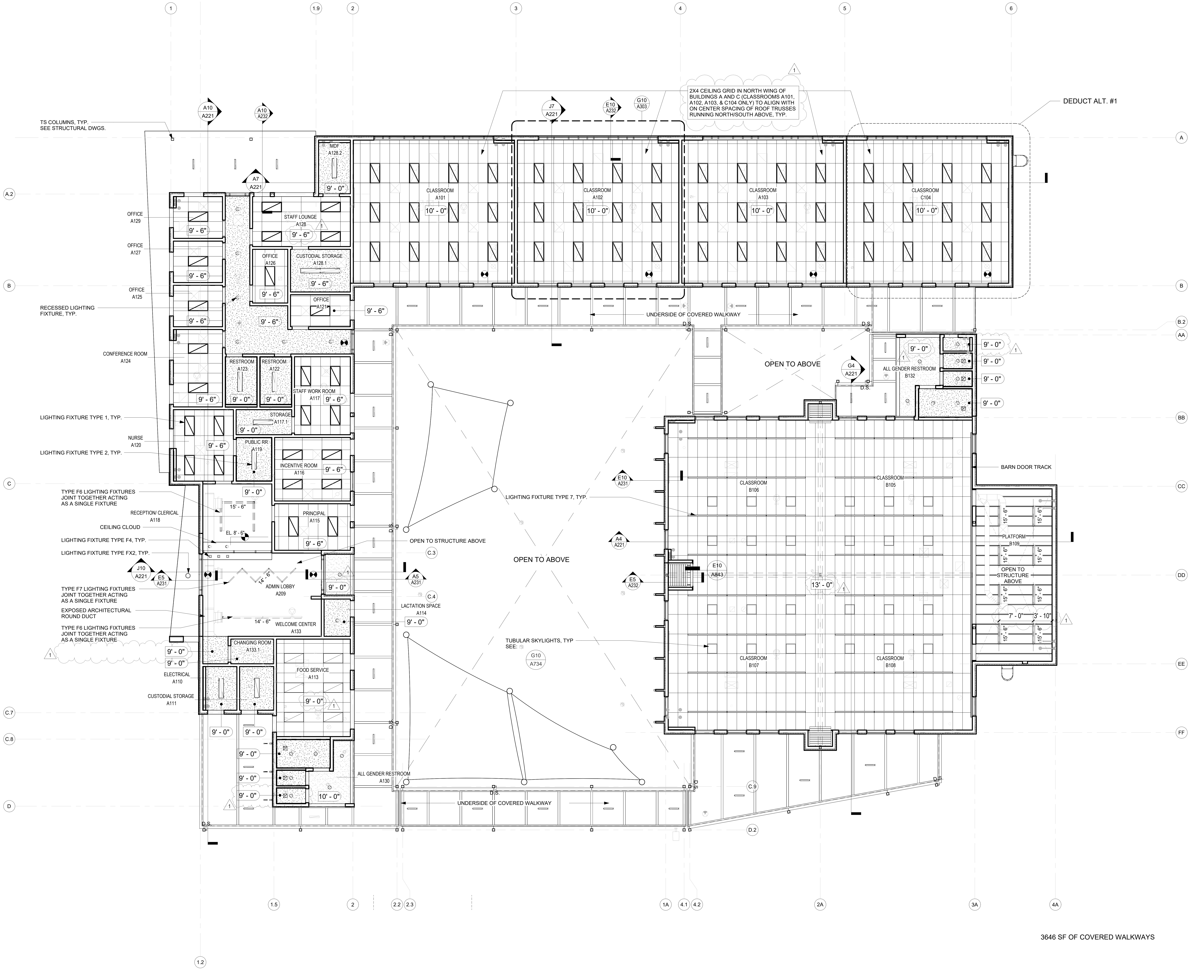
A103



3646 SF OF COVERED WALKWAYS

DS-RP-LEVEL 1 A10
1/8" = 1'-0"

CEILING PLAN LEGEND

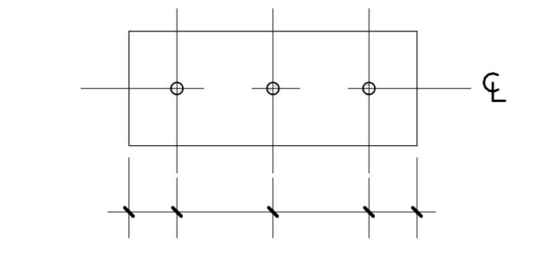
▭	ACOUSTICAL TILE CEILING	A10 A821
▨	PLASTER FINISH CEILING	E10 A824
▨	GYPSUM BOARD CEILING	J10 A824

☒ CEILING DIFFUSER/REGISTER - SEE MECH

▭ LIGHT FIXTURES, SEE ELECT

9' - 0" HEIGHT OF THE BASE OF THE PENDANT FIXTURE A.F.F.

TYPICAL LIGHTING FIXTURE SPACING, U.N.O.



△ ACCESS PANEL

◎ PENDANT LIGHT

CEILING NOTES

1. FOR TYPICAL CEILING DETAILS, SEE SHEETS A821-A826.
2. HEIGHTS INDICATED ARE TO THE UNDERSIDE OF THE FINISH CEILING OR SOFFIT FROM THE FINISH FLOOR OF BUILDINGS.
3. PROVIDE ACCESS PANELS AT GYPSUM BOARD CEILINGS WHERE REQUIRED FOR PLUMBING, MECHANICAL, AND SPRINKLER ACCESS OR AS REQUIRED BY CODE.
4. PROVIDE ACCESS PANELS AT EACH SPRINKLER HEAD IN ATTIC/ CONCEALED SPACES.
5. LIGHT FIXTURES AND AIR DIFFUSERS/ REGISTERS ARE SHOWN FOR LOCATIONS ONLY. SEE ELECTRICAL AND MECHANICAL PLANS FOR ACTUAL TYPES AND SIZES.
6. SEE ELECTRICAL PLANS FOR EXIT SIGN LOCATIONS.
7. PROVIDE MOLD AND WATER RESISTANT GYPSUM BOARD AT RESTROOMS.
8. PROVIDE SWAY BRACING WHERE FIXTURES ARE SUSPENDED OVER 1'-0" AND WHERE ITEMS CANNOT SWING FREELY IN A 45 DEGRESS ARC.
9. LIGHT FIXTURES ARE TO BE CENTERED IN THE ROOM UNLESS NOTED OTHERWISE.
10. PAINT ALL EXPOSED CONDUITS AND PIPES.

LICENSED ARCHITECT
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REFLECTED CEILING PLAN

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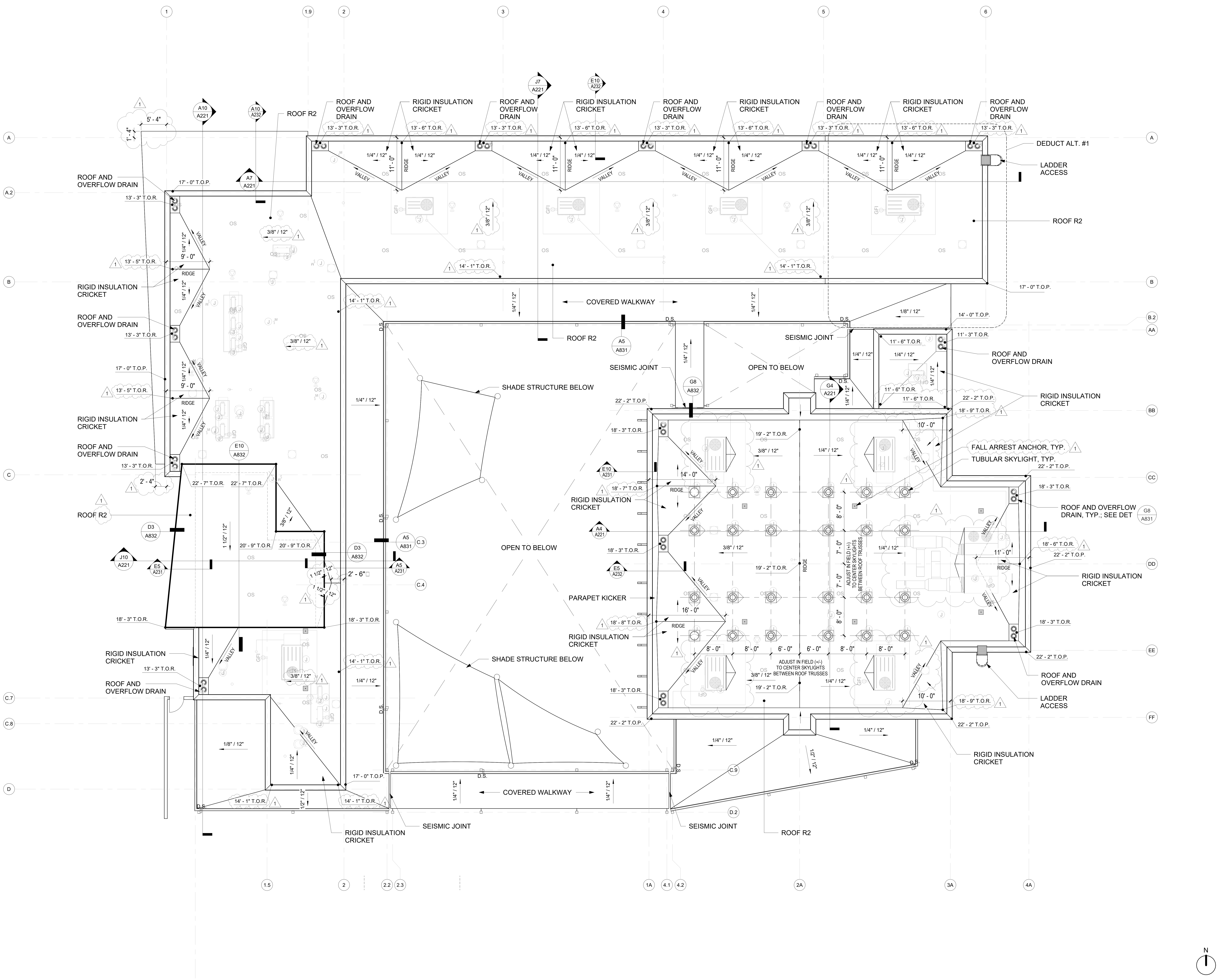
A121



ROOF PLAN **A10**
1/8" = 1'-0"

ROOF LEGEND

▭ SINGLE-PLY PVC ROOF

ROOF ASSEMBLY TYPES

R2. -SINGLE-PLY PVC ROOFING
-MIN 1/2" PRE-PRIMED COVER BOARD
-2" RIGID INSULATION
-WEATHER BARRIER
-19/32" PLYWOOD SHEATHING

GENERAL ROOF NOTES

TUBULAR SKYLIGHT
ANSI CCRR-0131

▣ FALL ARREST ANCHORAGE CONNECTOR; SEE A3/A832

C-27962

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ROOF PLAN

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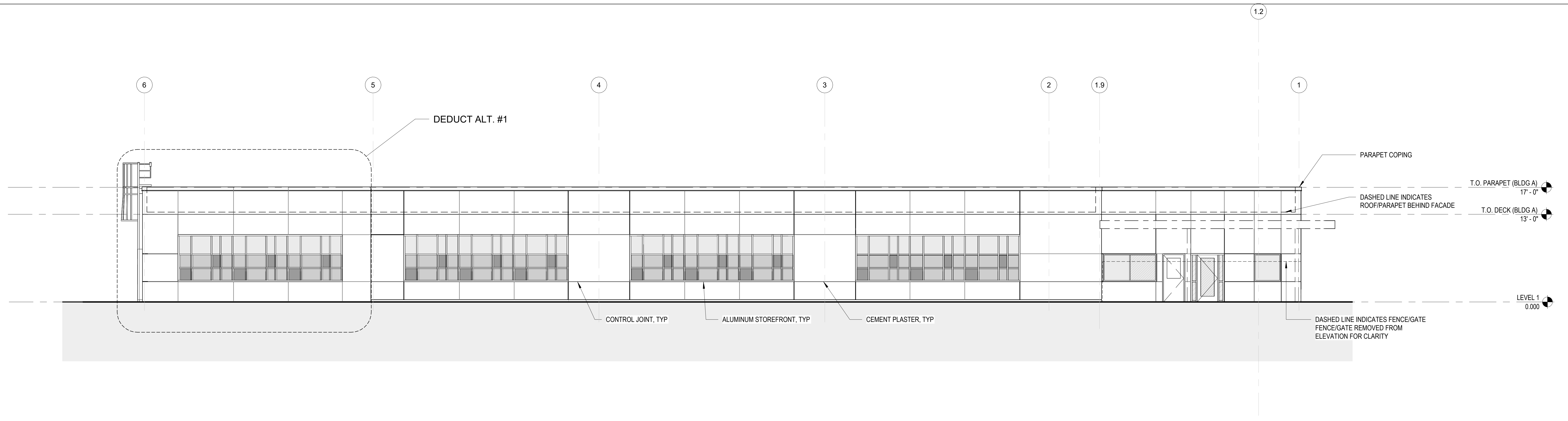
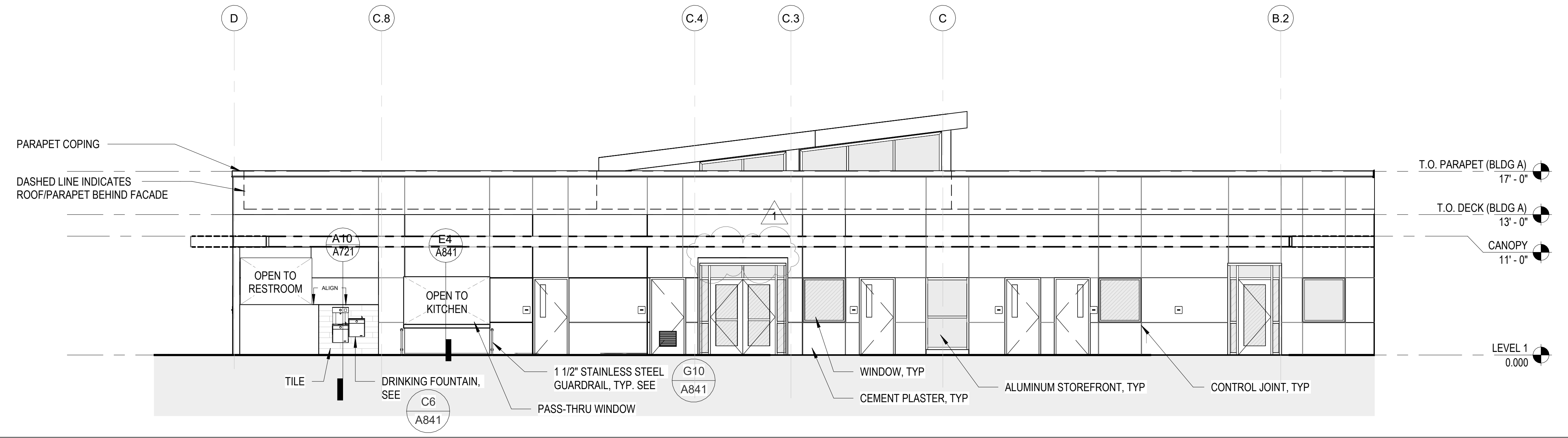
A131



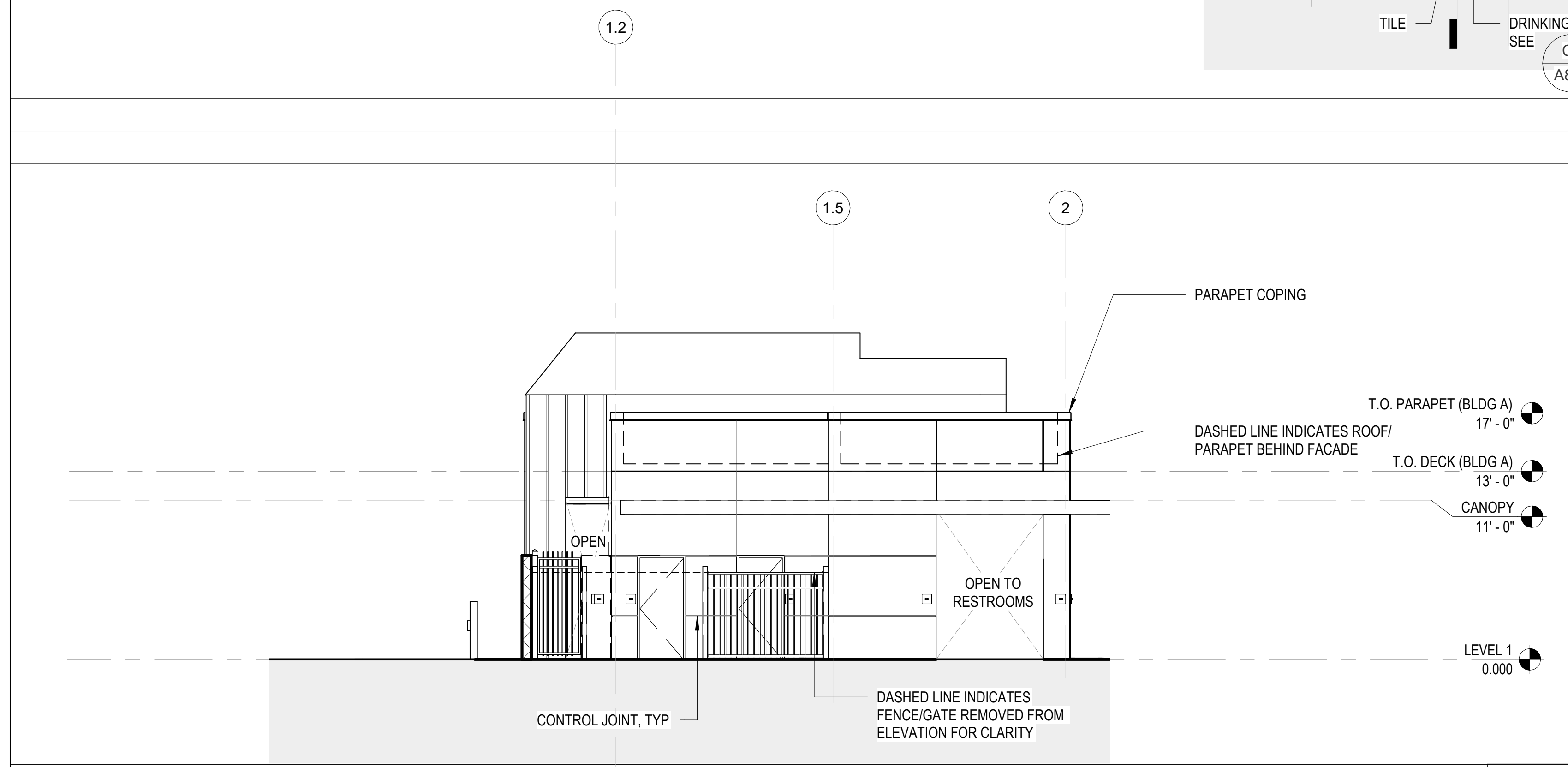
BLDG A - NORTH ELEVATION **A3**

1/8" = 1'-0"



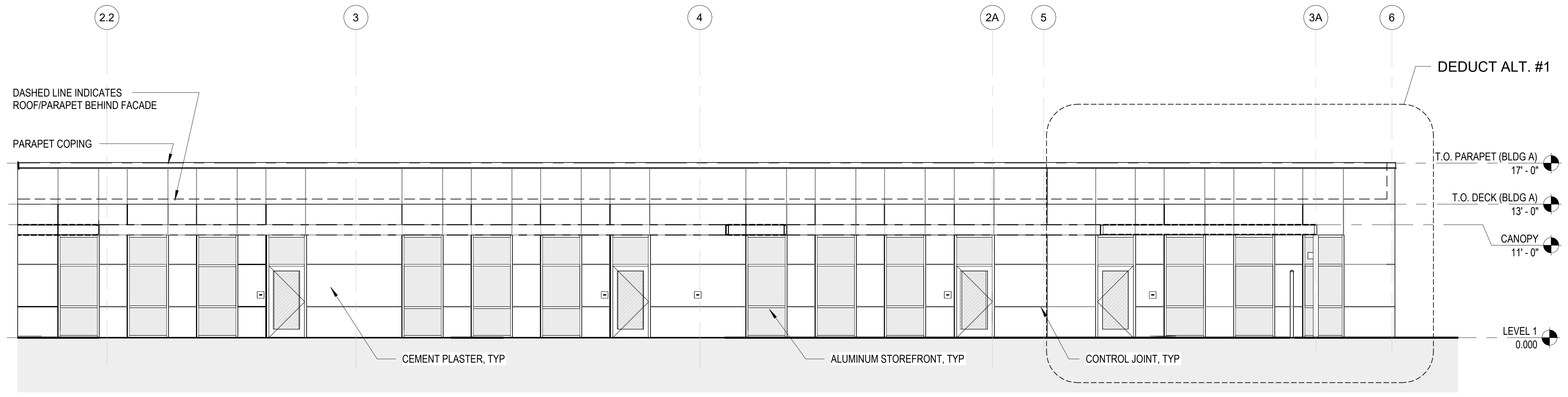
BLDG A - EAST ELEVATION **A5**

1/8" = 1'-0"



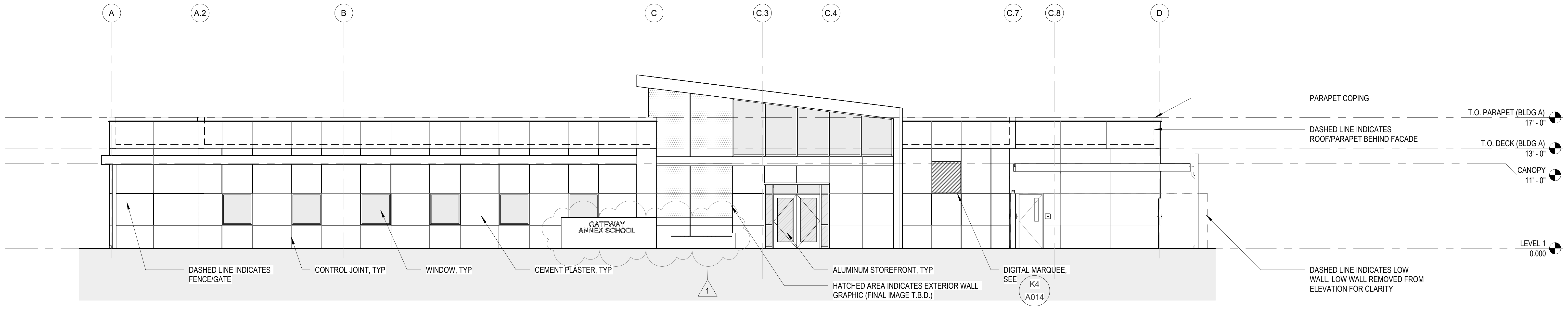
BLDG A - SOUTH ELEVATION **H7**

1/8" = 1'-0"



BLDG A - SOUTH ELEVATION **A7**

1/8" = 1'-0"



BLDG A - WEST ELEVATION **A10**

1/8" = 1'-0"

GLAZING LEGEND

▨	GLAZING TYPE I
▨	GLAZING TYPE II
░	GLAZING WITH FILM: FASARA - MILKY MILKY LIGHT GREY 2H2MAMML
▒	GLAZING WITH FILM: FASARA - CROSS HAIRLINE MILKY SH2CHML

LICENSED ARCHITECT
DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 2021
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL

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EXTERIOR ELEVATIONS

PERKINS EASTMAN

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T. +1 714 427 0277
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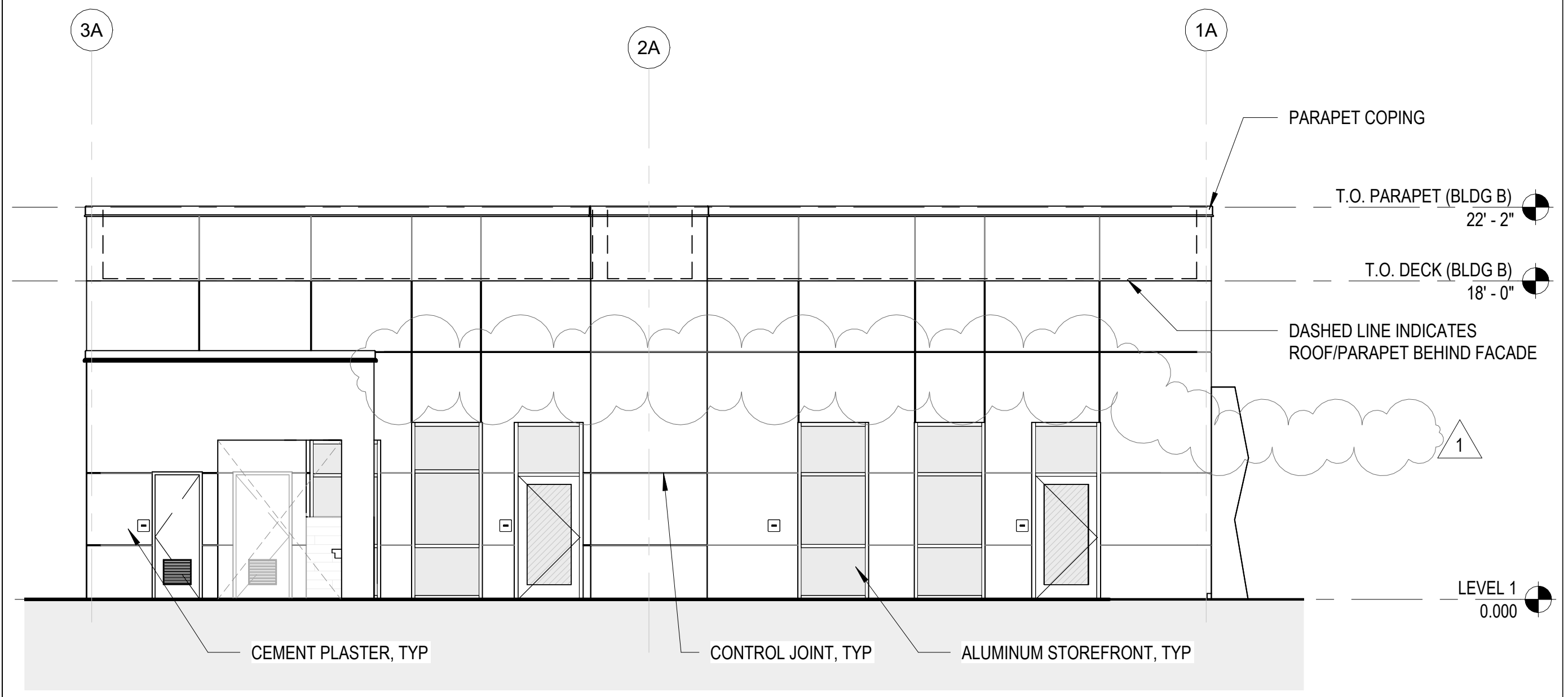
A201

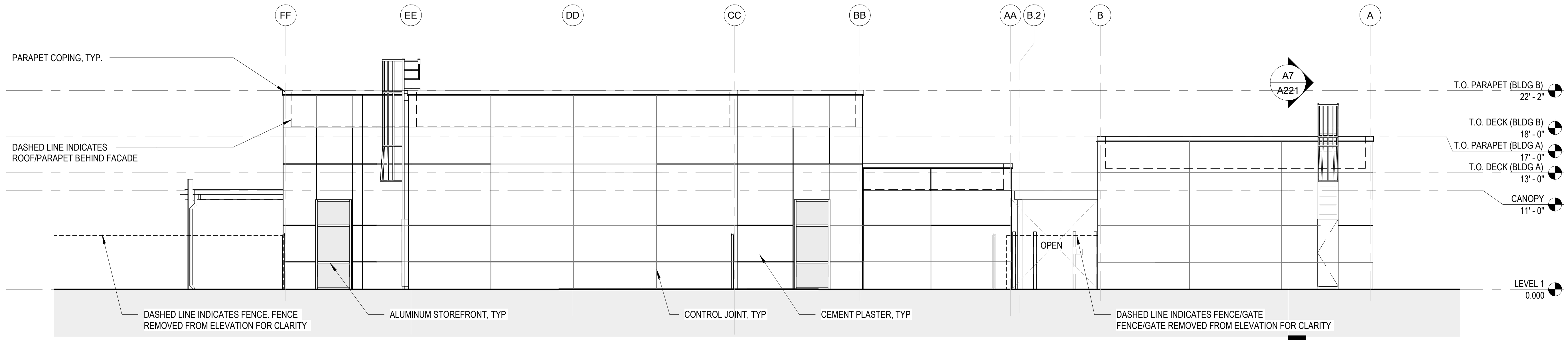
GLAZING LEGEND

▨	GLAZING TYPE I
▨	GLAZING TYPE II
▒	GLAZING WITH FILM: FASARA - MILKY MILKY LIGHT GREY 2H2MAMML
▓	GLAZING WITH FILM: FASARA - CROSS HAIRLINE MILKY SH2CHML

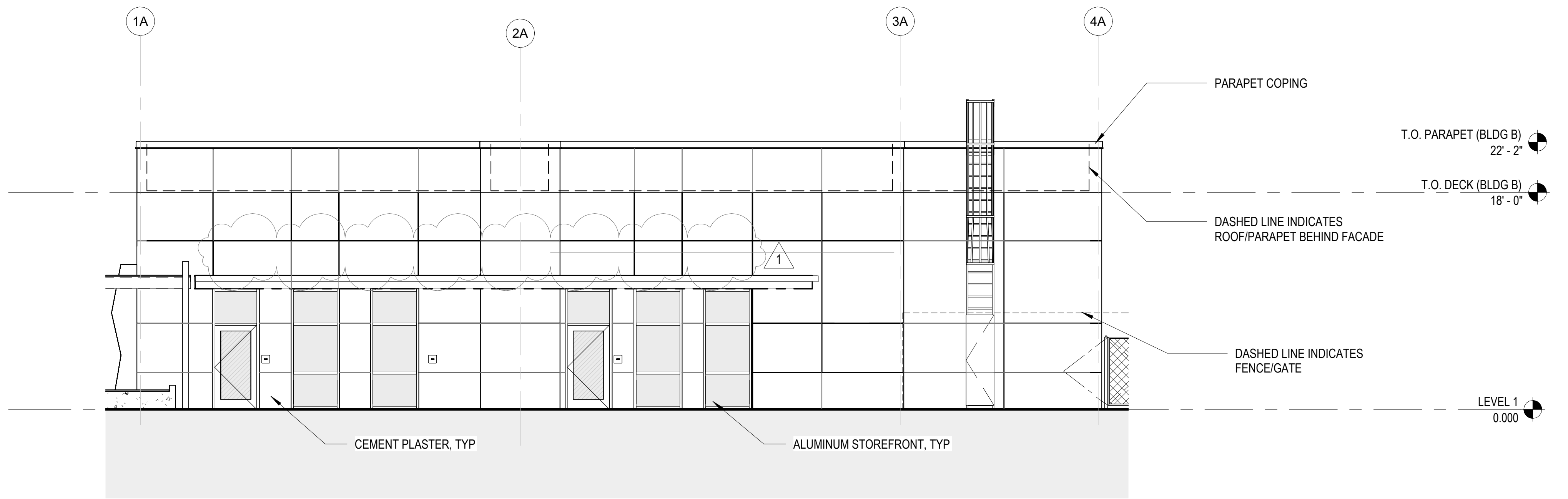
LICENSED ARCHITECT
DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 202
STATE OF CALIFORNIA



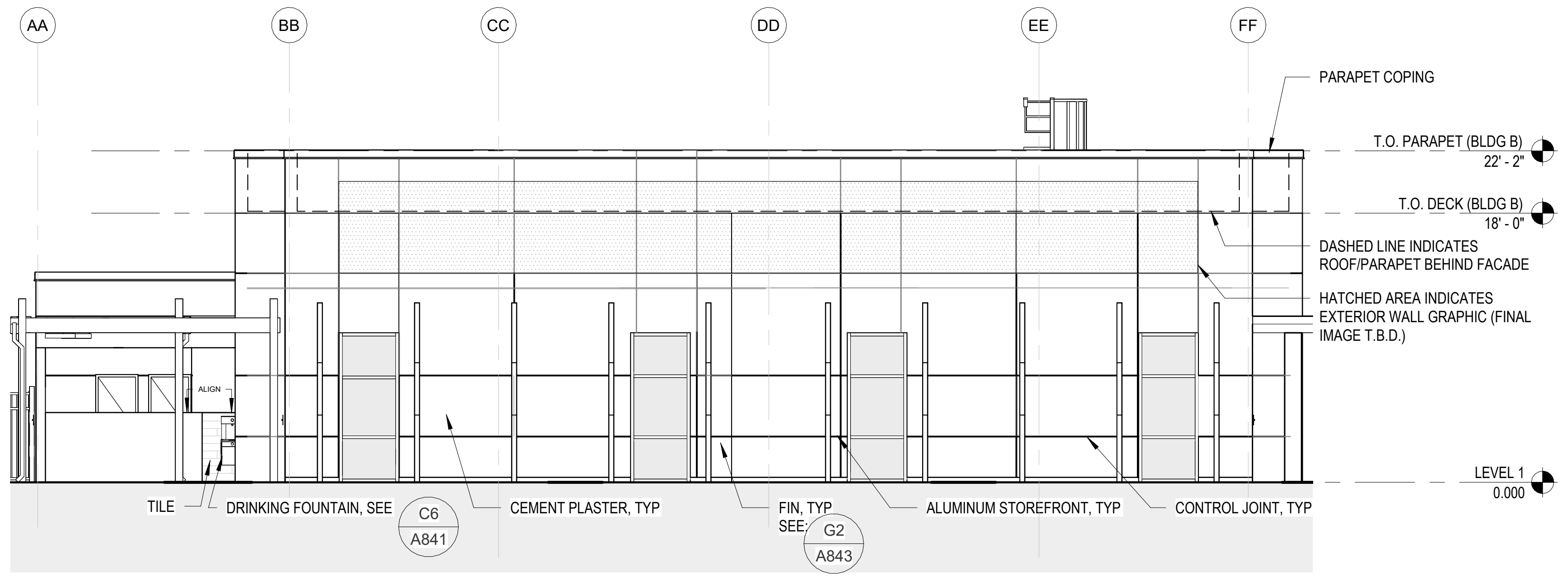
BLDG B - NORTH ELEVATION J7
1/8" = 1'-0"



BLDGS A & B - EAST ELEVATION A7
1/8" = 1'-0"



BLDG B - SOUTH ELEVATION1 F10
1/8" = 1'-0"



BLDG B - WEST ELEVATION A10
1/8" = 1'-0"

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EXTERIOR ELEVATIONS

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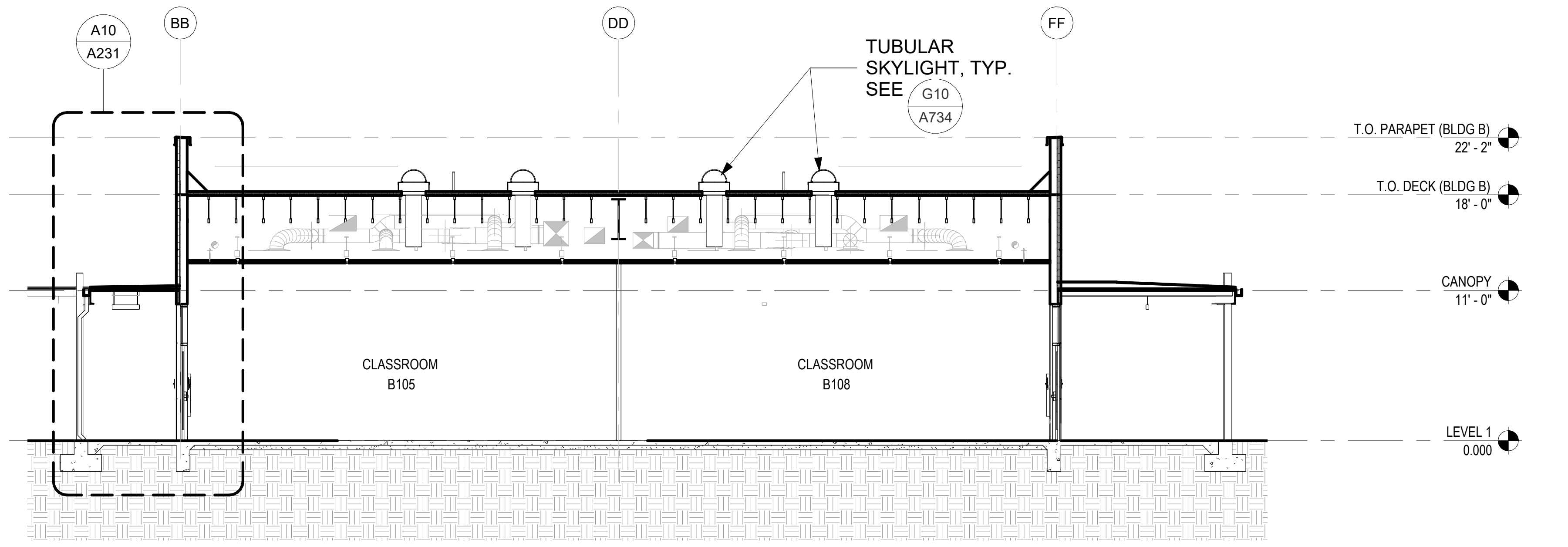
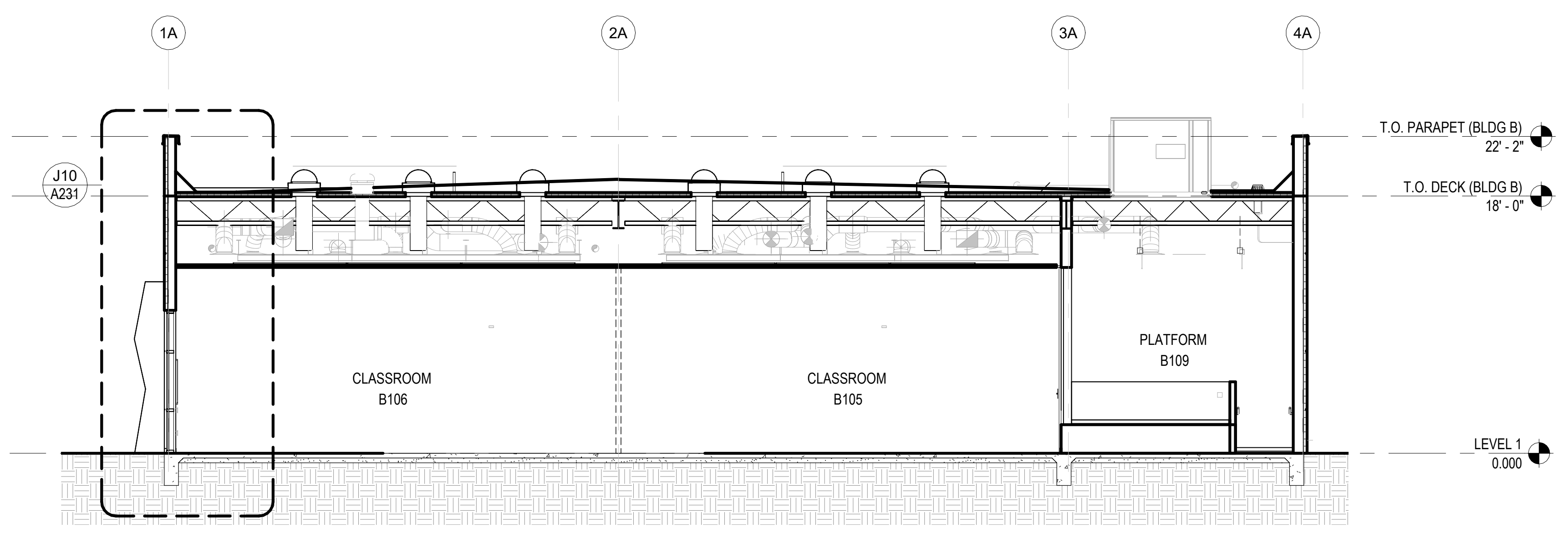
A202


A10
A231
BB
DD
FF
TUBULAR SKYLIGHT, TYP. SEE G10 A734
T.O. PARAPET (BLDG B) 22' - 2"
T.O. DECK (BLDG B) 18' - 0"
CANOPY 11' - 0"
LEVEL 1 0.000
CLASSROOM B105
CLASSROOM B108

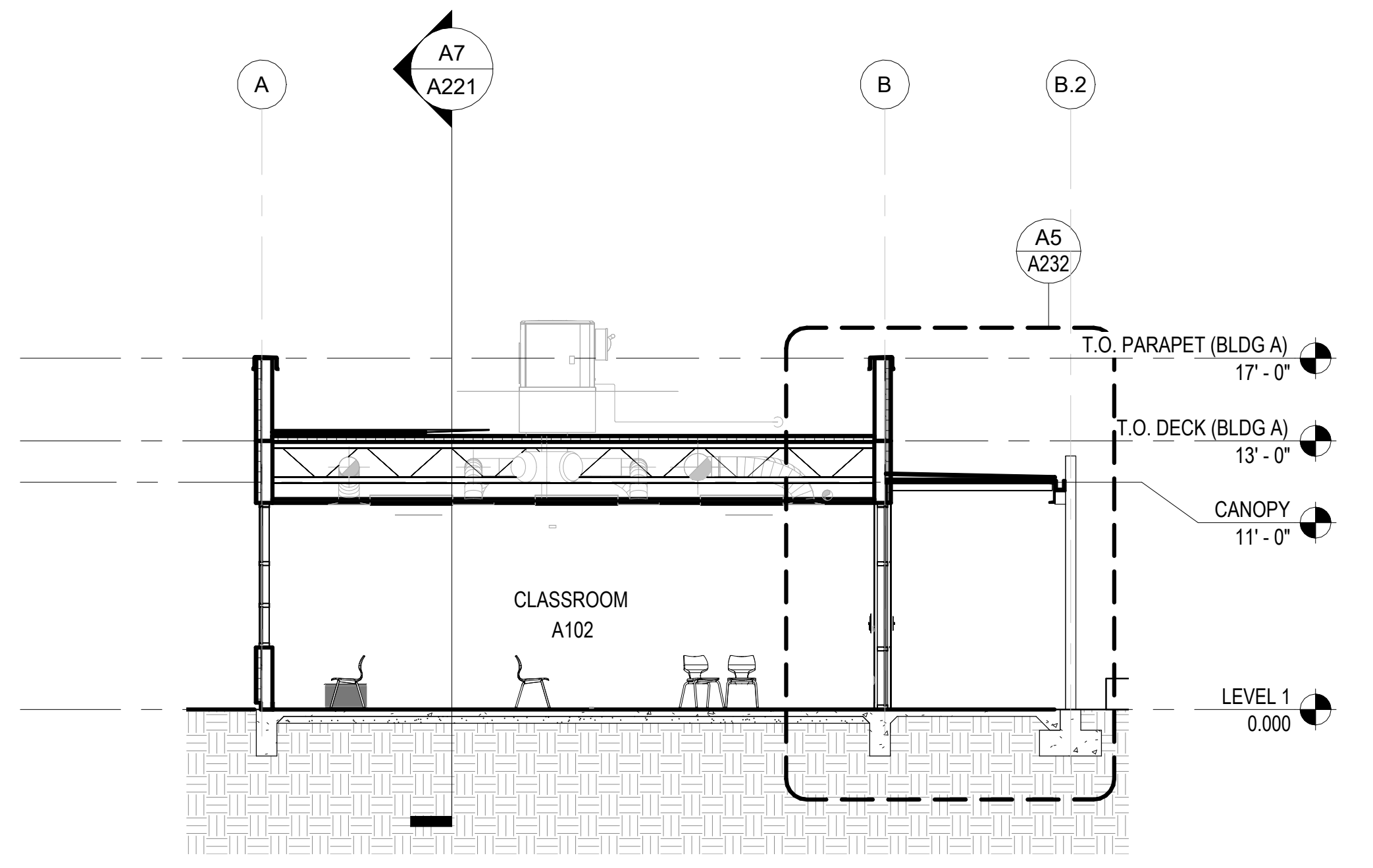
NS SECTION 4-CLASSROOM **G4**

1/8" = 1'-0"



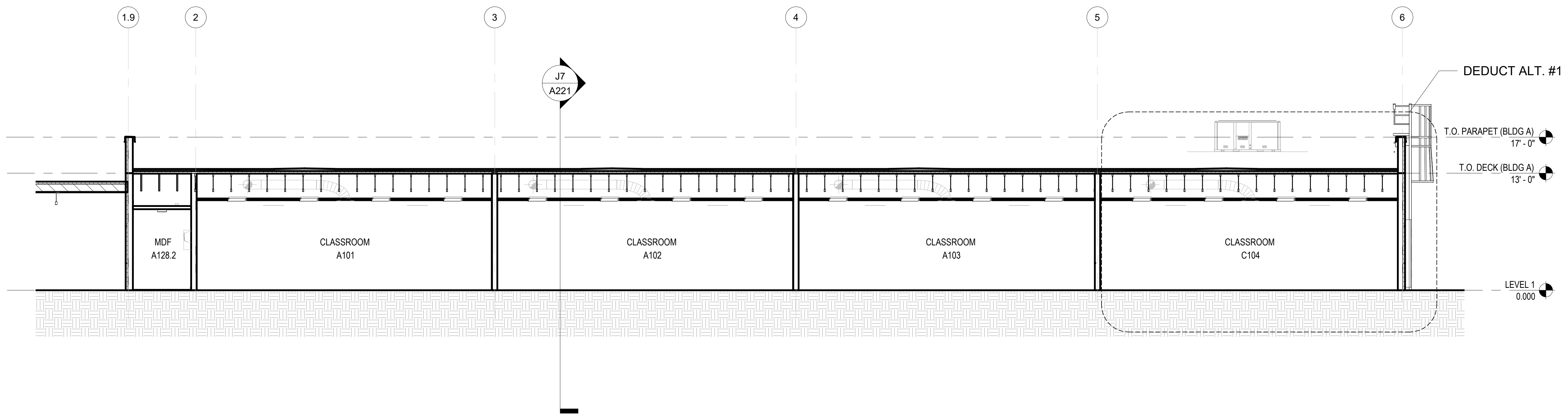
EW SECTION 4-CLASSROOM **A4**

1/8" = 1'-0"



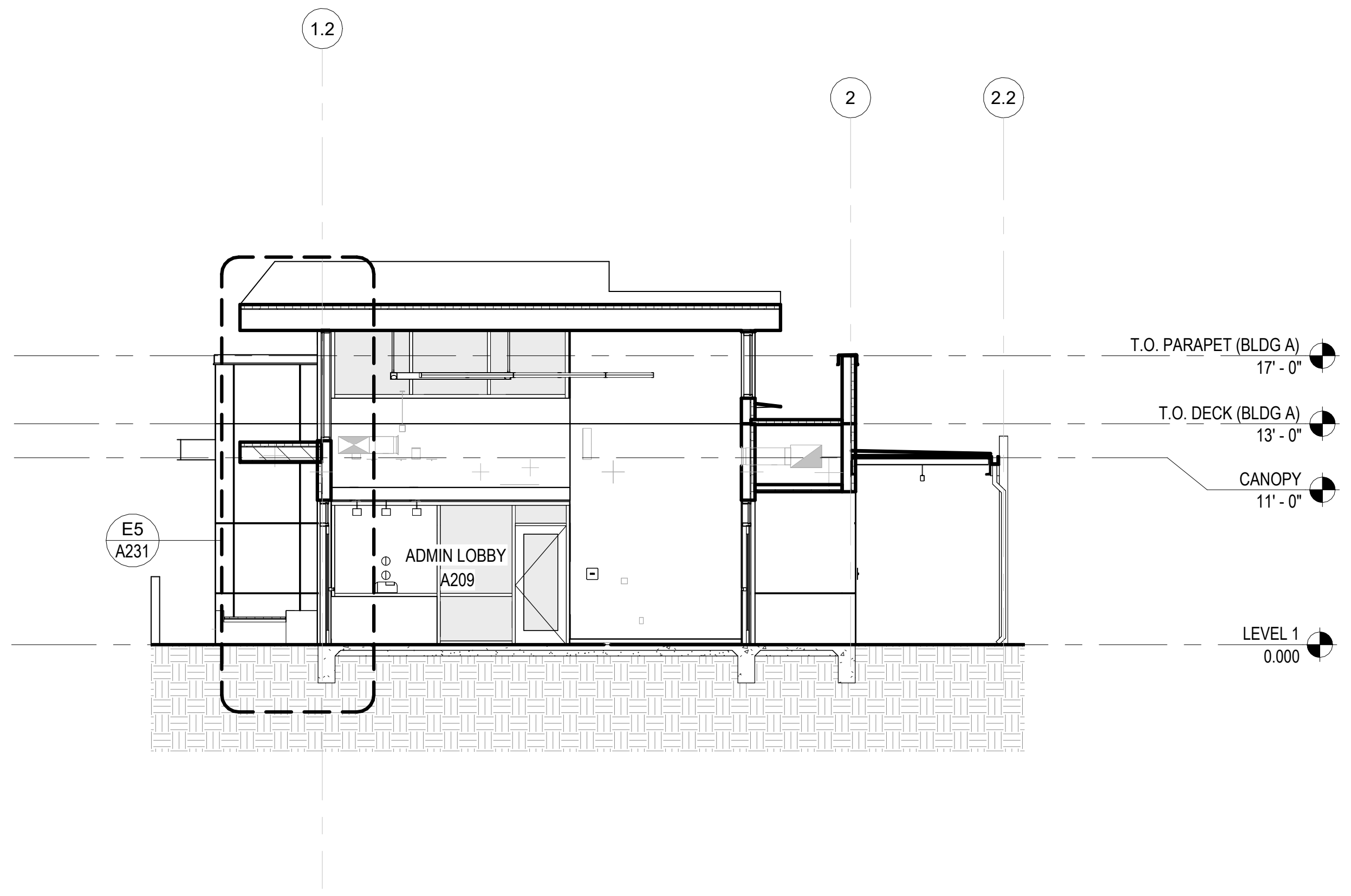
NS SECTION NORTH CLASSROOM **J7**

1/8" = 1'-0"



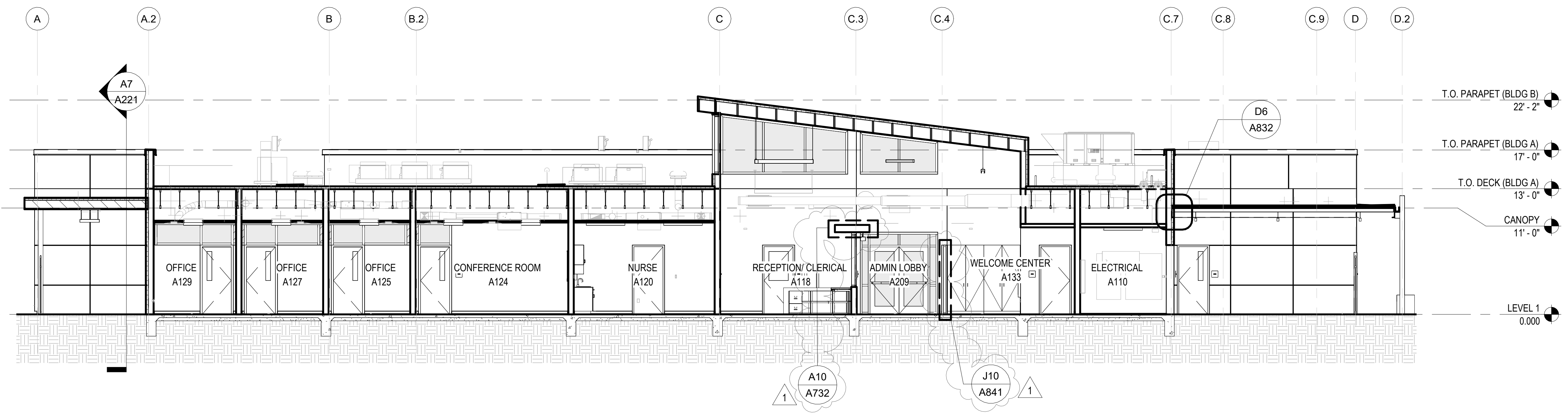
EW SECTION NORTH CLASSROOM **A7**

1/8" = 1'-0"



EW SECTION COURTYARD **J10**

1/8" = 1'-0"



NS SECTION ADMIN BUILDING **A10**

1/8" = 1'-0"

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BUILDING SECTIONS

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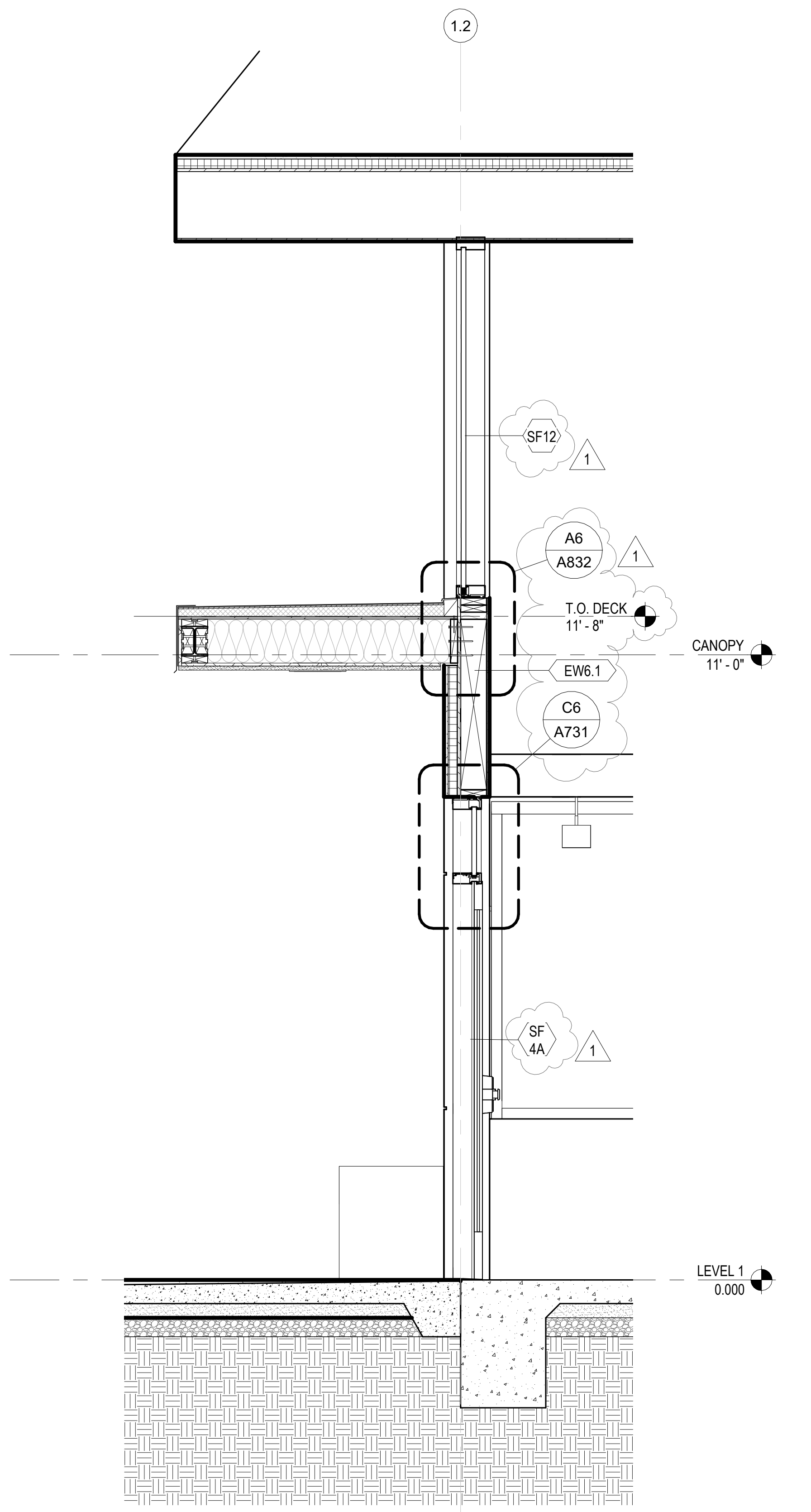
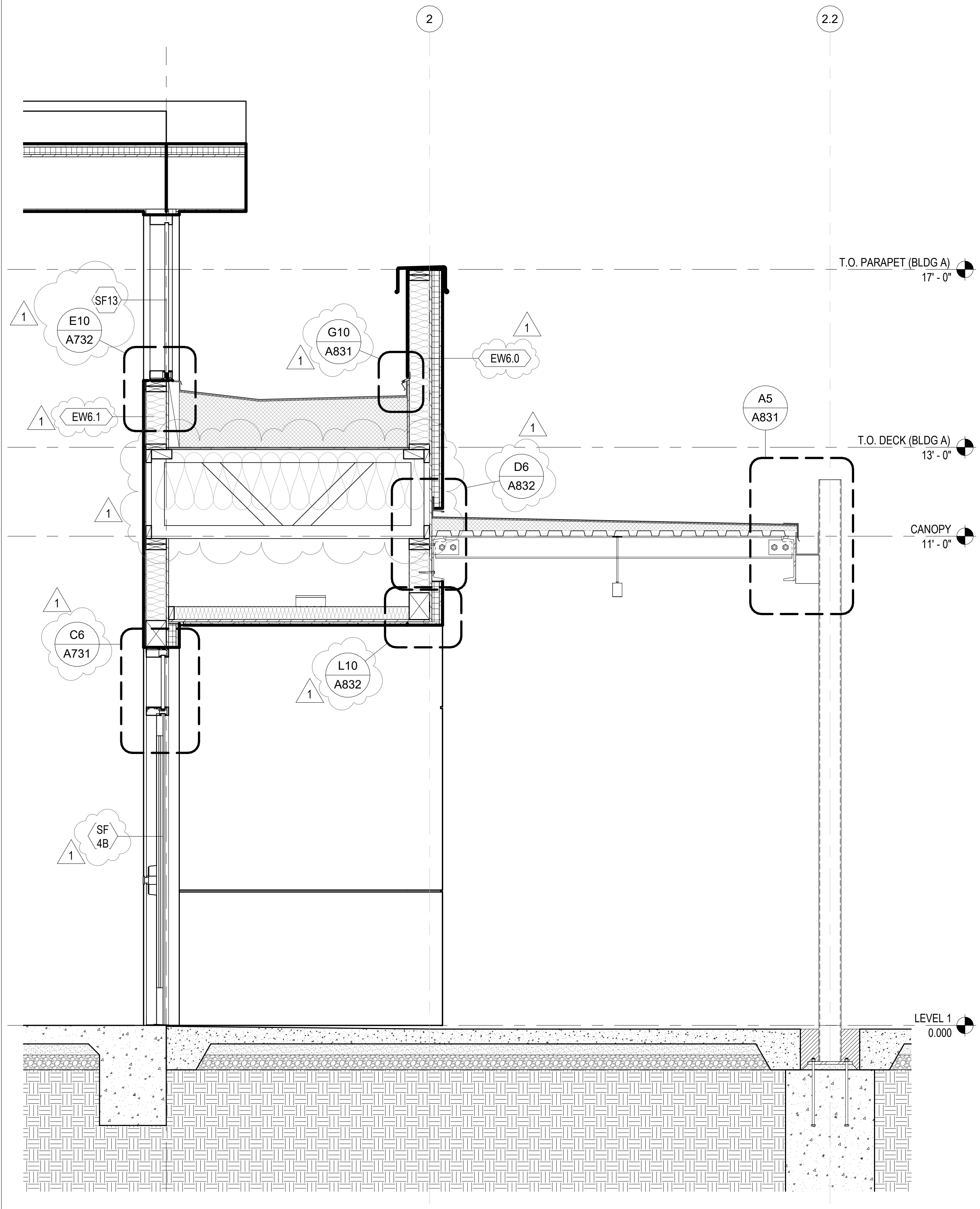
A221



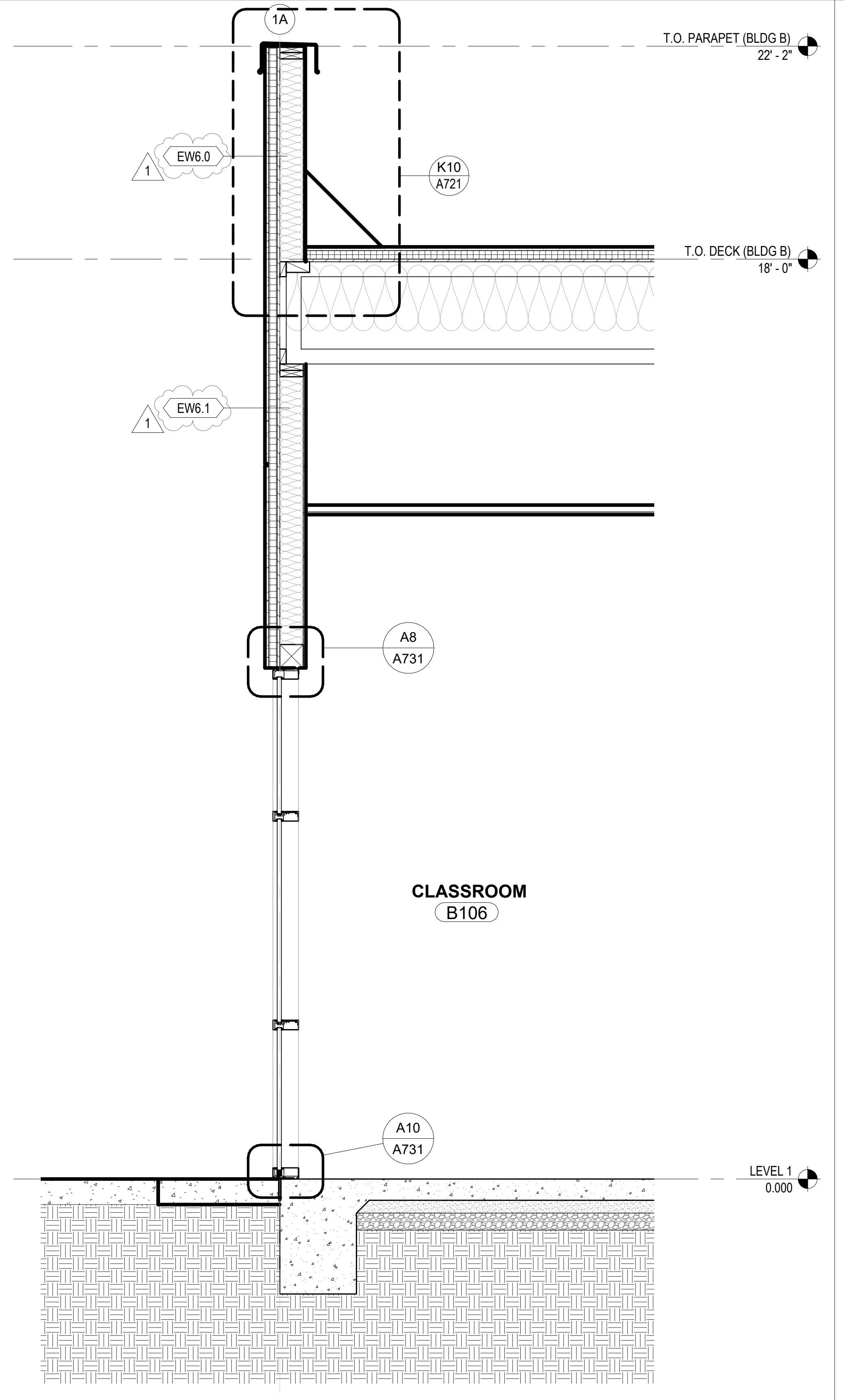
WALL SECTION - FRONT ENTRANCE **E5**

1/2" = 1'-0"



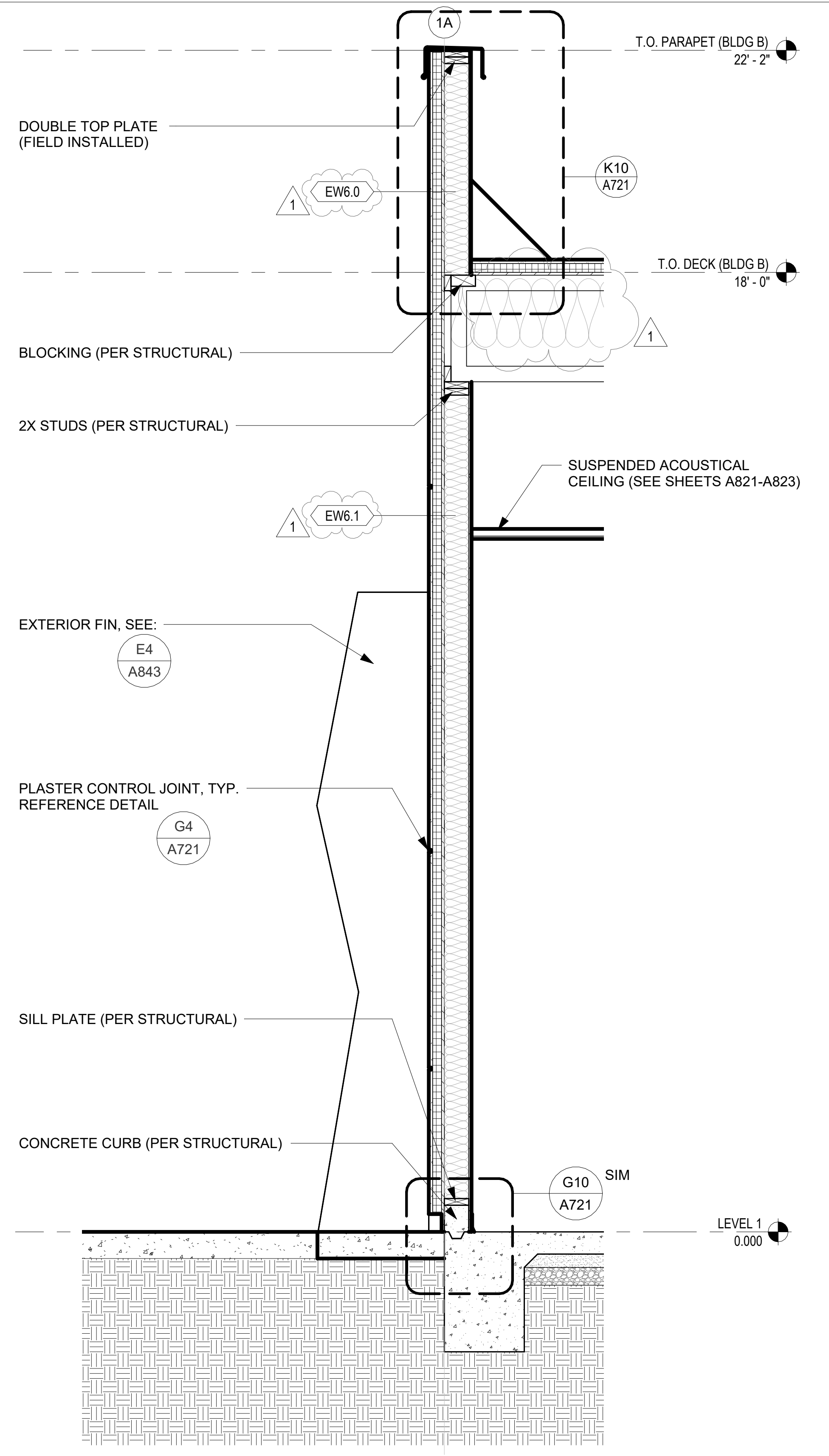
WALL SECTION - COURTYARD **A5**

1/2" = 1'-0"



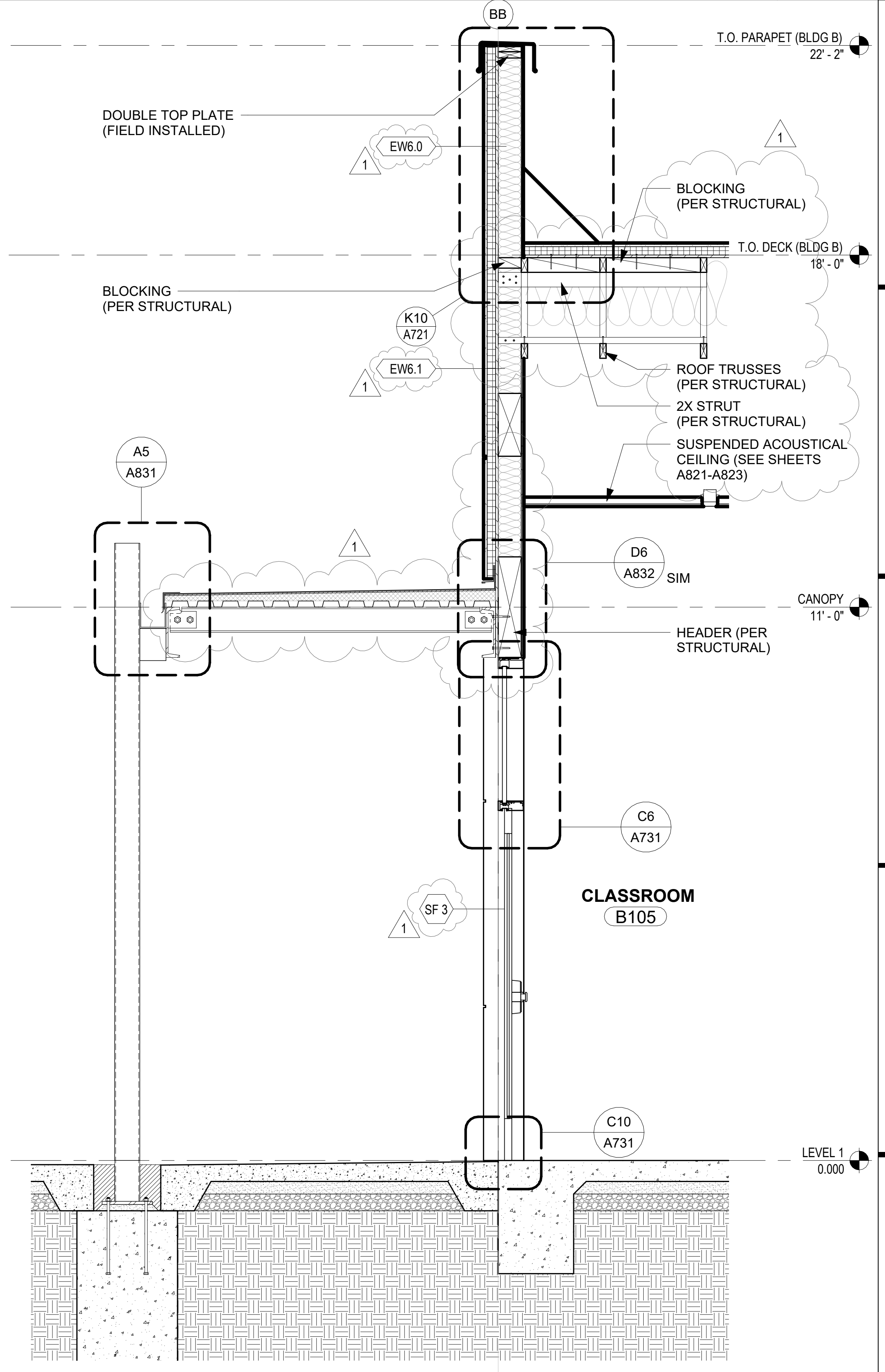
WALL SECTION - STOREFRONT **J10**

1/2" = 1'-0"



WALL SECTION - FINS **E10**

1/2" = 1'-0"



WALL SECTION - BUILDING B **A10**

1/2" = 1'-0"

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EXTERIOR WALL SECTIONS

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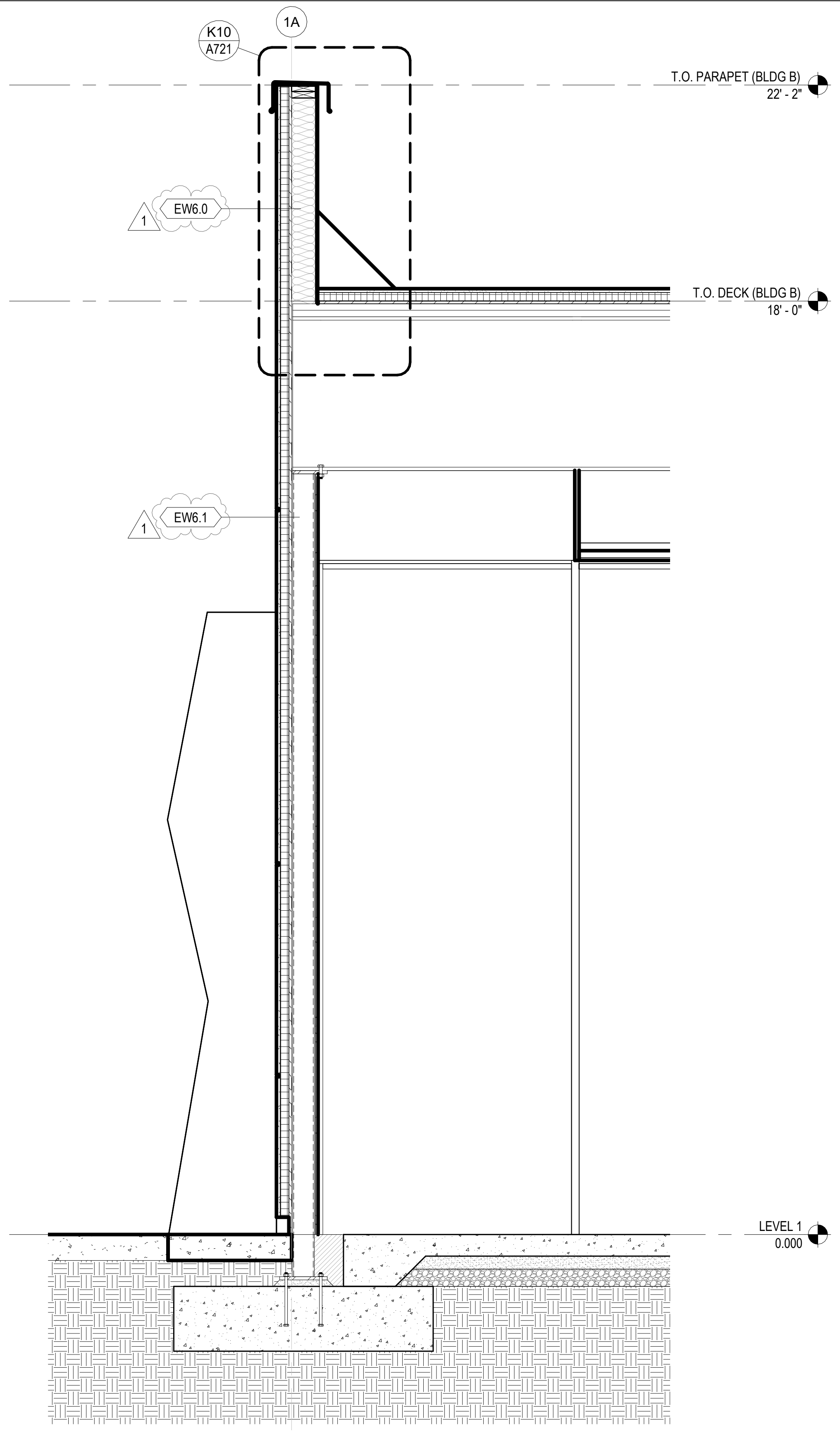
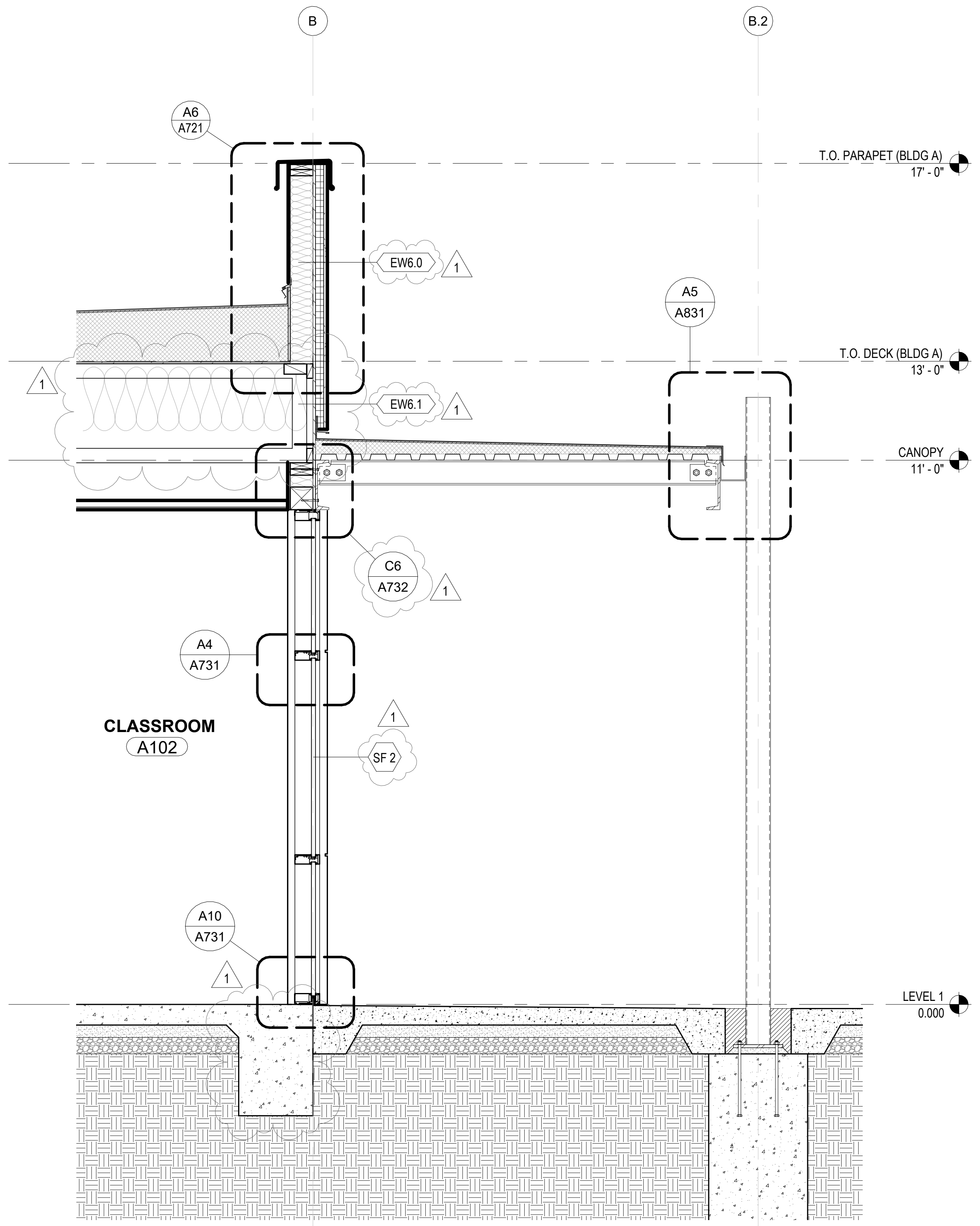


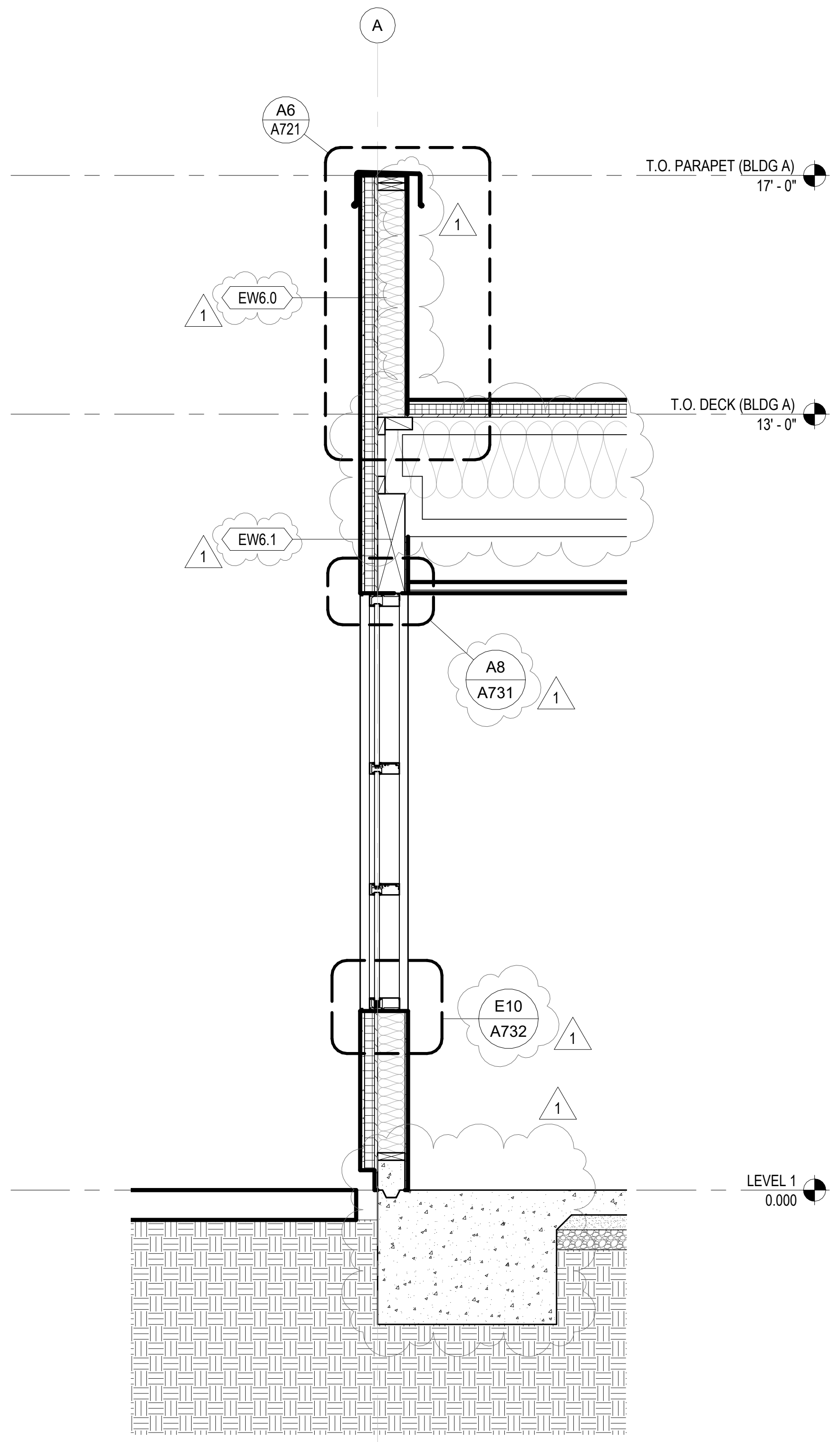
WALL SECTION - PARTITION POCKET **E5**

1/2" = 1'-0"



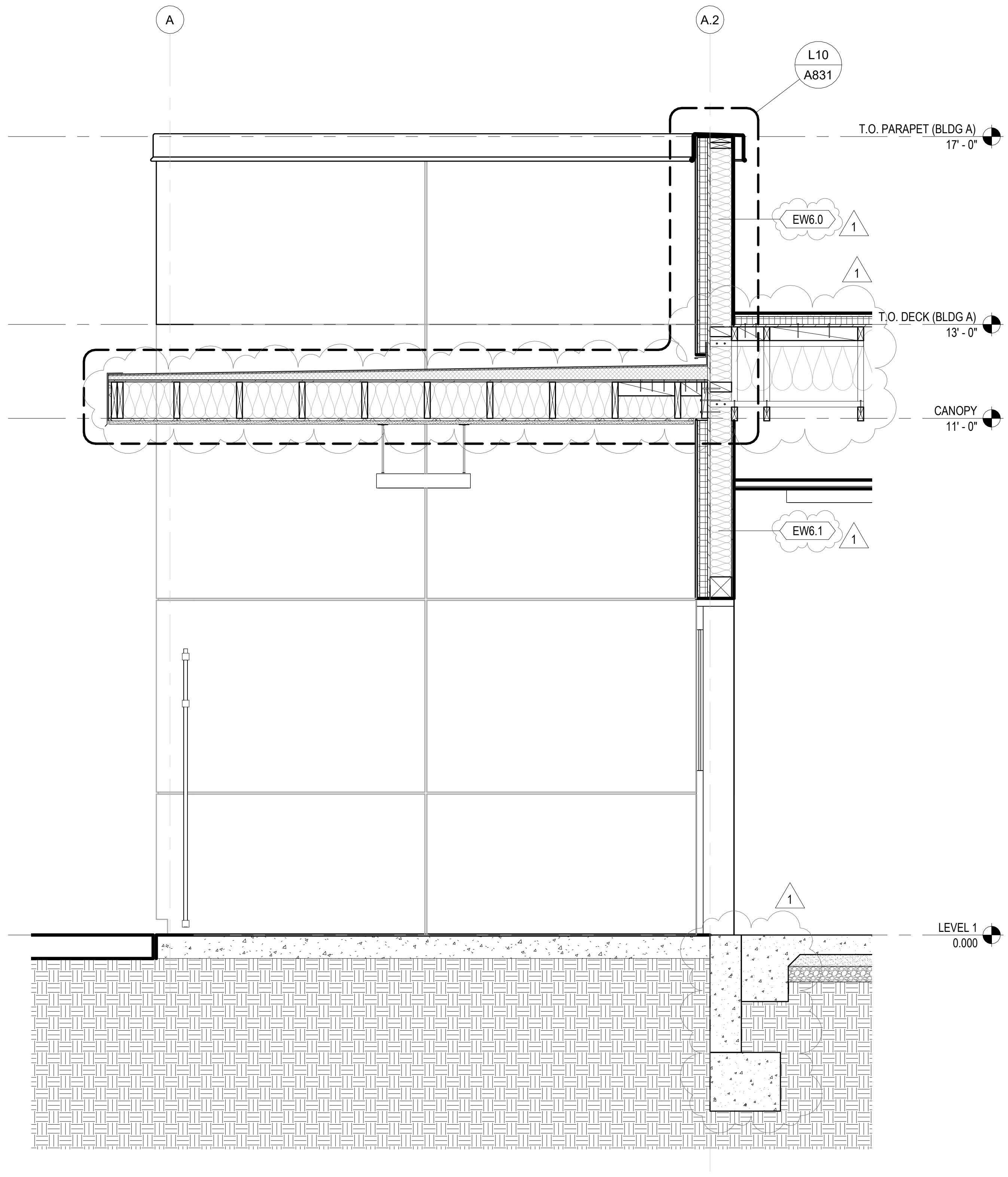
WALL SECTION - CANOPY **A5**

1/2" = 1'-0"



WALL SECTION - NORTH CLASSROOMS **E10**

1/2" = 1'-0"



WALL SECTION - STAFF PATIO **A10**

1/2" = 1'-0"

1 2 3 4 5 6 7 8 9 10

M L K J H G F E D C B A

LICENSED ARCHITECT
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NO. C-27962
REN. OCT. 31, 202
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EXTERIOR WALL SECTIONS

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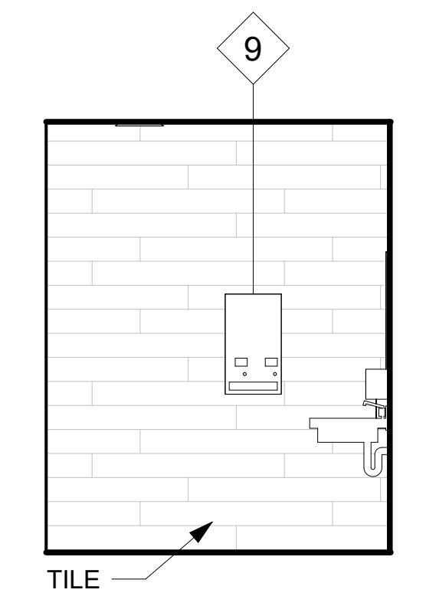
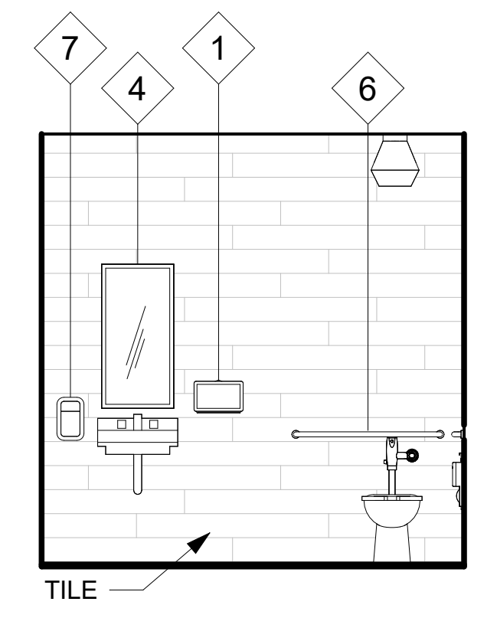
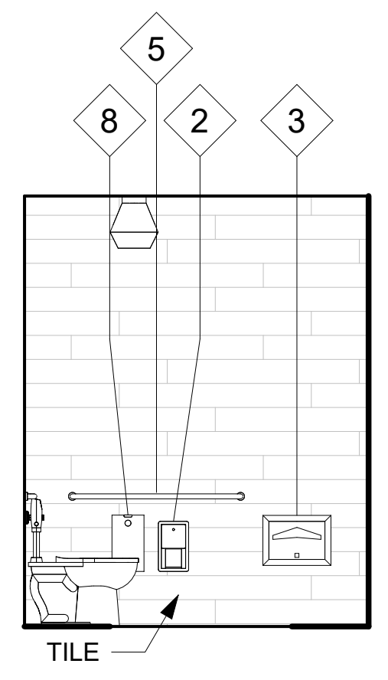


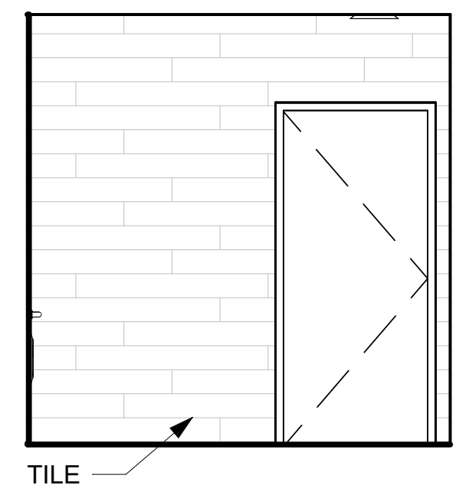
PUBLIC RESTROOM - NORTH L2
1/4" = 1'-0"



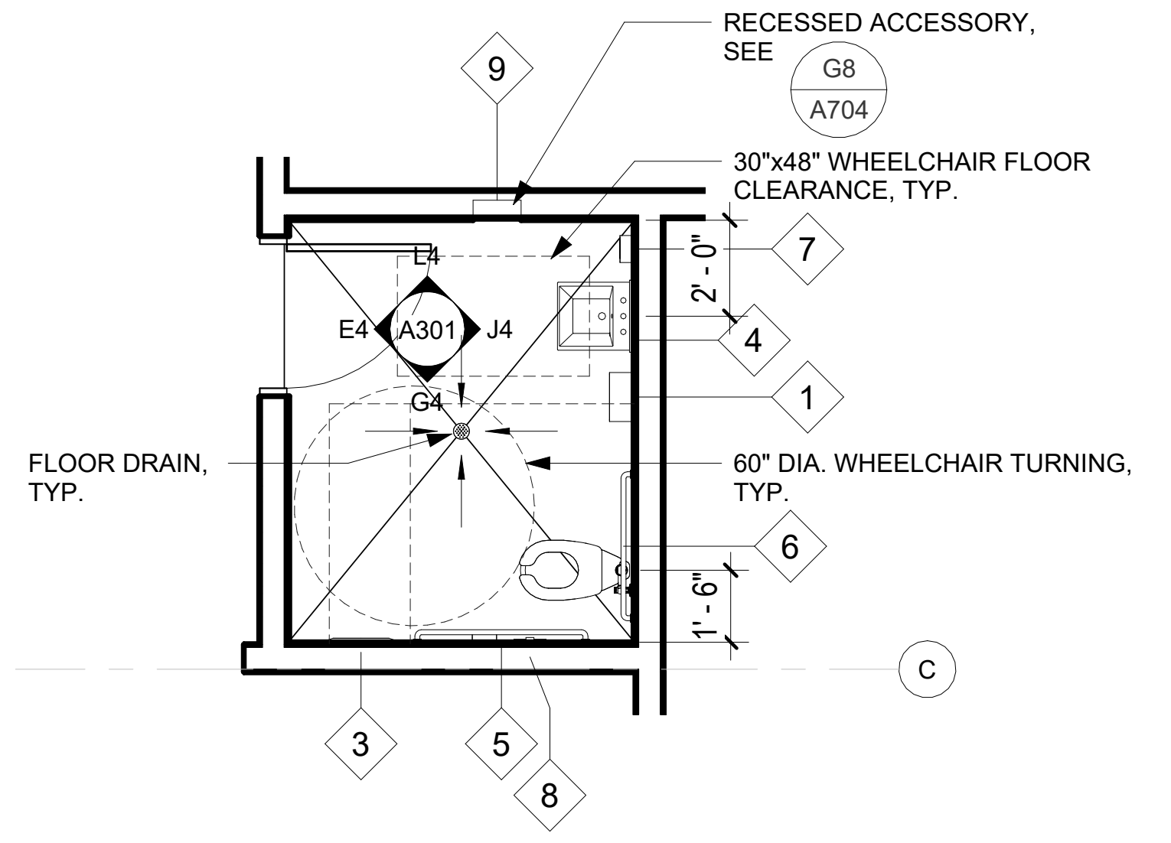
PUBLIC RESTROOM - EAST J2
1/4" = 1'-0"



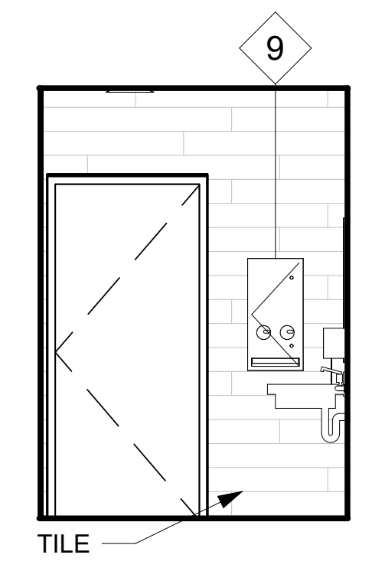
PUBLIC RESTROOM - SOUTH G2
1/4" = 1'-0"



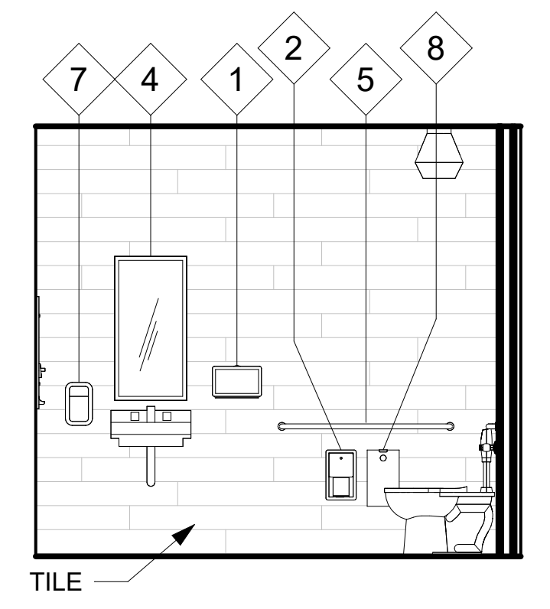
PUBLIC RESTROOM - WEST E2
1/4" = 1'-0"


RECESSED ACCESSORY, SEE G8 A704
30"x48" WHEELCHAIR FLOOR CLEARANCE, TYP.
FLOOR DRAIN, TYP.
60" DIA. WHEELCHAIR TURNING, TYP.
2' - 0"
1' - 6"
E4 A301 J4
G4
L4
9
7
4
1
6
3
5
8
C

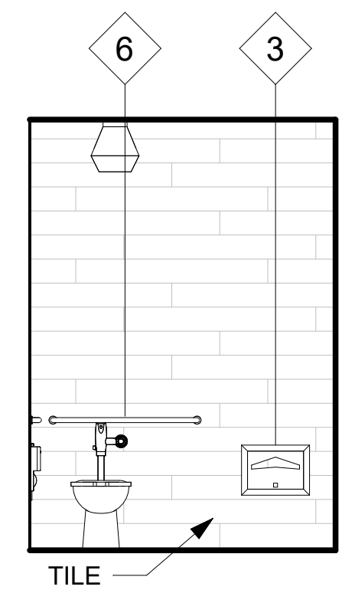
ENLARGED FLOOR PLAN - A119 PUBLIC RESTROOM A2
1/4" = 1'-0"



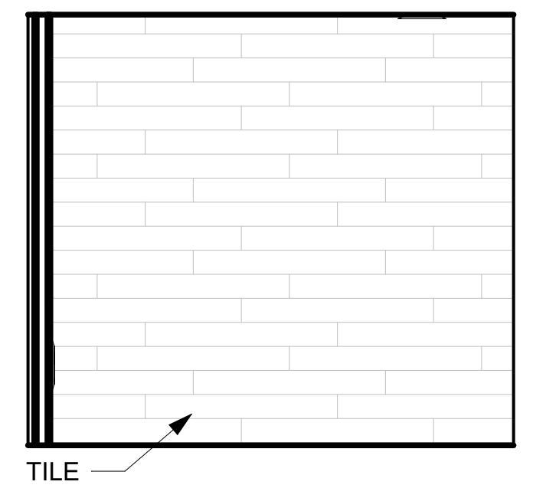
STAFF RESTROOM - NORTH L4
1/4" = 1'-0"



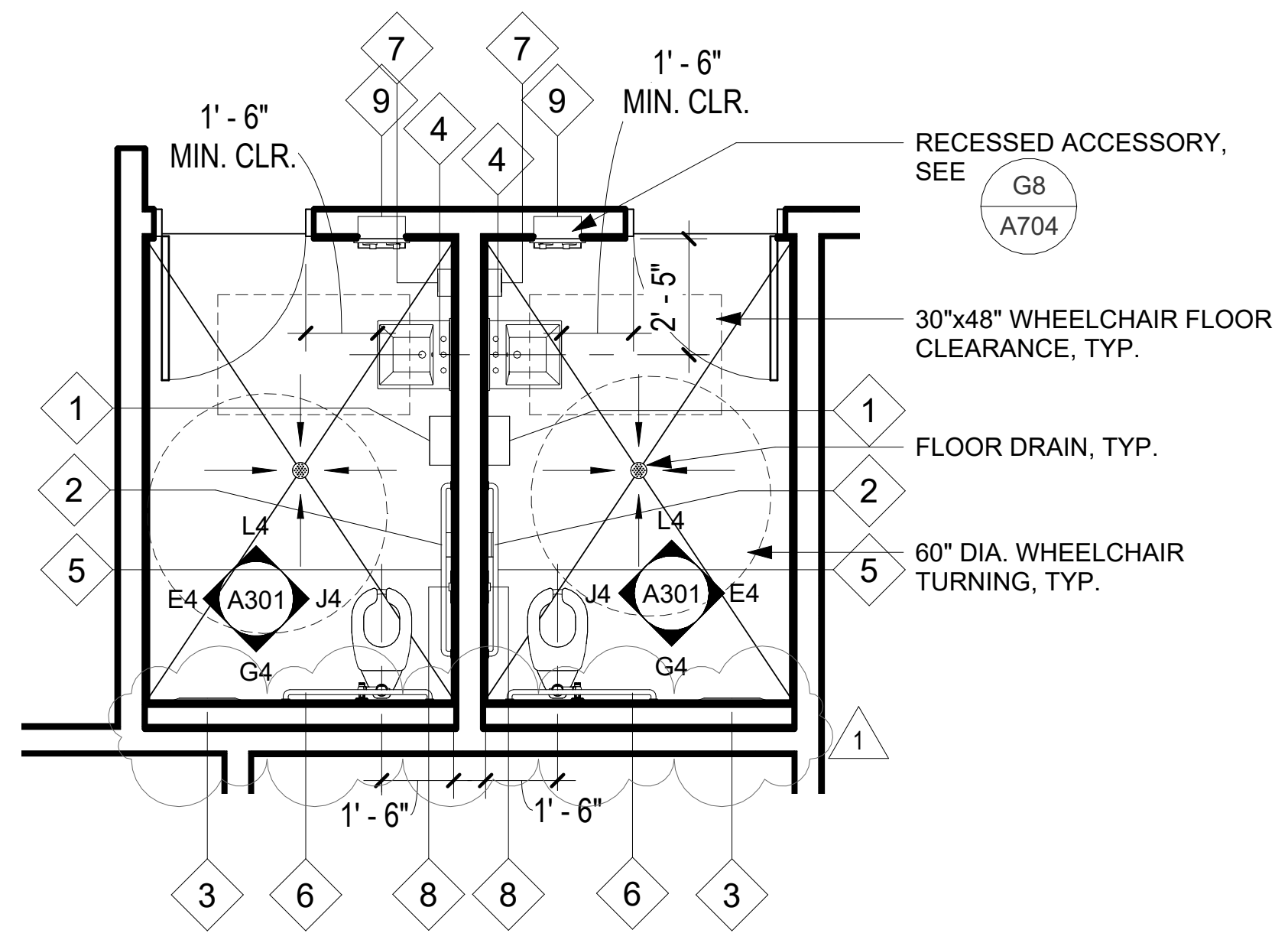
STAFF RESTROOM - EAST J4
1/4" = 1'-0"



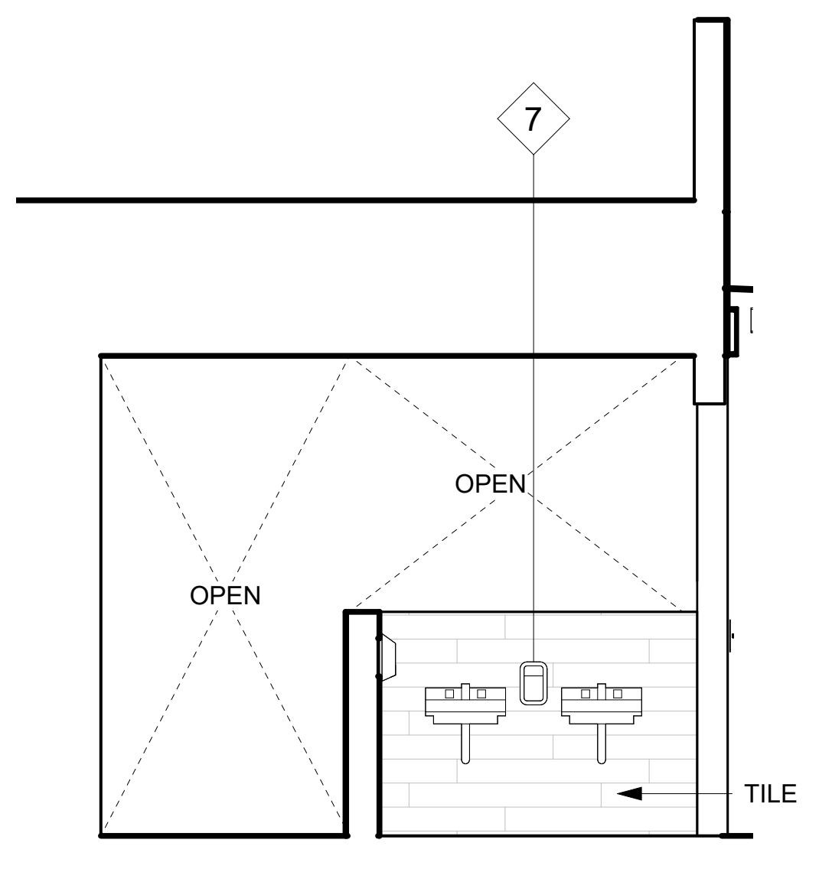
STAFF RESTROOM - SOUTH G4
1/4" = 1'-0"



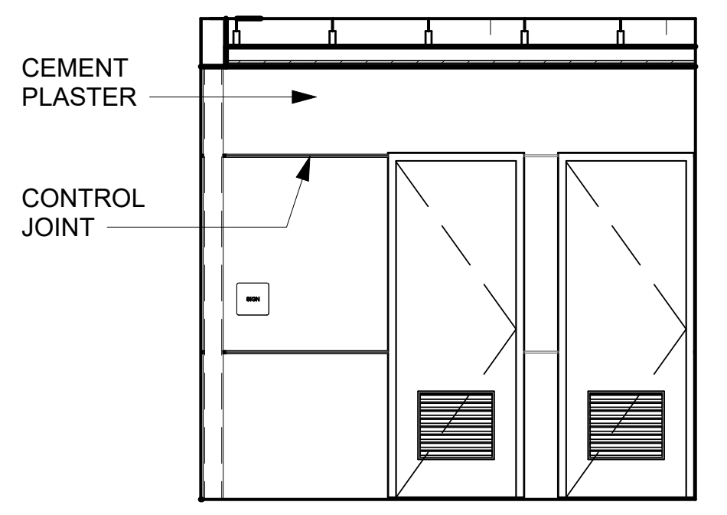
STAFF RESTROOM - WEST E4
1/4" = 1'-0"


1' - 6" MIN. CLR.
1' - 6" MIN. CLR.
RECESSED ACCESSORY, SEE G8 A704
30"x48" WHEELCHAIR FLOOR CLEARANCE, TYP.
FLOOR DRAIN, TYP.
60" DIA. WHEELCHAIR TURNING, TYP.
2' - 5"
1' - 6"
1' - 6"
E4 A301 J4
L4
G4
7
9
4
1
2
5
3
6
8
1

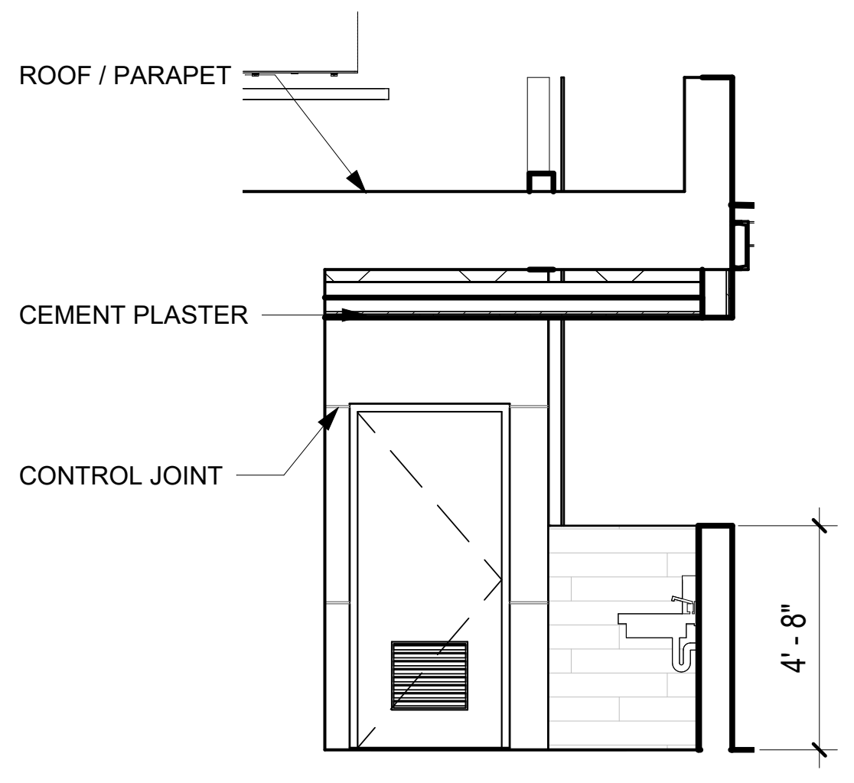
ENLARGED FLOOR PLAN - A122/A123 STAFF RESTROOMS A4
1/4" = 1'-0"



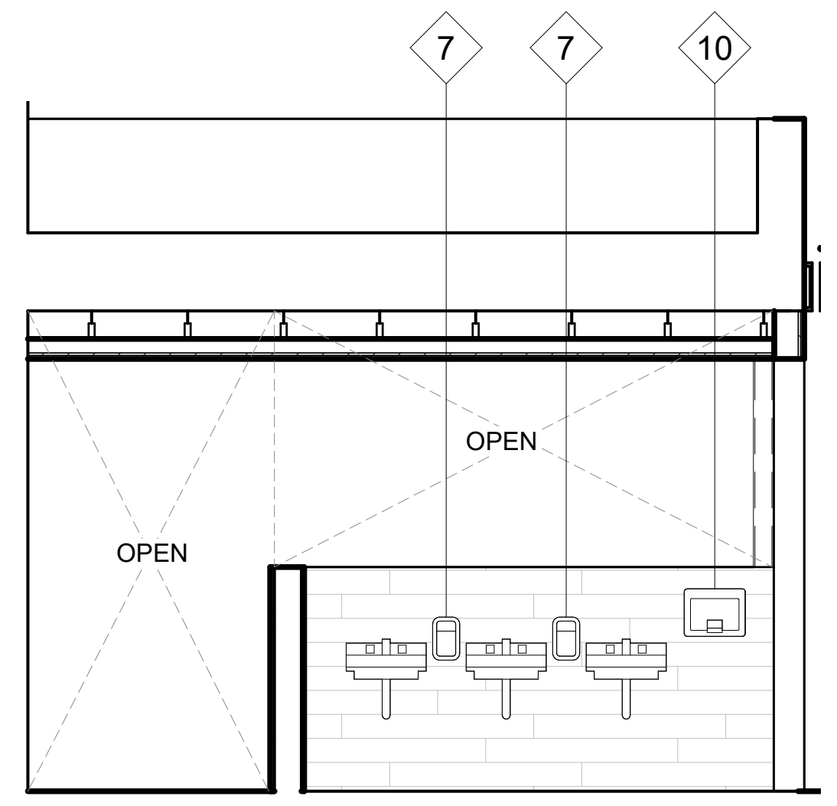
STUDENT RESTROOM - EAST L6
1/4" = 1'-0"



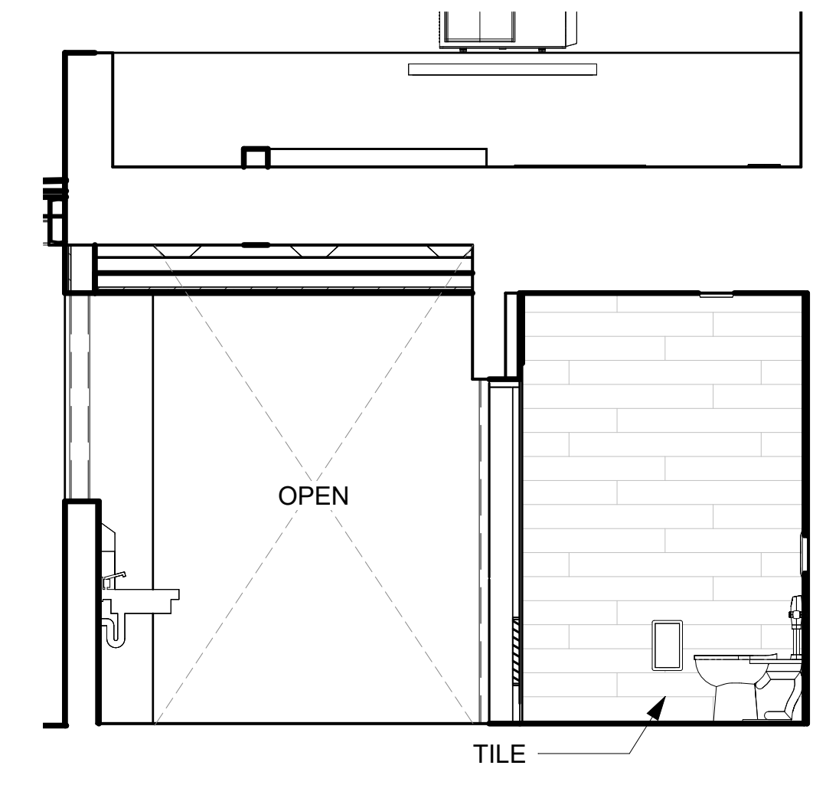
STUDENT RESTROOM - EAST J6
1/4" = 1'-0"



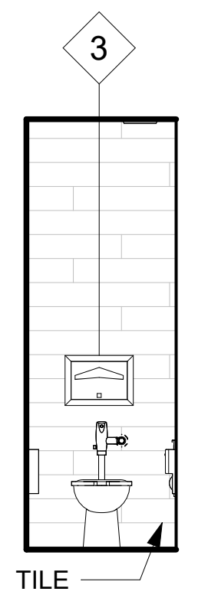
STUDENT RESTROOM - SOUTH G6
1/4" = 1'-0"



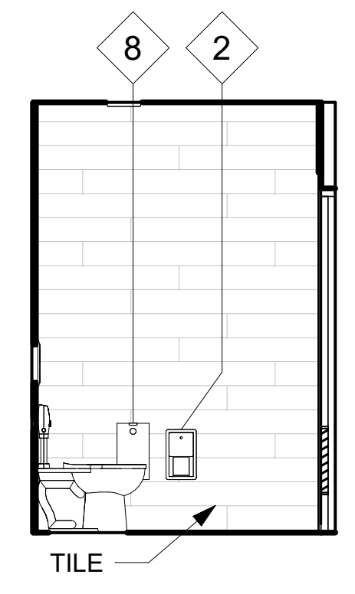
STUDENT RESTROOM - WEST E6
1/4" = 1'-0"



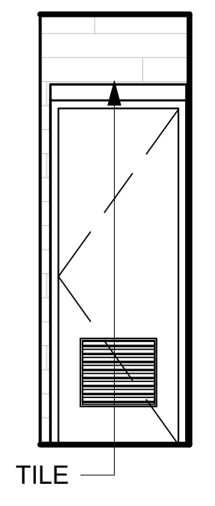
STUDENT TOILET - NORTH L8
1/4" = 1'-0"



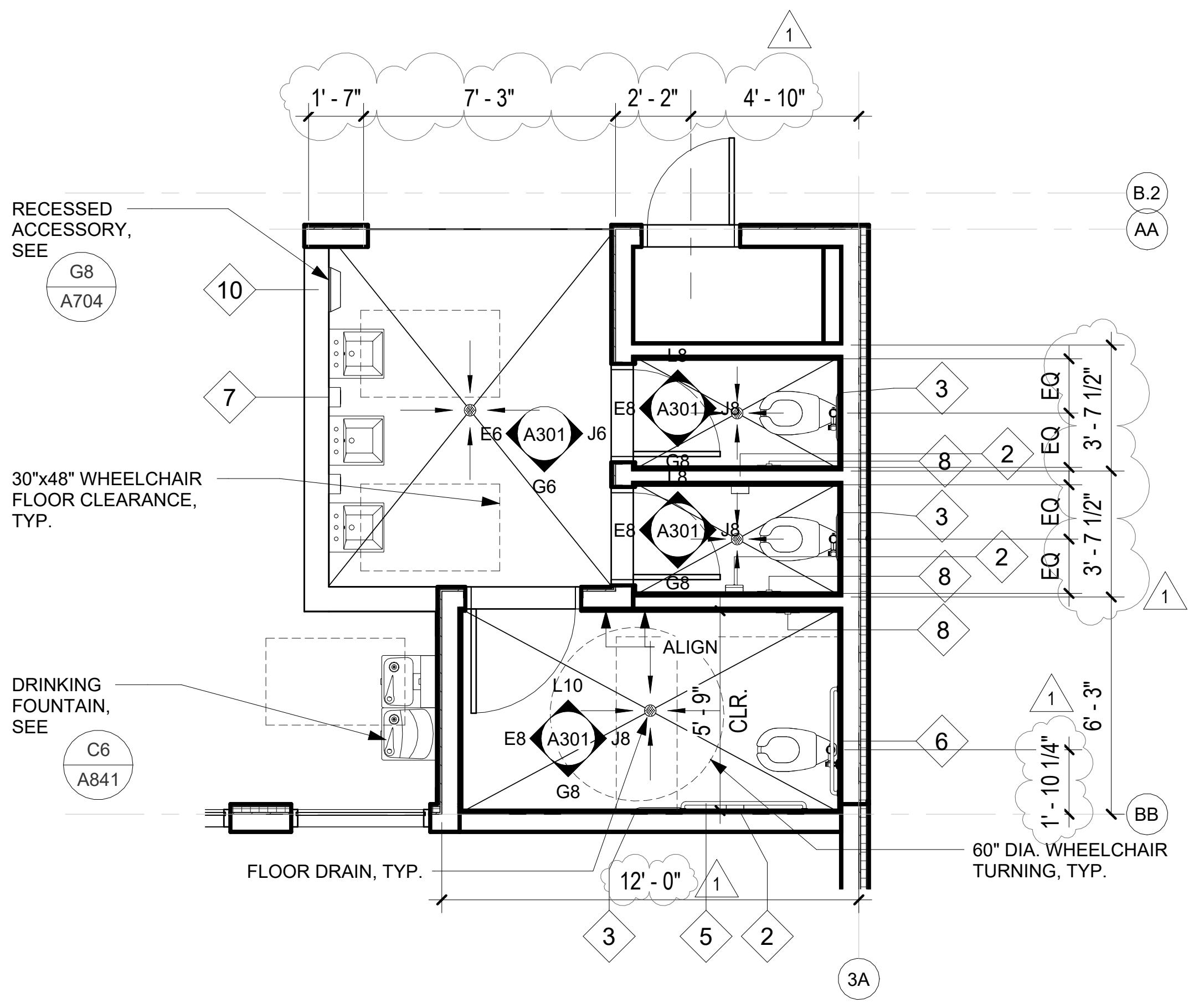
STUDENT TOILET - EAST J8
1/4" = 1'-0"



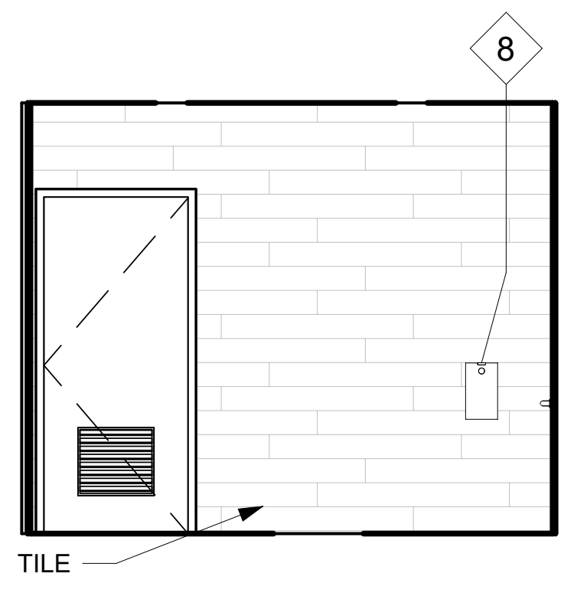
STUDENT TOILET - SOUTH G8
1/4" = 1'-0"



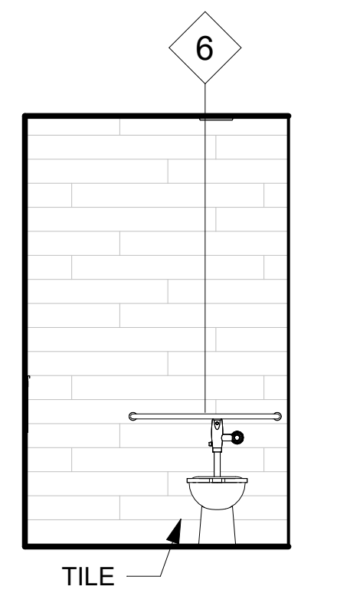
STUDENT TOILET - WEST E8
1/4" = 1'-0"



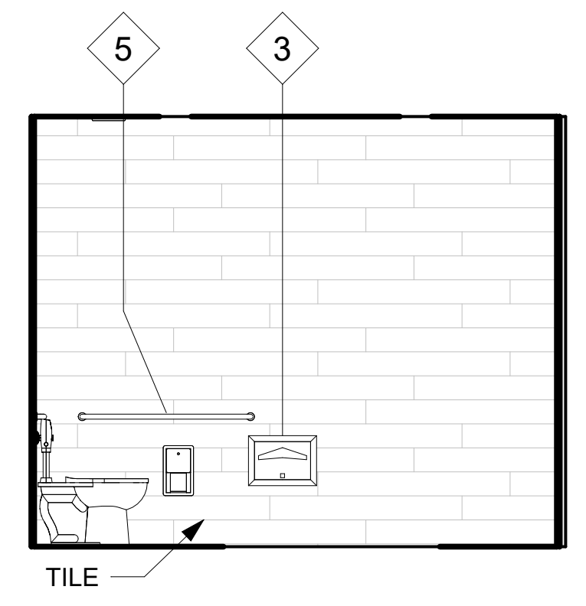
ENLARGED FLOOR PLAN - A132 EAST RESTROOMS A8
1/4" = 1'-0"



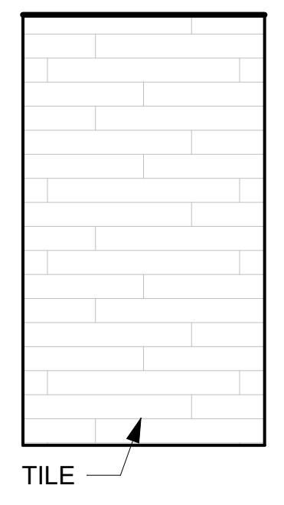
STUDENT ACCESSIBLE TOILET - NORTH L10
1/4" = 1'-0"



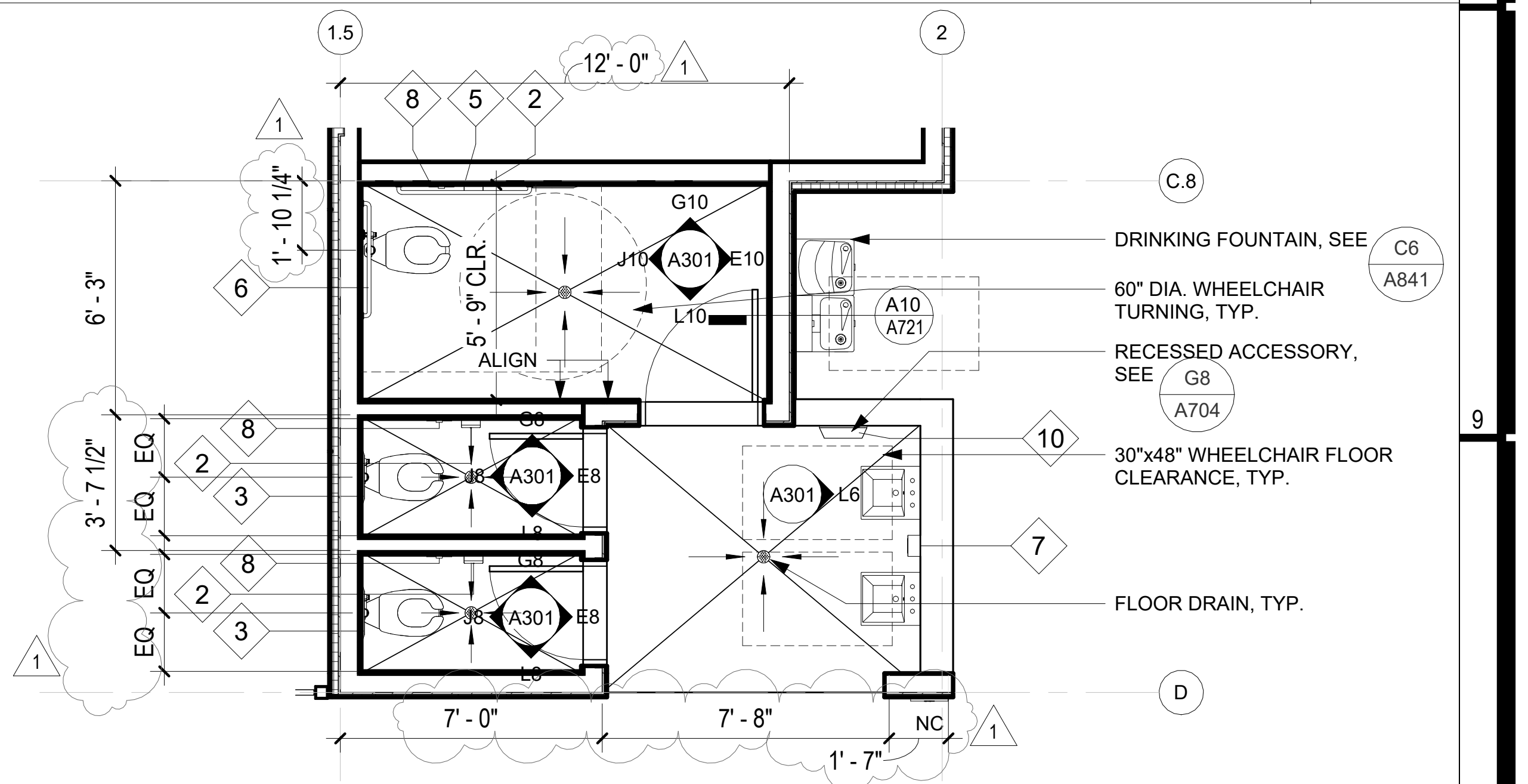
STUDENT ACCESSIBLE TOILET - EAST J10
1/4" = 1'-0"



STUDENT ACCESSIBLE TOILET - SOUTH G10
1/4" = 1'-0"



STUDENT ACCESSIBLE TOILET - WEST E10
1/4" = 1'-0"



ENLARGED FLOOR PLAN - A130 WEST RESTROOMS A10
1/4" = 1'-0"

M L K J H G F E D C B A
1 2 3 4 5 6 7 8 9 10

ACCESSORIES...

#	DESCRIPTION	MODEL	BASIS OF DESIGN
1	PAPER TOWEL DISPENSER - SURFACE MOUNTED	B-262	BOBRICK
2	TOILET TISSUE DISPENSER - RECESSED	B-4388	BOBRICK
3	TOILET SEAT COVER DISPENSER	B-5221	BOBRICK
4	GLASS MIRROR WITH FRAME - 18" x 36"	B-2908	BOBRICK
5	GRAB BAR 42"	B-6806	BOBRICK
6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

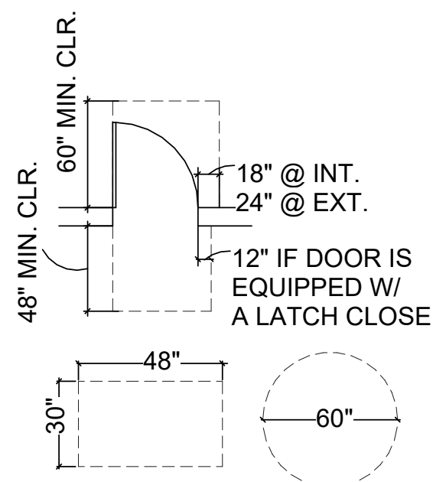
RESTROOM FLOOR PLAN NOTES

1. GRAB BAR MOUNTING DETAIL SEE A10 A302
2. FOR RECESSED ACCESSORIES SEE A302
3. FOR TYPICAL ACCESSORY MOUNTING HEIGHT SEE F10 A302
4. FOR TYPICAL TILE PATTERN SEE A7 A302

ELEVATION LEGEND

▭	SOAP DISPENSER
⊠	PAPER TOWEL DISPENSER

TYP. CLEARANCES



DOOR LANDING CLEARANCE

FLOOR CLEARANCE

TILES

DALTILE PORTFOLIO
TL-1 DOVE GREY PF04 MATTE
TL-2 ASH GREY PF05 MATTE
TL-3 SKYLINE BLEND PF12

LICENSED ARCHITECT
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

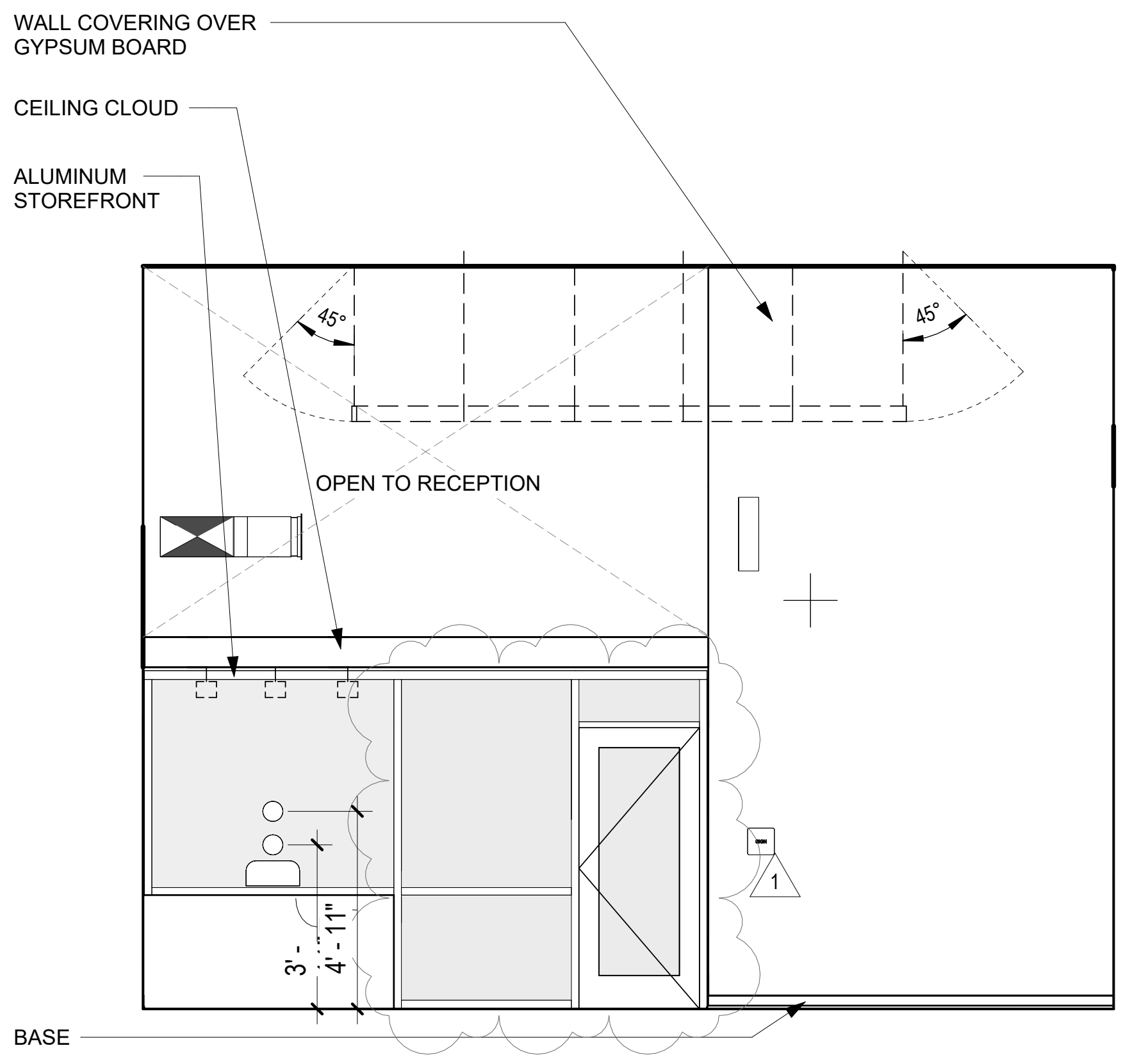
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

ENLARGED RESTROOM FLOOR PLANS & ELEVATIONS

PERKINS EASTMAN

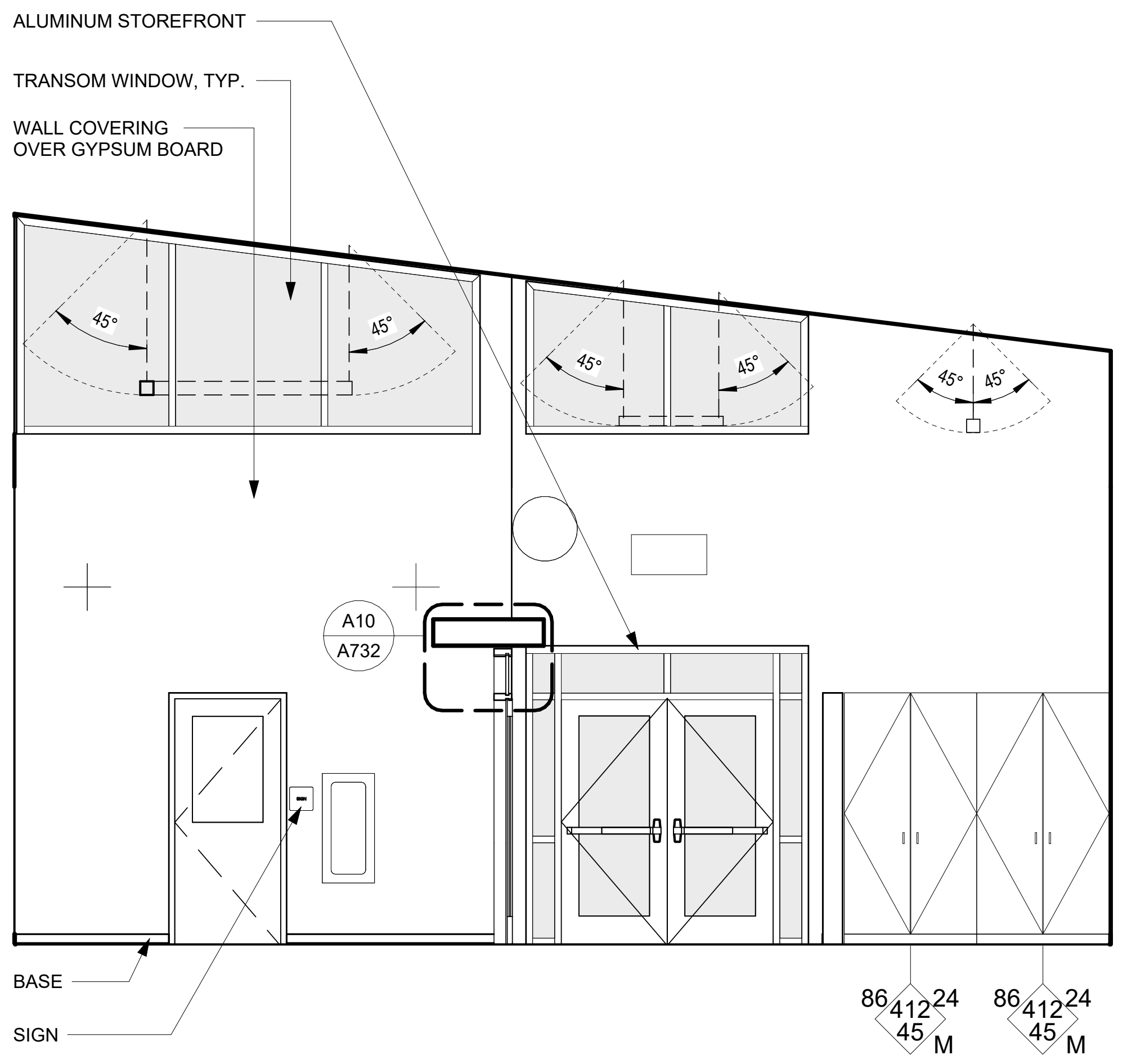
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A301



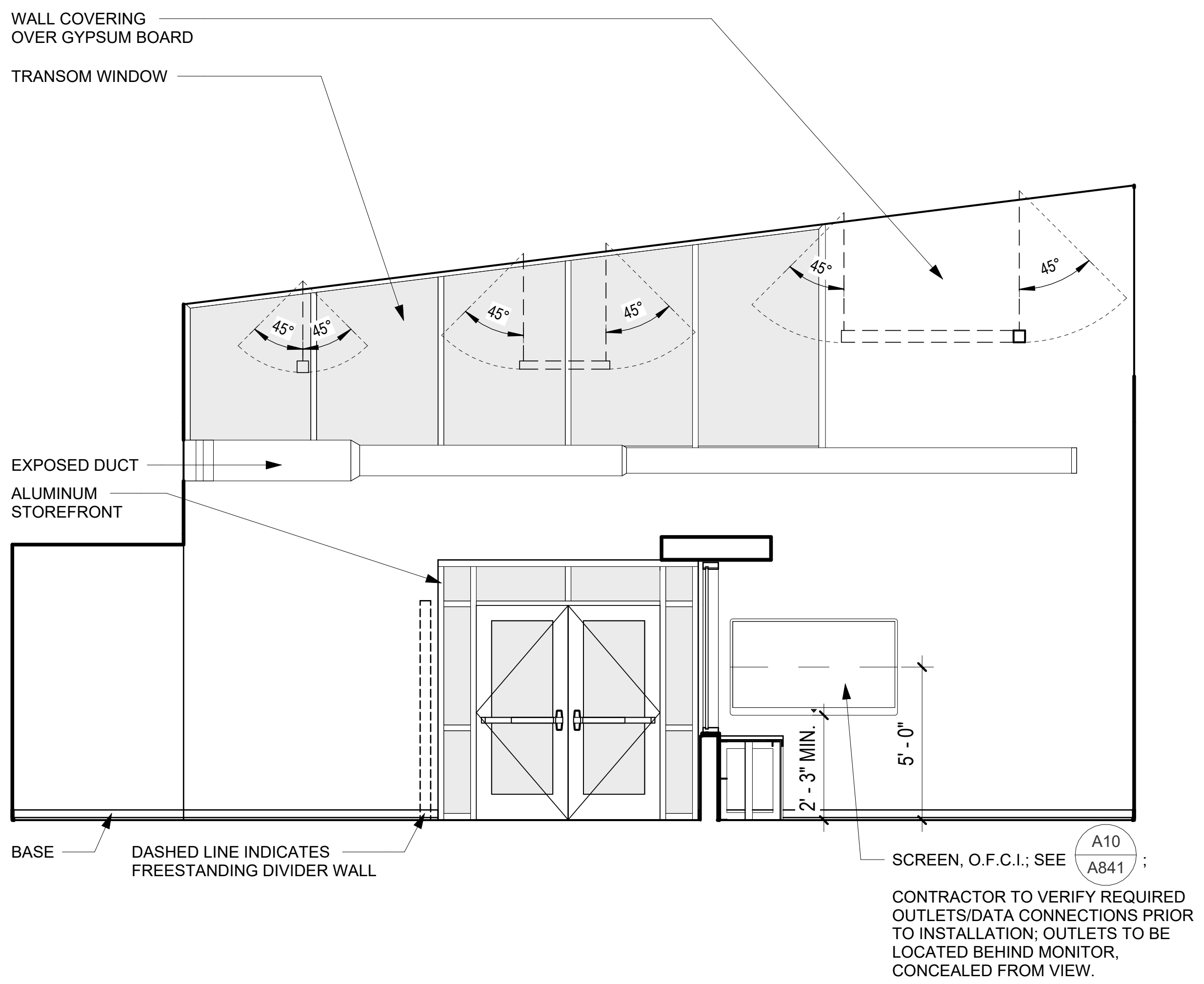
NORTH - ENTRANCE **K4**

1/4" = 1'-0"



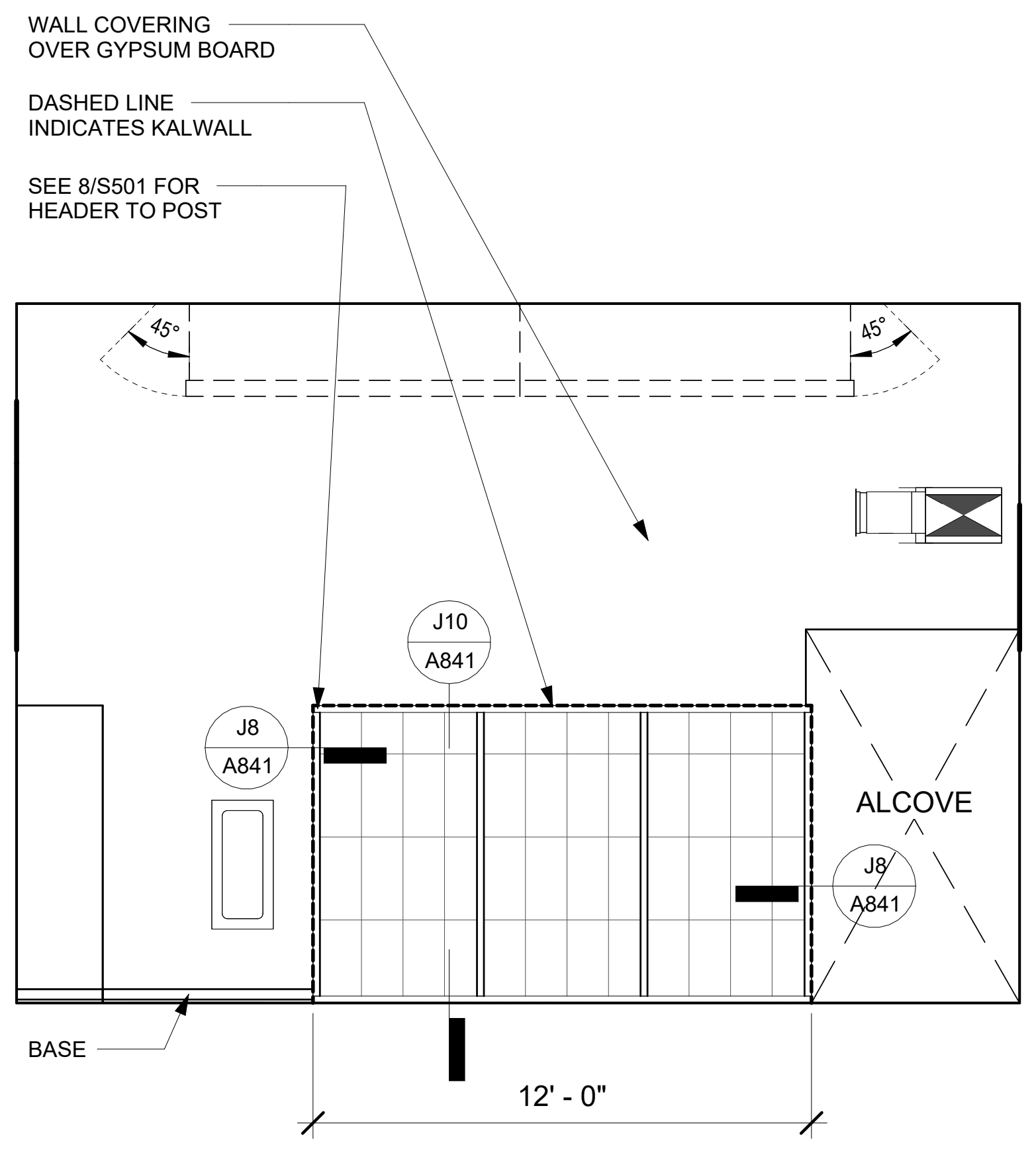
EAST - ENTRANCE **E4**

1/4" = 1'-0"


WALL COVERING OVER GYPSUM BOARD
TRANSOM WINDOW
45°
45°
45°
45°
45°
45°
EXPOSED DUCT
ALUMINUM STOREFRONT
2' - 3" MIN.
5' - 0"
BASE
DASHED LINE INDICATES FREESTANDING DIVIDER WALL
SCREEN, O.F.C.I.; SEE A10 A841 ;
CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION; OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

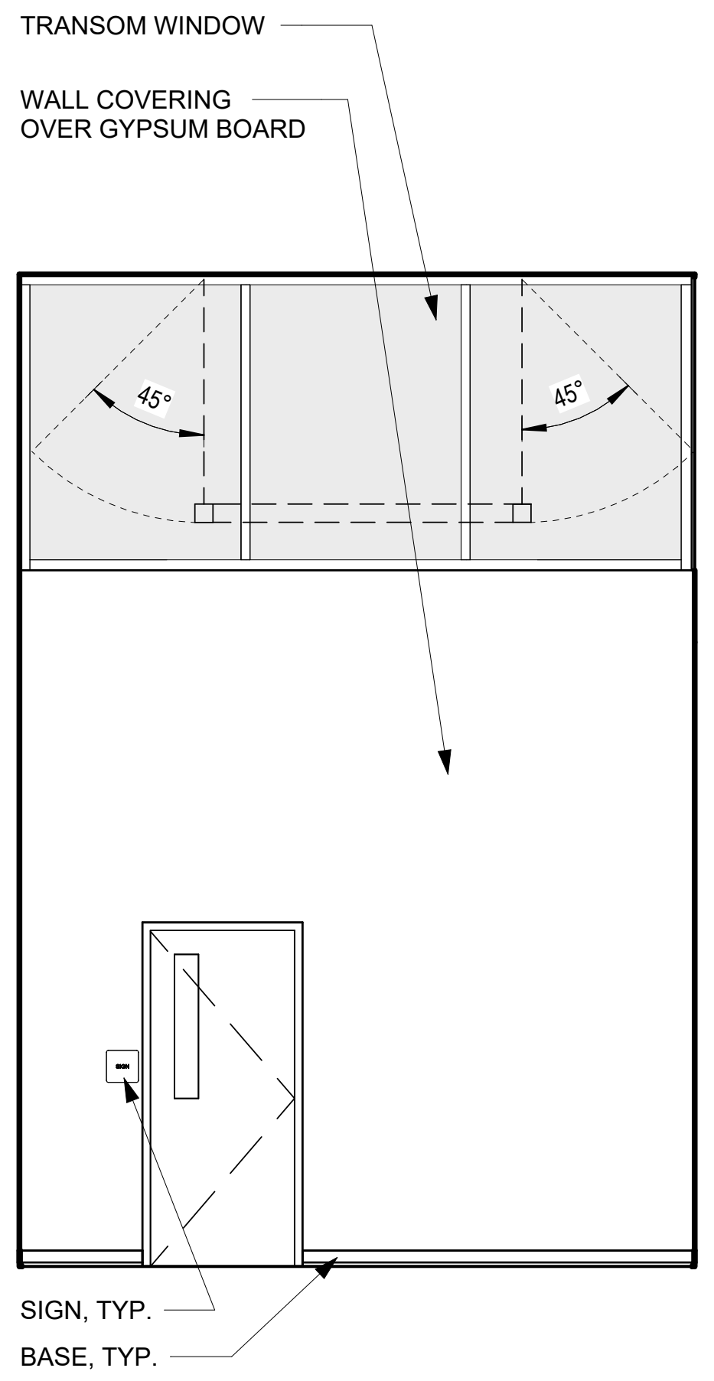
WEST - ENTRANCE **A4**

1/4" = 1'-0"


WALL COVERING OVER GYPSUM BOARD
DASHED LINE INDICATES KALWALL
SEE 8/S501 FOR HEADER TO POST
45°
45°
J10
A841
J8
A841
ALCOVE
J8
A841
BASE
12' - 0"

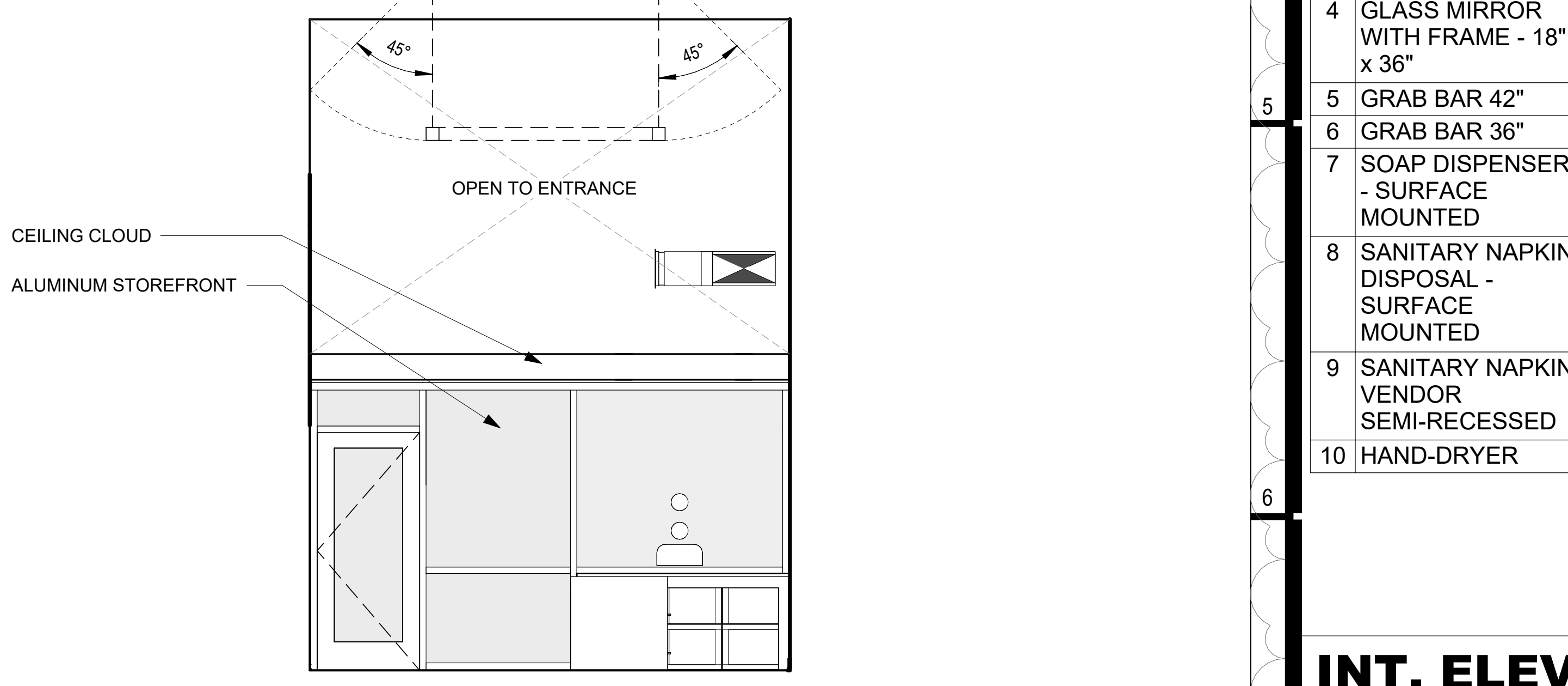
SOUTH - ENTRANCE **K7**

1/4" = 1'-0"



NORTH - RECEPTION **E7**

1/4" = 1'-0"



SOUTH - RECEPTION **A7**

1/4" = 1'-0"

INT. ELEVATION LEGEND

CASEWORK TAG:

CASEWORK NOTES:

1. PROVIDE LOCKS FOR CABINET DRAWNERS AND DOORS, TYP.
2. REFER TO MANUAL OF MILLWORK BY WOODWORK INSTITUTE OF CALIFORNIA FOR WIC DESIGNATION.
3. FOR CASEWORK SEE A801

LICENSED ARCHITECT
M. MATZKIN
NO. C-27962
STATE OF CALIFORNIA

ELEVATION LEGEND

▯	SOAP DISPENSER
✉	PAPER TOWEL DISPENSER

ACCESSORIES...

#	DESCRIPTION	MODEL	BASIS OF DESIGN
1	PAPER TOWEL DISPENSER - SURFACE MOUNTED	B-262	BOBRICK
2	TOILET TISSUE DISPENSER - RECESSED	B-4388	BOBRICK
3	TOILET SEAT COVER DISPENSER	B-5221	BOBRICK
4	GLASS MIRROR WITH FRAME - 18" x 36"	B-2908	BOBRICK
5	GRAB BAR 42"	B-6806	BOBRICK
6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

INT. ELEV. NOTES

1. FOR LIGHT FIXTURE BRACE WIRE ATTACHMENT, SEE DETAIL G6, SHEET A841.

△1

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

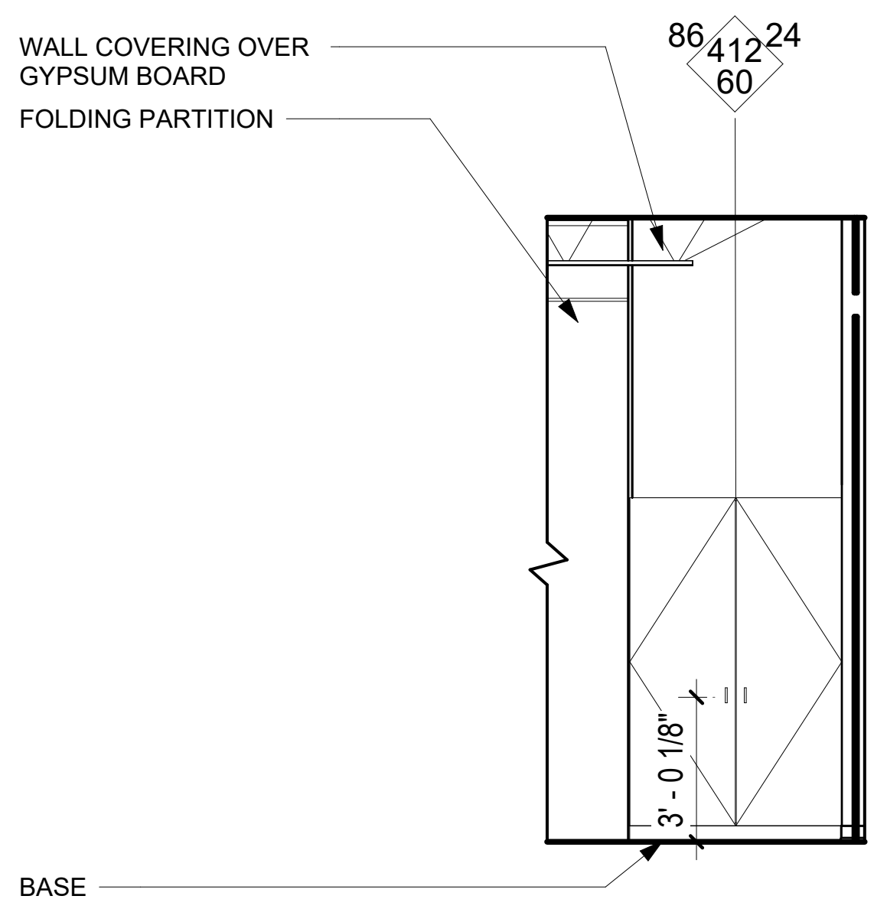
JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
△1 ADD 1	08/28/2026
△	
△	
△	
△	

INTERIOR ELEVATIONS - BLDG A

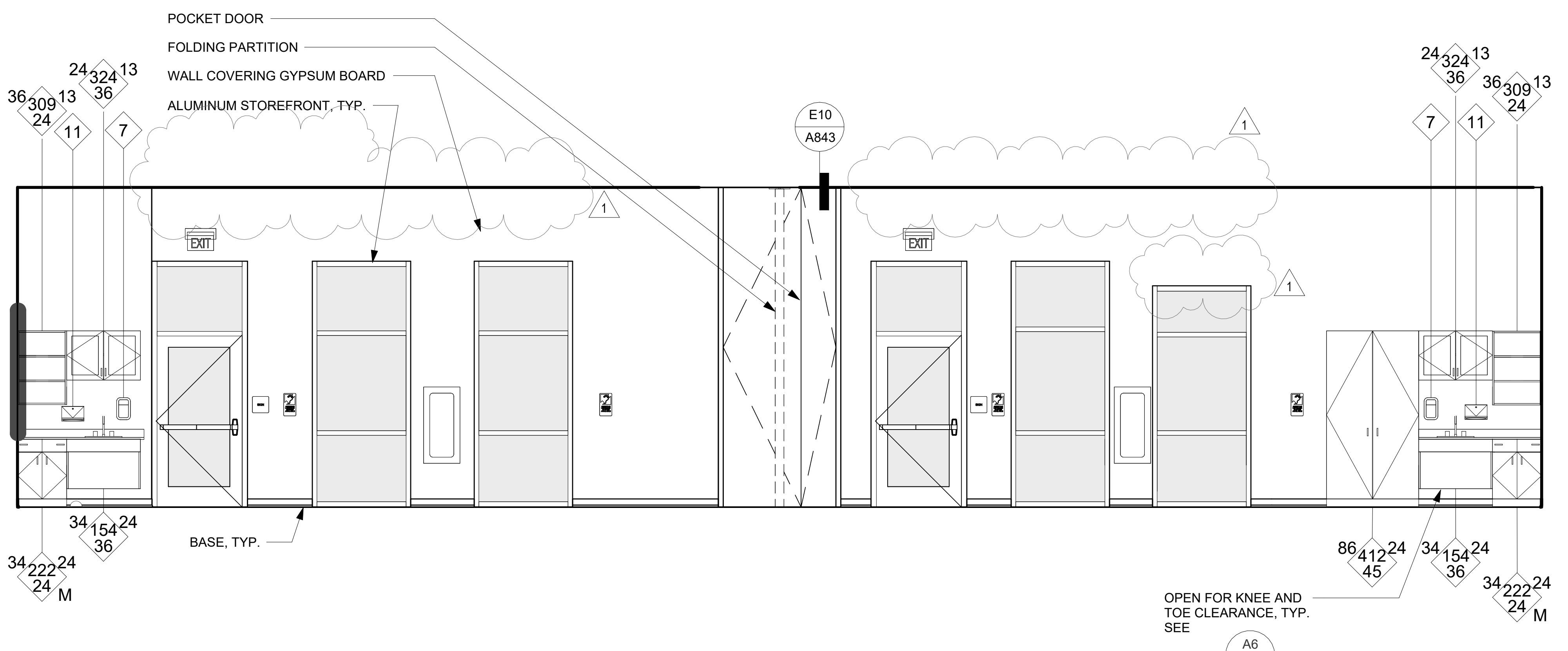
PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

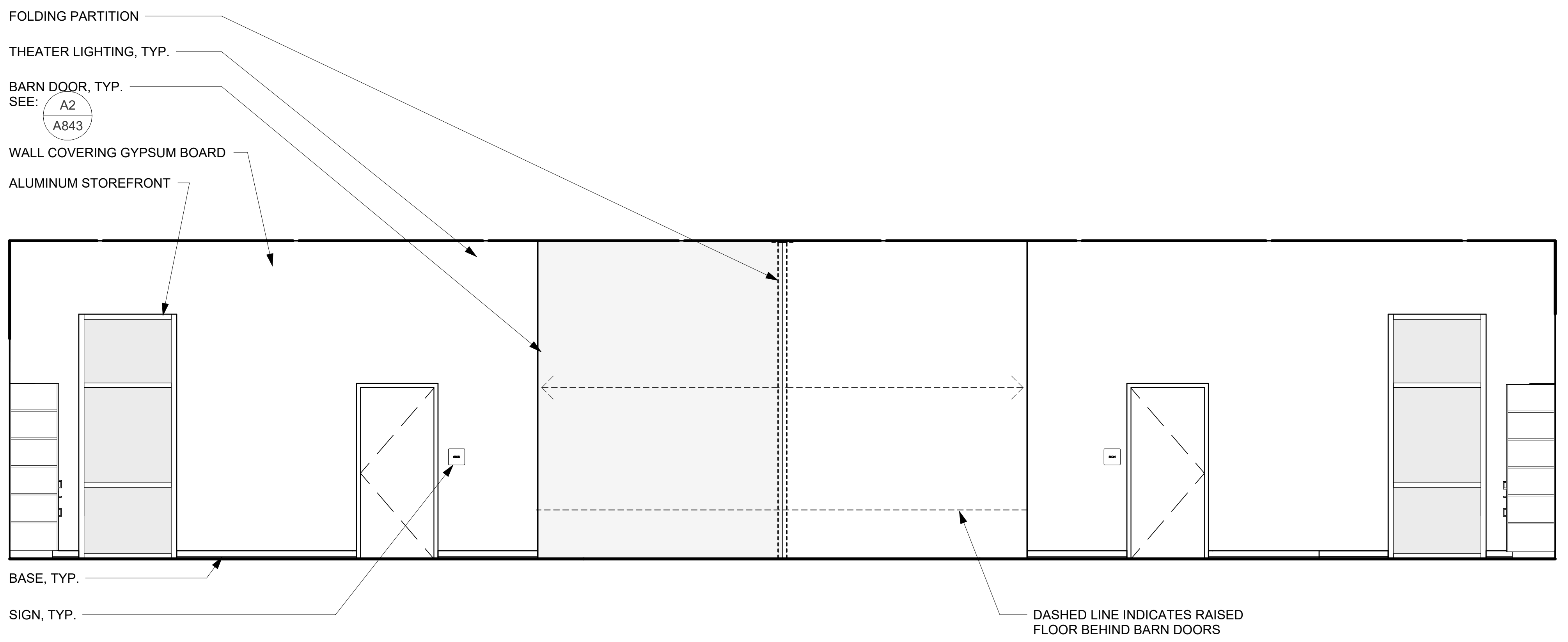
A403



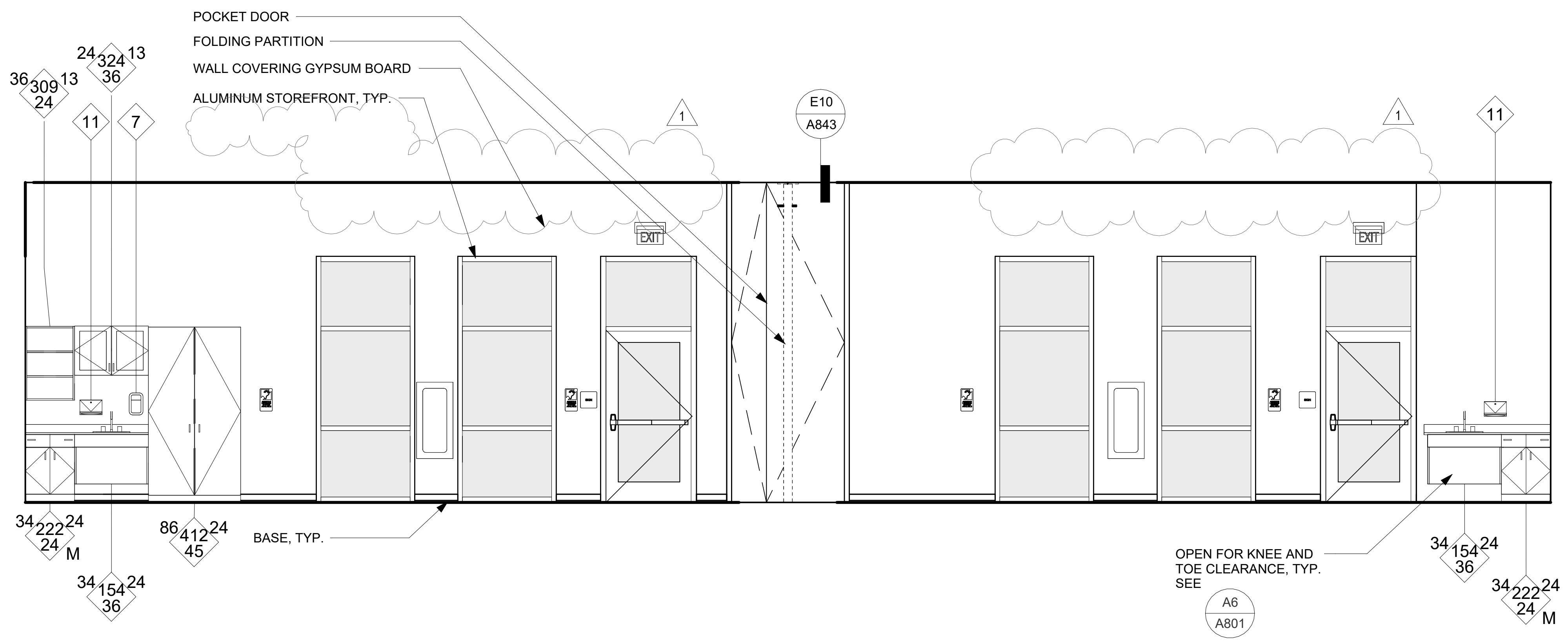
CLASSROOM TYPE B - SOUTH **A3**
1/4" = 1'-0"



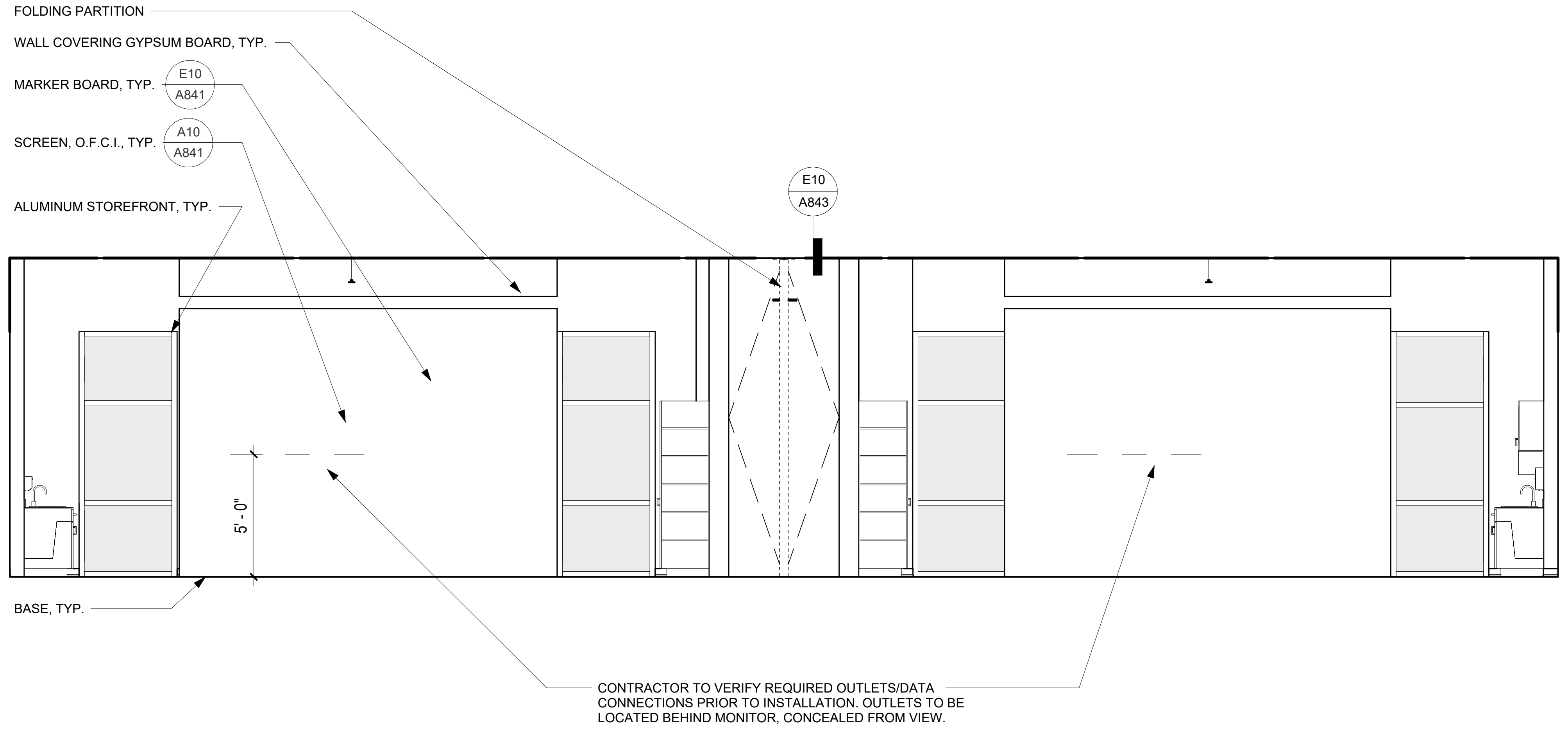
BUILDING B - NORTH **G6**
1/4" = 1'-0"


FOLDING PARTITION
THEATER LIGHTING, TYP.
BARN DOOR, TYP. SEE: A2 A843
WALL COVERING GYPSUM BOARD
ALUMINUM STOREFRONT
BASE, TYP.
SIGN, TYP.
DASHED LINE INDICATES RAISED FLOOR BEHIND BARN DOORS

BUILDING B - EAST **A6**
1/4" = 1'-0"



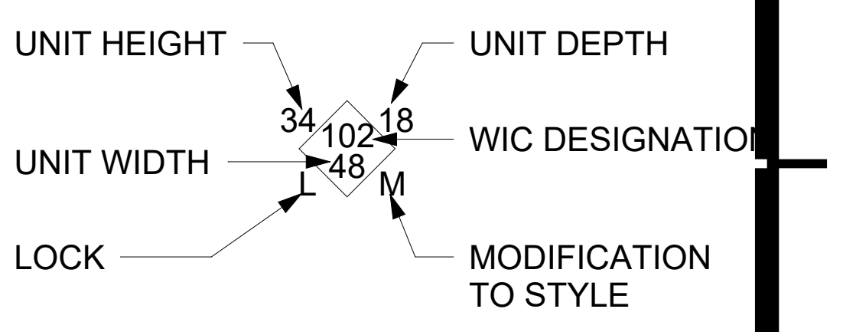
BUILDING B - SOUTH **G10**
1/4" = 1'-0"


FOLDING PARTITION
WALL COVERING GYPSUM BOARD, TYP.
MARKER BOARD, TYP. E10 A841
SCREEN, O.F.C.I., TYP. A10 A841
ALUMINUM STOREFRONT, TYP.
E10 A843
5' - 0"
BASE, TYP.
CONTRACTOR TO VERIFY REQUIRED OUTLETS/DATA CONNECTIONS PRIOR TO INSTALLATION. OUTLETS TO BE LOCATED BEHIND MONITOR, CONCEALED FROM VIEW.

BUILDING B - WEST **A10**
1/4" = 1'-0"

INT. ELEVATION LEGEND

CASEWORK TAG:



CASEWORK NOTES:

1. PROVIDE LOCKS FOR CABINET DRAWNERS AND DOORS, TYP.
2. REFER TO MANUAL OF MILLWORK BY WOODWORK INSTITUTE OF CALIFORNIA FOR WIC DESIGNATION.
3. FOR CASEWORK SEE A801

LICENSED ARCHITECT
DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 2027
STATE OF CALIFORNIA

ELEVATION LEGEND

▯	SOAP DISPENSER
✉	PAPER TOWEL DISPENSER

ACCESSORIES...

#	DESCRIPTION	MODEL	BASIS OF DESIGN
1	PAPER TOWEL DISPENSER - SURFACE MOUNTED	B-262	BOBRICK
2	TOILET TISSUE DISPENSER - RECESSED	B-4388	BOBRICK
3	TOILET SEAT COVER DISPENSER	B-5221	BOBRICK
4	GLASS MIRROR WITH FRAME - 18" x 36"	B-2908	BOBRICK
5	GRAB BAR 42"	B-6806	BOBRICK
6	GRAB BAR 36"	B-6806	BOBRICK
7	SOAP DISPENSER - SURFACE MOUNTED	B-2111	BOBRICK
8	SANITARY NAPKIN DISPOSAL - SURFACE MOUNTED	B-270	BOBRICK
9	SANITARY NAPKIN VENDOR SEMI-RECESSED	B-2706	BOBRICK
10	HAND-DRYER	B750	BOBRICK

GATEWAY ANNEX SCHOOL

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550 Airport Way, Camarillo, CA 93010

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SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026
△	
△	
△	
△	

INTERIOR ELEVATIONS - BLDG B

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A404

FINISH SCHEDULE

ROOM #	ROOM NAME	FLOORING		WALL FINISH				CEILING	REMARKS
		FIELD	BASE	NORTH	SOUTH	EAST	WEST		
A101	CLASSROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A102	CLASSROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A103	CLASSROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A110	ELECTRICAL	SC	RB	PT-1	PT-1	PT-1	PT-1	GWB	
A111	CUSTODIAL STORAGE	SC	RB	PT-1	PT-1	PT-1	PT-1	GWB	
A112.2	STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
A112.3	ACCESSIBLE STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
A112.3	STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
A113	FOOD SERVICE	QT	RB	FRP	FRP	FRP	FRP	ACT-2	
A114	LACTATION SPACE	VCT	RB	PT-1	PT-1	PT-1	PT-1	PLASTER	
A115	PRINCIPAL	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A116	INCENTIVE ROOM	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A117	STAFF WORK ROOM	VCT	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A117.1	STORAGE	VCT	RB	PT-1	PT-1	PT-1	PT-1	PLASTER	
A118	RECEPTION/ CLERICAL	CP	RB	PT-1	PT-1	PT-1	PT-1	PG	
A119	PUBLIC RR	FT	CB	TILE	TILE	TILE	TILE	PLASTER	
A120	NURSE	VCT	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A121	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A122	RESTROOM	FT	CB	TILE	TILE	TILE	TILE	PLASTER	
A123	RESTROOM	FT	CB	TILE	TILE	TILE	TILE	PLASTER	
A124	CONFERENCE ROOM	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A125	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A126	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A127	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A128	STAFF LOUNGE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A128.1	CUSTODIAL STORAGE	VCT	RB	PT-1	PT-1	PT-1	PT-1	GWB	
A128.2	MDF	SC	RB	PT-1	PT-1	PT-1	PT-1	GWB	
A129	OFFICE	CP	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
A130	ALL GENDER RESTROOM	SC	RB	PT-1	TILE	PT-1	PT-1	PLASTER	
A133	WELCOME CENTER	VCT-1	RB	KALWALL	PT-1	PT-1	PT-1	PG	
A133.1	CHANGING ROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	PLASTER	
A135	COMMONS	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	PLASTER	
A209	ADMIN LOBBY	VCT-1	RB	PT-1	KALWALL	PT-1	PT-1	PG	
B105	CLASSROOM	VCT-1	RB	PT-1	FOLDING PARTITION	PT-1	FOLDING PARTITION	ACT-1	
B106	CLASSROOM	VCT-1	RB	PT-1	FOLDING PARTITION	FOLDING PARTITION	PT-1	ACT-1	
B107	CLASSROOM	VCT-1	RB	FOLDING PARTITION	PT-1	FOLDING PARTITION	PT-1	ACT-1	
B108	CLASSROOM	VCT-1	RB	FOLDING PARTITION	PT-1	PT-1	FOLDING PARTITION	ACT-1	
B109	PLATFORM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	
B131	IDF CLOSET	SC	RB	PT-1	PT-1	PT-1	PT-1	GWB	
B132	ALL GENDER RESTROOM	SC	RB	PT-1	PT-1	PT-1	TILE	PLASTER	
B132.1	STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
B132.2	STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
B132.3	ACCESSIBLE STALL	SC	CB	TILE	TILE	TILE	TILE	GWB	
C104	CLASSROOM	VCT-1	RB	PT-1	PT-1	PT-1	PT-1	ACT-1	

Grand total: 44

FINISH LEGEND

CB	COVED BASE TILE
CP	CARPET
FT	FLOOR TILE
WT	WALL TILE
SC	SEALED CONCRETE
PG	PAINT GLOSS
PSG	PAINT SEMI-GLOSS
RB	RESILIENT BASE
VCT	VINYL COMPISITION TILE
FRP	FIBERGLASS REINFORCED PLASTIC
QT	QUARRY TILE
ACT-1	ACOUSTIC CEILING TILE
ACT-2	ACOUSTIC CEILING TILE

LICENSED ARCHITECT
DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 202
STATE OF CALIFORNIA

GENERAL NOTES

1. PROVIDE CORNERGUARDS AS SHOWN ON INTERIOR ELEVATIONS.
2. 8'-0" AFF. IMPACT RESISTANT GYPSUM BOARD SHALL BE PROVIDED FULL HEIGHT AT ROOF ACCESS LADDER AREAS AND LUMBER/PROJECT STORAGE.
3. PAINT EXPOSED STEEL, ALL VISIBLE SIDES, IN ROOMS WHERE OCCURS.
4. WHERE EXPOSED CEILINGS ARE SCHEDULED TO BE PAINTED, INCLUDE FRAMING, DECK, STRUCTURAL STEEL, CONDUIT, DUCTWORK, AND PIPING. ARCHITECT TO CHOOSE UP TO THREE (3) COLORS FOR EXPOSED CEILINGS.
5. WHERE ROOM FINISH SCHEDULE INDICATES TILE, USE CEMENTITIOUS BACKER BOARD SUBSTRATE IN LIEU OF GYPSUM BOARD.
6. EXTEND FINISHES BEHIND CASEWORK AND OTHER HIDDEN SURFACES.
7. ROOM FINISHES SHALL MEET CALIFORNIA BUILDING CODE CHAPTER 8 INTERIOR FINISHES TESTED IN ACCORDANCE WITH NFPA 286 AND CLASSIFIED IN ACCORDANCE WITH ASTM E84 OR UL 723.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

INTERIOR FINISH SCHEDULE

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A602

WINDOW SCHEDULE								
	SIZE		FRAME MATERIAL		DETAILS			
TYPE	WIDTH	HEIGHT		LABEL	HEAD	JAMB	SILL	REMARKS
1	4' - 0"	4' - 2"	AL		L6/A731	L4/A731	L8/A731	
2	8' - 0"	4' - 2"	AL		L6/A731	L4/A731	L8/A731	

EXTERIOR WALL SCHEDULE

TYPE	WIDTH	FRAMING WIDTH	FIRE RATING	COMMENTS
EW6.0	9 1/2"	5 1/2"	NONE	
EW6.1	9 5/8"	5 1/2"	NONE	
EW6.2	7 1/2"	5 1/2"	NONE	
EW6.3	7 5/8"	5 1/2"	NONE	
EW6.4	10 1/2"	5 1/2"	NONE	
EW6.5	8 1/2"	5 1/2"	NONE	

EXTERIOR WALL SCHEDULE

TYPE	WIDTH	FRAMING WIDTH	FIRE RATING	COMMENTS
EW8.0	11 1/2"	5 1/2"	NONE	
EW8.1	11 5/8"	7 1/2"	NONE	

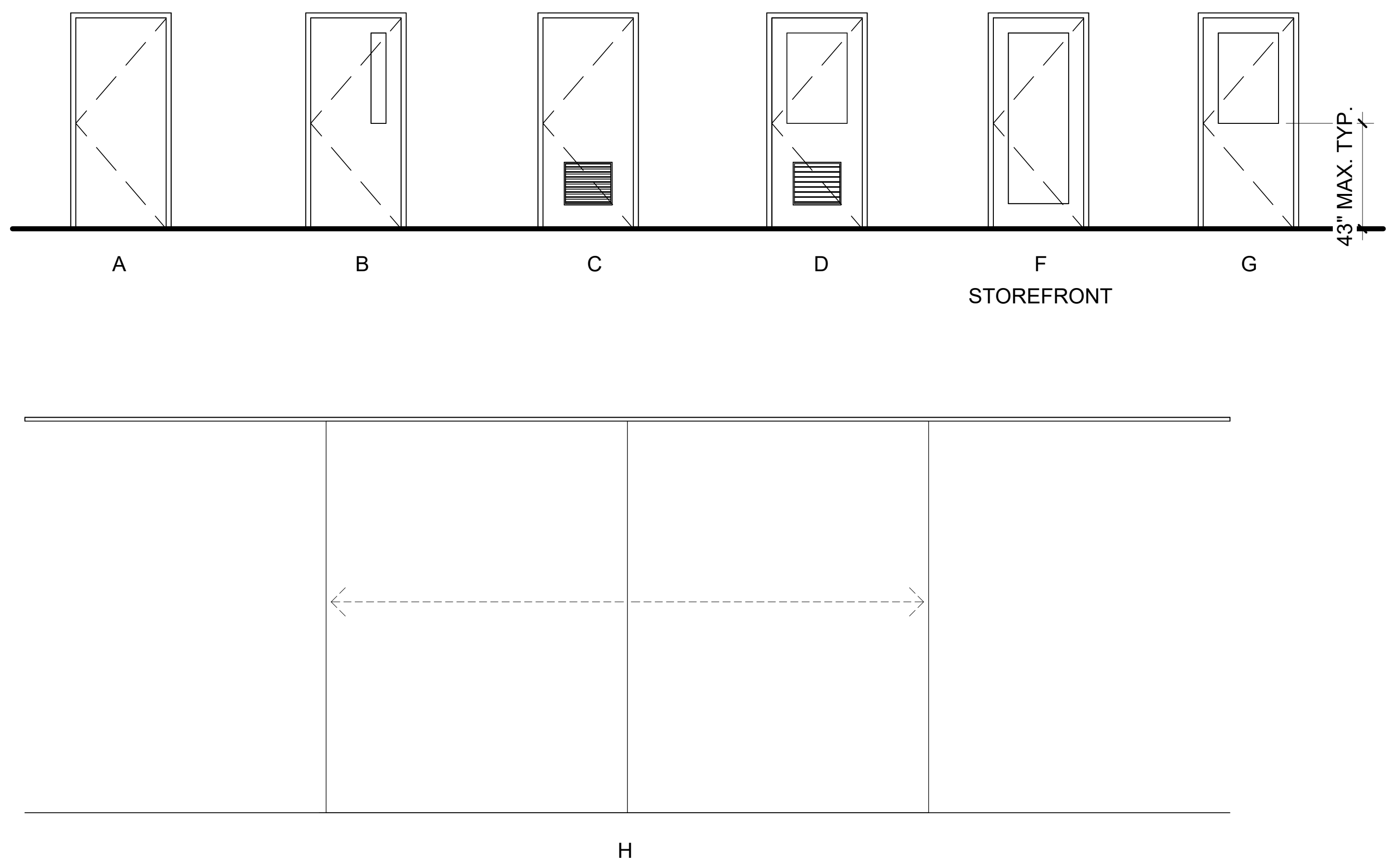
1

GATE SCHEDULE

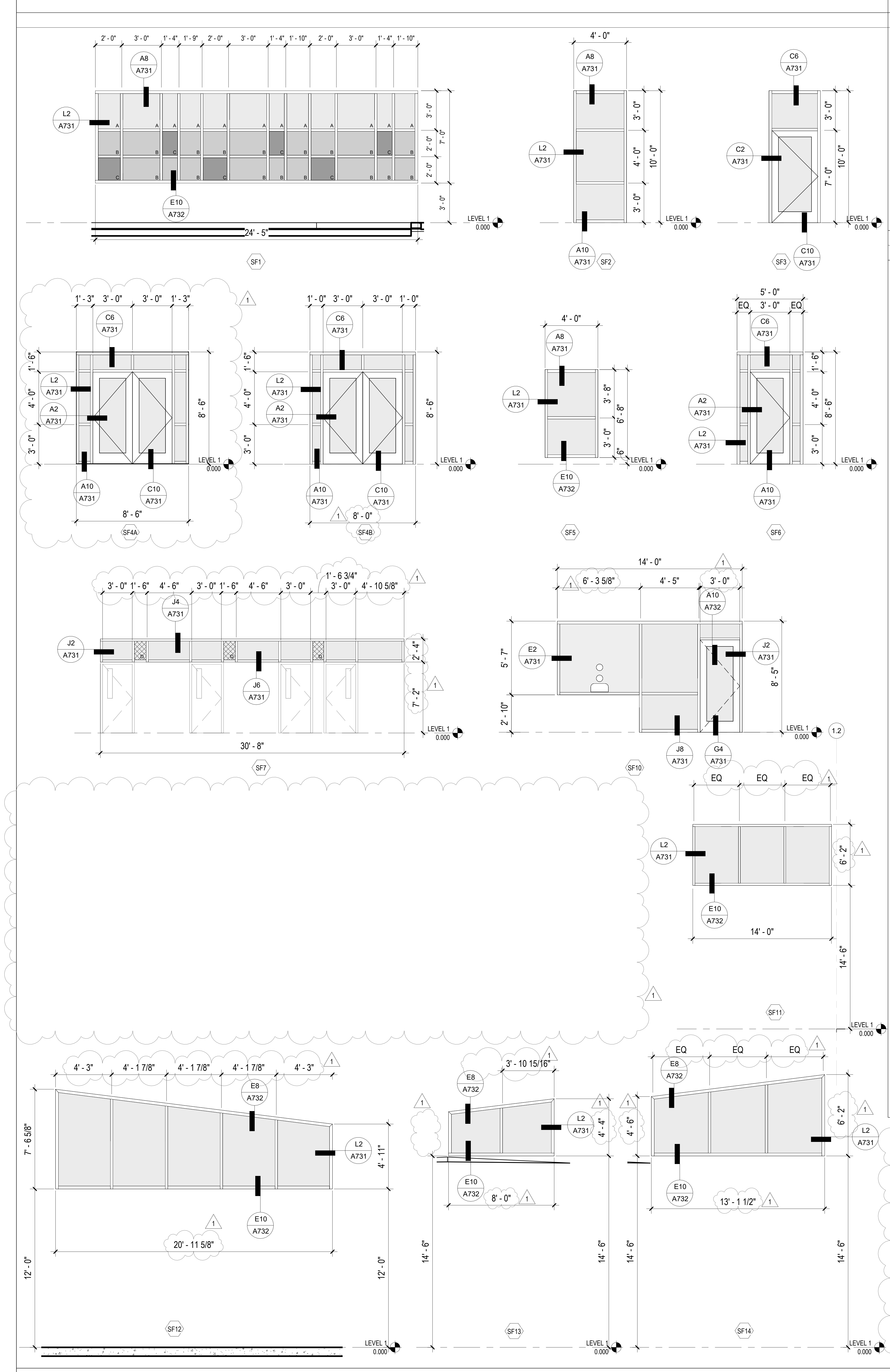
			DOOR					FRAME			
			SIZE					DETAILS (A011, A012)			
GATE	DOOR #	Hardware Set	WIDTH	HEIGHT	MATERIAL	FINSH	PH	GATE	HINGE	LATCH	COMMENTS
GATE	1	SET 1A	4' - 0"	6' - 0"			PH	A10/A013	C7/A013	G7/A013	KNOX BOX
GATE	2	see E4/A011	5' - 5"	6' - 6"				E6/A011	J6/A011	E4/A011	
GATE	3	see E4/A011	5' - 5"	6' - 6"				E6/A011	J6/A011	E4/A011	
GATE	4	see E4/A011	4' - 0"	6' - 0"				A6/A011	J6/A011	E4/A011	
GATE	5	see A4/A012, G4/A012	20' - 0"	6' - 0"				A10/A012	G2/A012	G4/A012	KNOX BOX, PADLOCK OFCI
GATE	6	SET 1B	3' - 0"	7' - 0" 1				L10/A013	L7/A013	J7/A013	
GATE	7	SET 1C	3' - 0"	6' - 0"				A3/A013	L7/A013	E5/A013	
GATE	9	see A4/A012	3' - 0"	6' - 0"				A7/A012	G2/A012	G4/A012	KNOX BOX, PADLOCK OFCI
GATE	10	see A4/A012	3' - 0"	6' - 0"				A7/A012	G2/A012	G4/A012	KNOX BOX, PADLOCK OFCI

DOOR SCHEDULE

			DOOR							FRAME					
			SIZE									DETAILS (A731)			
ROOM #	DOOR #	Hardware Set	WIDTH	HEIGHT	TYPE	MATERIAL	FINSH	RATING LABEL	PH	MATERIAL	FINISH	HEAD	JAMB	THRESH OLD	COMMENTS
A100	1	A582R.1	6' - 0"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
A100	2	A585R.1	6' - 0"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
A101	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
A102	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
A103	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
A104	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
A110	1	453.1	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A111	1	455.1	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A112.1	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
A112.2	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
A112.3	1	405	3' - 0"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
A113	1	442.2	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A113	2	442.2	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A114	1	443.1	3' - 0"	7' - 0"	C	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A115	1	030	3' - 0"	7' - 0"	G	HM	P-1			HM	P-1	L10/A731	J10/A731	G6/A731	
A115	2	442.1	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A116	1	443.1	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A117	1	443.1	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A117.1	1	040	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G2/A731	
A118	1	A032.7	3' - 0"	7' - 0"	F	AL	A-1			AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
A119	1	020	3' - 0"	7' - 0"	A	HM				HM	P-1	L10/A731	J10/A731	G10/A731	
A120	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A121	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A122	1	020	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G10/A731	
A123	1	020	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G10/A731	
A124	1	012	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A125	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A126	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A127	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A128	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A128	2	443.1	3' - 0"	7' - 0"	G	HM	P-1			HM	P-1	E8/A731	C2/A731	E10/A731	
A128.1	1	040	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A128.2	1	040	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A129	1	030	3' - 0"	7' - 0"	B	HM	P-1			HM	P-1	L10/A731	J10/A731	G4/A731	
A133.1	1	020	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G2/A731	
A135	1	A482.1	3' - 0"	7' - 0"	F	AL	A-1			AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
A135	2	A482.1	3' - 0"	7' - 0"	F	AL	A-1			AL	A-1	C6/A731	A2/A731	C10/A731	STOREFRONT
B105	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
B106	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
B107	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
B108	1	A482.5	3' - 6"	7' - 0"	F	AL	A-1		PH	AL	A-1	C6/A731	C2/A731	C10/A731	STOREFRONT
B109	1	044	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G2/A731	
B109	2	044	3' - 0"	7' - 0"	A	HM	P-1			HM	P-1	L10/A731	J10/A731	G2/A731	
B109	3	-	20' - 0"	13' - 0" 1			P-1				P-1	A4/A843	-	A4/A843	BARN DOOR
B131	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
B132.1	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
B132.2	1	405	2' - 6"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	
B132.3	1	405	3' - 0"	7' - 0"	C	HM	P-1			HM	P-1	L10/A731	J10/A731	G8/A731	



DOOR SCHEDULE 1/4" = 1'-0"



STOREFRONT TYPES G10 1/4" = 1'-0"

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DOOR SCHEDULE NOTES

GENERAL NOTES:

1. PROVIDE FIRE RESISTIVE GLAZING WHERE FIRE RATING IS REQUIRED. ALL FIRE RATED GLASS WILL HAVE MAX. AREA OF 100 SQUARE INCHES.
2. MAXIMUM EFFORT TO OPERATE EXTERIOR DOORS IS 5 LBS.
3. ADJUST OPENING FORCE OF THE DOOR TO 5 LB.
4. DOOR LOCATIONS & CLEARANCES - SEE: A8/A521 SYMBOL G002
5. DOOR FINISH TO BE SEMI-GLOSS
6. OPERATBLE FLOOR HARDWARE PARTS SHALL BE POSITIONED AT MINIMUM OF 34" AND MAXIMUM OF 44" ABOVE THE FINISH FLOOR OR GROUND

DIEGO M. MATZKIN
NO. C-27962

DOOR SCHEDULE LEGEND

MATERIAL

HM	HOLLOW METAL
AL	ALUMINUM
SS	STAINLESS STEEL
MTL	METAL
CL	CHAINLINK
SCW	SOLID CORE WOOD
FR	FIRE RESIST. GLAZING
T	TEMPERED GLAZING

FINISH

P-1	PAINT (SEMI-GLOSS)
PC-1	POWER-COATED
A-1	CLEAR AC-2

STOREFRONT LEGEND

A	NO FILM
B	FASARA - MILKY MILKY LIGHT GREY 2H2MAMML
C	FASARA - CROSS HAIRLINE MILKY SH2CHML

STOREFRONT WINDOW NOTES

1. DIMENSION FOR STOREFRONT WINDOWS ARE MEASURED FROM EDGE OF ROUGH OPENING TO CENTER OF MUSSION, TYP.

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

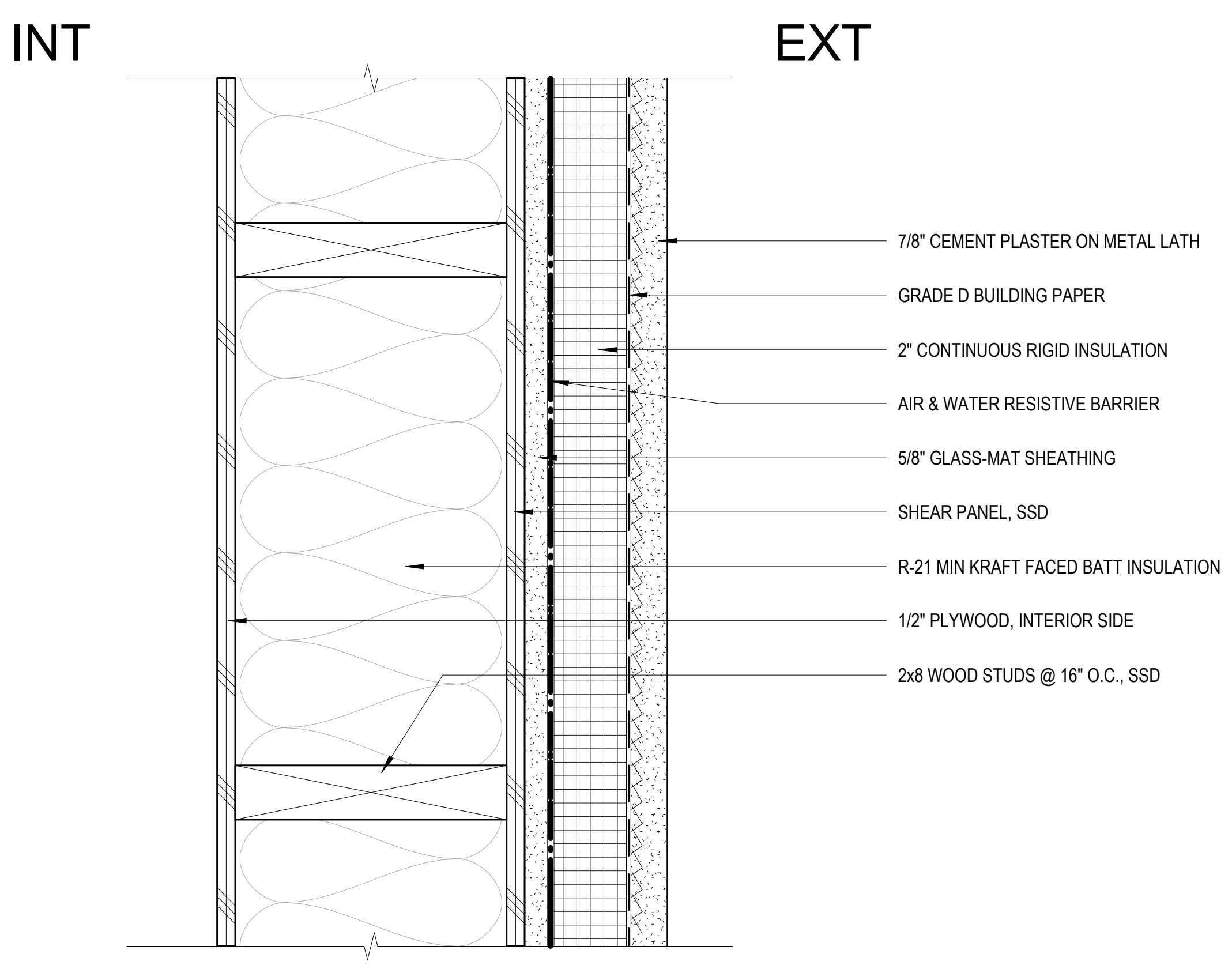
SCHEDULES

PERKINS — EASTMAN

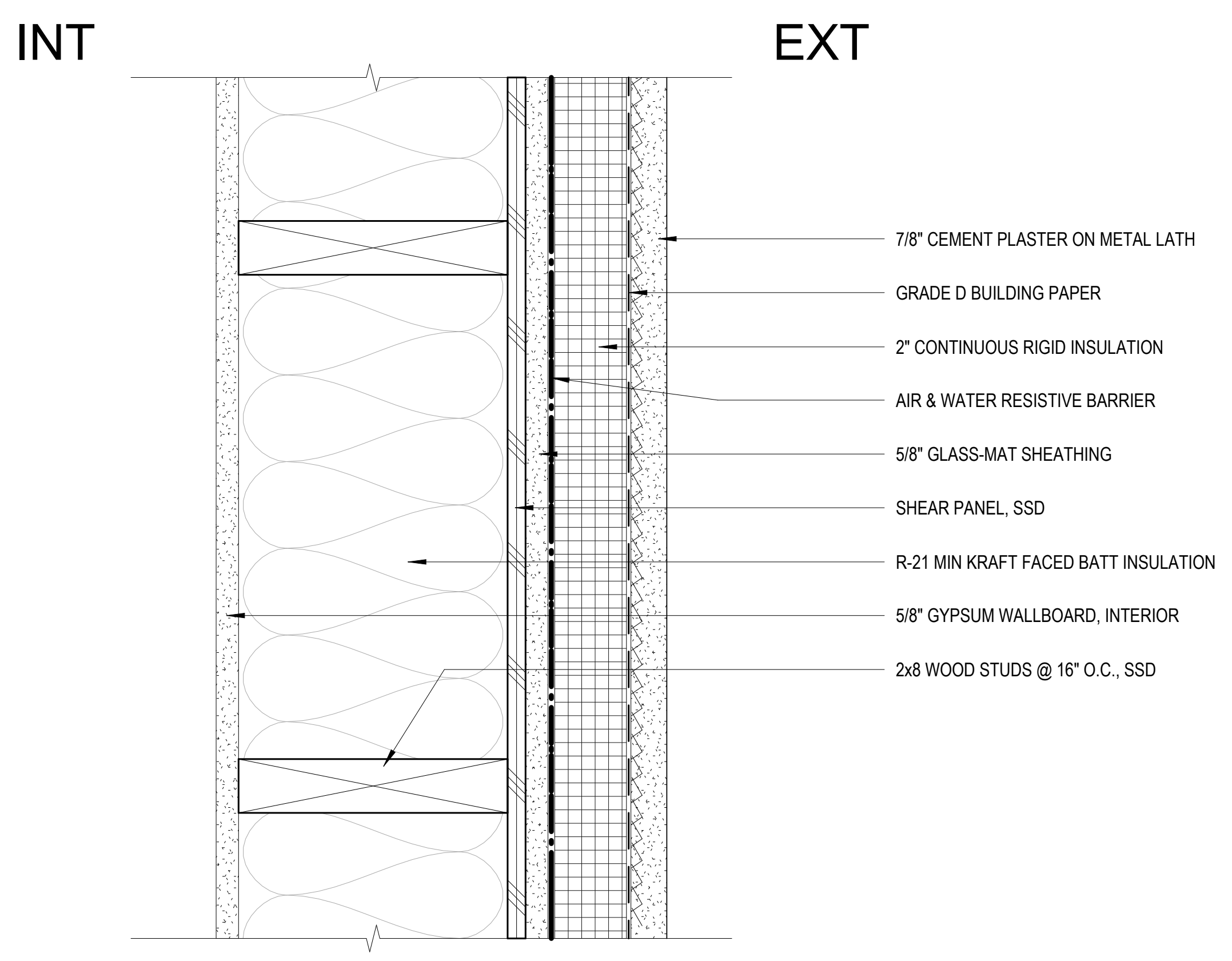
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A701

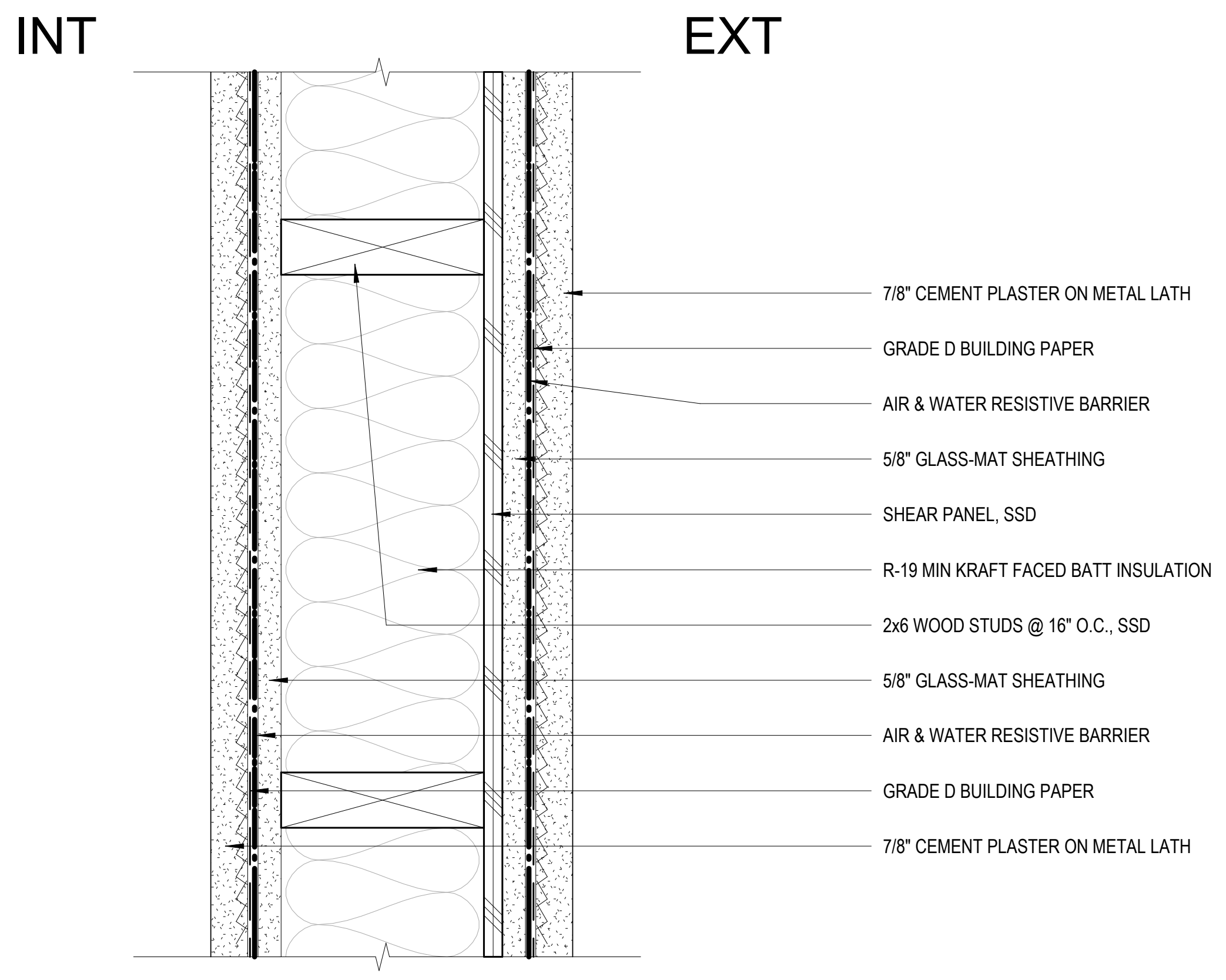
EW8.0: CEMENT PLASTER ASSEMBLY AT PARAPET


INT
EXT
7/8" CEMENT PLASTER ON METAL LATH
GRADE D BUILDING PAPER
2" CONTINUOUS RIGID INSULATION
AIR & WATER RESISTIVE BARRIER
5/8" GLASS-MAT SHEATHING
SHEAR PANEL, SSD
R-21 MIN KRAFT FACED BATT INSULATION
1/2" PLYWOOD, INTERIOR SIDE
2x8 WOOD STUDS @ 16" O.C., SSD

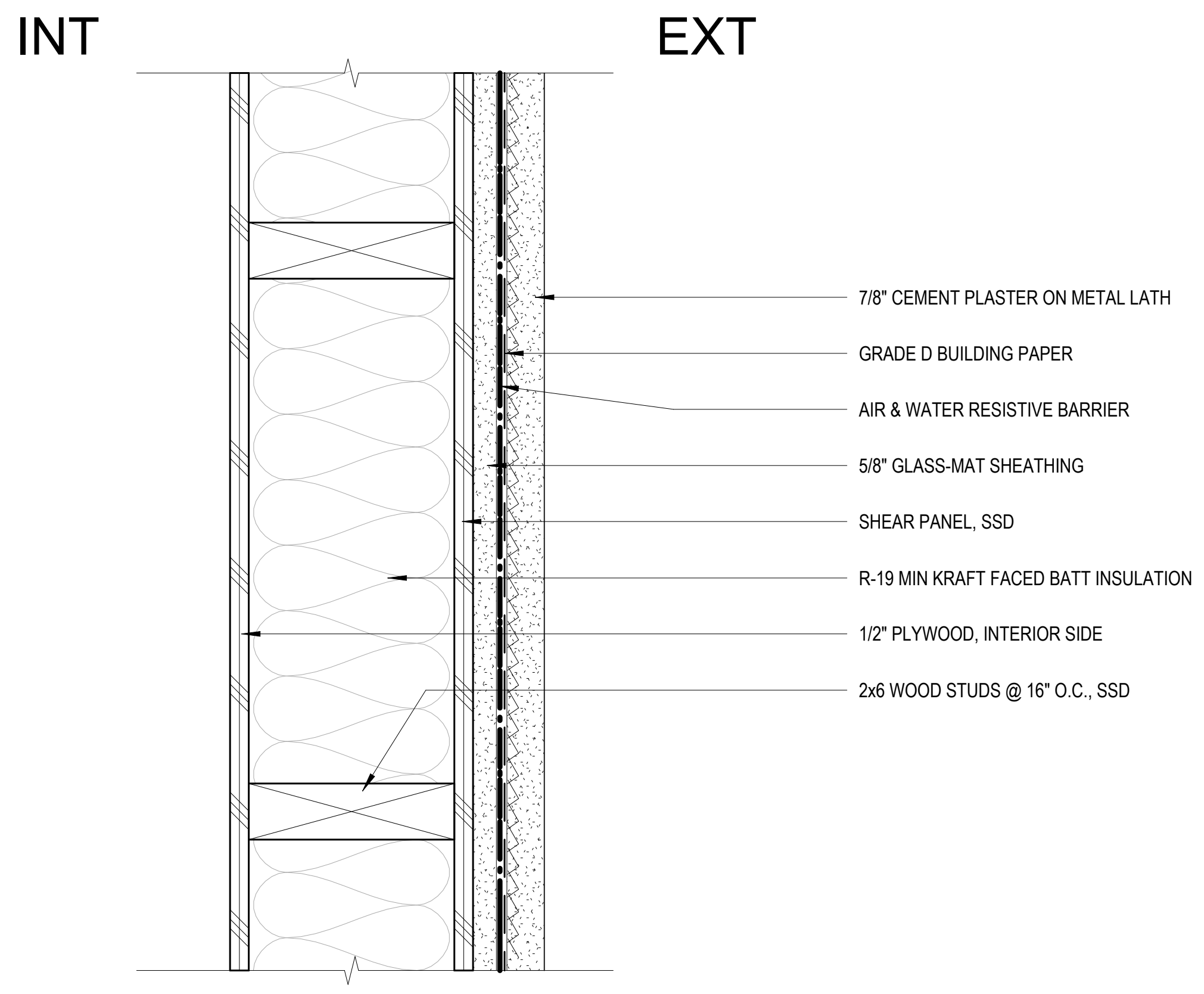
EW8.1: CEMENT PLASTER ASSEMBLY


INT
EXT
7/8" CEMENT PLASTER ON METAL LATH
GRADE D BUILDING PAPER
2" CONTINUOUS RIGID INSULATION
AIR & WATER RESISTIVE BARRIER
5/8" GLASS-MAT SHEATHING
SHEAR PANEL, SSD
R-21 MIN KRAFT FACED BATT INSULATION
5/8" GYPSUM WALLBOARD, INTERIOR
2x8 WOOD STUDS @ 16" O.C., SSD

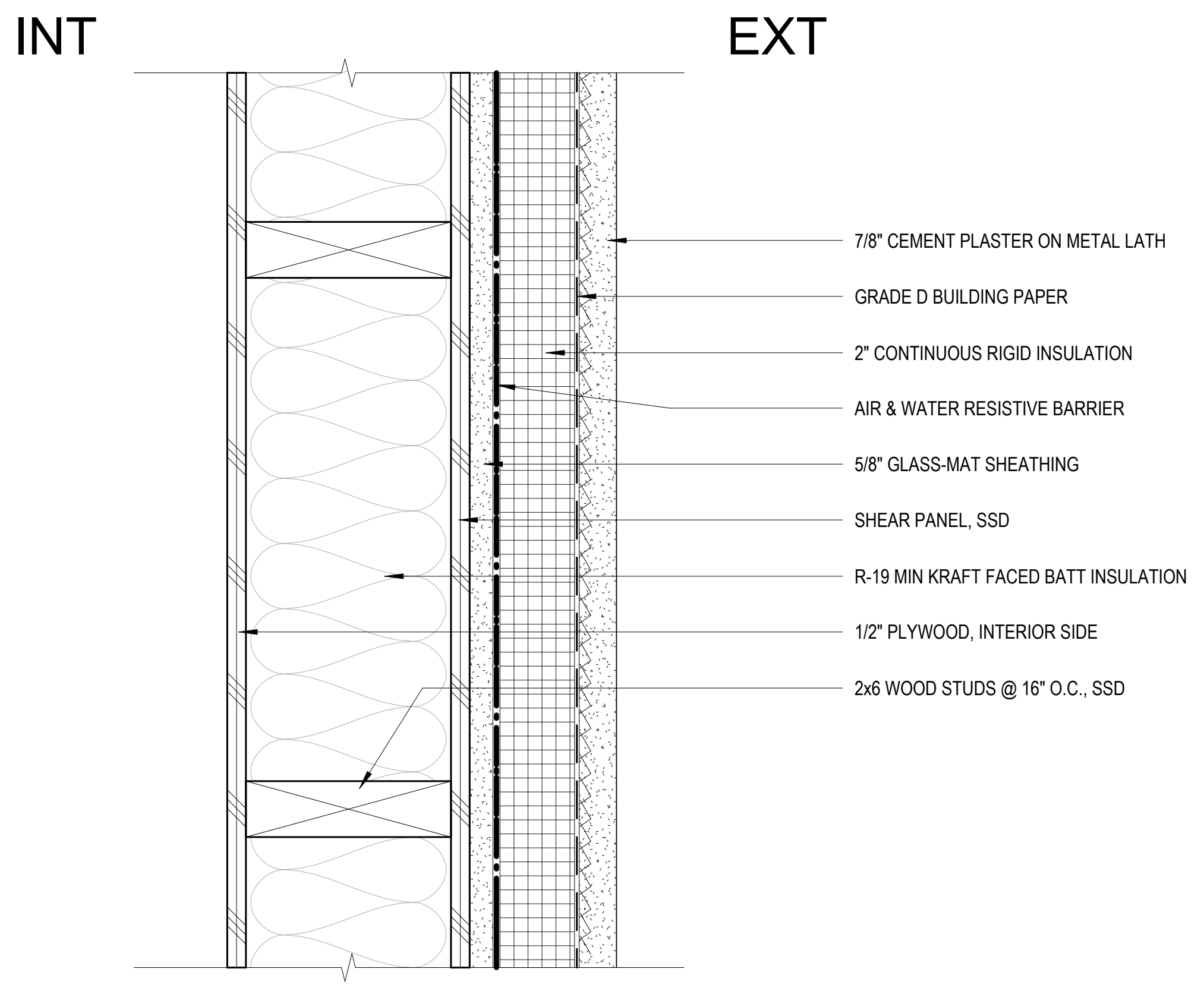
EW6.5: CEMENT PLASTER ASSEMBLY (BOTH SIDES)
(NO RIGID INS.)


INT
EXT
7/8" CEMENT PLASTER ON METAL LATH
GRADE D BUILDING PAPER
AIR & WATER RESISTIVE BARRIER
5/8" GLASS-MAT SHEATHING
SHEAR PANEL, SSD
R-19 MIN KRAFT FACED BATT INSULATION
2x6 WOOD STUDS @ 16" O.C., SSD
5/8" GLASS-MAT SHEATHING
AIR & WATER RESISTIVE BARRIER
GRADE D BUILDING PAPER
7/8" CEMENT PLASTER ON METAL LATH

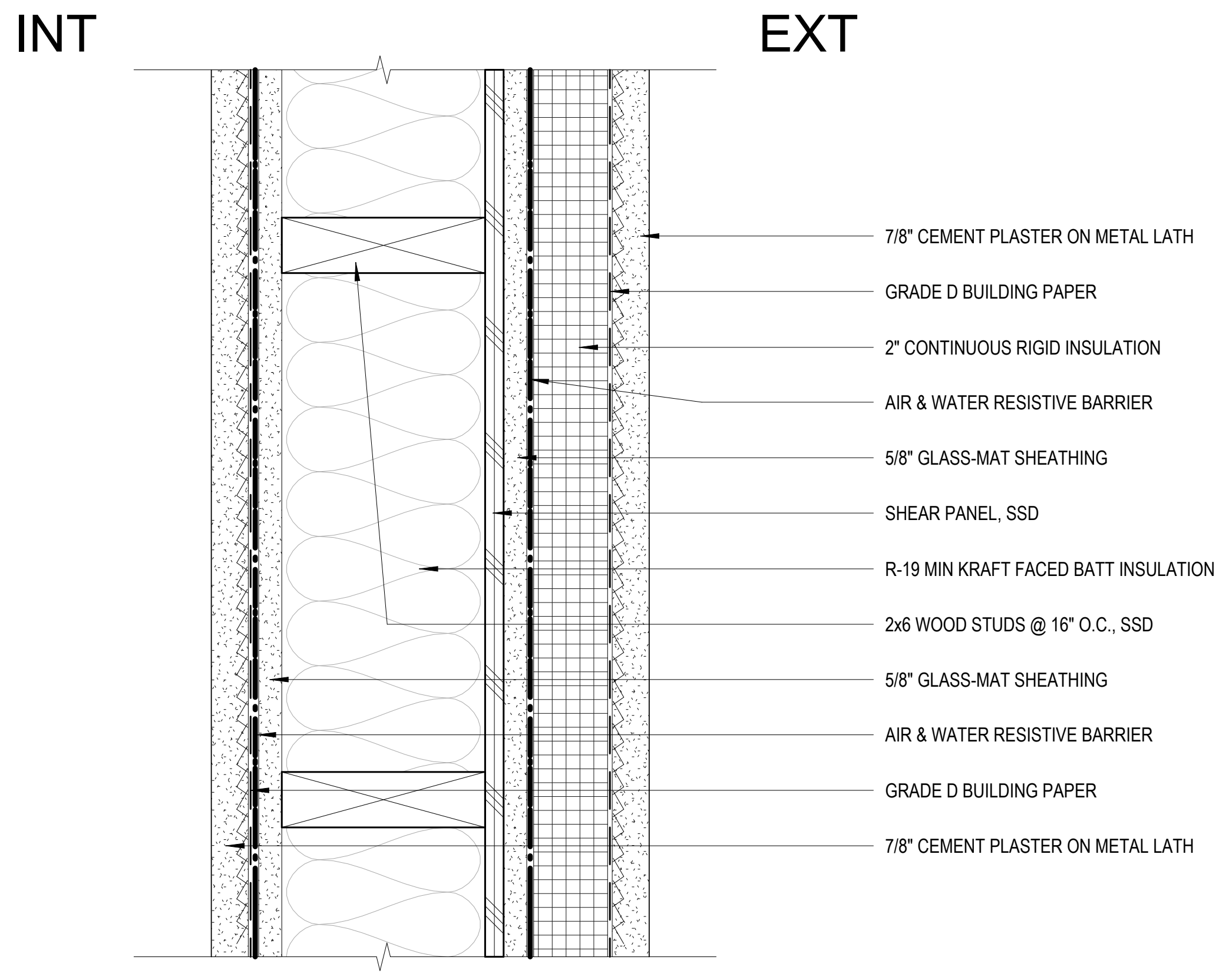
EW6.2: CEMENT PLASTER ASSEMBLY AT PARAPET
(NO RIGID INS.)


INT
EXT
7/8" CEMENT PLASTER ON METAL LATH
GRADE D BUILDING PAPER
AIR & WATER RESISTIVE BARRIER
5/8" GLASS-MAT SHEATHING
SHEAR PANEL, SSD
R-19 MIN KRAFT FACED BATT INSULATION
1/2" PLYWOOD, INTERIOR SIDE
2x6 WOOD STUDS @ 16" O.C., SSD

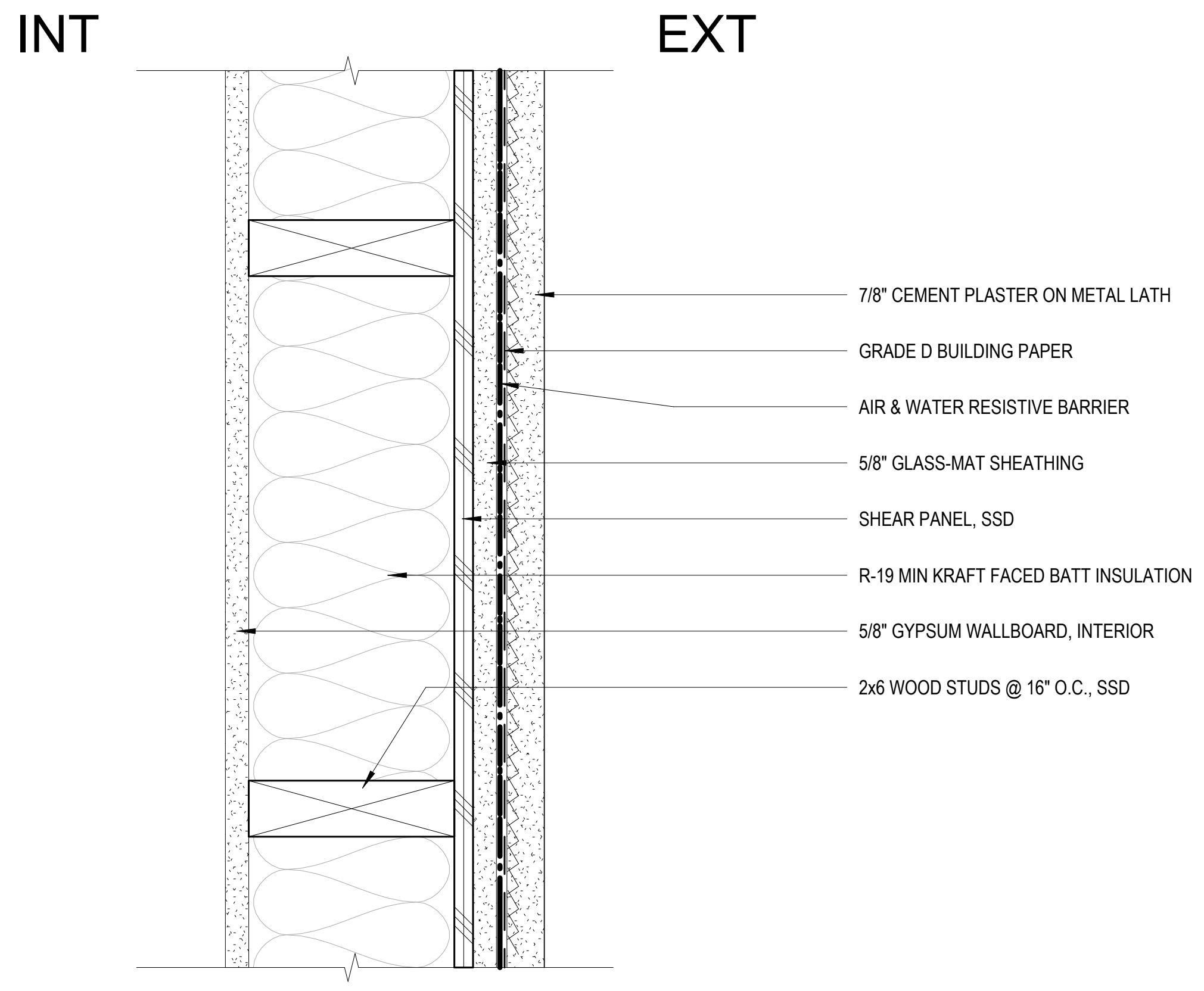
EW6.0: CEMENT PLASTER ASSEMBLY AT PARAPET


INT
EXT
7/8" CEMENT PLASTER ON METAL LATH
GRADE D BUILDING PAPER
2" CONTINUOUS RIGID INSULATION
AIR & WATER RESISTIVE BARRIER
5/8" GLASS-MAT SHEATHING
SHEAR PANEL, SSD
R-19 MIN KRAFT FACED BATT INSULATION
1/2" PLYWOOD, INTERIOR SIDE
2x6 WOOD STUDS @ 16" O.C., SSD

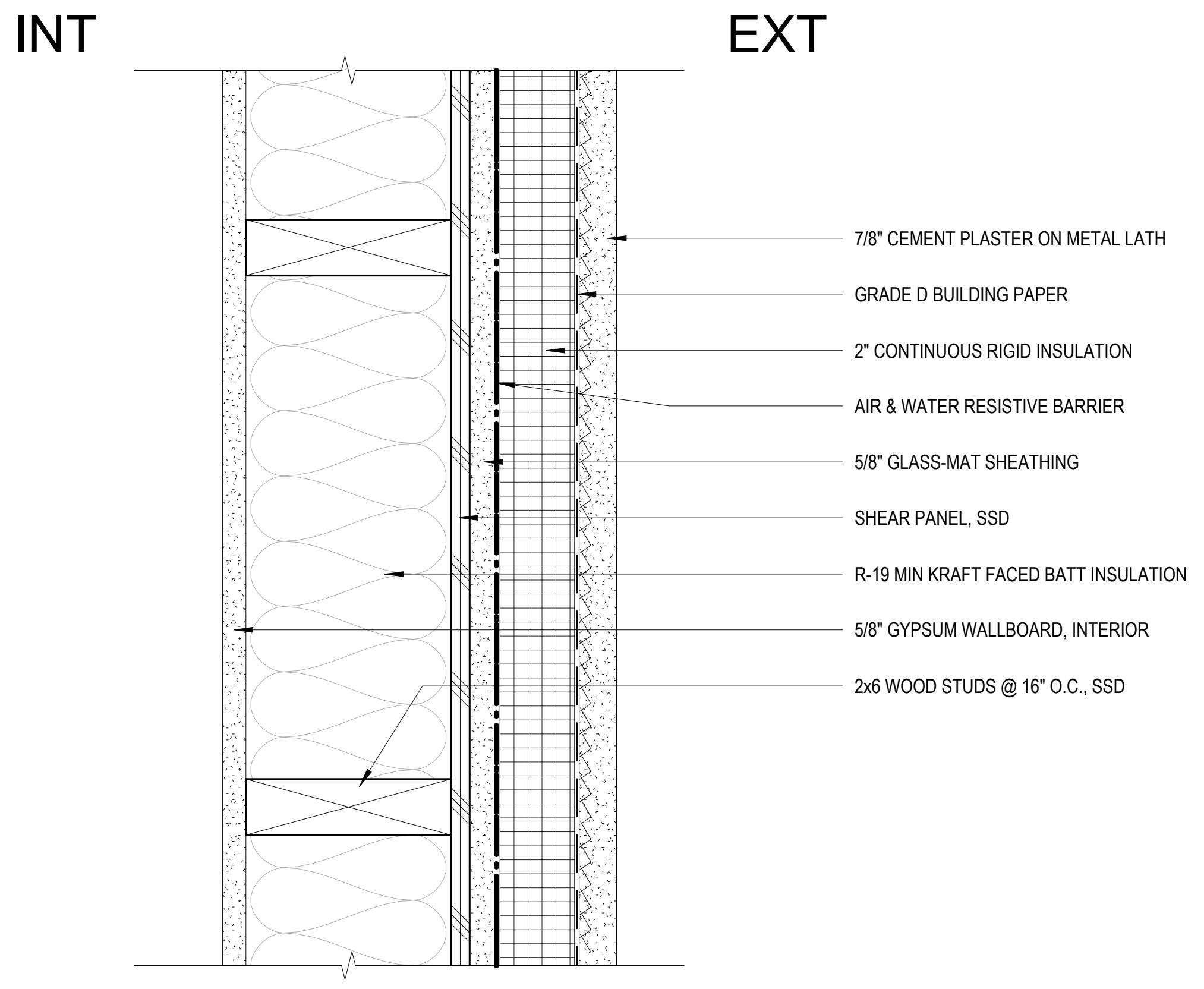
EW6.4: CEMENT PLASTER ASSEMBLY (BOTH SIDES)


INT
EXT
7/8" CEMENT PLASTER ON METAL LATH
GRADE D BUILDING PAPER
2" CONTINUOUS RIGID INSULATION
AIR & WATER RESISTIVE BARRIER
5/8" GLASS-MAT SHEATHING
SHEAR PANEL, SSD
R-19 MIN KRAFT FACED BATT INSULATION
2x6 WOOD STUDS @ 16" O.C., SSD
5/8" GLASS-MAT SHEATHING
AIR & WATER RESISTIVE BARRIER
GRADE D BUILDING PAPER
7/8" CEMENT PLASTER ON METAL LATH

EW6.3: CEMENT PLASTER ASSEMBLY
(NO RIGID INS.)


INT
EXT
7/8" CEMENT PLASTER ON METAL LATH
GRADE D BUILDING PAPER
AIR & WATER RESISTIVE BARRIER
5/8" GLASS-MAT SHEATHING
SHEAR PANEL, SSD
R-19 MIN KRAFT FACED BATT INSULATION
5/8" GYPSUM WALLBOARD, INTERIOR
2x6 WOOD STUDS @ 16" O.C., SSD

EW6.1: CEMENT PLASTER ASSEMBLY


INT
EXT
7/8" CEMENT PLASTER ON METAL LATH
GRADE D BUILDING PAPER
2" CONTINUOUS RIGID INSULATION
AIR & WATER RESISTIVE BARRIER
5/8" GLASS-MAT SHEATHING
SHEAR PANEL, SSD
R-19 MIN KRAFT FACED BATT INSULATION
5/8" GYPSUM WALLBOARD, INTERIOR
2x6 WOOD STUDS @ 16" O.C., SSD

DIEGO M. MATZKIN
NO. C-27962

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

TYPICAL ASSEMBLIES - EXTERIOR WALLS

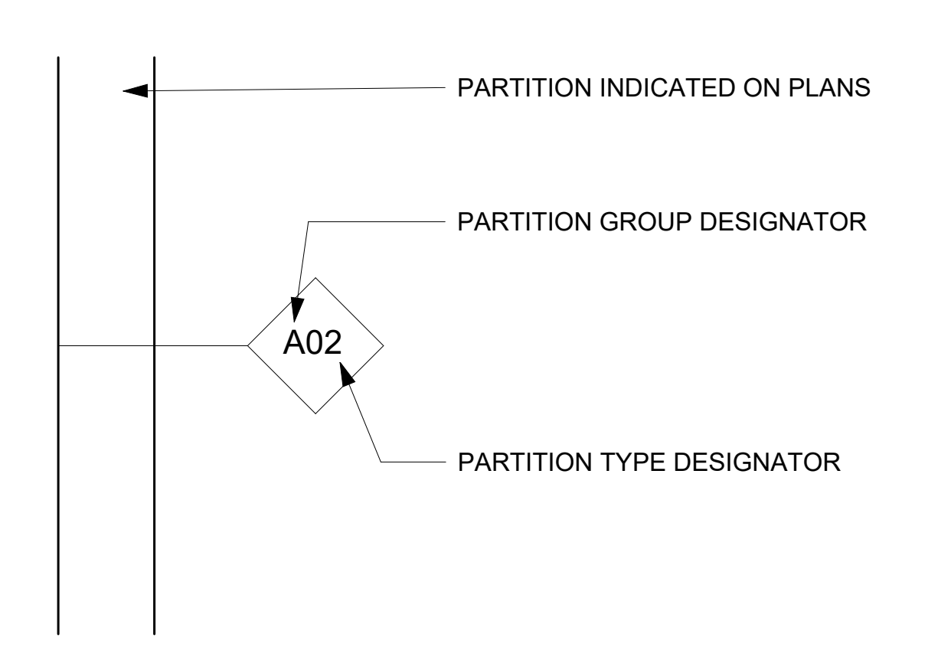
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

1

A702

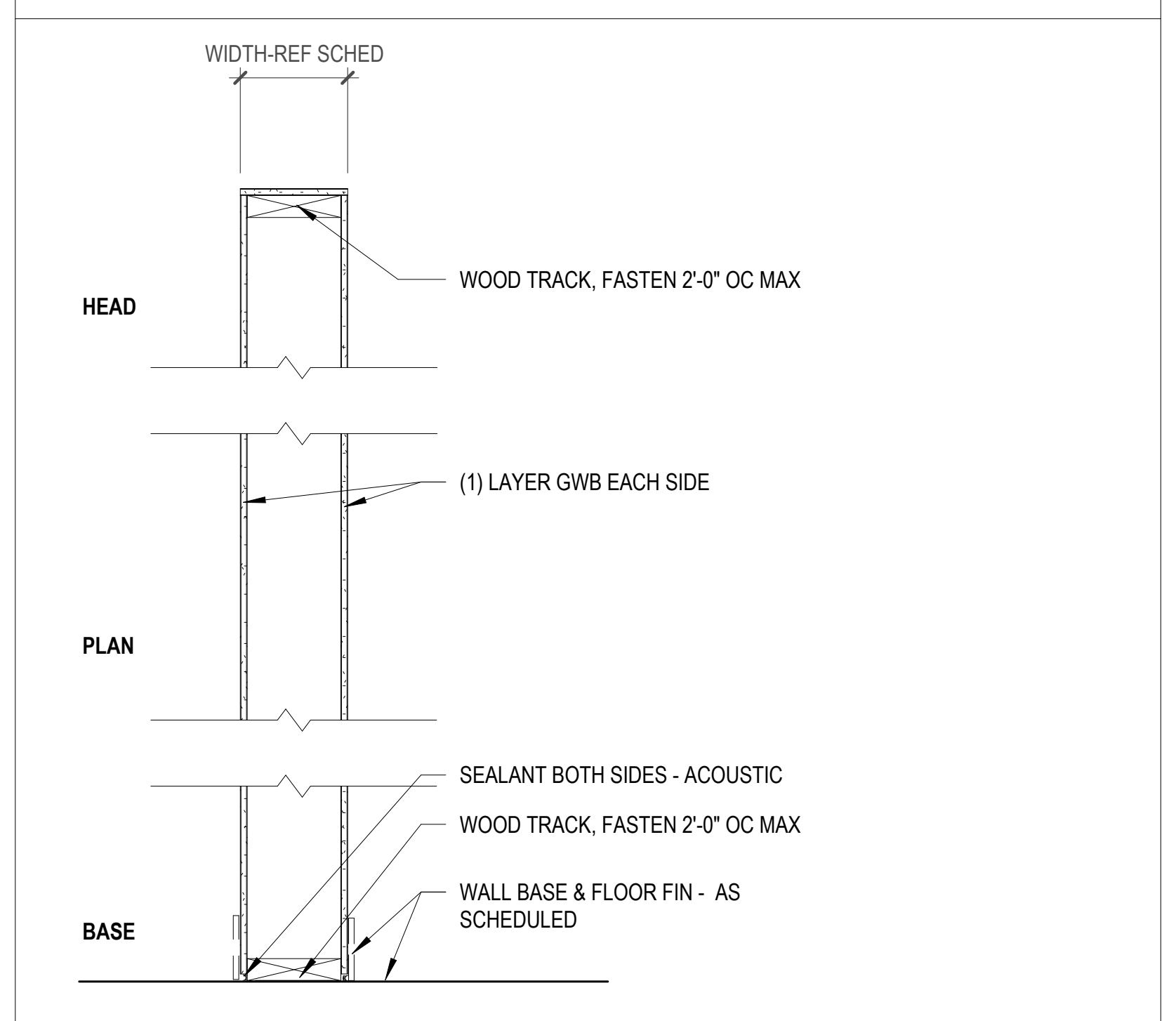
PARTITION TYPE SYMBOL


PARTITION INDICATED ON PLANS
PARTITION GROUP DESIGNATOR
A02
PARTITION TYPE DESIGNATOR

PARTITION TYPE NOTES

1. REFER TO FLOOR PLANS FOR INTERIOR PARTITION TYPE LOCATIONS.
2. ALL PARTITIONS ARE DIMENSIONED TO THE OF FACE OF STUD EXCEPT FOR EXISTING WALLS WHICH ARE DIMENSIONED TO FINISH FACE.
3. IN ALL TOILET ROOMS PROVIDE, MOISTURE AND MOLD RESISTANT GYP. BD. ON ALL WALLS AND CEILINGS.
4. IN ALL ROOMS OTHER THAN TOILET ROOMS WHICH CONTAIN SINKS OR OTHER PLUMBING FIXTURES PROVIDE MOISTURE RESISTANT GYP. BD. ON THE WET WALL AND RETURN 4'-0" ON THE SIDE WALLS.
5. AT VERTICAL SURFACES THAT ARE SCHEDULED TO RECEIVE TILE FINISHES, PROVIDE ONE LAYER OF CEMENTITIOUS BACKER BOARD IN PLACE OF THE OUTSIDE LAYER OF GYPSUM BOARD ON THE SCHEDULED PARTITION. ON RATED WALLS AND OTHER VERTICAL SURFACES THAT ARE SCHEDULED TO RECEIVE TILE FINISHES, PROVIDE ONE LAYER OF CEMENTITIOUS BACKER BOARD IN ADDITION TO THE OUTSIDE LAYER OF GYPSUM BOARD ON THE SCHEDULED PARTITION TO MAINTAIN RATED WALL CONSTRUCTION.
6. ALL GYPSUM BOARD SHALL BE 5/8” THICK, UNO. ABUSE RESISTANT GYPSUM BOARD ON EXPOSED FACE OF WALLS, TYPICAL. AT FIRE RATED ASSEMBLIES, PROVIDE TYPE ‘X’ GYP. BD. MINIMUM, OR AS REQUIRED BY FIRE RATED ASSEMBLY. GYPSUM CEILINGS ANS SOFFITS PROVIDE 5/8" THICK, UNO.
7. FOR FIRE RATED ASSEMBLIES, OBTAIN AND FULLY CONFORM TO DESIGN REQUIREMENTS OF UNDERWRITERS LABORATORIES, INC(UL) FOR EACH PARTITION ASSEMBLY, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY A DETAIL OR NOTE, AS ALLOWED BY UL DESIGN.
8. FIRE-RESISTANCE-RATED & STC-RATED PARTITIONS SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE TESTED ASSEMBLY UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY DETAIL OR NOTE.
9. STC-RATED PARTITION CONSTRUCTION SHALL HAVE ALL PENETRATIONS AND INTERSECTIONS SEALED AIR TIGHT WITH ACOUSTICAL SEALANT.
10. SEPARATE METALLIC OUTLETS OR SWITCH BOXES LOCATED ON OPPOSITE SIDES OF WALLS OR PARTITIONS BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES (U.L, INC.).
11. REFER TO SPECIFICATIONS FOR SPACING CRITERIA AND METAL STUD GAUGES, UNO.
12. REFER TO FINISH SCHEDULE AND REFLECTED CEILING PLANS FOR THE CEILING TYPE AND HEIGHT. COORDINATE HEIGHTS OF GYP. BD. WITH CEILING HEIGHTS AND WITH PARTITION DETAILS INDICATED.
13. REFER TO FINISH SCHEDULE, FURNITURE PLANS, INTERIOR ELEVATIONS, INTERIOR DETAILS AND ARCHITECTURAL CASEWORK DETAILS FOR WALL FINISHES AND WALL MOUNTED ACCESSORIES TO COORDINATE BLOCKING REQUIREMENTS. PROVIDE ADEQUATE BACKUP AND BLOCKING FOR ALL WALL OR CEILING MOUNTED EQUIPMENT, ARCHITECTURAL WOODWORK, CASEWORK, LIGHTING, OR OTHER MISCELLANEOUS ITEMS & EQUIPMENT MEP & FP TO ASSURE A PROPER INSTALLATION. ALL BLOCKING TO BE NON COMBUSTIBLE IF THE CONSTRUCTION TYPE IS NONE COMBUSTIBLE.
14. ALL DOOR OPENINGS ARE TO BE 6 INCHES MINIMUM FROM ADJACENT WALL U.N.O.
15. REFER TO LIFE SAFETY PLANS AND THE PROJECT CODE ANALYSIS SUMMARY FOR FURTHER WALL, FLOOR/CEILING ASSEMBLY RATING REQUIREMENTS.
16. MAINTAIN CONTINUOUS SMOKE/ FIRE RATED PARTITION AT INTERSECTIONS OF RATED WALLS AND NON-RATED WALLS. WRAP GYPSUM BOARD AT JAMBS AND HEAD OF NON-RATED DOORWAYS AND OPENINGS IN RATED WALLS AS REQUIRED TO MAINTAIN WALL RATING.
17. ALL PARTITION THICKNESSES SHOWN ARE ACTUAL DIMENSIONS. FINISHED FACES OF PARTITIONS TO RUN FLUSH, CONTINUOUS AND SMOOTH, U.N.O.
18. ALL GYP. BD. WALL AND CEILING CONTROL JOINTS SHALL BE PROVIDED PER THE PROJECT SPECIFICATIONS. COORDINATE ALL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
19. ALL GYP. BD. WALL AND CEILING CONTROL JOINTS AT RATED CONDITIONS SHALL BE INSTALLED PER GYPSUM ASSOCIATION GUIDELINES (GA-234-08). UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR DESIGNATED BY DETAIL OR NOTE. COORDINATE ALL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
20. REFER TO STRUCTURAL DRAWINGS FOR SPECIFICATIONS & REINFORCEMENT REQUIREMENTS OF MASONRY PARTITIONS.
21. REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.
22. **IN ALL ELECTRICAL ROOMS, INSTALL FRT PLYWOOD FLOOR TO CEILING ON ALL WALLS IN ADDITION TO WALL TYPE REQUIREMENTS. COORDINATE WITH ELECTRICAL CONTRACTOR.**
23. **IN ALL LOW VOLTAGE & TELE/DATA ROOMS, INSTALL FRT PLYWOOD FLOOR TO CEILING ON ALL WALLS IN ADDITION TO WALL TYPE REQUIREMENTS. COORDINATE WITH LOW VOLTAGE CONTRACTOR.**
24. **ALL OUTSIDE GYPSUM BOARD VERTICAL CORNERS IN CORRIDORS ARE TO RECEIVE 1 1/2" X 1 1/2" STAINLESS STEEL CORNER GUARDS 18 GA 48" TALL.**

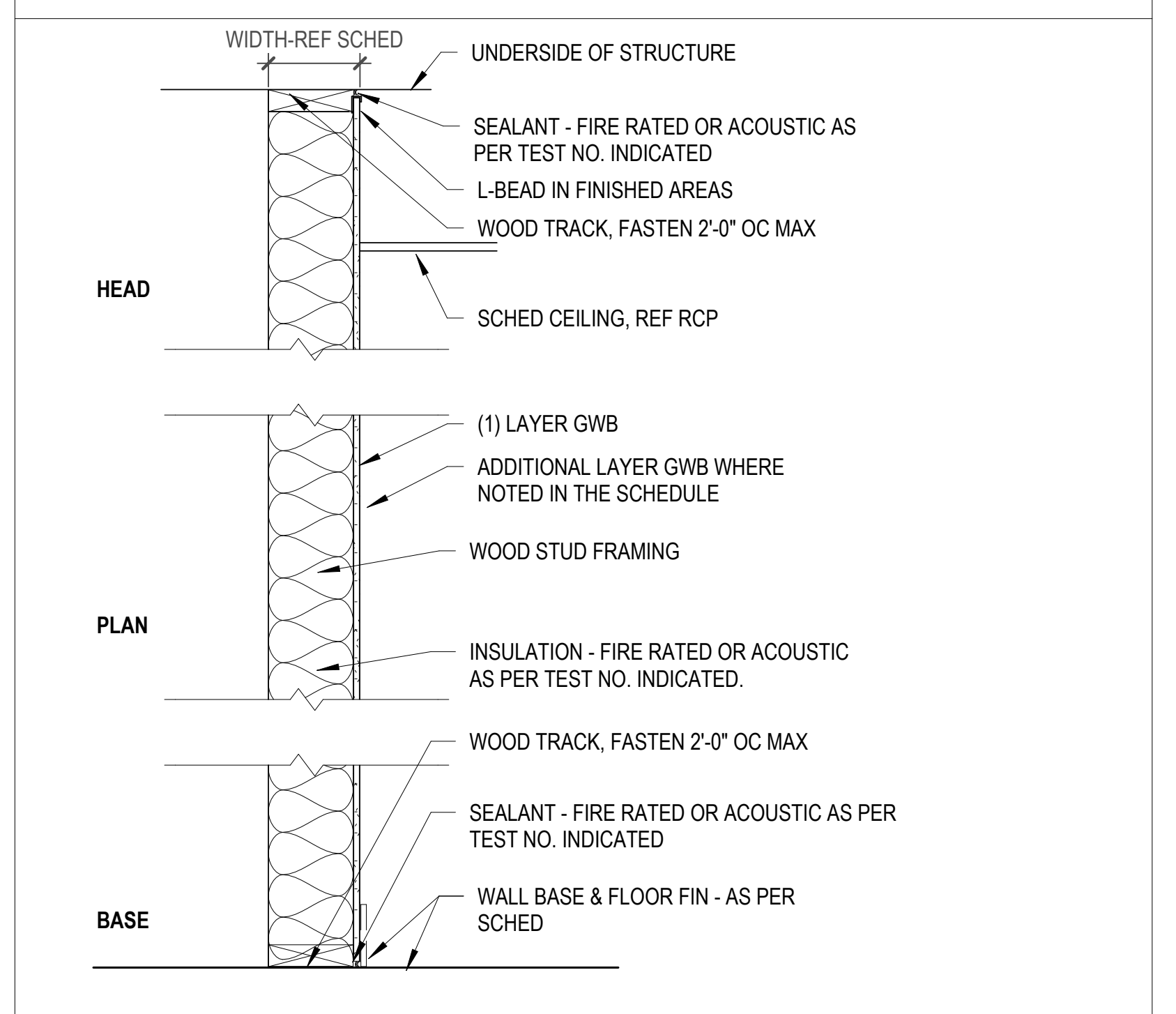
TYPE E - PARTIAL HT. - 1 LAYER GWB EACH SIDE


WIDTH-REF SCHED
HEAD
WOOD TRACK, FASTEN 2'-0" OC MAX
PLAN
(1) LAYER GWB EACH SIDE
SEALANT BOTH SIDES - ACOUSTIC
WOOD TRACK, FASTEN 2'-0" OC MAX
WALL BASE & FLOOR FIN - AS SCHEDULED
BASE

TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
E01	4 3/4"	3 1/2"		NONE			
E02	6 3/4"	5 1/2"		NONE			

1

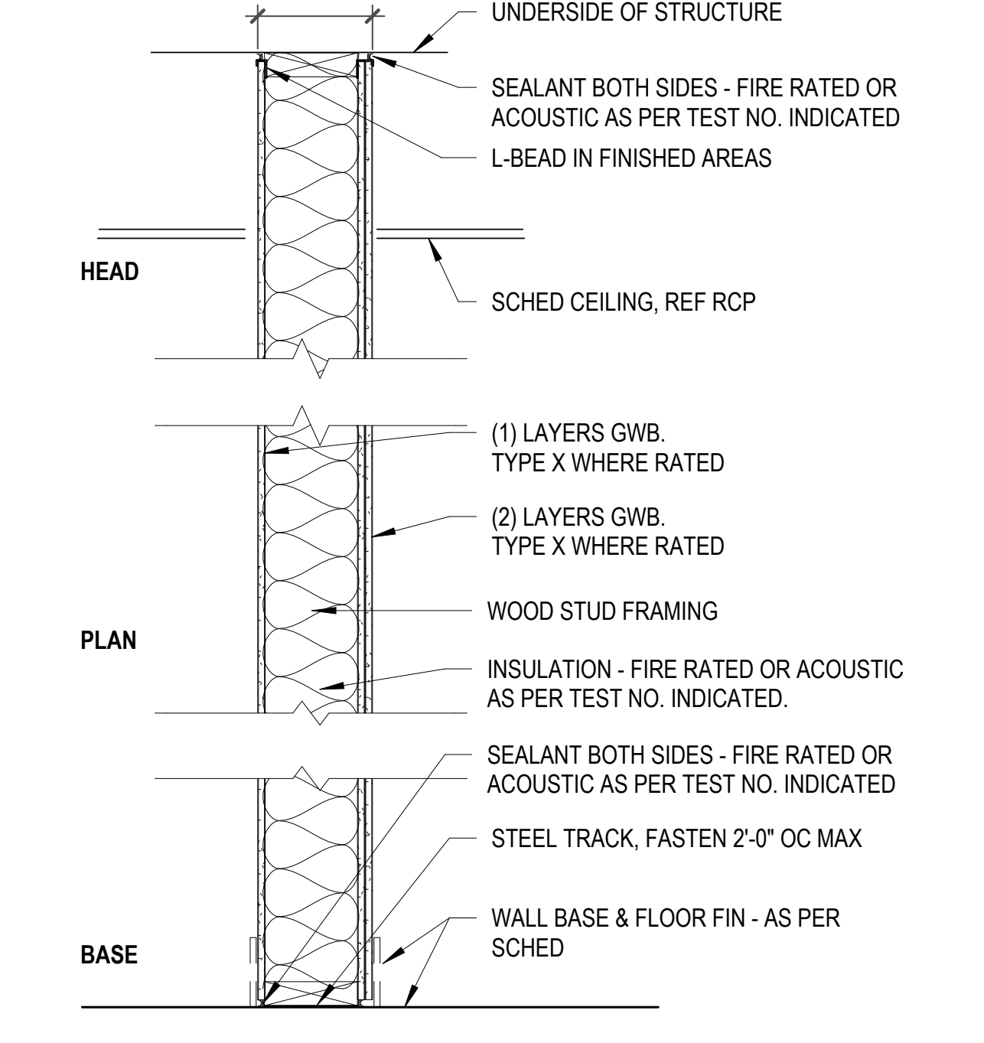
TYPE D - FULL HT. - GWB 1 SIDE


WIDTH-REF SCHED
UNDERSIDE OF STRUCTURE
SEALANT - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
L-BEAD IN FINISHED AREAS
WOOD TRACK, FASTEN 2'-0" OC MAX
HEAD
SCHED CEILING, REF RCP
(1) LAYER GWB
ADDITIONAL LAYER GWB WHERE NOTED IN THE SCHEDULE
WOOD STUD FRAMING
PLAN
INSULATION - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED.
WOOD TRACK, FASTEN 2'-0" OC MAX
SEALANT - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
WALL BASE & FLOOR FIN - AS PER SCHED
BASE

TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
D01	6 1/8"	5 1/2"		NONE			

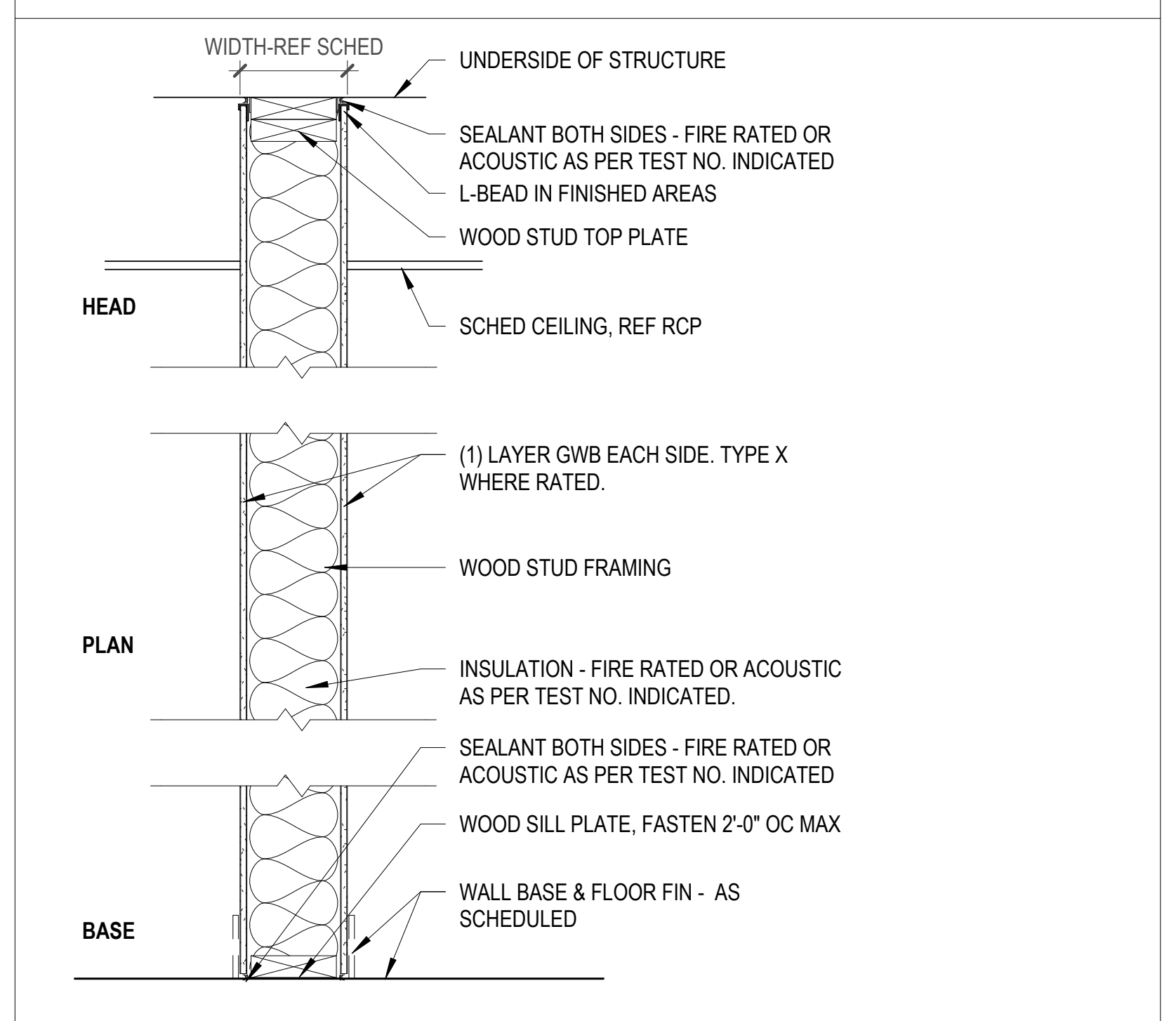
TYPE B - FULL HT. - 2 LAYERS GWB ONE SIDE; 1 LAYER GWB OTHER SIDE

1


WIDTH-REF SCHED
UNDERSIDE OF STRUCTURE
SEALANT BOTH SIDES - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
L-BEAD IN FINISHED AREAS
HEAD
SCHED CEILING, REF RCP
(1) LAYERS GWB. TYPE X WHERE RATED
(2) LAYERS GWB. TYPE X WHERE RATED
WOOD STUD FRAMING
PLAN
INSULATION - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED.
SEALANT BOTH SIDES - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
STEEL TRACK, FASTEN 2'-0" OC MAX
WALL BASE & FLOOR FIN - AS PER SCHED
BASE

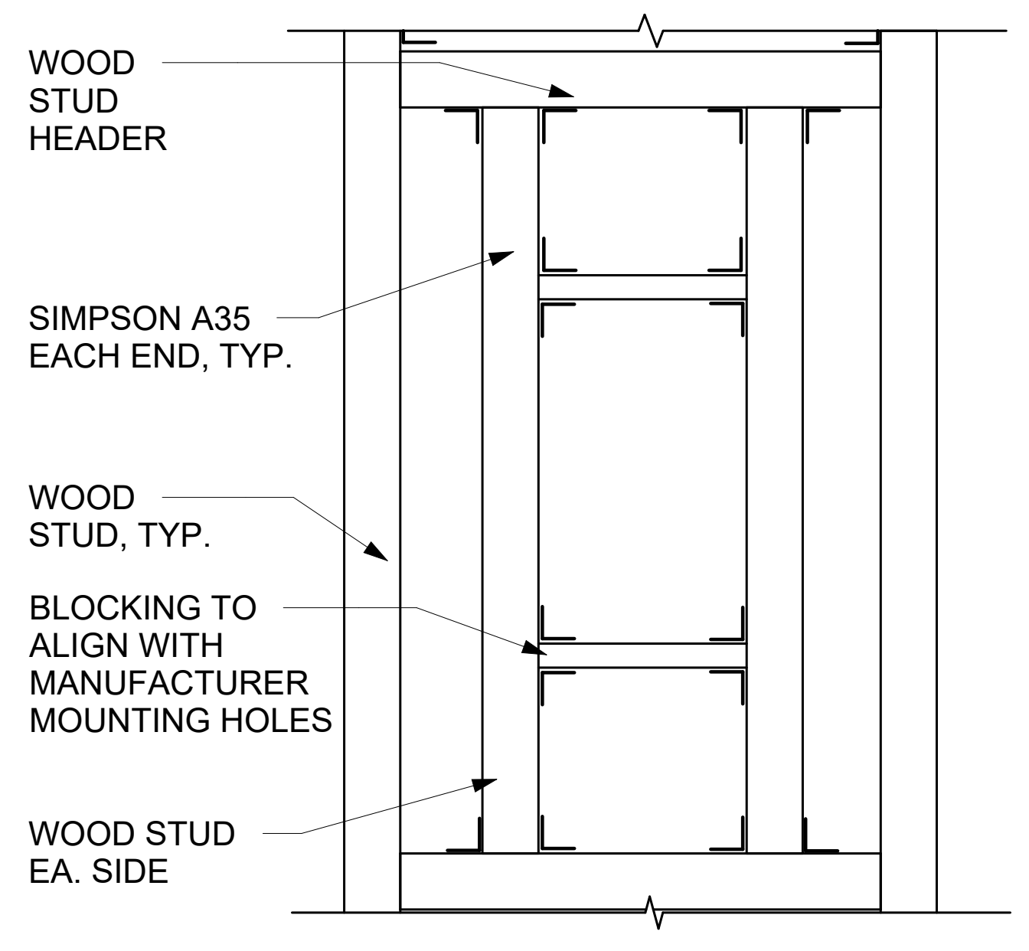
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
B01	7 3/8"	5 1/2"	0	NONE	35		

TYPE A - FULL HT. - 1 LAYER GWB EACH SIDE

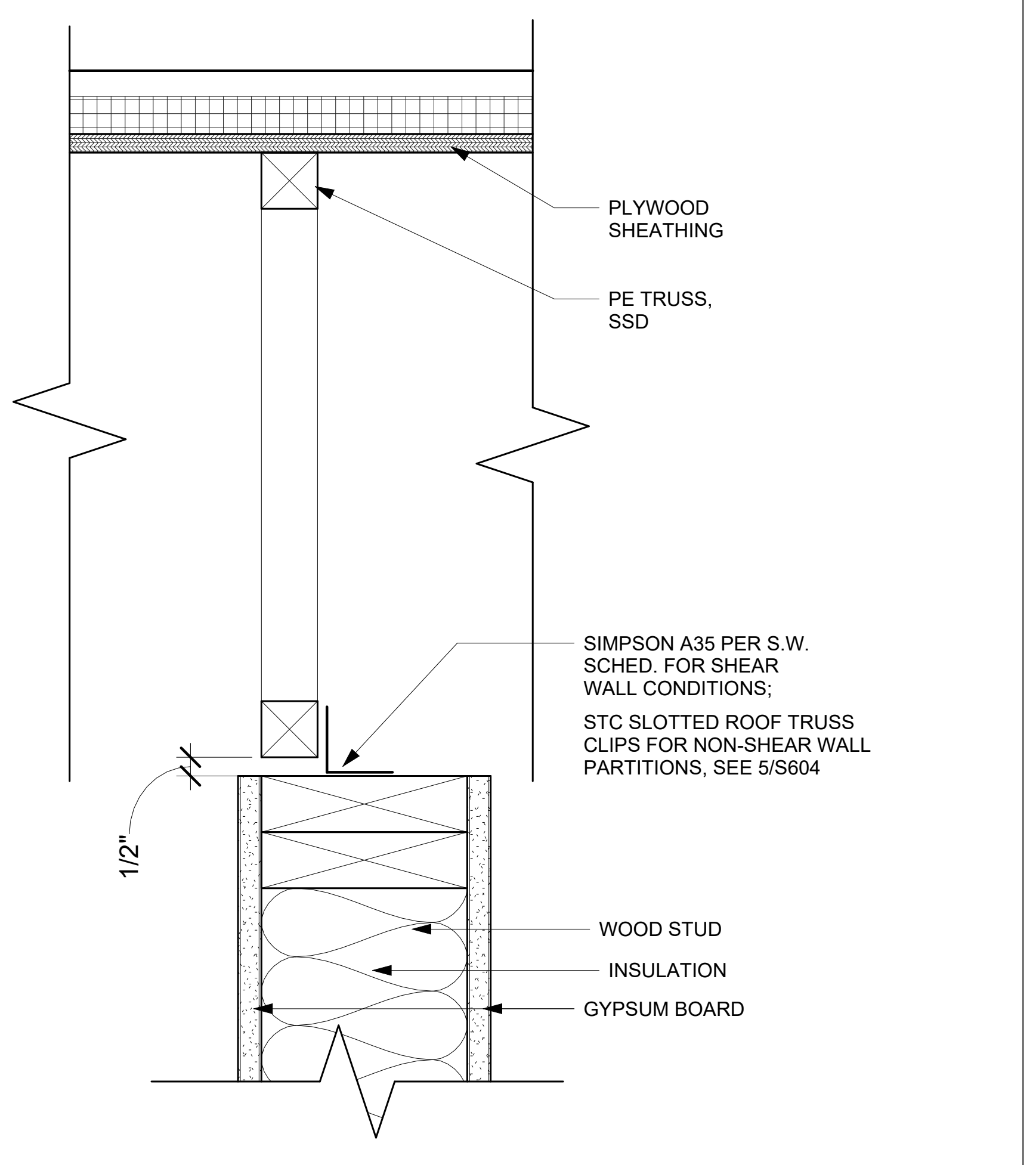

WIDTH-REF SCHED
UNDERSIDE OF STRUCTURE
SEALANT BOTH SIDES - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
L-BEAD IN FINISHED AREAS
WOOD STUD TOP PLATE
HEAD
SCHED CEILING, REF RCP
(1) LAYER GWB EACH SIDE. TYPE X WHERE RATED.
WOOD STUD FRAMING
PLAN
INSULATION - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED.
SEALANT BOTH SIDES - FIRE RATED OR ACOUSTIC AS PER TEST NO. INDICATED
WOOD SILL PLATE, FASTEN 2'-0" OC MAX
WALL BASE & FLOOR FIN - AS SCHEDULED
BASE

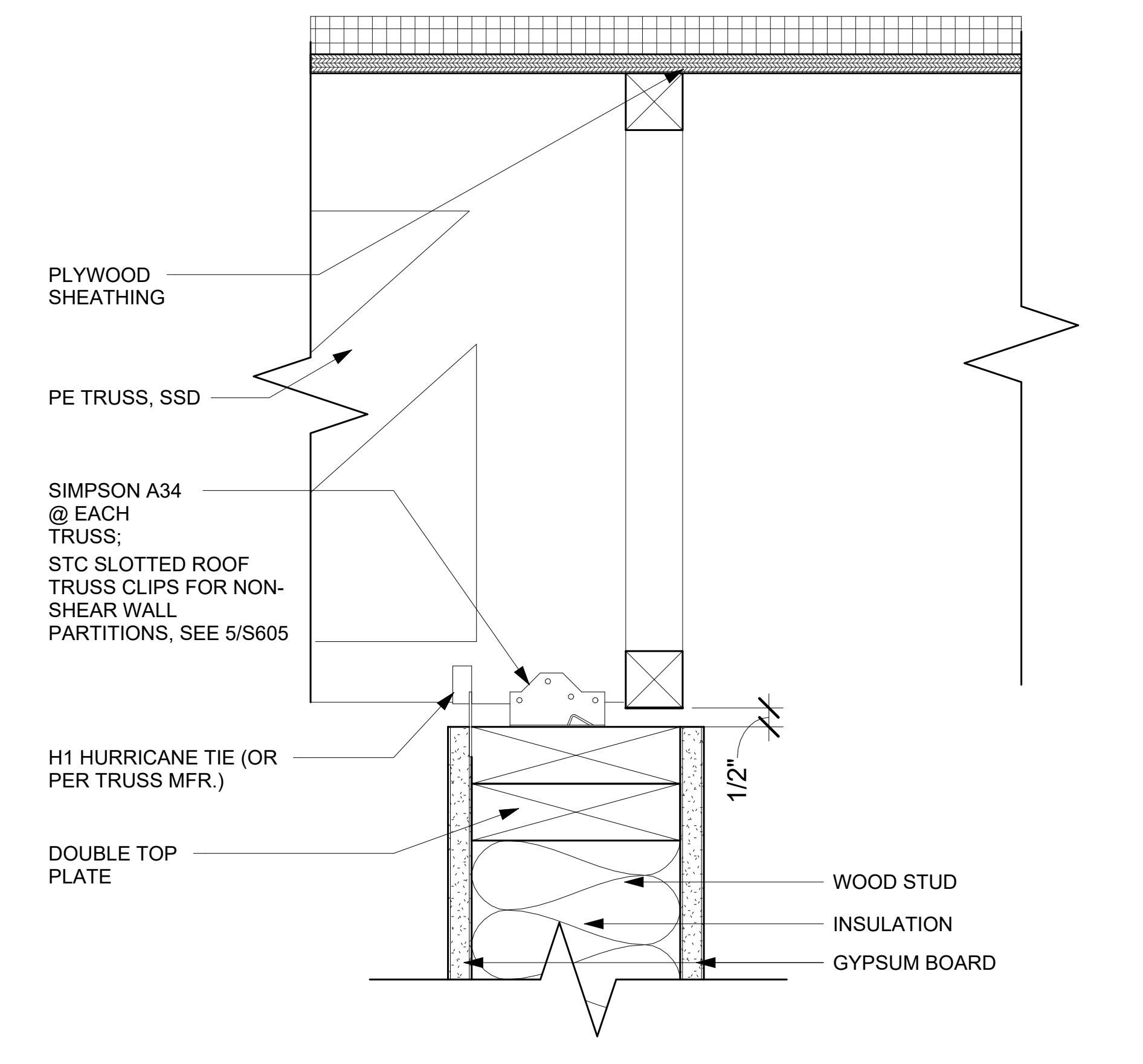
TYPE	WIDTH	FRAMING WIDTH	FIRE TEST	FIRE RATING	STC RATING	SOUND INSUL.	COMMENTS
A01	4 3/4"	3 1/2"		NONE			
A02	6 3/4"	5 1/2"	0	NONE	40		
A03	8 3/4"	7 1/2"		NONE			

PARTITION TYPES A4
N.T.S.

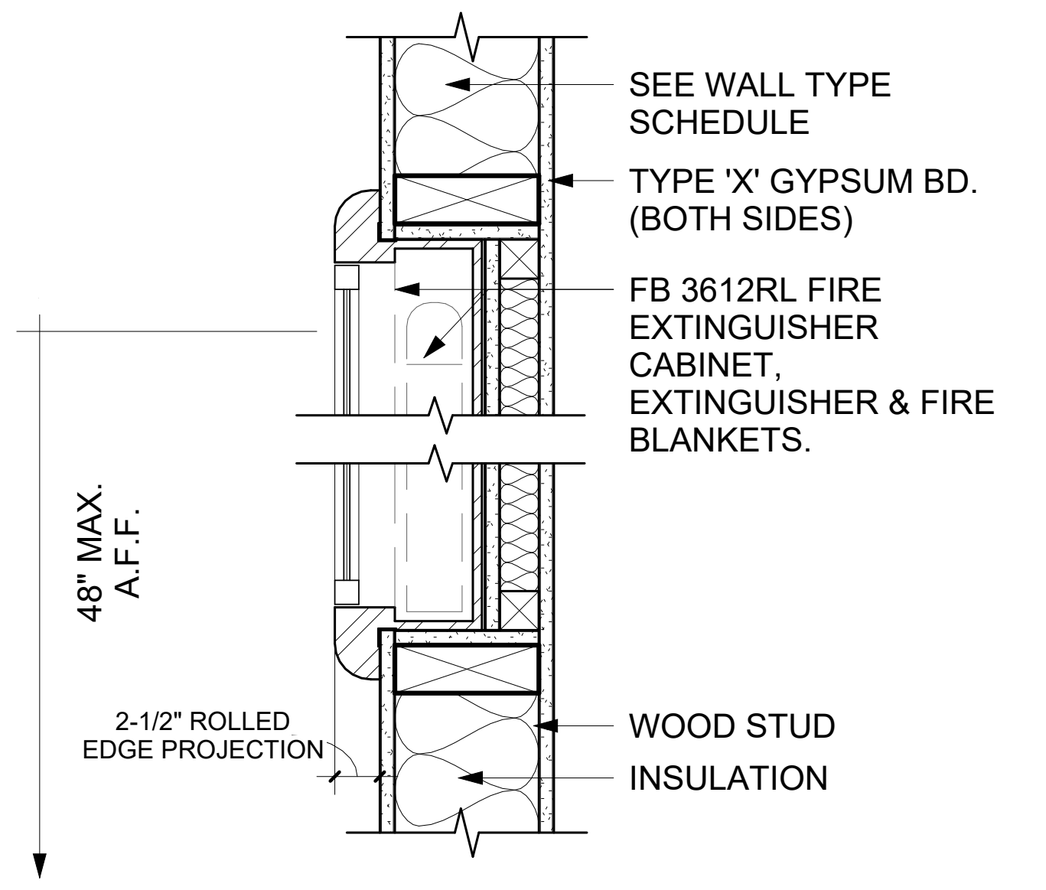

WOOD STUD HEADER
SIMPSON A35 EACH END, TYP.
WOOD STUD, TYP.
BLOCKING TO ALIGN WITH MANUFACTURER MOUNTING HOLES
WOOD STUD EA. SIDE

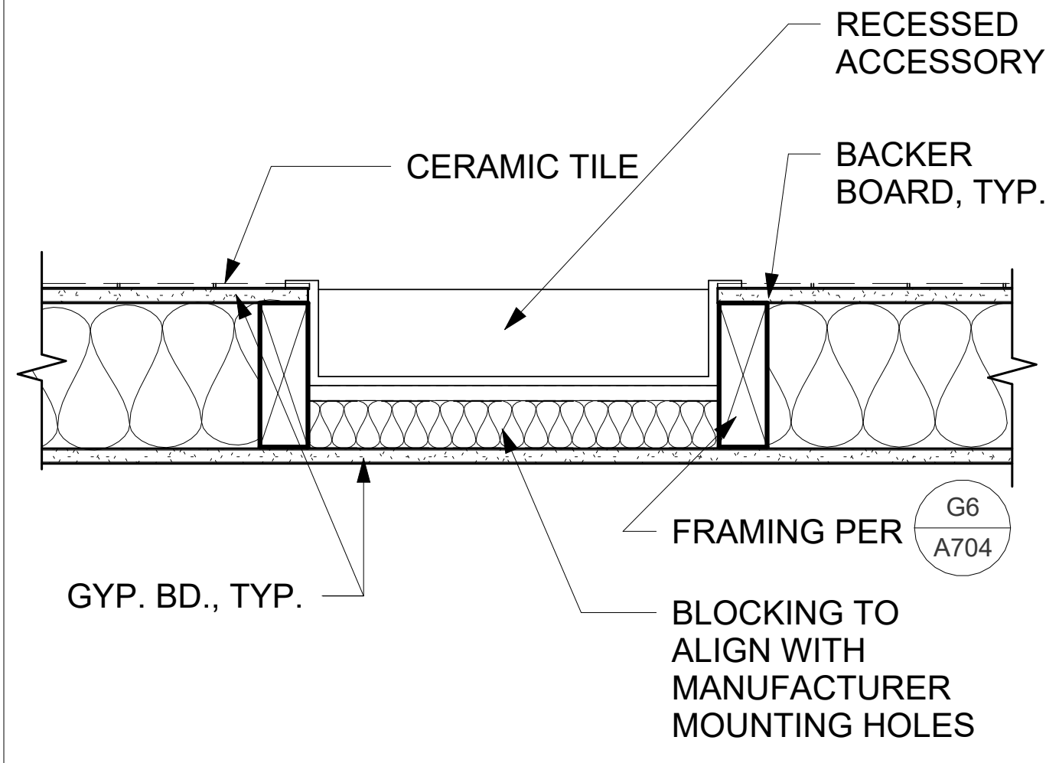
RECESSED ACCESSORY FRAMING G6
1" = 1'-0"


PLYWOOD SHEATHING
PE TRUSS, SSD
SIMPSON A35 PER S.W. SCHED. FOR SHEAR WALL CONDITIONS;
STC SLOTTED ROOF TRUSS CLIPS FOR NON-SHEAR WALL PARTITIONS, SEE 5/S604
1/2"
WOOD STUD
INSULATION
GYPSUM BOARD


PLYWOOD SHEATHING
PE TRUSS, SSD
SIMPSON A34 @ EACH TRUSS;
STC SLOTTED ROOF TRUSS CLIPS FOR NON-SHEAR WALL PARTITIONS, SEE 5/S605
H1 HURRICANE TIE (OR PER TRUSS MFR.)
DOUBLE TOP PLATE
1/2"
WOOD STUD
INSULATION
GYPSUM BOARD

NO GYP. BD. REQ'D BEHIND CABINET AT NON-RATED WALL ASSEMBLY


SEE WALL TYPE SCHEDULE
TYPE 'X' GYPSUM BD. (BOTH SIDES)
FB 3612RL FIRE EXTINGUISHER CABINET, EXTINGUISHER & FIRE BLANKETS.
48" MAX. A.F.F.
2-1/2" ROLLED EDGE PROJECTION
WOOD STUD
INSULATION

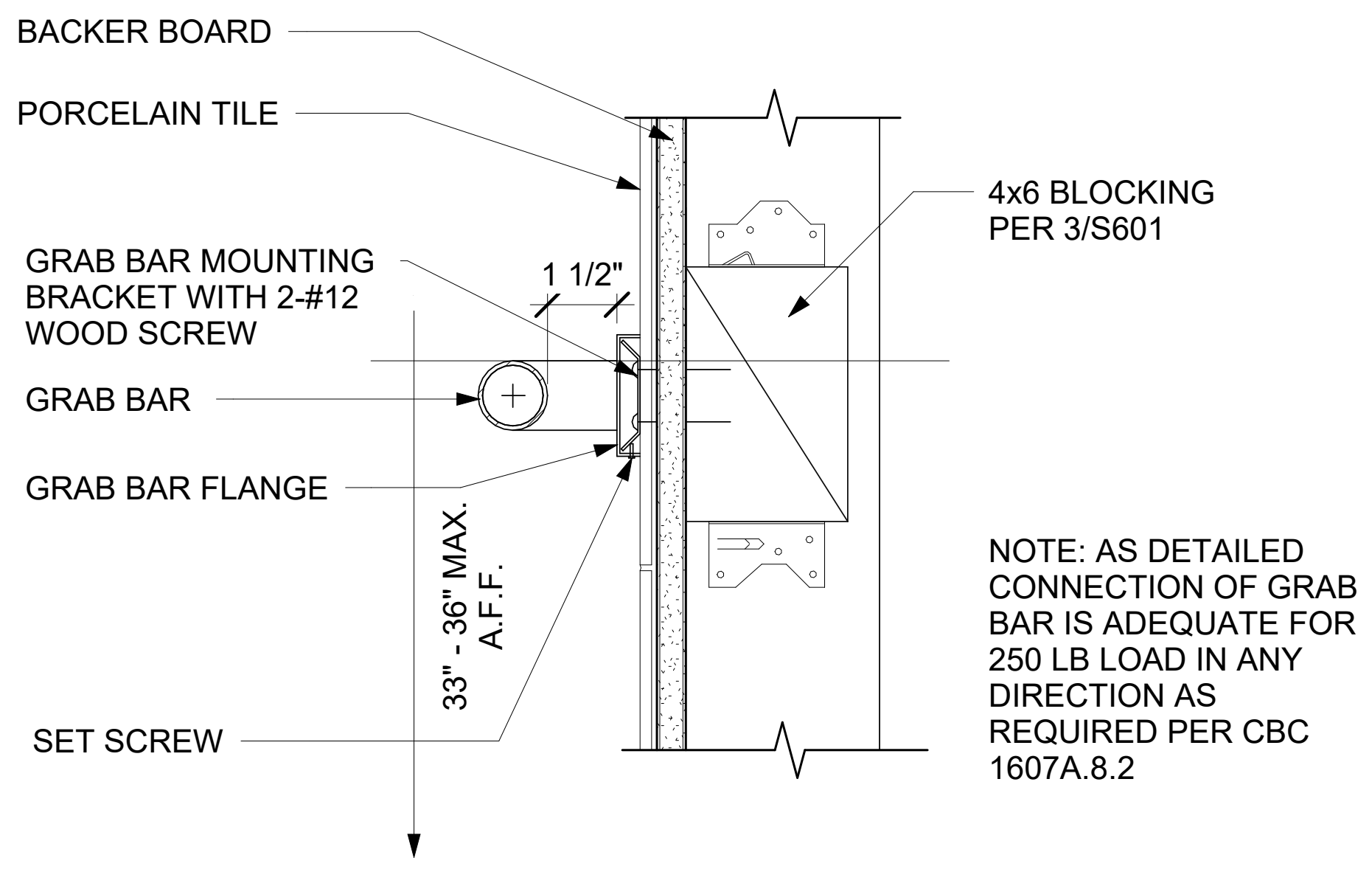


SEMI-RECESSED F.E.C. L10
1 1/2" = 1'-0"

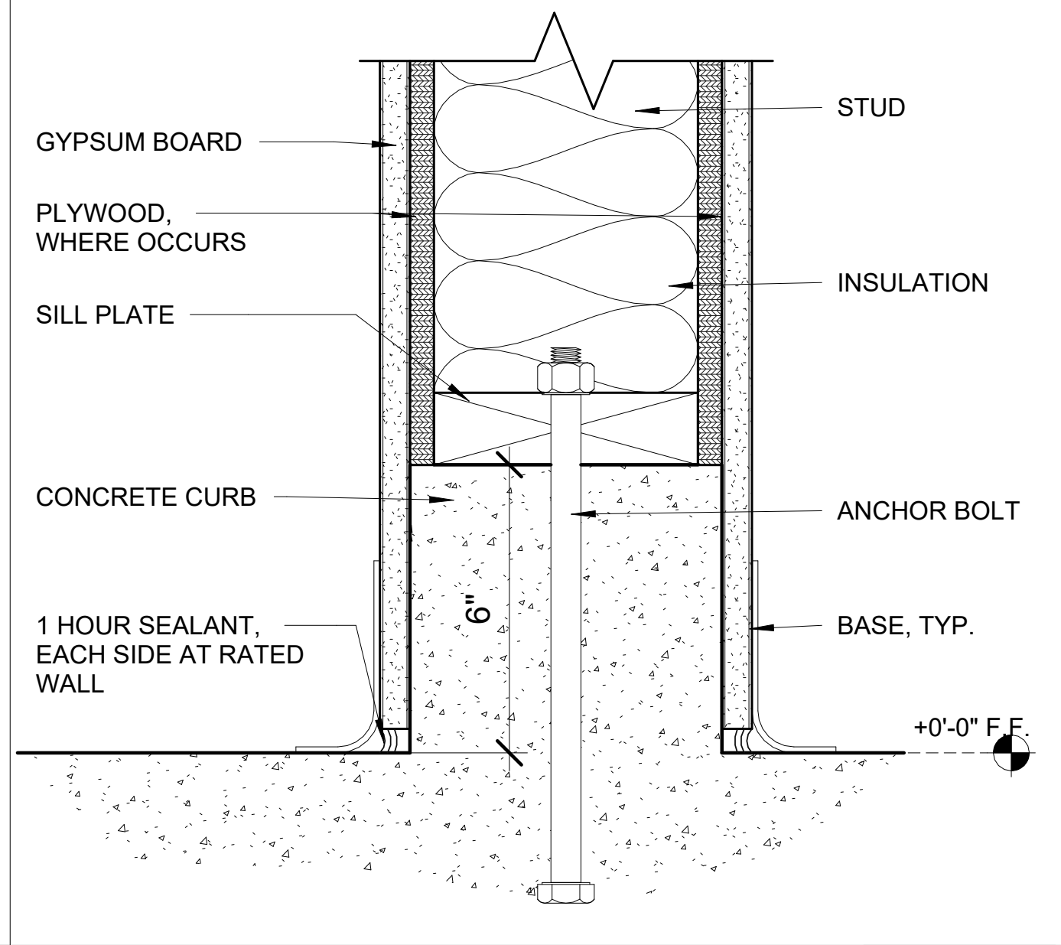
RECESSED ACCESSORY G8
1 1/2" = 1'-0"

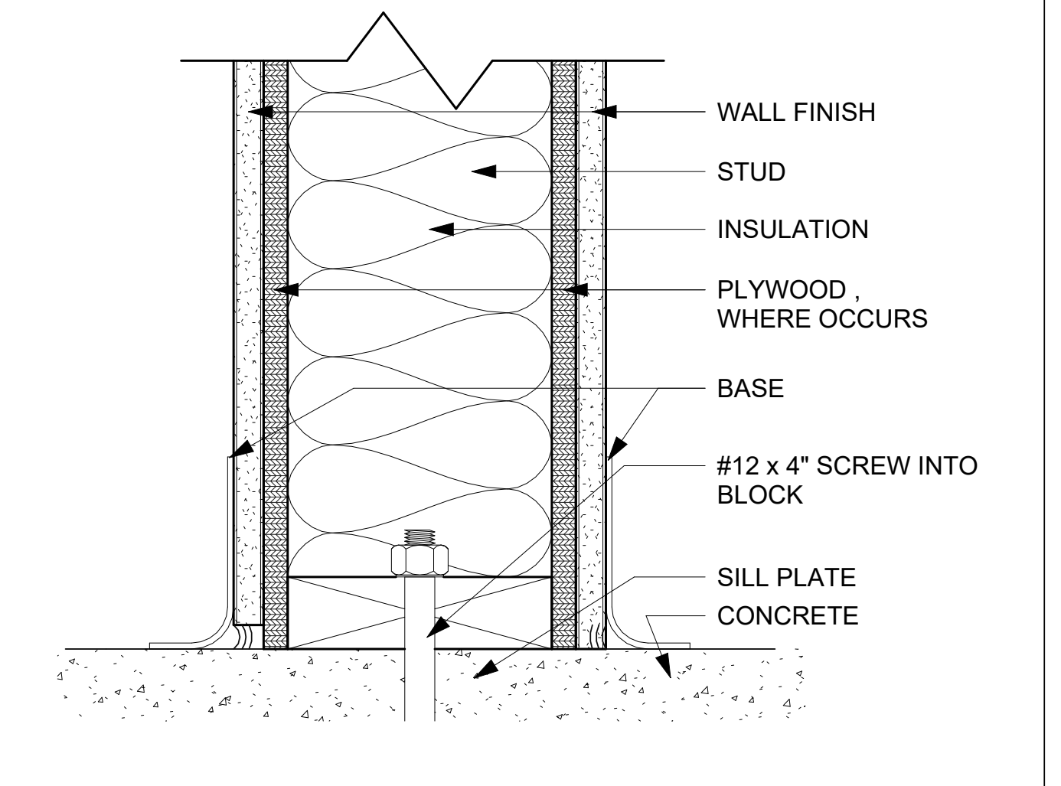
WALL HEAD PARALLEL TO TRUSS D8
3" = 1'-0"

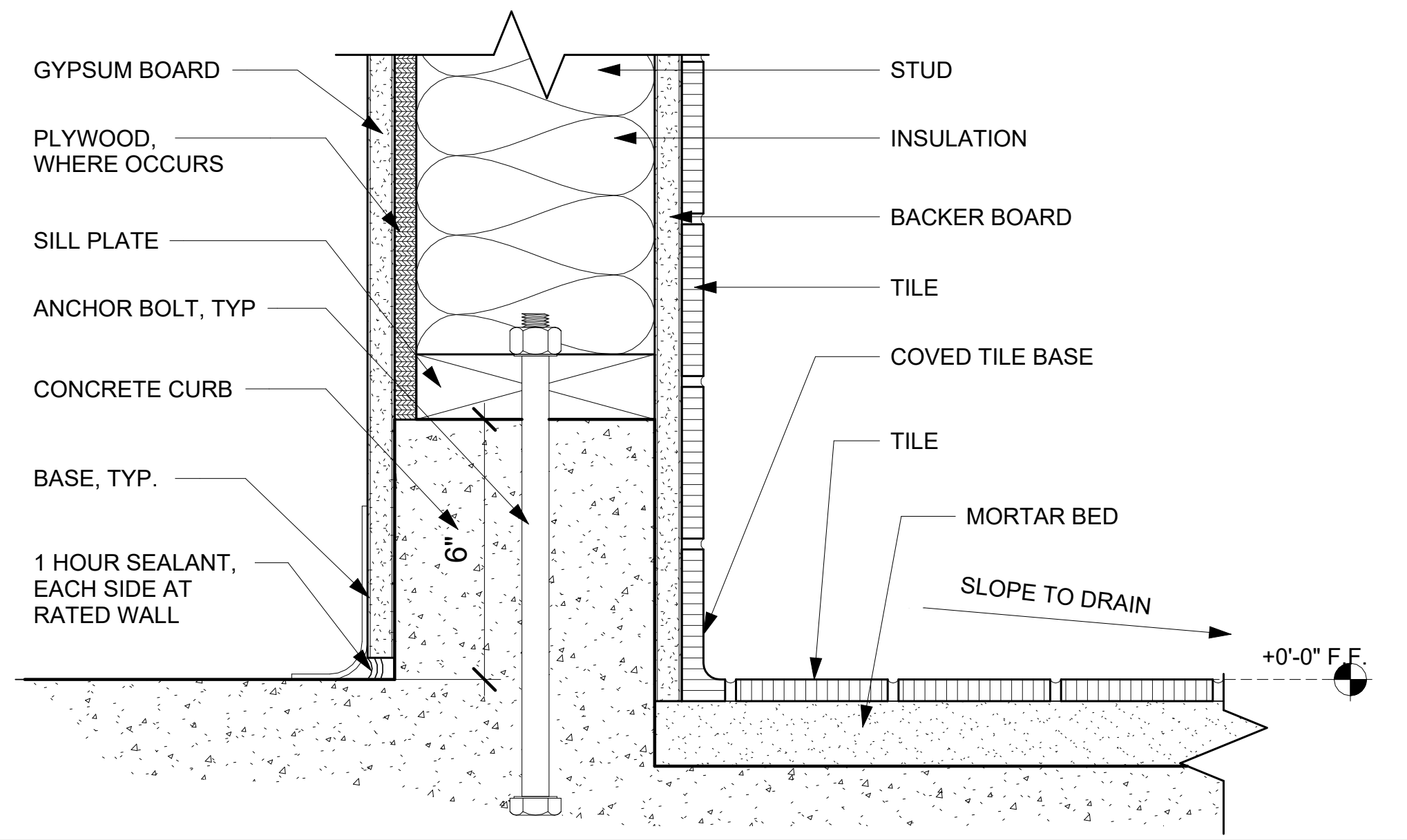
WALL HEAD PERPENDICULAR TO TRUSS A8
3" = 1'-0"



NOTE: AS DETAILED CONNECTION OF GRAB BAR IS ADEQUATE FOR 250 LB LOAD IN ANY DIRECTION AS REQUIRED PER CBC 1607A.8.2







GRAB BAR MOUNTING WS WALL H10
3" = 1'-0"

WALL BASE AT CONCRETE CURB F10
3" = 1'-0"

TYP. NON BEARING WALL BASE D10
3" = 1'-0"

TYPICAL WALL BASE AT CONCRETE CURB A10
3" = 1'-0"

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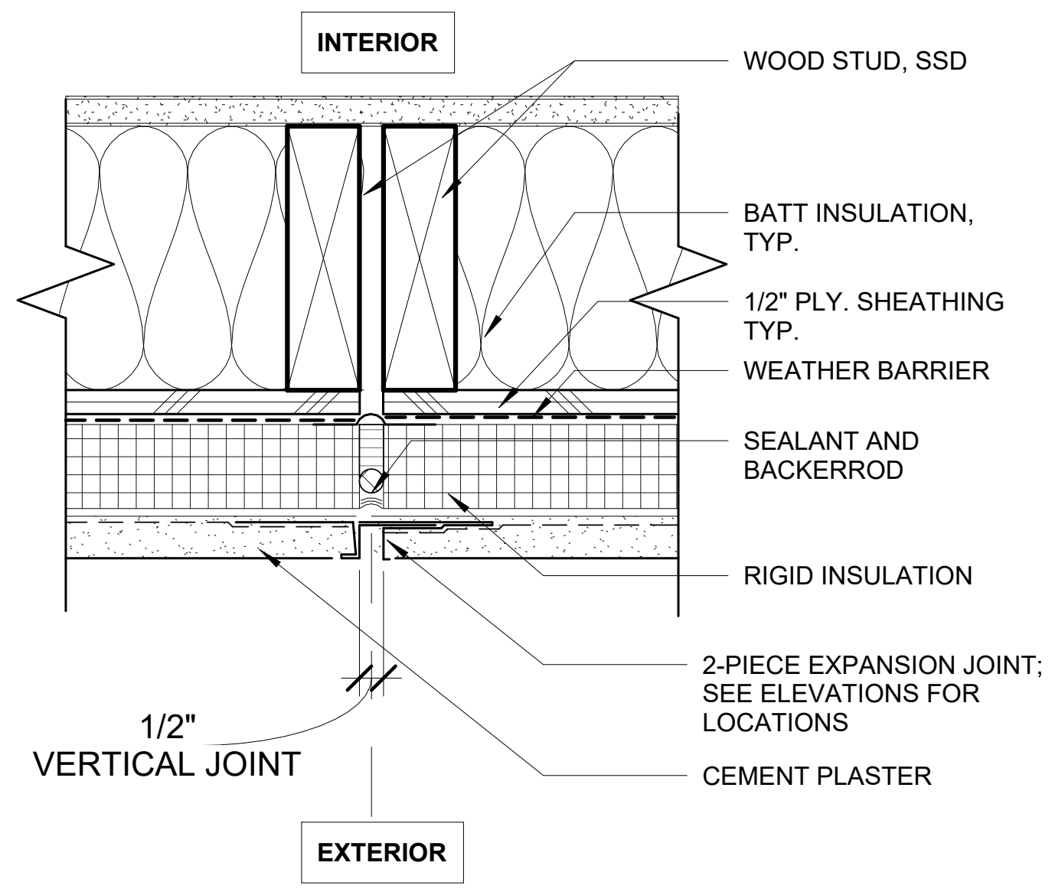
INTERIOR WALL SCHEDULE
AND DETAILS

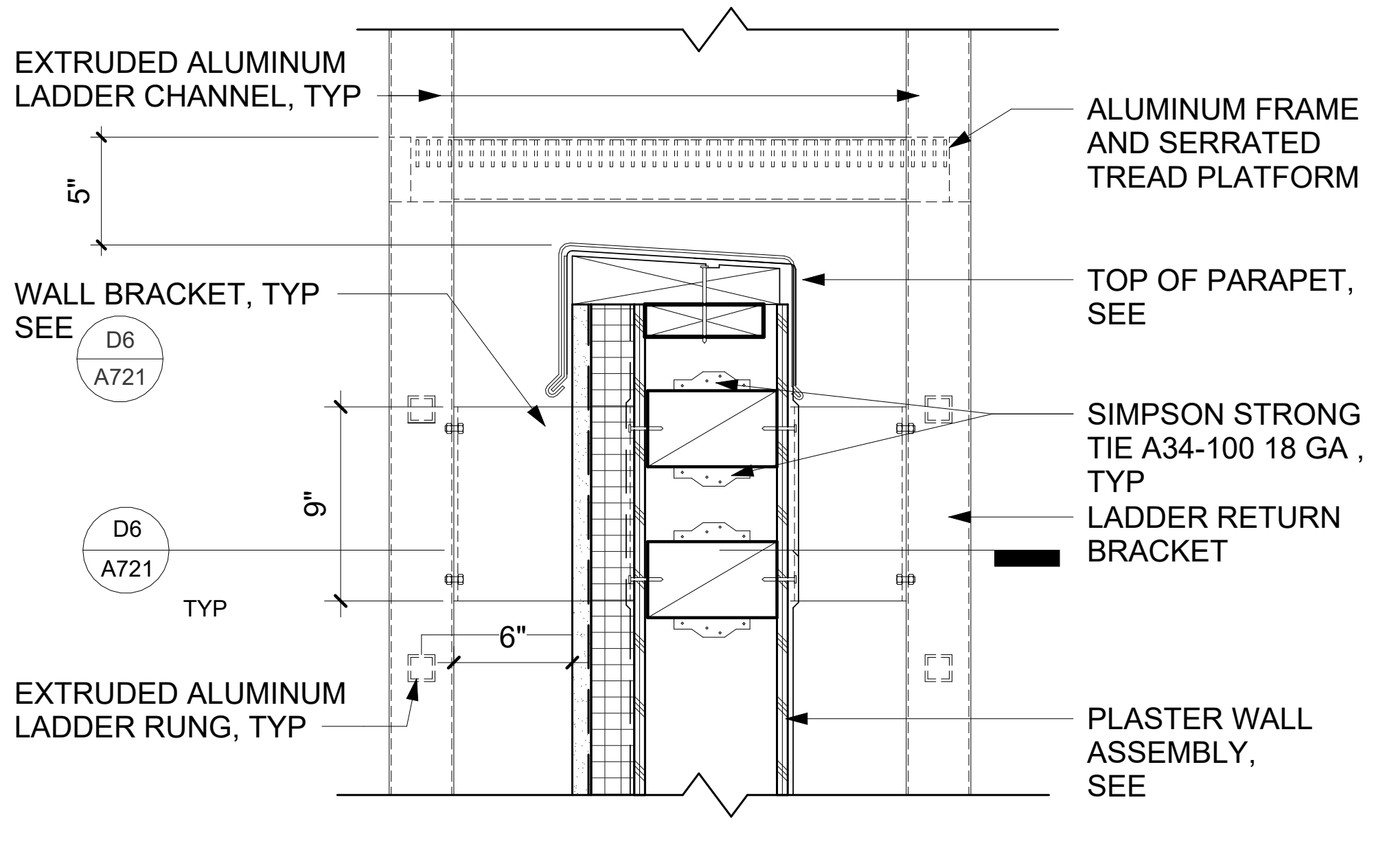
PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

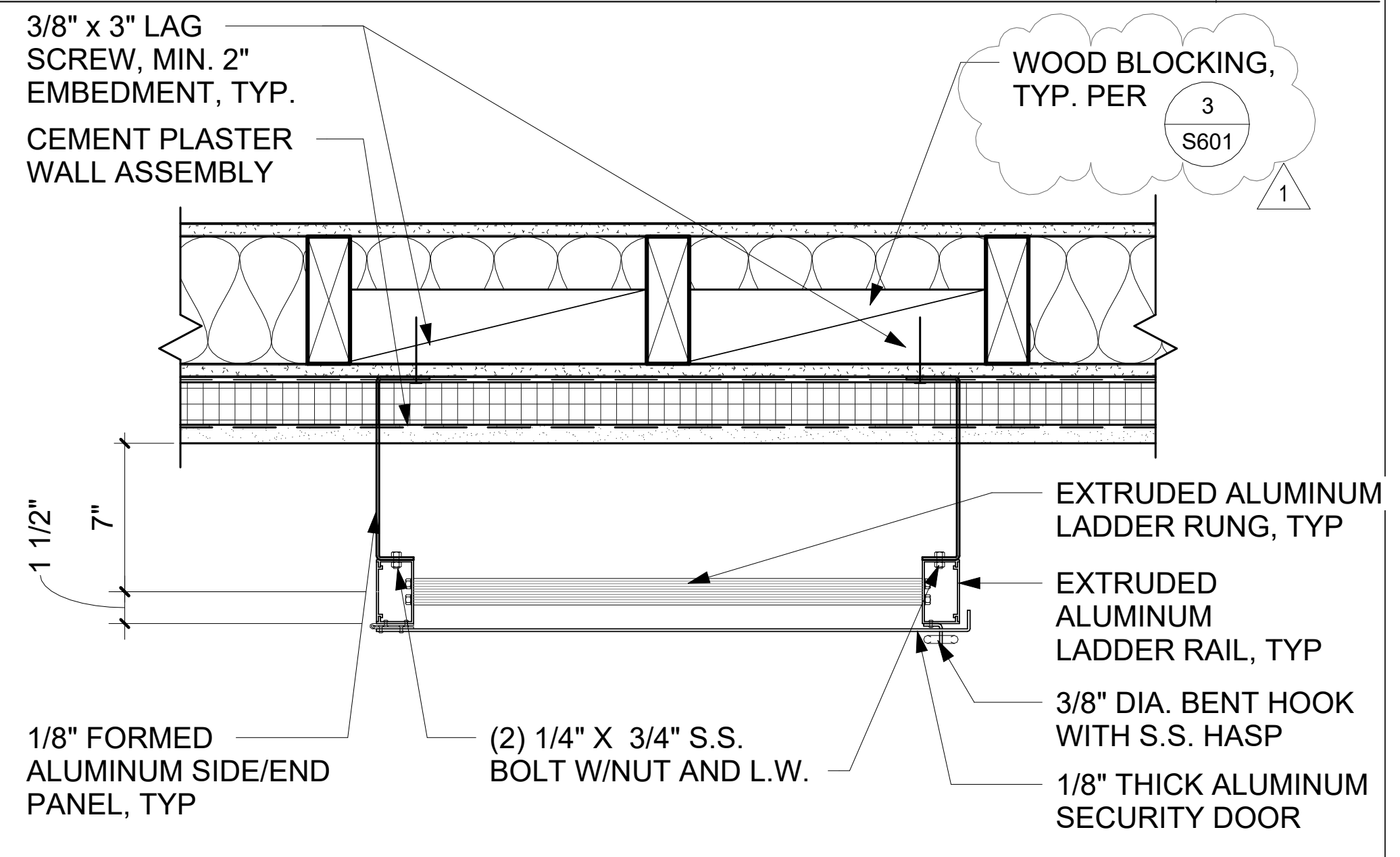
A704



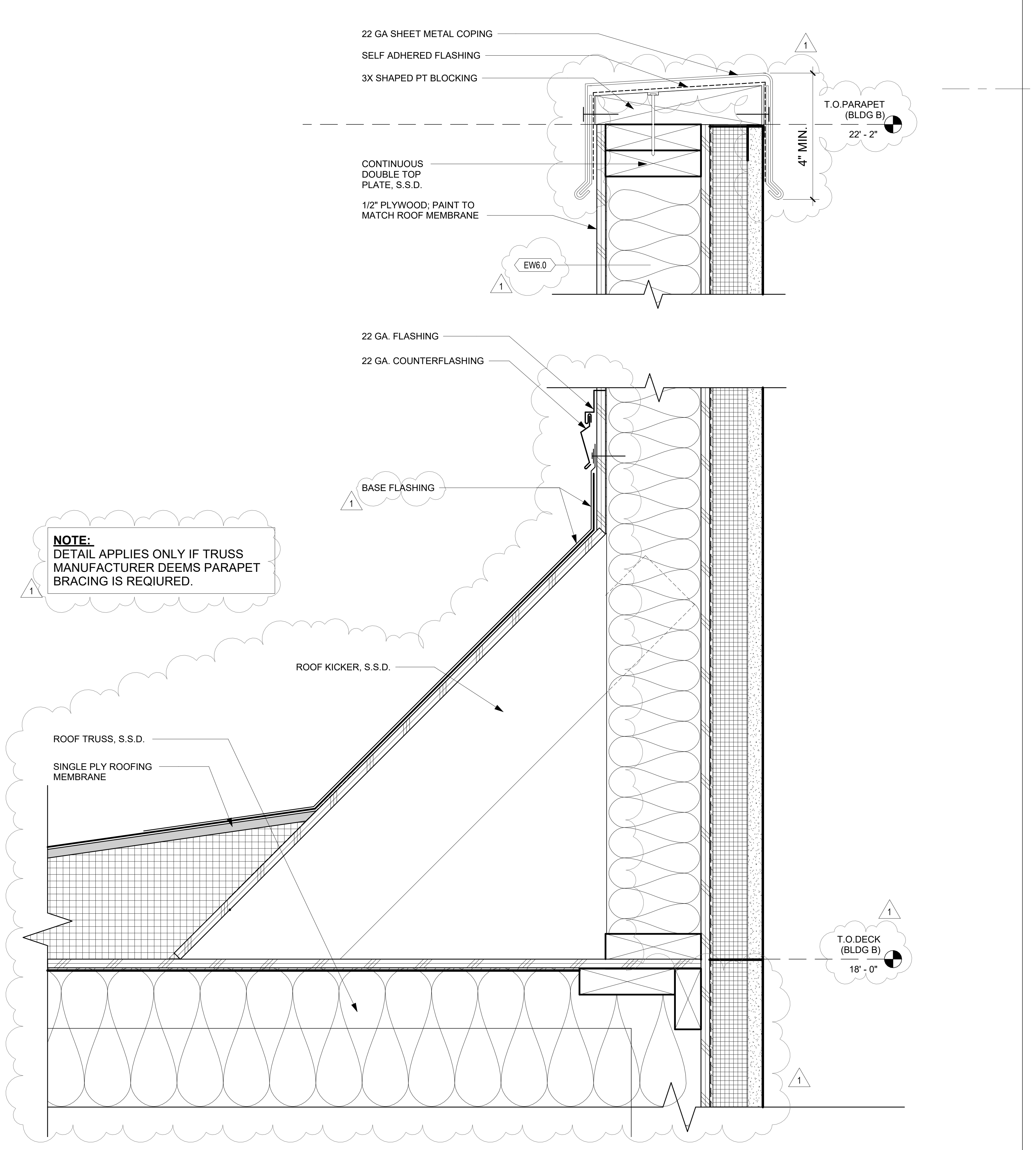
TYPICAL PLASTER EXPANSION JOINT G6
3" = 1'-0"


EXTRUDED ALUMINUM LADDER CHANNEL, TYP
5"
WALL BRACKET, TYP SEE D6 A721
D6 A721
TYP
9"
6"
EXTRUDED ALUMINUM LADDER RUNG, TYP
ALUMINUM FRAME AND SERRATED TREAD PLATFORM
TOP OF PARAPET, SEE
SIMPSON STRONG TIE A34-100 18 GA , TYP
LADDER RETURN BRACKET
PLASTER WALL ASSEMBLY, SEE

ROOF ACCESS LADDER - PLATFORM OVER PARAPET D2
1 1/2" = 1'-0"

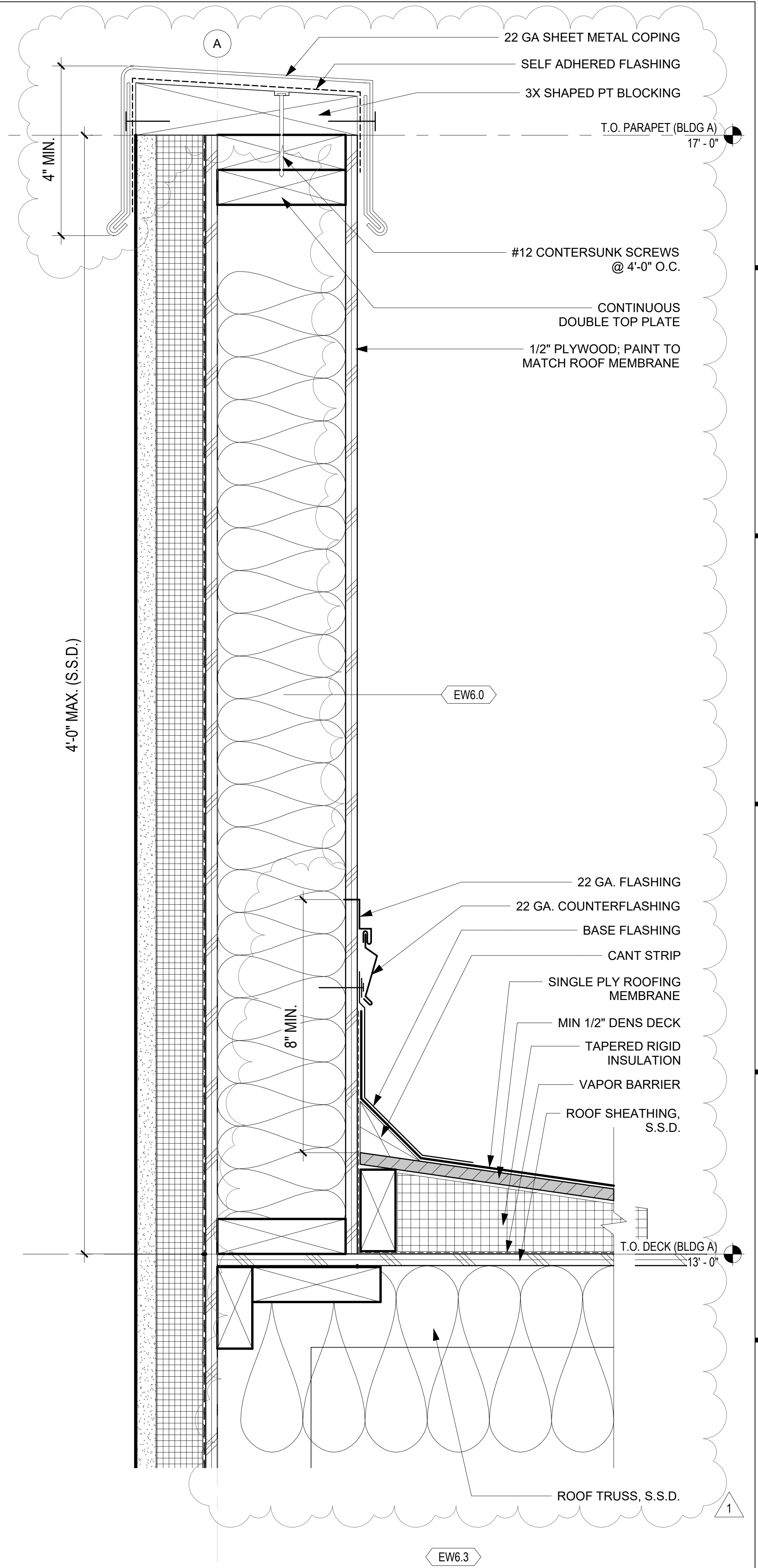

3/8" x 3" LAG SCREW, MIN. 2" EMBEDMENT, TYP.
CEMENT PLASTER WALL ASSEMBLY
WOOD BLOCKING, TYP. PER 3 S601
1
1 1/2"
7"
EXTRUDED ALUMINUM LADDER RUNG, TYP
EXTRUDED ALUMINUM LADDER RAIL, TYP
3/8" DIA. BENT HOOK WITH S.S. HASP
1/8" THICK ALUMINUM SECURITY DOOR
1/8" FORMED ALUMINUM SIDE/END PANEL, TYP
(2) 1/4" X 3/4" S.S. BOLT W/NUT AND L.W.

ROOF ACCESS LADDER - SECURITY DOOR D4
1 1/2" = 1'-0"

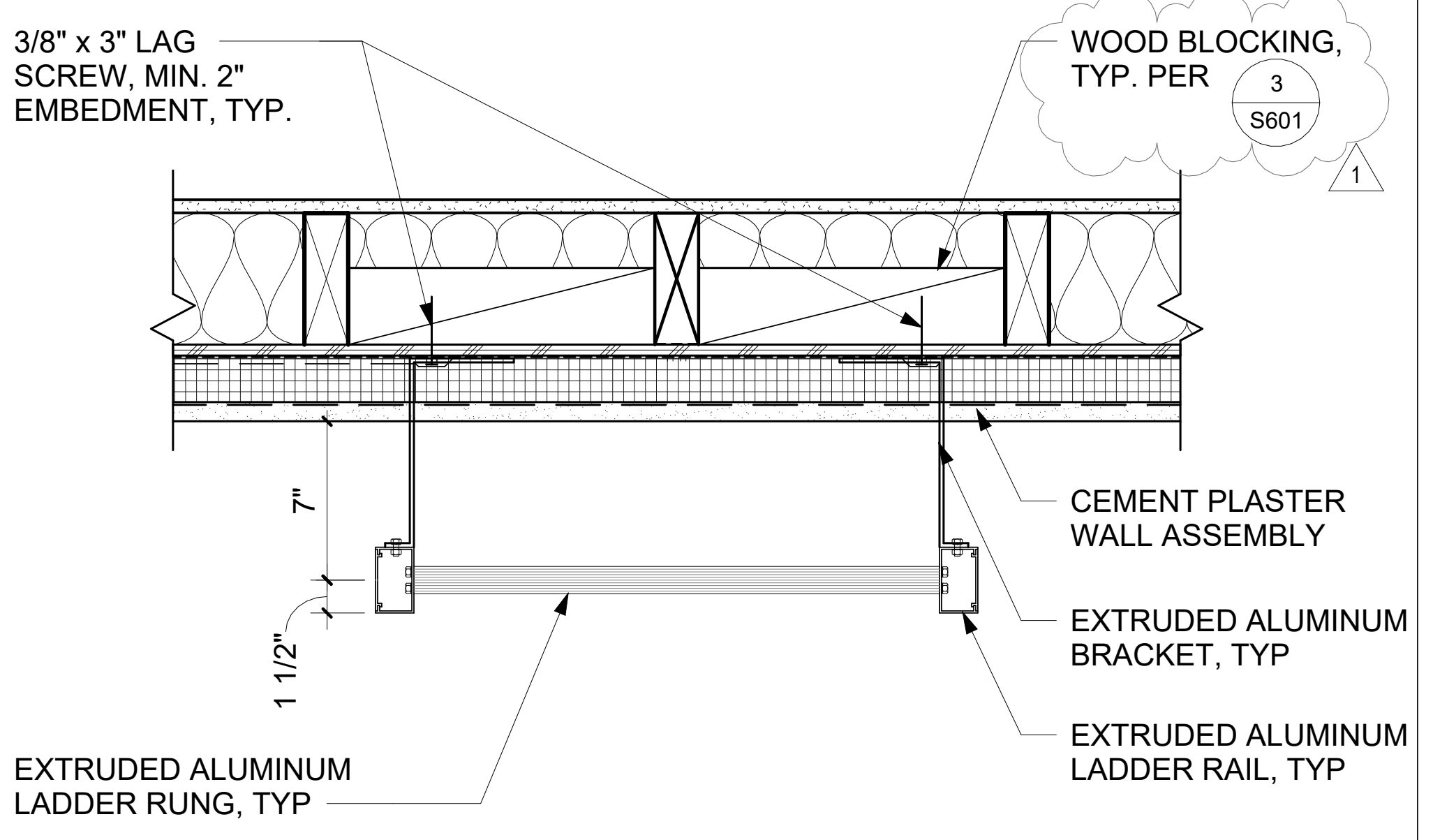


NOTE: DETAIL APPLIES ONLY IF TRUSS MANUFACTURER DEEMS PARAPET BRACING IS REQUIRED.

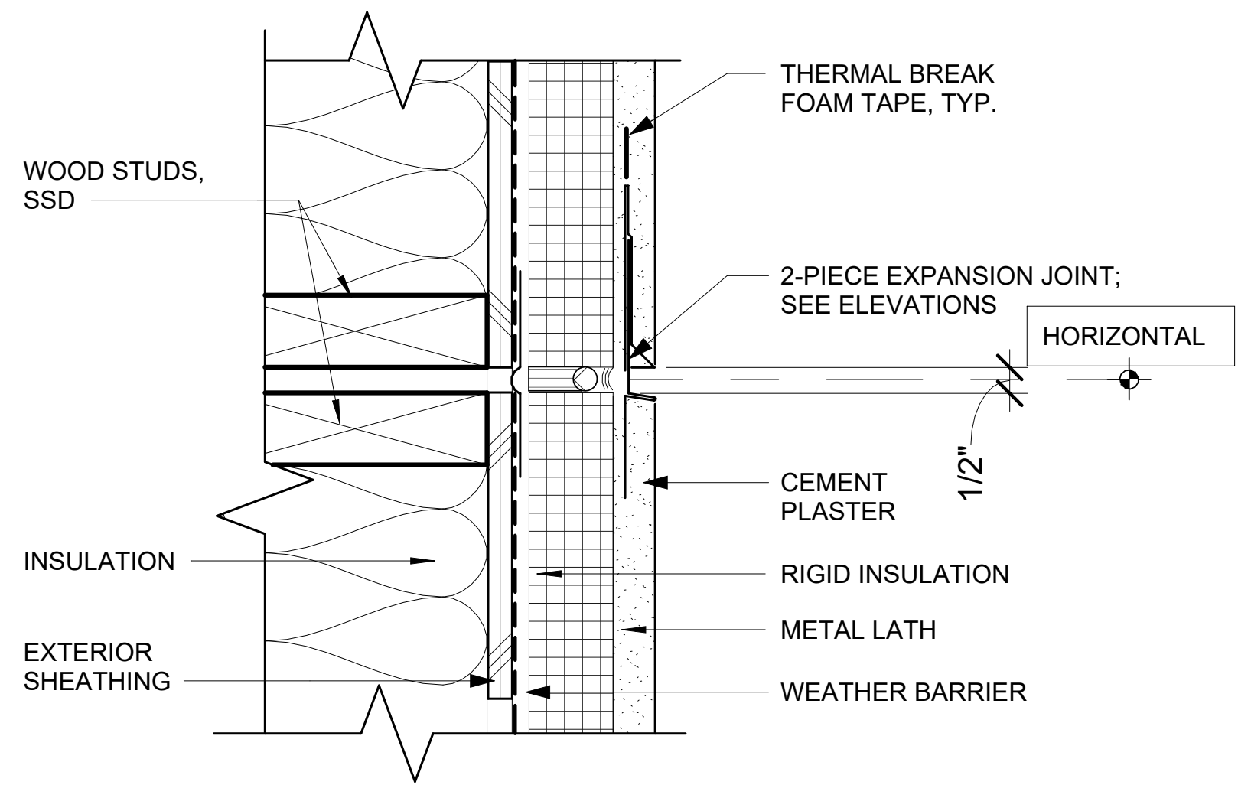
PARAPET DETAIL WITH KICKER, TYP. K10
3" = 1'-0"



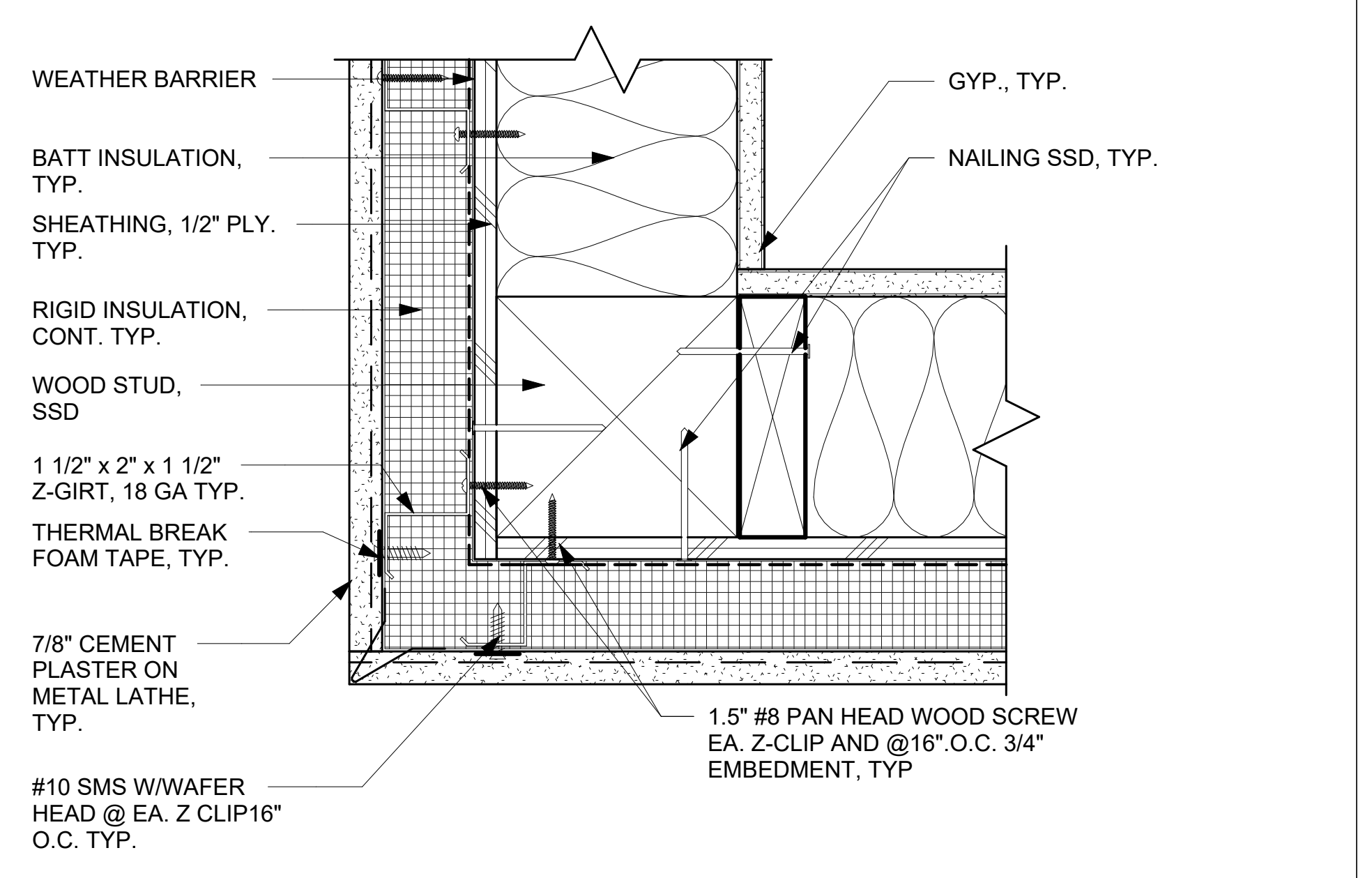
PARAPET DETAIL TYP. A6
3" = 1'-0"


3/8" x 3" LAG SCREW, MIN. 2" EMBEDMENT, TYP.
WOOD BLOCKING, TYP. PER 3 S601
1
7"
1 1/2"
CEMENT PLASTER WALL ASSEMBLY
EXTRUDED ALUMINUM BRACKET, TYP
EXTRUDED ALUMINUM LADDER RAIL, TYP
EXTRUDED ALUMINUM LADDER RUNG, TYP

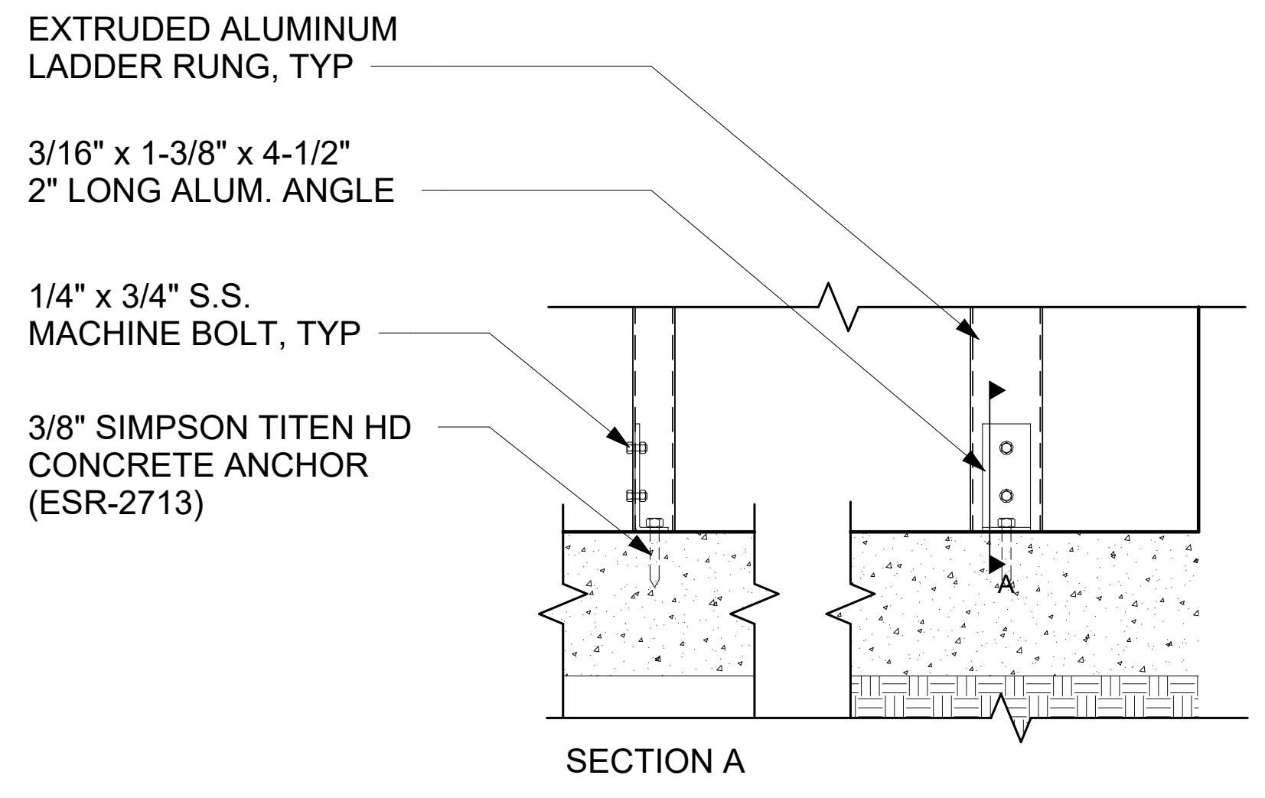
ROOF ACCESS LADDER - WALL BRACKET D6
1 1/2" = 1'-0"



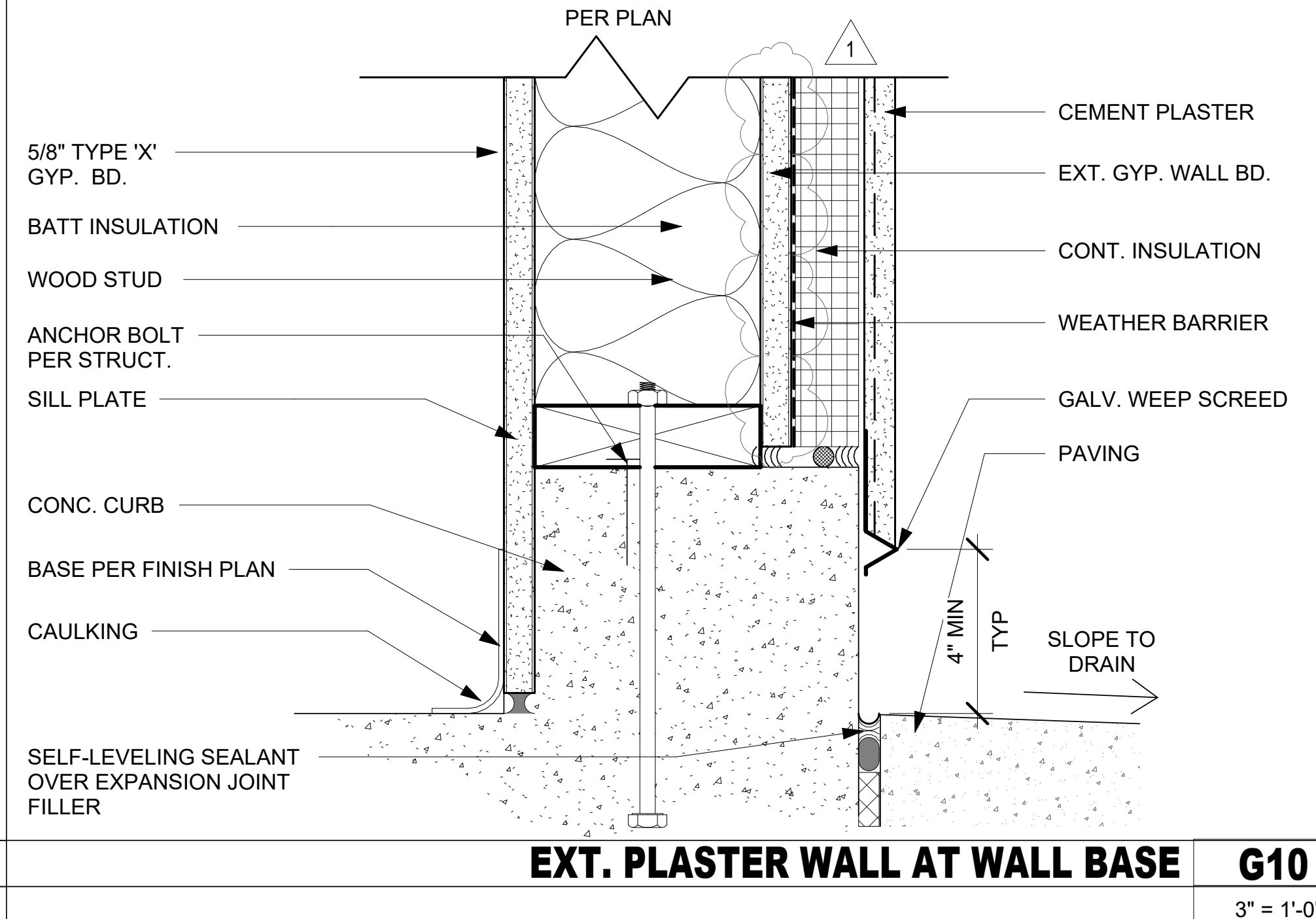
TYPICAL PLASTER EXPANSION JOINT G8
3" = 1'-0"


WEATHER BARRIER
BATT INSULATION, TYP.
SHEATHING, 1/2" PLY. TYP.
RIGID INSULATION, CONT. TYP.
WOOD STUD, SSD
1 1/2" x 2" x 1 1/2" Z-GIRT, 18 GA TYP.
THERMAL BREAK FOAM TAPE, TYP.
7/8" CEMENT PLASTER ON METAL LATHE, TYP.
#10 SMS W/WAFER HEAD @ EA. Z CLIP16" O.C. TYP.
GYP., TYP.
NAILING SSD, TYP.
1.5" #8 PAN HEAD WOOD SCREW EA. Z-CLIP AND @16".O.C. 3/4" EMBEDMENT, TYP

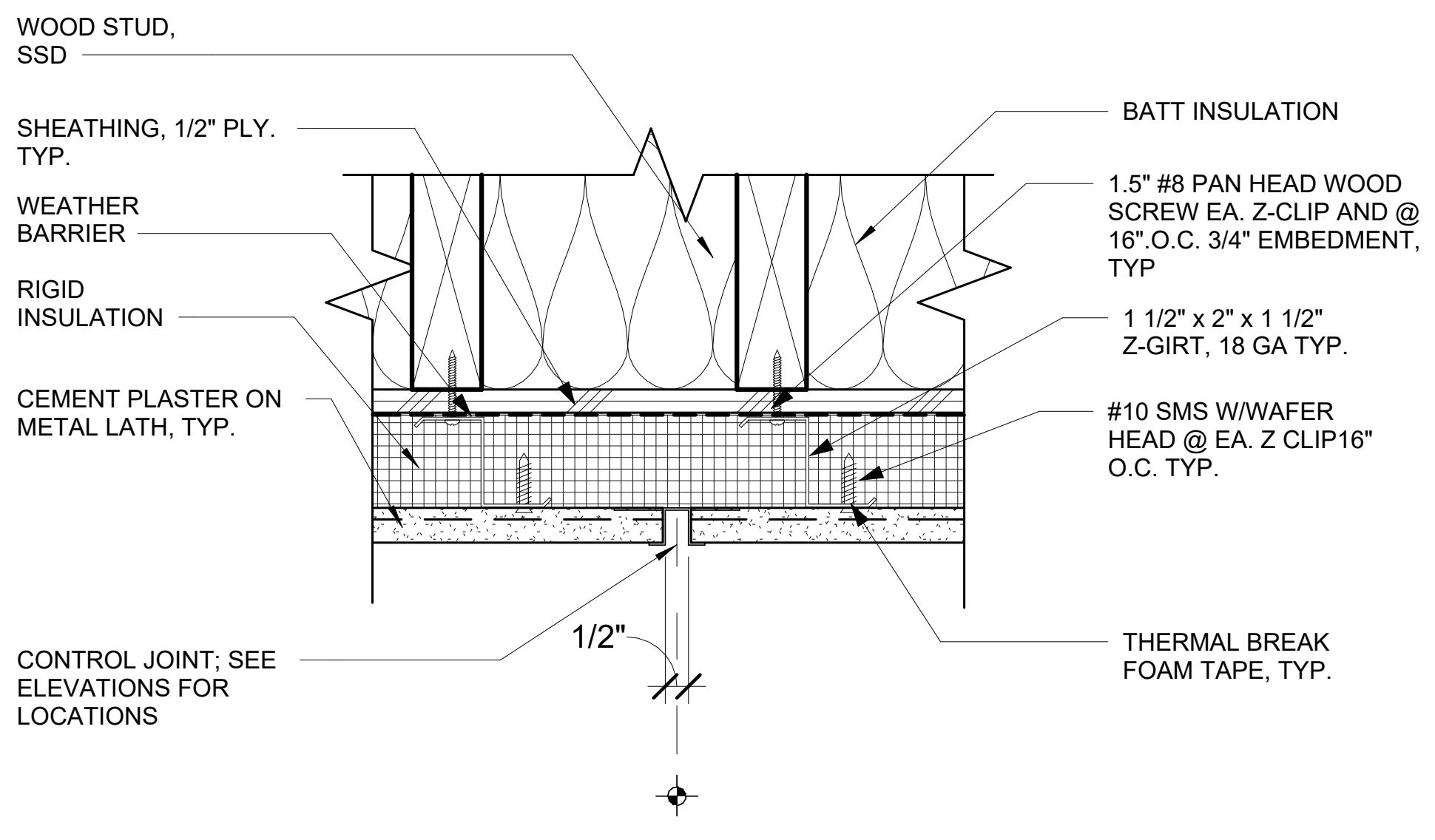
EXT. CEMENT PLASTER CORNER DETAIL G2
INSULATED CEMENT PLASTER WALL ASSEMBLY - PWA 106
3" = 1'-0"


EXTRUDED ALUMINUM LADDER RUNG, TYP
3/16" x 1-3/8" x 4-1/2" 2" LONG ALUM. ANGLE
1/4" x 3/4" S.S. MACHINE BOLT, TYP
3/8" SIMPSON TITEN HD CONCRETE ANCHOR (ESR-2713)
A
SECTION A

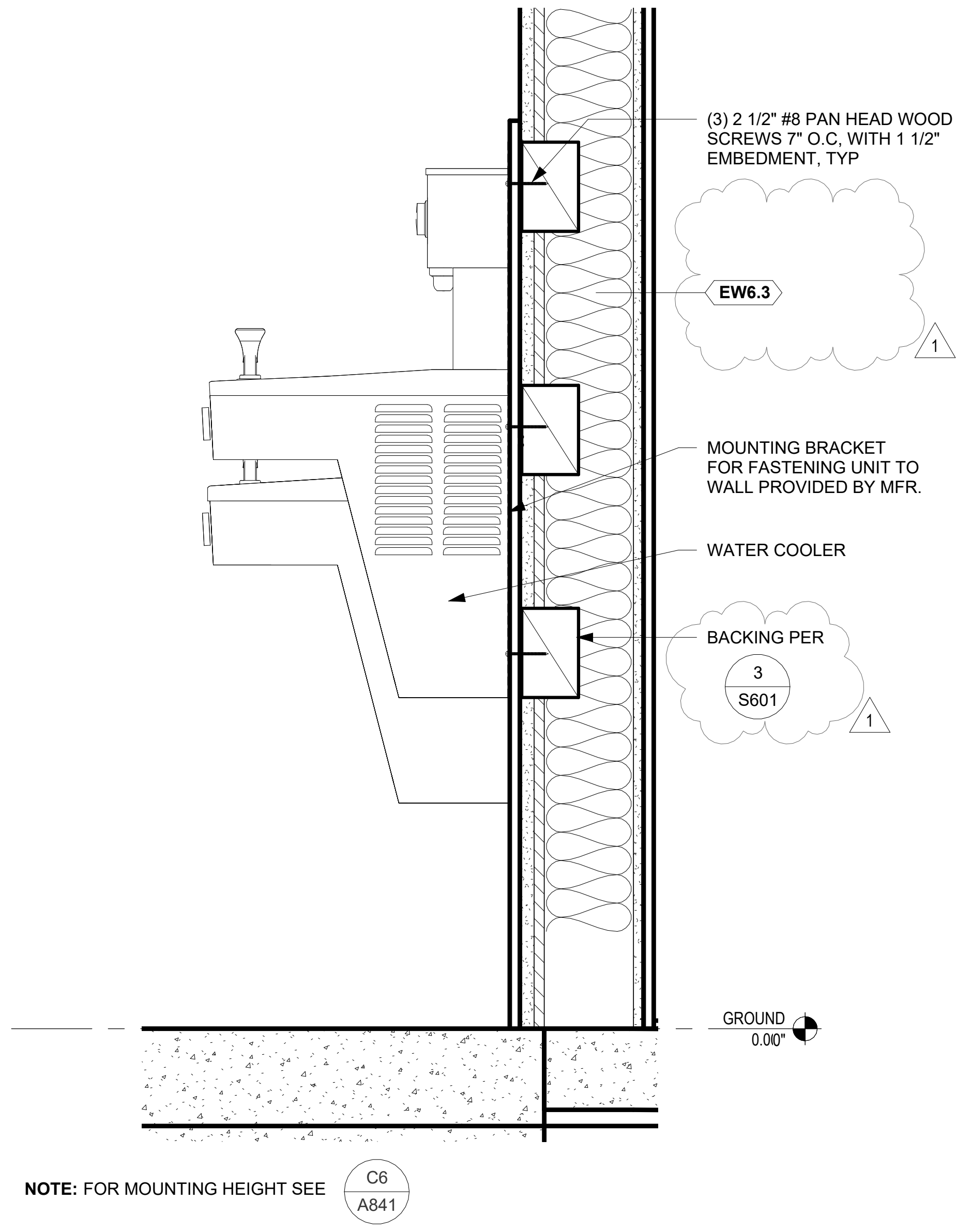
ROOF ACCESS LADDER - FLOOR BRACKET D8
1 1/2" = 1'-0"



EXT. PLASTER WALL AT WALL BASE G10
3" = 1'-0"


WOOD STUD, SSD
SHEATHING, 1/2" PLY. TYP.
WEATHER BARRIER
RIGID INSULATION
CEMENT PLASTER ON METAL LATH, TYP.
CONTROL JOINT; SEE ELEVATIONS FOR LOCATIONS
1/2"
BATT INSULATION
1.5" #8 PAN HEAD WOOD SCREW EA. Z-CLIP AND @ 16".O.C. 3/4" EMBEDMENT, TYP
1 1/2" x 2" x 1 1/2" Z-GIRT, 18 GA TYP.
#10 SMS W/WAFER HEAD @ EA. Z CLIP16" O.C. TYP.
THERMAL BREAK FOAM TAPE, TYP.

TYPICAL PLASTER CONTROL JOINT G4
3" = 1'-0"


(3) 2 1/2" #8 PAN HEAD WOOD SCREWS 7" O.C, WITH 1 1/2" EMBEDMENT, TYP
EW6.3
1
MOUNTING BRACKET FOR FASTENING UNIT TO WALL PROVIDED BY MFR.
WATER COOLER
BACKING PER 3 S601
1
GROUND 0.00"

NOTE: FOR MOUNTING HEIGHT SEE C6/A841

DRINKING FOUNTAIN A10
1 1/2" = 1'-0"

GENERAL NOTES EXTERIOR FINISHES

1. FOR MOUNTING BRACKET, FASTENER AND SPACING WITH ICC ESR#, & WEATHER BARRIER DETAIL, REFER TO K8/A501 K10/A501
2. CONTINUOUS INSULATION SHALL BE 2" THICK, TYP. ON WALLS.
3. PROVIDE CONC. CURB AT ALL EXTERIOR PERIMETER WALLS, RESTROOM, AND JANITOR ROOM, TYP.
4. EXTERIOR WALL METAL STUD SIZE PER STRUCT -/S101A -/S101B -/S701 -/S721
5. [BOD HARDIEPLANK SMOOTH LAP SIDING] THICKNESS OF THE WALL CEMENT SIDING IS 5/16", TYP - ICC ESR-1844
6. FOR PLASTER: 18GA Z-FURRING, FASTENER AND SPACING & WEATHER BARRIER DETAIL, REFER TO G2/A501

   INSTALL PLASTER WALL ASSEMBLY PWA 106 W/ ASTM-106 & ASTM C-926.

DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 20[illegible]

BUILDING SECTION NOTES

GENERAL NOTES:

1. THICKNESS OF CONTINUOUS RIGID INSULATION: 2" = R13 (XPS 1"=R6.5)
2. THICKNESS OF BATT INSULATION AT WALL: R19
3. ROOF ASSEMBLY SEE -/A531
4. PENDANT LIGHT FIXTURE SWAY BRACING, SEE -/A543
5. LOCATION OF IMPACT RESISTANT GYP. BOARD, REFER TO INTERIOR ELEVATIONS.

BUILDING SECTION LEGEND

▥ 1 HR RATED WALL - REFER TO FLOOR PLAN

EXTERIOR WALL ASSEMBLY SCHEDULE

1. TYPE A:
   FIBER CEMENT SIDING O/ WEATHER BARRIER #2, O/ 2" RIGID INSULATION, O/ WEATHER BARRIER #1 O/ EXTERIOR SHEATHING.
   A2/- A4/- A6/- A8/-
2. TYPE C:
   CEMENT PLASTER O/ WEATHER BARRIER #3 O/ EXTERIOR SHEATHING O/ RIGID INSULATION O/ WEATHER BARRIER #1 O/ EXTERIOR SHEATHING
   G2/- G4/- G8/- G10/-

GATEWAY ANNEX SCHOOL

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DATE	12/07/2022
△1 ADD 1	08/28/2026
△	
△	
△	
△	

EXTERIOR WALL DETAILS

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3194 D Airport Loop Drive
Costa Mesa, CA 92626
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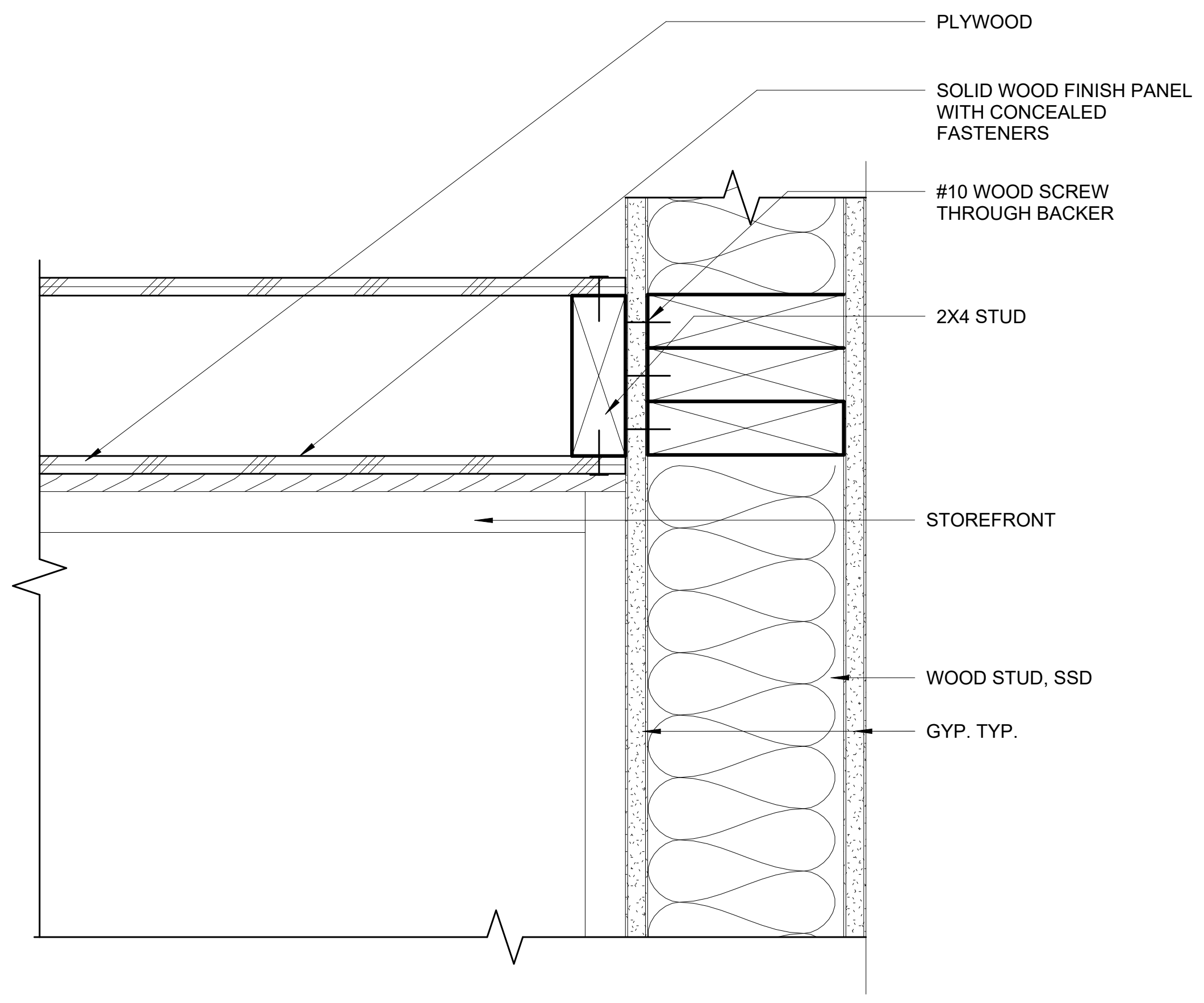
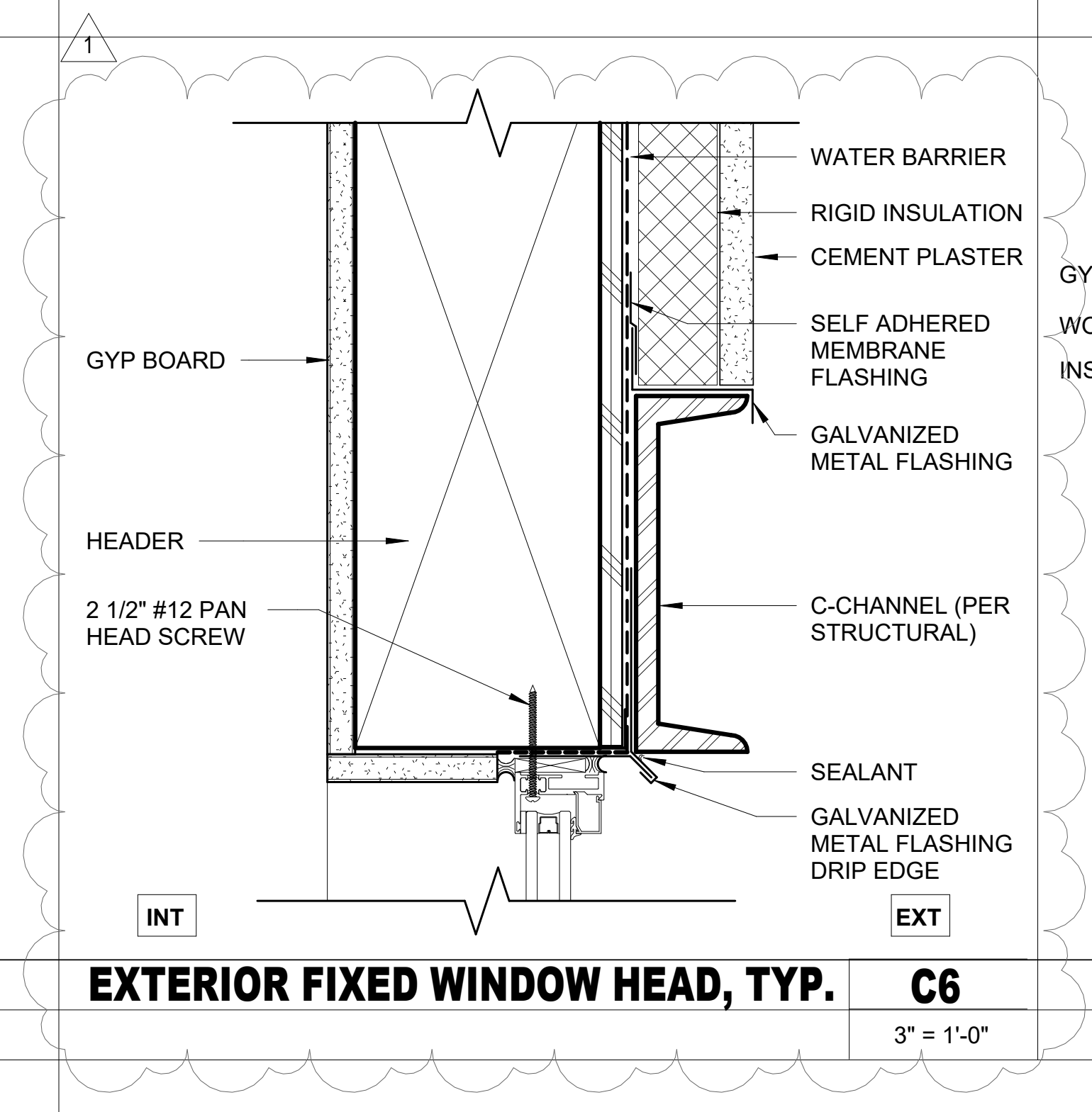
www.perkinseastman.com

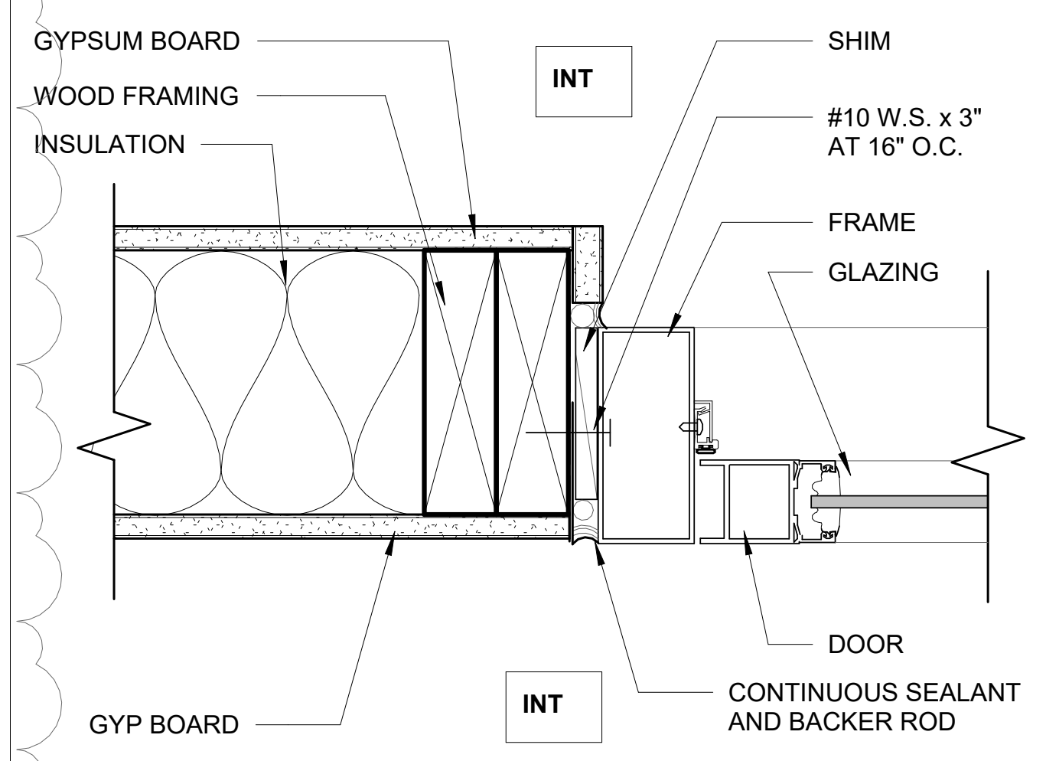
A721


PLYWOOD
SOLID WOOD FINISH PANEL WITH CONCEALED FASTENERS
#10 WOOD SCREW THROUGH BACKER
2X4 STUD
STOREFRONT
WOOD STUD, SSD
GYP. TYP.

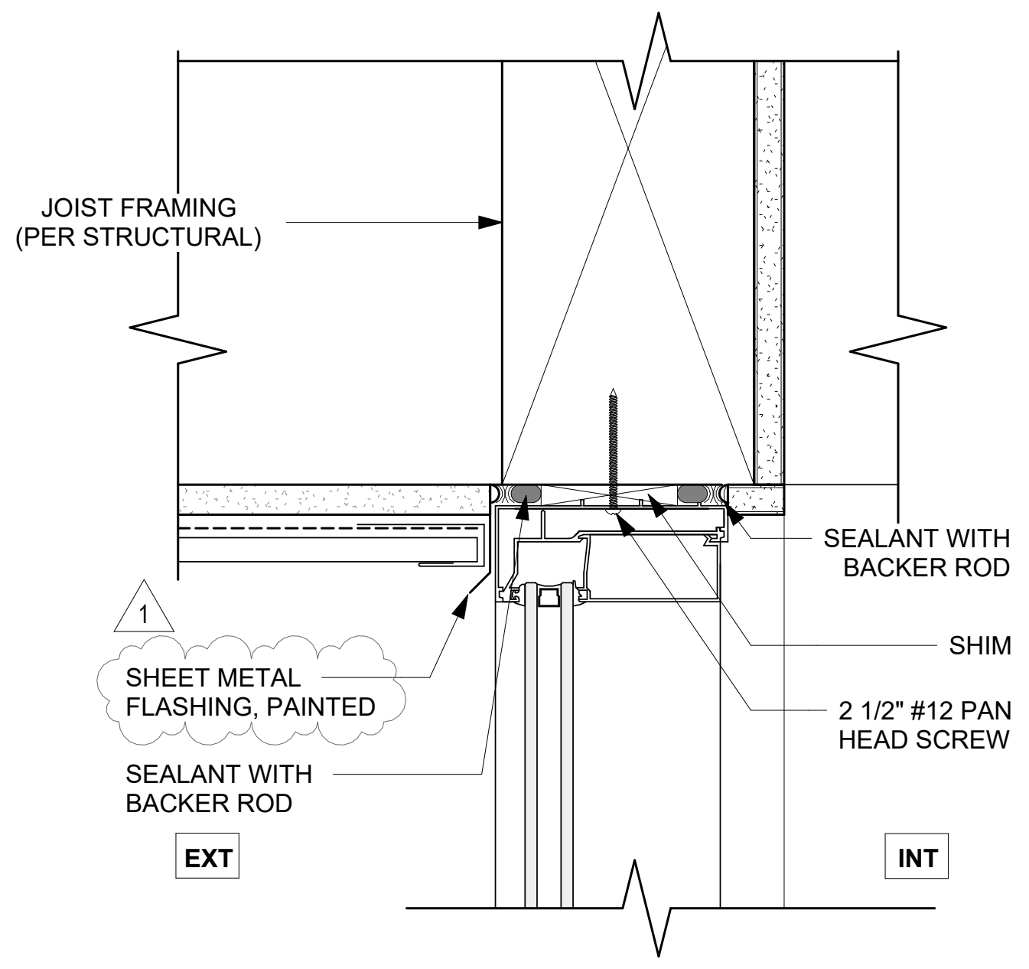
RECEPTION DESK CLOUD A4
3" = 1'-0"


1
WATER BARRIER
RIGID INSULATION
CEMENT PLASTER
GYP BOARD
SELF ADHERED MEMBRANE FLASHING
GALVANIZED METAL FLASHING
HEADER
2 1/2" #12 PAN HEAD SCREW
C-CHANNEL (PER STRUCTURAL)
SEALANT
GALVANIZED METAL FLASHING DRIP EDGE
INT
EXT

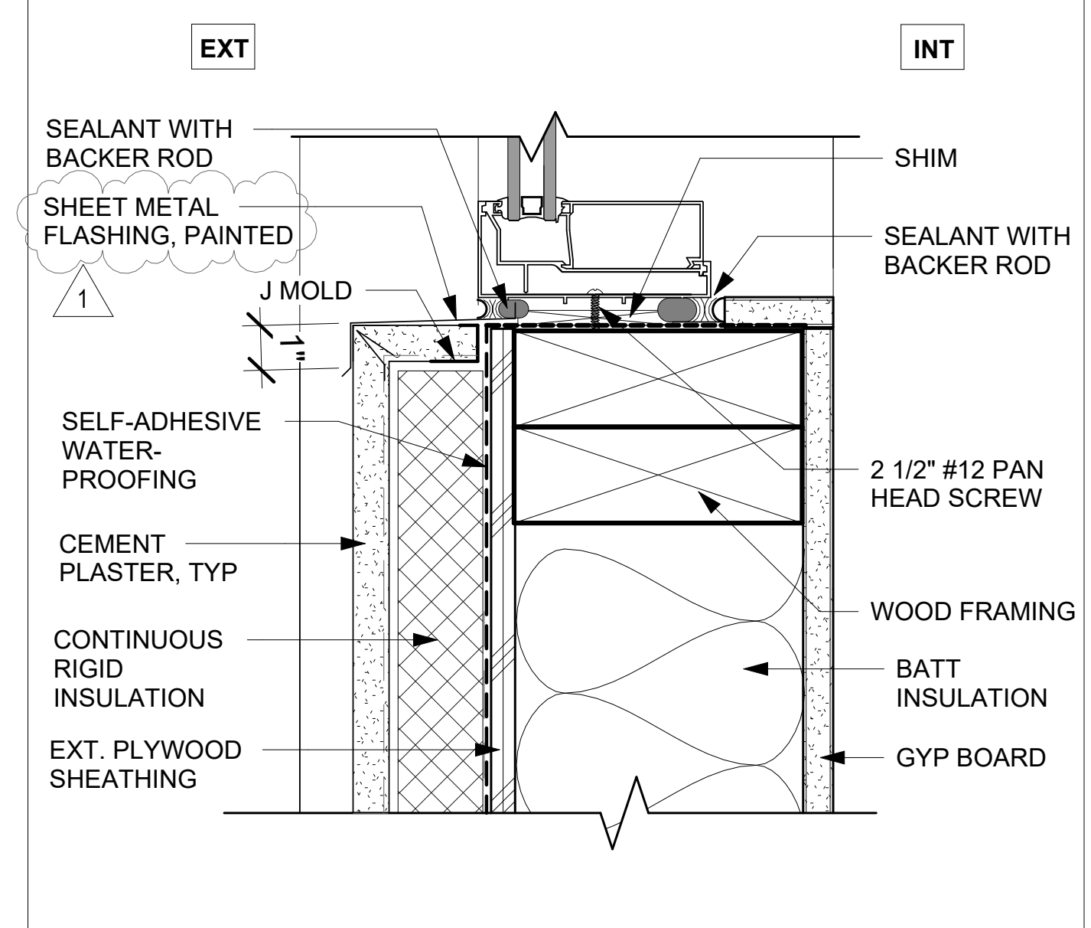
EXTERIOR FIXED WINDOW HEAD, TYP. C6
3" = 1'-0"



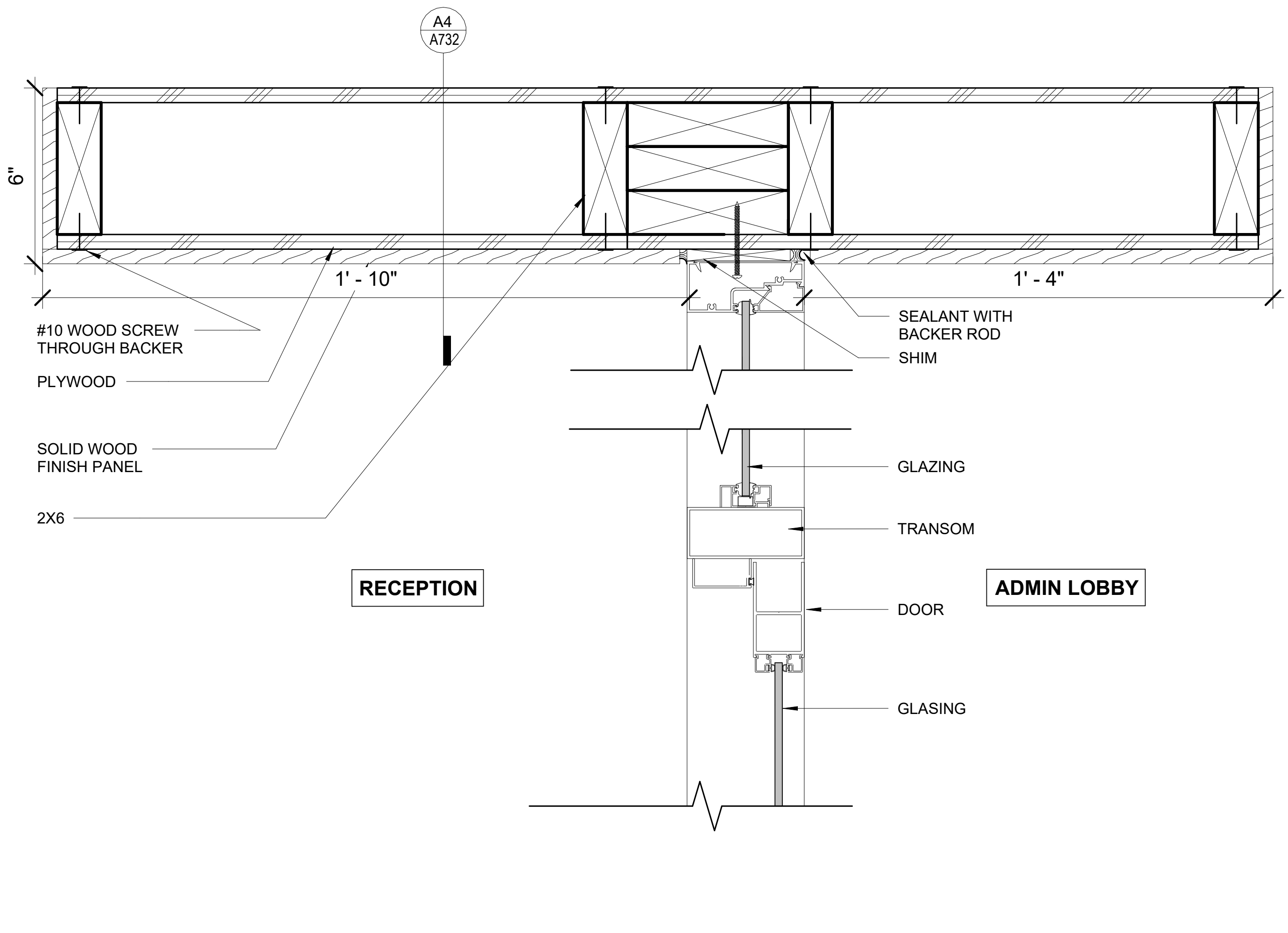
INT. STOREFRONT DOOR AT JAMB A6
3" = 1'-0"


JOIST FRAMING (PER STRUCTURAL)
SEALANT WITH BACKER ROD
SHIM
1
SHEET METAL FLASHING, PAINTED
2 1/2" #12 PAN HEAD SCREW
SEALANT WITH BACKER ROD
EXT
INT

EXT. STOREFRONT HEAD - ENTRANCE E8
3" = 1'-0"



EXTERIOR STOREFRONT SILL E10
3" = 1'-0"



RECEPTOPN DESK STOREFRONT HEAD - TRANSOM INTERIOR A10
3" = 1'-0"

LICENSED ARCHITECT
STATE OF CALIFORNIA

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△	

DOOR AND WINDOW DETAILS

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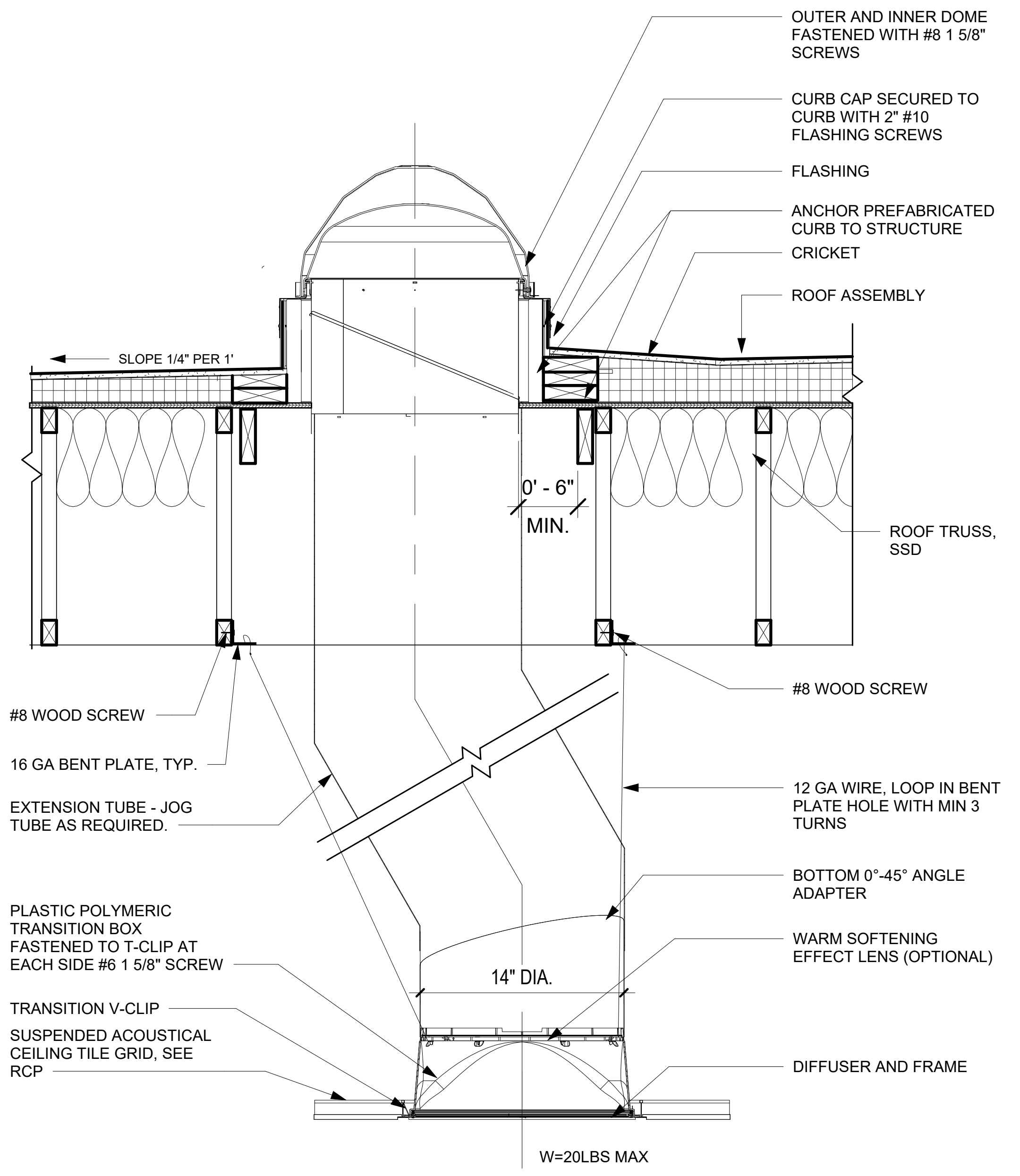
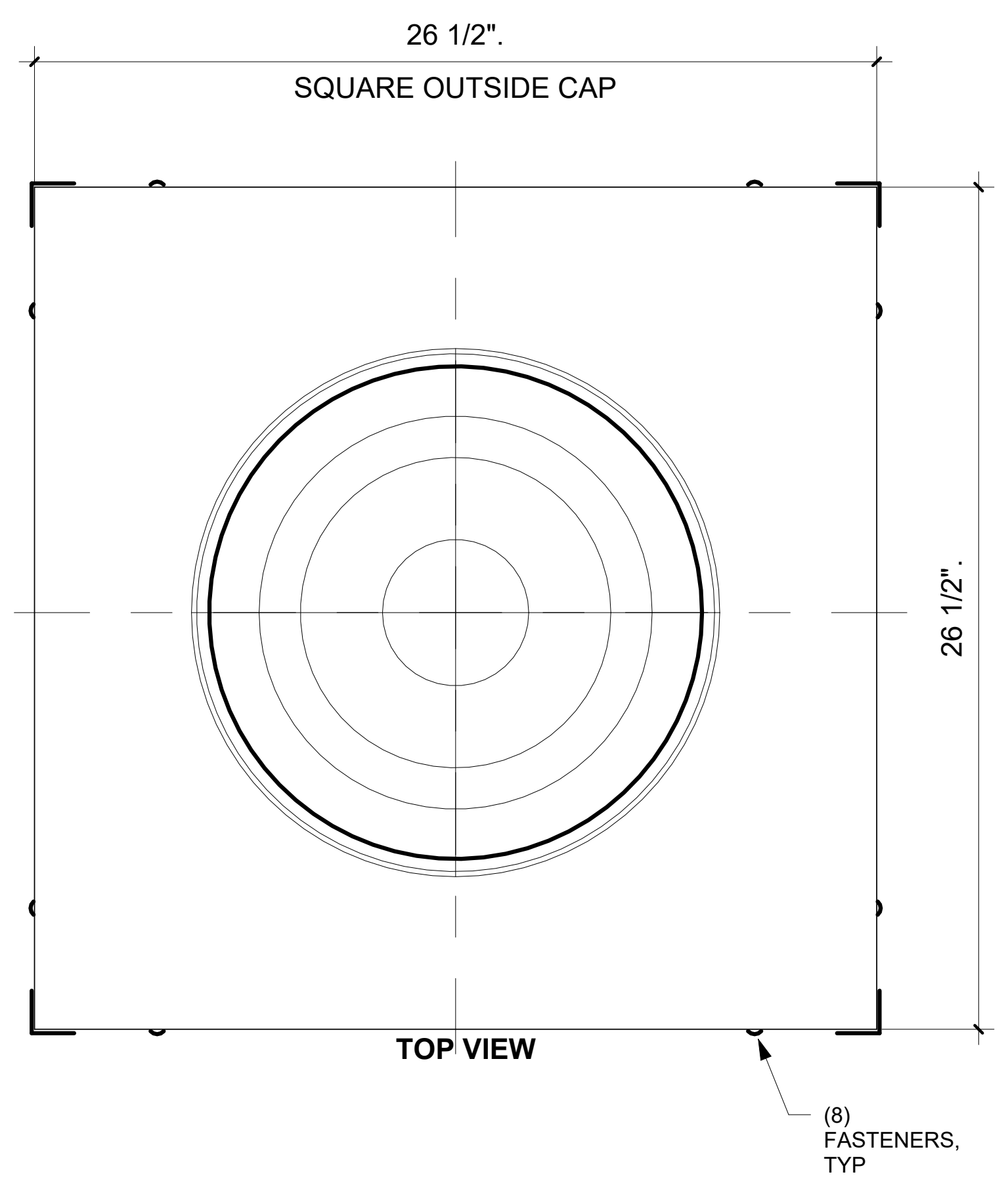
A732


OUTER AND INNER DOME FASTENED WITH #8 1 5/8" SCREWS
CURB CAP SECURED TO CURB WITH 2" #10 FLASHING SCREWS
FLASHING
ANCHOR PREFABRICATED CURB TO STRUCTURE
CRICKET
ROOF ASSEMBLY
SLOPE 1/4" PER 1'
0' - 6" MIN.
ROOF TRUSS, SSD
#8 WOOD SCREW
#8 WOOD SCREW
16 GA BENT PLATE, TYP.
EXTENSION TUBE - JOG TUBE AS REQUIRED.
12 GA WIRE, LOOP IN BENT PLATE HOLE WITH MIN 3 TURNS
BOTTOM 0°-45° ANGLE ADAPTER
PLASTIC POLYMERIC TRANSITION BOX FASTENED TO T-CLIP AT EACH SIDE #6 1 5/8" SCREW
WARM SOFTENING EFFECT LENS (OPTIONAL)
14" DIA.
TRANSITION V-CLIP
SUSPENDED ACOUSTICAL CEILING TILE GRID, SEE RCP
DIFFUSER AND FRAME
W=20LBS MAX



TOP VIEW

NOTES:

1. ALL TUBE JOINTS AND SEAMS TAPED WITH 2" FOIL TAPE.
2. 6" MIN. CLEARANCE SHOULD BE MAINTAINED FROM ALL SOLATUBE COMPONENTS AND PLENUM COMPONENTS.
3. ESR-2253.

TUBULAR SKYLIGHT JOGGED AT CURB CAP HARD CEILING **G10**

AT PVC ROOF 1" = 1'-0"

DIEGO M. MATZKIN
NO. C-27962
REN. OCT. 31, 20

GATEWAY ANNEX SCHOOL

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TUBULAR SKYLIGHT DETAILS

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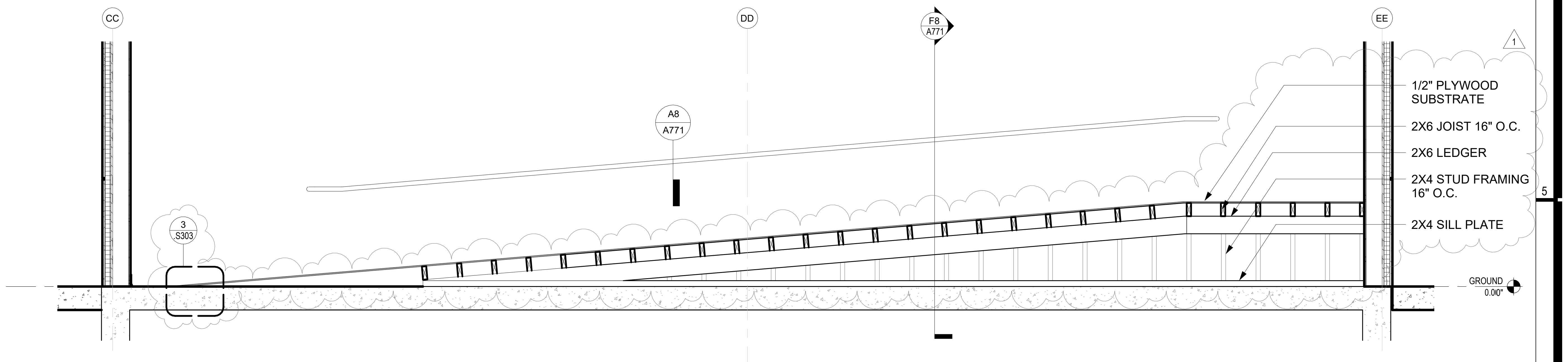
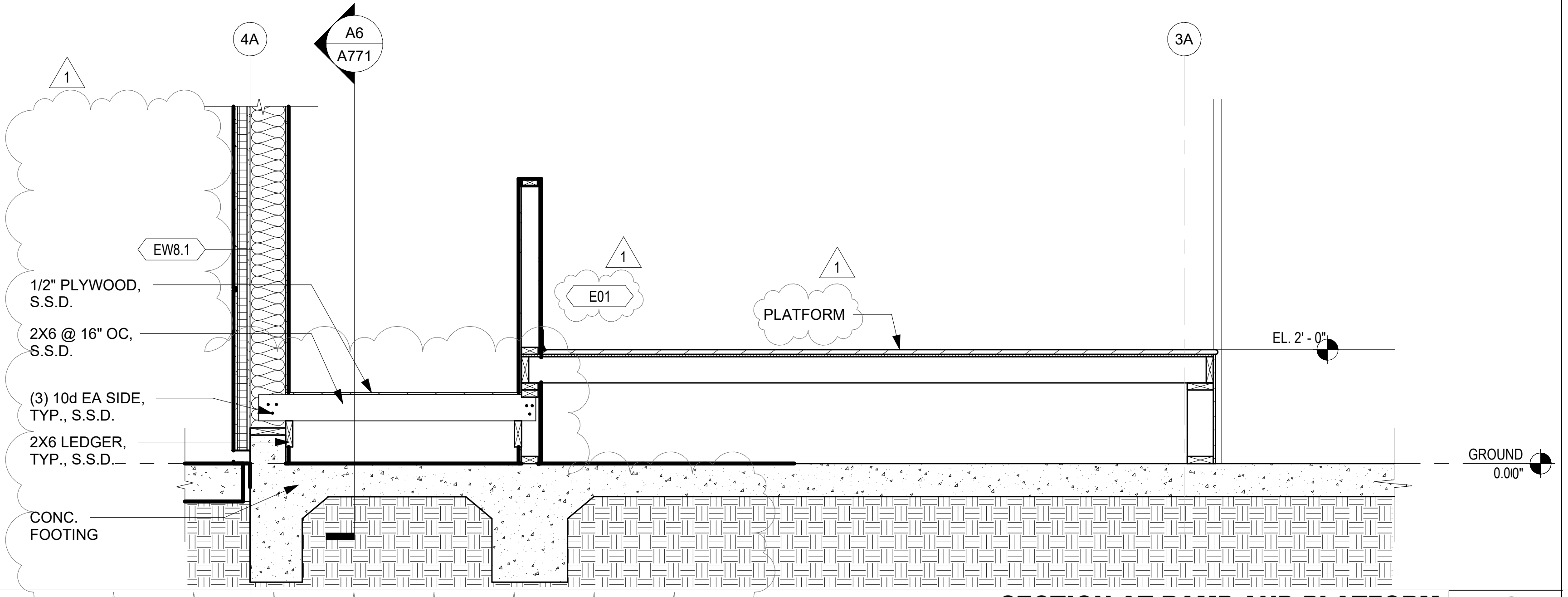
A734



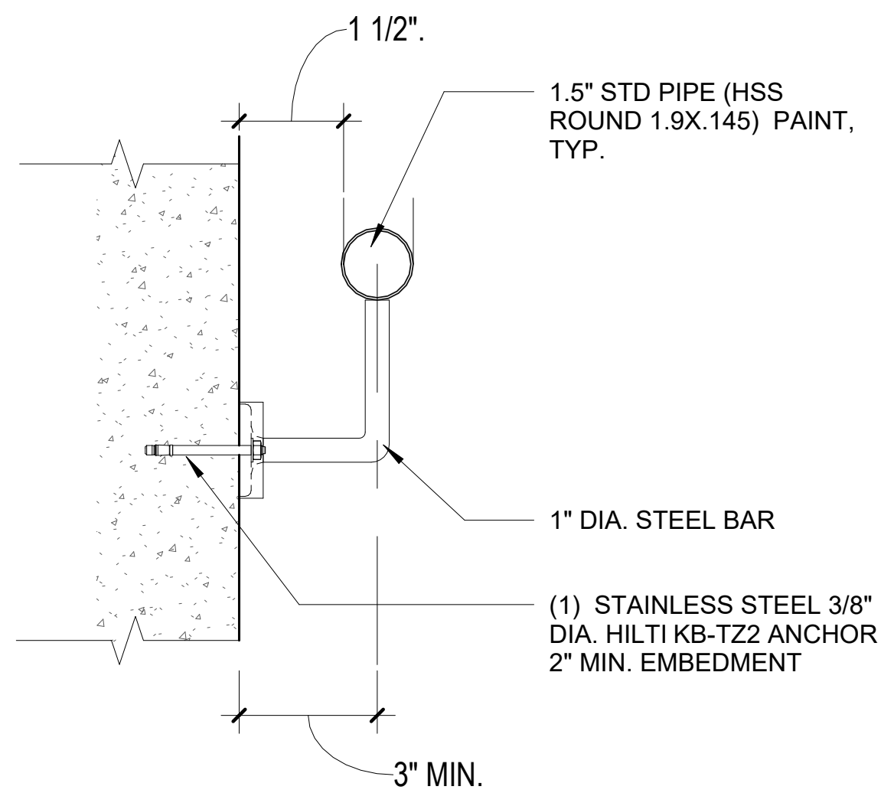
PLATFORM ACCESS RAMP A6

1/2" = 1'-0"



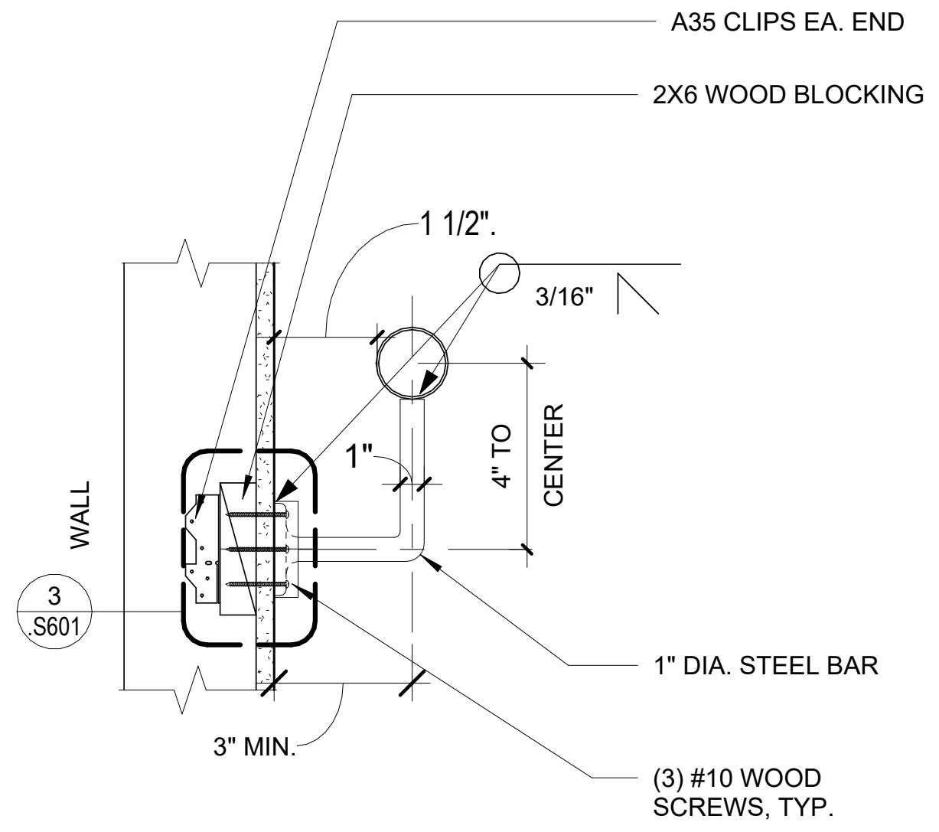
SECTION AT RAMP AND PLATFORM F8

1/2" = 1'-0"


1 1/2".
1.5" STD PIPE (HSS ROUND 1.9X.145) PAINT, TYP.
1" DIA. STEEL BAR
(1) STAINLESS STEEL 3/8" DIA. HILTI KB-TZ2 ANCHOR 2" MIN. EMBEDMENT
3" MIN.

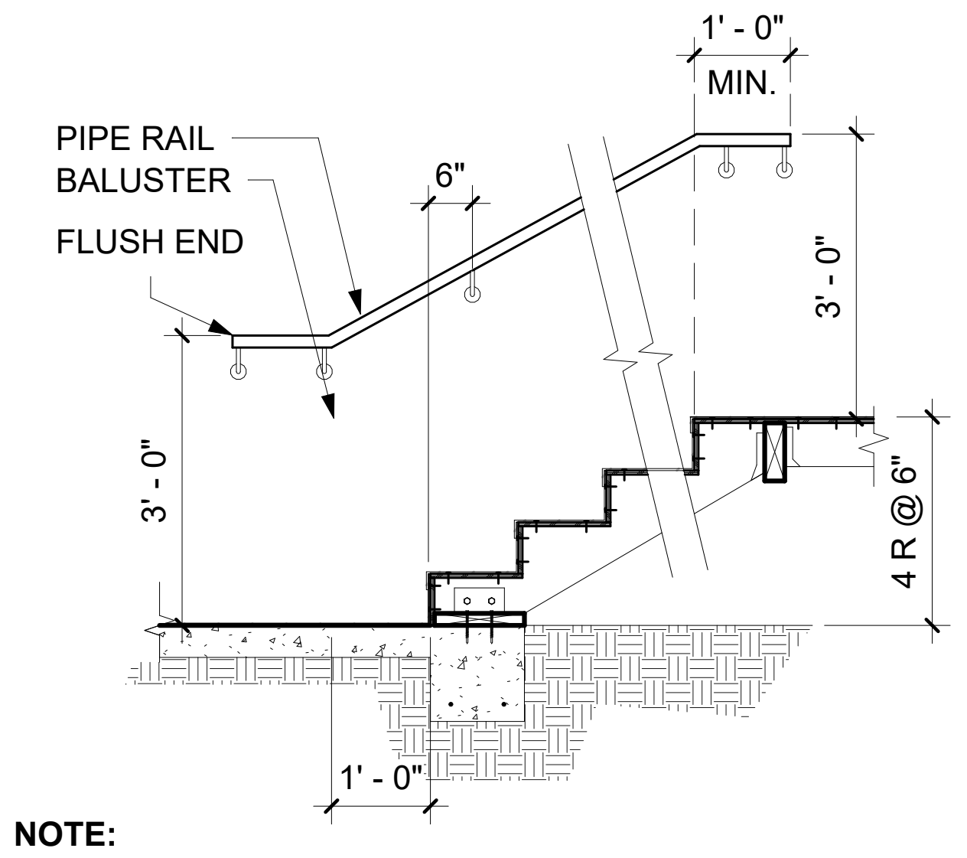
TYP. HANDRAIL EXTENSION AT RAMP C8

1 1/2" = 1'-0"



TYP. HANDRAIL EXTENSION AT RAMP A8

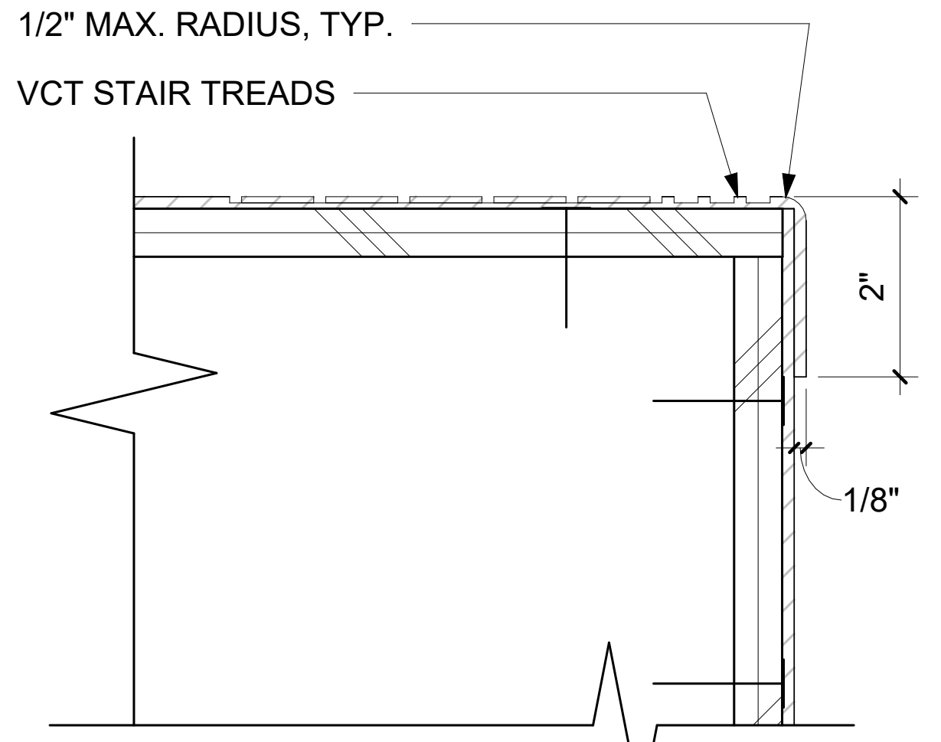
1 1/2" = 1'-0"



NOTE:
1. SEE 13/S622 AND 14/S622

STAIR AT PLATFORM L10

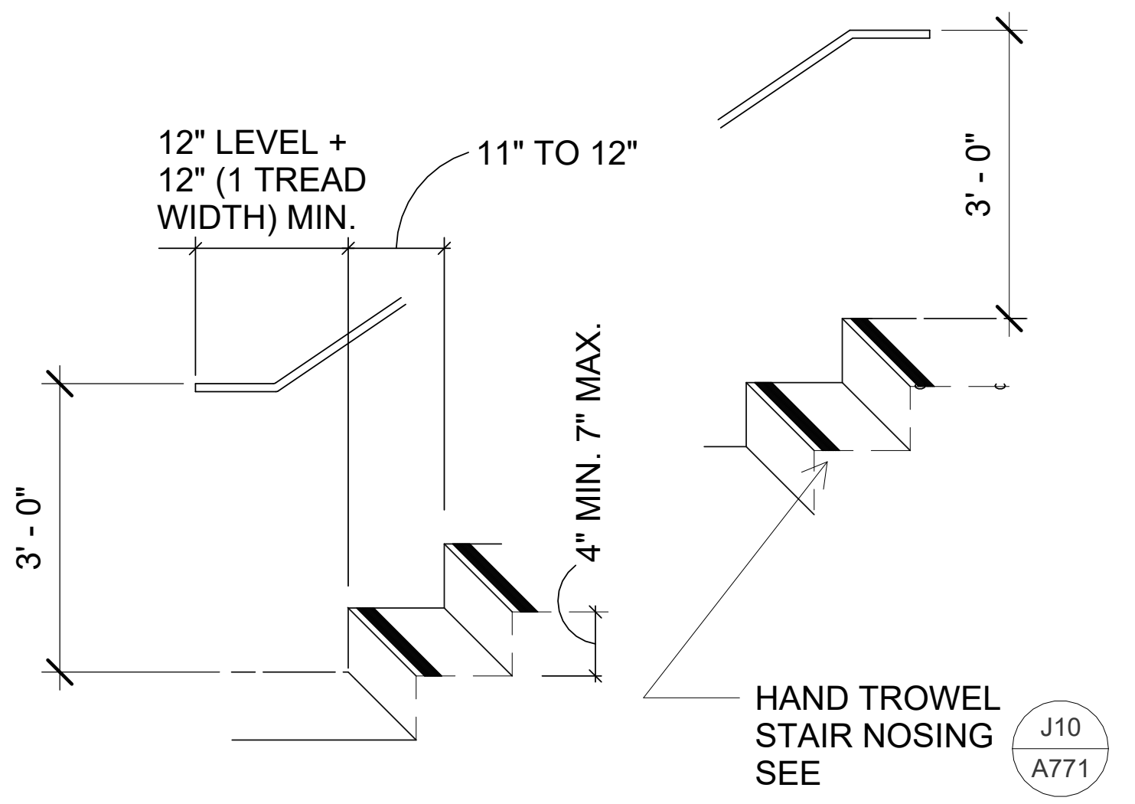
1/2" = 1'-0"



NOTE:
1. FOR INTERIOR STAIR: APPLY TO EACH TREADS EXCEPT FOR TOP AND BOTTOM.
2. SEE 13/S622 AND 14/S622

STAIR NOSING J10

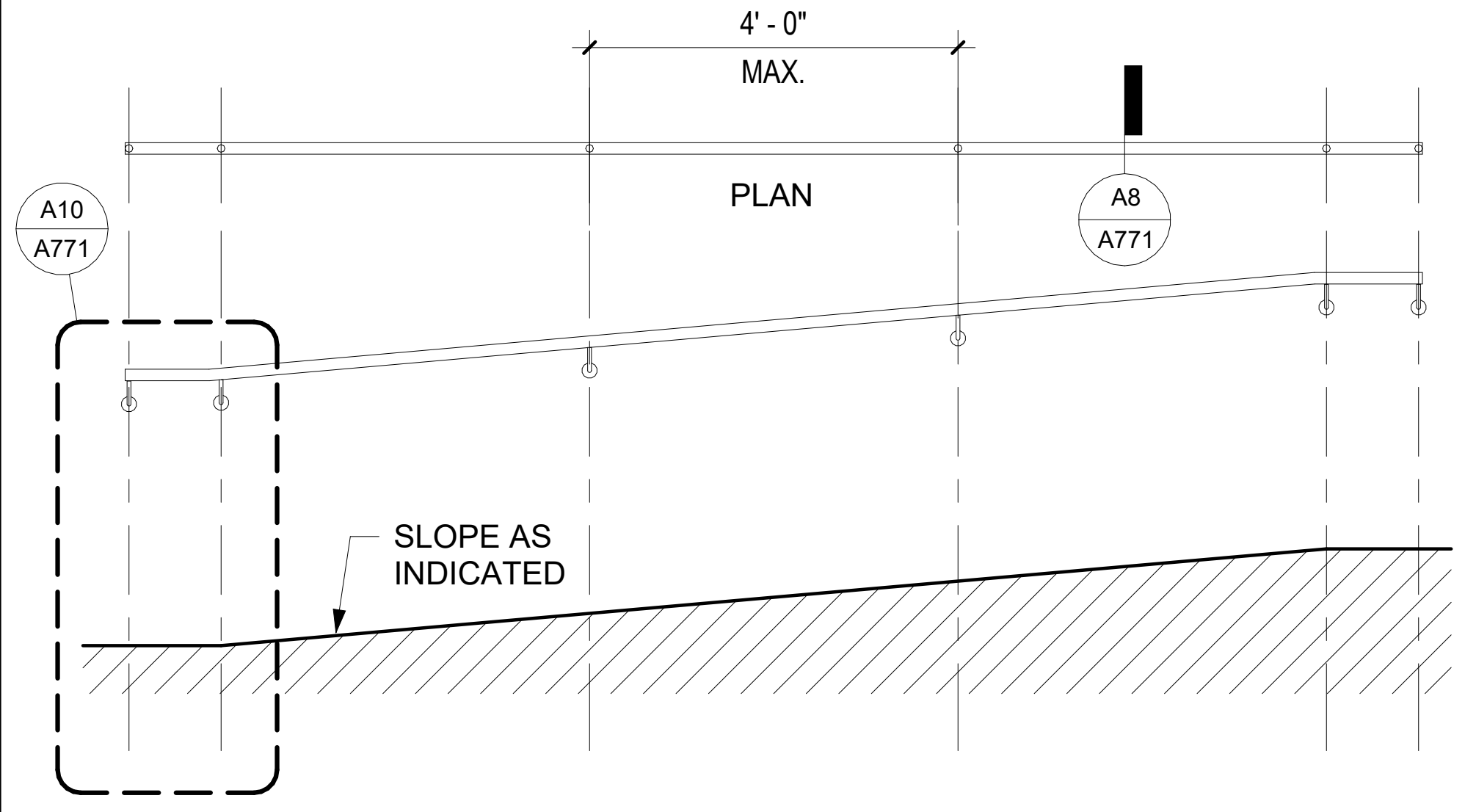
6" = 1'-0"


12" LEVEL + 12" (1 TREAD WIDTH) MIN.
11" TO 12"
3' - 0"
3' - 0"
4" MIN. 7" MAX.
HAND TROWEL STAIR NOSING SEE
J10
A771

2" WIDE CONTRASTING STRIPE, COLOR TO BE SELECTED BY ARCHITECT AND PAINTED ON CONCRETE
BALUSTER TO BE SPACED EVENLY AND TO BE PLACED CENTER OF STAIR THREAD

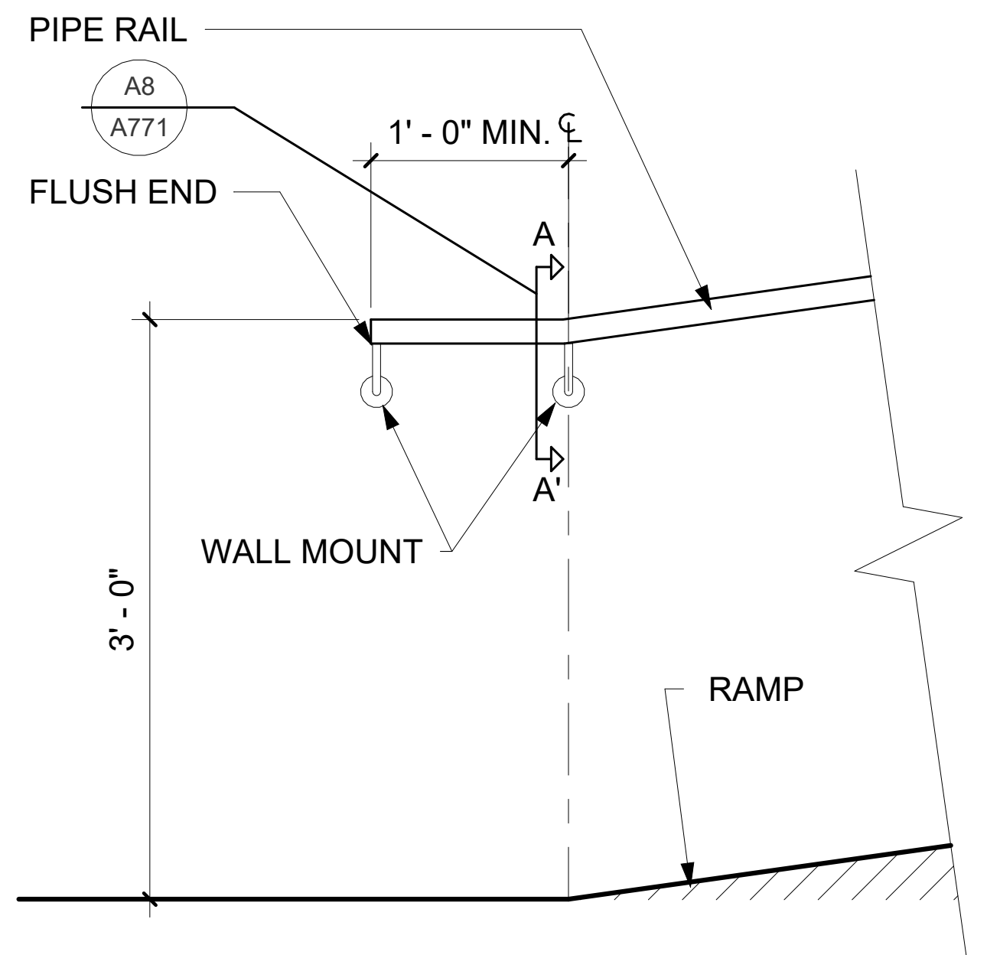
STAIR STRIPING & HANDRAILS F10

1/2" = 1'-0"



TYP. HANDRAIL AT RAMP C10

1/2" = 1'-0"



TYP. HANDRAIL EXTENSION AT RAMP A10

1" = 1'-0"

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STAIR AND RAMP DETAILS

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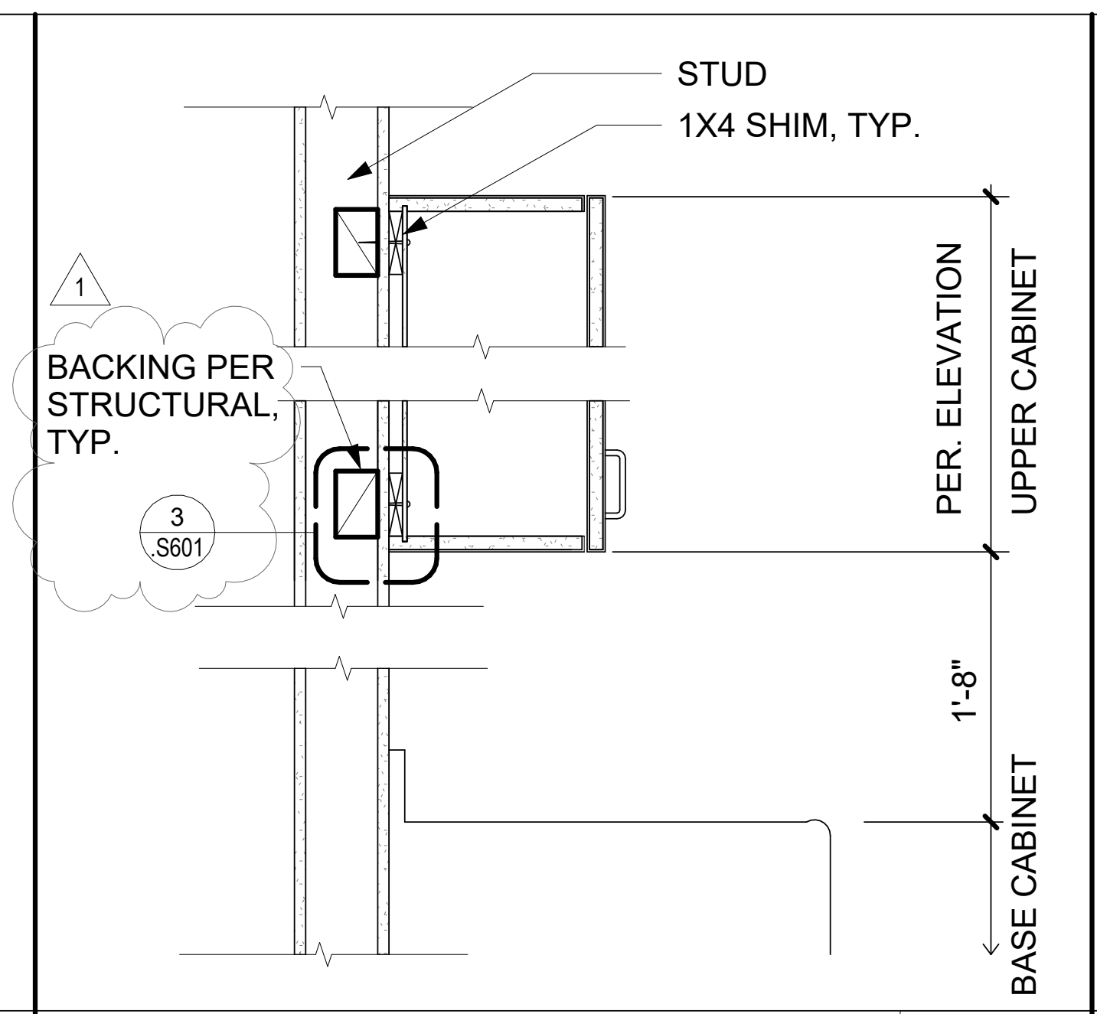
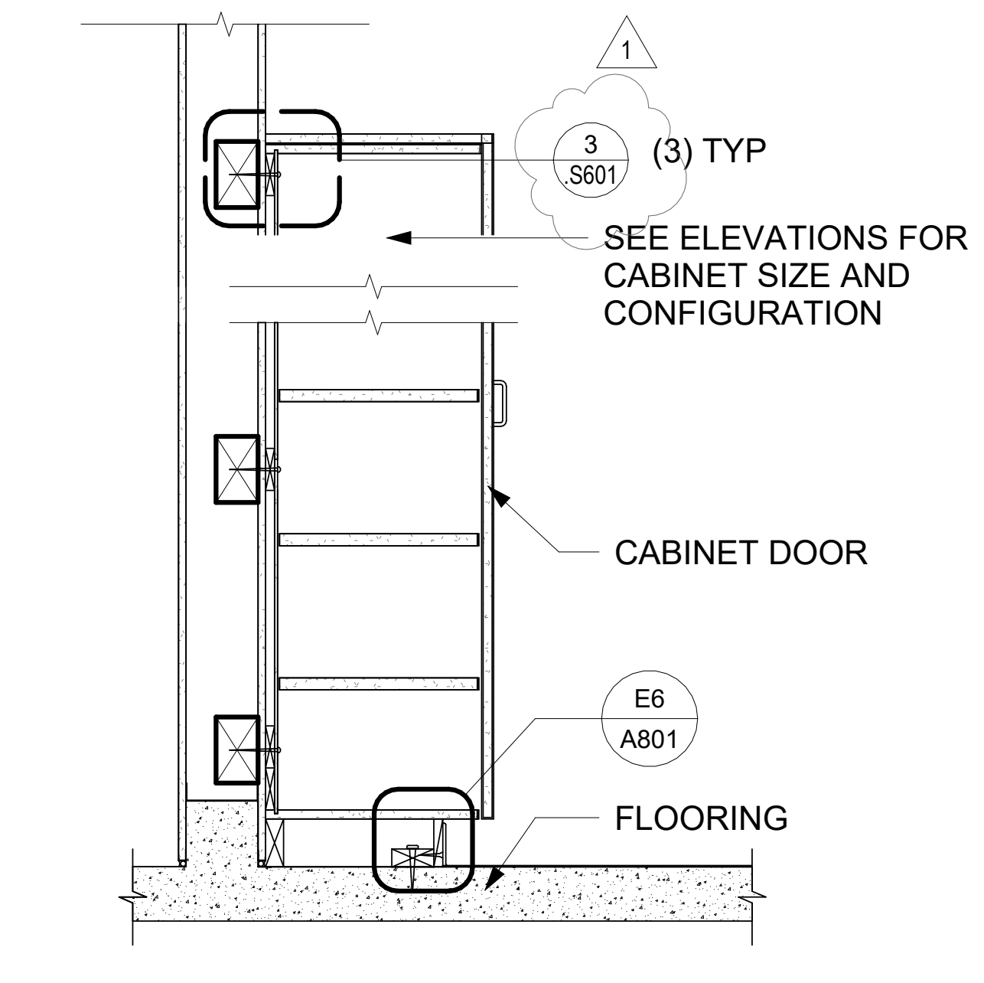
A771



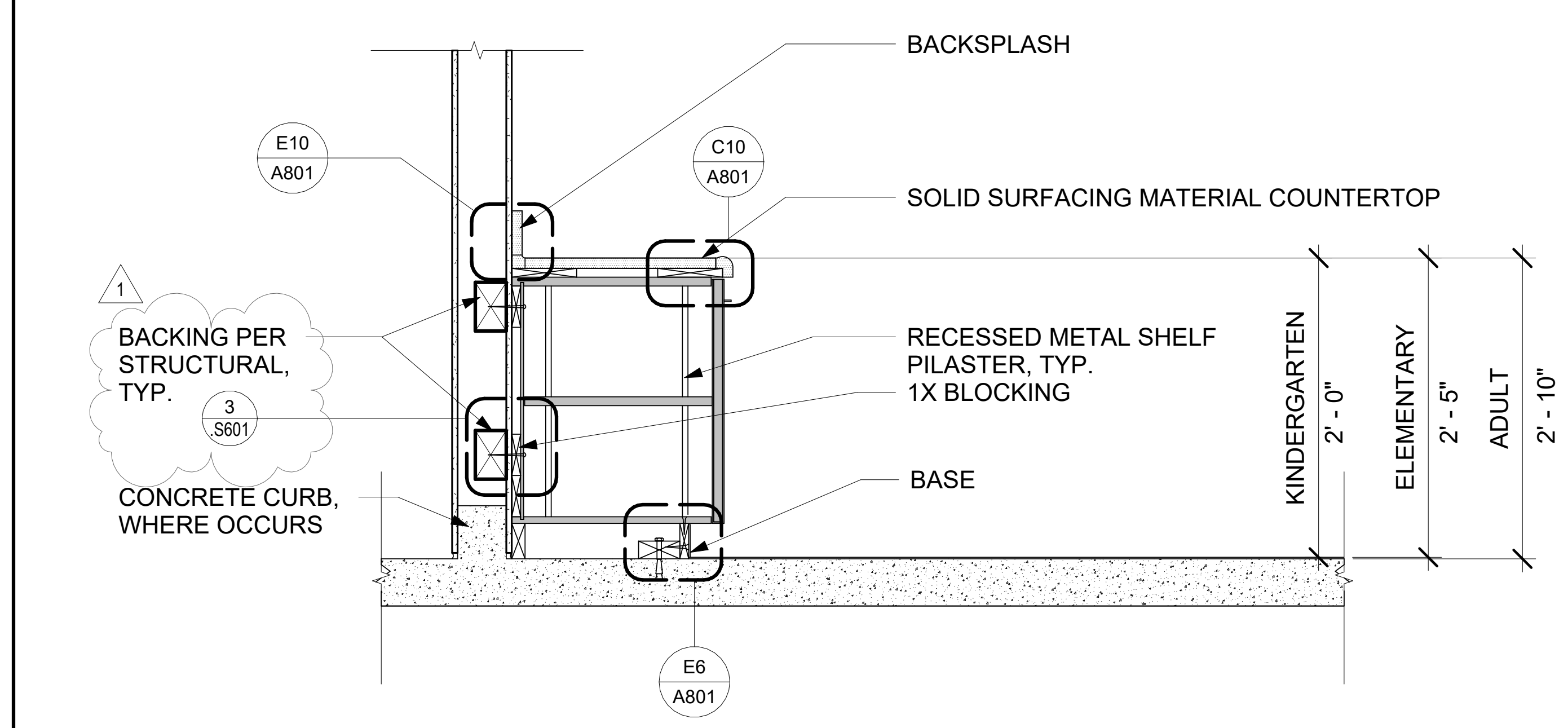
TYPICAL CASEWORK MOUNTING C2

UPPER CABINET 3/4" = 1'-0"



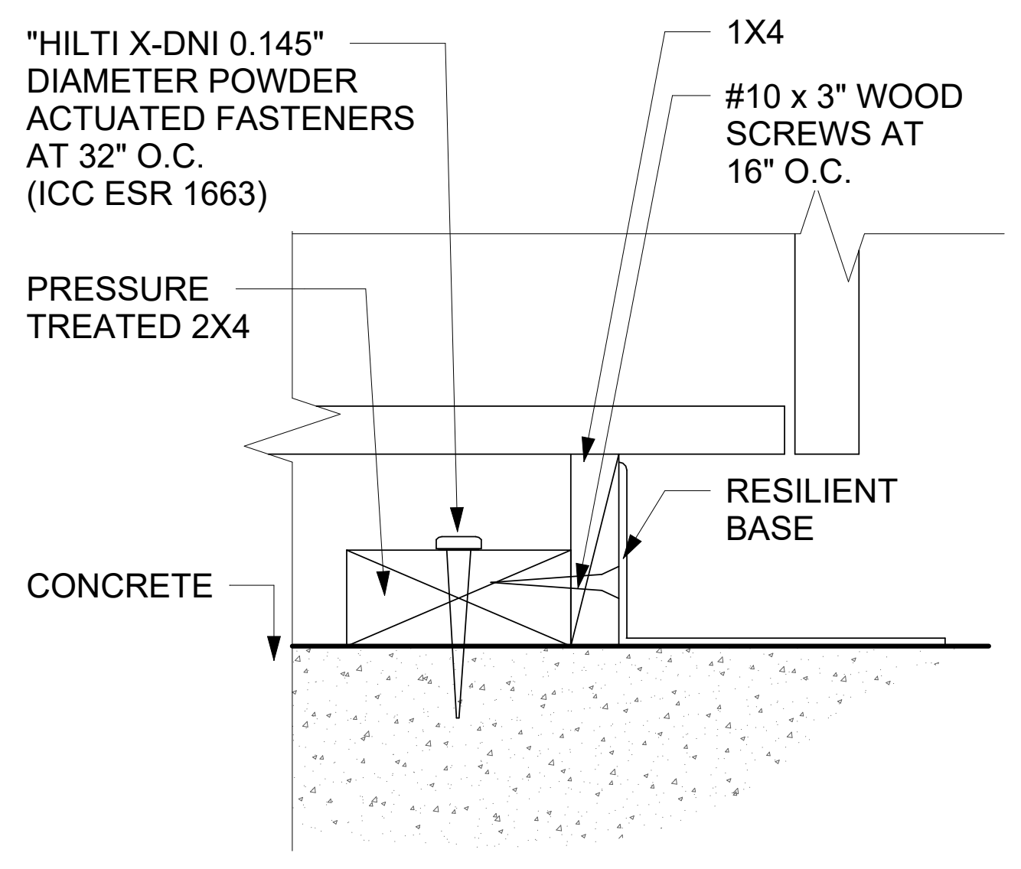
TYPICAL CASEWORK MOUNTING A2

TALL CABINET 3/4" = 1'-0"


BACKSPLASH
E10
A801
C10
A801
SOLID SURFACING MATERIAL COUNTERTOP
1
BACKING PER STRUCTURAL, TYP.
3
S601
RECESSED METAL SHELF PILASTER, TYP.
1X BLOCKING
BASE
CONCRETE CURB, WHERE OCCURS
E6
A801
KINDERGARTEN
2' - 0"
ELEMENTARY
2' - 5"
ADULT
2' - 10"

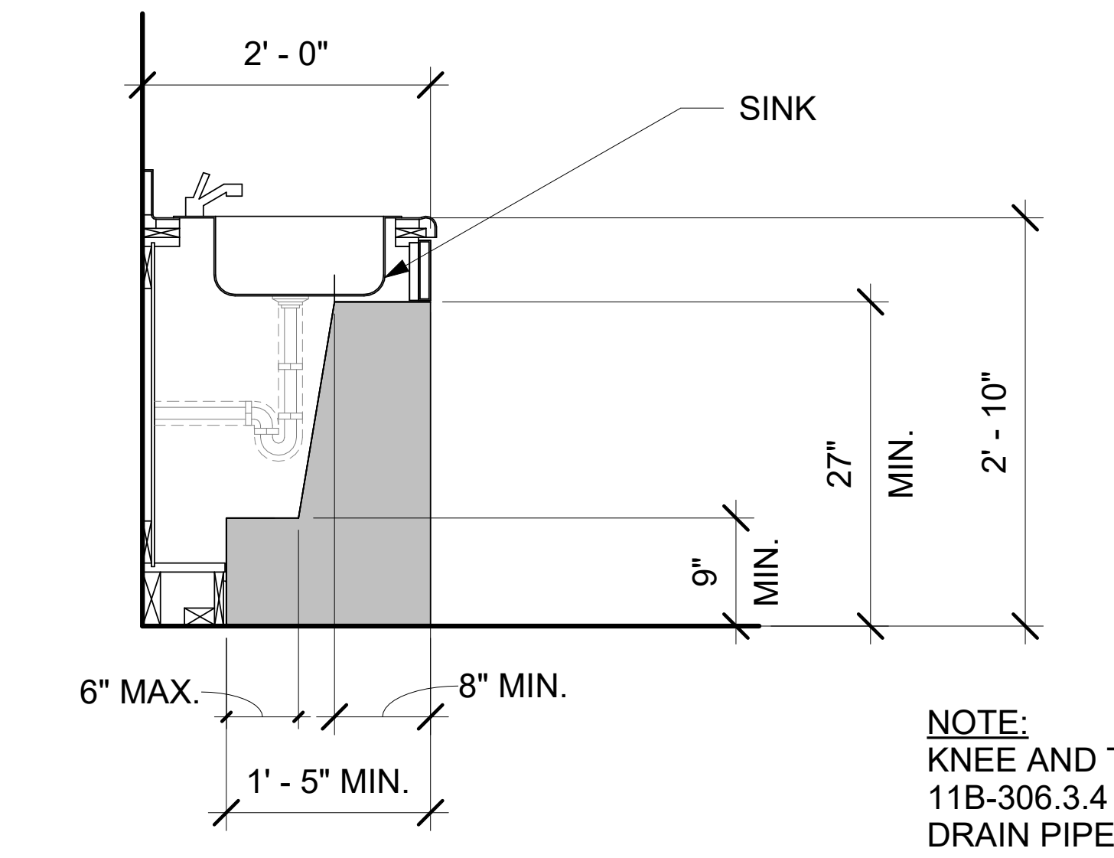
TYPICAL CASEWORK MOUNTING A4

3/4" = 1'-0"


"HILTI X-DNI 0.145" DIAMETER POWDER ACTUATED FASTENERS AT 32" O.C. (ICC ESR 1663)
1X4
#10 x 3" WOOD SCREWS AT 16" O.C.
PRESSURE TREATED 2X4
RESILIENT BASE
CONCRETE

CABINET FLOOR ANCHOR - FRONT E6

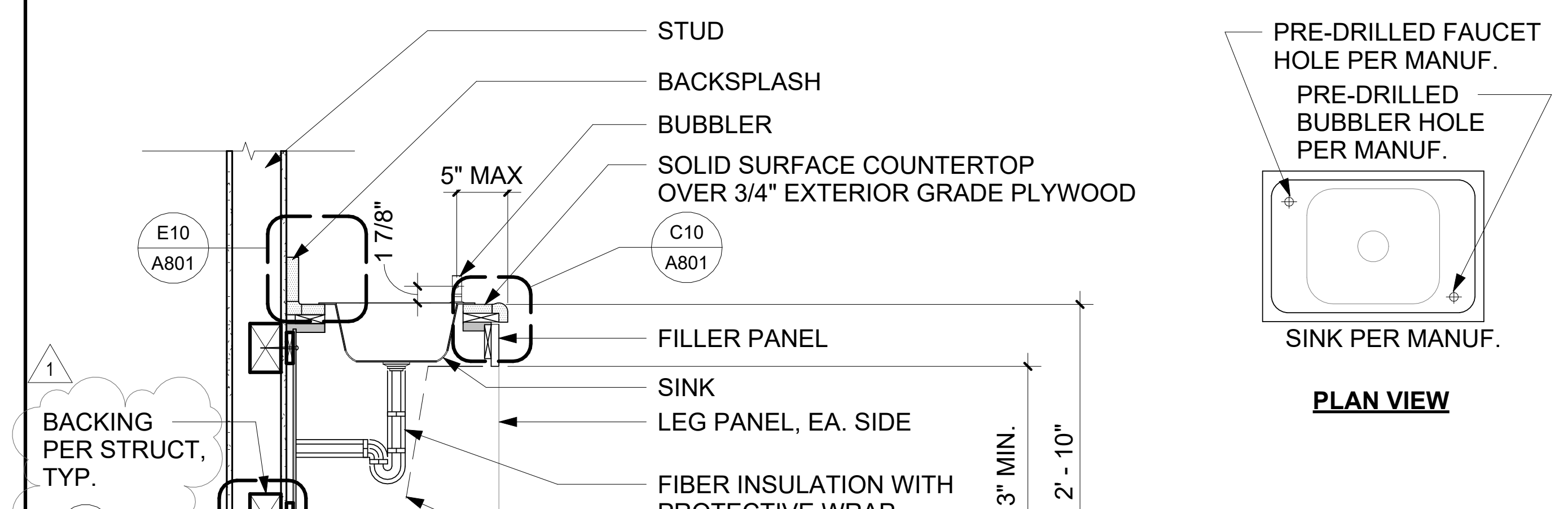
3" = 1'-0"



NOTE:
KNEE AND TOE SPACE PER C.B.C. SECTION 11B-306.2 TO 11B-306.3.4 AND FIGURE 11B-306.3. WATER SUPPLY AND DRAIN PIPES UNDER SINKS SHALL BE INSULATED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER SINKS.

ACCESSIBLE KNEE AND TOE SPACE A6

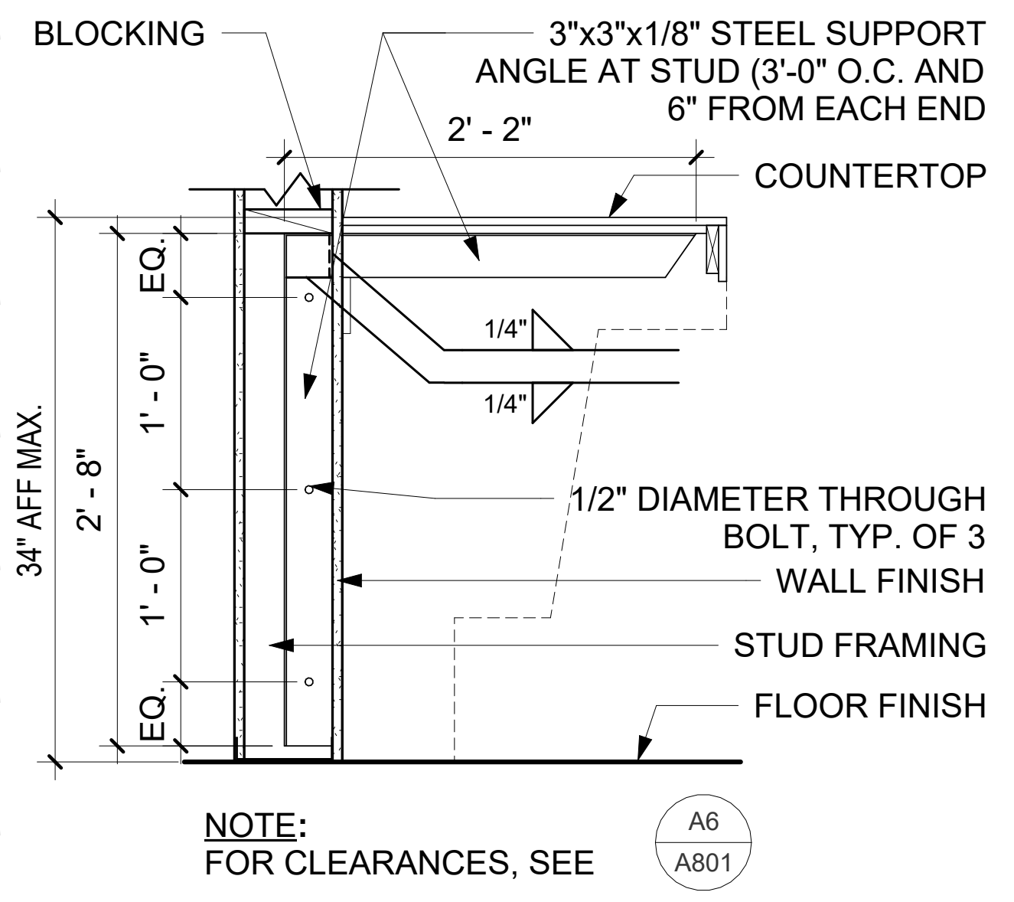
3/4" = 1'-0"


STUD
BACKSPLASH
BUBBLER
SOLID SURFACE COUNTERTOP OVER 3/4" EXTERIOR GRADE PLYWOOD
5" MAX
1 7/8"
E10
A801
C10
A801
FILLER PANEL
SINK
LEG PANEL, EA. SIDE
FIBER INSULATION WITH PROTECTIVE WRAP
FOR ACCESSIBLE CLEARANCES, SEE
A6
A801
1
BACKING PER STRUCT, TYP.
3
S601
2' - 3" MIN.
2' - 10"
4"
E6
A801
PRE-DRILLED FAUCET HOLE PER MANUF.
PRE-DRILLED BUBBLER HOLE PER MANUF.
SINK PER MANUF.
PLAN VIEW

NOTE:
1. PROVIDE FAUCET WITH LEVER CONTROLS.
2. 24" MAX. REACH TO CONTROLS.
3. EXTEND FLOORING INSIDE SINK BASE CABINET.
4. MUST USE FORWARD APPROACH FOR BUBBLER ACCESSIBILITY.

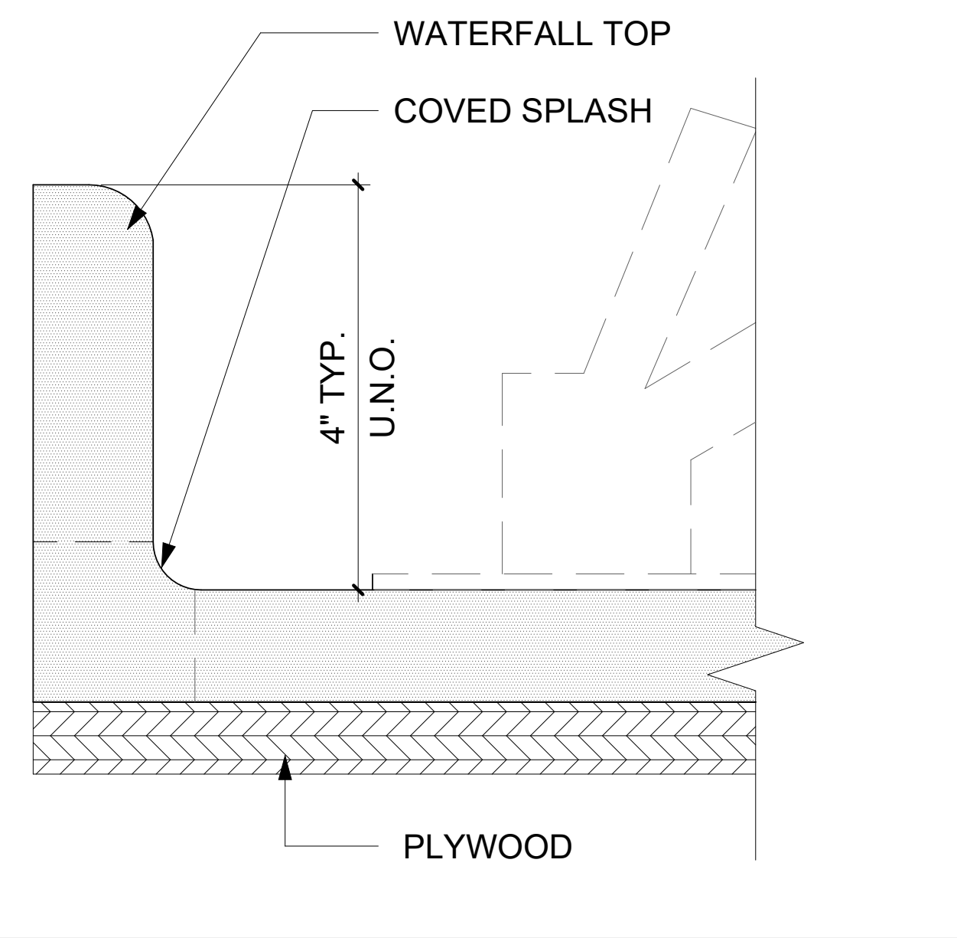
ACCESSIBLE SINK CABINET A8

3/4" = 1'-0"



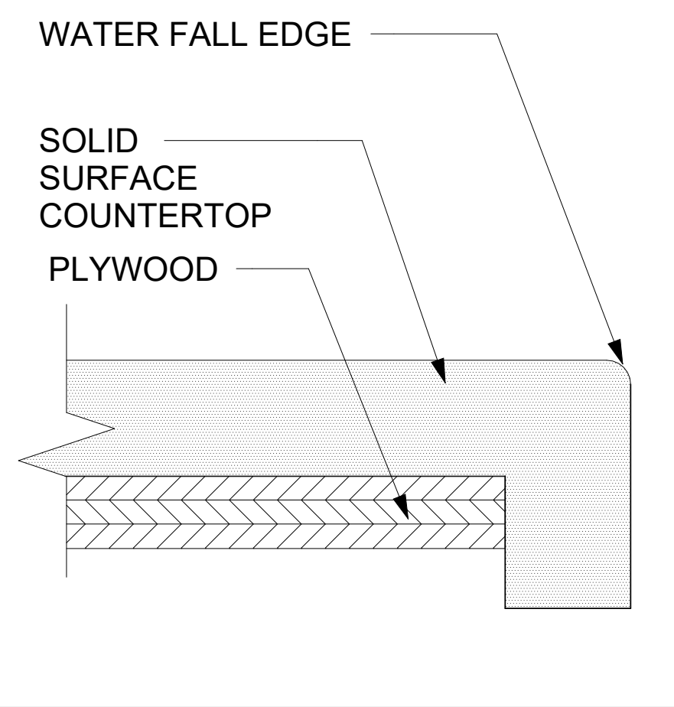
COUNTERTOP SUPPORT G10

1" = 1'-0"



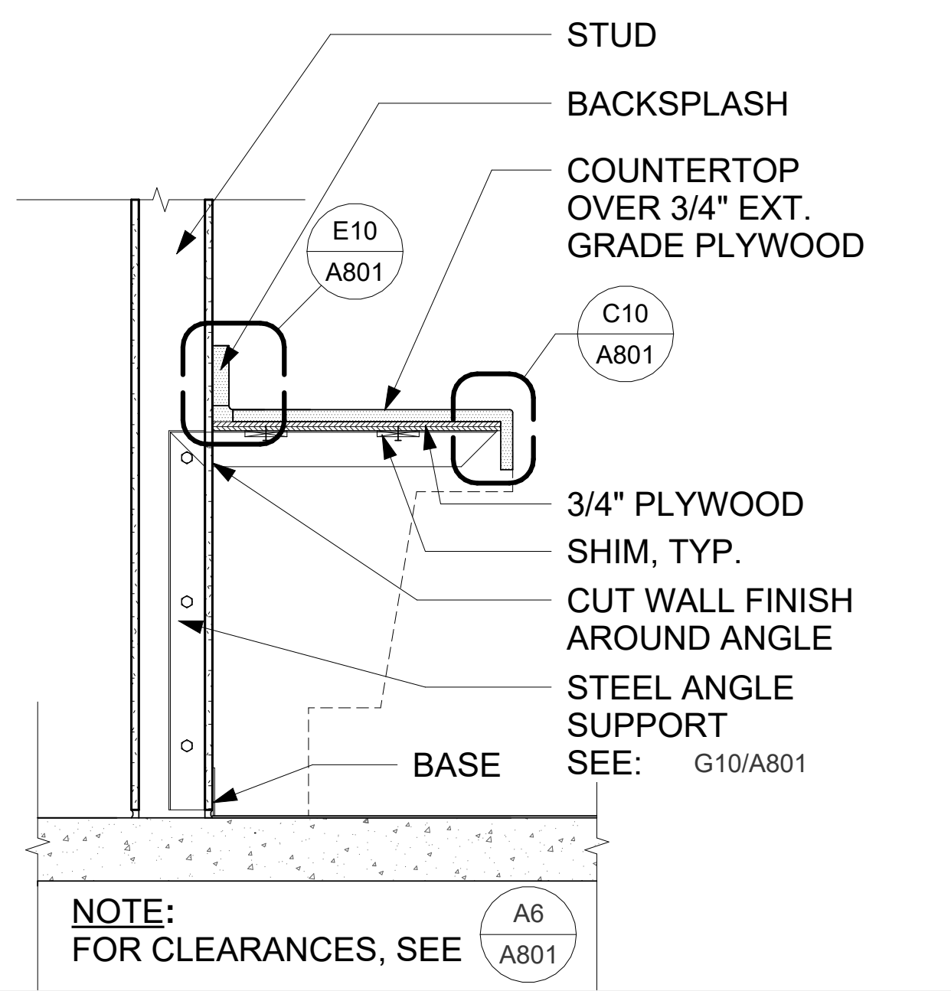
BACKSPLASH E10

6" = 1'-0"



SOLID SURFACE COUNTERTOP EDGE C10

6" = 1'-0"


STUD
BACKSPLASH
COUNTERTOP OVER 3/4" EXT. GRADE PLYWOOD
E10
A801
C10
A801
3/4" PLYWOOD
SHIM, TYP.
CUT WALL FINISH AROUND ANGLE
STEEL ANGLE SUPPORT SEE: G10/A801
BASE
NOTE:
FOR CLEARANCES, SEE
A6
A801

TYPICAL COUNTERTOP MOUNTING A10

3/4" = 1'-0"

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NO. C-27962

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CASEWORK DETAILS

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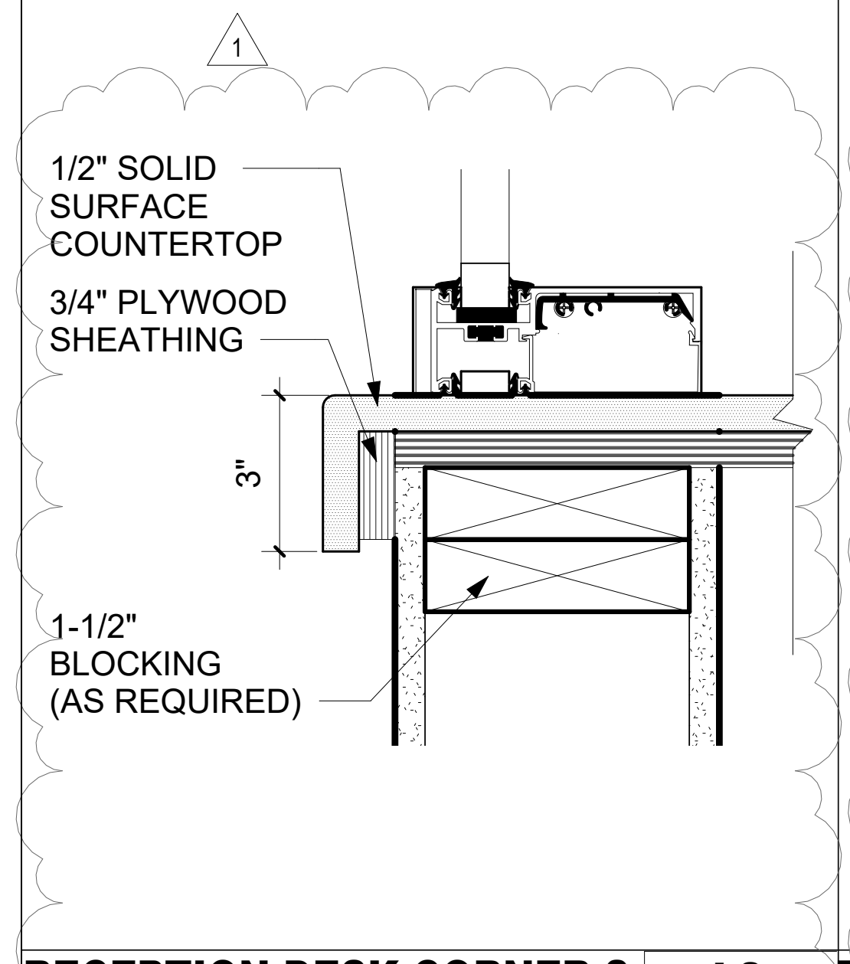
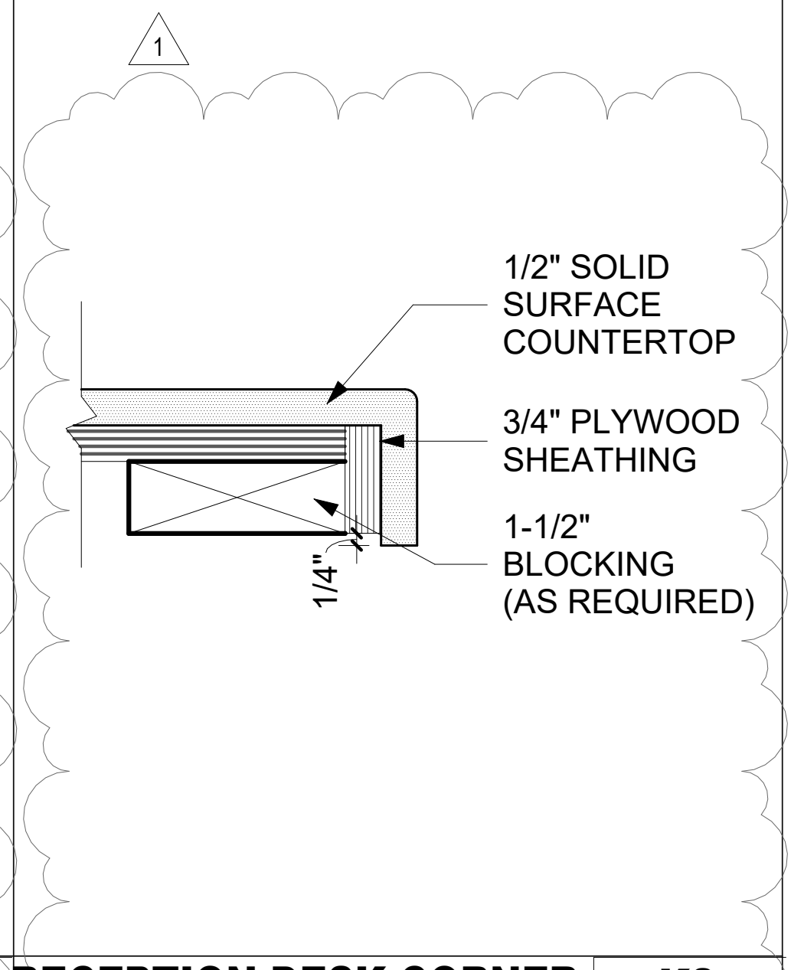
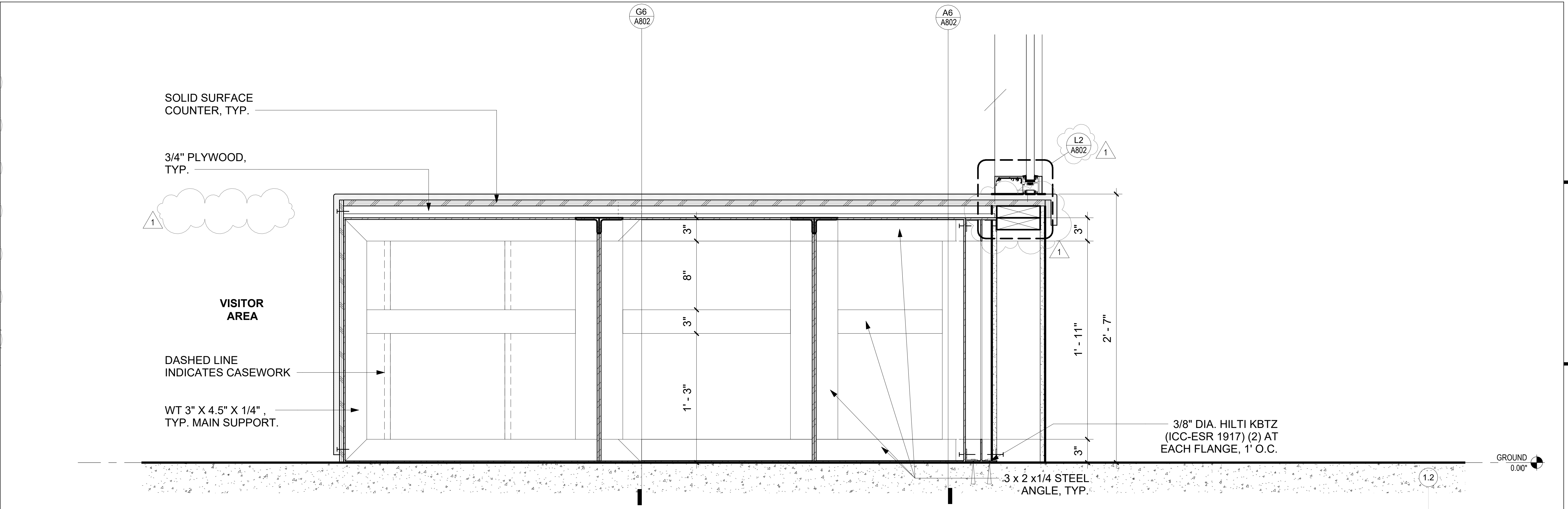
A801



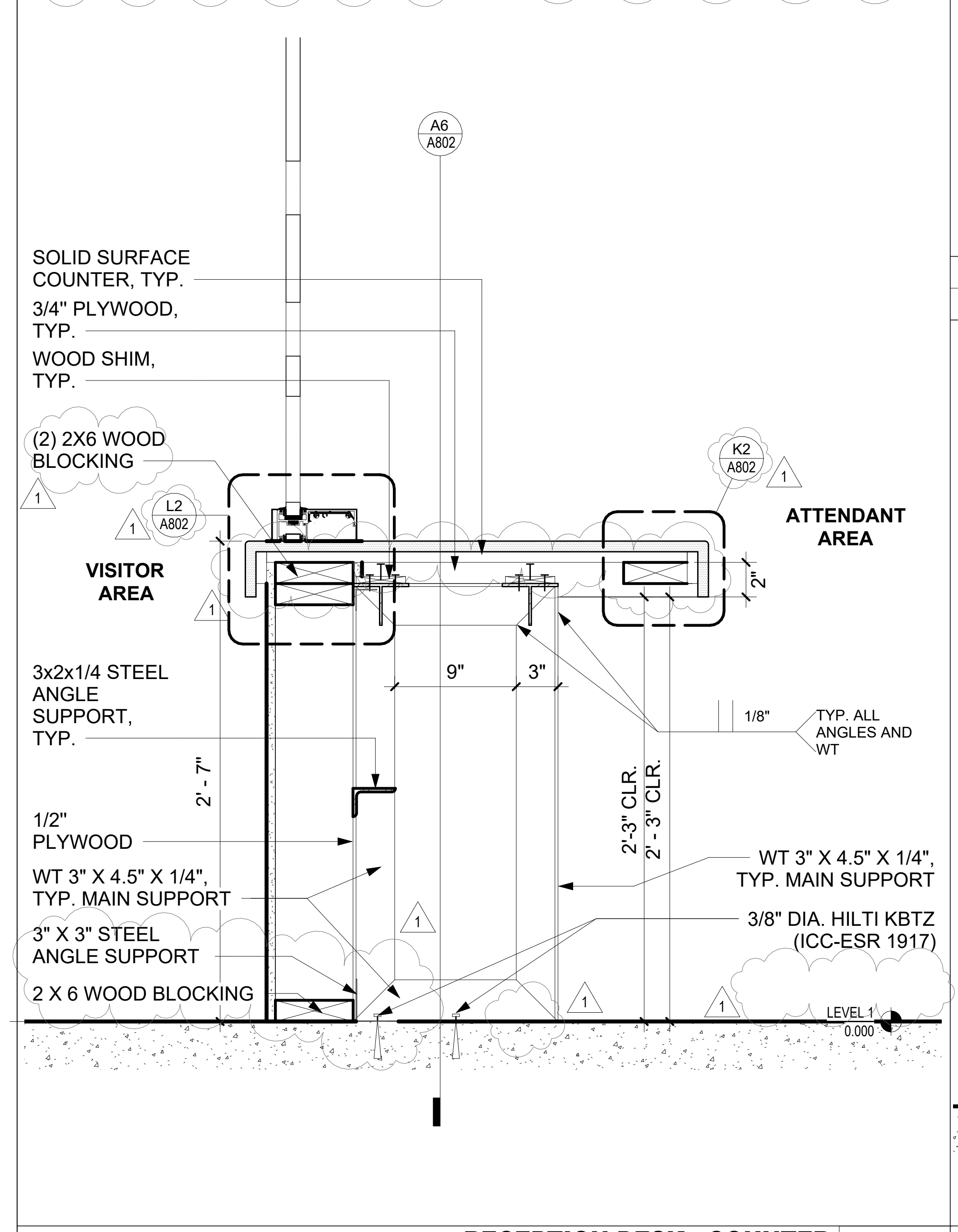
RECEPTION DESK CORNER-2 L2
3" = 1'-0"



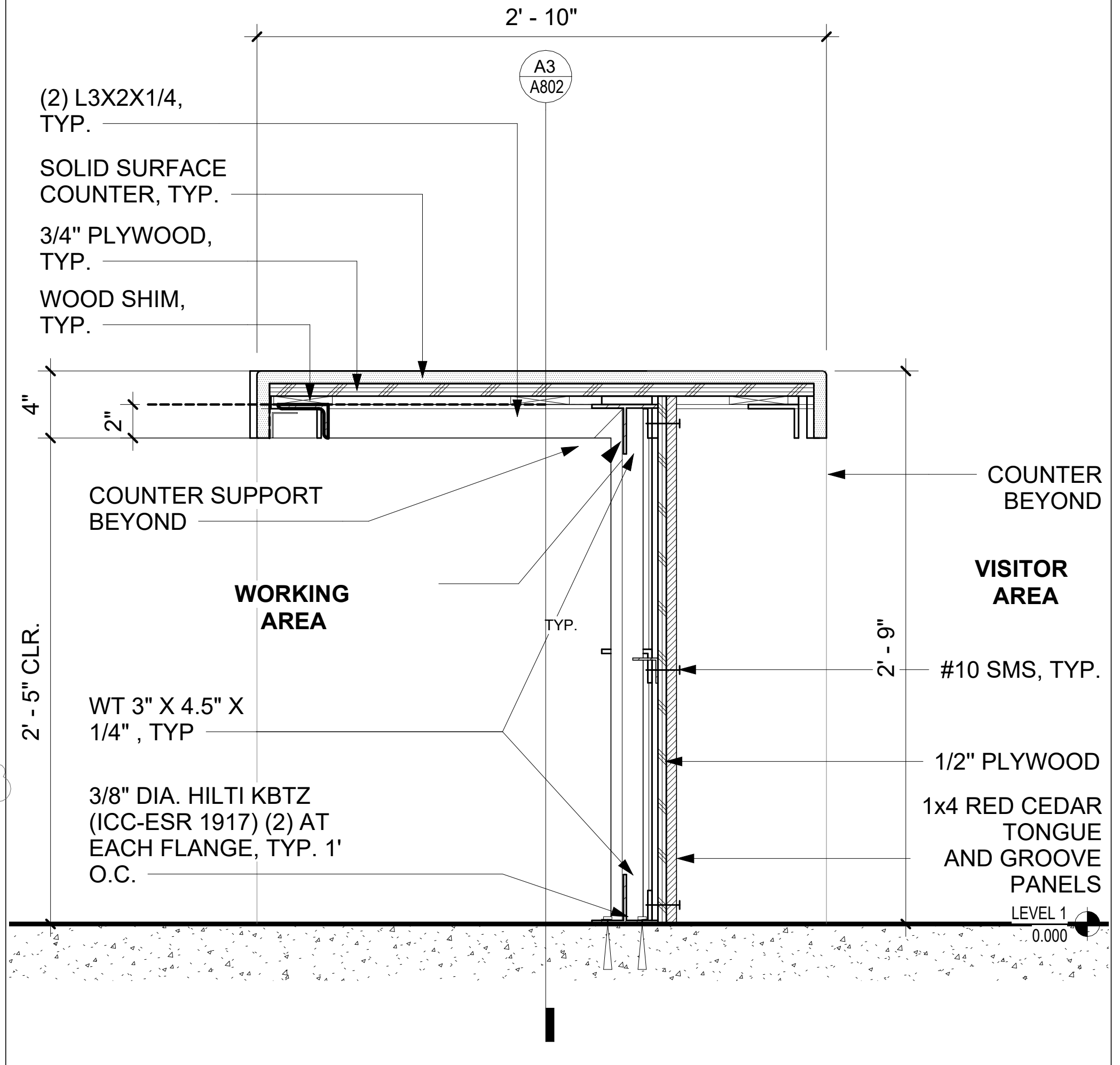
RECEPTION DESK CORNER K2
3" = 1'-0"


G6
A802
A6
A802
L2
A802
SOLID SURFACE COUNTER, TYP.
3/4" PLYWOOD, TYP.
VISITOR AREA
DASHED LINE INDICATES CASEWORK
WT 3" X 4.5" X 1/4", TYP. MAIN SUPPORT.
3"
8"
3"
1' - 3"
1' - 11"
2' - 7"
3"
3"
3/8" DIA. HILTI KBTZ (ICC-ESR 1917) (2) AT EACH FLANGE, 1' O.C.
3 x 2 x1/4 STEEL ANGLE, TYP.
GROUND 0.00'
1.2
1

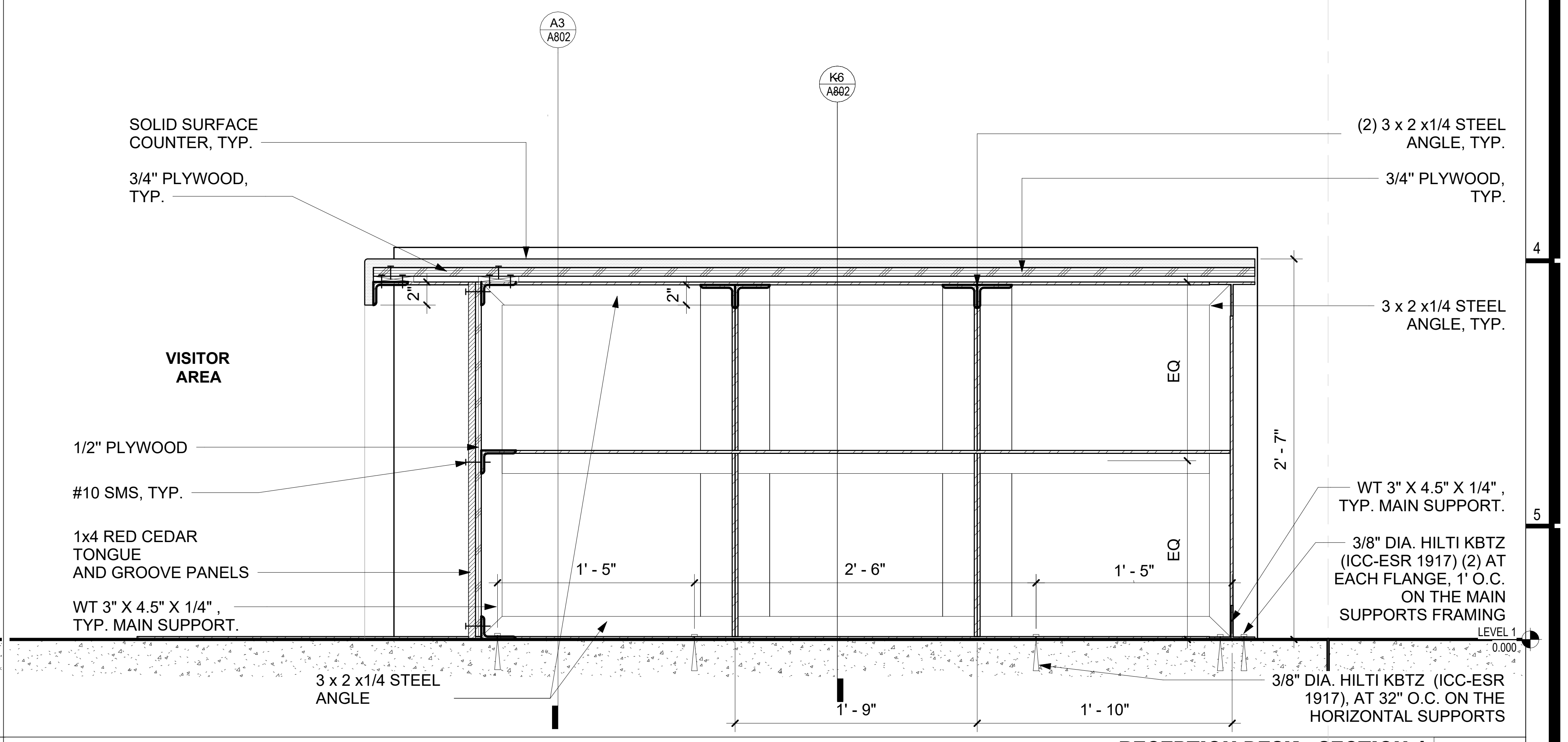
RECEPTIONIST DESK - SECTION 2 A3
1 1/2" = 1'-0"



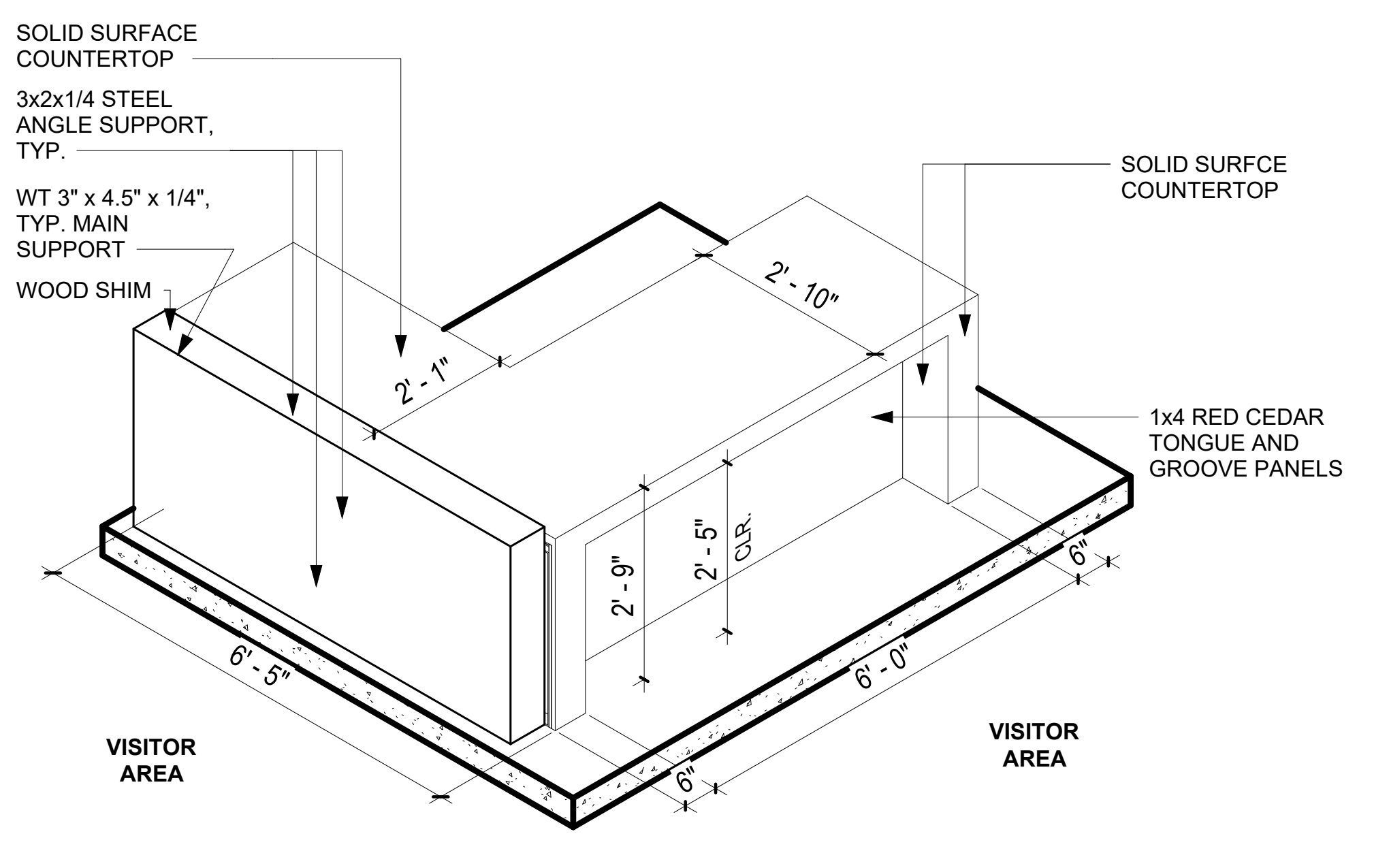
RECEPTION DESK - COUNTER K6
1 1/2" = 1'-0"



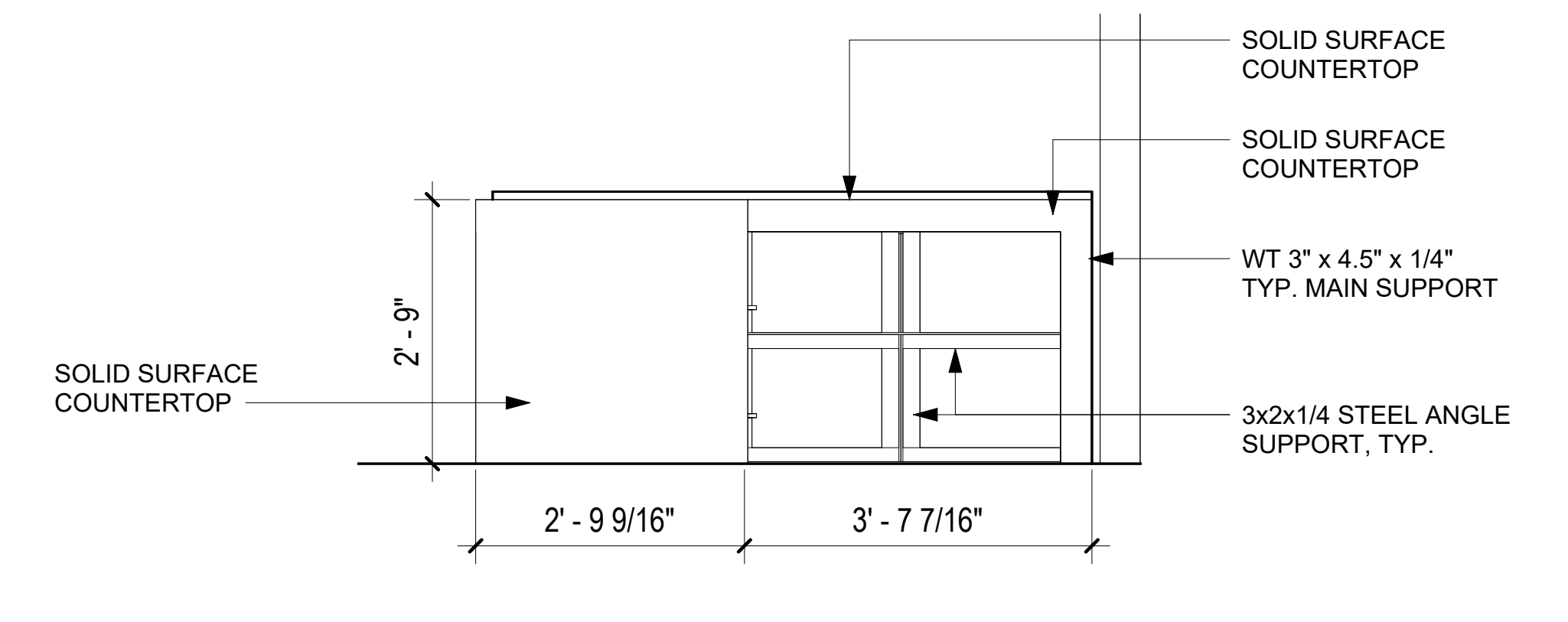
RECEPTION DESK - HIGH COUNTER SECTION G6
1 1/2" = 1'-0"


A3
A802
K6
A802
SOLID SURFACE COUNTER, TYP.
3/4" PLYWOOD, TYP.
(2) 3 x 2 x1/4 STEEL ANGLE, TYP.
3/4" PLYWOOD, TYP.
2"
2"
3 x 2 x1/4 STEEL ANGLE, TYP.
VISITOR AREA
EQ
EQ
2' - 7"
1/2" PLYWOOD
#10 SMS, TYP.
1x4 RED CEDAR TONGUE AND GROOVE PANELS
WT 3" X 4.5" X 1/4" , TYP. MAIN SUPPORT.
1' - 5"
2' - 6"
1' - 5"
WT 3" X 4.5" X 1/4" , TYP. MAIN SUPPORT.
3/8" DIA. HILTI KBTZ (ICC-ESR 1917) (2) AT EACH FLANGE, 1' O.C. ON THE MAIN SUPPORTS FRAMING
LEVEL 1 0.000
3 x 2 x1/4 STEEL ANGLE
1' - 9"
1' - 10"
3/8" DIA. HILTI KBTZ (ICC-ESR 1917), AT 32" O.C. ON THE HORIZONTAL SUPPORTS

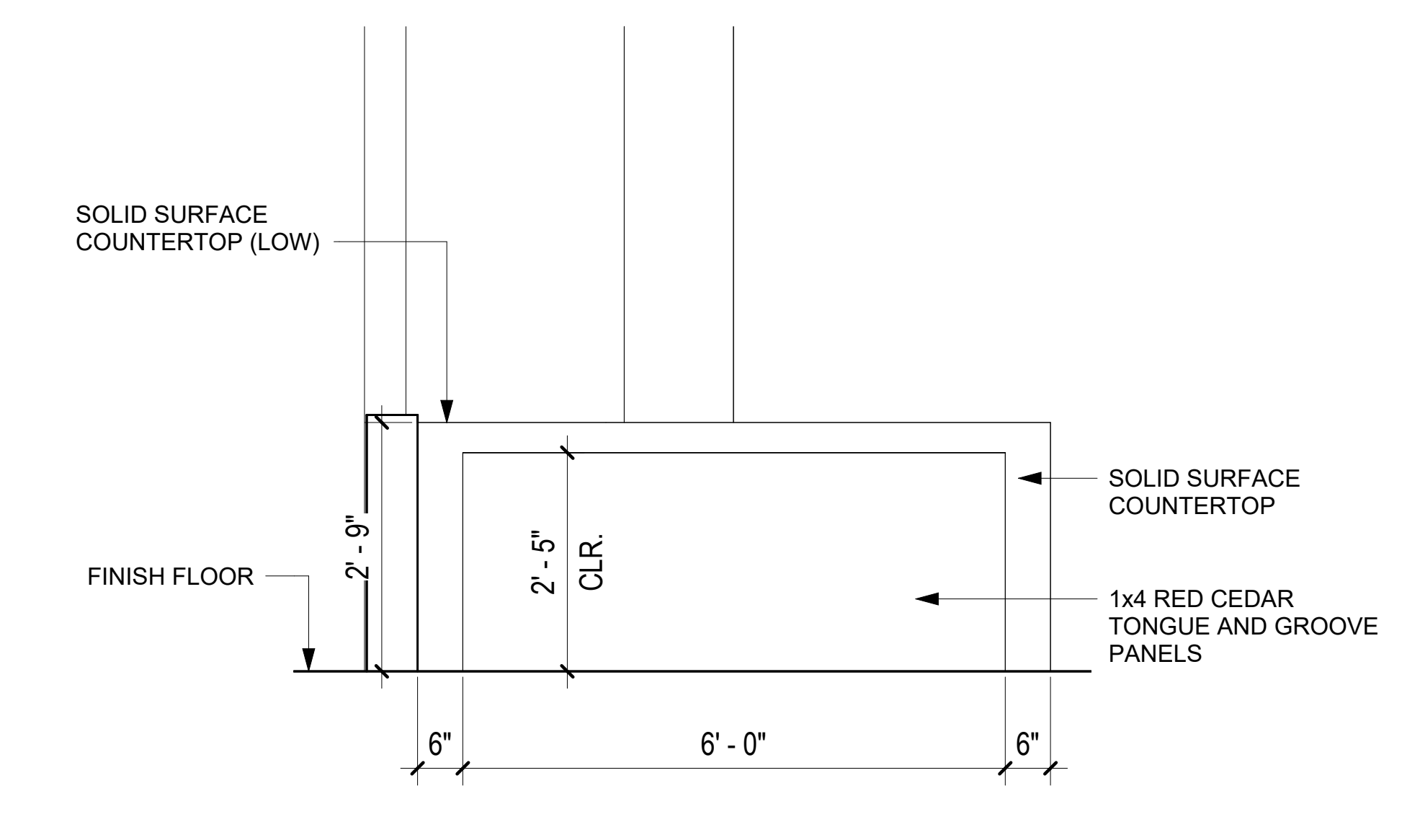
RECEPTION DESK - SECTION 1 A6
1 1/2" = 1'-0"



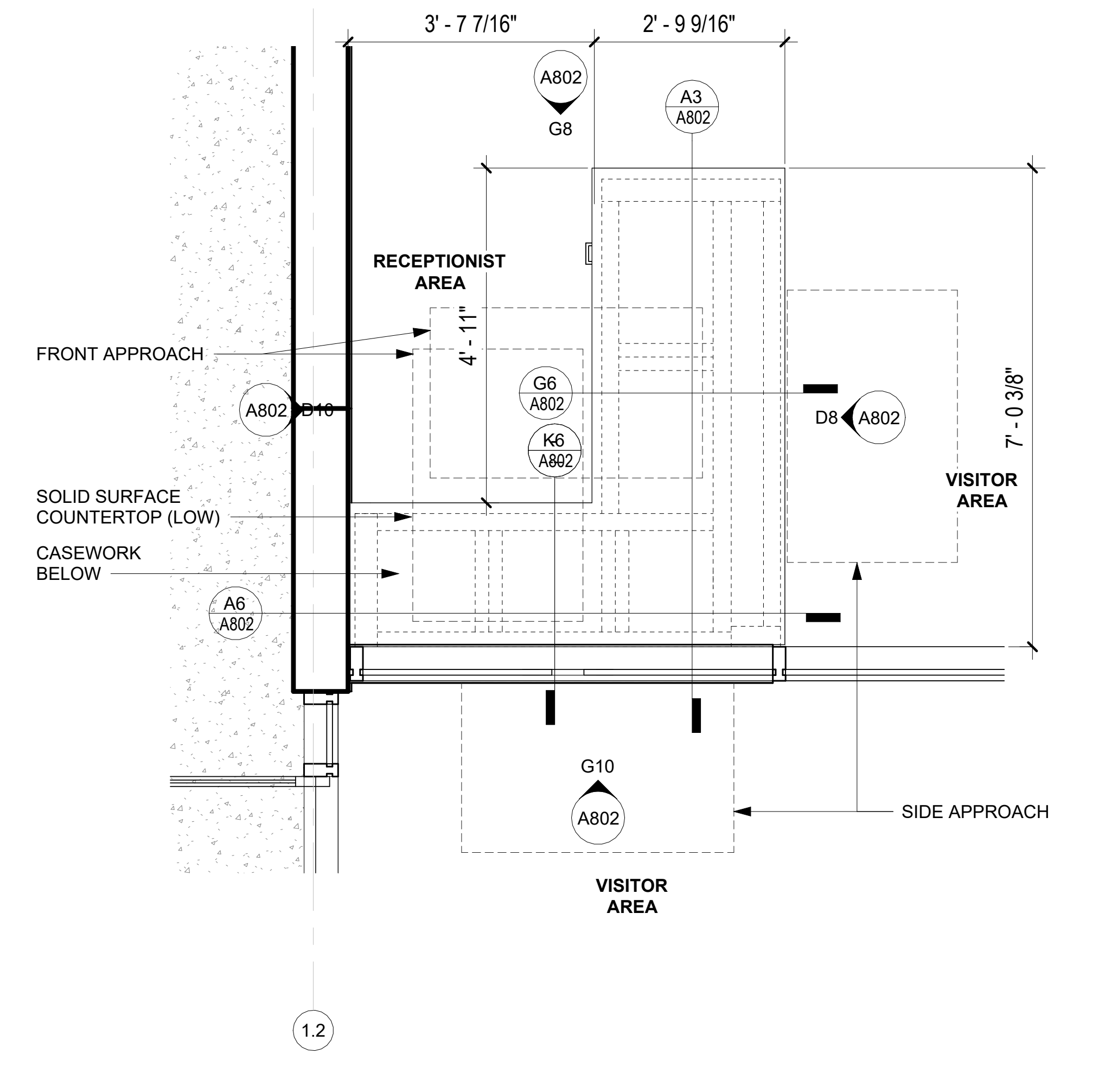
3D - 1. RECEPTION DESK K8



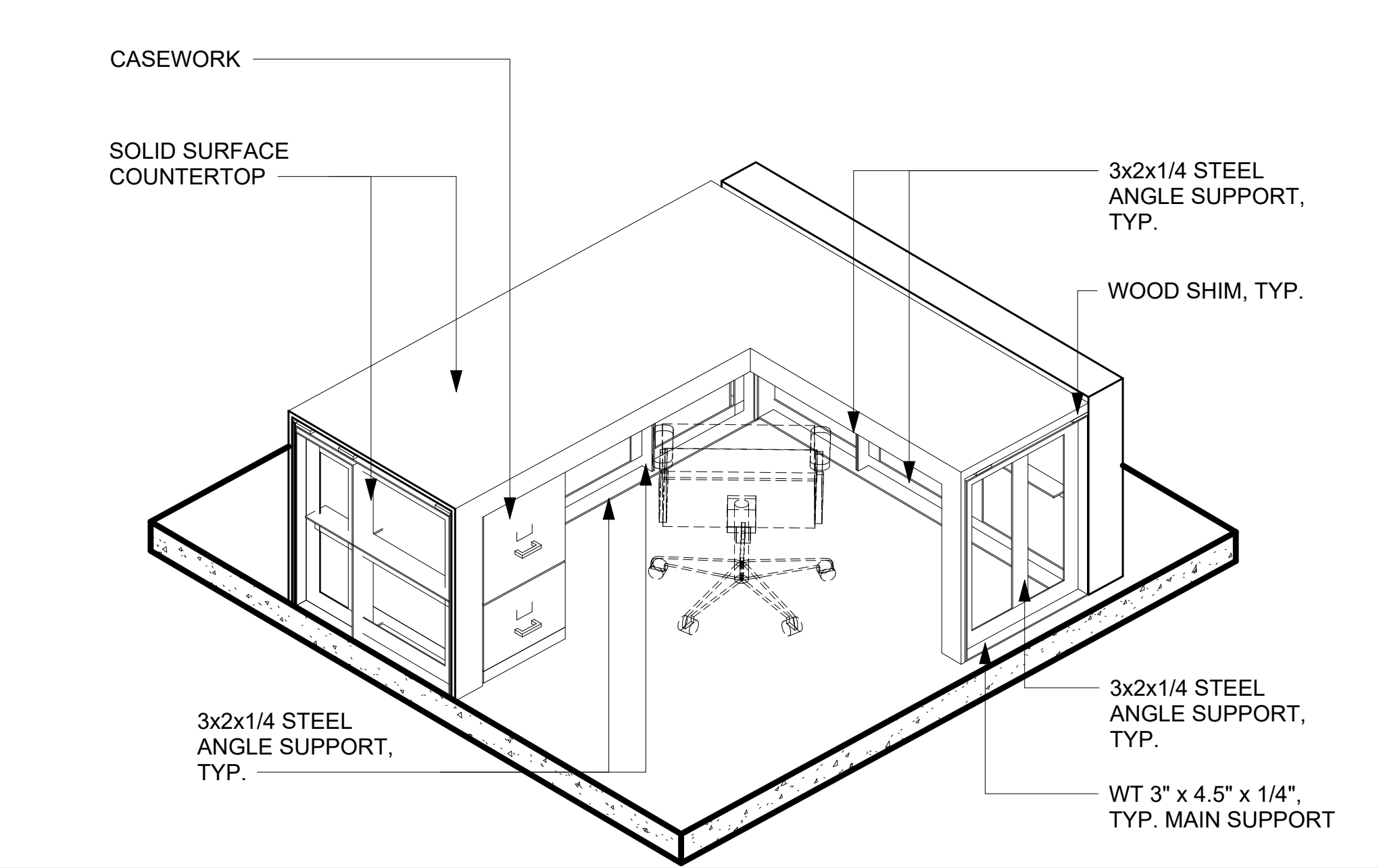
RECEPTIONIST DESK - NORTH G8
1/2" = 1'-0"


SOLID SURFACE COUNTERTOP (LOW)
FINISH FLOOR
2' - 9"
2' - 5" CLR.
SOLID SURFACE COUNTERTOP
1x4 RED CEDAR TONGUE AND GROOVE PANELS
6"
6' - 0"
6"

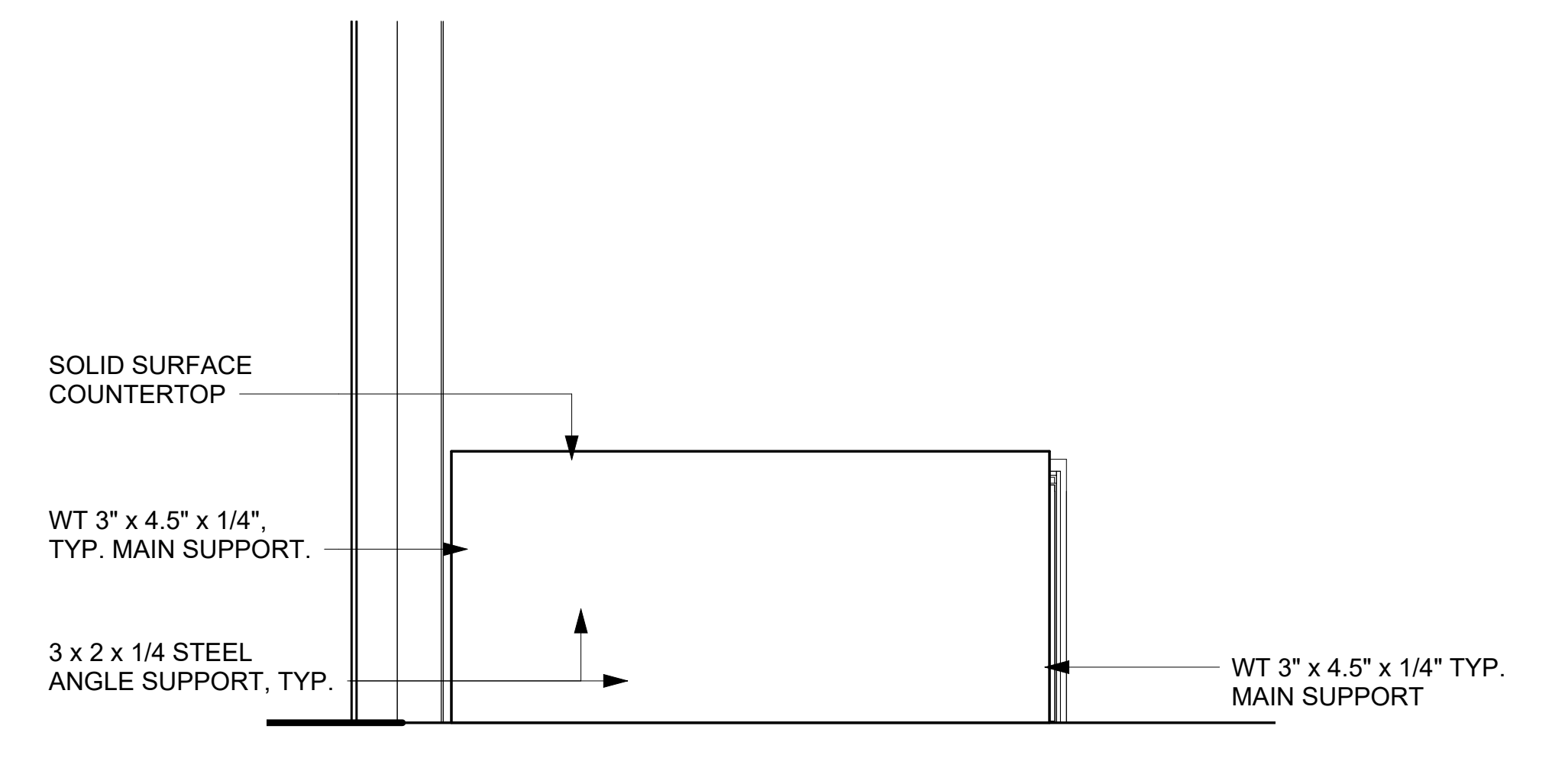
RECEPTIONIST DESK - EAST D8
1/2" = 1'-0"



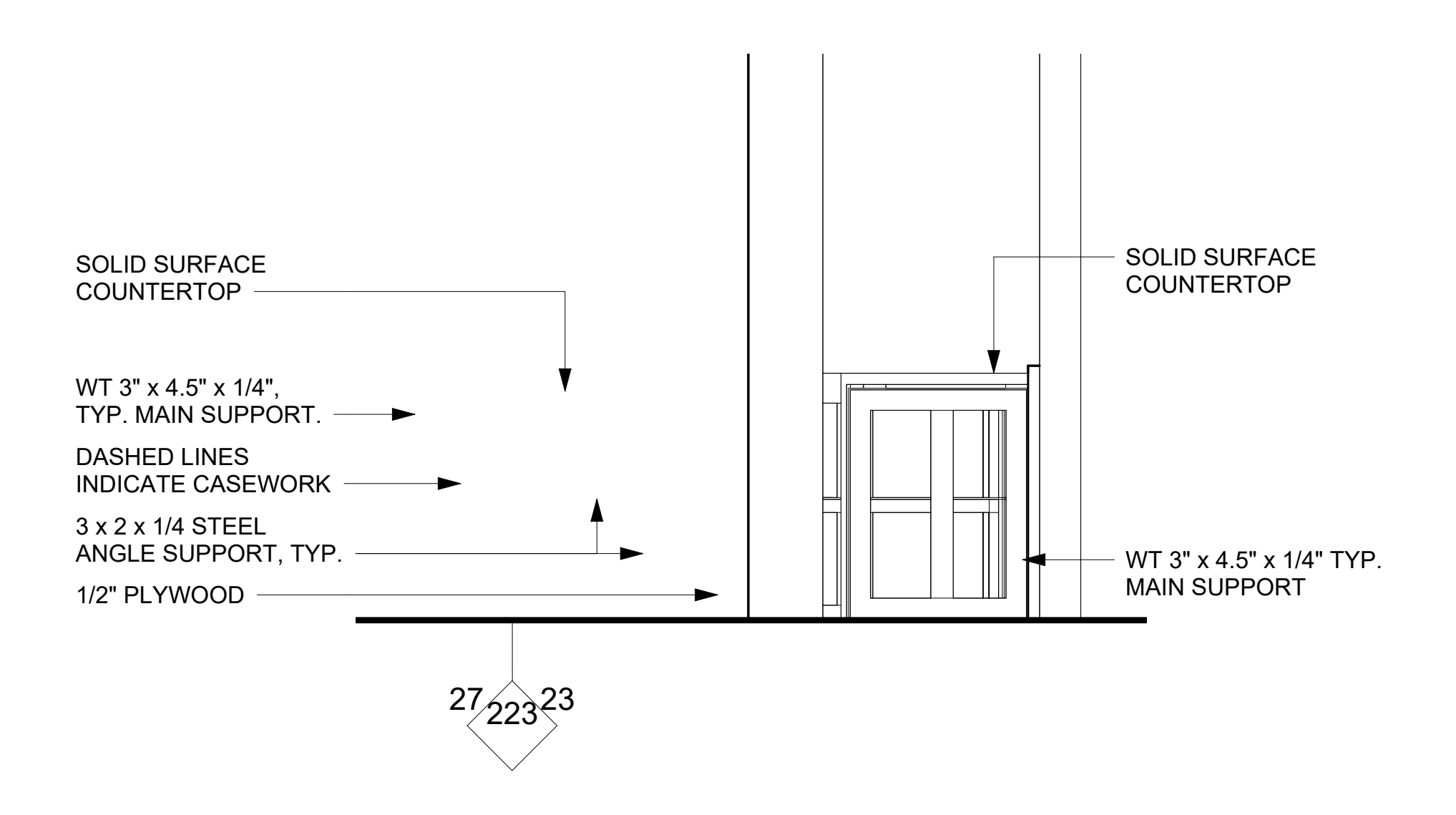
ENLARGED FLOOR PLAN - RECEPTIONIST DESK A10
1/2" = 1'-0"


CASEWORK
SOLID SURFACE COUNTERTOP
3x2x1/4 STEEL ANGLE SUPPORT, TYP.
WOOD SHIM, TYP.
3x2x1/4 STEEL ANGLE SUPPORT, TYP.
3x2x1/4 STEEL ANGLE SUPPORT, TYP.
WT 3" x 4.5" x 1/4", TYP. MAIN SUPPORT

3D - 2. RECEPTION DESK K10


SOLID SURFACE COUNTERTOP
WT 3" x 4.5" x 1/4", TYP. MAIN SUPPORT.
3 x 2 x 1/4 STEEL ANGLE SUPPORT, TYP.
WT 3" x 4.5" x 1/4" TYP. MAIN SUPPORT

RECEPTIONIST DESK - SOUTH G10
1/2" = 1'-0"


SOLID SURFACE COUNTERTOP
WT 3" x 4.5" x 1/4", TYP. MAIN SUPPORT.
DASHED LINES INDICATE CASEWORK
3 x 2 x 1/4 STEEL ANGLE SUPPORT, TYP.
1/2" PLYWOOD
SOLID SURFACE COUNTERTOP
WT 3" x 4.5" x 1/4" TYP. MAIN SUPPORT
27
223
23

RECEPTIONIST DESK - WEST D10
1/2" = 1'-0"

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
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PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

RECEPTION DESK DETAILS

PERKINS EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
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A802

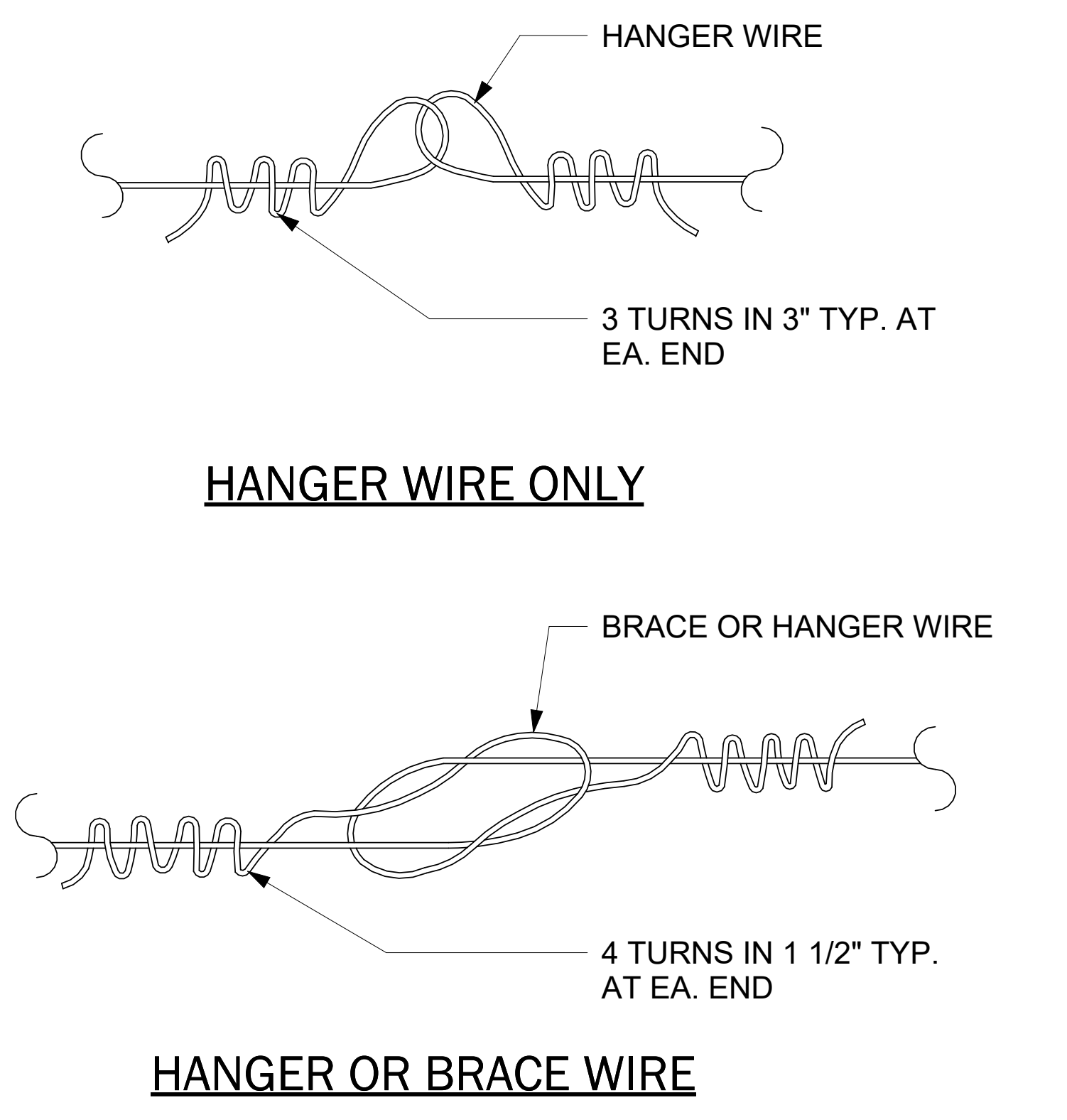
IR 25-2
SUSPENDED LAY-IN PANEL CEILING: 2019 CBC

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"

Detail Title :		Detail No.
COMPRESSION STRUT TABLE	REV: 09/21/2015 REV: 03/10/2017 REV: 03/2022	3.21

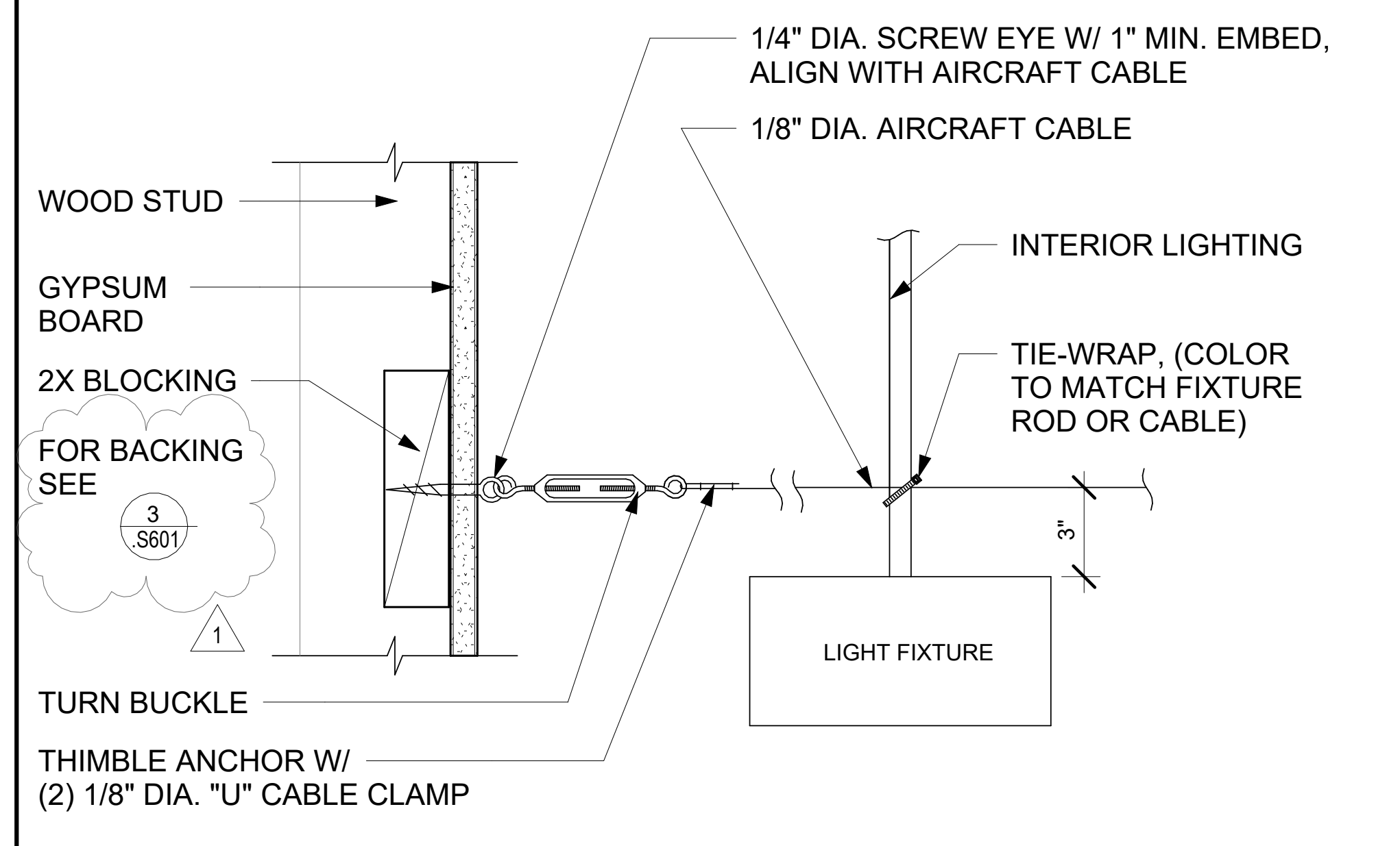
IR 25-2 (Revised 03/18/22) Page 35 of 71
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

COMPRESSION STRUT TABLE K4
N.T.S.

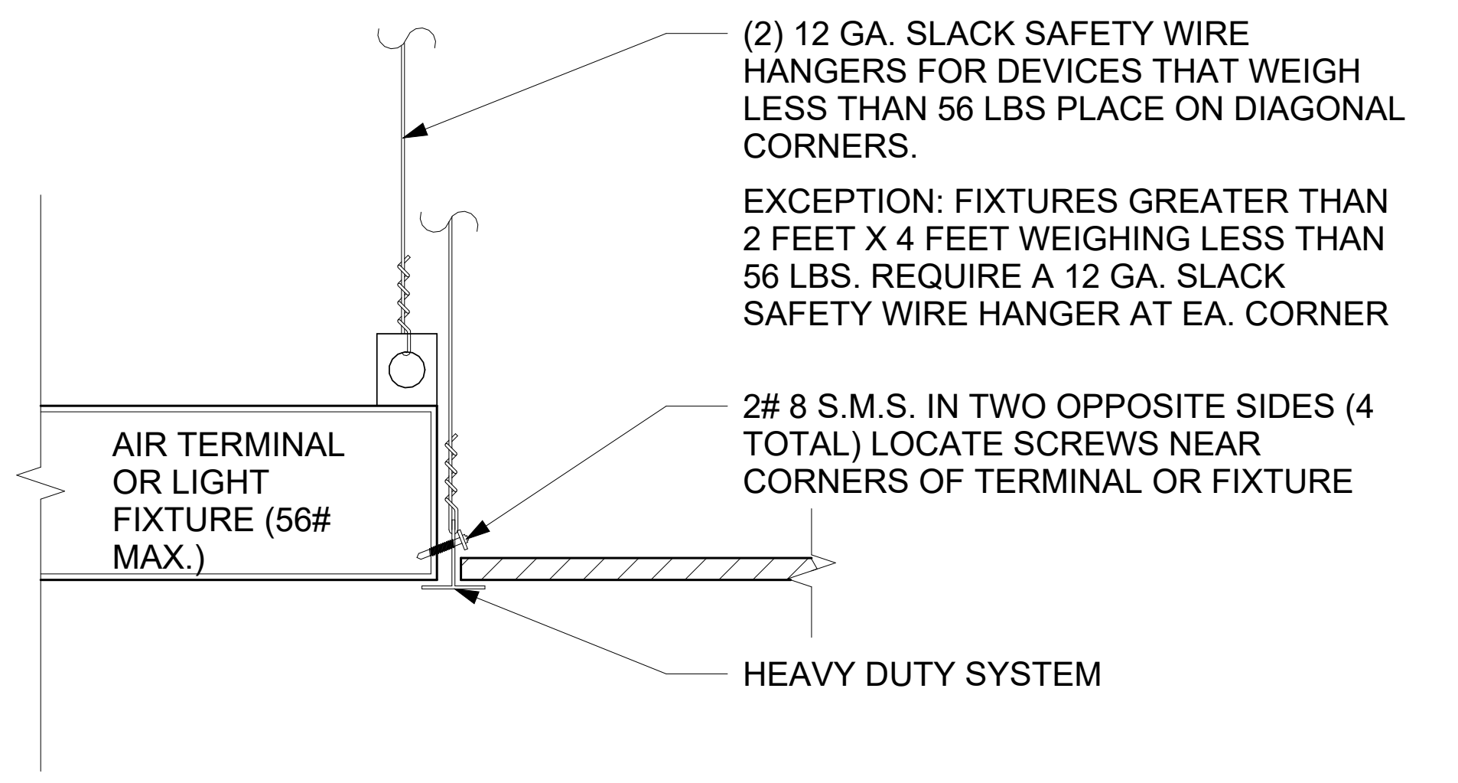


NOTES
1. WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTED.

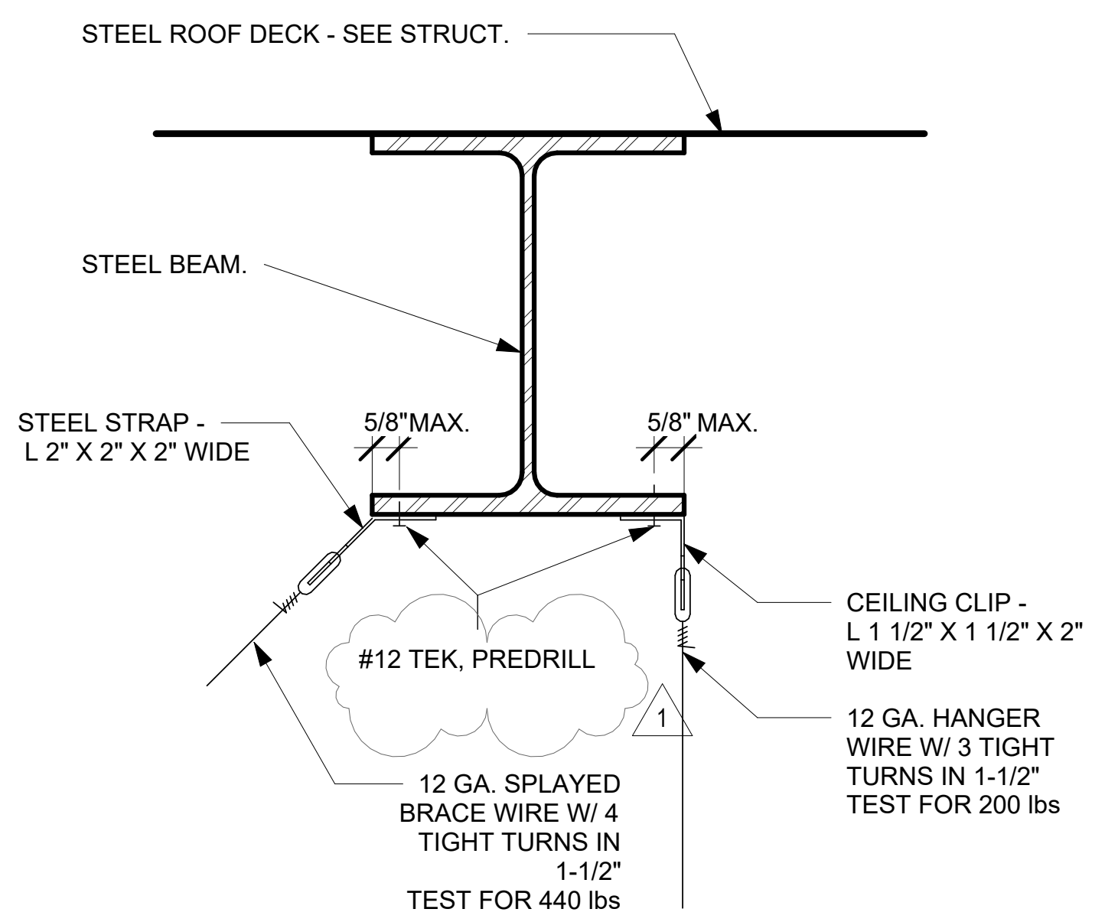
CEILING WIRE SPLICES D4
3" = 1'-0"


1/4" DIA. SCREW EYE W/ 1" MIN. EMBED, ALIGN WITH AIRCRAFT CABLE
1/8" DIA. AIRCRAFT CABLE
WOOD STUD
GYPSUM BOARD
2X BLOCKING
FOR BACKING SEE
3
S601
1
INTERIOR LIGHTING
TIE-WRAP, (COLOR TO MATCH FIXTURE ROD OR CABLE)
3"
LIGHT FIXTURE
TURN BUCKLE
THIMBLE ANCHOR W/ (2) 1/8" DIA. "U" CABLE CLAMP

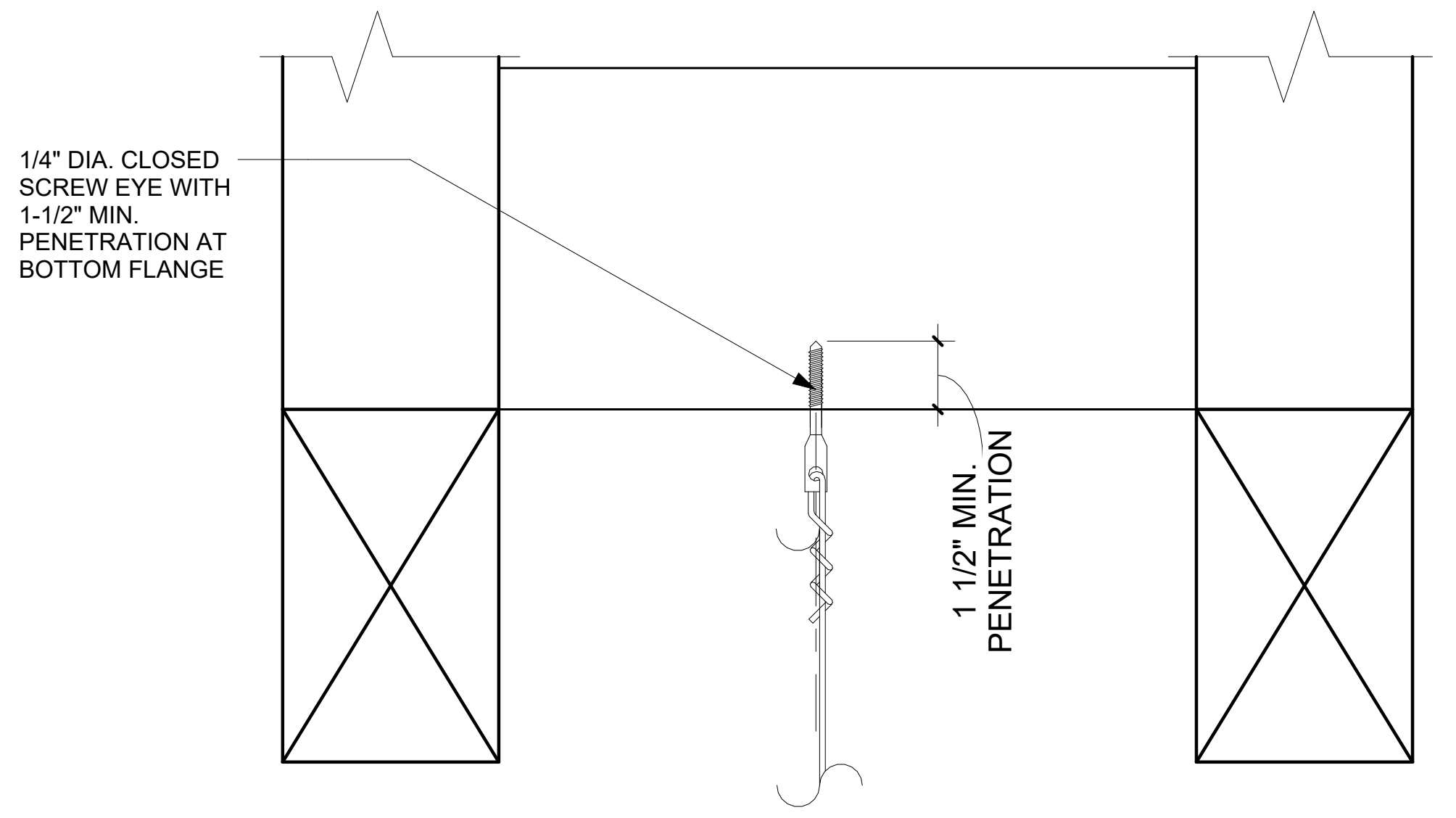
BRACING CABLE ATTACHMENT AT WOOD STUD A2
3" = 1'-0"


(2) 12 GA. SLACK SAFETY WIRE HANGERS FOR DEVICES THAT WEIGH LESS THAN 56 LBS PLACE ON DIAGONAL CORNERS.
EXCEPTION: FIXTURES GREATER THAN 2 FEET X 4 FEET WEIGHING LESS THAN 56 LBS. REQUIRE A 12 GA. SLACK SAFETY WIRE HANGER AT EA. CORNER
AIR TERMINAL OR LIGHT FIXTURE (56# MAX.)
2# 8 S.M.S. IN TWO OPPOSITE SIDES (4 TOTAL) LOCATE SCREWS NEAR CORNERS OF TERMINAL OR FIXTURE
HEAVY DUTY SYSTEM

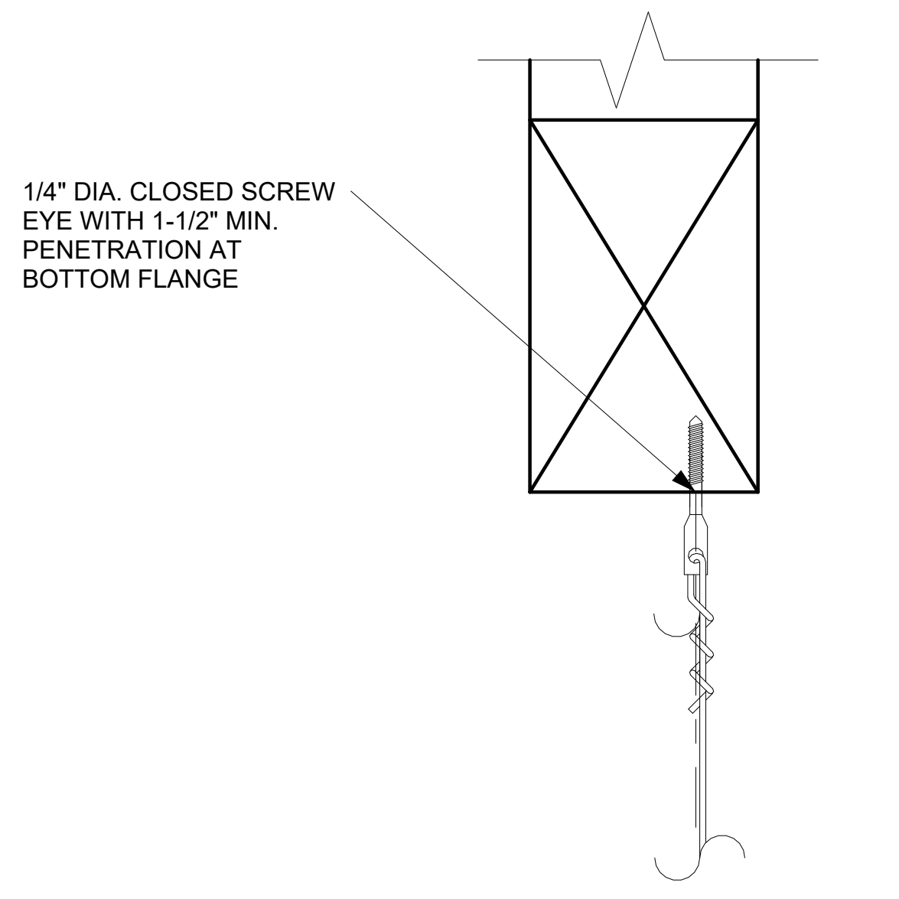
SUSPENDED ACOUSTICAL CEILING - LIGHT FIXTURES A4
1 1/2" = 1'-0"


STEEL ROOF DECK - SEE STRUCT.
STEEL BEAM.
STEEL STRAP - L 2" X 2" X 2" WIDE
5/8"MAX.
5/8" MAX.
CEILING CLIP - L 1 1/2" X 1 1/2" X 2" WIDE
#12 TEK, PREDRILL
1
12 GA. HANGER WIRE W/ 3 TIGHT TURNS IN 1-1/2" TEST FOR 200 lbs
12 GA. SPLAYED BRACE WIRE W/ 4 TIGHT TURNS IN 1-1/2" TEST FOR 440 lbs

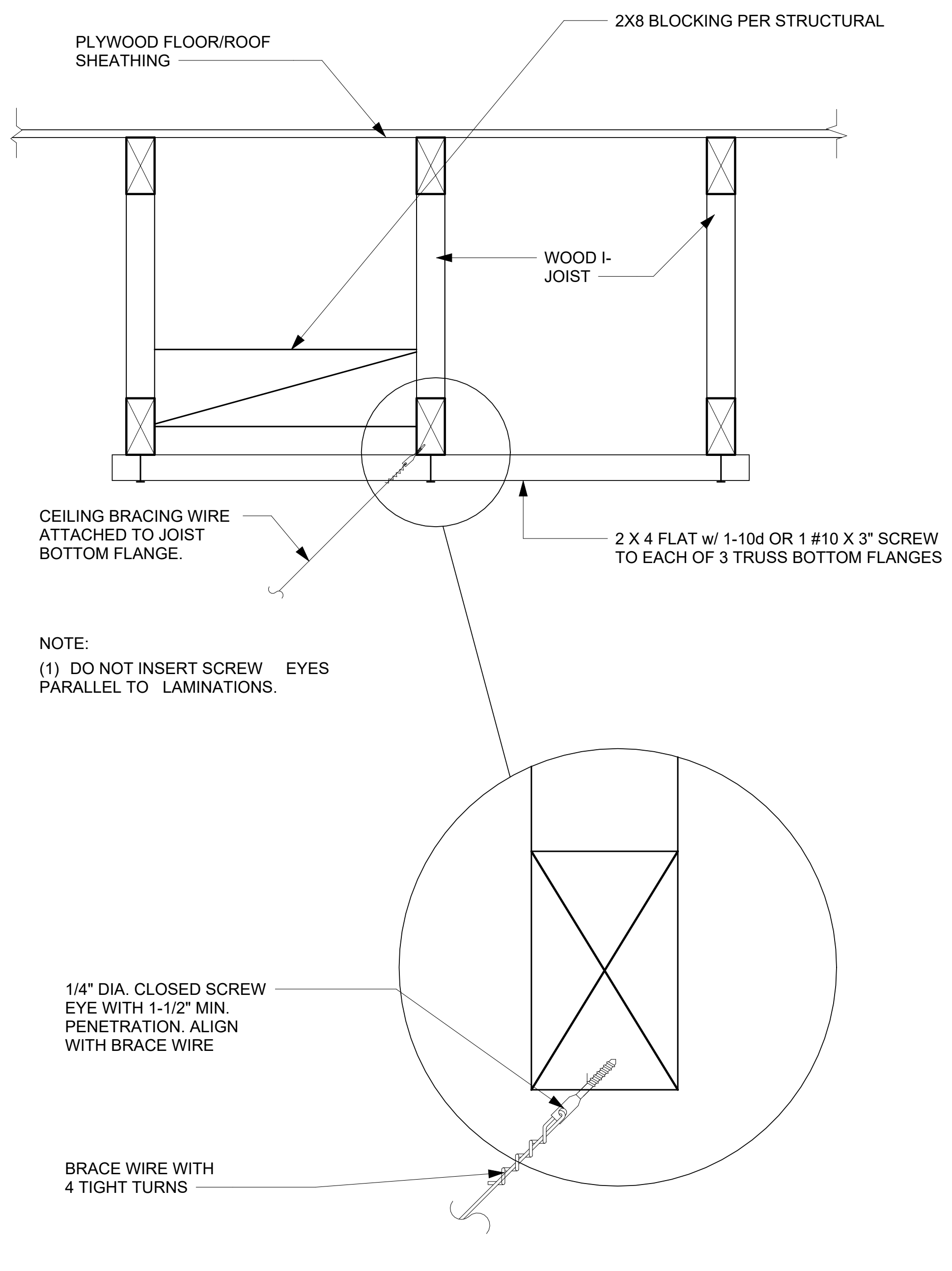
HANGER & SPLAY WIRE @ STL. BEAM D6
3" = 1'-0"


1/4" DIA. CLOSED SCREW EYE WITH 1-1/2" MIN. PENETRATION AT BOTTOM FLANGE
1 1/2" MIN. PENETRATION

HANGER WIRE CONNECTION BETWEEN WOOD CHORD TRUSS K8
3" = 1'-0"

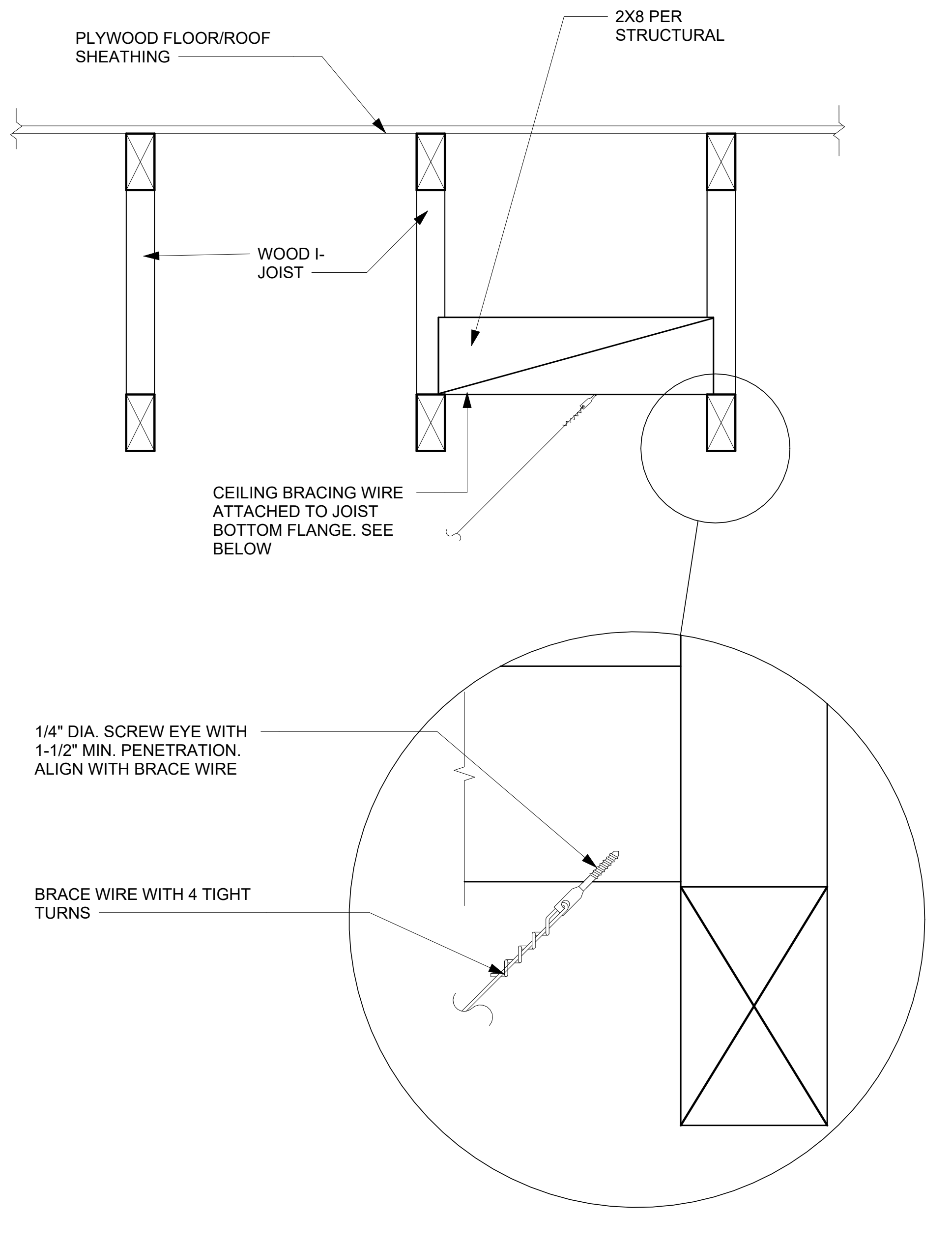

1/4" DIA. CLOSED SCREW EYE WITH 1-1/2" MIN. PENETRATION AT BOTTOM FLANGE

HANGER WIRE CONNECTION TO WOOD CHORD TRUSS K10
3" = 1'-0"


2X8 BLOCKING PER STRUCTURAL
PLYWOOD FLOOR/ROOF SHEATHING
WOOD I-JOIST
CEILING BRACING WIRE ATTACHED TO JOIST BOTTOM FLANGE.
2 X 4 FLAT w/ 1-10d OR 1 #10 X 3" SCREW TO EACH OF 3 TRUSS BOTTOM FLANGES
1/4" DIA. CLOSED SCREW EYE WITH 1-1/2" MIN. PENETRATION. ALIGN WITH BRACE WIRE
BRACE WIRE WITH 4 TIGHT TURNS

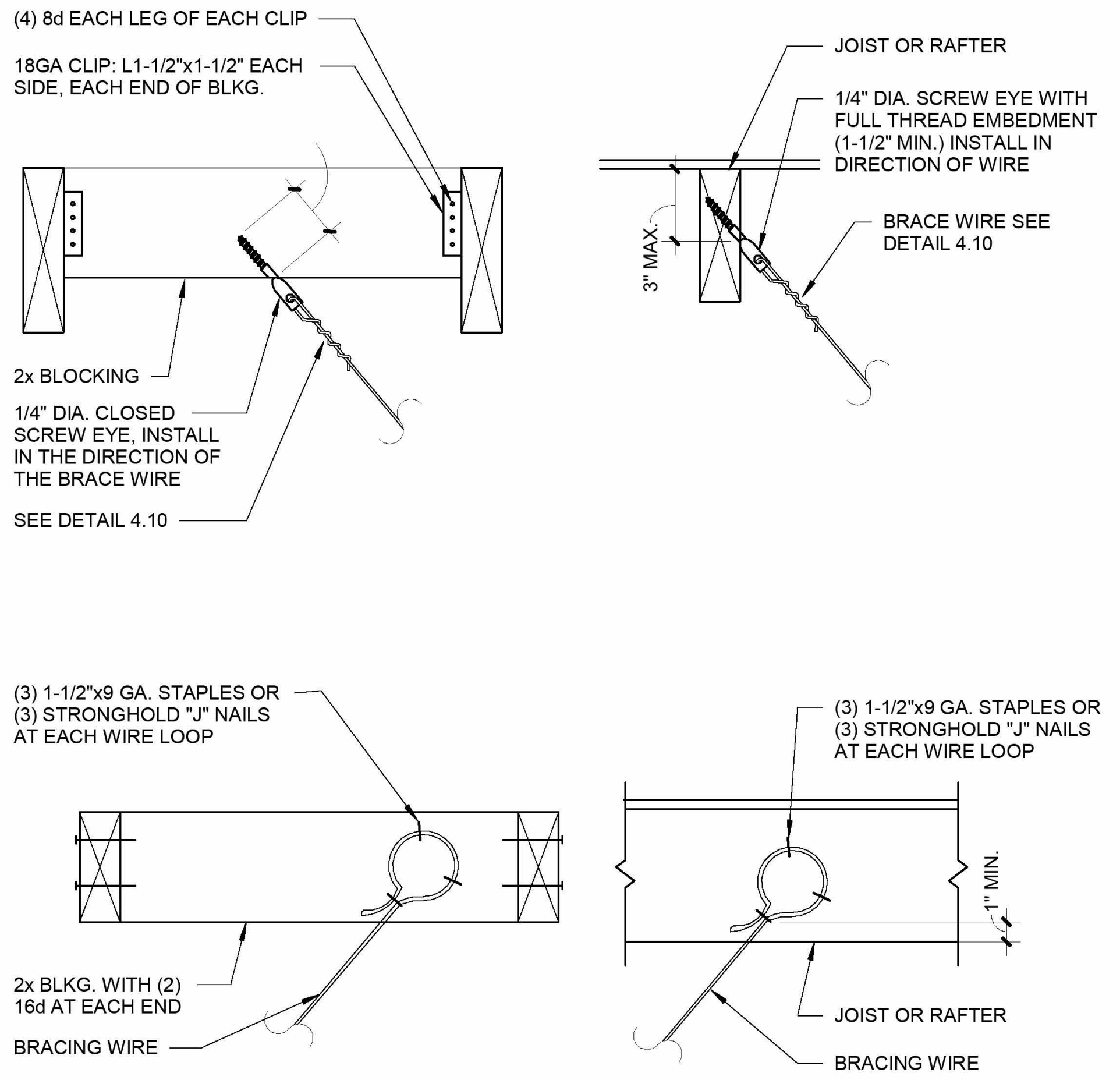
NOTE:
(1) DO NOT INSERT SCREW EYES PARALLEL TO LAMINATIONS.

BRACE WIRE CONNECTION TO WOOD CHORD TRUSS G10
1" = 1'-0"


PLYWOOD FLOOR/ROOF SHEATHING
2X8 PER STRUCTURAL
WOOD I-JOIST
CEILING BRACING WIRE ATTACHED TO JOIST BOTTOM FLANGE. SEE BELOW
1/4" DIA. SCREW EYE WITH 1-1/2" MIN. PENETRATION. ALIGN WITH BRACE WIRE
BRACE WIRE WITH 4 TIGHT TURNS

BRACE WIRE CONNECTION BETWEEN WOOD CHORD TRUSS D10
1" = 1'-0"

IR 25-2
SUSPENDED LAY-IN PANEL CEILING: 2019 CBC


(4) 8d EACH LEG OF EACH CLIP
18GA CLIP: L1-1/2"x1-1/2" EACH SIDE, EACH END OF BLKG.
2x BLOCKING
1/4" DIA. CLOSED SCREW EYE, INSTALL IN THE DIRECTION OF THE BRACE WIRE
SEE DETAIL 4.10
JOIST OR RAFTER
1/4" DIA. SCREW EYE WITH FULL THREAD EMBEDMENT (1-1/2" MIN.) INSTALL IN DIRECTION OF WIRE
3" MAX.
BRACE WIRE SEE DETAIL 4.10
(3) 1-1/2"x9 GA. STAPLES OR (3) STRONGHOLD "J" NAILS AT EACH WIRE LOOP
2x BLKG. WITH (2) 16d AT EACH END
BRACING WIRE
(3) 1-1/2"x9 GA. STAPLES OR (3) STRONGHOLD "J" NAILS AT EACH WIRE LOOP
1" MIN.
JOIST OR RAFTER
BRACING WIRE

Detail Title :		Detail No.
BRACE WIRE CONNECTION TO SAWN TIMBER	REV: 09/21/2015 REV: 03/2022	4.35

IR 25-2 (Revised 03/18/22) Page 53 of 71
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

BRACE WIRE CONNECTION TO SAWN TIMBER A10
3" = 1'-0"

GATEWAY ANNEX SCHOOL

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550 Airport Way, Camarillo, CA 93010

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PM	
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TYP. LAY-IN CEILING DETAILS

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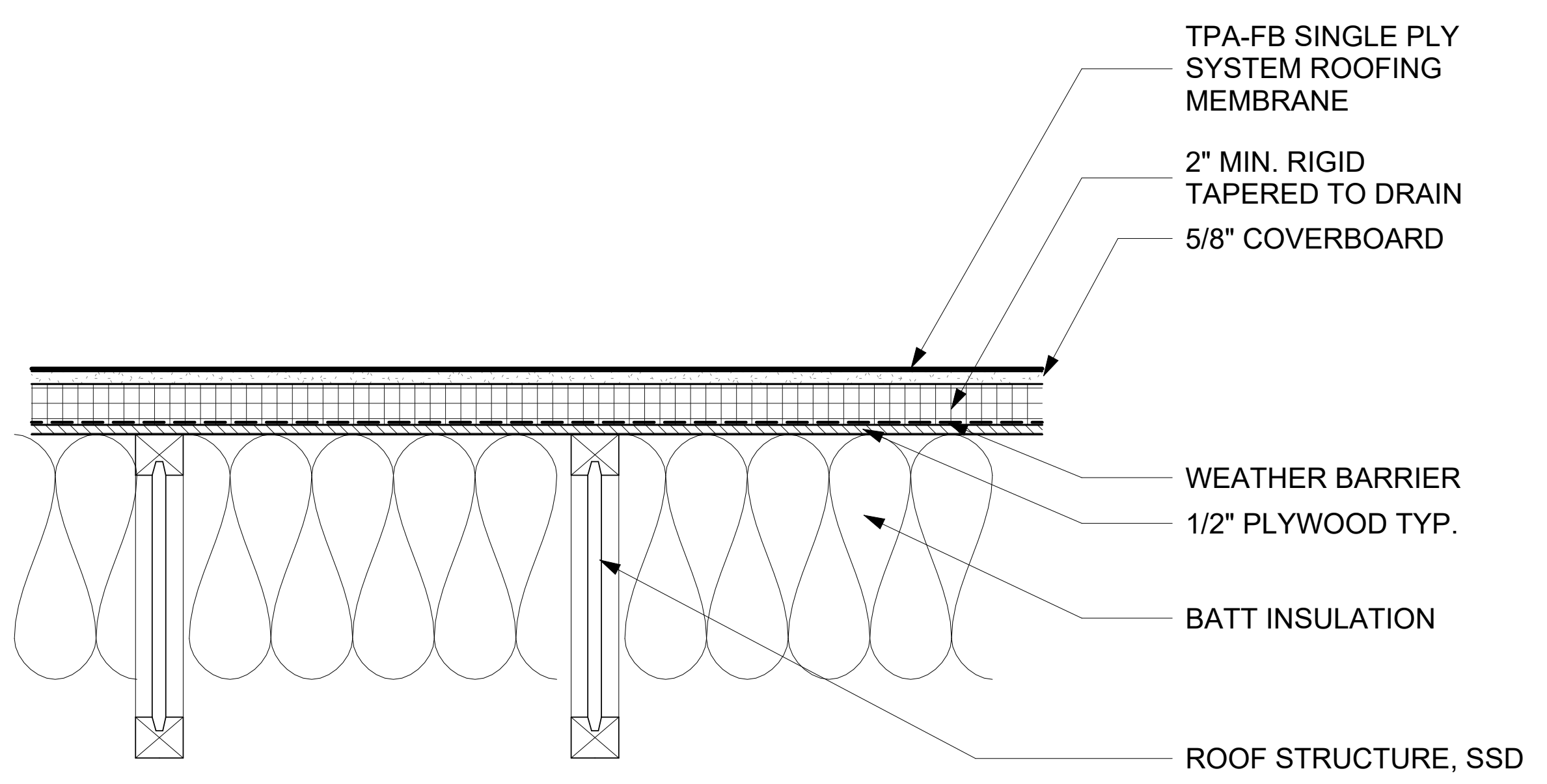
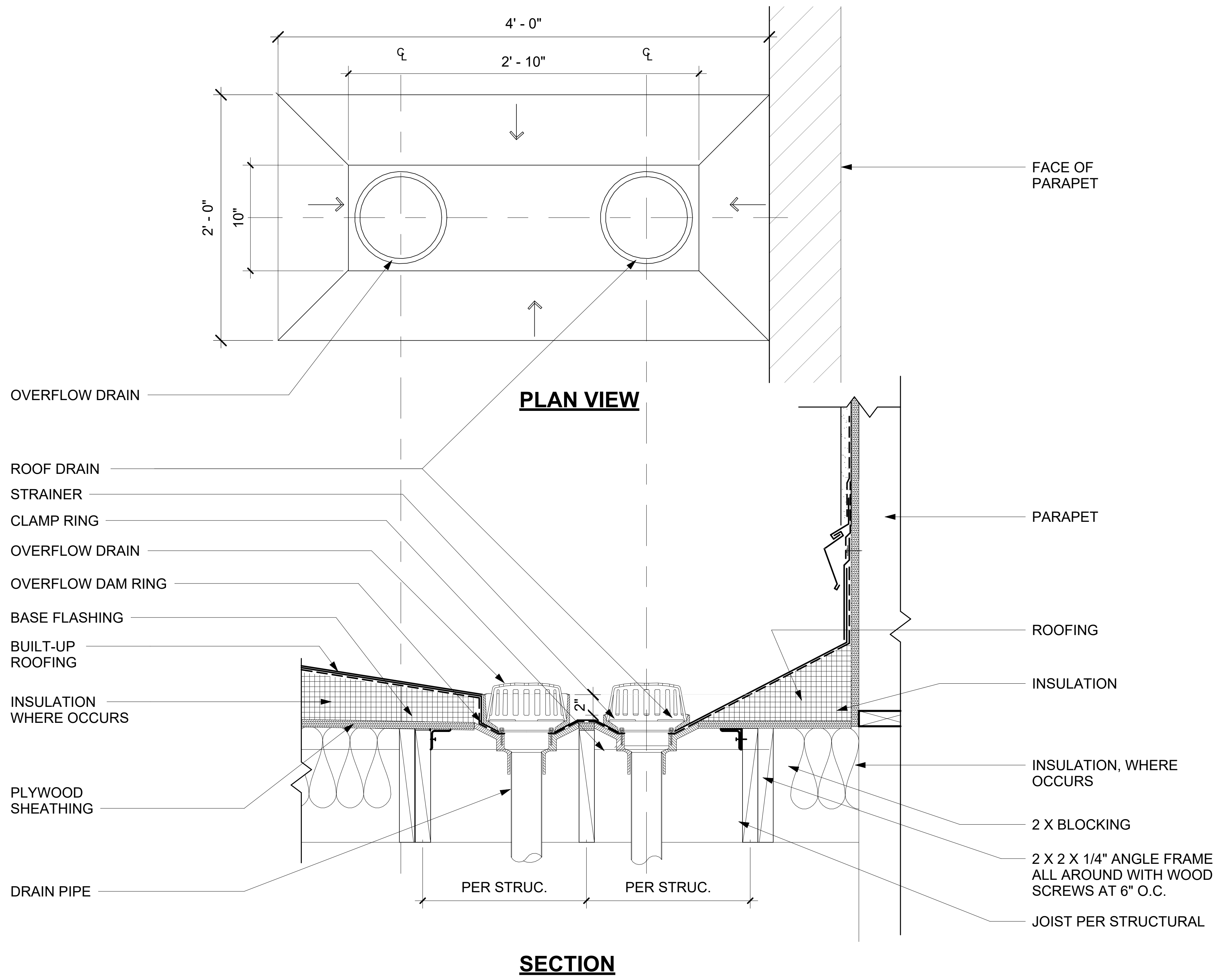
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A823

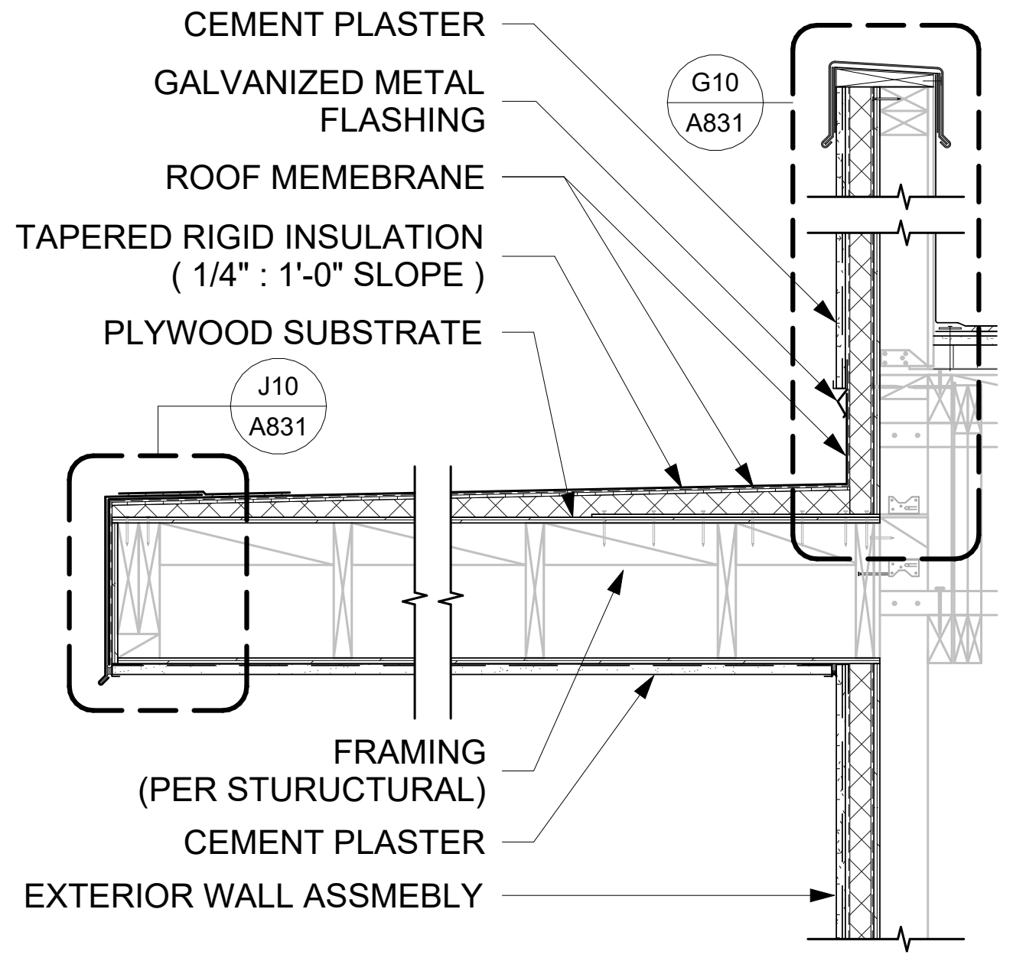


TYPICAL ROOF G3
1 1/2" = 1'-0"

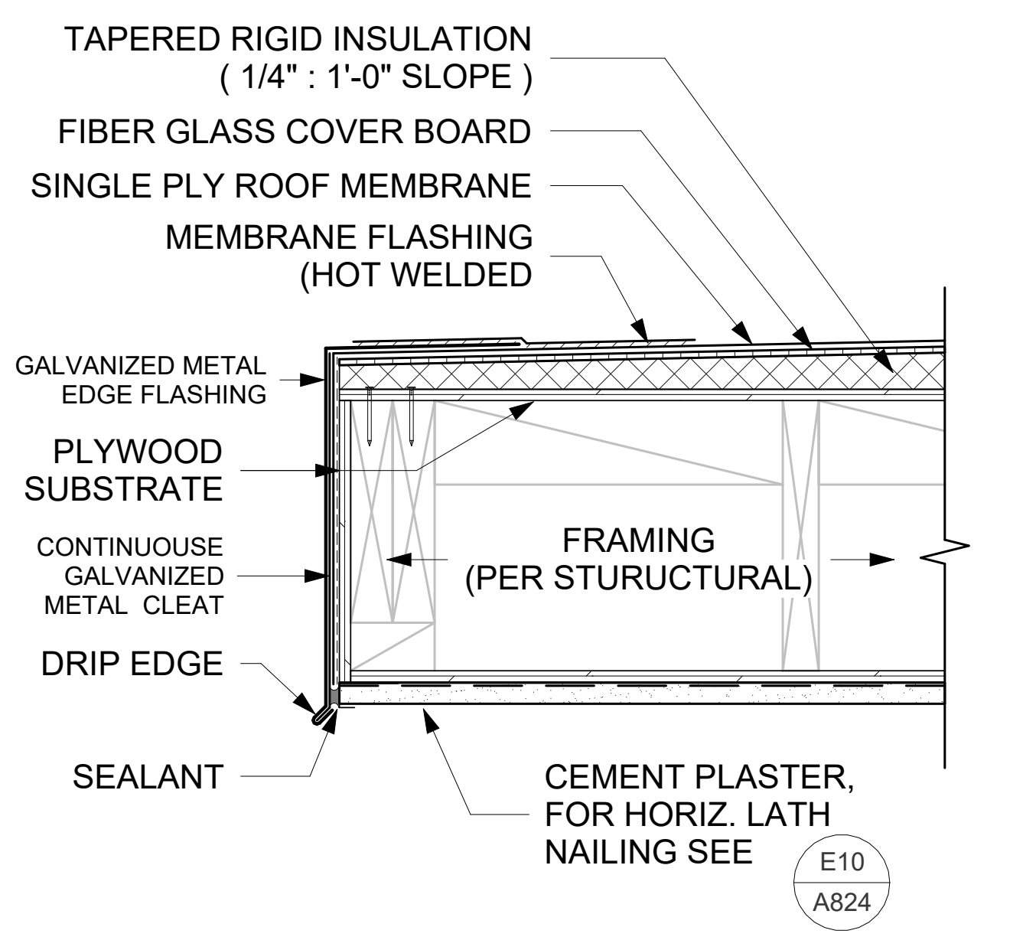


NOTES:
1. FOR ROOF DRAIN & OVERFLOW DRAIN SIZES, REFER TO PLUMBING DRAWINGS.
2. OVERFLOW DRAINS SHALL BE EQUAL SIZE AND DIAMETER AS ROOF DRAINS AND SHALL BE INSTALLED WITH INLET FLOWLINE 2" ABOVE THE LOW POINT OF ROOF.

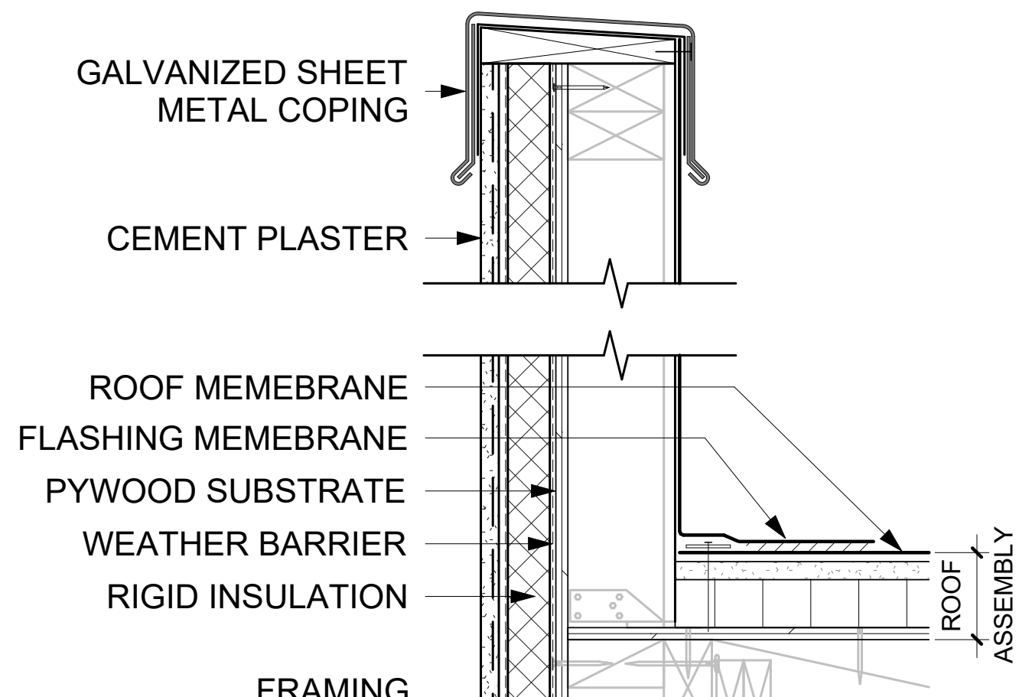
DOUBLE UNIT ROOF DRAIN G8
1 1/2" = 1'-0"


CEMENT PLASTER
GALVANIZED METAL FLASHING
ROOF MEMEBRANE
TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
PLYWOOD SUBSTRATE
G10
A831
J10
A831
FRAMING (PER STURUCTURAL)
CEMENT PLASTER
EXTERIOR WALL ASSMEBLY

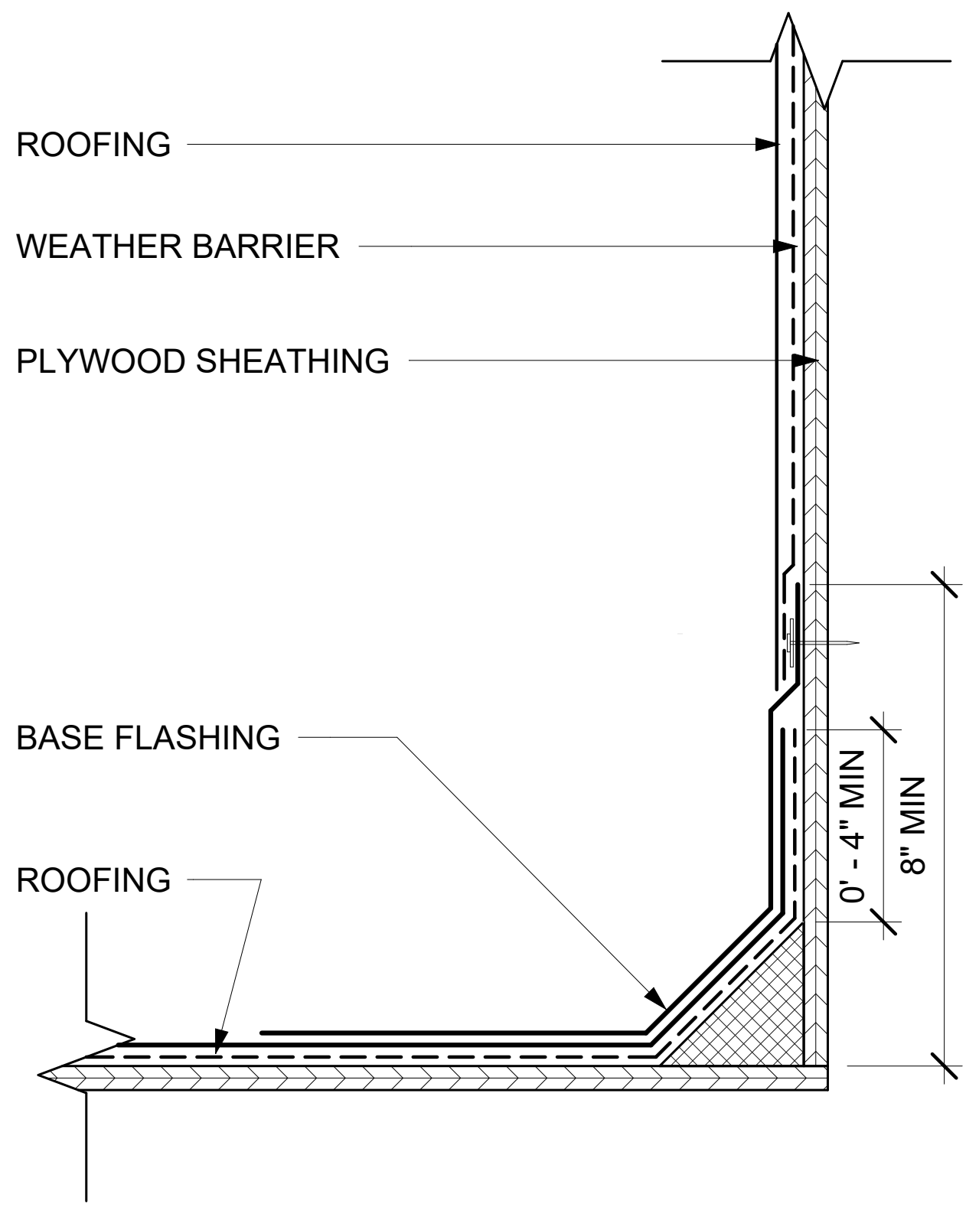
STAFF PATIO ROOF L10
3/4" = 1'-0"


TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
FIBER GLASS COVER BOARD
SINGLE PLY ROOF MEMBRANE
MEMBRANE FLASHING (HOT WELDED
GALVANIZED METAL EDGE FLASHING
PLYWOOD SUBSTRATE
CONTINUOUSE GALVANIZED METAL CLEAT
DRIP EDGE
SEALANT
FRAMING (PER STURUCTURAL)
CEMENT PLASTER, FOR HORIZ. LATH NAILING SEE
E10
A824

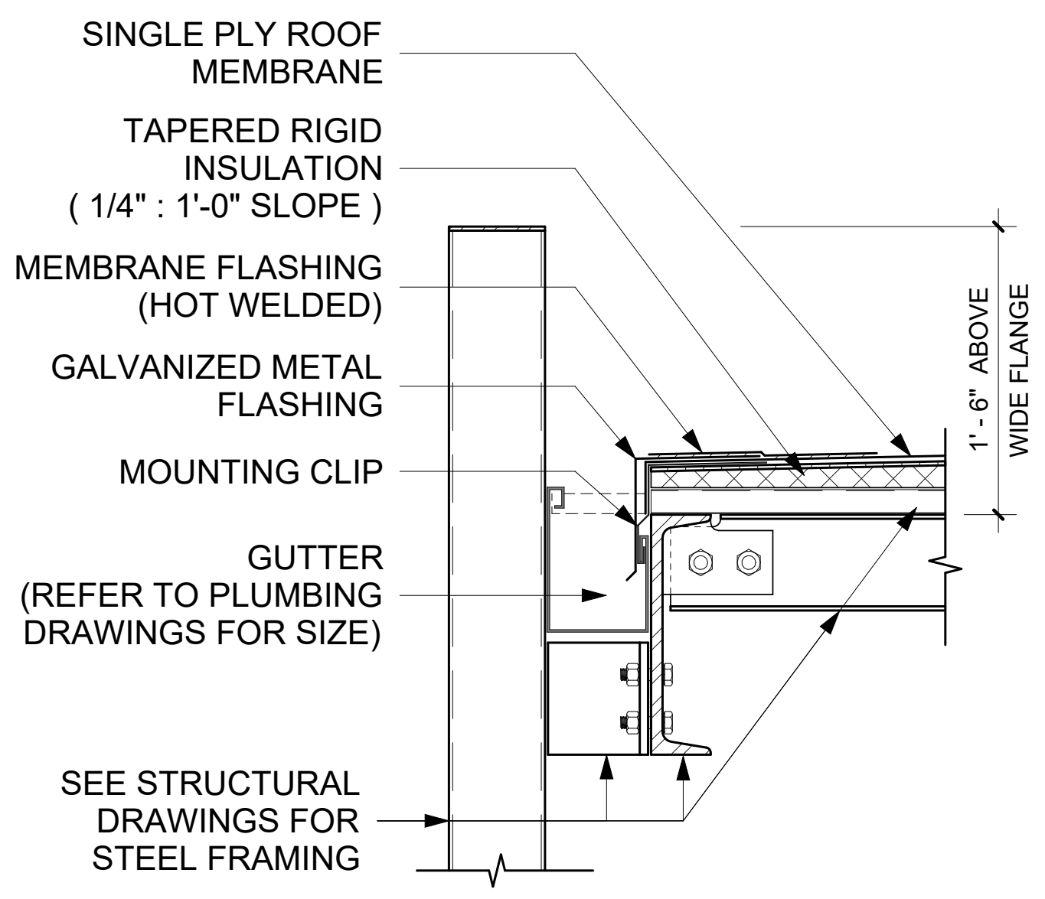
STAFF PATIO ROOF EDGE J10
1 1/2" = 1'-0"



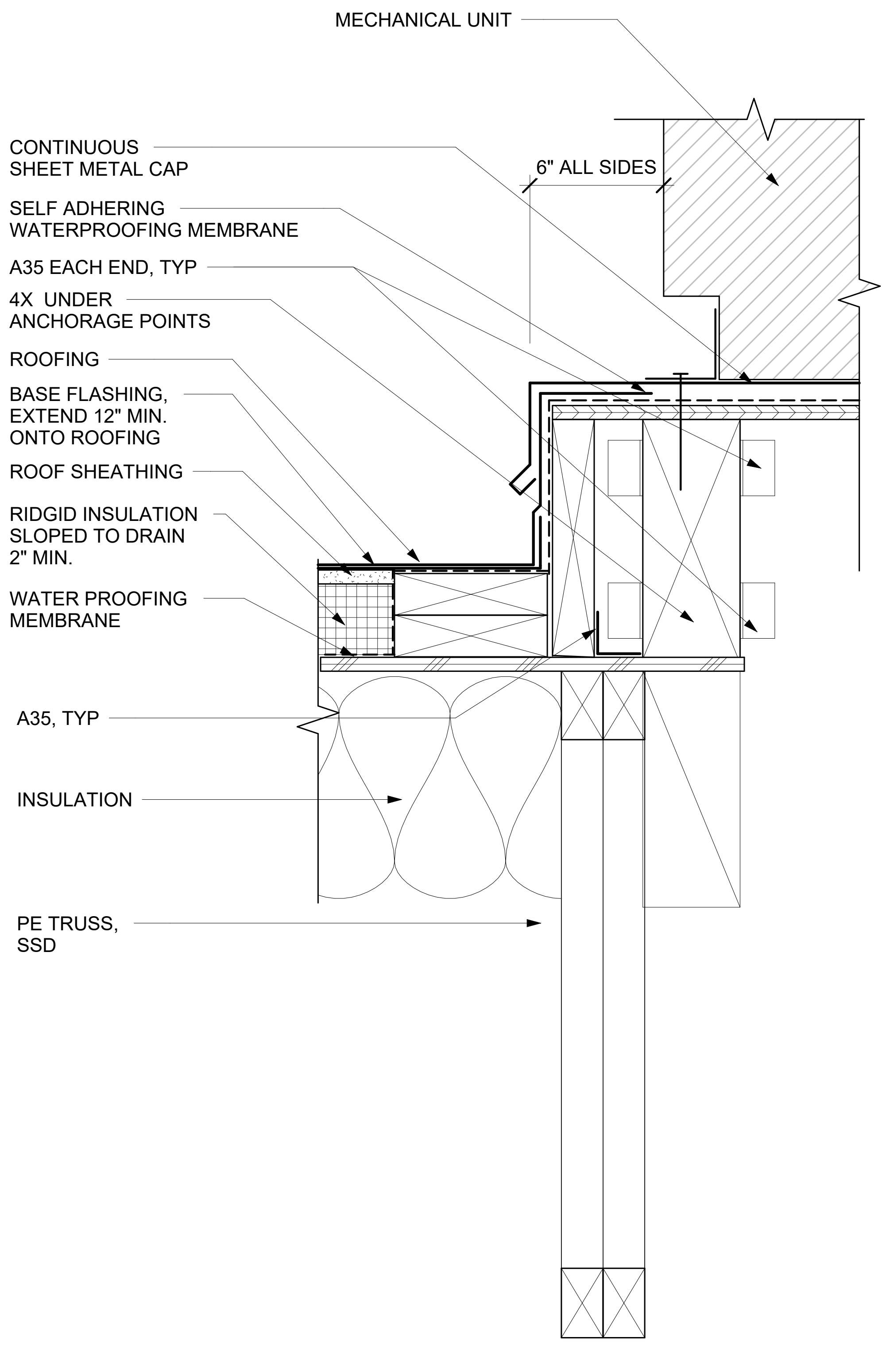
TYPICAL PARAPET G10
1 1/2" = 1'-0"



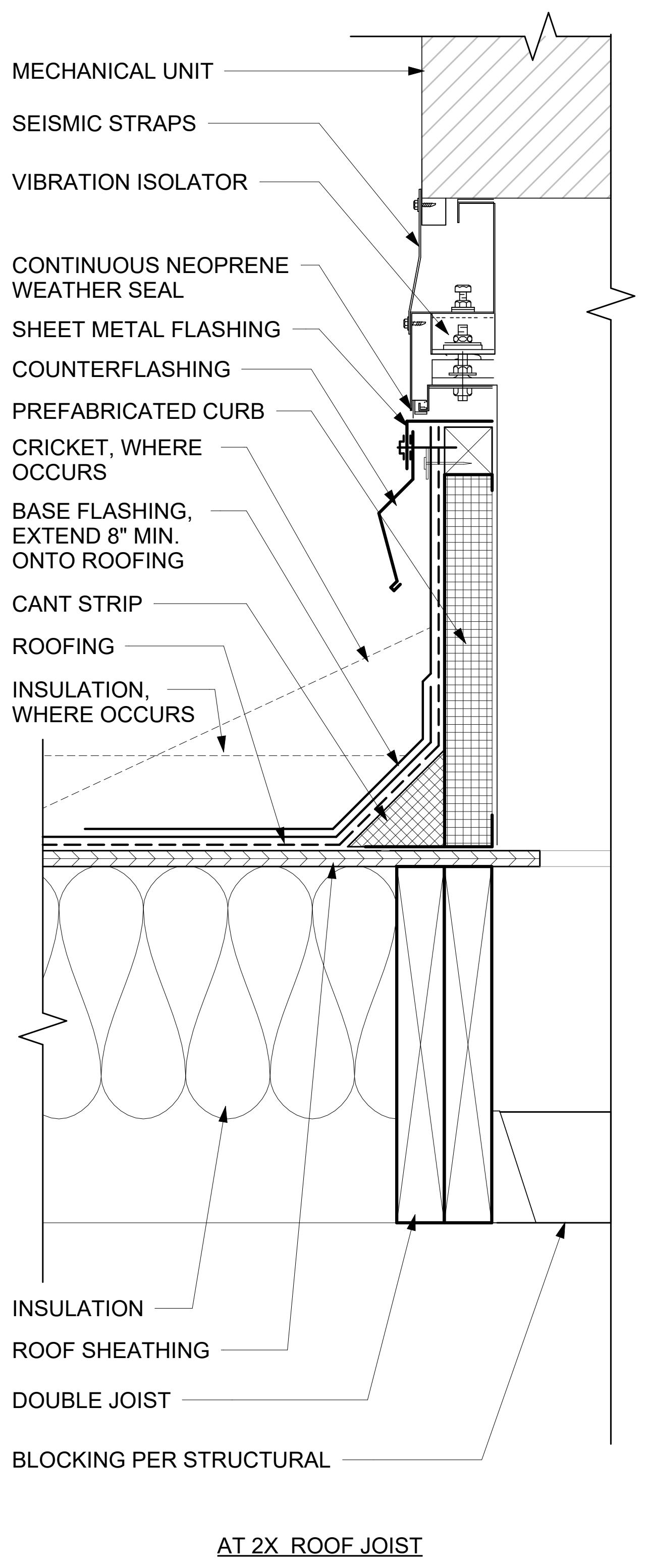
ROOF TO PARAPET A3
3" = 1'-0"


SINGLE PLY ROOF MEMBRANE
TAPERED RIGID INSULATION (1/4" : 1'-0" SLOPE)
MEMBRANE FLASHING (HOT WELDED)
GALVANIZED METAL FLASHING
MOUNTING CLIP
GUTTER (REFER TO PLUMBING DRAWINGS FOR SIZE)
SEE STRUCTURAL DRAWINGS FOR STEEL FRAMING
1' - 6" ABOVE WIDE FLANGE

COVERED WALKWAY EDGE AND GUTTER A5
1" = 1'-0"


MECHANICAL UNIT
6" ALL SIDES
CONTINUOUS SHEET METAL CAP
SELF ADHERING WATERPROOFING MEMBRANE
A35 EACH END, TYP
4X UNDER ANCHORAGE POINTS
ROOFING
BASE FLASHING, EXTEND 12" MIN. ONTO ROOFING
ROOF SHEATHING
RIDGID INSULATION SLOPED TO DRAIN 2" MIN.
WATER PROOFING MEMBRANE
A35, TYP
INSULATION
PE TRUSS, SSD

MECHANICAL EQUIPMENT PLATFORM C10
3" = 1'-0"



AT 2X ROOF JOIST

MECHANICAL EQUIPMENT CURB A10
WITH VIBRATION ISOLATOR
3" = 1'-0"

GATEWAY ANNEX SCHOOL

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ROOF DETAILS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
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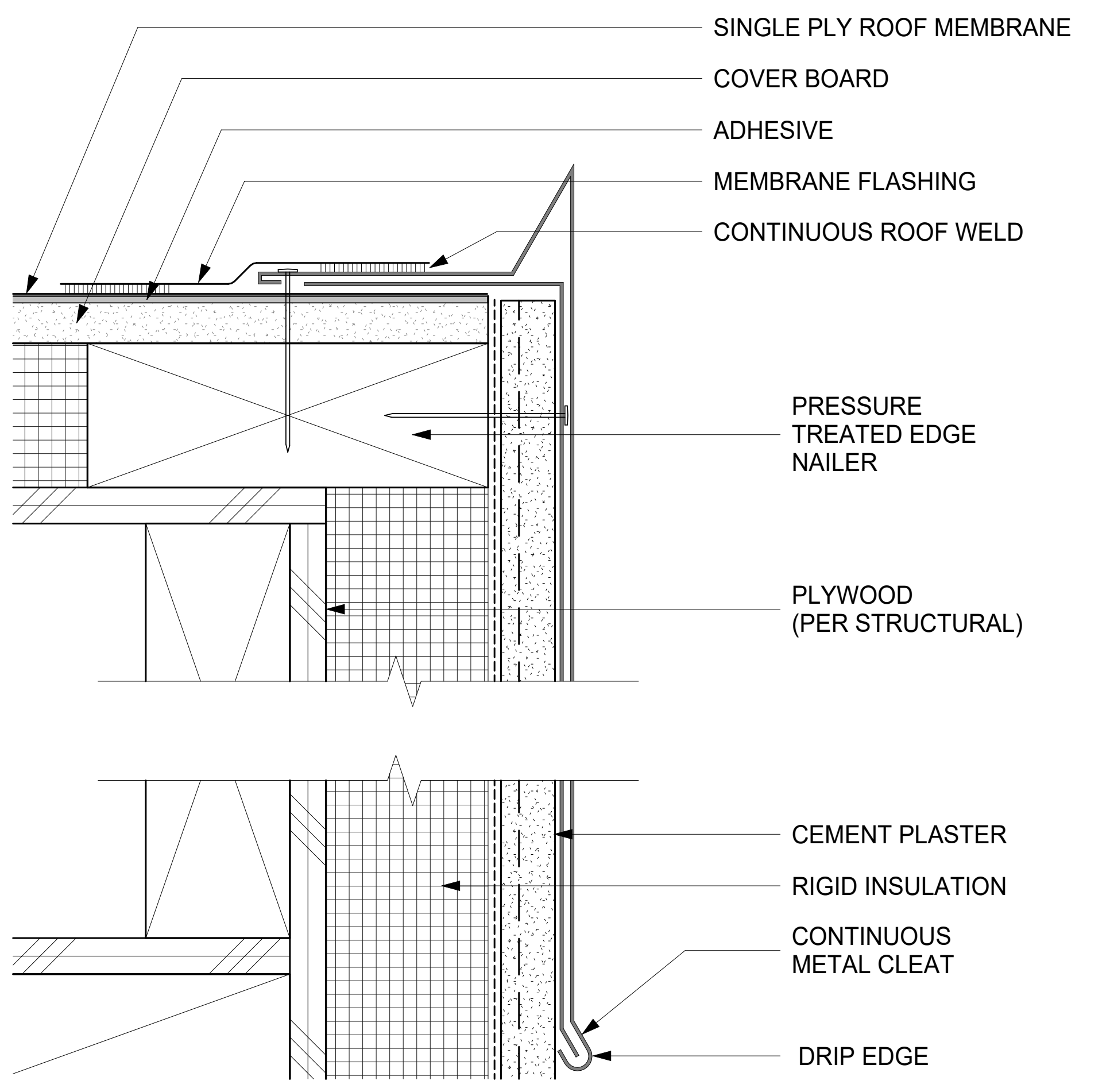
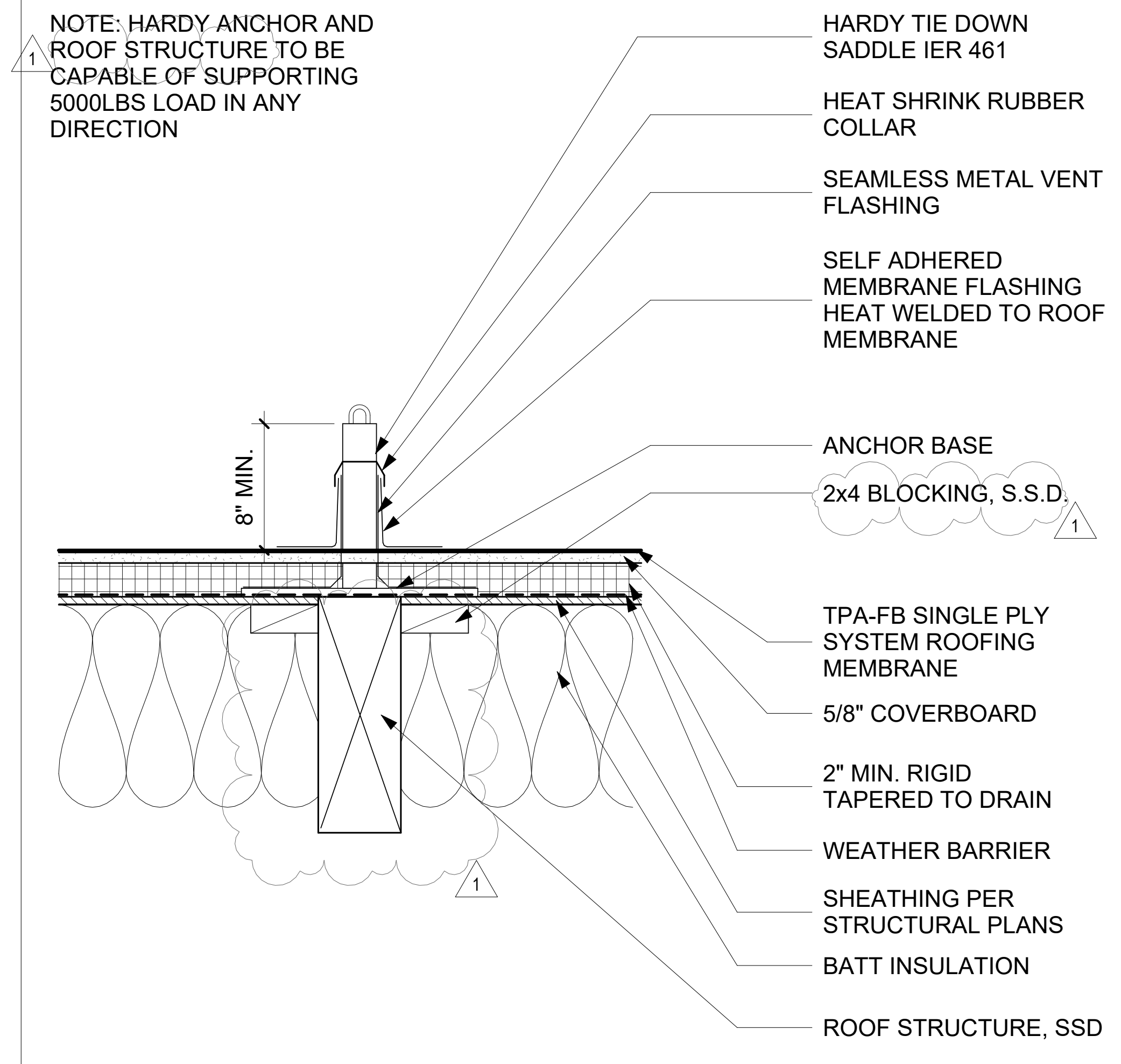
A831

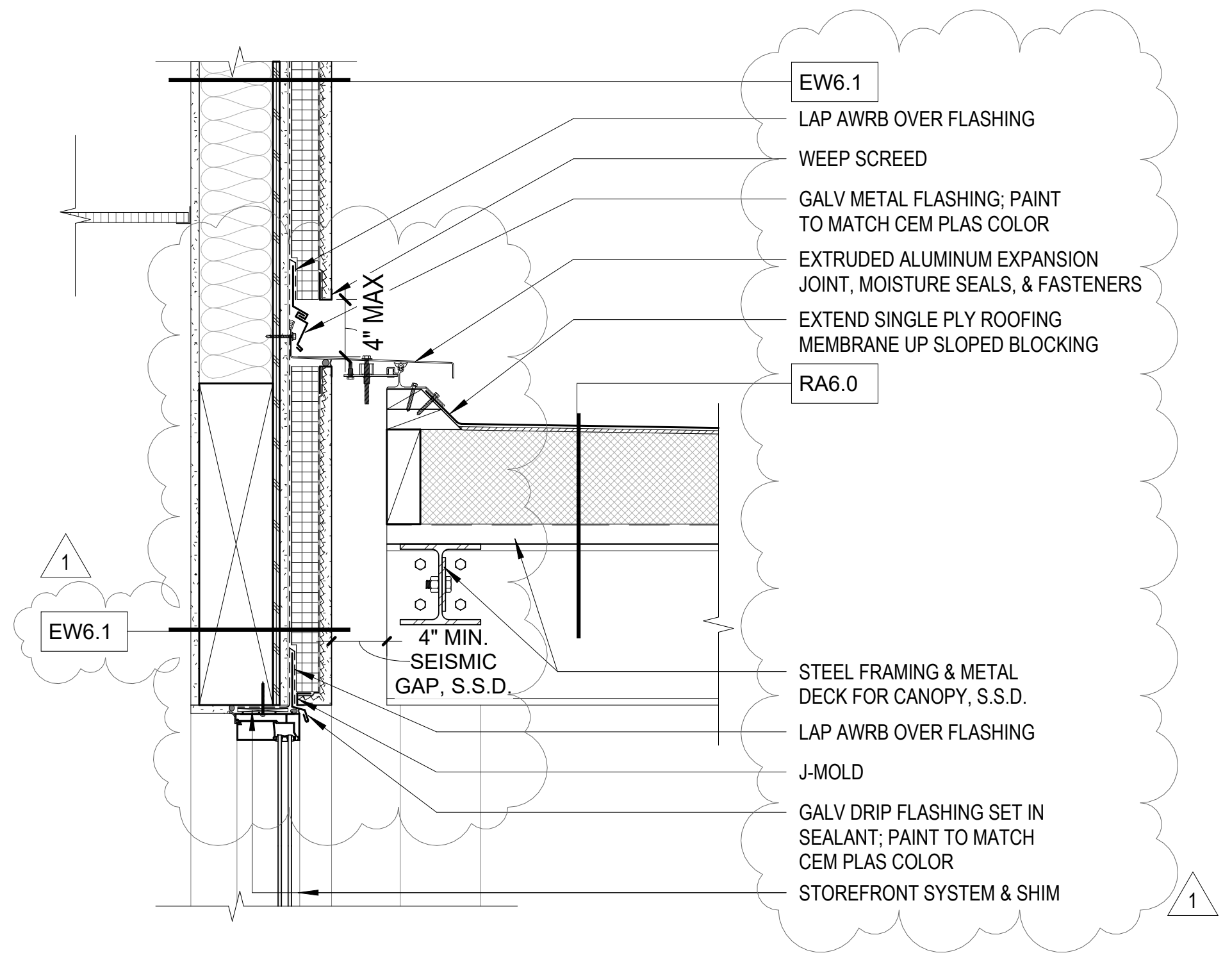


RAKE EDGE D3
6" = 1'-0"

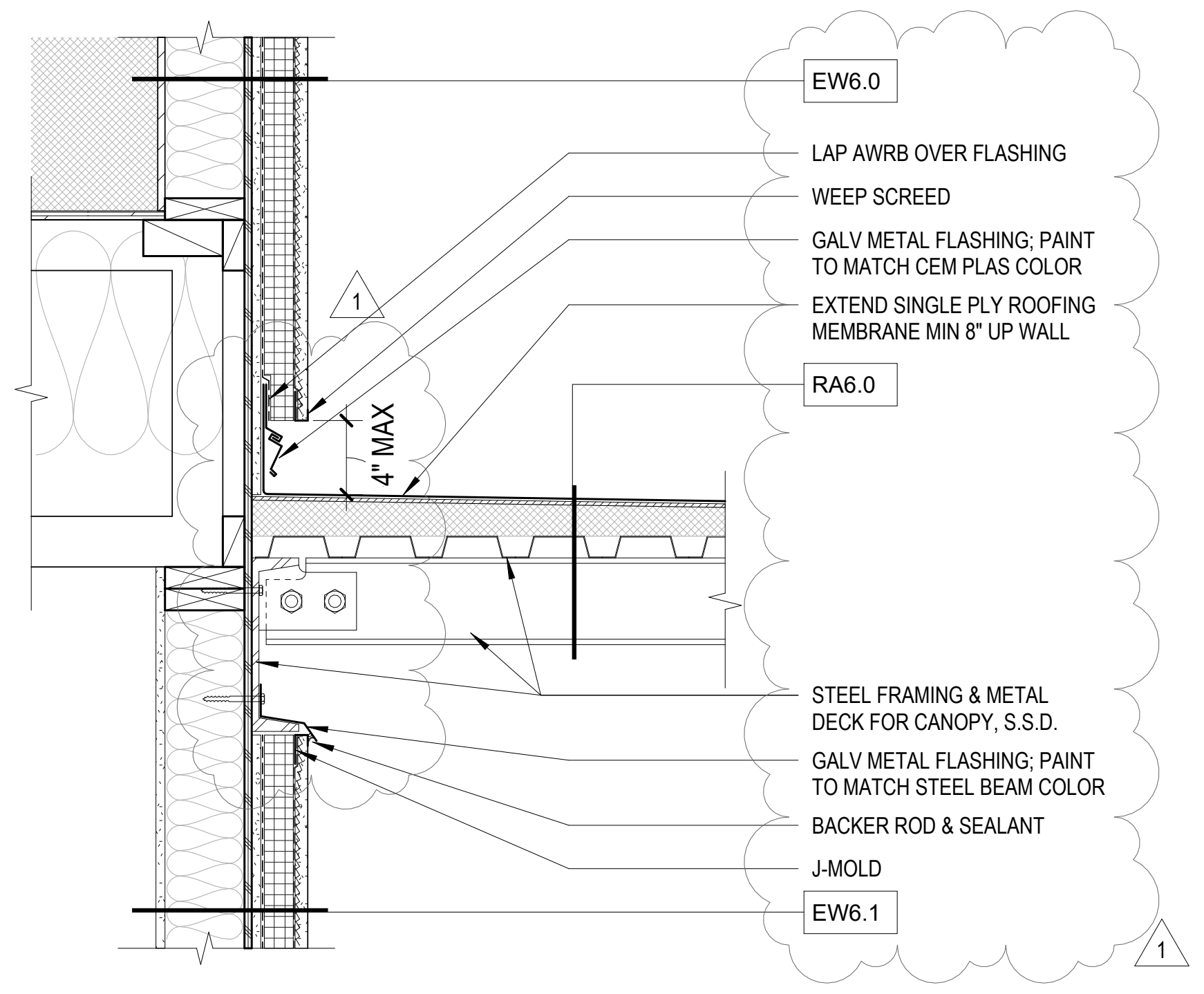
NOTE: HARDY ANCHOR AND ROOF STRUCTURE TO BE CAPABLE OF SUPPORTING 5000LBS LOAD IN ANY DIRECTION


1
HARDY TIE DOWN SADDLE IER 461
HEAT SHRINK RUBBER COLLAR
SEAMLESS METAL VENT FLASHING
SELF ADHERED MEMBRANE FLASHING HEAT WELDED TO ROOF MEMBRANE
8" MIN.
ANCHOR BASE
2x4 BLOCKING, S.S.D.
1
TPA-FB SINGLE PLY SYSTEM ROOFING MEMBRANE
5/8" COVERBOARD
2" MIN. RIGID TAPERED TO DRAIN
WEATHER BARRIER
SHEATHING PER STRUCTURAL PLANS
BATT INSULATION
ROOF STRUCTURE, SSD
1

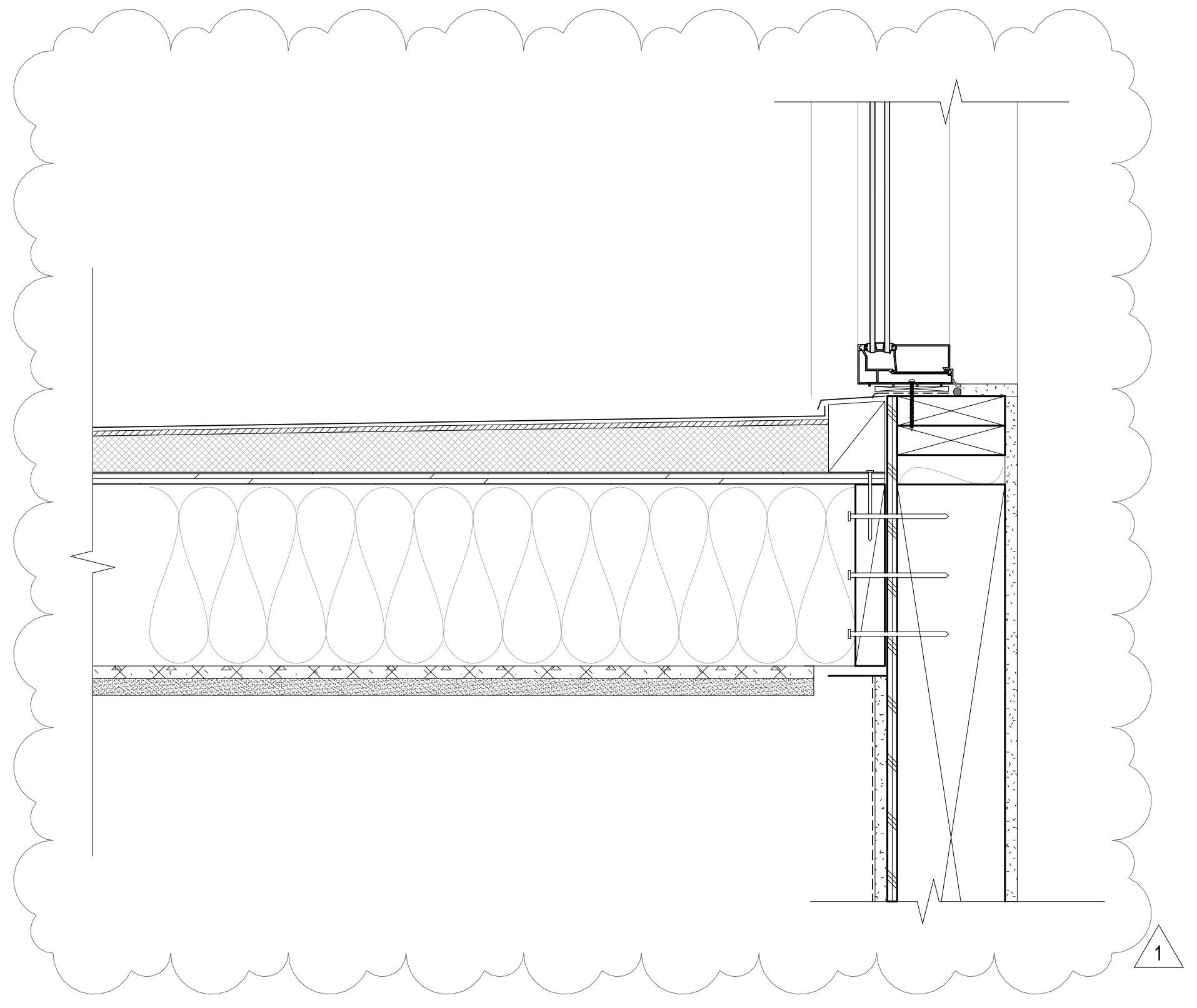
ROOF ANCHORAGE A3
1 1/2" = 1'-0"


EW6.1
LAP AWRB OVER FLASHING
WEEP SCREED
GALV METAL FLASHING; PAINT TO MATCH CEM PLAS COLOR
EXTRUDED ALUMINUM EXPANSION JOINT, MOISTURE SEALS, & FASTENERS
EXTEND SINGLE PLY ROOFING MEMBRANE UP SLOPED BLOCKING
RA6.0
4" MAX
1
EW6.1
4" MIN. SEISMIC GAP, S.S.D.
STEEL FRAMING & METAL DECK FOR CANOPY, S.S.D.
LAP AWRB OVER FLASHING
J-MOLD
GALV DRIP FLASHING SET IN SEALANT; PAINT TO MATCH CEM PLAS COLOR
STOREFRONT SYSTEM & SHIM
1

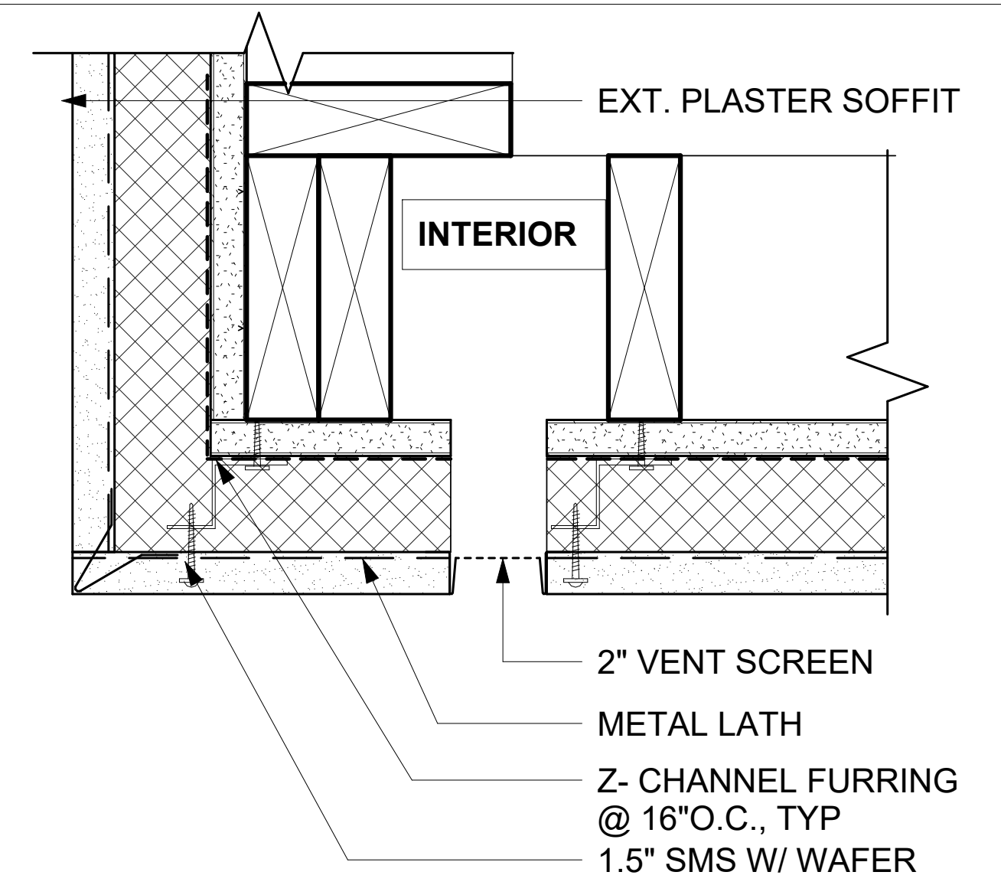
COVERED WALKWAY SEISMIC GAP @ EXT WALL G8
1" = 1'-0"


EW6.0
LAP AWRB OVER FLASHING
WEEP SCREED
GALV METAL FLASHING; PAINT TO MATCH CEM PLAS COLOR
EXTEND SINGLE PLY ROOFING MEMBRANE MIN 8" UP WALL
1
RA6.0
4" MAX
STEEL FRAMING & METAL DECK FOR CANOPY, S.S.D.
GALV METAL FLASHING; PAINT TO MATCH STEEL BEAM COLOR
BACKER ROD & SEALANT
J-MOLD
EW6.1
1

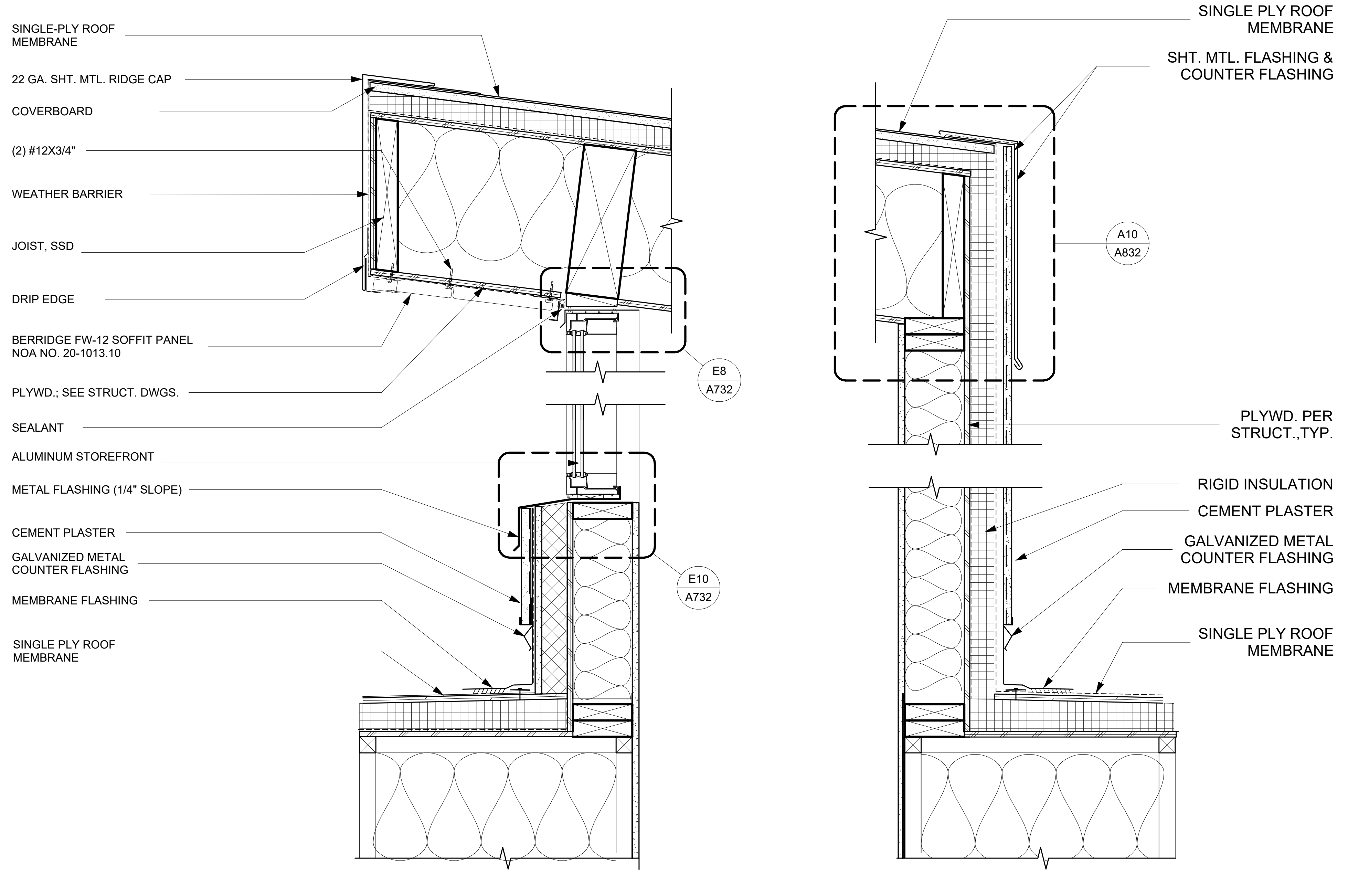
COVERED WALKWAY @ EXT WALL D6
1" = 1'-0"



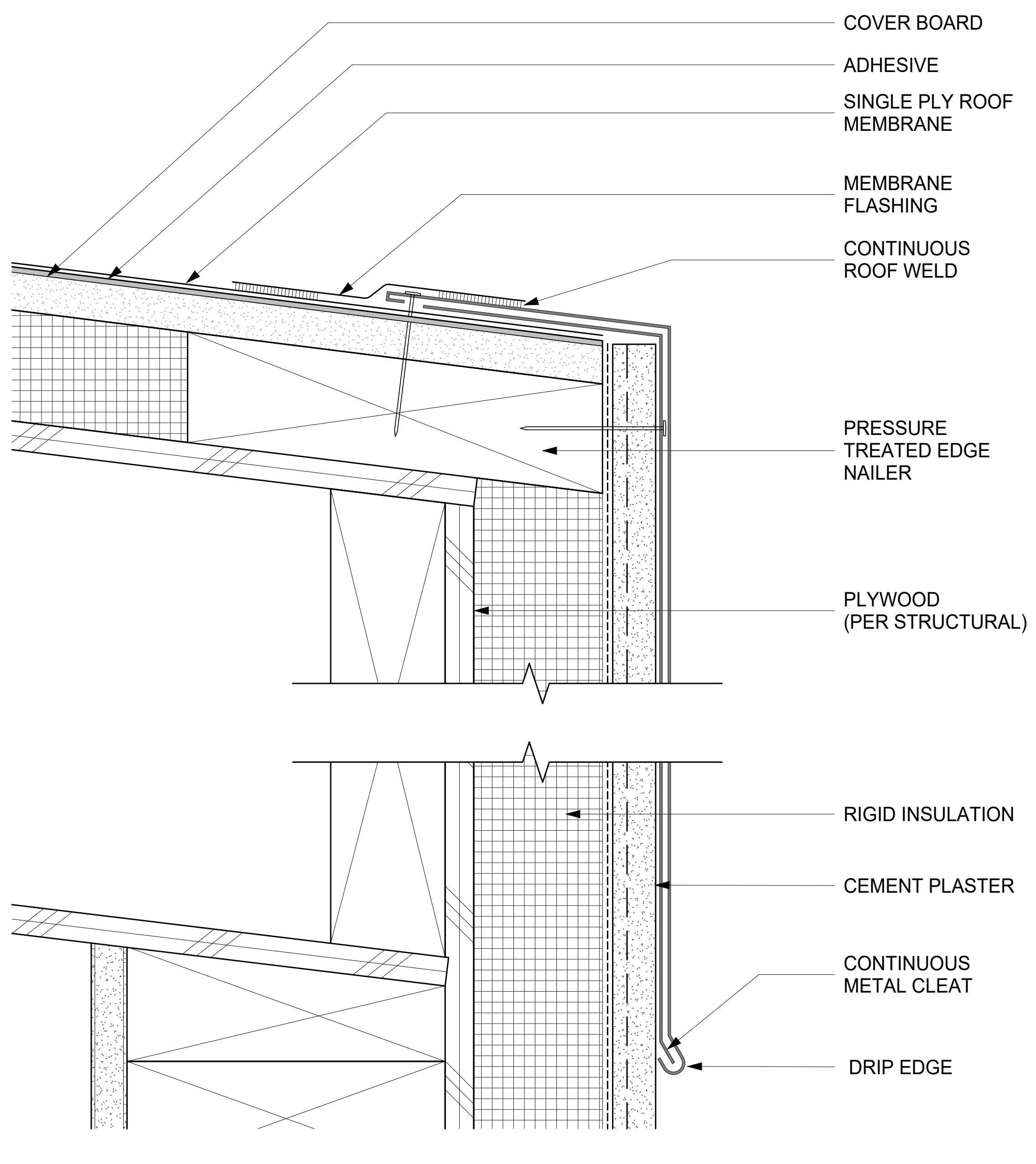
WINDOW SILL AT ENTRY ROOF A6
1 1/2" = 1'-0"


EXT. PLASTER SOFFIT
INTERIOR
2" VENT SCREEN
METAL LATH
Z- CHANNEL FURRING @ 16"O.C., TYP
1.5" SMS W/ WAFER HEAD @ EA. Z-CLIP & @16".O.C., TYP
EXTERIOR

TYP. EXT. PLASTER SOFFIT & VENT L10
3" = 1'-0"



SLOPED ROOF E10
1 1/2" = 1'-0"



DRIP EDGE A10
6" = 1'-0"

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL.31, 2023
STATE OF CALIFORNIA

GATEWAY ANNEX SCHOOL

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550 Airport Way, Camarillo, CA 93010

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ROOF DETAILS

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Costa Mesa, CA 92626
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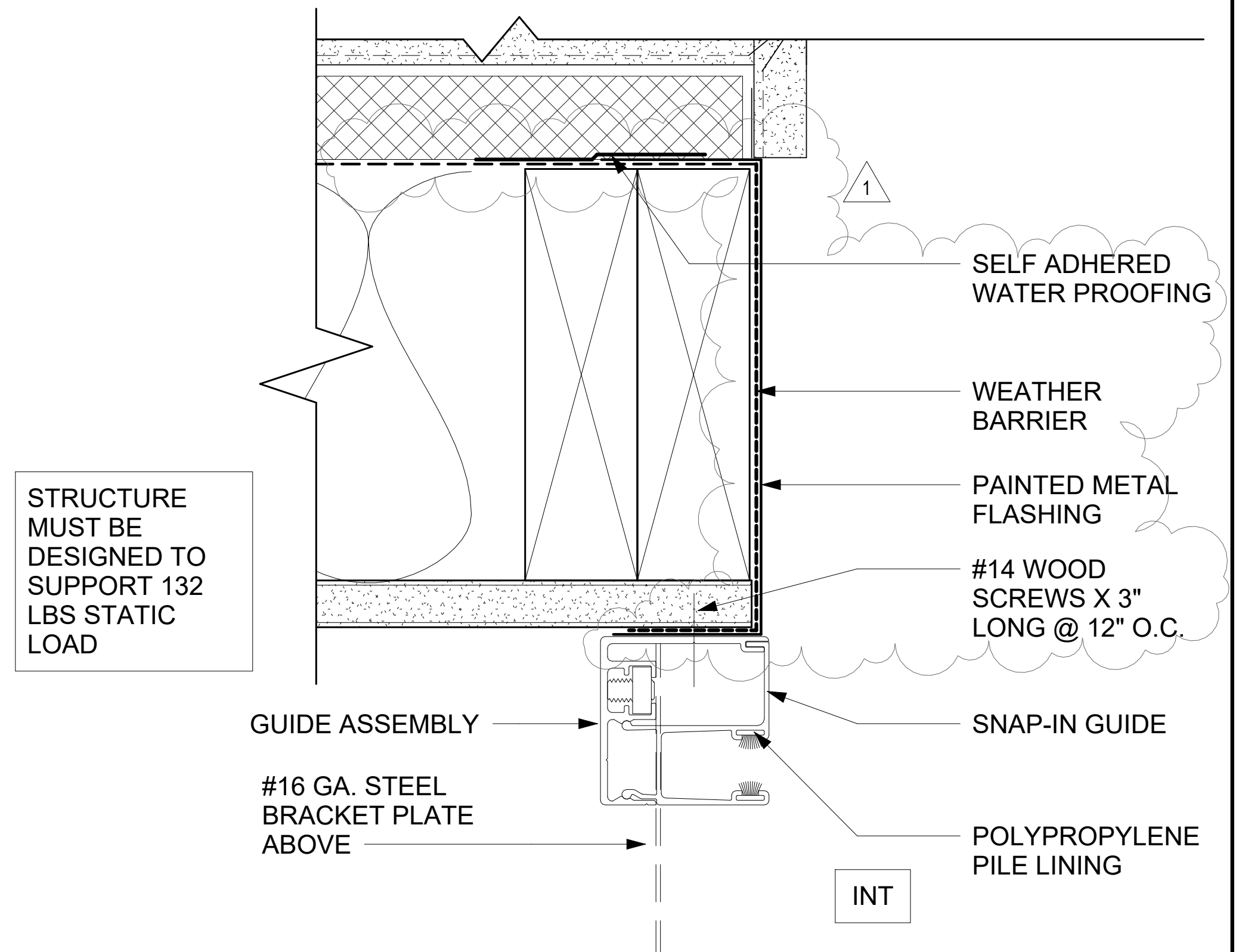
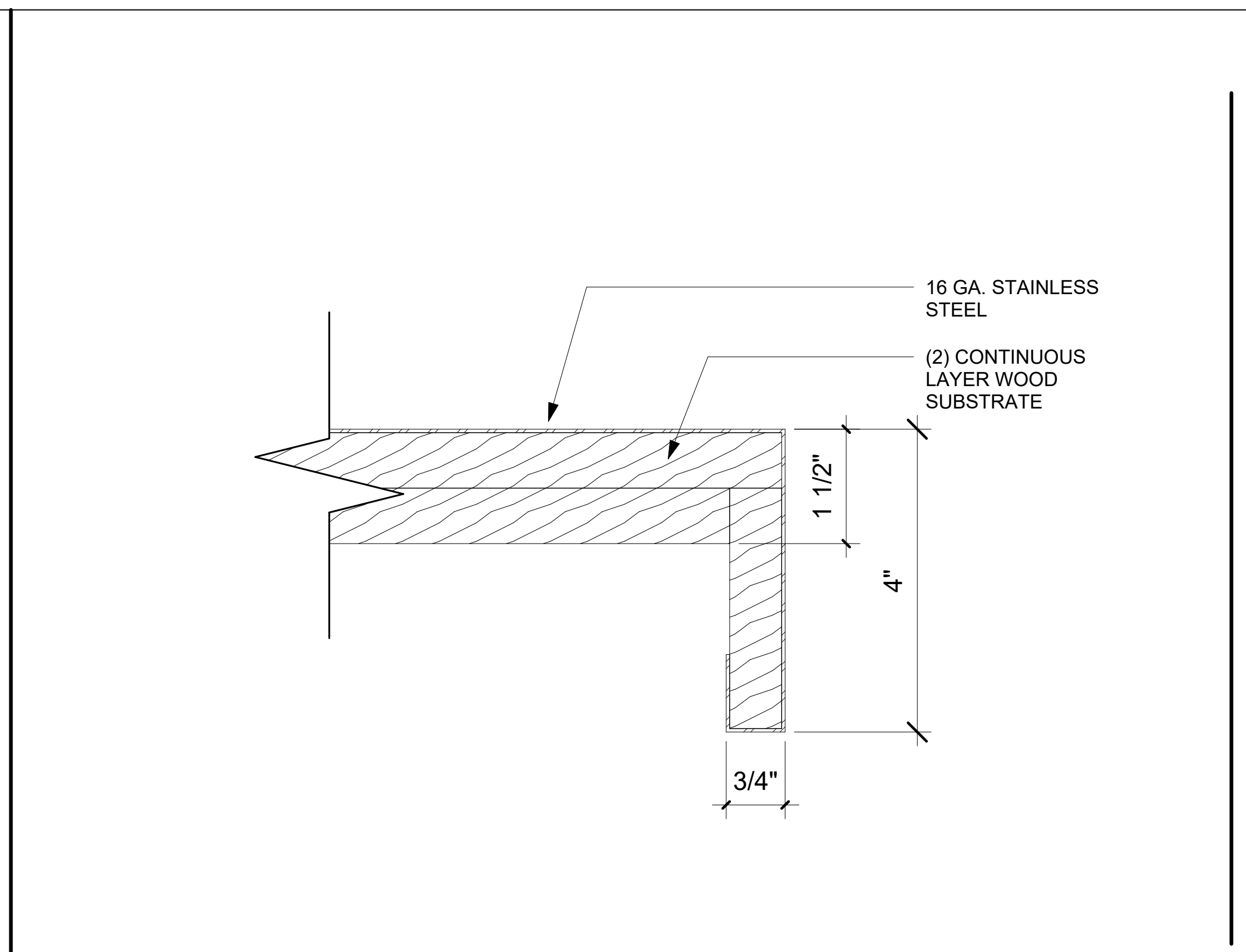
A832


SELF ADHERED WATER PROOFING
WEATHER BARRIER
PAINTED METAL FLASHING
#14 WOOD SCREWS X 3" LONG @ 12" O.C.
STRUCTURE MUST BE DESIGNED TO SUPPORT 132 LBS STATIC LOAD
GUIDE ASSEMBLY
SNAP-IN GUIDE
#16 GA. STEEL BRACKET PLATE ABOVE
POLYPROPYLENE PILE LINING
INT
1

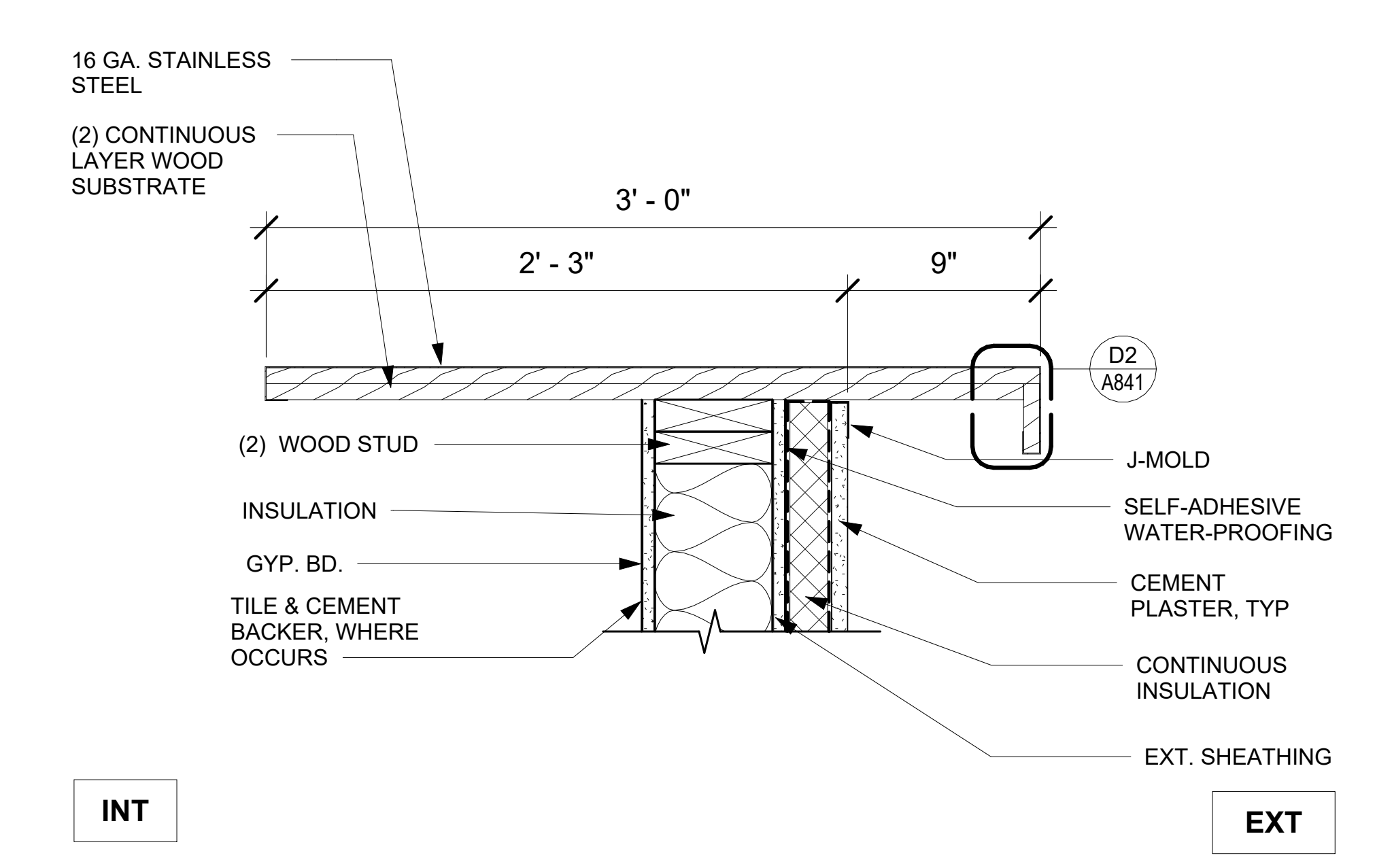
OVERHEAD DOOR CONCESSION STAND_WALL FASTENER (GUIDE) K2

6" = 1'-0"



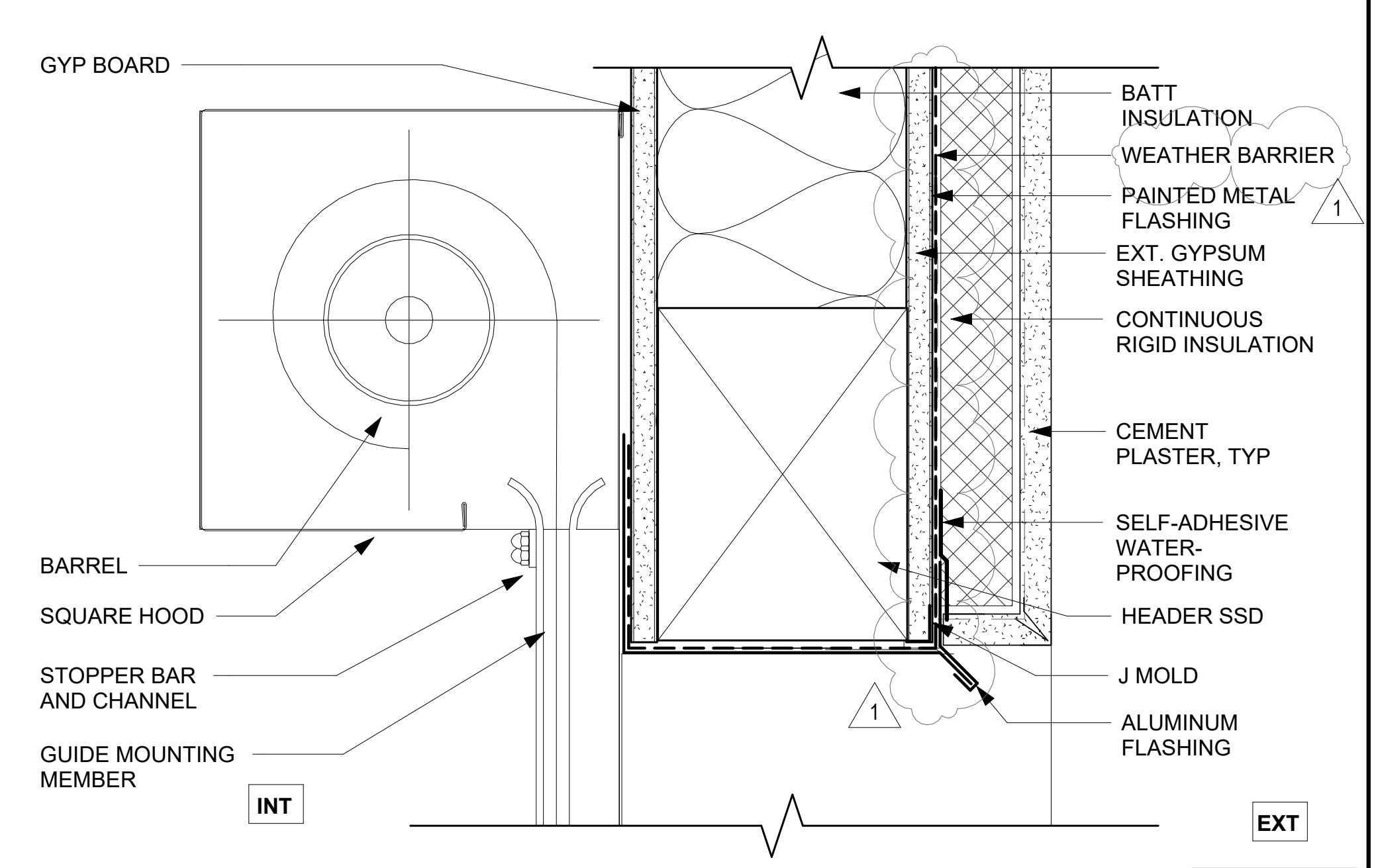
COUNTERTOP EDGE D2

6" = 1'-0"



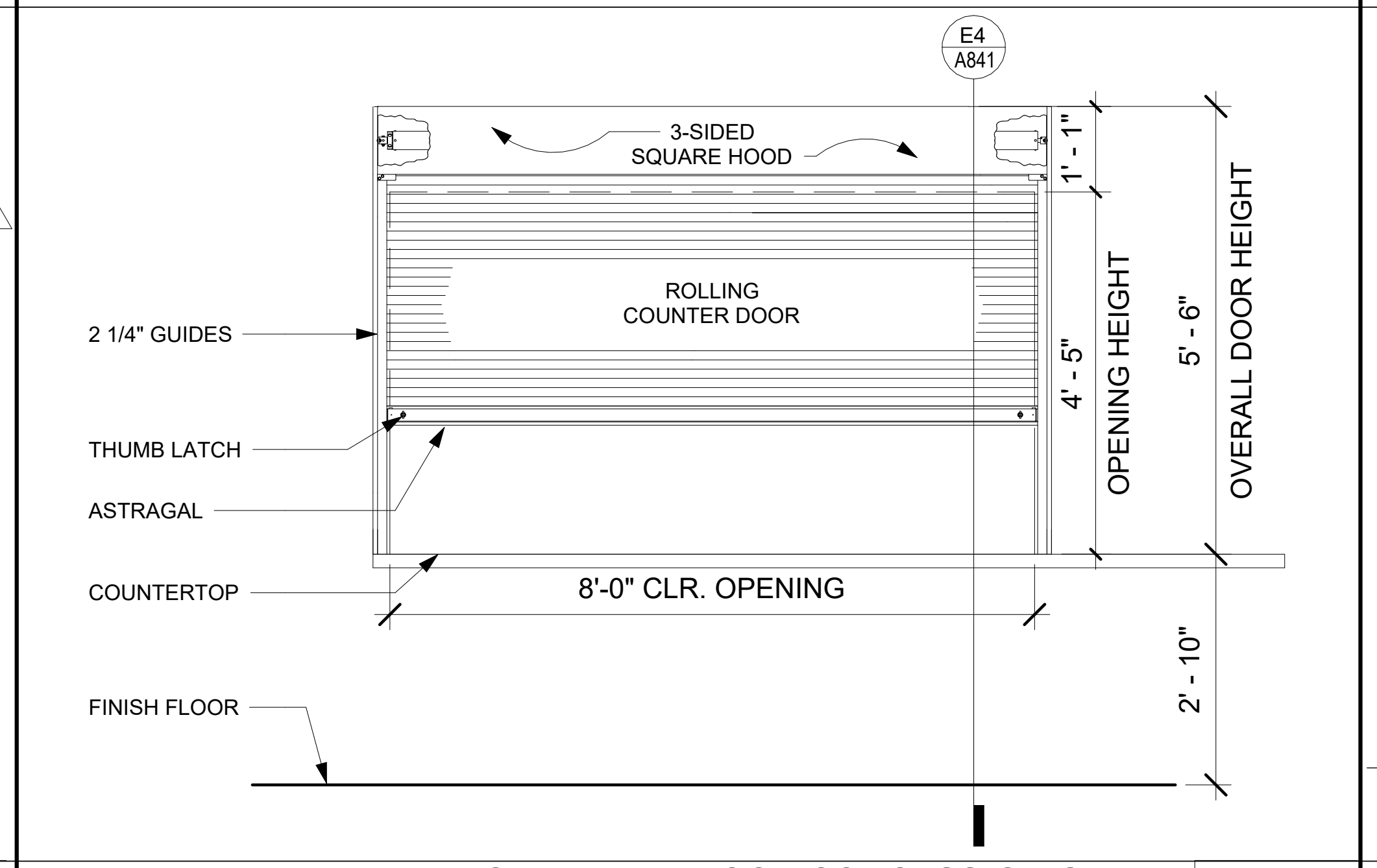
CONCESSION STAND COUNTERTOP A2

1 1/2" = 1'-0"



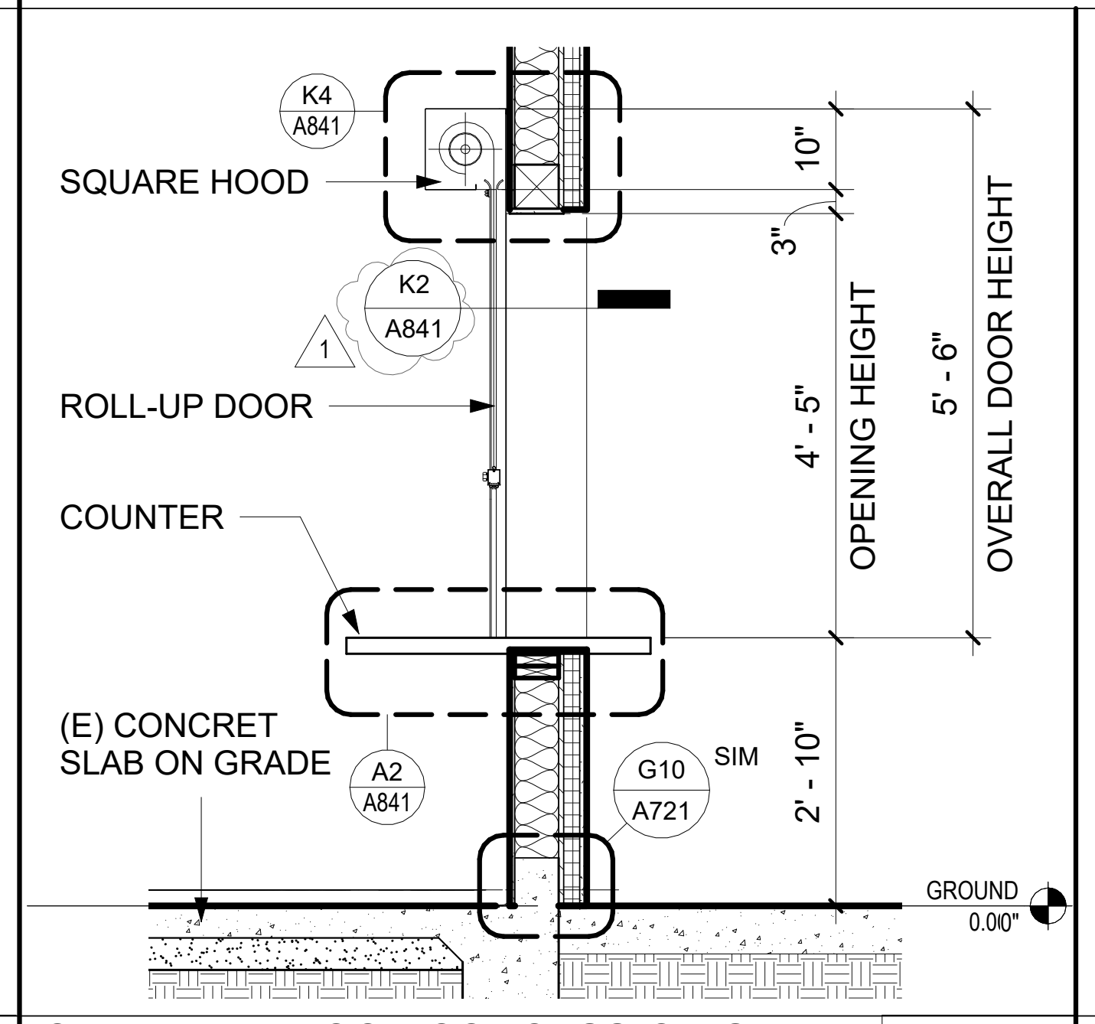
OVERHEAD DOOR CONCESSION STAND_HEAD K4

3" = 1'-0"



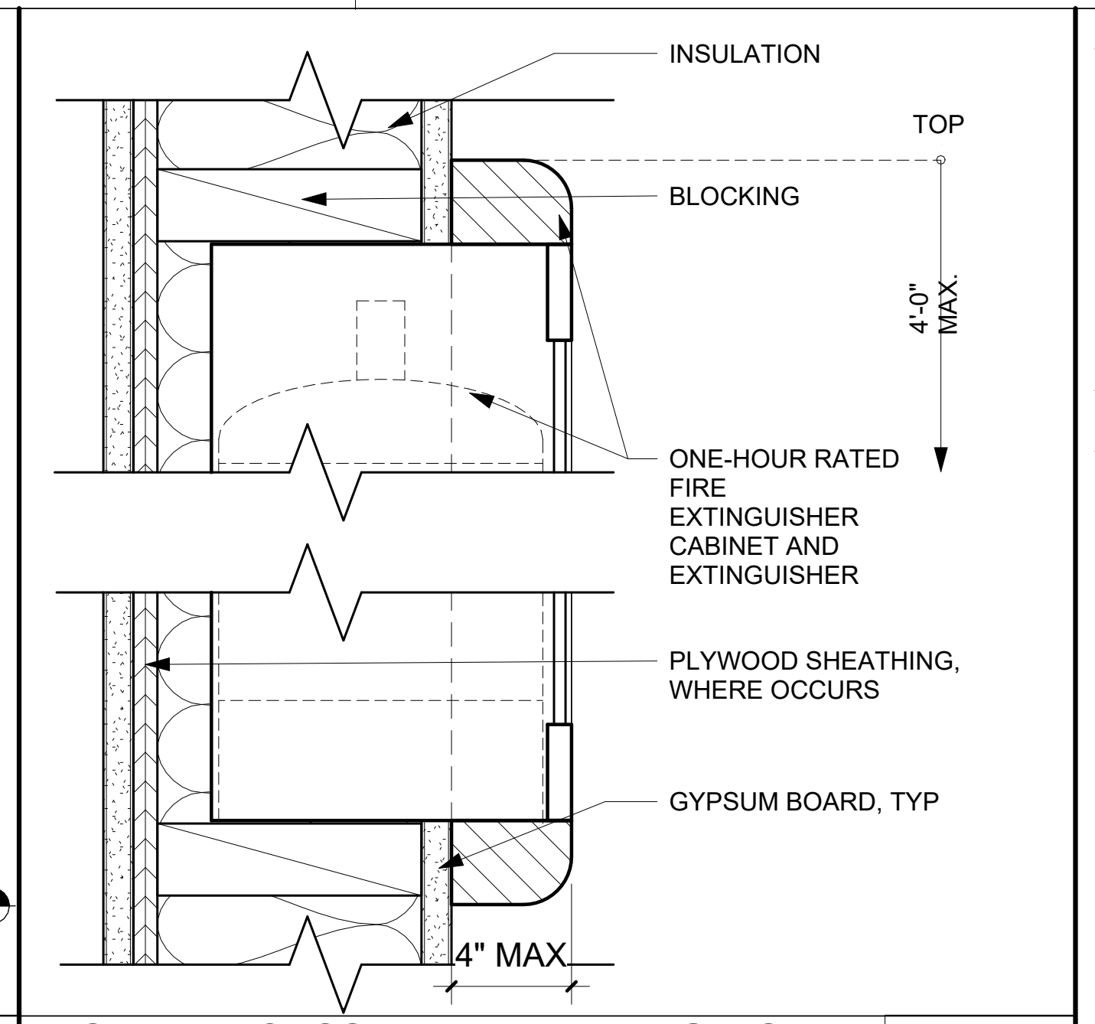
OVERHEAD DOOR CONCESSION STAND G4
ELEVATION

1/2" = 1'-0"



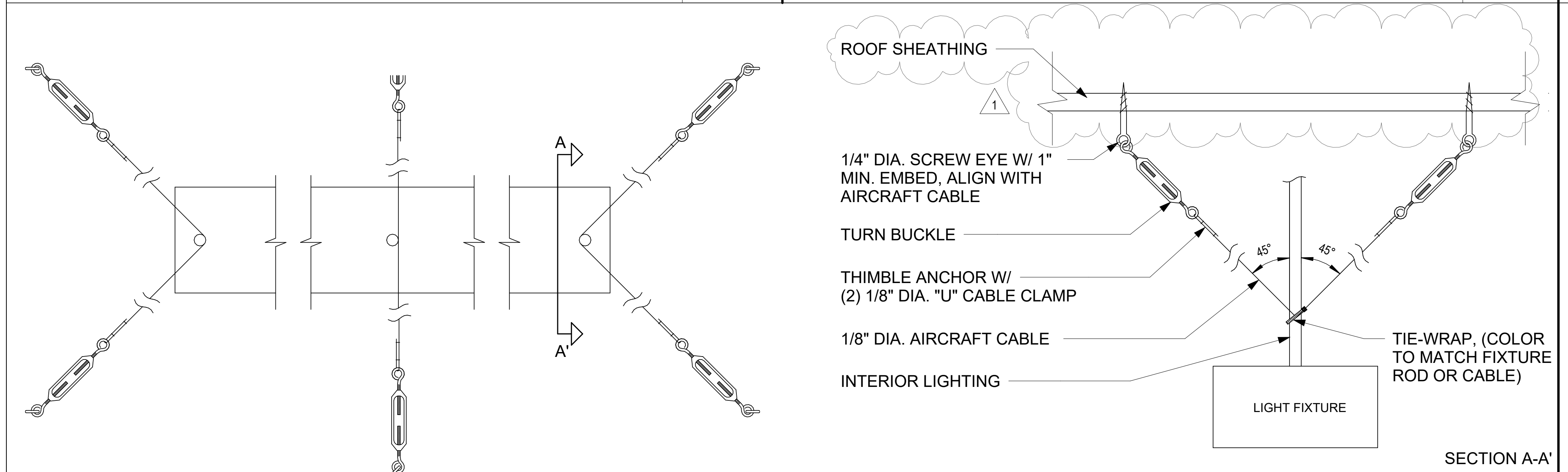
OVERHEAD DOOR CONCESSION STAND E4
SECTION

1/2" = 1'-0"


INSULATION
TOP
BLOCKING
4'-0" MAX.
ONE-HOUR RATED FIRE EXTINGUISHER CABINET AND EXTINGUISHER
PLYWOOD SHEATHING, WHERE OCCURS
GYPSUM BOARD, TYP
4" MAX.

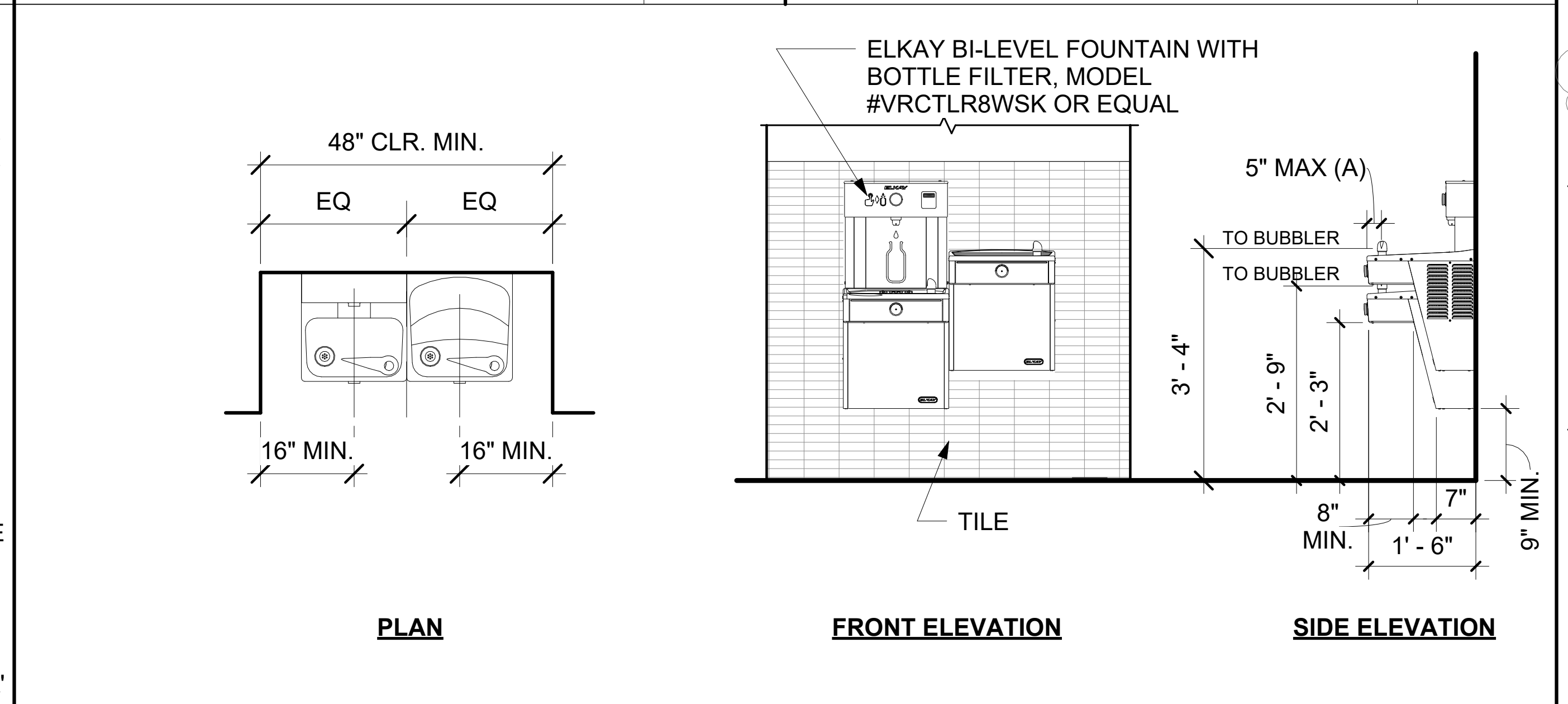
SEMI-RECESSED FIRE EXTINGUISHER C4

3" = 1'-0"


A
A'
ROOF SHEATHING
1/4" DIA. SCREW EYE W/ 1" MIN. EMBED, ALIGN WITH AIRCRAFT CABLE
TURN BUCKLE
THIMBLE ANCHOR W/ (2) 1/8" DIA. "U" CABLE CLAMP
1/8" DIA. AIRCRAFT CABLE
INTERIOR LIGHTING
45°
45°
TIE-WRAP, (COLOR TO MATCH FIXTURE ROD OR CABLE)
LIGHT FIXTURE
1
SECTION A-A'

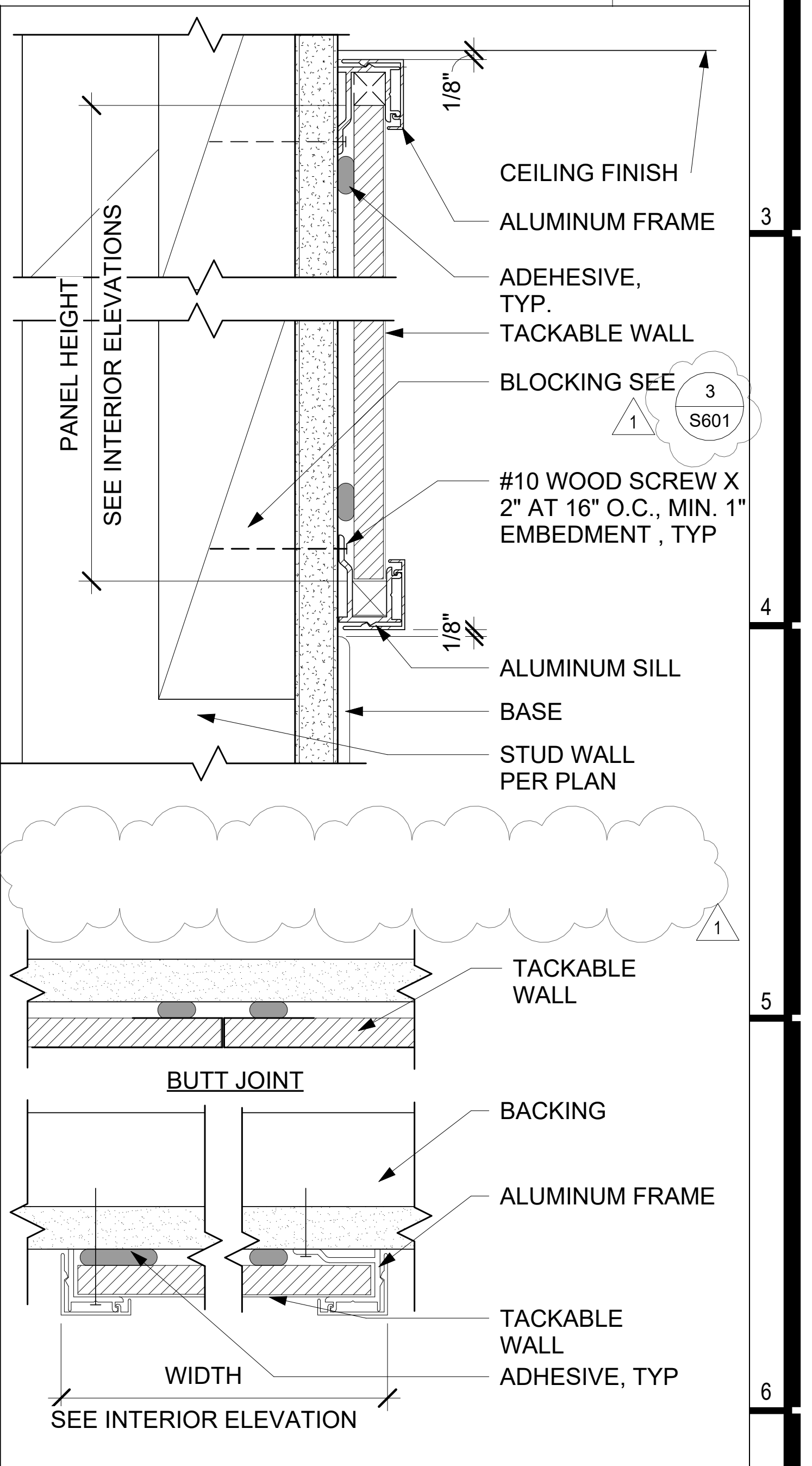
BRACING CABLE ATTACHMENT G6

3" = 1'-0"



DRINKING FOUNTAIN C6

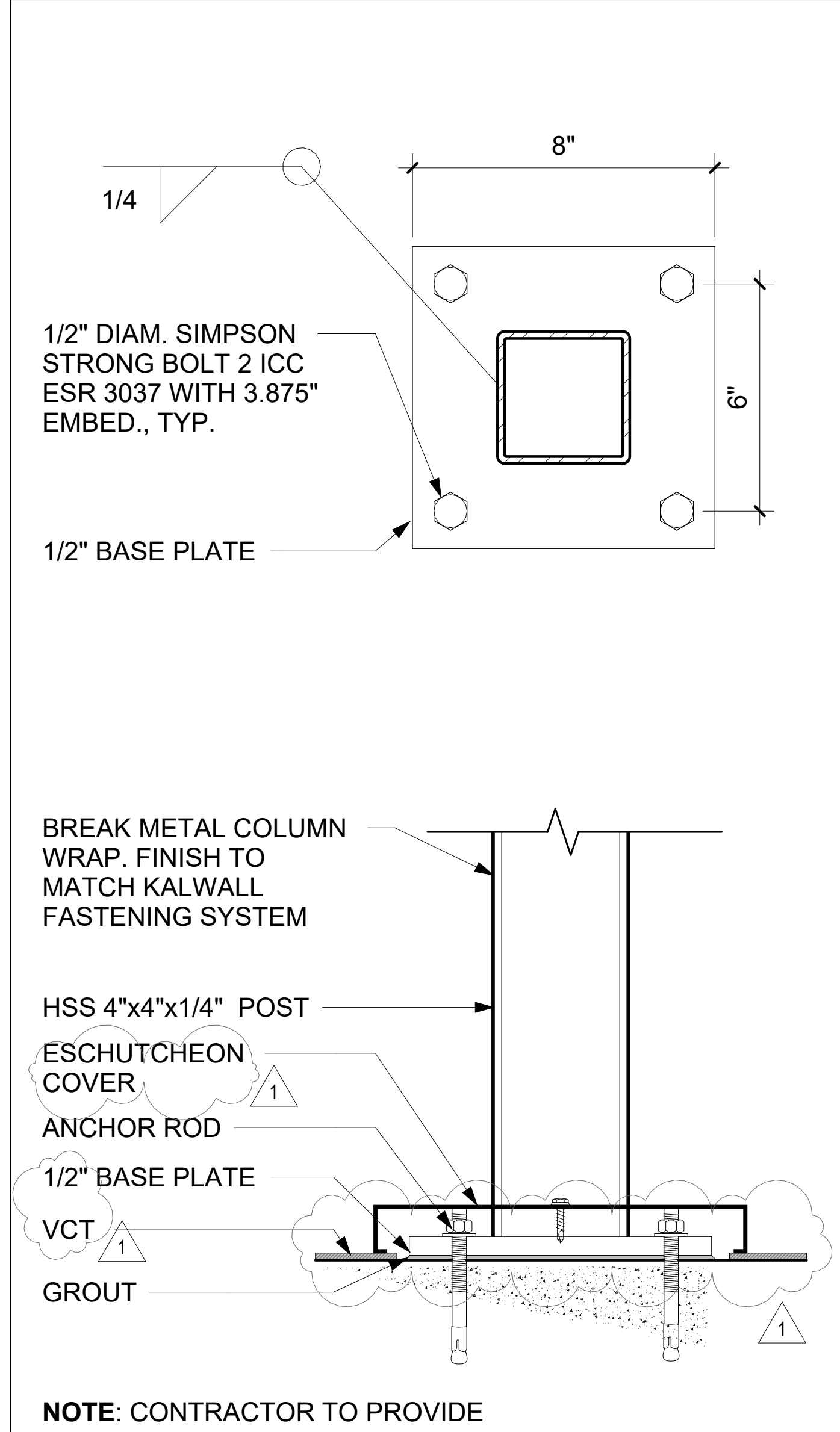
1/2" = 1'-0"



TACKABLE WALL A6

MARKER WALL SIMILAR

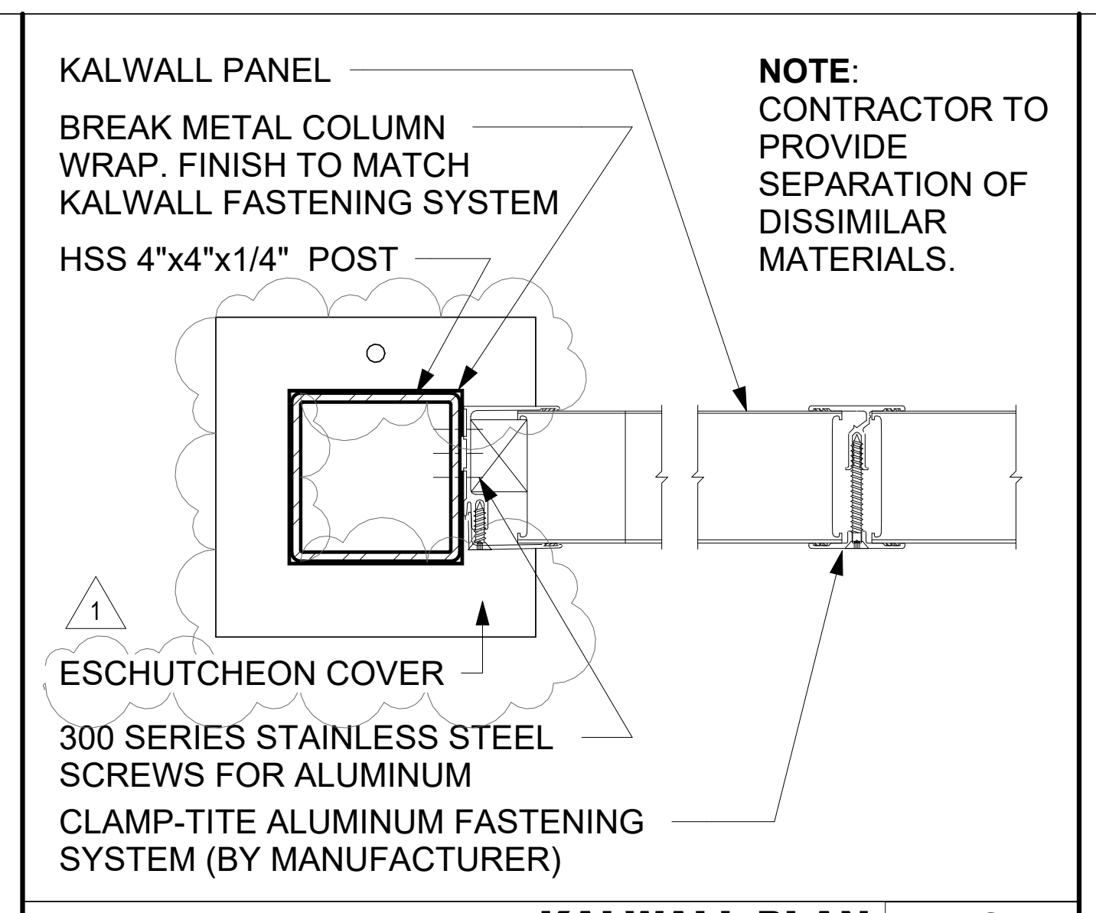
6" = 1'-0"


8"
1/4
1/2" DIAM. SIMPSON STRONG BOLT 2 ICC ESR 3037 WITH 3.875" EMBED., TYP.
6"
1/2" BASE PLATE
1
BREAK METAL COLUMN WRAP. FINISH TO MATCH KALWALL FASTENING SYSTEM
HSS 4"x4"x1/4" POST
ESCHUTCHEON COVER
ANCHOR ROD
1/2" BASE PLATE
VCT
GROUT
1

NOTE: CONTRACTOR TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS.

STEEL POST ATTACHMENT TO SLAB L10

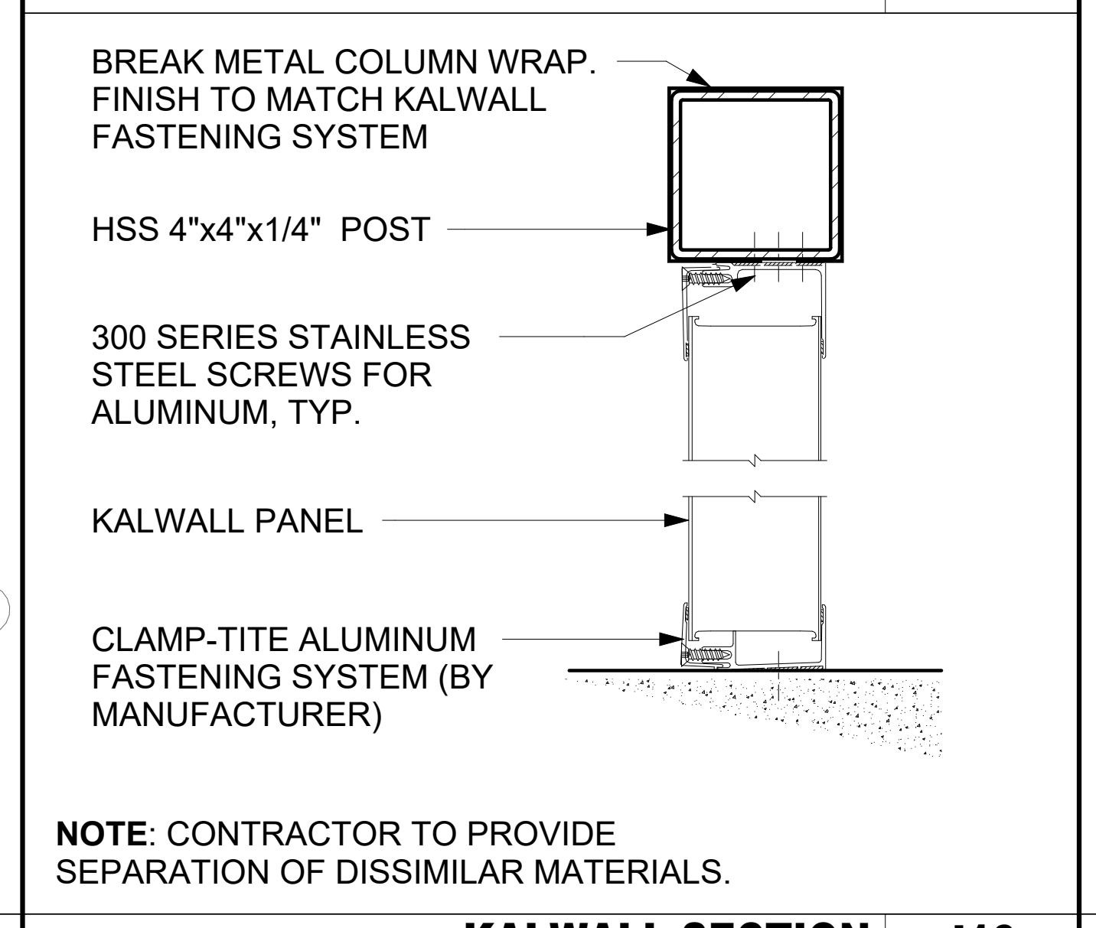
3" = 1'-0"


KALWALL PANEL
BREAK METAL COLUMN WRAP. FINISH TO MATCH KALWALL FASTENING SYSTEM
HSS 4"x4"x1/4" POST
ESCHUTCHEON COVER
300 SERIES STAINLESS STEEL SCREWS FOR ALUMINUM
CLAMP-TITE ALUMINUM FASTENING SYSTEM (BY MANUFACTURER)
1

NOTE: CONTRACTOR TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS.

KALWALL PLAN J8

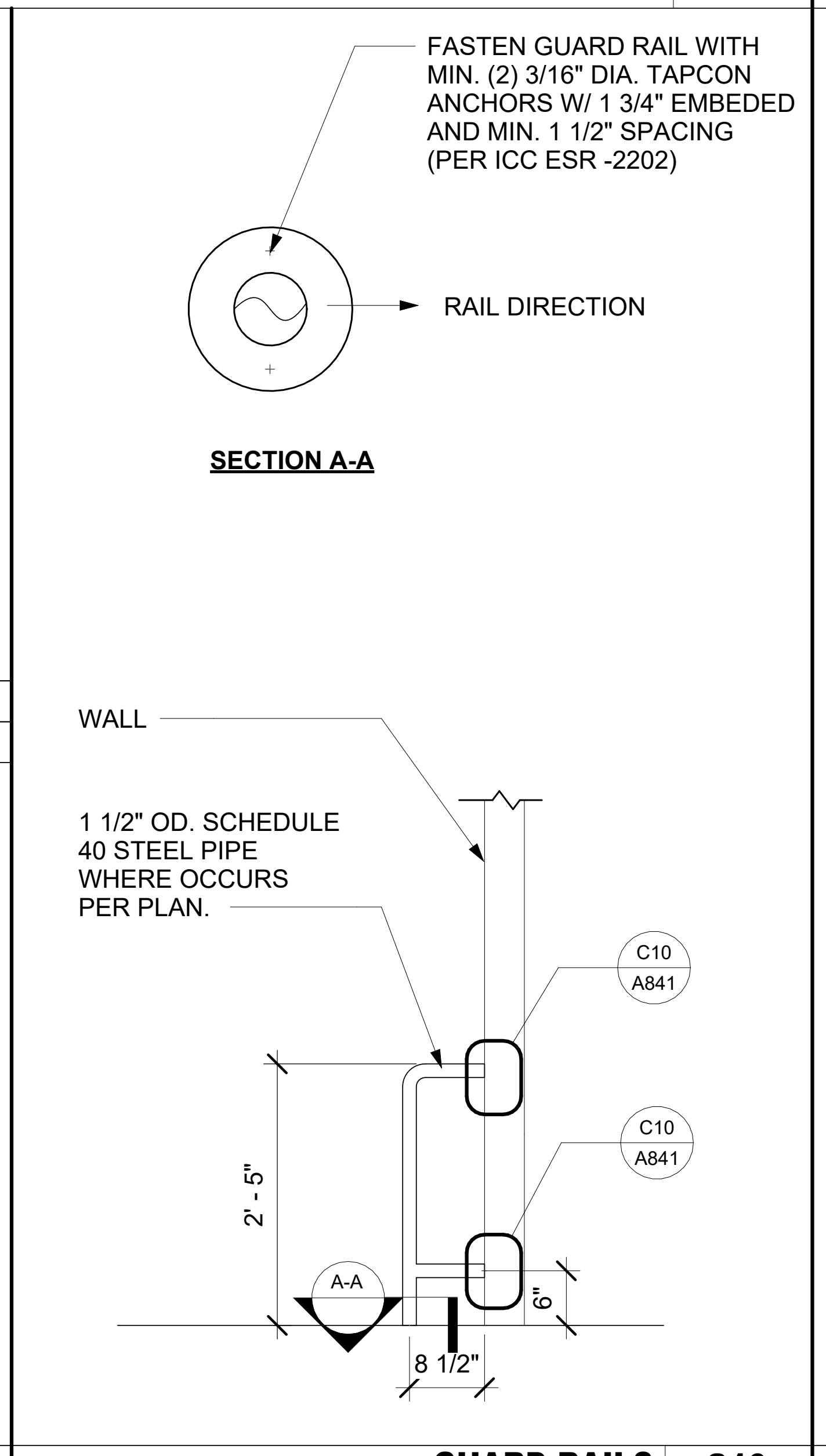
3" = 1'-0"


BREAK METAL COLUMN WRAP. FINISH TO MATCH KALWALL FASTENING SYSTEM
HSS 4"x4"x1/4" POST
300 SERIES STAINLESS STEEL SCREWS FOR ALUMINUM, TYP.
KALWALL PANEL
CLAMP-TITE ALUMINUM FASTENING SYSTEM (BY MANUFACTURER)

NOTE: CONTRACTOR TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS.

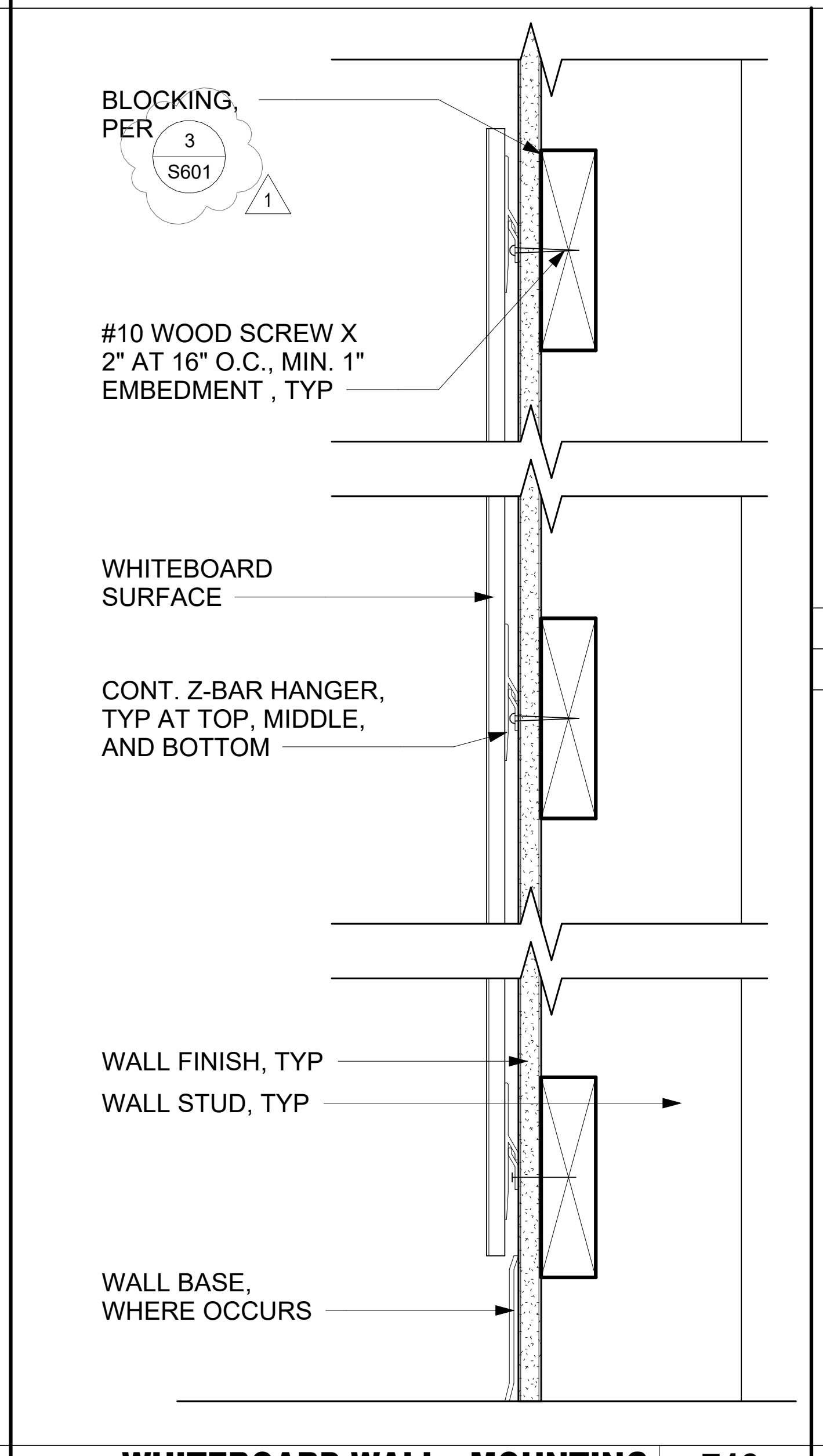
KALWALL SECTION J10

3" = 1'-0"


FASTEN GUARD RAIL WITH MIN. (2) 3/16" DIA. TAPCON ANCHORS W/ 1 3/4" EMBEDED AND MIN. 1 1/2" SPACING (PER ICC ESR -2202)
RAIL DIRECTION
SECTION A-A
WALL
1 1/2" OD. SCHEDULE 40 STEEL PIPE WHERE OCCURS PER PLAN.
C10
A841
C10
A841
2' - 5"
A-A
6"
8 1/2"

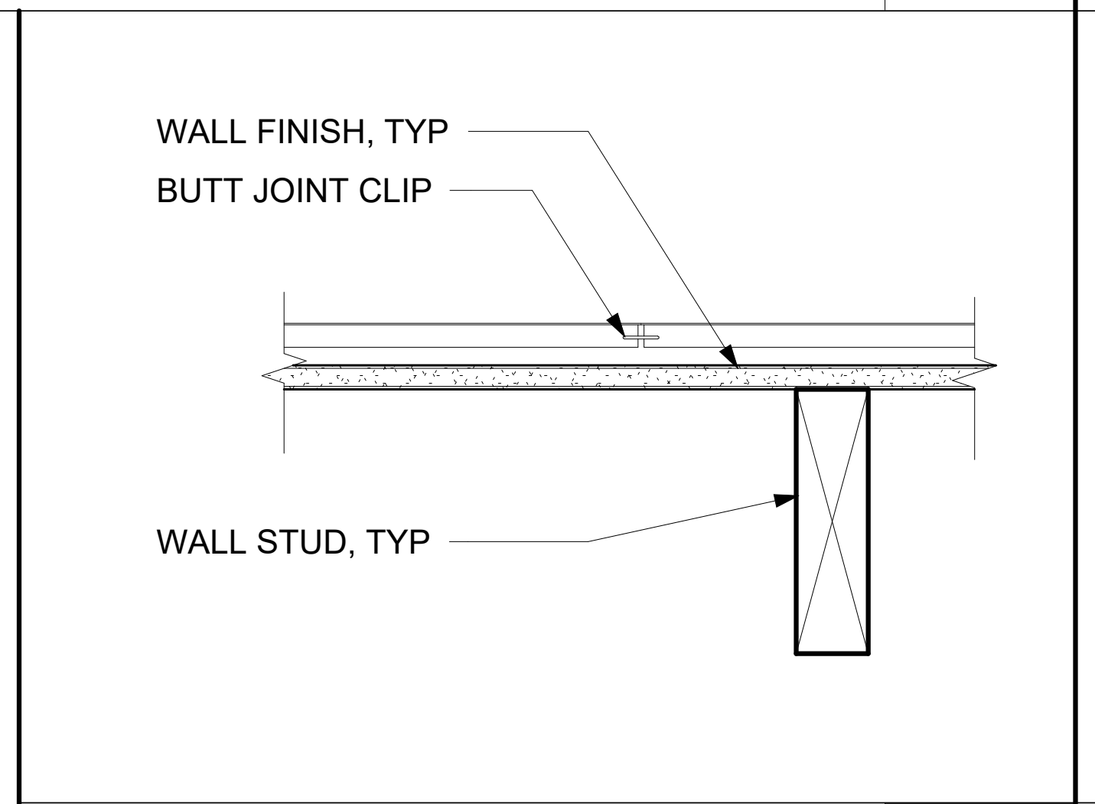
GUARD RAILS G10

3/4" = 1'-0"


BLOCKING, PER 3 S601
1
#10 WOOD SCREW X 2" AT 16" O.C., MIN. 1" EMBEDMENT , TYP
WHITEBOARD SURFACE
CONT. Z-BAR HANGER, TYP AT TOP, MIDDLE, AND BOTTOM
WALL FINISH, TYP
WALL STUD, TYP
WALL BASE, WHERE OCCURS

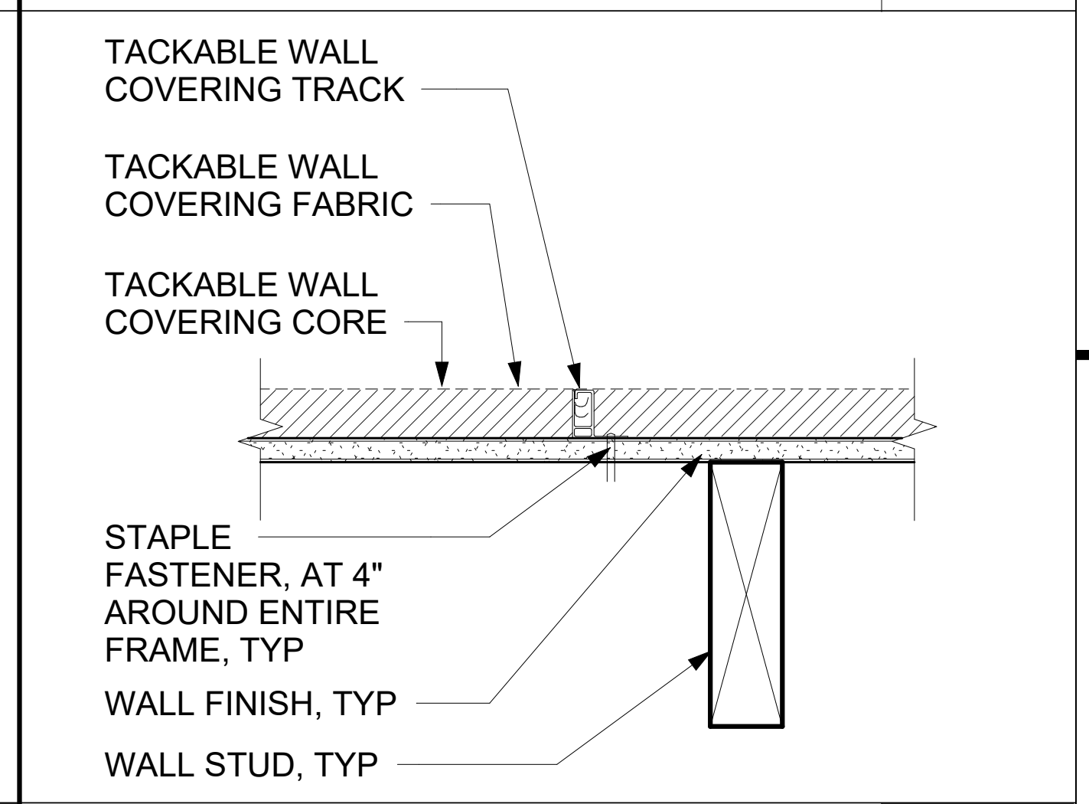
WHITEBOARD WALL - MOUNTING E10

3" = 1'-0"



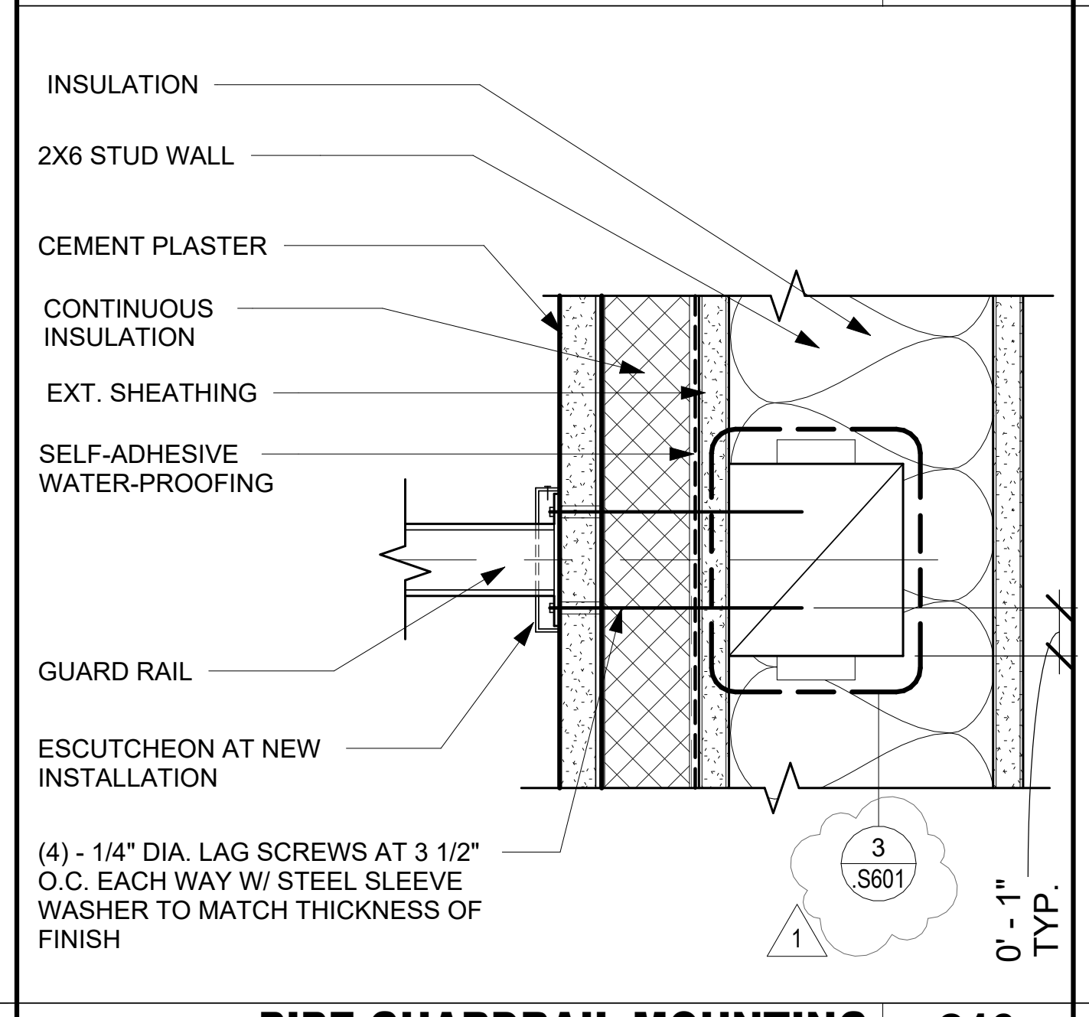
WHITE BOARD WALL - BUTT JOINT C8

3" = 1'-0"


TACKABLE WALL COVERING TRACK
TACKABLE WALL COVERING FABRIC
TACKABLE WALL COVERING CORE
STAPLE FASTENER, AT 4" AROUND ENTIRE FRAME, TYP
WALL FINISH, TYP
WALL STUD, TYP

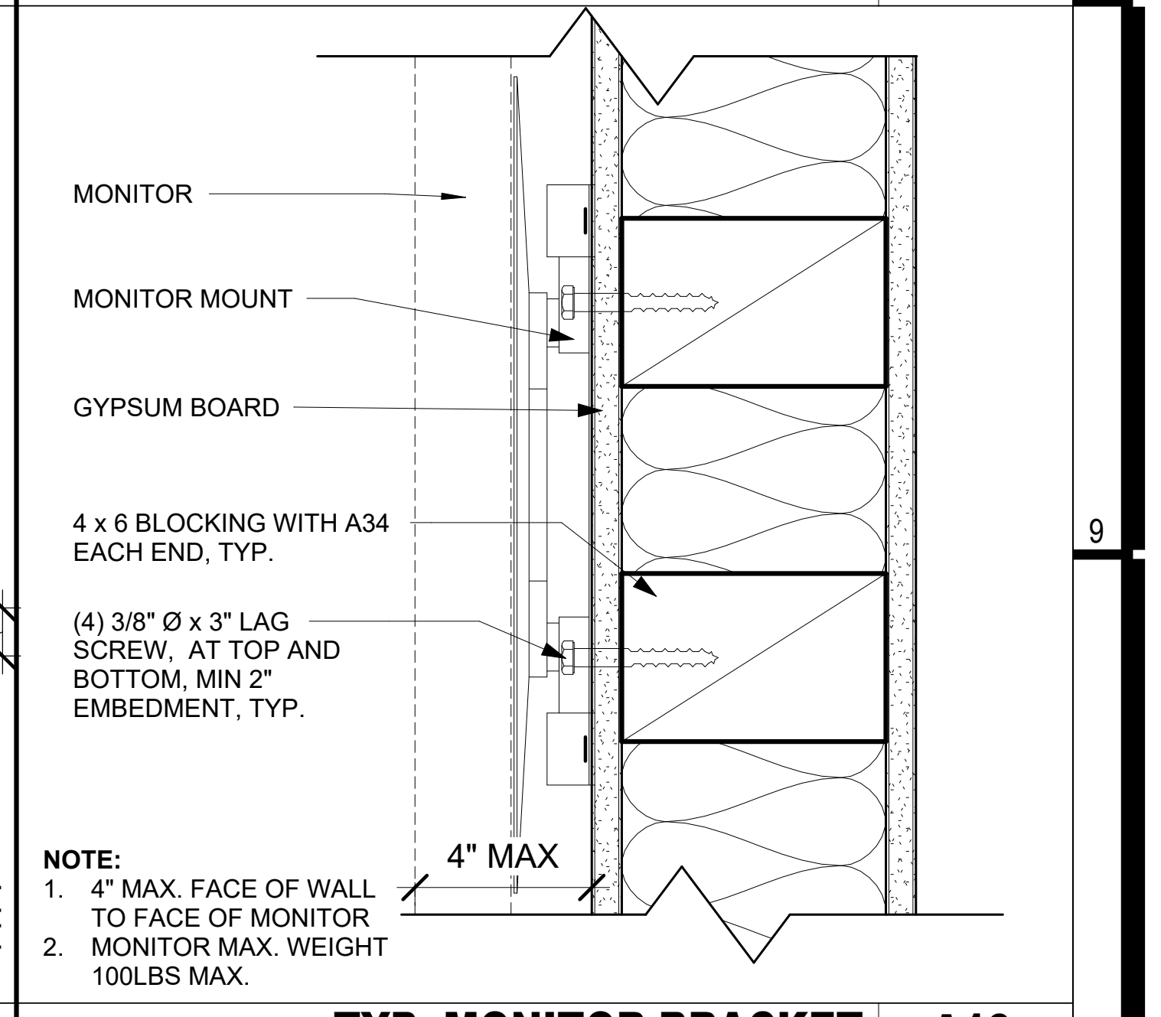
TACKABLE WALL - PANEL JOINT A8

3" = 1'-0"


INSULATION
2X6 STUD WALL
CEMENT PLASTER
CONTINUOUS INSULATION
EXT. SHEATHING
SELF-ADHESIVE WATER-PROOFING
GUARD RAIL
ESCUTCHEON AT NEW INSTALLATION
(4) - 1/4" DIA. LAG SCREWS AT 3 1/2" O.C. EACH WAY W/ STEEL SLEEVE WASHER TO MATCH THICKNESS OF FINISH
3
S601
1
0' - 1" TYP.

PIPE GUARDRAIL MOUNTING C10

3" = 1'-0"


MONITOR
MONITOR MOUNT
GYPSUM BOARD
4 x 6 BLOCKING WITH A34 EACH END, TYP.
(4) 3/8" Ø x 3" LAG SCREW, AT TOP AND BOTTOM, MIN 2" EMBEDMENT, TYP.
4" MAX

NOTE:
1. 4" MAX. FACE OF WALL TO FACE OF MONITOR
2. MONITOR MAX. WEIGHT 100LBS MAX.

TYP. MONITOR BRACKET A10

3" = 1'-0"

M L K J H G F E D C B A

1 2 3 4 5 6 7 8 9 10

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026
△	
△	
△	
△	

LICENSED ARCHITECT
BRIAN PAUL DOUGHERTY
NO. C-98
REN. JUL. 31, 202
STATE OF CALIFORNIA

MISCELLANEOUS DETAILS

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A841

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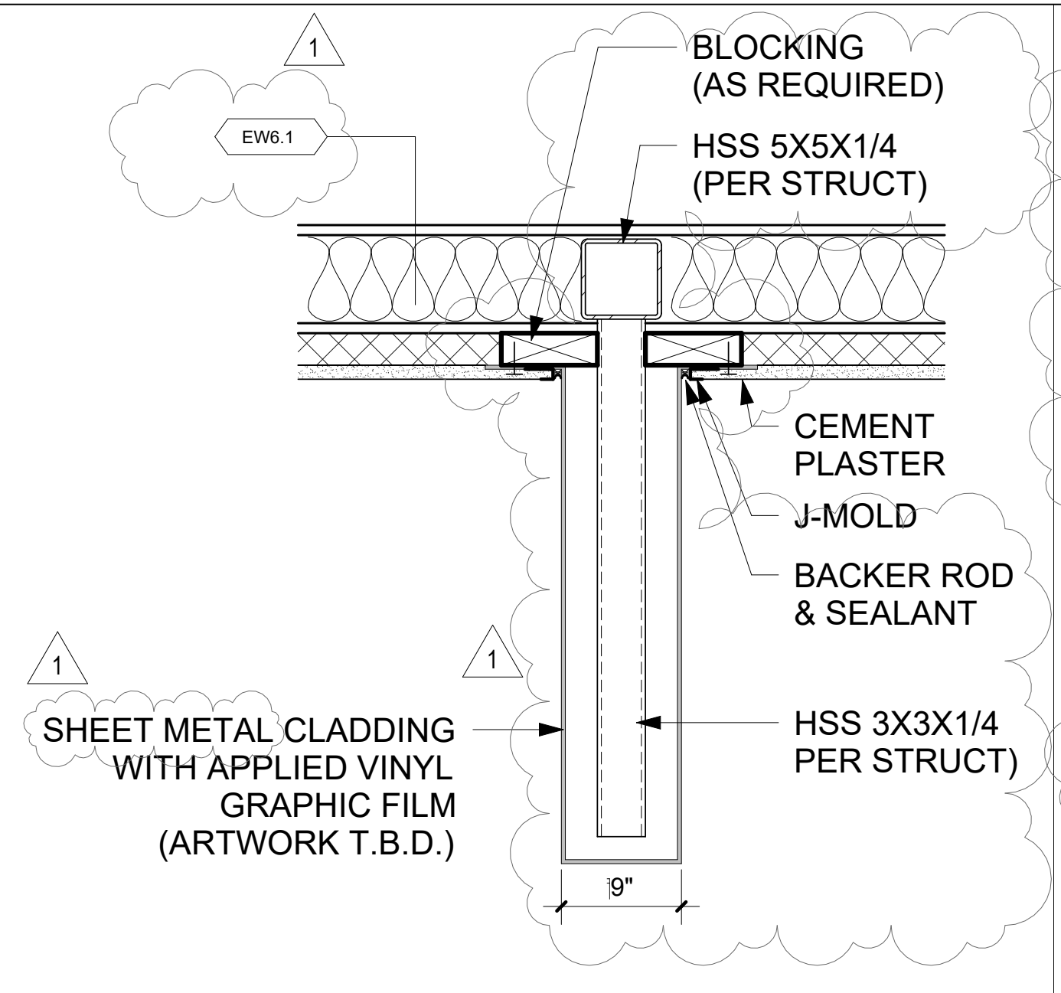
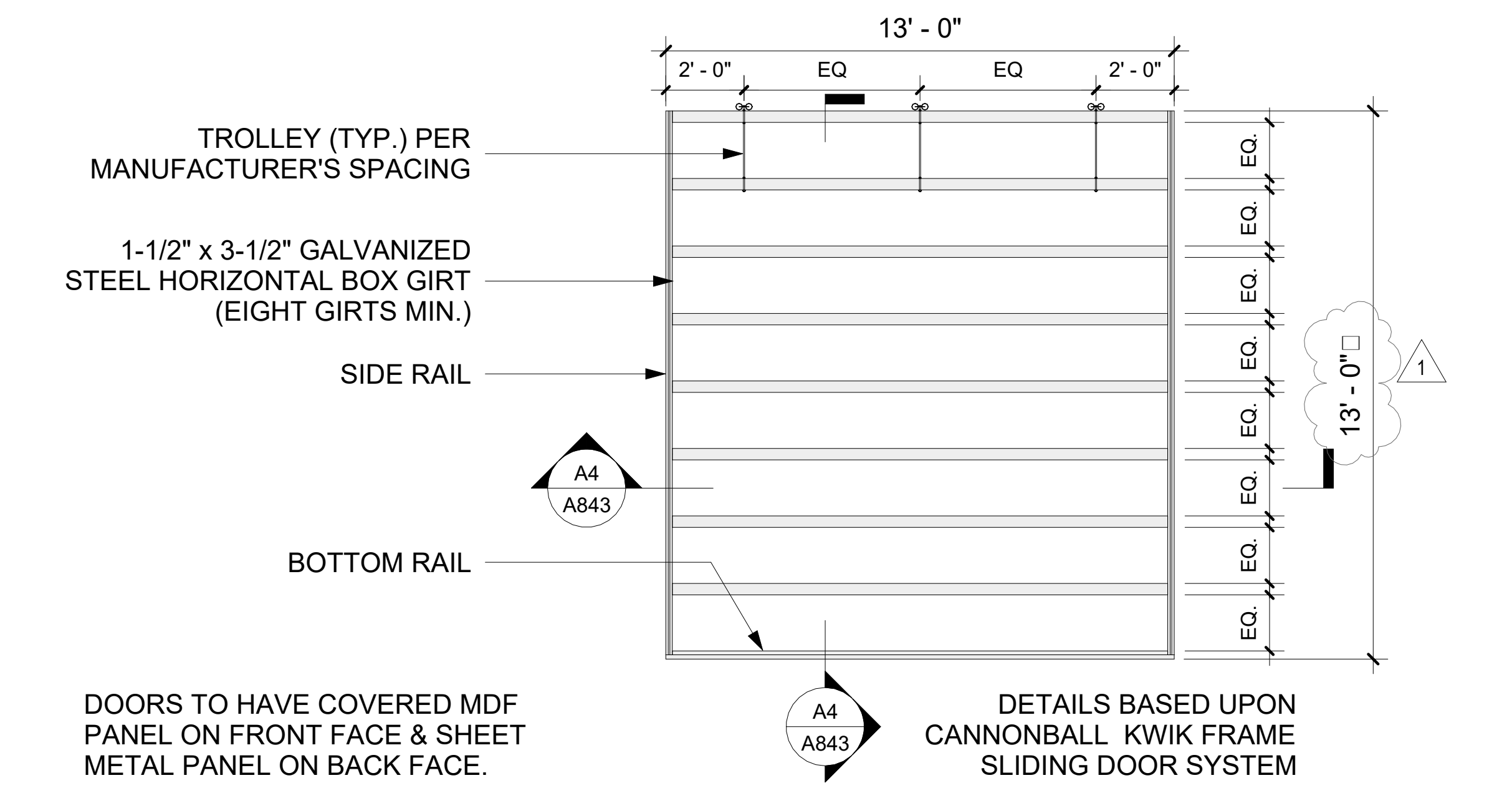


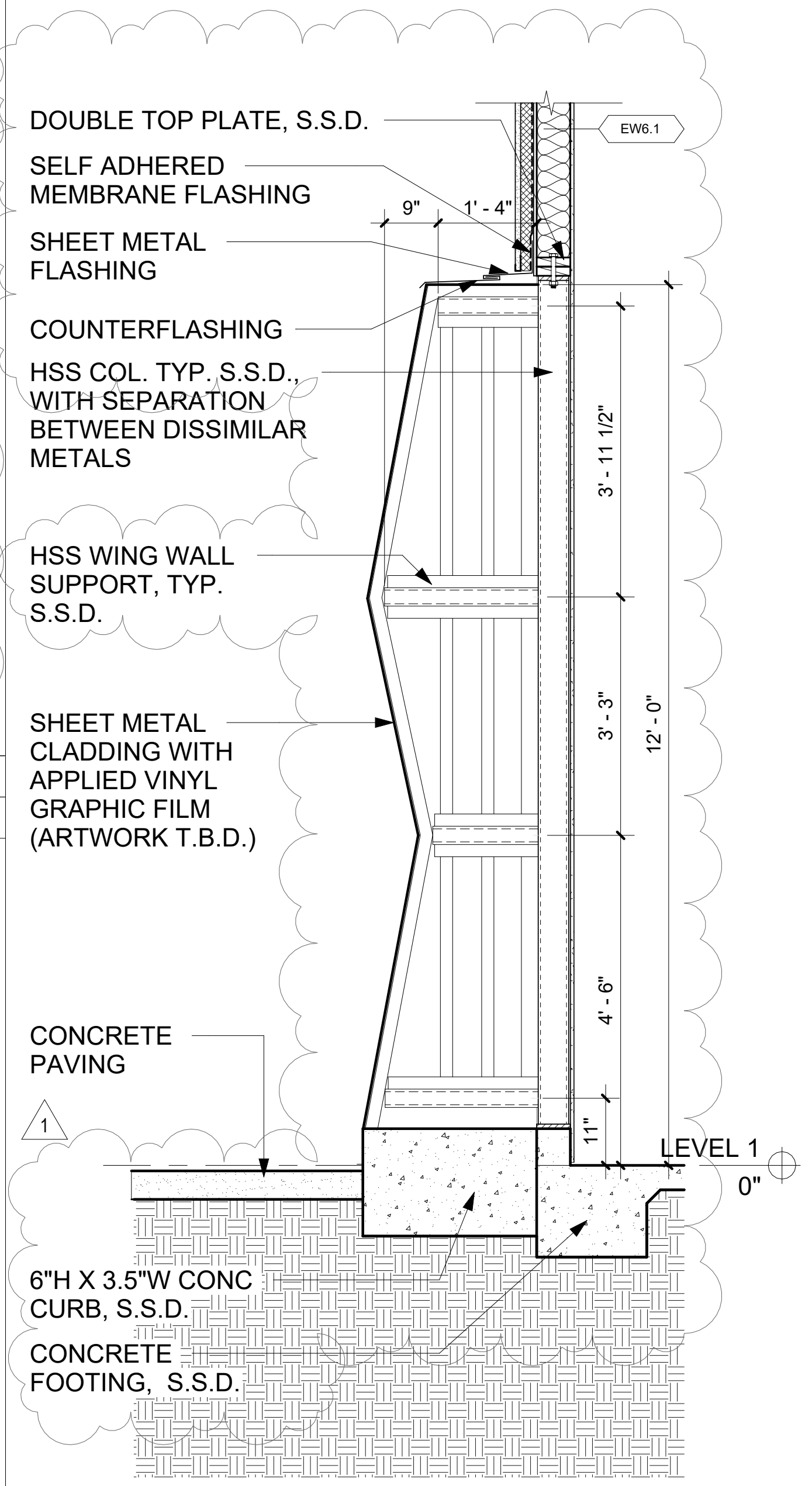
EXTERIOR FIN - PLAN VIEW G2

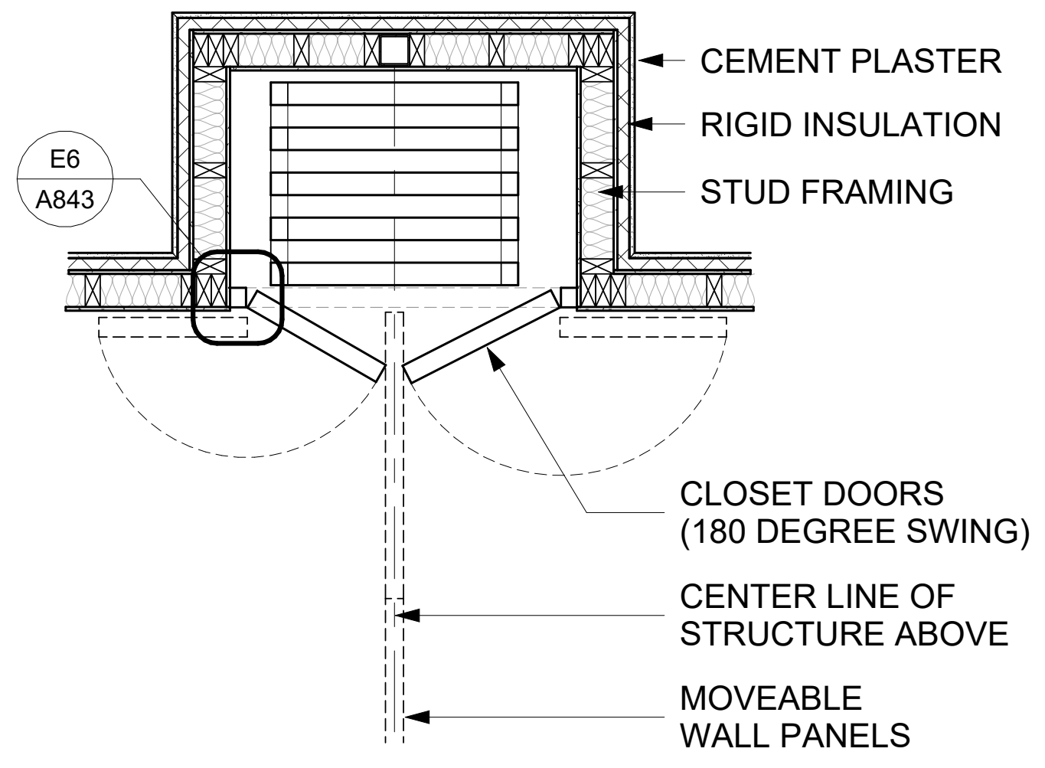
1" = 1'-0"



BARN DOOR FRAMING A2

1/4" = 1'-0"



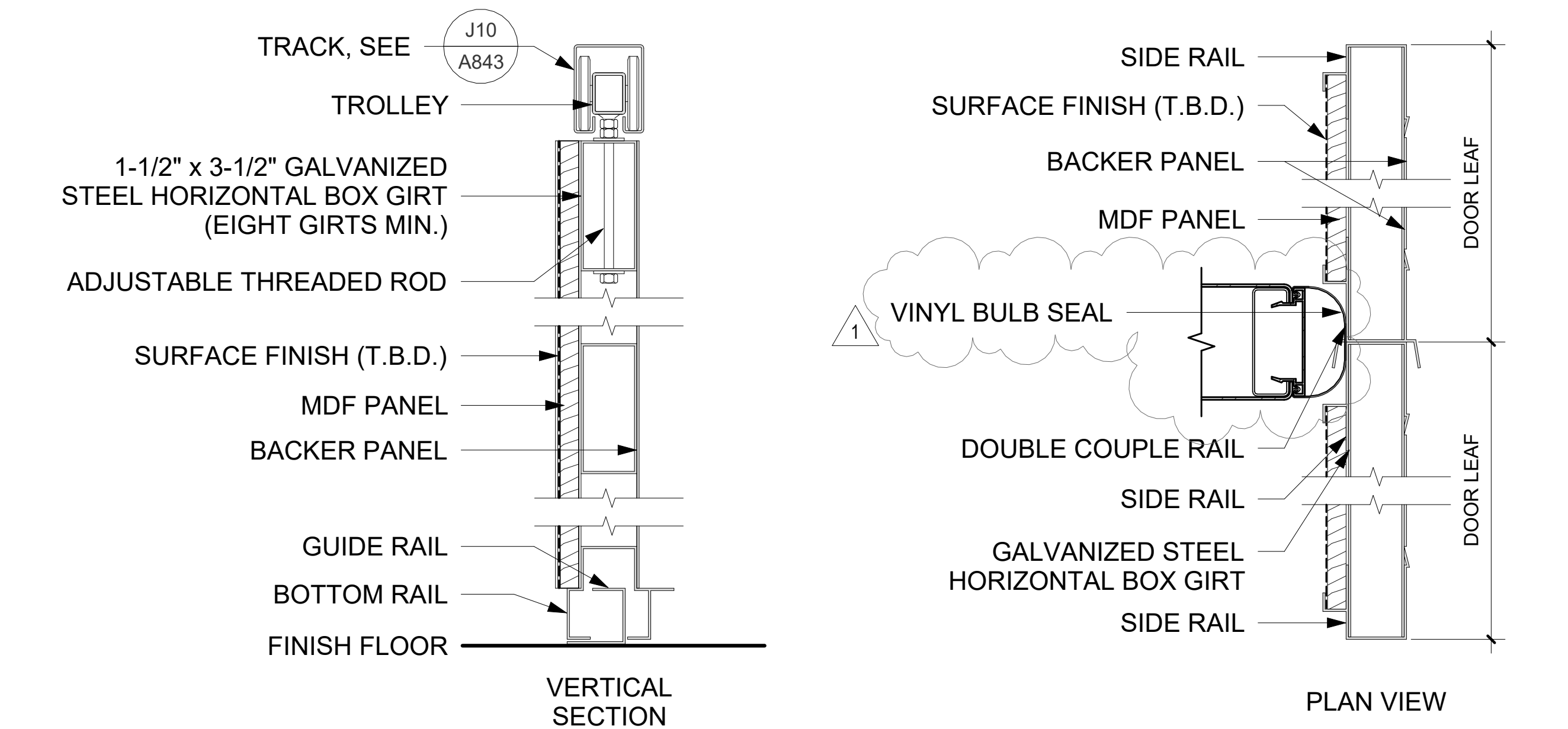


MODERFOLD CLOSET G4

3/8" = 1'-0"

EXTERIOR FIN - SECTION E4

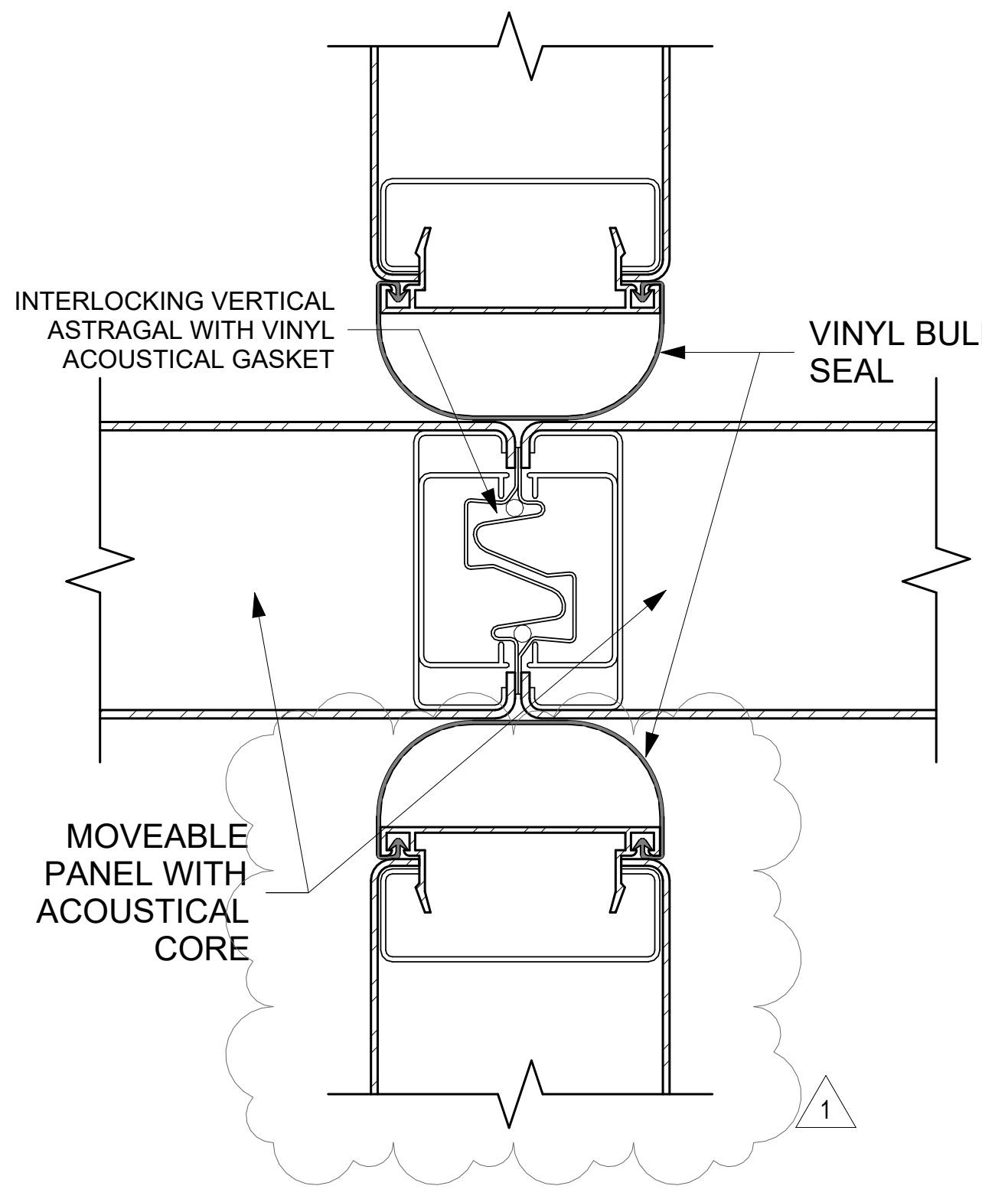
1/2" = 1'-0"

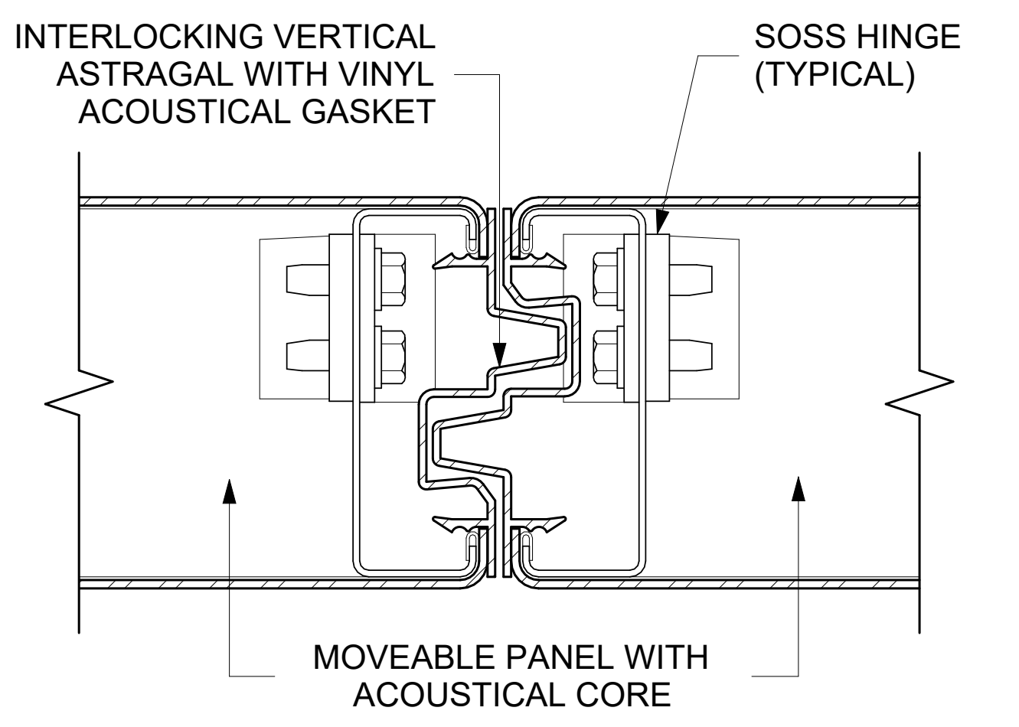


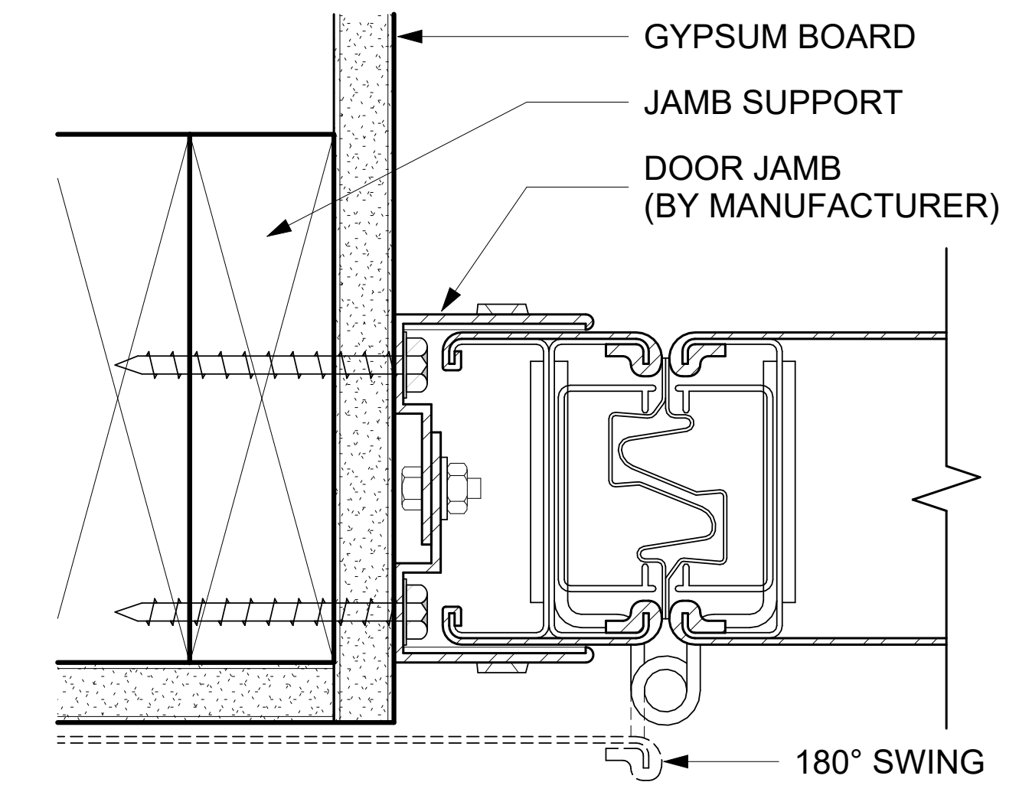
NOTE: BARN DOOR TO BE 790LBS MAX.

BARN DOORS - SECTION / PLAN VIEW A4

3" = 1'-0"







MODERNFOLD INTERSECTION J6

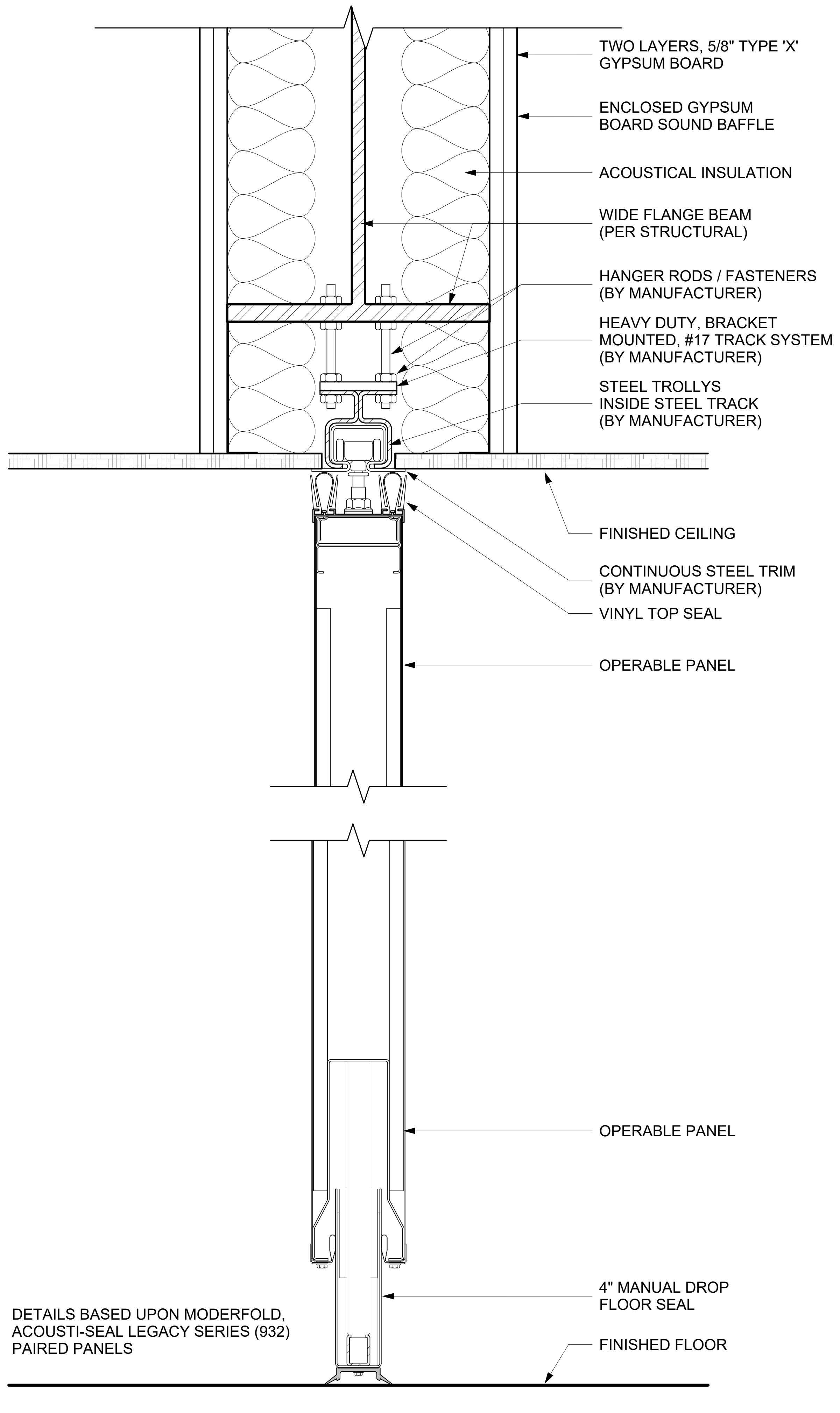
6" = 1'-0"

MODERFOLD SOSS HINGE G6

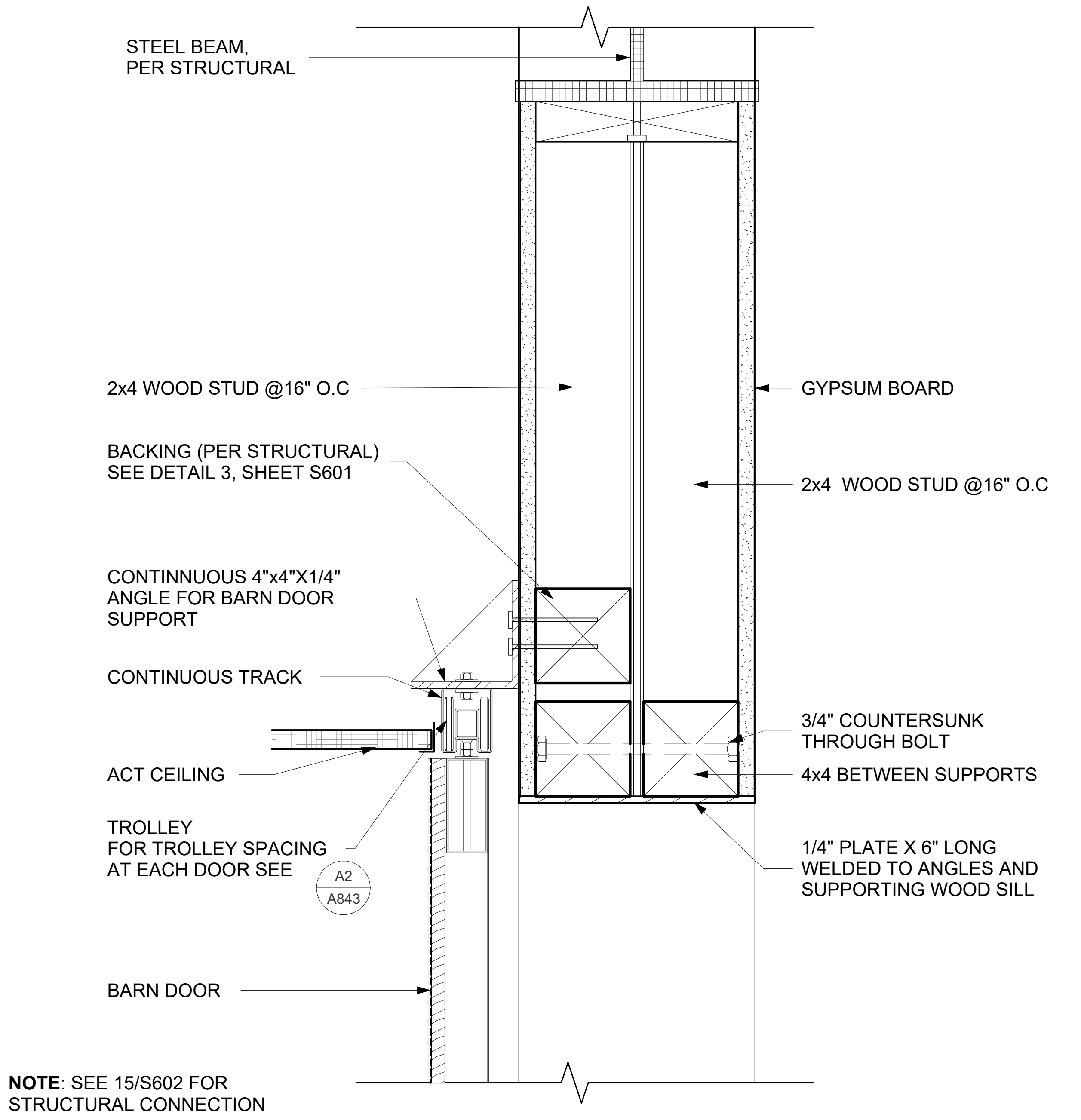
6" = 1'-0"

MODERFOLD DOOR JAMB E6

6" = 1'-0"



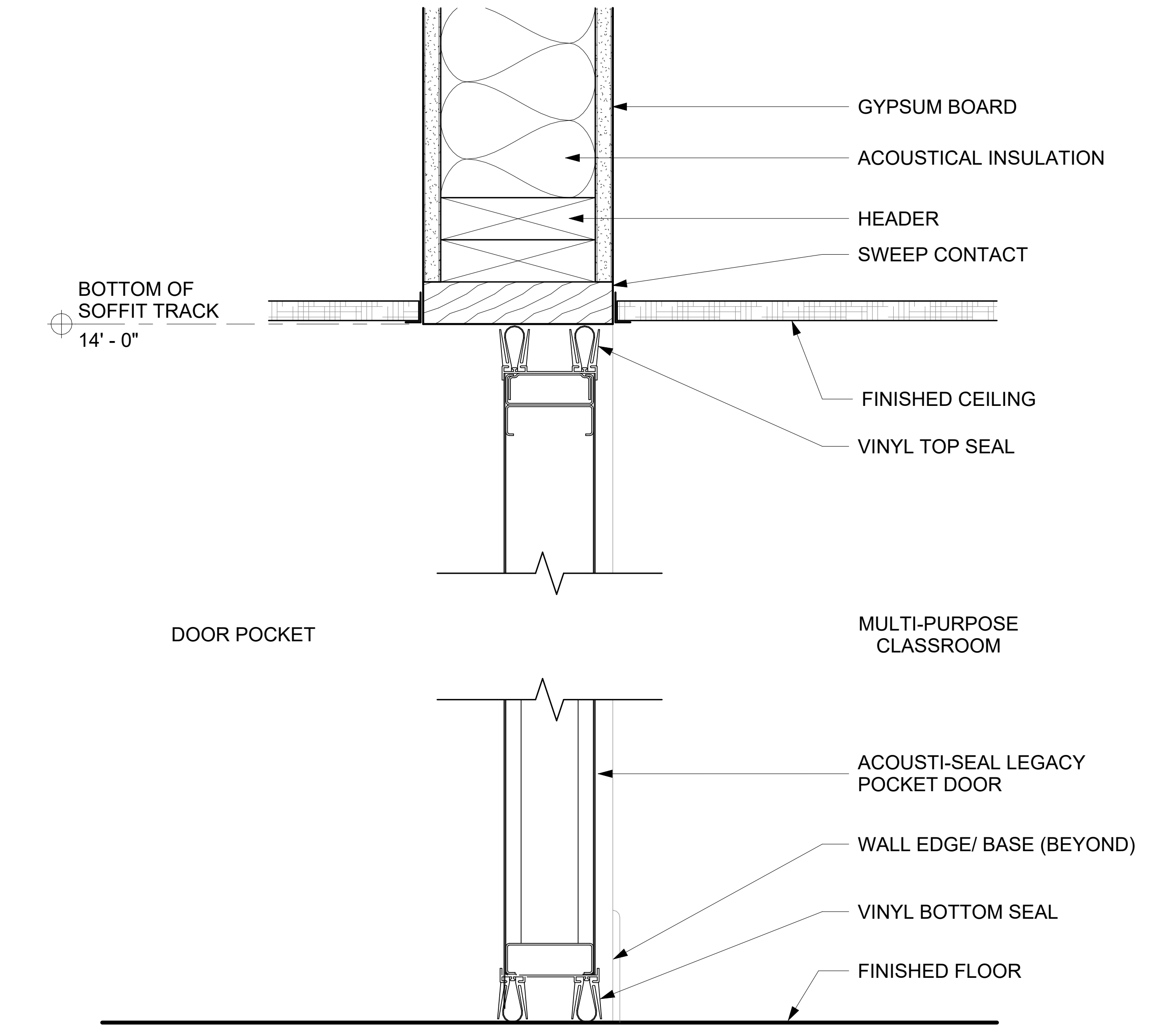
DETAILS BASED UPON MODERFOLD,
ACOUSTI-SEAL LEGACY SERIES (932)
PAIRED PANELS



NOTE: SEE 15/S602 FOR
STRUCTURAL CONNECTION

BARN DOOR TRACK SECTION J10

3" = 1'-0"



NOTE:
1. FOR LOCATION, SEE A404
2. POCKET DOOR JAMBS SHALL BE CONTINOUS CHANNELS ANCHORED
TO A FIXED WALL. WELDED HINGE ANCHOR PLATS SHALL SUPPORT
POCKET DOOR HINGES AND PERMIT A FULL 180-DEGREE SWING.

MODERNFOLD POCKET DOOR HEADER SECTION E10

3" = 1'-0"

MODERNFOLD TRACK HEAD A10

3" = 1'-0"

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	12/07/2022
1 ADD 1	08/28/2026

FOLDING PARTITION DETAILS

PERKINS
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

A843

Plot Date: 5/13/2026 10:19:06 AM

Project #: 2026-056 R24

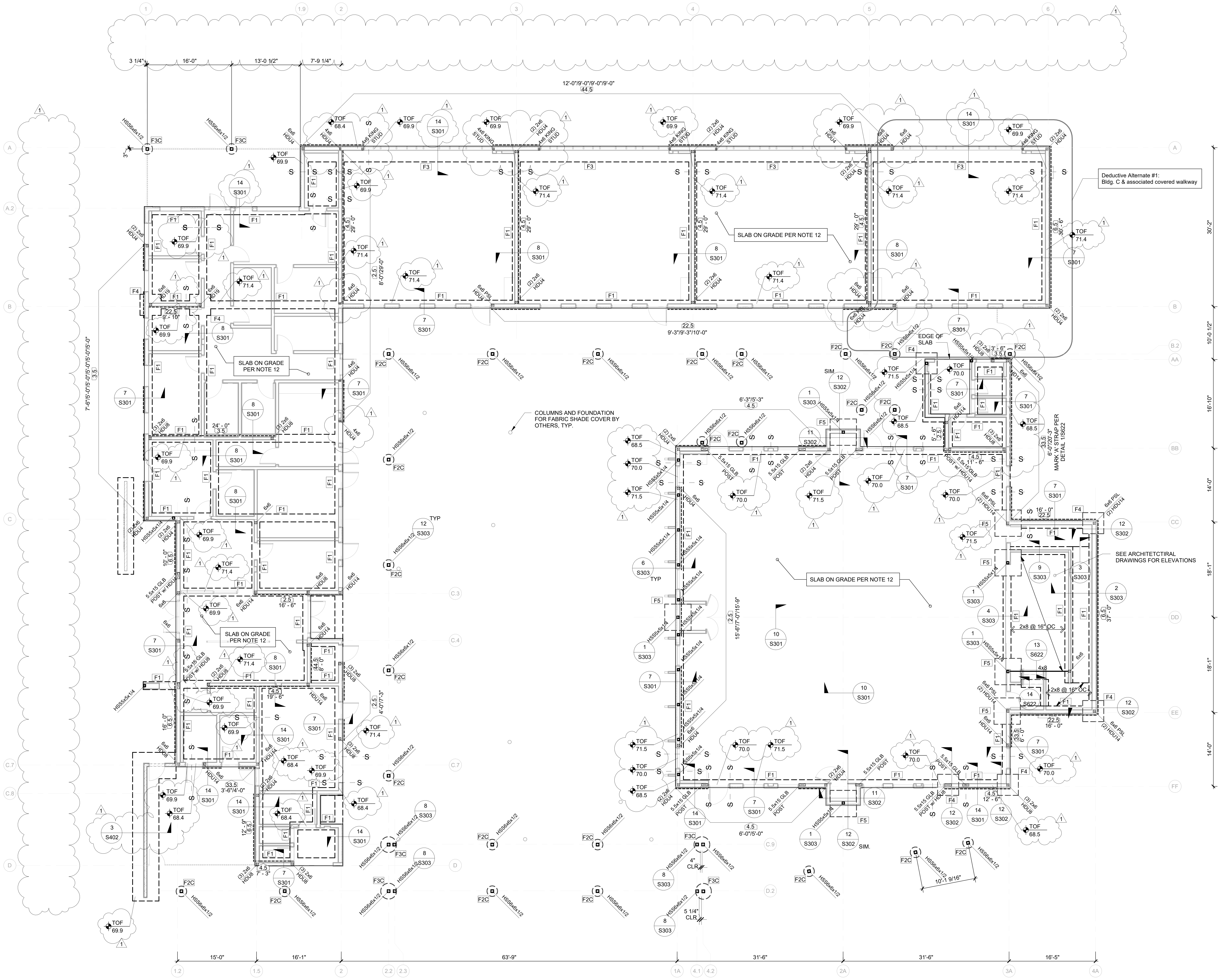
FOUNDATION LEGEND:

- INDICATES SHEAR PANEL EXTENT. SHEAR WALL MARK PER **3/S621**
- 4' - 0" ← INDICATES MINIMUM SHEAR PANEL LENGTH
- INDICATES WOOD POST
- INDICATES SLAB DEPRESSION PER **9/S301** U.N.O. ON PLAN
- S — — S DENOTES FOOTING STEP PER **3/S302**
- 4'/3'/12' ← INDICATES MINIMUM INDIVIDUAL SHEAR PANEL LENGTHS AROUND OPENINGS.
- INDICATES SHEAR PANEL AROUND OPENING PER DET **1/S622**
- TOS = 0'-0" INDICATES TOP OF SLAB ELEVATION FROM 0'-0"
- TOF = - X-X" INDICATES TOP OF FOOTING ELEVATION. TOF = -1' - 0", UNO.

PAD FOOTING SCHEDULE - SEE DETAIL 12/S302 AND 1/S303				
SYMBOL	WIDTH	LENGTH	DEPTH	REINFORCEMENT
F1	1'-6"	CONT	1'-3"	(2) #5 T&B
F2C	2'-0" ⌀		4'-6"	(8) #7 VERT
F3C	3'-0" ⌀		4'-6"	(14) #8 VERT
F3	3'-0"	CONT	1'-3"	(3) #5 T&B
F4	4'-0"	4'-0"	1'-3"	#5 BOTT EW @ 8" OC T&B
F5	5'-0"	5'-0"	1'-3"	#5 BOTT EW @ 6" OC T&B

FOUNDATION NOTES:

1. FOR GENERAL NOTES AND ABBREVIATIONS SEE SHEETS **S001** & **S002**.
2. FOR TYPICAL CONCRETE DETAILS SEE **S300** SERIES SHEETS.
3. FOR TYPICAL STEEL DETAILS SEE **S500** SERIES SHEETS.
4. FOR TYPICAL WOOD DETAILS SEE **S600** SERIES SHEETS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR CURBS, RAMPS, DRAINS, EXTERIOR SLABS, PITS, SWALES, TRENCHES, OPENINGS, DIMENSIONS, TOP OF SHEATHING & TOP OF PARAPET ELEVATIONS NOT SHOWN ON PLANS, ETC.
6. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS DEPRESSIONS CURBS ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
7. SEE CIVIL & LANDSCAPE DRAWINGS FOR ELEVATIONS AND SLOPES.
8. CONTRACTOR TO VERIFY & COORDINATE LOCATIONS OF MECHANICAL AND ELECTRICAL UNITS WITH MECHANICAL AND ELECTRICAL ENGINEER.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ANY DISCREPANCY PRIOR TO POUR. NOTIFY THE ENGINEER FOR CORRECTIVE MEASURES.
10. ALL HOLDOWNS, ANCHOR BOLTS, STRAPS, POST BASES & REINFORCMENT MUST BE TIED IN PLACE PRIOR TO THE FOUNDATION INSPECTION & PLACEMENT OF CONCRETE.
11. DEPRESSED AREAS FOR TILE FLOORING SHALL HAVE ROUGHENED SURFACE TO ALLOW FOR BONDING OF MORTAR. REFER TO ARCHITECTURAL FOR LOCATIONS.
12. 5" THICK SLAB-ON-GRADE WITH #4 @ 18" OC EW AT MID-DEPTH OF SLAB. PROVIDE 15 MIL HDPE VAPOR BARRIER CENTERED IN 4" OF SAND PER GEOTECHNICAL REPORT. SEE DETAIL 3/S301.
13. ALL WALLS TO BE FRAMED WITH 2x6 STUDS, NO 2 OR BETTER.
14. All gates, gate posts, and non structural items are shown on their respective disciplines



FOUNDATION PLAN 1

1/8" = 1'-0"

N

PETRA
STRUCTURAL ENGINEERS
17981 Sky Park Circle
Suite O
Irvine, CA 92614
Tel: (949) 748-7170

PETER SARKIS
No. 5038
Exp. 6/30/27

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

FOUNDATION PLAN

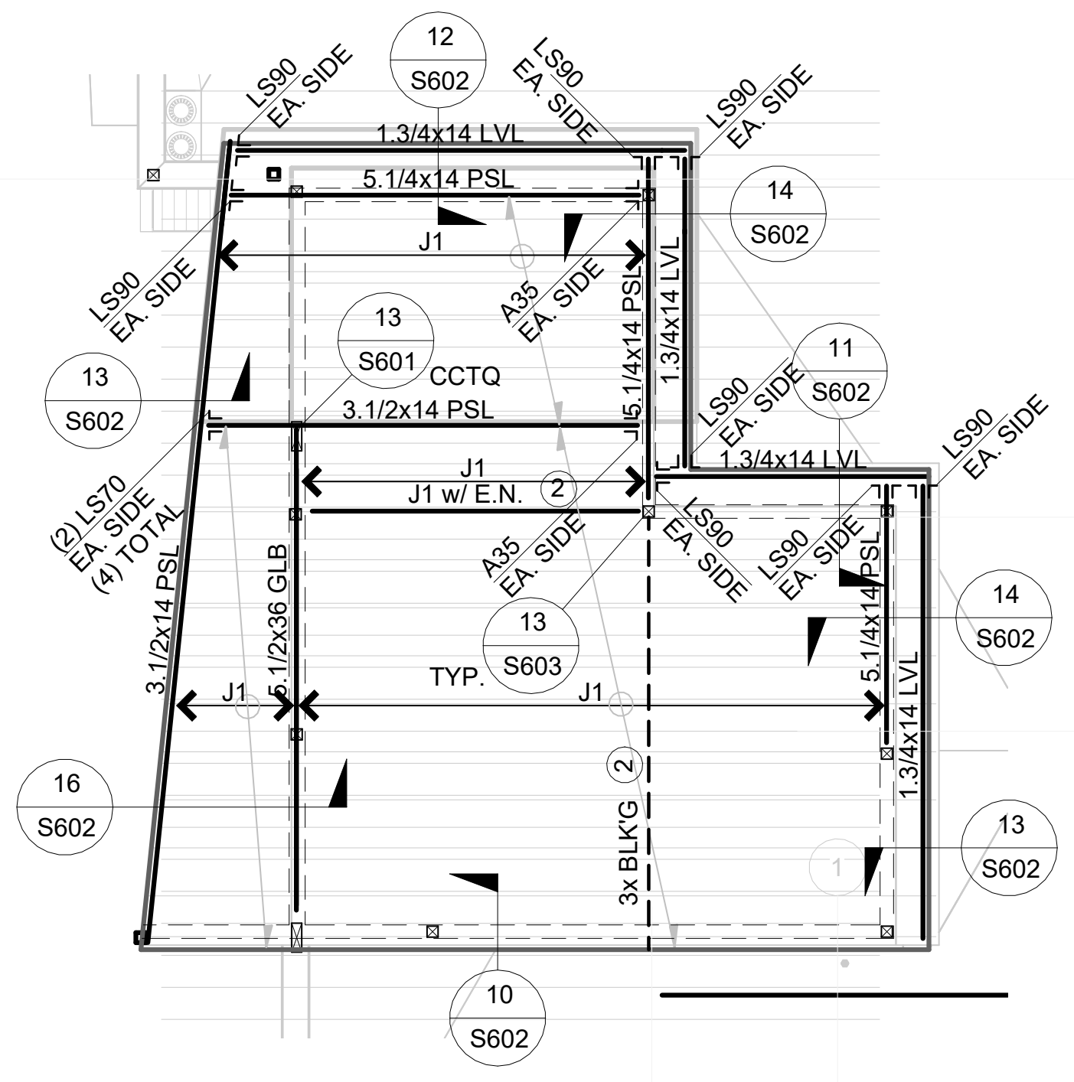
PERKINS
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

S101

Plot Date: 5/13/2026 10:19:11 AM

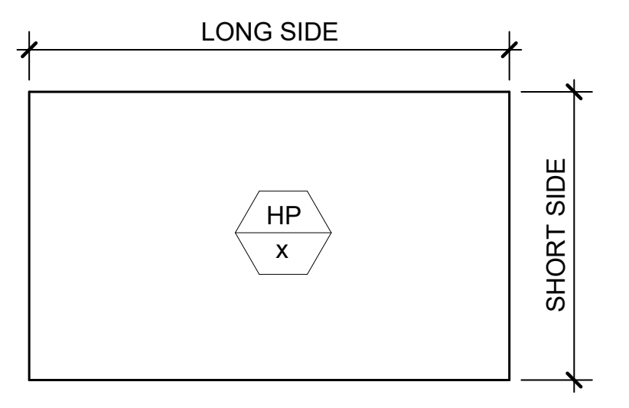
Project #: 2026-056 R24



UPPER ROOF FRAMING PLAN

1/8" = 1'-0"

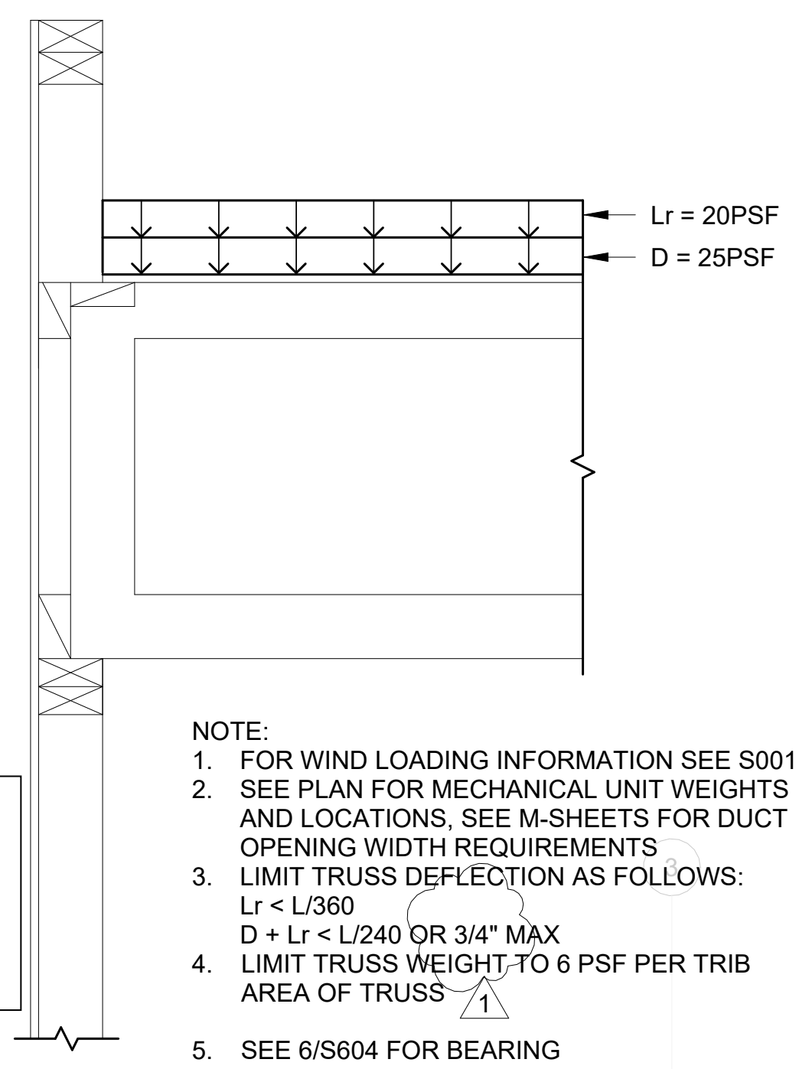
2



UNIT	LOAD ON LONG SIDE STRENGTH LEVEL
HP-A	4,500lbs
HP-1-9	2,000lbs

UNIT TAG AND LOADING

ADDITIONAL NOTE:
1) TRUSS SHOULD BE DESIGNED TO TAKE ADDITIONAL 500LB POINT LOAD ANYWHERE ALONG THE SPAN.
2. TRUSSES SUPPORTING DUCTS ON THE ROOF TO BE DESIGNED FOR ADDITIONAL LOADS ON TRUSS ANCHORAGE DETAIL



NOTE:
1. FOR WIND LOADING INFORMATION SEE S001
2. SEE PLAN FOR MECHANICAL UNIT WEIGHTS AND LOCATIONS, SEE M-SHEETS FOR DUCT OPENING WIDTH REQUIREMENTS
3. LIMIT TRUSS DEFLECTION AS FOLLOWS:
Lr < L/360
D + Lr < L/240 OR 3/4" MAX
4. LIMIT TRUSS WEIGHT TO 6 PSF PER TRIB AREA OF TRUSS 1

5. SEE 6/S604 FOR BEARING
6. TRUSS LOCATED AT 24" O.C MAX

TRUSS LOADING

SCALE: NTS

3

FRAMING NOTES:

1. FOR GENERAL NOTES AND ABBREVIATIONS SEE SHEETS **S001** & **S002**
2. FOR TYPICAL STEEL DETAILS SEE **S500** SERIES SHEETS
3. FOR TYPICAL WOOD DETAILS SEE **S600** SERIES SHEETS
4. REFER TO ARCHITECTURAL DRAWINGS FOR CURBS, RAMPS, DRAINS, EXTERIOR SLABS, PITS, SWALES, TRENCHES, OPENINGS, DIMENSIONS, TOP OF SHEATHING & TOP OF PARAPET ELEVATIONS NOT SHOWN ON PLANS, ETC.
5. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS DEPRESSIONS, CURBS ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
6. CONTRACTOR TO VERIFY & COORDINATE LOCATIONS OF MECHANICAL UNITS WITH MECHANICAL ENGINEER.
7. TYPICAL ROOF SHEATHING:
19/32 PLYWOOD SEE NOTES ON **S001**, UNBLOCKED 32/16 w/ 8d @6" OC BN, EN, & 12" OC FN PER DET **11/S622** (TYP. UNO)
8. PSL = PARALAM BEAM BY WEYERHAEUSER WITH E=2.0.10 6 PSI OR E=2.2.10 6 PSI AS SHOWN
9. LVL = LAMINATED VENEER LUMBER. PARALLEL STRAND LUMBER w/ 2.0E MAY BE USED IN LIEU OF LVL.
10. PROVIDE 1.5" GA 20 METAL DECK (8'-0" MAX SPAN) IN THE SPAN DIRECTION SHOWN. 2-SPAN OR 3-SPAN CONDITION REQUIRED
11. P.E. (PRE-ENGINEERED) GIRDER TRUSS DESIGNED FOR THE FOLLOWING POINT LOAD AT THE END OF THE CANTILEVERED BOTTOM CHORD. SEE DETAILS 9/S604 AND 10/S604 FOR MORE INFO.
D = 0.32 KIPS
Lr = 0.37 KIPS
12. ATTACH STRAP TO WALL TOP PLATE PER 3/S622. FIELD WELD STRAP TO TOP C-CHANNEL RIM BEAM WITH 4" MIN. FULL STRENGTH WELD
13. PROVIDE CMST12 STRAP (2-STRAPS WHERE INDICATED) CONNECTING P.E. ROOF TRUSS TOP CHORDS BETWEEN STEEL BEAMS w/ (43) 10d NAILS EA TRUSS. STRAP MAY BE APPLIED TO TOP OF TRUSS OVER SHEATHING, OR TO SIDE OF TRUSS TOP CHORD (THRU STEEL BEAM NAILER).
14. PROVIDE 2-CMST12 STRAPS, ONE EA SIDE OF WALL, CONNECTED TO SIDE OF WALL DOUBLE TOP PLATE w/ (43) 10d NAILS EA. STRAP AND WELD END OF STRAP TO SIDE OF STEEL COLUMN WITH FULL STRENGTH WELD.
15. DEFERRED SUBMITTAL FOR ROOF TRUSSES INCLUDING UPLIFT CONNECTION TO THE STRUCTURE, ALL TRUSS-TO-TRUSS CONNECTIONS, AND ALL OTHER REQUIRED HARDWARE. SEE **3/S102** FOR TRUSS DESIGN INFORMATION.
16. WHERE TRUSS MANUFACTURER SEEMS PARAPET BRACING IS NEEDED, SEE **16/S603** FOR BRACING AND LOADING.

FRAMING LEGEND

HDR	HEADER PER DETAILS 1 & 2/S601 ALIGN BOTTOM OF HEADER AT TOP OPENING
6x	FLUSH BEAM DEPTH OF BEAM MATCHES JOIST DEPTH. AT PERPENDICULAR WALL, PROVIDE POST TO MATCH BEAM WIDTH & WALL DEPTH, SEE DETAIL 3/S602
6x DROP	DROP BEAM, ALIGN TOP BEAM W/ BOTTOM OF JOISTS. AT PERPENDICULAR WALL, PROVIDE TRIMMER TO MATCH BEAM WIDTH & WALL DEPTH.
↔	J# - ROOF JOISTS SEE JOIST SCHEDULE P.E. (PRE-ENGINEER) TRUSSES SEE DETAIL 3/S102 FOR LOADING
4x HDU ☒	INDICATES WOOD POST PER PLAN & HOLD DOWN PER SCHEDULE AND **4/S621**
▨	INDICATES BLOCKED DIAPHRAGM AT ALL PANELS EDGES w/ 3x BLOCKING & 10d @ 3" OC
TPS-X	INDICATES TOP PLATE SPLICE. IF NOT SHOWN TPS-1 SHALL BE APPLIED AT ALL TOP PLATE SPLICES, SEE **4/S612**
≪——→	INDICATES BEAM BRACE @ 4 FT OC FIRST AND LAST AT 2FT FROM SUPPORT. LOCATION ON PLANS IS ONLY SHOWN FOR REFERENCE. NOT ALL BRACES SHOWN. SEE **11/S603** AND **12/S603**
— — — —	BLOCKING PER **4/S613**
⊡	FALL ARREST PER **1** AND **4/S613** SEE **A131** FOR LOCATION

1

CONSTRUCTION NOTE KEY

① INDICATES SIMPSON MSTI60 STRAP, SEE DET 3/S622

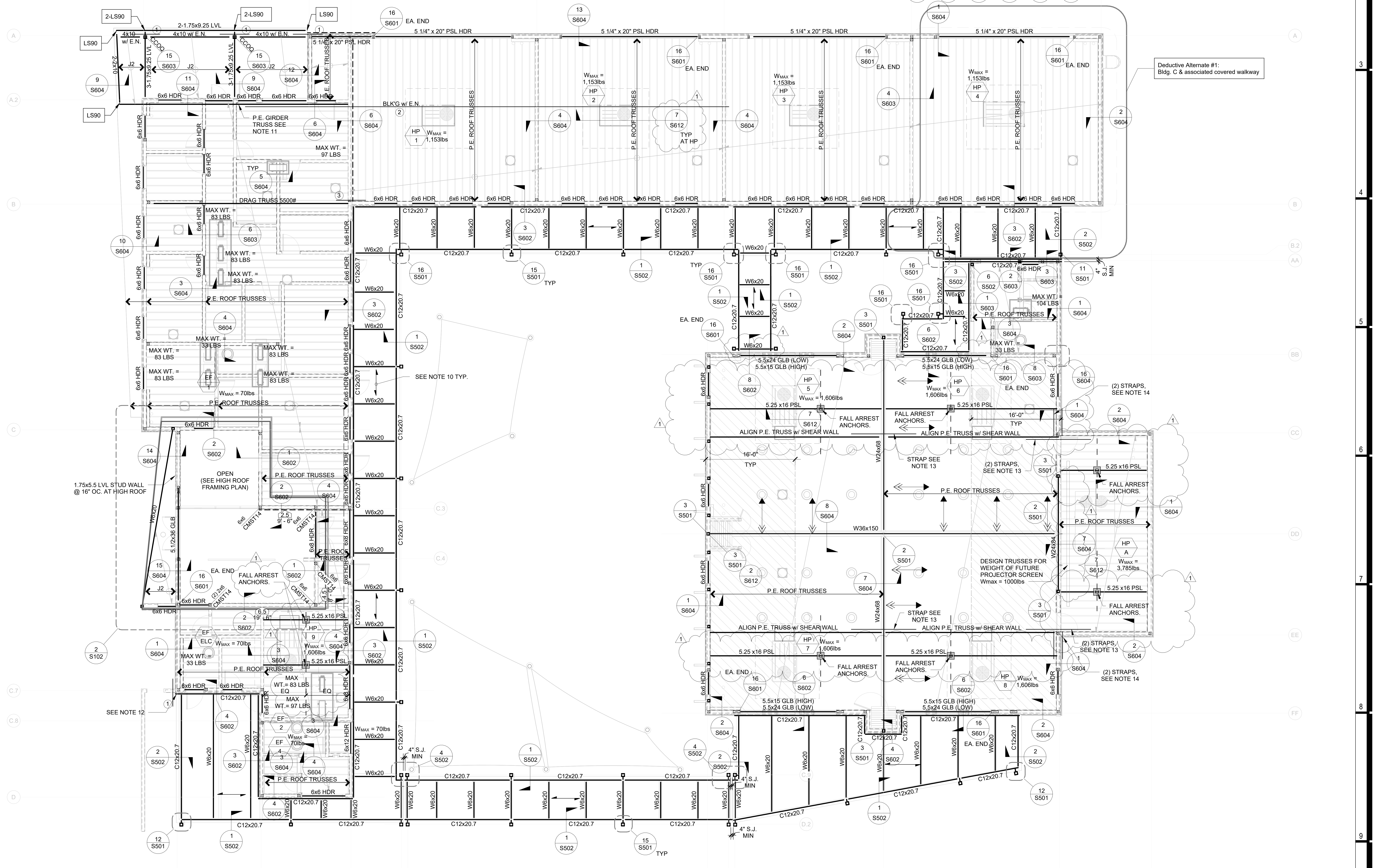
② INDICATES SIMPSON (2) CMST12 STRAP (LENGTH AS SHOWN), SEE DET 3/S622

③ INDICATES SIMPSON MSTC66 STRAP, SEE DET 3/S622

JOIST SCHEDULE

MARK	SIZE	SPACING	MAX LENGTH
J2	2x10	16" OC	16'-0"
J1	1.3/4" x 14" LVL	24" OC	24'-0"

NOTES:
1. EFFECTIVE JOIST SPACING SHALL BE MAINTAINED OVER THREE BAYS WHERE 24" MAX SPREAD BAY IS REQ'D.



ROOF FRAMING PLAN

1/8" = 1'-0"

1

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STRUCTURAL
STATE OF CALIFORNIA

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

ROOF FRAMING PLAN

PERKINS EASTMAN

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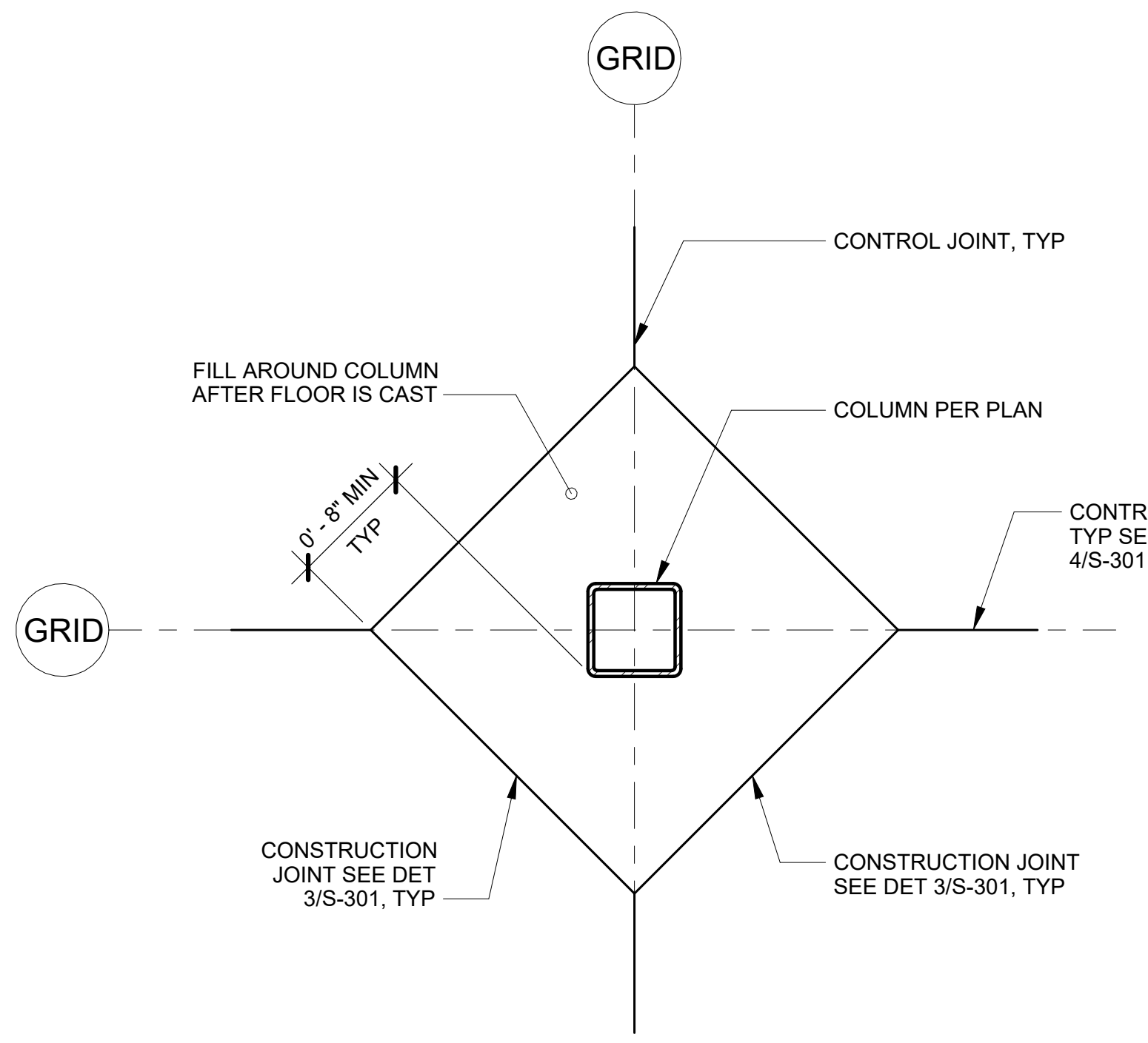
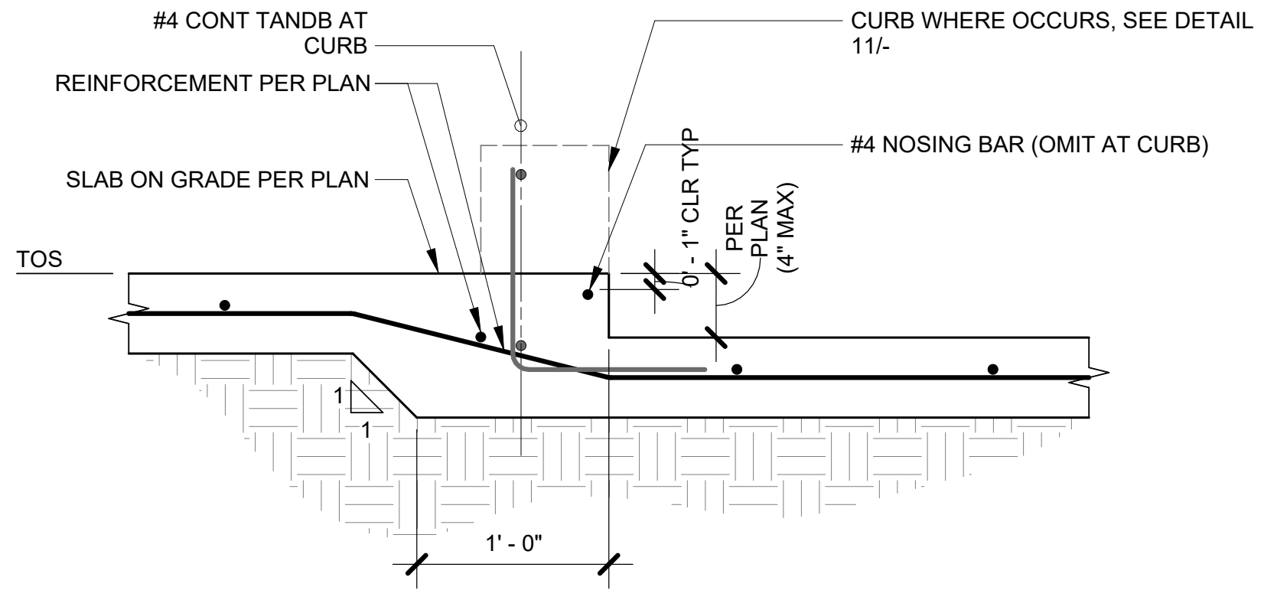
S102


GRID
GRID
CONTROL JOINT, TYP
FILL AROUND COLUMN AFTER FLOOR IS CAST
COLUMN PER PLAN
0' - 8" MIN TYP
CONTROL JOINT, TYP SEE DET 4/S-301
CONSTRUCTION JOINT SEE DET 3/S-301, TYP
CONSTRUCTION JOINT SEE DET 3/S-301, TYP
1

LATE POUR AT COLUMN PAD

SCALE: NTS 13



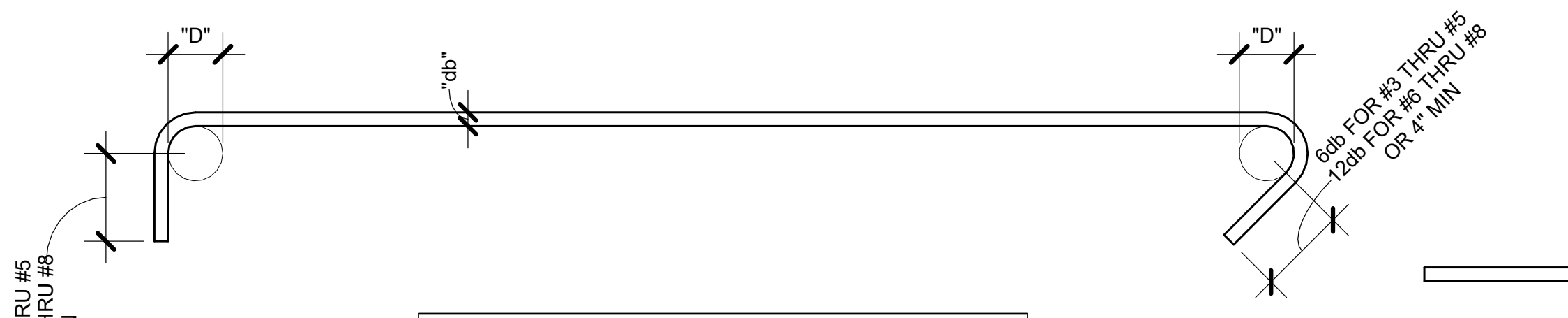
DEPRESSION IN SLAB ON GRADE (4" MAX)

SCALE: NTS 9

CONCRETE CLASS "B" TENSION SPLICE	fc (PSI)	CLASS "B" TENSION LAP SPLICE LENGTH								
		BAR SIZE GR 60	#3	#4	#5	#6	#7	#8	#9	#10	#11
		BAR DIAMETER db (IN)	0.375	0.500	0.625	0.750	0.875	1.000	1.128	1.270	1.410
	4500	TOP BAR	2'-0"	2'-8"	3'-4"	4'-1"	5'-11"	6'-9"	7'-7"	8'-6"	9'-5"
		BOTTOM BAR	1'-7"	2'-1"	2'-7"	3'-1"	4'-6"	5'-2"	5'-10"	6'-7"	7'-3"

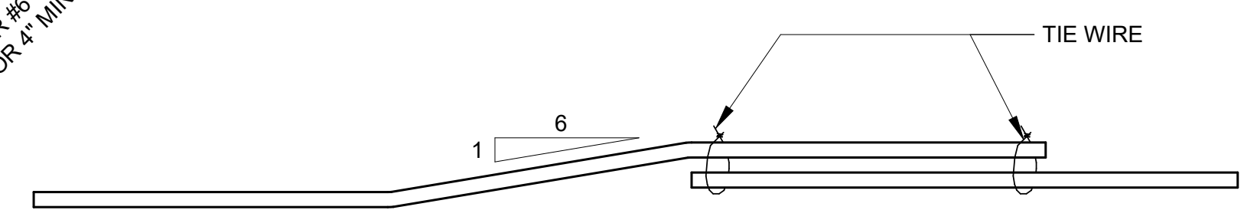
NOTES:

1. ALL REINFORCING MUST MEET ONE OF THE FOLLOWING CONDITIONS:
   A. CASE I: THE CLEAR SPACING OF THE BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN ONE BAR DIAMETER (db) CLEAR COVER NOT LESS THAN ONE BAR DIAMETER (db) AND STIRRUPS OR TIES THROUGHOUT THE SPLICE LENGTH.
   B. OR CASE II: THE CLEAR SPACING OF THE BARS BEING SPLICED IS NOT LESS THAN TWO BAR DIAMETERS (2db) AND THE CLEAR COVER IS NOT LESS THAN ONE BAR DIAMETER (db).
   C. FOR ALL OTHER CASES MULTIPLY THE SPLICES SHOWN BY 1.5.
2. THE ABOVE VALUES ARE FOR NORMAL WEIGHT CONCRETE. THE ABOVE VALUES SHALL BE MULTIPLIED BY 1.3 FOR LIGHTWEIGHT CONCRETE.
3. THE ABOVE VALUES ARE FOR UNCOATED REINFORCEMENT.
4. TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF NEW CONCRETE PLACED BELOW THE BAR.
5. BOTTOM BARS ARE ALL VERTICAL BARS AND HORIZONTAL REINFORCEMENT WITH LESS THAN 12" OF NEW CONCRETE PLACED BELOW THE BAR.

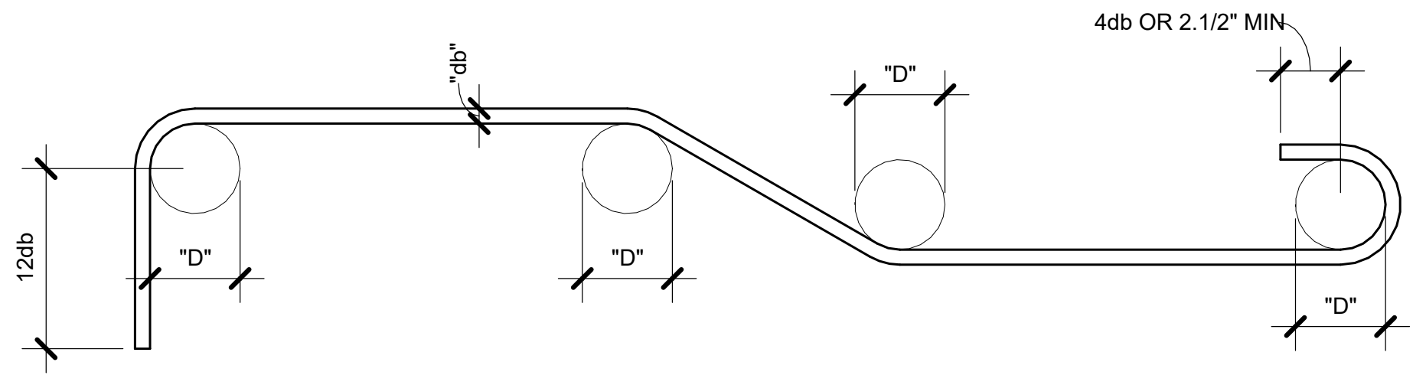


MINIMUM BEND DIAMETER (STIRRUPS AND TIES)				
BAR SIZE	#3	#4	#5	#6
"D"	1.1/2"	2"	2.1/2"	4.1/2"

STANDARD HOOK DETAIL FOR STIRRUPS AND TIES

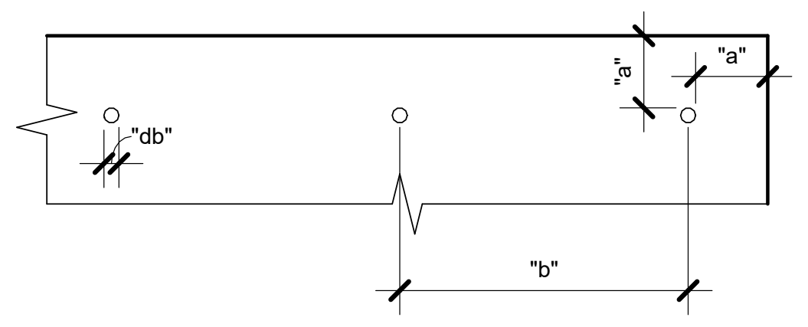


OFFSET AND SPLICES



MINIMUM BEND DIAMETER (PRINCIPAL REINFORCEMENT)			
BAR SIZE	#3 THRU #8	#9 THRU #11	#14 AND #18
"D"	6db	8db	10db

STANDARD HOOK DETAIL FOR PRINCIPAL REINFORCEMENT



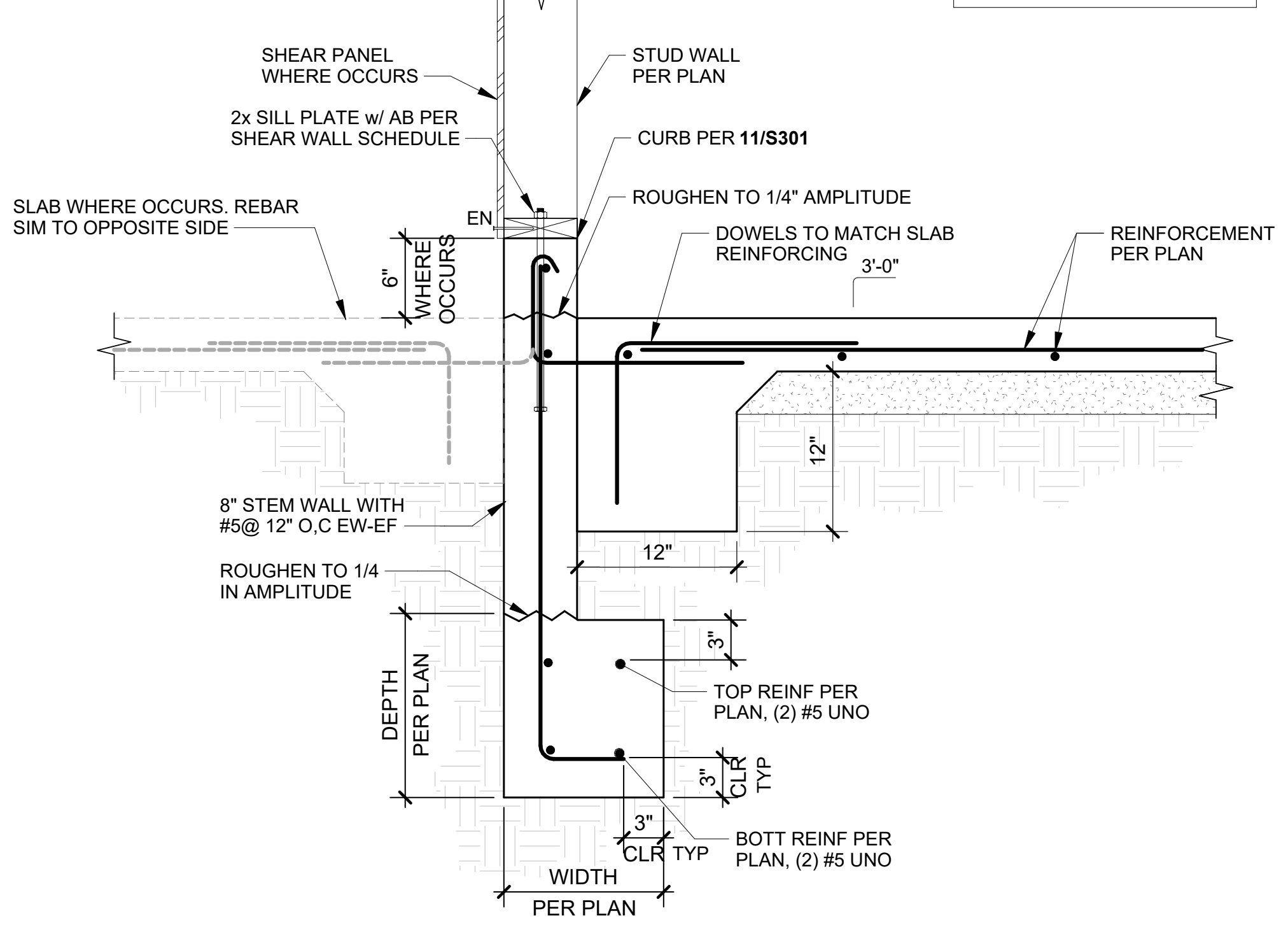
WHERE: "a" IS THE CLEAR COVER
"b" IS THE CENTER TO CENTER SPACING
"db" IS THE BAR DIAMETER

SPLICE LENGTHS FOR BARS PLACED SHALL MEET THE FOLLOWING (SEE NOTE 1):	
CASE I	CASE II
a<db: ANY b	a>db: b>3db
a>db: b<3db	-

TYPICAL NWC (CLASS B) LAP SPLICE SCHEDULE

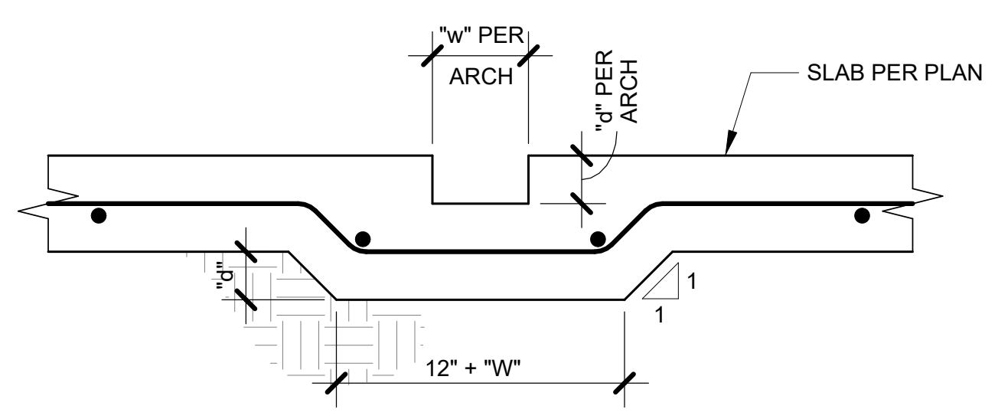
SCALE: NTS 2

FOR INFORMATION NOT SHOWN SEE **7/S301**
SEE **4/S621** AT HOLD DOWNS


1
SHEAR PANEL WHERE OCCURS
STUD WALL PER PLAN
2x SILL PLATE w/ AB PER SHEAR WALL SCHEDULE
CURB PER 11/S301
ROUGHEN TO 1/4" AMPLITUDE
SLAB WHERE OCCURS. REBAR SIM TO OPPOSITE SIDE
EN
6" WHERE OCCURS
DOWELS TO MATCH SLAB REINFORCING
3'-0"
REINFORCEMENT PER PLAN
12"
8" STEM WALL WITH #5@ 12" O,C EW-EF
12"
ROUGHEN TO 1/4 IN AMPLITUDE
3"
DEPTH PER PLAN
TOP REINF PER PLAN, (2) #5 UNO
3" CLR TYP
3" CLR TYP
BOTT REINF PER PLAN, (2) #5 UNO
WIDTH PER PLAN

SLAB AT STEPPED FOOTING

SCALE: NTS 14



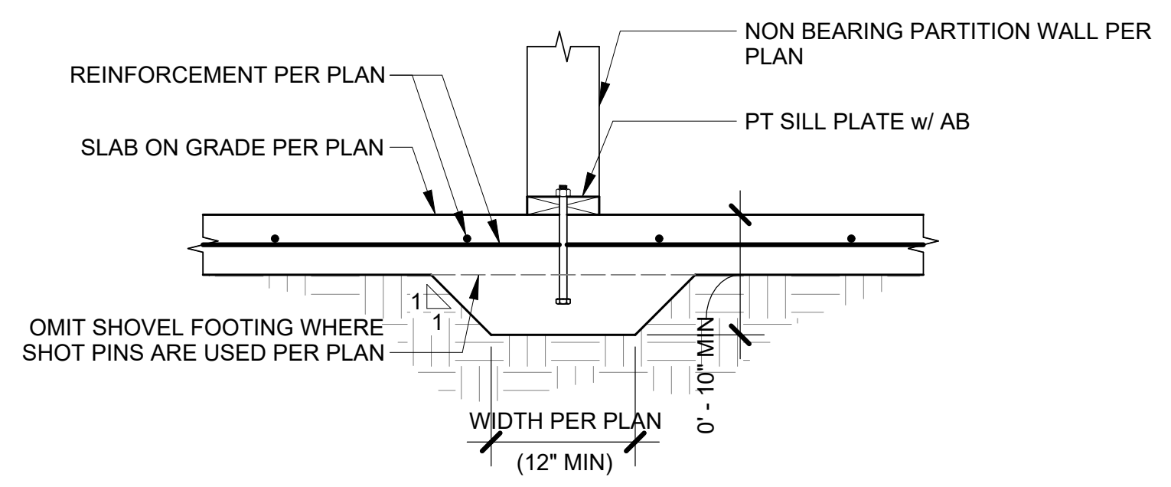
TRACK RECESS

SCALE: NTS 10

NOTE:

ALL SILLS SHALL BE 2x PT HEM FIR. SILL BOLTS SHALL BE NOT LESS THAN 5/8" DIA x 7" @ 4'-0" OC. LOCATE BOLTS 9" FROM THE END OF ANY PLATE. USE (2) BOLTS MINIMUM IN EVERY PLATE.

ALTERNATE:
IN LIEU OF BOLTS SHOWN, USE 0.145" DIA x 3" LONG POWDER DRIVEN PINS WITH 1-3/8" DIA WASHERS @ 32" OC. POWDER DRIVEN PINS MUST PENETRATE CONCRETE 1-1/2" MIN. USE LOW VELOCITY "HILTI" OR EQUAL. POWDER DRIVEN PINS NOT PERMITTED WHEN PARTITIONS REST ON CURBS.



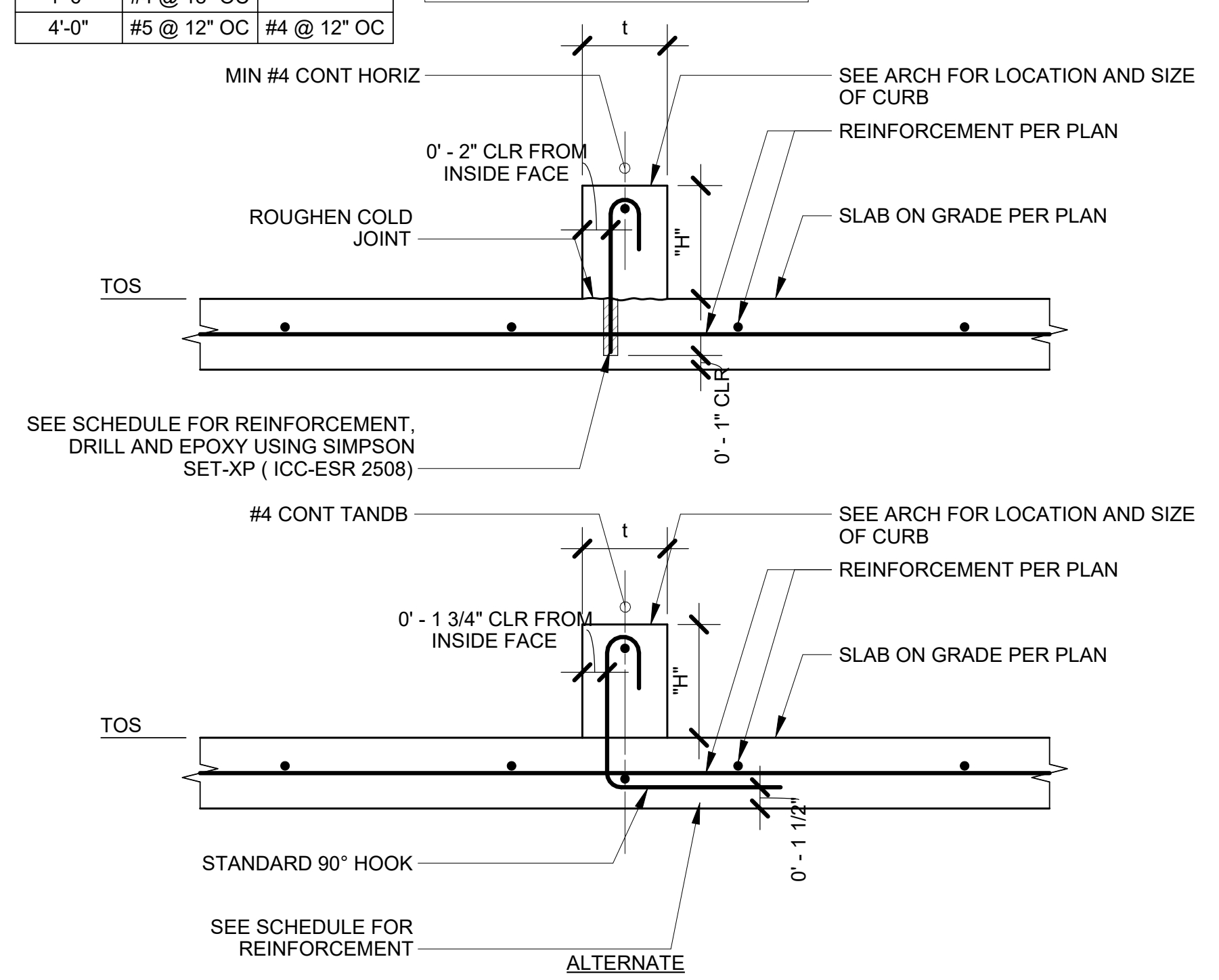
TYPICAL

NON-BEARING FOOTING AT PARTITION WALL

SCALE: NTS 15

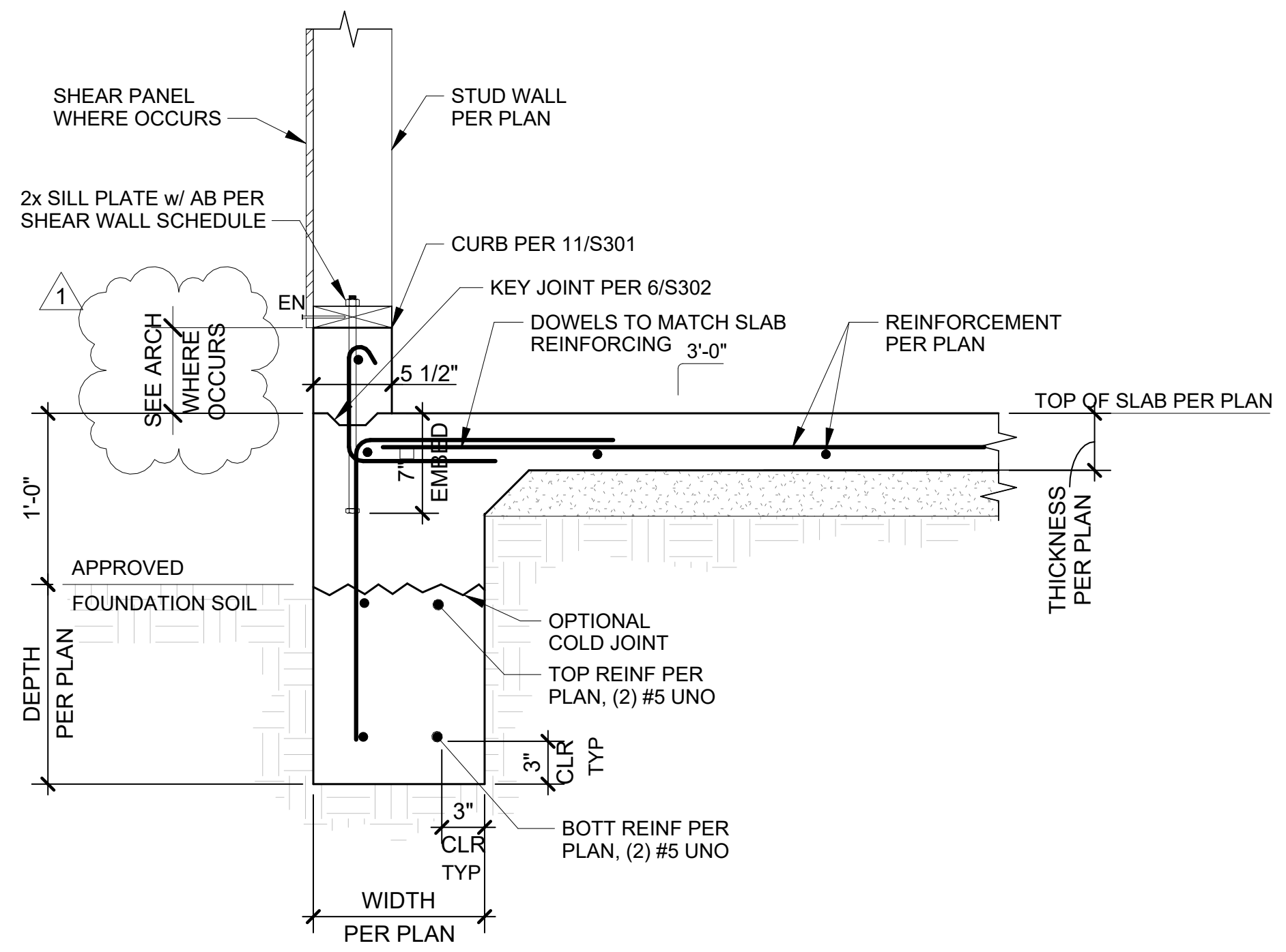
CURB REINFORCING SCHEDULE		
MAX "H"	VERTICAL	HORIZONTAL
8"	#3 @ 18" OC	-
1'-6"	#4 @ 18" OC	-
4'-0"	#5 @ 12" OC	#4 @ 12" OC

NOTE:
USE TWO CURTAINS OF HORIZONTAL & VERTICAL REINFORCING FOR t ≥ 12"


t
MIN #4 CONT HORIZ
SEE ARCH FOR LOCATION AND SIZE OF CURB
REINFORCEMENT PER PLAN
0' - 2" CLR FROM INSIDE FACE
ROUGHEN COLD JOINT
"H"
SLAB ON GRADE PER PLAN
TOS
SEE SCHEDULE FOR REINFORCEMENT, DRILL AND EPOXY USING SIMPSON SET-XP (ICC-ESR 2508)
0' - 1" CLR
#4 CONT TANDB
t
SEE ARCH FOR LOCATION AND SIZE OF CURB
REINFORCEMENT PER PLAN
0' - 1 3/4" CLR FROM INSIDE FACE
"H"
SLAB ON GRADE PER PLAN
TOS
STANDARD 90° HOOK
0' - 1 1/2"
SEE SCHEDULE FOR REINFORCEMENT
ALTERNATE

TYPICAL CURB DETAIL

SCALE: NTS 11

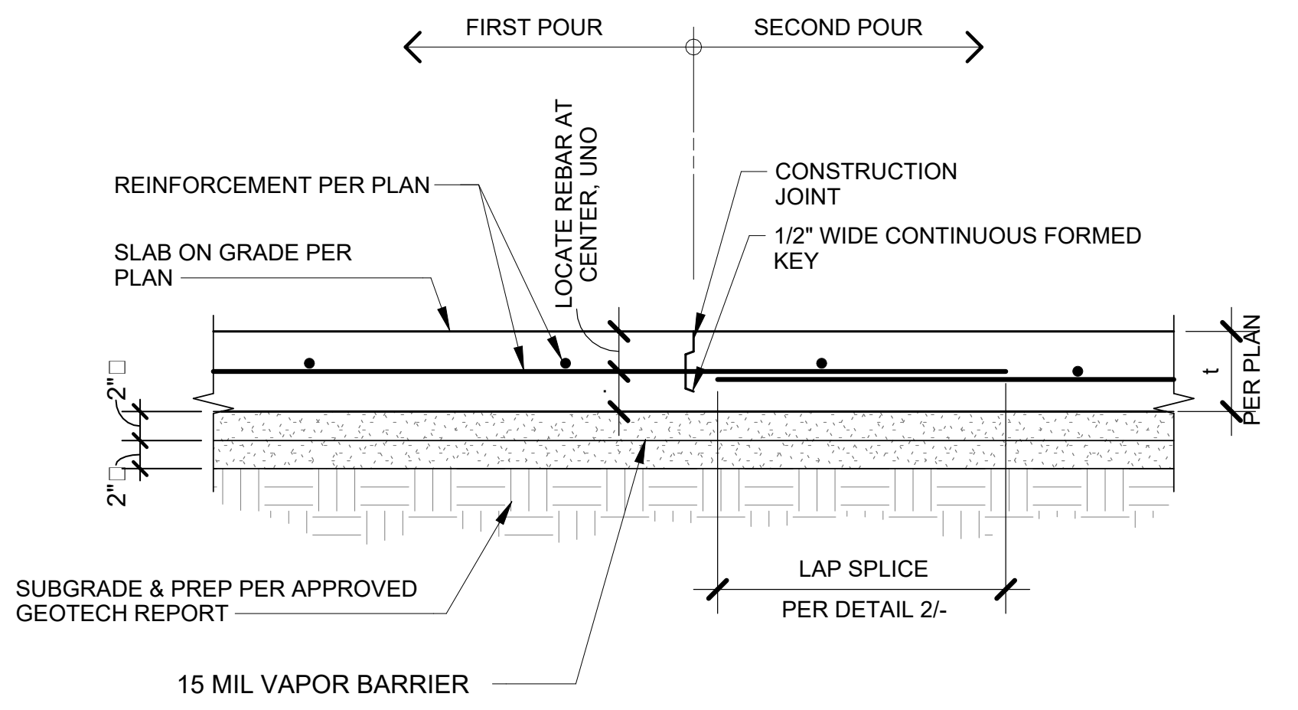


EDGE OF SLAB DETAIL

SCALE: NTS 7

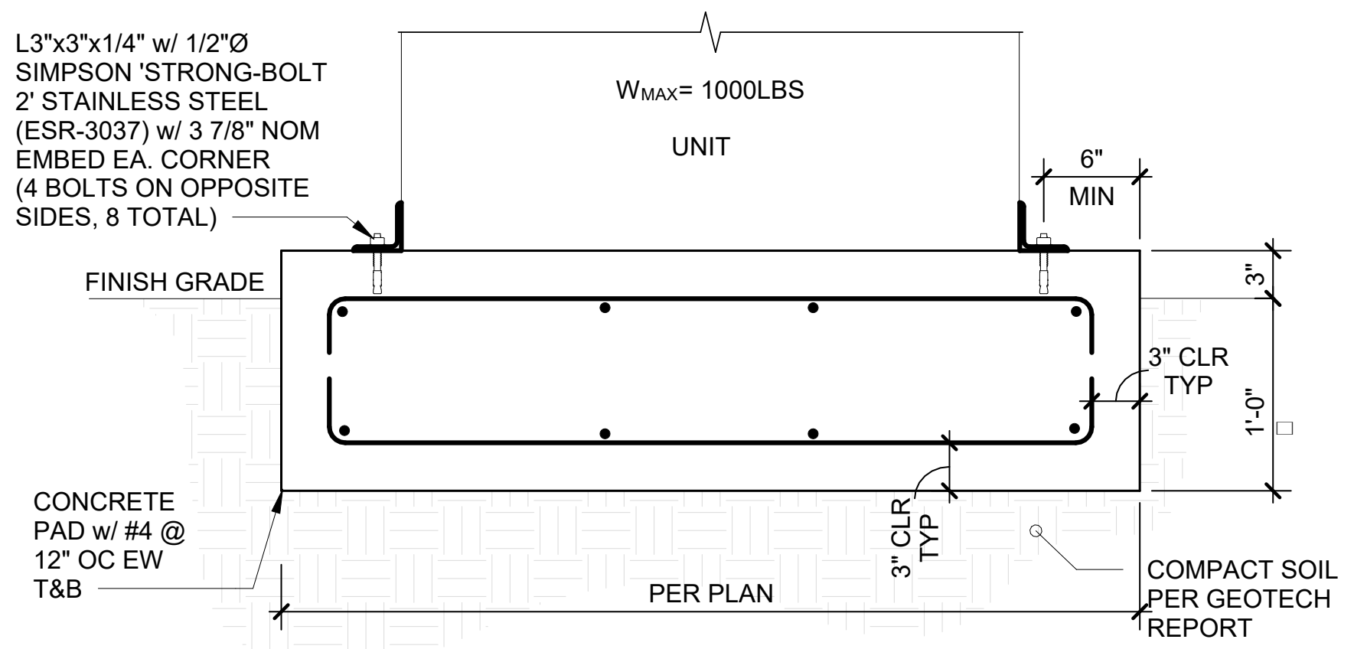
NOTE:

CONTRACTOR TO VERIFY VAPOR BARRIER IS NOT PUNCTURED.


FIRST POUR
SECOND POUR
REINFORCEMENT PER PLAN
LOCATE REBAR AT CENTER, UNO
CONSTRUCTION JOINT
1/2" WIDE CONTINUOUS FORMED KEY
SLAB ON GRADE PER PLAN
t PER PLAN
2"
2"
LAP SPLICE PER DETAIL 2/-
SUBGRADE & PREP PER APPROVED GEOTECH REPORT
15 MIL VAPOR BARRIER

TYPICAL INTERIOR SLAB ON GRADE

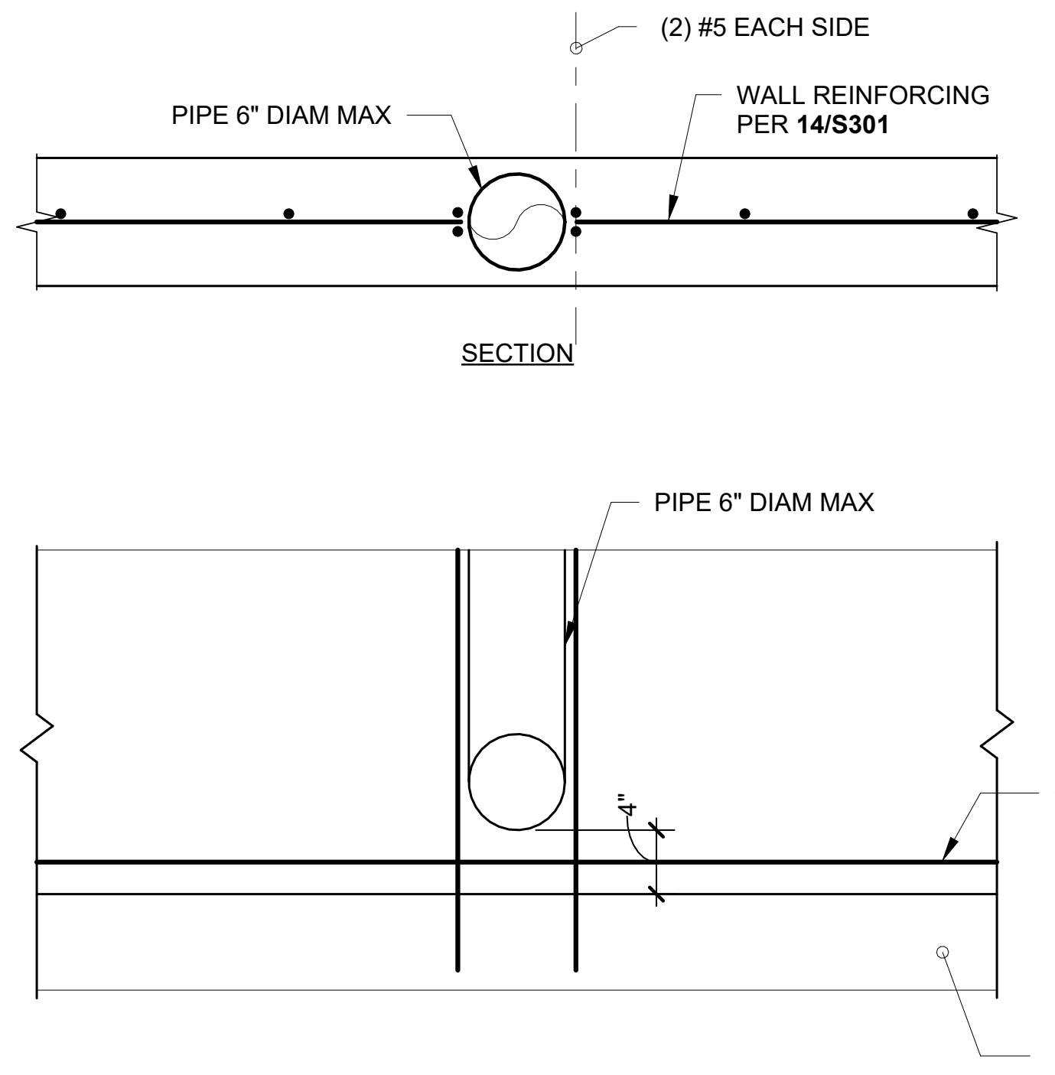
SCALE: NTS 3


L3"x3"x1/4" w/ 1/2"Ø SIMPSON 'STRONG-BOLT 2' STAINLESS STEEL (ESR-3037) w/ 3 7/8" NOM EMBED EA. CORNER (4 BOLTS ON OPPOSITE SIDES, 8 TOTAL)
WMAX= 1000LBS
UNIT
6" MIN
FINISH GRADE
3"
3" CLR TYP
1'-0"
CONCRETE PAD w/ #4 @ 12" OC EW T&B
3" CLR TYP
PER PLAN
COMPACT SOIL PER GEOTECH REPORT

ISOLATED

MECH CONC PAD TO SLAB ON GRADE

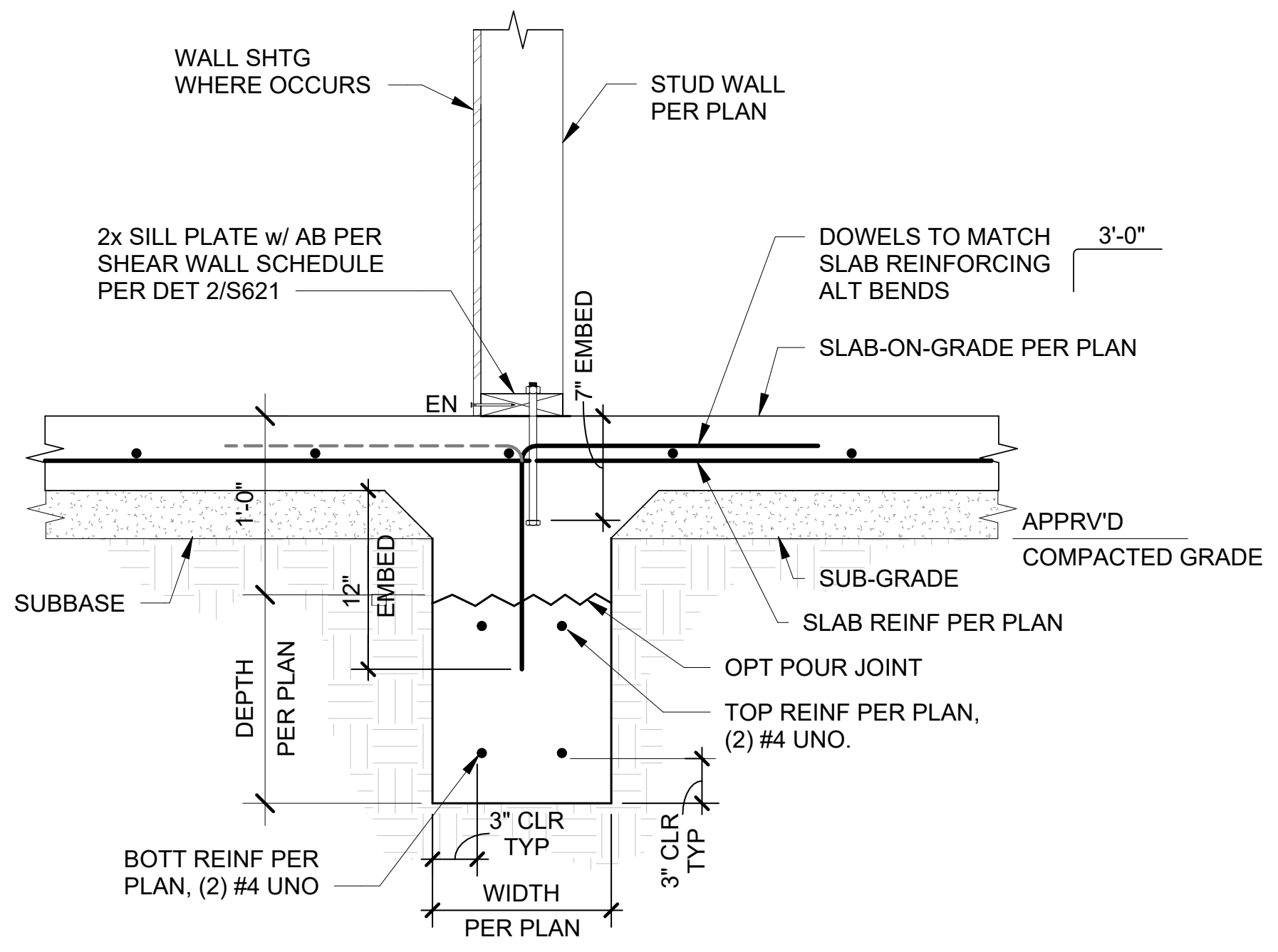
SCALE: NTS 16



PIPE IN WALL DETAIL

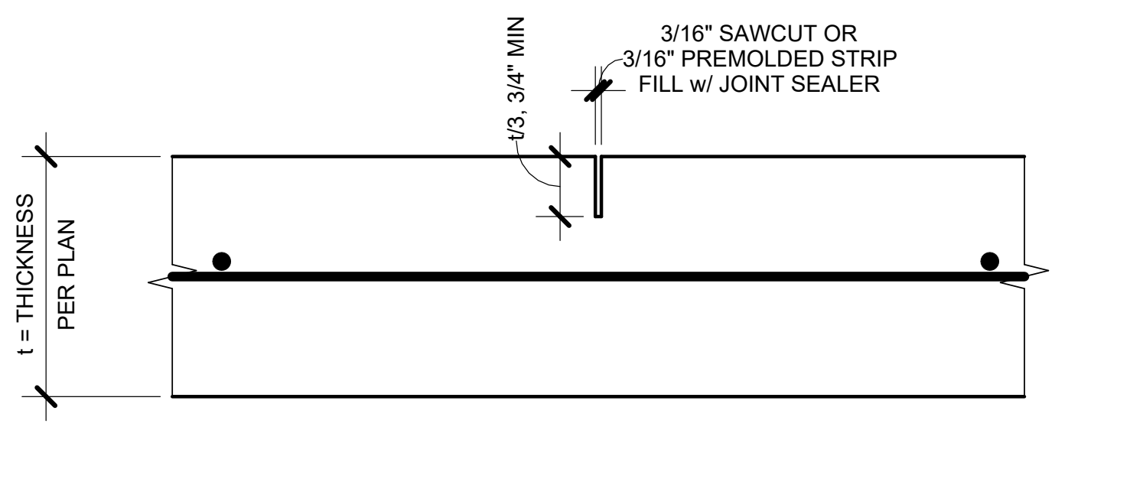
SCALE: NTS 12

NOTE: PROVIDE CURB PER 11/S301 AS NEEDED



INTERIOR STUD WALL FOOTING

SCALE: NTS 8



NOTES:

1. CONTROL JOINTS TO BE LOCATED AT COLUMN CENTER LINES AND AT 15'-0" OC MAX OR EVERY 400 SQUARE FEET, UNO.
2. IF SAW-CUT CONTROL JOINT TO BE USED, SAW-CUT NO LATER THAN 12 HOURS AFTER CONCRETE FINISHING.

INTERIOR CONTROL JOINTS

SCALE: NTS 4

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REGISTERED PROFESSIONAL ENGINEER
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GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

TYPICAL CONCRETE SLAB ON
GRADE DETAILS

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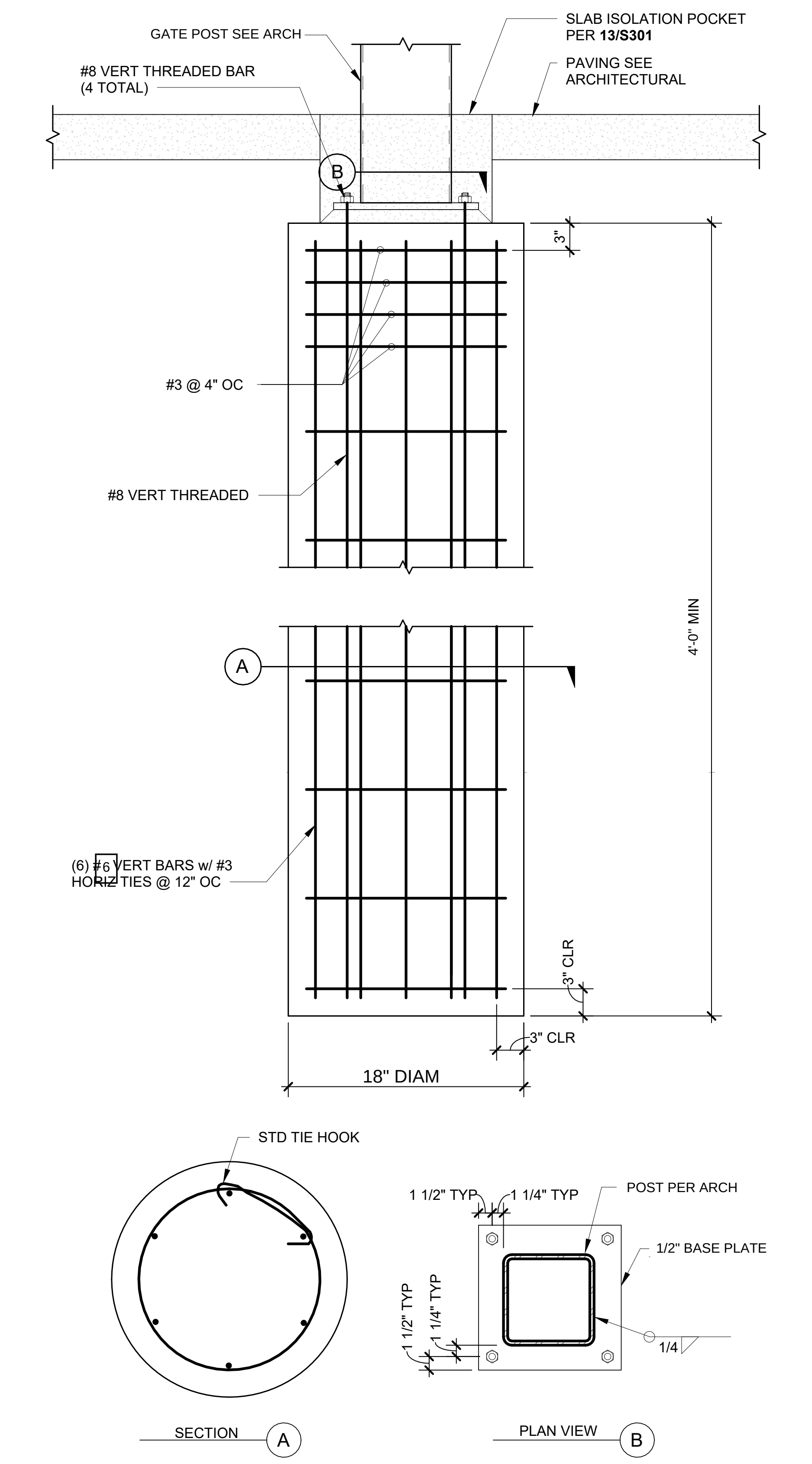
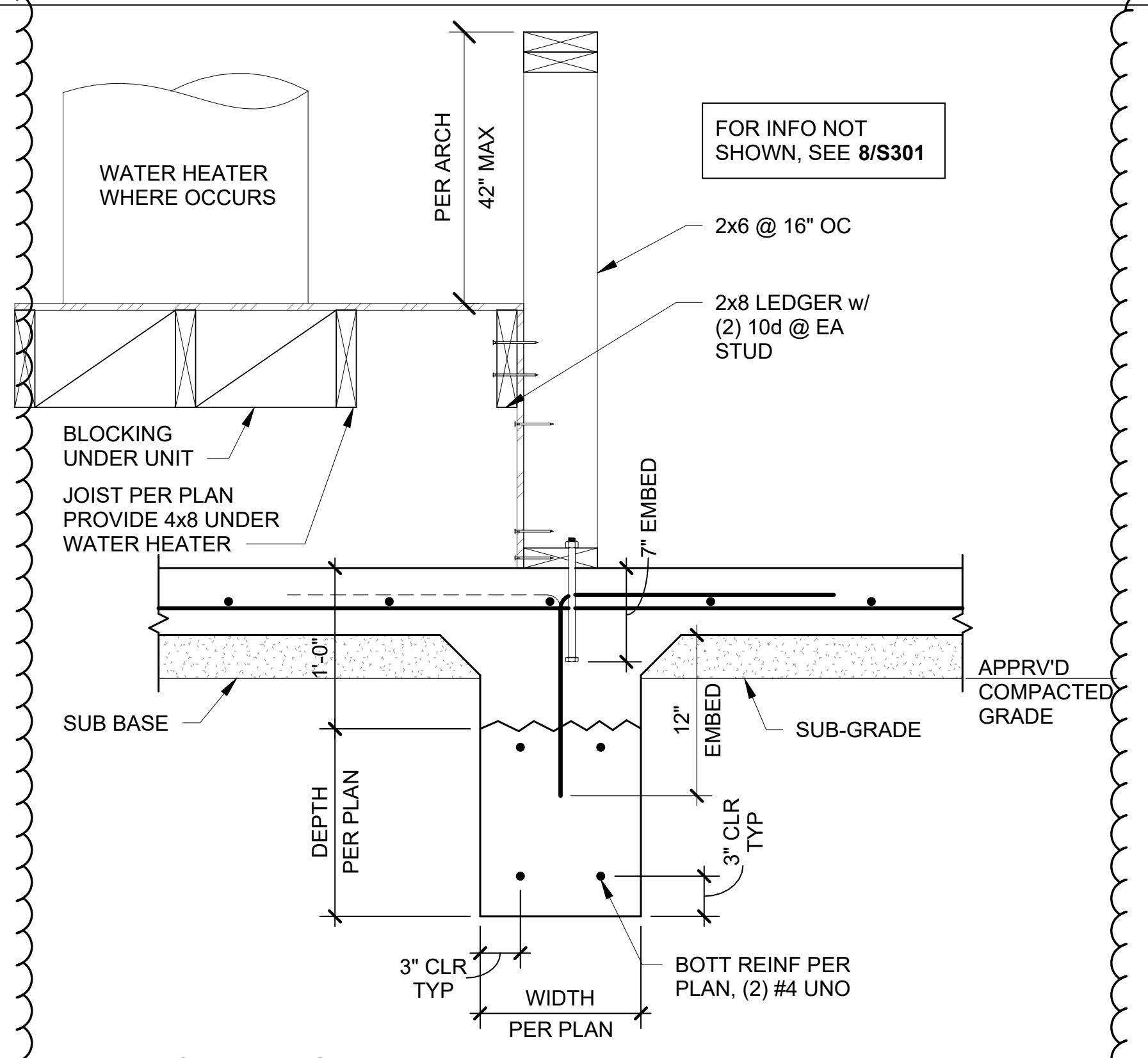
S301

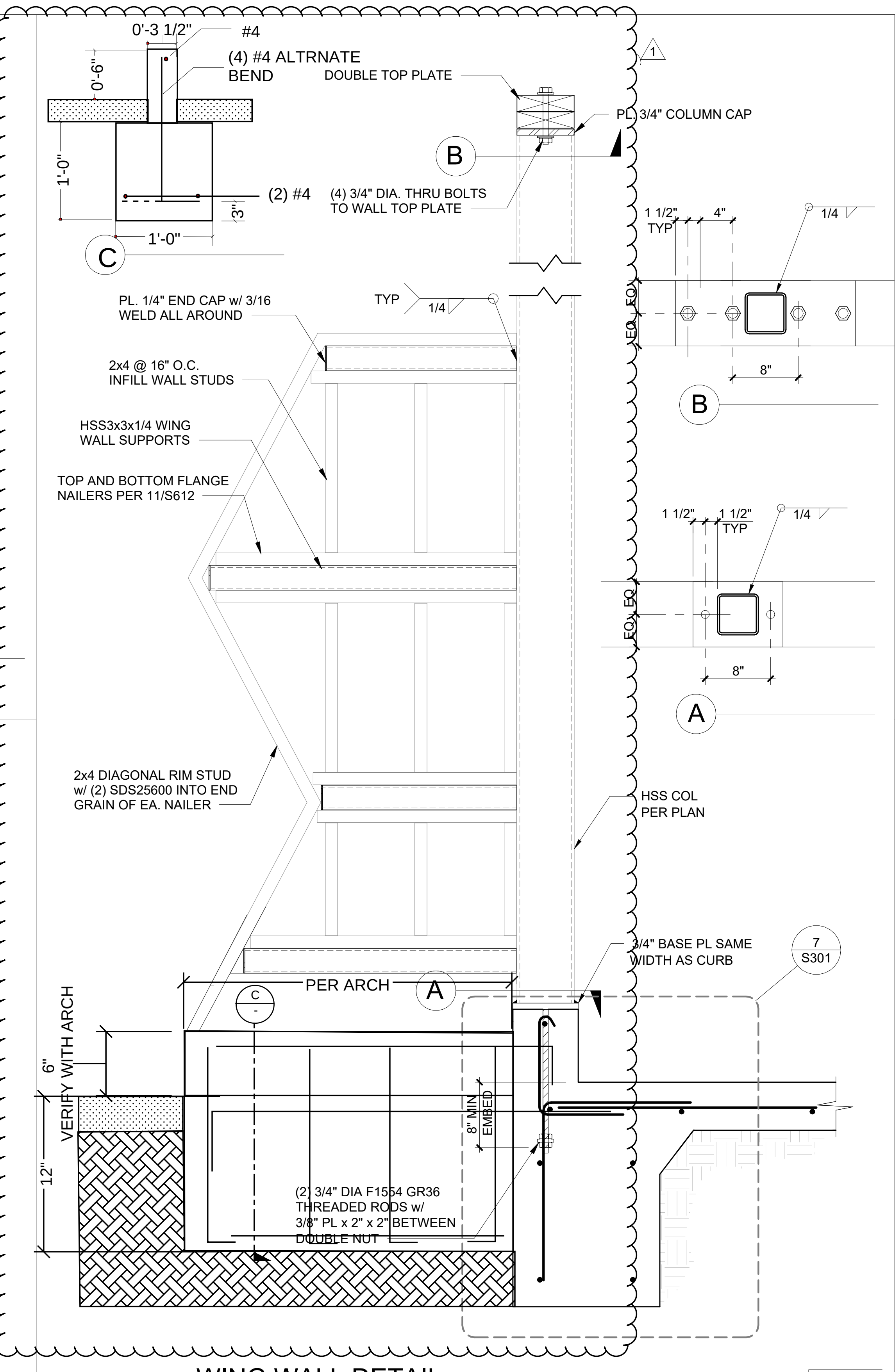
Plot Date: 5/13/2026 10:19:16 AM
Project #: 2026-056 R24



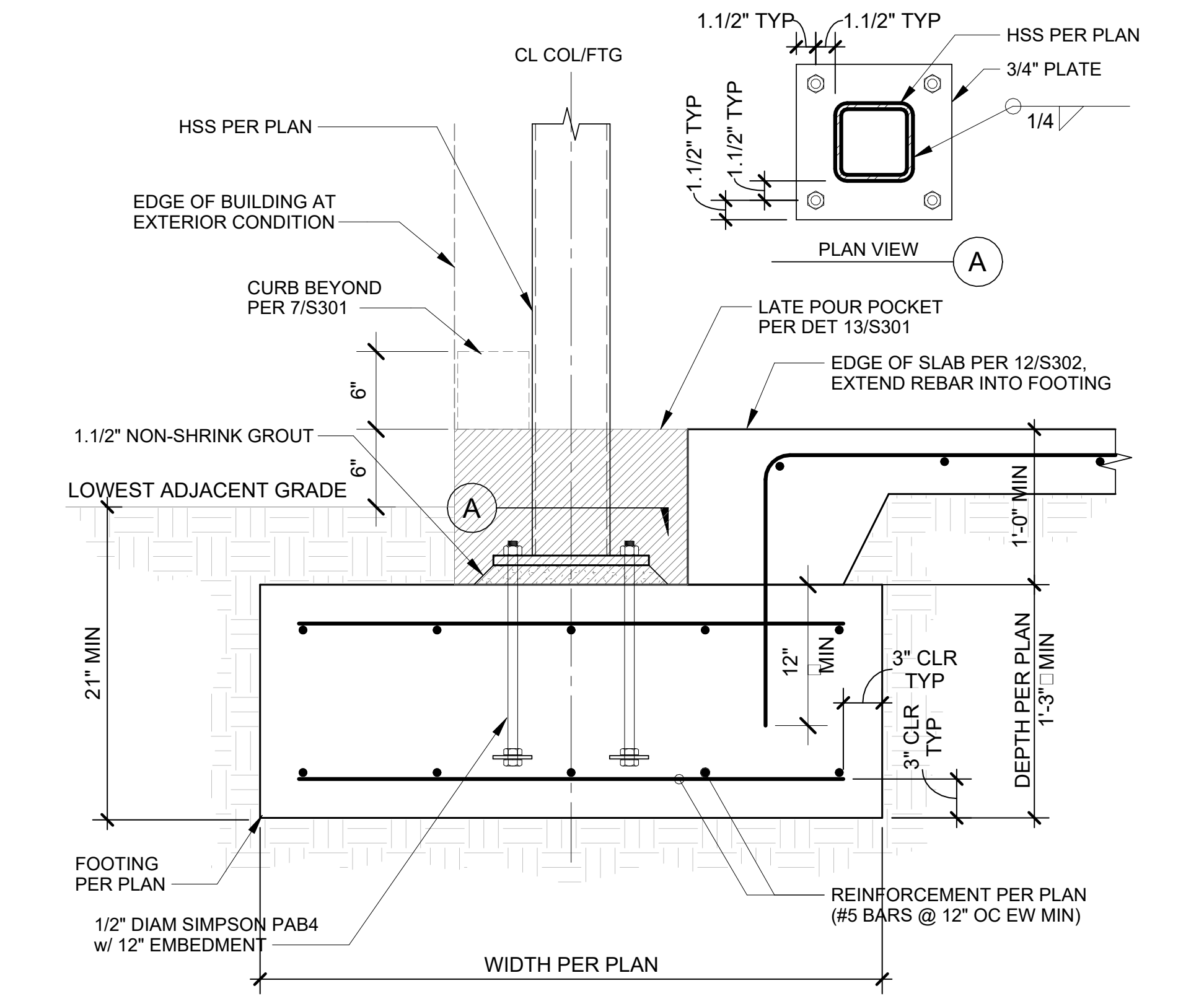
GATE POST FOOTING 14
SCALE: NTS


WATER HEATER WHERE OCCURS
PER ARCH
42" MAX
FOR INFO NOT SHOWN, SEE 8/S301
2x6 @ 16" OC
2x8 LEDGER w/ (2) 10d @ EA STUD
BLOCKING UNDER UNIT
JOIST PER PLAN PROVIDE 4x8 UNDER WATER HEATER
7" EMBED
1'-0"
SUB BASE
APPRV'D COMPACTED GRADE
12" EMBED
SUB-GRADE
DEPTH PER PLAN
3" CLR TYP
3" CLR TYP
WIDTH PER PLAN
BOTT REINF PER PLAN, (2) #4 UNO

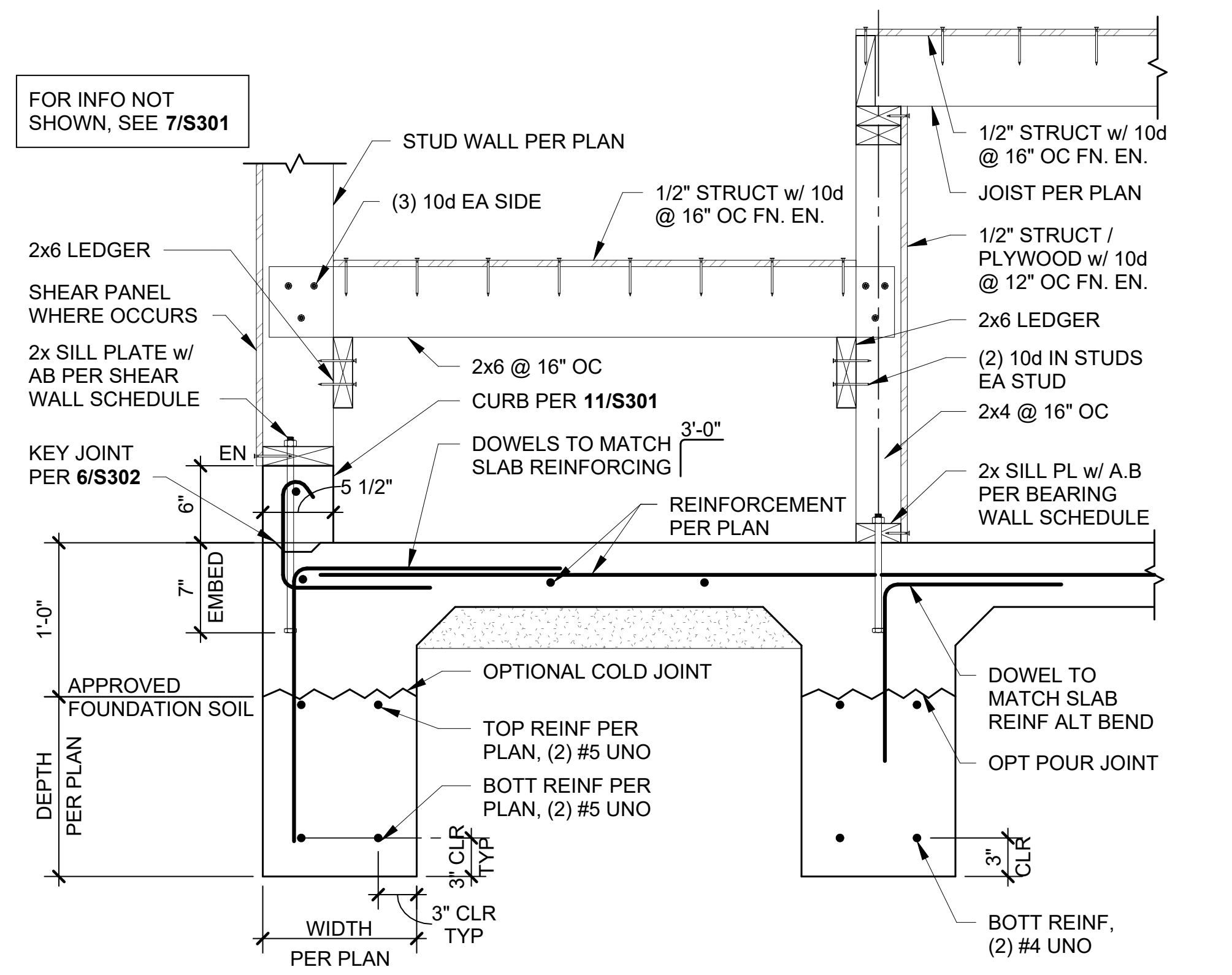
PLATFORM TO WALL DETAIL 9
SCALE: NTS


0'-3 1/2"
#4
(4) #4 ALTRNATE BEND
0'-6"
1'-0"
(2) #4
3"
1'-0"
C
DOUBLE TOP PLATE
PL 3/4" COLUMN CAP
B
(4) 3/4" DIA. THRU BOLTS TO WALL TOP PLATE
1
1 1/2" TYP
4"
1/4
EQ EQ
8"
B
TYP
1/4
PL. 1/4" END CAP w/ 3/16 WELD ALL AROUND
2x4 @ 16" O.C. INFILL WALL STUDS
HSS3x3x1/4 WING WALL SUPPORTS
TOP AND BOTTOM FLANGE NAILERS PER 11/S612
1 1/2"
1 1/2" TYP
1/4
EQ EQ
8"
A
2x4 DIAGONAL RIM STUD w/ (2) SDS25600 INTO END GRAIN OF EA. NAILER
HSS COL PER PLAN
3/4" BASE PL SAME WIDTH AS CURB
7 S301
PER ARCH
A
C
6"
VERIFY WITH ARCH
12"
8" MIN EMBED
(2) 3/4" DIA F1554 GR36 THREADED RODS w/ 3/8" PL x 2" x 2" BETWEEN DOUBLE NUT

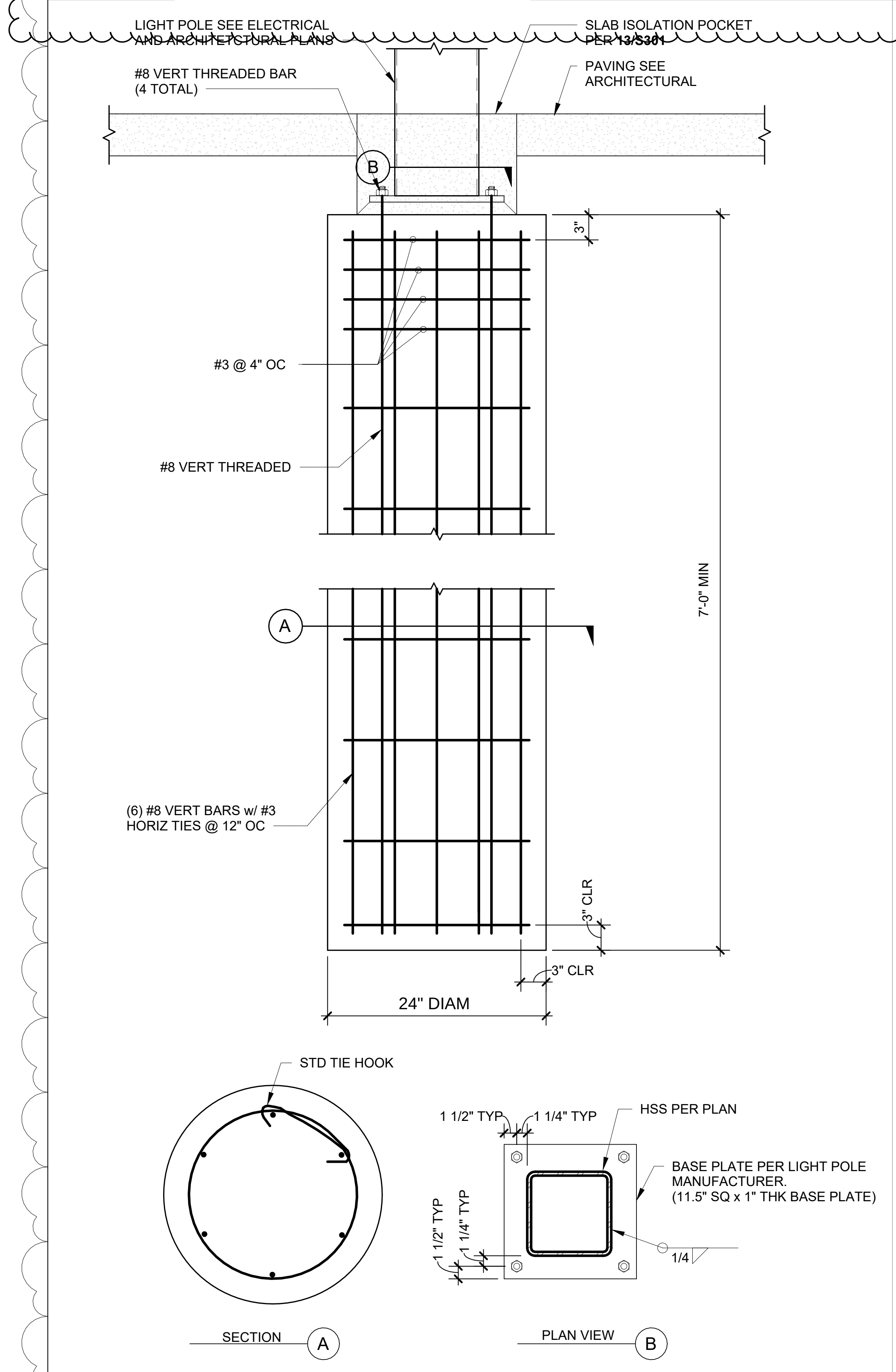
WING WALL DETAIL 6
SCALE: NTS



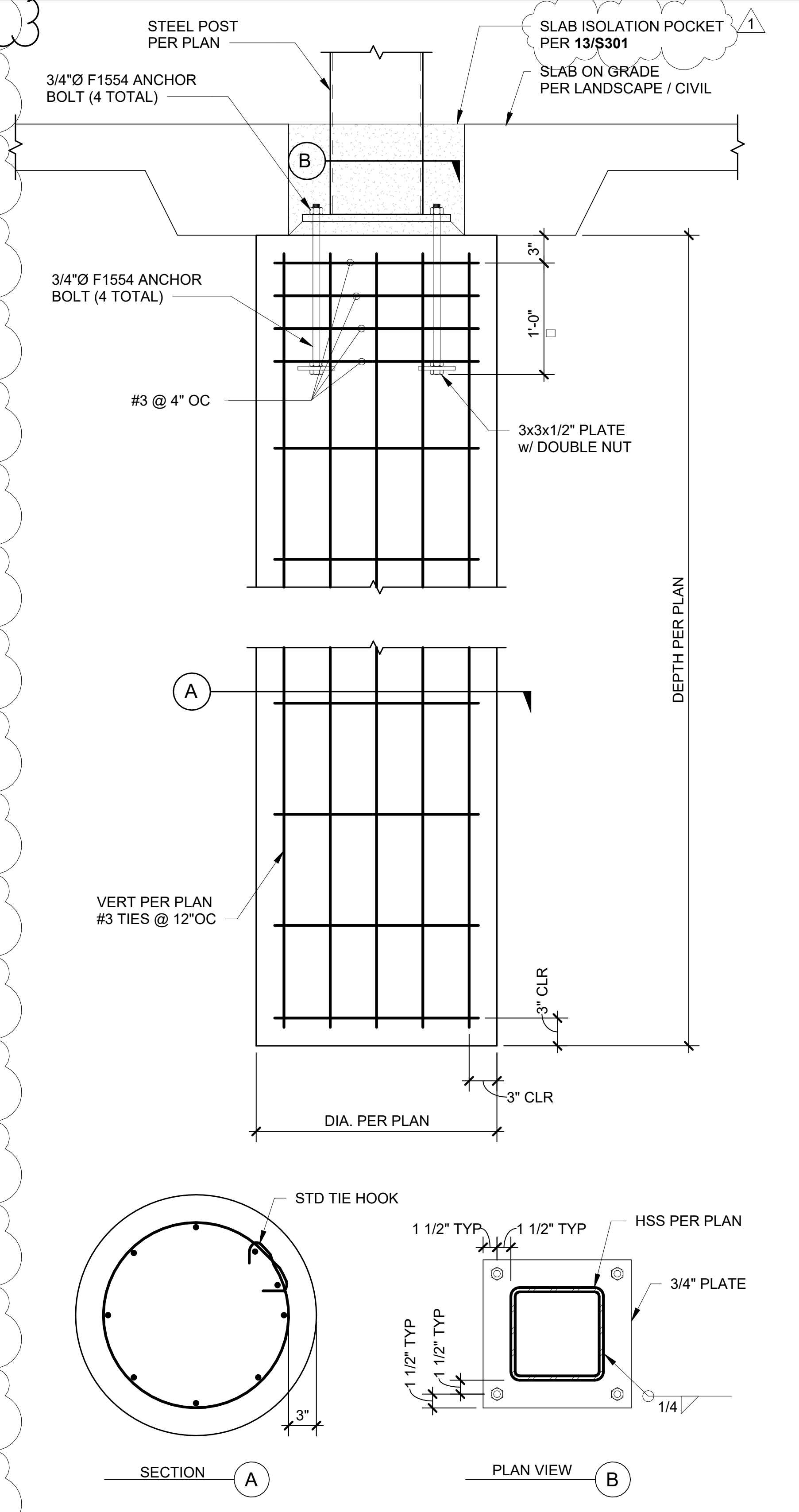
HSS COL TO SPREAD FOOTING/GRADE BEAM 1
SCALE: NTS


FOR INFO NOT SHOWN, SEE 7/S301
STUD WALL PER PLAN
(3) 10d EA SIDE
1/2" STRUCT w/ 10d @ 16" OC FN. EN.
1/2" STRUCT w/ 10d @ 16" OC FN. EN.
JOIST PER PLAN
1/2" STRUCT / PLYWOOD w/ 10d @ 12" OC FN. EN.
2x6 LEDGER
SHEAR PANEL WHERE OCCURS
2x6 LEDGER
2x SILL PLATE w/ AB PER SHEAR WALL SCHEDULE
2x6 @ 16" OC
(2) 10d IN STUDS EA STUD
CURB PER 11/S301
2x4 @ 16" OC
KEY JOINT PER 6/S302
EN
3'-0"
DOWELS TO MATCH SLAB REINFORCING
5 1/2"
2x SILL PL w/ A.B PER BEARING WALL SCHEDULE
6"
REINFORCEMENT PER PLAN
7" EMBED
1'-0"
OPTIONAL COLD JOINT
APPROVED FOUNDATION SOIL
DOWEL TO MATCH SLAB REINF ALT BEND
TOP REINF PER PLAN, (2) #5 UNO
OPT POUR JOINT
DEPTH PER PLAN
BOTT REINF PER PLAN, (2) #5 UNO
3" CLR TYP
3" CLR
WIDTH PER PLAN
3" CLR TYP
BOTT REINF, (2) #4 UNO

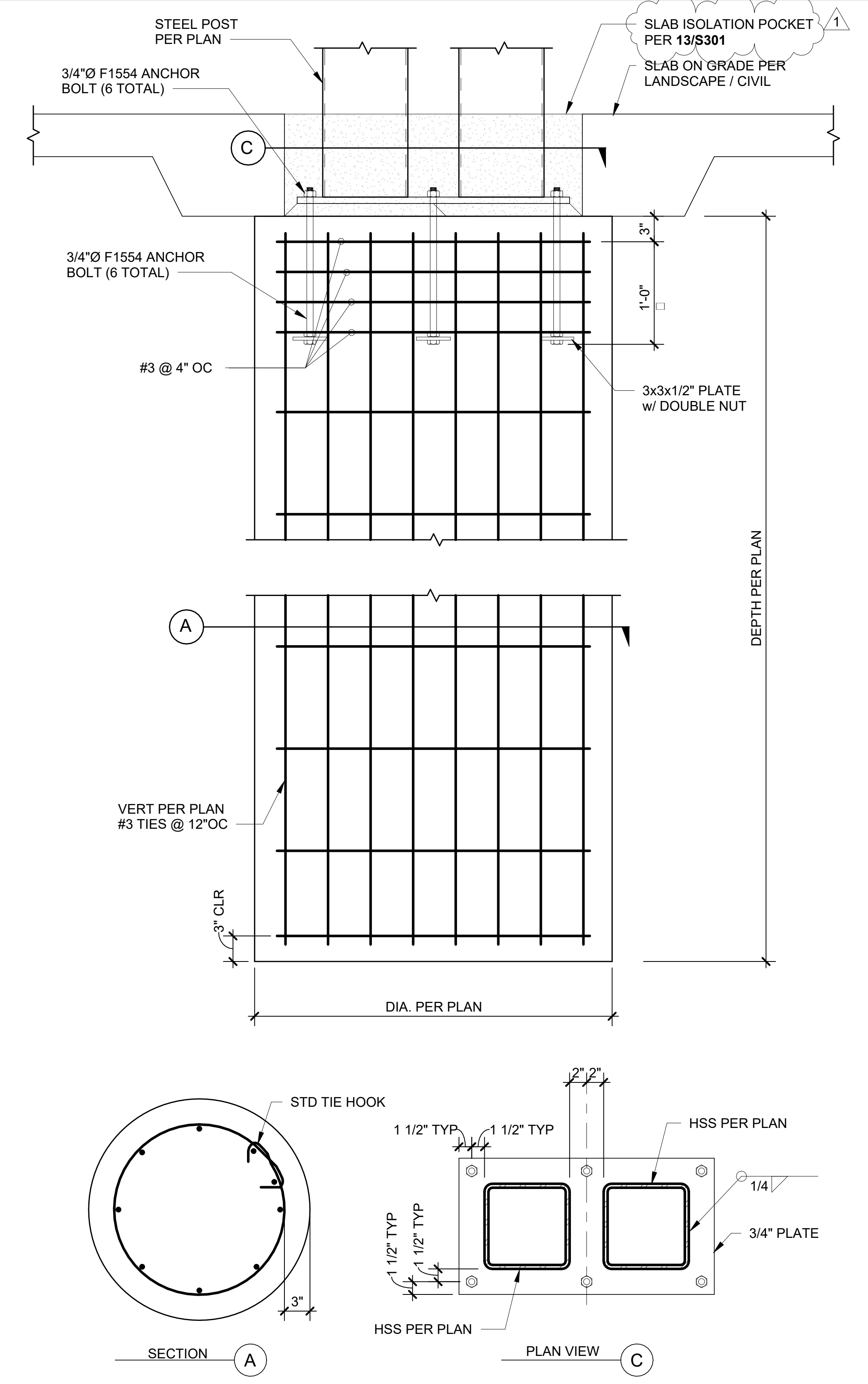
PLATFORM FRAMING 2
SCALE: NTS


LIGHT POLE SEE ELECTRICAL AND ARCHITETCTURAL PLANS
SLAB ISOLATION POCKET PER 13/S301
#8 VERT THREADED BAR (4 TOTAL)
PAVING SEE ARCHITECTURAL
B
3"
#3 @ 4" OC
#8 VERT THREADED
7'-0" MIN
A
(6) #8 VERT BARS w/ #3 HORIZ TIES @ 12" OC
3" CLR
3" CLR
24" DIAM
STD TIE HOOK
1 1/2" TYP
1 1/4" TYP
HSS PER PLAN
BASE PLATE PER LIGHT POLE MANUFACTURER. (11.5" SQ x 1" THK BASE PLATE)
1 1/2" TYP
1 1/4" TYP
1/4
SECTION A
PLAN VIEW B

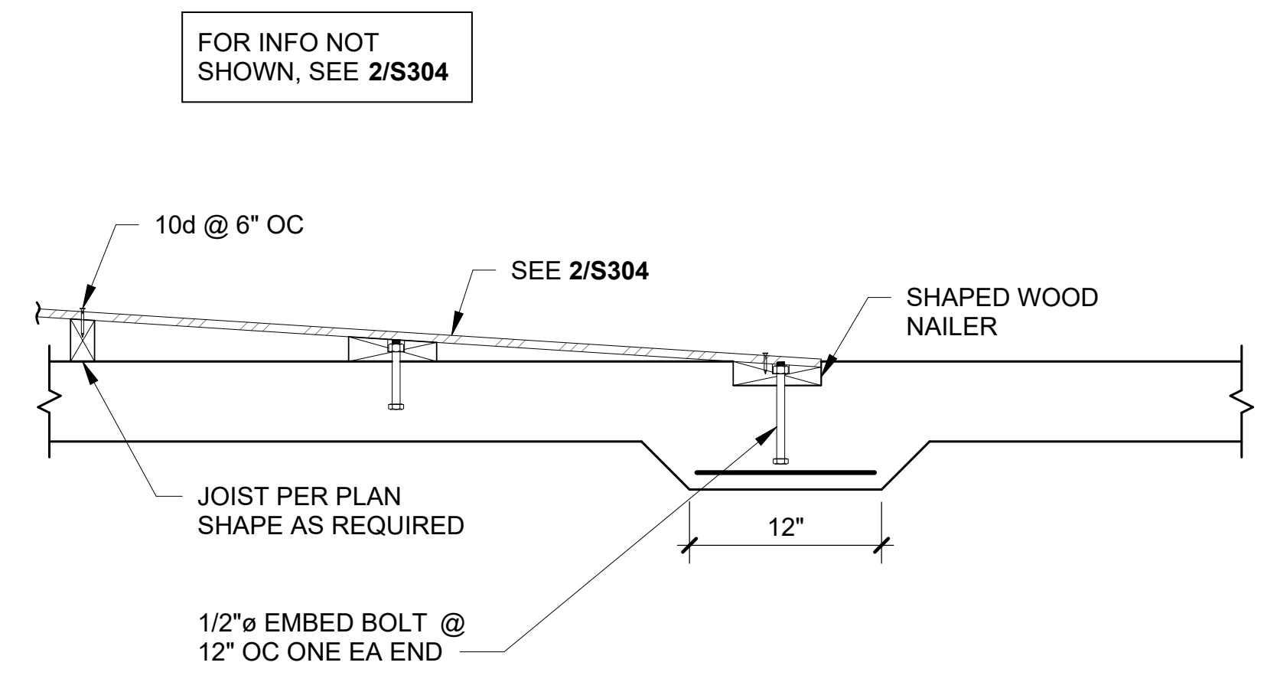
LIGHT POLE FOOTING 16
SCALE: NTS


STEEL POST PER PLAN
SLAB ISOLATION POCKET PER 13/S301
1
3/4"Ø F1554 ANCHOR BOLT (4 TOTAL)
SLAB ON GRADE PER LANDSCAPE / CIVIL
B
3"
3/4"Ø F1554 ANCHOR BOLT (4 TOTAL)
1'-0"
#3 @ 4" OC
3x3x1/2" PLATE w/ DOUBLE NUT
DEPTH PER PLAN
A
VERT PER PLAN #3 TIES @ 12"OC
3" CLR
3" CLR
DIA. PER PLAN
STD TIE HOOK
1 1/2" TYP
1 1/2" TYP
HSS PER PLAN
3/4" PLATE
1 1/2" TYP
1 1/2" TYP
1/4
3"
SECTION A
PLAN VIEW B

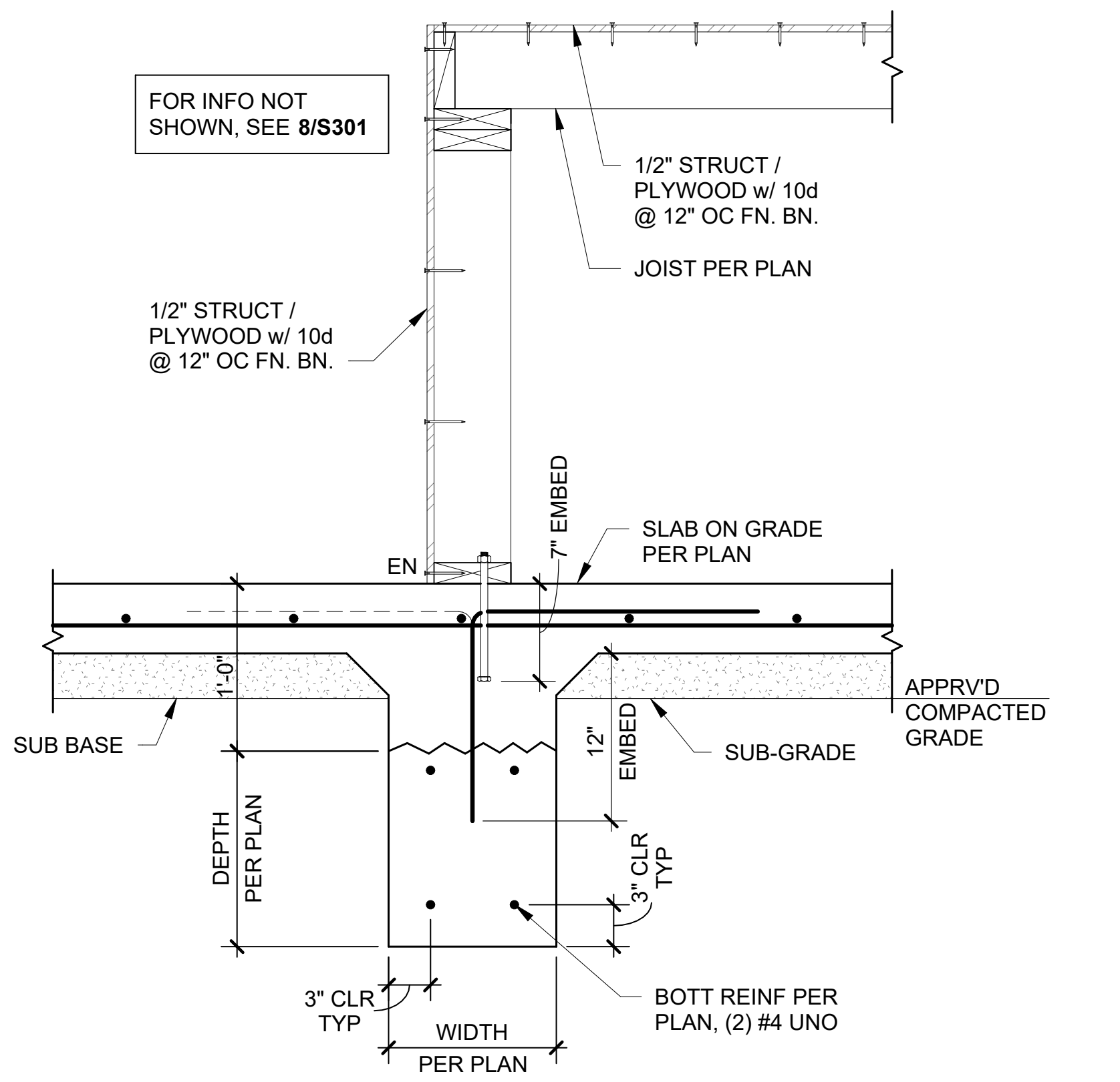
POLE FOOTING 12
SCALE: NTS


STEEL POST PER PLAN
SLAB ISOLATION POCKET PER 13/S301
1
3/4"Ø F1554 ANCHOR BOLT (6 TOTAL)
SLAB ON GRADE PER LANDSCAPE / CIVIL
C
3"
3/4"Ø F1554 ANCHOR BOLT (6 TOTAL)
1'-0"
#3 @ 4" OC
3x3x1/2" PLATE w/ DOUBLE NUT
DEPTH PER PLAN
A
VERT PER PLAN #3 TIES @ 12"OC
3" CLR
DIA. PER PLAN
STD TIE HOOK
1 1/2" TYP
1 1/2" TYP
HSS PER PLAN
3/4" PLATE
1 1/2" TYP
1 1/2" TYP
1/4
HSS PER PLAN
SECTION A
PLAN VIEW C

POLE FOOTING 8
SCALE: NTS


FOR INFO NOT SHOWN, SEE 2/S304
10d @ 6" OC
SEE 2/S304
SHAPED WOOD NAILER
JOIST PER PLAN SHAPE AS REQUIRED
12"
1/2"ø EMBED BOLT @ 12" OC ONE EA END

DETAIL 3
SCALE: NTS


FOR INFO NOT SHOWN, SEE 8/S301
1/2" STRUCT / PLYWOOD w/ 10d @ 12" OC FN. BN.
JOIST PER PLAN
1/2" STRUCT / PLYWOOD w/ 10d @ 12" OC FN. BN.
7" EMBED
EN
SLAB ON GRADE PER PLAN
1'-0"
SUB BASE
12" EMBED
APPRV'D COMPACTED GRADE
SUB-GRADE
DEPTH PER PLAN
3" CLR TYP
3" CLR TYP
WIDTH PER PLAN
BOTT REINF PER PLAN, (2) #4 UNO

PLATFORM DETAIL 4
SCALE: NTS

PETRA
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PETER SARKIS
No. 5938
Exp. 6/30/27

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

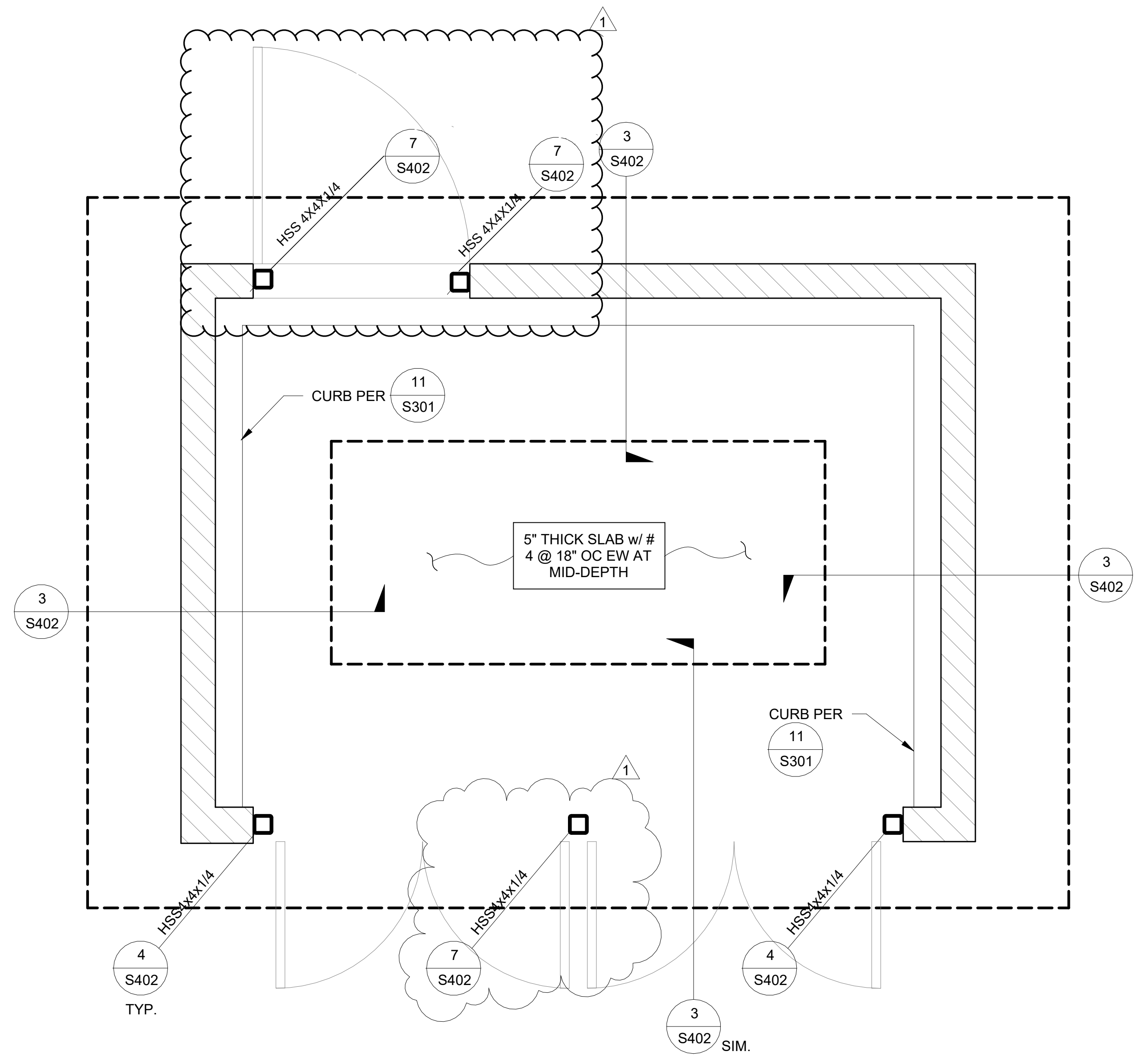
JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

CONCRETE FOOTING DETAILS

PERKINS
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

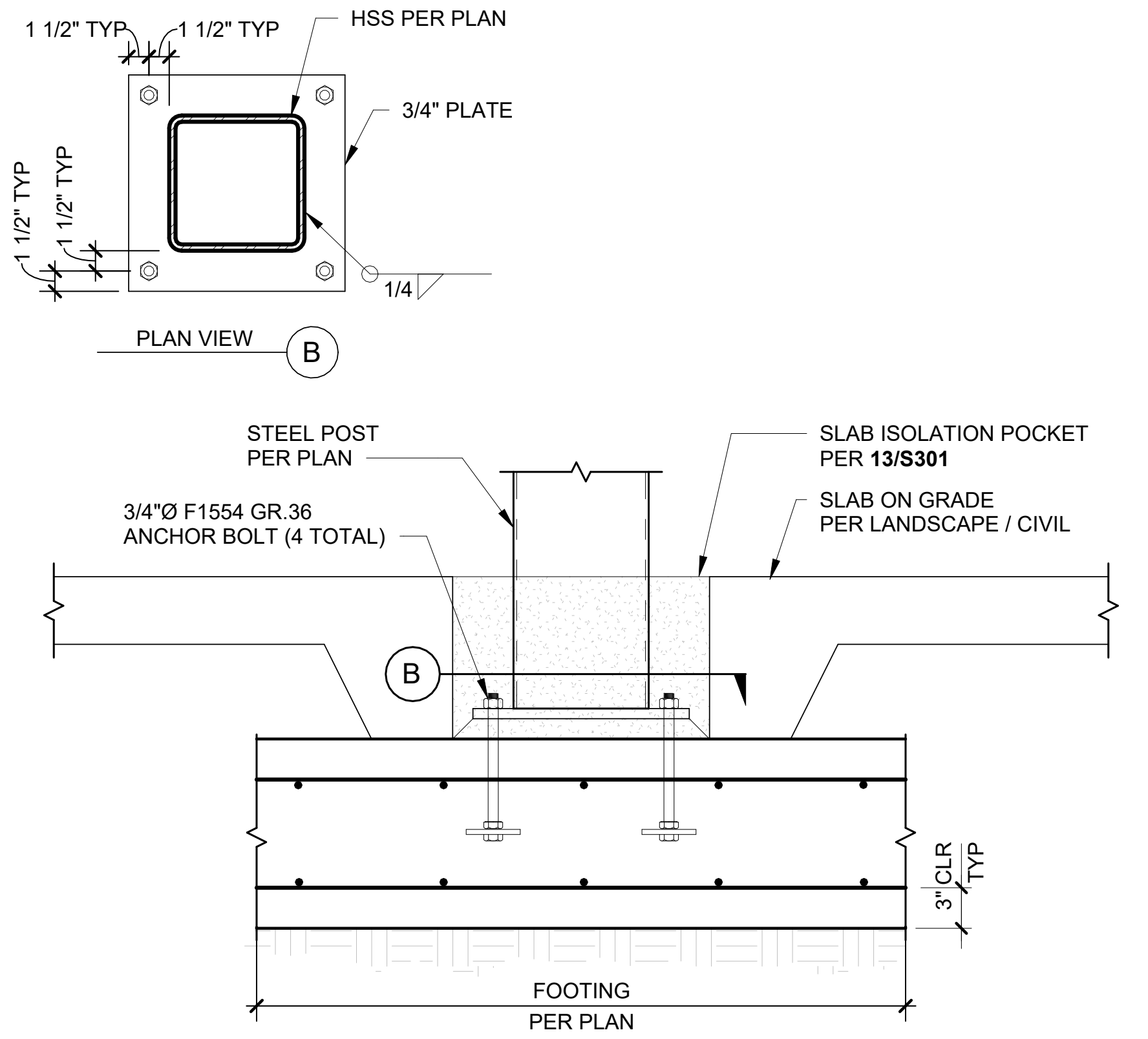
S303



TRASH ENCLOSURE FOUNDATION PLAN

1/2" = 1'-0"

2

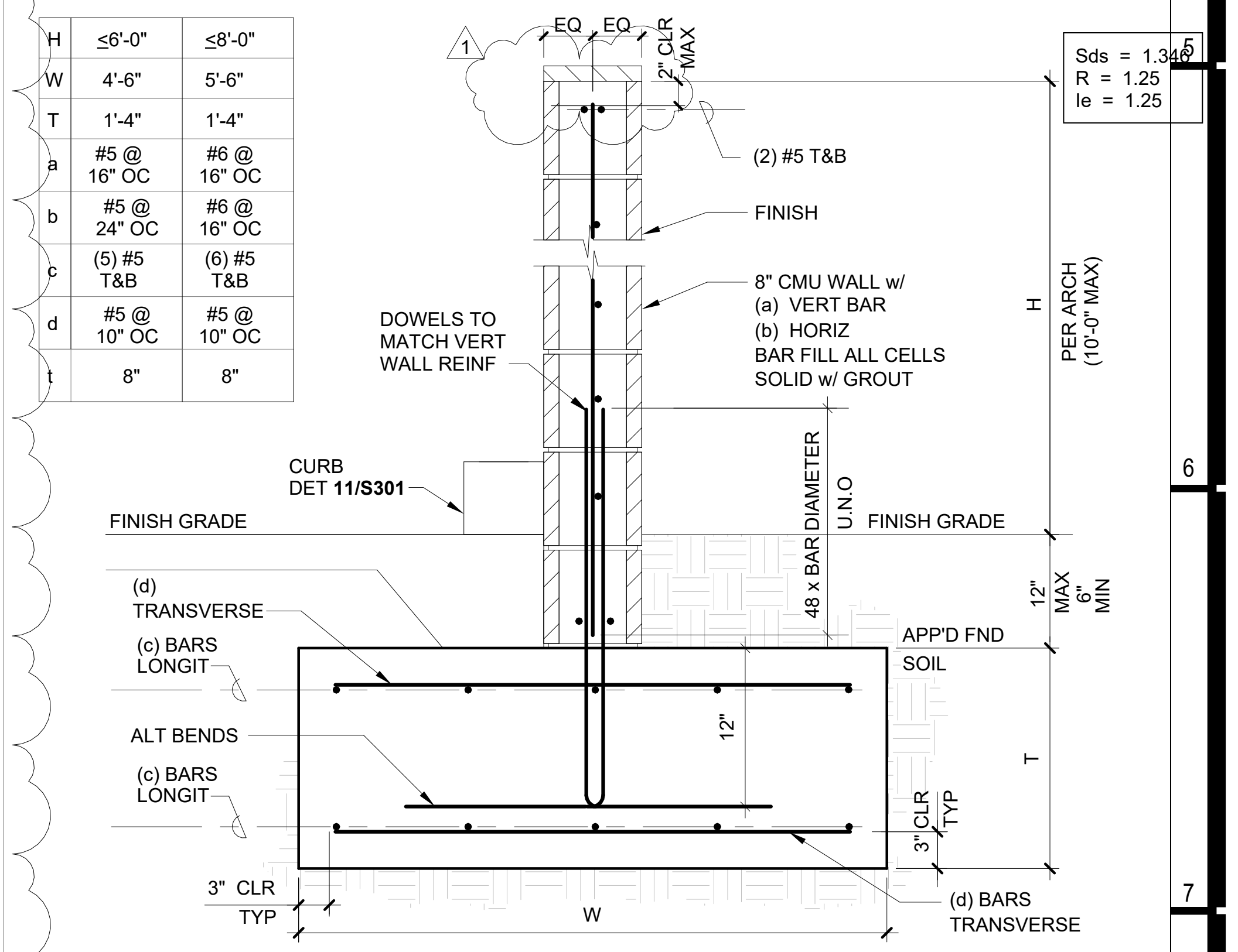


GATE POST

SCALE: NTS

7

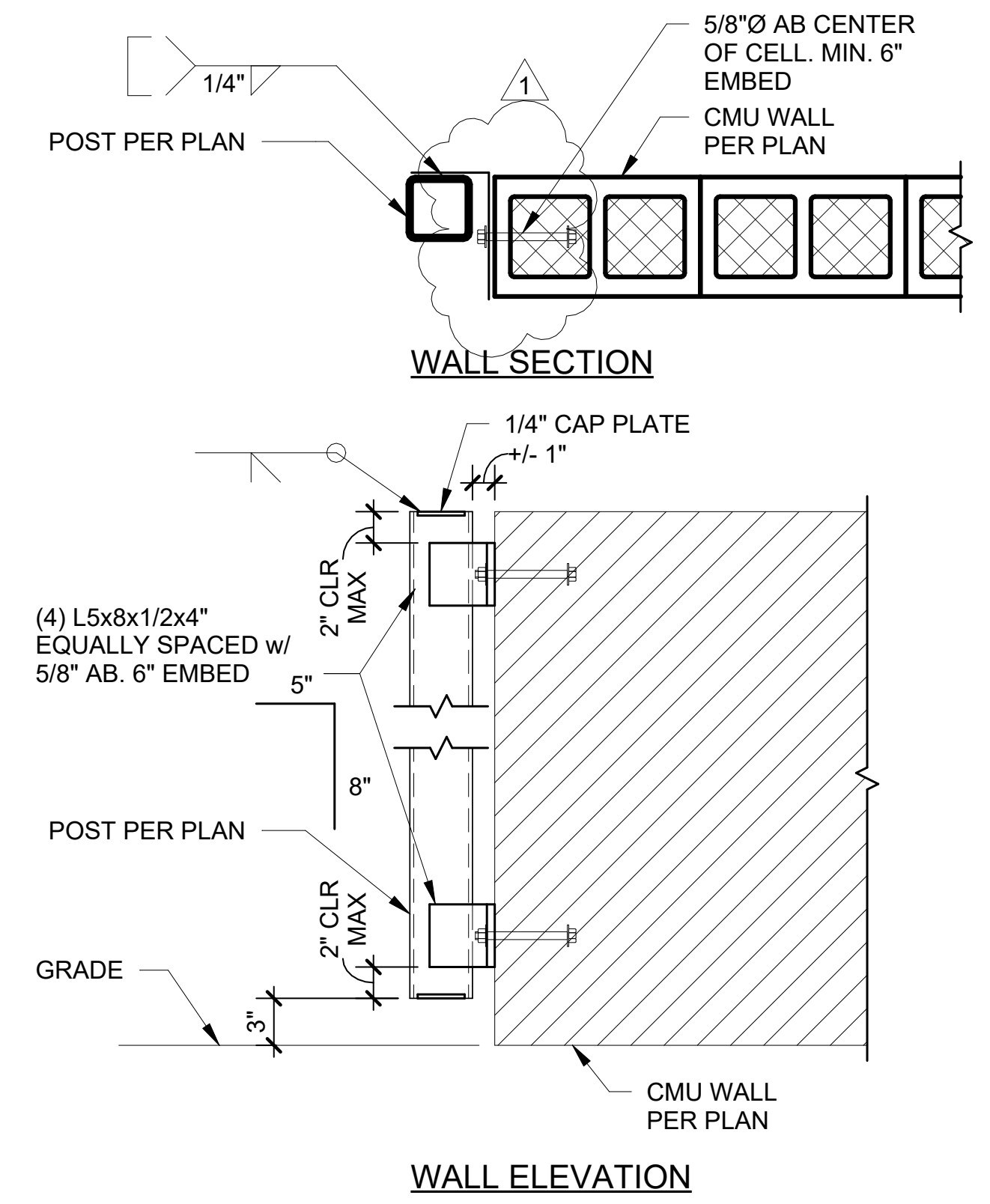
H	≤6'-0"	≤8'-0"
W	4'-6"	5'-6"
T	1'-4"	1'-4"
a	#5 @ 16" OC	#6 @ 16" OC
b	#5 @ 24" OC	#6 @ 16" OC
c	(5) #5 T&B	(6) #5 T&B
d	#5 @ 10" OC	#5 @ 10" OC
t	8"	8"



TYP CATILEVERED CMU WALL

SCALE: NTS

3



COLUMN TO CMU WALL

SCALE: NTS

4

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REGISTERED PROFESSIONAL ENGINEER
PETER SARKIS
No. 5038
Exp. 6/30/27
STRUCTURAL
STATE OF CALIFORNIA

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

TRASH ENCLOSURE

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
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S402

Plot Date: 5/13/2026 10:19:25 AM

Project #: 2026-056 R24

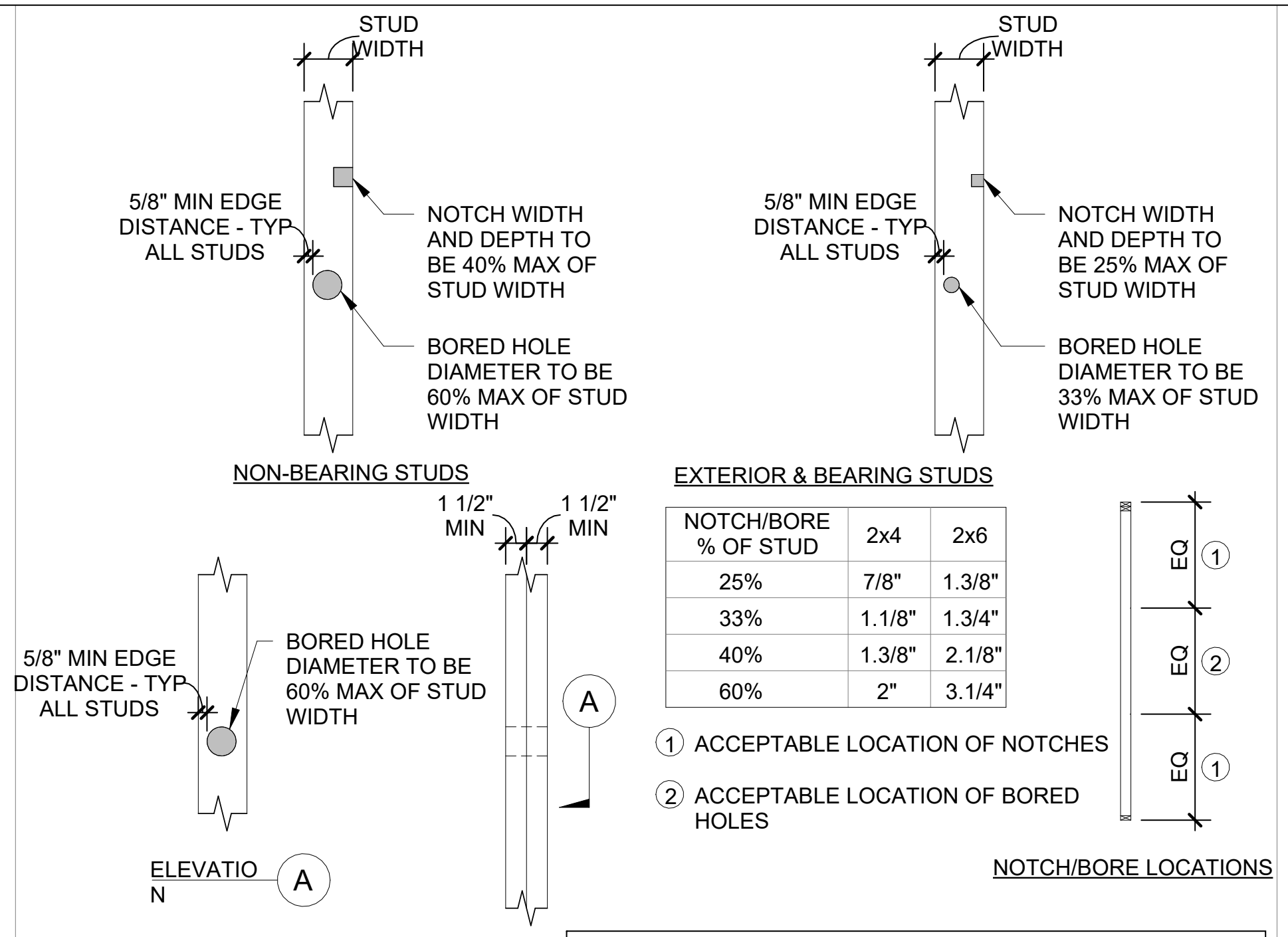
CONNECTION	MINIMUM NAILING
JOIST/TRUSS TO SILL OR GIRDER, TOE NAIL	(3) 8d OR (3) 3"x0.131"
BRIDGING TO JOIST, TOE NAIL EACH END	(2) 8d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL (OR PER SHEAR WALL SCHEDULE)	16d @ 16" OC OR 3"x0.131" @ 8" OC
TOP PLATE TO STUD, END NAIL	(2) 16d OC OR (3) 3"x0.131"
STUD TO SOLE PLATE, TOE NAIL OR STUD TO SOLE PLATE, END NAIL	(4) 8d OR (2) 16d
DOUBLE STUDS, FACE NAIL	16d @ 24" OC
DOUBLE TOP PLATES, FACE NAIL DOUBLE TOP PLATES, LAP SPLICE	16d @ 16" OC OR 3"x0.131" @ 12" OC SEE DETAILS
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	(3) 8d OR (3) 3"x0.131"
RIM JOIST TO TOP PLATE, TOE NAIL	8d @ 6" OC OR 3"x0.131" @ 6" OC
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	(3) 16d OR (3) 3"x0.131"
CONTINUOUS HEADER, TWO PIECES, ALONG EDGE	16d @ 16" OC
CEILING JOISTS TO PLATE, TOE NAIL	(3) 8d OR (5) 3"x0.131"
CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	(3) 16d OR (4) 3"x0.131"
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	(3) 16d OR (4) 3"x0.131"
RAFTER/TRUSS TO PLATE, TOE NAIL	(3) 8d OR (3) 3"x0.131"
1" DIAGONAL BRACE TO EACH STUD AND PLATE, FACE NAIL	(2) 8d OR (2) 3"x0.131"
BUILT-UP CORNER STUDS	16d @ 24" OC OR 3"x0.131" @ 16" OC

NOTE:
SEE CBC TABLE 2304.10.1 FOR INFORMATION NOT SHOWN.

TYPICAL NAILING SCHEDULE

1" = 1'-0"

13


STUD WIDTH
5/8" MIN EDGE DISTANCE - TYP ALL STUDS
NOTCH WIDTH AND DEPTH TO BE 40% MAX OF STUD WIDTH
BORED HOLE DIAMETER TO BE 60% MAX OF STUD WIDTH
NON-BEARING STUDS
STUD WIDTH
5/8" MIN EDGE DISTANCE - TYP ALL STUDS
NOTCH WIDTH AND DEPTH TO BE 25% MAX OF STUD WIDTH
BORED HOLE DIAMETER TO BE 33% MAX OF STUD WIDTH
EXTERIOR & BEARING STUDS
1 1/2" MIN
1 1/2" MIN
5/8" MIN EDGE DISTANCE - TYP ALL STUDS
BORED HOLE DIAMETER TO BE 60% MAX OF STUD WIDTH
A
ELEVATION
A
DOUBLE BEARING STUDS
(SEE NOTE 3)
EQ ①
EQ ②
EQ ①
NOTCH/BORE LOCATIONS

NOTCH/BORE % OF STUD	2x4	2x6
25%	7/8"	1.3/8"
33%	1.1/8"	1.3/4"
40%	1.3/8"	2.1/8"
60%	2"	3.1/4"

① ACCEPTABLE LOCATION OF NOTCHES

② ACCEPTABLE LOCATION OF BORED HOLES

NOTES:
1. NOTCHING AND BORING NOT TO OCCUR IN SAME STUD.
2. DO NOT OVERCUT NOTCHES OR BORED HOLES.
3. NO MORE THAN 2 SUCCESSIVE DOUBLE STUDS MAY HAVE 60% 60 MAX BORED HOLES.

TYPICAL STUD NOTCH/BORE

1" = 1'-0"

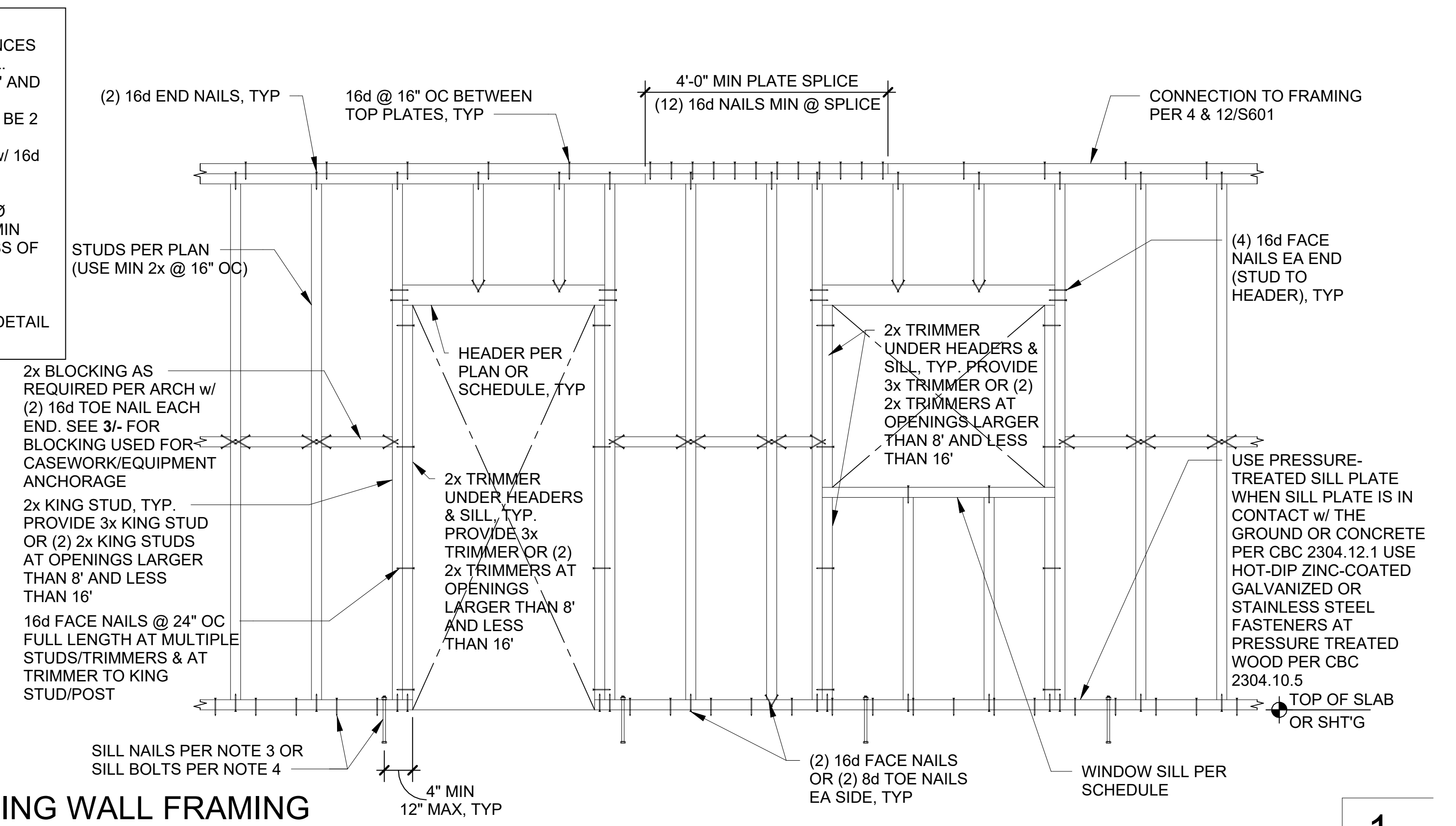
9

NOTE:
1. HEADERS, KING STUDS, AND OTHER REFERENCES ON PLAN GOVERN OVER THIS TYPICAL DETAIL.
2. INSTALL 1x6 DIAGONAL LET-IN BRACE AT 25'-0" AND AT EACH END IN ALL WALLS NOT SHEATHED, MAXIMUM SLOPE OF DIAGONAL BRACE SHALL BE 2 VERTICAL TO 1 HORIZONTAL.
3. NAIL SILL PLATE TO WOOD FRAMED FLOORS w/ 16d @ 8" OC TO JOIST OR BLOCKING BELOW SHEATHING. SEE DETAIL **3/S621**.
4. BOLT SILL PLATE TO CONCRETE SLAB w/ 5/8" Ø HEADED ANCHOR RODS @ 48" OC MAX, w/ 7" MIN EMBED INTO SLAB (NOT INCLUDING THICKNESS OF CURB WHERE OCCURS).
5. REFER TO DETAIL **2/S601** FOR BEARING AND EXTERIOR WALLS. FOR MINIMUM NAILING REQUIREMENTS, SEE CBC TABLE 2304.10.1 & DETAIL **13/S601**.

HEADER & SILL SCHEDULE

(SEE NOTE 1)

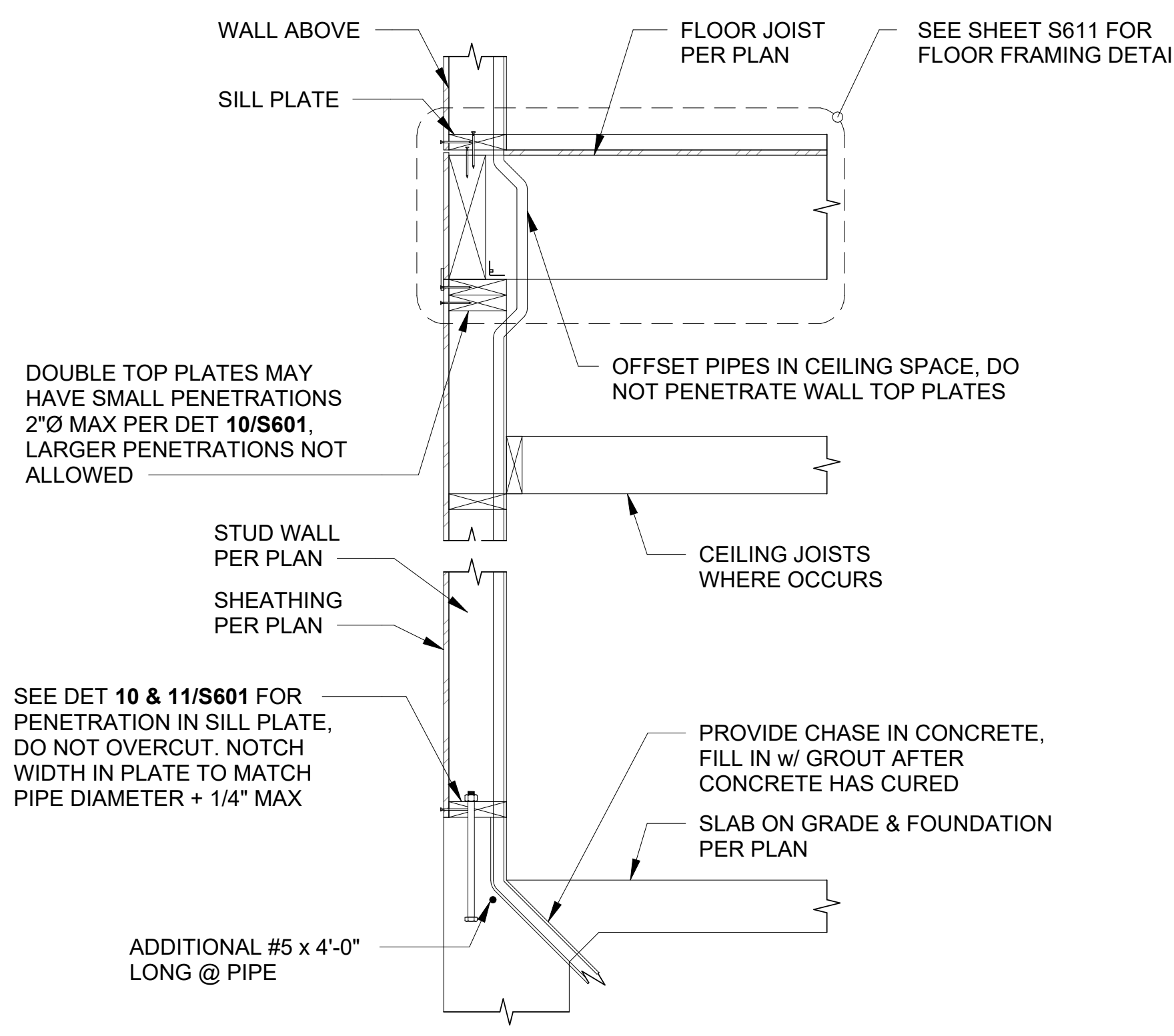
OPENING WIDTH	HEADER 4x FRAMING	HEADER 6x FRAMING	WINDOWS SILL WHERE OCCURS
UP TO 4'-0"	4x4	6x4 FLAT	2x
4'-1" TO 6'-0"	4x6	6x6	(2) 2x
6'-1" TO 8'-0"	4x8	6x8	(2) 2x
8'-1" TO 10'-0"	4x10	6x10	(3) 2x
10'-1" & UP	SEE PLANS		


(2) 16d END NAILS, TYP
16d @ 16" OC BETWEEN TOP PLATES, TYP
4'-0" MIN PLATE SPLICE
(12) 16d NAILS MIN @ SPLICE
CONNECTION TO FRAMING PER 4 & 12/S601
STUDS PER PLAN (USE MIN 2x @ 16" OC)
(4) 16d FACE NAILS EA END (STUD TO HEADER), TYP
HEADER PER PLAN OR SCHEDULE, TYP
2x TRIMMER UNDER HEADERS & SILL, TYP. PROVIDE 3x TRIMMER OR (2) 2x TRIMMERS AT OPENINGS LARGER THAN 8' AND LESS THAN 16'
2x BLOCKING AS REQUIRED PER ARCH w/ (2) 16d TOE NAIL EACH END. SEE 3/- FOR BLOCKING USED FOR CASEWORK/EQUIPMENT ANCHORAGE
2x KING STUD, TYP. PROVIDE 3x KING STUD OR (2) 2x KING STUDS AT OPENINGS LARGER THAN 8' AND LESS THAN 16'
2x TRIMMER UNDER HEADERS & SILL, TYP. PROVIDE 3x TRIMMER OR (2) 2x TRIMMERS AT OPENINGS LARGER THAN 8' AND LESS THAN 16'
16d FACE NAILS @ 24" OC FULL LENGTH AT MULTIPLE STUDS/TRIMMERS & AT TRIMMER TO KING STUD/POST
USE PRESSURE-TREATED SILL PLATE WHEN SILL PLATE IS IN CONTACT w/ THE GROUND OR CONCRETE PER CBC 2304.12.1 USE HOT-DIP ZINC-COATED GALVANIZED OR STAINLESS STEEL FASTENERS AT PRESSURE TREATED WOOD PER CBC 2304.10.5
TOP OF SLAB OR SHT'G
SILL NAILS PER NOTE 3 OR SILL BOLTS PER NOTE 4
4" MIN 12" MAX, TYP
(2) 16d FACE NAILS OR (2) 8d TOE NAILS EA SIDE, TYP
WINDOW SILL PER SCHEDULE

TYPICAL NON-BEARING WALL FRAMING

SCALE: NTS

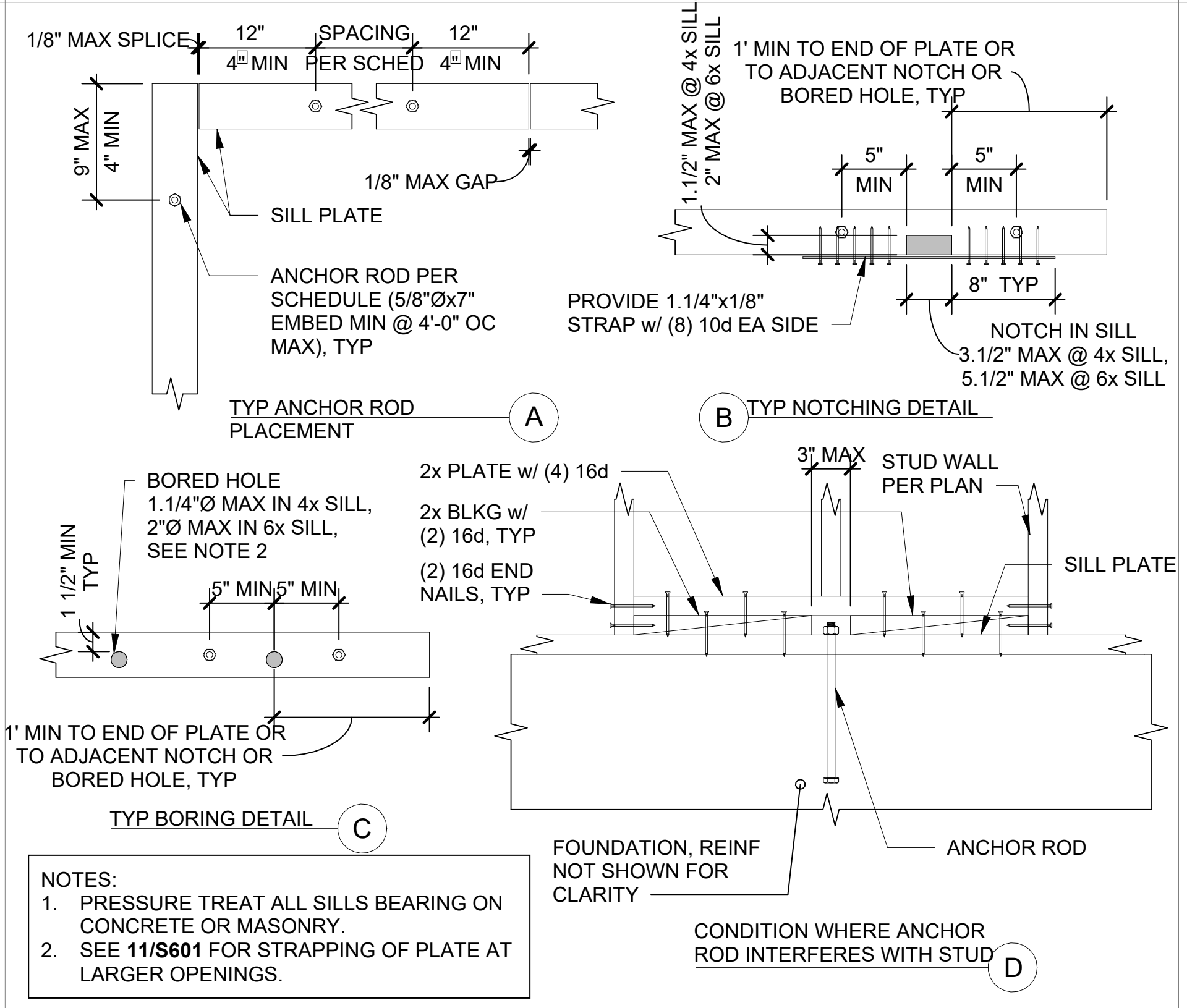
1


WALL ABOVE
SILL PLATE
FLOOR JOIST PER PLAN
SEE SHEET S611 FOR FLOOR FRAMING DETAILS
DOUBLE TOP PLATES MAY HAVE SMALL PENETRATIONS 2"Ø MAX PER DET 10/S601, LARGER PENETRATIONS NOT ALLOWED
OFFSET PIPES IN CEILING SPACE, DO NOT PENETRATE WALL TOP PLATES
STUD WALL PER PLAN
SHEATHING PER PLAN
CEILING JOISTS WHERE OCCURS
SEE DET 10 & 11/S601 FOR PENETRATION IN SILL PLATE, DO NOT OVERCUT. NOTCH WIDTH IN PLATE TO MATCH PIPE DIAMETER + 1/4" MAX
PROVIDE CHASE IN CONCRETE, FILL IN w/ GROUT AFTER CONCRETE HAS CURED
SLAB ON GRADE & FOUNDATION PER PLAN
ADDITIONAL #5 x 4'-0" LONG @ PIPE

TYPICAL PIPE IN WOOD WALL

3/4" = 1'-0"

14


1/8" MAX SPLICE
12"
4" MIN
SPACING PER SCHED
12"
4" MIN
9" MAX
4" MIN
1/8" MAX GAP
SILL PLATE
ANCHOR ROD PER SCHEDULE (5/8"Øx7" EMBED MIN @ 4'-0" OC MAX), TYP
TYP ANCHOR ROD PLACEMENT
A
1.1/2" MAX @ 4x SILL, 2" MAX @ 6x SILL
1' MIN TO END OF PLATE OR TO ADJACENT NOTCH OR BORED HOLE, TYP
5" MIN
5" MIN
PROVIDE 1.1/4"x1/8" STRAP w/ (8) 10d EA SIDE
8" TYP
NOTCH IN SILL 3.1/2" MAX @ 4x SILL, 5.1/2" MAX @ 6x SILL
B
TYP NOTCHING DETAIL
BORED HOLE 1.1/4"Ø MAX IN 4x SILL, 2"Ø MAX IN 6x SILL, SEE NOTE 2
1 1/2" MIN TYP
5" MIN
5" MIN
1' MIN TO END OF PLATE OR TO ADJACENT NOTCH OR BORED HOLE, TYP
TYP BORING DETAIL
C
2x PLATE w/ (4) 16d
2x BLKG w/ (2) 16d, TYP
(2) 16d END NAILS, TYP
3" MAX
STUD WALL PER PLAN
SILL PLATE
FOUNDATION, REINF NOT SHOWN FOR CLARITY
ANCHOR ROD
CONDITION WHERE ANCHOR ROD INTERFERES WITH STUD
D

NOTES:
1. PRESSURE TREAT ALL SILLS BEARING ON CONCRETE OR MASONRY.
2. SEE **11/S601** FOR STRAPPING OF PLATE AT LARGER OPENINGS.

TYPICAL SILL PLATE DETAILS

1" = 1'-0"

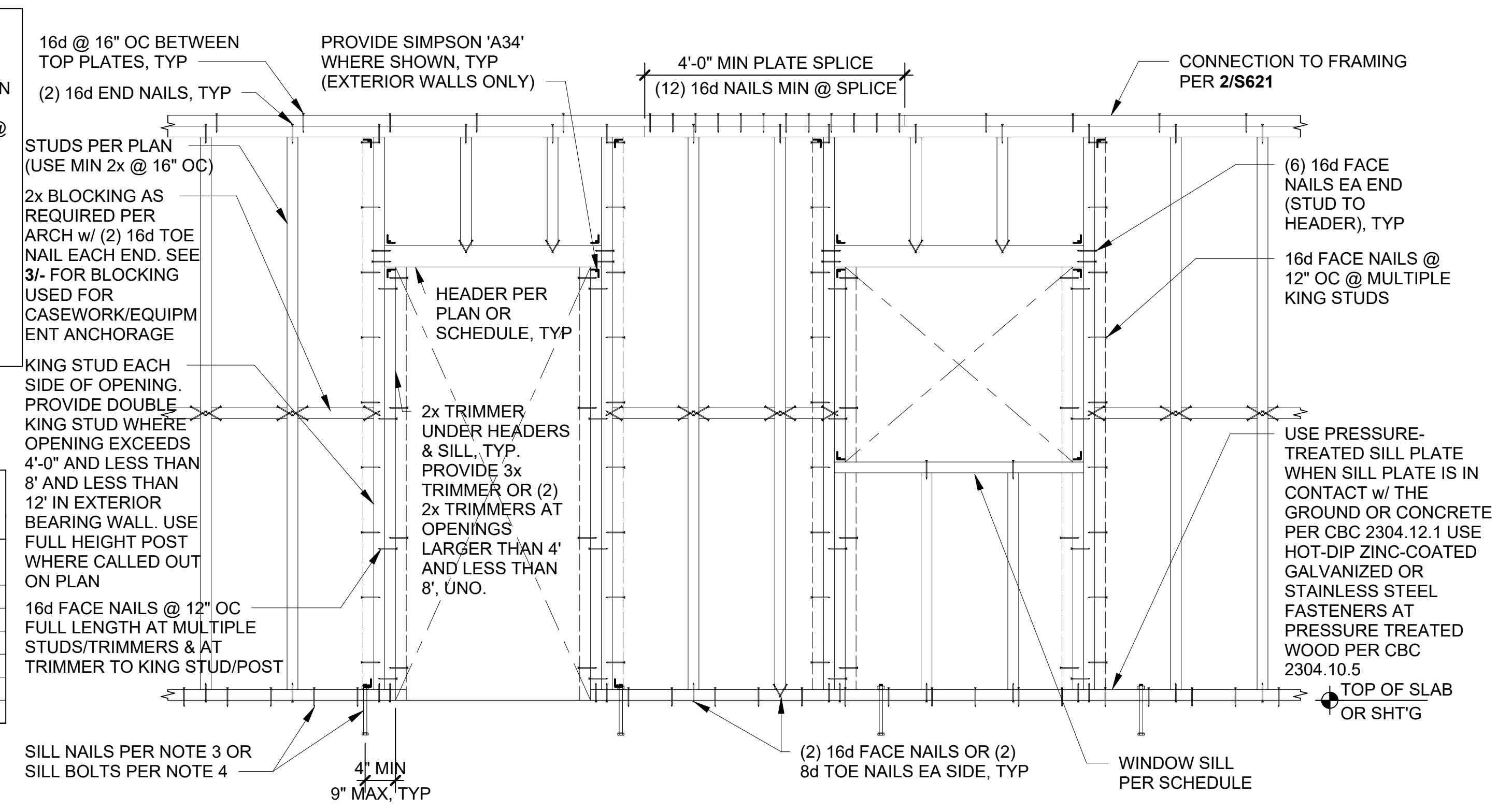
10

NOTE:
1. HEADERS, KING STUDS, AND OTHER REFERENCES ON PLAN GOVERN OVER THIS TYPICAL DETAIL.
2. REFER TO **7/S601** FOR TYPICAL HEADER CONNECTION FOR OPENINGS GREATER THAN 8' WIDE.
3. NAIL SILL PLATE TO WOOD FRAMED FLOORS w/ 16d @ 8" OC TO JOIST OR BLOCKING BELOW SHEATHING. SEE DETAIL **3/S621**.
4. BOLT SILL PLATE TO CONCRETE SLAB w/ 5/8" Ø HEADED ANCHOR RODS @ 48" OC MAX, w/ 7" MIN EMBED INTO SLAB (NOT INCLUDING THICKNESS OF CURB WHERE OCCURS).
5. REFER TO DETAIL **1/S601** FOR NON-BEARING WALLS.
6. FOR MINIMUM NAILING REQUIREMENTS, SEE CBC TABLE 2304.10.1 & DETAIL **13/S601**.
7. REFER TO DETAIL **2/S621** FOR SHEAR WALLS.

HEADER & SILL SCHEDULE

(SEE NOTE 1)

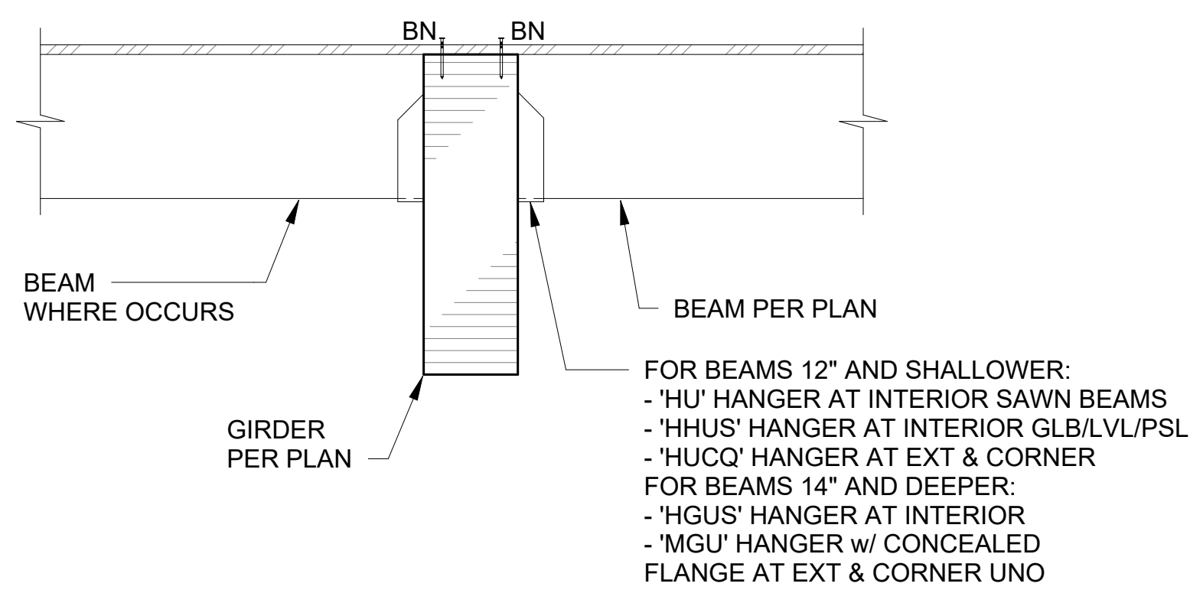
OPENING WIDTH	HDR @ EXT BEARING WALL (MAX GRAVITY LOAD = 0.45 klf)		SILL	
	4x WALL	6x WALL	4x WALL	6x WALL
UP TO 4'-0"	4x6	6x6	(2) 2x	2x
4'-1" TO 6'-0"	4x8	6x8	(3) 2x	(2) 2x
6'-1" TO 8'-0"	4x10	6x10	4x6	(2) 2x
8'-1" TO 10'-0"	4x14	6x12	4x8	(3) 2x
10'-1" & UP	SEE PLANS			


16d @ 16" OC BETWEEN TOP PLATES, TYP
(2) 16d END NAILS, TYP
PROVIDE SIMPSON 'A34' WHERE SHOWN, TYP (EXTERIOR WALLS ONLY)
4'-0" MIN PLATE SPLICE
(12) 16d NAILS MIN @ SPLICE
CONNECTION TO FRAMING PER 2/S621
STUDS PER PLAN (USE MIN 2x @ 16" OC)
(6) 16d FACE NAILS EA END (STUD TO HEADER), TYP
2x BLOCKING AS REQUIRED PER ARCH w/ (2) 16d TOE NAIL EACH END. SEE 3/- FOR BLOCKING USED FOR CASEWORK/EQUIPMENT ANCHORAGE
HEADER PER PLAN OR SCHEDULE, TYP
16d FACE NAILS @ 12" OC @ MULTIPLE KING STUDS
KING STUD EACH SIDE OF OPENING. PROVIDE DOUBLE KING STUD WHERE OPENING EXCEEDS 4'-0" AND LESS THAN 8' AND LESS THAN 12' IN EXTERIOR BEARING WALL. USE FULL HEIGHT POST WHERE CALLED OUT ON PLAN
2x TRIMMER UNDER HEADERS & SILL, TYP. PROVIDE 3x TRIMMER OR (2) 2x TRIMMERS AT OPENINGS LARGER THAN 4' AND LESS THAN 8', UNO.
USE PRESSURE-TREATED SILL PLATE WHEN SILL PLATE IS IN CONTACT w/ THE GROUND OR CONCRETE PER CBC 2304.12.1 USE HOT-DIP ZINC-COATED GALVANIZED OR STAINLESS STEEL FASTENERS AT PRESSURE TREATED WOOD PER CBC 2304.10.5
16d FACE NAILS @ 12" OC FULL LENGTH AT MULTIPLE STUDS/TRIMMERS & AT TRIMMER TO KING STUD/POST
TOP OF SLAB OR SHT'G
SILL NAILS PER NOTE 3 OR SILL BOLTS PER NOTE 4
4" MIN 9" MAX, TYP
(2) 16d FACE NAILS OR (2) 8d TOE NAILS EA SIDE, TYP
WINDOW SILL PER SCHEDULE

TYPICAL BEARING & EXTERIOR WALL FRAMING

SCALE: NTS

2

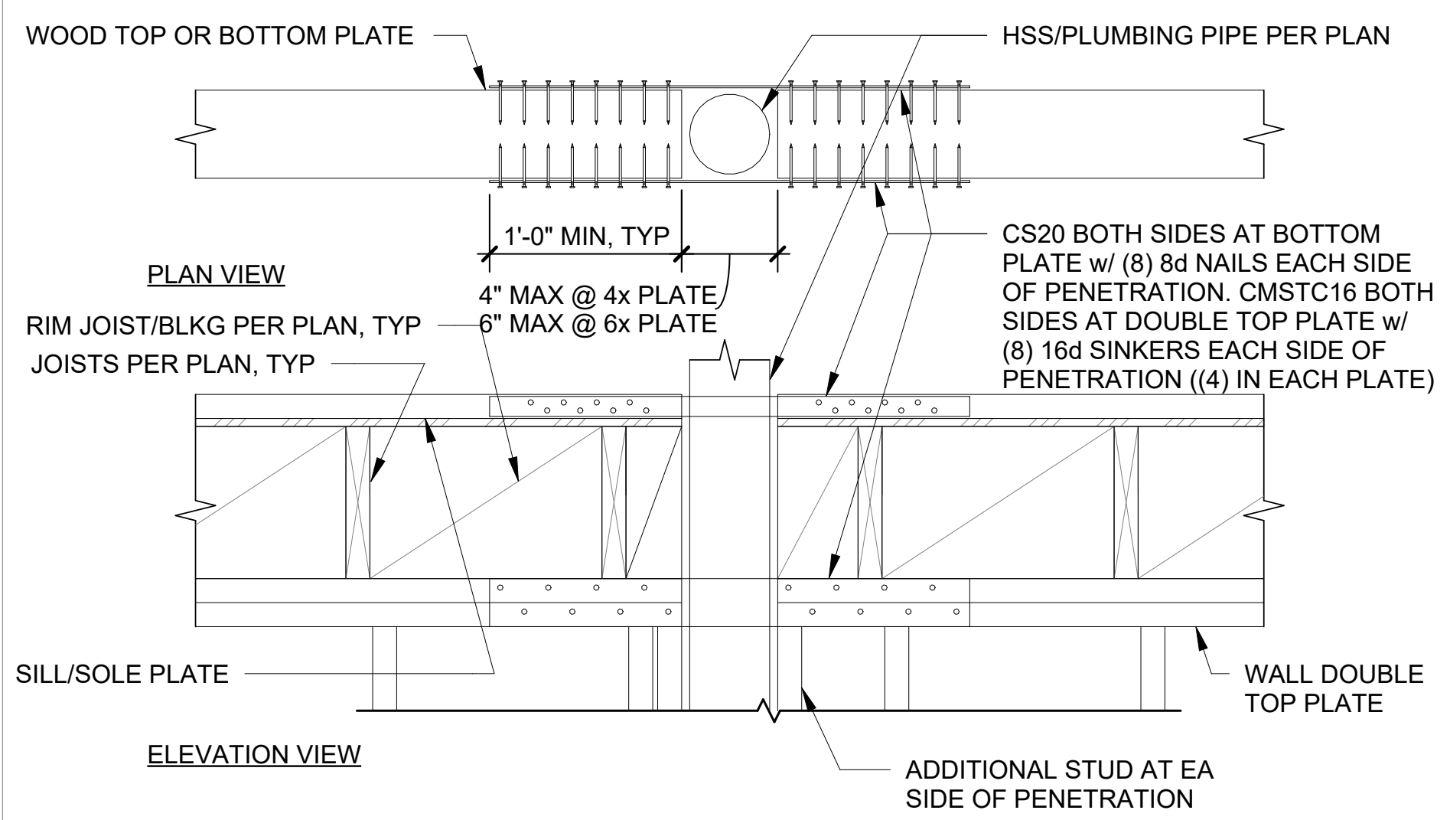

BN
BN
BEAM WHERE OCCURS
BEAM PER PLAN
GIRDER PER PLAN
FOR BEAMS 12" AND SHALLOWER:
- 'HU' HANGER AT INTERIOR SAWN BEAMS
- 'HHUS' HANGER AT INTERIOR GLB/LVL/PSL
- 'HUCQ' HANGER AT EXT & CORNER
FOR BEAMS 14" AND DEEPER:
- 'HGUS' HANGER AT INTERIOR
- 'MGU' HANGER w/ CONCEALED FLANGE AT EXT & CORNER UNO

TYPICAL BEAM TO BEAM

1" = 1'-0"

15

NOTES:
1. SEE DET **10/S601** FOR SMALL BORINGS IN SILL PLATE.
2. THIS DETAIL CAN BE USED FOR ALL OPENINGS IN TOP AND BOTTOM PLATES OF WALLS THAT ARE NOT PART OF THE LATERAL RESISTING SYSTEM AS DEFINED IN NOTE 3. SEE NOTE 4 FOR EXCEPTION.
3. FOR THE PURPOSE OF THIS DETAIL, THE LATERAL SYSTEM SHALL BE DEFINED AS ANY SHEAR WALL OR DRAG LINE (ANY WALL LOCATED IN THE SAME GRIDLINE AS A SHEAR WALL OR DRAG LINE).
4. EXCEPTION: THIS DETAIL CAN BE USED AT SHEAR WALL SILL & SOLE PLATES, AND WHERE SPECIFICALLY CALLED OUT ON PLANS.

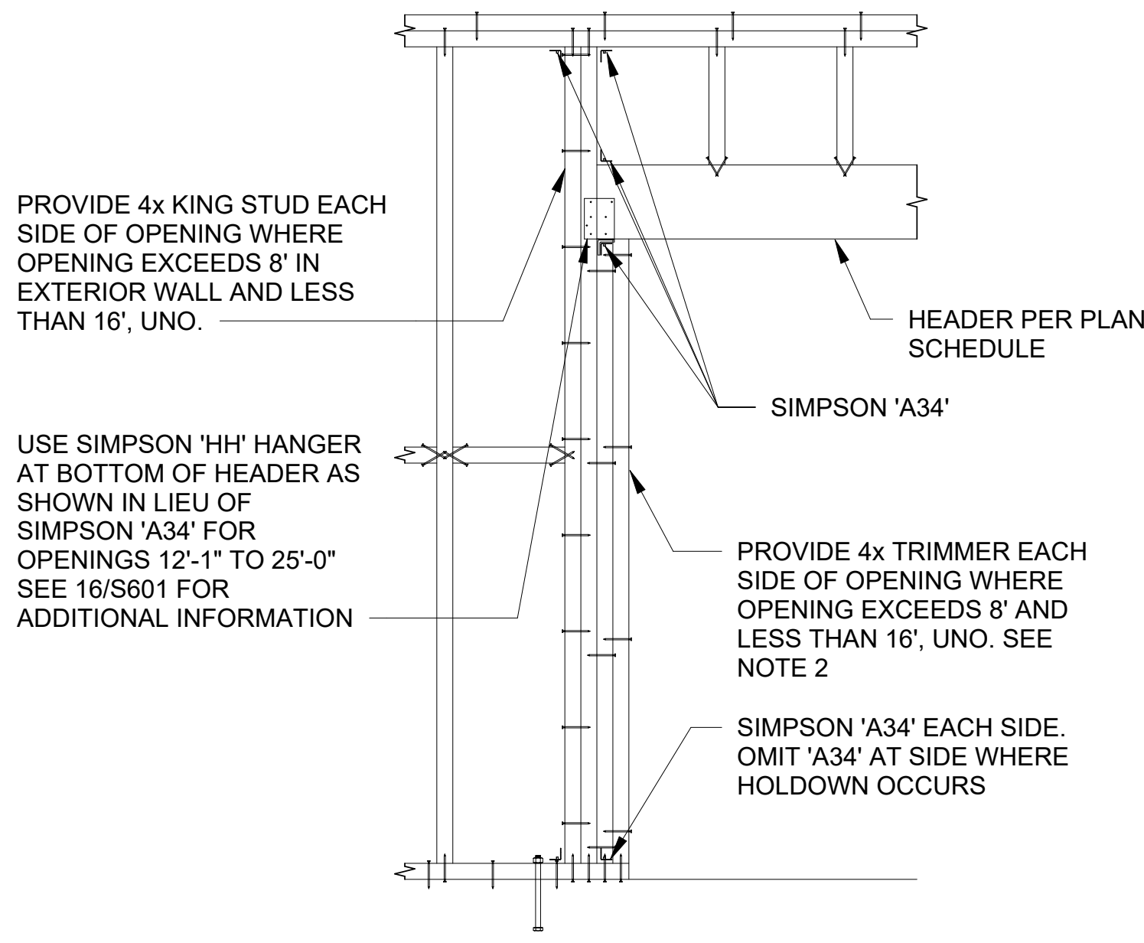

WOOD TOP OR BOTTOM PLATE
HSS/PLUMBING PIPE PER PLAN
1'-0" MIN, TYP
PLAN VIEW
4" MAX @ 4x PLATE
6" MAX @ 6x PLATE
CS20 BOTH SIDES AT BOTTOM PLATE w/ (8) 8d NAILS EACH SIDE OF PENETRATION. CMSTC16 BOTH SIDES AT DOUBLE TOP PLATE w/ (8) 16d SINKERS EACH SIDE OF PENETRATION ((4) IN EACH PLATE)
RIM JOIST/BLKG PER PLAN, TYP
JOISTS PER PLAN, TYP
SILL/SOLE PLATE
WALL DOUBLE TOP PLATE
ELEVATION VIEW
ADDITIONAL STUD AT EA SIDE OF PENETRATION

TYPICAL LARGE PENETRATION IN WALL TOP OR BOTTOM PLATE

1" = 1'-0"

11

NOTE:
1. THIS DETAIL SHOWS THE HARDWARE TO BE USED FOR EXTERIOR WALLS WITH OPENINGS WIDER THAN 8'-0", SEE **2/S601** FOR SMALLER OPENINGS.
2. TRIMMERS CAN BE OMITTED AT EXTERIOR NON-BEARING WALLS WHERE SIMPSON HH HANGER IS USED.
3. SEE **2/S601** FOR STRUCTURAL INFORMATION NOT SHOWN HERE.

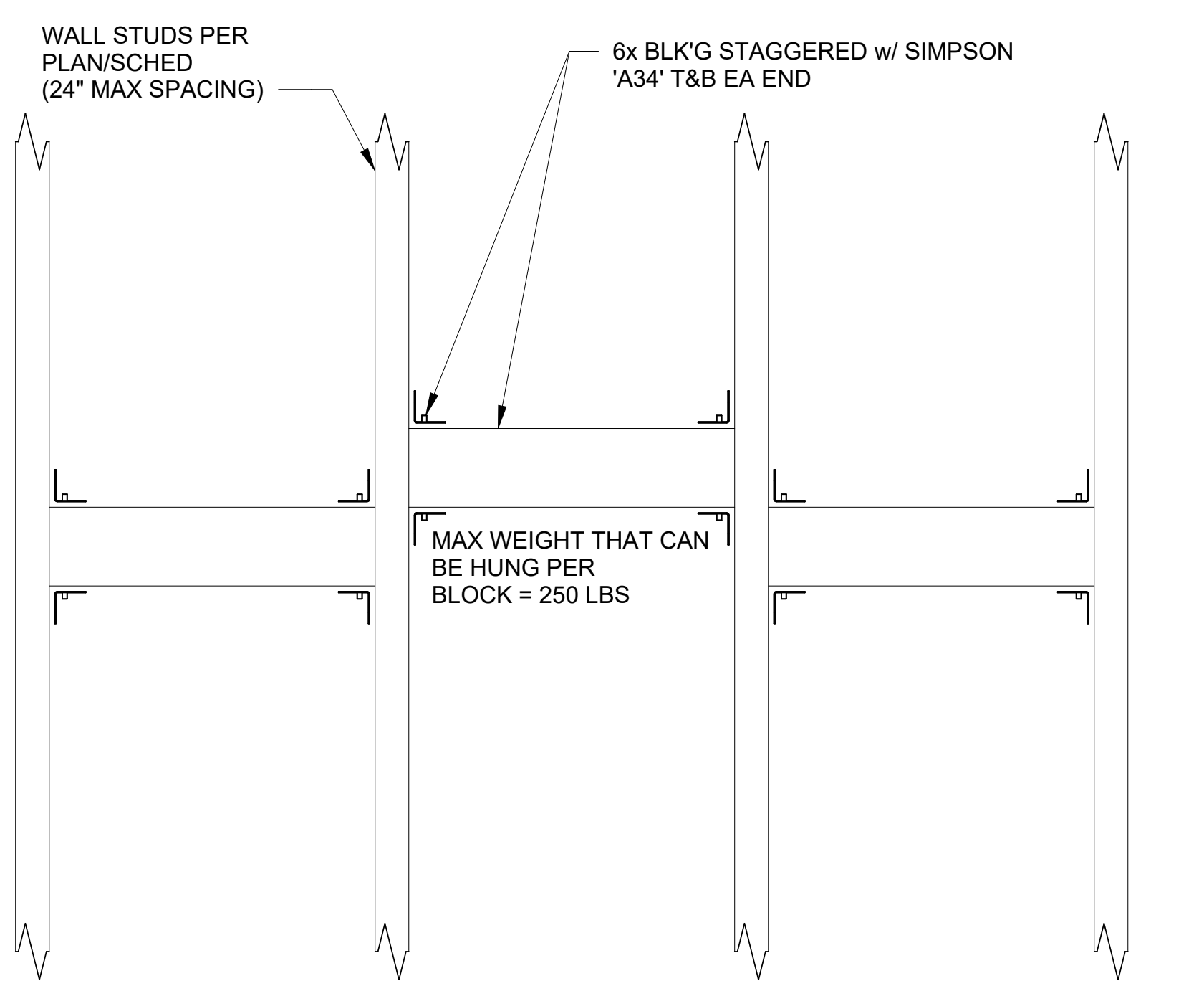

PROVIDE 4x KING STUD EACH SIDE OF OPENING WHERE OPENING EXCEEDS 8' IN EXTERIOR WALL AND LESS THAN 16', UNO.
HEADER PER PLAN OR SCHEDULE
SIMPSON 'A34'
USE SIMPSON 'HH' HANGER AT BOTTOM OF HEADER AS SHOWN IN LIEU OF SIMPSON 'A34' FOR OPENINGS 12'-1" TO 25'-0" SEE 16/S601 FOR ADDITIONAL INFORMATION
PROVIDE 4x TRIMMER EACH SIDE OF OPENING WHERE OPENING EXCEEDS 8' AND LESS THAN 16', UNO. SEE NOTE 2
SIMPSON 'A34' EACH SIDE. OMIT 'A34' AT SIDE WHERE HOLDOWN OCCURS

TYPICAL HEADER 8'-1" TO 12'-0" WIDE

1/2" = 1'-0"

7

MAX LOAD PER VERTICAL STUD IS 250 LBS , SPREAD LOADS ADQUATELY

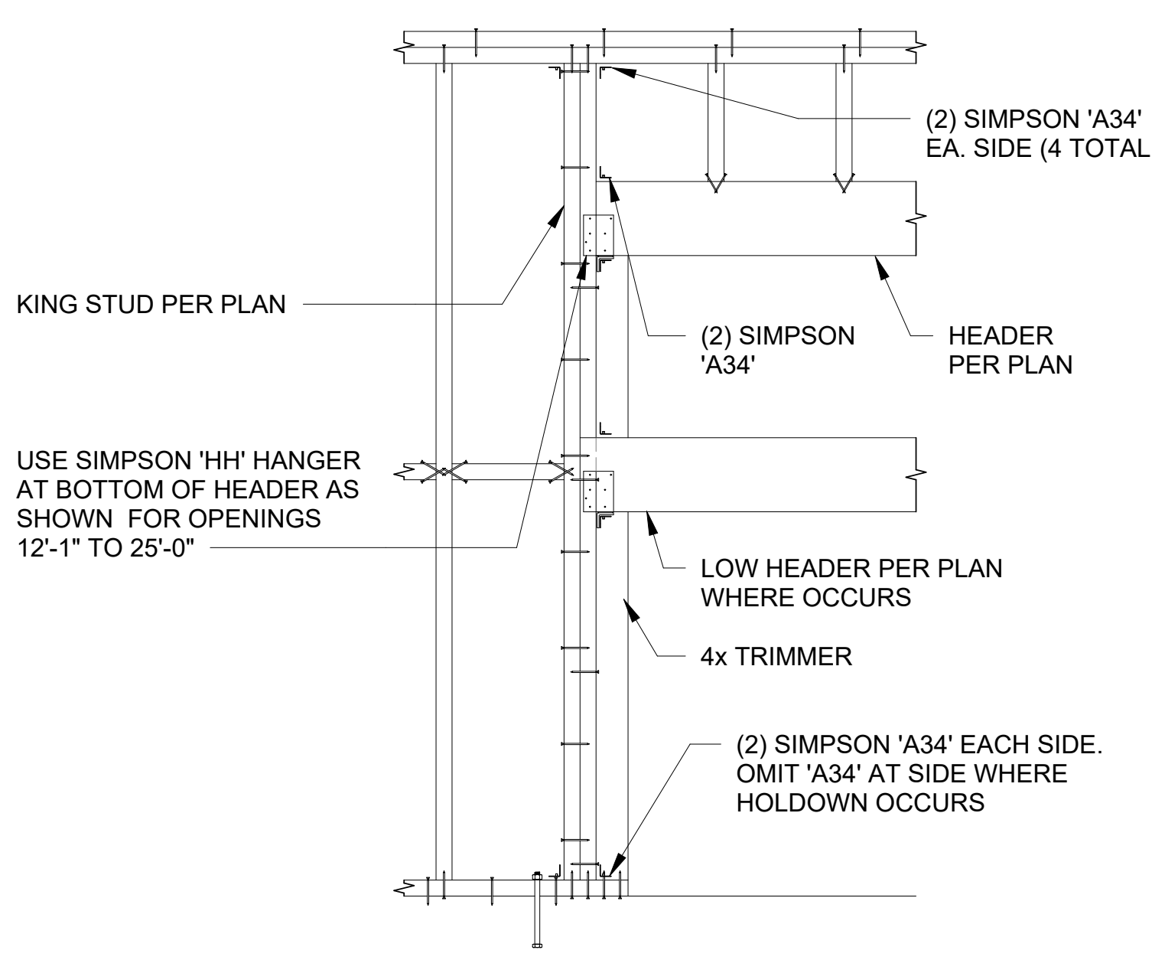

WALL STUDS PER PLAN/SCHED (24" MAX SPACING)
6x BLK'G STAGGERED w/ SIMPSON 'A34' T&B EA END
MAX WEIGHT THAT CAN BE HUNG PER BLOCK = 250 LBS

TYPICAL BACKING

1 1/2" = 1'-0"

3

NOTE:
1. THIS DETAIL SHOWS THE HARDWARE TO BE USED FOR EXTERIOR WALLS WITH OPENINGS WIDER THAN 12'-0"
2. SEE **2/S601** FOR STRUCTURAL INFORMATION NOT SHOWN HERE.

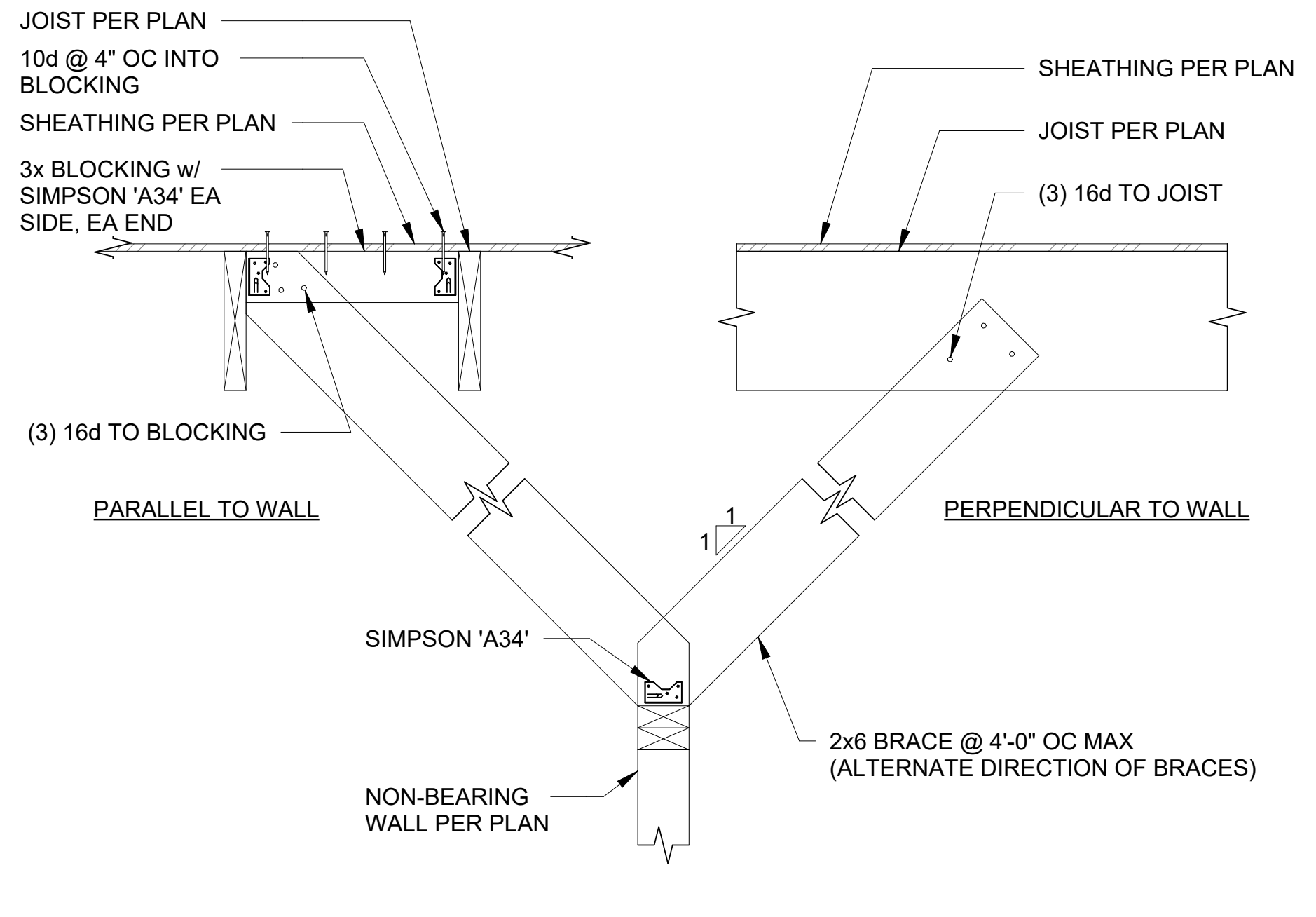

(2) SIMPSON 'A34' EA. SIDE (4 TOTAL)
KING STUD PER PLAN
(2) SIMPSON 'A34'
HEADER PER PLAN
USE SIMPSON 'HH' HANGER AT BOTTOM OF HEADER AS SHOWN FOR OPENINGS 12'-1" TO 25'-0"
LOW HEADER PER PLAN WHERE OCCURS
4x TRIMMER
(2) SIMPSON 'A34' EACH SIDE. OMIT 'A34' AT SIDE WHERE HOLDOWN OCCURS

TYPICAL HEADER 12'-0" TO 25'-0" WIDE

SCALE: NTS

16

NOTE:
DO NOT INSTALL BRACES UNTIL DEAD LOAD IS IN PLACE.



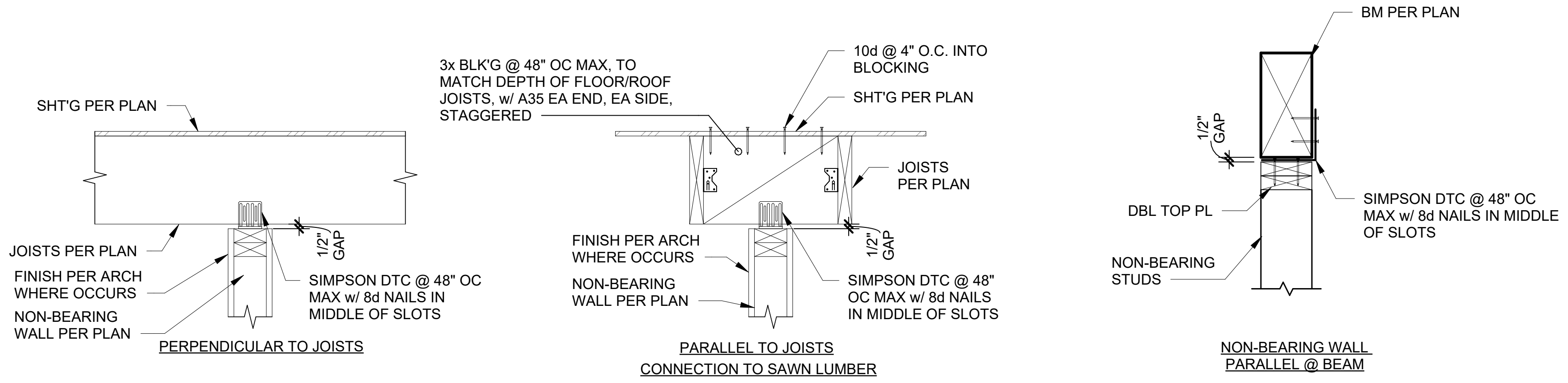
TYPICAL NON-BEARING WALL BRACING

1" = 1'-0"

12

SEE 5/S604 AT TRUSSES

1


SHT'G PER PLAN
JOISTS PER PLAN
FINISH PER ARCH WHERE OCCURS
NON-BEARING WALL PER PLAN
1/2" GAP
SIMPSON DTC @ 48" OC MAX w/ 8d NAILS IN MIDDLE OF SLOTS
PERPENDICULAR TO JOISTS
3x BLK'G @ 48" OC MAX, TO MATCH DEPTH OF FLOOR/ROOF JOISTS, w/ A35 EA END, EA SIDE, STAGGERED
10d @ 4" O.C. INTO BLOCKING
SHT'G PER PLAN
JOISTS PER PLAN
FINISH PER ARCH WHERE OCCURS
NON-BEARING WALL PER PLAN
1/2" GAP
SIMPSON DTC @ 48" OC MAX w/ 8d NAILS IN MIDDLE OF SLOTS
PARALLEL TO JOISTS
CONNECTION TO SAWN LUMBER
BM PER PLAN
1/2" GAP
DBL TOP PL
SIMPSON DTC @ 48" OC MAX w/ 8d NAILS IN MIDDLE OF SLOTS
NON-BEARING STUDS
NON-BEARING WALL PARALLEL @ BEAM

TYPICAL NON BEARING WALL TOP PLATE CONNECTION TO FRAMING

SCALE: NTS

4

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GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

TYPICAL WOOD CONNECTION
DETAILS

PERKINS EASTMAN
3194 D Airport Loop Drive
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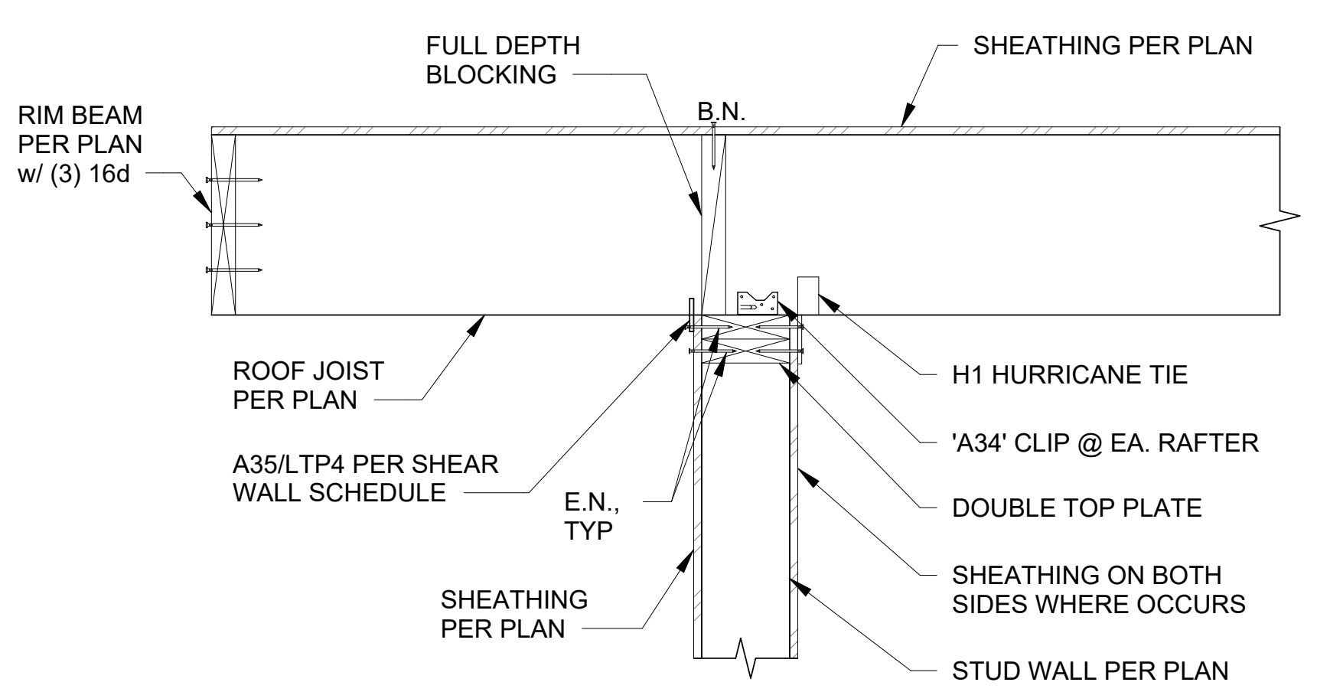
S601

Plot Date: 5/13/2026 10:19:27 AM

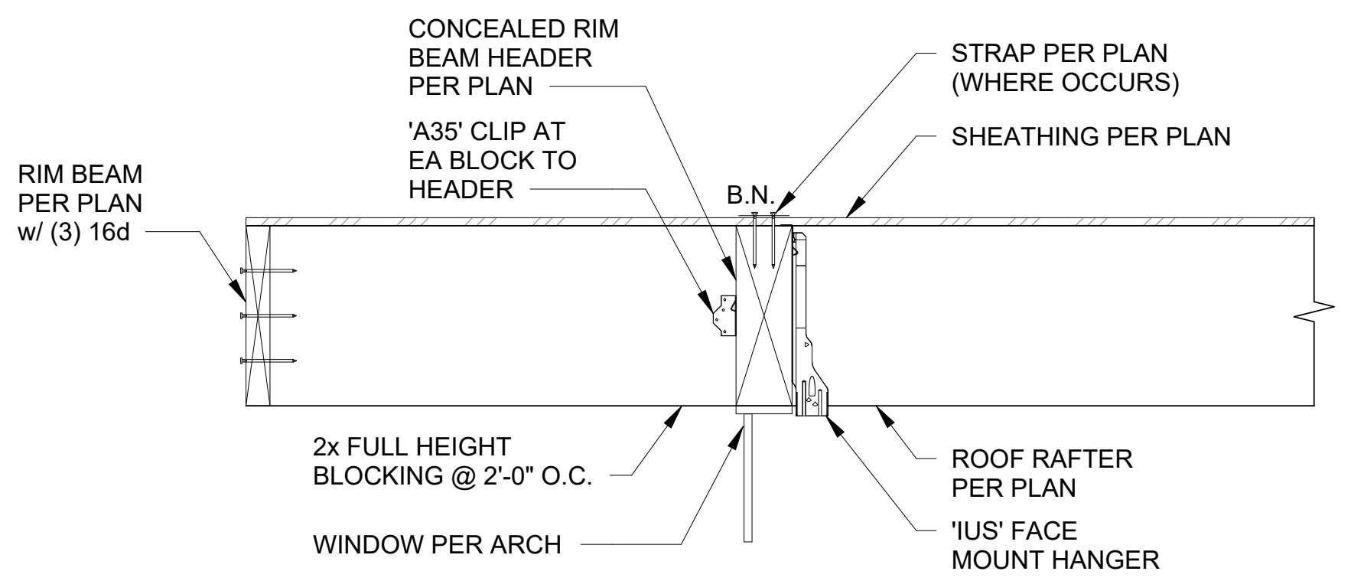
Project #: 2026-056 R24



EDGE OF ROOF DETAIL

SCALE: NTS

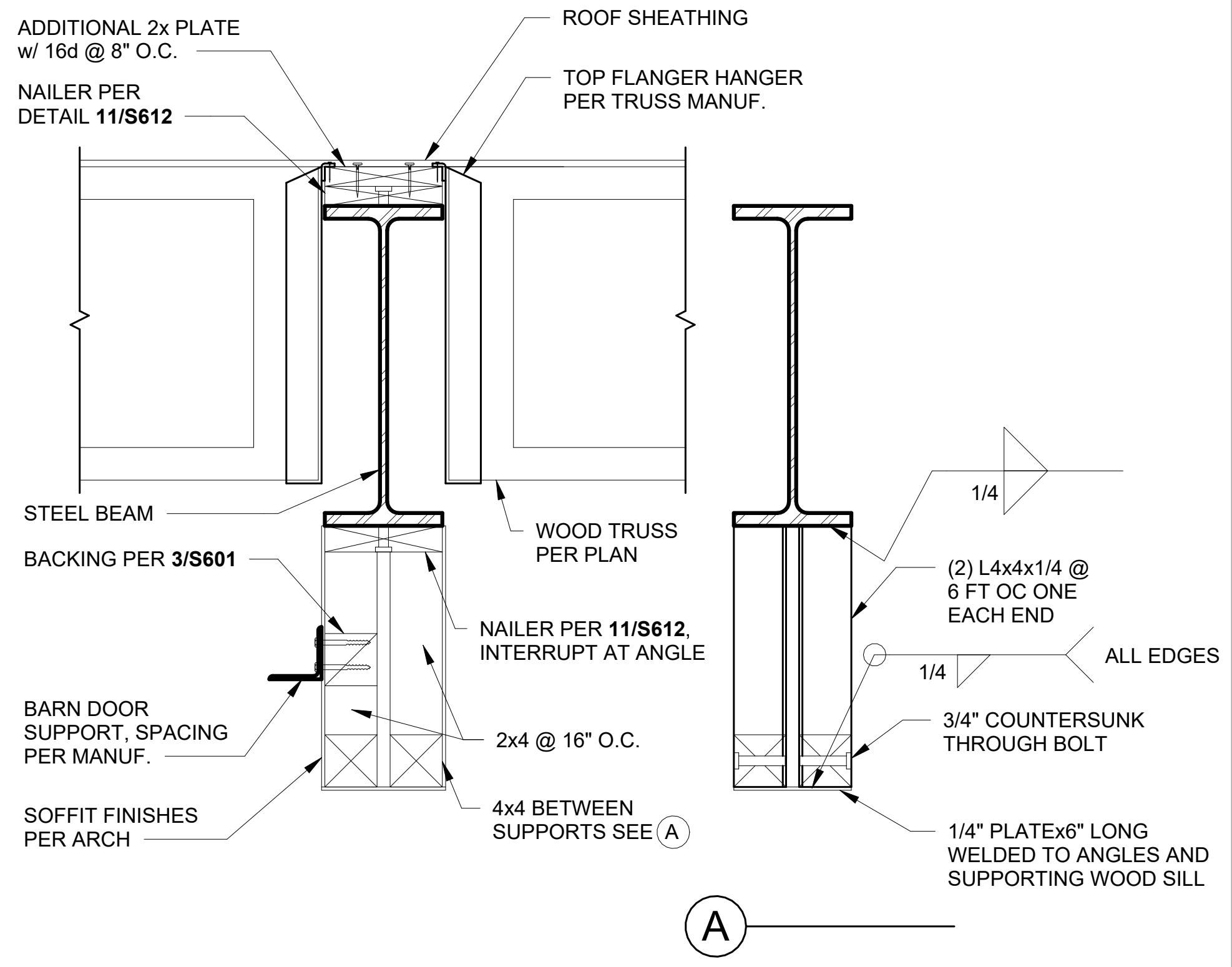
13



EDGE OF ROOF DETAIL

SCALE: NTS

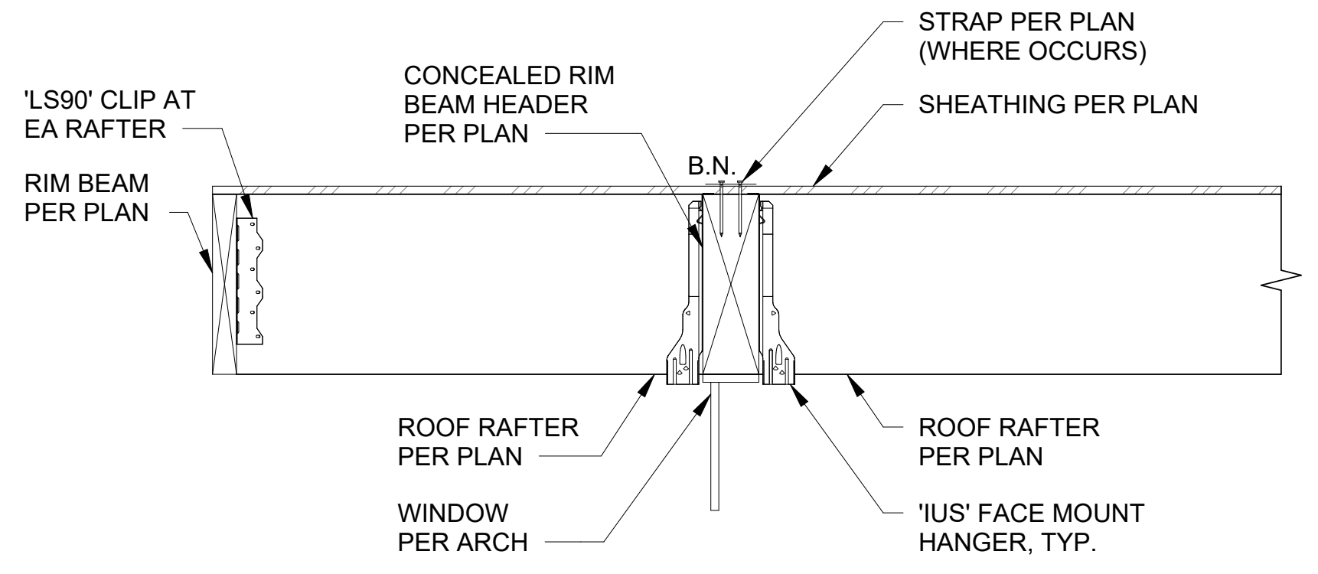
14



BARN DOOR SUPPORT

SCALE: NTS

15

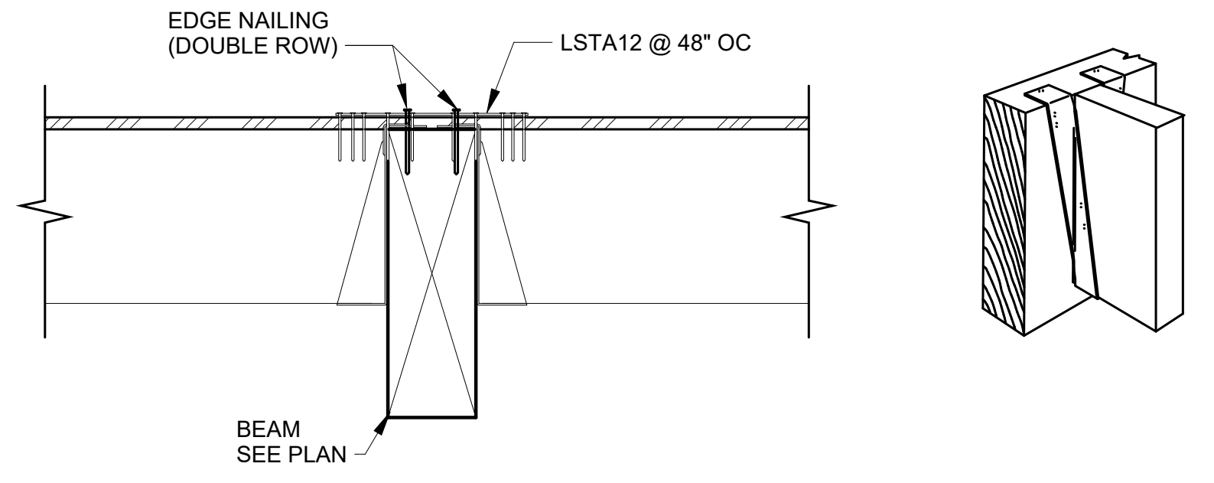


EDGE OF ROOF DETAIL

SCALE: NTS

16

NOTE:
COUNTERSINK NUT FOR STUD BOLTS JUST ENOUGH SO TOP OF NUT IS FLUSH WITH BOTTOM OF SHEATHING +/-1/16".

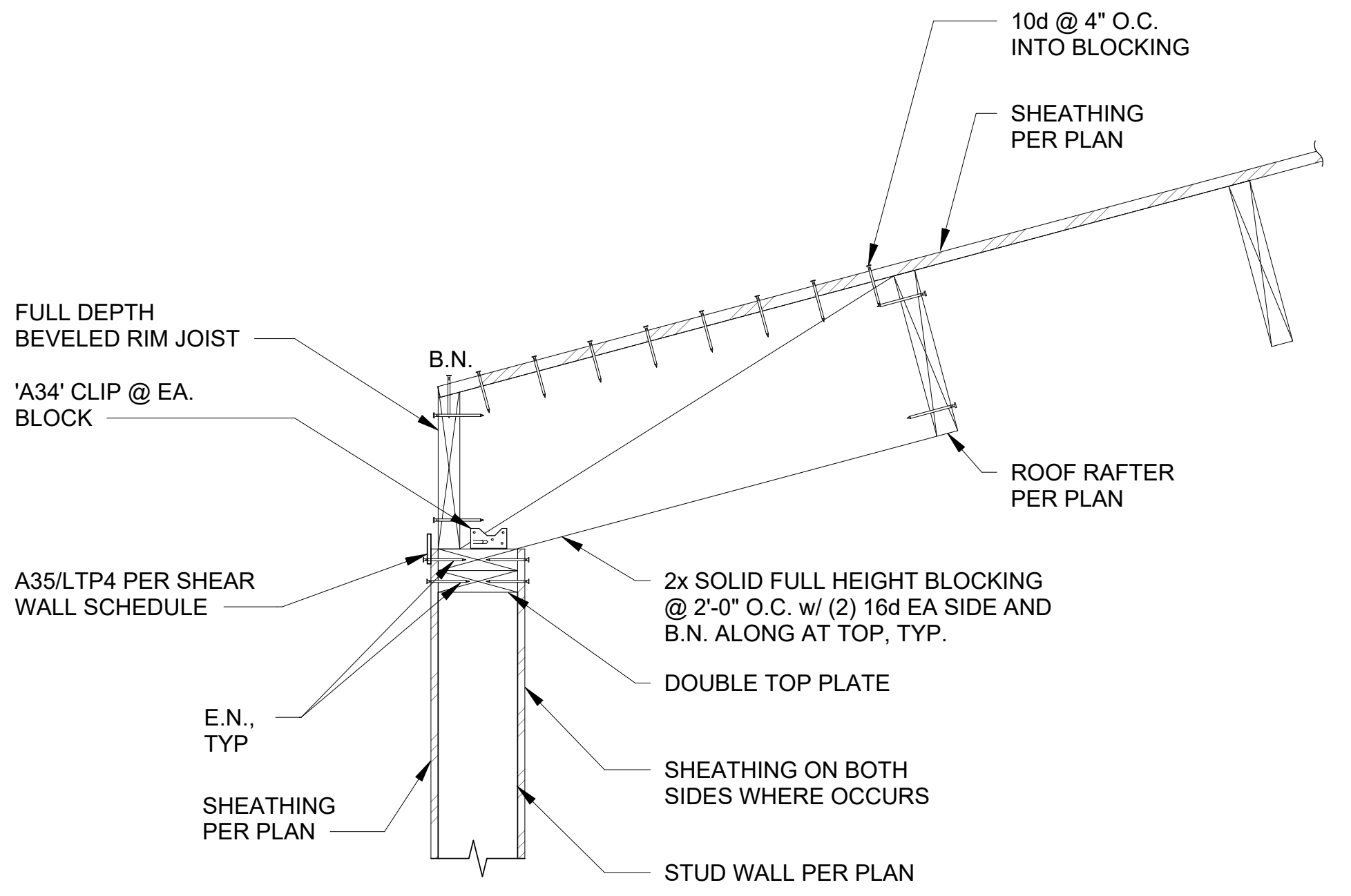


HANGER SCHEDULE		
MEMBER	HANGER TYPE	REMARKS
2x	SIMPSON "LB" HANGER	U.N.O. ON PLAN
3x, 4x, 6x, PSL	SIMPSON "HUTF" HANGER	U.N.O. ON PLAN
3x, 4x, 6x, PSL	SIMPSON "B" HANGER	FOR NAILER/STEEL MEMBER CONN. (U.N.O.) AND CONNECTION TO OWJ

TYPICAL WOOD JOIST/HANGER SCHEDULE

SCALE: NTS

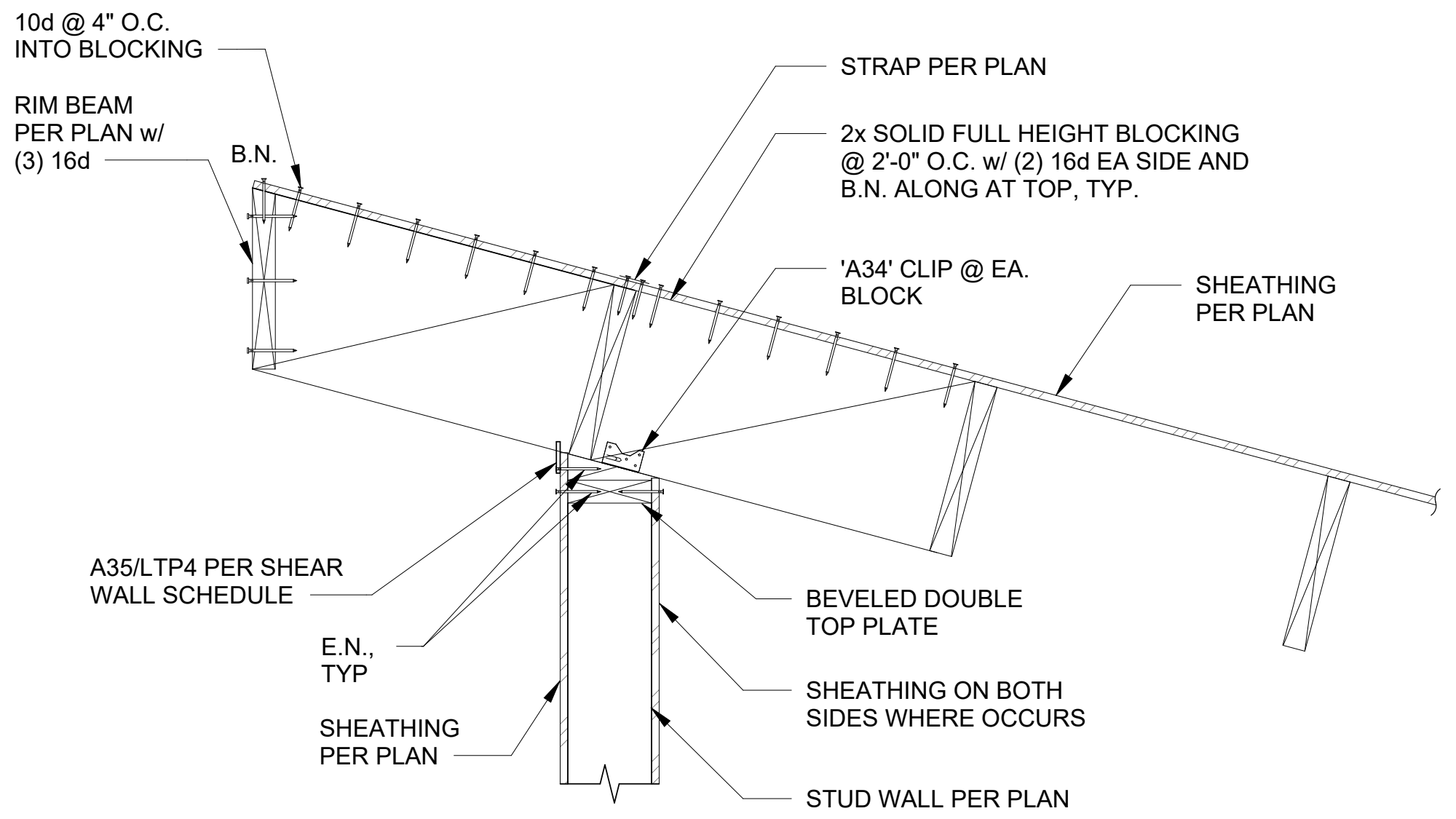
9



EDGE OF ROOF DETAIL

SCALE: NTS

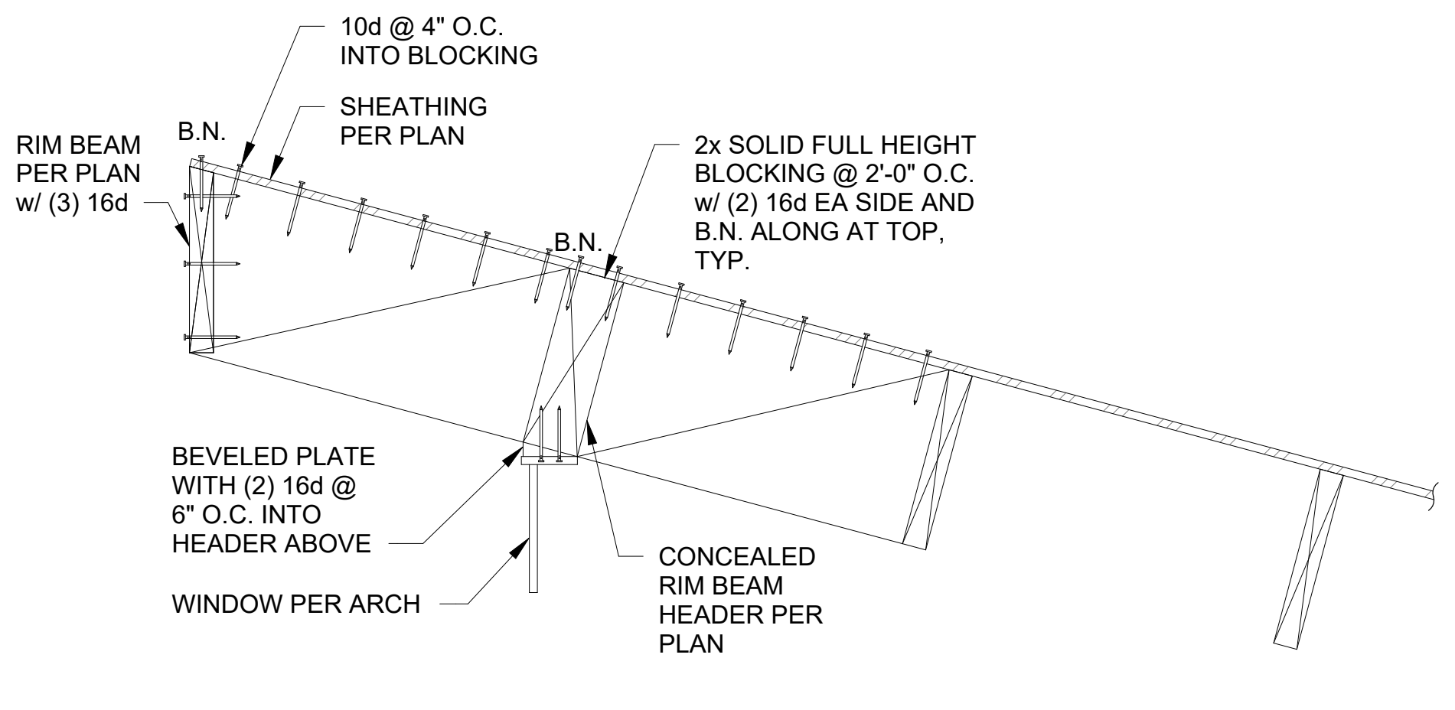
10



EDGE OF ROOF DETAIL

SCALE: NTS

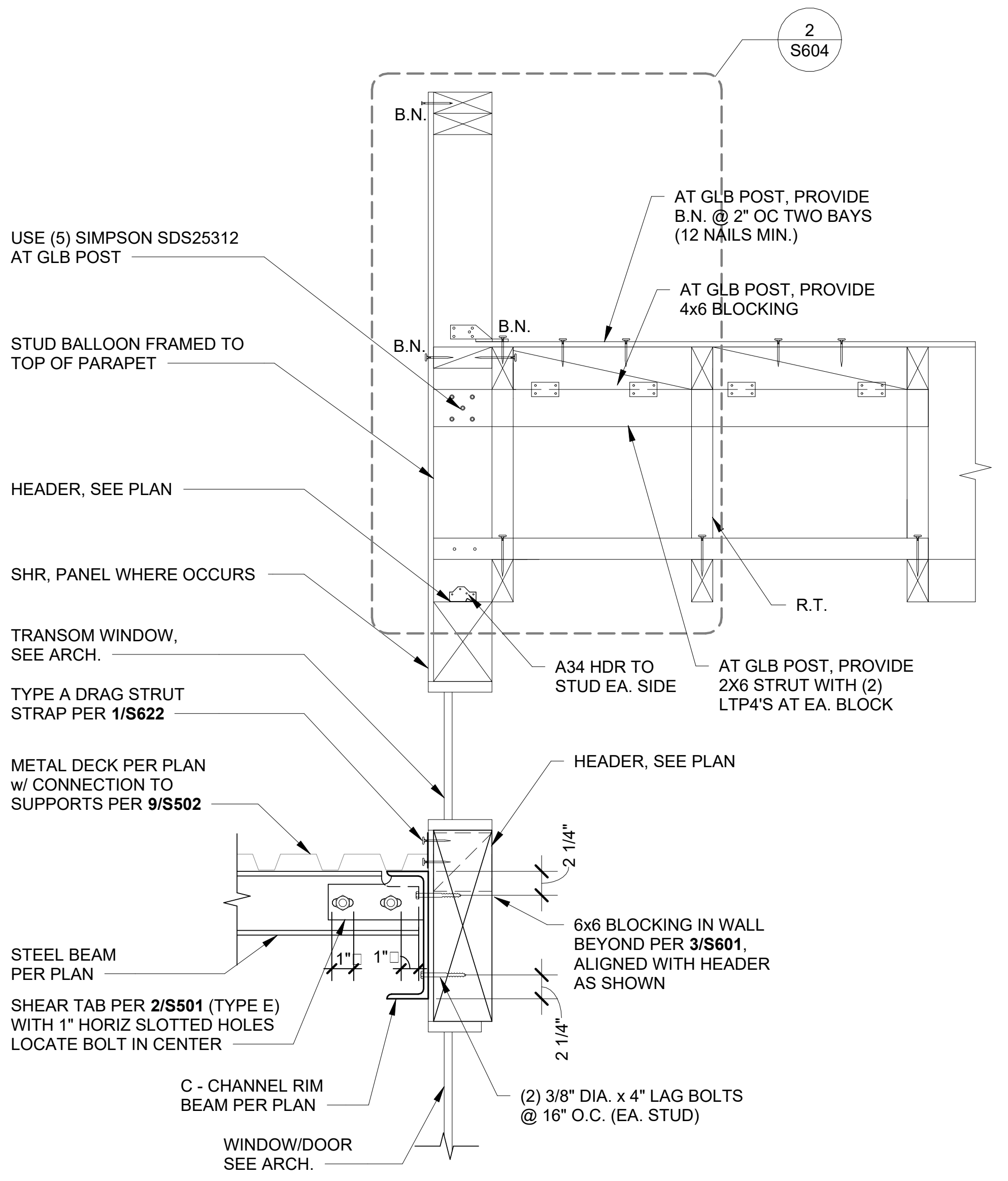
11



EDGE OF ROOF DETAIL

SCALE: NTS

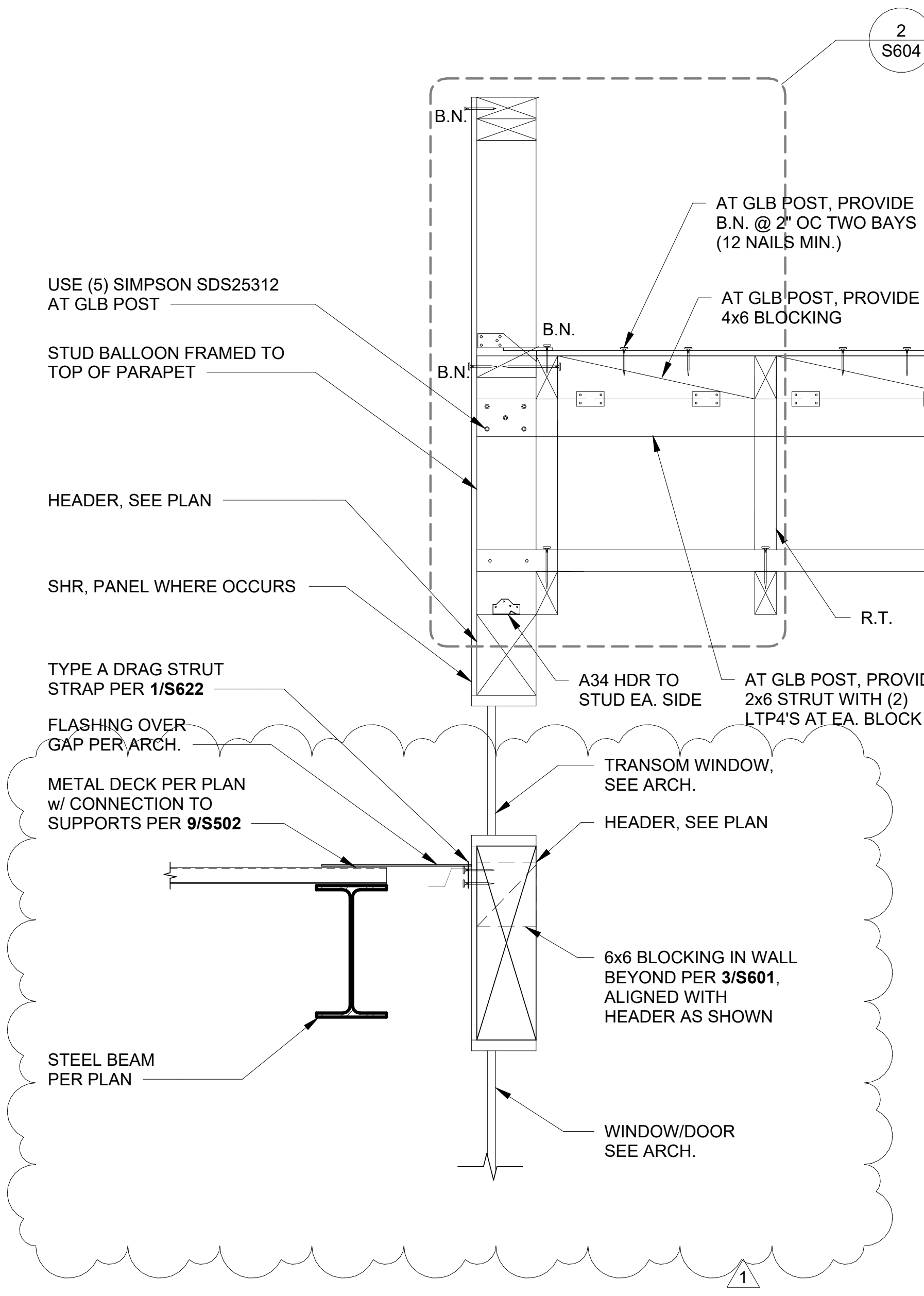
12



ROOF TRUSS PARALLEL W/ COVERED WALKWAY

SCALE: NTS

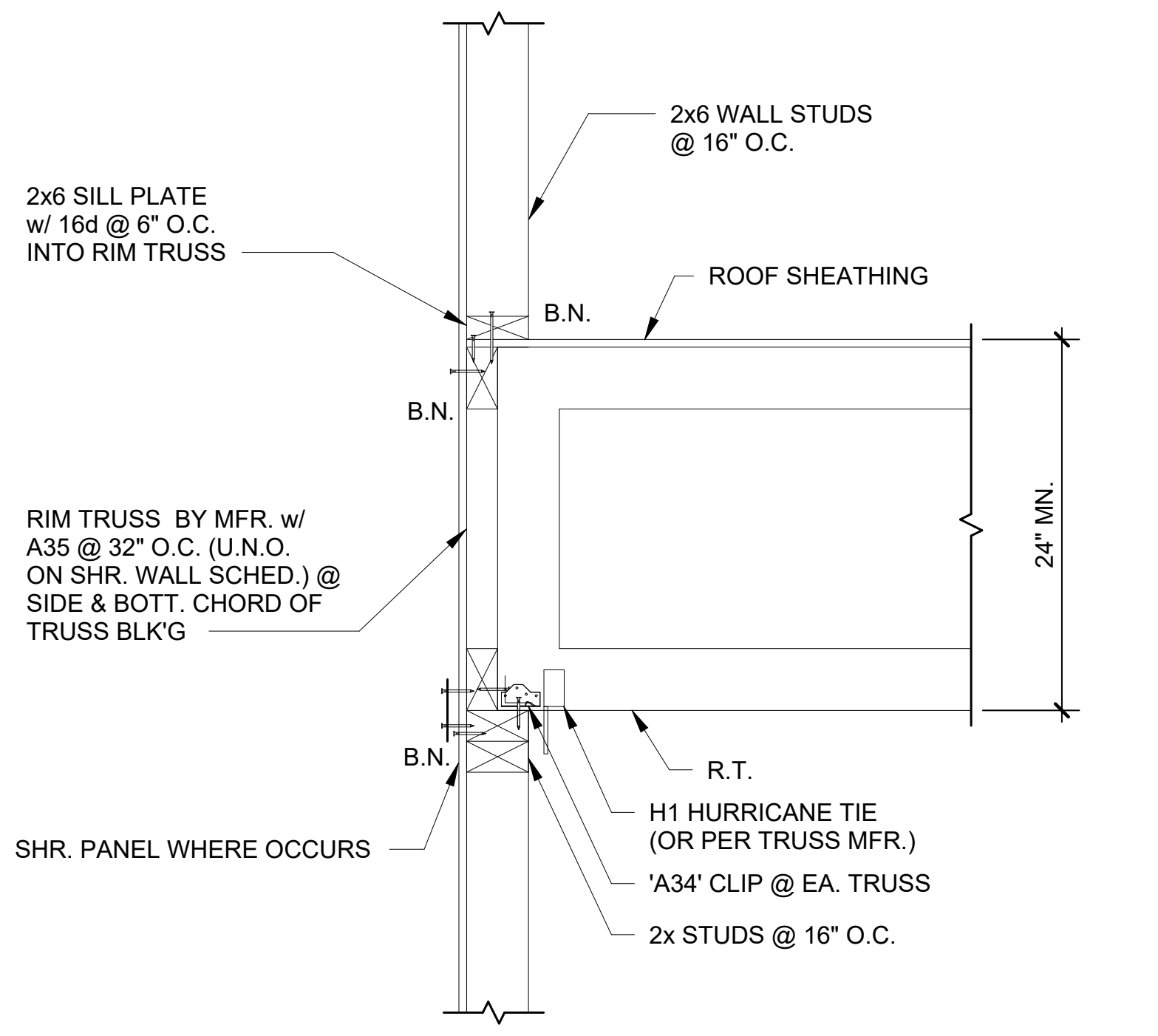
6



ROOF TRUSS PARALLEL w/ COVERED WALKWAY

SCALE: NTS

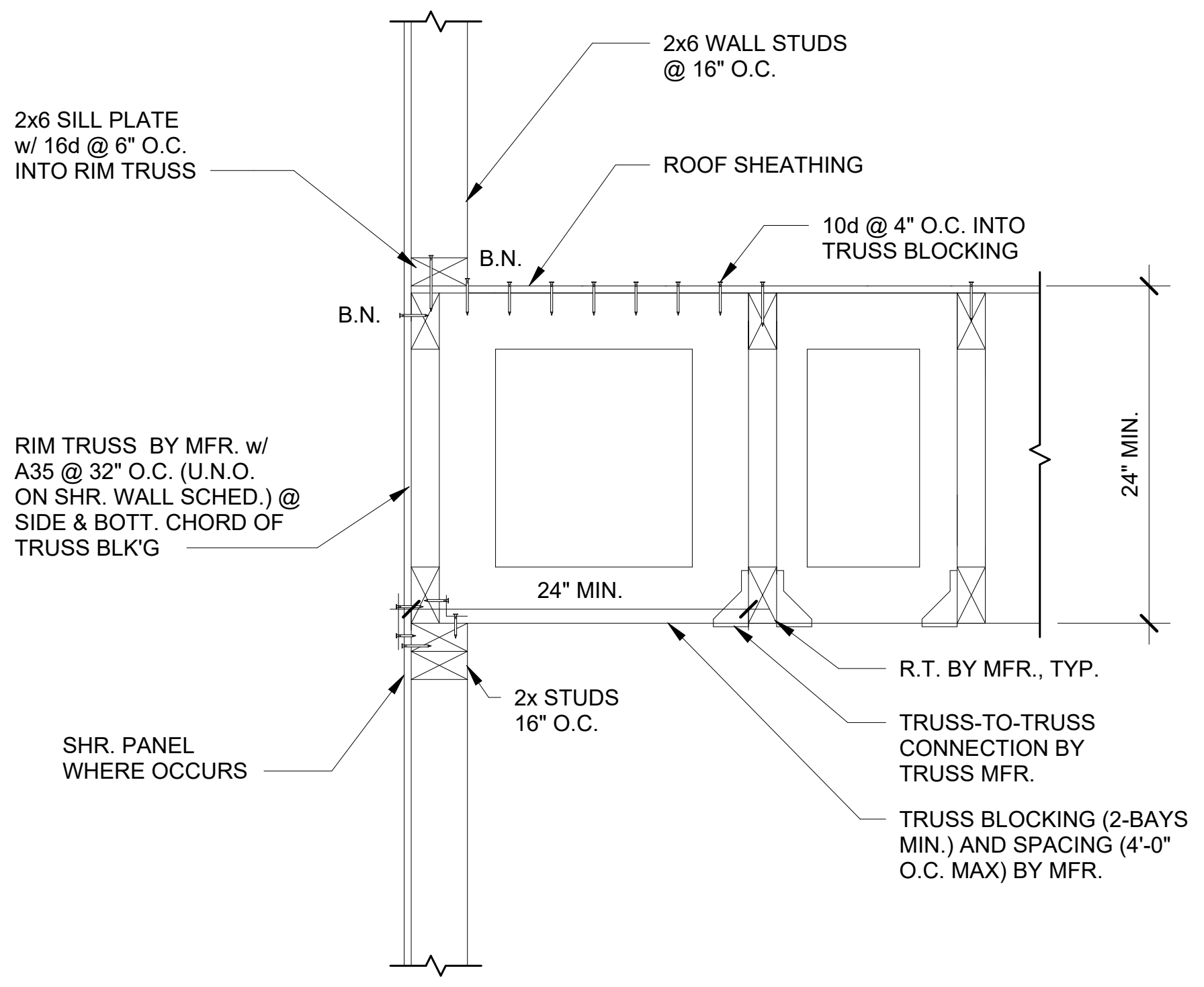
8



ROOF TRUSS PERP TO UPPER WALL

SCALE: NTS

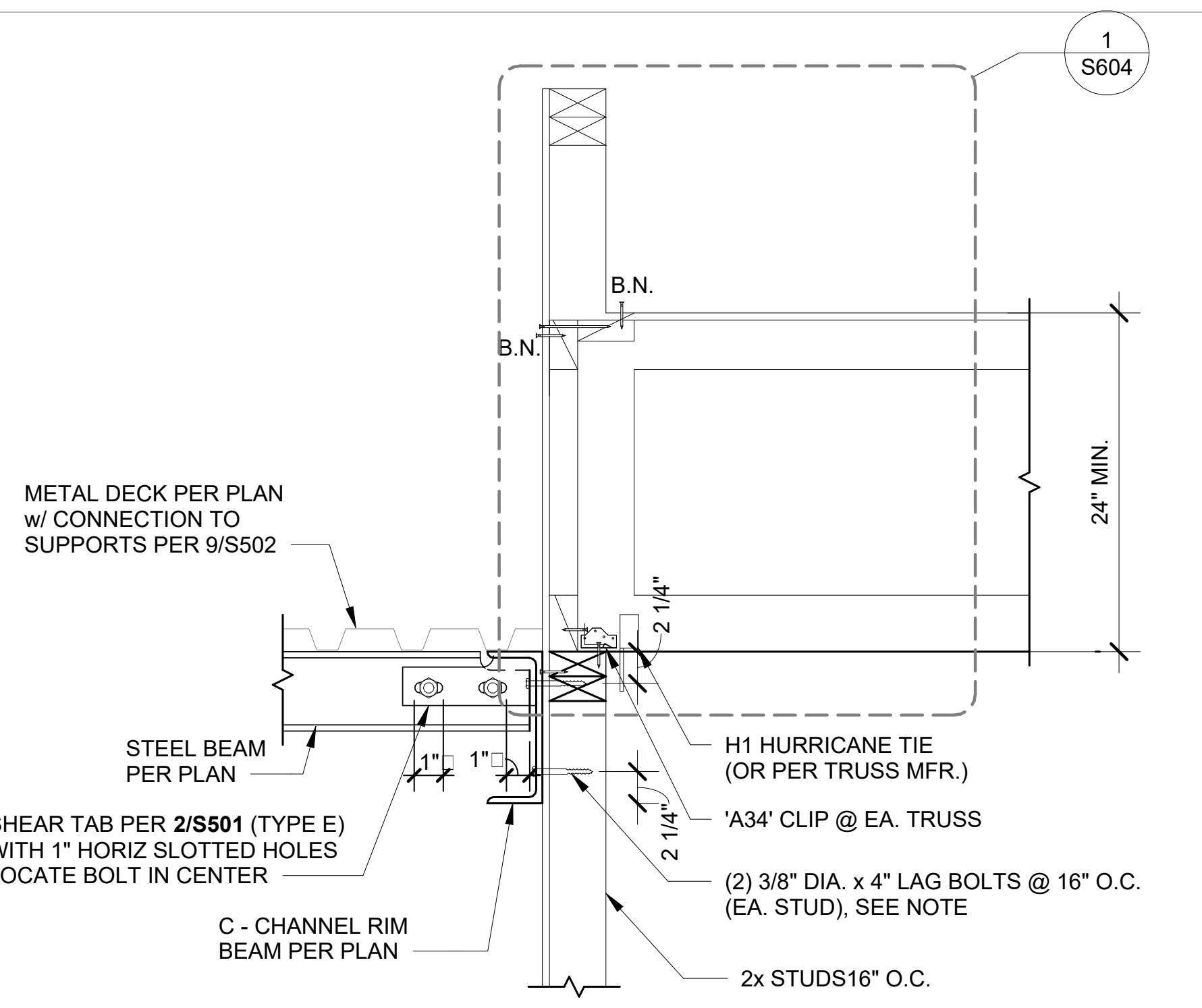
1



ROOF TRUSS PARALLEL TO UPPER WALL

SCALE: NTS

2

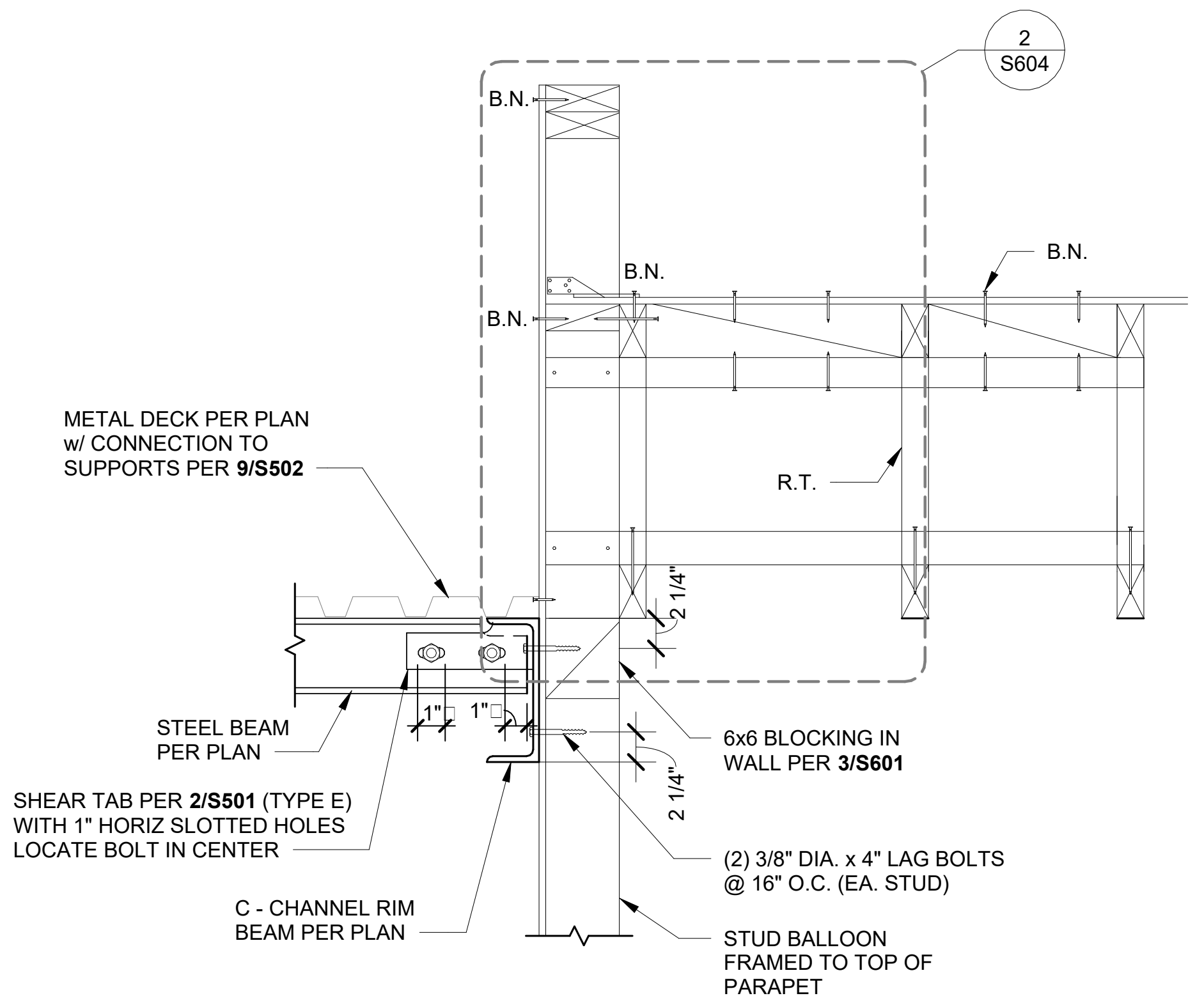


NOTE:
AT CONTRACTORS OPTION, 3/8" DIA. THRU BOLT, COUNTERSUNK 1" MAX, INTO BACKING PER 3/S601 IS ALSO ACCEPTABLE

ROOF TRUSS PERP w/ COVERED WALKWAY

SCALE: NTS

3



ROOF TRUSS PARALLEL W/ COVERED WALKWAY

SCALE: NTS

4

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BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

TYPICAL WOOD DETAILS

PERKINS EASTMAN

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S602

Plot Date: 5/13/2026 10:19:29 AM

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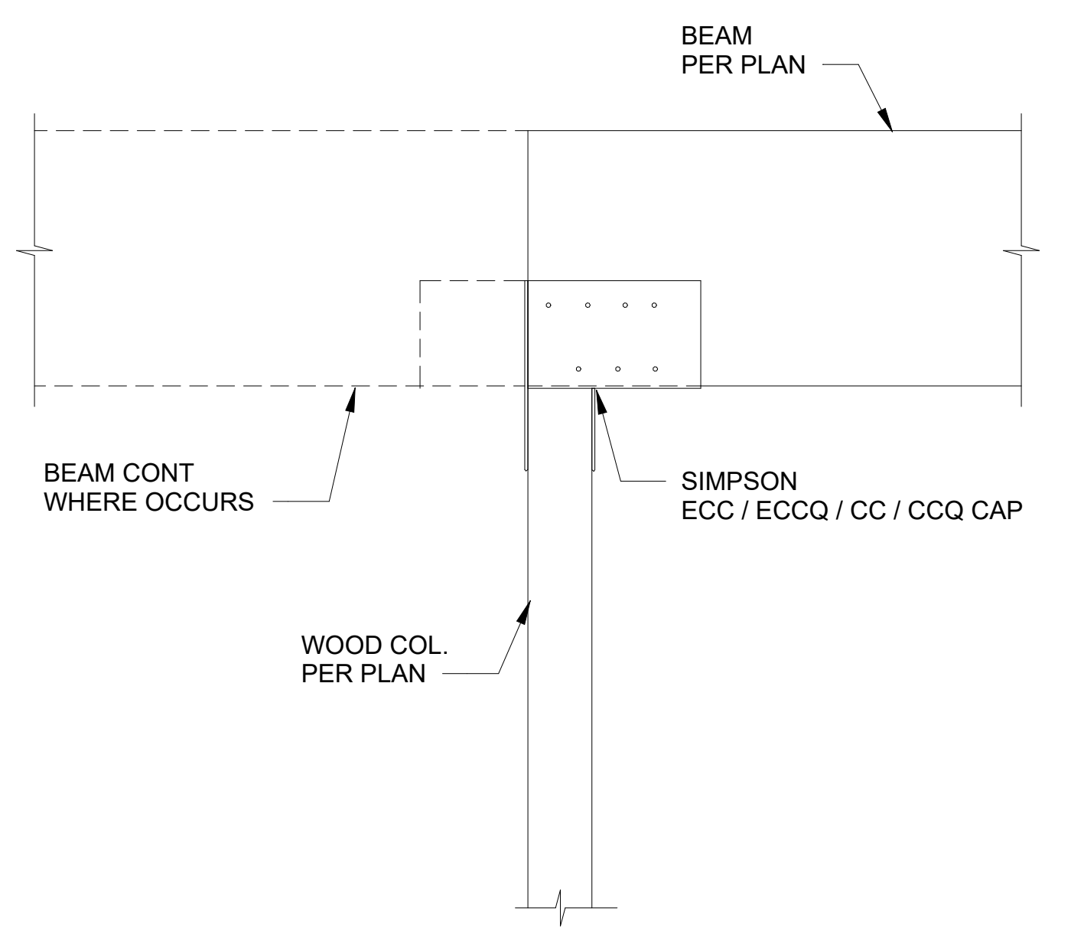
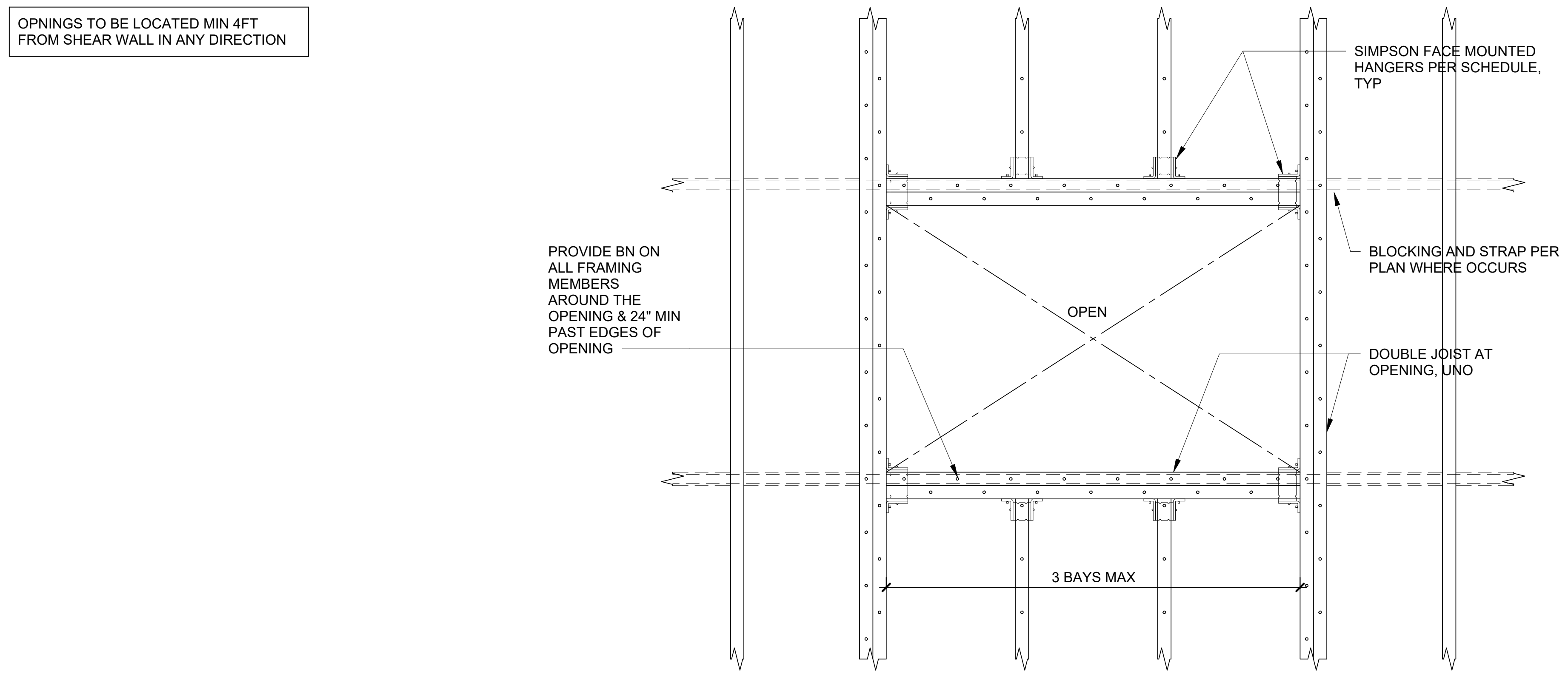


TYPICAL COLUMN CAP

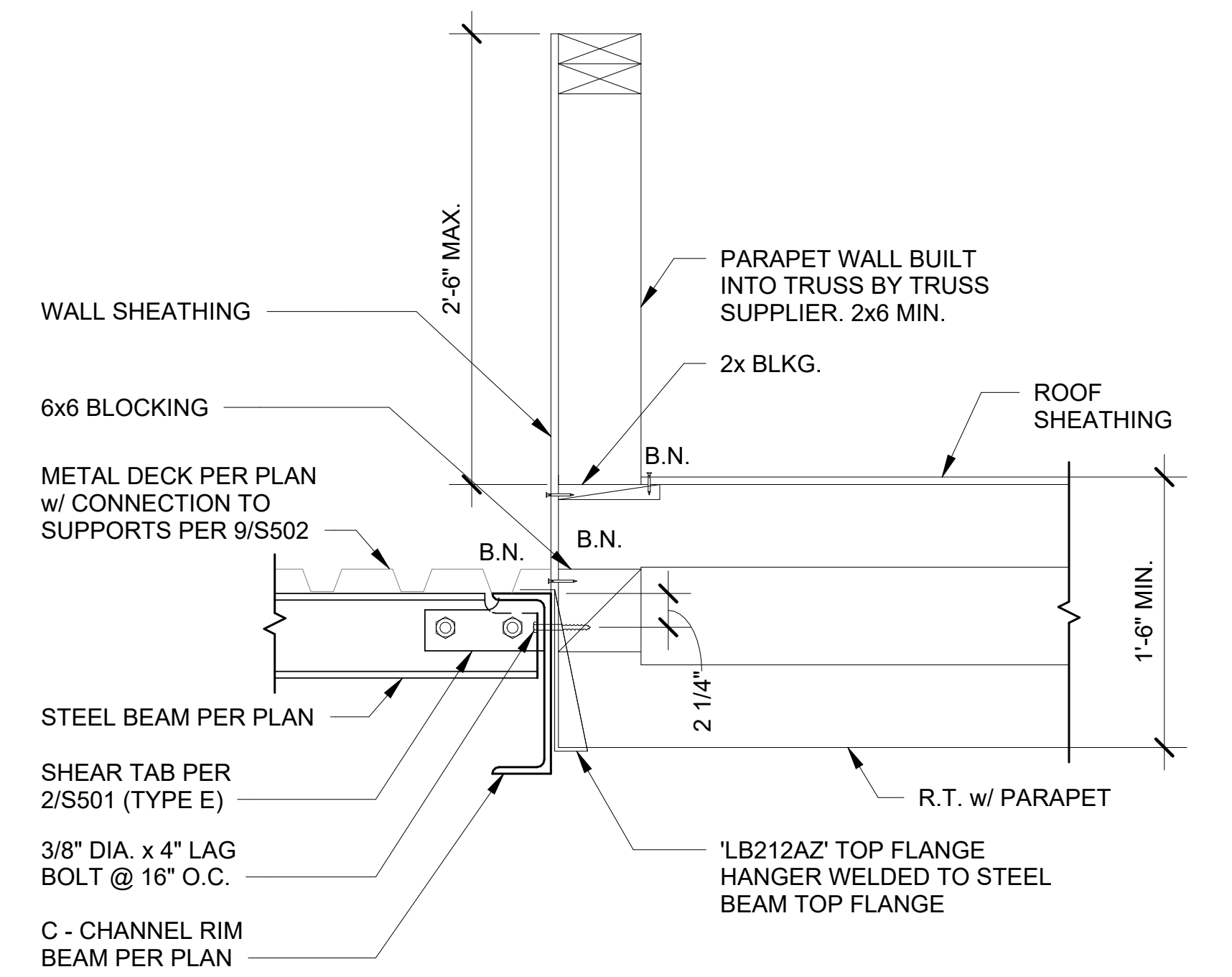
SCALE: NTS 13



TYPICAL FLOOR/ROOF OPENING DETAIL

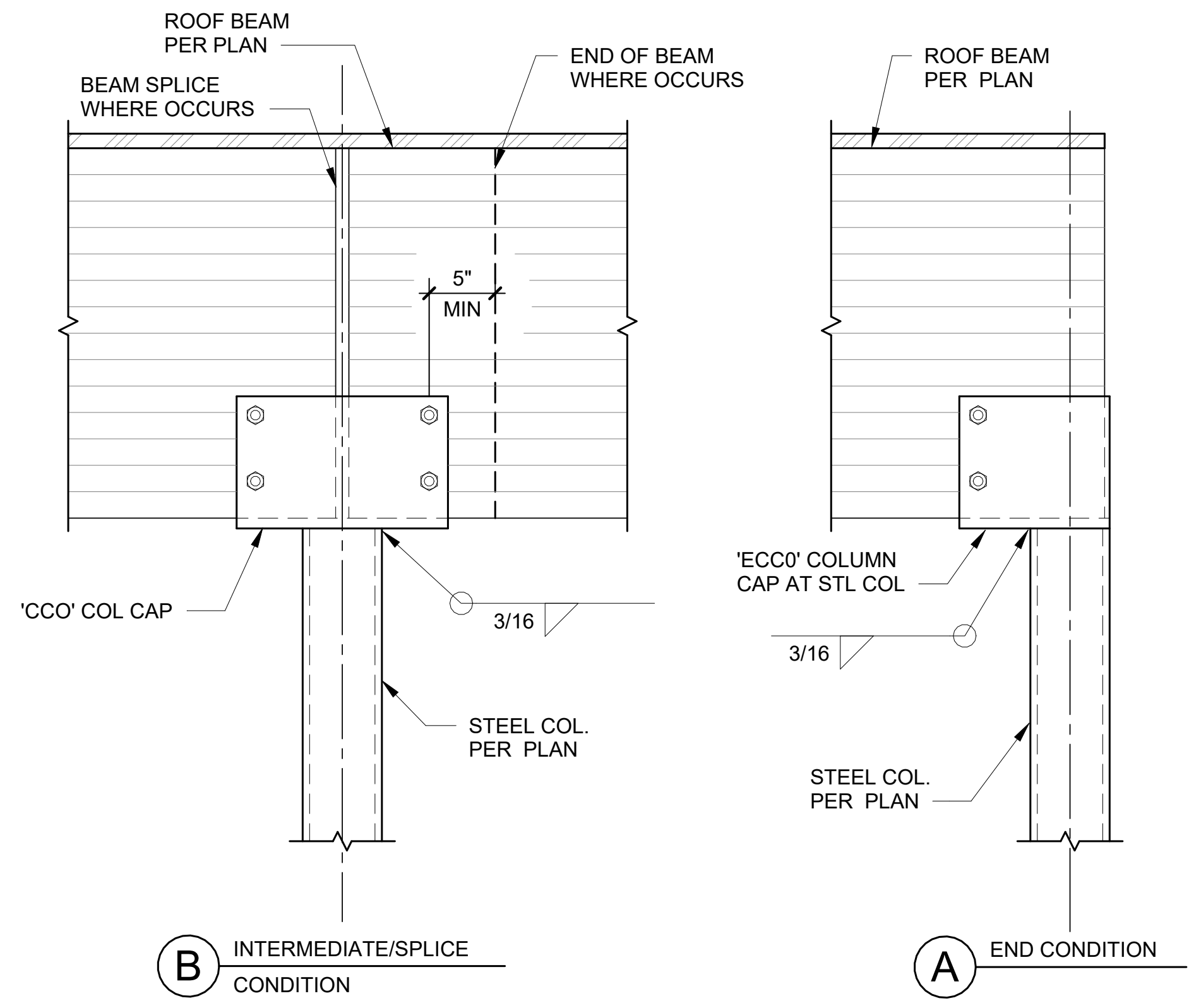
PLAN VIEW

SCALE: NTS 5



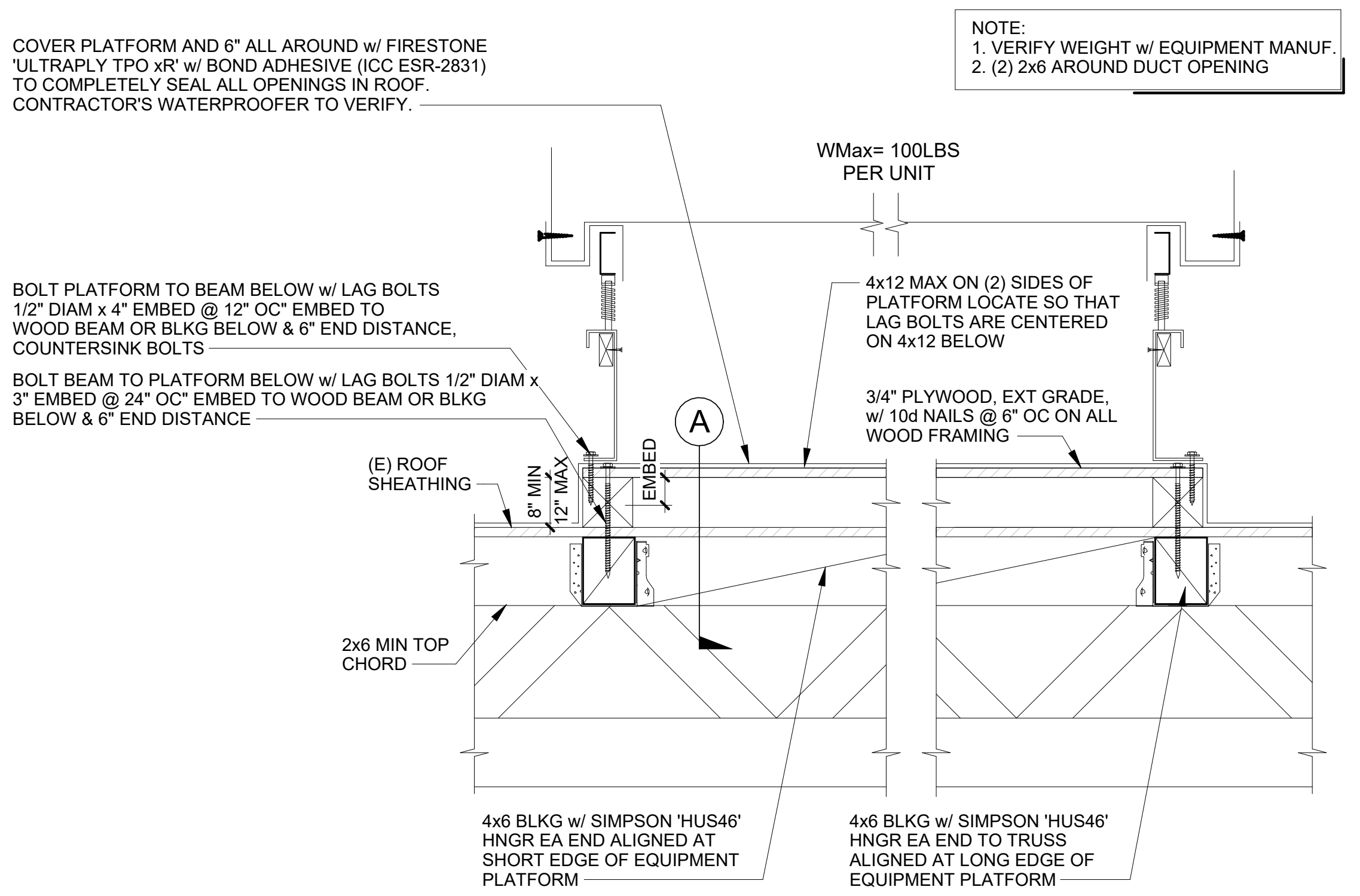
LOWER ROOF TRUSS DETAIL

SCALE: NTS 1



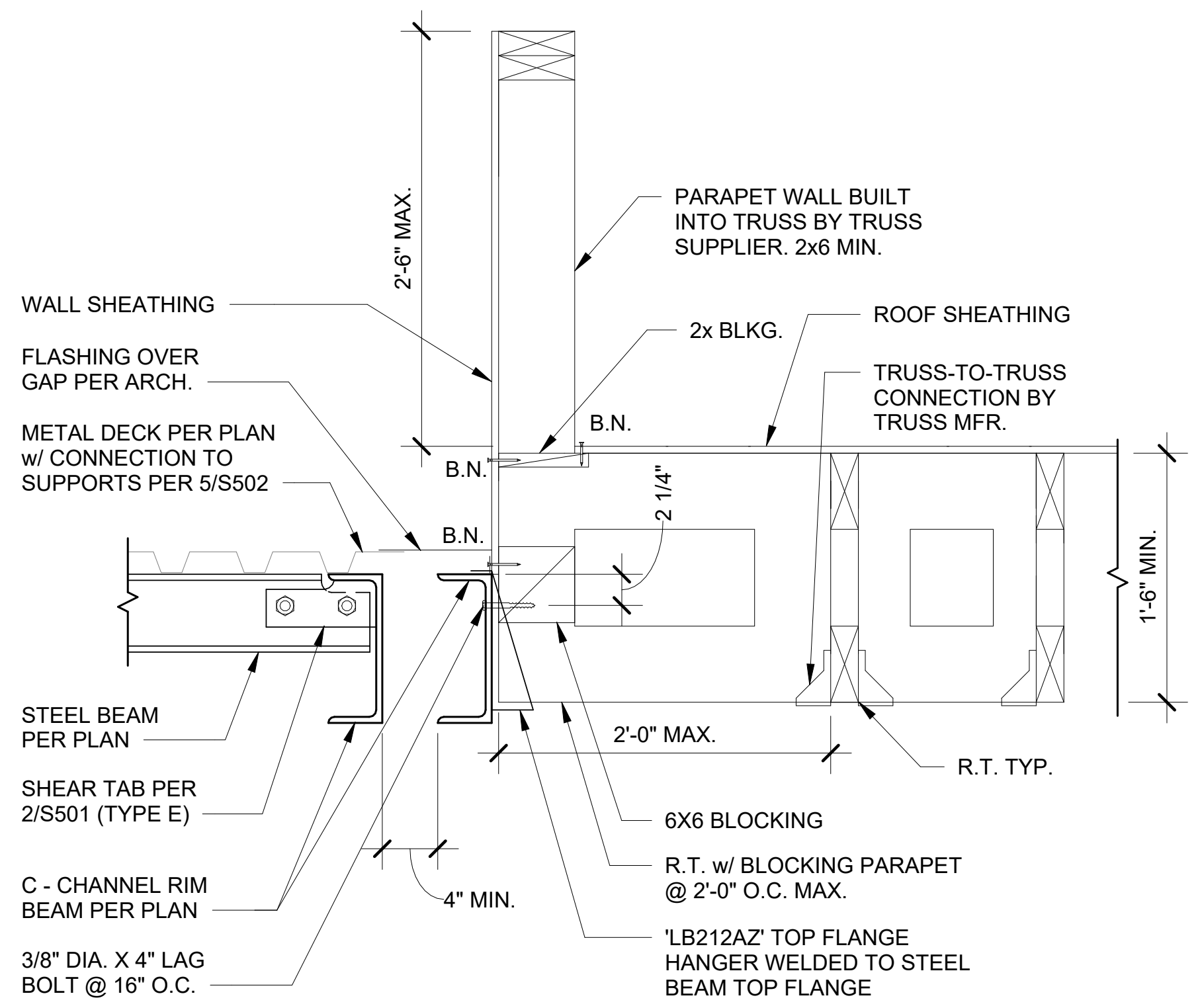
WOOD BEAM TO STEEL COLUMN CONNECTION

SCALE: NTS 15


COVER PLATFORM AND 6" ALL AROUND w/ FIRESTONE
'ULTRAPLY TPO xR' w/ BOND ADHESIVE (ICC ESR-2831)
TO COMPLETELY SEAL ALL OPENINGS IN ROOF.
CONTRACTOR'S WATERPROOFER TO VERIFY.
NOTE:
1. VERIFY WEIGHT w/ EQUIPMENT MANUF.
2. (2) 2x6 AROUND DUCT OPENING
WMax= 100LBS
PER UNIT
BOLT PLATFORM TO BEAM BELOW w/ LAG BOLTS
1/2" DIAM x 4" EMBED @ 12" OC" EMBED TO
WOOD BEAM OR BLKG BELOW & 6" END DISTANCE,
COUNTERSINK BOLTS
BOLT BEAM TO PLATFORM BELOW w/ LAG BOLTS 1/2" DIAM x
3" EMBED @ 24" OC" EMBED TO WOOD BEAM OR BLKG
BELOW & 6" END DISTANCE
4x12 MAX ON (2) SIDES OF
PLATFORM LOCATE SO THAT
LAG BOLTS ARE CENTERED
ON 4x12 BELOW
3/4" PLYWOOD, EXT GRADE,
w/ 10d NAILS @ 6" OC ON ALL
WOOD FRAMING
A
(E) ROOF
SHEATHING
8" MIN
12" MAX
EMBED
2x6 MIN TOP
CHORD
4x6 BLKG w/ SIMPSON 'HUS46'
HNGR EA END ALIGNED AT
SHORT EDGE OF EQUIPMENT
PLATFORM
4x6 BLKG w/ SIMPSON 'HUS46'
HNGR EA END TO TRUSS
ALIGNED AT LONG EDGE OF
EQUIPMENT PLATFORM
1

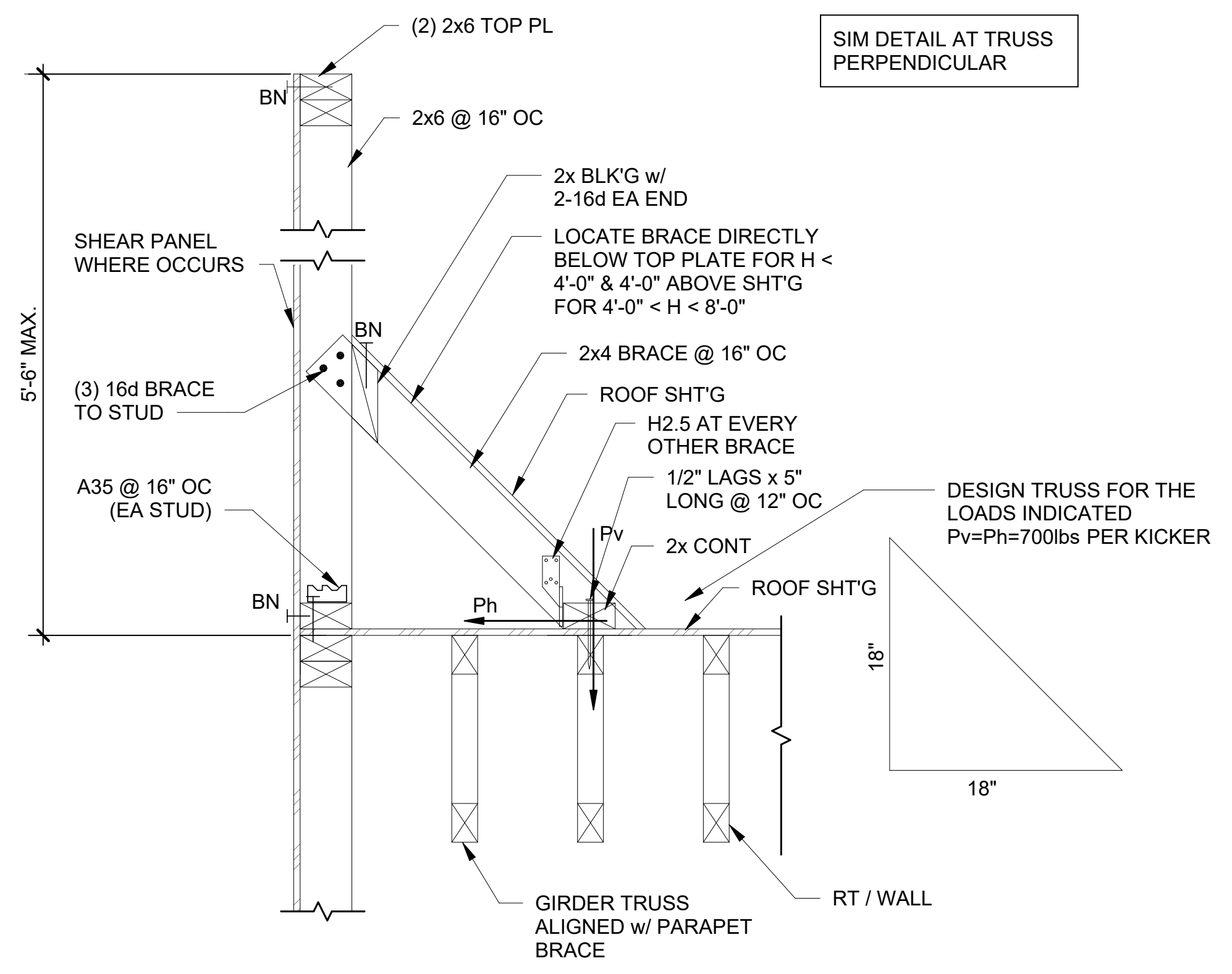
MECHANICAL UNIT PLATFORM

SCALE: NTS 6



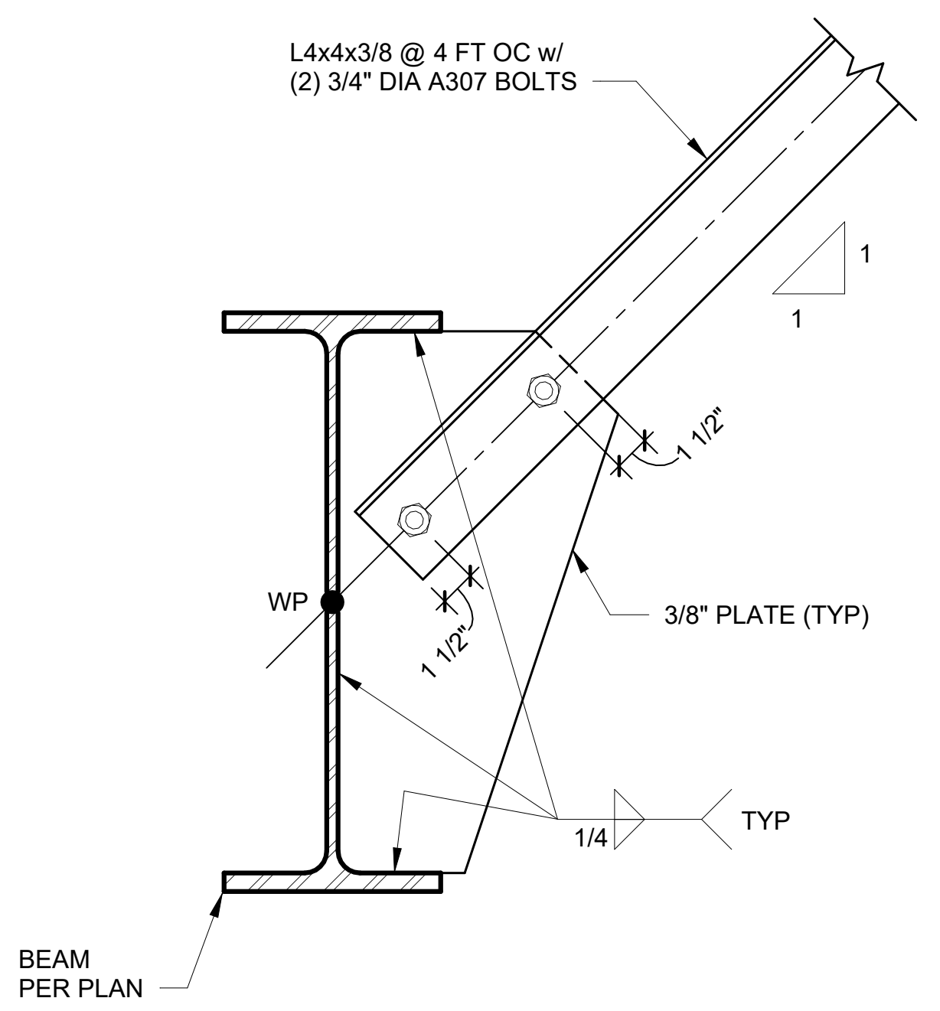
LOWER ROOF TRUSS DETAIL

SCALE: NTS 2



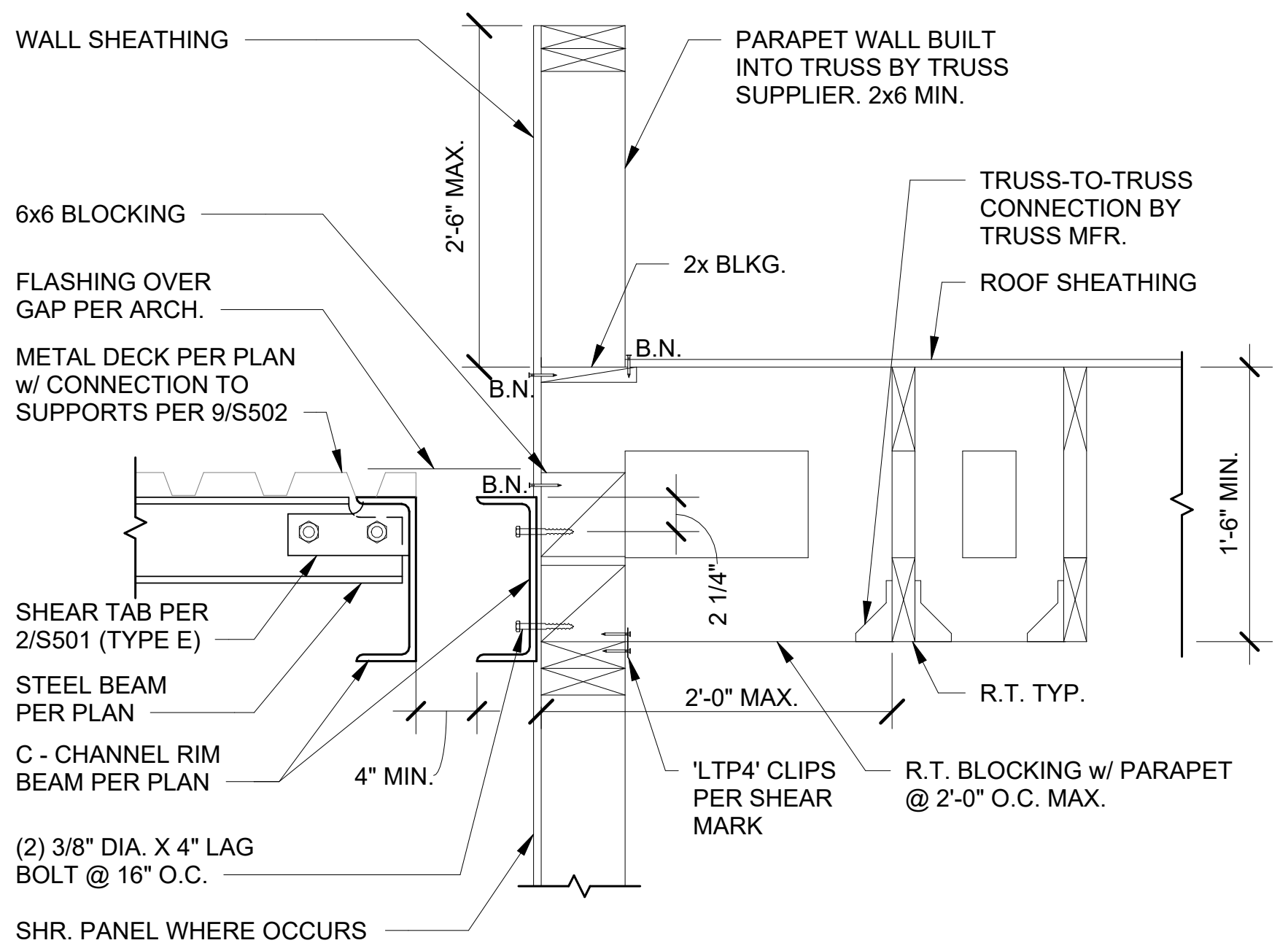
PARAPET KICKER

SCALE: NTS 16



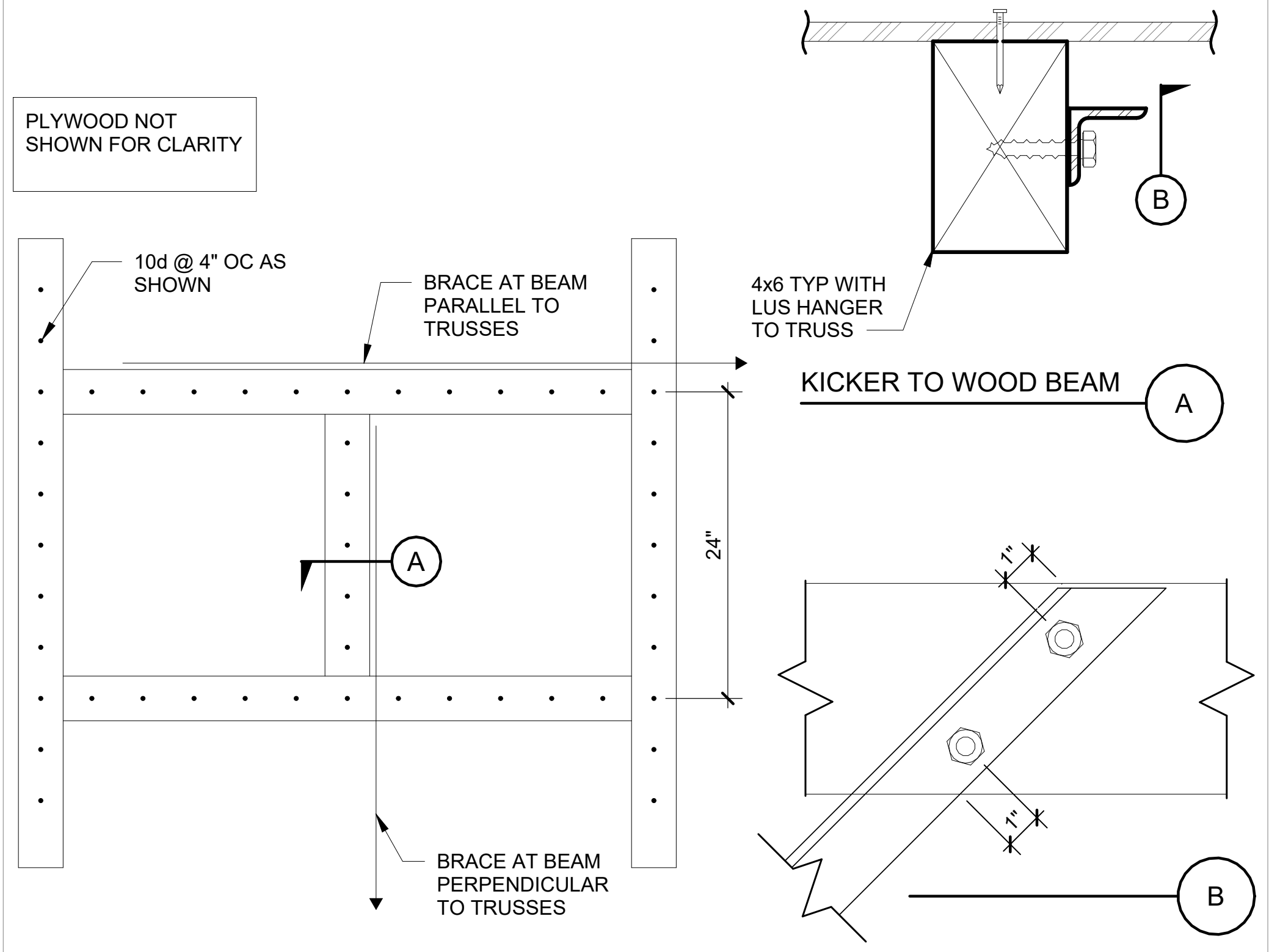
BEAM BRACE

SCALE: NTS 11



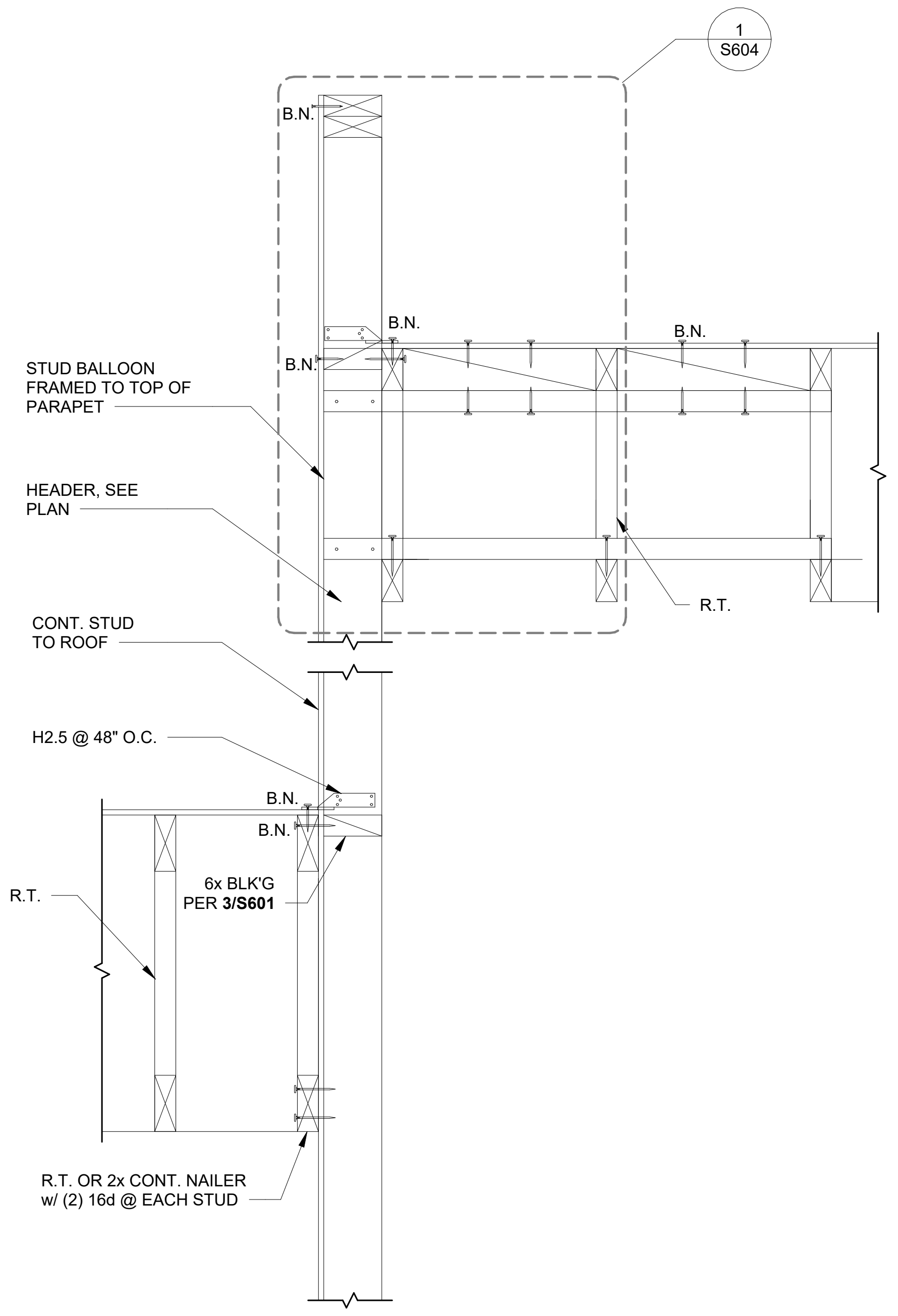
LOWER ROOF TRUSS DETAIL

SCALE: NTS 3



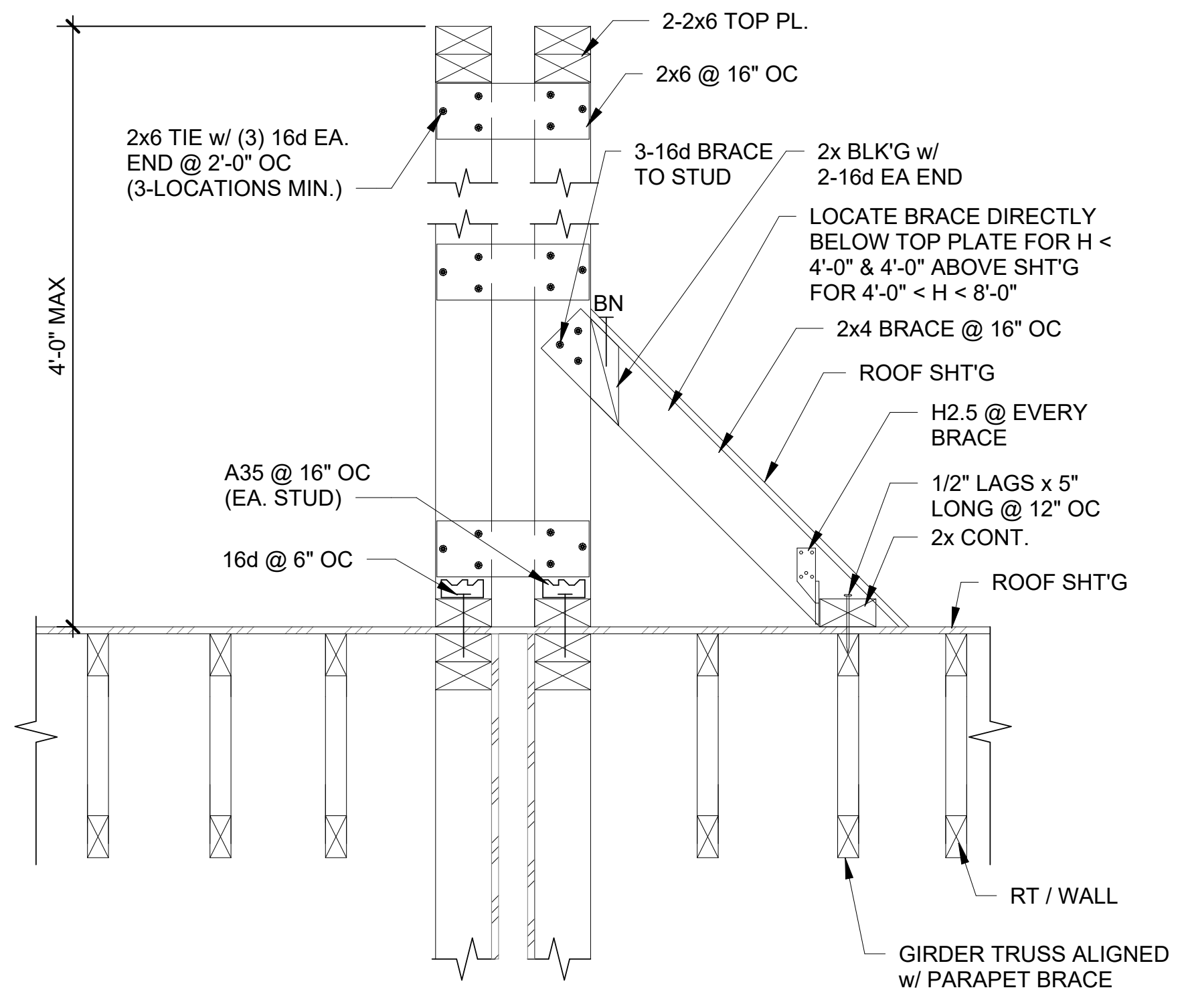
KICKER TO JOIST DETAIL

SCALE: NTS 12



LOWER ROOF TRUSS DETAIL

SCALE: NTS 8



INTERIOR PARAPET WALL

SCALE: NTS 4

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VENTURA COUNTY OFFICE OF EDUCATION
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1 ADDENDUM 1	2026-08-28
△	
△	
△	
△	

TYPICAL WOOD DETAILS

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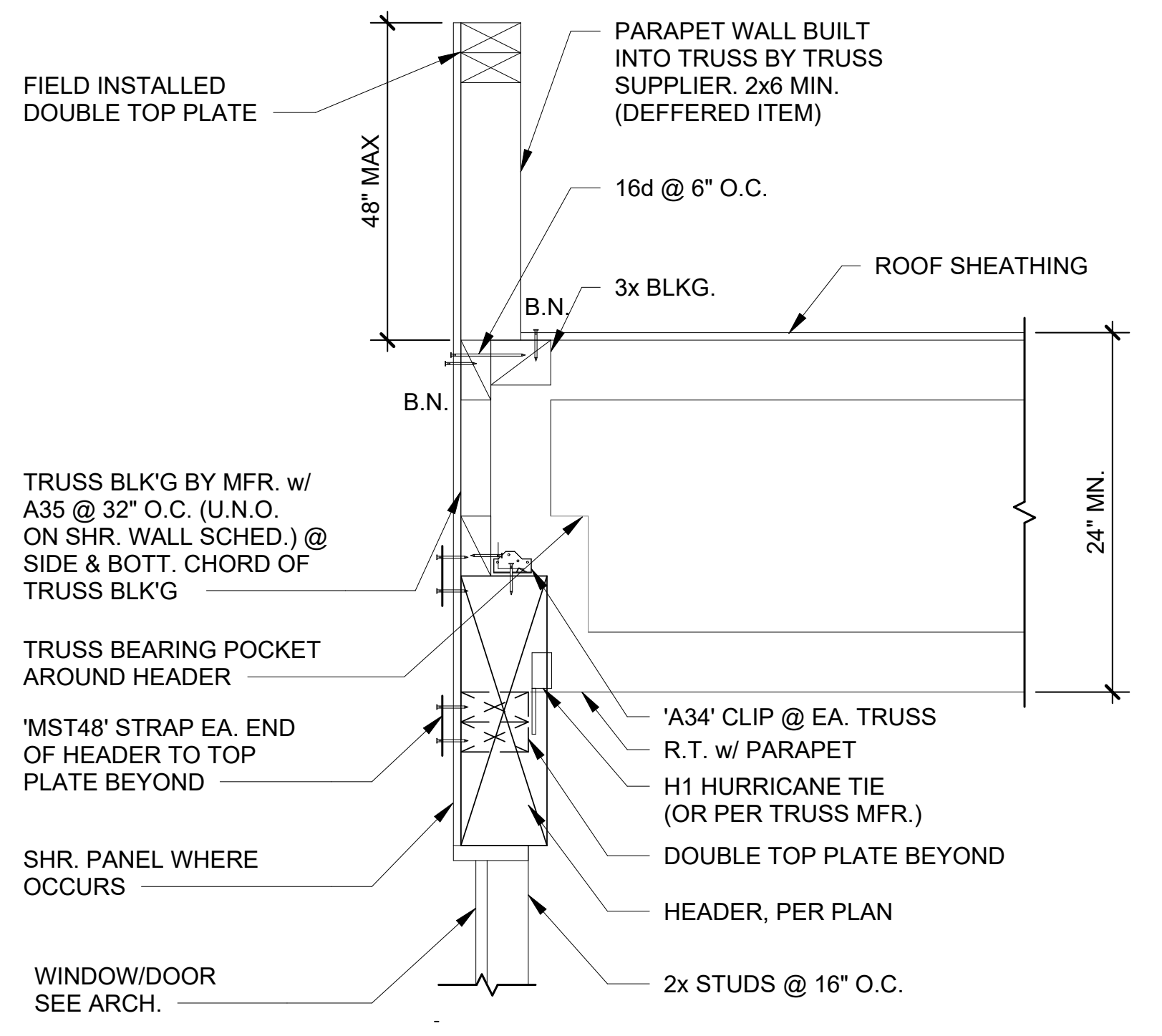
S603

Plot Date: 5/13/2026 10:19:31 AM

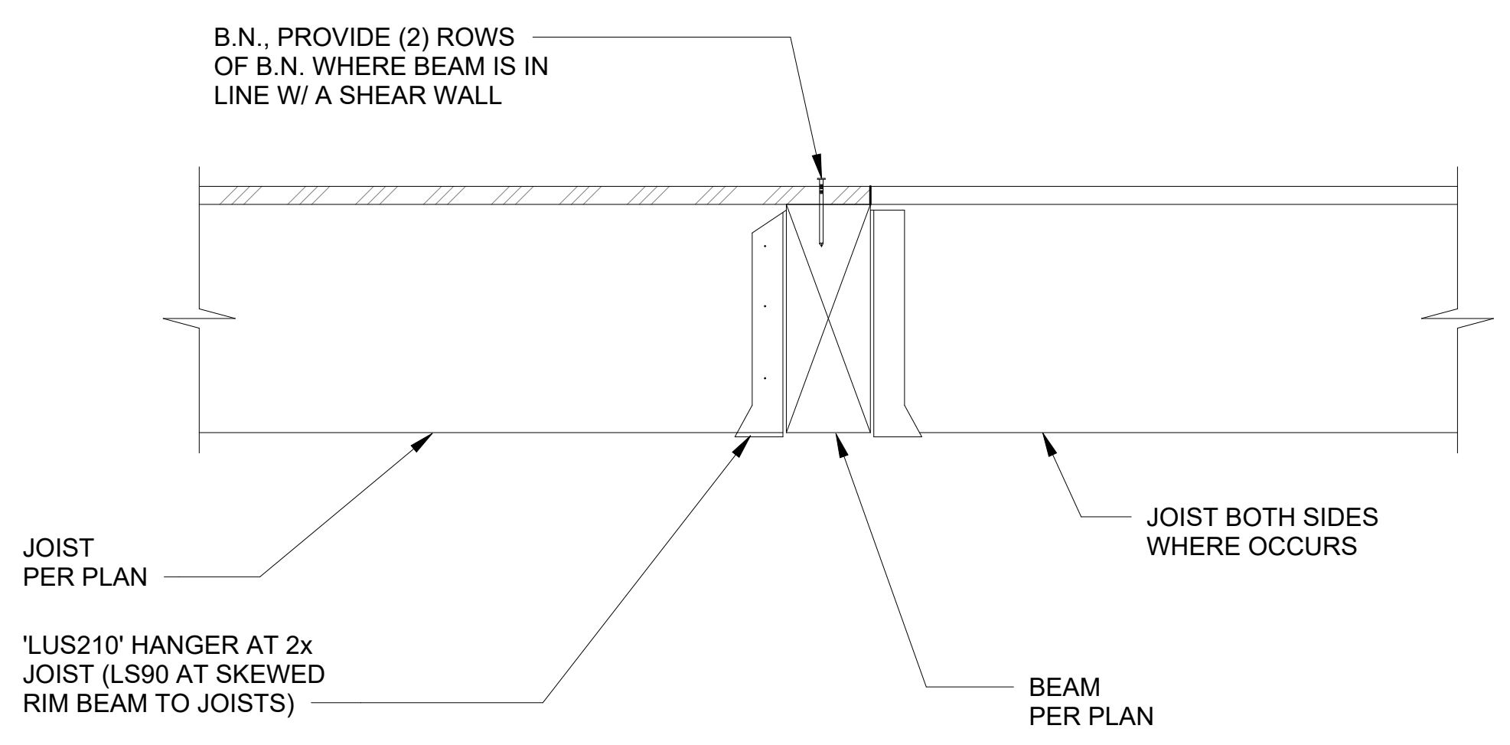
Project #: 2026-056 R24


FIELD INSTALLED DOUBLE TOP PLATE
PARAPET WALL BUILT INTO TRUSS BY TRUSS SUPPLIER. 2x6 MIN. (DEFFERED ITEM)
48" MAX
16d @ 6" O.C.
3x BLKG.
B.N.
ROOF SHEATHING
B.N.
24" MIN.
TRUSS BLK'G BY MFR. w/ A35 @ 32" O.C. (U.N.O. ON SHR. WALL SCHED.) @ SIDE & BOTT. CHORD OF TRUSS BLK'G
TRUSS BEARING POCKET AROUND HEADER
'MST48' STRAP EA. END OF HEADER TO TOP PLATE BEYOND
'A34' CLIP @ EA. TRUSS
R.T. w/ PARAPET
H1 HURRICANE TIE (OR PER TRUSS MFR.)
SHR. PANEL WHERE OCCURS
DOUBLE TOP PLATE BEYOND
HEADER, PER PLAN
WINDOW/DOOR SEE ARCH.
2x STUDS @ 16" O.C.

ROOF TRUSS PERP TO EXT HEADER

SCALE: NTS

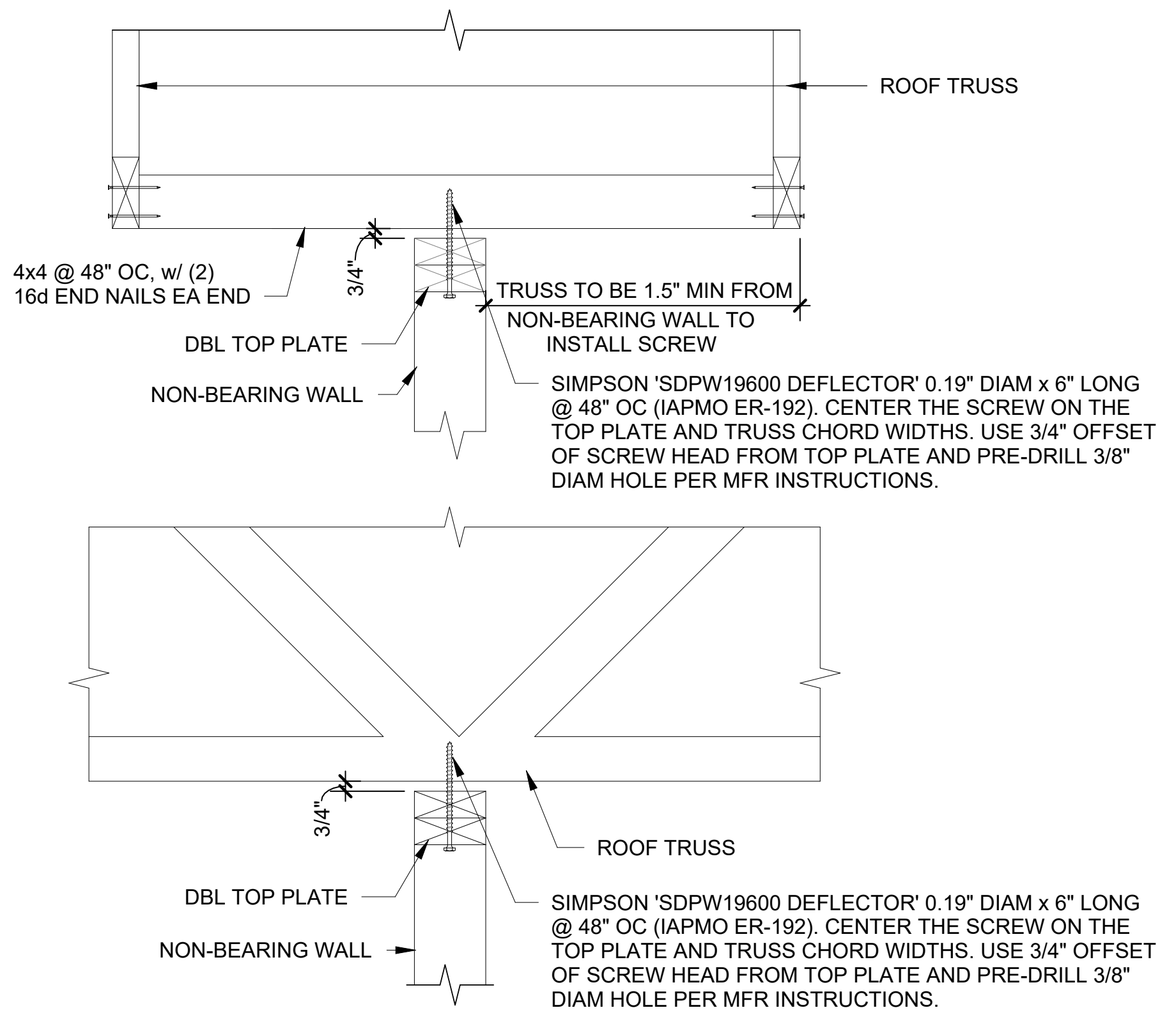
13


B.N., PROVIDE (2) ROWS OF B.N. WHERE BEAM IS IN LINE W/ A SHEAR WALL
JOIST PER PLAN
'LUS210' HANGER AT 2x JOIST (LS90 AT SKEWED RIM BEAM TO JOISTS)
JOIST BOTH SIDES WHERE OCCURS
BEAM PER PLAN

TYPICAL WOOD JOIST AT FLUSH WOOD BEAM

SCALE: NTS

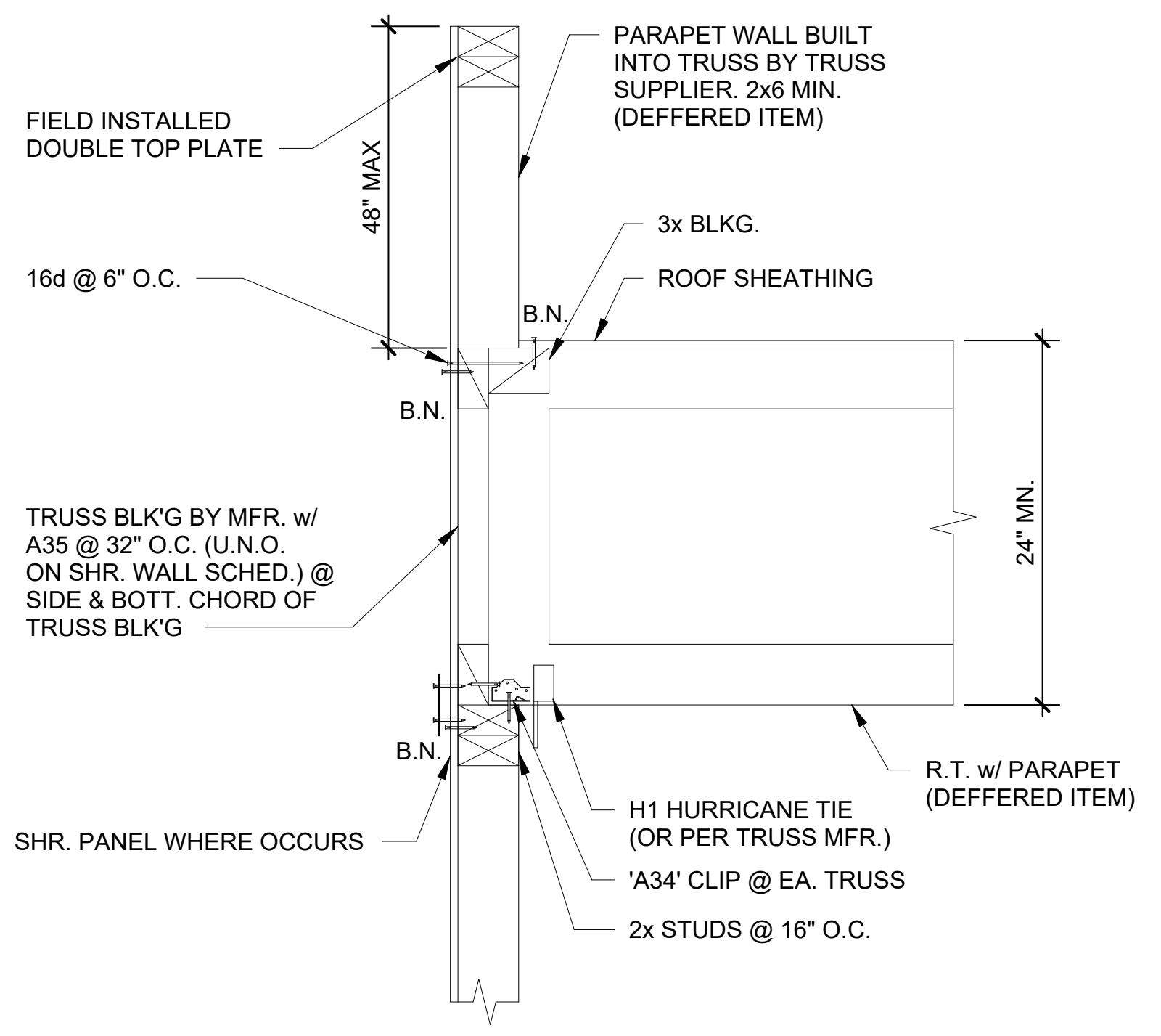
9


ROOF TRUSS
4x4 @ 48" OC, w/ (2) 16d END NAILS EA END
3/4"
TRUSS TO BE 1.5" MIN FROM NON-BEARING WALL TO INSTALL SCREW
DBL TOP PLATE
NON-BEARING WALL
SIMPSON 'SDPW19600 DEFLECTOR' 0.19" DIAM x 6" LONG @ 48" OC (IAPMO ER-192). CENTER THE SCREW ON THE TOP PLATE AND TRUSS CHORD WIDTHS. USE 3/4" OFFSET OF SCREW HEAD FROM TOP PLATE AND PRE-DRILL 3/8" DIAM HOLE PER MFR INSTRUCTIONS.
3/4"
ROOF TRUSS
DBL TOP PLATE
NON-BEARING WALL
SIMPSON 'SDPW19600 DEFLECTOR' 0.19" DIAM x 6" LONG @ 48" OC (IAPMO ER-192). CENTER THE SCREW ON THE TOP PLATE AND TRUSS CHORD WIDTHS. USE 3/4" OFFSET OF SCREW HEAD FROM TOP PLATE AND PRE-DRILL 3/8" DIAM HOLE PER MFR INSTRUCTIONS.

TRUSS TO NON-STRUCTURAL WALL

SCALE: NTS

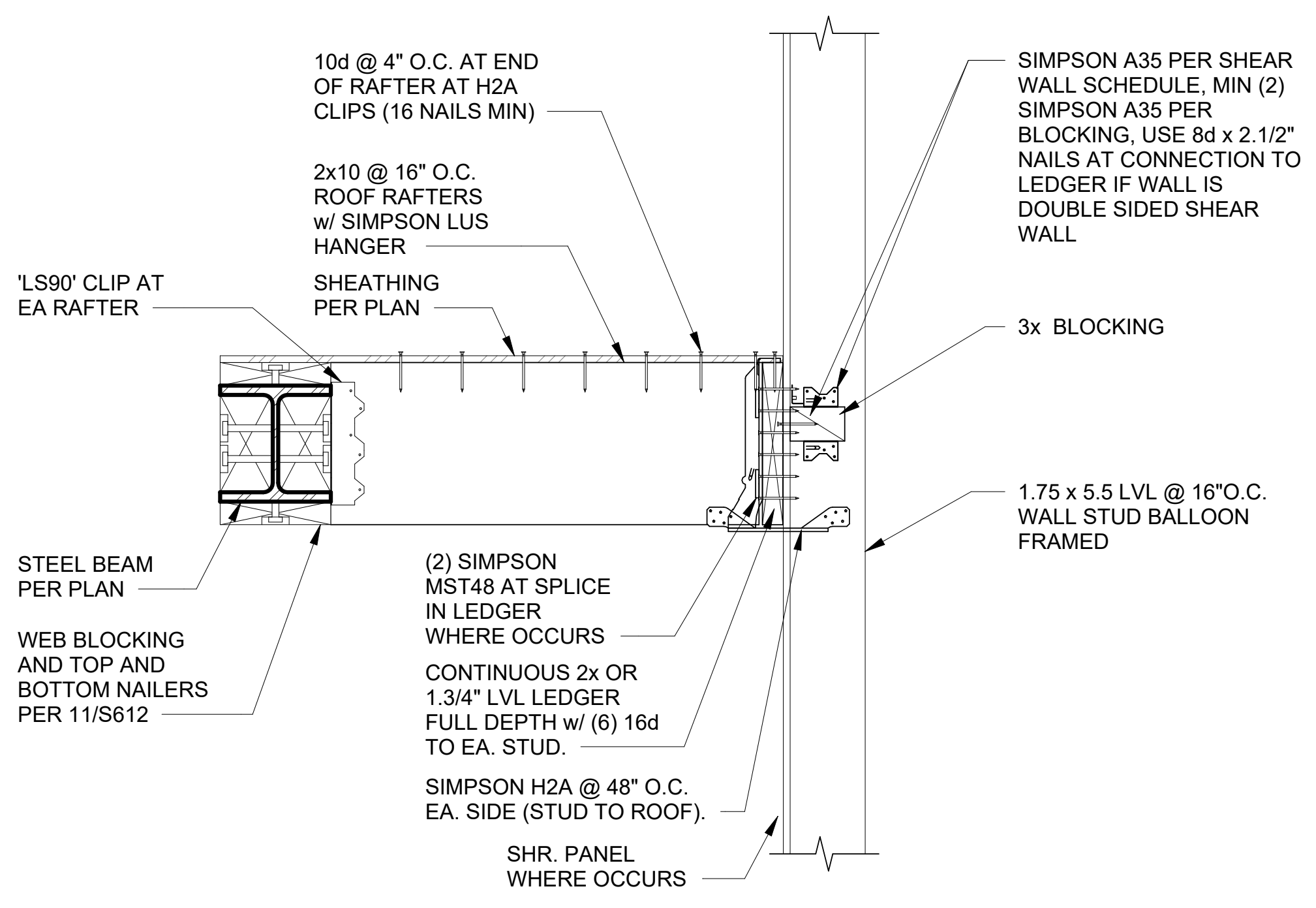
5


FIELD INSTALLED DOUBLE TOP PLATE
PARAPET WALL BUILT INTO TRUSS BY TRUSS SUPPLIER. 2x6 MIN. (DEFFERED ITEM)
48" MAX
16d @ 6" O.C.
3x BLKG.
ROOF SHEATHING
B.N.
B.N.
24" MN.
TRUSS BLK'G BY MFR. w/ A35 @ 32" O.C. (U.N.O. ON SHR. WALL SCHED.) @ SIDE & BOTT. CHORD OF TRUSS BLK'G
B.N.
R.T. w/ PARAPET (DEFFERED ITEM)
SHR. PANEL WHERE OCCURS
H1 HURRICANE TIE (OR PER TRUSS MFR.)
'A34' CLIP @ EA. TRUSS
2x STUDS @ 16" O.C.

ROOF TRUSS PERP TO EXT WALL

SCALE: NTS

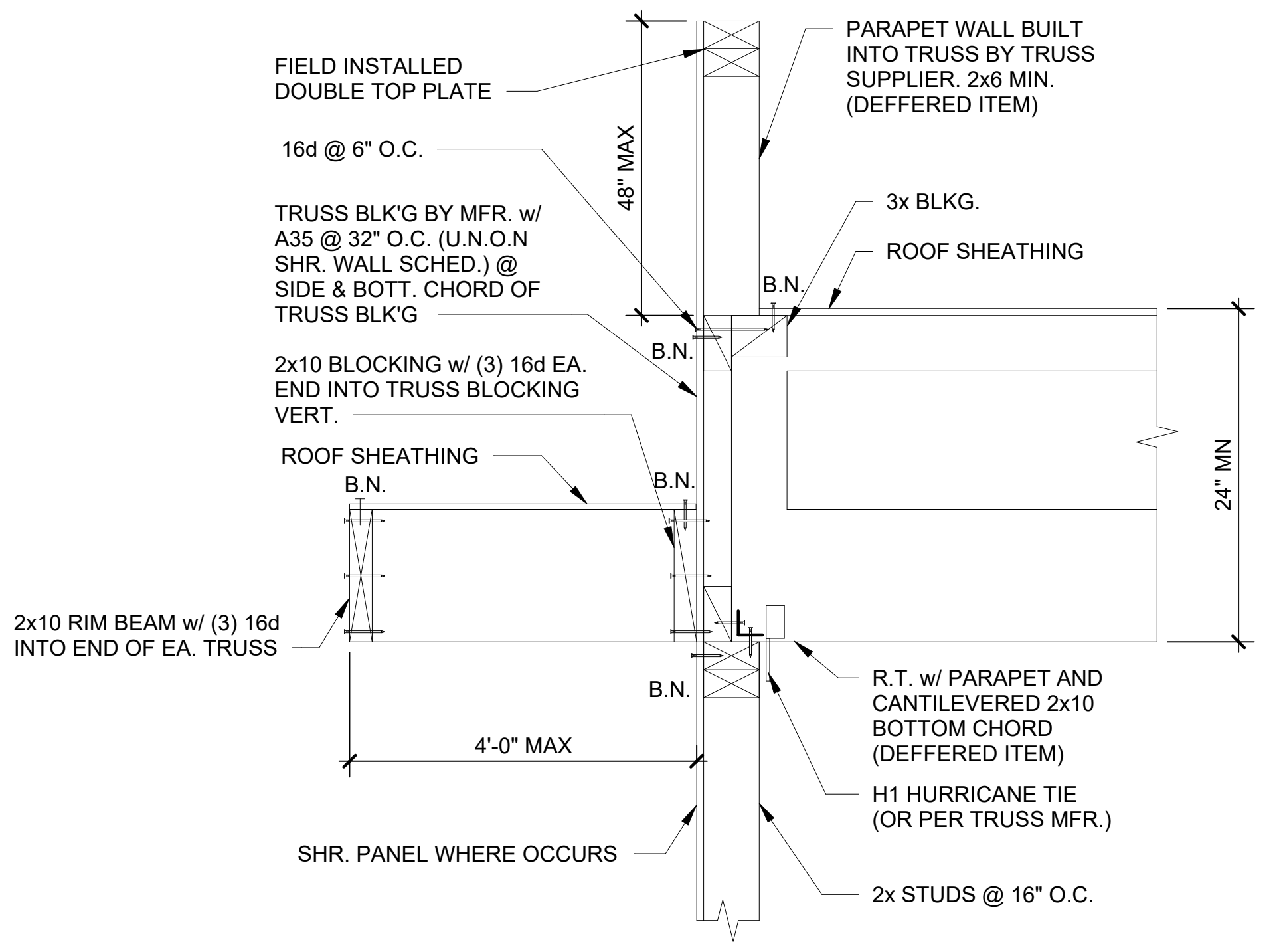
1


10d @ 4" O.C. AT END OF RAFTER AT H2A CLIPS (16 NAILS MIN)
2x10 @ 16" O.C. ROOF RAFTERS w/ SIMPSON LUS HANGER
'LS90' CLIP AT EA RAFTER
SHEATHING PER PLAN
SIMPSON A35 PER SHEAR WALL SCHEDULE, MIN (2) SIMPSON A35 PER BLOCKING, USE 8d x 2.1/2" NAILS AT CONNECTION TO LEDGER IF WALL IS DOUBLE SIDED SHEAR WALL
3x BLOCKING
1.75 x 5.5 LVL @ 16"O.C. WALL STUD BALLOON FRAMED
STEEL BEAM PER PLAN
WEB BLOCKING AND TOP AND BOTTOM NAILERS PER 11/S612
(2) SIMPSON MST48 AT SPLICE IN LEDGER WHERE OCCURS
CONTINUOUS 2x OR 1.3/4" LVL LEDGER FULL DEPTH w/ (6) 16d TO EA. STUD.
SIMPSON H2A @ 48" O.C. EA. SIDE (STUD TO ROOF).
SHR. PANEL WHERE OCCURS

LOW EYEBROWN TO WALL

SCALE: NTS

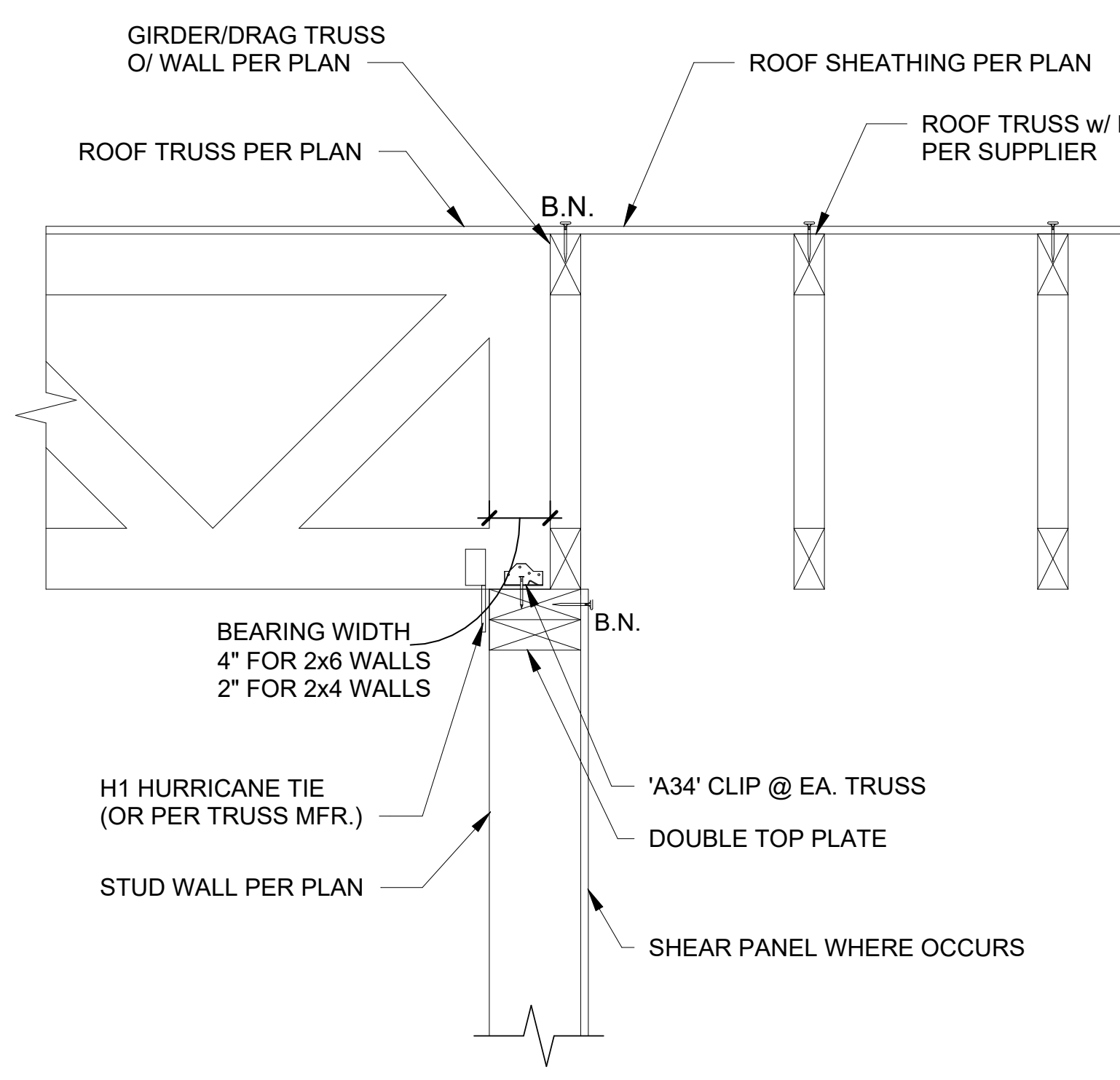
14


FIELD INSTALLED DOUBLE TOP PLATE
PARAPET WALL BUILT INTO TRUSS BY TRUSS SUPPLIER. 2x6 MIN. (DEFFERED ITEM)
16d @ 6" O.C.
48" MAX
TRUSS BLK'G BY MFR. w/ A35 @ 32" O.C. (U.N.O.N SHR. WALL SCHED.) @ SIDE & BOTT. CHORD OF TRUSS BLK'G
3x BLKG.
ROOF SHEATHING
B.N.
B.N.
2x10 BLOCKING w/ (3) 16d EA. END INTO TRUSS BLOCKING VERT.
ROOF SHEATHING
B.N.
B.N.
24" MN
2x10 RIM BEAM w/ (3) 16d INTO END OF EA. TRUSS
B.N.
R.T. w/ PARAPET AND CANTILEVERED 2x10 BOTTOM CHORD (DEFFERED ITEM)
4'-0" MAX
H1 HURRICANE TIE (OR PER TRUSS MFR.)
SHR. PANEL WHERE OCCURS
2x STUDS @ 16" O.C.

ROOF TRUSS PERP TO EXT WALL w/ EYEBROW

SCALE: NTS

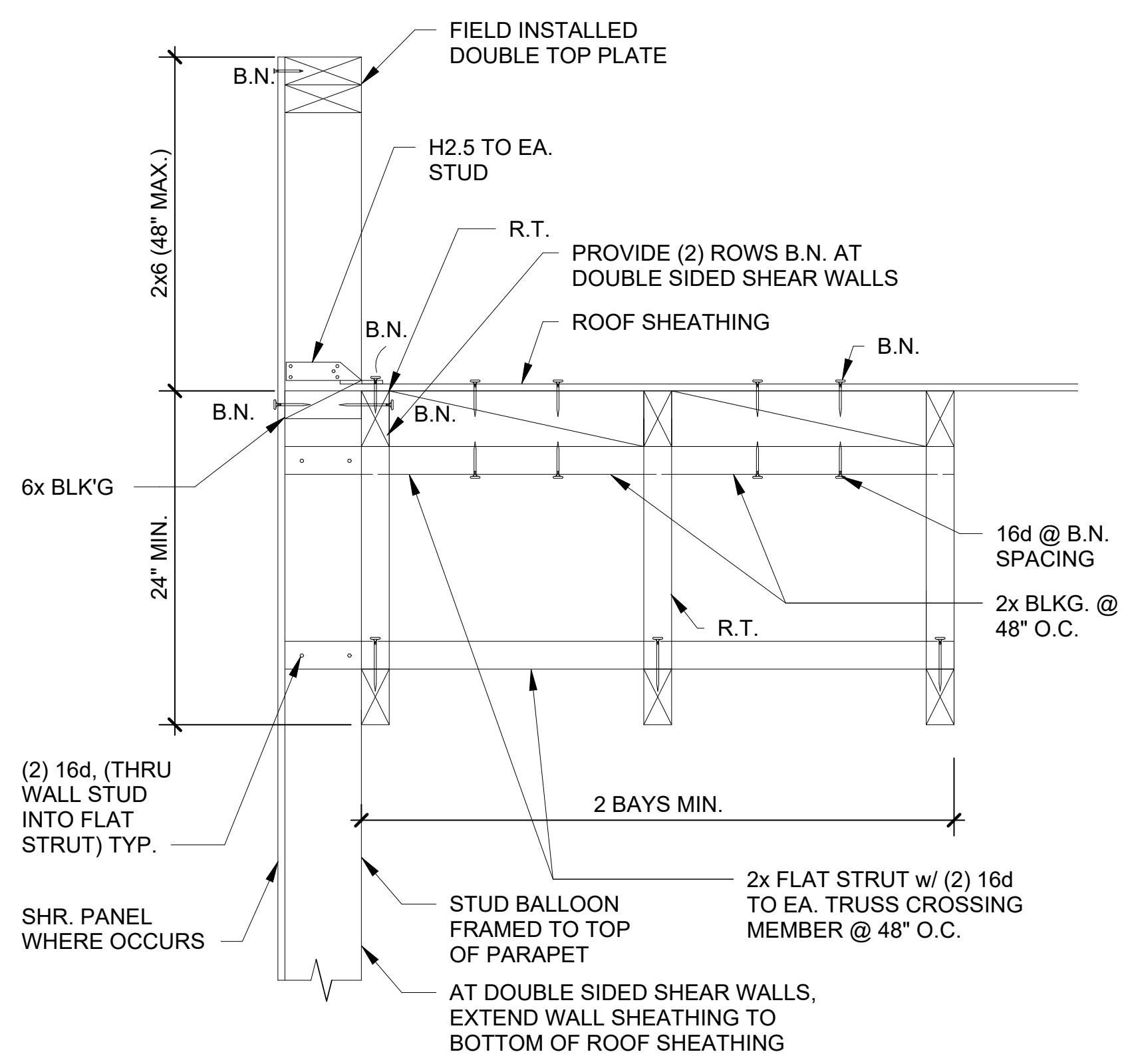
10


GIRDER/DRAG TRUSS O/ WALL PER PLAN
ROOF SHEATHING PER PLAN
ROOF TRUSS PER PLAN
ROOF TRUSS w/ HANGER PER SUPPLIER
B.N.
B.N.
BEARING WIDTH 4" FOR 2x6 WALLS 2" FOR 2x4 WALLS
H1 HURRICANE TIE (OR PER TRUSS MFR.)
'A34' CLIP @ EA. TRUSS
DOUBLE TOP PLATE
STUD WALL PER PLAN
SHEAR PANEL WHERE OCCURS

ROOF TRUSS PERP TO INT WALL

SCALE: NTS

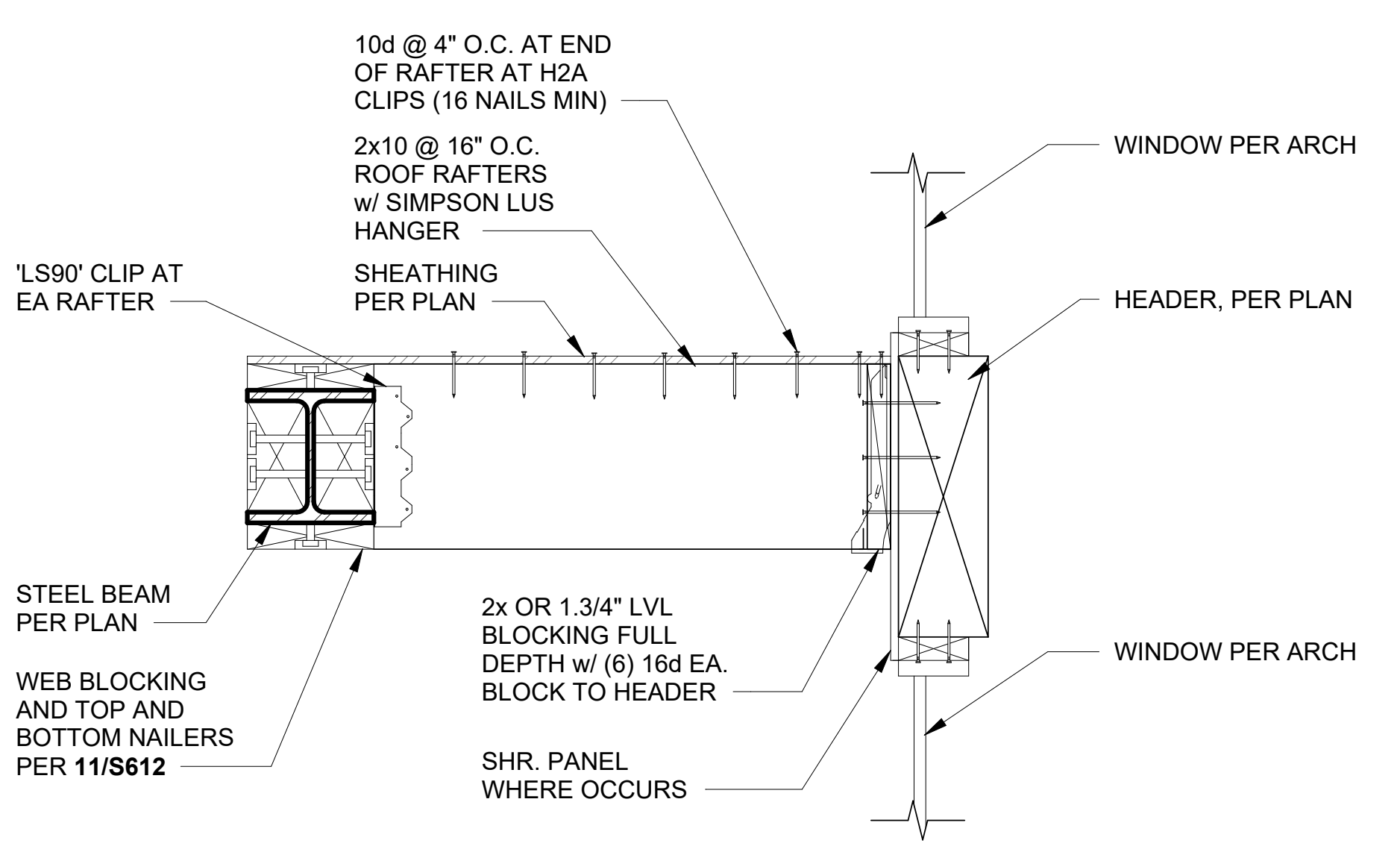
6


B.N.
FIELD INSTALLED DOUBLE TOP PLATE
H2.5 TO EA. STUD
2x6 (48" MAX.)
R.T.
PROVIDE (2) ROWS B.N. AT DOUBLE SIDED SHEAR WALLS
ROOF SHEATHING
B.N.
B.N.
B.N.
B.N.
6x BLK'G
24" MIN.
16d @ B.N. SPACING
2x BLKG. @ 48" O.C.
R.T.
(2) 16d, (THRU WALL STUD INTO FLAT STRUT) TYP.
2 BAYS MIN.
SHR. PANEL WHERE OCCURS
STUD BALLOON FRAMED TO TOP OF PARAPET
2x FLAT STRUT w/ (2) 16d TO EA. TRUSS CROSSING MEMBER @ 48" O.C.
AT DOUBLE SIDED SHEAR WALLS, EXTEND WALL SHEATHING TO BOTTOM OF ROOF SHEATHING

ROOF TRUSS PARALLEL TO EXT WALL

SCALE: NTS

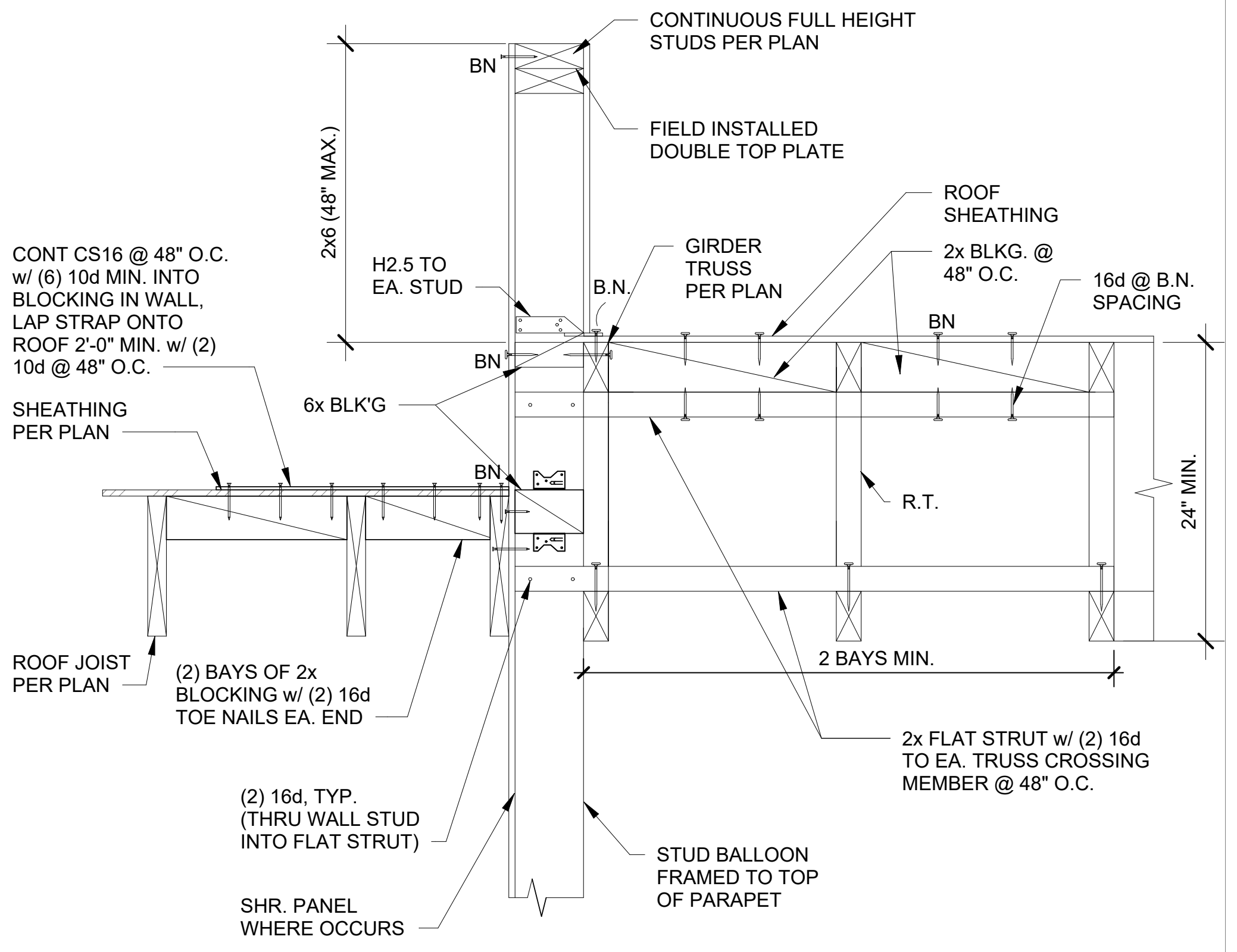
2


10d @ 4" O.C. AT END OF RAFTER AT H2A CLIPS (16 NAILS MIN)
2x10 @ 16" O.C. ROOF RAFTERS w/ SIMPSON LUS HANGER
WINDOW PER ARCH
'LS90' CLIP AT EA RAFTER
SHEATHING PER PLAN
HEADER, PER PLAN
STEEL BEAM PER PLAN
2x OR 1.3/4" LVL BLOCKING FULL DEPTH w/ (6) 16d EA. BLOCK TO HEADER
WINDOW PER ARCH
WEB BLOCKING AND TOP AND BOTTOM NAILERS PER **11/S612**
SHR. PANEL WHERE OCCURS

LOWER EYEBROWN TO HEADER

SCALE: NTS

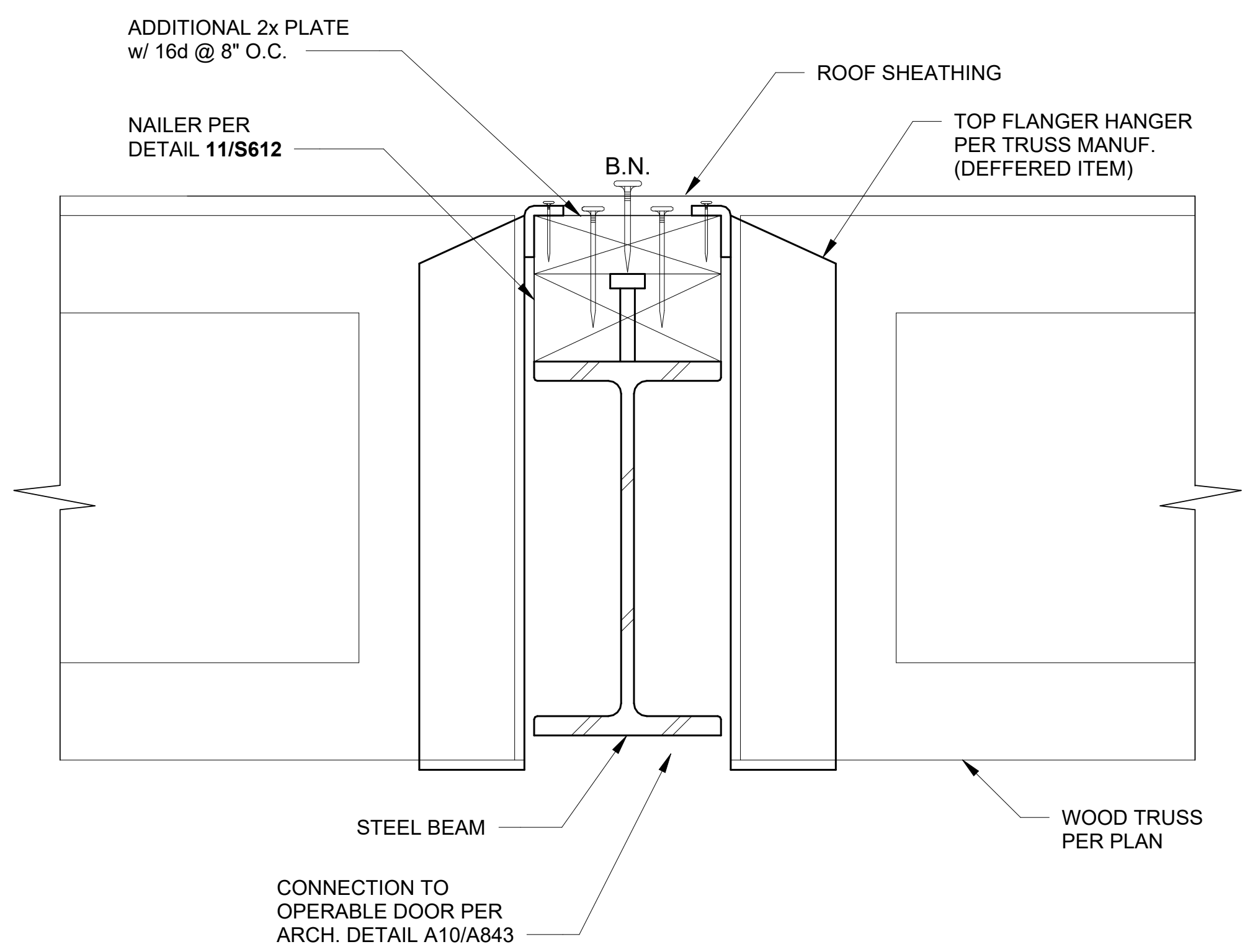
15


CONTINUOUS FULL HEIGHT STUDS PER PLAN
BN
FIELD INSTALLED DOUBLE TOP PLATE
2x6 (48" MAX.)
ROOF SHEATHING
CONT CS16 @ 48" O.C. w/ (6) 10d MIN. INTO BLOCKING IN WALL, LAP STRAP ONTO ROOF 2'-0" MIN. w/ (2) 10d @ 48" O.C.
H2.5 TO EA. STUD
GIRDER TRUSS PER PLAN
B.N.
2x BLKG. @ 48" O.C.
16d @ B.N. SPACING
BN
BN
SHEATHING PER PLAN
6x BLK'G
BN
R.T.
24" MIN.
ROOF JOIST PER PLAN
(2) BAYS OF 2x BLOCKING w/ (2) 16d TOE NAILS EA. END
2 BAYS MIN.
2x FLAT STRUT w/ (2) 16d TO EA. TRUSS CROSSING MEMBER @ 48" O.C.
(2) 16d, TYP. (THRU WALL STUD INTO FLAT STRUT)
STUD BALLOON FRAMED TO TOP OF PARAPET
SHR. PANEL WHERE OCCURS

ROOF TRUSS PARALLEL TO EXT WALL

SCALE: NTS

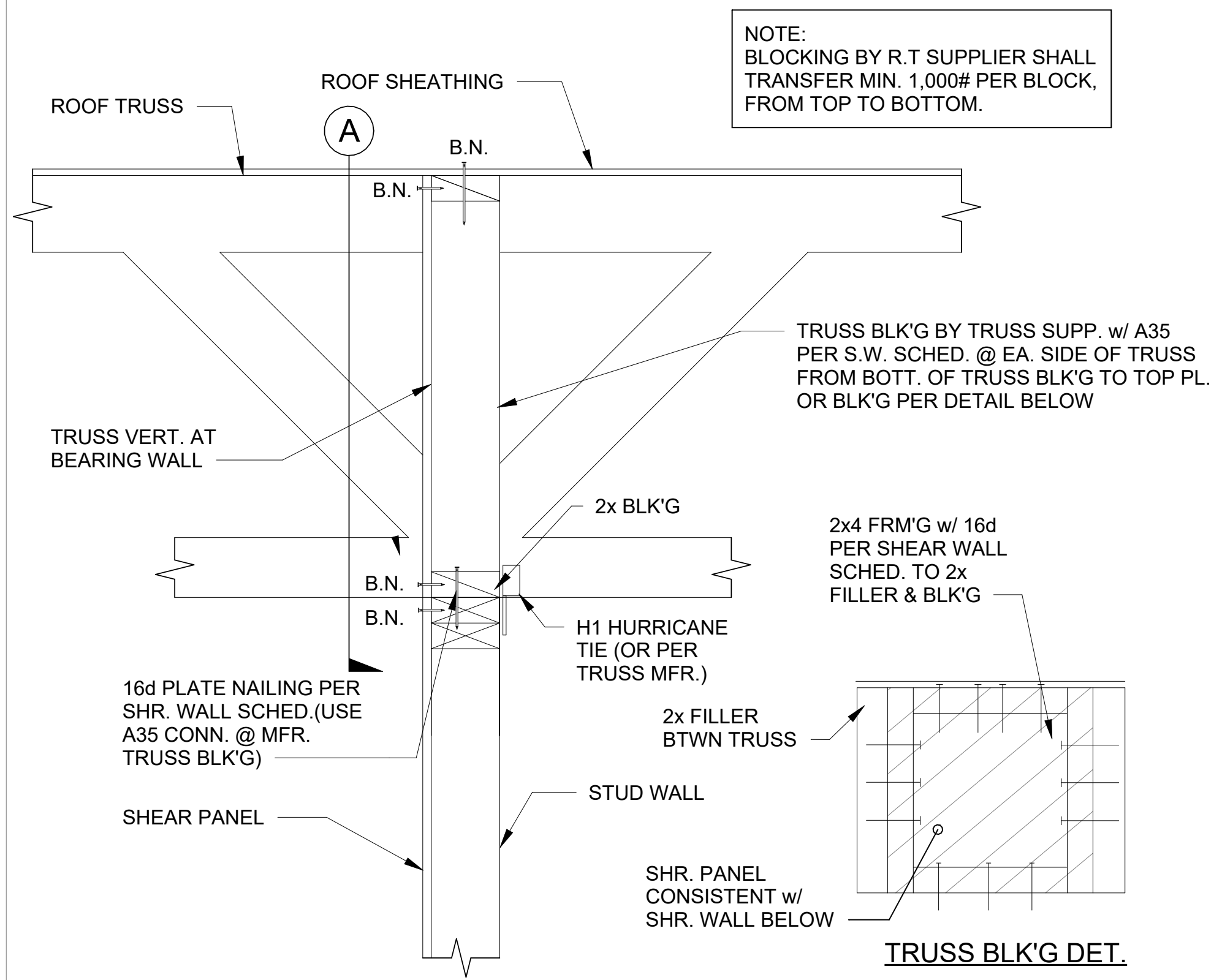
11


ADDITIONAL 2x PLATE w/ 16d @ 8" O.C.
ROOF SHEATHING
NAILER PER DETAIL **11/S612**
B.N.
TOP FLANGER HANGER PER TRUSS MANUF. (DEFFERED ITEM)
STEEL BEAM
WOOD TRUSS PER PLAN
CONNECTION TO OPERABLE DOOR PER ARCH. DETAIL A10/A843

TYPICAL WOOD TRUSS TO STEEL BEAM

SCALE: NTS

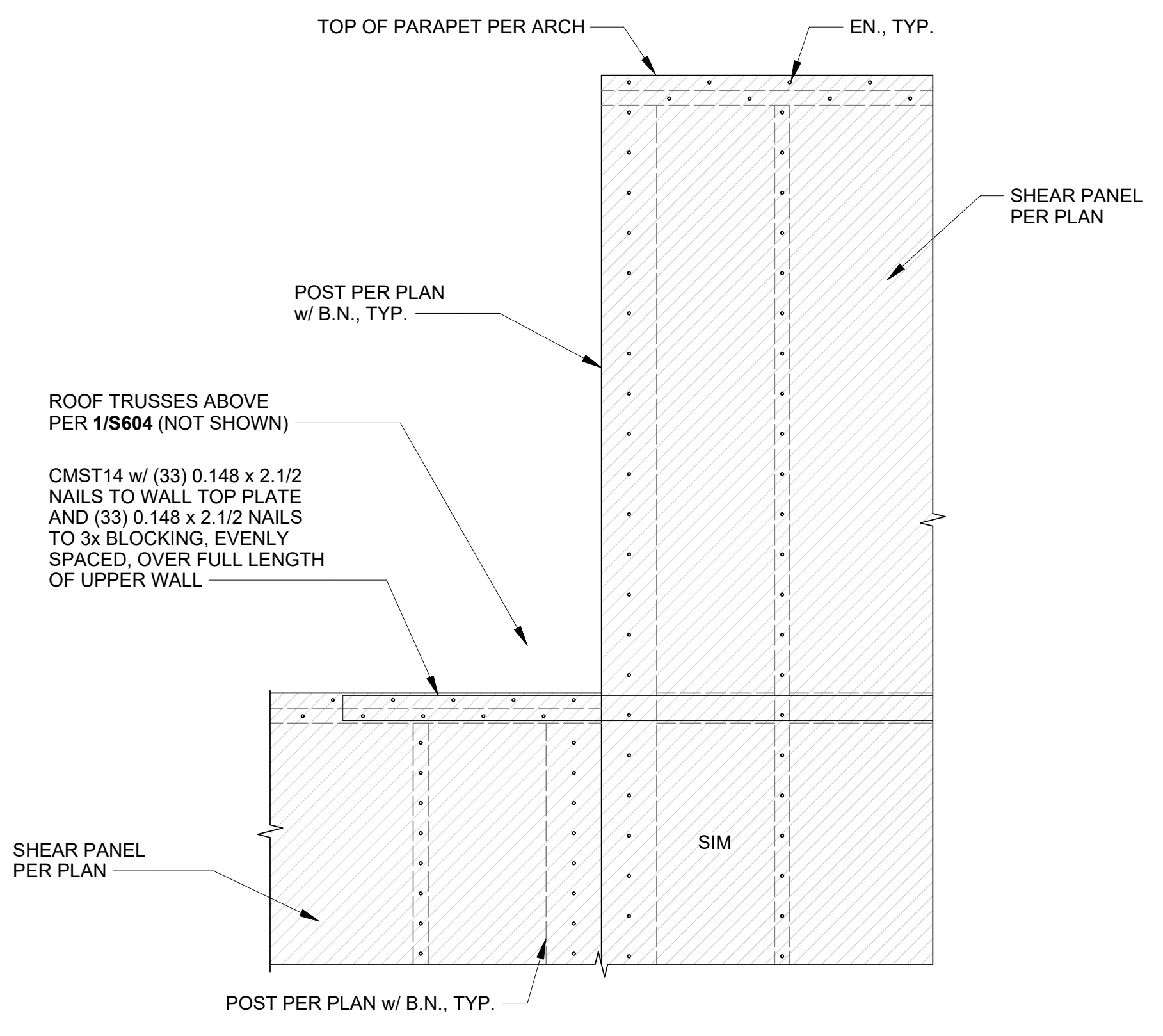
7


NOTE:
BLOCKING BY R.T SUPPLIER SHALL TRANSFER MIN. 1,000# PER BLOCK, FROM TOP TO BOTTOM.
ROOF TRUSS
ROOF SHEATHING
A
B.N.
B.N.
TRUSS BLK'G BY TRUSS SUPP. w/ A35 PER S.W. SCHED. @ EA. SIDE OF TRUSS FROM BOTT. OF TRUSS BLK'G TO TOP PL. OR BLK'G PER DETAIL BELOW
TRUSS VERT. AT BEARING WALL
2x BLK'G
2x4 FRM'G w/ 16d PER SHEAR WALL SCHED. TO 2x FILLER & BLK'G
B.N.
B.N.
H1 HURRICANE TIE (OR PER TRUSS MFR.)
16d PLATE NAILING PER SHR. WALL SCHED.(USE A35 CONN. @ MFR. TRUSS BLK'G)
2x FILLER BTWN TRUSS
STUD WALL
SHEAR PANEL
SHR. PANEL CONSISTENT w/ SHR. WALL BELOW
TRUSS BLK'G DET. ELEVATION A-A

TRUSS BLOCKING

SCALE: NTS

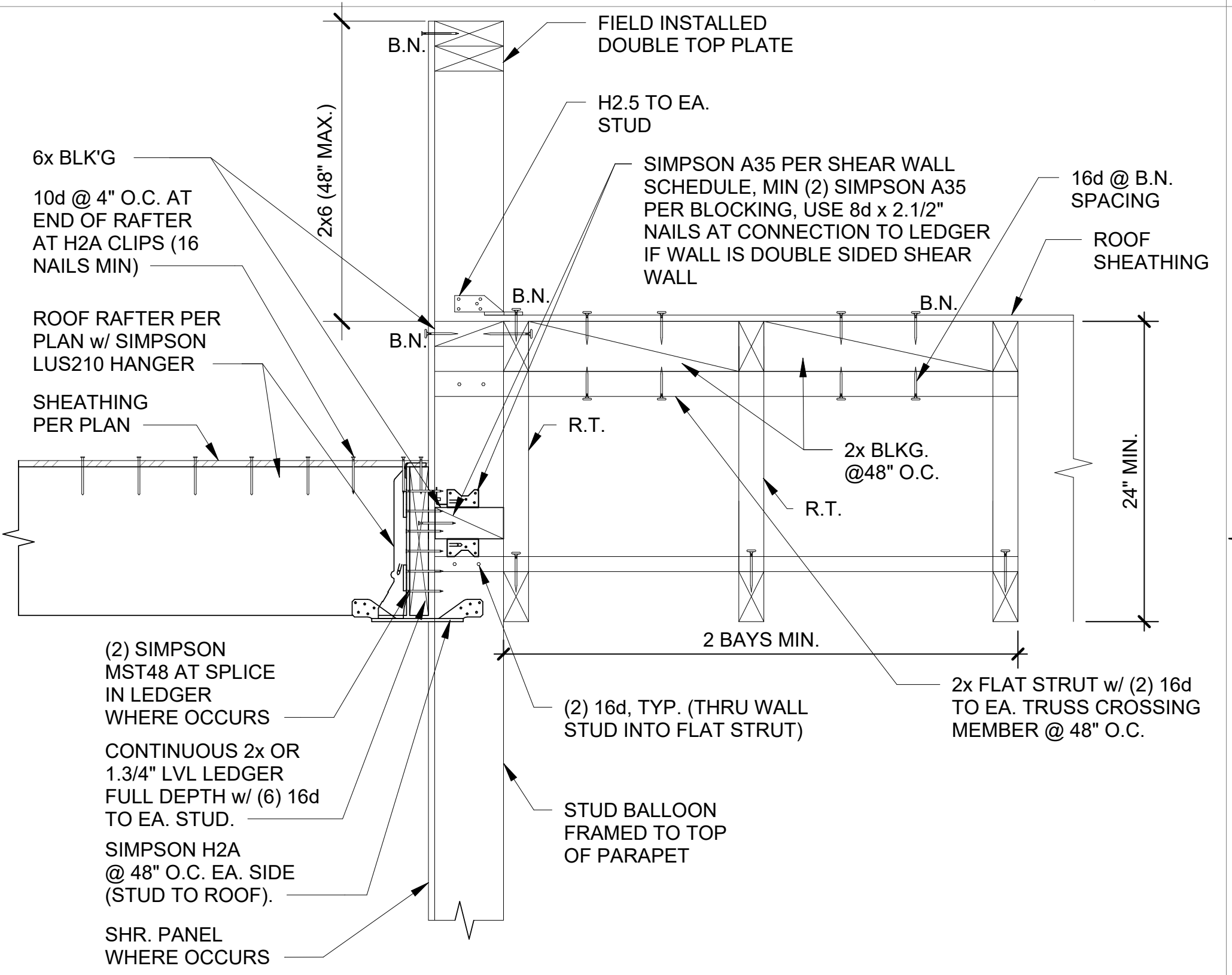
3


TOP OF PARAPET PER ARCH
EN., TYP.
SHEAR PANEL PER PLAN
POST PER PLAN w/ B.N., TYP.
ROOF TRUSSES ABOVE PER **1/S604** (NOT SHOWN)
CMST14 w/ (33) 0.148 x 2.1/2 NAILS TO WALL TOP PLATE AND (33) 0.148 x 2.1/2 NAILS TO 3x BLOCKING, EVENLY SPACED, OVER FULL LENGTH OF UPPER WALL
SHEAR PANEL PER PLAN
SIM
POST PER PLAN w/ B.N., TYP.

NAILING AT HIGH/LOW SHEAR WALL

SCALE: NTS

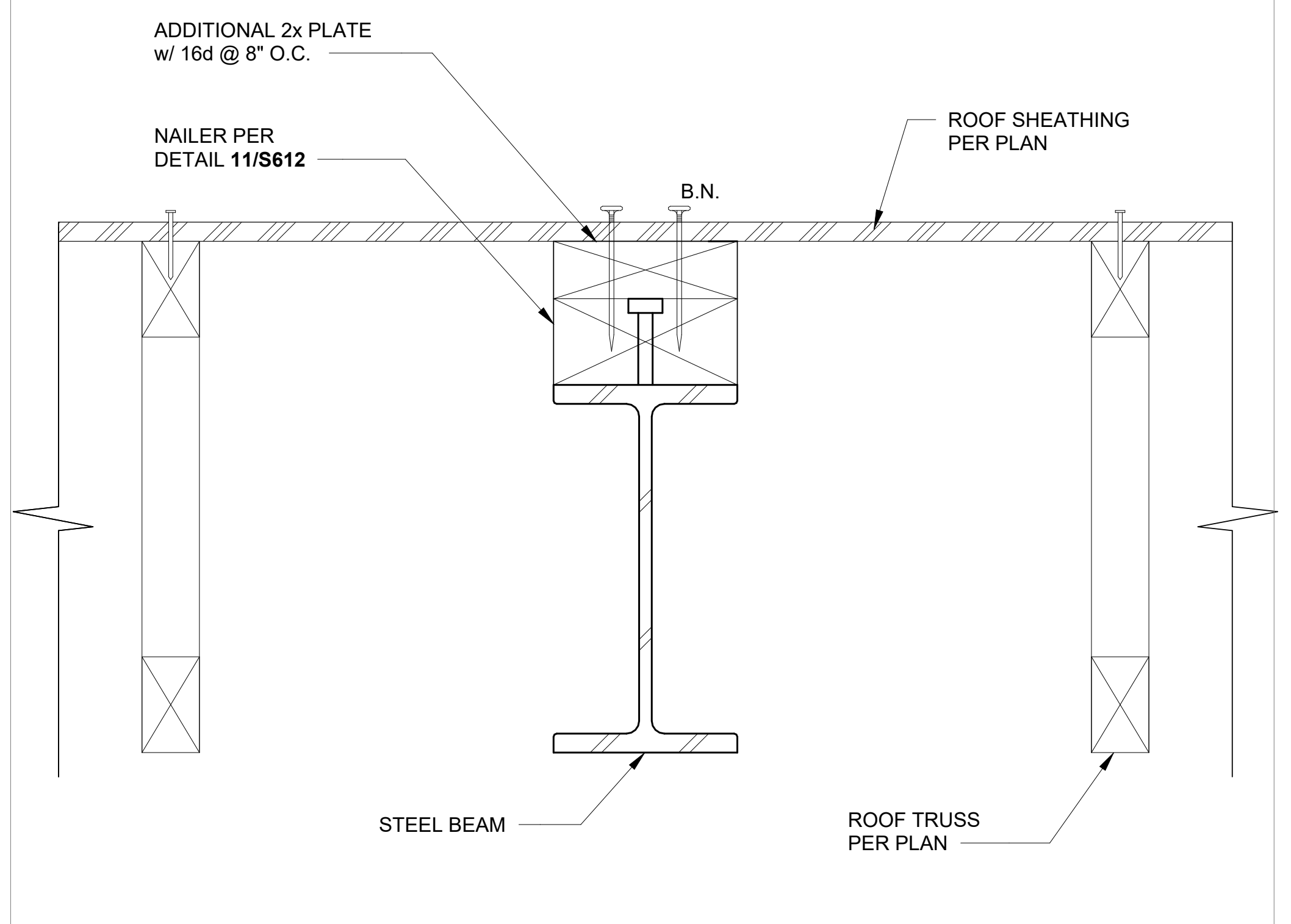
16


B.N.
FIELD INSTALLED DOUBLE TOP PLATE
H2.5 TO EA. STUD
2x6 (48" MAX.)
6x BLK'G
10d @ 4" O.C. AT END OF RAFTER AT H2A CLIPS (16 NAILS MIN)
SIMPSON A35 PER SHEAR WALL SCHEDULE, MIN (2) SIMPSON A35 PER BLOCKING, USE 8d x 2.1/2" NAILS AT CONNECTION TO LEDGER IF WALL IS DOUBLE SIDED SHEAR WALL
16d @ B.N. SPACING
ROOF SHEATHING
B.N.
B.N.
B.N.
ROOF RAFTER PER PLAN w/ SIMPSON LUS210 HANGER
SHEATHING PER PLAN
R.T.
2x BLKG. @48" O.C.
R.T.
24" MIN.
2 BAYS MIN.
(2) SIMPSON MST48 AT SPLICE IN LEDGER WHERE OCCURS
CONTINUOUS 2x OR 1.3/4" LVL LEDGER FULL DEPTH w/ (6) 16d TO EA. STUD.
(2) 16d, TYP. (THRU WALL STUD INTO FLAT STRUT)
2x FLAT STRUT w/ (2) 16d TO EA. TRUSS CROSSING MEMBER @ 48" O.C.
SIMPSON H2A @ 48" O.C. EA. SIDE (STUD TO ROOF).
STUD BALLOON FRAMED TO TOP OF PARAPET
SHR. PANEL WHERE OCCURS

ROOF TRUSS PARALLEL TO EXT WALL

SCALE: NTS

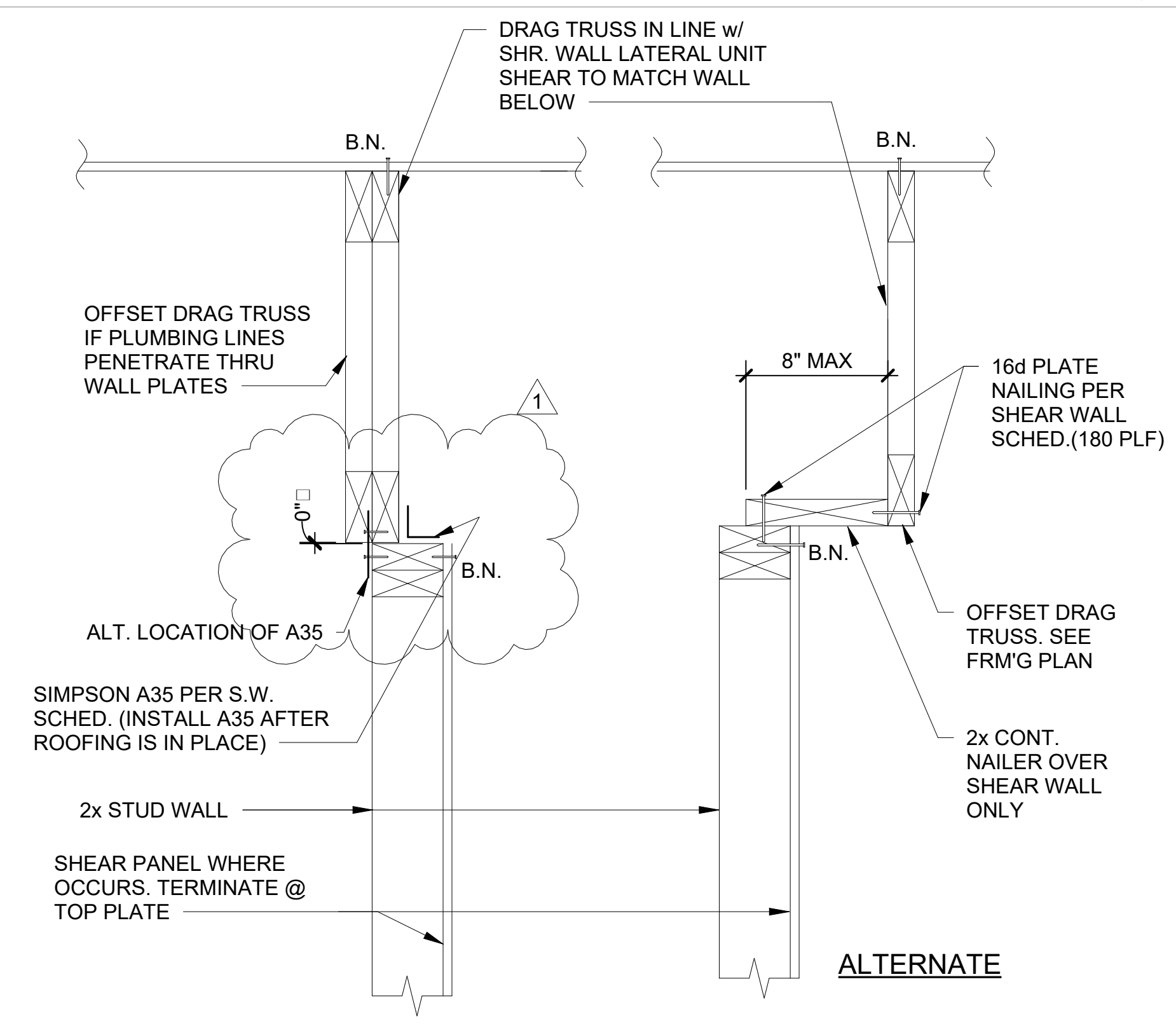
12


ADDITIONAL 2x PLATE w/ 16d @ 8" O.C.
ROOF SHEATHING PER PLAN
NAILER PER DETAIL **11/S612**
B.N.
STEEL BEAM
ROOF TRUSS PER PLAN

WOOD TRUSS PARALLEL TO STEEL BEAM

SCALE: NTS

8


DRAG TRUSS IN LINE w/ SHR. WALL LATERAL UNIT SHEAR TO MATCH WALL BELOW
B.N.
B.N.
OFFSET DRAG TRUSS IF PLUMBING LINES PENETRATE THRU WALL PLATES
1
8" MAX
16d PLATE NAILING PER SHEAR WALL SCHED.(180 PLF)
0"
B.N.
B.N.
ALT. LOCATION OF A35
OFFSET DRAG TRUSS. SEE FRM'G PLAN
SIMPSON A35 PER S.W. SCHED. (INSTALL A35 AFTER ROOFING IS IN PLACE)
2x CONT. NAILER OVER SHEAR WALL ONLY
2x STUD WALL
SHEAR PANEL WHERE OCCURS. TERMINATE @ TOP PLATE
ALTERNATE

ROOF TRUSS PARALLEL TO INT WALL

SCALE: NTS

4

PETRA
STRUCTURAL ENGINEERS

17981 Sky Park Circle
Suite O
Irvine, CA 92614
Tel: (949) 748-7170

PETER SARKIS
No. 5038
Exp. 6/30/27

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

WOOD DETAILS

PERKINS EASTMAN

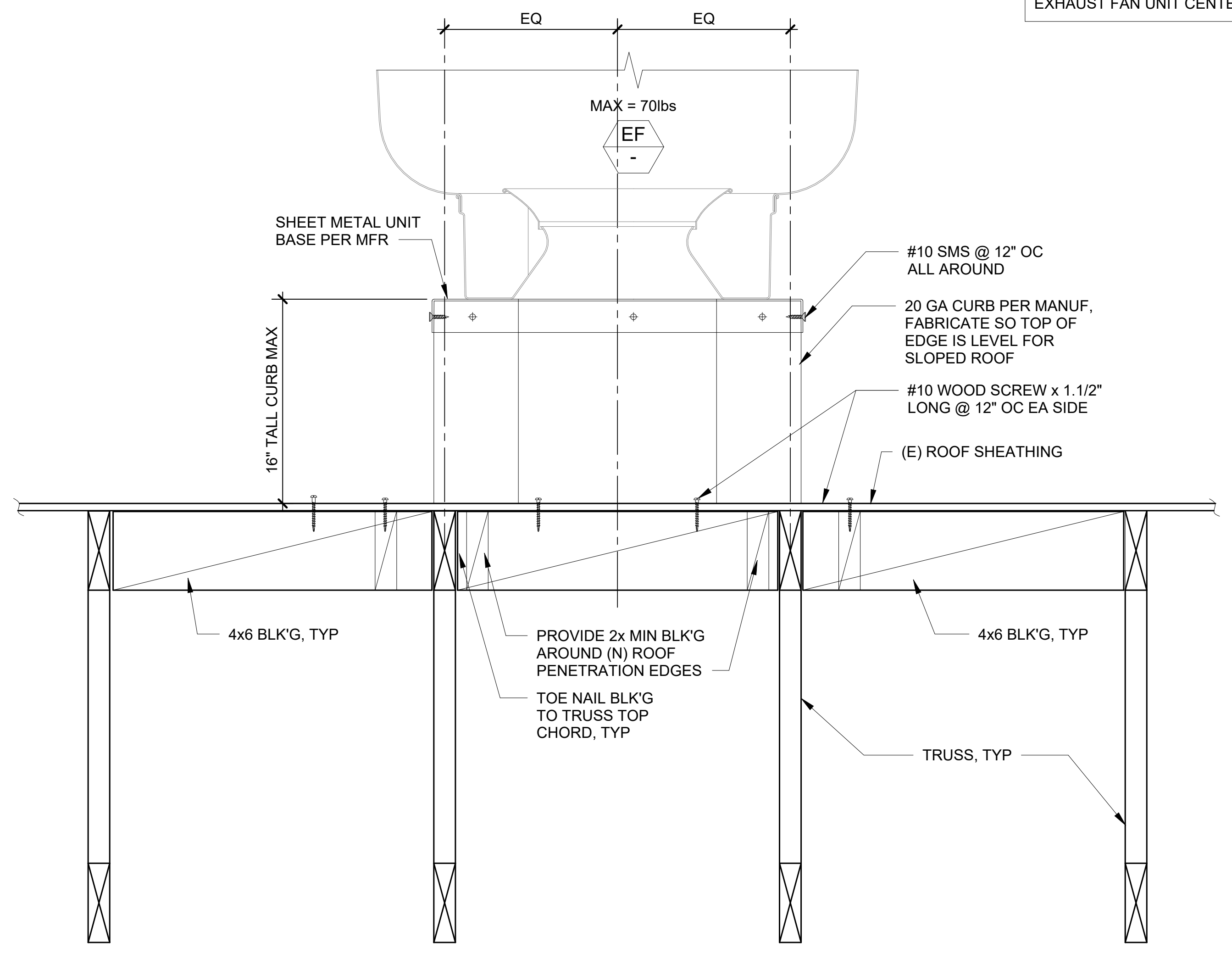
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

S604

Plot Date: 5/13/2026 10:19:33 AM

Project #: 2026-056 R24

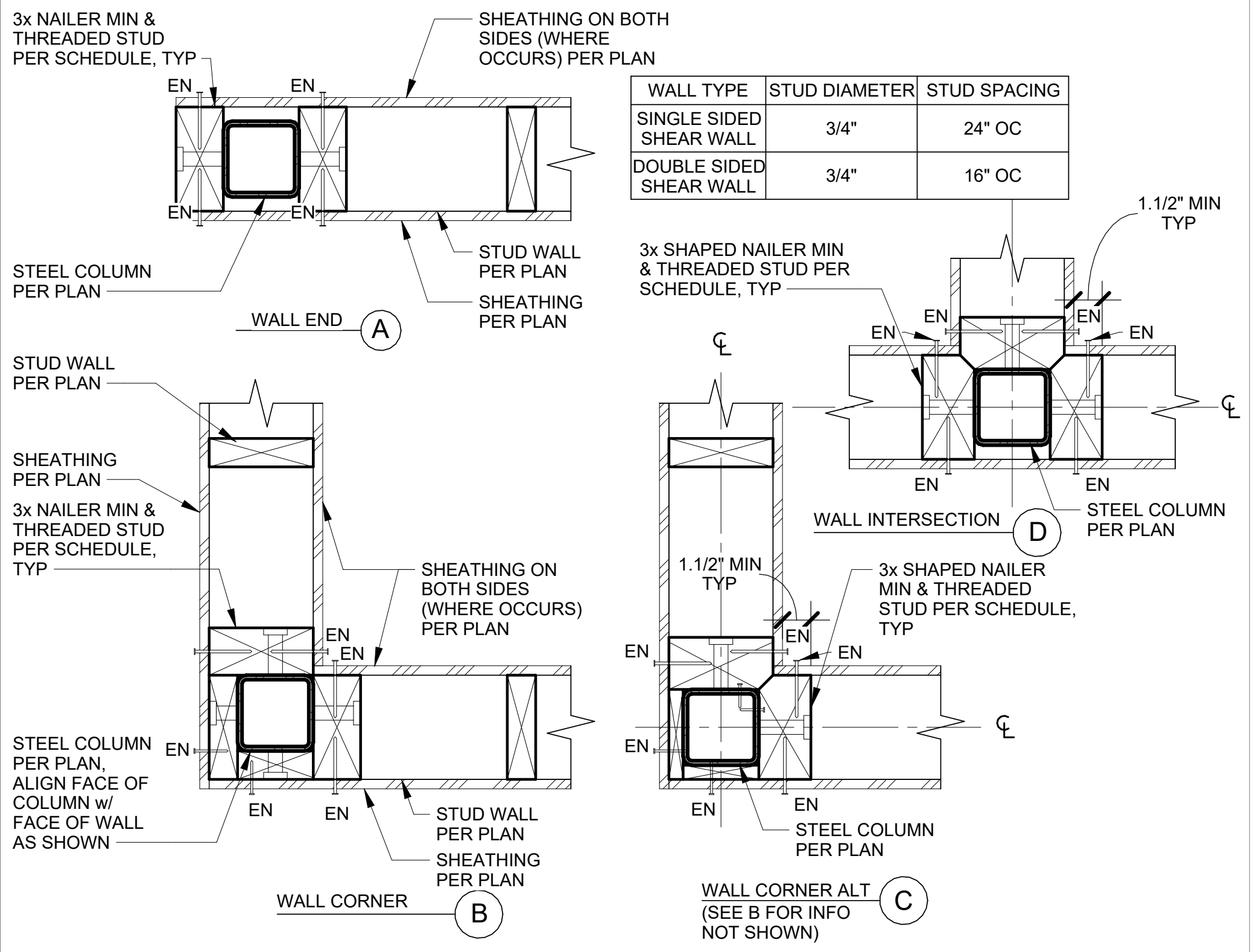
NOTE:
CONTRACTOR TO VERIFY LOCATION OF (E) ROOF TRUSSES, AND TO PLACE EXHAUST FAN UNIT CENTERED IN BAY


EQ
EQ
MAX = 70lbs
EF
-
SHEET METAL UNIT BASE PER MFR
#10 SMS @ 12" OC ALL AROUND
20 GA CURB PER MANUF, FABRICATE SO TOP OF EDGE IS LEVEL FOR SLOPED ROOF
#10 WOOD SCREW x 1.1/2" LONG @ 12" OC EA SIDE
(E) ROOF SHEATHING
16" TALL CURB MAX
4x6 BLK'G, TYP
PROVIDE 2x MIN BLK'G AROUND (N) ROOF PENETRATION EDGES
TOE NAIL BLK'G TO TRUSS TOP CHORD, TYP
4x6 BLK'G, TYP
TRUSS, TYP

DUCT OPENING & EF SUPPORT

SCALE: NTS

10

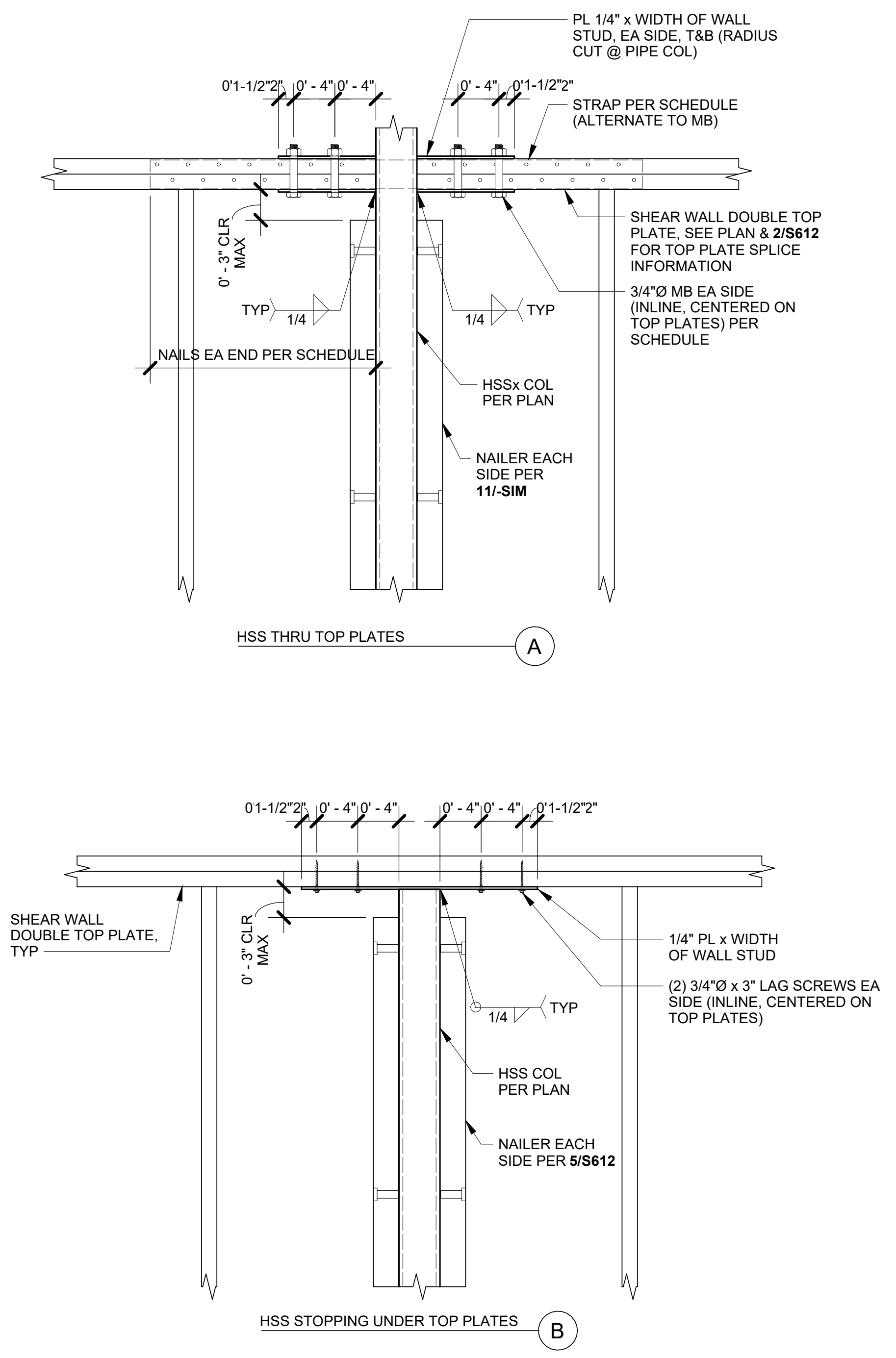

3x NAILER MIN & THREADED STUD PER SCHEDULE, TYP
SHEATHING ON BOTH SIDES (WHERE OCCURS) PER PLAN
EN
STEEL COLUMN PER PLAN
STUD WALL PER PLAN
SHEATHING PER PLAN
WALL END
A
STUD WALL PER PLAN
SHEATHING PER PLAN
3x NAILER MIN & THREADED STUD PER SCHEDULE, TYP
SHEATHING ON BOTH SIDES (WHERE OCCURS) PER PLAN
STEEL COLUMN PER PLAN, ALIGN FACE OF COLUMN w/ FACE OF WALL AS SHOWN
STUD WALL PER PLAN
SHEATHING PER PLAN
WALL CORNER
B
1.1/2" MIN TYP
3x SHAPED NAILER MIN & THREADED STUD PER SCHEDULE, TYP
STEEL COLUMN PER PLAN
WALL CORNER ALT (SEE B FOR INFO NOT SHOWN)
C
℄
3x SHAPED NAILER MIN & THREADED STUD PER SCHEDULE, TYP
1.1/2" MIN TYP
STEEL COLUMN PER PLAN
WALL INTERSECTION
D

WALL TYPE	STUD DIAMETER	STUD SPACING
SINGLE SIDED SHEAR WALL	3/4"	24" OC
DOUBLE SIDED SHEAR WALL	3/4"	16" OC

TYPICAL WOOD NAILER TO STEEL COLUMN AT SHEAR WALLS

SCALE: NTS

5


PL 1/4" x WIDTH OF WALL STUD, EA SIDE, T&B (RADIUS CUT @ PIPE COL)
0'1-1/2"2"
0' - 4"
0' - 4"
0' - 4"
0'1-1/2"2"
STRAP PER SCHEDULE (ALTERNATE TO MB)
0' - 3" CLR MAX
SHEAR WALL DOUBLE TOP PLATE, SEE PLAN & 2/S612 FOR TOP PLATE SPLICE INFORMATION
3/4"Ø MB EA SIDE (INLINE, CENTERED ON TOP PLATES) PER SCHEDULE
TYP
1/4
1/4
TYP
NAILS EA END PER SCHEDULE
HSSx COL PER PLAN
NAILER EACH SIDE PER 11/-SIM
HSS THRU TOP PLATES
A
0'1-1/2"2"
0' - 4"
0' - 4"
0' - 4"
0' - 4"
0'1-1/2"2"
SHEAR WALL DOUBLE TOP PLATE, TYP
0' - 3" CLR MAX
1/4" PL x WIDTH OF WALL STUD
(2) 3/4"Ø x 3" LAG SCREWS EA SIDE (INLINE, CENTERED ON TOP PLATES)
1/4
TYP
HSS COL PER PLAN
NAILER EACH SIDE PER 5/S612
HSS STOPPING UNDER TOP PLATES
B

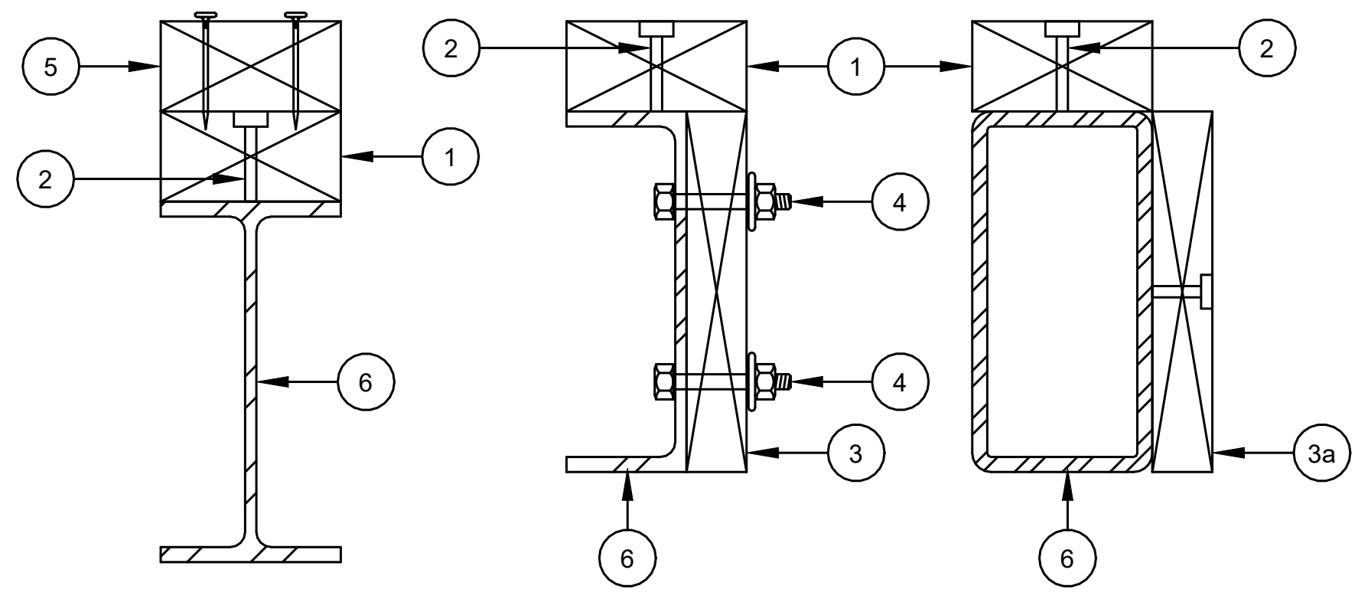
TOP PLATE SPLICE	# OF MB EACH SIDE	STRAP (ALT TO MB) SEE NOTE 1
TPS-1	2	CMSTC16x4' (ONE SIDE OF WALL)
TPS-2	2	CMST14x6' (ONE SIDE OF WALL) w/ (33) 10dx2-1/2" NAILS EACH END
TPS-3	3	CMST12x7'-6" (ONE SIDE OF WALL) w/ (43) 10dx2-1/2" NAILS EACH END
TPS-4	4	CMST12x6' (BOTH SIDES OF WALL) w/ (32) 10dx2-1/2" NAILS EACH END (@ 6" WALLS ONLY)

NOTES:
1. IF STRAP IS USED AND INSTALLED OVER SHEATHING, USE 10d COMMON x 3" LONG NAILS.
2. SEE 11/S-601 FOR REINFORCING OF BOTTOM PLATE AT PENETRATION.

TYPICAL HSS COLUMN IN SHEAR WALL

SCALE: NTS

2



1. 2x CONTINUOUS FULL WIDTH WOOD NAILER ON TOP OF BEAM
2. 1/2" NELSON STUD @ 24" OC MAX w/ STANDARD CUT-WASHER. USE 5/8"Ø. STUD @ 12" O.C. BELOW SHEAR WALLS & @ MOMENT FRAMES, UNO ON FRAMING PLAN. (INSTALL 5/8" Ø. STUD @ 9" OC @ DBL-SIDED SHEAR WALLS.)
3. 2x SIDE NAILER

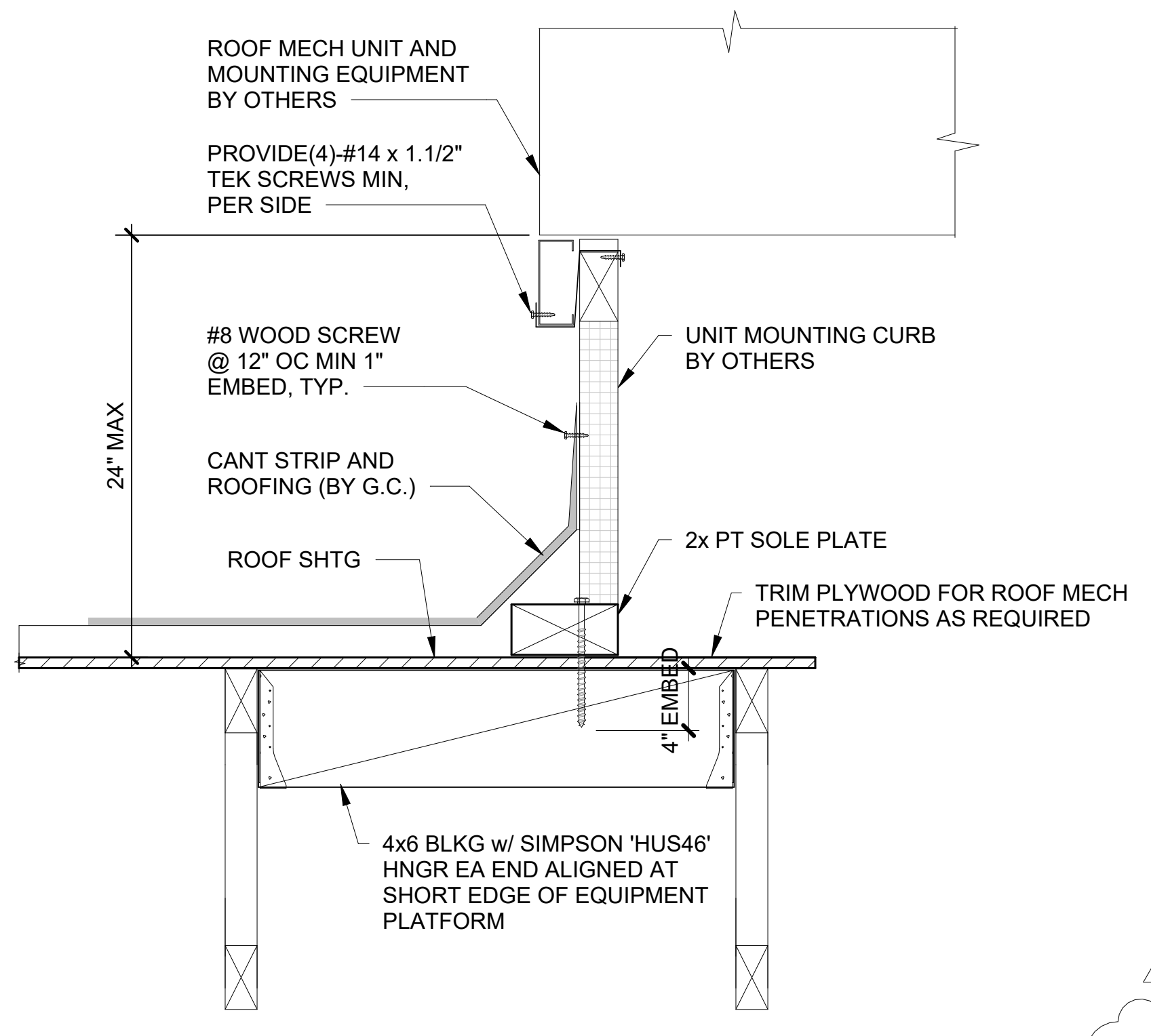
(3a) OPTIONAL SIDE NAILER

4. TWO ROWS OF 3/4" Ø THRU-BOLT @ 24" OC MAX STAGG.
5. OPTIONAL NAILER
6. STEEL BEAM PER PLAN

TYPICAL WOOD NAILER AT STEEL BEAM

SCALE: NTS

11

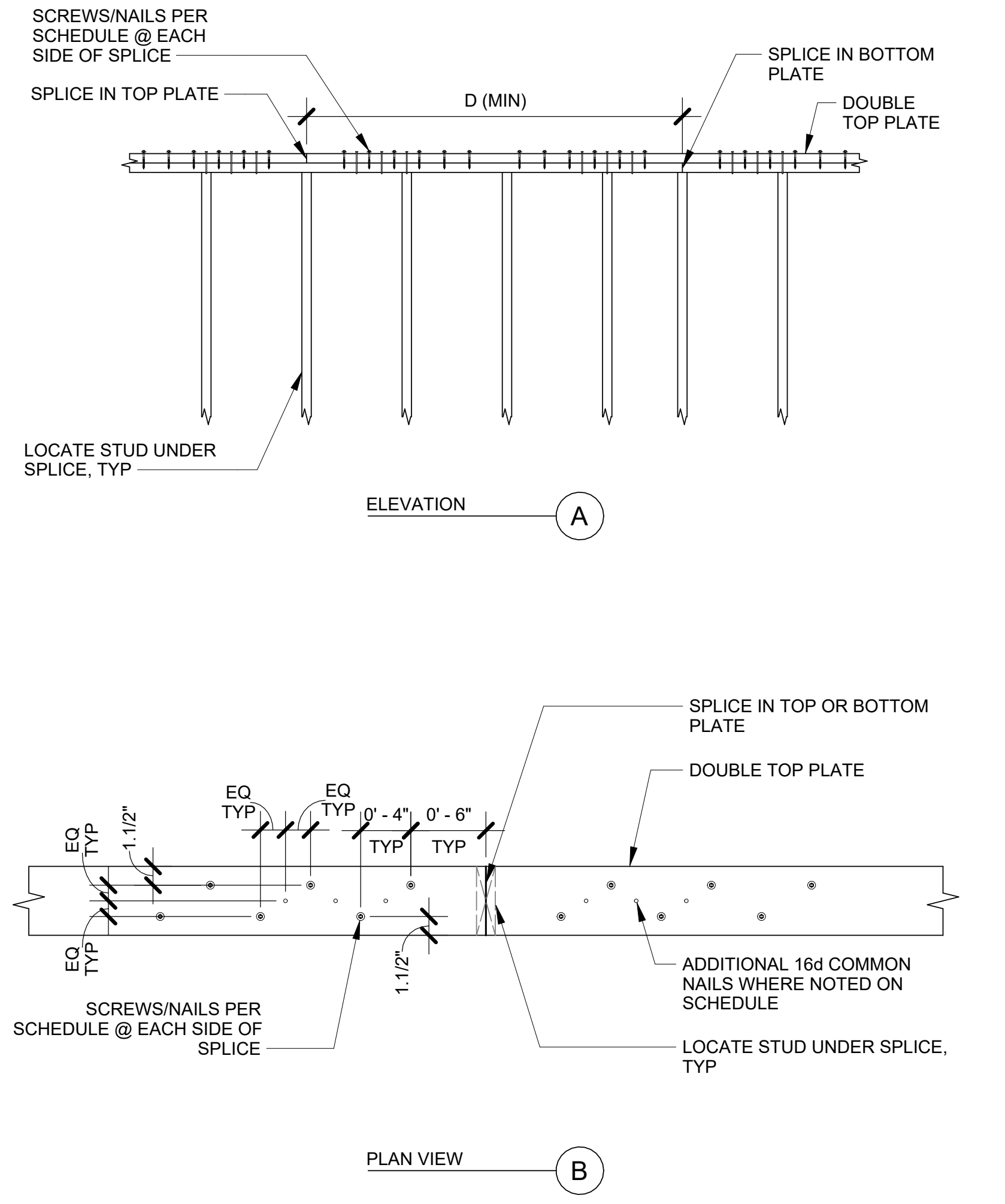

ROOF MECH UNIT AND MOUNTING EQUIPMENT BY OTHERS
PROVIDE(4)-#14 x 1.1/2" TEK SCREWS MIN, PER SIDE
#8 WOOD SCREW @ 12" OC MIN 1" EMBED, TYP.
UNIT MOUNTING CURB BY OTHERS
CANT STRIP AND ROOFING (BY G.C.)
2x PT SOLE PLATE
ROOF SHTG
TRIM PLYWOOD FOR ROOF MECH PENETRATIONS AS REQUIRED
24" MAX
4" EMBED
4x6 BLKG w/ SIMPSON 'HUS46' HNGR EA END ALIGNED AT SHORT EDGE OF EQUIPMENT PLATFORM

1

MECHANICAL CURB SECTION DETAIL

SCALE: NTS

7


SCREWS/NAILS PER SCHEDULE @ EACH SIDE OF SPLICE
SPLICE IN TOP PLATE
D (MIN)
SPLICE IN BOTTOM PLATE
DOUBLE TOP PLATE
LOCATE STUD UNDER SPLICE, TYP
ELEVATION
A
SPLICE IN TOP OR BOTTOM PLATE
DOUBLE TOP PLATE
EQ TYP
EQ TYP
0' - 4" TYP
0' - 6" TYP
EQ TYP
1.1/2"
EQ TYP
1.1/2"
ADDITIONAL 16d COMMON NAILS WHERE NOTED ON SCHEDULE
SCREWS/NAILS PER SCHEDULE @ EACH SIDE OF SPLICE
LOCATE STUD UNDER SPLICE, TYP
PLAN VIEW
B

TOP PLATE SPLICE	FASTENERS	CAPACITY OF TOP PLATE	D (MIN)	NOTES
TPS-1	(5) 16d COMMON	2058#	4'-0"	TYPICAL UNO
TPS-2	(6) SIMPSON SDWH19300DB & (3) 16d COMMON	5472#	5'-0"	-
TPS-3	(8) SIMPSON SDWH19300DB & (3) 16d COMMON	7240#	6'-0"	-
TPS-4	(12) SIMPSON SDWH19300DB & (3) 16d COMMON	10944#	9'-0"	REQUIRES USE OF MIN (2) DF-#1 2x6 PLATES OR (2) DF-#2 3x6 PLATES

NOTES:
1. SEE IAPMO - 0192 FOR SIMPSON SDWH19300DB.
2. TOP PLATE SPLICE SHOULD BE MINIMUM "D" AWAY FROM THE ENDS OF TOP PLATES.
3. NO PENETRATION PER **11/S-601** ALLOWED IN SHEAR WALLS OR SHEAR WALL LINES.

TYPICAL TOP PLATE

SCALE: NTS

4

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17981 Sky Park Circle
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Irvine, CA 92614
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Exp. 6/30/27

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
1 ADDENDUM 1	2026-08-28

1

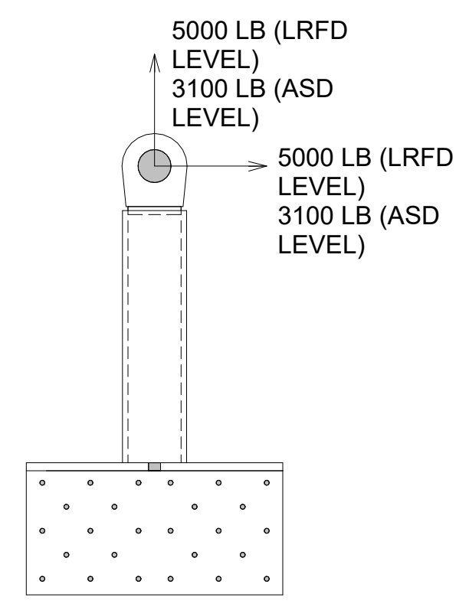
WOOD DETAILS

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

S612

MFG Part #	Product Description	Fastening Requirements		Weight
		Type & Size	Total Per Tie Back	
HTB-S18	18" Hardy Saddle Tie Back	SDS Screw - 1/4" x 2 1/2"	40	70#

NOTES:
- USE 1/4"x3" SDS SCREWS ON FILLER SIDE WHEN USING A 5-1/4" EWP BEAM.
- CAP MOUNT (SCM) CAP GOES BELOW PEDESTAL DECKS-SKIRT FITS OUTSIDE THE SLEEVE AREA.
- SFM NEEDS TO BE SEALED OVER FINSIH SURFACE. TEST BEFORE SEALING.
- 3" ADJUSTS FROM 3 1/2" O 6 1/2" FROM TOP OF BEAM.
- 6" ADJUSTS FROM 6 1/2" TO 9 1/2" FROM TOP OF BEAM.



IAPMO UES ER 461, SECTION 3.2.2
3.2.2 ALLOWABLE STRESS DESIGN (ASD): IN COMPLIANCE WITH SECTION 4.6.5 OF ASCE 7-16, THE ASD LEVEL STRENGTH FOR THE HARDY ROOF TIE-BACK DEVICES IS 3,100 POUNDS (13.8 KN) MAXIMUM IN THE HORIZONTAL AND VERTICAL DIRECTIONS. WHEN PLACED ON AND FASTENED TO THE STRUCTURAL SUPPORTS, THE DEVICE SHALL BE DESIGNED TO DEVELOP THE 3,100 POUNDS (13.8 KN) ASD STRENGTH. FASTENING TO WOOD BASED ON CD = 1.5 IN ACCORDANCE
WITH THE ANSI/AWC NDS. DESIGN SHALL COMPLY WITH IBC CHAPTER 23 AND ANSI/AWC NDS.

HTB-S INSTALLATION INSTRUCTIONS

1. BEST TO INSTALL HTB-S TIE BACKS WHILE BEAMS ARE ON THE GROUND PRIOR RAISING INTO POSITION.
2. SUPPORT BEAMS AND TRUSSES FOR THE HTB-S ARE TO BE DESIGNED BY THE EOR.
3. 5/16" HOLES PROVIDED ON SADDLE TO ALLOW ATTACHMENT OF STRUCTURAL MEMBERS. USE 1/4"x2 1/2" SDS SCREWS. USE ALL PROVIDED HOLES. USE 1/4"x3" SDS SCREWS ON FILLER SIDE WHEN USING A 5-1/4" EWP BEAM.
4. PER CALIFORNIA CODE OF REGULATIONS TITLE 8 SECTION 3291, "DEVICES SHOULD BE SPACED AT APPROXIMATELY 12-FOOT INTERVALS; HOWEVER, THE SPACING SHALL DEPEND PRIMARILY ON THE AVAILABILITY OF ROOF STRUCTURAL MEMBERS OF SUFFICIENT STRENGTH TO SAFELY CARRY APPLIED LOADS." PLACE SUPPORT BEAMS ON STANDARD TRUSS OR JOIST LAYOUT

RECOMMENDATIONS

1. DESIGN OF STRUCTURAL MEMBERS PER EOR (5-1/4" MINIMUM) TO THE TRUSS TO ALLOW FOR FULL TRANSFER OF FORCES TO THE TRUSSES IS RECOMMENDED TO BE OF ENGINEERED WOOD TO MINIMIZE SPLITTING.

ANY QUESTIONS REGARDING INSTALLATION

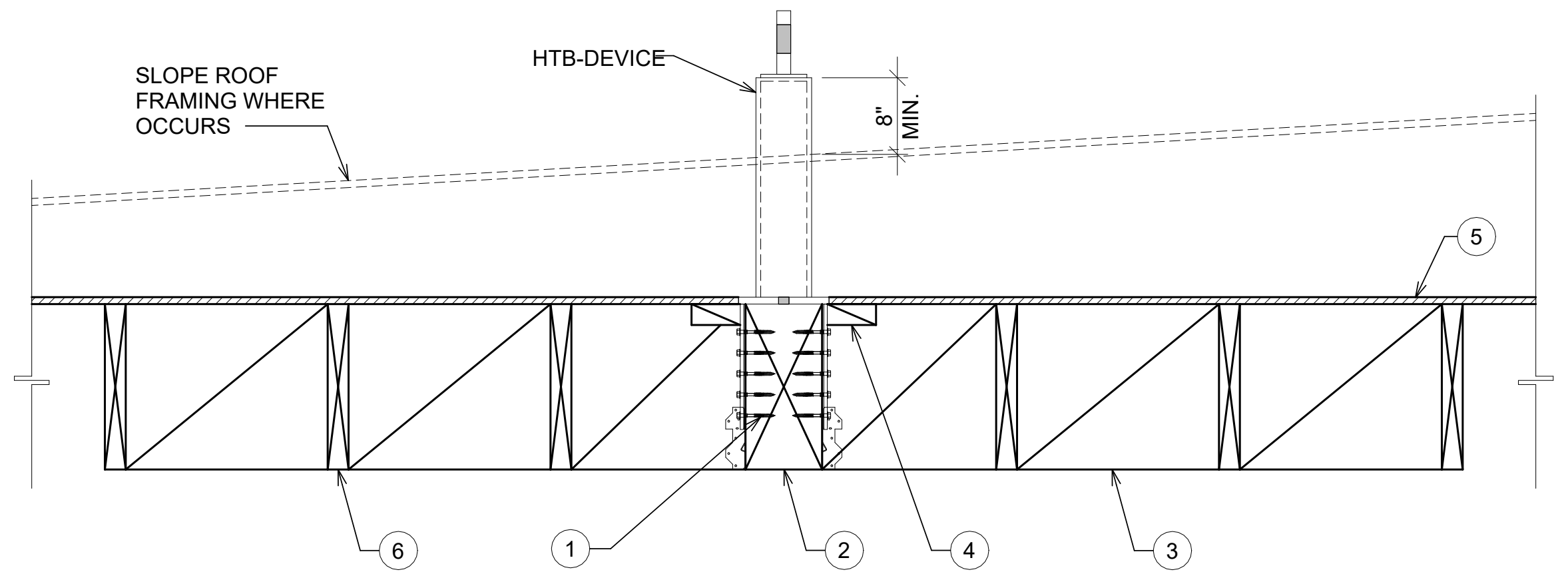
CALL: GARY HARDY 1 (805) 404-5196 ANCHOR TESTING SHALL BE CONDUCTED BY QUALIFIED PERSONNEL UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTION 3296.

FALL PROTECTION

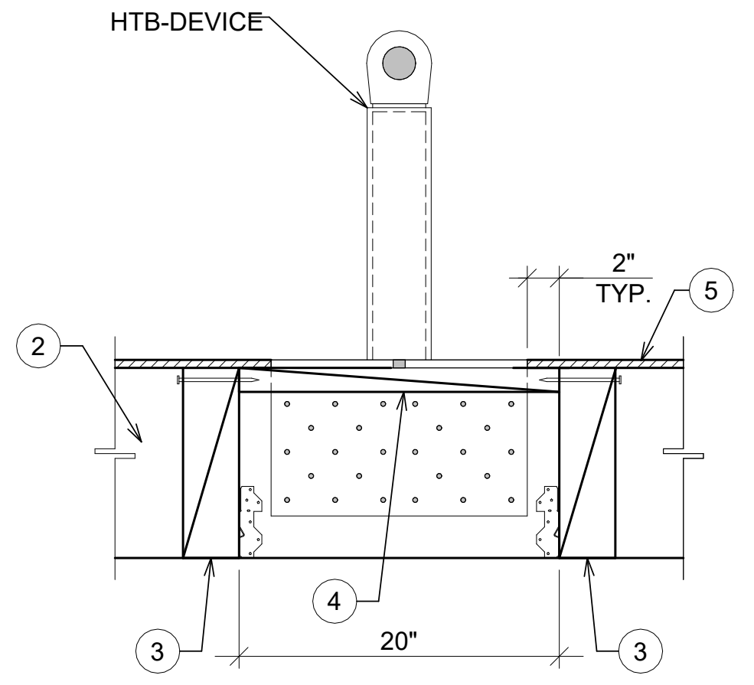
SCALE: NTS

1

KEYNOTES LEGEND
1. SDS 1/4"x2-1/2" PER SCHEDULE.
2. BEAM PER PLAN
3. 4x10 BLCK WITH CS14 STRAP
   - MIN. 3 BAYS BOTH SIDES OF HTB DEVICE MIN. 48"
4. 2x4 FLAT BLK'G TIGHT AGAINST SADDLE
5. ROOF SHEATHING
6. JOIST PER PLAN

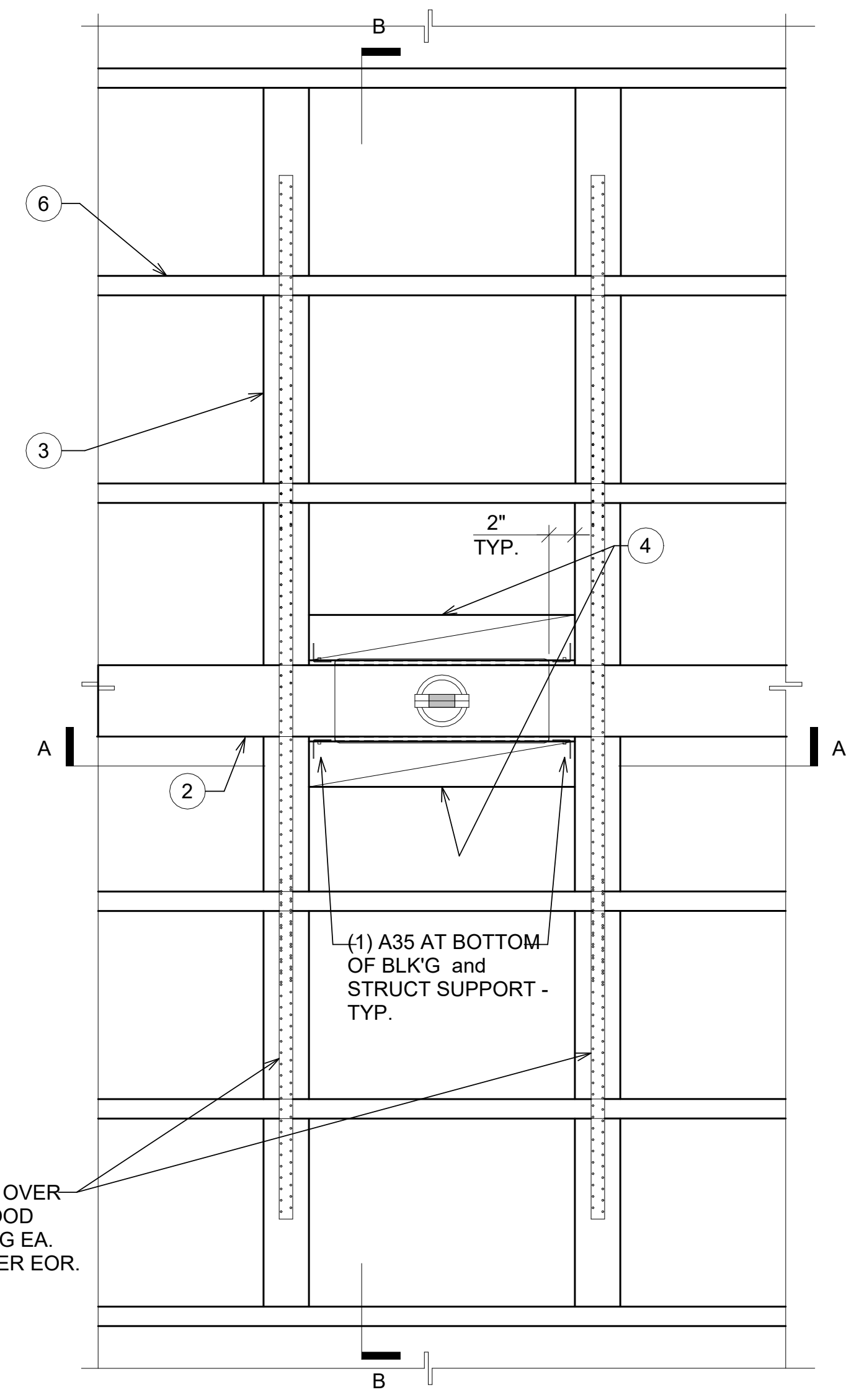


SECTION B-B

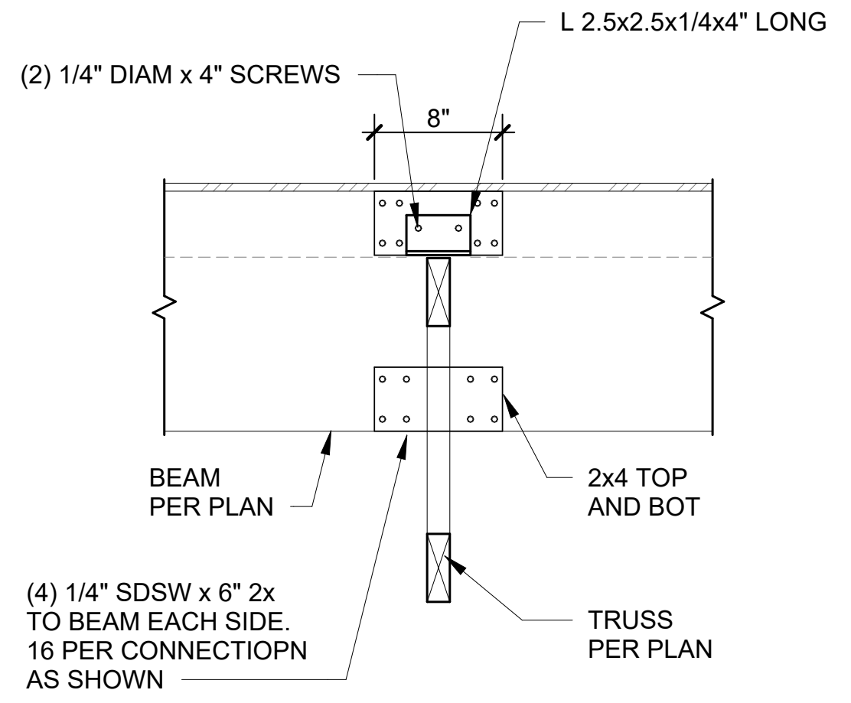


SECTION A-A

HTB ASSEMBLY

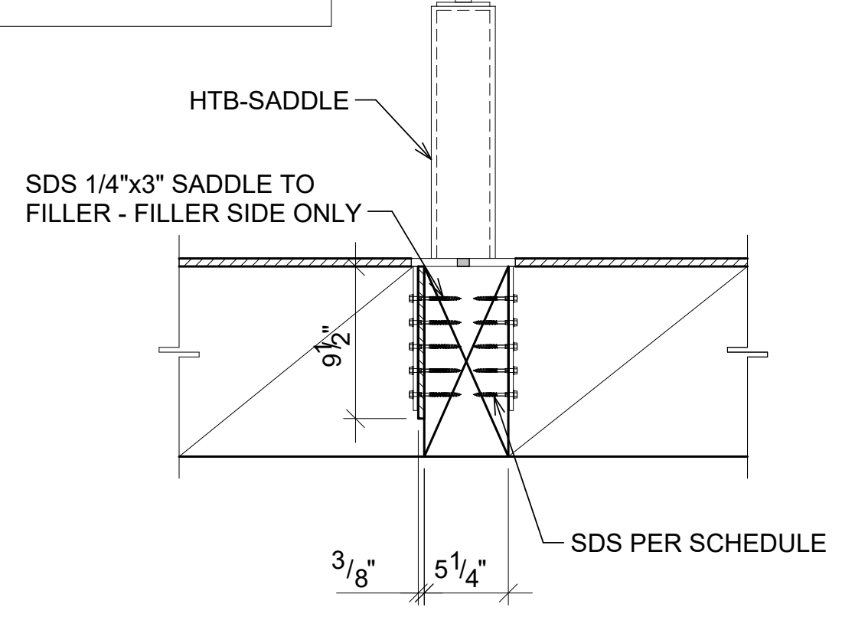

B
6
3
2" TYP.
4
A
A
2
(1) A35 AT BOTTOM OF BLK'G and STRUCT SUPPORT - TYP.
STRAP OVER PLYWOOD 4x BLK'G EA. SIDE PER EOR.
B

PLAN VIEW

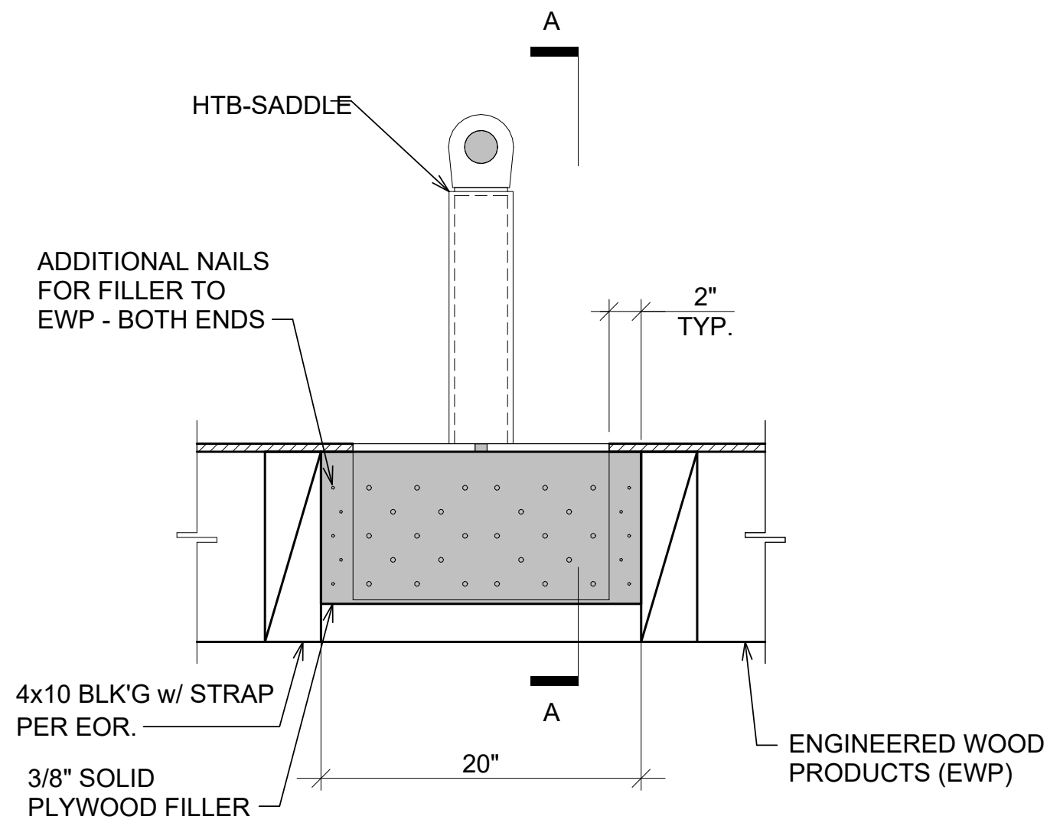

(2) 1/4" DIAM x 4" SCREWS
L 2.5x2.5x1/4x4" LONG
8"
BEAM PER PLAN
2x4 TOP AND BOT
(4) 1/4" SDSW x 6" 2x TO BEAM EACH SIDE. 16 PER CONNECTIOPN AS SHOWN
TRUSS PER PLAN

BLOCKING TO TRUSS

NOTE:
1. SOLID PLYWOOD FILLER TO BE NAILED TO EWP PRIOR TO HTB-S SADDLE INSTALLATION.
2. USE SDS 3x1/4 IN LIEU OF RECOMMENDED SDS PER SCHEDULE ON FILLER SIDE ONLY



SECTION A-A


A
HTB-SADDLE
ADDITIONAL NAILS FOR FILLER TO EWP - BOTH ENDS
2" TYP.
4x10 BLK'G w/ STRAP PER EOR.
3/8" SOLID PLYWOOD FILLER
A
20"
ENGINEERED WOOD PRODUCTS (EWP)

HTB-SADDLE WITH EWP 5 1/4" WITH FILLER

SCALE: NTS

4

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No. 5038
Exp. 6/30/27

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	2026-056 R24
SCALE	AS NOTED
PM	
DATE	Issue Date
△1 ADDENDUM 1	2026-08-28

WOOD DETAILS

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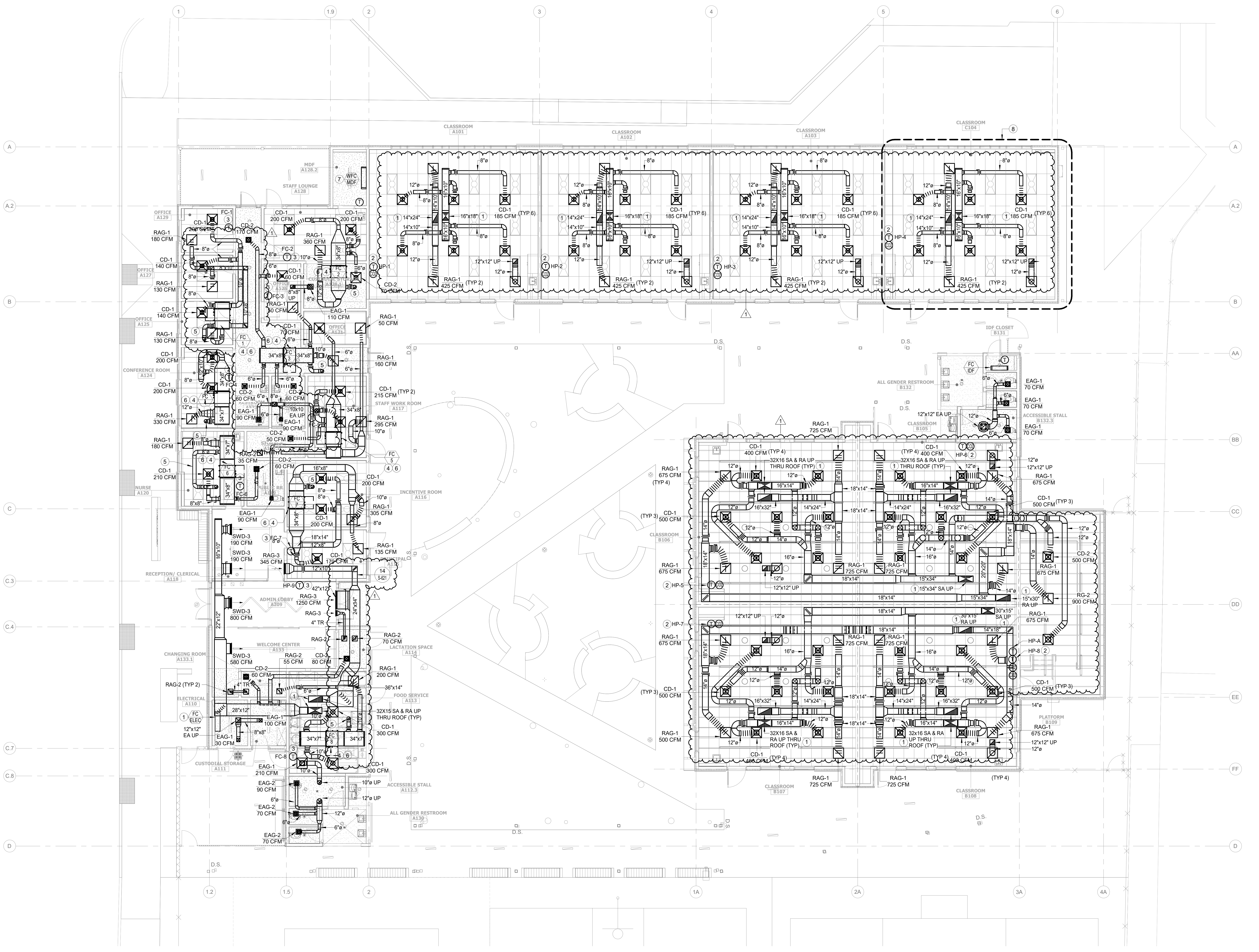
S613



1
M101

MECHANICAL - FIRST FLOOR PLAN - DUCT

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

GENERAL SHEET NOTES

A. RECTANGULAR DUCT IS ALLOWED TO CHANGE TO ROUND DUCT AS LONG AS THE ASPECT RATIO OF THE DUCTWORK IS KEPT.

B. CONTRACTOR SHALL ADHERE TO THE DUCT CONSTRUCTION GUIDELINES AS IDENTIFIED UNDER 2019 CMC 602.3 DUCTS, PLENUMS, OR FITTINGS OF METAL SHALL COMPLY WITH SMACNA HVAC CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.

C. ADJUST IN FIELD LOCATION OF DUCT PENETRATIONS BETWEEN ROOF TRUSSES.

REFERENCE SHEET NOTES

1. SA & RA UP TO ROOF WITH LAYOUT PER PLAN. INSTALL WITH 1" ACOUSTIC LINED DUCT ON RECTANGULAR DUCT.
2. F&I PROGRAMMABLE THERMOSTAT WITH CO2 SENSOR FOR DEMAND CONTROL VENTILATION (CLASSROOMS ONLY) ON WALL AND CONNECT TO CORRESPONDING A/C PER PLAN AND DETAIL 5/M-501.
3. F&I PROGRAMMABLE THERMOSTAT ON WALL AND CONNECT TO CORESPONDING A/C PER PLAN AND DETAIL 5/M-501.
4. F&I SUSPENDED FAN COIL INSTALLED WITH FILTER BOX PER DETAIL 2/M-501. INSTALL W/ 1" ACOUSTICALLY LINED SA & RA PLENUM BO. INSTALL REFRIGERANT LINES ABOVE CEILING ROUTED TO OUTDOOR HEAT PUMP PER DETAIL 9/M-501 AND MANUFACTURER'S REQUIREMENTS. TYP. INSTALL W/ SECONDARY DRAIN PAN WITH PIPE TERMINATION TO CORRIDOR WITH ESCUTCHEON PLATE.
5. 8" BRANCH W/ MANUAL BALANCING DAMPER DIA UP TO ROOF FOR OA.
6. F&I DUCT DETECTOR ON SA DUCT AND INTERLOCK WITH EQUIPMENT AND FA SYSTEM FOR SHUTDOWN UPON DETECTION OF SMOKE. SEE FIRE ALARM (FA) DRAWINGS.
7. F&I WALL MOUNTED FAN COILS FOR TELECOM ROOMS PER DETAIL 5/M502.
8. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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SCALE	AS NOTED
PM	
DATE	08/28/2026
1 ADD 01	08/28/2026
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JAMES ZWINGMAN
No. M35588
MECHANICAL

MECHANICAL FIRST FLOOR
PLAN - DUCT

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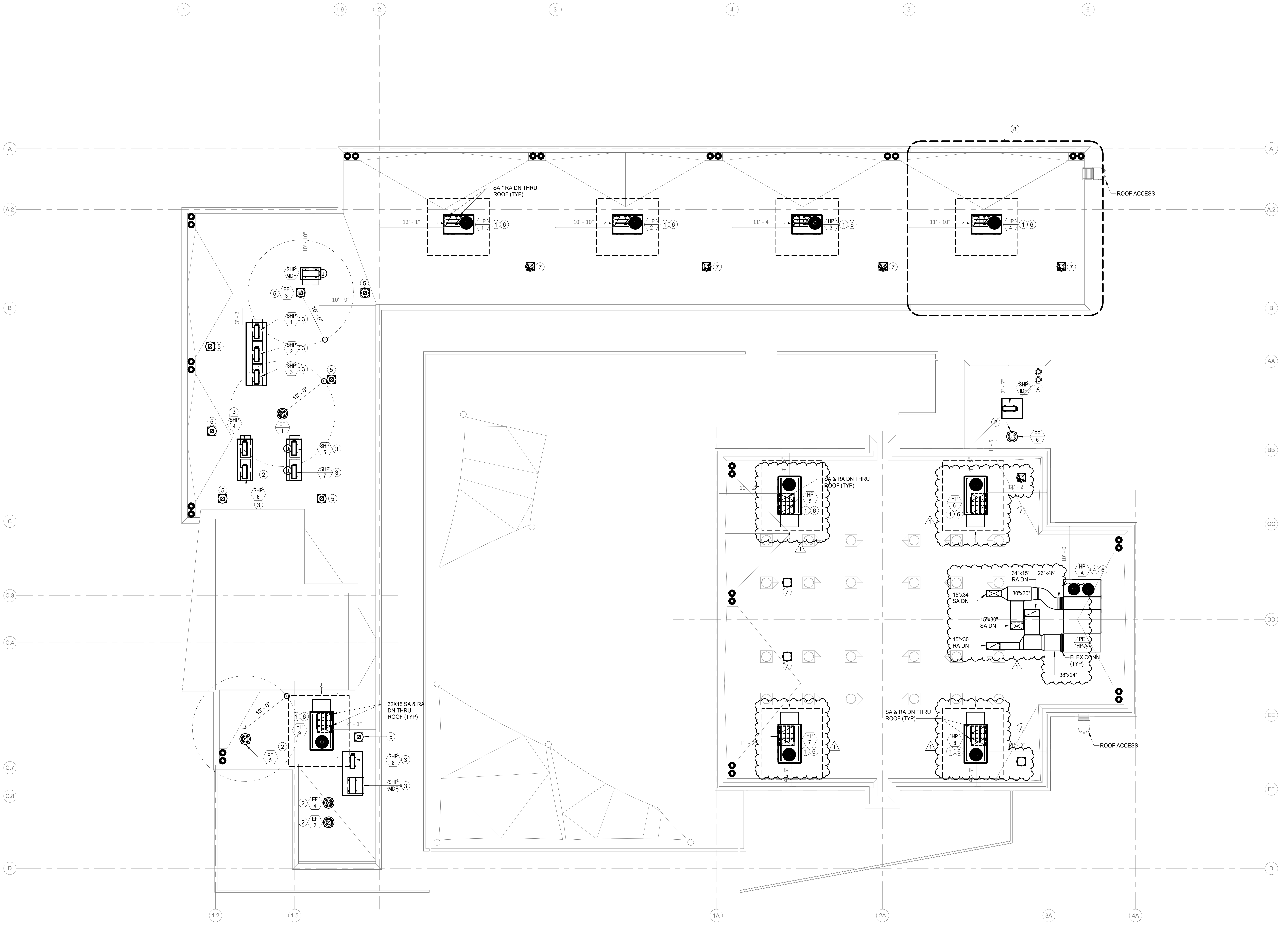
M101



1
M141
MECHANICAL - ROOF PLAN
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. RECTANGULAR DUCT IS ALLOWED TO CHANGE TO ROUND DUCT AS LONG AS THE ASPECT RATIO OF THE DUCTWORK IS KEPT.

B. CONTRACTOR SHALL ADHERE TO THE DUCT CONSTRUCTION GUIDELINES AS IDENTIFIED UNDER 2019 CMC 602.3 DUCTS, PLENUMS, OR FITTINGS OF METAL SHALL COMPLY WITH SMACNA HVAC CONSTRUCTION STANDARDS - METAL AND FLEXIBLE.

REFERENCE SHEET NOTES

1. F&I HEAT PUMPS WITH SPRING ISOLATOR CURB PER DETAIL 3/M502 & 4/M502. SA AND RA DUCT WITH CONFIGURATION WITH FLEX CONNECTIONS. INSTALL WITH ECONOMIZER WITH BAROMETRIC RELIEF.
2. F&I DOWNBLAST EXHAUST FAN WITH CURB, BACKDRAFT DAMPER, AND BIRD SCREEN.
3. F&I SPLIT DX OUTDOOR HEAT PUMP ON HOUSEKEEPING PAD WITH SHEET METAL CAP PER DETAIL 6/M-501. CONNECT REFRIGERANT LINES FROM INDOOR FAN COIL. REFRIGERANT LINES ROUTED THROUGH FLOORS OR WALLS SHALL BE FIRE CAULKED PER DETAIL 9/M-501 AND 10/M-501.
4. F&I HEAT PUMP WITH SPRING ISOLATOR CURB PER 2/M502 AND STRUCTURAL DRAWINGS. SA AND RA WITH HORIZONTAL DOUBLE WALLED DUCT CONFIGURATION WITH FLEX CONNECTIONS & SHEET METAL COVER. INSTALL WITH ECONOMIZER W/ POWER EXHAUST. INSTALL DUCT SUPPORT FOR ROOFTOP DUCT PER 11/M501.
5. F&I INTAKE VENT W/ BACKDRAFT & BIRD SCREEN FOR OA INTAKE FOR FAN COILS. GREENHECK GRSI (SIZE 8"). FRAME OPENING PER DETAIL 10/S612
6. F&I DUCT DETECTOR ON SA DUCT AND INTERLOCK WITH EQUIPMENT AND FA SYSTEM FOR SHUTDOWN UPON DETECTION OF SMOKE. SEE FIRE ALARM (FA) DRAWINGS.
7. F&I RELIEF VENT W/ BACKDRAFT DAMPER & BIRD SCREEN. GREENHECK GRSR (SIZE 12"). FRAME ROOF OPENING PER DETAIL 10/S612.
8. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION
VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

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JAMES ZWINGMAN
No. M35588

MECHANICAL ROOF PLAN

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M141

SPLIT HEAT PUMP (SHP) UNIT SCHEDULE

MARK	DESCRIPTION	MAKE	MODEL #	NOM. TONS	COMP. QTY	CONDENSER FAN (QTY)	D/X COOLING		HEATING		ELECTRICAL			REFRIG. TYPE	ENERGY EFFICIENCY RATIO (SEER/EER)	REFRIG. LINE SIZES (SUCT./LIQ.)	MAX. OPER. WT. (LBS)	STRUCT. ANCHOR DETAIL	NOTES
							TOTAL (MBH)	OUTSIDE AIR (DEG F)	TOTAL (MBH)	OUTSIDE AIR (DEG F)	VOLTAGE/ PHASE/HZ	MCA	MOP						
SHP-1	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	SUZ-AA18NL	1.5	1	1	18,000	95	23,500	47	208-230V/ 1/60	25	42	R-454B	17.2/ 12.7	1/2" / 1/4"	115	6/S-603	1, 2, 3, 4, 5, 6
SHP-2	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	SUZAA12NL	1.0	1	1	12,000	95	15,000	47	208-230V/ 1/60	14	23	R-454B	19.7/ 12.5	3/8" / 1/4"	81	6/S-603	1, 2, 3, 4, 5, 6
SHP-3	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	SUZ-AA09NL	0.75	1	1	9,000	95	13,000	47	208-230V/ 1/60	13	22	R-454B	18.8/ 13.2	3/8" / 1/4"	81	6/S-603	1, 2, 3, 4, 5, 6
SHP-4	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	SUZAA12NL	1.0	1	1	12,000	95	15,000	47	208-230V/ 1/60	14	23	R-454B	19.7/ 12.5	3/8" / 1/4"	81	6/S-603	1, 2, 3, 4, 5, 6
SHP-5	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	SUZ-AA15NL	1.25	1	1	15,000	95	18,000	47	208-230V/ 1/60	17	29	R-454B	18.8/ 12.2	1/2" / 1/4"	115	6/S-603	1, 2, 3, 4, 5, 6
SHP-6	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	SUZ-AA09NL	0.75	1	1	9,000	95	13,000	47	208-230V/ 1/60	13	22	R-454B	18.8/ 13.2	3/8" / 1/4"	81	6/S-603	1, 2, 3, 4, 5, 6
SHP-7	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	SUZ-AA15NL	1.25	1	1	15,000	95	18,000	47	208-230V/ 1/60	17	29	R-454B	18.8/ 12.2	1/2" / 1/4"	115	6/S-603	1, 2, 3, 4, 5, 6
SHP-8	OUTDOOR HEAT PUMP UNIT	TRANE-MITSUBISHI	SUZ-AA18NL	1.5	1	1	18,000	95	23,500	47	208-230V/ 1/60	25	42	R-454B	17.2/ 12.7	1/2" / 1/4"	115	6/S-603	1, 2, 3, 4, 5, 6
SHP-MDF	WALL MOUNTED UNIT	TRANE-MITSUBISHI	PUZ-AK18NL	1.5	1	1	18,000	95	19,000	47	208-230V/ 1/60	16	27	R-454B	19.5/ 11.0	1/2" / 1/4"	112	6/S-603	1, 2, 3, 4, 5, 6
SHP-IDF	WALL MOUNTED UNIT	TRANE-MITSUBISHI	PUZ-AK12NL	1.0	1	1	12,000	95	14,000	47	208-230V/ 1/60	16	27	R-454B	21.1/ 14.8	1/2" / 1/4"	112	6/S-603	1, 2, 3, 4, 5, 6

NOTES:

1) FACTORY START-UP
2) OUTDOOR CONDENSER UNIT RATED AT 95 DEGREE F
3) PRE-ENGINEERED ISOLATOR CURB.
4) FIELD INSTALLED SEISMIC RATED SPRING ISOLATORS OR SPRING ISOLATOR CURB.
5) BACNET CONTROL CARD
6) SINGLE OUTDOOR HEAT PUMP CONNECTED TO SINGLE FAN COIL.

FAN COIL (FC) UNIT SCHEDULE

MARK	DESCRIPTION	SERVICE AREA	MAKE	MODEL #	NOM. TONS	SUPPLY CFM	OUTSIDE AIR (CFM)	D/X COOLING			HEATING	ELECTRICAL		REFRIG. TYPE	REFRIG. LINE SIZES (SUCT./LIQ.)	MAX. OPER WT. (LBS)	STRUCT. ANCHOR DETAIL	NOTES
								TOTAL (BTU/HR)	SENS. (BTU/HR)	ENT AIR TEMP (DEG F)	TOTAL (BTU/HR)	VOLTAGE/ PH /HZ	MCA					
FC-1	INDOOR FAN COIL	OFFICES A125, A127, A129	MITSUBISHI	PEAD-AA18	1.50	480	40	18,000	13,500	80.0/67.0	23,500	208/1/60	2.25	R-454B	1/2" / 1/4"	60	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-2	INDOOR FAN COIL	STAFF LOUNGE A128, CUSTODIAL STOR A128.1	MITSUBISHI	PEADAA12	1.00	470	110	12,000	10,800	80.0/67.0	15,000	208/1/60	2.50	R-454B	3/8" / 1/4"	58	2/M-501	1, 2, 3, 5, 6, 8, 10
FC-3	INDOOR FAN COIL	NORTH CORRIDOR	MITSUBISHI	PEAD-AA09	0.75	350	60	9,000	8,100	80.0/67.0	1,300	208/1/60	1.45	R-454B	3/8" / 1/4"	58	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-4	INDOOR FAN COIL	CONFERENCE RM A124	MITSUBISHI	PEADAA12	1.00	400	70	12,000	10,800	80.0/67.0	15,000	208/1/60	2.50	R-454B	3/8" / 1/4"	58	2/M-501	1, 2, 3, 5, 6, 8, 10
FC-5	INDOOR FAN COIL	STAFF'S WORK RM A117, STORAGE A117.1	MITSUBISHI	PEAD-AA15	1.25	550	170	15,000	13,500	80.0/67.0	20,900	208/1/60	2.25	R-454B	1/2" / 1/4"	60	2/M-501	1, 2, 3, 5, 6, 8, 10
FC-6	INDOOR FAN COIL	NURSE A120, PUBLIC RR A119	MITSUBISHI	PEAD-AA09	0.75	290	30	9,000	8,100	80.0/67.0	1,300	208/1/60	1.45	R-454B	3/8" / 1/4"	58	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-7	INDOOR FAN COIL	PRINCIPAL'S OFFICE A115. INCENTIVE RM A116	MITSUBISHI	PEAD-AA15	1.25	570	130	15,000	13,500	80.0/67.0	20,900	208/1/60	2.25	R-454B	1/2" / 1/4"	60	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-8	INDOOR FAN COIL	FOOD SERVICE A113	MITSUBISHI	PEAD-AA18	1.50	600	210	18,000	13,500	80.0/67.0	23,500	208/1/60	2.25	R-454B	1/2" / 1/4"	60	2/M-501	1, 2, 3, 5, 7, 8, 10
FC-MDF	WALL MOUNTED FAN COIL	MDF ROOM	MITSUBISHI	PKA-AL18NL	1.5	400	0	18,000	12,240	80.0/67.0	23,600	208/1/60	1.00	R-454B	1/2" / 1/4"	28	5/M-502 & 3/S-601	3, 4, 5, 7, 8, 9, 11
FC-IDF	WALL MOUNTED FAN COIL	IDF ROOM	MITSUBISHI	PKA-AL12NL	1.0	400	0	12,000	9,720	80.0/67.0	18,000	208/1/60	1.00	R-454B	1/2" / 1/4"	28	5/M-502 & 3/S-601	3, 4, 5, 7, 8, 9, 11

NOTES:

1) FIELD INSTALLED FILTER BOX W/ MERV 13 FILTERS (2" THICK) FILTERS.
2) SUSPENDED FROM STRUCTURAL SUPPORTS WITH SEISMIC RATED SPRING ISOLATORS.
3) BUILT-IN UNIT CONDENSATE PUMP
4) WALL MOUNTED WITH BRACKET
5) CONNECTED TO INDIVIDUALSINGLE OUTDOOR UNIT (HP/CU)
6) PROGRAMMABLE THERMOSTAT WITH OCCUPANCY SENSOR
7) PROGRAMMABLE THERMOSTAT
8) POWERED THRU OUTDOOR UNIT
9) NO VENTILATION SINCE UNOCCUPIED TELECOM/ELECTRICAL ROOM
10) VENTILATION PROVIDED BY SEPARATE AIR INTAKE CONNECTED TO RETURN WITH MANUAL BALANCING DAMPER.
11) F&I WALL MOUNTED FAN COILS FOR MDF/IDF ROOMS.

EXHAUST FAN (EF) SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	CFM	STATIC PRESS (IN.)	OPERATING POWER (HP)	MOTOR POWER (HP)	FAN RPM	MOTOR (V/PH/HZ)	EQUIP. WT. (LBS)	WT. W/ CURB & ACCESS. (LBS)	STRUCT. ANCHOR DETAIL	REMARKS
EF-1	ADMIN INTERIOR RESTROOMS A122 & 123, PUBLIC RR A119, STORAGE A117.1	GREENHECK	G-095-VG	300	0.60	0.08	0.17	1475	115-1-60	33	57	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN STORAGE
EF-2	ADMIN EXTERIOR RESTROOMS A112 & ALL GENDER RR A130	GREENHECK	G-095-VG	300	0.60	0.08	0.17	1475	115-1-60	33	57	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN STORAGE
EF-3	CUSTODIAL STORAGE A128.1	GREENHECK	G-097-VG	110	0.50	0.08	0.25	1137	115-1-60	42	69	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN CUSTODIAL STOR.
EF-4	FOOD SERVICE A113	GREENHECK	G-095-VG	210	0.60	0.04	0.17	1050	115-1-60	33	57	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN JAN CLOSET.
EF-5	JAN. CLOSET/ ELECTRICAL ROOM	GREENHECK	G-097-VG	130	0.50	0.08	0.25	1137	115-1-60	42	69	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN ELECTRICAL RM.
EF-6	ACCESSIBLE RR B132 & ALL GENDER RR B132	GREENHECK	G-095-VG	300	0.60	0.08	0.17	1475	115-1-60	33	57	10/S612	DIRECT DRIVE DOWNBLAST FAN POSITION. VARI-GREEN EC MOTOR WITH DIAL OR 0-10VDC INPUT. DIAL FOR BALANCING. GRAVITY OPERATED BACK DRAFT DAMPER AND CURB. FAN TO BE TIED TO TIMER CLOCK LOCATED IN STORAGE

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

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No. M35588

MECHANICAL SCHEDULES

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M601

PACKAGED ROOFTOP HEAT PUMP (HP) UNIT SCHEDULE

MARK	DESCRIPTION	SERVICE AREA	MAKE	MODEL #	NOM. TONS	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	SUPPLY FAN ESP (IN)	SUPPLY FAN (BHP)	SUPPLY FAN MOTOR SIZE (HP)	COMP. QTY	CONDENSER FAN (QTY)	D/X COOLING				HEATING		ELECTRICAL			REFRIG. TYPE	FILTERS (MERV)	ENERGY EFFICIENCY RATIO (SEER/EER)	MAX. OPER. EQUIP. WT (LBS)	CURB WT (LBS)	ECONO-MIZER & POWER EXH (LBS)	TOTAL WT (LBS)	STRUCT. ANCHOR DETAIL	NOTES
													TOTAL (MBH)	SENSIBLE CAPACITY (MBH)	ENT AIR TEMP (DB/WB)	OUTSIDE AIR (DEG F)	SENSIBLE (MBH)	OUTSIDE AIR (DEG F)	VOLTAGE/ PHASE/HZ	MCA	MOP									
HP-1	PACKAGED HEAT PUMP UNIT	CLASSROOM A101	TRANE	WHK036A3	3	1,100	350 DCV: 150	1.0	0.48	3.0	1	1	36.1	27.5	80 / 67	95	34	47	208-230V/ 3/60	23	30	R-454B	13 (2" DEEP)	16.8 (SEER)/13.5	901	505	0	1,406	3/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9
HP-2	PACKAGED HEAT PUMP UNIT	CLASSROOM A102	TRANE	WHK036A3	3	1,100	350 DCV: 150	1.0	0.48	3.0	1	1	36.1	27.5	80 / 67	95	34	47	208-230V/ 3/60	23	30	R-454B	13 (2" DEEP)	16.8 (SEER)/13.5	901	505	0	1,406	3/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9
HP-3	PACKAGED HEAT PUMP UNIT	CLASSROOM A103	TRANE	WHK036A3	3	1,100	350 DCV: 150	1.0	0.48	3.0	1	1	36.1	27.5	80 / 67	95	34	47	208-230V/ 3/60	23	30	R-454B	13 (2" DEEP)	16.8 (SEER)/13.5	901	505	0	1,406	3/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9
HP-4	PACKAGED HEAT PUMP UNIT	CLASSROOM C104	TRANE	WHK036A3	3	1,100	350 DCV: 150	1.0	0.48	3.0	1	1	36.1	27.5	80 / 67	95	34	47	208-230V/ 3/60	23	30	R-454B	13 (2" DEEP)	16.8 (SEER)/13.5	901	505	0	1,406	3/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9, 10
HP-5	PACKAGED HEAT PUMP UNIT	CLASSROOM B106	TRANE	WHK048A3	4	1,600	375 DCV: 150	1.0	0.62	3.0	1	1	49.9	38.6	80 / 67	95	45	47	208-230V/ 3/60	28	40	R-454B	13 (2" DEEP)	16.8 (SEER)/13.5	929	505	0	1,434	4/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9
HP-6	PACKAGED HEAT PUMP UNIT	CLASSROOM B105	TRANE	WHK048A3	4	1,600	375 DCV: 150	1.0	0.62	3.0	1	1	49.9	38.6	80 / 67	95	45	47	208-230V/ 3/60	28	40	R-454B	13 (2" DEEP)	16.8 (SEER)/13.5	929	505	0	1,434	4/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9
HP-7	PACKAGED HEAT PUMP UNIT	CLASSROOM B107	TRANE	WHK048A3	4	1,600	375 DCV: 150	1.0	0.62	3.0	1	1	49.9	38.6	80 / 67	95	45	47	208-230V/ 3/60	28	40	R-454B	13 (2" DEEP)	16.8 (SEER)/13.5	929	505	0	1,434	4/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9
HP-8	PACKAGED HEAT PUMP UNIT	CLASSROOM B108	TRANE	WHK048A3	4	1,600	375 DCV: 150	1.0	0.62	3.0	1	1	49.9	38.6	80 / 67	95	45	47	208-230V/ 3/60	28	40	R-454B	13 (2" DEEP)	16.8 (SEER)/13.5	929	505	0	1,434	4/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9
HP-9	PACKAGED HEAT PUMP UNIT	ADMIN LOBBY 209 / WELCOME CTR A133	TRANE	WHK060A3	5	1,900	180	1.0	0.74	3.0	1	1	60.6	46.9	80 / 67	95	56	47	208-230V/ 3/60	31	45	R-454B	13 (2" DEEP)	16.4 (SEER)/13.5	949	505	0	1,454	4/M502 & 7/S612	1, 2, 3, 4, 5, 6, 7, 9
HP-A	PACKAGED HEAT PUMP UNIT	ASSEMBLY SPACE / PLATFORM B109	TRANE	WSK240A3	20	7,000	1830 DCV : 660	1.5	4.22	5	2	2	240.2	179.3	80 / 67	95	228	47	208-230V /3/60	108	150	R-454B	13 (2" DEEP)	12.50 (IEER)/9.5	2,183	727	736	3,646	2/M502 & 7/S612	1, 2, 3, 4, 5, 6, 8, 9

NOTES:

1) FACTORY START-UP
2) FAULT DIAGNOSTIC SOFTWARE AND PROGRAMMING
3) PRE-ENGINEERED SEISMIC ISOLATOR CURB.(14" HEIGHT) FIELD INSTALLED.
4) SINGLE ZONE VAV UNIT WITH SUPPLY FAN MODULATION.
5) BACNET CONTROL CARD
6) PROGRAMMABLE THERMOSTAT WITH OCCUPANCY SENSOR
7) FIELD INSTALLED ECONOMIZER WITH 100% BAROMETRIC RELIEFF. DEMAND CONTROL VENTILATION CAPABILITY WITH CO2 SENSOR
8) FIELD INSTALLED ECONOMIZER WITH MODULATING POWER EXHAUST. DEMAND CONTROL VENTILATION CAPABILITY WITH CO2 SENSOR
9) INSTALL WITH DUCT DETECTOR ON SA DUCT AND INTERLOCK WITH HVAC UNIT FOR SHUTDOWN OF EQUIPMENT. SEE FIRE ALARM DRAWINGS.
10) EQUIPMENT AND ALL ASSOCIATED DUCTWORK SHALL BE DEDUCT ALTERNATE DURING BIDDING.

ECONOMIZER AND POWER EXHAUST (PE) SCHEDULE

MARK	EQUIPMENT SERVED	MAKE	MODEL	HORSE - POWER (HP)	DISCHARGE CFM	ESP (IN. WG)	VOLT/PH/ HERTZ	FLA (AMPS)	MCA	MOCP (AMPS)	OPER. WEIGHT (LBS)	NOTES
PE-HP-A	HP-A	CANFAB	6114-MPE	3	6,500	0.5	208/3/60	9.2	11.5	20.7	736	1, 2, 3, 4

NOTES:

1) INTEGRATE WITH HVAC EQUIPMENT AND TEST TO ENSURE POWER EXHAUST OPERATES DURING ECONOMIZER MODE.
2) MODULATING POWER EXHAUST WITH VARIABLE SPEED DRIVE WITH PRESSURE TEST TUBE IN RETURN AIR DUCT.
3) DRY BULB SENSORS.
4) EQUIPMENT IS ATTACHED TO ROOFTOP EQUIPMENT AND DOES NOT REQUIRE STRUCTURAL SUPPORTS.

DIFFUSER/GRILLE SCHEDULE

TERMINAL MARK	NECK SIZE	SIZE (IN)	AIR FLOW PATTERN	CFM RANGE	MANUF.	MODEL	CONSTRUCTION TYPE	NOTES:
CD-1	8" DUCT DIA	8X8	4-WAY	75-140	KRUEGER	6500	STEEL	1, 2, 6
	10" DUCT DIA	8X8	4-WAY	140-250	KRUEGER	6500	STEEL	1, 2, 6
	12" DUCT DIA	10X10	4-WAY	251-425	KRUEGER	6500	STEEL	1, 2, 6
	14" DUCT DIA	12X12	4-WAY	426-625	KRUEGER	6500	STEEL	1, 2, 6
	16" DUCT DIA	14X14	4-WAY	626-900	KRUEGER	6500	STEEL	1, 2, 6
CD-2	6" DUCT DIA	6" DIA	4-WAY	50-110	KRUEGER	1240	STEEL	1, 5
	8" DUCT DIA	8" DIA	4-WAY	111-280	KRUEGER	1240	STEEL	1, 5
	10" DUCT DIA	10" DIA	4-WAY	281-500	KRUEGER	1240	STEEL	1, 5
	12" DUCT DIA	12" DIA	4-WAY	501-725	KRUEGER	1240	STEEL	1, 5
	14" DUCT DIA	14" DIA	4-WAY	726-1050	KRUEGER	1240	STEEL	1, 5
SWD-1	VARIOUS	12X6	2-WAY	170-250	KRUEGER	880	STEEL	4
	VARIOUS	24X10	2-WAY	400-725	KRUEGER	880	STEEL	4
RAG-1/EAG-1	6" DUCT DIA	6" DIA	1-WAY	75-140	KRUEGER	6690	STEEL	1, 2, 6, 8
	8" DUCT DIA	8" DIA	1-WAY	140-250	KRUEGER	6690	STEEL	1, 2, 6, 8
	10" DUCT DIA	10" DIA	1-WAY	251-425	KRUEGER	6690	STEEL	1, 2, 6, 8
	12" DUCT DIA	12" DIA	1-WAY	426-625	KRUEGER	6690	STEEL	1, 2, 6, 8
	14" DUCT DIA	14" DIA	1-WAY	626-900	KRUEGER	6690	STEEL	1, 2, 6, 8
	16" DUCT DIA	16" DIA	1-WAY	901-1300	KRUEGER	6690	STEEL	1, 2, 6, 8
RAG-2/EAG-2	DUCT SIZE	8X8	1-WAY	0-150	KRUEGER	S80-30	STEEL	1, 3, 4, 5
	DUCT SIZE	16X16	1-WAY	151-750	KRUEGER	S80-30	STEEL	1, 3, 4, 5
	DUCT SIZE	18X18	1-WAY	751-950	KRUEGER	S80-30	STEEL	1, 3, 4, 5
	DUCT SIZE	20X20	1-WAY	951-1250	KRUEGER	S80-30	STEEL	1, 3, 4, 5
	DUCT SIZE	30X30	1-WAY	1251-2500	KRUEGER	S80-30	STEEL	1, 3, 4, 5
RAG-3/EAG-3	VARIOUS	18X10	1-WAY	300-500	KRUEGER	S80-0	STEEL	1, 3, 5
	VARIOUS	24X12	1-WAY	501-900	KRUEGER	S80-0	STEEL	1, 3, 5
	VARIOUS	42X12	1-WAY	901-1300	KRUEGER	S80-0	STEEL	1, 3, 5

NOTES:

1) PROVIDE ALL NECESSARY TRANSITIONS FOR DIFFUSERS AND GRILLES. COORDINATE WITH SITE AND ARCHITECTURAL PLANS
2) PERFORATED FACE
3) BLADES PARALLEL TO LONG DIMENSION
4) DUCT SUPPORTED/MOUNTED
5) WALL/CEILING SURFACE MOUNTED
6) LAY-IN CEILING WITH BORDER
7) INSTALL WITH SOUND BOOT (ELBOW WITH MIN 6 FEET OF ROUND/RECTANGULAR DUCTWORK)
8) ALL OPEN OFFICE/AREAS SHALL HAVE 14" DIAMETER NECK FOR RETURN GRILLES. ALL OTHER ENCLOSED OFFICES SHALL MATCH THE SUPPLY SIZE.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
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MECHANICAL SCHEDULES

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M602

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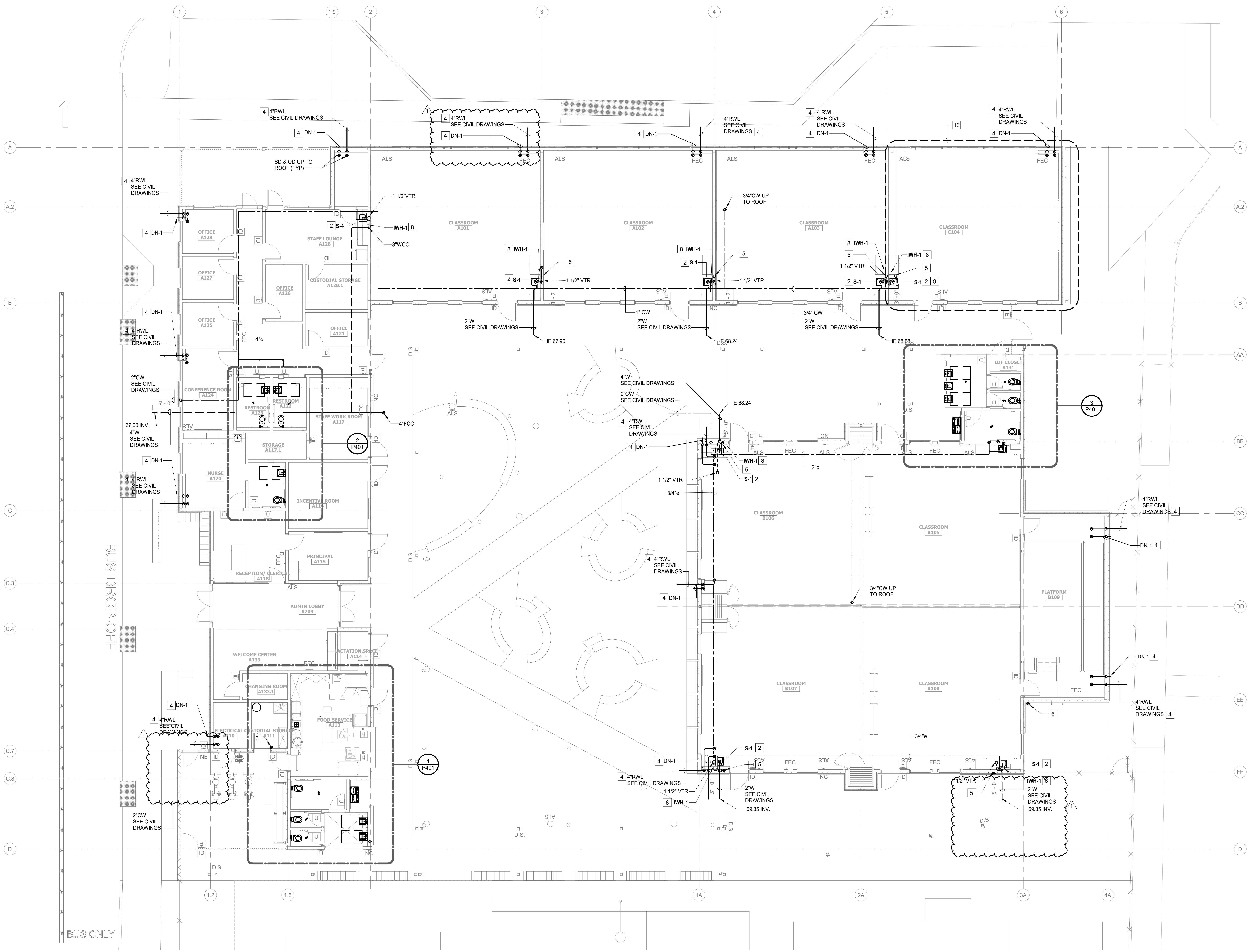

PLUMBING - FIRST FLOOR PLAN

1 P101 SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. XXX

REFERENCE SHEET NOTES

1. F&I WALL MOUNTED LAVATORY (LAV-1).
2. F&I DROP IN SINK.
3. NOT USED
4. 4"SD/OD UP TO ROOF. 4" SD DOWN W/ CONNECTION TO SD PER CIVIL & 4" OD TERMINATE AT DAYLIGHT TO 12" ABOVE FINISH GRADE.
5. CONDENSATE DRAIN DOWN FROM ROOF TO LAVATORY TAILPIECE.
6. FIRE WATER PIPE (6" DIAMETER) AND BUILDING ENTRY PER DETAIL 13/P-5.1. CONTRACTOR TO COORDINATE WITH CIVIL DRAWINGS AND FIRE PROTECTION DRAWINGS FOR EXACT SIZING AND INSTALLATION REQUIREMENTS.
7. MAIN CW SOV IN LOCKABLE ACCESS PANEL (AP-2).
8. F&I ELECTRIC INSTANT WATER HEATER BELOW LAVATORY/SINK WITH MIXING VALVE. SEE DETAIL 3/P-501.
9. DEDUCT ALTERNATE FOR ALL PLUMBING REQUIRED IN CLASSROOM C104.
10. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

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PLUMBING 1ST FLOOR PLAN

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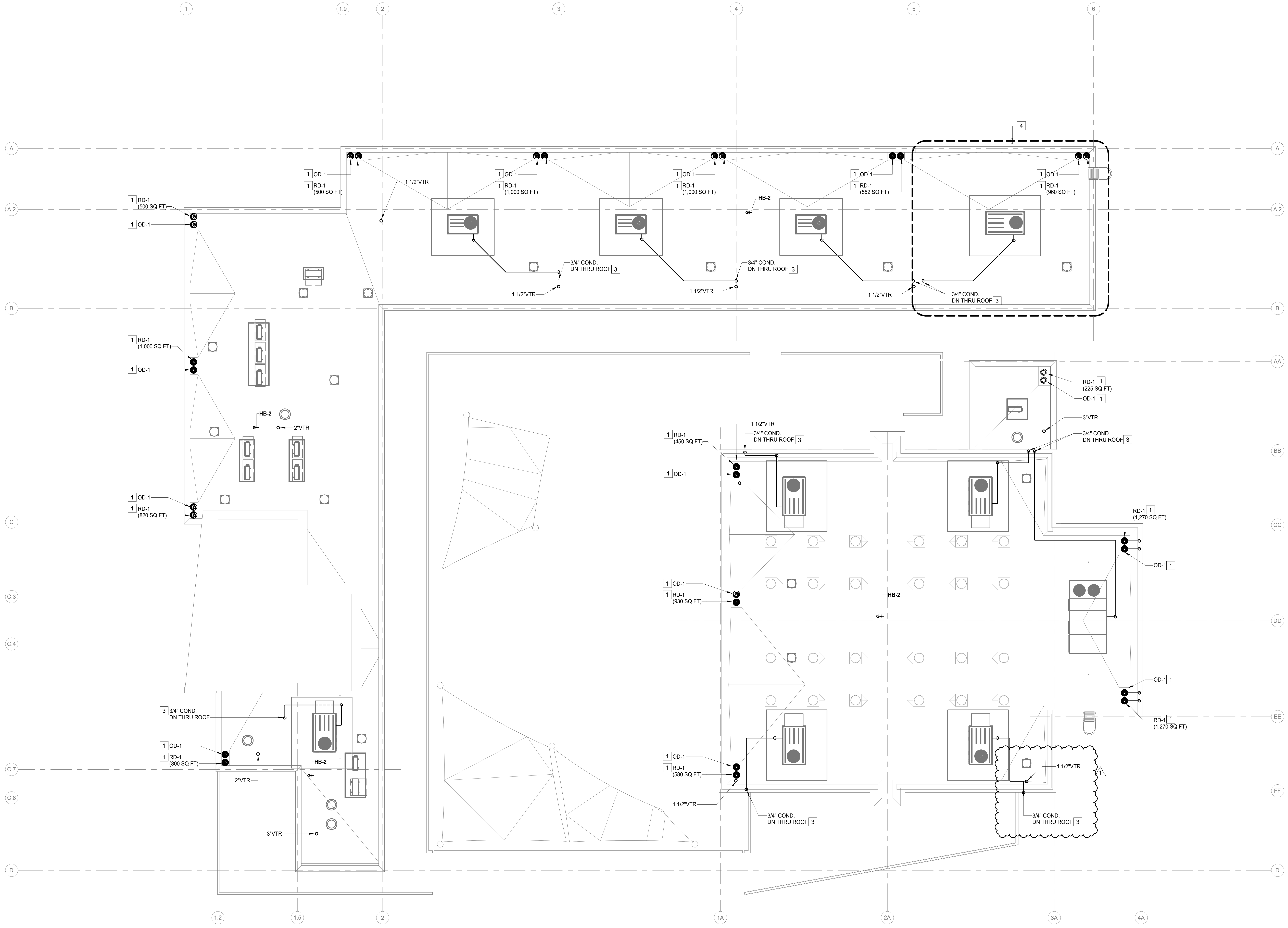
P101

VERTICAL RWL SIZING CALCULTION		
RECOMMENDED SIZE (IN. DIA.)	MAXIMUM FLOW (GPM)	MAX ROOF AREA (SF) PER 2019 CPC TABLE 1103.1
3"	42	4,400
4"	79	9,200

NOTES:

1. CALCULATIONS ARE BASED THE 60 MINUTE STORM DURATION AND 100 YEAR RETURN PERIOD FOR CAMARILLO, CA.
   RAINFALL = 1.5 IN/HR
   FLOW = 0.016 GPM/SF
2. MAX ROOF AREA, FOR GUTTER SIZING, BASED ON AN 8" GUTTER WITH 1/8" PER LINEAR FOOT SLOPE. VALUES TAKEN FROM TABLE 1103.1.
3. FOR MAX ROOF AREA AND RWL SIZE, USING 2 IN/HR OF RAINFALL AS INPUT TO TABLE.
4. PER CPC TABLE 1103.1, FOR VERTICAL RAINWATER SIZING, MAXIMUM FLOW FOR 3" DIA. RWL IS 92 GPM AND 4" DIA. RWL IS 192 GPM



1
P141
PLUMBING ROOF PLAN
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. XXX

REFERENCE SHEET NOTES

1. F&I ROOF DRAIN, OVERFLOW DRAIN PER DETAIL 4/P501.
2. HOSE BIBB W/ CW PIPE DOWN THRU ROOF WITH WATERPROOFING.
3. CONDENSATE DRAIN W/ P-TRAP FOR HVAC UNITS PER DETAIL 6/P501. SLOPE PIPE ON ROOF AND ROUTE THROUGH ROOF DOWN TO 1ST FLOOR LAVATORY TAILPIECE PER DETAIL 12/P501 OR JANITOR'S SINK FOR INDIRECT WASTE W/ 1" AIR GAP (TYP).
4. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.

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PLUMBING ROOF PLAN

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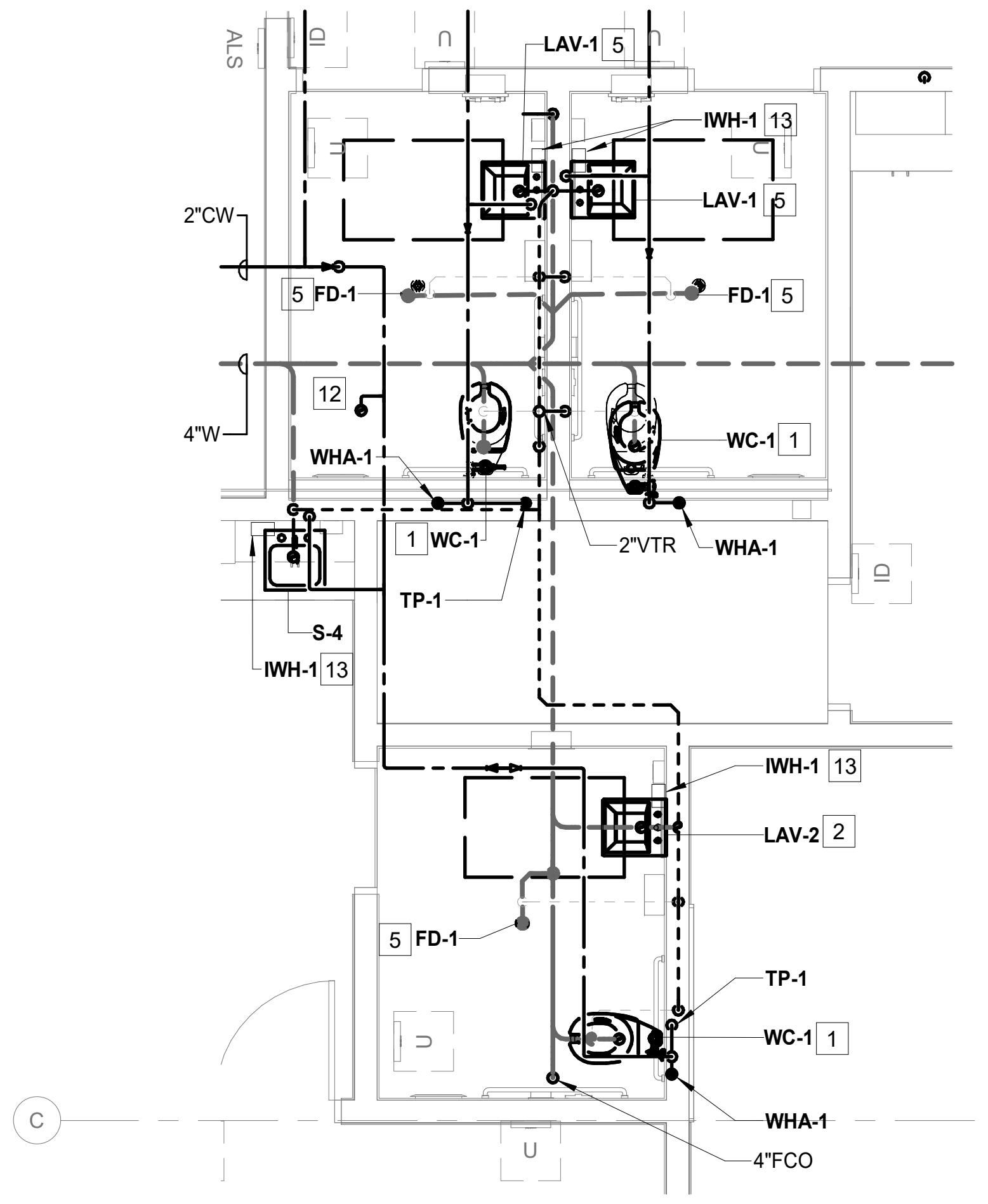
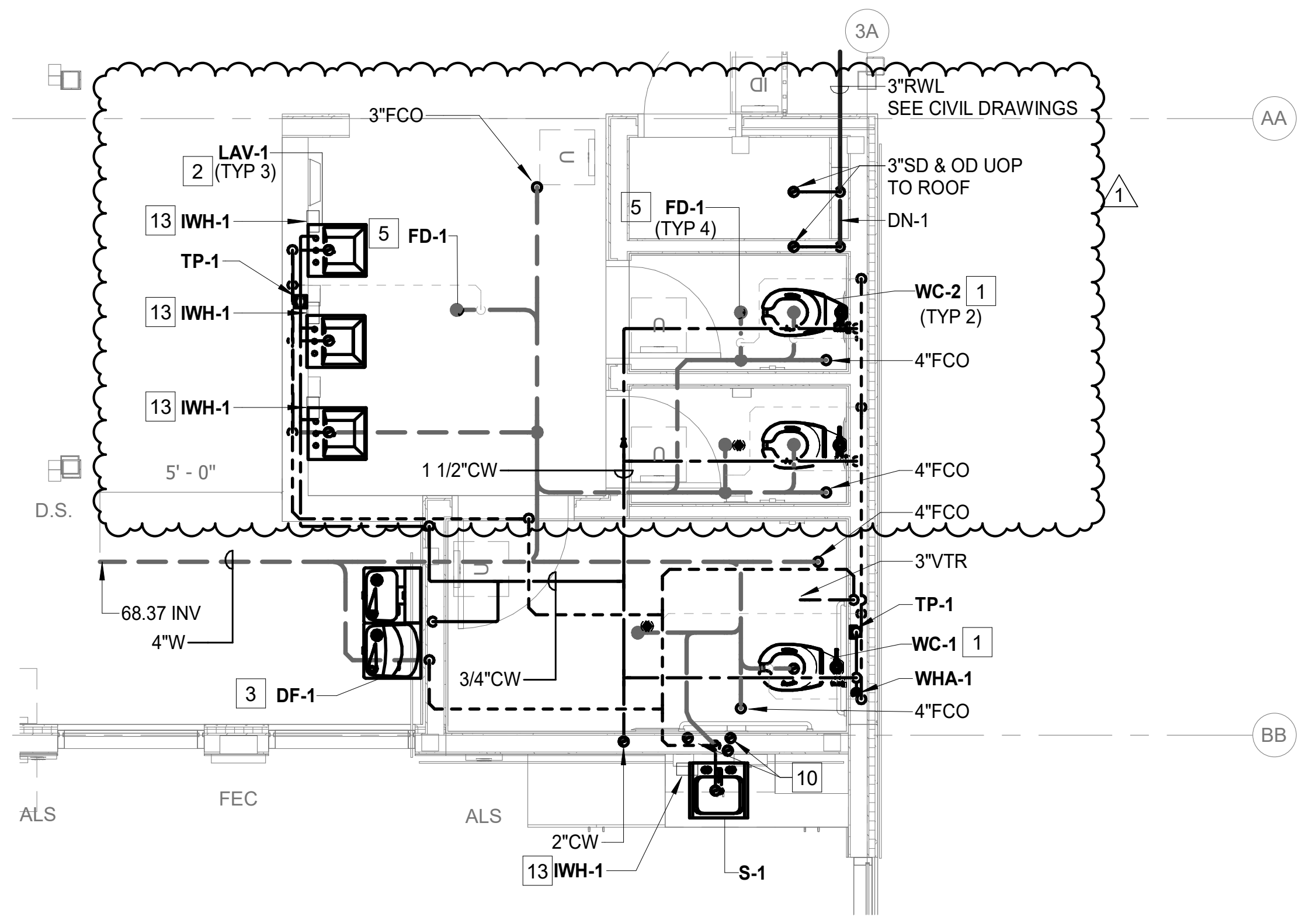


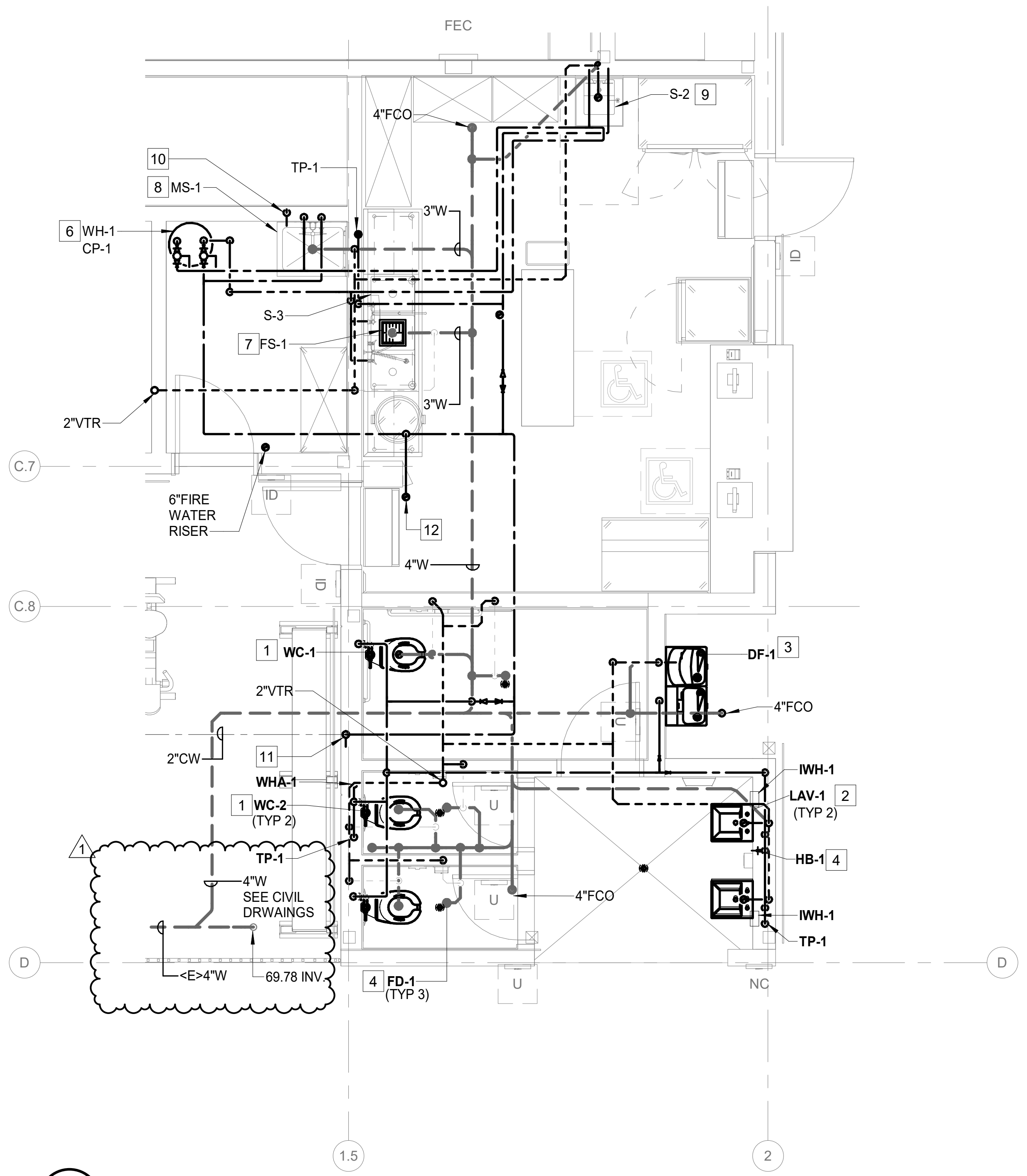
2 P401 PLUMBING - ENLARGED RESTROOM A122 & A123 PLAN

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



3 P401 PLUMBING - ENLARGED RESTROOM PLAN

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



1 P401 PLUMBING - ENLARGED FOOD SERVICE & RESTROOM PLAN

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

GENERAL SHEET NOTES

A. ALL SANITARY SEWER PIPING SHALL BE SLOPED 1/4" PER LINEAR FOOT.

B. REFER TO PLUMBING SCHEDULE FOR PIPE CONNECTION SIZES OF INDIVIDUAL FIXTURES.

C. REFERE TO ARCHITECURAL FIXTRES FOR ADA FIXTURES ADN MOUNTING HEIGHTS.

D. CONTRACTOR SHALL PROVIDE TRAP PRIMER FOR ALL FLOOR DRAINS. SEE DETAIL 5/P501.

E. WATER HAMMER ARRESTORS SHALL BE INSTALLED WHERE QUICK-CLOSING VALVES ARE UTILIZED. WATER HAMMER ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFERENCE SHEET NOTES

1. F&I FLOOR MOUNTED WATER CLOSET (WC) PER PLANS AND SCHEDULES.
2. F&I WALL MOUNTED LAVATORY PER PLANS AND SCHEDULES.
3. F&I "HI-LO" ADA DRINKING FOUNTAIN.
4. F&I EXPOSED HOSE BIBB WITH INTEGRAL VACUUM BREAKER.
5. F&I FLOOR DRAIN WITH TRAP PRIMER. SEE DETAIL 5/P501
6. F&I ELECTRIC TANK TYPE WATER HEATER WITH STAND. INSTALL WITH SECONDARY PAN AND T&P VALVE WITH DISCHARGE TO INDIRECT WASTE. INSTALL WITH CIRCULATION PUMP. INSTALL PER DETAIL 9/P501 & 10/P501.
7. FLOOR SINK FOR UNDER THREE COMPARTMENT SINK (SEE FOOD SERVICE -QF DRAWINGS) WITH TRAP PRIMER CONNECTION.
8. MOP SINK (SEE FOOD SERVICE -QF DRAWINGS).
9. KITCHEN SINK (SEE FOOD SERVICE -QF DRAWINGS).
10. CONDENSATE DRAIN DOWN FROM ROOF TO LAVATORY TAILPIECE OR JANITOR'S SINK FOR INDIRECT WASTE W/ 1" AIR GAP (TYP).
11. MAIN CW SOV IN LOCKABLE ACCESS PANEL (AP-2).
12. 3/4"CW UP TO HOSE BIBB AT ROOF.
13. F&I ELECTRIC INSTANT WATER HEATER BELOW LAVATORY/SINK WITH MIXING VALVE. SEE DETAIL 3/P-501.

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PLUMBING ENLARGED PLANS

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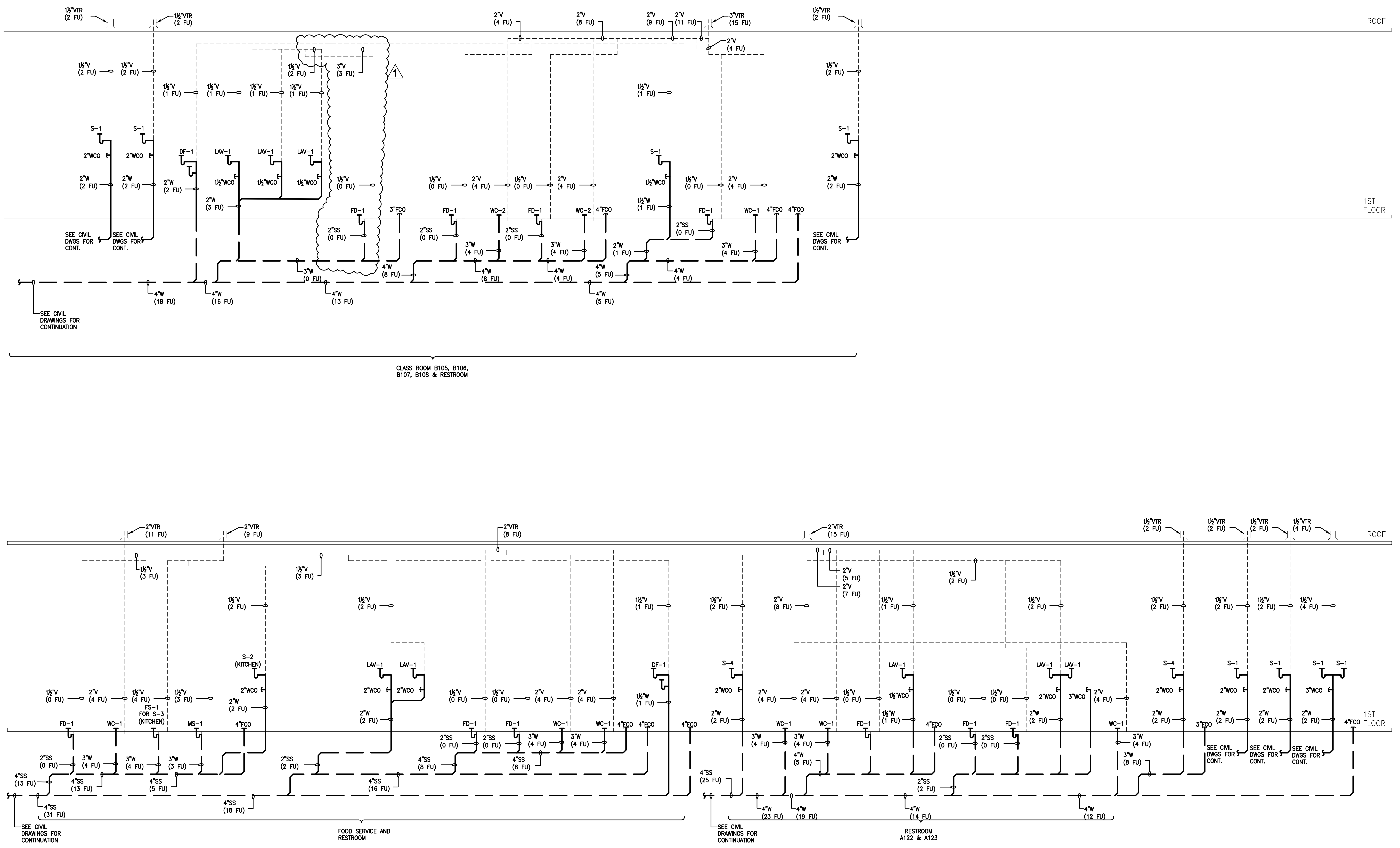
P401



① SEWER AND VENT SYSTEM

SCALE: N.T.S.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
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PLUMBING
RISER DIAGRAM

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P701

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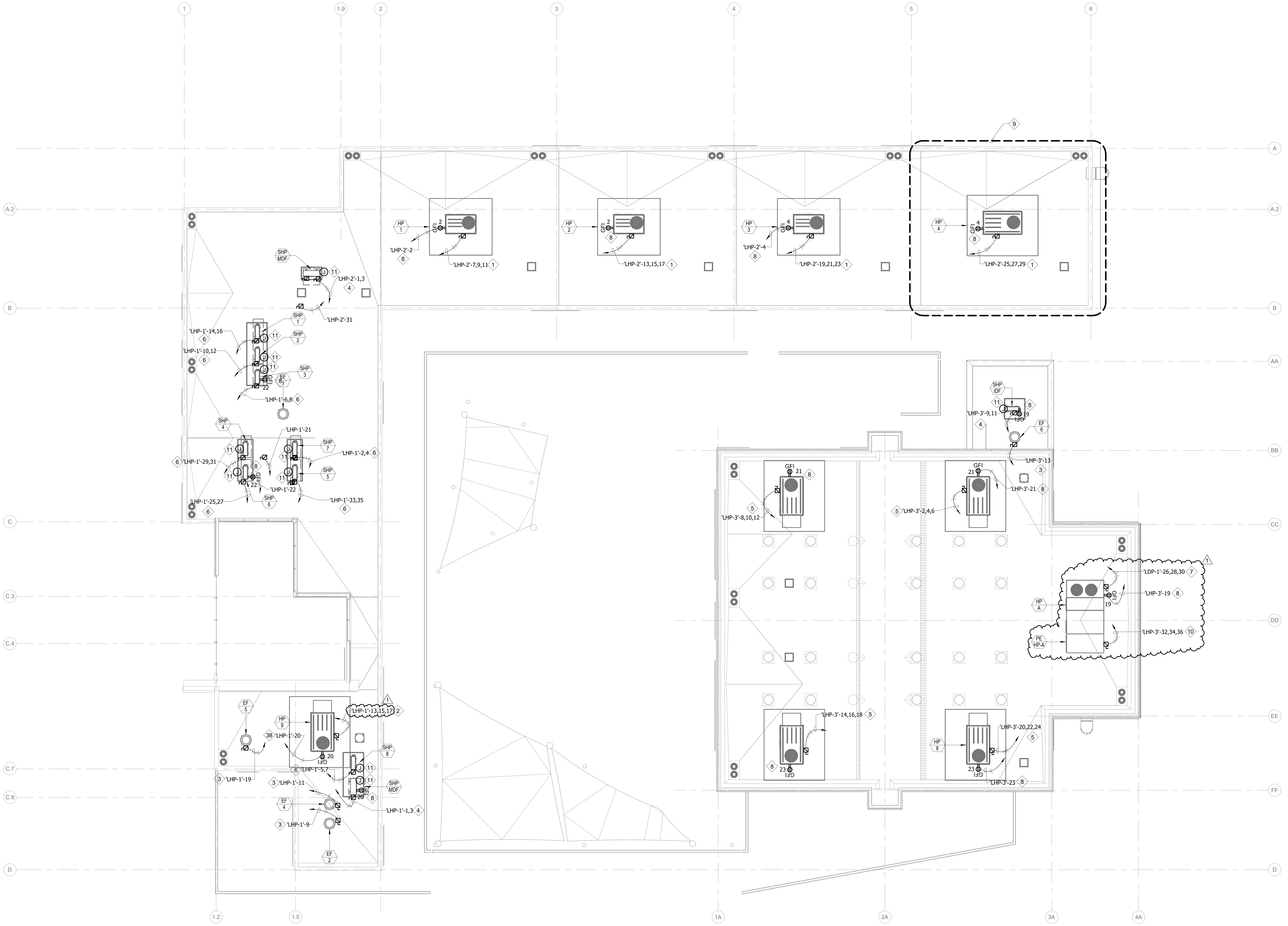

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E141

ELECTRICAL - ROOF PLAN

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

GENERAL SHEET NOTES

A. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL REQUIREMENTS.

B. CONDUITS ON ROOF SHALL BE MOUNTED ON DURABLOCKS.

REFERENCE SHEET NOTES

1. PROVIDE 208V, 3PH, 30A FUSED DISCONNECT WITH 30A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 3#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
2. PROVIDE 208V, 3PH, 60A FUSED DISCONNECT WITH 45A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 3#6 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN. 1
3. PROVIDE MOTOR RATED TOGGLE SWITCH MOUNTED ADJACENT TO MECHANICAL EQUIPMENT. PROVIDE 3/4"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
4. PROVIDE 208V, 3PH, 30A FUSED DISCONNECT WITH 25A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
5. PROVIDE 208V, 3PH, 60A FUSED DISCONNECT WITH 40A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 3#8 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN. 1
6. PROVIDE 208V, 3PH, 30A FUSED DISCONNECT WITH 15A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
7. PROVIDE 208V, 3PH, 200A FUSED DISCONNECT WITH 150A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 2"C - 3#1/0 & 1#6 GND FROM PANEL AND CIRCUIT SHOWN.
8. PROVIDE PEDESTAL MOUNTED RECEPTACLE WITH WHILE IN USE, WEATHER PROOF COVER. PROVIDE 1"C - 2#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
9. CONTRACTOR SHALL BID THIS PORTION OF THE BUILDING AS DEDUCT ALT #1.
10. PROVIDE 208V, 3PH, 30A FUSED DISCONNECT WITH 20A FUSE MOUNTED ON FREE-STANDING UNI-STRUT. PROVIDE 1"C - 3#10 & 1#10 GND FROM PANEL AND CIRCUIT SHOWN.
11. PROVIDE JUNCTION BOX FOR INDOOR UNIT. PROVIDE 3/4"C FROM OUTDOOR UNIT TO ASSOCIATED INDOOR UNIT. REFER TO MANUFACTURER FOR COMPLETE INSTALLATION. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
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No. E18084
ELECTRICAL

ELECTRICAL ROOF PLAN -
AUXILIARY

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
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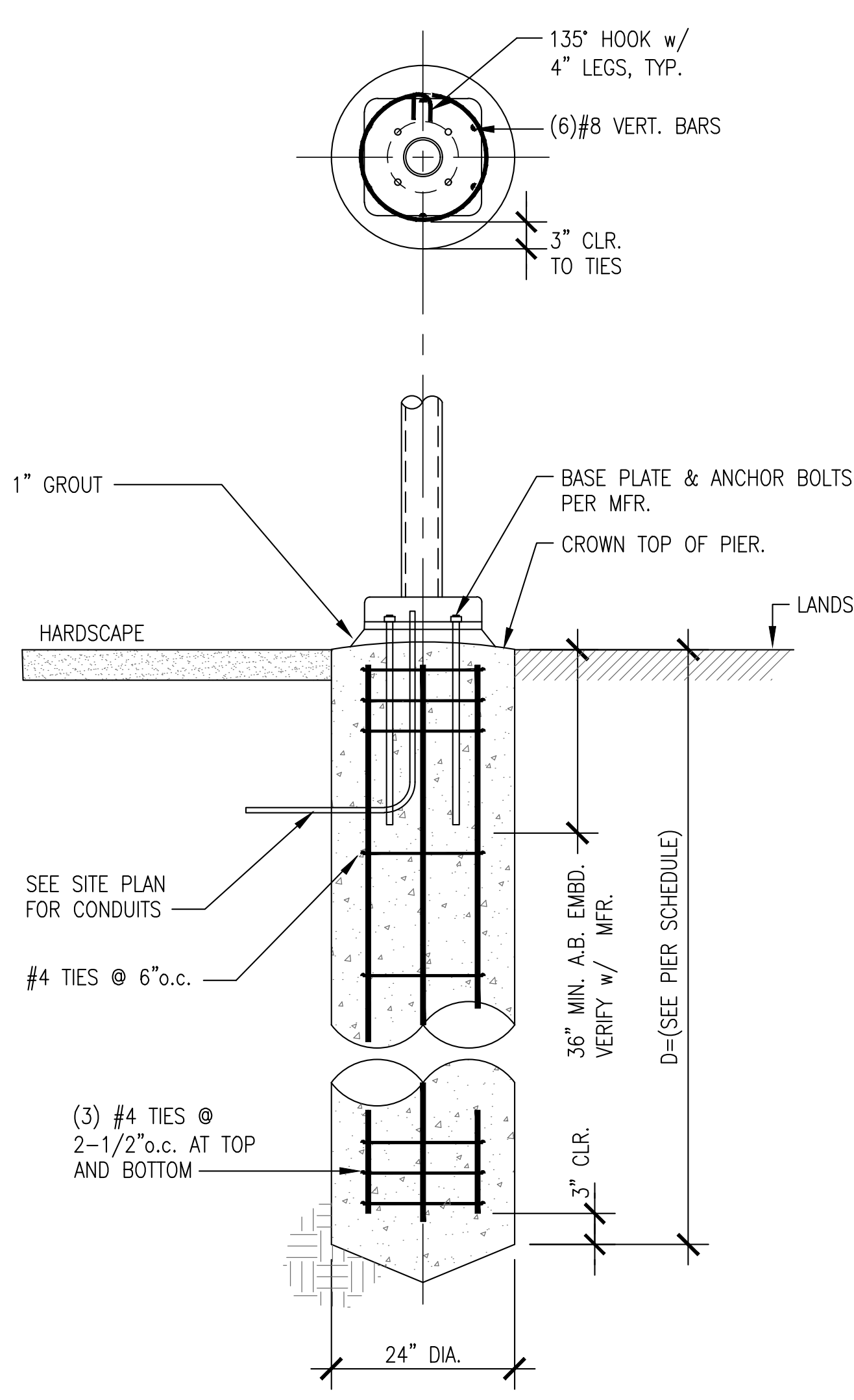
E141

AREA LIGHT PIER DEPTH SCHEDULE				
		FOOTING/PIER DEPTH		
POLE HEIGHT	FOOTING DIAMETER	LANDSCAPE	CONC. WALK	FIXTURE WEIGHT
15'	24"	7'-0"	6'-0"	LESS THAN 40 LBS


135° HOOK w/ 4" LEGS, TYP.
(6)#8 VERT. BARS
3" CLR. TO TIES
1" GROUT
BASE PLATE & ANCHOR BOLTS, PER MFR.
CROWN TOP OF PIER.
LANDSCAPE
HARDSCAPE
SEE SITE PLAN FOR CONDUITS
#4 TIES @ 6"o.c.
36" MIN. A.B. EMBD. VERIFY w/ MFR.
D=(SEE PIER SCHEDULE)
(3) #4 TIES @ 2-1/2"o.c. AT TOP AND BOTTOM
3" CLR.
24" DIA.

NOTES:

1. NEW MATERIALS SHALL BE AS FOLLOWS:

CONCRETE: NORMAL WEIGHT CONCRETE, 28-DAY COMPR. STRENGTH CONCRETE OF 3,000 PSI MIN. MAX SLUMP OF 4".

CONCRETE REINFORCING: DEFORMED BAR, ASTM A615, GRADE 40 FOR #4 & SMALLER, GRADE 60 FOR #5 & LARGER

2. SPECIAL INSPECTIONS:

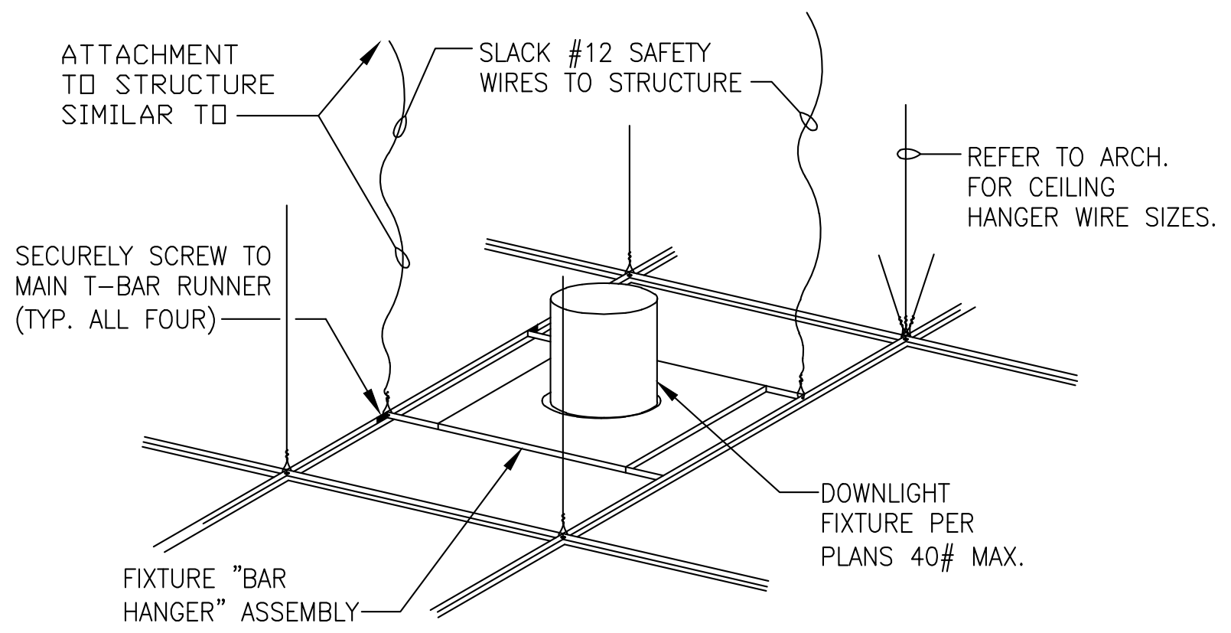
PROVIDE CONTINUOUS INSPECTION FOR THE FOLLOWING: CONCRETE: EXCAVATION, FINAL PLACEMENT OF REBAR, TAKING OF TEST SPECIMENS.

3. TESTING:

* CONCRETE: CAST (4) CYLINDERS, TEST AT 7, 14 & 28 DAYS (HOLD EXTRA FOR 60 DAYS). TEST SLUMP.

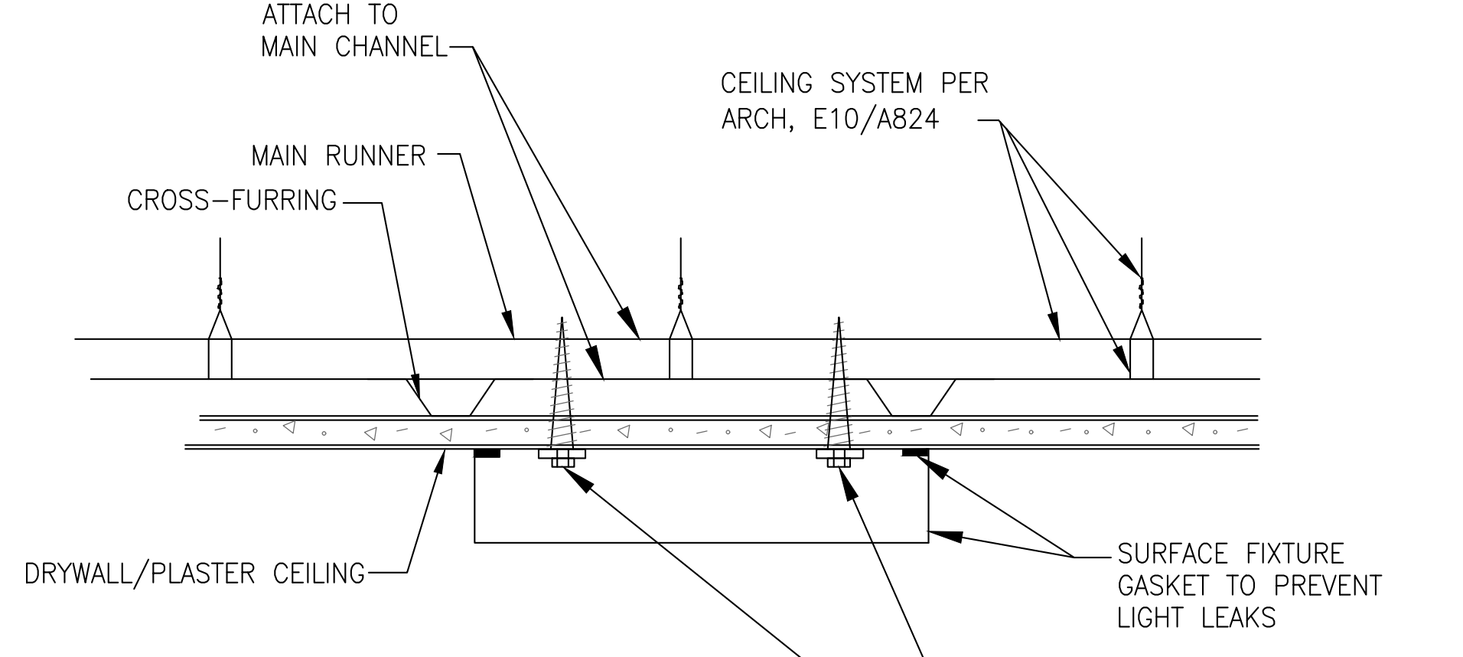
11 AREA LIGHT BASE

SCALE: N.T.S.


ATTACHMENT TO STRUCTURE SIMILAR TO
SLACK #12 SAFETY WIRES TO STRUCTURE
REFER TO ARCH. FOR CEILING HANGER WIRE SIZES.
SECURELY SCREW TO MAIN T-BAR RUNNER (TYP. ALL FOUR)
DOWNLIGHT FIXTURE PER PLANS 40# MAX.
FIXTURE "BAR HANGER" ASSEMBLY

9 RECESSED DOWNLIGHT - GRID

SCALE: N.T.S.

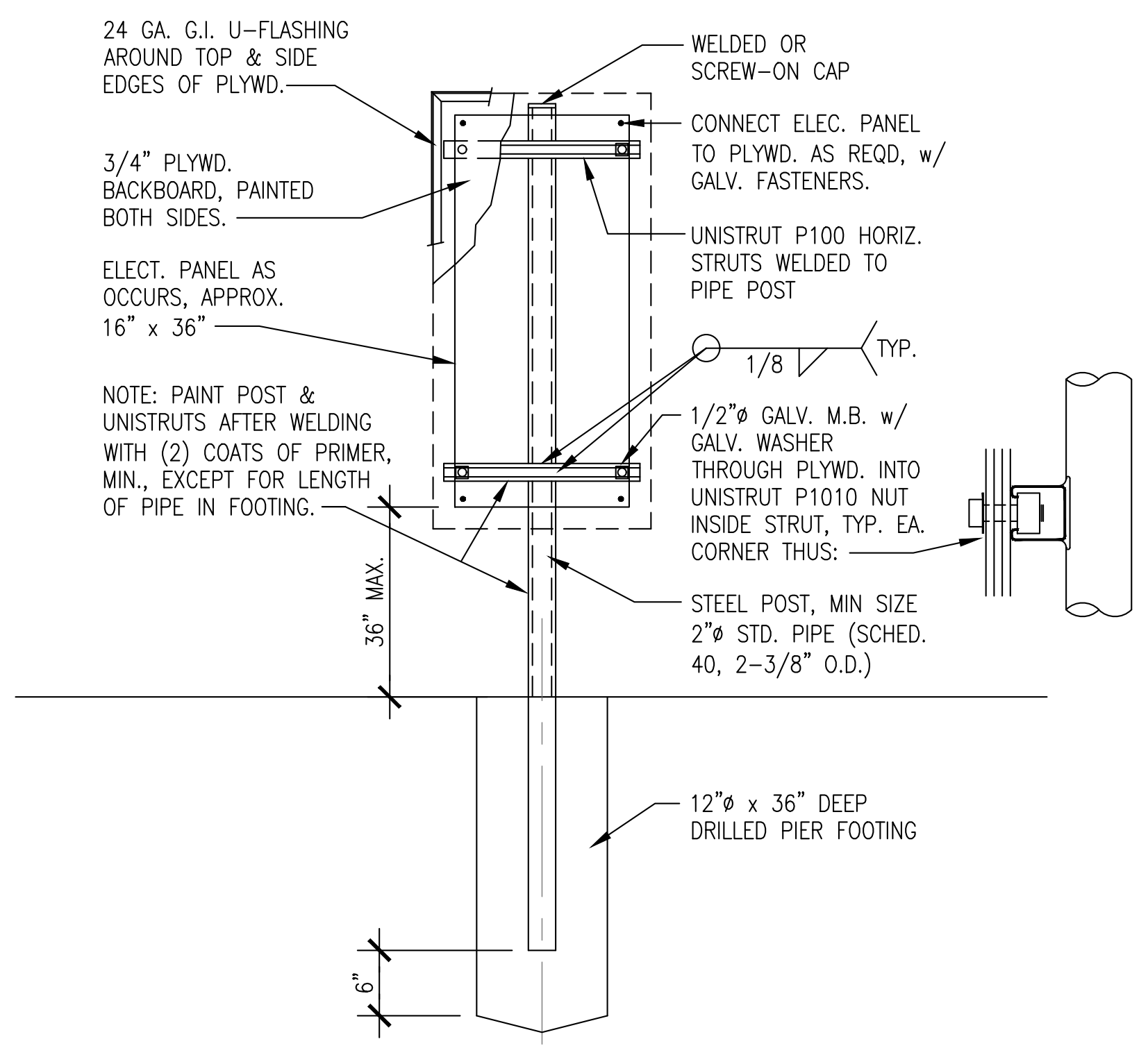

ATTACH TO MAIN CHANNEL
CEILING SYSTEM PER ARCH, E10/A824
MAIN RUNNER
CROSS-FURRING
DRYWALL/PLASTER CEILING
SURFACE FIXTURE GASKET TO PREVENT LIGHT LEAKS
4-1/4"ø x LENGTH AS REQUIRED LAG SCREWS WITH FENDER WASHERS, POSITIVE MECHANICAL FIXTURE CLAMP IS NOT ACCEPTABLE, SECURE TO CHANNEL.

NOTES:

1. COORDINATE ALL CEILING LOCATIONS WITH CEILING CONTRACTOR & REFLECTED CEILING PLAN.
2. ADD CHANNELS WHERE MAINS ARE ARE NOT AVAILABLE.

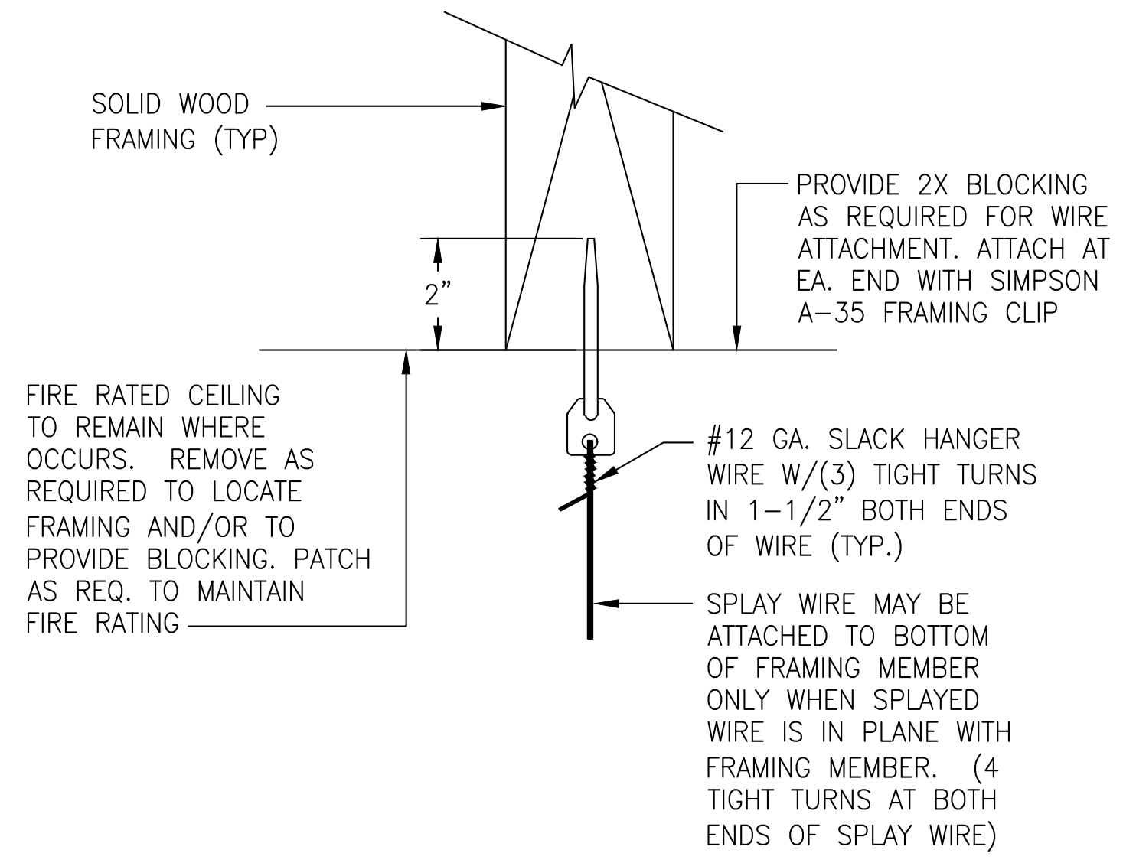
8 SURFACE MOUNTED FIXTURE

SCALE: N.T.S.

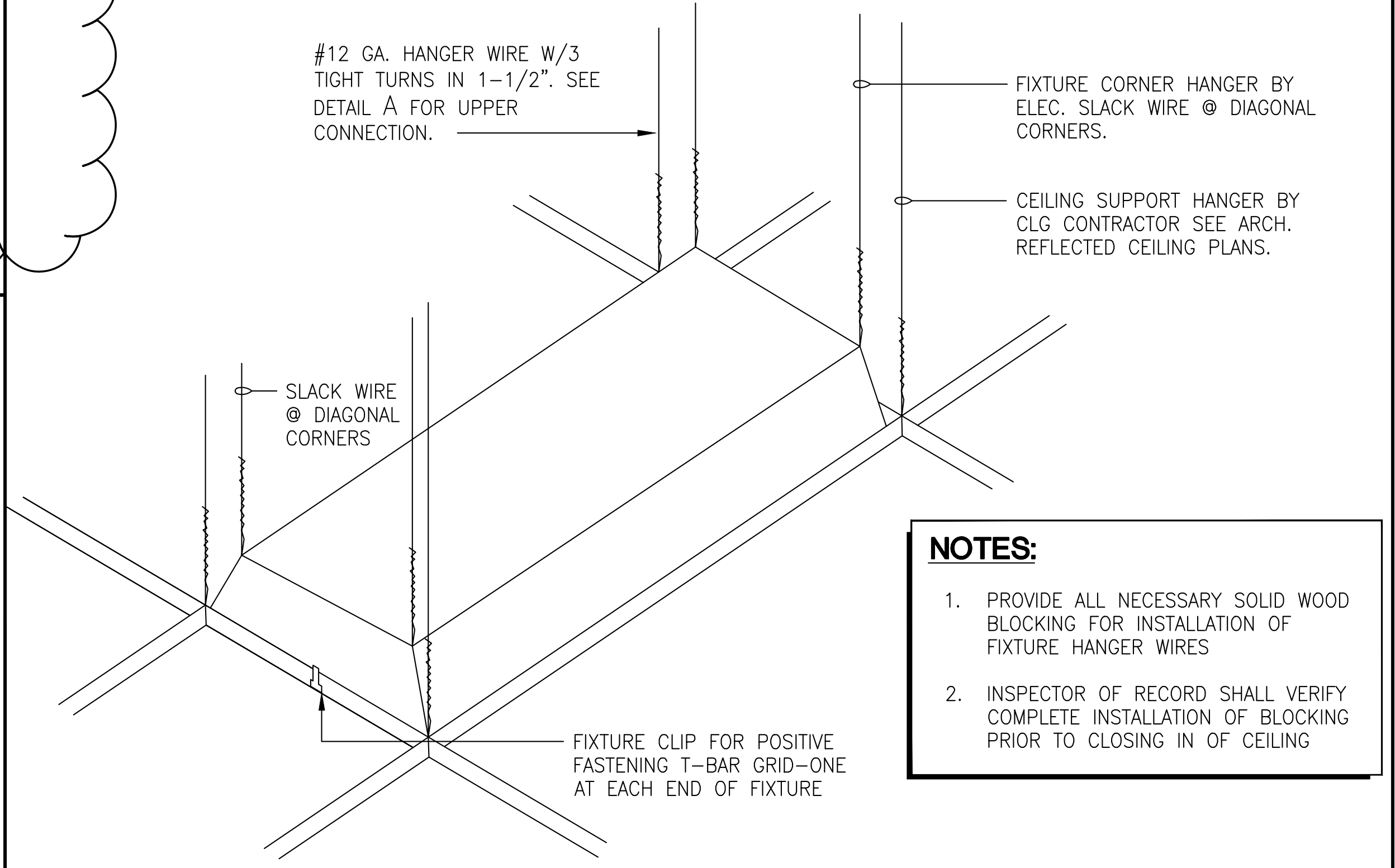

24 GA. G.I. U-FLASHING AROUND TOP & SIDE EDGES OF PLYWD.
3/4" PLYWD. BACKBOARD, PAINTED BOTH SIDES.
ELECT. PANEL AS OCCURS, APPROX. 16" x 36"
NOTE: PAINT POST & UNISTRUTS AFTER WELDING WITH (2) COATS OF PRIMER, MIN., EXCEPT FOR LENGTH OF PIPE IN FOOTING.
WELDED OR SCREW-ON CAP
CONNECT ELEC. PANEL TO PLYWD. AS REQD, w/ GALV. FASTENERS.
UNISTRUT P100 HORIZ. STRUTS WELDED TO PIPE POST
1/8
TYP.
1/2"ø GALV. M.B. w/ GALV. WASHER THROUGH PLYWD. INTO UNISTRUT P1010 NUT INSIDE STRUT, TYP. EA. CORNER THUS:
STEEL POST, MIN SIZE 2"ø STD. PIPE (SCHED. 40, 2-3/8" O.D.)
36" MAX.
12"ø x 36" DEEP DRILLED PIER FOOTING
6"

10 EXTERIOR PANEL MOUNTING

SCALE: N.T.S.


SOLID WOOD FRAMING (TYP)
PROVIDE 2X BLOCKING AS REQUIRED FOR WIRE ATTACHMENT. ATTACH AT EA. END WITH SIMPSON A-35 FRAMING CLIP
2"
FIRE RATED CEILING TO REMAIN WHERE OCCURS. REMOVE AS REQUIRED TO LOCATE FRAMING AND/OR TO PROVIDE BLOCKING. PATCH AS REQ. TO MAINTAIN FIRE RATING
#12 GA. SLACK HANGER WIRE W/(3) TIGHT TURNS IN 1-1/2" BOTH ENDS OF WIRE (TYP.)
SPLAY WIRE MAY BE ATTACHED TO BOTTOM OF FRAMING MEMBER ONLY WHEN SPLAYED WIRE IS IN PLANE WITH FRAMING MEMBER. (4 TIGHT TURNS AT BOTH ENDS OF SPLAY WIRE)

WOOD CEILING

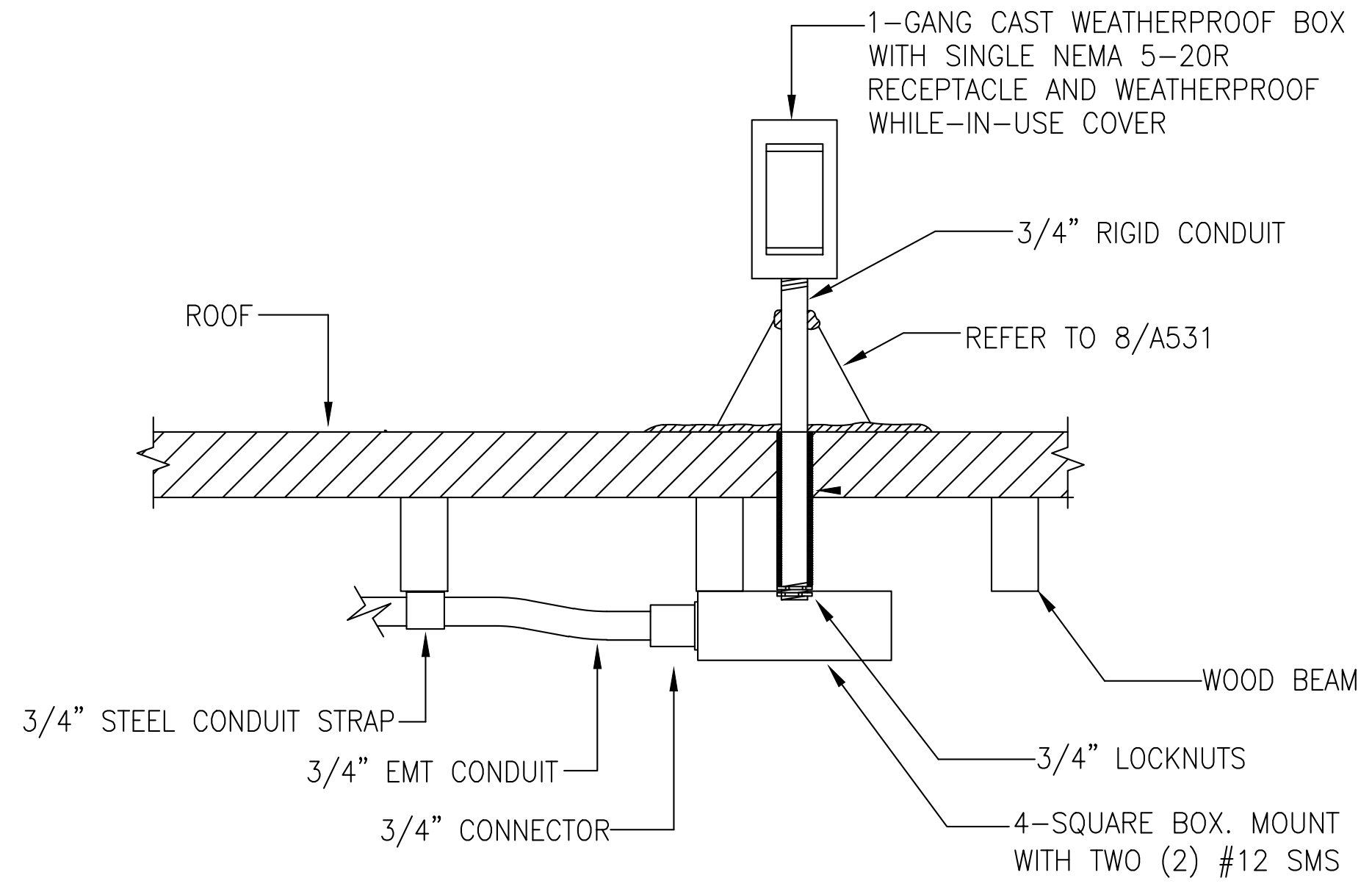

#12 GA. HANGER WIRE W/3 TIGHT TURNS IN 1-1/2". SEE DETAIL A FOR UPPER CONNECTION.
FIXTURE CORNER HANGER BY ELEC. SLACK WIRE @ DIAGONAL CORNERS.
CEILING SUPPORT HANGER BY CLG CONTRACTOR SEE ARCH. REFLECTED CEILING PLANS.
SLACK WIRE @ DIAGONAL CORNERS
FIXTURE CLIP FOR POSITIVE FASTENING T-BAR GRID-ONE AT EACH END OF FIXTURE

NOTES:

1. PROVIDE ALL NECESSARY SOLID WOOD BLOCKING FOR INSTALLATION OF FIXTURE HANGER WIRES
2. INSPECTOR OF RECORD SHALL VERIFY COMPLETE INSTALLATION OF BLOCKING PRIOR TO CLOSING IN OF CEILING

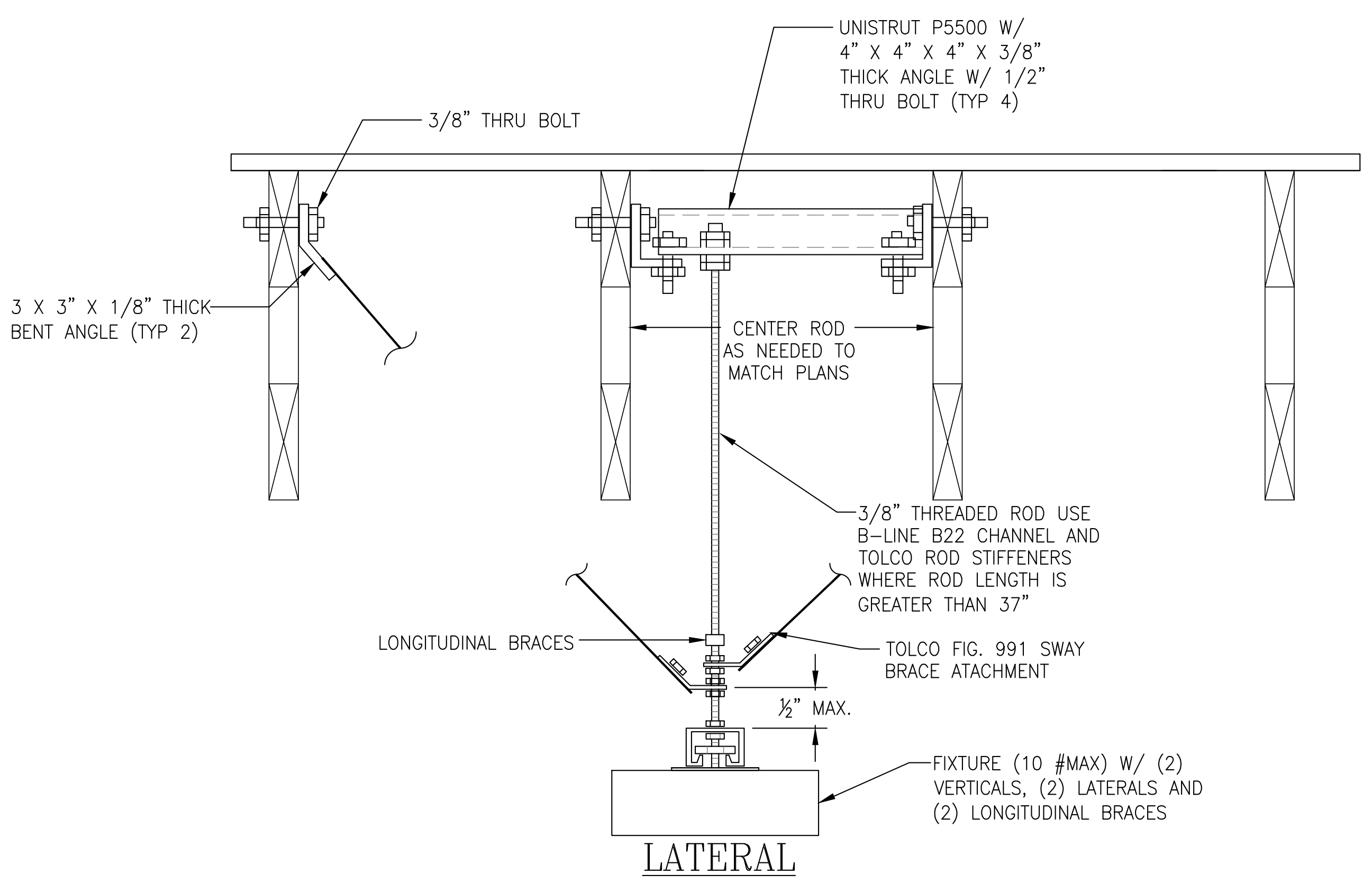
7 RECESSED TROFFER - GRID

SCALE: N.T.S.


1-GANG CAST WEATHERPROOF BOX WITH SINGLE NEMA 5-20R RECEPTACLE AND WEATHERPROOF WHILE-IN-USE COVER
3/4" RIGID CONDUIT
ROOF
REFER TO 8/A531
WOOD BEAM
3/4" STEEL CONDUIT STRAP
3/4" EMT CONDUIT
3/4" CONNECTOR
3/4" LOCKNUTS
4-SQUARE BOX. MOUNT WITH TWO (2) #12 SMS

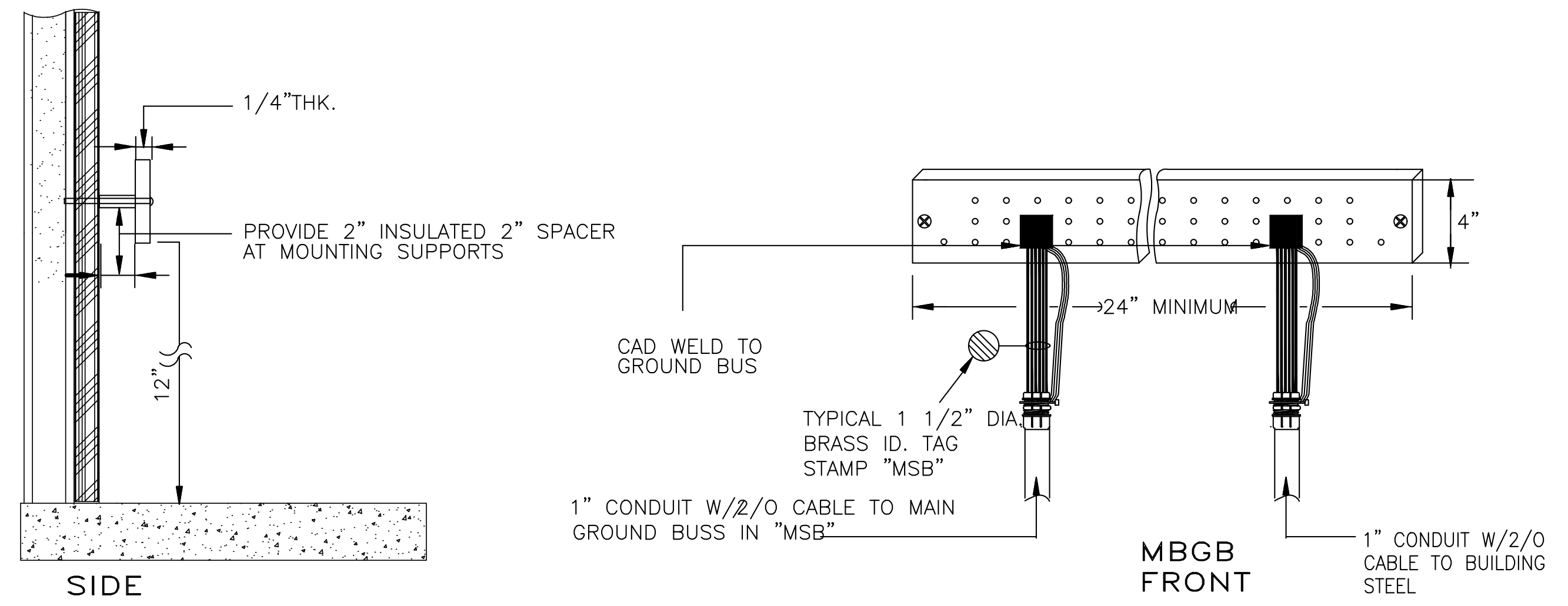
6 PEDESTAL ROOF REDCEPTACLE

SCALE: N.T.S.


UNISTRUT P5500 W/ 4" X 4" X 4" X 3/8" THICK ANGLE W/ 1/2" THRU BOLT (TYP 4)
3/8" THRU BOLT
3 X 3" X 1/8" THICK BENT ANGLE (TYP 2)
CENTER ROD AS NEEDED TO MATCH PLANS
3/8" THREADED ROD USE B-LINE B22 CHANNEL AND TOLCO ROD STIFFENERS WHERE ROD LENGTH IS GREATER THAN 37"
LONGITUDINAL BRACES
TOLCO FIG. 991 SWAY BRACE ATACHMENT
½" MAX.
FIXTURE (10 #MAX) W/ (2) VERTICALS, (2) LATERALS AND (2) LONGITUDINAL BRACES
LATERAL

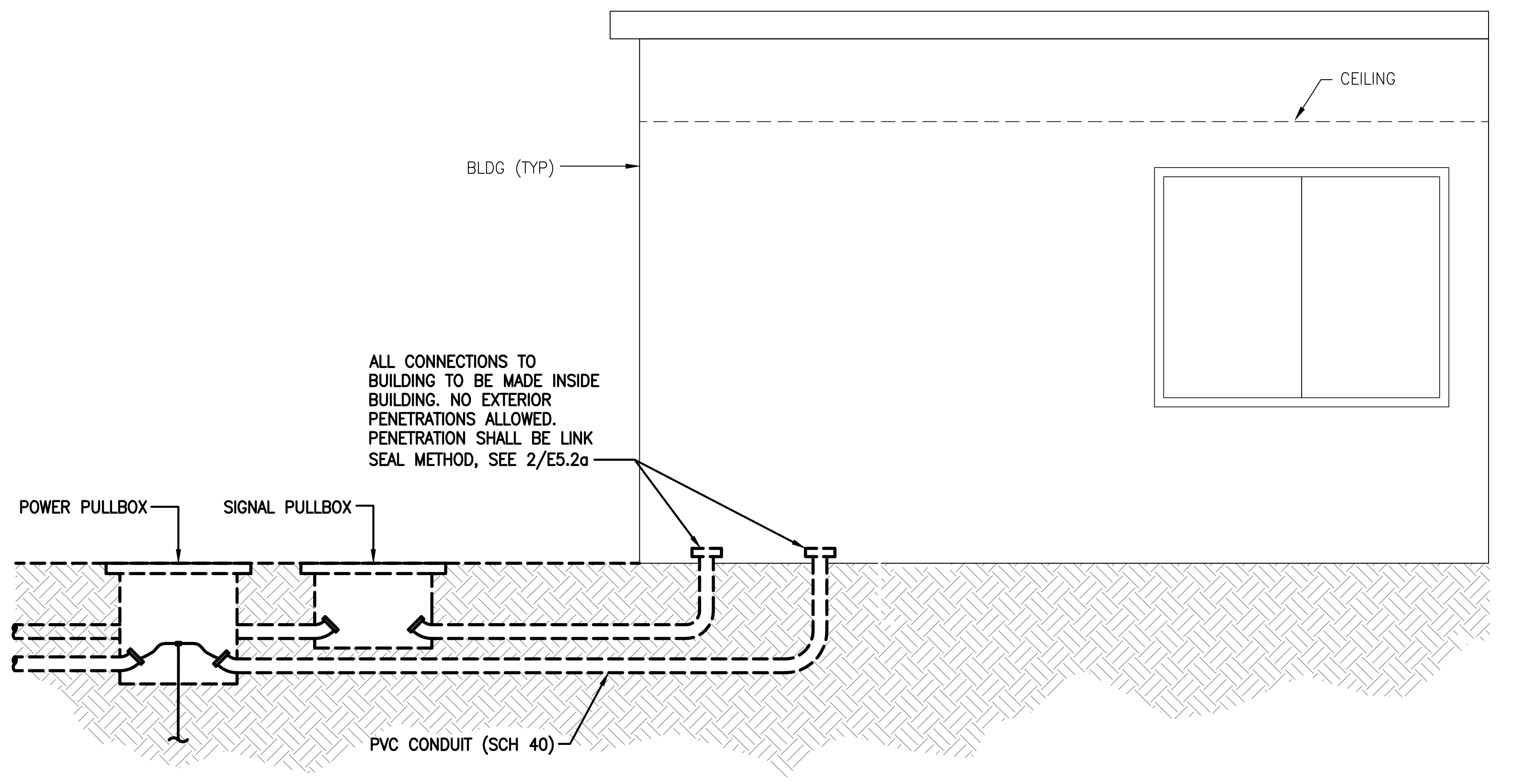
5 PENDANT MOUNT - OPEN CEILING

SCALE: N.T.S.


1/4"THK.
PROVIDE 2" INSULATED 2" SPACER AT MOUNTING SUPPORTS
12"
SIDE
CAD WELD TO GROUND BUS
TYPICAL 1 1/2" DIA. BRASS ID. TAG STAMP "MSB"
1" CONDUIT W/2/0 CABLE TO MAIN GROUND BUSS IN "MSB"
24" MINIMUM
4"
MBGB FRONT
1" CONDUIT W/2/0 CABLE TO BUILDING STEEL

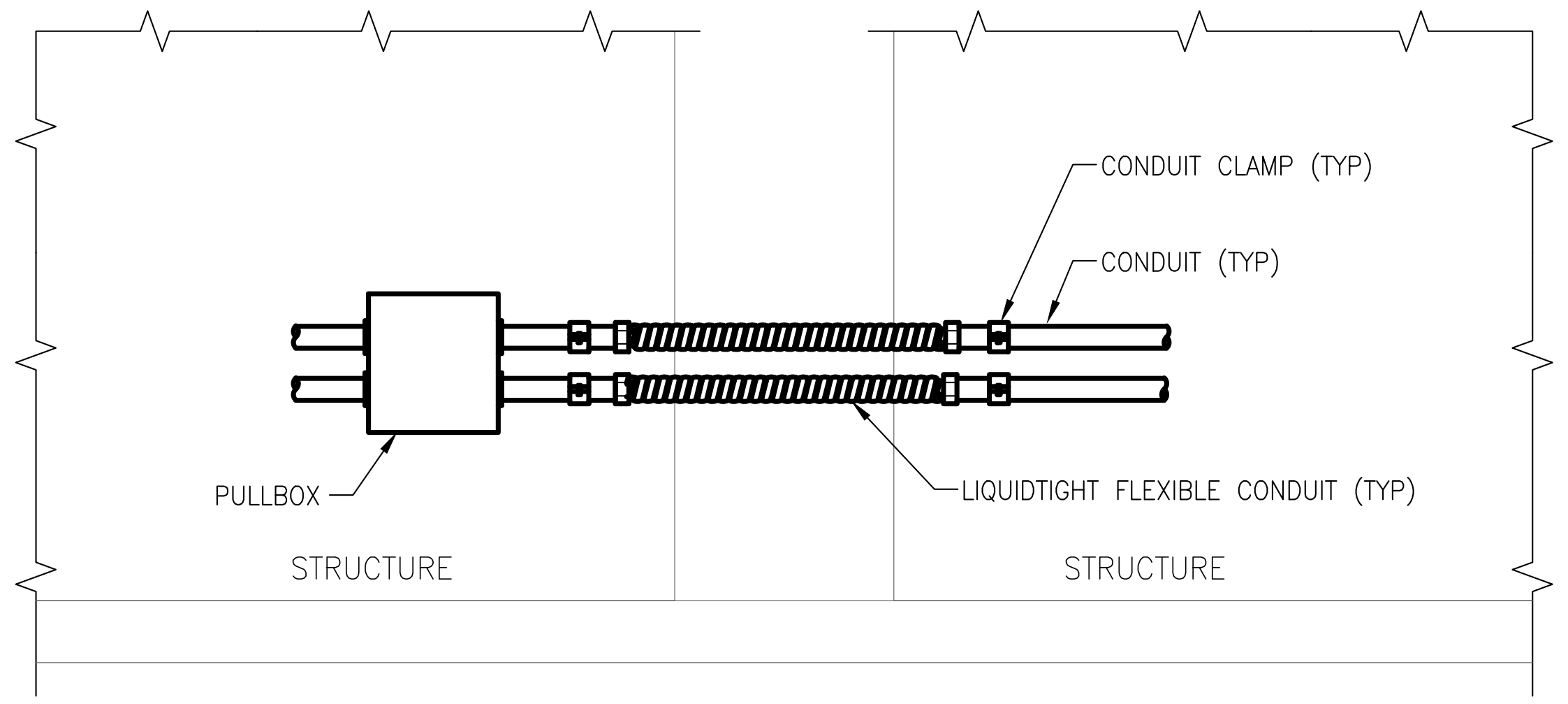
4 BUILDING GROUND BUS

SCALE: N.T.S.


CEILING
BLDG (TYP)
ALL CONNECTIONS TO BUILDING TO BE MADE INSIDE BUILDING. NO EXTERIOR PENETRATIONS ALLOWED. PENETRATION SHALL BE LINK SEAL METHOD, SEE 2/E5.2a
POWER PULLBOX
SIGNAL PULLBOX
PVC CONDUIT (SCH 40)

3 BUILDING INTERIOR CONDUIT DIAGRAM

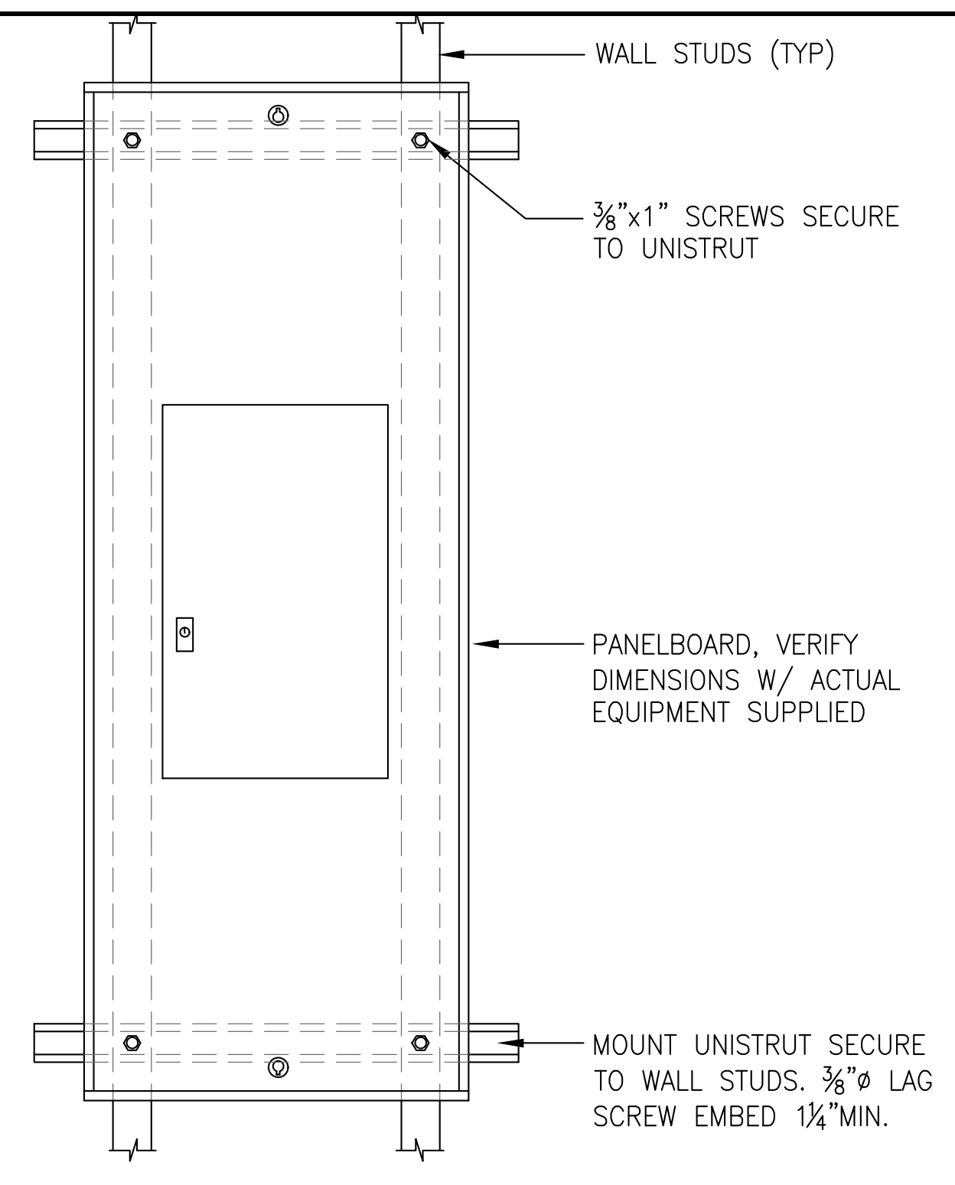
SCALE: N.T.S.



NOTE:
1. TRANSITION FOR CEILING OR WALL MOUNTED INSTANCES.
2. ALL EXPOSED EQUIPMENT TO BE PAINTED TO MATCH SURROUNDING SURFACES.
3. PROVIDE TRANSITION AT ALL SEISMIC JOINTS.

2 SEISMIC JOINT TRANSITION

SCALE: N.T.S.


WALL STUDS (TYP)
⅜"x1" SCREWS SECURE TO UNISTRUT
PANELBOARD, VERIFY DIMENSIONS W/ ACTUAL EQUIPMENT SUPPLIED
MOUNT UNISTRUT SECURE TO WALL STUDS. ⅜"ø LAG SCREW EMBED 1¼"MIN.

1 PANELBOARD MOUNTING ON STUDS

SCALE: N.T.S.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

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DETAILS

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E502

Z:\BE\Projects\Legacy\BEW\10\Drawings\Drawings\Perkins Eastman Architects\2103238 Gateway Community School New 8-Classroom Bldg\2103238E502.dwg 5/22/2026 3:22 PM Toan Pham

LIGHT FIXTURE SCHEDULE

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	MOUNTING	LAMP TYPE	VOLTS	WATTS	REMARKS
EX	LITHONIA LIGHTING	EDGX-X-G	EXIT SIGN	CEILING (RECESSED/ SURFACE)	LED	MVOLT	3	
F1	LITHONIA LIGHTING	1 2BLT4-40L-ADP-EZ1-LP835-N100	2'X4' TROFFER FIXTURE	GRID	LED	MVOLT	38	
F1E	LITHONIA LIGHTING	2BLT4-40L-ADP-EZ1-E10WLCP-LP835-N100	SAME AS F1 EXCEPT EMERGENCY	GRID	LED	MVOLT	38	
F2	RAYON LIGHTING	RFL6-11L-35-011-6RLXX-6TLXX	6" CYLINDER FIXTURE	HARD-LID	LED	MVOLT	12.5	
F2E	RAYON LIGHTING	RFL6-11L-35-011-6RLXX-6TLXX	SAME AS F2 EXCEPT EMERGENCY	HARD-LID	LED	MVOLT	12.5	
F3	COOPER LIGHTING	1 LD6C159035D010MXX	6" DECORATIVE CYLINDER FIXTURE	HARD-LID	LED	MVOLT	15.5	
F4	COOPER LIGHTING	LDSQ6D159035D010SQWXX	6" DECORATIVE SQUARE FIXTURE	HARD-LID	LED	MVOLT	15.5	
F5	LITHONIA LIGHTING	STL4-40L-EZ1-LP835-N100	1'X4' STRIP FIXTURE	SURFACE	LED	MVOLT	34.9	
F6	FOCAL POINT	1 FSM4LS-FL-375LF-35K-1C-UNV-L11-C48XX-XX-8'	4" LINEAR PENDANT FIXTURE	PENDANT	LED	MVOLT	26	
F7	FOCAL POINT	FSM2LS-FL-375LF-35K-1C-UNV-L11-C48XX-XX-6'	2" LINEAR PENDANT FIXTURE	PENDANT	LED	MVOLT	21	
F8	1 COOPER LIGHTING	S122DR-S375D835-XXX-8FO-UDD-W-W	8' LINEAR RECESSED FIXTURE	GRID SLOT	LED	MVOLT	3.8 W/FT	1
F8E	COOPER LIGHTING	S122DR-S375D835-XXX-8FO-1B2-UDD-W-W	SAME AS F8 EXCEPT EMERGENCY	GRID SLOT	LED	MVOLT	3.8 W/FT	
F9	FOCAL POINT	FSM4BS-XXXX-375DN-625UP-35K-1C-L11-C48XX-XX-XX-4'	4' LINEAR PENDANT FIXTURE	PENDANT	LED	MVOLT	31	
FX1	LITHONIA LIGHTING	CLX-L24-2500LM-SEF-FDL-WD-MVOLT-GZ1-35K-80CRI	2' SURFACE MOUNT EXTERIOR FIXTURE	CANOPY	LED	MVOLT	19.9	
FX2	COOPER LIGHTING	LD8B15D010-ER8B10208035-8LBMXXX	10" RECESSED EXTERIOR FIXTURE	HARD-LID	LED	MVOLT	15.5	1
FX3	LITHONIA LIGHTING	DSXB-LED-16C-350-30K-SYM-MVOLT-PE-H36-XX	BOLLARD	GROUND	LED	MVOLT	20	
FX4	COOPER LIGHTING	1 GAN-SA4A-830-U-T4FT-ADJA-WM-XX-MS/DIM-L20	FLOOD LIGHT	WALL MOUNT	LED	MVOLT	129	
FX5	COOPER LIGHTING	FIXTURE: GAN-SA4A-830-U-T4FT-ADJA-XX-MS/DIM-L20 POLE: SSS-6-X-15-S-XX-XX-1-X	FLOOD LIGHT WITH POLE	POLE	LED	MVOLT	129	

INTERIOR LIGHTING FIXTURE NOTES

1. ALL FIXTURE DRIVERS SHALL BE U.L. APPROVED AND CERTIFIED PER C.E.C 2-111.
2. VERIFY CATALOG NUMBER PRIOR TO BIDDING OR PURCHASING.
3. ALL LED FIXTURE SHALL BE 3500 K UNLESS OTHERWISE NOTED.
4. SOME FIXTURES REQUIRE TO BE DIMMABLE. FIXTURE'S DIMMING BALLAST SHALL BE COMPATIBLE WITH DIMMER. SEE PLANS FOR LOCATIONS AND FIXTURES.
5. LUMINAIRE CATALOG NUMBERS USED TO ILLUSTRATE LUMINAIRE TYPE DO NOT NECESSARILY DENOTE REQUIRED MOUNTING. COORDINATE LUMINAIRE INSTALLATION WITH REFLECTED CEILING DRAWINGS. PROVIDE APPROPRIATE MOUNTING FRAME/KIT PER CEILING PLAN AND/OR FINISH.

FEEDER SCHEDULE

3-PHASE FEEDER SCHEDULE

FEEDER DESIGNATION XX	No. OF SETS	PHASE CONDUCTOR (PER SET)	'N' NEUTRAL CONDUCTOR (PER SET)	'G' GROUND CONDUCTOR (PER SET)	'SG' SYSTEM BONDING JUMPER (PER SET)	CONDUIT SIZE FOR 3-PHASE & GROUND (G OR GEC) (PER SET)	CONDUIT SIZE FOR 3-PHASE & NEUTRAL & GROUND (G OR GEC) (PER SET)
20	1	(3) #10	#10	#10	#8	3/4"C	3/4"C
30	1	(3) #10	#10	#10	#8	3/4"C	3/4"C
40	1	(3) #8	#8	#10	#8	3/4"C	3/4"C
50	1	(3) #6	#6	#10	#8	1"C	1"C
60	1	(3) #4	#4	#10	#8	1-1/4"C	1-1/4"C
70	1	(3) #4	#4	#8	#8	1-1/4"C	1-1/4"C
80	1	(3) #2	#2	#8	#8	1-1/2"C	1-1/2"C
90	1	(3) #2	#2	#8	#8	1-1/2"C	1-1/2"C
100	1	(3) #1	#1	#8	#6	1-1/2"C	2"C
125	1	(3) #1	#1	#6	#6	1-1/2"C	2"C
150	1	(3) #1/0	#1/0	#6	#6	1-1/2"C	2"C
175	1	(3) #2/0	#2/0	#6	#4	2"C	2"C
200	1	(3) #3/0	#3/0	#6	#4	2"C	2-1/2"C
225	1	(3) #4/0	#4/0	#4	#2	2-1/2"C	2-1/2"C
250	1	(3) #250 Kcmil	#250 Kcmil	#4	#2	2-1/2"C	3"C
300	1	(3) #350 Kcmil	#350 Kcmil	#4	#2	3"C	3"C
350	1	(3) #500 Kcmil	#500 Kcmil	#3	#1/0	4"C	4"C
400	1	(3) #600 Kcmil	#600 Kcmil	#3	#1/0	4"C	4"C
450	2	(3) #4/0	#4/0	#2	#1/0	2-1/2"C	2-1/2"C
500	2	(3) #250 Kcmil	#250 Kcmil	#2	#1/0	2-1/2"C	3"C
600	2	(3) #350 Kcmil	#350 Kcmil	#1	#2/0	3"C	3"C
700	2	(3) #500 Kcmil	#500 Kcmil	#1/0	#2/0	4"C	4"C
800	3	(3) #300 Kcmil	#300 Kcmil	#1/0	#2/0	3"C	3"C
1000	3	(3) #400 Kcmil	#400 Kcmil	#2/0	#3/0	3"C	3-1/2"C
1200	4	(3) #350 Kcmil	#350 Kcmil	#3/0	#3/0	3"C	3"C
1600	5	(3) #400 Kcmil	#400 Kcmil	#4/0	#3/0	3"C	3-1/2"C
2000	5	(3) #600 Kcmil	#600 Kcmil	#250 Kcmil	#3/0	4"C	4"C
2500	6	(3) #600 Kcmil	#600 Kcmil	#350 Kcmil	#3/0	4"C	4"C
3000	8	(3) #600 Kcmil	#600 Kcmil	#400 Kcmil	#3/0	4"C	4"C
4000	10	(3) #600 Kcmil	#600 Kcmil	#500 Kcmil	#3/0	4"C	4"C

EXAMPLES:

A. 300G = INDICATES (1) SET OF [3"C. – (3)#350 Kcmil + #4 GROUND CONDUCTOR].
B. 300SG = INDICATES (1) SET OF [3"C. – (3)#350 Kcmil + #2 GROUND CONDUCTOR].
C. 300NG = INDICATES (1) SET OF [3"C. – (3)#350 Kcmil + (1)#350 Kcmil NEUTRAL + #4 GROUND CONDUCTOR].
D. 300NSG = INDICATES (1) SET OF [3"C. – (3)#350 Kcmil + (1)#350 Kcmil NEUTRAL + #2 GROUND CONDUCTOR].
E. 600NG = INDICATES (2) SET OF [3"C. – (3)#350 Kcmil + (1)#350 Kcmil NEUTRAL + #1 GROUND CONDUCTOR].

NOTES:

1. ALL CONDUCTORS SHALL BE COPPER, THHN-2 or THWN-2.
2. NOT ALL FEEDERS ON THIS SCHEDULE ARE NECESSARILY USED ON THIS PROJECT.

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VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

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Local **Action.**

JEFFRY GOSAL
No. E18084

ELECTRICAL
SCHEDULES

PERKINS — EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
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E601

PANEL ID: LHP-1

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 225 A **MAIN:** 225 A **TYPE:**
LOCATION ELECTRICAL 207 **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
SHP-MDF		2	20	1	850	850					2	20	2		SHP-7
				3			850	850			4				
SHP-8		2	20	5					850	850	6	20	2		SHP-3
				7	850	850					8				
EF-2		1	20	9			700	850			10	20	2		SHP-2
EF-4		1	20	11					700	850	12				
HP-9		3	45	13	2976	850					14	20	2		SHP-1
				15			2976	850			16				
				17					2976	360	18	20	1		DRINKING FAOUNTAIN
EF-ELEC		1	20	19	700	360					20	20	1		ROOF RECEPTACLE
EF-1		1	20	21			700	360			22	20	1		ROOF RECEPTACLE
SPARE		1	20	23					0	250	24	20	2		INSTANT WATER HEATER
SHP-6		2	20	25	850	250					26				
				27			850	3120			28	20	2		INSTANT WATER HEATER
SHP-4		2	20	29					850	3120	30				
				31	850	3120					32	20	2		INSTANT WATER HEATER
SHP-5		2	20	33			850	3120			34				
				35					850	3120	36	20	2		INSTANT WATER HEATER
SPARE		1	20	37	0	3120					38				
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					16476 VA 139 A		16076 VA 136 A		14776 VA 123 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	37320 VA	100.00%	37320 VA		
Mechanical	8928 VA	125.00%	11160 VA	CONNECTED LOAD	47328 VA
Receptacle	1080 VA	100.00%	1080 VA	DEMAND LOAD	49560 VA
				AVG. CONNECTED CURRENT	131 A
				AVG. DEMAND CURRENT	138 A

NOTES:

Branch Panel: LDP-1

Location: ELECTRICAL 207
Supply From:
Mounting: FREE STANDING
Enclosure: TYPE 1
Volts: 208Y/120
Phases: 3
Wires: 4
A.I.C. Rating: 42KAIC
Mains Type: LSIG
Mains Rating: 1200 A
MCB Rating: 1200 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LTP-1	100 A	3	2027...	2440...					3	100 A	LLP-3	2
3						2027...	1792...						4
5								2027...	1898...				6
7	LPP-1	100 A	3	6574...	2741...					3	225 A	LHP-3	8
9						7034...	2752...						10
11								4380...	2763...				12
13	LPP-2	100 A	3	4160...	8116...					3	100 A	LPP-3	14
15						7040...	5040...						16
17								4240...	4320...				18
19	LLP-1	100 A	3	2647...	1045...					3	100 A	LLP-2	20
21						1408...	773 VA						22
23								1062...	200 VA				24
25	LHP-1	225 A	3	1647...	1036...					3	150 A	HP-A	26
27						1607...	1036...						28
29								1477...	1036...				30
31	LHP-2	225 A	3	2620...	--					3	--	SPACE	32
33						2570...	--						34
35								2131...	--				36
37	LPP-4	20 A	3	3770...	--					3	--	SPACE	38
39						2970...	--						40
41								2160...	--				42
			Total Load:	111117 VA		107713 VA		94337 VA					
			Total Amps:	943 A		915 A		786 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	3844 VA	100.00%	3844 VA		
Power	154064 VA	100.00%	154064 VA	Total Conn. Load:	313166 VA
Lighting	973 VA	125.00%	1217 VA	Total Est. Demand:	319271 VA
Mechanical	102598 VA	125.00%	128248 VA	Total Conn. Current:	869 A
Receptacle	46540 VA	60.74%	28270 VA	Total Est. Demand Current:	886 A
Lighting - Dwelling Unit	5442 VA	70.83%	3855 VA		

Notes:

PANEL ID: LLP-1

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 100 A **MAIN:** 100 A **TYPE:**
LOCATION ELECTRICAL 207 **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
LIGHTING - DWELLING UNIT		1	20	1	824	200					2	20	1		EXTERIOR ENTRY/COURTYARD
LIGHTING - DWELLING UNIT FOOD SERVICE...		1	20	3			143	119			4	20	1		SOUTH EXTERIOR LIGHTING
LIGHTING - DWELLING UNIT		1	20	5					364	60	6	20	1		WEST EXTEIROR LIGHTING
LIGHTING - DWELLING UNIT PRINCIPAL 211		1	20	7	456	123					8	20	1		NORTH EXTERIOR LIGHTING
LIGHTING STORAGE 208		1	20	9			86	60			10	20	1		EXTERIOR BOLLARD LIGHTING
SPARE		1	20	11					0	180	12	20	1		RECEPTACLE ELECTRICAL 207
SPARE		1	20	13	0	0					14	20	1		SPARE
SPARE		1	20	15			0	0			16	20	1		SPARE
SPARE		1	20	17					0	0	18	20	1		SPARE
SPARE		1	20	19	0	0					20	20	1		SPARE
SPARE		1	20	21			0	0			22	20	1		SPARE
SPARE		1	20	23					0	0	24	20	1		SPARE
SPARE		1	20	25	0	0					26	20	1		SPARE
SPARE		1	20	27			0	0			28	20	1		SPARE
SPARE		1	20	29					0	0	30	20	1		SPARE
SPARE		1	20	31	0	0					32	20	1		SPARE
SPARE		1	20	33			0	0			34	20	1		SPARE
SPARE		1	20	35					0	0	36	20	1		SPARE
INVERTER		3	30	37	1049	0					38	20	1		SPARE
				39			1006	0			40	20	1		SPARE
				41					467	0	42	20	1		SPARE
					2647 VA 23 A		1408 VA 12 A		1062 VA 9 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	1232 VA	100.00%	1232 VA		
Lighting	808 VA	125.00%	1009 VA	CONNECTED LOAD	5115 VA
Receptacle	180 VA	100.00%	180 VA	DEMAND LOAD	5317 VA
Lighting - Dwelling Unit	2946 VA	100.00%	2946 VA	AVG. CONNECTED CURRENT	14 A
				AVG. DEMAND CURRENT	15 A

NOTES:

WH

PANEL ID: LHP-3

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 400 A **MAIN:** 400 A **TYPE:**
LOCATION **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
WH-3		3	20	1	1500	2688					2	40	3		HP-6
				3			1500	2688			4				
				5					1500	2688	6				
CP-1		1	20	7	100	2688					8	40	3		HP-5
SHP-IDF		2	20	9			915	2688			10				
				11					915	2688	12				
EF-3		1	20	13	700	2688					14	40	3		HP-7
SPARE		1	20	15			0	2688			16				
SPARE		1	20	17					0	2688	18				
ROOF RECEPTACLE		1	20	19	360	2688					20	40	3		HP-8
ROOF RECEPTACLE		1	20	21			360	2688			22				
ROOF RECEPTACLE		1	20	23					360	2688	24				
SPARE		1	20	25	0	0					26	40	3		SPARE
SPARE		1	20	27			0	0			28				
SPARE		1	20	29					0	0	30				
SPARE		1	20	31	0	1271					32	20	3		HP-A POWER EXHAUST
SPARE		1	20	33			0	1271			34				
SPARE		1	20	35					0	1271	36				
SPARE		1	20	37	0	12730					38	150	3		LHP-4
SPARE		1	20	39			0	12730			40				
SPARE		1	20	41					0	12840	42				
					27413 VA 228 A		27528 VA 230 A		27638 VA 230 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	45070 VA	100.00%	45070 VA		
Mechanical	36070 VA	125.00%	45088 VA	CONNECTED LOAD	82580 VA
Receptacle	1440 VA	100.00%	1440 VA	DEMAND LOAD	91598 VA
				AVG. CONNECTED CURRENT	229 A
				AVG. DEMAND CURRENT	254 A

NOTES:

PANEL ID: LHP-2

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 225 A **MAIN:** 225 A **TYPE:**
LOCATION CUSTODIAL STORAG... **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
SHP-MDF		2	20	1	915	360					2	20	1		ROOF RECEPTACLE
				3			915	360			4	20	1		ROOF RECEPTACLE
SPARE		1	20	5					0	0	6	20	1		SPARE
HP-1		3	30	7	2208	3120					8	20	2		INSTANT WATER HEATER
				9			2208	3120			10				
				11					2208	3120	12	20	2		INSTANT WATER HEATER
HP-2		3	30	13	2208	3120					14				
				15			2208	3120			16	20	2		INSTANT WATER HEATER
				17					2208	3120	18				
HP-3		3	30	19	2208	3120					20	20	2		INSTANT WATER HEATER
				21			2208	3120			22				
				23					2208	3120	24	20	2		INSTANT WATER HEATER
HP-4		3	30	25	2208	3120					26				
				27			2208	3120			28	20	2		INSTANT WATER HEATER
				29					2208	3120	30				
EF-6		1	20	31	500	3120					32	20	2		INSTANT WATER HEATER
SPARE		1	20	33			0	3120			34				
SPARE		1	20	35					0	0	36	20	1		SPARE
SPARE		1	20	37	0	0					38	20	1		SPARE
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					26207 VA 224 A		25707 VA 220 A		21312 VA 178 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	46010 VA	100.00%	46010 VA		
Mechanical	26496 VA	125.00%	33120 VA	CONNECTED LOAD	73226 VA
Receptacle	720 VA	100.00%	720 VA	DEMAND LOAD	79850 VA
				AVG. CONNECTED CURRENT	203 A
				AVG. DEMAND CURRENT	222 A

NOTES:

PANEL ID: LPP-1

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 100 A **MAIN:** 100 A **TYPE:**
LOCATION ELECTRICAL 207 **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
POWERED EXTERIOR SIGN		2	20	1	1664	250					2	20	2		POWER
				3			1664	250			4				
RECEPTACLE MDF ROOM 206		1	20	5					360	360	6	20	1		ELEC RM REC
CONV REC CHNG RM 133/WEL CEN 133		1	20	7	720	1500					8	20	3		WH-2
TV WEL CEN 133/PRINCPL 115		1	20	9			1500	1500			10				
RECEP DESK REC 118		1	20	11					720	1500	12				
CNTL REC 118/115		1	20	13	540	100					14	20	1		CP-1
CNTL CONV REC 118/115		1	20	15			540	500			16	20	1		FA PANEL
PRINCPL DESK 115		1	20	17					360	0	18	20	1		SPARE
RECEPTACLE RESTROOM 223		1	20	19	720	0					20	20	1		SPARE
RECEPTACLE NURSE 220		1	20	21			720	0			22	20	1		SPARE
RECEPTACLE NURSE 220		1	20	23					360	0	24	20	1		SPARE
RECEPTACLE INCENTIVE ROOM 212		1	20	25	360	0					26	20	1		SPARE
RECEPTACLE INCENTIVE ROOM 212		1	20	27			360	0			28	20	1		SPARE
RECEPTACLE STAFF'S LOUNGE 221		1	20	29					720	0	30	20	1		SPARE
RECEPTACLE STAFF'S LOUNGE 221		1	20	31	720	0					32	20	1		SPARE
SPARE		1	20	33			0	0			34	20	1		SPARE
SPARE		1	20	35					0	0	36	20	1		SPARE
SPARE		1	20	37	0	0					38	20	1		SPARE
SPARE		1	20	39			0	0			40	20	1		SPARE
SPARE		1	20	41					0	0	42	20	1		SPARE
					6574 VA 58 A		7034 VA 61 A		4380 VA 37 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	8928 VA	100.00%	8928 VA		
Receptacle	9060 VA	100.00%	9060 VA	CONNECTED LOAD	17988 VA
				DEMAND LOAD	17988 VA
				AVG. CONNECTED CURRENT	50 A
				AVG. DEMAND CURRENT	50 A

NOTES:

PANEL ID: LLP-3

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 100 A **MAIN:** 100 A **TYPE:**
LOCATION **PANEL AIC:**

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
CLASSROOM LTG		1	20	1	620	600					2	20	1		SKYLIGHT
CLASSROOM LTG		1	20	3			620	600			4	20	1		SKYLIGHT
CLASSROOM LTG		1	20	5					620	600	6	20	1		SKYLIGHT
CLASSROOM LTG		1	20	7	620	600					8	20	1		SKYLIGHT
CLASSROOM LTG		1	20	9			72	500			10	20	1		SKYLIGHT
CLASSROOM LTG		1	20	11					700	0	12	20	1		SPARE
SPARE		1	20	13	0	0					14	20	1		SPARE
SPARE		1	20	15			0	0			16	20	1		SPARE
SPARE		1	20	17					0	0	18	20	1		SPARE
SPARE		1	20	19	0	0					20	20	1		SPARE
SPARE		1	20	21			0	0			22	20	1		SPARE
SPARE		1	20	23					0	0	24	20	1		SPARE
SPARE		1	20	25	0	0					26	20	1		SPARE
SPARE		1	20	27			0	0			28	20	1		SPARE
SPARE		1	20	29					0	0	30	20	1		SPARE
					2440 VA 20 A		1792 VA 15 A		1898 VA 16 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	2552 VA	100.00%	2552 VA		
Power	2900 VA	100.00%	2900 VA	CONNECTED LOAD	6121 VA
Lighting - Dwelling Unit	700 VA	100.00%	700 VA	DEMAND LOAD	6121 VA
				AVG. CONNECTED CURRENT	17 A
				AVG. DEMAND CURRENT	17 A

NOTES:

PANEL ID: LLP-2

VOLTAGE: 208Y/120 **SERVICE EQUIP:** **MOUNTING:** Surface
SOURCE: LDP-1 **AMPS:** 100 A **MAIN:** 100 A **TYPE:**
LOCATION CUSTODIAL STORAG... **PANEL AIC:** 10KAIC

LOAD	NOTE	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	NOTE	LOAD
LIGHTING - DWELLING UNIT STAFF WORK...		1	20	1	380	608					2	20	1		LIGHTING - DWELLING UNIT CLASSROOM 1 81
LIGHTING		1	20	3			172	608			4	20	1		LIGHTING - DWELLING UNIT CLASSROOM 3 83
LIGHTING - DWELLING UNIT		1	20	5					200	0	6	20	1		SPARE
OTHER		1	20	7	60	0					8	20	1		SPARE
SPARE		1	20	9			0	0			10	20	1		SPARE
SPARE		1	20	11					0	0	12	20	1		SPARE
SPARE		1	20	13	0	0					14	20	1		SPARE
SPARE		1	20	15			0	0			16	20	1		SPARE
SPARE		1	20	17					0	0	18	20	1		SPARE
SPARE		1	20	19	0	0					20	20	1		SPARE
SPARE		1	20	21			0	0			22	20	1		SPARE
SPARE		1	20	23					0	0	24	20	1		SPARE
SPARE		1	20	25	0	0					26	20	1		SPARE
SPARE		1	20	27			0	0			28	20	1		SPARE
SPARE		1	20	29					0	0	30	20	1		SPARE
					1045 VA 9 A		773 VA 7 A		200 VA 2 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	60 VA	100.00%	60 VA		
Lighting	172 VA	125.00%	215 VA	CONNECTED LOAD	2017 VA
Lighting - Dwelling Unit	1796 VA	100.00%	1796 VA	DEMAND LOAD	2059 VA
				AVG. CONNECTED CURRENT	6 A
				AVG. DEMAND CURRENT	6 A

NOTES:

GENERAL SHEET NOTES

A. CONTRACTOR SHALL PROVIDE EITHER HANDLE TIES OR MULTI-POLE CIRCUIT BREAKERS FOR MULTI-WIRE BRANCH CIRCUITS WHERE THE BRANCH CIRCUITS ORIGINATES AS A SIMULTANEOUS DISCONNECTING MEANS AS REQUIRED PER CALIFORNIA ELECTRICAL CODE. CONTRACTOR SHALL REFLECT THESE CHANGES IN SUBMITALL TO BE APPROVED BY ENGINEER OF RECORD.

REFERENCE SHEET NOTES

1. PROVIDE RED CIRCUIT BREAKER AND RED LOCKABLE DEVICE FOR FIRE ALARM CIRUITS. MARK CIRCUIT BREAKER WITH 'FIRE ALARM' AS REQUIRED BY CODE.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	08/28/2026
1 ADD 01	08/28/2026

SALAS O'BRIEN
expect a difference
305 South 11th Street
San Jose, California 95112-2218
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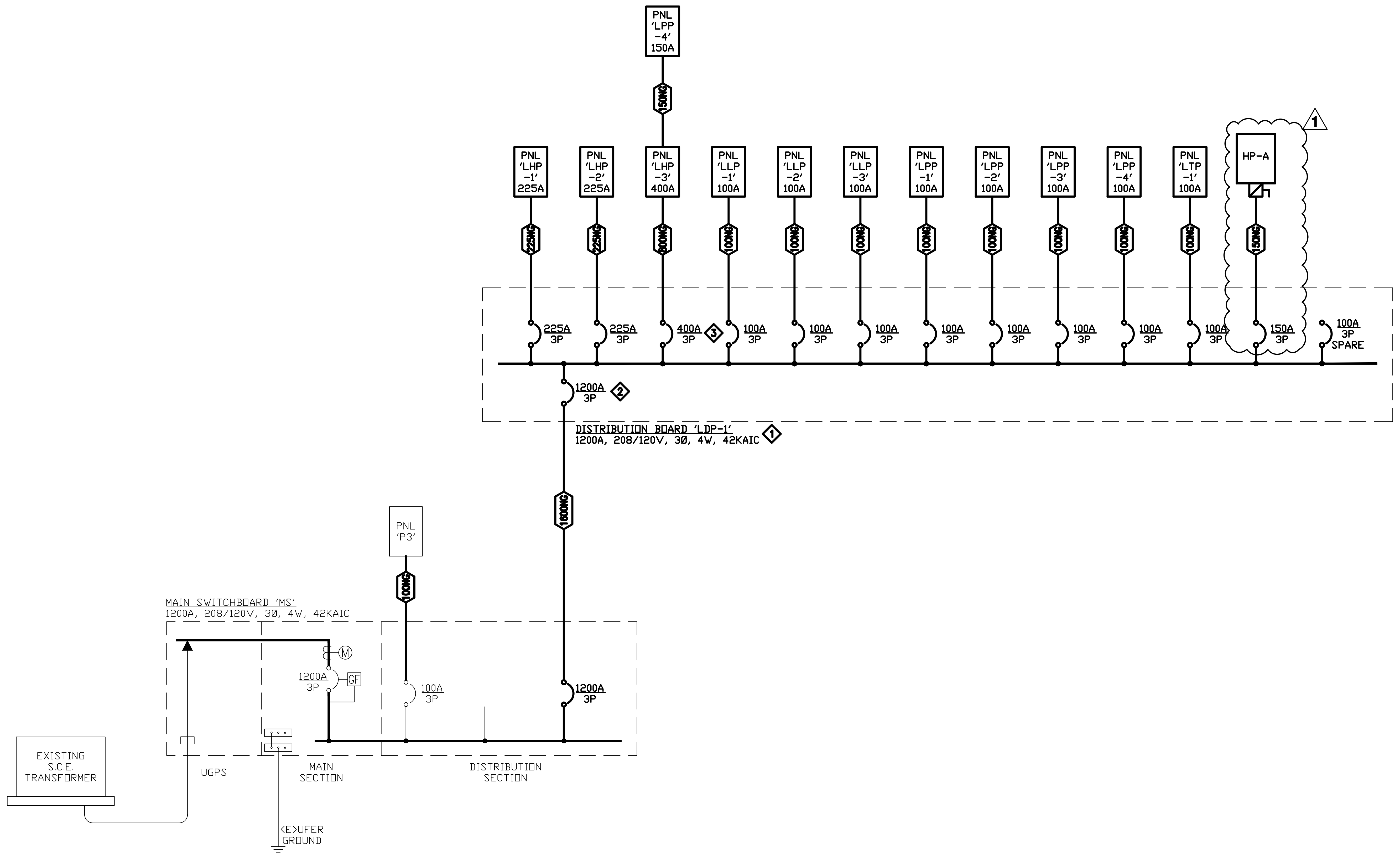
National **Strength.**
Local **Action.**

REGISTERED PROFESSIONAL ENGINEER
JEFFRY GOSAL
No. E18084
ELECTRICAL
STATE OF CALIFORNIA

ELECTRICAL SCHEDULES

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

E602



① SINGLE LINE DIAGRAM

SCALE: N.T.S.

GENERAL SHEET NOTES

A. CONTRACTOR TO COORDINATE ALL SHUTDOWNS OF UTILITIES AND SYSTEMS WITH OWNER FOR TIMING AND DURATION.

B. REFER TO SHEET E001 FOR DEMOLITION NOTES AND MORE GENERAL NOTES.

◇1 REFERENCE SHEET NOTES

1. PROVIDE SWITCHBOARD WITH VOLTAGE AND RATING AS SHOWN. REFER TO ENLARGED FLOOR PLAN FOR LOCATION.
2. PROVIDE LSIG CIRCUIT BREAKER. CIRCUIT BREAKER SHALL COORDINATE WITH UPSTREAM DEVICES.
3. PROVIDE 100% RATED CIRCUIT BREAKER WITH RATING SHOWN.

GATEWAY COMMUNITY SCHOOL - NEW CLASSROOM
BUILDING ADDITION

VENTURA COUNTY OFFICE OF EDUCATION
550 AIRPORT WAY, CAMARILLO, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	08/28/2026
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JEFFRY GOSAL
No. E18084

ELECTRICAL
SINGLE LINE DIAGRAM

PERKINS EASTMAN
3194 D Airport Loop Drive
Costa Mesa, CA 92626
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www.perkinseastman.com

E701

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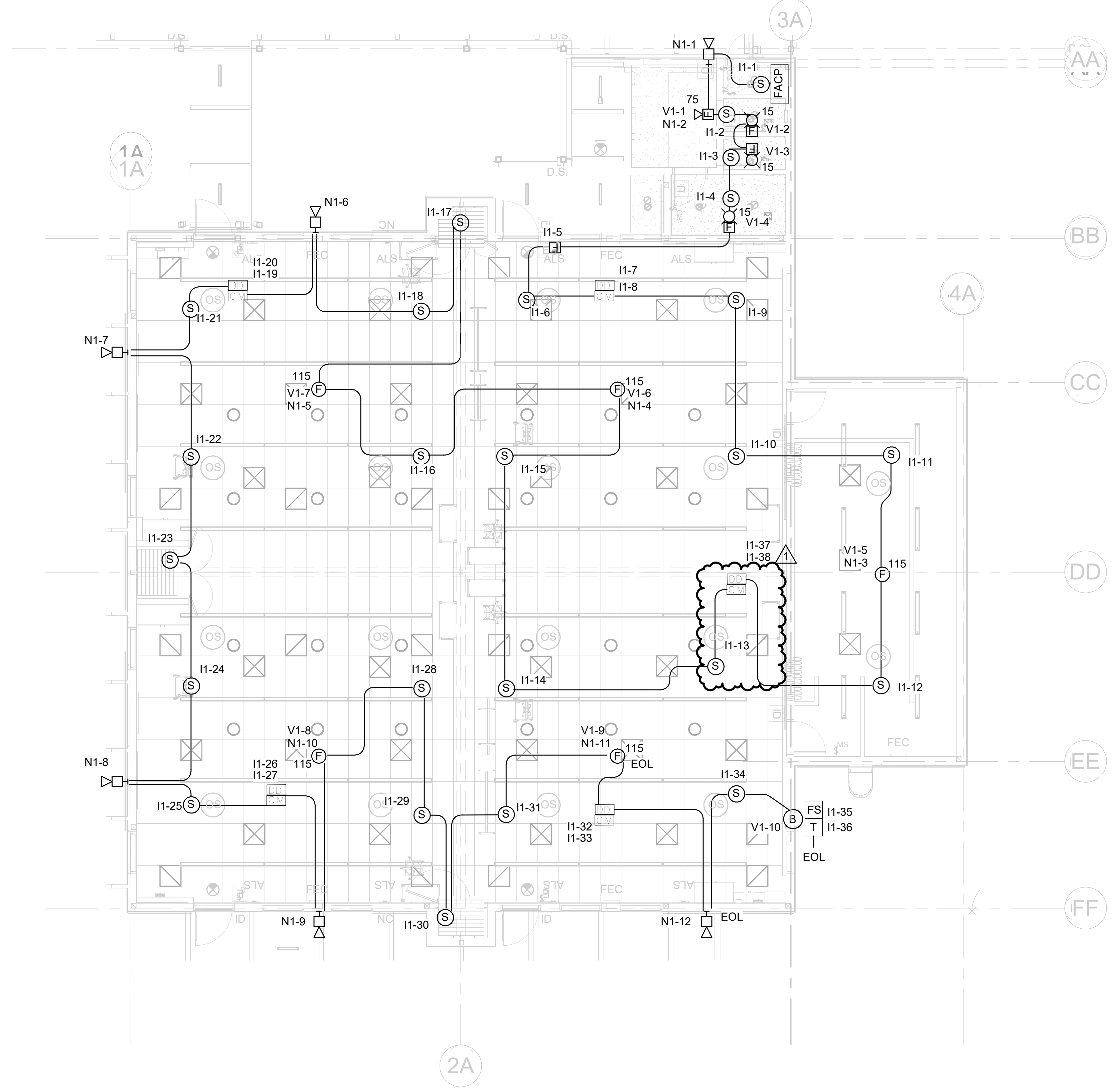
WALL LEGEND

▭ NEW NON-RATED WALL

▭ 1 HR RATED FIRE BARRIER WALL

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

TIMOTHY ROBERT CAMPBELL
FP 2004



1
FA202
FOUR SQUARE FIRE ALARM PLAN
1/8" = 1'-0"

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	08/28/2026
1 ADD01	08/28/2026
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FOUR SQUARE BUILDING FIRE ALARM PLAN

PERKINS — EASTMAN

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Costa Mesa, CA 92626
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FA202

FIRE·LITE ALARMS
by Honeywell

MS-9600LS Battery Calculation

Secondary Power Source Requirements

	Standby Current (amps)					Secondary Alarm Current (amps)				
Device Type	Qty		Current Draw		Total	Qty		Current Draw		Total
Main Circuit Board	1	x	0.103000	=	0.10300	1	x	0.253000	=	0.25300
DACT-UD2	0	x	0.017000	=		0	x	0.029000	=	
SLC-2LS Expander Module	0	x	0.019000	=		0	x	0.026000	=	
4XTMF	0	x	0.005000	=		0	x	0.011000	=	
IPDACT-2	0	x	0.093000	=		0	x	0.136000	=	
IPDACT-2UD	0	x	0.098000	=		0	x	0.155000	=	
ANN-BUS Devices										
ANN-80(-W)	1	x	0.015000	=	0.015000	1	x	0.040000	=	0.040000
ANN-LED	0	x	0.028000	=		0	x	0.068000	=	
ANN-RLED	0	x	0.028000	=		0	x	0.068000	=	
ANN-RLY	0	x	0.015000	=		0	x	0.075000	=	
ANN-I/O	0	x	0.035000	=		0	x	0.200000	=	
ANN-S/PG	0	x	0.045000	=		0	x	0.045000	=	
ACS Annunciators										
ACM-8RF	0	x	0.030000	=		0	x	0.158000	=	
ACM-16ATF	0	x	0.040000	=		0	x	0.056000	=	
ACM-32AF	0	x	0.040000	=		0	x	0.056000	=	
AEM-16ATF	0	x	0.002000	=		0	x	0.018000	=	
AEM-32AF	0	x	0.002000	=		0	x	0.018000	=	
AFM-16ATF	0	x	0.040000	=		0	x	0.056000	=	
AFM-32AF	0	x	0.040000	=		0	x	0.056000	=	
AFM-16AF	0	x	0.025000	=		0	x	0.065000	=	
LDM-32F	0	x	0.040000	=		0	x	0.056000	=	
LDM-E32F	0	x	0.002000	=		0	x	0.018000	=	
LCD-80F	0	x	0.025000	=		0	x	0.064000	=	
Resettable Power										
4-wire Detector Heads	0	x	0.000000	=		0	x	0.000000	=	
Addressable Devices										
BEAM355	0	x	0.002000	=						
BEAM355S	0	x	0.002000	=						
BEAM1224	0	x	0.017000	=						
CP355	0	x	0.000300	=						
SD355	0	x	0.000300	=						
SD355T	24	x	0.000300	=	0.007200					
AD355	0	x	0.000300	=						
H355	0	x	0.000300	=						
H355R	0	x	0.000300	=						
H355HT	0	x	0.000300	=						
D350P	0	x	0.000300	=						
D350RP	0	x	0.000300	=						
D350PL	0	x	0.000300	=						
D350RPL	0	x	0.000300	=						
D355PL	5	x	0.000300	=	0.001500					
MMF-300	2	x	0.000400	=	0.000800					
MMF-300-10	0	x	0.003500	=						
MDF-300	0	x	0.000750	=						
MMF-301	0	x	0.000375	=						
MMF-302	0	x	0.000270	=						
MMF-302-6	0	x	0.002000	=						
BG-12LX	1	x	0.000300	=	0.000300					
CMF-300	0	x	0.000390	=						
CMF-300-6	0	x	0.002250	=						
CRF-300	5	x	0.000270	=	0.001350					
CRF-300-6	0	x	0.001450	=						
CDRM-300	0	x	0.001300	=						
I300	0	x	0.000400	=						
ISO-6	0	x	0.002700	=						
B501BH-2	0	x	0.001000	=						
B501BHT-2	0	x	0.001000	=						
B224RB	0	x	0.000500	=						
B224BI	0	x	0.000450	=						
W-GATE	0	x	0.024000	=						
	Maximum alarm draw for Addressable devices (SLC 1)									0.40000
	Maximum alarm draw for Addressable devices (SLC 2)									0.00000
EOLR-1	0	x	0.020000	=		0	x	0.020000	=	
Auxiliary Power										
CMF-300 (Aux. Power)	0	x	0.001700	=		0	x	0.007000	=	
CMF-300-6 (Aux. Power)	0	x	0.008000	=		0	x	0.020000	=	
MMF-302 (Aux. Power)	0	x	0.012000	=		0	x	0.090000	=	
MMF-302-6 (Aux. Power)	0	x	0.050000	=		0	x	0.270000	=	
B200SR (Aux. Power)	0	x	0.000500	=		0	x	0.035000	=	
B200SR-LF (Aux. Power)	0	x	0.001000	=		0	x	0.125000	=	
SWIFT Wireless										
W-GATE	0	x	0.040000	=		0	x	0.040000	=	
W-DIS-D	0	x	0.030000	=		0	x	0.030000	=	
Miscellaneous Devices										
AM50	1	x	0.086000	=	0.086000	1	x	2.206000	=	2.206000
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
Output Circuits										
NAC/Output #1			0.000000	=				1.026000	=	1.026000
NAC/Output #2			0.000000	=				0.000000	=	
NAC/Output #3			0.000000	=				0.000000	=	
NAC/Output #4			0.000000	=				0.000000	=	
Current Draw from TB3 (non-alarm)			0.000000	=				0.000000	=	
Sum each column for totals	**Total Standby Current**				**0.21515**	**Total Alarm Current**				**3.92500**

FIRE·LITE ALARMS
by Honeywell

MS-9600LS Battery Calculation

Calculation in Total Sheet

		Required Standby Time in Hours			
		24 Hours			
Standby Load Current (Amps)	**0.21515 Amps**	x	24	=	5.164 AH
		Required Alarm Time in Hours			
		5 Minutes			
Alarm Load Current (Amps)	**3.92500 Amps**	x	0.084	=	0.330 AH
		Standby and Alarm Load Subtotal		=	5.493 AH
		Derating Factor		=	x 1.2
		Total Ampere Hours Required		=	**6.59 AH**

Recommended Batteries: BAT-12120 - 12AH Batteries

Battery Check
The batteries can be charged by the MS-9600LS Charger.
The batteries can be housed in the MS-9600LS Cabinet.

Current Draw Check
NAC#1 current is within the limitations of the circuit.
NAC#2 current is within the limitations of the circuit.
NAC#3 current is within the limitations of the circuit.
NAC#4 current is within the limitations of the circuit.
The standby current is within the limitations of the panel.
The alarm current is within output limitations of the panel.

1

FIRE·LITE ALARMS
by Honeywell

MS-9600LS Circuit Detail

NAC 1

Device	Qty		Non-Alarm Draw		Total	Qty		Alarm Draw		Total
Ceiling Speaker/Strobe	5	x	0.000000	=	0.000000	5	x	0.158000	=	0.790000
Speaker/Strobe	1	x	0.000000	=	0.000000	1	x	0.107000	=	0.107000
Strobe	3	x	0.000000	=	0.000000	3	x	0.043000	=	0.129000
		x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
	0	x	0.000000	=		0	x	0.000000	=	
			Total Standby Load		**0.000000**			**Total Alarm Load**		**1.026000**

VOLTAGE LINE LOSS CALCULATIONS

JOB: GATEWAY FOURSQUARE
DATE: 6-23-2022
VOLTAGE LINE LOSS FORMULA:
(A) X (F) X (C) / (D)/ (E) = % LINE LOSS

(A)AMPS	
15cd SPEAKER/STROBE (SPSCR)	0.043
75cd SPEAKER/STROBE (SPSCR)	0.107
115cd SPEAKER/STROBE (SPSCR)	0.129
15cd STROBE (SCR)	0.043

OTHER DATA		
(B)	WIRE GAUGE	12
(C)	WIRE RESISTANCE	21.6
(D)	CIRCULAR MILLS	6530.000
(E)	VOLTS (DC)	24.000
(F)	LINE WIRE FOOTAGE	(PER CIRCUIT)

POWER SUPPLY FCPS1	15cd SPEAKER/ STROBE	75cd SPEAKER/ STROBE	115cd SPEAKER/ STROBE	15cd STROBE	TOTAL AMPS	LINE WIRE FOOTAGE	VOLTAGE LOSS	% LINE LOSS
CIRCUIT 1, N1	0	1	5	3	0.88	500	1.46	6.07%
TOTAL	0	1	5	3	0.88			

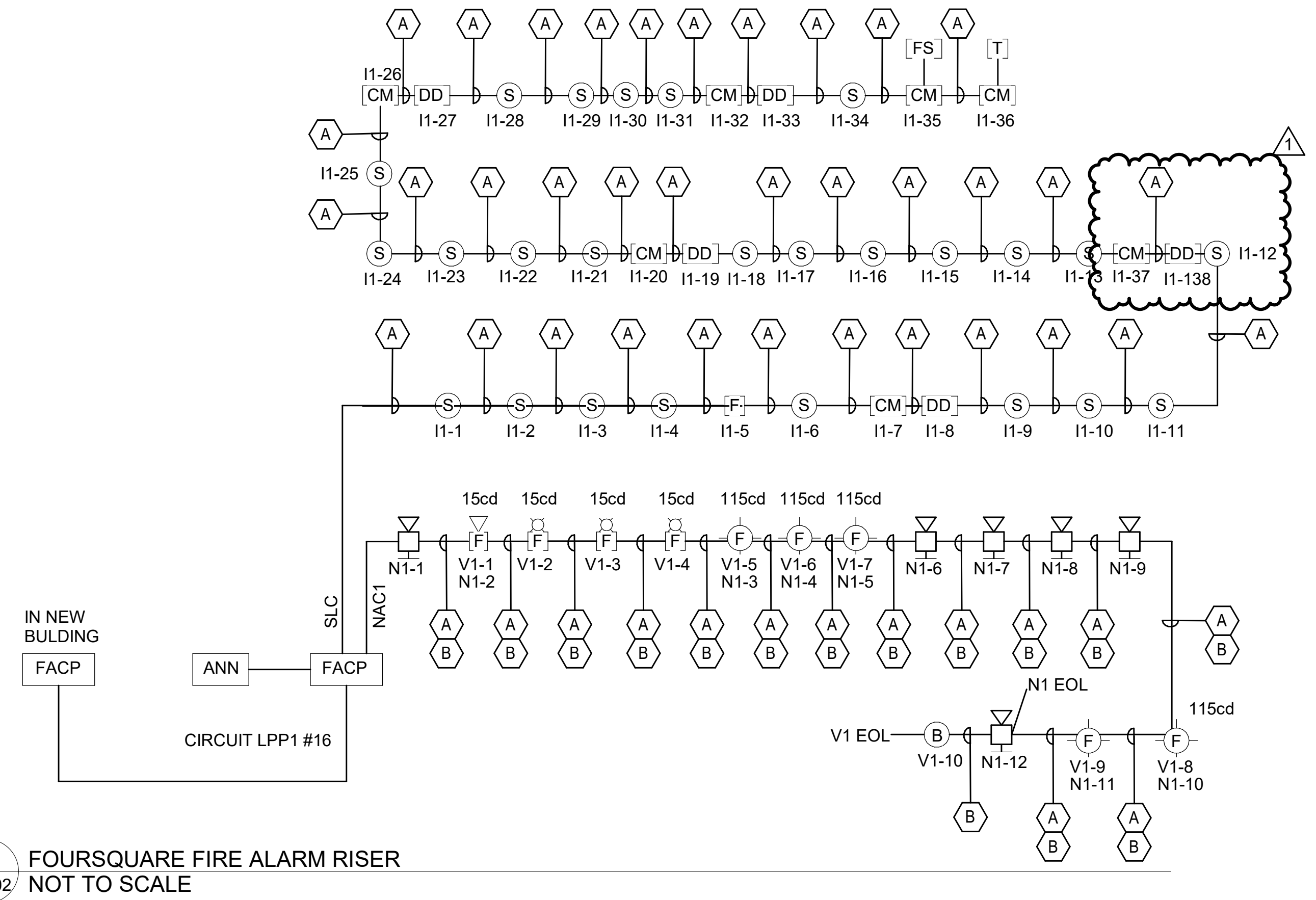
Project Name	GATEWAY COMMUNITY FOURSQUARE				
Panel	FCPS1				
Circuit Number	V1				
Area Covered	FOURSQUARE				
Nominal Speaker Voltage (25 or 70)				25	
Minimum Device Voltage (Calculated see notes)				20	
Total Circuit Current in amps		0.600		Wire	Ohm's
Total Circuit Power		7.000		Gauge	Per 1000
Distance from source to 1st device			25	16	4.89
Wire Gauge for balance of circuit				16	4.89

Enter Power in Watts
2W = 2 1/2W =.5

	TOTAL POWER	TOTAL WIRE LENGTH	Calculated TOTAL CURRENT	At Device	Voltage Drop from source	Percent Drop
Device 1	15.000	500	0.600	22.07	2.934	11.74%
Totals	7.000	500		End of Line Voltage		**22.07**

End of Line Method		
CIRCUIT IS WITHIN LIMITS		
Totals		Voltage Drop
Current	Distance	
0.600	500	**2.934**
End of Line Voltage		**22.07**
Percent Drop		11.74%

Standard Wire Resistance in Ohms per 1000 feet.
18=7.77 16=4.89 14=3.07 12=1.98 10=1.24
18-14 Awg = Solid Conductors 12-10 Awg = Stranded Conductors



1
FA302
FOURSQUARE FIRE ALARM RISER
NOT TO SCALE

BRIAN PAUL DOUGHERTY
NO. C-9824
REN. JUL. 31, 2021

TIMOTHY ROBERT CAMPBELL
FP 2004

GATEWAY COMMUNITY SCHOOL - SOUTH ANNEX

VENTURA COUNTY OFFICE OF EDUCATION
550 Airport Way, Camarillo, CA 93010

JOB	88910.00
SCALE	AS NOTED
PM	
DATE	08/28/2026
1 ADD01	08/28/2026

FIRE ALARM RISER DIAGRAMS AND CALCS

PERKINS —
EASTMAN

3194 D Airport Loop Drive
Costa Mesa, CA 92626
T. +1 714 427 0277
www.perkinseastman.com

FA302

SECTION 08 7100
DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Door hardware.
2. Storefront and entrance door hardware.

B. Related Divisions:

1. Division 06 – door hardware installation
2. Division 07 – sealant at exterior thresholds
3. Division 08 – metal doors and frames, interior aluminum frames, wood doors, integrated security systems, specialty doors, storefront and glazed curtainwall systems.
4. Division 10 – operable partitions
5. Division 21 – fire and life safety systems
6. Division 28 – security access systems

C. Specific Omissions: Hardware for the following is specified or indicated elsewhere.

1. Windows.
2. Cabinets, including open wall shelving and locks.
3. Signs, except where scheduled.
4. Toilet accessories, including grab bars.
5. Installation.
6. Rough hardware.
7. Conduit, junction boxes & wiring.
8. Folding partitions, except cylinders where detailed.
9. Sliding aluminum doors, except cylinders where detailed.
10. Access doors and panels, except cylinders where detailed.
11. Corner Guards.
12. Welded steel gates and supports.

1.02 REFERENCES:

A. Use date of standard in effect as of Bid date.

1. American National Standards Institute
    a. ANSI 156.18 – Materials and Finishes.
2. BHMA – Builders Hardware Manufacturers Association
3. 2014 California Building Code
    a. Chapter 11B – Accessibility To Public Buildings, Public Accommodations, Commercial Buildings and Public Housing
4. DHI – Door and Hardware Institute
5. NFPA – National Fire Protection Association
    a. NFPA 80 2019 Edition – Standard for Fire Doors and Other Opening Protectives.
    b. NFPA 105 – Smoke and Draft Control Door Assemblies
    c. NFPA 252 – Fire Tests of Door Assemblies
6. UL – Underwriters Laboratories
    a. UL10C – Positive Pressure Fire Tests of Door Assemblies.
    b. UL 305 – Panic Hardware
7. WHI – Warnock Hersey Incorporated State of California Building Code
8. Local applicable codes
9. SDI – Steel Door Institute
10. WI – Woodwork Institute
11. AWI – Architectural Woodwork Institute
12. NAAMM – National Association of Architectural Metal Manufacturers

B. Abbreviations

1. Manufacturers: see table at 2.1.A of this section
2. Finishes: see 2.7 of this section.

1.03 SUBMITTALS & SUBSTITUTIONS

A. SUBMITTALS: Submit six copies of schedule per D. Only submittals printed one sided will be accepted and reviewed. Organize vertically formatted schedule into “Hardware Sets” with index of doors and headings, indicating complete designations of every item required for each door or opening. Minimum 10pt font size. Include following information:

1. Type, style, function, size, quantity and finish of hardware items.

2. Use BHMA Finish codes per ANSI A156.18.
3. Name, part number and manufacturer of each item.
4. Fastenings and other pertinent information.
5. Location of hardware set coordinated with floor plans and door schedule.
6. Explanation of abbreviations, symbols, and codes contained in schedule.
7. Mounting locations for hardware.
8. Door and frame sizes, materials and degrees of swing.
9. List of manufacturers used and their nearest representative with address and phone number.
10. Catalog cuts.
11. Point-to-point wiring diagrams.
12. Manufacturer’s technical data and installation instructions for electronic hardware.

B. Bid and submit manufacturer’s updated/improved item if scheduled item is discontinued.

C. Deviations: Highlight, encircle or otherwise identify deviations from “Schedule of Finish Hardware” on submittal with notations clearly designating those portions as deviating from this section.

D. If discrepancy between drawings and scheduled material in this section, bid the more expensive of the two choices, note the discrepancy in the submittal and request direction from Architect for resolution.

E. Substitutions per Division 1. Include product data and indicate benefit to the Project. Furnish operating samples on request.

F. Items listed with no substitute manufacturers have been requested by Owner to meet existing standard.

G. Furnish as-built/as-installed schedule with closeout documents, including keying schedule, riser and point-to-point wiring diagrams, manufacturers’ installation, adjustment and maintenance information, and supplier’s final inspection report.

1.04 QUALITY ASSURANCE:

A. Qualifications:

1. Hardware supplier: direct factory contract supplier who employs a certified architectural hardware consultant (AHC), available at reasonable times during course of work for project hardware consultation to Owner, Architect and Contractor.
    a. Responsible for detailing, scheduling and ordering of finish hardware. Detailing implies that the submitted schedule of hardware is correct and complete for the intended function and performance of the openings.

B. Hardware: Free of defects, blemishes and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges and closers) from one manufacturer.

C. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.

D. Fire-Rated Openings: NFPA 80 compliant. Hardware UL10C (positive pressure) compliant for given type/size opening and degree of label. Provide proper latching hardware, non-flaming door closers, approved-bearing hinges, and resilient seals. Coordinate with wood door section for required intumescent seals. Furnish openings complete.

E. Furnish hardware items required to complete the work in accordance with specified performance level and design intent, complying with manufacturers' instructions and code requirements.

1.05 DELIVERY, STORAGE AND HANDLING:

A. Delivery: coordinate delivery to appropriate locations (shop or field).

1. Permanent keys and cores: secured delivery direct to Owner's representative.

B. Acceptance at Site: Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers.

C. Storage: Provide securely locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, dust, excessive heat and cold, etc.

1.06 PROJECT CONDITIONS AND COORDINATION:

A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practical the same operation and quality as type specified, subject to Architect's approval.

B. Coordination: Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents. Furnish related trades with the following information:

1. Location of embedded and attached items to concrete.

2. Location of wall-mounted hardware, including wall stops.

3. Location of finish floor materials and floor-mounted hardware.

4. At masonry construction, coordinate with the anchoring and hollow metal supplier prior to frame installation by placing a strip of insulation, wood, or foam, on the back of the hollow metal frame behind the rabbet section for continuous hinges, as well as at rim panic hardware strike locations, silencers, coordinators, and door closer arm locations. When the frame is grouted in place, the backing will allow drilling and tapping without dulling or breaking the installer's bits.

5. Locations for conduit and raceways as needed for electrical, electronic and electro-pneumatic hardware items. Fire/life-safety system interfacing. Point-to-point wiring diagrams plus riser diagrams to related trades.

6. Coordinate: flush top rails of doors at outswinging exteriors, and throughout where adhesive-mounted seals occur.

7. Manufacturers' templates to door and frame fabricators.

C. Check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.

D. Environmental considerations: segregate unused recyclable paper and paper product packaging, uninstalled metals, and plastics, and have these sent to a recycling center.

1.07 WARRANTY:

A. Part of respective manufacturers' regular terms of sale. Provide manufacturers' written warranties.

B. Include factory order numbers with close-out documents warranty information:

C. Minimum warranties:

1. Access Locks: Two years
2. Extra Heavy Duty Cylindrical Lock: Limited Lifetime
3. Exit Devices: Three years mechanical
4. Closers: Thirty years mechanical
5. Hinges: One year
6. Other Hardware Two years

1.08 COMMISSIONING:

A. Conduct these tests prior to request for certificate of substantial completion:

1. With installer present, test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.
2. With installer, access control contractor and electrical contractor present, test electrical, electronic and electro-pneumatic hardware systems for satisfactory operation.
3. With installer and electrical contractor present, test hardware interfaced with fire/life-safety system for proper operation and release.

1.09 REGULATORY REQUIREMENTS:

A. Locate latching hardware between 34 inches to 44 inches above the finished floor, per 2019 California Building Code, Section 11B-404.2.7.

1. Panic hardware: locate between 36 inches to 44 inches above the finished floor.

B. Handles, pull, latches, locks, other operable parts:

1. Readily openable from egress side with one hand and without tight grasping, tight pinching, or twisting of the wrist to operate. 2019 California Building Code Section 11B-309.4.
2. Force required to activate the operable parts: 5.0 pounds maximum, per 2019 California Building Code Section 11B-309.4.

3. Provide locks that allow doors to classrooms and any room with an occupancy of five or more persons to be locked from the inside per CBC 1010.1.11. The locks shall conform to the specification and requirements found in CBC Section 1010.1.9

4. 1. Exception: exterior doors' pressure-to-open may be increased to 8.5-pounds if: at a single location, and one of a bank of eight leafs or fraction of eight, and one leaf of this bank is fitted with a low- or high-energy operator.

C. Door closing speed shall be as follows: CBC 11B-404.2.8

  1. Closer shall be adjusted so that the required time to move a door from an open position of 90 degrees to a position of 12 degrees from the latch is 5 seconds minimum

D. Smooth surfaces at bottom 10 inches of push sides of doors, facilitating push-open with wheelchair footrests, per 2019 California Building Code Section 11B-404.2.10.

  1. Applied kickplates and armor plates: bevel the left and right edges; free of sharp or abrasive edges.

  2. Tempered glass doors without stiles: bottom rail may be less than 10 inches if top leading edge is tapered 60 degrees minimum.

E. Door opening clear width no less than 32 inches, measured from face of frame stop, or edge of inactive leaf of pair of doors, to door face with door opened to 90 degrees. Hardware projection not a factor in clear width if located above 30 inches and below 80 inches, and the hardware projects no more than 4 inches. 2019 California Building Code Section 11B-404.2.3.

  1. Exception: doors not requiring full passage through the opening, that is, to spaces less than 24 inches in depth, may have the clear opening width reduced to 20 inches. Example: shallow closets.

  2. Door closers and overhead stops: not less than 78 inches above the finished floor or ground, per 2019 California Building Code 11B-307.4.

F. Thresholds: floor or landing no more than 0.50 inches below the top of the threshold of the doorway, per 2019 California Building Code Section 11B-404.2.5. Vertical rise no more than 0.25 inches, change in level between 0.25

  1. inches and 0.50 inches: beveled to slope no greater than 1:2 (50 percent slope). 2019 California Building Code Section 11B-303.2 & ~.3.

G. Floor stops: Do not locate in path of travel. Locate no more than 4 inches from walls, per DSA Policy #99-08 (Access).

H. Pairs of doors with independently-activated hardware both leafs: limit swing of right-hand or right-hand-reverse leaf to 90 degrees to protect persons reading wall-mounted tactile signage, per 2019 California Building Code Section 11B-703.4.2.1

I. Door and door hardware encroachment: when door is swung fully-open into means-of-egress path, the door may not encroach/project more than 7 inches into the required exit width, with the exception of door release hardware such as lockset levers or panic hardware. These hardware items must be located no less than 34-inches and no more than 48-inches above the floor/ground. 2019 California Building Code, Section 1005.7.1.

  1. In I-2 occupancies, latch release hardware is not permitted to project in the required exit width, regardless of its mounting height, per 2019 California Building Code, Section 1005.7.1 at Exception 1.

J. Hardware (including panic hardware) shall not be provided with "night latch" (NL) function for any accessible doors or gates unless the following conditions are met per DSA interpretation 10-08 DSA/AC (external), revised 4/28/09. Such conditions must be clearly demonstrated and indicated in the specifications:

K. Such hardware has dogging feature

L. It is dogged during the time the facility is open

M. Such dogging operation is performed only by employees as their job function (non-public use)

PART 2 PRODUCTS

2.01 MANUFACTURERS:

A. Listed acceptable alternate manufacturers: these will be considered; submit for review products with equivalent function and features of scheduled products.

ITEM:	**MANUFACTURER:**	**ACCEPTABLE ALTERNATE:**
Hinges	(IVE) Ives	Hager
Pivots	(IVE) Ives	Rixson
Access Locks Key System	(ALM) Alarm Lock (FAL) Falcon A2 SFIC	Owner standard Owner standard
Mechanical Locks	(MAR) Marks USA	Owner standard
Exit Devices	(VON) Von Duprin	Owner standard
Closers	(LCN) LCN	Owner standard
Silencers	(IVE) Ives	Rockwood, Trimco
Security Pulls	(TRI) Trimco	Owner standard
Kickplates	(IVE) Ives	Rockwood, Trimco
Stops & Holders	(TRI) Trimco	Owner standard
Thresholds	(ZER)Zero	Pemko
Seals & Bottoms	(ZER)Zero	Pemko

2.02 HINGING METHODS:

A. Drawings typically depict doors at 90 degrees, doors will actually swing to maximum allowable. Use wide-throw conventional or continuous hinges as needed up to 8 inches in width to allow door to stand parallel to wall for true 180-degree opening. Advise architect if 8-inch width is insufficient.

B. Doors 7’10” use 4 hinges and add 1 hinge for every foot thereafter

C. Conform to manufacturer’s published hinge selection standard for door dimensions, weight and frequency, and to hinge selection as scheduled. Where manufacturer’s standard exceeds the scheduled product, furnish the heavier of the two choices, notify Architect of deviation from scheduled hardware.

D. Conventional Hinges: Steel or stainless steel pins and approved bearings. Hinge open widths minimum, but of sufficient throw to permit maximum door swing.

1. Outswinging exterior doors: stainless steel hinges with non-removable (NRP) pins and security studs.

2. Stainless steel material exteriors and at doors subject to corrosive atmospheric conditions.

E. Pivots: high-strength forged bronze or stainless steel, tilt-on precision bearing and bearing pin.

1. Bottom and intermediate pivots: adjustability of minus 0.063 inch, plus 0.125 inch.

2.03 LOCKSETS, LATCHSETS, DEADBOLTS:

A. Mortise Locksets and Latchsets: as scheduled.

   1. Chassis: cold-rolled steel, handing field-changeable without disassembly.
   2. Universal lock case – 10 functions in one case.
   3. Floating mounting tabs automatically adjusts to fit a beveled door edge.
   4. Latchbolts: 0.75 inch throw stainless steel anti-friction type.
   5. Lever Trim: through-bolted, accessible design, cast lever or solid extruded bar type levers as scheduled. Filled hollow tube design unacceptable.
      a. Spindles: security design independent breakaway. Breakage of outside lever does not allow access to inside lever's hubworks to gain wrongful entry.
      b. Inside lever applied by screwless shank mounting – no exposed trim mount screws.
      c. Levers rotate up or down for ease of use.
   6. Furnish solid cylinder collars with wave springs. Wall of collar to cover rim of mortise cylinder.
   7. Turnpieces: accessible offset turn-lever design not requiring pinching or twisting motions to operate.
   8. Deadbolts: stainless steel 1-inch throw.
   9. Strikes: 16 gage curved steel, bronze or brass with 1 inch deep box construction, lips of sufficient length to clear trim and protect clothing.
   10. Scheduled Lock Series and Design: Schlage L series, Design to be 06L
   11. Certifications:
      a. ANSI A156.13, 1994, Grade 1 Operational,
      b. ANSI/ASTM F476-84 Grade 31 UL Listed.
   12. Accessibility: Require not more than 5 lb to retract the latchbolt, or both, per CBC 2019 11B-404.2.7 and 11B-309.4.

B. Extra Heavy Duty Cylindrical Locks and Latches: as scheduled.

   1. Chassis: cylindrical design, corrosion-resistant plated cold-rolled steel, through-bolted.
   2. Locking Spindle: stainless steel, integrated spring and spindle design.
   3. Latch Retractors: forged steel. Balance of inner parts: corrosion-resistant plated steel, or stainless steel.
   4. Latchbolt: solid steel.
   5. Backset: 2.75 inches typically, more or less as needed to accommodate frame, door or other hardware.

6. Lever Trim: accessible design, independent operation, spring-cage supported, minimum 2.00 inches clearance from lever mid-point to door face.

7. Strikes: 16 gage curved steel, bronze or brass with 1.00 inch deep box construction, lips of sufficient length to clear trim and protect clothing.

8. Lock Series and Design: Schlage ND series, Design to be Rhodes (RHO)

9. Certifications:

    a. ANSI A156.2, 1994, Series 4000, Grade 1.

    b. UL listed for A label and lesser class single doors up to 4 feet x 8 feet.

10. Accessibility: Require not more than 5 lb to retract the latchbolt or deadbolt, or both, per CBC 2019 11B-404.2.7 and 11B-309.4

2.04 EXIT DEVICES / PANIC HARDWARE

A. General features:

1. Independent lab-tested 1,000,000 cycles.

2. Push-through push-pad design. No exposed push-pad fasteners, no exposed cavities when operated. Return stroke fluid dampeners and rubber bottoming dampeners, plus anti-rattle devices.

3. Deadlocking latchbolts, 0.75 inch projection.

4. End caps: impact-resistant, flush-mounted. No raised edges or lips to catch carts or other equipment.

5. No exposed screws to show through glass doors.

6. Non-handed basic device design with center case interchangeable with all functions, no extra parts required to effect change of function.

7. Releasable in normal operation with 15-pound maximum operating force per UBC Standard 10-4, and with 32-pound maximum pressure under 250-pound load to the door.

8. Lever design to match locksets

9. Accessibility: Require not more than 5 lb to retract the latchbolt, per CBC 2019 11B-404.2.7 and 11B-309.4.

    a. Mechanical method: where touchpad directly retracts the latchbolt with 5 lb or less of force.

B. Specific features:

1. Non-Fire Rated Devices: cylinder dogging.

2. Lever Trim: breakaway type, forged brass or bronze escutcheon min. 0.130 inch thickness, compression spring drive, match lockset lever design.

2.05 CLOSERS

A. Surface Closers: 4040-XP

1. Full rack-and-pinion type cylinder with removable non-ferrous cover and cast iron body. Double heat-treated pinion shaft, single piece forged piston, chrome-silicon steel spring.
2. ISO 2000 certified. Units stamped with date-of-manufacture code.
3. Independent lab-tested 10,000,000 cycles.
4. Non-sized, non-handed, and adjustable. Place closer inside building, stairs, and rooms.
5. Plates, brackets and special templating when needed for interface with particular header, door and wall conditions and neighboring hardware.
6. Adjust doors to open with not more than 5.0-pounds pressure to open at exterior doors and 5.0-pounds at interior doors. As allowed per 2019 California Building Code Section 11B-404.2.9, local authority may increase the allowable pressure for fire doors to achieve positive latching, but not to exceed 15-pounds.
    a. Exception: exterior doors' pressure-to-open may be increased to 8.5-pounds if: at a single location, and one of a bank of eight leafs or fraction of eight, and one leaf of this bank is fitted with a low- or
        1) high-energy operator.
7. Separate adjusting valves for closing speed, latching speed and backcheck, fourth valve for delayed action where scheduled.
8. Extra-duty arms (EDA) at exterior doors scheduled with parallel arm units.
9. Exterior door closers: tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
10. Exterior doors: seasonal adjustments not required for temperatures from 120 degrees Fahrenheit to -30 degrees Fahrenheit, furnish checking fluid data on request.
11. Non-flaming fluid, will not fuel door or floor covering fires.
12. Pressure Relief Valves (PRV) not permitted.

2.06 OTHER HARDWARE

A. Automatic Flush Bolts: Low operating force design.

B. Overhead Stops: Non-plastic mechanisms and finished metal end caps. Field-changeable hold-open, friction and stop-only functions.

C. Kick Plates: Four beveled edges, .050 inches minimum thickness, height and width as scheduled. Sheet-metal screws of bronze or stainless steel to match other hardware.

D. Door Stops: Provide stops to protect walls, casework or other hardware.

1. Unless otherwise noted in Hardware Sets, provide floor type with appropriate fasteners. Where floor type cannot be used, provide wall type. If neither can be used, provide overhead type.
2. Locate overhead stops for maximum possible opening. Consult with Owner for furniture locations. Minimum: 90deg stop / 95deg deadstop. Note degree of opening in submittal.

E. Thresholds: As scheduled and per details. Comply with CBC 2019 11B-404.2.5. Substitute products: certify that the products equal or exceed specified material's thickness. Proposed substitutions: submit for approval.

  1. Saddle thresholds: 0.125 inches minimum thickness.

  2. Exteriors: Seal perimeter to exclude water and vermin. Use sealant complying with requirements in Division 7 "Thermal and Moisture Protection". Minimum 0.25 inch diameter fasteners and lead expansion shield anchors, or Red-Head #SFS-1420 (or approved equivalent) Flat Head Sleeve Anchors. National Guard Products' "COMBO" or Pemko Manufacturing's "FHSL".

  3. Fire-rated openings, 90-minutes or less duration: use thresholds to interrupt floor covering material under the door where that material has a critical radiant flux value less than 0.22 watts per square centimeter, per NFPA

    a. 253. Use threshold unit as scheduled. If none scheduled, include a 0.25in high 5in wide saddle in the bid, and request direction from Architect.

  4. Fire-rated openings, 3-hour duration: Thresholds, where scheduled, to extend full jamb depth.

  5. Acoustic openings: Set units in full bed of Division-7-compliant, leave no air space between threshold and substrate.

  6. Plastic plugs with wood or sheet metal screws are not an acceptable substitute for specified fastening methods.

  7. Fasteners: Generally, exposed screws to be Phillips or Robertson drive. Pinned TORX drive at high security areas. Flat head sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws: full-thread. Sleeve nuts: full length to prevent door compression.

F. Through-bolts: Do not use. Coordinate with wood doors; ensure provision of proper blocking to support wood screws for mounting panic hardware and door closers. Coordinate with metal doors and frames; ensure provision of proper reinforcement to support machine screws for mounting panic hardware and door closers.

  1. Exception: surface-mounted overhead stops, holders, and friction stays.

G. Silencers: Interior hollow metal frames, 3 for single doors, 4 for pairs of doors. Leave no unfilled/uncovered pre-punched silencer holes. Intent: door bears against silencers, seals make minimal contact with minimal compression – only enough to effect a seal. Provide where seals are not used

2.07 FINISH:

A. Generally: BHMA 626 Satin Chromium Areas using BHMA 626: furnish push-plates, pulls and protection plates of BHMA 630, Satin Stainless Steel, unless otherwise scheduled.

B. Door closers: factory powder coated to match other hardware, unless otherwise noted.

2.08 KEYING REQUIREMENTS:

A. Key System: All keying will be done by the Owner

B. Keys and cores: Construction cores and keys will be provided by the Owner and installed by the Contractor (OFCI)

C. Permanent Cores: All will be supplied and installed by Owner

PART 3 - EXECUTION

3.01 ACCEPTABLE INSTALLERS:

A. Can read and understand manufacturers' templates, suppliers' hardware schedule and printed installation instructions. Can readily distinguish drywall screws from manufacturers' furnished fasteners. Available to meet with manufacturers' representatives and related trades to discuss installation of hardware.

3.02 PREPARATION:

A. Ensure that walls and frames are square and plumb before hardware installation. Make corrections before commencing hardware installation. Installation denotes acceptance of wall/frame condition.

B. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.

1. Notify Architect of code conflicts before ordering material.

2. Locate latching hardware between 34 inches to 44 inches above the finished floor, per California Building Code, Section 1008.1.9.2 and 1133B.2.5.2.

3. Locate panic hardware between 36 inches to 44 inches above the finished floor.

4. Where new hardware is to be installed near existing doors/hardware scheduled to remain, match locations of existing hardware.

C. Overhead stops: before installing, determine proposed locations of furniture items, fixtures, and other items to be protected by the overhead stop's action.

3.03 INSTALLATION

A. Install hardware per manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation. Remove and reinstall or replace work deemed defective by Architect.

1. Gaskets: install jamb-applied gaskets before closers, overhead stops, rim strikes, etc; fasten hardware over and through these seals. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.

2. When hardware is to be attached to existing metal surface and insufficient reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.

3. Use manufacturers' fasteners furnished with hardware items, or submit Request for Substitution with Architect.

4. Replace fasteners damaged by power-driven tools.

B. Locate floor stops no more that 4 inches from walls and not within paths of travel. See paragraph 2.2 regarding hinge widths, door should be well clear of point of wall reveal. Point of door contact no closer to the hinge edge than half the door width. Where situation is questionable or difficult, contact Architect for direction.

C. Core concrete for exterior door stop anchors. Set anchors in approved non-shrink grout.

D. Locate overhead stops for minimum 90 degrees at rest and for maximum allowable degree of swing.

E. Drill pilot holes for fasteners in wood doors and/or frames.

F. Lubricate and adjust existing hardware scheduled to remain. Carefully remove and give to Owner items not scheduled for reuse.

3.04 ADJUSTING

A. Adjust and check for proper operation and function. Replace units, which cannot be adjusted to operate freely and smoothly.

  1. Hardware damaged by improper installation or adjustment methods: repair or replace to Owner’s satisfaction.

  2. Adjust doors to fully latch with no more than 1 pound of pressure.

    a. Door closer valves: turn valves clockwise until at bottom – do not force. Turn valves back out one and one-half turns and begin adjustment process from that point. Do not force valves beyond three full turns counterclockwise.

  3. Adjust delayed-action closers on fire-rated doors to fully close from fully-opened position in no more than 10 seconds.

  4. Adjust door closers per 1.9 this section.

B. Inspection of fire door assemblies and means-of-egress panic-hardware doors: Per 2019 NFPA-80 5.2.1: hire an independent third-party inspection service to prepare a report listing these doors, and include a statement that there are zero deficiencies with the fire-rated assemblies and the openings with panic hardware. Certification, Testing and Quality Control shall be in accordance with Division 01 45 23 Testing and Inspection services. All doors hardware and installation will be inspected by a third party selected by the architect/owner

  1. Div 01 45 23:

  2. Per 2019 NFPA-80 5.2.1: Use a third party inspector not associated with the construction, supply or installation of this project to develop a field survey of the doors and hardware. Survey is to be done by a member certified as a FDAI (Fire Door Assembly Inspector), Certified AHC (Architectural Hardware Consultant) or a certified testing laboratory: UL or Intertek. Certified Inspectors may be found at DHI.org, Intertek, or CAFDI.org.

C. Fire-rated doors:

  1. Wood doors: adjust to 0.125 inches clearance at heads, jambs, and meeting stiles.

  2. Steel doors: adjust to 0.063 inches minimum to 0.188 inches maximum clearance at heads, jambs, and meeting stiles.

  3. Adjust wood and steel doors to 0.75 inches maximum clearance (undercut) above threshold or finish floor material under door.

D. Final inspection: Installer to provide letter to Owner that upon completion installer has visited the Project and has accomplished the following:

  1. Has re-adjusted hardware.

2. Has evaluated maintenance procedures and recommend changes or additions, and instructed Owner's personnel.

3. Has identified items that have deteriorated or failed.

4. Has submitted written report identifying problems.

3.05 DEMONSTRATION:

A. Demonstrate mechanical hardware and electrical, electronic and pneumatic hardware systems, including adjustment and maintenance procedures.

3.06 PROTECTION/CLEANING:

A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.

B. Clean adjacent wall, frame and door surfaces soiled from installation / reinstallation process.

3.07 SCHEDULE OF FINISH HARDWARE

A. See door schedule in drawings for hardware set assignments.

HW SET: 012

3	EA	HINGE	3CB1HW 5 X 4.5	652	IVE
1	EA	OFFICE	195RB/26D	626	MAR
1	EA	CLOSER	4040XP	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	DOME STOP	W1211	626	TRI

HW SET:020

3	EA	HINGE	3CB1HW 5 X 4.5	652	IVE
1	EA	PRIVACY	195L/26D	626	MAR
1	EA	PRIVACY	PDLN4100IC/26D (A133.1-1)	626	ALM
1	EA	DOME STOP	W1211	626	TRI
3	EA	SILENCER	SR64	GRY	IVE

HW SET:030

3	EA	HINGE	3CB1HW 5 X 4.5	626	IVE
1	EA	OFFICE LOCK	195RB/26D	626	MAR
1	EA	ACCESS LOCK	PDL6200IC/26D (A115-1, A120-1, A128-1)	626	ALM
1	EA	DOME STOP	W1211 626	626	TRI
3	EA	SILENCER	SR64	GRY	IVE

HW SET:040

3	EA	HINGE	3CB1HW 5 X 4.5	626	IVE
1	EA	STOREROOM LOCK	195RF/26D	626	MAR
1	EA	ACCESS LOCK	PDL6200IC/26D (A128.1-1, A128.2-1)	626	ALM
1	EA	DOME STOP	W1211	626	TRI
3	EA	SILENCER	SR64	GRY	IVE

1

HW SET:044

3	EA	HINGE	3CB1HW 5 X 4.5	652	IVE
1	EA	ACCESS LOCK	PDL6200IC/26D	626	ALM
1	EA	CLOSER	4040XP H	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	DOME STOP	W1211	626	TRI
3	EA	SILENCER	SR64	GRY	IVE

HW SET:405

3	EA	HINGE	3CB1HW 5 X 4.5	630	IVE
1	EA	ACCESS LOCK	PDLN4500DB/26D	626	ALM
1	EA	MORTISE CYL HSG	R2183/26D-2 FOR ACCESS LOCK	626	MAR
1	EA	DOME STOP	W1211	626	TRI
1	EA	PERIMETER SEALS	328AA HEAD AND JAMBS	AL	ZER
1	EA	DOOR SWEEP	339AA	CM	ZER
1	EA	THRESHOLD	AS DETAILED	AL	ZER

HW SET: 442.1

3	EA	HINGE	3CB1HW 5 X 4.5 NRP SEC STUD		IVE
1	EA	ACCESS LOCK	PDL6600CR/26D		ALM
1	EA	MORTISE CYL HSG	R2183/26D-1 FOR ACCESS LOCK		MAR
1	EA	CLOSER	4040XP-EDA		LCN
1	EA	KICKPLATE	8400 10” X 2” LDW		IVE

HW SET: 442.2

3	EA	HINGE	3CB1HW 5 X 4.5 NRP SEC STUD	630	IVE
1	EA	ACCESS LOCK	PDL6600CR/26D	626	ALM
1	EA	MORTISE CYL HSG	R2183/26D-1 FOR ACCESS LOCK	626	MAR
1	EA	CLOSER	4040XP EDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	FLOOR STOP	1265 (2 1/4" HIGH STRIKE)	626	TRI
1	SET	PERIMETER SEALS	328AA HEAD AND JAMBS	AL	ZER
1	EA	DOOR SWEEP	339AA	CL	ZER
1	EA	THRESHOLD	AS DETAILED	AL	ZER

HW SET: 443.1

3	EA	HINGE	3CB1HW 5 X 4.5 NRP SEC STUD	630	IVE
1	EA	ACCESS LOCK	PDL6600CR/26D (A116-1, A128-2)	626	ALM
1	EA	MORTISE CYL HSG	R2183/26D-1 (A116-1, A128-2)	626	MAR
1	EA	PRIVACY LOCK	PDLN4500DB/26D (A114-1)	626	ALM
1	EA	MORTISE CYL HSG	R2183/26D-2 (A114-1)	626	MAR
1	EA	CLOSER	4040XP S-CUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	SET	PERIMETER SEALS	328AA HEAD AND JAMBS	AL	ZER
1	EA	DOOR SWEEP	339AA	CL	ZER

1

1	EA	THRESHOLD	AS DETAILED	AL	ZER

HW SET: 453.1

3	EA	HINGE	3CB1HW 5 X 4.5 NRP SEC STUD	630	IVE
1	EA	ACCESS LOCK	PDL6600CR/26D	626	ALM
1	EA	MORTISE CYL HSG	R2183/26D-1 FOR ACCESS LOCK	626	MAR
1	EA	CLOSER	4040XP S-CUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	SET	PERIMETER SEALS	328AA HEAD AND JAMBS	AL	ZER
1	EA	DOOR SWEEP	339AA	CL	ZER
1	EA	THRESHOLD	AS DETAILED	AL	ZER

HW SET: 455.1

3	EA	HINGE	3CB1HW 5 X 4.5	630	IVE
1	EA	ACCESS LOCK	PDL6600CR/26D	626	ALM
1	EA	MORTISE CYL HSG	R2183/26D-1 FOR ACCESS LOCK	626	MAR
1	EA	CLOSER	4040XP	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	DOME STOP	W1211	626	TRI
1	SET	PERIMETER SEALS	328AA HEAD AND JAMBS	AL	ZER
1	EA	DOOR SWEEP	339AA	CL	ZER
1	EA	THRESHOLD	AS DETAILED	AL	ZER

HW SET: A032.7

1	EA	PIVOT SET	7215	626	IVE
2	EA	INTERMEDIATE PIVOT	7215 INT	626	IVE
1	EA	ACCESS LOCK	PDL6200IC/26D	626	ALM
1	EA	CLOSER	4040XP	689	LCN
1	EA	MOUNTING PLATE	4040-18	689	LCN
1	EA	DOME STOP	W1211	626	TRI

DOORS MUST BE WIDE STILE TO MOUNT LOCK SEALS AND SWEEPS BY DOOR MANUFACTURER

HW SET: A482.1

1	EA	PIVOT SET	7215	626	IVE
1	EA	INTERMEDIATE PIVOT	7215 INT	626	IVE
1	EA	EXIT DEVICE	CDSI-AX-98-NL/OP-PA	626	VON
1	EA	RIM CYL HSG	R662/26D FOR ACCESS LOCK	626	MAR
1	EA	MORTISE CYL HSG	R2183/26D-1 FOR DOGGING	626	MAR
1	EA	ACCESS LOCK	ETPDNS1G26DV99	626	ALM
1	EA	CYL ADAPTER		626	ALM
			ET-BIC/26D FOR ACCESS LOCK 4040XP EDA		
1	EA	KIT CLOSER		689	LCN
1	EA	MOUNTING PLATE	4040-18	689	LCN
1	EA	FLOOR STOP	1265 (2 1/4" HIGH STRIKE)	626	TRI
1	EA	THRESHOLD	AS DETAILED	AL	ZER

SEALS AND SWEEPS BY DOOR MANUFACTURER

DOORS MUST BE WIDE STILE TO MOUNT PANIC HARDWARE

HW SET: A482.5

1	EA	PIVOT SET	7215	626	IVE
1	EA	INTERMEDIATE PIVOT	7215 INT	626	IVE
1	EA	EXIT DEVICE	CDSI-AX-98-NL/OP-PA	626	VON
1	EA	RIM CYL HSG	R662/26D FOR ACCESS LOCK	626	MAR
1	EA	MORTISE CYL HSG	R2183/26D-1 FOR DOGGING	626	MAR
1	EA	ACCESS LOCK CYL	ETPDNS1G26DV99	626	ALM
1	EA	ADAPTER KIT	ET-BIC/26D FOR ACCESS LOCK	626	ALM
1	EA	CLOSER	4040XP EDA	689	LCN
1	EA	MOUNTING PLATE	4040-18	689	LCN
1	EA	FLOOR STOP	1265 (2 1/4" HIGH STRIKE)	626	TRI
1	EA	THRESHOLD	AS DETAILED	AL	ZER

SEALS AND SWEEPS BY DOOR MANUFACTURER

DOORS MUST BE WIDE STILE TO MOUNT PANIC HARDWARE

HW SET: A582R.1

2	EA	PIVOT SET	7215	626	IVE
2	EA	INTERMEDIATE PIVOT	7215 INT	626	IVE
1	EA	MULLION	KR4954	689	VON
2	EA	EXIT DEVICE	CDSI-AX-98-EO-PA	626	VON
1	EA	ACCESS LOCK	ETPDNS1G26DV99	626	ALM
1	EA	CYL APAPTER KIT	ET-BIC/26D FOR ACCESS LOCK	626	ALM
1	EA	RIM CYL HSG	R662/26D FOR ACCESS LOCK	626	MAR
2	EA	MORTISE CYL HSG	R2183/26D-1 FOR DOGGING	626	MAR
1	EA	OFFSET DOOR PULL	8190-0 10" CTC	630	IVE
2	EA	CLOSER	4040XP EDA	689	LCN
2	EA	MOUNTING PLATE	4040-18	689	LCN
2	EA	FLOOR STOP	1265 (2 1/4" HIGH STRIKE)	626	TRI
1	EA	THRESHOLD	AS DETAILED	AL	ZER

SEALS AND SWEEPS BY DOOR MANUFACTURER

DOORS MUST BE WIDE STILE TO MOUNT PANIC HARDWARE

HW SET: A585R.1

2	EA	PIVOT SET	7215	626	IVE
2	EA	INTERMEDIATE PIVOT	7215 INT	626	IVE
1	EA	MULLION	KR4954	689	VON
2	EA	EXIT DEVICE	CDSI-AX-98-EO-PA	626	VON
1	EA	ACCESS LOCK	ETPDNSG26DV99	626	ALM
1	EA	CYL ADAPTER KIT	ET-BIC/26D FOR ACCESS LOCK	626	ALM
1	EA	RIM CYL HSG	R662/26D FOR ACCESS LOCK	626	MAR
3	EA	IC MORT CYL	R2183/26D-1 FOR DOG & MULLION	626	MAR
1	EA	OFFSET DOOR PULL	8190-0 10" CTOC	630	IVE

2	EA	CLOSER	4040XP EDA	689	LCN
2	EA	MOUNTING PLATE	4040-18	689	LCN
2	EA	DOME STOP	W1211	626	TRI
1	EA	THRESHOLD	AS DETAILED	AL	ZER

SEALS AND SWEEPS BY DOOR MANUFACTURER

DOORS MUST BE WIDE STILE TO MOUNT PANIC HARDWARE

1

END OF SECTION3

SECTION 09 9900
COLORS

PART 1 GENERAL

1.01 SUMMARY

A. The General Conditions and Division 1 are a part of this Section and the Contract for this Work and apply to this Section as if repeated fully herein. This section is intended to supplement the provisions of the General Conditions, and to supplement criteria established elsewhere in these documents for the basis of acceptance or rejection of requests for substitution.

1.02 COLOR SELECTION PROCESS

A. All colors will be selected by the Architect. Materials and products have been specified partly based upon the availability of colors desired by the architect as being compatible with the overall color palate for the project. A preliminary color palate has been developed based upon the materials and products specified. Although requests for substitution are encouraged in order to generate competition and equal opportunity among suppliers, the basis for acceptance or rejection of a request for substitution may rest with the availability of colors compatible with the palate. Based upon the availability of colors within the items specified or allowed as substitution a final color palate will be developed after completion of the substitution period.

1.03 REMAINING COLORS

A. Material colors not indicated below will be selected upon submittal of manufactures standard colors complying with each applicable specification.

PART 2 PRODUCTS

2.01 NOT APPLICABLE

PART 3 EXECUTION

3.01 NOT APPLICABLE

APPENDIX: FINISH LIST

END OF SECTION

FINISH LIST

GATEWAY ANNEX SCHOOL

VENTURA COUNTY OFFICE OF EDUCATION

Specification Section	Specification Name	Material ID	Manufacturer	Product Name/Series/Model	Color/Finish	Location	Remarks
08 4313	Aluminum Framed Entrances and Storefronts		Arcadia		Clear AC1		
08 8000	Glazing	B	3M	Fasara	Milky Milky ~~Light Grey~~ SH2MAMML	Storefront SF1	See A701
08 8000	Glazing	C	3M	Fasara	Cross Hairline Milky SH2CHML	Storefront SF1	See A701
09 3000	Ceramic Tile	T-1	Daltile	Portfolio Colorbody Porcelain	Dove Grey PF04 Matte	Restroom Walls	Field
09 3000	Ceramic Tile	T-2	Daltile	Portfolio Colorbody Porcelain	Skyline Blend PF12	Restroom Walls	Accent
09 3000	Ceramic Tile	T-3	Daltile	Portfolio Colorbody Porcelain	Ash Grey PF05 Matte	Restroom Floor	See A601
09 3000	Ceramic Tile	T-4				Kitchen Floor	See A601
09 6519	Resilient Tile Flooring	VCT-1	Armstrong	Standard Excelon Imperial Texture	Mid Grayed Blue 51875	Classroom Floor	See A601
09 6519	Resilient Tile Flooring	VCT-2	Armstrong	Premium Excelon Raffia Stream	Earth 55926	Platform Floor	See A601
09 6519	Resilient Tile Flooring	VCT-ST	Armstrong	Integrated Stair Treads	Pebble R4CPB449	Platform Stairs	
09 6519	Resilient Tile Flooring	B-1	Mannington Burkebase	Rubber 4" Cove Base (TP)	323 Blue Bonnet		Base
09 6519	Resilient Tile Flooring	B-2	Mannington Burkebase	Rubber 4" Cove Base (TP)	660 Rocky	Platform	Base

09 6813	Tile Carpeting	CPT-1	Shaw Industries Group, Inc	Worklife Connect Tile, 59342	Harbouring Desi 40485		See A601
09 9113/ 09 9123	Interior & Exterior Painting	PT-1	Dunn Edwards		Whisper DEW340	Walls	Field
09 9113/ 09 9123	Interior & Exterior Painting	PT-2	Dunn Edwards		Slumber DE5860	Doors, exposed columns & beams	Accent
09 9113	Exterior Painting	PT-3	Dunn Edwards		Lemon Punch DE5398		Accent

SECTION 11 4000
FOODSERVICE EQUIPMENT

PART 1 – GENERAL

1.01 SECTION INCLUDES:

A. Foodservice equipment.

1.02 SCOPE OF WORK:

A. Furnish all labor, materials, and services necessary for the procurement and installation of the equipment included in this section.

B. Supervise and provide required instructions for work to be performed by other contractors in connection with requirements for all equipment included this section.

C. Specifications and drawings have been prepared to form the basis for coordination with the other trades on this Project, procurement, erection, start-up, and adjustment of all equipment in this section. Plans and specifications are to be considered as mutually explanatory and work required by one, but not by the other, is to be performed as though required by both. Items required by one, but not by the other are to be provided as though required by both. Work to be accomplished as called for in specifications and shown on drawings, so that all items of equipment are completely functional for purpose for which they were designed. When/if there is any discrepancy between drawings and specifications, bidders should seek clarification of any discrepancies from the Consultant prior to bidding.

D. Should the drawings disagree between themselves or the specifications with the drawings, the better quality more stringent, and/or greater quantity of the work or materials to be completed without additional costs to the Owner.

E. Secure and pay fees for all permits and licenses as required by all authorities having jurisdiction. Give all notices and comply with all laws, ordinances, rules, regulations, and contract requirements bearing on the work.

1.03 RELATED DIVISIONS / SECTIONS:

A. Refer to General Conditions, Supplementary Conditions, and applicable provisions of Division 1 for additional instructions.

B. Refer to Interior Design Divisions for applicable provisions and sections regarding décor finishes, applications, details, and special instructions relating to items specified in this Section. Applicable to Projects with items specified in this Section, with décor finishes and/or construction.

C. Refer to Mechanical/Plumbing Divisions for applicable provisions and sections regarding mechanical services, including, but not limited to exhaust ductwork and fans, floor sinks and floor drains, water gas and steam rough-ins, grease traps, steam traps, drain traps, potable water backflow prevention atmospheric vents, and RPZ valves, valves, pipes and pipe fittings, ductwork, and other materials necessary to complete final connections to individual items as specified in this Section. Not work of this Section. Also includes:

1. Piping and insulation for fryer oil systems.
2. Piping for remote pulping systems.
3. All exhaust hood or ventilator duct work and fans upstream from the connection position.

1

D. Refer to Electrical Divisions for applicable provisions and sections regarding electrical services, including, but not limited to, rough-ins, standard voltage and low-voltage wiring, conduit, drop-cords, ceiling-mounted cord reel assemblies, disconnects and other materials necessary to complete final connections to individual items as specified in this Section. Not work of this Section. Also includes:

  1. Installation of light fixtures furnished loose at cold storage rooms.

  2. Connection of cold storage room temperature alarm system to the building security system.

  3. Connection of hood fire suppression system to the building security system.

E. Work included in other Divisions - Provision of all walls, floor, and/or ceiling/roof openings, and sealing thereof, as necessary for installation of items included in this section. Not work of this Section. Also includes:

  1. Slab depressions reinforced concrete wearing bed and interior finished floor with coved base at prefabricated cold storage assemblies.

  2. Concrete or masonry platforms with finished top and coved base at perimeter, for raised setting of foodservice equipment: Divisions 03/09.

  3. Slab depressions to receive stainless-steel drain trench liner/grate assemblies provided under this Section.

  4. Wall backing to support all wall-mounted equipment.

  5. Conduit and piping sleeves for soda, beer/liquor, refrigeration, CO2 and drain lines through building ceilings and floors.

F. Work included in other Divisions - Disconnection of existing equipment to be relocated and/or reused; and removal of existing equipment which will not be reused, as determined, and designated by the Architect in other Divisions. Not work of this Section. (Applicable to Projects with existing equipment.)

1.04 DEFINITIONS:

A. Furnish - Supply and deliver to Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.

B. Install (set in place) - Operations at Project Site including actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, finishing, curing, protecting, cleaning and similar operations, ready for final utility connections by other Divisions as appropriate.

C. Provide - Furnish and install complete, ready for intended use, including any necessary initial training.

D. Contractor - Refers to the Kitchen Equipment (Sub) Contractor in this Section. References to any other Contractor or Division will be specific, such as General Contractor, Plumbing (Sub) Contractor / Division, Electrical (Sub) Contractor / Division, Architect designated, etc.

1.05 LAWS, ORDINANCES, REGULATIONS AND STANDARDS:

A. Comply with the following in their current published form:

  1. Air Conditioning and Refrigeration Institute (A.R.I): applicable regulations and references of the latest edition of standards for remote refrigeration system(s), components, and installation.

1

2. American Gas Association (A.G.A.): standards for gas heated equipment and provide equipment with the
   a. A.G.A. seal. Automatic safety pilots to be provided on all equipment, where available. (Canadian Gas Association or alternate testing lab's seals accepted if acceptable to local code jurisdictions.)
3. American National Standards Institute (A.N.S.I.): Z21-Series for gas-burning equipment. Provide labels indicating name of testing agency.
4. American National Standards Institute (A.N.S.I.): B57.1 for compressed gas cylinder connections, and with applicable standards of the Compressed Gas Association for compressed gas piping.
5. American National Standards Institute (A.N.S.I.): A40.4 and A40.6 for water connection air gaps and vacuum breakers.
6. American Society of Heating, Refrigeration and Air Conditioning Engineers (A.S.H.R.A.E.): applicable regulations and references of the latest edition of standards for exhaust system planning including A.S.H.R.A.E. 90.1 Section 5,6,7, and remote refrigeration system(s), components, and installation.
7. American Society of Mechanical Engineers (A.S.M.E.): Boiler Code requirements for steam generating and steam heated equipment and provide A.S.M.E. inspection stamp and registration with National Board.
8. American Society for Testing and Materials (A.S.T.M.): C1036 for flat glass.
9. American Society for Testing and Materials (A.S.T.M.): C1048 for heat-treated flat glass - Kind HS, Kind FT coated and uncoated glass.
10. American Society for Testing and Materials (A.S.T.M.): F232-03 for pre-rinse spray units, and in compliance with Energy Policy Act of 2005 (EPAct).
11. American Welding Society (A.W.S.): D1.1 structural welding code.
12. Energy Policy Act of 2005 (EPAct 2005): water savings pre-rinse spray valves.
13. National Electric Code (N.E.C.): N.F.P.A. Volume 5 for electrical wiring and devices included with foodservice equipment, A.N.S.I. C2 and C73, and applicable N.E.M.A. and N.E.C.A. standards.
14. National Electrical Manufacturers Association (N.E.M.A.): LD3 for high-pressure decorative laminates.
15. National Fire Protection Association (N.F.P.A.): applicable sections for exhaust hoods, ventilators, duct and fan materials, hoods fire suppression systems, wheel placement systems, construction, and installation; in addition to local codes and standards.
16. National Sanitation Foundation (NSF): latest Standards and Revisions, and as accredited by ANSI, IAS, NELAC, ISO, OSHA, and SCC. Provide NSF Seal of Approval on all standard manufactured items included in this Project and listed in any NSF Certified Food Equipment Products Category, and on all items of custom fabricated work included in this Project. (UL Sanitation approval and seal accepted if acceptable to local code jurisdictions.)
17. Sheet Metal and Air Conditioning Contractor's National Association (S.M.A.C.N.A.): latest edition of guidelines for seismic restraint of kitchen equipment, as applicable to project location. All seismic requirements shall be shown on all submittals. Submit requested information to the agencies and authorities having jurisdiction.

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18. Underwriters Laboratories (U.L.): as applicable for electrical components and assemblies. Provide either U.L. labeled products or, where no labeling service is available, “recognized markings” to indicate listing in the U.L. “Recognized Component Index”. (Canadian Standards Association or alternate testing lab's seals accepted if acceptable to local code jurisdictions.)

19. UL 300 Standard: for wet chemical fire suppression systems for exhaust hoods/ventilators.

20. American with Disabilities Act (ADA): as applicable to this Project.

21. Refrigeration Service Engineers Society (R.S.E.S.): applicable regulations and references of the latest edition of standards for remote refrigeration system(s), components, and installation.

22. All refrigerants used for any purpose is to comply with the 1995 and 2010 requirements of the Montreal Protocol Agreement, and subsequent revisions and amendments. No CFC or HCFC refrigerants will be permitted on this Project.

23. All refrigeration components installation, repairs, and/or associated work on any refrigeration system, is to be performed by a Certified Refrigeration Mechanic thoroughly familiar with this type of commercial foodservice installation. ETL and other national and international recognized Testing and Listing Agency labels and certifications are acceptable in lieu of Listing Agencies indicated in these documents, if acceptable to the local code jurisdictions.

24. All applicable local codes, standards, and regulations.

25. All special local codes, standard, and regulations such as (examples only) California Energy Commissions Regulations, Dade County requirements for walk-in cooler(s) and/or freezer(s).

26. For detention facilities projects (as applicable): applicable Correctional Standards. Verify the level of security and construction required with the Architect and provide all items in compliance.

B. The Contract Documents shall prevail whenever they require larger sizes or higher standards than are required by regulations.

C. The above regulations shall govern whenever the Contract Documents require something that is deemed to violate the above regulations.

D. No extra charge will be paid by Owner for furnishing items required by the regulations, but not specified and/or shown on the drawings.

E. Rulings and interpretations of the enforcing agencies shall be considered part of the regulations.

1.06 CONTRACTOR’S QUALIFICATIONS:

A. In addition to requirements of Related Sections 1.3.A:

1. Five (5) years minimum continuous operation under the same company name and ownership.

2. Financial stability and ability to complete this Project.

3. Comparable size and scope projects completed in the last five (5) years.

4. Contractor to provide letter that states they are able-to purchase, distribute, and install all items specified.

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B. Any sub-contractor or fabricator employed by Contractor:

1. Is to comply with the same qualifications.
2. Their name, address, and a brief-summary of their experience and qualifications is to be submitted with the bid proposal.
3. Fabrication sub-contractor shall be NSF, NEC, and UL-approved at a minimum for fabrication of all items detailed within this specification and attending drawing set. Moreover, fabrication shop shall have the means and expertise to fully engineer and fabricate any-and-all counters, tables, natural and man-made stone counter tops, food shields, etc. all in one manufacturing facility where specified as part of this document set.

1.07 BIDDING AND SUBSTITUTIONS:

A. The Bidder shall provide pricing on primary manufacturer and model specified. These Contract Documents were designed and engineered using the primary manufacturer and model and are intended to be the Basis of Bid. Provide itemized prices for each item, along with cited accessories with separate total prices for delivery and installation. Any-and-all city, state, occupational and government taxes which are applicable to this project, shall be included and added as a separate charge. All figures shall be included in a grand total package bid proposal. Bids shall be valid for thirty (30) days after bid deadline date and shall indicate same. Failure to comply with the above may be cause for rejection of the bid.

B. Unless otherwise noted, substitutions may be submitted for consideration, but must be itemized at the end of the bid proposal.

C. Substitutions must be approved in writing by the Architect and/or Owner, prior to utilization in this Contract. A copy of the approval must be included with any submittals by Contractor.

D. Contractor shall provide all design/engineering services required to make-adjustments in space, systems, utilities, etc. and pay all additional costs of utilities, construction or professional services that may be incurred due to the acceptance of any substitution.

E. Application for Substitution of Specified Foodservice Equipment. This form shall be submitted in support of each suggestion of request to substitute an alternate manufacturer and/or model of equipment that is not included in the Division 11 40 00 (Foodservice Equipment) specifications.

1.08 APPROVED SUBSTITUTIONS AND/OR LISTED ALTERNATES:

A. Substitutions approved as noted in Article 1.7, and/or any Listed Alternate manufacturers included in the Itemized Specifications Article 3.12, or added by Addendum, may be utilized, in lieu of the primary specified manufacturer with the following conditions:

1. These Contract Documents are designed and engineered using the primary specified manufacturer and model and are intended to be the Basis of Design and Bid. Contractor assumes complete responsibility for any deviations required due to utilization of a substitution/alternate manufacturer or model; including, but not limited to, fitting alternates into available space, providing directions for required changes, and assuming any associated cost for utility, building, architectural, or engineering changes.
2. Contractor is responsible for supplying the model, which is as close as possible to the primary specified model in regard-to general function, features, options, sizes, accessories, utility requirements, finish, operation, internal system engineering and listing approvals. if it is determined by the owner or their appointed representative at any time during the construction and installation process, and prior to the final acceptance of

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the Project, that the substitution/alternate model submitted is not equivalent to the primary specified model, the Contractor will assume all associated cost and implications required to replace the model submitted, with the correct model.

3. The bid proposal is to clearly state any proposed substitutions/alternates, that are being offered for review by including the manufacturer and model number. Along with a current data sheet for each substitution/alternate, with any-and-all deviations between the primary specified manufacturer and the substitution/alternate manufacturer clearly defined. Technical brochures from manufacturers may not be acceptable as adequate information required for comparison. Complex alternates such as utility distribution systems, exhaust hoods, ventilators, refrigeration systems, etc., shall include a shop drawing specific to this Project.

4. Inclusion of an alternate manufacturer in Itemized Specifications Article 3.12 is not intended to indicate that there is an equal alternate unit to match every primary specified unit. It is the responsibility of the Contractor to ensure that the alternate unit submitted matches or exceeds the primary specified unit; and meets the conditions as stated above.

5. Manufacturers not approved as substitutions or included as a Listed Alternates will not be permitted.

1.09 DISCREPANCIES:

A. Where discrepancies are discovered between the drawings and the specifications, regarding quality or quantity, the higher quality or the greater quantity is to be included in the Bid Proposal.

B. Contractor to notify the Architect, in writing, of any discrepancies discovered; and await written clarification prior to proceeding with the items or areas in question.

C. Contractor is responsible for verifying and coordinating all items provided in this Section, with the drawings, specifications, manufacturer’s requirements, submittals, actual site conditions, adjacent items, and associated (Sub-) Contractors; to assure that there are no discrepancies or conflicts. This is to include, but not be limited to, quantities, dimensions, clearances required, direction of operation, door swings, utilities, fabrication details and methods, installation requirements, etc.

1.10 SUBMITTALS:

A. Provide one (1) digital set (PDF) of all Submittals for review by the Design Team. After review process this set will be returned for any updating necessary and subsequent distribution.

B. Substitutions must be approved in writing by the Architect and/or Owner prior to utilization in this contract. A copy of the approval must be included with any submittals.

C. Contractor to review all submittals for compliance with the Contract Documents, prior to submitting to the Design Team for review and is responsible for the accuracy of the information within their submittals.

D. Contractor’s use of any Design Team’s digital contract drawings for basis of producing their submittal drawings, is limited to the following conditions, and understanding:

1. Contractor shall perform a thorough project review of all foodservice and allied discipline (MEPS) documents within the Contract Document set and provide independent engineering for all equipment to be provided. Contractor shall assume complete liability and responsibility for accuracy, and for conformance and verification with the latest Architectural and Engineering drawings, actual field conditions and equipment to be provided as part of contract.

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2. The copy and simple re-use of the foodservice consultant's equipment plans, connection plans, building conditions plans, manufacturer's drawings, elevations/sections are prohibited.

3. Contractor further assumes responsibility for coordination of their submittals with those of other allied Contractors and Sub-Contractors, such as electrical, plumbing, and mechanical contractors as required.

4. Submittals shall contain Contractor's notes, symbols, details, title block and information.

E. Equipment Plan and Rough-In Drawings:

1. Submit 1/4" (1:50) scale drawings in pdf format. These drawings are to include complete information on the work included in this Contract, with references to equipment as provided by others; and are to provide sufficient information for associated trades, contractors, and/or sub-contractors to complete their division of work associated with foodservice equipment included in this Contract. Include any additional information pertinent to the installation of this equipment.

2. Special Conditions Drawings, dimensioned, sizing and locating the following conditions:

    a. Slab depressions, cores, sleeves, or block-outs (cold storage assemblies drain trenches, piping, etc.).

    b. Concrete or masonry platforms.

    c. Pipe sleeves or roof jacks.

    d. Wall-openings or block-outs for pass-through equipment, recessed control panels, in-wall fire-protection system components, etc.

    e. Blocking grounds or anchor plates required in walls for equipment support/attachment.

    f. Above-ceiling hanger assemblies for support of exhaust hoods, utensil-racks, etc.

    g. Access panels in walls or ceiling for service of equipment.

    h. Ceiling pockets or recesses for unusually high equipment.

    i. In-wall carriers for wall-hung or cantilevered equipment.

    j. Ventilation for exhaust hoods, condensate hoods, ice machines, compressors, compressor racks and all other equipment requiring heat removal.

    k. Support systems such as beverage conduit and refrigeration line-run sleeves.

    l. Any other additional information pertinent to the installation of this equipment.

3. Electrical Rough-in Drawings field-coordinated and dimensioned providing the following information, but not limited to:

    a. Electrical utility schedule.

    b. Locations of rough-ins.

    c. Locations of control panels.

    d. Inter-wiring of walk-in freezer compressors to compressor rack control panel for defrost cycle.

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   e. Inter-wiring of controls panels to equipment.

4. Plumbing Rough-In Drawings field-coordinated and dimensioned providing the following information, but not limited to:
   a. Plumbing utility schedule.
   b. Locations of rough-ins.
   c. Interconnection water filters assemblies to ice machine, beverage equipment, combi-ovens, steamers, etc.

5. Field-coordinated, dimensioned refrigeration line-run drawings providing the following information, but not limited to:
   a. Sleeve locations & sizes for walls, floors, ceilings.
   b. Detailed and field-coordinated route of refrigeration line-runs from remote refrigeration system to unit served.
   c. Location and inter-wiring detail required for any temperature monitoring and/or control system specified.

6. Drawings to also include equipment plan(s) with detailed equipment list, similar-to Foodservice Equipment Plans included in the Contract Drawings. Item numbers are to be the same as shown in the Contract Documents and are to include Spare Numbers and associated items provided by others.

7. In the event rough-ins have been accomplished before award of this contract, Contractor is to examine the existing facility and identify adjustment needs related to their equipment to suit building conditions and utilities, where possible. Contractor to seek approval for the same prior to further construction. If not possible, state so in a letter, with reasons and an alternate method and pricing for their equipment, to the Architect and Foodservice Consultant.

F. Shop Drawings:

1. Submit shop drawings for items of custom fabrication included in this contract in pdf format. Shop drawings are to be submitted at 3/4” (1:20) and/or 1-1/2” (1:10) scale and are to show dimensions, materials, finishes, details of construction, installation and relation of adjoining work requiring cutting or close fitting as well as any specified fabrication shop fit-out work such as electrical load circuit breaker panels, inter-wiring or interpiping. Shop drawings are to also indicate reinforcements, anchorage and related work required for the complete installation of fixtures. Fabricator’s shop drawings shall be prepared as a coordinated single submittal, separate-from, and not part of a single collated foodservice submittal.

2. Submit shop drawings for any equipment requiring field assembly, including but not limited to, Suite-style cooking assemblies, pulper/extractor assemblies, remote refrigeration systems, walk-in coolers and/or freezers, exhaust hoods/ventilators, fire suppression system, utility distribution systems, pot/utility/cart/tray/ware washing assemblies/machines, conveyors, floor troughs, seismic anchoring details (as required) and fresh oil supply/waste oil recovery systems in pdf format. Manufacturer’s shop drawings shall be separated per system submitted in single form, and not part of a collated foodservice submittal.

3. When applicable, prepare and submit section, elevation, axonometric drawings in PDF format for all food shields within counters in a coordinated single submittal. Food shields to be compliant with current NSF code

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requirements and ergonomic reach requirements. Contractor to provide physical mock-up of same for Owner/Operator review and sign-off prior to fabrication.

4. Before proceeding with the fabrication or manufacture of any item, Contractor is responsible for verifying and coordinating all dimensions and details with site dimensions, conditions, and adjacent equipment.

5. The Contractor to clearly identify on drawings any-and-all differences between the Bid and/or Contract Documents and what is being provided. If any structural, electrical, plumbing, gas or steam requirements are different than what the Bid and/or Contract Documents show the Contractor will notify and record on the drawings identifying what is different and discuss same with General Contractor, Owner and Foodservice Consultant prior to commencing work.

G. Product Data Submittal Manuals:

1. Submit product data brochure(s) with a cover sheet complete with detailed information on every item included in this section in pdf format. Detailed information is to include, but not be limited to, item number, description, quantity, model numbers, options and accessories provided, N.E.M.A. plug and receptacle configuration for applicable items, exact utility requirements, manufacturer's cut-sheets, reference to specific shop drawings, etc. Distribute one additional copy of installation and start-up instructions to the Installer. Every cover sheet and associated detailed submittal is to provide sufficient and complete information for the Design Team to verify that the Contractor understands the Contract requirements and is providing each item in compliance with the Contract Documents. Cover sheets to also include associated items as listed on the Equipment Plan but provided by others; and are to be noted as "Not in Section 11 40 00 Contract Division".

2. Reproduction of any part of the Contract Specifications will not be acceptable as part or total of Contractor's Product Date Submittal Manuals. These Manuals are to be produced and assembled entirely by the Contractor, in numerical order according to Item numbers.

3. The cover sheet shall clearly identify all differences between the bid documents and what is being provided. If any electrical, plumbing, gas or steam requirements are different than what the bid documents show the Contractor will make a note on the coversheet identifying what is different and why. If a model has been discontinued, the Contractor will make a note on the cover sheet and offer a replacement model.

4. The cover sheet shall clearly identify all differences between the Bid/Contract Documents and what is being provided. If any electrical, plumbing, gas or steam requirements are different than what the bid documents show the Contractor will make a note on the coversheet identifying what is different and why. If a model has been discontinued, the Contractor will make a note on the cover sheet and offer a replacement model.

H. The Design Team's review of submittal drawings, shop details, product data brochures, and operation and maintenance manuals are for general conformance with the design concept and Contract Documents. Review markings or comments are not to be construed as relieving Contractor from compliance with the Contract Documents, or departures there from. Contractor remains responsible for details and accuracy, confirming and correlating all quantities and dimensions, selecting fabrication processes, techniques of assembly, and performing their work in a safe, satisfactory, code-compliant and professional manner.

I. Commencement of purchasing or fabrication by the Contractor, of any item(s) included in this Contract, prior to receipt of reviewed Submittals from the Design Team, shall be at the Contractor's own risk; unless specifically instructed to do so in writing by the Owner, including the specific item numbers requested.

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J. Contractor shall verify requirements and equipment sizes, critical clearances, or other characteristics necessary to represent Owner/ Purveyor items completely on the shop drawing submittals even though they may be listed as “NIC/Not in Contract” in the Equipment Schedule/Item Specification sections of this document.

1.11 OPERATION AND MAINTENANCE DATA MANUALS:

A. Two (2) bound sets of manuals are to be furnished for items of standard manufacturer on/or before the date of the first event to occur of the following: demo/start-up, start-up for intended use by the Owner/Operator, completion of installation of kitchen equipment contract package, or final acceptance of installation by Owner. Manuals are to be in alphabetical order according to manufacturer. Manufacturer’s info is to include Tech Services telephone number, email, and web site address, where available.

B. Provide a complete list of all equipment, with make, model and serial numbers. Provide list of local service agencies for included manufacturers, complete with addresses, email addresses and telephone numbers. Also provide email and web site addresses, where available.

C. Provide electronic/digital media for maintenance, training, operation, etc. where available from the manufacturer.

D. Manual shall also include a leak testing report for each-and-every remote refrigerated system included under this Foodservice Equipment Section, as required in article 2.7.A.6 Refrigeration Equipment of this Section.

1.12 AS - BUILT/ RECORD DOCUMENTS:

A. Maintain one record set of Foodservice Equipment Plans with any related corrections, revisions, additions, deletions, changes, etc. noted during construction and installation. Provide an "as-built" set on a computer disk or electronically in PDF format.

B. Provide one (1) final set of Product Data Submittal Manual with any related corrections, revisions, additions, deletions, changes, etc. noted during construction and installation as a specifications’ record set electronically in PDF format.

C. These documents are to be provided at the same time as the O & M Data Manuals. Submit the O & M Data Manuals electronically in PDF format.

1.13 SCHEDULE:

A. Time is of the essence and acceptance constitutes assurance that the Contractor can and will obtain materials, equipment, and manpower, to permit installation of the items included in this Section, on schedule. Contractor is to coordinate their work with the progress schedule, as prepared and updated periodically by the General Contractor or Construction Manager.

B. Anticipated delays, not within the control of the Contractor, are to be noted in a written notification to the Architect, immediately upon the Contractor's realization that delays are imminent.

C. Failure of manufacturers to meet promised delivery dates will not grant relief to the Contractor for failure to meet schedules; unless the Contractor can establish, in writing, that orders were received by the manufacturer, with reasonable lead times.

D. Extra charges resulting from special handling or air shipment in-order-to meet the schedule will be paid by the Contractor if insufficient time was allowed in placing factory orders.

1.14 WARRANTY:

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A. Unless otherwise noted in Related Divisions / Sections 1.3.A, items furnished are to be fully guaranteed against defects in workmanship, materials, and functionality for one full year from the date of the first event to occur of the following: date of issue of Certificate of Occupancy (or the equivalent), start-up for intended use by the Owner/Operator, completion of installation of kitchen equipment contract package, or final acceptance of installation by Owner. Should a Temporary Certificate of Occupancy be issued for partial completion of work, the items furnished within that designated area are to be under warranty from the date of issue of that Certificate. Contractor or their service agent will make necessary repairs and replacements without charge to the Owner, and within a reasonable time.

B. Additional Refrigeration Warranty: in addition to the one-year warranty requirements as stated above, provide start-up and parts and labor for the first year, plus additional four-year extended warranty on compressors. Extended warranty is for provision of replacement compressor, determined to be defective by a certified refrigeration mechanic. However, verification of defective compressor, installation of replacement compressor, recharging and repairs of system will be the responsibility of the Owner. This includes all items with built-in or remote refrigeration system.

C. Periodic routine maintenance, servicing, adjustments, cleaning, etc., as required by the manufacturers included in this Project, are the responsibility of the Owner.

D. Any-and-all parts or requirements for manufacturer’s warranties to be in effect, whether, or not noted in the itemized specifications, are to be provided or complied with by the Contractor. This is to include, but not be limited to, particular-parts, accessories, or installation; installation supervision, start-up, and/or follow-up inspections required by factory trained, Certified, and/or authorized personnel. Factory training, Certification, and/or authorization is to be in effect at the time of bidding, installation, start-up, and warranty period of this Project.

E. Unless otherwise noted in Related Divisions manufacturer’s warranties which comply with the requirements of this Warranty Article 1.14, are to be provided in lieu of Contractor’s own warranties, where available. Copies of the written warranties are to be included in the O & M Manuals.

PART 2 – PRODUCTS

2.01 EQUIPMENT:

A. Refer to schedule on Foodservice Drawings and Section 3.12 Itemized Specifications for equipment included in this Section.

2.02 MATERIALS:

A. Metals:

1. Stainless-Steel: AISI Type 201 or 302/304, hardest workable temper, and No.4 directional polish. Unless otherwise noted or specified, or required by the manufacturer, 201 may be used wherever 302/304 is listed.

2. Galvanized Steel Sheet: ASTM A526, except ASTM A527 for extensive forming; ASTM A525, G90 zinc coating, chemical treatment.

   a. Where painted finish is indicated, provide mill phosphatized treatment in lieu of chemical treatment.

3. Steel Sheet: ASTM A569 hot-rolled carbon steel.

4. Galvanized Steel Pipe: ASTM A53 or ASTM A120, welded or seamless, schedule 40, galvanized.

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5. Steel-Structural Members: Hot rolled or cold formed, carbon steel unless stainless-steel is indicated.

    a. Galvanized Finish (G.I.): ASTM A123 hot-dipped zinc coating, applied after fabrication.

6. Aluminum: ASTM B209/B221 sheet, plate, and extrusions (as indicated); alloy, temper, and finish as determined by manufacturer/fabricator, except 0.40-mil natural anodized finish on exposed work unless another finish is indicated.

B. Plastic Laminate: NEMA LD 3, Type 2, 0.050" 0.05 inch thick, except Type 3, 0.042" (0.04 inch) for post- forming smooth (non-textured). Color and texture as selected by Architect/ Interior Designer.

1. Comply with NSF Standard No. 35.

2. Veneered with approved waterproof and heat proof cement. Rubber base adhesives are not acceptable.

3. Applied directly over close grained plywood, such as solid Mahogany or solid Birch, of selected, smooth, sanded stock to ensure a smooth ripple-free laminated surface; or commercial grade furniture particle board, Cortron or equal.

4. Exposed faces and edges are to be faced with 1/16” 0.06 inch thick material. Corresponding backs are to be covered with approved backing and balancing sheet material.

C. Millwork: No unfinished millwork, plywood/particle board or wood framing (including backs, undersides, and all surfaces concealed from view) will be permitted. All unfinished surfaces or openings cut through finished surfaces are to be sealed to be water resistant; with excess plastic laminate material, Cortron (Melamine) material, backing materials, sealers, primers, finish paint, etc., to blend with specified finish materials.

D. Hardwood Work Surfaces: Laminated edge grained hard maple (Acer saccharum), NHLA First Grade with knots, holes and other blemishes culled out, kiln dried at 8 percent or less moisture, waterproof glue, machined, sanded, and finished with NSF approved oil-sealer.

E. Solid Surface Material and Simulated/Engineered Stone:

1. Single-Source Responsibility for Solid Surface Material and Simulated/Engineered Stone: Obtain each color, grade, finish, type, and variety of material or stone from a supplier with resources to provide materials of consistent quality in appearance and physical properties, including the capacity to cut and finish material without delaying the progress of the work.

2. Single-Source Responsibility for Other Materials: Obtain each type of solid surface material and simulated/engineered stone accessory, sealant, and other materials from one manufacturer for each product.

3. Installer Qualifications: Trained and approved by countertop manufacturer who has completed countertops similar in material, design, and extent to that indicated for project that has resulted in construction with a record of successful in-service performance.

4. The Contractor is responsible for verification of delivered stone materials for quantities, defects, or damage within ten (10) days after delivery. No compensation will be allowed to the contractor for materials and labor that may be required to replace materials after this time-period.

5. Allowable Tolerances:

    a. Variation in component size: +/- 1/8 inch in 8 feet.

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   b. Maximum height of abrupt irregularities: 1/32 inch.

   c. Location of openings: +/- 1/8 inch from indicated location.

6. Do not deliver countertop materials until painting and similar operations that could damage engineered stone materials have been completed in installation areas. If engineered stone materials must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

7. Handle materials to prevent damage to finished surfaces. Provide protective coverings to prevent physical damage or staining following installation for duration of project.

8. Environmental Limitations: Do not deliver or install simulated stone materials until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

   a. Maintain ambient temperature between 50 and 95 degrees Fahrenheit. for 48 hours before, during and for minimum 7 days after installation.

9. Field Measurements: Where simulated stone materials are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

   a. Locate concealed framing, blocking, and reinforcements that support simulated stonework by field measurements before being enclosed and indicate measurements on Shop Drawings.

10. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

11. Adhesive and Sealant as recommended by engineered stone manufacturer.

12. Sink/bowl mounting hardware:

   a. Manufacturer’s approved bowl clips, brass inserts and fasteners for attachment of under-mount sinks/bowls.

13. Fabrication:

   a. Fabricate components to greatest extent practical to sizes and shapes indicated, in accordance with approved shop drawings and manufacturer’s printed instructions. Clean surfaces to remove loose and foreign matter that could impair adhesion.

   b. Remove ridges and projections. Fill voids and depressions with patching compound compatible with setting materials.

   c. Shop cut openings, to maximum extent possible, to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings.

   d. Rout and finish component edges with clean, sharp returns. Rout cutouts, radii, and contours to template. Smooth edges. Repair or reject defective and inaccurate work.

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e. Provide materials with ample allowance for cutting, when required to cut and fit on site. Provide trip for scribing and site cutting.

f. Thickness: Provide thickness indicated, but not less than the following:

1) i. Countertop: 3/4 (0.75 inch) 1-1/4 inches (1.26 inch)

(a) Back and End Splashes: 3/4 inch, unless shown otherwise.

(b) Substrate: 3/4 (0.75 inch)

F. Stone:

1. Single-Source Responsibility for Stone: Obtain each color, grade, finish, type, and variety of stone from a supplier with resources to provide materials of consistent quality in appearance and physical properties, including the capacity to cut and finish material without delaying the progress of the work.

2. Single-Source Responsibility for Other Materials: Obtain each type of stone accessory, sealant, and other materials from one manufacturer for each product.

3. Installer Qualifications: Engage an experienced installer who have completed stone countertops similar in material, design, and extent to that indicated for project that has resulted in construction with a record of successful in-service performance.

4. The Contractor is responsible for verification of delivered stone materials for quantities, defects, or damage within ten (10) days after delivery. No compensation will be allowed to the contractor for materials and labor that may be required to replace materials after this time-period.

5. Allowable Tolerances:

a. Variation in component size: +/- 1/8 inch in 8 feet.

b. Maximum height of abrupt irregularities: 1/32 inch.

c. Location of openings: +/- 1/8 inch from indicated location.

6. Granite materials shall not contain unsafe levels of radioactive materials.

7. Do not deliver countertop materials until painting and similar operations that could damage stone materials have been completed in installation areas. If stone materials must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

8. Deliver materials to project site in undamaged condition.

9. Store and handle stone and related materials to prevent their deterioration or damage due to moisture, temperature changes, contaminants, corrosion, breakage, chipping, or other causes.

a. Do not use pinch or wrecking bars.

b. Lift with wide-belt-type slings where possible. Do not use wire rope or ropes containing tar or other substances that might cause staining. If required to move stone, use wood rollers with cushions at end of wood slides.

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   c. Store stone on wood skids or pallets covered with non-staining, waterproof membrane.

   d. Place and stack skids and stones to distribute weight evenly and to prevent breakage or cracking of stones.

   e. Protect stored stone from weather with waterproof, non-staining covers or enclosures, but allow air to circulate around stones.

   f. Store cementitious materials off the ground, under cover, and in dry location.

10. Environmental Limitations: Do not deliver or install stone materials until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

    a. Maintain ambient temperature between 50 and 95 degrees Fahrenheit. for 48 hours before, during and for minimum 7 days after installation.

11. Field Measurements: Verify dimensions of construction to receive stone countertops by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the work.

    a. Established Dimensions: Where field measurements cannot be made without delaying the work, establish dimensions and proceed with fabricating countertops without field measurements. Provide allowance for trimming at site and coordinate construction to ensure actual dimensions correspond to established dimensions.

12. Comply with referenced standards and other requirements indicated applicable to each type of material required.

13. Provide matched slabs, coordinated for each type, variety, color, and quality of stone required.

14. The use of colored tints, dyes, or waxes applied to stone shall NOT be permitted.

15. Granite:

    a. Granite Building Stone Standard: ASTM C615, free from cracks, chips, stains, or other defects, uniform in tone and coloring.

16. Marble:

    a. Marble Building Stone Standard: ASTM C503, free from cracks, chips, stains, or other defects, uniform in tone and coloring.

17. Adhesives:

    a. Stone Seam Adhesive: 2-part, epoxy or polyester stone adhesive formulated specifically for bonding

       1) stone to stone, with an initial set time of not more than 2 hours at 70 degrees Fahrenheit.

    b. Water-cleanable Epoxy Adhesive: ANSI A118.3, water-cleanable, tile-setting epoxy adhesive.

    c. Color: Clear

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    d. Use installation adhesives that have a VOC content 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24), or as listed in VOC limit tables in Section 01 81 19 “Indoor Air Quality Requirements”. Products furnished shall comply with whichever VOC content requirement is more stringent.

18. Stone Sealants:

    a. Sealant for Countertops: Clear silicone sealant complying with requirements of Section 07 92 00 "Joint Sealants".

    b. For sealants used inside of the vapor barrier, provide sealants that have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24), or as listed in VOC limit tables in Section 01 81 19 “Indoor Air Quality Requirements”. Products furnished shall comply with whichever VOC content requirement is more stringent.

19. Stone Sealers:

    a. Penetrating Sealer: Penetrating sealer that protects the exposed faces of stone and grout from staining. Sealer shall be UV transparent; non-yellowing; VOC compliant; mold and mildew resistant; and USDA approved as safe on food handling surfaces. Material shall exceed ADA standards for slip resistance at traffic areas.

    b. For sealers used inside of the vapor barrier, provide sealers that have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24), or as listed in VOC limit tables in Section 01 81 19 “Indoor Air Quality Requirements”. Products furnished shall comply with whichever VOC content requirement is more stringent.

20. Cutouts and Holes for Lavatories, Sinks, and Fittings:

    a. Undercounter Lavatories: Make cutouts for undercounter lavatories in shop using template or pattern furnished by lavatory manufacturer. Form cutouts to smooth, even curves with edges at right angles to top. Ease juncture of cutout edges with tops, and finish edges to match tops.

21. Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.

G. Insulation:

1. For low temperature applications, such as ice bins, cold pans, or fabricated under counter freezers, use urethane, rigid board foam or foamed-in-place; not less than 2” 1.97 inch thick, except that vertical surfaces of cold pans and ice bins may be 1” (0.98 inch) thick. Insulation to be bonded at joints, to prevent condensation on exterior.

2. For refrigerated applications such as fabricated under counter refrigerators, use urethane rigid board foam or foamed-in-place, or Styrofoam rigid board foam 2” 1.97 inch thick, bonded at joints. No fiberglass insulation will be permitted.

3. For heated type applications, such as plate warmers, use block type rock wool, minimum 1” 0.98 inch thick; or

    a. Marinite I as noted in #4 below.

4. At counters with tops subject to direct or indirect heat from heating or cooking-equipment, provide heat-resistant, food-safe caulking, three (3) layers of Nomex insulation held-in-place with aluminum tape. Provide a

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1/8” 0.12 inch minimum space between the heat source and the insulation. Coordinate drop-in equipment flange support and provide a 16-gauge stainless-steel 90-degree angle collar.

5. All insulation is to be fully encased or enclosed in 16-gauge 0.06 inch stainless-steel.

H. Joint Materials:

1. Sealants: waterproof and mildew resistant silicone sealant, with Shore A hardness of 30, except 45 if subject to traffic, and minimum service temperature range of -60º to +400º F. Sealant to be NSF Standard #51 Listed,

    a. and FDA and USDA Approved for use in food zones. Surfaces, cleaning, and sealants installation to comply with applicable requirements of FDA, USDA, and NSF Standards, and accepted foodservice installation practices.

2. Backer Rod: For 3/8” 0.37 inch or larger joints, to be polyurethane rod stock, larger than joint width.

3. Gaskets: Solid or hollow (but not cellular) neoprene or polyvinyl chloride; light grey, minimum of 40 Shore A hardness, self-adhesive or prepared for either adhesive application or mechanical anchorage.

I. Paint and Coatings:

1. Provide the types of painting and coating materials which, after drying or curing, are suitable for use in conjunction with foodservice, and which are durable, non-toxic, non-dusting, non-flaking, mildew resistant, and comply with NSF Standards and governing regulations for foodservice.

2. Galvanize Repair Paint: MIL-P-21035.

3. Sound Deadener: NSF-listed sound deadening material such as latex sound deadener, for internal surfaces of metal work, and underside of metal counters and tables between work top and underbracing. Verify sound deadening requirements or restrictions with local health authorities.

4. Pretreatment: SSPC-PT2 or PT3, of FS TT-C490.

5. Primer Coating for Metal: FS TT-P-86, type suitable for baking, where indicated.

6. Enamel for Metal: Synthetic type, FA TT-P-491, type suitable for baking, where indicated.

2.03 FABRICATED PRODUCTS:

A. Hardware (also refer to article 2.4 Fabrication of Metal Work in general, and paragraphs O. Doors 1-3 and P. Drawer Assemblies 1-6 specifically, for additional requirements):

1. General: Manufacturer's standard, but not less than ANSI 156.9 Type 2 (Institutional), satin finish stainless-steel or dull chrome finish on brass, bronze, or steel.

2. Hinged Door Hardware: Stainless-steel hinged doors to be mounted with heavy duty NSF-approved hinges with Component Hardware Group, Model No. P62-1010 pulls, or equal; or full length pulls as per individual itemized specifications and shown on Standard Detail FSD1-24. Catches to be heavy-duty magnetic type, except as otherwise indicated. Millwork cabinet hinged doors to be mounted with Blum 95º CLIP top thick door all metal hinges, nickel plated, with 3-dimensional adjustment, or equal, or as per individual itemized specifications.

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3. Drawer Hardware: Slides to be 200 pounds (90 kilograms) minimum capacity per pair, 201 or 300 series stainless-steel, full extension, side-mounting, self-closing type, with stainless-steel ball-bearings, and positive stops; Component Hardware Group Series S52, or equal. Pulls to be Component Hardware Group, Model No. P62-1012, or equal; or full length pulls as per individual itemized specifications and shown on Standard Detail FSD1-24.

4. Sliding Door Hardware: Sliding doors to be mounted on large, quiet ball bearing rollers in 14-gauge 0.08 inch stainless-steel overhead tracks and be removable without the use of tools. Bottom of cabinet to have stainless-steel guide-pins and not channel tracks for doors.

5. All hardware to be identified with manufacturer's name and number, so that broken or worn parts may be replaced.

B. Casters:

1. Type and size as recommended by caster manufacturer, NSF- approved for the type and weight of equipment supported; normally 5” 5 inch diameter heavy-duty, ball-bearing, solid or disc wheel with non-marking grease proof rubber, neoprene or polyurethane tire, unless otherwise specified. Minimum width of tread to be 1-3/16” (1.18 inch). Minimum capacity per caster to be 250-pound (113.4kg), unless otherwise noted in itemized specifications.

2. Solid material wheels to be provided with stainless-steel rotating wheel guard.

3. Wheel and swivel bearings shall be sealed and show a polished plated finish per NSF.

4. Unless otherwise indicated, equip each item with two (2) swivel type casters and two (2) fixed casters, with foot brakes on two (2) casters.

5. Unless item is equipped with another form of all-around protective bumper, provide circular rotating bumper above each caster, 5” 5 inch diameter tire of light grey synthetic rubber (hollow or closed-cell) on cadmium-plated disc.

C. Plumbing Fittings, Trim and Accessories:

1. General: Where exposed or semi-exposed, provide bright chrome plated brass or polished stainless-steel units. Provide copper or brass where not exposed.

2. Vacuum Breakers: Provide with foodservice equipment as listed in the itemized specifications.

3. Water Outlets: At sinks and at other locations where water is supplied (by manual, automatic or remote control), furnish commercial quality faucets, valves, dispensers, or fill devices, of the type and size indicated, and as required to operate as indicated.

4. Waste Fittings: Except as otherwise indicated, furnish 2” 1.97 inch remote-lever ball valve type waste valve, and 3-1/2” (3.5 inch) flat strainer.

5. Also refer to article 2.4.K for additional information.

D. Electrical Materials:

1. General: Provide standard materials, devices and components as recommended by the manufacturer or fabricator, selected, and installed in accordance with N.E.M.A. standards and recommendations; and as required for safe and efficient use and operation of the foodservice equipment, without sanitation concerns.

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2. Components to bear the U.L. label or be approved by the prevailing authority.

3. Custom fabricated refrigerated/freezer units to be provided with vapor tight light receptacles, shatterproof lamps, and automatic switches. Wiring to be concealed.

4. Where light fixtures are specified or detailed as part of counters, cases, or fixtures; light fixtures with lamps to be furnished and installed. Warm white lamps to be provided, unless otherwise specified. If fluorescent light fixtures are specified, ballasts and tubes to be provided. Shields to be provided for all light fixtures.

5. Convenience and Power Receptacles: Make cutouts and install appropriate boxes or receptacles in fabricated fixtures, complete with wiring, conduit, receptacle, and stainless-steel cover plate. Receptacles and plugs to conform to N.E.M.A. standards. Electrical receptacles and devices to be first quality "Specification Grade". GFCI receptacles to be furnished as per the National Electrical Code.

6. Plugs and Cords: Where cords and plugs are provided, they are to comply with National Electrical Manufacturer's Association (N.E.M.A.) requirements. Indicate N.E.M.A. configuration for each applicable item.

7. Power Characteristics: Refer to Electrical Divisions specifications for project power characteristics. Also, refer to individual equipment requirements, for loads and ratings.

8. All electrical components (J-boxes, conduit, receptacles, switches, cover plates, light fixtures, panels, etc.) built into or on any equipment provided by Contractor, other than standard buy-out factory manufactured equipment, are to be vapor or water-tight type. Provide buy-out equipment with vapor or water-tight electrical components wherever available.

2.04 FABRICATION OF METALWORK:

A. General Fabrication Requirements:

1. Remove burrs from sheared edges of metalwork, ease the corners and smooth to eliminate cutting hazard. Bend sheets of metal, at not less than the minimum radius required to avoid grain separation in the metal. Maintain flat, smooth surfaces, without damage to finish.

2. Reinforce metal at locations of hardware, anchorages, and accessory attachments wherever metal is less than 14-gauge 0.08 inch or requires mortised application. Conceal reinforcements to the greatest extent possible. Weld in place, on concealed faces.

3. Exposed screws or bolt heads, rivets and butt joints made by riveting straps under seams and then filled with

   a. solder, will not be accepted. Where fasteners are permitted, provide Phillips-head, flat or oval head machine screws. Cap threads with acorn nuts and lock washers, unless fully concealed in inaccessible construction; and provide nuts and lockwashers unless metal for tapping is at least 12-gauge 0.1 inch. Match fastener head finish with finish of metal fastened.

4. Where components of fabricated metal work are indicated to be galvanized and involve welding or machining of metal heavier than 16-gauge 0.06 inch, complete the fabrication and provide hot-dip galvanizing of each component, after fabrication, to the greatest extent possible (depending upon available dip-tank sizes). Comply with ASTM A123.

5. Welding and Soldering:

   a. Materials 18-gauge 0.05 inch, or heavier, to be welded.

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        b. Seams and joints to be shop welded or soldered as the nature of the material may require.

        c. Welds to be ground smooth and polished to match original finish.

        d. Where galvanizing has been burned off, the weld is to be cleaned and touched up with high grade aluminum paint.

    6. Provide removable panels for access to mechanical and electrical service connections, which are concealed behind or within foodservice equipment, but only where access is not possible and not indicated through other work.

    7. Where ends of fixtures, splashbacks, shelves, etc., are open, fill by forming the metal or welding sections, if necessary, to close entire opening flush to walls or adjoining fixtures.

    8. Rolled edges are to be as detailed, with corners bullnosed, ground and polished.

    9. Equipment to have 1/2” 0.5 inch or larger radius coves in horizontal and vertical corners, and intersections,

        a. per NSF standards.

B. Metal and Gauges:

    1. Except as otherwise indicated, fabricate exposed metalwork of stainless-steel; and fabricate the following components from the gauge of metal indicated, and other components from not less than 20-gauge 0.04 inch metal:

        a. Table and counter tops: 14-gauge 0.08 inch

        b. Sinks and drainboards: 14-gauge 0.08 inch

        c. Shelves:16-gauge 0.06 inch

        d. Front drawer and door panels:18-gauge 0.05 inch (double pan type)

        e. Single pan doors and drawer fronts:16-gauge 0.06 inch

        f. Enclosed base cabinets:18-gauge 0.05 inch

        g. Enclosed wall cabinets:16-gauge 0.05 inch

        h. Exhaust hoods and ventilators:18-gauge 0.05 inch

        i. Pan-type insets and trays:16-gauge 0.06 inch

        j. Removable covers and panels:18-gauge 0.05 inch

        k. Skirts and enclosure panels:18-gauge 0.05 inch

        l. Closure/trim strips over 4" 4.02 inch wide: 18-gauge (0.05 inch)

        m. Hardware reinforcement:12-gauge 0.1 inch

        n. Gusset plates:10-gauge 0.13 inch

        o. Removable toe kicks:14-gauge 0.13 inch

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p. Wall flashing: 20-gauge 0.04 inch

C. Work-Surface Fabrication:

1. Fabricate metal work surfaces by forming and welding, to provide seamless construction using welding rods matching sheet metal, grinding, and polishing. Where necessary for disassembly, provide waterproof gasketed draw-type joints with concealed bolting.

2. Reinforce work surfaces 30” 30 inch on center both ways, with galvanized or stainless-steel concealed structural members. Reinforce edges, which are not self-reinforced, by formed edges.

D. Metal Top Construction:

1. Metal tops to be one-piece welded construction, including field joints. Secure to a full perimeter galvanized steel channel frame cross-braced not farther than 30" 30 inch on center. Fasten top with stud bolts or tack welds. If hat sections are used in lieu of channels, close ends.

2. Properly designed draw fastening, trim strip, or commercial joint material to suit requirement is to be used, only if specified.

E. Structural Framing:

1. Except as otherwise indicated, provide framing of minimum 1” 0.98 inch pipe-size round pipe or tube members, with mitered and welded joints and gusset plates, ground smooth. Provide 14-gauge (0.08 inch) stainless-steel tube for exposed framing, and galvanized steel pipe for concealed framing.

2. Where indicated, flange rear and end edges up to form splashes integrally with top, with vertical and horizontal corners coved of not less than 1/4” 0.24 inch radius, die formed. Turn back splashes 1” (0.98 inch) to wall across top and ends with rounded edge on break, unless otherwise specified.

3. For die-crimped edges, use inverted "V" 1/2” 0.51 inch deep inside and 2” (1.97 inch) deep on outside, unless otherwise shown. For straight down flanges, make 1-3/4” (1.77 inch) deep on outside. For bullnose edges, roll down 1-3/4” (45 mm).

4. Edges: die-formed, integral with top. For rounded corners, form to 1” 0.98 inch radius, weld, and polish to

a. original finish.

F. Field Joints: For any field joint required because of size of fixture; butt-joint, reinforce on underside with angles of same material, bolt together with non-corrosive bolts and nuts, field-weld, grind, and polish to a seam not visible to the naked eye.

G. Pipe Bases: Construct pipe bases of 1-5/8” 1.61 inch diameter 18-gauge (0.05 inch) stainless-steel tubing. Fit legs with polished stainless-steel sanitary adjustable bullet feet to provide for not less than 2” (1.97 inch) of vertical adjustment without exposing threads. Space legs to provide ample support for tops, precluding any possibility of buckling or sagging and in no case more than 6’ -0" (72.01 inch) centers.

H. Legs and Cross rails

1. Equipment legs and cross rails to be 1-5/8” 1.61 inch, 16-gauge (0.06 inch) stainless-steel tubing.

2. Welds at cross rails to be continuous and ground smooth. Tack welds will not be acceptable.

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3. Bottom of legs to be hugged inward and fitted with a stainless-steel bullet-type foot with not less than 2” (50
   a. mm) vertical adjustment without exposing threads.
4. Free standing legs or legs on island tables/counters with electrical/plumbing connections to be anchored to floor with bolt-down type flanged feet with stainless-steel fasteners.
5. Components:
   a. Steel Gusset: Stainless-steel exterior to fit 1-5/8” 1.61 inch tubing, with Allen screw for fastening and adjustment. Not less than 3” (2.99 inch) diameter at top and 3-3/4” (95mm) long. Outer shell 16-gauge (0.06 inch) stainless-steel, reinforced with 12-gauge (0.1 inch) mild steel insert welded interior shell, or approved equal.
   b. Stainless-Steel Low Counter Legs: Stainless-steel exterior 5-3/4” 5.75 inch minimum, 7” (7.01 inch)
      1) maximum length with stainless-steel 3-1/2” 3.5 inch square plate with four countersunk holes, welded to
      2) top for fastening.
   c. Stainless-Steel Adjustable Foot: Stainless-steel 1-1/2” 1.46 inch diameter tapered at bottom to 1” (0.98 inch) diameter, fitted with threaded cold rolled rod for minimum 1-1/2” (37 mm) diameter x 3/4” (0.75 inch) threaded bushing plug welded to legs, or approved equal. Push-in foot not acceptable.
6. Legs to be fastened to equipment with gussets, as follows:
   a. Sinks: Reinforced with bushings and set screw.
   b. Metal Top Tables and Dish Tables: Welded to galvanized steel channels, 14-gauge 0.08 inch or heavier, anchored to top with screws through slotted holes.
   c. Wood Top Tables: Welded to stainless-steel channels, 14-gauge 0.08 inch or heavier, anchored to top with screws through slotted holes.

I. Shelves:

1. Construct solid shelves under pipe base tables of 16-gauge 0.06 inch stainless-steel, with 1-1/2” (1.46 inch) turned down and under edges on exposed sides, and 2” (1.97 inch) turn up against walls or equipment. Fully weld to pipe legs.
2. In fixtures with enclosed bases, turn up shelves on back and sides with 1/4” 0.24 inch (minimum) radius and feather slightly to ensure a tight fit to enclosure panels.

J. Sinks:

1. Construct sinks of 14-gauge 0.08 inch stainless-steel with No.4 finish inside and outside.
2. Form back, bottom and front of one piece, with ends and partitions welded into place. Partitions: double thickness, 2” 2.01 inch minimum space between walls. Multiple compartments to be continuous on the exterior, without applied facing strips or panels.
3. Cove interior vertical and horizontal corners of each tub not less than 1/4” 0.24 inch radius, die formed. Outer

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   a. ends of drainboards to have roll rim risers not less than 3” 2.99 inch high.

4. Drill faucet holes in splashes 2-1/2” 2.5 inch below top edge. Verify center spacing with faucet specified.

   a. Grind and polish.

5. Sink insets to be deep drawn of 16-gauge 0.06 inch, or heavier, polished stainless-steel. Weld into sink drainboards with 1-1/2” (1.46 inch) x 1-1/2” (37 mm) x 14-gauge (0.08 inch) stainless-steel angle brackets; securely welded to sinks and galvanized cross angles spot welded to underside of drainboards to form an integral part of the installation.

6. The bottom of each compartment is to be creased such as to ensure complete drainage to waste opening. Slope bottom of sink bowls toward drain outlet.

K. Drains and Wastes and Faucets:

1. Furnish and install Fisher model 28940, or equal, ball valve type rotary drain assembly with flat strainer and connected overflow assembly, with chrome finish, in die-drawn inset type sinks and Bain Marie sinks.

2. Other custom fabricated sinks to be furnished with Fisher model 28932, or equal, ball valve-type rotary drain assembly, with flat strainer and chrome finish. Waste connection to have 2” 1.97 inch external thread size, with 1-1/2” (1.46 inch) internal thread size.

3. Rotary Handle: Of sufficient length to extend to front edge of sink. No riveting, screws or soldering permitted to fit drains to sinks, with all parts of drains easily removable for servicing and replacement.

4. All faucets furnished with equipment included in this Section to be lead-free and comply with NSF Standard #61, Section #9; such as manufactured by Fisher, Chicago, or T&S.

5. Faucets and pre-rinse spray assemblies furnished with equipment included in this Section, are to have a maximum GPM flow rate in compliance with the Energy Policy Act of 2005 (EPAct) and later updates; or local requirements, whichever is lower. EPAct / local requirements are to be applicable to all faucets and pre-rinses; except for pre-rinse type assemblies used at glass icing / fill stations, fill hose / faucet assemblies at high water usage cooking equipment such as kettles, tilt fry pans, etc., and fill faucets at high volume / usage sinks, such

   a. as pot wash, mop sink and preparation sinks, etc. are to have flow rates of approximately 5 gpm flow minimum.

6. All flex hose type faucet assemblies, such as pre-rinses, kettle fill hoses, etc., to have an inline pressure type back-flow preventer in the hose assembly, as required by local codes.

7. All equipment provided by this Contractor, which discharges liquid waste exceeding 140º F (60º C), is to be provided with a cold-water drain tempering assembly per local codes.

L. Workmanship:

1. Best quality in the trade. Field-verify dimensions before fabricating; conform all items to dimensions of building; neatly fit around pipes, offsets, and other obstructions.

2. Fabricate only in accordance with approved shop drawings, showing pipes, obstructions to be built around, and location of utilities and services.

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M. Casework:

1. Enclosure: except as otherwise indicated, provide each unit of casework (base, wall, overhead and

   a. free-standing) with a complete-enclosure metal cabinet, including fronts, backs, tops, bottoms, and sides.

2. Bases to be made of 18-gauge 0.05 inch stainless-steel sheets reinforced by forming the metal and the inclusion of hat-channels.

3. Ends, partitions and shelves to be stainless-steel.

4. Unexposed backs and structural members may be galvanized, unless otherwise noted.

5. Vertical ends and partitions to be single wall, with a 2” 1.97 inch face.

6. Sides and through partitions are flush with bottom rail, welded at intersections.

7. Shelves: Provide adjustable standards for positioning and support of shelves in casework; except bottom shelf of cabinet mounted on legs or as specified. Turn back of shelf units up 2” 1.97 inch and hem. Turn other edges down to form open channel. Reinforce shelf units and pilasters to support 40 pounds per square foot (195 kgs/sq meter) loading, plus 100 percent impact loading.

8. Bottom front rail of bases set on masonry platform to be continuously closed and sealed to platform.

9. Provide removable access hatchways to all concealed floor sinks under casework directly over floor sinks. Sink locations to conform to local Health Department code requirements.

N. Doors:

1. Metal doors to be double-cased stainless-steel. Outer pans to be 18-gauge 0.05 inch stainless-steel with corners welded, ground smooth and polished. Inner pan to be 20-gauge (0.04 inch) stainless-steel fitted tightly into outer pan with a sound deadening material such as Celotex or Styrofoam used as a core. The two pans to be tack welded together and joints solder filled. Doors to finish approximately 3/4” (0.75 inch) thick and be fitted with flush recessed type stainless-steel door pulls; or full-length continuous pulls as per individual itemized specifications and shown on applicable Standard Detail sheet.

2. Wood doors to be fabricated as detailed.

3. Hinged doors to be mounted on heavy-duty NSF-approved hinges, or as noted on plans or specifications.

4. Drawer Assemblies:

5. Assemblies to consist of removable drawer body mounted in a ball bearing slide assembly with fully enclosed housing.

6. Slide assembly consists of one pair of 200-pound (90 kilograms) capacity stainless-steel roller bearing full extension slides, with side and back enclosure panels, front spacer angle, two drawer carrier angles, secured to slides and stainless-steel front.

7. Drawers intended for tools and general non-food products storage are to have 20” x 20” x 6” deep 20 inch x

   a. 20 inch x 5.98 inch), 18-gauge (0.05 inch) minimum stainless-steel drawer pans.

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8. Drawers intended to hold food products are to have 12” x 20” x 6” deep 12.01 inch x 20 inch x 5.98 inch)
    a. stainless-steel food pans.
9. All drawer pans to be easily removable without tools or disassembly of any drawer assembly components.
10. Drawer fronts are double-cased, 3/4” 0.75 inch thick, with 18-gauge (0.05 inch) stainless-steel welded and polished front pan. Steel back pan shall be tightly fitted, and tack welded. Sound-deaden with rigid insulation material.
11. Provide drawers with replaceable soft neoprene bumpers or for refrigerated drawers - a full perimeter replaceable refrigerator gasket.

O. Closed Base: Where casework is indicated to be located on a raised-floor base, prepare casework for support without legs, and for anchorage and sealant application, as required for a completely enclosed and concealed base.

P. Support from Floor: Equip floor supported mobile units with casters, and equip items indicated as roll-out units, with manufacturer's standard one-directional rollers. Otherwise, and except for closed-base units, provide pipe or tube legs, with adjustable bullet-design feet for floor supported items of fabricated metalwork. Provide 2” 1.97 inch vertical adjustment of feet (concealed threading).

Q. Shop Painting:

1. Clean and prepare metal surfaces to be painted; remove rust and dirt. Apply treatment to zinc coated surfaces, which have not been mill phosphatized. Coat welded and abraded areas of zinc coated surfaces, with galvanize repair paint.
2. Apply 1.5 mil metal primer coating, followed by 2, 1.0 mil metal enamel finish coatings.
3. Bake primer and finish coatings in accordance with paint manufacturer's instructions for a baked enamel finish.

R. Sound Deadening:

1. Sound-deaden underside of metal tops, drainboards, undershelves, cabinet interior shelves, etc., above the underbracing/reinforcing/framing only.

2.05 ACHITECTURAL MILLWORK EQUIPMENT:

A. The following general requirements shall govern the construction of millwork-built fixtures, except where otherwise noted. Work shall be performed by skilled mechanics of the trade and shall be of the highest quality throughout, in such a manner as to fulfill the intent of the Contract Documents. Perform architectural woodwork in accordance with “Architectural Woodwork Quality Standards” published by the Architectural Woodwork Institute (AWI). Fabricator shall have a demonstrated ability in fabricating woodwork items similar in type and quality to those required for this project.

1. All fixtures shall be made by one manufacturer and assembled in single and complete units as the dimensions will permit shipment to and installation of at the building. Large pieces requiring sectional construction shall have their parts accurately fitted and aligned with all others, and provided with ample screws, glue and bolt blocks, tongues, grooves and splines, dowels, mortises and tenons, screws bolts or suitable means of concealed fastening, as required to render the work substantial, rigid, and permanently secured in proper position to each related section.

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2. Sufficient additional material shall be allowed to permit accurate scribing to walls, floor and related work, and due allowance made whenever possible for such shrinkage as may develop after installation. Single and sectional units shall be provided with adequate cleating, blocking, crating and other forms of protection as required precluding damage during shipping and handling.

3. Framing and blocking members shall be assembled with bolted and screwed connections and should be secured to the structural backing with cinch, expansion screws or toggle bolts, as required; spaced and installed to insure ample strength and rigidity. Rails and stiles shall be mortised and tenoned, work neatly mitered and membered, all butt joints made flush and smooth, and all permanent joints made up with water resistant glue. All fixtures shall be assembled without face screws or nails, except where it may be necessary to attach items. All face screws or nails which are necessary shall be counter sunk and plastic wood or wood

   a. plugs used to cover head, and the plug neatly touched up. The heads of all screws used in any assembly shall be counter sunk below the surface.

4. The core material shall be marine-grade, 7 ply-substrate or MEDEX exterior resin medium density fiberboard substrate; conform to ANSI A208.2.3.3.4. All substrate materials shall be LEED certified and meet the LEED requirements for the project.

5. Back sheet shall be NEMA LD .020” 0.02 inch thick, Type V, Grade 91 plastic laminate; apply on all surfaces

   a. not covered with plastic laminate; coordinate color with exposed surface color; comply with NSF Standard 35.

B. Construction / Joints:

1. Follow AWI Premium Grade Standards; factory assembled parts and prefinished; flush type fronts and overlapping ends; ¾” 0.75 inch core material base cabinet, end and dividers with corner joints between framed members fully lock-jointed, glued and screwed; dado and glue cabinet backs into sides and bottom; scribe countertop and backsplashes; secure countertops to base cabinet from underside; fully cure surfaces prior to installation. Mortise and tenon, spline, dowel and/or pin lock and glue work to avoid use of nails wherever practical. Make butt joints with an approved device for prevention of separation of members. Blind nail and conceal.

C. Plastic Laminate:

1. Plastic laminate shall be bonded to all exposed surfaces with Urac 185 adhesive or equal, to minimum ¾” 0.75 inch fir-faced, close grain marine-grade plywood applied under high pressure. In accordance with AWI 1600A- G-1, use horizontal grade on all exposed surfaces, vertical grad on semi- exposed surfaces and sealed paint on all concealed surfaces. Reject plastic laminate or plastic backing shall be used to prevent warping, unless otherwise specified. All edges shall be carefully sanded to smooth finish, removing burns, nicks, and cur marks. Plastic laminate joints shall be finished without wavy and unsightly joints. Joints need not be mitered except as specified. Hand sand edges to a slight chamfer.

2. Top sheet shall be placed on and over finished edge. Ease exposed edge to overlap sheet. Use largest sheet possible in order- to minimize seams.

3. Coved backsplashes shall be a minimum of ¼” 0.24 inch. End splashes may have a square intersection with

   a. tabletops unless specified otherwise.

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4. Plastic laminated shelves shall be laminated with horizontal grade laminate on the side and vertical grade at all edges.

D. Doors, Hinged:

1. Hinged doors shall be fabricated of ¾” 0.75 inch thick marine-grade plywood with hardwood full perimeter edge with plastic laminate on face and self-edging on exposed sides unless indicated otherwise in drawings and details. Door hinges, pulls and catches shall be supplied and detailed. Provide Grass 1200, 176 degree opening concealed casework hinges or equal by Blum or Amerock. Door catches shall be Component Hardware Model M22-2420 for non-magnetic and Model M30-2400, heavy duty, self- aligning for magnetic.

2. Utilize EPCO Model MC 4023.5 or as specified in the Item Specifications.

3. Door locks shall be Component Hardware Model P30 Series; stainless-steel faced; master keyed as specified.

E. Doors, Sliding:

1. Sliding doors shall be fabricated of solid core marine-grade plywood with hardwood edges and constructed similar- to hinged doors. Doors shall be mounted on E-Z Glides track. Doors shall be removable without the use of tools. Rubber stops shall be provided concealed in end stile or mullion.

F. Access Panels: Access panels shall be fabricated of ¾” 0.75 inch nominal thick hardwood and shall be fabricated as a door. Each access panel shall be provided with 2 (two) magnetic catches at top and 2 (two) 3/16” (0.2 inch) positioning pins at bottom.

G. Drawers:

1. Drawers shall have dovetail construction, well glued and blocked. Fronts shall be not less than ¾” 0.75 inch thick hardwood. Sides and back shall be ½” (0.51 inch) thick fabricated of Birch, Maple, or Sycamore except where extension slides are used, in which the side shall be ⅝” (0.39 inch) thick. Bottom shall be milled into fronts and sides.

2. Drawers shall be provided with suitable stops. Provide pulls as detailed or specified. The inside surfaces of all drawers shall receive one coat of penetrating primer and one coat of glass lacquer.

H. Painted Finishes:

1. Painted finishes shall have exposed surfaces free from defects and blemishes that would show after being finished, regardless of grade specified. All surfaces specified to receive paint or enamel finish shall receive one cross coat of lacquer type undercoat. The undercoat shall be of appreciably different color from that of the finish coat, and of proper ground color with relation to the finish coat. After the undercoat has been thoroughly dried, surfaces shall be sanded smooth, and two coats of enamel shall be applied. Back painting shall be provided for all cabinet and woodwork prior to installation.

I. Interior & Wall Shelves:

1. Interior shelves shall be adjustable with flush routed-in shelf standards. Wall shelves to be fabricated as

   a. specified and as per “Standard Detail”.

J. Fire Retarding:

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1. Where required by code, all required materials are to be treated with fire retardant chemicals to achieve the required flame spreading performance rating. Retardant chemicals must be a type approved by local authorities.

2.06 FILTER EXHAUST HOODS AND/OR WATER WASH VENTILATOR FABRICATION:

A. 18-gauge 0.05 inch type 201 or 304 stainless-steel external welded construction, in accordance with the latest edition of N.F.P.A. No.96 and International Mechanical Code, including all applicable appendices. Exposed welds to be ground and polished. Exhaust hoods to be U.L. Listed as available for length specified.

B. Furnish type of fixture specified. Fixtures to be U.L. listed for cooking equipment exhaust hoods, NSF-approved, and with sealed safety lenses.

C. Furnish welded stainless-steel formed duct collars at ceiling or wall duct connections. Verify size and location of duct connections required in this contract before fabrication.

D. Pre-piped liquid chemical or water fire suppressant system, as specified, complying with applicable local and N.F.P.A. regulations. Wet chemical fire suppression systems to comply with UL 300 Standards. Water fire suppression systems to comply with U.L. Category Subject 199E. Each pull station is to be clearly identified with a permanent type of label, as to which exhaust hood(s) it is for. Each exhaust hood is to have a matching permanent-type label, identifying which pull station activates its fire system.

E. All cooking equipment below exhaust hoods/ventilators, on casters, are to be provided with positive wheel placement systems for the rear casters, similar-to Posi-Set units, in compliance with NFPA 17A 5.6.4 and NFPA 96 12.1.2.3.

F. Water wash or ultra-violet control panel to be by the same manufacturer as the ventilator, with time clock control for automatic operation. Provide stainless-steel trim strips for recessed control cabinet applications. Provide stainless-steel chase for surface mounted control panel, from top of panel to ceiling, full width, and depth of panel.

2.07 REFRIGERATION EQUIPMENT:

A. General:

1. Furnish either single or multiple compressor units, as specified or recommended by the manufacturer for the sizes and variations between connected evaporator loads as indicated.

2. Furnish units of the capacities indicated, arranged to respond to multiple- evaporator thermostats and defrosting timers. Include coils, receivers, compressors, motors, and motor starters, mounting bases, vibration isolation units, fans, dryers, valves, piping, insulation, gauges, winter control equipment and complete automatic control system.

3. Refrigerant: Pre-charge units with type or types recommended by manufacturer for services indicated, with quick-disconnect type connections only where specified, ready to receive refrigerant piping runs to evaporators and (where remote) to condensers. All refrigerant and associated components to comply with the requirements of the Montreal Protocol Agreement. No CFC or HCFC refrigerants or associated components will be permitted on this Project. HFC refrigerants and components are to be used. Contractor is responsible for coordinating these requirements with manufacturers.

4. Foodservice equipment items included in this Section, with remote refrigerated systems, are to include interconnecting refrigeration lines, sizing, and insulation between components, as per manufacturer’s installation instructions, and as determined by this Contractor’s Certified Refrigeration Sub-Contractor; and

only after a thorough examination of actual site conditions and obstacles which might affect the routing. Routing should be as direct and short as possible and practical. Refer to additional requirements listed in this Section 11 40 00, 1.5 Laws, Ordinances and Standards.

5. The minimum outdoor operating ambient temperature for design of units is -10 degrees Fahrenheit (-23 Centigrade), or lower as applicable for extreme low local conditions. The maximum indoor design temperature for operation of compressor units is 95 degrees Fahrenheit (35 Centigrade). The maximum outdoor ambient design temperature is to be determined by Contractor with prevailing conditions at mounting location of compressor, such as sun exposure, limited ventilation, high fences/walls, roof color and materials, local climatic extremes, etc.; but in no case is it to be less than 100 degrees Fahrenheit (37.8 Centigrade).

6. All refrigeration systems with remote condensing units and jobsite installed interconnecting refrigeration lines shall be tested to verify that there are no leaks. Leak testing shall be equal to or better than a professionally recognized 48-hour minimum, pressure holding test. If any leaks are detected, they shall be repaired, and another leak test preformed; until there are zero leaks detected. A written report of the type test preformed, and a step-by-step record of the procedure and readings shall be submitted to Contractor for inclusion in the Operations and Maintenance Data Manuals.

B. Components:

1. Coils for fabricated refrigerators to have vinyl plastic coatings, stainless-steel housings; and be installed in such a manner as to be replaceable.

2. Provide guards for all refrigeration/freezer fans, with maximum 1/2” 0.51 inch mesh.

3. Remote refrigeration system to be complete with thermostatic expansion valves at the evaporator.

4. Fabricated refrigerated compartments to be fitted with flush dial thermometers, with chrome plated bezels. Thermometers to be adjustable and shall be calibrated after installation. Thermometers to have an accuracy of

    a. + 2 degrees Fahrenheit (1 degree Centigrade).

5. Hardware:

    a. Refrigerator hardware for fabricated refrigerator compartments to be heavy-duty components.

    b. Self-closing hinges.

    c. Latches to be magnetic edge mount type, unless specified or detailed otherwise.

6. Doors and drawers for walk-in coolers/freezers, and reach-in refrigerated compartments, both fabricated and standard, to be fitted with cylinder locking type latches, and provided with master keys.

7. Provide and install shut-off valves and service port for each compressor, manifold, or header, and refrigerated fixture for multiplex and parallel installations to enable service personnel to service one (1) fixture while other fixture(s) connected to the same compressor can continue to operate. Isolation valves for individual fixtures based upon the sizes of the individual pieces.

8. Drawers for refrigerated fabricated compartments shall be complete with heated surround at closing perimeter.

C. Cold Pans: Ice pans, refrigerated pans and cabinets to be provided with breaker strips, where adjoining top or

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1. cabinet face materials, to prevent transfer of cold.

D. All mechanically cooled custom fabricated or standard buy-out refrigerators with openings in the top for cooling pans, and/or all built-in or drop-in mechanically cooled cold pans are to comply with and be listed by NSF Standard #7. Contractor is to verify that the specified unit complies with this requirement.

E. Ventilation of Refrigerated Equipment:

1. Adequate ventilation to be provided for custom fabricated equipment with integral refrigeration condensing units, both built-in and drop-in. If flow-through ventilation cannot be provided, provide flow direction partitions and an additional squirrel fan(s) capable of cooling the condensing unit.

2. If, in the opinion of the Contractor, additional room ventilation is required to ensure correct operating temperatures of standard buy-out, custom fabricated, or remote refrigeration condensing units, or compressor rack assemblies, they are to so state in a letter to the Architect, for evaluation and decision.

2.08 REMOTE REFRIGERATION SYSTEMS

A. All remote refrigeration systems shall be furnished and installed by one contractor, unless otherwise specified. Provide all components necessary for a complete and operable system. System to be fully capable of satisfying the refrigeration requirements for each fixture as defined by the manufacturer of each fixture.

B. Compressor and Condensing Units:

1. Units shall be factory assembles complete with hermetic units below 1 HP, semi-hermetic units 1 HP and larger, air or water-cooled condenser, depending upon building conditions and specifications, high-low pressure controls, suction accumulator on low temperature system, sight glass, liquid line dryer, suction and discharge service valves, liquid receiver, and electric control panel. The electrical control panel shall be furnished with magnetic motor starter, defrost timer clock, and contractors in accordance with "Refrigeration Schedule". Compressor capacities shall be based on Air Conditioning and Refrigeration Institute (A.R.I) Standards. The refrigerant for medium and low temperature fixtures to be CFC free and conform to the Montreal Protocol Agreement.

2. Capacities shall be based on the following:

a. Compartment temperature and evaporating temperature greater than 32oF (0oC) 18 to 20 hours operations.

b. Compartment temperature greater than 32oF (0oC) and evaporating temperature less than 32oF (0oC) 16 hours operation.

c. Compartment temperature and evaporating temperature less than 32oF (0oC) 18 hours operation.

d. Condensing units shall be mounted on a steel base to affect a quite operation. All rotating parts to be carefully balanced for minimum vibration and lubricated with forced or splash oil system. Receiver shall be sized for a complete pump down of the system and shall be shell type with fusible plug.

3. Compressor units to be provided with suction and discharge back setting type service valves and standard machinery finish.

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4. Motors shall be single speed, maximum 1750 R.P.M. compound wound ball bearings or sleeve bearing. Double squirrel cage motors with high starting torque set and low starting current to be used in a 3-phase application.

5. All machines to be equipped with quick acting type high-low pressure control switches having adjustable range and differential and high-pressure cut-out. Cut-out to be automatic reset type.

6. For air-cooled units the condenser shall be a standard manufactured part of the equipment. Condensing temperatures shall be based upon (100oF 38oC) ambient air.

7. Other components and accessories, such as suction filter and crank case heater shall be furnished when specified in the itemized specifications.

C. Motor Starters-Contactors:

1. All single-phase motors shall be provided with mounted and internally wired contactors, except where pre-wired units are furnished without contactors. Single phase compressors shall be provided with built-in thermal and electrical overload protection.

2. All three-phase motors shall be provided with magnetic type starters with quick trip overload elements matched for motor amperage except where overload protection is built into the compressor motor and the manufacturer supplies a contactor instead of a starter. Overload heater element shall be sized according to manufacturer's recommendations. Compressor motor starters shall be definite purpose starters with manual reset.

3. Starters shall be installed upon surfaces free from excessive vibrations.

4. Where starters are required for installation in a motor control center, make and model of control center shall be verified, and starters provided to match.

D. Oil Separator

1. Provide oil separators, except when Compressor Manufacturer requires otherwise, 34oF, (1oC) and below and install as near as possible to the compressor. The return line shall be connected to the top of the crankcase above the oil level. Where compressor does not have connection for oil return line from separator, connect to a tee in the suction line adjacent to the compressor. Exposed oil return line to be provided with shut-off valve of the packless stem type.

E. Compressor Rack Systems:

1. Racks shall be of the number of tiers and quantity to accommodate the number of condensing units specified for each rack assembly and allow for service clearance and ventilation. Review and confirm access into building or housing requirements to roof top locations.

2. Racks shall be fabricated with structural steel of size and quantity to properly support the equipment to be installed on the rack. In special applications where building access is limited, construct rack framing with Dexion of Unistrut material.

3. Racks shall be all welded construction with welds ground smooth.

4. After completion of fabrication the complete rack shall be cleaned, primed, and painted with top quality oil-base enamel.

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5. Each rack shall be equipped with a pre-wired receptacle.

6. Racks shall be pre-wired to a circuit breaker panel and pre-plumbed to a header (when specified water cooled) requiring a single point electrical and plumbing connection.

7. Racks shall have UL or equivalent approval.

8. Special Conditions: For custom built racks for individual condensing units provide Dixon Angle Iron.

F. Coils and Cooling Units:

1. Units shall be direct expansion type of size and design to effect required temperature, humidity and to suit application intent.

2. Units shall be hung from the ceiling with 1/2" 0.51 inch nylon rods with plated steel nuts and lock washers. Rods shall extend through ceiling to bracing adequate for the suspended weight. Bracing shall be furnished as required; penetrations shall be sealed and trimmed with escutcheon plates.

3. Units shall be installed tight to ceiling. All installations adjacent to walls shall be set out a minimum distance conforming to manufacturer's directions, to ensure proper air circulation and performance.

4. Units with fan or blower and motor shall have thermal overload protection and be wired as indicated in "Refrigeration Schedule".

5. Defrost cycle shall be based on the following:

   a. Coils for 32oF (0oC) and lower shall have an electric defrost controlled by a time clock mounted on the compressor rack or at evaporators locations inter-wired by Division 26 - Electrical.

   b. Coils for 33o (0.6oC) and 34oF (1oC) shall have an air defrost controlled by a time clock mounted on the compressor rack or at evaporators locations inter-wired by Division 26 - Electrical.

   c. Coils for temperature above 34oF (1oC) shall have an air defrost in the off cycle controlled by proper sizing of the coil and the compressor.

6. Location of coils shall be coordinated with shelving and floor sink locations.

7. All coils for fabricated refrigerators and/or freezers shall be installed for accessibility and replacement.

G. Penetration Sleeves and Plates:

1. Service line penetrations of insulation to accommodate electrical conduit, refrigerant and drain lines shall be limited to a minimum with service stubbed through insulation or locations predetermined by respective divisions.

2. Where service lines penetrate insulated walls, the opening shall be packed with caulking, before trimming with escutcheon plate.

3. Where service lines penetrate building walls outside of foodservice areas, the opening shall be packed with “Perma-Gum” and foam caulking.

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4. All exposed ends of sleeves, both inside and outside of compartments, are to be trimmed with 24-gauge stainless-steel escutcheon plates, furnished as blanks in which respective work divisions shall cut required line holes and install.

H. Refrigerant Piping:

1. Copper tubing for refrigerant piping shall conform to ASTM standard specifications, serial designation B-88. All piping shall be type "L" ACR hard copper or cleaned and sealed soft type "L" tubing, dry seal or equal as indicated. Forged or wrought copper fitting with sweat or soldered joints shall be used.

2. Tubing shall be cut only with a tube cutter and sized with a sizing tool.

3. Piping shall be exposed to view as required by the standard safety code for mechanical refrigeration.

4. The liquid suction lines form condensing units to coil shall be sized and run as shown on the “Refrigeration Schedule” and Refrigeration Drawings.

5. Piping run within cold storage rooms shall be finished with aluminum paint.

6. For exposed areas, accessible furred ceiling spaces and in walls or excavated trench type installations, hard copper tubing shall be used. Exposed tubing shall be run in a manner to preclude damage by activities in the area; or shall be protected by conduit, furnished, and installed as part of this contract. Conduit shall have water evacuated and both ends completely sealed.

7. For piping run in conduit through inaccessible areas, such as under slab on grade, continuous one-piece soft copper tubing shall be used with no joints. In lieu of large piping in conduit, especially vertical runs, random lines may be used; carefully fabricated and assembled to ensure equal pressure drop.

8. Ends of lines shall be capped to prevent contamination and opened only at time of final connection.

9. Suction lines shall be sized for a maximum pressure drop from evaporator to compressor 2 lbs. (0.9 kg.) for high and medium temperature systems, and of 1 lb. (0.45 kg.) for low temperature systems and shall allow gas velocities of not less than 750 FPM (3.8 M/sec.) in horizontal runs and 1500 FPM (97.6 M/sec.) in vertical risers. Liquid lines shall be sized for a maximum pressure drop of 3 lbs. (1.36 kg.) from receiver to evaporator.

10. Tubing runs shall be graded or pitched to prevent trapping of oil. Suction lines shall pitch 1/2"/10"-0" (13 mm/[2.78] yard minimum.

I. Joints and Connections:

1. Fittings shall be long radius wrought copper only as manufactured by Mueller Brass Company or equal.

2. Vertically run suction lines shall have one piece of manufactured oil "P" traps. Line to be sized for proper velocity for oil return to compressor(s).

3. 1/8" NPT by 1/4 fl. half union for all suction and discharge service valves with 1/4 fl. cap.

4. Reduction in piping size shall be made with a manufactured reducer coupling.

5. Flare nuts shall be short forged or frost-proof.

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6. All surfaces to be joined must be prepared and cleaned. When soldering stop or solenoid valves, wrap valves with moist fabric to absorb excessive heat. Stop valves shall be partly open. When soldering expansion valves or pressure regulating valves, remove power assembly, if necessary, to prevent damage by excessive heat.

7. Copper joints shall be made with Handy & Harmon "Sil-Fos" brazing alloy, "Phoson 15", "Silvaloy 15" or equal; melting point of 1185-1350oF; (640oC. - 732oC.) Silver content not less than 15%.

8. Copper to brass joints shall be made with Handy & Harmon "Easy Flo 45" brazing alloy "Silvaloy 45", "Mueller 122" or equal; melting point of 1125-1145oF, (607o-618oC.) silver content not less than 45%.

J. Hangers and Supports:

1. For all piping not run within conduit, provide adjustable hangers, anchors or straps as required. Hanger spacing shall not exceed 8'-0".

2. Insulated copper piping shall be provided with approved type sleeves at hanger points.

3. All insulated copper piping shall be isolated from supports by means of felt wrapping or with "Trisolater" by Semco or approved equal.

4. Vertical piping shall be supported at intervals with spring type hangers or a substantial pipe at case of the pipe. All horizontal pipe runs connected to vertical risers must be adequately supported.

5. For suspended conduit, support shall be by means of hanger permitting screw adjustments. Sufficient hangers shall be used to provide support, allow expansion, and limit vibration.

K. Piping Sleeves:

1. Coordinate sleeves provided by the General Contractor through walls which allow for fully insulated lines. Extend sleeves entirely through wall and dress each end with a chromium plated wall plate neatly fitted against the wall, securely fastened and sealed in place. All sleeves through wall shall be of standard weight steel pipe.

2. Piping lines and sleeves at wall or floor penetrations shall be caulked and made vermin-proof at all locations.

L. Piping Insulation:

1. Suction lines run in conduit shall be insulated according to ambient and humidity conditions to prevent condensation and freezing.

2. Refrigeration suction lines outside of refrigerated compartments, not run in conduit, shall be insulated back to compressors with Armstrong Armaflex AP foamed plastic insulation or as determined by code. Thickness of material shall suit service, ambient and humidity conditions, to prevent condensation, minimum thickness 1/2" 0.59 inch.).

3. Freezer Storage Room drain lines should not be extended through adjacent cooler compartments if at-all possible. All such lines shall be insulated with 1/2" [0.59] inch minimum thickness of Armstrong Armaflex AP foamed plastic insulation to prevent condensation. Carefully seal end of insulation tight against freezer wall surface.

4. Piping for cooling water services or refrigerant piping exposed to freezing ambient temperatures shall be insulated with 1/2" 0.59 inch minimum thickness of Armstrong Armaflex AP foamed plastic insulation. Paint exterior installation with Armaflex paint.

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5. Thickness of material shall suit service, ambient and humidity conditions to prevent condensation.

6. Joints shall be sealed with Armstrong 520 adhesive. Insulation shall be continuous through clamps. Provide additional insulation where suction lines must be run within 12" 11.97 inch or less of water or underground waste lines.

7. Exterior-run piping shall be insulated as per above and covered with stainless-steel channels secured to structure, sealed to be weather-proof.

M. Heat Interchangers:

1. All blower controls, unit coolers, plate type evaporators and other evaporators where specified, are to be provided with heat interchangers, with a capacity to match the condensing unit.

N. Temperature Control:

1. Temperature control of cold storage rooms shall be by line voltage thermostats operating liquid line solenoids.

2. Temperature control for remote normal temperature refrigerator shall be by low pressure switch setting.

3. Temperature in each cold storage room compartment shall be controlled by electric thermostat, Ranco No. 010-1408, located within compartment and sensing element positioned to avoid fan discharge air stream.

4. Contractor to coordinate any additional specified temperature control/monitoring/alarm system within this document set including assisting with coordination of home-run control wiring, wireless assembly coordination and HACCP requirements in terms of reporting.

O. Valves and Accessories:

1. All valves and controls shall be standard weight and suitable for service purpose intended, and subject to approval by the Designer.

2. Provide shut-off valves and service port for each refrigerated fixture for multiplex installations to enable service personnel to service one (1) fixture while other fixture(s) connected to the same compressor can continue to operate.

3. Each system shall include condensing unit with standard valving, refrigerant piping, refrigerant, evaporator(s), liquid and suction line isolation valves within 5'-0" 59.06 inch of evaporators, thermostatic expansion valve for evaporator, heat exchanger, filter-dryer, liquid line solenoids for Cold Storage Rooms and liquid indicator.

4. Vibration eliminators on compressor suction and discharge lines, size same as piping, as manufactured by Anaconda.

5. Refrigerant shut-off valves shall be as manufactured by Henry or Superior Valve Company. Valves shall be placed and in liquid line for each condensing unit and in each liquid line to each evaporator.

6. Expansion valves shall be Sporlan, or approved equal, furnished, and installed in the liquid line at the evaporator, unless provided with manufactured equipment. External equalizer expansion valves shall be provided for coils fitted with refrigerant distributor.

7. A Sporlan, or approved equal, drier shall be provided at the compressor. Up to 3HP shall be a Catch-All series; larger than 3HP shall be angle replaceable cartridge series or approved equal.

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8. Each liquid line sight glass shall be Sporlan "See All" moisture and liquid indicator and shall be full line size or approved equal.

9. Solenoid valves shall be Sporlan, or approved equal, line voltage, manual lift stem type, to operate at maximum of 2 lbs. (0.9kg.) pressure drop across the valve. Valves shall be full line size, using silver solder connection as applicable. A liquid line solenoid, normally closed, shall be used with temperature controller for each Cold Storage Room compartment coil on a system.

10. Include a suction line filter with access valve adjacent to compressor. Filter shall be a Superior "F" Series or equal.

11. EPR, CTR, and/or CDA valves shall be Alco, or Sporlan, or approved equal.

12. Suction accumulators shall be Refrigeration Research 3700 series or Virginia VA series or approved equal.

13. Discharge line mufflers shall be Refrigeration Research M-10 and M-15 or AC and RSS- 6300 series or approved equal.

14. Time clocks shall be Paragon or approved equal.

P. Drain Lines:

1. Type "L" copper coil drain lines extended to exterior of refrigerated compartments over floor sinks (drain) with "S" traps at termination ends.

2. Provide clean out "T" and cap at each change of direction in the lines. Provide individual drain lines for each coil unless otherwise specified. Drain lines shall be run tight to refrigeration compartment walls with minimum pitch of 2" per foot.

3. Drain lines inside low temperature compartments shall be equipped with drain- line heaters provided by and wired by electrical division. Freezer Storage Room drain lines should not be extended through adjacent cooler compartments if at all-possible. (Drain line in low temp compartment to be insulated with Armaflex ½” [0.51] inch – insulation and wall fastening by the foodservice equipment contractor).

4. Drain lines on the exterior of refrigerated compartment shall be painted with chrome tone paint and shall be trapped to disallow ambient air infiltration into refrigerated cavity.

Q. Refrigerant/Compressor Oil Reclaim:

1. For existing refrigeration systems which may be reused, abandoned or where site conditions warrant, the system(s) refrigerant, oil and/or other components shall be reclaimed and contained by certified personnel in conformance to Refrigerants and Hazardous Waste criterion as specified by the Environmental Protection Agency and/or Montreal Protocol Guidelines & Requirements.

2.09 MISCELLANEOUS MATERIALS AND FABRICATION:

A. Nameplates: Whenever possible, locate nameplates and labels on manufactured items, in accessible position, but not within customer's normal view. Do not apply name plates or labels on custom fabricated work, except as required for compliance with governing regulations, insurance requirements, or operator performance.

B. Manufactured Equipment Items: Furnish items as scheduled or herein specified. Verify dimensions, spaces, rough-in and service requirements, and electrical characteristics, before ordering. Provide trim, accessories and miscellaneous items for complete installation.

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C. Insert Pans:

1. General: Cut-outs, openings, drawers, or equipment specified or detailed to hold stainless-steel insert pans to be provided with a full complement of pans as follows:

    a. One (1) stainless-steel, 20-gauge 0.04 inch minimum, solid insert pan – in us pan size or gastronorm configuration as specified for each space, sized per plans, details, or specifications.

    b. Where pan sizes are not indicated in plans, details, or specifications, provide one full-size pan for each opening.

    c. Provide maximum depth pan to suit application and space.

2. Provide 18-gauge 0.05 inch NSF- approved removable stainless-steel adapter bars where applicable.

3. All cut-outs and openings, or equipment specified or detailed to hold stainless-steel insert pans, shall be provided with a hinged stainless-steel removable night cover.

D. Tray Slides: Before fabrication of counters with tray slides, verify:

1. Size and shape of tray with Owner/Operator prior to fabrication. Edge of tray should not overhang outer support/slider by more than 2" 1.97 inch. If edge of tray exceeds this dimension, notify Architect, in writing, for evaluation and adjustment, if necessary.

2. Configuration of corners, turns, and shape of tray slides for proper support and safe guidance of trays.

3. Tray slide to be capable of supporting 200 pounds per linear foot (298 kgs/meter), live load.

E. Self-leveling dispensers: Verify type, make dimensions and weight of ware with Owner/Operator; and submit to the dispenser manufacturer, for proper sizing and calibration of dispensers.

F. Carbon dioxide (CO2) equipment: Where equipment requires connection with compressed CO2 cylinder for operation, provide 2-cylinder manifold and control system (integral with equipment) with proper connectors for Department of Transportation (DOT) approved type cylinders, complete with cylinder safety devices, and supports. Applicable to projects with CO2 equipment included in Contractor’s specified equipment.

G. Reasonable quietness of operation of equipment is a requirement, and Contractor will be required to replace or repair any equipment producing out-of-the-ordinary intolerable noise. This also includes providing and installing bumpers and gaskets for doors and drawers on fabricated and standard manufactured items and sound insulation where feasible.

H. Gas pressure regulator: All gas fired equipment included with this Section is to be provided with a gas pressure regulating valve with a built-in vent limiting device sized per WC pressure rating of this project. Contractor is responsible for coordinating this requirement with their manufacturers and suppliers.

PART 3 – EXECUTION

3.01 SUPERVISION:

A. A competent supervisor, representing the Contractor, is to be present at-all times during progress of the Contractor's work.

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B. Contractor is responsible for coordinating with all applicable Design Team members, Key Ownership Stakeholders Assigned, General Contractor, other Contractors and/or Sub-Contractors and Trades involved in this Project and associated with any items or work provided under this Section; as required for the successful provision, installation, completion, and functioning of these items and/or work, and the Project in general. This is to include, but not be limited to, exchange of shop drawings, details, and manufacturer's information, supplying templates or actual components to be installed in or on items provided by other Sections, for coordination; and coordinating with and between their own internal staff, sub-contractors, trades, manufacturers, fabricators, and installers, for compliance with the Contract Documents.

C. Contractor responsible for obtaining any documents referenced in this Section and on any associated drawings, which contain information relative to the performance of this Contract; and disseminating and coordinating the pertinent information contained in them, with the appropriate sub-contractors, manufacturers, fabricators, and/or installers.

D. Contractor is to take every precaution against injuries to persons or damage to property.

E. Contractor is to store his apparatus, materials, supplies and equipment in an orderly fashion at the site of the work so it will not unduly interfere with the progress of his work or the work of any other contractors.

3.02 SITE EXAMINATION:

A. Verify site conditions under the provisions of the General Conditions, Supplementary Conditions, and applicable provisions of Division 1 Sections. Notify the Architect, in writing, of unsatisfactory conditions for proper installation of foodservice equipment.

B. Verify wall, column, door, window, and ceiling locations and dimensions. Fabrication and installation should not proceed until dimensions and conditions have been verified and coordinated with fabrication details.

C. Verify that wall reinforcement or backing has been provided and is correct for wall supported equipment. Coordinate placement dimensions with wall construction Section.

D. Verify that ventilation ducts are of the correct characteristics, and in the required locations.

E. Verify that utilities are available, of the correct characteristics, and in the required locations.

3.03 DELIVERY AND INSTALLATION:

A. Delivery:

1. The equipment shall be delivered and installed on schedule. Coordinate all work with the General Contractor and other divisions as required.

2. Deliver materials (except bulk materials) in manufacturer's containers, fully identified with manufacturer's name, trade name, type, class, grade, size, color, item number, area, etc.

3. Contractor is responsible for receiving and warehousing equipment and fixtures, until ready for installation. Store materials, equipment, and fixtures in sealed containers, where possible. Store off the ground and under cover, protected from damage.

4. Contractor to verify and coordinate conditions at the building site, particularly door and/or wall openings, and passages, to assure access for all equipment. Pieces too bulky for existing facilities are to be hoisted or otherwise handled with apparatus as required.

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5. Extra charges resulting from special handling or shipment to be paid by the Kitchen Equipment Contractor if insufficient time was allowed in placing factory orders to ensure normal shipment.

B. The work to be accomplished so as not to delay the project construction schedule, interfere, or conflict with the work being performed by other contractors. Work to be coordinated and integrated to prevent conflict of work necessitating changes to work already completed. Sequence installation and erection to ensure correct mechanical and electrical utility connections are achieved.

C. Verify all field dimensions before fabrication.

D. Install items in accordance with manufacturer's instructions.

E. Set each item of non-mobile and non-portable equipment securely in place, leveled and adjusted to correct height. Anchor to supporting substrate where indicated, and where required for sustained operation and use without shifting or dislocation. Conceal anchorages wherever possible. Adjust counter tops and other work surfaces to a level tolerance of 1/16” 0.06 inch (maximum offset, and plus or minus on dimension, and maximum variation in 24" (24.02 inch) run from level or indicated slope). Provide anchors, supports, bracing, clips, attachments, etc., as required to comply with the local seismic restraint requirements. The Guidelines for Seismic Restraint of Kitchen Equipment, as prepared for the Sheet Metal Industry Fund of Los Angeles and endorsed by S.M.A.C.N.A., is to be followed.

F. Complete field assembly joints in the work (joints which cannot be completed in the shop) by welding, bolting-and-gasketing, or similar methods as indicated and specified. Grind welds smooth and restore finish. Set or trim flush, except for "T" gaskets as indicated. Field joints shall not be visible to the untrained eye.

G. Provide closure plates and strips where required, with joints coordinated with units of equipment.

H. Provide sealants and gaskets all around equipment to wall, ceiling, floors, masonry pads, and adjoining units not portable and with enclosed bodies to make joints airtight, waterproof, vermin-proof, and sanitary for cleaning purposes. Space between all equipment to wall, ceiling, floors, masonry pads, and adjoining units not portable and with enclosed bodies to be completely sealed against entrance of food particles or vermin by means of trim strips, welding, soldering or mastic. Mastic to be General Electric Silicone Construction Sealant Series SE1200 or equal in appropriate color.

I. Joints up to 3/8” 0.37 inch wide, to be stuffed with backer rod, to shape sealant bead properly, at 1/4” (0.24 inch) depth.

J. At internal corner joints, apply sealant or gaskets to form a sanitary cove, of not less than 3/8” 0.37 inch radius.

K. Shape exposed surfaces of sealant slightly concave, with edges flush with faces of materials at joint.

L. Provide sealant filled or gasketed joints up to 3/8” 0.37 inch joint width. Wider than 3/8” (9.5 mm), provide matching metal closure strips, with sealant application each side of strips. Anchor gaskets mechanically, or with adhesives to prevent displacement.

M. Treat enclosed spaces, inaccessible after equipment installation, by covering horizontal surfaces with powdered borax at a rate of 4 ounces per square foot (1.2 kg/m2).

N. Insulate to prevent electrolysis between dissimilar metals.

O. Cut and drill components for service receptacles, fixtures, piping, conduit, fittings, etc. as required. Grind and polish penetrations to safe tolerance. Work to include welded sleeves, collars, ferrules, or escutcheons.

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P. Verify and coordinate the mounting heights of all wall shelves and equipment, with equipment located below them, for proper clearances.

Q. Walk-In Refrigerator/Freezers:

  1. The cold storage rooms shall be delivered and installed on schedule by factory supervised and approved installers. Coordinate the work with the General Contractor and other trades as necessary.

  2. Provide the necessary job site coordination with the various trades to ensure job site conditions will meet the requirements of the cold storage rooms.

  3. During curing and cleaning of the wearing floors inside the cold storage rooms, the cold storage room doors shall be left open, and the rooms well ventilated to prevent damage to the interior. “Keep Out” signs to be posted at each open door.

  4. After the installation of the cold storage rooms and prior to the installation of the wearing floor has cured, the cold storage room doors are to be closed and locked.

R. Coordinate with the Plumbing and Electrical Divisions and provide penetrations in foodservice equipment for plumbing and electrical service to and through the fixtures, as required. This includes welded sleeves, collars, ferrules, or escutcheons. These services are to be located so that they do not interfere with intended use and/or servicing of the fixture.

S. All equipment provided by this Section, that requires light bulb(s), are to be provided with heavy-duty, energy efficient, extra long-life bulbs with a minimum life expectancy of 5000 hours, and as required by the local Jurisdictions. All light bulbs in and/or above foodservice equipment and/or areas are to be coated or provided with shields in compliance with local health codes.

T. All equipment provided by this Section, shall include any-and-all parts, components, options, accessories, etc. necessary to provide a completely functional item for its intended use under normal conditions; and if appropriate, after the final utility connections are completed by other Divisions. This shall generally apply to equipment such as soda systems, beer systems, and remote refrigeration systems, any type of remote system or equipment, or ice machines; but shall also apply to any equipment provided by this Section.

3.04 COUNTERTOP INSTALLATION:

A. General: Install countertops, except for vanities, over plywood sub-tops with a full spread of water-cleanable epoxy adhesive.

B. Install components plumb, level, and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.

  1. Tops:

    a. Flat and true to within 1/8" 0.12 inch of a flat surface over a 10' length.

    b. Allow a minimum of 1/16" (1.6mm) to a maximum of 1/8" (3mm) clearance between surface and each wall.

C. Fit countertops around projections and to adjacent construction. Smooth and clean field cut edges. Ensure that trim will completely cover cut edges.

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D. Bond seams with stone seam adhesive and draw tight as countertops are set. Mask areas of countertops adjacent to seams to prevent adhesive smears. Use clamps to ensure countertop units are properly aligned and seams are minimum width.

E. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts while cutting to prevent damage.

F. Install backsplash and end splash by adhering to wall with water-cleanable epoxy adhesive.

G. Leave 1/16-inch (1.6mm) gap between countertop and splash for filling with sealant. Use temporary shims to ensure uniform spacing.

H. Heat isolation for hot food wells, heated deck, and other drop-in heated equipment.

  1. Three (3) layers of Nomex insulation held in place with aluminum tape.

  2. 16-gauge stainless-steel collar.

  3. Heat resistant, food safe silicone caulking.

  4. Provide a 1/8” 0.12 inch minimum space between the heat source and the insulation.

I. Apply sealant to seams and to gap between countertops and splashes; comply with Section 07 92 00 (07920) "Joint Sealants."

J. Countertop Adjusting and Cleaning:

  1. Remove and replace or repair stonework of the following description:

    a. Broken, chipped, stained, or otherwise damaged stones. Broken, chipped, stained, or otherwise damaged stone may be repaired, providing the methods and results are acceptable to Owner’s Representative.

    b. Defective joints.

    c. Stones and joints not matching approved samples.

    d. Stonework not complying with other requirements indicated.

  2. Replace in manner that results in stonework matching approved samples and field- constructed mock-ups, complying with other requirements, and showing no evidence of replacement.

  3. Clean stone countertops not less than six days after completion of work, using clean water and stiff and soft rags. Do not use wire brushes, acid-type cleaning agents, cleaning compounds with caustic or harsh fillers, or other materials or methods that could damage the stone.

K. Countertop Sealer Application:

  1. All surfaces must be clean and free from all loose grit and debris, satins, dirt, and wax coatings. Surfaces shall remain dry for a minimum of 24 hours before the application of sealer and remain dry for 24 hours after the application of sealer.

  2. Floor surface temperature must be above 50° F. and below 90° F.

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3. Test on a small area before using to determine if the product is acceptable with type of stone.
4. Two (2) uniform coatings of sealer shall be applied before or after installation of stone materials. If prior to installation, adequate documentation shall be included with the material confirming it has been sealed. If after installation, install in strict accordance with Sealer manufacturer's recommendations.

3.05 PROTECTION OF WORK:

A. Use all means reasonable to protect the materials of this Section against theft and damage before, during, and after installation; and to protect the associated work and materials of the other trades.

B. Fabricated fixtures: cardboard, fiberboard or plywood taped to tops and exposed body panels/components.

C. Manufactured Equipment: cardboard, fiberboard or plywood taped as required by equipment shape and installation-access requirements.

D. Prohibited use of equipment includes tool and materials storage, workbench, scaffolding and stacking of construction

E. Damaged Equipment: immediately document and submit to Owner with Contractor's recommendation of action for repair or replacement and its impact on the Project Schedule and Contract Amount.

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F. Pre-fabricated walk-in coolers/freezers are not to be used as general storage; and should be locked before leaving the site daily. Damage and theft resulting from failure to secure units will be repaired or replaced at Contractor's expense.

3.06 ADJUSTING:

A. Equipment to be tested for leaks, poor connections, inadequate or faulty performance.

1. Thermostatically controlled equipment and equipment with automatic features shall be operated for 14 days to prove controls are functioning as intended. Walk-in refrigerators and freezers shall be turned on and ran for a minimum of fourteen days.

B. Refrigeration equipment to run a minimum of three days duration before acceptance.

C. Lubricate and adjust drawer slides, hinges, casters.

D. Adjust pressure regulating valves, timed-delay relays, thermostatic controls, temperature sensors, exhaust hood grilles, etc.

E. Clean or replace faucet aerators, line strainers.

F. Repair, adjust or replace equipment, which is found to be defective in its operation, including units which are below capacity or operating with excessive noise or vibration.

3.07 CLEANING, RESTORING AND REPAIRING:

A. After completion of installation, and completion of other major work in foodservice areas, remove protective coverings and clean foodservice equipment, internally and externally. Repair all damage as a result-of this installation.

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B. Restore exposed and semi-exposed finishes removing abrasions and other damages; polish exposed metal surfaces and touch-up painted surfaces. Replace work, which cannot be successfully restored.

C. Polish glass, plastic, hardware and accessories, fixtures, and fittings.

D. Wash and clean equipment and leave in a condition ready for the Owner to sanitize and use.

3.08 TESTING:

A. Delay the start-up of equipment until service lines have been tested, balanced, and adjusted for pressure, voltage, and similar considerations; and until water and steam lines have been cleaned and treated for sanitation.

B. Contractor, with assistance from a factory-certified representative from the exhaust hood manufacturer, shall conduct an exhaust hood performance test for each exhaust hood in the Contractor’s scope of work at the conclusion-of the project when all hoods and related cooking equipment are in operation. Contractor shall have manufacturer's factory authorized representative test and measure exhaust airflow rates, dampers, switches, demand control ventilation, and sequence of operation, with all appliances at operating temperatures. Contractor shall furnish a written report within ten (10) working days of substantial completion and acceptance of the project by the Owner, indicating the design requirements for each hood and the actual operating parameters as tested and measured.

C. Refrigeration Piping Testing:

1. Each system shall be pressure tested for leaks. Tests for to be on the high side and on the low side. All valves shall be fully open during last test.

2. Tests are to be accomplished as follows:

   a. Charge the systems with refrigerant through the port of liquid shut-off valves of the receivers to a pressure of 10 to 20 psi

   b. Add dry nitrogen, the supply of which shall be equipped with a pressure regulating valve to provide the specified pressure.

   c. Carefully test all joints for leaks using either a Halide torch or an electronic Halogen leak detector.

3. Precautions to be taken to disconnect the low-pressure controls for protection of the bellows during testing.

4. Refrigeration System Evacuation:

   a. Evacuation shall be with a vacuum pump with an indicating gauge registering pressure in microns. Pump shall be connected to the system with a 5/8” 0.59 inch O.D. line or larger.

   b. Evacuate both high and low sides to 500 microns. Break the vacuum with refrigerant to 0 psi evacuate high and low sides to 100 microns; and then break vacuum to 0 psi. with the refrigerant to be used in the system.

3.09 START-UP AND INSTRUCTIONS:

A. Make-arrangements for demonstration of foodservice equipment operation and maintenance, in advance with the Owner/Operator.

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B. Demonstrate foodservice equipment, to familiarize the Owner and the Operator on operation and maintenance procedures, including periodic preventative maintenance measures required. Include an explanation of service requirements and simple on-site service procedures, as well as information concerning the name, address, and telephone number of qualified local source of service. The individual(s) performing the demonstration are to be knowledgeable of operating and service aspects of the equipment.

C. Provide a written report of the demonstration, to the Owner, outlining the equipment demonstrated and malfunctions or deficiencies noted. Identify individuals present at demonstration.

D. Final Cleaning: After testing and start-up, clean the foodservice equipment, and leave in a condition ready for the Owner to sanitize and use.

E. All keys for all locks provided with equipment provided under this Section, are to be gathered up, individually tagged with the equipment they belong to, put into a single box, and handed over to the Owner's authorized representative. A list of the keys and their associated equipment Item numbers is to be provided with the O&M Manuals, along with a copy of the list, signed by the Owner's representative, acknowledging receipt of the keys.

3.10 CLEAR AWAY

A. Throughout the progress of their work, Contractor is to keep the working area free from debris and remove rubbish from premises resulting from work being done by them. At the completion of their work, Contractor is to leave the premises in a clean and finished condition.

3.11 EXISTING EQUIPMENT TO BE USED AFTER COMPLETION OF CONSTRUCTION: (Applicable only to projects with existing equipment to be used after completion of construction.)

A. Within ten working days of award of contract Contractor is responsible for identifying and recording by means of a spreadsheet with accompanying digital photography and heat-resistant tagging of all existing to remain or to be replaced in previous location or relocated equipment that will be used after completion of construction utilizing item numbers from received contract documents. If such equipment has been removed and relocated, contractor is still responsible for this identification and logging process. Contractor shall verify and coordinate specific equipment with these plans and specifications and verify same with the Owner, Architect and Foodservice Design Consultant. This includes items existing to remain or to be relocated, or to be removed, stored or refurbished and set back in place and used after completion of construction - and the associated work necessary - at the time of the signing of the Contract for the Foodservice Equipment section - and does not include any items added, changed, or damaged (by other than the Contractor) after the signing; except to the extent of work that would have been included with the original existing items. Contractor shall then remove such equipment to the agreed-upon storage location previously assigned and verified by the GC and Owner. Existing equipment to be re-placed in previous location or re-located and used after completion of construction shall be identified in both storage during construction location and intended final placement location on heat-resistant tag secured to unit by Contractor. Contractor shall also define critical clearances and utilities within this time frame including the testing of actual electrical, plumbing, mechanical values of any equipment without service or factory-applied serial numbered plates. When equipment is removed and re-located or placed back in original location, contractor is responsible for ensuring manufacturer-recommended clearances to walls and adjacent equipment, structural support needs, pour paths, correct MEP rough-in connection values and any applicable fire suppression and exhaust system protection.

B. Remove from existing locations, clean, and renovate/refurbish as noted below, store and re-install existing equipment to be used after completion of construction, in the new locations as shown on plans ready for utility connections, as appropriate. Existing equipment to be used after completion of construction, with utility connections, to be removed after disconnection as noted in paragraph J, below.

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C. Perform work in cooperation with Owner, so that normal functioning of services is minimally interrupted. Coordinate all removal and replacement scheduling with the Construction Scheduling Manager (or similar responsible party), to ensure adequate time to complete the necessary work. If adequate time to properly relocate and reset the existing items and complete all cleaning and repair will not be available, due to continuing use of the existing items, or the allotted construction time; contact the Owner and obtain a written agreement as to what work is to be deleted or delayed, such as cleaning, repainting, or repairs.

D. All surface dirt, grease, oil, food residues, ingredients, extraneous matter, and other soiling materials is to be removed in order-to obtain minimum acceptable sanitation and foodservice standards. Thorough final rinsing of all cleaning agents to be at a minimum temperature of 180 degrees Fahrenheit (82.2 Centigrade) where possible without damage to equipment or controls. Otherwise, use USDA approved cleaning agents and/or cleaning agents, which are acceptable for use with commercial foodservice equipment. This includes all exterior surfaces of the existing equipment to be reused, and interior work surfaces such as inside oven compartments, fryer vats, ware washers, etc.

E. All painted items with major paint blemishes to be sanded, primed, and repainted to match the original color and type paint. Primer and paint to be of a type approved for use with commercial foodservice equipment. All controls, lights, view windows, non-painted parts, etc. to be protected as recommended by the Manufacturer. Minor paint blemishes can be touched-up in a professional manner. This work is to be included in the Bid Submittal, as a separate line cost, at the end of the Bid Submittal.

F. Replace and/or repair minor broken parts to produce a cleanable and functional item. Repairs and/or parts are for minor required items such as control knobs, handles, pilot lamps, belts, oil changes, minor adjustments, and recalibrations, etc. This does not include addition or replacement of any wearing components such as cutters, blades, etc.; or any accessory components such as mixer beaters, hooks, whips, etc., except for presently existing accessory components which are broken and non-functional, or as noted in the itemized specifications.

G. Where required by local code authorities, provide additional parts and/or modifications to comply with code requirements in place at the time of this project.

H. Where required, remove existing equipment to be used after completion of construction from the premises for repairs, alterations, and cleaning.

I. Refer to schedule on the Foodservice Drawings and to the Itemized Specifications at the end of this section for existing equipment to be used after completion of construction.

J. Disconnection of existing equipment to be relocated and/or existing equipment to be used in its found place after completion of construction and disconnection and removal/disposal of existing equipment that will not be used after completion of construction, is work as designated by the Architect, and not included in this Section. (See page 11 40 00-2, 1.3.F.)

K. Cost estimates for any repairs and/or parts more than the minor items stated above, or repairs requiring significant disassembling of the item, should be submitted to the Owner for consideration and approval as an addition to the Contract. In general, this would be considered as any repairs and/or parts amounting to an estimate up to 10% of the cost of a comparable new item. Any item, which would require repairs and/or parts amounting to an estimate up to 25% or more, should include an alternate cost for supplying a comparable new item as a consideration by the Owner, and an addition to the Contract. Estimates are for each existing equipment to be used after completion of construction only that require repairs and/or parts, and only to the extent that work is required; and should not be considered as a lump-sum estimate on all existing equipment to be used after completion of construction combined, or as an allowance for adding accessories or options.

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3.12 ITEMIZED SPECIFICATIONS:

A. Refer to the following pages for specific information on each item included in this Section.

1. ITEM #A1 DRY STORAGE SHELVING
2. Quantity: Three (3) Assemblies
3. Manufacturer: Metro
4. Model: MaxQ
5. Fabricate/Furnish and set in place per plans, details and the following:
    - a. Metro length, width and configuration per plan and verified room dimensions.
    - b. MetroMax (Q) open grid mat shelving.
    - c. 74" High with four tiers.
    - d. Each section shall be free-standing with four legs.
    - e. Provide seismic flanged feet, quantity four (4).
6. ITEM #A2 HAND SINK
7. Quantity: One (1) Manufacturer: Eagle Group Model: HSAP-14-ADA-FW
8. Fabricate/Furnish and set in place per plans, details and the following:
    - a. Hand Sink, wall mount, 14" wide x 16" front-to-back x 5" deep bowl, 16/304 stainless steel construction, splash mount gooseneck faucet with wrist handles & mixer valve, marine edge on front & sides, 1/2" NPS water inlet, chrome-plated P- trap, wrist handles, soap dispenser, basket drain, skirt assembly & paper towel dispenser, physically challenged, NSF.
    - b. Left & right side splashes.
9. ITEM #A3 REACH-IN REFRIGERATOR
10. Quantity: One (1)
11. Manufacturer: Traulsen
12. Model: G20000
13. Fabricate/Furnish and set in place per plans, details and the following:
    - a. Dealer's Choice Refrigerator, Reach-in, two-section, 45.89 cu. ft., self-contained refrigeration, (4) half-height solid doors (hinged left/right), (3) epoxy coated shelves per section (factory installed), stainless steel front, anodized aluminum sides & interior, microprocessor control with LED display, LED interior lights, 6" high casters, non-flammable R-450A refrigerant, cETLus, NSF.
    - b. NEMA 5-15P, standard.
    - c. Casters, 4-5/8" high, set of 4, in lieu of standard casters.

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14. ITEM #A4 AIR CURTAIN

15. Quantity: Two (2) Manufacturer: Mars Air Systems Model: NH236-1UA-TS

16. Fabricate/Furnish and set in place per plans, details and the following:

    a. High Velocity Series 2 Air Curtain, for 36" wide door, unheated, galvanized steel cabinet, titanium silver powder coat finish, ETL.

    b. Mechanical switches.

    c. Door Limit Switch, indoor, plunger/roller type, remote mounted, NEMA 2.

    d. Disconnect switches, remote mounted by others.

    e. Disconnect Switch, fused, NEMA 3R (remote mounted by others).

17. ITEM #A5 STAINLESS STEEL WALL GUARD

18. Quantity: Three (3) Manufacturer: Fabricated Model: Stainless Steel

19. Furnish and set in place per manufacturer's standard specifications.

    a. Stainless Steel Wall Guard per FSD1-59. These standard details are to be utilized as basic minimum guidelines only. Refer to these written specifications and any fabrication details included in the contract drawings for precise and complete fabrication instructions.

    b. Refer to QF500 and QF501 sheet series for further information.

20. ITEM #A6 MOBILE HEATED CABINET

21. Quantity: One (1)

22. Manufacturer: Cres Cor

23. Model: H137SUA12D

24. Fabricate/Furnish and set in place per plans, details and the following:

    a. Cabinet, Mobile Heated, insulated, top-mount heater assembly, recessed push/pull handles, magnetic latch, (12) sets chrome plated wire universal angle slides for 12" x 20" thru 18" x 26" pans on 4-1/2" centers, adjustable 1-1/2" centers, reversible dutch doors, (4) heavy duty 5" swivel casters (2) braked, anti-microbial latches, stainless steel construction, NSF, cCSAus, ENERGY STAR®.

    b. 10 ft power cord, NEMA 5-15P, standard.

    c. Right-hand door swing (top & bottom doors), standard.

    d. Cord Wrap for insulated cabinet, standard, quantity one (1).

    e. Corner Bumpers, add 2" to OA dimensions, non-marking, gray.

    f. Menu Card Holder, quantity one (1).

25. ITEM #A7 WORK TABLE

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26. Quantity: One (1) Manufacturer: Eagle Group Model: T2484STE

27. Fabricate/Furnish and set in place per plans, details and the following:

    a. Spec-Master® Series Work Table, 84"W x 24"D, 14/300 series stainless steel top, rolled edges on front & back, Uni- Lok® gusset system, stainless steel crossrails on side & rear, (4) stainless steel legs & adjustable bullet feet, NSF.

    b. Undershelf, sized per floor plan.

    c. Special height legs for 34” high top.

    d. Flanged Feet, stainless steel, each.

28. ITEM #A8 DROP CORD, QTY TWO (2), BY EC ITEM #A9 SPARE NO.

29. ITEM #A10 CHEMICAL DISPENSING SYSTEM, QTY ONE (1), BY PURVEYOR

30. ITEM #A11 SHELVING, WALL MOUNTED

31. Quantity: One (1) Manufacturer: Eagle Group Model: WS1224-14/3

32. Furnish and set in place per manufacturer's standard specifications.

    a. 1. Shelf, wall-mounted, 24"W x 12"D, rolled frontedge, 1-1/2"H up-turn on sides & rear, includes stainless steel mounting brackets stud welded to shelf, 14/304 stainless steel construction, NSF.

33. ITEM #A12 THREE (3) COMPARTMENT SINK

34. Quantity: One (1) Manufacturer: Eagle Group Model: FFN2754-3-24-14/3

35. Fabricate/Furnish and set in place per plans, details and the following:

    a. Spec-Master® Flush Front Sink, three compartment, 105-1/4"W x 30-1/2"D x 44-5/8"H overall size, 18"W x 27" front-to- back x 14" deep bowls, 24" drainboards on left & right, 10"H backsplash, (2) sets of splash mount faucet holes with 8" centers, includes (3) 3-1/2" basket drains, 14/304 stainless steel construction, stainless steel legs, front crossrails, & adjustable bullet feet, NSF.

    b. Turn down back of splash per table with Z clip.

    c. Enclosed backsplash per linear foot.

    d. Stainless steel undershelf under drainboards, up to 24" with short legs.

    e. Stainless steel apron, to cover sink bowls, 2 or 3 compartment.

    f. Twist Handle Drain, 1-1/2 or 2" NPS connection.

    g. Twist bracket, per drain.

    h. Provide seismic flanged feet, stainless steel, each.

36. #A12.1 PRE-RINSE ASSEMBLY W/ ADD ON FAUCET

37. Quantity: One (1) Manufacturer: T&S Brass Model: B-0133-12-CR-B

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38. Fabricate/Furnish and set in place per plans, details and the following:

    a. EasyInstall Pre-Rinse Unit, spring action gooseneck, 8" wall mount, spray valve (B-0107), 12" add-on faucet, wall bracket, quarter-turn Cerama cartridges, low lead.

    b. Installation Kit, (2) 1/2" NPT nipples, lock nuts & washers, (2) short "Ell" 1/2" NPT female x male.

39. ITEM #A12.2 POT FILLER

40. Quantity: One (1) Manufacturer: T&S Brass Model: B-0292

41. Furnish and set in place per manufacturer's standard specifications.

    a. 1. Big-Flo Pot & Kettle Sink Faucet, wall mount, 8" centers, 3/4" IPS model LL street EL inlets with locknuts, 24" double- jointed swing nozzle, 175°F four arm handles, 1-1/4" dia. holes required in backsplash.

42. ITEM #A13 TRASH RECEPTACLE, 20 GALLON, QTY ONE (1), BY OWNER ITEM #A14 SHELVING, WALL MOUNTED

43. Quantity: One (1) Manufacturer: Eagle Group Model: WS1224-14/3

44. Furnish and set in place per manufacturer's standard specifications.

    a. 1. Shelf, wall-mounted, 24"W x 12"D, rolled frontedge, 1-1/2"H up-turn on sides & rear, includes stainless steel mounting brackets stud welded to shelf, 14/304 stainless steel construction, NSF.

45. ITEM #A15 LOCKER, QUADRUPLE, QTY ONE (1), BY ARCH/ ID ITEM #A16 POS SYSTEM, QTY TWO (2), BY OWNER

46. ITEM #A17 STAINLESS STEEL SERVING COUNTER

47. Quantity: One (1) Manufacturer: Fabricated Model: Stainless Steel

48. Fabricate/Furnish and set in place per plans, details and the following:

    a. Work counter, see plans for width, length, height, and configuration.

    b. Similar to standard details; FSD5-1, FSD1-7, FSD1-10, and FSD1-23. These standard details are to be utilized as basic minimum guidelines only. Refer to these written specifications and any fabrication details included in the contract drawings for precise and complete fabrication instructions.

    c. Straight turn-down edge profile similar to detail FSD1-1A.

    d. Backsplash at wall and adjacent equipment, similar to FSD1-5A.

    e. Leg base in lieu of cabinet base. Provide undershelf as shown on plans, similar to FSD1-8.

    f. Extend countertop out thru window, as shown on plans.

    g. Refer to QF500 and QF501 sheet series for further information.

49. ITEM #A18 MILK COOLER

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50. Quantity: One (1) Manufacturer: Beverage Air Model: SMF49HC-1-W

51. Fabricate/Furnish and set in place per plans, details and the following:

    a. School Milk Cooler, forced air, 49"W x 33-5/8"D x 47"H, 19.66 cu. ft., single access, exterior digital thermometer, (12) 13" x 13" x 11" or (8) 19" x 13" x 11" case capacity, self-latching doors/lids with safety bumpers, cylinder lock, wire floor racks, floor drain, electronic control, auto defrost, galvanized steel interior with stainless steel floor, white exterior, R290 Hydrocarbon refrigerant, cULus, UL EPH Classified, UL-Sanitation, Made in USA.

    b. Self-Contained refrigeration.

    c. Cord with NEMA 5-15P.

    d. Corner bumpers, each (field installation required).

    e. 6" Heavy duty casters, (2) with brakes, standard.

52. ITEM #A19 SPARE NO.

53. ITEM #A20 SPARE NO.

54. ITEM #A21 MOP SINK

55. Quantity: One (1) Manufacturer: Advance Tabco Model: 9-OP-28

56. Furnish and set in place per manufacturer's standard specifications.

    a. 1. Mop Sink, floor mounted, 33"W x 25"D x 10"H (overall), 28"W x 20" front-to-back x 6" deep (bowl size), free flow drain with 2" IPS outlet, stainless steel construction, NSF.

57. ITEM #A22 SERVICE FAUCET

58. Quantity: One (1) Manufacturer: T&S Brass Model: B-0655-BSTP

59. Furnish and set in place per manufacturer's standard specifications.

    a. 1. Service Sink Faucet, 8" centers-adjustable from 7-3/4" to 8-1/4", 5-1/8" clearance wall to center line of faucet, 11-5/8" from wall to center of outlet, polished chrome-plated finish, with built in screwdriver stops.

60. ITEM #A23 MOP HOLDER

61. Quantity: One (1) Manufacturer: Advance Tabco Model: K-242

62. Furnish and set in place per manufacturer's standard specifications.

63. 1. Mop Hanger, 23", accommodates (3).

64. ITEM #A24 WALL FLASHING

65. Quantity: One (1) Manufacturer: Fabricated Model: Stainless Steel

66. Fabricate/Furnish and set in place per plans, details and the following:

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   a. Similar to standard detail FSD1-39. This standard detail is to be utilized as a basic minimum guideline only. Refer to these written specifications and any fabrication details included in the contract drawings for precise and complete fabrication instructions.

   b. Cover wall behind the mop sink from the finished floor to the bottom of the ceiling grid, the length of the equipment.

   c. Cover adjacent wall at end(s) of floor sink from the finished floor to the bottom of the ceiling grid, the depth of the sink.

   d. Refer to QF500 and QF501 sheet series for further information.

67. ITEM #A25 DETERGENT SHELVING

68. Quantity: One (1)

69. Manufacturer: Metro

70. Model: MaxQ

71. Fabricate/Furnish and set in place per plans, details and the following:

   a. Metro length, width and configuration per plan and verified room dimensions.

   b. MetroMax (Q) open grid mat shelving.

   c. 74" High with four tiers.

   d. Each section to have two (2) #5MPpolyurethane swivel casters and two (2) #5MPB polyurethane casters with brakes.

72. ITEM #A26 TRASH RECEPTACLE, 7 GALLON, QTY ONE (1), BY OWNER

END OF SECTION

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SECTION 21 1300

FIRE SUPRESSION SPRINKLER SYSTEM

PART 1 GENERAL

1.01 REFERENCES

- A. AMERICAN IRON AND STEEL INSTITUTE (AISI)
  - 1. AISC/AISI 121 (2007) Standard Definitions for Use in the Design of Steel Structures
- B. AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
  - 1. ASME A112.18.1 (2018) Plumbing Supply Fittings
  - 2. ASME B1.20.1 (2013) Pipe Threads, General Purpose (Inch)
  - 3. ASME/ANSI B16.1 (2020) Gray Iron Pipe Flanges and Flanged Fittings Classes 25, 125, and 250
  - 4. ASME/ANSI B16.3 (2016) Malleable Iron Threaded Fittings, Classes 150 and 300
  - 5. ASME/ANSI B16.4 (2016) Standard for Gray Iron Threaded Fittings; Classes 125 and 250
- C. AMERICAN WATER WORKS ASSOCIATION (AWWA)
  - 1. AWWA C111/A21.11 (2017) Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
  - 2. AWWA C151/A21.51 (2017) Ductile-Iron Pipe, Centrifugally Cast
  - 3. AWWA C900 (2016) Polyvinyl Chloride (PVC) Pressure Pipe, and Fabricated Fittings, 4-inch Through 60-inch
- D. ASTM INTERNATIONAL (ASTM)
  - 1. ASTM A47/A47M (1999) Standard Specification for Ferritic Malleable Iron Castings
  - 2. ASTM A53/A53M (2020) Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc- Coated, Welded and Seamless
  - 3. ASTM A135/A135M (2009; R2014) Standard Specification for Electric-Resistance-Welded Steel Pipe
  - 4. ASTM A234/A234M (2019) Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service
  - 5. ASTM A536 (1984) Standard Specification for Ductile Iron Castings
  - 6. ASTM D1784 (2020) Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds
- E. FM GLOBAL (FM)
  - 1. FM APP GUIDE (updated on-line) Approval Guide http://www.approvalguide.com/
- F. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
  - 1. NFPA 13 (2016) Standard for the Installation of Sprinkler Systems

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2. NFPA 14 (2016) Standard for the Installation of Standpipes and Hose Systems

3. NFPA 24 (2016) Standard for the Installation of Private Fire Service Mains and Their Appurtenances

4. NFPA 1963 (2019) Standard for Fire Hose Connections

G. UNDERWRITERS LABORATORIES (UL)

1.02 ADMINISTRATIVE REQUIREMENTS

A. Conduct a survey of the work area. Commencement of work constitutes acceptance of existing conditions.

B. Convene one week before starting work of this section for preinstallation meeting.

1.03 SUBMITTALS

A. Submit the following in accordance with DIVISION 01 – GENERAL REQUIREMENTS.

1. Shop Drawings

a. Shop drawings prepared in accordance with NFPA 13, including hydraulic calculations that are approved by the Authority Having Jurisdiction. Drawings shall have the approval of a Professional Engineer registered in the state in which the project is located. Drawings to consist of the following, refer to NFPA 13 “Plans and Calculations” for a comprehensive list of items to be included:

1) Piping plan view and/or Reflected Ceiling Plan (RCP) drawing(s) indicating relationship of all other trades and approved sprinkler head locations.

2) Details and sections to clearly identify design intent.

3) Plans shall include: Seismic zones of influence, hydraulic remote areas, elevations of pipe, attachment locations and type, zones and associated coverage areas, volume of dry system(s) (if applicable), locations of seismic separation and expansion joints, hose cabinet locations, drain locations.

2. Product Data

a. Provide data on piping, valves, sprinklers, hangers/supports, hose cabinets, notification devices, specialties and accessories. Product data shall include manufacturers catalog information with performance ratings, rough-in details, finish, weights, and installation requirements.

1) Each product shall be referred to on submittals, drawings, and other documentation, by the identification or model number as specifically published in the appropriate agency listing or approval.

3. Design Data

a. Provide detailed hydraulic calculations that clearly demonstrate that the water supply will meet the demand of the sprinkler system and hose streams. Calculations shall accompany design drawings and shall be based on a water flow test conducted at the site within six (6) months of the submittal of plans for approval. Flow test information and associated nodes shall be documented on shop drawings and include a site plan.

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b. Provide complete seismic calculations that clearly reflect seismic restraint with supporting site specific force factor and attachment details used, relative to an associated zone of influence.

4. Test Reports

a. Contractor’s Material & Test Certificate Reports in accordance with NFPA for above ground piping, underground piping, pressure, system operation, air, valve and drain tests.

1.04 QUALITY ASSURANCE

A. Fire protection system materials and components shall be Underwriter’s Laboratories listed and labeled, or Factory Mutual approved.

B. Company specializing in performing the work of this section shall have a minimum of five years experience and approved by manufacturer.

C. Manufacturing Company shall be one specializing in manufacturing the products specified with a minimum three years documented experience.

1.05 COORDINATION

A. The Contractor shall coordinate and reflect routing and location of equipment, devices, and materials with other disciplines, where not already indicated, on the design documents. Indicate required space for routine maintenance and inspection, including location and sizes of access doors.

PART 2 PRODUCTS

2.01 SYSTEM DESCRIPTION

A. All fire protection system materials and equipment shall be Underwriters Laboratories (UL) listed or the Factory Mutual (FM) approved for its intended use.

2.02 EQUIPMENT

A. Aboveground Piping Materials

1. BCS - Black Carbon Steel

a. All piping 2-inch and smaller: Schedule 40, black-carbon steel conforming to ASTM A53, or ASTM A135, threaded or roll grooved ends. All 1-inch pipe shall have threaded ends.

b. All Piping 2-1/2-inch through 8 inch: Schedule 10, black carbon steel conforming to ASTM A53 or ASTM A135, roll grooved ends.

2. GCS - Galvanized Carbon Steel

a. All piping 1/2- inch through 8-inch: Schedule 40 seamless or electric resistant welded galvanized steel conforming to ASTM A53/A53M, Type E (electric-resistance welded) or Type S (seamless). Type F (furnace butt welded continuous welded) is acceptable for sizes less than 2 inches.

B. Fittings and Couplings

1. Cast-Iron Threaded Fittings:

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   a. ASME/ANSI B16.4, Class 125, standard pattern, for threaded joints. Threads shall conform to ANSI B1.20.1.

2. Malleable-Iron Threaded Fittings:

   a. ASME/ANSI B16.3, Class 150, standard pattern, for threaded joints. Threads shall conform to ANSI B1.2.1.

3. Steel Fittings:

   a. ASTM A234/A234M, seamless or welded, for welded joints.

4. Grooved Mechanical Fittings:

   a. Grade 65-45-12 ductile iron; ASTM A47 Grade 32510 malleable iron; or ASTM A53, Type F or Types E or S, Grade B fabricated steel fittings with grooves or shoulders designed to accept grooved end couplings.

5. Grooved Mechanical Couplings:

   a. consist of ductile or malleable iron housing, a synthetic rubber gasket of a central cavity pressure-responsive deign; with nuts, bolts, locking in, locking toggle, or lugs to secure roll-grooved pipe and fittings. Grooved mechanical couplings including gaskets used on dry-pipe systems shall be listed for dry-pipe service.

6. Cast-Iron Flanges:

   a. ASME/ANSI B16.1, Class 125, raised ground face, bolt holes spot faced.

7. Unions:

   a. Malleable iron, Class 150 hexagonal stock, with ball-and-socket joints, metal-to-metal bronze seating surfaces, female threaded ends. Threads shall conform to ASME B1.20.1.

8. Dielectric Unions:

   a. Threaded, solder, or grooved-end connections as required to suit application’ constructed to isolate dissimilar metals, prevent galvanic action, and prevent corrosion.

C. Pipe Hangers and Supports

1. Shall be UL listed and shall meet requirements of NFPA 13 for type, dimension and location.

2. Hangers for Pipe Sizes 1/2 to 1-1/2 inch: Malleable iron, adjustable swivel, split ring.

3. Hangers for Pipe Sizes 2 inches and Over: Carbon steel, adjustable, clevis.

4. Wall Support for Pipe Sizes to 3 inches: Cast iron hook.

5. Wall Support for Pipe Sizes 4 inches and Over: Welded steel bracket and wrought steel clamp.

6. Vertical Support: Steel riser clamp.

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7. Hanger Rods: Use only circular solid cross section rod hangers to connect building structure attachments to pipe-support devices. Use pipe, straps, or bars of equivalent strength for hangers.

D. Fire Department Connections

1. Ensure hose connections have National Firehose standard-thread form and rocker lugs in accordance with NFPA 1963. Ensure hose-connection sizes and threads are compatible with the equipment used by the fire department serving the facility.

2. Wall Siamese

3. Provide cast brass or bronze flush-mounted escutcheon-plate units, with two 2-1/2-inch, fire- department, swivel, female inlets; double-clapper valves; rocker-lug caps and chains; and cast-in function-identifying lettering. Provide a unit and plate with an architect approved polished surface finish and in accordance with ASME A112.18.1.

4. Sidewalk Siamese

   a. Provide cast brass or bronze flush-mounted escutcheon-plate units, with two 2-1/2-inch, fire-department, swivel, female inlets; double-clapper valves; rocker-lug caps and chains; and cast-in function-identifying lettering. Provide a unit and plate with an architect approved polished surface finish and in accordance with ASME A112.18.1. Mount unit on a Schedule 40 ASTM A53/A53M galvanized carbon-steel pipe

5. Roof Manifold

   a. Provide a cast brass or bronze, horizontal unit, with two 2-1/2-inch, 175-pound rated hose valves fitted with rocker-lug caps and chains. Finish is rough body with polished trim.

E. Alarm Devices

1. General: Types and sizes shall mate and match piping and equipment connections.

   a. Water Flow Indicators (Wet-pipe Systems): vane type waterflow detector, rated to 250 psi; designed for horizontal or vertical installation; have 2-SPDT circuit switches to provide isolated alarm and auxiliary contacts, 7 ampere 125 volts AC and 0.25 ampere 24 Volts DC; completed with factory-set, field-adjustable retard element to prevent false signals, and tamperproof cover.

2. Water Flow Indicators (Dry-pipe): pressure type waterflow detector, rated to 250 psi; designed for vertical installation; have 2-SPDT circuit switches to provide isolated alarm and auxiliary contacts, 7 ampere 125 volts AC and 0.25 ampere 24 Volts DC; complete with factory-set, field-adjustable retard element to prevent false signals, and tamperproof cover.

3. Electric Alarm Bell: UL listed 10” electric operated factory painted alarm bell with weatherproof bell kit and bell guard. Bell shall have minimum 90 decibel rating. Provided engraved plate under Bell lettered “Building Standpipe and Sprinkler System.”

4. Supervisory Switches: SPST, normally closed contacts, designed to signal valve in other than full open position and tamperproof cover.

2.03 Automatic Sprinklers

A. Sprinklers: type and style as indicated or required by application. Sprinkler operating temperatures to comply with NFPA 13. Sprinklers in light hazard areas shall be quick response type.

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B. Sprinkler Finishes: Provide sprinklers with the following finishes:

1. All sprinklers are to be glass bulb type unless otherwise approved by Owner or Architect.
2. Finished areas: Upright, pendent and sidewall type, with finish with matching escutcheons as indicated on drawings or approved by Owner or Architect.
3. Unfinished areas and areas not exposed to view: Upright, pendent and sidewall type, rough bronze finish. Sprinklers shall be was-coated where installed exposed to acids, chemicals, or other corrosive fumes.
4. Corrosive environments: Lead -coated, corrosion-resistant heads in all areas exposed to acids, chemicals, fumes, or environments.

C. Sprinkler Cabinet and Wrench: Provide a finished steel cabinet, suitable for wall mounting, with hinged cover and space for the appropriate quantity of spare sprinklers plus sprinkler wrench. Provide a separate cabinet for each style sprinkler on the project.

D. Head Protection

1. Protect heads with paper or plastic bags during painting operations. Remove protection immediately upon finishing painting operations.
2. Provide head guards wherever mechanical damage could occur. Guard finish is red enamel.

E. Aboveground Valves

1. Ensure gate, globe, and check valves (all sizes) are FM approved or UL listed.
2. Ensure ball valves, 2 inches and under, are FM approved, rated 300 psi, with provisions to wire or lock handle in place where critical alarm function may be isolated.
3. Ensure butterfly valves, 6-inches and larger are FM approved, rated 175 psi, cast-iron bodied wafer type, with elastomer liners and seals.

F. Paints and Coatings

1. Paints and coatings must comply with:
    a. The California Department of Public Health (CDPH) Standard Method v1.1-2010 general testing and emissions evaluation requirements.
    b. All paints/coatings wet-applied on site must meet the applicable VOC limits of the California Air Resources Board (2007), Suggested Control Measure (SCM) for Architectural Coatings, or the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011.

G. Adhesives, Sealants, and Sealant Primers

1. Adhesives, sealants, and sealant primers must comply with:
    a. The California Department of Public Health (CDPH) Standard Method v1.1-2010 general testing and emissions evaluation requirements.

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b. All adhesives, sealants, and sealant primers wet-applied on site must meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by methods specified in Rule 1168.

PART 3 EXECUTION

3.01 Preparation

A. Painting

1. If manufacturer's standard-finish equipment surfaces are damaged during construction, bring to as- new condition by touchup or repainting to the satisfaction of the Contracting Officer, or replaced with new undamaged equipment at no additional cost to the Owner.

3.02 Installation

A. Ensure installation of system materials and equipment is in accordance with the recommendations and provisions of NFPA 13. Perform work in the presence of the Contracting Officer.

B. Perform all installation work by licensed fire protection sprinkler contractors, licensed for such work in the state where the work is to be performed.

3.03 Underground Piping Installation

A. The fire protection water main shall be laid, and joints anchored, in accordance with NFPA 24. Minimum depth of cover shall be 3-feet. The supply line shall terminate inside the building with a flanged piece, the bottom of which shall be set not less than 6-inches above the finished floor. A blind flange shall be installed temporarily on top of the flanged piece to prevent the entrance of foreign matter into the supply line.

B. Thrust Blocks

1. Construct 3,000-psi cured-strength thrust blocks to absorb hydraulic thrust at caps, plugs, and at system change-of-direction fittings. Place concrete against undisturbed soil, with an area sufficient to provide load transmittal.

3.04 Aboveground Piping Installation

A. Locations and Arrangements: Coordinate installation of horizontal piping with other components. Allow sufficient space above removable ceiling panels to allow for panel removal.

B. Install system such that all piping is rigidly secured and supported. Cutting of structural members for passage of sprinkler pipes or hangers will not be permitted. Route all sprinkler piping and provide all offsets, bends and elbows around all mechanical, electrical, and structural members as required. In areas with ceilings, piping shall be routed concealed, above ceiling. In areas without ceilings, piping shall extend as high as possible.

C. Deviations from approved “Working Plans” for sprinkler piping require written approval of the Authority Having Jurisdiction. Written approval shall be on file with the Engineer prior to deviating from the approved “Working Plans.”

D. Install sprinkler piping to provide for system drainage in accordance with NFPA 13.

E. Use approved fittings to make all changes in direction, branch takeoffs from mains, and reductions in pipe sizes.

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F. Hangers and Supports: Comply with the requirements of NFPA 13. Hanger support spacing and locations for piping joined with grooved mechanical couples shall be in accordance with the grooved mechanical coupling manufacturer's written instructions, for rigid systems. Provide protection from damage where subject to earthquake if required by the applicable building code, designed in accordance with NFPA 13.

G. Make connections between underground and aboveground piping using an approved transition piece strapped or fastened to prevent separation.

H. Install mechanical sleeve seal at pipe penetrations in basement and foundation walls.

I. Install test connections sized and located in accordance with NFPA 13 complete with shutoff valve. Test connections may also serve as drain pipes.

J. Install pressure gauge on the riser or feed main at or near each test connection. Provide gauge with a connection not less than ¼ inch and having a soft metal seated globe valve arranged for draining pipe between gauge and valve. Install gauges to permit removal, and where they will not be subject to freezing.

K. Install automatic air vent at high point of system(s) in accordance with NFPA 13.

L. Sleeves

1. Provide sleeves where piping passes through roofs, masonry or concrete walls, or floors.

M. Continuously weld or braze sleeves to the deck when passing through steel decks.

1. Install sleeves that are continuous when extending through floors, roofs, or load-bearing walls, and sleeves through fire barriers. Fabricate sleeves from Schedule 40 steel pipe with welded anchor lugs. Form other sleeves by molded linear polyethylene liners or similar materials that are removable. Ensure diameter of sleeves is large enough to accommodate pipe, insulation, and jacketing without touching the sleeve, and additionally provides a minimum 3/8-inch clearance. Install sleeve to accommodate mechanical and thermal motion of pipe and to preclude transmission of vibration to walls and generation of noise.

2. Pack solid the space between a pipe and the inside of a pipe sleeve or a construction surface penetration or wherever the piping passes through firewalls, equipment-room walls, floors, and ceilings connected to occupied spaces, and other locations where sleeves or construction-surface penetrations occur between occupied spaces. Use a mineral fiber. Where sleeves or construction- surface penetrations occur between conditioned and unconditioned spaces, fill the space between a pipe, bare or insulated, and the inside of a pipe sleeve or construction-surface penetration with an elastomer caulk to a depth of 1/2 inch. Ensure surfaces are oil- and grease-free before caulking.

3. Caulk exterior wall sleeves watertight with lead and oakum or mechanically expandable chloroprene inserts with mastic-sealed components.

N. Escutcheons

1. Install escutcheons at penetrations of piping into finished areas. Where finished areas are separated by partitions through which piping passes, provide escutcheons on both sides of the partition. Where suspended ceilings are installed, attach plates at the underside only of such ceilings. Use chrome plated escutcheons in occupied spaces and conceal openings in building construction. Ensure escutcheons are firmly attached.

3.05 Field Quality Control

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A. System Testing

1. Prior to acceptance of the work, test completed systems in the presence of the Contracting Officer. Upon approval, provide certificates of testing.

2. Conduct a hydrostatic test, unless otherwise specified. Use only potable water for testing.

3. Perform air tests, valve-operating tests, and drainage tests for dry-pipe systems.

4. Prepare and maintain test records of piping-system tests. Ensure records show personnel responsibilities, dates, test-gage identification numbers, ambient and test-water temperatures, pressure ranges, rates of pressure drops, and leakage rates. Each test acceptance requires the signature of the Contracting Officer.

B. Test Gauges

1. Acceptable test gages have 4-1/2-inch dials or larger with accuracy of plus or minus 1/2 of 1 percent of full-scale range and dial graduations and pointer width compatible with readability to within one-half of the accuracy extremes.

C. Pneumatic Testing

1. Perform pneumatic Pressure Tests when freezing conditions may occur and upon prior approval by the Contracting Officer. Use oil-free compressed air used for testing.

D. Test and Acceptable Criteria

1. Perform above ground systems pressure tests at 200 psi and maintain the applied pressure without further addition of test media for not less than 2 hours. No pressure drop is allowed.

3.06 Adjusting and Cleaning

A. At the completion of the work, clean all parts of the installation. Clean equipment, pipes, valves, and fittings of grease, metal cuttings, and sludge that may have accumulated from the installation and testing of the system. Adjust automatic control devices for proper operation.

3.07 Protection

A. Flushing

1. Before overhead sprinkler piping can be connected to the underground piping, verification of an approved hydrostatic test and flush must be furnished.

END OF SECTION

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SECTION 21 1313
WET-PIPE SPRINKLER SYSTEMS

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK:

A. Extent of the work is indicated on the Drawings and Schedules and by the requirements of this Section.

B. The construction requirements herein shall include appurtenant structures and buildings to which the system is to be installed.

1.02 DESIGN CRITERIA:

A. Provide a hydraulically designed, complete automatic sprinkler system with the following hazard types: Restrooms, hallways, classrooms - Light Hazard. Lab classrooms, Mechanical – Ordinary Hazard Group I.

B. Wet systems serving Light Hazard area systems shall be hydraulically calculated to a design density of 0.1 gpm/sf over the most remote 1,500 sf. Wet systems serving Ordinary Hazard Group I areas shall be hydraulically calculated to a design density of 0.15 gpm/sf over the most remote 1,500sf.

C. Gridded sprinkler systems may be used on wet pipe systems where they are practical.

D. All areas of the building, except as noted, shall be completely sprinklered including the following areas:

1. Electrical Rooms that are not enclosed within two-hour walls
2. Elevator Shafts
3. Telephone Rooms
4. Stairwells (at top level and below lowest level)

1.03 QUALITY ASSURANCE:

A. All materials and equipment shall comply with requirements as specified in this section of these specifications.

B. All materials and equipment furnished and installed under this section of these specifications shall be new and in first class condition.

C. All materials and equipment furnished and/or installed by Contractor found to be in non-compliance with these specifications shall be removed and replaced with materials complying with this section of these specifications at Contractor’s expense.

D. Codes and regulations referred to are minimum standards. Where the requirements of these specifications or drawings exceed those of the codes and regulations, the drawings and specifications shall govern.

E. Manufacturing firms shall be regularly engaged in the manufacture of fire protection products, of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than five (5) years.

F. Installation Firms shall have at least five (5) years of successful installation experience on projects with fire protection work similar to that required for the project.

1.04 SUPPLEMENTAL STANDARDS:

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A. Provide fire protection products which are Factory Mutual Approved or UL Listed.

B. Comply with local Fire Department regulations for sizes, hose threads and arrangement of connections for fire department equipment to fire department valves, and fire department connections.

1.05 DESCRIPTION AND REQUIREMENTS:

A. The work under this section of the specifications includes labor, materials, supervision and testing of the automatic sprinkler and associated systems.

B. The automatic sprinkler and associated systems shall be complete with all component equipment and material items, and installed and tested in full conformity with the requirements of all applicable codes, National Fire Protection Associations Standards, authorities having jurisdiction and the Owner's insurance company.

C. Provide chrome metal wall plates and/or escutcheons on all exposed piping which penetrates walls, floors, etc. Plastic wall plates are not acceptable.

D. The installed layout of the sprinkler system shall be coordinated to avoid interference with the structural, electrical, mechanical, and plumbing work in the building.

E. Sprinklers shall be located as required to provide coverage as required by applicable standards and the Contract Documents.

F. Sprinklers shall be located to avoid interference with lights, diffusers, grilles, or other ceiling mounted equipment. Sprinklers located in ceiling tile shall not be closer than 12 inches to "T" bars and centered. The sprinkler layout shall conform to the typical pattern.

G. Provide vane-type electric flow switch on each riser. Also provide tamper switches on all control valves to be interfaced with fire control panel. Wiring shall be by characteristics of each switch necessary for compatibility with the fire alarm control panel.

H. Locate all inspector tests and drain lines in mechanical room and “back-of-house” type spaces. Main drains and auxiliary drains are to be extended through the nearest exterior wall.

I. Provide backflow prevention. Backflow preventer OS&Y valves shall be equipped with tamper switches.

J. All piping in exposed structure areas shall be installed above the bottom chord of the bar joists.

1.06 APPROVALS:

A. Contractor shall submit for approval to the Architect, the Owner's insurance company and local authorities having jurisdiction, shop drawings, including site plans and details of installation, product submittal data and copies of all material and test certificates.

B. Installing Contractor shall anticipate a minimum of 30 days turn-around for reviewing sprinkler shop drawings by Architect-Engineer and Owner's insurance company. Installing Contractor shall submit shop drawings for review on a timely schedule so as not to impact construction schedule.

C. Floor plans on all shop drawings shall be prepared at a scale of 1/8"=1' unless local jurisdictional authority requires drawings be prepared at larger scales, in which case local requirements shall be met. Details and part plans may be at larger scales as appropriate. Prepare shop drawings on sheets 30" by 42". Except as indicated herein, drawings shall be in accordance with the requirements for working drawings as outlined in NFPA 13.

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D. Plans submitted for approval to Architect shall be in the form of one reproducible set in rolled form, not folded. All other plan submittals to Owner's insurance company and local authorities shall be standard blueline prints in quantities as required by those persons.

E. All submittals (except for insurance submittal) for shop drawing review must be submitted directly to Architect. No submittals shall be made direct to Engineers. Submittals shall be made in one submission only; no partial submittals will be accepted. Partial submittals will be held until all components are received and may delay shop drawing review.

1.07 SUBMITTALS:

A. The following information is required for sprinkler plan submission:

1. Physical Characteristics (Cross Section Through Building)
    a. Storage height.
    b. Roof height.
2. Sprinkler Design
    a. Densities.
    b. Areas of operation. (Include key plan on each drawing.)
3. Water Supply
    a. Static pressure, residual pressure, and flow.
    b. Date of flow test.
    c. Location of flow test hydrants shown on site plan.
    d. Elevation referenced to finished floor level.
    e. Source of water.
    f. On-site verification water flow test as referenced under "Flow Tests".
4. Manufacturer's Data
    a. Pipe, fittings, and mechanical couplings.
    b. Alarm valves.
    c. All control, globe, and check valves.
    d. Water motor alarm and gongs.
    e. Sprinklers.
    f. Pipe hangers and supports.
    g. Water flow and tamper switches.

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h. Fire department connection

i. Chrome metal wall plates and escutcheons.

j. Underground pipe, valves, fittings and hydrants.

k. Hose stations.

l. Backflow preventer with pressure loss curves.

5. A machine copy of the hydraulic calculation nameplate properly filled out for each system shall be submitted to the Architect-Engineer along with the manufacturer's submittal data and shop drawings referenced above.

B. Site Plan Drawing

1. Installing Contractor is to submit with interior sprinkler shop drawings a complete site plan drawing prepared by the sprinkler contractor showing location of all underground fire mains, size and type of pipe and hydraulic calculation reference points. This requirement is necessary even though the actual installation of the final underground piping layout may not be in the Contractor's scope of work.

2. Indicate location and type of all fire hydrants.

3. Detail construction of all meter pits, etc., required by code or local authorities.

4. Show results of water flow test.

5. Indicate elevation at all hydrant reference points.

6. Show location of flow test hydrants and source of water.

7. Scale of site plan shall be as required to fit site on sheet; preferably the same scale of civil engineering drawings provided for this project where they are provided.

C. Hydraulic calculations shall be submitted with drawings and manufacturer's data sheets. Calculations shall include all documentation as required by NFPA 13 current edition, including cover sheet.

1.08 RECORD “AS BUILT” DRAWINGS:

A. Provide as-built drawings to the Contractor to be turned over to the Owner at the completion of the project.

1.09 FLOW TESTS:

A. Flow test data may be provided as part of the contract documents and may be used as a preliminary indicator of available water supply only. Flow test data may also be available from the local water supplier and should also be considered only as preliminary.

B. Each contractor submitting a bid on this project shall verify flow test information in the vicinity of the project by his own water flow test at the indicated hydrants. No requests for change orders will be accepted because successful contractor did not verify water supply information obtained from local authorities or did not run his own test prior to submitting his bid.

C. All flow test data shall be subject to the "10% rule" as defined in this paragraph. Before any calculations or supply curve plotting, reduce the reported static and residual pressures by 10%. Make no reduction to the flow rate reported.

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D. Provide a reserve supply of sprinklers as required by NFPA 13 current edition. The sprinklers and tools shall be contained in a metal carrying case.

1.10 DELIVERY, STORAGE AND HANDLING:

A. Deliver materials to job site in new and in first class condition.

B. Store materials and equipment utilizing suitable means so as to protect from weather, construction work traffic and contamination. Where materials and equipment are stored outdoors, Contractor shall cover in a suitable manner to prevent contamination from water, dirt, mud and/or debris. Materials and equipment shall not be laid on grade for storage.

C. Materials and equipment found to be contaminated with water, dirt, mud and/or other debris shall be cleaned and restored to new condition to the satisfaction of the Architect. Contaminated materials and equipment shall not be used until inspected. Materials and equipment determined to be unsuitable for use by the Architect shall not be used and shall be removed from the job site at the Contractor’s expense.

PART 2 - PRODUCTS

2.01 MATERIALS AND PRODUCTS:

A. Provide piping materials and factory fabricated piping products of sizes, types, pressure ratings, temperature ratings, and capacities as indicated. Provide sizes and types of materials to match piping and equipment connections; provide fittings of materials which match piping materials used in fire protection systems.

2.02 PIPE:

A. Above Ground Piping

1. All piping shall be new, designed for 175 PSI working pressure conforming to ASTM specifications and approved for fire sprinkler specifications.

2. All pipe shall be black steel unless galvanized is indicated for particular pipe sections on the drawings.

3. Schedule 40 piping may be used for piping 2" and smaller and may be joined by threading, roll grooving, or welding.

4. Schedule 10 piping may be used in all sizes and may be joined by roll grooving or welding only.

B. Fittings

1. Screwed fittings shall be standard approved, Class 250, cast iron or Class 150 malleable iron.

2. Flanged fittings shall be approved, short body, Class 250, black cast iron. Gaskets shall be full face, 1/8" minimum thickness red rubber.

3. All welded fittings shall be of the approved type and all welding according to NFPA requirements. No field welding will be permitted.

4. Mechanical couplings shall be approved for grooved end connections equivalent to Victaulic Style 75. All grooved couplings and fittings used throughout this project shall be from the same manufacturer. Grooved couplings and fittings shall be Grinnell Gruvlok, Gustin Bacon, or Victaulic.

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5. Slip on fittings shall not be used. "Victaulic Fit" and "Victaulic Pressfit" and similar products are forbidden on this basis.

6. All inspector tests, drains and drum drips shall be Schedule 40 threaded.

7. Strap on tees or outlets may not be used. "Victaulic Snap-Let" or similar products and "Victaulic Style 921" or similar products are forbidden on this basis.

8. "Victaulic Style 920" mechanical tee or cross or similar products may be used.

C. Underground Piping

1. Underground pipe shall be PVC, C 900, Class 150 or Class 200. Fittings shall be Class 250 and installed in strict accordance with NFPA 24. All bends shall be rodded and thrust blocked.

2. Pipe passing under building grade beams shall have a 6" minimum clearance to prevent possible damage from building settlement.

3. All underground piping shall be flushed in accordance with NFPA #24.

2.03 JOINTS:

A. Threaded joints shall be made up with piping compound or teflon tape applied to the male threads only.

B. Welded joints shall be done by qualified welders per the requirements of Division 23.

C. Flanged joints shall be made up with rubber gaskets and assembled with machine bolts with hexagon heads made of open hearth steel.

D. Soldered joints shall be made using suitable flux and solder as specified.

2.04 BASIC HANGERS AND SUPPORTS:

A. Refer to Division 23, Pipe Hangers, Supports, and Anchor, Section 23 05 29.

B. Supports shall comply with provisions of NFPA 13 except where superseded by these herein and Section 23 05 29.

2.05 VALVES:

A. Valves as indicated shall be provided by Milwaukee, Nibco, Victaulic, Grinnell or Mueller.

B. All valves shall be designed and manufactured with back seating features to allow them to be repacked under pressure when in the fully opened position.

C. Provide valves of one manufacturer wherever practical to achieve maximum possible uniformity and facilitate maintenance.

D. All valves must be listed for use in sprinklers systems in the latest edition of Factory Mutual Approval Guide and U.L. listed.

1. Gate valves 2" and smaller shall be of Class 250, with body and bonnet, cast bronze composition, threaded ends, OS&Y, solid disc.

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2. Gate valves 2-1/2" and larger shall be rated 250 psi WWP, iron body, bronze mounted, with body and bonnet, Class B cast iron, OS&Y, flanged or threaded end.

3. Ball valves 2" and smaller shall be constructed of commercial brass rod, with Teflon seats, blowout proof stem.

4. Butterfly valves 4" through 12" may be substituted for gate valves, where appropriate. Valves shall be rated for 250 PSIG working pressures. Valve bodies may be ductile iron or aluminum bronze and wafer or lug style.

5. Check valves 2-1/2" - 12" shall be rated 250 PSI WWP, iron body, bronze mounted, OS&Y flanged end.

6. Pressure ratings of valves shall be as required to meet the pressure conditions to which they are likely to be exposed or the ratings listed above, whichever is greater.

2.06 WATERFLOW INDICATOR:

A. Waterflow indicator shall be vane type with adjustable retard and two sets of single pole, double throw contacts for A.C. or D.C. operation.

2.07 O.S. & Y. VALVE SUPERVISORY SWITCH:

A. Valve supervisory switch for O.S. & Y. gate valves shall be provided with tamperproof cover and two sets of single pole, double throw contacts for A.C. or D.C. operation, bracket and J-bolts. Unit shall be U.L. Listed and F.M. Approved.

2.08 SPRINKLERS:

A. 1/2" brass pendent sprinkler, ordinary temperature, with concealing bracket and cover assembly. Cover shall be factory painted in a color selected by the Architect to match finish of ceiling in which it is installed, for use in all gypsum board ceilings.

B. 1/2" chrome pendent sprinkler, ordinary temperature, with chrome plated, semi-recessed escutcheon, for use in all lay-in tile ceilings.

C. 1/2" brass upright sprinkler, ordinary temperature, for use in areas without ceilings.

D. 1/2" sidewall sprinklers in Guestrooms

E. 1/2" brass upright sprinkler, intermediate temperature, for use in areas above high ceiling space and electrical rooms.

F. Acceptable sprinkler manufacturers are: Viking, Tyco, and Victaulic.

2.09 FIRE DEPARTMENT CONNECTIONS:

A. Fire department connection shall be two-way 4" x 2½" wall mounted type with drop clappers. Unit shall be complete with inlets with caps, chains and cast brass body. All exposed surfaces shall be polished chrome plate. Fire department connection shall be labeled with the name of the fire protection system served. The connection to the fire department shall be provided with an automatic ball drip with discharge drain line. The exact location shall be coordinated with the Fire Marshal prior to submission of the sprinkler shop drawings. Any adjustments in pipe routing shall to the Fire Dept. connection shall be included in the contractor’s scope of work at no additional cost to the Owner.

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PART 3 - EXECUTION

3.01 GENERAL:

A. Contractor shall not fabricate and/or install fire sprinkler systems until Architect/Engineer has reviewed shop drawings / submittals for compliance with engineer design concept.

B. Any fire sprinkler systems fabricated and/or installed prior to the Architect/Engineer's review found to be in non-compliance shall be removed or corrected as per instructions from Architect/Engineer at Contractor's expense.

3.02 PROCEDURE:

A. Valves in horizontal piping shall be installed with stems at or above the pipe centerline.

B. Automatic air vents shall be installed with gate valves.

C. Provide gate, globe and check valves throughout systems where shown and where necessary to properly regulate and control the systems. Valves shall be the full size of the lines and shall be designed for low pressure drop. Gate and globe valves shall have provision for repacking when open and under pressure.

3.03 SPRINKLERS:

A. Provide basket type guards over all upright sprinklers.

B. Sprinklers shall be provided above and below all ductwork or other obstructions greater than 4'-0" in width.

C. Sprinklers shall be centered in 2 x 2 ceiling tiles and at least 12" from each of 2 x 4 ceiling tiles.

D. Provide shields on all sprinklers located near electric panels to limit the sprinkler discharge on the panels.

E. Install sprinklers so that heads are located no closer than 1'-0" to lights, diffusers, or other obstructions.

F. Where sprinklers are exposed to exterior sprinklers must be wax coated to protect exposed surfaces from corrosion.

3.04 INSTALLATION:

A. The fire protection system shall include all signs, test connections, and drains required by NFPA 13.

B. Comply with requirements of NFPA 13 for installation of fire protection piping materials. Install piping products where indicated, in accordance with manufacturer's written instructions.

C. Coordinate with other work, including plumbing piping, as necessary to interface components of fire protection piping properly with other work.

D. Fire mains, crossmains, and branch piping shall not be installed inside or above the ceiling of Electrical Equipment Rooms, Telephone Rooms, Elevator Equipment Rooms, or other rooms of similar usage. Only sprinkler branch piping which serves sprinklers located inside such rooms shall be permitted to be installed within room.

E. Automatic sprinklers protecting elevator shafts shall have a supervised control valve located in an accessible location outside of the room, so that sprinkler heads in these areas may be shut down separately.

F. All valves in direct flow of water to sprinklers, standpipes or exterior connections shall be provided with valve position supervisory switches.

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G. Waterflow indicators shall be mounted horizontally or vertically on top of pipe. Adjust retard to provide maximum of 30 second delay. Schedule 40 pipe must be provided for waterflow indicator.

H. O.S. & Y. valve stem shall be carefully filed to accommodate stem of valve switch.

3.05 DRAINS:

A. All trapped sprinkler piping shall be provided with drain valves and shall be routed to and discharged over the nearest suitable floor drain, hub drain or service sink. Drain valve shall be located at the point of discharge.

B. All drains and inspector's test connections located on exterior walls shall be painted to match exterior and penetration shall be sealed and provided with chrome plated escutcheon secured to wall.

3.06 ANCHORAGES:

A. General: Provide concrete thrust block anchorages for underground tees, plugs, caps, and bends in accordance with NFPA 24. Provide rods and clamps on fittings located underground inside building as shown on drawings.

B. After installation, apply a full coat of asphalt or other acceptable corrosion retarding material to surfaces of rods and clamps.

3.07 IDENTIFICATION:

A. Install signs on all inspector's test connections, auxiliary drains, drain valves, etc., in accordance with NFPA 13.

B. Access panels provided for valves concealed above ceilings or inside partitions must be provided with permanently attached signs identifying control valve or drain.

3.08 ADJUST AND CLEAN:

A. Sprinkler Piping Flushing: Prior to connecting sprinkler risers for flushing, flush water feed mains, lead in connections and control portions of sprinkler piping. After fire sprinkler piping installation has been completed and before piping is placed in service, flush entire sprinkler system as required to remove foreign substances, under pressure as specified by NFPA 13, current edition. Continue flushing until water is clear, and check to ensure that debris has not clogged sprinklers.

3.09 TESTING:

A. Hydrostatic Testing: After flushing system, test fire sprinkler piping hydrostatically, for a period of 2 hours, as follows:

1. 150 psi or less, test pressure 200 psi
2. 151 psi or more, test pressure 50 psi above normal operating pressure

B. Check system for leakage at joints. Measure hydrostatic pressure at low point of each system or zone being tested. No drop in pressure is permitted.

3.10 PAINTING:

A. Painting of properly prepared sprinkler piping and equipment shall be by the Contractor.

B. The Contractor is to remove all labels, stickers, fabrication identification tags, excess pipe dope and teflon tape from sprinkler piping before system is painted.

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C. The Contractor is to install protective plastic bags on all sprinkler heads in areas where roof deck and/or structural system is to be painted.

D. The Contractor will remove all plastic bags after the final painting is complete.

E. The Contractor shall furnish a signed statement on his letterhead and place it in the operating instruction and maintenance manuals that he has verified that all plastic bags have been removed.

F. Any sprinkler head not protected from painting and subsequently receiving paint coating shall be replaced. Cleaning of sprinkler heads to remove paint is not acceptable.

3.11 WARRANTY:

A. Provide a written warranty in accordance with the general conditions.

B. This warranty shall further provide that in the event of the failure of any system or its component equipment items or the improper functioning thereof, during the period of the warranty, the contractor shall have available and "on call" competent service personnel for the restoration of all systems and equipment for complete operation. Should the nature of the failure be such as to present an emergency in the opinion of the Owner, such personnel shall be promptly available regardless of the hour of the day or the day of the week. Should the failure be such as to fall under the warranty, the cost of the service shall be borne by the contractor -otherwise, the Owner will pay therefore at the prevailing rate for such services.

C. If service personnel of the installing contractor are not promptly available "on call," the Owner may employ such personnel as are available to him, at the expense of the installing contractor.

D. Inspection and Tests

1. All inspections, examinations and tests required by NFPA, local authority having jurisdiction, and Owner's insurance company shall be arranged as necessary to obtain complete and final acceptance of the sprinkler system. The Contractor shall deliver certificates of all inspections and tests to Architect.
2. At job conclusion the entire system shall be flushed out and left clean in every respect.
3. After systems have been installed, tested and accepted, contractor is to provide three (3) copies of operating instructions and maintenance manuals complete with a copy of approved shop drawings, copy of NFPA-25, spare parts lists and phone numbers of emergency repair personnel to Architect. A copy of hydraulic calculation nameplate as installed on each riser shall be included in O & M manuals.
4. Provide three (3) copies of underground material and test certificate.

3.12 QUARTERLY INSPECTIONS:

A. Installing Sprinkler Contractor is to provide a minimum of four (4) on-site sprinkler system inspections during the one (1) year warranty period.

1. Inspections to consist of all items outlined in NFPA-25 such as lubricating valve stem of valves, replacement of F.D.C. (fire department connection) break-off caps if missing, etc.
2. After each quarterly inspection, copies of inspection reports outlining results and listing any problems observed shall be forwarded to the Owner, Owner's insurance company, and Architect and Engineer of Record.

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END OF SECTION

SECTION 22 0010
BASIC PLUMBING REQUIRMENTS

PART 1. GENERAL

1.01 SECTION INCLUDES

A. Basic Plumbing Requirements specifically applicable to Division 22 Sections, in addition to Division 01 - General Requirements.

B. DESCRIPTION

C. Furnish materials and perform labor required to execute this work as indicated on the drawings, as specified and as required to complete the work of this section, except as otherwise herein specifically excluded.

D. REFERENCES

E. Section 23 08 01 - Commissioning of Building Systems

F. WORK INCLUDED

G. The complete Plumbing systems (including Fire Protection systems), including but not limited to these major items.

1. Coordinate work of this Section with related trades.
2. Verify applicable dimensions at the jobsite.
3. Furnishing and installation of miscellaneous hangers, supports, sleeves, inserts, anchors and other auxiliary equipment for systems under this Division.
4. Soil waste and vent system inside and outside the building including connections to fixtures, equipment, sewer connections, clean-outs.
5. Water piping systems inside and outside the building, including connections to fixtures, equipment, water meters and vaults; pressure regulating stations, backflow preventers.
6. Interruptible and non-interruptible fuel gas systems inside and outside the building, including connections and earthquake valves.
7. Plumbing fixtures, carriers, fittings, trim, hose bibs, wall hydrants, and accessories.
8. Installation and connection of Owner furnished equipment.
9. Natural gas piping system including connections to equipment and site.
10. Water heating systems, including water heating equipment, circulating pumps, connections.
11. Shop drawings.
12. Equipment identification.
13. Equipment and systems adjustments and balancing.
14. Air, water and gas systems testing, adjusting and balancing.

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15. Written operating and maintenance instructions.

16. Record drawings.

17. Guarantee

1.02 WORK SPECIFIED ELSEWHERE

A. Concrete, Architectural Sheet Metal, Door and Exterior Wall Louvers, Painting and Electrical.

1.03 SITE INSPECTION

A. Contractor shall familiarize himself with the conditions at the site. No allowance will be made subsequently for any error through negligence in observing the site conditions. Contractor shall observe and make cost allowance for any mechanical and/or electrical items that must be relocated to accommodate the installation or servicing of any item covered under this contract.

B. ORDINANCES, REGULATIONS AND CODES

C. References to Technical Societies, Trade Organizations, Governmental Agencies is made in Division 15 inch accordance with the following abbreviations.

1. AFI - Air Filter Institute
2. AMCA - Air Moving & Conditioning Association
3. ARI - Air Conditioning & Refrigeration Institute
4. ASHRAE - American Society of Heating, Refrigerating and Air Conditioning Engineers
5. ASME - American Society of Mechanical Engineers
6. ASTM - American Society of Testing Materials
7. AWSC - American Welding Society Code
8. ANSI - American National Standards Institute
9. CBC - California Building Code
10. CCR - California Code of Regulations
11. CEC - California Electrical Code
12. CFC - California Fire Codes
13. CMC - California Mechanical Code
14. CPC - California Plumbing Code
15. FIA - Factory Insurance Association
16. NAFM - National Association of Fan Manufacturers
17. NEMA - National Electrical Manufacturer's Association

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18. NFPA - National Fire Protection Association

19. ORS - Office of Regulatory Services

20. SCAQMD - South Coast Air Quality Management District

21. SMACNA - Sheet Metal and Air Conditioning Contractors National Association

22. UFC - Uniform Fire Code

23. UL - Underwriter's Laboratories

24. UPC - Uniform Plumbing Code

D. Requirements of Regulatory Agencies: Materials and installation shall comply with applicable local, state, and national codes and ordinances. Rulings and interpretations of the enforcing agencies shall be considered as part of the local codes. No extras will be permitted for furnishing items required by the local codes but not specified or shown on the drawings.

E. Codes and Standards:

1. IBC and California Amendments (California Building Code - Part 2, Title 24, CCR).

2. UMC and California Amendments (California Mechanical Code - Part 4, Title 24 CCR).

3. UPC and California Amendments (California Plumbing Code - Part 5, Title 24 CCR).

4. Uniform Fire Code with State Amendments (California Fire Code - Part 9, Title 24 CCR).

5. National Fire Protection Associations - National Fire Code.

F. Nothing in these drawings and specifications is to be construed to permit work in violation thereof. Ordinances, regulations and codes are to be construed as minimum requirements.

G. The responsibility of the Architect to conduct construction reviews of the Contractor's performance is not intended to include the adequacy of the Contractor's safety measures in, on, or near the construction site.

H. Ventilating, refrigeration and electrical equipment and appliances are required to be approved by the Underwriters' Laboratories, Inc., or other nationally recognized testing agency and installed per the testing agency's specifications.

1.04 PERMITS, FEES AND INSPECTIONS

A. Obtain and pay for all necessary permits, fees, assessments, complimentary drawings, required by any legally constituted public authorities having jurisdiction.

1.05 DRAWINGS AND SPECIFICATIONS

A. The Architect's decision will be final on interpretation of the Drawings and Specifications.

B. The Drawings and Specifications are complimentary. Any work called for on the Drawings and not mentioned in the Specifications, or vice versa, shall be performed as though fully set forth in both.

C. Piping, ductwork and other equipment shown as existing has been taken from the Owner's drawings. Contractor shall verify exact location in field before proceeding with the work.

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D. Where codes, standards, drawings or specifications conflict, the most stringent shall prevail, unless prior approval for variance is obtained. Specific details on the drawings shall supersede the specification in the event of a conflict.

E. Alternate support or seismic detail shall have prior approval by the Architect; and the Contractor shall obtain agency approval without any additional cost or time to the contract and without any time penalty on the work schedule.

1.06 SUBMITTALS

A. Before starting work, the Contractor shall furnish for the approval of the Architect, Shop Drawings and Submittals with Itemized Equipment Lists, complete in all details that they proposes to install. All items shall be submitted at the same time.

B. Submittals must be specific to this project with respect to model number, capacities, performance, etc., generic submittals will not be accepted.

C. Variations or deviations on submitted items from that specified must be clearly tagged and / or identified

D. Submittals shall include, but not necessarily be limited to the following which are mandatory:

1. Draw Equipment Layouts to ¼" scale, including equipment, piping accessories, and showing clearances for operating and servicing.
2. Schedule of pipe, fittings, valves, with manufacturer and catalog number.
3. Specialties, valves, gauges and thermometers of all types.
4. Foundations, supports, hangers, inserts.
5. Insulation.
6. Shop fabrication drawings and installation drawings of ductwork and piping layouts. Submit for approval prior to fabrication. Drawings shall indicate dimensions from bottom of piping and ductwork to finish floor level.
7. Access panels.
8. Clean-outs
9. Fixture carriers.
10. Hangers, inserts, supports, anchors.
11. Hose bibs.
12. Hot water circulators.
13. Pipe, fittings and specialties.
14. Pipe isolators.
15. Plumbing fixtures, fittings, trim, drains and receptors.
16. Pressure regulators.
17. Roof flashing.

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18. Sleeves, escutcheons, caulking, waterproofing, fireproofing.

19. Strainers

20. Water hammer arrestors.

21. Water heating equipment.

22. Shop fabrications drawings and calculations.

23. Special and miscellaneous products furnished under this section and not listed herein.

1.07 RECORD DRAWINGS AND MANUALS

A. Record Set During the Work: At site, maintain at least one set of Drawings as a Field Record Set. Also maintain at least one copy of all Addenda, Modifications, approved submittals, correspondence, and transmittals at site. Keep Drawings and data in good order and readily available to Architect and Owner.

B. Changes: Clearly and correctly mark Record Drawings to show changes made during the construction process at the time the changed work is installed. No such changes shall be made in the work unless authorized by the Architect.

C. Final Record Drawings: Conform to Division 1 requirements.

D. Preparation of Final Record Drawings: Contractor shall transfer recorded changes in the work indicated on the Field Record Set to the record set. Changes shall be neatly and clearly drawn and noted by skilled draftsmen, and shown technically correct.

E. Approval: Prior to Architect's inspection for Substantial Completion, submit the Final Record Drawings to the Architect for review, and make such revisions as may be necessary for Final Record Drawings to be a true, complete, and accurate record of the work.

F. Manuals: Obtain data from the various manufacturers and submit instruction, operation, and maintenance manuals as required and to the extent required under other Sections.

G. Contents: Each manual shall have an index listing the contents. Information in the manuals shall include not less than:

1. General introductions and overall equipment description, purpose, functions and simplified theory of operation.

2. Specifications

3. Installation instructions, procedures, sequences, and precautions, including tolerances for level, horizontal and vertical alignment.

4. Grouting requirements.

5. List showing lubricants for each item of mechanical equipment and recommended lubrication intervals.

6. Start-up and beginning operation procedures.

7. Operational procedures.

8. Shutdown procedures.

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9. Maintenance and calibration procedures

10. Parts lists

11. Name, address and telephone number of each manufacturer's local representative.

H. Manual Submittals: Unless otherwise specified, each submittal shall include two copies of each manual, one of which will be returned to the Contractor, marked to show the required review. When approved, deliver four copies to Architect unless otherwise specified.

I. “As-Built” drawings of ductwork and piping, including all elbows, transitions, damper and valve locations shall be provided prior to commencement of air and water balance.

1.08 QUALITY OF EQUIPMENT, MATERIALS AND WORKMANSHIP

A. Unless otherwise specified, equipment and materials used in the installation shall be new and in perfect condition when installed. Articles provided for the same general purpose or use shall be of the same make. Workmanship shall be of the best quality and none but competent mechanics skilled in their trades shall be employed. Furnish the services of an experienced superintendent, who shall be constantly in charge of the work, together with all necessary journeymen, helpers and laborers required.

1.09 SEISMIC DESIGN

A. Contractor shall be responsible for anchors and connections of mechanical work to the building structure including calculations for approval by structural engineer or for approval by inspector of record, as applies, for items or work, where approval is deferred or where alternate support or anchorage detail is proposed to prevent damage as a result of an earthquake, including manufactured equipment, the connection and integrity of shop fabricated and field fabricated materials and equipment. The anchorage of all pipes, ducts, conduits, fixtures, equipment, etc. shall withstand the lateral forces and shall accommodate calculated building displacement as required by the California Building Code, and local city/county codes. (Building equipment and connections therefore shall be designed to resist lateral seismic forces equal to 1.0 of equipment weight to working allowable stress. Cantilever posts supporting equipment shall be designed to resist lateral seismic forces equal to 0.5 of equipment weight to allowable working stress. Conform to the following:

1. In accordance with Title 24, 2019 CBC Chapter 16A, details shall be provided for the seismic anchorage of all mechanical and electrical equipment, anchorage details shall be based upon appropriate design calculations.

2. For equipment weighing 400 pounds or more anchorage details and appropriate design calculations shall be submitted as part of the mechanical and electrical drawings. “Deferred Approval” items will not be permitted unless specifically approved by the plan check supervisor.

    a. Exception: Attachments of equipment weighting less than 400 pounds and supported directly on the floor or roof structure, furniture, or temporary or movable equipment and equipment weighing less than 20 pounds that is supported by vibration isolation devices suspended from the roof, wall or floor, need not be detailed on the plans provided the following notes are included on the mechanical and electrical plans.

3. The seismic anchorage of mechanical and electrical equipment shall conform to C.C.R. Title 24, 2019 CBC Chapter 16A. Anchorage details for roof/floor-mounted equipment shall be shown on plans.

1.10 SUBSTITUTIONS AND CHANGES

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A. The design has been based on data from certain manufacturers, suitable for each application. Recommendations for alternative manufacturers are made for each product, except when "no substitutions permitted" is indicated.

B. It is the intent of the Owner to have this project constructed with materials, products and system originally designed and specified into the project.

C. Alternatives that may require the modification, realignment and/or adjustment of other associated components, including impact on other trades, shall be accomplished at no additional cost or time to the contract and shall have the approval of the Architect.

D. Substitutions shall be submitted addressing all features listed in the specifications. Features that deviate from the plans and specifications shall be clearly identified including justification for deviations. Design West Engineers will review initial submittal on substitutes only. Subsequent submittals made to correct deficiencies in original submittals will be reviewed at Contractor's expense based on Design West Engineer's hourly rate for engineering services.

E. Should the Contractor elect to propose substitutions for the Owner's interest, the substitutions shall be in compliance with Division 01.

1.11 APPROVALS

A. The Architect will have the right to accept or reject equipment, materials, workmanship, tests and determine when the Contractor has complied with the requirements herein specified.

1.12 SELECTION AND ORDERING OF EQUIPMENT AND MATERIALS

A. Immediately after award of the Contract and after the approval of submittals by the Architect, the Contractor shall arrange for the purchase and delivery of equipment and materials required, in ample quantities and at the proper time. He shall deliver to the Architect a complete list of equipment and materials ordered, giving descriptions, plate numbers, brochures, name of the wholesalers, date of the orders and approximate delivery dates.

1.13 LOCATIONS AND ACCESSIBILITY

A. Drawings show pipe and ductwork diagrammatically. Conform to Drawings as closely as possible in layout work. Vary run of piping, run and shape of ductwork and make offsets during progress of work as required to meet structural and other interferences as approved by Architect. Install piping and ductwork to best suit field conditions after coordinating with other trades. Run exposed piping and ductwork parallel to, or at right angle to, building walls. Keep horizontal lines as close to bottom of structures as possible. Conform to ceiling heights established on Drawings.

B. Install equipment in such a manner as to be readily accessible for maintenance and repairs. Install piping, ducts and conduit in such a manner as to preserve headroom, avoid obstructions and keep openings and passageways clear.

C. Installation at valves, thermometers, gauges, cleanouts, dampers, controls, steam and water specialties, duct access doors or any other indicating equipment or specialties requiring reading, adjustment, inspection, maintenance shall be conveniently and accessible located with reference to the finished building.

D. Where wall and ceiling access doors are required but not shown, such doors shall be furnished under other sections and as directed by the Architect. Coordinate this requirement with appropriate trade.

E. If changes in the indicated locations or arrangements are required, they shall be made without additional charges.

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F. In an existing area, where required, remove, reinstall, reconnect or replace, etc., any existing work to accommodate new work without any additional cost to the Owner. Material shall match existing, unless otherwise specified or approved in writing by the Architect.

G. Provide sheaves and belts if required, to Test, Adjust and Balance Agency, to allow air moving equipment to meet flow requirements specified at no additional cost to the Owner.

1.14 COORDINATION OF TRADES

A. Contractor shall coordinate all trades in the interest of obtaining the most practical overall arrangement of equipment, piping, conduit, and ducts and to maintain maximum headroom and accessibility.

B. No extras will be allowed for changes made necessary by interference between trades.

C. Submit Composite Drawings in accordance with Special Conditions. Include dimensioned plans, elevations, sections and details and give complete information particularly as to the kinds and types of materials and equipment, size and location of sleeves, inserts, attachments, chases, openings, conduits, ducts, boxes, lighting, structural interferences. Coordinate these Composite Drawings and field layouts in the field for proper relationship to work of applicable trades based on field conditions. Contractor shall have competent personnel readily available for coordinating, checking, and supervision of field layouts. The procedures for submittals and resubmittals, and final distribution shall be as specified in Division 01. Do not start installation of work involved under Composite Drawings until the Architect reviews applicable submittal. Discrepancies between the Drawings and Composite Drawings shall be specifically noted and identified on the Composite Drawings. Drawings for the various trades involved shall be submitted as required and reviewed prior to preparation of Composite Drawings.

1. Equipment Foundations and Bases: Furnish certified details and drawings for approval before fabrication. Furnish parts necessary for each foundation sub base and support.
2. Pipe Sleeves and Inserts: Furnish and install pipe sleeves and pipe support inserts before concrete is poured.
3. Roof, Wall and Floor Openings: Furnish Shop Drawings showing exact locations and sizes of openings through roofs, walls and floors.
4. Concrete: Conform to Concrete Section of the Specifications.

1.15 GUARANTEES

A. Contractor shall guarantee workmanship, equipment and materials installed under his contract for a period of not less than one (1) year from the date of Substantial Completion. Should any defects occur during this period, the Contractor shall promptly repair or replace the defective item and any other damage caused to the building free of charge to the Owner, including cost of labor and materials.

B. Guarantee included in this section to cover:

1. Faulty or inadequate design of equipment or material installed
2. Improper assembly or erection
3. Defective workmanship or material
4. Incorrect or inadequate operation or other failure

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C. He shall guarantee the complete and perfect operation of the entire system and that equipment will be supported in such a way as to be free of objectionable vibration and noise

D. Furnish the parts and labor to replace any items found to be defective in the refrigeration equipment with the guarantee period

E. In addition to other guarantees, furnish free maintenance for the refrigeration equipment, including replacement of refrigerant and oil, for a period of one (1) year. This shall include regular monthly maintenance and "On Call" service if required.

F. For equipment bearing a manufacturer's warranty in excess of one year, furnish a copy of the warranty to the Owner, who shall be named as beneficiary.

1.16 PROTECTION OF EQUIPMENT AND MATERIALS

A. Provide adequate storage facilities for equipment and materials on the site and shall make provisions to protect such materials and equipment from damage.

1.17 CLOSING-IN OF UNINSPECTED WORK

A. Contractor shall not allow or cause any of the work, specifically ductwork and piping, to be covered up or enclosed until it has been inspected, tested, and approved by the Architect. Should any of work be covered up or enclosed before such inspection and test, shall at their own expense, uncover the work and after it has been inspected, tested, and approved, make repairs with such materials as may be necessary to restore work to its original and proper condition.

1.18 BUILDING FOOTING CLEARANCES

A. Under no circumstances shall pipes, ducts, or conduits penetrate footings. They shall cross below footings or through sleeves above footings. Those running parallel to footings shall have the minimum clearance from the cone of influence indicated on the Drawings or as required by Code.

1.19 DAMAGE BY LEAKS

A. Contractor shall be responsible for all damage to any part of the premises caused by rain leaks through or around ducts or pipes, leaks or breaks in piping, equipment or fixtures furnished or installed by him for a period of one (1) year from the date of Substantial Completion.

B. EQUIPMENT LABELS

C. Equipment provided under this Section shall be provided with the manufacturer's metal identification labels attached to each individual piece of equipment showing complete performance characteristics, size, model and serial number.

1.20 PRELIMINARY OPERATION

A. Should the Owner request that any portion of the plant, apparatus, or equipment be operated for the Owner's beneficial use prior to the final completion and acceptance of the work, the Contractor shall conform to Beneficial Occupancy Provisions of the General Conditions. Such operation shall be under the supervision and direction of the Contractor. Such preliminary operation shall not be construed as an acceptance of any of the work.

1.21 MAINTAINING EXISTING SERVICES

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A. The premises and existing building at the site will be in use at the time the work of this Section is in progress. Contractor shall conduct his work so as to cause no inconvenience or danger to the personnel on the premises.

B. He shall maintain continuity of service to the existing mechanical systems, except for designated intervals during which connections can be made. The scheduling of the shut down period shall be at a time directed by the Architect.

C. In some instances, it may be necessary to defer work in certain areas and locations until such time as existing facilities can be relocated or rearranged by the Owner. Therefore, whenever it becomes necessary for the Contractor to perform work under this contract in areas in which the Owner's work is being performed. This contractor shall advise the Architect relative to this requirement and shall follow closely the directive issued by the Architect insofar as time and procedure are concerned. Allow Owner 72 hours prior notice.

D. This contractor shall include in his bid all premium time to which he may be subjected for performing work in such procedure and at such time as may be necessary to cause the least interference with the function of the Owner.

1.22 ELECTRICAL WORK

A. Coordinate with Division 26 inch making the line and low voltage electrical connections and be responsible for the operation of the equipment furnished under this section.

B. Voltage for electrical work will be included in Division 26. However, any control wiring which is required that is not shown on the control diagram shall be as described under this Section. In the event that the Contractor chooses to provide equipment that requires extra expense in the power or control wiring, he shall pay additional electrical costs.

C. Safety switches, starters, circuit breakers, unless provided as a portion of package equipment, and the electrical connections of mechanical equipment to the electrical power service shall be provided under Division 26.

D. Interconnecting wiring, safety switches, relays, controllers and motor starters which are integral components of packaged equipment shall be provided as an integral part of that equipment.

E. All interconnecting power wiring and conduits shall be provided by Division 26.

F. Control wiring shall be provided by Division 22, unless otherwise indicated on the drawings.

G. Conduit for control wiring shall be provided by Division 26.

END OF SECTION

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SECTION 22 0517
SLEEVES AND SLEEVE SEALS FOR PLUMBING PIPING

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Sleeves.

2. Sleeve-seal systems.

3. Grout.

1.02 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

PART 2 PRODUCTS

2.01 SLEEVES

A. Cast-Iron Wall Pipes: Cast or fabricated of cast or ductile iron and equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop unless otherwise indicated.

B. Galvanized-Steel Wall Pipes: ASTM A 53/A 53M, Schedule 40, with plain ends and welded steel collar; zinc coated.

C. Galvanized-Steel-Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, with plain ends.

D. PVC-Pipe Sleeves: ASTM D 1785, Schedule 40.

E. Galvanized-Steel-Sheet Sleeves: 0.0239-inch (0.6-mm) minimum thickness; round tube closed with welded longitudinal joint.

2.02 SLEEVE-SEAL SYSTEMS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

B. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:

1. Advance Products & Systems, Inc

2. CALPICO, Inc

3. Metraflex Company

4. Pipeline Seal and Insulator, Inc

5. Proco Products, Inc

C. Description: Modular sealing-element unit, designed for field assembly, for filling annular space between piping and sleeve.

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1. Sealing Elements: EPDM-rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.

2. Pressure Plates: Carbon steel.

3. Connecting Bolts and Nuts: Carbon steel, with corrosion-resistant coating, of length required to secure pressure plates to sealing elements.

2.03 GROUT

A. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.

B. Characteristics: Nonshrink; recommended for interior and exterior applications.

C. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.

D. Packaging: Premixed and factory packaged.

PART 3 EXECUTION

3.01 SLEEVE INSTALLATION

A. Install sleeves for piping passing through penetrations in floors, partitions, roofs, and walls.

B. For sleeves that will have sleeve-seal system installed, select sleeves of size large enough to provide 1-inch (25-mm) annular clear space between piping and concrete slabs and walls.

   1. Sleeves are not required for core-drilled holes.

C. Install sleeves in concrete floors, concrete roof slabs, and concrete walls as new slabs and walls are constructed.

   1. Cut sleeves to length for mounting flush with both surfaces.

      a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 2 inches above finished floor level.

   2. Using grout, seal the space outside of sleeves in slabs and walls without sleeve-seal system.

D. Install sleeves for pipes passing through interior partitions.

   1. Cut sleeves to length for mounting flush with both surfaces.

   2. Install sleeves that are large enough to provide 1/4-inch (6.4-mm) annular clear space between sleeve and pipe or pipe insulation.

   3. Seal annular space between sleeve and piping or piping insulation; use joint sealants appropriate for size, depth, and location of joint. Comply with requirements for sealants specified in Section 079200 "Joint Sealants."

E. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Comply with requirements for firestopping specified in Section 078413 "Penetration Firestopping."

3.02 SLEEVE-SEAL-SYSTEM INSTALLATION

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A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at service piping entries into building.

B. Select type, size, and number of sealing elements required for piping material and size and for sleeve ID or hole size. Position piping in center of sleeve. Center piping in penetration, assemble sleeve-seal system components, and install in annular space between piping and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make a watertight seal.

3.03 SLEEVE AND SLEEVE-SEAL SCHEDULE

A. Use sleeves and sleeve seals for the following piping-penetration applications:

1. Exterior Concrete Walls above Grade:
   a. Piping Smaller than NPS 6 (DN 150): Cast-iron wall sleeves.
   b. Piping NPS 6 (DN 150) and Larger: Cast-iron wall sleeves.
2. Exterior Concrete Walls below Grade:
   a. Piping Smaller than NPS 6 (DN 150): Cast-iron wall sleeves with sleeve-seal system.
      1) Select sleeve size to allow for 1-inch (25-mm) annular clear space between piping and sleeve for installing sleeve-seal system.
   b. Piping NPS 6 (DN 150) and Larger: Cast-iron wall sleeves with sleeve-seal system.
      1) Select sleeve size to allow for 1-inch (25-mm) annular clear space between piping and sleeve for installing sleeve-seal system.
3. Concrete Slabs-on-Grade:
   a. Piping Smaller than NPS 6 (DN 150): Cast-iron wall sleeves with sleeve-seal system.
      1) Select sleeve size to allow for 1-inch (25-mm) annular clear space between piping and sleeve for installing sleeve-seal system.
   b. Piping NPS 6 (DN 150) and Larger: Cast-iron wall sleeves with sleeve-seal system.
      1) Select sleeve size to allow for 1-inch (25-mm) annular clear space between piping and sleeve for installing sleeve-seal system.
4. Concrete Slabs above Grade:
   a. Piping Smaller than NPS 6 (DN 150): Galvanized-steel-pipe sleeves.
   b. Piping NPS 6 (DN 150) and Larger: Galvanized-steel-pipe sleeves.
5. Interior Partitions:
   a. Piping Smaller than NPS 6 (DN 150): Galvanized-steel-pipe sleeves.
   b. Piping NPS 6 (DN 150) and Larger: Galvanized-steel-sheet sleeves.

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END OF SECTION

SECTION 22 1005
PLUMBING PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pipe, pipe fittings, specialties, and connections for piping systems.

1. Sanitary sewer.
2. Domestic water.
3. Valves.
4. Check.
5. Strainers.

1.02 REFERENCE STANDARDS

A. ASME B16.18 - Cast Copper Alloy Solder Joint Pressure Fittings; 2012.

B. ASME B16.22 - Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings; 2013.

C. ASTM B32 - Standard Specification for Solder Metal; 2008 (Reapproved 2014).

D. ASTM B42 - Standard Specification for Seamless Copper Pipe, Standard Sizes; 2015a.

E. ASTM B88 - Standard Specification for Seamless Copper Water Tube; 2014.

F. ASTM B813 - Standard Specification for Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube; 2010.

G. ASTM B828 - Standard Practice for Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings; 2002 (Reapproved 2010).

H. AWWA C651 - Disinfecting Water Mains; 2005.

I. CISPI 301 - Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste and Vent Piping Applications; 2009.

J. CISPI 310 - Specification for Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications; 2011.

K. California Code of Regulations, Title 24, Part 5: California Plumbing Code (CPC), latestedition.

L. NSF 61 - Drinking Water System Components - Health Effects; 2014 (Errata 2015).

M. NSF 372 - Drinking Water System Components - Lead Content; 2011.

1.03 SUBMITTALS

A. See Division 1 for submittalprocedures.

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B. Product Data: Provide data on pipe materials, pipe fittings, valves, and accessories. Provide manufacturers catalog information. Indicate valve data and ratings.

C. Pipe Test Reports: Submit pipe pressure test reports for all piping installed under this contract indicating that piping systems have been tested in accordance with the California Plumbing Code.

1.04 REGULATORY REQUIREMENTS

A. Perform Work in accordance with State of California plumbing code.

B. All wetted parts of pipe, valves, equipment and appurtenances for use in potable water systems shall be in compliance with the Reduction of Lead in Drinking Water Act, amendments to Section 1417 of the Safe Drinking Water Act which are effective January 4, 2014. Lead content shall not exceed 0.25% byweight.

1.05 DELIVERY, STORAGE,AND HANDLING

A. Accept valves on site in shipping containers with labeling in place. Inspect for damage.

B. Provide temporary protective coating on cast iron and steel valves.

C. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.

D. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completedsystem.

PART 2 PRODUCTS

2.01 SANITARY SEWER PIPING, BURIED WITHIN 5 FEET OFBUILDING

A. Cast Iron Pipe: CISPI 301,hubless.

1. Fittings: Cast iron.
2. Joints: CISPI 310, neoprene gasket and stainless steel clamp and shield assemblies.

2.02 DOMESTIC WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING

A. Copper Pipe: ASTM B42, harddrawn.

1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22 wrought copper andbronze.
2. Joints: ASTM B32, alloy Sn95 solder.

2.03 DOMESTIC WATER PIPING, ABOVEGRADE

A. Copper Tube: ASTM B88 (ASTM B88M), Type L (B), Drawn (H).

1. Fittings: ASME B16.18, cast copper alloy or ASME B16.22, wrought copper andbronze.
2. Joints: ASTM B32, alloy Sn95 solder.

2.04 'LEAD FREE' BALL VALVES

A. Manufacturers:

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1. Nibco, Inc. Model:S-685-66-LF

B. Construction: 2" and smaller, bronze body, 2 piece, MSS SP-110; NSF 61-G; 600 psig, full port, stainless steel ball, teflon seats and packing, blow out proof stem, lever handle, solder ends.

2.05 SPRING LOADED CHECKVALVES

A. Manufacturers:

1. Hammond Valve; www.hammondvalve.com.

2. Crane Company; www.cranecpe.com.

3. Milwaukee Valve Company; www.milwaukeevalve.com.

B. Class 125, iron body, bronze trim, stainless steel springs, bronze disc, Buna N seals, wafer style ends.

2.06 STRAINERS

A. Manufacturers:

1. Armstrong International, Inc; www.armstronginternational.com/#sle.

2. Green Country FilterManufacturing; www.greencountryfilter.com/#sle.

B. Size 2 inch and Under:

1. Threaded brass body for 175 psi CWP, Y pattern with 1/32 inch stainless steel perforated screen.

2. Class 150, threaded bronze body 300 psi CWP, Y pattern with 1/32 inch stainless steel perforated screen.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that excavations are to required grade, dry, and not over-excavated.

3.02 INSTALLATION

A. Install and test all plumbing piping systems in strict accordance with the California Plumbing Code.

B. Install in accordance with manufacturer'sinstructions.

C. Provide non-conducting dielectric connections wherever jointing dissimilar metals.

D. Route piping in orderly manner and maintain gradient. Route parallel and perpendicular to walls.

E. Install piping to maintain headroom, conserve space, and not interfere with use of space.

F. Group piping whenever practical at common elevations.

G. Copper Pipe and Tube: Make soldered joints in accordance with ASTM B828, using specified solder, and flux meeting ASTM B813; in potable water systems use flux also complying with NSF 61 and NSF 372.

3.03 TOLERANCES

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A. Drainage Piping: Establish invert elevations within 1/2 inch vertically of location indicated and slope to drain at minimum of 1/4 inch per footslope.

B. Water Piping: Slope at minimum of 1/32 inch per foot and arrange to drain at low points.

3.04 DISINFECTION OF DOMESTIC WATER PIPINGSYSTEM

A. Prior to starting work, verify system is complete, flushed and clean.

B. Ensure acidity (pH) of water to be treated is between 7.4 and 7.6 by adding alkali (caustic soda or soda ash) or acid (hydrochloric).

C. Inject disinfectant, free chlorine in liquid, powder, tablet or gas form, throughout system to obtain 50 to 80 mg/L residual.

D. Flush disinfectant from system until residual equal to that of incoming water or 1.0 mg/L.

E. Take samples no sooner than 24 hours after flushing, from 10 percent of outlets and from water entry, and analyze in accordance with AWWAC651.

3.05 SERVICE CONNECTIONS

A. Provide new sanitary sewer services. Before commencing work check invert elevations required for sewer connections, confirm inverts and ensure that these can be properly connected with slope for drainage and cover to avoid freezing.

3.06 SCHEDULES

A. Pipe Hanger Spacing:

1. Metal Piping:
    a. Pipe Size: 1/2 inches to 1-1/4inches:
        1) Maximum Hanger Spacing: 6.5 feet
        2) Hanger Rod Diameter: 3/8 inches.
    b. Pipe Size: 1-1/2 inches to 2inches:
        1) Maximum Hanger Spacing: 10 feet
        2) Hanger Rod Diameter: 3/8 inch.
    c. Pipe Size: 2-1/2 inches to 3inches:
        1) Maximum Hanger Spacing: 10 feet
        2) Hanger Rod Diameter: 1/2 inch.

END OF SECTION

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SECTION 22 1006
PLUMBING PIPING SPECIALTIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Drains.

B. Cleanouts.

C. Hose bibbs.

D. Hydrants.

E. Refrigerator valve and recessed box.

F. Backflow preventers.

G. Water hammer arrestors.

1.02 REFERENCE STANDARDS

A. ASME A112.6.3 - Floor and Trench Drains; 2001 (R2007).

B. ASME A112.6.4 - Roof, Deck, and Balcony Drains; 2008 (Reaffirmed 2012).

C. ASSE 1011 - Hose Connection Vacuum Breakers; 2004.

D. ASSE 1012 - Backflow Preventer with Intermediate Atmospheric Vent; 2009.

E. ASSE 1013 - Reduced Pressure Principle Backflow Preventers and Reduced Pressure Principle Fire Protection Backflow Preventers; 2011.

F. ASSE 1019 - Performance Requirements for Wall Hydrant with Backflow Protection and Freeze Resistance; 2011.

G. NSF 61 - Drinking Water System Components - Health Effects; 2016.

H. NSF 372 - Drinking Water System Components - Lead Content; 2016.

I. PDI-WH 201 - Water Hammer Arresters; 2010.

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide component sizes, rough-in requirements, service sizes, and finishes.

1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with not less than three years documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING

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A. Accept specialties on site in original factory packaging. Inspect for damage.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Specialties in Potable Water Supply Systems: Provide products that comply with NSF 61 and NSF 372 for maximum lead content.

2.02 DRAINS

A. Manufacturers:

1. Josam Company; www.josam.com.
2. Jay R. Smith Manufacturing Company: www.jayrsmith.com.
3. Zurn Industries, LLC; www.zurn.com.
4. Mifab: www.mifab.com

B. Roof Drains:

1. Assembly: ASME A112.6.4.
2. Body: Lacquered cast iron with sump.
3. Strainer: Removable polyethylene dome with vandal proof screws.

C. Roof Overflow Drains:

1. Lacquered cast iron body and clamp collar and bottom clamp ring; pipe extended to 2 inches above flood elevation.

D. Area Drains:

1. Assembly: ASME A112.6.4.
2. Body: Lacquered cast iron with sump.
3. Strainer: Round nickel-bronze.
4. Accessories: Membrane flange and membrane clamp with integral gravel stop, with adjustable under deck clamp.

E. Floor Drain:

1. ASME A112.6.3; lacquered cast iron or stainless steel, two piece body with double drainage flange, weep holes, reversible clamping collar, and round, adjustable nickel-bronze strainer.

F. Floor Sink:

1. Cast iron 8 inch square, 6 inch deep flanged receptor with seepage holes, acid resistant coated interior, loose set acid resistant coated cast iron grate, and aluminum dome bottom strainer.

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2.03 CLEANOUTS

- A. Manufacturers:
    - 1. Jay R. Smith Manufacturing Company: www.jayrsmith.com.
    - 2. Josam Company: www.josam.com.
    - 3. Zurn Industries, LLC: www.zurn.com.
    - 4. Mifab: www.mifab.com

2.04 HOSE BIBBS

- A. Manufacturers:
    - 1. Jay R. Smith Manufacturing Company: www.jayrsmith.com.
    - 2. Woodford: www.woodfordmfg.com.
    - 3. Zurn Industries, LLC: www.zurn.com.
    - 4. Mifab: www.mifab.com

2.05 HYDRANTS

- A. Wall Hydrants:
    - 1. ASSE 1019; freeze resistant, self-draining type with chrome plated wall plate hose thread spout, handwheel, and integral vacuum breaker.

2.06 REFRIGERATOR VALVE AND RECESSED BOX

- A. Box Manufacturers:
    - 1. IPS Corporation/Water-Tite: www.ipscorp.com.
    - 2. Oatey Supply Chain Services, Inc: www.oatey.com.
- B. Valve Manufacturers:
    - 1. IPS Corporation/Water-Tite: www.ipscorp.com.
    - 2. Zurn Industries, LLC: www.zurn.com.

2.07 BACKFLOW PREVENTERS

- A. Manufacturers:
    - 1. Conbraco Industries, Inc: www.apollovalves.com.
    - 2. Watts Regulator Company, a part of Watts Water Technologies: www.wattsregulator.com.
    - 3. Zurn Industries, LLC: www.zurn.com.

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B. Reduced Pressure Backflow Preventers:

1. ASSE 1013; bronze body with bronze internal parts and stainless steel springs; two independently operating, spring loaded check valves; diaphragm type differential pressure relief valve located between check valves; third check valve that opens under back pressure in case of diaphragm failure; non-threaded vent outlet; assembled with two gate valves, strainer, and four test cocks.

2.08 WATER HAMMER ARRESTORS

A. Manufacturers:

1. Precision Plumbing Products: www.pppinc.com.
2. Watts Regulator Company, a part of Watts Water Technologies: www.wattsregulator.com.
3. Zurn Industries, LLC: www.zurn.com.
4. Mifab: www.mifab.com

PART 3 EXECUTION

3.01 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Extend cleanouts to finished floor or wall surface. Lubricate threaded cleanout plugs with mixture of graphite and linseed oil. Ensure clearance at cleanout for rodding of drainage system.

C. Install floor cleanouts at elevation to accommodate finished floor.

D. Install approved potable water protection devices on plumbing lines where contamination of domestic water may occur; on boiler feed water lines, janitor rooms, fire sprinkler systems, premise isolation, irrigation systems, flush valves, interior and exterior hose bibbs.

E. Pipe relief from backflow preventer to nearest drain.

END OF SECTION

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SECTION 27 1000
STRUCTURED CABLING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Communications system design requirements.

B. Communications pathways.

C. Copper cable and terminations.

D. Fiber optic cable and interconnecting devices.

E. Communications outlets.

F. Communications grounding and bonding.

G. Communications identification.

1.02 RELATED REQUIREMENTS

A. Section 26 05 33.13 - Conduit for Electrical Systems.

B. Section 26 05 33.16 - Boxes for Electrical Systems.

1.03 REFERENCE STANDARDS

A. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

B. TIA-455-21 - FOTP-21 - Mating Durability of Fiber Optic Interconnecting Devices 1988a (Reaffirmed 2012).

C. TIA-606 - Administration Standard for Telecommunications Infrastructure 2017c.

D. TIA-607 - Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises 2015c, with Addendum (2017).

E. UL 514C - Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers Current Edition, Including All Revisions.

F. UL 1863 - Communications-Circuit Accessories Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. Coordinate requirements for service entrance and entrance facilities with Communications Service Provider.
2. Coordinate the work with other trades to avoid placement of other utilities or obstructions within the spaces dedicated for communications equipment.
3. Coordinate arrangement of communications equipment with the dimensions and clearance requirements of the actual equipment to be installed.

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4. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.05 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product.

C. Shop Drawings: Show compliance with requirements on isometric schematic diagram of network layout, showing cable routings, telecommunication closets, rack and enclosure layouts and locations, service entrance, and grounding, prepared and approved by BICSI Registered Communications Distribution Designer (RCDD).

D. Evidence of qualifications for installer.

E. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and operation of product.

F. Field Test Reports.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: At least 3 years experience manufacturing products of the type specified.

B. Installer Qualifications: A company having at least 3 years experience in the installation and testing of the type of system specified, and:

   1. Employing a BICSI Registered Communications Distribution Designer (RCDD).

   2. Supervisors and installers factory certified by manufacturers of products to be installed.

C. Products: Listed, classified, and labeled as suitable for the purpose intended.

1.07 WARRANTY

A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

B. Correct defective Work within a 2 year period after Date of Substantial Completion.

PART 2 PRODUCTS

2.01 SYSTEM DESIGN

A. Provide a complete permanent system of cabling and pathways for voice and data communications, including cables, conduits and wireways, pull wires, support structures, enclosures and cabinets, and outlets.

   1. Provide fixed cables and pathways that comply with NFPA 70 and TIA-607 and are UL listed or third party independent testing laboratory certified.

   2. Provide connection devices that are rated for operation under conditions of 32 to 140 degrees Fahrenheit at relative humidity of 0 to 95 percent, noncondensing.

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3. In this project, the term plenum is defined as return air spaces above ceilings, inside ducts, under raised floors, and other air-handling spaces.

B. Main Distribution Frame (MDF): Centrally located support structure for terminating horizontal cables that extend to telecommunications outlets, functioning as point of presence to external service provider.

    1. For the entire campus there is one main distribution frame and for each building there is a building distribution frame (BDF) that functions as the main distribution frame (MDF) for that building.

    2. Locate main distribution frame as indicated on the drawings.

C. Intermediate Distribution Frames (IDF): Support structures for terminating horizontal cables that extend to telecommunications outlets.

    1. Locate intermediate distribution frames as indicated on the drawings.

D. Cabling to Outlets: Specified horizontal cabling, wired in star topology to distribution frame located at center hub of star; also referred to as "links".

2.02 PATHWAYS

A. Conduit: As specified in Section 26 05 33.13; provide pull cords in all conduit.

B. Overhead Service Entrance: Weatherhead or service entrance fitting located on outside of building with galvanized rigid steel or intermediate metallic conduit running to entrance facility.

C. Underground Service Entrance: Rigid polyvinyl chloride (PVC) conduit, Schedule 40.

2.03 COPPER CABLE AND TERMINATIONS

A. Manufacturers:

B. Copper Cable Terminations: Insulation displacement connection (IDC) type using appropriate tool; use screw connections only where specifically indicated.

C. Jacks and Connectors: Modular RJ-45, non-keyed, terminated with 110-style insulation displacement connectors (IDC); high impact thermoplastic housing; suitable for and complying with same standard as specified horizontal cable; UL 1863 listed.

    1. Performance: 750 mating cycles.

    2. Voice and Data Jacks: 8-position modular jack, color-coded for both T568A and T568B wiring configurations.

D. Copper Patch Cords:

    1. Description: Factory-fabricated 4-pair cable assemblies with 8-position modular connectors terminated at each end.

2.04 FIBER OPTIC CABLE AND INTERCONNECTING DEVICES

A. Manufacturers:

    1. CommScope; : www.commscope.com/#sle.

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2. General Cable Technologies Corporation; : www.generalcable.com/#sle.

3. Siemon Company; : www.siemon.com/#sle.

B. Fiber Optic Interconnecting Devices:

1. Connector Type: Type SC.

2. Connector Performance: 500 mating cycles, when tested in accordance with TIA-455-21.

3. Maximum Attenuation/Insertion Loss: 0.3 dB.

C. Fiber Optic Patch Cords:

1. Description: Factory-fabricated 2-fiber cable assemblies with suitable connectors at each end.

2.05 COMMUNICATIONS OUTLETS

A. Manufacturers:

1. CommScope; : www.commscope.com/#sle.

2. Siemon Company; : www.siemon.com/#sle.

B. Outlet Boxes: Comply with Section 26 05 33.16.

1. Provide depth as required to accommodate cable manufacturer's recommended minimum conductor bend radius.

C. Wall Plates:

1. Comply with system design standards and UL 514C.

2. Accepts modular jacks/inserts.

3. Capacity:

a. Data or Combination Voice/Data Outlets: 6 ports.

4. Wall Plate Material/Finish - Flush-Mounted Outlets: High impact thermoplastic, color to be selected.

2.06 IDENTIFICATION PRODUCTS

A. Comply with TIA-606.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

A. Comply with Communication Service Provider requirements.

B. Grounding and Bonding: Perform in accordance with TIA-607 and NFPA 70.

3.02 INSTALLATION OF PATHWAYS

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A. Install pathways with the following minimum clearances:

   1. 48 inches from motors, generators, frequency converters, transformers, x-ray equipment, and uninterruptible power systems.

   2. 12 inches from power conduits and cables and panelboards.

   3. 5 inches from fluorescent and high frequency lighting fixtures.

   4. 6 inches from flues, hot water pipes, and steam pipes.

B. Conduit, in Addition to Requirements of Section 26 05 33.13:

C. Outlet Boxes:

   1. Coordinate locations of outlet boxes provided under Section 26 05 33.16 as required for installation of telecommunications outlets provided under this section.

3.03 INSTALLATION OF EQUIPMENT AND CABLING

A. Cabling:

   1. Do not bend cable at radius less than manufacturer's recommended bend radius; for unshielded twisted pair use bend radius of not less than 4 times cable diameter.

   2. Do not over-cinch or crush cables.

   3. Do not exceed manufacturer's recommended cable pull tension.

   4. When installing in conduit, use only lubricants approved by cable manufacturer and do not chafe or damage outer jacket.

B. Service Loops (Slack or Excess Length): Provide the following minimum extra length of cable, looped neatly:

   1. At Distribution Frames: 120 inches.

   2. At Outlets - Copper: 12 inches.

   3. At Outlets - Optical Fiber: 39 inches.

C. Copper Cabling:

   1. For 4-pair cables in conduit, do not exceed 25 pounds (110 N) pull tension.

   2. Use T568B wiring configuration.

D. Fiber Optic Cabling:

   1. Prepare for pulling by cutting outer jacket for 10 inches from end, leaving strength members exposed. Twist strength members together and attach to pulling eye.

   2. Support vertical cable at intervals as recommended by manufacturer.

E. Identification:

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1. Use wire and cable markers to identify cables at each end.
2. Use manufacturer-furnished label inserts, identification labels, or engraved wallplate to identify each jack at communications outlets with unique identifier.

3.04 FIELD QUALITY CONTROL

A. See Section 01 40 00 - Quality Requirements, for additional requirements.

B. Comply with inspection and testing requirements of specified installation standards.

C. Visual Inspection:

   1. Inspect cable jackets for certification markings.
   2. Inspect cable terminations for color coded labels of proper type.
   3. Inspect outlet plates and patch panels for complete labels.

D. Testing - Copper Cabling and Associated Equipment:

E. Testing - Fiber Optic Cabling:

F. Final Testing: After all work is complete, including installation of telecommunications outlets, and telephone dial tone service is active, test each voice jack for dial tone.

END OF SECTION

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SECTION 27 4100
AUDIO/VISUAL SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

A. The work covered in this document consists of furnishing all labor, material and services necessary to install a complete audiovisual system as indicated on the project drawings and in these specifications.

B. Deliverables: Prior to ordering materials or commencing any construction activities, the contractor shall provide the Owner with a complete bill of materials, including all quantities of components, devices, equipment, and wiring required to complete this work. Submit product data, including manufacturer's data sheets for all proposed system components. Submit three copies with all specific items that will be provided clearly indicated and any options highlighted.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Extron Electronics Address: 1230 South Lewis Street, Anaheim, Ca 92805 Phone 714.491.1500 or 800.633.9876

B. Exceptions to the specifications are not acceptable. No substitutions permitted.

2.02 SYSTEMS DESCRIPTION

A. Provide a complete Audiovisual System for small to medium sized classrooms. The system switching and audio amplification equipment shall be securely mounted and concealed in an enclosure above the ceiling mounted projector. Portable video source equipment (OFE) can be connected to the system and displayed via three interface panels located throughout the room. Video and audio signals from source devices shall be transmitted from the interface panels over standard UTP cabling architecture.

B. Owner Furnished Equipment (OFE): In each system, the video source equipment, projection screen and video projector shall be furnished by the Owner (OFE). Portable source equipment such as DVDs, VCRs, laptop computers, document cameras, etc. shall be owner furnished.

2.03 GENERAL EQUIPMENT REQUIREMENTS

A. Acceptable products are listed below categorized by type of equipment. Quantities are listed for movable, portable or loose equipment, and other selected entries. Where quantities are not listed, refer to the system drawings.

B. Deviations from this specification must be documented in writing to the Architect and Owner at least ten business days prior to the bid date.

C. The System components shall all be listed and labeled by Underwriters Laboratories Incorporated (UL).

D. All products shall be new and under warranty at the time of installation. B-stock, previously installed, refurbished or used equipment shall not be provided on this project.

E. Where the specification lists several manufacturers for a major item, or group of items, the AV Integrator shall provide that entire item from one manufacturer only.

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F. The contractor shall provide all options, accessories and hardware necessary to meet the function of the design even if they are not specifically listed (i.e. mounting kits, separate or additional power supplies, input modules, transformers, etc.).

2.04 FIXED EQUIPMENT

PROVIDE THE FOLLOWING POLEVAULT SYSTEM AS AN ALL INCLUSIVE SYSTEM AS DESCRIBED BELOW, ONE SYSTEM FOR EACH ROOM:

A. Projector Mounting - the Owner Furnished Projector (OFE) shall be mounted using the following components.

1. Extron PCM 240 (Part Number 60-772-03) drop ceiling mount.

   a. The PCM 240 projector mount must be capable of mounting to the structural ceiling (concrete or wood joists), above the suspended ceiling via turnbuckles and tie wire or threaded rod. Note: this mount is only applicable for drop or suspended ceiling applications.

      1) The mount shall be capable of supporting up to 50 pounds (23 kgs) of A/V equipment.

      2) The mount must also include (1) single gang and (1) double gang knockout openings for junction boxes or for use as cable pass-throughs.

      3) The mount must also include a 1.5” threaded pipe adapter for projector mount poles.

   b. Extron UPB 25 (Part Number 60-773-02) Universal Projector Bracket.

      1) The bracket shall be able to support projectors up to 25 pounds.

      2) The projector bracket must have independent adjustments of horizontal tilt or roll (± 4 degrees of horizontal tilt), vertical angle or pitch (± 25 degrees of vertical angle), and rotation or yaw (360 degrees of rotation).

      3) The projector bracket shall also use a 1.5” NTP (National Tapered Pipe) threaded pipe adapter for mounting a projector pole.

      4) The projector bracket should also maintain positioning adjustments even if the projector is removed for service.

      5) The bracket should also feature security flanges that enable the entire unit to be padlocked to prevent theft.

   c. Extron PMP 6” (Part number 70-511-13) Projector Mounting Pole.

      1) The projector mounting pole shall be 1.5” NTP (National Tapered Pipe) threaded pipe threaded at both ends to facilitate mounting the projector to the ceiling mount and to the universal projector mount.

      2) The projector mounting pole shall be 6” with available optional lengths of 10” or 12” in lengths.

      3) The pole shall provide a cutout section to all for cable access.

   d. Extron PMK 450 (Part Number 70-618-03) Multi-Product Projector Mounting Kit.

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1) The multi-product projector mounting kit shall mount securely to the PMP mounting pole and house products used in each system. These products may be Extron PVS 204SA TP Switcher, power supplies, audio amplifiers, IP Link products and other Extron quarter rack product options.

2. Media Source Switching:

a. System source selection and switching shall be provided by the Extron PVS Switcher with Stereo Amplifier (Part Number 60-800-01).

1) The PVS 204SA Switcher shall have two (2) RGB video inputs capable of VGA

(a) - UXGA RGBHV, RGBS, RBsB and RsGsBs input resolution via (2) two pairs of female RJ-45 connectors.

2) The PVS 204SA Switcher shall have two (2) composite video inputs via two (2) female RJ-45 connectors.

3) Audio input shall be via four (4) stereo, balanced /unbalanced inputs via the same four (4) RJ-45 RGB and Composite video connectors.

4) The PVS 204SA Switcher shall have two video outputs, one (1) RGB output capable of outputting VGA - UXGA RGBHV, RGBS, RBsB and RsGsBs (following input type) via a 15-pin HD female connector and one (1) composite video via one (1) RCA female connector.

5) Connection from the PVS 204SA Switcher to the display device shall be provided with one 3' VGA to VGA molded cable (Part Number 26-567-01) and one 3' composite video cable (Part Number 26-600-03).

6) An onboard audio amplifier shall provide gain / volume adjustment from -10db to +10db, adjustable in 1 db steps. The speaker amplifier shall have two (2) channels, one (1) stereo (default) or dual (2) mono channels via one (1) 0.2 inch 4 pole captive screw connector. The output of the amplifier shall be 11 watts (rms) per channel at 4 ohms and 7 watts (rms) per channel at 8 ohms.

3. Media Source Control:

a. Classroom media sources shall be controlled with the Extron MLC 104 IP Plus (Part Number 60-818-03) MediaLink Controller with IP Link.

1) The MediaLink Controller shall contain six tri-color, multi-status LEDs push- buttons for device selection and projector on / off control. A rotary volume control knob with five (5) LED volume indicators shall permit system volume level control.

2) The MLC 104 IP Plus controller shall feature Extron IP Link Ethernet for monitoring, scheduling and control. This IP technology shall enable the device

(a) to be controlled, scheduled and monitored over a LAN, WAN or the Internet using Extron Global Viewer or MLC controller software.

3) The Controller shall contain a serial host port which shall consist of one (1) bi- directional RS-232 front panel 2.5mm mini stereo jack. This host connection port shall be for configuration and control of the controller itself and to install device drivers for the equipment to be controlled.

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4) The Controller shall also feature (2) bi-directional serial ports to provide device control. These two ports shall control the display device and PVS 204SA switcher respectively via bi-directional RS-232 control via one (1) 3.5mm direct insertion captive screw connector.

5) The MLC 104 IP plus shall also have two (3) configurable (via software) digital input / outputs for devices such as sensors, switches, LEDs and relays via one

(a) 3.5mm 4-pole direct insertion captive screw connector.

6) Connection from the MLC 104 IP Plus to the display shall be provided by one

(a) 50' Projector control cable (Part Number 26-621-50).

7) Connection from the MLC 104 IP Plus to the PVS 204SA switcher shall be provided by one (1) 50' Switcher Control cable (Part Number 26-626-50).

4. Speakers:

a. In suspended ceiling applications, a pair of Extron SI 3CT LP (Part Number 42-103-03 for a pair) shall be used.

1) These speakers shall feature 4” deep low profile metal back can for plenum environments.

2) The speakers shall feature a frequency response of 75 Hz to 17 kHz - 10 db, half space.

3) The power capacity shall be 16 watts of continuous pink noise or 32 watts of continuous program media.

4) The coverage angle of the speaker shall be 170 degrees of conical coverage.

5) The nominal impedance shall be 8 ohms.

6) The speakers shall feature 70volt rotary taps with taps at 16W, 8W, 4W, 2W, 1W and 100volt rotary taps with taps at null, 16W, 8W, 4W, and 2W.

7) The input connector shall be (1) 5mm captive screw for 1 input and 1 loop- through connection.

8) Connection from the PVS 204SA switcher to the SI 3CT LP speaker shall be provided by one (1) 25' Plenum rated 18 Gauge Speaker Cable Extron SPK-18 (Part Number 26-627-25).

9) Optional - second pair of Extron SI 3CT LP speakers and Extron SPK-18 cable

5. Media Source Interfacing:

a. Owner furnished media source equipment (OFE) shall be connected to the audiovisual system via four Twisted Pair Transmitter Wall Plates. These wall plates shall enable the system to display video and graphic data from Laptop computers, DVD and VCRs, document camera, camcorders, etc.

1) These interfaces shall be placed in convenient locations throughout the classroom to facilitate easy connection of sources.

2) Provide two types of interface panels. They are the Extron PVT RGB D VGA Transmitter (Part Number 60-820-03) and the PVT CV D Composite Video Transmitter (Part number 60-819-03).

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b. The System shall include two (2) Extron PVT RGB D - RGB Video Twisted Pair Transmitter - Wall Plates (Part Number 60-820-03).

1) The RGB Video Twisted Pair Transmitter - Wall Plates shall be used to connect up to two (2) RGB devices to the system and transmit the video and audio data to the switcher.

2) The RGB Video Twisted Pair Transmitter - Wall plates shall fit in a standard, single-gang electrical box and feature Decora® type faceplates.

3) The RGB Video Twisted Pair Transmitter - Wall plates shall transmit RGB video over UTP cable to the PVS 204SA Switcher and support video input resolutions of VGA - UXGA RGBHV, RGBS, RBsB and RsGsBs via one (1) female 15-pin HD connector.

4) Stereo audio shall be input via one (1) 0.14 inch mini stereo jack.

5) Connection to each PVT RGB D shall be provided via an Extron male VGA to male VGA and male 3.5mm TRS to male 3.5mm TRS cable for RGBHV and audio (Part Number 26-490-XX), length to be coordinated by owner.

6) The output of the interface shall be via two (2) female RJ-45 connectors.

7) Connection to the PVS 204SA Switcher shall be via two (2) plenum rated UTP cables.

c. The System shall include two (2) Extron PVT CV D Composite Video Twisted Pair Transmitter - Wall Plates. (Part number 60-819-03)

1) The Composite Video Twisted Pair Transmitter - Wall Plates shall transmit composite video over UTP cable to the PVS 204SA Switcher and support video input via a RCA female connector.

2) The Composite Video Twisted Pair Transmitter - Wall plates shall fit in a standard, single-gang electrical box and feature Decora® type faceplates.

3) Stereo audio shall be input via two (2) RCA female connectors.

4) Connections to the PVT CV D from the DVD/VCR shall be provided via one

(a) Extron male 3 x RCA to male 3 x RCA cable for composite video and audio, cable length to be coordinated by owner.

5) The output of the interface shall be via one (1) female RJ-45 connector.

6) Connection to the PVS 204SA Switcher shall be via one (1) plenum rated UTP cable.

PART 3 - EXECUTION

3.01 GENERAL

A. All equipment and enclosures described in this specification shall be installed plumb and square per manufacturer's instructions.

B. All equipment, except that designated as movable, portable or loose equipment, shall be secured and permanently attached to the permanent structure in a manner which will require the use of a tool (e.g.: screw driver, nut driver, etc.) for removal.

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C. All supports shall meet or exceed the load requirements of the intended application with a minimum safety factor of five.

D. Provide support structure and hardware with a SAE Grade 8 load rating (min.).

3.02 EXAMINATION

A. Site Verification of Conditions: Verify that related conditions, including equipment that has been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

B. All devices connected to equipment specified in this section shall bear the UL label and comply with the applicable National Electrical Code (NEC) standards.

3.03 INSTALLATION

A. Contractor shall furnish all equipment, labor, system setup, and other services necessary for the proper installation of the products/system as indicated on the drawings and specified herein. System setup information shall include each components proper mounting and alignment and properly verified signal pathways and operation. Proper operational and network support control functions shall be verified.

1. Install in accordance with manufacturer's handling and installation instructions.

B. Install in accordance with all local and pertaining codes and regulations

C. Utilize an installer with demonstrated experience in projects of similar size and complexity.

D. Equipment shall be ready for use to condition at the end of installation.

E. Energize equipment in accordance with manufacturer's instructions.

3.04 PROTECTION AND CLEANING

A. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

B. Repair or replace damaged components before Substantial Completion of the project.

C. Remove temporary tags, coverings, and construction debris from interior and exterior surfaces of the equipment. Remove construction debris from equipment area and dispose of properly.

END OF SECTION

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SECTION 27 5116
PUBLIC ADDRESS SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Amplifier and control equipment.

B. Input equipment.

C. Reproducer equipment.

D. Sound system cable.

E. Accessories.

1.02 RELATED REQUIREMENTS

A. Section 26 05 26 - Grounding and Bonding for Electrical Systems.

B. Section 26 05 33.16 - Boxes for Electrical Systems.

1.03 REFERENCE STANDARDS

A. California Electrical Code; 2019.

1.04 SYSTEM DESCRIPTION

A. Public address system for voice.

B. Input components:

1. Local VOIP devices.

C. Features:

1. Interface to telephone system.

2. Talk back feature.

3. Selective speaker talkback.

1.05 SUBMITTALS

A. Shop Drawings: Indicate electrical characteristics and connection requirements. Indicate layout of equipment mounted in racks and cabinets, component interconnecting wiring, and wiring diagrams of field wiring to speakers and remote input devices.

B. Product Data: Provide data showing electrical characteristics and connection requirements for each component.

C. Test Reports: Indicate satisfactory completion of each test recommended by the manufacturer.

D. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and

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starting of product.Project Record Documents: Record actual locations of speakers, control equipment, and outlets for input/output connectors.

E. Operation Data: Include instructions for adjusting, operating, and extending the system.

F. Maintenance Data: Include repair procedures and spare parts documentation.

1.06 QUALITY ASSURANCE

A. Conform to requirements of NFPA 70 and Federal Communications Commission.

B. Installer Qualifications: Authorized installer of specified manufacturer with service facilities within 100 miles of Project.

1. Products: Listed, classified, and labeled as suitable for the purpose intended.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Atlas IED: www.atlasied.com.

B. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 PAGING HEAD END

A. Analog Inputs: 1 10kohm input with 2.0 VPP maximum.

B. Compatible with SIP server or VOIP communications manager.

C. Atlas IED IPS-VPS

2.03 COMPONENTS

A. Speakers: 8 inch POE+ Indoor Horn System with LED Display

1. Power Rating: 15 watts.
2. Frequency Range: 600Hz - 14kHz.
3. IEEE802.3 10/100Base0T Ethernet
4. Product: Atlas IED I8SCH+ w/ SEA-I8SC.

B. Software: Advanced Notification Application Software.

1. Atlas IED GCK

2.04 WIRE AND CABLE

A. Existing CAT6A

PART 3 EXECUTION

3.01 INSTALLATION

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A. Install in accordance with manufacturer's instructions.

B. Mounting Heights: Coordinate existing drop locations with school district prior to installation.

C. Splice cable only in accessible junction boxes or at terminal block units.

D. Remove all existing PA/Clock equipment from existing MPOE equipment room.

3.02 FIELD QUALITY CONTROL

A. See Section 01 40 00 - Quality Requirements, for additional requirements.

B. Measure and record sound power levels at designated locations.

3.03 ADJUSTING

A. Adjust devices and wall plates to be flush and level.

3.04 CLOSEOUT ACTIVITIES

A. Demonstration: Demonstrate operation of system to Owner's personnel.

  1. Use operation and maintenance data as reference during demonstration.

  2. Conduct walking tour of project.

  3. Briefly describe function, operation, and maintenance of each component.

B. Training: Train Owner's personnel on operation and maintenance of system.

  1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.

  2. Provide minimum of two hours of training.

  3. Location: At project site.

END OF SECTION

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SECTION 28 1000
ACCESS CONTROL

PART 1 GENERAL (NOT USED)

PART 2 PRODUCTS

2.01 ACCESS CONTROL SYSTEM REQUIREMENTS

A. Provide new access control system consisting of required equipment, conduit, boxes, wiring, connectors, hardware, supports, accessories, software, system programming, etc. as necessary for a complete operating system that provides the functional intent indicated.

B. Provide products listed, classified, and labeled as suitable for the purpose intended.

   1. Access Control Units and Readers: Listed and labeled as complying with UL 294.

2.02 ACCESS CONTROL UNITS AND SOFTWARE

A. Provide access control units and software compatible with readers to be connected.

B. Unless otherwise indicated, provide software and licenses required for fully operational system.

2.03 ACCESS CONTROL POINT PERIPHERALS

A. Provide devices compatible with control units and software.

B. Provide devices suitable for operation under the service conditions at the installed location.

C. Door Locking Devices (Electric Strikes and Magnetic Locks): Comply with Section 08 7100.

PART 3 EXECUTION (NOT USED)

END OF SECTION

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SECTION 28 1600
INTRUSION DETECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes the following:

1. The work under this section includes all labor, materials, equipment, and accessories required to furnish and install additions to the existing Intrusion Detection System as indicated on the drawings and as specified herein.

2. The system shall consist of door switches and motion detection devices connected to detect intrusion into covered areas. The system shall be zoned per classroom or as indicated on the drawings and have a control panel capable of providing alarm and trouble signals, by zone, for connection to the district equipment or transmitted as per District requirements. System on-off and access control from remote equipment furnished by the district or by a remote pushbutton key pad.

3. Each building shall be a separate compartment and can have a key pad mounted as shown. A master key pad position shall be provided as shown in the administrative area.

4. Document affecting work of the section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and sections of Division 16 of these specifications.

5. The work described by this part includes the furnishing of all materials, equipment, supplies, labor and the performing of all operations necessary of the installation of complete and operation systems.

6. All conduits, outlet boxes, back boxes, junction boxes, terminal cabinets, backboards, wiring, cables, equipment, devices, etc., shall be furnished and installed complete under this section. Conduit and junction box size shall be determined by the Installing Alarm System Contractor for the particular wire and cable fills required for the systems installed. Conduit sizes shall comply with requirements indicated in section 1611, Conduit. The entire responsibility of the systems, including the installation, operation, function, testing, and maintenance as required by this section shall be the responsibility of the Alarm System Contractor.

7. The Installing Contractor shall furnish and install all equipment, cables, devices, and other materials even though not specifically mentioned herein, which are necessary for the proper integration of all equipment so that the system shall perform the functions listed herein in compliance with all specified requirements.

1.03 DEFINITIONS

A. LCD: Liquid-crystal display.

B. LED: Light-emitting diode.

C. PIR: Passive infrared.

D. RFI: Radio-frequency interference.

E. UPS: Uninterruptible power supply.

1.04 SUBMITTALS

A. Product Data: Components for sensing, detecting, systems integration, and control, including dimensions and data on features, performance, electrical characteristics, ratings, and finishes.

B. Shop Drawings: Detail assemblies of standard components that are custom assembled for specific application on this Project.

  1. Functional Block Diagram: Show single-line interconnections between components including interconnections between components specified in this Section and those furnished under other Sections. Indicate methods used to achieve systems integration. Indicate control, signal, and data communication paths and identify programmable logic controllers networks and control interface devices and media to be used. Describe characteristics of network and other data communication lines.

  2. Raceway Riser Diagrams: Detail raceway runs required for intrusion detection and for systems integration. Include designation of devices connected by raceway, raceway type, and size, and type and size of wire and cable fill for each raceway run.

  3. UPS: Sizing calculations.

  4. Site and Floor Plans: Indicate final outlet and device locations, routing of raceways, and cables inside and outside the building. Include room layout for central-station control-unit console, terminal cabinet, racks, and UPS.

  5. Central-Station Control-Unit Console Layout: At 1" = 1'-0" (1:12) scale, showing required artwork and device identification.

  6. Device Address List: Coordinate with final system programming.

  7. System Wiring Diagrams: Include system diagrams unique to Project. Show connections for all devices, components, and auxiliary equipment. Include diagrams for equipment and for system with all terminals and interconnections identified.

  8. Details of surge-protection devices and their installation.

  9. Sensor detection patterns and adjustment ranges.

C. Equipment and System Operation Description: Include method of operation and supervision of each component and each type of circuit. Show sequence of operations for manually and automatically initiated system or equipment inputs. Description must cover this specific Project; manufacturer's standard descriptions for generic systems are not acceptable.

D. Samples for Initial Selection: For units with factory-applied color finishes.

E. Samples for Verification: For each type of exposed finish required.

F. Qualification Data: For Installer and testing agency.

G. Field quality-control test reports.

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H. Operation and Maintenance Data: For intrusion detection system to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:

1. Data for each type of product, including features and operating sequences, both automatic and manual.

2. Central-station control-unit hardware and software data.

I. Warranty: Special warranty specified in this Section.

J. Other Information Submittals:

1. Test Plan and Schedule: Test plan defining all tests required to ensure that system meets technical, operational, and performance specifications within 15 of date of Contract award.

2. Examination reports documenting inspections of substrates, areas, and conditions.

3. Anchor inspection reports documenting inspections of built-in and cast-in anchors.

1.05 QUALITY ASSURANCE

A. Installer Qualifications:

1. An employer of workers, at least one of whom is a technician certified by the National Burglar & Fire Alarm Association.

2. Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

B. Intrusion Detection Systems Integrator Qualifications: An experienced intrusion detection equipment supplier and Installer who has completed systems integration work for installations similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

C. Testing Agency Qualifications: An independent testing agency, with the experience and capability to conduct the testing indicated, that is a member company of the National Burglar & Fire Alarm Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to Owner's insurance underwriter.

1. Testing Agency's Field Supervisor: Person currently certified as an advanced alarm technician by the National Burglar & Fire Alarm Association to supervise on-site testing specified in Part 3.

D. Product Options: Drawings indicate size, profiles, and dimensional requirements of detection devices and central-station control units and are based on the specific system indicated. Refer to Division 01 Section "Product Requirements."

E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in CEC, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

F. FMG Compliance: FMG-approved and -labeled intrusion detection devices and equipment.

G. Comply with CEC

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1.06 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer and Installer agree to repair or replace components of intrusion detection devices and equipment that fail in materials or workmanship within specified warranty period.

   1. Warranty Period: One year from date of Substantial Completion.

1.07 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

   1. Intrusion Detection Devices: Furnish quantity equal to five percent of the number of units of each type installed, but no fewer than one of each type.
   2. Fuses: Three of each kind and size.
   3. Tool Kit: Provide six sets of tools for use with security fasteners, each packaged in a compartmented kit configured for easy handling and storage.
   4. Security Fasteners: Furnish no fewer than 1 box for every 50 boxes or fraction thereof, of each type and size of security fastener installed.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Radonics or approved equal

2.02 SYSTEM COMPONENT REQUIREMENTS

A. Compatibility: Detection devices and their communication features, connecting wiring, and central-station control unit shall be selected and configured with accessories for full compatibility with the existing system .

B. Surge Protection: Protect components from voltage surges originating external to equipment housing and entering through power, communication, signal, control, or sensing leads. Include surge protection for external wiring of each conductor entry connection to components.

   1. Minimum Protection for Power Lines 120 V and More: Auxiliary panel suppressors complying with requirements in Division 16 Section "Transient-Voltage Suppression for Low-Voltage Electrical Power Circuits."
   2. Minimum Protection for Communication, Signal, Control, and Low-Voltage Power Lines: Comply with requirements in Division 16 Section "Transient-Voltage Suppression for Low-Voltage Electrical Power Circuits" as recommended by manufacturer for type of line being protected.

C. Interference Protection: Components shall be unaffected by radiated RFI and electrical induction of 15 V/m over a frequency range of 10 to 10,000 MHz and conducted interference signals up to 0.25-V RMS injected into power supply lines at 10 to 10,000 MHz.

D. Tamper Protection: Tamper switches on detection devices, controllers, annunciators, pull boxes, junction boxes, cabinets, and other system components shall initiate a tamper-alarm signal when unit is opened or partially

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disassembled and when entering conductors are cut or disconnected. Central-station control-unit alarm display shall identify tamper alarms and indicate locations.

E. Self-Testing Devices: Automatically test themselves periodically, but not less than once per hour, to verify normal device functioning and alarm initiation capability. Devices transmit test failure to central-station control unit.

F. Antimasking Devices: Automatically check operation continuously or at intervals of a minute or less, and use signal-processing logic to detect blocking, masking, jamming, tampering, or other operational

   1. dysfunction. Devices transmit detection of operational dysfunction to central-station control unit as an alarm signal.

G. Addressable Devices: Transmitter and receivers shall communicate unique device identification and status reports to central-station control unit.

H. Remote-Controlled Devices: Individually and remotely adjustable for sensitivity and individually monitored at central-station control unit for calibration, sensitivity, and alarm condition.

2.03 SECURE AND ACCESS DEVICES

A. Manufacturers:

   1. Radionics

B. Keypad and Display Module: Arranged for entering and executing commands for system-status changes and for displaying system-status and command-related data.

C. Key-Operated Switch: Change protected zone between secure and access conditions.

2.04 DOOR SWITCHES

A. Manufacturers:

   1. Sentrol or approved equal.

B. Description: Balanced-magnetic switch, complying with UL 634, installed on frame with integral overcurrent device to limit current to 80 percent of switch capacity. Bias magnet and minimum of three encapsulated reed switches shall resist compromise from introduction of foreign magnetic fields.

C. Flush-Mounted Switches: Unobtrusive and flush with surface of door and window frame.

D. Overhead Door Switch: Balanced-magnetic type, listed for outdoor locations, and having door-mounting magnet and floor-mounting switch unit.

E. Remote Test: Simulate movement of actuating magnet from central-station control unit.

2.05 MICROWAVE-PIR DUAL-TECHNOLOGY MOTION SENSORS

A. Manufacturers:

   1. Sentrol or approved equal.

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B. Description: Single unit combining a sensor that detects changes in microwave signals and a PIR sensor that detects changes in ambient level of infrared emissions caused by standard-intruder movement within detection pattern.

C. Device Performance: An alarm is transmitted when either sensor detects a standard intruder within a period of three to eight seconds from when the other sensor detects a standard intruder.

1. Minimum Detection Pattern: A room 20 by 30 feet.

2. PIR Sensor Sensitivity: Adjustable pattern coverage to detect a change in temperature of 2 degrees Fahrenheit or less, and standard-intruder movement within sensor's detection patterns at any speed between 0.3 to 7.5 fps (0.09 to 2.52 yard/s) across 2 adjacent segments of detector's field of view.

3. Microwave Sensor Sensitivity: Adjustable, able to detect standard-intruder movement within sensor's detection pattern at any speed between 0.3 to 7.5 fps (0.09 to 2.52 yard/s). Sensor sensitivity adjustments shall be accessible only when sensor housing is removed, and sensors shall comply with 47 CFR 15.

4. Activation Indicator: LED indicator shall not be visible during normal operation. Indicator shall light when sensor detects a standard intruder. Locate test enabling switch under sensor housing cover.

5. Remote Test: When initiated by central-station control unit, start a test sequence for each detector element that simulates standard-intruder movement within sensor's detection patterns, causing an alarm.

PROVIDE ALL NECESSARY HARDWARE AND SOFTWARE FOR A COMPLETE AND OPERABLE SYSTEM.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of intrusion detection.

1. Examine roughing-in for embedded and built-in anchors to verify actual locations of intrusion detection connections before intrusion detection installation.

2. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of intrusion detection.

B. Inspect built-in and cast-in anchor installations, before installing intrusion detection, to verify that anchor installations comply with requirements. Prepare inspection reports.

1. Remove and replace anchors where inspections indicate that they do not comply with requirements. Reinspect after repairs or replacements are made.

2. Perform additional inspections to determine compliance of replaced or additional anchor installations. Prepare inspection reports.

C. For material whose orientation is critical for its performance as a ballistic barrier, verify installation orientation.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 SYSTEM INSTALLATION

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A. Comply with UL 681.

B. Security Fasteners: Where accessible to inmates, install intrusion detection components using security fasteners with head style appropriate for fabrication requirements, strength, and finish of adjacent materials except that a maximum of two different sets of tools shall be required to operate security fasteners for Project. Provide stainless-steel security fasteners in stainless-steel materials.

3.03 WIRING INSTALLATION

A. Wiring Method: Install wiring in metal raceways according to Division 16 Section "Raceway and Boxes for Electrical Systems." Conceal raceway except in unfinished spaces and as indicated. Minimum conduit size shall be ¾ inch 0.79 inch. Control and data transmission wiring shall not share conduit with other building wiring systems.

B. Wiring Method: Install wiring in raceways except in accessible indoor ceiling spaces and in interior hollow gypsum board partitions where cable may be used. Conceal raceways and wiring except in unfinished spaces and as indicated. Minimum conduit size shall be ¾ inch 0.79 inch. Control and data transmission wiring shall not share conduit with other building wiring systems.

C. Wiring Method: Cable, concealed in accessible ceilings, walls, and floors when possible.

D. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points. Use lacing bars and distribution spools. Separate power-limited and non-power-limited conductors as recommended in writing by

1. manufacturer. Install conductors parallel with or at right angles to sides and back of enclosure. Connect conductors that are terminated, spliced, or interrupted in any enclosure associated with intrusion system to terminal blocks. Mark each terminal according to system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks, or plug connectors.

E. Wires and Cables:

1. Conductors: Size as recommended in writing by system manufacturer, unless otherwise indicated.

2. 120-V Power Wiring: Install according to Division 16 Section "Low-Voltage Electrical Power Conductors and Cables," unless otherwise indicated.

3. Control and Signal Transmission Conductors: Install unshielded, twisted-pair cable, unless otherwise indicated or if manufacturer recommends shielded cable, according to Division 16 Section "Conductors and Cables for Electronic Safety and Security."

F. Splices, Taps, and Terminations: Make connections only on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures.

G. Install power supplies and other auxiliary components for detection devices at controllers, unless otherwise indicated or required by manufacturer. Do not install such items near devices they serve.

H. Identify components with engraved, laminated-plastic or metal nameplate for central-station control unit and each terminal cabinet, mounted with corrosion-resistant screws. Nameplates and label products are specified in Division 16 Section "Identification for Electrical Systems."

3.04 GROUNDING

A. Ground system components and conductor and cable shields to eliminate shock hazard and to minimize ground loops, common-mode returns, noise pickup, cross talk, and other impairments.

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B. Signal Ground Terminal: Locate at main equipment rack or cabinet. Isolate from power system and equipment grounding. Provide 5-ohm ground. Measure, record, and report ground resistance.

C. Install grounding electrodes of type, size, location, and quantity indicated. Comply with installation requirements in Division 16 Section "Grounding and Bonding for Electrical Systems."

3.05 FIELD QUALITY CONTROL

A. Pretesting: After installation, align, adjust, and balance system and perform complete pretesting to determine compliance of system with requirements in the Contract Documents. Correct deficiencies observed in pretesting. Replace malfunctioning or damaged items with new ones and retest until satisfactory performance and conditions are achieved. Prepare forms for systematic recording of acceptance test results.

   1. Report of Pretesting: After pretesting is complete, provide a letter certifying that installation is complete and fully operable; include names and titles of witnesses to preliminary tests.

B. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field

   1. testing. Report results in writing.

C. Testing Agency: Engage a qualified testing and inspecting agency to perform the following field tests and inspections and prepare test reports:

D. Perform the following field tests and inspections and prepare reports:

   1. Inspection: Verify that units and controls are properly labeled and interconnecting wires and terminals are identified.

   2. Operational Tests: Schedule tests after pretesting has been successfully completed. Test all modes of system operation and intrusion detection at each detection device. Test for detection of intrusion and for false alarms in each protected zone. Test for false alarms by simulating activities outside indicated detection patterns.

   3. Electrical Tests: Comply with NFPA 72, Section A-7. Minimum required tests are as follows:

      a. Verify the absence of unwanted voltages between circuit conductors and ground.

      b. Test all conductors for short circuits using an insulation-testing device.

      c. With each circuit pair, short circuit at the far end of circuit and measure circuit resistance with an ohmmeter. Record circuit resistance of each circuit on Record Drawings.

      d. Verify that each controller is in normal condition as detailed in manufacturer's operation and maintenance manual.

      e. Test signal and data transmission circuits complying with requirements in Division 16 Section "Conductors and Cables for Electronic Safety and Security" for proper signal transmission under open-circuit conditions. One connection each should be opened at not less than 10 percent of initiating and indicating devices. Observe proper signal transmission according to class of wiring used.

      f. Verify that transient surge-protection devices are installed according to manufacturer's written instructions.

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g. Test each initiating and indicating device for alarm operation and proper response at central-station control unit.

h. Test both primary and secondary power. Verify, by test, that UPS is capable of operating the system for period and in manner specified.

E. Report of Tests and Inspections: Prepare a written record of tests, inspections, and detailed test results in the form of a test log.

F. Tag all equipment, stations, and other components for which tests have been satisfactorily completed.

3.06 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain intrusion detection. Refer to Division 01 Section "Demonstration and Training."

3.07 ADJUSTING

A. Occupancy Adjustments: When requested within 12 months of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to three visits to Project during other than normal occupancy hours for this purpose. Visits for this purpose shall be in addition to any required by warranty.

END OF SECTION

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SECTION 28 2000
VIDEO SURVEILLANCE

PART 1 GENERAL (NOT USED)

PART 2 PRODUCTS

2.01 VIDEO SURVEILLANCE SYSTEM

A. Provide new video surveillance system consisting of all required equipment, conduit, boxes, wiring, connectors, hardware, supports, accessories, software, system programming, etc. as necessary for a complete operating system that provides the functional intent indicated.

B. System Description: IP system with connection to network (IP) cameras.

C. Provide products listed, classified, and labeled as suitable for the purpose intended.

D. Electromagnetic Interference/Radio Frequency Interference (EMI/RFI) Limits: Comply with FCC requirements of 47 CFR 15, for Class B, consumer application.

PART 3 EXECUTION (NOT USED)

END OF SECTION

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SECTION 28 3111
DIGITAL, ADDRESSABLE FIRE ALARM SYSTEM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. SECTION INCLUDES:

1. Fire-alarm control unit.
2. Manual fire-alarm boxes.
3. System smoke detectors.
4. Air-sampling smoke detectors.
5. Nonsystem smoke detectors.
6. Heat detectors.
7. Notification appliances.
8. Device guards.
9. Firefighters' two-way telephone communication service.
10. Firefighters' smoke-control station.
11. Magnetic door holders.
12. Remote annunciator.
13. Graphic annunciator.
14. Addressable interface device.
15. Digital alarm communicator transmitter.
16. Radio alarm transmitter.
17. Network communications.
18. System printer.

B. RELATED REQUIREMENTS

1. Section 280513 "Conductors and Cables for Electronic Safety and Security" for cables and conductors for fire alarm systems.

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1.03 DEFINITIONS

A. Retain terms that remain after this section has been edited for a project.

B. EMT: electrical metallic tubing.

C. FACP: fire alarm control panel.

D. HLI: high level interface.

E. NICET: national institute for certification in engineering technologies.

F. PC: personal computer.

G. VESDA: very early smoke-detection apparatus.

1.04 ACTION SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT, INCLUDING FURNISHED OPTIONS AND ACCESSORIES.

1. Include construction details, material descriptions, dimensions, profiles, and finishes.
2. Include rated capacities, operating characteristics, and electrical characteristics.

B. SHOP DRAWINGS: FOR FIRE-ALARM SYSTEM

1. Comply with recommendations and requirements in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
2. Include plans, elevations, sections, details, and attachments to other work.
3. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and locations. Indicate conductor sizes, indicate termination locations and requirements, and distinguish between factory and field wiring.
4. Detail assembly and support requirements.
5. Include voltage drop calculations for notification-appliance circuits.
6. Include battery-size calculations.
7. Include input/output matrix.
8. Include statement from manufacturer that all equipment and components have been tested as a system and meet all requirements in this Specification and in NFPA 72.
9. Include performance parameters and installation details for each detector.
10. Verify that each duct detector is listed for complete range of air velocity, temperature, and humidity possible when air-handling system is operating.
11. Provide program report showing that air-sampling detector pipe layout balances pneumatically within the airflow range of the air-sampling detector.

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12. Include plans, sections, and elevations of heating, ventilating, and air-conditioning ducts, drawn to scale; coordinate location of duct smoke detectors and access to them.
    a. Show critical dimensions that relate to placement and support of sampling tubes, detector housing, and remote status and alarm indicators.
    b. Retain one of first three subparagraphs below.
    c. Show field wiring required for HVAC unit shutdown on alarm.
    d. Show field wiring and equipment required for HVAC unit shutdown on alarm and override by firefighters' control system.
    e. Show field wiring and equipment required for HVAC unit shutdown on alarm and override by firefighters' smoke-evacuation system.
    f. Locate detectors according to manufacturer's written recommendations.
    g. Show air-sampling detector pipe routing.
13. Include voice/alarm signaling-service equipment rack or console layout, grounding schematic, amplifier power calculation, and single-line connection diagram.
14. Retain subparagraph below for projects where routing of cable or conduit is critical and only outlet locations are indicated on Drawings. Delete reference to device addresses if indicated on Drawings.
15. Include floor plans to indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits and point-to-point wiring diagrams.

C. GENERAL SUBMITTAL REQUIREMENTS:

1. Submittals shall be approved by authorities having jurisdiction prior to submitting them to Architect.
2. Shop Drawings shall be prepared by persons with the following qualifications:
    a. Trained and certified by manufacturer in fire-alarm system design.
    b. NICET-certified, fire-alarm technician; Level III minimum.
    c. Retain subparagraph below if authorities having jurisdiction have licensing requirements.
    d. Licensed or certified by authorities having jurisdiction.

D. Delegated-Design Submittal: For notification appliances and smoke and heat detectors, in addition to submittals listed above, indicate compliance with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1. Drawings showing the location of each notification appliance and smoke and heat detector, ratings of each, and installation details as needed to comply with listing conditions of the device.
2. Design Calculations: Calculate requirements for selecting the spacing and sensitivity of detection, complying with NFPA 72. Calculate spacing and intensities for strobe signals and sound-pressure levels for audible appliances.

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3. Indicate audible appliances required to produce square wave signal per NFPA 72.

1.05 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Seismic Qualification Certificates: For fire-alarm control unit, accessories, and components, from manufacturer.

  1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.

  2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.

  3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

C. Field quality-control reports.

1.06 Sample Warranty: For special warranty.

1.07 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.

  1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:

    a. Comply with the "Records" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

    b. Provide "Fire Alarm and Emergency Communications System Record of Completion Documents" according to the "Completion Documents" Article in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.

    c. Complete wiring diagrams showing connections between all devices and equipment. Each conductor shall be numbered at every junction point with indication of origination and termination points.

    d. Riser diagram.

    e. Device addresses.

    f. Air-sampling system sample port locations and modeling program report showing layout meets performance criteria.

    g. Record copy of site-specific software.

    h. Provide "Inspection and Testing Form" according to the "Inspection, Testing and Maintenance" chapter in NFPA 72, and include the following:

      1) Equipment tested.

      2) Frequency of testing of installed components.

      3) Frequency of inspection of installed components.

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4) Requirements and recommendations related to results of maintenance.

5) Manufacturer's user training manuals.

i. Manufacturer's required maintenance related to system warranty requirements.

j. Abbreviated operating instructions for mounting at fire-alarm control unit and each annunciator unit.

B. Software and Firmware Operational Documentation:

1. Software operating and upgrade manuals.

2. Program Software Backup: On magnetic media or compact disk, complete with data files.

3. Device address list.

4. Printout of software application and graphic screens.

1.08 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Revise subparagraphs below to suit Project.

2. Lamps for Remote Indicating Lamp Units: Quantity equal to 10 percent of amount installed, but no fewer than one unit.

3. Lamps for Strobe Units: Quantity equal to 10 percent of amount installed, but no fewer than one unit.

4. Insert flame detectors in Part 2 if retaining first option in "Smoke Detectors, Fire Detectors(, and Flame Detectors)" Subparagraph below.

5. Smoke Detectors, Fire Detectors: Quantity equal to 10 percent of amount of each type installed, but no fewer than one unit of each type.

6. Detector Bases: Quantity equal to two percent of amount of each type installed, but no fewer than one unit of each type.

7. Keys and Tools: One extra set for access to locked or tamperproofed components.

8. Audible and Visual Notification Appliances: One of each type installed.

9. Fuses: Two of each type installed in the system. Provide in a box or cabinet with compartments marked with fuse types and sizes.

10. Filters for Air-Sampling Detectors: Quantity equal to two percent of amount of each type installed, but no fewer than one unit of each type.

1.09 QUALITY ASSURANCE

A. Installer Qualifications: Personnel shall be trained and certified by manufacturer for installation of units required for this Project.

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B. Installer Qualifications: Installation shall be by personnel certified by NICET as fire-alarm Level III technician.

C. Retain one of four "NFPA Certification" paragraphs below to require independent system verification.

D. NFPA Certification: Obtain certification according to NFPA 72 by an NRTL (nationally recognized testing laboratory).

E. NFPA Certification: Obtain certification according to NFPA 72 by a UL-listed alarm company.

F. NFPA Certification: Obtain certification according to NFPA 72 inch the form of a placard by an FM Global-approved alarm company.

G. NFPA Certification: Obtain certification according to NFPA 72

1.10 PROJECT CONDITIONS

A. Perform a full test of the existing system prior to starting work. Document any equipment or components not functioning as designed.

B. Interruption of Existing Fire-Alarm Service: Do not interrupt fire-alarm service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary guard service according to requirements indicated:

1. Notify Construction Manager no fewer than three days in advance of proposed interruption of fire-alarm service.

2. Do not proceed with interruption of fire-alarm service without Construction Manager's written permission.

C. Use of Devices during Construction: Protect devices during construction unless devices are placed in service to protect the facility during construction.

1.11 SEQUENCING AND SCHEDULING

A. Existing Fire-Alarm Equipment: Maintain existing equipment fully operational until new equipment has been tested and accepted. As new equipment is installed, label it "NOT IN SERVICE" until it is accepted. Remove labels from new equipment when put into service, and label existing fire-alarm equipment "NOT IN SERVICE" until removed from the building.

B. Equipment Removal: After acceptance of new fire-alarm system, remove existing disconnected fire-alarm equipment and wiring.

1.12 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace fire-alarm system equipment and components that fail in materials or workmanship within specified warranty period.

1. Warranty Extent: All equipment and components not covered in the Maintenance Service Agreement.

2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 SYSTEM DESCRIPTION

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A. Source Limitations for Fire-Alarm System and Components: Components shall be compatible with, and operate as an extension of, existing system. Provide system manufacturer's certification that all components provided have been tested as, and will operate as, a system.

B. Noncoded, UL-certified addressable system, with multiplexed signal transmission and horn/strobe evacuation.

C. Automatic sensitivity control of certain smoke detectors.

D. All components provided shall be listed for use with the selected system.

E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.02 SYSTEMS OPERATIONAL DESCRIPTION

A. Fire-alarm signal initiation shall be by one or more of the following devices:

1. Manual stations.
2. Heat detectors.
3. Flame detectors.
4. Smoke detectors.
5. Duct smoke detectors.
6. Carbon monoxide detectors.
7. Automatic sprinkler system water flow.

B. Fire-alarm signal shall initiate the following actions:

1. Continuously operate alarm notification appliances.
2. Identify alarm and specific initiating device at fire-alarm control unit and remote annunciators.
3. Transmit an alarm signal to the remote alarm receiving station.
4. Unlock electric door locks in designated egress paths.
5. Release fire and smoke doors held open by magnetic door holders.
6. Activate voice/alarm communication system.
7. Switch heating, ventilating, and air-conditioning equipment controls to fire-alarm mode.
8. Activate smoke-control system (smoke management) at firefighters' smoke-control system panel.
9. Activate stairwell and elevator-shaft pressurization systems.
10. Close smoke dampers in air ducts of designated air-conditioning duct systems.
11. Coordinate first subparagraph below with "Elevator Recall" Paragraph in "Fire-Alarm Control Unit" Article.

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12. Activate emergency lighting control.

13. If supplies are not essential to life safety, retain first subparagraph below for shutoffs installed in supplies that may be hazardous.

14. Activate emergency shutoffs for gas and fuel supplies.

15. Record events in the system memory.

16. Record events by the system printer.

17. Indicate device in alarm on the graphic annunciator.

C. Supervisory signal initiation shall be by one or more of the following devices and actions:

1. Valve supervisory switch.

2. Independent fire-detection and -suppression systems.

3. User disabling of zones or individual devices.

4. Loss of communication with any panel on the network.

D. System trouble signal initiation shall be by one or more of the following devices and actions:

1. Open circuits, shorts, and grounds in designated circuits.

2. Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices.

3. Loss of communication with any addressable sensor, input module, relay, control module, remote annunciator, printer interface, or Ethernet module.

4. Loss of primary power at fire-alarm control unit.

5. Ground or a single break in internal circuits of fire-alarm control unit.

6. Abnormal ac voltage at fire-alarm control unit.

7. Break in standby battery circuitry.

8. Failure of battery charging.

9. Abnormal position of any switch at fire-alarm control unit or annunciator.

E. System Supervisory Signal Actions:

1. Initiate notification appliances.

2. Identify specific device initiating the event at fire-alarm control unit and remote annunciators.

3. Record the event on system printer.

4. After a time delay of 200 seconds, transmit a trouble or supervisory signal to the remote alarm receiving station.

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5. Transmit system status to building management system.
6. Display system status on graphic annunciator.

2.03 PERFORMANCE REQUIREMENTS

A. Seismic Performance: Fire-alarm control unit and raceways shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

   1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."

2.04 FIRE-ALARM CONTROL UNIT

A. General Requirements for Fire-Alarm Control Unit:

   1. Field-programmable, microprocessor-based, modular, power-limited design with electronic modules, complying with UL 864.

      a. System software and programs shall be held in nonvolatile flash, electrically erasable, programmable, read-only memory, retaining the information through failure of primary and secondary power supplies.

      b. Include a real-time clock for time annotation of events on the event recorder and printer.

      c. Provide communication between the FACP and remote circuit interface panels, annunciators, and displays.

      d. The FACP shall be listed for connection to a central-station signaling system service.

      e. Provide nonvolatile memory for system database, logic, and operating system and event history. The system shall require no manual input to initialize in the event of a complete power down condition. The FACP shall provide a minimum 500-event history log.

   2. Addressable Initiation Device Circuits: The FACP shall indicate which communication zones have been silenced and shall provide selective silencing of alarm notification appliance by building communication zone.

   3. Addressable Control Circuits for Operation of Notification Appliances and Mechanical Equipment: The FACP shall be listed for releasing service.

B. Alphanumeric Display and System Controls: Arranged for interface between human operator at fire-alarm control unit and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and the programming and control menu.

   1. Annunciator and Display: Liquid-crystal type, 80 characters, minimum.
   2. Keypad: Arranged to permit entry and execution of programming, display, and control commands.

C. Alphanumeric Display and System Controls: Arranged for interface between human operator at fire-alarm control unit and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and the programming and control menu.

   1. Annunciator and Display: Liquid-crystal type, 80 characters, minimum.
   2. Keypad: Arranged to permit entry and execution of programming, display, and control commands.

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D. Initiating-Device, Notification-Appliance, and Signaling-Line Circuits:

1. Pathway Class Designations: NFPA 72, Class B.
2. Pathway Survivability: Level 0.
3. Install no more than 50 addressable devices on each signaling-line circuit.
4. Serial Interfaces:
    a. One dedicated RS 485 port for central-station operation using point ID DACT.
    b. One RS 485 port for remote annunciators, Ethernet module, or multi-interface module (printer port).
    c. One USB port for PC configuration.
    d. One RS 232 port for VESDA HLI connection.
    e. One RS 232 port for voice evacuation interface.

E. Smoke-Alarm Verification:

1. Initiate audible and visible indication of an "alarm-verification" signal at fire-alarm control unit.
2. Activate an approved "alarm-verification" sequence at fire-alarm control unit and detector.
3. Record events by the system printer.
4. Sound general alarm if the alarm is verified.
5. Cancel fire-alarm control unit indication and system reset if the alarm is not verified.

F. Notification-Appliance Circuit:

1. Audible appliances shall sound in a three-pulse temporal pattern, as defined in NFPA 72.
2. Where notification appliances provide signals to sleeping areas, the alarm signal shall be a 520-Hz square wave with an intensity 15 dB above the average ambient sound level or 5 dB above the maximum sound level, or at least 75 dBA, whichever is greater, measured at the pillow.
3. Visual alarm appliances shall flash in synchronization where multiple appliances are in the same field of view, as defined in NFPA 72.

G. Door Controls: Door hold-open devices that are controlled by smoke detectors at doors in smoke-barrier walls shall be connected to fire-alarm system.

H. Remote Smoke-Detector Sensitivity Adjustment: Controls shall select specific addressable smoke detectors for adjustment, display their current status and sensitivity settings, and change those settings. Allow controls to be used to program repetitive, time-scheduled, and automated changes in sensitivity of specific detector groups. Record sensitivity adjustments and sensitivity-adjustment schedule changes in system memory, and print out the final adjusted values on system printer.

I. Transmission to Remote Alarm Receiving Station: Automatically transmit alarm, supervisory, and trouble signals to a remote alarm station.

J. Printout of Events: On receipt of signal, print alarm, supervisory, and trouble events. Identify zone, device, and function. Include type of signal (alarm, supervisory, or trouble) and date and time of occurrence. Differentiate alarm signals from all other printed indications. Also print system reset event, including same information for device, location, date, and time. Commands initiate the printing of a list of existing alarm, supervisory, and trouble conditions in the system and a historical log of events.

K. Primary Power: 24-V dc obtained from 120-V ac service and a power-supply module. Initiating devices, notification appliances, signaling lines, trouble signals, supervisory signals supervisory and digital alarm communicator shall be powered by 24-V dc source.

1. Alarm current draw of entire fire-alarm system shall not exceed 80 percent of the power-supply module rating.

L. Secondary Power: 24-V dc supply system with batteries, automatic battery charger, and automatic transfer switch.

1. Batteries: Sealed lead calcium.

M. Instructions: Computer printout or typewritten instruction card mounted behind a plastic or glass cover in a stainless-steel or aluminum frame. Include interpretation and describe appropriate response for displays and signals. Briefly describe the functional operation of the system under normal, alarm, and trouble conditions.

2.05 MANUAL FIRE-ALARM BOXES

A. General Requirements for Manual Fire-Alarm Boxes: Comply with UL 38. Boxes shall be finished in red with molded, raised-letter operating instructions in contrasting color; shall show visible indication of operation; and shall be mounted on recessed outlet box. If indicated as surface mounted, provide manufacturer's surface back box.

1. Double-action mechanism requiring two actions to initiate an alarm, pull-lever type; with integral addressable module arranged to communicate manual-station status (normal, alarm, or trouble) to fire-alarm control unit.
2. Station Reset: Key- or wrench-operated switch.
3. Indoor Protective Shield: Factory-fabricated, clear plastic enclosure hinged at the top to permit lifting for access to initiate an alarm. Lifting the cover actuates an integral battery-powered audible horn intended to discourage false-alarm operation.
4. Weatherproof Protective Shield: Factory-fabricated, clear plastic enclosure hinged at the top to permit lifting for access to initiate an alarm.

2.06 SYSTEM SMOKE DETECTORS

A. General Requirements for System Smoke Detectors:

1. Comply with UL 268; operating at 24-V dc, nominal.
2. Detectors shall be two-wire type.
3. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.
4. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.

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5. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.

6. Integral Visual-Indicating Light: LED type, indicating detector has operated.

7. Remote Control: Unless otherwise indicated, detectors shall be digital-addressable type, individually monitored at fire-alarm control unit for calibration, sensitivity, and alarm condition and individually adjustable for sensitivity by fire-alarm control unit.

   a. Rate-of-rise temperature characteristic of combination smoke- and heat-detection units shall be selectable at fire-alarm control unit for 15 or 20 degrees Fahrenheit per minute.

   b. Fixed-temperature sensing characteristic of combination smoke- and heat-detection units shall be independent of rate-of-rise sensing and shall be settable at fire-alarm control unit to operate at 135 or 155 degrees Fahrenheit.

   c. Multiple levels of detection sensitivity for each sensor.

   d. Sensitivity levels based on time of day.

B. Photoelectric Smoke Detectors:

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.

2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:

   a. Primary status.

   b. Device type.

   c. Present average value.

   d. Present sensitivity selected.

   e. Sensor range (normal, dirty, etc.).

C. Ionization Smoke Detector:

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.

2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:

   a. Primary status.

   b. Device type.

   c. Present average value.

   d. Present sensitivity selected.

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e. Sensor range (normal, dirty, etc.).

D. Duct Smoke Detectors: Photoelectric type complying with UL 268A.

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.

2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:

    a. Primary status.

    b. Device type.

    c. Present average value.

    d. Present sensitivity selected.

    e. Sensor range (normal, dirty, etc.).

3. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with the supplied detector for smoke detection in HVAC system ducts.

4. Each sensor shall have multiple levels of detection sensitivity.

5. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.

6. Relay Fan Shutdown: Fully programmable relay rated to interrupt fan motor-control circuit.

2.07 CARBON MONOXIDE DETECTORS

A. General: Carbon monoxide detector listed for connection to fire-alarm system.

1. Mounting: Adapter plate for outlet box mounting.

2. Testable by introducing test carbon monoxide into the sensing cell.

3. Detector shall provide alarm contacts and trouble contacts.

4. Detector shall send trouble alarm when nearing end-of-life, power supply problems, or internal faults.

5. Comply with UL 2075.

6. Locate, mount, and wire according to manufacturer's written instructions.

7. Provide means for addressable connection to fire-alarm system.

8. Test button simulates an alarm condition.

2.08 NOTIFICATION APPLIANCES

A. General Requirements for Notification Appliances: Individually addressed, connected to a signaling-line circuit, equipped for mounting as indicated, and with screw terminals for system connections.

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B. General Requirements for Notification Appliances: Connected to notification-appliance signal circuits, zoned as indicated, equipped for mounting as indicated, and with screw terminals for system connections.

   1. Combination Devices: Factory-integrated audible and visible devices in a single-mounting assembly, equipped for mounting as indicated, and with screw terminals for system connections.

C. Chimes, Low-Level Output: Vibrating type, 75-dBA minimum rated output.

D. Chimes, High-Level Output: Vibrating type, 81-dBA minimum rated output.

E. Horns: Electric-vibrating-polarized type, 24-V dc; with provision for housing the operating mechanism behind a grille. Comply with UL 464. Horns shall produce a sound-pressure level of 90 dBA, measured 10 feet from the horn, using the coded signal prescribed in UL 464 test protocol.

F. Visible Notification Appliances: Xenon strobe lights complying with UL 1971, with clear or nominal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch- (25-mm-) high letters on the lens.

   1. Rated Light Output:

      a. 15/30/75/110 cd, selectable in the field.

   2. Mounting: Wall mounted unless otherwise indicated.

   3. For units with guards to prevent physical damage, light output ratings shall be determined with guards in place.

   4. Flashing shall be in a temporal pattern, synchronized with other units.

   5. Strobe Leads: Factory connected to screw terminals.

   6. Mounting Faceplate: Factory finished, white.

G. Voice/Tone Notification Appliances:

   1. Comply with UL 1480.

   2. Speakers for Voice Notification: Locate speakers for voice notification to provide the intelligibility requirements of the "Notification Appliances" and "Emergency Communications Systems" chapters in NFPA 72.

   3. High-Range Units: Rated 2 to 15 W.

   4. Low-Range Units: Rated 1 to 2 W.

   5. Mounting: Flush, semirecessed or surface mounted and bidirectional.

   6. Matching Transformers: Tap range matched to acoustical environment of speaker location.

H. Exit Marking Audible Notification Appliance:

   1. Exit marking audible notification appliances shall meet the audibility requirements in NFPA 72.

   2. Provide exit marking audible notification appliances at the entrance to all building exits.

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3. Provide exit marking audible notification appliances at the entrance to areas of refuge with audible signals distinct from those used for building exit marking.

2.09 MAGNETIC DOOR HOLDERS

A. Description: Units are equipped for wall or floor mounting as indicated and are complete with matching doorplate.

  1. Electromagnets: Require no more than 3 W to develop 25-lbf (111-N) holding force.

  2. Wall-Mounted Units: Flush mounted unless otherwise indicated.

  3. Rating: 24-V ac or dc.

  4. Rating: 120-V ac.

B. Material and Finish: Match door hardware.

2.10 REMOTE ANNUNCIATOR

A. Description: Annunciator functions shall match those of fire-alarm control unit for alarm, supervisory, and trouble indications. Manual switching functions shall match those of fire-alarm control unit, including acknowledging, silencing, resetting, and testing.

  1. Mounting: Surface cabinet, NEMA 250, Type 1.

B. Display Type and Functional Performance: Alphanumeric display and LED indicating lights shall match those of fire-alarm control unit. Provide controls to acknowledge, silence, reset, and test functions for alarm, supervisory, and trouble signals.

2.11 ADDRESSABLE INTERFACE DEVICE

A. General:

  1. Include address-setting means on the module.

  2. Store an internal identifying code for control panel use to identify the module type.

  3. Listed for controlling HVAC fan motor controllers.

B. Monitor Module: Microelectronic module providing a system address for alarm-initiating devices for wired applications with normally open contacts.

C. Integral Relay: Capable of providing a direct signal

  1. Allow the control panel to switch the relay contacts on command.

  2. Have a minimum of two normally open and two normally closed contacts available for field wiring.

D. Control Module:

  1. Operate notification devices.

  2. Operate solenoids for use in sprinkler service.

2.12 DIGITAL ALARM COMMUNICATOR TRANSMITTER

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A. Digital alarm communicator transmitter shall be acceptable to the remote central station and shall comply with UL 632.

B. Functional Performance: Unit shall receive an alarm, supervisory, or trouble signal from fire-alarm control unit and automatically capture two telephone line(s) and dial a preset number for a remote central station. When contact is made with central station(s), signals shall be transmitted. If service on either line is interrupted for longer than 45 seconds, transmitter shall initiate a local trouble signal and transmit the signal indicating loss of telephone line to the remote alarm receiving station over the remaining line. Transmitter shall automatically report telephone service restoration to the central station. If service is lost on both telephone lines, transmitter shall initiate the local trouble signal.

C. Local functions and display at the digital alarm communicator transmitter shall include the following:

 1. Verification that both telephone lines are available.
 2. Programming device.
 3. LED display.
 4. Manual test report function and manual transmission clear indication.
 5. Communications failure with the central station or fire-alarm control unit.

D. Digital data transmission shall include the following:

 1. Address of the alarm-initiating device.
 2. Address of the supervisory signal.
 3. Address of the trouble-initiating device.
 4. Loss of ac supply.
 5. Loss of power.
 6. Low battery.
 7. Abnormal test signal.
 8. Communication bus failure.

E. Secondary Power: Integral rechargeable battery and automatic charger.

F. Self-Test: Conducted automatically every 24 hours with report transmitted to central station.

2.13 RADIO ALARM TRANSMITTER

A. Transmitter shall comply with NFPA 1221 and 47 CFR 90.

B. Description: Manufacturer's standard commercial product; factory assembled, wired, and tested; ready for installation and operation.

 1. Packaging: A single, modular, NEMA 250, Type 1 metal enclosure with a tamper-resistant flush tumbler lock.

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2. Signal Transmission Mode and Frequency: VHF or UHF 2-W power output, coordinated with operating characteristics of the established remote alarm receiving station designated by Owner.

3. Normal Power Input: 120-V ac.

4. Secondary Power: Integral-sealed, rechargeable, 12-V battery and charger. Comply with NFPA 72 requirements for battery capacity; submit calculations.

5. Antenna: Omnidirectional, coaxial half-wave, dipole type with driving point impedance matched to transmitter and antenna cable output impedance. Wind-load strength of antenna and mounting hardware and supports shall withstand 100 mph (160 km/h) ???Insert value??? with a gust factor of 1.3 without failure.

6. Antenna Cable: Coaxial cable with impedance matched to the transmitter output impedance.

7. Antenna-Cable Connectors: Weatherproof.

8. Alarm Interface Devices: Circuit boards, modules, and other auxiliary devices, integral to the transmitter, matching fire-alarm and other system outputs to message-generating inputs of the transmitter that produce required message transmissions.

C. Functional Performance: Unit shall receive alarm, supervisory, or trouble signal from fire-alarm control unit or from its own internal sensors or controls and shall automatically transmit signal along with a unique code that identifies the transmitting station to the remote alarm receiving station. Transmitted messages shall correspond to standard designations for fire-reporting system to which the signal is being transmitted and shall include separately designated messages in response to the following events or conditions:

1. Transmitter Low-Battery Condition: Sent when battery voltage is below 85 percent of rated value.

2. System Test Message: Initiated manually by a test switch within the transmitter cabinet, or automatically at an optionally preselected time, once every 24 hours, with transmission time controlled by a programmed timing device integral to transmitter controls.

3. Transmitter Trouble Message: Actuated by failure, in excess of one-minute duration, of the transmitter normal power source, derangement of the wiring of the transmitter, or any alarm input interface circuit or device connected to it.

4. Local Fire-Alarm-System Trouble Message: Initiated by events or conditions that cause a trouble signal to be indicated on the building system.

5. Local Fire-Alarm-System Alarm Message: Actuated when the building system goes into an alarm state. Identifies device that initiated the alarm.

6. Local Fire-Alarm-System, Supervisory-Alarm Message: Actuated when the building alarm system indicates a supervisory alarm ???Insert condition???.

2.14 SYSTEM PRINTER

A. Printer shall be listed and labeled as an integral part of fire-alarm system.

2.15 DEVICE GUARDS

A. Description: Welded wire mesh of size and shape for the manual station, smoke detector, gong, or other device requiring protection.

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1. Factory fabricated and furnished by device manufacturer.
2. Finish: Paint of color to match the protected device.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine areas and conditions for compliance with requirements for ventilation, temperature, humidity, and other conditions affecting performance of the Work.

   1. Verify that manufacturer's written instructions for environmental conditions have been permanently established in spaces where equipment and wiring are installed, before installation begins.

B. Examine roughing-in for electrical connections to verify actual locations of connections before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 EQUIPMENT INSTALLATION

A. Comply with NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire-alarm equipment. Install all electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."

   1. Devices placed in service before all other trades have completed cleanup shall be replaced.
   2. Devices installed but not yet placed in service shall be protected from construction dust, debris, dirt, moisture, and damage according to manufacturer's written storage instructions.

B. Install wall-mounted equipment, with tops of cabinets not more than 78 inches above the finished floor.

   1. Comply with requirements for seismic-restraint devices specified in Section 260548.16 "Seismic Controls for Electrical Systems."

C. Manual Fire-Alarm Boxes:

   1. Install manual fire-alarm box in the normal path of egress within 60 inches of the exit doorway.
   2. Mount manual fire-alarm box on a background of a contrasting color.
   3. The operable part of manual fire-alarm box shall be between 42 inches and 48 inches above floor level. All devices shall be mounted at the same height unless otherwise indicated.

D. Smoke- or Heat-Detector Spacing:

   1. Comply with the "Smoke-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for smoke-detector spacing.
   2. Comply with the "Heat-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for heat-detector spacing.
   3. Smooth ceiling spacing shall not exceed 30 feet.

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4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas shall be determined according to Annex A in NFPA 72.

5. HVAC: Locate detectors not closer than 36 inches ((35.83 inch)) from air-supply diffuser or return-air opening.

6. Lighting Fixtures: Locate detectors not closer than 12 inches from any part of a lighting fixture and not directly above pendant mounted or indirect lighting.

E. Install a cover on each smoke detector that is not placed in service during construction. Cover shall remain in place except during system testing. Remove cover prior to system turnover.

F. Duct Smoke Detectors: Comply with NFPA 72 and NFPA 90A. Install sampling tubes so they extend the full width of duct. Tubes more than 36 inches long shall be supported at both ends.

1. Do not install smoke detector in duct smoke-detector housing during construction. Install detector only during system testing and prior to system turnover.

G. Air-Sampling Smoke Detectors: If using multiple pipe runs, the runs shall be pneumatically balanced.

H. Elevator Shafts: Coordinate temperature rating and location with sprinkler rating and location. Do not install smoke detectors in sprinklered elevator shafts.

I. Single-Station Smoke Detectors: Where more than one smoke alarm is installed within a dwelling or suite, they shall be connected so that the operation of any smoke alarm causes the alarm in all smoke alarms to sound.

J. Remote Status and Alarm Indicators: Install in a visible location near each smoke detector, sprinkler water-flow switch, and valve-tamper switch that is not readily visible from normal viewing position.

K. Audible Alarm-Indicating Devices: Install not less than 6 inches below the ceiling. Install bells and horns on flush-mounted back boxes with the device-operating mechanism concealed behind a grille. Install all devices at the same height unless otherwise indicated.

L. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches below the ceiling. Install all devices at the same height unless otherwise indicated.

M. Device Location-Indicating Lights: Locate in public space near the device they monitor.

N. Antenna for Radio Alarm Transmitter: Mount to building structure where indicated. Use mounting arrangement and substrate connection that resists 100-mph (160-km/h) wind load with a gust factor of 1.3 without damage.

3.03 PATHWAYS

A. Pathways above recessed ceilings and in nonaccessible locations may be routed exposed.

1. Exposed pathways located less than 96 inches above the floor shall be installed in EMT.

B. Pathways shall be installed in EMT.

C. Exposed EMT shall be painted red enamel.

3.04 CONNECTIONS

A. For fire-protection systems related to doors in fire-rated walls and partitions and to doors in smoke partitions, comply with requirements in Section 087100 "Door Hardware." Connect hardware and devices to fire-alarm system.

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1. Verify that hardware and devices are listed for use with installed fire-alarm system before making connections.

B. Make addressable connections with a supervised interface device to the following devices and systems. Install the interface device less than 36 inches from the device controlled. Make an addressable confirmation connection when such feedback is available at the device or system being controlled.

1. Alarm-initiating connection to smoke-control system (smoke management) at firefighters' smoke-control system panel.
2. Alarm-initiating connection to stairwell and elevator-shaft pressurization systems.
3. Smoke dampers in air ducts of designated HVAC duct systems.
4. Magnetically held-open doors.
5. Electronically locked doors and access gates.
6. Alarm-initiating connection to elevator recall system and components.
7. Alarm-initiating connection to activate emergency lighting control.
8. Alarm-initiating connection to activate emergency shutoffs for gas and fuel supplies.
9. Supervisory connections at valve supervisory switches.
10. Supervisory connections at low-air-pressure switch of each dry-pipe sprinkler system.
11. Supervisory connections at elevator shunt-trip breaker.
12. Data communication circuits for connection to building management system.
13. Data communication circuits for connection to mass notification system.
14. Supervisory connections at fire-extinguisher locations.
15. Supervisory connections at fire-pump power failure including a dead-phase or phase-reversal condition.

3.05 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

B. Install framed instructions in a location visible from fire-alarm control unit.

3.06 GROUNDING

A. Ground fire-alarm control unit and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit.

B. Ground shielded cables at the control panel location only. Insulate shield at device location.

3.07 FIELD QUALITY CONTROL

A. Field tests shall be witnessed by authorities having jurisdiction.

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B. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.

C. Perform tests and inspections.

D. Perform the following tests and inspections:

1. Visual Inspection: Conduct visual inspection prior to testing.

    a. Inspection shall be based on completed record Drawings and system documentation that is required by the "Completion Documents, Preparation" table in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.

    b. Comply with the "Visual Inspection Frequencies" table in the "Inspection" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components.

2. System Testing: Comply with the "Test Methods" table in the "Testing" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4.

4. Test audible appliances for the private operating mode according to manufacturer's written instructions.

5. Test visible appliances for the public operating mode according to manufacturer's written instructions.

6. Factory-authorized service representative shall prepare the "Fire Alarm System Record of Completion" in the "Documentation" section of the "Fundamentals" chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

E. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.

F. Fire-alarm system will be considered defective if it does not pass tests and inspections.

G. Prepare test and inspection reports.

H. Maintenance Test and Inspection: Perform tests and inspections listed for weekly, monthly, quarterly, and semiannual periods. Use forms developed for initial tests and inspections.

I. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.

3.08 MAINTENANCE SERVICE

A. Initial Maintenance Service: Beginning at Substantial Completion, maintenance service shall include 12 months' full maintenance by skilled employees of manufacturer's designated service organization. Include preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper operation. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.

1. Include visual inspections according to the "Visual Inspection Frequencies" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

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2. Perform tests in the "Test Methods" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

3. Perform tests per the "Testing Frequencies" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

3.09 SOFTWARE SERVICE AGREEMENT

A. Comply with UL 864.

B. Technical Support: Beginning at Substantial Completion, service agreement shall include software support for two years.

C. Upgrade Service: At Substantial Completion, update software to latest version. Install and program software upgrades that become available within two years from date of Substantial Completion. Upgrading software shall include operating system and new or revised licenses for using software.

1. Upgrade Notice: At least 30 days to allow Owner to schedule access to system and to upgrade computer equipment if necessary.

3.10 DEMONSTRATION

A. Train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

END OF SECTION

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SECTION 32 8410

IRRIGATION SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Includes all labor, materials, equipment, and operations required to complete the Irrigation System in accordance with the SSPWC latest edition, and the applicable Drawings.

1.2 RELATED SECTIONS

A. Section 32 0190 – Landscape Maintenance

B. Section 32 9000 – Landscape Planting

1.3 REQUIREMENTS OF REGULATORY AGENCIES

A. Secure all permits and licenses necessary for the work. Give all notices and comply with all laws, ordinances, rules, and regulations concerning the installation of the sprinkler system as drawn and specified.

1.4 SITE CONDITIONS

A. Prior to beginning any work, the Contractor and the District Representative shall participate in a thorough irrigation system review of the project site. All remote-control valves shall be turned on and observed in operation by both the Contractor and District Representative. Any existing defects will be listed in detail identifying the specific valve station number and describing the exact broken or non-functioning irrigation component noted during the site review. At the conclusion of the irrigation review, the Contractor shall generate a summary of the items identified by both parties listing all remote-control valves operated, identifying if the valve performed without any defects or specifically identifying any observed defects or non-functioning components, such as broken heads, clogged nozzles, non-operating valve solenoids, broken piping, or other noted defects. The completed summary of items noted shall be listed on a document called ‘Existing Irrigation System Observations.’ This document shall be signed by the Contractor and submitted to the District Representative for a confirming signature. The mutually signed ‘Existing Irrigation System Observations’ document shall be sent to the attention of the Landscape Architect for inspection purposes at the conclusion of the construction work. If requested by the District Representative, the Contractor shall provide a list of the existing defective irrigation components noted with a detailed written proposal to repair each item identified on the list. A copy of this proposal will be sent to the Landscape Architect. This additional work proposal must be reviewed and approved in writing by the District and formally presented to the General Contractor before the Landscape Subcontractor can begin any additional repair work. The mutually signed ‘Existing Irrigation System Observation’ document shall be used as a guide to identify any collateral damage caused to the existing irrigation system because of new construction performed on site by the Contractors. Any damage caused to the existing irrigation system not specifically identified on the ‘Existing Irrigation System Observation’ document shall be repaired or replaced at the Contractor's expense. If the Contractor does not participate or perform the existing irrigation site review, any existing irrigation equipment or components damaged on the project site noted by the Landscape Architect during the final irrigation system review shall be repaired or replaced by the Contractor at their expense to the satisfaction of the District.

B. Do not willfully install the sprinkler system as indicated on the drawing when it is obvious in the field that unknown obstructions or grade differences exist that might not have been considered in the engineering. Such obstructions or differences should be brought to the attention of the District Engineer.

C. Before excavating for sprinkler lines, locate all underground utility lines so that the proper precautions may be taken to avoid damage to such utilities. In the event of a conflict between underground lines, promptly notify the District Engineer who will arrange for the relocation of one or the other. Failure to follow this procedure places the responsibility upon the Contractor for making all repairs for damage of any kind at his own expense.

D. Provide necessary safeguards and exercise caution against injury or defacement of any existing site improvements. Contractor shall be responsible for any damage resulting from his operations and shall repair or replace such damage at his own expenses. No trucks or vehicles of any kind shall be allowed to pass over sidewalks, curbs, etc., unless adequate protection is provided.

E. Existing Trees

1. Exercise all possible care and precautions to avoid injury to tree roots, trunks, and branches. All excavating within drip line of trees shall be done very carefully and by hand pick and shovel if it appears that large roots are within trenching zones.
2. Alter alignment of pipe to avoid large tree roots, 2-inch and larger in diameter.
3. Wrap exposed and bridging tree roots with several layers of burlap and keep moist. Close all trenches within drip lines, within 24 hours.
4. All severed roots 1-inch and larger shall be hand pruned with sharp tools and painted with acceptable horticultural seal.

1.5 MATERIAL LIST

A. Submit to the District for acceptance, five (5) copies of all materials and equipment, including Manufacturer's names and catalog numbers, to be furnished and installed under this contract within 10 days after the award of the contract.

1.6 RECORD DRAWINGS

A. Provide and record daily a complete record set of prints on bond which shall be corrected to show changes from the original drawings and specifications and the exact installed locations, sizes, and kinds of equipment. Prints for this purpose may be obtained from the District. Keep this set of drawings on the site and use only as a record set.

B. Use these drawings as work progress sheets. Make neat and legible annotations thereon as the work proceeds, showing the work as actually installed. Keep these drawings available at all times for inspection and in a location designated by the District.

C. Before the date of the final inspection, transfer all information from the record prints to a clean set of prints procured from the District. Make work neat, in ink and subject to review and acceptance of the District. District will scan final drawings into a permanent electronic record document.

D. Dimension from two permanent points of reference such as building corners, sidewalks or road intersections, the location of:

1. Connection to existing water lines.
2. Connection to existing electrical power.
3. Gate valves.
4. Routing of sprinkler pressure lines and control wiring.
5. Electric control valves.
6. Quick coupling valves.
7. Other related equipment as directed by District.

1.7 CONTROLLER CHARTS

A. Record drawings shall be reviewed and accepted by the District before charts are prepared.

B. Provide one controller chart for each controller supplied.

C. The chart shall show the area controlled by automatic controller and shall be the maximum size controller door will allow.

D. The chart is to be reduced from the final record drawing set. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when reduced.

E. Chart shall be blackline print and a different color shall be used to show area of coverage for each station.

F. The chart shall be mounted using Velcro, or an approved equal type of tape.

G. When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being a minimum 20 mils. thick.

H. These charts shall be completed and approved prior to final inspection of the irrigation system.

1.8 TESTS AND SITE OBSERVATIONS

A. All tests shall be made in the presence of the District; at least forty-eight (48) hours' notice shall be given for tests.

B. Record drawings must be current and shall be verified by the District at the time of all observations.

C. Site observations for all items pertaining to the work of this Section shall be performed by the District.

D. Specific site observations for valve assemblies, sprinkler coverage, control wires and splices and any other observations deemed necessary by the District shall be performed by the District.

E. An open trench main line check for pipe quality and depths shall be performed by the District.

F. Head Layout - using flag marker layout all drip emitter, tree flood bubblers, and spray heads in field prior to trenching. Review head layout with District and Landscape Architect and adjust in field as directed prior to installing irrigation.

G. Center load pipe with small amount of backfill to prevent arching and whipping under pressure. Leave joints exposed for observation during pressure test. No water shall be permitted in the pipe until the above has been accomplished and a period of at least 24 hours has elapsed for solvent weld setting and curing.

Main lines to be tested up to valve at 125 pounds pressure and there shall be no leaks. Furnish force pump and pressure gauge. Lateral lines of system to be tested at line pressure with risers capped. Tests to be for 2-hour period and verified by the District.

H. Backfill quality and compaction of trenches shall be verified by the District. Do not backfill trenches until all tests have been completed and accepted.

I. The new auto controller shall be Toro 'Eagle Plus' Series auto controller capable of direct connection to the internet via cell phone connection. Unit shall be housed in a factory plastic wall mounted enclosure. The auto controller will be able to measure remote control valve flow on actual site weather conditions. Toro Model EGPi16-PLAST-RM-ISVC-5Y. Field verify the exact location desired for wall mounted auto controller with District Representative. Perform as related work required to connecting flow sensor to auto controller so that it measures discharge flow of sprinkler valves as per manufacturers' specifications.

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J. Perform a coverage test in the presence of the District to determine if the water coverage for planting areas is complete and adequate. Furnish materials and perform all work required to correct any inadequacies of coverage due to deviations from drawings, or where the system has been willfully installed as indicated on the drawings when it is obviously inadequate, without bringing this to the attention of the District.

K. The coverage test shall be completed, and the irrigation system modified if necessary and accepted, prior to the start of the planting operations.

L. The entire system shall be checked out thoroughly and completely by the Contractor, five (5) days prior to the final observation. All heads shall be properly aligned and adjusted for coverage and cleared of any foreign materials. All valves shall be properly adjusted. Sprinkler controller valve chart shall be checked for accuracy.

M. At the end of the Maintenance Period, a final observation shall be made by the Contractor and District to check out the entire system.

N. Final inspection prior to acceptance:

  1. Operate each system in its entirety for the District at time of final inspection. Rework any items deemed not acceptable to the District.

  2. Deliver to the District all accessories, charts, record drawings, and equipment as required before final inspection.

1.9 GUARANTEE

A. The entire sprinkler system shall be guaranteed for a period of one (1) year from date of final acceptance.

B. Should any portion of the irrigation system malfunction due to poor workmanship or defective materials, corrections shall be promptly made by the Contractor at his own expense.

C. Any damage to paving, plating, or other developments due to the settlements of improperly compacted trench soil, shall also be promptly repaired at the Contractor's expense, to the satisfaction of the District.

PART 2 PRODUCTS

2.1 GENERAL

A. Irrigation materials shall be in accordance with Subsection 212-2 in the SSPWC “Greenbook” and as specified herein.

B. The irrigation products specified on the drawings in these specifications are selected to match existing products in use. Substitutions are permitted only when product name is followed by or equal.

C. Use only new materials of brands and types as noted on the drawings and as specified.

2.2 MATERIALS

A. Electrical conductors - 24-volt conductors shall be U.F. type, solid wire, U.L. approved for direct burial. Minimum size shall be 14-gauge or as noted on drawings. Acceptable products for 14-gauge wires splice connections shall be 3M Model DBR-Y6, Toro Model TW-SPLICE, Spears Model DS-400 Dri-Splice, or King Innovation Dryconn Dry-Splice wire connectors. Use only 3M Model DBR-Y6 or Toro Model TW-SPLICE wire connectors for Toro EV-CAB-SEN sensor cable splice connections. No known equal.

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B. Fittings - galvanized malleable steel, Schedule 40.

C. PVC primer and solvents - as recommended by Manufacturer. John-Manville, Lasco, or Pacific Western.

D. Main Line Fittings for Mainline Piping - Schedule 80, PVC Type 1, Grade 1, Cell Classification 12454-B, side gated, Lasco Spears, or approved equal.

E. Lateral non-pressure line fittings - Schedule 40, PVC Type 1, Grade 1, Cell Classification 12454-B, side gated, Lasco or approved equal.

F. Ball valve shall be Schedule 80 PVC manufactured by Spears, Tru-Union-Series, line size, or approved equal.

G. Pop up turf rotors shall be 6” pop up height furnished with built in check valves and stainless steel riser. Hunter Model i20-06-SS, with 35’ MPR Series nozzles, Rain Bird Model 5006+PCSAMSS and 5006+FCSAMSS with 35’ MPR Series nozzles.

H. Nipples and Risers - PVC Schedule 80.

I. Irrigation Mainline

  1. Mainline piping sized 2 ½” to 4” shall be Class 315 PVC, solvent weld pipe in conformance with ASTM D-1785 and ASTM D-1784. JM Eagle, Pacific Plastics, or approved equal.

  2. Mainline piping sized 1 ½” or less shall be Schedule 40 PVC, solvent weld pipe in conformance with ASTM D-1785 and ASTM D-1784. JM Eagle, Pacific Plastics, or approved equal.

J. Pipe, Lateral Non-Pressure Lines shall be PVC Schedule 40, solvent weld in conformance with ASTM D-1785, D-1784. JM Eagle, Pacific Plastics, or approved equal.

K. Thread Sealant shall be smooth, non-hardening sealant, compatible with the pipe materials specified. Do not use Teflon tape.

L. Valve Boxes

  1. Schedule 80 PVC ball valves shall be housed in a Carson Model 1220-12-4B with bolt down lid, NDS Model 218BCB, or approved equal.

  2. Remote Control Valves shall be housed in a Carson Model 1220-12-4B with bolt down lid, NDS Model 218BCB, or approved equal.

  3. Quick coupling valves shall be housed in a Carson Model 910-4B Series, NDS Model 212BCB, or approved equal.

  4. Wire pull boxes, master valve and flow sensor shall be Carson Model 1419-12-4B Series, NDS Model 214BCB, or approved equal.

M. Irrigation Mainlines 1 ½” size or less shall be furnished with concrete thrust blocks. Concrete sidewalks to access controller and controller pads shall be hardrock concrete with minimum compressive strength at 28 days of 2,500 PSI and conform to ASTM L-94. Finish for walks shall be medium broom finish.

N. Mainline fittings and transition couplers for existing asbestos cement mainline shall be manufactured by Romac, Smith-Blair or approved equal.

O. Furnish and install 8’-0” copper clad lightning ground rod and install in a standard rectangular valve box for Toro Irrigation Systems auto controllers. Install ground rod with copper clamp and #8 copper wire as per Toro specifications. House exposed copper grounding wire in a 1” Sch. 40 PVC electrical conduit from base of wall mounted auto controller to valve box housing ground rod and clamp a minimum distance of 8’-0” from controller location.

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P. PVC flange fittings shall be PVC Schedule 80, Type 1, Grade 1, loose ringer, ANSI Class 150 flange, Lasco Series 954 or approved equal with full face $^{1}/_{8}$” thick elastomeric gasket, 5-70 Shore A hardness.

Q. Irrigation wire shall be 14-gauge, solid, polyethylene coated, colors as per irrigation plan. Paige Wire Spec ‘P7079D’ or approved equal.

R. Auto controller shall be Toro Model EGPi16-PLAST-RM-ISVC-5Y, housed in a factory plastic box enclosure, 16 stations and flow sensing capability. No known equal.

S. Wireless Rain Shut Off Device shall be Toro Model RS1000. Provide all required batteries. No known equal.

T. Flow Sensor shall be Creative Sensor Technology Model FSI-T15-001, plastic solvent weld body, 1 ½” size. No known equal.

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U. Drip Remote Control Vales shall be Rain Bird PESB Series, 1" size, in an assembly with a Rain Bird pressure regulating drip filter model PRB-QKCHK-100 or Hunter 1” ICV-FS Series remote control valve with a 1” x ¾” Hunter drip filter Model HY-100-075 with Hunter ¾” pressure regulator Model (30 PSI) PRLV30MF3F3FV.

V. Remote Control Valves shall be Rain Bird PESB Series or Hunter Model ICV-FS-Series.

W. Pop Up Lawn Spray Bodies shall be manufactured by Rain Bird, built-in 30 PSI pressure regulator, built-in check valve, 6” plastic riser, Model No. RD-06-S-P30 furnished with Rain Bird high efficiency adjustable nozzles Model No. HE-VAN series or Hunter Model PROS-06-PRS30-CV-PRO with Pro High Efficiency adjustable nozzle series.

X. Tree and flood bubblers with PVC Flexible Hose shall be manufactured by GPH Irrigation. Flood bubblers shall be pressure compensating with built-in check valves and an FPT plastic body. Flood bubbler nozzle shall be Model GPCBCV1 for 1.0 gallon per minute flood bubbler. PVC Flexible Hose shall be 3/8” IPS size, algae resistant, UVR treated, hose Model No. GPVCSSAR050IRR with matching 3/8” x ½” PVC black colored male adapters Model No. G436073B or Hunter Model IH-250 brown PVC flexible hose with brown male adapters Model IH-FIT-3850 and a tree flood bubbler nozzle Model PCB-10.

Y. Dripline tubing shall be 0.56” x 0.66” wall thickness (17 MM) tubing with 0.9 GPH emitters spaced 12” O.C. with matching 17 MM barbed fittings. Manufactured by NDS, Model No. SFCV-BR-6412-025S. Tubing system will be furnished with dripline air relief valve NDS Model No. AVRV, installed on highest elevation on tubing system installed in a 6” round valve box or Netafim Techline CV Series, Model TLCV9-1210 with 17 mm fittings Model TLAVRV or approved equal.

Z. Sand backfill for irrigation mainline trench shall be angular plaster sand. Provide sample for approval by the District.

2.3 SPARE EQUIPMENT

A. Furnish to the District the following spare equipment:

1. Five (5) 1-gallon per hour tree bubblers

PART 3 EXECUTION

3.1 GENERAL

A. Irrigation materials shall be in accordance with Subsection 308-5 in the SSPWC “Greenbook” and as specified herein.

3.2 WORKMANSHIP AND INSTALLATION.

A. Layout and Adjustments

1. The drawings are diagrammatic to the extent that many offsets, special fittings, and exact locations of the equipment are not shown. The locations of all valves, heads, lines, etc., shall be installed, however, as accurately as possible to the locations that are indicated on the drawings.
2. The locations of main lines are indicated as bordering walks, curbs and fences shall be placed as close as possible. Locate lines within planting areas wherever possible.
3. All indicated locations of heads and equipment are placed with careful consideration to overlap, protection of the premises, lights, proposed tree locations and general layout. Coordinate installation of sprinkler irrigation materials, including pipe, so there is no interference with utilities, other construction, or difficulty in planting trees and shrubs. Layout sprinkler heads and make any minor adjustments required due to differences between site and drawings. Adjustments shall be accomplished, maintaining proper sprinkler head coverage and overlap of sprinkler throws.

B. Connections

1. All connections shall be made into existing lines as indicated on the drawings.
2. Field verify existing line types in the field.

C. Cutting and Patching

1. When piping crosses concrete paving and asphalt paving, saw cutting is required. Cut AC paving and/or concrete with concrete saw cutting tools straight and, in those locations, approved by the District.
2. Remove concrete and/or AC, base, and soil to the required depth for mainlines.

3. Concrete walks shall be backfilled entirely with compacted plaster sand. Compact to 95% and patched with new concrete.

4. AC paving shall be backfilled entirely with a 2-sac sand slurry mix. Compact to 95% and patch with new AC paving.

5. Concrete paving shall be received medium broom finish.

6. Remove from site any excavated soil.

D. Trenching and Backfilling

1. Trench and excavate as necessary to install the system. Excavated material shall be neatly arranged to cause a minimum of inconvenience to pedestrian and vehicular traffic. No soil shall be placed on concrete paving without an adequate moisture proof membrane to protect paving.

2. Trenches for all pipes shall be open vertical construction with firm level bottom and sufficiently wide to provide free working space around the work installed and to provide ample space for backfilling and tamping. Provide a 6” deep layer of plaster sand between bottom of excavated trench and bottom of irrigation mainline piping.

3. Depth of trenches shall be sufficient to provide a minimum cover above the top of the pipe as follows:

   a) Mains and control wires: 24-inches minimum cover.

   b) PVC laterals: 12-inches minimum cover.

4. When two (2) pipes are to be placed in the same trench, provide a minimum of 3-inch horizontal clearance. Place pipe side by side; do not install one pipe on top of another.

5. After the installation is complete and the required tests and inspections have been made and approved, the excavations and trenches shall be backfilled with plaster sand until the irrigation mainline and wire conduit have a minimum cover from top of mainline of a 6” layer of sand. The remainder of the trench can be backfilled with native soil.

E. Plastic Pipe

1. Do not install multiple assemblies on plastic lines. Provide each assembly with its own outlet.

2. Install assemblies specified herein in accordance with respective detail. In absence of detail drawings or specifications pertaining to specific items required to complete work, perform such work in accordance with best standard practice.

3. Clean PVC pipe and fittings before installation. For solvent weld pipe use installation and solvent welding methods as recommended by the pipe and fitting manufacturer. For gasketed pipe installation follow detailed assembly instructions furnished by the manufacturer.

4. On PVC to metal connections, work the metal connections first. Use non-hardening sealant on all threaded joints. Screw hand tight and ½ turn by wrench. Where threaded PVC connections are required, use threaded PVC adapters into which the pipe may be welded.

5. Pipe shall have a firm, uniform bearing, for the entire length of each pipeline, to prevent uneven settlement. Pipe shall be snaked from side to side of trench bottom to allow for expansion and contraction. One additional foot per 100 feet of pipe is the minimum allowance for snaking. Never lay PVC pipe when there is water in the trench or when the temperature is 32° F or below.

6. Use 45° fittings at all changes in depth of pipe. Coupling to be of same materials and wall thickness as pipe.

F. Concrete Thrust Blocks – for mainline 1 ½” and less. Install concrete thrust blocks at all directional changes.

G. Control Wiring

1. Control wires and mains shall be installed in common trenches wherever possible housed in Schedule 40 PVC electrical conduits. All wires shall be 14-gauge size.

2. Control wires shall be installed at least 24-inches below finish grade within Schedule 40 PVC electrical conduits equipped with sch. 40 PVC sweep elbows into and out of all valve boxes. Wire conduits shall be kept to the side of the main line where possible. Wire conduits shall be a minimum of 3" from any pipe or fittings except at terminal points. Provide looped 3'-0" hand loop slack at valves and pull boxes. Tie wires in bundles within conduits at 10' intervals.

3. Control wire splices allowed only on runs more than 500 feet. Splice as follows:

   a) Strip off minimum of 2 ½" inches of insulation from each wire and twist wires together 4 complete twists.

   b) Make splices with 3M model DBR-Y6, or Spears model DS-400 Dri-Splice, or King Innovation model Dry Conn Dry-Splice wire connectors. Use one splice per connector sealing pack. All wire splices shall be housed in either a remote-control valve box or separate wire splice box. Do not make field splices outside of any valve box.

4. Wire conduits passing under future or existing paving, construction, etc., shall be encased in a PVC sleeve, size, and pipe material as per Irrigation Plan, extending at least 12-inches beyond edges of paving or construction.

5. Identify all control wires at valve boxes and controller with "wire marker tags" manufactured by Christy, 3M or equal.

6. Pull one extra common (white with red stripe) and one spare (red) to all valve locations.

H. Valves:

1. Piping systems shall be supplied with valves at all points shown on the drawings or specified herein and shall be arranged to give complete regulating control throughout.

2. Valves shall be the full size of the line in which they are installed unless otherwise indicated.

3. Valves shall be installed in accordance with the drawings and Manufacturer's specifications, so all parts are easily accessible and maintained. Valves near walk, curbs, etc., shall be set with 12-inches and parallel to same. Remote control valves shall be installed in groundcover or shrub areas wherever feasible.

4. Remote control valves shall be adjusted so that the sprinkler heads operate at pressure recommended by the head manufacturer. Remote control valves shall be adjusted so that a uniform distribution of water is applied by the sprinkler heads to the planting areas from each individual valve system.

5. Valve boxes shall be set ½-inch above the designated finish grade at each valve.

I. Sprinkler Heads

1. Prior to installing heads, flush laterals, and risers with full line pressure. Repeat whenever system is opened for repairs or replacements. Start flushing operation at the highest point of delivery and work to the lowest.

2. Align all part circle heads so that no spray shall hit building walls or concrete paving.

3. Adjust all spray nozzles so that there will be no amount of overspray, and so that the entire set will be as evenly balanced as possible.

4. Install with each lawn area sprinkler head, a "Triple Swing" joint with Schedule 80 PVC nipples and threaded elbows.

5. Install all tree bubblers on PVC flexible hose with two (2) solvent weld male adapters. Install two (2) bubbler assemblies per each tree planted on project.

3.3 FIELD QUALITY CONTROL

A. Adjustment to System

1. Flush and adjust all sprinkler heads for optimum performance and to prevent overspray onto walk, roadways, and buildings wherever possible.

2. Select the best degree of arc to fit existing site conditions.

3. Set all sprinkler heads perpendicular to finished grades unless other designated on the drawings.

3.4 TESTING AND INSPECTION

A. Do not allow or cause any work of this section to be covered up or enclosed until it has been inspected, tested, and approved by the District. Before backfilling the main line, and with all control valves in place, but before lateral pipes are connected, completely flush and test the mainline, and repair all leaks. Flush out each section of lateral pipe before emitters are attached.

B. Make all necessary provisions for thoroughly bleeding the line of air and debris. Before testing, fill the line with water for a period of at least 24 hours.

C. After valves have been installed, test all pressure main lines for leaks at a pressure of 150 PSI for a period of two hours, with all couplings exposed, and all pipe sections carefully center-loaded. Furnish all necessary testing equipment and personnel. Correct all leaks, and retest until accepted by the Engineer.

3.5 FINAL INSPECTION

A. Thoroughly clean, adjust and balance all systems. Demonstrate the entire system to the District proving that all remote control valves are properly balanced, that all emitters are properly flowing, and that the entire system is installed and is workable, clean, and efficient.

END OF SECTION

PERKINS EASTMAN

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DSA ADDENDUM No. 1

Date: August 28, 2026

Project: Gateway Annex School
DSA A#: 03-122398 File #: 56-44

Owner: Ventura County Office of Education
5100 Adolfo Road
Camarillo, CA 93012

Architect: Perkins Eastman
3333 Michelson Dr, Suite 400
Irvine, CA 92612
PE No.: 88910.00

The clarifications, modifications, changes, additions and/or deletions contained herein shall be incorporated within the construction documents for the project. Such information shall take precedence over that previously published.

The Addendum consists of 245 pages including:

ATTACHMENTS

Specifications: 08 7100, 09 9900, 11 4000, 21, 22 0010, 22 0517, 22 1005, 22 1006, 27 1000, 27 4100, 27 5116, 28, 32 8410

Sheets: G001, G003, G004, G005, C-1, C-2, C-3, C-4, L1, L2, L3, L4, L7, L8, AD001, A001, A002, A011, A013, A014, A101, A102, A103, A121, A131, A201, A202, A221, A231, A232, A301, A403, A404, A602, A701, A702, A704, A721, A732, A734, A771, A801, A802, A823, A831, A832, A841, A843, S101, S102, S301, S303, S402, S601, S602, S603, S604, S612, S613, M101, M141, M601, M602, P101, P141, P401, P701, E141, E502, E601, E602, E701, FA202, FA302

CHANGES TO THE BID DOCUMENTS

None

CHANGES TO THE SPECIFICATIONS

Item No. 1.1 Door Hardware
Reference: 08 7100
Description: Replace specification 08 7100 with the attached **08 7100**. The changes are as follows:

- 3.07 through 3.23: Hardware Groups 012, 020, 030, 040, 044, 405, 442.1, 442.2, 443.1, 453.1, 455.1, A032.7, A482.1, A482.5, A582R.1, and A585R.1 revised.

Item No. 1.2 Colors
Reference: 09 9900
Description: Replace specification 09 9900 with attached **09 9900**. The changes are as follows:

- The Color/Finish on the Finish List matrix are revised for the following

Specification Sections: 08 4313, 08 8000, 09 6519, and 09 6813.

Item No. 1.3 Foodservice Equipment
Reference: 11 4000
Description: Replace specification 11 4000 with attached **11 4000**. The changes are as follows:

- Specification section completely updated.

Item No. 1.4 Fire Supression
Reference: Division 21
Description: Replace Division 21 with attached **Division 21**. The changes are as follows:

- All sections are completely updated.

Item No. 1.5 Basic Plumbing Requirements
Reference: 22 0010
Description: Replace specification 22 0010 with attached **22 0010**. The changes are as follows:

- Specification section completely updated.

Item No. 1.6 Sleeves and Sleeve Seals for Plumbing Piping
Reference: 22 0517
Description: Replace specification 22 0517 with attached **22 0517**. The changes are as follows:

- Specification section completely updated.

Item No. 1.7 Plumbing Piping
Reference: 22 1005
Description: Replace specification 22 1005 with attached **22 1005**. The changes are as follows:

- Specification section completely updated.

Item No. 1.8 Plumbing Piping Specialties
Reference: 22 1006
Description: Replace specification 22 1006 with attached **22 1006**. The changes are as follows:

- Specification section completely updated.

Item No. 1.9 Structured Cabling
Reference: 27 1000
Description: Replace specification 27 1000 with attached **27 1000**. The changes are as follows:

- Specification section completely updated.

Item No. 1.10 Audio/Visual Systems
Reference: 27 4100
Description: Replace specification 27 4100 with attached **27 4100**. The changes are as follows:

- Specification section completely updated.

Item No. 1.11 Public Address Systems
Reference: 27 5116
Description: Replace specification 27 5116 with attached **27 5116**. The changes are as follows:

- Specification section completely updated.

Item No. 1.12 Access Control
Reference: 28 1000
Description: Replace specification 28 1000 with attached **28 1000**. The changes are as follows:

- Specification section completely updated.

Item No. 1.13 Intrusion Detection
Reference: 28 1600
Description: Replace specification 28 1600 with attached **28 1600**. The changes are as follows:

- Specification section completely updated.

Item No. 1.14 Video Surveillance
Reference: 28 2000
Description: Replace specification 28 2000 with attached **28 2000**. The changes are as follows:

- Specification section completely updated.

Item No. 1.15 Digital, Addressable Fire Alarm System
Reference: 28 3111
Description: Replace specification 28 3111 with attached **28 3111**. The changes are as follows:

- Specification section completely updated

Item No. 1.16 Irrigation System
Reference: 32 8410
Description: Replace specification 32 8410 with the attached **32 8410**. The changes are as follows:

- 1.8-I: Auto controller manufacturer revised.
- 2.2-A: Wire splice connector options updated.
- 2.2-O: Ground rod manufacturer revised.
- 2.2-R: Auto controller manufacturer revised.
- 2.2-S: Wireless rain shut off device product revised.
- 2.2-T: Flow sensor product revised.
- 2.3-A.2: Line deleted.

CHANGES TO THE DRAWINGS

GENERAL

Item No. 1.17 Cover Sheet
Reference: G001
Description: Replace sheet G001 with attached **G001**. The changes are as follows:

- Revised Sheet A701 sheet name.
- Added Sheet A702 sheet number and name.
- Revised Sheet S612 sheet name.
- Added Sheet S613 to the Drawing Index.
- Revised total number of sheets.

Item No. 1.18 Site Plan – Code Analysis
Reference: G003
Description: Replace sheet G003 with attached **G003**. The changes are as follows:

- On plan C10: the buildings (A, B and C) and the central recreation area have been moved 21'-0" to the south of their current location to avoid the existing easements, resulting on landscape increasing on the north of Building A and C. The courts and the safe dispersal area have been rearranged to accommodate the shift of the buildings.
- Buildings design has not been impacted by this change.

Item No. 1.19 Site Plan – Local Fire Authority
Reference: G004
Description: Replace sheet G004 with attached **G004**. The changes are as follows:

- On plan D10: On plan C10: the buildings (A, B and C) and the central recreation area have been moved 21'-0" to the south of their current location to avoid the existing easements, resulting on landscape increasing on the north of Building A and C.
- Buildings design has not been impacted by this change.
- The Fire Lane coming into the south courts was reduced to 90'-0".

Item No. 1.20 Floor Plan – Egress Analysis
Reference: G005
Description: Replace sheet G005 with attached **G005**. The changes are as follows:

- On plan A10: Exit Path was rearranged based on the updated courts layout and Safe Dispersal Area.

CIVIL

Item No. 1.21 Horizontal Control Plan
Reference: C-1
Description: Replace sheet C-1 with attached **C-1**. The changes are as follows:

- Civil sheets have been renumbered in comparison to the previously submitted set. Horizontal Control Plan sheet was moved from C-3 to C-1.
- Revised site dimensions for the new building location.

Item No. 1.22	Engineered Site Plan Grading, Drainage, and Storm Drain
Reference:	C-2
Description:	Replace sheet C-2 with attached **C-2**. The changes are as follows:

- Civil sheets have been renumbered in comparison to the previously submitted set. Engineered Site Plan Grading, Drainage, and Storm Drain sheet was moved from C-1 to C-2.
- The previous Engineered Site Plan Grading, Drainage, and Storm Drain sheet has been split into two sheets. C-2 shows the northern part of the site plan.
- Revise finished grade elevations for the update site layout.

Item No. 1.23	Engineered Site Plan Grading, Drainage, and Storm Drain
Reference:	C-3
Description:	Replace sheet C-3 with attached **C-3**. The changes are as follows:

- Civil sheets have been renumbered in comparison to the previously submitted set. Engineered Site Plan Grading, Drainage, and Storm Drain sheet was moved from C-1 to C-3.
- The previous Engineered Site Plan Grading, Drainage, and Storm Drain sheet has been split into two sheets. C-3 shows the southern part of the site plan.
- Revise finished grade elevations for the update site layout.

Item No. 1.24	Overall Utility Site Plan Water and Sewer
Reference:	C-4
Description:	Replace sheet C-4 with attached **C-4**. The changes are as follows:

- Civil sheets have been renumbered in comparison to the previously submitted set.
- New sheet C-4 added. Overall Utility Site Plan Water and Sewer sheet was moved from C-2 to C-4.
- Maintain utility connection location to the building with the shift and adjust all utility routes back to main line services. Add underground storage and water quality treatment requirements to meet the new permit.

LANDSCAPE

Item No. 1.25	Irrigation Plan
Reference:	L1
Description:	Replace sheet L1 with attached **L1**. The changes are as follows:

- The irrigation system was redesigned to accommodate the modified school site layout due to the buildings being repositioned approximately 20’-0” to the south from the original layout.

Item No. 1.26	Irrigation Legend and Notes
Reference:	L2
Description:	Replace sheet L2 with attached **L2**. The changes are as follows:

- The MWELO landscape water use calculations were revised to address the changes to the landscape square foot areas due to the site modification.
- Ventura County Schools have standardized sprinkler auto controllers to an interned based control system. The product is manufactured by Toro Irrigation. The auto controller, flow sensor, and rain shut-off device have been changed to reflect the desired Toro products.

Item No. 1.27 Planting Plan
Reference: L3
Description: Replace sheet L3 with attached **L3**. The changes are as follows:

- The planting plan has been redesigned to accommodate the modified school site layout due to the buildings being repositioned approximately 20'-0" to the south from the original layout.

Item No. 1.28 Planting Legend and Notes
Reference: L4
Description: Replace sheet L4 with attached **L4**. The changes are as follows:

- The tree and shrub quantities were modified to accommodate the revised planting areas and new site design.

Item No. 1.29 Landscape Shading Plan
Reference: L7
Description: Replace sheet L7 with attached **L7**. The changes are as follows:

- Shading area on the north revised per updated site plan.

Item No. 1.30 Landscape Shading Plan Legend and Notes
Reference: L8
Description: Replace sheet L8 with attached **L8**. The changes are as follows:

- Tree legend revised.

ARCHITECTURE

Item No. 1.31 Demolition Site Plan
Reference: AD001
Description: Replaced sheet AD001 with attached **AD001**. The changes are as follows:

- On Plan A10: added Keynote 2.

Item No. 1.32 Site Plan
Reference: A001
Description: Replace sheet A001 with attached **A001**. The changes are as follows:

- On plan A10: revised location of Buildings A, B and C. The courts and their finishes have been rearranged based on the updated buildings location.
- Buildings design has not been impacted by this change.

Item No. 1.33 Enlarged Site Plan
Reference: A002
Description: Replace sheet A002 with attached **A002**. The changes are as follows:

- On plan A10: revised location of Buildings A, B and C. The courts and their finishes have been rearranged based on the updated buildings location.
- Buildings design has not been impacted by this change.
- Revised elevation callouts for South Gate at Workout Area and East Gate between Buildings B and C.

Item No. 1.34 Site Details
Reference: A011
Description: Replace sheet A011 with attached **A011**. The changes are as follows:

- On Details A4, A6, A8, E6, G4, J4, & J6: revised or added various notes, graphics, and/or dimensions.

Item No. 1.35 Ornamental Metal Fencing & Gate Details
Reference: A013
Description: Replace sheet A013 with attached **A013**. The changes are as follows:

- On Details A3 & A10: revised or added various notes, graphics, and/or dimensions.

Item No. 1.36 Miscellaneous Site Details
Reference: A014
Description: Replace sheet A014 with attached **A014**. The changes are as follows:

- On Detail D4: revised blocking detail callout.

Item No. 1.37 Overall Floor Plan
Reference: A101
Description: Replace sheet A101 with attached **A101**. The changes are as follows:

- Revised Floor Plan Legend.
- On Plan A10: added a few new gridlines to represent the exterior walls of Building A as necessary; added a few new centerlines to represent the steel canopy posts or fence posts as necessary; revised or added various gridline or steel post dimensions as necessary; revised or added various notes as necessary.

Item No. 1.38 Enlarged Floor Plan – Building A
Reference: A102
Description: Replace sheet A102 with attached **A102**. The changes are as follows:

- Revised Floor Plan Legend.
- On Plan A10: revised or added various notes, wall tags, storefront tags, and dimensions as necessary.

Item No. 1.39 Enlarged Plan – Buildings A, B, & C
Reference: A103
Description: Replace sheet A103 with attached **A103**. The changes are as follows:

- Revised Floor Plan Legend.
- On Plan A10: revised or added various notes, wall tags, storefront tags, and dimensions as necessary.

Item No. 1.40 Reflected Ceiling Plan
Reference: A121
Description: Replace sheet A121 with attached **A121**. The changes are as follows:

- On Plan A10: revised or added various notes, ceiling heights, and dimensions as necessary.

Item No. 1.41 Roof Plan
Reference: A131
Description: Replace sheet A131 with attached **A131**. The changes are as follows:

- Revised Roof Legend.
- Removed roof type R1 under Roof Assembly Types.
- On Plan A10: revised or added various notes, roof slopes, and spot elevation callouts as necessary.

Item No. 1.42 Exterior Elevations
Reference: A201

Description: Replace sheet A201 with attached **A201**. The changes are as follows:

- On elevation A10: relocation of the monument sign and its landscape on the West Elevation of building A.
- On Elevation A5: lowered exterior ceiling height over east entry at Building A.

Item No. 1.43 Exterior Elevations
Reference: A202
Description: Replace sheet A202 with attached **A202**. The changes are as follows:

- On Elevations F10 & J7: removed clerestory windows at Building B.

Item No. 1.44 Building Sections
Reference: A221
Description: Replace sheet A221 with attached **A221**. The changes are as follows:

- On Section A10: added various detail callouts as necessary.

Item No. 1.45 Exterior Wall Sections
Reference: A231
Description: Replace sheet A231 with attached **A231**. The changes are as follows:

- On wall sections: revised or added various detail callouts, wall tags, storefront tags, and graphics as necessary.

Item No. 1.46 Exterior Wall Sections
Reference: A232
Description: Replace sheet A232 with attached **A232**. The changes are as follows:

- On wall sections: revised or added various detail callouts, wall tags, storefront tags, and graphics as necessary.

Item No. 1.47 Enlarged Restroom Floor Plans & Elevations
Reference: A301
Description: Replace sheet A301 with attached **A301**. The changes are as follows:

- On Enlarged Plans A4, A8, & A10: revised or added various dimensions as necessary.

Item No. 1.48 Interior Elevations – Building A
Reference: A403
Description: Replace sheet A403 with attached **A403**. The changes are as follows:

- Added missing Legends to right hand margin.
- On Elevation K4: revised glazing graphic at Reception Area as necessary.

Item No. 1.49 Interior Elevations – Building B
Reference: A404
Description: Replace sheet A404 with attached **A404**. The changes are as follows:

- On Elevations G6 & G10: lowered ceiling heights and removed clerestory windows at Building B as necessary.

Item No. 1.50 Interior Finish Schedule
Reference: A602
Description: Replace sheet A602 with attached **A602**. The changes are as follows:

- Added some finishes under Finish Legend.
- Revised some finishes in the Finish Schedule.

Item No. 1.51 Schedules
Reference: A701

Description: Replace sheet A701 with attached **A701**. The changes are as follows:

- Added an Exterior Wall Schedule to sheet for reference.
- Revised height for Gate 6 on Gate Schedule.
- Revised height for Door B109 on Door Schedule.
- On Storefront Type Elevations: revised or added various storefront tags or dimensions as necessary.

Item No. 1.52 Typical Assemblies – Exterior Walls
Reference: A702
Description: Add sheet **A702**:

- New sheet added for typical exterior wall assemblies.

Item No. 1.53 Interior Wall Schedule and Details
Reference: A704
Description: Replace sheet A704 with attached **A704**. The changes are as follows:

- Added Partition Type E02.
- Revised title at Partition Type B.

Item No. 1.54 Exterior Wall Details
Reference: A721
Description: Replace sheet A721 with attached **A721**. The changes are as follows:

- On Details A6, A10, D4, D6, G10, & K10: revised or added various notes, detail callouts, wall tags, and graphics as necessary.

Item No. 1.55 Door and Window Details
Reference: A732
Description: Replace sheet A732 with attached **A732**. The changes are as follows:

- Added Detail C6 showing exterior window head condition.
- On Details E8 & E10: revised or added various notes as necessary.

Item No. 1.56 Tubular Skylight Details
Reference: A734
Description: Replace sheet A734 with attached **A734**. The changes are as follows:

- Removed Roof Assembly Types and General Roof Notes from sheet.
- Removed Details A6 and E6 from sheet.

Item No. 1.57 Stair and Ramp Details
Reference: A771
Description: Replace sheet A771 with attached **A771**. The changes are as follows:

- On Details A6 & F8: revised or added various notes, detail callouts, wall tags, and graphics as necessary.

Item No. 1.58 Casework Details
Reference: A801
Description: Replace sheet A801 with attached **A801**. The changes are as follows:

- On Details A2, A4, A8, & C2: revised or added various notes and detail callouts as necessary.
- Removed Details G8 and J10 from sheet.

Item No. 1.59 Reception Desk Details
Reference: A802
Description: Replace sheet A802 with attached **A802**. The changes are as follows:

- On Details A3, K2, K6, & L2: revised or added various notes, detail callouts, and graphics as necessary.

Item No. 1.60 Typ. Lay-in Ceiling Details
Reference: A823
Description: Replace sheet A823 with attached **A823**. The changes are as follows:

- On Details A2 & D6: revised or added various notes and detail callouts as necessary.

Item No. 1.61 Roof Details
Reference: A831
Description: Replace sheet A831 with attached **A831**. The changes are as follows:

- Removed Detail C5 from sheet.

Item No. 1.62 Roof Details
Reference: A832
Description: Replace sheet A832 with attached **A832**. The changes are as follows:

- On Details A3, A6, D6, & G8: revised or added various notes and detail callouts as necessary.

Item No. 1.63 Miscellaneous Details
Reference: A841
Description: Replace sheet A841 with attached **A841**. The changes are as follows:

- On Details A6, C10, E4, E10, G6, J8, K2, K4, & L10: revised or added various notes, detail callouts, and graphics as necessary.

Item No. 1.64 Folding Partition Details
Reference: A843
Description: Replace sheet A843 with attached **A843**. The changes are as follows:

- On Details A2, A4, E4, G2, G4, & J6: revised or added various notes, dimensions, and graphics as necessary.

STRUCTURAL

Item No. 1.65 Foundation Plan
Reference: S101
Description: Replace sheet S101 with attached **S101**. The changes are as follows:

- Dimensions for gridlines removed to prevent duplicate reference from Architect.
- At Gridline A: Top of Footing Elevation denoted. Footings stepped for underground utilities.
- At Gridline B: Post and hold-down clarified at shear wall.
- At Gridline 1: Detail callout added to show wall over footing.
- At Gridline 2: Post and hold-down clarified at shear wall.
- At Gridline 6 between AA & BB: Top of Footing Elevations denoted. Footings stepped for underground utilities.

Item No. 1.66 Roof Framing Plan
Reference: S102
Description: Replace sheet S102 with attached **S102**. The changes are as follows:

- Detail 3/S102: Deflection limit changed to ¾” max under code limit and truss easier to fabricate.
- Symbols for fall arrest and blocking added to Framing Legend.

- At Gridline A.2: Detail callout updated to show correct equipment support detail.
- Fall arrest anchors added to plans.

Item No. 1.67 Typical Concrete Slab on Grade Details
Reference: S301
Description: Replace sheet S301 with attached **S301**. The changes are as follows:

- Detail 12/S301: Pipe in wall curb detail added on detail sheet.
- Detail 14/S301: Detail for slab at stepped footing added on detail sheet.

Item No. 1.68 Concrete Footing Details
Reference: S303
Description: Replace sheet S303 with attached **S303**. The changes are as follows:

- Detail 8/S303: Details 13/S301 called out for slab isolation pocket detail.
- Detail 12/S303: Detail 13/S301 called out for slab isolation pocket detail.
- Detail 16/S303: Light pole footing detail added.

Item No. 1.69 Trash Enclosure
Reference: S402
Description: Replace sheet S402 with attached **S402**. The changes are as follows:

- Detail 2/S402: Middle post added to gate for trash enclosure.
- Detail 3/S402: CMU cap added to wall.
- Detail 4/S402: Angle and anchor bolt added to section view to match elevation.
- Detail 7/S402: Post foundation added for trash enclosure gate.

Item No. 1.70 Typical Wood Connection Details
Reference: S601
Description: Replace sheet S601 with attached **S601**. The changes are as follows:

- Detail 4/S601: Note added referring to truss connections.

Item No. 1.71 Typical Wood Details
Reference: S602
Description: Replace sheet S602 with attached **S602**. The changes are as follows:

- Detail 8/S602: Channel rim beam removed from detail.

Item No. 1.72 Typical Wood Details
Reference: S603
Description: Replace sheet S603 with attached **S603**. The changes are as follows:

- Detail 6/S603: Equipment support updated to reflect trusses parallel to cross section. Blocking added at top of truss.

Item No. 1.73 Wood Details
Reference: S604
Description: Replace sheet S604 with attached **S604**. The changes are as follows:

- Detail 4/S604: Gap between wall and drag truss closed.

Item No. 1.74 Wood Details
Reference: S612
Description: Replace sheet S612 with attached **S612**. The changes are as follows:

- Titleblock updated to reflect information on details.
- Detail 7/S612: Blocking between truss joists added to provide anchorage point for equipment above.

Item No. 1.75 Wood Details
Reference: S613
Description: Add sheet **S613**:
- New sheet added for fall protection system details.

MECHANICAL

Item No. 1.76 Mechanical First Floor Plan – Duct
Reference: M101
Description: Replace sheet M101 with attached **M101**. The changes are as follows:
- Adjusted ductwork in multiple locations.
- Added reference Note 14/S621 at GL C.3 for duct through shear wall detail.

Item No. 1.77 Mechanical Roof Plan
Reference: M141
Description: Replace sheet M141 with attached **M141**. The changes are as follows:
- Rotated units 90 degrees to align with roof truss openings for HP-5, HP-6, HP-7, HP-8, and HP-9.

Item No. 1.78 Mechanical Schedules
Reference: M601
Description: Replace sheet M601 with attached **M601**. The changes are as follows:
- Updated model number of HVAC units to new model for Split Heat Pumps (SHP) and Fan Coils (FC). Approved units no longer being manufactured. Units are comparable in size and weights.

Item No. 1.79 Mechanical Schedules
Reference: M602
Description: Replace sheet M602 with attached **M602**. The changes are as follows:
- Updated model number of HVAC units to new model for Rooftop Packaged Heat Pumps (HP). Approved units no longer being manufactured. Units are comparable in size and weights.
- Updated structural anchorage detail to 7/S612.

PLUMBING

Item No. 1.80 Plumbing First Floor Plan
Reference: P101
Description: Replace sheet P101 with attached **P101**. The changes are as follows:
- Added missing storm drain and overflow drain at Building A on GL 3A.

Item No. 1.81 Plumbing Roof Plan
Reference: P141
Description: Replace sheet P141 with attached **P141**. The changes are as follows:
- Revised connections for condensate drain lines for HVAC units that rotated on roof.

Item No. 1.82 Plumbing Enlarged Plans
Reference: P401
Description: Replace sheet P401 with attached **P401**. The changes are as follows:
- Added sewer connection and venting to floor drain per Enlarged Plan 3.
- Updated sewer connection per Civil drawings per Enlarged Plan 1.

Item No. 1.83 Plumbing Riser Diagram
Reference: P701
Description: Replace sheet P701 with attached **P701**. The changes are as follows:
- Added floor drain to riser diagram and updated calculations.

ELECTRICAL

Item No. 1.84 Electrical Roof Plan – Auxiliary
Reference: E141
Description: Replace sheet E141 with attached **E141**. The changes are as follows:
- Updated electrical for HVAC Unit HP-9 on Building A.
- Updated associated Sheet Note 2.
- Updated electrical for HVAC Unit HP-A on Building B.
- Updated reference Note 5 for HVAC equipment.

Item No. 1.85 Electrical Details
Reference: E502
Description: Replace sheet E502 with attached **E502**. The changes are as follows:
- Added Detail 11 Area Light Base.

Item No. 1.86 Electrical Schedules
Reference: E601
Description: Replace sheet E601 with attached **E601**. The changes are as follows:
- Updated Lighting Fixture Schedule.

Item No. 1.87 Electrical Schedules
Reference: E602
Description: Replace sheet E602 with attached **E602**. The changes are as follows:
- Updated various Panel Schedules.

Item No. 1.88 Electrical Single Line Diagram
Reference: E701
Description: Replace sheet E701 with attached **E701**. The changes are as follows:
- Updated Single Line Diagram.

FIRE PROTECTION

Item No. 1.89 Four Square Building Fire Alarm Plan
Reference: FA202
Description: Replace sheet FA202 with attached **FA202**. The changes are as follows:
- Added missing duct detector for HVAC Unit HP-A on Building B.

Item No. 1.90 Fire Alarm Riser Diagrams and Calcs
Reference: FA302
Description: Replace sheet FA302 with attached **FA302**. The changes are as follows:
- Added duct detector on Fire Alarm Riser Diagram.
- Updated battery calculations.

END OF DSA ADDENDUM