

PROJECT DIRECTORY

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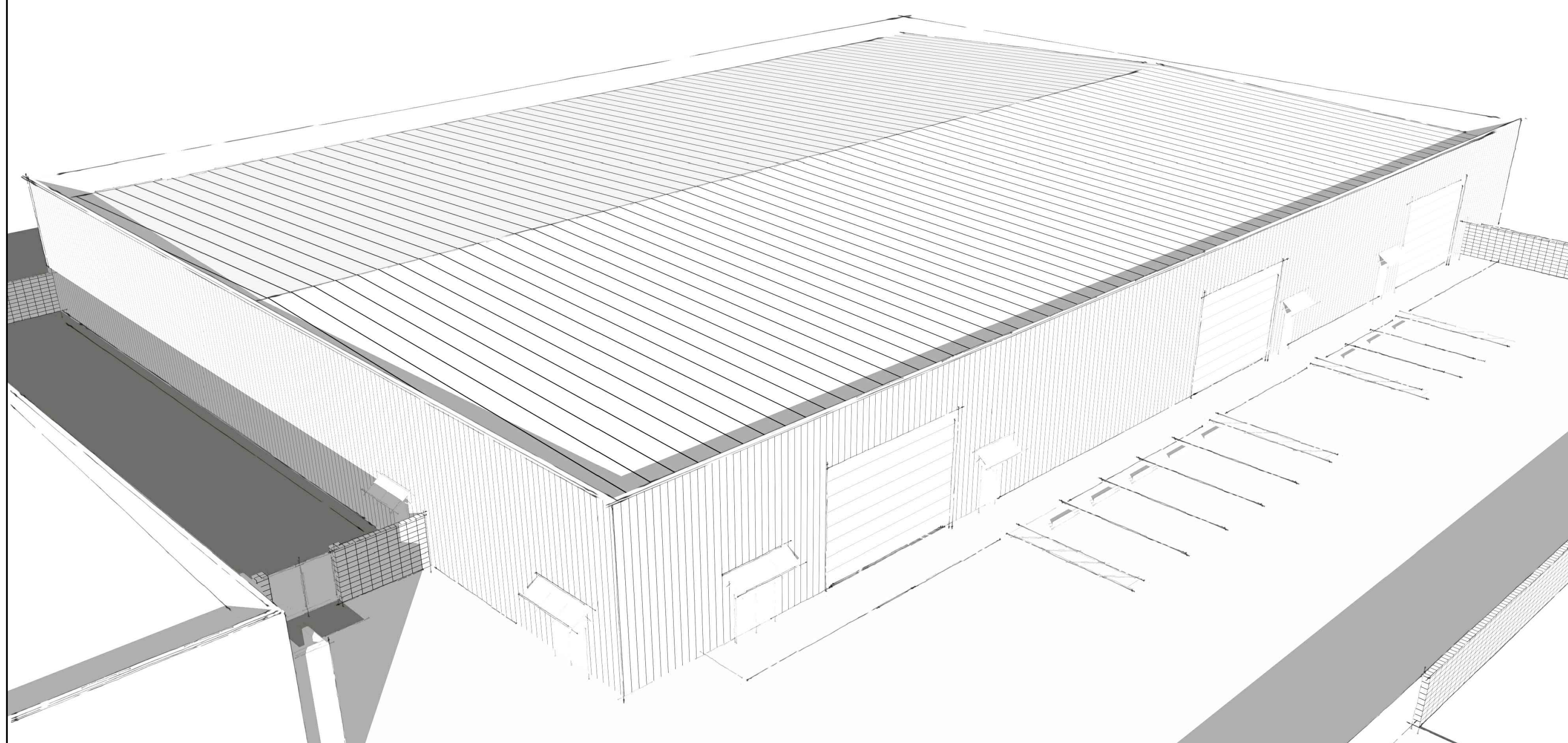
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FRESNO COUNTY SHERIFF AREA 2 SUBSTATION STORAGE BLDG

1129 NORTH ARMSTRONG AVENUE FRESNO, CA 93727



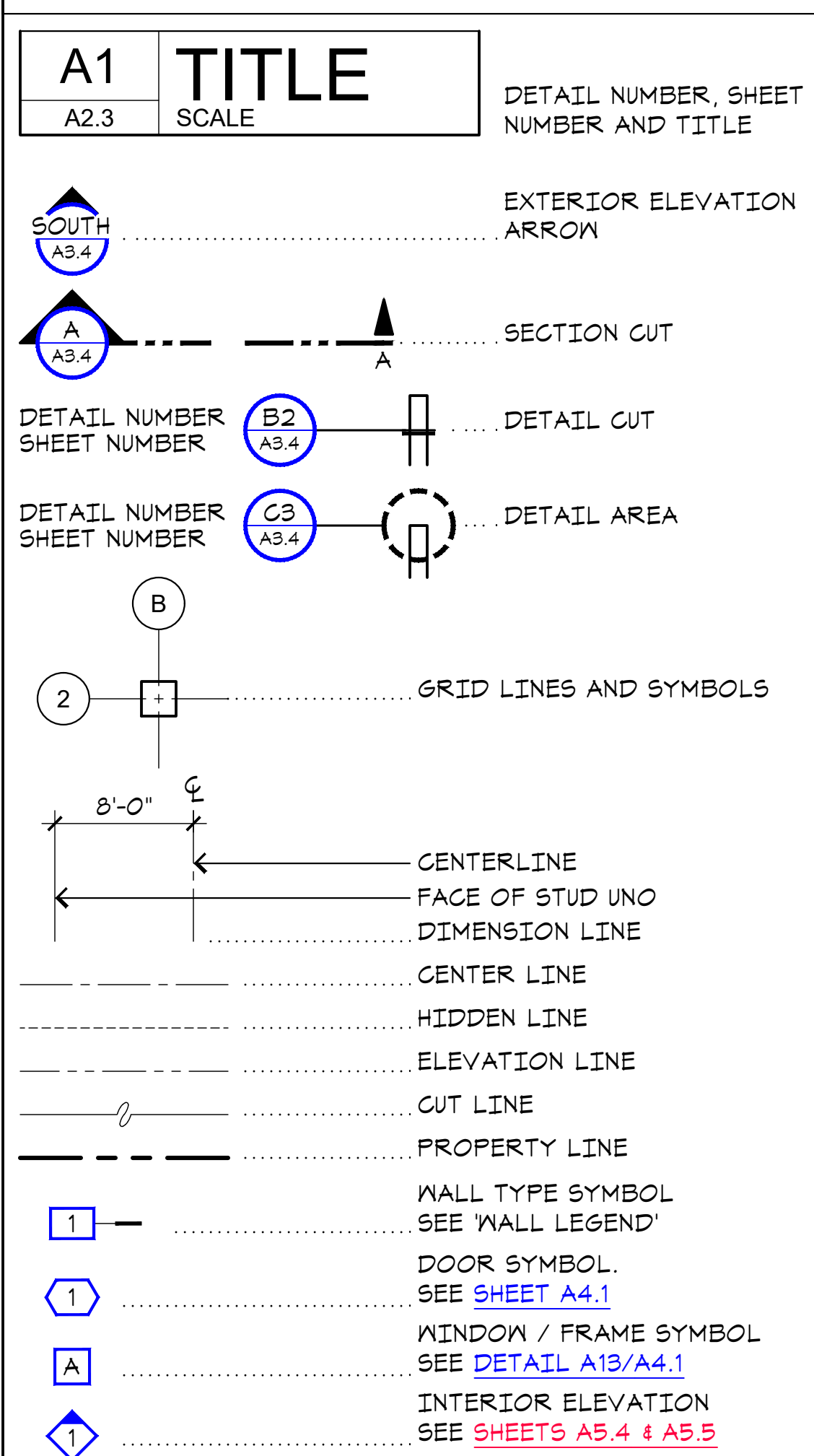
SHEET INDEX

SEQ NO	SHT NO	SHEET TITLE	REV NO
ARCHITECTURAL			
1	A0.1	COVER	
2	A0.2	NOTES	
3	A1.1	SITE PLAN	
4	A2.1	CODE PLAN	
5	A2.2	FLOOR PLAN	
6	A2.3	REFLECTED CEILING PLAN	
7	A2.4	ROOF PLAN	
8	A3.1	EXTERIOR ELEVATION	
9	A3.2	BUILDING SECTIONS	
10	A4.1	DOORS	
11	A5.1	INTERIOR DETAILS	
12	A5.2	INTERIOR DETAILS	
13	A6.1	EXTERIOR DETAILS	
14	A6.2	EXTERIOR DETAILS	
STRUCTURAL			
15	S1.0	GENERAL NOTES	
16	S1.1	TYPICAL DETAILS	
17	S2.0	FOUNDATION PLAN	
18	S3.0	FOUNDATION DETAILS	
PLUMBING			
19	P1.1	PLUMBING SITE PLAN	
20	P2.1	OVERALL PLUMBING PLAN	
21	P3.1	SCHEDULES AND DETAILS	
MECHANICAL			
22	M1.1	AIR CONDITIONING PLAN	
23	M2.1	AIR CONDITIONING SCHEDULES & DETAILS	
ELECTRICAL			
24	E1.0	ELECTRICAL SYMBOLS AND GENERAL NOTES	
25	E1.1	ELECTRICAL DETAILS AND SCHEDULES	
26	E1.2	PANEL SCHEDULES	
27	E1.3	FIRE ALARM SYMBOLS AND NOTES	
28	E2.0	LIGHTING PLAN (SOUTH)	
29	E2.1	LIGHTING PLAN (NORTH)	
30	E2.2	POWER AND LOW VOLTAGE PLAN (SOUTH)	
31	E2.3	POWER AND LOW VOLTAGE PLAN (NORTH)	
32	E2.4	FIRE ALARM PLAN (SOUTH) [FOR REFERENCE ONLY]	
33	E2.5	FIRE ALARM PLAN (NORTH) [FOR REFERENCE ONLY]	
34	E3.0	ENERGY COMPLIANCE DOCUMENTS	
35	E3.1	ENERGY COMPLIANCE DOCUMENTS	
FIRE PROTECTION [FOR REFERENCE ONLY]			
36	F1.1	FIRE PROTECTION SITE PLAN	
37	F2.1	FIRE PROTECTION PIPING PLAN (SOUTH)	
38	F2.2	FIRE PROTECTION PIPING PLAN (NORTH)	
39	F3.1	FIRE PROTECTION BUILDING SECTIONS	
40	F4.1	FIRE PROTECTION RISER DETAILS	
41	F5.1	FIRE PROTECTION STEEL STRUCTURAL DETAILS	
42	F6.1	FIRE PROTECTION INSTALLATION DETAILS	

PROJECT DATA

- PROJECT TITLE: FRESNO COUNTY SHERIFF AREA 2 SUBSTATION
 - SUBSTATION BLDG
 - STORAGE BLDG
- PROJECT ADDRESS: 1129 N ARMSTRONG AVE FRESNO, CA 93727
- APN: 310-133-04, 05, 06T
- LEGAL:**
- ZONING: IL/UGM/GZ
- SITE AREA: 283,080 SF (6.50 AC)
- SUBSTATION BLDG
 - BLDG AREA: 22,700 SF
 - OCCUPANCY: A-3, B w/ A-2 AND S-1 ACCESSORY
 - CONSTRUCTION: IIB - SPRINKLERED
 - OCCUPANTS: 646
- STORAGE BLDG
 - BLDG AREA: 35,520 SF
 - OCCUPANCY: S-2
 - CONSTRUCTION: IIB - SPRINKLERED
 - OCCUPANTS: 116
- SITE COVERAGE: 20.6%
- BUILDING CODE:

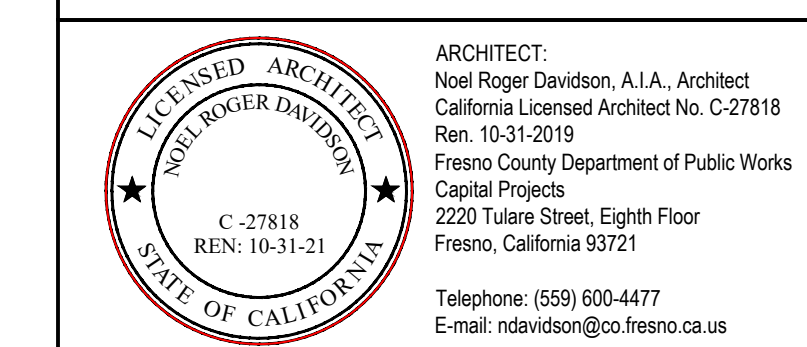
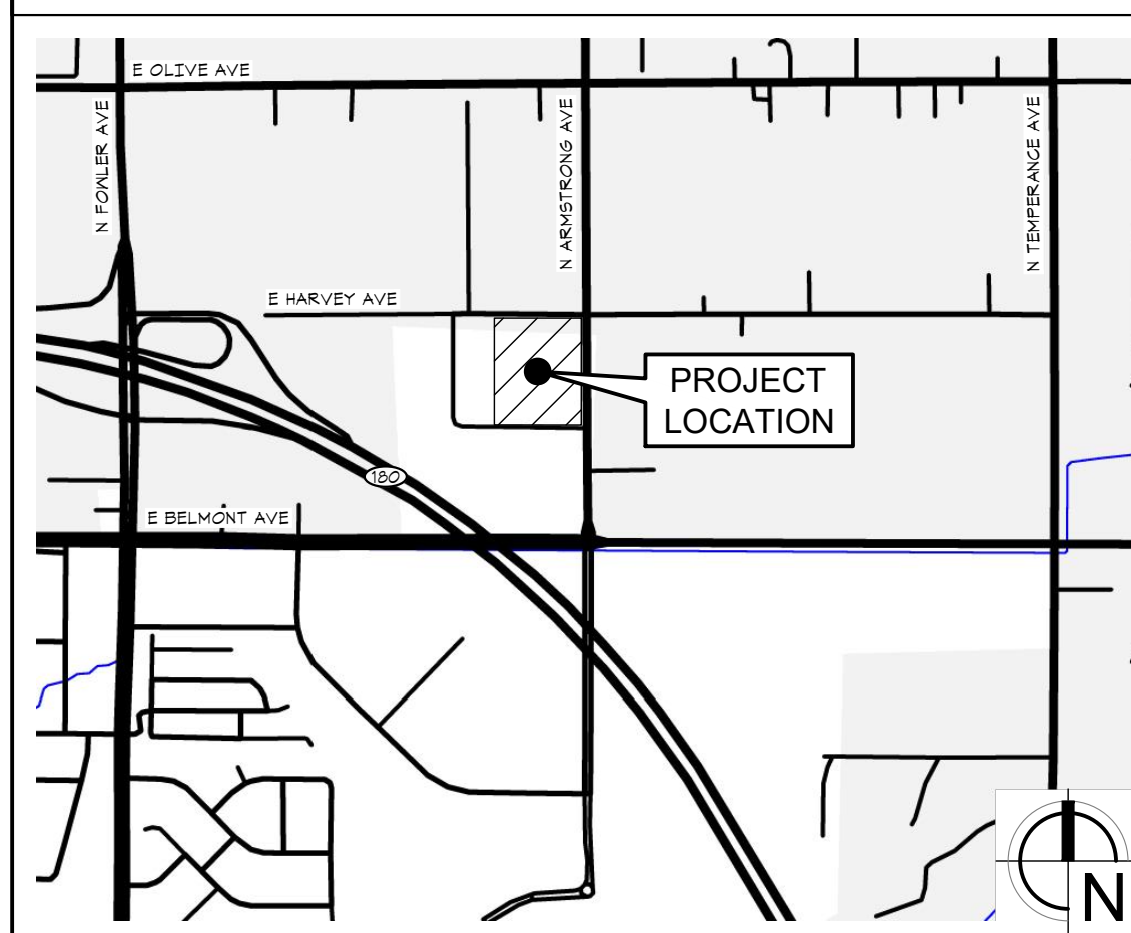
SYMBOLS LEGEND



DEFERED SUBMITTALS

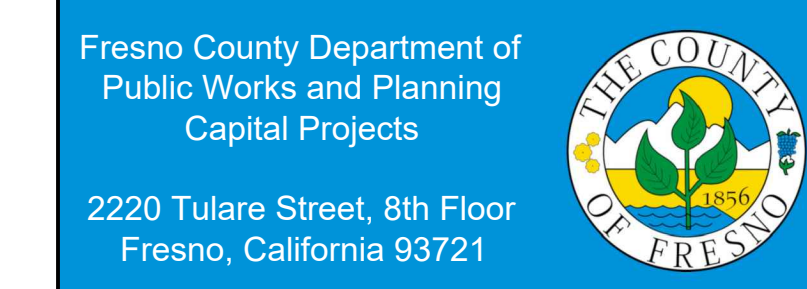
- METAL BUILDING, ENGINEERING CALCULATIONS, ERECTION DRAWINGS AND ANCHOR BOLT PLACEMENT DIMENSIONS.

VICINITY MAP

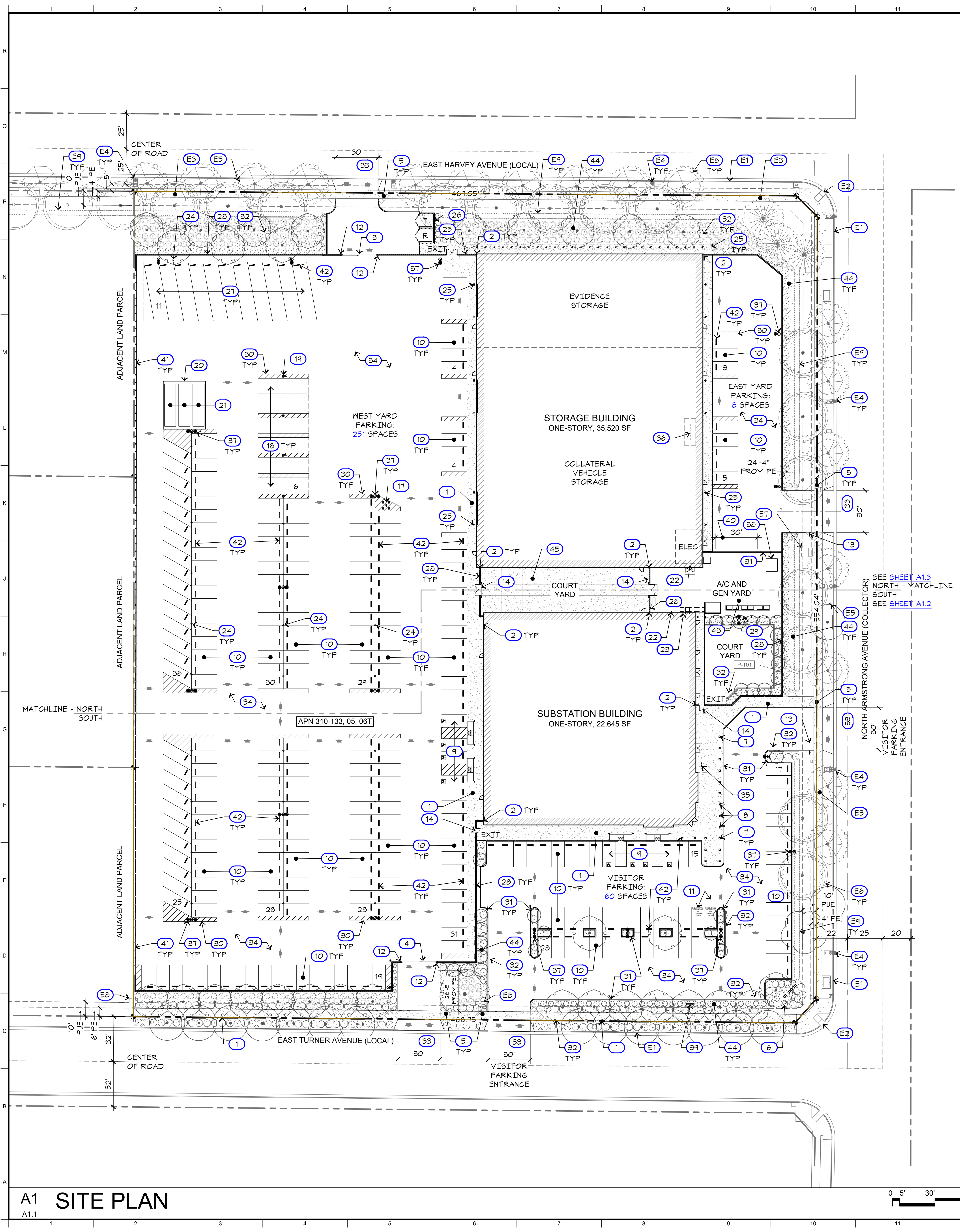


Project: Sheriff Area 2 Sub-Station Storage
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: 19003.01 / 19003.01
FILE NAME: 19003-01_A0-1_Cover

Sheet Content:
COVER



Sheet No.
A0.1



KEYNOTES LEGEND

- (E1) (E) CONCRETE CURB AND GUTTER. SEE CIVIL DRAWINGS FOR ANY REQUIRED MODIFICATIONS AS PER THE CITY OF FRESNO STANDARD.
- (E2) (E) ACCESSIBLE CURB RAMP. SEE CIVIL DRAWINGS FOR ANY REQUIRED MODIFICATIONS AS PER THE CITY OF FRESNO STANDARD, P-28 AND PER 2016 CALIFORNIA BUILDING CODE, TITLE 24, PART 2, VOLUME 1, CHAPTER 11B (2016 CBC T24 P2 V1 CHPT 11B).
- (E3) (E) CONCRETE SIDEWALK. SEE CIVIL DRAWINGS FOR ANY REQUIRED MODIFICATIONS AS PER THE CITY OF FRESNO STANDARD, P-28 AND PER 2016 CBC T24 P2 V1 CHPT 11B.
- (E4) (E) STREET LIGHT
- (E5) (E) FIRE HYDRANT
- (E6) (E) TREE
- (E7) (E) 6'-0" WIDE x 11'-0" PUBLIC UTILITY EASEMENT (PUE)
- (E8) (E) 6'-0" WIDE x 13'-0" PUBLIC UTILITY EASEMENT (PUE)
- (E9) (E) HEDGE ROW
- (1) (P) CONCRETE SIDEWALK PER CITY OF FRESNO STANDARD AND PER 2016 CBC T24 P2 V1 CHPT 11B. SEE DETAIL A5/A1.5. SEE ALSO CIVIL DRAWINGS.
- (2) (P) GAP/ISOLATION SHALL NOT EXCEED 4' AT ANY POINT.
- (3) (P) NORTH ENTRY GATE W/ BATTERY BACKUP AND FIRE ACCESS TO WEST YARD. PROVIDE APPROVED POLICE/FIRE BYPASS LOCK ("BEST" PADLOCK MODEL 21B700 SERIES OR ELECTRIC CYLINDER SWITCH MODEL WTB2) AND INSTALL PER FPD POLICY 402.009.
- (4) (P) SOUTH ENTRY GATE W/ BATTERY BACKUP AND FIRE ACCESS TO WEST YARD. PROVIDE APPROVED POLICE/FIRE BYPASS LOCK REQUIREMENT.
- (5) (P) 12' CLEAR TRIANGLE OF VISIBILITY AT DRIVE APPROACH.
- (6) FUTURE MONUMENT SIGN (NOT IN CONTRACT)
- (7) (P) LIGHTED BOLLARD, TYP. SEE ELECTRICAL
- (8) (P) FLAG POLE, TYP. SEE DETAIL J3/A1.6.
- (9) (P) ACCESSIBLE PARKING STALL W/ LOADING AREA, RAMP AND SIGN. SEE DETAIL A9/A1.4 SIM
- (10) (P) STANDARD PARKING STALL, 9'-0" WIDE X 18'-0" LONG. LENGTH MAY INCLUDE 2'-0" MAX OVERHANG.
- (11) (P) RESERVED PARKING STALL FOR SAFE EXCHANGE. STALL MARKING SHALL READ "PRIVATE PROPERTY AND E-COMMERCE TRANSACTIONS" IN 4" HIGH WHITE LETTERS.
- (12) (P) STUB OUT FOR PASSIVE UHF RFID SENSOR
- (13) (P) 30" "STOP" SIGN PER CITY OF FRESNO AND STATE STANDARD. SIGN SHALL BE MOUNTED ON A 2" GALVANIZED POST AND IMMEDIATELY BEHIND STREET SIDEWALK.
- (14) (P) PERSONNEL GATE IN CUM WALL. SEE DETAIL A11/A1.6 OR E11/A1.6
- (15) NOT USED
- (16) NOT USED
- (17) (P) FIRE HYDRANT (PRIVATE)
- (18) (P) COVERED LARGE VEHICLE PARKING SPACE. SEE DETAIL L9/A1.4

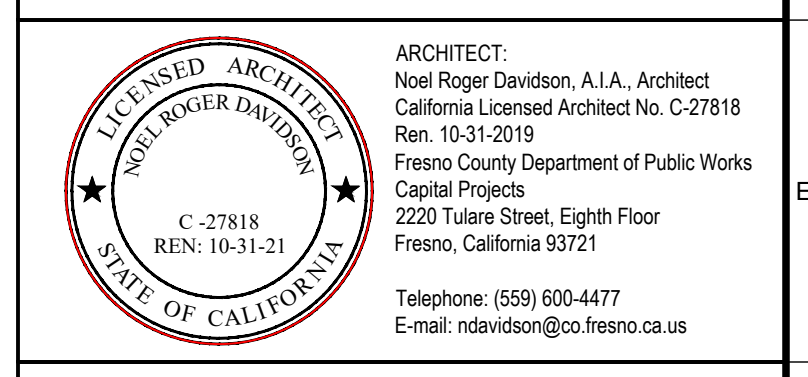
- (19) (P) CANOPY POSTS: STUB CONDUIT AND ELECTRICAL OUTLETS TO EACH POST FOR FUTURE NEEDS. EVERY OTHER POST SHALL HAVE 110 VOLT WEATHER RESISTANT 4-GANG OUTLETS AND HOSE BIBBS. TYPICAL AT ALL SOLAR COVERED PARKING SPACES.
- (20) (P) CONCRETE PAD FOR SEA TRAIN STORAGE CONTAINERS. PRE-PLAN FOR POWER. SEE DETAIL N11/A1.6 AND ELECTRICAL DRAWINGS
- (21) (P) SEA TRAIN STORAGE CONTAINER
- (22) (P) FIRE RISER
- (23) (P) HVAC RISERS. SEE MECHANICAL
- (24) (P) ELECTRICAL OUTLETS, TYPICAL. SEE ELECTRICAL DRAWINGS.
- (25) (P) STEEL BOLLARD, TYPICAL. SEE DETAIL N5/A1.5
- (26) (P) TRASH / RECYCLE ENCLOSURE. SEE DETAIL J9/A1.5
- (27) (P) BEU-DIVE 35-40 FT BOAT AND TRAILERS
- (28) (P) 7'-0" HIGH CMU WALL, TYPICAL. SEE DETAIL A15/A1.6
- (29) (P) 6'-0" CHAIN LINK FENCE W/ VISION SLATS. SEE DETAIL N19/A1.5
- (30) (P) STRIPING TO DELINEATE PARKING SPACE SEPARATION AND CLEARANCE
- (31) (P) 6" HIGH CONCRETE CURB. SEE DETAILS N1 OR J1/A1.6
- (32) (P) TREE. SEE LANDSCAPE DRAWINGS.
- (33) (P) NEW COMMERCIAL DRIVEWAY APPROACH PER CITY OF FRESNO PUBLIC WORKS STANDARDS P-2 AND P-6. WIDTH AS SHOWN. SEE CIVIL DRAWINGS.
- (34) (P) AG PAVING PER CITY OF FRESNO PUBLIC WORKS STANDARDS P-21, P-22 AND P-23. SEE CIVIL DRAWINGS.
- (35) (P) SHORT-TERM BICYCLE PARKING PER 2016 C6B5C 5.106.4.1.1 AT 5% OF NEW VISITOR MOTORIZED VEHICLE PARKING SPACES. FOR 60 MV SPACES, 3 BIKE SPACES REQUIRED. SEE DETAIL J5/A1.5
- (36) (P) LONG-TERM BICYCLE PARKING PER 2016 C6B5C 5.106.4.1.2. AT 5% OF NEW EMPLOYEE MOTORIZED VEHICLE PARKING SPACES. FOR 259 MV SPACES, 13 BIKE SPACES REQUIRED. SEE DETAIL E5/A1.5
- (37) (P) LIGHT POLE W/ CONCRETE BASE, TYP. SEE ELECTRICAL DRAWINGS.
- (38) (P) TRANSFORMER LOCATION. SEE ELECTRICAL
- (39) (P) BACKFLOW PREVENTION DEVICE AND METER. SEE CIVIL DRAWINGS.
- (40) (P) DEPRESS CONCRETE CURB TO 2" HIGH AT WIDTH AS SHOWN.
- (41) (P) 8'-0" CHAIN LINK FENCE W/ SECURITY WIRE AND PRIVACY SLATS. SEE DETAIL A1/A1.6
- (42) (P) CONCRETE WHEEL STOP, TYPICAL. SEE DETAIL A1/A1.3
- (43) (P) 2" PEA GRAVEL O/ COMPACTED SOIL AT A/C AND GENERATOR YARD UNLESS OTHERWISE NOTED.
- (44) (P) PLANTING AREA. SEE LANDSCAPE DRAWINGS.
- (45) (P) CONCRETE PAVING

PROJECT DATA

1. PROJECT TITLE: SHERIFF AREA 2 SUBSTATION
- 1.1. SUBSTATION BLDG
- 1.2. STORAGE BLDG
2. PROJECT ADDRESS: 1129 N ARMSTRONG AVE FRESNO, CA 93721
3. APN: 310-133-04, 05, 06T
4. LEGAL:
5. ZONING: IL/UGM/CZ
6. SITE AREA: 289,080 SF (6.50 AC)
7. SUBSTATION BLDG
 - 7.1. BLDG AREA: 22,700 SF
 - 7.2. OCCUPANCY: A-3, B w/ A-2 AND S-1 ACCESSORY
 - 7.3. CONSTRUCTION: IIB - SPRINKLERED
 - 7.4. OCCUPANTS: 646
8. STORAGE BLDG
 - 8.1. BLDG AREA: 35,520 SF
 - 8.2. OCCUPANCY: S-2
 - 8.3. CONSTRUCTION: IIB - SPRINKLERED
 - 8.4. OCCUPANTS: 116
9. SITE COVERAGE: 20.6%
10. BUILDING CODE: 2016 CALIFORNIA BUILDING CODE
11. SEISMIC DESIGN CATEGORY D
12. COUNTY OF FRESNO SFR APPLICATION NO. 8156

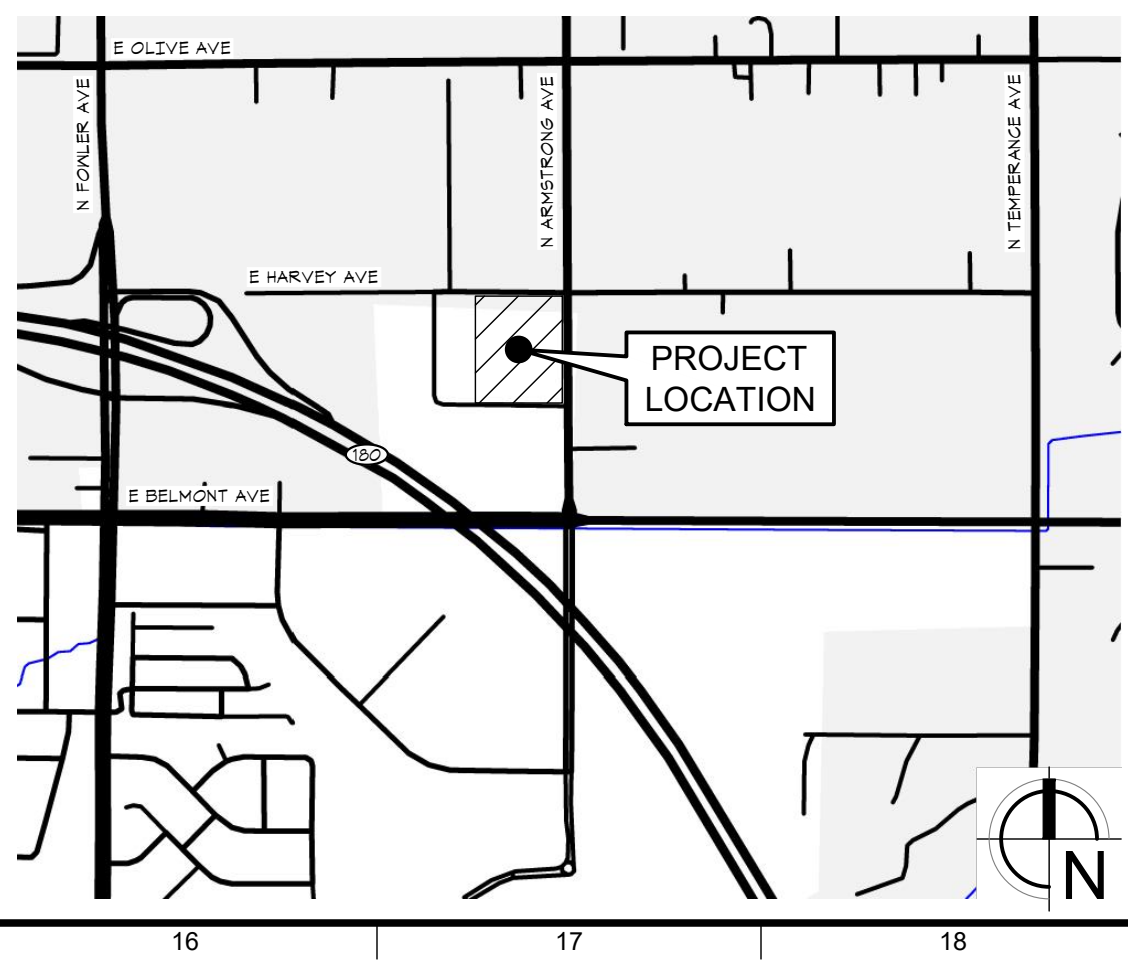
NOTES

THIS SHEET FOR INFORMATION ONLY. ALL SITE WORK CONSTRUCTED UNDER SEPARATE PERMIT. SEE COUNTY OF FRESNO SFR APPLICATION NO. 8156 AND COUNTY OF FRESNO PLAN CHECK NO. 19-0912.



Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.02.2020
 PROJECT NO: 190293 / 19003.01
 FILE NAME: 19003-01_A1-1_Site_Plan

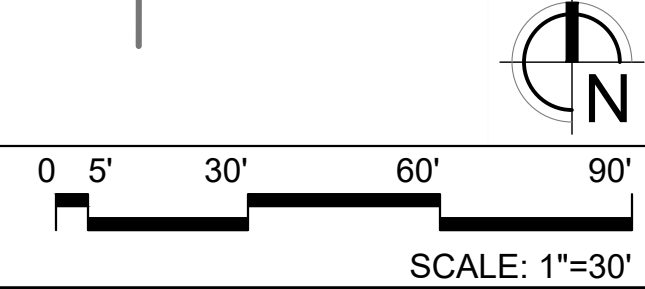
VICINITY MAP

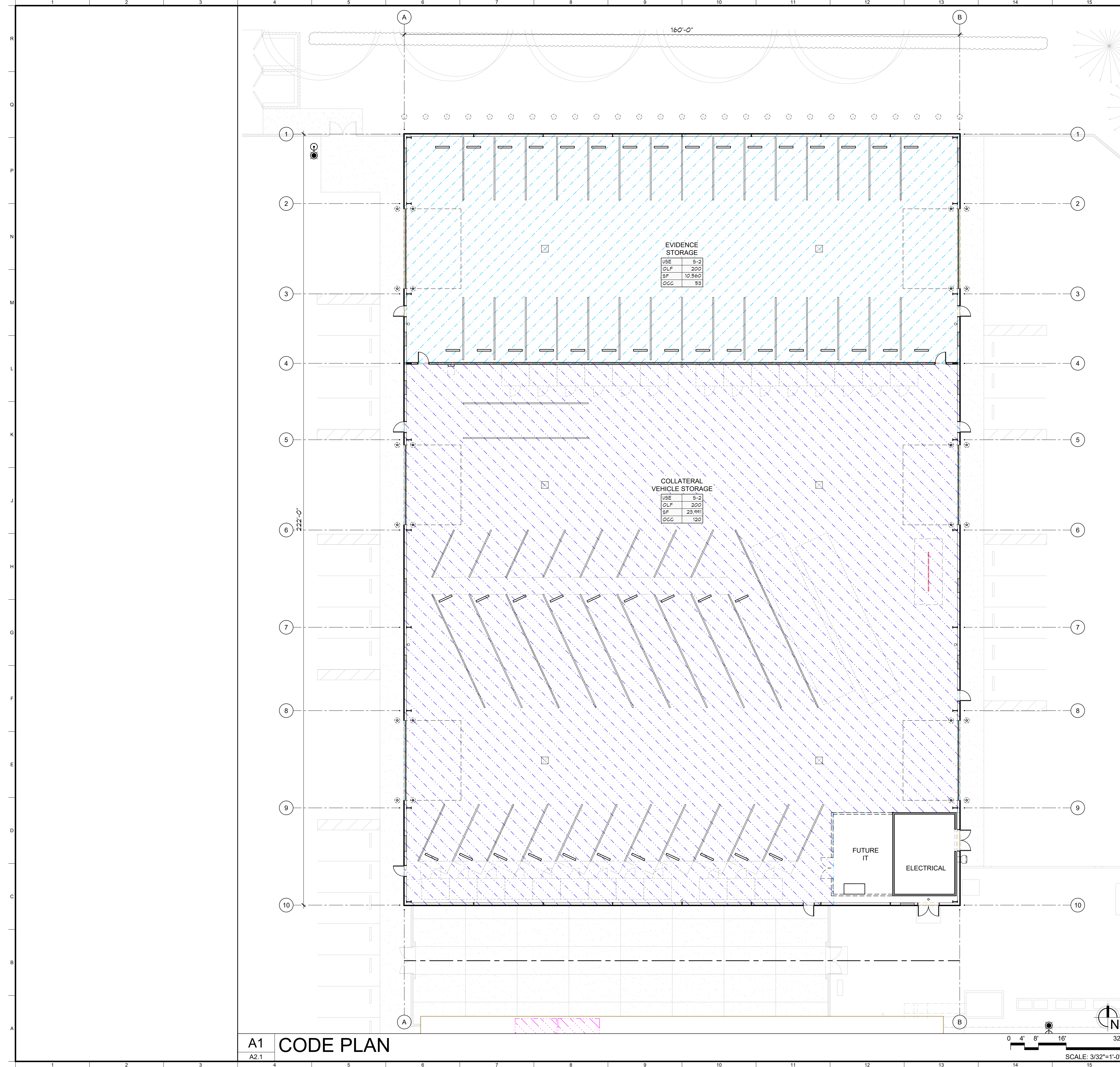


Sheet Content:
 SITE PLAN

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
A1.1





STORAGE BUILDING AREAS & OCC			
DESC	AREA	OLF	OCC
TOTAL BUILDING	35,520 SF		
S-2 STORAGE 1	10,560 SF	300	36
S-2 STORAGE 2	23,991 SF	300	80
TOTAL OCCUPANCY			116

NOTE: ONE (1) SF ROUND-OFF ERROR MAY OCCUR

CODE ANALYSIS

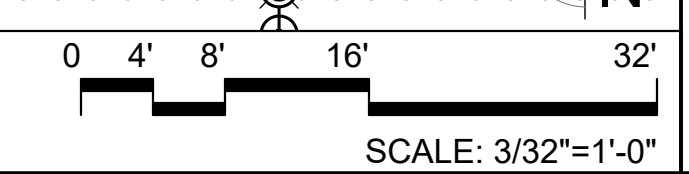
2016 CALIFORNIA BUILDING CODE

- ...
- ...
- CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION
 - SECTION 311 STORAGE GROUP 5
 - 311.3 Low-hazard storage, Group S-2. Storage Group S-2 occupancies include, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Group S-2 storage uses shall include, but not be limited to, storage of the following: Parking garages, open or enclosed
- CHAPTER 4 SPECIAL DETAILED REQUIREMENTS ON USE AND OCCUPANCY
 - 406.6 Enclosed parking garages. Enclosed parking garages shall comply with Sections 406.6.1 through 406.6.3.
 - 406.6.1 Heights and areas. Enclosed vehicle parking garages and portions thereof that do not meet the definition of open parking garages shall be limited to the allowable heights and areas specified in Sections 504 and 506 as modified by Section 507. Roof parking is permitted.
 - 406.6.2 Ventilation. A mechanical ventilation system shall be provided in accordance with the California Mechanical Code.
 - 406.6.3 Automatic sprinkler system. An enclosed parking garage shall be equipped with an automatic sprinkler system in accordance with Section 903.2.10.
- CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS
 - TABLE 504.3 ALLOWABLE ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE
 - 5.1.1. GROUP S; S; TYPE IIB; 75'
 - 5.1.2. Max building height = 23'-0" x 75' **OK**
 - TABLE 506.2 ALLOWABLE AREA FACTOR IN SQUARE FEET
 - 5.2.1. GROUP S-2; S1; TYPE IIB; 104,000 SF
 - 5.2.2. Building area = 35,520 SF x 104,000 SF **OK**
- CHAPTER 6 TYPES OF CONSTRUCTION
 - TABLE 602 FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE
 - 6.1.1. X < 10; TYPE IIB; GROUP S-2; 1 HR
 - 6.1.2. 10 < X; TYPE IIB; GROUP S-2; 0 HR

PROJECT DATA

- PROJECT TITLE: FRESNO COUNTY SHERIFF AREA 2 SUBSTATION
- PROJECT ADDRESS: 1129 N ARMSTRONG AVE FRESNO, CA 93721
- APN: 310-133-04, 05, 06T
- LEGAL:
- ZONING: IL/UGM/CZ
- SITE AREA: 289,080 SF (6.50 AC)
- SUBSTATION BLDG
 - BLDG AREA: 22,700 SF
 - OCCUPANCY: A-3, B w/ A-2 AND S-1 ACCESSORY
 - CONSTRUCTION: IIB - SPRINKLERED
 - OCCUPANTS: 646
- STORAGE BLDG
 - BLDG AREA: 35,520 SF
 - OCCUPANCY: S-2
 - CONSTRUCTION: IIB - SPRINKLERED
 - OCCUPANTS: 116
- SITE COVERAGE: 20.6%
- BUILDING CODE:

A1 **CODE PLAN**

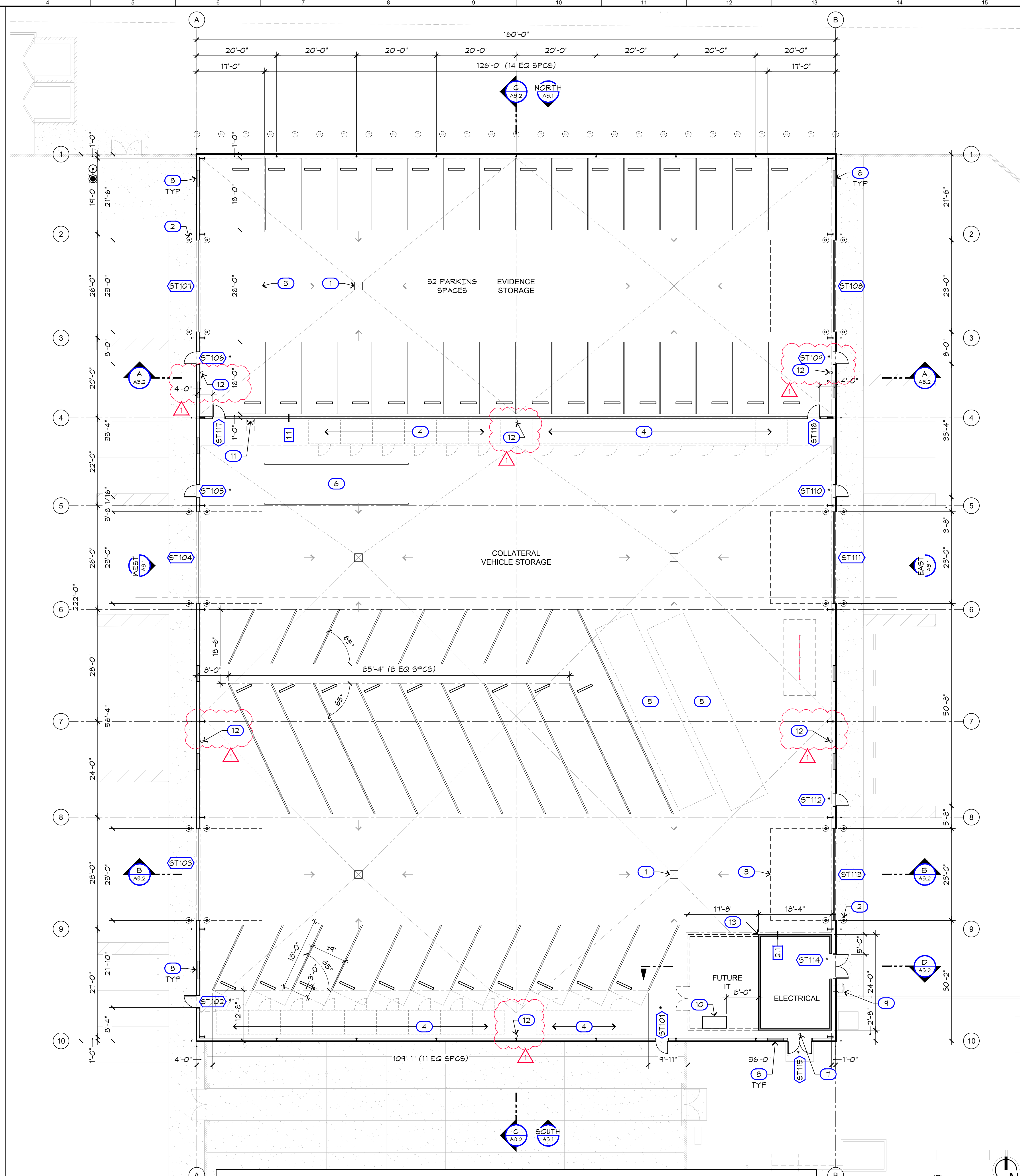


Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.02.2020
 PROJECT NO: 19003-01 / 19003-01
 FILE NAME: 19003-01_A2-1_Code_Plan

Sheet Content:
 CODE PLAN



Sheet No.
A2.1



WALL LEGEND

- EXTERIOR WALL (NR)
- INTERIOR WALL (NR) - 6" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EACH SIDE. EXTEND TO BOTTOM OF STRUCTURE ABOVE
- INTERIOR WALL (NR) - 6" x 16 GA. METAL STUDS AT 12" O.C. MAX W/ R-19 BATT INSULATION AND 3/4" A/C PLYWOOD SHEATHING EACH SIDE

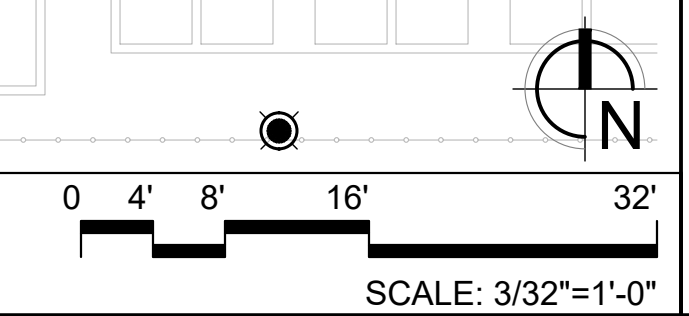
SYMBOLS LEGEND

- ST100 DOOR SYMBOL. SEE 'DOOR SCHEDULE' SHEET A4.1
* INDICATES SECURITY KEY CARD ACCESS

KEYNOTES LEGEND

- 1 FLOOR DRAIN, TYPICAL OF SIX (6). SEE PLUMBING.
- 2 REMOVABLE STEEL BOLLARD AT DOOR JAMB, TYPICAL.
- 3 OUTLINE OF OVERHEAD SECTIONAL DOOR ABOVE, TYPICAL.
- 4 GEAR LOCKER
- 5 OHV 50 FT TRUCK PARKING
- 6 RV COMMAND POST PARKING
- 7 FIRE RISER
- 8 LOUVER. SEE MECHANICAL
- 9 EXHAUST FAN. SEE MECHANICAL
- 10 6'-0"x3'-0" BLOCK-OUT IN SLAB FOR FUTURE IT CONDUIT
- 11 ROOF ACCESS LADDER. SEE DETAIL J13/A5.2
- 12 FIRE EXTINGUISHER BRACKET, TYPICAL OF 6
- 13 2"x2" STEEL ANGLE CORNER GUARD FROM FIN FLOOR TO 4'-0" AFF.

A4 FLOOR PLAN
A2.2

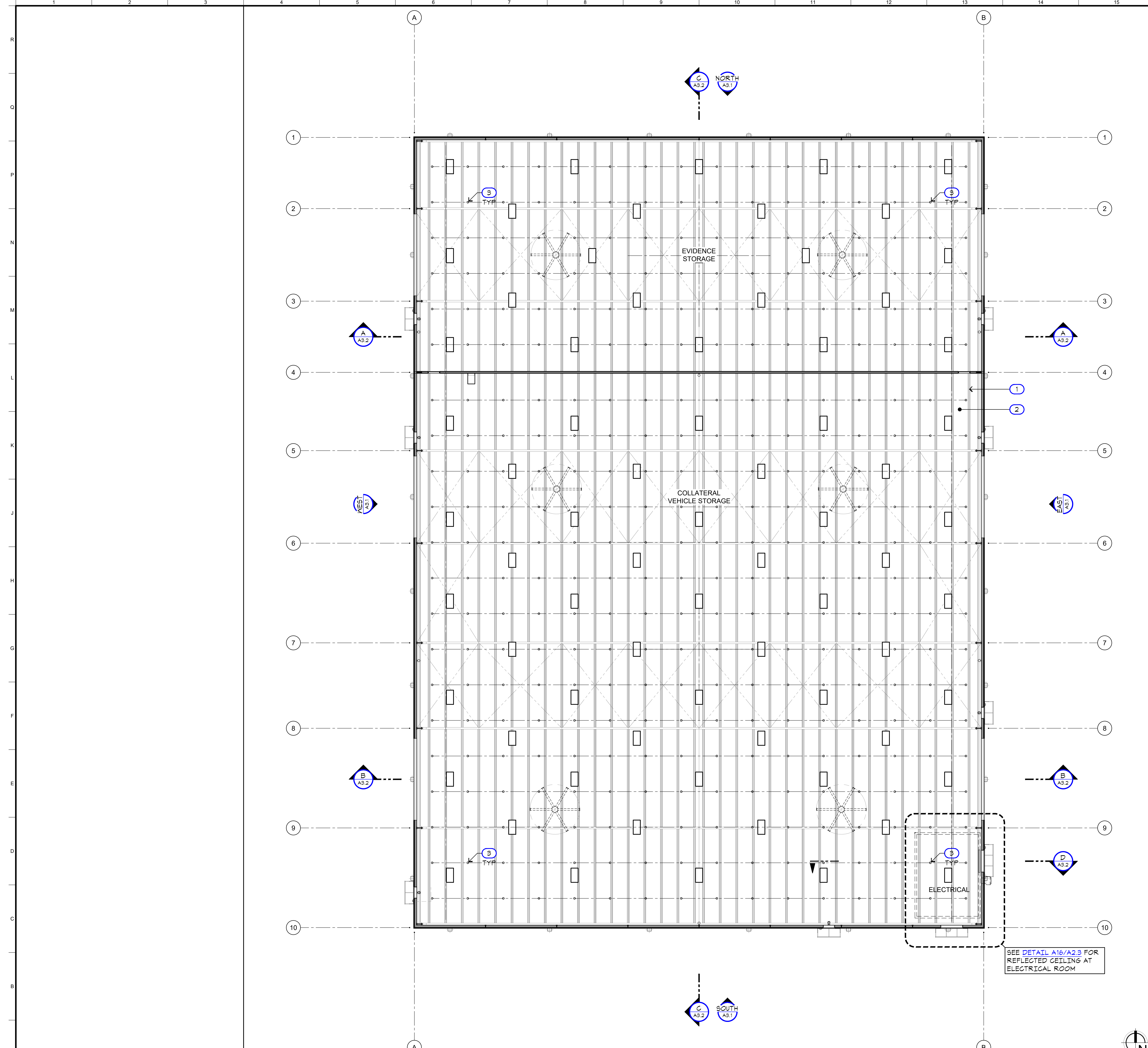


Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.02.2020
 PROJECT NO: 19003.01 / 19003.01
 FILE NAME: 19003-01_A2-2_Floor_Plan

Sheet Content:
 FLOOR PLAN



Sheet No.
A2.2



WALL LEGEND

	EXTERIOR WALL (NR)
	INTERIOR WALL (NR) - 6" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EACH SIDE. EXTEND TO BOTTOM OF STRUCTURE ABOVE
	INTERIOR WALL (NR) - 6" x 16 GA. METAL STUDS AT 12" O.C. MAX W/ R-19 BATT INSULATION AND 3/4" A/C PLYWOOD SHEATHING EACH SIDE

SYMBOLS LEGEND

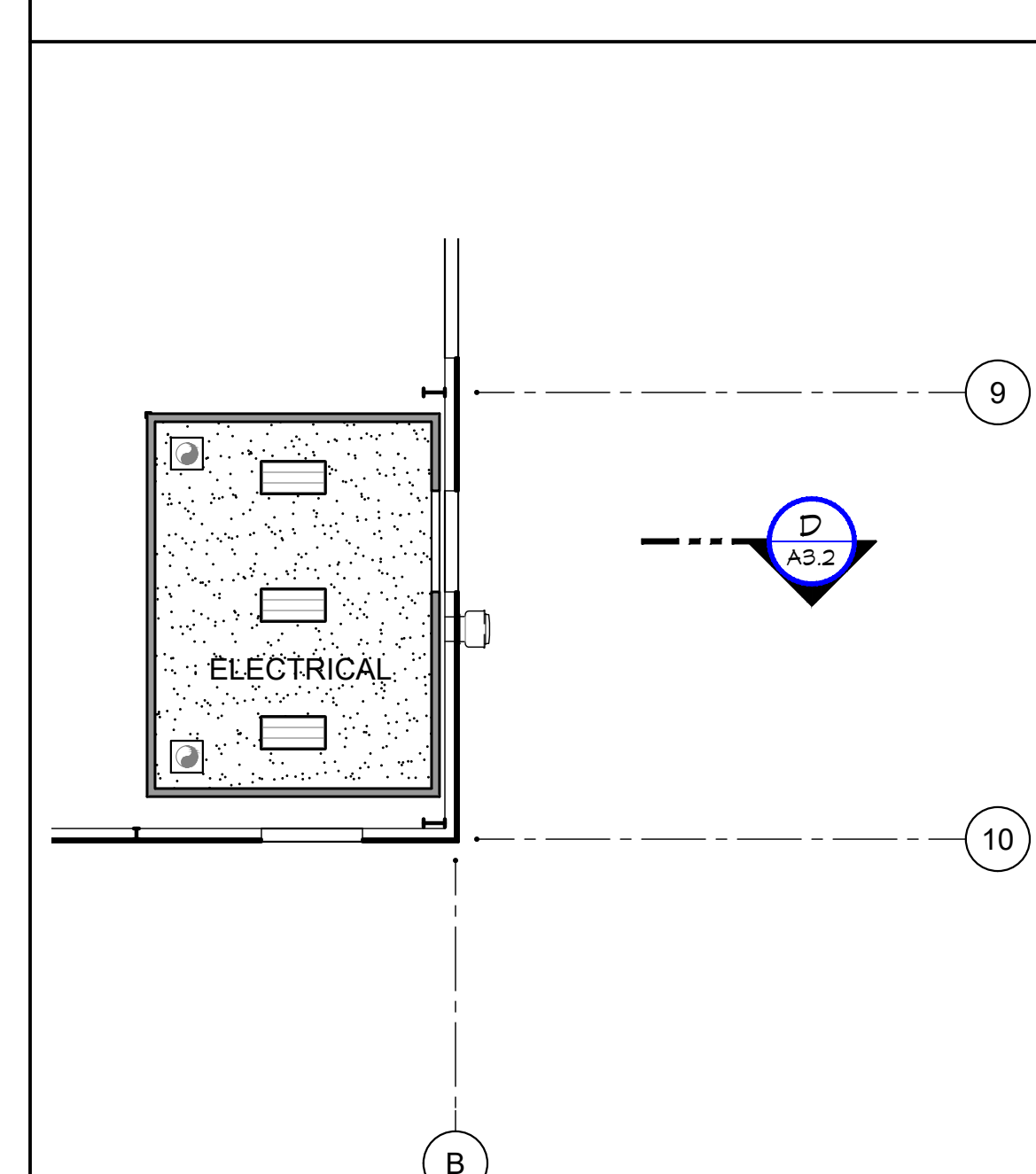
	DOOR SYMBOL. SEE DOOR SCHEDULE, SHEET A4.1 * INDICATES SECURITY KEY CARD ACCESS
--	--

KEYNOTES LEGEND

①	METAL FURLINGS
②	3-1/4" THICK R-26 PREFINISHED INSULATED MECHANICALLY SEALED 26 GA METAL ROOF PANELS W/ CONCEALED FASTENERS
③	FIRE SPRINKLER HEAD, TYPICAL. SEE FIRE PROTECTION

CEILING LEGEND

	SUSPENDED HIGH-BAY LED LIGHT FIXTURE. SEE ELECTRICAL
	2X4 SURFACE-MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
	EXIT LIGHT. SEE ELECTRICAL
	WALL-MOUNTED EXTERIOR LED LIGHT FIXTURE. SEE ELECTRICAL
	PAINTED GYPSUM BOARD
	EXHAUST FAN. SEE MECHANICAL
	CEILING FAN. SEE MECHANICAL



PARTIAL REFLECTED CEILING PLAN

A16
A2.3
SCALE: 3/32"=1'-0"

ARCHITECT:
Neil Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2019
Fresno County Department of Public Works
Capital Projects
2220 Tulare Street, Eighth Floor
Fresno, California 93721
Telephone: (559) 600-4477
E-mail: ndavidson@co.fresno.ca.us

Project:
Sheriff Area 2 Sub-Station Storage
11220 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: 19003-01 / 19003-01
FILE NAME: 19003-01_A2-3_Ref_Cling_Plan

Sheet Content:
REFLECTED CEILING PLAN

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A2.3

ARCHITECT:
Neil Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2019
Fresno County Department of Public Works
Capital Projects
2220 Tulare Street, Eighth Floor
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Project:
Sheriff Area 2 Sub-Station Storage
11220 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: 19003-01 / 19003-01
FILE NAME: 19003-01_A2-3_Ref_Cling_Plan

Sheet Content:
REFLECTED CEILING PLAN

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A2.3

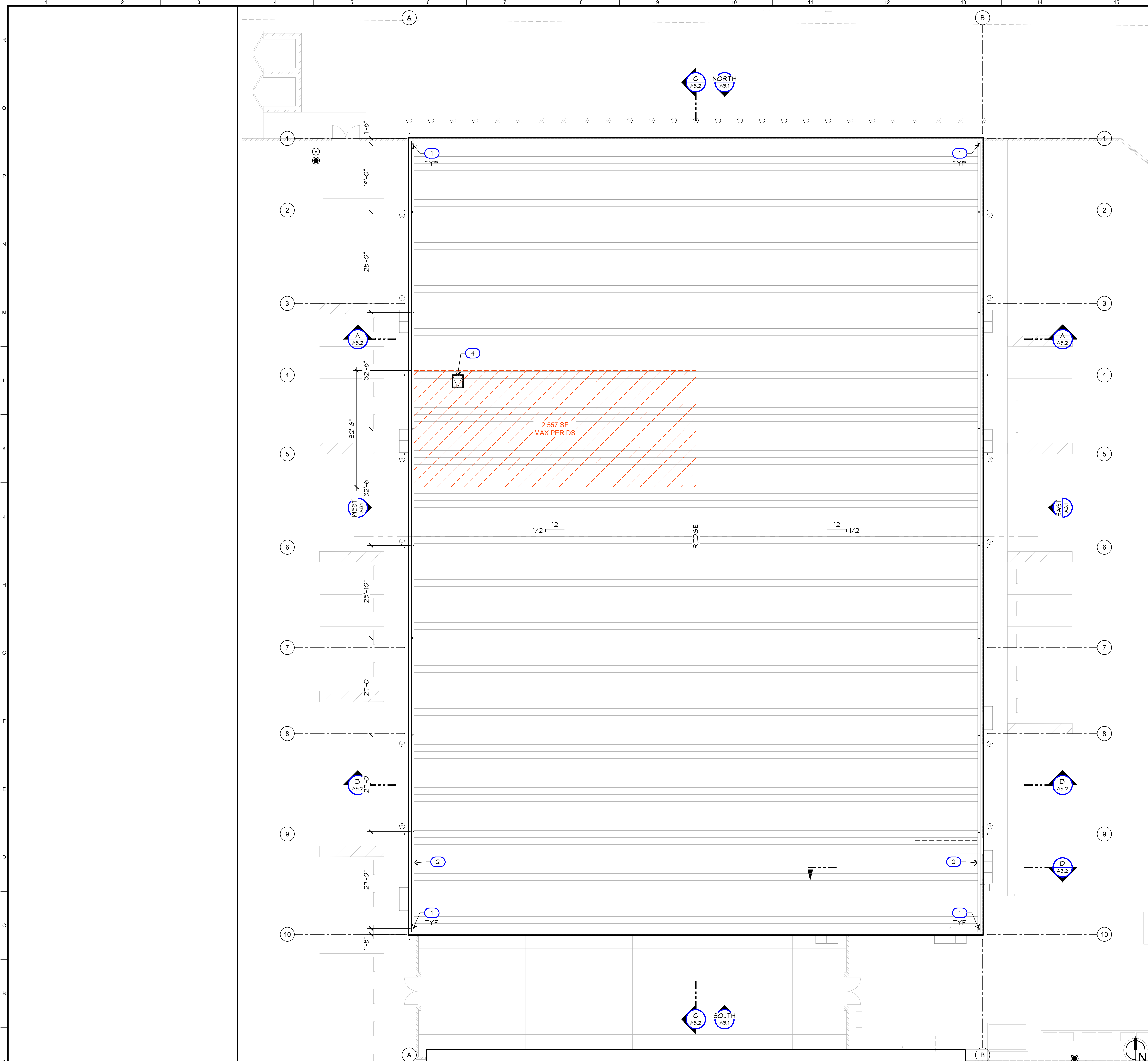
Drawn by: ---- Plot date: 06.02.2020

A4 REFLECTED CEILING PLAN
A2.3

0 4' 8' 16' 32'
SCALE: 3/32"=1'-0"

A16 PARTIAL REFLECTED CEILING PLAN
A2.3 SCALE: 3/32"=1'-0"

Sheet No. A2.3
Drawn by: ---- Plot date: 06.02.2020



ROOF DRAINAGE CALCS

Rainfall Intensity (in/hr): 3.9
(Based on rainfall averages in Sacramento, CALIFORNIA (100 years))

Roof Rainfall Design Area (ft²): 2,557.00
* Area of Largest Roof Serving a Single Gutter System
 Design Area manually entered by user

Gutter in Lineal Ft: 33
* Length at Largest Roof Serving a Single Gutter System

Gutter Length Serving Single DS (ft.): 33
* Assumption: downspouts are equally spaced
 ** Maximum gutter length to be served by a downspout to SDR per SMACNA ASMH

M (depth to width ratio): 0.75

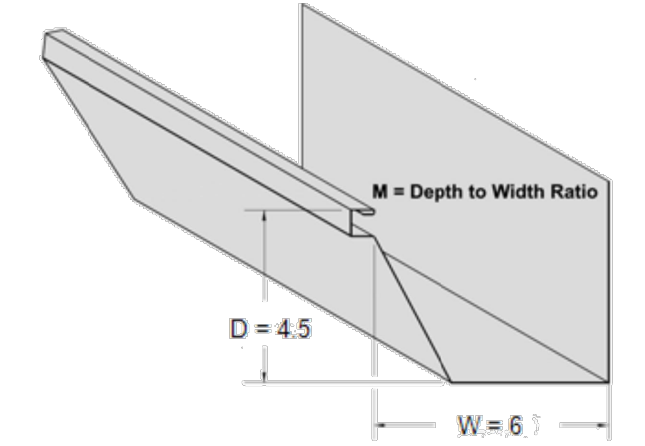
Min. Gutter Width (in.): 6 [Rectangular]

Min. Gutter Depth (in.): 4.5

of Downspouts: 1

Min. Area per DS (in²): 8.25

Min. DS Size (in): 4 [Plain Round]
* Per Table 1-3 on page 1-4 of SMACNA ASMH



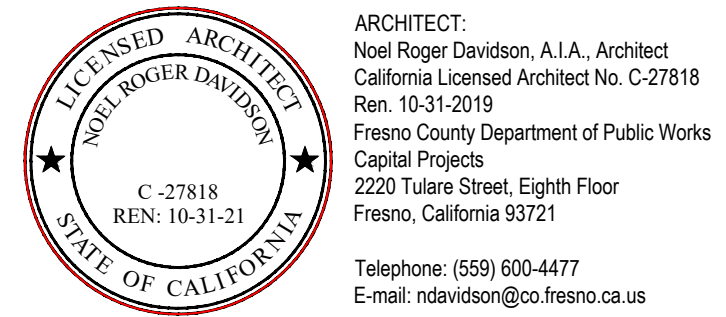
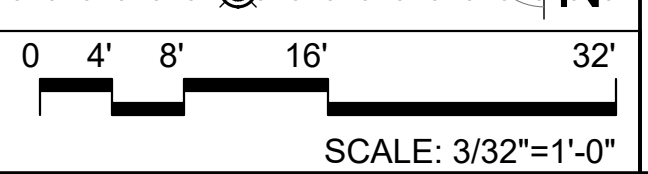
Calculations are derived using the 7th Edition of SMACNA's Architectural Sheet Metal Manual

KEYNOTES LEGEND

- 1 4" PLAIN ROUND DOWNSPOUT, TYPICAL OF 1B
- 2 6" WIDE x 5" DEEP RECTANGULAR GUTTER, TYPICAL
- 3 OVERFLOW
- 4 ROOF HATCH. SEE [DETAIL A1B/A5.2 SIM](#)

All roof drains will be collected in the attic and routed to storm drain piping in the west parking lot. See PLUMBING and CIVIL.

A4 ROOF PLAN
 A2.4



Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.02.2020
 PROJECT NO: 19003-01 / 19003-01
 FILE NAME: 19003-01_A2-4_Roof_Plan

Sheet Content:
 ROOF PLAN



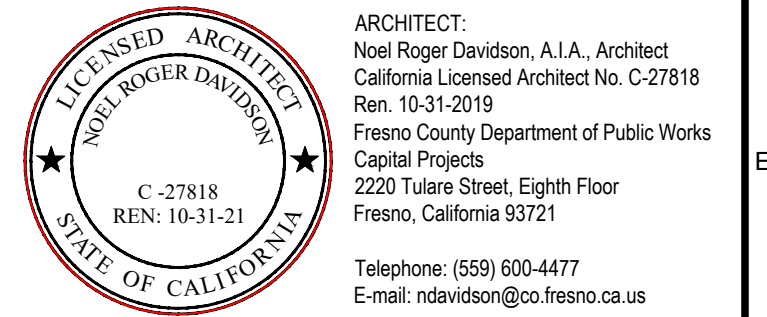
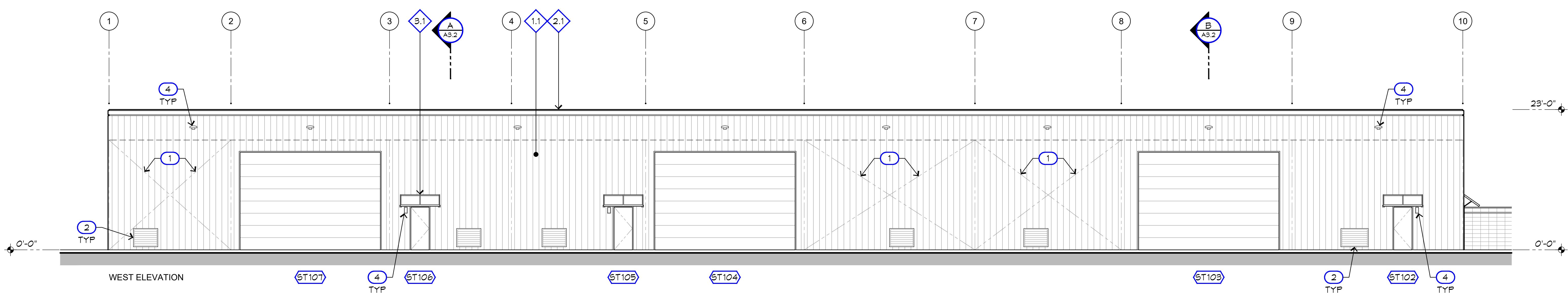
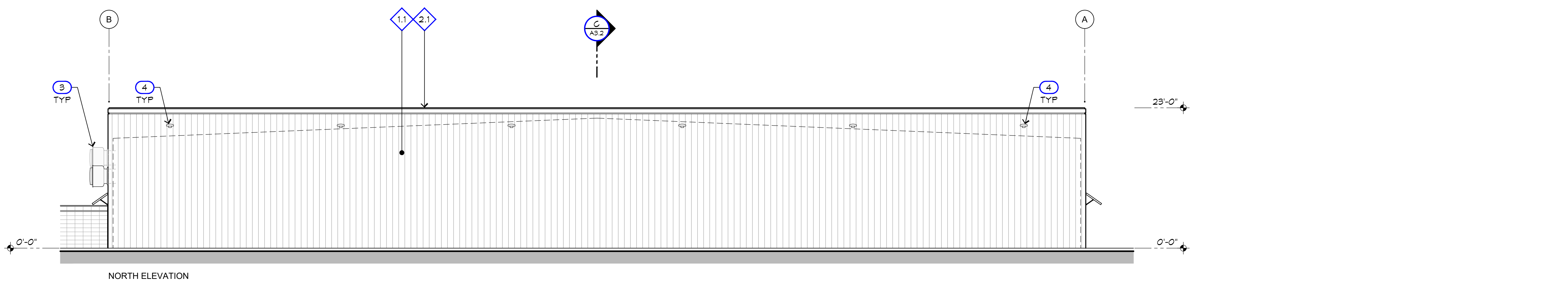
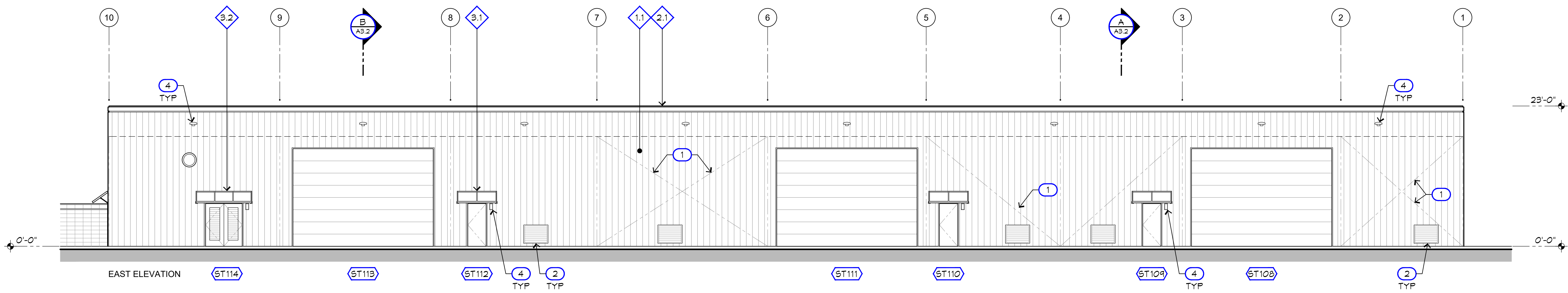
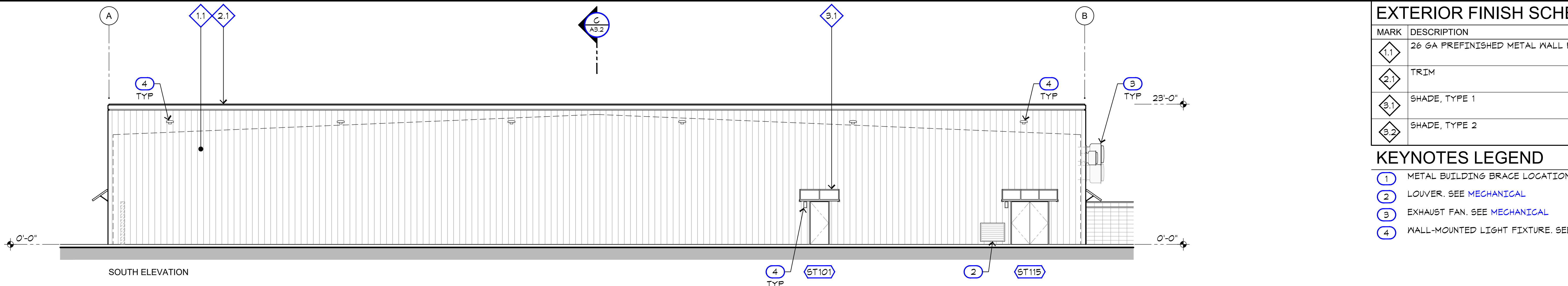
Sheet No.
A2.4

EXTERIOR FINISH SCHEDULE

MARK	DESCRIPTION
1.1	26 GA PREFINISHED METAL WALL PANEL.
2.1	TRIM
3.1	SHADE, TYPE 1
3.2	SHADE, TYPE 2

KEYNOTES LEGEND

- 1 METAL BUILDING BRACE LOCATION
- 2 LOUVER. SEE MECHANICAL
- 3 EXHAUST FAN. SEE MECHANICAL
- 4 WALL-MOUNTED LIGHT FIXTURE. SEE ELECTRICAL



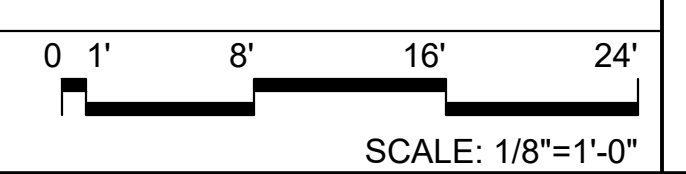
Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.02.2020
 PROJECT NO: 19003-01 / 19003-01
 FILE NAME: 19003-01_A3-1_Extr_Elev

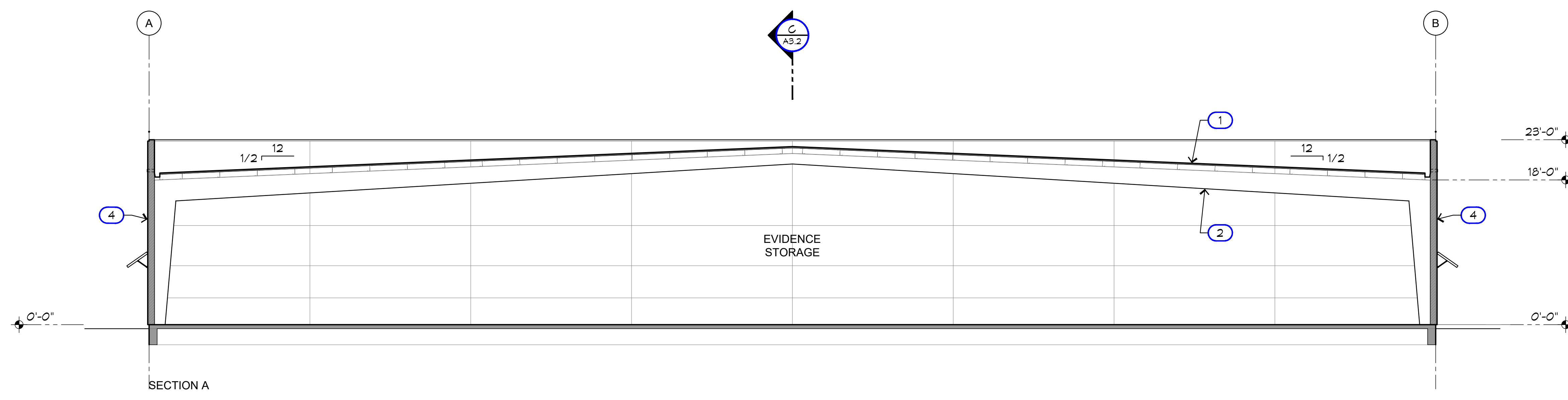
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 EXTERIOR ELEVATION



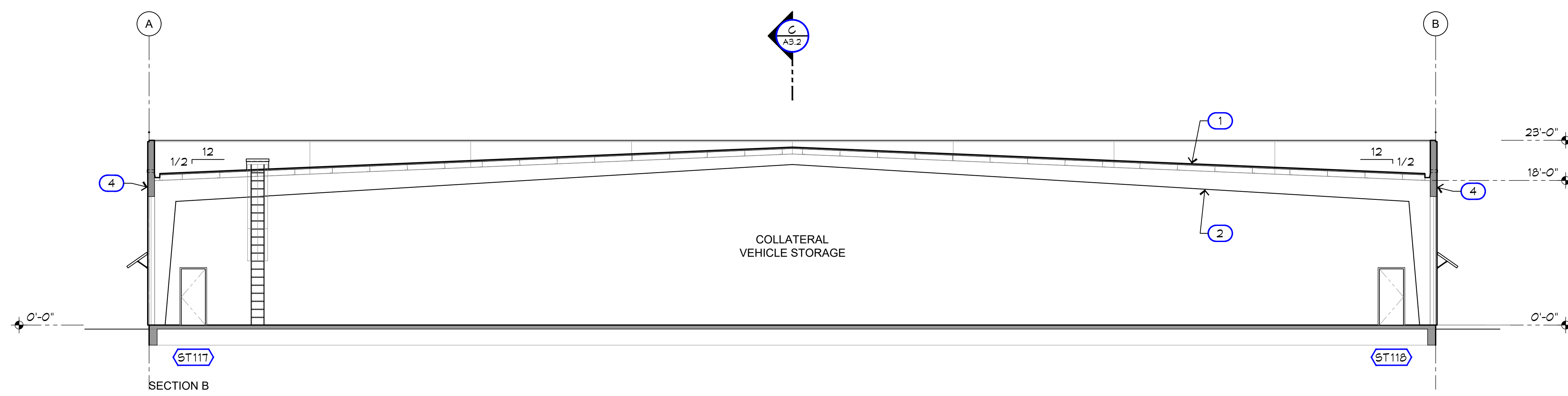
2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
A3.1

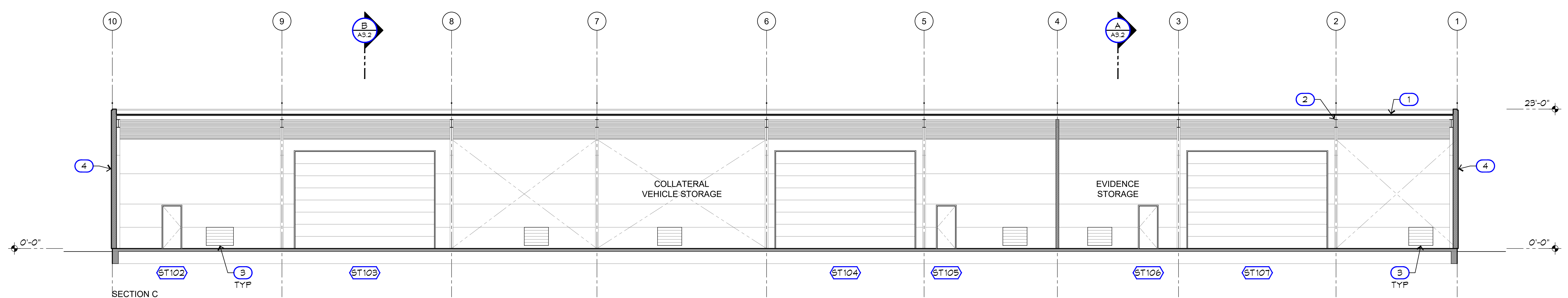




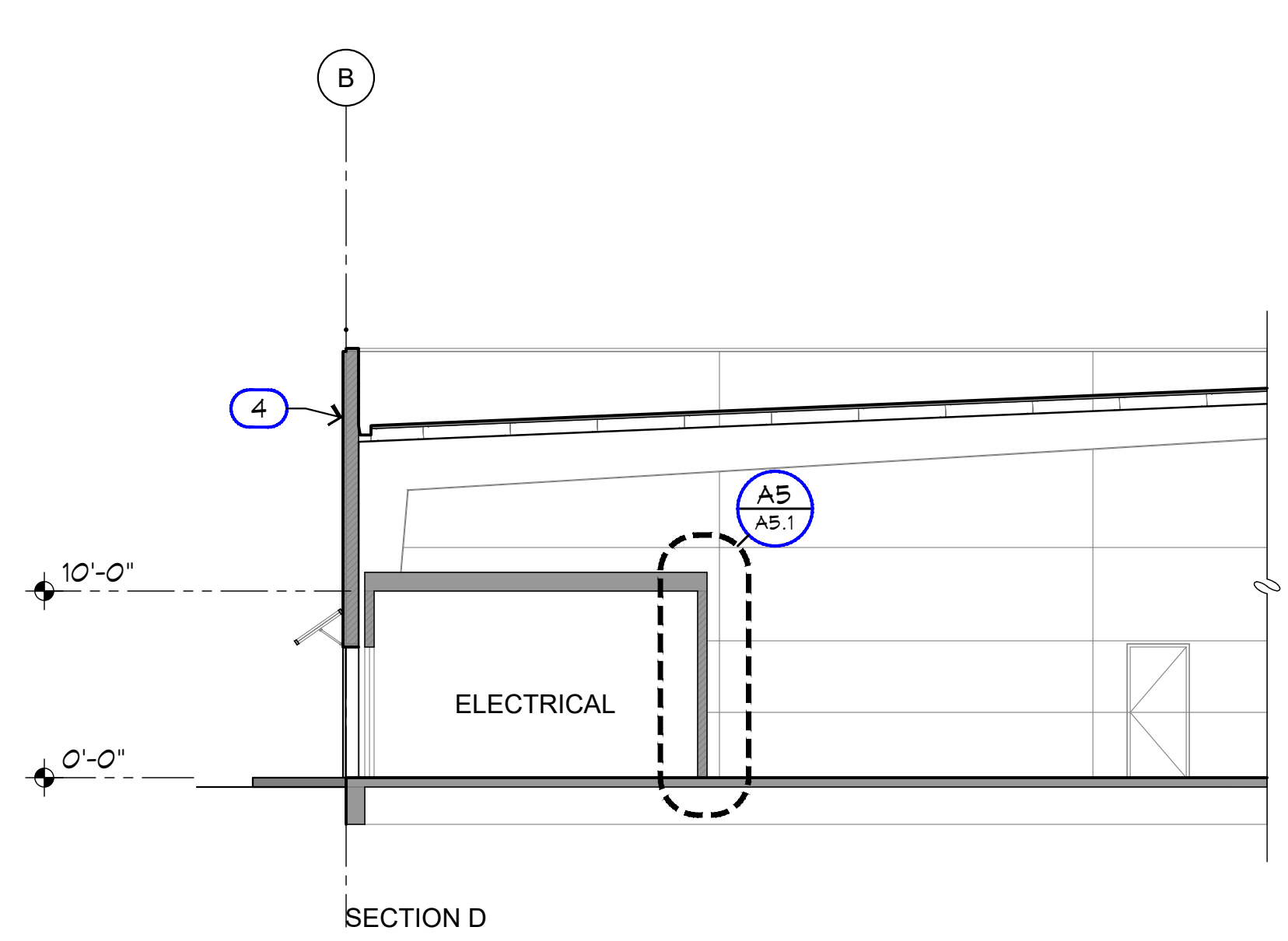
SECTION A



SECTION B



SECTION C



SECTION D

KEYNOTES LEGEND

- 1 3-1/4" THICK R-26 INSULATED PREFINISHED 26 GA METAL ROOFING PANEL
- 2 METAL BUILDING FRAME
- 3 LOUVER. SEE MECHANICAL
- 4 2" THICK R-16 INSULATED PREFINISHED 26 GA METAL WALL PANEL O/ METAL BUILDING GIRTS



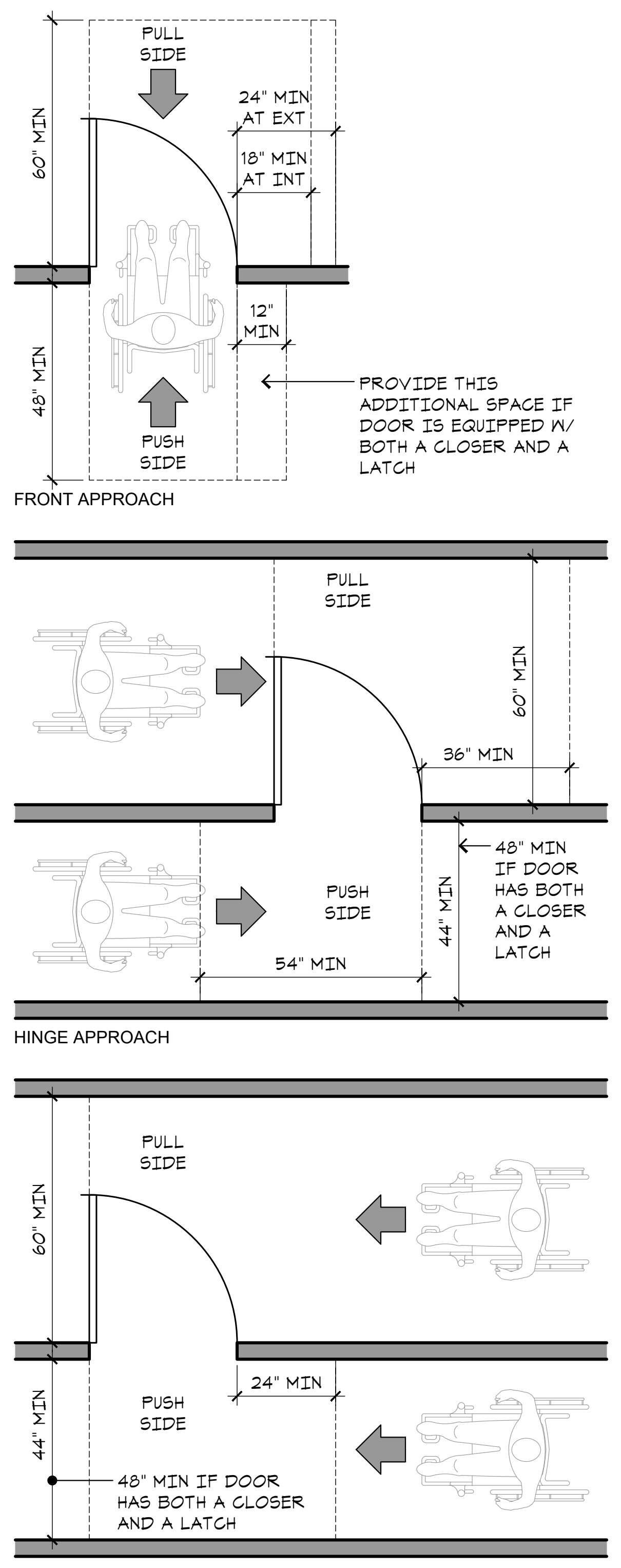
Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.02.2020
 PROJECT NO: 19003.01 / 19003.01
 FILE NAME: 19003-01_A3-2_Bldg_Sect

Sheet Content:
 BUILDING SECTIONS



Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
A3.2



MANEUVERING CLEARANCES AT DOORS

G1
A4.1
SCALE: 1/2"=1'-0"

GENERAL DOOR NOTES

- THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE, OTHER THAN FIRE DOORS, SHALL NOT EXCEED 5 POUNDS. FOR REQUIRED FIRE DOORS, THE OPENING FORCE SHALL BE THE MINIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 POUNDS. (2016 CBC 1010.1.3, 11B-404.2.4)
- THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF A DOOR. SUCH FLOOR OR LANDING SHALL BE AT THE SAME ELEVATION ON EACH SIDE OF THE DOOR. LANDINGS SHALL BE LEVEL EXCEPT FOR EXTERIOR LANDINGS, WHICH ARE PERMITTED TO HAVE A SLOPE NOT TO EXCEED 0.25 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2-PERCENT SLOPE). (2016 CBC 1010.1.5)
- THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2 INCH ABOVE THE FINISHED FLOOR OR LANDING. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES GREATER THAN 1/4 INCH AT DOORWAYS SHALL BE BEVELED WITH A SLOPE NOT GREATER THAN ONE UNIT VERTICAL IN TWO UNITS HORIZONTAL (50-PERCENT SLOPE). (2016 CBC 1010.1.7)
- EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE SHALL BE OPERABLE WITH ONE HAND AND NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. (2016 CBC 1010.1.9, 11B-304.4)
- THE LEVER OF LEVER ACTUATED LATCHES OR LOCKS SHALL BE CURVED WITH A RETURN TO WITHIN 1/2" OF THE DOOR TO PREVENT CATCHING ON CLOTHING OF PERSONS DURING EGRESS. (2016 CBC 1010.1.9.1, CA REF STDS CODE, 12-10-202)
- DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISHED FLOOR. (2016 CBC 1010.1.9.2, 11B-404.2.7)
- IN BUILDINGS IN OCCUPANCY GROUP A HAVING AN OCCUPANT LOAD OF 300 OR LESS, GROUPS B, F, M AND S, AND IN PLACES OF RELIGIOUS WORSHIP, THE MAIN DOOR OR DOORS ARE PERMITTED TO BE EQUIPPED WITH KEY-OPERATED LOCKING DEVICES FROM THE EGRESS SIDE PROVIDED:**
 - THE LOCKING DEVICE IS READILY DISTINGUISHABLE AS LOCKED;
 - A READILY VISIBLE DURABLE SIGN IS POSTED ON THE EGRESS SIDE OR ADJACENT TO THE DOOR STATING "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED". THE SIGN SHALL BE IN LETTERS 1 INCH HIGH ON A CONTRASTING BACKGROUND;
 - THE USE OF THE KEY-OPERATED LOCKING DEVICE IS REVOKABLE BY THE BUILDING OFFICIAL FOR DUE CAUSE. (2016 CBC 1010.1.9.3.2)
- MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. (2016 CBC 1010.1.9.4)
- THE UNLATCHING OF ANY DOOR OR LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION. (2016 CBC 1010.1.9.5)
- DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP WITH THE DOOR OPEN 90 DEGREES. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34 INCHES ABOVE THE FINISH FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES AND 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES. (2016 CBC 11B-404.2.3)
- SWINGING DOOR AND GATE SURFACES WITHIN 10 INCHES OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. (2016 CBC 11B-404.2.10)
- FIRE DOOR ASSEMBLIES SHALL BE LABELED BY AN APPROVED AGENCY; THE LABELS SHALL COMPLY WITH NFPA 80, AND SHALL BE PERMANENTLY AFFIXED TO THE DOOR OR FRAME. (2016 CBC 716.5.7)**
- PROVIDE SMOKE GASKETS AT ALL FIRE-RATED DOORS.**
- SUBMIT MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FIRE DOORS TO THE BUILDING INSPECTOR.**
- HARDWARE SUPPLIER SHALL INSTALL GENERAL CONTRACTOR'S KEY ON ALL LOCKSETS UNLESS NOTED OTHERWISE.
- STOREFRONT MANUFACTURER TO PROVIDE NECESSARY BRACING AT WINDOW SYSTEM TO RESIST LEGAL WIND LOADS PER 2016 CBC.**
- CONTRACTOR SHALL VERIFY ACCESSIBLE MANEUVERING CLEARANCES AT DOORS PER [DETAIL 01/A4.1](#).

GLASS AND GLAZING NOTES

- EACH LIGHT SHALL BEAR THE MANUFACTURER'S LABEL DESIGNATING THE TYPE AND THICKNESS OF GLASS.
- GLASS SHALL BE FIRMLY SUPPORTED ON ALL FOUR SIDES.
- GLAZING SUBJECT TO HUMAN IMPACT SHALL BE "TEMPERED GLAZING".
- EACH UNIT OF TEMPERED GLASS SHALL BE PERMANENTLY IDENTIFIED BY THE MANUFACTURER. THE IDENTIFICATION SHALL BE ETCHED OR CERAMIC FIRED ON THE GLASS AND BE VISIBLE WHEN THE UNIT IS GLAZED. TEMPERED SPANDREL GLASS IS EXEMPT FROM PERMANENT LABELING BUT SUCH GLASS SHALL BE IDENTIFIED BY THE MANUFACTURER WITH A REMOVABLE PAPER LABEL.
- THE FOLLOWING LOCATIONS SHALL REQUIRE SAFETY GLAZING:
 - GLAZING IN INGRESS AND EGRESS DOORS
 - GLAZING PANELS IN SWINGING DOORS
 - GLAZING IN FIXED AND OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE.
- GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL, OTHER THAN IN THOSE LOCATIONS DESCRIBED IN PRECEDING ITEMS, WHICH MEETS ALL OF THE FOLLOWING CONDITIONS:
 - EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQUARE FEET;
 - EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR;
 - EXPOSED TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR; AND
 - ONE OR MORE WALKING SURFACE (S) WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

DOOR SCHEDULE NOTES

- PROVIDE FIRE DEPARTMENT ACCESS LOCK
- PROVIDE DOOR SIGNAGE INDICATING "FIRE RISER".
- PROVIDE DOOR SIGNAGE INDICATING "ELECTRICAL ROOM".
- INDICATES SECURITY KEY CARD ACCESS

ABBREVIATIONS

AL ... ALUMINUM	SC ... SOLID CORE WOOD
FF ... FACTORY FINISH	SF ... STORE FRONT
HM ... HOLLOW METAL	STN ... STAINED
OHC ... OVERHEAD COILING	WD ... WOOD
OHS ... OVERHEAD SECTIONAL	
PLA ... PLASTIC LAMINATE	
PNT ... PAINTED	

HARDWARE

ALL DOOR HARDWARE SHALL HAVE SPARTA LEVER TYPE AND 626/US26D SATIN CHROME FINISH UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS SECTION 081100 FOR ADDITIONAL HARDWARE INFORMATION.

HARDWARE LIST

- A. CLOSER
- B. HINGES (NRP TYPICAL)
- C. LATCHSET, PASSAGE
- D. LOCKSET, ENTRANCE/OFFICE
- E. LOCKSET, OFFICE
- F. LOCKSET, PRIVACY
- G. LOCKSET, STORAGE
- H. STOP FLOOR
- I. STOP, WALL

TYPE 1 (DOORS ST101, ST102, ST105, ST106, ST109, ST110, ST112)

- 3 EA HINGES
 - 1 EA LOCKSET, ENTRANCE/OFFICE
 - 1 EA CLOSER
 - 1 EA STOP, WALL
- [INCLUDE SECURITY KEY CARD ACCESS WHERE INDICATED]

TYPE 2 (DOORS ST114, ST115)

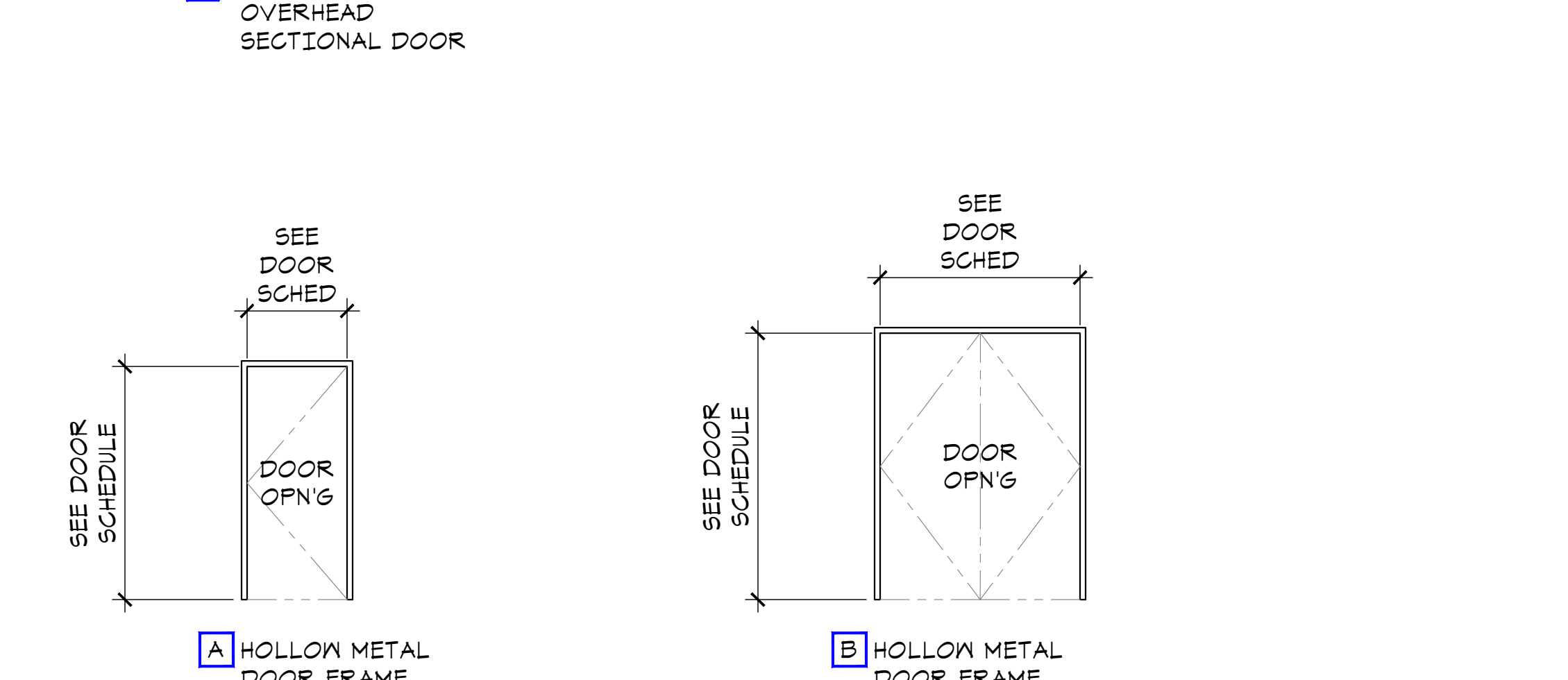
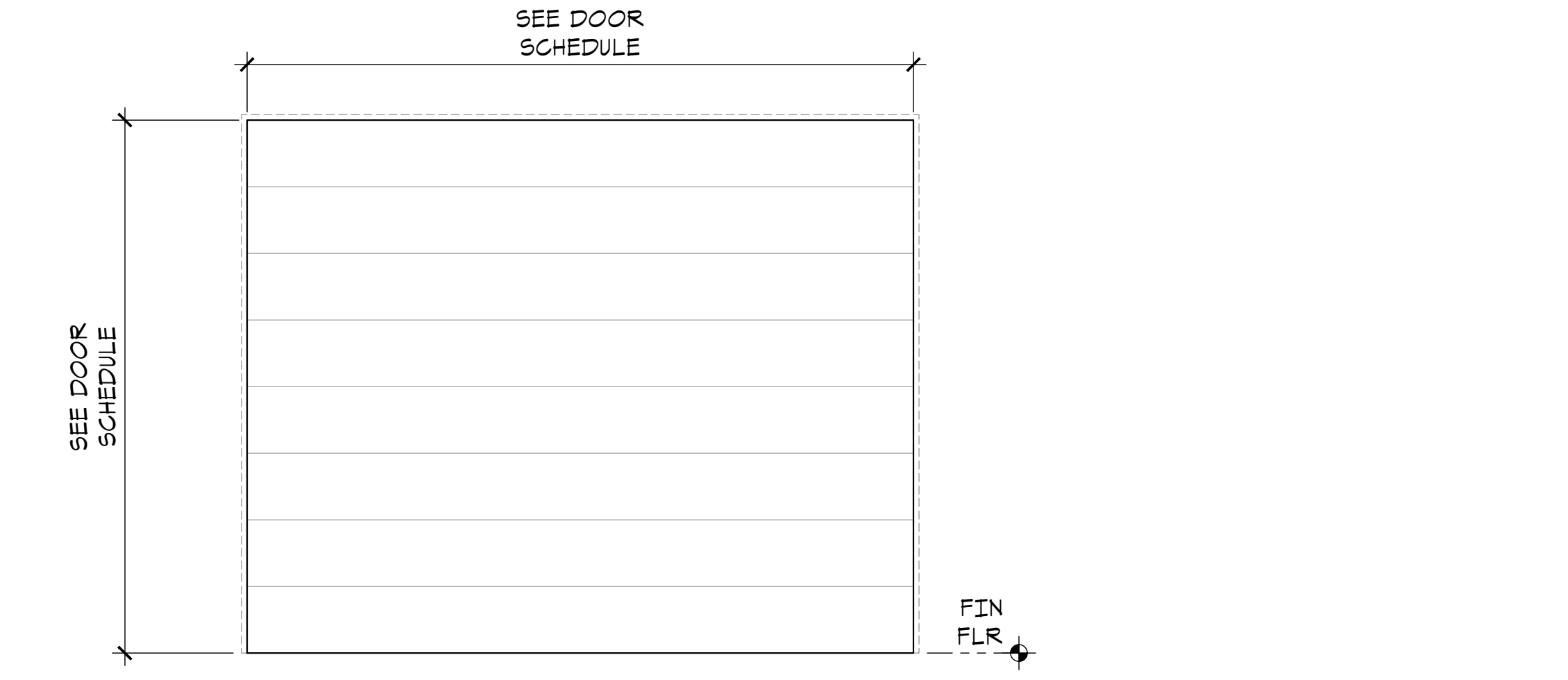
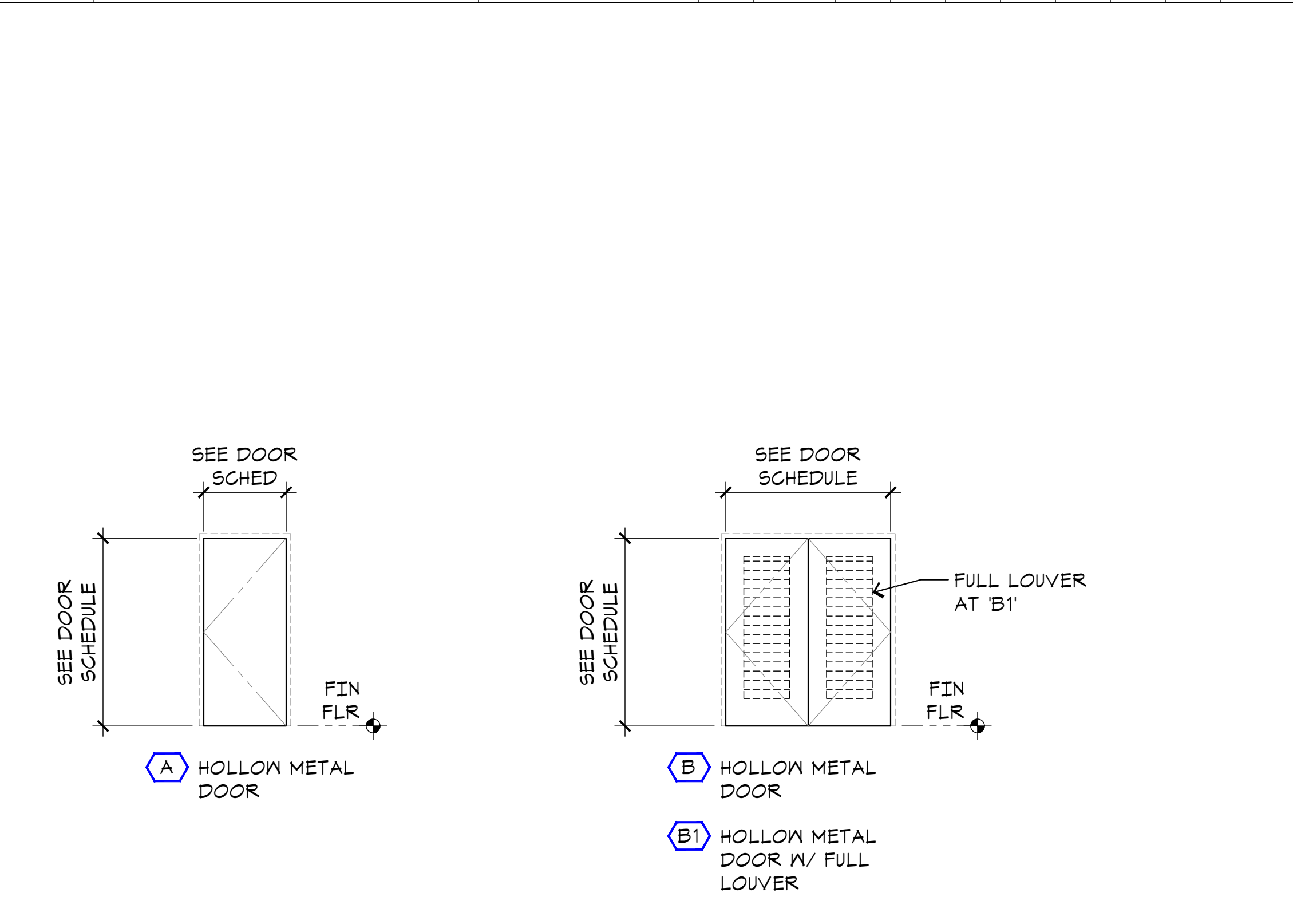
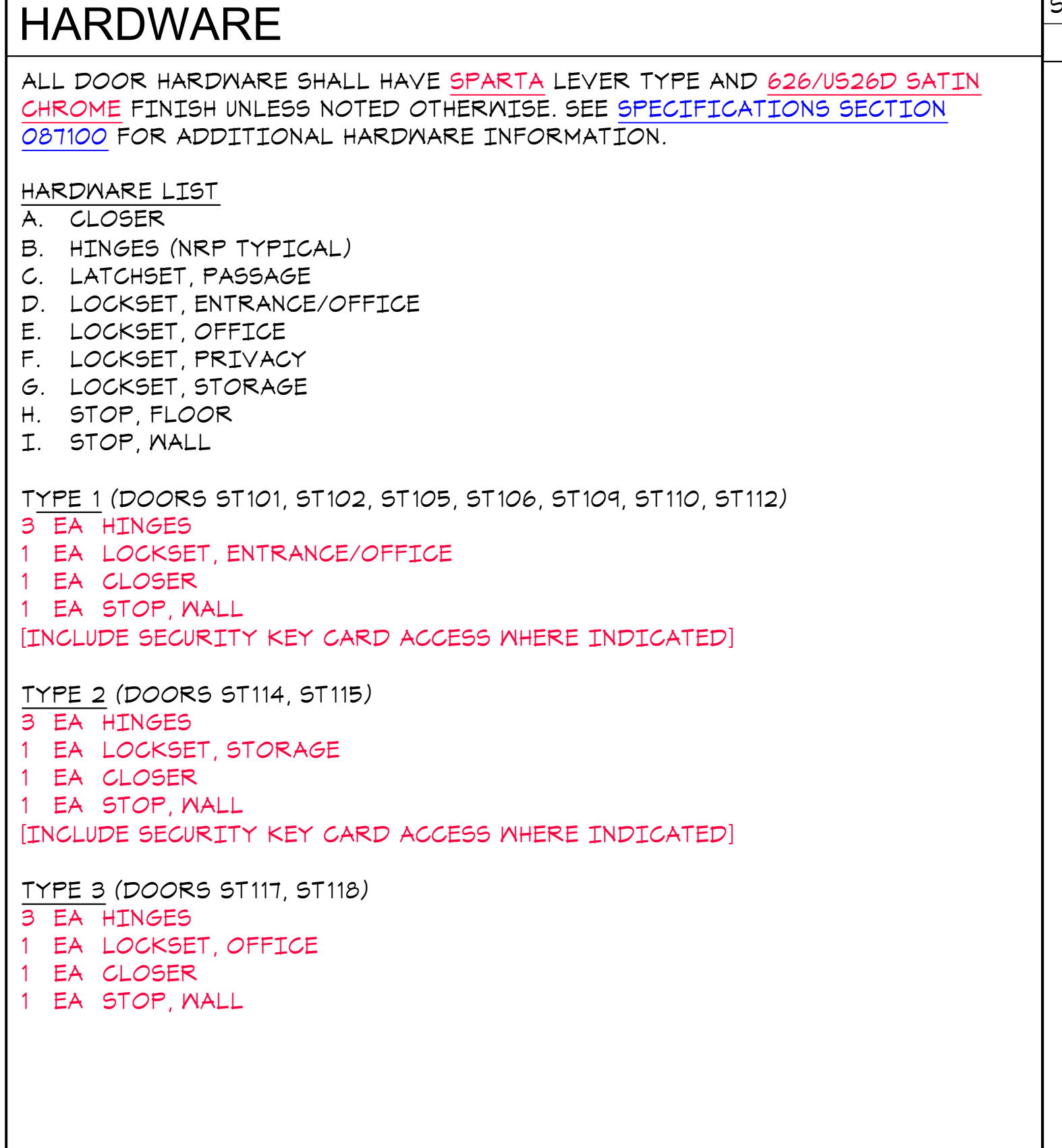
- 3 EA HINGES
 - 1 EA LOCKSET, STORAGE
 - 1 EA CLOSER
 - 1 EA STOP, WALL
- [INCLUDE SECURITY KEY CARD ACCESS WHERE INDICATED]

TYPE 3 (DOORS ST117, ST118)

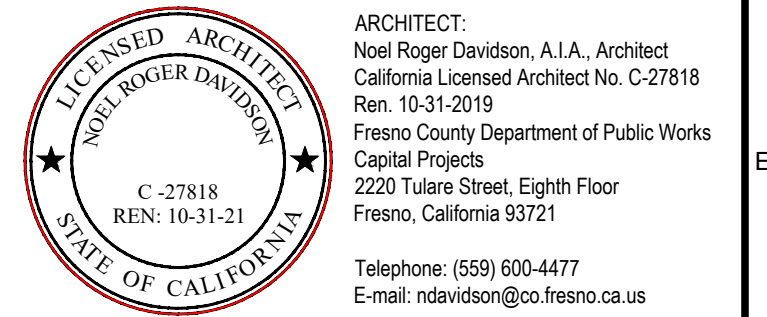
- 3 EA HINGES
- 1 EA LOCKSET, OFFICE
- 1 EA CLOSER
- 1 EA STOP, WALL

DOOR SCHEDULE

DOOR NUMBER (SEE NOTE 4)	DOOR LOCATION	DOOR SIZE	DOOR TYPE SEE DTL 01/A4.2	DOOR THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME TYPE SEE DTL 01/A4.2	FRAME MATERIAL	FRAME FINISH	HARDWARE	FIRE LABEL	NOTES
ST101 *	COLLATERAL VEHICLE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	1		
ST102 *	COLLATERAL VEHICLE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	1		
ST103	COLLATERAL VEHICLE STORAGE	23'-0"X16'-0" OHS	C									
ST104	COLLATERAL VEHICLE STORAGE	23'-0"X16'-0" OHS	C									
ST105 *	COLLATERAL VEHICLE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	1		
ST106 *	EVIDENCE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	1		
ST107	EVIDENCE STORAGE	23'-0"X16'-0" OHS	C									
ST108	EVIDENCE STORAGE	23'-0"X16'-0" OHS	C									
ST109 *	EVIDENCE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	1		
ST110 *	COLLATERAL VEHICLE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	1		
ST111	COLLATERAL VEHICLE STORAGE	23'-0"X16'-0" OHS	C									
ST112 *	COLLATERAL VEHICLE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	1		
ST113	COLLATERAL VEHICLE STORAGE	23'-0"X16'-0" OHS	C									
ST114 *	ELECTRICAL	PR 3'-0"X7'-0"	B1	1-3/4"	HM	FF	B	HM	FF	2		3
ST115 *	FIRE RISER	PR 3'-0"X7'-0"	B	1-3/4"	HM	FF	B	HM	FF	2		1, 2
ST116	NOT USED											
ST117	COLLATERAL VEHICLE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	3		
ST118	COLLATERAL VEHICLE STORAGE	3'-0"X7'-0"	A	1-3/4"	HM	FF	A	HM	FF	3		



A13 DOOR AND FRAME ELEVATIONS



Project:
 Sheriff Area 2 Sub-Station Storage
 1128 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.02.2020
 PROJECT NO: 180293 / 19003.01
 FILE NAME: 19003-01_A4-1_Door_Wndo

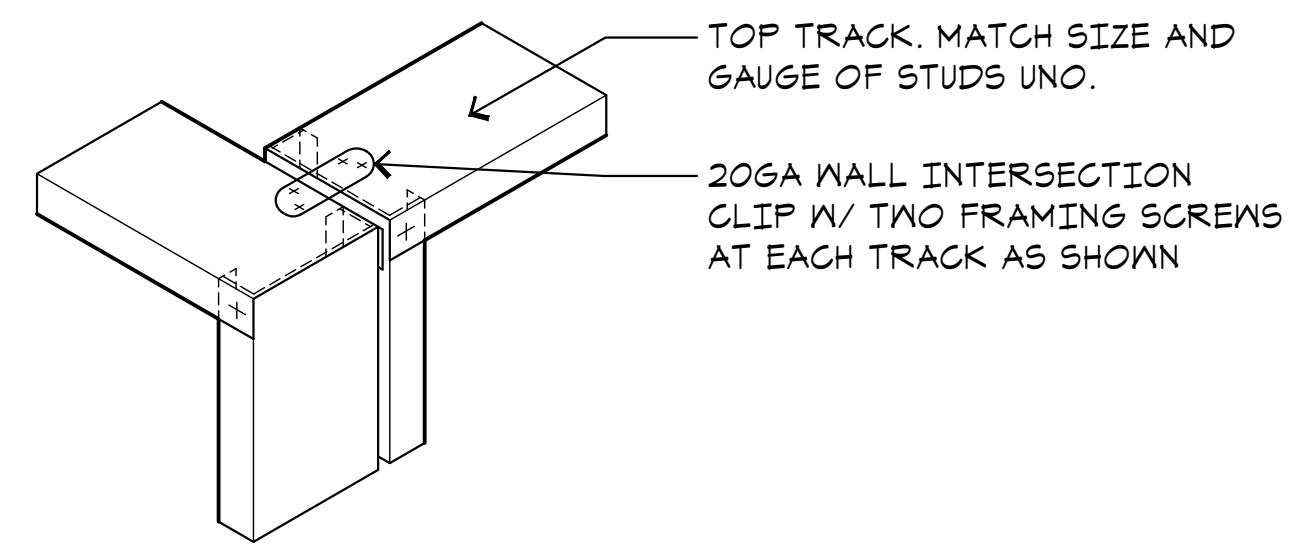
Sheet Content:
 DOORS



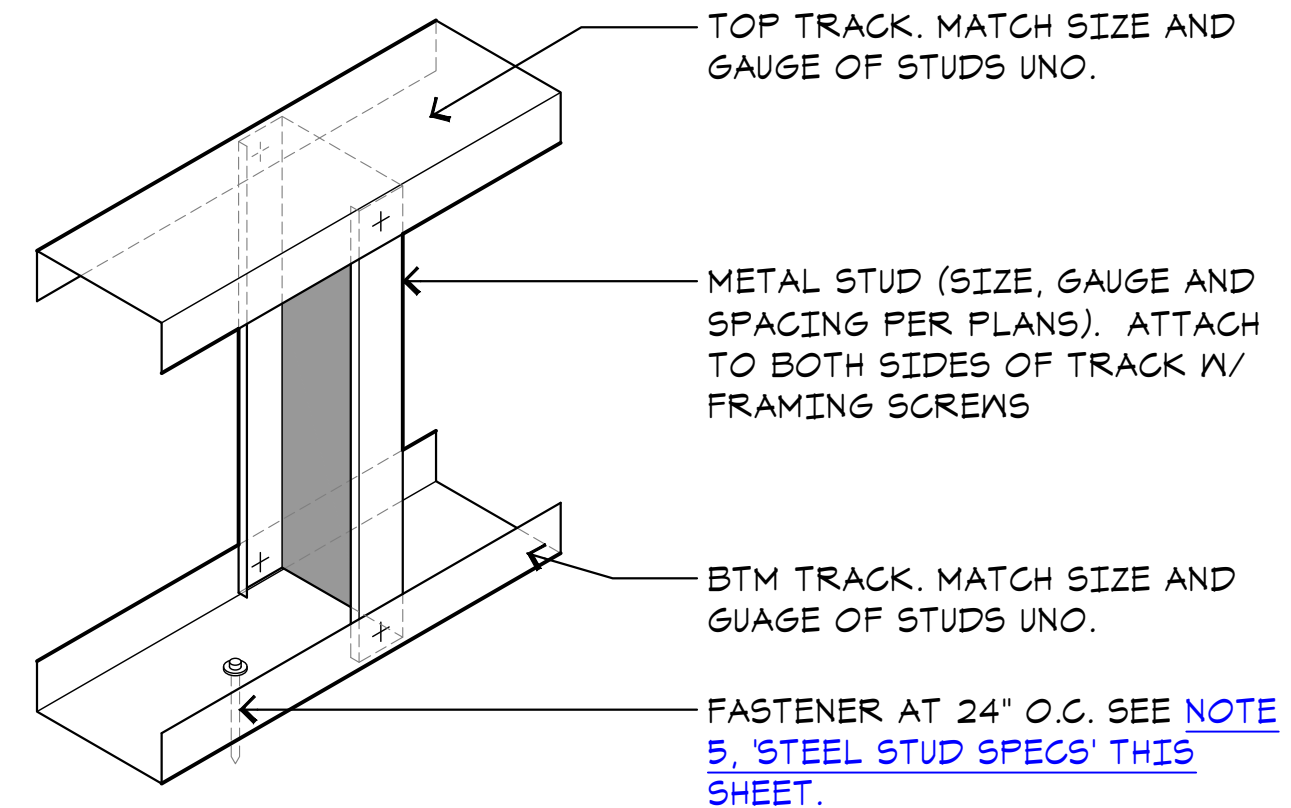
2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
A4.1

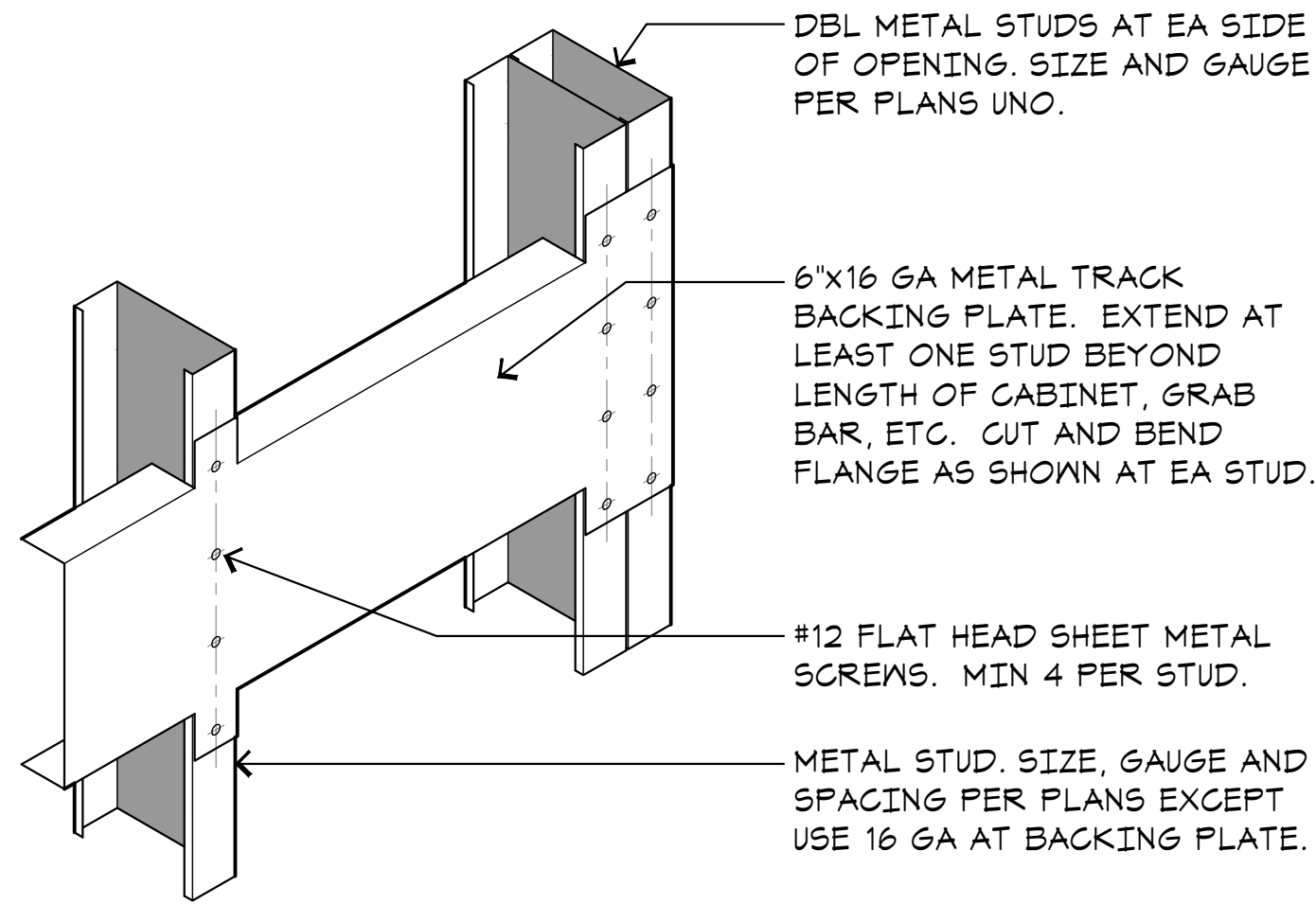
A - TOP PLATE INTERSECTION



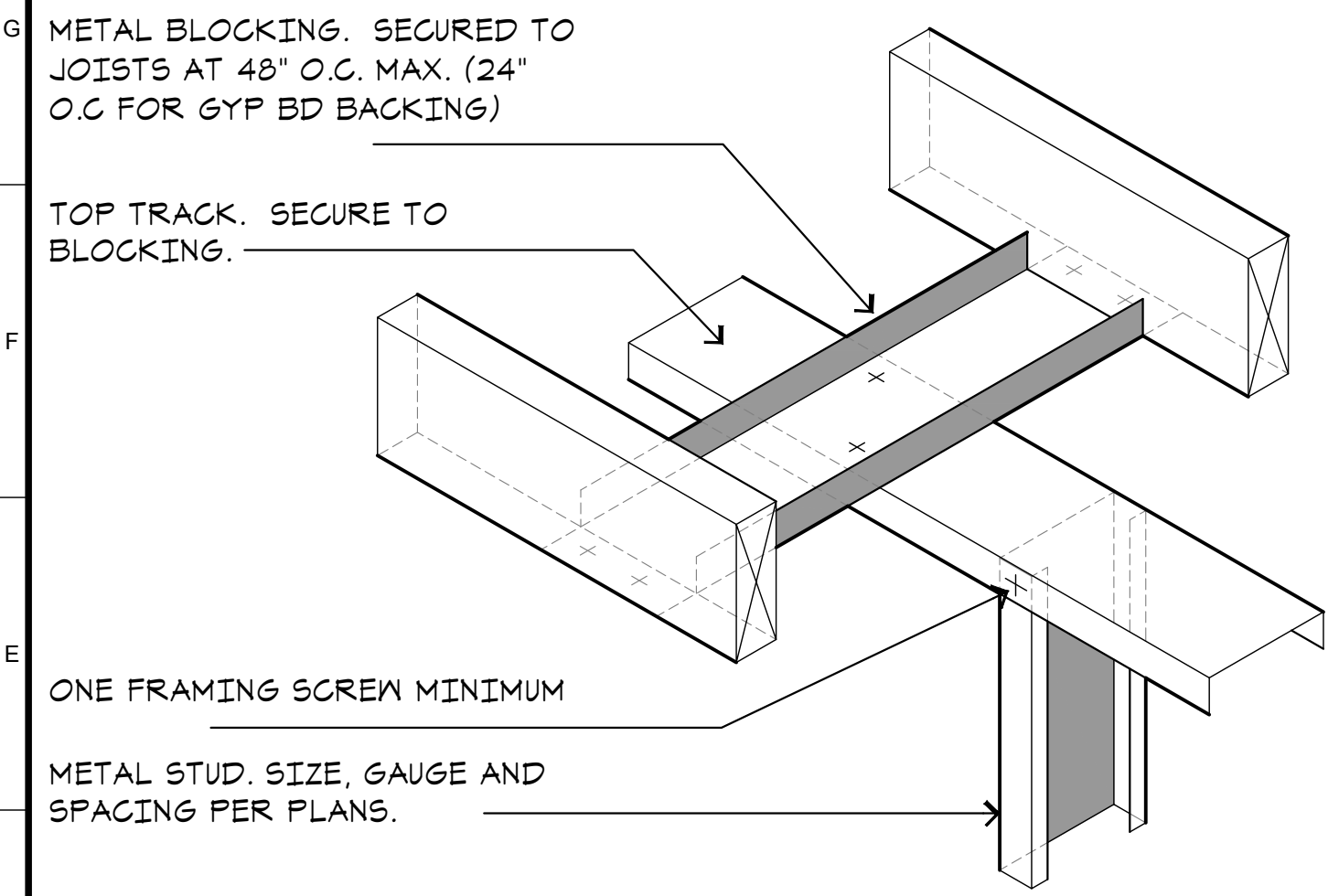
B - TYP INTERIOR NON-BEARING WALL



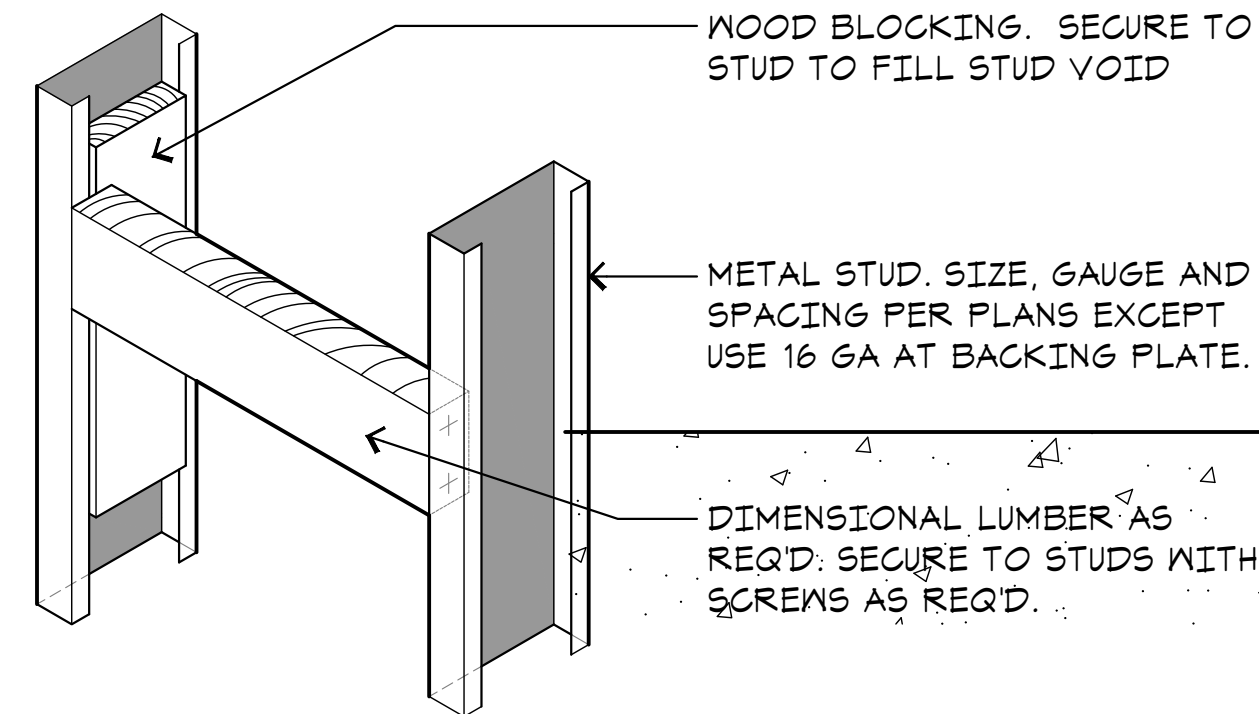
C - TYP BACKING PLATE



D - TYP WALL/JOIST ATTACHMENT

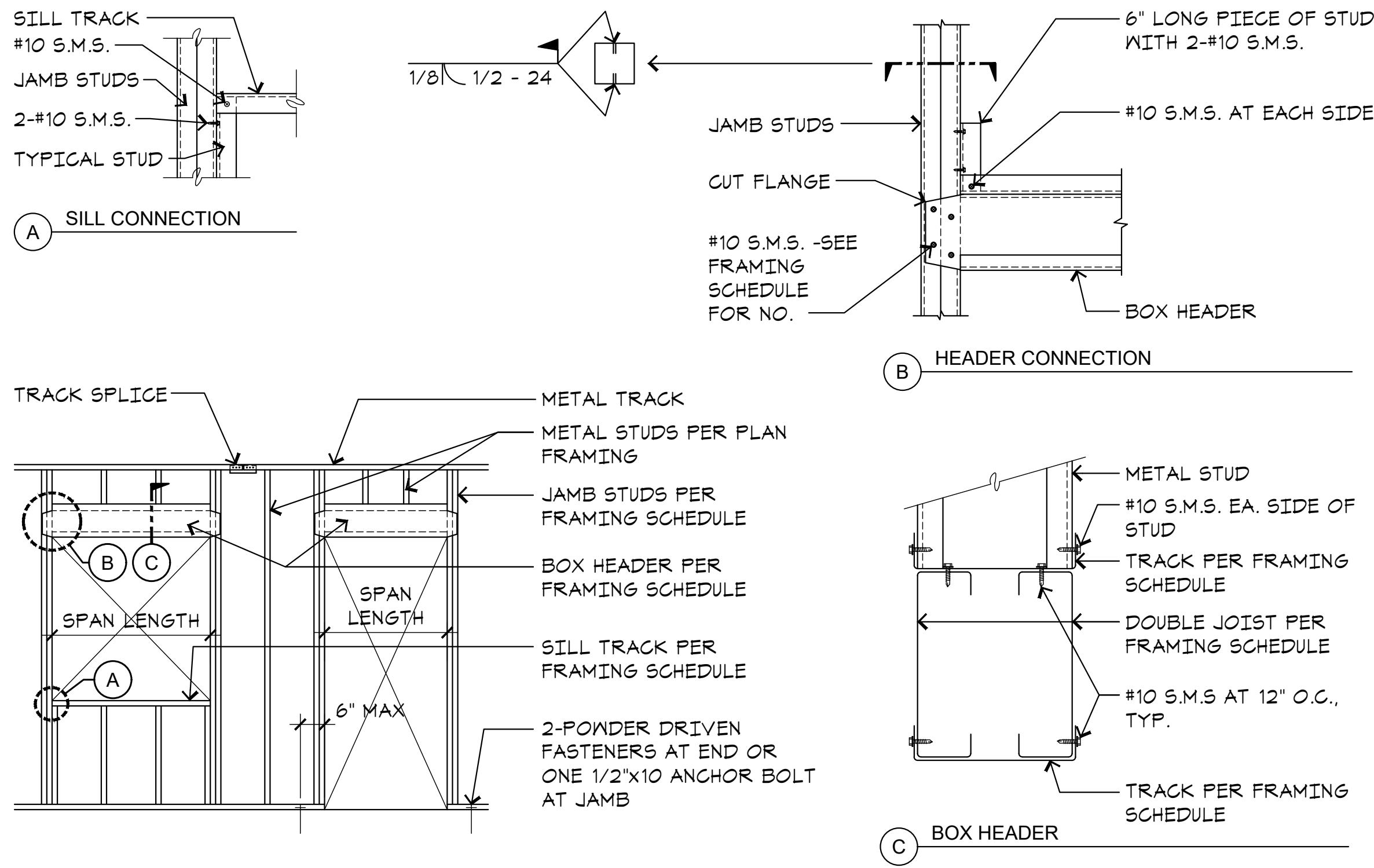


E - HEAVY FIXTURE ATTACHMENT

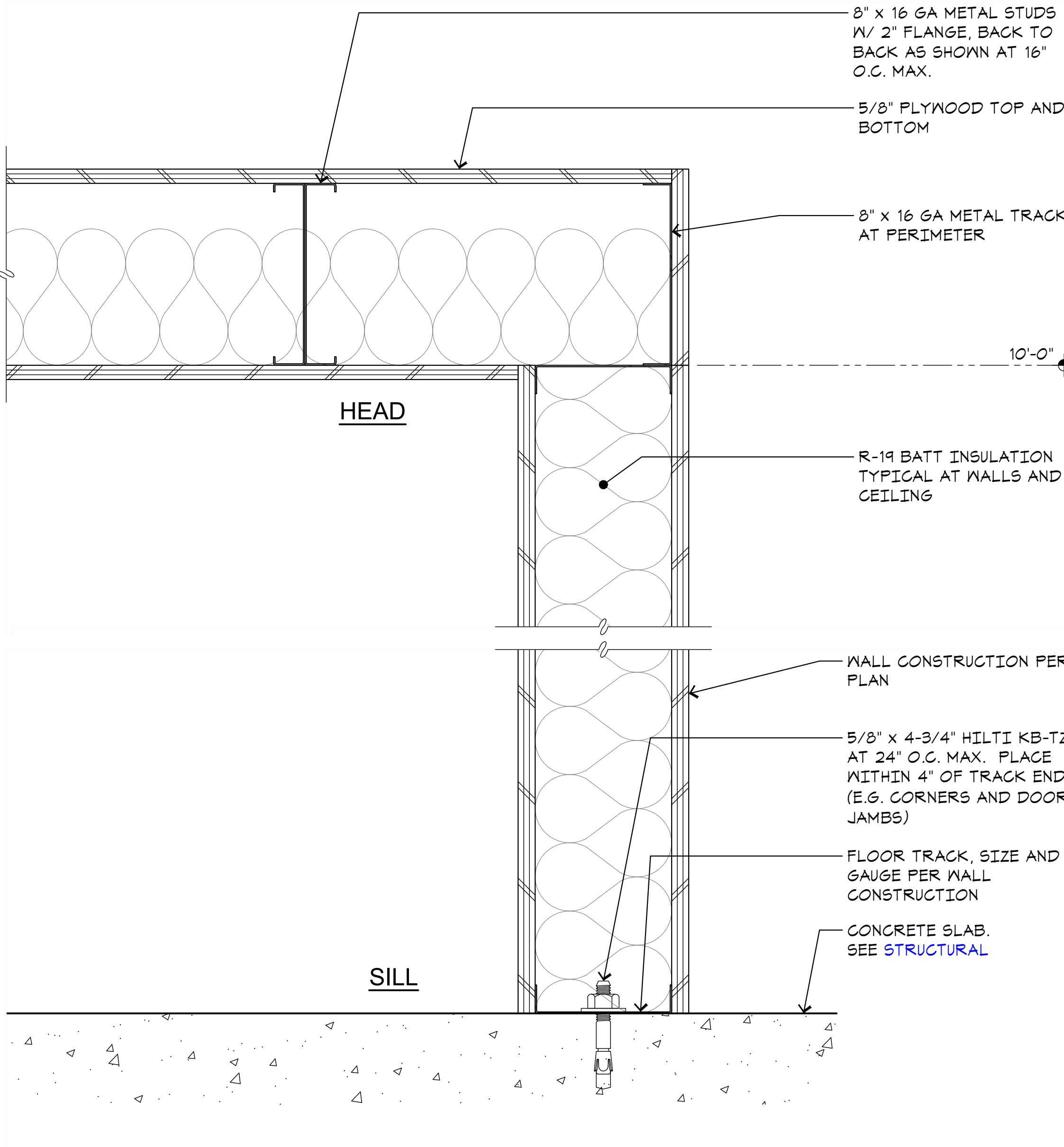


A1 TYP STEEL STUD DETAILS
A5.1 SCALE: NONE

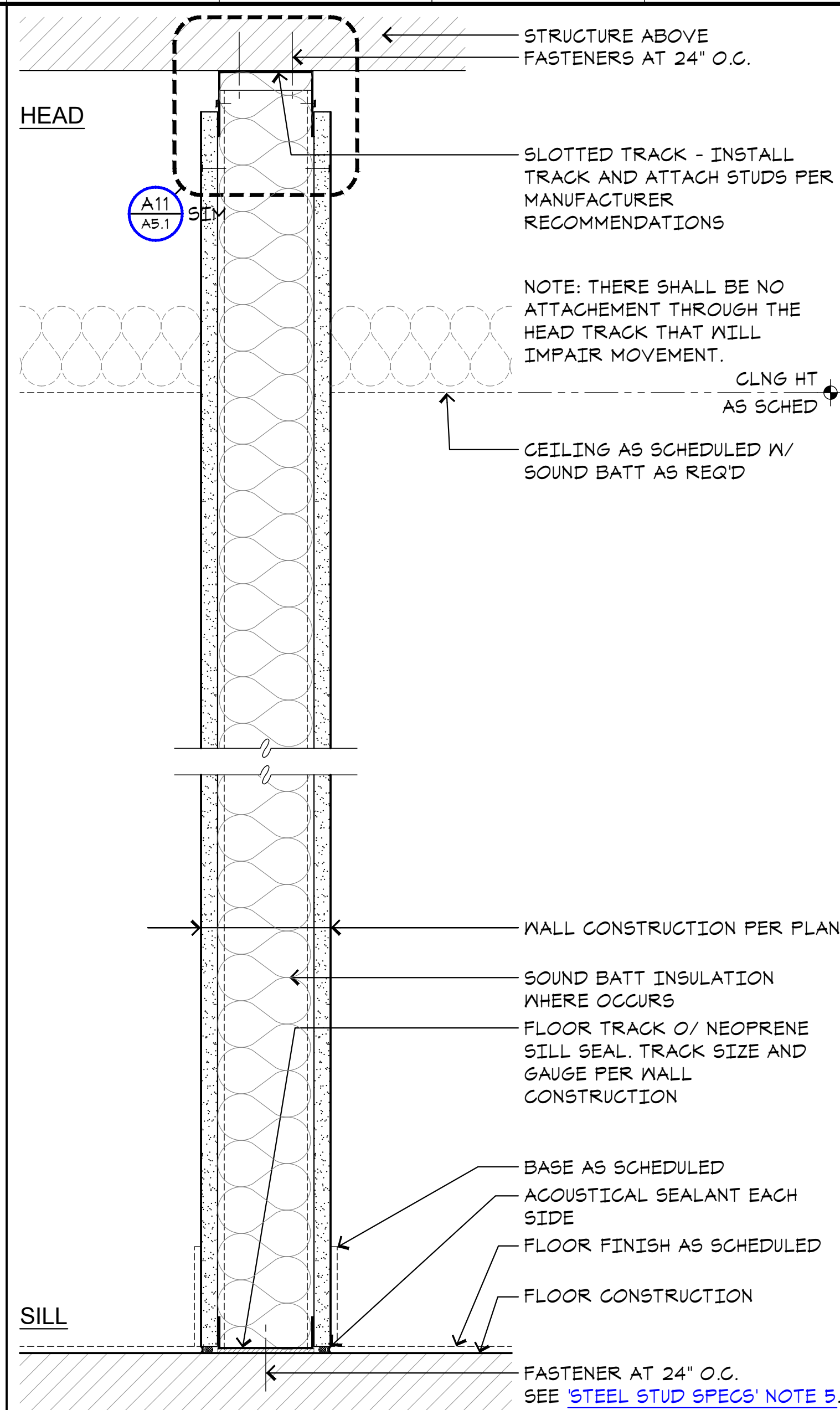
WALL TYPE	SPAN LENGTH	FRAMING SCHEDULE				
		BOX HEADER	TRACK	JAMB STUDS	SILL TRACK	NO. #10 SMS AT EA JOIST TO JAMB
2 1/2" STUDS	0' TO 8'-0"	(2) 600S137-54	(2) 250T150-33	(2) 250S137-43	250T150-33	3
3 5/8" STUDS	0' TO 6'-0"	(2) 362S137-43	(2) 362S137-43	(2) 362S137-43	362T125-33	3
4" STUDS	0' TO 6'-0"	(2) 600S137-54	(2) 400T150-43	(2) 400S137-54	400T150-43	4
	6'-1" TO 10'-0"	(2) 600S162-33	(2) 400T200-33	(2) 400S200-54	400T200-33	4
6" STUDS	0' TO 6'-0"	(2) 600S137-54	(2) 600T150-43	(2) 600S137-54	600T150-43	4
	6'-1" TO 10'-0"	(2) 800S162-43	(2) 600T150-43	(2) 600S137-68	600T150-43	6
	10'-1" TO 16'-0"	(2) 1000S162-43	(2) 600T150-43	(2) 600S162-68	600T150-43	8



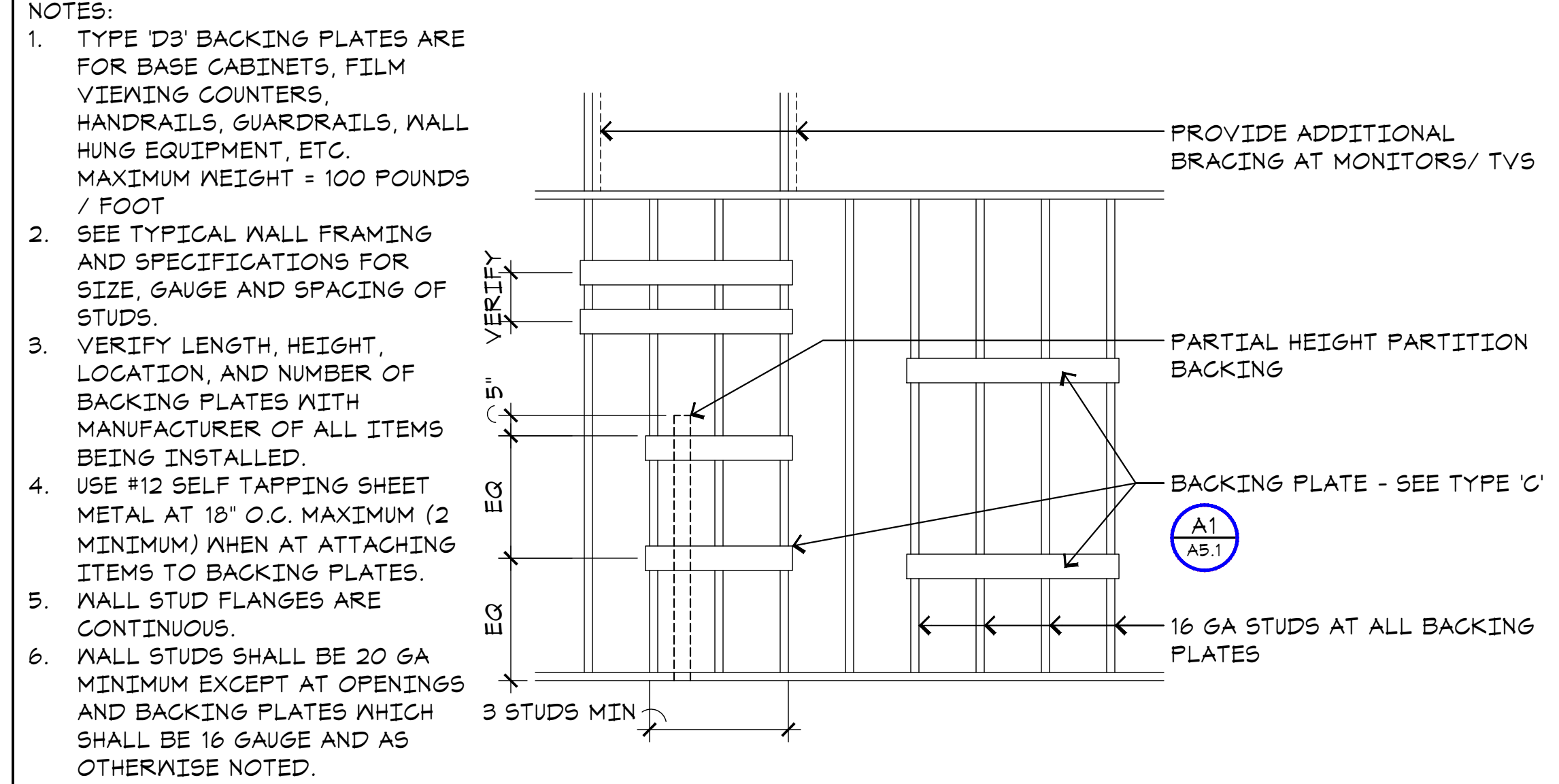
J5 TYPICAL METAL STUD WALL FRAMING
A5.1 SCALE: NONE



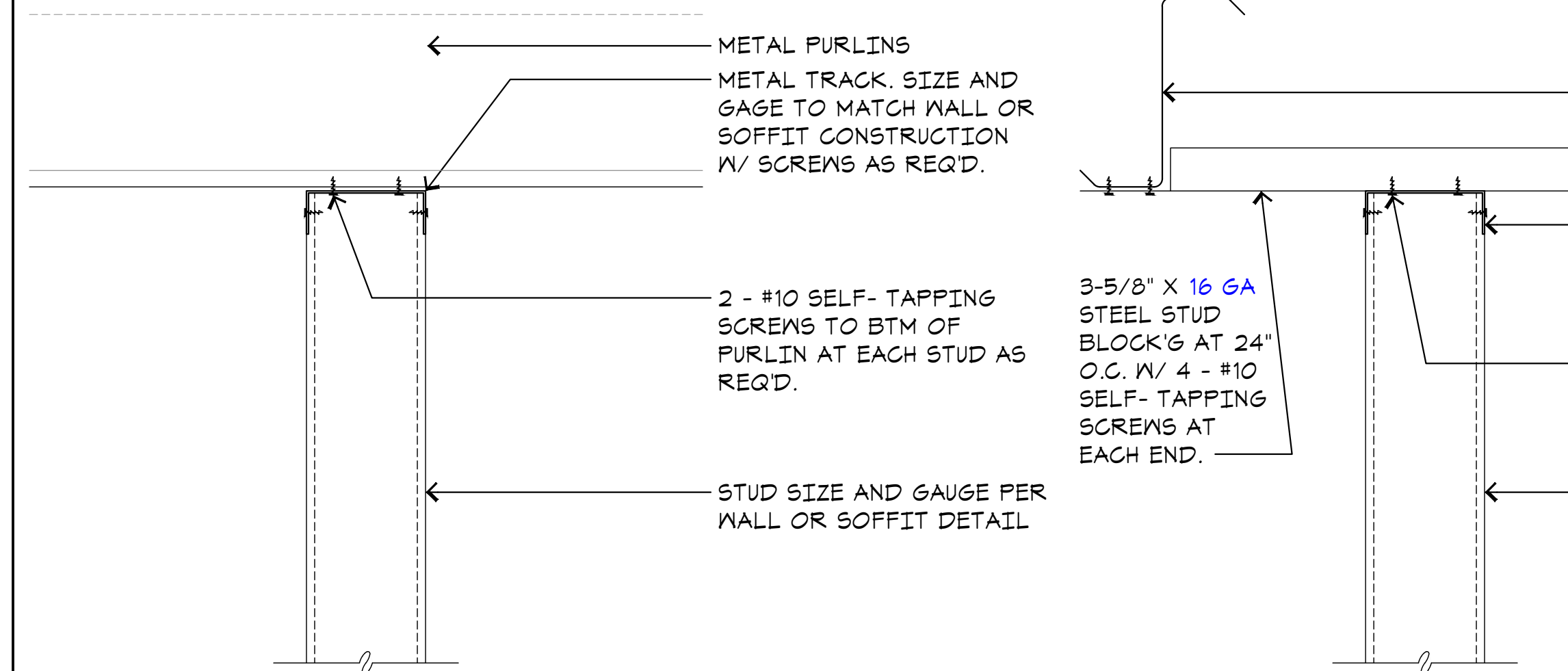
A5 NON-RATED PARTITION
A5.1 SCALE: 3/8"=1'-0"



J13 NON-RATED PARTITION
A5.1 SCALE: 3/8"=1'-0"



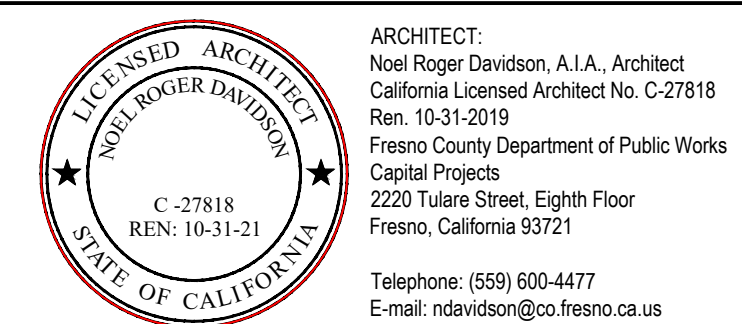
E11 TYPICAL STEEL STUD BACKING
A5.1 SCALE: NONE



A11 STUD ATTACHMENT TO STRUCTURE ABOVE
A5.1 SCALE: 3/8"=1'-0"

STEEL STUD SPECIFICATIONS

- GENERAL**
ALL AXIAL OR WIND LOADED LIGHT GAUGE STEEL STUDS, TRACK, JOISTS, TRUSSES, BRIDGING AND RELATED ACCESSORIES ARE AS INDICATED ON THE CONTRACT DRAWINGS AND AS SPECIFIED HEREIN.
- PRODUCTS**
ALL FRAMING MEMBERS SHALL BE MANUFACTURED AND SUPPLIED BY DEIRICH INDUSTRIES OR ARCHITECT APPROVED EQUAL AND BE OF THE TYPE AND SIZE AS SHOWN ON THE PLAN(S).
- MATERIALS**
 - GALVANIZED MATERIAL**
ALL GALVANIZED STUDS AND JOISTS SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE MINIMUM REQUIREMENTS OF A.S.T.M. A446. ALL GALVANIZED STUDS, JOISTS, TRACK, BRIDGING AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A GALVANIZED COATING MEETING THE REQUIREMENTS OF A.S.T.M. A525.
 - PROPERTIES**
THE PHYSICAL AND STRUCTURAL PROPERTIES LISTED BY THE MANUFACTURER SHALL BE CONSIDERED THE MINIMUM PERMITTED FOR ALL FRAMING MEMBERS. SPECIFICALLY THE FOLLOWING MINIMUM PROPERTIES, CALCULATED IN ACCORDANCE WITH THE LATEST A.I.S.I. SPECIFICATION SHALL BE PROVIDED: Ix (IN.4), Sx (IN.3), AREA (IN.2), Rx (IN.), Fy (KSI), RESISTING MOMENT (IN.-LB).
 - SUBSTITUTIONS**
ANY SUBSTITUTIONS MUST BE APPROVED IN WRITING TEN (10) DAYS PRIOR TO BID DATE BY ARCHITECT AND/OR ENGINEER OF RECORD.
- EXECUTION**
 - SURFACE CONDITIONS**
 - INSPECTION:** PRIOR TO INSTALLATION, INSPECT ALL WORK OF OTHER TRADES. VERIFY THAT ALL SUCH WORK IS COMPLETE AND ACCURATE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE IN STRICT ACCORDANCE WITH THE FRAMING SHOP DRAWINGS.
 - DISCREPANCIES:** IMMEDIATELY NOTIFY THE ARCHITECT OF ALL DISCREPANCIES. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCIES UNTIL SUCH DISCREPANCY HAS BEEN FULLY RESOLVED.
 - ERECTION**
ALL FRAMING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S LATEST PRINTED INSTRUCTIONS AND IN STRICT ACCORDANCE WITH THE APPROVED SHOP/ ARCHITECT'S DRAWINGS.
 - SECURING THE WALL**
 - AFTER WALL ASSEMBLY, WALLS ARE RAISED, PLUMBED AND SQUARED INTO POSITION. IN ORDER TO STABILIZE THE WALL AT INTERSECTIONS OF ABUTTING PARTITIONS, DETAIL A1/A5.1, TYPE 'A' CAN BE USED. AFTER THIS IS DONE, THE BOTTOM TRACK SHOULD BE FASTENED TO THE FLOOR AS FOLLOWS:
 - FOR WALLS ATTACHED TO PLYWOOD DECK, USE #10 1-1/2" SCREWS AT 24" O.C.
 - FOR WALLS ATTACHED TO CONCRETE SLAB USE HILTI X-932 OR SIMILAR POWDER DRIVEN FASTENERS AT 24" O.C. PENETRATION OF PINS IN SLAB SHALL NOT EXCEED 1/3 OF SLAB THICKNESS.
 - WHEN JOIST ARE SET, THE TOP TRACK SHOULD BE SECURED TO BOTTOM OF JOISTS PER DETAIL A1/A5.1, TYPE 'D'.
 - IF THE BOTTOM TRACK IS RUN CONTINUOUSLY ACROSS DOOR OPENINGS DURING WALL PANEL ASSEMBLY, IT CAN BE CUT OUT WITH A SAMS-ALL AT EACH JAMB.

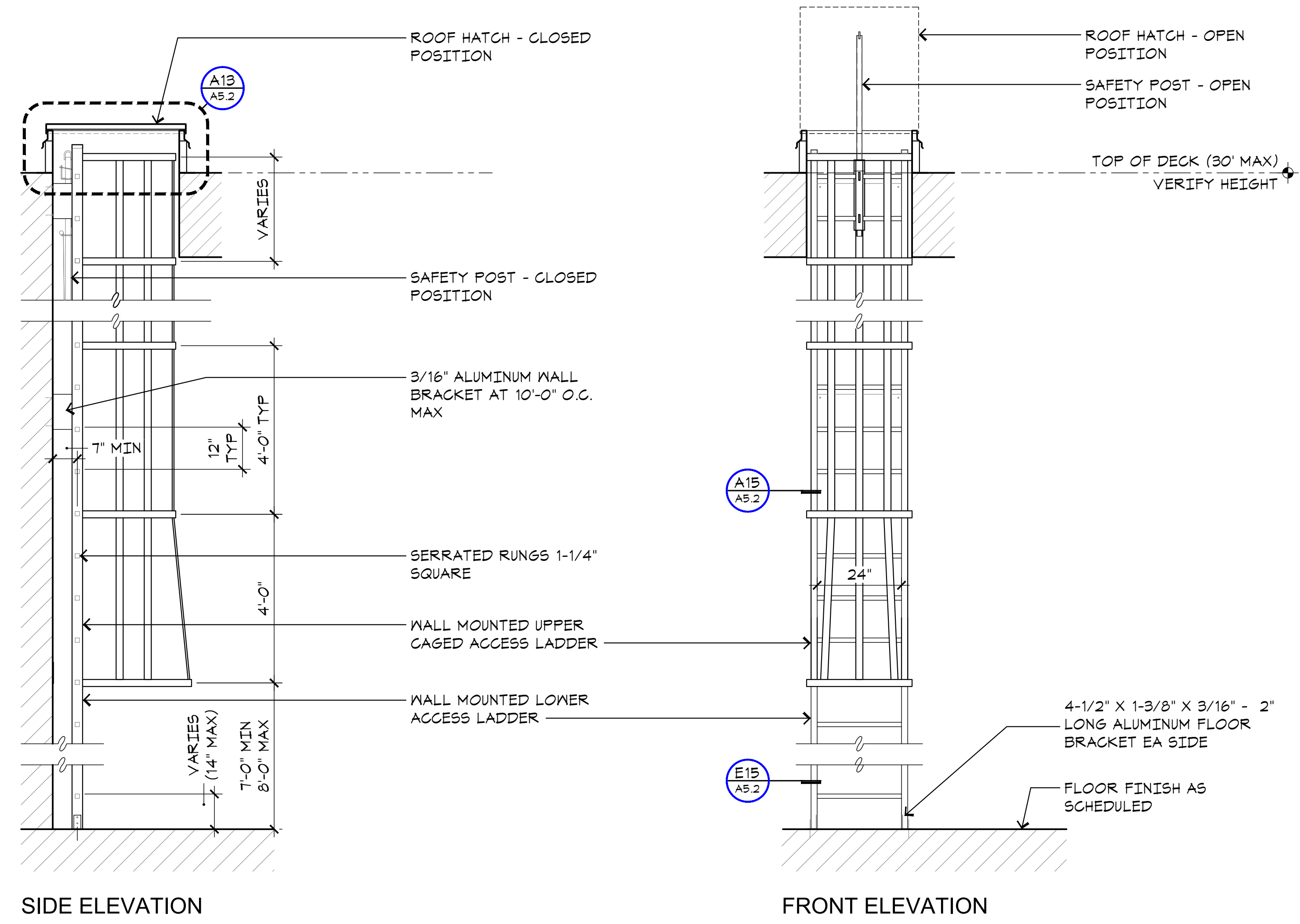


Project:
Sheriff Area 2 Sub-Station Storage
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: 19003.01 / 19003.01
FILE NAME: 19003-01_A5-1_inr_Det1

Sheet Content:
INTERIOR DETAILS

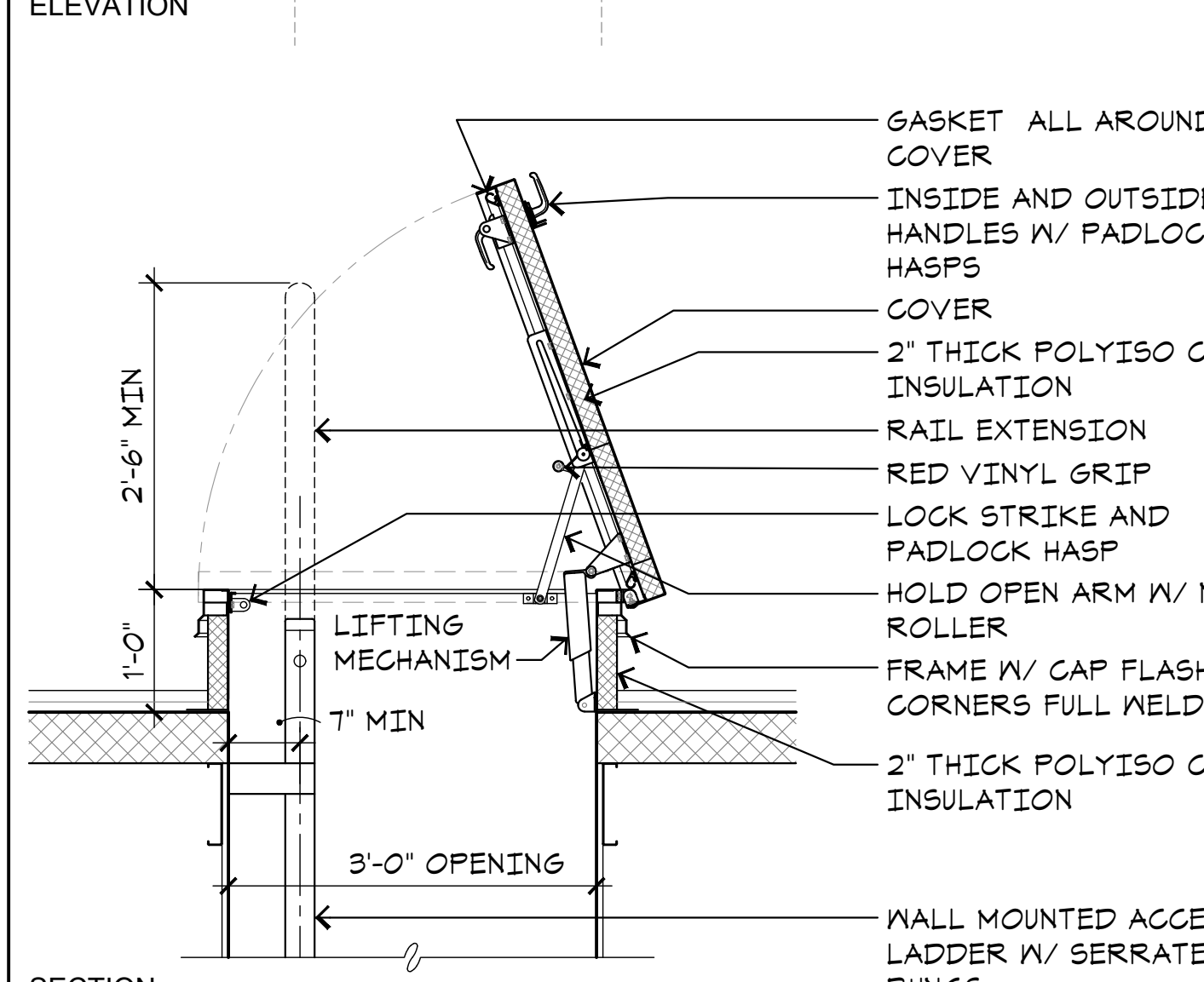
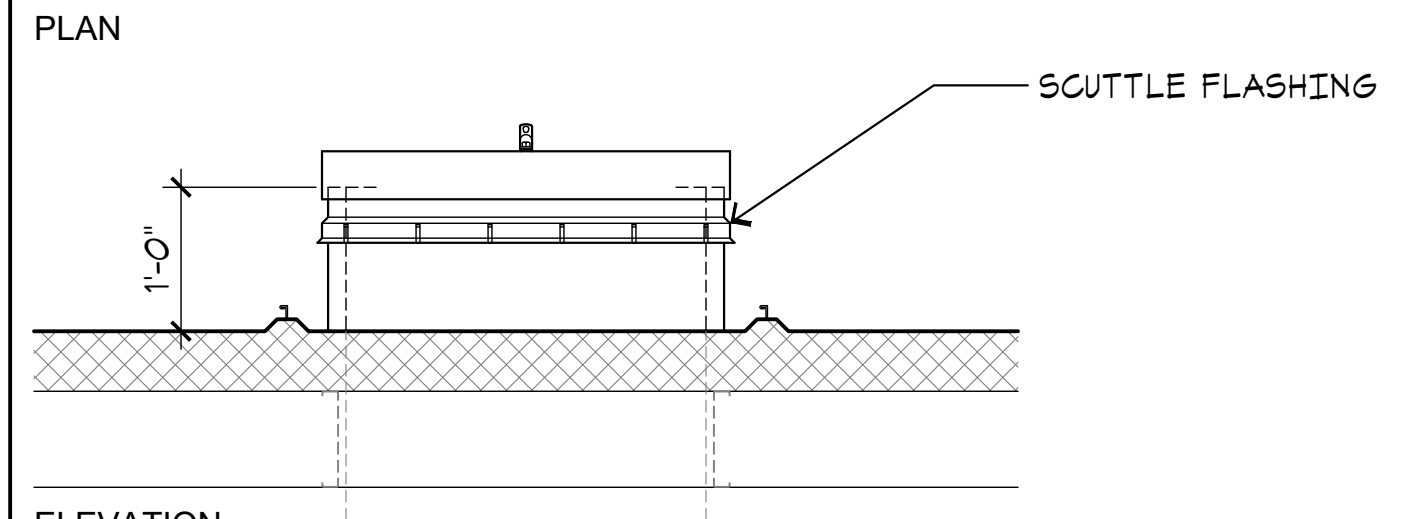
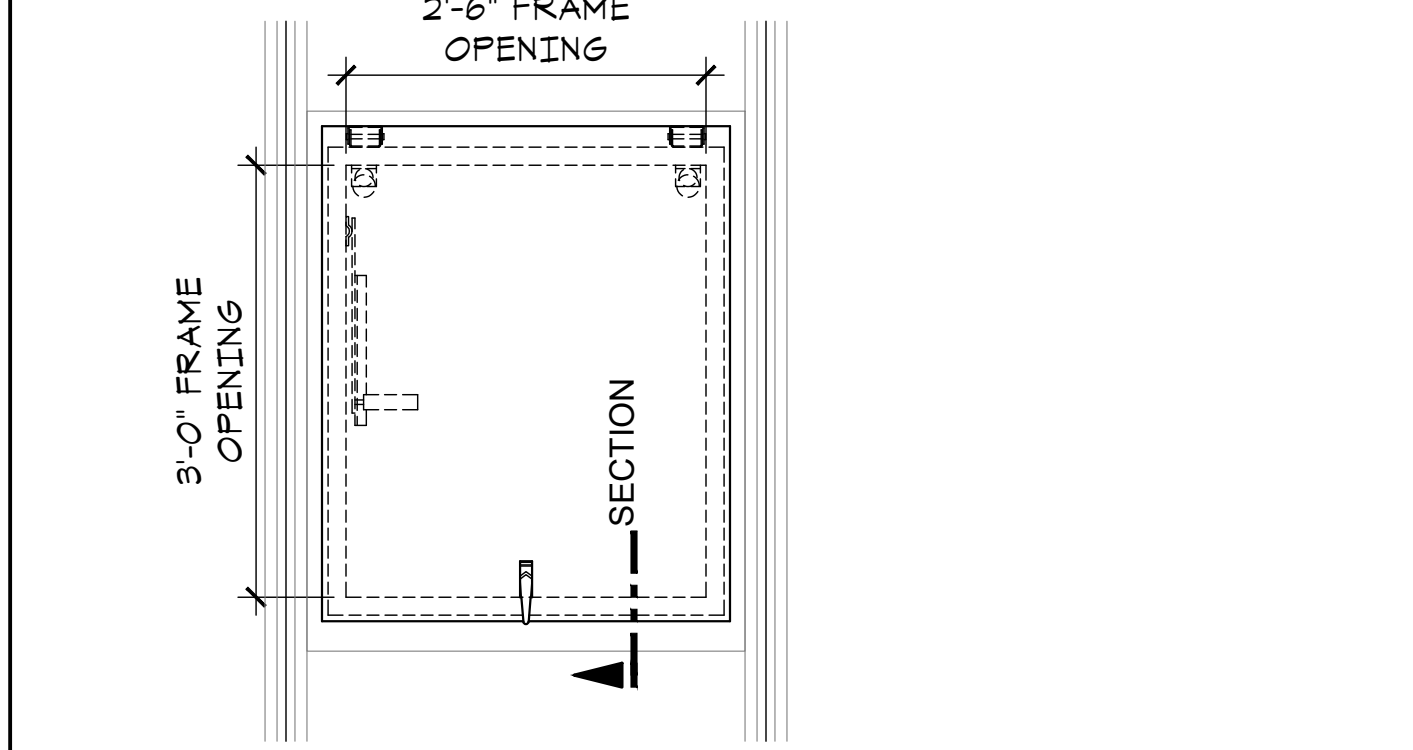


Sheet No.
A5.1



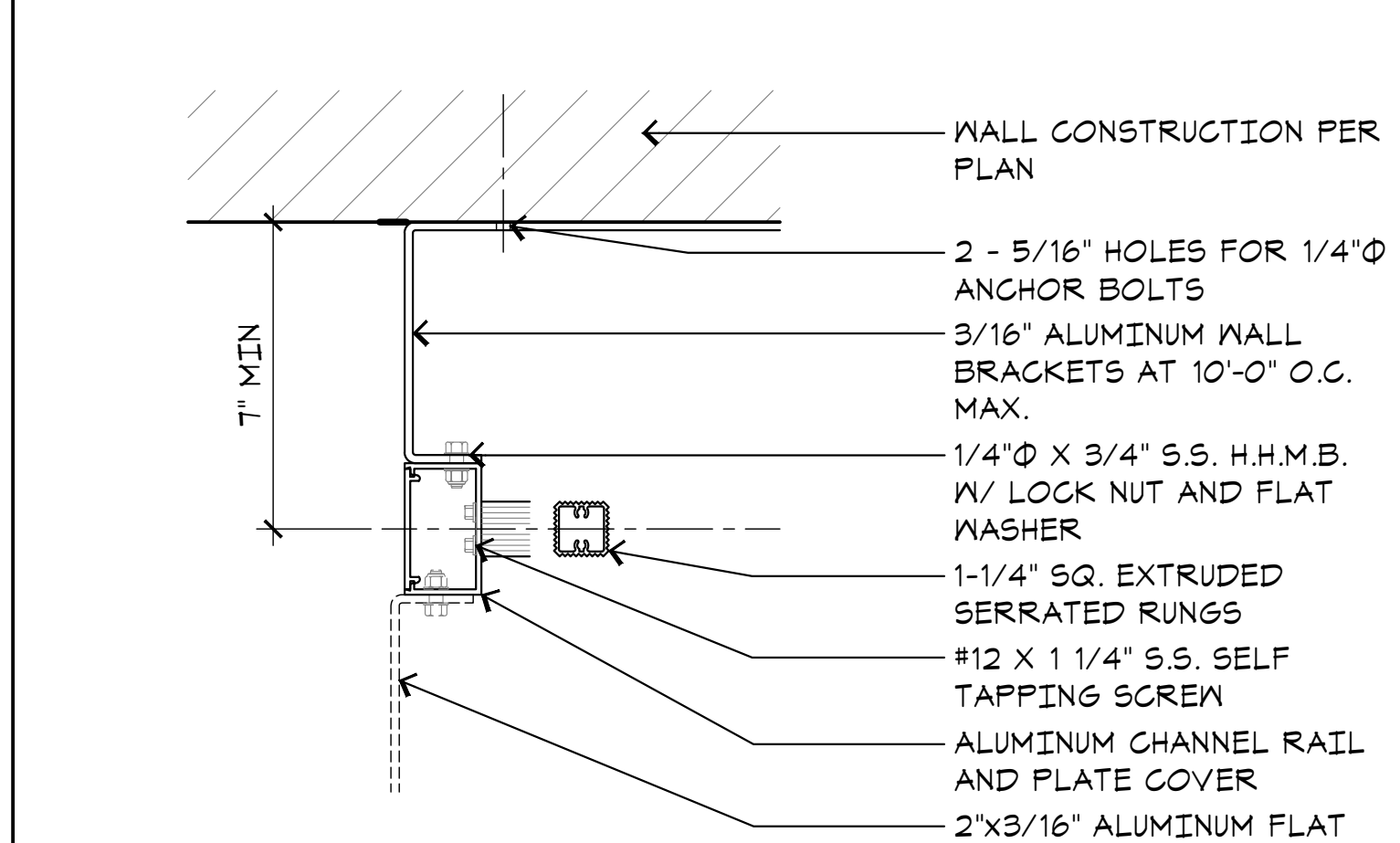
J13 ROOF ACCESS LADDER

A5.2 SCALE: 3/4"=1'-0"



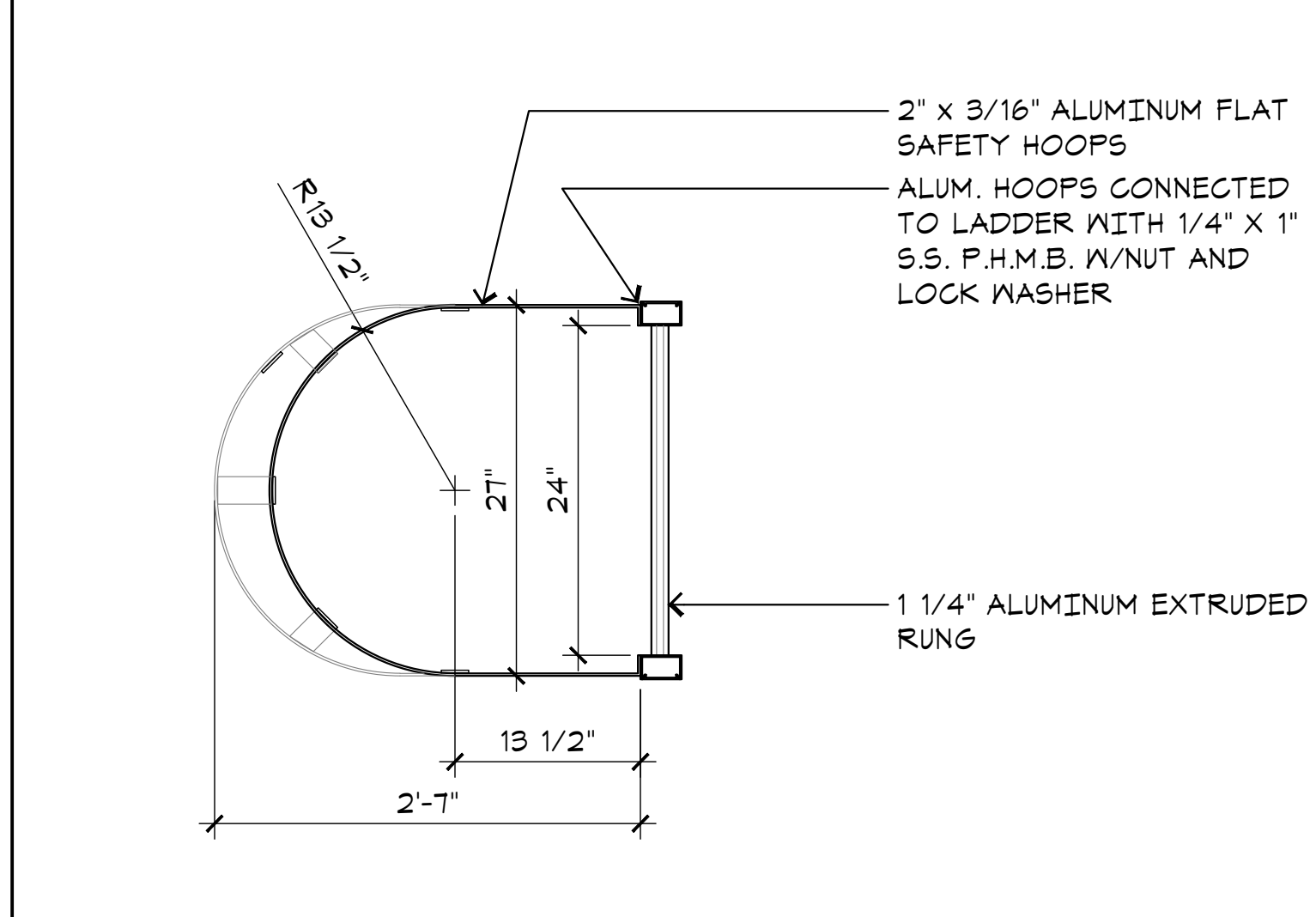
A13 ROOF HATCH

A5.2 SCALE: 3/4"=1'-0"



E15 DETL AT ACCESS LADDER

A5.2 SCALE: 3"=1'-0"



A15 LADDER SAFETY CAGE

A5.2 SCALE: 1"=1'-0"

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Neil Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
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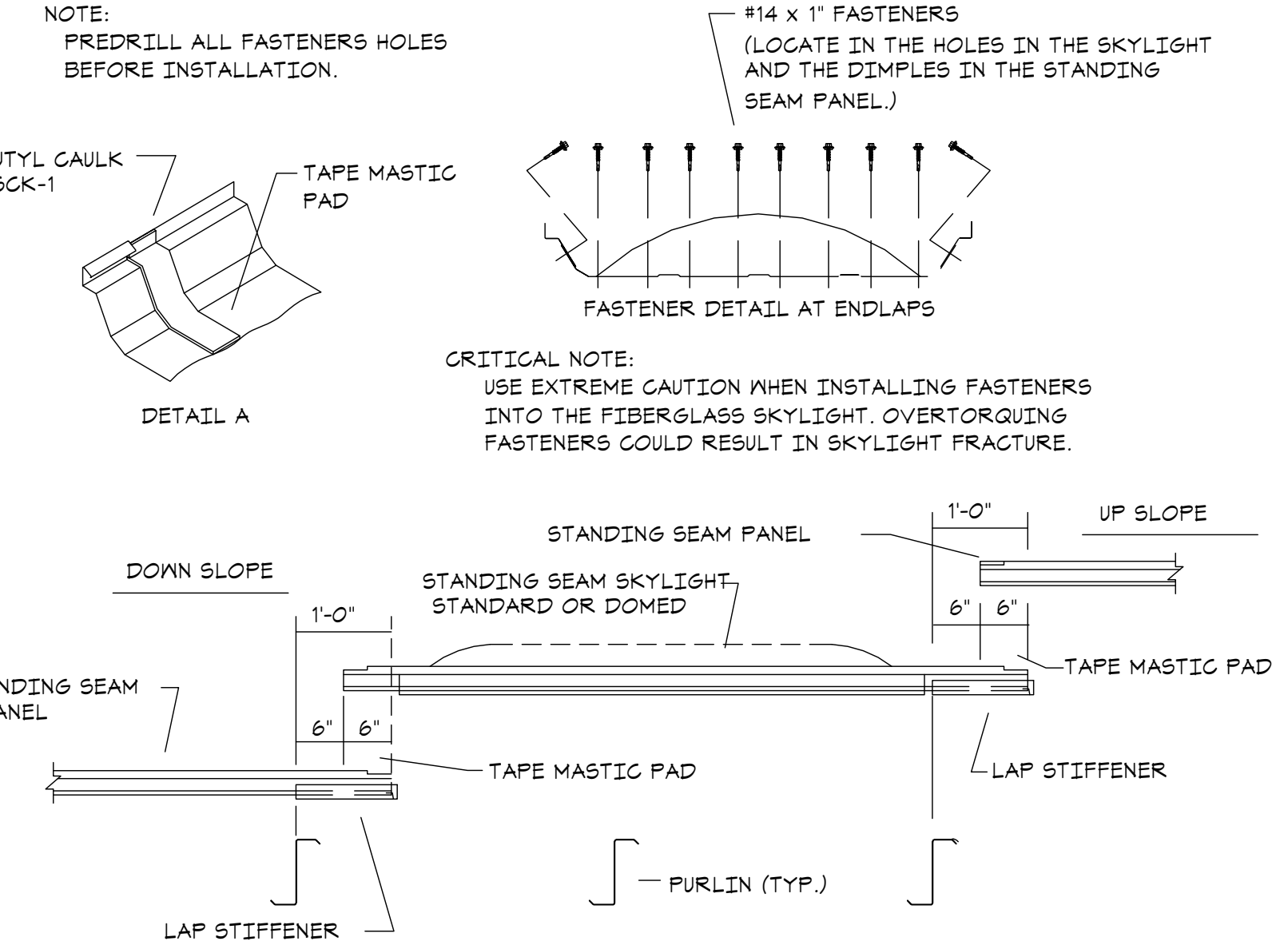
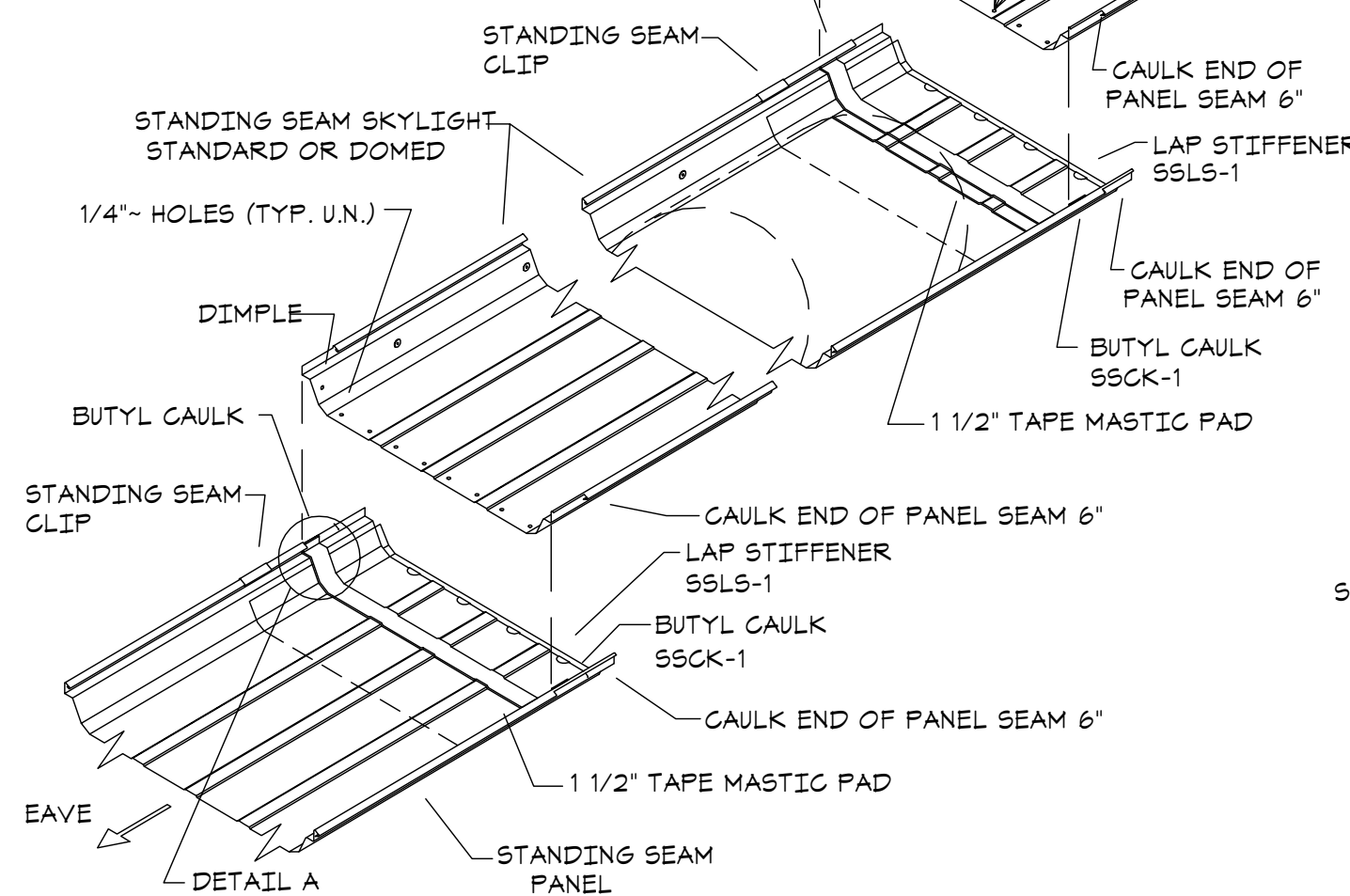
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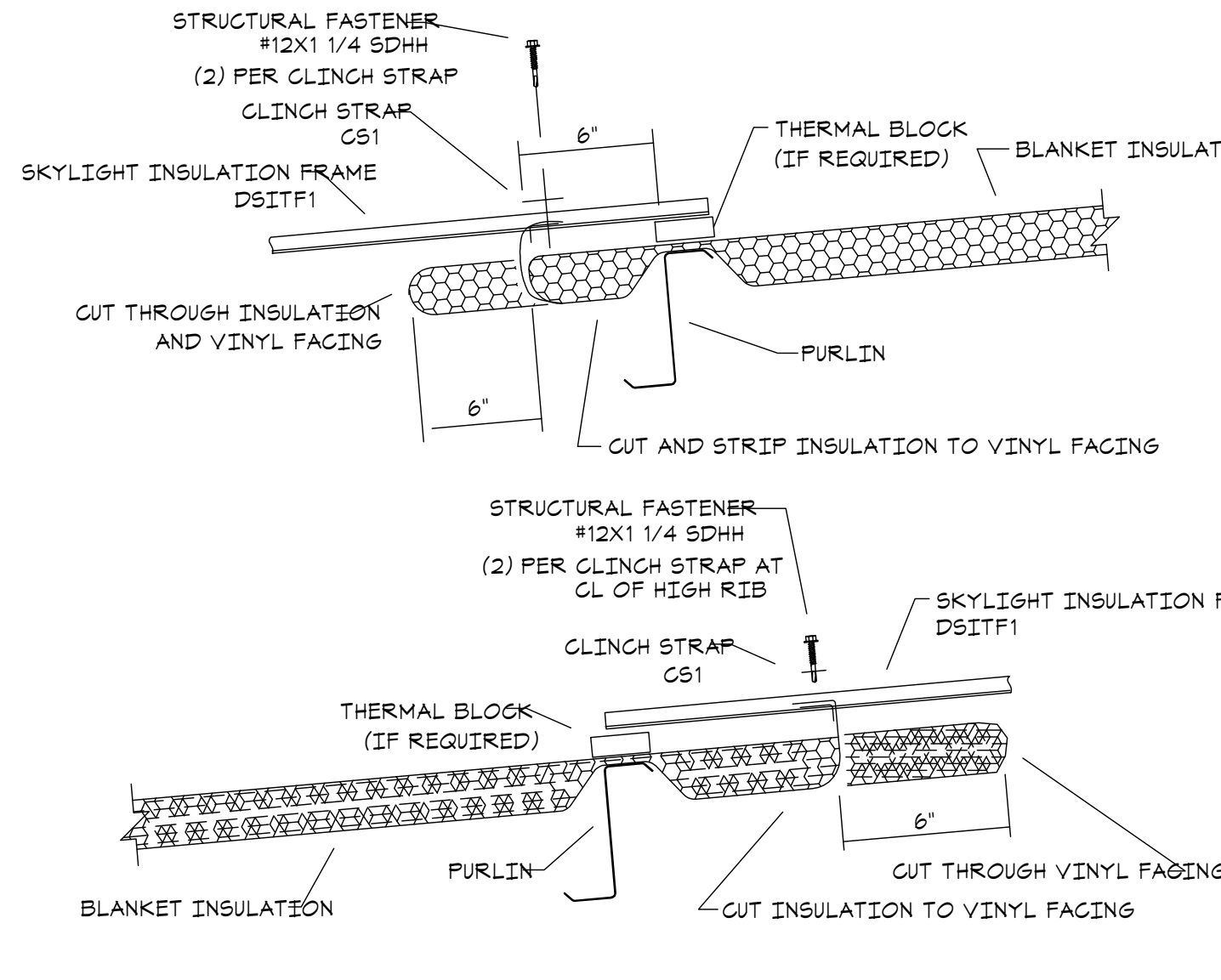
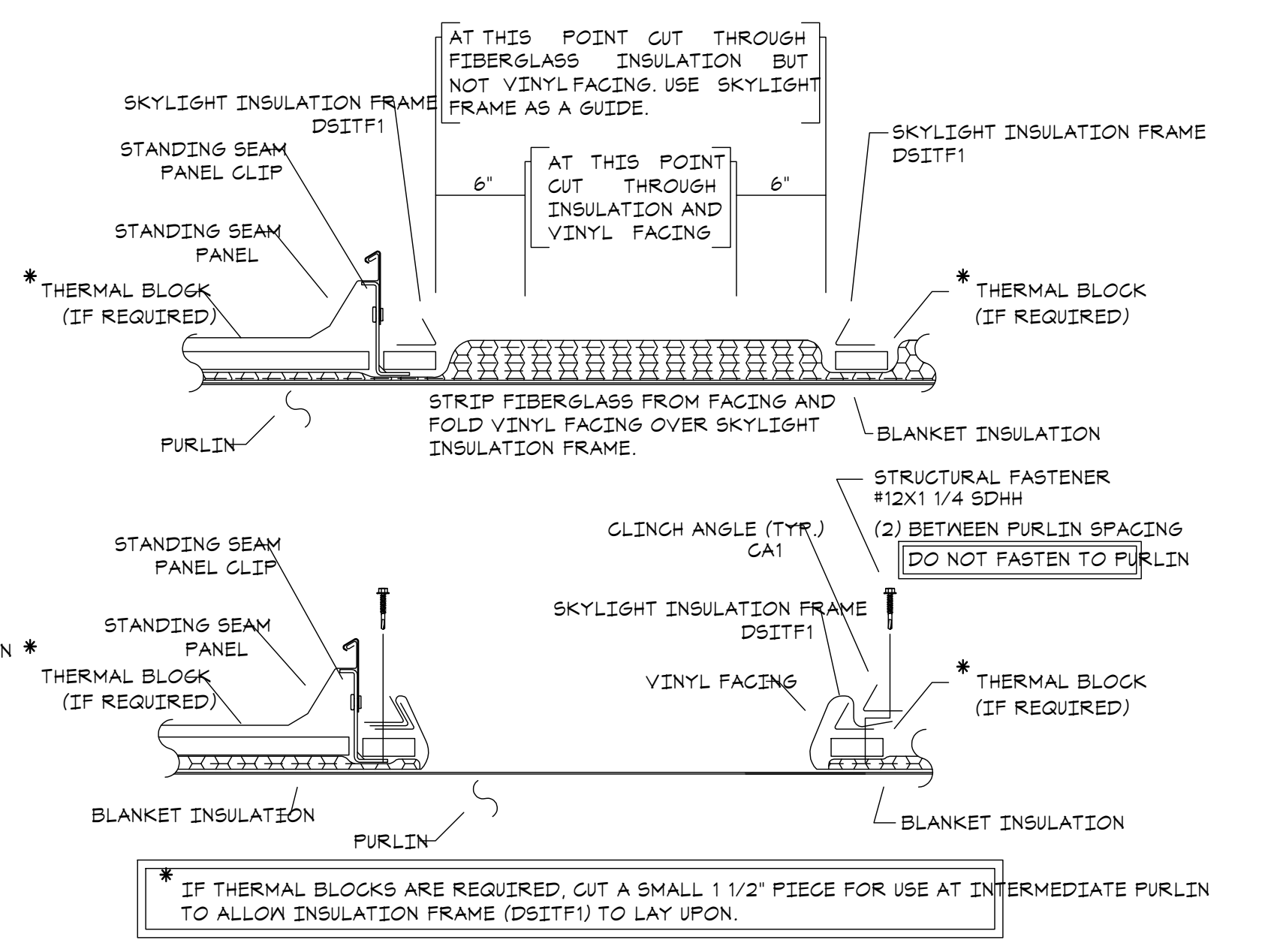
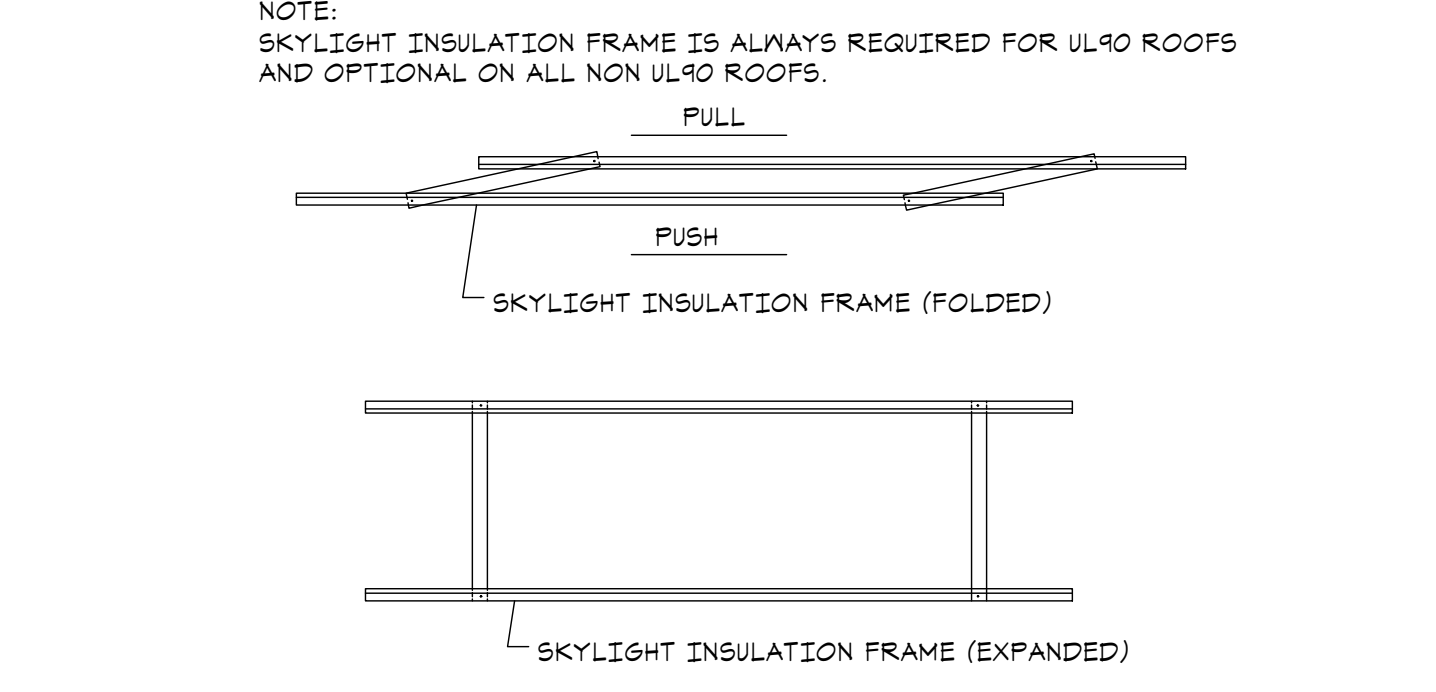
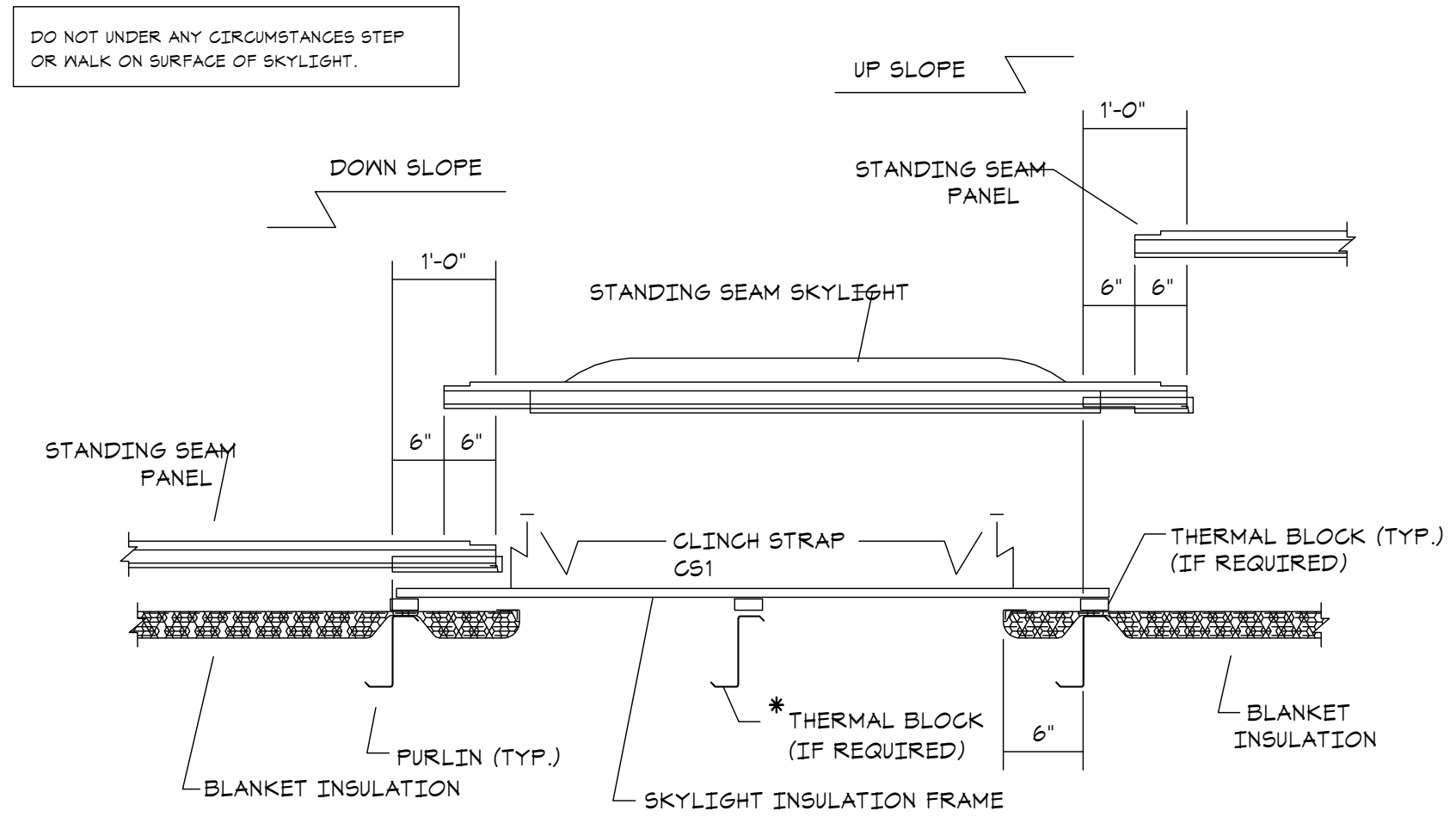
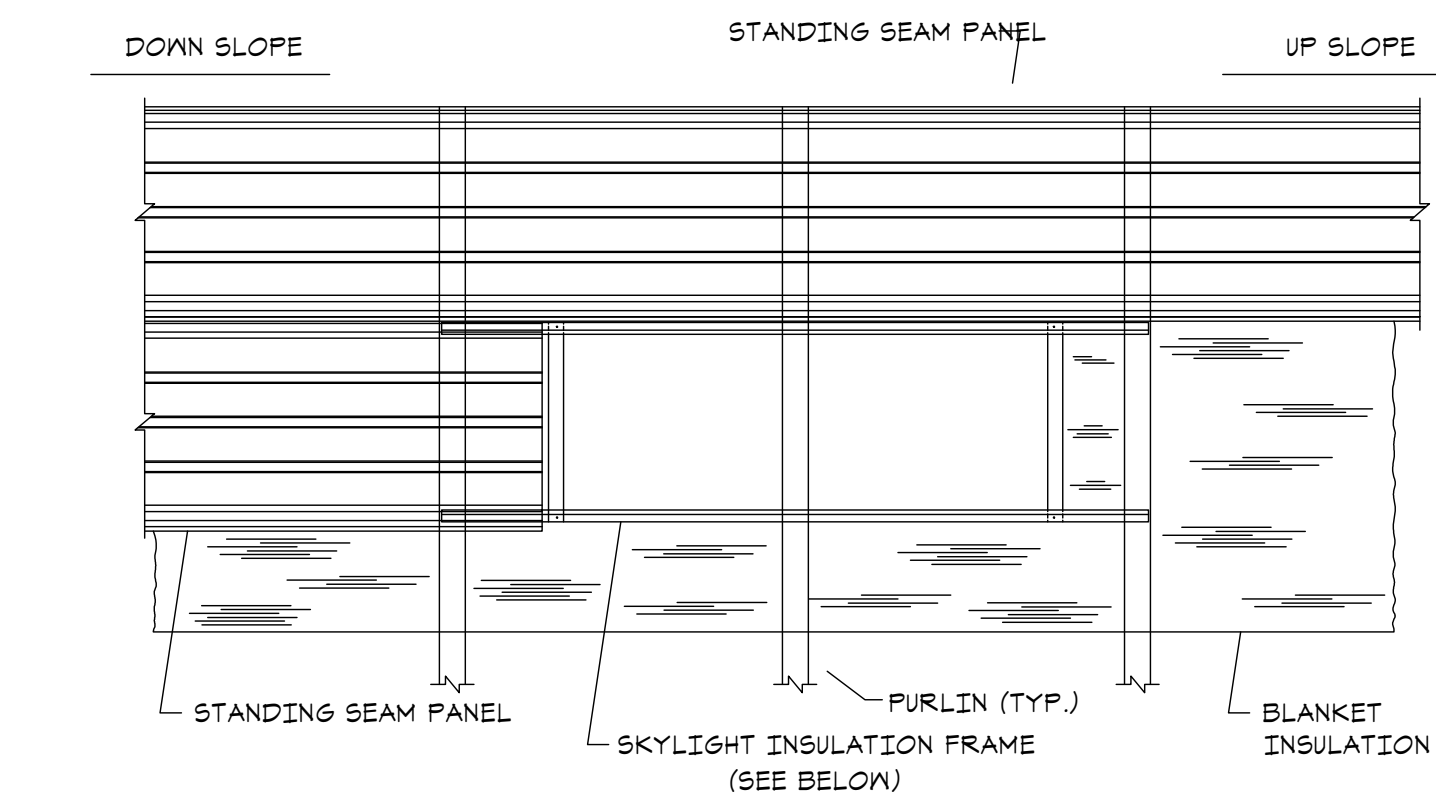
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Sheet No.
A5.2

DO NOT UNDER ANY CIRCUMSTANCES STEP OR PALK ON SURFACE OF FIBERGLASS SKYLIGHT. IF FOOT TRAFFIC IS NECESSARY OVER SKYLIGHT, USE PALK BOARDS THAT ARE PROPERLY SUPPORTED BY THE BUILDING PURLINS.

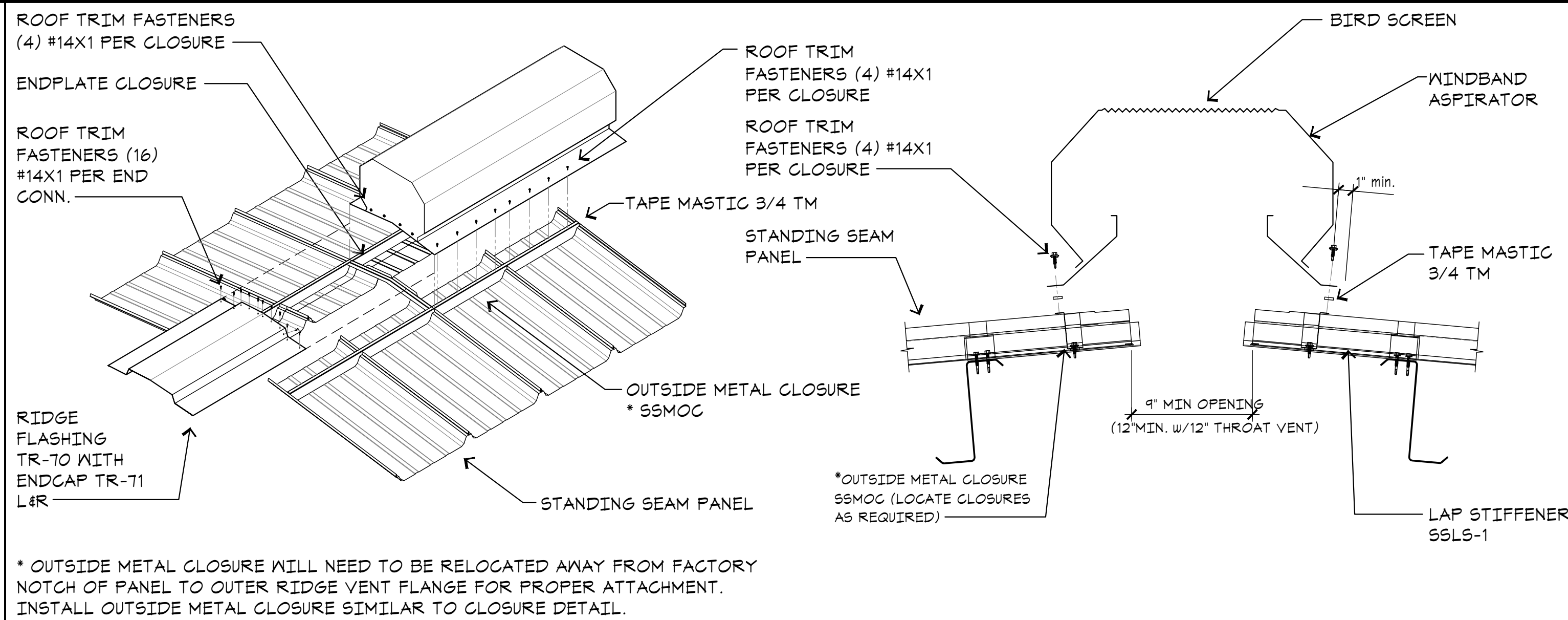


L1 SKYLIGHT INSTALLATION DETAIL
A6.1 SCALE: NONE

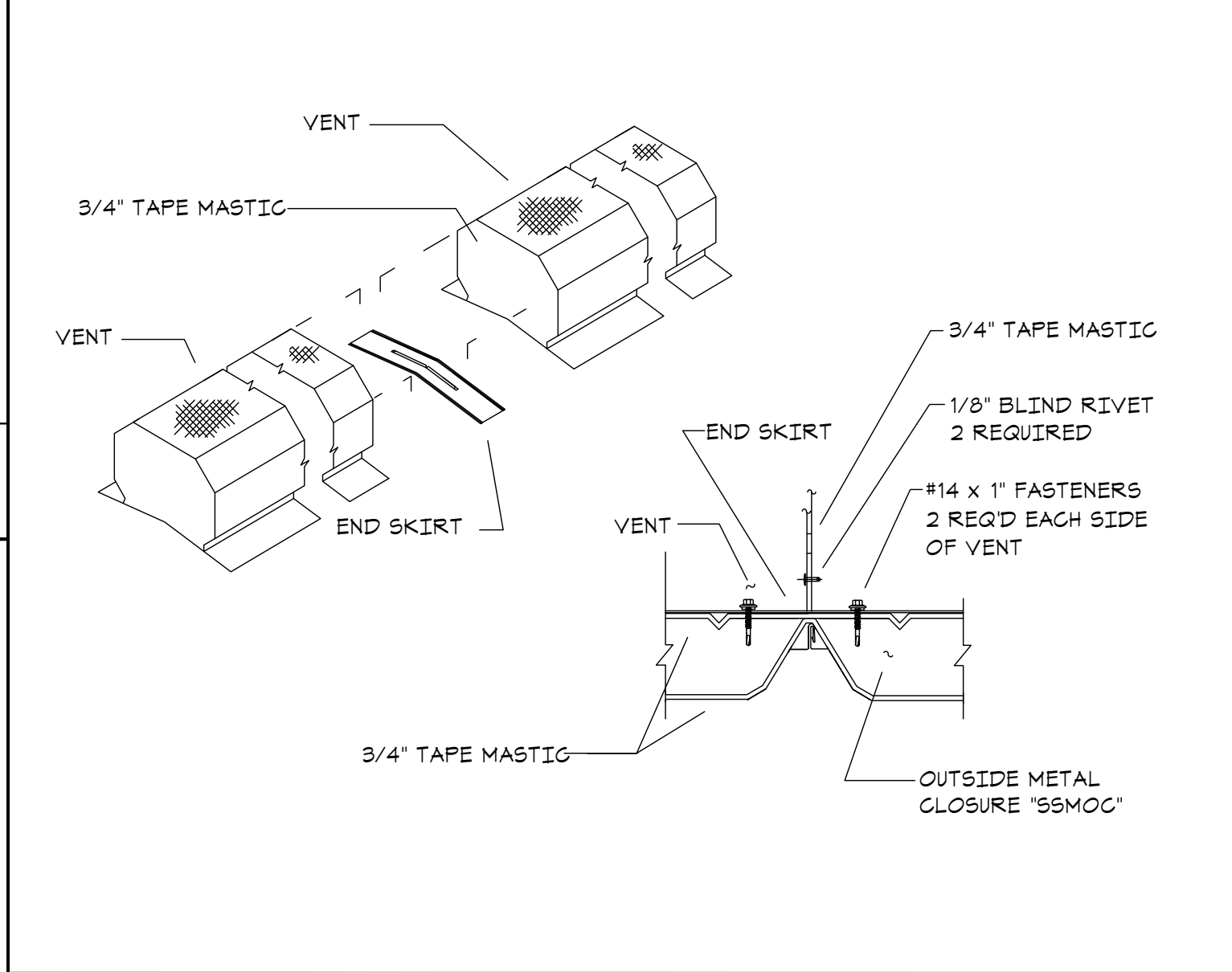


- EXPAND SKYLIGHT INSULATION FRAME (DSITFI) AND SLIDE INTO MAJOR RIB OF DOWNSLOPE STANDING SEAM PANEL WITH EDGE OF FRAME AGAINST THE PANEL GLIPS. CAUTION - USE GLOVES TO PROTECT HANDS WHEN HANDLING SKYLIGHT INSULATION FRAME.
- CUT INSULATION TO THE VINYL FACING USING THE FRAME AS A GAUGE (DO NOT CUT FACING AT THIS POINT). STRIP BACK THE INSULATION FROM THE FACING TO THE POINTS INDICATED IN DETAIL. CUT THROUGH THE VINYL FACING AS INDICATED LEAVING SUFFICIENT VINYL TAB TO FOLD OVER FRAME.
- FOLD THE FACING OVER THE SIDE RAILS OF THE FRAME AND INSTALL GLINGH ANGLE (CA1) WITH FASTENERS INDICATED. NEXT FOLD FACING OVER DOWNSLOPE PORTION AND UPSLOPE PORTION OF FRAME AND INSTALL GLINGH STRAP (GS1) AS SHOWN IN DETAIL. COVER EXPOSED CORNERS OF FIBERGLASS INSULATION WITH VINYL PATCHING TAPE.
- CONTINUE INSTALLING SKYLIGHT AS SHOWN.

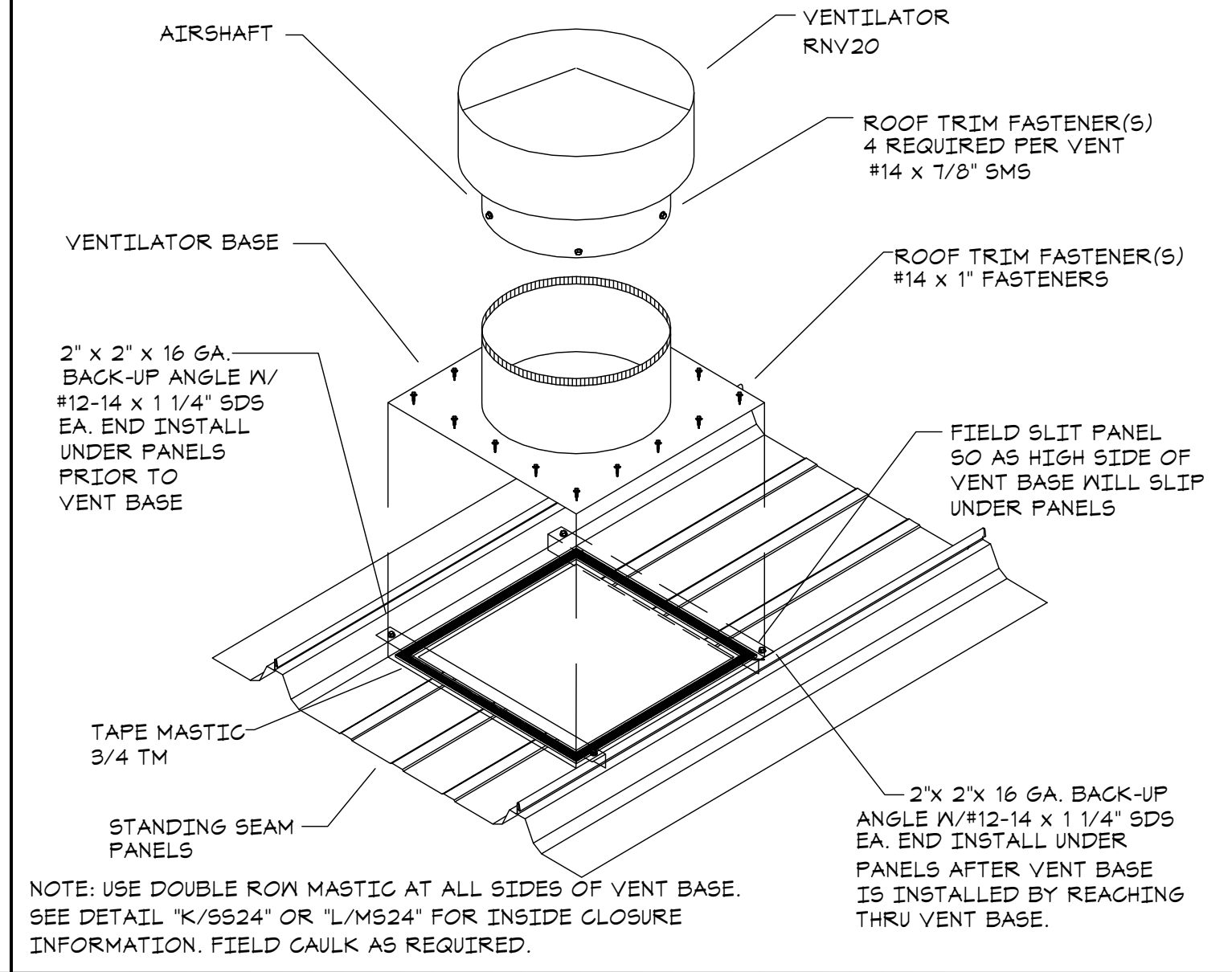
A1 SKYLIGHT INSULATION FRAME INSTALLATION
A6.1 SCALE: NONE



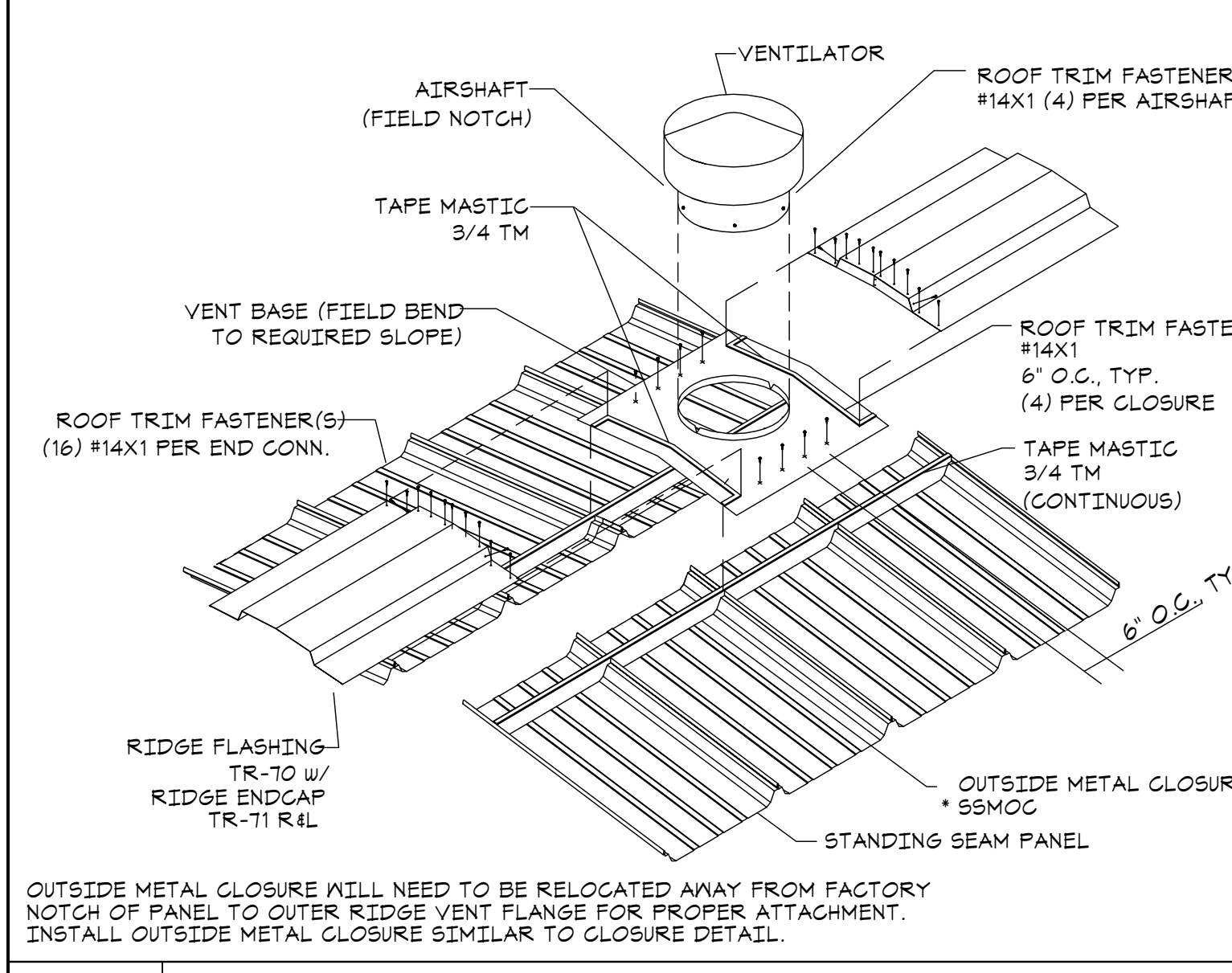
N11 RIDGE VENT INSTALLATION - STANDING SEAM
A6.1 SCALE: NONE



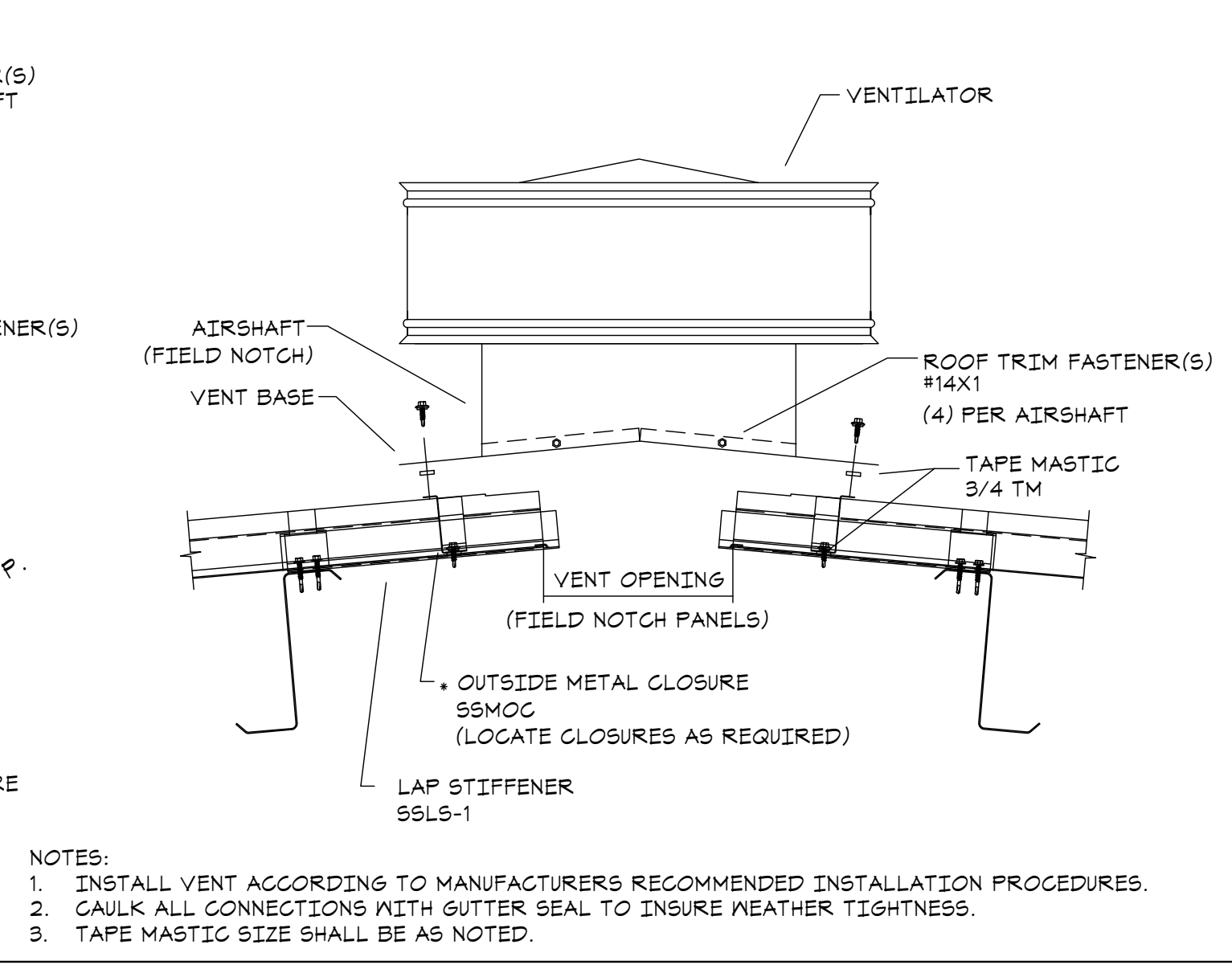
J11 VENT SLICING DETAIL
A6.1 SCALE: NONE



J15 SLOPED VENT DETAIL
A6.1 SCALE: NONE



E11 ROUND VENT DETAIL AT RIDGE
A6.1 SCALE: NONE



J15 SLOPED VENT DETAIL
A6.1 SCALE: NONE

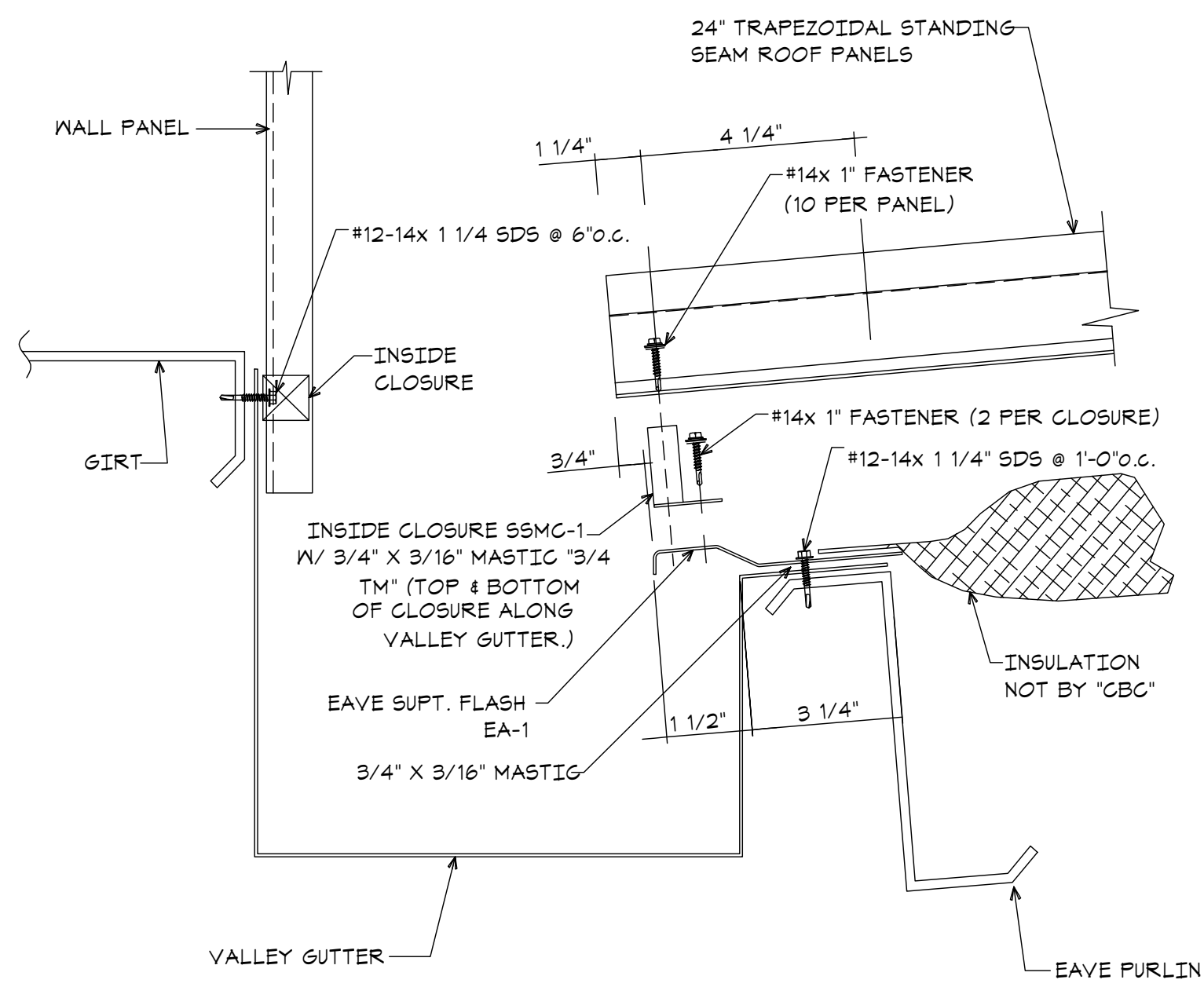
ARCHITECT: Neil Roger Davidson, A.I.A., Architect
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FILE NAME: 19003-01_A6-1_Ext_01

Sheet Content:
EXTERIOR DETAILS

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Sheet No.
A6.1

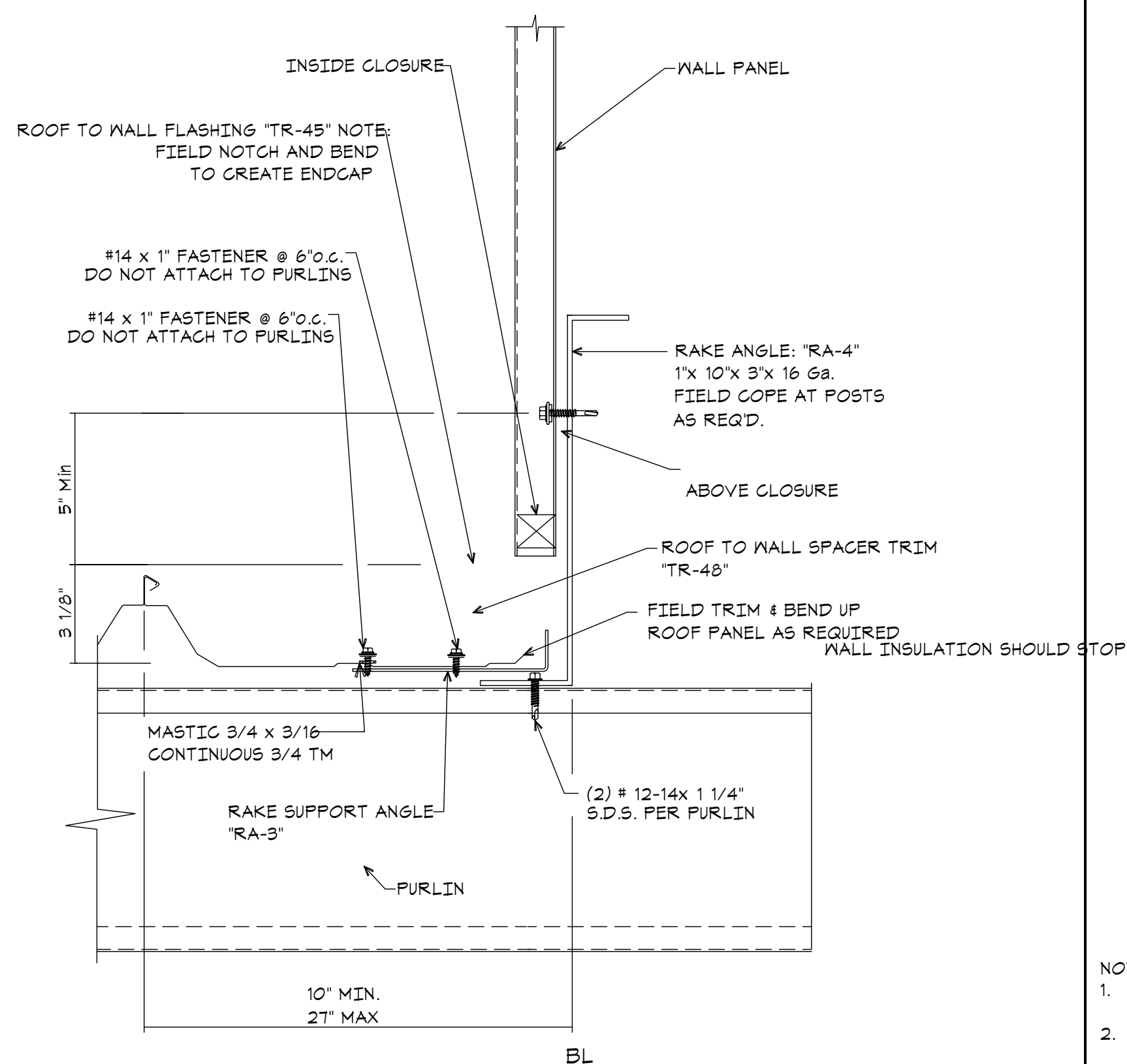


ERECTION NOTE:
DO NOT USE THE DIMPLES IN THE END OF THE PANELS TO LOCATE FASTENERS AT THE EAVE. DIMPLES ARE FOR THE FASTENERS AT THE PANEL ENDLAPS ONLY.

L1 VALLEY GUTTER DETAIL

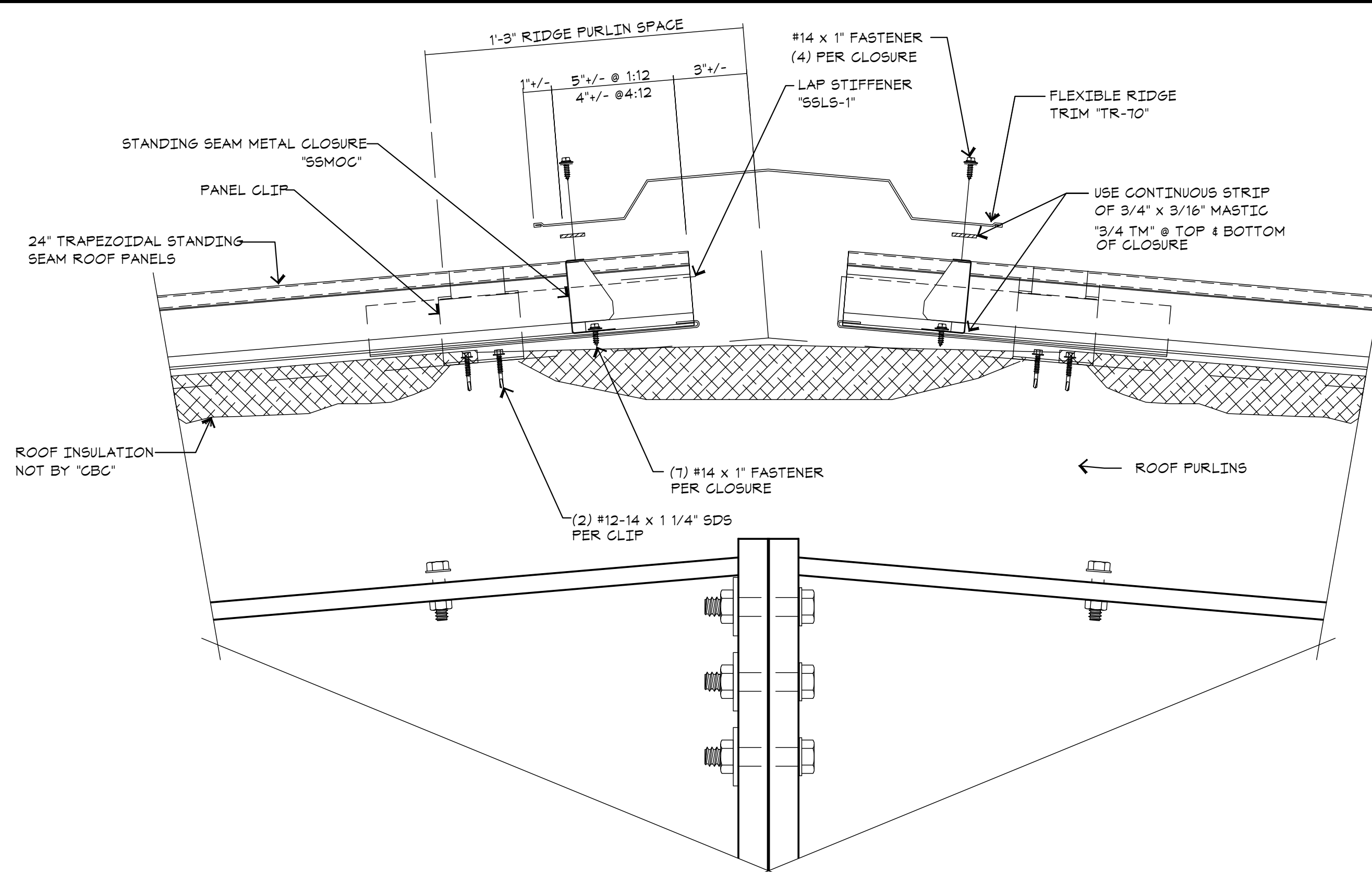
A6.2 SCALE: NONE

NOTE:
STARTING 1/4 OR ENDING PANEL MAY VARY FROM 10' MINIMUM TO 21' MAXIMUM FOR CENTER OF RIB TO B.L. DIMENSION. SEE ROOF PLANS FOR 'B.L.' TO 'RIB' DIMENSION. FIELD CUTTING OF PANEL MAY BE REQUIRED.



L6 ROOF TO WALL RAKE CONDITION

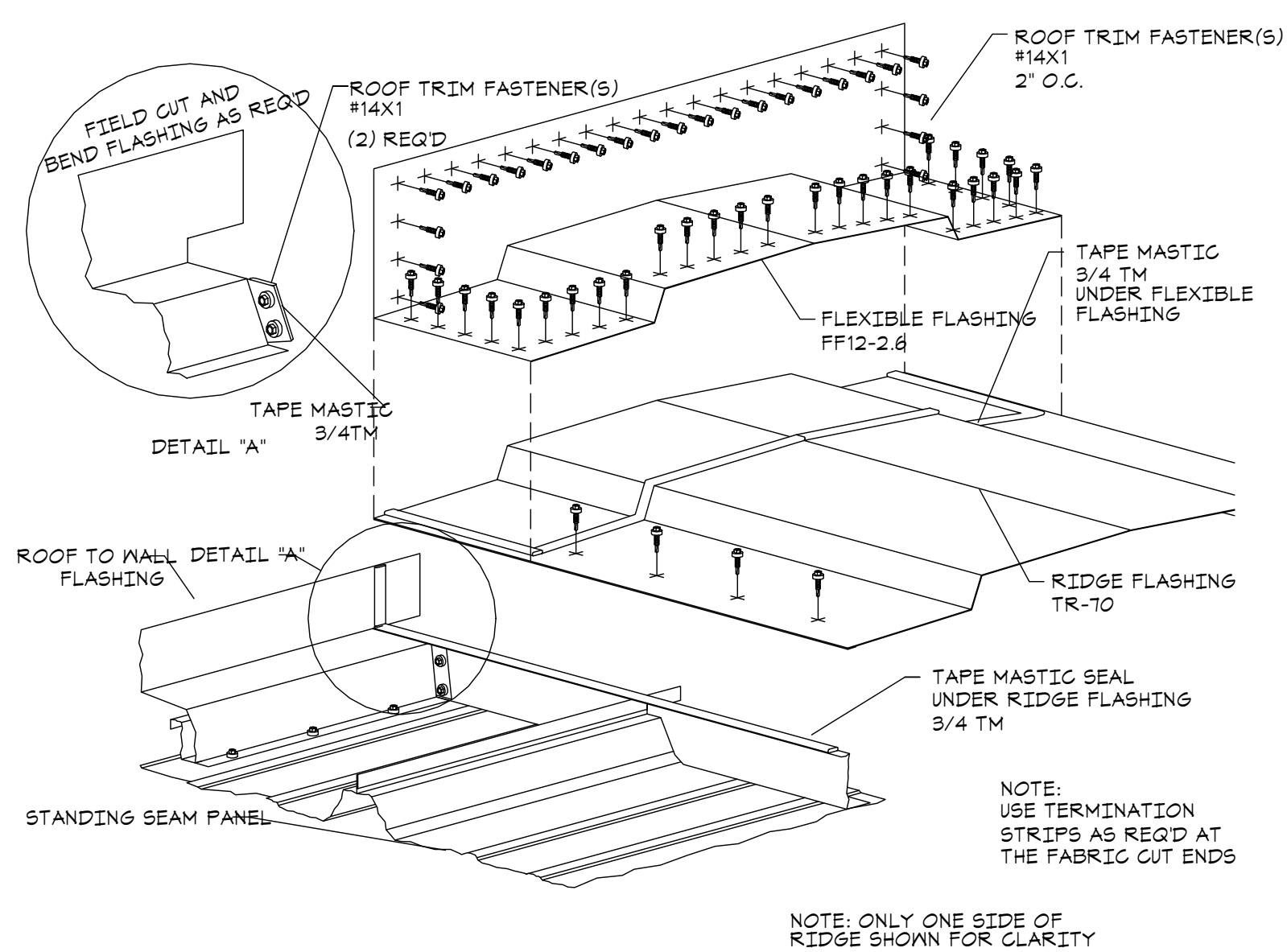
A6.2 SCALE: NONE



NOTE:
1. AFTER THE INSTALLATION OF THE ROOF PANELS HAS BEEN COMPLETED, PROCEED WITH THE RIDGE CLOSURE. BEFORE ANY MASTIC IS APPLIED CLEAN PANELS OF ANY OIL AND DIRT.
2. INSTALL 3/4" X 3/16" MASTIC AND SEAM CLOSURE (SSMOC) REPEAT UNTIL A SUFFICIENT NUMBER OF CLOSURES HAVE BEEN INSTALLED (BOTH SIDES OF RIDGE) TO EQUAL A LENGTH OF RIDGE FLASHING. RUN A CONTINUOUS STRIP OF 3/4 X 3/16 MASTIC OVER THE TOP OF THE CLOSURES AND APPLY THE RIDGE FLASHING.

L11 FLEXIBLE RIDGE DETAIL

A6.2 SCALE: NONE

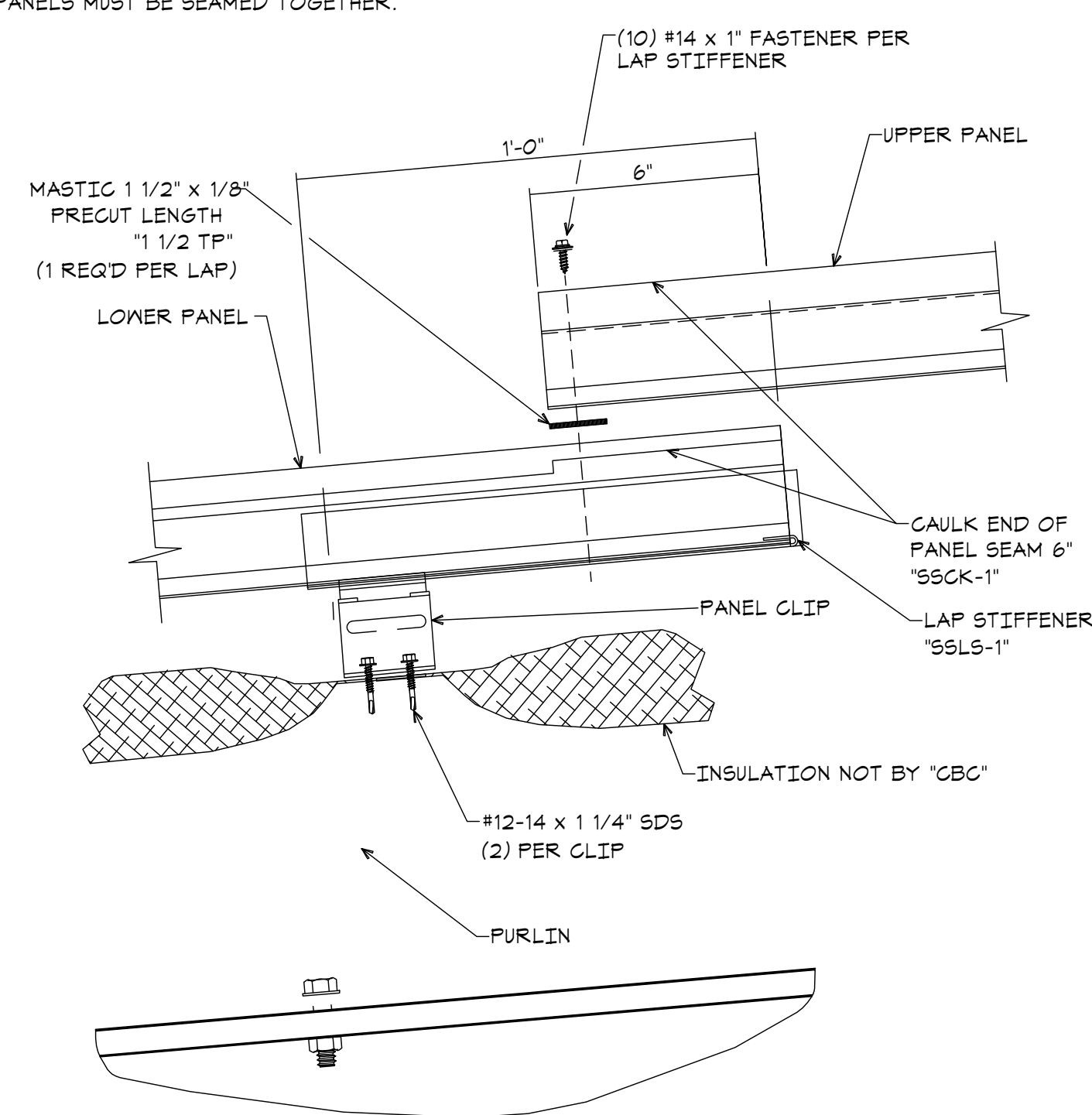


NOTE: ONLY ONE SIDE OF RIDGE SHOWN FOR CLARITY

E1 RIDGE EXPANSION AT ROOF TO WALL TRANSITION

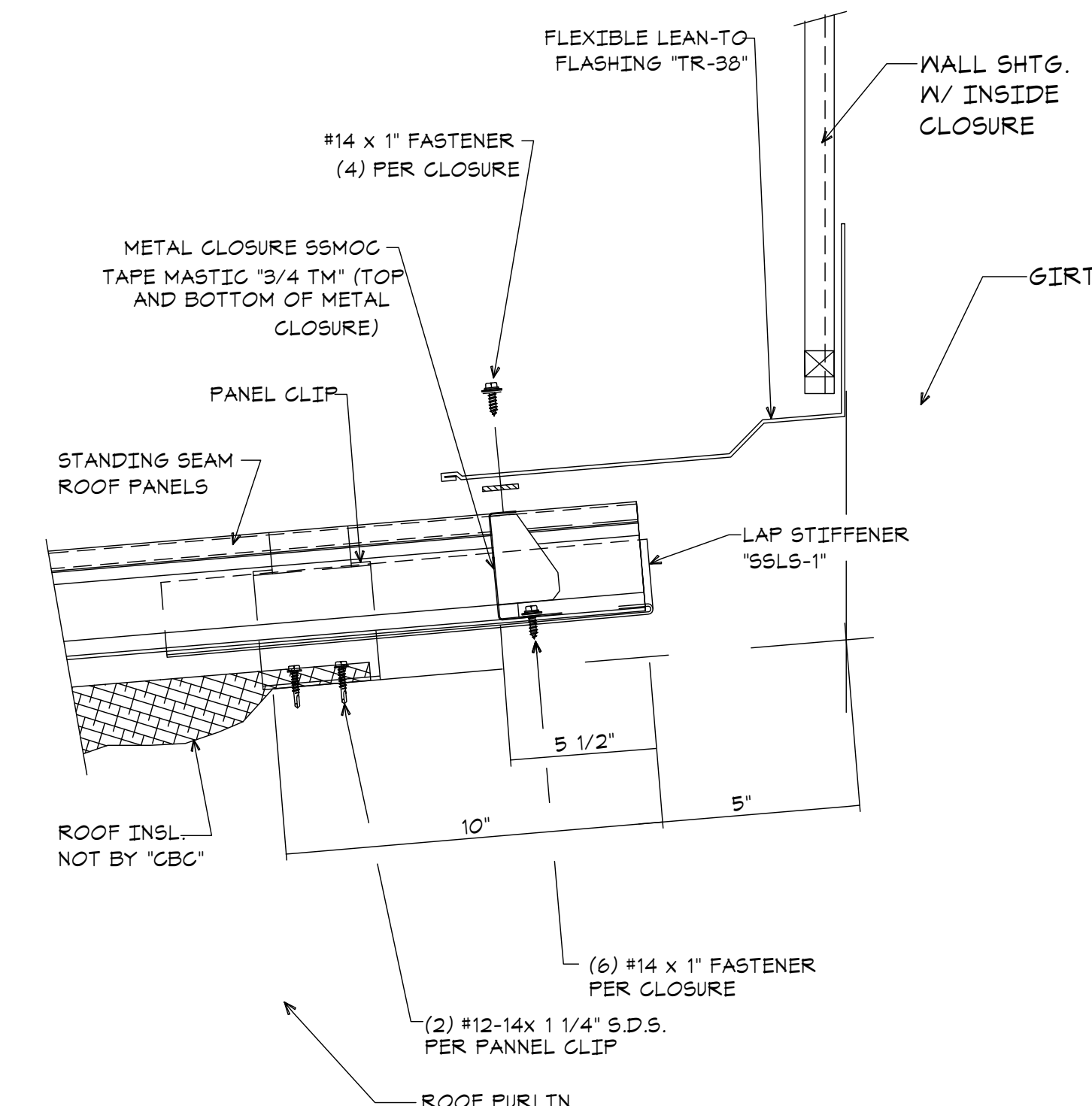
A6.2 SCALE: NONE

NOTE:
PRIOR TO INSTALLING LAP FASTENERS, PANELS MUST BE SEAMED TOGETHER.



E6 PANEL SPLICE DETAIL

A6.2 SCALE: NONE



E11 FLEXIBLE "LEAN-TO" DETAIL

A6.2 SCALE: NONE

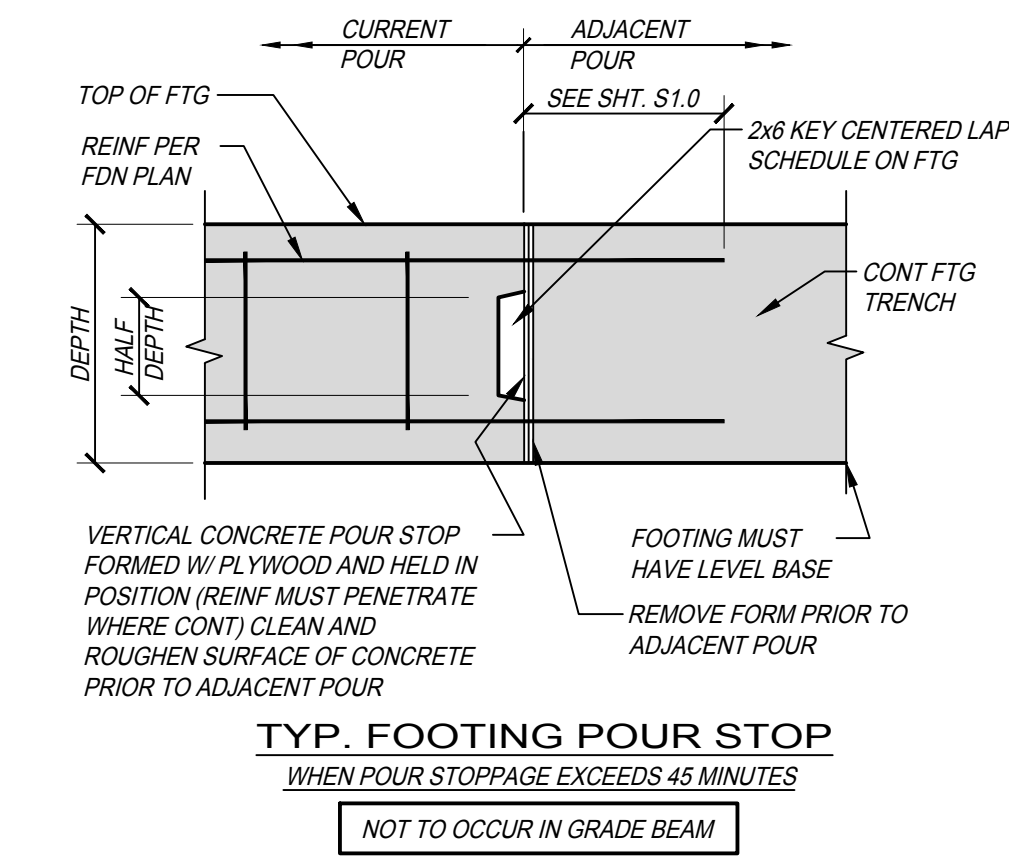


Project:
Sheriff Area 2 Sub-Station Storage
1128 N. Armstrong Ave., Fresno, CA
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FILE NAME: 19003-01_A6-2_Extr_Detail

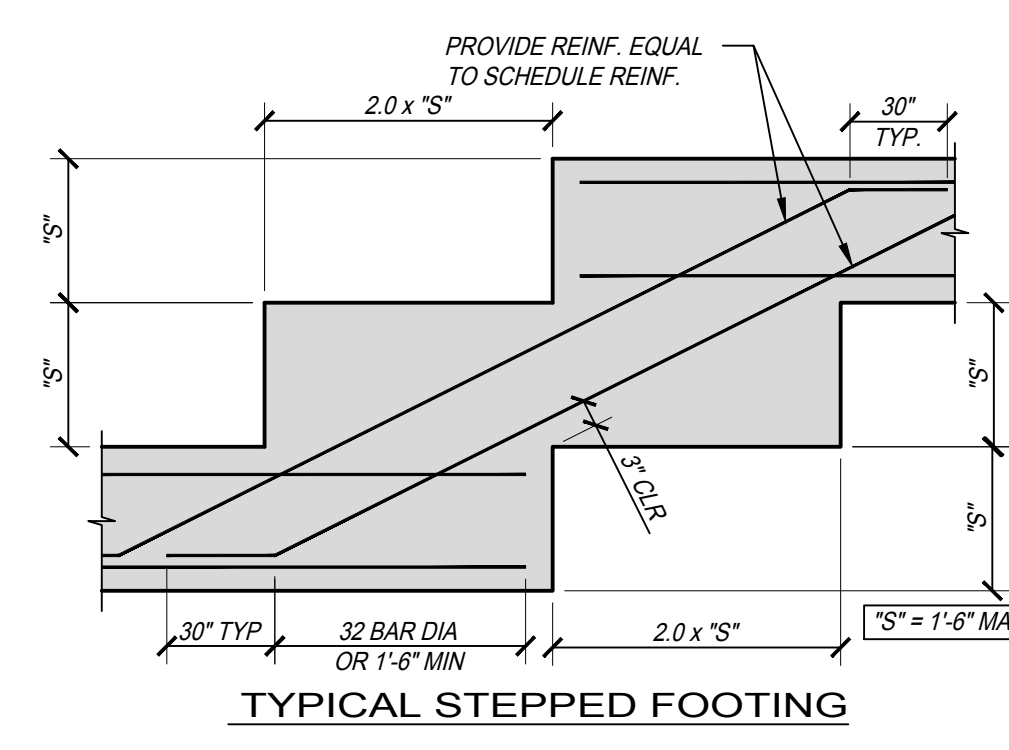
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EXTERIOR DETAILS



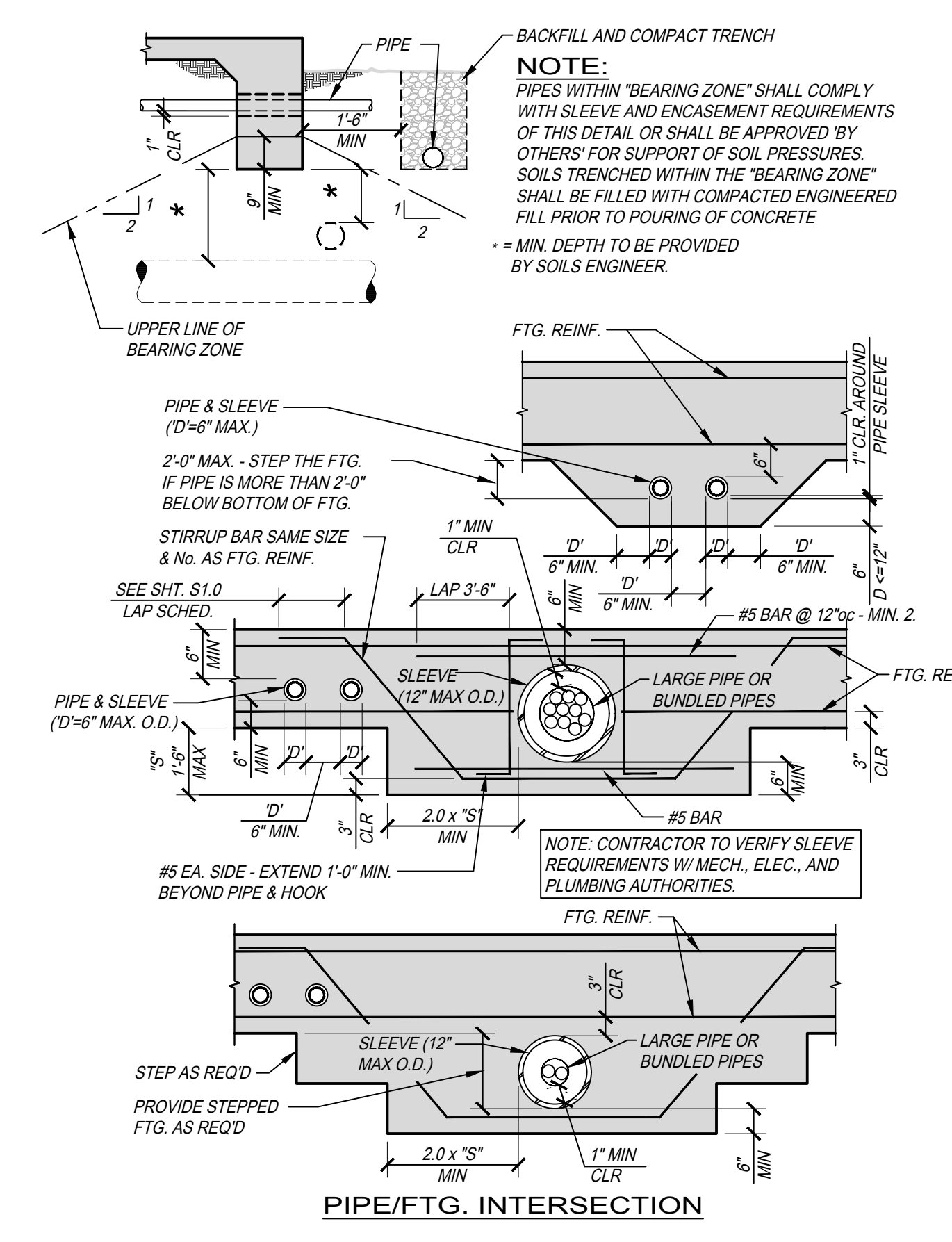
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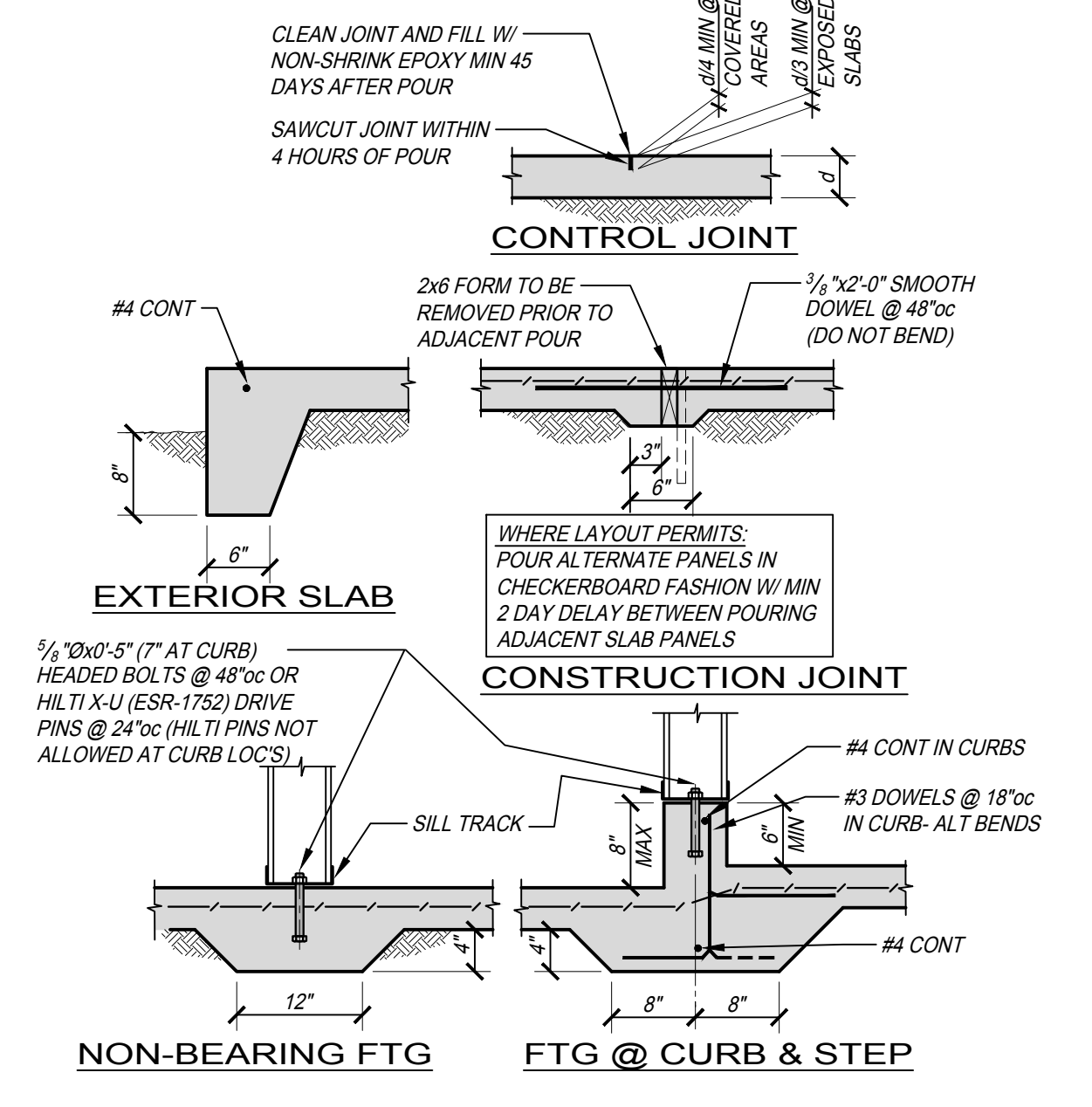
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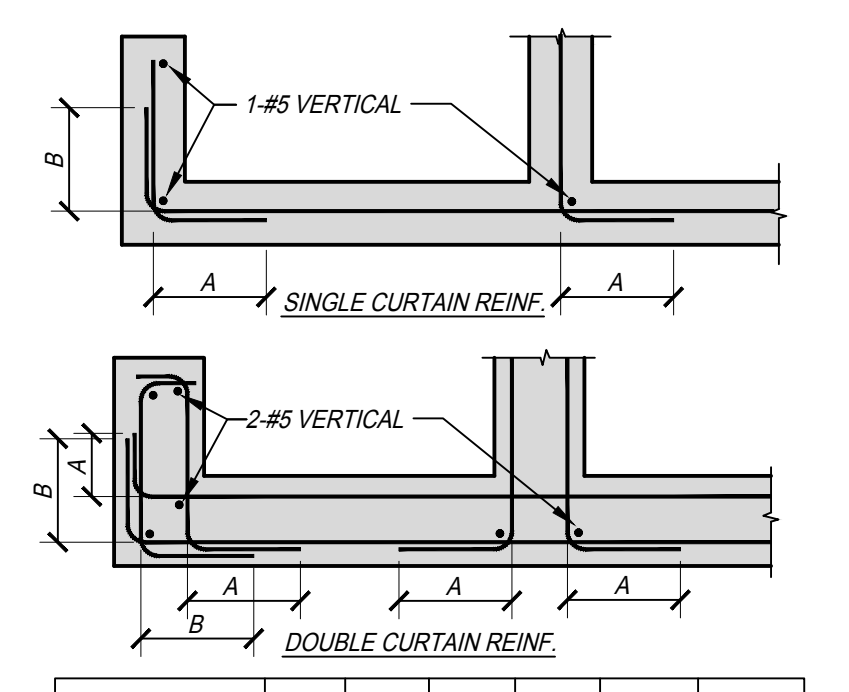
DETAIL 4
SCALE: #/##### TFND04 S1.1



DETAIL 5
SCALE: #/##### TFND07 S1.1



DETAIL 1
SCALE: #/##### TFND03 S1.1



BAR SIZE	#4	#5	#6	#7	#8	#9	
GRADE 40	A	1'-6"	1'-6"	1'-6"	1'-10"	2'-5"	3'-0"
	B	1'-9"	1'-9"	2'-4"	3'-2"	4'-2"	5'-2"
GRADE 60	A	1'-6"	1'-6"	2'-0"	2'-9"	3'-7"	4'-6"
	B	1'-9"	2'-6"	3'-6"	4'-9"	6'-2"	7'-8"

DETAIL 2
SCALE: #/##### TFND03 S1.1



Project:
Sheriff Area 2 Sub-Station Storage
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PROJECT NO.: 180293 | 19003
FILE NAME: S1.0 - Storage

Sheet Content:
TYPICAL DETAILS

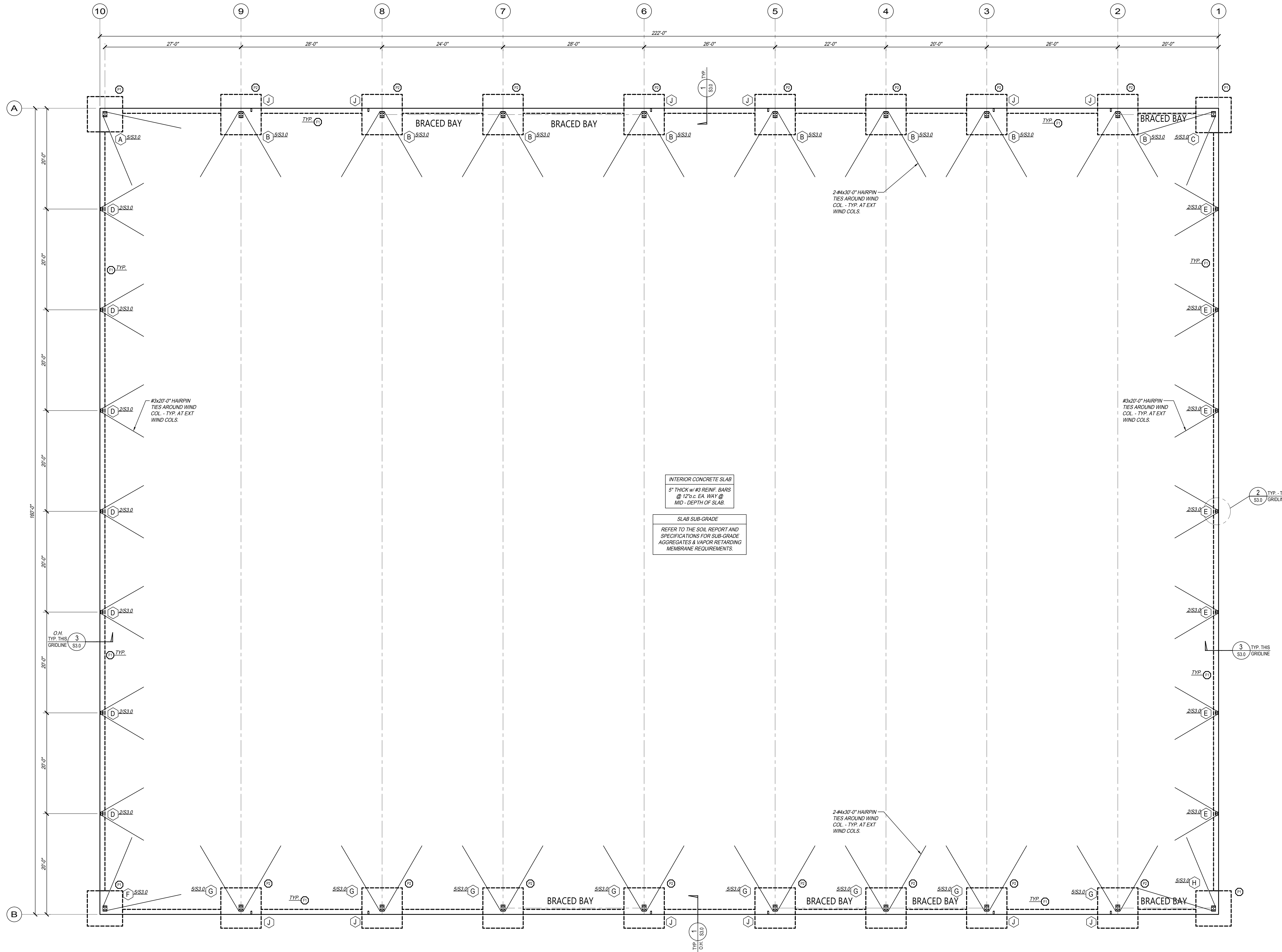
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Capital Projects
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Sheet No.
S1.1

Drawn by: SMP Plot date: 06.01.2020



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FOUNDATION NOTES

- REFER TO GENERAL NOTES AND TYPICAL DETAILS ON S.10.
- ALL EMBEDDED ITEMS SHALL BE IN PLACE & SECURED PRIOR TO POURING OF CONCRETE.
- ⊙ = FOOTING TYPE - SEE "FOOTING SCHEDULE"
- OR H = STEEL COLUMN

FOOTING SCHEDULE		
TYPE	SIZE	REINFORCEMENT
⊙	1'-0" WIDE x 1'-6" DEEP CONT.	2-#6 CONT. TOP 2-#6 CONT. BOTTOM
⊙	7'-0" SQUARE x 3'-0" DEEP	7-#6 EA. WAY (TOP & BOTTOM)
⊙	8'-0" SQUARE x 3'-0" DEEP	8-#6 EA. WAY (TOP & BOTTOM)

NOTES:
 1. ALL FOOTINGS SHALL EXTEND A MINIMUM OF 1'-6" INTO NATIVE SOIL.
 2. SEE DETAILS FOR FOOTING SIZE AND REINF. REQUIRED AT ALL RETAINING WALLS.
 3. FOOTING ARE TYPE ⊙ UNLESS NOTED OTHERWISE.

⊙ = CBC BASE PLATE REFERENCE
 ⊙ = FOOTING DETAIL REFERENCE

INTERIOR CONCRETE SLAB
 5" THICK w/ #3 REINF. BARS @ 12" c.c. EA. WAY @ MID-DEPTH OF SLAB.

SLAB SUB-GRADE
 REFER TO THE SOIL REPORT AND SPECIFICATIONS FOR SUB-GRADE AGGREGATES & VAPOR RETARDING MEMBRANE REQUIREMENTS.

FOUNDATION PLAN (STORAGE)
 SCALE: 1/8" = 1'-0"

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 FOUNDATION PLAN

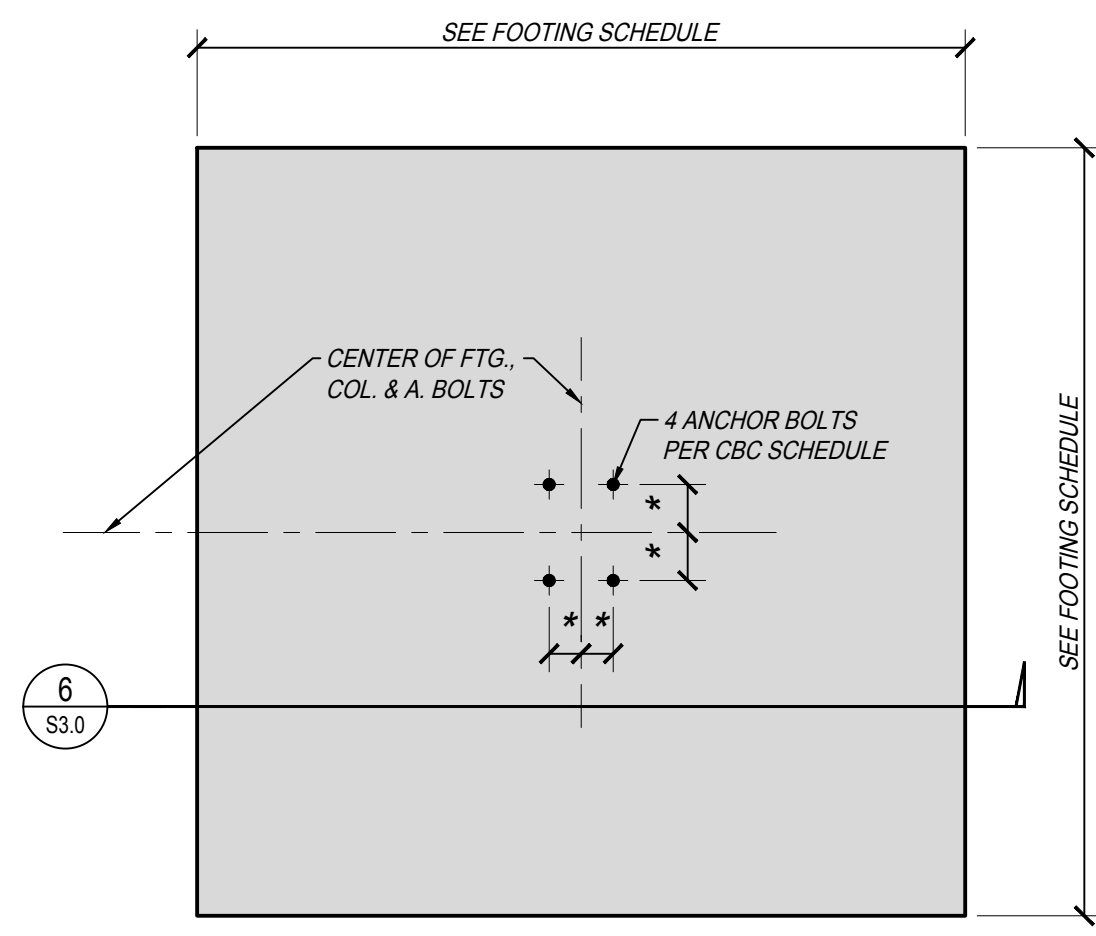
REGISTERED PROFESSIONAL ENGINEER
 PROPERTY S. PARRISH
 No. 52331
 Exp. 2/21
 6/17/20
 STRUCTURAL
 STATE OF CALIFORNIA

PARRISH HANSEN
 STRUCTURAL ENGINEERS
 A Division of Provost & Pritchard Consulting Group
 418 CLOVIS AVE. ■ CLOVIS CA 93612
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S2.0

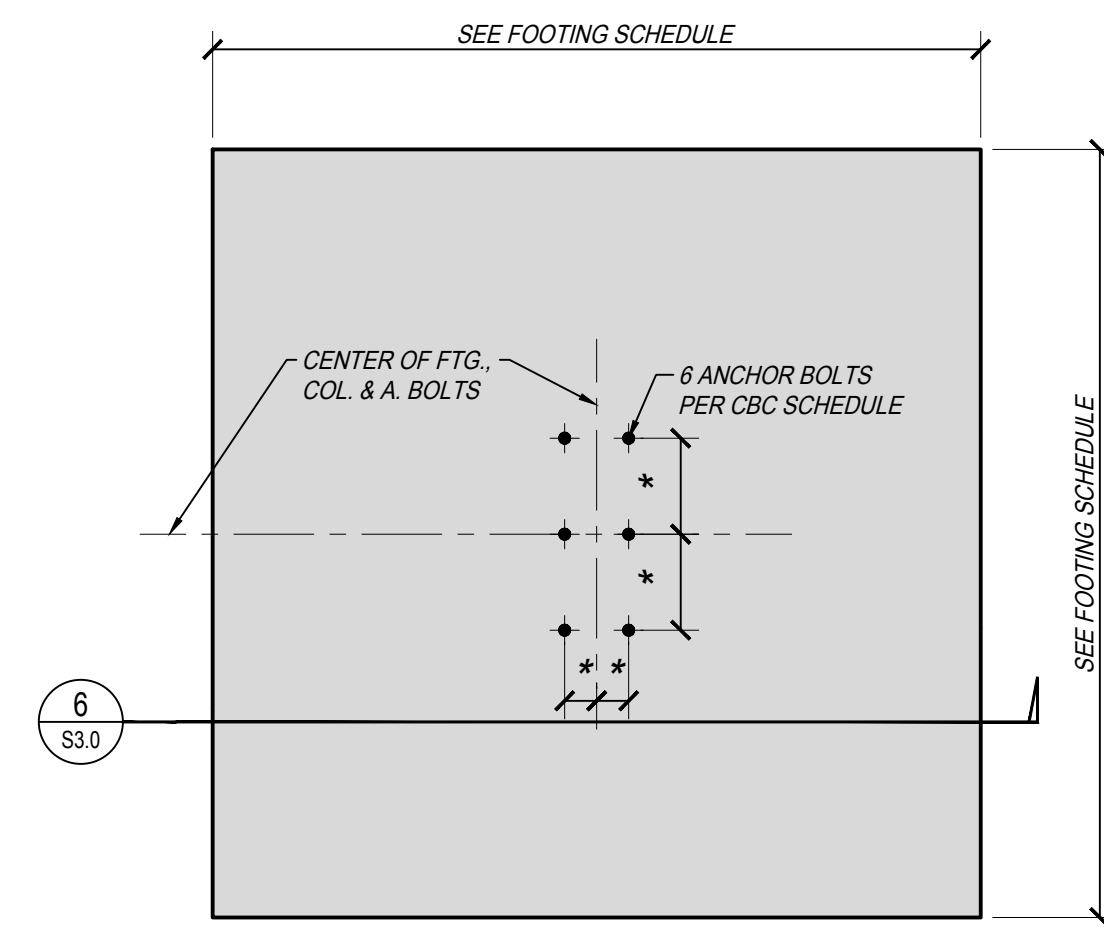
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PLATE TYPE, DETAIL - A,B,C,F,G,H
REFERENCE SUBSTATION: CBC BASE
PLATE TYPE, DETAIL - M,N,O

DETAIL

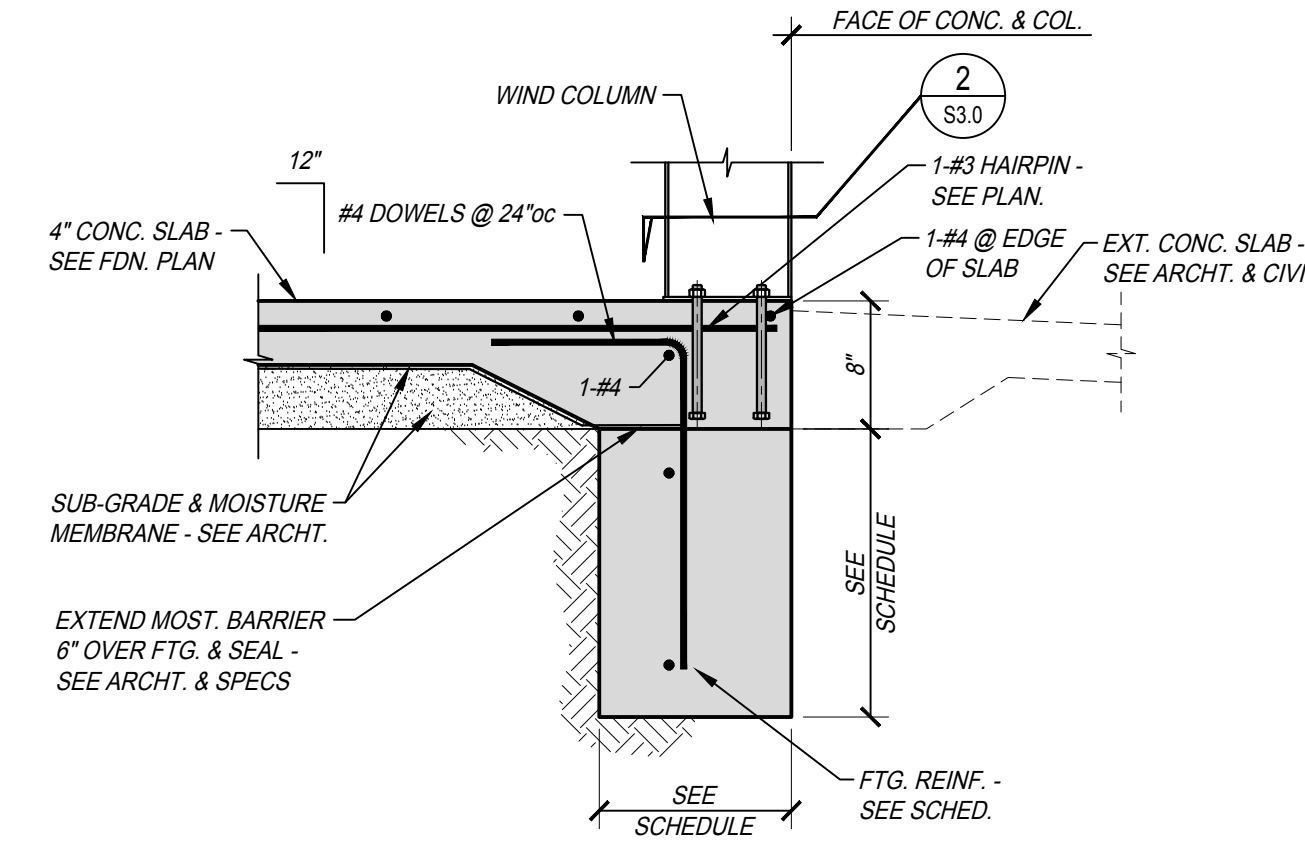
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PLATE TYPE, DETAIL - L,K,A,B

DETAIL

SCALE: 1" = 1'-0" FDN03 S3.0



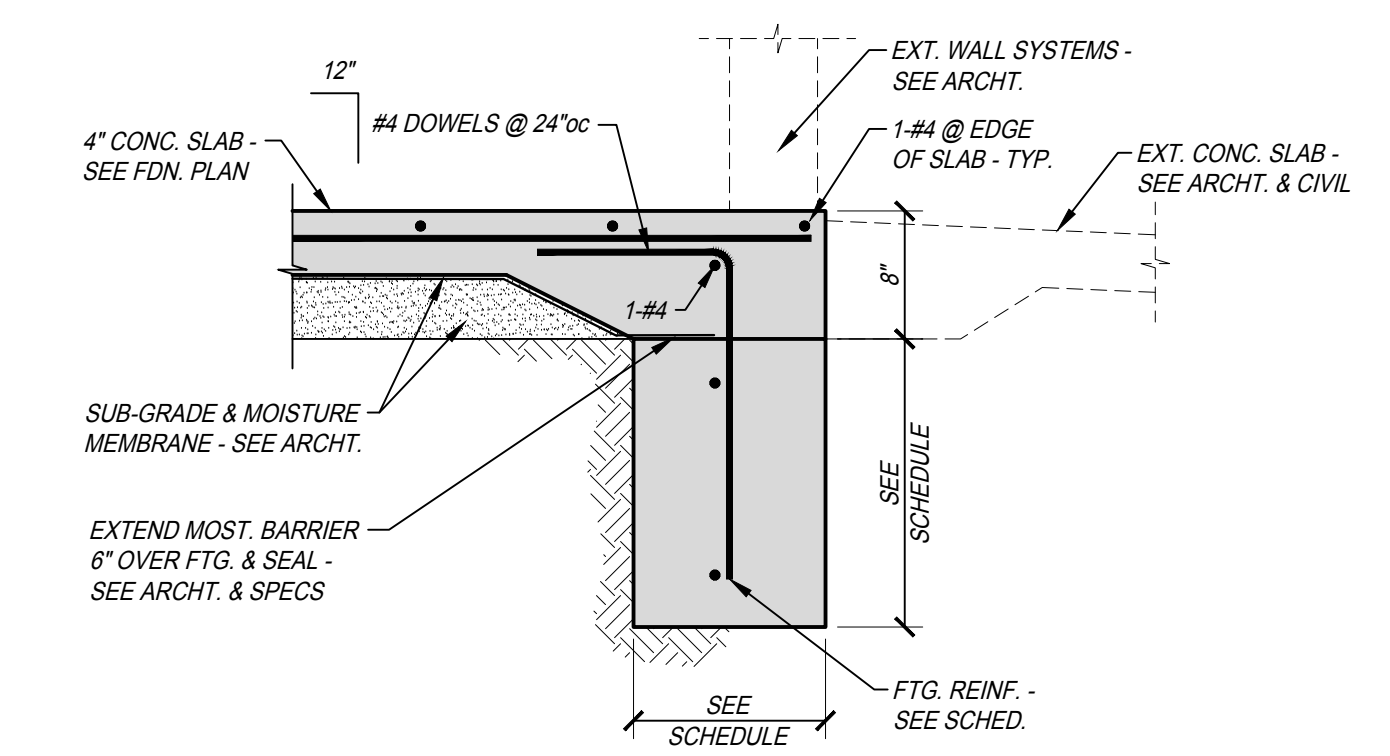
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PLATE TYPE, DETAIL - D,E
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PLATE TYPE, DETAIL - J

DETAIL

SCALE: 1" = 1'-0" FDN01 S3.0

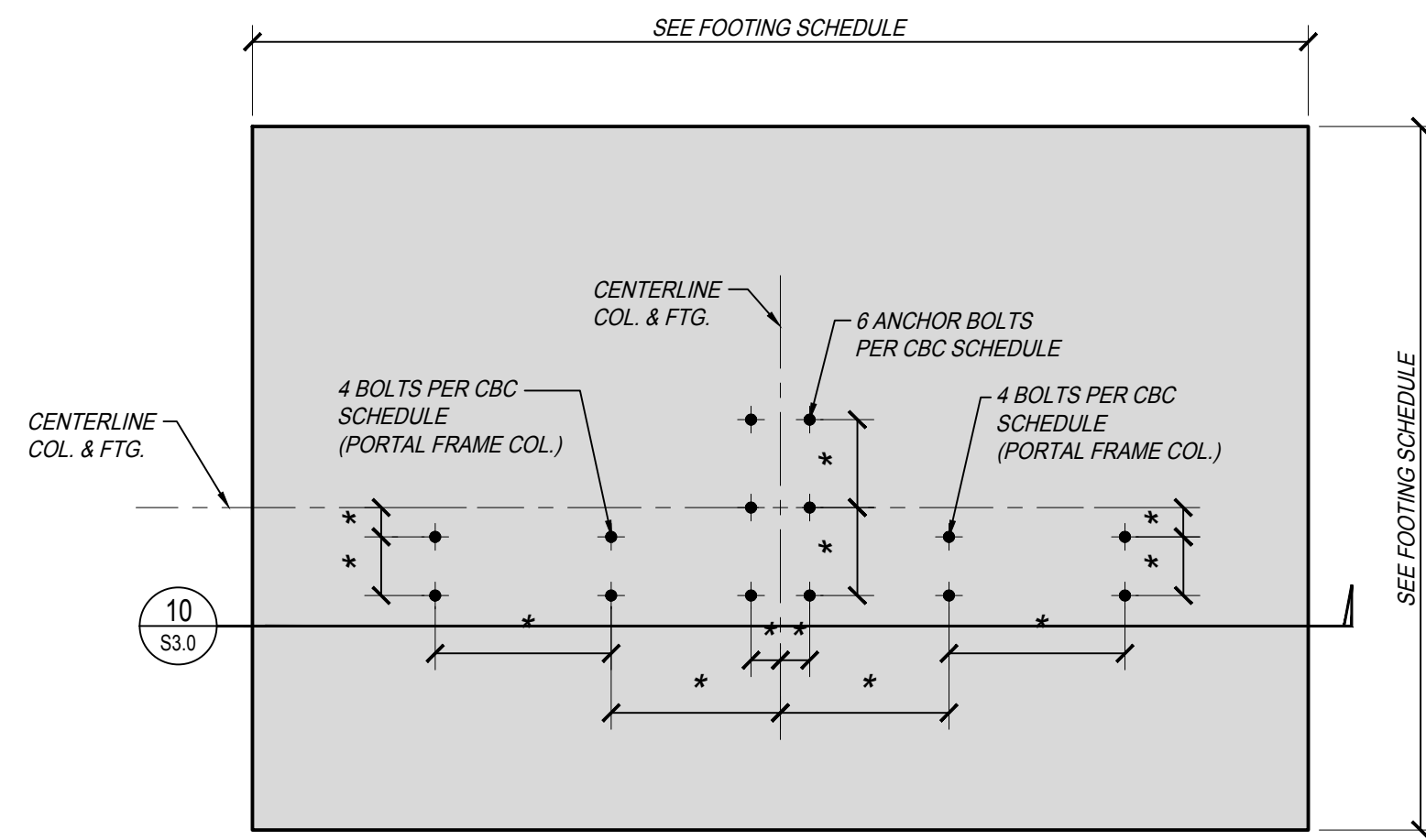
DETAIL

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DETAIL

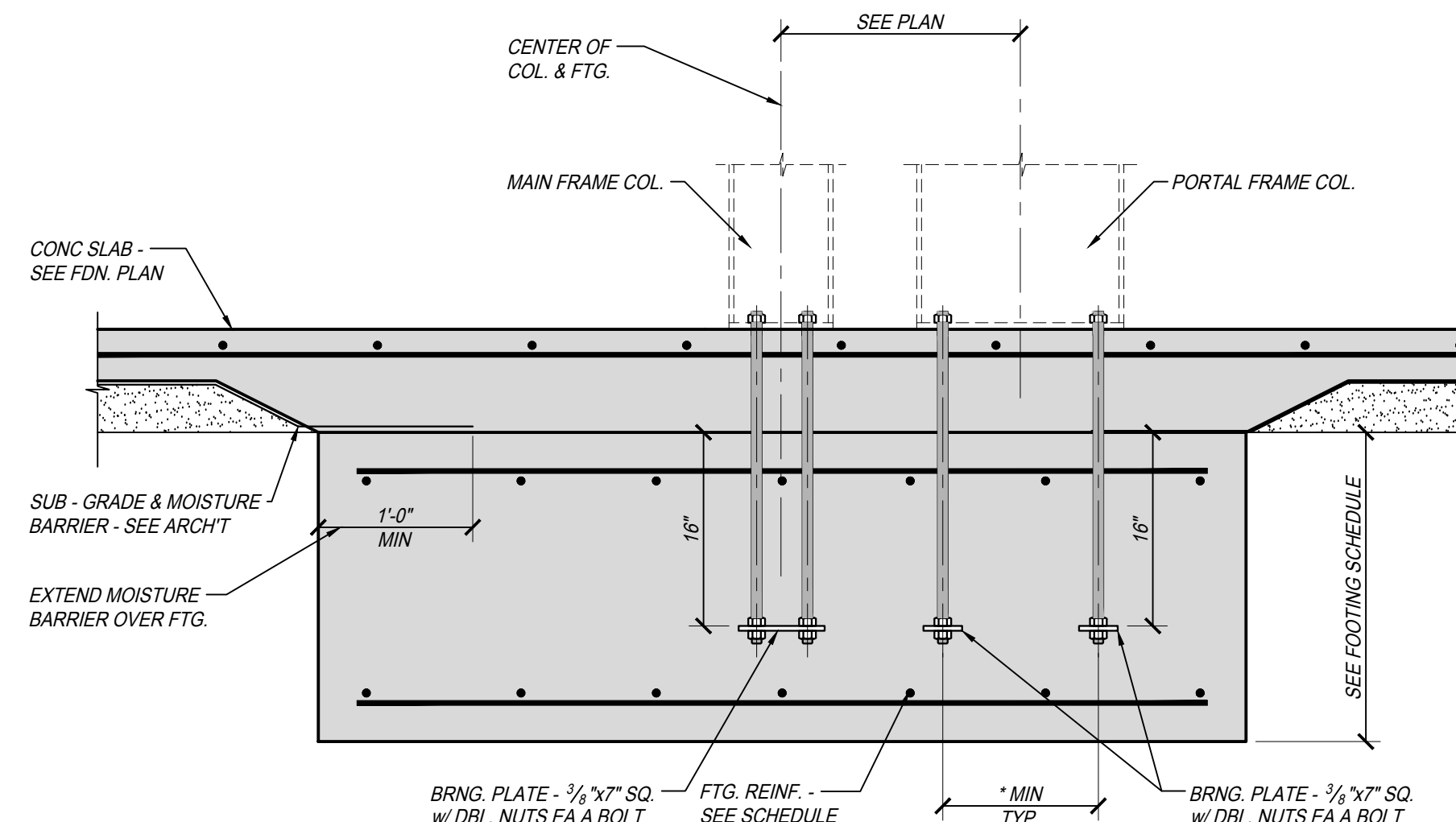
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REFERENCE SUBSTATION: CBC BASE
PLATE TYPE, DETAIL - E,H

DETAIL

SCALE: 1" = 1'-0" FDN05 S3.0



REFERENCE SUBSTATION: CBC BASE
PLATE TYPE, DETAIL - C,D,F,G

DETAIL

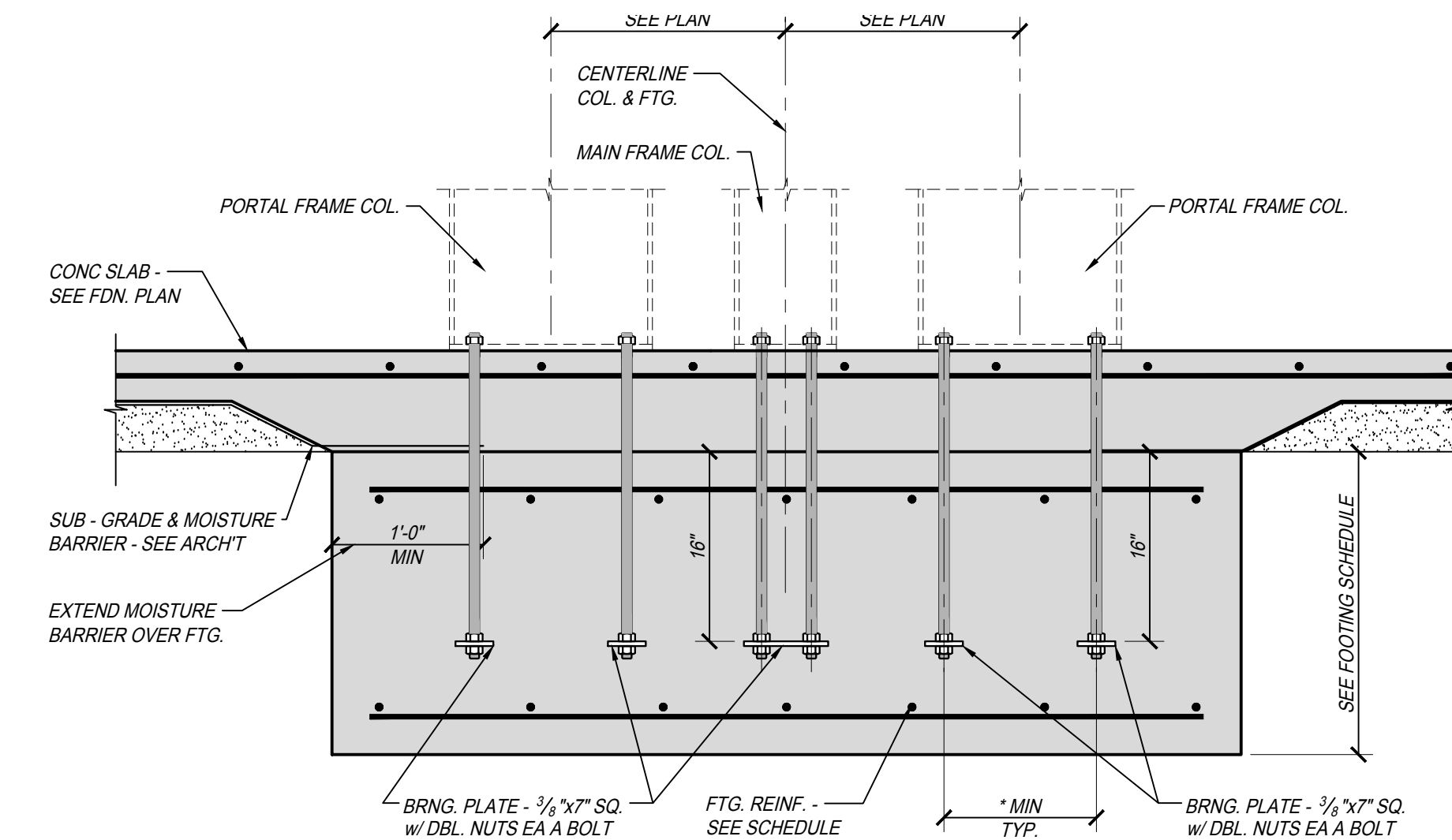
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DETAIL

SCALE: 1" = 1'-0" FDN04 S3.0

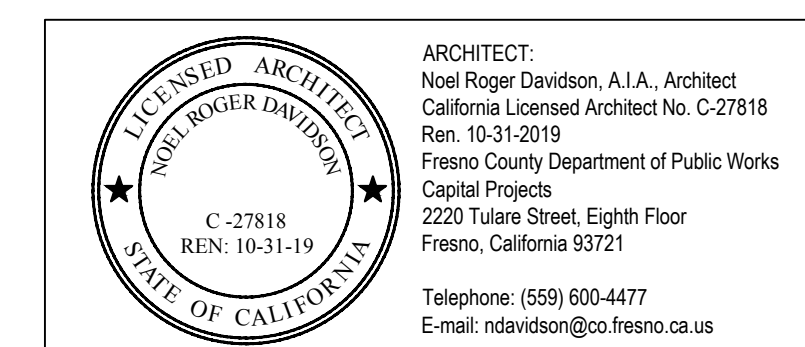
DETAIL

SCALE: 1" = 1'-0" FDN09 S3.0



DETAIL

SCALE: 1" = 1'-0" FDN08 S3.0



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FOUNDATION DETAILS

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2220 Tulare Street, 8th Floor
Fresno, California 93721

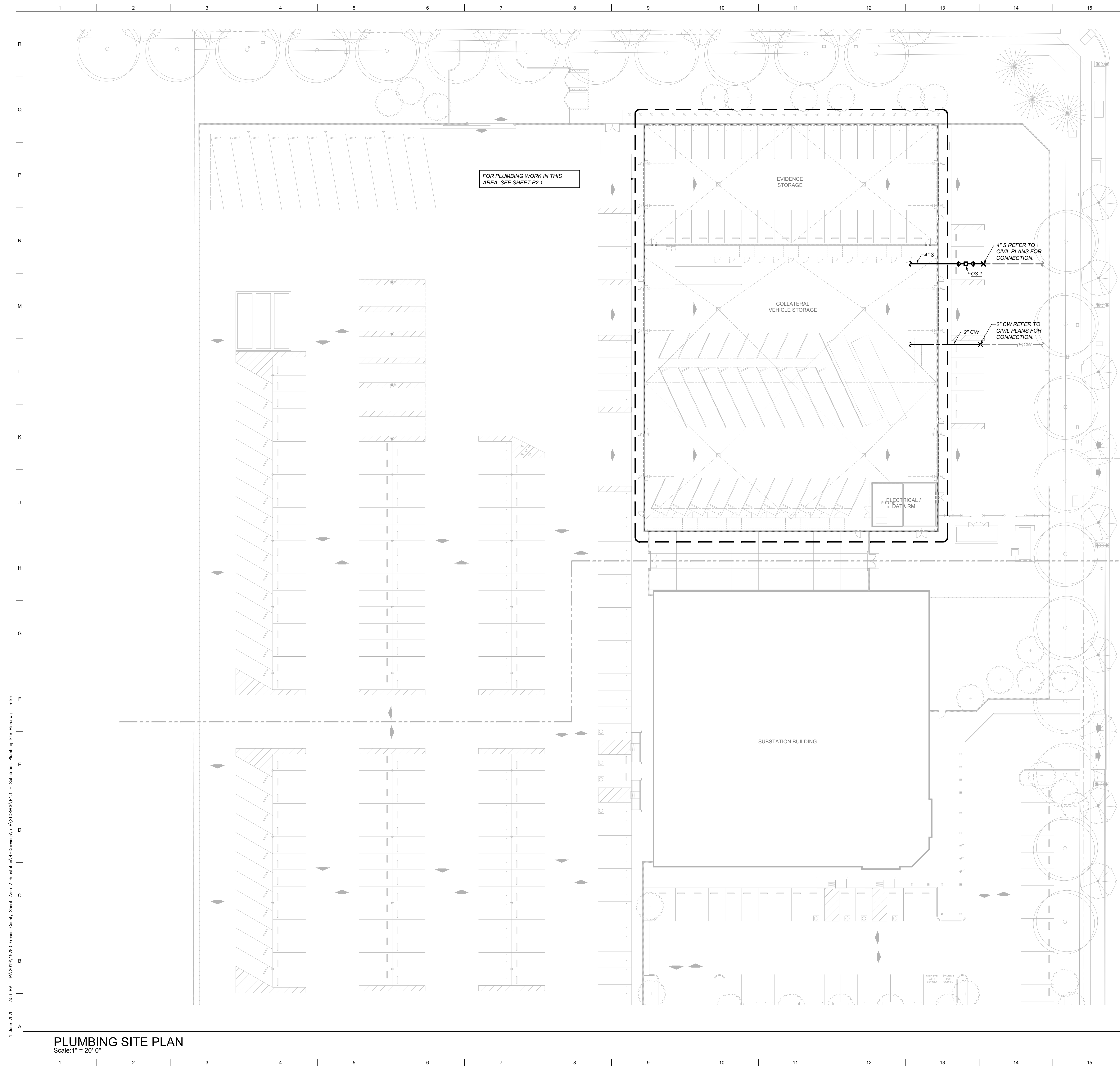
Sheet No.
S3.0

Drawn by: SMP Plot date: 06.01.2020



PARRISH HANSEN
STRUCTURAL ENGINEERS
A division of Provost & Pritchard Consulting Group
418 CLOVIS AVE. ■ CLOVIS CA 93612
PHONE 559.323.1023 ■ FAX 559.323.8090
WWW.PARRISH-HANSEN.COM

THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS IT BEARS THE STAMPS AND SIGNATURES OF THE ARCHITECT AND ENGINEER AND THE APPROVAL STAMP OF THE JURISDICTIONAL BUILDING DEPARTMENT



GENERAL PLUMBING NOTES:

- THE APPLICABLE CODES AND REGULATIONS FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 CALIFORNIA CODE OF REGULATIONS
 TITLE 8, INDUSTRIAL RELATIONS
 TITLE 19, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
 TITLE 24, PART 1, ADMINISTRATIVE REGULATIONS
 2016 CALIFORNIA BUILDING CODE, PART 2, TITLE 24 CCR
 2016 CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24 CCR
 2016 CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 CCR
 2016 CALIFORNIA PLUMBING CODE, PART 5, TITLE 24 CCR
 2016 CALIFORNIA FIRE CODE, PART 9, TITLE 24 CCR
 NFPA 101 2015 EDITION
 OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT
- LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE PLUMBING BUILDING PLANS HAVE BEEN PREPARED TO MATCH THE ARCHITECTURAL PLANS. IF DIFFERENCES OCCUR, THE ARCHITECTURAL PLANS ARE TO TAKE PRECEDENCE. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED PRIOR TO INSTALLATION OF ANY WORK, TO AVOID ALL INTERFERENCE WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL, OR OTHER ELEMENTS. ALL PIPE OFFSET ELBOWS FOR COORDINATION BETWEEN TRADES ARE NOT SHOWN. CONTRACTOR SHALL INCLUDE SUFFICIENT FUNDS FOR THE COORDINATION OFFSETS IN THE BID. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
- PENETRATIONS OF PIPES, CONDUITS, ETC. IN WALLS OR FLOORS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED.
- ALL PIPING AND CONDUIT REQUIRING SEISMIC BRACE AND SUPPORT SHALL BE SUPPORTED PER MASON WEST, INC. "SEISMIC RESTRAINT COMPONENTS FOR SUSPENDED DISTRIBUTION SYSTEMS", 1ST EDITION, 2013. OSHPD PRE-APPROVED ANCHORAGE OPM-0043-13, OR OTHER OSHPD PRE-APPROVED SYSTEM.
- WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER-DRIVEN PINS IN EXISTING NON-PRESTRESSED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRE-STRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.
- FIELD VERIFY THE EXACT LOCATION, DEPTH AND SIZE OF ALL NEW POINTS OF CONNECTION TO EXISTING UTILITIES PRIOR TO COMMENCING NEW UTILITY WORK.
- INSTALLATION OF NEW UTILITIES FROM EXISTING MAINS IN THE STREET SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
- INSTALLATION, TYPE AND MANUFACTURERS MODELS OF DOMESTIC WATER METERS, BACKFLOW PREVENTERS, FIRE HYDRANTS, DETECTOR CHECK VALVES, MANHOLES, DRAIN INLETS/OUTLETS AND OTHER APPURTENANCE OF SITE UTILITY SYSTEMS SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
- BACKFLOW PREVENTER SHALL BE INSTALLED AT THE MINIMUM HEIGHT ABOVE FINISH GRADE AS ALLOWED BY GOVERNING AUTHORITY.
- CONTRACTOR SHALL EXCAVATE AND BACKFILL THE GAS SERVICE TRENCH FOR THE LOCAL GAS UTILITY. THE LOCAL GAS UTILITY SHALL INSTALL THEIR GAS SERVICE LINE TO THE GAS METER. TRENCHING SHALL BE IN ACCORDANCE WITH UTILITY STANDARDS. ALL CHARGES AND FEES INCURRED BY THE UTILITY FOR NEW GAS SERVICE SHALL BE PAID BY THE CONTRACTOR.
- ALL DOMESTIC WATER PIPING SHALL BE A MINIMUM OF 1/2" SIZE UNLESS NOTED OTHERWISE. USE A REDUCING DROP ELL AT FUTURE CONNECTION WHEN APPLICABLE.

PLUMBING LEGEND		
SYMBOL	ITEM	ABBR
---	SOIL or WASTE	S or W
---	VENT	V
---	VENT RISER	VR
---	VENT THRU ROOF	VTR
---	DOMESTIC COLD WATER	CW
---	DOMESTIC HOT WATER	HW
---	DOMESTIC HOT WATER RETURN	HWR
G	LOW PRESSURE NATURAL GAS	G
5PG	5 PSI GAS	5PG
GSM	GAS SERVICE MAIN BY THE LOCAL GAS UTILITY	GSM
C	CONDENSATE DRAIN	CD
RWL	RAIN WATER LEADER	RWL
OD	OVERFLOW DRAIN	OD
SD	STORM DRAIN	SD
IW	INDIRECT WASTE	IW
F	FIRE PROTECTION LINE	F
---	EXISTING PIPING	(E)
(E)	EXISTING	
(N)	NEW	
---	ABOVE CEILING	ABV CLG
---	BELOW FLOOR	BEL FLR
---	BELOW GRADE	BEL GR
---	TYPICAL	TYP
---	CONTINUATION	CONT
---	DOWN	DN
○	FLOOR CLEANOUT	FCO
○	CLEANOUT TO GRADE	COTG
○	WALL CLEANOUT	WCO
○	PIPING TURN UP	
○	PIPING TURN DOWN	
X	POINT OF CONNECTION	P.O.C
○	SHUT-OFF VALVE IN BOX	SOV
○	SHUT-OFF VALVE	SOV
○	SHUT-OFF VALVE IN RISER	-
○	SHUT-OFF VALVE IN DROP	-
○	GATE VALVE	-
○	BUTTERFLY VALVE	-
○	GLOBE VALVE	-
○	CHECK VALVE	-
○	PLUG VALVE	-
○	BALL VALVE	-
○	BALANCE COCK	-
○	REDUCER	-
○	MANHOLE	MH
○	FLOW LINE	FL
○	UNION	-
○	RELIEF VALVE	-
○	BALANCING VALVE	-
○	PRESSURE GAUGE	-
○	THERMOMETER	-



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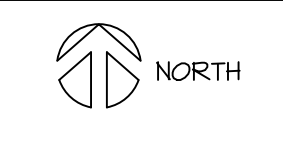
ARCHITECT:
 Neil Roger Davidson, A.I.A., Architect
 California Licensed Architect No. C-27818
 Ren. 10-31-2019
 Fresno County Department of Public Works
 Capital Projects
 2220 Tulare Street, Eighth Floor
 Fresno, California 93721
 Telephone: (559) 600-4477
 E-mail: ndavidson@co.fresno.ca.us

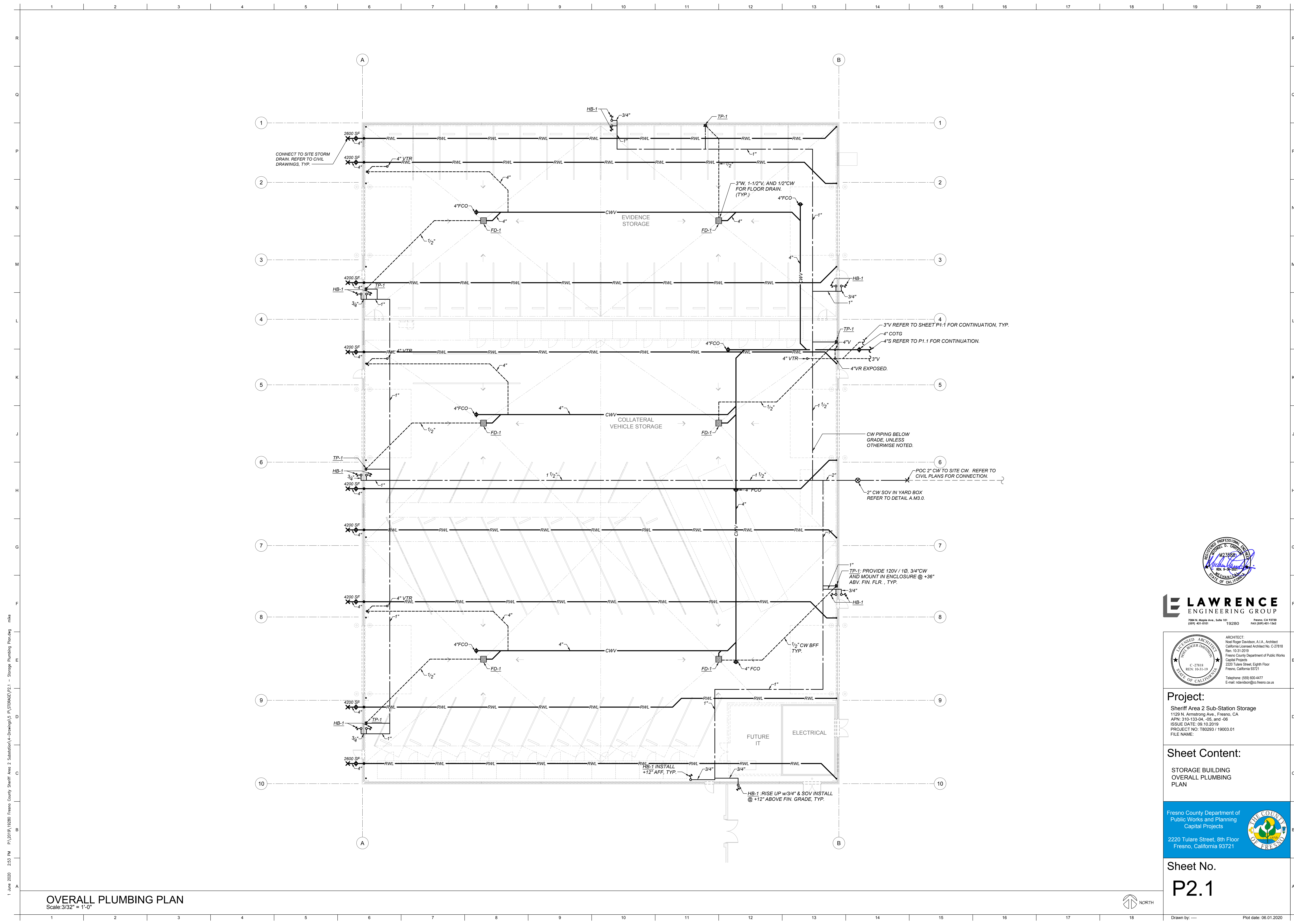
Project:
 Sheriff Area 2 Sub-Station
 1120 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04-.05, and -.06
 ISSUE DATE: 10.10.2019
 PROJECT NO: T80293 / 19003
 FILE NAME:

Sheet Content:
 PLUMBING SITE PLAN

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

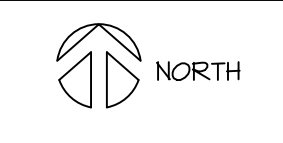
Sheet No.
P1.1





1 June 2020 2:51 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawing\4-Drawings\5 P\STORAGE\VP2.1 - Storage Plumbing Plan.dwg, 10/20/20 2:51:36 PM

OVERALL PLUMBING PLAN
Scale: 3/32" = 1'-0"



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Project:
Sheriff Area 2 Sub-Station Storage
11220 N. Armstrong Ave., Fresno, CA
APN: 310-133-04-.05, and .06
ISSUE DATE: 06.10.2019
PROJECT NO: T80293 / 19003.01
FILE NAME:

Sheet Content:
STORAGE BUILDING
OVERALL PLUMBING
PLAN

Fresno County Department of
Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
P2.1

Project No.: 19280
 Project: Sheriff Area 2 Sub-Station
 Storage
 Date: 12/03/19
 Prepared By: EF
 File Name: WATER - DRAIN - SEPTIC SYSTEM CALC.S - V1.5

FIXTURE UNIT SUMMARY



NO. OF FIXTURES	TYPE OF FIXTURE (FROM WATER SUPPLY & DRAIN FIXTURE UNIT TABLE - SEE TAB BELOW)	BOTH COW & DHW AT FIXTURE OR DRAIN	COLD WATER			HOT WATER			SEWER		
			WSFU PER FIXTURE	TOTAL WSFU	MIN. W/S BRANCH SIZE	WSFU PER FIXTURE	TOTAL WSFU	MIN. W/S BRANCH SIZE	DSFU PER FIXTURE	TOTAL DSFU	MIN. TRAP SIZE
15	HOSE BIBB	N	2.50	37.50	1/2"						
6	FLOOR DRAIN	D						2.00	12.00	2"	
TOTAL FIXTURE UNITS				37.50			0.00		12.00		

DOMESTIC WATER DEMAND AND SIZING

Project No.: 19280
 Project: Sheriff Area 2 Sub-Station
 Office
 Date: 12/18/19
 Location: FRESNO, CA
 Prepared By: EF
 File Name: WATER - DRAIN - SEPTIC SYSTEM CALC.S - V1.5



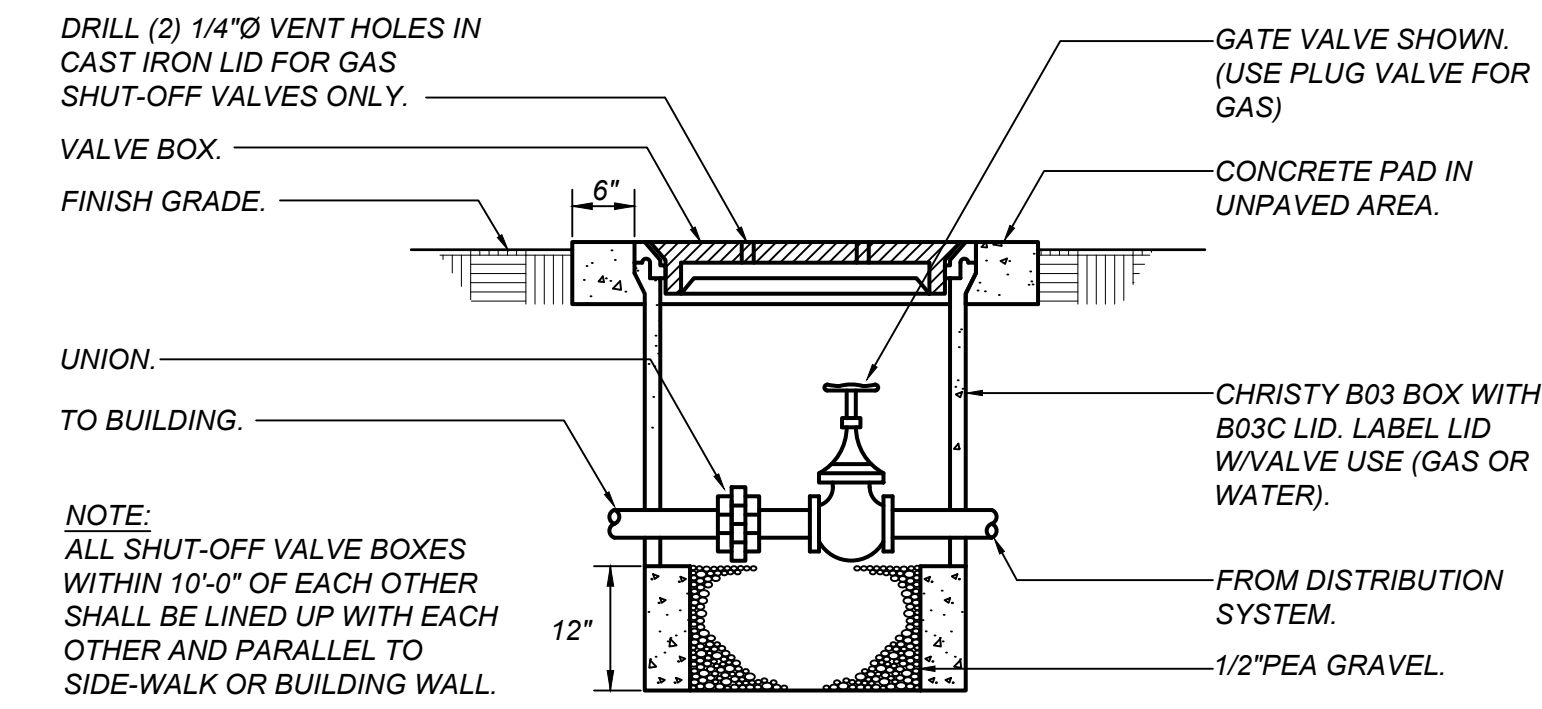
System Type (1):	Meter Size:	
Predominantly Flushometer Valves	2"	
Predominantly Flush Tanks	X	
Misc. Added Flow - [DESCR.]	103.00 Water Fixture Units Equal	68 GPM
	0.0 GPM	0 GPM
Misc. Added Flow - [DESCR.]	0.0 GPM	0 GPM
	Total Flow	68 GPM
Total distance from Water Meter to most remote Plumbing Fixture	500 Ft.	
Total rise for Head Loss	5 Ft. x 0.43	2.2 PSI
PSI required for Water Closet		25.0 PSI
PSI Flow Loss through Water Meter (1.5 PSI)		1.5 PSI
PSI Flow Loss through Backflow Preventer (10 - 12 PSI)		12.0 PSI
Line Loss between Pump Stations and Job Sets (5 PSI)		0.0 PSI
Area Minimum PSI	45.0 PSI	
Total Loss in PSI	40.7 PSI	
Total Remaining PSI available	4.4 PSI	
	4.4 PSI available divided by 500 Total Feet x 100	0.9 PSI / 100'

PIPE SIZING TABLE

6" Pipe will deliver	GPM (2) for	F.V. Fixture Units	F.T. Fixture Units
4" Pipe will deliver	170 GPM (2) for	788 F.V. Fixture Units	804 F.T. Fixture Units
3" Pipe will deliver	80 GPM (2) for	155 F.V. Fixture Units	324 F.T. Fixture Units
2-1/2" Pipe will deliver	45 GPM (2) for	38 F.V. Fixture Units	131 F.T. Fixture Units
2" Pipe will deliver	30 GPM (2) for	14 F.V. Fixture Units	54 F.T. Fixture Units
1-1/2" Pipe will deliver	16 GPM (2) for	7 F.V. Fixture Units	23 F.T. Fixture Units
1-1/4" Pipe will deliver	11 GPM (2) for	5 F.V. Fixture Units	15 F.T. Fixture Units
1" Pipe will deliver	4 GPM (2) for	2 F.V. Fixture Units	5 F.T. Fixture Units
3/4" Pipe will deliver	2 GPM (2) for	1 F.V. Fixture Units	2 F.T. Fixture Units
1/2" Pipe will deliver	1 GPM (2) for	0.5 F.V. Fixture Units	1 F.T. Fixture Units

Notes:
 (1) Mark an "X" in the predominant system type.
 (2) Based on 6 FPS maximum velocity [Iron Pipe]
 F.V. is Flushometer Valve
 F.T. is Flush Tank

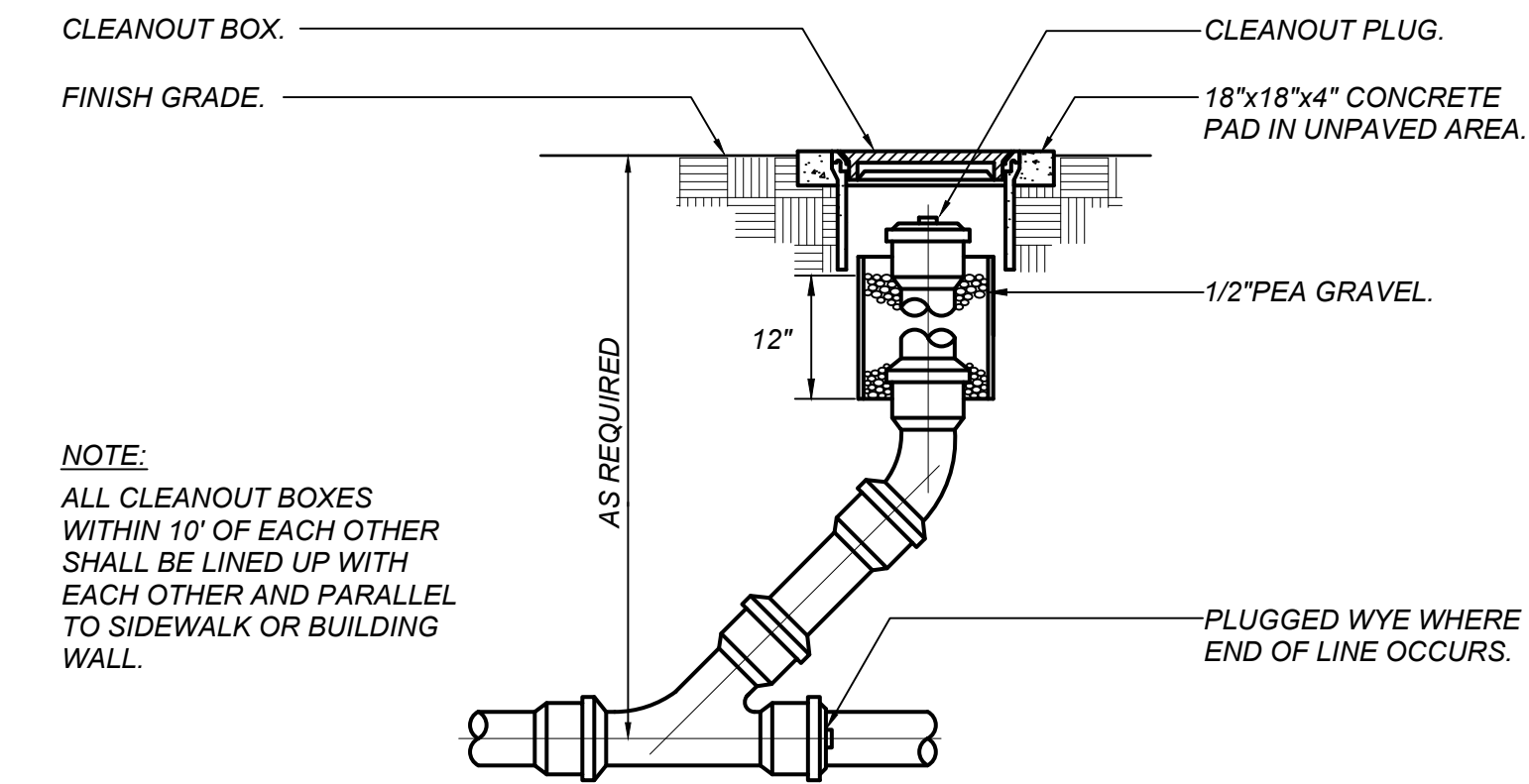
MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
HB-	HOSE BIBB	-	-	3/4"	-	WOODFORD #Y24 (OR MIFAB EQUAL) ROUGH BRONZE STANDPIPE HOSE VALVE WITH NON-REMOVABLE VACUUM BREAKER, AND OPTIONAL LOOSE TEE KEY HANDLE WITH MODEL 34HD.
FD-1	FLOOR DRAIN	3"	1-1/2"	1/2"	-	JAY R. SMITH #2120-PC50-B-S-M (OR MIFAB OR ZURN EQUAL) HEAVY DUTY CAST IRON DRAIN WITH SQUARE GRATE DUCTILE IRON TRAFFIC RATED GRATE & SEDIMENT BUCKET.
OS-1	SAND OIL SEPARATOR	4"	3"	-	-	STRIEM OIL RESERVE #05-100 POLYETHYLENE SAND AND OIL SEPARATOR, 250 TOTAL GALLON CAPACITY, OIL CAP. 100 GAL., SAND CAPACITY: 95 GAL., 4" INLET & OUTLET, 3" VENTS.
TP-1	TRAP PRIMER	-	-	1/2"	-	PRECISION PLUMBING PRODUCTS "MINI PRIME" ELECTRONIC TRAP PRIMER #MP-500-115V (OR MIFAB EQUAL) WITH ELECTRIC SOLENOID VALVE, AIR GAP AND CONTROLLER. PROVIDE OPTIMAL DISTRIBUTION UNIT # DU-U WHEN MORE THAN ONE DRAIN IS SERVED.



SHUT-OFF VALVE IN BOX DETAIL

SCALE: NONE

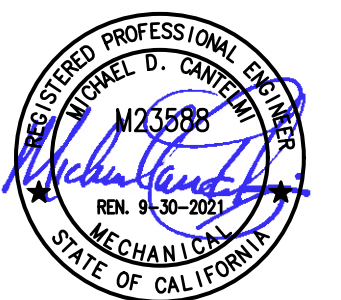
A
P3.1



CLEANOUT TO GRADE DETAIL

SCALE: NONE

B
P3.1



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ARCHITECT:
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 California Licensed Architect No. C-27818
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Project:
 Sheriff Area 2 Sub-Station
 11220 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04-.05, and -.06
 ISSUE DATE: 10.10.2019
 PROJECT NO: T80293 / 19003
 FILE NAME:

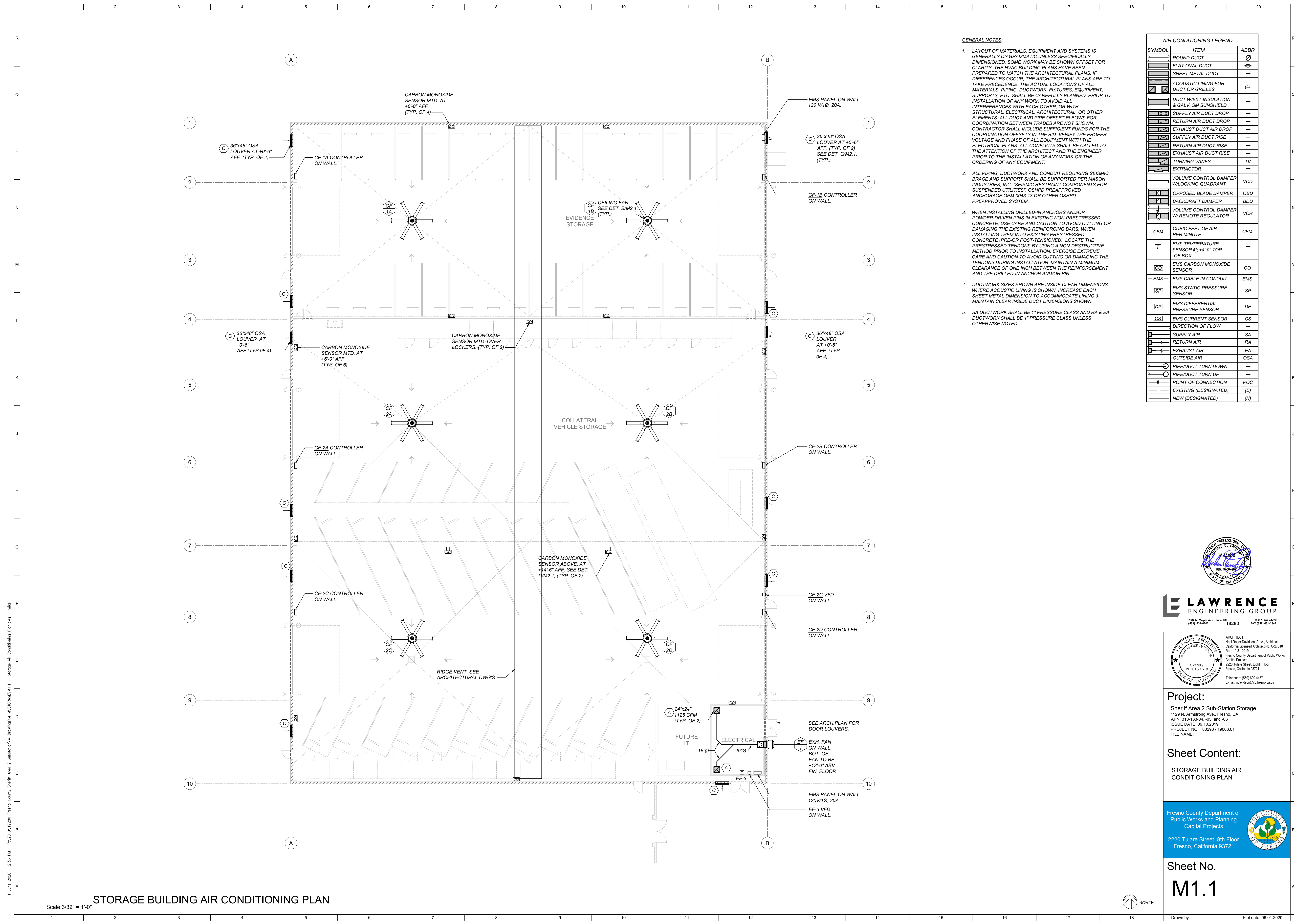
Sheet Content:
 SCHEDULES AND DETAILS

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721



Sheet No.
P3.1

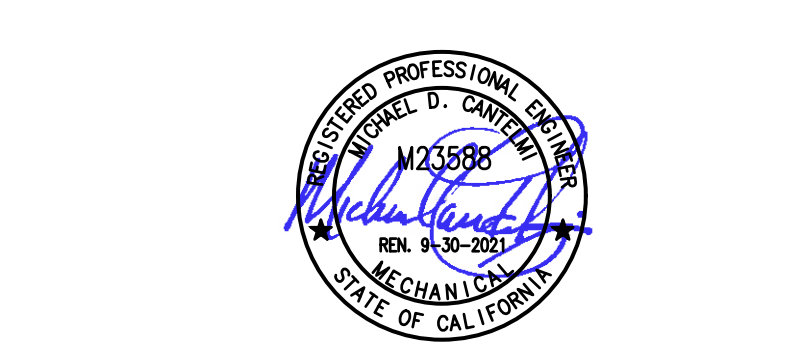
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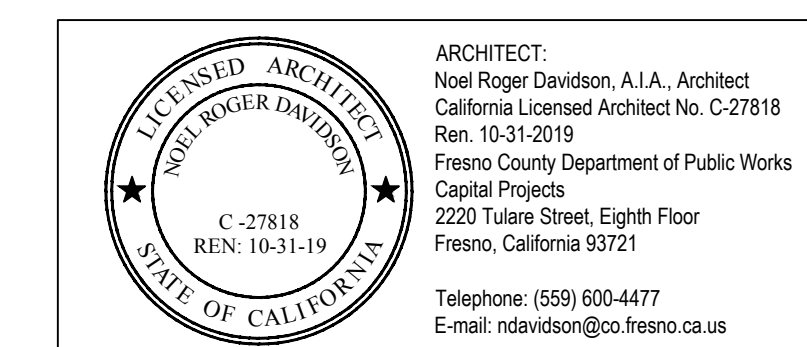
GENERAL NOTES:

- LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE HVAC BUILDING PLANS HAVE BEEN PREPARED TO MATCH THE ARCHITECTURAL PLANS. IF DIFFERENCES OCCUR, THE ARCHITECTURAL PLANS ARE TO TAKE PRECEDENCE. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED, PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL, OR OTHER ELEMENTS. ALL DUCT AND PIPE OFFSET ELBOWS FOR COORDINATION BETWEEN TRADES ARE NOT SHOWN. CONTRACTOR SHALL INCLUDE SUFFICIENT FUNDS FOR THE COORDINATION OFFSETS IN THE BID. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
- ALL PIPING, DUCTWORK AND CONDUIT REQUIRING SEISMIC BRACE AND SUPPORT SHALL BE SUPPORTED PER MASON INDUSTRIES, INC. "SEISMIC RESTRAINT COMPONENTS FOR SUSPENDED UTILITIES" OSHPD PREAPPROVED ANCHORAGE OPM-0043-13 OR OTHER OSHPD PREAPPROVED SYSTEM.
- WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER-DRIVEN PINS IN EXISTING NON-PRESTRESSED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRESTRESSED CONCRETE (PRE-OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.
- DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. WHERE ACOUSTIC LINING IS SHOWN, INCREASE EACH SHEET METAL DIMENSION TO ACCOMMODATE LINING & MAINTAIN CLEAR INSIDE DUCT DIMENSIONS SHOWN.
- SA DUCTWORK SHALL BE 1" PRESSURE CLASS AND RA & EA DUCTWORK SHALL BE 1" PRESSURE CLASS UNLESS OTHERWISE NOTED.

AIR CONDITIONING LEGEND		
SYMBOL	ITEM	ABBR
	ROUND DUCT	Ø
	FLAT OVAL DUCT	⊖
	SHEET METAL DUCT	—
	ACOUSTIC LINING FOR DUCT OR GRILLES	(L)
	DUCT WEXT INSULATION & GALV. SM SUNSHIELD	—
	SUPPLY AIR DUCT DROP	—
	RETURN AIR DUCT DROP	—
	EXHAUST AIR DUCT DROP	—
	SUPPLY AIR DUCT RISE	—
	RETURN AIR DUCT RISE	—
	EXHAUST AIR DUCT RISE	—
	TURNING VANES	TV
	EXTRACTOR	—
	VOLUME CONTROL DAMPER W/LOCKING QUADRANT	VCD
	OPPOSED BLADE DAMPER	OBD
	BACKDRAFT DAMPER	BDD
	VOLUME CONTROL DAMPER W/REMOTE REGULATOR	VCR
CFM	CUBIC FEET OF AIR PER MINUTE	CFM
	EMS TEMPERATURE SENSOR @ +4'-0" TOP OF BOX	—
	EMS CARBON MONOXIDE SENSOR	CO
	EMS CABLE IN CONDUIT	EMS
	EMS STATIC PRESSURE SENSOR	SP
	EMS DIFFERENTIAL PRESSURE SENSOR	DP
	EMS CURRENT SENSOR	CS
	DIRECTION OF FLOW	—
	SUPPLY AIR	SA
	RETURN AIR	RA
	EXHAUST AIR	EA
	OUTSIDE AIR	OSA
	PIPE/DUCT TURN DOWN	—
	PIPE/DUCT TURN UP	—
	POINT OF CONNECTION	POC
	EXISTING (DESIGNATED)	(E)
	NEW (DESIGNATED)	(N)



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 1120 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04-.05, and -.06
 ISSUE DATE: 06.10.2019
 PROJECT NO: T80293 / 19003.01
 FILE NAME:

Sheet Content:
 STORAGE BUILDING AIR CONDITIONING PLAN

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
M1.1



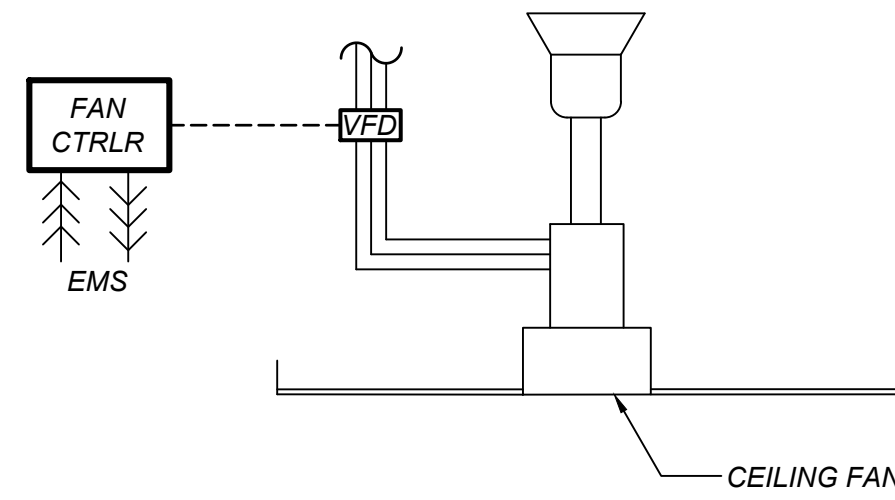
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STORAGE BUILDING AIR CONDITIONING PLAN
 Scale: 3/32" = 1'-0"

CEILING FAN DIAGRAM

SCALE: NONE

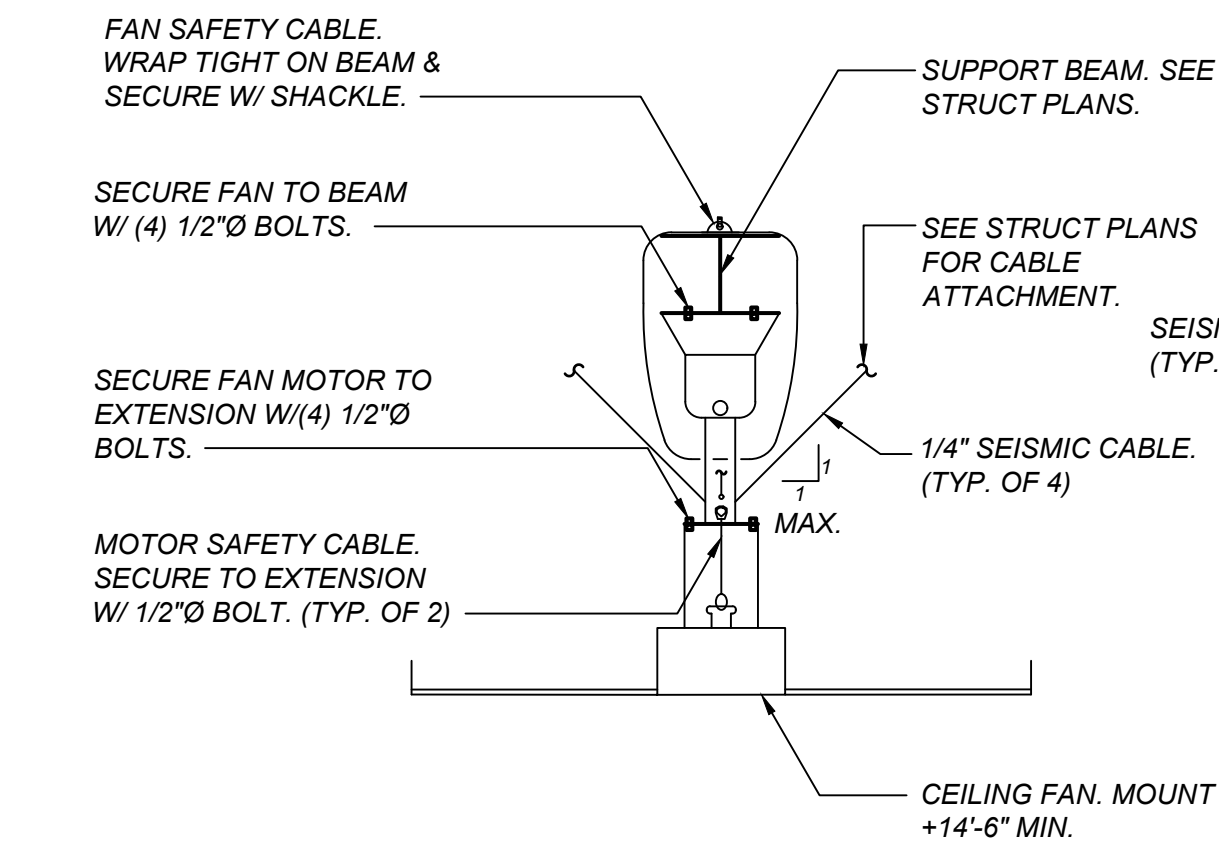
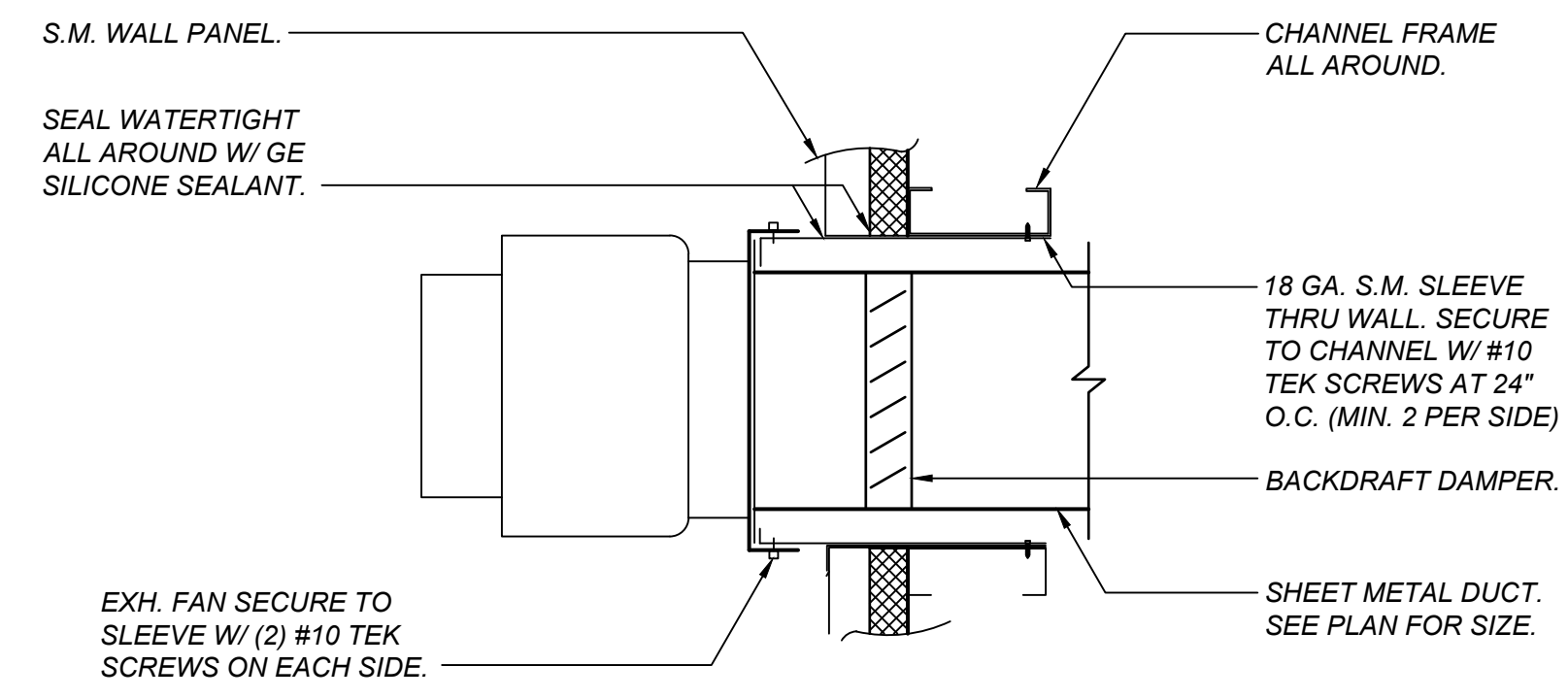
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M2.1



EXHAUST FAN MOUNTING DETAIL

SCALE: NONE (TYP. FOR EF-1, 1A, 1B, 2A, 2B, 3)

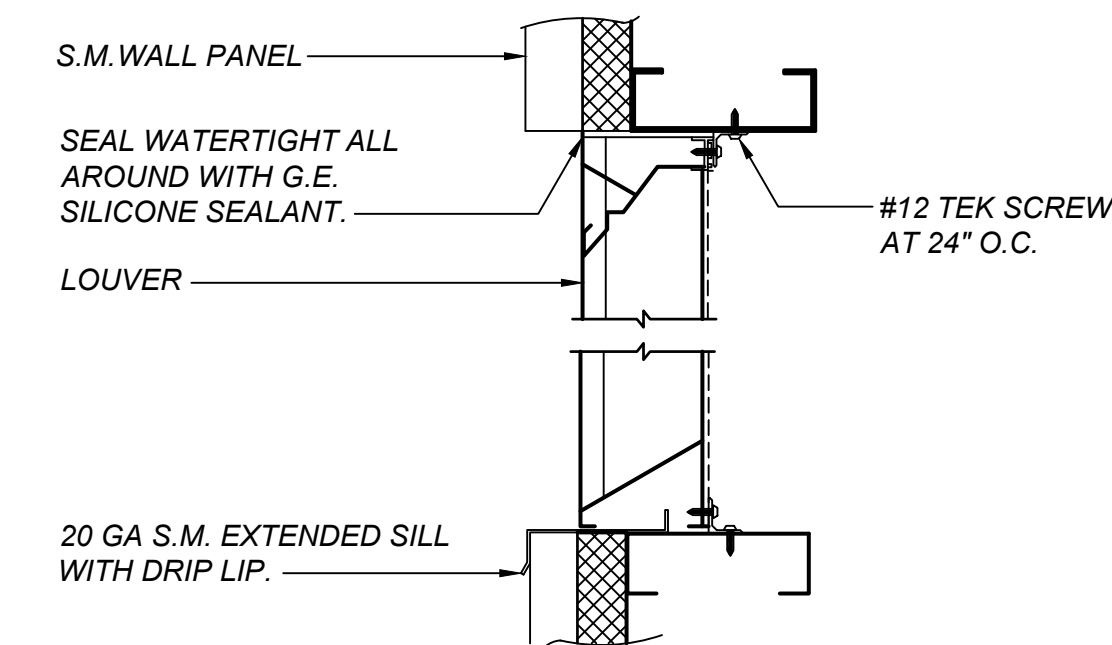
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CEILING FAN MOUNTING DETAIL

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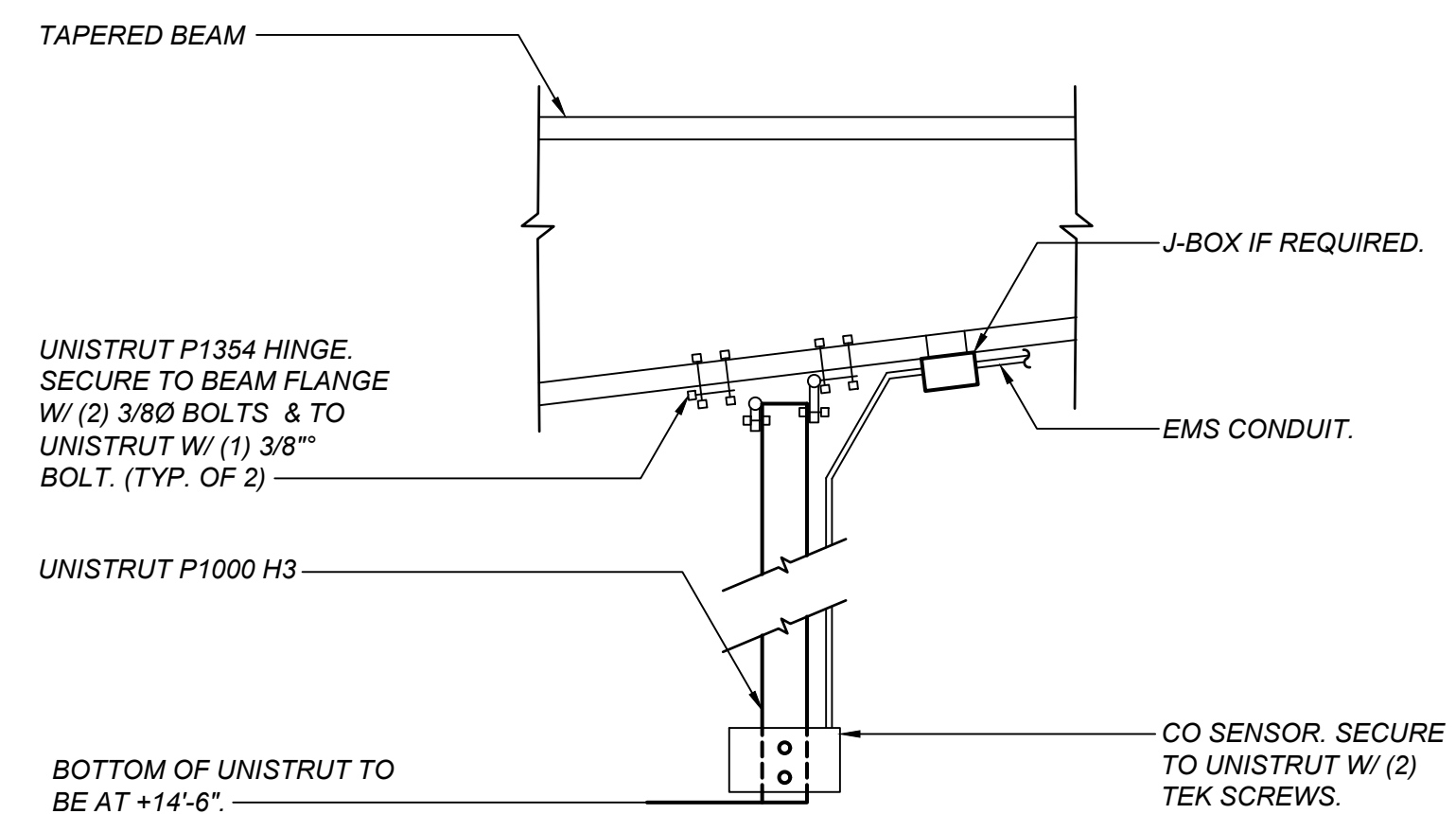
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M2.1



LOUVER MOUNTING DETAIL

SCALE: NONE

C
M2.1

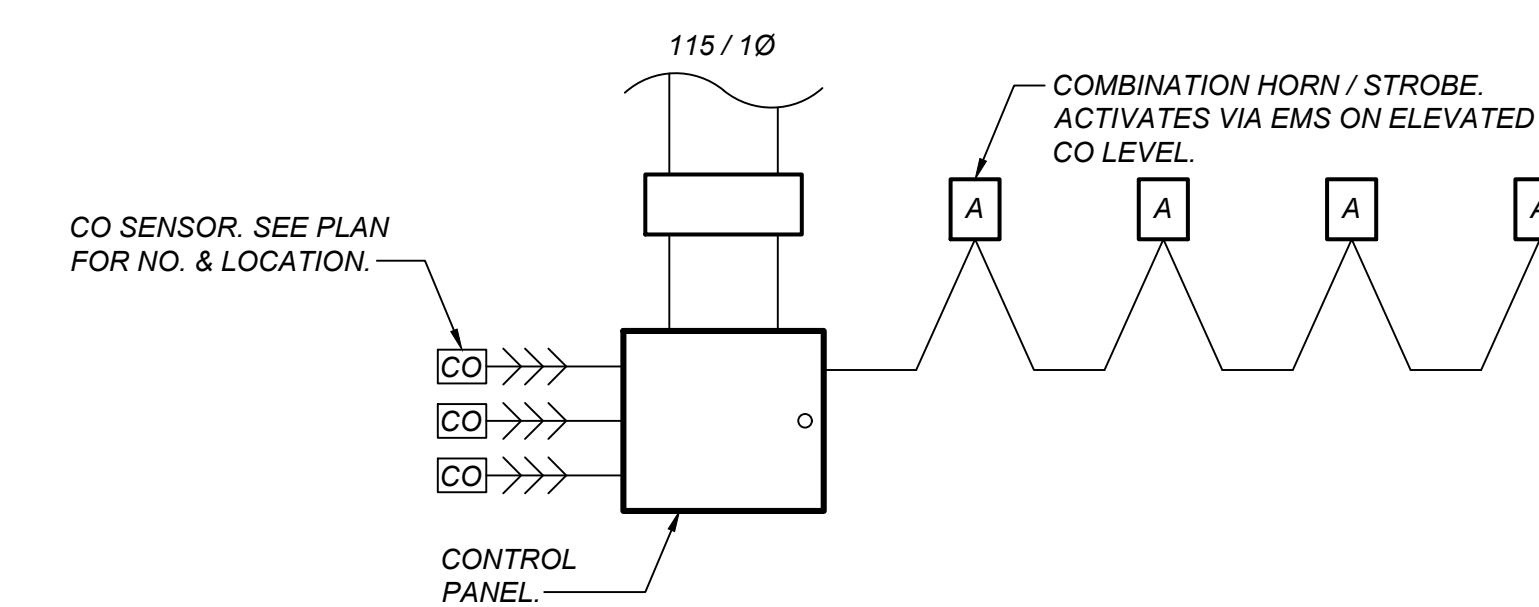


NOTE: USE FOR SUSPENDED CO SENSORS.

CO SENSOR MOUNTING DETAIL

SCALE: NONE

D
M2.1



EXHAUST FAN DIAGRAM

SCALE: NONE

E
M2.1

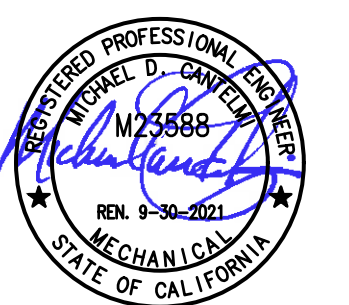
GRILLE SCHEDULE		
MARK	DUTY	DESCRIPTION
A	CEILING RETURN OR EXHAUST	TITUS CORE 50F (TYPE 1) ALUMINUM EGG CRATE REGISTER WITH 1/2"x1/2" GRID FOR SURFACE MOUNTING WITH O.B.D. AND NO. 26 WHITE FINISH.
B	WALL EXHAUST (HEAVY DUTY)	TITUS CORE 33R HEAVY DUTY GRILLE WITH O.B.D. AND NO. 26 WHITE FINISH. BLADES PARALLEL TO FLOOR.
C	LOUVER	RUSKIN ELF 375DX STATIONARY EXTRUDED ALUMINUM BLADE DRAINABLE LOUVER, 1/2" MESH SCREEN ON INSIDE FACE. BAKED ENAMEL FINISH. COORD. COLOR W/ ARCH.

CEILING FAN SCHEDULE			
DESIGNATION	CF 1A	CF 1B	CF 2A - CF 2D
NO. OF BLADES	6	6	6
HP	1	1	1
MOCP	10	10	10
VOLTS/PHASE	460 / 3	460 / 3	460 / 3
MAX. RPM	120	120	120
DRIVE	DIRECT	DIRECT	DIRECT
MOUNTING	SUSPENDED	SUSPENDED	SUSPENDED
MANUFACTURER	BIG ASS FANS	BIG ASS FANS	BIG ASS FANS
MODEL NUMBER	PFD1-1422	PFD1-1422	PFD1-1422
DIAMETER (FT.)	14	14	14
CONTROL	SEE SPECS	SEE SPECS	SEE SPECS
SERVICE	EVIDENCE STORAGE	EVIDENCE STORAGE	EVIDENCE STORAGE
OPER. WT. (LBS)	260	260	260
ACCESSORIES	(1)(2)(3)	(1)(2)(3)	(1)(2)(3)

- ① BEAM HANGING KIT W/ GUY WIRES, VFD, WALL MTD, DIGITAL CONTROLLER, 2" HANGER ROD, DISCONNECT, SILVER FINISH, EMS & FIRE ALARM SYSTEM INTEGRATION, BACNET ADAPTER.
- ② INSTALL MIN. 3" FROM FIRE SPRINKLERS HEADS & SMOKE DETECTORS.
- ③ FAN TO SHUT OFF UPON FIRE SPRINKLER ACTUATION. SEE ELEC. PLANS.

EXHAUST FAN SCHEDULE	
DESIGNATION	EF T
CFM	2,250
ESP (IN WC)	0.75
HP/WATTS	1 / 0.6
VOLTS/PHASE	460 / 3
RPM	450
TIP SPEED/SONES	4,960 / 13.4
DRIVE	DIRECT
MOUNTING	WALL
MANUFACTURER	GREENHECK
TYPE	CUE
MODEL NUMBER	161 - B
CONTROL	SEE SPECS
SERVICE	ELECTRICAL ROOM
OPER. WT. (LBS)	120
ACCESSORIES	(1)

(1) VFD RATED MOTOR



LAWRENCE ENGINEERING GROUP
 7084 N. Maple Ave., Suite 101 Fresno, CA 93720
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ARCHITECT:
 Neil Roger Davidson, A.I.A., Architect
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 Ren. 10-31-2019
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Project:
 Sheriff Area 2 Sub-Station Storage
 1120 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04-.05, and -.06
 ISSUE DATE: 09.10.2019
 PROJECT NO: T80293 / 190033.01
 FILE NAME:

Sheet Content:
 STORAGE BUILDING AIR CONDITIONING SCHEDULES & DETAILS

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
M2.1

Electrical General Notes

- 1. ALL WORK SHALL MEET THE LATEST ADOPTED ADDITIONS OF THE CALIFORNIA CODE OF REGULATIONS, TITLE 24 AND ALL OTHER APPLICABLE REGULATIONS, WHICH INCLUDE: CALIFORNIA BUILDING CODE 2016 CALIFORNIA ELECTRICAL CODE 2016 NON RESIDENTIAL CEC ENERGY STANDARDS 2016
2. NOTHING IN THE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
3. IT IS THE INTENTION OF THESE PLANS AND SPECIFICATIONS TO COVER EVERYTHING REQUIRED TO PROVIDE FOR COMPLETE AND OPERATIVE SYSTEMS. THE CONTRACTOR IS TO FURNISH LABOR, MATERIAL, TRANSPORTATION, EQUIPMENT, MISCELLANEOUS SERVICES, ETC. REQUIRED TO ACCOMPLISH THIS RESULT. ANYTHING WHICH MAY BE REASONABLY CONSTRUED AS A NECESSARY PART OF THE INSTALLATION IS TO BE INCLUDED, WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED.
4. THE CONTRACTOR SHALL EXAMINE THE SITE AND EXISTING CONDITIONS AND MAKE ALLOWANCES IN THE BID FOR ANY CONDITIONS NOT SHOWN ON THE ELECTRICAL DOCUMENTS.
5. THE PLANS AND SPECIFICATIONS ARE INTENDED TO BE USED AS CONSTRUCTION GUIDELINES AND ARE NOT THE TOTAL INSTRUMENT OF CONTRACT DOCUMENTS. IT IS NOT THE INTENTION OF ANY CONSTRUCTION PLANS TO DIVIDE WORK AMONG DIFFERENT TRADES. VERIFY THE SCOPE OF WORK WITH THE ARCHITECT AND THE GENERAL CONTRACTOR.
6. ELECTRICAL ROUTING IS DIAGRAMMATIC ONLY. ACTUAL ROUTING & PHYSICAL CONDITIONS MAY VARY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL ROUTING, CONNECTIONS, & PROVISION OF ALL APPURTENANCES NECESSARY FOR A COMPLETE & OPERATING SYSTEM.
7. ELECTRICAL EQUIPMENT SHALL HAVE AN APPROVED TESTING LABORATORY LABEL ATTACHED (UL, CSA ETC.) PER CEC 110.2.
8. ELECTRICAL EQUIPMENT SHALL HAVE A SHORT CIRCUIT CURRENT RATING CAPABLE OF WITHSTANDING THE AVAILABLE SHORT CIRCUIT CURRENT PER CEC 110.9. WHERE SERIES COMBINATION RATINGS ARE USED FOR NEW PANELS, PROVIDE A CAUTIONARY LABEL TO THE SERIES RATED DEVICE COVER STATING "CAUTION - SERIES RATED SYSTEM AMPACITY AVAILABLE" AND IDENTIFY THE COMPONENTS. PER CEC 110.3, 110.22(C), 240.86, AND THE UL RECOGNITION DIRECTORY.
9. PROVIDE MINIMUM 30" WIDE x 78" HIGH x 36" DEEP WORK CLEARANCES IN FRONT OF PANELS. SERVICE OR EQUIPMENT RATED AT 120/208V 3Ø 4W PER CEC 110.26.
10. PROVIDE MINIMUM 30" WIDE x 78" HIGH x 42" DEEP WORK CLEARANCES IN FRONT OF PANELS. SERVICE OR EQUIPMENT RATED AT 277/480V 3Ø 4W PER CEC 110.26.
11. PROVIDE A PLACARD ON EACH PANELBOARD INDICATING THE LOCATION AND IDENTIFICATION OF THE FEEDER SERVING THE PANEL. PER CEC 408.4(B).
12. PROVIDE ILLUMINATED EMERGENCY POWER PER 2016 CFC, SECTION 1006.3. EMERGENCY EGRESS LIGHTING SHALL PROVIDE A MINIMUM LUMINANCE OF 1 FOOTCANDLE AT THE WALKING SURFACE FOR A MINIMUM OF 90 MINUTES.
13. FIRE ALARM EQUIPMENT SHALL BE SERVED BY DEDICATED FIRE ALARM BRANCH CIRCUITS PER NFPA 72 10.6.5.1.2. THE CIRCUIT NUMBER SHALL BE PERMANENTLY IDENTIFIED AS THE FIRE ALARM EQUIPMENT PER NFPA 10.6.5.2.1. THE CIRCUIT BREAKER SHALL BE EQUIPPED WITH RED HANDLE AND LOCK-ON DEVICE, AND PERMANENTLY IDENTIFIED AS "FIRE ALARM CIRCUIT" PER NFPA 72 10.6.5.2.2, 10.6.5.2.3, 10.6.5.2.4, AND 10.6.5.4.
14. WIRING FOR 120/208V AND 277/480V SYSTEMS SHALL BE MIN. #12 AWG THHN/THWN-2 COPPER.
15. 120V AND 277V BRANCH CIRCUITS SHALL HAVE DEDICATED NEUTRALS. SHARING NEUTRALS IS NOT ACCEPTABLE.
16. FEEDERS SIZE #4 AND LARGER SHALL BE MEGGER TESTED. TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER.
17. ALL UNDERGROUND CONDUITS SHALL HAVE MINIMUM 24" COVER. INSTALL GALVANIZED RIGID STEEL RISERS & ELBOWS WHERE RISERS OCCUR. WRAP GRS BELOW GRADE OR PROVIDE PVC COATED GRS. EXPOSED CONDUIT SHALL BE GRS TO 6"Ø, THEN EMT ABOVE AS APPROPRIATE. UNDER NO CIRCUMSTANCE SHALL PVC CONDUIT BE INSTALLED ABOVE GRADE.
18. CONDUIT INSTALLED ABOVE GRADE SHALL BE MIN. 3/4" TRADE SIZE. CONDUIT BELOW GRADE SHALL BE MIN. 1" TRADE SIZE.
19. PROVIDE (4) 1" CONDUIT STUBS FROM EACH NEW ELECTRICAL PANEL TO ACCESSIBLE ATTIC SPACE FOR FUTURE USE.
20. COLORS/FINISHES/MATERIALS FOR ALL ELECTRICAL DEVICES, PLATES, LIGHT FIXTURES, ETC. SHALL BE CHOSEN BY THE ARCHITECT.
21. PROVIDE PERMANENT LOCK-OPEN DEVICES ON CIRCUIT BREAKERS SERVING ELECTRIC WATER HEATERS TO MEET THE REQUIREMENTS OF CEC 422.31.
22. BEFORE AN OCCUPANCY PERMIT IS GRANTED FOR A NEWLY CONSTRUCTED BUILDING OR AREA, OR NEW LIGHTING SERVING A BUILDING, AREA OR SITE IS OPERATED FOR NORMAL USE, ALL INDOOR AND OUTDOOR LIGHTING CONTROLS SERVING THE BUILDING, AREA OR SITE SHALL BE CERTIFIED AS MEETING THE "ACCEPTANCE REQUIREMENTS" FOR CODE COMPLIANCE IN ACCORDANCE WITH SECTION 130.4. A "CERTIFICATE OF ACCEPTANCE" SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY UNDER SECTION 10-103(a) OF PART 1 THRU 7(a).
23. AT TIME OF "FINAL INSPECTION", ALL CODE REQUIRED SIGN CONTROLS WILL BE REQUIRED TO HAVE BEEN INSTALLED. REFERENCE SECTION 130.4 OF THE 2016 CALIFORNIA ENERGY CODE.
24. THE CALIFORNIA STATE LICENSE BOARD (CSLB) "ZERO TOLERANCE POLICY" IN EFFECT FOR NON-COMPLIANT LABOR CODE SECTIONS 3099 AND 2099.2, SECTIONS 209.0 AND THE AB 931, AS OF JANUARY 2006, ENFORCEMENT OF LEGAL ACTION WILL BE ISSUED TO ANY C-10 CONTRACTOR WHO WILLFULLY EMPLOYS AN "UNCERTIFIED ELECTRICIAN" TO PERFORM ELECTRICAL WORK IN THE STATE OF CALIFORNIA.
25. THE GENERAL CONTRACTOR SHALL COORDINATE THE FIRE ALARM SYSTEM INTERFACES BETWEEN THE FIRE ALARM CONTRACTOR, SPRINKLER CONTRACTOR, MECHANICAL CONTRACTOR, AND ANY OTHER PERTINENT TRADES (FIRE ALARM, SPRINKLER SYSTEM, HOOD AND VENT EXHAUSTING SYSTEM, HVAC, FIRE SMOKE DAMPERS, ETC.).
26. WHEN A FIRE ALARM SYSTEM IS PRESENT AND THE TOTAL COMBINED CFM FOR ALL HVAC UNITS IN A FIRE COMPARTMENT IS IN EXCESS OF 2000, DETECTION OF SMOKE IN ANY ONE OF THE DUCT DETECTORS SHALL SHUT OFF THE POWER SOURCES TO ALL THE UNITS PER FRESNO FIRE POLICY 407.4.
27. PROVIDE START-UP, TESTING, ADJUSTMENT, AND REPORTING OF BUILDING LIGHTING SYSTEM PER CGBSC 5.410.4.
28. ARC-FLASH WARNING SIGNS SHALL BE PROVIDED PER CEC SECTION 110.16.
29. FAULT CURRENT SHALL BE CALCULATED AND POSTED PRIOR TO FINAL INSPECTION PER CEC 110.24.

Table with columns: TYPE, MFG/R, MODEL, LAMPS, WATTS, VOLTS, MOUNTING, DETAIL, NOTES. Lists various lighting fixtures like LITHONIA, MARK LIGHTING, DEL RAY, etc.

Table with columns: TYPE, MFG/R, MODEL, LAMPS, WATTS, VOLTS, MOUNTING, DETAIL, NOTES. Lists various lighting fixtures like LITHONIA, HYDREL, CALPIPE SECURITY, etc.

A1 Fixture Schedule

Electrical Symbols

Table with columns: SYMBOL, DESCRIPTION, NOTES. Lists symbols for lighting, power, data, audio/video, cameras, etc.

Professional Engineer seal for Scott Davison, E17859, State of California.

Architect seal for Hardin-Davidson Engineering, A.J.A. Architect, California Licensed Architect No. C-27818.

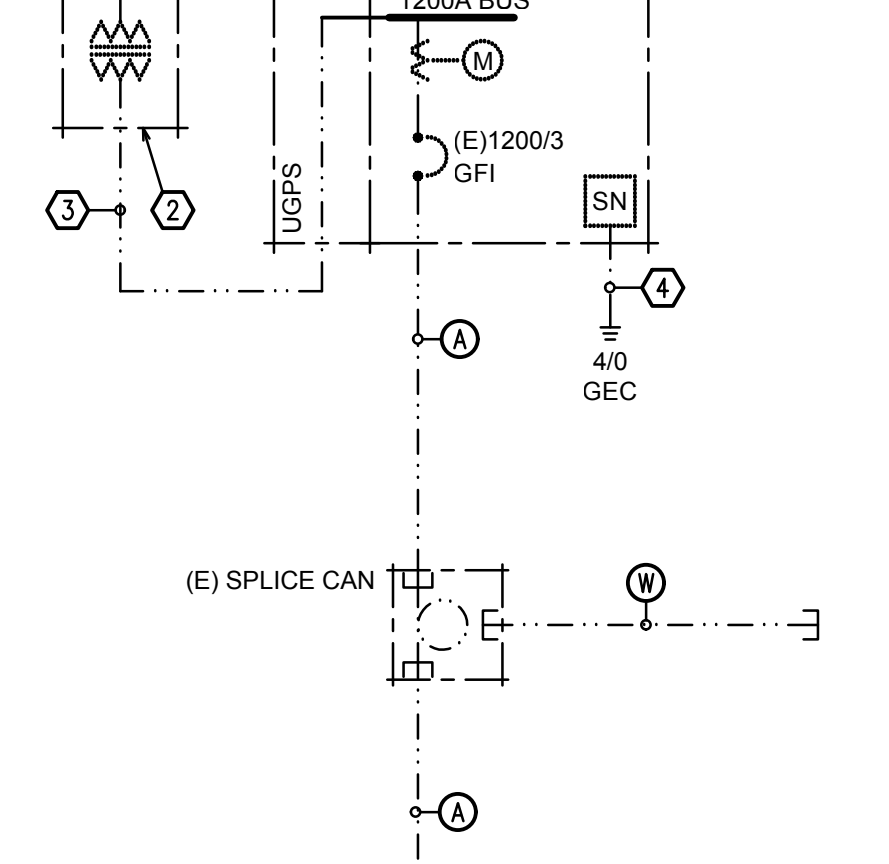
Project: Sheriff Area 2 Sub-Station Storage. 1128 N. Armstrong Ave., Fresno, CA. APN: 310-133-04-.05, and -06. ISSUE DATE: 6.1.2020. PROJECT NO: TR6293 / 19003.01. FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content: ELECTRICAL SYMBOLS AND GENERAL NOTES

Fresno County Department of Public Works and Planning Capital Projects. 2220 Tulare Street, 8th Floor, Fresno, California 93721

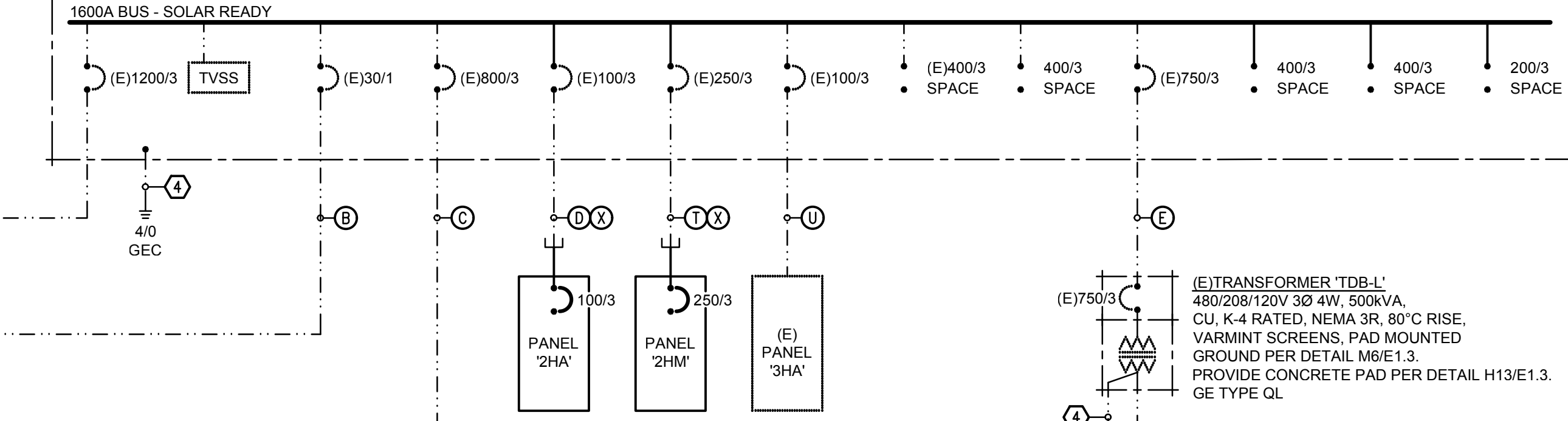
Sheet No. E1.0

(E) MAIN SWITCH 'MS'
277/480V 3Ø 4W, 1200A, SCCR=65KA FULLY RATED,
NEMA 3R, SOLID NEUTRAL, PAD MOUNTED,
GE SPECTRA SERIES SWITCHBOARD



(E) SPLICE CAN

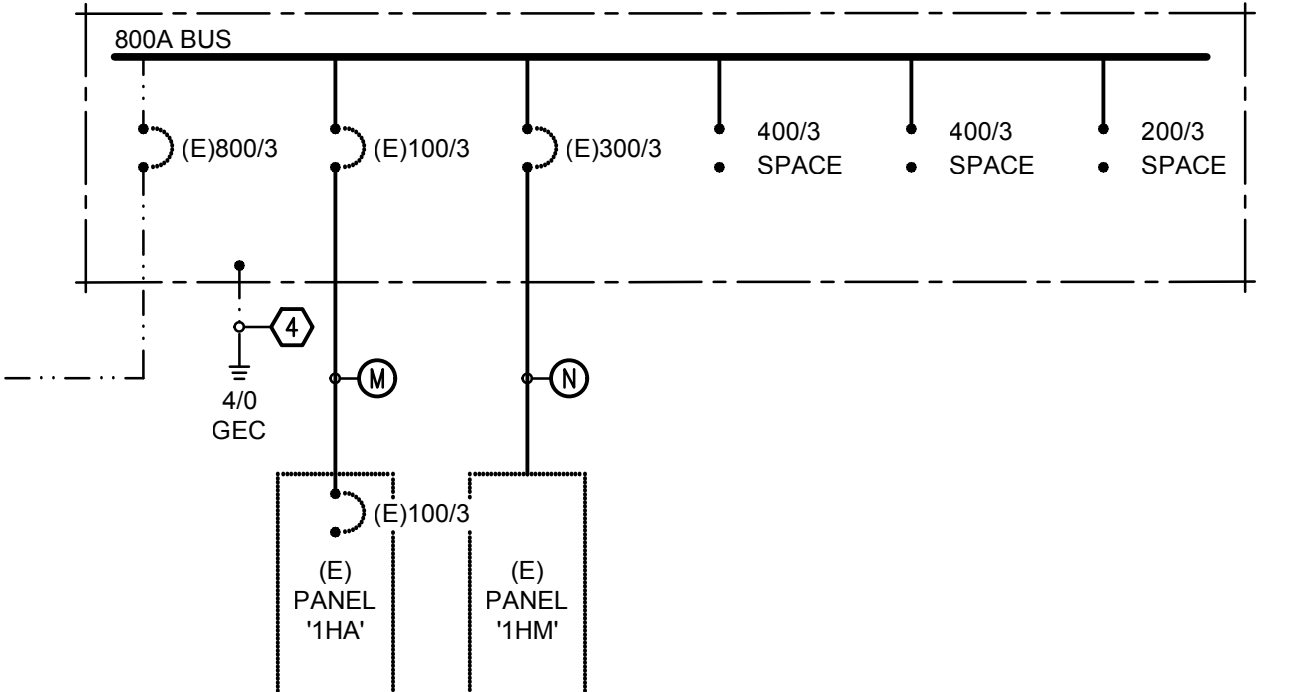
(E) SWITCHBOARD 'SB-H'
277/480V 3Ø 4W, 1200A, SCCR=65KA FULLY RATED, NEMA 1, PAD MOUNTED,
GE SPECTRA SERIES SWITCHBOARD



(E) 5kW EMERGENCY LIGHTING
INVERTER AT ELEC. RM.
DSPM FT1-5.25-277/27-ECM277-
HTR-OCB/277/215-EMB-STU1

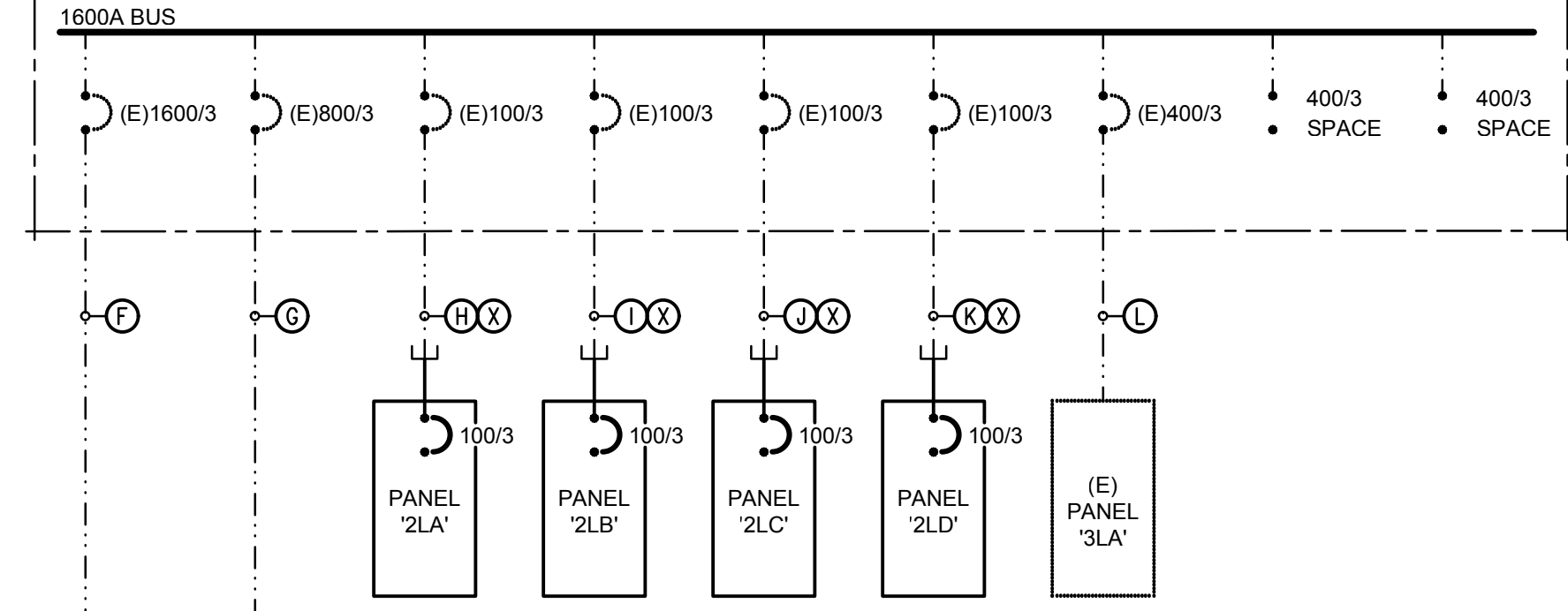
(E) INVERTER 'INV'

(E) DISTRIBUTION BOARD 'DB-H'
120/208V 3Ø 4W, 800A, SCCR=42KA FULLY RATED, NEMA 3R,
GE A-SERIES PANELBOARD

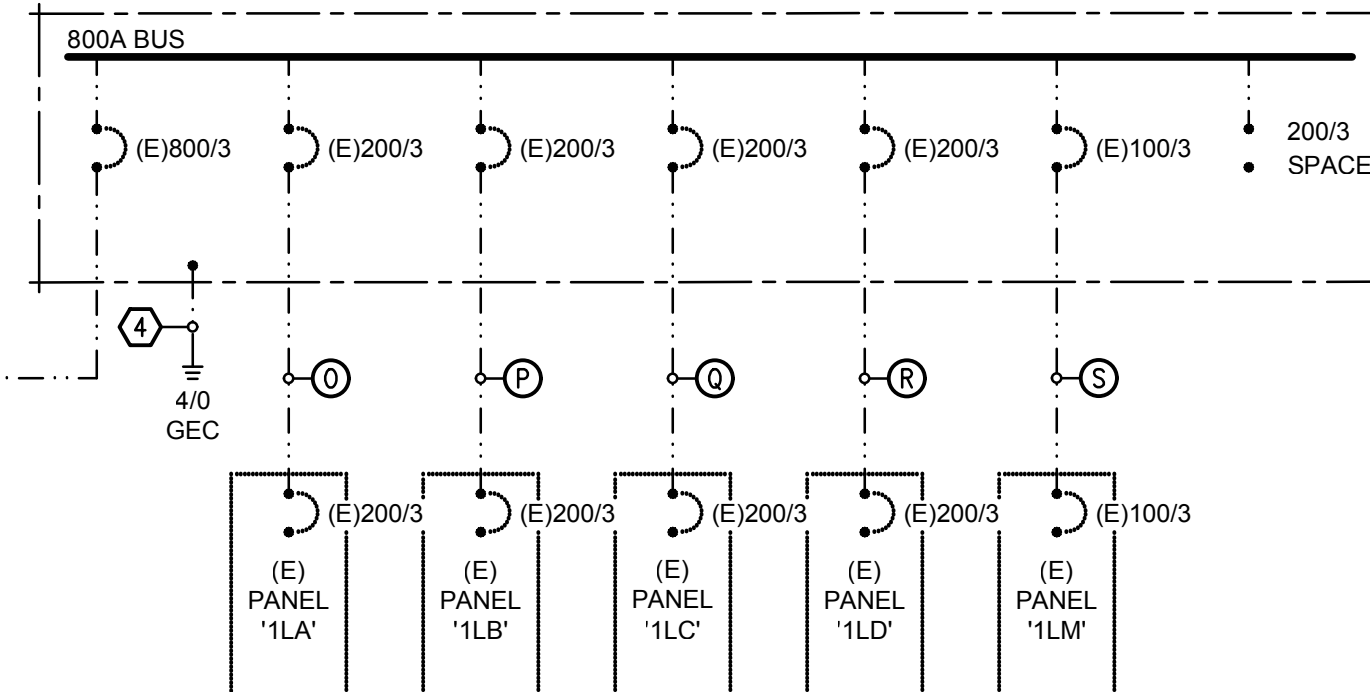


(E) TRANSFORMER 'TDB-L'
480/208/120V 3Ø 4W, 500KVA,
CU, K-4 RATED, NEMA 3R, 80°C RISE,
VARMINT SCREENS, PAD MOUNTED
GROUND PER DETAIL M6E1.3
PROVIDE CONCRETE PAD PER DETAIL H13E1.3.
GE TYPE QL

(E) SWITCHBOARD 'SB-L'
120/208V 3Ø 4W, 1600A, SCCR=65KA FULLY RATED, NEMA 1, PAD MOUNTED,
GE SPECTRA SERIES SWITCHBOARD



(E) DISTRIBUTION BOARD 'DB-L'
120/208V 3Ø 4W, 800A, SCCR=42KA FULLY RATED, NEMA 3R,
GE A-SERIES PANELBOARD



FEEDERS

- A. (E) (3) SETS - 4" C, 4#600KCMIL, 1#4/0.
- B. (E) 1-1/2" C, 4#3, 1#6G.
- C. (E) (2) SETS - 4" C, 4#500KCMIL, 1#3/0G.
- D. 1-1/2" C, 4#2, 1#6G.
- E. (E) (2) SETS - 3-1/2" C, 3#500KCMIL, 1#1/0G.
- F. (E) (4) SETS - 4" C, 4#600KCMIL, 1#4/0G.
- G. (E) (2) SETS - 4" C, 4#500KCMIL, 1#3/0G.
- H. 2" C, 4#2/0, 1#2G.
- I. 1-1/2" C, 4#2, 1#6G.
- J. 2" C, 4#2/0, 1#2G.
- K. 2-1/2" C, 4#3/0, 1#2G.
- L. (E) 4" C, 4#500KCMIL, 1#2G.
- M. (E) 1-1/2" C, 4#2, 1#6G.
- N. (E) 3" C, 4#300KCMIL, 1#4G.
- O. (E) 2-1/2" C, 4#4/0, 1#4G.
- P. (E) 3" C, 4#250KCMIL, 1#4G.
- Q. (E) 2-1/2" C, 4#4/0, 1#4G.
- R. (E) 2" C, 4#3/0, 1#6G.
- S. (E) 2" C, 4#1/0, 1#4G.
- T. 2-1/2" C, 4#4/0, 1#4G.
- U. 1-1/2" C, 4#2, 1#6G.
- V. 1-1/2" C, 2#10, 1#10G.
- W. (E) (3) SETS - 4" C, STUBS
- X. EXTEND EXISTING CONDUIT AND PULL FEEDER NOTED.

LINE DIAGRAM KEY NOTES

1. EXISTING 4" C. UTILITY PRIMARY.
2. EXISTING UTILITY TRANSFORMER & CONCRETE PAD.
3. EXISTING (4) 5" C. UTILITY SECONDARY PER PG&E.
4. EXISTING GROUNDING ELECTRODE CONDUCTOR TO UFER, STRUCTURAL STEEL, METAL WATER PIPE, AND FIRE SPRINKLER RISER.

NOTES

1. SEE DETAIL A1/E1.1 FOR VOLTAGE DROP CALCULATIONS.

F1 Power Single Line Diagram

No.	Feeder Origin	Feeder Destination	Potential at Origin (P _i) (Volts)	System	Design Current (Amps)	Raceway Type	Sets of Cond.	Conductor Trade Size	Conductor Cross-Sectional Area (CM)	Conductor Material	DC Conductor Material Constant (K)	Q	Distance (ft)	Voltage Drop (VD) (Volts)	Potential at Load (P _L) (Volts)	Percent Voltage Drop (%VD)
1	SB-H	PANEL 2HA	479.4	AC 3-Phase	100	PVC	1	2	66360	CU	12.9	1.0000	50	1.68	477.7	0.48
2	SB-H	PANEL 2HM	479.4	AC 3-Phase	250	PVC	1	4/0	211600	CU	12.9	1.0197	50	1.35	478.1	0.41
3	SB-L	PANEL 2LA	207.5	AC 3-Phase	100	PVC	1	2/0	133100	CU	12.9	1.0341	185	3.21	204.3	1.78
4	SB-L	PANEL 2LB	207.5	AC 3-Phase	100	PVC	1	2	66360	CU	12.9	1.0000	75	2.53	205.0	1.45
5	SB-L	PANEL 2LC	207.5	AC 3-Phase	100	PVC	1	2/0	133100	CU	12.9	1.0341	185	3.21	204.3	1.78
6	SB-L	PANEL 2LD	207.5	AC 3-Phase	100	PVC	1	3/0	167800	CU	12.9	1.0052	240	3.21	204.3	1.78

Formulae
 VD (three phase) = $\sqrt{3} \times K \times Q \times I \times D / CM$
 VD (single phase) = $2 \times K \times Q \times I \times D / CM$
 VD (DC) = $2 \times K \times I \times D / CM$
 %VD = $VD / P_i \times 100$

Definitions
 VD = Voltage Drop (Volts)
 K = DC Conductor Material Constant (12.9 for Copper, 21.2 for Aluminum)
 Q = AC Adjustment Factor for conductors sized #2/0 AWG and larger (R_{sc} / R_{dc})
 I = Current (Amps)
 D = Distance to Load (ft)
 CM = Conductor Cross-Sectional Area (Circular Mills)
 P = Potential (Volts)

A1 Voltage Drop Calculations



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Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 910-133-04-05, and -06
 ISSUE DATE: 6.1.2020
 PROJECT NO: 1802293 / 19003.01
 FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:
 ELECTRICAL DETAILS AND SCHEDULES

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
E1.1

> File: 19074 - Elec_Split Bid Schedule > Plotted: 6/1/2020 7:31 PM

PANEL "2HA" SCHEDULE

277/480V 3Φ 4W

INDOOR / FLUSH

Table with 8 columns: CKT. NO., DESCRIPTION, BREAKER AMPS POLE(S), VA, Φ, VA, BREAKER AMPS POLE(S), DESCRIPTION, CKT. NO. Includes load summary: 100 AMPS MAIN, 42kAIC, GE A-SERIES.

PANEL "2LA" SCHEDULE

120/208V 3Φ 4W

INDOOR / FLUSH

Table with 8 columns: CKT. NO., DESCRIPTION, BREAKER AMPS POLE(S), VA, Φ, VA, BREAKER AMPS POLE(S), DESCRIPTION, CKT. NO. Includes load summary: 100 AMPS MAIN, 35kAIC, GE A-SERIES.

PANEL "2LD" SCHEDULE

120/208V 3Φ 4W

INDOOR / FLUSH

Table with 8 columns: CKT. NO., DESCRIPTION, BREAKER AMPS POLE(S), VA, Φ, VA, BREAKER AMPS POLE(S), DESCRIPTION, CKT. NO. Includes load summary: 100 AMPS MAIN, 35kAIC, GE A-SERIES.

PANEL "2HM" SCHEDULE

277/480V 3Φ 4W

INDOOR / FLUSH

Table with 8 columns: CKT. NO., DESCRIPTION, BREAKER AMPS POLE(S), VA, Φ, VA, BREAKER AMPS POLE(S), DESCRIPTION, CKT. NO. Includes load summary: 400 AMPS MAIN, 42kAIC, GE A-SERIES.

PANEL "2LB" SCHEDULE

120/208V 3Φ 4W

INDOOR / FLUSH

Table with 8 columns: CKT. NO., DESCRIPTION, BREAKER AMPS POLE(S), VA, Φ, VA, BREAKER AMPS POLE(S), DESCRIPTION, CKT. NO. Includes load summary: 100 AMPS MAIN, 35kAIC, GE A-SERIES.

PANEL "2HL" SCHEDULE

277/480V 3Φ 4W

INDOOR / FLUSH

Table with 8 columns: CKT. NO., DESCRIPTION, BREAKER AMPS POLE(S), VA, Φ, VA, BREAKER AMPS POLE(S), DESCRIPTION, CKT. NO. Includes load summary: 100 AMPS MAIN, 42kAIC, GE A-SERIES.

PANEL "2LC" SCHEDULE

120/208V 3Φ 4W

INDOOR / FLUSH

Table with 8 columns: CKT. NO., DESCRIPTION, BREAKER AMPS POLE(S), VA, Φ, VA, BREAKER AMPS POLE(S), DESCRIPTION, CKT. NO. Includes load summary: 100 AMPS MAIN, 35kAIC, GE A-SERIES.



Hardin-Davidson Engineering, 356 Polasky Ave., Suite 200, Clovis, CA 93612, 559-323-4995 tel, www.hardin-davidson.com



ARCHITECT: Neil Roger Davidson, A.I.A., Architect, California Licensed Architect No. C-27818, Res. 10-31-2021, Fresno County Department of Public Works Capital Projects, 2220 Tulare Street, Eighth Floor, Fresno, California 93721, Telephone: (559) 604-4477, E-mail: ndavidson@co.fresno.ca.us

Project: Sheriff Area 2 Sub-Station Storage, 1129 N. Armstrong Ave., Fresno, CA, APN: 910-133-04-05, and -06, ISSUE DATE: 6.1.2020, PROJECT NO: T80293 / 19003.01, FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content: PANEL SCHEDULES

Fresno County Department of Public Works and Planning Capital Projects, 2220 Tulare Street, 8th Floor, Fresno, California 93721

Sheet No. E1.2

Fire Alarm Symbols

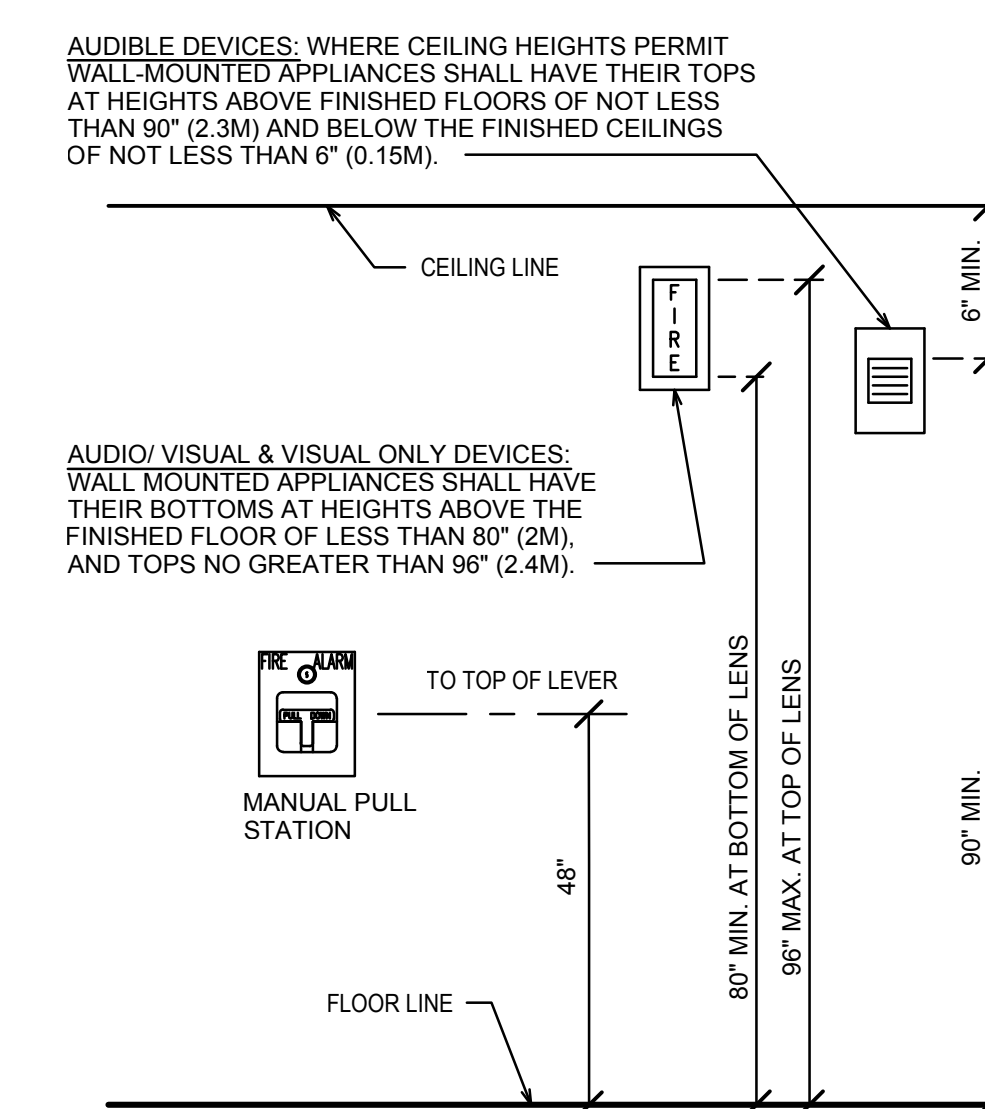
SYMBOL	EQUIPMENT	DESCRIPTION	CSFM
	FIRE ALARM CONTROL PANEL W/ EMERGENCY VOICE/ALARM COMMUNICATION	GAMEWELL-FCI #E3 SERIES	7165-1703.0125
	REMOTE ANNUNCIATOR	GAMEWELL-FCI #NGA W/ FLUSH ENCLOSURE	7165-1703.0125
	CELLULAR NETWORK COMMUNICATOR	HONEYWELL #HWF2-COM	7300-1645.0511
	SMOKE DETECTOR, PHOTOELECTRIC DETECTOR BASE	GAMEWELL-FCI #ASD-PL2F GAMEWELL-FCI #BS01	7272-1703.0121 7300-1653.0109
	MANUAL PULL STATION	GAMEWELL-FCI #MS-7	7150-1703.0109
	MONITOR MODULE	GAMEWELL-FCI #MM-2F	7300-1703.0102
	RELAY MODULE	GAMEWELL-FCI #AOM-2SF	7300-1703.0102
	VISIBLE NAC DEVICE, CEILING MTD (cd INDICATED ON PLANS)	EATON/ WHEELLOCK #LSTWC3	7135-0785.0501
	VISIBLE NAC DEVICE, WALL MTD (cd INDICATED ON PLANS)	EATON/ WHEELLOCK #LSTR3	7135-0785.0501
	AUDIO/VISIBLE NAC DEVICE, CEILING MTD (cd INDICATED ON PLANS)	EATON/ WHEELLOCK #LHWSW3	7320-0785.0501
	AUDIO/VISIBLE NAC DEVICE, WALL MTD (cd INDICATED ON PLANS)	EATON/ WHEELLOCK #LHSR3	7320-0785.0501
	EXTERIOR HORN, WP, WALL MTD	EATON/ WHEELLOCK #AH-24WP-R W/ WBB BACKBOX	7125-0785.0131
	SPRINKLER POST INDICATOR VALVE		
	SPRINKLER RISER TAMPER SWITCH		
	SPRINKLER RISER FLOW SWITCH		
	SPRINKLER RISER BELL		

Sequence of Operations Matrix

INITIATION CONDITION \ ACTION	FIRE SPRINKLER TAMPER SWITCH, POST INDICATOR VALVE	SMOKE, HEAT, OR DUCT DETECTOR, FIRE SPRINKLER FLOW SWITCH	POWER LOSS, SHORT CIRCUIT, GROUND FAULT
ANNUNCIATE TROUBLE			●
ANNUNCIATE ALARM		●	
ANNUNCIATE SUPERVISORY	●		
INITIATE NOTIFICATION APPLIANCES		●	
TRANSMIT TO CENTRAL STATION	●	●	●
CLOSE FIRE/SMOKE DAMPER		●	
SHUTDOWN HVAC UNITS		●	

Fire Alarm Notes

- ALL REFERENCES TO THE FIRE ALARM SYSTEM ON THESE PLANS, INCLUDING LOCATIONS OF DEVICES, HAVE NOT BEEN REVIEWED BY THE AUTHORITY HAVING JURISDICTION (AHJ). ANY REFERENCE TO THE FIRE ALARM SYSTEM IS DEFERRED FOR APPROVAL BY THE CITY OF FRESNO FIRE DEPARTMENT FOLLOWING RECEIPT OF DETAILED PLANS.
- ALL WORK SHALL CONFORM TO THE 2016 EDITION OF NFPA 72.
- INSTALLATION OF THE FIRE ALARM SYSTEM (FAS) SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATIONS, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY FIRE PREVENTION DIVISION.
- UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE INSPECTOR.
- A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR THE INSTALLATION.
- ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OF THE PROJECT.
- 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 LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTIFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
- AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY SPACE WITHIN A BUILDING THAT MAY BE OCCUPIED.
- AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN, PRIOR TO "EVAC" ANNOUNCEMENT. THE CARBON MONOXIDE SIGNAL SHALL SOUND A FOUR-PULSE TEMPORAL PATTERN PER NFPA 720, 5.8.6.5.1.
- VISUAL DEVICES SHALL NOT EXCEED 2 FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN 1 FLASH PER SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
- ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THIN OR THWN.
- PER CEC STANDARDS, ALL WIRING SHALL BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE WIRE. ANY CONNECTION SHALL BE BY LUG CONNECTION AT A DEVICE OR AT A FATC TERMINAL BLOCK ONLY. ALL BOXES TO BE SIZED PER CEC.
- SMOKE DETECTORS SHALL NOT BE CLOSER THAN 12" FROM FIRE SPRINKLERS NOR 36" FROM SUPPLY AIR DIFFUSERS. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION, NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
- 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 DEVICES TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE LABELED AT THE FIRE PANEL/EXTENDERS.
- THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION AS DETAILED IN NFPA 72.
- THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC 901.6.2.
- SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTIONS WITH FINAL TEST. FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATIONS SHALL BE LISTED AS EITHER UJFX (CENTRAL STATION) OR UJUS (REMOTE AND PROPRIETARY) BY UNDERWRITERS LABORATORY (UL) OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD FM 3011. A COPY OF ALL DEVICES REPORTED TO THE CENTRAL STATION SHALL BE PROVIDED TO THE OWNER'S ELECTRONICS DEPARTMENT.
- OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
- BATTERIES SHALL BE STAMPED WITH DATE OF MANUFACTURE.
- THE FAS INSTALLER SHALL PROVIDE ALL FACTORY WARRANTIES TO THE OWNER AT THE CLOSE UP OF THE PROJECT.
- THE FAS INSTALLER SHALL PROVIDE WRITTEN CERTIFICATION USING NFPA 72 INSPECTION AND TESTING FORMS AND SHALL CERTIFY THAT THE INSTALLATION, TESTING, AND OPERATION CONFORM IN ALL RESPECTS TO THE REQUIREMENTS AS SET FORTH IN TITLE 19 OF THE CALIFORNIA CODE OF REGULATIONS AND PART 3, ARTICLE 760 OF TITLE 24 OF THE C.C.R. AND C.B.C. SECTION 305.9. THE CONTRACTOR SHALL SUBMIT THE COMPLETED FAS CERTIFICATION AND DESCRIPTION FORM TO FIRE PREVENTION DIVISION.
- SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE ALARM SYSTEM.
- THE GENERAL CONTRACTOR SHALL COORDINATE THE FIRE ALARM SYSTEM INTERFACES BETWEEN THE FIRE ALARM CONTRACTOR, SPRINKLER CONTRACTOR, MECHANICAL CONTRACTOR AND ANY OTHER PERTINENT TRADES (FIRE ALARM, SPRINKLER SYSTEM, HOOD AND VENT EXTINGUISHING SYSTEM, HVAC, FIRE SMOKE DAMPERS, ETC.).
- PROVIDE A SMOKE DETECTOR IN THE MAIN SUPPLY AIR DUCT OF EACH HVAC UNIT TO SHUT OFF THE POWER SOURCE OF THE UNIT UPON THE DETECTION OF SMOKE WHEN THE TOTAL CFM IS EXCESS OF 2000. 2016 CMC 609.0
- WHEN A FIRE ALARM SYSTEM IS PRESENT AND THE TOTAL COMBINED CFM FOR ALL HVAC UNITS IN A FIRE COMPARTMENT IS IN EXCESS OF 2000, DETECTION OF SMOKE IN ONE OF THE DUCT DETECTORS SHALL SHUT OFF THE POWER SOURCE TO ALL THE UNITS. FRESNO FIRE POLICY 407.4
- SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE SPRINKLER SYSTEM. INSTALLATIONS MUST ALSO COMPLY WITH FFD POLICY SECTION 405. FFD POLICIES CAN BE FOUND ON THE FIRE DEPARTMENT WEBPAGE UNDER COMMUNITY AND PROFESSIONAL SERVICES, FIRE DEPARTMENT DEVELOPMENT POLICIES.
- OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION (OVER THE COUNTER) FOR FIRE SPRINKLER SUPERVISION. SUPERVISION IS REQUIRED ON ALL FIRE SPRINKLER SYSTEMS WITH 7 OR MORE SPRINKLER HEADS. 2016 CFC, SECTION 903.4. INSTALLATIONS MUST ALSO COMPLY WITH FFD POLICY SECTION 405 AND 407. FFD POLICIES CAN BE FOUND AT: <https://www.fresno.gov/fire-prevention-investigation/development-policies/>.
- THE GENERAL CONTRACTOR AND THE SPRINKLER CONTRACTOR SHALL COORDINATE THE PROTECTION OF ROOF "CRICKETS" OR OTHER CONCEALED COMBUSTIBLE SPACES (WHERE APPLICABLE).
- SHOW THE PROPOSED LOCATION OF FIRE SPRINKLER RISER AND FDC. NOTE: INTERIOR SPRINKLER RISERS NOT LOCATED WITHIN FIVE FEET OF AN EXTERIOR DOOR REQUIRE ON EXTERIOR WALL MOUNTED INDICATING CONTROL VALVE.
- ALL FIRE ALARM DETAILS ARE FOR REFERENCE ONLY.



E14 Fire Alarm Device Elevation
Scale: None

FIRE ALARM DEFERRED APPROVAL SUBMITTAL FOR BID ONLY



Project:
Sheriff Area 2 Sub-Station Storage
1129 N. Armstrong Ave., Fresno, CA
APN: 910-133-04, -05, and -06
ISSUE DATE: 6.1.2020
PROJECT NO: T80293 / 19003.01
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:
FIRE ALARM SYMBOLS AND NOTES

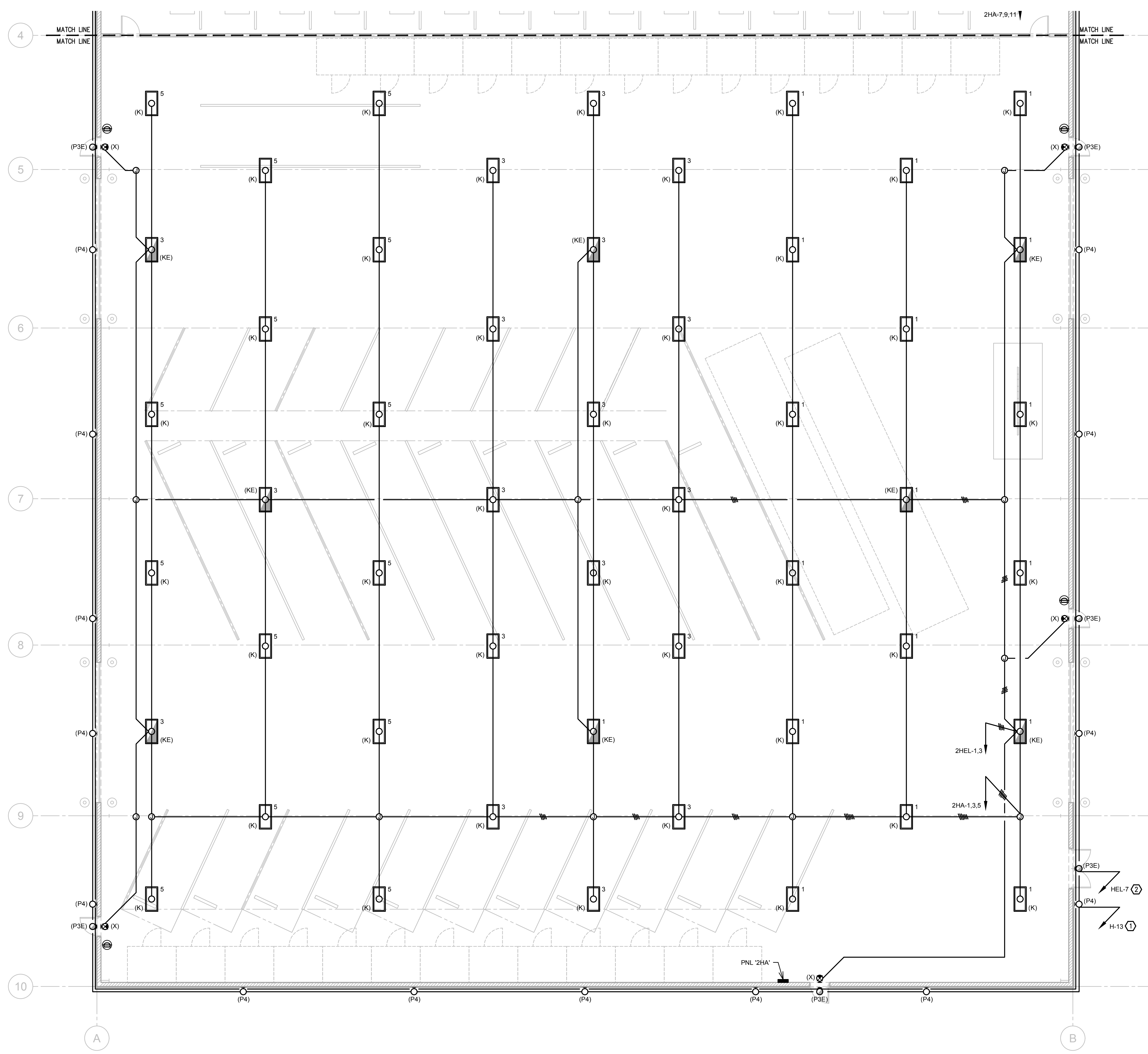


Sheet No.
E1.3

File: 19074 - Elec_Split Bid Set.dwg > Plotted: 6/1/2020 7:31 PM

Key Notes

- HOME RUN VIA NIGHT POWER PACK MOUNTED ABOVE PANEL BOARD.
- HOME RUN VIA NIGHT EMERGENCY POWER PACK MOUNTED ABOVE PANEL BOARD.



A7 Lighting Plan - Storage Building (South)

Hardin-Davidson Engineering
 356 Pollasky Ave., Suite 200
 Clovis, CA 93612
 559-323-4995 tel
 www.hardin-davidson.com

ARCHITECT:
 Neil Roger Davidson, A.I.A., Architect
 California Licensed Architect No. C-27818
 Issued: 10-31-2021
 Fresno County Department of Public Works
 Capital Projects
 2220 Tulare Street, Eighth Floor
 Fresno, California 93721
 Telephone: (559) 604-4477
 E-mail: ndavidson@co.fresno.ca.us

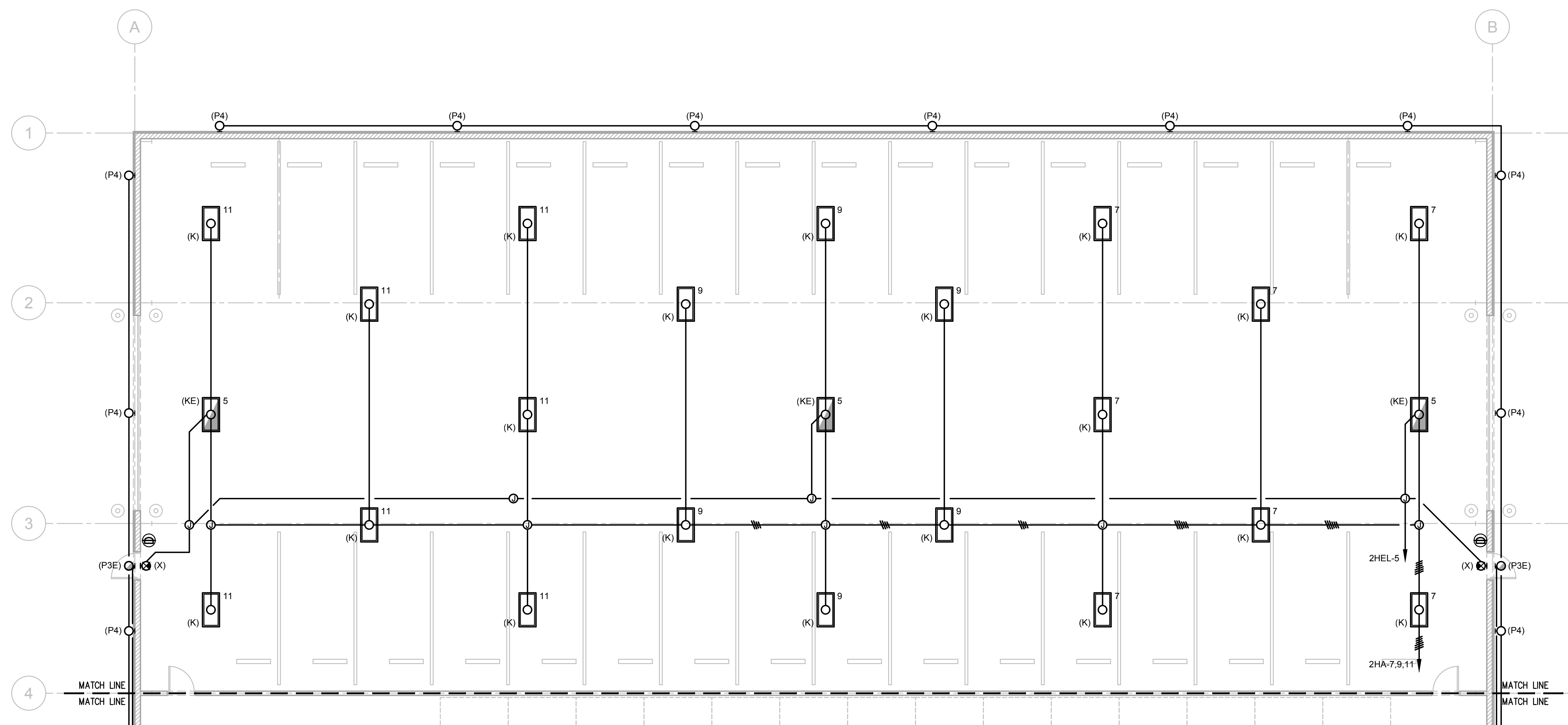
Project:
 Sheriff Area 2 Sub-Station
 1129 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 6.1.2020
 PROJECT NO: TR02293 / 19003
 FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:
 LIGHTING PLAN
 STORAGE BUILDING (SOUTH)

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
E2.0

> File: 19074 - Elec_Split Bid Set.dwg > Plotted: 6/1/2020 7:31 PM



A7 Lighting Plan - Storage Building (North)



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ARCHITECT:
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Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 910-133-04 -05, and -06
 ISSUE DATE: 6.1.2020
 PROJECT NO: T80293 / 19003.01
 FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:
 LIGHTING PLAN
 STORAGE BUILDING (NORTH)



Fresno County Department of
 Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
E2.1

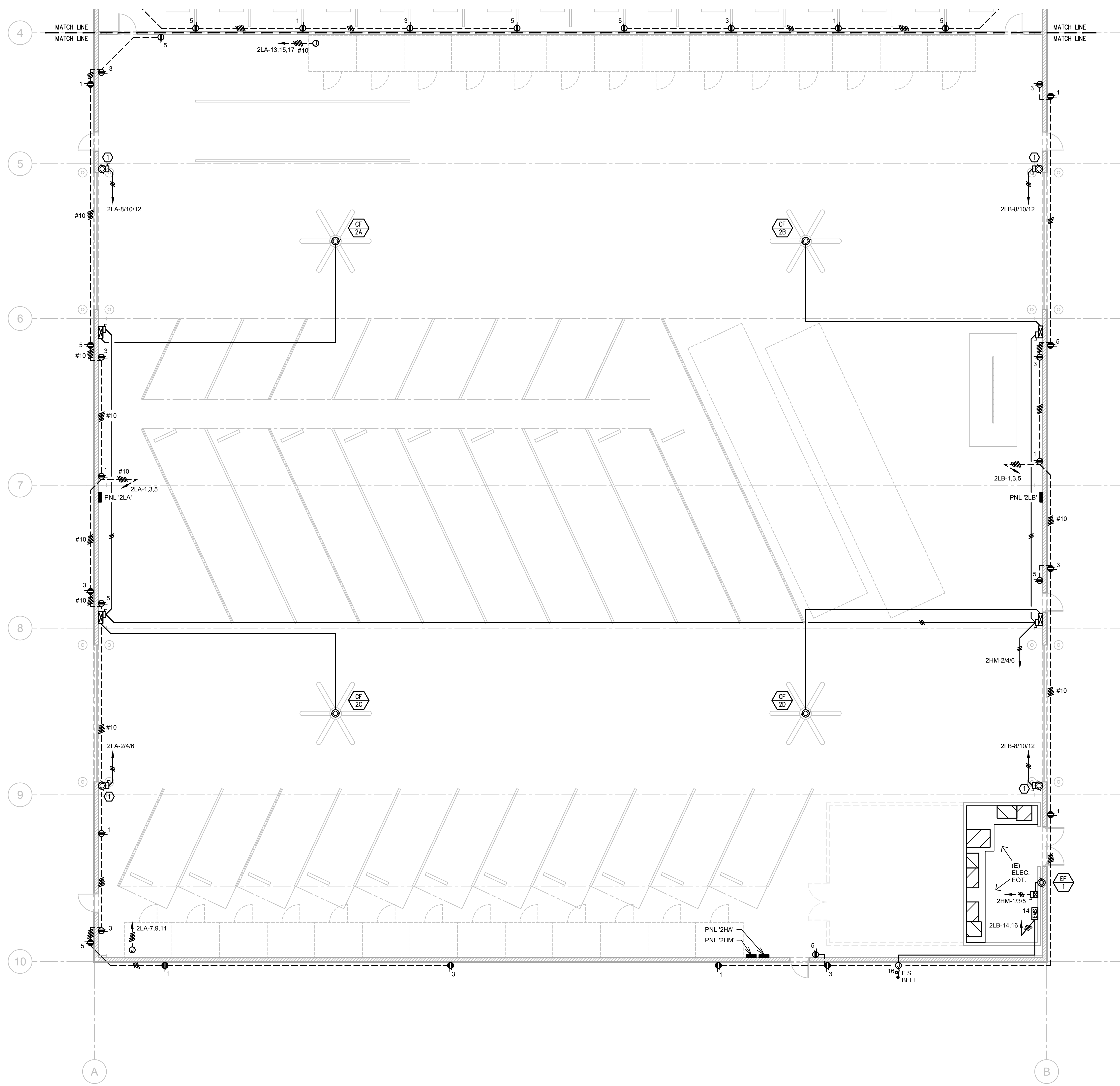
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Notes

- E.C. SHALL PROVIDE ALL RACEWAYS FOR MECHANICAL CONTROLS AND SENSORS. REFER TO M-SHEETS FOR REQUIRED CONNECTIONS.

Key Notes

- CONNECT MOTORIZED ROLL-UP DOOR OPERATOR AND RAISE/LOWER CONTROLS PER MANUFACTURER REQUIREMENTS.



A7 Power and Low Voltage Plan - Storage Building (SOUTH)

Hardin-Davidson Engineering
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Project:
 Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 910-133-04-05, and -06
 ISSUE DATE: 6.2.2020
 PROJECT NO: T80293 / 19003.01
 FILE NAME: 19074 - Elec_Split Bid Set

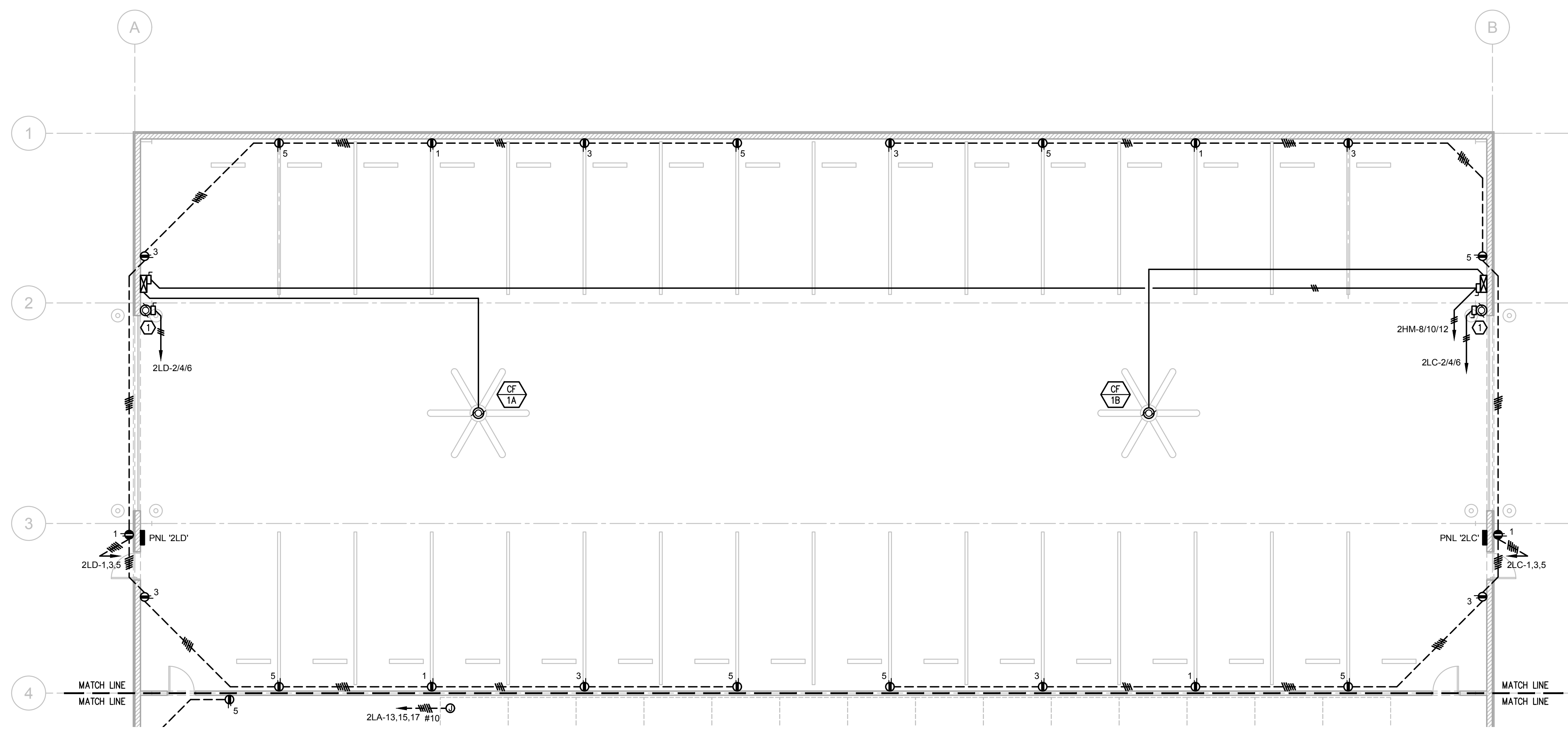
Sheet Content:
 POWER AND LOW VOLTAGE PLAN
 STORAGE BUILDING (SOUTH)

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
E2.2

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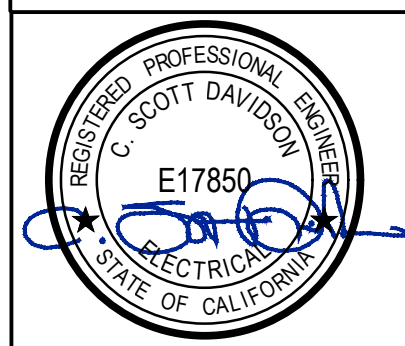


Notes

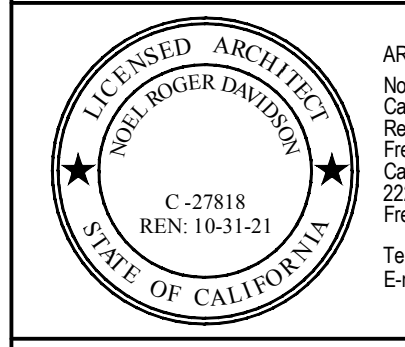
- 1. E.C. SHALL PROVIDE ALL RACEWAYS FOR MECHANICAL CONTROLS AND SENSORS. REFER TO M-SHEETS FOR REQUIRED CONNECTIONS.

Key Notes

- 1. CONNECT MOTORIZED ROLL-UP DOOR OPERATOR AND RAISE/LOWER CONTROLS PER MANUFACTURER REQUIREMENTS.



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Project:

Sheriff Area 2 Sub-Station Storage
 1129 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 6.2.2020
 PROJECT NO: 180293 / 19003.01
 FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

POWER AND LOW VOLTAGE PLAN
 STORAGE BUILDING (NORTH)



2220 Tulare Street, 8th Floor
 Fresno, California 93721

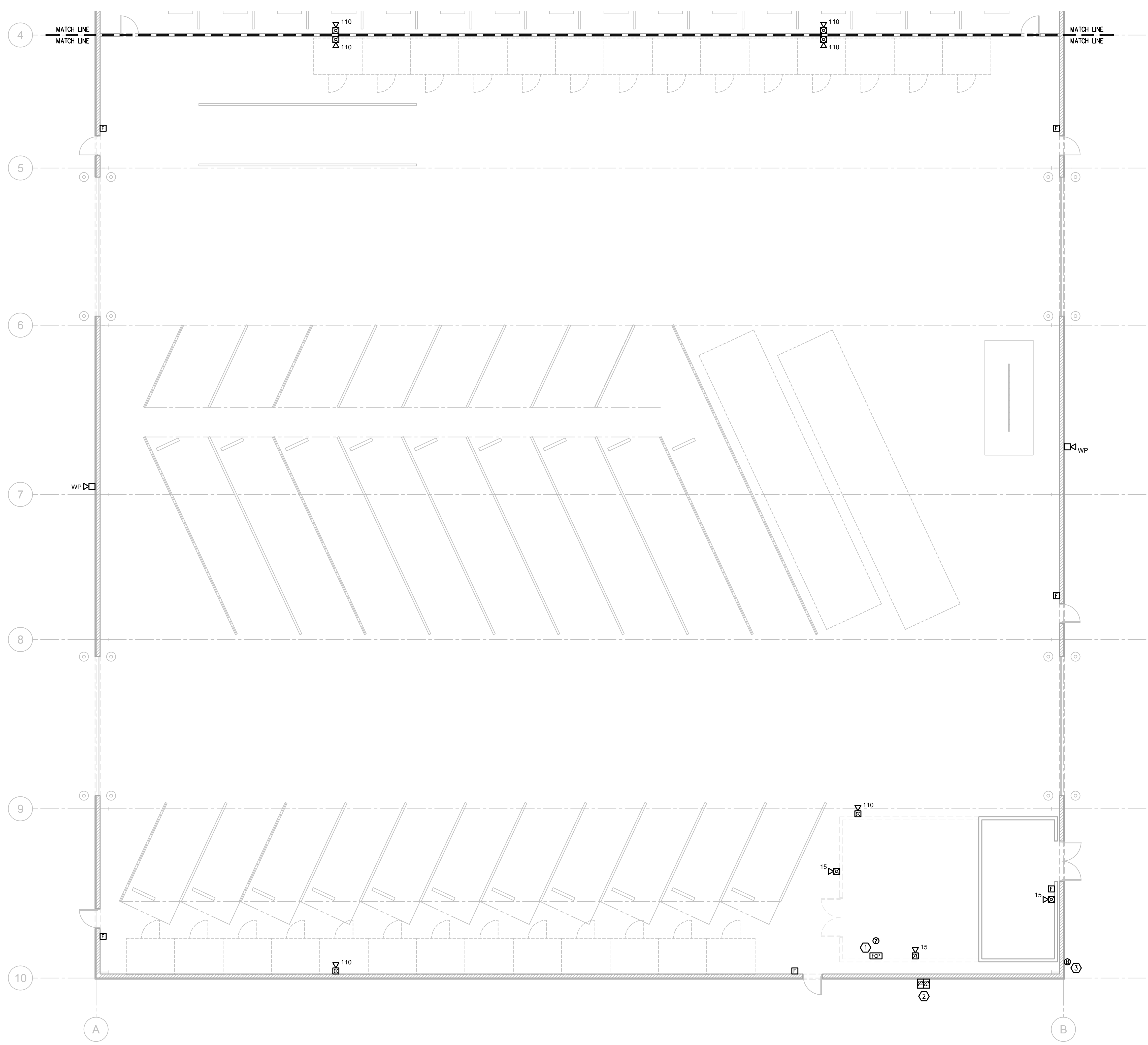
Sheet No.

E2.3

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

Key Notes

1. PROVIDE 120V DEDICATED CIRCUIT WITH RED LOCK-ON DEVICE ON BREAKER. INSTALL SMOKE DETECTOR NEAR FCP.
2. MONITOR TAMPER AND FLOW AT FIRE SPRINKLER RISER.
3. CONNECT RISER BELL TO DEDICATED FA CIRCUIT.



FIRE ALARM DEFERRED APPROVAL SUBMITTAL
FOR BID ONLY

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Sheriff Area 2 Sub-Station Storage
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APN: 910-133-04, -05, and -06
ISSUE DATE: 6.1.2020
PROJECT NO: T80293 / 19003.01
FILE NAME: 19074 - Elec_Split Bid Set

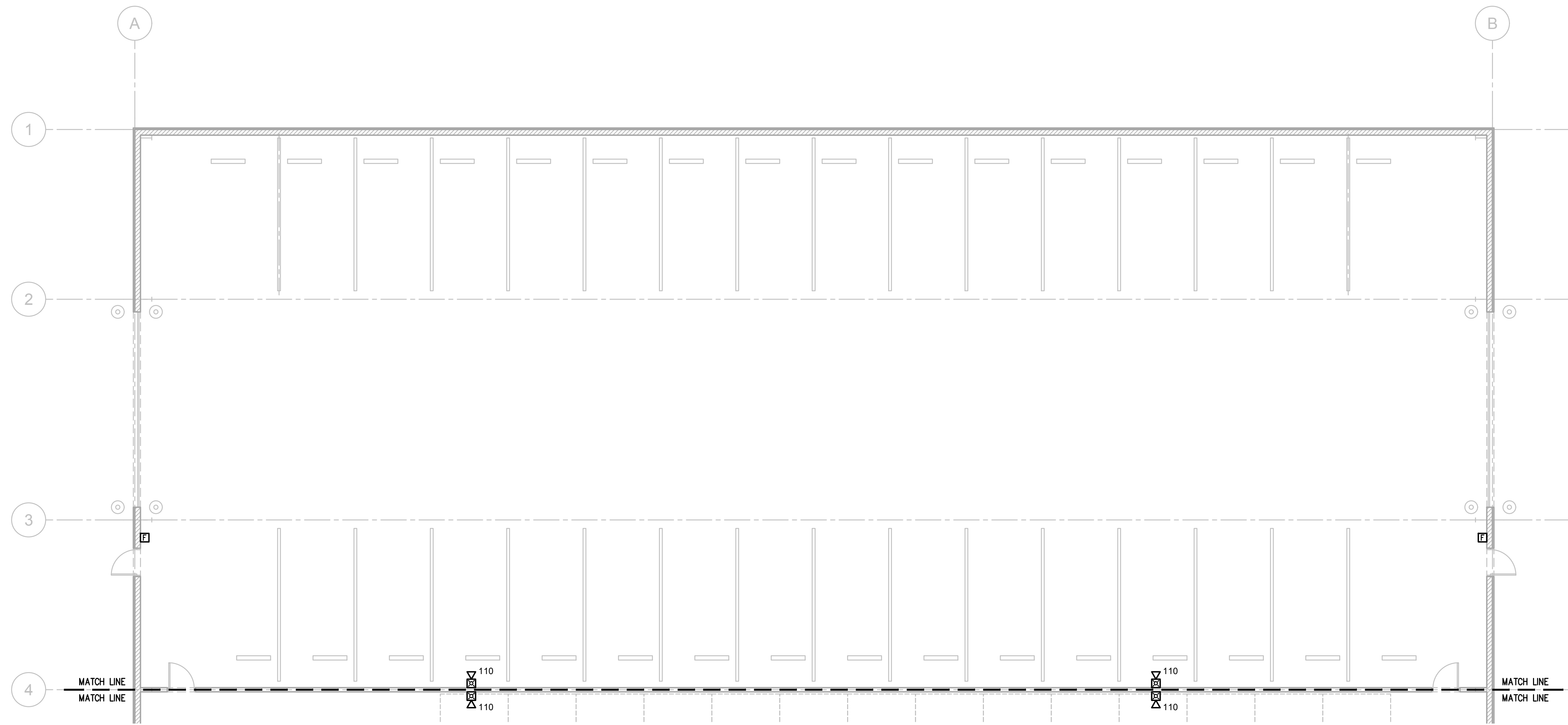
Sheet Content:
FIRE ALARM PLAN
STORAGE BUILDING (SOUTH)

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
E2.4

A1 Fire Alarm Plan - Storage Building (South)

File: 19074 - Elec_Split Bid Set.dwg - Plotted: 6/1/2020 7:31 PM



**FIRE ALARM DEFERRED
APPROVAL SUBMITTAL**
FOR BID ONLY

**Hardin-Davidson
Engineering**
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ARCHITECT:
Neil Roger Davidson, A.I.A., Architect
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Project:
Sheriff Area 2 Sub-Station Storage
1129 N. Armstrong Ave., Fresno, CA
APN: 910-133-04, -05, and -06
ISSUE DATE: 6.1.2020
PROJECT NO: T80293 / 19003.01
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:
FIRE ALARM PLAN
STORAGE BUILDING (NORTH)

Fresno County Department of
Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
E2.5

STATE OF CALIFORNIA Electrical Power Distribution... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... A. GENERAL INFORMATION... B. PROJECT SCOPE... C. COMPLIANCE RESULTS... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Electrical Power Distribution... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... D. EXCEPTIONAL CONDITIONS... E. ADDITIONAL REMARKS... F. SERVICE ELECTRICAL METERING... G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Electrical Power Distribution... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... H. VOLTAGE DROP... I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Electrical Power Distribution... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Electrical Power Distribution... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... DOCUMENTATION AUTHOR'S DECLARATION STATEMENT... RESPONSIBLE PERSON'S DECLARATION STATEMENT... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Indoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... A. GENERAL INFORMATION... B. PROJECT SCOPE... C. COMPLIANCE RESULTS... CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018

STATE OF CALIFORNIA Indoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... D. EXCEPTIONAL CONDITIONS... E. ADDITIONAL REMARKS... F. INDOOR LIGHTING FIXTURE SCHEDULE... G. TRACK LIGHTING... CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018

STATE OF CALIFORNIA Indoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... H. INDOOR LIGHTING CONTROLS (NOT INCLUDING PAFs)... I. LIGHTING POWER ALLOWANCE... J. POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES... K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES... CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018

STATE OF CALIFORNIA Indoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE... M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS... N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY... O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING... P. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS... Q. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE... R. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (PAF)... S. RATED POWER REDUCTION COMPLIANCE BY SPACE... CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018

STATE OF CALIFORNIA Indoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION... U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE... CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018

STATE OF CALIFORNIA Indoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... DOCUMENTATION AUTHOR'S DECLARATION STATEMENT... RESPONSIBLE PERSON'S DECLARATION STATEMENT... CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards July 2018

STATE OF CALIFORNIA Outdoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... A. GENERAL INFORMATION... B. PROJECT SCOPE... C. COMPLIANCE RESULTS... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Outdoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... D. EXCEPTIONAL CONDITIONS... E. ADDITIONAL REMARKS... F. OUTDOOR LIGHTING FIXTURE SCHEDULE... G. CUTOFF REQUIREMENTS (BUG)... H. OUTDOOR LIGHTING CONTROLS... I. LIGHTING POWER ALLOWANCE (per §140.7)... J. LIGHTING ALLOWANCE: PER APPLICATION... K. LIGHTING ALLOWANCE: SALES FRONTAGE... L. LIGHTING ALLOWANCE: ORNAMENTAL... M. LIGHTING ALLOWANCE: PER SPECIFIC AREA... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Outdoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)... O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION... P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Outdoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... DOCUMENTATION AUTHOR'S DECLARATION STATEMENT... RESPONSIBLE PERSON'S DECLARATION STATEMENT... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

STATE OF CALIFORNIA Outdoor Lighting... CERTIFICATE OF COMPLIANCE... Project Name: Fresno Co. Sheriff's Substation... Project Address: 1129 N. Armstrong Avenue... A. GENERAL INFORMATION... B. PROJECT SCOPE... C. COMPLIANCE RESULTS... CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards April 2019

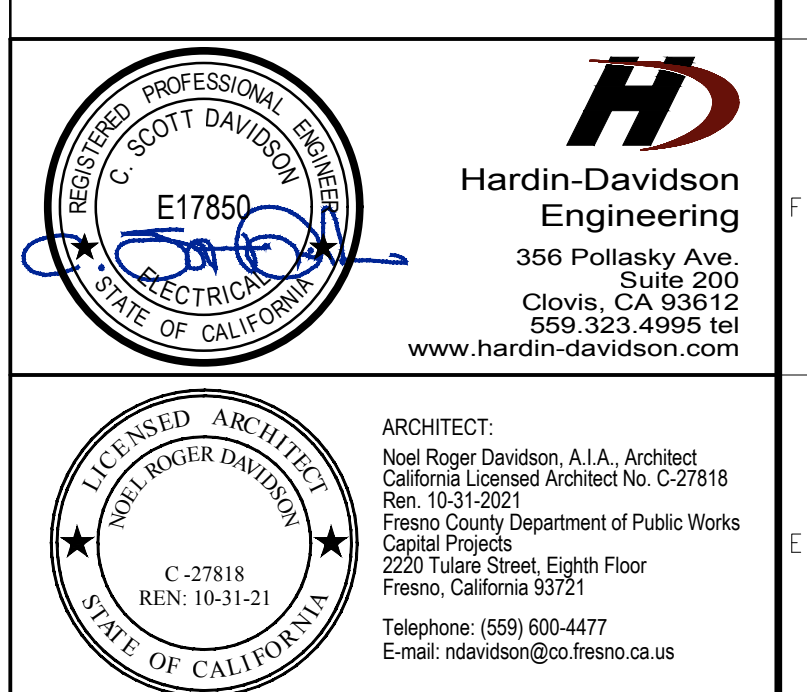
Project: Sheriff Area 2 Sub-Station Storage
APN: 910-133-04-05, and 06
ISSUE DATE: 6.1.2020
PROJECT NO: TR0293 / 19003 01
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:
ENERGY COMPLIANCE DOCUMENTS

Fresno County Department of Public Works and Planning Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No. E3.0

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards September 2017



STATE OF CALIFORNIA
Outdoor Lighting
NRCCLTO-E (Revise 1/17)

CALIFORNIA ENERGY COMMISSION
NRCCLTO-E
Page 2 of 6
Report Page:
Project Name: Fresno Co. Sheriff's Substation
Project Address: 1129 N. Armstrong Avenue
Date Prepared: 12/19/2019

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.
This Section Does Not Apply

F. OUTDOOR LIGHTING FIXTURE SCHEDULE
This Section Does Not Apply

F. OUTDOOR LIGHTING FIXTURE SCHEDULE
Table Instructions: For new or altered lighting systems demonstrating compliance with §160.7 (ie Table F 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 Fixture method per §161.05(2) (ie Table F 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).

01	02	03	04	05	06	07	08	09	10
Name of Item Tag	Complete Luminaire Description	Watts per luminaire ¹	How Wattage is determined	Total number luminaires	Luminaire Status ²	Excluded per §160.7(a)	Design Watts	Cutoff Req. > 150W §130.20(a)	Field Inspector Pass Fail
S1	121.9w LED	121.9	NAB Default	1	New		121.9		
S2	243.9w LED	243.9	NAB Default	1	New		731.7	Yes	
S3	121.9w LED	121.9	NAB Default	1	New		121.9		
S4	107.2w LED	107.2	NAB Default	1	New		107.2		
S5	300.0w LED	300	NAB Default	8	New		2,400	Yes	
S6	114.1w LED	114.1	NAB Default	5	New		570.5		
S7	27.0w LED	27	NAB Default	14	New		378		
							Total Designed Watts: 4,431.2		

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a fixture. EXCEPTION 2 to §130.20(a).
Table Continued

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards September 2017

STATE OF CALIFORNIA
Outdoor Lighting
NRCCLTO-E (Revise 1/17)

CALIFORNIA ENERGY COMMISSION
NRCCLTO-E
Page 3 of 6
Report Page:
Project Name: Fresno Co. Sheriff's Substation
Project Address: 1129 N. Armstrong Avenue
Date Prepared: 12/19/2019

01	02	03	04	05	06	07	08	09	10	
Name of Item Tag	Complete Luminaire Description	Watts per luminaire ¹	How Wattage is determined	Total number luminaires	Luminaire Status ²	Excluded per §160.7(a)	Design Watts	Cutoff Req. > 150W §130.20(a)	Field Inspector Pass Fail	
G. CUTOFF REQUIREMENTS (BUG) Table Instructions: Complete this table for fixtures >150W indicated on Table F as needing to comply with Cutoff Requirements. Maximum lumens can be found in Table 130.2-A for (Height and Table 130.2-B for Glare by Lighting Zone).										
01	02	03	04	05	06	07	08	09	10	
Name of Item Tag	Complete Luminaire Description	Luminaire Type ¹	Uplight Ratings (Lumens) High (LH) Low (LL)	Glare Ratings (Lumens) Forward Very High (FVH) Forward High (FH) Backlight High (BH)	Forward High (FH)	Backlight High (BH)	Pass Fail	Field Inspector Pass Fail		
S5	300.0w LED	0	0	0	0	0				
S2	243.9w LED	0	0	0	0	0				
				Maximum Lumens Allowed for Type I-IV:	500	500	500	500	7,500	2,500
				Maximum Lumens Allowed for Type V and V Square:	500	500	500	500	7,500	7,500

H. OUTDOOR LIGHTING CONTROLS
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 reinstated (swung 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 "DMS NOT COMPL" if the notes are left blank. For each requirement in columns 02 through 07, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.

01	02	03	04	05	06	07	08
Area Description	Motion Sensor: Incandescents>100W §130.20(a)	Shut-Off §130.20(c1)	Auto-Schedule §130.20(c2)	Motion Sensor §130.20(c3)	Sales Frontage §130.20(c4)	Facade, Ornament, Outdoor Dining §130.20(c5)	Field Inspector Pass Fail
Pole Fixtures > 24 ft.	NA: No Incand-100W	Astronomical Time	Yes	NA: Mounted>24ft	NA: No Sales Front Lig	No Applicable LI	

Table Continued

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards September 2017

STATE OF CALIFORNIA
Outdoor Lighting
NRCCLTO-E (Revise 1/17)

CALIFORNIA ENERGY COMMISSION
NRCCLTO-E
Page 4 of 6
Report Page:
Project Name: Fresno Co. Sheriff's Substation
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Date Prepared: 12/19/2019

01	02	03	04	05	06	07	08
Area Description	Motion Sensor: Incandescents>100W §130.20(a)	Shut-Off §130.20(c1)	Auto-Schedule §130.20(c2)	Motion Sensor §130.20(c3)	Sales Frontage §130.20(c4)	Facade, Ornament, Outdoor Dining §130.20(c5)	Field Inspector Pass Fail
Canopy Features	NA: No Incand-100W	Astronomical Time	Yes	NA: Walls>30W	NA: No Sales Front Lig	No Applicable LI	

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Not controlled by health & safety to be turned off; EXCEPTION 1 to §130.20(c).

I. LIGHTING POWER ALLOWANCE (per §160.7)
Table Instructions: Please complete this table for areas using the allowance calculations per §160.7. General Hardship Allowance is per Table 160.7-A while "Use it or lose it" Allowances are per Table 160.7-B. Indicate which allowance are being used to report 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.

Table I (below)		Table J	Table K	Table L	Table M		
Calculated General Hardship Lighting Power Allowance per Table 160.7-A							
02	03	04	05	06	07	08	09
Area Description	Illuminated Area (A _i) (ft ²)	Allowed Density (W/ft ²)	Area Allowance (Watts)	Perimeter Length (P) (ft)	Allowed Density (W/ft)	Linear Allowance (Watts)	Total General AWA + LWA (Watts)
West Parking Lot	107,985	0.04	4,319.4	1,463	0.35	512.05	4,831.45
East Parking Lot	11,778	0.04	471.12	506	0.35	177.1	648.22
Courtyard	7,631	0.04	305.24	405	0.35	141.75	446.99
Public Parking Lot	33,583	0.04	1,343.32	1,049	0.35	367.15	1,710.47
Initial Wattage Allowance for Entire Site (Watts): 520							
Total General Hardship Allowance (Watts): 8,157.13							

J. LIGHTING ALLOWANCE: PER APPLICATION
This Section Does Not Apply

K. LIGHTING ALLOWANCE: SALES FRONTAGE
This Section Does Not Apply

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards September 2017

STATE OF CALIFORNIA
Outdoor Lighting
NRCCLTO-E (Revise 1/17)

CALIFORNIA ENERGY COMMISSION
NRCCLTO-E
Page 5 of 6
Report Page:
Project Name: Fresno Co. Sheriff's Substation
Project Address: 1129 N. Armstrong Avenue
Date Prepared: 12/19/2019

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 <http://www.energy.ca.gov/2013publications/CEC-408-2015-033/appendices/forms/NRCI>

YES	NO	Form/Title	Field Inspector Pass Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCCLTO-01-E - Must be submitted for all buildings.	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCCLTO-02-E - Must be submitted for a lighting control system; or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/>

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/attcc/providers.html>

YES	NO	Form/Title	Field Inspector Pass Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCCLTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to a 20 luminaires.	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards September 2017

STATE OF CALIFORNIA
Outdoor Lighting
NRCCLTO-E (Revise 1/17)

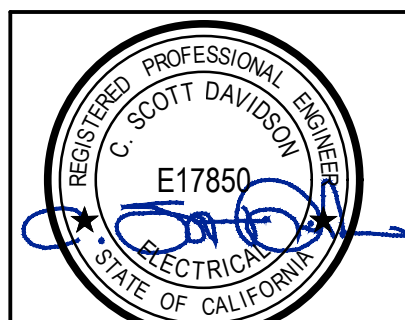

CALIFORNIA ENERGY COMMISSION
NRCCLTO-E
Page 6 of 6
Report Page:
Project Name: Fresno Co. Sheriff's Substation
Project Address: 1129 N. Armstrong Avenue
Date Prepared: 12/19/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
Documentation Author Name: C. Scott Davidson
Documentation Author Signature: [Signature]
Company: Hardin-Davidson Engineering
Signature Date: 12/20/2019
Address: 375 Polasky Ave Ste 200
CEA/HERS Certification Identification (if applicable): E17850
City/State/Zip: Clovis, CA 93612
Phone: 559-323-4995

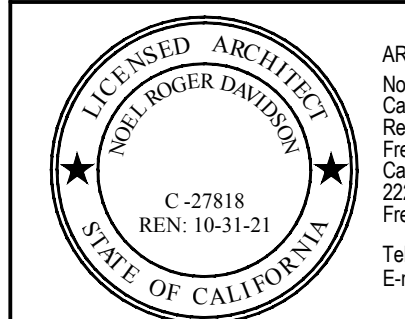
RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility 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 this 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: C. Scott Davidson
Responsible Designer Signature: [Signature]
Company: Hardin-Davidson Engineering
Date Signed: 12/20/2019
Address: 356 Polasky Ave. Suite 200
License: E17850
City/State/Zip: Clovis, CA 93612
Phone: 559-323-4995

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards September 2017

Hardin-Davidson Engineering
356 Polasky Ave.
Suite 200
Clovis, CA 93612
559-323-4995 tel
www.hardin-davidson.com




ARCHITECT:
Neil Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ret. 10/31/2021
Fresno County Department of Public Works
Casper Florida
2220 Tulare Street, Eighth Floor
Fresno, California 93721
Telephone: (559) 604-4477
E-mail: ndavidson@co.fresno.ca.us

Project:
Sheriff Area 2 Sub-Station Storage
1129 N. Armstrong Ave., Fresno, CA
APN: 910-133-04, -05, and -06
ISSUE DATE: 6.1.2020
PROJECT NO: TR6293 / 19003.01
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:
ENERGY COMPLIANCE DOCUMENTS

Fresno County Department of
Public Works and Planning
Capital Projects

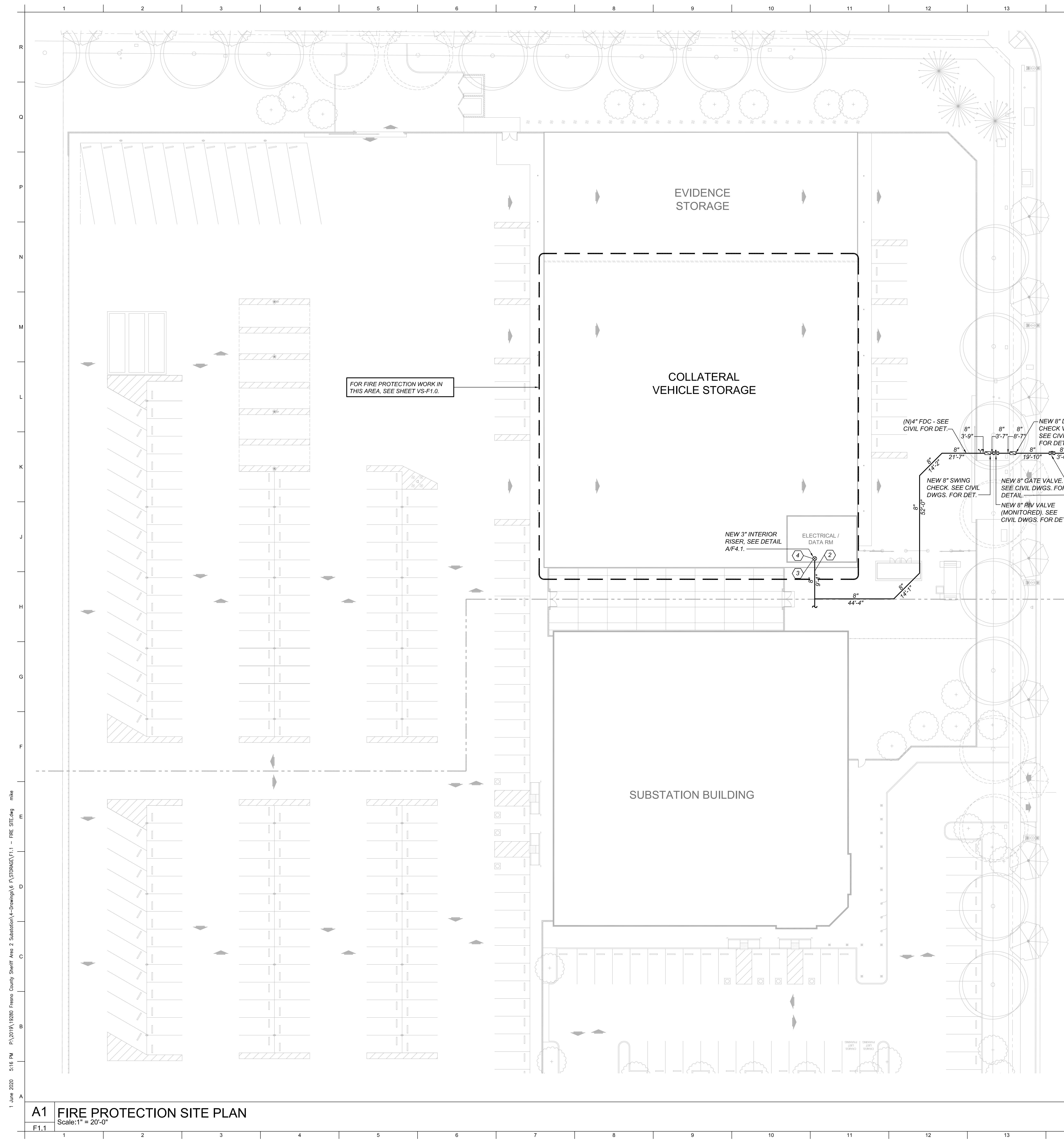


2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
E3.1

Printed on: 6.1.2020

File: 19074 - Elec_Split Bid Set.dwg - Plotted: 6/1/2020 3:31 PM



GENERAL NOTES

SPRINKLER SYSTEM DESIGNED IN ACCORDANCE WITH NFPA 13 (2016), CFC/CBC (2016), AND CITY OF FRESNO FIRE PREVENTION DISTRICT STANDARDS. ALL WORK TO BE DONE IN ACCORDANCE WITH THESE PLANS AND ALL NATIONAL, STATE, AND LOCAL CODES.

THESE DRAWINGS ARE SCHEMATIC IN NATURE, AND ARE NOT INTENDED TO REFLECT FINAL, COORDINATED (AMONGST THE TRADES), INSTALLATION PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE ACCEPTABLE WORKING INSTALLATION, WHETHER SHOWN OR NOT SHOWN, APPLICABLE TO ALL CITED CODES AND STANDARDS. AT TIME OF DESIGN FINAL, COORDINATED STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND SPECIAL EQUIPMENT PLANS WERE NOT AVAILABLE. IT SHALL BE THE RESPONSIBILITY OF THE SPRINKLER INSTALLATION CONTRACTOR TO COORDINATE WITH ALL TRADES.

CONTRACTOR TO REVIEW FOR BID, SCHEMATIC SYSTEM PLANS AS DESIGNED BY ENGINEER. ANY ALTERNATE PROPOSED DESIGN CHANGES OR REVISIONS BY CONTRACTOR, ARE TO BE SUBMITTED IN WRITTEN FORMAT, REVIEWED AND REVISIONS BY ENGINEER PRIOR TO BIDDING. AFTER AWARD OF BID, ALL DEVIATIONS FROM THE ORIGINAL DESIGN INTENTION SHALL BE CLOUDED AND NOTED ON CONTRACTOR ISSUED SHOP DRAWINGS TO ENGINEER, WHICH HAVE BEEN COORDINATED AMONGST THE TRADES, FOR REVIEW AND APPROVAL BY ENGINEER.

GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR INSURING ALL SUB-CONTRACTOR'S COORDINATE SHOP DRAWINGS PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT, DEVICE, MATERIAL, ETC. SUBMISSION OF SHOP DRAWINGS TO THE ENGINEER CONSTITUTES THAT THE DRAWINGS SUBMITTED HAVE BEEN COORDINATED AMONGST THE TRADES. FAILURE TO COORDINATE ALL SHOP DRAWINGS AMONGST THE TRADES, FOR REVIEW AND APPROVAL BY ENGINEER, WILL NOT CONSTITUTE A CHANGE ORDER TO THE OWNER, FOR UNIDENTIFIED FIELD COORDINATION ISSUES.

ANY DESIGN REVISIONS OR DEVIATIONS THAT ARISE FROM COORDINATION OF INSTALLATION METHODS AND MEANS AMONGST THE TRADES DURING CONSTRUCTION, SHALL BE PROVIDED TO THE ARCHITECT BY RFI, DETAILING COORDINATION ISSUE AND PROPOSED SOLUTION, ONCE REVIEWED AND APPROVED BY ENGINEER, THE DESIGN REVISIONS OR DEVIATIONS SHALL BE COORDINATED IN THE FIELD AMONGST THE IMPACTED TRADES, AND SHOWN ON THE AS-BUILTS. A COMPLETE, ACCURATE SET OF AS-BUILTS SHALL BE MAINTAINED ON-SITE DURING CONSTRUCTION, AND ARE TO BE ISSUED TO ARCHITECT AND ENGINEER UPON COMPLETION, INSPECTION, AND TESTING OF INSTALLATION.

CONTRACTOR TO PROVIDE SIX (6) SETS OF THE FOLLOWING:

A. FULLY COORDINATED AMONGST THE TRADES INSTALLATION SHOP DRAWINGS, INCLUDING ALL PIPE CUT LENGTHS, FITTINGS, HANGERS, BRACES, SPRINKLERS WITH LEGEND, HYDRAULIC AND SEISMIC CALCULATIONS, AND PRODUCT SUBMITTAL.

B. BOUND SUBMITTAL TO INCLUDE COVER PAGE, PIPING, HARDWARE, AND MATERIALS (INCLUDING FIRE STOPPING), COVER PAGE TO INCLUDE PROJECT NAME, SPRINKLER CONTRACTOR, GENERAL CONTRACTOR, ARCHITECT, AND DATE SUBMITTED FOR REVIEW.

ALL ITEMS REQUIRED BY NFPA 13 (2016) CHAPTER 23 (FOR WORKING DRAWINGS) SHALL BE PROVIDED ON THE SHOP DRAWINGS. SUBMITTALS ARE IN ADDITION TO, AND NOT IN LIEU OF, THIS REQUIREMENT.

CLEVIS TYPE HANGERS SHALL BE INSTALLED AT TOP OF RISER, AND AS SHOWN ON RISER DETAILS. LOOP TYPE HANGERS ARE ACCEPTABLE IN ALL OTHER AREAS.

FINAL INSTALLATION SPACING FOR SPRINKLER SYSTEM PIPING AND SPRINKLERS, MAY VARY WITH FIELD COORDINATION ISSUES. ALL VARIANCES TO COMPLY WITH LISTING OF SPRINKLERS, NFPA 13 (2016), CFC/CBC (2016), AND CITY OF FRESNO FIRE PREVENTION DISTRICT REQUIREMENTS.

ALL HANGERS, THREADED ROD, BRACING COMPONENTS AND HARDWARE, SHALL BE HOT DIPPED GALVANIZED - OR FACTORY COATED GALVANIZED - FOR ALL EQUIPMENT AND COMPONENTS IN EXTERIOR APPLICATIONS. ALL FASTENERS USED (IE BOLTS - NUTS / WASHERS) TO BE STAINLESS STEEL.

SPRINKLERS ARE TO BE LOCATED CENTER TILE (OR AS SHOWN) ACCORDING TO INDUSTRY STANDARDS AND PRACTICES.

LOCATION OF SEISMIC BRACING AND HANGERS ARE SCHEMATIC IN NATURE AND INTENDED TO SHOW APPROXIMATE LOCATIONS. SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR SHOWING THE EXACT LOCATION OF SEISMIC RESTRAINTS ON SUBMITTED COORDINATED AMONGST THE TRADES SHOP DRAWINGS, AND FINAL AS-BUILTS.

SUBMITTED SHOP DRAWINGS SHALL DESIGNATE THE TYPE AND LOCATION OF EACH BRACE, HANGER OR RESTRAINT, AND SHALL BE ACCOMPANIED BY A DETAIL WITH LEGEND, AND CALCULATIONS (IF APPLICABLE) IN ACCORDANCE WITH NFPA 13 (2016), CFC/CBC (2016), AND THE APPROPRIATE SEISMIC DESIGN CRITERIA FOR THE PROJECT.

ANY SUBSTITUTION OF "FLEXIBLE" TYPE PIPING IN LIEU OF "RIGID" PIPE, OR ANY CHANGES TO SIZE, MANUFACTURER, OR LENGTHS OF "FLEXIBLE" TYPE PIPING WILL REQUIRED RE-SUBMITTAL OF PIPING PLANS, PRODUCT DATA SHEETS, AND HYDRAULIC CALCULATIONS TO DIVISION OF THE STATE ARCHITECT - DEPARTMENT OF GENERAL SERVICES (FIRE LIFE SAFETY) FOR REVIEW AND APPROVAL.

SHOP DRAWINGS THAT HAVE NOT BEEN COORDINATED AMONGST THE TRADES UTILIZING THE MOST CURRENT 2D/3D FILES, WILL NOT BE ACCEPTED FOR REVIEW.

ELECTRONIC (DIGITAL) SUBMITTAL IN PDF FORMAT IS ACCEPTABLE, IF PREPARED IN ACCORDANCE WITH SPECIFICATION 2105 00, SECTION (1-10, A.5). SUBMITTALS NOT CONFORMING TO THE SPECIFICATION WILL NOT BE REVIEWED.

SPRINKLER SPECIFICATIONS

- SYSTEM DESIGN:
- SYSTEM SHALL BE DESIGNED TO CONFORM WITH NFPA 13 (2016), CFC/CBC (2016), AND CITY OF FRESNO FIRE PREVENTION DISTRICT STANDARDS.
 - SYSTEM TO BE AN AUTOMATIC, WET TYPE SPRINKLER SYSTEM.
 - SPRINKLER DISCHARGE DENSITY FOR THIS PROJECT: MIN. OF 0.15 GPM/1500 sqft.
 - POINT OF SERVICE SHALL BE AT THE 8" SUPPLY MAIN AS SHOWN.
 - FIRE SPRINKLER ALARM SYSTEM SHALL BE DESIGNED, INSTALLED AND PERMITTED BY OTHERS, AND IS NOT IN THE SCOPE OF WORK, REFER TO ELECTRICAL DRAWINGS FOR FIRE ALARM SYSTEM TIE-IN, FLOW DETECTOR AND TAMPER RESISTANT VALVES WILL BE SUPPLIED AND INSTALLED BY FIRE SPRINKLER CONTRACTOR AND WIRED BY ALARM CONTRACTOR.
 - SPRINKLER SYSTEM SHALL BE SINGLE ZONE (SEE RISER DETAIL).
 - SPRINKLER PIPING SHALL BE AS FOLLOWS (UNLESS NOTED OTHERWISE ON PLANS):
 - PIPING 2-1/2" AND LARGER SHALL BE SCH.10 BLACK STEEL WITH ROLLED FITTINGS, RISER TO BE SCH.10 GALVANIZED STEEL PIPE.
 - PIPING 2" AND LESS SHALL BE SCH.40 BLACK STEEL.
 - ALL HANGERS, BRACES, AND RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2016), CFC/CBC (2016), AND CITY OF FRESNO FIRE PREVENTION DISTRICT REQUIREMENTS.
 - PROVIDE GAGE-TYPE SPRINKLER HEAD GUARDS TO ALL SPRINKLERS, TO MINIMIZE CHANCE OF MECHANICAL DAMAGE TO SPRINKLER HEADS WHEN APPLICABLE.
 - IF DESIGN OR MATERIALS DIFFER FROM THAT SPECIFIED HEREIN, SUPPLEMENTAL ENGINEERING DESIGN, SUBMITTAL, AND REVIEW SHALL BE REQUIRED.
 - MICROBIAL INDUCED CORROSION WILL NOT BE A FACTOR FOR THIS SYSTEM.
 - ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 13 (2016), CFC/CBC (2016), AND CITY OF FRESNO FIRE PREVENTION DISTRICT REQUIREMENTS.
 - HYDRAULIC CALCULATIONS SHALL BE TO THE STREET CONNECTION, ACCORDING TO LOCAL FIRE PREVENTION DISTRICT WATER CURVE DETERMINATIONS AND/OR TESTING PROCEDURES.
- INSTALLATION OF SPRINKLER SYSTEM SHALL NOT BE STARTED UNTIL DRAWINGS, SPECIFICATIONS, CALCULATIONS, ETC. HAVE BEEN APPROVED BY DSA. EDUCATIONAL OCCUPANCY AFSS DESIGN CRITERIA - LIGHT HAZARD, CLASSROOMS, OFFICES, AUDITORIUMS, LIBRARY READING AREAS WITHOUT HIGH STACKS, ORDINARY HAZARD GROUP I; KITCHENS, MULTI-PURPOSE ROOMS, LARGE STORAGE AREAS AND STAGES (AS DEFINED IN 2016 CBC 410.2) ORDINARY HAZARD GROUP II; SCIENCE LABS, VOCATIONAL SHOPS, STAGES 1,000 SQ.FT IN AREA OR >50 FT. IN HEIGHT, LIBRARY READING AREAS WITH HIGH STACKS.

SITE PIPING

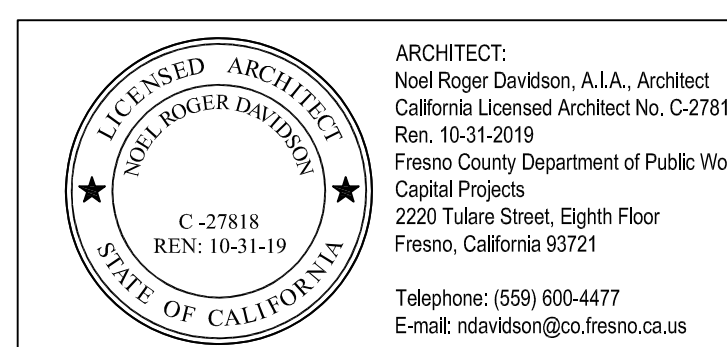
- SITE FIRE UG PIPING SHOWN FOR HYDRAULIC PURPOSES ONLY. SEE CIVIL DRAWINGS FOR ALL DETAILS, SPECIFICATIONS AND DESIGN CRITERIA.

FIRE PROTECTION SITE LEGEND		
SYMBOL	DESCRIPTION	ABBR
—	FIRE SUPPLY LINE	F
---	EXISTING FIRE SUPPLY LINE	(E) F
⊕	FIRE HYDRANT WITH GATE VALVE	
⊙	FIRE HYDRANT	FH
⊗	GATE VALVE	GV
⊠	THRUST BLOCK	TB
⊡	EXISTING THRUST BLOCK	
⊞	O&S VALVE	O&SY
⊞	VALVE/CHECK VALVE WITH FDC ASSEMBLY	
⊞	BACKFLOW PREVENTER (RP)	
⊞	FDC CHECK VALVE	
⊞	FIRE DEPARTMENT CONNECTION	F+DC
⊞	FREE STANDING FDC	FFDC
⊞	POST INDICATOR VALVE	PV
⊞	RISER	
⊞	VALVE	V
⊞	CHECK VALVE	CV
⊞	HYDRAULIC NODE	
⊞	POINT OF CONNECTION	POC

⊞ HYDRAULIC NODE, TYP.



LAWRENCE ENGINEERING GROUP
 7084 N. Maple Ave., Suite 101 Fresno, CA 93720
 (559) 431-0101 19280 FAX (559) 431-1342



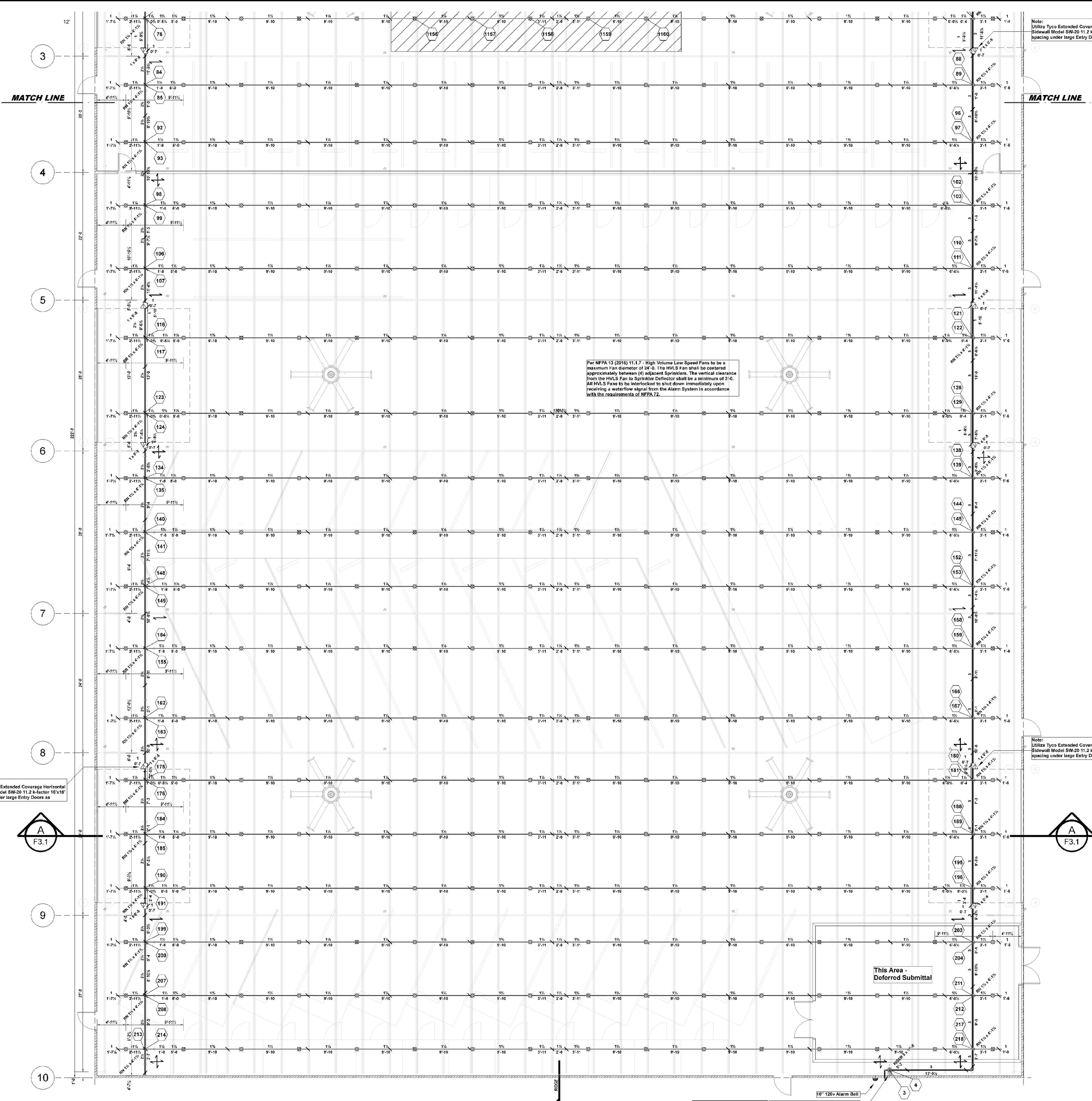
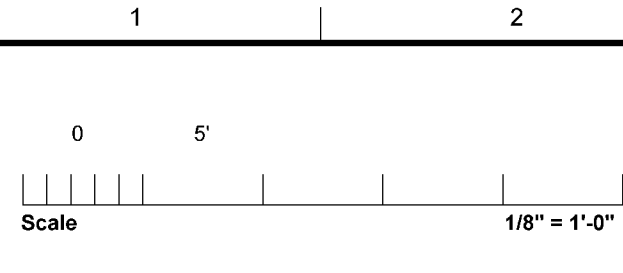
Project:
 Sheriff Area 2 Sub-Station Storage
 1128 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.10.2019
 PROJECT NO: T80293 / 19003.01
 FILE NAME:

Sheet Content:
 VEHICLE STORAGE
 FIRE PROTECTION SITE PLAN

Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
F1.1





Note: Utilize Tyco Extended Coverage Horizontal Sidewall Model SW-20 11.2 k-factor 16\"/>

Note: Utilize Tyco Extended Coverage Horizontal Sidewall Model SW-20 11.2 k-factor 16\"/>

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
—○—	Victaulic	V2704	336	5.0	1/2	Quick	Brass	200°F			
—○—	Tyco	TY5332	SW-20	12	11.2	Sidewall	1/2"	Standard	Brass	155°F	
Total = 348											

All Piping to be fastened to Parallels (N) 6" Riser w/ Ball Flow Switch, to be monitored. No Attachments to have a single-pipe Alarm ESA-Riser under footings as per NFPA 24 (2016).

New 8\"/>

Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before installation. All Hanger and Bracing Components are to be installed per NFPA 13 (2016), CBC / CFC (2016), and Manufacturer Installation Instructions.

Per NFPA 13 (2016) Table 9.3.6.4 (a) Maximum Spacing of Steel Branch Line Riser (ft)

This project: Use the values for Cp .50

Pipe (in.)	Cp = .50	Cp = .60	Cp = .70
1"	43	33	27
1 1/4"	46	35	29
1 1/2"	49	37	31
2"	63	47	39

RATED WALL LEGEND

1 HR RATED BARRIER	---
1 HR RATED CORRIDOR	---

Hydraulic Information

Remorse Area No. 1

OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY	0.1000gpm/ft ² for 845.00ft ² (Actual 3156.00ft ²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	3.00gpm
TOTAL NFPA54 FLOWING	14

Sprinkler Components Legend

—○—	FLEXIBLE GROOVED COUPLING	—○—	SEISMIC SWING JOINT
—○—	PIPING W/ GROOVED FITTINGS	—○—	HYDRAULIC NODE REF
—○—	PIPING W/ THREADED FITTINGS	—○—	1 (E) PIPING THROUGH WALL
—○—	PIPING W/ PENDENT SPRINKLER (Value - See Detail)	—○—	FIRE PENETRATION THROUGH WALL
—○—	PIPING W/ UPRIGHT SPRINKLER (Value - See Detail)	—○—	FILE DROP W/ PENDENT SPRINKLER (Use This Project)

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
—	LATERAL SEISMIC BRACE (Perpendicular)	Sheet F5.1
—	LONGITUDINAL SEISMIC BRACE (Parallel)	Sheet F5.1
—	4-WAY SEISMIC BRACE (Parallel / Perpendicular)	Sheet F5.1
—	END OF LINE RESTRAINT	Sheet F5.1
—	PIPE HANGER	Sheet F5.1

Building is typical Steel Beam / Girder and Non-Combustible Joist Member Construction. All Design and Installation shall conform to NFPA 13 (2016), NFPA 24 (2016), CFC (2016), and City of Fresno Fire Prevention District / Building Department Standards. In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown. All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 5'-0" this project) and to be an Light Hazard Occupancy. Per NFPA 13 (2016) Table 8.6.2.2.1 (b) - The maximum Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0". Per NFPA 13 (2016) Table 8.6.2.2.1 (a) - The maximum Pendent Sprinkler in a Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0". Per NFPA 13 (2016) Section A.5.2 - All unused Attics to be a Light Hazard Occupancy. Per NFPA 13 (2016) Section 8.5.4.2 - Sprinkler Deflectors shall be aligned parallel to callings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise. Per NFPA 13 (2016) Figure 11.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing. Per NFPA 13 (2016) Figure 11.2.3.1.1 - Ordinary Hazard Group I Occupancy to be Hydraulically Calculated at a Density of .15 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing. Per NFPA 13 (2016) Figure 11.2.3.1.1 - Ordinary Hazard Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing. Per NFPA 13 (2016) Section 11.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 11.2.3.2.3.1. - FOR LIGHT HAZARD ONLY. Per NFPA 13 (2016) Section 11.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7% in non-storage applications. (NOT APPLICABLE THIS PROJECT) Per NFPA 13 (2016) Section 8.16.2.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 6.0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler. Per NFPA 13 (2016) Handbook Sections 8.15.1.2.3 - 8.15.1.2.5, A.8.15.1.2.1, Exhibit 8.33, 8.15.1.2.1.1, 8.15.1.2.2, 8.15.1.2.10-12, 8.15.1.2.14 - No Sprinkler protection required for Non-Combustible Construction type attics, and/or concealed spaces as defined. Per NFPA 13 (2016) Section 8.15.7.2, A.8.15.7.2 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible. Any Electrical Equipment Rooms to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2016), and CFC 2016. No Hangers or Braces are to be connected to the Deck. Per NFPA 13 (2016) Section 9.3.6.6 - Where Branch lines

FOR PLAN CHECK ONLY

LAWRENCE ENGINEERING GROUP

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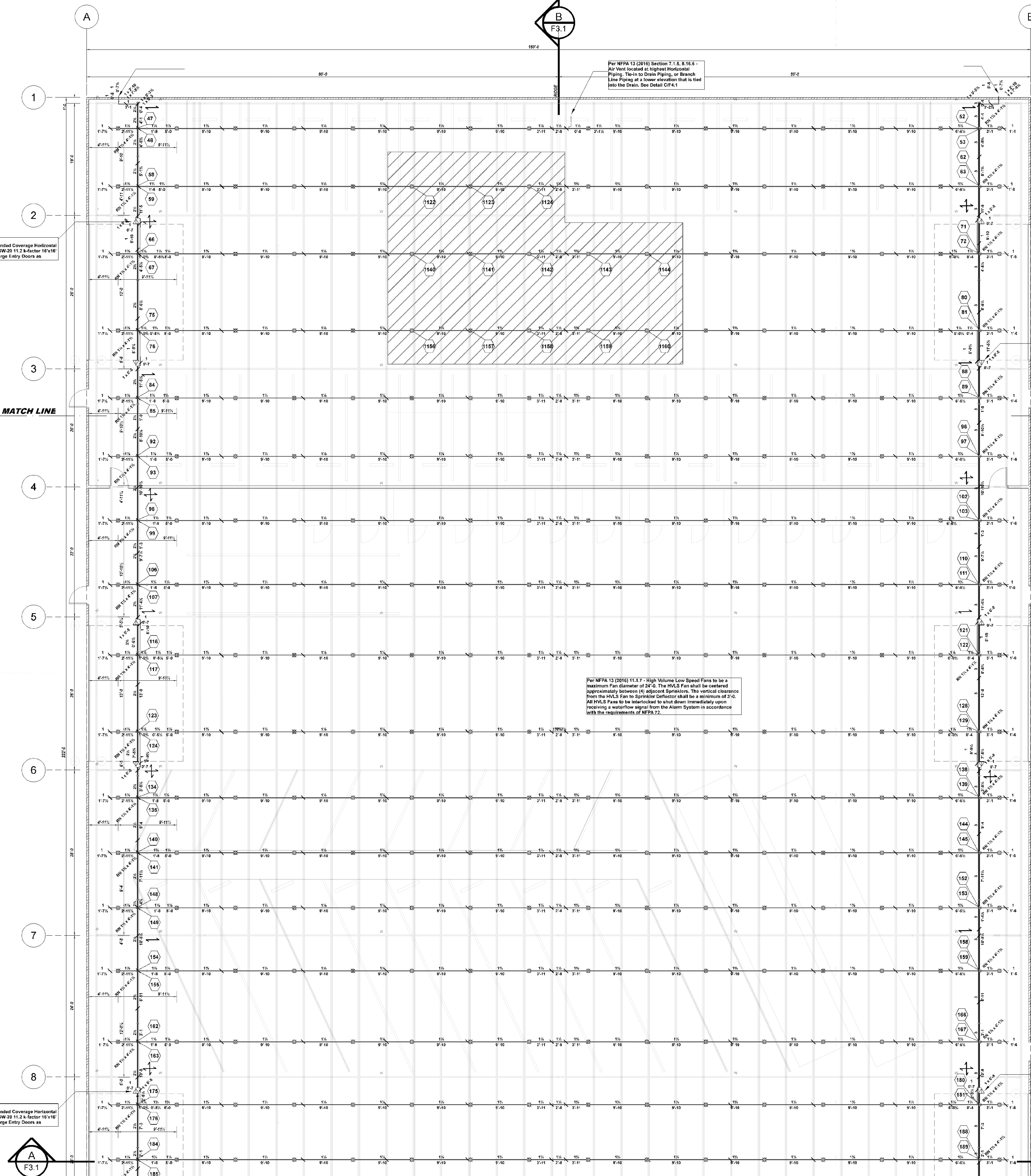
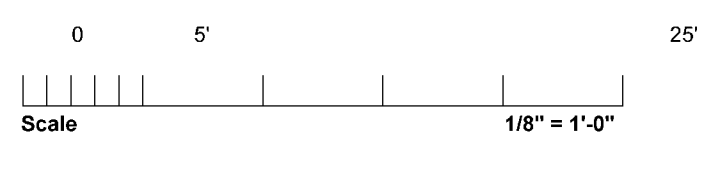
ARCHITECT: Noel Roger Davidson, AIA, Architect, California Licensed Architect No. C-27818, Fresno County Department of Public Works Capital Projects, 2220 Tulare Street, Eighth Floor, Fresno, California 93721, Telephone: (559) 560-4677, E-mail: noelrogerdavidson@fresno.ca.us

Project: Sheriff Area 2 Sub-Station Storage
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
Issue Date: 09/11/2019
Project No. T60293 / 19003.01
FILE NAME:

Sheet Content: VEHICLE STORAGE PIPING PLAN

Fresno County Department of Public Works and Planning Capital Projects
2220 Tulare Street, 8th Floor, Fresno, California 93721

Sheet No. VS-F1.0



Hydraulic Information	
Remoter Area No. 2	Ordinary Group I
OCCUPANCY CLASSIFICATION	DENSITY
250.00	0.15 gpm/ft ² for 1500 GPM (Actual 1560.00 ft ²)
TOTAL HOSE STREAMS	250.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	1.3
K-FACTOR	5.6
TOTAL WATER REQUIRED	494.06
TOTAL PRESSURE REQUIRED	38.440
BASE OF RISER (gpm)	244.06
BASE OF RISER (psi)	31.932
SAFETY MARGIN (psi)	+7.902 (16.1%)

Hydraulic Calculation Area per NFPA 13 (2016) Section 6.3.1, and Figure 11.2.3.1.1 for Ordinary Hazard Group I Occupancy.

Note: The City of Fresno issued Water Flow Information, contains a 10% Safety Margin. See current Water Flow Information.

Branch Line Restraints are not Required Where Pipes are less than 6" Between top of Pipe and Point of Attachment to Structure, per NFPA 13 (2016) 9.3.6.6, Unless Noted Otherwise. This Project - Upright Detectors to be located 6" Below Labels, and Hanger Rods are longer than 8"

Sprinklers shall be installed under exterior roofs or canopies exceeding 4 feet in width. Obtain permit from Fresno Fire Prevention Division for the installation of fire sprinkler systems. 2016 NFPA 13 and FPD policy No. 400.019.

Exception: Sprinklers are permitted to be omitted where the canopy or roof is of non-combustible or fire-retardant construction.

The general contractor shall coordinate interfaces between the fire alarm contractor, sprinkler contractor, mechanical contractor and any other pertinent trades. Fire alarm, sprinkler system, hood and vent extinguishing system, HVAC, fire smoke dampers, etc. All work must remain visible and may not be covered until the required fire inspections have been completed by the fire department.

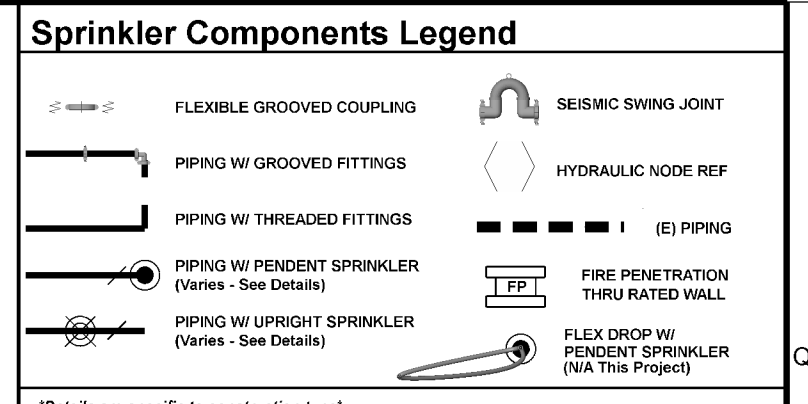
Submit plans to and obtain permit from the Fire Prevention Division for the installation or modification of fire alarm system. See FPD development policy No. 400.019.

Note: Utilize Tyco Extended Coverage Horizontal Sidewall Model SW-20 11.2 k Factor 16 x 16 spacing under large Entry Doors as

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Per NFPA 13 (2016) Section 7.1.6, 8.16.6 - All Wet Lines to be installed in highest Horizontal Piping. Tie-in to Drain Piping, or Branch Line Piping at a lower elevation that tie-in into the Drain. See Detail CP-4.1

Per NFPA 13 (2016) 11.1.7 - High Volume Low Speed Fans to be a maximum Fan diameter of 24"0. The HVLS Fan shall be cantared approximately between (6) adjacent Sprinklers. The vertical clearance from the HVLS Fan to Sprinkler Deflector shall be a minimum of 3'-0". All HVLS Fans to be constructed to shut down immediately upon receiving a waterflow signal from the Alarm System in accordance with the requirements of NFPA 13.



Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
⊥	LATERAL SEISMIC BRACE (Perpendicular)	Sheet F5.1
↔	LONGITUDINAL SEISMIC BRACE (Parallel)	Sheet F5.1
+	4-WAY SEISMIC BRACE (Parallel / Perpendicular)	Sheet F5.1
⊥	END OF LINE RESTRAINT	Sheet F5.1
—	PIPE HANGER	Sheet F5.1

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Per NFPA 13 (2016) Figure 11.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft, minimum utilizing most demanding Sprinkler Spacing.

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Per NFPA 13 (2016) Handbook Sections 8.15.1.2.3 - 8.15.1.2.5, 8.15.1.2.1, Exhibit 8.33, 8.15.1.2.1.1, 8.15.1.2.2, 8.15.1.2.10-12, 8.15.1.2.14 - No Sprinkler protection required for Non-Combustible Construction type attics, and/or concealed spaces as defined.

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No Hangers or Braces are to be connected to the Deck. Per NFPA 13 (2016) Section 9.3.6.6 - Where Branch lines



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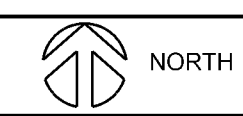
ARCHITECT:
 Noel Roger Davidson, AIA, Architect
 California Licensed Architect No. C-27818
 Fresno County Department of Public Works
 Capital Projects
 2207 Main Street, Eighth Floor
 Fresno, California 93721
 Telephone: (559) 560-4677
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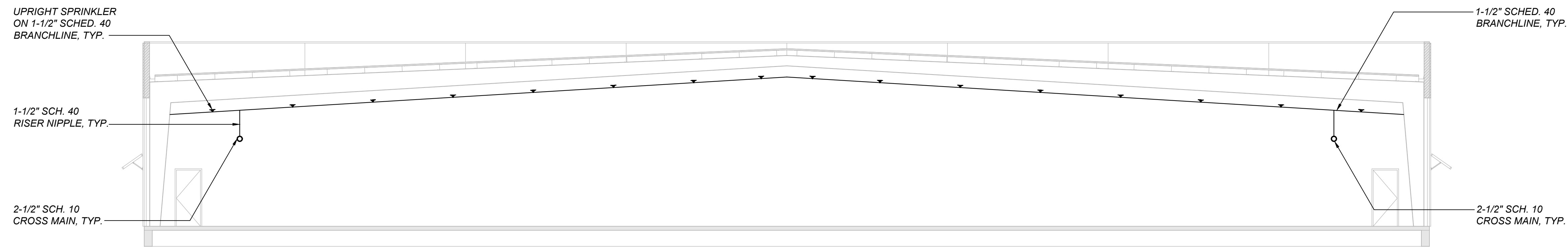
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 VEHICLE STORAGE PIPING PLAN

Fresno County Department of Public Works and Planning Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

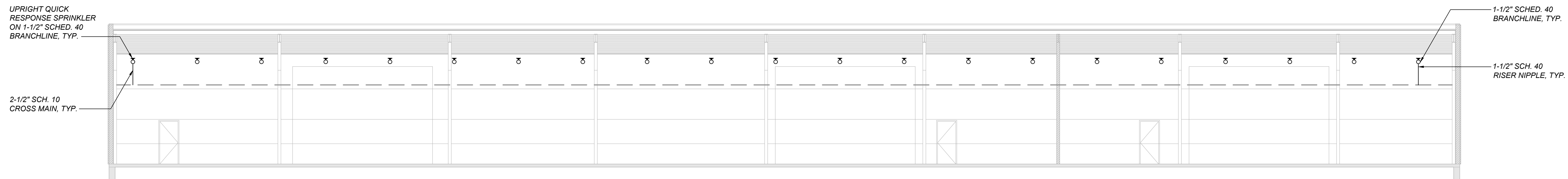
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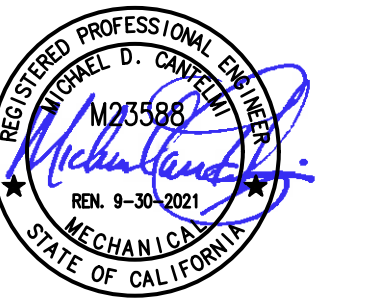
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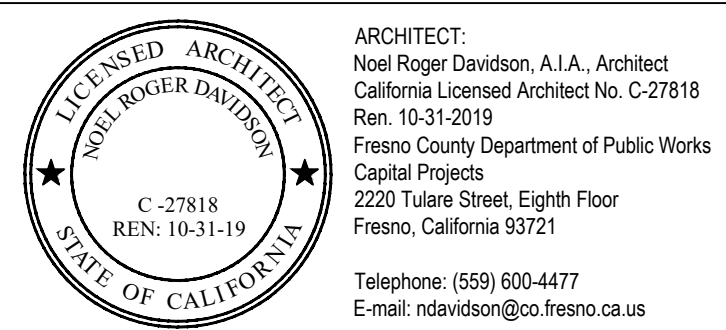
Section A
1/8" = 1'-0"



Section B
1/8" = 1'-0"



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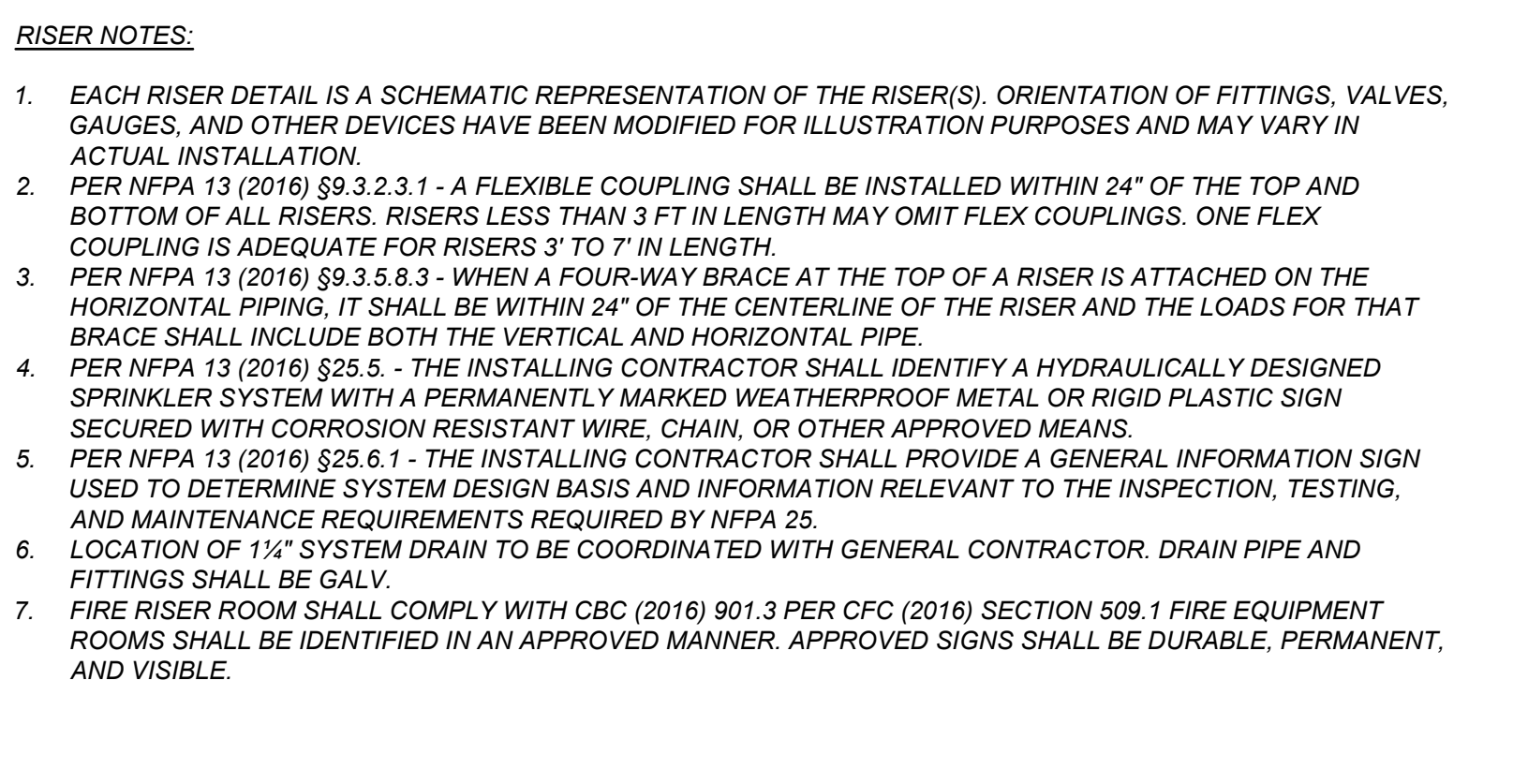
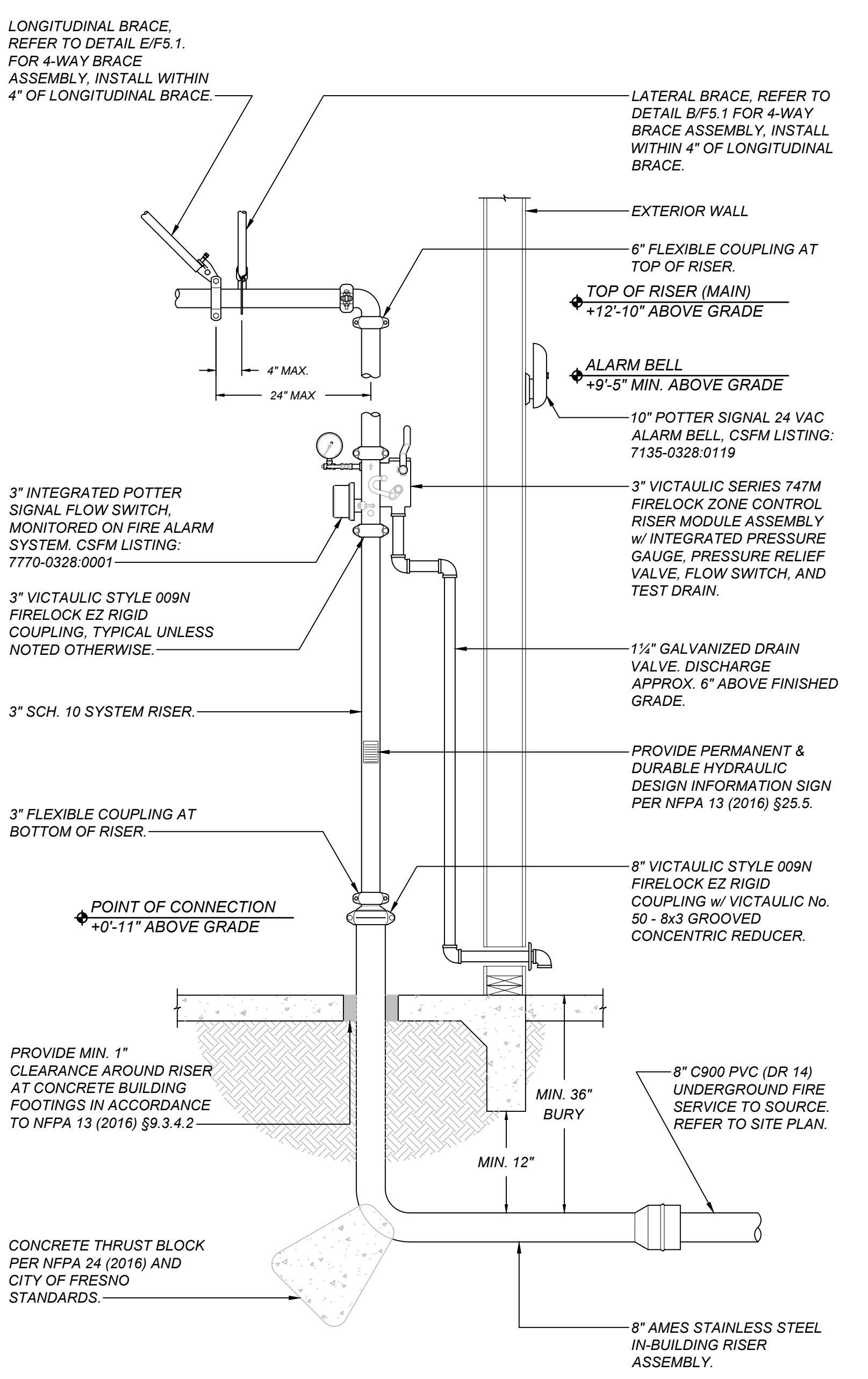
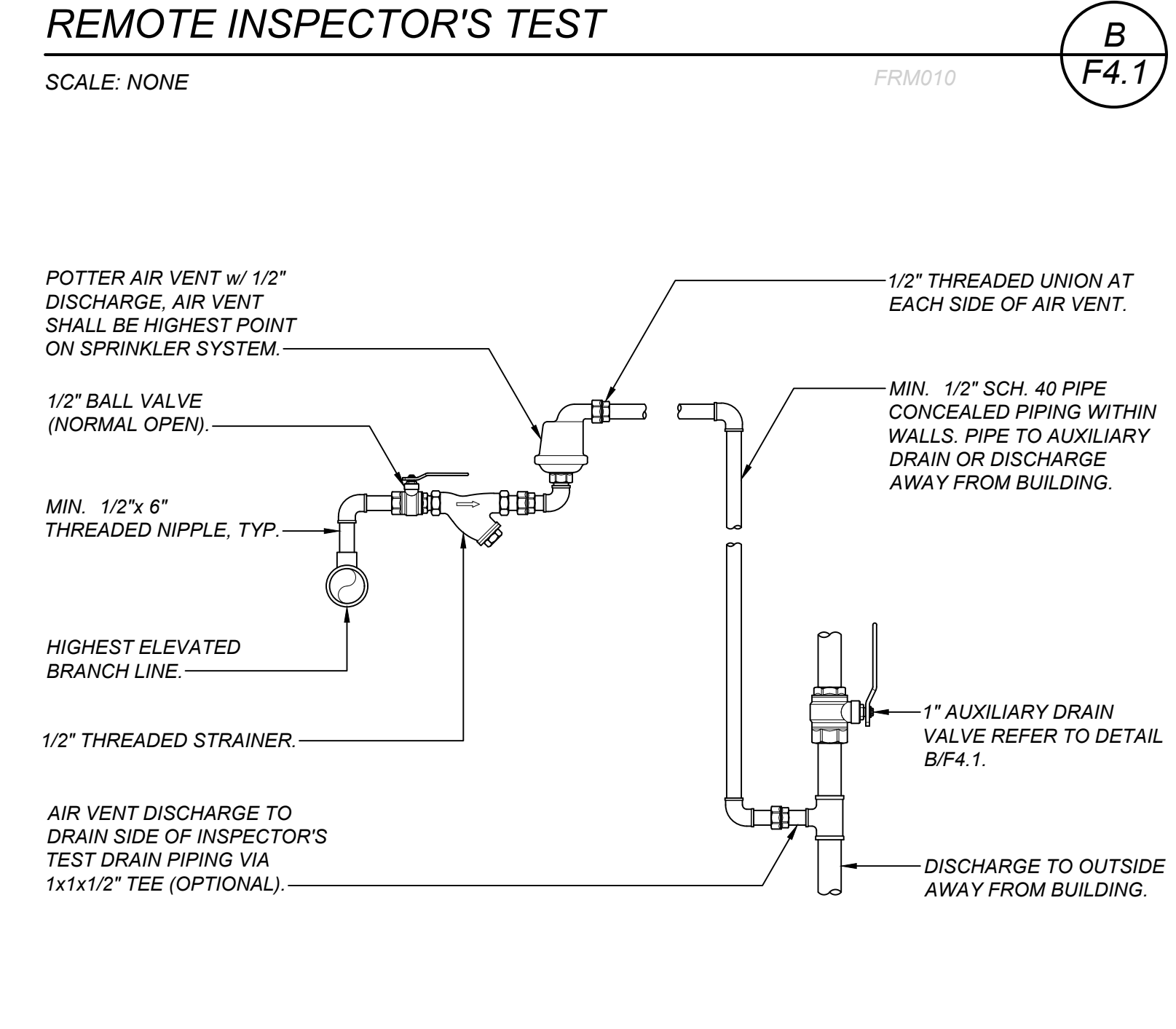
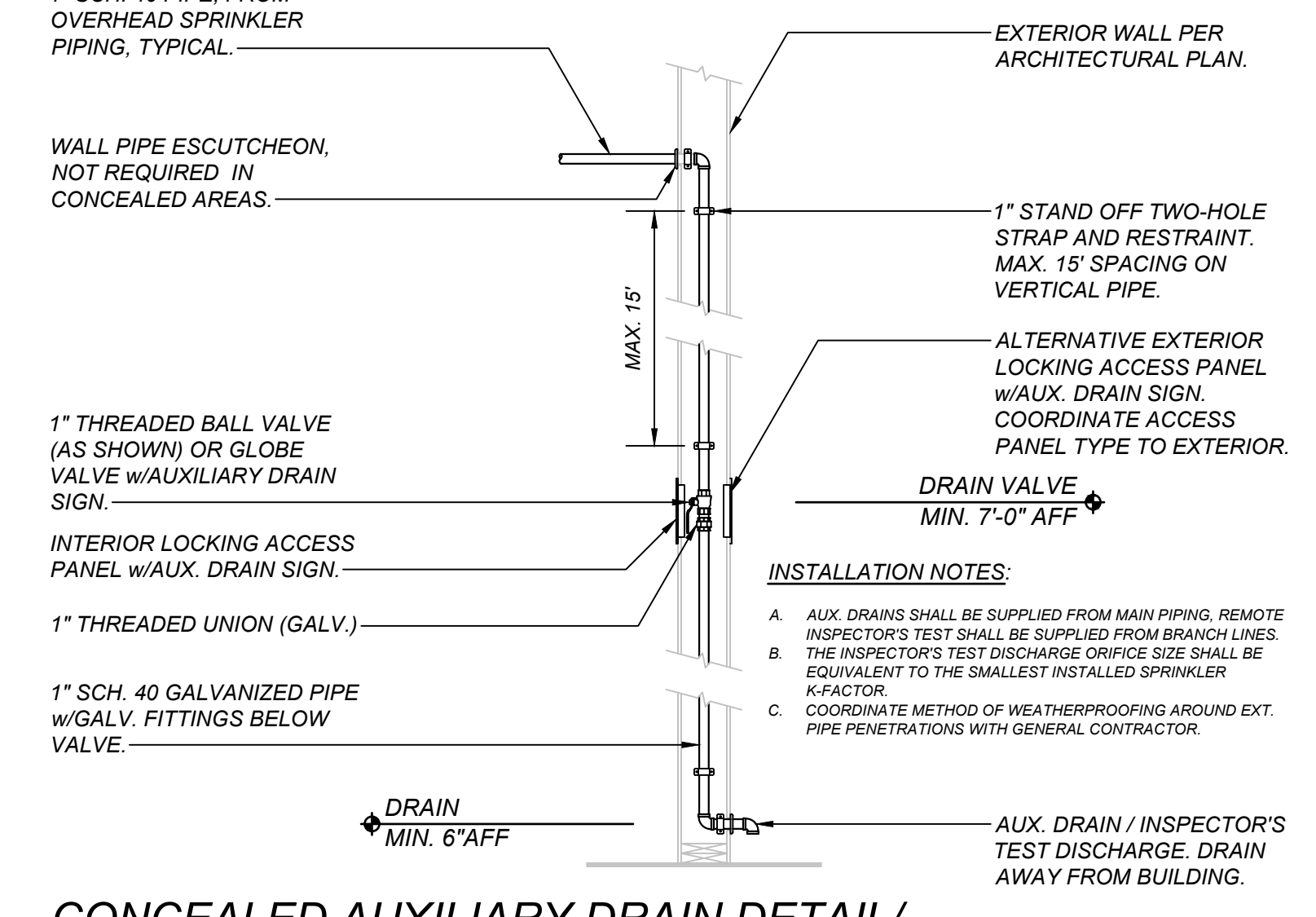
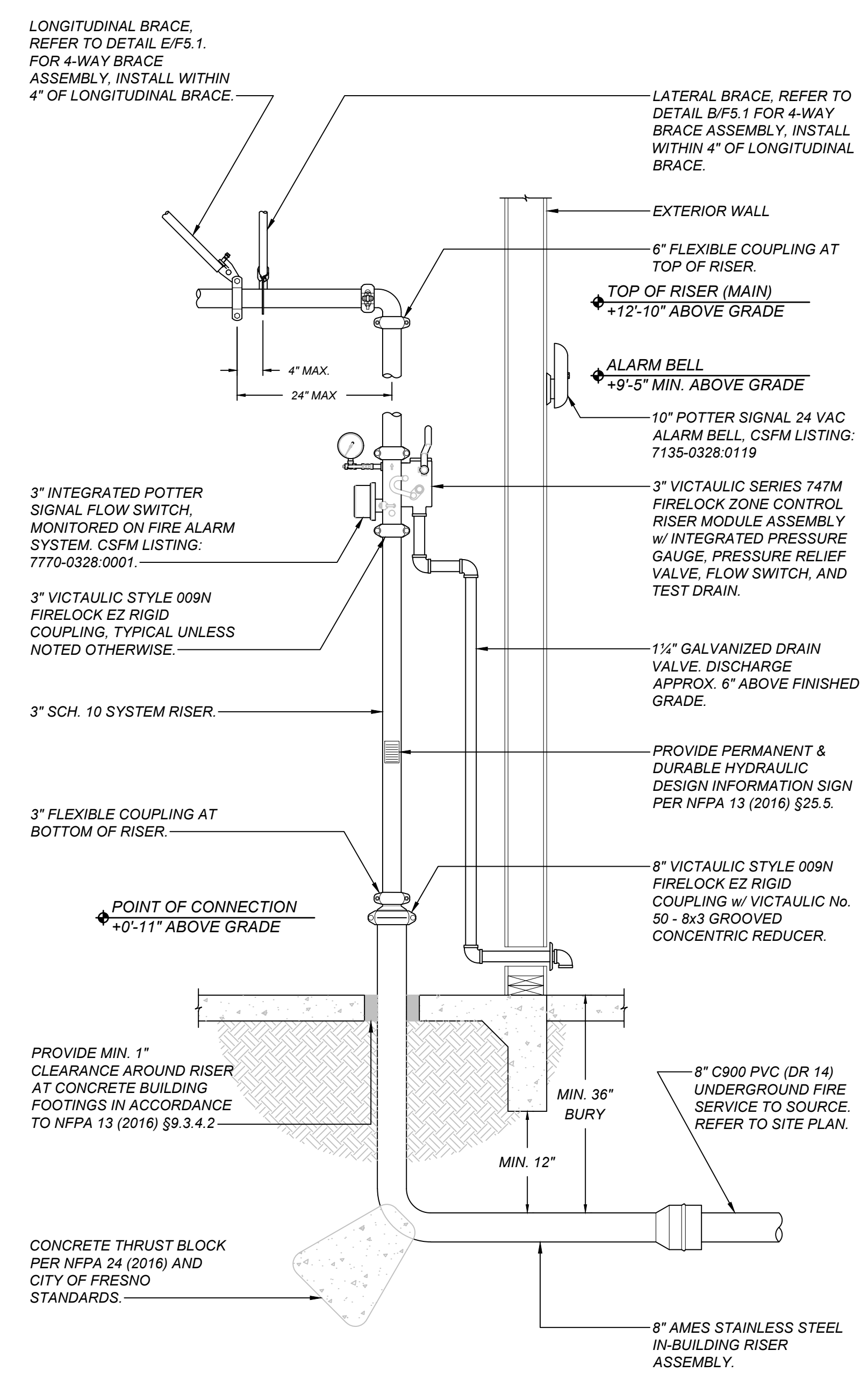
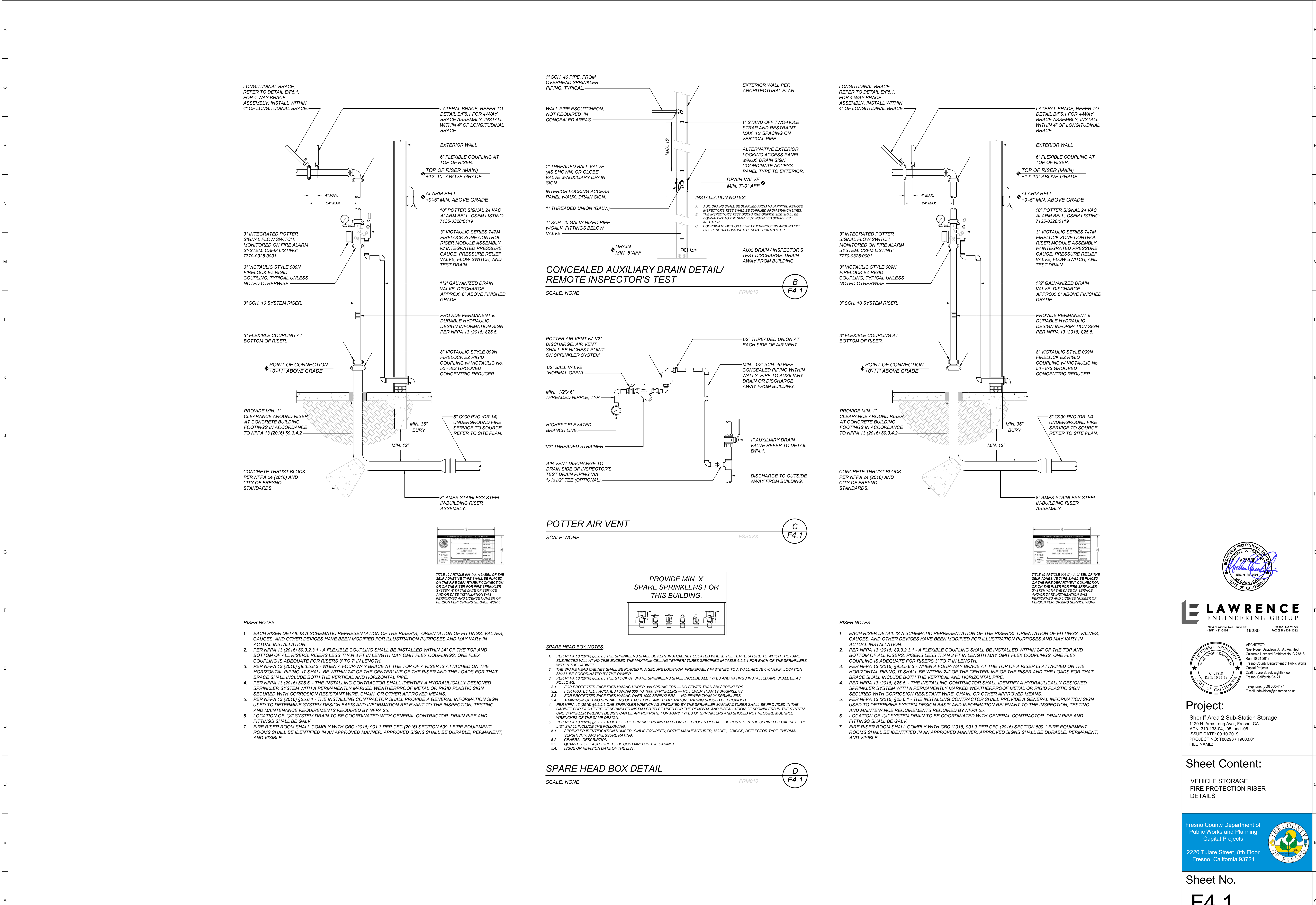
Project:
 Sheriff Area 2 Sub-Station Storage
 11220 N. Armstrong Ave., Fresno, CA
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 ISSUE DATE: 09.10.2019
 PROJECT NO: T80293 / 19003.01
 FILE NAME:

Sheet Content:
 VEHICLE STORAGE
 FIRE PROTECTION BUILDING
 SECTIONS

Fresno County Department of
 Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
F3.1





- RISER NOTES:**
- EACH RISER DETAIL IS A SCHEMATIC REPRESENTATION OF THE RISER(S). ORIENTATION OF FITTINGS, VALVES, GAUGES, AND OTHER DEVICES HAVE BEEN MODIFIED FOR ILLUSTRATION PURPOSES AND MAY VARY IN ACTUAL INSTALLATION.
 - PER NFPA 13 (2016) §9.3.2.3.1 - A FLEXIBLE COUPLING SHALL BE INSTALLED WITHIN 24" OF THE TOP AND BOTTOM OF ALL RISERS. RISERS LESS THAN 3 FT IN LENGTH MAY OMIT FLEX COUPLINGS. ONE FLEX COUPLING IS ADEQUATE FOR RISERS 3' TO 7' IN LENGTH.
 - PER NFPA 13 (2016) §9.3.5.8.3 - WHEN A FOUR-WAY BRACE AT THE TOP OF A RISER IS ATTACHED ON THE HORIZONTAL PIPING, IT SHALL BE WITHIN 24" OF THE CENTERLINE OF THE RISER AND THE LOADS FOR THAT BRACE SHALL INCLUDE BOTH THE VERTICAL AND HORIZONTAL PIPE.
 - PER NFPA 13 (2016) §25.5 - THE INSTALLING CONTRACTOR SHALL IDENTIFY A HYDRAULICALLY DESIGNED SPRINKLER SYSTEM WITH A PERMANENTLY MARKED WEATHERPROOF METAL OR RIGID PLASTIC SIGN SECURED WITH CORROSION RESISTANT WIRE, CHAIN, OR OTHER APPROVED MEANS.
 - PER NFPA 13 (2016) §25.6.1 - THE INSTALLING CONTRACTOR SHALL PROVIDE A GENERAL INFORMATION SIGN USED TO DETERMINE SYSTEM DESIGN BASIS AND INFORMATION RELEVANT TO THE INSPECTION, TESTING, AND MAINTENANCE REQUIREMENTS REQUIRED BY NFPA 25.
 - LOCATION OF 1/2" SYSTEM DRAIN TO BE COORDINATED WITH GENERAL CONTRACTOR. DRAIN PIPE AND FITTINGS SHALL BE GALV.
 - FIRE RISER ROOM SHALL COMPLY WITH CBC (2016) 901.3 PER CFC (2016) SECTION 509.1 FIRE EQUIPMENT ROOMS SHALL BE IDENTIFIED IN AN APPROVED MANNER. APPROVED SIGNS SHALL BE DURABLE, PERMANENT, AND VISIBLE.

- SPARE HEAD BOX NOTES:**
- PER NFPA 13 (2016) §9.2.9.3 THE SPRINKLERS SHALL BE KEPT IN A CABINET LOCATED WHERE THE TEMPERATURE TO WHICH THEY ARE SUBJECTED WILL AT NO TIME EXCEED THE MAXIMUM CEILING TEMPERATURES SPECIFIED IN TABLE 6.2.5.1 FOR EACH OF THE SPRINKLERS WITHIN THE CABINET.
 - THE SPARE HEAD CABINET SHALL BE PLACED IN A SECURE LOCATION, PREFERABLY FASTENED TO A WALL ABOVE 6'-0" A.F.F. LOCATION SHALL BE COORDINATED BY THE OWNER.
 - PER NFPA 13 (2016) §9.2.9.5 THE STOCK OF SPARE SPRINKLERS SHALL INCLUDE ALL TYPES AND RATINGS INSTALLED AND SHALL BE AS FOLLOWS:
 - FOR PROTECTED FACILITIES HAVING UNDER 300 SPRINKLERS - NO FEWER THAN SIX SPRINKLERS.
 - FOR PROTECTED FACILITIES HAVING 300 TO 1000 SPRINKLERS - NO FEWER THAN 12 SPRINKLERS.
 - FOR PROTECTED FACILITIES HAVING OVER 1000 SPRINKLERS - NO FEWER THAN 24 SPRINKLERS.
 - A MINIMUM OF TWO SPRINKLERS OF EACH TYPE AND TEMPERATURE RATING SHOULD BE PROVIDED.
 - PER NFPA 13 (2016) §2.9.6 ONE SPRINKLER WRENCH AS SPECIFIED BY THE SPRINKLER MANUFACTURER SHALL BE PROVIDED IN THE CABINET FOR EACH TYPE OF SPRINKLER INSTALLED TO BE USED FOR THE REMOVAL AND INSTALLATION OF SPRINKLERS IN THE SYSTEM. ONE SPRINKLER WRENCH DESIGN CAN BE APPROPRIATE FOR MANY TYPES OF SPRINKLERS AND SHOULD NOT REQUIRE MULTIPLE WRENCHES OF THE SAME DESIGN.
 - PER NFPA 13 (2016) §2.9.7 A LIST OF THE SPRINKLERS INSTALLED IN THE PROPERTY SHALL BE POSTED IN THE SPRINKLER CABINET. THE LIST SHALL INCLUDE THE FOLLOWING:
 - SPRINKLER IDENTIFICATION NUMBER (SN) IF EQUIPPED; OR THE MANUFACTURER, MODEL, ORIFICE, DEFLECTOR TYPE, THERMAL SENSITIVITY, AND PRESSURE RATINGS.
 - GENERAL DESCRIPTION.
 - QUANTITY OF EACH TYPE TO BE CONTAINED IN THE CABINET.
 - ISSUE OR REVISION DATE OF THE LIST.



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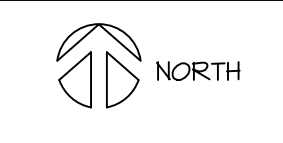


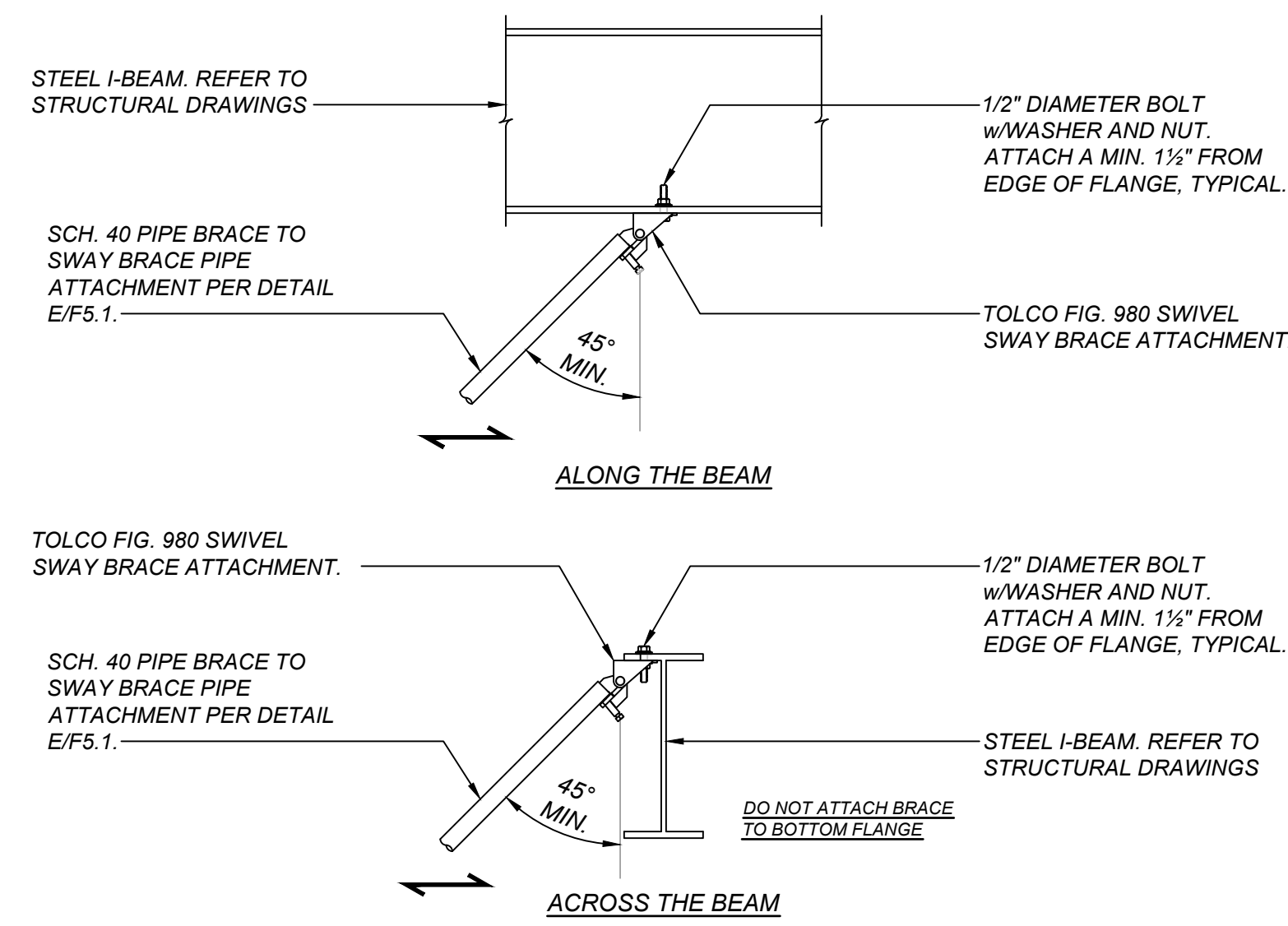
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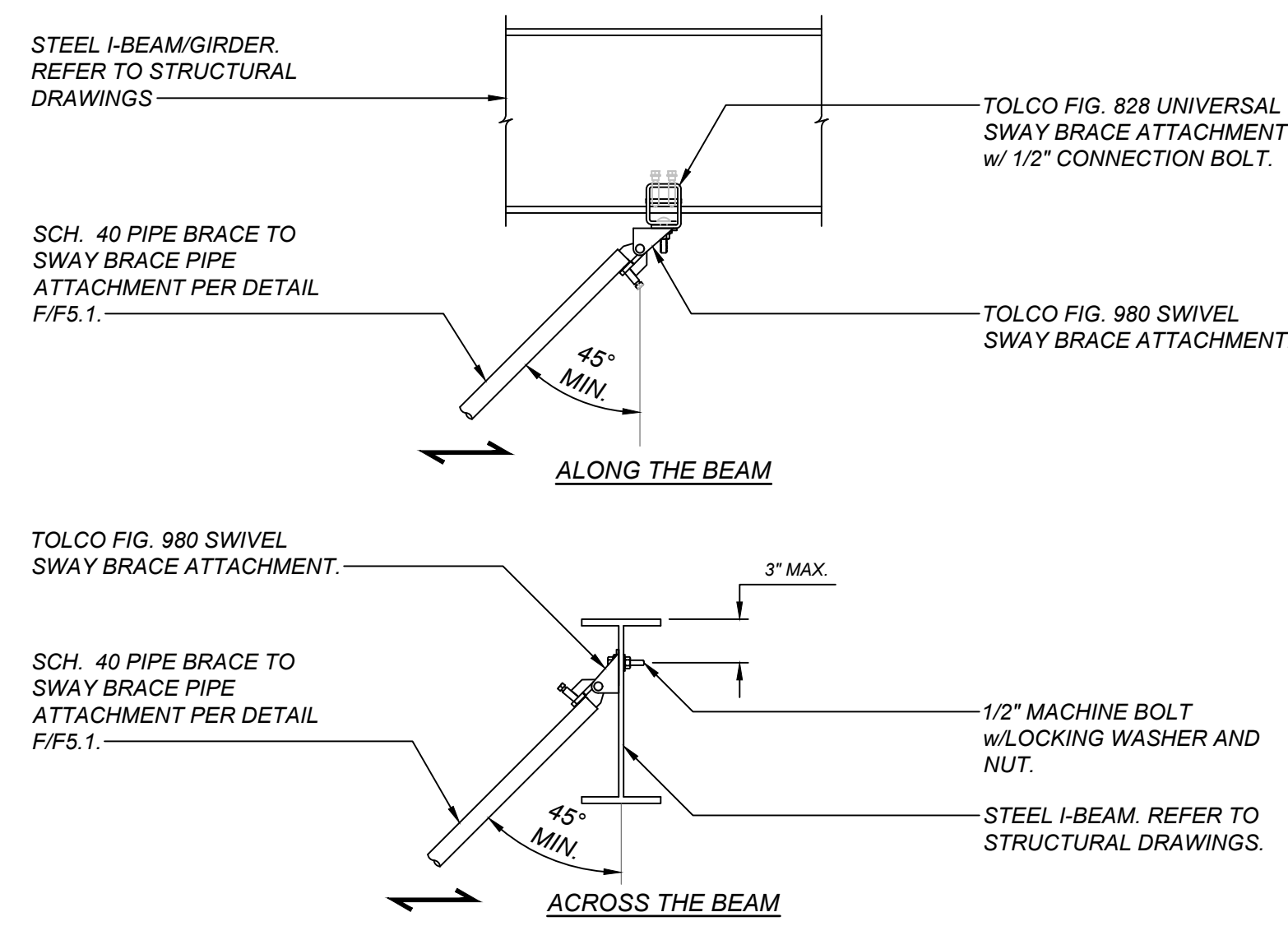
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F4.1

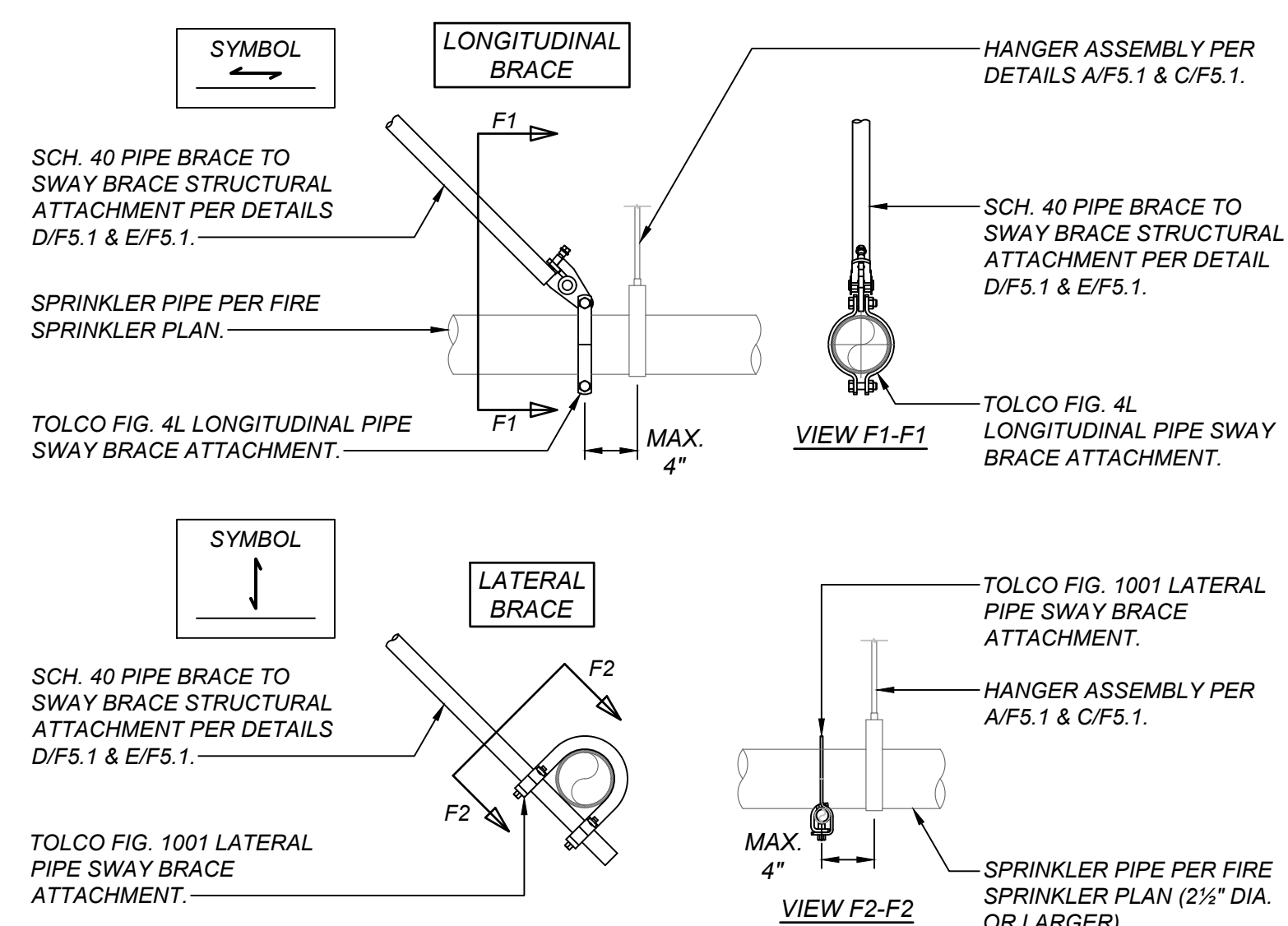




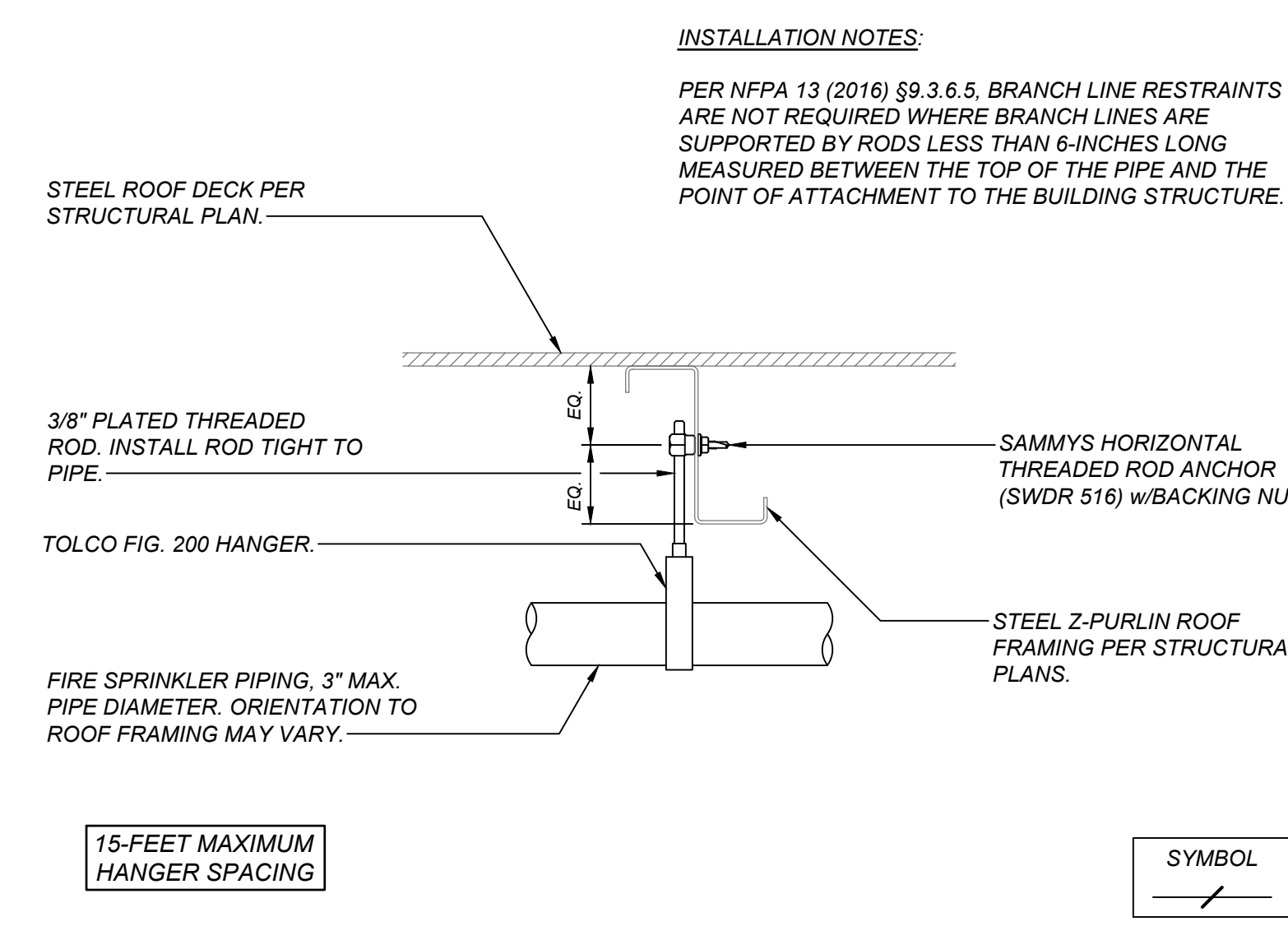
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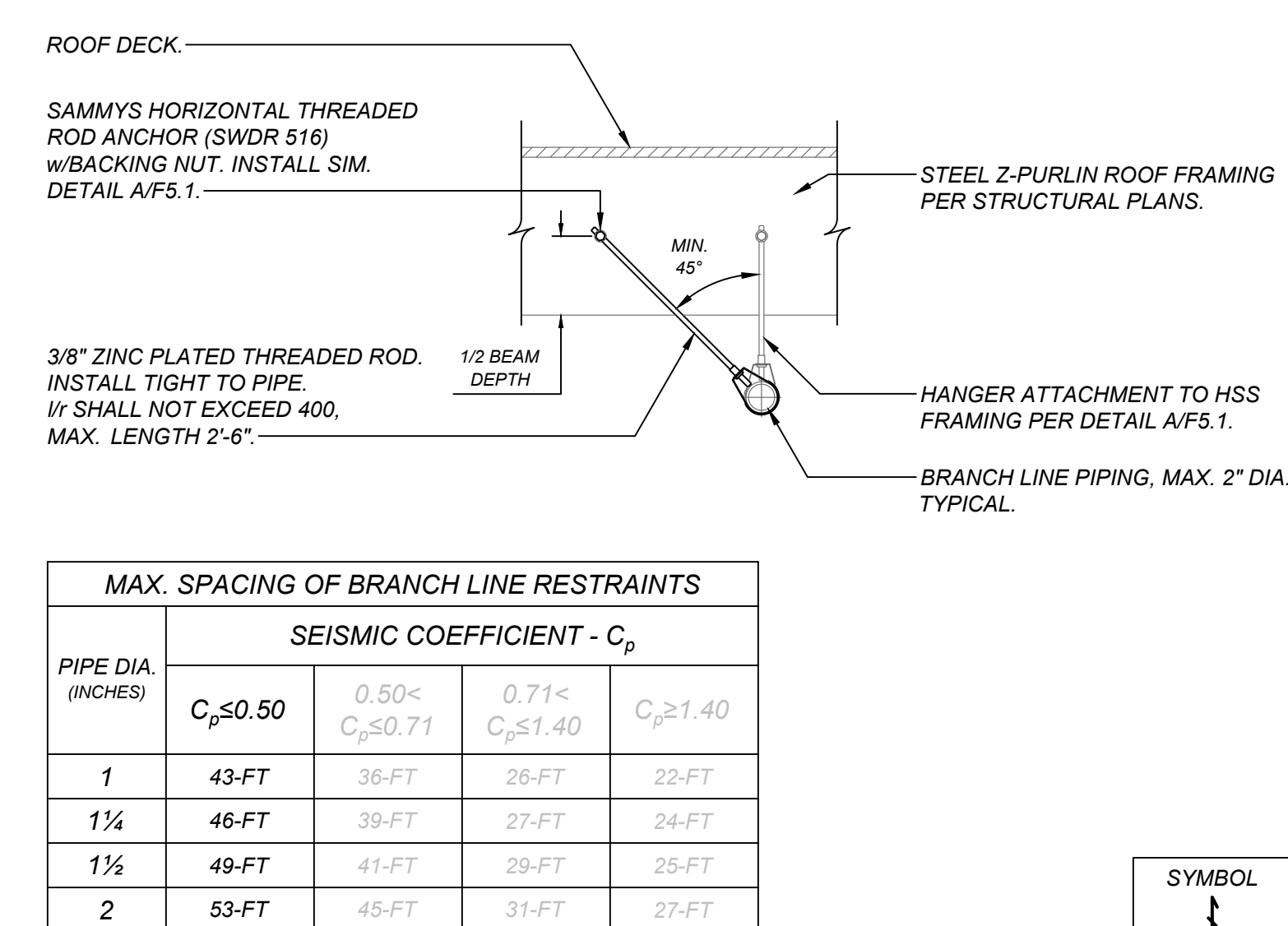
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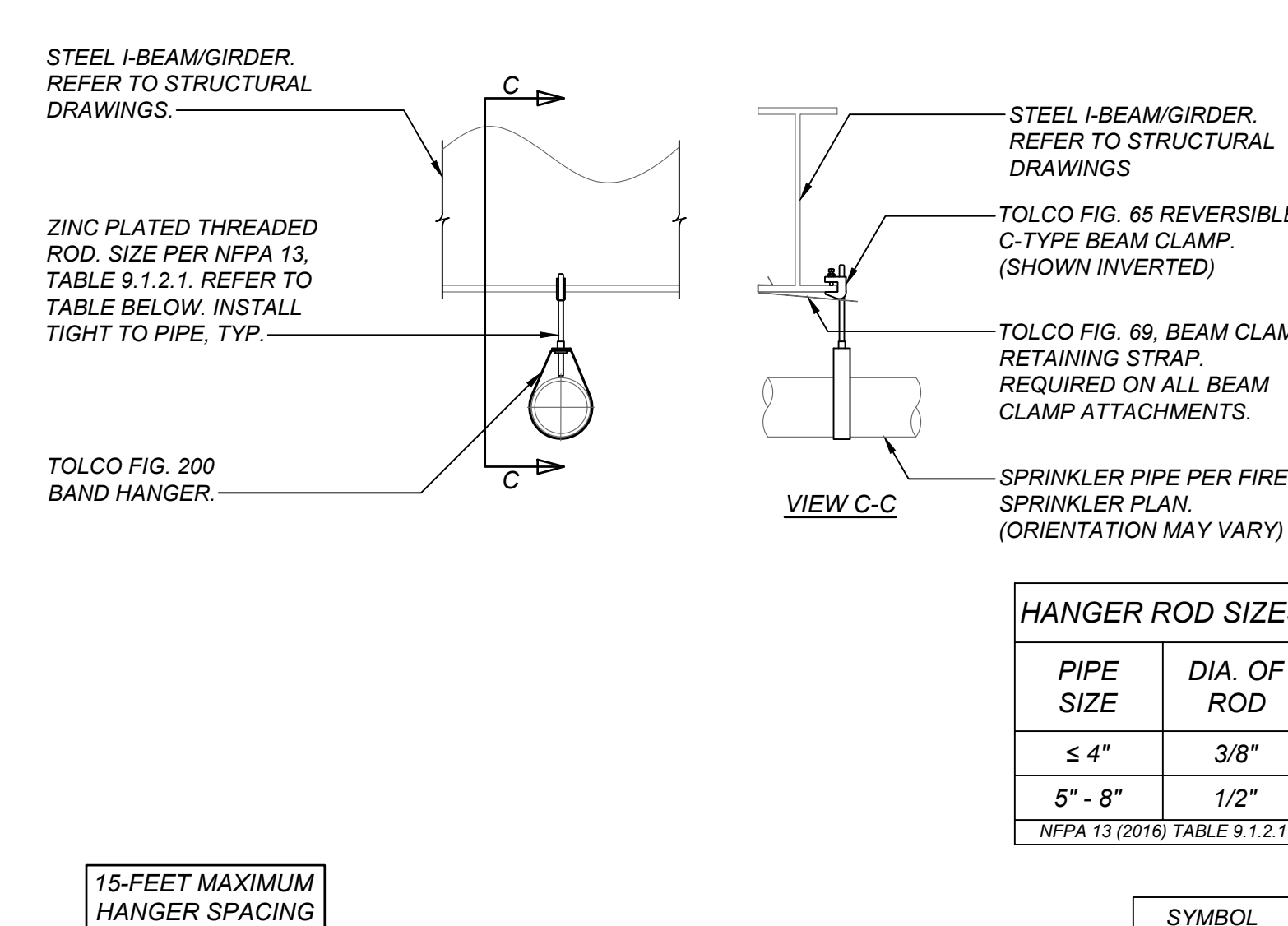
SWAY BRACE ATTACHMENT AT SPRINKLER MAIN PIPING
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PIPING HANGER SUPPORT AT STEEL Z-PURLIN ROOF FRAMING
 SCALE: NONE FSS101 **F5.1**



BRANCH LINE RESTRAINT AT STEEL PURLIN
 SCALE: NONE FSS102-11.19 **F5.1**



SPRINKLER PIPE HANGER SUPPORT AT STEEL I-BEAM
 SCALE: NONE FSS101 **F5.1**

MAX. SPACING OF BRANCH LINE RESTRAINTS

PIPE DIA. (INCHES)	SEISMIC COEFFICIENT - C _s			
	C _s ≤ 0.50	0.50 < C _s ≤ 0.71	0.71 < C _s ≤ 1.40	C _s ≥ 1.40
1	43-FT	36-FT	26-FT	22-FT
1 1/4	46-FT	39-FT	27-FT	24-FT
1 1/2	49-FT	41-FT	29-FT	25-FT
2	53-FT	45-FT	31-FT	27-FT

NFPA 13 (2016) TABLE 9.3.6.4(b)

- HANGER AND SWAY BRACING INSTALLATION NOTES:**
- INSTALLATION OF ALL HANGERS AND SWAY BRACING SHALL BE INSTALLED IN ACCORDANCE TO NFPA 13 (2016).
 - ALL HARDWARE AND METAL COMPONENTS SHALL HAVE NON-CORROSIVE PLATING OR FINISH.
 - SWAY BRACE MAXIMUM SPACING SHALL NOT EXCEED THOSE VALUES LISTED IN THE SEISMIC CALCULATIONS.
 - SCH. 40 PIPE BRACING SHALL BE LIMITED TO THOSE LENGTHS LISTED IN NFPA 13, TABLE 9.3.5.11.8(b) WITH I_w=200.
 - 1" DIA. SCH. 40 PIPE MAX. 7'-0" LENGTH.
 - 1 1/4" DIA. SCH. 40 PIPE MAX. 9'-0" LENGTH.
 - 1 1/2" DIA. SCH. 40 PIPE MAX. 10'-4" LENGTH.
 - 2" DIA. SCH. 40 PIPE MAX. 13'-1" LENGTH.
 - PER NFPA 13 (2016) §9.3.6.5, A BRANCH LINE RESTRAINT SHALL CONSIST OF A HANGER NOT LESS THAN 45° FROM VERTICAL, INSTALLED WITHIN 6-INCHES OF THE VERTICAL, HANGER ARRANGED FOR RESTRAINT AGAINST UPWARD MOVEMENT, PROVIDED IT IS UTILIZED SUCH THAT L_R DOES NOT EXCEED 400, WHERE THE ROD EXTENDS TO THE PIPE OR A SURGE CLIP HAS BEEN INSTALLED.
 - MAXIMUM BRANCH LINE RESTRAINT SHALL NOT EXCEED SPECIFIED DISTANCES INDICATED IN NFPA 13 (2016) TABLE 9.3.6.4(b).
 - PER NFPA 13 (2016) §9.3.6.5, BRANCH LINE RESTRAINTS ARE NOT REQUIRED WHERE BRANCH LINES ARE SUPPORTED BY RODS LESS THAN 6-INCHES LONG MEASURED BETWEEN THE TOP OF THE PIPE AND THE POINT OF ATTACHMENT TO THE BUILDING STRUCTURE.

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 California Licensed Architect No. C-27818
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Sheet Content:
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Fresno County Department of Public Works and Planning
 Capital Projects
 2220 Tulare Street, 8th Floor
 Fresno, California 93721

Sheet No.
F5.1

14 May 2020 3:41 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\Drawings\A1\FIREPROTECT\F5.1 - STRUCT DETAIL.dwg Benjamin

14 May 2020 3:47 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawing\6-Fire Protection\F6.1 - Install Details.dwg bjojpin

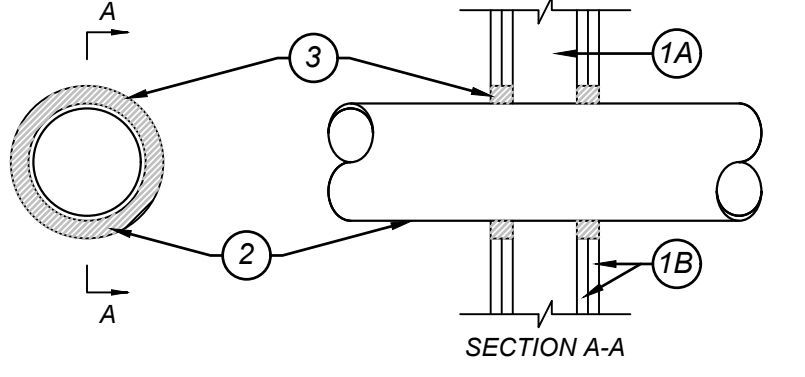
NOTES:

- WALL ASSEMBLY - THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOMINAL 2"x4" LUMBER SPACED 16" OC. STEEL STUDS TO BE MIN. 2-1/2" WIDE AND SPACED MAX. 24" OC. WHEN STEEL STUDS ARE USED AND THE DIAMETER OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4"-6" WIDER AND 4"-6" HIGHER THAN THE DIAMETER OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2"-3" CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
 - GYPSUM BOARD - 5/8" THICK, 4' WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAMETER OF OPENING IS 32-1/4" FOR STEEL STUD WALLS. MAX. DIAMETER OF OPENING IS 14-1/2" FOR WOOD STUD WALLS. THE F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE FIRE RATING OF THE WALL ASSEMBLY.
- THROUGH-PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN. 0" TO MAX 2-1/4" PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
 - STEEL PIPE - NOMINAL 30"Ø (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE - NOMINAL 6"Ø (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - CONDUIT - NOMINAL 4"Ø (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. DIAMETER STEEL CONDUIT.
 - COPPER TUBING - NOMINAL 6"Ø (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - COPPER PIPE - NOMINAL 6"Ø (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
- FILL VOID OR CAVITY MATERIAL HILTI FS-ONE SEALANT - MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS. FLUSH WITH BOTH SURFACES OF WALL AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND WALL. A MIN. 1/2"Ø BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE WALL INTERFACE ON BOTH SURFACES OF WALL.

PIPE CLEARANCE NOTES:

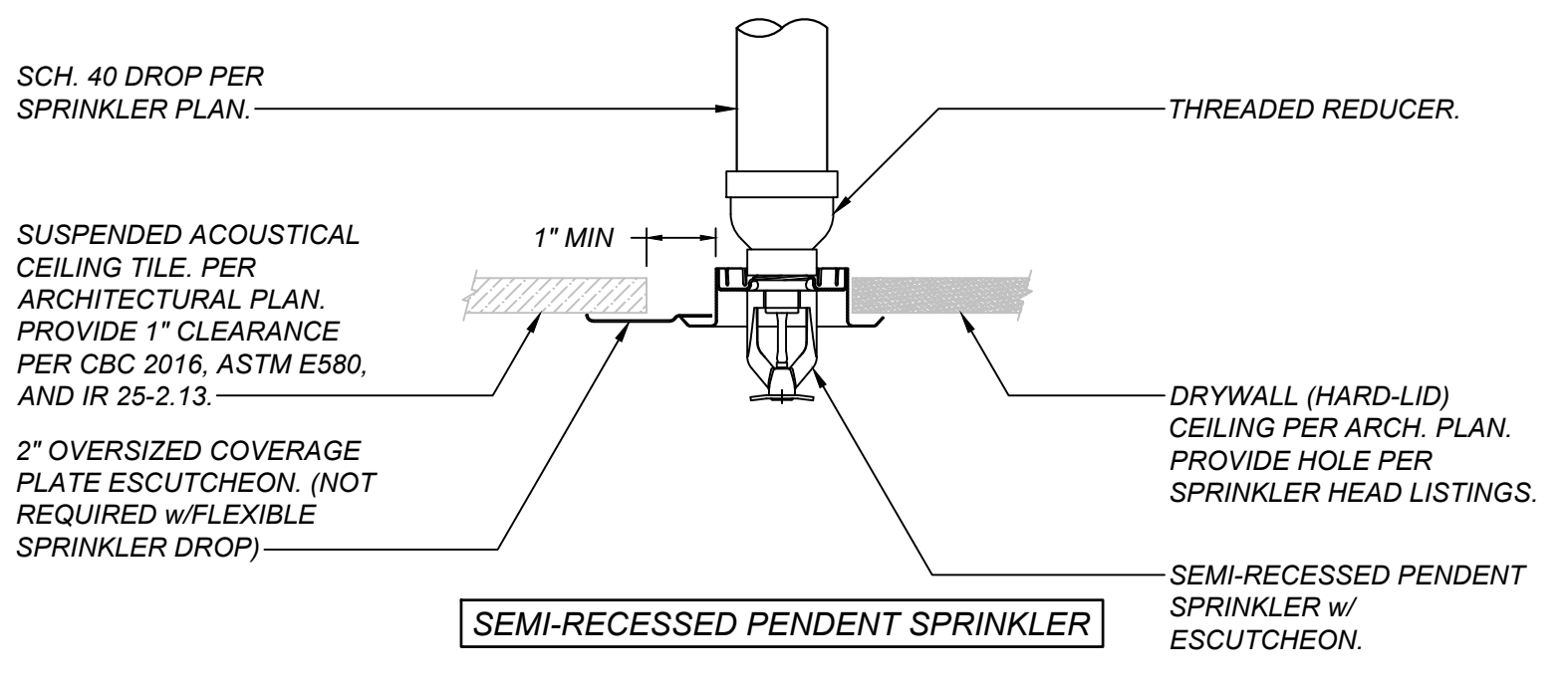
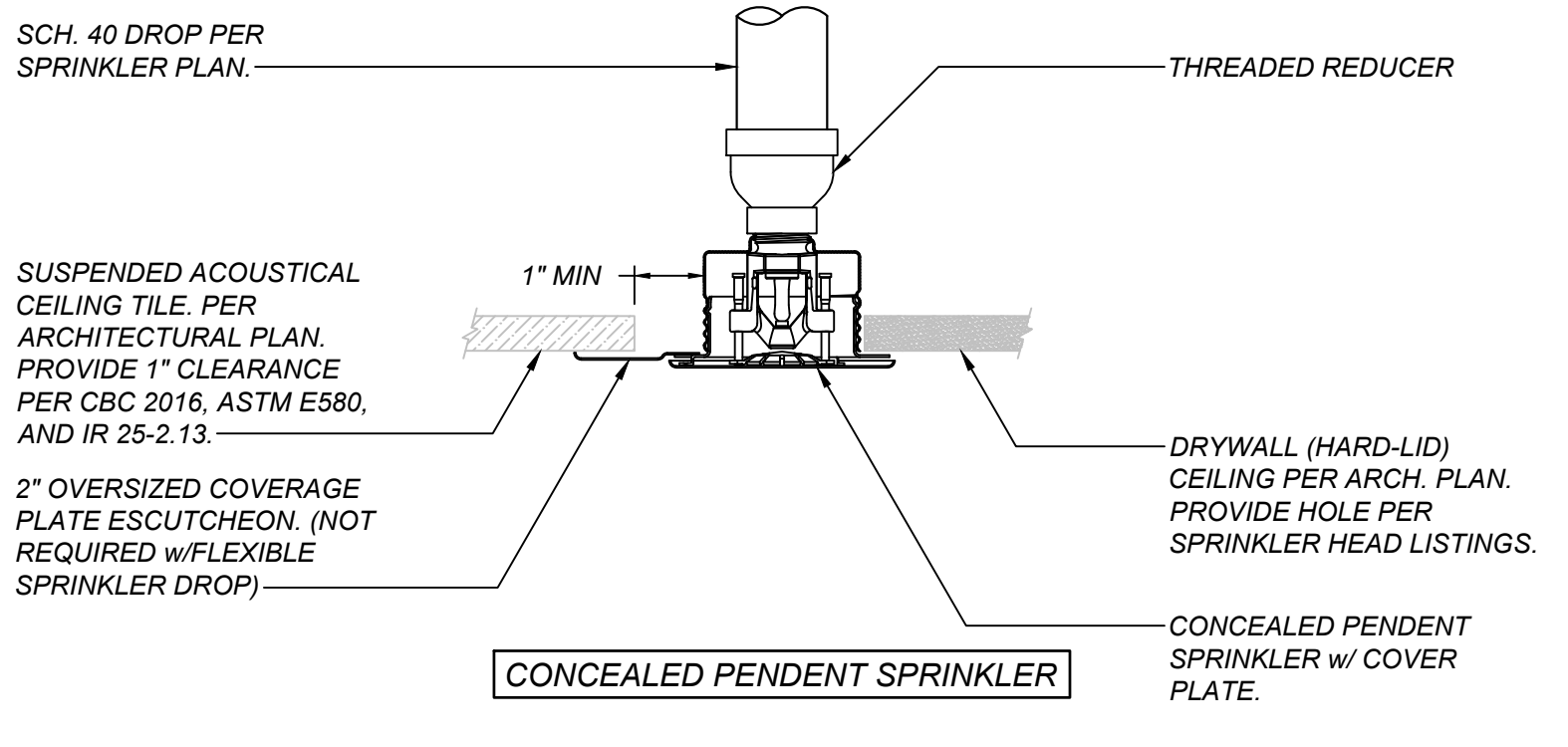
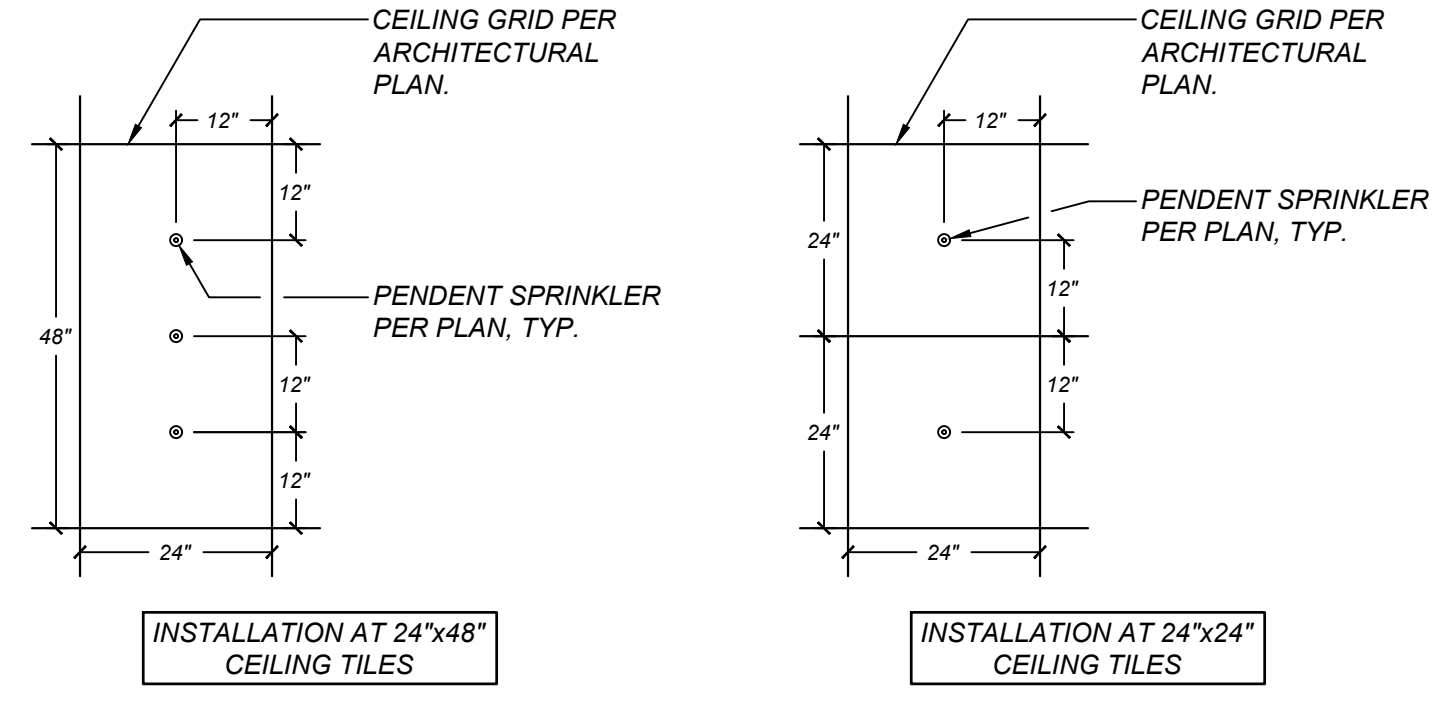
- PER NFPA 13 (2016) 9.3.4.1 - CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS, AND FOUNDATIONS, INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS, AND OTHER AUXILIARY PIPING.
- PER NFPA 13 (2016) 9.3.4.2 - WHERE PIPE PASSES THROUGH HOLES IN PLATFORMS, FOUNDATIONS, WALLS, OR FLOORS, THE HOLES SHALL BE SIZED SUCH THAT THE DIAMETER OF THE HOLES IS NOMINALLY 2" LARGER THAN THE PIPE FOR PIPE 1" NOMINAL TO 3-1/2" NOMINAL AND 4" LARGER THAN THE PIPE FOR PIPE 4" NOMINAL AND LARGER.
- PER NFPA 13 (2016) 9.3.4.4 - NO CLEARANCE SHALL BE REQ'D FOR PIPING PASSING THROUGH GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQ'D TO HAVE A FIRE RESISTANCE RATING.

SYSTEM NO. W-L-1054
 F RATINGS - 1 AND 2 HR (SEE ITEMS 1 AND 3)
 T RATING - 0 HR
 L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT
 L RATING AT 400 F-4 CFM/SQ FT

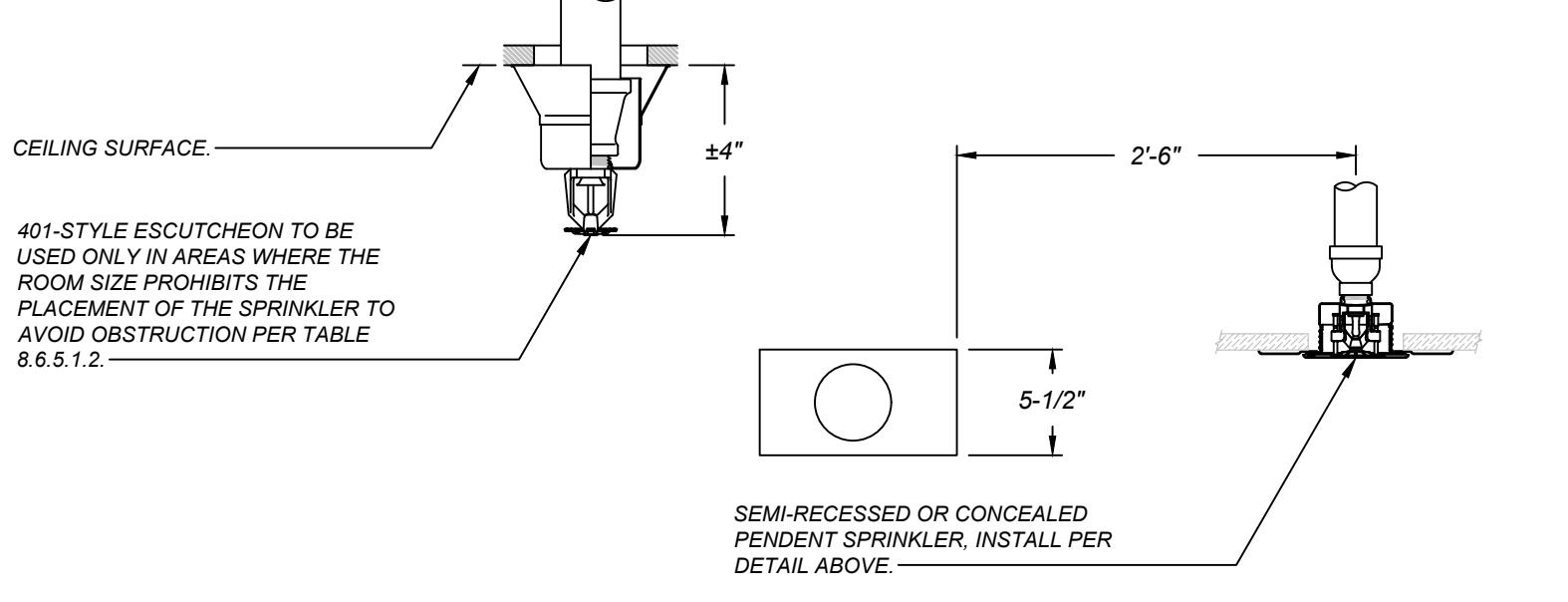


INSTALLATION NOTES:

- PENDENT SPRINKLER HEADS INSTALLED WITHIN SUSPENDED CEILING TILES SHALL BE POSITIONED "CENTER OF TILE" AS INDICATED PER PROJECT SPECIFICATIONS. HOWEVER, SPRINKLER SPACING SHALL NOT EXCEED THE MAXIMUM SPRINKLER SPACING PER NFPA 13 (2016) §6.6.3.1, §6.6.3.2, §6.6.3.2.4.1 §6.6.3.1, §6.6.3.2 AND FIRE SPRINKLER MANUFACTURER LISTINGS.
- PENDENT SPRINKLER HEADS INSTALLED IN DRY-WALL CEILINGS SHALL BE POSITIONED PER PLAN, ALIGNED WITH LIGHTING, AUDIO, AND OTHER CEILING FEATURES. HOWEVER, SPRINKLER SPACING SHALL NOT EXCEED MAXIMUM NFPA 13 REQUIREMENTS AND FIRE SPRINKLER MANUFACTURER LISTINGS.



THIS DETAIL IS TO BE USED FOR AVOIDING OBSTRUCTIONS PRESENTED BY SURFACE MOUNTED LIGHTING IN GYPBOARD CEILINGS. SPRINKLER SPACING TO BE IN ACCORDANCE WITH NFPA 13 (2016) FOR PARTICULAR HAZARD, AND TYPE OF SPRINKLER WHERE OBSTRUCTION OCCURS. DETAIL AS SHOWN IS FOR STANDARD SPRAY PENDENT SPRINKLER, WITH PRESSURES FROM 15 PSI TO 100 PSI ONLY. IF EXTENDED COVERAGE OR SPECIAL LISTED SPRINKLERS ARE USED, REFER TO APPROPRIATE NFPA 13 (2016) TABLE FOR THE SPECIFIC REQUIREMENTS FOR EACH SPECIFIC TYPE OF SPRINKLER.

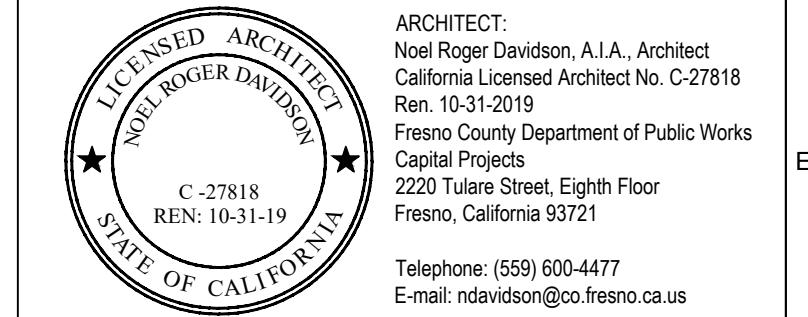


NFPA 13 (2016) TABLE 8.6.5.1.2 POSITIONING OF SPRINKLERS TO AVOID OBSTRUCTIONS TO DISCHARGE	
DISTANCE FROM SPRINKLERS TO SIDE OF OBSTRUCTION	MAX. ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION
2' TO LESS THAN 2'-6"	5'-12"

COORDINATE ALL CONCEALED PENDENT SPRINKLERS W/ CURRENT LIGHT LAYOUT AND TYPES. IN AREAS W/ SURFACE MOUNTED LIGHT FIXTURES, UTILIZE OBSTRUCTION SPACING PER NFPA 13 (2016). IF SIZE OF ROOM PROHIBITS SPACING REQUIREMENTS TO BE MET, UTILIZE ST-1E 401 ESCUTCHEON W/ PENDENT SPRINKLER OF SAME TEMPERATURE, K-FACTOR, AND DESIGN CRITERIA.



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Project:
 Sheriff Area 2 Sub-Station Storage
 11220 N. Armstrong Ave., Fresno, CA
 APN: 310-133-04, -05, and -06
 ISSUE DATE: 06.10.2019
 PROJECT NO: T80293 / 19003.01
 FILE NAME:

Sheet Content:
 VEHICLE STORAGE
 FIRE PROTECTION INSTALLATION
 DETAILS

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