PROJECT DIRECTORY

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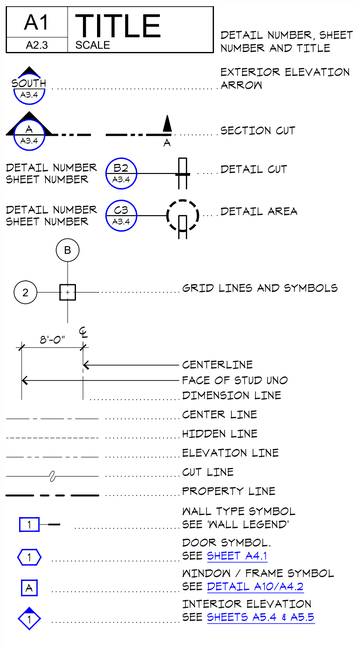
FRESNO COUNTY SHERIFF AREA 2 SUBSTATION BLDG

1129 NORTH ARMSTRONG AVENUE
FRESNO, CA 93727

ADDITIVE BID ITEMS

1. ADDITIVE BID 1 - STORAGE BUILDING AND ASSOCIATED SITE WORK. SEE SHEET A1.3 FOR EXTENTS.
2. ADDITIVE BID 2 - LARGE VEHICLE CANOPIES. SEE SHEET A1.3 AND DETAIL L9/A1.4 FOR EXTENTS.

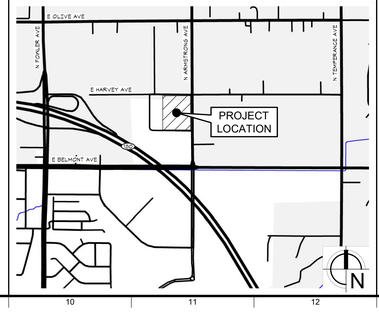
SYMBOLS LEGEND



DEFERRED SUBMITTALS

1. METAL BUILDING: THE CONTRACTOR SHALL SUBMIT COMPLETE PRE-MANUFACTURED METAL BUILDING CALCULATIONS, DESIGN DETAILS, FRAME AND COMPONENT DETAILS, AND ANCHOR BOLT PLACEMENT DIMENSIONS AND SPECIFICATIONS FOR APPROVAL BY THE COUNTY OF FRESNO DEVELOPMENT SERVICES PRIOR TO STARTING WORK.
2. FIRE SPRINKLERS: THE CONTRACTOR SHALL SUBMIT COMPLETE FIRE SPRINKLER DESIGN DRAWINGS TO FRESNO FIRE FOR APPROVAL PRIOR TO STARTING WORK
3. DATA AND DATA SUPPORT SYSTEMS.
4. LARGE VEHICLE CANOPIES: THE COVERED PARKING STRUCTURE SHALL BE "SOLAR READY" AND SHALL CONFORM TO THE ARCHITECTURAL DRAWINGS IN CLEARANCE AND AREA DIMENSIONS. THE CONTRACTOR SHALL SUBMIT COMPLETE CONSTRUCTION DETAILS, ENGINEERING CALCULATIONS FOR STRUCTURE AND CONCRETE FOOTINGS, AND MANUFACTURER'S SPECIFICATION OF MATERIALS USED IN THE CONSTRUCTION OF THE STRUCTURE. BID SHALL INCLUDE ALL LABOR AND MATERIAL FOR STRUCTURE, CONCRETE FOOTINGS AND, ELECTRICAL POWER AND LIGHTING.

VICINITY MAP



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PROJECT DATA

1. PROJECT TITLE:
   FRESNO COUNTY SHERIFF
   AREA 2 SUBSTATION
   1.1. SUBSTATION BLDG
   1.2. STORAGE BLDG
2. PROJECT ADDRESS:
   1129 N ARMSTRONG AVE
   FRESNO, CA 93727
3. APN:
   310-133-04, 05, 06T
4. LEGAL:
5. ZONING: IL/UGM/cz
6. SITE AREA: 283,080 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: 648
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:

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
Noel 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

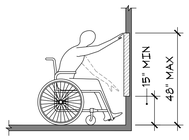
Project:
Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A0-1_Cover

Sheet Content:
COVER

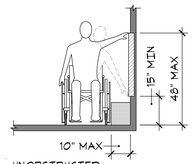
Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A0.1

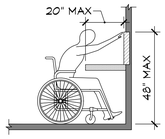
Drawn by: ----
Plot date: 06.02.2020



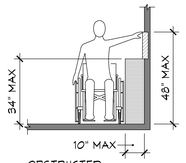
UNOBSTRUCTED
FORWARD REACH
FIGURE 11B-308.2.1



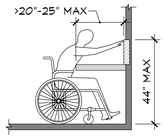
UNOBSTRUCTED
SIDE REACH
FIGURE 11B-308.3.1



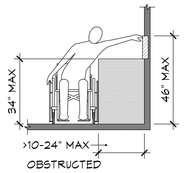
OBSTRUCTED
HIGH FORWARD REACH
FIGURE 11B-308.2.2 (a)



OBSTRUCTED
HIGH SIDE REACH
FIGURE 11B-308.3.2 (a)



OBSTRUCTED
HIGH FORWARD REACH
FIGURE 11B-308.2.2 (b)



OBSTRUCTED
HIGH SIDE REACH
FIGURE 11B-308.3.2 (b)

K1
A0.2

ACCESSIBLE REACH RANGES

SCALE: NONE

EXISTING CONDITIONS

1. BEFORE ANY WORK IS STARTED, THE CONTRACTOR SHALL VERIFY THE LOCATION AND SIZE OF ANY EXISTING UTILITY SERVING OR BEING PART OF THE SITE AND/OR BUILDING; BE IT ELECTRICAL, PLUMBING, TELEPHONE, ETC; BE IT OVERHEAD, SUBSURFACE, OR IN CONCRETE SLAB. WHETHER IT IS SCHEDULED TO BE REMOVED OR NOT REMAIN. ALL POSSIBLE CARE SHALL BE EXERCISED BY THE CONTRACTOR TO INSURE THAT ANY SAID UTILITY WILL NOT BE THE CAUSE OF ENDANGERING THE LIFE OR LIMB OF ANY PERSON.
2. VERIFICATION SHALL BE MADE FROM AVAILABLE SOURCES TO THE CONTRACTOR SUCH AS, BUT NOT LIMITED TO, UTILITY COMPANIES, PLANS OF EXISTING BUILDINGS, THE CONTRACT DOCUMENTS, THE OWNER, SITE INVESTIGATION, ETC. UPON VERIFICATION OF LOCATION AND/OR DISCOVERING ANY DISCREPANCIES BETWEEN DRAWINGS WHICH INDICATE EXISTING UTILITIES AND THAT OF ACTUAL ON-SITE CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND AWAIT FURTHER INSTRUCTIONS.

ARCHITECTURAL NOTES

1. ARCHITECTURAL DRAWINGS TAKE PRECEDENCE OVER OTHER DRAWINGS FOR LAYOUT, DIMENSIONS AND NUMBER OF ITEMS PROVIDED. UPON DISCOVERY OF DISCREPANCIES BETWEEN ARCHITECTURAL DRAWINGS AND ENGINEERING DRAWINGS, OWNER AND ARCHITECT SHALL BE IMMEDIATELY NOTIFIED IN WRITING.
2. WHERE DRAWING AND SPECIFICATIONS CONFLICT, SPECIFICATIONS SHALL GOVERN.

LAYOUT

3. DRAWINGS ARE NOT TO BE SCALED. DIMENSIONS GOVERN.
4. ALL VERTICAL DIMENSIONS SHALL BE MADE FROM THE HIGHEST POINT OF THE FLOOR SLAB TO ENSURE PROPER ALIGNMENT OF ALL DOORS, BULKHEADS, ETC.
5. ALL DRYWALL PARTITIONS ARE DIMENSIONED IN FEET AND INCHES FROM FACE OF STUD TO FACE OF STUD UNLESS NOTED OTHERWISE.
6. LOCATE INSIDE EDGE OF ALL DOOR FRAMES 3" FROM THE ADJACENT PERPENDICULAR PARTITION UNLESS NOTED OTHERWISE.

ACCESSIBILITY

7. ALL DOORS SHALL BE IN ACCORDANCE WITH UFAS AND ADA. INSTALL ALL FRAMES, DOORS AND HARDWARE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
8. OFFSETS AT ALL THRESHOLDS AND ANY CHANGE IN FLOOR MATERIAL SHALL BE A MAXIMUM OF 1/2 INCH. OFFSETS EQUAL TO OR LESS THAN 1/4 INCH MAY BE VERTICAL. OFFSETS GREATER THAN 1/4 INCH REQUIRE A MAXIMUM BEVELED SLOPE OF 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL.
9. ELECTRICAL SWITCHES, CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL COMPLY WITH DETAIL K1/A0.2 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. (CBC 11B-308.1.1)
10. ELECTRICAL RECEPTACLE OUTLETS. ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL COMPLY WITH DETAIL K1/A0.2 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. (CBC 11B-308.1.2)

INSTALLATION AND FINISHES

11. ALL FINISH MATERIALS, FIXTURES, EQUIPMENT, HARDWARE, MILLWORK AND ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH ALL MANUFACTURERS RECOMMENDATIONS. PROVIDE ALL SUPPORT BACKING OR REINFORCEMENT OR OTHER PREPARATIONS AS REQUIRED.
12. ALL EXPOSED EDGES AND / OR CORNERS ON ALL PAINTED DRYWALL CONSTRUCTION SHALL RECEIVE A METAL BEAD WHICH IS TO BE TAPED AND FLOATED SMOOTH.
13. GLASS MAT WATER-RESISTANT GYPSUM BACKING PANELS, DISCRETE NONASBESTOS FIBER-CEMENT INTERIOR SUBSTRATE SHEETS OR NONASBESTOS FIBER-MAT REINFORCED CEMENTITIOUS BACKER UNITS IN COMPLIANCE WITH ASTM C 1178, C 1288 OR C 1325 AND INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS SHALL BE USED AS A BASE FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS.
14. WATER-RESISTANT GYPSUM BACKING BOARD SHALL BE USED AS A BASE FOR TILE IN WATER CLOSET COMPARTMENT WALLS WHEN INSTALLED IN ACCORDANCE WITH GA-216 OR ASTM C 840 AND MANUFACTURER RECOMMENDATIONS. REGULAR GYPSUM WALLBOARD IS PERMITTED UNDER TILE OR WALL PANELS IN OTHER WALL AND CEILING AREAS WHEN INSTALLED IN ACCORDANCE WITH GA-216 OR ASTM C 840.
15. COORDINATE ALL FLOOR AND CEILING FINISHES TO ENSURE THAT JOINTS AND TRANSITIONS BETWEEN MATERIALS, WHETHER THEY BE WALL TO WALL, WALL TO FLOOR, FLOOR TO FLOOR, WALL TO CEILING, OR CEILING TO CEILING, WILL BE SMOOTH, TRUE, LEVEL AND IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND SCHEDULES.
16. ALL INTERIOR STRIPPING, CAULKING, AND SEALING OF EXTERIOR DOORS, WINDOWS, AND BUILDING ENVELOPE OPENINGS, AS REQUIRED BY THE STANDARDS, SHALL BE SUBJECT TO FIELD INSPECTION.
17. AFTER INSTALLING THE INSULATION, THE INSTALLER SHALL POST IN A CONSPICUOUS LOCATION IN THE BUILDING AN INSULATION CERTIFICATE SIGNED BY THE INSTALLER AND THE BUILDER, STATING THAT THE INSULATION CONFORMS WITH THE REQUIREMENTS OF TITLE 24, PART 1 CHAPTER 10-103 OF THE CALIFORNIA ADMINISTRATIVE CODE.
18. ALL CASEWORK SHALL BE CONSTRUCTED PER THE LATEST EDITION ARCHITECTURAL WOODWORK STANDARDS (AWS) AND ADA COMPLIANCE. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION.
19. ALL JOINTS, PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHER-STRIPPED OR OTHERWISE SEALED TO LIMIT INFILTRATION AND EXFILTRATION. (CEC SECTION 110.7)

FIRE PROTECTION

20. THE MAXIMUM FLAME-SPREAD CLASS OF FINISH MATERIALS USED ON INTERIOR WALLS AND CEILING SHALL MEET OR EXCEED THE REQUIREMENTS OF 2016 CBC SECTION 803 AND TABLE 803.11.
21. ALL BUILDING INSULATION SHALL CONFORM TO FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF 2016 CBC SECTION 720.
22. ALL PENETRATIONS OF FIRE RATED ASSEMBLIES (FLOORS, PARTITIONS, AND / OR CEILINGS) SHALL BE FIRE STOPPED TO COMPLY WITH ALL APPLICABLE CODES AND IN ACCORDANCE WITH UL STANDARDS.
23. IN EVERY A, E, I, R-1, R-2.1, R-3.1 AND R-4 OCCUPANCIES ALL DECORATIVE MATERIALS SHALL BE OF NON-COMBUSTIBLE OR APPROVED FLAME RETARDANT TREATED MATERIALS. CCR TITLE 19, SECTION 3.08.

FIRE PROTECTION NOTES

1. THE TENANT SPACE SHALL BE PROVIDED WITH PORTABLE FIRE EXTINGUISHERS PER NFPA 10, 2-A:10-B:C RATED MINIMUM WITH A MAXIMUM 75 FOOT TRAVEL DISTANCE AND ONE FOR EVERY 6,000 SQUARE FEET (LIGHT HAZARD) (2016 CFC, SECTION 906.3.). PROVIDE FOUR (4) MINIMUM MOUNTED IN ACCORDANCE WITH NFPA 10.
2. REGARDLESS OF OCCUPANT LOAD SERVED, EXIT DOORS INDICATED ON THE DRAWINGS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
3. PROVIDE ALL REQUIRED IDENTIFICATION SIGNS.
4. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE TO DESIGN AND INSTALL A FIRE SPRINKLER SYSTEM CONFORMING TO NFPA 13, RELATED STANDARDS, THE COUNTY OF FRESNO AND FIRE PREVENTION BUREAU REQUIREMENTS.
5. THE FIRE SPRINKLER CONTRACTOR SHALL SUBMIT PLANS TO THE ARCHITECT FOR REVIEW OF COMPATIBILITY WITH THE BUILDING DESIGN.
6. THE FIRE SPRINKLER CONTRACTOR SHALL SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE SPRINKLER SYSTEM.
7. THE ALARM UNIT SHALL BE AN APPROVED, WEATHERPROOF WATER GONG WITH ONE OUTDOOR ALARM. IF ELECTRIC BELL IS USED, IT IS TO BE WIRED IN FRONT OF MAIN DISCONNECT.
8. PERFORM ALL TESTS REQUIRED BY THE LOCAL AUTHORITY FOR APPROVAL.
9. OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION (OVER THE COUNTER) FOR FIRE SPRINKLER ALARM 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 SECTIONS 405 AND 407. FFD POLICIES CAN BE FOUND AT: https://www.fresno.gov/fire-training/manuals-and-forms/
10. PROVIDE ADEQUATE WATER SUPPLY REQUIRED FOR FIRE SPRINKLER SYSTEM.
11. SUBMIT METHOD OF FIRE STOPPING TO BUILDING INSPECTOR FOR APPROVAL.
12. SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE ALARM SYSTEM. SEE FFD DEVELOPMENT POLICY 401.012.
13. ALL OUTLET BOXES IN FIRE-RESISTIVE ASSEMBLIES SHALL BE RATED AND SHALL BE A MAXIMUM SIZE OF 16 SQUARE INCHES (USE STEEL ONLY FOR ASSEMBLIES RATED MORE THAN ONE-HOUR). ALL OUTLET BOXES IN FIRE-RESISTIVE ASSEMBLIES SHALL BE SEPARATED BY A MINIMUM OF 24 INCHES HORIZONTALLY. ELECTRICAL PANELS ARE NOT PERMITTED IN FIRE-RATED ASSEMBLIES.
14. 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 FFD POLICY NO. 405.019. EXCEPTION: SPRINKLERS ARE PERMITTED TO BE OMITTED WHERE THE CANOPY OR ROOF IS OF NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE CONSTRUCTION.
15. 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.). ALL WORK MUST REMAIN VISIBLE AND MAY NOT BE COVERED UNTIL THE REQUIRED FIRE INSPECTIONS HAVE BEEN COMPLETED BY THE FIRE DEPARTMENT.
16. SUBMIT PLANS (THREE SETS) TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OF THE ABOVE GROUND FUEL TANKS AND EMERGENCY GENERATOR.

ABBREVIATIONS

AB	ANCHOR BOLT
AC	ASPHALTIC CONCRETE
ACC	ACCESSIBLE, ACCESSIBILITY
AD	AREA DRAIN
ADD'L	ADDITIONAL
ALUM	ALUMINUM
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
AUTO	AUTOMATIC
AVE	AVENUE
BD	BOARD
BLDG	BUILDING
BLK	BLOCK
BLK'G	BLOCKING
BM	BEAM
BRG	BEARING
BTM	BOTTOM
BTU	BRITISH THERMAL UNIT
C-C	CENTER TO CENTER
CAB	CABINET
CBC	CALIFORNIA BUILDING CODE
CI	CAST IRON
CJ	CONTROL JOINT
C/L	CENTER LINE
CLNG	CEILING
CLR	CLEAR(ANCE)
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CORR	CORRIDOR
C/W	COLD WATER
D	DRYER
DBL	DOUBLE
DEPT	DEPARTMENT
DF	DOUGLAS FIR
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DW	DISHWASHER
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION / ELEVATOR
EN	EDGE NAILING
ENGR	ENGINEER
ENGR'G	ENGINEERING
EST	ESTIMATE
(E), EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FAU	FORCED AIR UNIT
FD	FLOOR DRAIN
FEB	FIRE EXTINGUISHER BRACKET
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FHC	FIRE HOSE CABINET
FIN	FINISH
FIXT	FIXTURE
FL	FLOW LINE
FLASH'G	FLASHING
FLR	FLOOR
FLR'G	FLOORING
FLUOR	FLUORESCENT
FNDN	FOUNDATION
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD(S)
FS	FULL SIZE
FT	FOOT OR FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVINIZED
GC	GENERAL CONTRACTOR
GLU-LAM	GLUE-LAMINATED
GSM	GALVANIZED SHEET METAL
GYP BD	GYPSUM WALLBOARD
HB	HOSE BIBB
HC	HOLLOW CORE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HRDW	HARDWARE
HT	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING
H/W	HOT WATER
ID	INSIDE DIAMETER
IGC	INTERNATIONAL CODE COUNCIL
IN	INCH
INCL	INCLUDE(D)
INT	INTERIOR
ISA	INTERNATIONAL SYMBOL OF ACCESSIBILITY
LAM	LAMINATED
LAV	LAVATORY
LL	LIVE LOAD
LT	LIGHT
MAT'L	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MDF	MEDIUM DENSITY FIBERBOARD
MECH	MECHANICAL
MEMB	MEMBRANE
MFR	MANUFACTURE(R)
MIN	MINIMUM
MIRR	MIRROR(ED)
MISC	MISCELLANEOUS
MTD	MOUNTED
MTL	METAL
NIC	NOT IN CONTRACT
NO	NUMBER
NR	NOT RATED
NRC	NOISE REDUCTION COEFFICIENT
NTE	NOT TO EXCEED
NTS	NOT TO SCALE
O/	OVER
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHANG
OPN'G	OPENING
OPP	OPPOSITE
PEN	PLYWOOD EDGE NAILING
PH	PANIC HARDWARE
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PLF	POUNDS PER LINEAL FOOT
PLY	PLYWOOD
PR	PAIR
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
RA	RETURN AIR
RAD	RADIUS
RD	ROOF DRAIN
REF	REFRIGERATOR
REINF	REINFORCED, REINFORCING
REQ'D	REQUIRED
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT-OF-WAY
RWD	REDWOOD
SA	SUPPLY AIR
SAMPM	SELF-ADHESIVE WATERPROOF MEMBRANE
SC	SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN
SF	STOREFRONT
SH	SHELF
SHT	SHEET
SHT'G	SHEATHING
SIM	SIMILAR
SMS	SHEET METAL SCREW
SOV	SHUT-OFF VALVE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
STSMS	SELF-TAPPING (DRILLING) SHEET METAL SCREW
SUSP	SUSPENDED
SYM	SYMMETRICAL
T&G	TONGUE AND GROOVE
TEMP GL	TEMPERED GLASS
THK	THICK(NESS)
THRU	THROUGH
TI	TENANT IMPROVEMENT
TOB	TOP OF BEAM
TOC	TOP OF CURB
TOF	TOP OF FOOTING
TOG	TOP OF GRADE
TOP	TOP OF PAVEMENT
TOPL	TOP OF PLATE
TOS	TOP OF SLAB
TOW	TOP OF WALL
TV	TELEVISION
TYP	TYPICAL
UE	UTILITY EASEMENT
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
VERT	VERTICAL
VG	VERTICAL GRAIN
VT	VINYL TILE
VTR	VENT THROUGH ROOF
W	WASHER
W/	WITH
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER
WI	WROUGHT IRON
WNDO	WINDOW
W/O	WITHOUT
WT	WEIGHT
WWM	WIRE WELDED MESH
YD	YARD

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED BY THE LOCAL BUILDING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
   1.1. 2016 CALIFORNIA ADMINISTRATIVE CODE (CAC)
   1.2. 2016 CALIFORNIA BUILDING CODE (CBC)
   1.3. 2016 CALIFORNIA ELECTRICAL CODE (CEC)
   1.4. 2016 CALIFORNIA MECHANICAL CODE (CMC)
   1.5. 2016 CALIFORNIA PLUMBING CODE (CPC)
   1.6. 2016 CALIFORNIA ENERGY CODE (CEC) AND THE LATEST NONRESIDENTIAL CEC ENERGY STANDARDS.
   1.7. 2016 CALIFORNIA FIRE CODE (CFC) AND THE MOST RECENT EDITION OF NFPA AS APPLICABLE.
   1.8. 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC)
   1.9. COUNTY OF FRESNO ORDINANCE CODE, TITLE 15
2. THE GENERAL CONTRACTOR SHALL STRICTLY OBSERVE ALL CODES HAVING JURISDICTION IN THE CONSTRUCTION OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, ALL APPLICABLE FEDERAL, STATE, COUNTY, CITY OR GOVERNING AGENCIES, ZONING CODES, PLANNING CODE, BUILDING CODE, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, FIRE CODE OR ANY OTHER CODES, RULES, REGULATIONS AND/OR AMENDMENTS. THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTORS SHALL VERIFY ALL CODE REQUIREMENTS BEFORE COMMENCEMENT OF CONSTRUCTION AND BRING ANY DISCREPANCIES BETWEEN CODE REQUIREMENTS AND THE CONSTRUCTION DOCUMENTS TO THE ATTENTION OF THE ARCHITECT. IGC APPROVED NUMBERS ARE CITED THROUGHOUT THESE NOTES AS A STANDARD. MATERIALS REQUIRING OTHER JURISDICTIONAL APPROVALS MUST BE PROVIDED.
3. THIS IS A BUILDER SET OF DRAWINGS PREPARED TO A LEVEL OF COMPLETION SATISFACTORY FOR BUILDING PERMIT PURPOSES AT THE TIME OF THEIR PREPARATION AND FOR CONSTRUCTION BY A KNOWLEDGEABLE AND EXPERIENCED BUILDER FAMILIAR WITH THIS TYPE OF WORK. SUCH DOCUMENTS WILL REQUIRE PREPARATION AND SUPPLEMENTAL DETAILS, PRODUCT SPECIFICATIONS AND ELABORATION AND INTERPRETATION BY EXPERIENCED CONTRACTORS, SUB-CONTRACTORS AND OWNER'S INDEPENDENT CONSULTANTS.
4. ALL CONTRACTORS, SUBCONTRACTORS, VENDORS AND MATERIAL SUPPLIERS SHALL BE RESPONSIBLE FOR REVIEWING THE COMPLETE SET OF DOCUMENTS AS SHOWN IN THE SHEET INDEX. FAILURE TO REVIEW DOCUMENTS WILL NOT RELIEVE ANY CONTRACTORS, SUB-CONTRACTORS, VENDORS OR MATERIAL SUPPLIERS FROM PERFORMING WORK OR PROVIDING MATERIALS REQUIRED FOR THE COMPLETION OF THIS PROJECT AS DEFINED WITHIN THE DOCUMENTS AT TIME OF BID.
5. THE ARCHITECT DOES NOT GUARANTEE THE GENERAL CONTRACTOR'S AND/OR SUB-CONTRACTOR'S PERFORMANCE AND NO PROVISIONS OF THE CONTRACT DOCUMENTS SHALL RELIEVE THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTOR FROM ANY LIABILITY DUE TO GENERAL CONTRACTOR'S AND/OR SUB-CONTRACTOR'S PERFORMANCE, INCOMPLETE WORK OR ERRORS OF OMISSION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ACTIONS OF HIS SUPERINTENDENTS AND SUBCONTRACTORS DURING THE COURSE OF ANY WORK OCCURRING ON THE SITE. THE CONTRACTOR SHALL TAKE ALL RESPONSIBILITY FOR HIS SUBCONTRACTORS AND SHALL NOT ALLOW THEM TO WORK ON, PLACE DEBRIS ON, STORE SUPPLIES OR EQUIPMENT ON, OR IN ANY OTHER WAY ENCROACH UPON ANY OTHER PROPERTIES WITHOUT THE WRITTEN PERMISSION OF SUCH PROPERTY OWNERS.
7. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTING DATA PRIOR TO COMMENCEMENT OF ANY WORK.
8. THE GENERAL CONTRACTOR AND/OR SUB-CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND JOB CONDITIONS AT THE JOB SITE SUFFICIENTLY IN ADVANCE OF WORK TO BE PERFORMED TO ASSURE THE ORDERLY PROGRESS OF THE WORK. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT EACH SUB-CONTRACTOR PERFORMS THE WORK IN ACCORDANCE WITH ALL CODES IN A TIMELY MANNER TO FACILITATE COORDINATION WITH OTHER SUB-CONTRACTORS.
9. GENERAL CONTRACTOR SHALL COORDINATE WORK PERFORMED BY OTHER CONTRACTORS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE OWNER'S ATTENTION BEFORE PROCEEDING WITH WORK.
10. THE CONTRACTOR SHALL PROVIDE DUST CONTROL AND INTERIM CLEANUP FOR THIS PROJECT DURING ALL PHASES OF THE WORK.
11. EACH CONTRACTOR SHALL LEAVE THE SITE IN A NEAT, CLEAN AND ORDERLY CONDITION UPON THE COMPLETION OF HIS WORK ON A DAILY BASIS. AREA OF WORK TO BE DUSTED, SWEPT AND MOPPED TO SAME CONDITION AS START OF WORK. ALL WASTE, RUBBISH AND EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE PROMPTLY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL TRASH, INCLUDING TRASH GENERATED FROM THE OWNER FURNISHED ITEMS AND BY OWNER'S CONTRACTORS FOR THE DURATION OF THE PROJECT.
12. THE GENERAL CONTRACTOR SHALL PROVIDE ADEQUATE FIRE PROTECTION FOR THE AREA UNDER CONSTRUCTION FOR THE DURATION OF THE WORK.
13. THE GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY ENCLOSURES FOR PROTECTION OF EXISTING BUILDING AND CONSTRUCTION, IN PROGRESS AND COMPLETED, FROM UNAUTHORIZED ACCESS INTO BUILDING, EXPOSURE TO FOUL WEATHER, OTHER CONSTRUCTION OPERATIONS, AND SIMILAR ACTIVITIES. PROVIDE TEMPORARY WEATHER- TIGHT ENCLOSURE FOR BUILDING EXTERIOR.
14. WHERE REQUIRED, THE GENERAL CONTRACTOR SHALL PROVIDE SAMPLES FOR APPROVAL BY THE ARCHITECT/OWNER.
15. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL PRODUCTS AND THEIR COMPLIANCE W/ APPLICABLE CODES AND COUNTY REQUIREMENTS. ALL PRODUCTS SHALL BE NEW, UNLESS NOTED OTHERWISE, AND APPROPRIATE FOR THE INTENDED USE.
16. WHEN THE CONTRACTOR ACCEPTS DELIVERY OF ALL ITEMS NOTED ON PLANS WHETHER IN CONTRACT OR NOT IN CONTRACT, HE SHALL BE RESPONSIBLE FOR LOSS AND/OR DAMAGE TO THESE ITEMS.
17. THESE PLANS AND RELATED DOCUMENTS SHALL BE KEPT AT THE SITE OF WORK AND SHALL BE OPEN TO INSPECTION BY THE BUILDING OFFICIAL OR A DULY AUTHORIZED REPRESENTATIVE. 2016 CBC, SECTION 107.3.1.
18. THIS PERMIT DOES NOT INCLUDE ANY HIGH-PILE STORAGE (PER CFC) OR RACK STORAGE OVER 8 FEET IN HEIGHT. ANY SUCH PROPOSED STORAGE WILL REQUIRE SUBMITTAL OF PLANS AND APPLICATION FOR PERMIT(S). 2016 CFC, CHAPTER 32.
19. STREET ADDRESS AND NUMBER SHALL BE POSTED PRIOR TO THE FIRST INSPECTION.
20. IF NOT EXISTING, PROVIDE 12" MINIMUM HIGH ADDRESS POSTING VISIBLE FROM THE STREET.
21. PRIOR TO A BUILDING FINAL INSPECTION, AN APPLIANCE CERTIFICATE PROVIDED BY THE APPLIANCE MANUFACTURER MUST BE COMPLETED BY THE INSTALLER OR GENERAL CONTRACTOR AND POSTED IN A CONSPICUOUS LOCATION (APPLIES TO CENTRAL AIR CONDITIONERS, HEATERS, AND WATER HEATERS).
22. THE BUILDER SHALL PROVIDE THE CLIENT WITH WARRANTY AND OPERATIONAL INSTRUCTION ON ALL INSTALLED HEATING, COOLING LIGHTING SYSTEMS AND APPLIANCES.
23. CHANGES FROM THE APPROVED PLANS DURING THE COURSE OF CONSTRUCTION SHALL CAUSE CONSTRUCTION TO BE SUSPENDED UNTIL SUCH TIME AS THE PLANS CAN BE AMENDED BY THE DESIGNER AND SUBMITTED TO THE COUNTY FOR REVIEW AND APPROVAL. 2016 CBC 107.4
24. TOILET FACILITIES SHALL BE PROVIDED AND MAINTAINED IN A SANITARY CONDITION FOR THE USE OF WORKERS DURING CONSTRUCTION. 2016 CFC 422.5
25. THE CONSTRUCTION WASTE MANAGEMENT PLAN MUST BE DELIVERED TO THE INSPECTOR PRIOR TO OCCUPANCY.
26. ALL NEW BUILDINGS SHALL COMPLY WITH EMERGENCY RESPONDER RADIO COVERAGE PER 2016 CFC SECTION 510. PROVIDE TEST DOCUMENTS CONFIRMING THAT THE BUILDING MEETS THE REQUIREMENTS OF CFC 510 OR INSTALL AN EMERGENCY RESPONDER RADIO COVERAGE SYSTEM (WITH APPROPRIATE PLAN REVIEW, APPROVAL AND TESTING). THIS SHALL OCCUR PRIOR TO BUILDING PERMIT FINAL.

LICENSED ARCHITECT — NOEL ROGER DAVIDSON — C-27818 — REN: 10-31-21 — STATE OF CALIFORNIA

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APN: 310-133-04, -05, and -06
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Sheet Content:
NOTES AND ABBREVIATIONS

Fresno County Department of Public Works and Planning
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Sheet No.
A0.2

METAL BUILDING DESIGN CRITERIA

THE FOLLOWING CRITERIA SHALL BE USED IN THE DESIGN OF THE METAL BUILDING:

Material Specifications

1. Primary Framing: Web Plates, ASTM A529, A572, A1011, Grade 55 Flanges, ASTM A529, A572, Grade 55
2. Secondary Framing: Galvanized 16Ga, 15Ga, 14Ga, 13Ga, 12Ga, ASTM A653 G90, Grade 55, Min. Yield 55 ksi.
3. Columns: Pipe, ASTM A53 Grade B, Min. Yield 35 ksi. Round HSS, ASTM A500 Grade B, Min. Yield 42 ksi. Rect. HSS, ASTM A500 Grade B, Min. Yield 46 ksi.
4. Bolts: High Strength Bolts, ASTM A325-N, Washer under turning element. Machine Bolts, ASTM A307. Anchor Bolts (Not By Steel Building manufacturer) Sized Based on A36 Material.
5. Shop Coating: All Steel members except galvanized secondary framing, cables, bolts and screws shall receive one shop coat.

Codes & Specifications

The design of this structure shall be in compliance with the Steel Building manufacturer specifications and standards, utilizing the pertinent provisions and recommendations of the following Codes.

1. California Building Code, 2016 Edition (CBC 2016).
2. American Institute of Steel Construction, Fourteenth Edition (AISC 360-10 & AISC 341-10).
3. American Iron and Steel Institute, 2012 Edition (AISI S100-12).
4. Metal Building Manufacturers Association, 2012 Edition (MBMA, 2012).
5. American Welding Society, Structural Welding Code (AWS D1.1, 2010).

Inspections

1. Shop Welding inspection is not required according to the approved status of the above Certifications. No field welding should be required by Steel Building manufacturer. However, if any field welding is required due to any field modifications, special inspection is required.
2. Special inspection is required for high strength bolts. The Turn of the Nut method of tightening is recommended, under the supervision of an independent testing laboratory. Alternate methods of tightening may be used as permitted in the Specification for Structural Joints Using ASTM A325 or A490 Bolts (AISC Fourteenth Edition). CBC Steel Buildings shall not be responsible for administration or costs associated with the inspection process.

Special Bolting Connection Inspection Req. (Made with A325 Bolts)

1. Pre-tensioning of A325 bolts is required on primary framing, bolted bracing, and strut connections if located in seismic performance/ design category "D", "E" or "F".
2. Slip critical connections should not be required by Steel Building manufacturer.

Design Loads

The steel building shall be designed utilizing the following loads, in compliance with the pertinent provisions of the California Building Code, 2016 Edition (CBC 2016).

All accessories such as doors, windows, etc. not by Steel Building manufacturer, must be designed as Structural Components in accordance with the Wind Load provisions of the applicable Codes and Specifications referenced on this page.

The Builder and/or the Engineer of Record must confirm that the following loads meet the requirements of the local building department.

Building Dead Load . . . . . 7.0 psf
Collateral Load . . . . . 5.0 psf
Live Load . . . . . 20 psf
Live Load Reduction Allowed . . . . . Yes
Snow Load, Roof . . . . . 0 psf
Snow Load, Ground . . . . . 0 psf
Ce 1.0
Impt. Factor 1.2

Wind Load, Speed . 115 mph (3-sec gust)
Exposure C
Wind Enclosure . . . . . Enclosed
Impt. Factor 1.0
Kzt 1.0

Earthquake Load
Risk Category: IV
Impt. Factor: 1.5
Ss = 59.30% S1 = 24.60%
Sds = 0.52 Sd1 = 0.31
Seismic Site Class: D
Seismic Design Category: D

Equivalent Lateral Force Procedure
Lateral Direction: Ordinary Moment Frame (OMF)
R = 3.5, Omega = 3.0, V = CsW, Cs = 0.22
Longitudinal Direction: Ordinary Moment Frame (OMF)
R= 3.50, Omega = 3.0, V = CsW, Cs = 0.22

TYPICAL CURB RAMP NOTES

1. CURB RAMPS SHALL COMPLY WITH CBC SECTION 11B-406.
2. CURB RAMPS SHALL HAVE DETECTABLE WARNINGS COMPLYING WITH CBC SECTIONS 11B-705.11 AND 11B-705.1.2.2.
3. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED CARS.
4. RAMP(S) SHALL BE A MINIMUM OF 4' WIDE AND SHALL LIE GENERALLY IN A SINGLE SLOPED PLANE WITH A MINIMUM OF SURFACE WARPING AND CROSS SLOPE.
5. RAMP RUN(S) SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12.
6. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10.
7. THE CROSS SLOPE OF RAMPS AND/OR WALKS SHALL NOT BE STEEPER THAN 1:48.
8. THE SLOPE OF LANDINGS, ACCESSIBLE PARKING SPACES AND UNLOADING ZONES SHALL NOT BE STEEPER THAN 1:48 IN ANY DIRECTION.
9. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO AND WITHIN 24 INCHES OF THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS, AND STREETS SHALL BE AT THE SAME LEVEL.
10. THERE SHALL BE A SEGMENT OF STRAIGHT CURB, AT LEAST 24 INCHES LONG ON EACH SIDE OF THE CURB RAMP.
11. PROVIDE LEVEL LANDING OF AT LEAST 48" ON UPPER END AND OVER FULL WIDTH OF RAMP.
12. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 ALONG PATH OF TRAVEL FROM THE LEVEL LANDING AT THE TOP OF CURB RAMP TO THE LEVEL LANDING AT THE MAIN ENTRY.
13. TRANSITIONS FROM RAMPS AND LANDING TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
14. SURFACE OF CURB RAMP AND FLARED SIDES SHALL HAVE BROOM FINISH TRANSVERSE TO PATH OF TRAVEL AND SHALL BE OF CONTRASTING FINISH TO THAT OF ADJACENT SIDEWALK.

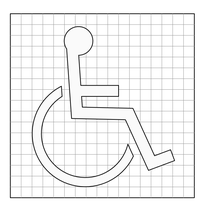
ACCESSIBLE SIGNAGE NOTES

1. GENERAL. (CBC 11B-703.1)
   WHERE BOTH VISUAL AND TACTILE CHARACTERS ARE REQUIRED, EITHER ONE SIGN WITH BOTH VISUAL AND TACTILE CHARACTERS, OR TWO SEPARATE SIGNS, ONE WITH VISUAL, AND ONE WITH TACTILE CHARACTERS, SHALL BE PROVIDED.
2. RAISED CHARACTERS. (CBC 11B-703.2)
   2.1. RAISED CHARACTERS SHALL BE 1/32" MIN ABOVE THEIR BACKGROUND.
   2.2. CHARACTERS SHALL BE UPPERCASE.
   2.3. CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.
   2.4. CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60% MIN AND 110% MAX OF THE HEIGHT OF THE UPPERCASE LETTER "I".
   2.5. CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8" MIN AND 2" MAX BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I".
   2.6. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15% MAX OF THE HEIGHT OF THE CHARACTER.
   2.7. CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT RAISED CHARACTERS WITHIN A MESSAGE, EXCLUDING WORD SPACES. WHERE CHARACTERS HAVE RECTANGULAR CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/8" MIN AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAX. WHERE CHARACTERS HAVE OTHER CROSS SECTIONS, SPACING BETWEEN INDIVIDUAL RAISED CHARACTERS SHALL BE 1/16" MIN AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAX AT THE BASE OF THE CROSS SECTIONS, AND 1/8" MIN AND 4 TIMES THE RAISED CHARACTER STROKE WIDTH MAX AT THE TOP OF THE CROSS SECTIONS. CHARACTERS SHALL BE SEPARATED FROM RAISED BORDERS AND DECORATIVE ELEMENTS 3/8" MIN.
   2.8. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135% MIN AND 170% MAX OF THE RAISED CHARACTER HEIGHT.
   2.9. TEXT SHALL BE IN A HORIZONTAL FORMAT.
3. BRAILLE. (CBC 11B-703.3)
   BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH THE FOLLOWING:
   3.1. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH TABLE 11B-703.3.1. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS, AND ACRONYMS.
   3.2. BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT IN A HORIZONTAL FORMAT, FLUSH LEFT OR CENTERED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8" MIN AND 1/2" MAX FROM ANY OTHER TACTILE CHARACTERS AND 3/8" MIN FROM RAISED BORDERS AND DECORATIVE ELEMENTS.
4. INSTALLATION HEIGHT AND LOCATION. (CBC 11B-703.4)
   SIGNS WITH TACTILE CHARACTERS SHALL COMPLY WITH THE FOLLOWING:
   4.1. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48" MIN ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60" MAX ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS.
   4.2. WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18" MIN BY 18" MIN, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION. WHERE PROVIDED, SIGNS IDENTIFYING PERMANENT ROOMS AND SPACES SHALL BE LOCATED AT THE ENTRANCE TO, AND OUTSIDE OF THE ROOM OR SPACE. WHERE PROVIDED, SIGNS IDENTIFYING EXITS SHALL BE LOCATED AT THE EXIT DOOR WHEN APPROACHED IN THE DIRECTION OF EGRESS TRAVEL.
5. NOT USED.
6. PICTOGRAMS. (CBC 11B-703.6)
   6.1. PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6" MIN. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.
   6.2. PICTOGRAMS AND THEIR FIELD SHALL HAVE A NON-GLARE FINISH. PICTOGRAMS SHALL CONTRAST WITH THEIR FIELD WITH EITHER A LIGHT PICTOGRAM ON A DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD.
   6.3. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD. TEXT DESCRIPTORS SHALL COMPLY WITH NOTES 2, 3, AND 4 ABOVE.
7. SYMBOLS OF ACCESSIBILITY. (CBC 11B-703.7)
   7.1. SYMBOLS OF ACCESSIBILITY AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. SYMBOLS OF ACCESSIBILITY SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER A LIGHT SYMBOL ON A DARK BACKGROUND OR A DARK SYMBOL ON A LIGHT BACKGROUND.
   7.2. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) SHALL COMPLY WITH DETAIL A16/A0.3. THE SYMBOL SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE COLOR BLUE SHALL APPROXIMATE FS 15090 IN FEDERAL STANDARD 595C.

SITE ACCESSIBILITY NOTES

ACCESSIBLE PARKING STALLS AND BUILDING ACCESS SHALL MEET OR BE BROUGHT UP TO CURRENT TITLE 24 STANDARDS. THIS SHALL INCLUDE, BUT IS LIMITED TO, THE FOLLOWING:

1. CHANGES IN LEVEL OF 1/4 INCH HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL BETWEEN 1/4 INCH HIGH MINIMUM AND 1/2 INCH HIGH MAXIMUM SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2. CHANGES IN LEVEL GREATER THAN 1/2 INCH HIGH SHALL BE RAMPED. (11B-303)
2. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48. (11B-403.3)
3. THE CLEAR WIDTH FOR SIDEWALKS AND WALKS SHALL BE 48 INCHES MINIMUM. (11B-403.5)
4. EXTERIOR LANDINGS AT DOORS SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE, SHALL EXTEND A MINIMUM OF 60 INCHES BEYOND DOOR, SHALL HAVE A MAXIMUM SLOPE OF 1:48 IN ANY DIRECTION, AND SHALL HAVE A SMOOTH TRANSITION TO ADJACENT PAVED SURFACE (11B-404.2.4)
5. THRESHOLDS, IF PROVIDED AT DOORWAYS, SHALL BE 1/2 INCH MAXIMUM AND SHALL COMPLY WITH NOTE 1 ABOVE. (11B-404.2.5)
6. RAMPS ON ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12. CROSS SLOPE OF RAMP RUNS SHALL NOTE BE STEEPER THAN 1:48. THE CLEAR WIDTH OF A RAMP RUN SHALL BE 48 INCHES MINIMUM. THE RISE FOR ANY RAMP RUN SHALL BE 30 INCHES MAXIMUM. RAMPS SHALL HAVE LANDINGS AT THE TOP AND THE BOTTOM OF EACH RAMP RUN. (11B-405)
7. RAMP RUNS SHALL HAVE HANDRAILS EXCEPT AT CURB RAMPS AND AT DOOR LANDINGS WHERE RAMP RUNS ARE LESS THAN 6 INCHES IN RISE OR 72 INCHES IN LENGTH. (11B-405.8)
8. ACCESSIBLE PARKING SPACES SHALL BE 216 INCHES (18 FT) LONG MINIMUM AND 108 INCHES (9 FT) WIDE MINIMUM, SHALL BE MARKED TO DEFINE THE WIDTH, AND SHALL HAVE AN ADJACENT ACCESS AISLE. (11B-502.2)
9. ACCESS AISLES SERVING PARKING SPACES SHALL ADJOIN AN ACCESSIBLE ROUTE, SHALL BE 60 INCHES (5 FT) WIDE MINIMUM AT CAR ACCESSIBLE PARKING SPACES AND 96 INCHES (8 FT) WIDE MINIMUM AT VAN ACCESSIBLE PARKING SPACES, AND SHALL EXTEND THE FULL REQUIRED LENGTH OF THE PARKING SPACES THEY SERVE. (11B-502.3)
   9.1. ACCESS AISLES SHALL BE MARKED WITH A BLUE PAINTED BORDERLINE AROUND THEIR PERIMETER, THE AREA WITHIN THE BLUE BORDERLINES SHALL BE MARKED WITH HATCHED LINES A MAXIMUM OF 36 INCHES (3 FT) ON CENTER IN A COLOR CONTRASTING WITH THAT OF THE AISLE SURFACE, PREFERABLY BLUE OR WHITE. THE WORDS "NO PARKING" SHALL BE PAINTED ON THE SURFACE WITHIN EACH ACCESS AISLE IN WHITE LETTERS A MINIMUM OF 12 INCHES (1 FT) IN HEIGHT AND LOCATED TO BE VISIBLE FROM THE ADJACENT VEHICULAR WAY. ACCESS AISLE MARKINGS MAY EXTEND BEYOND THE MINIMUM REQUIRED LENGTH.
   9.2. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
10. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED. SLOPE OF ACCESS AISLE SHALL NOT EXCEED 1:48 IN ANY DIRECTION. (11B-502.4)
9. EACH ACCESSIBLE PARKING SPACE SHALL HAVE AN IDENTIFICATION SIGN PER DETAIL J5/A1.5. (11B-502.6)
10. EACH ACCESSIBLE PARKING SPACE SHALL HAVE SURFACE IDENTIFICATION PER DETAIL N1/A1.5. (11B-502.6.4)
11. AN ADDITIONAL SIGN SHALL BE POSTED EITHER; 1) IN A CONSPICUOUS PLACE AT EACH ENTRANCE TO AN OFF-STREET PARKING FACILITY OR 2) IMMEDIATELY ADJACENT TO ON-SITE ACCESSIBLE PARKING AND VISIBLE FROM EACH PARKING SPACE. SEE DETAIL A5/A1.5. (11B-502.8)



INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA)

A16
A0.3
ISA
SCALE: NONE

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Fresno County Department of Public Works and Planning
Capital Projects
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Sheet No.
A0.3

Drawn by: ----
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GREEN BUILDING GUIDELINES

1. PER CA GBSC 5.408.1, PROVIDE CONSTRUCTION WASTE MANAGEMENT. RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65 PERCENT OF THE NONHAZARDOUS CONSTRUCTION WASTE IN ACCORDANCE WITH SECTION 5.408.1.1, 5.408.1.2 OR 5.408.1.3; OR MEET A LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE, WHICHEVER IS MORE STRINGENT.
2. PER CA GBSC 5.408.1.1, ESTABLISH A CONSTRUCTION WASTE MANAGEMENT PLAN. WHERE A LOCAL JURISDICTION DOES NOT HAVE A CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE THAT IS MORE STRINGENT, SUBMIT A CONSTRUCTION WASTE MANAGEMENT PLAN THAT
   - 2.1. IDENTIFIES THE CONSTRUCTION WASTE MATERIALS TO BE DIVERTED FROM DISPOSAL BY EFFICIENT USAGE, RECYCLING, REUSE ON THE PROJECT OR SALVAGE FOR FUTURE USE OR SALE.
   - 2.2. DETERMINES IF CONSTRUCTION WASTE MATERIALS WILL BE SORTED ON-SITE (SOURCE-SEPARATED) OR BULK MIXED (SINGLE STREAM).
   - 2.3. IDENTIFIES DIVERSION FACILITIES WHERE CONSTRUCTION WASTE MATERIAL COLLECTED WILL BE TAKEN.
   - 2.4. SPECIFIES THAT THE AMOUNT OF CONSTRUCTION WASTE MATERIALS DIVERTED SHALL BE CALCULATED BY WEIGHT OR VOLUME, BUT NOT BY BOTH.
3. PER CA GBSC 5.408.1.2, UTILIZE A WASTE MANAGEMENT COMPANY THAT CAN PROVIDE VERIFIABLE DOCUMENTATION THAT THE PERCENTAGE OF CONSTRUCTION WASTE MATERIAL DIVERTED FROM THE LANDFILL COMPLIES WITH THIS SECTION.

   NOTE: THE OWNER OR CONTRACTOR SHALL MAKE THE DETERMINATION IF THE CONSTRUCTION WASTE MATERIAL WILL BE DIVERTED BY A WASTE MANAGEMENT COMPANY.
4. EXCEPTIONS TO ITEMS 2 AND 3 ABOVE (SECTIONS 5.408.1.1 AND 5.408.1.2):
   - 4.1. EXCAVATED SOIL AND LAND-CLEARING DEBRIS
   - 4.2. ALTERNATE WASTE REDUCTION METHODS DEVELOPED BY WORKING WITH LOCAL AGENCIES IF DIVERSION OR RECYCLE FACILITIES CAPABLE OF COMPLIANCE WITH THIS ITEM DO NOT EXIST.
   - 4.3. DEMOLITION WASTE MEETING LOCAL ORDINANCE OR CALCULATED IN CONSIDERATION OF LOCAL RECYCLING FACILITIES AND MARKETS, WHERE DEMOLITION OF AN EXISTING STRUCTURE(S) IS NECESSARY FOR THE CONSTRUCTION OF A NEW STRUCTURE.
5. PER CA BGSC 5.408.1.3, THE COMBINED WEIGHT OF NEW CONSTRUCTION DISPOSAL THAT DOES NOT EXCEED 2 LBS/SQ. FT. OF BUILDING AREA MAY BE DEEMED TO MEET THE 65 PERCENT MINIMUM REQUIREMENT AS APPROVED BY THE ENFORCING AGENCY.
6. PER CA BGSC 5.408.1.4, DOCUMENTATION SHALL BE PROVIDED TO THE ENFORCING AGENCY WHICH DEMONSTRATES COMPLIANCE WITH ITEMS 2 THRU 5 ABOVE (SECTIONS 5.408.1.1 THROUGH 5.408.1.3). THE WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND SHALL BE ACCESSIBLE DURING CONSTRUCTION FOR EXAMINATION BY THE ENFORCING AGENCY.
   - 6.1. SAMPLE FORMS FOUND IN "A GUIDE TO THE CALIFORNIA GREEN BUILDING STANDARDS CODE (NONRESIDENTIAL)" LOCATED AT HTTP://WWW.BSC.CA.GOV/CALGREEN/DEFAULT.HTM MAY BE USED TO ASSIST IN DOCUMENTING COMPLIANCE WITH THE WASTE MANAGEMENT PLAN.
   - 6.2. MIXED CONSTRUCTION AND DEMOLITION DEBRIS (C&D) PROCESSORS CAN BE LOCATED AT THE CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE).
7. PER CA GBSC 5.408.2 [A], ADDITIONS AND ALTERATIONS TO A BUILDING OR TENANT SPACE THAT MEET THE SCOPING PROVISIONS IN SECTION 301.3 FOR NONRESIDENTIAL ADDITIONS AND ALTERATIONS, SHALL REQUIRE VERIFICATION THAT UNIVERSAL WASTE ITEMS SUCH AS FLUORESCENT LAMPS AND BALLAST AND MERCURY CONTAINING THERMOSTATS AS WELL AS OTHER CALIFORNIA PROHIBITED UNIVERSAL WASTE MATERIALS ARE DISPOSED OF PROPERLY AND ARE DIVERTED FROM LANDFILLS. A LIST OF PROHIBITED UNIVERSAL WASTE MATERIALS SHALL BE INCLUDED IN THE CONSTRUCTION DOCUMENTS.

   NOTE: REFER TO THE UNIVERSAL WASTE RULE LINK AT: HTTP://WWW.DTSC.CA.GOV/LAWSREGSPOLICIES/REGS/UPLOAD/OEARA_REGS_UWR_FINALTEXT.PDF
8. PER CA GBSC 5.408.3, 100 PERCENT OF TREES, STUMPS, ROCKS AND ASSOCIATED VEGETATION AND SOILS RESULTING PRIMARILY FROM LAND CLEARING SHALL BE REUSED OR RECYCLED. FOR A PHASED PROJECT, SUCH MATERIAL MAY BE STOCKPILED ON SITE UNTIL THE STORAGE SITE IS DEVELOPED.

   EXCEPTION: REUSE, EITHER ON-OR OFF-SITE, OF VEGETATION OR SOIL CONTAMINATED BY DISEASE OR PEST INFESTATION.
   - 8.1. IF CONTAMINATION BY DISEASE OR PEST INFESTATION IS SUSPECTED, CONTACT THE COUNTY AGRICULTURAL COMMISSIONER AND FOLLOW ITS DIRECTION FOR RECYCLING OR DISPOSAL OF THE MATERIAL. (WWW.CDFA.CA.GOV/EXEC/COUNTY/COUNTY_CONTACTS.HTML)
   - 8.2. FOR A MAP OF KNOWN PEST AND/OR DISEASE QUARANTINE ZONES, CONSULT WITH THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE. (WWW.CDFA.CA.GOV)
9. PER CA GBSC 5.410.1, OWNER SHALL PROVIDE READILY ACCESSIBLE AREAS THAT SERVE THE ENTIRE BUILDING AND ARE IDENTIFIED FOR THE DEPOSITING, STORAGE AND COLLECTION OF NON-HAZARDOUS MATERIALS FOR RECYCLING, INCLUDING (AT A MINIMUM) PAPER, CORRUGATED CARDBOARD, GLASS, PLASTICS, ORGANIC WASTE, AND METALS.
10. PER CA GBSC 5.410.4.2, CONTRACTOR SHALL DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING SYSTEMS. SYSTEMS TO BE INCLUDED FOR TESTING AND ADJUSTING SHALL INCLUDE, AS APPLICABLE TO THE PROJECT:
    - 10.1. HVAC SYSTEMS AND CONTROLS
    - 10.2. INDOOR AND OUTDOOR LIGHTING AND CONTROLS
    - 10.3. WATER HEATING SYSTEMS
    - 10.4. LANDSCAPE IRRIGATION SYSTEMS
11. PER CA BGSC 5.410.4.3, CONTRACTOR SHALL PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND APPLICABLE STANDARDS ON EACH SYSTEM.
12. PER CA GBSC 5.410.4.4, AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING, CONTRACTOR SHALL PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
13. PER CA GBSC 5.410.4.5, CONTRACTOR SHALL PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM. O &M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR, TITLE 8, SECTION 5142, AND OTHER RELATED REGULATIONS. CONTRACTOR SHALL ALSO INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY.
14. PER CA GBSC 5.504.1, THE PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION THE BUILDING WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MINIMUM EFFICIENCY REPORTING VALUE(MERV) OF 8, BASED ON ASHRAE 52.2-1999, OR AN AVERAGE EFFICIENCY OF 30 PERCENT BASED ON ASHRAE 52.1-1992. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY.
15. PER CA GBSC 5.504.3, AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST,WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM.
16. PER CA GBSC 5.504.4.1, ADHESIVES, SEALANTS, AND CAULKS USED ON THE PROJECT SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS:
    - 16.1. ADHESIVES, ADHESIVE BONDING PRIMERS, ADHESIVE PRIMERS, SEALANTS, SEALANT PRIMERS AND CAULKS SHALL COMPLY WITH LOCAL OR REGIONAL AIR POLLUTION CONTROL OR AIR QUALITY MANAGEMENT DISTRICT RULES WHERE APPLICABLE, OR SCAQMD RULE 1168 VOC LIMITS, AS SHOWN IN TABLES 5.504.4.1 AND 5.504.4.2. SUCH PRODUCTS ALSO SHALL COMPLY WITH THE RULE 1168 PROHIBITION ON THE USE OF CERTAIN TOXIC COMPOUNDS (CHLOROFORM, ETHYLENE DICHLORIDE, METHYLENE CHLORIDE, PERCHLOROETHYLENE AND TRICHLOROETHYLENE), EXCEPT FOR AEROSOL PRODUCTS AS SPECIFIED IN SUBSECTION 2, BELOW.
    - 16.2. AEROSOL ADHESIVES, AND SMALLER UNIT SIZES OF ADHESIVES, AND SEALANT OR CAULKING COMPOUNDS (IN UNITS OF PRODUCT, LESS PACKAGING, WHICH DO NOT THAN ONE POUND AND DO NOT CONSIST OF MORE THAN 16 FLUID OUNCES) SHALL COMPLY WITH STATEWIDE VOC STANDARDS AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS, OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94507.
17. PER CA GBSC TABLE 5.504.4.1 (PARTIAL LIST BELOW)
    ADHESIVE VOC LIMIT (SEE NOTES 1,2)
    Less Water and Less Exempt Compounds in Grams Per Liter

    ARCHITECTURAL APPLICATIONS — CURRENT VOC LIMIT
    INDOOR CARPET ADHESIVES 50
    CARPET PAD ADHESIVES 50
    CERAMIC TILE ADHESIVES 65
    VCT AND ASPHALT TILE ADHESIVES 50
    COVE BASE ADHESIVES 50
    MULTIPURPOSE CONSTRUCTION ADHESIVES 70
    SPECIALTY APPLICATIONS
    PVC WELDING 510
    CPVC WELDING 490
    ABS WELDING 325
    PLASTIC CEMENT WELDING 250
    ADHESIVE PRIMER FOR PLASTIC 550
    CONTACT ADHESIVE 80
    SPECIAL PURPOSE CONTACT ADHESIVE 250
    TOP AND TRIM ADHESIVE 250
    SUBSTRATE SPECIFIC APPLICATIONS
    METAL TO METAL 30
    PLASTIC FOAMS 50
    POROUS MATERIAL (EXCEPT WOOD) 50
    WOOD 30
    FIBERGLASS 80

    NOTES:
    - 17.1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.
    - 17.2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, HTTP://WWW.ARB.CA.GOV/DRDB/SC/CURHTML/R1168.PDF.
18. PER CA GBSC TABLE 5.504.4.2 (PARTIAL LIST BELOW)
    SEALANT VOC LIMIT
    Less Water and Less Exempt Compounds in Grams Per Liter

    SEALANTS — CURRENT VOC LIMIT
    ARCHITECTURAL 250
    NONMEMBRANE ROOF 300
    ROADWAY 250
    OTHER 420
    SEALANT PRIMERS
    ARCHITECTURAL
    NONPOROUS 250
    POROUS 775
    MODIFIED BITUMINOUS 500
    OTHER 750

    NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.
19. PER CA GBSC 5.504.4.3, ARCHITECTURAL PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS IN TABLE 1 OF THE ARB ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, AS SHOWN IN TABLE 5.504.4.3, UNLESS MORE STRINGENT LOCAL LIMITS APPLY. THE VOC CONTENT LIMIT FOR COATINGS THAT DO NOT MEET THE DEFINITIONS FOR THE SPECIALTY COATINGS CATEGORIES LISTED IN TABLE 5.504.4.3 SHALL BE DETERMINED BY CLASSIFYING THE COATING AS A FLAT, NONFLAT OR NONFLAT-HIGH GLOSS COATING, BASED ON ITS GLOSS, AS DEFINED IN SUBSECTIONS 4.21, 4.36 AND 4.37 OF THE 2007 CALIFORNIA AIR RESOURCES BOARD SUGGESTED CONTROL MEASURE, AND THE CORRESPONDING FLAT, NONFLAT OR NONFLAT-HIGH GLOSS VOC LIMIT IN TABLE 5.504.4.3 SHALL APPLY.
20. PER CA GBSC 5.504.4.3.1, AEROSOL PAINTS AND COATINGS SHALL MEET THE PWMIR LIMITS FOR ROC IN SECTION 94522(A)(3) AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS AND OZONE DEPLETING SUBSTANCES, IN SECTIONS 94522(C)(2) AND (D)(2) OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94520; AND IN AREAS UNDER THE JURISDICTION OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT ADDITIONALLY COMPLY WITH THE PERCENT VOC BY WEIGHT OF PRODUCT LIMITS OF REGULATION 8 RULE 49.
21. PER CA GBSC TABLE 5.504.4.3 (PARTIAL LIST BELOW)
    VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS (Notes 2, 3)
    Grams of VOC Per Liter of Coating, Less Water and Less Exempt Compounds

    COATING CATEGORY
    FLAT COATINGS 50
    NONFLAT COATINGS 100
    NONFLAT HIGH GLOSS COATINGS 150
    SPECIALTY COATINGS
    BOND BREAKERS 350
    CONCRETE CURING COMPOUNDS 350
    CONCRETE/MASONRY SEALERS 100
    DRIVEWAY SEALERS 50
    DRY FOG COATINGS 150
    FLOOR COATINGS 100
    FORM-RELEASE COMPOUNDS 250
    GRAPHIC ARTS COATINGS (SIGN PAINTS) 500
    INDUSTRIAL MAINTENANCE COATINGS 250
    LOW SOLIDS COATINGS (Note 1)120)
    PRETREATMENT WASH PRIMERS 420
    PRIMERS, SEALERS AND UNDERCOATERS 100
    REACTIVE PENETRATING SEALERS 350
    TRAFFIC MARKING COATINGS 100
    ZINC-RICH PRIMERS 340

    NOTES:
    - 21.1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER AND INCLUDING EXEMPT COMPOUNDS.
    - 21.2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.
    - 21.3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEBRUARY 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.
22. PER CA GBSC 5.504.4.3.2, VERIFICATION OF COMPLIANCE WITH SECTION 5.504.4.3 SHALL BE PROVIDED AT THE REQUEST OF THE ENFORCING AGENCY. DOCUMENTATION MAY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING:
    - 22.1. MANUFACTURER'S PRODUCT SPECIFICATION
    - 22.2. FIELD VERIFICATION OF ON-SITE PRODUCT CONTAINERS
23. PER CA GBSC 5.504.4.4, ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING:
    - 23.1. CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM
    - 23.2. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS, VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350)
    - 23.3. NSF/ANSI 140 AT THE GOLD LEVEL OR HIGHER
    - 23.4. SCIENTIFIC CERTIFICATIONS SYSTEMS SUSTAINABLE CHOICE
24. PER CA GBSC 5.504.4.4.1, ALL CARPET CUSHION INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE REQUIREMENTS OF THE CARPET AND RUG INSTITUTE'S GREEN LABEL PROGRAM.
25. PER CA GBSC 5.504.4.4.2, ALL CARPET ADHESIVE SHALL MEET THE REQUIREMENTS OF TABLE 5.504.4.1.
26. PER CA GBSC 5.504.4.5, HARDWOOD PLYWOOD, PARTICLE BOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED IN ARB'S AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD (17 CCR 93120 ET SEQ.), BY OR BEFORE THE DATES SPECIFIED IN THOSE SECTIONS, AS SHOWN IN TABLE 5.504.4.5.
27. PER CA GBSC TABLE 5.504.4.5
    FORMALDEHYDE LIMITS (Note 1)
    Maximum Formaldehyde Emissions in Parts Per Million.

    PRODUCT — CURRENT LIMIT
    HARDWOOD PLYWOOD VENEER CORE 0.05
    HARDWOOD PLYWOOD COMPOSITE CORE 0.05
    PARTICLE BOARD 0.09
    MEDIUM DENSITY FIBERBOARD 0.11
    THIN MEDIUM DENSITY FIBERBOARD (Note 2) 0.13

    - 27.1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333-96 (2002). FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.
    - 27.2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF EIGHT MILLIMETERS.
28. PER CA GBSC 5.504.4.5.3, VERIFICATION OF COMPLIANCE WITH SECTION 5.504.4.5 SHALL BE PROVIDED AS REQUESTED BY THE ENFORCING AGENCY. DOCUMENTATION SHALL INCLUDE AT LEAST ONE OF THE FOLLOWING:
    - 28.1. PRODUCT CERTIFICATIONS AND SPECIFICATIONS
    - 28.2. CHAIN OF CUSTODY CERTIFICATIONS
    - 28.3. PRODUCT LABELED AND INVOICED AS MEETING THE COMPOSITE WOOD PRODUCTS REGULATION (SEE CCR, TITLE 17, SECTION 93120, ET SEQ)
    - 28.4. EXTERIOR GRADE PRODUCTS MARKED AS MEETING THE PS-1 OR PS-2 STANDARDS OF THE ENGINEERED WOOD ASSOCIATION, THE AUSTRALIAN AS/NZS 2269 OR EUROPEAN 636 3S STANDARDS
    - 28.5. OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY
29. PER CA GBSC 5.504.4.6, RESILIENT FLOORING SYSTEMS. FOR 50 PERCENT OF FLOOR AREA RECEIVING RESILIENT FLOORING, INSTALL RESILIENT FLOORING COMPLYING WITH THE VOC-EMISSION LIMITS DEFINED IN THE 2009 COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS) CRITERIA AND LISTED ON ITS HIGH PERFORMANCE PRODUCTS DATABASE; PRODUCTS COMPLIANT WITH CHPS CRITERIA CERTIFIED UNDER THE GREENGUARD CHILDREN & SCHOOLS PROGRAM; CERTIFIED UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM; OR MEET CALIFORNIA DEPARTMENT OF PUBLIC HEALTH 2010 STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS, VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350.)
30. PER CA GBSC 5.504.4.6.1, VERIFICATION OF COMPLIANCE. DOCUMENTATION SHALL BE PROVIDED VERIFYING THAT RESILIENT FLOORING MATERIALS MEET THE POLLUTANT EMISSION LIMITS.
31. PER CA GBSC 5.504.5.3, IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR THAT PROVIDES AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8. MERV 8 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY, AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL.

    EXCEPTIONS:
    - 31.1. AN ASHRAE 10-PERCENT TO 15-PERCENT EFFICIENCY FILTER SHALL BE PERMITTED FOR AN HVAC UNIT MEETING THE 2013 CALIFORNIA ENERGY CODE HAVING 60,000 BTU/H OR LESS CAPACITY PER FAN COIL, IF THE ENERGY USE OF THE AIR DELIVERY SYSTEM IS 0.4 W/CFM OR LESS AT DESIGN AIR FLOW.
    - 31.2. EXISTING MECHANICAL EQUIPMENT.
32. PER CA GBSC 5.504.7, WHERE OUTDOOR AREAS ARE PROVIDED FOR SMOKING, PROHIBIT SMOKING WITHIN 25 FEET OF BUILDING ENTRIES, OUTDOOR AIR INTAKES AND OPERABLE WINDOWS AND WITHIN THE BUILDING AS ALREADY PROHIBITED BY OTHER LAWS OR REGULATIONS; OR AS ENFORCED BY ORDINANCES, REGULATIONS OR POLICIES OF ANY CITY, COUNTY, OR CITY AND COUNTY, WHICHEVER ARE MORE STRINGENT. WHEN ORDINANCES, REGULATIONS OR POLICIES ARE NOT IN PLACE, POST SIGNAGE TO INFORM BUILDING OCCUPANTS OF THE PROHIBITIONS.
33. PER CA GBSC 5.505.1, BUILDINGS SHALL MEET OR EXCEED THE PROVISIONS OF CALIFORNIA BUILDING CODE, CCR, TITLE 24, PART 2, SECTIONS 1203 (VENTILATION) AND CHAPTER 14 (EXTERIOR WALLS).
34. PER CA GBSC 5.506.1, FOR MECHANICALLY OR NATURALLY VENTILATED SPACES IN BUILDINGS, MEET THE MINIMUM REQUIREMENTS OF SECTION 121 (REQUIREMENTS FOR VENTILATION) OF THE 2010 CALIFORNIA ENERGY CODE, OR THE APPLICABLE LOCAL CODE, WHICHEVER IS MORE STRINGENT, AND DIVISION 1, CHAPTER 4 OF CCR, TITLE 8.
35. PER CA GBSC 5.506.2, FOR BUILDINGS EQUIPPED WITH DEMAND CONTROL VENTILATION, CO2 SENSORS AND VENTILATION CONTROLS SHALL BE SPECIFIED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2010 CALIFORNIA ENERGY CODE, SECTION 121(C).
36. PER CA GBSC 5.508.1.1, INSTALL HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT DO NOT CONTAIN CFCS.
37. PER CA GBSC 5.508.1.2, INSTALL HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT DO NOT CONTAIN HALONS.

CALGreen VERIFICATION GUIDELINES MANDATORY MEASURES CHECKLIST*

CHAPTER 5 DIVISIONS	SECTION TITLE	CODE SECTION	Y	N/A	O	PLAN SHEET, SPEC OR ATTACH REFERENCE
DIVISION 5.1 Planning and Design	Storm Water Pollution Prevention w/ subsections	5.106.1 thru 5.106.1.2				
	Short Term Bicycle Parking	5.106.4.1.1				
	Long Term Bicycle Parking	5.106.4.1.2				
	Designated Parking For Clean Air Vehicles	5.106.5.2				
	Parking stall marking	5.106.5.2.1				
	Single (EV) Charging space requirements [N]	5.106.5.3.1				
	Multiple (EV) Charging space requirements [N]	5.106.5.3.2				
	EV charging space calculation [N] w/ exceptions	5.106.5.3.3				
	[N] Identification	5.106.5.3.4				
	[N] Future charging spaces w/ notes 1-3	5.106.5.3.5				
	Light Pollution Reduction [N] w/ exceptions and note	5.106.8				
	Grading and Paving w/ exception for Additions and Alterations not altering the drainage path	5.106.10				
DIVISION 5.2 Energy Efficiency	Meet the minimum Energy Efficiency Standard	5.201.1				
DIVISION 5.3 Water Efficiency and Conservation	Separate Meters (new buildings or additions > 50,000 SF that consume more than 100 gal/day)	5.303.1.1				
	Separate Meters (for tenants in new buildings or additions that consume more than 1,000 gal/day)	5.303.1.2				
	Water closets shall not exceed 1.28 gallons per flush	5.303.3.1				
	Wall-mounted urinals shall not exceed 0.125 gpf	5.303.3.2.1				
	Floor-mounted urinals shall not exceed 0.5 gpf	5.303.3.2.2				
	Single showerhead shall have maximum flow rate of 2.0 gpm (gallons per minute) at 80 psi	5.303.3.3.1				
	Multiple showerheads serving one shower shall have a combined flow rate of 2.0 gpm at 80 psi	5.303.3.3.2				
	Nonresidential lavatory faucets	5.303.3.4.1				
	Kitchen faucets	5.303.3.4.2				
	Wash basins	5.303.3.4.3				
	Metering faucets	5.303.3.4.4				
	Metering faucets for wash fountains	5.303.3.4.5				
	Food waste disposers w/note	5.303.4.1				
	Areas of additions and alterations	5.303.5				
	Standards for plumbing fixtures and fittings	5.303.6				
	Outdoor water use in landscape areas equal to or greater than 500 square feet	5.304.2				
	Outdoor water use in rehabilitated landscape projects with areas equal to or greater than 2,500 square feet	5.304.3				
	Outdoor water use in landscape areas of 2,500 square feet or less	5.304.4				
	Graywater or rainwater use in landscaped areas	5.304.5				
DIVISION 5.4 Material Conservation and Resource Efficiency	Weather Protection	5.407.1				
	Moisture Control: sprinklers	5.407.2.1				
	Moisture Control: Exterior door protection	5.407.2.2.1				
	Moisture Control: Flashing	5.407.2.2.2				
	Construction waste management-comply with either: sections 5.408.1.1, 5.408.1.2, 5.408.1.3 or more stringent local ordinance	5.408.1.1, 5.408.1.2, 5.408.1.3				
	Construction waste management: Documentation w/notes	5.408.1.4				
	Universal Waste [A]	5.408.2				
	Excavated soil and land clearing debris w/ exception and notes	5.408.3				
	Recycling by Occupants w/ exception	5.410.1				
	Recycling by Occupants: Additions w/ exception	5.410.1.1				
	Recycling by Occupants: Sample ordinance	5.410.1.2				
	Commissioning new buildings (≥ 10,000 SF) [N] w/ exceptions and notes	5.410.2				
	"Owner's or Owner representative's Project Requirements (OPR) [N]"	5.410.2.1				
	Basis of Design (BOD) [N]	5.410.2.2				
	Commissioning Plan [N]	5.410.2.3				
	Functional Performance Testing [N]	5.410.2.4				
	Documentation and Training [N]	5.410.2.5				
	Systems Manual [N]	5.410.2.5.1				
	Systems Operation Training) [N]	5.410.2.5.2				
	Commissioning Report [N]	5.410.2.6				
	Testing and adjusting for new buildings < 10,000 SF or new systems that serve additions or alterations.	5.410.4				

CALGreen VERIFICATION GUIDELINES MANDATORY MEASURES CHECKLIST*

CHAPTER 5 DIVISIONS	SECTION TITLE	CODE SECTION	Y	N/A	O	PLAN SHEET, SPEC OR ATTACH REFERENCE
DIVISION 5.4 Material Conservation and Resource Efficiency (cont.)	System Testing Plan for HVAC, Lighting, water heating, renewable energy, landscape irrigation and water reuse.	5.410.4.2				
	Procedures for testing and adjusting	5.410.4.3				
	HVAC balancing	5.410.4.3.1				
	Reporting for testing and adjusting	5.410.4.4				
	Operation and Maintenance (O&M) Manual	5.410.4.5				
	Inspection and reports	5.410.4.5.1				
DIVISION 5.5 Environmental Quality	Fireplaces	5.503.1				
	Woodstoves	5.503.1.1				
	Temporary ventilation	5.504.1				
	Covering of ducts openings and protection of mechanical equipment during construction	5.504.3				
	Adhesives, sealants and caulks	5.504.4.1				
	Paints and coatings	5.504.4.3				
	Aerosol paints and coatings	5.504.4.3.1				
	Aerosol paints and coatings: Verification	5.504.4.3.2				
	Carpet systems	5.504.4.4				
	Carpet cushion	5.504.4.4.1				
	Carpet adhesive	5.504.4.4.2				
	Composite wood products	5.504.4.5				
	Composite wood products: Documentation	5.504.4.5.3				
	Resilient flooring systems	5.504.4.6				
	Resilient flooring: Verification of compliance	5.504.4.6.1				
	Filters w/ exceptions	5.504.5.3				
	Filters: Labeling	5.504.5.3.1				
	Environmental tobacco smoke (ETS) control	5.504.7				
	Indoor moisture control	5.505.1				
	Outside air delivery	5.506.1				
	Carbon dioxide (CO2) monitoring	5.506.2				
	Acoustical control w/ exception	5.507.4				
	Exterior noise transmission, prescriptive method w/ exceptions	5.507.4.1				
	Noise exposure where noise contours are not readily available	5.507.4.1.1				
	Performance method	5.507.4.2				
	Site features	5.507.4.2.1				
	Documentation of compliance	5.507.4.2.2				
	Interior sound transmission w/ note	5.507.4.3				
	Ozone depletion and greenhouse gas reductions	5.508.1				
	Chlorofluorocarbons (CFCs)	5.508.1.1				
	Halons	5.508.1.2				
	Supermarket refrigerant leak reduction for retail food stores 8,000 square feet or more sections 5.508.2 through 5.508.2.6.3	5.508.2 thru 5.508.2.6.3				

* This checklist shall be used for nonresidential projects that meet one of the following: new construction, building additions of 1,000 sq. ft. or greater or building alterations with a permit valuation of $200,000 or more pursuant to CALGreen Section 301.1 AND do not trigger a Tier 1 or Tier 2 requirement:

Y = Yes (section has been selected and/or included)
N/A = Not Applicable (Code section does not apply to the project, mainly used for additions and alterations)
O = Other (provide explanation)
[N] = New construction pursuant to section 301.1
[A] = Additions and/or alterations pursuant to section 301.1

LICENSED ARCHITECT — NOEL ROGER DAVIDSON — C-27818 — REN: 10-31-21 — STATE OF CALIFORNIA

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1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A0-4_GB_Notes

Sheet Content:
GREEN BUILDING GUIDELINES

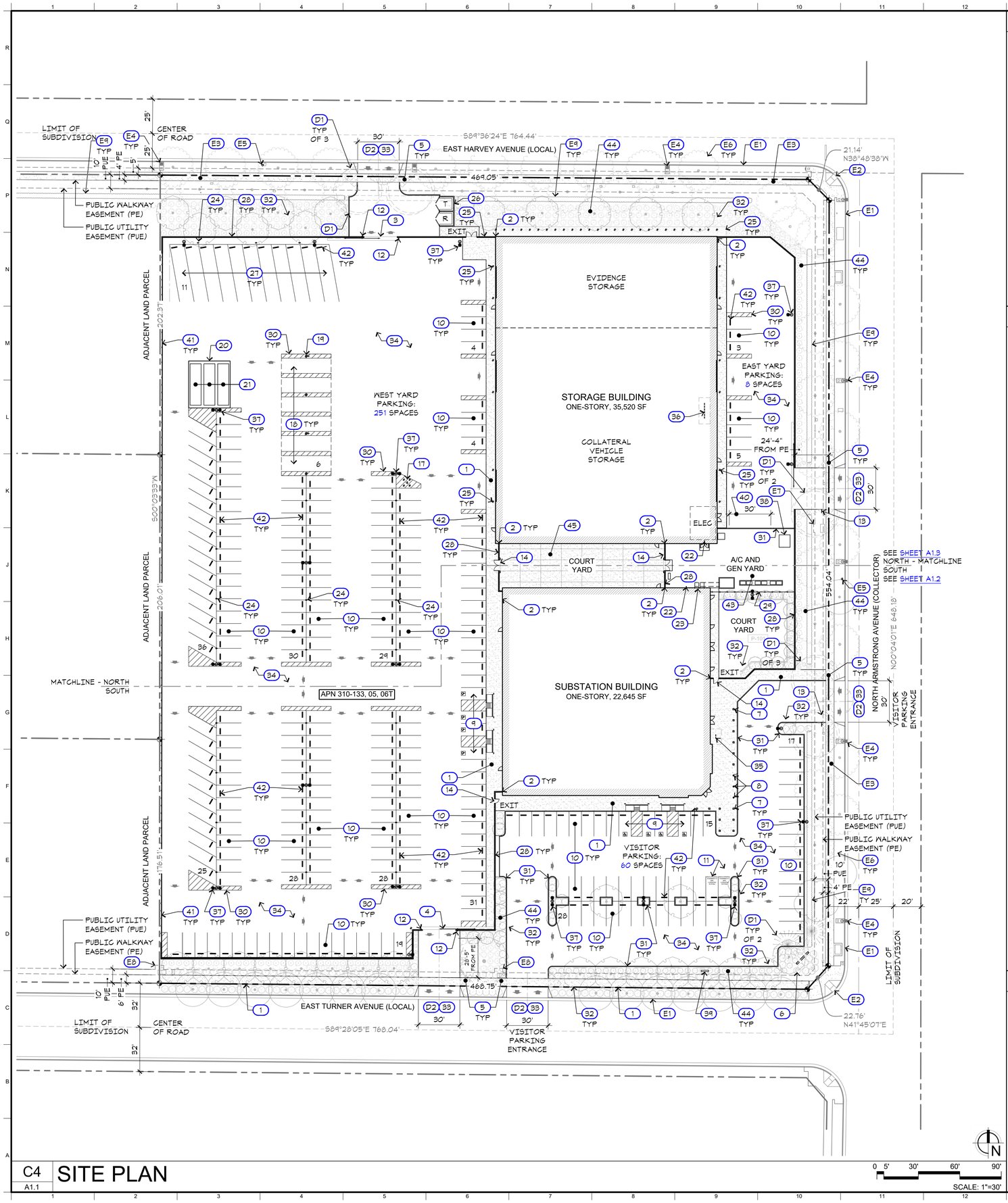
Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A0.4

Drawn by: ----

Plot date: 06.02.2020



GENERAL SITE NOTES

1. ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA.
2. TWO WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND DEVICES ALERT (USA) CALL 1-800-642-2444.
3. REPAIR ALL DAMAGED AND/OR OFF-GRADE CONCRETE STREET IMPROVEMENTS AS DETERMINED BY THE CONSTRUCTION MANAGEMENT ENGINEER, PRIOR TO OCCUPANCY.
4. CONTACT THE PUBLIC WORKS DEPARTMENT, TRAFFIC ENGINEERING AT (559) 621-8800, 10 WORKING DAYS PRIOR TO ANY OFF-SITE CONCRETE CONSTRUCTION.
5. UNDERGROUND ALL EXISTING OFF-SITE OVERHEAD UTILITIES WITHIN THE LIMITS OF THIS APPLICATION AS PER FMC SECTION 15-2017.
6. PROVIDE A 4' MIN. PATH OF TRAVEL ALONG THE PUBLIC SIDEWALK DIRECTLY IN FRONT OF PROPERTY, TO MEET CURRENT ACCESSIBILITY REGULATIONS. A PEDESTRIAN EASEMENT MAY BE REQUIRED IF REQUIREMENTS ARE NOT MET.
7. CONTACT THE PUBLIC WORKS DEPARTMENT AT 559 621-8800, 10 WORKING DAYS PRIOR TO ANY OFFSITE CONCRETE CONSTRUCTION.
8. ALL IMPROVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE CITY OF FRESNO PUBLIC WORKS DEPARTMENT OR STREET CONSTRUCTION PLANS AS REQUIRED AND APPROVED BY THE CITY ENGINEER. THE PERFORMANCE OF ANY WORK WITHIN THE PUBLIC STREET RIGHT-OF-WAY (INCLUDING PEDESTRIAN AND PUBLIC UTILITY EASEMENTS) REQUIRE A STREET WORK PERMIT PRIOR TO COMMENCEMENT OF WORK. ALL REQUIRED STREET IMPROVEMENTS MUST BE COMPLETED AND ACCEPTED BY THE CITY PRIOR TO OCCUPANCY.
9. DEVELOPMENT SHALL TAKE PLACE IN ACCORDANCE WITH ALL CITY, COUNTY, STATE AND FEDERAL LANS AND REQUIREMENTS.
10. EXISTING SIDEWALKS IN EXCESS OF 2% MAXIMUM CROSS SLOPE MUST BE BROUGHT INTO COMPLIANCE PRIOR TO ACCEPTANCE BY PUBLIC WORKS.

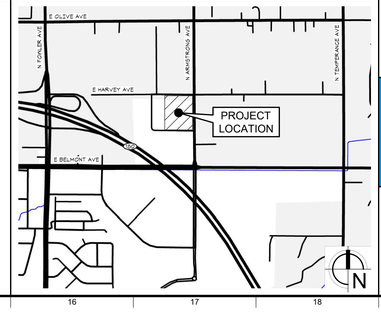
KEYNOTES LEGEND

- 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 1WTB2) AND INSTALL PER FFD POLICY 402.009.
- 4 (P) SOUTH ENTRY GATE W/ BATTERY BACKUP AND FIRE ACCESS TO WEST YARD. SEE KEYNOTE 3 ABOVE FOR 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 9" 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 J19/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 N15/A1.6
- 30 (P) STRIPING TO DELINEATE PARKING SPACE SEPARATION AND CLEARANCE
- 31 (P) 6" HIGH CONCRETE CURB. SEE DETAILS N7 OR J7/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) AC 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 CGBSC 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 CGBSC 5.106.4.1.2. AT 5% OF NEW EMPLOYEE MOTORIZED VEHICLE PARKING SPACES. FOR 254 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/A1.5
- 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

DEMOLITION KEYNOTES LEGEND

- D1 REMOVE (E) TREE TO BOTTOM OF ROOT BALL. SHOWN DASHED. SEE ALSO CIVIL DRAWINGS.
- D2 SEE CIVIL DRAWINGS FOR EXTENT OF DEMOLITION WITHIN THIS AREA.

VICINITY MAP



PROJECT DATA

1. PROJECT TITLE: FRESNO COUNTY SHERIFF AREA 2 SUBSTATION
   - 1.1. SUBSTATION BLDG
   - 1.2. STORAGE BLDG
2. PROJECT ADDRESS: 1124 N ARMSTRONG AVE FRESNO, CA 93727
3. APN: 310-133-04, 05, 06T
4. LEGAL:
5. ZONING: IL/UGM/cz
6. SITE AREA: 283,080 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: 648
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 SPR APPLICATION NO. 8156

SHEET NOTES

1. KEYNOTES SITE PLAN ONLY. SEE SHEETS A1.2 AND A1.3 FOR SITE DIMENSIONS.
2. SEE SHEET A1.2 FOR EXTERIOR EXIT ROUTES.

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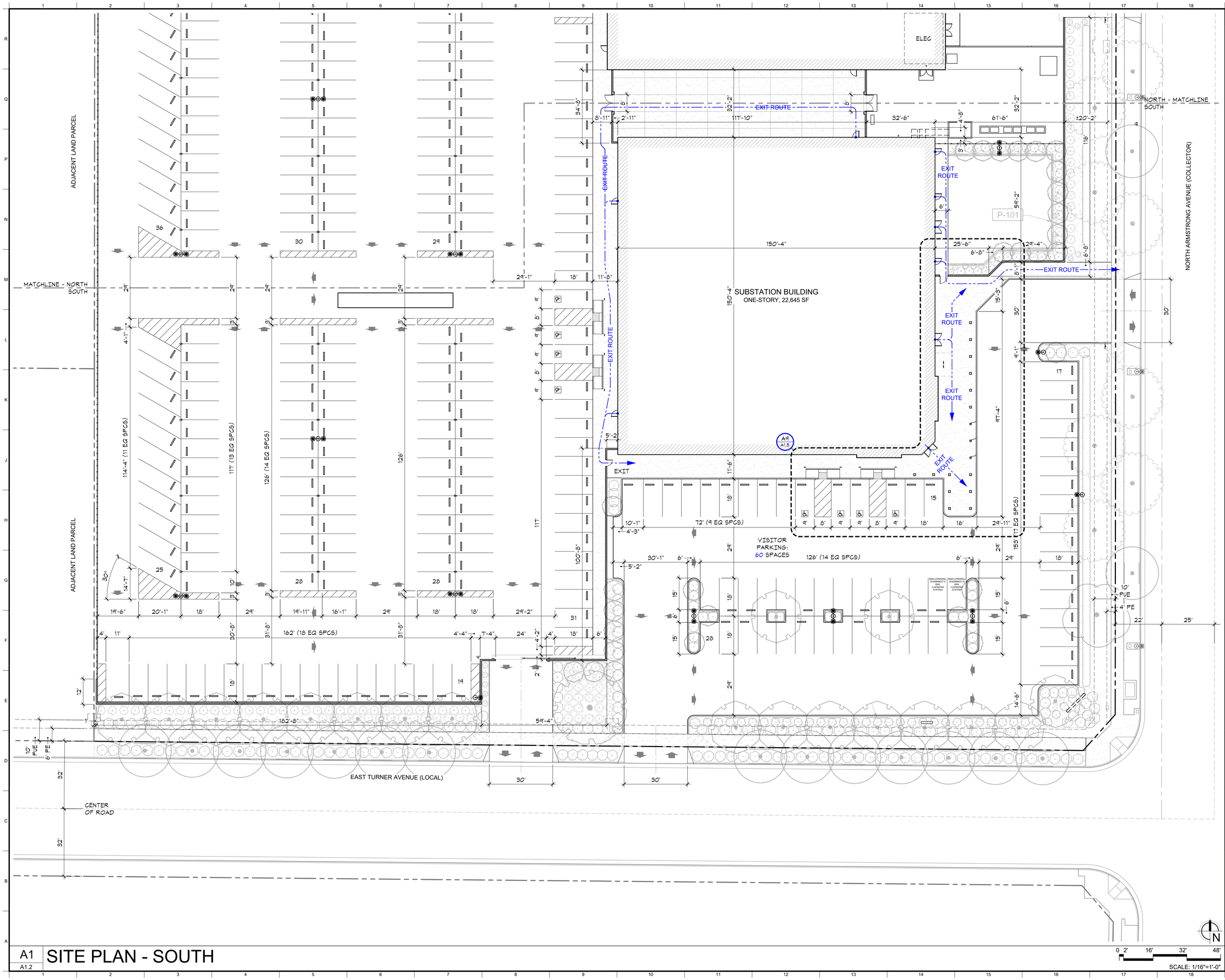
Project:
Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A1-1_Site_Plan

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

Drawn by: ----
Plot date: 06.02.2020



SHEET NOTES

1. DIMENSIONED SITE PLAN ONLY. SEE SHEET A1.1 FOR FULL LIST OF SITE PLAN KEYNOTES.

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A1-2_Site_Plan_S

Sheet Content:

SITE PLAN - SOUTH

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

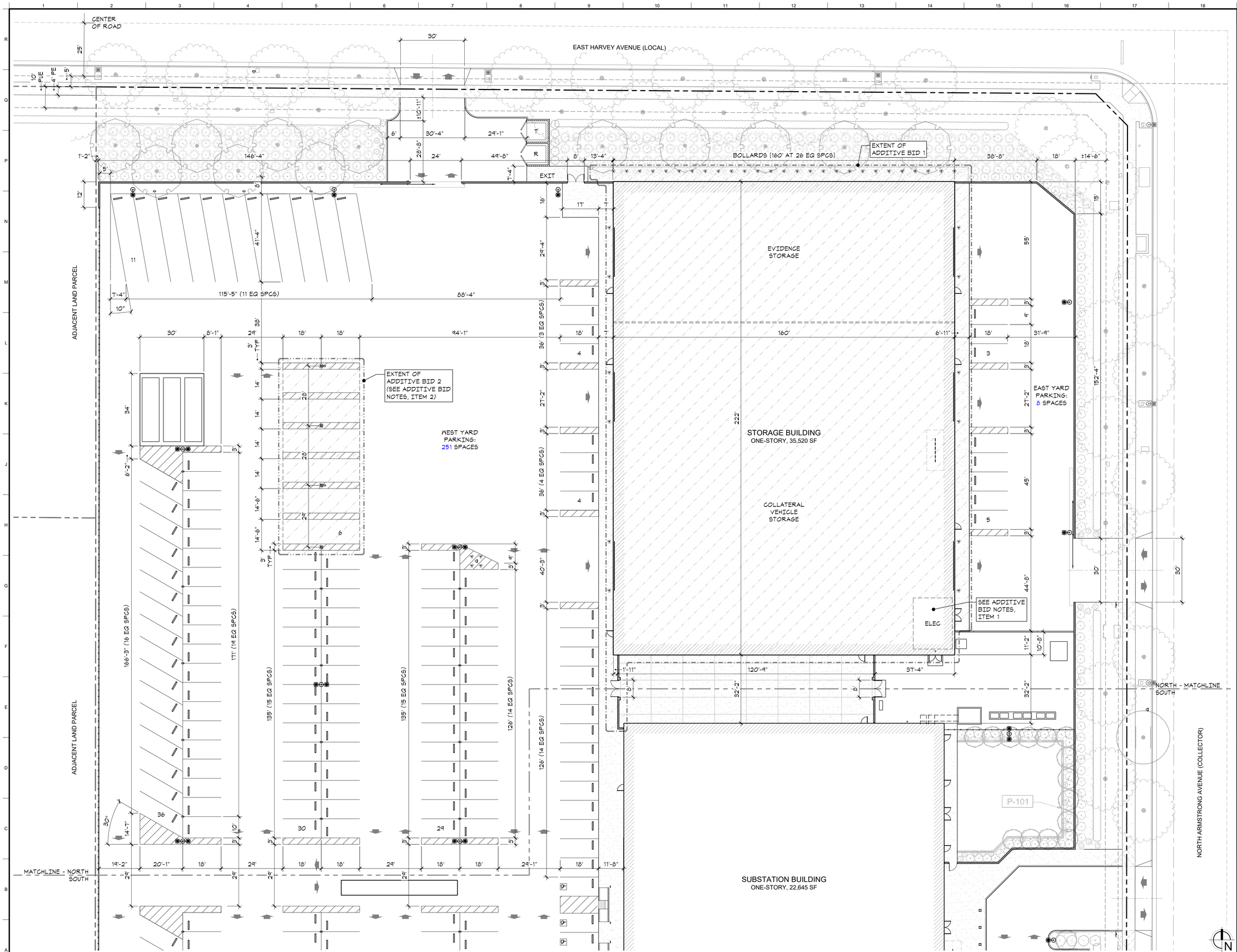
A1.2

A1
A1.2

SITE PLAN - SOUTH

0 2' 16' 32' 48'
SCALE: 1/16"=1'-0"

Drawn by: ----
Plot date: 06.02.2020



SHEET NOTES

1. DIMENSIONED SITE PLAN ONLY. SEE SHEET A1.1 FOR FULL LIST OF SITE PLAN KEYNOTES.

ADDITIVE BID NOTES

1. INCLUDE ELECTRICAL WIRING AND SWITCH GEAR ONLY WITH BASE BID. INCLUDE ELECTRICAL ROOM WITH STORAGE BUILDING ADDITIVE BID 1.
2. ADDITIVE BID 2 LIMITED TO CANOPIES, LIGHTING AND POWER AT LARGE VEHICLE PARKING

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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PROJECT NO: T80293 / 19003
FILE NAME: 19003_A1-3_Site_Plan_N

Sheet Content:

SITE PLAN - NORTH

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

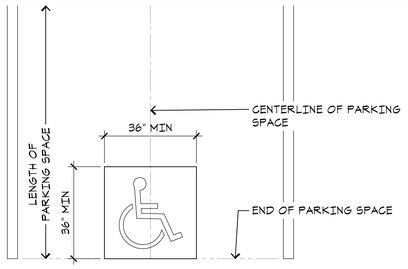
A1.3

A1
A1.3

SITE PLAN - NORTH

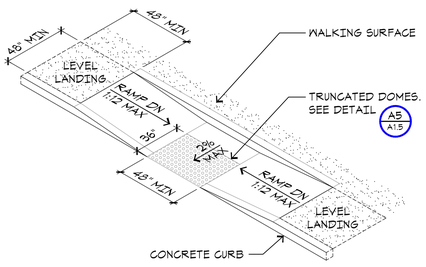
Drawn by: ----

Plot date: 06.02.2020



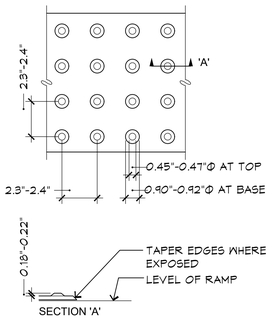
EACH ACCESSIBLE PARKING SPACE SHALL BE MARKED WITH AN INTERNATIONAL SYMBOL OF ACCESSIBILITY IN WHITE ON A BLUE BACKGROUND A MINIMUM 36" WIDE BY 36" HIGH. THE CENTERLINE OF THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE A MAXIMUM OF 6" FROM THE CENTERLINE OF THE PARKING SPACE, ITS SIDES PARALLEL TO THE LENGTH OF THE PARKING SPACE AND ITS LOWER CORNER AT, OR LOWER SIDE ALIGNED WITH, THE END OF THE PARKING SPACE LENGTH.

N1 ACC PARKING SYMBOL
A1.4 SCALE: 1/2"=1'-0"



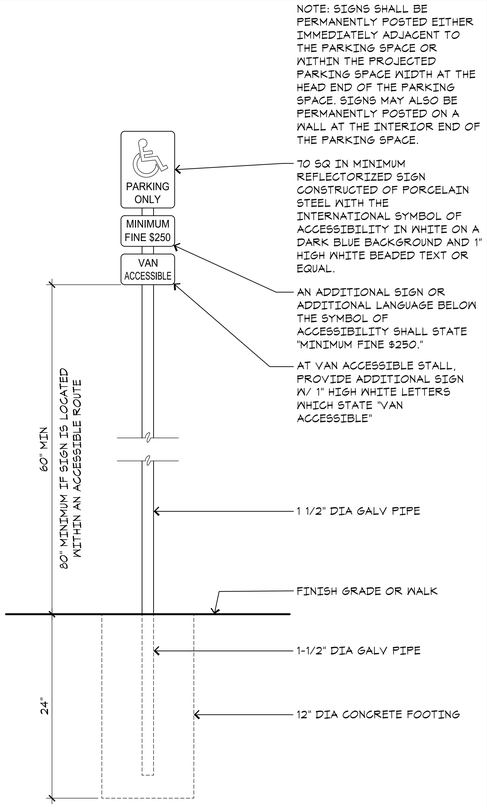
NOTE:
1. SEE TYPICAL CURB RAMP NOTES', SHEET A0.3.

J1 PARALLEL CURB RAMP
A1.4 SCALE: NONE



NOTES:
1. DETECTABLE WARNINGS SHALL COMPLY WITH CBC SECTION 11B-705.
2. DETECTABLE WARNING SURFACE SHALL BE YELLOW AND APPROXIMATE FS 33538 OF FEDERAL STANDARD 595C, SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACE, AND THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE SURFACE. (11B-705.1.1.3)
3. EXCEPT AT CURB RAMPS, ISLANDS OR CUT-THROUGH MEDIANS, DETECTABLE WARNING SURFACES SHALL DIFFER FROM ADJOINING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT. (11B-705.1.1.4)
4. ONLY APPROVED DSA-AC DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACES SHALL BE INSTALLED AS PROVIDED IN THE CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 1, CHAPTER 5, ARTICLES 2, 3 AND 4. REFER TO CCR TITLE 24, PART 12, CHAPTER 11B, SECTION 12- 11B.205 FOR BUILDING AND FACILITY ACCESS SPECIFICATIONS FOR PRODUCT APPROVAL FOR DETECTABLE WARNING PRODUCTS AND DIRECTIONAL SURFACES. (11B-705.3)

A1 TRUNCATED DOMES
A1.4 SCALE: 3"=1'-0"



NOTE: SIGNS SHALL BE PERMANENTLY POSTED EITHER IMMEDIATELY ADJACENT TO THE PARKING SPACE OR WITHIN THE PROJECTED PARKING SPACE WIDTH AT THE HEAD END OF THE PARKING SPACE. SIGNS MAY ALSO BE PERMANENTLY POSTED ON A WALL AT THE INTERIOR END OF THE PARKING SPACE.

70 SQ IN MINIMUM REFLECTORIZED SIGN CONSTRUCTED OF PORCELAIN STEEL WITH THE INTERNATIONAL SYMBOL OF ACCESSIBILITY IN WHITE ON A DARK BLUE BACKGROUND AND 1" HIGH WHITE BEADED TEXT OR EQUAL.

AN ADDITIONAL SIGN OR ADDITIONAL LANGUAGE BELOW THE SYMBOL OF ACCESSIBILITY SHALL STATE "MINIMUM FINE $250."

AT VAN ACCESSIBLE STALL, PROVIDE ADDITIONAL SIGN W/ 1" HIGH WHITE LETTERS WHICH STATE "VAN ACCESSIBLE"

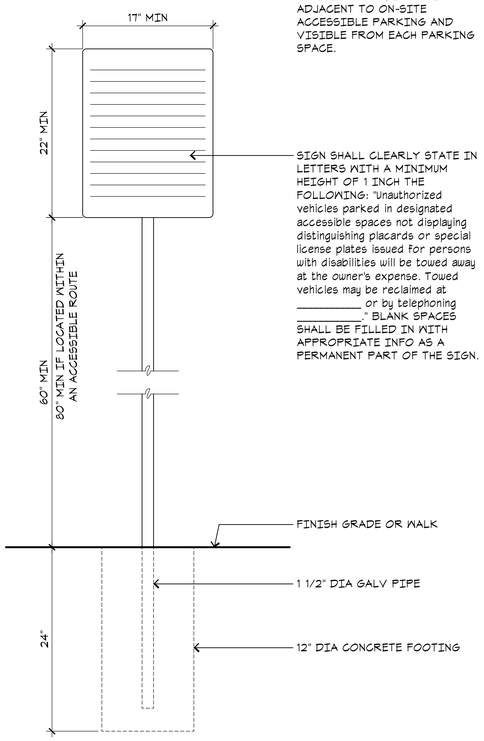
1 1/2" DIA GALV PIPE

FINISH GRADE OR WALK

1-1/2" DIA GALV PIPE

12" DIA CONCRETE FOOTING

J5 ACC PARKINGN SIGN
A1.4 SCALE: 1-1/2"=1'-0"



NOTE: SIGN SHALL BE POSTED EITHER; 1) IN A CONSPICUOUS PLACE AT EACH ENTRANCE TO AN OFF-STREET PARKING FACILITY OR 2) IMMEDIATELY ADJACENT TO ON-SITE ACCESSIBLE PARKING AND VISIBLE FROM EACH PARKING SPACE.

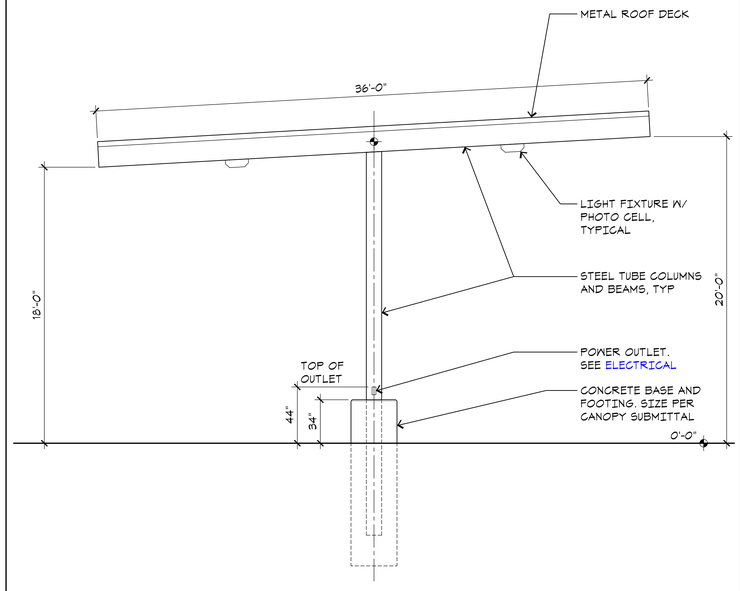
SIGN SHALL CLEARLY STATE IN LETTERS WITH A MINIMUM HEIGHT OF 1 INCH THE FOLLOWING: "Unauthorized vehicles parked in designated accessible spaces not displaying distinguishing placards or special license plates issued for persons with disabilities will be towed away at the owner's expense. Towed vehicles may be reclaimed at _____ or by telephoning _____." BLANK SPACES SHALL BE FILLED IN WITH APPROPRIATE INFO AS A PERMANENT PART OF THE SIGN.

FINISH GRADE OR WALK

1 1/2" DIA GALV PIPE

12" DIA CONCRETE FOOTING

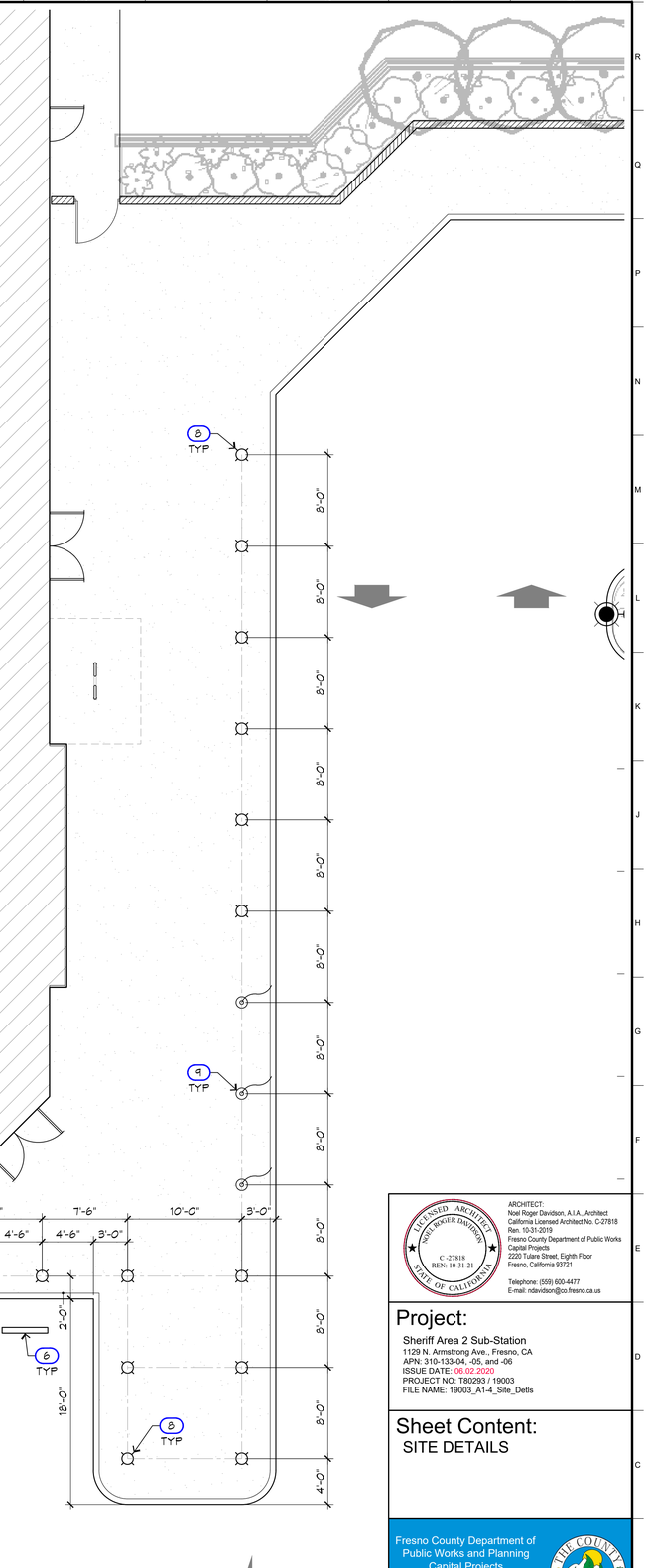
A5 ACC PARKING SIGN
A1.4 SCALE: 1-1/2"=1'-0"



L9 LARGE VEHICLE CANOPY - BID ALT #2
A1.4 SCALE: 1/4"=1'-0"

KEYNOTES LEGEND

1. ACCESSIBLE CURB RAMP W/ TRUNCATED DOMES. SEE DETAIL J1/A1.4.
2. ACCESSIBLE PARKING SIGN CENTERED IN PARKING SPACE, TYPICAL. SEE DETAIL J5/A1.4.
3. 4" STRIPING AT ACCESS AISLE. PROVIDE BLUE STRIPE AT ACCESS AISLE PERIMETER W/ [BLUE] [WHITE] INFILL STRIPES AT 36" O.C. AS SHOWN.
4. 12" HIGH WHITE "NO PARKING" TEXT WITHIN ACCESS AISLE.
5. INTERNATIONAL SYMBOL OF ACCESSIBILITY. SEE DETAIL N1/A1.4.
6. CONCRETE WHEEL STOP. SEE DETAIL A1/A1.5.
7. LEVEL LANDING AREA
8. LIGHTED BOLLARD. SEE ELECTRICAL
9. FLAG POLE. SEE DETAIL J3/A1.6.



A9 PARTIAL ENLARGED SITE PLAN
A1.4 SCALE: 3/16"=1'-0"

0 2' 4' 8' 16'

N

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
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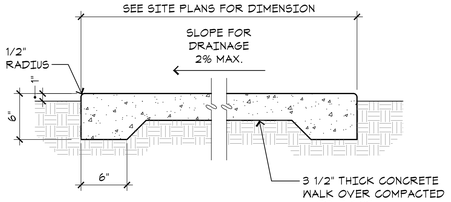
Project:
Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A1-4_Site_Detls

Sheet Content:
SITE DETAILS

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

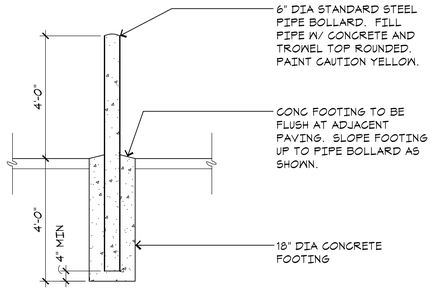
Sheet No.
A1.4

Drawn by: ----
Plot date: 06.02.2020

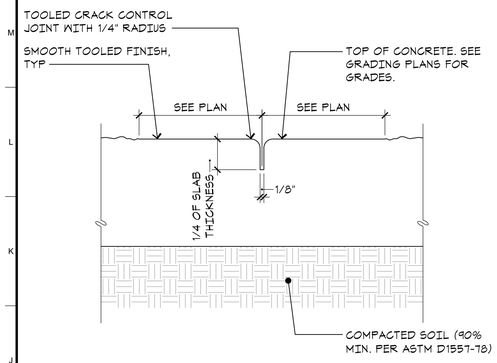


NOTE: PROVIDE 1/8" W x 1" D WEAKENED PLANE JOINTS AT 16'-0" O.C. MAX. PROVIDE 3/4" WIDE FULL DEPTH PREMOLDED EXPANSION JOINTS AT 20'-0" O.C. MAX WITH JOINT FILLER.

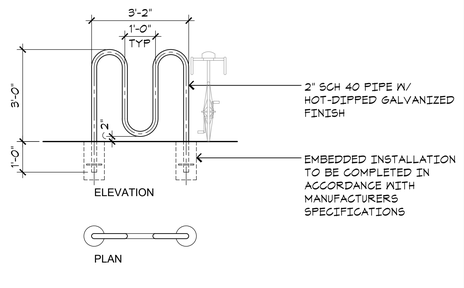
N1 CONCRETE WALK SECT
A1.5 SCALE: 1-1/2"=1'-0"



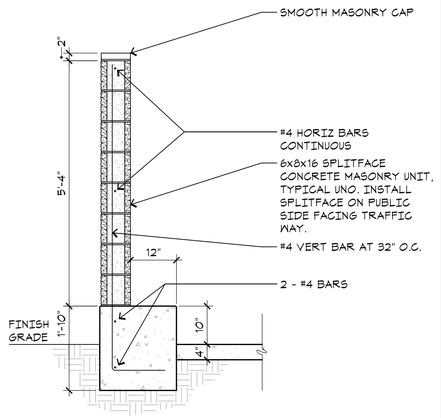
N5 TYP PIPE BOLLARD
A1.5 SCALE: 1/2"=1'-0"



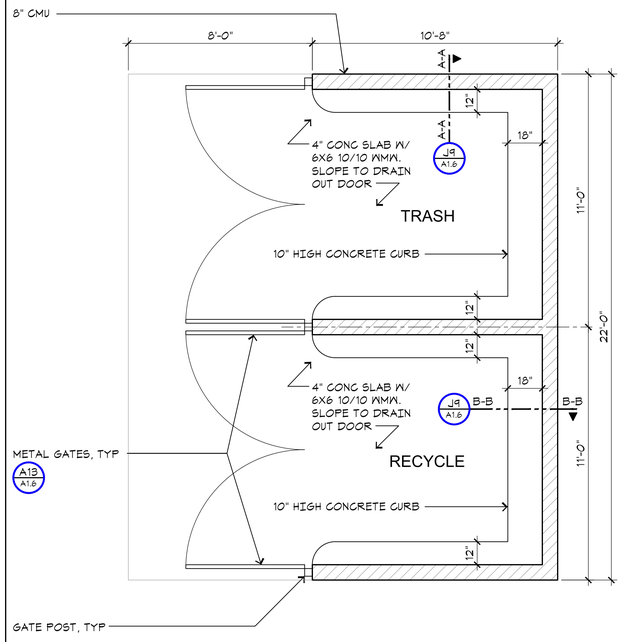
J1 CONTROL JOINT
A1.5 SCALE: 6"=1'-0"



J5 3 LOOP 5 BIKE RACK
A1.5 SCALE: 1/2"=1'-0"

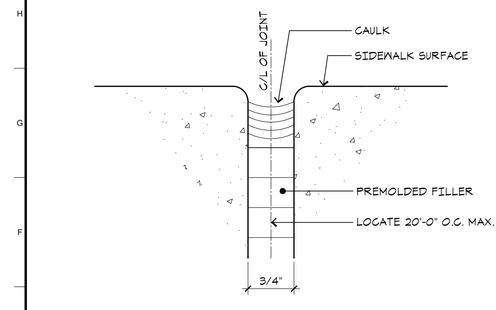


J9 TYPICAL SECT AT CONC BLOCK WALL
A1.5 SCALE: 3/4"=1'-0"

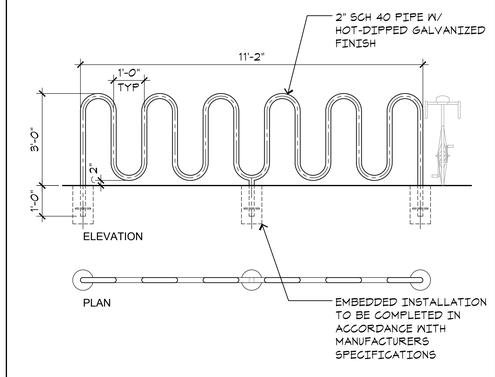


J13 TYPICAL TRASH ENCLOSURE
A1.5 SCALE: 3/8"=1'-0"

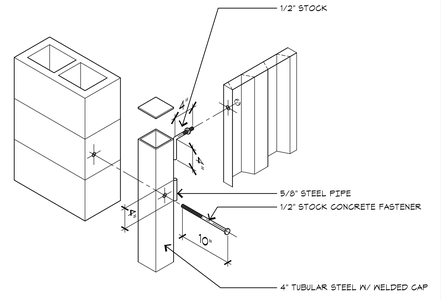
NOTES:
1. ALL CONSTRUCTION SHALL COMPLY WITH THE FRESNO MUNICIPAL CODE
2. GROUT ALL CELLS
3. ALL MASONRY UNITS WHALL COMPLY WITH THE LATEST ADOPTED CALIFORNIA BUILDING CODE AND U.B.C. STANDARD 24-4 GRADE N.
4. ALL MASONRY WALLS SHALL BE INSPECTED BY THE CITY OF FRESNO
5. DEPTH OF FOOTINGS ARE INTO NATURAL UNDISTURBED SOIL OR TESTED AND APPROVED COMPACTED FILL.
6. ALL MASONRY UNITS SHALL BE MINIMUM f'm=1500 PSI.
7. REINFORCING STEEL SHALL BE DEFORMED BAR, MIN GRADE 40.
8. FOOTING CONCRETE SHALL BE A MINIMUM 2000 PSI AT 28 DAYS.
9. MORTAR SHALL BE TYPE-S (MINIMUM 1800 PSI AT 28 DAYS).
   - 9.1. ONE (1) PART CEMENT, TYPE-1
   - 9.2. ONE-HALF (1/2) PART LIME PUTTY OR HYDRATED LIME.
   - 9.3. FOUR AND ONE-HALF (4 1/2) PARTS SAND (MAXIMUM).
10. GROUT SHALL BE A MINIMUM 2000 PSI AT 28 DAYS
    - 10.1. ONE (1) PART CEMENT.
    - 10.2. THREE (3) PARTS SAND.
    - 10.3. TWO (2) PARTS PEA GRAVEL
11. FINISH PAD ELEVATIONS TO BE FLUSH WITH GRADE AT ACCESS PAVEMENT
12. ANY GATE HINGES SHALL BE LOCATED ON THE OUTSIDE.
13. METAL DOORS ARE REQUIRED ON ALL ENCLOSURES. CHAIN LINK IS NOT ACCEPTABLE.
14. 8" CONCRETE BLOCK TO BE USED FOR WALLS.



E1 EXPANSION JOINT
A1.5 SCALE: FULL

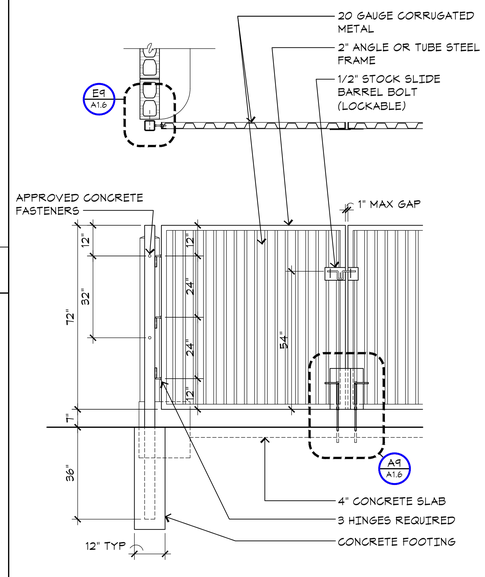


E5 11 LOOP 13 BIKE RACK
A1.5 SCALE: 1/2"=1'-0"

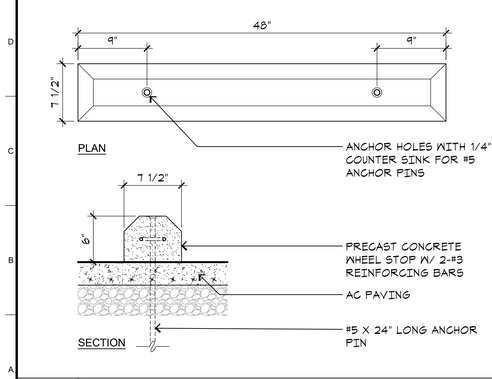


E9 GATE POST DETAIL
A1.5 SCALE: NONE

NOTES:
1. GATES TO BE PAINTED TO MATCH BUILDING ACCENT FEATURES
2. DESIGN, ENGINEERING AND CONSTRUCTION NOT SPECIFICALLY NOTED SHALL BE IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS AND OF FIRST QUALITY.
3. SECONDARY CANE BOLT RETAINER TO BE PLACED FOR EACH GATE SUCH THAT GATE IS HELD IN A POSITION 90 DEGREES TO THE CLOSED POSITION.
4. TWO GATES ARE REQUIRED ON EACH CELL



A13 TRASH ENCLOSURE GATES
A1.5 SCALE: 1/2"=1'-0"



A1 CONCRETE WHEEL STOP
A1.5 SCALE: 1-1/2"=1'-0"

A5 CONCRETE WALK PLAN
A1.5 SCALE: 1/2"=1'-0"

A9 CANE BOLT DETAIL
A1.5 SCALE: NONE

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LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

Project:
Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A1-5_Site_Detls

Sheet Content:
SITE DETAILS

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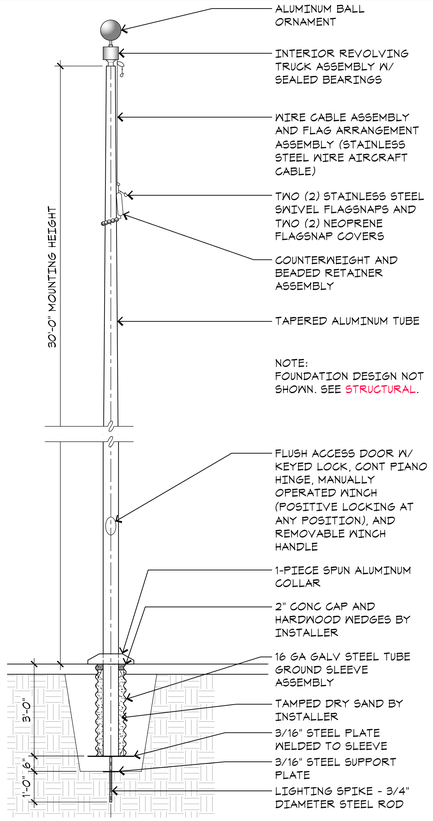
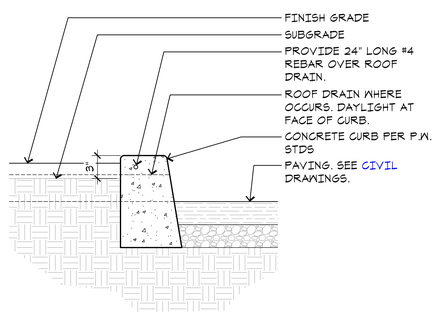
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A1.5

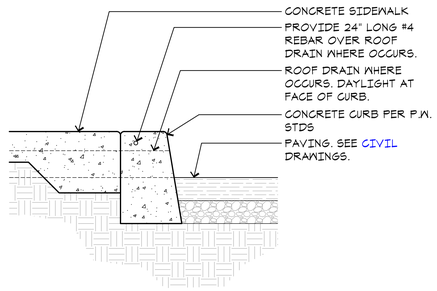
Drawn by: ----
Plot date: 06.02.2020



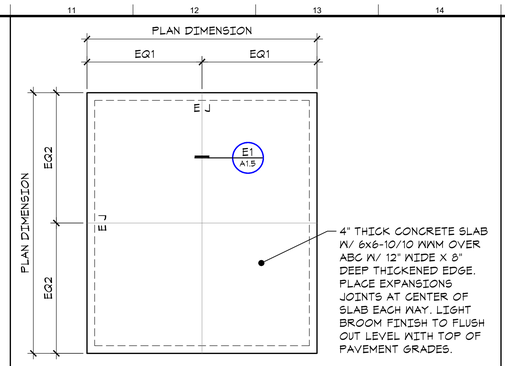
J3 / A1.6 — DETAIL AT FLAGPOLE
SCALE: 1/2"=1'-0"



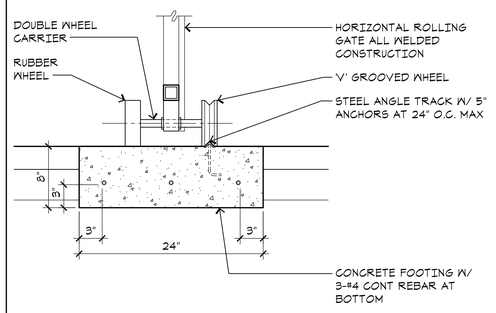
N7 / A1.6 — CURB DETAIL
SCALE: 1-1/2"=1'-0"



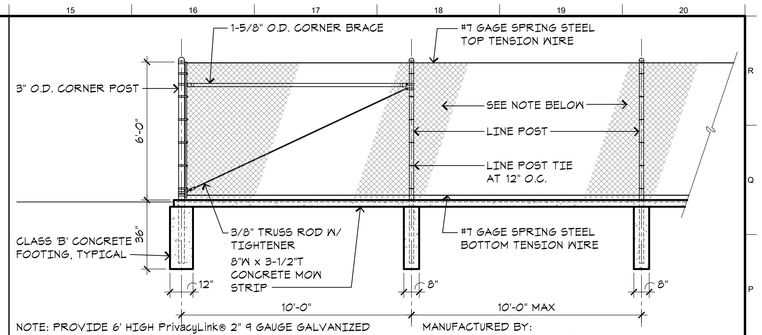
J7 / A1.6 — CURB DETAIL AT WALK
SCALE: 1-1/2"=1'-0"



N11 / A1.6 — SEA TRAIN STORAGE CONTAINER SLAB
SCALE: 1/8"=1'-0"



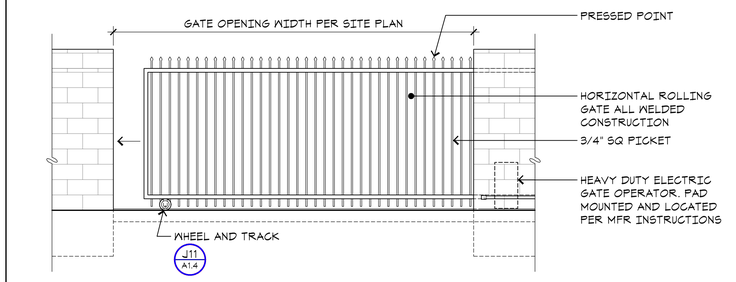
J11 / A1.6 — SLIDING GATE WHEEL TRACK
SCALE: 1-1/2"=1'-0"



NOTE: PROVIDE 6' HIGH PrivacyLink® 2" 9 GAUGE GALVANIZED MESH W/ PrivacyMaster® PRIVACY SLATS PRE-INSERTED IN FENCE. PRIVACY SLATS SHALL BE DOUBLE WALL, SELF LOCKING, PROVIDE A TIGHT FIT IN THE FENCE FABRIC AND PROVIDE A 98% APPROX PRIVACY. SLAT COLOR TO BE SELECTED.

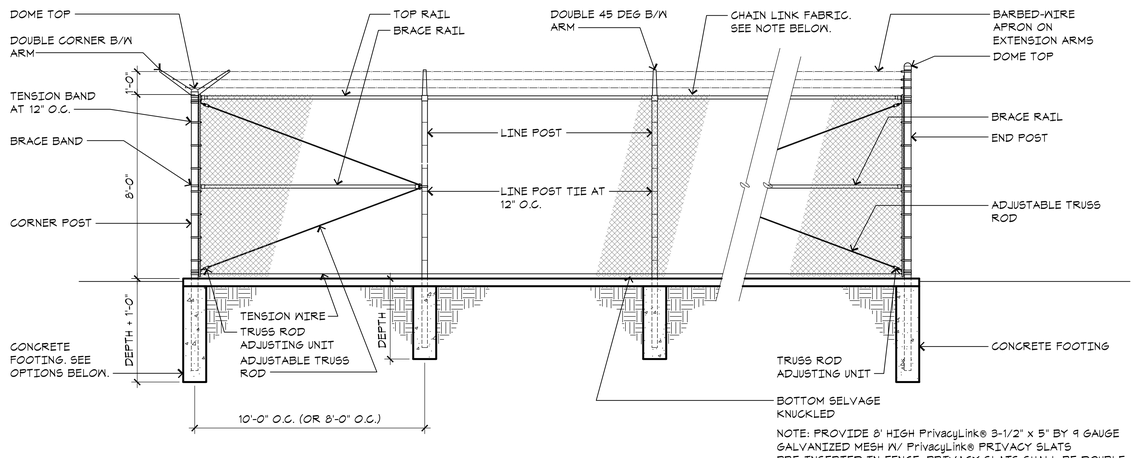
MANUFACTURED BY:
PrivacyLink® (OR APPROVED EQUAL)
130 WEST 700 SOUTH
SMITHFIELD, UT 84335
PH: (800) 574-1076

N15 / A1.6 — TYPICAL CHAIN LINK FENCE ELEVATION
SCALE: 3/8"=1'-0"



FOR ADD'L INFO, SEE WALL SECTION DETAIL A15/A1.6.

J15 / A1.6 — ROLLING GATE DETAIL
SCALE: 3/8"=1'-0"



FENCE DESIGN CRITERIA
PROVIDE FENCE DESIGN PER CHAIN LINK FENCE MANUFACTURERS INSTITUTE'S "CHAIN LINK FENCE WIND LOAD GUIDE FOR THE SELECTION OF LINE POST AND LINE POST SPACING (REVISED MAY, 2010)".

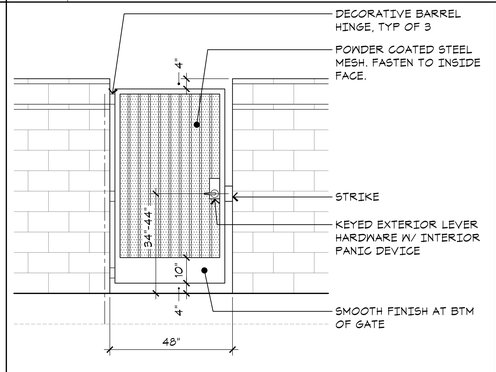
DESIGN WIND SPEED = 100 MPH.

CONCRETE FOOTING OPTIONS
OPTION #1 - 12" DIA x5'-3" DEEP AT 10'-0" O.C.
OPTION #2 - 12" DIA x5'-0" DEEP AT 8'-0" O.C.
OPTION #3 - 18" DIA x4'-9" DEEP AT 10'-0" O.C.
OPTION #4 - 18" DIA x4'-3" DEEP AT 8'-0" O.C.

NOTE: PROVIDE 8' HIGH PrivacyLink® 3-1/2" x 5" BY 9 GAUGE GALVANIZED MESH W/ PrivacyLink® PRIVACY SLATS PRE-INSERTED IN FENCE. PRIVACY SLATS SHALL BE DOUBLE WALL, SELF LOCKING, PROVIDE A TIGHT FIT IN THE FENCE FABRIC AND PROVIDE A 98% APPROX PRIVACY. SLAT COLOR TO BE SELECTED.

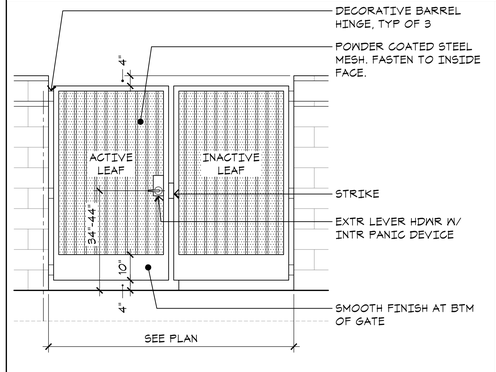
MANUFACTURED BY:
PrivacyLink® (OR APPROVED EQUAL)
130 WEST 700 SOUTH
SMITHFIELD, UT 84335
PH: (800) 574-1076

A1 / A1.6 — TYPICAL CHAIN LINK FENCE ELEVATION
SCALE: 3/8"=1'-0"



FOR ADD'L INFO, SEE WALL SECTION DETAIL A15/A1.6.

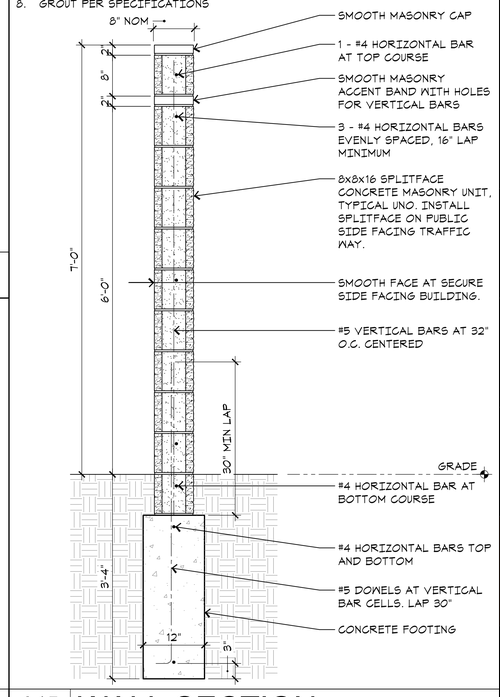
E11 / A1.6 — GATE ELEVATION
SCALE: 1/2"=1'-0"



FOR ADD'L INFO, SEE WALL SECTION DETAIL A15/A1.6.

A11 / A1.6 — GATE ELEVATION
SCALE: 1/2"=1'-0"

GENERAL NOTES AND SPECIFICATIONS:
1. GROUT ALL CELLS
2. ALL MASONRY UNITS SHALL COMPLY WITH THE 2016 CALIFORNIA BUILDING CODE.
3. DEPTH OF FOOTINGS ARE INTO NATURAL UNDISTURBED SOIL OR TEST AND APPROVED COMPACTED FILL.
4. ALL MASONRY UNITS SHALL BE MINIMUM F'm = 1900 PSI.
5. REINFORCING BARS SHALL BE DEFORMED BARS MINIMUM GRADE 60.
6. FOOTING CONCRETE SHALL BE A MINIMUM 2500 PSI AT 28 DAYS.
7. MORTAR PER SPECIFICATIONS
8. GROUT PER SPECIFICATIONS



A15 / A1.6 — WALL SECTION
SCALE: 1"=1'-0"

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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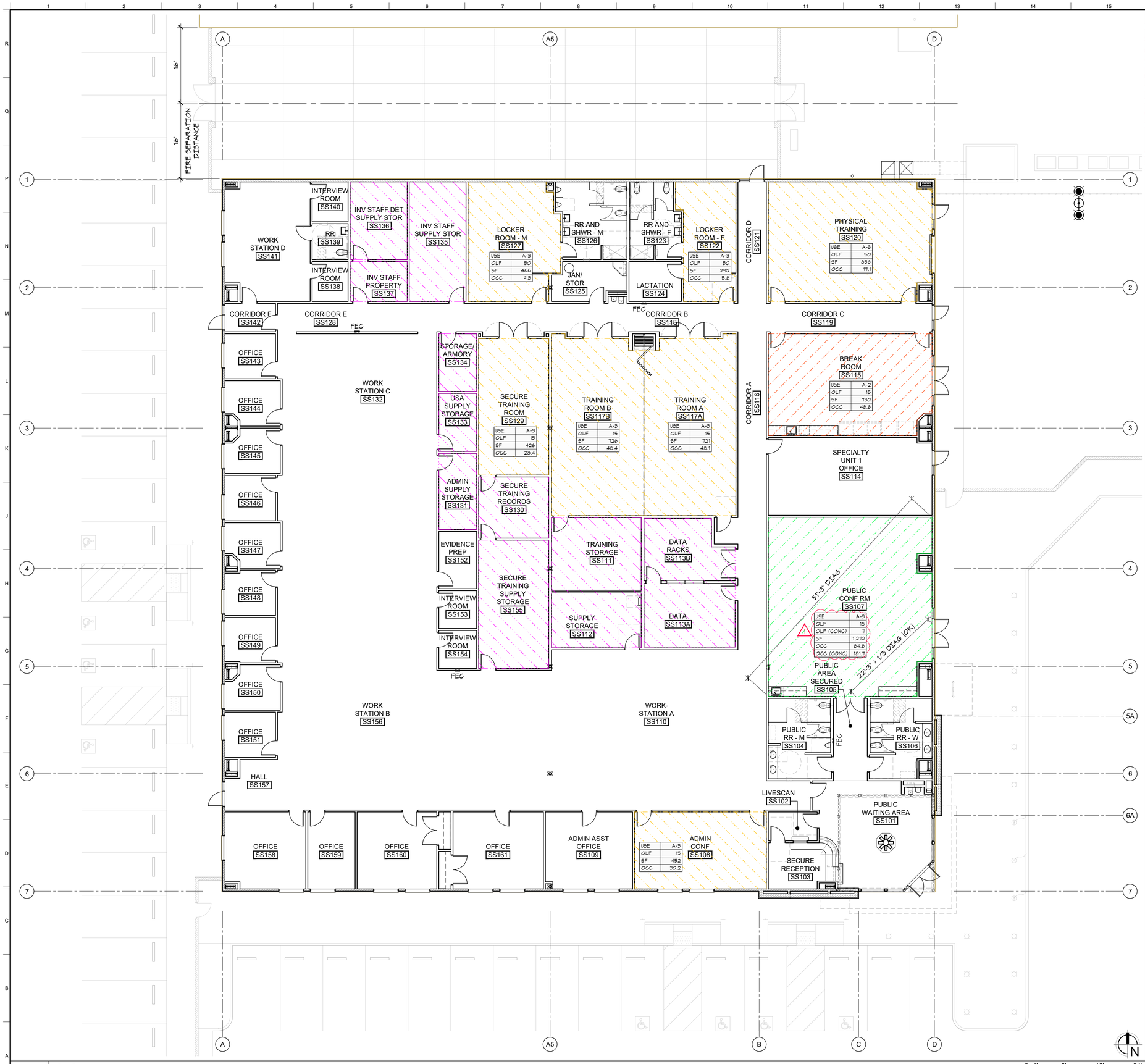
Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A1-6_Site_Detls

Sheet Content:
SITE DETAILS

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

Sheet No.
A1.6

Drawn by: ----
Plot date: 06.02.2020



SUBSTATION BUILDING AREAS & OCC

DESC		AREA	OLF	OCC
TOTAL BUILDING		22,700 SF		
A-2 ASSEMBLY		730 SF	15	49
A-3 ASSEMBLY		3,937 SF	15	263
A-3 ASSEMBLY (CONCENTRATED)		1,272 SF	7	182
B BUSINESS		14,233 SF	100	143
S-1 STORAGE		2,529 SF	300	9
TOTAL OCCUPANCY				646

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

CODE ANALYSIS

2016 CALIFORNIA BUILDING CODE

1. ...
2. ...
3. CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION
   - 3.1. SECTION 303 ASSEMBLY GROUP A
     - 3.1.1. 303.3 Assembly Group A-2. Assembly uses intended for food and/or drink consumption.
     - 3.1.2. 303.4 Assembly Group A-3. Assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A.
   - 3.2. SECTION 304 BUSINESS GROUP B
     - 3.2.1. 304.1 Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts.
   - 3.3. SECTION 311 STORAGE GROUP S
     - 3.3.1. 311.2 Moderate-hazard storage, Group S-1. Buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following: Bags (cloth, burlap and paper), Books and paper in rolls or packs, Clothing, Furniture, Etc.
4. ...
5. CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS
   - 5.1. TABLE 504.3 ALLOWABLE ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE
     - 5.1.1. GROUPS B, S; S; TYPE IIB; 75'
     - 5.1.2. GROUP A; S (with area increase); TYPE IIB; 55'
     - 5.1.3. Max building height = 32'-0" < 55' OK
   - 5.2. TABLE 506.2 ALLOWABLE AREA FACTOR IN SQUARE FEET
     - 5.2.1. GROUP A-3; S1; TYPE IIB; 38,000 SF
     - 5.2.2. GROUP B; S1; TYPE IIB; 92,000 SF
     - 5.2.3. Building area = 22,700 SF < 38,000 SF OK
   - 5.3. 508.3 Nonseparated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as nonseparated occupancies.
     - 5.3.1. 508.3.1 Occupancy classification. Nonseparated occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space. In addition, the most restrictive provisions of Chapter 9 which apply to the nonseparated occupancies shall apply to the total nonseparated occupancy area.
     - 5.3.2. 508.3.2 Allowable building area and height. The allowable building area and height of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.
     - 5.3.3. 508.3.3 Separation. No separation is required between nonseparated occupancies.
6. CHAPTER 6 TYPES OF CONSTRUCTION
   - 6.1. TABLE 602 FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE
     - 6.1.1. X < 10; TYPE IIB; GROUP A, B; 1 HR
     - 6.1.2. 10 < X; TYPE IIB; GROUP A, B; 0 HR
7. CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES
   - 7.1. TABLE 705.8 MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING PROTECTION
     - 7.1.1. FIRE SEPARATION DISTANCE (feet) = 15 to less than 20
     - 7.1.2. DEGREE OF OPENING PROTECTION = Unprotected, Sprinklered (UP, S)
     - 7.1.3. ALLOWABLE AREA = 75%.
8. ...
9. ...
10. CHAPTER 10 MEANS OF EGRESS
    - 10.1. TABLE 1020.1 CORRIDOR FIRE-RESISTANCE RATING
      - 10.1.1. GROUP A, B; OCCUPANT LOAD > 30; with sprinkler system; 0 HR

PROJECT DATA

1. PROJECT TITLE: FRESNO COUNTY SHERIFF AREA 2 SUBSTATION
   - 1.1. SUBSTATION BLDG
   - 1.2. STORAGE BLDG
2. PROJECT ADDRESS: 1124 N ARMSTRONG AVE FRESNO, CA 93727
3. APN: 310-133-04, 05, 06T
4. LEGAL:
5. ZONING: IL/UGM/cz
6. SITE AREA: 283,080 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 SPR APPLICATION NO. 8156

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2019
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E-mail: ndavidson@co.fresno.ca.us

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ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A2-1_Code_Plan

Sheet Content:
CODE PLAN

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

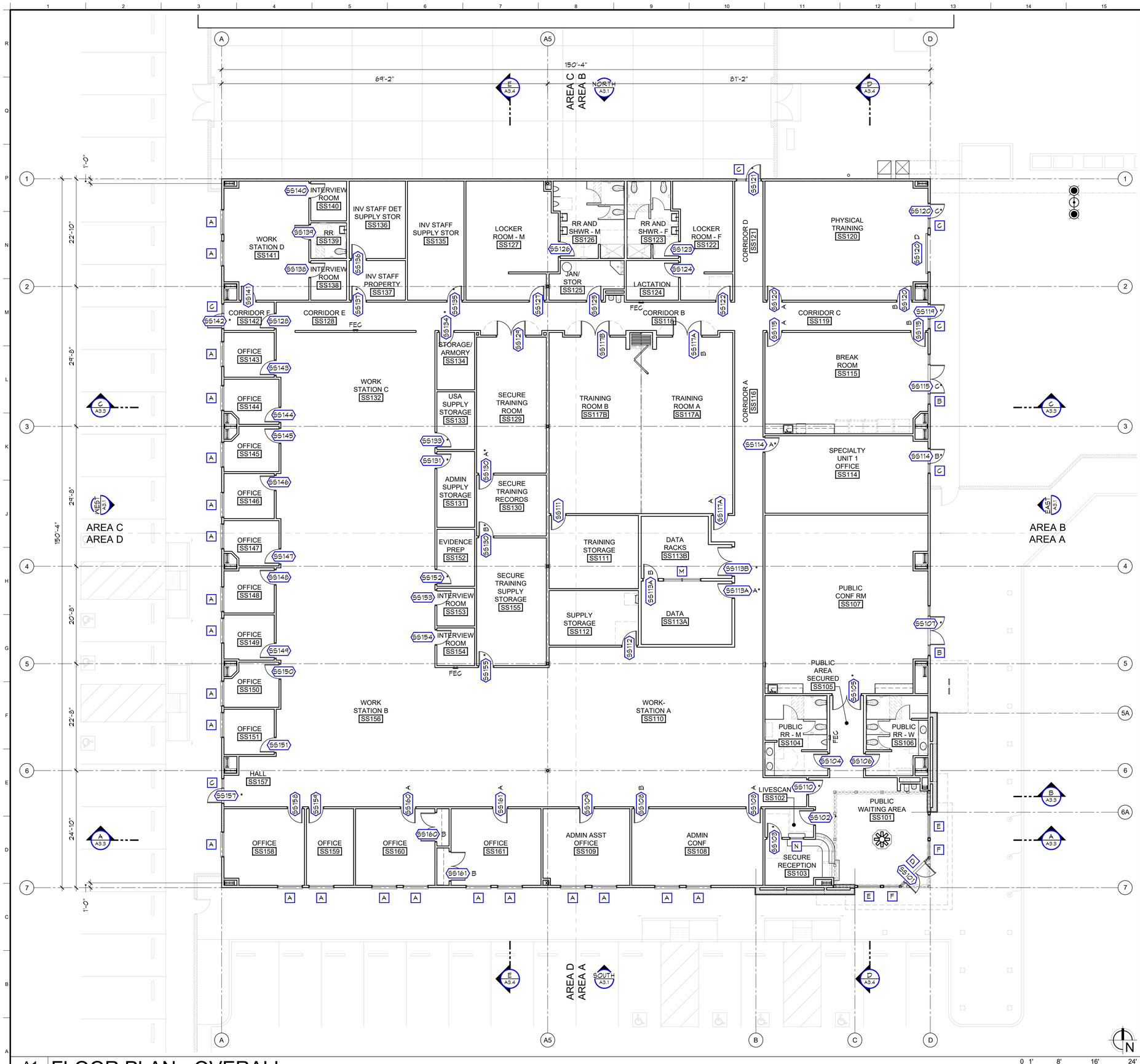
Sheet No.

A2.1

A1 / A2.1 CODE PLAN

Drawn by: ----

Plot date: 06.02.2020



WALL LEGEND

- EXTERIOR WALL (NR)
- J17 / A6.1 — 1.1 INTERIOR WALL (NR) - 3 5/8" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE.
- 1.2 INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 30 GA. METAL STUDS AT 24" O.C.

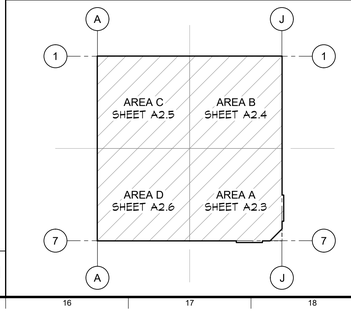
SYMBOLS LEGEND

- SS100 DOOR SYMBOL. SEE 'DOOR SCHEDULE', SHEET A4.1
  * INDICATES SECURITY KEY CARD ACCESS
- A WINDOW / FRAME SYMBOL. SEE DETAIL A10/A4.2

SHEET NOTES

1. SEE 'SYMBOLS LEGEND', SHEET A0.1
2. SEE 'ARCHITECTURAL NOTES', SHEET A0.2
3. SEE 'TYPICAL STUD FRAMING' DETAIL J5/A6.1
4. EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM THE ROOM OR SPACE. POSTED SIGNS SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN AND BE MAINTAINED BY THE OWNER OR THE OWNER'S AUTHORIZED AGENT. 2016 CFC, SECTION 1004.3.

KEY PLAN



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FILE NAME: 19003_A2-2_Floor_Plan

Sheet Content:

FLOOR PLAN - OVERALL

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

Sheet No.

A2.2

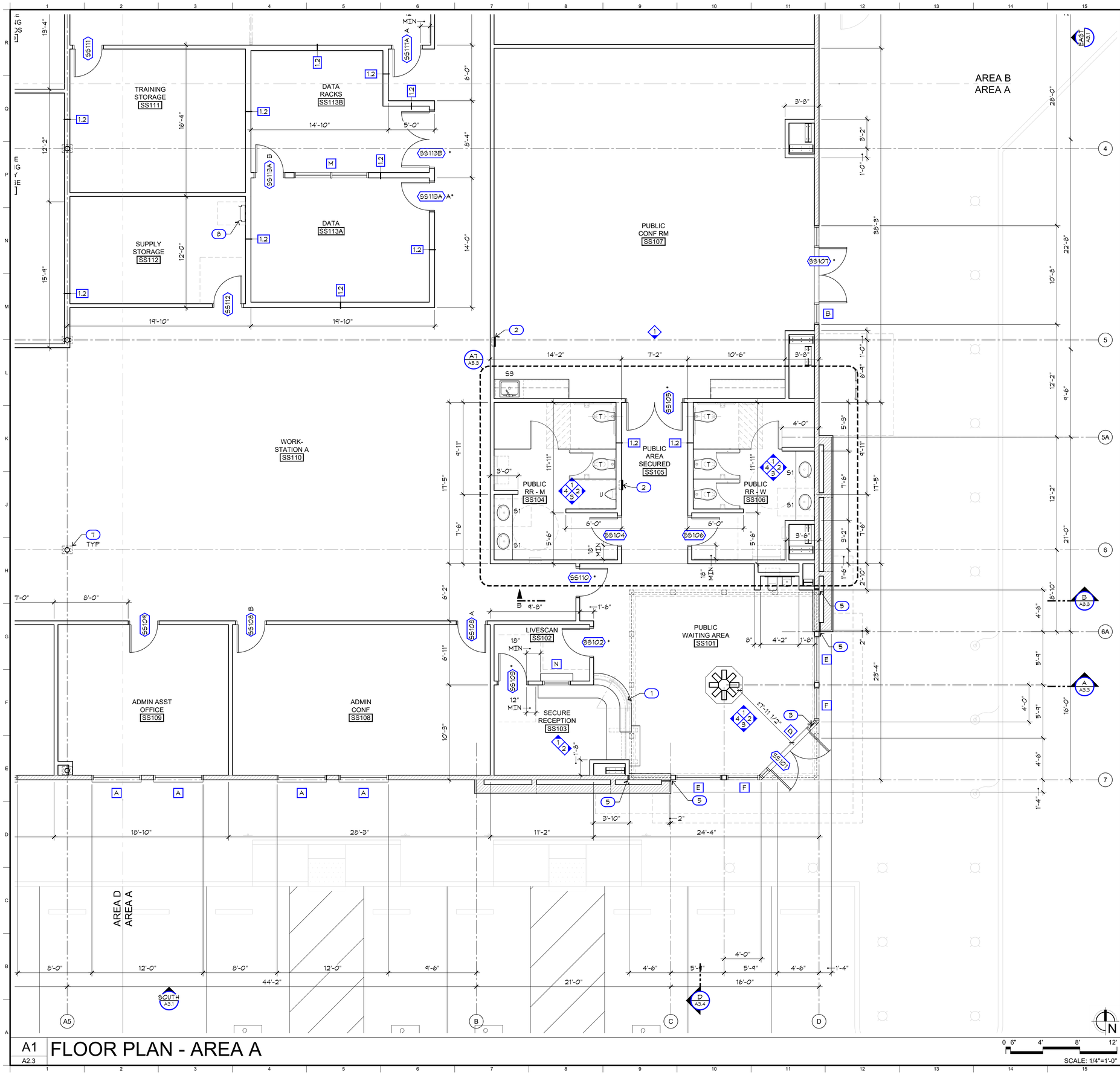
A1
A2.2

FLOOR PLAN - OVERALL

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

Drawn by: ----

Plot date: 06.02.2020



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- 1.2 — INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 30 GA. METAL STUDS AT 24" O.C.

SYMBOLS LEGEND

- SS100 — DOOR SYMBOL. SEE 'DOOR SCHEDULE', SHEET A4.1 * INDICATES SECURITY KEY CARD ACCESS
- A — WINDOW / FRAME SYMBOL. SEE DETAIL A10/A4.2

SHEET NOTES

1. SEE 'SYMBOLS LEGEND', SHEET A0.1
2. SEE 'ARCHITECTURAL NOTES', SHEET A0.2
3. SEE 'TYPICAL STUD FRAMING' DETAIL J5/A6.1

KEYNOTES LEGEND

NOTE: SOME KEYNOTES MAY NOT APPEAR ON THIS SHEET.

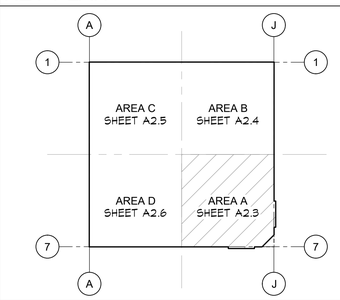
1. BALLISTIC RATED TRANSACTION WINDOW
2. FIRE EXTINGUISHER CABINET. SEE DETAIL E5/A6.1, SEE ALSO 'FINISH SPECIFICATIONS', SHEET A5.1 FOR CABINET STYLE AND FINISH.
3. "EXIT" SIGN. SEE DETAIL A5/A4.2.
4. "EXIT ROUTE" SIGN. SEE DETAIL A5/A4.2.
5. VERTICAL EXPANSION JOINT
6. HVAC DUCTS. SEE MECHANICAL. PAINT AS SPECIFIED ON EXTERIOR ELEVATIONS, SHEETS A3.1 AND A3.2
7. INTERIOR STEEL COLUMN. EMBED BASE PLATE BELOW SLAB. SEE STRUCTURAL
8. ROOF ACCESS LADDER. SEE DETAIL J3/A6.4

EQPM / FIXT LEGEND

NOTE: SOME ITEMS MAY NOT APPEAR ON THIS SHEET.

B	BENCH
DF	DRINKING FOUNTAIN. SEE PLUMBING
DW	DISHWASHER
L	LOCKER
R	REFRIGERATOR
S1	SINK 1. SEE PLUMBING
S2	SINK 2. SEE PLUMBING
S3	SINK 3. SEE PLUMBING
SH	SHOWER. SEE PLUMBING
T	TOILET. SEE PLUMBING
V	VENDING MACHINE
WH	WATER HEATER. SEE PLUMBING

KEY PLAN



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FILE NAME: 19003_A2-3_Floor_Plan_Area_A

Sheet Content:

FLOOR PLAN - AREA A

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

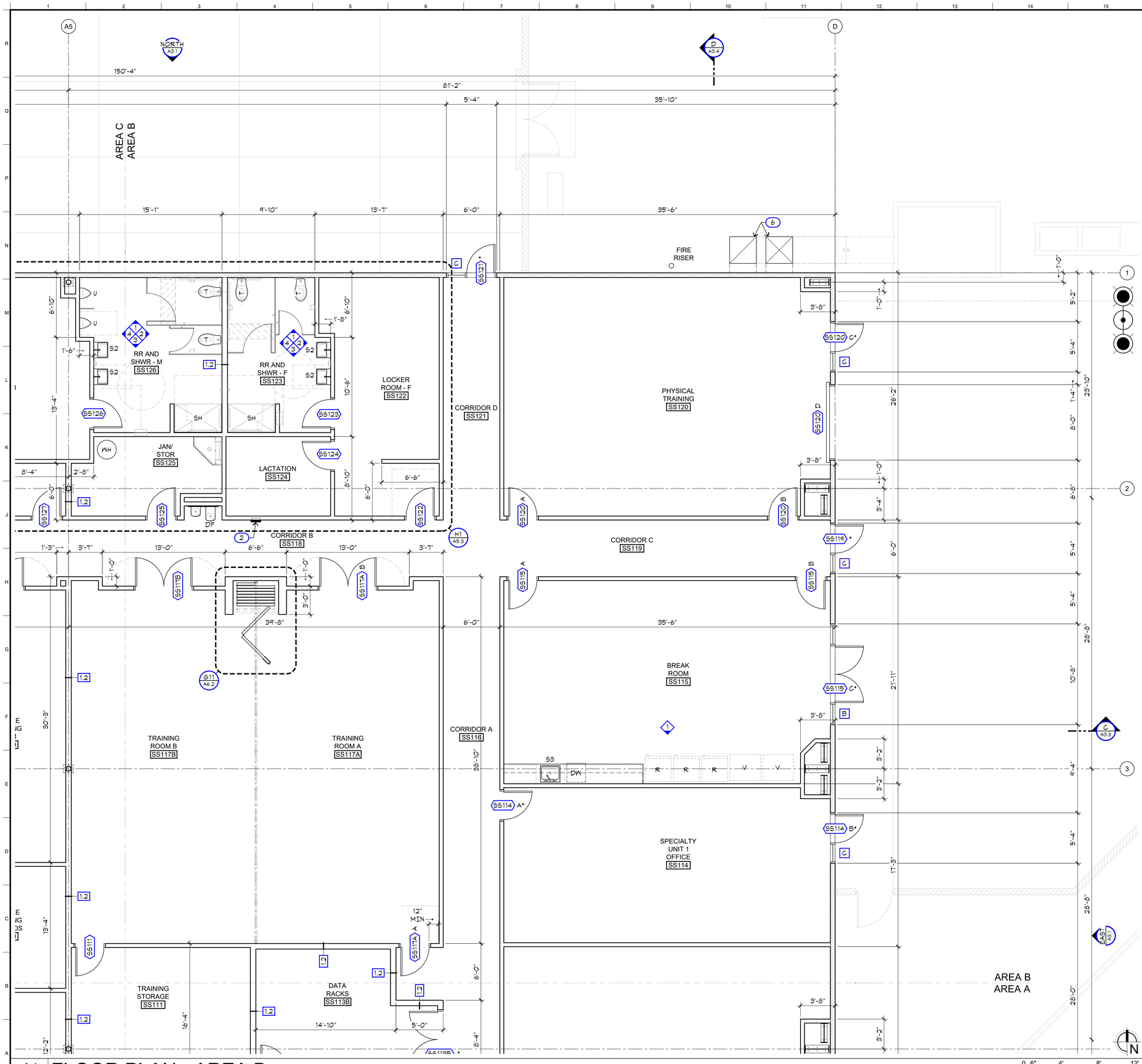
A2.3

A1 / A2.3 **FLOOR PLAN - AREA A**

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

Drawn by: ----

Plot date: 06.02.2020



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SYMBOLS LEGEND

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SHEET NOTES

1. SEE 'SYMBOLS LEGEND', SHEET A0.1
2. SEE 'ARCHITECTURAL NOTES', SHEET A0.2
3. SEE 'TYPICAL STUD FRAMING' DETAIL J5/A6.1

KEYNOTES LEGEND

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3. "EXIT" SIGN. SEE DETAIL A5/A4.2.
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7. INTERIOR STEEL COLUMN. EMBED BASE PLATE BELOW SLAB. SEE STRUCTURAL
8. ROOF ACCESS LADDER. SEE DETAIL J3/A6.4

EQPM / FIXT LEGEND

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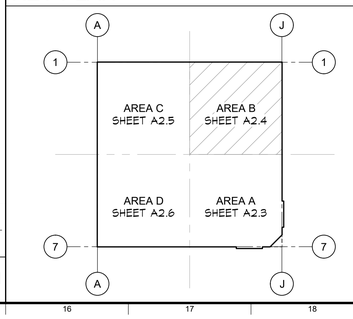
B	BENCH
DF	DRINKING FOUNTAIN. SEE PLUMBING
DW	DISHWASHER
L	LOCKER
R	REFRIGERATOR
S1	SINK 1. SEE PLUMBING
S2	SINK 2. SEE PLUMBING
S3	SINK 3. SEE PLUMBING
SH	SHOWER. SEE PLUMBING
T	TOILET. SEE PLUMBING
V	VENDING MACHINE
WH	WATER HEATER. SEE PLUMBING

KEY PLAN



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FILE NAME: 19003_A2-4_Floor_Plan_Area_B

Sheet Content:

FLOOR PLAN - AREA B

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

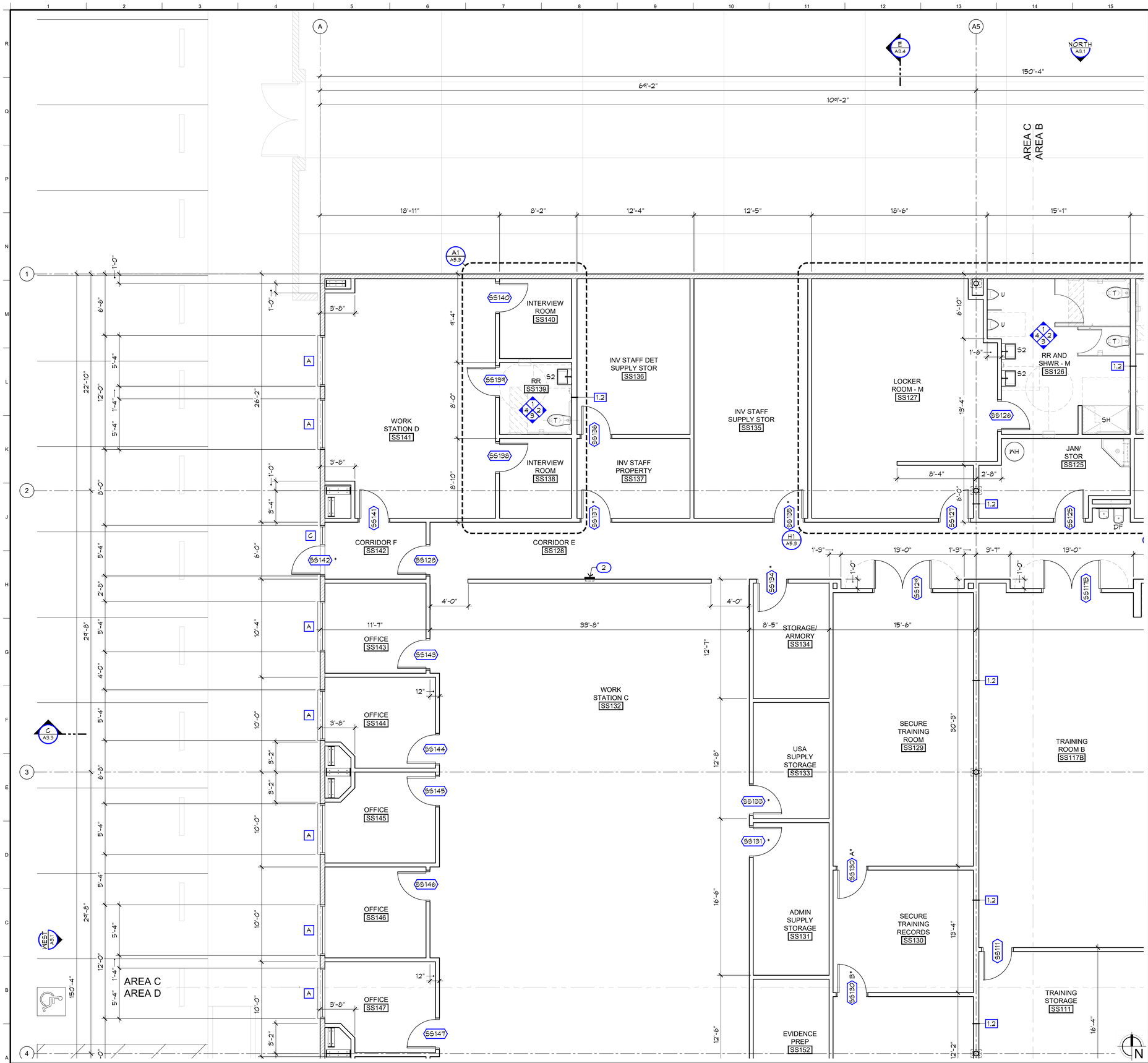
Sheet No.

A2.4

A1
A2.4

FLOOR PLAN - AREA B

Drawn by: ----
Plot date: 06.02.2020



A1 FLOOR PLAN - AREA C

A2.5

WALL LEGEND

- EXTERIOR WALL (NR)
- 1.1 INTERIOR WALL (NR) - 3 5/8" X 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE. (J17 / A6.1)
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SYMBOLS LEGEND

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  * INDICATES SECURITY KEY CARD ACCESS
- A WINDOW / FRAME SYMBOL. SEE DETAIL A10/A4.2

SHEET NOTES

1. SEE 'SYMBOLS LEGEND', SHEET A0.1
2. SEE 'ARCHITECTURAL NOTES', SHEET A0.2
3. SEE 'TYPICAL STUD FRAMING' DETAIL J5/A6.1

KEYNOTES LEGEND

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EQPM / FIXT LEGEND

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T	TOILET. SEE PLUMBING
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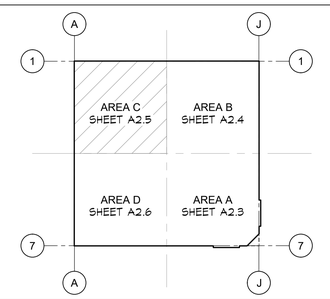
WH	WATER HEATER. SEE PLUMBING

KEY PLAN



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Sheet Content:

FLOOR PLAN - AREA C

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

Sheet No.

A2.5

Drawn by: ----

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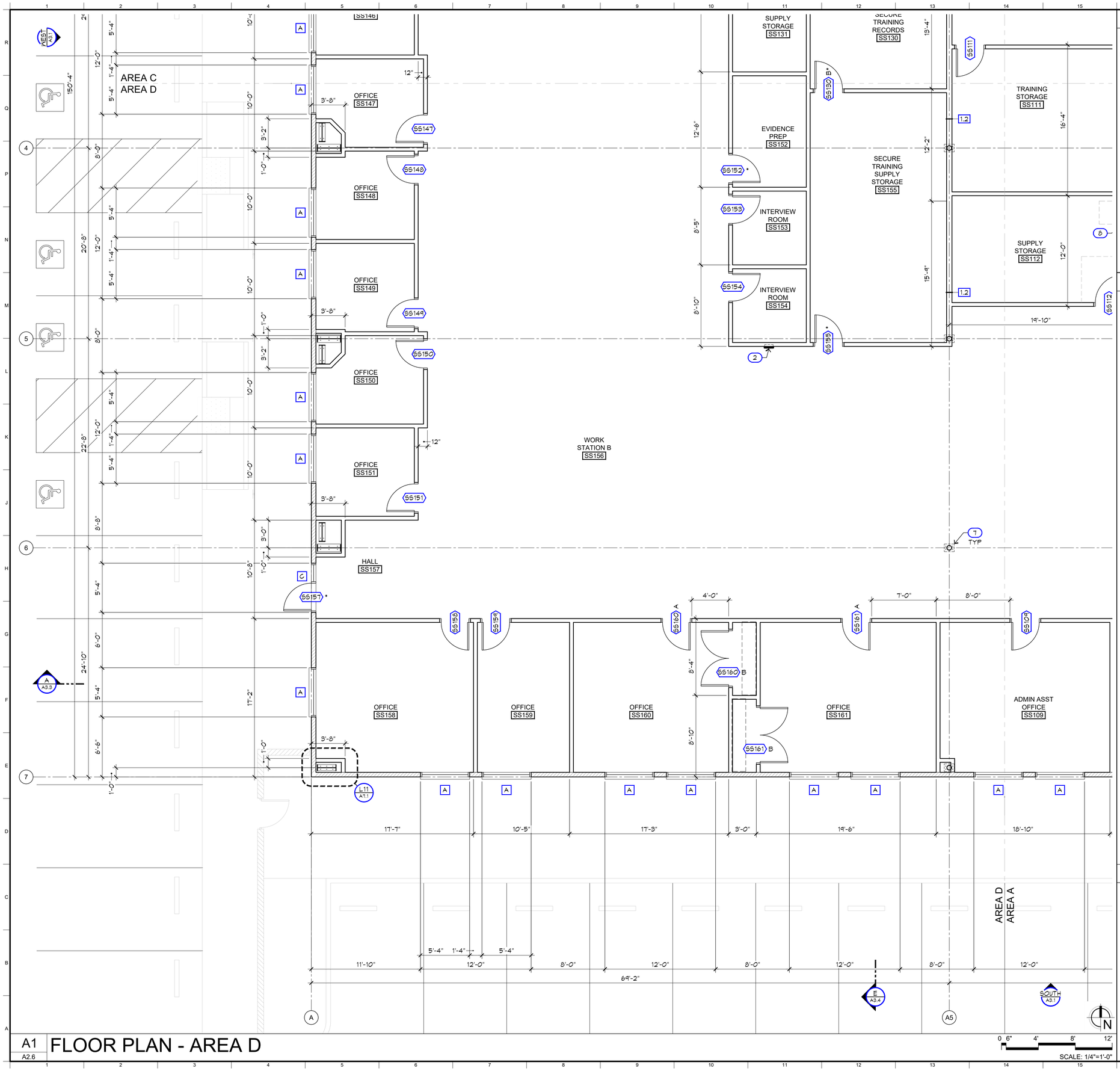

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SYMBOLS LEGEND

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SHEET NOTES

1. SEE 'SYMBOLS LEGEND', SHEET A0.1
2. SEE 'ARCHITECTURAL NOTES', SHEET A0.2
3. SEE 'TYPICAL STUD FRAMING' DETAIL J5/A6.1

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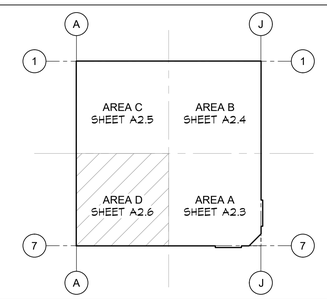
WH	WATER HEATER. SEE PLUMBING

KEY PLAN



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Sheriff Area 2 Sub-Station
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APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A2-6_Floor_Plan_Area_D

Sheet Content:

FLOOR PLAN - AREA D

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

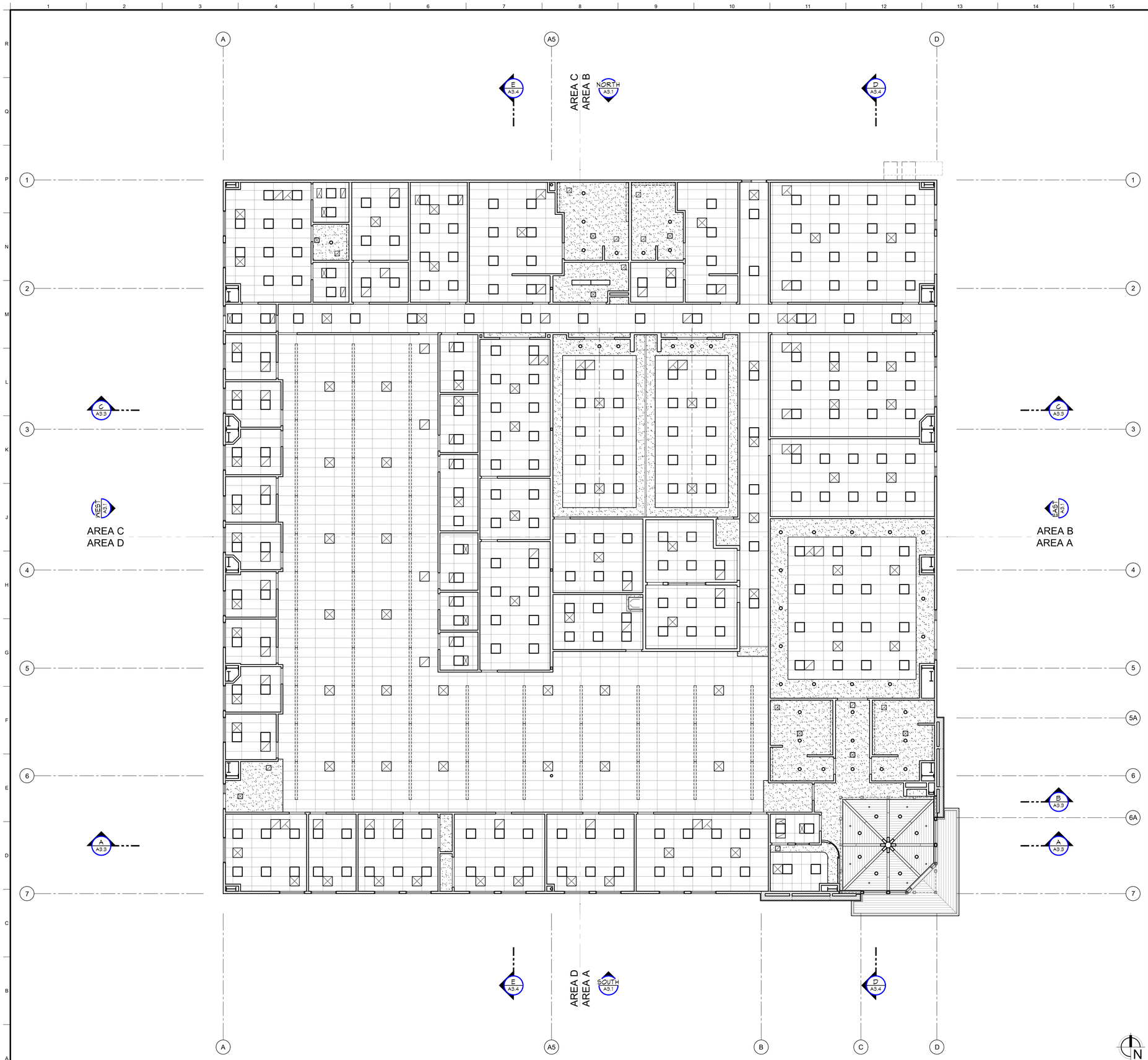
Sheet No.

A2.6

A1 / A2.6

FLOOR PLAN - AREA D

Drawn by: ----
Plot date: 06.02.2020



WALL LEGEND

EXTERIOR WALL (NR)

J17 / A6.1 — 1.1 INTERIOR WALL (NR) - 3 5/8" X 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE.

1.2 INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 30 GA. METAL STUDS AT 24" O.C.

CEILING LEGEND

2X4 ACOUSTICAL CEILING TILE. SEE 'FINISH SCHEDULE', SHEET A5.1 AND DETAIL E5/A6.3

PAINTED GYPSUM BOARD. SEE 'FINISH SCHEDULE', SHEET A5.1 AND DETAIL G11/A6.3

PREFINISHED METAL LINER PANEL.

2X2 RECESSED LIGHT FIXTURE. SEE ELECTRICAL

1X4 SURFACE MOUNTED LIGHT FIXTURE. SEE ELECTRICAL

RECESSED DOWNLIGHT. SEE ELECTRICAL

SURFACE MOUNTED CEILING LIGHT. SEE ELECTRICAL

SURFACE MOUNTED CEILING LIGHT. SEE ELECTRICAL

X'-X" WALL SCONCE W/ HEIGHT TO CENTER OF FIXTURE. SEE ELECTRICAL

X'-X" PENDANT LIGHT W/ HEIGHT TO BOTTOM OF FIXTURE. SEE ELECTRICAL

EXIT LIGHT. SEE ELECTRICAL

SDI SUSPENDED DIRECT/INDIRECT LIGHT FIXTURE. SEE ELECTRICAL

WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL

HVAC SUPPLY DIFFUSER. SEE MECHANICAL

HVAC RETURN DIFFUSER. SEE MECHANICAL

EXHAUST FAN. SEE MECHANICAL

X'-X" CEILING HEIGHT ABOVE FINISH FLOOR

SHEET NOTES

1. .

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
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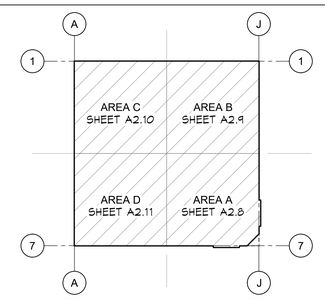
Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A2-7_Refl_Clng_Plan

KEY PLAN



Sheet Content:

REFL CEILING PLAN - OVERALL

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

A2.7

A1
A2.7

REFLECTED CEILING PLAN - OVERALL

0 1' 8' 16' 24'
SCALE: 1/8"=1'-0"

Drawn by: ----
Plot date: 06.02.2020

A1 REFLECTED CEILING PLAN - AREA A

A2.8

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

0 6" 4' 8' 12'

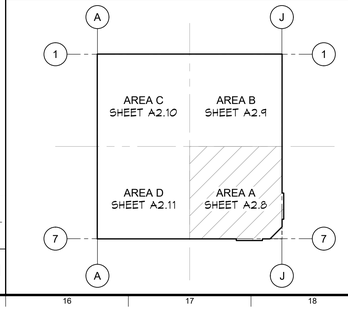
WALL LEGEND

- EXTERIOR WALL (NR)
- 1.1 INTERIOR WALL (NR) - 3 5/8" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE. (J17 / A6.1)
- 1.2 INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 30 GA. METAL STUDS AT 24" O.C.

CEILING LEGEND

- 2X4 ACOUSTICAL CEILING TILE. SEE FINISH SCHEDULE', SHEET A5.1 AND DETAIL E5/A6.3
- PAINTED GYPSUM BOARD. SEE 'FINISH SCHEDULE', SHEET A5.1 AND DETAIL G11/A6.3
- PREFINISHED METAL LINER PANEL.
- 2X2 RECESSED LIGHT FIXTURE. SEE ELECTRICAL
- 1X4 SURFACE MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
- RECESSED DOWNLIGHT. SEE ELECTRICAL
- SURFACE MOUNTED CEILING LIGHT. SEE ELECTRICAL
- SURFACE MOUNTED CEILING LIGHT. SEE ELECTRICAL
- X'-X" WALL SCONCE W/ HEIGHT TO CENTER OF FIXTURE. SEE ELECTRICAL
- X'-X" PENDANT LIGHT W/ HEIGHT TO BOTTOM OF FIXTURE. SEE ELECTRICAL
- EXIT LIGHT. SEE ELECTRICAL
- SDI SUSPENDED DIRECT/INDIRECT LIGHT FIXTURE. SEE ELECTRICAL
- WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
- HVAC SUPPLY DIFFUSER. SEE MECHANICAL
- HVAC RETURN DIFFUSER. SEE MECHANICAL
- EXHAUST FAN. SEE MECHANICAL
- X'-X" CEILING HEIGHT ABOVE FINISH FLOOR

KEY PLAN



SHEET NOTES

1. .

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Sheriff Area 2 Sub-Station
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Sheet Content:

REFL CEILING PLAN - AREA A

Fresno County Department of Public Works and Planning
Capital Projects

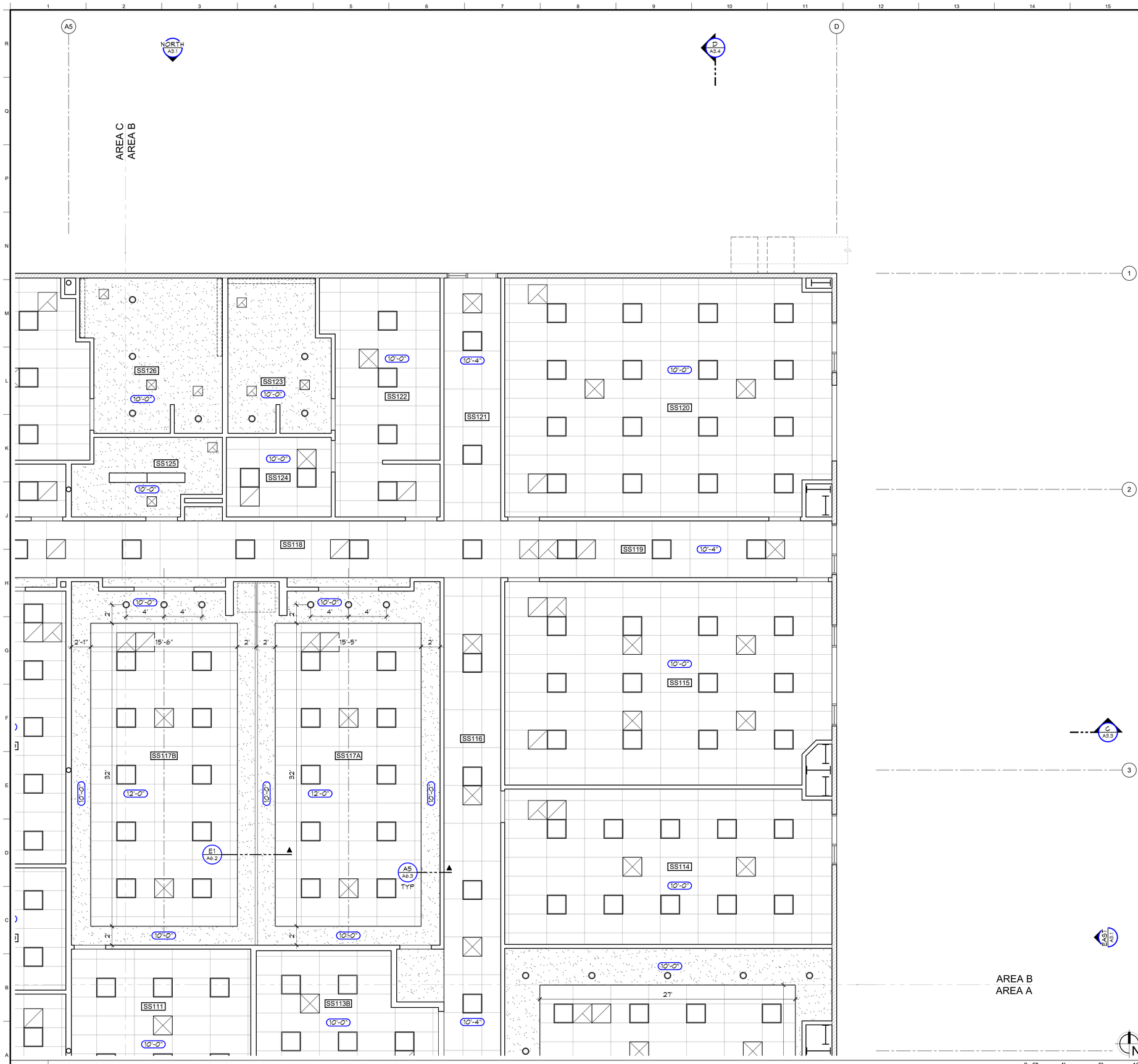
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

A2.8

Drawn by: ----

Plot date: 06.02.2020



A1
A2.9

REFLECTED CEILING PLAN - AREA B

0 6" 4' 8' 12'
SCALE: 1/4"=1'-0"

WALL LEGEND

EXTERIOR WALL (NR)

1.1 INTERIOR WALL (NR) - 3 5/8" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE.
(J17 / A6.1)

1.2 INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 30 GA. METAL STUDS AT 24" O.C.

CEILING LEGEND

2X4 ACOUSTICAL CEILING TILE. SEE FINISH SCHEDULE', SHEET A5.1 AND DETAIL E5/A6.3

PAINTED GYPSUM BOARD. SEE 'FINISH SCHEDULE', SHEET A5.1 AND DETAIL G17/A6.3

PREFINISHED METAL LINER PANEL.

2X2 RECESSED LIGHT FIXTURE. SEE ELECTRICAL

1X4 SURFACE MOUNTED LIGHT FIXTURE. SEE ELECTRICAL

RECESSED DOWNLIGHT. SEE ELECTRICAL

SURFACE MOUNTED CEILING LIGHT. SEE ELECTRICAL

SURFACE MOUNTED CEILING LIGHT. SEE ELECTRICAL

X'-X" WALL SCONCE W/ HEIGHT TO CENTER OF FIXTURE. SEE ELECTRICAL

X'-X" PENDANT LIGHT W/ HEIGHT TO BOTTOM OF FIXTURE. SEE ELECTRICAL

EXIT LIGHT. SEE ELECTRICAL

SDI SUSPENDED DIRECT/INDIRECT LIGHT FIXTURE. SEE ELECTRICAL

WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL

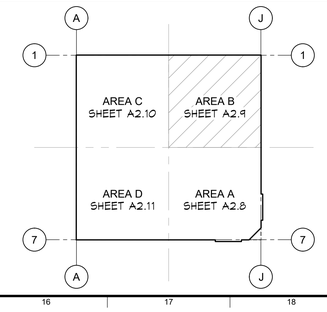
HVAC SUPPLY DIFFUSER. SEE MECHANICAL

HVAC RETURN DIFFUSER. SEE MECHANICAL

EXHAUST FAN. SEE MECHANICAL

X'-X" CEILING HEIGHT ABOVE FINISH FLOOR

KEY PLAN



SHEET NOTES

1. .

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FILE NAME: 19003_A2-9_Refl_Clng_Plan_Area_B

Sheet Content:

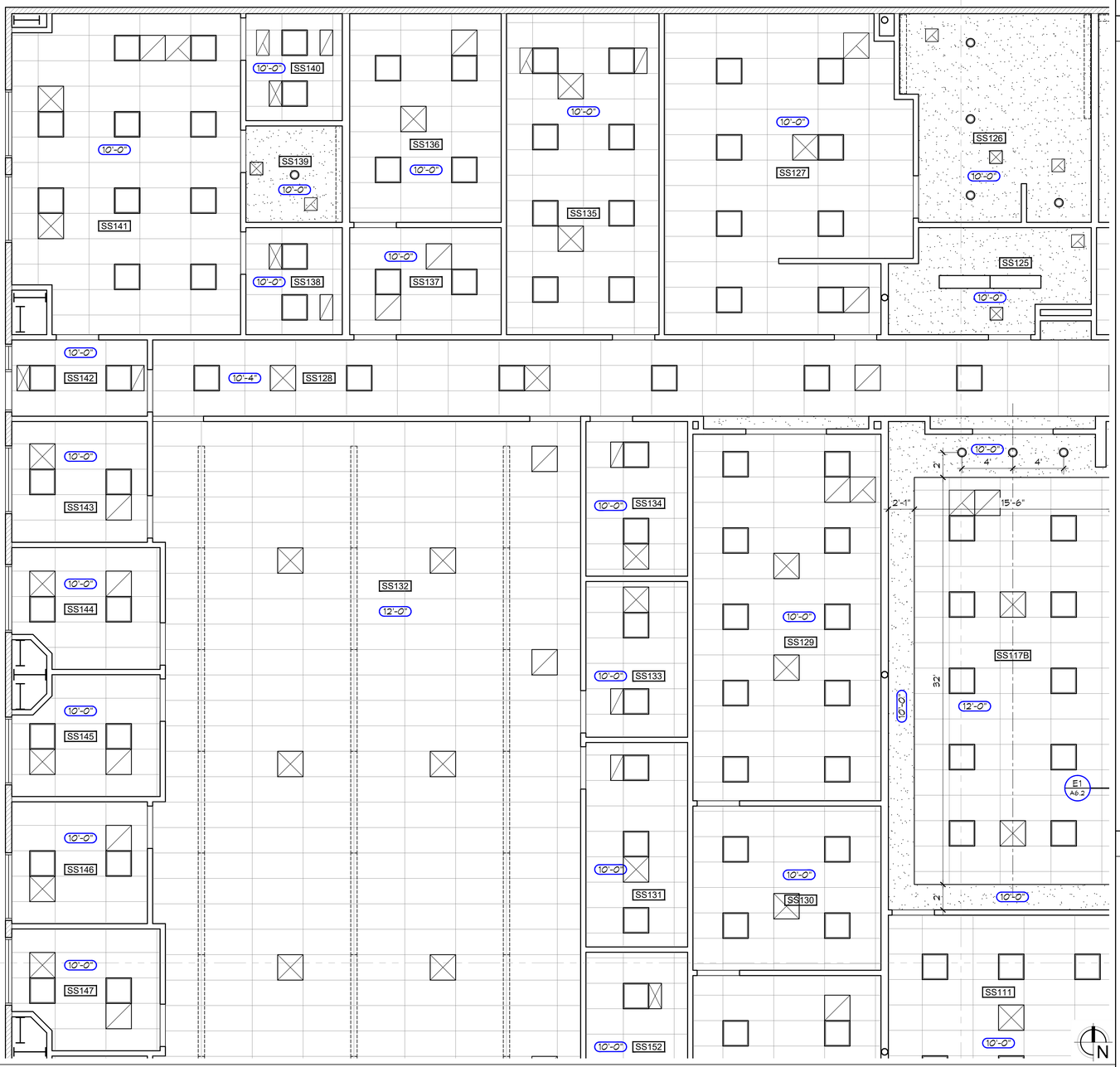
REFL CEILING PLAN - AREA B

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

Sheet No.

A2.9

Drawn by: ----
Plot date: 06.02.2020



REFLECTED CEILING PLAN - AREA C

A1
A2.10

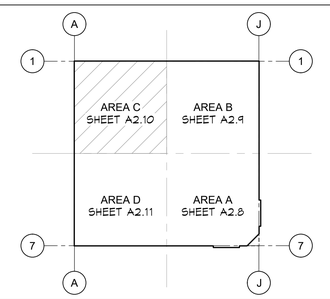
WALL LEGEND

- EXTERIOR WALL (NR)
- 1.1 — INTERIOR WALL (NR) - 3 5/8" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE. (J17 / A6.1)
- 1.2 — INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 30 GA. METAL STUDS AT 24" O.C.

CEILING LEGEND

- 2X4 ACOUSTICAL CEILING TILE. SEE 'FINISH SCHEDULE', SHEET A5.1 AND DETAIL E5/A6.3
- PAINTED GYPSUM BOARD. SEE 'FINISH SCHEDULE', SHEET A5.1 AND DETAIL G17/A6.3
- PREFINISHED METAL LINER PANEL.
- 2X2 RECESSED LIGHT FIXTURE. SEE ELECTRICAL
- 1X4 SURFACE MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
- RECESSED DOWNLIGHT. SEE ELECTRICAL
- SURFACE MOUNTED CEILING LIGHT. SEE ELECTRICAL
- SURFACE MOUNTED CEILING LIGHT. SEE ELECTRICAL
- X'-X" — WALL SCONCE W/ HEIGHT TO CENTER OF FIXTURE. SEE ELECTRICAL
- X'-X" — PENDANT LIGHT W/ HEIGHT TO BOTTOM OF FIXTURE. SEE ELECTRICAL
- EXIT LIGHT. SEE ELECTRICAL
- SDI — SUSPENDED DIRECT/INDIRECT LIGHT FIXTURE. SEE ELECTRICAL
- WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
- HVAC SUPPLY DIFFUSER. SEE MECHANICAL
- HVAC RETURN DIFFUSER. SEE MECHANICAL
- EXHAUST FAN. SEE MECHANICAL
- X'-X" — CEILING HEIGHT ABOVE FINISH FLOOR

KEY PLAN



SHEET NOTES

1. .

LICENSED ARCHITECT — NOEL ROGER DAVIDSON — C-27818 REN: 10-31-21 — STATE OF CALIFORNIA

ARCHITECT:
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1129 N. Armstrong Ave., Fresno, CA
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FILE NAME: 19003_A2-10_Refl_Clng_Plan_Area_C

Sheet Content:
REFL CEILING PLAN - AREA C

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

Sheet No.
A2.10

Drawn by: ----
Plot date: 06.02.2020

REFLECTED CEILING PLAN - AREA D

A1
A2.11

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

WALL LEGEND

EXTERIOR WALL (NR)

1.1 INTERIOR WALL (NR) - 3 5/8" x 20 GA. METAL STUDS AT 24" O.C. MAX W/ 3-1/2" SOUND BATT INSULATION AND 5/8" GYP BD EA SIDE WHERE EXPOSED. EXTEND 6" MINIMUM ABOVE ADJACENT CEILING AND BRACE TO STRUCTURE.

J17 / A6.1

1.2 INTERIOR WALL (NR) - SAME AS [1.1] ABOVE EXCEPT USE 6" x 30 GA. METAL STUDS AT 24" O.C.

CEILING LEGEND

2X4 ACOUSTICAL CEILING TILE.
SEE 'FINISH SCHEDULE', SHEET A5.1 AND DETAIL E5/A6.3

PAINTED GYPSUM BOARD.
SEE 'FINISH SCHEDULE', SHEET A5.1 AND DETAIL G17/A6.3

PREFINISHED METAL LINER PANEL.

2X2 RECESSED LIGHT FIXTURE.
SEE ELECTRICAL

1X4 SURFACE MOUNTED LIGHT FIXTURE.
SEE ELECTRICAL

RECESSED DOWNLIGHT.
SEE ELECTRICAL

SURFACE MOUNTED CEILING LIGHT.
SEE ELECTRICAL

SURFACE MOUNTED CEILING LIGHT.
SEE ELECTRICAL

X'-X" WALL SCONCE W/ HEIGHT TO CENTER OF FIXTURE. SEE ELECTRICAL

X'-X" PENDANT LIGHT W/ HEIGHT TO BOTTOM OF FIXTURE. SEE ELECTRICAL

EXIT LIGHT. SEE ELECTRICAL

SDI SUSPENDED DIRECT/INDIRECT LIGHT FIXTURE. SEE ELECTRICAL

WALL MOUNTED LIGHT FIXTURE.
SEE ELECTRICAL

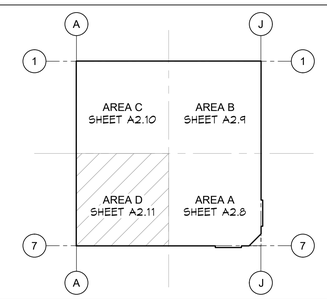
HVAC SUPPLY DIFFUSER.
SEE MECHANICAL

HVAC RETURN DIFFUSER.
SEE MECHANICAL

EXHAUST FAN.
SEE MECHANICAL

X'-X" CEILING HEIGHT ABOVE FINISH FLOOR

KEY PLAN



SHEET NOTES

1. .

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A2-11_Refl_Clng_Plan_Area_D

Sheet Content:

REFL CEILING PLAN - AREA D

Fresno County Department of Public Works and Planning
Capital Projects

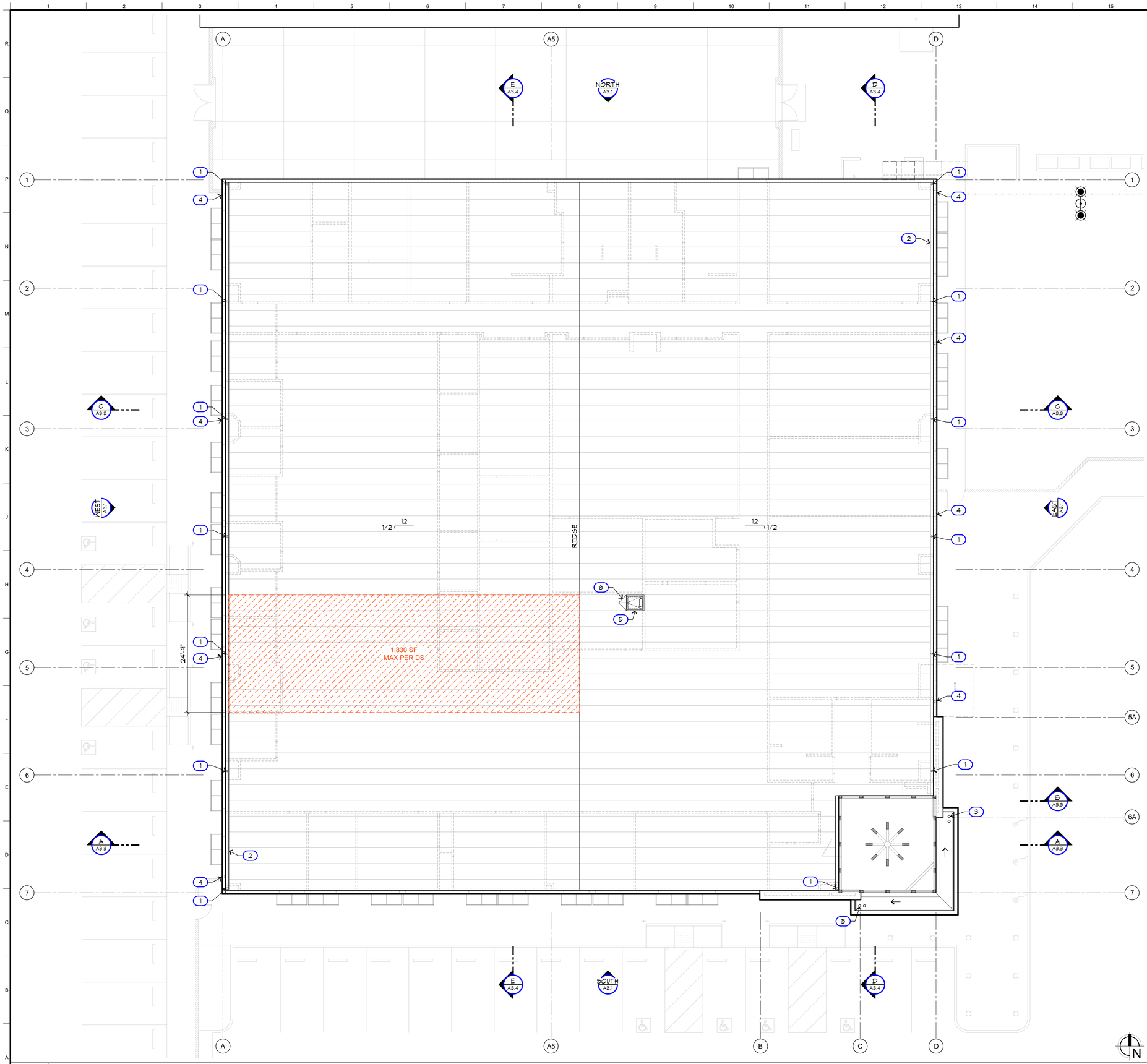
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

A2.11

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): 1,830.00
* Area of Largest Roof Serving a Single Gutter System
Design Area manually entered by user

Gutter in Lineal Ft: 30
* Length at Largest Roof Serving a Single Gutter System

Gutter Length Serving Single DS (ft.): 30
*Assumption: downspouts are equally spaced
**Maximum gutter length to be served by a downspout is 50ft per SMACNA ASMM

M (depth to width ratio): 0.75

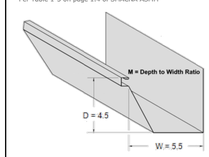
Min. Gutter Width (in.): 5.5 [Rectangular]

Min. Gutter Depth (in.): 4.5

# of Downspouts: 1

Min. Area per DS (in²): 5.90

Min. DS Size (in): 3 [Plain Round]
*Per Table 1-3 on page 1.4 of SMACNA ASMM

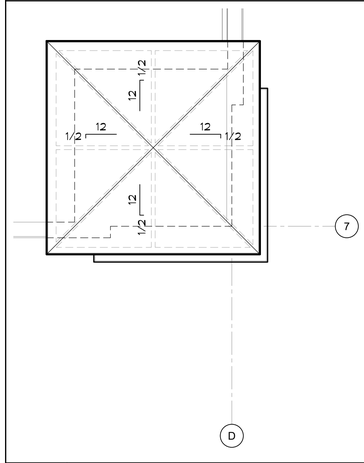


Calculations are derived using the 7th Edition of SMACNA's Architectural Sheet Metal Manual

KEYNOTES LEGEND

1. 3" PLAIN ROUND DOWNSPOUT, TYPICAL OF 14
2. 6" WIDE x 5" DEEP RECTANGULAR GUTTER, TYPICAL.
3. ROOF DRAIN W/ EMERGENCY OVERFLOW
4. 4" ROUND OVERFLOW SCUPPER. TYPICAL OF 8
5. ROOF HATCH. SEE DETAIL A5/A7.3
6. CRICKET

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



LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
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FILE NAME: 19003_A2-12_Roof_Plan

Sheet Content:

ROOF PLAN

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

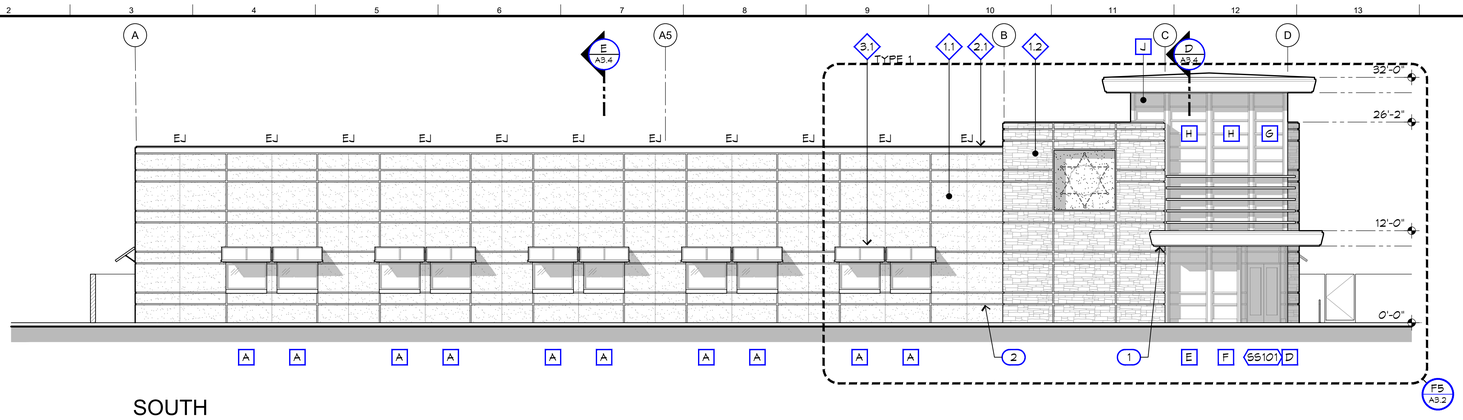
A2.12

A1 / A2.12 — ROOF PLAN — SCALE: 1/8"=1'-0"

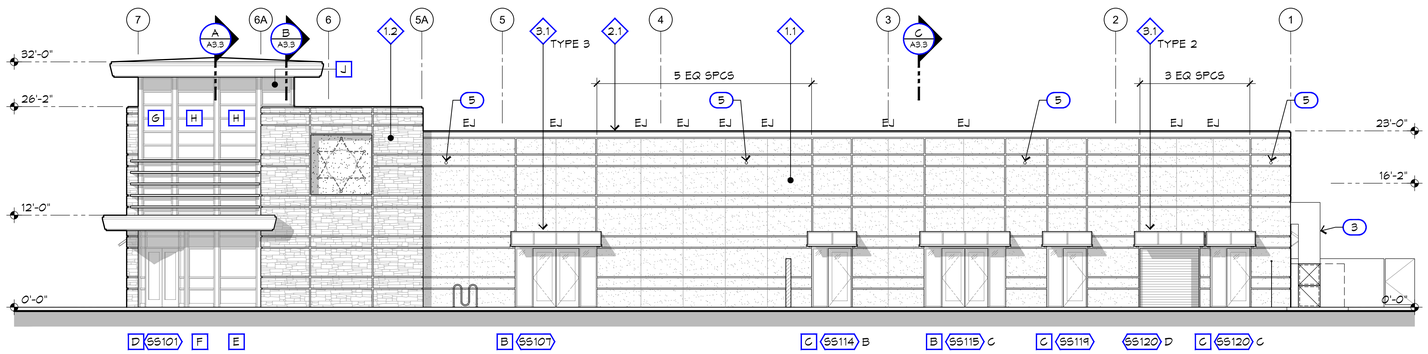
A16 / A2.12 — UPPER ROOF PLAN — SCALE: 1/8"=1'-0"

Drawn by: ----

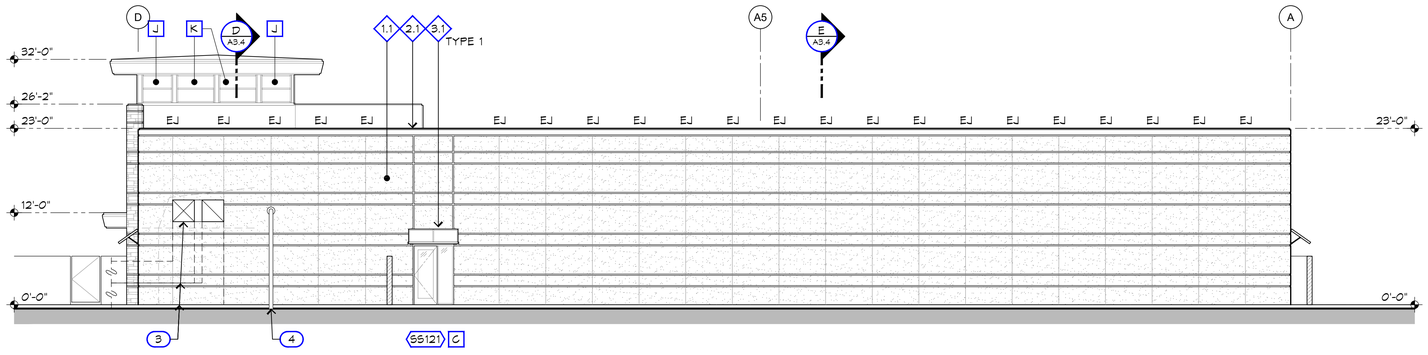
Plot date: 06.02.2020



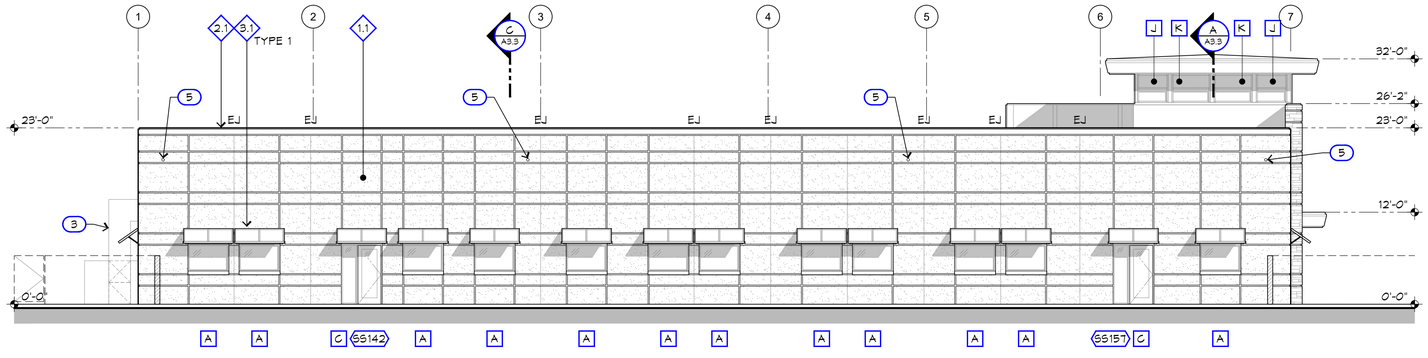
SOUTH



EAST



NORTH



WEST

EXTERIOR ELEVATIONS

A5 / A3.1

0 1' 8' 16' 24'

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

EXTERIOR FINISH SCHEDULE

MARK	DESCRIPTION
1.1	STUCCO
1.2	MASONRY VENEER
2.1	TRIM, METAL
3.1	ALUMINUM SUNSHADE, TYPE AS INDICATED. SEE DETAIL A1/A7.1

KEYNOTES LEGEND

NOTE: SOME KEYNOTES MAY NOT APPEAR ON THIS SHEET.

1. SCRIBE STONE VENEER AROUND METAL FASCIA. 1" MAXIMUM JOINT. SEE DETAIL A11/A7.1
2. ALL JOINTS IN STUCCO SHALL BE 2" ALUMINUM REVEAL UNLESS NOTED AS 'EJ' (EXPANSION JOINT).
3. HVAC DUCTS. SEE MECHANICAL. PAINT TO MATCH 'EXTERIOR FINISH SCHEDULE', ITEM 2.1.
4. FIRE RISER
5. OVERFLOW SCUPPER AT 18'-8" TO BOTTOM OF SCUPPER. TYPICAL OF 8. SEE DETAIL XX/AX.X

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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FILE NAME: 19003_A3-1_Extr_Elev

Sheet Content:

EXTERIOR ELEVATIONS

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

Sheet No.

A3.1

Drawn by: ----

Plot date: 06.02.2020

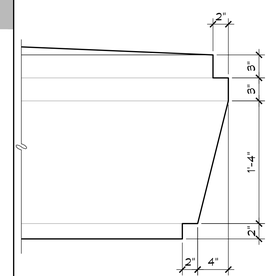
EXTERIOR FINISH SCHEDULE

MARK	DESCRIPTION
1.1	STUCCO
1.2	MASONRY VENEER
2.1	TRIM, METAL
3.1	ALUMINUM SUNSHADE, TYPE AS INDICATED. SEE DETAIL A1/A7.1

KEYNOTES LEGEND

NOTE: SOME KEYNOTES MAY NOT APPEAR ON THIS SHEET.

1. SCRIBE STONE VENEER AROUND METAL FASCIA. 1" MAXIMUM JOINT. SEE DETAIL A11/A7.1
2. ALL JOINTS IN STUCCO SHALL BE 2" ALUMINUM REVEAL UNLESS NOTED AS 'EJ' (EXPANSION JOINT).
3. HVAC DUCTS. SEE MECHANICAL. PAINT TO MATCH 'EXTERIOR FINISH SCHEDULE', ITEM 2.1.
4. FIRE RISER
5. OVERFLOW SCUPPER AT 18'-8" TO BOTTOM OF SCUPPER. TYPICAL OF 8. SEE DETAIL XX/AX.X



A1 A3.2 ENLARGED EXTERIOR ELEVATION

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

A16 A3.2 ELEVATION DETAIL AT FASCIA

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

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A3-2_Extr_Elev

Sheet Content:

EXTERIOR ELEVATIONS

Fresno County Department of Public Works and Planning
Capital Projects

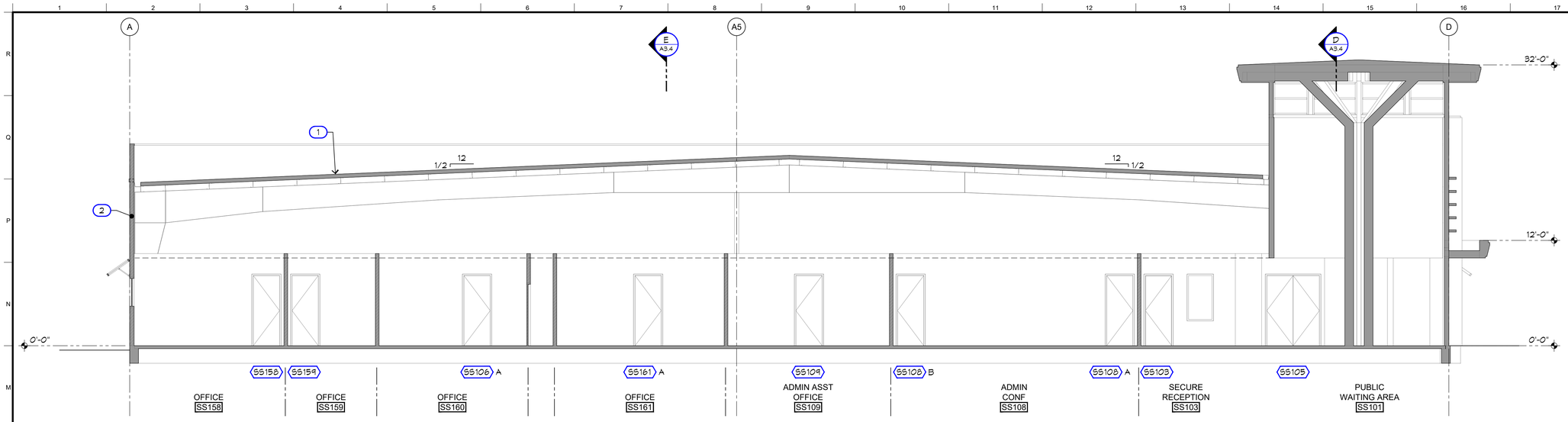
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

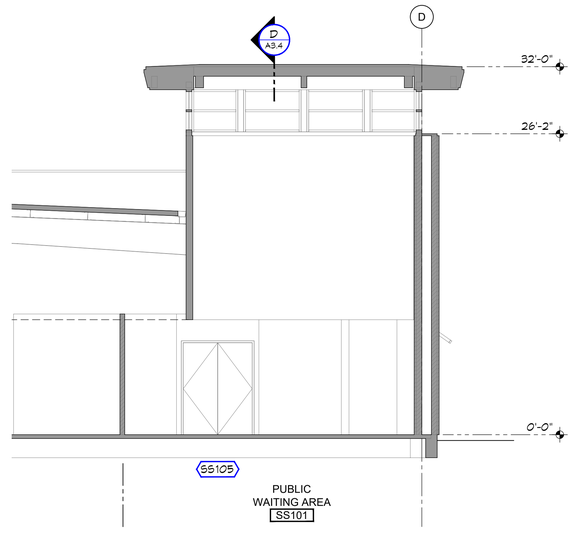
A3.2

Drawn by: ----

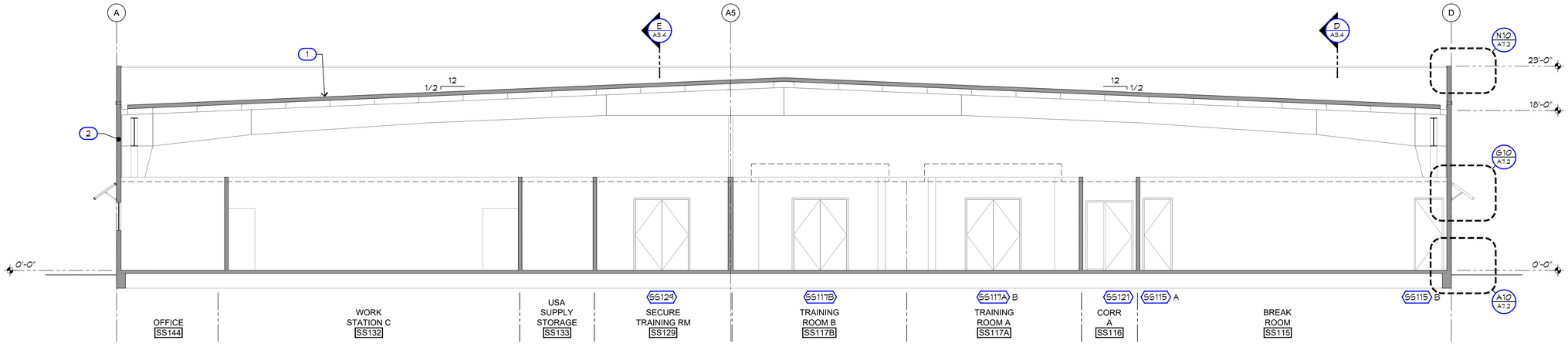
Plot date: 06.02.2020



SECTION A



SECTION B



SECTION C

KEYNOTES LEGEND

NOTE: SOME KEYNOTES MAY NOT APPEAR ON THIS SHEET.

1. 5" THICK R-42 PREFINISHED INSULATED MECHANICALLY SEAMED 26 GA METAL ROOF PANELS W/ CONCEALED FASTENERS
2. R-19 WALL INSULATION

ARCHITECT:
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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A3-3_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.

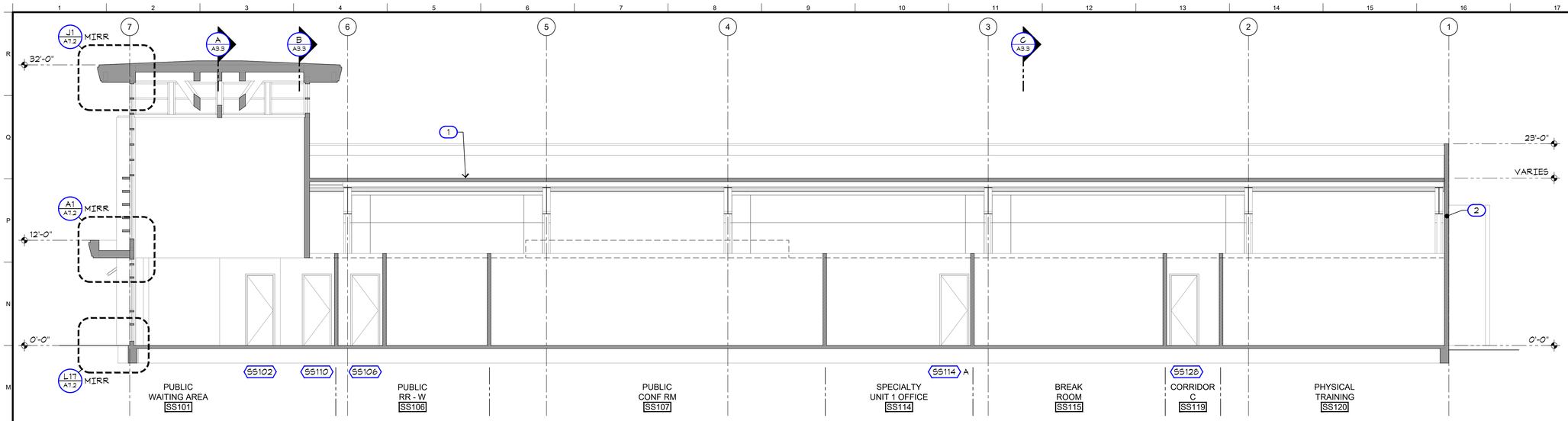
A3.3

A1
A3.3

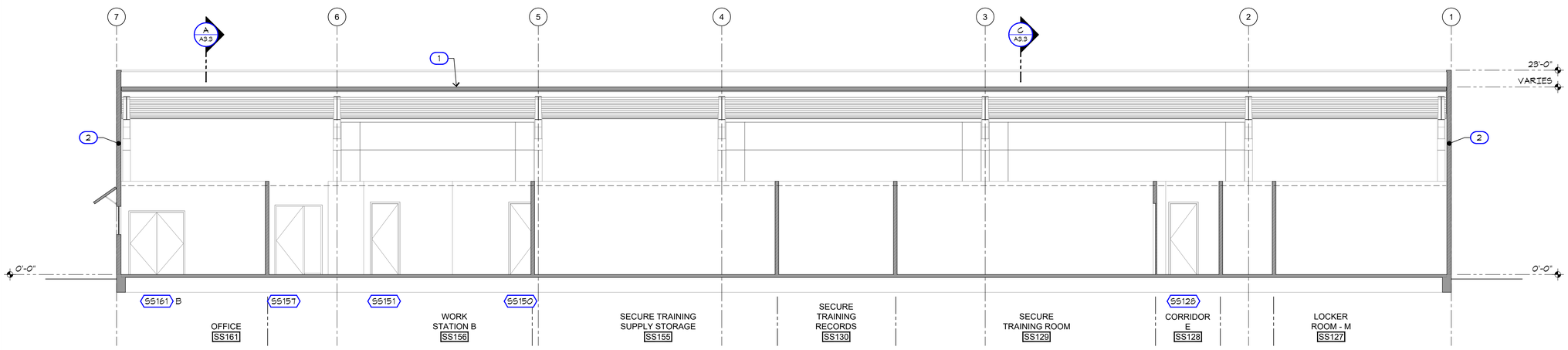
BUILDING SECTIONS

0 2' 4' 8' 16'
SCALE: 3/16"=1'-0"

Drawn by: ----
Plot date: 06.02.2020



SECTION D



SECTION E

KEYNOTES LEGEND

NOTE: SOME KEYNOTES MAY NOT APPEAR ON THIS SHEET.

1. 5" THICK R-42 PREFINISHED INSULATED MECHANICALLY SEAMED 26 GA METAL ROOF PANELS W/ CONCEALED FASTENERS
2. R-19 WALL INSULATION

LICENSED ARCHITECT
NOEL ROGER DAVIDSON
C 27818
REN: 10-31-21
STATE OF CALIFORNIA

ARCHITECT:
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Project:

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1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A3-4_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.

A3.4

A1
A3.4

BUILDING SECTIONS

0 2' 4' 8' 16'
SCALE: 3/16"=1'-0"

Drawn by: ----
Plot date: 06.02.2020

GENERAL DOOR NOTES

1. 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-404.2.9)
2. 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)
3. 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)
4. 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-309.4)
5. 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)
6. 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)
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:
   - 7.1. THE LOCKING DEVICE IS READILY DISTINGUISHABLE AS LOCKED;
   - 7.2. A READILY VISIBLE DURABLE SIGN IS POSTED ON THE EGRESS SIDE ON 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.
   - 7.3. THE USE OF THE KEY-OPERATED LOCKING DEVICE IS REVOKABLE BY THE BUILDING OFFICIAL FOR DUE CAUSE.

   (2016 CBC 1010.1.9.3.2)
8. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. (2016 CBC 1010.1.9.4)
9. THE UNLATCHING OF ANY DOOR OR LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION. (2016 CBC 1010.1.9.5)
10. 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)
11. 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)
12. 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 716.5.1)
13. PROVIDE SMOKE GASKETS AT ALL FIRE-RATED DOORS.
14. SUBMIT MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FIRE DOORS TO THE BUILDING INSPECTOR.
15. HARDWARE SUPPLIER SHALL COORDINATE KEYING REQUIREMENTS WITH OWNER OF BUILDING. PROVIDE ADDITIONAL KEYS AT THE OWNER'S REQUEST.
16. STOREFRONT MANUFACTURER TO PROVIDE NECESSARY BRACING AT WINDOW SYSTEM TO RESIST LOCAL WIND LOADS PER 2016 CBC.
12. CONTRACTOR SHALL VERIFY ACCESSIBLE MANEUVERING CLEARANCES AT DOORS PER DETAIL G6/A4.2.

GLASS AND GLAZING NOTES

1. EACH LIGHT SHALL BEAR THE MANUFACTURE'S LABEL DESIGNATING THE TYPE AND THICKNESS OF GLASS.
2. GLASS SHALL BE FIRMLY SUPPORTED ON ALL FOUR SIDES.
3. GLAZING SUBJECT TO HUMAN IMPACT SHALL BE "TEMPERED GLAZING".
4. 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.
5. THE FOLLOWING LOCATIONS SHALL REQUIRE SAFETY GLAZING:
   - 5.1. GLAZING IN INGRESS AND EGRESS DOORS
   - 5.2. GLAZING PANELS IN SWINGING DOORS
   - 5.3. 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.
6. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL, OTHER THAN IN THOSE LOCATIONS DESCRIBED IN PRECEDING ITEMS, WHICH MEETS ALL OF THE FOLLOWING CONDITIONS:
   - 6.1. EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQUARE FEET;
   - 6.2. EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR;
   - 6.3. EXPOSED TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR; AND
   - 6.4. ONE OR MORE WALKING SURFACE (S) WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

ABBREVIATIONS

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

DOOR SCHEDULE NOTES

1. MAIN ENTRANCE. SEE 'GENERAL DOOR NOTES', SHEET A4.1, ITEM 7.
2. PROVIDE ACCESSIBLE RESTROOM SIGNAGE THIS DOOR. SEE DETAIL N1/A4.2.
3. * INDICATES SECURITY KEY CARD ACCESS
4. PROVIDE SIGN NEXT TO DOORS (5" SQ INTERNATIONAL SYMBOL OF ACCESSIBILITY)

HARDWARE

1. ALL DOOR HARDWARE SHALL HAVE SPARTA LEVER TYPE AND 626/US26D SATIN CHROME FINISH UNLESS NOTED OTHERWISE.
2. SEE SPECIFICATIONS SECTION 087100 FOR COMPLETE DOOR HARDWARE INFORMATION.

HARDWARE LIST

A. CLOSER (INCLUDES HOLD-OPEN UNLESS NOTED OTHERWISE)
B. CYLINDER
C. FLUSH BOLT, MANUAL
D. HINGES
E. LATCHSET, PASSAGE
F. LOCKSET, ENTRANCE/OFFICE
G. LOCKSET, OFFICE
H. LOCKSET, PRIVACY
I. LOCKSET, STORAGE
E. PANIC DEVICE
F. PANIC DEVICE W/ LEVER
G. PLATE, KICK
D. PLATE, PUSH
E. PULL HANDLE W/ PLATE
F. STOP, FLOOR
G. STOP, WALL
H. STRIKE, DUST-PROOF

TYPE 1 (DOORS 55101, 55107, 55115 C)
1 EA CYLINDER
REMAINDER OF DOOR HARDWARE BY DOOR SUPPLIER
OFFSET PIVOTS
PULLS
PANIC DEVICES
3-POINT LOCK
SURFACE-MOUNTED CLOSER
THRESHOLD
WEATHER-STRIPPING AND SWEEPS
[INCLUDE SECURITY KEY CARD ACCESS WHERE INDICATED]

TYPE 2 (DOORS 55102, 55103, 55108 A, 55108 B, 55109, 55110, 55114 A, 55117A A, 55120 A, 55120 B, 55138, 55140, 55141, 55143 THRU 55154, 55158, 55159, 55160 A, 55161 A)
3 EA HINGES
1 EA LOCKSET, OFFICE
1 EA CLOSER
1 EA STOP, WALL
[INCLUDE SECURITY KEY CARD ACCESS WHERE INDICATED]

TYPE 3 (DOORS 55104, 55106, 55122, 55123, 55126, 55127)
3 EA HINGES
1 EA PULL HANDLE W/ PLATE
1 EA PLATE, PUSH
1 EA PLATE, KICK
'1 EA CLOSER
1 EA STOP, WALL

TYPE 4 (DOORS 55105, 55117A B, 55117B, 55129)
6 EA HINGES
2 EA PANIC DEVICE W/ LEVER
2 EA CLOSER
2 EA STOP, WALL

TYPE 5 (DOOR 55128)
3 EA HINGES
1 EA PANIC DEVICE W/ LEVER
1 EA CLOSER
1 EA STOP, WALL

TYPE 6 (DOORS 55111, 55112, 55113 A, 55113A A, 55113A B, 55113B, 55125, 55130 A, 55130 B, 55131, 55133, 55134, 55135, 55136, 55137, 55155)
3 EA HINGES
1 EA LOCKSET, STORAGE
1 EA CLOSER
1 EA STOP, WALL
[INCLUDE SECURITY KEY CARD ACCESS WHERE INDICATED]

TYPE 7 (DOORS 55114 B, 55119, 55120 C, 55121, 55142, 55157)
1 EA CYLINDER
REMAINDER OF DOOR HARDWARE BY DOOR SUPPLIER
OFFSET PIVOTS
PULL
PANIC DEVICE
3-POINT LOCK
SURFACE-MOUNTED CLOSER
THRESHOLD
WEATHER-STRIPPING AND SWEEPS
[INCLUDE SECURITY KEY CARD ACCESS WHERE INDICATED]

TYPE 8 (DOORS 55115 A, 55115 B)
3 EA HINGES
1 EA LATCHSET, PASSAGE
1 EA CLOSER
1 EA STOP, WALL

TYPE 9 (DOORS 55124, 55139)
3 EA HINGES
1 EA LOCKSET, PRIVACY
1 EA CLOSER
1 EA STOP, WALL

TYPE 10 (DOORS 55160 B, 55161 B)
6 EA HINGES
ACTIVE LEAF
1 EA LOCKSET, OFFICE
INACTIVE LEAF
1 EA STRIKE, DUSTPROOF
1 EA FLUSH BOLT, MANUAL

DOOR SCHEDULE

DOOR NUMBER (SEE NOTE 3)	DOOR LOCATION	DOOR SIZE	DOOR TYPE SEE DTL L10/A4.2	DOOR THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME TYPE SEE DTL A10/A4.2	FRAME MATERIAL	FRAME FINISH	HARDWARE	FIRE LABEL	NOTES
55101	PUBLIC WAITING AREA	PR 3'-0"X7'-8"	A	1-3/4"	AL	FF	D	SF	FF	1		1, 4
55102 *	LIVESCAN	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55103 *	SECURE RECEPTION	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55104	PUBLIC RR - M	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	3		2
55105 *	PUBLIC AREA SECURED	PR 3'-0"X8'-0"	C	1-3/4"	SC	PLA	L	AL	FF	4		
55106	PUBLIC RR - W	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	3		2
55107 *	PUBLIC CONF RM	PR 3'-0"X7'-8"	A	1-3/4"	AL	FF	B	SF	FF	1		
55108 A	ADMIN CONF	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55108 B	ADMIN CONF	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55109	ADMIN ASST OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55110 *	WORKSTATION A	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55111	TRAINING STORAGE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55112	SUPPLY STORAGE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55113A A*	DATA	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55113A B	DATA	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55113B *	DATA RACKS	PR 3'-0"X8'-0"	C							6		
55114 A*	SPECIALTY UNIT 1 OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55114 B*	SPECIALTY UNIT 1 OFFICE	3'-0"X7'-8"	B	1 3/4"	AL	FF	C	SF	FF	7		
55115 A	BREAK ROOM	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	8		
55115 B	BREAK ROOM	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	8		
55115 C*	BREAK ROOM	PR 3'-0"X7'-8"	A	1 3/4"	AL	FF	B	SF	FF	1		
55116	NOT USED											
55117A A	TRAINING ROOM	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55117A B	TRAINING ROOM	PR 3'-0"X8'-0"	C	1 3/4"	SC	PLA	L	AL	FF	4		
55117B	TRAINING ROOM	PR 3'-0"X8'-0"	C	1 3/4"	SC	PLA	L	AL	FF	4		
55118	NOT USED											
55119 *	CORRIDOR C	3'-0"X7'-8"	B	1 3/4"	AL	FF	C	SF	FF	7		
55120 A	PHYSICAL TRAINING	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55120 B	PHYSICAL TRAINING	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55120 C*	PHYSICAL TRAINING	3'-0"X7'-8"	B	1 3/4"	AL	FF	C	SF	FF	7		
55120 D	PHYSICAL TRAINING	7'-8"X7'-8"	E							-		
55121 *	CORRIDOR D	3'-0"X7'-8"	B	1 3/4"	AL	FF	C	SF	FF	7		
55122	LOCKER ROOM - F	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	3		
55123	RR AND SHWR - F	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	3		2
55124	LACTATION	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	9		
55125	JAN / STOR	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55126	RR AND SHWR - M	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	3		2
55127	LOCKER ROOM - M	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	3		
55128	CORRIDOR E	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	5		
55129	SECURE TRAINING ROOM	PR 3'-0"X8'-0"	C	1 3/4"	SC	PLA	L	AL	FF	4		
55130 A*	SECURE TRAINING RECORDS	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55130 B*	SECURE TRAINING RECORDS	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55131 *	ADMIN SUPPLY STORAGE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55132	NOT USED											
55133 *	USA SUPPLY STORAGE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55134 *	STORAGE / ARMORY	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55135 *	INV STAFF SUPPLY STORAGE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55136	INV STAFF DET SUPPLY STOR	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55137 *	INV STAFF PROPERTY	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55138	INTERVIEW ROOM	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55139	RR	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	9		2
55140	INTERVIEW ROOM	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55141	WORKSTATION D	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55142 *	CORRIDOR F	3'-0"X7'-8"	B	1 3/4"	AL	FF	C	SF	FF	7		
55143	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55144	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55145	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55146	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55147	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55148	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55149	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55150	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55151	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55152 *	EVIDENCE PREP	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55153	INTERVIEW ROOM	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55154	INTERVIEW ROOM	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55155 *	SECURE TRAINING SUPPLY STORAGE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	6		
55156	NOT USED											
55157 *	HALL	3'-0"X7'-8"	B	1 3/4"	AL	FF	C	SF	FF	7		
55158	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55159	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55160 A	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55160 B	OFFICE	6'-0"X8'-0"	C	1 3/4"	SC	PLA	L	AL	FF	10		
55161 A	OFFICE	3'-0"X8'-0"	D	1 3/4"	SC	PLA	L	AL	FF	2		
55161 B	OFFICE	6'-0"X8'-0"	C	1 3/4"	SC	PLA	L	AL	FF	10		

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
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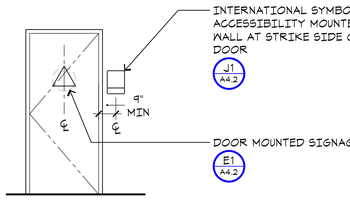
Sheet Content:
DOORS AND WINDOWS

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

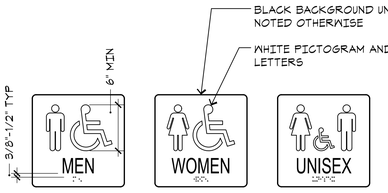
Sheet No.
A4.1



NOTES:
1. SANITARY FACILITIES ARE REQUIRED TO PROVIDE TWO SEPARATE TYPES OF SIGNAGE; ONE TYPE LOCATED ON THE DOORWAY TO THE FACILITY, AND ANOTHER TYPE MOUNTED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR.
2. SEE DOOR SCHEDULE FOR TYPE AND HARDWARE.
3. SEE SIGN DETAILS FOR MOUNTING HEIGHT INFORMATION.

N1 A4.2 ACC SIGNAGE AT RESTROOM DOOR

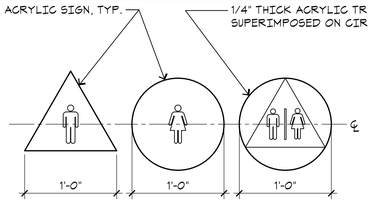
SCALE: 3/8"=1'-0"



NOTE: SEE ALSO 'ACCESSIBLE SIGNAGE NOTES' SHEET A0.3.

J1 A4.2 TYP ACCESSIBLE WALL SIGNAGE AT RESTROOMS

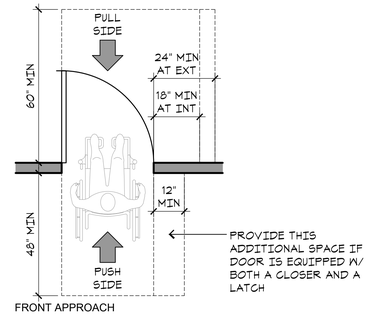
SCALE: 1-1/2"=1'-0"



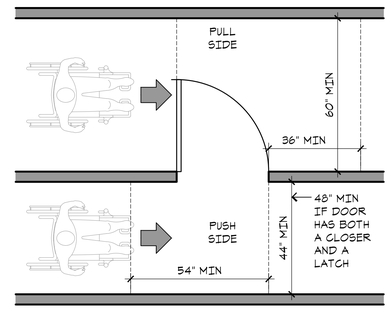
NOTES:
1. THE TRIANGLE OR CIRCLE SYMBOL SHALL CONTRAST WITH THE DOOR, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. AT UNISEX SANITARY FACILITIES, THE TRIANGLE SYMBOL SHALL CONTRAST WITH THE CIRCLE SYMBOL, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND.
2. SIGNS SHALL BE CENTERED ON DOOR AT 58"-60" ABOVE THE FLOOR TO THE CENTER OF THE SIGN.

E1 A4.2 TYPICAL DOOR SIGNAGE AT RESTROOMS

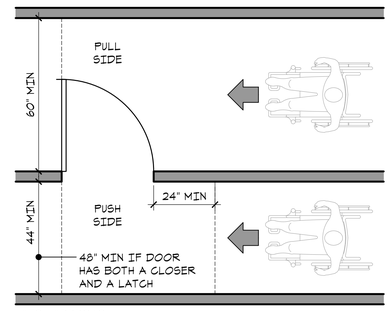
SCALE: 1-1/2"=1'-0"



FRONT APPROACH



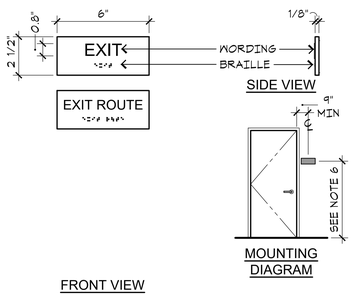
HINGE APPROACH



LATCH APPROACH

G6 A4.2 MANEUVERING CLEARANCES AT DOORS

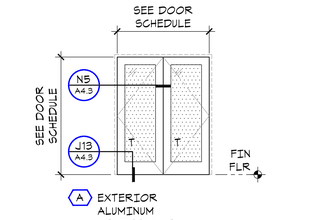
SCALE: 1/2"=1'-0"



NOTES:
1. PROVIDE TACTILE EXIT SIGNS AT REQUIRED AREAS AND EXITS PER CBC SECTION 1013.4.
2. EACH GRADE LEVEL EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORD "EXIT".
3. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE LEVEL EXTERIOR EXIT BY A MEANS OF A STAIRWAY OR RAMP SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE FOLLOWING WORDS AS APPROPRIATE:
   3.1. "EXIT STAIR DOWN"
   3.2. "EXIT RAMP DOWN"
   3.3. "EXIT STAIR UP"
   3.4. "EXIT RAMP UP"
4. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE OR AN EXIT PASSAGEWAY SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE"
5. EACH EXIT ACCESS DOOR FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY THAT IS REQUIRED TO HAVE A VISUAL EXIT SIGN, SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS: "EXIT ROUTE"
6. SEE ALSO 'ACCESSIBLE SIGNAGE NOTES' SHEET A0.3.

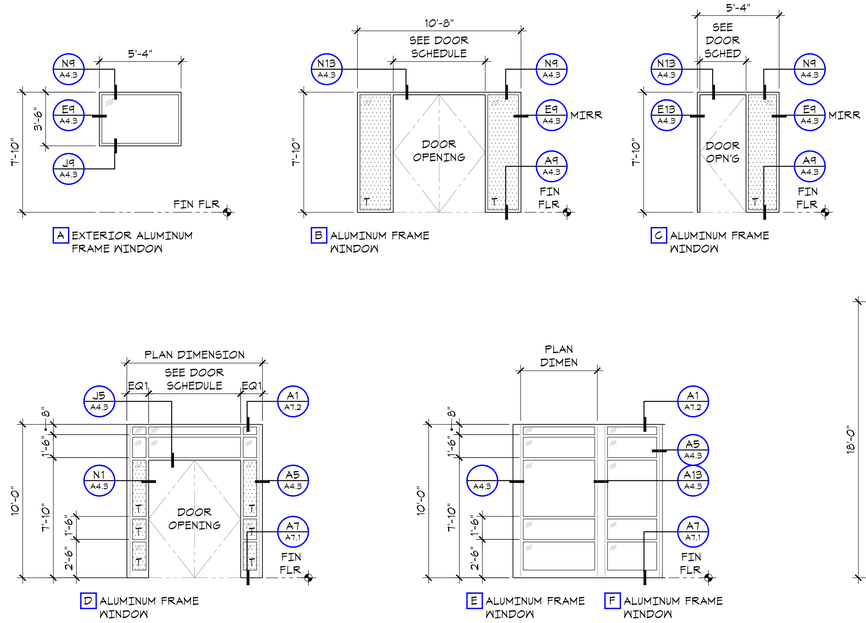
A5 A4.2 'EXIT' SIGNAGE

SCALE: NONE



L10 A4.2 DOOR ELEVATIONS

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



A10 A4.2 WINDOW & FRAME ELEVATIONS

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

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Sheet Content:
DOOR AND WINDOW DETAILS

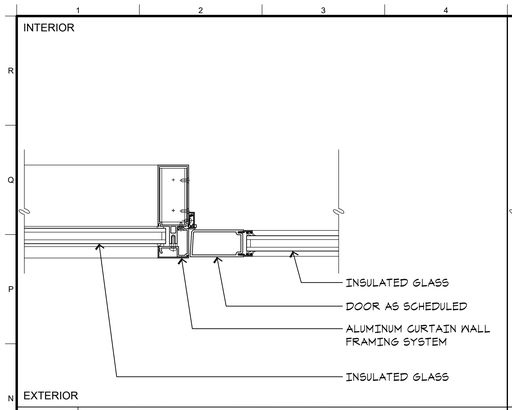
Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

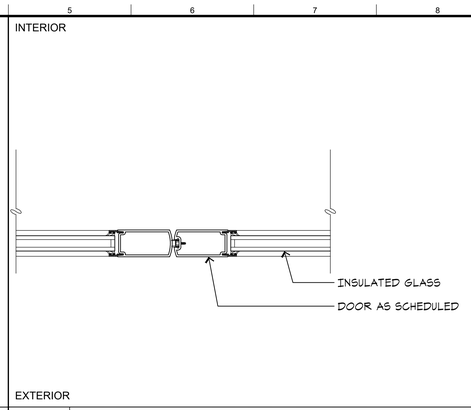
A4.2

Drawn by: ----

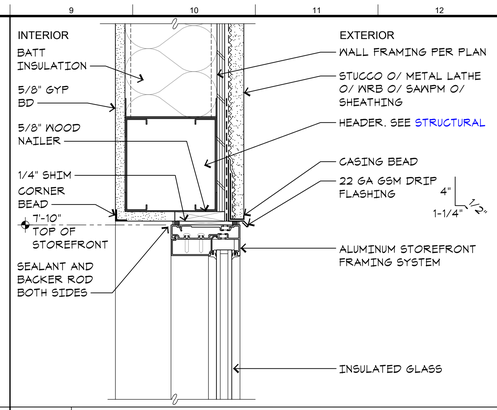
Plot date: 06.02.2020



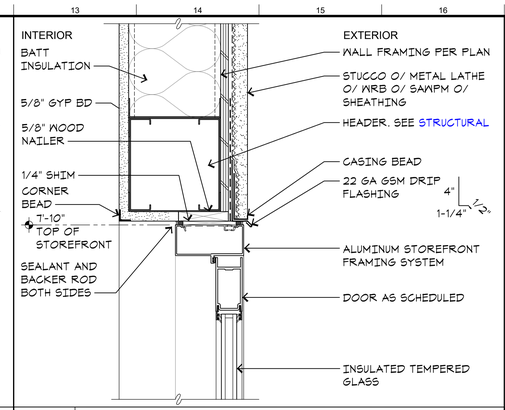
N1 A4.3 **JAMB AT DOOR** SCALE: 3"=1'-0"



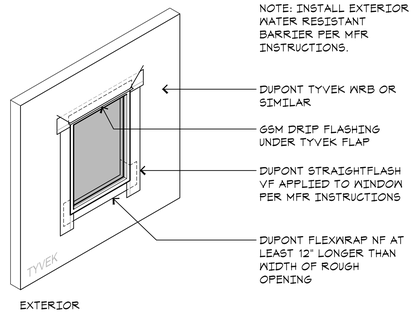
N5 A4.3 **MEETING STILE AT DOOR** SCALE: 3"=1'-0"

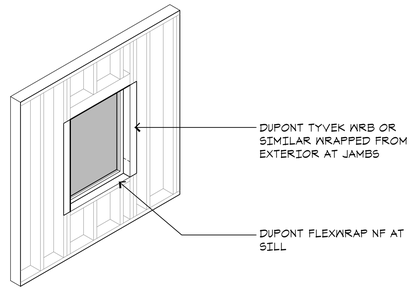


N9 A4.3 **HEAD AT EXTR SF** SCALE: 3"=1'-0"

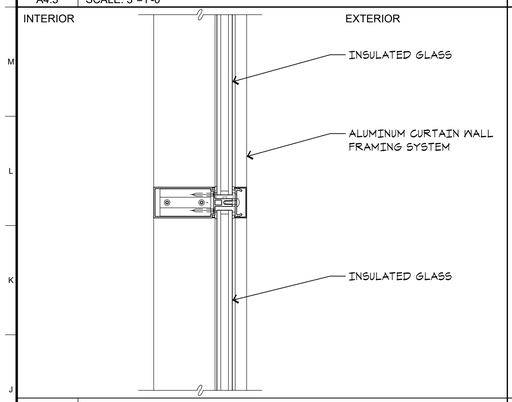


N13 A4.3 **HEAD AT EXTR SF ENTR** SCALE: 3"=1'-0"

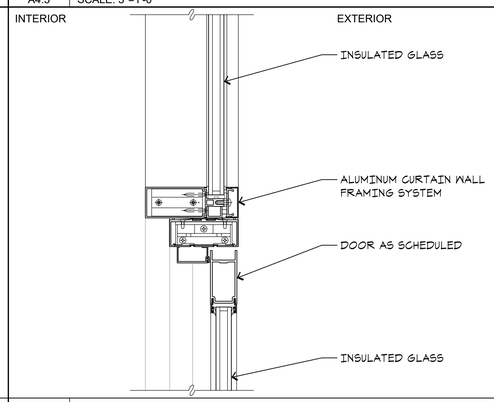




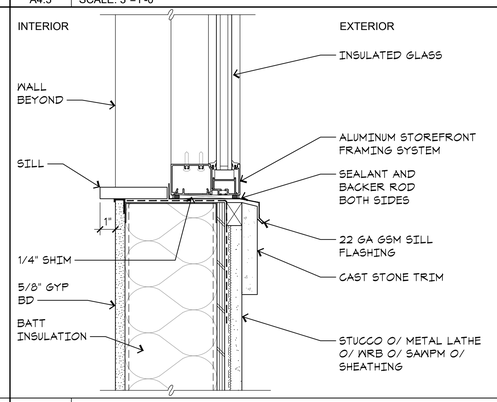
J17 A4.3 **TYPICAL EXTERIOR OPENING FLASHING** SCALE: NONE



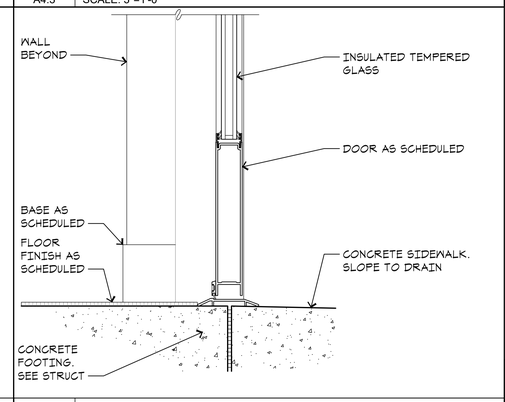
J1 A4.3 **HORIZONTAL MULLION** SCALE: 3"=1'-0"



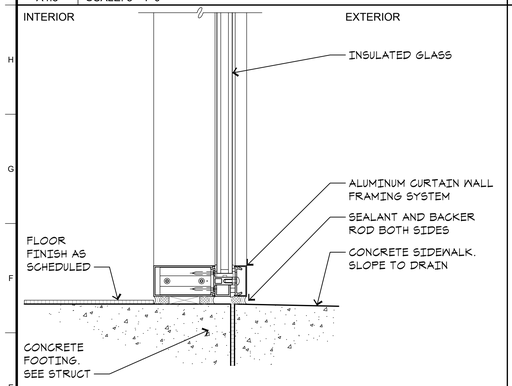
J5 A4.3 **HEAD AT DOOR** SCALE: 3"=1'-0"



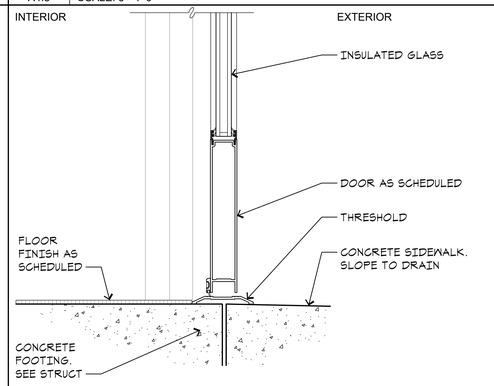
J9 A4.3 **SILL AT EXTR SF** SCALE: 3"=1'-0"



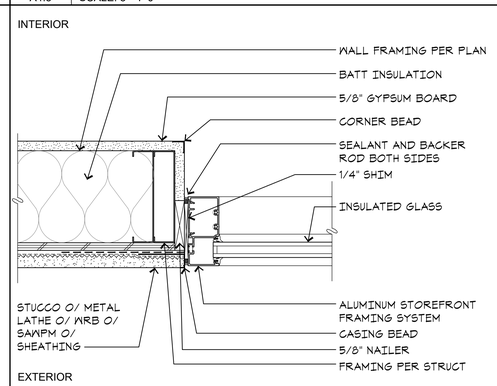
J13 A4.3 **SILL AT EXTR SF ENTR** SCALE: 3"=1'-0"



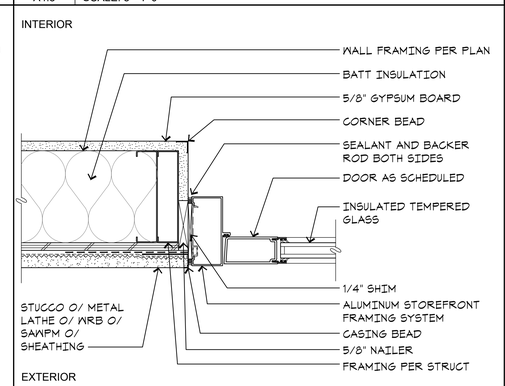
E1 A4.3 **SILL AT CURTAIN WALL** SCALE: 3"=1'-0"



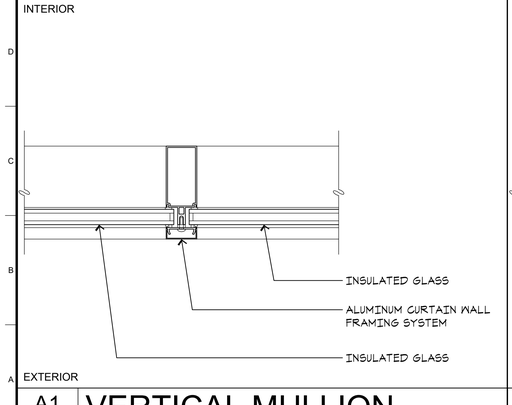
E5 A4.3 **SILL AT DOOR** SCALE: 3"=1'-0"



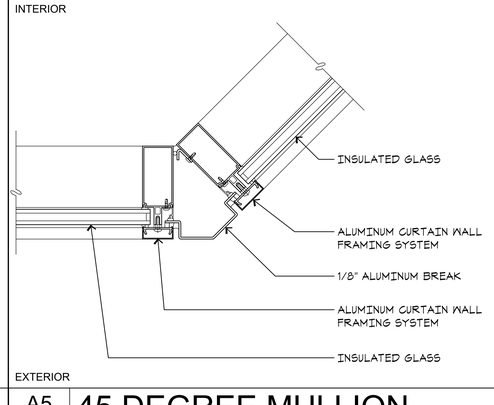
E9 A4.3 **JAMB AT EXTR SF** SCALE: 3"=1'-0"



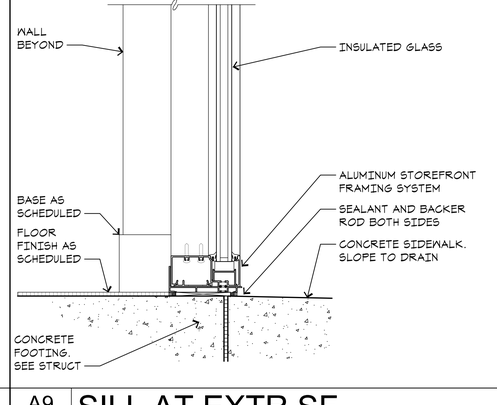
E13 A4.3 **JAMB AT EXTR SF ENTR** SCALE: 3"=1'-0"



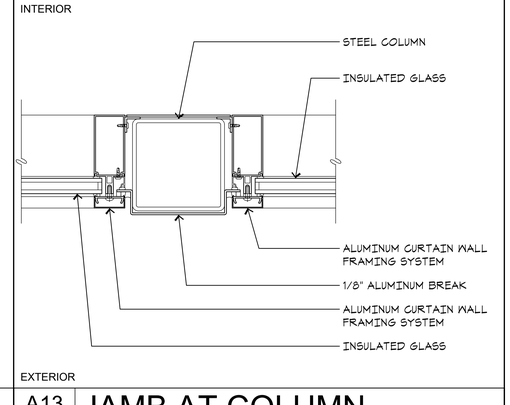
A1 A4.3 **VERTICAL MULLION** SCALE: 3"=1'-0"



A5 A4.3 **45 DEGREE MULLION** SCALE: 3"=1'-0"



A9 A4.3 **SILL AT EXTR SF** SCALE: 3"=1'-0"



A13 A4.3 **JAMB AT COLUMN** SCALE: 3"=1'-0"

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Sheet Content:
DOOR AND WINDOW DETAILS

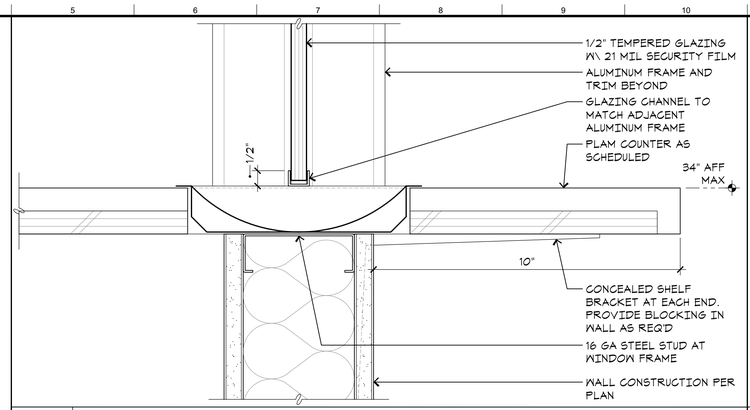
Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

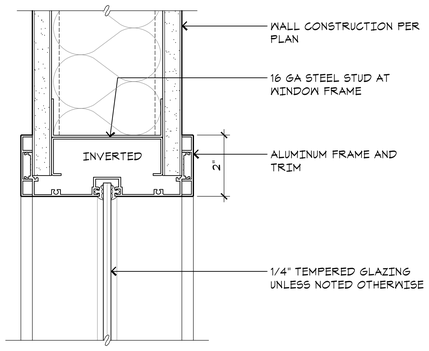
A4.3

Drawn by: ----

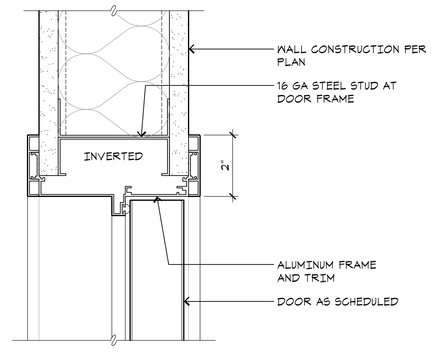
Plot date: 06.02.2020



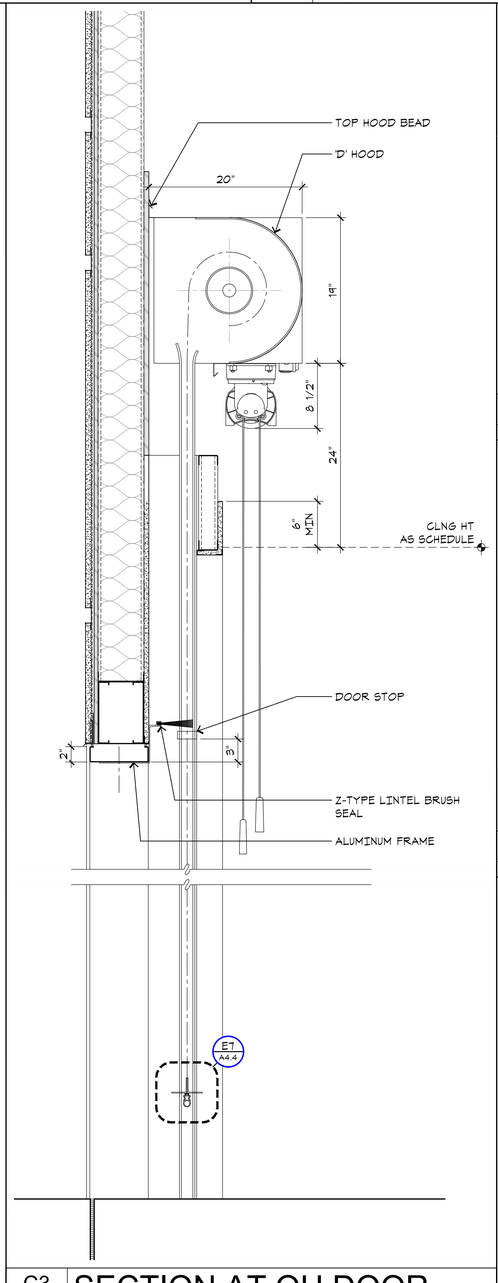
N5 A4.4 — **SILL AT TRANSACTION WINDOW**
SCALE: 6"=1'-0"



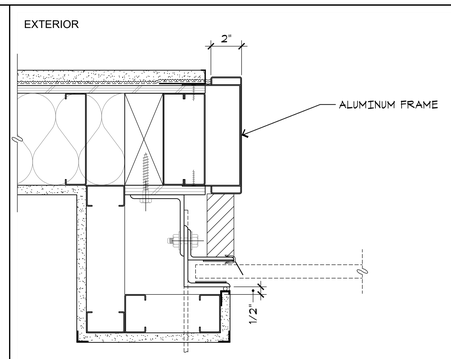
N11 A4.4 — **HEAD AT WINDOW**
SCALE: 6"=1'-0"



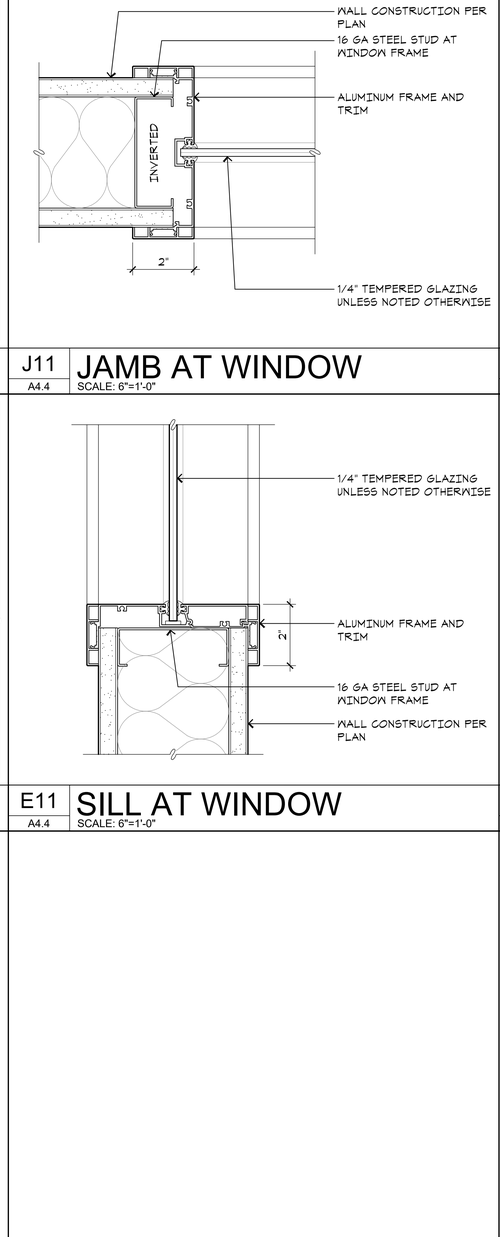
N15 A4.4 — **HEAD AT DOOR**
SCALE: 6"=1'-0"



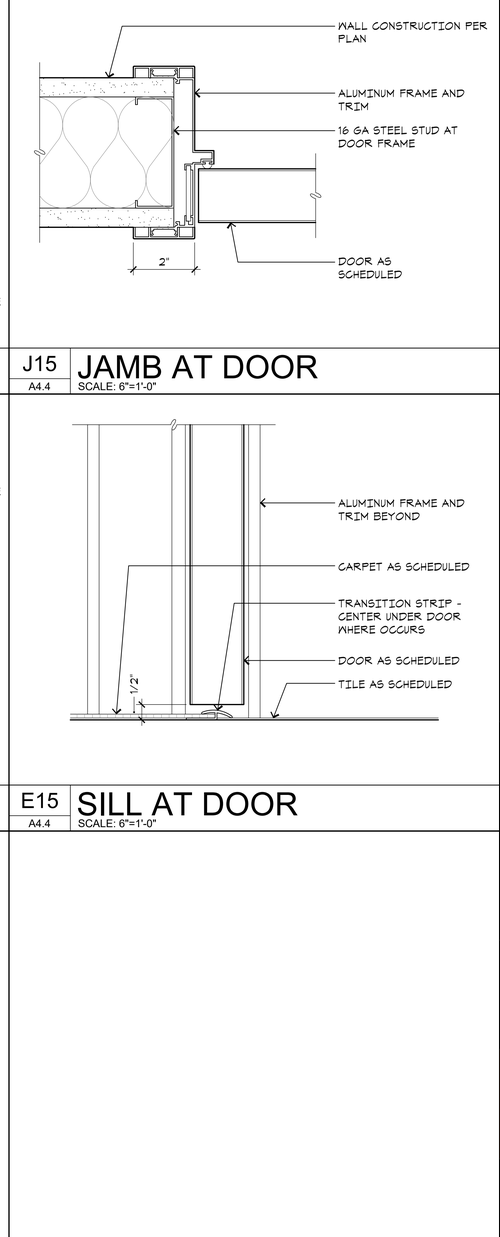
C3 A4.4 — **SECTION AT OH DOOR**
SCALE: 1-1/2"=1'-0"



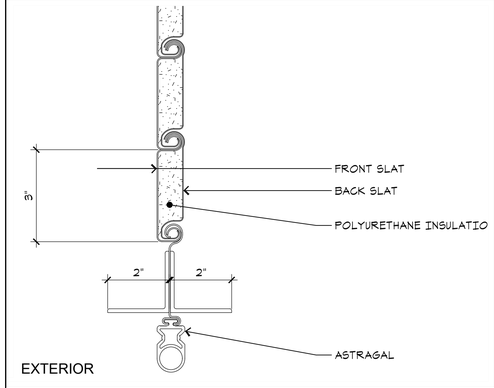
J7 A4.4 — **JAMB DETAIL**
SCALE: 3"=1'-0"



J11 A4.4 — **JAMB AT WINDOW**
SCALE: 6"=1'-0"



J15 A4.4 — **JAMB AT DOOR**
SCALE: 6"=1'-0"



E7 A4.4 — **BOTTOM BAR / SLAT DETL**
SCALE: 6"=1'-0"

E11 A4.4 — **SILL AT WINDOW**
SCALE: 6"=1'-0"

E15 A4.4 — **SILL AT DOOR**
SCALE: 6"=1'-0"

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2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A4.4

Drawn by: ----
Plot date: 06.02.2020

FINISH SPECIFICATIONS

FLOORS	
MCT-1	MOHAWK GROUP, STYLE: SOLVE II/BT416, COLOR: 359 ECOACTIVE, 24"x24", INSTALLATION: MONOLITHIC
MCT-2	MOHAWK GROUP, STYLE: FIRST STEP II / GT315, COLOR: TO BE SELECTED, 24"X24", INSTALLATION: MONOLITHIC
PFT-1	DALTILE, VALOR #VR-02 'BUFF BEIGE' UNPOLISHED, 24"X24"x ⅜", INSTALLED GRID PATTERN, GROUT WIDTH: ⅛", GROUT: CUSTOM #145 LIGHT SMOKE
PFT-2	DALTILE, VALOR #VR-02 'BUFF BEIGE' UNPOLISHED, 12"X24"x⅜", INSTALLED STAGGERED PATTERN, 8" OVERLAP, GROUT WIDTH: ⅜", GROUT: CUSTOM #145 LIGHT SMOKE
PMT-3	DALTILE KEYSTONES, 1"X1" MOSAIC, COLOR: ALMOND BLEND #DK22, GROUT: CUSTOM #382 BONE
THRESH-HOLDS	DALTILE, ABSOLUTE BLACK GRANITE #GT71, POLISHED
VCT-1	ARMSTRONG PREMIUM EXCELON, CROWN TEXTURE 5C908 'PEWTER', 12"X12"
STATIC DISSIP.	ROPPE STATPROTECT, COLOR: #754 'STORM BEIGE'
RUBBER FLOOR'G	ROPPE, TUFLEX SPARTUS, COLOR: 936 'DUSK', 27"X27" TILES
BASE	
PTB-1	SURFACE BULLNOSE BASE TO MATCH PFT-1 & PFT-2, 3"x12"
PTB-2	MOSAIC COVE BASE TO MATCH PMT-3
CTB-1	COVE TILE BASE TO MATCH CNT-1
RB-1	BURKE, TYPE TP RUBBER BASE, 4" COVE TOE, COLOR: TO BE SELECTED. USE ROLLED GOODS. - ALL AREAS U.N.O.
RB-2	BURKE, PROFILES RUBBER WALL BASE, '3" ELUSIVE', COLOR: TO BE SELECTED - PUBLIC CONFERENCE ROOM
WALLS	
GBW-1	TO MATCH DUNN EDWARDS #DE6206, 'DESERT SUEDE', LOW-GLOSS EG-SHEL SHEEN - WALLS THRU-OUT U.N.O.
GBW-2	TO MATCH DUNN EDWARDS #DE6215 'WOODEN PEG', LOW-GLOSS EG-SHEL SHEEN - ACCENT WALL
GBW-3	TO MATCH DUNN EDWARDS #DE6219 'CRYSTAL HAZE', SEMI-GLOSS SHEEN
CNT-1	DALTILE, COLOR WHEEL LINEAR, MATTE SHEEN, 4"x12", COLOR: K775 BISCUIT. FIELD TILE & COVE BASE.
CNT-2	DALTILE, COLOR WHEEL LINEAR, MATTE SHEEN, 4"x12", COLOR: X714 DESERT GRAY. ACCENT TILE ON RR WALLS, BACKSPLASH TILE @ BREAK ROOM (SS115) & CONFERENCE (SS107)
CNT-3	DALTILE, COLOR WHEEL LINEAR, MATTE SHEEN, 4"x12", COLOR: 0761 URBAN PUTTY. ACCENT TILE ON RR WALLS
PMT-3	DALTILE KEYSTONES 1"X1" MOSAIC, COLOR: 'ALMOND BLEND' #DK-22, INSTALL ON BACK WALL OF SHOWER. SIDE WALLS TO BE CNT-1, 2, 3.
WALL GROUT	CUSTOM, COLOR: #382 BONE
FRP-1	TO MATCH PANOLAM, COLOR: SILVER
STN	MATCH STONE VENEER FROM EXTERIOR
CEILINGS	
ACT-1	ARMSTONG, CIRRUS SECOND LOOK II, 24"x48"
GBC-1	TO MATCH DUNN EDWARDS #DE6219 'CRYSTAL HAZE', LOW-GLOSS EG-SHEL SHEEN
GBC-2	TO MATCH DUNN EDWARDS #DE6219 'CRYSTAL HAZE', SEMI-GLOSS SHEEN
MPD-1	METAL PANEL DECKING, FACTORY FINISH, COLOR TO BE SELECTED
MISCELLANEOUS	
PLA-1	PIONITE #AT710-SD 'GOLD PANNIN' - LOWER CABINETS
PLA-2	PIONITE #AG561-SD 'CUBICLE PAPEL' - UPPER CABINETS
PLA-3	FORMICA #8846-58 'OILED LEGNO' - DOORS & RECEPTION DESK
SOLID SURFACE	CAMBRIA QUARTZ, PATTERN: 'HELMSLEY', MATTE FINISH - COUNTERS @ BREAKROOM, RESTROOMS, PUBLIC CONFERENCE ROOM & RECEPTION DESK
CORNER GUARDS	KOROGARD, COLOR: 'OYSTER', LOCATIONS DESIGNATED BY 'CG' ON FINISH PLAN, SHEET A5.2.
COVER PLATES	WHITE
FIRE EXT CABINET	STAINLESS STEEL
TOILET PART'NS	SCRANTON, HINEY-HIDERS, COLOR: SHALE, ORANGE PEEL TEXTURE
WINDOW SHADES	MECHOSHADE, VALANCE FINISH: CLEAR ANODIZED, SHADE FABRIC: THERMOVEIL SATIN WEAVE #3014 PEWTER, 1% OPENESS FACTOR
TILE EDGE STRIPS	SCHLUTER PROFILE: 'SCHIENE', FINISH: STAINLESS STEEL
MOVABLE WALL PANELS	KOROSEAL, COLOUR & DESIGN VINYL WALLCOVERING, TYPE II: PATTERN: 'OBANA', COLOR: TO BE SELECTED
PAINT-1	STEEL COLUMN & BEAM STRUCTURE IN LOBBY, COLOR: TO BE SELECTED, SEMI-GLOSS SHEEN

FINISH SCHEDULE

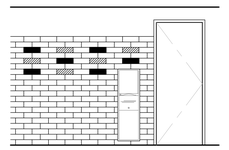
ROOM NUMBER	ROOM NAME	FLOOR MATERIAL / FINISH	BASE MATERIAL / FINISH	BASE HEIGHT	WALLS MATERIAL / FINISH	WAINSCOT MATERIAL / FINISH	WAINSCOT HEIGHT	CEILING 1 MATERIAL / FINISH	NOTES
SS101	PUBLIC WAITING AREA	PFT-1 / MCT-2	PTB-1	0'-3"	GBW-1/ STW	-	-	MPD-1 / GBC-1	4
SS102	LIVESCAN	PTF-1	PTB-1	0'-3"	GBW-1	-	-	GBC-1	
SS103	SECURE RECEPTION	MCT-1	RB-1	0'-4"	GBW-1	-	-	GBC-1, ACT-1	
SS104	PUBLIC RR - M	PFT-2	CTB-1	---	GBW-3	CNT-1, 2, 3	85"+-	GBC-2	3
SS105	PUBLIC AREA SECURED	PFT-1	PTB-1	0'-3"	GBW-1	-	-	GBC-1	
SS106	PUBLIC RR - W	PFT-2	CTB-1	---	GBW-3	CNT-1, 2, 3	85"+-	GBC-2	3
SS107	PUBLIC CONF RM	MCT-1,2, PFT-1	RB-2	0'-3"	GBW-1	-	-	ACT-1 / GBC-1	
SS108	ADMIN CONF	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS109	ADMIN ASST OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS110	WORKSTATION A	MCT-1	RB-1	0'-4"	GBW-1, 2	-	-	ACT-1	
SS111	TRAINING STORAGE	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS112	SUPPLY STORAGE	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS113	DATA RACKS	SDT-1	RB-1	0'-4"	GBW-1	-	-		
SS114	SPECIALTY UNIT 1 OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS115	BREAK ROOM	PFT-1 / MCT-2	PTB-1	0'-3"	GBW-1	CNT-2	-	ACT-1	5
SS116	CORRIDOR A	MCT-1	RB-1	0'-4"	GBW-1, 2	-	-	ACT-1 / GBC-1	
SS117	TRAINING ROOM A & B	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1 / GBC-1	
SS118	CORRIDOR B	MCT-1	RB-1	0'-4"	GBW-1, 2	-	-	ACT-1 / GBC-1	
SS119	CORRIDOR C	MCT-1, 2	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS120	PHYSICAL TRAINING	RSF-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS121	CORRIDOR D	MCT-1,2	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS122	LOCKER ROOM - F	PFT-2	PTB-1	0'-3"	GBW-3	-	-	ACT-1	
SS123	RR AND SHWR - F	PFT-2 / PMT-3	CTB-1, PTB-2	-	GBW-3	CNT-1, 2, 3/ PMT-3	85"+-	GBC-2	2, 3
SS124	LACTATION	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS125	JAN/STOR	PMT-3	PTB-2	0'-6"	GBW-3	FRP-1	54"	GBC-2	
SS126	RR AND SHWR - M	PFT-2 / PMT-3	CTB-1 / PTB-2	-	GBW-3	CNT-1, 2, 3/ PMT-3	85"+-	GBC-2	2, 3
SS127	LOCKER ROOM - M	PFT-2	PTB-1	0'-3"	GBW-3	-	-	ACT-1	
SS128	CORRIDOR E	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS129	SECURE TRAINING RM	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS130	SECURE TRAINING RECORDS	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS131	ADMIN SUPPLY STORAGE	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS132	WORKSTATION C	MCT-1	RB-1	0'-4"	GBW-1, 2	-	-	ACT-1	
SS133	USA SUPPLY STORAGE	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS134	STORAGE / ARMORY	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS135	INV STAFF SUPPLY STORAGE	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS136	INV STAFF DET SUPPLY STOR	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS137	INV STAFF PROPERTY	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS138	INTERVIEW ROOM	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS139	RR	PFT-2	CTB-1	-	GBW-3	CNT-1	85"+-	GBC-2	
SS140	INTERVIEW ROOM	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS141	WORKSTATION D	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS142	CORRIDOR F	MCT-2	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS143	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS144	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS145	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS146	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS147	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS148	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS149	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS150	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS151	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS152	EVIDENCE PREP	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS153	INTERVIEW ROOM	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS154	INTERVIEW ROOM	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS155	SECURE TRAINING SUPPLY STORAGE	VCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS156	WORKSTATION B	MCT-1	RB-1	0'-4"	GBW-1, 2	-	-	ACT-1	
SS157	HALL	MCT-1, 2	RB-1	0'-4"	GBW-1	-	-	GBC-1	
SS158	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS159	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1	
SS160	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1 / GBC-1	
SS161	OFFICE	MCT-1	RB-1	0'-4"	GBW-1	-	-	ACT-1 / GBC-1	

GENERAL FINISH NOTES

1. SEE 'REFLECTED CEILING PLAN', SHEETS A2.7, A2.8, A2.8 AND A2.11 FOR CEILING HEIGHTS.
2. SEE TOILET ACCESSORIES SCHEDULE, SHEETS A5.3, A5.4 AND A5.5 FOR TOILET PARTITION SPECIFICATIONS, COLOR AND TEXTURE.

FINISH SCHEDULE NOTES

1. SEE 'INTERIOR FINISH PLAN', SHEET A5.2 FOR ADD'L FINISH INFORMATION THIS ROOM.
2. PMT-3 TO BE INSTALLED ON BACK SHOWER WALL & SHOWER FLOOR. PTB-2 MOSAIC BASE TO BE INSTALLED ON BACK SHOWER WALL.
3. SEE WALL TILE PATTERN THIS SHEET.
4. STEEL COLUMN & BEAM STRUCTURE IN LOBBY TO BE PAINTED W/ PAINT 1. SEE COLOR SPECIFICATION THIS SHEET.
5. TILE CNT-2 TO BE USED AS BACK & SIDE SPLASH @ COUNTER.



WALL TILE PATTERN

NOT TO SCALE

CNT-1
CNT-2
CNT-3

DESIGN STATUS:
PRELIMINARY

EFFECTIVE DATE:
05.25.2020

IF THIS DRAWING IS MARKED AS PRELIMINARY, THE FINISH SPECIFICATIONS, SCHEDULES, PLANS AND NOTES ON THIS DRAWING SHALL BE USED FOR REVIEW, PLANNING AND PRICING PURPOSES ONLY. NO ORDERING OF MATERIALS SHALL OCCUR UNTIL AFTER THE CLIENT HAS GIVEN THEIR APPROVAL AND RDT ARCHITECTURE HAS ISSUED THIS DRAWING MARKED AS FINAL.

FINISH ABBREVIATIONS

ACT . . . ACOUSTICAL CEILING TILE
BBT . . . BIO-BASED TILE
CONC . . . CONCRETE
CPT . . . CARPET
CPB . . . CARPET BASE
CTB . . . CERAMIC TILE BASE
CTF . . . CERAMIC TILE FLOOR
CTW . . . CERAMIC TILE WALL / WAINSCOT
EXP . . . EXPOSED
FF . . . FACTORY FINISH
FRP . . . FIBERGLASS REINF PANEL
GBC . . . GYPSUM BOARD CEILING
GBW . . . GYPSUM BOARD WALL
GTB . . . GRANITE TILE BASE
GTF . . . GRANITE TILE FLOOR
GTW . . . GRANITE TILE WALL / WAINSCOT
ICB . . . INTEGRAL COVE BASE
MCT . . . MODULAR CARPET TILE
MPD . . . METAL PANEL DECKING
PLA . . . PLASTIC LAMINATE
PNT . . . PAINT
PTB . . . PORCELAIN TILE BASE
PTF . . . PORCELAIN TILE FLOOR
PMT . . . PORCELAIN MOSAIC TILE
RB . . . TOPSET RUBBER BASE
RTF . . . RUBBER TILE FLOORING
STB . . . STONE TILE BASE
STF . . . STONE TILE FLOOR
STW . . . STONE TILE WALL / WAINSCOT
STN . . . STAIN
SV . . . SHEET VINYL
VCT . . . VINYL COMPOSITION TILE
VNC . . . VINYL WALL COVERING
WD . . . WOOD

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A5-1_Intr_Fin_Sched

Sheet Content:

INTERIOR FINISH SCHEDULE

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

A5.1

A1
A5.2

INTERIOR FINISH PLAN

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

DESIGN STATUS:
PRELIMINARY

EFFECTIVE DATE:
05.28.2020

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FINISH ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE
BBT	BIO-BASED TILE
CONC	CONCRETE
CPT	CARPET
CPB	CARPET BASE
CTB	CERAMIC TILE BASE
CTF	CERAMIC TILE FLOOR
CTW	CERAMIC TILE WALL / WAINSCOT
EXP	EXPOSED
FF	FACTORY FINISH
FRP	FIBERGLASS REINF PANEL
GBC	GYPSUM BOARD CEILING
GBW	GYPSUM BOARD WALL
GTB	GRANITE TILE BASE
GTF	GRANITE TILE FLOOR
GTW	GRANITE TILE WALL / WAINSCOT
ICB	INTEGRAL COVE BASE
MCT	MODULAR CARPET TILE
MPD	METAL PANEL DECKING
PLA	PLASTIC LAMINATE
PNT	PAINT
PTB	PORCELAIN TILE BASE
PTF	PORCELAIN TILE FLOOR
PMT	PORCELAIN MOSAIC TILE
RB	TOPSET RUBBER BASE
RTF	RUBBER TILE FLOORING
STB	STONE TILE BASE
STF	STONE TILE FLOOR
STW	STONE TILE WALL / WAINSCOT
STN	STAIN
SV	SHEET VINYL
VCT	VINYL COMPOSITION TILE
VNC	VINYL WALL COVERING
WD	WOOD

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FILE NAME: 19003_A5-2_Intr_Fin_Plan

Sheet Content:

INTERIOR FINISH PLAN

Fresno County Department of Public Works and Planning
Capital Projects

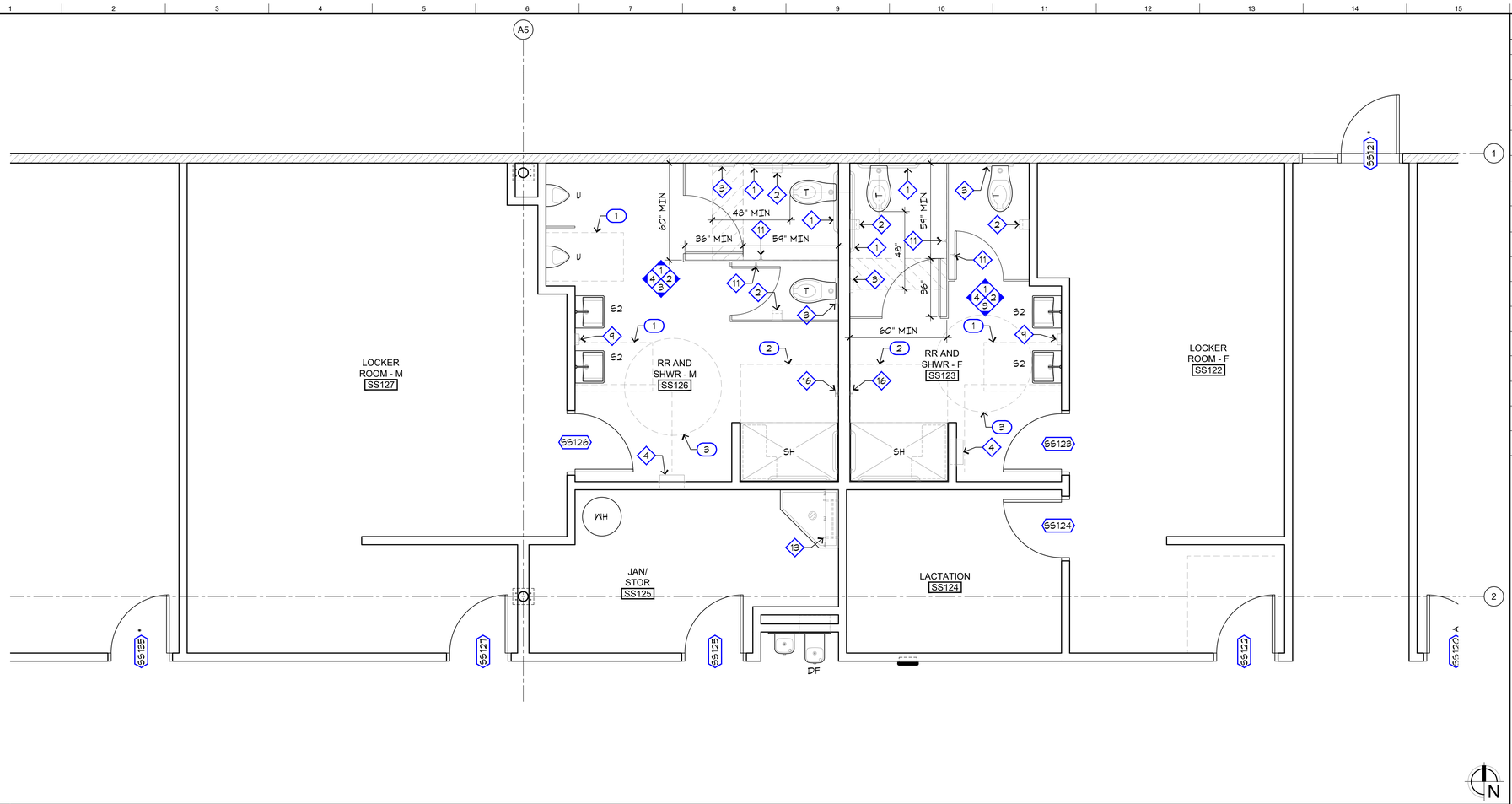
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

A5.2

Drawn by: ----

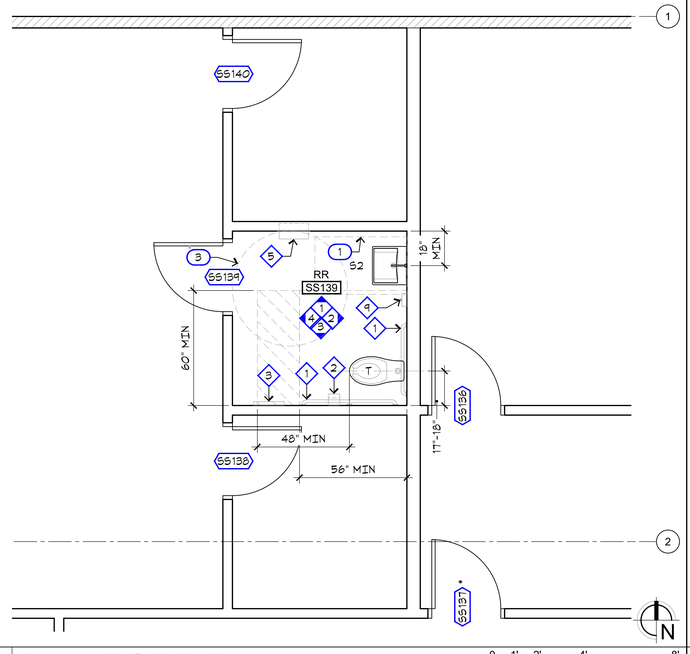
Plot date: 06.02.2020



H1 ENLARGED PLAN

A5.3

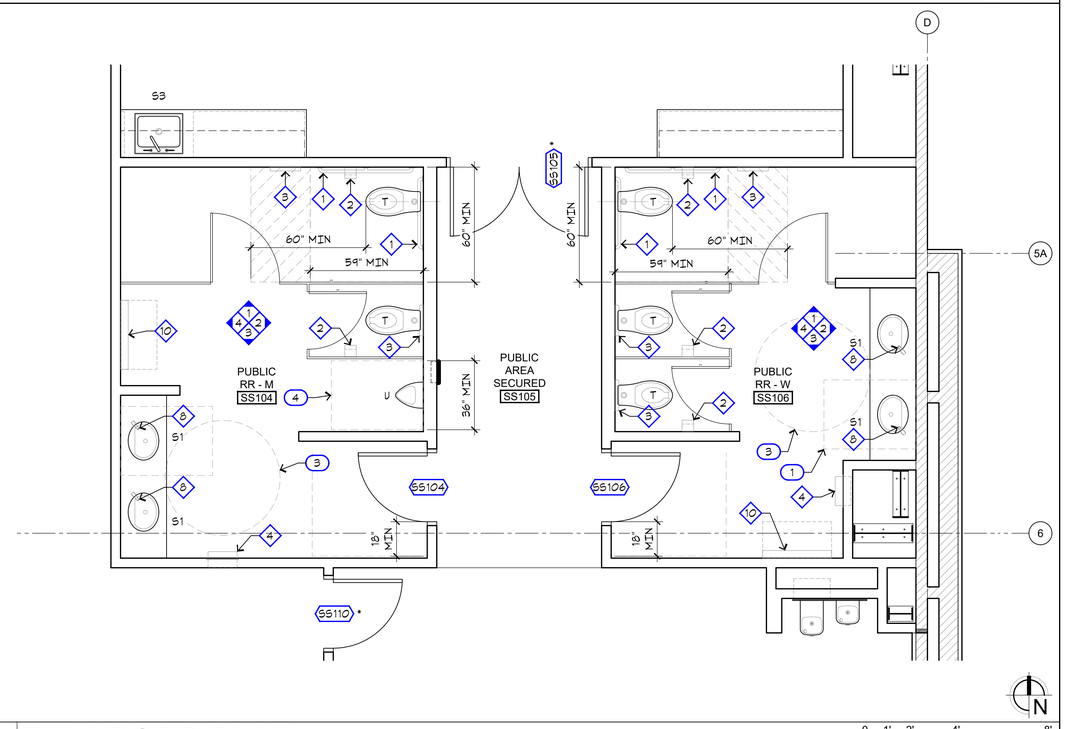
SCALE: 3/8"=1'-0"



A1 ENLARGED PLAN

A5.3

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



A7 ENLARGED PLAN

A5.3

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

TOILET ACCESSORY SCHEDULE

MARK	DESCRIPTION (SEE ALSO SPECIFICATIONS SECTION 102800)
1	GRAB BAR (LENGTH AS SHOWN); BOBRICK B-6806
2	TOILET TISSUE DISPENSER, SURFACE- MOUNTED MULTI-ROLL; BOBRICK B-4288
3	TOILET SEAT COVER DISPENSER, SURFACE-MOUNTED; BOBRICK B-4221
4	PAPER TOWEL DISPENSER / WASTE RECEPTACLE, RECESSED; BOBRICK B-43944
5	PAPER TOWEL DISPENSER / WASTE RECEPTACLE, RECESSED; BOBRICK B-4369
6	PAPER TOWEL DISPENSER, SURFACE-MOUNTED; BOBRICK B-4262
7	MIRROR, PIVOTING FRAMED LARGE RECTANGLE (BEVELED); GATCO 4844FS
8	SOAP DISPENSER, OPTIMA® DECK-MOUNTED; SLOAN ESD-200
9	SOAP DISPENSER, SURFACE-MOUNTED; BOBRICK B-4112
10	BABY CHANGING STATION; GAMCO BSC-1 OR 2
11	HOOK, CAP AND COAT; BOBRICK B-682
12	UNDER LAVATORY GUARD; TRUEBRO LAV SHIELD®
13	SHELF WITH MOP AND BROOM HOLDERS AND RAG HOOKS; BOBRICK B-224 x 36
14	SHOWER CURTAIN ROD, HEAVY-DUTY; BOBRICK B-6107
15	SHOWER SEAT, FOLDING; BOBRICK B-511 OR B-518
16	HOOK, DOUBLE ROBE; BOBRICK B-672

GENERAL NOTES

1. SEE ALSO 'EQPM / FIXT LEGEND', SHEETS A2.2 THRU A2.6.

KEYNOTES LEGEND

1. MINIMUM 48"x30" CLEAR FLOOR SPACE
2. MINIMUM 60"x36" CLEAR FLOOR SPACE
3. MINIMUM 60" DIAMETER CIRCULAR TURNING SPACE
4. MINIMUM 48"x36" CLEAR FLOOR SPACE

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: TB0293 / 19003
FILE NAME: 19003_A5-3_Enlarged_Plans

Sheet Content:
ENLARGED PLANS

Fresno County Department of Public Works and Planning
Capital Projects

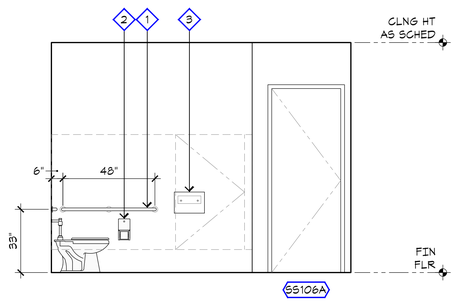
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

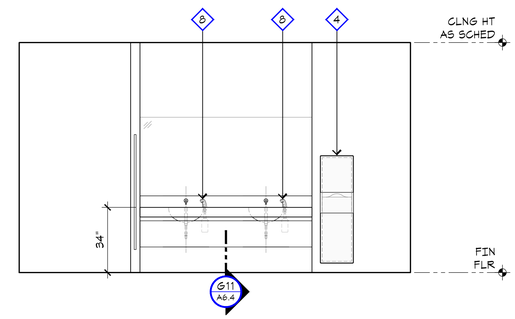
A5.3

Drawn by: ----

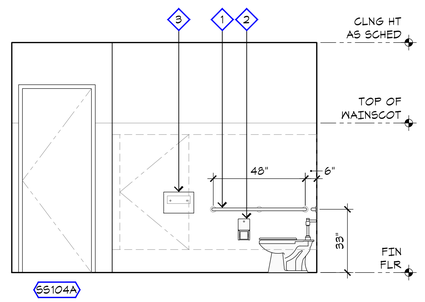
Plot date: 06.02.2020



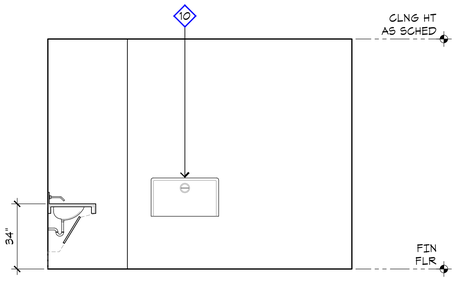
1 PUBLIC RR - W [SS106]



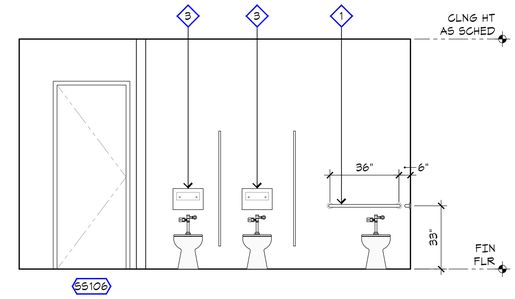
2 PUBLIC RR - W [SS106]



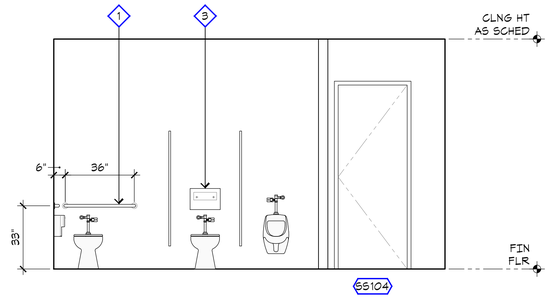
1 PUBLIC RR - M [SS104]



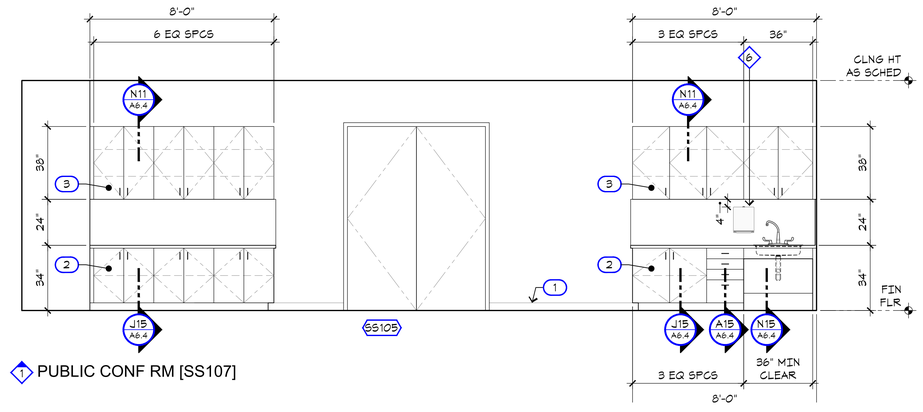
3 PUBLIC RR - W [SS106]



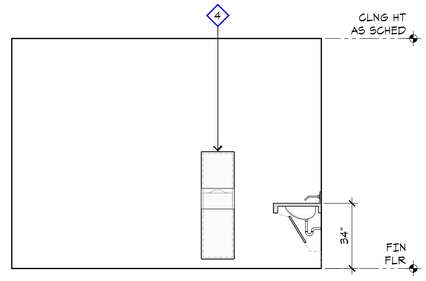
4 PUBLIC RR - W [SS106]



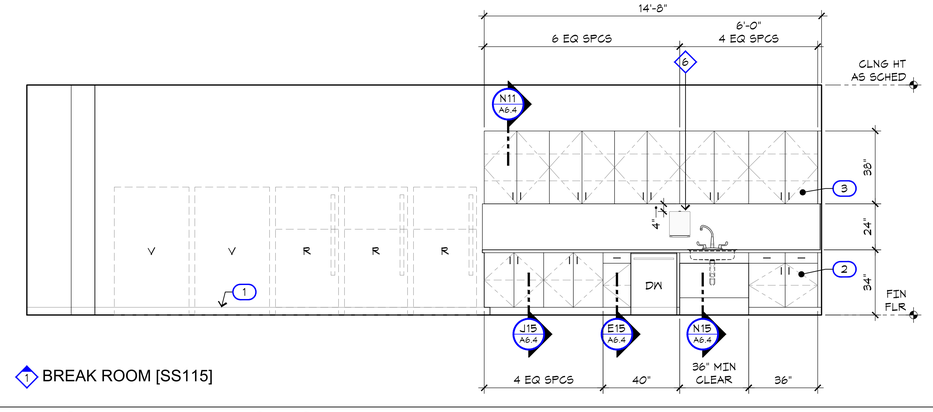
2 PUBLIC RR - M [SS104]



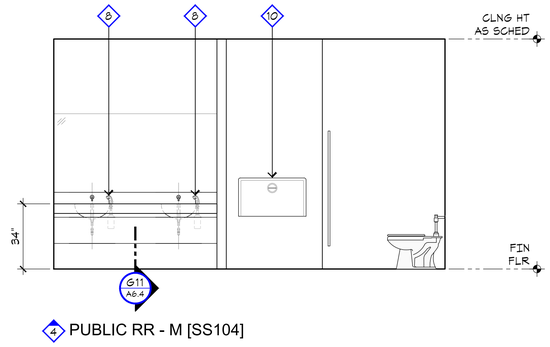
1 PUBLIC CONF RM [SS107]



3 PUBLIC RR - M [SS104]



1 BREAK ROOM [SS115]



4 PUBLIC RR - M [SS104]

A1 INTERIOR ELEVATIONS

A5.4

0 1' 2' 4' 8'

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

TOILET ACCESSORY SCHEDULE

MARK	DESCRIPTION (SEE ALSO SPECIFICATIONS SECTION 102800)
1	GRAB BAR (LENGTH AS SHOWN); BOBRICK B-6806
2	TOILET TISSUE DISPENSER, SURFACE- MOUNTED MULTI-ROLL; BOBRICK B-4288
3	TOILET SEAT COVER DISPENSER, SURFACE-MOUNTED; BOBRICK B-4221
4	PAPER TOWEL DISPENSER / WASTE RECEPTACLE, RECESSED; BOBRICK B-43944
5	PAPER TOWEL DISPENSER / WASTE RECEPTACLE, RECESSED; BOBRICK B-4369
6	PAPER TOWEL DISPENSER, SURFACE-MOUNTED; BOBRICK B-4262
7	MIRROR, PIVOTING FRAMED LARGE RECTANGLE (BEVELED); GATCO 4844FS
8	SOAP DISPENSER, OPTIMA® DECK-MOUNTED; SLOAN ESD-200
9	SOAP DISPENSER, SURFACE-MOUNTED; BOBRICK B-4112
10	BABY CHANGING STATION; GAMCO BSC-1 OR 2
11	HOOK, CAP AND COAT; BOBRICK B-682
12	UNDER LAVATORY GUARD; TRUEBRO LAV SHIELD®
13	SHELF WITH MOP AND BROOM HOLDERS AND RAG HOOKS; BOBRICK B-224 x 36
14	SHOWER CURTAIN ROD, HEAVY-DUTY; BOBRICK B-6107
15	SHOWER SEAT, FOLDING; BOBRICK B-511 OR B-518
16	HOOK, DOUBLE ROBE; BOBRICK B-672

GENERAL NOTES

1. SEE ALSO 'EQPM / FIXT LEGEND', SHEETS A2.2 THRU A2.6.

KEYNOTES LEGEND

NOTE: SOME KEYNOTES MAY NOT APPEAR ON THIS SHEET.

1. BASE AS SCHEDULED
2. 24" DEEP PLAM BASE CABINET W/ SOLID SURFACE COUNTER TOP, 18" BACK SPLASH, AND 4" TOE KICK.
3. 14" DEEP PLAM UPPER CABINETS W/ ADJUSTABLE SHELVING

LICENSED ARCHITECT
NOEL ROGER DAVIDSON
C-27818
REN: 10-31-21
STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2019
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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A5-4_Intr_Elev

Sheet Content:
INTERIOR ELEVATIONS

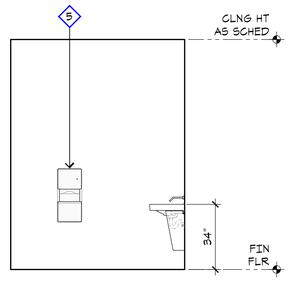
Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

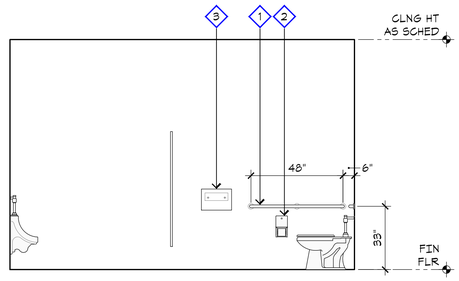
A5.4

Drawn by: ----

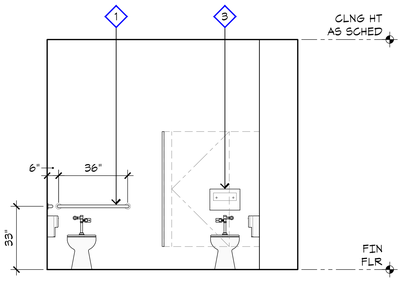
Plot date: 06.02.2020



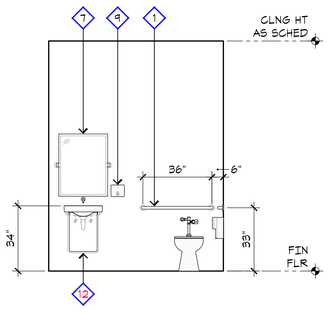
1 RR [SS139]



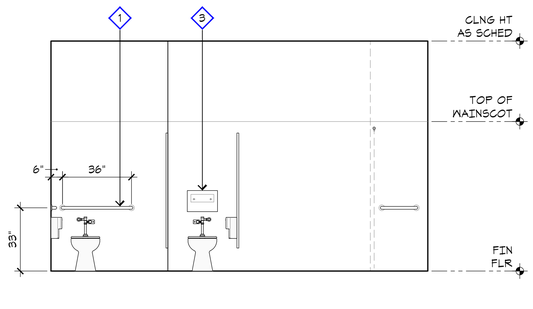
1 RR AND SHWR - M [SS126]



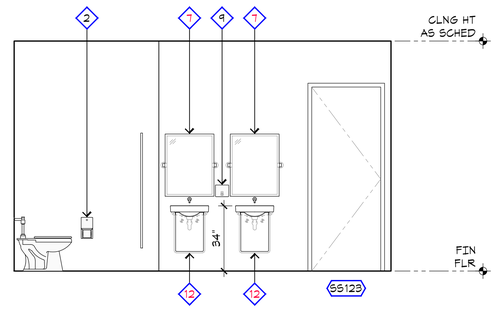
1 RR AND SHWR - F [SS123]



2 RR [SS139]



2 RR AND SHWR - M [SS126]



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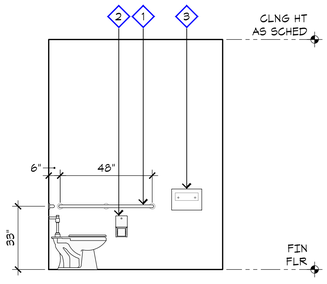
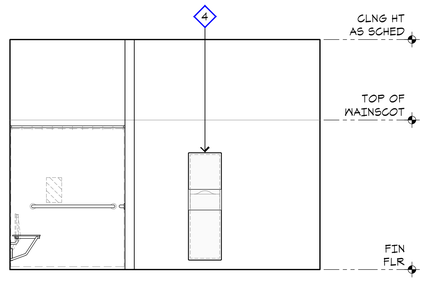
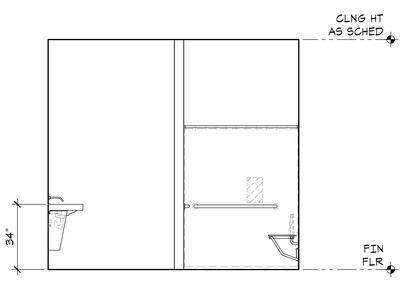


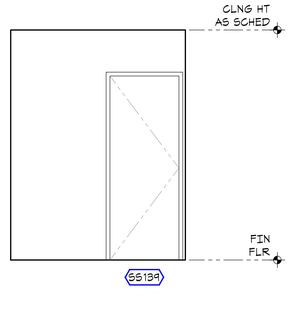
3 RR [SS139]



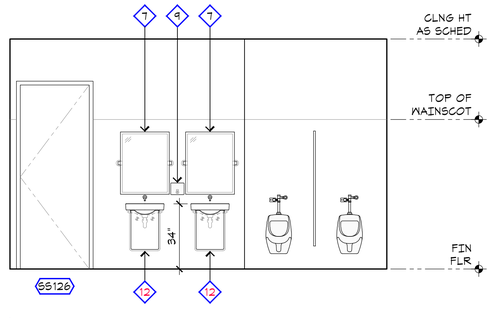
3 RR AND SHWR - M [SS126]



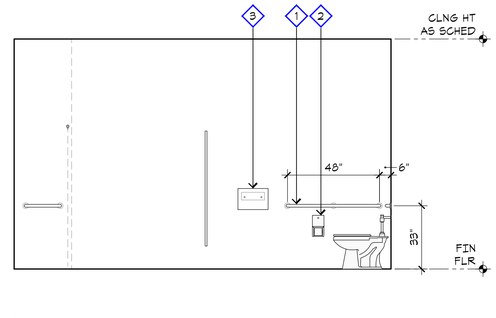
3 RR AND SHWR - F [SS123]



4 RR [SS139]



4 RR AND SHWR - M [SS126]



4 RR AND SHWR - F [SS123]

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GENERAL NOTES

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NOEL ROGER DAVIDSON
C-27818
REN: 10-31-21
STATE OF CALIFORNIA

ARCHITECT:
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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A5-5_Intr_Elev

Sheet Content:
INTERIOR ELEVATIONS

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

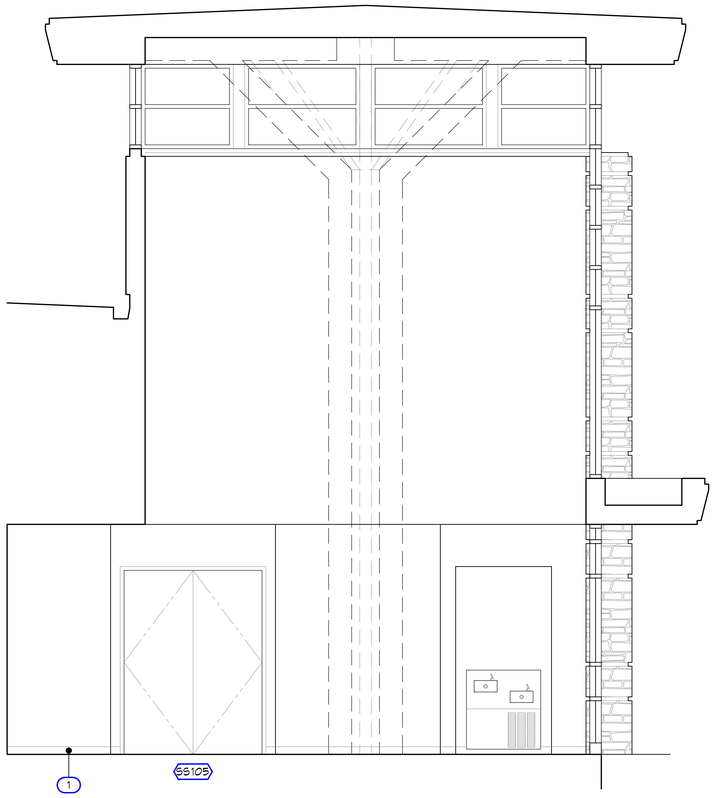
Sheet No.

A5.5

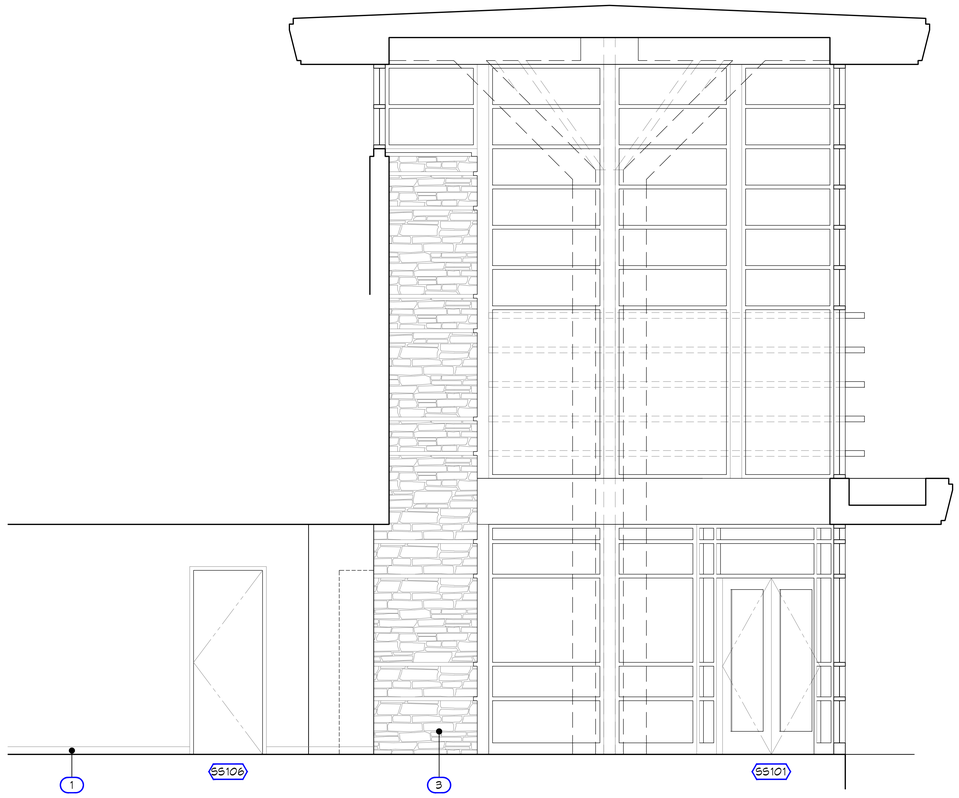
A1
A5.5

INTERIOR ELEVATIONS

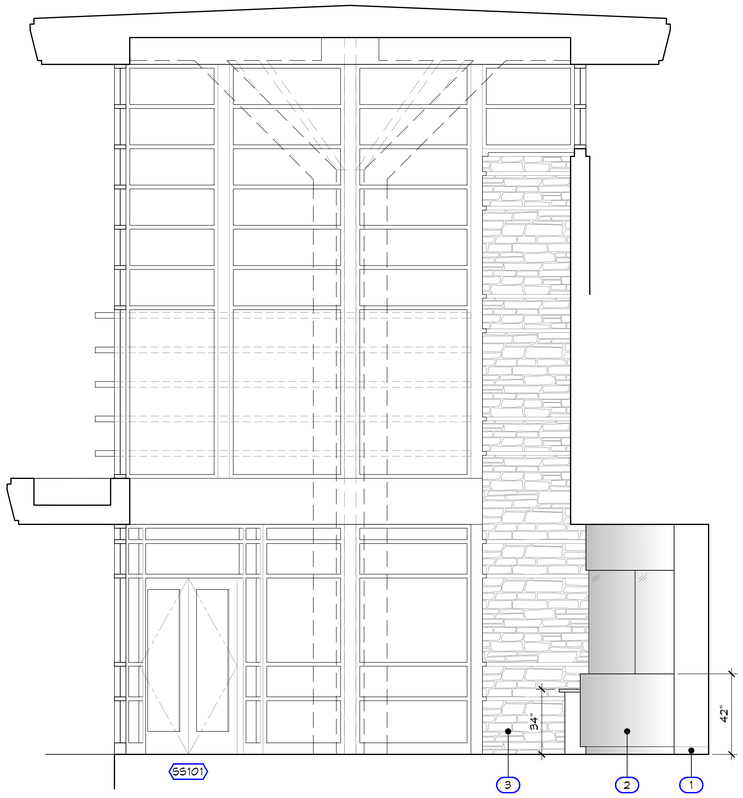
SCALE: 3/8"=1'-0"



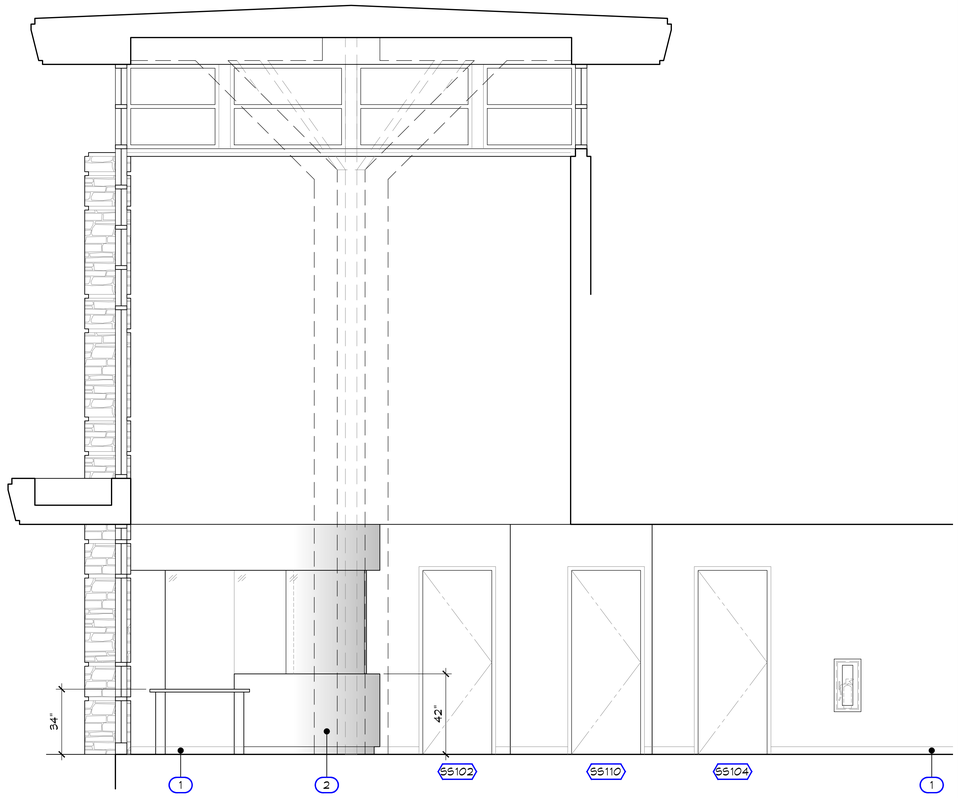
1 PUBLIC WAITING AREA [SS101]



2 PUBLIC WAITING AREA [SS101]



3 PUBLIC WAITING AREA [SS101]



4 PUBLIC WAITING AREA [SS101]

KEYNOTES LEGEND

1. BASE AS SCHEDULED
2. PLAM RECEPTION COUNTER W/ 21 MIL SECURITY FILM BY C.J. BUFFER OR SIMILAR O/ 1/2" GLAZING AND
3. STONE MASONRY TO MATCH EXTERIOR

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ARCHITECT:
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FILE NAME: 19003_A5-6_Intr_Elev

Sheet Content:

INTERIOR ELEVATIONS

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

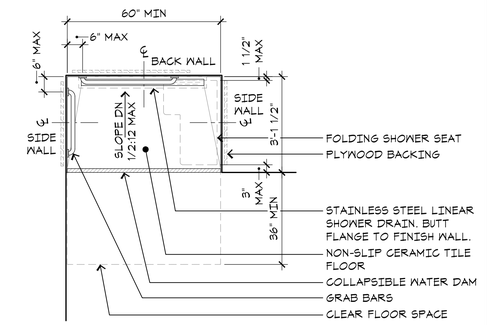
A5.6

A1
A5.6

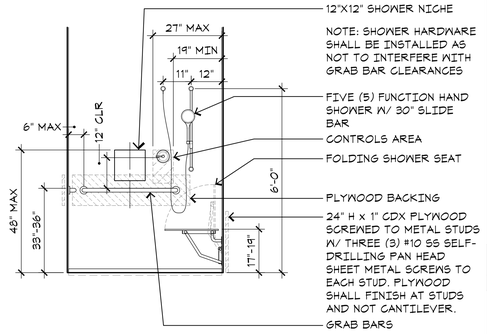
INTERIOR ELEVATIONS

0 1' 2' 4' 8'
SCALE: 3/8"=1'-0"

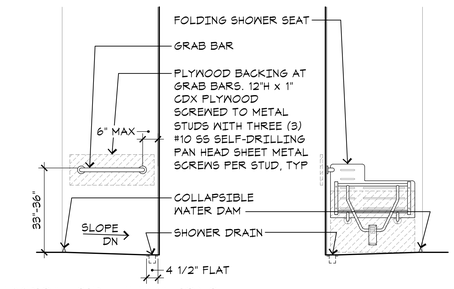
Drawn by: ----
Plot date: 06.02.2020



TYPICAL PLAN

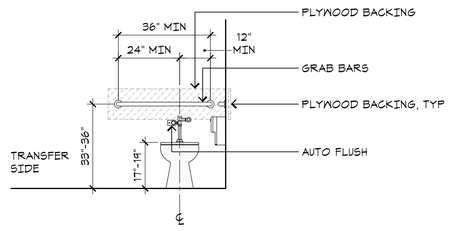


TYPICAL FRONT ELEVATION

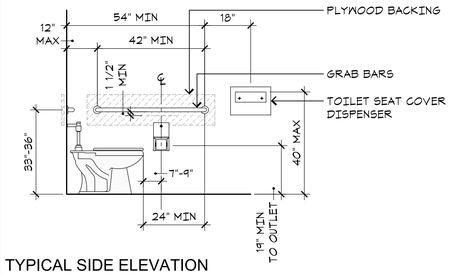


TYPICAL SIDE ELEVATIONS

G9	ACCESSIBLE SHOWER
A5.7	SCALE: 1/2"=1'-0"

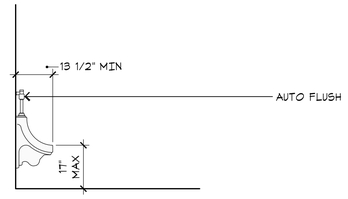


TYPICAL FRONT ELEVATION

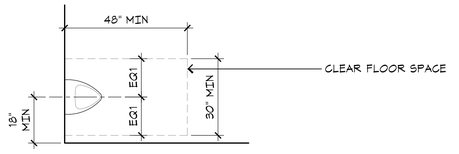


TYPICAL SIDE ELEVATION

L13	ACCESSIBLE TOILET
A5.7	SCALE: 1/2"=1'-0"

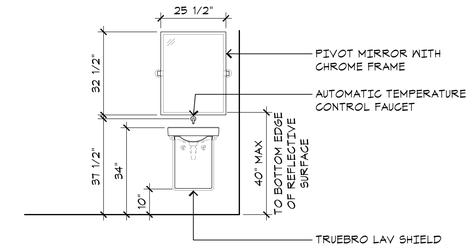


TYPICAL SIDE ELEVATION

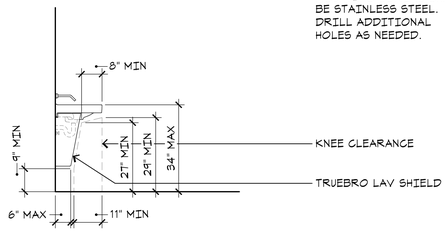


TYPICAL PLAN

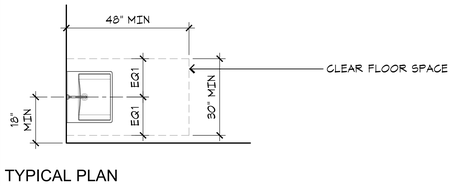
E13	ACCESSIBLE URINAL
A5.7	SCALE: 1/2"=1'-0"



TYPICAL FRONT ELEVATION



TYPICAL SIDE ELEVATION



TYPICAL PLAN

J17	ACCESSIBLE SINK
A5.7	SCALE: 1/2"=1'-0"

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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Sheet Content:

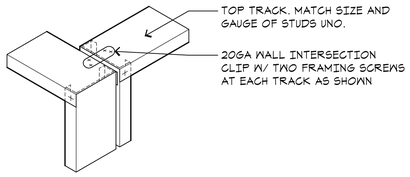
ACCESSIBILITY

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

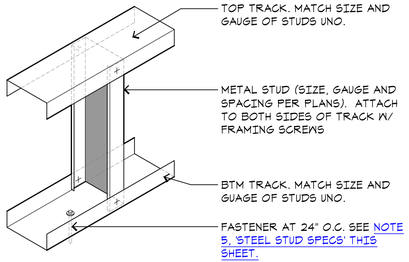
Sheet No.

A5.7

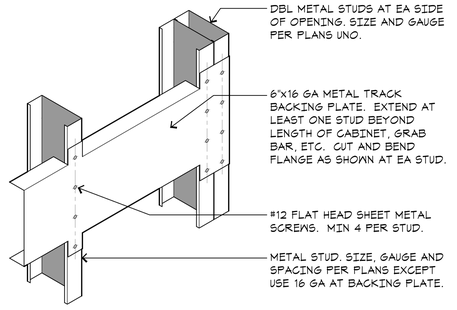
A - TOP PLATE INTERSECTION



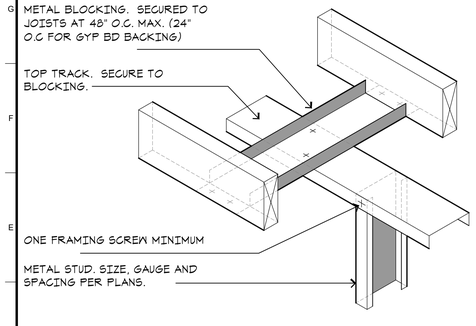
B - TYP INTERIOR NON-BEARING WALL



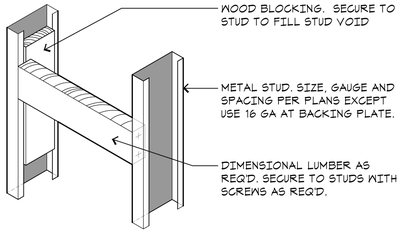
C - TYP BACKING PLATE



D - TYP WALL/JOIST ATTACHMENT



E - HEAVY FIXTURE ATTACHMENT

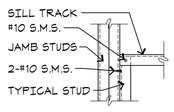


A1 / A6.1 — SCALE: NONE

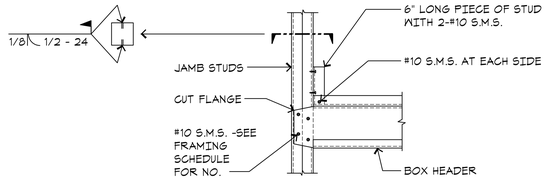
TYP STEEL STUD DETAILS

FRAMING SCHEDULE

WALL TYPE	SPAN LENGTH	BOX HEADER		JAMB STUDS	SILL TRACK	NO. #10 SMS AT EA JOIST TO JAMB
		DOUBLE JOISTS	TRACK			
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
	6'-1" TO 10'-0"	(2) 600S162-33	(2) 362S137-43	(2) 362S137-43	362T125-33	4
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



A SILL CONNECTION



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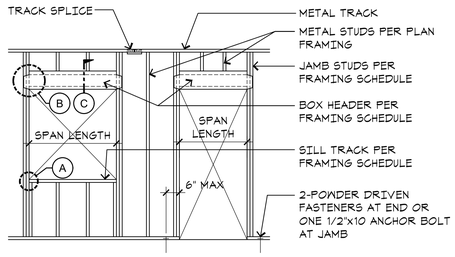
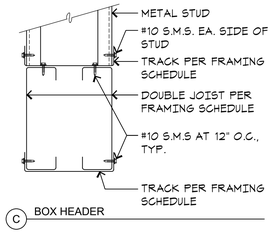


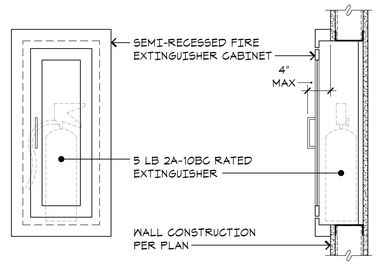


C BOX HEADER

J5 / A6.1 — SCALE: NONE

TYPICAL METAL STUD WALL FRAMING

NOTES
1. RECESS CABINET ONLY AT STEEL STUD WALL.
2. HIGHEST OPERABLE PART OF THE FIRE EXTINGUISHER CABINET OR FIRE EXTINGUISHER SHALL BE 48 INCHES MAX ABOVE THE FLOOR.



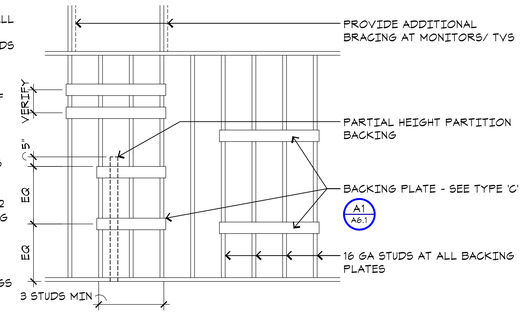
E5 / A6.1 — SCALE: NONE

FIRE EXT CABINET

STEEL STUD SPECIFICATIONS

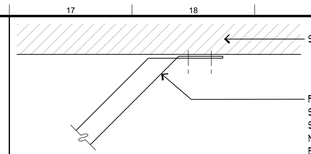
1. GENERAL
   ALL AXIAL OR WIND LOADED LIGHT GAUGE STEEL STUDS, TRACK, JOISTS, TRUSSES, BRIDGING AND RELATED ACCESSORIES ARE AS INDICATED ON THE CONTRACT DRAWINGS AND AS SPECIFIED HEREIN.
2. PRODUCTS
   ALL FRAMING MEMBERS SHALL BE MANUFACTURED AND SUPPLIED BY DEITRICH INDUSTRIES OR ARCHITECT APPROVED EQUAL AND BE OF THE TYPE AND SIZE AS SHOWN ON THE PLAN(S).
3. MATERIALS
   3.1. 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.
   3.2. 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).
   3.3. SUBSTITUTIONS
   ANY SUBSTITUTIONS MUST BE APPROVED IN WRITING TEN (10) DAYS PRIOR TO BID DATE BY ARCHITECT AND/OR ENGINEER OF RECORD.
4. EXECUTION
   4.1. SURFACE CONDITIONS
   4.1.1. 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.
   4.1.2. DISCREPANCIES: IMMEDIATELY NOTIFY THE ARCHITECT OF ALL DISCREPANCIES. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCIES UNTIL SUCH DISCREPANCY HAS BEEN FULLY RESOLVED.
   4.2. ERECTION
   ALL FRAMING SHALL BE INSTALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S LATEST PRINTED INSTRUCTIONS AND IN STRICT ACCORDANCE WITH THE APPROVED SHOP/ ARCHITECT'S DRAWINGS.
5. SECURING THE WALL
   5.1. AFTER WALL ASSEMBLY, WALLS ARE RAISED, PLUMBED AND SQUARED INTO POSITION. IN ORDER TO STABILIZE THE WALL AT INTERSECTIONS OF ABUTTING PARTITIONS, DETAIL A1/A6.1, TYPE 'A' CAN BE USED. AFTER THIS IS DONE, THE BOTTOM TRACK SHOULD BE FASTENED TO THE FLOOR AS FOLLOWS:
   5.1.1. FOR WALLS ATTACHED TO PLYWOOD DECK, USE #10 1-1/2" SCREWS AT 24" o.c.
   5.1.2. FOR WALLS ATTACHED TO CONCRETE SLAB, USE HILTI X-U32 OR SIMILAR POWDER DRIVEN FASTENERS AT 24" O.C. PENETRATION OF PINS IN SLAB SHALL NOT EXCEED 1/3 OF SLAB THICKNESS.
   5.2. WHEN JOIST ARE SET, THE TOP TRACK SHOULD BE SECURED TO BOTTOM OF JOISTS PER DETAIL A1/A6.1, TYPE 'D'.
   5.3. IF THE BOTTOM TRACK IS RUN CONTINUOUSLY ACROSS DOOR OPENINGS DURING WALL PANEL ASSEMBLY, IT CAN BE CUT OUT WITH A SAWS-ALL AT EACH JAMB.

NOTES:
1. TYPE 'D3' BACKING PLATES ARE FOR BASE CABINETS, FILM VIEWING COUNTERS, HANDRAILS, GUARDRAILS, WALL HUNG EQUIPMENT, ETC. MAXIMUM WEIGHT = 100 POUNDS / FOOT
2. SEE TYPICAL WALL FRAMING AND SPECIFICATIONS FOR SIZE, GAUGE AND SPACING OF STUDS.
3. VERIFY LENGTH, HEIGHT, LOCATION, AND NUMBER OF BACKING PLATES WITH MANUFACTURER OF ALL ITEMS BEING INSTALLED.
4. USE #12 SELF TAPPING SHEET METAL AT 18" O.C. MAXIMUM (2 MINIMUM) WHEN AT ATTACHING ITEMS TO BACKING PLATES.
5. WALL STUD FLANGES ARE CONTINUOUS.
6. WALL STUDS SHALL BE 20 GA MINIMUM EXCEPT AT OPENINGS AND BACKING PLATES WHICH SHALL BE 16 GAUGE AND AS OTHERWISE NOTED.



E13 / A6.1 — SCALE: NONE

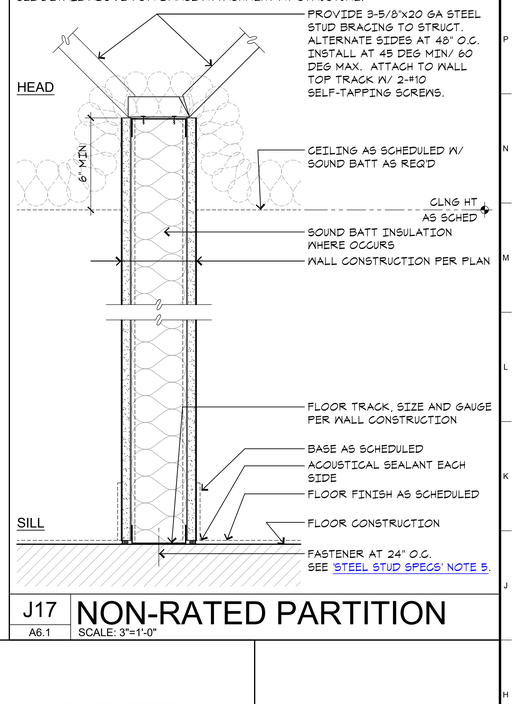
TYPICAL STEEL STUD BACKING



BRACING ATTACHMENT AT STRUCTURE

SEE DETAIL ABOVE FOR BRACE ATTACHMENT AT STRUCTURE.

HEAD



SILL

J17 / A6.1 — SCALE: 3"=1'-0"

NON-RATED PARTITION

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

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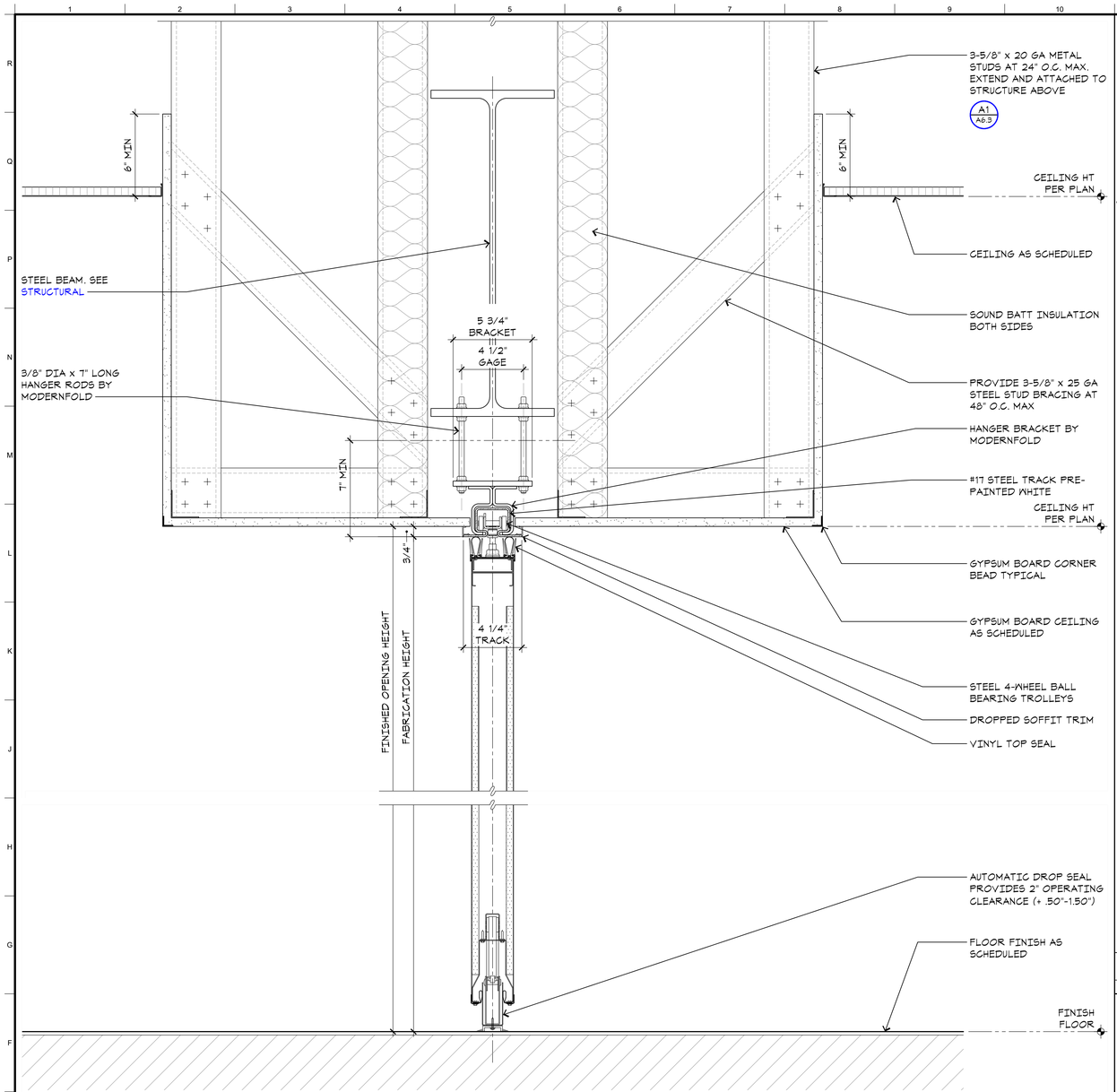
Project:
Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.02.2020
PROJECT NO: T80293 / 19003
FILE NAME: 19003_A6-1_Intr_Detl

Sheet Content:
INTERIOR DETAILS

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

Sheet No.
A6.1

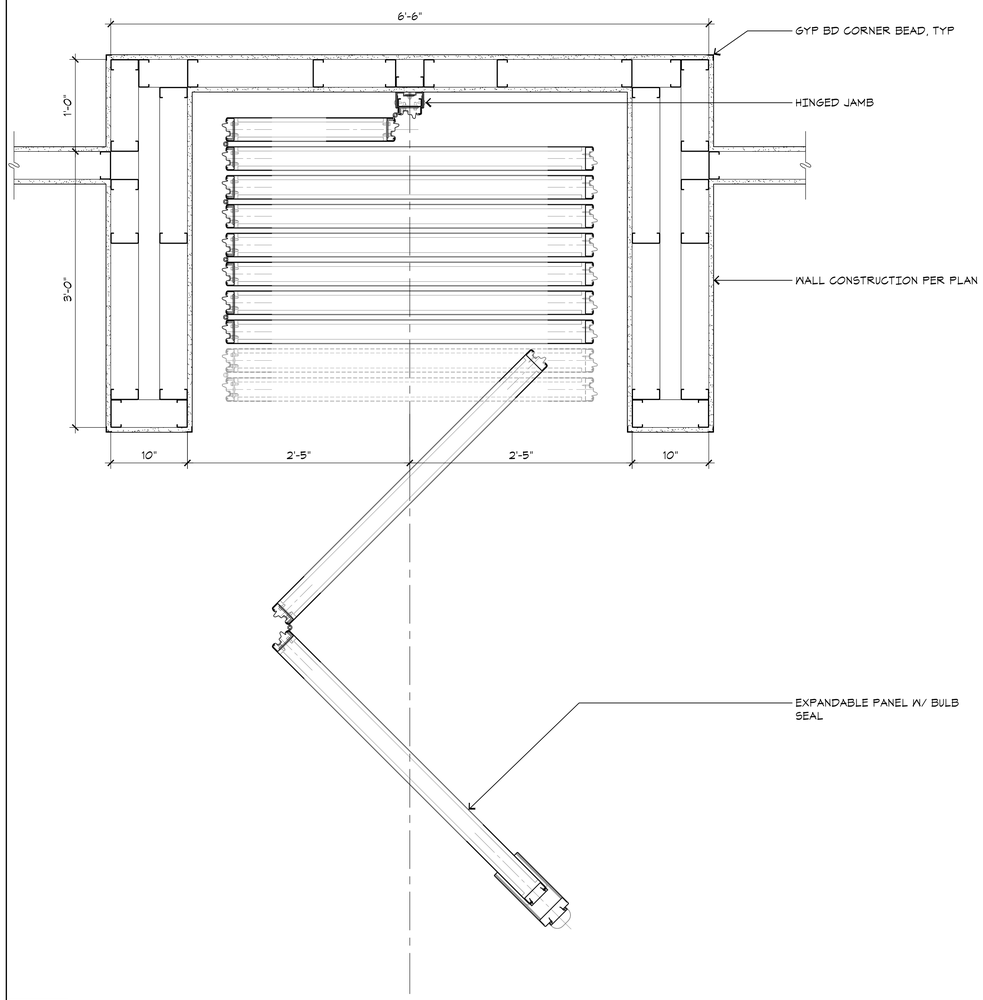
Drawn by: ----
Plot date: 06.02.2020



E1
A6.2

SECTION AT OPERABLE WALL

SCALE: 3"=1'-0"



G11
A6.2

PLAN DETAIL AT OPERABLE WALL

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

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Sheet No.

A6.2

NOTES

1. PERIMETER WALL ANGLE OR CHANNEL:
   MAIN AND CROSS RUNNERS MAY BE ATTACHED TO PERIMETER ANGLE OR CHANNEL AT TWO ADJACENT WALLS.

2. MAIN RUNNERS:
   A. INSTALL LEVEL TO WITHIN 1/8" IN 12'-0".
   B. DUTY RATING SHALL BE AS FOLLOWS:
      i. LIGHT DUTY - 5# PER LINEAR FOOT.
      ii. INTERMEDIATE DUTY - 12# PER LINEAR FOOT.
      iii. HEAVY DUTY - 16# PER LINEAR FOOT.

3. CROSS RUNNERS:
   SHOULD BE OF SAME LOAD CARRYING CAPACITY AS MAIN RUNNERS.

4. VERTICAL SUSPENSION WIRES:
   A. WIRES SHALL BE TAUT. NO KINKS OR BENDS ALLOWED.
   B. WIRES SHALL NOT PRESS AGAINST INSULATED DUCTS OR PIPES.
   C. WIRES SHALL NOT BE SMALLER THAN NO. 12 GA. SPACED 4'-0" O.C. OR NO. 10 GA. AT 5'-0" O.C. ALONG EACH MAIN RUNNER.
   D. WIRES SHALL BE ATTACHED WITH A MINIMUM OF THREE TURNS.
   E. WIRES SHALL NOT HANG MORE THAN 1:6 OUT OF PLUMB UNLESS COUNTERSLOPING WIRES ARE PROVIDED.
   F. WIRES SHALL NOT BEND AROUND INTERFERING MATERIAL OR EQUIPMENT.
   G. PERIMETER WIRES SHALL BE INSTALLED WITHIN 8" OF WALLS ON MAIN AND CROSS RUNNERS.
   H. PERIMETER WIRES MAY BE DELETED IF MAIN RUNNER IS WITHIN 12" OF WALL.

5. LATERAL FORCE BRACING:
   A. FOUR NO. 12 GA. WIRES SHALL BE SECURED TO THE MAIN RUNNER WITHIN 2" OF THE CROSS INTERSECTION AND SPLAYED 90° FROM EACH OTHER AT AN ANGLE NOT EXCEEDING 45° FROM THE PLANE OF THE CEILING.
   B. RESTRAINT POINTS SHALL BE PLACED 12'-0" O.C. IN BOTH DIRECTIONS WITH THE FIRST POINT WITHIN 6'-0" FROM EACH WALL.
   C. ROOMS EXCEEDING 12'-0" IN WIDTH REQUIRE A MINIMUM OF TWO RESTRAINTS.
   D. WIRES INSTALLED PERPENDICULAR TO TRUSSES MUST BE ATTACHED TO TOP CHORD.
   E. WIRES INSTALLED PARALLEL TO TRUSSES MAY BE ATTACHED TO BOTTOM CHORD.

6. VERTICAL STRUT BRACING
   A. STRUTS SHALL BE LOCATED AT EACH LATERAL RESTRAINT POINT.
   B. STRUTS SHALL BE INSTALLED PLUMB.
   C. STRUTS SHALL BE FASTENED TO THE MAIN RUNNER.
   D. STRUTS SHALL MEET THE SIZE REQUIREMENTS OF THE CHART BELOW UNLESS AN ALTERNATE WITH ENGINEERED CALCULATIONS IS SUBMITTED AND APPROVED.

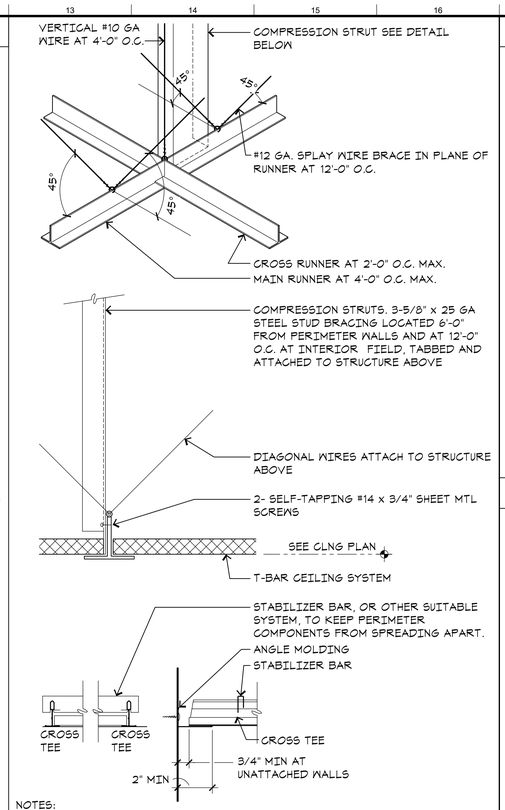
7. LIGHT FIXTURES:
   A. FIXTURES MAY BE SUPPORTED BY INTERMEDIATE AND HEAVY SYSTEMS.
   B. FIXTURES SHALL BE POSITIVELY ATTACHED TO THE SYSTEM.
   C. FIXTURES SHALL BE SUPPORTED BY NO. 12 GA. WIRES ATTACHED WITHIN 3" OF EACH CORNER WHEN "INTERMEDIATE" SYSTEM IS USED.
   D. FIXTURE WIRES SHALL MEET THE SAME INSTALLATION REQUIREMENTS AS VERTICAL SUSPENSION WIRES.
   E. FIXTURE WIRES OF MAIN AND CROSS RUNNERS OF "HEAVY" DUTY SYSTEM MAY BE OMITTED. MANUFACTURERS SPECIFICATIONS MUST BE SUBMITTED TO INSPECTOR FOR APPROVAL PRIOR TO INSTALLATION.
   F. FIXTURES WEIGHING LESS THAN 56 POUNDS SHALL HAVE TWO NO. 12 GA. HANGER WIRES CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE. THESE WIRES MAY BE SLACK.
   G. FIXTURES WEIGHING MORE THAN 56 POUNDS SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE.

8. MECHANICAL SERVICES:
   A. CEILING MOUNTED AIR TERMINALS OR SERVICES WEIGHING LESS THAN 20 POUNDS SHALL BE POSITIVELY ATTACHED TO THE MAIN RUNNER.
   B. TERMINALS OR SERVICES WEIGHING BETWEEN 20 POUNDS AND 56 POUNDS SHALL ALSO HAVE TWO NO. 12 GA. HANGER WIRES CONNECTED FROM THE TERMINAL TO THE STRUCTURE ABOVE. THESE WIRES MAY BE SLACK.

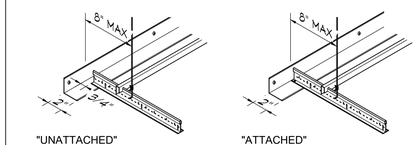
9. INSPECTION PROCEDURES:
   A. ACOUSTICAL TILES ARE NOT TO BE INSTALLED PRIOR TO ALL REQUIRED INSPECTIONS BEING APPROVED.
   B. ELECTRICAL, PLUMBING, MECHANICAL AND FIRE SPRINKLERS MUST BE APPROVED PRIOR TO CALLING FOR T-BAR INSPECTION BY BUILDING SECTION.
   C. LIGHT FIXTURES MUST BE ATTACHED TO T-BAR AT TIME OF ELECTRICAL INSPECTION.

10. SPECIFIC CODE REQUIREMENTS.
   A. NEW T-BAR CEILING INSTALLATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE 2016 CBC, SECTIONS 808, 1613 AND ASCE7-10, SECTION 13.5.6.
   B. SEISMIC DESIGN CATEGORIES D THROUGH F.
   C. SUSPENDED CEILINGS IN SEISMIC DESIGN CATEGORIES D THROUGH F SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH ASTM C635, ASTM C636, ASTM E580, AND THE CISCA FOR SEISMIC ZONES 3-4 AS MODIFIED BY THE FOLLOWING:
      i. A HEAVY DUTY T-BAR GRID SYSTEM SHALL BE USED.
      ii. PER ASCE 7-10 13.5.6.2.2a, THE WIDTH OF THE PERIMETER SUPPORTING CLOSURE ANGLE OR CHANNEL SHALL BE NOT LESS THAN 2 INCHES. WHERE PERIMETER SUPPORTING CLIPS ARE USED, THEY SHALL BE QUALIFIED IN ACCORDANCE WITH APPROVED TEST CRITERIA. IN EACH ORTHOGONAL HORIZONTAL DIRECTION, ONE END OF THE CEILING GRID SHALL BE ATTACHED TO THE CLOSURE ANGLE OR CHANNEL. THE OTHER END IN EACH HORIZONTAL DIRECTION SHALL HAVE A 0.75 INCH CLEARANCE FROM THE WALL AND SHALL REST UPON AND BE FREE TO SLIDE ON A CLOSURE ANGLE OR CHANNEL.
      iii. PER ASCE 7-10 13.5.6.2.2b, FOR CEILING AREAS EXCEEDING 2,500 SF, A SEISMIC SEPARATION JOINT OR FULL HEIGHT PARTITION THAT BREAKS THE CEILING UP INTO AREAS NOT EXCEEDING 2,500 SF, EACH WITH A RATIO OF THE LONG TO SHORT DIMENSION LESS THAN OR EQUAL TO 4, SHALL BE PROVIDED UNLESS STRUCTURAL ANALYSES ARE PERFORMED OF THE CEILING BRACING SYSTEM FOR THE PRESCRIBED SEISMIC FORCES THAT DEMONSTRATE CEILING PENETRATIONS AND CLOSURE ANGLES OR CHANNELS PROVIDE SUFFICIENT CLEARANCE TO ACCOMMODATE THE ANTICIPATED LATERAL DISPLACEMENT. EACH AREA SHALL BE PROVIDED WITH CLOSURE ANGLES OR CHANNELS IN ACCORDANCE WITH SECTION 13.5.6.2.2a AND HORIZONTAL RESTRAINTS OR BRACING.
      iv. FOR CEILING AREAS EXCEEDING 1,000 SF, PROVIDE LATERAL FORCE BRACING PER ASTM E580, SECTION 5.2.8.
      v. PER ASTM E580 5.2.8.4, RIGID BRACES THAT HAVE BEEN DESIGNED TO LIMIT RELATIVE LATERAL DEFLECTIONS AT THE POINT OF ATTACHMENT OF THE CEILING GRID TO LESS THAN 0.25 IN. ARE PERMITTED TO BE USED IN THE PLACE OF DIAGONAL SPLAY WIRES.
      vi. PER ASTM E580 5.2.8.5, EXCEPT WHERE RIGID BRACING IS USED OR SUBSTANTIATING DESIGN CALCULATIONS HAVE SHOWN THAT LATERAL DEFLECTIONS ARE LIMITED TO LESS THAN 0.25 IN., SPRINKLER HEADS AND OTHER PENETRATIONS SHALL HAVE A 2-IN. OVERSIZE RING, SLEEVE OR ADAPTER THROUGH THE CEILING TILE TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1 IN. IN ALL HORIZONTAL DIRECTIONS. ALTERNATIVELY, A FLEXIBLE SPRINKLER HOSE FITTING THAT CAN ACCOMMODATE 1 IN. OF CEILING MOVEMENT SHALL BE PERMITTED TO BE USED WITHOUT THE OVERSIZED RING, SLEEVE OR ADAPTER.
      vii. PER ASTM E580 5.2.8.6, CHANGES IN CEILING PLANE ELEVATION SHALL HAVE INDEPENDENT POSITIVE BRACING.
      viii. PER ASTM E580 5.2.8.7, CABLE TRAYS & ELECTRICAL CONDUITS SHALL BE SUPPORTED AND BRACED INDEPENDENTLY OF THE CEILING.

E1 A6.3 **SOFFIT** SCALE: 3"=1'-0"



NOTES:
1. THIS DETAIL SHALL APPLY IN SEISMIC DESIGN CATEGORY D.
2. ALL NEW T-BAR CEILING CONSTRUCTION SHALL COMPLY WITH ASCE 7-10 SECTION 13.5.6.2.2.



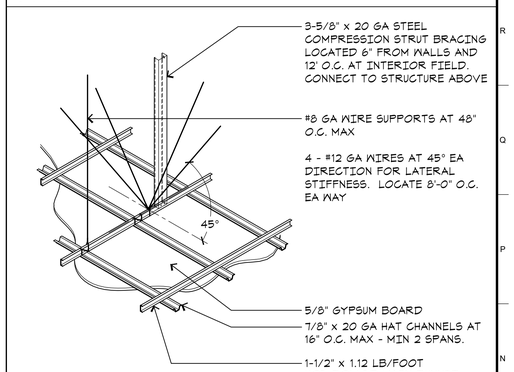
NOTES:
1. THIS DETAIL SHALL APPLY IN SEISMIC DESIGN CATEGORY D.
2. ALL NEW T-BAR CEILING CONSTRUCTION SHALL COMPLY WITH ASCE 7-10 SECTION 13.5.6.2.2.

MAXIMUM RECOMMENDED LENGTHS FOR VERTICAL STRUTS

EMT CONDUIT	
1/2" EMT CONDUIT	UP TO 6'-0"
3/4" EMT CONDUIT	UP TO 8'-6"
1" EMT CONDUIT	UP TO 10'-0"
METAL STUD	
1 5/8" METAL STUD (25 GA)	UP TO 6'-2"
2 1/2" METAL STUD (25 GA)	UP TO 10'-6"

E5 A6.3 **TYPICAL SUSPENDED CEILING DETAILS** SCALE: NONE

TYPE 1



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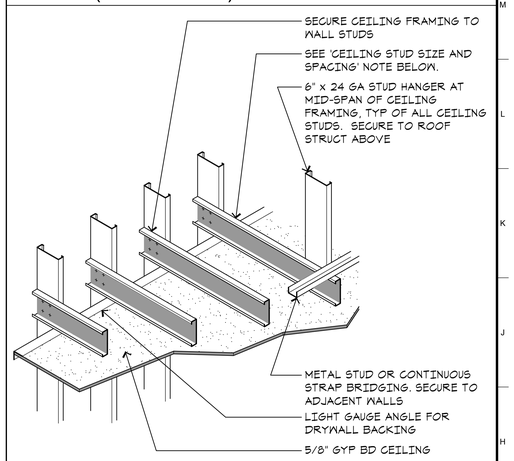
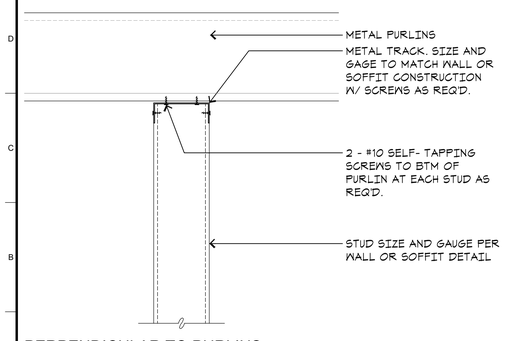
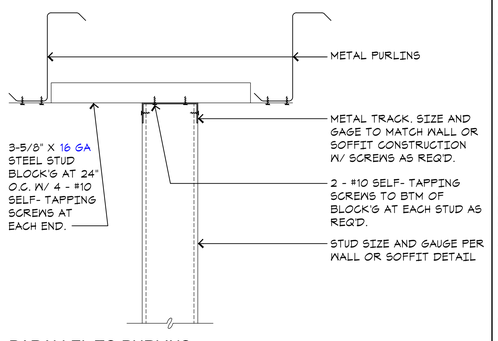


CEILING STUD SIZE AND SPACING:
1. USE 3-5/8"x20GA C-STUDS AT 24" O.C. MAX FOR SPANS UP TO 6'-0".
2. USE 6"x20GA C-STUDS AT 24" O.C. MAX FOR SPANS UP TO 10'-0".
3. USE 6"x20GA C-STUDS AT 16" O.C. FOR SPANS UP TO 12'-0".
4. USE 600S162-33 CEILING JOISTS AT 16" O.C. MAX SPACING WITH MID-SPAN FULL DEPTH BLOCKING FOR SPANS UP 20'-0".

G17 A6.3 **GYPSUM BOARD CEILING** SCALE: NONE

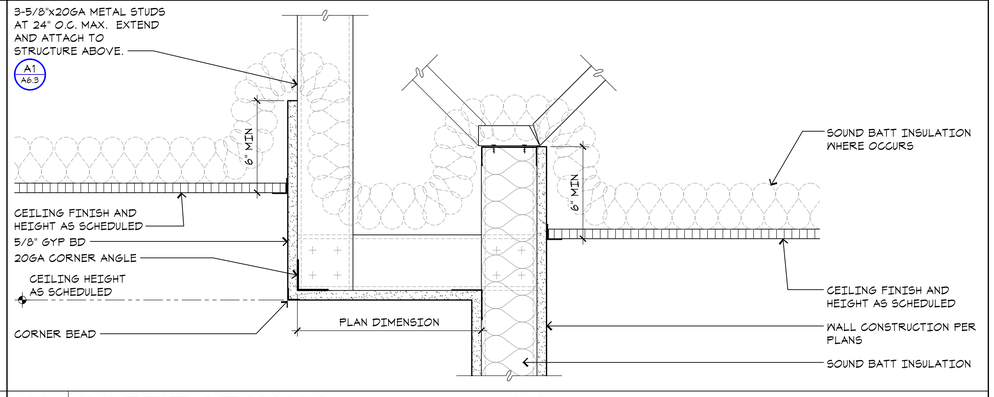


PERPENDICULAR TO PURLINS



PARALLEL TO PURLINS

A1 A6.3 **STUD ATTACHMENT TO STRUCTURE ABOVE** SCALE: 3"=1'-0"



A9 A6.3 **SOFFIT AT WALL** SCALE: 3"=1'-0"

A13 A6.3

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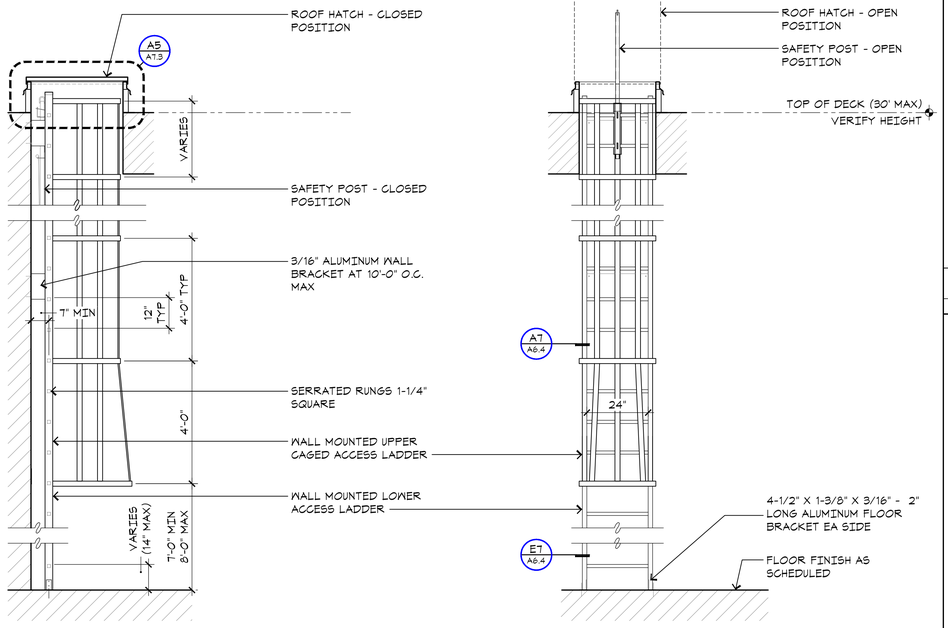
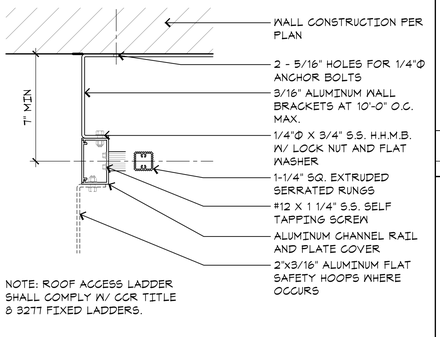
Plot date: 06.02.2020



J3 ROOF ACCESS LADDER

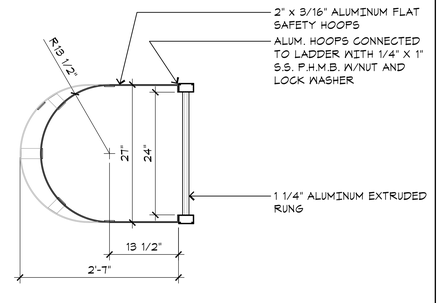
A6.4 SCALE: 3/4"=1'-0"



NOTE: ROOF ACCESS LADDER SHALL COMPLY W/ CCR TITLE 8 3277 FIXED LADDERS.

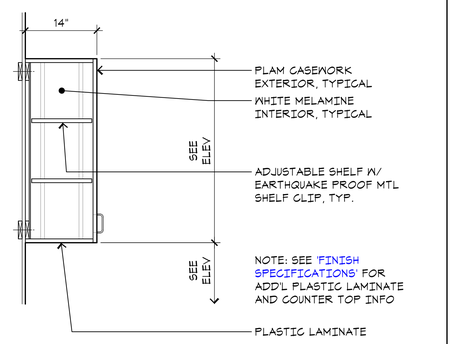
E7 DETL AT ACCESS LADDER

A6.4 SCALE: 3"=1'-0"



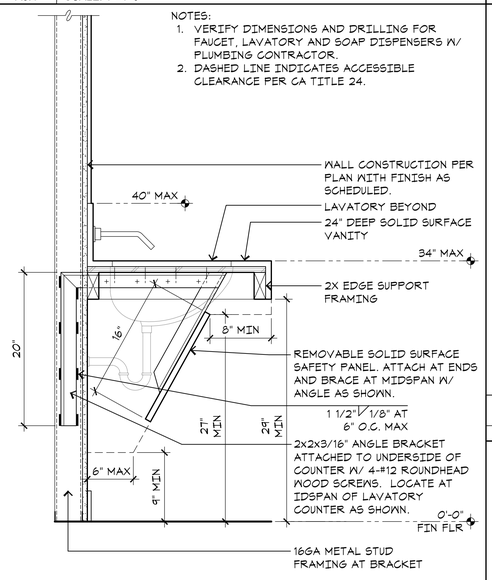
A7 LADDER SAFETY CAGE

A6.4 SCALE: 1"=1'-0"



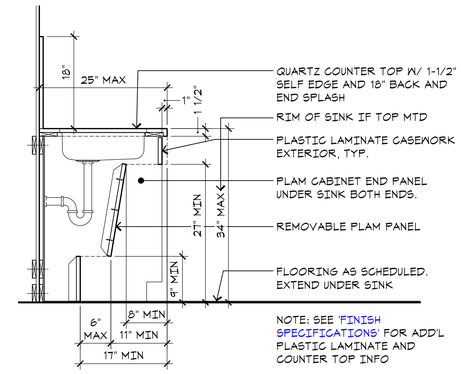
N11 UPPER CABINET DETAIL

A6.4 SCALE: 1"=1'-0"



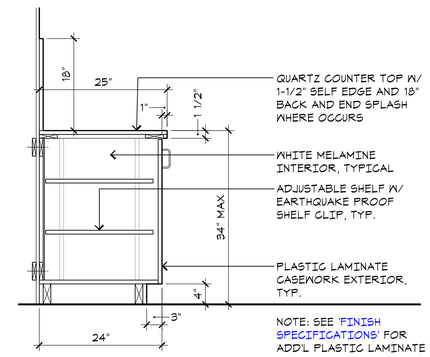
G11 SECTION AT VANITY

A6.4 SCALE: 1-1/2"=1'-0"



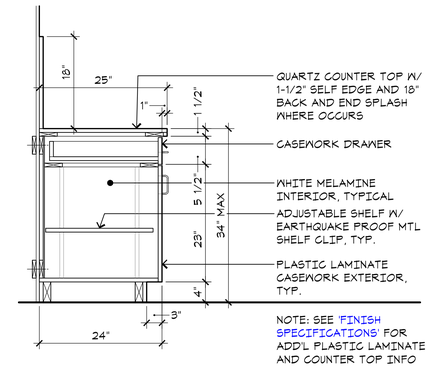
N15 ACC BASE CABINET DETL

A6.4 SCALE: 1"=1'-0"



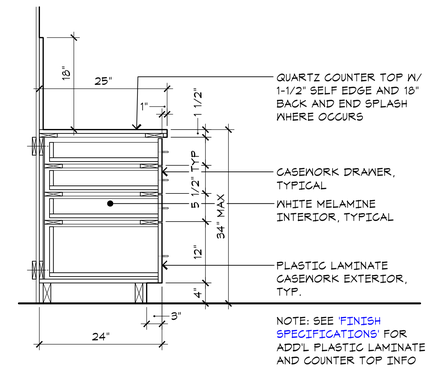
J15 BASE CABINET DETAIL

A6.4 SCALE: 1"=1'-0"



E15 BASE CABINET DETAIL

A6.4 SCALE: 1"=1'-0"



A15 BASE CABINET DETAIL

A6.4 SCALE: 1"=1'-0"

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A6.4

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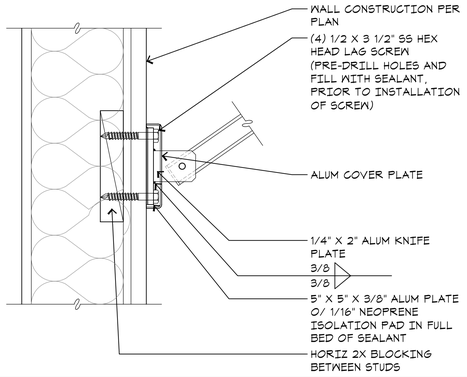
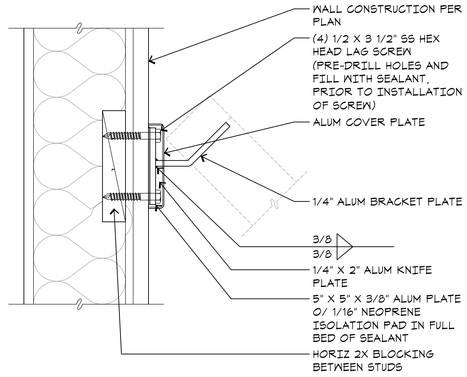


N1 A7.1 **ALUMINUM SUNSHADE DETAIL**
SCALE: 3"=1'-0"



N6 A7.1 **ALUMINUM SUNSHADE DETAIL**
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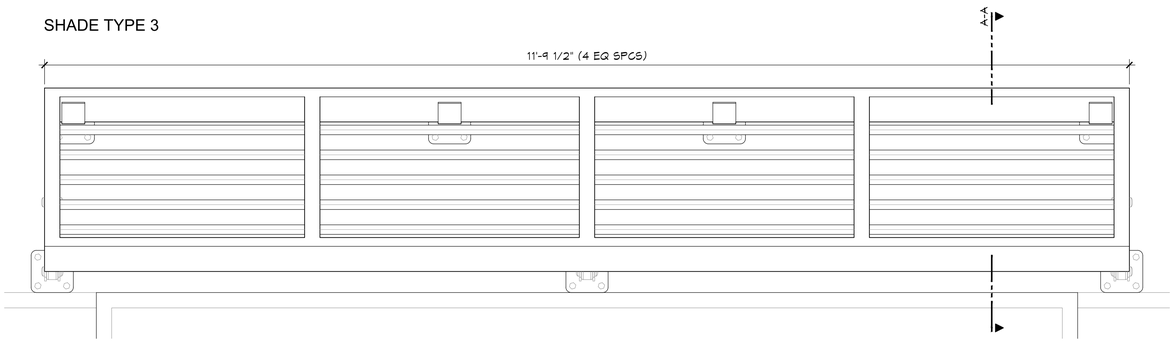
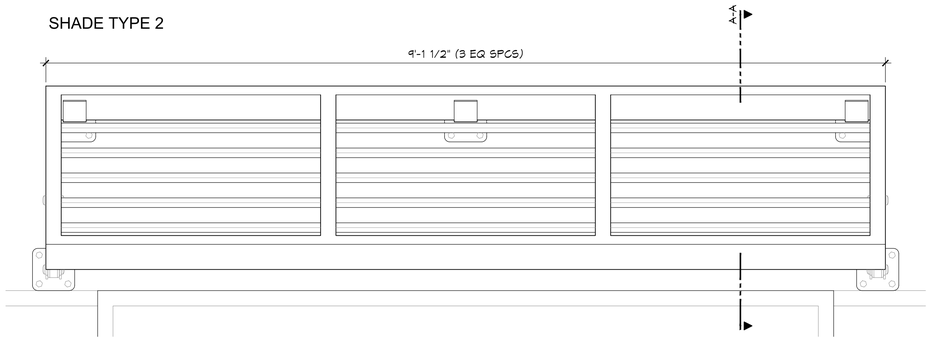
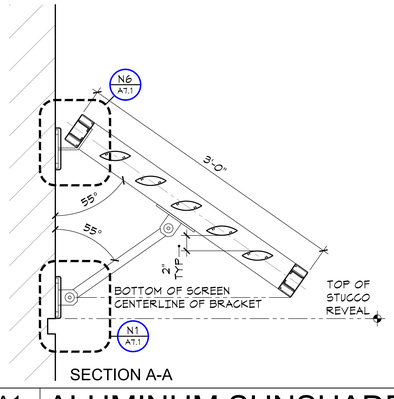
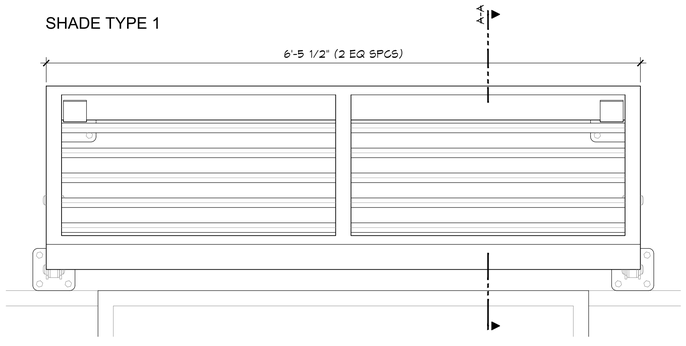


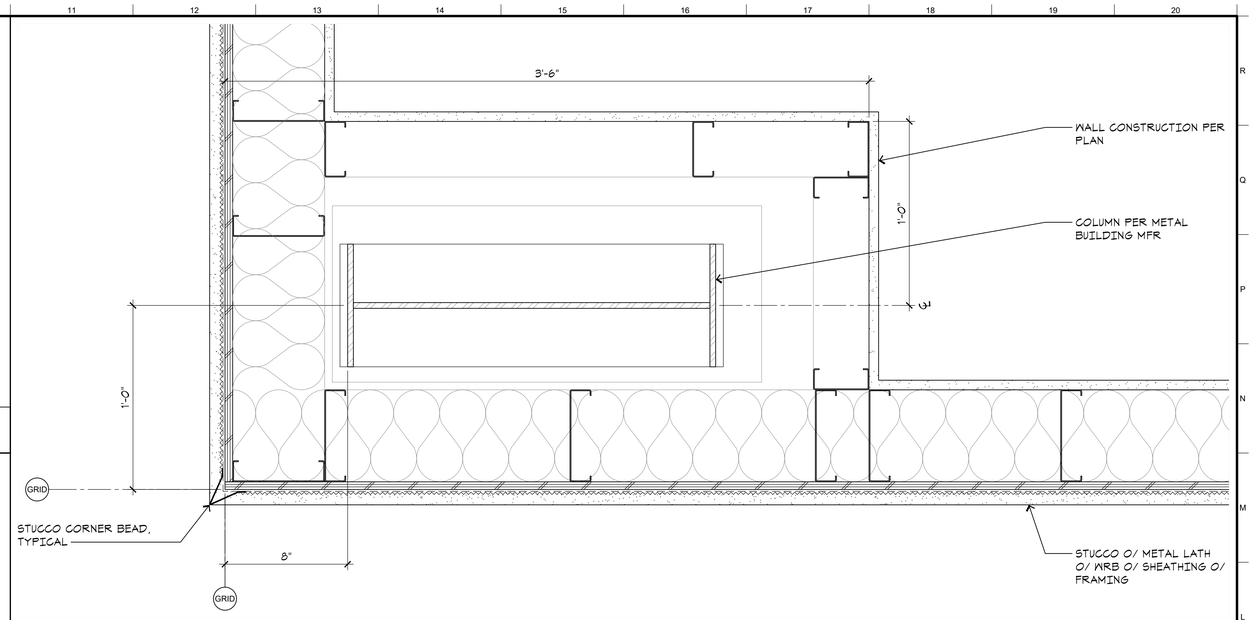




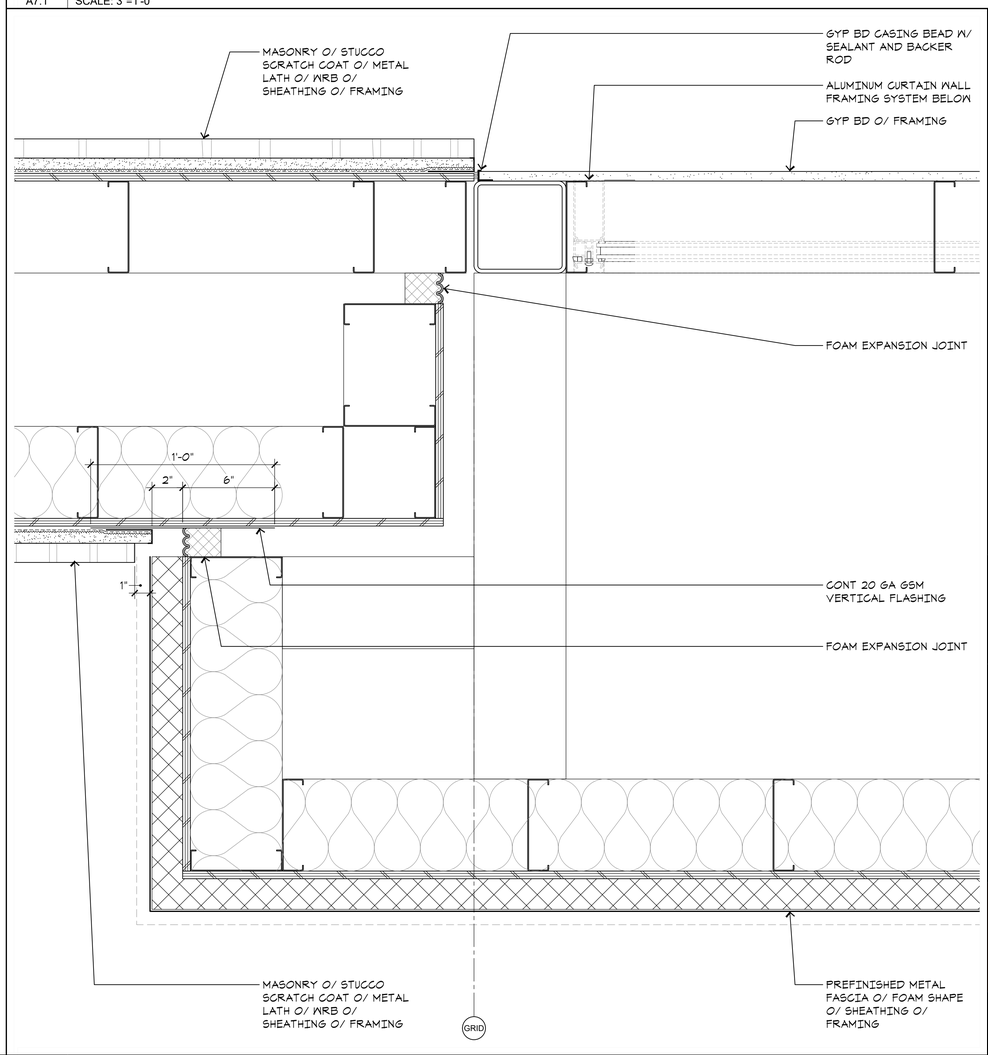
SECTION A-A



A1 A7.1 **ALUMINUM SUNSHADE**
SCALE: 1-1/2"=1'-0"



L11 A7.1 **PLAN DETAIL**
SCALE: 3"=1'-0"



A11 A7.1 **PLAN DETAIL**
SCALE: 3"=1'-0"

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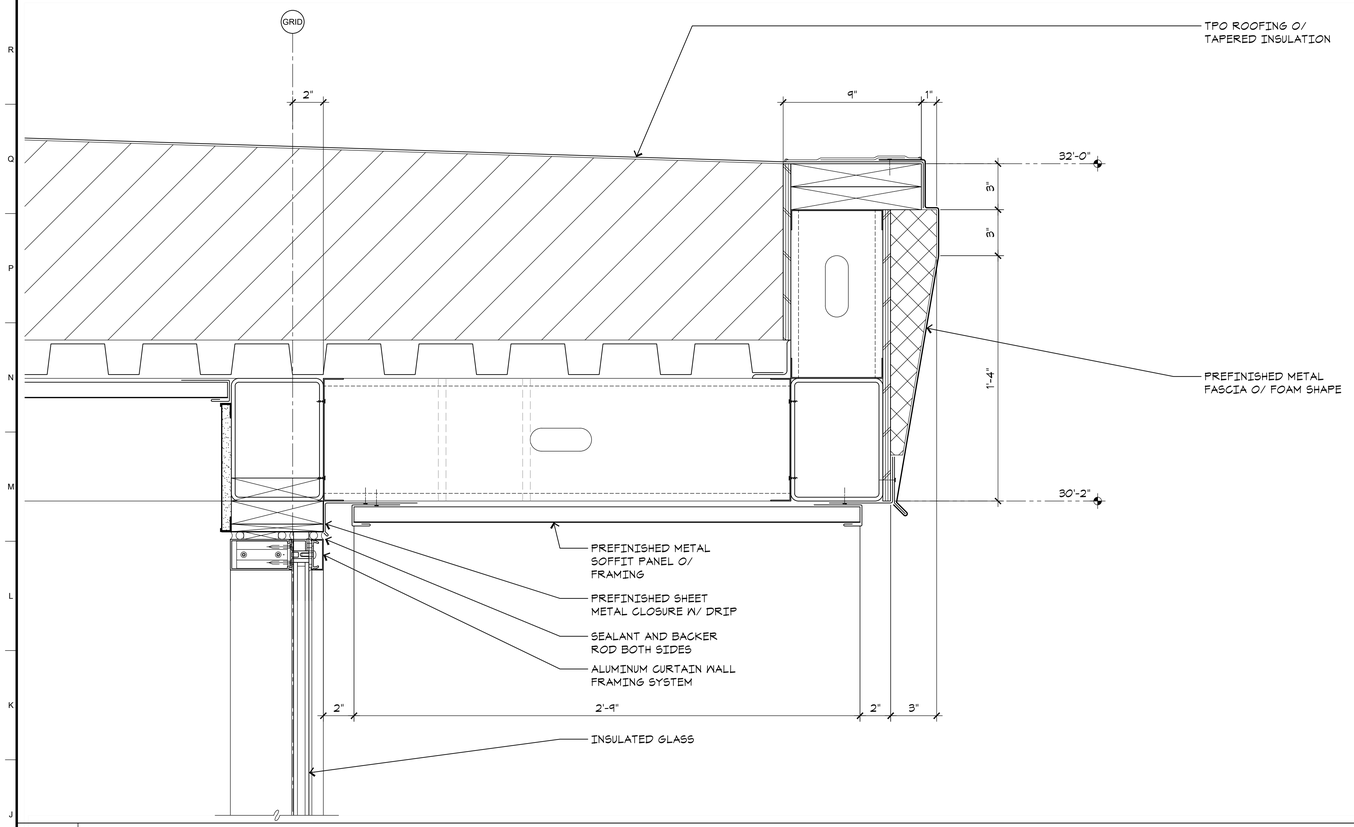
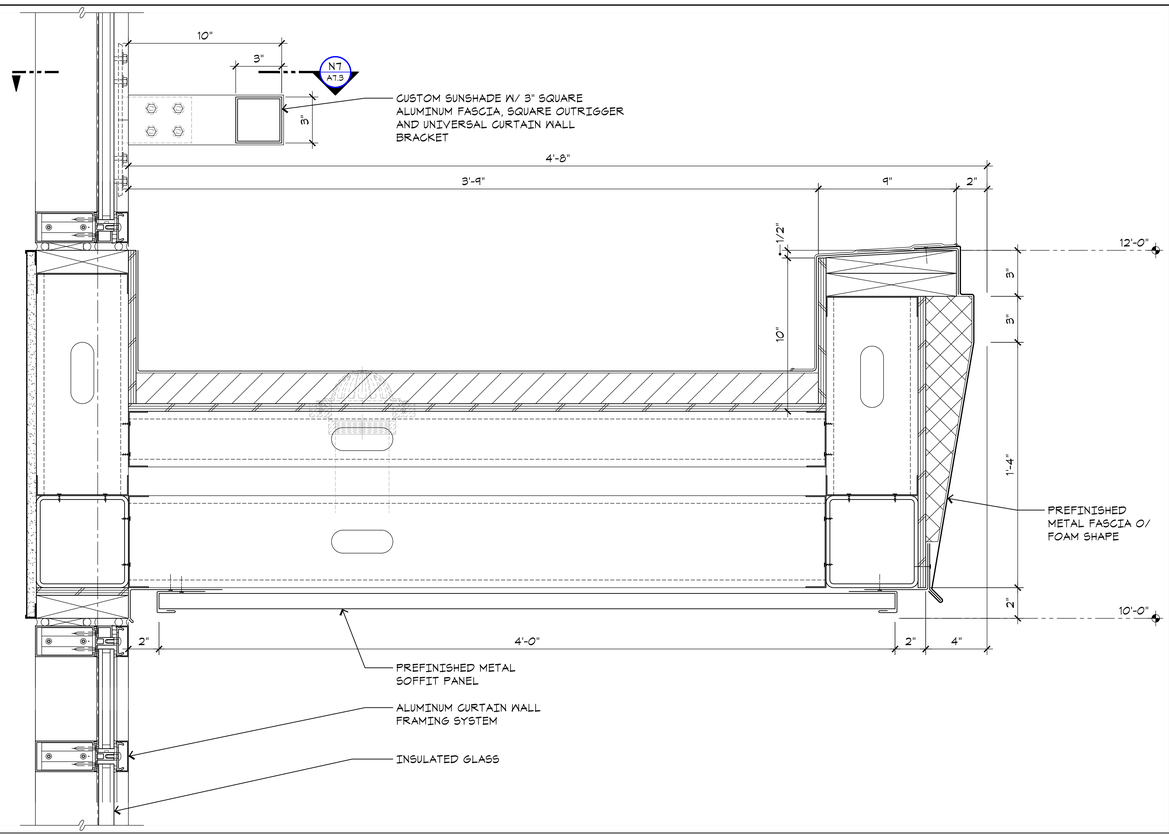
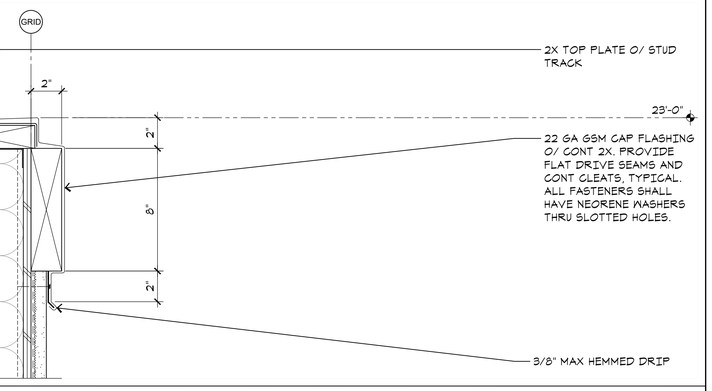


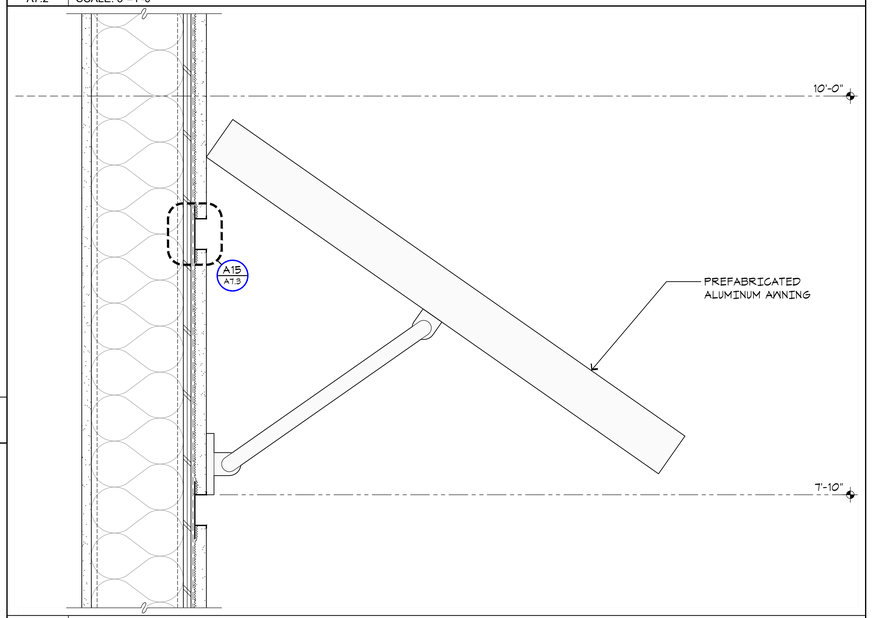
J1 A7.2 **VERTICAL DETAIL**
SCALE: 3"=1'-0"



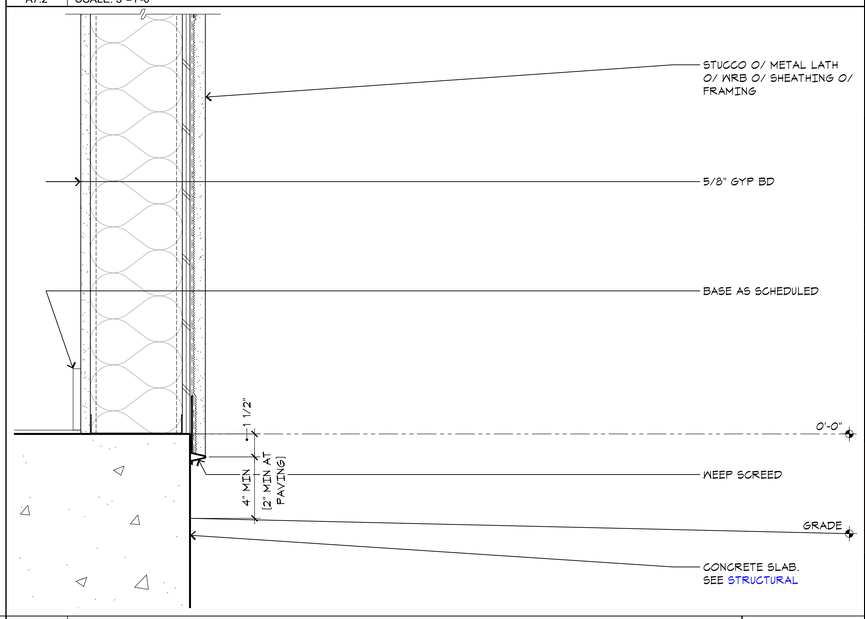
A1 A7.2 **VERTICAL DETAIL**
SCALE: 3"=1'-0"



N10 A7.2 **DETAIL**
SCALE: 3"=1'-0"



G10 A7.2 **DETAIL**
SCALE: 3"=1'-0"



A10 A7.2 **DETAIL**
SCALE: 3"=1'-0"

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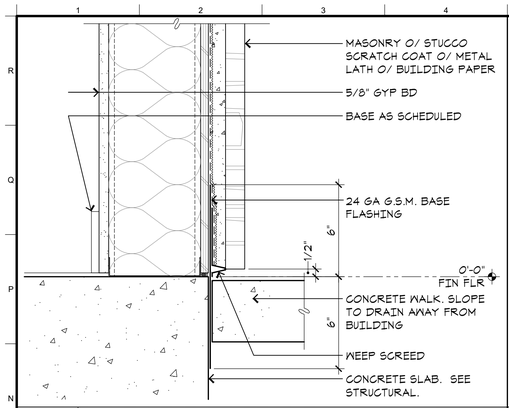
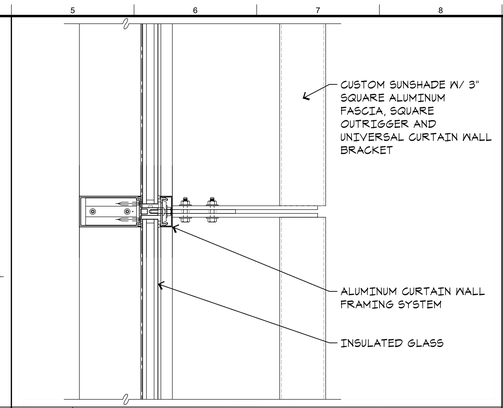
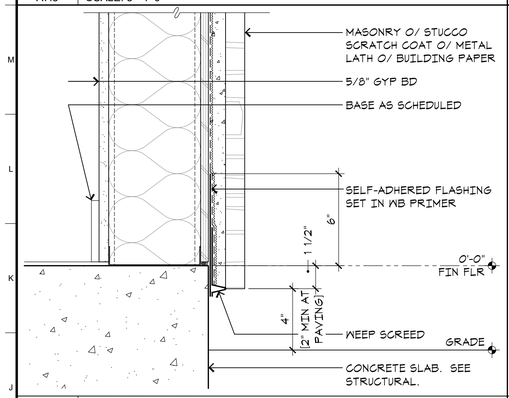


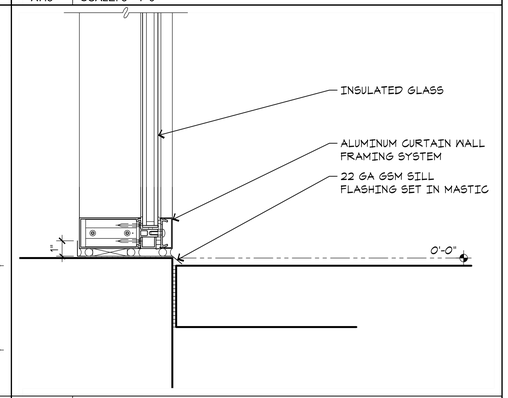
N1 A7.3 **DETAIL AT FOOTING** SCALE: 3"=1'-0"



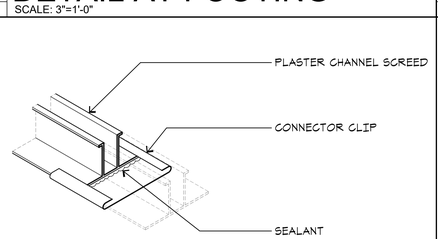
N5 A7.3 **PLAN DETAIL** SCALE: 3"=1'-0"



J1 A7.3 **DETAIL AT FOOTING** SCALE: 3"=1'-0"

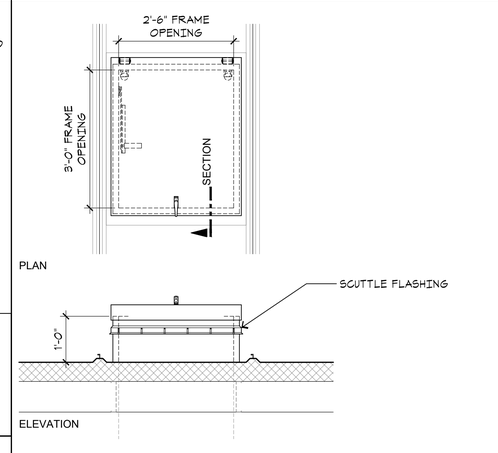


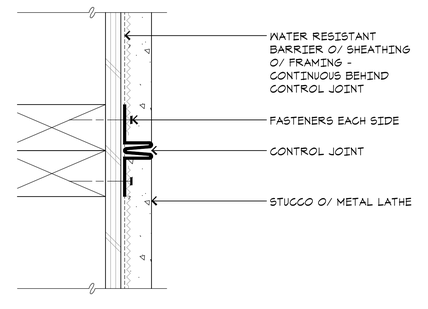
J5 A7.3 **VERTICAL DETAIL** SCALE: 3"=1'-0"



1. THE USE OF SEALANT AT ALL BUTT JOINTS AND CONNECTOR CLIPS IS REQUIRED.
2. USE CONNECTOR CLIPS TO ALIGN MOLDING DURING INSTALLATION.
3. APPLY SEALANT AS INDICATED.

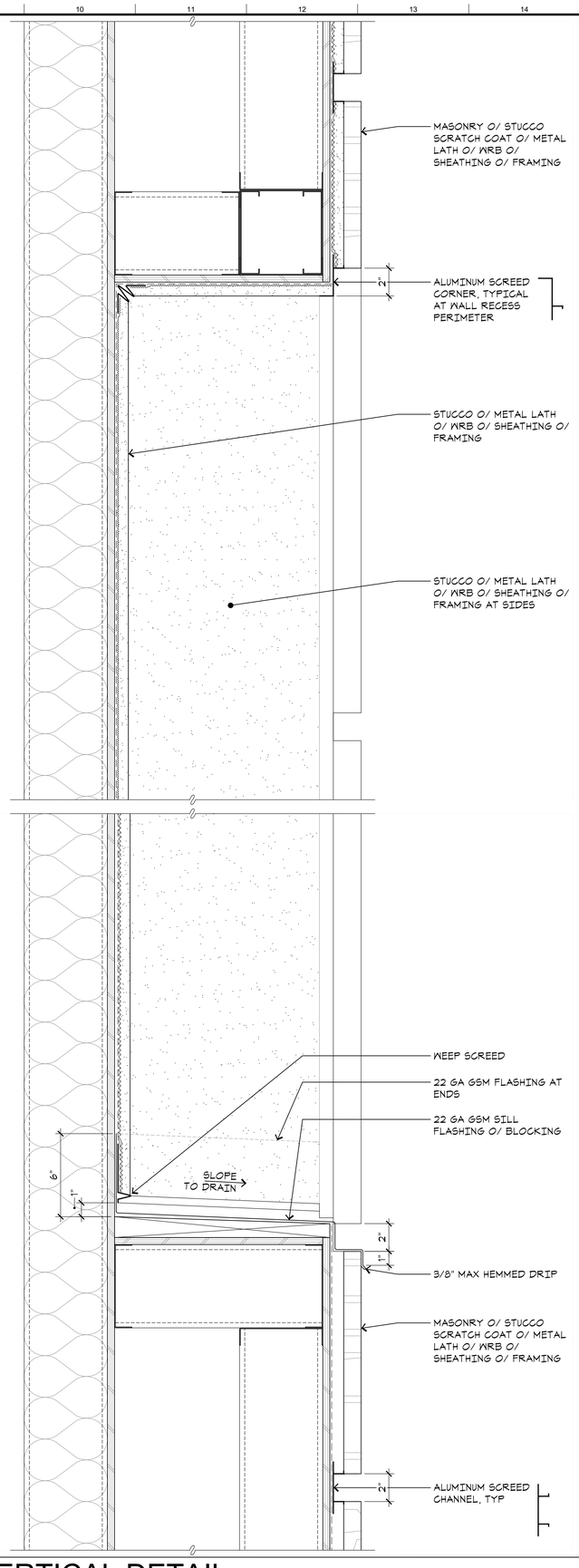
E1 A7.3 **DETAIL AT CHANNEL SCREED CONNECTOR CLIP** SCALE: NONE



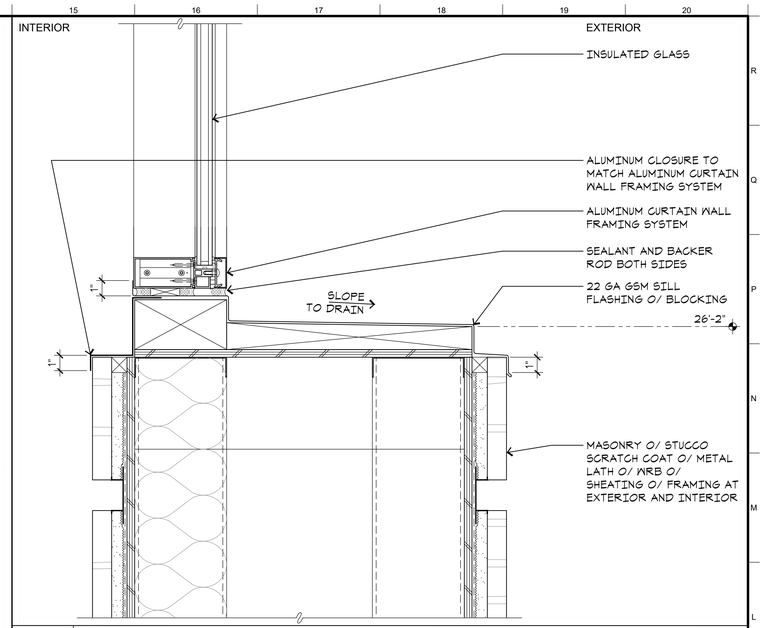


A1 A7.3 **STUCCO CONTROL JOINT** SCALE: 6"=1'-0"

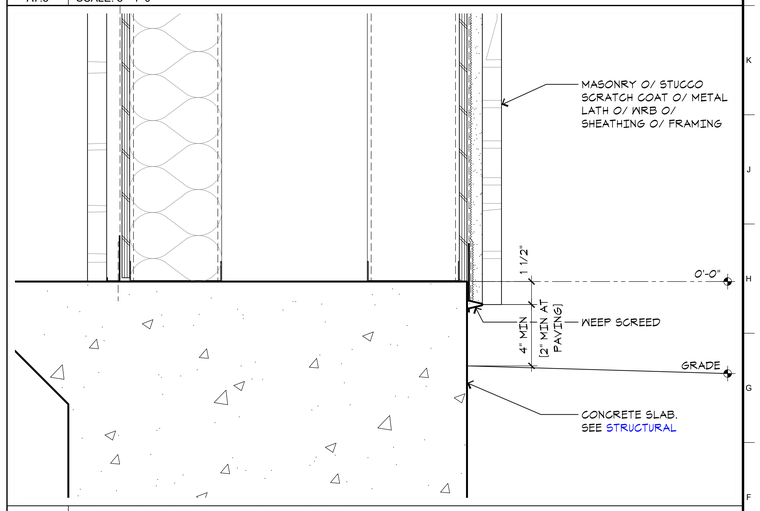
A5 A7.3 **ROOF HATCH** SCALE: 3/4"=1'-0"



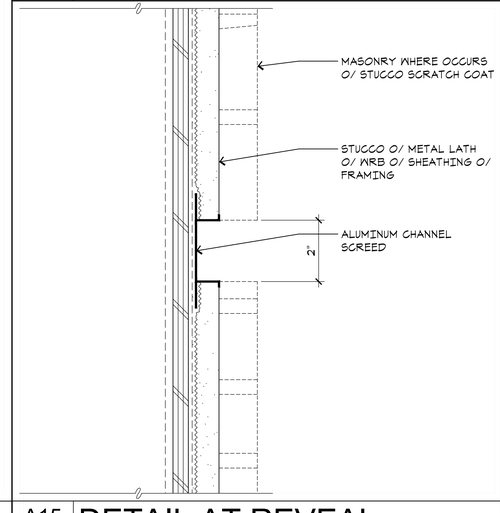
N7 A7.3 **VERTICAL DETAIL** SCALE: 3"=1'-0"



L15 A7.3 **VERTICAL DETAIL** SCALE: 3"=1'-0"



F15 A7.3 **VERTICAL DETAIL** SCALE: 3"=1'-0"



A15 A7.3 **DETAIL AT REVEAL** SCALE: 6"=1'-0"

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Sheet No.
A7.3

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A1 FURNITURE PLAN

A8.1

0 1' 8' 16' 24'

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

FOR REFERENCE ONLY.
NOT FOR CONSTRUCTION.

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FURNITURE PLAN (FOR REFERENCE ONLY)

Fresno County Department of Public Works and Planning
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Sheet No.

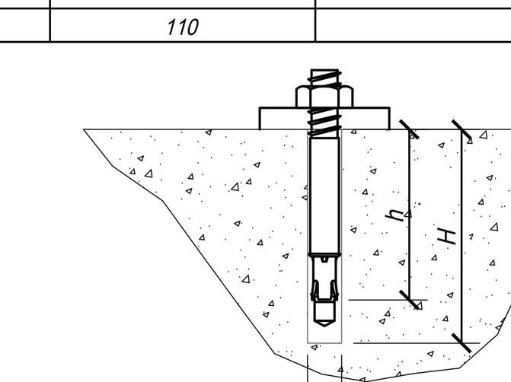
A8.1

Drawn by: ----

Plot date: 06.02.2020

9. POST-INSTALLED WEDGE-TYPE ANCHORS IN CONCRETE AND MASONRY

POST-INSTALLED WEDGE-TYPE ANCHORS			
ANCHOR DIAMETER (in.)	INSTALLATION TORQUE (ft-lb.)		
	HILTI KB-TZ ICC ESR-1917	SIMPSON STRONG-BOLT ICC ESR-1771	HILTI KB-3 ICC ESR-1385
	CONCRETE	CONCRETE	MASONRY
$\frac{1}{4}$	- NOT USED -	- NOT USED -	4
$\frac{3}{8}$	25	- NOT USED -	15
$\frac{1}{2}$	40	50	25
$\frac{5}{8}$	60	85	65
$\frac{3}{4}$	110	180	120



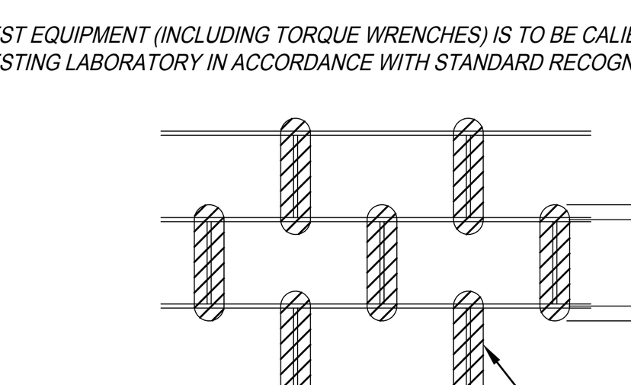
h = EFFECTIVE DEPTH OF ANCHORS AS INDICATED ON DRAWINGS

H = DEPTH OF DRILLED HOLE PER ICC REPORT

d = HOLE DIAMETER = ANCHOR DIAMETER

NOTES

1. TORQUE TEST PROCEDURES ARE FOR HILTI KB-TZ WEDGE-ANCHORS INSTALLED IN ACCORDANCE WITH ICC-ESR-1917 AND SIMPSON STRONG-BOLT WEDGE-ANCHORS INSTALLED IN ACCORDANCE WITH ICC-ESR-1771 AND HILTI KB-3 WEDGE-ANCHORS INSTALLED IN ACCORDANCE WITH ICC ESR-1385.
2. ALL ANCHORS SHALL BE TORQUE TESTED. IOR OBSERVATION OF INSTALLATION TORQUE SHALL BE CONSIDERED ACCEPTABLE TESTING.
3. THE TORQUE TESTING OF WEDGE ANCHORS SHALL BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR (IOR) OR A "SPECIAL INSPECTOR" MAY PERFORM THIS TEST. A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY AND THE ARCHITECT. IF ANY ANCHOR FAILS THE TESTING REQUIREMENTS, THAT ANCHOR SHALL BE REPLACED BY ANOTHER ANCHOR PER ENGINEER'S DIRECTIVE.
4. ANCHOR DIAMETER REFERS TO THE THREAD SIZE.
5. TEST EQUIPMENT (INCLUDING TORQUE WRENCHES) IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.



ANCHOR INSTALLATION IN CMU WALL

8. ADDITIONAL SPECIAL INSPECTION ITEMS

SOILS PER CBC TABLE 1705A.6		
TASK	CONTINUOUS	PERIODIC
VERIFY MATERIAL BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUB-GRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		X

CONCRETE PER CBC TABLE 1705A.3		
TASK	CONTINUOUS	PERIODIC
1. INSPECT PLACEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT		X
2. REINFORCING BAR WELDING:		
A) VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706		X
B) INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"		X
C) INSPECT ALL OTHER WELDS	X	
3. INSPECT ANCHORS CAST IN CONCRETE		X
4. INSPECT ANCHORS POST INSTALLED IN HARDENED CONCRETE MEMBERS		
A) ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLYINCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	
B) MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.		X
5. VERIFY USE OF REQUIRED DESIGN MIX.		X
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATIONS	X	
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
9. INSPECT PRESTRESSED CONCRETE FOR:		
A) APPLICATION OF PRESTRESSING FORCES	X	
B) GROUTING OF BONDED PRESTRESSING TENDONS	X	
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS		X
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

6. LIGHT-GAUGE STEEL FRAMING

1. DESIGN OF LIGHT-GAUGE STEEL HAS BEEN BASED ON THE 2016 CBC, CHAPTER 2211A. ALL WORK SHALL CONFORM TO THE CALIFORNIA BUILDING CODE AND THE AISI NAS.
2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS.
3. DETAILS SHOWN ON STRUCTURAL DRAWINGS ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS.
4. DIMENSIONS SHOWN SHALL TAKE PRECEDENCE OVER SCALE ON PLANS, SECTIONS, AND DETAILS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE OF THE PROJECT IMMEDIATELY.
5. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FLOOR OR ROOF FRAMING MEMBERS. LOAD SHALL NOT EXCEED DESIGN LIVE LOAD.
6. ALL STUD, JOIST AND MISCELLANEOUS MATERIAL SHALL HAVE STIFFENED FLANGES WITH 90° RETURNS AND SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST AISI SPECIFICATION. MATERIAL SHALL CONFORM TO THE FOLLOWING:

MATERIAL STRENGTH:

16 GAUGE AND HEAVIER - 50 KSI MIN. YIELD
ASTM A653 SS CASE 1 OR 3 (GALV.)
18 GAUGE AND LIGHTER - 33 KSI MIN. YIELD
ASTM A653 SS (GALV.)

MATERIAL DESIGN THICKNESS:

12 GA. = .1017" 18 GA. = .0451"
14 GA. = .0713" 20 GA. = .0346"
16 GA. = .0566"

FASTENERS: ASTM C1315 (SCREWS SHALL EXTEND THRU STEEL CONNECTION A MIN. OF 3 EXPOSED THREADS.

METAL-TO-METAL: SELF TAPPING SHEET METAL SCREWS.

METAL-TO-METAL SCREW SIZE	NOMINAL DIAMETER
#8	.161"
#10	.183"
#12	.209"

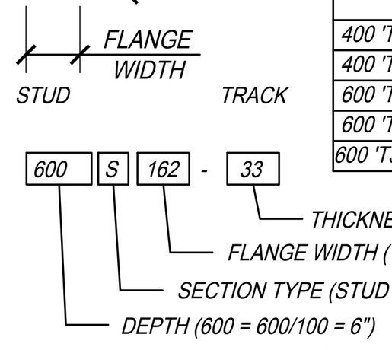
WOOD-TO-METAL: SELF-TAPPING SHEET METAL SCREW WITH BUGLE HEAD DESIGNED FOR ATTACHMENT OF WOOD TO METAL.

WOOD-TO-METAL SCREW SIZE	NOMINAL DIAMETER
#8	.161"
#10	.183"
#12	.209"

METAL-TO-WOOD: WOOD SCREW WITH FLUSH BEARING OF HEAD TO METAL SURFACE. PRE-DRILL METAL SURFACE WITH HOLES EQUAL TO SCREW DIAMETER.

METAL-TO-WOOD SCREW SIZE	NOMINAL DIAMETER
#8	.164"
#10	.190"
#12	.216"
#14	.242"

7. WIRE TYING OF FRAMING IS NOT ALLOWED.
8. ALL COMPONENTS SHALL BE CUT SQUARELY OR AS REQUIRED FOR AN ANGULAR FIT TO RECEIVING MEMBERS. BENT, DISTORTED OR OTHERWISE DAMAGED COMPONENTS SHALL NOT BE USED.
9. ALL JOIST MEMBERS SHALL BE UN-PUNCHED UNLESS OTHERWISE INDICATED. BEARING AND NON-BEARING PARTITION WALL STUDS MAY BE PUNCHED.
10. LATERAL STRAP/BRACING FOR WALL STUDS SHALL BE APPLIED TO BOTH SIDES OF WALL AT 8'-0" VERTICAL SPACING FOR WALLS EXCEEDING 8'-0" IN HEIGHT AND WHERE INDICATED OTHERWISE ON THE DRAWINGS. INSTALL STRAP BRACING @ 24"oc VERT. SPACING WHERE WALL FINISH DOES NOT OCCUR. (SEE DETAIL TMET15)
11. AXIALLY LOADED STUDS SHALL HAVE FULL BEARING AGAINST INSIDE TRACK WEB PRIOR TO STUD AND TRACK ATTACHMENT. SPLICES IN STUDS SHALL NOT BE PERMITTED.
12. STUD WALLS SHALL BE BOLTED TO THE SLAB WITH ANCHOR BOLTS AS DETAILED. SHOT PINS AND EXPANSION ANCHORS ARE NOT ALLOWED AT CURBS. SHOT PINS ARE NOT ALLOWED AT SLAB EDGES. INTERIOR WALLS MAY BE ATTACHED WITH 0.177" DIAMETER x 1½" POWDER DRIVEN FASTENERS AT 24" o.c. UNLESS NOTED OTHERWISE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY BRACING OF WALLS, DURING ERECTION.
17. BOTTOM SILL TRACK AT CURVED WALLS (IF THEY OCCUR ON THIS PROJECT) SHALL BE COLD FORMED TO REQUIRED RADIUS. CUTTING OFF FLANGE AND WEB SECTIONS IS NOT ALLOWED FOR PURPOSES OF BENDING SECTION TO REQUIRED RADIUS.
18. MANUFACTURER SHALL BE A MEMBER OF THE SSMA - STEEL STUD MANUFACTURERS ASSOCIATION. SECTIONS OF METAL COMPONENTS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES.



TYPE	MARK	MIN. EFFECTIVE SECTION PROPERTIES Ix (in^4)	S (in^3)	ASTM SPEC	Fy (kel)	AREA (in^2)	LIP (in)
STRUCTURAL (S) STUD SECTION PROPERTIES							
400 'S1'	400S162-33	0.692	0.332	A653	33	0.275	0.500
400 'S2'	400S162-43	0.892	0.443	A653	33	0.357	0.500
600 'S1'	600S162-33	1.793	0.577	A653	33	0.344	0.500
600 'S2'	600S162-43	2.316	0.767	A653	33	0.447	0.500
600 'S3'	600S162-54	2.860	0.953	A653	50	0.556	0.500
STRUCTURAL (T) TRACK SECTION PROPERTIES							
400 'T1'	400T150-33	0.519	0.208	A653	33	0.242	N/A
400 'T2'	400T150-43	0.719	0.293	A653	33	0.315	N/A
600 'T1'	600T150-33	1.385	0.335	A653	33	0.311	N/A
600 'T2'	600T150-43	1.868	0.534	A653	33	0.405	N/A
600 'T3'	600T150-54	2.611	0.843	A653	50	0.509	N/A

600 S 162 - 33

THICKNESS/GAUGE (MILS)
FLANGE WIDTH (162/100 = 1.625")
SECTION TYPE (STUD = S OR TRACK = T)
DEPTH (600 = 600/100 = 6")
***LIP LENGTH IS BASED ON FLANGE WIDTH

7. SPECIAL INSPECTIONS

A. A STATEMENT FOR SPECIAL INSPECTION PREPARED BY THE SPECIAL INSPECTION AGENCY OF RECORD IN ACCORDANCE WITH 2016 CBC 1703A.1 MUST BE SUBMITTED PRIOR TO ISSUANCE OF PERMITS. THE SPECIAL INSPECTION AGENCY MUST BE CERTIFIED BY THE ICC (INTERNATIONAL CODE COUNCIL) AND APPROVED BY THE BUILDING OFFICIAL. THE PROPOSAL MUST INDICATE THAT SPECIAL INSPECTION WAS RETAINED BY THE OWNER, OR THE OWNER'S AGENT, BUT NOT THE CONTRACTOR OR THE PERSON RESPONSIBLE FOR THE WORK. THE PROPOSAL MUST IDENTIFY THE SCOPE OF REQUIRED INSPECTIONS, LIST THE INDIVIDUALS PERFORMING THE INSPECTIONS (INCLUDE CURRENT INDIVIDUAL CERTIFICATIONS AS WELL AS THE LABORATORY'S CERTIFICATION), AND MUST BE ATTACHED TO EACH SET OF PLANS .

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING ALL SPECIFIED INSPECTIONS AND TESTING WITH THE INSPECTION/TESTING AGENCY. SEE SPECIFICATIONS FOR REQUIRED INSPECTIONS AND TESTING REQUIRED.

C. THE FOLLOWING ITEMS ARE SUBJECT TO "SPECIAL INSPECTION" IN CONFORMANCE WITH CBC SEC. 1701. (EXCEPTIONS MAY BE TAKEN WHERE APPLICABLE):
1. ALL STRUCTURAL WELDING.
2. CONCRETE WHEN DESIGN f'c > 2500 psi. (SEE CONCRETE MIX DESIGN SCHEDULE).
3. SPECIAL GRADING, EXCAVATION, AND FILLING.
4. INSTALLATION OF I.C.C. APPROVED WEDGE TYPE BOLTS INTO CONCRETE.

4. REINFORCED HOLLOW-UNIT CONCRETE BLOCK MASONRY

A. ALL MASONRY CONSTRUCTION SHALL BE OF GROUTED, REINFORCED, CONCRETE MASONRY UNITS WITH F'm AS LISTED ABOVE. REFER TO THE PROJECT SPECIFICATIONS FOR OTHER RELATED INFORMATION.

B. ALL MASONRY WORK SHALL CONFORM TO THE 2016 CBC AND THE ACI 530-13 AND 530.1-13, ASCE 5-13 AND ASCE 6-13 RESPECTIVELY.

C. SPECIAL INSPECTION SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION AGENCY CERTIFIED FOR MASONRY INSPECTION, IN CONFORMANCE WITH ACI 530 LEVEL B SPECIAL INSPECTION TABLE 1.19.2.

D. MATERIALS:
1. PORTLAND CEMENT' ASTM C150 TYPE 1 OR 11, LOW ALKALI.
2. AGGREGATE: MORTAR SAND - ASTM C144; GROUT SAND - ASTM C404,
3. HYDRATED LIME: ASTM C207, TYPE S.
4. ADMIXTURES: ONLY AS APPROVED BY THE ARCHITECT.
5. CONCRETE BLOCK MASONRY UNITS: ASTM C90, (MIN. COMPRESSIVE STRENGTH AS INDICATED IN SCHEDULE BELOW BY UNIT STRENGTH METHOD) WITH MAXIMUM .065% LINEAR SHRINKAGE WHEN TESTED IN ACCORDANCE WITH C.M.A. STANDARDS.
6. REINFORCING MATERIALS: ASTM A615, GRADE 60 DEFORMED BARS. WELDED REBAR: ASTM A706 (WHERE REQ'D PER PLANS AND DETAILS) SEE "MASONRY LAP SPLICES" FOR TYP REBAR LAP REQUIREMENTS.

E. MORTAR:
1. ASTM C270 STRENGTH TYPE S, 1200 psi @ 7 DAYS AND 1800 psi @ 28 DAYS FOR LABORATORY PREPARED SAMPLES, 1500 psi @ 28 DAYS FOR FIELD TEST SPECIMENS. FIELD SAMPLES SHALL BE USED TO VERIFY CONSISTENCY OF MATERIALS AND PROCEDURES ONLY.

F. GROUT:
1. STRENGTH: AS REQUIRED PER SCHEDULE LISTED BELOW.
2. COMPOSITION: GROUT SHALL BE PROPORTIONED FOR "COARSE GROUT" PER ASTM C476-02, AND CBC 2103.3.

G. MASONRY MATERIALS SHALL BE TESTED BY THE "UNIT STRENGTH METHOD" (SEE SPECIFICATIONS). "PRISM TEST METHOD" IS NOT AN ACCEPTABLE SUBSTITUTE WITHOUT WRITTEN DIRECTIVE FROM THE ARCHITECT WITH BUILDING OFFICIAL APPROVAL.

H. GROUTING PROCEDURES SHALL BE AS REQUIRED BY ACI 530.1-3.5, AND AS FOLLOWS:
1. THE TOTAL GROUT POUR SHALL NOT EXCEED THE HEIGHT LIMITS OF ACI 530.1-TABLE 7, IN LIFTS NOT EXCEEDING 5'-4" PROVIDE AT VERTICAL REINFORCING BARS, 32"oc MAX.
2. CLEANOUTS: PROVIDE CLEANOUT OPENINGS FOR ALL WALLS AT THE BOTTOM OF EVERY REINFORCED CELL FOR EACH POUR EXCEEDING 5'-4", NOT EXCEEDING 32"o.c. THE COURSE AT THE BOTTOM OF THE POUR SHALL BE CONSTRUCTED ENTIRELY OF INVERTED OPEN-END BOND BEAM UNITS. THE OPENINGS SHALL BE MADE PRIOR TO THE LAYING OF MASONRY UNITS AND BE OF SUFFICIENT SIZE AND LOCATION TO ALLOW THOROUGH REMOVAL OF MORTAR DROPPINGS AND/OR DEBRIS. AFTER THE LAYING OF MASONRY UNITS IS COMPLETED, THE CELLS CLEANED, THE REINFORCING STEEL POSITIONED, AND THE INSPECTION COMPLETED, CLOSE THE CLEANOUTS BY INSERTING FACE SHELLS OF MASONRY UNITS OR COVERING THE OPENINGS WITH FORMS. FACE SHELL PLUGS SHALL BE ADEQUATELY BRACED TO RESIST THE HYDROSTATIC PRESSURE EXERTED BY THE GROUT.

I. ALL GROUT SHALL BE VIBRATED IN PLACE WITH A MECHANICAL VIBRATOR DESIGNED FOR MASONRY CONSTRUCTION AND USED BY EXPERIENCED PERSONNEL.

J. CONCRETE BLOCK MASONRY UNITS SHALL BE DRY AND CLEAN BEFORE GROUTING OPERATION.

K. ALL MASONRY SHALL BE "RUNNING BOND" CONSTRUCTION UNLESS OTHERWISE SPECIFIED. WHERE MASONRY "STACKED BOND" CONSTRUCTION IS SPECIFIED USE OPEN-END UNITS SO THAT ALL HEAD JOINTS ARE MADE SOLID, AND USE BOND BEAM UNITS TO FACILITATE THE FLOW OF GROUT. ALL UNITS SHALL BE GROUTED SOLID.

L. CONTROL JOINTS (C.J.) SHALL BE PROVIDED FOR ALL WALLS IN EXCESS OF 24 FEET LONG. JOINTS SHALL BE SPACED AT 24'oc MAX UNLESS OTHERWISE INDICATED ON PLANS. JOINT LOCATIONS SHALL BE APPROVED BY THE ENGINEER AND ARCHITECT PRIOR TO POURING WALL FOOTINGS. JOINTS SHALL BE AS DETAILED ON THE DRAWINGS.

M. CONDUITS AND PIPES:

1. CONDUITS SHALL BE ALLOWED IN CELLS FOR VERTICAL RUNS ONLY, IN ACCORDANCE WITH THE FOLLOWING PARAMETERS. NO HORIZONTAL RUNS ARE ALLOWED EXCEPT THAT VERTICAL OFFSETS BETWEEN ADJACENT CELLS WILL BE ALLOWED, UP TO 24" IN LENGTH, TO AVOID INTERFERENCE AND CONGESTION WITH REINFORCING STEEL AND OTHER EMBEDDED ITEMS.

   WATER, GAS AND OTHER PIPES MAY PENETRATE THROUGH A WALL IN A SLEEVE, BUT SHALL NOT BE EMBEDDED IN WALLS.

2. REINFORCED CELLS: LIMIT CONDUIT TO ONE ¾" DIAMETER CONDUIT PER CELL, PROVIDED THE FOLLOWING CONDITIONS ARE MAINTAINED:
   - REINFORCING STEEL SHALL BE PROPERLY PLACED AND SHALL NOT BE RELOCATED TO ACCOMMODATE CONDUITS.
   - GROUT COVER BETWEEN CONDUIT AND REINFORCING STEEL SHALL BE 2.5 x BAR DIAMETER, 1½" MIN. (1½" AT #5 BARS, 1⅞" AT #6 BARS).
   - MAINTAIN A MINIMUM CLEAR AREA WITHIN THE CELL FOR GROUT CLEARANCE AND CONSOLIDATION BY VIBRATION.

3. UNREINFORCED CELLS: LIMIT CONDUIT TO TWO ¾" DIAMETER CONDUIT PER CELL, OR ONE 1½" DIAMETER CONDUIT PER CELL, PROVIDED THE FOLLOWING CONDITIONS ARE MAINTAINED:
   - CONDUIT SHALL NOT BE PLACED CLOSER THAN 3 x DIAMETER, CENTER TO CENTER, TO ADJACENT CONDUIT.
   - MAINTAIN A MINIMUM CLEAR AREA WITHIN THE CELL FOR GROUT CLEARANCE AND CONSOLIDATION BY VIBRATION.

4. NO CONDUITS ARE ALLOWED IN WALLS LESS THAN 8" NOMINAL THICKNESS.

F'm SPECIFIED	MIN. STRENGTH OF MASONRY UNIT	GROUT STRENGTH @ 7 DAYS	MIN. GROUT STRENGTH @ 28 DAYS
2000 psi	2000 psi	1250 psi	2000 psi

5. STRUCTURAL STEEL AND MISCELLANEOUS METALS

A. GENERAL:
1. FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH ACCEPTED PRACTICES OF THE A.I.S.C.
2. STEEL TO BE TESTED WILL BE INDICATED IN THE SPECIFICATIONS. TESTING WILL BE WAIVED WITH MILL. CERT. IDENTIFICATION.
3. WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE A.W.S. "STRUCTURAL WELDING CODE" (AWS D1.1-10).
4. WELDING PROCEDURE SPECIFICATIONS "WPS" SHALL BE SUBMITTED TO THE SPECIAL INSPECTOR FOR ALL WELD TYPES USED ON THE PROJECT. SPECIAL INSPECTOR SHALL PROVIDE A LETTER TO THE SEOR INDICATING THEIR OFFICE HAS REVIEWED AND APPROVED ALL WELDING PROCEDURES.
5. WELDERS CERTIFICATES SHALL BE SUBMITTED TO THE PROJECT INSPECTOR PRIOR TO STARTING WORK. WELDERS SHALL BE QUALIFIED BY AWS CERTIFICATION FOR THE TYPE OF WORK TO BE DONE.
6. ALL WELDING SHALL BE SUBJECT TO SPECIAL INSPECTION. INSPECTION SHALL BE IN CONFORMANCE WITH THE CBC. ONLY STEEL FABRICATORS ACCREDITED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) OR THE INTERNATIONAL ACCREDITED SERVICE (IAS - A SUBSIDIARY OF THE INTERNATIONAL CODE COUNCIL) WILL BE CONSIDERED AN APPROVED STEEL FABRICATOR, AND THEREFORE EXEMPT FROM SPECIAL INSPECTION FOR SHOP WELDING. ALL FIELD WELDING SHALL BE INSPECTED.
7. FABRICATION SHALL NOT TAKE PLACE UNTIL SHOP DRAWINGS HAVE BEEN RECEIVED, RETURNED, AND ISSUES IN QUESTION HAVE BEEN RESOLVED.
8. COLUMN BASE PLATES MAY HAVE $\frac{3}{16}$" MAX. OVERSIZE BOLT HOLES WITH STANDARD NUT AND $\frac{5}{16}$" MAX. OVERSIZE BOLT HOLES WITH HEAVY-HEX NUTS.

B. MATERIALS:
1. STRUCTURAL STEEL
   a. CHANNELS, ANGLES & BASE PLATES - ASTM A36, Gr. A
   b. STRUCTURAL PIPE - ASTM A53, GRADE B
   c. STRUCTURAL HSS RECTANGULAR TUBING - ASTM A500, GRADE C (Fy = 50 KSI)
2. MISC. METALS - ASTM A36, Gr. A
3. STANDARD BOLTS - ASTM A307, Gr. A - TYPICAL UNLESS NOTED OTHERWISE.
4. STANDARD AND HEAVY-HEX NUTS - ASTM A563 - TYPICAL UNLESS NOTED OTHERWISE.
5. STANDARD ANCHOR BOLTS - ASTM F1554 (Gr. 36 OR Gr. 55 WHERE NOTED)
7. WASHERS - AS REQUIRED BY THE AISC, RCSC, SECTION 6 - USE OF WASHERS.
8. WELDING ROD - HEAVILY COATED, CONFORMING WITH A.W.S. "SPECIFICATIONS FOR ARC WELDING". ELECTRODES OF CLASSIFICATION NUMBERS SUITABLE FOR THE WORK TO BE DONE.

C. SHOP DRAWING SUBMITTALS:
1. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. SEE SPECIFICATIONS FOR SUBMITTALS REQUIRED.
2. SHOP DRAWINGS SHALL NOT BE PREPARED UNTIL ALL CONDITIONS HAVE BEEN VERIFIED.
3. DETAILER SHALL SUBMIT RFI'S FOR ISSUES REQUIRING RESOLUTION FOR COMPLETION OF SHOP DRAWINGS. MINOR ISSUES MAY BE CLOUDED IN THE SHOP DRAWINGS.
5. SHOP DRAWING PREPARATION SHALL INCLUDE A CONTINGENCY TO ALLOW FOR MINOR REVISIONS RESULTING FROM ARCHITECTS' AND ENGINEERS' REVIEW.

D. DETAILS SHOWN IN THESE DRAWINGS FOR THE SUPPORT OF ROOF AND/OR FLOOR MOUNTED EQUIPMENT AND OPENINGS IN ROOF AND/OR FLOOR DECKS ARE TYPICAL CONDITIONS. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, MECHANICAL, PLUMBING ELECTRICAL AND OTHER CONTRACT DOCUMENTS FOR EQUIPMENT AND OPENING LOCATIONS, SIZES AND MOUNTING REQUIREMENTS.

3. CONCRETE

A. GENERAL: ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI MANUAL OF CONCRETE PRACTICE AND THE C.B.C.

B. REINFORCING MATERIALS:
1. DEFORMED ASTM A615 OR A706 - GRADE 60
2. WELDED WIRE FABRIC, ASTM A1064
3. WELDED REBAR (IF USED): ASTM A706

C. CONCRETE MIX DESIGNS: CONCRETE MIX SHALL BE LIMITED BY THE FOLLOWING. SEE SPECIFICATIONS FOR OTHER CONCRETE MIX INFORMATION.

LOCATION	COMP. STRENGTH (f'c)	MINIMUM SACKS/YD.	MAX. WATER/ CEMENT RATIO	AGGREGATE SIZE
TYPICAL INTERIOR SLAB ON GRADE	4,000 psi (DESIGN=2,500 psi)	6½ (15% FLYASH SUBSTITUTE REQUIRED)	.45	ASTM C33 SIZE 57
FOOTINGS	3,000 psi (SPECIAL INSPECTION)	5½	.60	ASTM C33 SIZE 57
EXTERIOR WALKWAYS & SITE WORK	SEE CIVIL	-	-	-

D. ADMIXTURES: ONLY AS APPROVED BY THE ARCHITECT.

E. NO WELDING OF REINFORCING STEEL SHALL BE ALLOWED.

F. LAP SPLICES: SEE SCHEDULE BELOW.

G. COVER TO BARS: SEE SCHEDULE BELOW.

H. CONCRETE CURING: SEE SPECIFICATIONS.

I. FORM REMOVAL: SIDE FORMS OF FOOTINGS SLABS ON GRADE, MINIMUM 2 DAYS.

J. VIBRATION: VIBRATE ALL CONCRETE IN PLACE WITH A MECHANICAL VIBRATOR USED BY EXPERIENCED PERSONNEL.

K. TESTING: IN ACCORDANCE WITH ACI-318, SECTION 26.12. SEE SPECIFICATIONS FOR TAKING OF TEST SAMPLES.

L. DRILLED AND EXPOXIED ANCHOR BOLTS: WHERE ANCHOR BOLTS OR HOLDOWN BOLTS ARE OMITTED, BOLTS SHALL BE SUBSTITUTED WITH DRILLED OR EPOXIED ANCHORS PER ENGINEERS WRITTEN DIRECTION.

CONCRETE REINFORCEMENT COVER

LOCATION	MINIMUM COVER
CONCRETE CAST AND PERMANENTLY EXPOSED TO EARTH:	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THROUGH #18 BAR	2"
#5 BAR, W31 OR D31, AND SMALLER	1½"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS, JOISTS:	
#14 AND #18 BAR	1½"
#11 BAR AND SMALLER	¾"

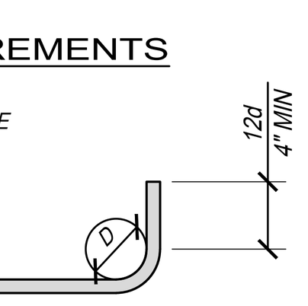
CONCRETE REINFORCEMENT LAP SPLICES

MIN. SPLICES UNLESS OTHERWISE DIMENSIONED ON DRAWINGS:

CONCRETE BAR TYPES	LAP TYPE
FOOTING BARS (OTHER THAN TOP BARS)	CL1
HORIZ. & VERT. WALL BARS	CL2
FOOTING 'TOP BARS'	CL2

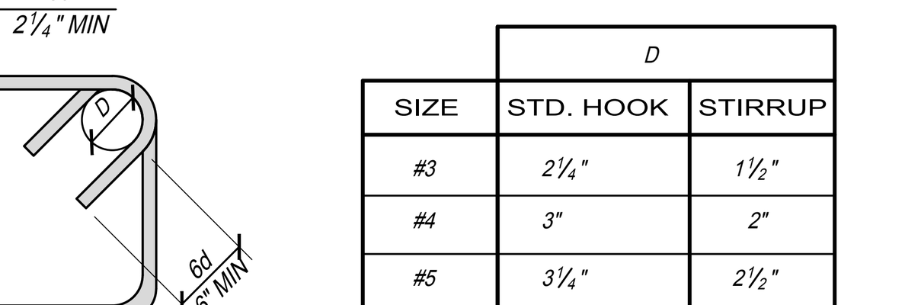
BAR SIZE	CL1	CL2	CL3
#4	24"	30"	48"
#5	30"	36"	60"
#6	40"	48"	72"

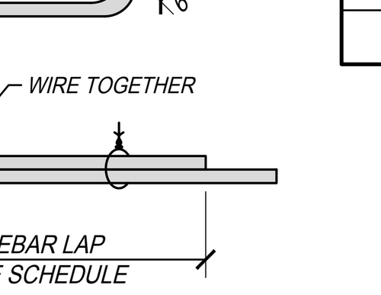
'TOP BAR' = HORIZ. BARS WHERE d > 12" FRESH CONCRETE PLACED BELOW HORIZ. REINF.



REINFORCEMENT BENDING REQUIREMENTS

D = FINISHED INSIDE BEND DIAMETER - SEE SCHEDULE
d = BAR DIAMETER





SIZE	D STD. HOOK	D STIRRUP
#3	2¼"	1½"
#4	3"	2"
#5	3¼"	2½"
#6	4½"	4½"

1. GENERAL NOTES

A. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE CALIFORNIA BUILDING CODE (CBC), 2016 EDITION, AND ALL OTHER PUBLICATIONS AND STANDARDS LISTED HEREIN.

B. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS.

C. DETAILS SHOWN ON STRUCTURAL DRAWINGS ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS.

D. DIMENSIONS SHOWN SHALL TAKE PRECEDENCE OVER SCALE ON PLANS, SECTIONS AND DETAILS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

E. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

F. FRAMING AND DETAIL CONDITIONS SPECIFIED BY THESE DRAWINGS SHALL NOT BE MODIFIED WITHOUT WRITTEN DOCUMENTATION FROM THE ENGINEER AND ARCHITECT.

G. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FLOOR OR ROOF FRAMING MEMBERS. LOAD SHALL NOT EXCEED DESIGN LIVE LOAD.

H. DESIGN LOADING: PER CBC, 2016 EDITION.

I. CONSTRUCTION DOCUMENTS SHALL CONSIST OF THE "APPROVED" DRAWINGS, SPECIFICATIONS AND ADDENDUM BEARING THE STAMP AND SIGNATURE OF THE ARCHITECT AND THE APPROVAL STAMP OF THE JURISDICTIONAL BUILDING DEPARTMENT. STRUCTURAL CALCULATIONS ARE NOT PART OF THE CONSTRUCTION DOCUMENTS AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

J. ALL WORK SHALL BE PERFORMED FROM THE "APPROVED" DOCUMENTS ONLY. A FULL SET OF APPROVED DOCUMENTS SHALL BE KEPT ON SITE DURING ALL CONSTRUCTION PHASES.

K. DESIGN DATA CONDITIONS AS LISTED BELOW.

LOADING DATA	ENTRY TOWER
ROOF DEAD LOAD	25 psf
ROOF LIVE LOAD	20 psf

WIND DESIGN DATA	ENTRY TOWER
ULTIMATE WIND SPEED (3 SECOND GUST)	110 mph
WIND EXPOSURE CATEGORY	C
RISK CATEGORY	II
INTERNAL PRESSURE COEFFICIENT	± .18
ANALYSIS PROCEDURE	ASCE CHAPTER 28

SEISMIC DESIGN DATA	ENTRY TOWER
SITE COORDINATES	36.753 N -119.673 W
SEISMIC IMPORTANCE FACTOR (I)	1.0
RISK CATEGORY	II
MAPPED SPECTRAL RESPONSE	S_s = .593 S_1 = .246
SITE CLASS	D
SPECTRAL RESPONSE COEFFICIENTS	S_{DS} = .524 S_{D1} = .313
SEISMIC DESIGN CATEGORY	D
SEISMIC-RESISTING FORCE SYSTEM(S)	CANT. COL.
SEISMIC RESPONSE COEFFICIENT(S) C_s	.420
RESPONSE MODIFICATION FACTOR(S) R	1.25
ANALYSIS PROCEDURE USED	ASCE 7 12.8 EQUIVALENT LATERAL FORCE

2. SITE PREP. & FOUNDATION

A. FOUNDATION DESIGN: BASED ON ALLOWABLE SOIL BEARING PRESSURES AND OTHER REQUIREMENTS PER SOIL REPORT: TES NO. 190598.001 BY TECHNICON ENGINEERING SERVICES, DATED 11-01-2019.

1. ALLOWABLE BEARING PRESSURES:
   STATIC (DEAD + LIVE) 2000 psf
   COMBINED (DEAD + LIVE + SEISMIC) 3000 psf
2. ACTIVE PRESSURE 50 pcf
3. AT-REST PRESSURE 90 pcf
4. PASSIVE PRESSURE 129 pcf STATIC, 172 pcf COMBINED
5. FRICTION COEFFICIENT 0.20 STATIC, 0.24 COMBINED

B. COMPACTION REQUIREMENTS: REFER TO THE SOILS REPORT.

C. ENGINEERING FILL: REFER TO THE SPECIFICATIONS AND SOILS REPORT. ALL ENGINEERED FILL SHALL BE SUBJECT TO "SPECIAL INSPECTION" AS REQUIRED BY THE ARCHITECT AND THE LOCAL BUILDING OFFICIALS.

D. REFER TO THE ARCHITECT'S DRAWINGS FOR FINISHED FLOOR ELEVATIONS.

E. ALL FOOTINGS SHALL EXTEND TO FIRM BEARINGS. MINIMUM FOOTING EMBEDMENT = 18" BELOW LOWEST ADJACENT GRADE.

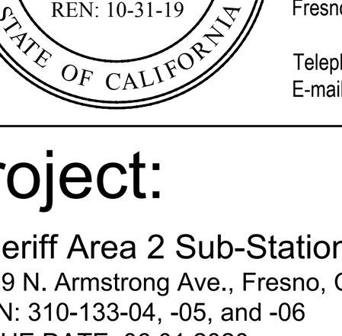
F. SEE ARCHITECT'S & CIVIL DRAWINGS FOR SIZE AND LOCATION OF NON-BEARING PARTITIONS.

G. SEE ARCHITECT'S DRAWINGS FOR EXTENT OF EXTERIOR WALKWAYS.

H. THE LOCATIONS OF CONSTRUCTION AND CONTROL JOINTS (C.J.) ARE THE CONTRACTOR'S RESPONSIBILITY FOR THE CONTROL OF CONCRETE SLAB CRACKING WITHIN THE RECOMMENDED LIMITATIONS AS FOLLOWS.

1. JOINTS (C.J.) ARE TO BE PROVIDED TO BREAK THE FLOOR INTO WORKING AREAS NOT LARGER THAN 600 SQ. FT.
2. JOINTS SHALL BE SPACED NOT MORE THAN 25' o.c. WHERE POSSIBLE.
3. JOINTS SHALL BE LOCATED SO AS TO NOT EXCEED A LENGTH TO WIDTH RATIO OF 1.25 WITHIN JOINTED AREAS.
4. JOINTS SHALL BE LOCATED WITH CONSIDERATION OF THE CRACK POTENTIAL OF INSIDE CORNERS AT SLAB EDGES.
5. JOINTS SHALL BE LOCATED BELOW INTERIOR PARTITION WALLS UNLESS NOTED OTHERWISE.
6. JOINT LOCATIONS SHALL BE REVIEWED AND ACCEPTED BY THE ARCHITECT PRIOR TO POURING SLABS.

I. ALL ANCHOR BOLTS, INSERTS, REINFORCING STEEL, DOWELS, AND OTHER EMBEDDED ITEMS SHALL BE SECURELY POSITIONED PRIOR TO POURING CONCRETE.



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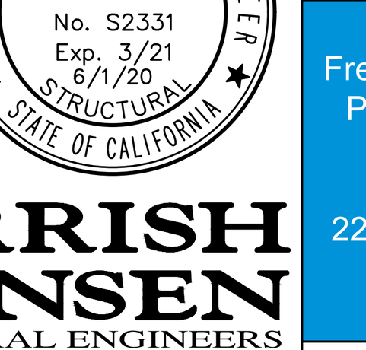
Sheet Content:

GENERAL NOTES



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Capital Projects

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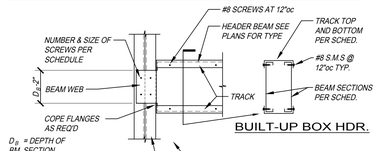
Sheet No.

S1.0

Drawn by: SMP
Plot date: 06.01.2020

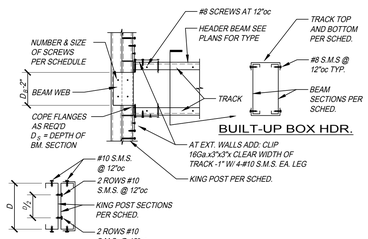
INTERIOR/NON-STRUCTURAL WALL HEADER BEAM SCHEDULE					
CONN. TYPE	TRACKS (X=WALL WIDTH)	UNPUNCHED BEAM	BEAM SPAN	SCREWS	KING STUD (X=WALL WIDTH)
'A'	X00T150-33	800S162-33	6'-0"	4-#10 (2 EA. SIDE)	1-X00S162-33
'B'	X00T150-33	800S162-33	10'-0"	8-#10 (4 EA. SIDE)	2-X00S162-33
'C'	X00T150-33	1000S162-54	12'-0"	12-#10 (6 EA. SIDE)	2-X00S162-54



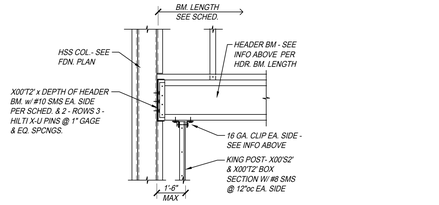
BUILT-UP BOX HDR.

INTERIOR/NON-STRUCTURAL WALLS

EXTERIOR & INTERIOR BEARING WALL HEADER BEAM CONNECTION					
HEADER TYPE	TRACKS (X=WALL WIDTH)	UNPUNCHED BEAM	MAX. BEAM LENGTH	SCREWS	KING POST
EH-1	600T150-54	800S162-54	10'-8"	6-#10 (3 EA. SIDE)	1-600T150-54 2-600S162-54
EH-2	600T150-43	600S162-54	5'-4"	4-#10 (4 EA. SIDE)	1-600T150-54 1-600S162-54

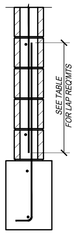


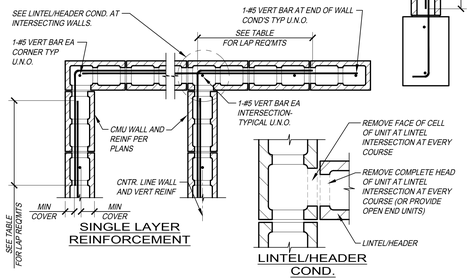
EXTERIOR WALLS



KING POST IS CLOSE TO COLUMN

DETAIL 13 / TMET11 / S1.1
SCALE: 3/4" = 1'-0"





SINGLE LAYER REINFORCEMENT

LINTEL/HEADER COND.

MASONRY LAP SPLICES

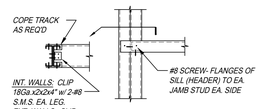
8" CONC BLOCK (F'm = 1500 psi)

BAR SIZE	SINGLE LAYER REINF	
	MIN COVER	MIN LAP LENGTH
#4	3"	24"
#5	3"	28"

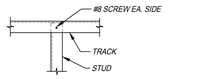
LAP SPLICES SHOWN ARE FOR:
- WALL HORIZONTAL BARS
- WALL VERTICAL BARS
- WALL DOWELS TO FOOTING

TYPICAL BLOCK REINFORCEMENT AT WALL INTERSECTIONS

DETAIL 14 / TMAS02 / S1.1
SCALE: 3/4" = 1'-0"



CONDITION 'A'

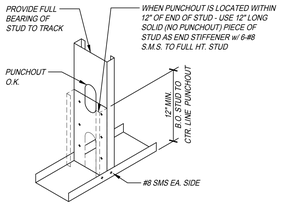


CONDITION 'B'

SILL TRACK ATTACHMENTS

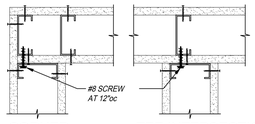
INT. WALLS: SILL TRACK = TYP. WALL TRACK
EXT. WALLS: SILL TRACK = SEE WALL ELEVATIONS

DETAIL 11 / TMET16 / S1.1
SCALE: 3/4" = 1'-0"



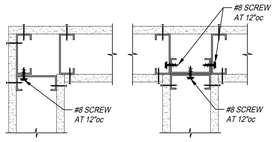
TYPICAL BASE ATTACHMENT

DETAIL 12 / TMET13 / S1.1
SCALE: 3/4" = 1'-0"



CORNER TEE INTERSECTION

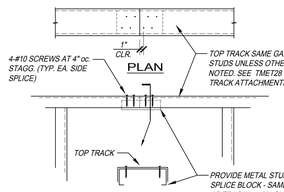
SPECIAL WALL INTERSECTION AT RATED WALL CONSTRUCTION



CORNER TEE INTERSECTION

TYPICAL WALL INTERSECTION

DETAIL 7 / TMET07 / S1.1
SCALE: 3/4" = 1'-0"

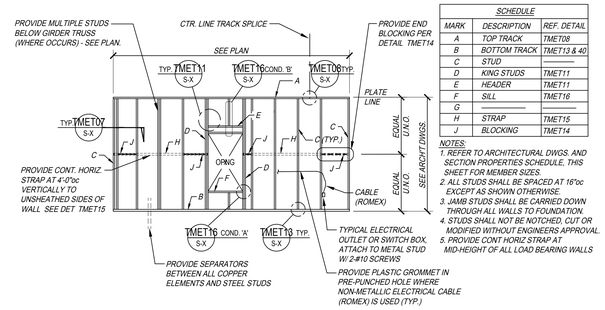


SECTION

EXTERIOR BEARING WALLS AND INTERIOR/NON-BEARING WALLS

(SEE DETAILS FOR INTERIOR WALL SLIP TRACK CONDITIONS)

DETAIL 8 / TMET08 / S1.1
SCALE: 3/4" = 1'-0"

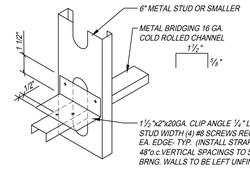


SCHEDULE		
MARK	DESCRIPTION	REF. DETAIL
A	TOP TRACK	TMET08
B	BOTTOM TRACK	TMET13 & 40
C	STUD	———
D	KING STUDS	TMET11
E	HEADER	TMET11
F	SILL	TMET16
G	———	———
H	STRAP	TMET15
J	BLOCKING	TMET14

NOTES:
1. REFER TO ARCHITECTURAL DWGS. AND SECTION PROPERTIES SCHEDULE, THIS SHEET FOR MEMBER SIZES.
2. ALL STUDS SHALL BE SPACED AT 16"oc EXCEPT AS SHOWN OTHERWISE.
3. JAMB STUDS SHALL BE CARRIED DOWN THROUGH ALL WALLS TO FOUNDATION.
4. STUDS SHALL NOT BE NOTCHED. CUT OR MODIFIED WITHOUT ENGINEERS APPROVAL.
5. PROVIDE CONT HORIZ STRAP AT MID-HEIGHT OF ALL LOAD BEARING WALLS

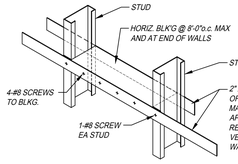
TYPICAL LT. GAUGE STEEL STUD WALL CONSTRUCTION

DETAIL 9 / TMET10 - DSA / S1.1
SCALE: 3/4" = 1'-0"



NOTE: PROVIDE BRIDGING @ MID-HEIGHT OF NON-BEARING WALLS IF WALL IS GREATER THAN 10'-0" IN HEIGHT.

ALTERNATE STEEL STUD BRACING



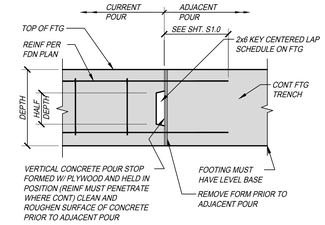
DETAIL A

TYPICAL STEEL STUD BRACING
(BEARING AND NON-BEARING WALLS)

STRAP & BLK'G. VERT. SPACING SCHEDULE		
WALL TYPE	BEARING / SHEAR	NON-BRNG.
FINISHED SIDE	8'-0"	10'-0"
UN-FINISHED SIDE	4'-0"	10'-0"

NOTE: BRACING SHALL BE INSTALLED OTHERWISE AT CLOSER SPACINGS AS CONTR. REQUIRES FOR ERECTION STABILITY OF WALL STUDS.

DETAIL 10 / TMET15 / S1.1
SCALE: 3/4" = 1'-0"

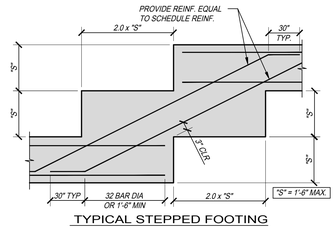


TYP. FOOTING POUR STOP

WHEN POUR STOPPAGE EXCEEDS 45 MINUTES

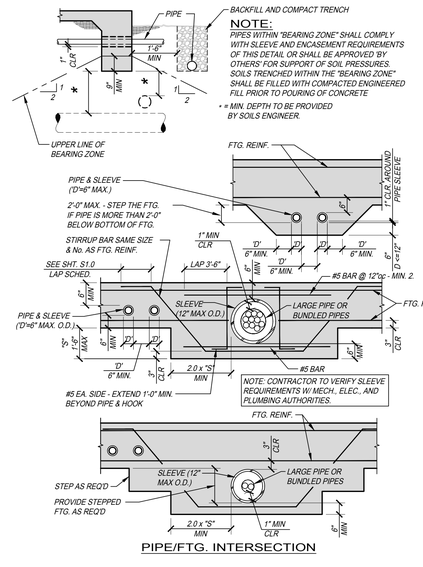
NOT TO OCCUR IN GRADE BEAM

DETAIL 3 / TFDN04 / S1.1
SCALE: 3/4" = 1'-0"



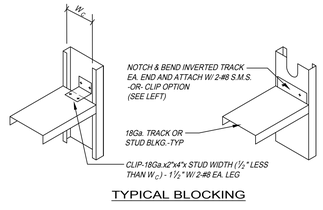
TYPICAL STEPPED FOOTING

DETAIL 4 / TFDN09 / S1.1
SCALE: 3/4" = 1'-0"



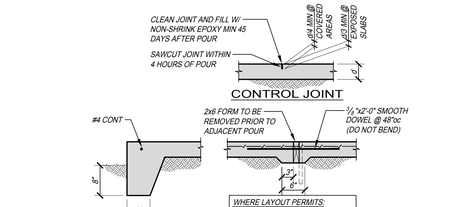
PIPE/FTG. INTERSECTION

DETAIL 5 / TFDN07 / S1.1
SCALE: 3/4" = 1'-0"

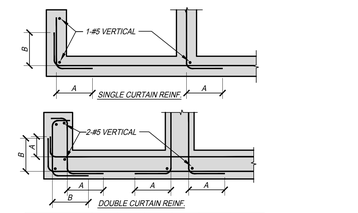


TYPICAL BLOCKING

DETAIL 6 / TMET14 / S1.1
SCALE: 3/4" = 1'-0"



DETAIL 1 / TFDN02 / S1.1
SCALE: 3/4" = 1'-0"



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"

TYP. WALL & FOOTING REINFORCING

DETAIL 2 / TFDN03 / S1.1
SCALE: 3/4" = 1'-0"

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-19 STATE OF CALIFORNIA

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Sheet Content:

TYPICAL DETAILS

Fresno County Department of Public Works and Planning
Capital Projects
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Sheet No.

S1.1

REGISTERED PROFESSIONAL ENGINEER ROBERT S. PARRISH No. S2331 Exp. 3/21 ELECTRICAL STRUCTURAL STATE OF CALIFORNIA

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Drawn by: SMP
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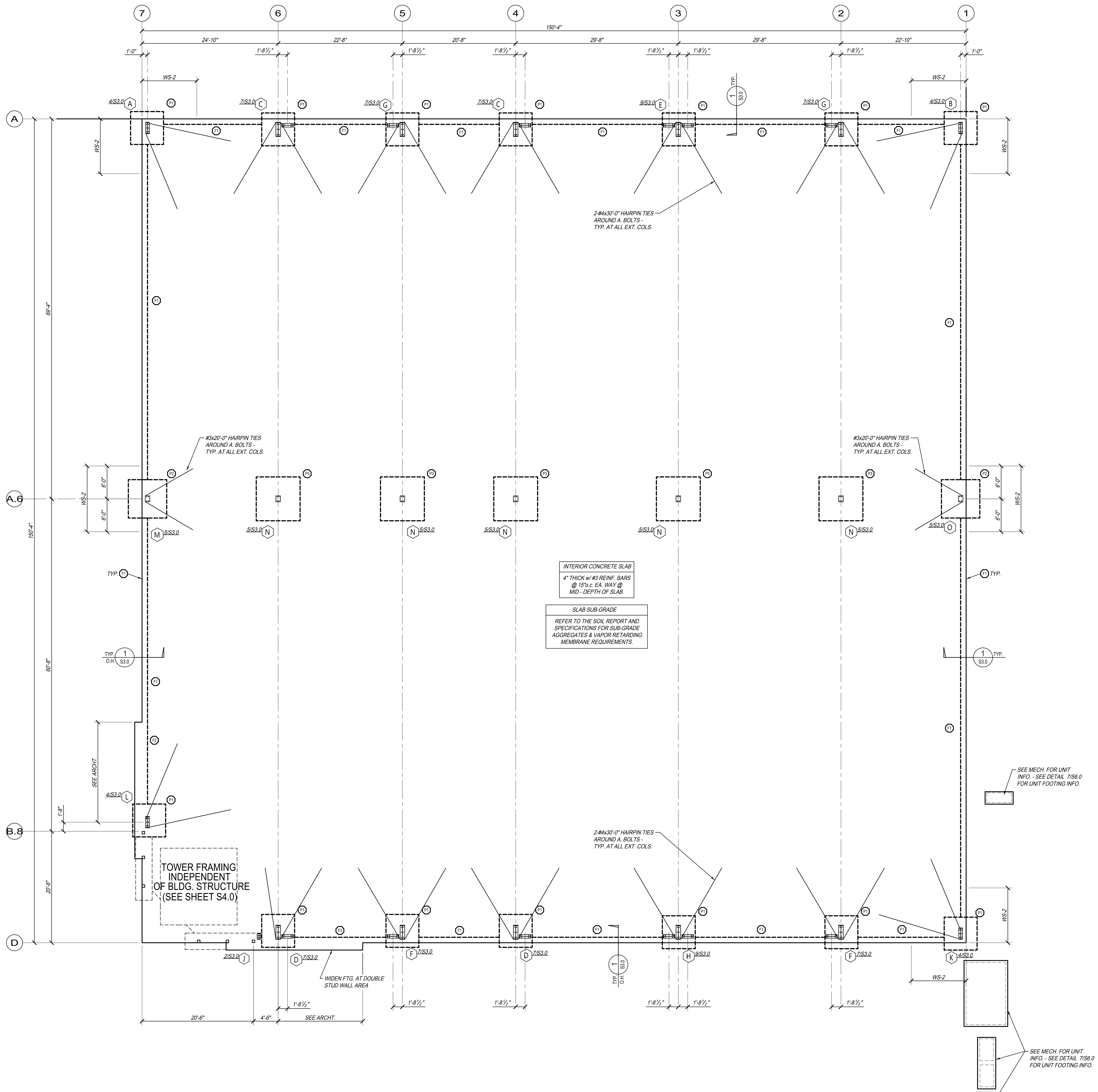

FOUNDATION PLAN

SCALE: 1/8" = 1'-0" (SUBSTATION)

FOUNDATION NOTES

1. REFER TO GENERAL NOTES AND TYPICAL DETAILS ON S.10.
2. ALL EMBEDDED ITEMS SHALL BE IN PLACE & SECURED PRIOR TO POURING OF CONCRETE.
3. (F1) = FOOTING TYPE - SEE "FOOTING SCHEDULE"
4. ☐ OR ⊢⊣ = STEEL COLUMN

FOOTING SCHEDULE

TYPE	SIZE	REINFORCEMENT
F1	1'-0" WIDE x 1'-6" DEEP	2- #5 CONT. TOP 2- #5 CONT. BOTTOM
F2	2'-4"" WIDE x 1'-6" DEEP	3- #5 CONT. TOP w/ #4 TIES @ 24"o.c.
P1	6'-0" SQUARE x 2'-0" DEEP	6- #5 EA. WAY (TOP & BOTTOM)
P2	7'-0" SQUARE x 2'-0" DEEP	7- #5 EA. WAY (TOP & BOTTOM)
P3	8'-0" SQUARE x 2'-0" DEEP	8- #5 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 (F1) UNLESS NOTED OTHERWISE.

(X) #/S3.0 — CBC BASE PLATE REFERENCE — FOOTING DETAIL REFERENCE

EXTERIOR WALL STUD SCHEDULE

TYPE	SIZE	SPACING	SILL & TOP TRACKS
WS-1	600 'S3'	16"o.c.	600 'T2' OR 'T3'
WS-2	600 'S3'	8"o.c.	600 'T2' OR 'T3'

NOTE: ALL EXT. STUD WALLS ARE TYPE WS-1 UNLESS NOTED.

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Sheet Content:

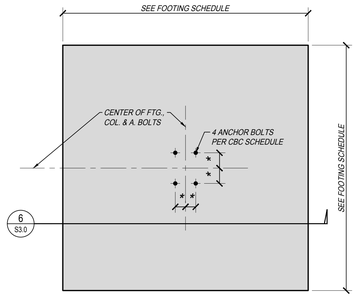
FOUNDATION PLAN

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

Sheet No.

S2.0

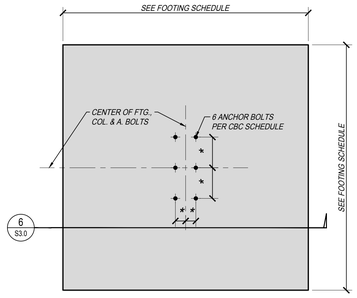
Drawn by: SMP Plot date: 06.01.2020



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

DETAIL 5

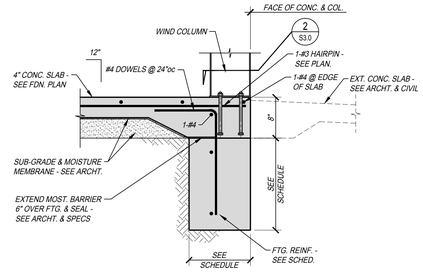
SCALE: 1" = 1'-0" FDN02 S3.0



REFERENCE SUBSTATION: CBC BASE
PLATE TYPE, DETAIL - L,K,A,B

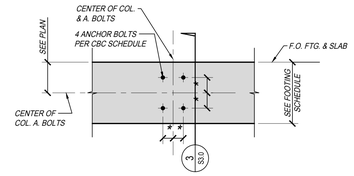
DETAIL 4

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



DETAIL 3

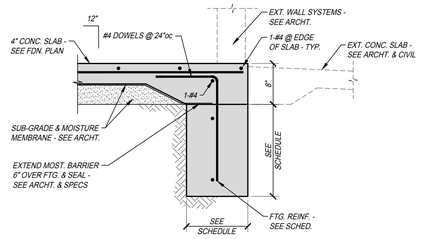
SCALE: 1" = 1'-0" FDN21 S3.0



REFERENCE STORAGE: CBC BASE
PLATE TYPE, DETAIL - D,E
REFERENCE SUBSTATION: CBC BASE
PLATE TYPE, DETAIL - J

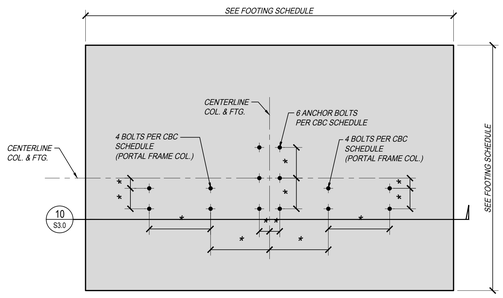
DETAIL 2

SCALE: 1" = 1'-0" FDN10 S3.0



DETAIL 1

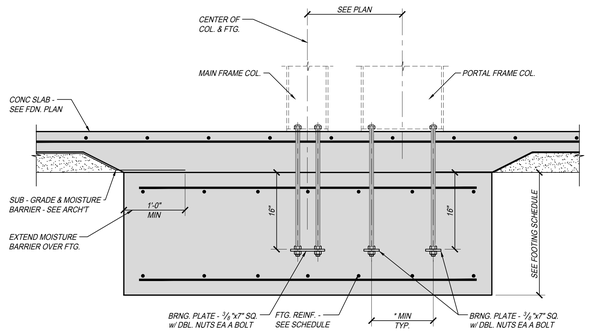
SCALE: 1" = 1'-0" FDN20 S3.0



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

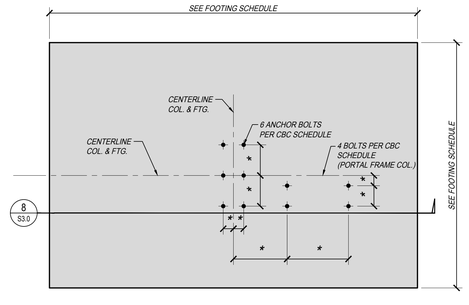
DETAIL 9

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



DETAIL 8

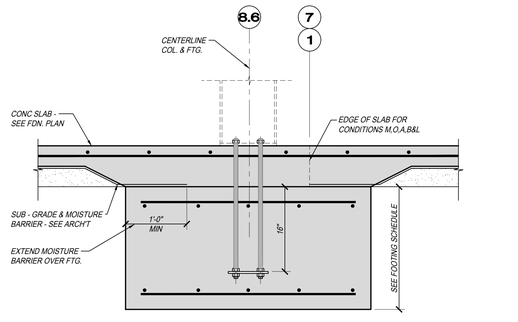
SCALE: 1" = 1'-0" FDN06 S3.0



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

DETAIL 7

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



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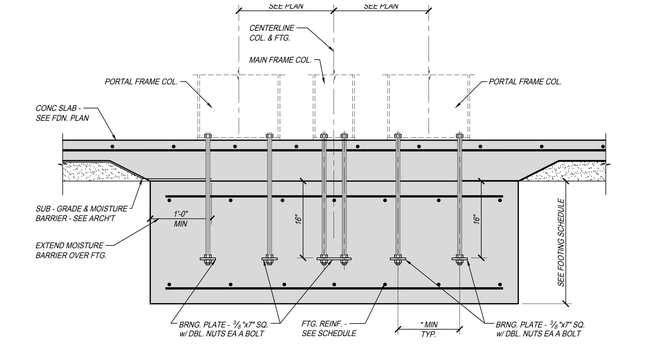
SCALE: 1" = 1'-0" FDN09 S3.0



DETAIL 10

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

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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 06.01.2020
PROJECT NO: T80293 / 19003
FILE NAME: S3.0

Sheet Content:

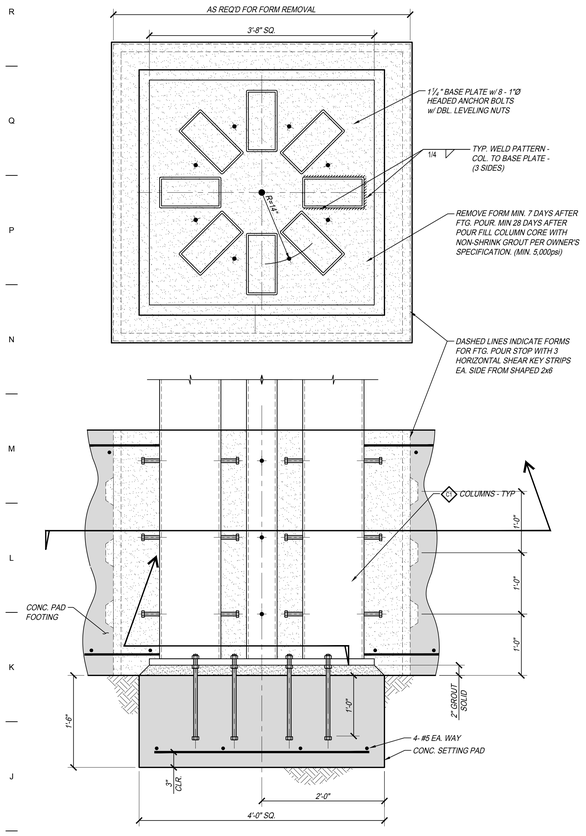
FOUNDATION DETAILS

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

Sheet No.

S3.0

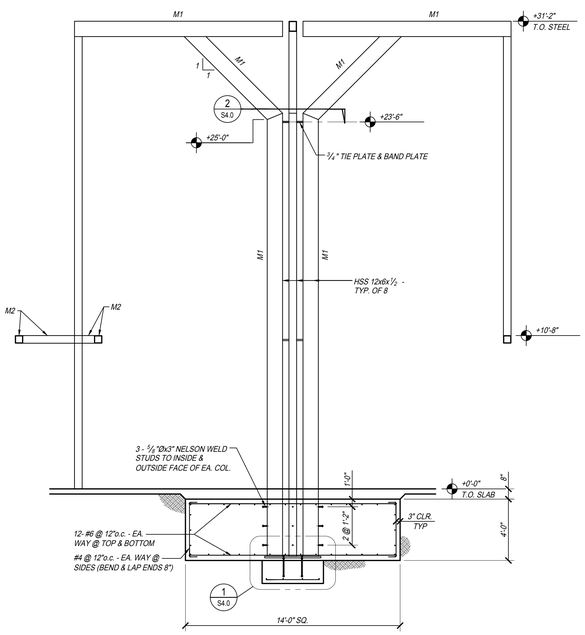
Drawn by: SMP Plot date: 06.01.2020



DETAIL

SCALE: 1" = 1'-0"

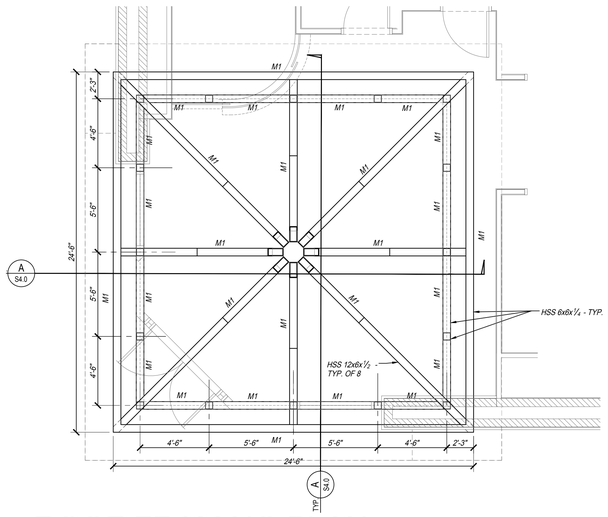
FDN01 1 S4.0



SECTION

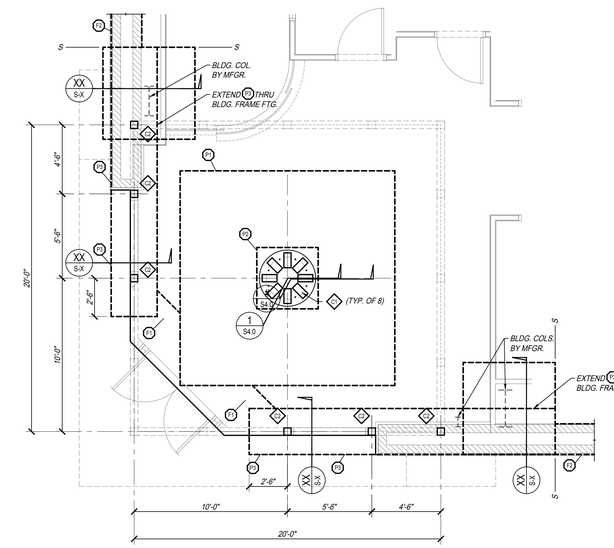
SCALE: 1/4" = 1'-0"

SEC01 A S4.0



ROOF FRAMING PLAN (ENTRY TOWER)

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



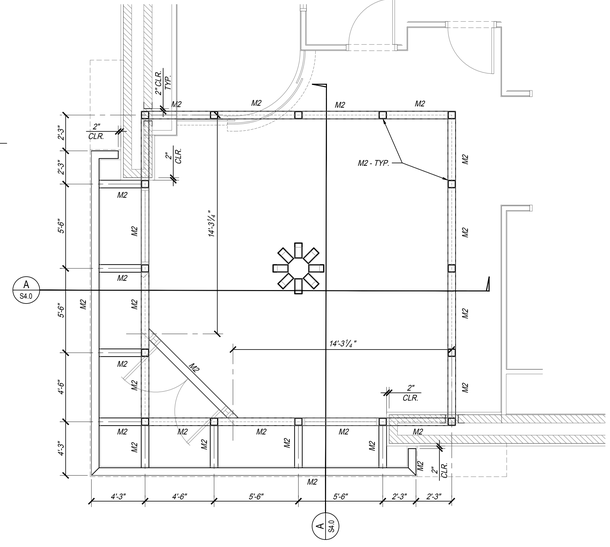
FOUNDATION PLAN (ENTRY TOWER)

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

FOOTING SCHEDULE			
TYPE	SIZE	REINFORCEMENT	NOTES
P1	1'-0" WIDE x 1'-6" DEEP	2-#5 CONTIN- TOP & BOTT.	
P2	2'-4" WIDE x 1'-6" DEEP	3-#5 CONTIN- TOP & BOTT. #4 TIES @ 24"o.c.	
P3	14'-0" SQUARE x 4'-0" DEEP	#4 @ 12"oc EA WAY- SIDES.	
P4	4'-0" SQUARE x 1'-6" DEEP	4-#5 EA WAY BOTT.	COLUMN BASE SETTING PAD
P5	3'-0" WIDE x 4'-0" DEEP x LENGTH PER PLAN	6-#5 TOP & BOTT. w/ #4 TIES @ 16"o.c.	

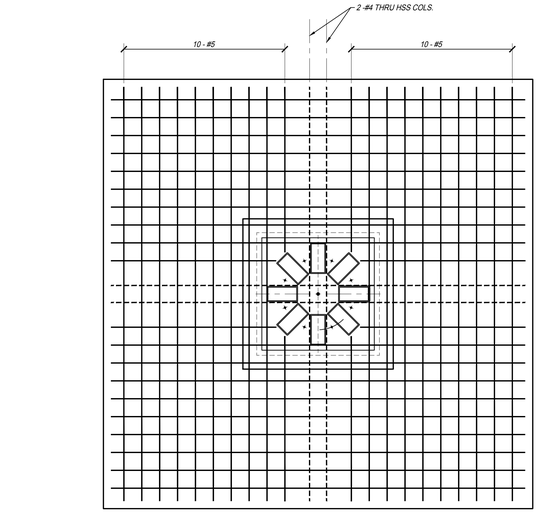
MEMBER SCHEDULE	
TYPE	SIZE
M1	HSS 12x6x½
M2	HSS 6x6x¼

COLUMN SCHEDULE			
TYPE	SIZE	BASE PL & ANCHORS	REF.
C1	HSS 12x6x½	1¼" w/ 8 - 1"Ø A. BOLTS	1/S4.0
C2	HSS 6x6x¼		



LOW FRAMING PLAN (ENTRY TOWER)

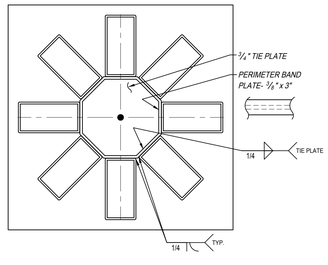
SCALE: 1/4" = 1'-0"



DETAIL

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

FDN22 3 S4.0



DETAIL

SCALE: 1" = 1'-0"

FDN07 2 S4.0

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Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
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ISSUE DATE: 06.01.2020
PROJECT NO: T60293 / 19003
FILE NAME: S4.0

Sheet Content:

ENTRY TOWER PLANS & DETAILS

REGISTERED PROFESSIONAL ENGINEER ROBERT S. PARRISH No. S2331 Exp. 3/21 6/1/20 STRUCTURAL STATE OF CALIFORNIA

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Fresno County Department of Public Works and Planning
Capital Projects

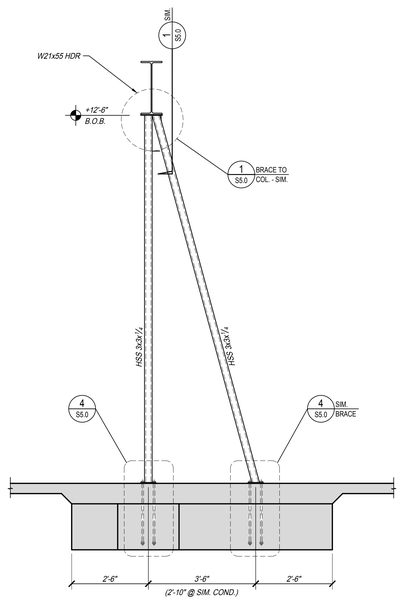
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

S4.0

Drawn by: SMP

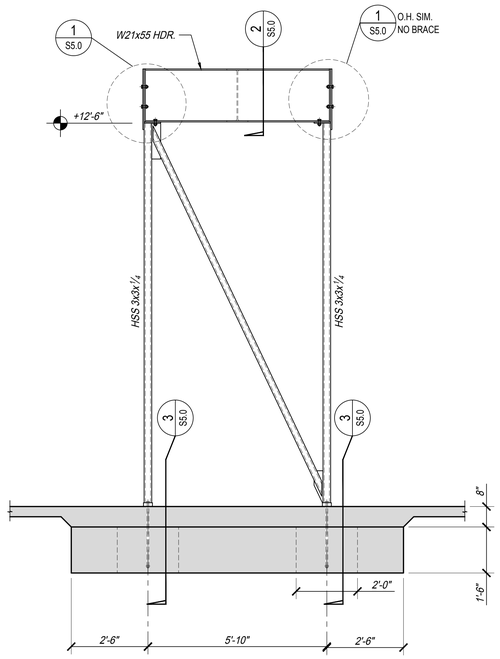
Plot date: 06.01.2020



DETAIL

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

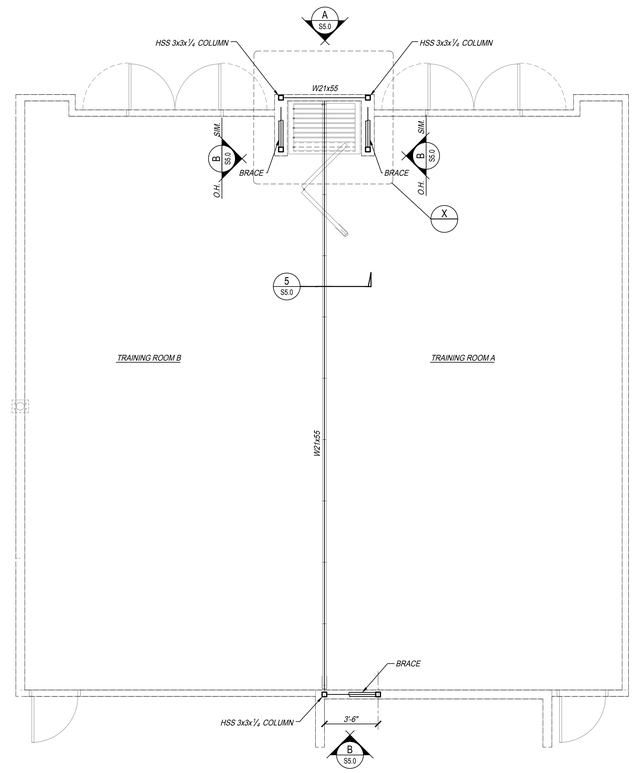
DET03 SEC03 B S5.0



DETAIL

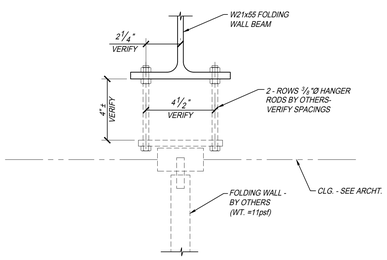
SCALE: 1/2" = 1'-0"

DET02 SEC02 A S5.0



FOLDING DOOR PLAN

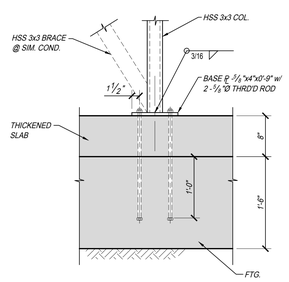
SCALE: 1/4" = 1'-0"



DETAIL

SCALE: 3" = 1'-0"

DET05 5 S5.0



DETAIL

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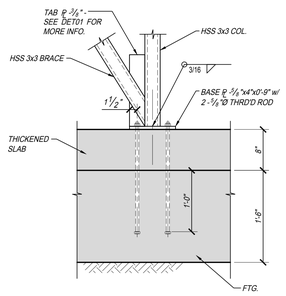
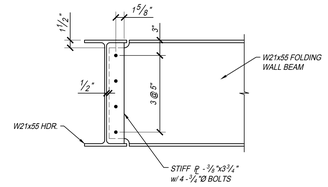
DET04 4 S5.0



DETAIL

SCALE: 1" = 1'-0"

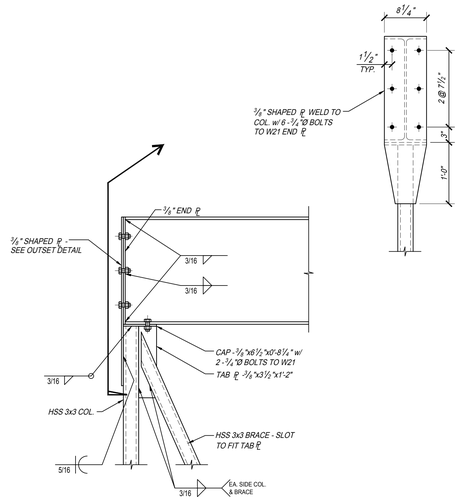
DET03 3 S5.0



DETAIL

SCALE: 1" = 1'-0"

DET02 2 S5.0



DETAIL

SCALE: 1" = 1'-0"

DET01 1 S5.0

REGISTERED PROFESSIONAL ENGINEER
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C-27818
REN: 10-31-19
STATE OF CALIFORNIA

ARCHITECT:
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California Licensed Architect No. C-27818
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ISSUE DATE: 06.01.2020
PROJECT NO: T80293 / 19003
FILE NAME: S5.0

Sheet Content:

FOLDING WALL PLAN & DETAILS

Fresno County Department of Public Works and Planning
Capital Projects

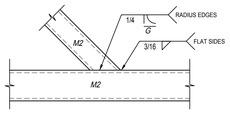
2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO

Sheet No.

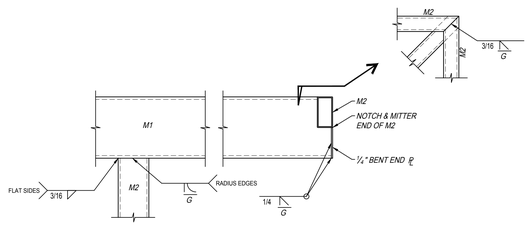
S5.0

Drawn by: SMP Plot date: 06.01.2020



DETAIL 5

SCALE: 1" = 1'-0" — DET10 S6.0



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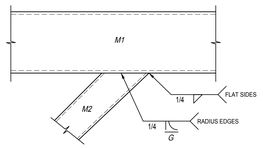

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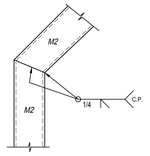

DETAIL 2

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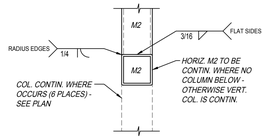

DETAIL 1

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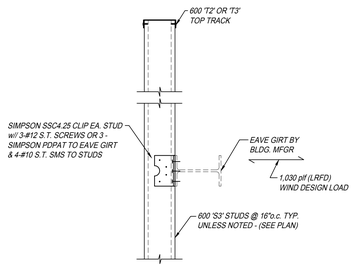
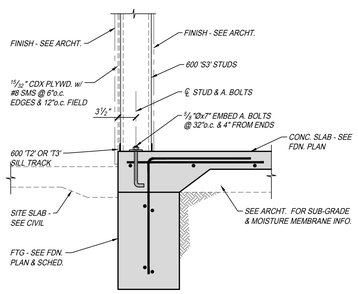


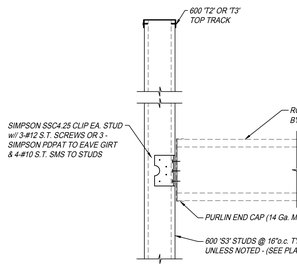
DETAIL 10

SCALE: 1" = 1'-0" — DET12 S6.0



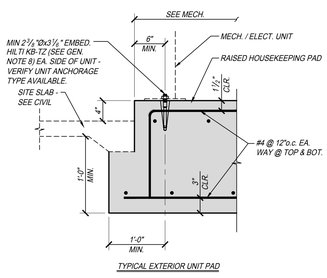
DETAIL 9

SCALE: 1" = 1'-0" — DET15 S6.0



DETAIL 8

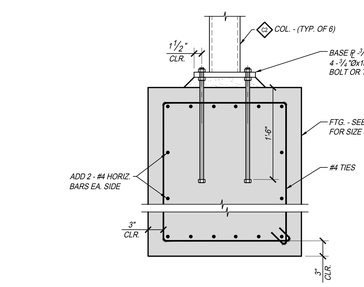
SCALE: 1" = 1'-0" — DET13 S6.0



TYPICAL EXTERIOR UNIT PAD

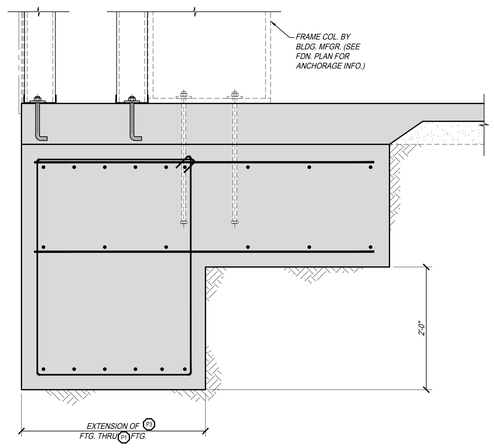
DETAIL 7

SCALE: 1" = 1'-0" — DET14 S6.0



DETAIL 6

SCALE: 1" = 1'-0" — DET11 S6.0



DETAIL 13

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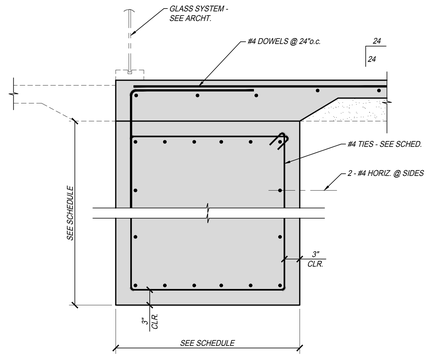

DETAIL 12

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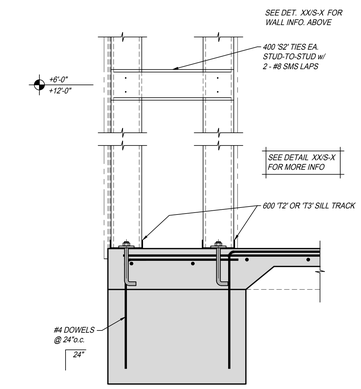

DETAIL 11

SCALE: 1" = 1'-0" — DET16 S6.0

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DETAILS

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

Sheet No.

S6.0

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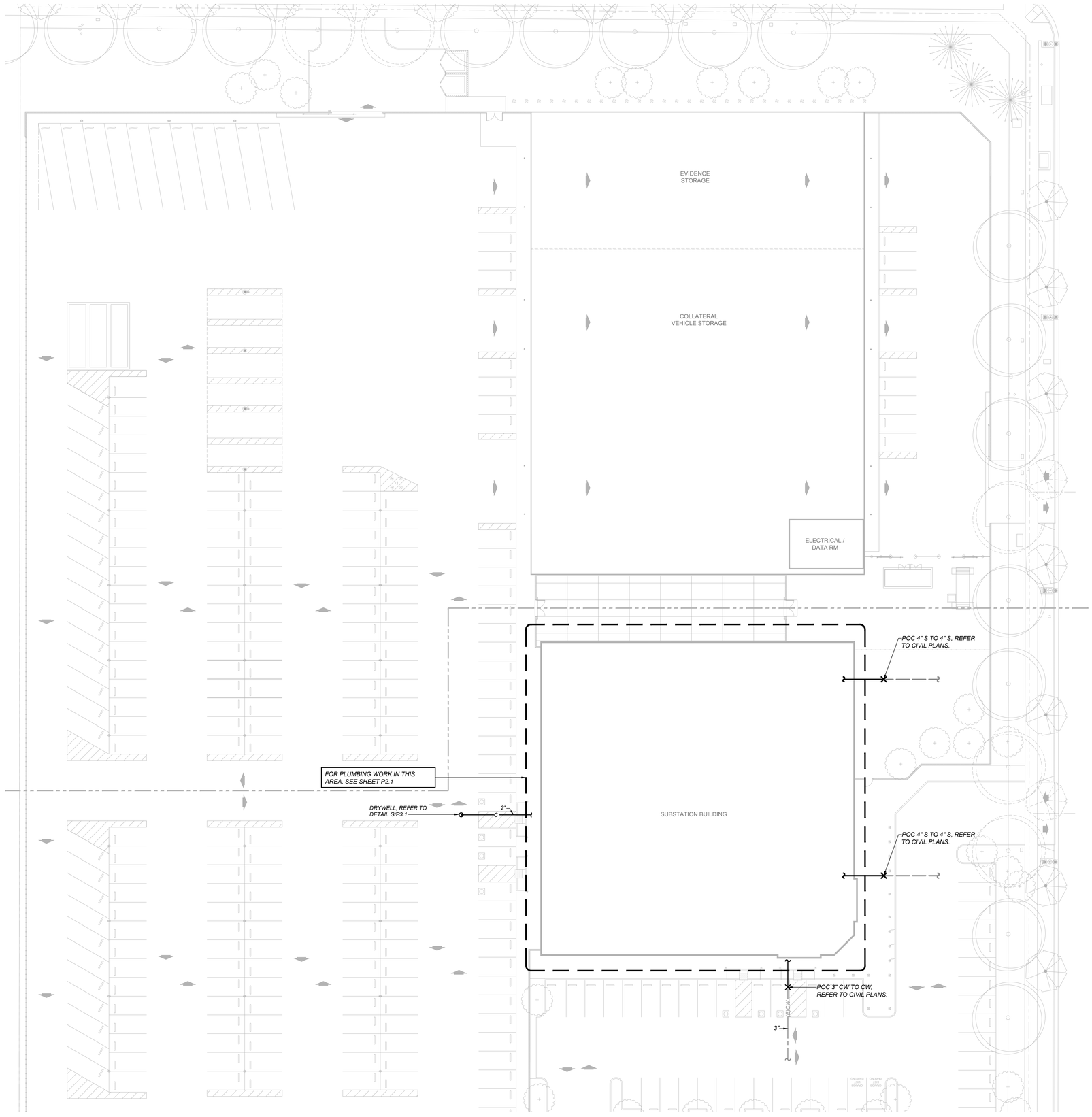

GENERAL PLUMBING NOTES:

1. *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

2. *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.*

3. *PENETRATIONS OF PIPES, CONDUITS, ETC. IN WALLS OR FLOORS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED.*

4. *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.*

5. *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.*

6. *FIELD VERIFY THE EXACT LOCATION, DEPTH AND SIZE OF ALL NEW POINTS OF CONNECTION TO EXISTING UTILITIES PRIOR TO COMMENCING NEW UTILITY WORK.*

7. *INSTALLATION OF NEW UTILITIES FROM EXISTING MAINS IN THE STREET SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.*

8. *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.*

9. *BACKFLOW PREVENTER SHALL BE INSTALLED AT THE MINIMUM HEIGHT ABOVE FINISH GRADE AS ALLOWED BY GOVERNING AUTHORITY.*

10. *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.*

11. *ALL DOMESTIC WATER PIPING SHALL BE A MINIMUM OF 1/2" SIZE UNLESS NOTED OTHERWISE. USE A REDUCING DROP ELL AT FIXTURE CONNECTION WHEN APPLICABLE.*

	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
—5#G—	5 PSI GAS	5#G
—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	
	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	-

REGISTERED PROFESSIONAL ENGINEER — MICHAEL D. CORTEZ — M23688 — MECHANICAL — STATE OF CALIFORNIA

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Project:

Sheriff Area 2 Sub-Station
1129 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

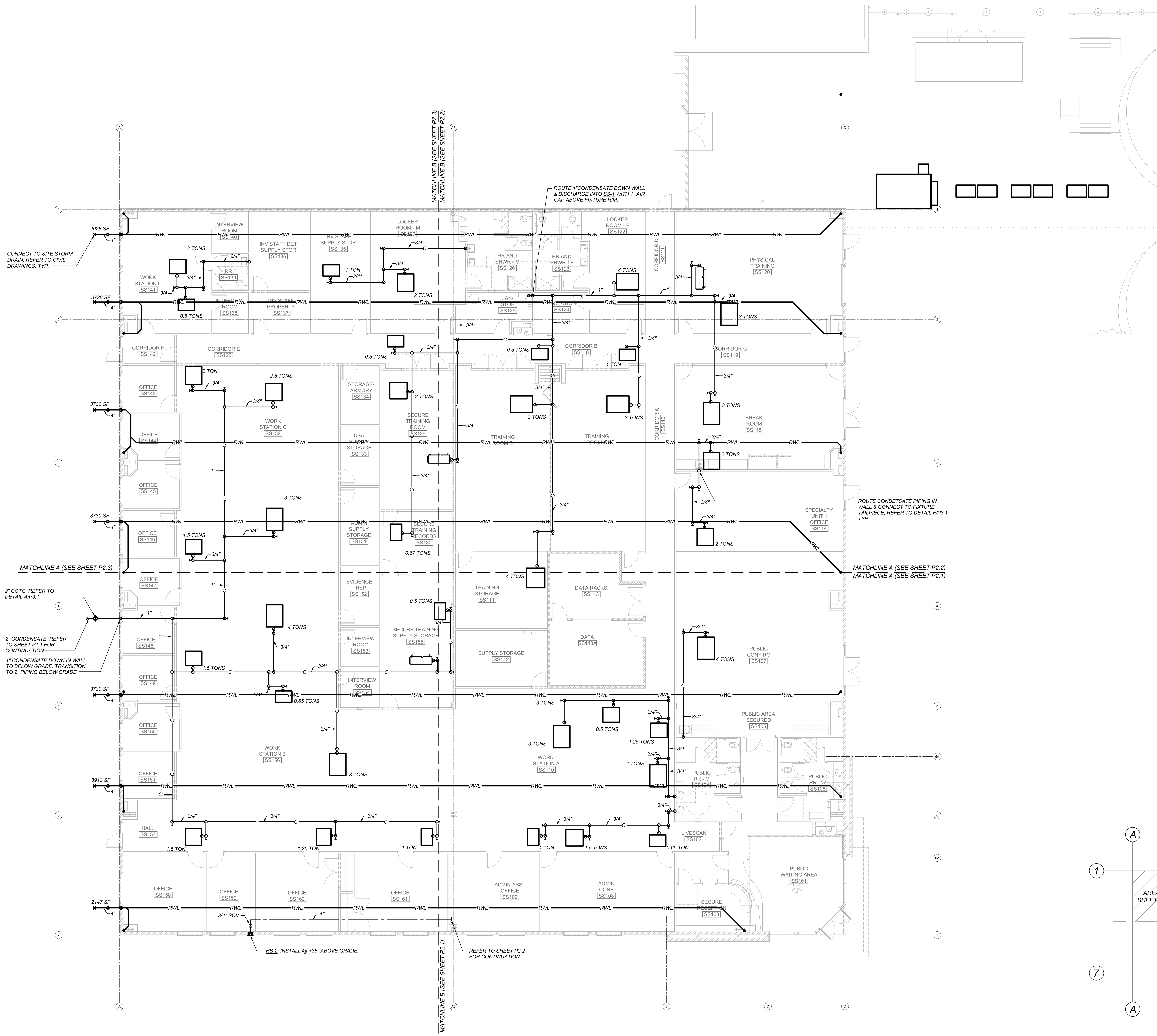
PLUMBING SITE PLAN

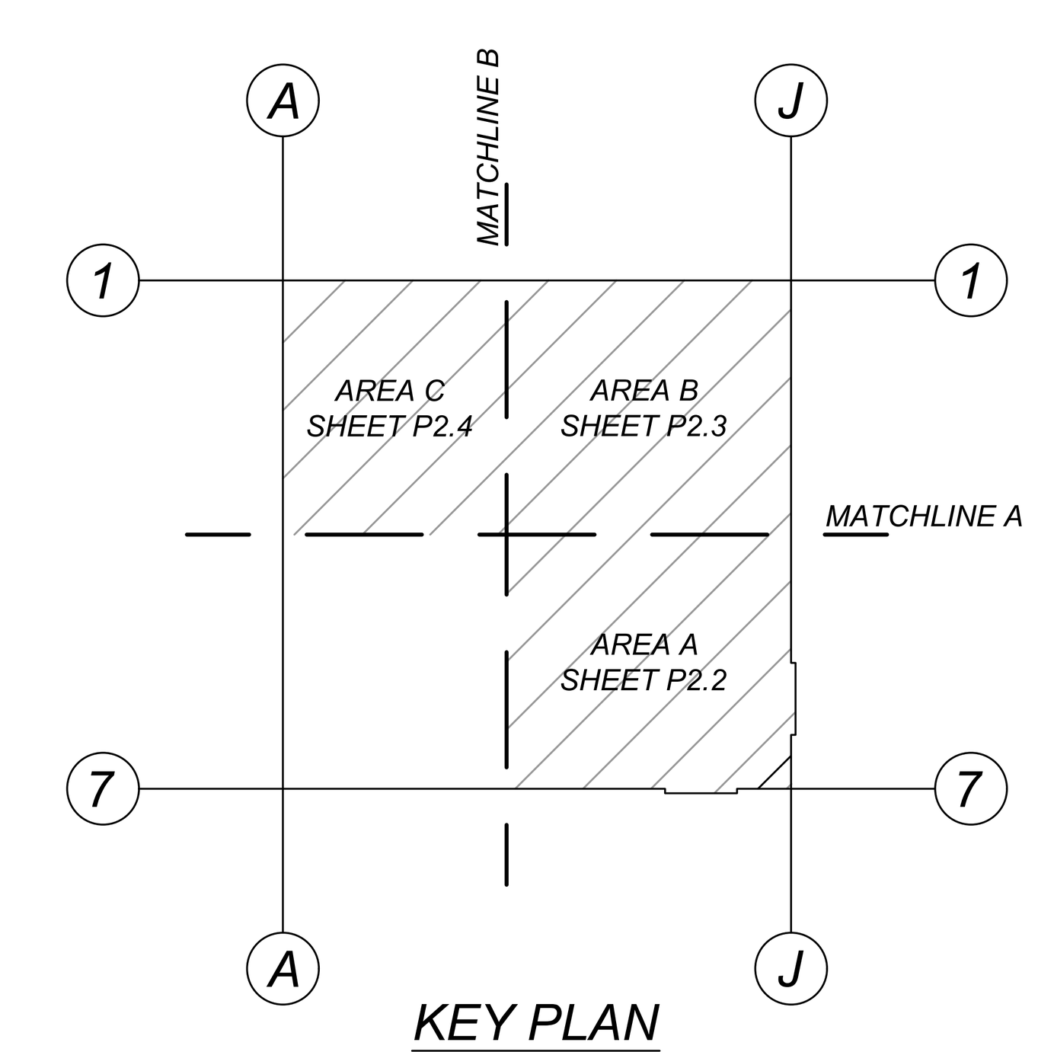
Scale:1" = 20'-0"

NORTH

Drawn by: ----

Plot date: 06.01.2020





OVERALL PLUMBING PLAN

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

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Sheet Content:

SUBSTATION OFFICE OVERALL PLUMBING PLAN

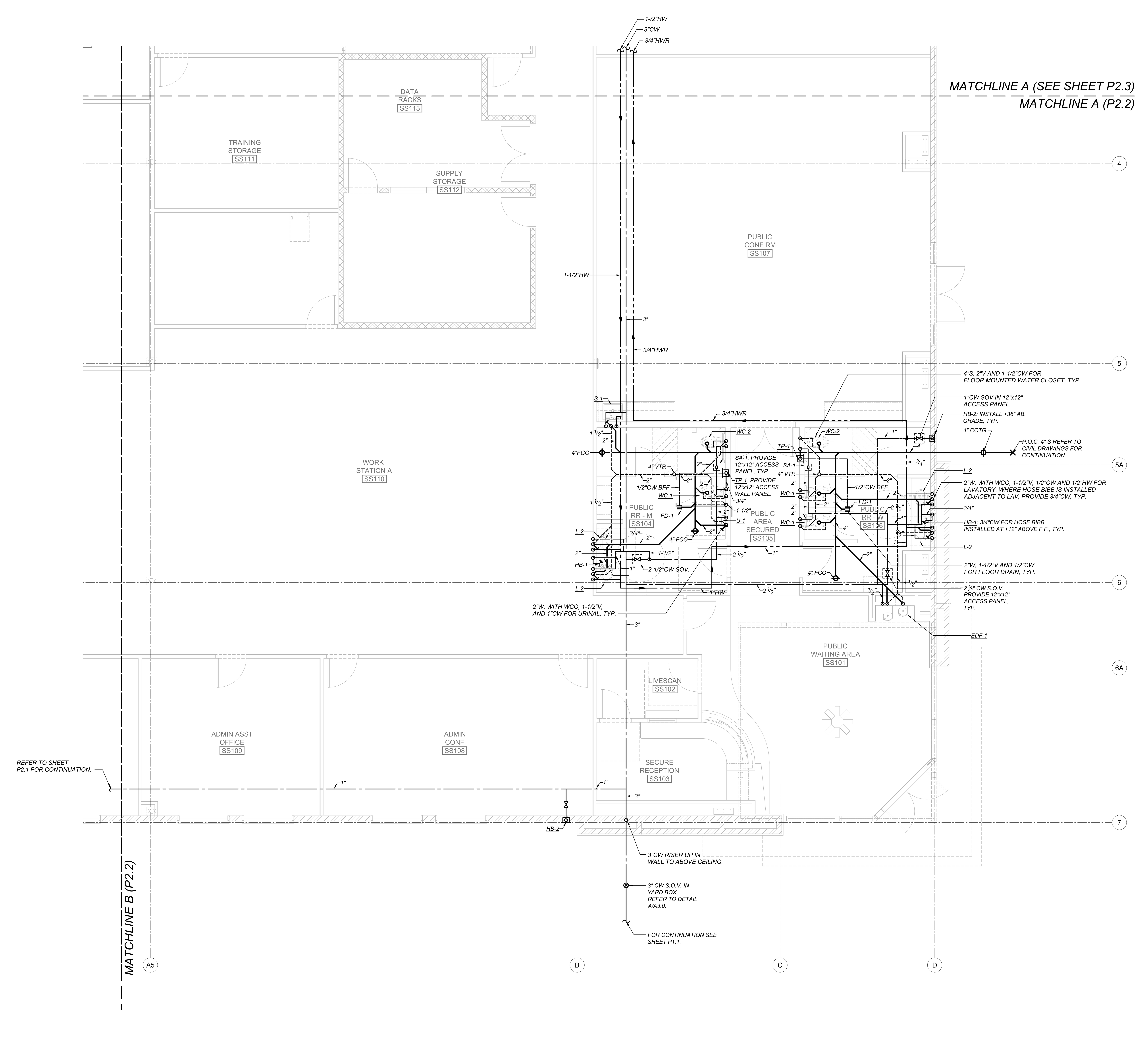
Fresno County Department of Public Works and Planning Capital Projects

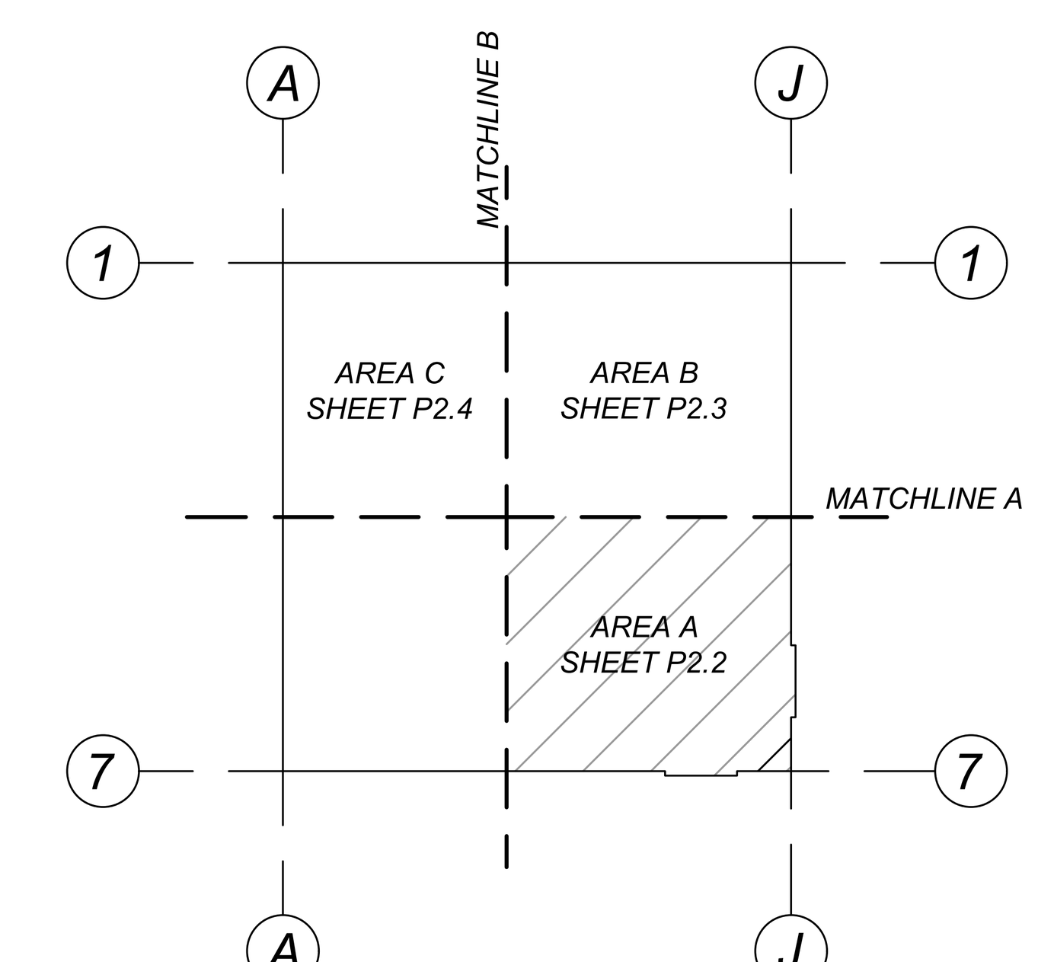
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

P2.1

Drawn by: ---- Plot date: 06.01.2020





KEY PLAN

ENLARGED PLUMBING PLAN

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

NORTH

LAWRENCE ENGINEERING GROUP

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SUBSTATION OFFICE ENLARGED PLUMBING PLAN

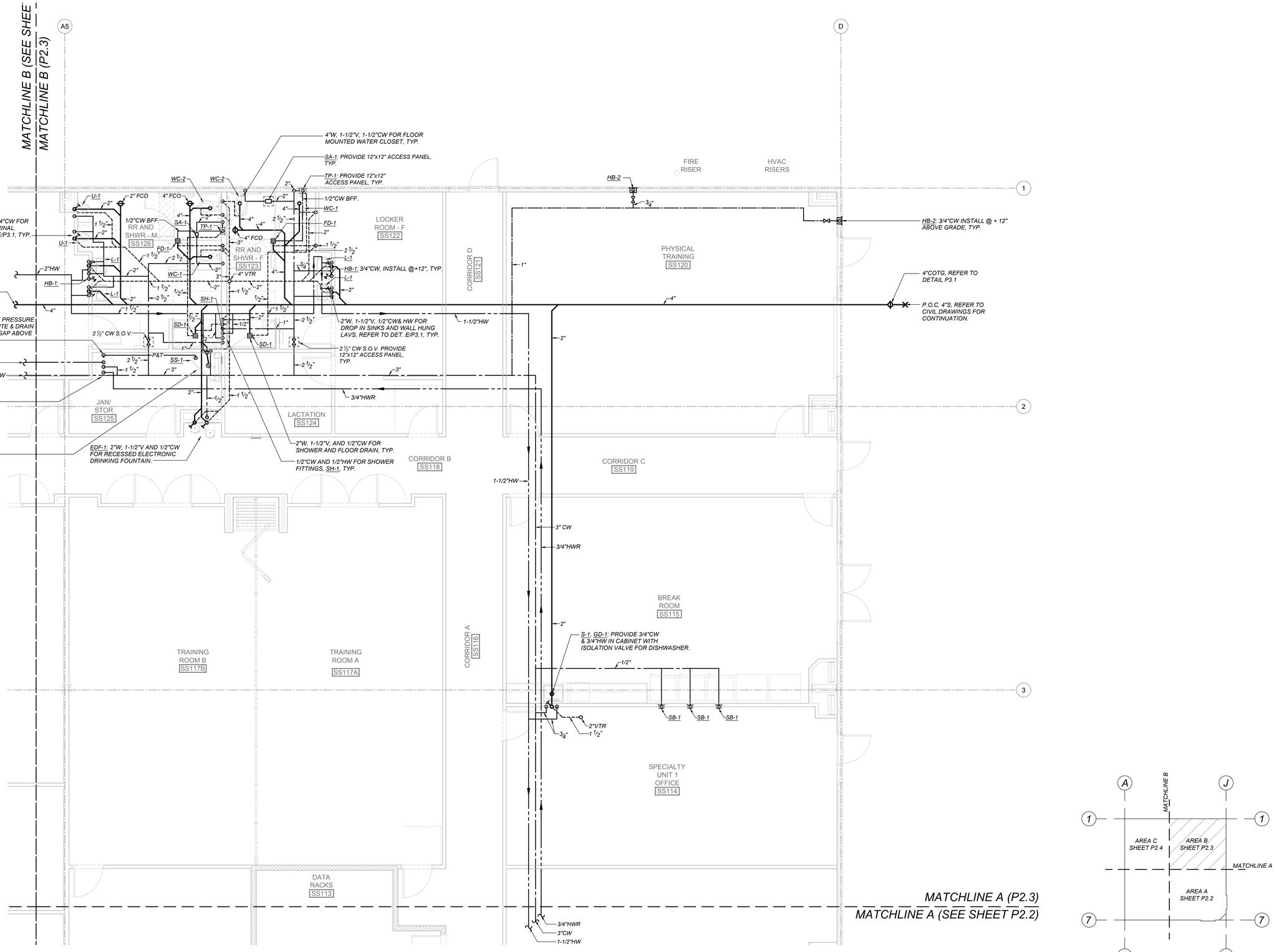
Fresno County Department of Public Works and Planning Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

P2.2

Drawn by: ---- Plot date: 06.01.2020



ENLARGED PLUMBING PLAN
Scale:1/4" = 1'-0"

NORTH

KEY PLAN

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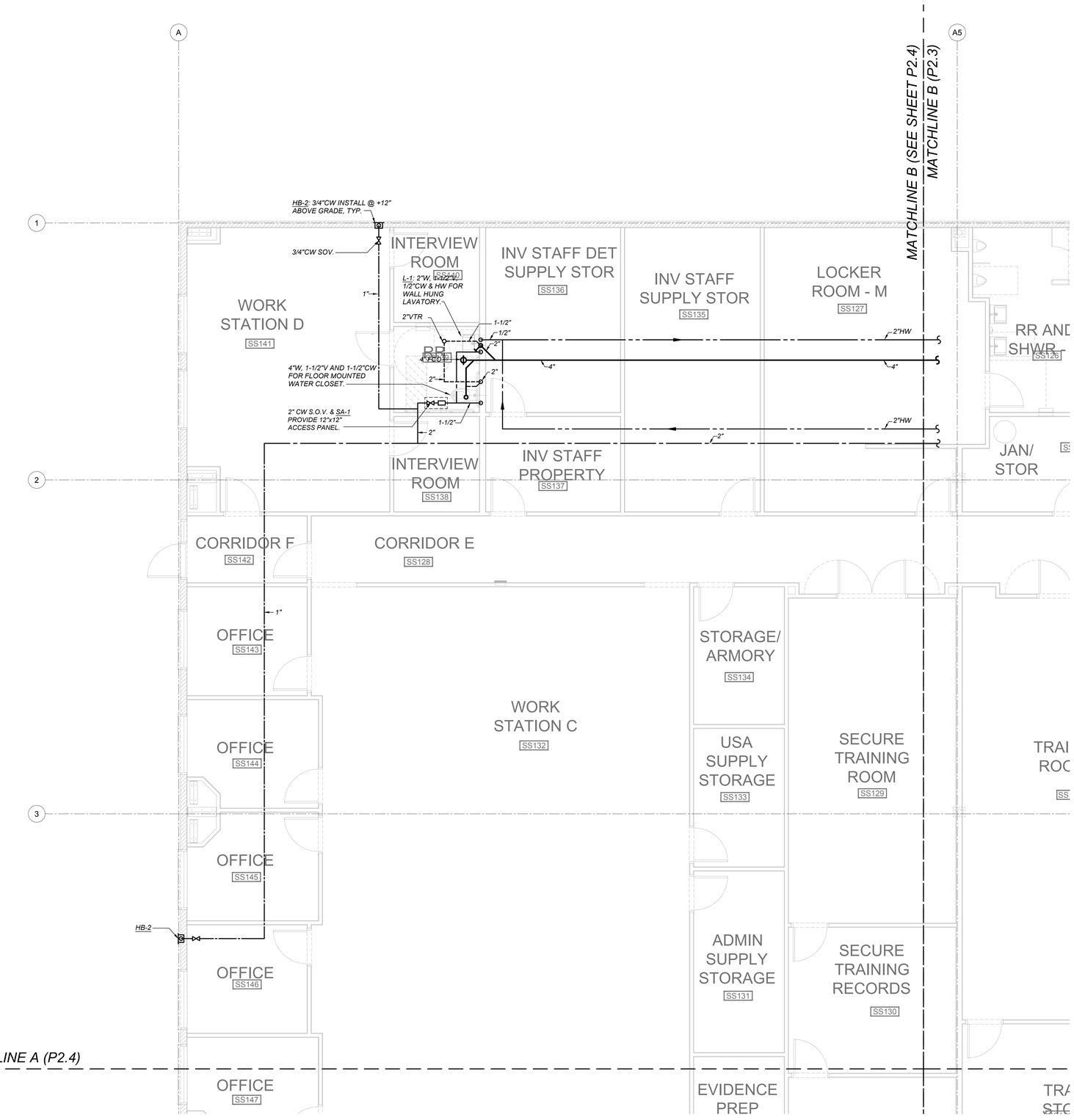
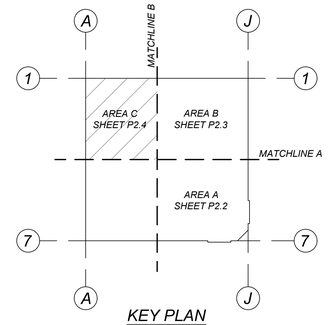
Sheet Content:
SUBSTATION OFFICE
ENLARGED PLUMBING
PLAN

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

Sheet No.
P2.3

Drawn by: ----
Plot date: 06.01.2020





KEY PLAN

ENLARGED PLUMBING PLAN

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

NORTH

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SUBSTATION OFFICE ENLARGED PLUMBING PLAN

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

Sheet No.

P2.4

Drawn by: ----
Plot date: 06.01.2020

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1 June 2020 2:49 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawings\5 PLOFFICE\P2.4 – Enlarged Plumbing Plan.dwg, 6/1/2020 2:49:54 PM

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

MARK	FIXTURE	CONNECTION SIZES S or W	V	CW	HW	DESCRIPTION
SD-1	SHOWER DRAIN	2"	1-1/2"	-	-	JAY R. SMITH #2005-P050-HP (OR MIFAB OR ZURN EQUAL) DUCO CAST IRON BODY WITH 5" SQUARE NICKEL BRONZE STRAINER AND TRAP PRIMER CONNECTION.
SB-1	SUPPLY BOX	-	-	1/2"	-	SPECIALTY PRODUCTS #OB-509, METAL RECESSED REFRIGERATOR WATER SUPPLY BOX WITH WHITE FINISH, INTEGRAL SHUT-OFF VALVE AND MINI-WATER HAMMER ARRESTER.
SH-1 (ADA)	SHOWER FITTINGS	-	-	1/2"	1/2"	BRADLEY #S59-2005 THERMOSTATIC MIXING SHOWER VALVE, ADA COMPLIANT, ASSE 1016 COMPLIANT WITH CHECKSTOPS AND LEVER HANDLE. SPEAKMAN #VS-2954 POLISHED CHROME HAND SHOWER, 60" METAL HOSE WITH VACUUM BREAKER, 24" COMBINATION SLIDE/GRAB BAR.
TET-1	THERMAL EXPANSION TANK	-	-	3/4"	-	WESSELS TTA-5, 3.5 GALLON ASME RATED TANK / 2.3 GALLON ACCEPTANCE WITH INLINE CONNECTIONS AND WITH FDA APPROVED BLADDER FOR POTABLE WATER USE. WT. 52 LBS.
CP-1	CIRCULATING PUMP	-	-	-	3/4"	GRUNDFOS #UP26-96BF (OR B&G OR TACO EQUAL) IN-LINE CENTRIFUGAL PUMP WITH 3/4" FLANGED CONNECTIONS. 1/12 HP., 120V/1Ø, 5 GPM AT 26 FT. HEAD.
MV-1	THERMOSTATIC MIXING VALVE	-	-	-	-	BRADLEY #HL45, S59-3045-B-P (OR POWERS) THERMOSTATIC HIGH-LOW MIXING VALVE, 12.5 GPM FLOW AT 5 PSI PD, 3/4" INLETS AND 1" OUTLET, WITH WALL BRACKET AND PIPED ASSEMBLY WITH INLET AND OUTLET SHUT-OFF VALVES.
FD-1	FLOOR DRAIN	2"	1-1/2"	1/2"	-	JAY R. SMITH #2005-P050-HP (OR MIFAB OR ZURN EQUAL) DUCO CAST IRON BODY WITH 5" SQUARE NICKEL BRONZE STRAINER AND TRAP PRIMER CONNECTION.

FIXTURE UNIT SUMMARY

Project No.: 19280
Project: Sheriff Area 2 Sub-Station
Office
Date: 12/04/19
Prepared By: EF
File Name: WATER - DRAIN - SEPTIC SYSTEM CALCS - V1.5

NO. OF FIXTURES	TYPE OF FIXTURE [FROM WATER SUPPLY & DRAIN FIXTURE UNIT TABLE - SEE TAB BELOW]	BOTH DCW & DHW AT FIXTURE OR DRAIN	COLD WATER WSFU PER FIXTURE	COLD WATER TOTAL WSFU	COLD WATER MIN. WS BRANCH SIZE	HOT WATER WSFU PER FIXTURE	HOT WATER TOTAL WSFU	HOT WATER MIN. WS BRANCH SIZE	SEWER DSFU PER FIXTURE	SEWER TOTAL DSFU	SEWER MIN. TRAP SIZE
10	WATER CLOSET, FV, 1.6 GPF	N	5.00	50.00	1/2"				4.00	40.00	3"
7	LAVATORY	Y	0.75	5.25	1/2"	0.75	5.25	1/2"	1.00	7.00	1-1/4"
3	URINAL, FV, 1.0 GPF	N	4.00	12.00	3/4"				2.00	6.00	2"
1	SERVICE SINK	Y	2.25	2.25	1/2"	2.25	2.25	1/2"	3.00	3.00	2", 3"
2	SINK	Y	1.50	3.00	1/2"	1.50	3.00	1/2"	1.00	2.00	1-1/2"
10	HOSE BIBB	N	2.50	25.00	1/2"						
2	DRINKING FOUNTAIN OR WATERCOOLER	N	0.50	1.00	1/2"				0.50	1.00	1-1/4"
4	FLOOR DRAIN	D							2.00	8.00	2"
1	DISHWASHER, DOMESTIC	Y	1.50		1/2"						
3	SUPPLY BOX	N	0.50	1.50	1/2"						
2	SHOWER	Y	1.50	3.00	1/2"	1.50	3.00	1/2"	2.00	4.00	1-1/2"
	TOTAL FIXTURE UNITS			103.00			13.50			71.00	

DOMESTIC WATER DEMAND AND SIZING

Project No.: 19280
Project: Sheriff Area 2 Sub-Station
Office
Date: 12/20/19
Location: FRESNO, CA
Prepared By: EF
File Name: WATER - DRAIN - SEPTIC SYSTEM CALCS - V1.5

Meter Size: 2"
System Type (1): Predominantly Flushometer Valves X
Predominantly Flush Tanks

103.00 Water Fixture Units Equal		68 GPM
Misc. Added Flow - **[DESCR.]**	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'

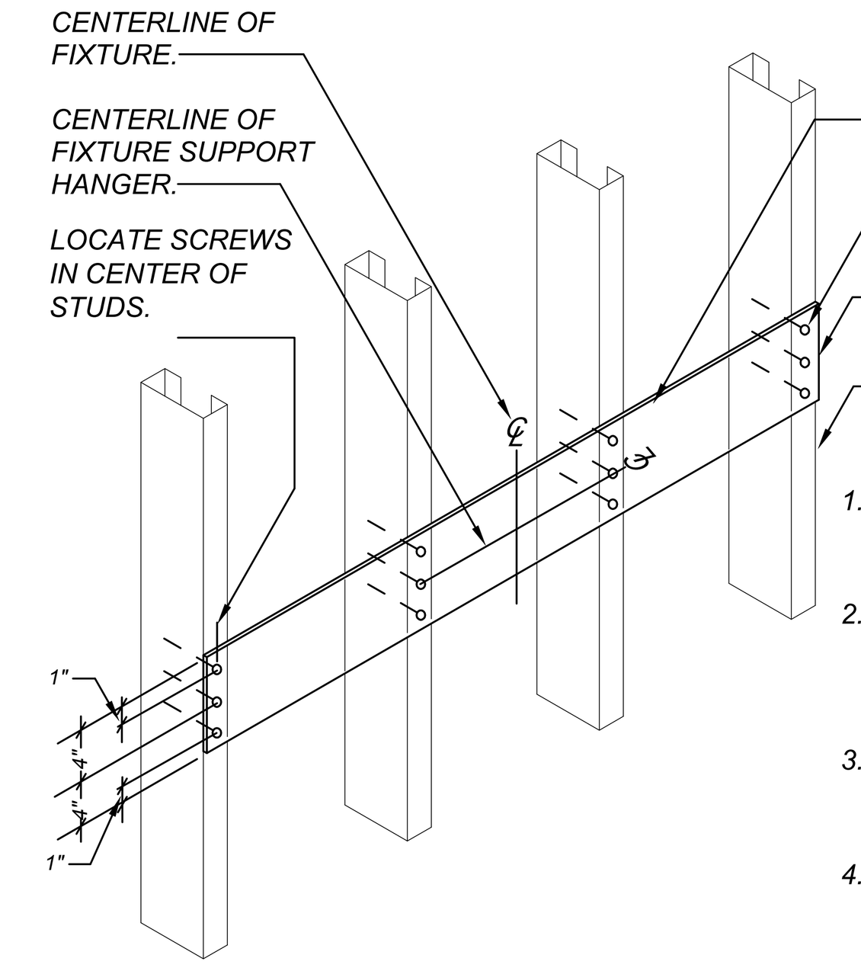
PIPE SIZING TABLE

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

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

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

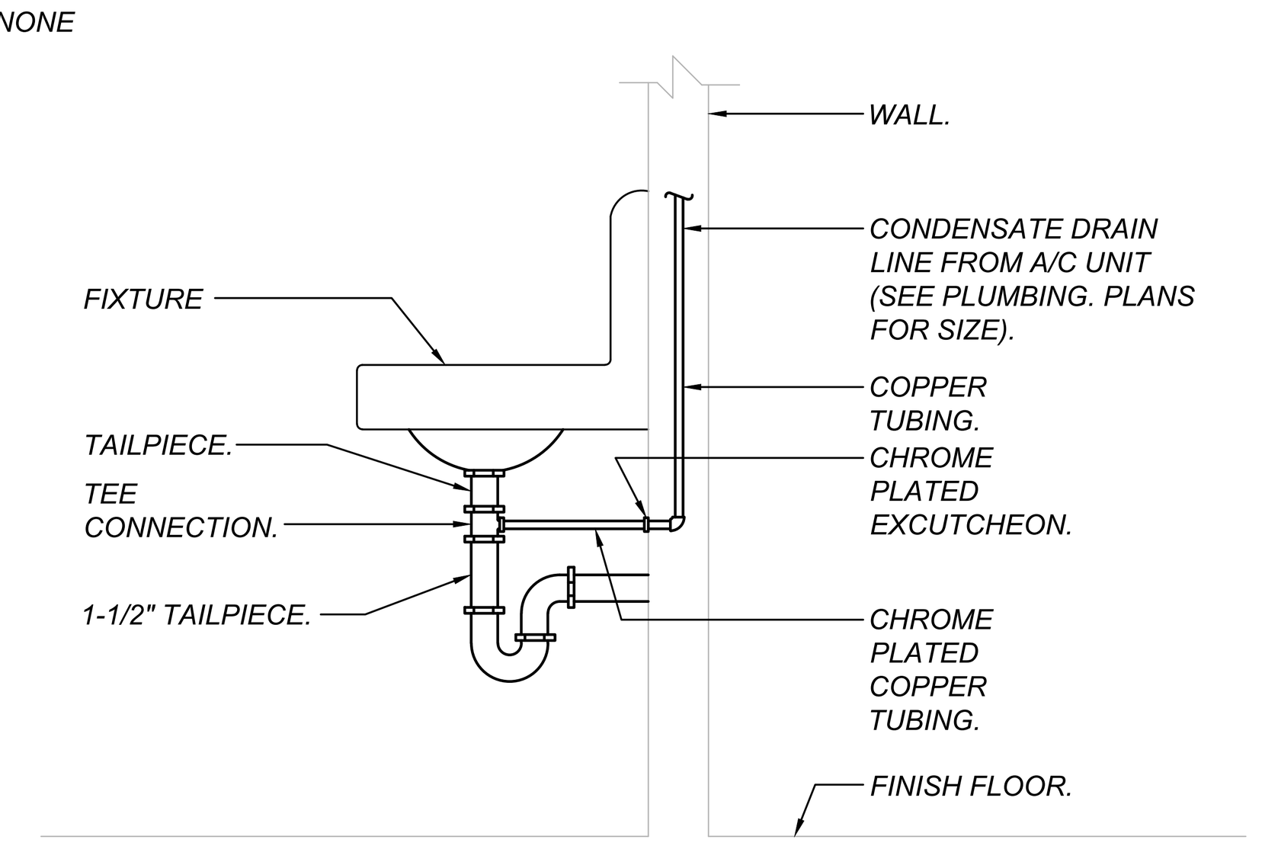
MARK	FIXTURE	CONNECTION SIZES S or W	V	CW	HW	DESCRIPTION
WC-1	WATER CLOSET	4"	2"	1/2"	-	AMERICAN STANDARD "MADERA FLOWISE ELONGATED TOILET" #3451001 (OR KOHLER OR ZURN EQUAL), FLOOR MOUNTED, ZURN FLUSH VALVE #ZER6000AV-HET-CPM 1.28 GPF, AND OLSONITE #95CC/SS EXTRA HEAVY DUTY OPEN-FRONT SEAT.
WC-2 (ADA)	WATER CLOSET	4"	2"	1/2"	-	AMERICAN STANDARD "MADERA FLOWISE ELONGATED TOILET" #3043.001 (OR KOHLER OR ZURN EQUAL), FLOOR MOUNTED, CBC ACCESS COMPLIANT, ZURN FLUSH VALVE #ZER6000AV-HET-CPM,1.28 GPF, FLUSH VALVE LEVER POINTED TOWARDS WIDE SIDE OF STALL, AND OLSONITE #95CC/SS EXTRA HEAVY DUTY OPEN-FRONT SEAT.
U-1 (ADA)	URINAL	2"	1-1/2"	3/4"	-	AMERICAN STANDARD "PINTBROOK" URINAL #6002.001 (OR KOHLER OR ZURN EQUAL) CBC ACCESS COMPLIANT, 0.125 GPF, WITH ZURN "AQUASENSE" #ZTR6203-ULF-LL SENSOR OPERATED FLUSH VALVE, 10 YEAR LONG LIFE BATTERIES, MECHANICAL OVERRIDE BUTTON. PROVIDE STEEL SUPPORT PLATE FOR MOUNTING FIXTURE PER DETAIL E/P3.1. SEE ARCH. DWGS. FOR MOUNTING HEIGHT.
L-1 (ADA)	LAVATORY	2"	1-1/2"	1/2"	1/2"	AMERICAN STANDARD "DECORUM" WALL-HUNG SINK #9024.000EC, (OR KOHLER OR ZURN EQUAL) CBC ACCESS COMPLIANT, 20"x18-1/4", VIT. CHINA WITH NO FAUCET HOLES, McGUIRE #155A GRID DRAIN. AMERICAN STANDARD "SERIN" WALL-MOUNT SENSOR OPERATED FAUCET #T064.345 (OR T&S BRASS OR ZURN EQUAL), 0.5 GPM, LAMINAR SPRAY, PWRX 10 YEAR BATTERY POWER, #605XTMV1070 THERMOSTATIC MIXING VALVE SET FOR 110°F OUTLET TEMP. TRUEBRO "LAV SHIELD" #20181 PROTECTIVE LAVATORY ENCLOSURE. FIELD CUT STANDARD LAV SHIELD TO MATCH LAVATORY CONTOUR. FACTORY PRE-CUT LAV SHIELD ACCEPTABLE WHERE AVAILABLE. JAY R. SMITH #723 CONCEALED ARMS, AND A STEEL SUPPORT PLATE FOR MOUNTING FIXTURE PER DETAIL E/P3.1. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.
L-2 (ADA)	LAVATORY	2"	1-1/2"	1/2"	1/2"	AMERICAN STANDARD "AQUALYN" DROP-IN LAVATORY #0476.028.020, CBC ACCESS COMPLIANT, 20-3/8"x17"-3/8" OVAL VIT. CHINA WITH 3 FAUCET HOLES 4" ON CENTER, McGUIRE #155A GRID DRAIN AND AMERICAN STANDARD "INNSBROOK SELECTRONIC" #605B.204, 0.35 GAL. MIN., VANDAL RESISTANT, 7.5 SECOND CYCLE.#605XTMV1070 THERMOSTATIC MIXING VALVE SET FOR 110°F OUTLET TEMP.
HB-1	HOSE BIBB	-	-	3/4"	-	WOODFORD #24P (OR MIFAB EQUAL) OPTIONAL POLISHED CHROME WALL HOSE VALVE WITH LOCKSHIELD, NON-REMOVABLE VACUUM BREAKER, AND OPTIONAL LOOSE TEE KEY HANDLE WITH MODEL 34HD.
HB-2	HOSE BIBB	-	-	3/4"	-	WOODFORD #B75 (OR MIFAB EQUAL) RECESSED WALL HOSE BOX WITH LOCKING DOOR, VACUUM BREAKER, LOOSE TEE KEY HANDLE, SCREWDRIVER STOP. SELF DRAINING CAST STAINLESS STEEL FOR NON-FREEZE AREAS.
SA-1	SHOCK ABSORBER	-	-	-	-	JAY R. SMITH #5010, (OR ZURN EQUAL) STAINLESS STEEL CONSTRUCTION, P.D.I. SYMBOL "B" FOR UP TO 32 FIXTURE UNITS. INSTALL IN UPWARD POSITION.
SA-2	SHOCK ABSORBER	-	-	-	-	JAY R. SMITH #5005, (OR ZURN EQUAL) STAINLESS STEEL CONSTRUCTION, P.D.I. SYMBOL "A" FOR UP TO 11 FIXTURE UNITS. INSTALL IN UPWARD POSITION.
EDF-1 (ADA)	ELECTRIC DRINKING FOUNTAIN	2"	1-1/2"	1/2"	-	ELKAY "EZH20" #LZWS-LRPBM28K, CBC ACCESS COMPLIANT, DUAL HEIGHT STAINLESS STEEL FOUNTAINS, PUSH-BUTTON OPERATION, RECESSED CHILLER #ECH8 WITH STAINLESS STEEL WALL GRILLE, MOUNTING FRAME #MFWSI20, AND INTERGRAL BOTTLE FILLING STATION. ELECTRICAL REQUIRED, 120V/1Ø, 1 FLA, 370 WATTS.
TP-1	TRAP PRIMER	-	-	1/2"	-	PRECISION PLUMBING PRODUCTS MODEL #P-1 (OR MIFAB EQUAL) VALVE W/ DISTRIBUTION UNITS AS REQUIRED FOR UP TO 4 DRAINS PER DISTRIBUTION UNIT.
S-1 (ADA)	SINK	2"	1-1/2"	1/2"	1/2"	ELKAY #LRAD252140 (OR JUST EQUAL) ADA COMPLIANT, SINGLE COMPARTMENT 18 GAUGE STAINLESS STEEL, 25"x21-1/4"x4" BEEP BOWL SIZE, CENTER REAR DRAIN WITH #J-35GS BASKET STRAINER, AND CHICAGO #2300-8E34ABCP (OR T&S BRASS OR ZURN EQUAL) SINGLE LEVER, #ZW3870XLT-4P 4 PORT THERMOSTATIC MIXING VALVE SET FOR 110°F OUTLET TEMP.
GD-1	GARBAGE DISPOSAL	-	-	-	-	IN-SINK-ERATOR "EVOLUTION ESSENTIAL" MULTI-GRIND, CONTINUOUS FEED SOUNDSEAL TECHNOLOGY, SIX YEAR WARRANTY, 3/4 HP, 120V/1Ø MOTOR, WITH ON/OFF WALL SWITCH & STAINLESS STEEL GRINDING ELEMENTS.
SS-1	SERVICE SINK	3"	2"	1/2"	1/2"	AMERICAN STANDARD "AKRON" #7695.008, 24"x20-1/2" ENAMELED CAST IRON WITH RIM GUARD, DRILLED BACK 2 HOLES ON 8" CENTERS, #7798.030 CAST IRON P-TRAP TO WALL AND STRAINER FOR 3" IRON PIPE. ZURN #Z841L1 (OR CHICAGO OR T&S BRASS EQUAL) POLISHED CHROME FAUCET WITH VACUUM BREAKER AND STOPS. PROVIDE A STEEL SUPPORT PLATE FOR MOUNTING FIXTURE PER DETAIL E/P3.1.
EWH-1	ELECTRIC WATER HEATER	-"	-"	-"	-	BRADFORD WHITE "ELECTRI FLEX MD" #E32-80-R3 ELECTRIC WATER HEATER (OR AD SMITH EQUAL) 24"Øx61-3/8"HIGH, 80 GALLON STORAGE CAPACITY, 61 GPH @ 80°F RISE. UNIT WEIGHT = 750 LBS



NOTES:
1. FOR SINGLE FIXTURE, PLATE SHALL BE ANCHORED TO A MINIMUM OF (4) VERTICAL STUDS.
2. FOR CONDITIONS AT BATTERY OF FIXTURES, MOUNT ON A CONTINUOUS STEEL PLATE. EXTEND PLATE (2) STUDS BEYOND CENTER OF END FIXTURE.
3. PROVIDE THREADED SELF-TAPPING HOLES IN PLATE FOR FIXTURE SUPPORT CARRIER MOUNTING.
4. PROVIDE JAY R. SMITH CONCEALED ARMS MOUNTED TO PLATE FOR LAVATORY INSTALLATION.

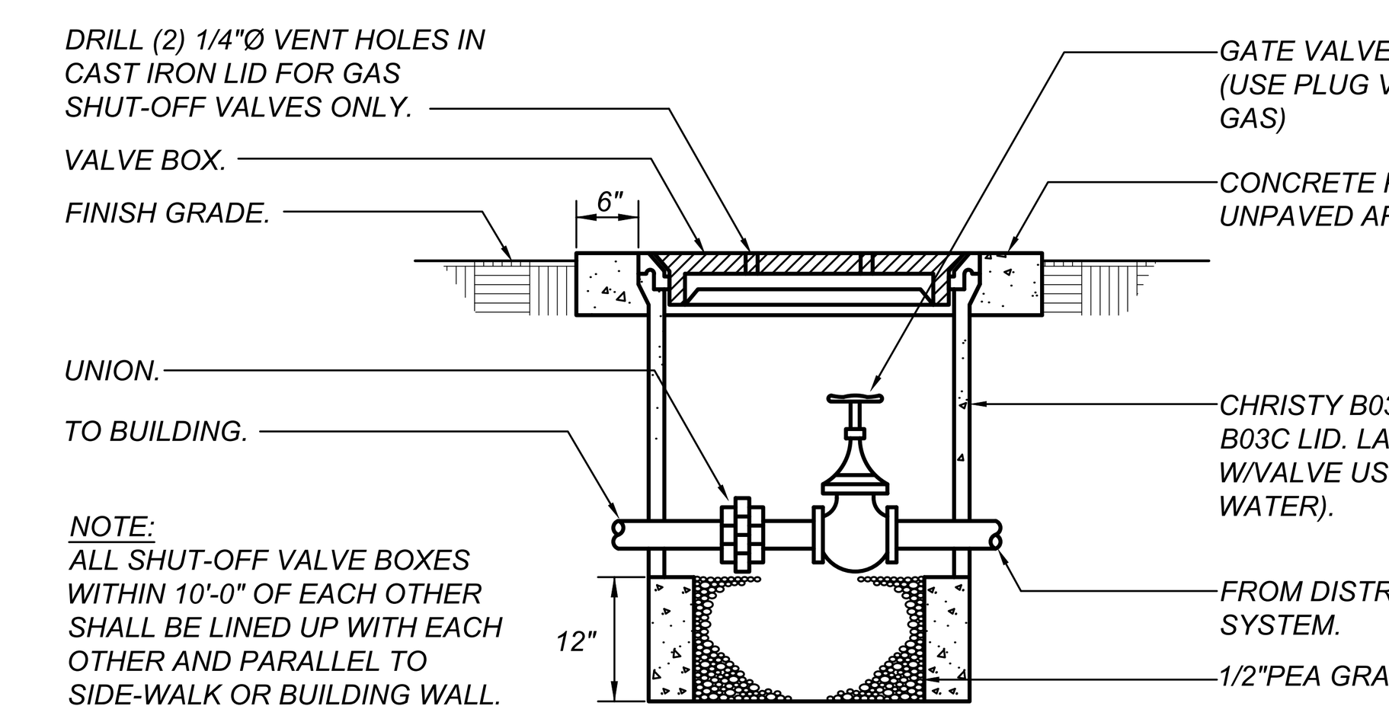
FIXTURE SUPPORT BACKING PLATE DETAIL (E / P3.1)

SCALE: NONE



CONDENSATE TERMINATION TO SINK / LAVATORY TAILPIECE (F / P3.1)

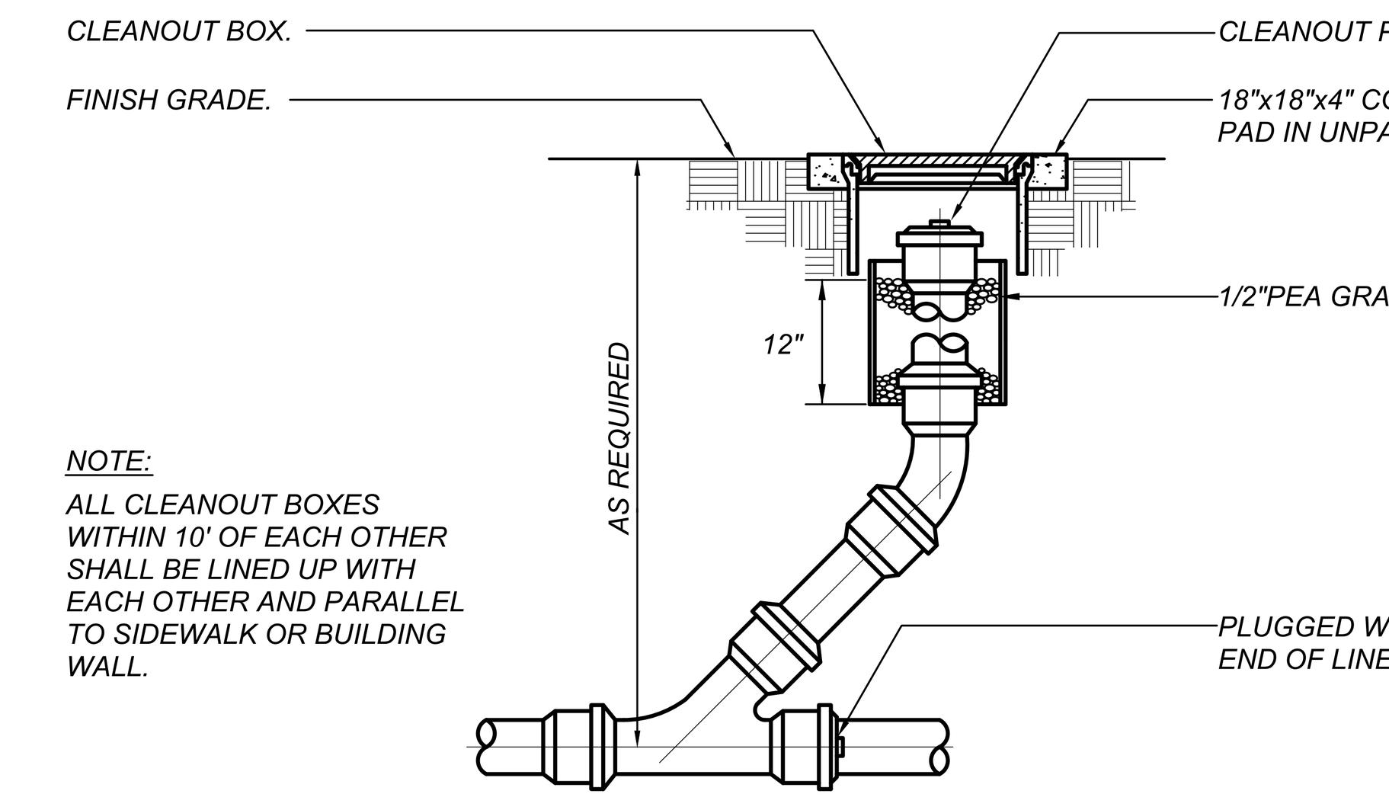
SCALE: NONE



NOTE:
ALL SHUT-OFF VALVE BOXES WITHIN 10'-0" OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDE-WALK OR BUILDING WALL.

SHUT-OFF VALVE IN BOX DETAIL (A / P3.1)

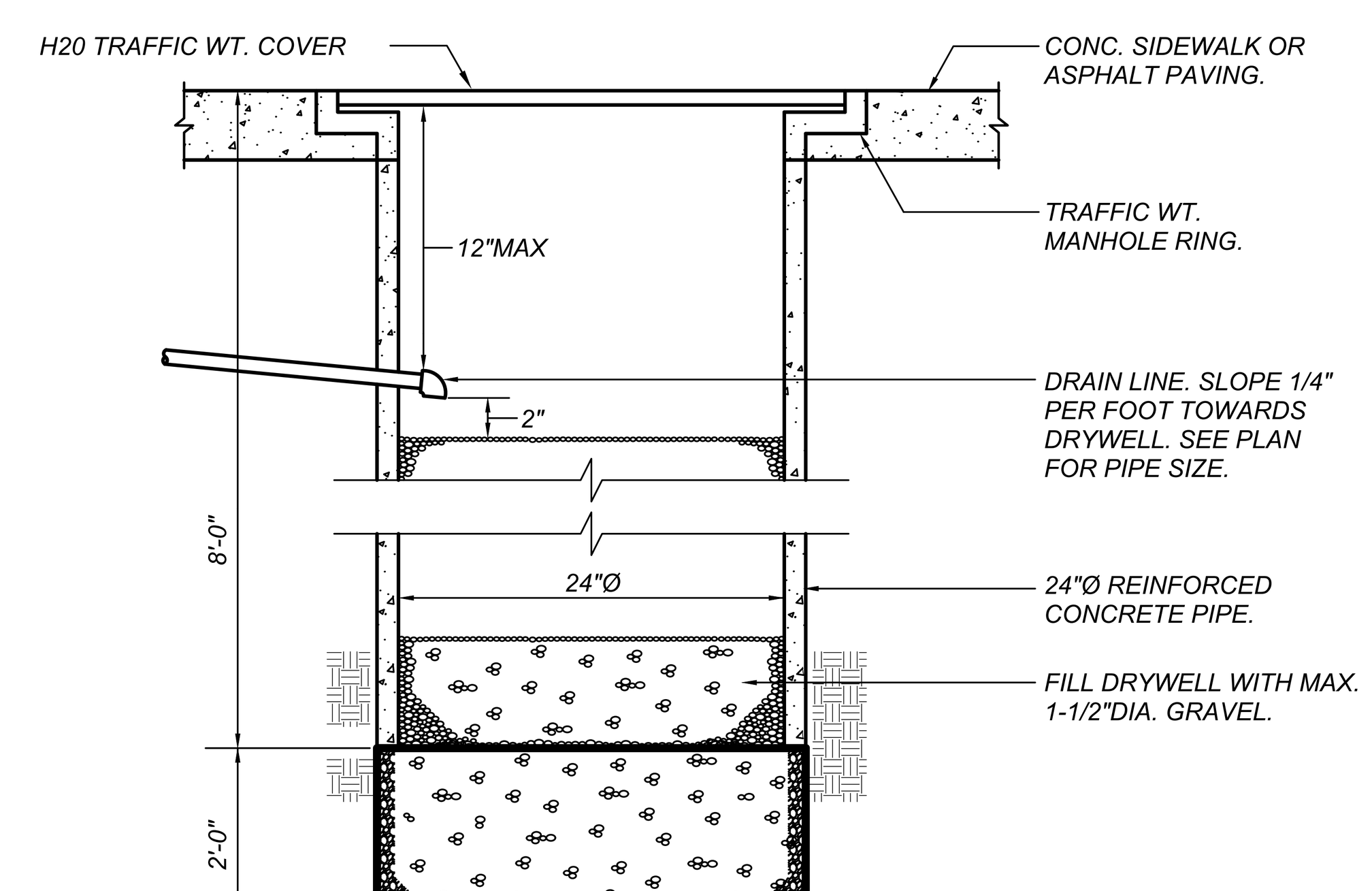
SCALE: NONE P159



NOTE:
ALL CLEANOUT BOXES WITHIN 10' OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDEWALK OR BUILDING WALL.

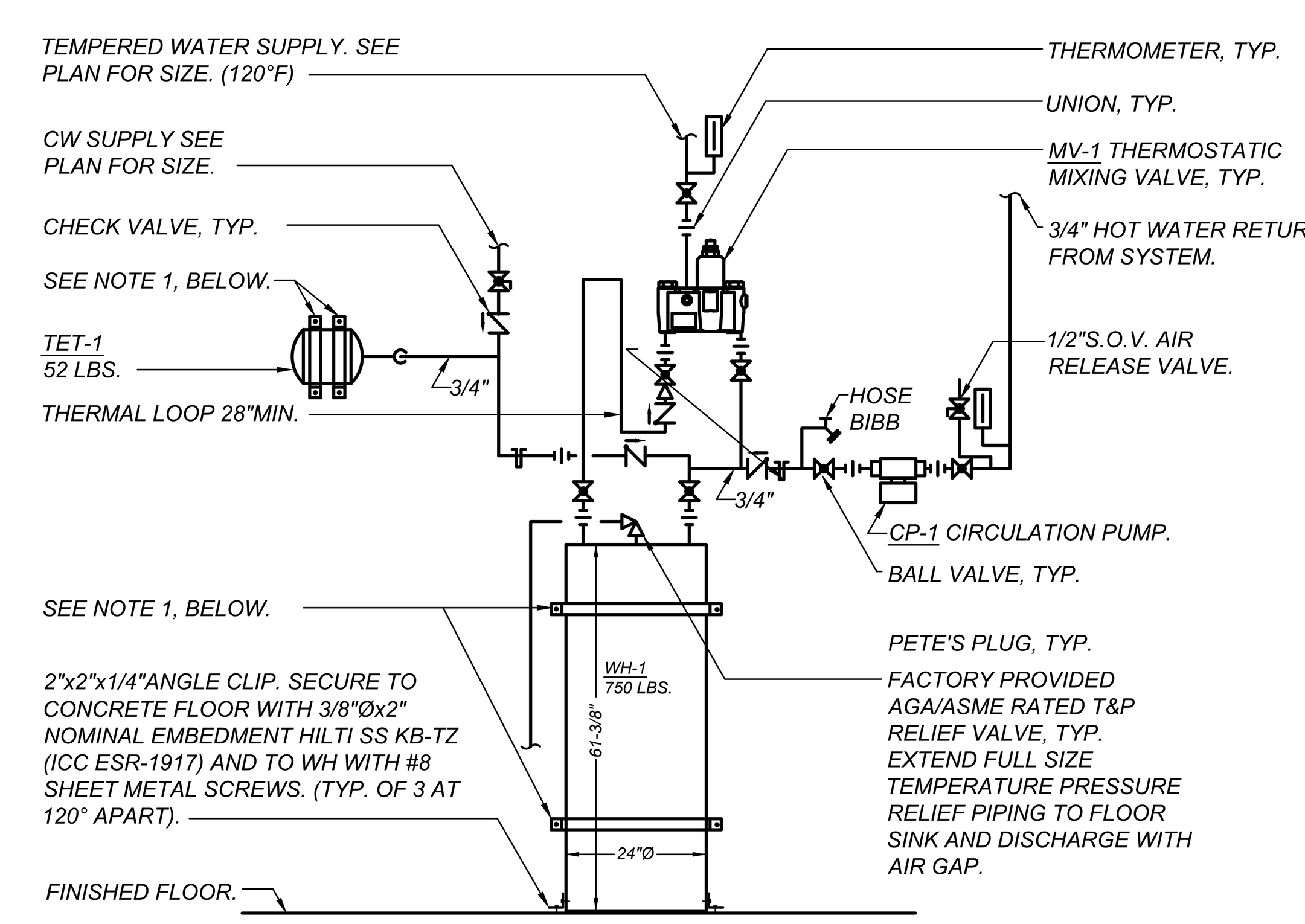
CLEANOUT TO GRADE DETAIL (B / P3.1)

SCALE: NONE P114



DRYWELL DETAIL (C / P3.1)

SCALE: NONE P118



NOTE:
1. SECURE WATER HEATER/EXPANSION TANK TO METAL PLATE BACKING IN WALL WITH 2"x18 GA S/M STRAP AND (2) #12 SELF-TAPPING SHEET METAL SCREW. REFER TO DETAIL D/P5.0, TYP.

WATER HEATER DETAIL (WH-1) (D / P3.1)

SCALE: NONE P170

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Project:
Sheriff Area 2 Sub-Station
1129 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

Drawn by: ---- Plot date: 06.01.2020

SCHEDULES AND DETAILS

1 June 2020 2:49 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawings\5 P\OFFICE\P3.1 - Schedules and Details.dwg mike

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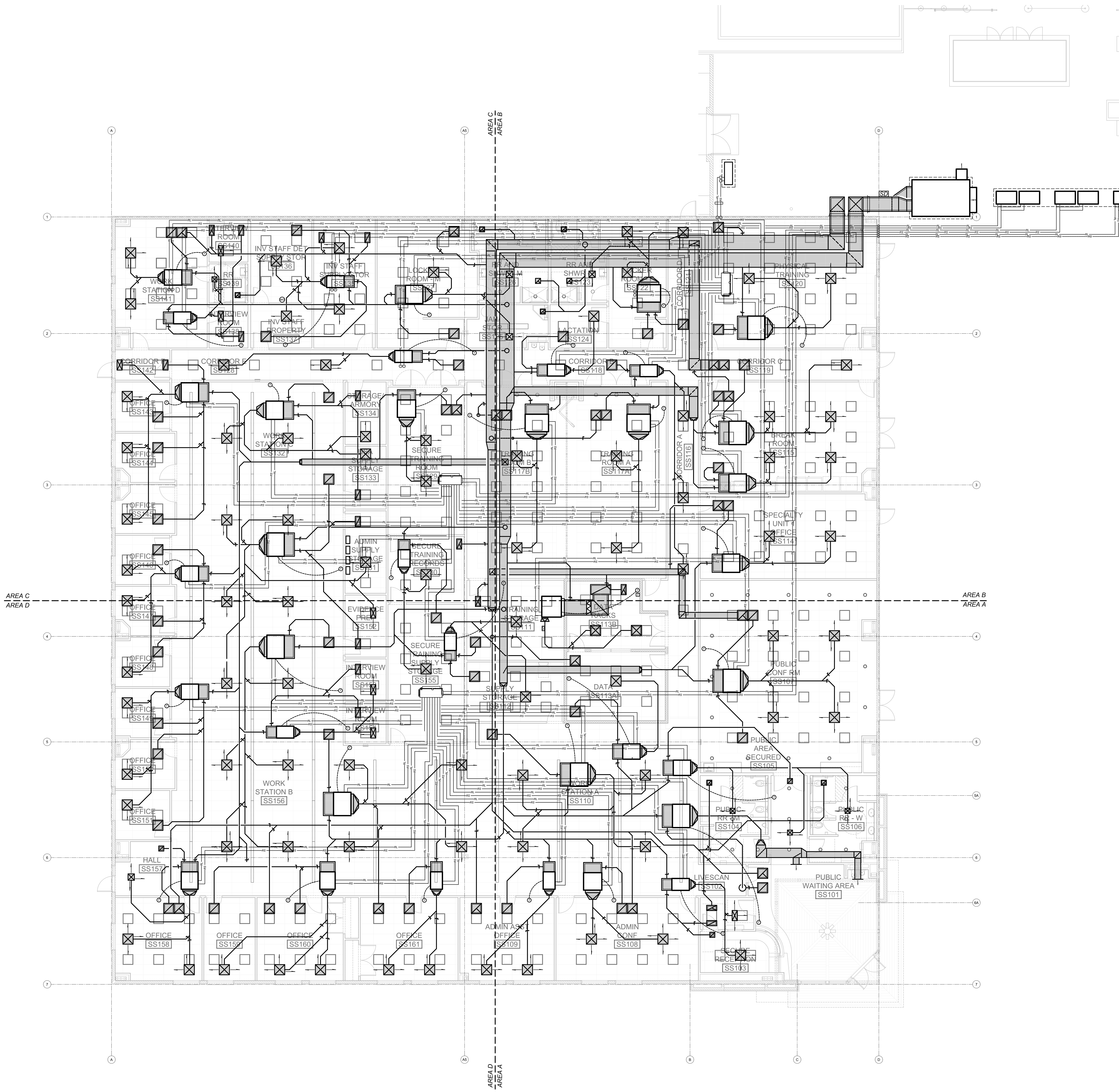

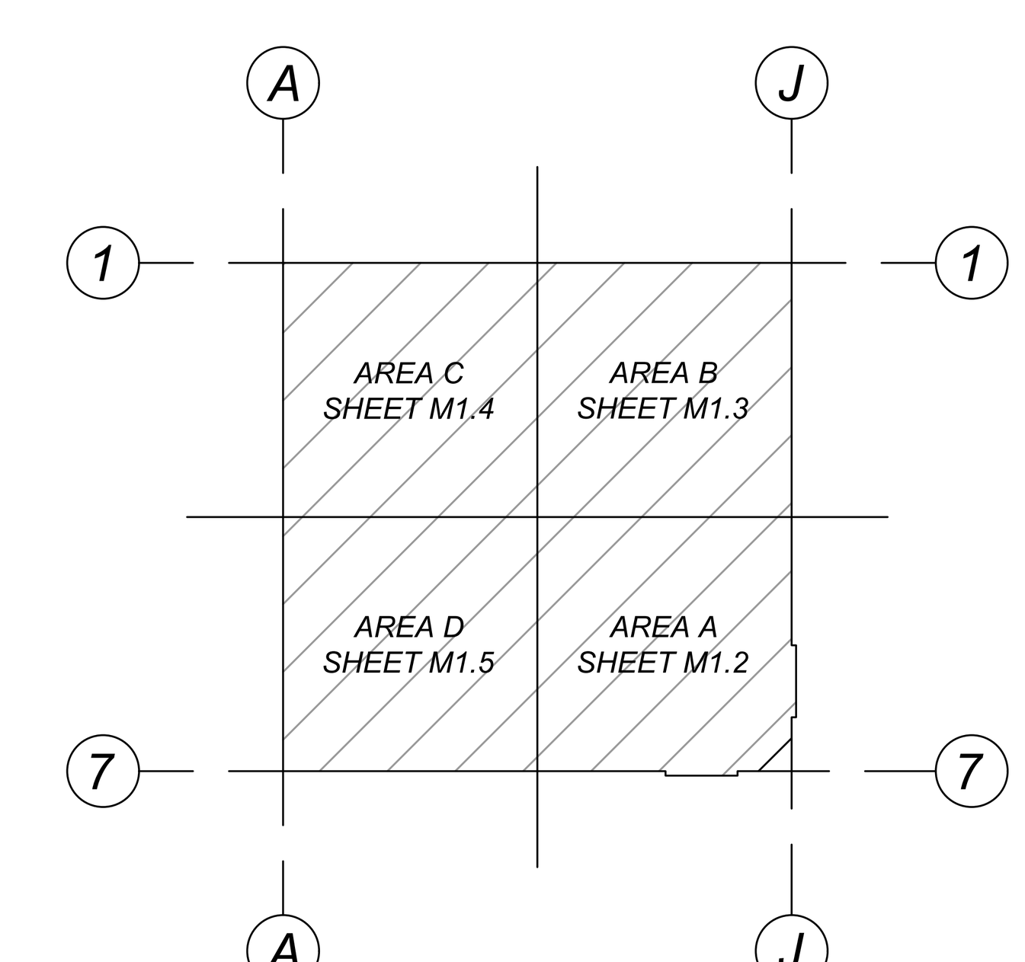

KEY PLAN

GENERAL NOTES:

1. *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.*
2. *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.*
3. *DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. WHERE ACOUSTIC LINING IS SHOWN, INCREASE EACH SHEET METAL DIMENSION TO ACCOMMODATE LINING & MAINTAIN CLEAR INSIDE DUCT DIMENSIONS SHOWN.*
4. *SA DUCTWORK SHALL BE 1" PRESSURE CLASS AND RA & EA DUCTWORK SHALL BE 1" PRESSURE CLASS UNLESS OTHERWISE NOTED.*

AIR CONDITIONING LEGEND

SYMBOL	ITEM	ABBR
	ROUND DUCT	Ø
	SHEET METAL DUCT	—
	ACOUSTIC LINING FOR DUCT OR GRILLES	(L)
	DUCT W/EXT INSULATION & GALV. SM SUNSHIELD	—
	SUPPLY AIR DUCT DROP	—
	RETURN AIR DUCT DROP	—
	EXHAUST DUCT AIR DROP	—
	SUPPLY AIR DUCT RISE	—
	RETURN AIR DUCT RISE	—
	EXHAUST AIR DUCT RISE	—
	TURNING VANES	TV
	EXTRACTOR	—
	VOLUME CONTROL DAMPER W/LOCKING QUADRANT	VCD
	OPPOSED BLADE DAMPER	OBD
	BACKDRAFT DAMPER	BDD
	VOLUME CONTROL DAMPER W/ REMOTE REGULATOR	VCR
&	FIRE/SMOKE DAMPER WITH ACCESS PANEL	F/SD
CFM	CUBIC FEET OF AIR PER MINUTE	CFM
T	TEMP. CTRLR. @ +4'-0" TOP OF BOX	TEMP. CTRLR.
	DIRECTION OF FLOW	—
	SUPPLY AIR	SA
	RETURN AIR	RA
	EXHAUST AIR	EA
	OUTSIDE AIR	OSA
RL	REFRIGERANT LIQUID	RL
RS	REFRIGERANT SUCTION	RS
	PIPE/DUCT TURN DOWN	—
	PIPE/DUCT TURN UP	—
	POINT OF CONNECTION	POC
	EXISTING (DESIGNATED)	(E)
	NEW (DESIGNATED)	(N)
SD	DUCT SMOKE DETECTOR	SD
WO	WALL OCC. SENSOR @ +4'-0" TOP OF BOX.	WO
CO	CEILING OCC. SENSOR	CO

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C-27818
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STATE OF CALIFORNIA

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Project:

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FILE NAME:

Sheet Content:

SUBSTATION OFFICE AIR CONDITIONING PLAN - OVERALL

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

M1.1

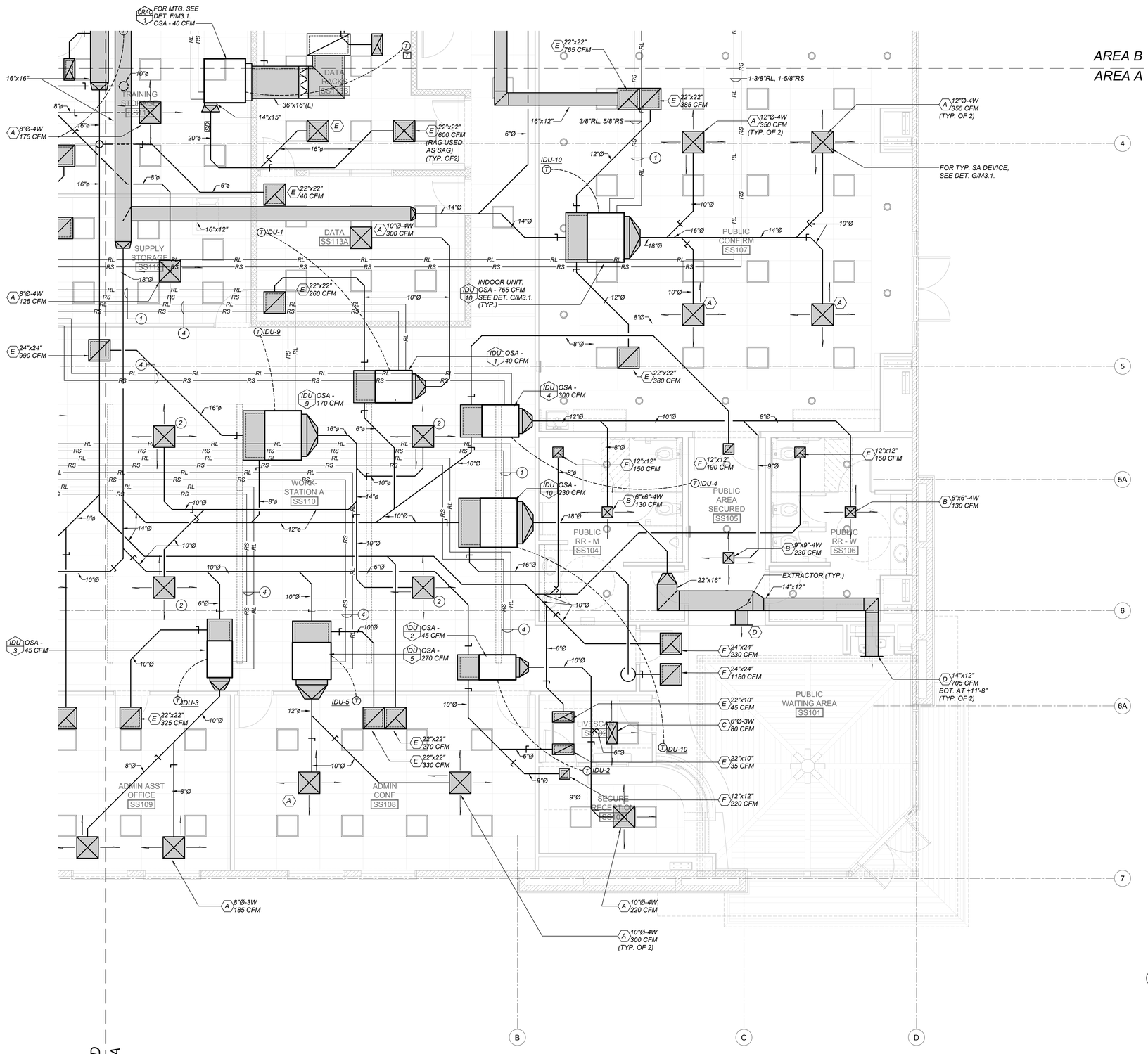
SUBSTATION OFFICE AIR CONDITIONING PLAN - OVERALL

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

NORTH

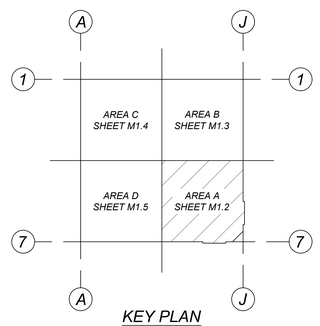
Drawn by: ----

Plot date: 06.01.2020



KEYNOTES: (THIS SHEET ONLY)

1. 3/8"RL, 5/8"RS
2. A 10"Ø-4W 290 CFM
3. A 10"Ø-3W 255 CFM
4. 1/4"RL, 1/2"RS



KEY PLAN

SUBSTATION OFFICE AIR CONDITIONING PLAN - AREA A

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

NORTH

PROFESSIONAL ENGINEER — ROGER D. DAVIDSON — M23688 — EXP. 9-30-2021 — MECHANICAL — STATE OF CALIFORNIA

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Sheet Content:

SUBSTATION OFFICE AIR CONDITIONING PLAN - AREA A

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

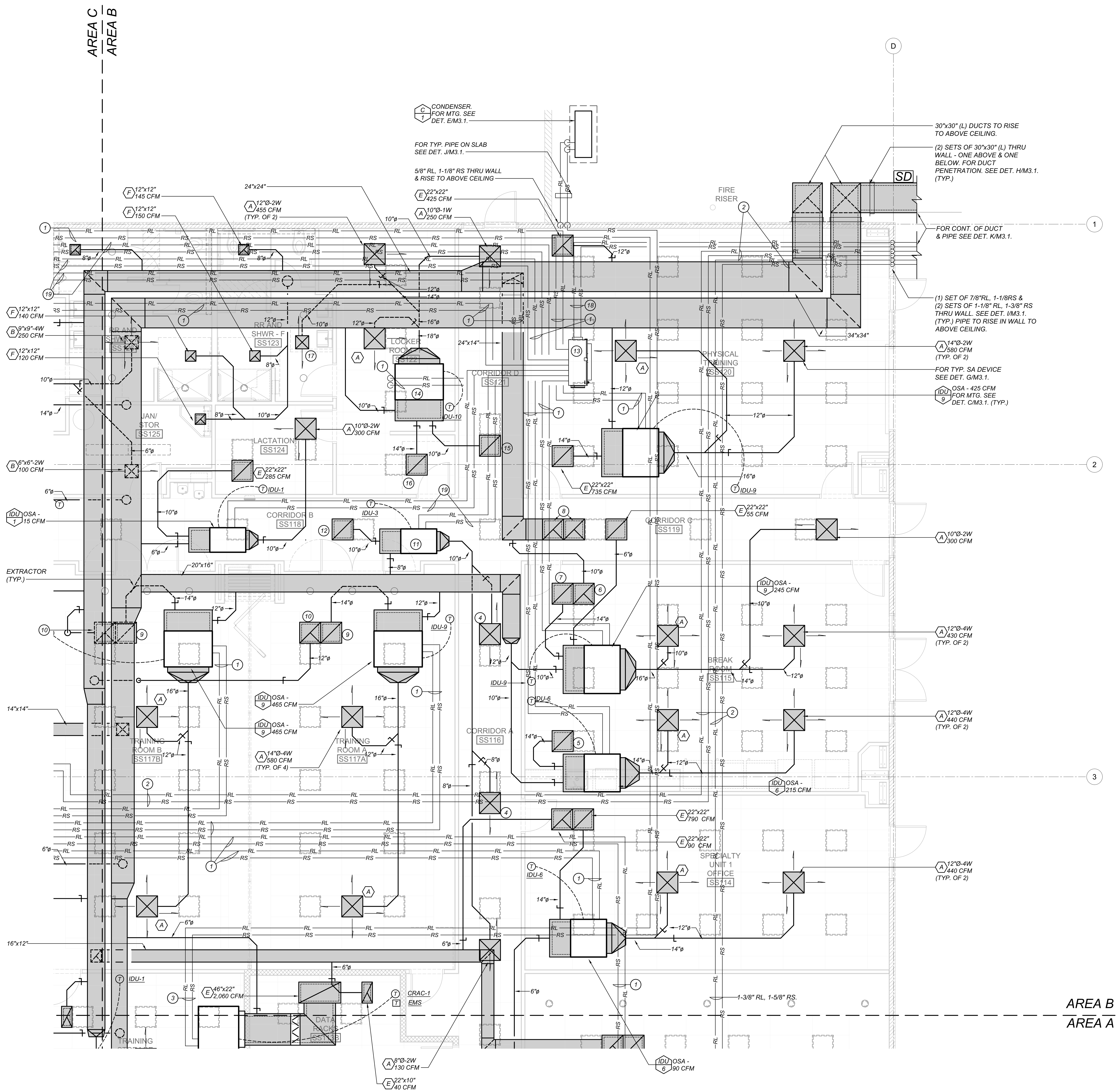
THE COUNTY OF FRESNO

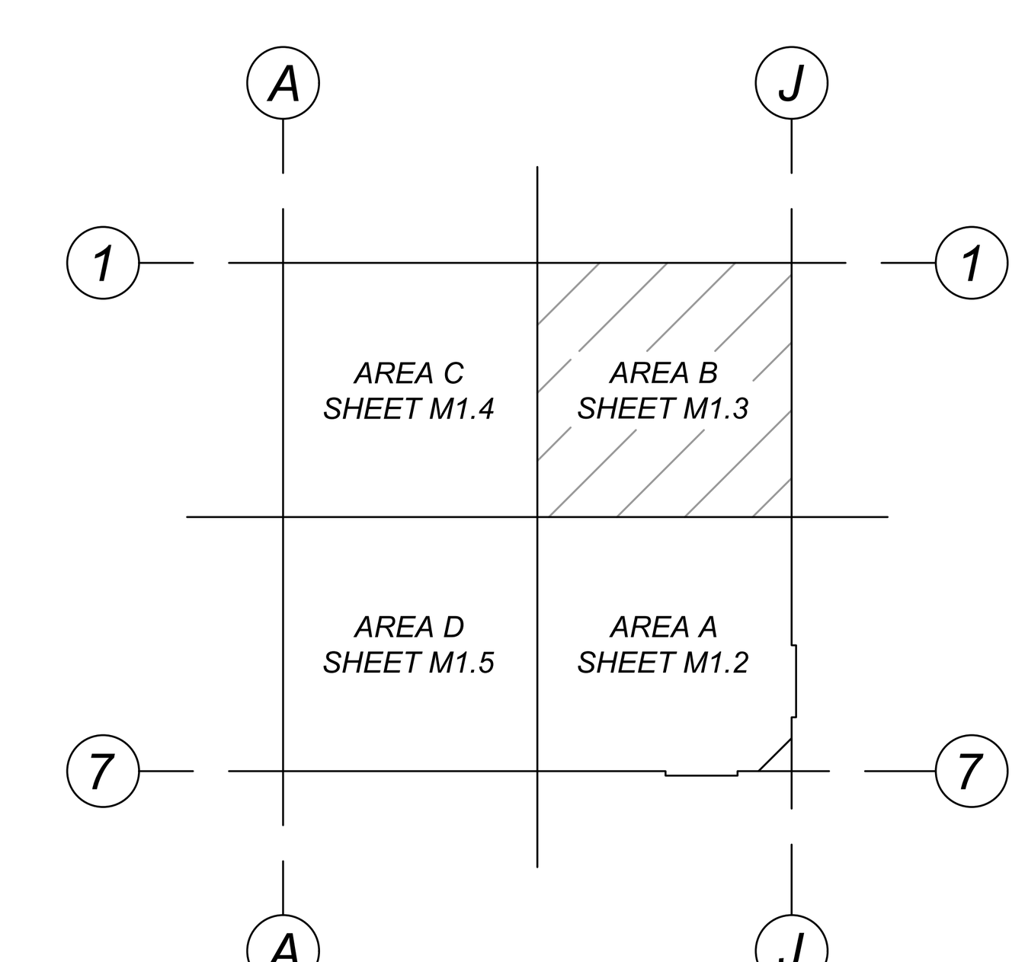
Sheet No.

M1.2

Drawn by: ----

Plot date: 06.01.2020





KEY PLAN

KEYNOTES: (THIS SHEET ONLY)

1. 3/8" RL, 5/8" RS.
2. 1-1/8" RL, 1-3/8" RS.
3. 5/8" RL, 1-1/8" RS.
4. A 8"Ø-2W 120 CFM
5. E 22"x22" 665 CFM
6. E 22"x22" 215 CFM
7. E 22"x22" 860 CFM
8. (2) E 22"x22" 743 CFM
9. E 22"x22" 695 CFM
10. E 22"x22" 465 CFM
11. IDU 3 OSA - 115 CFM
12. E 22"x22" 255 CFM
13. BSU 1 FOR MTG. SEE DET. B/M3.1.
14. ODU 10 OSA - 280 CFM
15. E 22"x22" 250 CFM
16. E 22"x22" 880 CFM
17. B 9"x9"-2W 250 CFM
18. 7/8" RL, 1-1/8" RS.
19. 1/4" RL, 1/2" RS.

SUBSTATION OFFICE AIR CONDITIONING PLAN - AREA B

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

NORTH

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Sheet Content:

SUBSTATION OFFICE AIR CONDITIONING PLAN - AREA B

Fresno County Department of Public Works and Planning
Capital Projects

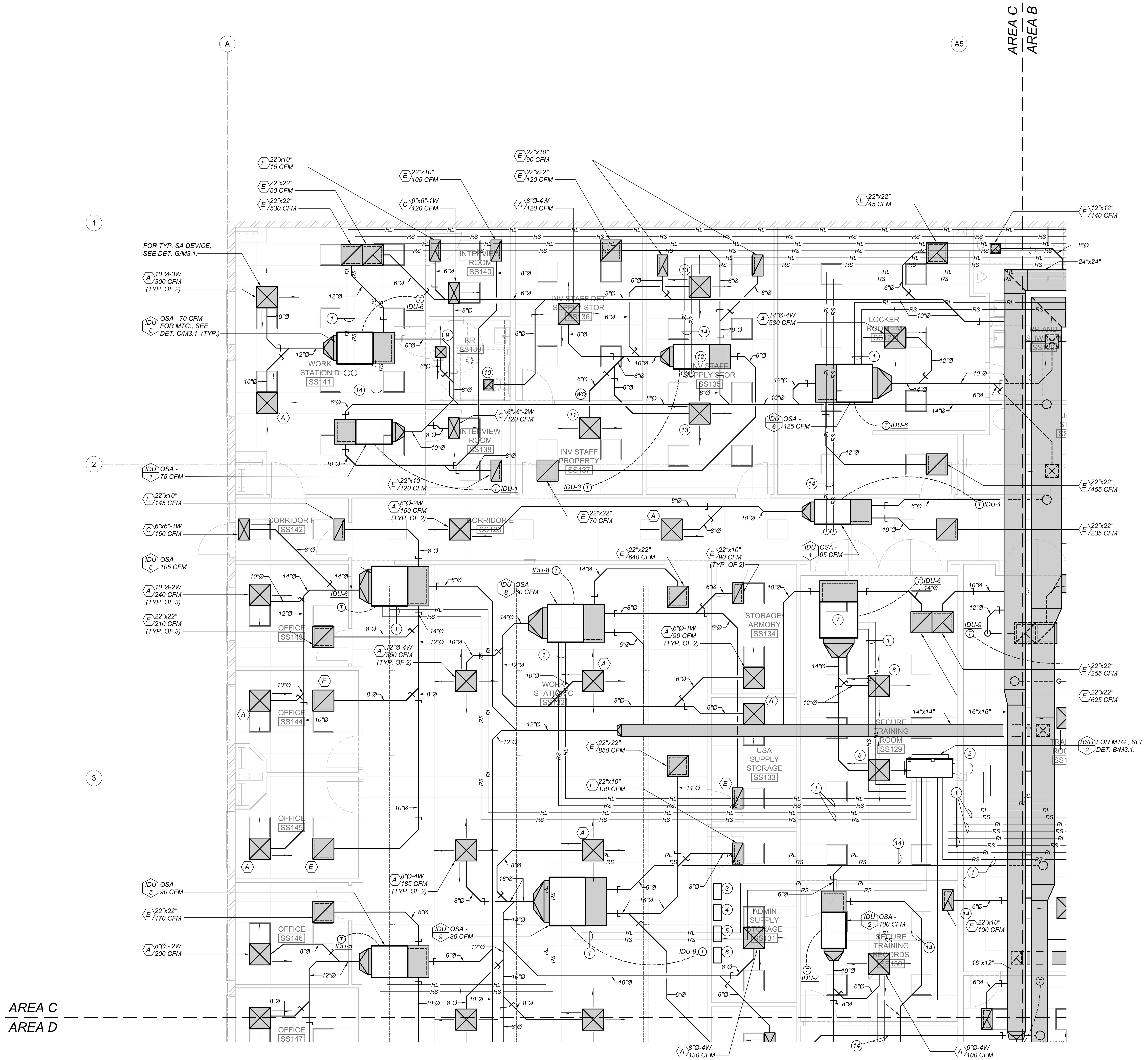
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

M1.3

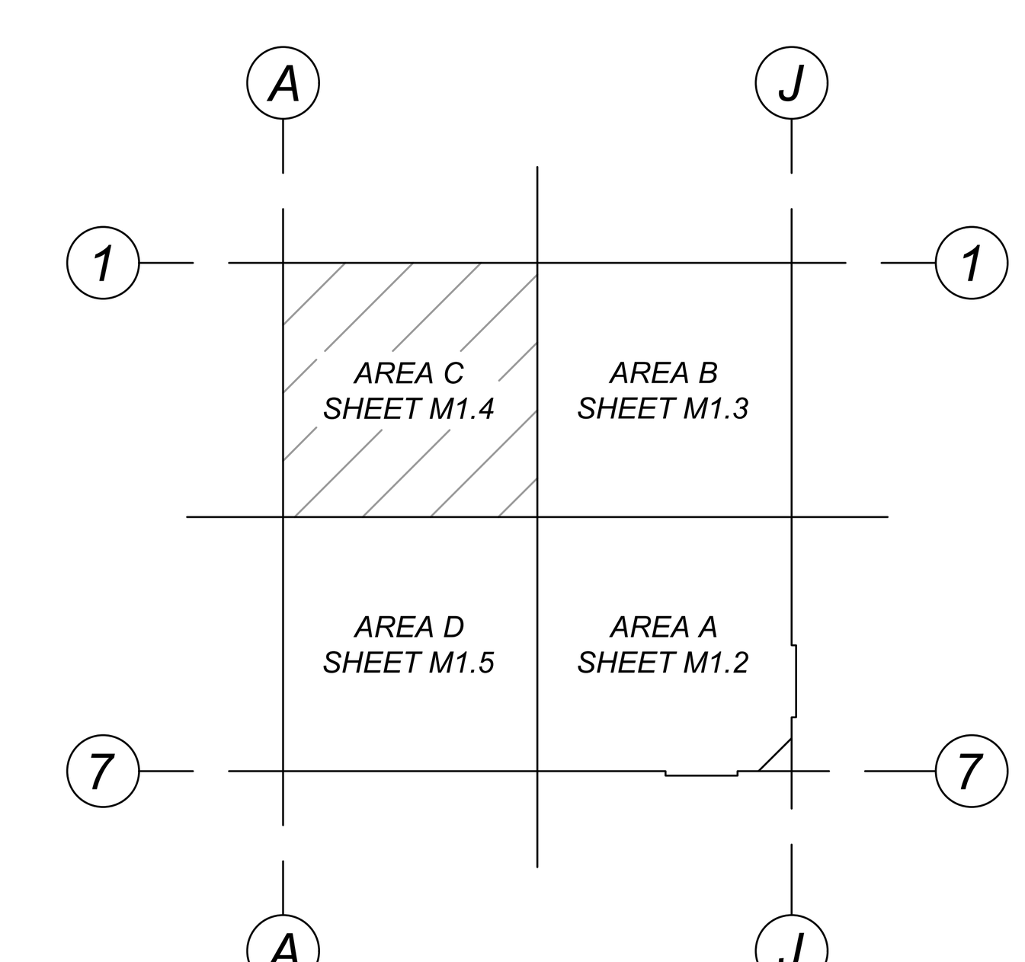
Drawn by: ----

Plot date: 06.01.2020



KEYNOTES: (THIS SHEET ONLY)

1. 3/8"RL, 5/8"RS
2. 1-1/8"RL, 1-3/8"RS
3. EMS PANEL. 120V/1Ø, 20A.
4. CU-1 SYSTEM CONTROL PANEL; 120V/1Ø, 10A.
5. CU-2 SYSTEM CONTROL PANEL; 120V/1Ø, 10A.
6. CU-3 SYSTEM CONTROL PANEL; 120V/1Ø, 10A.
7. IDU 6 OSA - 255 CFM
8. A 12"Ø-4W 440 CFM
9. B 6"x6"-3W 60 CFM
10. F 12"x12" 80 CFM
11. A 6"Ø-2W 70 CFM
12. IDU 3 OSA - 90 CFM
13. A 6"Ø-4W 90 CFM
14. 1/4"RL, 1/2"RS



KEY PLAN

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Sheet Content:
SUBSTATION OFFICE AIR CONDITIONING PLAN - AREA C

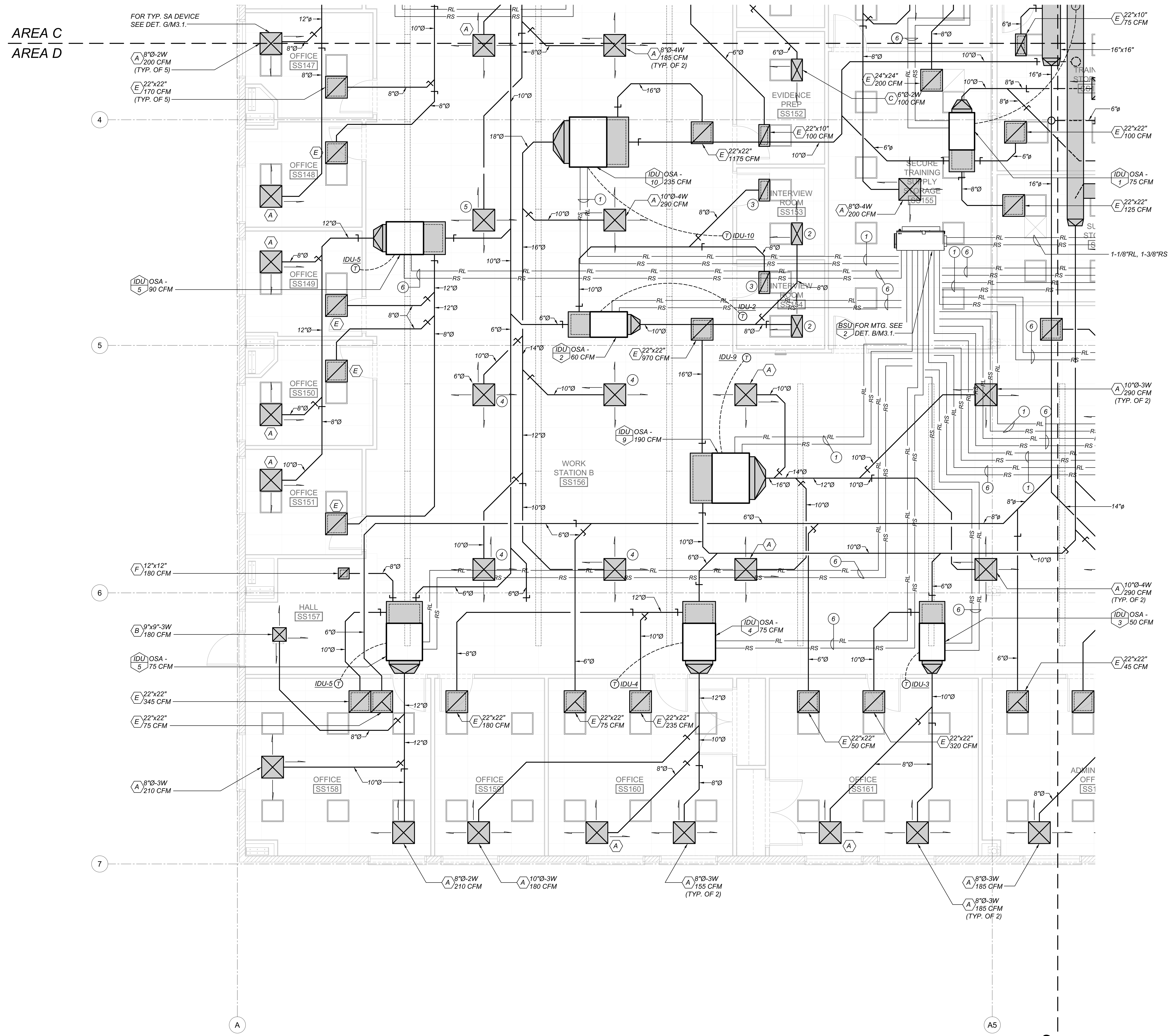
Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
M1.4

SUBSTATION OFFICE AIR CONDITIONING PLAN - AREA C
Scale:1/4" = 1'-0"

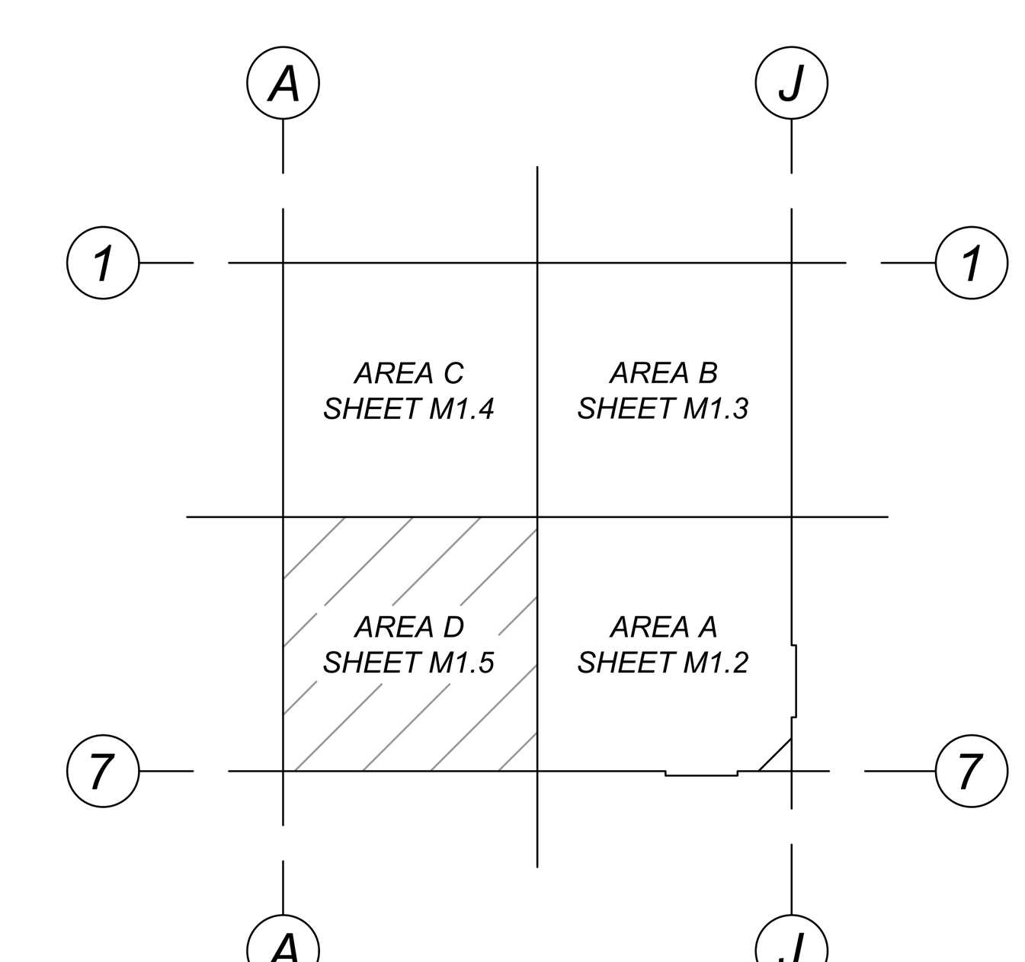
NORTH

Drawn by: ----
Plot date: 06.01.2020



KEYNOTES: (THIS SHEET ONLY)

1. 3/8"RL, 5/8"RS
2. C 6"x6"-2W 150 CFM
3. E 22"x10" 120 CFM
4. A 10"Ø-4W 280 CFM
5. A 8"Ø-4W 190 CFM
6. 1/4"RL, 1/2"RS



KEY PLAN

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SUBSTATION OFFICE AIR CONDITIONING PLAN - AREA D

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

Sheet No.

M1.5

SUBSTATION OFFICE AIR CONDITIONING PLAN - AREA D

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

NORTH

Drawn by: ---- Plot date: 06.01.2020

ENERGY RECOVERY VENTILATOR SCHEDULE		
DESIGNATION		ERV 1
MCA		40.0
MOCP		50.0
VOLTS/PHASE		460 / 3
OUTSIDE AIR	AIRFLOW (CFM)	6,500
	TSP (" W.C.)	1.45
	FAN BHP / HP	4.1 / 5
	RPM	920
	COOLING EADB/EAWB (°F)	105.0 / 72.0
	COOLING LADB/LAWB (°F)	80.7 / 67.4
	HEATING EADB/EAWB (°F)	28.0 / 23.5
	HEATING LADB/LAWB (°F)	61.5 / 48.8
	FILTER QUANTITY/SIZE	(7) 16"x25"x2"
	FILTER TYPE	CAM-FIL AP-13
	FILTER FINAL PD (IN WC)	0.4
	FILTER EFFICIENCY (MERV)	13
EXHAUST AIR	AIRFLOW (CFM)	6,500
	TSP (" W.C.)	1.39
	FAN BHP/HP	4.3 / 5
	RPM	920
	COOLING EADB/EAWB (°F)	75.0 / 62.5
	COOLING LADB/LAWB (°F)	99.1 / 70.5
	HEATING EADB/EAWB (°F)	70.0 / 54.3
	HEATING LADB/LAWB (°F)	35.9 / 30.7
	FILTER QUANTITY/SIZE	(7) 16"x25"x2"
	FILTER TYPE	CAM-FIL AP-13
	FILTER FINAL PD (IN WC)	0.4
	FILTER EFFICIENCY (MERV)	13
MANUFACTURER		GREENHECK
TYPE		ERV
MODEL NUMBER		90-30L
SERVICE		SHERIFF'S SUBST. 2 MAIN OFFICES
OPER. WT. (LBS.)		3,220
ACCESSORIES		1 2

1 OSA & EXH. SIDE CONN., OSA & EXH. DAMPERS, FAN VFD'S, DIRTY FILTER SENSOR, CURB. SMOKE DETECTOR IN SA & EA DUCT TO SHUT UNIT OFF ON ALARM AND SIGNAL FIRE ALARM (DIV. 16).

2 ENERGY WHEEL MOTOR IS 1/20 HP.

COMPUTER ROOM UNIT SCHEDULE		
DESIGNATION		CRAC 1
VOLTS/PHASE		208 / 3
FLA		6.1
MAX FUSE SIZE		15
FAN SECTION	CFM	2,100
	ESP (IN WC)	0.75
	MIN OSA	40
	DRIVE	DIRECT
COOLING	SENSIBLE (MBH)	43.0
	TOTAL (MBH)	45.4
	EADB/EAWB (°F)	75.5 / 63.0
	REFRIGERANT	R-410A
HEATING	CAPACITY (MBH)	-
	KW	-
	STAGES	-
HUMIDIFIER (LBS/HR)		-
FILTERS	QUANTITY/SIZE	(2) 20"x20"x4"
	TYPE	CAM-FIL
	PD (IN WC)	0.35
	EFFICIENCY (MERV)	8
MANUFACTURER		LIEBERT
TYPE		MINIMATE
MODEL NUMBER		MT048HE
OPER. WT. (LBS)		550
SERVICE		SHERIFF'S SUBST. 2 DATA RACK ROOM
ACCESSORIES		1

1 EC FAN, CONDENSATE PUMP, FACTORY FLOAT SWITCH IN COND. PAN TO SHUT OFF UNIT ON OVERFLOW CONDITION, FACTORY FILTER BOX.
SMOKE DETECTOR IN SA DUCT TO SHUT OFF ON ALARM AND SIGNAL FIRE ALARM (DIV. 28)

GRILLE SCHEDULE		
MARK	DUTY	DESCRIPTION
A	CEILING SUPPLY	TITUS TDC (TYPE 3) FULL LOUVER FACE, ROUND OR RECTANGULAR NECK DIFFUSER FOR STD. LAY-IN CEILING WITH NO. 26 WHITE FINISH. (18"x18" NECK, ADAPTER SIZE SHOWN)
B	CEILING SUPPLY	TITUS TDC (TYPE 1) LOUVER FACE SQUARE OR RECTANGULAR NECK DIFFUSER FOR SURFACE MOUNTING WITH O.B.D. AND NO. 26 WHITE FINISH.
C	CEILING SUPPLY	TITUS PAS (TYPE 3) PERFORATED FACE ROUND OR RECTANGULAR NECK DIFFUSER FOR STD. LAY-IN CEILING WITH FLAT BLACK INTERIOR AND NO. 26 WHITE FINISH.
D	WALL SUPPLY	TITUS MODEL 1707 REGISTER WITH REMOVABLE CORE, 5 DEGREE UPWARD DEFLECTION AND NO. 26 WHITE FINISH.
E	CEILING RETURN OR EXHAUST	TITUS CORE 50F (TYPE 3) ALUMINUM EGG CRATE REGISTER WITH 1/2"x1/2" GRID FOR STD. LAY-IN CEILING WITH NO. 26 WHITE FINISH.
F	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.
G	WALL RETURN OR EXHAUST	TITUS MODEL 350RL STEEL RETURN GRILLE WITH 35° DEFLECTION BLADES AT 3/4" SPACING AND NO. 26 WHITE FINISH.

INDOOR UNIT SCHEDULE												
DESIGNATION		IDU 1	IDU 2	IDU 3	IDU 4	IDU 5	IDU 6	IDU 7	IDU 8	IDU 9	IDU 10	IDU 11
BLOWER	CFM	300	300	370	490	600	880	880	880	1160	1410	1480
	ESP (IN WC)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	MIN OSA 1	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN
	HP/AMPS	- / 0.6	- / 0.6	- / 0.7	- /0.7	- / 0.8	- / 1.3	- / 1.3	- / 1.3	- / 1.5	- / 2.1	- / 2.2
	VOLTS/PHASE	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1	208-230 / 1
	RPM	HIGH SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED	HIGH SPEED
	DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
COOLING	SENSIBLE (MBH)	5.5	6.1	8.0	11.1	13.2	18.5	19.4	20.2	26.9	34.6	36.4
	TOTAL (MBH)	5.5	7.1	11.0	14.2	16.6	22.1	24.4	26.6	33.1	45.5	47.9
	EADB/EAWB (°F)	76 / 63	76 / 63	76 / 63	76 / 63	76 / 63	76 / 63	76 / 63	76 / 63	76 / 63	76 / 63	76 / 63
	REFRIGERANT	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
HEATING	CAPACITY (MBH)	4.7	6.1	9.6	12.4	14.2	19.1	21.1	23.1	28.3	39.5	40.8
	KW	-	-	-	-	-	-	-	-	-	-	-
	STAGES	-	-	-	-	-	-	-	-	-	-	-
FILTERS	QUANTITY/SIZE	(1) 14"x25"x2"	(1) 14"x25"x2"	(1) 14"x25"x2"	(1) 14"x20"x2"	(1) 14"x20"x2"	(2) 14"x20"x2"	(2) 14"x20"x2"	(2) 14"x20"x2"	(2) 14"x20"x2"	(2) 14"x20"x2"	(3) 14"x20"x2"
					(1) 14"x14"x2"	(1) 14"x14"x2"				(1) 14"x14"x2"	(1) 14"x14"x2"	
	TYPE	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13	CAMFIL AP-13
	PD (IN WC)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	MERV	13	13	13	13	13	13	13	13	13	13	13
MANUFACTURER		TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
TYPE		VRV - INDOOR	VRV - INDOOR	VRV - INDOOR	VRV - INDOOR	VRV - INDOOR	VRV - INDOOR	VRV - INDOOR	VRV - INDOOR	VRV - INDOOR	VRV - INDOOR	VRV - INDOOR
MODEL NUMBER		PEFY-P06NMAU-E2	PEFY-P08NMAU-E2	PEFY-P12NMAU-E2	PEFY-P15NMAU-E2	PEFY-P18NMAU-E2	PEFY-P24NMAU-E2	PEFY-P27NMAU-E2	PEFY-P30NMAU-E2	PEFY-P36NMAU-E2	PEFY-P48NMAU-E2	PEFY-P54NMAU-E2
SERVICE		SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN
OPER WT (LBS)		80	80	80	95	95	110	110	110	140	140	150
ACCESSORIES		2 3	2 3	2 3	2 3	2 3	2 3	2 3	2 3	2 3	2 3	2 3

1 OSA IS PRECONDITIONED BY ERV.

2 WIRED REMOTE CONTROLLER, CONDENSATE PUMP, FIELD FABRICATED FILTER BOX.

3 MOISTURE SENSOR IN UNIT SHUTS OFF UNIT ON COND. PAN OVERFLOW AND SIGNALS AN ALARM TO THE CENTRAL CONTROLLER.

CONDENSING UNIT SCHEDULE			
DESIGNATION	CU 1	CU 2	CU 3
MCA 1	19.0 / 14.0	22.0 / 19.0	22.0 / 19.0
VOLTS/PHASE	460 / 3	460 / 3	460 / 3
MAX. COOLING CAP. (MBH)	216.0	264.0	264.0
MAX. HEATING CAP. (MBH)	243.0	295.0	295.0
AMBIENT - CLG./HTG. (°F)	105 / 30	105 / 30	105 / 30
EER / COP AT ARI	12.2 / 3.56	11.5 / 3.36	11.5 / 3.36
REFRIGERANT	R-410A	R-410A	R-410A
MANUFACTURER	TRANE	TRANE	TRANE
TYPE	HEAT RECOV.	HEAT RECOV.	HEAT RECOV.
MODEL NUMBER	TURYE2164BN	TURYE2644BN	TURYE2644BN
SERVICE	SHERIFF'S SUBST. 2 NORTH SECTION	SHERIFF'S SUBST. 2 CENTRAL SECTION	SHERIFF'S SUBST. 2 SOUTH SECTION
OPER WT (LBS)	720 / 710	790 / 720	790 / 720
ACCESSORIES	2	3	3

1 COMBINATIONS OF UNITS HAVE MODULES W/ SEPARATE POWER CONN., WEIGHT AND MOUNTING.

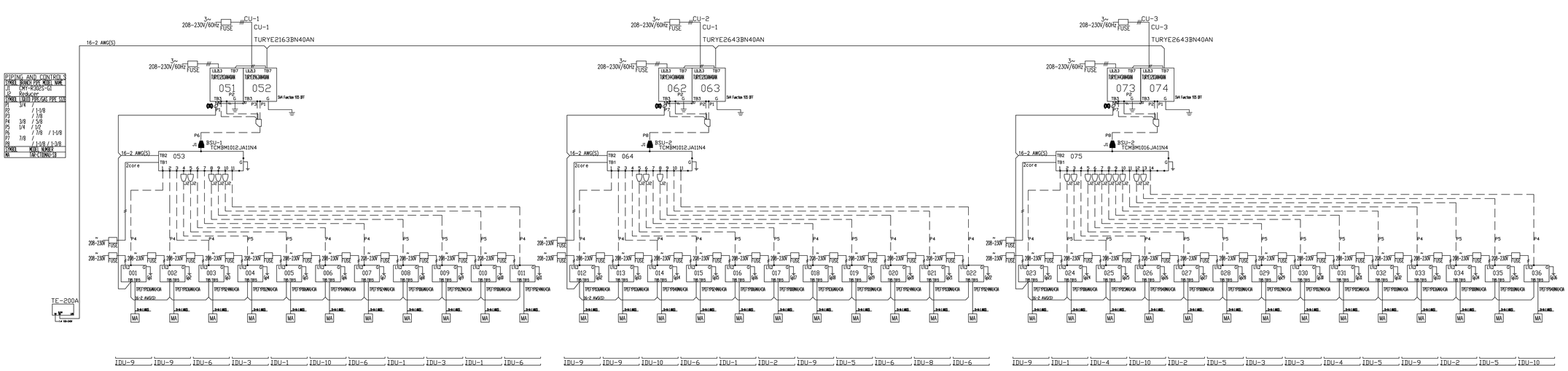
2 COMBINATION OF (1) - TURYE1204AN, (1) - TURYE0964AN.

3 COMBINATION OF (1) - TURYE1444AN, (1) - TURYE1204AN.

BRANCH SELECTOR UNIT SCHEDULE		
DESIGNATION	BSU 1	BSU 2
NAMEPLATE AMPS	1.3	1.4
VOLTS/PHASE	208-230 / 1	208-230 / 1
MAX. CONN. CLG. CAP. (TONS)	32	32
NO. OF IDU PER BRANCH	12	16
MAX. BRANCH CLG. CAP. (TONS)	4.5	4.5
REFRIGERANT	R-410A	R-410A
MANUFACTURER	TRANE	TRANE
TYPE	SINGLE	SINGLE
MODEL NUMBER	TCMBG1012	TCMBG1016
SERVICE	SEE PLAN	SEE PLAN
OPER WT (LBS)	120	150
ACCESSORIES	1	1

1 COND. PUMP, ISOLATION VALVES FOR MAIN REFRIG. PIPE AND EACH BRANCH PIPE.

CONDENSER SCHEDULE	
DESIGNATION	C 1
NAMEPLATE AMPS	23.4
VOLTS/PHASE	208 / 3
COOLING CAP (MBH)	45.4
AMBIENT (°F)	105
SCOP AT ARI	2.1
REFRIGERANT	R-410A
MANUFACTURER	LIEBERT
TYPE	AIR COOLED
MODEL NUMBER	PFD054A-L
SERVICE	SHERIFF'S SUBST. 2 DATA RACKS ROOM
OPER WT (LBS)	390
ACCESSORIES	SEE SPECS



VRV SYSTEM WIRING DIAGRAM

SCALE: NONE

A M2.1

MECHANICAL SCHEDULES

Scale: NTS

REGISTERED PROFESSIONAL ENGINEER — MICHAEL D. CONTRERAS — M23558 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
7084 N. Maple Ave., Suite 101, Fresno, CA 93720
(559) 431-0101 19280 FAX (559) 431-1362

LICENSED ARCHITECT — NOEL ROGER DAVIDSON — C-27818 REN: 10-31-19 — STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2019
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Project:

Sheriff Area 2 Sub-Station
1129 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:

MECHANICAL SCHEDULES

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

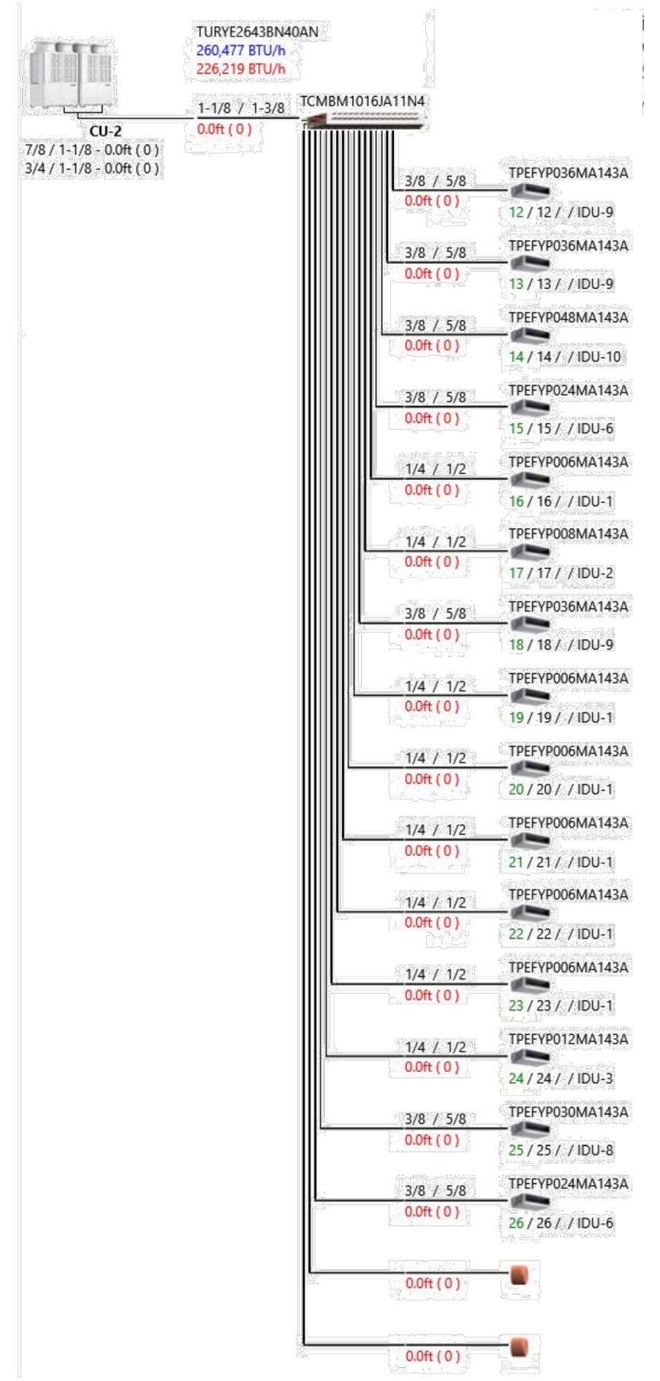
THE COUNTY OF FRESNO

Sheet No.

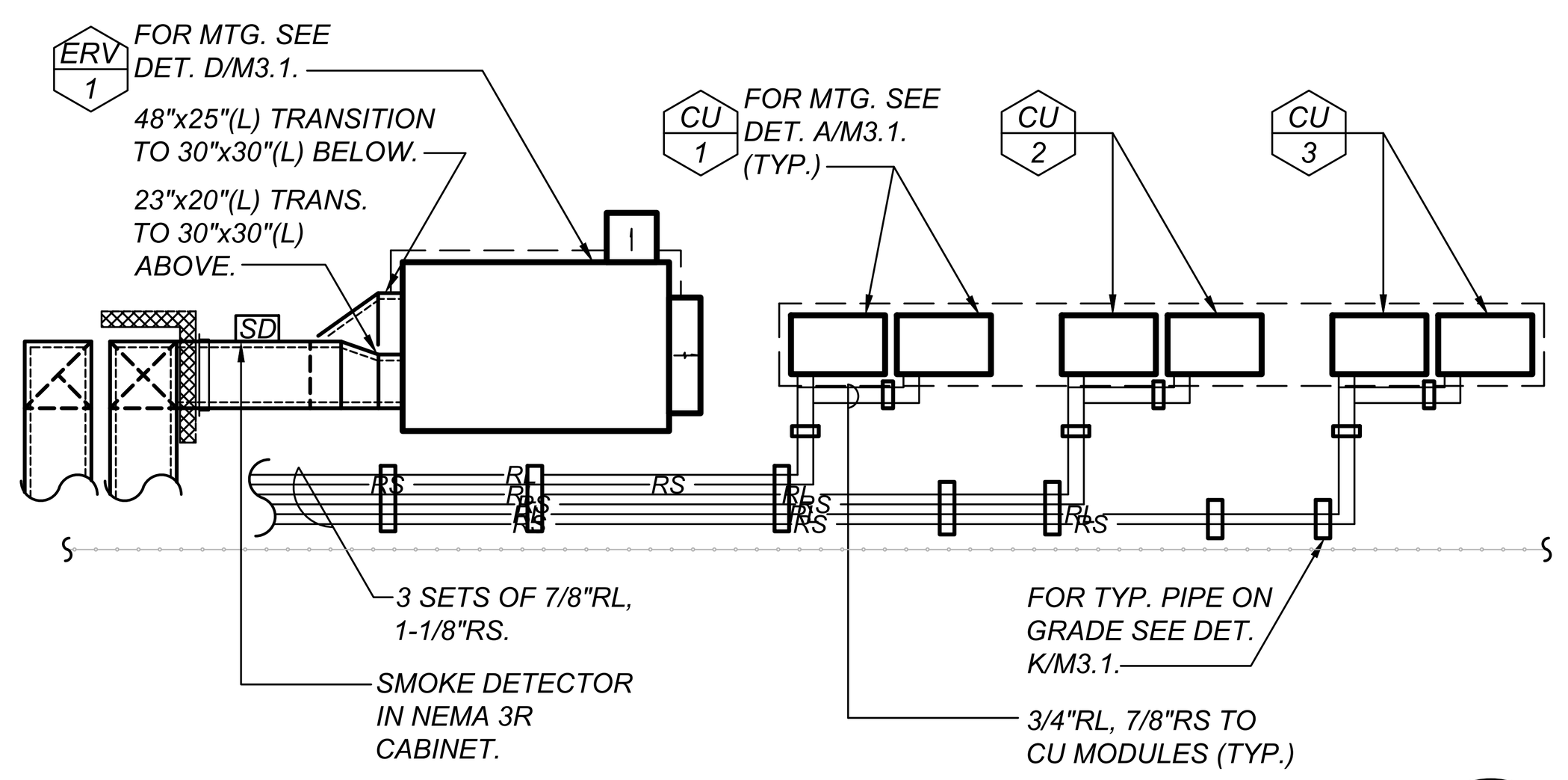
M2.1

Drawn by: ----

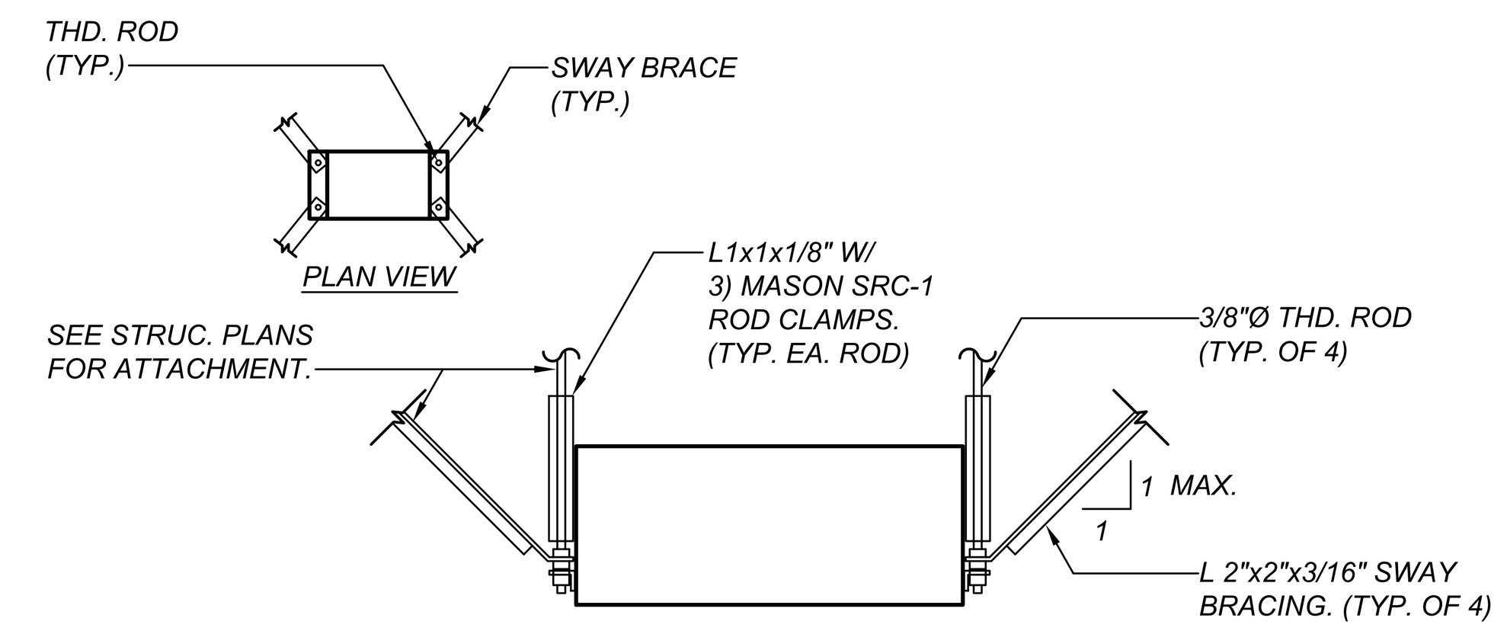
Plot date: 06.01.2020



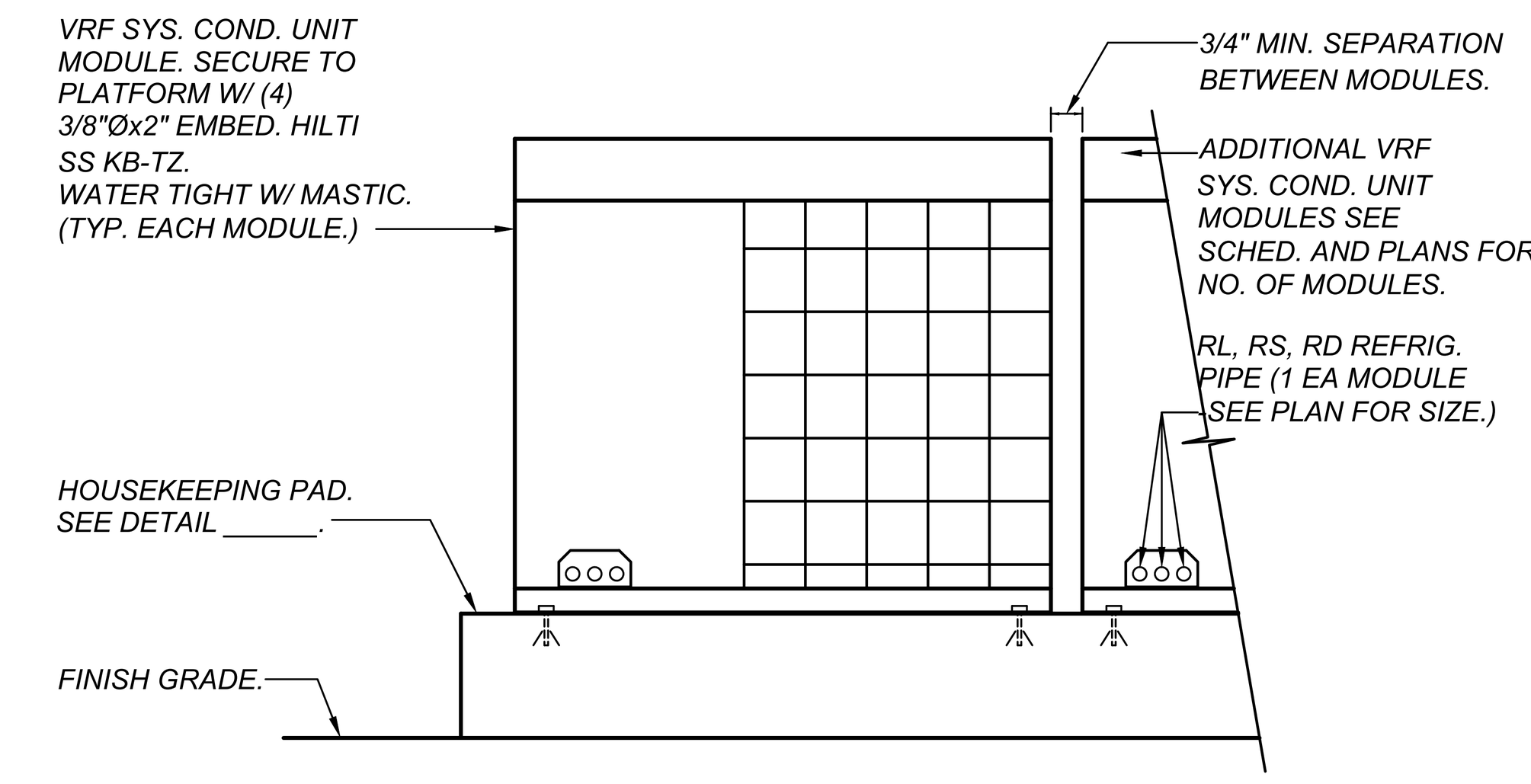
CU-2 SYSTEM PIPING DIAGRAM
SCALE: NONE
O / M3.1



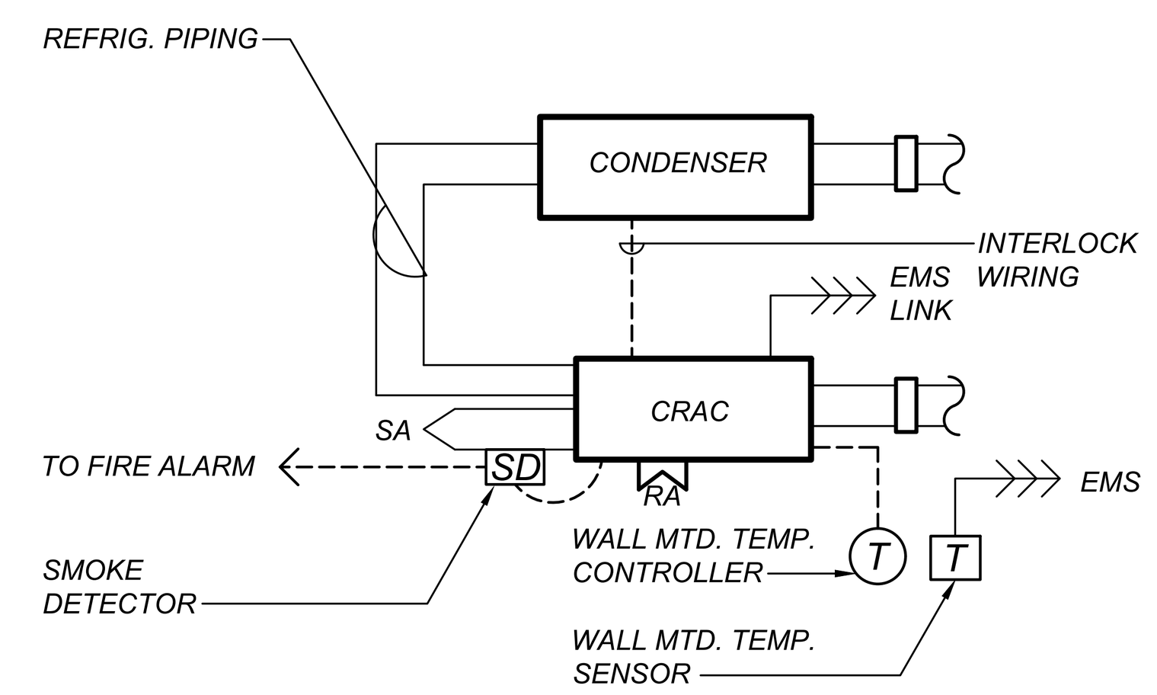
MECH. YARD PLAN
SCALE: 1/8" = 1'-0"
K / M3.1



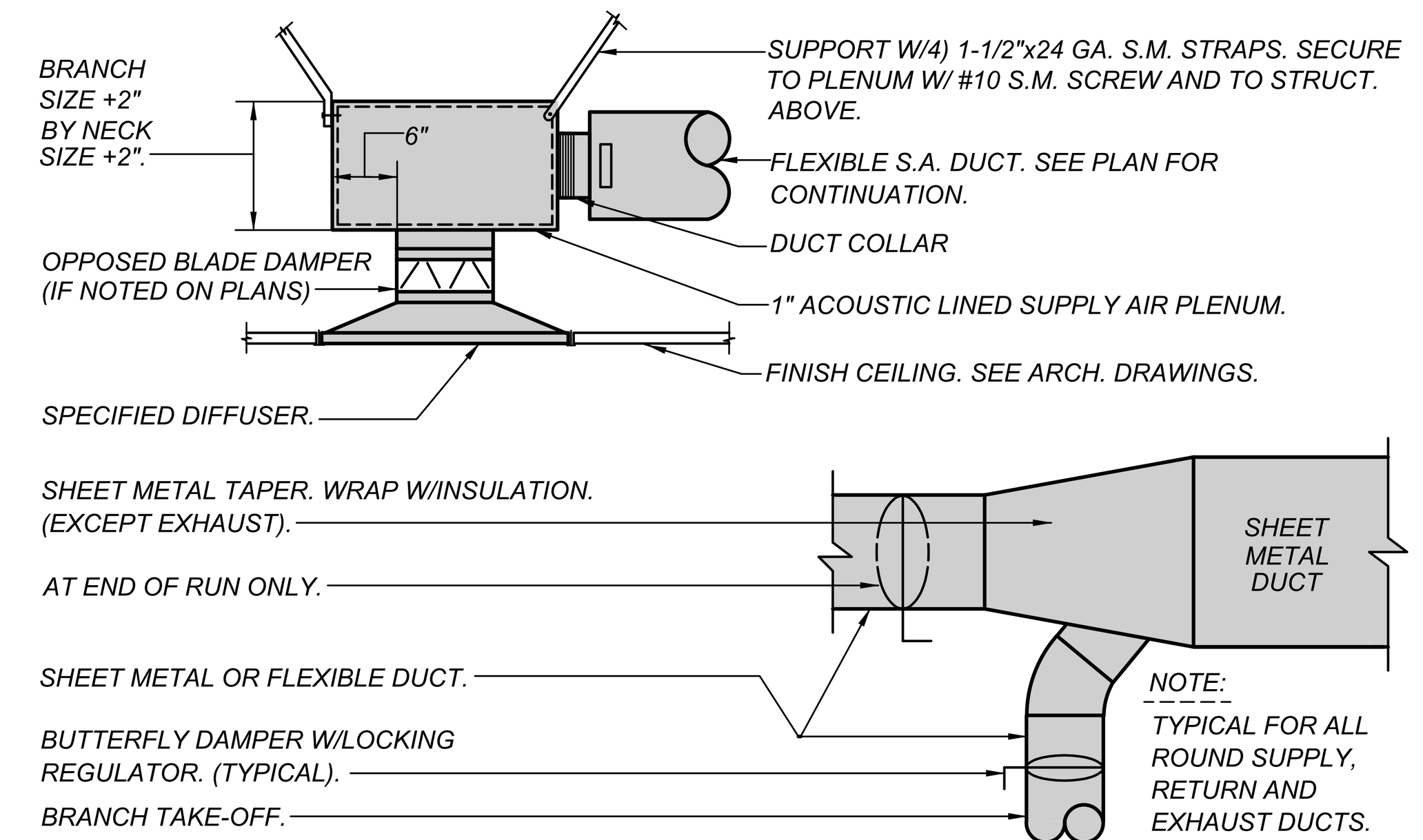
CRAC UNIT MOUNTING DETAIL
SCALE: NONE
F / M3.1



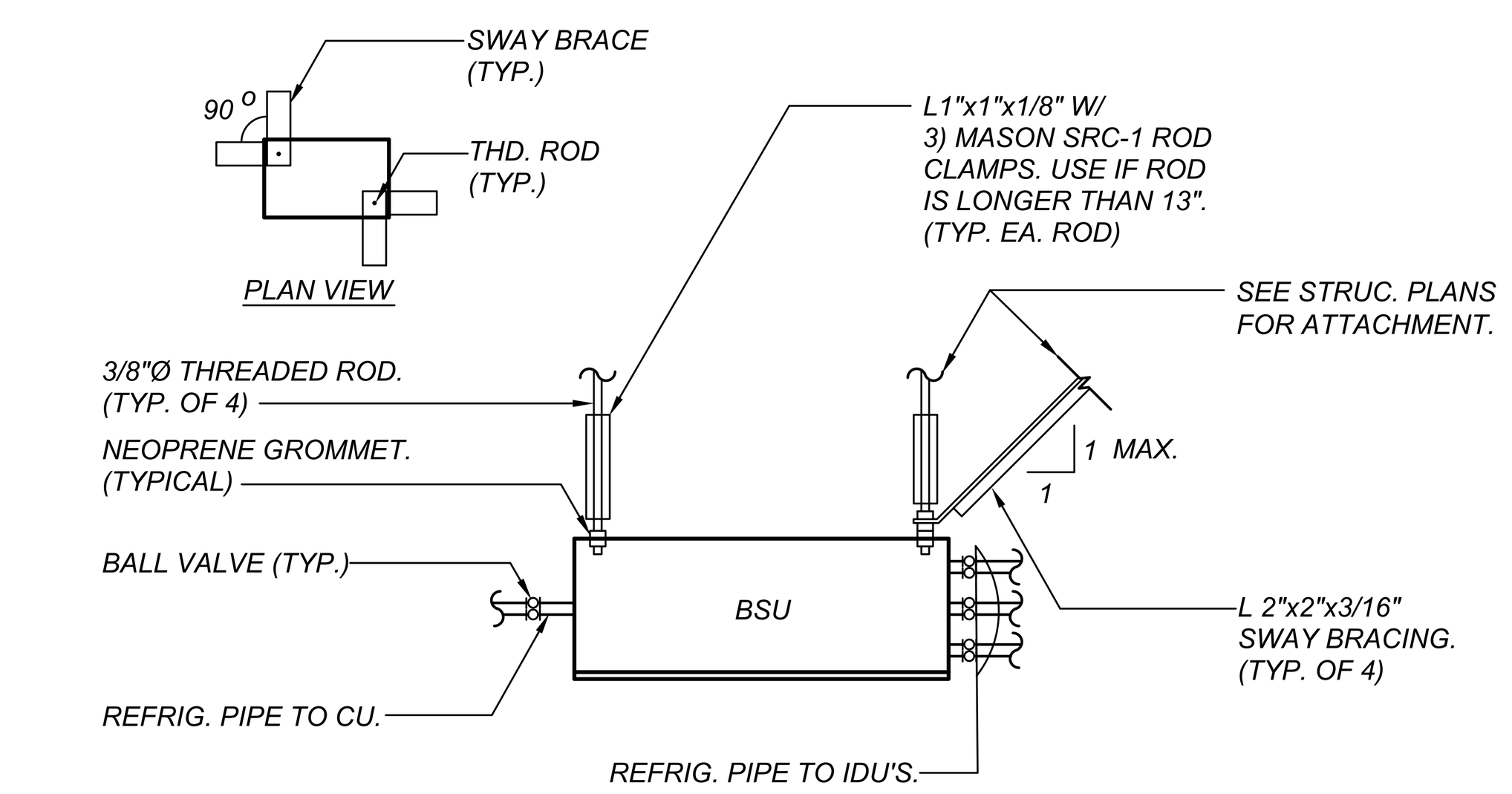
CONDENSING UNIT MOUNTING DETAIL
SCALE: NONE (TYP. FOR CU-1,2,3)
A / M3.1



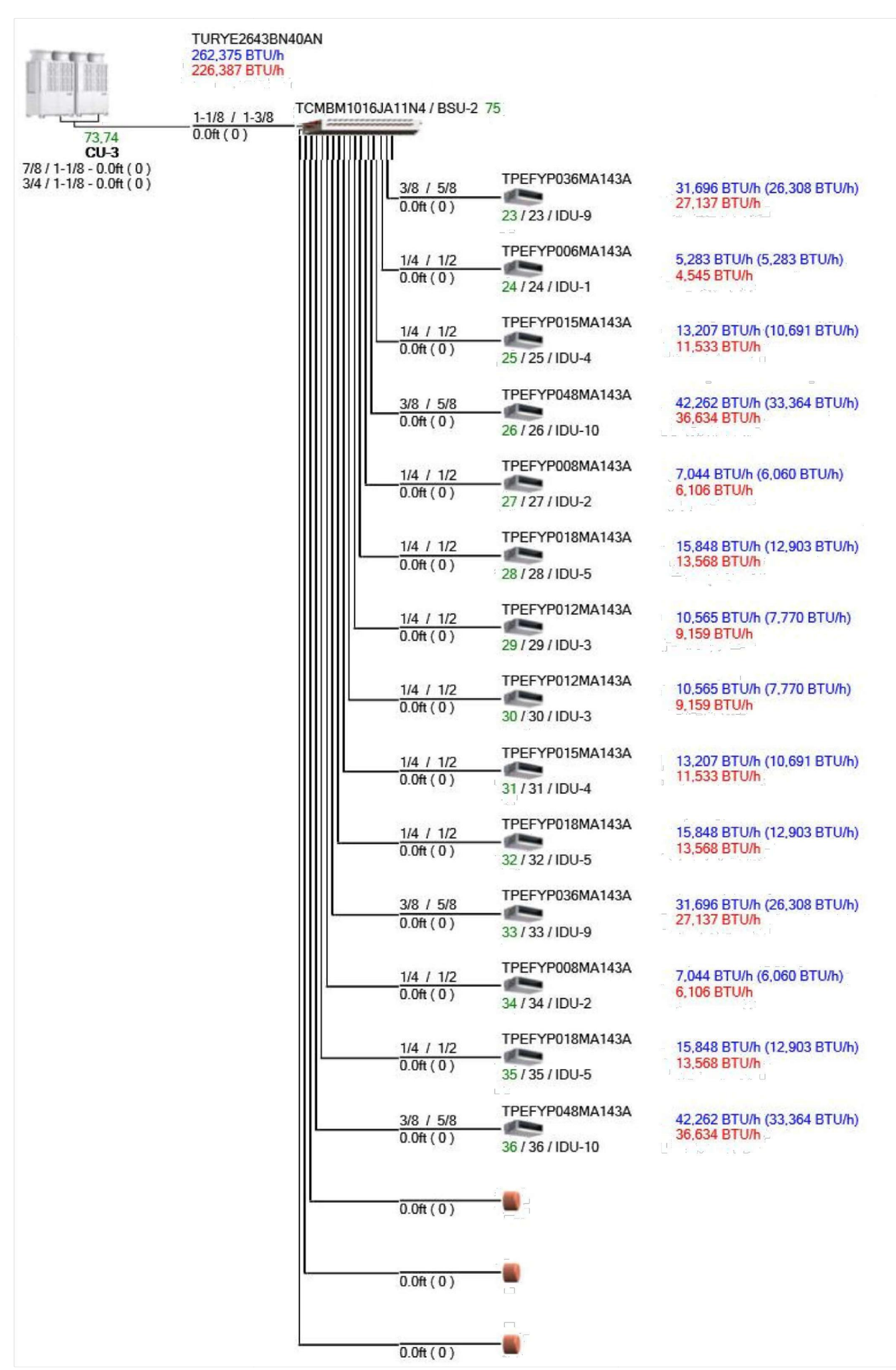
CRAC SYSTEM DIAGRAM
SCALE: NONE
L / M3.1



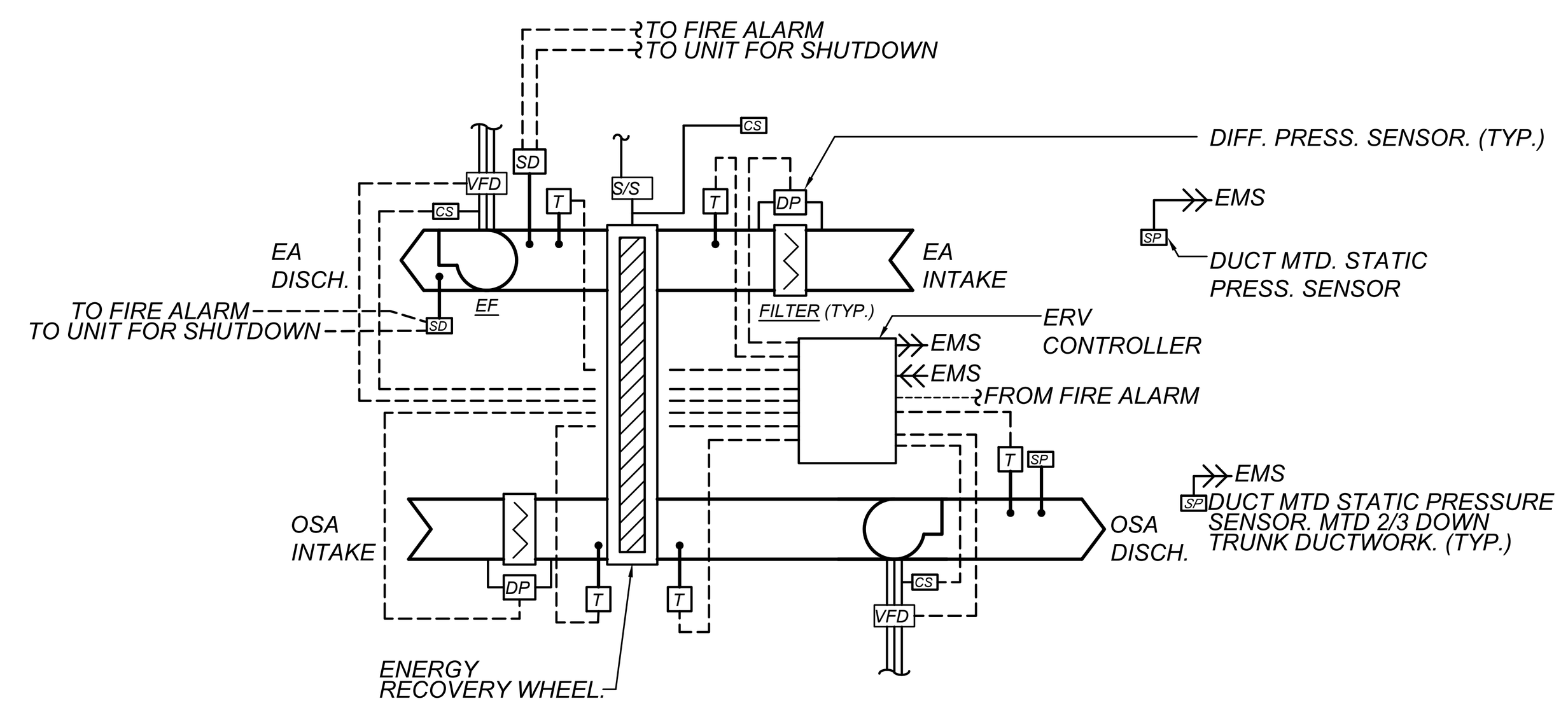
TYPICAL S.A. DEVICE-BRANCH DUCT DETAIL
SCALE: NONE
G / M3.1



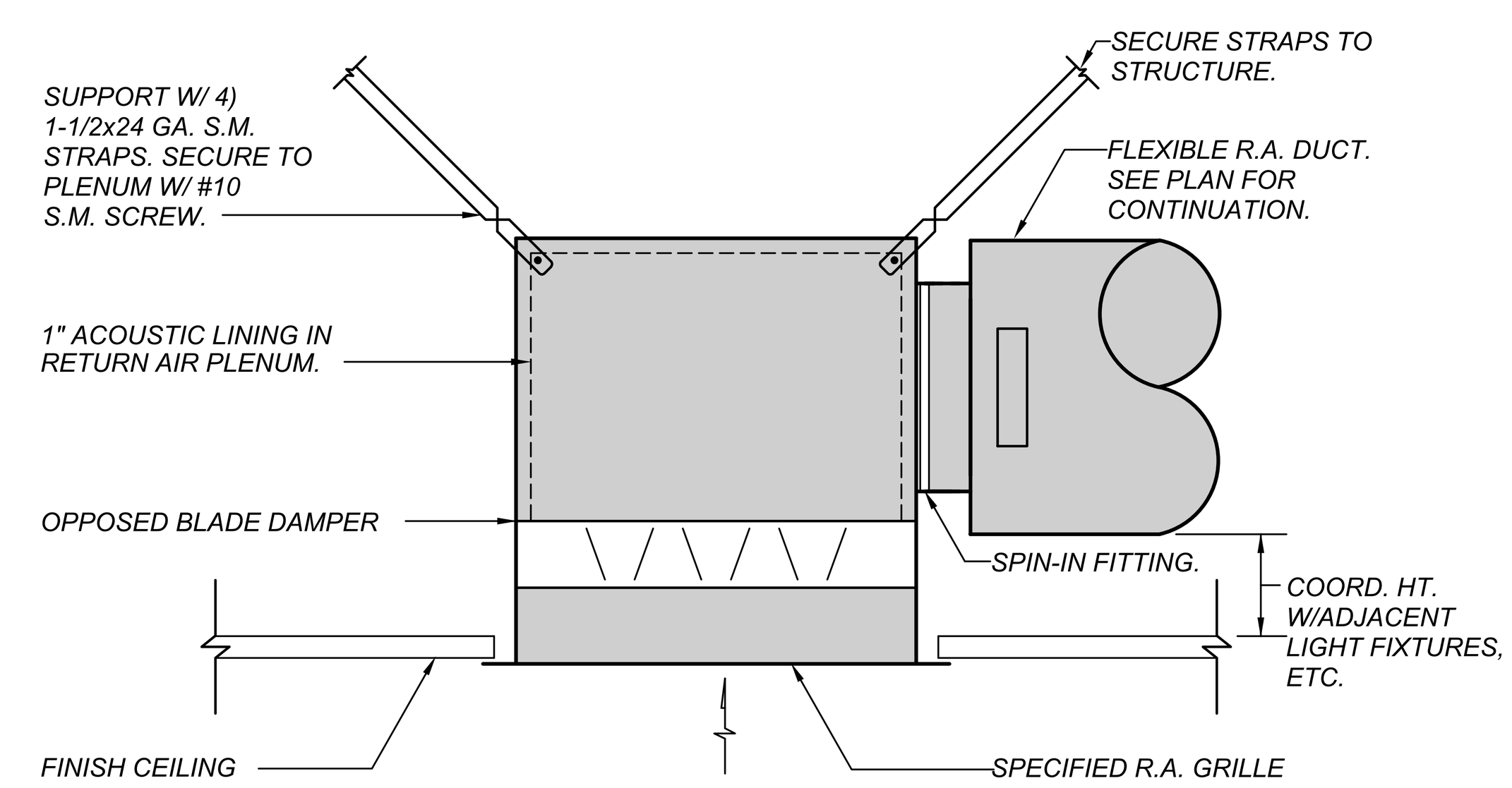
BSU MOUNTING DETAIL
SCALE: NONE
B / M3.1



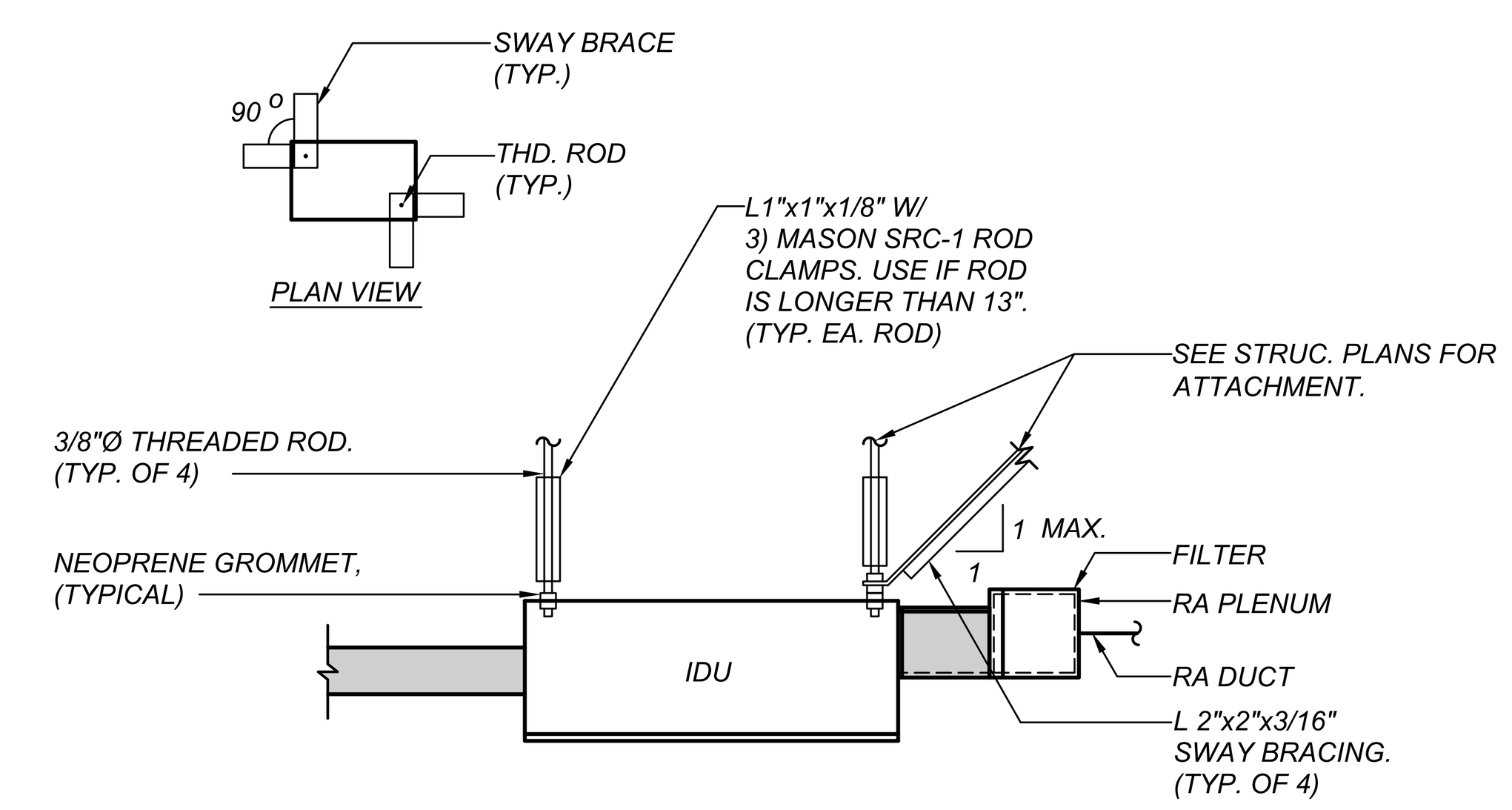
CU-3 SYSTEM PIPING DIAGRAM
SCALE: NONE
P / M3.1



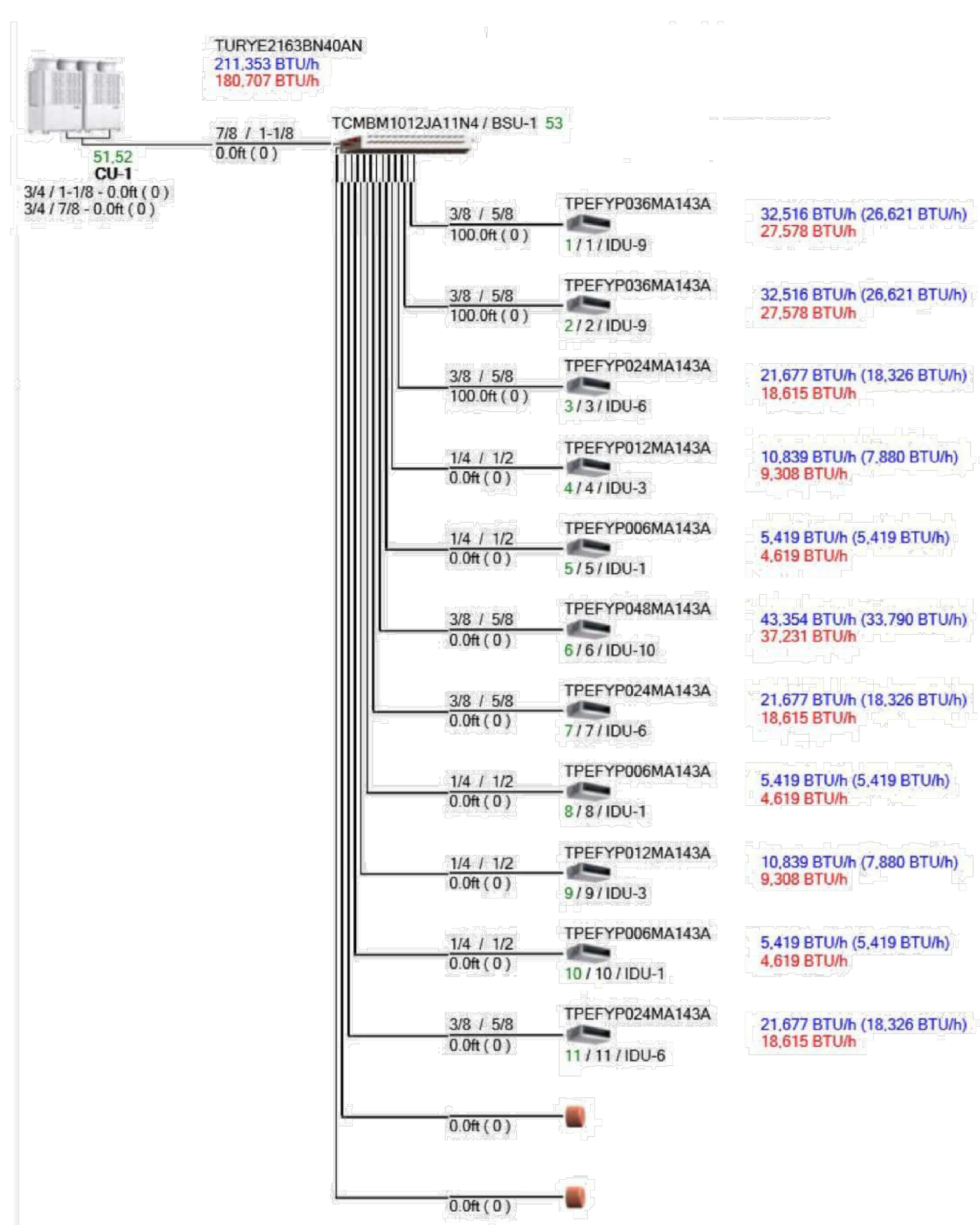
ENERGY RECOVERY VENTILATOR DIAGRAM
SCALE: NONE
M / M3.1



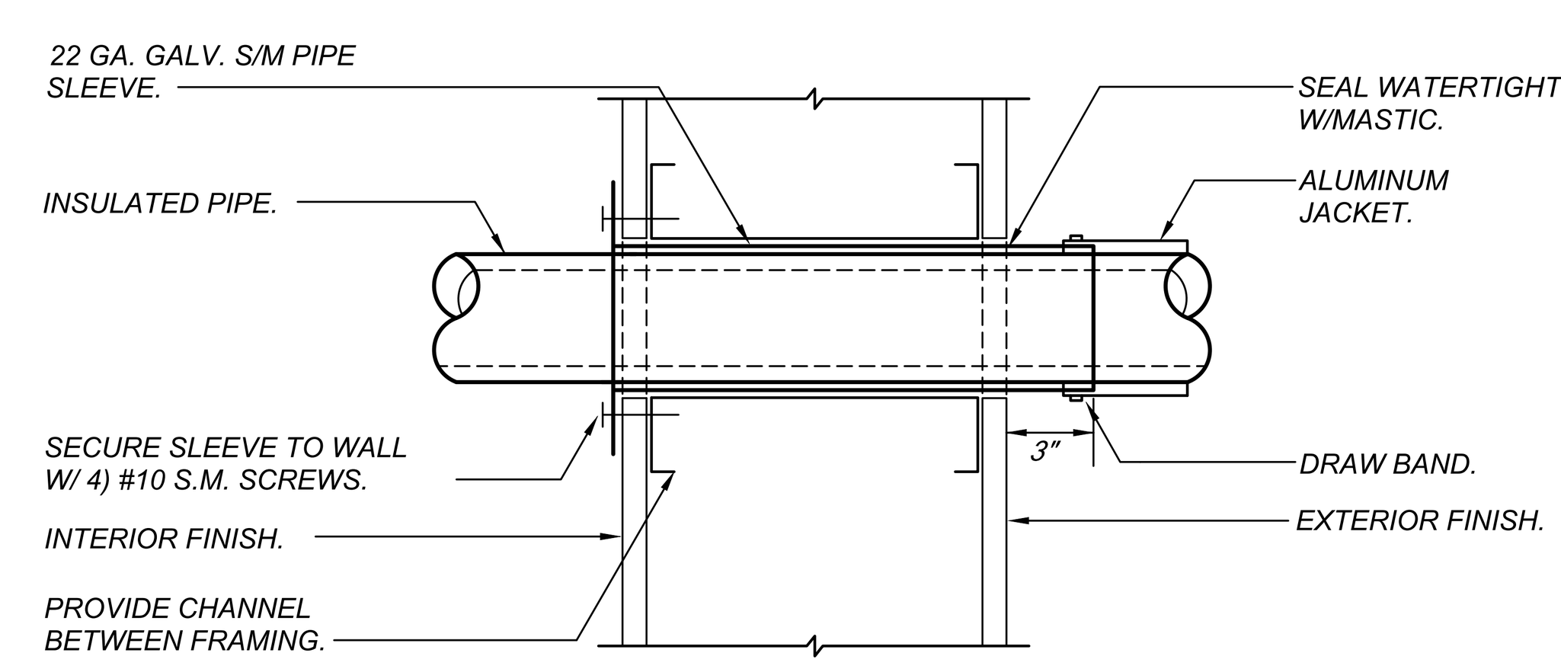
RETURN GRILLE DETAIL
SCALE: NONE
H / M3.1



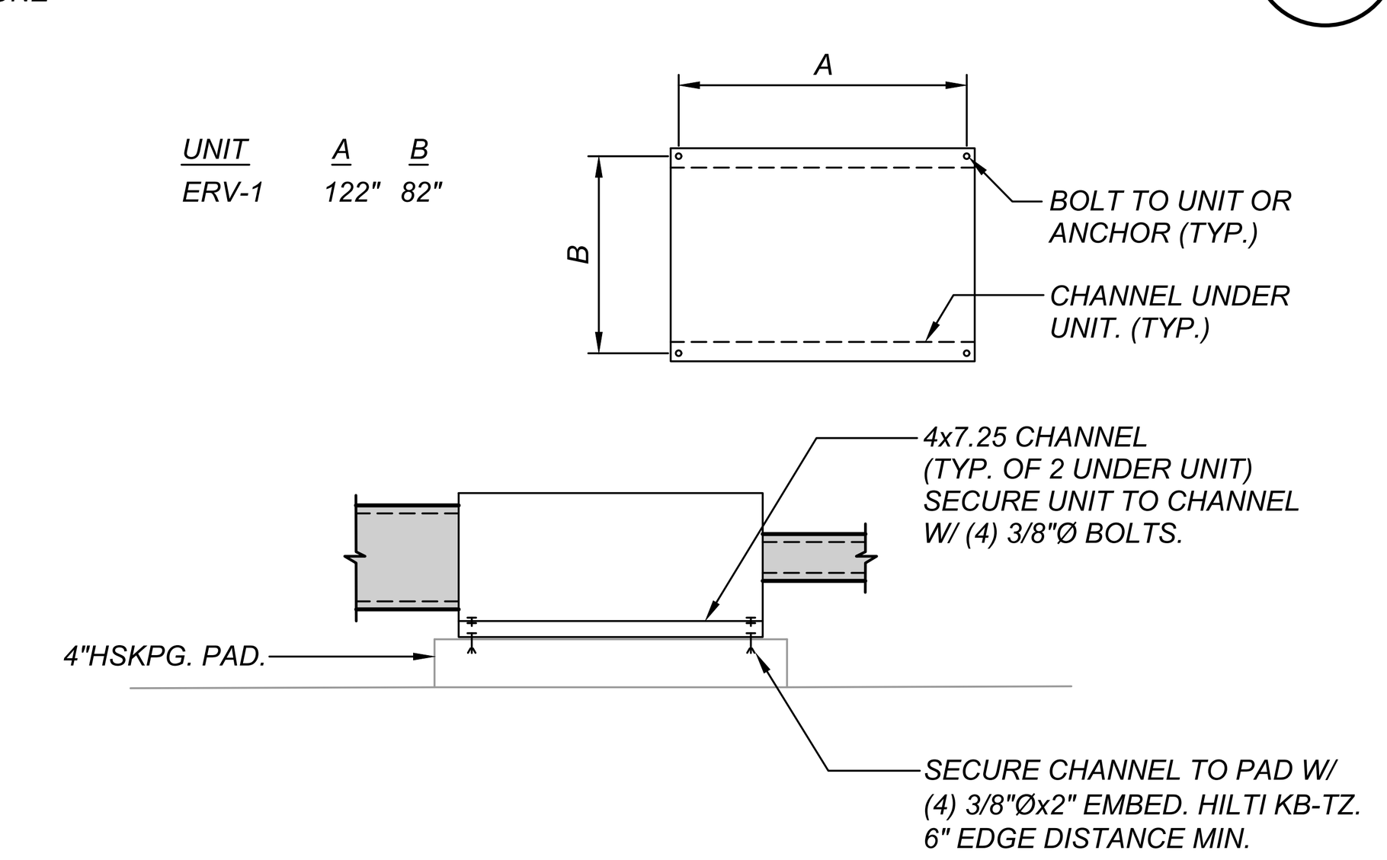
INDOOR UNIT MOUNTING DETAIL
SCALE: NONE
C / M3.1



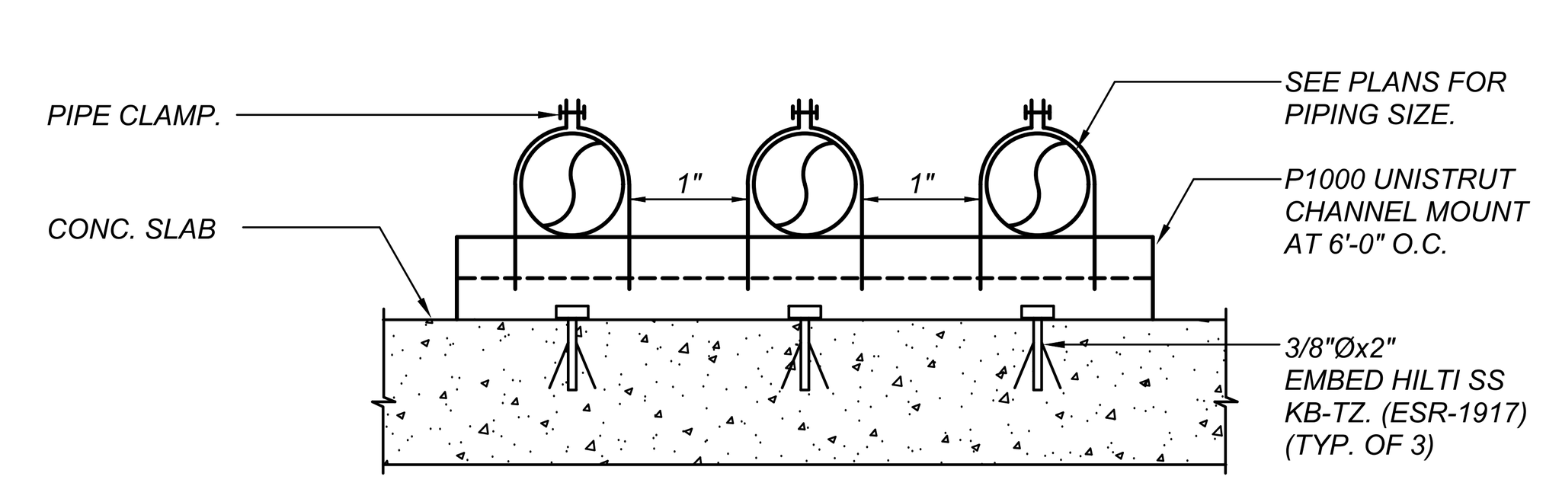
CU-1 SYSTEM PIPING DIAGRAM
SCALE: NONE
N / M3.1



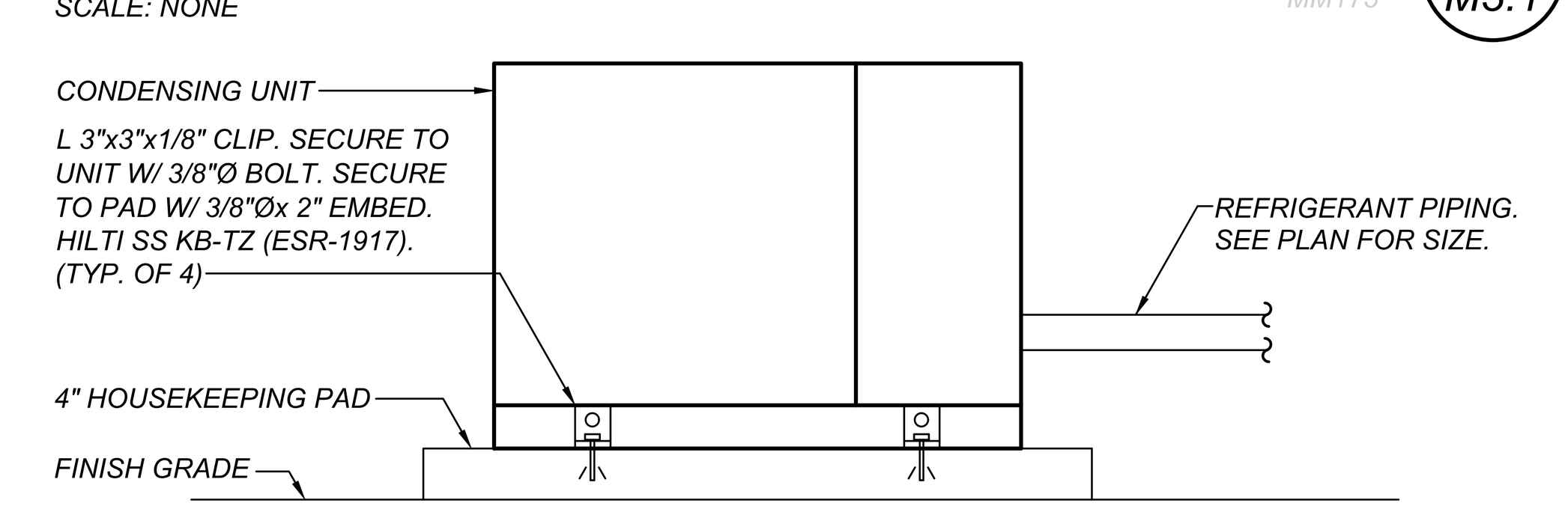
PIPE THRU EXTERIOR WALL DETAIL
SCALE: NONE
I / M3.1



ERV MOUNTING DETAIL
SCALE: NONE
D / M3.1



PIPE SUPPORT ON GRADE DETAIL
SCALE: NONE
J / M3.1



CONDENSER MOUNTING DETAIL
SCALE: NONE
E / M3.1

MECHANICAL DETAILS
Scale: NTS

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ARCHITECT:
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Project:
Sheriff Area 2 Sub-Station
1129 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:
MECHANICAL DETAILS

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

Sheet No.
M3.1

Drawn by: ----
Plot date: 06.01.2020

Project Name:	Sheriff Substation	NRCC-PRF-01-E	Page 4 of 50
Project Address:	1129 N. Armstrong Ave. Fresno 93727	Calculation Date/Time:	13:18, Fri, May 01, 2020
Compliance Scope:	NewEnvelopeAndMechanical	Input File Name:	19280 Sheriff Substation V7_05.01.2020-Anthony k..cibd16x

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project.

Yes	NA	Prescriptive Requirement	Compliance Forms
☐	☒	Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E
☐	☒	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E
☐	☒	Lighting (Sign) §140.8	NRCC-LTS-01-E
☐	☒	Solar Thermal Water Heating: §140.5	NRCC-STH-01-E

The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.

Yes	NA	Mandatory Requirement	Compliance Forms
☐	☒	Commissioning: §120.8 Simple Systems Complex Systems	NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E
☐	☒	Electrical: §130.5	NRCC-ELC-01-E
☐	☒	Solar Ready: §110.10	NRCC-SRA-01 / 02-E
☐	☒	Covered Process: §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E

Project Name:	Sheriff Substation	NRCC-PRF-01-E	Page 3 of 50
Project Address:	1129 N. Armstrong Ave. Fresno 93727	Calculation Date/Time:	13:18, Fri, May 01, 2020
Compliance Scope:	NewEnvelopeAndMechanical	Input File Name:	19280 Sheriff Substation V7_05.01.2020-Anthony k..cibd16x

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "NA"= not in project

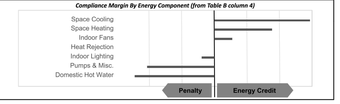
For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path	Compliance Forms *(required for submittal)*	Location of Mandatory Notes on Plans
Envelope	☒ Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐ NA		
Mechanical	☒ Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐ NA		
Domestic Hot Water	☒ Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PLB-01-E	
	☐ NA		
Lighting (Indoor Conditioned)	☐ Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	☒ Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐ NA		
Covered Process: Commercial Kitchens	☐ Performance	S2 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 03-E	
	☒ NA		
Covered Process: Computer Rooms	☒ Performance	S3 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 04-E	
	☐ NA		
Covered Process: Laboratory Exhaust	☐ Performance	S4 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 09-E	
	☒ NA		

Project Name:	Sheriff Substation	NRCC-PRF-01-E	Page 2 of 50
Project Address:	1129 N. Armstrong Ave. Fresno 93727	Calculation Date/Time:	13:18, Fri, May 01, 2020
Compliance Scope:	NewEnvelopeAndMechanical	Input File Name:	19280 Sheriff Substation V7_05.01.2020-Anthony k..cibd16x

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Space Cooling: Check envelope and mechanical	***Compliance Margin By Energy Component (from Table B column 4)***
2nd	Space Heating: Check envelope and mechanical	
3rd	Indoor Fans: Check envelope and mechanical	
4th	Heat Rejection: Check envelope and mechanical	
5th	Indoor Lighting: Check lighting	
6th	Pumps & Misc.: Check mechanical	
7th	Domestic Hot Water: Check mechanical	



D. EXCEPTIONAL CONDITIONS

This project includes partial performance compliance scope options. The building must show compliance with all other applicable compliance scope options (performance or prescriptively) before occupying.

This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.

This project includes Domestic Hot Water in the analysis. Please verify that Domestic Hot Water is included in the design for the permitted scope of work.

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

None Provided

Project Name:	Sheriff Substation	NRCC-PRF-01-E	Page 1 of 50
Project Address:	1129 N. Armstrong Ave. Fresno 93727	Calculation Date/Time:	13:18, Fri, May 01, 2020
Compliance Scope:	NewEnvelopeAndMechanical	Input File Name:	19280 Sheriff Substation V7_05.01.2020-Anthony k..cibd16x

A. PROJECT GENERAL INFORMATION

1.	Project Location (city)	Fresno	8.	Standards Version	Compliance2016
2.	CA Zip Code	93727	9.	Compliance Software (version)	EnergyPro 7.2
3.	Climate Zone	13	10.	Weather File	FRESNO_723890_CZ2010.epw
4.	Total Conditioned Floor Area in Scope	22,262 ft²	11.	Building Orientation (deg)	(E) 135 deg
5.	Total Unconditioned Floor Area	0 ft²	12.	Permitted Scope of Work	NewEnvelopeAndMechanical
6.	Total # of Stories (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential
7.	Total # of dwelling units	0	14	Gas Type	NaturalGas

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft ²-yr) **§ 140.1**

BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	20.50	5.87	14.63	71.4%
Space Cooling	131.15	106.81	24.34	18.6%
Indoor Fans	58.50	54.06	4.44	7.6%
Heat Rejection	--	--	--	--
Pumps & Misc.	1.59	18.68	-17.09	-1074.8%
Domestic Hot Water	4.60	24.87	-20.27	-440.7%
Indoor Lighting	41.50	44.62	-3.12	-7.5%
COMPLIANCE TOTAL	**257.84**	**254.91**	**2.93**	**1.1%**
Receptacle	86.64	86.64	0.0	0.0%
Process	112.51	112.51	0.0	0.0%
Other Lig	--	--	--	--
Process Motors	--	--	--	--
TOTAL	**456.99**	**454.06**	**2.9**	**0.6%**

Project Name:	Sheriff Substation	NRCC-PRF-01-E	Page 8 of 50
Project Address:	1129 N. Armstrong Ave. Fresno 93727	Calculation Date/Time:	13:18, Fri, May 01, 2020
Compliance Scope:	NewEnvelopeAndMechanical	Input File Name:	19280 Sheriff Substation V7_05.01.2020-Anthony k..cibd16x

J. FENESTRATION ASSEMBLY SUMMARY **§ 110.6** **Confirmed**

1. Fenestration Assembly Name / Tag or I.D.	2. Fenestration Type / Product Type / Frame Type	3. Certification Method[1]	4. Assembly Method	5. Area ft²	6. Overall U-factor	7. Overall SHGC	8. Overall VT	9. Status[2]	Pass	Fail
(N) Window 1	Vertical\Fenestration Fixed\Window N/A	NFRC Rated	Manufactured	1254	0.90	0.30	0.35	N	☐	☐
(N) Door Glass 1	Vertical\Fenestration Glazed\Door N/A	NFRC Rated	Manufactured	257	1.10	0.60	0.50	N	☐	☐

[1] Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.

[2] Status: N – New, A – Altered, E – Existing

Taking compliance credit for fenestration shading devices? (if "Yes", see NRCC-PRF-ENV-DETAILS for more information)	No

K. OPAQUE SURFACE ASSEMBLY SUMMARY **§ 120.7/ § 140.3** **Confirmed**

1. Surface Name	2. Surface Type	3. Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Continuous R-Value	7. U-Factor / F-Factor / C-Factor	8. Status[1]	Pass	Fail
(N) Exterior Wall 37	ExteriorWall	966	NA	0	NA	U-Factor: 0.241	N	☐	☐
(N) Exterior Wall 210	ExteriorWall	812	Metal	19	1	U-Factor: 0.142	N	☐	☐
(N) Exterior Wall 120	ExteriorWall	10676	Metal	19	1	U-Factor: 0.144	N	☐	☐
Slab On Grade37	UndergroundFloor	22262	NA	0	NA	F-Factor: 0.730	N	☐	☐
(N) Roof 139	Roof	22262	NA	0	30	U-Factor: 0.031	N	☐	☐
Interior Wall47	InteriorWall	300	Metal	11	NA	U-Factor: 0.193	N	☐	☐

[1] Status: N – New, A – Altered, E – Existing

L. ROOFING PRODUCT SUMMARY **§ 140.3** **Confirmed**

1. Product Type	2. Product Density (lb/ft²)	3. Aged Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. Roofing Product Description	Pass	Fail
(N) Roof 139	4.729	0.08	0.75	NA	No	NA	☐	☐

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Covered Process	☐ NRCI-PRC-01-E- Covered Processes	☐	☐
	☐ NRCA-PRC-01-F- Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-F- Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F- Refrigerated Warehouse- Evaporative Condenser Controls	☐	☐
	☐ NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F- Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

					Confirmed Pass	Confirmed Fail
1.	Total Conditioned Floor Area	22,262 ft²	5.	Number of Floors Above Grade 1		
2.	Total Unconditioned Floor Area	0 ft²	6.	Number of Floors Below Grade 0		
3.	Addition Conditioned Floor Area	0 ft²				
4.	Addition Unconditioned Floor Area	0 ft²				

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10. Window to Wall Ratio	Pass	Fail
North Wall	3,375 ft²	65 ft²	01.9%	☐	☐
East Wall	2,862 ft²	705 ft²	24.6%	☐	☐
South Wall	3,136 ft²	496 ft²	15.8%	☐	☐
West Wall	3,082 ft²	245 ft²	08.0%	☐	☐
Total	**12,453 ft²**	**1,511 ft²**	**12.1%**	☐	☐
Roof	22,262 ft²	0 ft²	00.0%	☐	☐

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Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Plumbing	☒ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-21-H- HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-STH-01-E - Any solar water heating	☐	☐
Indoor Lighting	☐ NRCI-LTI-01-E - For all buildings	☐	☐
	☐ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	☐	☐
	☐ NRCI-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☐ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls.	☐	☐
	☒ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☐ NRCI-LTO-01-E – Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS Lighting Control System	☐	☐
	☐ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTS-01-E – Sign Lighting	☐	☐
Electrical	☐ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-SPV-01-E Photovoltaic Systems	☐	☐

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
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See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☒ NRCA-ENV-02-F- NFRC label verification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-E - For all buildings with Mechanical Systems	☐	☐
	☒ NRCA-MCH-02-A- Outdoor Air	☐	☐
	☒ NRCA-MCH-03-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H- Air Distribution Duct Leakage	☐	☐
	☐ NRCA-MCH-05-A- Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A- Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A – Supply Fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-A- Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A- Hydronic System Variable Flow Controls	☐	☐
	☐ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☐ NRCA-MCH-12-A- Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A- Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A- Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A- Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H- Duct Leakage Test	☐	☐

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) **§ 110.1 / § 110.2**

Dry System Equipment [1] (Fan & Economizer info included below in Table N) — Confirmed

1. Equip Name	2. Equip Type	3. System Type (Simple [1] or Complex [2])	Qty	4. Total Heating Output (kBtu/h)	5. Supp Heat Source (Y/N)	6. Supp Heat Output (kBtuh)	7. Total Cooling Output (kBtu/h)	8. Efficiency Cooling	8. Efficiency Heating	9. Acceptance Testing Required? (Y/N) [4]	10. Status[3]	Pass	Fail
Z12 - Inv. Staff Supply	SZHP (Split1Phase)	Simple	1	10	No	0	11	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z12 - Inv. Staff Supply128	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z13 - Interview Rooms & R	SZHP (Split1Phase)	Simple	1	5	No	0	6	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z13 - Interview Rooms & R138	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z14 - Workstation D	SZHP (Split1Phase)	Simple	1	19	Yes	1	22	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z14 - Workstation D148	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z15 - Corridor F & Office	SZHP (Split1Phase)	Simple	1	19	No	0	22	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z18 - Office 146-147-148	SZHP (Split1Phase)	Simple	1	14	No	0	17	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z21 - Office 149-150-151	SZHP (Split1Phase)	Simple	1	14	No	0	17	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z23 - 157 Hall-158 Office	SZHP (Split1Phase)	Simple	1	14	No	0	17	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) **§ 110.1 / § 110.2**

Dry System Equipment [1] (Fan & Economizer info included below in Table N) — Confirmed

1. Equip Name	2. Equip Type	3. System Type (Simple [1] or Complex [2])	Qty	4. Total Heating Output (kBtu/h)	5. Supp Heat Source (Y/N)	6. Supp Heat Output (kBtuh)	7. Total Cooling Output (kBtu/h)	8. Efficiency Cooling	8. Efficiency Heating	9. Acceptance Testing Required? (Y/N) [4]	10. Status[3]	Pass	Fail
Z6 - Breakroom A	SZHP (Split1Phase)	Simple	1	19	Yes	1	22	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z6 - Breakroom A76	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z7 Breakroom B & Corridor	SZHP (Split1Phase)	Simple	1	28	Yes	1	33	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z7 - Breakroom B82	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z8 - Physical Training	SZHP (Split1Phase)	Simple	1	28	Yes	1	33	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z8 - Physical Training93	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z9 - Corridor D Female L	SZHP (Split1Phase)	Simple	1	40	Yes	1	46	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z9 - Corridor D Female L103	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z10 - Lactation	SZHP (Split1Phase)	Simple	1	5	No	0	6	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z11 - Janitor Mens Lock	SZHP (Split1Phase)	Simple	1	19	Yes	1	22	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z11 - Janitor Mens Lock118	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐

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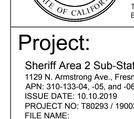
M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) **§ 110.1 / § 110.2**

Dry System Equipment [1] (Fan & Economizer info included below in Table N) — Confirmed

1. Equip Name	2. Equip Type	3. System Type (Simple [1] or Complex [2])	Qty	4. Total Heating Output (kBtu/h)	5. Supp Heat Source (Y/N)	6. Supp Heat Output (kBtuh)	7. Total Cooling Output (kBtu/h)	8. Efficiency Cooling	8. Efficiency Heating	9. Acceptance Testing Required? (Y/N) [4]	10. Status[3]	Pass	Fail
Z1 - Public Waiting Area	SZHP (Split1Phase)	Simple	1	40	Yes	1	46	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z1 - Public Waiting Area3	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z2 - Secure Reception & L	SZHP (Split1Phase)	Simple	1	6	No	0	7	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z2 - Secure Reception & L40	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z3 - Men and Women RR & P	SZHP (Split1Phase)	Simple	1	12	No	0	14	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z3 - Men and Women RR & P50	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z4 - Public Conference Ro	SZHP (Split1Phase)	Simple	1	41	Yes	1	48	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z4 Public Conference Room60	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z5 - Specialty Unit 1 Off	SZHP (Split1Phase)	Simple	1	19	Yes	1	22	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z5 - Specialty Unit 1 Off70	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐

LAWRENCE ENGINEERING GROUP
7084 N. Maple Ave., Suite 103 (559) 431-0101
19280
Fresno, CA 93720 FAX (559) 431-1362



ARCHITECT:
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Project:

Sheriff Area 2 Sub-Station
1129 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:

TITLE 24 DOCUMENTS

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

Sheet No.

M4.1

TITLE 24 DOCUMENTS
Scale: NTS

Drawn by: ----
Plot date: 06.01.2020

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Wet System Equipment [1]								Pumps					Confirmed	
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	Pass	Fail
Equip Name	Equip Type	Qty	Vol (gal)	Rated Capacity (kBtu/h)	Efficiency	Standby Loss	Tank Ext. R Value	Qty	GPM	HP	VSD (Y/N)	Status[2]		
EWH 1 - BRADFORD WHITE E32	Storage	1	80.00	61	Thrml. Eff.: 1.00	SBLF: 0.065	NA		NA		No	N	☐	☐

[1] Wet System Equipment includes boilers, chillers, cooling towers, water heaters, etc.
[2] Status: N - New, A – Altered, E – Existing

Discrepancy between modeled and designed equipment sizing? (if "Yes", see Table F. "Additional Remarks" for an explanation)	No

N. ECONOMIZER & FAN SYSTEMS SUMMARY[1]												§ 140.4	Confirmed	
1.	2.	3.					4.					5.	Pass	Fail
Equip Name	Outside Air	Supply Fan					Return Fan					Economizer Type (if present)		
	CFM	CFM	HP	BHP	TSP (inch WC)	Control	CFM	HP	BHP	TSP (inch WC)	Control			
Z1 - Public Waiting Area	230	1410	0.264	0.264	0.59	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z2 - Secure Reception & L	36	300	0.047	0.047	0.49	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z3 - Men and Women RR & P	185	490	0.070	0.070	0.45	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z4 - Public Conference Ro	787	1480	0.280	0.280	0.60	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z5 - Specialty Unit 1 Off	75	880	0.132	0.132	0.48	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z6 - Breakroom A	240	880	0.132	0.132	0.48	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z7 Breakroom B & Corridor	349	1160	0.186	0.186	0.51	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information)										§ 110.1 / § 110.2			
Dry System Equipment [1] (Fan & Economizer info included below in Table N)												Confirmed	
1.	2.	3.	4.	5.	6.	7.	8.	9.		10.	11.	Pass	Fail
Equip Name	Equip Type	System Type (Simple [2] or Complex [3])	Qty	Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtuh)	Total Cooling Output (kBtu/h)	Efficiency		Acceptance Testing Required? (Y/N) [4]	Status[5]		
								Cooling	Heating				
Z37 - Secure Training Rec	SZHP (Split1Phase)	Simple	1	6	No	0	7	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z37 - Secure Training Rec273	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z38 - Interview Rooms 153	SZHP (Split1Phase)	Simple	1	6	No	0	7	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z39 - Workstation C-2 Ev	SZHP (Split1Phase)	Simple	1	28	Yes	1	33	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z40 - Workstation C-1 US	SZHP (Split1Phase)	Simple	1	23	Yes	1	27	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z41 - Corridor E	SZHP (Split1Phase)	Simple	1	5	No	0	6	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z42 - Workstation B-1	SZHP (Split1Phase)	Simple	1	40	Yes	1	46	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z43 - Workstation B-2	SZHP (Split1Phase)	Simple	1	40	Yes	1	46	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐

[1] Dry System Equipment includes furnaces, air handling units, heat pumps, etc.
[2] Simple Systems must complete NRCC-CXR-03-E commissioning design review form
[3] Complex Systems must complete NRCC-CXR-04-E commissioning design review form
[4] A summary of which acceptance tests are applicable is provided in NRCC-PRF-MCH-DETAILS
[5] Status: N - New, A – Altered, E – Existing

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information)										§ 110.1 / § 110.2			
Dry System Equipment [1] (Fan & Economizer info included below in Table N)												Confirmed	
1.	2.	3.	4.	5.	6.	7.	8.	9.		10.	11.	Pass	Fail
Equip Name	Equip Type	System Type (Simple [2] or Complex [3])	Qty	Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtuh)	Total Cooling Output (kBtu/h)	Efficiency		Acceptance Testing Required? (Y/N) [4]	Status[5]		
								Cooling	Heating				
Z31 - Supply & Training S239	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z32A - Data	SZHP (Split1Phase)	Simple	1	5	Yes	1	6	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z32A - Data246	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z32B - Data Racks	SZAC (CRAC)	Simple	1	0	No	0	45	SEER-14.00 / EER-12.20	NA	Yes	N	☐	☐
Z32B - Data Racks250	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z33 - Training Room A	SZHP (Split1Phase)	Simple	1	40	Yes	1	46	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z33 - Training Room A256	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z34 - Training Room B	SZHP (Split1Phase)	Simple	1	40	Yes	1	46	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z33 - Training Room A262	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z35 - Corridor A & B	SZHP (Split1Phase)	Simple	1	10	No	0	11	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z36 - Secure Training Roo	SZHP (Split1Phase)	Simple	1	19	Yes	1	22	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z36 - Secure Training Roo269	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information)										§ 110.1 / § 110.2			
Dry System Equipment [1] (Fan & Economizer info included below in Table N)												Confirmed	
1.	2.	3.	4.	5.	6.	7.	8.	9.		10.	11.	Pass	Fail
Equip Name	Equip Type	System Type (Simple [2] or Complex [3])	Qty	Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtuh)	Total Cooling Output (kBtu/h)	Efficiency		Acceptance Testing Required? (Y/N) [4]	Status[5]		
								Cooling	Heating				
Z23 -157 Hall-158 Office196	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z25 - Office 159	SZHP (Split1Phase)	Simple	1	12	No	0	14	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z25 - Office 159208	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z27 - Office 161	SZHP (Split1Phase)	Simple	1	10	No	0	11	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z27 - Office 161218	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z28 - Admin Asst. Office	SZHP (Split1Phase)	Simple	1	10	No	0	11	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z28 - Admin Asst. Office224	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z29 - Admin Conference	SZHP (Split1Phase)	Simple	1	19	Yes	1	22	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z29 - Admin Conference230	Exhaust ()	Simple	1	0	No	0	0	NA	NA	No	N	☐	☐
Z30 - Workstation A	SZHP (Split1Phase)	Simple	1	40	Yes	1	46	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐
Z31 - Supply & Training S	SZHP (Split1Phase)	Simple	1	5	No	0	6	SEER-14.000 / EER-12.200	HSPF-8.200	Yes	N	☐	☐

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O. EQUIPMENT CONTROLS		§ 120.2	Confirmed	
1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
Z4 - Public Conference Ro	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 370 W)	☐	☐
Z4 Public Conference Room60	Exhaust	NA	☐	☐
Z5 - Specialty Unit 1 Off	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 40 W)	☐	☐
Z5 - Specialty Unit 1 Off70	Exhaust	NA	☐	☐
Z6 - Breakroom A	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 100 W)	☐	☐
Z6 - Breakroom A76	Exhaust	NA	☐	☐
Z7 Breakroom B & Corridor	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 120 W)	☐	☐
Z7 - Breakroom B82	Exhaust	NA	☐	☐
Z8 - Physical Training	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 210 W)	☐	☐

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N. ECONOMIZER & FAN SYSTEMS SUMMARY[1]												§ 140.4	Confirmed	
1.	2.	3.					4.					5.	Pass	Fail
Equip Name	Outside Air	Supply Fan					Return Fan					Economizer Type (if present)		
	CFM	CFM	HP	BHP	TSP (inch WC)	Control	CFM	HP	BHP	TSP (inch WC)	Control			
Z43 - Workstation B-2	214	1410	0.264	0.264	0.59	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐

[1] Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section

O. EQUIPMENT CONTROLS		§ 120.2	Confirmed	
1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
Z1 - Public Waiting Area	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 110 W)	☐	☐
Z1 - Public Waiting Area3	Exhaust	NA	☐	☐
Z2 - Secure Reception & L	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 20 W)	☐	☐
Z2 - Secure Reception & L40	Exhaust	NA	☐	☐
Z3 - Men and Women RR & P	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 140 W)	☐	☐
Z3 - Men and Women RR & P50	Exhaust	NA	☐	☐

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N. ECONOMIZER & FAN SYSTEMS SUMMARY[1]												§ 140.4	Confirmed	
1.	2.	3.					4.					5.	Pass	Fail
Equip Name	Outside Air	Supply Fan					Return Fan					Economizer Type (if present)		
	CFM	CFM	HP	BHP	TSP (inch WC)	Control	CFM	HP	BHP	TSP (inch WC)	Control			
Z30 - Workstation A	214	1410	0.264	0.264	0.59	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z31 - Supply & Training S	73	300	0.047	0.047	0.49	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z32A - Data	41	300	0.272	0.272	2.87	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z32B - Data Racks	19	2100	0.272	0.272	0.49	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z33 - Training Room A	508	1410	0.264	0.264	0.59	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z34 - Training Room B	509	1410	0.264	0.264	0.59	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z35 - Corridor A & B	112	370	0.070	0.070	0.60	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z36 - Secure Training Roo	248	880	0.132	0.132	0.48	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z37 - Secure Training Rec	95	300	0.047	0.047	0.49	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z38 - Interview Rooms 153	65	300	0.047	0.047	0.49	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z39 - Workstation C-2 Ev	185	1160	0.186	0.186	0.51	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z40 - Workstation C-1 US	159	880	0.132	0.132	0.48	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z41 - Corridor E	62	300	0.047	0.047	0.49	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z42 - Workstation B-1	235	1410	0.264	0.264	0.59	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐

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N. ECONOMIZER & FAN SYSTEMS SUMMARY[1]												§ 140.4	Confirmed	
1.	2.	3.					4.					5.	Pass	Fail
Equip Name	Outside Air	Supply Fan					Return Fan					Economizer Type (if present)		
	CFM	CFM	HP	BHP	TSP (inch WC)	Control	CFM	HP	BHP	TSP (inch WC)	Control			
Z8 - Physical Training	355	1160	0.186	0.186	0.51	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z9 - Corridor D Female L	322	1410	0.264	0.264	0.59	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z10 - Lactation	15	300	0.047	0.047	0.49	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z11 - Janitor Mens Lock	382	880	0.132	0.132	0.48	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z12 - Inv. Staff Supply	93	370	0.070	0.070	0.60	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z13 - Interview Rooms & R	29	300	0.047	0.047	0.49	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z14 - Workstation D	66	880	0.132	0.132	0.48	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z15 - Corridor F & Office	80	880	0.132	0.132	0.48	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z18 - Office 146-147-148	95	600	0.062	0.062	0.33	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z21 - Office 149-150-151	95	600	0.062	0.062	0.33	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z23 - 157 Hall-158 Office	90	600	0.062	0.062	0.33	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z25 - Office 159	139	490	0.070	0.070	0.45	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z27 - Office 161	101	370	0.070	0.070	0.60	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z28 - Admin Asst. Office	46	370	0.070	0.070	0.60	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐
Z29 - Admin Conference	314	880	0.132	0.132	0.48	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐

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O. EQUIPMENT CONTROLS		§ 120.2	Confirmed	
1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
Z25 - Office 159	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 20 W)	☐	☐
Z25 - Office 159208	Exhaust	NA	☐	☐
Z27 - Office 161	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 20 W)	☐	☐
Z27 - Office 161218	Exhaust	NA	☐	☐
Z28 - Admin Asst. Office	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 20 W)	☐	☐
Z28 - Admin Asst. Office224	Exhaust	NA	☐	☐
Z29 - Admin Conference	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 130 W)	☐	☐
Z29 - Admin Conference230	Exhaust	NA	☐	☐
Z30 - Workstation A	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 110 W)	☐	☐

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O. EQUIPMENT CONTROLS		§ 120.2	Confirmed	
1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
Z8 - Physical Training93	Exhaust	NA	☐	☐
Z9 - Corridor D Female L	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 140 W)	☐	☐
Z9 - Corridor D Female L103	Exhaust	NA	☐	☐
Z10 - Lactation	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 10 W)	☐	☐
Z11 - Janitor Mens Lock	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 210 W)	☐	☐
Z11 - Janitor Mens Lock118	Exhaust	NA	☐	☐
Z12 - Inv. Staff Supply	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 40 W)	☐	☐
Z12 - Inv. Staff Supply128	Exhaust	NA	☐	☐
Z13 - Interview Rooms & R	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 40 W)	☐	☐

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O. EQUIPMENT CONTROLS		§ 120.2	Confirmed	
1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
Z8 - Physical Training93	Exhaust	NA	☐	☐
Z9 - Corridor D Female L	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 140 W)	☐	☐
Z9 - Corridor D Female L103	Exhaust	NA	☐	☐
Z10 - Lactation	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 10 W)	☐	☐
Z11 - Janitor Mens Lock	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 210 W)	☐	☐
Z11 - Janitor Mens Lock118	Exhaust	NA	☐	☐
Z12 - Inv. Staff Supply	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 40 W)	☐	☐
Z12 - Inv. Staff Supply128	Exhaust	NA	☐	☐
Z13 - Interview Rooms & R	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 40 W)	☐	☐

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TITLE 24 DOCUMENTS
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REGISTERED PROFESSIONAL ENGINEER MICHAEL D. CANTELMI M23588 REN. 9-30-2021 MECHANICAL STATE OF CALIFORNIA

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LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-19 STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2019
Fresno County Department of Public Works
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Project:
Sheriff Area 2 Sub-Station
1129 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:
TITLE 25 DOCUMENTS

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

THE COUNTY OF FRESNO 1856

Sheet No.
M4.2

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1 June 2020 2:42 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawings\4 M\OFFICE\M4.1-M4.4 - Title 24 Documents.dwg mike

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P. SYSTEM DISTRIBUTION SUMMARY — § 120.4/ § 140.4(l)

		Dry System Distribution						Confirmed	
1.	2.	3.	4.	5.			6.		
Equip Name	Equip Type	Duct Leakage and Sealing Required per 140.4(l)	Duct Leakage will be verified per NA1 and NA2	Ducts			Status[1]	Pass	Fail
				Insulation R-Value	Location				
Z2 - Secure Reception & L	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z3 - Men and Women RR & P	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z4 - Public Conference Ro	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z5 - Specialty Unit 1 Off	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z6 - Breakroom A	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z7 Breakroom B & Corridor	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z8 - Physical Training	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z9 - Corridor D Female L	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z10 - Lactation	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z11 - Janitor Mens Lock	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z12 - Inv. Staff Supply	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z13 - Interview Rooms & R	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z14 - Workstation D	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z15 - Corridor F & Office	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z18 - Office 146-147-148	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z21 - Public Waiting Area	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z22 - Secure Reception & L	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z23 - 157 Hall-158 Office	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z25 - Office 159	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z27 - Office 161	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z28 - Admin Asst. Office	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z29 - Admin Conference	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z30 - Workstation A	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z31 - Supply & Training S	SZHP	No	No	8.0	Unconditioned	N		☐	☐

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O. EQUIPMENT CONTROLS — § 120.2

Confirmed				
1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
Z40 - Workstation C-1 US	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 30 W)	☐	☐
Z41 - Corridor E	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 30 W)	☐	☐
Z42 - Workstation B-1	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 110 W)	☐	☐
Z43 - Workstation B-2	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 110 W)	☐	☐
EWH - ElectriFLEX MD: E321 - SHW	Service Hot Water, Primary Only	Fixed Temperature Control, No DDC No Heat Recovery	☐	☐

P. SYSTEM DISTRIBUTION SUMMARY — § 120.4/ § 140.4(l)

		Dry System Distribution						Confirmed	
1.	2.	3.	4.	5.			6.		
Equip Name	Equip Type	Duct Leakage and Sealing Required per 140.4(l)	Duct Leakage will be verified per NA1 and NA2	Ducts			Status[1]	Pass	Fail
				Insulation R-Value	Location				
Z1 - Public Waiting Area	SZHP	No	No	8.0	Unconditioned	N		☐	☐

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O. EQUIPMENT CONTROLS — § 120.2

Confirmed				
1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
Z33 - Training Room A262	Exhaust	NA	☐	☐
Z35 - Corridor A & B	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 60 W)	☐	☐
Z36 - Secure Training Roo	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 120 W)	☐	☐
Z36 - Secure Training Roo269	Exhaust	NA	☐	☐
Z37 - Secure Training Rec	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 50 W)	☐	☐
Z37 - Secure Training Rec273	Exhaust	NA	☐	☐
Z38 - Interview Rooms 153	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 30 W)	☐	☐
Z39 - Workstation C-2 Ev	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 40 W)	☐	☐

Project Name:	Sheriff Substation	NRCC-PRF-01-E	Page 23 of 50
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O. EQUIPMENT CONTROLS — § 120.2

Confirmed				
1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
Z31 - Supply & Training S	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 40 W)	☐	☐
Z31 - Supply & Training S239	Exhaust	NA	☐	☐
Z32A - Data	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 10 W)	☐	☐
Z32A - Data246	Exhaust	NA	☐	☐
Z32B - Data Racks	SZAC	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 20 W)	☐	☐
Z32B - Data Racks250	Exhaust	NA	☐	☐
Z33 - Training Room A	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 220 W)	☐	☐
Z33 - Training Room A256	Exhaust	NA	☐	☐
Z34 - Training Room B	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler Heat Recovery (Plate, 220 W)	☐	☐

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT — § 10-103

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Anthony Kupina	Signature:
Company: Mechanical Design Concepts, Inc.	
Address: 7084 N. Maple Ave.	Signature Date: 5/1/2020
City/State/Zip: Fresno CA 93720	CEA Identification (if applicable):
Phone: 559-431-0101	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
2	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Responsible Envelope Designer Name: Noel Roger Davidson	**Signature:**	
Company: Fresno County Department of Public Works Capital Projects		
Address: 2220 Tulare Street, Eighth Floor	Date Signed:	
City/State/Zip: Fresno CA 93721	Declaration Statement Type:	
Phone: (559) 600-4477	Title: --	License #: C-27818
Responsible Lighting Designer Name:	**Signature: NOT IN SCOPE**	
Company:		
Address:	Date Signed:	
City/State/Zip:	Declaration Statement Type:	
Phone:	Title:	License #:
Responsible Mechanical Designer Name: Michael D. Cantelmi	**Signature:**	
Company: Lawrence Engineering Group		
Address: 7084 N. Maple Ave., Suite 101	Date Signed: 5/1/2020	
City/State/Zip: Fresno CA 93720	Declaration Statement Type:	
Phone: (559)431-0101	Title: Principal	License #: M23588

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U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Process Motors	--	--	--	--	--	--
TOTAL	**363.0**	**405.7**	**-42.7**	**348.3**	**0.0**	**--**

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S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES — § 140.9

This Section Does Not Apply

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS — § 140.9

This Section Does Not Apply

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS — § 140.9

Computer Room System Name	Cooling Capacity (tons)	Economizer Type	Fan Power (watts)	Confirmed	
				Pass	Fail
Z32B - Data Racks	3.8	None	0.24	☐	☐

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS — § 140.9

This Section Does Not Apply

T. UNMET LOAD HOURS

This Section Does Not Apply

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	0.0	7.6	--	276.9	--	--
Space Cooling	81.9	73.6	8.3	--	--	--
Indoor Fans	54.6	54.3	0.3	--	--	--
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	2.0	18.4	-16.4	--	--	--
Domestic Hot Water	--	24.5	--	71.4	--	--
Indoor Lighting	37.5	40.3	-2.8	--	--	--
COMPLIANCE TOTAL	**176.0**	**218.7**	**-42.7**	**348.3**	**0.0**	**--**
Receptacle	79.2	79.2	0.0	--	--	--
Process	107.8	107.8	0.0	--	--	--
Other Ltg	--	--	--	--	--	--

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P. SYSTEM DISTRIBUTION SUMMARY — § 120.4/ § 140.4(l)

		Dry System Distribution						Confirmed	
1.	2.	3.	4.	5.			6.		
Equip Name	Equip Type	Duct Leakage and Sealing Required per 140.4(l)	Duct Leakage will be verified per NA1 and NA2	Ducts			Status[1]	Pass	Fail
				Insulation R-Value	Location				
Z32A - Data	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z32B - Data Racks	SZAC	No	No	8.0	Unconditioned	N		☐	☐
Z33 - Training Room A	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z34 - Training Room B	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z35 - Corridor A & B	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z36 - Secure Training Roo	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z37 - Secure Training Rec	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z38 - Interview Rooms 153	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z39 - Workstation C-2 Ev	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z40 - Workstation C-1 US	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z41 - Corridor E	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z42 - Workstation B-1	SZHP	No	No	8.0	Unconditioned	N		☐	☐
Z43 - Workstation B-2	SZHP	No	No	8.0	Unconditioned	N		☐	☐

[1] *Status: N - New, E – Existing*

Does the Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Does the Project Include a Solar Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Multifamily or Hotel/ Motel Occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)	No

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info)

This Section Does Not Apply

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] — § 130.0

This Section Does Not Apply

[1] *If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details.*

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A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)* — Confirmed

1. DESIGN AIR FLOWS								2. VENTILATION (§ 120.1)									Confirmed	
CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DOC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIR (CFM)	ECV (Y/N)	Override Window Interlock § 140.4(c) (Y/N)	Pass	Fail
Z8 - Physical Training	Z8 - Physical Training	1,160	NA	0.00	NA	NA	N	Z8 - Physical Training	845	0.42	23.66	15.00	355	NA	N	NA	☐	☐
9-Z9 - Corridor D Female L	Z9 - Corridor D Female L	1,410	NA	0.00	NA	NA	N	Z9 - Corridor D Female L	624	0.52	21.50	15.00	322	322	NA	N	NA	☐	☐
10-Z10 - Lactation	Z10 - Lactation	300	NA	0.00	NA	NA	N	Z10 - Lactation	98	0.15	0.49	30.00	15	15	NA	N	NA	☐	☐
11-Z11 - Janitor Mens Lock	Z11 - Janitor Mens Lock	880	NA	0.00	NA	NA	N	Z11 - Janitor Mens Lock	839	0.46	25.47	15.00	382	382	NA	N	NA	☐	☐
12-Z12 - Inv. Staff Supply	Z12 - Inv. Staff Supply	370	NA	0.00	NA	NA	N	Z12 - Inv. Staff Supply	618	0.15	3.09	30.00	93	93	NA	N	NA	☐	☐
13-Z13 - Interview Rooms & R	Z13 - Interview Rooms & R	300	NA	0.00	NA	NA	N	Z13 - Interview Rooms & R	192	0.15	1.59	18.16	29	29	NA	N	NA	☐	☐
14-Z14 - Workstation D	Z14 - Workstation D	880	NA	0.00	NA	NA	N	Z14 - Workstation D	441	0.15	3.53	18.75	66	66	NA	N	NA	☐	☐
15-Z15 - Corridor F & Office	Z15 - Corridor F & Office	880	NA	0.00	NA	NA	N	Z15 - Corridor F & Office	389	0.20	5.30	15.00	80	80	NA	N	NA	☐	☐
16-Z18 - Office 146-147-148	Z18 - Office 146-147-148	600	NA	0.00	NA	NA	N	Z18 - Office 146-147-148	315	0.30	6.30	15.00	95	95	NA	N	NA	☐	☐

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NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)* — Confirmed

1. DESIGN AIR FLOWS								2. VENTILATION (§ 120.1)									Confirmed	
CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DOC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIR (CFM)	ECV (Y/N)	Override Window Interlock § 140.4(c) (Y/N)	Pass	Fail
1-Z1 - Public Waiting Area	Z1 - Public Waiting Area	1,410	NA	0.00	NA	NA	N	Z1 - Public Waiting Area	460	0.50	15.33	15.00	230	230	NA	N	NA	☐	☐
2-Z2 - Secure Reception & L	Z2 - Secure Reception & L	300	NA	0.00	NA	NA	N	Z2 - Secure Reception & L	239	0.15	1.20	30.00	36	36	NA	N	NA	☐	☐
3-Z3 - Men and Women RR & P	Z3 - Men and Women RR & P	490	NA	0.00	NA	NA	N	Z3 - Men and Women RR & P	604	0.31	12.30	15.00	185	185	NA	N	NA	☐	☐
4-Z4 Public Conference Room	Z4 - Public Conference Ro	1,480	NA	0.00	NA	NA	N	Z4 - Public Conference Ro	1,311	0.60	52.44	15.00	787	787	NA	N	NA	☐	☐
5-Z5 - Specialty Unit 1 Off	Z5 - Specialty Unit 1 Off	880	NA	0.00	NA	NA	N	Z5 - Specialty Unit 1 Off	500	0.15	5.00	15.00	75	75	NA	N	NA	☐	☐
6-Z6 - Breakroom A	Z6 - Breakroom A	880	NA	0.00	NA	NA	N	Z6 - Breakroom A	400	0.60	16.00	15.00	240	240	NA	N	NA	☐	☐
7-Z7 - Breakroom B	Z7 Breakroom B & Corridor	1,160	NA	0.00	NA	NA	N	Z7 Breakroom B & Corridor	625	0.56	23.30	15.00	349	349	NA	N	NA	☐	☐

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NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS — Confirmed

1.	2.	3.	4.	Confirmed	
Surface Name	Surface Type	Description of Assembly Layers	Notes	Pass	Fail
(N) Exterior Wall 37	ExteriorWall	Aluminum w/ Thrml Break - Triple or low e glass - No Ins.		☐	☐
(N) Exterior Wall 210	ExteriorWall	Stone - 1 in. Stucco - 7/8 in. Building Paper - 1/16 in. Compliance Insulation R1.41 Metal framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 5/8 in.		☐	☐
(N) Exterior Wall 120	ExteriorWall	Stucco - 7/8 in. Building Paper - 1/16 in. Compliance Insulation R1.41 Metal framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 5/8 in.		☐	☐
Slab On Grade37	UndergroundFloor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0		☐	☐
(N) Roof 139	Roof	Built-up roofing - 3/8 in. Vapor permeable felt - 1/8 in. Extruded Polystyrene - XPS - 6 in. R30.00 Air - Cavity - Wall Roof Ceiling - 4 in. or more Gypsum Board - 1/2 in.		☐	☐
Interior Wall47	InteriorWall	Gypsum Board - 1/2 in. Metal framed wall, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)

This Section Does Not Apply

C. OPAQUE DOOR SUMMARY

This Section Does Not Apply

LAWRENCE ENGINEERING GROUP
7084 N. Maple Ave., Suite 101 (559) 431-0101
19280
Fresno, CA 93720 FAX (559) 431-1362

ARCHITECT:
Noel 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
1129 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:

TITLE 25 DOCUMENTS

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

Sheet No.

M4.3

TITLE 24 DOCUMENTS
Scale: NTS

Drawn by: ----
Plot date: 06.01.2020

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A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)*

	1. DESIGN AIR FLOWS							2. VENTILATION (§ 120.1)										Confirmed	
CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Pass	Fail
17-Z21 - Office 149-150-151	Z21 - Office 149-150-151	600	NA	0.00	NA	NA	N	Z21 - Office 149-150-151	315	0.30	6.30	15.00	95	95	NA	N	NA	☐	☐
18-Z23 -157 Hall-158 Office	Z23 - 157 Hall-158 Office	600	NA	0.00	NA	NA	N	Z23 - 157 Hall-158 Office	388	0.23	6.02	15.00	90	90	NA	N	NA	☐	☐
19-Z25 - Office 159	Z25 - Office 159	490	NA	0.00	NA	NA	N	Z25 - Office 159	464	0.30	9.28	15.00	139	139	NA	N	NA	☐	☐
20-Z27 - Office 161	Z27 - Office 161	370	NA	0.00	NA	NA	N	Z27 - Office 161	336	0.30	6.72	15.00	101	101	NA	N	NA	☐	☐
21-Z28 - Admin Asst. Office	Z28 - Admin Asst. Office	370	NA	0.00	NA	NA	N	Z28 - Admin Asst. Office	304	0.15	3.04	15.00	46	46	NA	N	NA	☐	☐
22-Z29 - Admin Conference	Z29 - Admin Conference	880	NA	0.00	NA	NA	N	Z29 - Admin Conference	448	0.70	20.91	15.00	314	314	NA	N	NA	☐	☐
23-Z30 Workstation A	Z30 - Workstation A	1,410	NA	0.00	NA	NA	N	Z30 - Workstation A	1,425	0.15	14.25	15.00	214	214	NA	N	NA	☐	☐
24-Z31 - Supply & Training S	Z31 - Supply & Training S	300	NA	0.00	NA	NA	N	Z31 - Supply & Training S	487	0.15	2.44	30.00	73	73	NA	N	NA	☐	☐
25-Z32A - Data	Z32A - Data	300	NA	0.00	NA	NA	N	Z32A - Data	275	0.15	1.38	30.00	41	41	NA	N	NA	☐	☐
26-Z32B - Data Racks	Z32B - Data Racks	2,100	NA	0.00	NA	NA	N	Z32B - Data Racks	125	0.15	0.19	100.00	19	19	NA	N	NA	☐	☐

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A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)*

	1. DESIGN AIR FLOWS							2. VENTILATION (§ 120.1)										Confirmed	
CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Pass	Fail
27-Z33 - Training Room A	Z33 - Training Room A	1,410	NA	0.00	NA	NA	N	Z33 - Training Room A	752	0.68	33.84	15.00	508	508	NA	N	NA	☐	☐
28-Z33 - Training Room A	Z34 - Training Room B	1,410	NA	0.00	NA	NA	N	Z34 - Training Room B	754	0.68	33.93	15.00	509	509	NA	N	NA	☐	☐
29-Z35 - Corrifor A & B	Z35 - Corridor A & B	370	NA	0.00	NA	NA	N	Z35 - Corridor A & B	744	0.15	7.44	15.00	112	112	NA	N	NA	☐	☐
30-Z36 - Secure Training Roo	Z36 - Secure Training Roo	880	NA	0.00	NA	NA	N	Z36 - Secure Training Roo	473	0.52	16.55	15.00	248	248	NA	N	NA	☐	☐
31-Z37 - Secure Training Rec	Z37 - Secure Training Rec	300	NA	0.00	NA	NA	N	Z37 - Secure Training Rec	635	0.15	4.44	21.43	95	95	NA	N	NA	☐	☐
32-Z38 - Interview Rooms 153	Z38 - Interview Rooms 153	300	NA	0.00	NA	NA	N	Z38 - Interview Rooms 153	144	0.45	4.32	15.00	65	65	NA	N	NA	☐	☐
33-Z39 - Workstation C-2 Ev	Z39 - Workstation C-2 Ev	1,160	NA	0.00	NA	NA	N	Z39 - Workstation C-2 Ev	1,232	0.15	11.09	16.66	185	185	NA	N	NA	☐	☐
34-Z40 - Workstation C-1 USA	Z40 - Workstation C-1 US	880	NA	0.00	NA	NA	N	Z40 - Workstation C-1 US	1,062	0.15	9.56	16.66	159	159	NA	N	NA	☐	☐

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A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)*

	1. DESIGN AIR FLOWS							2. VENTILATION (§ 120.1)										Confirmed	
CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Pass	Fail
35-Z41 - Corridor E	Z41 - Corridor E	300	NA	0.00	NA	NA	N	Z41 - Corridor E	410	0.15	4.10	15.00	62	62	NA	N	NA	☐	☐
36-Z42 - Workstation B-1	Z42 - Workstation B-1	1,410	NA	0.00	NA	NA	N	Z42 - Workstation B-1	1,564	0.15	15.64	15.00	235	235	NA	N	NA	☐	☐
37-Z43 - Workstation B-2	Z43 - Workstation B-2	1,410	NA	0.00	NA	NA	N	Z43 - Workstation B-2	1,425	0.15	14.25	15.00	214	214	NA	N	NA	☐	☐
								TOTAL	22,262		442.19		6,863	6,863	NA			☐	☐

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1.	2.	3.	4.		5.	6.	7.			8.			Confirmed	
System ID	System Type	Qty	Rated Capacity (kBtuh)		Economizer	Zone Name	Airflow (cfm)			Fan			Pass	Fail
			Heating	Cooling			Design	Min.	Min. Ratio	BHP	Cycles	ECM Motor		
1-Z1 - Public Waiting Area-Trm	Uncontrolled	1	NA	NA	NA	1-Z1 - Public Waiting Area	1410	NA	0.00	NA	NA	☐	☐	☐
2-Z2 - Secure Reception & L-Trm	Uncontrolled	1	NA	NA	NA	2-Z2 - Secure Reception & L	300	NA	0.00	NA	NA	☐	☐	☐
3-Z3 - Men and Women RR & P-Trm	Uncontrolled	1	NA	NA	NA	3-Z3 - Men and Women RR & P	490	NA	0.00	NA	NA	☐	☐	☐

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B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1.	2.	3.	4.		5.	6.	7.			8.			Confirmed	
System ID	System Type	Qty	Rated Capacity (kBtuh)		Economizer	Zone Name	Airflow (cfm)			Fan			Pass	Fail
			Heating	Cooling			Design	Min.	Min. Ratio	BHP	Cycles	ECM Motor		
4-Z4 Public Conference Room-Trm	Uncontrolled	1	NA	NA	NA	4-Z4 Public Conference Room	1480	NA	0.00	NA	NA	☐	☐	☐
5-Z5 - Specialty Unit 1 Off-Trm	Uncontrolled	1	NA	NA	NA	5-Z5 - Specialty Unit 1 Off	880	NA	0.00	NA	NA	☐	☐	☐
6-Z6 - Breakroom A-Trm	Uncontrolled	1	NA	NA	NA	6-Z6 - Breakroom A	880	NA	0.00	NA	NA	☐	☐	☐
7-Z7 - Breakroom B-Trm	Uncontrolled	1	NA	NA	NA	7-Z7 - Breakroom B	1160	NA	0.00	NA	NA	☐	☐	☐
8-Z8 - Physical Training-Trm	Uncontrolled	1	NA	NA	NA	8-Z8 - Physical Training	1160	NA	0.00	NA	NA	☐	☐	☐
9-Z9 - Corridor D Female L-Trm	Uncontrolled	1	NA	NA	NA	9-Z9 - Corridor D Female L	1410	NA	0.00	NA	NA	☐	☐	☐
10-Z10 - Lactation-Trm	Uncontrolled	1	NA	NA	NA	10-Z10 - Lactation	300	NA	0.00	NA	NA	☐	☐	☐
11-Z11 - Janitor Mens Lock-Trm	Uncontrolled	1	NA	NA	NA	11-Z11 - Janitor Mens Lock	880	NA	0.00	NA	NA	☐	☐	☐
12-Z12 - Inv. Staff Supply-Trm	Uncontrolled	1	NA	NA	NA	12-Z12 - Inv. Staff Supply	370	NA	0.00	NA	NA	☐	☐	☐
13-Z13 - Interview Rooms & R-Trm	Uncontrolled	1	NA	NA	NA	13-Z13 - Interview Rooms & R	300	NA	0.00	NA	NA	☐	☐	☐
14-Z14 - Workstation D-Trm	Uncontrolled	1	NA	NA	NA	14-Z14 - Workstation D	880	NA	0.00	NA	NA	☐	☐	☐
15-Z15 - Corridor F & Office-Trm	Uncontrolled	1	NA	NA	NA	15-Z15 - Corridor F & Office	880	NA	0.00	NA	NA	☐	☐	☐
16-Z18 - Office 146-147-148-Trm	Uncontrolled	1	NA	NA	NA	16-Z18 - Office 146-147-148	600	NA	0.00	NA	NA	☐	☐	☐
17-Z21 - Office 149-150-151-Trm	Uncontrolled	1	NA	NA	NA	17-Z21 - Office 149-150-151	600	NA	0.00	NA	NA	☐	☐	☐

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B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1.	2.	3.	4.		5.	6.	7.			8.			Confirmed	
System ID	System Type	Qty	Rated Capacity (kBtuh)		Economizer	Zone Name	Airflow (cfm)			Fan			Pass	Fail
			Heating	Cooling			Design	Min.	Min. Ratio	BHP	Cycles	ECM Motor		
18-Z23 -157 Hall-158 Office-Trm	Uncontrolled	1	NA	NA	NA	18-Z23 -157 Hall-158 Office	600	NA	0.00	NA	NA	☐	☐	☐
19-Z25 - Office 159-Trm	Uncontrolled	1	NA	NA	NA	19-Z25 - Office 159	490	NA	0.00	NA	NA	☐	☐	☐
20-Z27 - Office 161-Trm	Uncontrolled	1	NA	NA	NA	20-Z27 - Office 161	370	NA	0.00	NA	NA	☐	☐	☐
21-Z28 - Admin Asst. Office-Trm	Uncontrolled	1	NA	NA	NA	21-Z28 - Admin Asst. Office	370	NA	0.00	NA	NA	☐	☐	☐
22-Z29 - Admin Conference-Trm	Uncontrolled	1	NA	NA	NA	22-Z29 - Admin Conference	880	NA	0.00	NA	NA	☐	☐	☐
23-Z30 Workstation A-Trm	Uncontrolled	1	NA	NA	NA	23-Z30 Workstation A	1410	NA	0.00	NA	NA	☐	☐	☐
24-Z31 - Supply & Training S-Trm	Uncontrolled	1	NA	NA	NA	24-Z31 - Supply & Training S	300	NA	0.00	NA	NA	☐	☐	☐
25-Z32A - Data-Trm	Uncontrolled	1	NA	NA	NA	25-Z32A - Data	300	NA	0.00	NA	NA	☐	☐	☐
26-Z32B - Data Racks-Trm	Uncontrolled	1	NA	NA	NA	26-Z32B - Data Racks	2100	NA	0.00	NA	NA	☐	☐	☐
27-Z33 - Training Room A-Trm	Uncontrolled	1	NA	NA	NA	27-Z33 - Training Room A	1410	NA	0.00	NA	NA	☐	☐	☐
28-Z33 - Training Room A-Trm	Uncontrolled	1	NA	NA	NA	28-Z33 - Training Room A	1410	NA	0.00	NA	NA	☐	☐	☐
29-Z35 - Corrifor A & B-Trm	Uncontrolled	1	NA	NA	NA	29-Z35 - Corrifor A & B	370	NA	0.00	NA	NA	☐	☐	☐
30-Z36 - Secure Training Roo-Trm	Uncontrolled	1	NA	NA	NA	30-Z36 - Secure Training Roo	880	NA	0.00	NA	NA	☐	☐	☐
31-Z37 - Secure Training Rec-Trm	Uncontrolled	1	NA	NA	NA	31-Z37 - Secure Training Rec	300	NA	0.00	NA	NA	☐	☐	☐

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B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1.	2.	3.	4.		5.	6.	7.			8.			Confirmed	
System ID	System Type	Qty	Rated Capacity (kBtuh)		Economizer	Zone Name	Airflow (cfm)			Fan			Pass	Fail
			Heating	Cooling			Design	Min.	Min. Ratio	BHP	Cycles	ECM Motor		
32-Z38 - Interview Rooms 153-Trm	Uncontrolled	1	NA	NA	NA	32-Z38 - Interview Rooms 153	300	NA	0.00	NA	NA	☐	☐	☐
33-Z39 - Workstation C-2 Ev-Trm	Uncontrolled	1	NA	NA	NA	33-Z39 - Workstation C-2 Ev	1160	NA	0.00	NA	NA	☐	☐	☐
34-Z40 - Workstation C-1 USA-Trm	Uncontrolled	1	NA	NA	NA	34-Z40 - Workstation C-1 USA	880	NA	0.00	NA	NA	☐	☐	☐
35-Z41 - Corridor E-Trm	Uncontrolled	1	NA	NA	NA	35-Z41 - Corridor E	300	NA	0.00	NA	NA	☐	☐	☐
36-Z42 - Workstation B-1-Trm	Uncontrolled	1	NA	NA	NA	36-Z42 - Workstation B-1	1410	NA	0.00	NA	NA	☐	☐	☐
37-Z43 - Workstation B-2-Trm	Uncontrolled	1	NA	NA	NA	37-Z43 - Workstation B-2	1410	NA	0.00	NA	NA	☐	☐	☐

C. EXHAUST FAN SUMMARY

1.	2.	3.	4.	5.	6.	Confirmed	
System ID	Zone Name	Qty	CFM	Motor BHP	Total Static Pressure (in H20)	Pass	Fail
Z1 - Public Waiting Area3	1-Z1 - Public Waiting Area	1	230	0.177	2.93	☐	☐
Z2 - Secure Reception & L40	2-Z2 - Secure Reception & L	1	45	0.035	2.96	☐	☐
Z3 - Men and Women RR & P50	3-Z3 - Men and Women RR & P	1	300	0.231	2.93	☐	☐
Z4 Public Conference Room60	4-Z4 Public Conference Room	1	765	0.589	2.93	☐	☐
Z5 - Specialty Unit 1 Off70	5-Z5 - Specialty Unit 1 Off	1	90	0.069	2.92	☐	☐
Z6 - Breakroom A76	6-Z6 - Breakroom A	1	100	0.077	2.93	☐	☐
Z7 - Breakroom B82	7-Z7 - Breakroom B	1	928	0.714	2.93	☐	☐
Z8 - Physical Training93	8-Z8 - Physical Training	1	425	0.327	2.93	☐	☐
Z9 - Corridor D Female L103	9-Z9 - Corridor D Female L	1	295	0.227	2.93	☐	☐
Z11 - Janitor Mens Lock118	11-Z11 - Janitor Mens Lock	1	445	0.342	2.93	☐	☐

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C. EXHAUST FAN SUMMARY

1.	2.	3.	4.	5.	6.	Confirmed	
System ID	Zone Name	Qty	CFM	Motor BHP	Total Static Pressure (in H20)	Pass	Fail
Z12 - Inv. Staff Supply128	12-Z12 - Inv. Staff Supply	1	90	0.069	2.92	☐	☐
Z13 - Interview Rooms & R138	13-Z13 - Interview Rooms & R	1	95	0.073	2.93	☐	☐
Z14 - Workstation D148	14-Z14 - Workstation D	1	50	0.039	2.97	☐	☐
Z23 -157 Hall-158 Office196	18-Z23 -157 Hall-158 Office	1	75	0.058	2.94	☐	☐
Z25 - Office 159208	19-Z25 - Office 159	1	75	0.058	2.94	☐	☐
Z27 - Office 161218	20-Z27 - Office 161	1	50	0.039	2.97	☐	☐
Z28 - Admin Asst. Office224	21-Z28 - Admin Asst. Office	1	45	0.035	2.96	☐	☐
Z29 - Admin Conference230	22-Z29 - Admin Conference	1	270	0.208	2.93	☐	☐
Z31 - Supply & Training S239	24-Z31 - Supply & Training S	1	75	0.058	2.94	☐	☐
Z32A - Data246	25-Z32A - Data	1	40	0.030	2.86	☐	☐
Z32B - Data Racks250	26-Z32B - Data Racks	1	40	0.030	2.86	☐	☐
Z33 - Training Room A256	27-Z33 - Training Room A	1	465	0.358	2.93	☐	☐
Z33 - Training Room A262	28-Z33 - Training Room A	1	465	0.358	2.93	☐	☐
Z36 - Secure Training Roo269	30-Z36 - Secure Training Roo	1	255	0.196	2.93	☐	☐
Z37 - Secure Training Rec273	31-Z37 - Secure Training Rec	1	100	0.077	2.93	☐	☐

D. DHW EQUIPMENT SUMMARY – *(Adapted from NRCC-PLB-01)* § 110.3

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Confirmed	
DHW Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input (kBtu/h)	Efficiency	Tank Insulation R-value (Int/Ext)	Standby Loss Fraction	Heat Pump Type	Tank Location or Ambient Condition	Pass	Fail
EWH 1 - BRADFORD WHITE E32	Electricity	Storage	1	80.00	61	Thrml. Eff.: 1.00	NA	SBLF: 0.065	NA	NA	☐	☐

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS

This Section Does Not Apply

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F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)

This Section Does Not Apply

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	Pass	Fail
EWH - ElectriFLEX MD: E321 - SHW	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z1 - Public Waiting Area	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z1 - Public Waiting Area3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z2 - Secure Reception & L	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z2 - Secure Reception & L40	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z3 - Men and Women RR & P	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

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G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	Pass	Fail
Z3 - Men and Women RR & P50	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z4 - Public Conference Ro	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z4 Public Conference Room60	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z5 - Specialty Unit 1 Off	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z5 - Specialty Unit 1 Off70	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z6 - Breakroom A	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z6 - Breakroom A76	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

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G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* § RA4

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Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	Pass	Fail
Z7 Breakroom B & Corridor	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z7 - Breakroom B82	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z8 - Physical Training	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z8 - Physical Training93	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z9 - Corridor D Female L	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z9 - Corridor D Female L103	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z10 - Lactation	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z11 - Janitor Mens Lock	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

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G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	Pass	Fail
Z11 - Janitor Mens Lock118	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z12 - Inv. Staff Supply	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z12 - Inv. Staff Supply128	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z13 - Interview Rooms & R	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z13 - Interview Rooms & R138	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z14 - Workstation D	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z14 - Workstation D148	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

TITLE 24 DOCUMENTS

Scale: NTS

REGISTERED PROFESSIONAL ENGINEER MICHAEL D. CANTELMI M23588 REN. 9-30-2021 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
7084 N. Maple Ave., Suite 101 (559) 431-0101 19280 Fresno, CA 93720 FAX (559) 431-1362

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-19 STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
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Project:

Sheriff Area 2 Sub-Station
1129 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:

TITLE 24 DOCUMENTS

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO 1856

Sheet No.

M4.4

Drawn by: ---- Plot date: 06.01.2020

1 June 2020 2:42 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4—Drawings\4 M\OFFICE\M4.1—M4.4 — Title 24 Documents.dwg mike

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Project Name:	Sheriff Substation	NRCC-PRF-01-E	Page 47 of 50
Project Address:	1129 N. Armstrong Ave. Fresno 93727	Calculation Date/Time:	13:18, Fri, May 01, 2020
Compliance Scope:	NewEnvelopeAndMechanical	Input File Name:	19280 Sheriff Substation V7_05.01.2020-Anthony k..cibd16x

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description: Equipment Requiring Testing or Verification	# of units	MCH-02A Outdoor Air	MCH-03A Single Zone Unitary	MCH-04A Air Dist. Ducts	MCH-05A Economizer Controls	MCH-06A DCV	MCH-07A Supply Fan VAV	MCH-08A Valve leakage	MCH-09A Supply Water Temp. Reset	MCH-10A Hyd. Variable Flow Control	MCH-11A Auto Demand Shed Control	MCH-12A FDD for DX Units	MCH-13A Auto FDD for Air & Zone	MCH-14A Dist. Energy Storage DX AC	MCH-15A TES Systems	MCH-16A Supply Air Temp. Reset	MCH-17A Condenser Water Reset Controls	MCH-18A ECMS	Confirmed: Pass	Confirmed: Fail
Z32A - Data246	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z32B - Data Racks	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z32B - Data Racks250	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z33 - Training Room A	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z33 - Training Room A256	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z34 - Training Room B	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z33 - Training Room A262	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z35 - Corridor A & B	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

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Z27 - Office 161218	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z28 - Admin Asst. Office	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z28 - Admin Asst. Office224	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z29 - Admin Conference	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z29 - Admin Conference 230	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z30 - Workstation A	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z31 - Supply & Training S	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z31 - Supply & Training S239	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z32A - Data	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

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Z15 - Corridor F & Office	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z18 - Office 146-147-148	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z21 - Office 149-150-151	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z23 - 157 Hall-158 Office	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z23 -157 Hall-158 Office196	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z25 - Office 159	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z25 - Office 159208	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z27 - Office 161	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL — ENV-MM

Project Name	Date
Fresno County Sheriff Area 2 Substation	*5/1/2020*

DESCRIPTION

Building Envelope Measures:

§110.8(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§110.8(c):	All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§110.8(g):	Heated slab floors shall be insulated according to the requirements in Table 110.8-A.
§110.7(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§110.6(a):	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.^{2} of window area, 0.3 cfm/ft.^{2} of door area for residential doors, 0.3 cfm/ft.^{2} of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.^{2} for nonresidential double doors (swinging).
§110.6(a):	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§110.6(a) :	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§110.6(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).
§120.7(a):	The opaque portions of the roof/ceiling that separates conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Metal Building-** The weighted average U-factor of the roof assembly shall not exceed 0.098. **Wood Framed and Others-** The weighted average U-factor of the roof assembly shall not exceed 0.075.
§120.7(b):	The opaque portions of walls that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-factor as follows: **Metal Building-** The weighted average U-factor of the wall assembly shall not exceed 0.113. **Metal Framed-** The weighted average U-factor of the wall assembly shall not exceed 0.151. **Light Mass Walls-** A 6 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.440. **Heavy Mass Walls-** An 8 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.690. **Wood Framed and Others-** The weighted average U-factor of the wall assembly shall not exceed 0.110. **Spandrel Panels and Opaque Curtain Wall-** The weighted average U-factor of the spandrel panels and opaque curtain wall assembly shall not exceed 0.280. **Demising Walls-**. The opaque portions of framed demising walls shall meet the requirements of Item A or B below: A. Wood framed walls shall be insulated to meet a U-factor not greater than 0.099. B. Metal Framed walls shall be insulated to meet a U-factor not greater than 0.151.
§120.7(c):	The opaque portions of floors and soffits that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Raised Mass Floors-** Shall have a minimum of 3 inches of lightweight concrete over a metal deck or the weighted average U-factor of the floor assembly shall not exceed 0.269. **Other Floors-**The weighted average U-factor of the floor assembly shall not exceed 0.071.

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D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) § 140.6-D

This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) § 140.6(c) 3H

This Section Does Not Apply

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

This Section Does Not Apply

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 130.4

This Section Does Not Apply

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Z36 - Secure Training Roo	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z36 - Secure Training Roo269	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z37 - Secure Training Rec	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z37 - Secure Training Rec273	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z38 - Interview Rooms 153	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z39 - Workstation C-2 Ev	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z40 - Workstation C-1 US	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
Z41 - Corridor E	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

REGISTERED PROFESSIONAL ENGINEER MICHAEL D. CANTELMI M23588 REN. 9-30-2021 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
7084 N. Maple Ave., Suite 101 Fresno, CA 93720
(559) 431-0101 19280 FAX (559) 431-1362

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TITLE 24 DOCUMENTS

Scale: NTS

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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 AT 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 8'-0", 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(c).
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 EXTINGUISHING 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.

Electrical Symbols

LIGHTING

SYMBOL	DESCRIPTION	NOTES
	POLE WITH SINGLE AREA LUMINAIRE	
	POLE WITH DOUBLE AREA LUMINAIRES	
	POLE WITH POST TOP AREA LUMINAIRE	
(A)	FIXTURE TYPE "A"	REFER TO FIXTURE SCHEDULE
	SURFACE CEILING LIGHT	
	RECESSED DOWN LIGHT	
	WALL LIGHT	
	FIXTURE ON EMERGENCY POWER	PROVIDE UNSWITCHED HOT TO BATT PACKS
	EXIT SIGN, CEILING (ARROWS INDICATE CHEVRONS)	PROVIDE UNSWITCHED HOT TO BATT PACKS
	EXIT SIGN, WALL (ARROWS INDICATE CHEVRONS)	PROVIDE UNSWITCHED HOT TO BATT PACKS
	DEDICATED EMERGENCY LIGHT	PROVIDE UNSWITCHED HOT TO BATT PACKS
INV	INVERTER	
$	SWITCH AT +48" AFF TO TOP OF BOX	20A 277V QUIET TOGGLE
$3	3-WAY SWITCH AT +48" AFF TO TOP OF BOX	20A 277V QUIET TOGGLE
	DIMMER SWITCH, TO BE COMPATIBLE WITH CONTROLLED FIXTURES, AT +48" AFF TO TOP OF BOX	ROUGH IN WITH 1G BOX PER SWITCH W/ RING, 1"C. TO ACCESSIBLE ATTIC SPACE
	WALL MOUNTED DUAL TECH OCCUPANCY SENSOR SWITCH, 0-10V DIMMING, AT +48" AFF TO TOP OF BOX	ROUGH IN WITH 1G BOX PER SWITCH W/ RING, 1"C. TO ACCESSIBLE ATTIC SPACE
EF	WALL MOUNTED ULTRASONIC OCCUPANCY SENSOR SWITCH, W/ SEPARATE EXHAUST FAN RELAY AT +48" AFF TO TOP OF BOX	ROUGH IN WITH 1G BOX PER SWITCH W/ RING, 1"C. TO ACCESSIBLE ATTIC SPACE
D	DIGITAL ON/OFF SWITCH, AT +48" AFF TO TOP OF BOX	nLIGHT SYSTEM, ROUGH IN WITH 1G BOX & RING, 1"C. TO ACCESSIBLE ATTIC
D	DIGITAL DIMMER SWITCH, AT +48" AFF TO TOP OF BOX	nLIGHT SYSTEM, ROUGH IN WITH 1G BOX & RING, 1"C. TO ACCESSIBLE ATTIC
D OS	DIGITAL DIMMER SWITCH W/ INTEGRAL OCCUPANCY SENSOR AND PHOTOSENSOR AT +48" AFF TO TOP OF BOX	nLIGHT SYSTEM, ROUGH IN WITH 1G BOX & RING, 1"C. TO ACCESSIBLE ATTIC
F	DIGITAL "FRESCO" GRAPHICAL TOUCHSCREEN DIMMING, CONTROLLER AT +48" AFF TO TOP OF BOX	nLIGHT SYSTEM, ROUGH IN WITH 1G BOX & RING, 1"C. TO ACCESSIBLE ATTIC
OS	DIGITAL OCCUPANCY SENSOR W/ PHOTOSENSOR DUAL-TECHNOLOGY CEILING MOUNT	nLIGHT SYSTEM #nCM PDT 10
WOS	DIGITAL OCCUPANCY SENSOR W/ PHOTOSENSOR DUAL-TECHNOLOGY WALL MOUNT	nLIGHT SYSTEM, ROUGH IN WITH 1G BOX & RING, 1"C. TO ACCESSIBLE ATTIC
XS	WIRELESS DIGITAL OCCUPANCY SENSOR W/ PHOTOSENSOR. DUAL-TECHNOLOGY CEILING MOUNT	PROVIDE XPOINT SBOR SENSOR INTERFACE
GW	DIGITAL GATEWAY	nLIGHT SYSTEM, PROVIDE (1) GATEWAY AT EACH BUILDING AND CONNECT TO LAN. PROVIDE BOX/OUTLET AT GATEWAY LOCATION FOR GATEWAY POWER SUPPLY.
BR	DIGITAL BRIDGE	nLIGHT SYSTEM, PROVIDE (1) BRIDGE FOR EACH (6) nLIGHT ZONES. CONNECT BRIDGE POWER SUPPLY TO LOCAL LIGHTING CIRCUIT.
BX	DIGITAL XPOINT WIRELESS BRIDGE	INTERFACE WITH nLIGHT SYSTEM GATEWAY
PP	DIMMING POWER PACK VERIFY 0-10V, 2- OR 3-WIRE, MLV, OR ELV BY FIXTURE	nLIGHT SYSTEM, MOUNT IN ACCESSIBLE ATTIC OR INCONSPICUOUS, HIGH ON WALL, WHEN NO CEILING
PP E	DIMMING POWER PACK W/ EMERGENCY CONTROL RELAY VERIFY 0-10V, 2- OR 3-WIRE, MLV, OR ELV BY FIXTURE	nLIGHT SYSTEM, MOUNT IN ACCESSIBLE ATTIC OR INCONSPICUOUS, HIGH ON WALL, WHEN NO CEILING
XP	DMX CONTROLLER PACK	nLIGHT SYSTEM, MOUNT IN ACCESSIBLE ATTIC OR INCONSPICUOUS, HIGH ON WALL, WHEN NO CEILING
RR	RECEPTACLE RELAY CONTROLLED BY OCCUPANCY SENSOR	nLIGHT SYSTEM, MOUNT IN ACCESSIBLE ATTIC OR INCONSPICUOUS, HIGH ON WALL, WHEN NO CEILING. (1) RELAY PER CIRCUIT IN EACH CONTROLLED AREA.

POWER

SYMBOL	DESCRIPTION	NOTES
	SWITCHBOARD	REFER TO POWER SINGLE LINE DIAGRAM
	POWER PANEL	REFER TO PANEL SCHEDULE
J	JUNCTION BOX	4-11/16" SQUARE BOX & COVER PLATE MIN.
	DISCONNECT SWITCH, FUSIBLE	REFER TO MECH. PLANS & SPECS.
	MOTOR CONTROLLER/DISCONNECT SWITCH	REFER TO MECH. PLANS & SPECS.
M	MOTOR	REFER TO MECH. PLANS & SPECS.
	EXHAUST FAN, CEILING MOUNTED	REFER TO MECH. PLANS & SPECS.
	SINGLE CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED
	DUPLEX CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED
	QUADPLEX CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED
	DUPLEX GFI CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #X7899-W
	QUADPLEX GFI CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #X7899-W
	WEATHERPROOF, GFI OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N. W/ WEATHERPROOF IN-USE TYPE COVER	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #X7899-W
	DUPLEX CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N. SPLIT-WIRED WITH UNSWITCHED AND SWITCHED BY OCCUPANCY SENSOR	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #TDR20-S1W CODE COMPLIANT MARKING REQUIRED
	QUADPLEX CONVENIENCE OUTLET, CONTROLLED AT +15" AFF TO BOTTOM OF BOX, U.O.N. ONE UNSWITCHED AND ONE SWITCHED BY OCCUPANCY SENSOR	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #TDR20-W AND LEVITON #TDR20-S2W CODE COMPLIANT MARKING REQUIRED
	HEAVY DUTY WP MINI POWER CENTER WITH 10kVA XFMR AND (6) 20A 1-POLE BREAKERS	PROVIDE (4) STEEL BOLLARDS TO PROTECT PEDESTAL
	HEAVY DUTY WP OUTLET PEDESTAL WITH (2) GFI DUPLEX OUTLETS AT 180° WITH WP WHILE-IN USE COVERS	PROVIDE (2) STEEL BOLLARDS TO PROTECT PEDESTAL
	SPECIAL EQUIPMENT OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	VERIFY REQ'TS W/ EQUIPMENT VENDOR
	2G FLOOR BOX WITH POWER FEED COVER	MAKE CONNECTION TO MODULAR FURNITURE SYSTEM
	12" CU GROUND BUS BAR	WITH #6 GREEN GROUND WIRE TO G.E.C.
	FIRE/SMOKE DAMPER	PROVIDE 120V F.A. CIRCUIT TO DAMPER VIA F.A. RELAY.

GENERAL

SYMBOL	DESCRIPTION	NOTES
	DEVICES TO BE REMOVED	
	EXISTING CONDUIT/WIRING TO BE DEMOLISHED	
	EXISTING DEVICES	
	EXISTING CONDUIT/WIRING	
	WIRING IN CONDUIT, BELOW GRADE	3/4" CONDUIT MIN.
	WIRING IN CONDUIT, IN WALL OR CEILING	3/4" CONDUIT MIN.
LV	LOW VOLTAGE WIRING IN ATTIC SPACE	TYPE PER EQUIPMENT MANUFACTURER
	CONDUIT RISER	3/4" CONDUIT MIN.
	FLEXIBLE CONDUIT	3/4" CONDUIT MIN.
	CONDUIT STUB AND CAP	3/4" CONDUIT MIN.
	CROSS HATCHES INDICATE NUMBER OF #12 AWG. CONDUCTORS IN CONDUIT, WHEN MORE THAN TWO. WIRE SIZE INDICATED ON PLANS WHEN OTHER #12 AWG. PROVIDE GROUND PER CEC 250. PROVIDE DEDICATED NEUTRAL FOR EACH CIRCUIT.	3/4" CONDUIT MIN.
W/R	CURVED CROSS HATCHES INDICATE #14 AWG PURPLE & GRAY CONDUCTORS FOR DIMMING CONTROL.	3/4" CONDUIT MIN.
A–15	HOME RUN (TO PANEL "A", CIRCUIT "15")	3/4" CONDUIT MIN.
(E)	"EXISTING"	
U.O.N.	"UNLESS OTHERWISE NOTED"	
WP	"WEATHERPROOF" / NEMA 3R	
GFI	"GROUND FAULT INTERRUPTER"	

DATACOM

SYMBOL	DESCRIPTION	NOTES
	TERMINAL CABINET	
	DATA OUTLET (RJ-45 CAT6) WITH 2 JACK AT +18" AFF, U.O.N. BLUE JACKS & CABLE QTY. OF JACKS AS NOTED WHEN > 2	4-11/16 SQ. BOX, 1G RING, MODULAR PLATE, & 1 1/2"C. TO ACCESSIBLE ATTIC SPACE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END. REFER TO SPECIFICATIONS.
WAP–C	(2) WAP DATA JACKS (RJ-45 CAT6A) MOUNTED IN ATTIC SPACE	4-11/16 SQ. BOX, 1G RING, MODULAR PLATE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END.
WAP–W	(2) WAP DATA JACKS (RJ-45 CAT6A) AT +108" AFF, U.O.N.	4-11/16 SQ. BOX, 1G RING, MODULAR PLATE, & 1 1/2"C. TO ACCESSIBLE ATTIC SPACE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END. REFER TO SPECIFICATIONS.
	WALL MOUNT VoIP OUTLET (RJ-45 CAT6) AT +45" AFF, U.O.N.	4-11/16 SQ. BOX, 1G RING, MODULAR PLATE, & 1 1/2"C. TO ACCESSIBLE ATTIC SPACE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END. REFER TO SPECIFICATIONS.
	WALL MOUNT DATA/COMM OUTLET AT +45" AFF, U.O.N.	4-11/16 SQ. BOX, 1G RING, MODULAR PLATE, & 1 1/2"C. TO ACCESSIBLE ATTIC SPACE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END. REFER TO SPECIFICATIONS.
MDF	"MAIN DISTRIBUTION FRAME"	
IDF	"INTERMEDIATE DISTRIBUTION FRAME"	

PA

SYMBOL	DESCRIPTION	NOTES
	PUBLIC ADDRESS SPEAKER, CEILING MOUNTED	HOMERUN SPEAKER CABLE TO PA TERMINAL BLOCK
	PUBLIC ADDRESS SPEAKER WALL MOUNTED, +120" U.O.N.	RUN 1"C. TO ACCESSIBLE ATTIC SPACE AND HOMERUN SPEAKER CABLE TO PA TERMINAL BLOCK
WP	WP OUTDOOR PUBLIC ADDRESS SPEAKER, WALL MOUNTED, +120" U.O.N.	RUN 1"C. TO ACCESSIBLE ATTIC SPACE AND HOMERUN SPEAKER CABLE TO PA TERMINAL BLOCK

CAMERAS

SYMBOL	DESCRIPTION	NOTES
	SURVEILLANCE (CCTV) CAMERA PROVISION, WALL MOUNTED. VERIFY HEIGHTS AT EACH LOC. C=CEILING MOUNTED.	INTERIOR: 1G J-BOX, 1G RING, MODULAR PLATE, 3/4"C. TO ACCESSIBLE ATTIC SPACE. EXTERIOR: 1G FLUSH BELL BOX, MODULAR PLATE, 3/4"C. TO ACCESSIBLE ATTIC SPACE. PROVIDE (1) CAT6 CABLE AND DATA JACK TO EACH CAMERA PROVISION. VERIFY EXACT REQUIREMENTS PRIOR TO ROUGH-IN.

AUDIO/VIDEO

SYMBOL	DESCRIPTION	NOTES
TV	RECESSED TV BOX WITH POWER OUTLET, (2) DATA JACKS, HDMI AND CATV JACKS. VERIFY HEIGHT/LOCATION PRIOR TO ROUGH-IN. SEE POWER PLAN FOR POWER OUTLET	MAKE POWER CONNECTION AND PROVIDE 1 1/2"C. STUB TO EXPOSED CABLE SPACE NEAR ROOF. VERIFY HEIGHTS W/ ARCH.
AV	A/V INPUT HDMI/VGA/3.5MM AUDIO/USB JACK WALL PLATE AT +18" AFF	2G BOX, 1G RING, (2) 1 1/4"C. TO ATTIC SPACE. INSTALL CABLES FROM STATION TO TV.

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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: T80293 / 19003
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

THE COUNTY OF FRESNO — Board of Supervisors

Sheet No.

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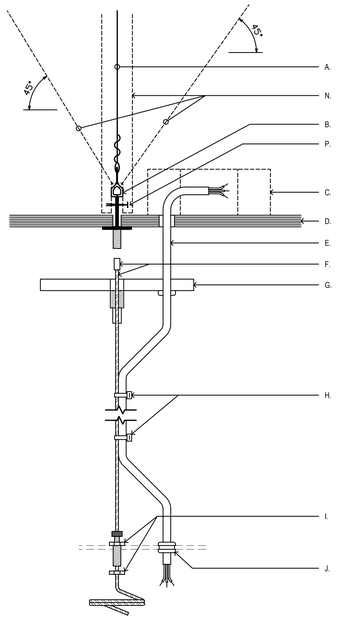


T-BAR MOUNTING NOTES:

A. HANGER WIRE:
12GA GALV. HANGER WIRES FROM SUPPORT CLIP TO ROOF STRUCTURE. REFER TO ARCHITECTURAL DETAILS FOR ACCEPTABLE HANGER WIRE CONNECTIONS.

B. SUPPORT CLIP:
CADDY "INDEPENDENT SUPPORT CLIP" W/ 1/4-20 STUD. ATTACHES OVER T-BAR RUNNER.

C. J-BOX:
LIGHTING CIRCUIT J-BOX (AT POWER FEED END OF FIXTURE ONLY).

D. ACOUSTIC CEILING TILE:
INSTALLED IN T-BAR GRID SYSTEM. SEE ARCH. PLANS.

E. POWER FEED:
WHITE SO CORD, 18/3 OR 18/4, AS REQUIRED.

F. AIRCRAFT CABLE:
3/32" STAINLESS STEEL AIRCRAFT CABLE W/ BARREL TERMINAL AT ONE END.

G. CANOPY:
1/4" INTERNAL THREAD CEILING COUPLER, AND BARREL TERMINAL CAPTURE; BY MFGR

H. ZIP TIE:
NEATLY ZIP TIE POWER FEED TO AIRCRAFT CABLE AT 6" CENTERS W/ WHITE ZIP TIES.

I. GRIPPER:
UL LISTED AIRCRAFT CABLE GRIPPER W/ KNURLED LOCK NUT. 1/4-20" THREADED BODY & NUT ATTACHES TO FIXTURE.

J. STRAIN RELIEF:
STRAIN RELIEF BUSHING AT FIXTURE.

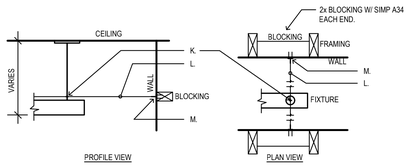
K. 2-CABLE CLAMP:
SECURE TO EACH HANGER CABLE WITHIN 4" OF FIXTURE ATTACHMENT POINT.

L. LATERAL BRACING CABLE:
3/32" STAINLESS STEEL AIRCRAFT CABLE INSTALLED LONGITUDINALLY ACROSS FIXTURE TO PREVENT SWAYING.

M. WALL ANCHOR:
CABLE COUPLER ANCHOR (GRIPLOCK #DG-CC-APLT-SAT) SECURED WITH (2) #12 SMS THRU WALL FRAMING/BLOCKING AT EACH END OF FIXTURE.

N. COMPRESSION STRUT:
PROVIDE COMPRESSION STRUT AND (4) SPLAY WIRES THROUGH MAIN RUNNER PER DSA IR 25-2.13 WITHIN 6" OF EACH SUPPORT CLIP, SUPPORT CLIPS TO BE SPACED MAX. 8' O.C. & WITHIN 6" OF EACH END. SEE ARCH. DETAILS FOR INSTALLATION REQUIREMENTS.

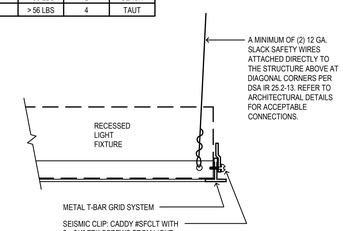
P. INSTALL #10 S.M.S. THROUGH CLIP AND MAIN RUNNER.



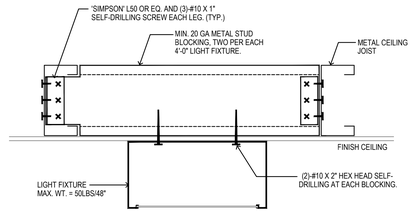
LINEAR FIXTURE LATERAL SEISMIC BRACING
REQUIRED WHEN FIXTURE CONTACTS OBSTRUCTION WHEN SWINGING 45° FROM VERTICAL.

J1 Pendant Fixture Mounting Detail
Scale: None

HEAVY DUTY GRID SYSTEM			
MAX. LIGHT FIXTURE DIMENSION	WEIGHT	NO. OF HANGER WIRES	TYPE
< 24" x 48"	< 56 LBS	2	SLACK
> 24" x 48"	> 56 LBS	4	TAUT



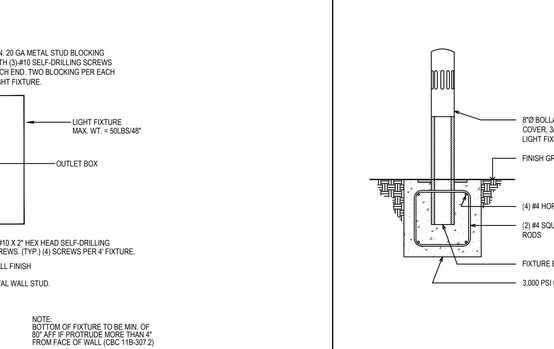
N8 Fixture T-Bar Mounting Detail
Scale: None



J8 Fixture Surface Mounting Detail
Scale: None

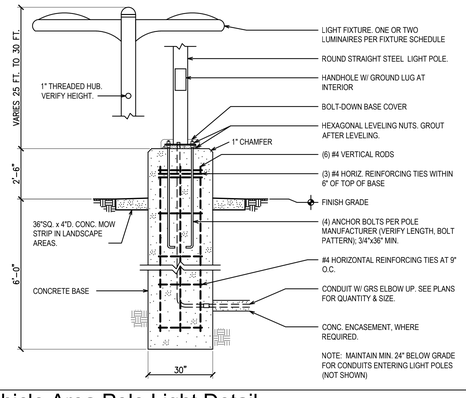
TYPE	MFG'R	MODEL	LAMPS	WATTS	VOLTS	MOUNTING	DETAIL	NOTES
A	LITHONIA	2FSL2 48L MVOLT EZ1 LP835 N100	LED	40.5	UNV	RECESSED	N8/E1.1	
AE	LITHONIA	2FSL2 48L MVOLT EZ1 LP835 N100EMG	LED	40.5	UNV	RECESSED	N8/E1.1	CONNECTED TO EM. LIGHTING PANEL
B20	LITHONIA	GRD LLP 20FT MSL8 80CRI 35K ID1500LMF 80/20 MIN1 ZT SCT F1/72A C110 DU	LED	255.0	UNV	PENDANT	J1/E1.1	
B20E	LITHONIA	GRD LLP 20FT MSL8 80CRI 35K ID1500LMF 80/20 MIN1 ZT SCT 2EC F1/72A C110 DU	LED	255.0	UNV	PENDANT	J1/E1.1	CONNECTED TO EM. LIGHTING PANEL & EM. POWERPACK
B40	LITHONIA	GRD LLP 40FT MSL8 80CRI 35K ID1500LMF 80/20 MIN1 ZT SCT F1/72A C110 DU	LED	510.0	UNV	PENDANT	J1/E1.1	
B40E	LITHONIA	GRD LLP 40FT MSL8 80CRI 35K ID1500LMF 80/20 MIN1 ZT SCT 3EC F1/72A C110 DU	LED	510.0	UNV	PENDANT	J1/E1.1	CONNECTED TO EM. LIGHTING PANEL & EM. POWERPACK
B68	LITHONIA	GRD LLP 68FT MSL8 80CRI 35K ID1500LMF 80/20 MIN1 ZT SCT F1/72A C110 DU	LED	867.0	UNV	PENDANT	J1/E1.1	
B68E	LITHONIA	GRD LLP 68FT MSL8 80CRI 35K ID1500LMF 80/20 MIN1 ZT SCT 4EC F1/72A C110 DU	LED	867.0	UNV	PENDANT	J1/E1.1	CONNECTED TO EM. LIGHTING PANEL & EM. POWERPACK
C8	LITHONIA	BLWP8 60LHE ADSM EZ1 LP835	LED	50.0	UNV	SURFACE	J8/E1.1	
D4	LITHONIA	LDN4 35/15 L04AR LSS MVOLT EZ1	LED	17.5	UNV	RECESSED	N/A	
D6	LITHONIA	LDN6 35/25 L06AR LSS MVOLT EZ1	LED	28.3	UNV	RECESSED	N/A	
D6E	LITHONIA	LDN6 35/25 L06AR LSS MVOLT EZ1	LED	28.3	UNV	RECESSED	N/A	CONNECTED TO EM. LIGHTING PANEL & EM. POWERPACK
F5	MARK LIGHTING	SL4L LOP 5FT RLP WFL 90CRI 35K 800LMF MIN1 277 ZT DPL	LED	40.0	277	RECESSED	N/A	VERIFY OAL AFTER FRAMING AND SEND TO FACTORY
F6	MARK LIGHTING	SL4L LOP 6FT RLP WFL 90CRI 35K 800LMF MIN1 277 ZT DPL	LED	48.0	277	RECESSED	N/A	VERIFY OAL AFTER FRAMING AND SEND TO FACTORY
F7	MARK LIGHTING	SL4L LOP 7FT RLP WFL 90CRI 35K 800LMF MIN1 277 ZT DPL	LED	56.0	277	RECESSED	N/A	VERIFY OAL AFTER FRAMING AND SEND TO FACTORY
F9	MARK LIGHTING	SL4L LOP 9FT RLP WFL 90CRI 35K 800LMF MIN1 277 ZT DPL	LED	72.0	277	RECESSED	N/A	VERIFY OAL AFTER FRAMING AND SEND TO FACTORY
F11	MARK LIGHTING	SL4L LOP 11FT RLP WFL 90CRI 35K 800LMF MIN1 277 ZT DPL	LED	88.0	277	RECESSED	N/A	VERIFY OAL AFTER FRAMING AND SEND TO FACTORY
GE	DEL RAY	CUSTOM PO # (SHERIFF'S BADGE)	LED		UNV	PENDANT	N/A	
K	LITHONIA	IBG 2FT 8000LM SEF AFL WD MVOLT GZ10 40K 80CRI NLTAIR2 RKOA RPP20D	LED	53.8	UNV	SURFACE	N/A	
KE	LITHONIA	IBG 2FT 8000LM SEF AFL WD MVOLT GZ10 40K 80CRI NLTAIR2 RKOA RPP20DER	LED	53.8	UNV	SURFACE	N/A	CONNECTED TO EM. LIGHTING PANEL
P1E	GOTHAM	EVO6VR 40/25 AR PPC MVOLT GZ10 DNA	LED	24.7	UNV	RECESSED	N/A	CONNECTED TO EM. LIGHTING PANEL & EM. POWERPACK
P2	GOTHAM	EVO6VR 40/10 AR PPC MVOLT GZ10 DNA	LED	9.6	UNV	RECESSED	N/A	
P3E	LUMINAIRE LED	DWLS12 10W 4000K 120-277 OP BRZ WET	LED	10.0	UNV	WALL	N/A	CONNECTED TO EM. LIGHTING PANEL & EM. POWERPACK
								MOUNT BELOW CANOPY AND ABOVE OPENING
P4	LITHONIA	DSXW1 LED 20C 1000 40K T3M MVOLT PIRH1FC3V	LED	73.0	UNV	WALL	F1/E1.1	MOUNT AT +20'-0"
S1	LITHONIA	RAD1 LED P5 40K SYM MVOLT RPA DNAXD / RSS 25 4B DM19RAD DNAXD	LED	121.9	UNV	25 FT. RSS POLE	A1/E1.1	PROVIDE 1" THREADED HUB FOR CAMS. VERIFY HEIGHT.
S2	LITHONIA	(2) RAD1 LED P5 40K SYM MVOLT RPA DNAXD / RSS 25 4B DM28RAD DNAXD	LED	243.9	UNV	25 FT. RSS POLE	A1/E1.1	PROVIDE 1" THREADED HUB FOR CAMS. VERIFY HEIGHT.
S3	LITHONIA	RAD1 LED P5 40K ASY MVOLT RPA DNAXD / RSS 25 4B DM19RAD DNAXD	LED	121.9	UNV	25 FT. RSS POLE	A1/E1.1	PROVIDE 1" THREADED HUB FOR CAMS. VERIFY HEIGHT.
S4	LITHONIA	(2) RAD1 LED P3 40K ASY MVOLT RPA DNAXD / RSS 25 4B DM28RAD DNAXD	LED	107.2	UNV	25 FT. RSS POLE	A1/E1.1	PROVIDE 1" THREADED HUB FOR CAMS. VERIFY HEIGHT.
S5	LITHONIA	(2) RSX2 LED P3 40K R5 MVOLT RPA DNAXD / RSS 30FT 5B DM28AS DNAXD	LED	300.0	UNV	30 FT. RSS POLE	A1/E1.1	PROVIDE 1" THREADED HUB FOR CAMS. VERIFY HEIGHT.
S6	LITHONIA	RSX2 LED P2 40K R3 MVOLT RPA DNAXD / RSS 30FT 5B DM19AS DNAXD	LED	114.1	UNV	30 FT. RSS POLE	A1/E1.1	PROVIDE 1" THREADED HUB FOR CAMS. VERIFY HEIGHT.
S7	LITHONIA	CNY LED P0 40K MVOLT DDB	LED	27.0	UNV	SURFACE	N/A	
S8	HYDREL	M9420C B LED P3 35K MVOLT WFL FLC20SR 34B LSF LDIM BZ	LED	27.0	UNV	IN-GRADE	N/A	
S9	CALPIPE SECURITY	42"H, 3/4" WALL INSERT, DOME, SLOTTED, PARACLINE, LED, 277V	LED	23.0	277	BOLLARD	F6/E1.1	
X	LITHONIA	LE S 1 G	LED	1.3	UNV	UNIVERSAL	N/A	SEE PLANS FOR CHEVRONS, NUMBER OF FACES
X2	LITHONIA	LE S 2 G	LED	2.6	UNV	UNIVERSAL	N/A	SEE PLANS FOR CHEVRONS, NUMBER OF FACES

J12 Fixture Schedule
Scale: None



F1 Fixture Wall Mounting Detail
Scale: None

F6 Security Bollard Detail
Scale: None



A1 Vehicle Area Pole Light Detail
Scale: None

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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: TB0293 / 19003
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

LIGHT FIXTURE SCHEDULE AND DETAILS

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

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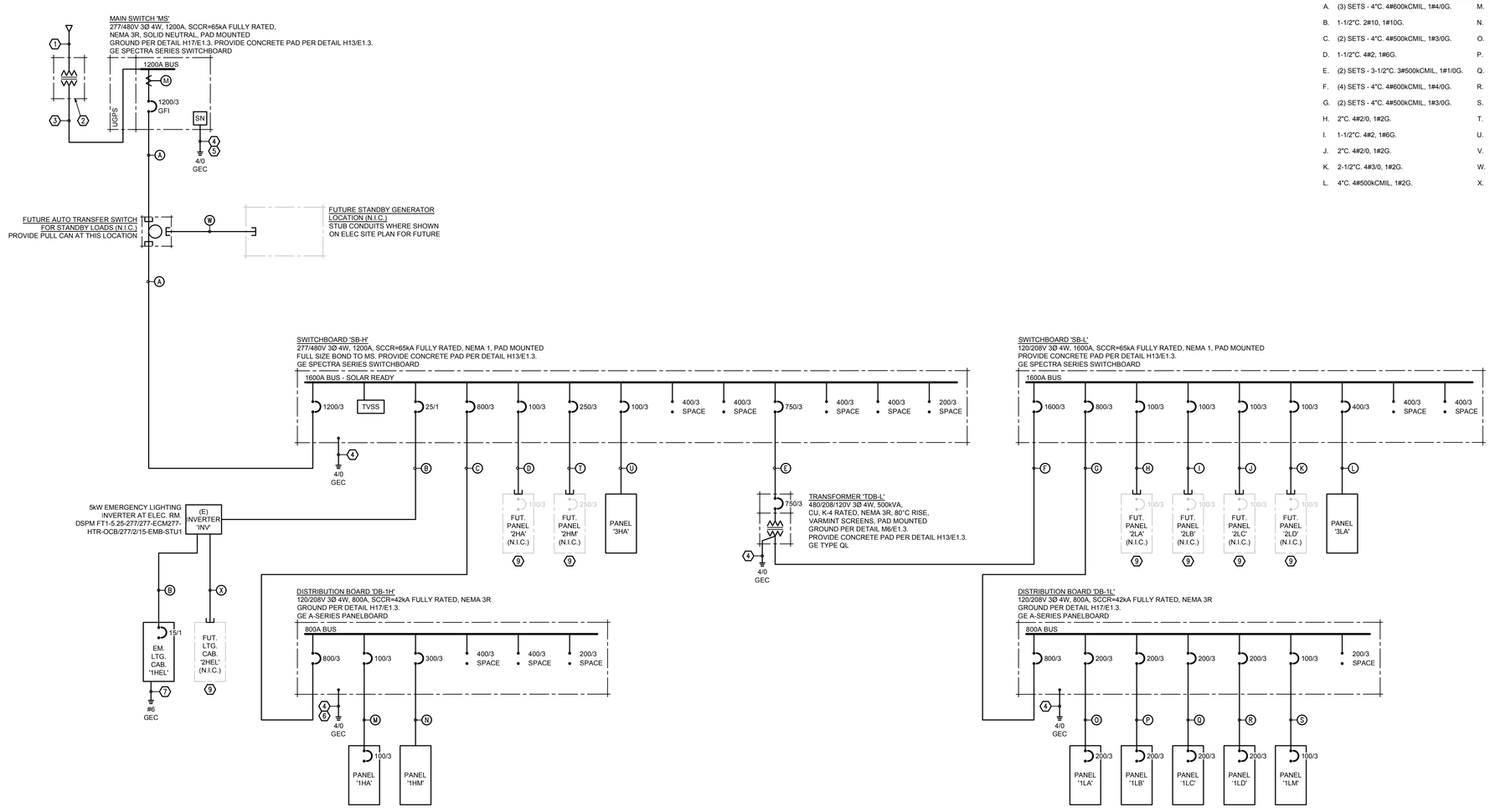

FEEDERS

- A. (3) SETS - 4"C. 4#600kCMIL, 1#4/0G.
- B. 1-1/2"C. 2#10, 1#10G.
- C. (2) SETS - 4"C. 4#500kCMIL, 1#3/0G.
- D. 1-1/2"C. 4#2, 1#6G.
- E. (2) SETS - 3-1/2"C. 3#500kCMIL, 1#1/0G.
- F. (4) SETS - 4"C. 4#600kCMIL, 1#4/0G.
- G. (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. 4"C. 4#500kCMIL, 1#2G.
- M. 1-1/2"C. 4#2, 1#6G.
- N. 3"C. 4#300kCMIL, 1#4G.
- O. 2-1/2"C. 4#4/0, 1#4G.
- P. 3"C. 4#250kCMIL, 1#4G.
- Q. 2-1/2"C. 4#4/0, 1#4G.
- R. 2"C. 4#3/0, 1#6G.
- S. 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. 4#6, 1#10G.
- W. (3) SETS - 4"C. WITH PULL LINES
- X. 1"C. WITH PULL LINE

LINE DIAGRAM KEY NOTES

1. 4"C. UTILITY PRIMARY.
2. UTILITY TRANSFORMER & CONCRETE PAD.
3. (4) 5"C. UTILITY SECONDARY PER PG&E.
4. GROUNDING ELECTRODE CONDUCTOR TO UFER, STRUCTURAL STEEL, METAL WATER PIPE, AND FIRE SPRINKLER RISER.
5. BOND MS TO SB-H AND SB-L WITH 1-1/2"C. W/ GREEN 4/0 COPPER CONDUCTOR.
6. BOND DB-1H TO DB-1L WITH 1-1/2"C. W/ GREEN 4/0 COPPER CONDUCTOR.
7. GROUND PER DETAIL H17/E1.3.
8. STANDBY EMERGENCY DIESEL GENERATOR 'GEN'.
9. STUB FOR FUTURE PANELBOARD / CABINET. SEE SHEET E2.1 FOR LOCATION.

NOTES

1. SEE DETAIL M8/E1.3 FOR VOLTAGE DROP CALCULATIONS.

F1 **Power Single Line Diagram**
Scale: None

REGISTERED PROFESSIONAL ENGINEER — C. SCOTT DAVIDSON — E17850 — ELECTRICAL — STATE OF CALIFORNIA

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LICENSED ARCHITECT — MARY ROGER DAVIDSON — C-27818 REN: 10-31-21 — STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2021
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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: T80293 / 19003
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

THE COUNTY OF FRESNO — 1856

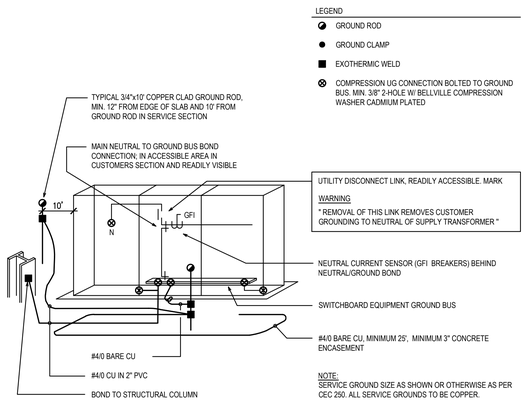
Sheet No.

E1.2

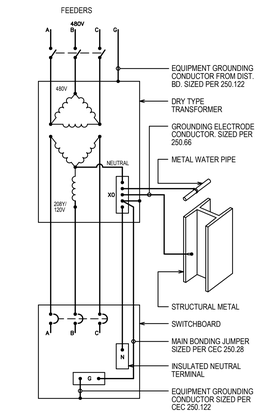
> File: 19074 - Elec_Split Bid Set.dwg > Plotted: 6/1/2020 7:31 PM

Drawn by: HDE

Plotted on: 6.1.2020



M1 Main Switchboard Grounding Detail
Scale: None



A GROUNDING ARRANGEMENT FOR A SEPARATELY DERIVED SYSTEM WHERE THE GROUNDING ELECTRODE CONDUCTOR CONNECTION IS MADE AT THE TRANSFORMER.

M6 Xfmr. Grounding Detail
Scale: None

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	MS	SB-H	480.0	AC 3-Phase	1200	PVC	3	600 kCMIL	1800000	CU	12.9	1.0748	35	0.56	479.4	0.12
2	SB-H	DB-1H	479.4	AC 3-Phase	800	PVC	2	500 kCMIL	1000000	CU	12.9	1.0465	15	0.28	479.2	0.18
3	SB-H	XFMR TSB-L	479.4	AC 3-Phase	602	PVC	2	500 kCMIL	1000000	CU	12.9	1.0465	40	0.56	478.9	0.23
4	SB-H	PANEL 3HA	479.4	AC 3-Phase	100	Steel	1	2	66360	CU	12.9	1.0000	25	0.84	478.6	0.29
5	DB-1H	PANEL 1HA	479.2	AC 3-Phase	100	PVC	1	1/0	105600	CU	12.9	1.0000	3	0.06	479.1	0.19
6	DB-1H	PANEL 1HM	479.2	AC 3-Phase	200	Steel	1	300 kCMIL	300000	CU	12.9	1.0490	3	0.05	479.1	0.18
7	XFMR TSB-L	SB-L	208.0	AC 3-Phase	1389	PVC	4	600 kCMIL	2400000	CU	12.9	1.0748	35	0.49	207.5	0.23
8	SB-L	DB-1L	207.5	AC 3-Phase	800	PVC	2	500 kCMIL	1000000	CU	12.9	1.0465	60	1.12	206.4	0.77
9	SB-L	PANEL 3LA	207.5	AC 3-Phase	400	PVC	1	500 kCMIL	500000	CU	12.9	1.0465	25	0.47	207.0	0.46
10	DB-1L	PANEL 1LA	206.4	AC 3-Phase	200	PVC	1	4/0	211600	CU	12.9	1.0197	100	2.15	204.2	1.81
11	DB-1L	PANEL 1LB	206.4	AC 3-Phase	200	PVC	1	250 kCMIL	250000	CU	12.9	1.0097	125	2.26	204.1	1.86
12	DB-1L	PANEL 1LC	206.4	AC 3-Phase	200	PVC	1	4/0	211600	CU	12.9	1.0197	95	2.05	204.3	1.76
13	DB-1L	PANEL 1LD	206.4	AC 3-Phase	200	PVC	1	3/0	167800	CU	12.9	1.0052	60	1.61	204.8	1.55
14	DB-1L	PANEL 1LM	206.4	AC 3-Phase	100	PVC	1	1/0	105600	CU	12.9	1.0000	100	2.12	204.3	1.79

Formulae

VD (three phase) = √3 x K x Q x I x D / CM

VD (single phase) = 2 x K x Q x I x D / CM

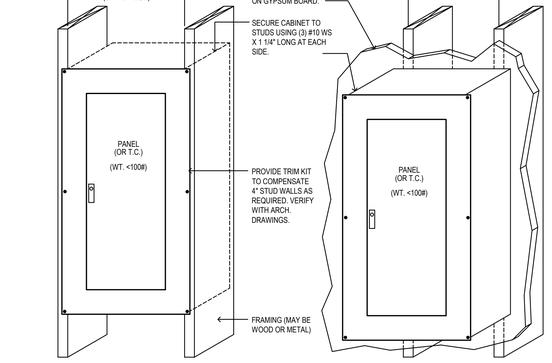
VD (DC) = 2 x K x I x D / CM

%VD = VD / P_i x 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_{ac} / R_{dc})
I = Current (Amps)
D = Distance to Load (ft)
CM = Conductor Cross-Sectional Area (Circular Mils)
P = Potential (Volts)

M8 Voltage Drop Calculations
Scale: None



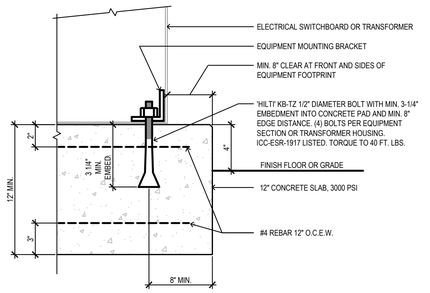
RECESSED MOUNT

THIS DETAIL APPLIES TO NEW WALL CONSTRUCTION WHERE STUD SPACING CAN BE ADJUSTED. AT EXISTING WALLS, RECESSED INSTALLATION MAY REQUIRE FIELD INSPECTION AND DETAILING, SUBJECT TO APPROVAL BY ON-SITE INSPECTOR.

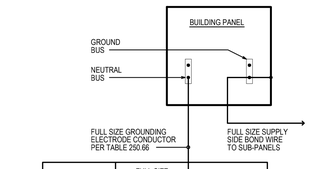
SURFACE MOUNT

THIS DETAIL APPLIES TO EITHER NEW OR EXISTING WALL CONSTRUCTION. PANEL SHALL BE CENTERED OVER EXISTING STUD FRAMING. WHERE THIS IS NOT POSSIBLE, METALLIC HORIZONTAL BRACING SHALL BE ATTACHED ACROSS (3) WALL STUDS AND LINED UP WITH TOP, CENTER, AND BOTTOM OF PANEL.

M16 Panel Mounting Detail
Scale: None



H13 Concrete Equipment Pad Detail
Scale: None



H17 Building Panel Grounding Detail
Scale: None

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1129 N. Armstrong Ave., Fresno, CA
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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.

E1.3

PANEL "1HA" SCHEDULE

277/480V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	PUBLIC - LIGHTS	15	1	1709	A	1020	15	1	WORKSTATION - LIGHTS	2
3	OFFICE/BREAK ROOM - LIGHTS	15	1	1296	B	1275	15	1	WORKSTATION - LIGHTS	4
5	STAFF/RESTROOM - LIGHTS	15	1	1974	C	2686	20	1	WORKSTATION/HALL - LIGHTS	6
7	OFFICES - LIGHTS	15	1	1458	A	474	15	1	CORRIDOR - LIGHTS	8
9	OFFICES - LIGHTS	15	1	1175	B	1406	15	1	BUILDING PERIMETER - LIGHTS	10
11	TRAINING - LIGHTS	15	1	2316	C		15	1	SPARE	12
13	SPACE ONLY				A		15	1	SPARE	14
15	SPACE ONLY				B		15	1	SPARE	16
17	SPACE ONLY				C		15	1	SPARE	18
19	SPACE ONLY				A				SPACE ONLY	20
21	SPACE ONLY				B				SPACE ONLY	22
23	SPACE ONLY				C				SPACE ONLY	24
25	SPACE ONLY				A				SPACE ONLY	26
27	SPACE ONLY				B				SPACE ONLY	28
29	SPACE ONLY				C				SPACE ONLY	30
31					A					32
33					B					34
35					C					36
37					A					38
39					B					40
41					C					42

LOAD SUMMARY: Φ A 4661 VA; Φ B 5152 VA; Φ C 6976 VA
CONNECTED LOAD: 16.8 kVA
MAX CURRENT: 25 A

BUSING: 100 AMPS
MAIN: 100 AMPS
AIC RATING: 42kAIC
MFGR: GE A-SERIES

PANEL "1HM" SCHEDULE

277/480V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	CONDENSING UNIT CU-1	30	3	5263	A	11080	50	3	ENERGY RECOVERY VENTILATOR ERV-1	2
3	-----	--	--	5263	B	11080	--	--	-----	4
5	-----	--	--	5263	C	11080	--	--	-----	6
7	CONDENSING UNIT CU-1	25	3	3878	A	6000	40	3	WATER HEATER EWH-1	8
9	-----	--	--	3878	B	6000	--	--	-----	10
11	-----	--	--	3878	C	6000	--	--	-----	12
13	CONDENSING UNIT CU-2	35	3	6094	A				SPACE ONLY	14
15	-----	--	--	6094	B				SPACE ONLY	16
17	-----	--	--	6094	C				SPACE ONLY	18
19	CONDENSING UNIT CU-2	30	3	5263	A				SPACE ONLY	20
21	-----	--	--	5263	B				SPACE ONLY	22
23	-----	--	--	5263	C				SPACE ONLY	24
25	CONDENSING UNIT CU-3	35	3	6094	A				SPACE ONLY	26
27	-----	--	--	6094	B				SPACE ONLY	28
29	-----	--	--	6094	C				SPACE ONLY	30
31	CONDENSING UNIT CU-3	30	3	5263	A				SPACE ONLY	32
33	-----	--	--	5263	B				SPACE ONLY	34
35	-----	--	--	5263	C				SPACE ONLY	36
37	SPACE ONLY				A				SPACE ONLY	38
39	SPACE ONLY				B				SPACE ONLY	40
41	SPACE ONLY				C				SPACE ONLY	42

LOAD SUMMARY: Φ A 48935 VA; Φ B 48935 VA; Φ C 48935 VA
CONNECTED LOAD: 146.8 kVA
MAX CURRENT: 177 A

BUSING: 400 AMP
MAIN: LUGS ONLY
AIC RATING: 42kAIC
MFGR: GE A-SERIES

PANEL "1HEL" SCHEDULE

277/480V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	PUBLIC AREA - LIGHTS	15	1	332	A	1077	15	1	WORKSTATION - LIGHTS	2
3	OFFICE/BREAK ROOM - LIGHTS	15	1	243	B	405	15	1	TRAINING/DATA RACK - LIGHTS	4
5	CORRIDOR/RESTROOM - LIGHTS	15	1	559	C	164	15	1	BUILDING PERIMETER - LIGHTS	6
7	SPARE	15	1		A				SPACE ONLY	8
9	SPACE ONLY				B				SPACE ONLY	10
11	SPACE ONLY				C				SPACE ONLY	12
13	SPACE ONLY				A				SPACE ONLY	14
15	SPACE ONLY				B				SPACE ONLY	16
17	SPACE ONLY				C				SPACE ONLY	18
19					A					20
21					B					22
23					C					24
25					A					26
27					B					28
29					C					30
31					A					32
33					B					34
35					C					36
37					A					38
39					B					40
41					C					42

LOAD SUMMARY: Φ A 1408 VA; Φ B 648 VA; Φ C 723 VA
CONNECTED LOAD: 2.8 kVA
MAX CURRENT: 5 A

BUSING: 100 AMPS
MAIN: 50 AMPS
AIC RATING: 42kAIC
MFGR: GE A-SERIES

PANEL "3HA" SCHEDULE

277/480V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	SITE LIGHTING - SOUTHWEST	15	1	1500	A	5000	30	2	POWER PEDESTAL 'PP1'	2
3	SITE LIGHTING - NORTHWEST	15	1	2220	B	5000	--	--	-----	4
5	SITE LIGHTING - SOUTHEAST	15	1	975	C	5000	30	2	POWER PEDESTAL 'PP2'	6
7	SITE LIGHTING - COURTYARD	15	1	107	A	5000	--	--	-----	8
9	SITE LIGHTING - NORTHEAST	15	1	228	B				SPACE ONLY	10
11	SPARE	15	1		C				SPACE ONLY	12
13	SPACE ONLY				A				SPACE ONLY	14
15	SPACE ONLY				B				SPACE ONLY	16
17	SPACE ONLY				C				SPACE ONLY	18
19					A					20
21					B					22
23					C					24
25					A					26
27					B					28
29					C					30
31					A					32
33					B					34
35					C					36
37					A					38
39					B					40
41					C					42

LOAD SUMMARY: Φ A 11607 VA; Φ B 7448 VA; Φ C 5975 VA
CONNECTED LOAD: 25.0 kVA
MAX CURRENT: 42 A

BUSING: 100 AMPS
MAIN: 100 AMPS
AIC RATING: 42kAIC
MFGR: GE A-SERIES

REGISTERED PROFESSIONAL ENGINEER — C. SCOTT DAVIDSON — E17850 — ELECTRICAL — STATE OF CALIFORNIA

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Capital Projects
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THE COUNTY OF FRESNO — 1856

Sheet No.

E1.4

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PANEL "1LA" SCHEDULE

120/208V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	OUTLETS - PUBLIC SS101, 106, 104	20	1	720	A	900	20	1	OUTLETS - PUBLIC CONFIRM SS107	2
3	OUTLETS - PUBLIC SS101	20	1	300	B	720	20	1	OUTLETS - PUBLIC CONFIRM SS107	4
5	OUTLETS - PUBLIC SS101	20	1	180	C	900	20	1	OUTLETS - PUBLIC CONFIRM SS107	6
7	OUTLETS - RECEPTION SS103	20	1	720	A	360	20	1	OUTLETS - PUBLIC AREA SECURED SS105	8
9	OUTETS - RECEPTION SS103	20	1	720	B	180	20	1	OUTLETS - PUBLIC AREA SECURED SS105	10
11	OUTLETS - ADMIN CONF SS108	20	1	540	C	180	20	1	OUTLETS - PUBLIC AREA SECURED SS105	12
13	OUTLETS - ADMIN CONF SS108	20	1	900	A	720	20	1	OUTLETS - WORKSTATION A SS110	14
15	OUTLETS - ADMIN CONF SS108	20	1	600	B	720	20	1	OUTLETS - WORKSTATION A SS110	16
17	OUTLETS - ADMIN ASST OFFICE SS108	20	1	540	C	720	20	1	OUTLETS - WORKSTATION A SS110	18
19	OUTLETS - ADMIN ASST OFFICE SS108	20	1	1080	A	720	20	1	OUTLETS - WORKSTATION A SS110	20
21	SPACE ONLY				B		20	1	SPARE	22
23	SPACE ONLY				C		20	1	SPARE	24
25	SPACE ONLY				A		20	1	SPARE	26
27	SPACE ONLY				B		20	1	SPARE	28
29	SPACE ONLY				C	540	20	1	OUTLETS - DATA RACKS, SUPPLY STORAGE	30
31	SPACE ONLY				A				SPACE ONLY	32
33	SPACE ONLY				B				SPACE ONLY	34
35	SPACE ONLY				C				SPACE ONLY	36
37	SPACE ONLY				A				SPACE ONLY	38
39	SPACE ONLY				B				SPACE ONLY	40
41	SPACE ONLY				C				SPACE ONLY	42

LOAD SUMMARY: Φ A 6120 VA; Φ B 3240 VA; Φ C 3600 VA
CONNECTED LOAD: 13.0 kVA
MAX CURRENT: 51 A

BUSING: 200 AMPS
MAIN: 200 AMPS
AIC RATING: 35kAIC
MFGR: GE A-SERIES

PANEL "1LB" SCHEDULE

120/208V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	OUTLETS - EVIDENCE PREP SS153	20	1	180	A	540	20	1	OUTLETS - WORKSTATION B SS156	2
3	OUTLETS - INTERVIEW ROOM SS153	20	1	180	B	540	20	1	OUTLETS - WORKSTATION B SS156	4
5	OUTLETS - INTERVIEW ROOM SS154	20	1	360	C	540	20	1	OUTLETS - WORKSTATION B SS156	6
7	OUTLETS - SECURE TRAINING SUPPLY STORAGE	20	1	720	A	540	20	1	OUTLETS - WORKSTATION B SS156	8
9	OUTLETS - SECURE TRAINING SUPPLY STORAGE	20	1	540	B	540	20	1	OUTLETS - WORKSTATION B SS156	10
11	OUTLETS - OFFICE SS151, HALL SS157	20	1	1260	C	540	20	1	OUTLETS - WORKSTATION B SS156	12
13	OUTLETS - OFFICE SS150	20	1	1080	A	540	20	1	OUTLETS - WORKSTATION B SS156	14
15	OUTLETS - OFFICE SS149	20	1	1260	B	540	20	1	OUTLETS - WORKSTATION B SS156	16
17	OUTLETS - OFFICE SS148	20	1	1080	C	720	20	1	OUTLETS - WORKSTATION B SS156	18
19	OUTLETS - OFFICE SS161	20	1	1260	A	720	20	1	OUTLETS - WORKSTATION B SS156	20
21	OUTLETS - OFFICE SS161	20	1	720	B	720	20	1	OUTLETS - WORKSTATION B SS156	22
23	OUTLETS - OFFICE SS160	20	1	1080	C	720	20	1	OUTLETS - WORKSTATION B SS156	24
25	OUTLETS - OFFICE SS160	20	1	360	A				SPARE	26
27	OUTLETS - OFFICE SS159	20	1	1260	B				SPARE	28
29	OUTLETS - OFFICE SS158	20	1	900	C				SPARE	30
31	OUTLETS - OFFICE SS158	20	1	720	A				SPARE	32
33	SPACE ONLY				B				SPARE	34
35	SPACE ONLY				C				SPARE	36
37	SPACE ONLY				A				SPACE ONLY	38
39	SPACE ONLY				B				SPACE ONLY	40
41	SPACE ONLY				C				SPACE ONLY	42

LOAD SUMMARY: Φ A 6660 VA; Φ B 6300 VA; Φ C 7200 VA
CONNECTED LOAD: 20.2 kVA
MAX CURRENT: 60 A

BUSING: 200 AMPS
MAIN: 200 AMPS
AIC RATING: 35kAIC
MFGR: GE A-SERIES

PANEL "1LC" SCHEDULE

120/208V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	OUTLETS - OFFICE SS147	20	1	1080	A	720	20	1	OUTLETS - WORKSTATION D	2
3	OUTLETS - OFFICE SS146	20	1	1080	B	900	20	1	OUTLETS - SS140,SS139,SS138	4
5	OUTLETS - OFFICE SS145	20	1	1260	C	900	20	1	OUTLETS - INV STAFF PROPERTY SS137	6
7	OUTLETS - OFFICE SS144	20	1	1080	A	720	20	1	OUTLETS - INV STAFF DET SUPPLY STOR SS136	8
9	OUTLETS - OFFICE SS143	20	1	1080	B	720	20	1	OUTLETS - INV STAFF DET SUPPLY STOR SS135	10
11	OUTLETS - WORKSTATION C SS132	20	1	720	C	180	20	1	OUTLETS - ADMIN SUPPLY STORAGE SS131	12
13	OUTLETS - WORKSTATION C SS132	20	1	720	A	360	20	1	OUTLETS - USA SUPPLY STORAGE SS133	14
15	OUTLETS - WORKSTATION C SS132	20	1	720	B	180	20	1	OUTLETS - STORAGE/ARMORY SS134	16
17	OUTLETS - WORKSTATION C SS132	20	1	720	C	720	20	1	OUTLETS - SECURE TRAINING RECORDS SS130	18
19	MODULAR FURNITURE - WORK STATION D	20	1	360	A	720	20	1	OUTLETS - SECURE TRAINING ROOM SS129	20
21	MODULAR FURNITURE - WORK STATION D	20	1	360	B	540	20	1	OUTLETS - SECURE TRAINING ROOM SS129	22
23	MODULAR FURNITURE - WORK STATION D	20	1	360	C		20	1	SPARE	24
25	MODULAR FURNITURE - WORK STATION D	20	1	360	A		20	1	SPARE	26
27	SPACE ONLY				B		20	1	SPARE	28
29	SPACE ONLY				C		20	1	SPARE	30
31	SPACE ONLY				A		20	1	SPARE	32
33	SPACE ONLY				B		20	1	SPARE	34
35	SPACE ONLY				C		20	1	SPARE	36
37	SPACE ONLY				A				SPACE ONLY	38
39	SPACE ONLY				B				SPACE ONLY	40
41	SPACE ONLY				C				SPACE ONLY	42

LOAD SUMMARY: Φ A 6120 VA; Φ B 5580 VA; Φ C 4860 VA
CONNECTED LOAD: 16.6 kVA
MAX CURRENT: 51 A

BUSING: 200 AMPS
MAIN: 200 AMPS
AIC RATING: 35kAIC
MFGR: GE A-SERIES

PANEL "1LD" SCHEDULE

120/208V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	OUTLETS - BREAK ROOM SS115	20	1	180	A	360	20	1	OUTLETS - PHYSICAL TRAINING SS120	2
3	OUTLETS - BREAK ROOM SS115	20	1	180	B	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	4
5	OUTLETS - BREAK ROOM SS115	20	1	180	C	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	6
7	OUTLETS - BREAK ROOM SS115	20	1	180	A	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	8
9	OUTLETS - BREAK ROOM SS115	20	1	180	B	360	20	1	OUTLETS - PHYSICAL TRAINING SS120	10
11	OUTLETS - BREAK ROOM SS115	20	1	180	C	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	12
13	OUTLETS - BREAK ROOM SS115	20	1	360	A	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	14
15	OUTLETS - BREAK ROOM SS115	20	1	1000	B	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	16
17	OUTLETS - BREAK ROOM SS115	20	1	180	C	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	18
19	OUTLETS - BREAK ROOM SS115	20	1	1000	A	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	20
21	OUTLETS - SPECIALITY UNIT 1 OFFICE SS114	20	1	720	B	180	20	1	OUTLETS - PHYSICAL TRAINING SS120	22
23	OUTLETS - SPECIALITY UNIT 1 OFFICE SS114	20	1	540	C	600	20	1	OUTLETS - PHYSICAL TRAINING SS120	24
25	OUTLETS - SPECIALITY UNIT 1 OFFICE SS114	20	1	540	A	540	20	1	TRAINING ROOM B SS117B, A SS117A	26
27	OUTLETS - SPECIALITY UNIT 1 OFFICE SS114	20	1	180	B	720	20	1	TRAINING ROOM B SS117B, A SS117A	28
29	OUTLETS - SPECIALITY UNIT 1 OFFICE SS114	20	1	180	C	720	20	1	TRAINING ROOM B SS117B, A SS117A	30
31	OUTLETS - SPECIALITY UNIT 1 OFFICE SS114	20	1	180	A	360	20	1	OUTLETS - SS127, SS126	32
33	SPARE	20	1		B	180	20	1	OUTLETS - JAN/STOR SS125	34
35	SPARE	20	1		C	360	20	1	OUTLETS - LACTATION SS124, CORRIDOR B SS118	36
37	SPARE	20	1		A	180	20	1	OUTLETS - CORRIDOR B SS118	38
39	SPARE	20	1		B		20	1	SPARE	40
41	SPARE	20	1		C	200	15	1	* FIRE SPRINKLER RISER BELL	42
43	SPACE ONLY				A				SPACE ONLY	44
45	SPACE ONLY				B				SPACE ONLY	46
47	SPACE ONLY				C				SPACE ONLY	48
49	SPACE ONLY				A				SPACE ONLY	50
51	SPACE ONLY				B				SPACE ONLY	52
53	SPACE ONLY				C				SPACE ONLY	54

LOAD SUMMARY: Φ A 4420 VA; Φ B 4060 VA; Φ C 3680 VA
CONNECTED LOAD: 12.2 kVA
MAX CURRENT: 37 A

BUSING: 200 AMPS
MAIN: 200 AMPS
AIC RATING: 35kAIC
MFGR: GE A-SERIES
NOTE: PROVIDE RED LOCK-ON DEVICE

PANEL "1LM" SCHEDULE

120/208V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	INDOOR UNITS - IDU-1, 10	20	1	324	A	168	15	2	BRANCH SELECTOR UNIT BSU-2	2
3	INDOOR UNITS - IDU-11, 4, 10, 2	20	1	672	B	168	--	--	-----	4
5	INDOOR UNITS - IDU-6, 3, 3, 3, 1, 3	20	1	564	C	168	15	2	BRANCH SELECTOR UNIT BSU-2	6
7	INDOOR UNITS - IDU-10, 2, 10, 9, 8	20	1	912	A	168	--	--	-----	8
9	INDOOR UNITS - IDU-4, 1, 1, 1, 1, 1, 1, 3	20	1	672	B	156	15	2	BRANCH SELECTOR UNIT BSU-1	10
11	INDOOR UNITS - IDU-2, 6, 10, 10	20	1	732	C	156	--	--	-----	12
13	INDOOR UNITS - IDU-3, 1, 1	20	1	228	A	1848	25	2	CONDENSER C-1A	14
15	INDOOR UNITS - IDU-10, 6, 3, 6, 1	20	1	720	B	1848	--	--	-----	16
17	INDOOR UNITS - IDU-6, 6, 9, 9, 1	20	1	744	C	1848	25	2	CONDENSER C-1B	18
19	COMPUTER RM. UNIT CRAC-1A	15	2	336	A	1848	--	--	-----	20
21	-----	--	--	336	B				SPACE ONLY	22
23	COMPUTER RM. UNIT CRAC-1B	15	2	336	C				SPACE ONLY	24
25	-----	--	--	336	A				SPACE ONLY	26
27	SPARE	20	1		B				SPACE ONLY	28
29	SPARE	20	1		C				SPACE ONLY	30
31	SPARE	20	1		A		20	1	SPARE	32
33	SPARE	20	1		B		20	1	SPARE	34
35	SPARE	20	1		C	500	15	1	CU-3 CONTROL PANEL	36
37	SPACE ONLY				A	500	15	1	CU-2 CONTROL PANEL	38
39	SPACE ONLY				B	500	15	1	CU-1 CONTROL PANEL	40
41	SPACE ONLY				C	500	15	1	EMS PANEL	42

LOAD SUMMARY: Φ A 6668 VA; Φ B 5072 VA; Φ C 5548 VA
CONNECTED LOAD: 17.3 kVA
MAX CURRENT: 56 A

BUSING: 100 AMPS
MAIN: 100 AMPS
AIC RATING: 35kAIC
MFGR: GE A-SERIES

PANEL "3LA" SCHEDULE

120/208V 3Φ 4W — INDOOR / FLUSH

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	FUT. GENERATOR BATTERY CHARGER	20	1	500	A	4800	60	2	(F) ELECTRIC VEHICLE CHARGER	2
3	FUT. GENERATOR JACKET HEATER	20	2	2000	B	4800	--	--	-----	4
5	-----	--	--	2000	C	4800	60	2	(F) ELECTRIC VEHICLE CHARGER	6
7	NORTH GATE OPERATOR	20	1	600	A	4800	--	--	-----	8
9	SOUTH GATE OPERATOR	20	1	600	B	4800	60	2	(F) ELECTRIC VEHICLE CHARGER	10
11	SPARE	20	1		C	4800	--	--	-----	12
13	SPARE	20	1		A	4800	60	2	(F) ELECTRIC VEHICLE CHARGER	14
15	SPARE	20	1		B	4800	--	--	-----	16
17	SPARE	20	1		C				SPACE ONLY	18
19	SPACE ONLY				A				SPACE ONLY	20
21	SPACE ONLY				B				SPACE ONLY	22
23	SPACE ONLY				C				SPACE ONLY	24
25	SPACE ONLY				A				SPACE ONLY	26
27	SPACE ONLY				B				SPACE ONLY	28
29	SPACE ONLY				C				SPACE ONLY	30
31	SPACE ONLY				A				SPACE ONLY	32
33	SPACE ONLY				B				SPACE ONLY	34
35	SPACE ONLY				C				SPACE ONLY	36
37	SPACE ONLY				A				SPACE ONLY	38
39	SPACE ONLY				B				SPACE ONLY	40
41	SPACE ONLY				C				SPACE ONLY	42

LOAD SUMMARY: Φ A 15500 VA; Φ B 17000 VA; Φ C 11600 VA
CONNECTED LOAD: 44.1 kVA
MAX CURRENT: 142 A

BUSING: 400 AMPS
MAIN: LUGS ONLY
AIC RATING: 35kAIC
MFGR: GE A-SERIES

REGISTERED PROFESSIONAL ENGINEER — SCOTT DAVIDSON — E17850 — ELECTRICAL — STATE OF CALIFORNIA

Hardin-Davidson Engineering
356 Pollasky Ave, Suite 200
Clovis, CA 93612
559.323.4995 tel
www.hardin-davidson.com

LICENSED ARCHITECT — NOEL ROGER DAVIDSON — C-27818 REN: 10-31-21 — STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2021
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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: T80293 / 19003
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.
E1.5

> File: 19074 - Elec_Split Bid Set.dwg > Plotted: 6/1/2020 7:31 PM
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Plotted on: 6.1.2020

Fire Alarm Symbols

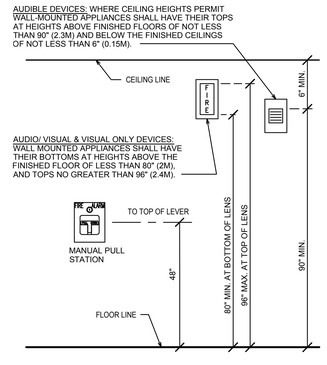
SYMBOL	EQUIPMENT	DESCRIPTION	CSFM
FACP	FIRE ALARM CONTROL PANEL W/ EMERGENCY VOICE/ALARM COMMUINICATION	GAMEWELL-FCI #E3 SERIES	7165-1703:0125
ANN	REMOTE ANNUNCIATOR	GAMEWELL-FCI #NGA W/ FLUSH ENCLOSURE	7165-1703:0125
LTE	CELLULAR NETWORK COMMUNICATOR	HONEYWELL #HWF2-COM	7300-1645:0511
	SMOKE DETECTOR, PHOTOELECTRIC DETECTOR BASE	GAMEWELL-FCI #ASD-PL2F GAMEWELL-FCI #B501	7272-1703:0121 7300-1653:0109
	MANUAL PULL STATION	GAMEWELL-FCI #MS-7	7150-1703:0109
M	MONITOR MODULE	GAMEWELL-FCI #AMM-2F	7300-1703:0102
R	RELAY MODULE	GAMEWELL-FCI #AOM-2SF	7300-1703:0102
	VISIBLE NAC DEVICE, CEILING MT'D (cd INDICATED ON PLANS)	EATON/ WHEELOCK #LSTWC3	7135-0785:0501
	VISIBLE NAC DEVICE, WALL MT'D (cd INDICATED ON PLANS)	EATON/ WHEELOCK #LSTR3	7135-0785:0501
	AUDIO/VISIBLE NAC DEVICE, CEILING MT'D (cd INDICATED ON PLANS)	EATON/ WHEELOCK #LHSWC3	7320-0785:0501
	AUDIO/VISIBLE NAC DEVICE, WALL MT'D (cd INDICATED ON PLANS)	EATON/ WHEELOCK #LHSR3	7320-0785:0501
WP	EXTERIOR HORN, WP, WALL MT'D	EATON/ WHEELOCK #AH-24WP-R W/ WBB BACKBOX	7125-0785:0131
PIV	SPRINKLER POST INDICATOR VALVE		
TS	SPRINKLER RISER TAMPER SWITCH		
FS	SPRINKLER RISER FLOW SWITCH		
	SPRINKLER RISER BELL		

Sequence of Operations Matrix

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

Fire Alarm Notes

1. 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.
2. ALL WORK SHALL CONFORM TO THE 2016 EDITION OF NFPA 72.
3. 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.
4. 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.
5. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR THE INSTALLATION.
6. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OF THE PROJECT.
7. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL, OR OTHER LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTIFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
8. 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.
9. 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.
10. 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.
11. 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 THHN OR THWN.
12. 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.
13. 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.
14. 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.
15. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION AS DETAILED IN NFPA 72.
16. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC 901.6.2.
17. 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 UUFX (CENTRAL STATION) OR UUJS (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.
18. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
19. BATTERIES SHALL BE STAMPED WITH DATE OF MANUFACTURE.
20. THE FAS INSTALLER SHALL PROVIDE ALL FACTORY WARRANTIES TO THE OWNER AT THE CLOSE UP OF THE PROJECT.
21. 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.
22. SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE ALARM SYSTEM.
23. 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.).
24. 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
25. 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
26. 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.
27. 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/fire-prevention-investigation/development-policies/.
28. THE GENERAL CONTRACTOR AND THE SPRINKLER CONTRACTOR SHALL COORDINATE THE PROTECTION OF ROOF "CRICKETS" OR OTHER CONCEALED COMBUSTIBLE SPACES (WHERE APPLICABLE).
29. 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.
30. ALL FIRE ALARM DETAILS ARE FOR REFERENCE ONLY.



E14 Fire Alarm Device Elevation
Scale: None

FIRE ALARM DEFERRED APPROVAL SUBMITTAL

FOR BID ONLY

REGISTERED PROFESSIONAL ENGINEER C. SCOTT DAVIDSON E17850 ELECTRICAL STATE OF CALIFORNIA

Hardin-Davidson Engineering
356 Pollasky Ave, Suite 200
Clovis, CA 93612
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LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2021
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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: TB0293 / 19003
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

FIRE ALALRM SYMBOLS AND NOTES

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

THE COUNTY OF FRESNO

Sheet No.

E1.6

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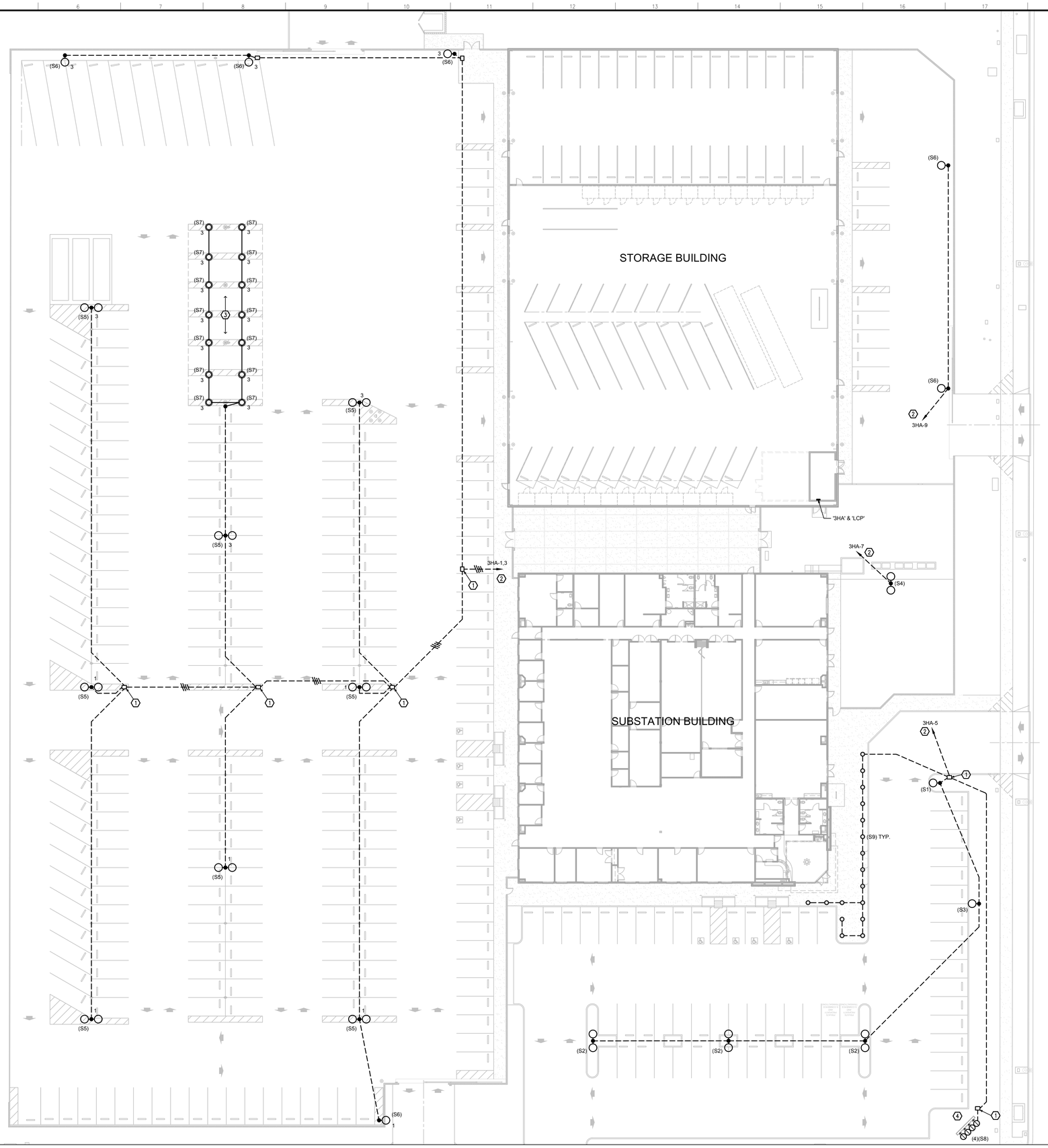
Drawn by: HDE
Plotted on: 6.1.2020



Key Notes

1. LIGHTING PULLBOX: CHRISTY B1017 H/20 PULLBOX WITH BOLT-DOWN STEEL LID.
2. HOMERUN TO PANELBOARD VIA LIGHTING CONTROL PANEL LCP. ALL SITE LIGHTING WIRING SHALL BE #10 WITH #10 GROUND.
3. MOUNT FIXTURES TO BOTTOM OF SHADE CANOPY.
4. MONUMENT SIGN: INSTALL FIXTURES IN-GRADE AS PER MFG'R INSTRUCTIONS. SET FIXTURES 36" BACK FROM FACE OF MONUMENT AND AIM TO EVENLY ILLUMINATE THE FACE. RUN 600V DIRECT BURIAL CABLE FROM PULLBOX TO FIXTURES WITH SEALING GLANDS AT BOTTOMS OF FIXTURES.

A1 Lighting Site Plan
Scale: 1" = 20'-0"

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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: T80293 / 19003
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

LIGHTING SITE PLAN

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
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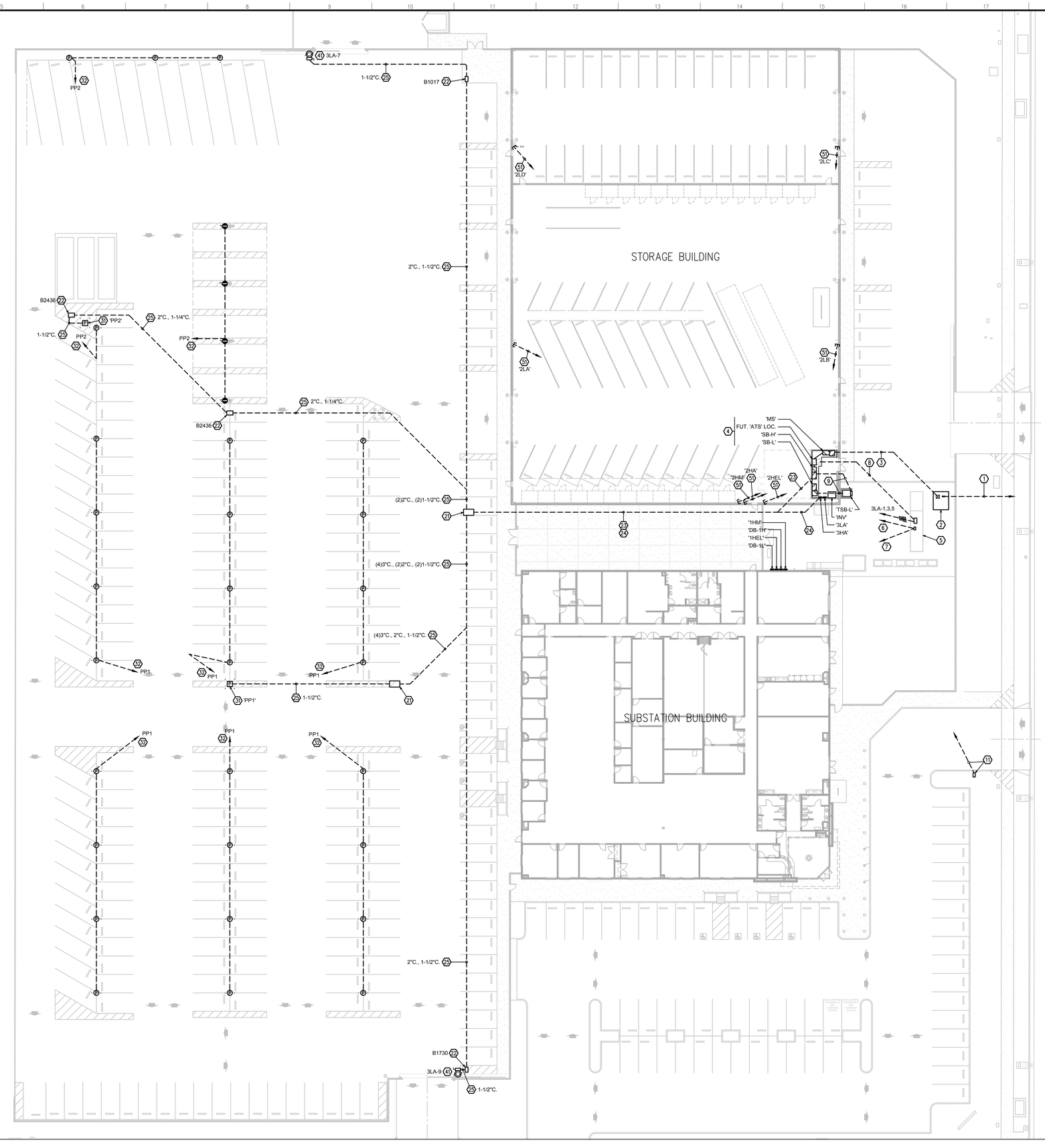

Key Notes

1. PROPOSED 4"C. PRIMARY PER PG&E RULE 16 DOCS.
2. PROPOSED PG&E STANDARD CONCRETE PAD. SET MIN. 36" FROM CMU WALL AND MIN. 60" FROM FACE OF CURB.
3. PROPOSED (4) 5"C. SECONDAY PER PG&E RULE 16 DOCS.
4. PAD MOUNTED, FREESTANDING ELECTRICAL EQUIPMENT. REFER TO POWER SINGLE LINE DIAGRAM, SHEET E1.2, FOR ADDITIONAL UNDERGROUND RUNS NOT SHOWN HERE. NOTE: ATS LOCATION IS FOR FUTURE GENERATOR INSTALLATION. PROVIDE PULL CAN ONLY AT THAT LOCATION.
5. POTENTIAL LOCATION OF FUTURE STANDBY EMERGENCY GENERATOR (N.I.C.). STUB CONDUITS INTO B1017 AND B1730 BOXES FOR FUTURE CONNECTION. VERIFY LOCATIONS WITH OWNER.
6. 1-1/4"C. TO FUTURE ATS LOCATION.
7. 1-1/4"C. TO FUTURE GENERATOR MONITOR PANEL LOCATION.
8. GEN FEEDERS PER POWER SINGLE LINE DIAGRAM.
9. TRANSFORMER PRIMARY AND SECONDARY PER POWER SINGLE LINE DIAGRAM.
11. B1324 H/20 PULLBOX WITH BOLT-DOWN STEEL LID. HOMERUN (3) 2"C. TO PANEL 3LA WITH PULL LINES FOR FUTURE EV CHARGER STATIONS.
21. 3x5 PULLBOX WITH SPRING-ASSIST BOLT DOWN STEEL LIDS.
22. H20 RATED PULLBOX WITH BOLT-DOWN STEEL LID, SIZE INDICATED.
23. (4) 3"C. FROM SWITCHBOARD SB-H FOR FUTURE SOLAR.
24. (4) 2"C. & (4) 1-1/2"C. FROM PANEL 3HA FOR FUTURE SITE POWER.
25. SITE CONDUITS, QTY. AND SIZE INDICATED.
31. POWER PEDESTAL. PROVIDE 2#8, 1#8G. FEEDER FROM PANEL 3HA THRU 1-1/2"C.
32. 20A DEDICATED CIRCUIT TO POWER PEDESTAL. 1"C. 2#8, 1#8G. THROUGHOUT CIRCUIT.
41. INSTALL GATE OPERATOR AND EXIT-, SHADOW-, AND REVERSE-LOOPS IN ASPHALT PER MANUFACTURER INSTRUCTIONS. PROVIDE 2#8, 1#8G. FEEDER FROM PANEL 3LA THRU 1-1/2"C.
51. STUB FOR FUTURE PANEL / CABINET. SEE F1/E1.2.

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Sheet Content:

LOW VOLTAGE SYSTEMS SITE PLAN

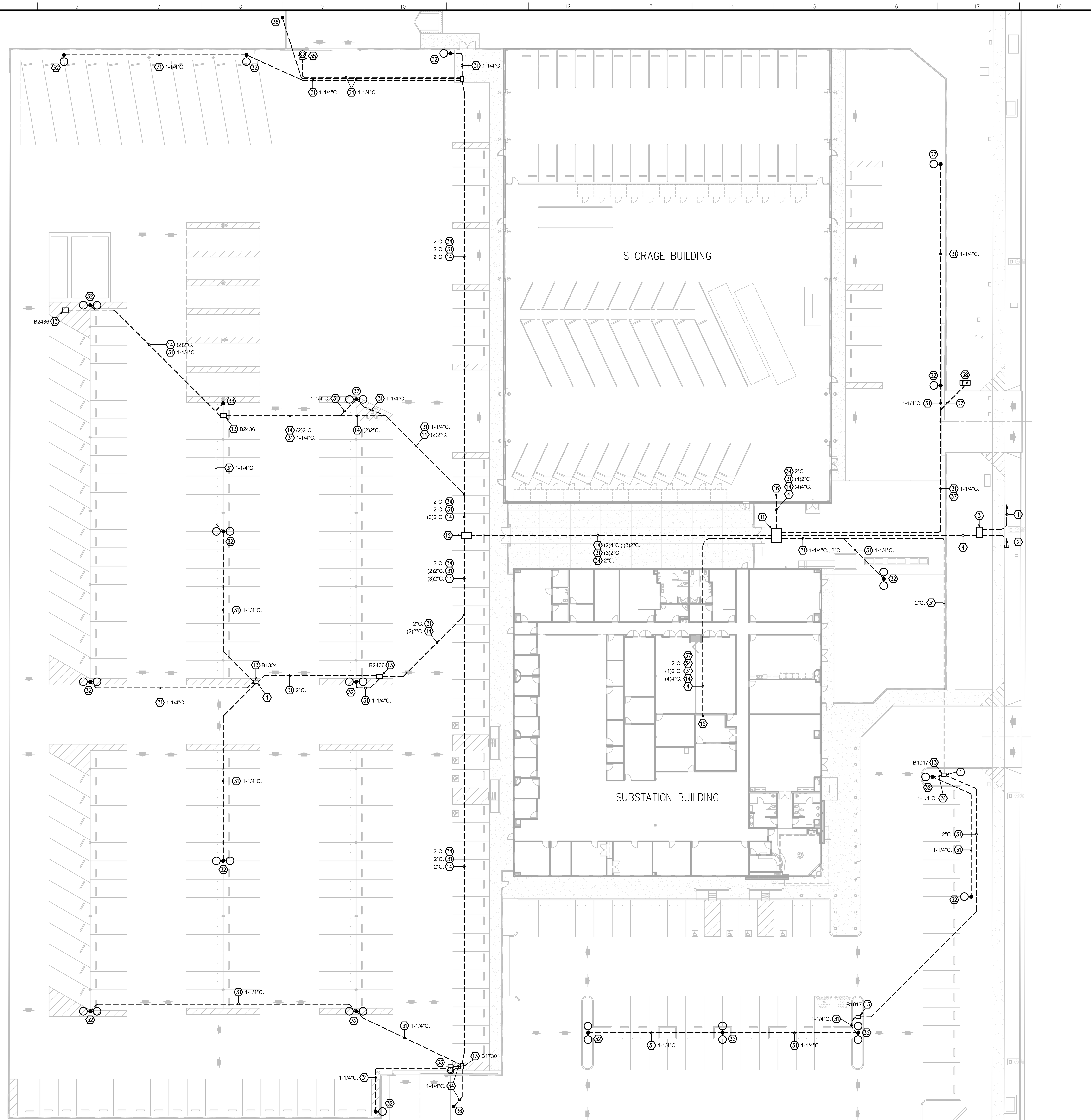
Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

E2.2

A1 Power Site Plan
Scale: 1" = 20'-0"

> File: 19074 - Elec_Split Bid Set.dwg > Plotted: 6/1/2020 7:31 PM
Drawn by: HDE
Plotted on: 6.1.2020



A1 Low Voltage Systems Site Plan

Scale: 1" = 20'-0"

Key Notes

1. (2) 4"C. TO AT&T POINT OF CONNECTION.
2. (2) 4"C. STUBS.
3. 3x5 CUSTOMER VAULT WITH BOLT-DOWN STEEL LIDS.
4. (2) 4"C. FOR AT&T SERVICE.
11. 5x7 VAULT WITH SPRING-ASSIST BOLT DOWN STEEL LIDS.
12. 3x5 VAULT WITH SPRING-ASSIST BOLT DOWN STEEL LIDS.
13. H20 RATED PULLBOX WITH BOLT-DOWN STEEL LID, SIZE INDICATED.
14. LOW VOLTAGE CONDUITS, SIZE AND QTY. INDICATED.
15. STUB CONDUITS UP AT BACKBOARD.
16. STUB CONDUITS UP AT FUTURE IT ROOM LOCATION. VERIFY LOCATION WITH OWNER.
31. CAMERA CONDUITS, SIZE AND QTY. INDICATED.
32. BRING CONDUITS INTO LIGHT POLE FOR CAMERAS.
33. BRING CONDUIT UP AT COLUMN AND TERMINATE IN 12"x12"x8" WP BOX AT STRUCTURAL BEAM.
34. ACCESS SYSTEM CONDUIT, SIZE AND QTY. INDICATED.
35. BRING CONDUIT INTO GATE OPERATOR CONTROLLER.
36. VEHICLE READER PEDESTAL. VERIFY LOCATION WITH OWNER.
37. 1"C. FOR POST INDICATOR VALVE TO FCP.
38. CONNECT PIV TAMPER SWITCH.

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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: T80293 / 19003
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

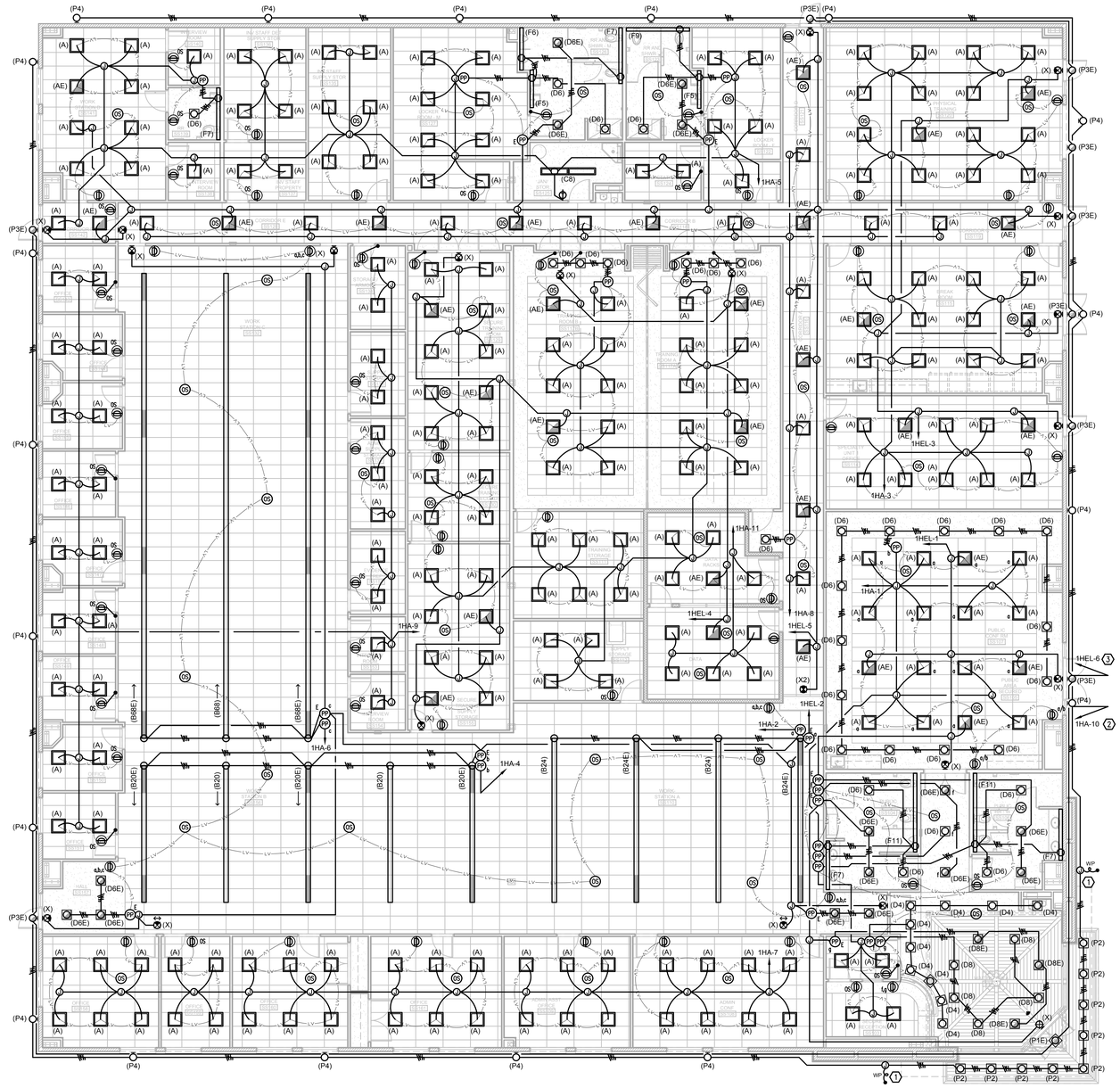
LOW VOLTAGE SYSTEMS SITE PLAN

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

E2.2



Key Notes

1. MAKE CONNECTION TO BACKLIT ILLUMINATED SIGN. CONCEAL ELECTRICAL WORK. SIGN UNDER SEPARATE PERMIT. VERIFY ROUGH-IN LOCATION WITH VENDOR.
2. HOME RUN VIA NLIGHT POWER PACK MOUNTED ABOVE PANEL BOARD.
3. HOME RUN VIA NIGHT EMERGENCY POWER PACK MOUNTED ABOVE PANEL BOARD.

A7 | Lighting Plan - Substation Building
Scale: 1/8" = 1'-0"

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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: T80293 / 19003
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

LIGHTING PLAN
SUBSTATION BUILDING

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

Sheet No.

E3.0

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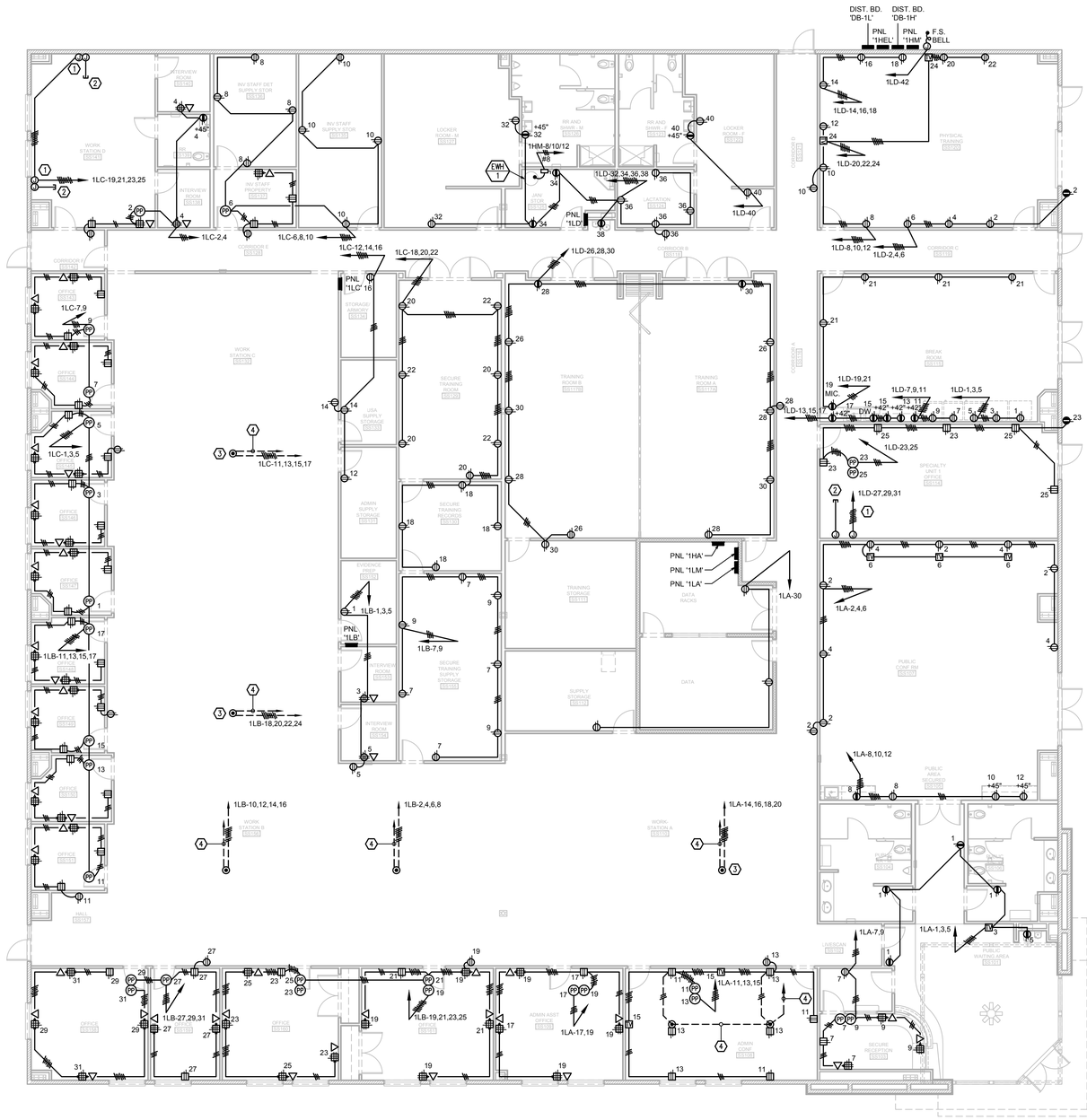

A7 | Power and Low Voltage Plan - Substation Building

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

Key Notes

1. MODULAR FURNITURE POWER FEED AT WALL VERIFY BOX LOCATION WITH FURNITURE VENDOR.
2. MODULAR FURNITURE LOW VOLTAGE FEED AT WALL. 4"/10" SCP. DEEP BOX WITH (2) 1"/4" CONDUIT STUBS TO ATTIC SPACE AND 2-GANG RING. VERIFY BOX LOCATION WITH FURNITURE VENDOR.
3. MODULAR FURNITURE POWER AND DATA FEED IN FLOOR. PROVIDE 4-GANG, FLOOR BOX WITH APPROPRIATE COVER. VERIFY CONFIGURABLE BOX LOCATION WITH FURNITURE VENDOR.
4. (2) 1-1/4"C. TO IDF FOR DATA.

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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: TB0293 / 19003
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

POWER AND LOW VOLTAGE PLAN
SUBSTATION BUILDING

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

Sheet No.

E3.1

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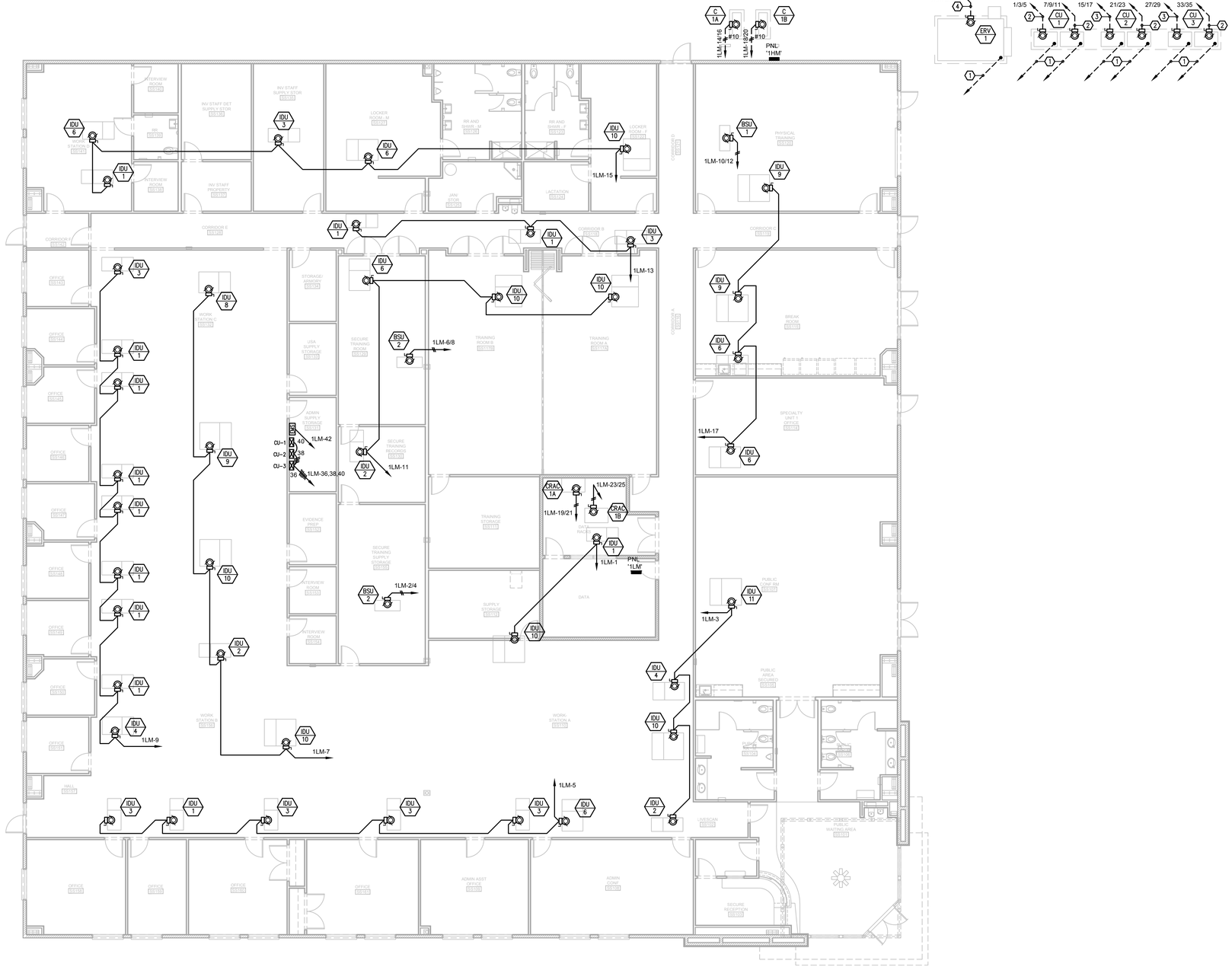

Key Notes

1. 1"C. TO EMS PANEL. SEE MECHANICAL PLANS.
2. 3/4"C. 3#12.
3. 3/4"C. 3#10.
4. 1"C. 3#8.

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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: T80293 / 19003
FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

MECHANICAL POWER PLAN
SUBSTATION BUILDING

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

Sheet No.

E3.2

A4 | Mechanical Power Plan - Substation Building
Scale: 1/8" = 1'-0"

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Plotted on: 6.1.2020

A7 | Fire Alarm Plan - Substation Building

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.
4. MONITOR TAMPER AT POST INDICATOR VALVE. ACTUAL LOCATION IS SHOWN ON SHEET E2.2.

FIRE ALARM DEFERRED APPROVAL SUBMITTAL

FOR BID ONLY

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FILE NAME: 19074 - Elec_Split Bid Set

Sheet Content:

FIRE ALARM PLAN
SUBSTATION BUILDING

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

Sheet No.

E3.3

Drawn by: HDE

Plotted on: 6.1.2020

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STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-ELC-E

This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential, high-rise residential and hotel/motel occupancies. Additions and alterations to electrical service systems in these occupancies will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)2P for alterations.

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 1 of 5
Project Address: 1129 N. Armstrong Avenue	Date Prepared: 12/19/2019

A. GENERAL INFORMATION

01	Project Location (city)	Fresno	02	Occupancy Types Within Project:	
☐ Office	☐ Retail	☐ Warehouse	☐ Hotel/ Motel	☐ School	☐ Support Areas
☐ Parking Garage	☐ High-Rise Residential	☐ Relocatable	☑ Other (Write In):		

B. PROJECT SCOPE

Table Instructions: Include any electrical service systems that are within the scope of the permit application.

01	02	03	04	05
Electrical Service Designation/ Description	Scope of Work¹	Rating (kVA)	Utility Provided Metering System Exception to §130.5(a)²	Demand Response Controls: Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2, §130.1 and §130.3 and compliance documents NRCC-MCH, NRCC-LTI and NRCC-LTS will indicate when demand response controls are required.
DB-1H,DB-1L	New electrical service equipment & meter	665	☐	

¹ *FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c), no other requirements from 130.5 are required.*
² *Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.*

C. COMPLIANCE RESULTS

Table Instructions: If this table says "DOES NOT COMPLY" refer to Table D. for guidance and review the Table that indicates "No".

01		02		03		04	05
Service Electrical Metering §130.5(a)	AND	Separation for Monitoring §130.5(b)	AND	Voltage Drop §130.5(c)	AND	Controlled Receptacles §130.5(d)	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)	
Yes	AND	Yes	AND	Yes	AND	Yes	COMPLIES

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-ELC-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 2 of 5
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.

F. SERVICE ELECTRICAL METERING

Table Instructions: Complete the table below for new or replacement electrical service systems OR equipment to demonstrate compliance with §130.5(a).

01	02	03				04	05	
Electrical Service Designation/ Description	Rating (kVA)	Required Metering Capabilities per Table 130.5-A: Instantaneous Demand (kW)	Historical Peak Demand (kW)	Tracking kWh for user-defined period	kWh per rate period	Location of Requirements in Construction Documents	Field Inspector Pass	Fail
DB-1H,DB-1L	665	☑	☑	☑	☐	E1.2	☐	☐

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

Table Instructions: Complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b). Using the dropdown choices in column 01, indicate the load types included for each service. Any load types that are not included in the service do not need to be shown.

Electrical Service Designation/Description: DB-1H,DB-1L

01	02	03	04	05	
Load Type per Table 130.5-B¹	Minimum Required Separation of Load per Table 130.5-B	Compliance Method²	Location of Requirements in Construction Documents	Field Inspector Pass	Fail
Lighting including exit, egress and exterior	All lighting disaggregated by floor, type or area	Method 1	E1.2	☐	☐
HVAC systems and components	All HVAC in aggregate and each HVAC load rated at least 50 kVA	Method 1	E1.2	☐	☐

Table Continued

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-ELC-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 3 of 5
Project Address: 1129 N. Armstrong Avenue	Date Prepared: 12/19/2019

01	02	03	04	05	
Load Type per Table 130.5-B¹	Minimum Required Separation of Load per Table 130.5-B	Compliance Method²	Location of Requirements in Construction Documents	Field Inspector Pass	Fail
Plug Loads and appliances < 25kVA	All plug load separated by floor, type or area Groups of plug loads exceeding 25 kVA connected load in an area less than 5000 sf	Method 1	E1.2	☐	☐

** NOTES: If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

¹ *FOOTNOTES: For each separate load type, up to 10% of the connected load may be of any type.*
² *Method 1: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type*
Method 2: Switchboards/ motor control centers/ panelboard supply other distribution equipment with loads disaggregated for each load type
Method 3: Complete metering system measures and reports loads by type
See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.

H. VOLTAGE DROP

Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)2Piii.

01	02		03	04	05	
Electrical Service Designation/ Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method		Location of Voltage Drop Calculations¹	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector Pass	Fail
DB-1H,DB-1L	☑ Voltage drop < 5%	☐ Permitted by CA Elec Code (Exception to §130.5(c))*	In construction documents	E1.2	☐	☐

**NOTES If "Permitted by CA Elec Code*" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.*
¹ *FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".*

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES

Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(d). Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.

Table Continued

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-ELC-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 4 of 5
Project Address: 1129 N. Armstrong Avenue	Date Prepared: 12/19/2019

01	02	03	04	05	06	
Electrical Service Designation/ Description	Location/ Type of Controlled Receptacles	Shut-Off Controls	Permanent Durable Marking Will be Used	Location of Requirements in Construction Documents	Field Inspector Pass	Fail
DB-1H,DB-1L	Within 6ft of uncontrolled receptacles	Occupancy Sensor	☑	E3.1	☐	☐

Add Row Remove Last

** If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

J. 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/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCI-ELC-01-E - Must be submitted for all buildings.	☐	☐

K. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to electrical power distribution requirements.

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-ELC-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 5 of 5
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:
Company: Hardin-Davidson Engineering	Signature Date: 12/19/2019
Address: 375 Pollasky 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 the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.**

Responsible Designer Name: C. Scott Davidson	Responsible Designer Signature:
Company : Hardin-Davidson Engineering	Date Signed: 12/19/2019
Address: 356 Pollasky Ave. Suite 200	License: E17850
City/State/Zip: Clovis, CA 93612	Phone: 559-323-4995

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 1 of 6
Project Address: 1129 N. Armstrong Avenue	Date Prepared: 12/19/2019

A. GENERAL INFORMATION

01	Project Location (city)	Fresno	04	Total Conditioned Floor Area (ft²)	22,760
02	Climate Zone	13	05	Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1

☑ Office ☐ Retail ☐ Warehouse ☐ Hotel/Motel ☐ School ☐ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☐ Other (write in):

B. PROJECT SCOPE

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work 01	Conditioned Spaces 02	03	Unconditioned Spaces 04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☑ New Lighting System	Complete Building	22,760	Complete Building	0
☐ Altered Lighting System				
Total Area of Work (ft²)		22,760		0

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts): 01 Complete Building §140.6(c)1	02 Area Category §140.6(c)2	03 Area Category Footnotes §140.6(c)2G (+)	04 Tailored §140.6(c)3 (+)		05 Total Allowed (Watts)		Actual Lighting Power per §140.6(a) (Watts): 06 Total Designed (Watts)	07 Adjustments: Portable Lighting §140.6(a) (-)	08 PAF Control Credits §140.6(a)2 (-)		09 Total Actual (Watts) *Includes Adjustments	Compliance Results 10: 05 Must be ≥ 09 §140.6
	(See Table I)	(See Table I)	(See Table K)	(See Table L)				(See Table F)	(See Table J)	(See Table R)			
Conditioned:	18,208				=	**18,208**	≥	17,633.2			=	**17,633.2**	**COMPLIES**
Unconditioned:					=		≥				=		

Controls Compliance (See Table H for Details)	**COMPLIES**
Rated Power Reduction Compliance (See Table S for Details)	**Not Applicable**

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 2 of 6
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.

F. INDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

01 Name or Item Tag	02 Complete Luminaire Description	03 Specialized Luminaire Types: Track	Portable	04 Watts per luminaire¹	05 How Wattage is determined	06 Total number luminaires	07 Exempt per §140.6(a)3	08 Design Watts	09 Field Inspector Pass	Fail
A/AE	40.5w LED	☐	☐	40.5	NA8 Default	236	☐	9,558	☐	☐
B20/B20E	255w LED	☐	☐	255	NA8 Default	5	☐	1,275	☐	☐
B40/B40E	510w LED	☐	☐	510	NA8 Default	4	☐	2,040	☐	☐
B68/B68E	867w LED	☐	☐	867	NA8 Default	3	☐	2,601	☐	☐
C8	50w LED	☐	☐	50	NA8 Default	1	☐	50	☐	☐
D4	17.5w LED	☐	☐	17.5	NA8 Default	7	☐	122.5	☐	☐
D6/D6E	28.3w LED	☐	☐	28.3	NA8 Default	49	☐	1,386.7	☐	☐
F11	88w LED	☐	☐	88	NA8 Default	2	☐	176	☐	☐
F5	40w LED	☐	☐	40	NA8 Default	2	☐	80	☐	☐
F6	48w LED	☐	☐	48	NA8 Default	1	☐	48	☐	☐
F7	56w LED	☐	☐	56	NA8 Default	4	☐	224	☐	☐
F9	72w LED	☐	☐	72	NA8 Default	1	☐	72	☐	☐
							Total Designed Watts CONDITIONED SPACES:	**17,633.2**		

¹*NOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.*

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

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

G. TRACK LIGHTING

This Section Does Not Apply

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)

*Table Instructions: Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Building Level Controls

01 Mandatory Demand Response §130.1(e)	02 Shut-off Controls §130.1(c)	03 Field Inspector Pass	Fail
Required > 10,000 SF	Whole Building: Automatic Time Switch	☐	☐

Area Level Controls

04 Area Description	05 Complete Building or Area Category Primary Function Area	06 Area Controls §130.1(a)	07 Multi-Level Controls §130.1(b)	08 Shut-Off Controls §130.1(c)	09 Primary/Skylit Daylighting §130.1(d)	10 Secondary Daylighting §140.6(d)	11 Interlocked Systems §140.6(a)1	12 Field Inspector Pass	Fail
Daylight Zones	Office Building	Manual ON/OFF	Dimmer	Occ Sensor	Included	Included	☐	☐	☐
Non-Daylight Zones	Office Building	Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A	☐	☐	☐

**NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.*
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to §130.1(d)2

13 Plan Sheet Showing Daylit Zones:

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

Conditioned Spaces

01 Area Description	02 Complete Building or Area Category Primary Function Area	03 Allowed Density (W/ft²)	04 Area (ft²)	05 Allowed Wattage (Watts)	06 Additional Allowances / Adjustments: Footnotes	PAF	Portable Ltg
Whole Building	Office Building	0.8	22,760	18,208	☐	☐	☐
		TOTAL:	**22,760**	**18,208**	See Tables J, K, R for detail		

J. POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES

This Section Does Not Apply

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 4 of 6
Project Address: 1129 N. Armstrong Avenue	Date Prepared: 12/19/2019

K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES
This Section Does Not Apply

L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE
This Section Does Not Apply

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS
This Section Does Not Apply

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
This Section Does Not Apply

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING
This Section Does Not Apply

P. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS
This Section Does Not Apply

Q. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
This Section Does Not Apply

R. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (PAF)
This Section Does Not Apply

S. RATED POWER REDUCTION COMPLIANCE BY SPACE
This Section Does Not Apply

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

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

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http:// www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
◉	○	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
◉	○	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
◉	○	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 6 of 6
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:
Company: Hardin-Davidson Engineering	Signature Date: 12/19/2019
Address: 375 Pollasky 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 the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.**

Responsible Designer Name: C. Scott Davidson	Responsible Designer Signature:
Company : Hardin-Davidson Engineering	Date Signed: 12/19/2019
Address: 356 Pollasky Ave. Suite 200	License: E17850
City/State/Zip: Clovis, CA 93612	Phone: 559-323-4995

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E

This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.2, §140.7, and §141.0(b)2L for outdoor lighting scopes using the prescriptive path.

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 1 of 6
Project Address: 1129 N. Armstrong Avenue	Date Prepared: 12/19/2019

A. GENERAL INFORMATION

01	Project Location (city)	Fresno	04	Total Illuminated Hardscape Area (ft²)	19,806
02	Climate Zone	13			
03	Outdoor Lighting Zone per Title 24, Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):				

☐ LZ-0: Very Low - Undeveloped Parkland ☐ LZ-2: Moderate - Rural Areas ☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval
☐ LZ-1: Low - Developed Parkland ☑ LZ-3: Moderately High - Urban Areas

B. PROJECT SCOPE

Table Instructions: Include any outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2L for alterations.

My project consists of:

01	02
☑ New Lighting System	Must Comply with Allowances from §140.7.
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? ○ Yes ○ No

¹ *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100*

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Calculation of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2L

01 General Hardscape Allowance §140.7(d)1		02 Per Application §140.7(d)2		03 Sales Frontage §140.7(d)2		04 Ornamental §140.7(d)2		05 Per Specific Area §140.7(d)2		06 Existing Power §141.0(b)2L		07 Total Allowed (Watts)		08 Total Actual (Watts)	09 07 Must be ≥ 08
(See Table I)	+	(See Table J)	+	(See Table K)	+	(See Table L)	+	(See Table M)	OR	(See Table N)	=		≥	(See Table F)	
1,730.14	+	120	+		+		+		OR		=	1,850.14	≥	1,637.5	COMPLIES

Cutoff Compliance (See Table G for Details)	**Not Applicable**
Controls Compliance (See Table H for Details)	**COMPLIES**

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 2 of 6
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.

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 §140.7 (ie Table I has expanded for input), include all luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application in the Table Below. For altered lighting systems using the Existing Power method per §141.0(b)2L (ie Table N has expanded for input), include only new luminaires being installed and replacement luminaires being installed as part of the project scope (ie, do not include existing luminaires remaining or existing luminaires being moved).

Designed Wattage:

01 Name or Item Tag	02 Complete Luminaire Description	03 Watts per luminaire¹	04 How Wattage is determined	05 Total number luminaires	06 Luminaire Status²	07 Excluded per §140.7(a)	08 Design Watts	09 Cutoff Req. > 150W §130.2(b)³	10 Field Inspector Pass	Fail
P1E	24.7w LED	24.7	NA8 Default	3	New	☐	74.1		☐	☐
P2	9.6w LED	9.6	NA8 Default	9	New	☐	86.4		☐	☐
P3E	10w LED	10	NA8 Default	9	New	☐	90		☐	☐
P4	73w LED	73	NA8 Default	19	New	☐	1,387		☐	☐
						Total Designed Watts:	**1,637.5**			

** NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.*
EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b).

G. CUTOFF REQUIREMENTS (BUG)

This Section Does Not Apply

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E

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

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 reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank. For each requirement in columns 02 through 07, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.*

Mandatory Controls

01 Area Description	02 Motion Sensor: Incandescent>100W §130.2(a)	03 Shut-Off §130.2(c)1	04 Auto-Schedule §130.2(c)2	05 Motion Sensor §130.2(c)3	06 Sales Frontage §130.2(c)4	07 Façade, Ornament, Outdoor Dining §130.2(c)5	08 Field Inspector Pass	Fail
Wall Mount <=30w	NA: No Incand>100W	Astronomical Time	Yes	NA: Wall≤30W	NA: No Sales Front Ltg	No Applicable Lt	☐	☐
Wall Mount >30w	NA: No Incand>100W	Astronomical Time	Yes	Yes	NA: No Sales Front Ltg	No Applicable Lt	☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c).

I. LIGHTING POWER ALLOWANCE (per §140.7)

Table Instructions: Please complete this table for areas using the allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lose it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

01				
☑ General Hardscape Allowance	"Use it or lose it" Allowance (Watts): ☑ Per Application	☐ Sales Frontage	☐ Ornamental	☐ Per Specific Area
Table I (below)	Table J	Table K	Table L	Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A

02 Area Description	03 Area Wattage Allowance (AWA): Illuminated Area (ft²)	04 Allowed Density (W/ft²)	05 Area Allowance (Watts)	06 Linear Wattage Allowance (LWA): Perimeter Length (lf)	07 Allowed Density (W/lf)	08 Linear Allowance (Watts)	09 Total General AWA + LWA (Watts)
Pedestrian Walks	14,040	0.04	561.6	766	0.35	268.1	829.7

Table Continued

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E

Project Name: Fresno Co. Sheriff's Substation	Report Page: Page 4 of 6
Project Address: 1129 N. Armstrong Avenue	Date Prepared: 12/19/2019

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A

Parking	5,766	0.04	230.64	428	0.35	149.8	380.44
						Initial Wattage Allowance for Entire Site (Watts):	**520**
						Total General Hardscape Allowance (Watts):	**1,730.14**

J. LIGHTING ALLOWANCE: PER APPLICATION

Table Instructions: Please complete this table for areas using the wattage allowance per application from Table-140.7-B.

01 Area Description	02 Application per Table 140.7-B¹	03 CALCULATED ALLOWANCE (Watts): # of Locations	04 Allowance per Location² (Watts)	05 Extra Allowance (Watts)	06 DESIGN WATTS: Luminaire Name or Item Tag	07 Watts per Luminaire	08 # of Luminaires	09 Design Watts	10 Additional Allowance (Watts)
Main Entry	Primary Entrance (Special)	1	120	120	P1E	24.7	3	74.1	
Main Entry	Primary Entrance (Special)	1	120	120	P2	9.6	9	86.4	
							Total Design Watts for this Area:	160.5	120
							Total Allowance (Watts) All Areas:		**120**

¹ *FOOTNOTES: Primary entrance applications are only available for senior care facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.*
² *The Allowance per Location for ATMs is 250W for the first ATM and 70W for each additional per Table 140.7-B.*

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

L. LIGHTING ALLOWANCE: ORNAMENTAL
This Section Does Not Apply

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA
This Section Does Not Apply

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)
This Section Does Not Apply

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E

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

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/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCI-LTO-01-E - Must be submitted for all buildings.	☐	☐
◉	○	NRCI-LTO-02-E - Must be submitted for a lighting control system; or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	☐	☐

REGISTERED PROFESSIONAL ENGINEER C. SCOTT DAVIDSON E17850 ELECTRICAL STATE OF CALIFORNIA

Hardin-Davidson Engineering
356 Pollasky Ave.
Suite 200
Clovis, CA 93612
559.323.4995 tel
www.hardin-davidson.com

LICENSED ARCHITECT NOEL ROGER DAVIDSON C -27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2021
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
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 6.1.2020
PROJECT NO: T80293 / 19003
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

THE COUNTY OF FRESNO 1856

Sheet No.

E4.0

Drawn by: HDE Plotted on: 6.1.2020

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

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 9/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: Fresno Co. Sheriff's Substation	Report Page:	Page 6 of 6
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:	
Company:	Hardin-Davidson Engineering	Signature Date:	
Address:	375 Pollasky 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 the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.**

Responsible Designer Name:	C. Scott Davidson	Responsible Designer Signature:	
Company :	Hardin-Davidson Engineering	Date Signed:	
Address:	356 Pollasky Ave. Suite 200	License:	E17850
City/State/Zip:	Clovis, CA 93612	Phone:	559-323-4995

REGISTERED PROFESSIONAL ENGINEER
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E17850
ELECTRICAL
STATE OF CALIFORNIA

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LICENSED ARCHITECT
NOEL ROGER DAVIDSON
C -27818
REN: 10-31-21
STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2021
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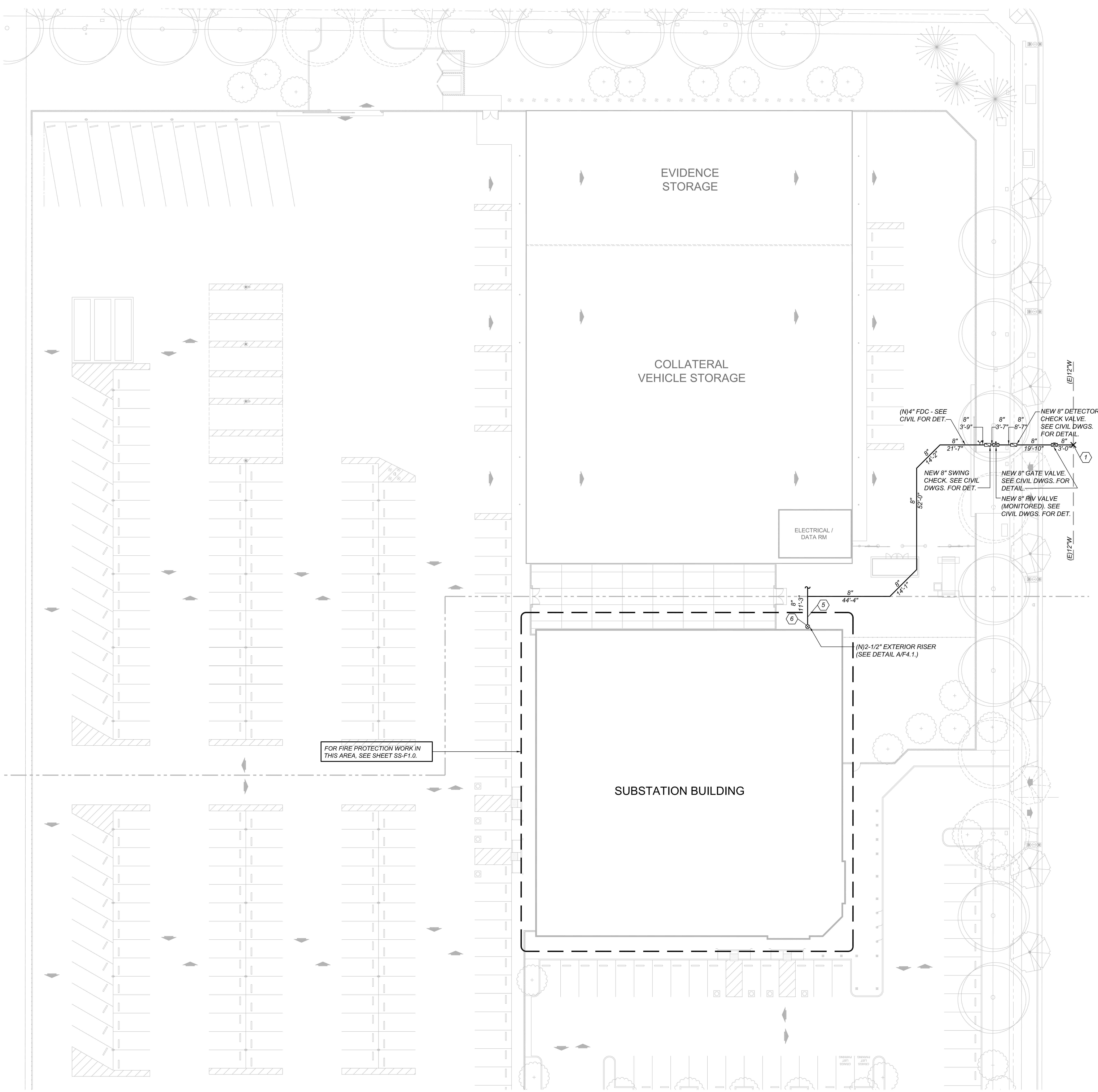
2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO

Sheet No.

E4.1



FIRE PROTECTION SITE PLAN

Scale:1" = 20'-0"

NORTH

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 RESPONDED TO, BY ENGINEER PRIOR TO BIDDING. AFTER AWARD OF BID, ALL DEVIATIONS FROM THE ORIGINAL DESIGN INTENTION SHALL BE CLOUDED AND NOTED ON CONTRACTOR ISSUED SHOP DRAWINGS TO ENGINEER, WHICH HAVE BEEN COORDINATED AMONGST THE TRADES, FOR REVIEW AND APPROVAL BY ENGINEER.

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

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

CONTRACTOR TO PROVIDE 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:

1. SYSTEM SHALL BE DESIGNED TO CONFORM WITH NFPA 13 (2016), CFC/CBC (2016), AND CITY OF FRESNO FIRE PREVENTION DISTRICT STANDARDS.
2. SYSTEM TO BE AN AUTOMATIC, WET TYPE SPRINKLER SYSTEM.
3. SPRINKLER DISCHARGE DENSITY FOR THIS PROJECT: MIN. OF 0.10 GPM/910 sqft.
4. POINT OF SERVICE SHALL BE AT THE 8" SUPPLY MAIN AS SHOWN.
5. FIRE SPRINKLER ALARM SYSTEM SHALL BE DESIGNED, INSTALLED AND PERMITTED BY OTHERS, AND IS NOT IN THE SCOPE OF WORK. 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.
6. SPRINKLER SYSTEM SHALL BE SINGLE ZONE (SEE RISER DETAIL)
7. FIRE SPRINKLER PIPING SHALL BE AS FOLLOWS (UNLESS NOTED OTHERWISE ON PLANS):
   - 7.A. PIPING 2-1/2" AND LARGER SHALL BE SCH.10 BLACK STEEL WITH ROLLED FITTINGS, RISER TO BE SCH.10 GALVANIZED STEEL PIPE.
   - 7.B. PIPING 2" AND LESS SHALL BE SCH.40 BLACK STEEL.
8. ALL HANGERS, BRACES, AND RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2016), CBC/CFC (2016), AND CITY OF FRESNO FIRE PREVENTION DISTRICT REQUIREMENTS.
9. PROVIDE CAGE-TYPE SPRINKLER HEAD GUARDS TO ALL SPRINKLERS, TO MINIMIZE CHANCE OF MECHANICAL DAMAGE TO SPRINKLER HEADS WHEN APPLICABLE.
10. IF DESIGN OR MATERIALS DIFFER FROM THAT SPECIFIED HEREIN, SUPPLEMENTAL ENGINEERING DESIGN, SUBMITTAL, AND REVIEW SHALL BE REQUIRED.
11. MICROBIAL INDUCED CORROSION WILL NOT BE A FACTOR FOR THIS SYSTEM.
12. ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 13 (2016), CBC/CFC (2016), AND CITY OF FRESNO FIRE PREVENTION DISTRICT REQUIREMENTS.
13. 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

1. 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&SY 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	PIV
	RISER	
	VALVE	V
	CHECK VALVE	CV
	HYDRAULIC NODE	
	POINT OF CONNECTION	POC

* (0) HYDRAULIC NODE, TYP.

REGISTERED PROFESSIONAL ENGINEER MICHAEL D. CANTELMI M23588 REN. 9-30-2021 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
7084 N. Maple Ave., Suite 101 Fresno, CA 93720
(559) 431-0101 19280 FAX (559) 431-1362

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-19 STATE OF CALIFORNIA

ARCHITECT:
Noel 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
1129 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:

SUB-STATION
FIRE PROTECTION SITE PLAN

Fresno County Department of Public Works and Planning
Capital Projects

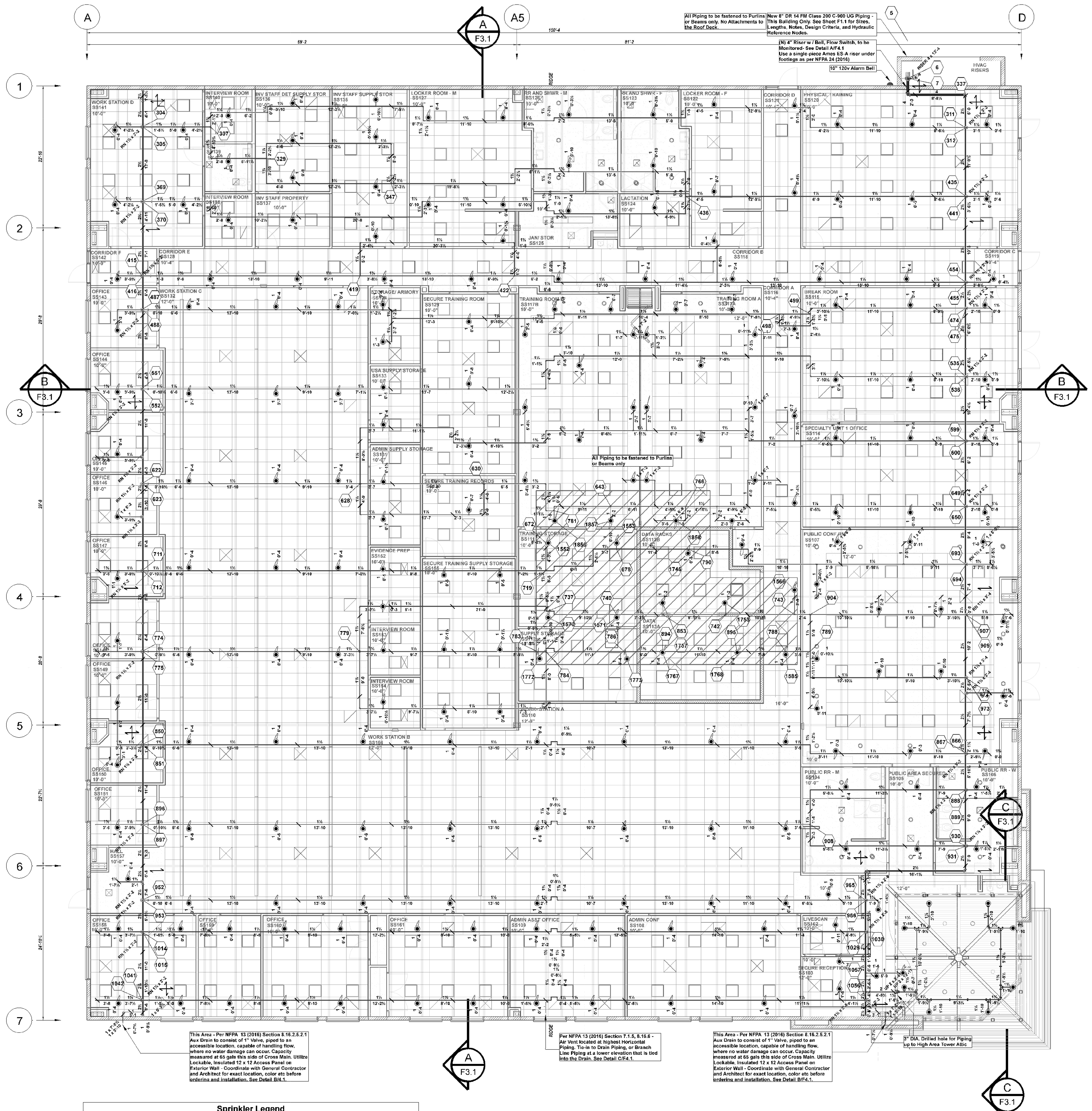
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

F1.1

Drawn by: ----   Plot date: 06.01.2020

1 June 2020 5:11 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4-Drawings\6 F\OFFICE\F1.1 - Fire Site.dwg mike



All Piping to be fastened to Purlins or Beams only. No Attachments to the Roof Deck.

New 8" DR 14 FM Class 200 C-900 UG Piping - This Building Only. See Sheet F1.1 for Sizes, Lengths, Notes, Design Criteria, and Hydraulic Reference Nodes.

(N) 4" Riser w / Bell, Flow Switch, to be Monitored- See Detail A/F4.1
Use a single-piece Ames ES-A riser under footings as per NFPA 24 (2016)

10" 120v Alarm Bell

All Piping to be fastened to Purlins or Beams only

This Area - Per NFPA 13 (2016) Section 8.16.2.5.2.1 Aux Drain to consist of 1" Valve, piped to an accessible location, capable of handling flow, where no water damage can occur. Capacity measured at 65 gals this side of Cross Main. Utilize Lockable, Insulated 12 x 12 Access Panel on Exterior Wall - Coordinate with General Contractor and Architect for exact location, color etc before ordering and installation. See Detail B/4.1.

Per NFPA 13 (2016) Section 7.1.5, 8.16.6 - Air Vent located at highest Horizontal Piping. Tie-in to Drain Piping, or Branch Line Piping at a lower elevation that is tied into the Drain. See Detail C/F4.1.

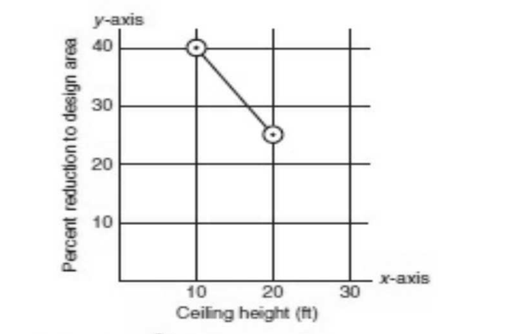
This Area - Per NFPA 13 (2016) Section 8.16.2.5.2.1 Aux Drain to consist of 1" Valve, piped to an accessible location, capable of handling flow, where no water damage can occur. Capacity measured at 65 gals this side of Cross Main. Utilize Lockable, Insulated 12 x 12 Access Panel on Exterior Wall - Coordinate with General Contractor and Architect for exact location, color etc before ordering and installation. See Detail B/F4.1.

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
●	Victaulic	V2708		207	5.6	Pendent	½	Quick	Chrome	155°F	
				Total = 207							

A1 SS-F1.0 **Sheriff Substation - Fire Sprinkler Piping Plan**
Scale: 1/8" = 1'-0"
NORTH

Per NFPA 13 (2013) Section 11.2.3.2.3.1, and figure 11.2.3.2.3.1 - where Quick Response Sprinklers are used throughout a System of Light Hazard Occupancy, with a 10'-6 maximum Ceiling Height, and where there are no unprotected ceiling pockets, the System Area of Hydraulic Design shall be permitted to be reduced without revising the Density.



Note: $y = \frac{-3x}{2} + 55$

For ceiling height ≥10 ft and ≤20 ft, $y = \frac{-3x}{2} + 55$
For ceiling height <10 ft, $y = 40$
For ceiling height >20, $y = 0$
For SI units, 1 ft = 0.31 m.

FIGURE 11.2.3.2.3.1 Design Area Reduction for Quick-Response Sprinklers.

Hydraulic Information	
Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY	0.100gpm/ft² for 945.00ft² (Actual 3136.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	16
K-FACTOR	5.6
TOTAL WATER REQUIRED	354.33
TOTAL PRESSURE REQUIRED	33.855
BASE of RISER (gpm)	254.33
BASE of RISER (psi)	29.331
SAFETY MARGIN (psi)	+10.303 (23.3%)

Hydraulic Calculation Area per NFPA 13 (2016) 5.2, A.5.2, 11.2.3.2.3.1, Figure 11.2.3.2.3.1, 11.2.3.2.4, and 11.2.3.7.1 for Light Hazard Occupancy.
Adjustments made for 12'-0' Max Ceiling Height

All Flex Drops Hydraulically Calculated as 4'-0 Victaulic Flexible Drops with an Equivalent Length of 37'-0 of 1" Sch. 40 Pipe. All Flexible Drops attached to 1" Sch. 40 Drop or Armover - Lengths Shown.

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

End of 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) 9.3.6.5, Unless Noted Otherwise. This Project - Upright Deflectors to be located 6" Below I-Joist, and Hanger Rods are longer than 6 inches.

Sprinklers omitted in interior Attic Spaces, exterior Walkways, Overhangs, and Canopies.
Per NFPA 13 (2016) Sections 3.3.16, 3.3.17, 8.15.1.2.1, 8.15.1.2.2, 8.15.1.2.7, 8.15.7.2* Sprinklers shall be permitted to be omitted where the Concealed Spaces, exterior Projection, etc are constructed with materials that are noncombustible, as defined, and contain no combustible materials as defined per NFPA 13 (2016) Handbook -3.3.16, 3.3.17, Exhibit 8.33

All Piping to be fastened to Purlins or Beams only. No Attachments to the Roof Deck.

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 FFD policy No. 405.019
*Exception: Sprinklers are permitted to be omitted where the canopy or roof is of noncombustible or limited combustible 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 FFD development policy No. 401.012

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

This project: Use the values for Cp .50

Pipe (in.)	Seismic Coefficient (Cp) Cp __ 0.50	0.5< Cp ≥ 0.71	Cp ≥ 0.71
1"	43	36	26
1-1/4"	46	39	27
1-1/2"	49	41	29
2"	53	45	31

RATED WALL LEGEND	
1 HR RATED BARRIER	———— · ——
1 HR RATED CORRIDOR	———— · ——

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.

Sprinkler Components Legend

FLEXIBLE GROOVED COUPLING
PIPING W/ GROOVED FITTINGS
PIPING W/ THREADED FITTINGS
PIPING W/ PENDENT SPRINKLER (Varies - See Details)
PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
SEISMIC SWING JOINT
HYDRAULIC NODE REF
(E) PIPING
FIRE PENETRATION THRU RATED WALL
FLEX DROP W/ PENDENT SPRINKLER (N/A This Project)

Details are specific to construction type

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	Sheet F/5.1
	LONGITUDINAL SEISMIC BRACE (Parallel)	Sheet F5.1
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	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 an 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 ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (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 1 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 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (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 9.3.6.5 - Where Branch lines

REGISTERED PROFESSIONAL ENGINEER MICHAEL W. CANTELMI M28588 Exp. 9-30-21 MECHANICAL STATE OF CALIFORNIA

FOR PLAN CHECK ONLY

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(559) 431-0101 19280 FAX (559) 431-1362

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-21 STATE OF CALIFORNIA

ARCHITECT:
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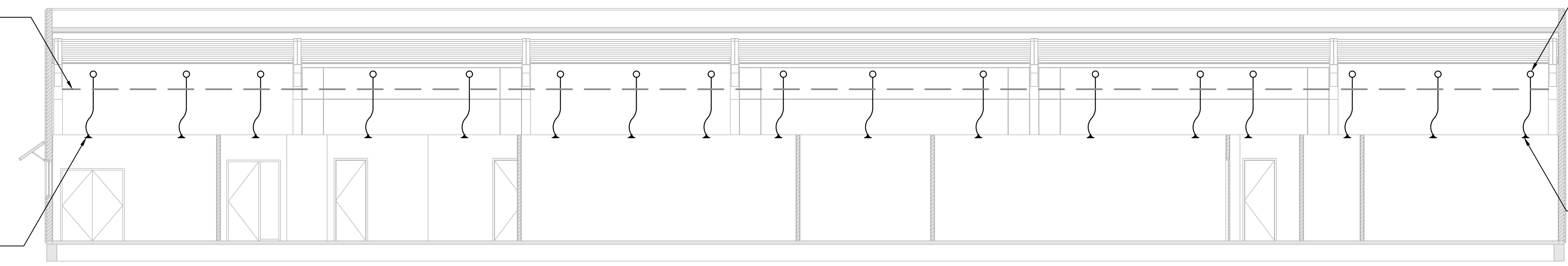
Project:
Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
Issue Date: 10.10.2019
Project No. T80293 / 19003
FILE NAME:

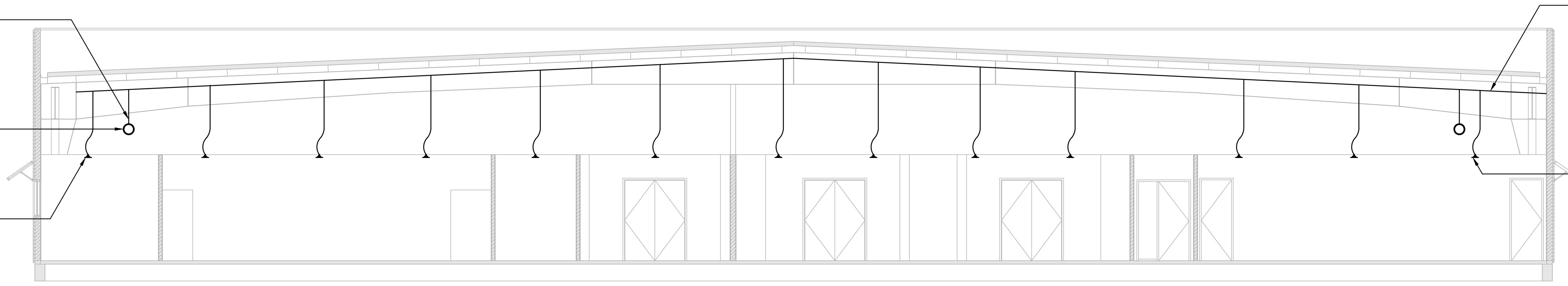
Sheet Content:
SUBSTATION FIRE SPRINKLER PIPING PLAN

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

Sheet No.
SS-F1.0



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



A Section B
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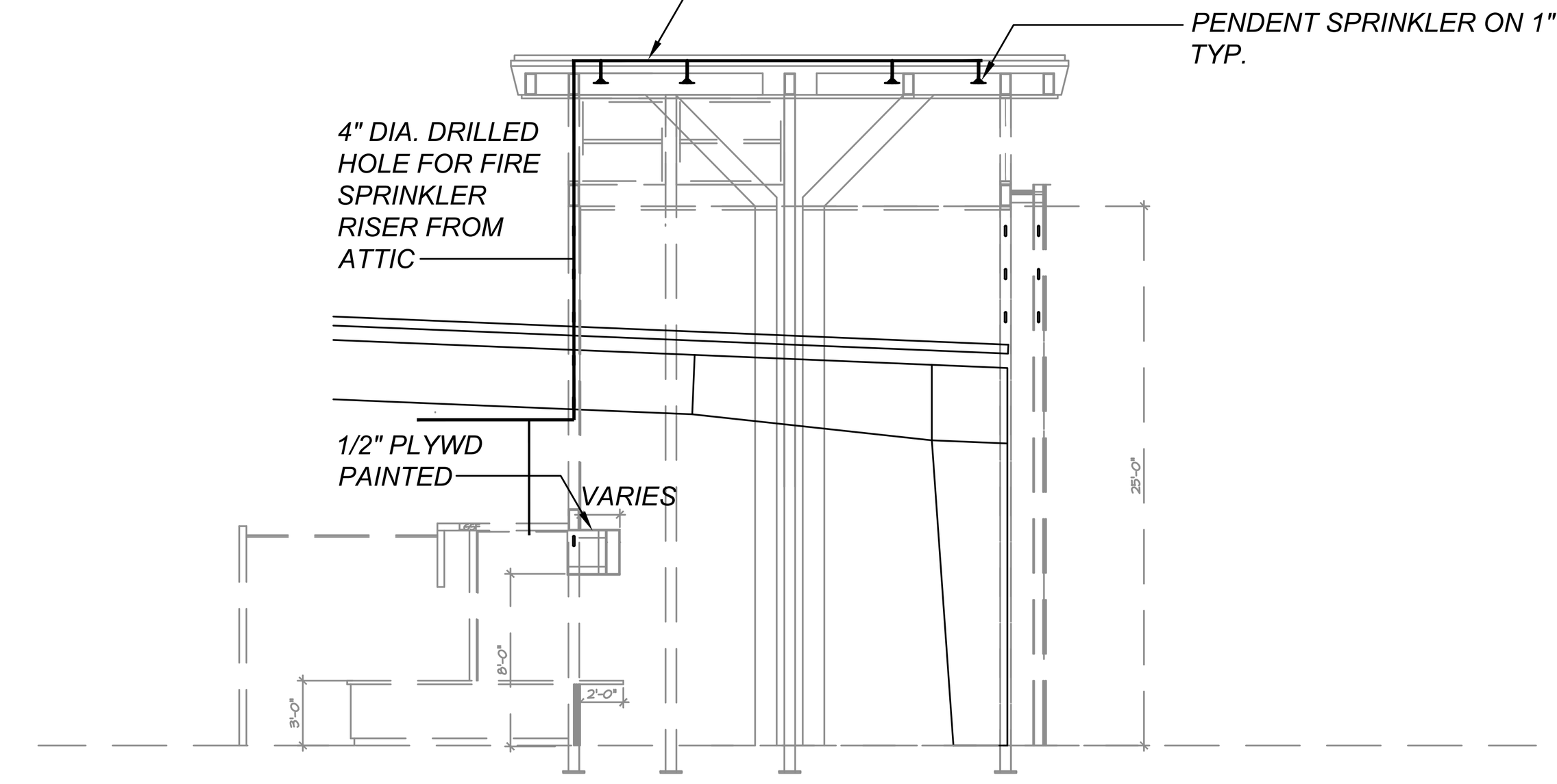

C Section C
1/8" = 1'-0"

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Sheet Content:
SUB-STATION
FIRE PROTECTION BUILDING SECTIONS

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

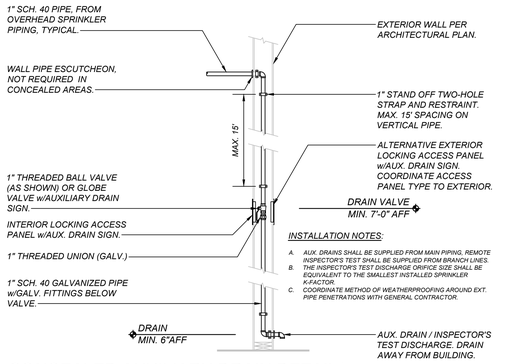
Sheet No.
F3.1

A1 FIRE PROTECTION BUILDING SECTIONS A-C
Scale:1/8" = 1'-0"
F3.1

NORTH

Drawn by: ----
Plot date: 05.14.2020

14 May 2020 3:39 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4--Drawings\6 F\OFFICE\F3.1 -- Fire Sections.dwg benjmin

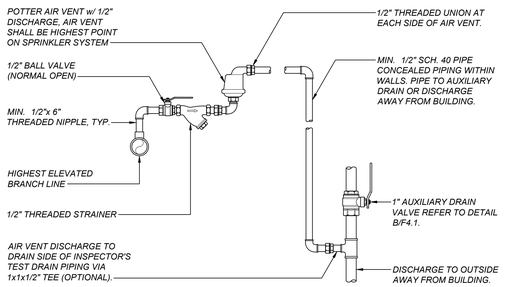


CONCEALED AUXILIARY DRAIN DETAIL/ REMOTE INSPECTOR'S TEST

B / F4.1

SCALE: NONE

FRM010



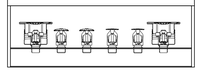
POTTER AIR VENT

C / F4.1

SCALE: NONE

FSSXXX

PROVIDE MIN. X SPARE SPRINKLERS FOR THIS BUILDING.



SPARE HEAD BOX NOTES:

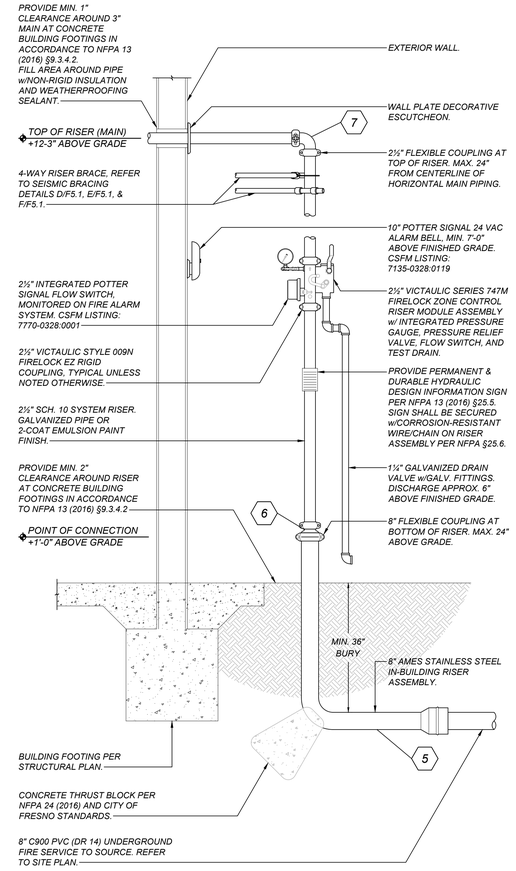
1. PER NFPA 13 (2016) §6.2.9.3 THE SPRINKLERS SHALL BE KEPT IN A CABINET LOCATED WHERE THE TEMPERATURE TO WHICH THEY ARE SUBJECTED WILL AT NO TIME EXCEED THE MAXIMUM CEILING TEMPERATURES SPECIFIED IN TABLE 6.2.5.1 FOR EACH OF THE SPRINKLERS WITHIN THE CABINET.
2. THE SPARE HEAD CABINET SHALL BE PLACED IN A SECURE LOCATION, PREFERABLY FASTENED TO A WALL ABOVE 6'-0" A.F.F. LOCATION SHALL BE COORDINATED BY THE OWNER.
3. PER NFPA 13 (2016) §6.2.9.5 THE STOCK OF SPARE SPRINKLERS SHALL INCLUDE ALL TYPES AND RATINGS INSTALLED AND SHALL BE AS FOLLOWS:
   - 3.1. FOR PROTECTED FACILITIES HAVING UNDER 300 SPRINKLERS — NO FEWER THAN SIX SPRINKLERS.
   - 3.2. FOR PROTECTED FACILITIES HAVING 300 TO 1000 SPRINKLERS — NO FEWER THAN 12 SPRINKLERS.
   - 3.3. FOR PROTECTED FACILITIES HAVING OVER 1000 SPRINKLERS — NO FEWER THAN 24 SPRINKLERS.
   - 3.4. A MINIMUM OF TWO SPRINKLERS OF EACH TYPE AND TEMPERATURE RATING SHOULD BE PROVIDED.
4. PER NFPA 13 (2016) §6.2.9.6 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.
5. PER NFPA 13 (2016) §6.2.9.7 A LIST OF THE SPRINKLERS INSTALLED IN THE PROPERTY SHALL BE POSTED IN THE SPRINKLER CABINET. THE LIST SHALL INCLUDE THE FOLLOWING:
   - 5.1. SPRINKLER IDENTIFICATION NUMBER (SIN) IF EQUIPPED; ORTHE MANUFACTURER, MODEL, ORIFICE, DEFLECTOR TYPE, THERMAL SENSITIVITY, AND PRESSURE RATING.
   - 5.2. GENERAL DESCRIPTION.
   - 5.3. QUANTITY OF EACH TYPE TO BE CONTAINED IN THE CABINET.
   - 5.4. ISSUE OR REVISION DATE OF THE LIST.

SPARE HEAD BOX DETAIL

D / F4.1

SCALE: NONE

FRM010



TITLE 19 ARTICLE 906 (A): A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

RISER NOTES:

1. EACH RISER DETAIL IS A SCHEMATIC REPRESENTATION OF THE RISER(S). ORIENTATION OF FITTINGS, VALVES, GAUGES, AND OTHER DEVICES HAVE BEEN MODIFIED FOR ILLUSTRATION PURPOSES AND MAY VARY IN ACTUAL INSTALLATION.
2. PER NFPA 13 (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.
3. 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.
4. 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.
5. 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.
6. LOCATION OF 1½" SYSTEM DRAIN TO BE COORDINATED WITH GENERAL CONTRACTOR. DRAIN PIPE AND FITTINGS SHALL BE GALV.
7. 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.

EXTERIOR RISER DETAIL: 2½" SYSTEM RISER ON 8" IN-BUILDING RISER

A / F4.1

SCALE: NONE

FSSXXX

REGISTERED PROFESSIONAL ENGINEER — MECHANICAL — M21886 — RENEWAL 8-30-2021 — STATE OF CALIFORNIA

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Sheet Content:

SUB-STATION
FIRE PROTECTION RISER DETAILS

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

Sheet No.

F4.1

A1 — F4.1

FIRE PROTECTION RISER DETAILS

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

NORTH

Drawn by: ----

Plot date: 05.14.2020

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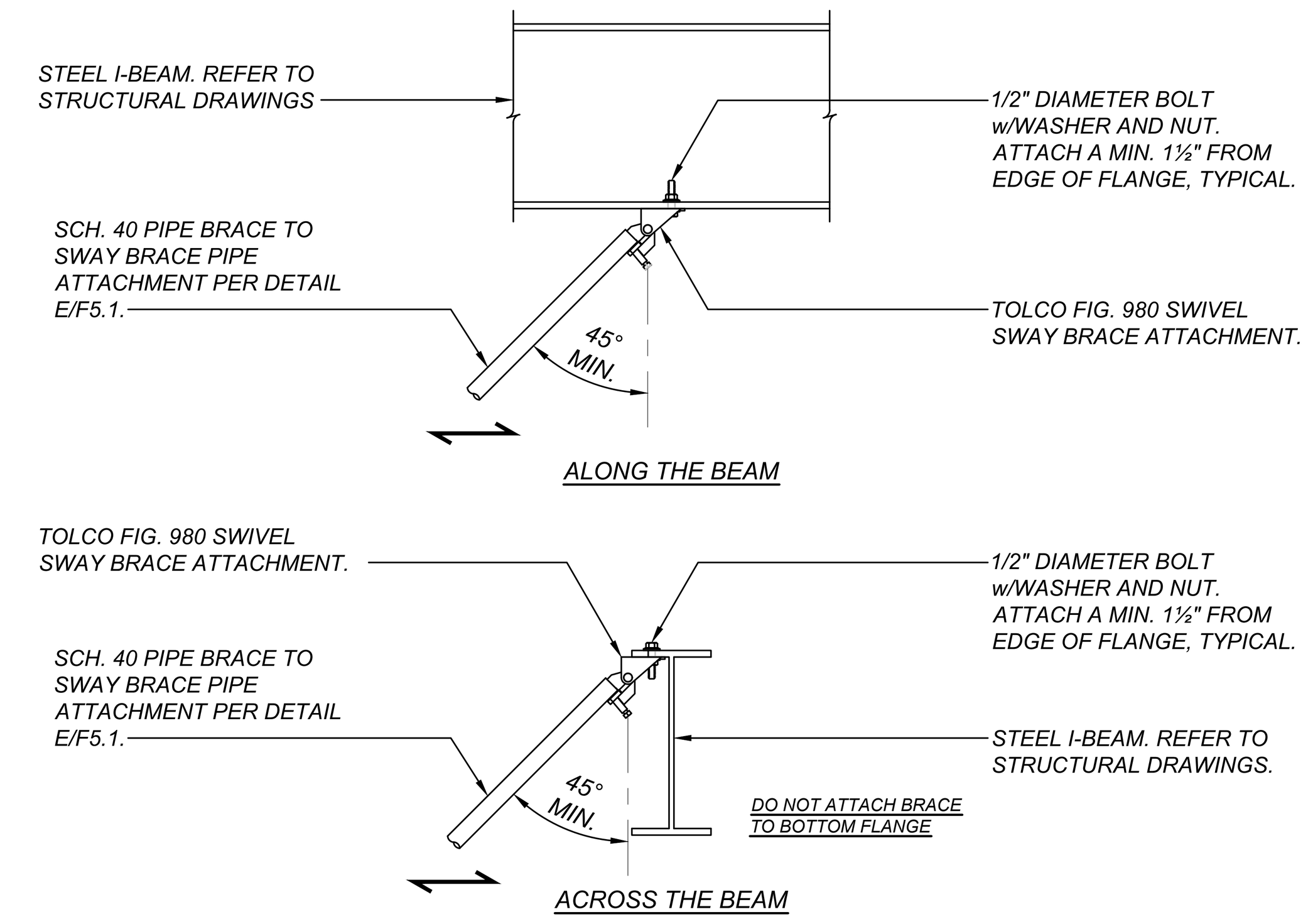
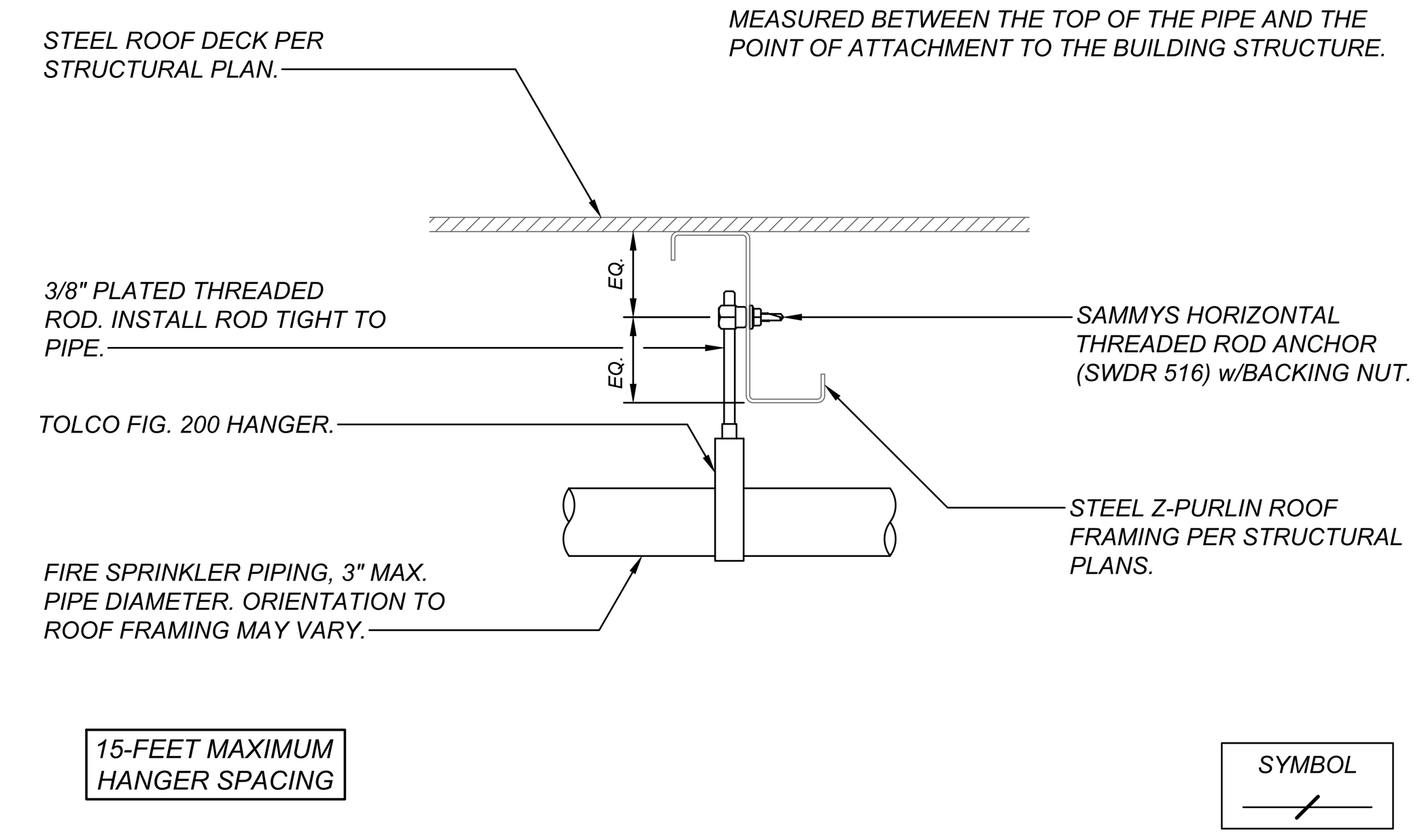


SWAY BRACE STRUCTURAL ATTACHMENT TO STEEL I-BEAM VIA DIRECT MACHINE BOLT

D / F5.1

SCALE: NONE

FSS006



INSTALLATION NOTES:

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.

PIPING HANGER SUPPORT AT STEEL Z-PURLIN ROOF FRAMING

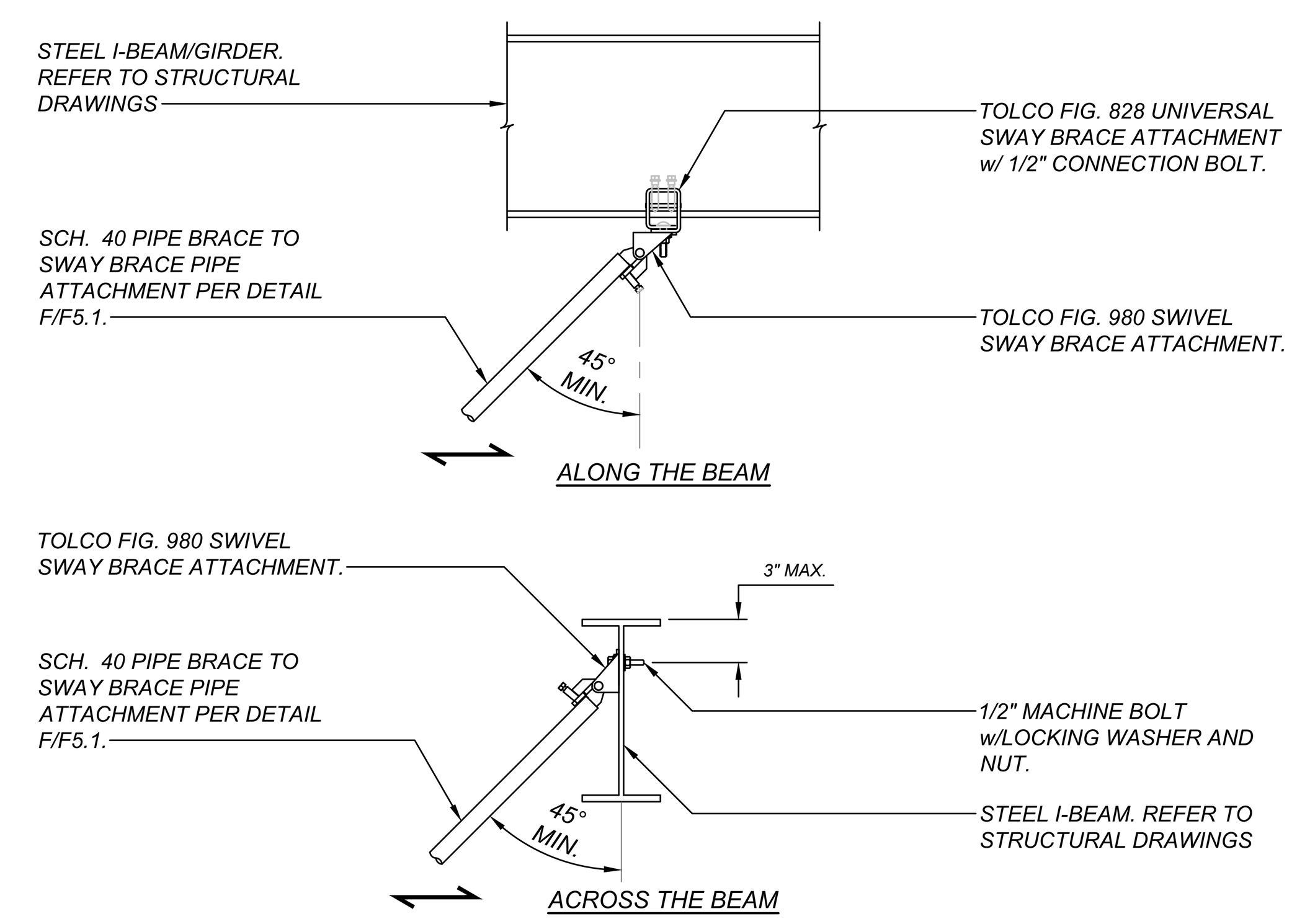
A / F5.1

SCALE: NONE

FSS101

HANGER AND SWAY BRACING INSTALLATION NOTES:

1. INSTALLATION OF ALL HANGERS AND SWAY BRACING SHALL BE INSTALLED IN ACCORDANCE TO NFPA 13 (2016).
2. ALL HARDWARE AND METAL COMPONENTS SHALL HAVE NON-CORROSIVE PLATING OR FINISH.
3. SWAY BRACE MAXIMUM SPACING SHALL NOT EXCEED THOSE VALUES LISTED IN THE SEISMIC CALCULATIONS.
4. SCH. 40 PIPE BRACING SHALL BE LIMITED TO THOSE LENGTHS LISTED IN NFPA 13, TABLE 9.3.5.11.8(b) WITH l/r=200.
   - 4.1. 1" DIA. SCH. 40 PIPE MAX. 7'-0" LENGTH.
   - 4.2. 1¼" DIA. SCH. 40 PIPE MAX. 9'-0" LENGTH.
   - 4.3. 1½" DIA. SCH. 40 PIPE MAX. 10'-4" LENGTH.
   - 4.4. 2" DIA. SCH. 40 PIPE MAX. 13'-1" LENGTH.
5. 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.
6. MAXIMUM BRANCH LINE RESTRAINT SHALL NOT EXCEED SPECIFIED DISTANCES INDICATED IN NFPA 13 (2016) TABLE 9.3.6.4(a).
7. 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.

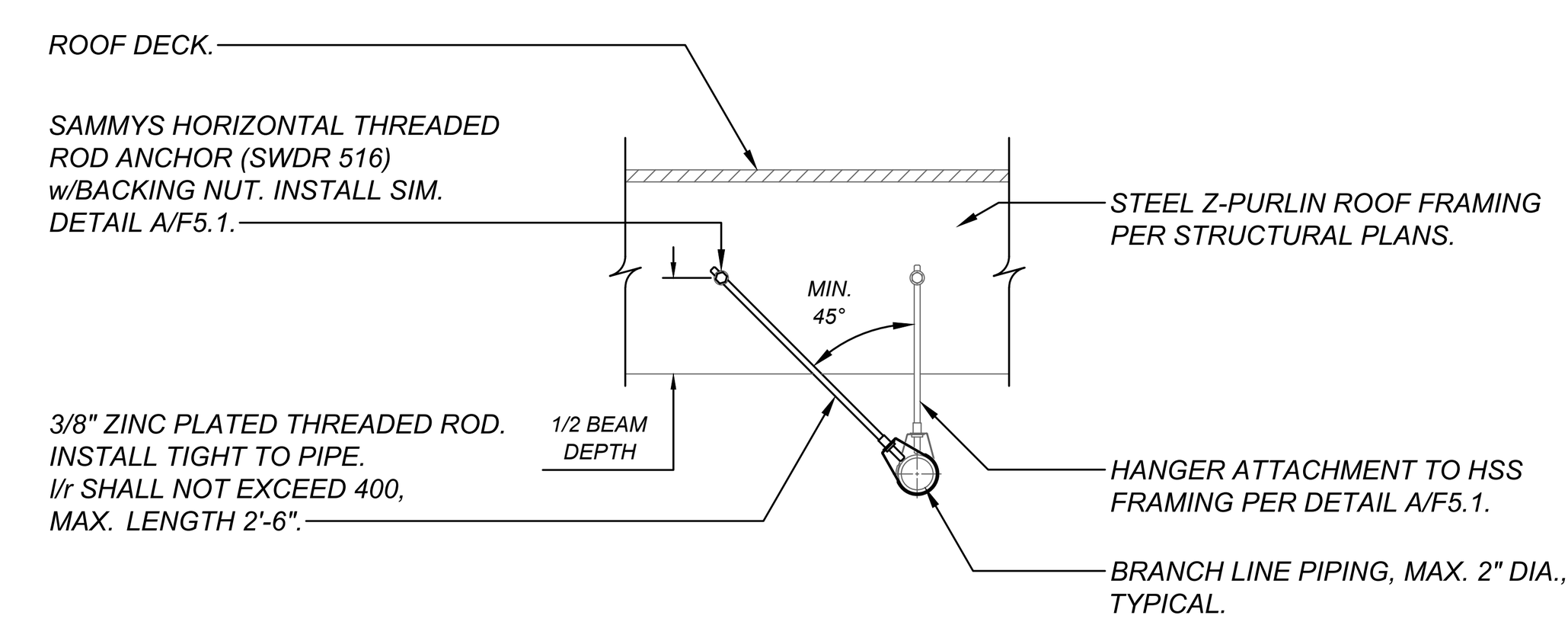


SWAY BRACE STRUCTURAL ATTACHMENT TO STEEL I-BEAM

E / F5.1

SCALE: NONE

FSS007



MAX. SPACING OF BRANCH LINE RESTRAINTS				
PIPE DIA. (INCHES)	SEISMIC COEFFICIENT - C_p			
	$C_p \leq 0.50$	$0.50 < C_p \leq 0.71$	$0.71 < C_p \leq 1.40$	$C_p \geq 1.40$
1	43-FT	36-FT	26-FT	22-FT
1¼	46-FT	39-FT	27-FT	24-FT
1½	49-FT	41-FT	29-FT	25-FT
2	53-FT	45-FT	31-FT	27-FT
NFPA 13 (2016) TABLE 9.3.6.4(a)				

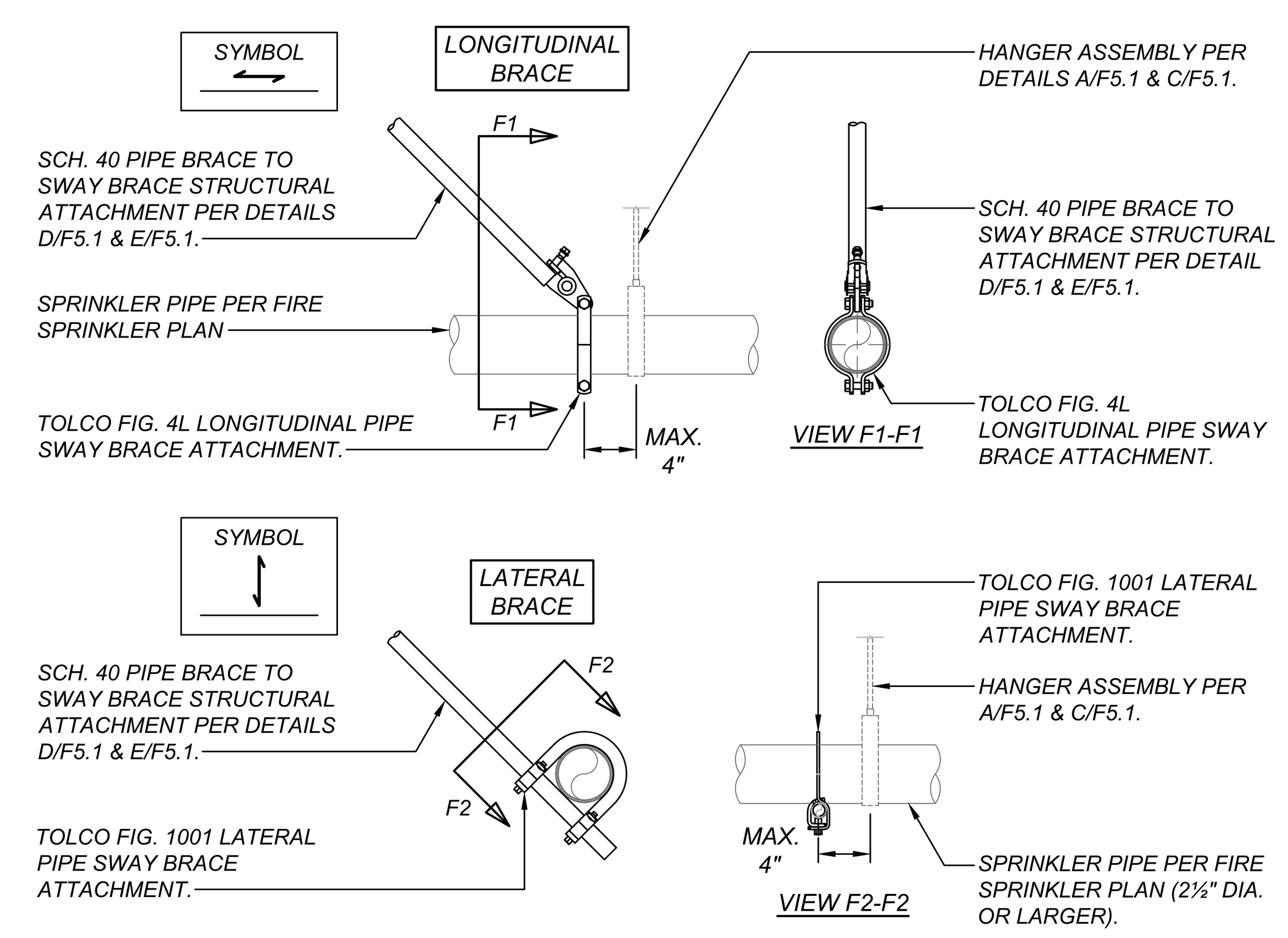
SYMBOL

BRANCH LINE RESTRAINT AT STEEL PURLIN

B / F5.1

SCALE: NONE

FSS102-11.19

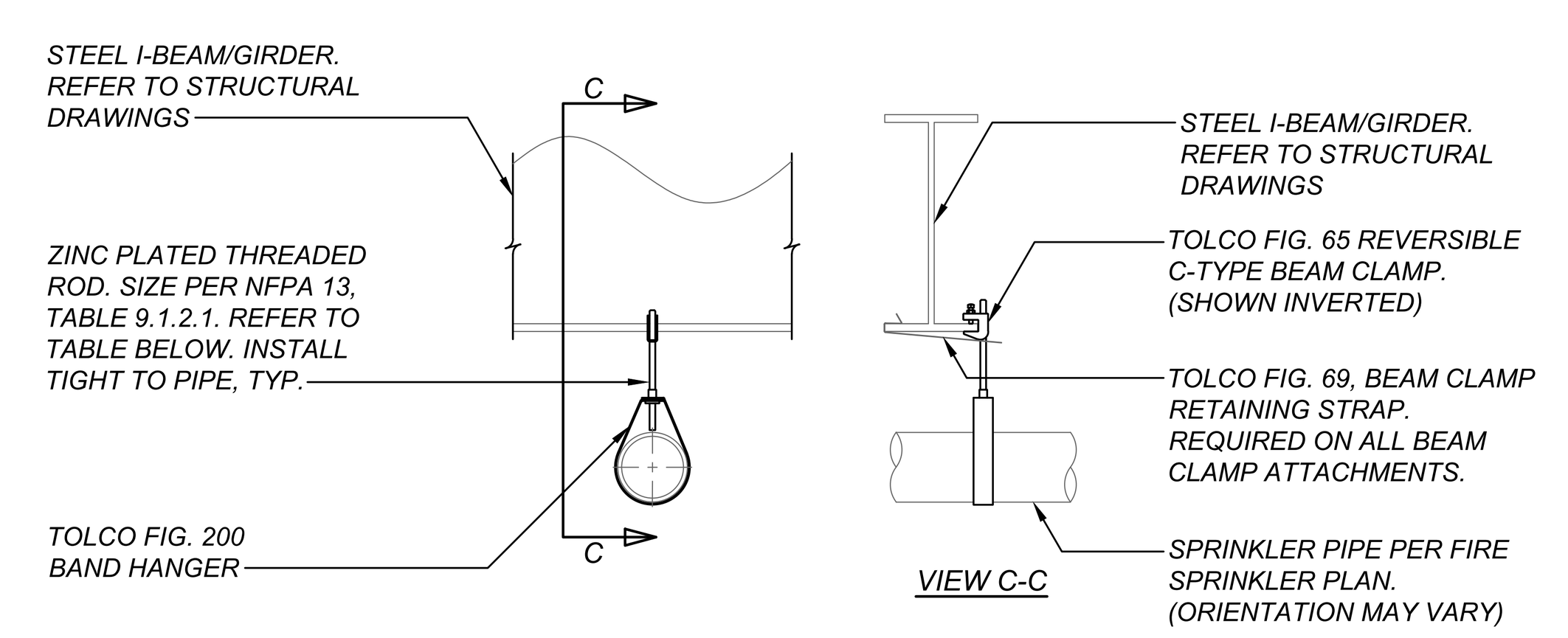


SWAY BRACE ATTACHMENT AT SPRINKLER MAIN PIPING

F / F5.1

SCALE: NONE

FSS008



HANGER ROD SIZES	
PIPE SIZE	DIA. OF ROD
≤ 4"	3/8"
5" - 8"	1/2"
NFPA 13 (2016) TABLE 9.1.2.1	

15-FEET MAXIMUM HANGER SPACING

SYMBOL

SPRINKLER PIPE HANGER SUPPORT AT STEEL I-BEAM

C / F5.1

SCALE: NONE

FSS101

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19280

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Sheet Content:

SUB-STATION
FIRE PROTECTION STEEL
STRUCTURAL DETAILS

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

Sheet No.

F5.1

A1 / F5.1 FIRE PROTECTION STEEL STRUCTURAL DETAILS
Scale:1/4" = 1'-0"

Drawn by: ---- Plot date: 05.14.2020

14 May 2020 3:39 PM P:\2019\19280 Fresno County Sheriff Area 2 Substation\4--Drawings\6 F\OFFICE\F5.1 -- Struct DETAILS.dwg benjamin

NOTES:

1. WALL ASSEMBLY - THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOMINAL 2"x4" LUMBER SPACED 16" OC. STEEL STUDS TO BE MIN. 2-1/2" WIDE AND SPACED MAX. 24" OC. WHEN STEEL STUDS ARE USED AND THE DIAMETER OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4"-6" WIDER AND 4"-6" HIGHER THAN THE DIAMETER OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2"-3" CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
   B. GYPSUM BOARD* - 5/8" THICK, 4' WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAMETER OF OPENING IS 32-1/4" FOR STEEL STUD WALLS. MAX. DIAMETER OF OPENING IS 14-1/2" FOR WOOD STUD WALLS. THE F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE FIRE RATING OF THE WALL ASSEMBLY.
2. THROUGH-PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN. 0" TO MAX 2-1/4" PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PIPE, CONDUIT OR TUBING MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45° FROM PERPENDICULAR. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE - NOMINAL 30"Ø (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE - NOMINAL 30"Ø (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT - NOMINAL 4"Ø (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. DIAMETER STEEL CONDUIT.
   D. COPPER TUBING - NOMINAL 6"Ø (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE - NOMINAL 6"Ø (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
3. FILL, VOID OR CAVITY MATERIAL HILTI FS-ONE SEALANT - MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND WALL, A MIN. 1/2"Ø BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE WALL INTERFACE ON BOTH SURFACES OF WALL.

PIPE CLEARANCE NOTES:

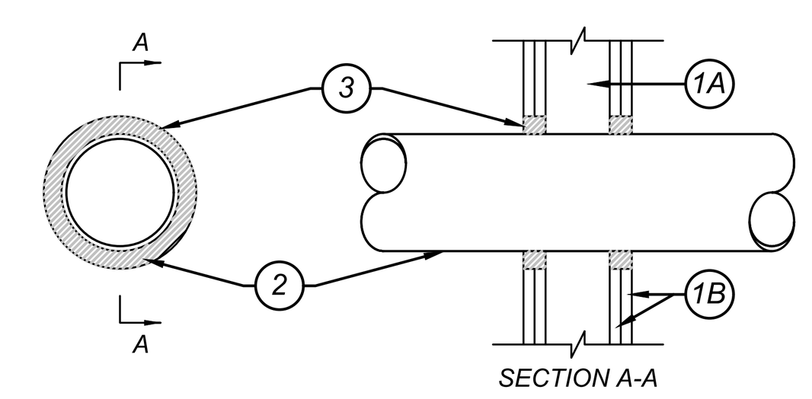
PER NFPA 13 (2016) 9.3.4.1 - CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS, AND FOUNDATIONS, INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS, AND OTHER AUXILIARY PIPING.

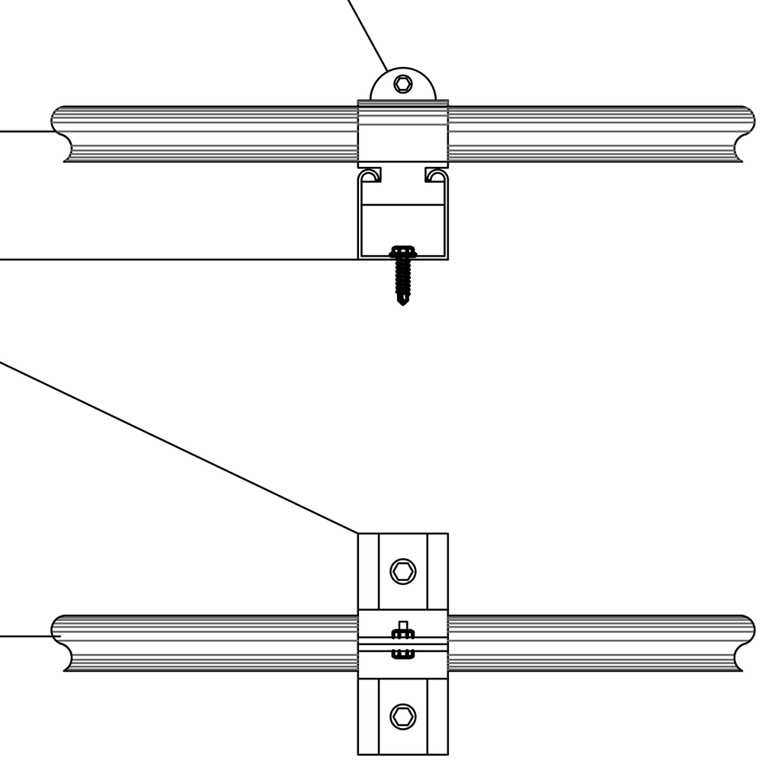
PER NFPA 13 (2016) 9.3.4.2 - WHERE PIPE PASSES THROUGH HOLES IN PLATFORMS, FOUNDATIONS, WALLS, OR FLOORS, THE HOLES SHALL BE SIZED SUCH THAT THE DIAMETER OF THE HOLES IS NOMINALLY 2" LARGER THAN THE PIPE FOR PIPE 1" NOMINAL TO 3-1⁄2" NOMINAL AND 4" LARGER THAN THE PIPE FOR PIPE 4" NOMINAL AND LARGER.

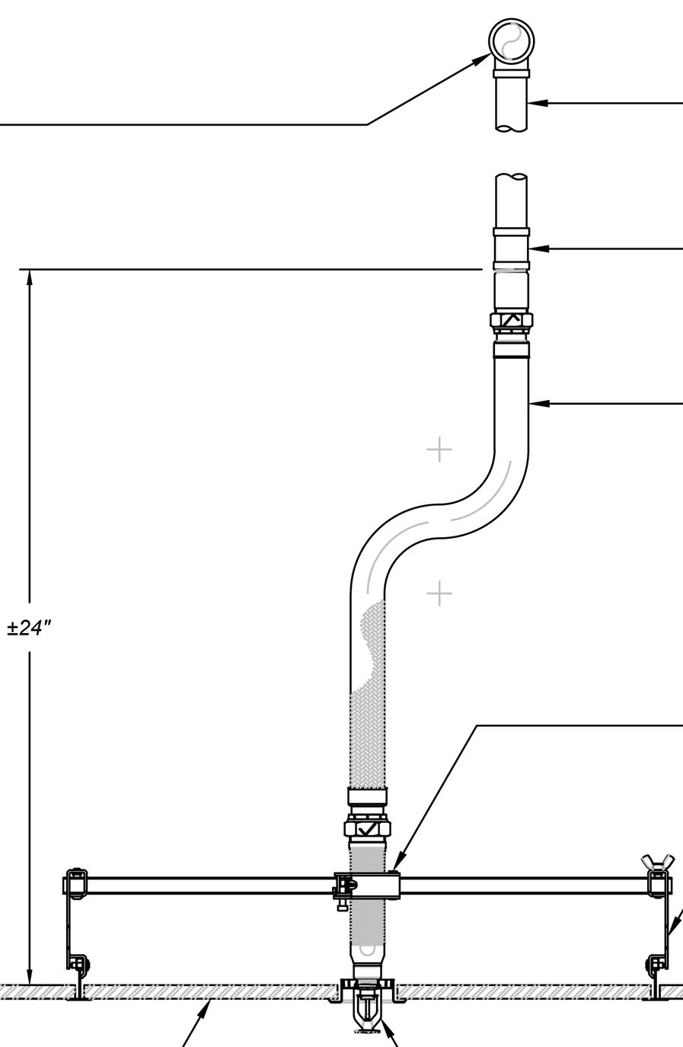
PER NFPA 13 (2016) 9.3.4.4 - NO CLEARANCE SHALL BE REQ'D FOR PIPING PASSING THROUGH GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQ'D TO HAVE A FIRE RESISTANCE RATING.

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







VICFLEX FLEXIBLE SPRINKLER DROP w/SEMI-RECESSED PENDENT SPRINKLER

SCALE: NONE   FSSXXX   C / F6.1

VICTAULIC VICFLEX - FRICTION LOSS DATA (UL)									
LENGTH IN INCHES	OUTLET SIZE	1 - 90° BEND	2 - 90° BEND	3 - 90° BEND	4 - 90° BEND	5 - 90° BEND	6 - 90° BEND	7 - 90° BEND	8 - 90° BEND
31"	1/2"	8.5'	11.0'	13.0'	16.0'	N/A	N/A	N/A	N/A
	3/4"	10.0'	12.5'	14.0'	17.0'	N/A	N/A	N/A	N/A
36"	1/2"	13.5'	16.0'	18.0'	19.0'	21.0'	N/A	N/A	N/A
	3/4"	14.0'	17.0'	19.5'	20.0'	23.0'	N/A	N/A	N/A
48"	1/2"	15.5'	17.0'	19.5'	20.0'	21.0'	22.0'	28.0'	32.0'
	3/4"	17.0'	19.0'	21.5'	24.5'	26.0'	27.0'	30.0'	37.0'
60"	1/2"	21.5'	24.0'	27.0'	28.5'	30.0'	31.0'	37.0'	42.0'
	3/4"	23.0'	24.0'	28.0'	29.5'	30.5'	31.0'	38.0'	42.0'
72"	1/2"	30.0'	32.0'	36.5'	37.5'	40.5'	41.0'	42.0'	46.0'
	3/4"	32.0'	32.5'	35.0'	35.5'	40.0'	40.5'	41.0'	46.0'

INSTALLATION NOTES:

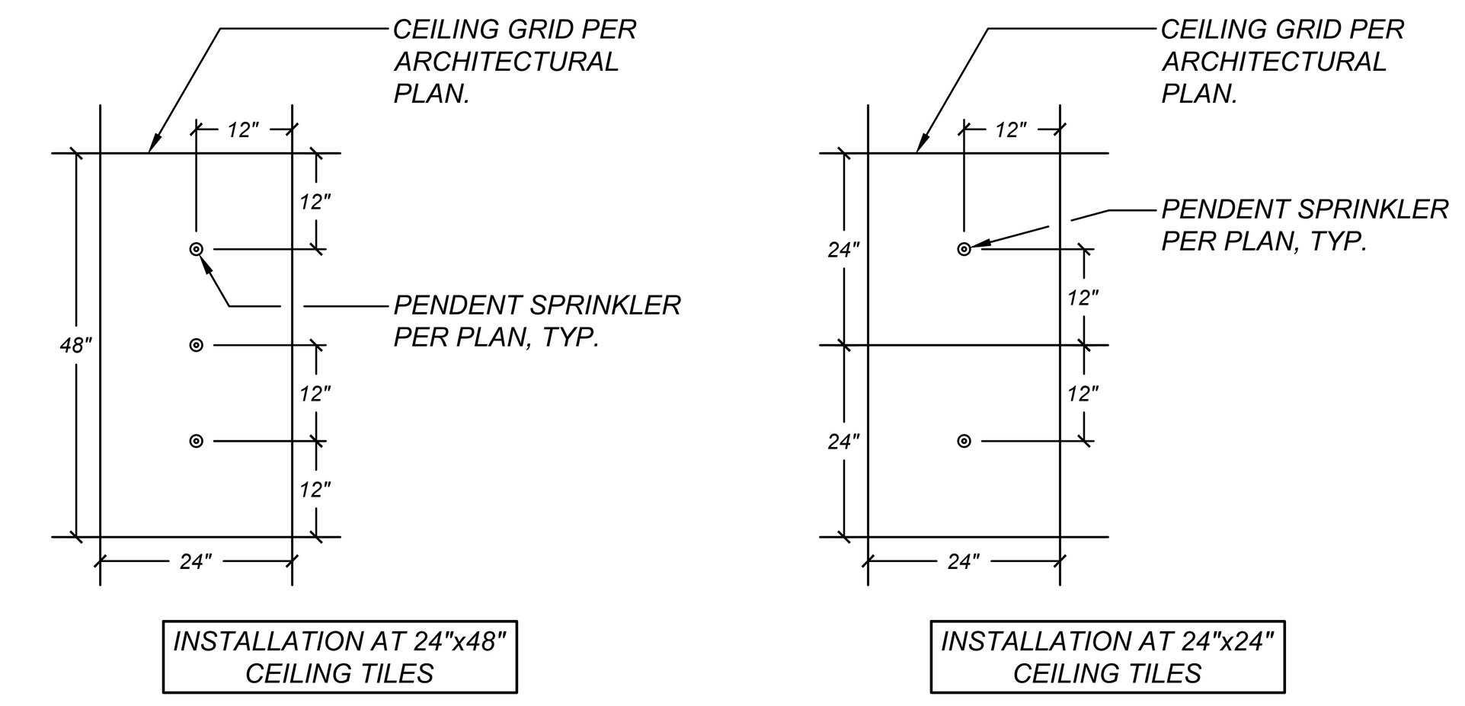
A. ALL VICTAULIC VICFLEX FLEXIBLE SPRINKLER HOSE FITTINGS AND ANCHORING COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER GUIDELINES.
B. PER NFPA 13 (2016) §9.2.1.3.3.3, THE MAXIMUM UNSUPPORTED LENGTH FOR FLEXIBLE HOSE SPRINKLER FITTINGS SHALL NOT EXCEED 6-FEET.
C. PER NFPA 13 (2016) §9.2.1.3.3.4, WHERE FLEXIBLE SPRINKLER HOSE FITTINGS ARE USED TO CONNECT SPRINKLERS TO BRANCH LINES IN SUSPENDED CEILINGS, A LABEL LIMITING RELOCATION OF THE SPRINKLER SHALL BE PROVIDED ON THE ANCHORING COMPONENT.

VICFLEX FLEXIBLE SPRINKLER DROP FRICTION LOSS DATA AND INSTALLATION NOTES

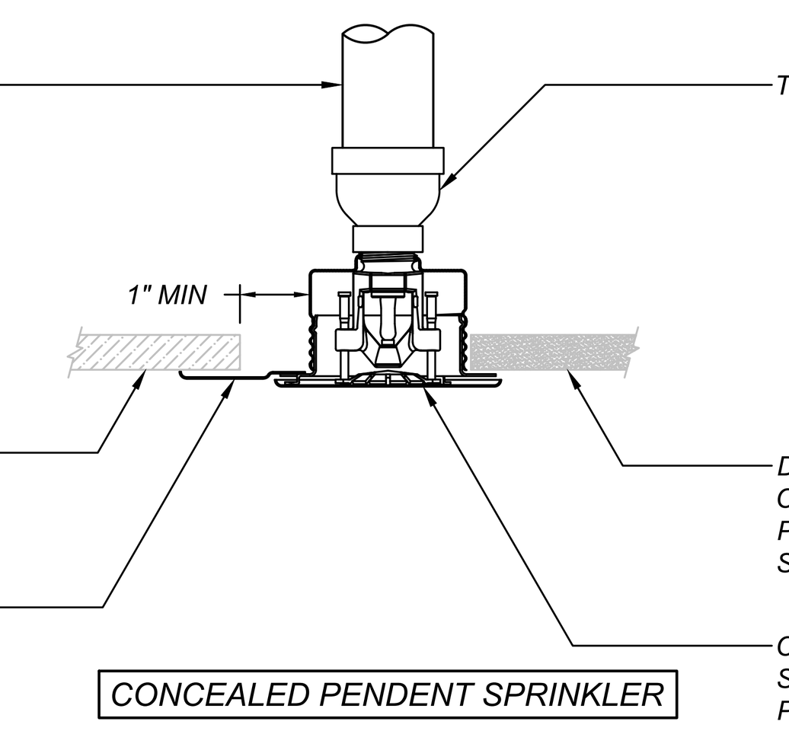
SCALE: NONE   FSSXXX   D / F6.1

INSTALLATION NOTES:

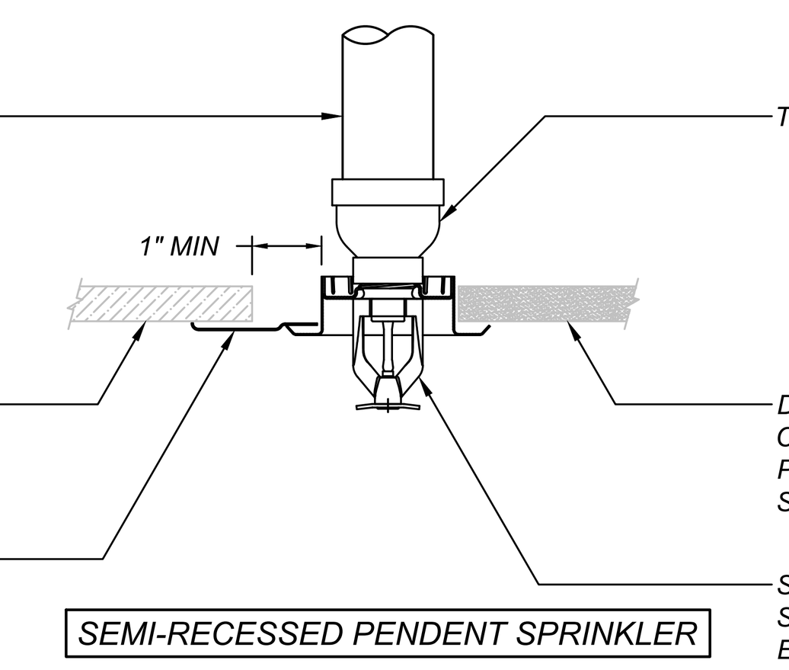
A. PENDENT SPRINKLER HEADS INSTALLED WITHIN SUSPENDED CEILING TILES SHALL BE POSITIONED "CENTER OF TILE" AS INDICATED PER PROJECT SPECIFICATIONS. HOWEVER, SPRINKLER SPACING SHALL NOT EXCEED THE MAXIMUM SPRINKLER SPACING PER NFPA 13 (2016) §8.6.3.1, §8.6.3.2, §8.6.3.2.4.1 §8.8.3.1, §8.8.3.2 AND FIRE SPRINKLER MANUFACTURER LISTINGS.
B. PENDENT SPRINKLER HEADS INSTALLED IN DRY-WALL CEILINGS SHALL BE POSITIONED PER PLAN, ALIGNED WITH LIGHTING, AUDIO, AND OTHER CEILING FEATURES. HOWEVER, SPRINKLER SPACING SHALL NOT EXCEED MAXIMUM NFPA 13 REQUIREMENTS AND FIRE SPRINKLER MANUFACTURER LISTINGS.



INSTALLATION AT 24"x48" CEILING TILES   INSTALLATION AT 24"x24" CEILING TILES

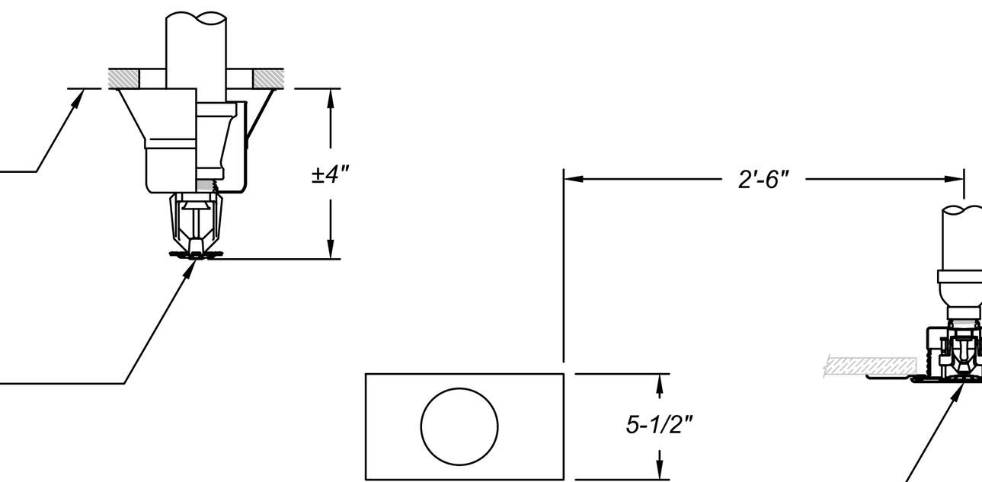


CONCEALED PENDENT SPRINKLER



SEMI-RECESSED PENDENT SPRINKLER

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"	5-1/2"
COORDINATE ALL CONCEALED PENDENT SPRINKLERS W/ CURRENT LIGHT LAYOUT AND TYPES. AN AREAS W/ SURFACE MOUNTED LIGHT FIXTURES, UTILIZE OBSTRUCTION SPACING PER NFPA 13 (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.	

REGISTERED PROFESSIONAL ENGINEER MICHAEL D. CANTELMI M23588 REN. 9-30-2021 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
7084 N. Maple Ave., Suite 101 Fresno, CA 93720
(559) 431-0101 19280 FAX (559) 431-1362

LICENSED ARCHITECT NOEL ROGER DAVIDSON C-27818 REN: 10-31-19 STATE OF CALIFORNIA

ARCHITECT:
Noel 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
1129 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:

SUB-STATION
FIRE PROTECTION
INSTALLATION DETAILS

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

F6.1

A1 / F6.1 FIRE PROTECTION INSTALLATION DETAILS
Scale: NONE

Drawn by: ----   Plot date: 05.14.2020

AS-GRADE PLANS, FINAL SOILS REPORT (IF APPLICABLE) AND COMPACTION REPORTS ARE REQUIRED TO BE SUBMITTED AND APPROVED PRIOR TO RECEIVING A "FINAL". "AS-GRADE" REVIEW TIME WILL TAKE APPROXIMATELY ONE WEEK. YOU MAY REQUEST OVERTIME PLAN REVIEW FOR AN ADDITIONAL FEE. A "SAFE-TO-OCCUPY" CAN BE GRANTED BUT WILL REQUIRE A **$15,000.00** CASH DEPOSIT. THE DEPOSIT WILL BE FULLY REFUNDED ONCE THE "AS-GRADE" HAS BEEN APPROVED AND ALL OTHER HOLDS HAVE BEEN CLEARED FOR THE ENTIRE PROJECT. DEPOSITS ARE TYPICALLY REFUNDED FROM THE FINANCE DEPARTMENT IN THE FORM OF A CHECK APPROXIMATELY 1 WEEK AFTER THE REFUND IS REQUESTED. THERE WILL BE A ONE-TIME $60.00 HANDLING FEE FOR THE "SAFE-TO-OCCUPY" TRANSACTION SHOULD IT BE REQUESTED.

PAVEMENT SECTION:

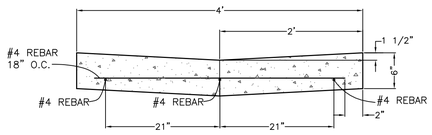
HEAVY TRUCK SECTION
* * **
3" AC/ 6.5" AB/ 8" ASB/ 6" C.N.S.

ALL OTHER AREAS
* **
2" AC/ 8" AB/ 6" C.N.S.

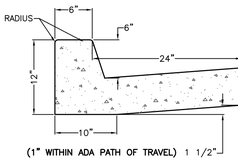
* INDICATES 95% RELATIVE COMPACTION
** INDICATES 90% RELATIVE COMPACTION

NOTES:

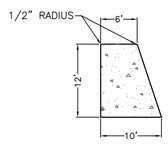
1. ALL GRADING SHALL COMPLY WITH APPENDIX J OF THE 2016 CALIFORNIA BUILDING CODE AND THE PROJECT GEOTECHNICAL REPORTS, WHICHEVER IS MORE STRINGENT.
2. COMPACTION REPORTS PREPARED BY AN APPROVED TESTING AGENCY SHALL BE PROVIDED FOR ALL LOOSE FILLS.
3. PROVIDE TWO PERCENT DRAINAGE AWAY FROM BUILDING PAD FOR TEN FEET MINIMUM.
4. NO DRAINAGE IS TO BE ONTO ADJACENT PROPERTY.
5. THIS DRAINAGE PLAN SHALL NOT HAVE AN ADVERSE EFFECT ON ADJACENT PROPERTY.
6. ANY CHANGES TO THESE PLANS MUST BE APPROVED BY THE DEVELOPMENT DEPARTMENT..
7. PROVIDE THE CITY WITH "AS GRADED" PLANS. PLANS ARE REQUIRED PRIOR TO THE ISSUANCE OF THE BUILDING FINAL.
8. ANY VERTICAL CUT OR FILL DIFFERENTIAL EQUAL TO OR GREATER THAN 12" BETWEEN ADJACENT PROPERTIES SHALL BE SUPPORTED BY AN APPROVED RETAINING WALL. DIFFERENTIALS LESS THAN 12" TO HAVE A MAXIMUM SLOPE OR 1 VERTICAL TO 2 HORIZONTAL.
9. ALL SIDE AND REAR LOT DRAINAGE SWALES ARE TO BE COMPLETED PRIOR TO BUILDING FINAL.
10. ALL FILLS USED TO SUPPORT THE FOUNDATIONS OF ANY BUILDING OR STRUCTURE SHALL BE PLACED UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER, AND THE PLACEMENT OF FILL SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER OR HIS QUALIFIED REPRESENTATIVE. A SOIL INVESTIGATION REPORT AND A REPORT OF SATISFACTORY PLACEMENT OF FILL, BOTH ACCEPTABLE TO THE BUILDING OFFICIAL SHALL BE SUBMITTED (2016 CALIFORNIA BUILDING CODE)
11. THE OVERALL BUILDING SITE SHALL HAVE A MINIMUM SLOPE OF 1.0% IN ALL AREAS TO AN APPROVED DRAINAGE FACILITY OR A PUBLIC STREET.
12. ALL REQUIRED WALLS AND RETAINING WALLS REQUIRE SEPARATE BUILDING PERMITS IN ADDITION TO THE GRADING PERMIT.
13. PERMITS FOR ALL REQUIRED WALLS SHALL BE OBTAINED PRIOR TO APPROVAL OF THE AS-GRADED PLANS. PERMITS FOR RETAINING WALLS SHALL BE OBTAINED WITHIN 30 DAYS OF GRADING PERMIT ISSUANCE.
14. NO PERMANENT ON-SITE WATER RETENTION IS ALLOWED.
15. ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT OF THE MAXIMUM DRY DENSITY OF THE SOIL ACCORDING TO ASTM STANDARD D1557.
16. THIS GRADING PLAN IS FOR APPROVAL OF ON-SITE ELEVATIONS ONLY. THE ELEVATIONS SHOWN WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRE SEPARATE PUBLIC WORKS DEPARTMENT APPROVAL & PERMIT. ANY NOTES THAT APPLY TO THE PUBLIC RIGHT-OF-WAY ARE FOR REFERENCE ONLY. IF ON-SITE ELEVATIONS SHOWN DO NOT COINCIDE WITH APPROVED STREET PLANS, AN APPROVED AMENDMENT IS REQUIRED.
17. THE CONTRACTOR SHALL MAKE PROVISIONS FOR DUST AND EROSION CONTROL 24 HOURS A DAY, 7 DAYS A WEEK UNTIL PROJECT IS FINAL.
18. ANY PERSON, CONTRACTOR, OR SUBCONTRACTOR PLANNING TO CONDUCT ANY EXCAVATION SHALL CONTACT USA NORTH AT 811 AT LEAST TWO (2) WORKING DAYS, BUT NO MORE THAN 14 CALENDAR DAY, PRIOR TO COMMENCING EXCAVATION.
19. RECOMMENDATIONS AS OUTLINED IN THE PRELIMINARY SOILS REPORT BY TECHNICON, REPORT NO. 150348.001, DATED JUNE 9, 2015 SHALL BECOME REQUIREMENTS FOR THIS DEVELOPMENT..



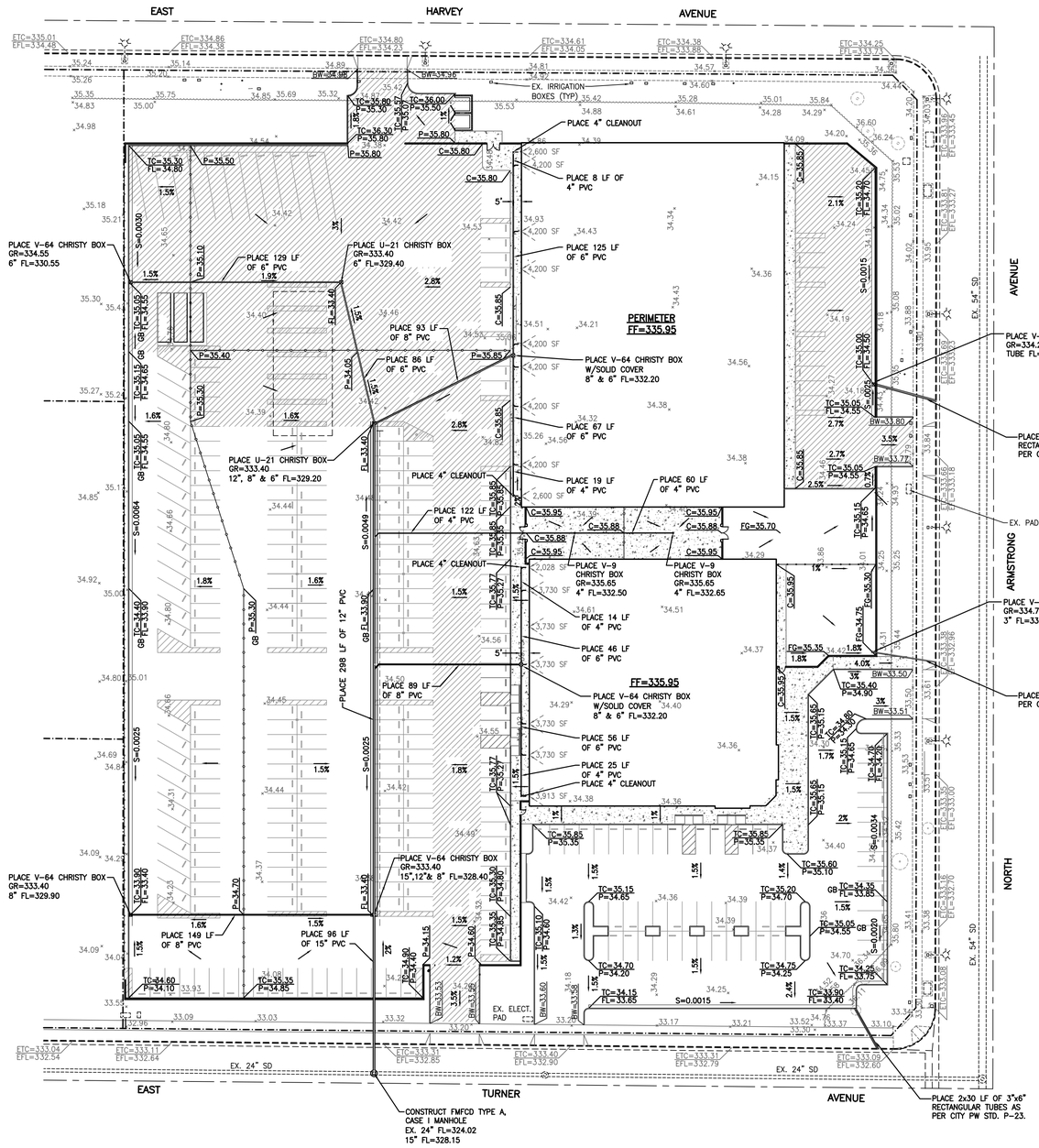
VALLEY GUTTER DETAIL



CURB AND GUTTER DETAIL



CURB DETAIL



SCALE: 1" = 40'

BENCHMARK:

COUNTY BM KL 11 – BRASS CAP, SOUTH SIDE OF BELMONT, 110' WEST OF ARMSTRONG, 3' EAST OF TELEPHONE POLE.

ELEVATION = 334.011 U.S.G.S. DATUM

NOTE: ADD 300 TO ALL 4-DIGIT ELEVATIONS FOR U.S.G.S. DATUM

LEGEND:

C	PROPOSED CONCRETE ELEVATION
60.40	EXISTING GROUND ELEVATION
ETC	EXISTING TOP OF CURB ELEVATION
EFL	EXISTING GUTTER FLOW ELEVATION
FG	PROPOSED FINISH GRADE ELEVATION
FL	PROPOSED FLOWLINE ELEVATION
GB	GRADE BREAK
P	PROPOSED PAVEMENT ELEVATION
S	SLOPE
TC	PROPOSED TOP OF CURB ELEVATION
	EXISTING PROPERTY LINE
	EXISTING CURB & GUTTER TO REMAIN
	PROPOSED 6" CURB
	PROPOSED CURB & GUTTER
	PROPOSED PAVEMENT RIDGE LINE
	HEAVY TRUCK SECTION AREA

GRADING PLAN

1129 NORTH ARMSTRONG AVENUE

APN 310-133-04, 05 & 06

ENGINEER:

BRET GIANNETTA R.C.E. 56567 DATE

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT:

DATE

F.M.F.C.D. APPROVAL IS LIMITED TO:
1. ONSITE DRAINAGE AREA BOUNDARIES
2. LOCATION OF DRAINAGE ENTRY INTO PUBLIC STREETS

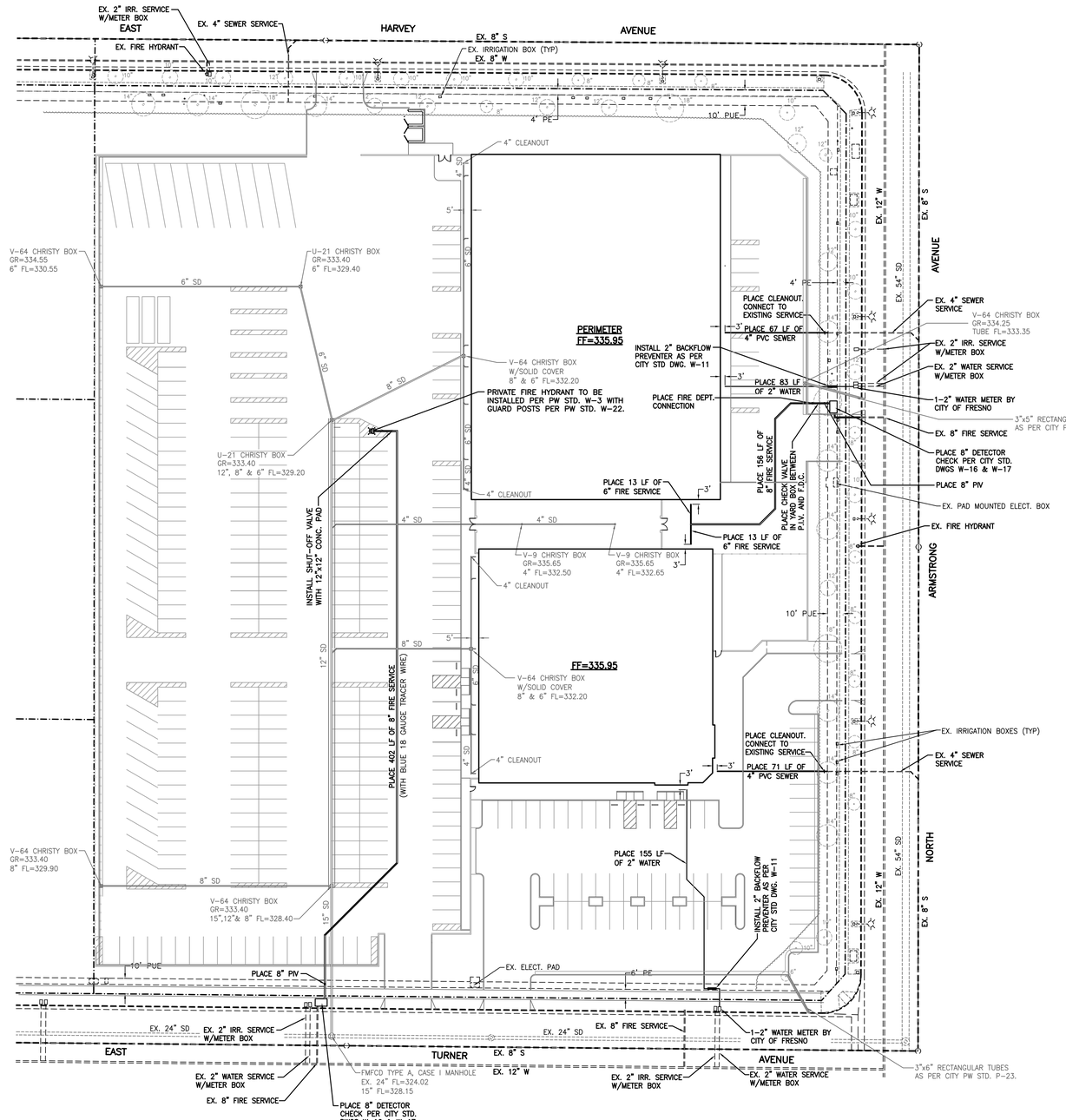
QUANTITIES (FOR PERMIT PURPOSES ONLY)

EXCAVATION = 1,000 C.Y.
EMBANKMENT = 5,500 C.Y.

PLAN CHECK NO. B20-

GARY G. GIANNETTA
CIVIL ENGINEERING & LAND SURVEYING
1119 "S" STREET
FRESNO, CA 93721
(559) 264-3590

SHEET C1.1 DATE: 5/29/20



SCALE: 1" = 40'

NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE AND CALIFORNIA PLUMBING CODE.
2. CONTRACTOR SHALL PULL ALL PERMITS REQUIRED BY THE CITY OF FRESNO.
3. SEWER PIPE SHALL BE SDR 135 UNLESS OTHERWISE NOTED.
4. WATER PIPE SHALL BE ;
   SMALLER THAN 4" – PVC SCHEDULE 40
   LARGER THAN 4" – PVC C-900
   4" – PVC SCHEDULE 80 OR PVC C-900
5. ALL ONSITE WATER 4" AND LARGER IN DIAMETER SHALL BE CHLORINATED AND TESTED BY AN APPROVED AGENCY AND THE RESULTS SUBMITTED TO THE CITY OF FRESNO DEVELOPMENT PLUMBING SECTION (AWWA C-601)
6. THE CONTRACTOR SHALL UNCOVER ALL EXISTING UTILITIES BEING CONNECTED INTO TO VERIFY THEIR LOCATION PRIOR TO THE CONSTRUCTION OF NEW UTILITIES. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES, SUCH AS BUT NOT LIMITED TO SEWER, GAS, TELEPHONE, ELECTRICAL, AND STRUCTURES, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
7. THRUST BLOCKS SHALL BE USED FOR RUBBER GASKET JOINT WATER
8. SLOPES OF ON-SITE SEWER MAINS (6" AND SMALLER) SHALL BE NOT LESS THAN 1/4 INCH PER FOOT TOWARD THE POINT OF DISPOSAL.
9. A STREET WORK PERMIT IS REQUIRED TO INSTALL DETECTOR CHECKS IN THE PUBLIC RIGHT OF WAY. CONTACT PUBLIC WORKS, 4TH FLOOR, CITY HALL , 2600 FRESNO STREET.
10. PRESSURE TESTING OF FIRE SERVICE UNDERGROUND PIPING SHALL BE DONE AGAINST A BLANK TEST FLANGE AS REQUIRED BY THE CITY OF FRESNO WATER DIVISION.
11. FIRE HYDRANTS SHALL BE INSTALLED PER PUBLIC WORKS STANDARD W-3.
12. MULTIPLE RP DEVICES SERVING A SITE SHALL HAVE PERMANENT METAL TAGS WITH AN ADDRESS FOR EACH BUILDING SERVED.
13. THE RP DEVICES SHALL BE TESTED AND APPROVED BY A CERTIFIED AWWA OR ABPA TESTER WITHIN FIVE DAYS OF INSTALLATION. THIS PROPERTY WILL NOT BE GIVEN OCCUPANCY UNTIL THE LEAD-FREE RP DEVICES ARE TESTED AND DOCUMENTED WITH THE CITY OF FRESNO WATER DIVISION. A LIST OF CERTIFIED TESTERS CAN BE OBTAINED BY CALLING 559-621-5335. TEST RESULTS CAN BE SUBMITTED TO THE CITY OF FRESNO'S WEB SITE AT:
    www.fresno.gov/Government/DepartmentDirectory/PublicUtilities/Watermanagement/Conservation/backflow
    OR BY FAX AT 559-498-1533.
14. THE ABOVE GROUND TRANSITION TO THE FIRE SPRINKLER FLANGE SHALL BE DUCTILE IRON OR UL/FM LISTED TRANSITION PIECE AND SHALL BE INSTALLED BY THE C-16 FIRE SPRINKLER CONTRACTOR.
15. ALL BURIED FIRE SERVICES SHALL BE INSTALLED PER NFPA 13, 2019 EDITION, WITH 36" MINIMUM COVER TO THE TOP OF THE PIPE.
16. ALL TESTING AGAINST THE DETECTOR CHECK IS PROHIBITED. PROVIDE BLIND FLANGES OR TEMPORARY CAPS FOR TESTING PURPOSES.
17. ALL BURIED SERVICES SHALL BE TESTED AT 200 PSI FOR TWO HOURS.
    ALL BURIED FIRE SERVICE PIPING SHALL BE SCH 80 PVC FOR LESS THAN 4" DIAMETER AND C900 DR18 FOR 4" TO 12" DIAMETER PIPES.
18. A STREET WORK PERMIT IS REQUIRED FOR THE INSTALLATION OF THE DETECTOR CHECK, WHENEVER IT IS LOCATED WITHIN THE PUBLIC RIGHT OF WAY.

BENCHMARK:

COUNTY BM KL 11 – BRASS CAP, SOUTH SIDE OF BELMONT, 110' WEST OF ARMSTRONG, 3' EAST OF TELEPHONE POLE.

ELEVATION = 334.011 U.S.G.S. DATUM

NOTE: ADD 300 TO ALL 4-DIGIT ELEVATIONS FOR U.S.G.S. DATUM

LEGEND:

EFL	EXISTING PIPE FLOW ELEVATION
EX. FH	EXISTING FIRE HYDRANT
FL	PROPOSED PIPE FLOW ELEVATION
FS	FIRE SERVICE
S	SLOPE
EX. 12" W	EXISTING WATER LINE
	PROPOSED WATER LINE
EX. 8" S	EXISTING SEWER LINE
	PROPOSED SEWER LINE
	PROPERTY LINE
	PROPOSED STORM DRAIN (SEE GRADING PLAN)

UTILITY PLAN

1129 NORTH ARMSTRONG AVENUE

APN 313-130-04, 05 & 06

ENGINEER:

BRET GIANNETTA R.C.E. 56567 DATE

GARY G. GIANNETTA
CIVIL ENGINEERING & LAND SURVEYING
1119 "S" STREET
FRESNO, CA 93721
(559) 264-3590

PLAN CHECK NO. 20-

SHEET C1.2 DATE: 5/30/20

EXISTING PLANT SCHEDULE

EXISTING TREE CEDRUS DEODARA / DEODAR CEDAR PISTACIA CHINENSIS / CHINESE PISTACHE PLATANUS X ACERIFOLIA / LONDON PLANE TREE	45
EXISTING TURF –	17,557 SF
EXISTING SHRUBS LIGUSTRUM JAPONICUM / JAPANESE PRIVET	3,379 SF

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT	WATER USE	QTY
	ARBUTUS X 'MARINA' ARBUTUS STANDARD	15 GAL	L	29
	PISTACIA CHINENSIS CHINESE PISTACHE	15 GAL	L	16
	PLATANUS X ACERIFOLIA LONDON PLANE TREE	15 GAL	M	1
	QUERCUS ILEX HOLLY OAK	15 GAL	L	30
	QUERCUS LOBATA VALLEY OAK	15 GAL	L	1
SHRUBS	**BOTANICAL / COMMON NAME**	**SIZE**	**WATER USE**	**QTY**
	COTONEASTER DAMMERI 'LOWFAST' LOWFAST BEARBERRY COTONEASTER	1 GAL	L	212
	LIGUSTRUM JAPONICUM JAPANESE PRIVET	5 GAL	L	40
	MUHLENBERGIA RIGENS DEER GRASS	1 GAL	L	276
	OLEA EUROPAEA 'LITTLE OLLIE' TM LITTLE OLLIE OLIVE	5 GAL	L	165
	SANTOLINA CHAMAECYPARISSUS 'COMPACTA' LAVENDER COTTON	1 GAL	L	42

REFERENCE NOTES SCHEDULE

SYMBOL	BENDER BOARD DESCRIPTION	QTY	
BB-101	ROCK MULCH EDGE COMPOSITE WOOD BORDER 2" X 4" BROWN	186 LF	
SYMBOL	**CONCRETE DESCRIPTION**	**QTY**	**CONC. THICKNESS**
P-101	6" CONCRETE MOW STRIP NATURAL, BROOM FINISH	147 LF	6"
SYMBOL	**ROOT BARRIER DESCRIPTION**	**QTY**	
RB-101	LINEAR ROOT BARRIER, TYP. 24" X 10' LONG, CENTERED ON TREE TRUNK WHEN TREE IS WITHIN 5' OF ANY HARDSCAPE.	720 LF	
SYMBOL	**ROCK DESCRIPTION**	**QTY**	**SIZE:**
	GRAVEL. 3/4 INCH CALIFORNIA GOLD. 3" DEPTH	10.98 CY	3/4"
SYMBOL	**MULCH DESCRIPTION**	**QTY**	
	MULCH-WALK ON BARK. 3" DEPTH	187.87 CY	

GENERAL NOTES

1. EXISTING UTILITIES – INFORMATION ON THE DRAWINGS RELATING TO EXISTING UTILITY LINES AND SERVICES IS FROM THE BEST SOURCES AVAILABLE. ALL SUCH INFORMATION IS FURNISHED FOR INFORMATION ONLY AND IS NOT GUARANTEED.
   A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR AN COST INCURRED DUE TO DAMAGE OF SAID UTILITIES.
   B. CALL UTILITY LOCATING SERVICE FOR PRECISE UTILITY LOCATIONS BEFORE BEGINNING ANY WORK. UNDERGROUND SERVICE ALERT. (800) 227-2600.
2. EXISTING CONDITIONS:
   A. PROTECTION OF EXISTING TREES: CONSTRUCT FOUR (4) FOOT HIGH ORANGE CONSTRUCTION FENCE OR OTHER APPROVED PROTECTIVE FENCING AROUND THE TREE. CONTACT THE OWNER/OWNER'S REPRESENTATIVE FOR LOCATION OF THE FENCE IF NOT SHOWN ON THE PLAN. DO NOT ENTER, OR PLACE OBJECTS WITHIN THE FENCED AREA. PLACE A THREE (3) INCH LAYER OF WOOD MULCH WITHIN THE FENCED AREA BUT KEEP MULCH OFF OF TRUNK. CONTRACTOR SHALL MAINTAIN FENCED AREA CLEAR OF OBJECTS AT ALL TIMES.
   B. WHEN IT IS NECESSARY TO EXCAVATE OR TRENCH ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATION IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ALL ROOTS TWO (2) INCH AND LARGER IN DIAMETER EXCEPT DIRECTLY IN THE PATH OF PIPE OR CONDUIT, SHALL BE TUNNELED UNDER AND SHALL BE HEAVILY WRAPPED WITH BURLAP TO PREVENT SCARRING OR EXCESSIVE DRYING. WHERE A TRENCHING MACHINE IS RUN CLOSEST TO TREES HAVING ROOTS SMALLER THAN TWO (2) INCHES IN DIAMETER, THE WALL OF THE TRENCH ADJACENT TO THE TREE SHALL BE HAND TRIMMED, MAKING CLEAN CUTS THROUGH. ROOTS ONE (1) AND LARGER IN DIAMETER SHALL BE PAINTED WITH TWO COATS OF TREE SEAL, OR EQUAL. TRENCHES ADJACENT TO TREE SHALL BE CLOSED WITHIN TWENTY-FOUR (24) HOURS, AND WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.
   C. PRIOR TO BID, CONTRACTOR SHALL VERIFY EXISTING IRRIGATION CONTROLLER, WATER METER AND BACKFLOW PREVENTER LOCATIONS. CONTRACTOR SHALL VERIFY EXISTING IRRIGATION STATIONS AT ADJACENT WORK AREA AND DETERMINE VALVES CONTROLLING HEADS INDICATED FOR CONNECTION TO EXISTING SYSTEM. CONTRACTOR SHALL VERIFY VALVE SIZE AND EXISTING GPM FLOW PRIOR TO ADDING NEW HEADS. ALSO, SPACING AND COVERAGE SHALL BE VERIFIED AND NECESSARY PROVISION IN BID MADE FOR REQUIRED ADJUSTMENTS AND MODIFICATIONS TO ACHIEVE PROPER COVERAGE.
3. CONTRACTOR SHALL FURNISH A LIST AND CUT SHEETS OF THE MATERIALS PROPOSED FOR THE PROJECT TO THE OWNER/OWNER'S REPRESENTATIVE FOR APPROVAL. CONSTRUCTION SHALL NOT BEGIN UNTIL MATERIALS ARE APPROVED.
4. INSPECTION SCHEDULE
   A. THE FOLLOWING INSPECTIONS SHALL BE PERFORMED BY THE OWNER/OWNER'S REPRESENTATIVE DURING CONSTRUCTION. OWNER/OWNER'S REPRESENTATIVE SHALL CONTACT LANDSCAPE ARCHITECT FOR INSPECTION REQUIREMENTS, IF INSPECTIONS REQUIRE THE PRESENCE OF THE LANDSCAPE ARCHITECT, LANDSCAPE ARCHITECT MUST BE NOTIFIED A MINIMUM OF 4 DAYS PRIOR TO SCHEDULED INSPECTION DATE.
      - PRESSURE TESTING OF IRRIGATION MAINLINE-OPEN TRENCH.
      - FINAL IRRIGATION INSPECTION-CONFIRMATION OF IRRIGATION EQUIPMENT PLACEMENT AND FULL IRRIGATION COVERAGE
      - INSPECTION OF PLANT MATERIALS ON SITE BEFORE INSTALLATION.
      - FINAL CONSTRUCTION INSPECTION PRIOR TO COMMENCEMENT OF WARRANTY PERIOD.
      - FINAL PROJECT ACCEPTANCE AT THE END OF WARRANTY PERIOD.
5. CLEAN UP ON A DAILY BASIS PER OWNER/OWNER'S REPRESENTATIVE'S APPROVAL.

PROJECT WARRANTY PERIOD

1. PROJECT WARRANTY PERIOD SHALL BEGIN AFTER PROJECT IS COMPLETE AND APPROVED DURING THE FINAL CONSTRUCTION INSPECTION. PROJECT WARRANTY PERIOD SHALL BE 90 DAYS.
2. DURING PROJECT WARRANTY PERIOD, THE PROJECT SHALL BE INSPECTED WEEKLY AND THE FOLLOWING SHALL BE REQUIRED:
   A. KEEP PLANT BASINS WELL FORMED.
   B. PLANTS THAT SHOW SIGNS OF FAILURE TO GROW AT ANY TIME OR WHICH ARE SO INJURED OR DAMAGED AS TO RENDER THEM UNSUITABLE FOR THE PURPOSE INTENDED, MUST BE REMOVED, AND REPLANTED. REPLACEMENT PLANTING MUST COMPLY WITH THE ORIGINAL PLANTING SPECIFICATIONS, SIZES AND SPACING DESCRIBED FOR THE PLANTS BEING REPLACED.
   C. STAKE, TIE AND TRAIN VINES ADJACENT TO WALLS AND FENCES.
   D. CONTROL RODENTS AND INSECTS AS NEEDED.
   E. CONTROL WEEDS AS NEEDED. CONTROL OF WEEDS SHALL BE REQUIRED BEFORE THE WEEDS REACH THE SEED STAGE OF GROWTH OR EXCEED 4 INCHES IN LENGTH, WHICHEVER OCCURS FIRST.
      a. CONTROL WEEDS BY HAND-PULLING WITHIN AN AREA 2 FEET IN DIAMETER CENTERED AT EACH PLANT LOCATION. ALL OTHER LOCATIONS MAY BE CONTROLLED BY HERBICIDE.
      b. REMOVE ALL TRASH AND DEBRIS.
      c. IRRIGATE USING IRRIGATION CONTROLLER SET ON ET SCHEDULE.
3. PERFORM FINAL INSPECTION OF THE PROJECT WARRANTY PERIOD IN THE PRESENCE OF THE OWNER/OWNER'S REPRESENTATIVE 20 TO 30 DAYS BEFORE THE CONTRACT ENDS. FINAL CONTRACT APPROVAL WILL NOT TAKE PLACE UNTIL THE FOLLOWING HAS OCCURRED:
   A. REPLACE ANY DEAD OR DAMAGED PLANT MATERIAL. REPLACEMENT PLANTING MUST COMPLY WITH THE ORIGINAL PLANTING SPECIFICATIONS, SIZES AND SPACING DESCRIBED FOR THE PLANTS BEING REPLACED.
   B. CONFIRM THAT ALL TREE STAKES ARE SUFFICIENT TO SUPPORT TREES. REPLACE AS NEEDED.
   C. REPLACE MULCH TO THE ORIGINAL DEPTH DICTATED IN CONSTRUCTION.
   D. REPAIR OR REPLACE ANY NON-FUNCTIONAL/ DAMAGED IRRIGATION EQUIPMENT.
   E. REMOVE, CLEAN AND REINSTALL ALL FILTERS.
   F. FLUSH ALL DRIP EMITTER SYSTEMS.

PLANTING NOTES

1. DO NOT WILLFULLY PROCEED WITH PLANTING AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES AND/OR AREA DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN, SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER/OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ANY SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH LANDSCAPE INSTALLATION OPERATIONS.
3. CONTRACTOR TO PROVIDE A MINIMUM OF 2% POSITIVE DRAINAGE IN ALL PLANTING AREAS. IN NO CASE SHALL WATER DRAIN TOWARDS BUILDINGS.
4. WEED AND EXISTING GRASS CONTROL:
   A. WEED AND GRASS TYPES SHOULD BE IDENTIFIED BY AN APPROVED LICENSED PEST CONTROL ADVISOR TO ENSURE COMPATIBILITY WITH CHEMICALS AND SEASON OF THE APPLICATION. DO NOT USE CHEMICAL/METHOD THAT WOULD ADVERSELY AFFECT NEW PLANTING. REMOVE EXISTING PERENNIAL WEEDS FROM SITE BY MOWING AND GRUBBING.
5. SOILS
   A. SOIL TESTING
      a. THE CONTRACTOR SHALL OBTAIN A SOILS TEST FOR AGRICULTURAL SUITABILITY AND FERTILITY PREPARED BY A CALIFORNIA ASSOCIATION OF AGRICULTURAL LABORATORIES MEMBER. SOIL TESTING SHALL OCCUR AFTER ALL SOILS HAS BEEN IMPORTED TO THE SITE AND ROUGH GRADE ESTABLISHED, BUT PRIOR TO SOIL PREPARATION.
      b. SOILS REPORT SHALL CONTAIN ANALYSIS OF SOIL TEXTURE, INFILTRATION RATE, PH, TOTAL SOLUBLE SALTS, SODIUM, AND PERCENT ORGANIC MATTER. SOILS REPORT SHALL CONTAIN RECOMMENDATIONS FOR SOIL PREPARATION; AMENDED SOIL AND FERTILIZATION.
      c. A MINIMUM OF 2 LOCATIONS SHALL BE SAMPLED, ADDITIONAL SAMPLES REQUIRED AT THE RATE OF ONE PER EVERY 10,000 SF OF LANDSCAPE AREA.
      d. TWO (2) SAMPLES PER LOCATION SHALL BE TAKEN, ONE AT A DEPTH OF 10" AND ONE AT A DEPTH OF 24" TO 36". EACH SAMPLE SHALL CONTAIN APPROXIMATELY ONE QUART OF SOIL AND BE LABELED PER LOCATION AND DEPTH.
      e. THIS REPORT SHALL BE FURNISHED TO THE OWNER/OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO IMPLEMENTATION.
   B. SOIL PREPARATION:
      a. FOR BID PURPOSES, ASSUME THE ROTOTILLING OF THE FOLLOWING AMENDMENTS INTO THE SOIL AT RATES INDICATED PER 1,000 SQUARE FEET AND INCORPORATE INTO THE TOP 6" OF SOIL:
      b. 4 CUBIC YARDS (CY) NITROGEN STABILIZED REDWOOD SHAVINGS
      c. 150 LBS GYPSUM
      d. 125 LBS GRO POWER PLUS
   C. BACKFILL: FOR BID PURPOSES, PLANT PIT BACKFILLING SOILS SHALL CONSIST OF ONE (1) PART EXCAVATED SOIL TO ONE (1) PART AMENDED SOIL. MATERIALS SHALL BE THOROUGHLY MIXED BEFORE PLACEMENT.
   D. FERTILIZATION: FOR BID PURPOSES, IN ADDITION TO BACKFILL, COMMERCIAL FERTILIZER 20-10-5 AGRIFORM 21-GRAM TABLETS SHALL BE ADDED TO PLANT PITS AT THE FOLLOWING RATES:
      - 1 TABLET PER 1 GALLON CONTAINER
      - 2 TABLETS PER 5 GALLON CONTAINER
      - 3 TABLETS PER 15 GALLON CONTAINER
      - 4 TABLETS PER 24" BOX
      - 5 TABLETS PER 30" BOX
      - 6 TABLETS PER 36" BOX
      - 7 TABLETS PER 42" BOX
      - 8 TABLETS PER 48" BOX AND THOSE LARGER THAN 48".
      - NO PACKS TO BE USED FOR SEASONAL COLOR AREAS.
   E. SHOULD IMPORT SOIL BE NECESSARY, INDICATE SOURCE LOCATION. SOIL SHALL BE SANDY LOAM CONTAINING NO TOXIC CHEMICALS. SUBMIT AGRICULTURAL SUITABILITY AND FERTILITY TESTING FOR THIS IMPORT TO OWNER/OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO SOIL IMPORTATION. TEST REPORT SHALL INCLUDE AMENDMENT RECOMMENDATIONS AND BE DONE BY AN APPROVED CALIFORNIA ASSOCIATION OF AGRICULTURAL LABORATORIES MEMBER.
   F. UNDER NO CIRCUMSTANCES, CONCRETE AND OTHER DEBRIS MAY BE CRUSHED AND REUSED AS FILL IN PLANTING AREA.
6. PLANT MATERIAL APPROVAL AND PLACEMENT
   A. PROVIDE TREES, SHRUBS AND OTHER PLANTS OF SIZE, GENUS, SPECIES AND VARIETY SHOWN AND SCHEDULED FOR LANDSCAPE WORK AND COMPLYING WITH THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).
   B. ALL PLANT MATERIAL OF A GIVEN SPECIES SHALL HAVE MATCHING FORM, UNLESS OTHERWISE SPECIFIED.
   C. IS IT THE CONTRACTOR'S RESPONSIBILITY TO FURNISH PLANT MATERIAL FREE FROM PESTS OR PLANT DISEASES. PRE-SELECTION OR 'TAGGED' MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND CERTIFIED TO BE PEST AND DISEASE FREE PRIOR TO SHIPMENT. IT IS THE CONTRACTOR'S OBLIGATION TO PROVIDE ANY REQUIRED CERTIFICATIONS AND WARRANTY FOR ALL PLANT MATERIAL.
   D. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER/OWNER'S REPRESENTATIVE.
   E. NURSERY STAKES SHALL BE REMOVED FROM ALL TREES AFTER PLANTING. TREES SHALL BE ABLE TO BE SUPPORTED BY TREE STAKES ONLY.
   F. IN AREAS WITH EXISTING TURF OR GROUNDCOVER, CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF BARE SPOTS AND ALL SCARS DUE TO IRRIGATION INSTALLATION OR RE-GRADING, AND SHALL MATCH EXISTING PLANTING TO ACHIEVE A UNIFORM OVERALL APPEARANCE
   G. LOCATION OF EXISTING TREES ARE APPROXIMATE. IF DURING GRADING OPERATION, EXISTING GRADE CANNOT BE MAINTAINED WITHIN DRIPLINE OF TREES, CONTACT OWNER/OWNER'S REPRESENTATIVE FOR DIRECTION PRIOR TO GRADING.
   H. ANNUAL COLOR SHALL BE SELECTED BY OWNER/OWNER'S REPRESENTATIVE AT TIME OF INSTALLATION.
7. MULCH
   A. ALL SHRUB/GROUNDCOVER AREAS SHALL BE TOP DRESSED WITH A MINIMUM OF 3" MULCH. TYPE SHALL BE SPECIFIED ON THE PLANS. SUBMIT SAMPLES TO OWNER/OWNER'S REPRESENTATIVE FOR APPROVAL.
8. ROOT BARRIERS
   A. IN ADDITION TO ROOT BARRIERS SHOWN ON THE PLANS, ALL TREES WITHIN 5' OF ANY HARDSCAPE SHALL HAVE ROOT BARRIERS PLACED ADJACENT TO ANY HARDSCAPE. ROOT BARRIERS SHALL BE TEN (10) FOOT LONG BY 24" DEEP AND CENTERED ALONG TRUNK OF TREE.
9. MOW STRIPS
   A. IN ADDITION TO ANY MOW STRIPS OR HEADERS SHOWN ON THE PLANS, CONCRETE MOW STRIP, REDWOOD OR RECYCLED PLASTIC HEADERBOARD SHALL BE INSTALLED PER DETAIL WHEREVER GROUNDCOVER AREAS MEET TURF.

LICENSED LANDSCAPE ARCHITECT – J. Patrick Boyd, No. 4682 – Signature – JULY 31, 2021 Renewal Date – Date – STATE OF CALIFORNIA

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P.O. Box 27616 Fresno, CA 93729
Studio: 559.472.9966 Fax: 559.472.9969

LICENSED ARCHITECT – NOEL ROGER DAVIDSON – C-27818 – REN: 10-31-19 – STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 05.27.2020
PROJECT NO: T80293 / 19003
FILE NAME: 20-03-002_LSa

Sheet Content:

PLANTING
SCHEDULE AND NOTES

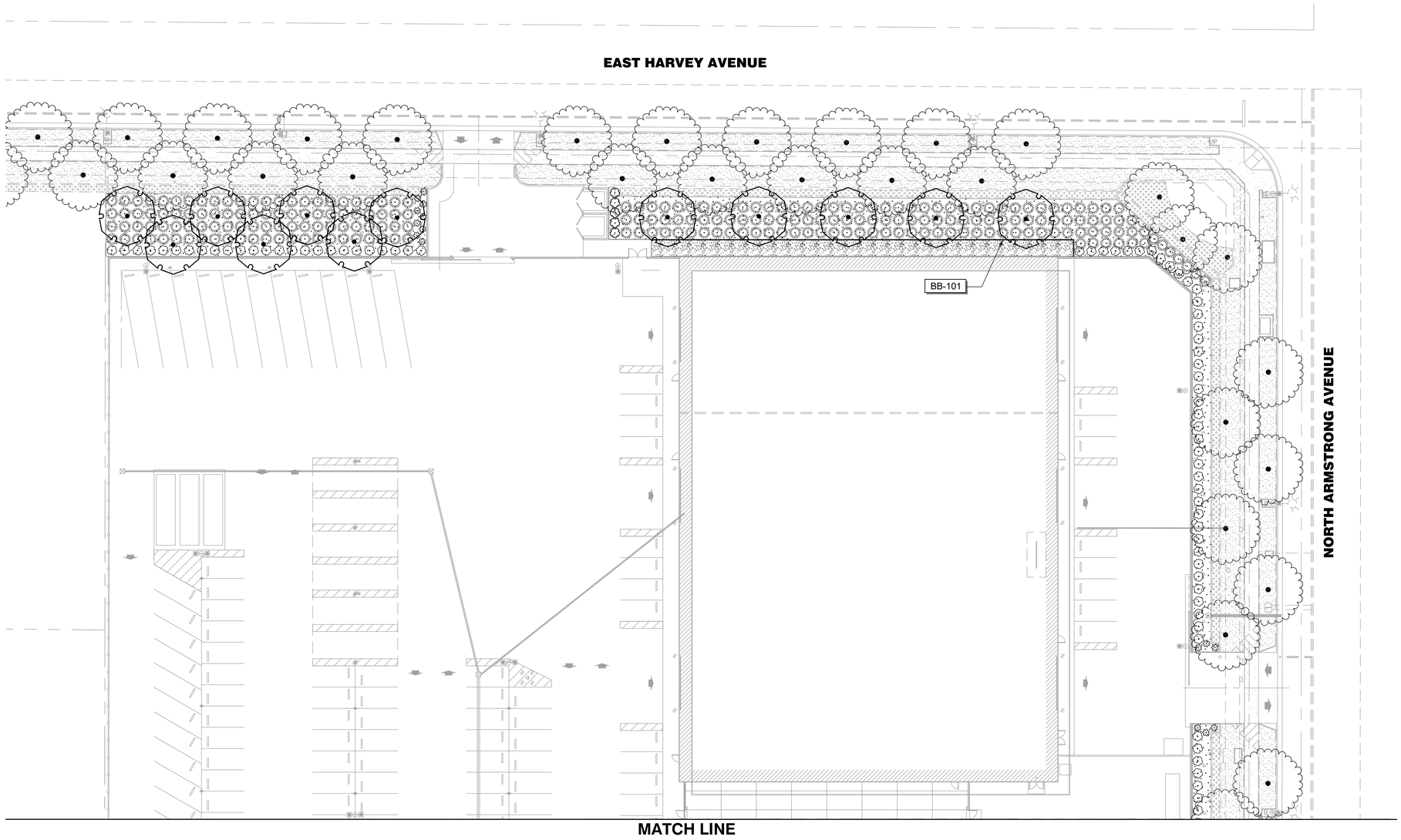
Fresno County Department of
Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

LA-1.0

Drawn by: ---- Plot date: 05.27.2020



0 20 40 60 feet

SCALE: 1" = 20'

NORTH

LICENSED LANDSCAPE ARCHITECT
NOEL ROGER DAVIDSON
JULY 31, 2021
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Sheet Content:

PLANTING
PLAN

Fresno County Department of
Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO

Sheet No.

LA-1.1

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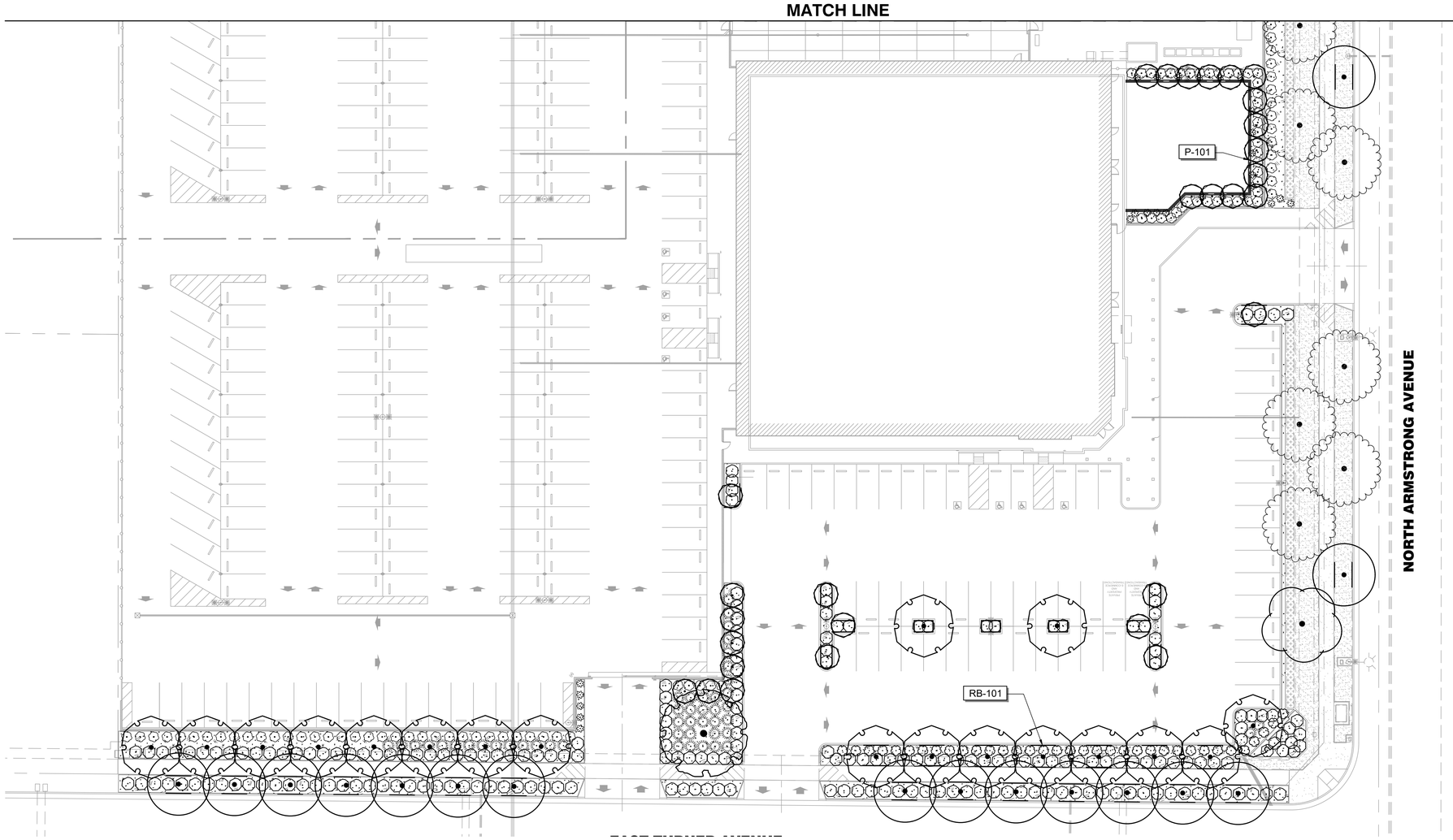
Plot date: 05.27.2020

MATCH LINE



0 20 40 60 feet

SCALE: 1" = 20'

NORTH

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Sheet Content:

PLANTING PLAN

Fresno County Department of Public Works and Planning
Capital Projects

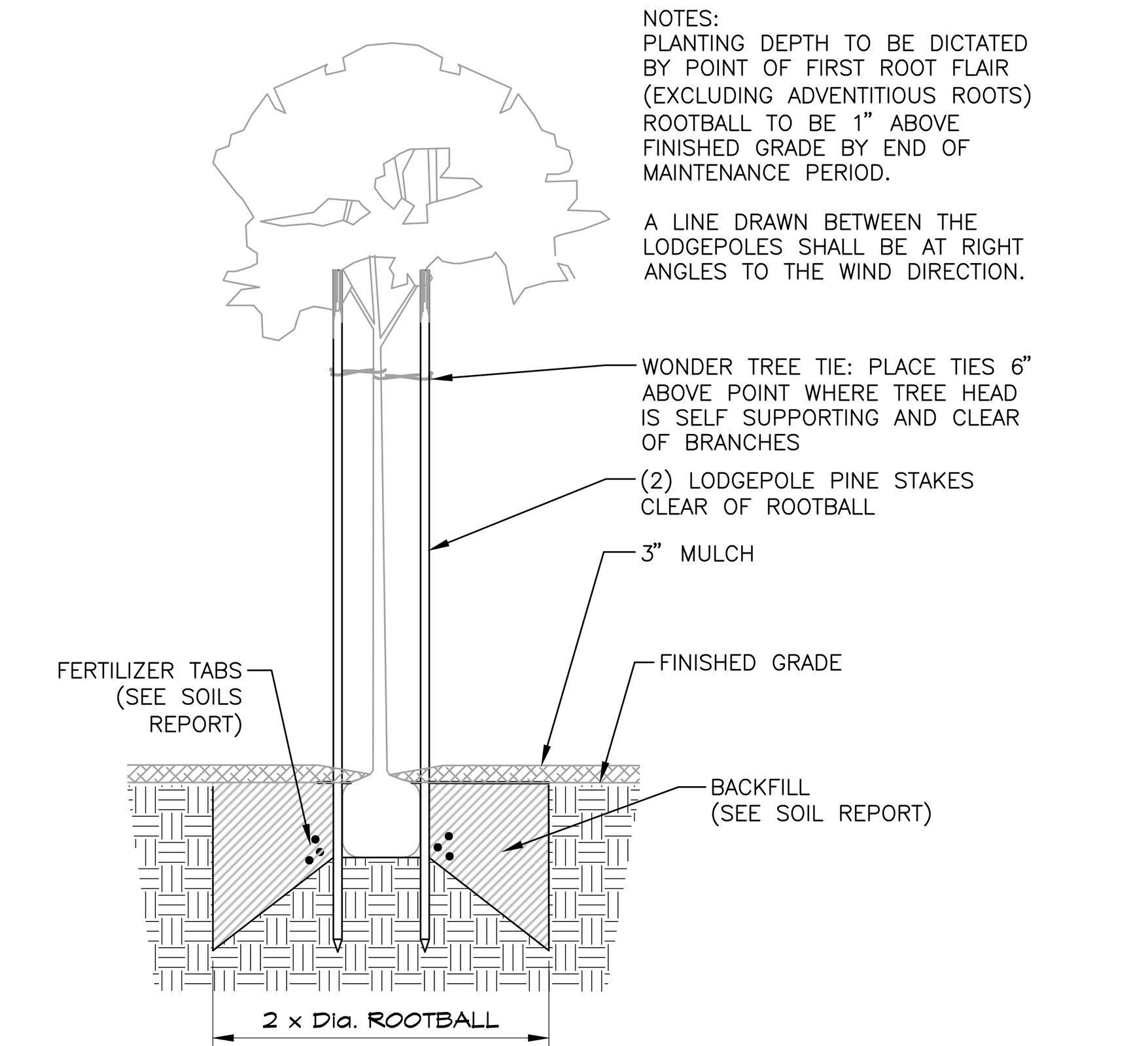
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

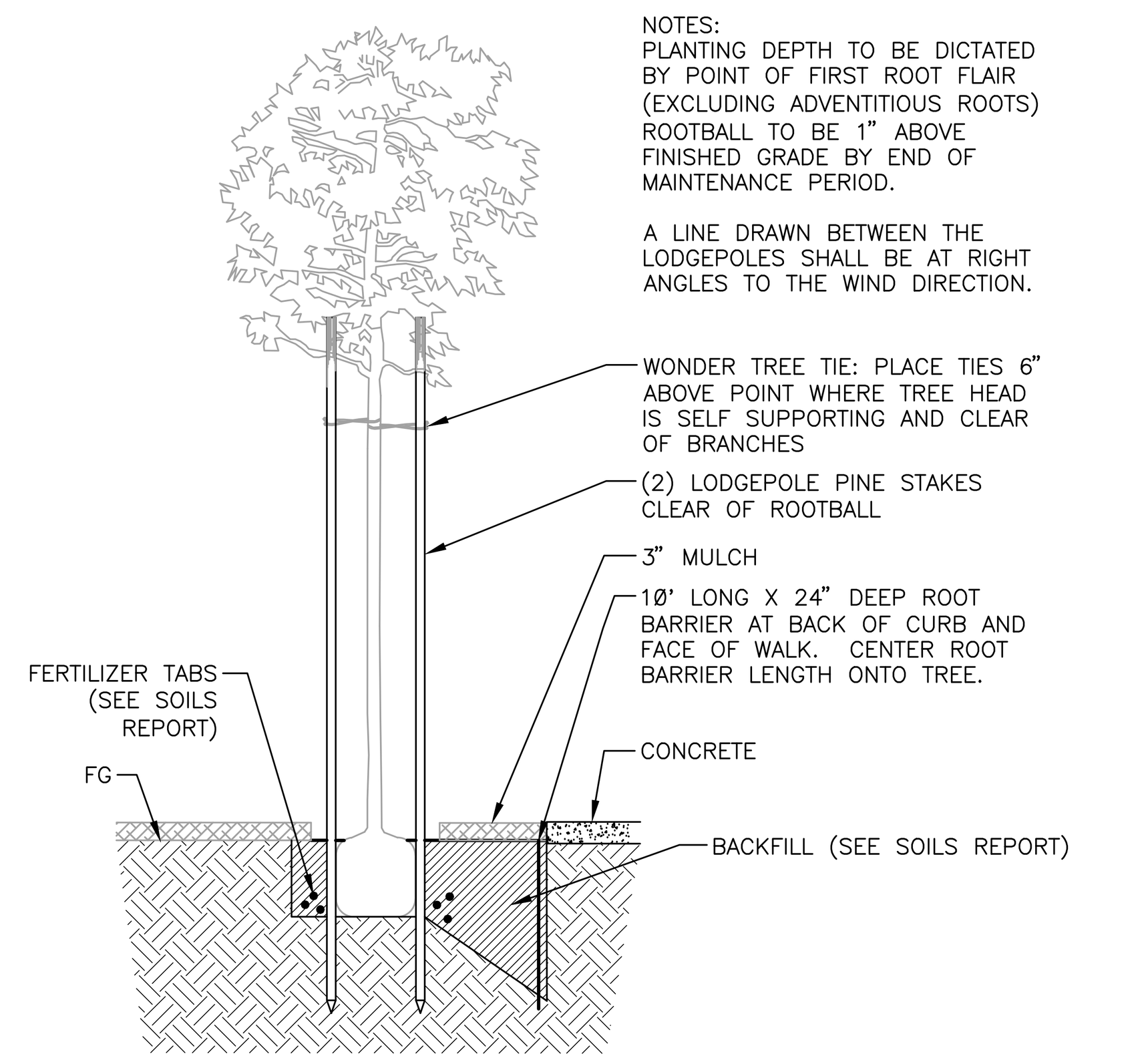
LA-1.2

Drawn by: ----

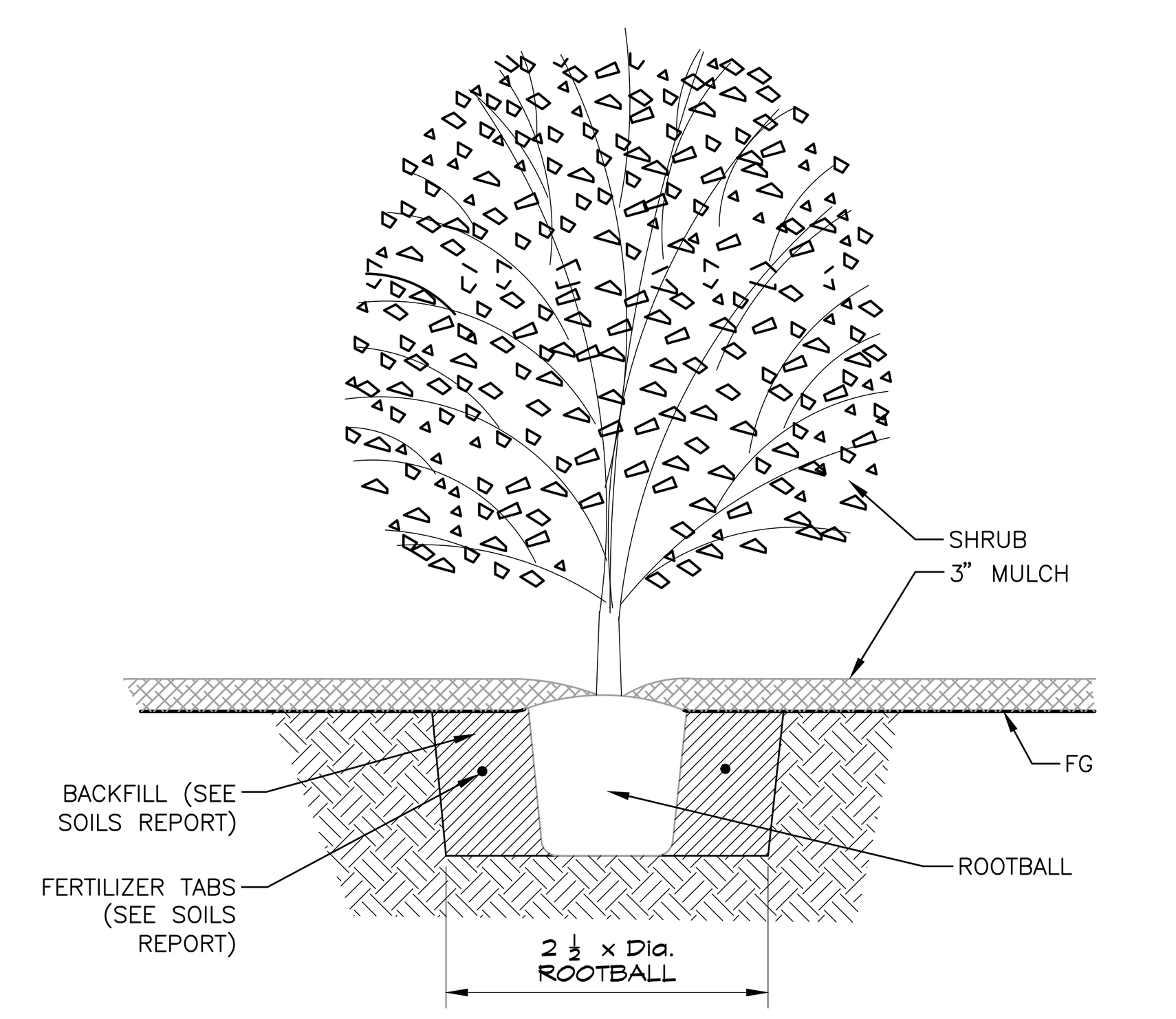
Plot date: 05.27.2020



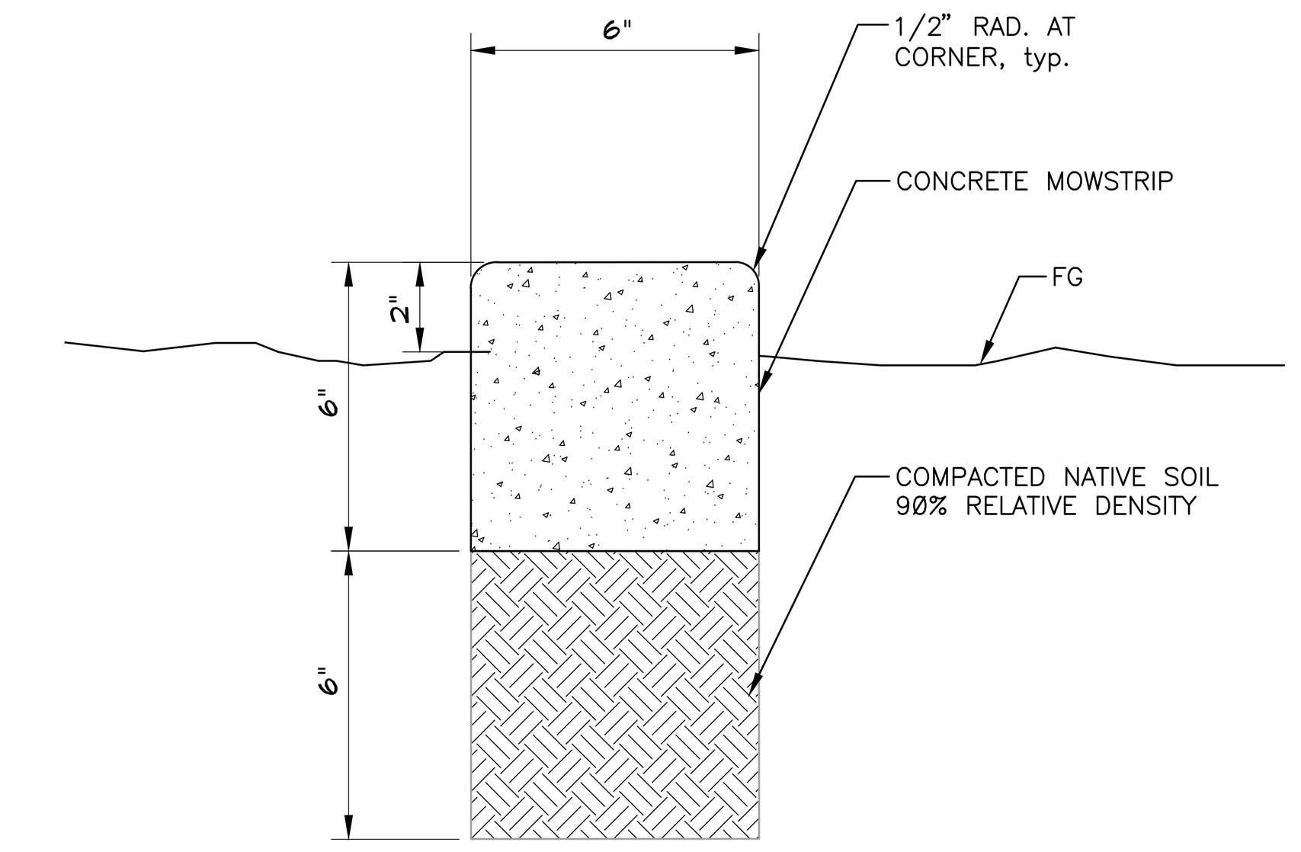
1 TREE PLANTING
1/2" = 1'-0" DL-PL-TRE-05



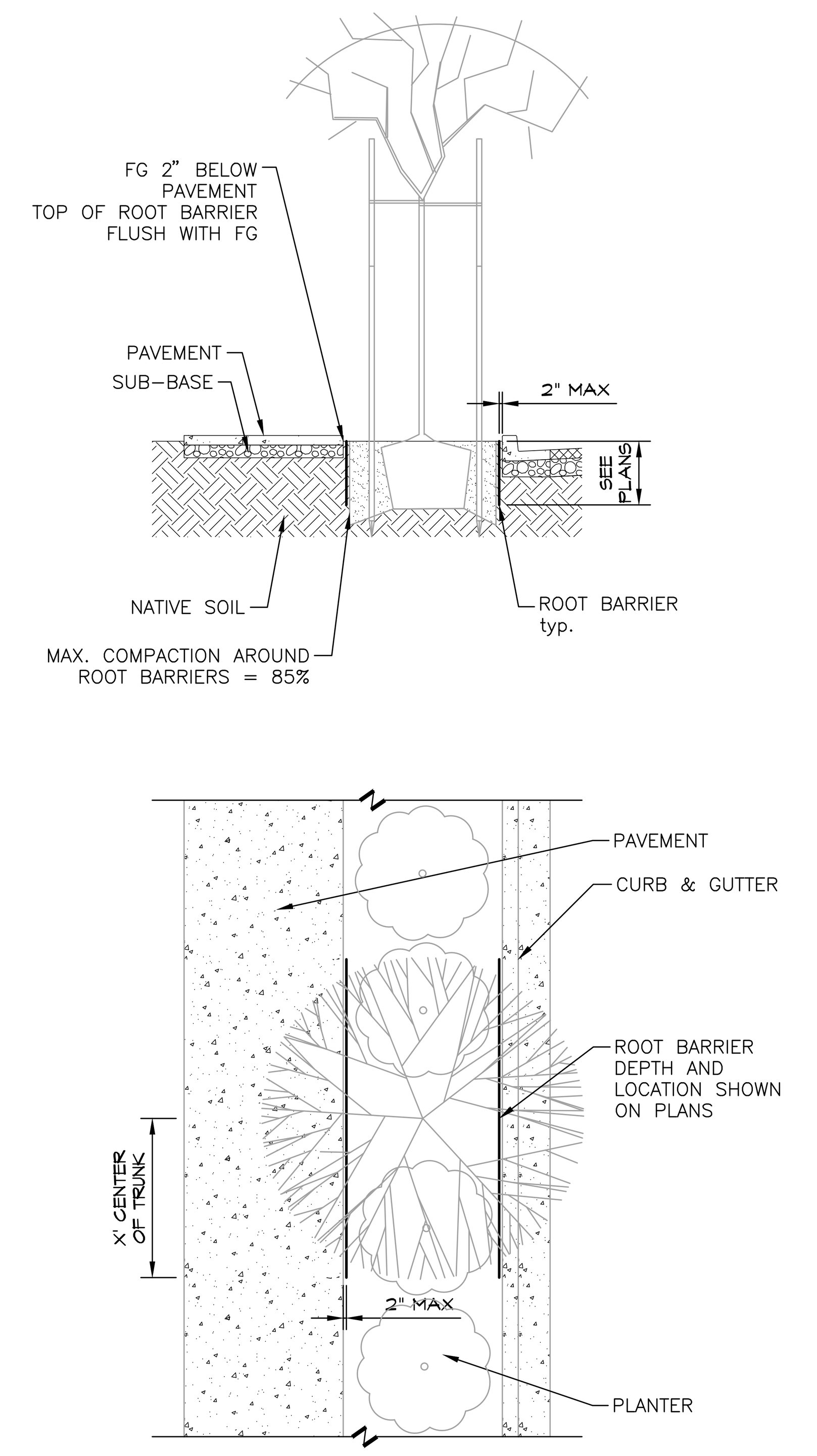
2 TREE PLANTING - PAVEMENT ADJACENT
1/2" = 1'-0" DL-PL-TRE-35



3 SHRUB PLANTING
3/4" = 1'-0" DL-PL-SHR-04

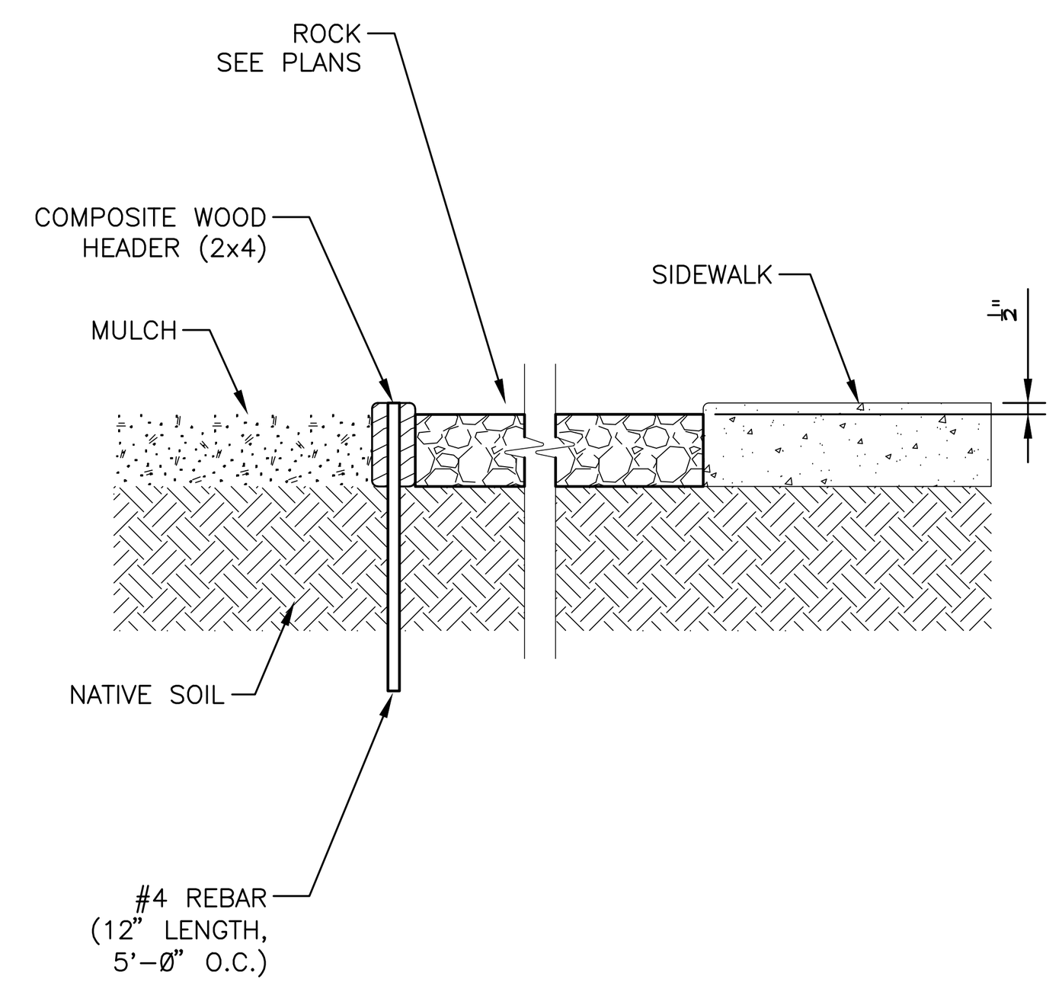


4 6" CONCRETE MOW STRIP
3" = 1'-0" DL-HA-MOW-15



NOTE: ROOT BARRIERS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS

5 LINEAR ROOT BARRIER
1/4" = 1'-0" DL-PL-TRE-11



7 ROCK MULCH EDGE
1 1/2" = 1'-0" DL-HA-STO-10

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Sheet Content:
PLANTING DETAILS

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

Sheet No.
LA-1.3

Drawn by: ---- Plot date: 05.27.2020

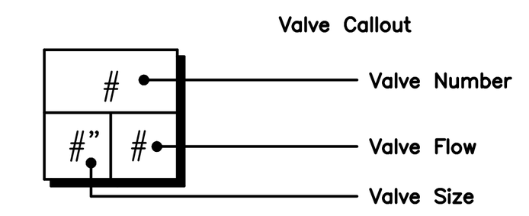
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARC	PSI	GPM	RADIUS
	TORO 570S-FB-PC PRESSURE-COMPENSATING FLOOD BUBBLER NOZZLE ON 570S FIXED RISER. 0.25GPM, 0.5GPM, 1.0GPM, AND 2.0GPM.	117	360	20	0.45	3'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	DRIP ZONE VALVE KIT-TORO DZK-700 1" DRIP CONTROL VALVE KIT. WITH 1" IRRITROL 700 ULTRAFLOW INLINE VALVE, TORO Y-FILTER, AND MEDIUM-FLOW PRESSURE REGULATOR AND FITTINGS. 0.10GPM-30.0GPM.	5
F	FLUSH VALVE-TORO T-FCH-H-FIPT PLUMBED TO FLUSH MANIFOLD AT LOW POINT.	16
	AREA TO RECEIVE DRIPLINE TORO T-PCB-1853-18 DRIP-IN PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.53 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN.	13,379 L.F.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	REMOTE CONTROL VALVE-IRRITROL 100 1" ELECTRIC REMOTE CONTROL VALVE	3
	REMOTE CONTROL VALVE-IRRITROL 100 3/4" ELECTRIC REMOTE CONTROL VALVE	1
	BALL VALVE-MATCO-NORCA 770S PVC WHITE BALL VALVE FOR SCH 40 AND SCH 80 PIPE, SOLVENT SLIP ENDS WITH "T" HANDLE, SAME SIZE AS MAINLINE. 1/2" TO 4".	5
	GATE VALVE-NIBCO T-113 CLASS 125 BRONZE GATE SHUT OFF VALVE WITH WHEEL HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4" - 3"	1
MV	IRRITROL 700-2 2" 2" ULTRAFLOW ELECTRIC VALVE, INTERNAL BLEED FLOW CONTROL. 30-180 GPM FLOW RANGE. 7ϕ H X 5-1/2" W X 8ϕ D	1
BF	BACKFLOW PREVENTER-FEBCO 825Y 2" REDUCED PRESSURE BACKFLOW PREVENTER	1
A	CONTROLLER-IRRITROL MC-12-E WITH CLIMATE LOGIC 12- STATION, COMMERCIAL-GRADE, OUTDOOR/INDOOR CONTROLLER. EQUIPPED IN A RUGGED, LOCKABLE, VANDAL-PROOF, WEATHER RESISTANT STEEL CABINET. WALL MOUNTED. WITH CLIMATE LOGIC. SEE ELECTRICAL PLANS FOR SERVICE.	1
FS	FLOW SENSOR-TORO TFS 1" 1/2", 3/4", 1", 1-1/2", 2", 3", AND 4" PLASTIC TEE SIZES. EFFECTIVE FLOW MONITORING, EVEN IN FLOWS LESS THAN 5 GPM. COMPATIBLE WITH TORO AND COMPETITIVE CONTROLLERS. IMPELLER-BASED, PVC DESIGN.	1
WM	WATER METER 2" EXISTING 2" WATER METER. ASSUMED 50 PSI STATIC WATER PRESSURE.	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 3/4"	2,201 L.F.
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 1"	278.8 L.F.
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 1 1/2"	835.6 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40 3/4"	45.7 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40 1"	10.4 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40 1 1/2"	203.4 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40 2"	838.8 L.F.
	PIPE SLEEVE: PVC SCHEDULE 40 2X PIPE DIAMETER	293.7 L.F.

Valve Callout



IRRIGATION NOTES

1. THE IRRIGATION SYSTEM INDICATED ON THE PLANS IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR GRAPHIC DESIGN CLARIFICATION PURPOSED ONLY. EQUIPMENT SHALL BE LOCATED IN ADJACENT PLANTER. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING OR ARCHITECTURAL FEATURES.
2. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, WALL LOCATIONS, ETC., THAT WILL AFFECT HIS WORK. IRRIGATION CONTRACTOR SHALL NOT INSTALL THE SYSTEM AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUS THAT OBSTRUCTION, GRADE DIFFERENCES OR AREA DIMENSION DIFFERENCES EXIST. NOTIFY THE OWNER/OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES. IN THE EVENT THAT NOTIFICATION IS NOT MADE, THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR NECESSARY CHANGES AND WORK
3. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR AND OTHERS FOR LOCATING PIPE AND WIRE SLEEVES THROUGH WALLS, STRUCTURES, UNDER ROADS PAVING, ETC.
4. THE IRRIGATION DESIGN IS BASED ON A MINIMUM OPERATING PRESSURE SHOWN FOR EACH POINT OF CONNECTION AND MAXIMUM GPM (GALLONS PER MINUTE) DEMAND SPECIFIED.
5. MAINLINE FEEDER BETWEEN POINT OF CONNECTION, METER AND BACKFLOW PREVENTER TO BE OF MATERIAL REQUIRED BY LOCAL WATER DISTRICT.
6. WHERE APPLICABLE, FINAL LOCATION OF THE BACKFLOW PREVENTER AND IRRIGATION CONTROLLER SHALL BE APPROVED BY THE CITY'S REPRESENTATIVE AND/OR OWNER'S REPRESENTATIVE.
7. A 120-VOLT ELECTRICAL POWER OUTLET AT EACH AUTOMATIC CONTROLLER LOCATION SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE NECESSARY POWER SOURCES AND TO MAKE THE FINAL LOOP UP FROM THE ELECTRICAL OUTLET TO THE AUTOMATIC CONTROLLER(S), INCLUDING PROPER GROUNDING AS REQUIRED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
8. IN ADDITION TO THE SLEEVES SHOWN ON THE PLAN, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ADDITIONAL SLEEVES OF SUFFICIENT SIZE UNDER ALL PAVED AREAS UPON APPROVAL OF THE OWNER'S REPRESENTATIVE, IF REQUIRED TO OPERATE THE SYSTEM. SLEEVES SHALL BE 2 X DIAMETER OF THE PIPE.
9. CONCRETE THRUST BLOCKS SHALL BE PROVIDED ON ALL MAINLINE PIPING. THEY ARE TO BE LOCATED AT ALL ABRUPT CHANGES TO HORIZONTAL ALIGNMENT, REDUCTION IN PIPE SIZES, END OF LINE AND IN-LINE VALVES TO ABSORB ANY AXIAL THRUST OF THE PIPE. THRUST BLOCKS MUST BE FORMED AGAINST UNDISTURBED EARTH.
10. INSTALL VALVE BOXES 4" FROM AND PERPENDICULAR TO PATH EDGE, CURB. LAWN, BUILDINGS OR HARDSCAPE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, LAWN, ETC AND EACH BOX SHALL BE 6" APART. SHORT SIDE OF VALVE BOX SHALL BE PARALLEL TO WALK, CURBS, LAWN, ETC.
11. SPLICING OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE 24" COIL OF EXCESS WIRE AT EACH SPLICE. LABEL ALL WIRES WITH WATERPROOF MARKERS AT ALL SPLICES.
12. IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE, WATER CONSERVATION AND PREVENTION OF OVERSPRAY ONTO WALKS AND ROADWAYS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITION AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE REQUIREMENTS:

1. SEE CIVIL PLANS FOR GRADING PLAN.
2. A SOILS REPORT IS REQUIRED. SOIL TESTING SHALL OCCUR AFTER ALL SOIL HAS BEEN IMPORTED TO THE SITE, BUT PRIOR TO SOIL PREPARATION. THE CONTRACTOR SHALL OBTAIN A SOILS TEST FOR 'AGRICULTURAL SUITABILITY AND FERTILITY' PREPARED BY A CALIFORNIA ASSOCIATION OF AGRICULTURAL LABORATORIES MEMBER. REPORT SHALL CONTAIN RECOMMENDATIONS FOR SOIL PREPARATION AND BACKFILL MIX. THIS REPORT SHALL BE FURNISHED TO THE OWNER AND OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO IMPLEMENTATION.
   - 2.1. PRIOR TO PLANTING OF AMY MATERIALS, COMPACTED SOILS SHALL BE TRANSFORMED TO A FRIABLE CONDITION. ON ENGINEERED SLOPES, ONLY AMENDED PLANTING HOLES NEED MEET THIS REQUIREMENT.
   - 2.2. SOIL AMENDMENT SHALL BE INCORPORATED ACCORDING TO THE RECOMMENDATIONS OF THE SOILS REPORT AND WHAT IS APPROPRIATE FOR THE PLANTS SELECTED.
   - 2.3. FOR LANDSCAPE INSTALLATIONS, COMPOST AT A RATE OF A MINIMUM OF FOUR (4) CUBIC YARDS PER 1,000 SQUARE FEET OF PERMEABLE AREA SHALL BE INCORPORATED TO A DEPTH OF 6" INTO THE SOILS. SOILS WITH GREATER THAN 6% ORGANIC MATTER IN THE TOP SIX (6) INCHES ARE EXEMPT FROM ADDING COMPOST AND TILLING.
3. A MINIMUM OF A THREE (3) INCH LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT IN TURF AREAS, CREEPING OR ROOTING GROUND COVERS, OR DIRECT SEEDING APPLICATIONS WHERE MULCH IS CONTRAINDICATED. UP TO 5% OF THE LANDSCAPE MAY BE LEFT WITHOUT MULCH FOR INSECT HABITAT, AND SUCH ARE MUST BE NOTED ON THE PLANS.

GENERAL PROJECT INFORMATION

Date: **5/27/2020**

Project Name: **FRESNO COUNTY SHERIFF SUBSTATION #2**
Project Type : [x] Commercial [ ] Residential
Name of Project Applicant: **Patrick Boyd** — Telephone No. **559-472-9966**
Fax No.
Title: **Landscape Architect** — Email Address: **Patrick@designlab252.com**
Company: **Designlab 252** — Street Address: **371 E Everglade Avenue**
City: **Fresno** — State: **CA** Zip Code: **93720**

Project Address and Location

Street Address: **1129 N. ARMSTRONG AVE** — Parcel, tract or lot number, if available:
City: **Fresno** — Latitude/Longitude (optional):
State: **CA** Zip Code:

Property Owner or his/her designee:

Name: **COUNTY OF FRESNO** — Telephone No.
Fax No.
Title: — Email Address:
Company: — Street Address: **2220 TULARE ST**
City: **FRESNO** — State: **CA** Zip Code: **93721**

Water Purveyor: **CITY**
Compliance Type: **FULL COMPLIANCE**

Insert monthly Eto and Precipitation totals where:

Eto = Reference Evapotranspiration/month for Project Location (See Water Efficient Landscape Document)
Precip. =Precipitation /month for Project Location (see Wuculs or local weather station data on internet.)
Eppt = Effective precipitation (25% of monthly Precip)

LOCATION: **FRESNO**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTAL
ETo/Mo	0.9	1.7	3.3	4.8	6.7	7.8	8.4	7.1	5.2	3.2	1.4	0.6	51.1
Precip.													0.00
Eppt													0.00

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Eto-Eppt	0.9	1.7	3.3	4.8	6.7	7.8	8.4	7.1	5.2	3.2	1.4	0.6	51.1

20-03-002 MWELO DATA.xlsx
GENERAL PROJECT INFORMATION

WATER EFFICIENT LANDSCAPE

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package

Reference Evapotransipration (Eto) 51.1 — Project type ETAF 0.45

HYDROZONE#/ PLANTING DESCRIPTION	HYDROZONE*	PF	IRRIGATION METHOD**	Irrigation Efficiency (IE)	ETAF (PF/IE)	LANDSCAPE AREA (Sq. Ft.)	ETAF X AREA	ESTIMATED TOTAL WATER USE (ETWU)
Regular Landscape Areas								
TREES	VERY LOW	0.1	B1/DR	0.81	0.12	0	0	0
	LOW	0.3	B1/DR	0.81	0.37	24,777	9,177	290,735
	MEDIUM	0.5	B1/DR	0.81	0.62	0	0	0
	HIGH	0.8	B1/DR	0.81	0.99	0	0	0
SHRUBS/GC	VERY LOW	0.1	B2/DL	0.81	0.12	0	0	0
	LOW	0.3	B2/DL	0.81	0.37	19,125	7,083	224,414
	MEDIUM	0.5	B2/DL	0.81	0.62	0	0	0
	HIGH	0.8	B2/DL	0.81	0.99	0	0	0
TURF/GC	VERY LOW	0.1	R/S	0.75	0.13	0	0	0
	LOW	0.3	R/S	0.75	0.40	0	0	0
	MEDIUM	0.5	R/S	0.75	0.67	0	0	0
	HIGH	0.8	R/S	0.75	1.07	0	0	0
TEMPORARY	LOW	0.3				0	0	0
WATER FEATURE	HIGH	0.8				0	0	0
			TOTALS			43,902	16,260	515,149
Special Landscape Areas								
					1.00	0	0	0
					1.00	0	0	0
					1.00	0	0	0
			TOTALS			0	0	0
							ETWU TOTAL	515,149.32
			(MAXIMUM ALLOWED WATER ALLOWANCE) MAWA					625,906.42

ETAF Calculations		
Regular Landscape Areas		
Total ETAF x area		16,260
Total Area		43,902
Average ETAF		**0.37**
All Landscape Areas		
Total ETAF x area		**16,260**
Total Area		**43,902**
Sitewide ETAF		**0.37**

MAWA =Eto X 0.62 [ETAF x LA + (1-ETAF) X SLA
ETWU=Eto X 0.62 x ETAF X AREA

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non residential areas

20-03-002 MWELO DATA.xlsx
WATER EFFICIENT LANDSCAPE

HYDROZONE AREA (SF)

VALVE NUMBER	Type	Hydrozone	Area	A *Trees (B1/DR) VL	A LW	A MW	A HW	B Shrubs/GC (B2/DL) VL	B LW	B MW	B HW	C Turf/GC (S/R) VL	C LW	C MW	C HW	D Temp LW	E Water Feature HW
1	B	LW	7020	0	0	0	0	0	7020	0	0	0	0	0	0	0	0
2	A	LW	5892	0	5892	0	0	0	0	0	0	0	0	0	0	0	0
3	B	LW	2203	0	0	0	0	0	2203	0	0	0	0	0	0	0	0
4	B	LW	694	0	0	0	0	0	694	0	0	0	0	0	0	0	0
5	A	LW	1106	0	1106	0	0	0	0	0	0	0	0	0	0	0	0
6	A	LW	14730	0	14730	0	0	0	0	0	0	0	0	0	0	0	0
7	B	LW	7057	0	0	0	0	0	7057	0	0	0	0	0	0	0	0
8	A	LW	3049	0	3049	0	0	0	0	0	0	0	0	0	0	0	0
9	B	LW	2151	0	0	0	0	0	2151	0	0	0	0	0	0	0	0
10				0	0	0	0	0	0	0	0	0	0	0	0	0	0
11				0	0	0	0	0	0	0	0	0	0	0	0	0	0
12				0	0	0	0	0	0	0	0	0	0	0	0	0	0
13				0	0	0	0	0	0	0	0	0	0	0	0	0	0
14				0	0	0	0	0	0	0	0	0	0	0	0	0	0
15				0	0	0	0	0	0	0	0	0	0	0	0	0	0
16				0	0	0	0	0	0	0	0	0	0	0	0	0	0
17				0	0	0	0	0	0	0	0	0	0	0	0	0	0
18				0	0	0	0	0	0	0	0	0	0	0	0	0	0
19				0	0	0	0	0	0	0	0	0	0	0	0	0	0
20				0	0	0	0	0	0	0	0	0	0	0	0	0	0
21				0	0	0	0	0	0	0	0	0	0	0	0	0	0
22				0	0	0	0	0	0	0	0	0	0	0	0	0	0
23				0	0	0	0	0	0	0	0	0	0	0	0	0	0
24				0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS				0	24777	0	0	0	19125	0	0	0	0	0	0	0	0

* Hydrozone area for all tree valves calculated by using the mature canopy of trees

*Hydro zone	Water Use	Plant Factor	Project Value
VL	Very Low	0-0.1	0.1
LW	Low	0.1-0.3	0.3
MW	Medium	0.4-0.6	0.5
HW	High	0.7-1.0	0.8
SLA	Special	1	1

** Irrigation Method		
B1	Drip Bubbler Tree	0.81
B2	Drip Bubbler Shru	0.81
DL/DR	Drip line/Drip Rin	0.81
R	Rotor	0.75
S	Spray	0.75

Type
A
B
C
D
E

20-03-002 MWELO DATA.xlsx
HYDROZONE AREA (SF)

LICENSED LANDSCAPE ARCHITECT J. Patrick Boyd, No. 4682 Signature JULY 31, 2021 Renewal Date Date STATE OF CALIFORNIA

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LICENSED ARCHITECT NOEL ROGER DAVIDSON C -27818 REN: 10-31-19 STATE OF CALIFORNIA

ARCHITECT:
Noel Roger Davidson, A.I.A., Architect
California Licensed Architect No. C-27818
Ren. 10-31-2019
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Fresno, California 93721

Telephone: (559) 600-4477
E-mail: ndavidson@co.fresno.ca.us

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Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 05.27.2020
PROJECT NO: T80293 / 19003
FILE NAME: 20-03-002_LSa

Sheet Content:

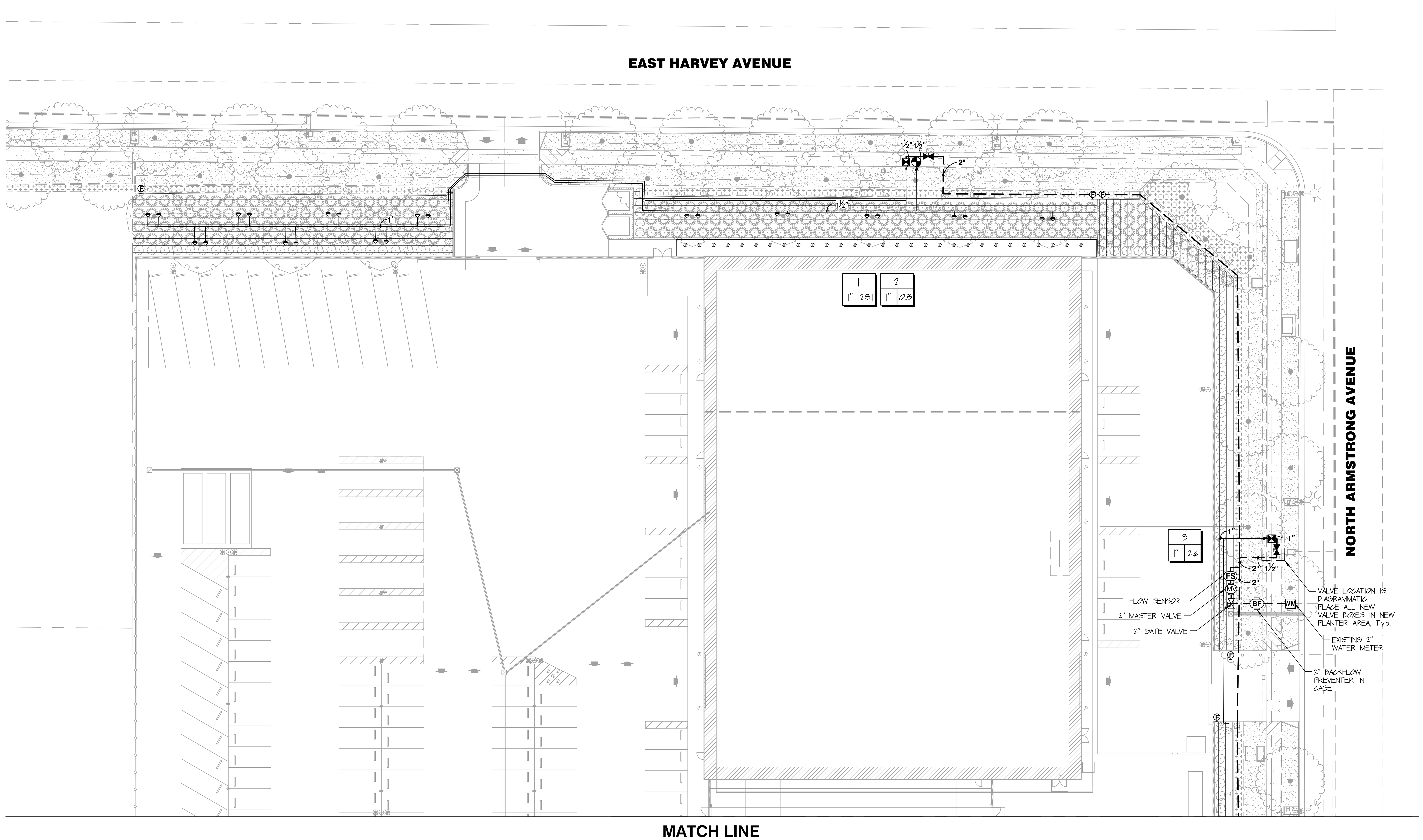
IRRIGATION SCHEDULE AND NOTES

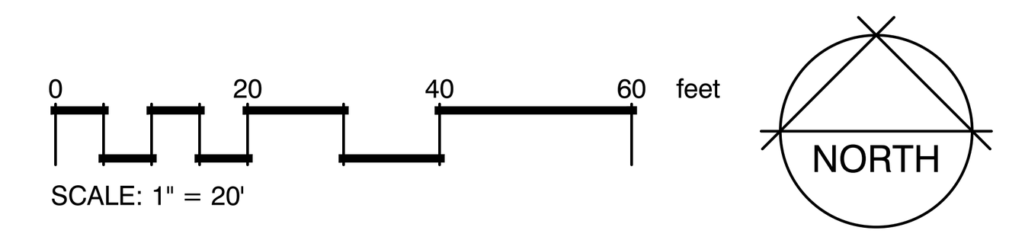
Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

LA-2.0





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Signature
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Sheet Content:

IRRIGATION
PLAN

Fresno County Department of
Public Works and Planning
Capital Projects

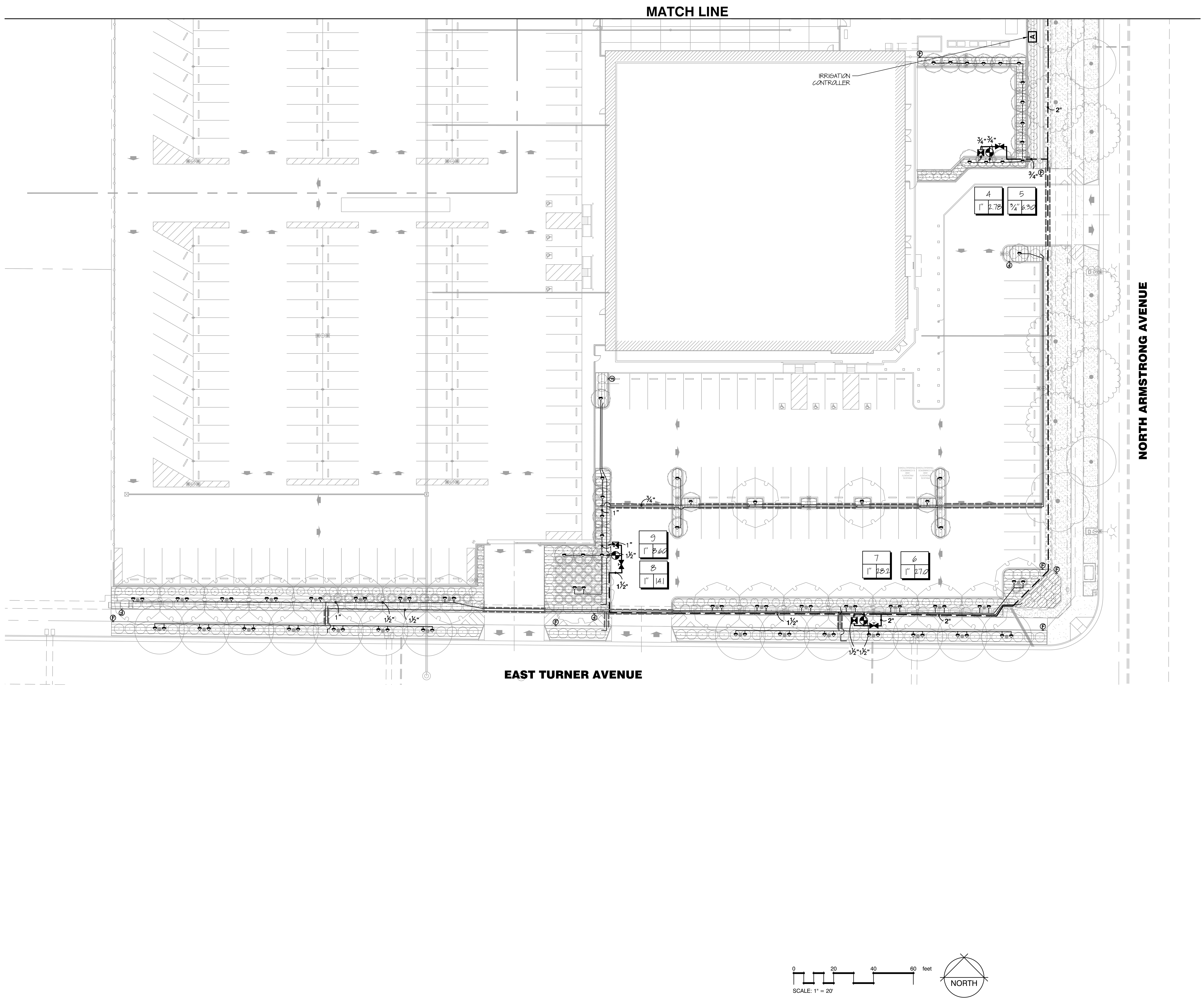
2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO 1856

Sheet No.

LA-2.1

Drawn by: ----
Plot date: 05.27.2020



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IRRIGATION
PLAN

Fresno County Department of
Public Works and Planning
Capital Projects

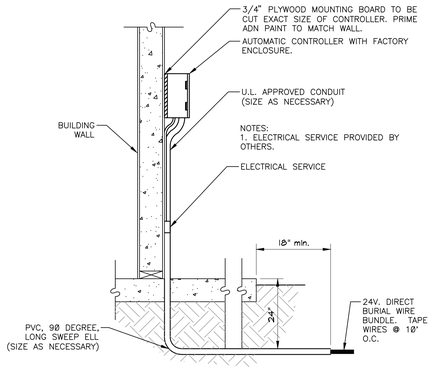
2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO

Sheet No.

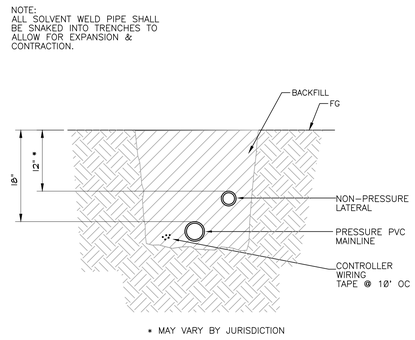
LA-2.1

Drawn by: ----
Plot date: 05.27.2020



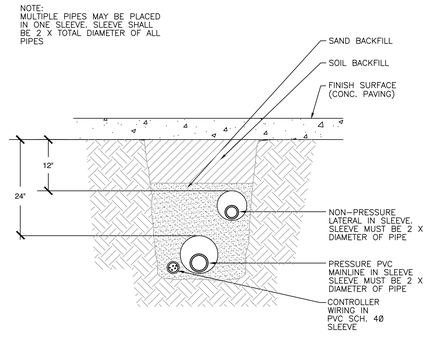
1 IRRIGATION CONTROLLER - WALL MOUNT

3/4" = 1'-0" DL-IR-IC-10



2 TRENCHING

1" = 1'-0" DL-IR-PIP-02



3 IRRIGATION SLEEVE - TRENCH

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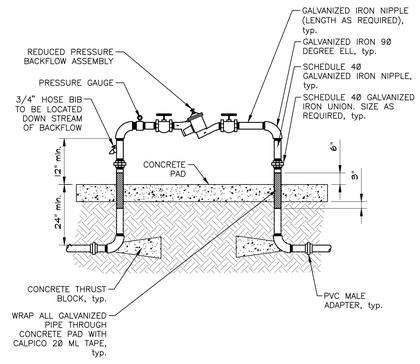
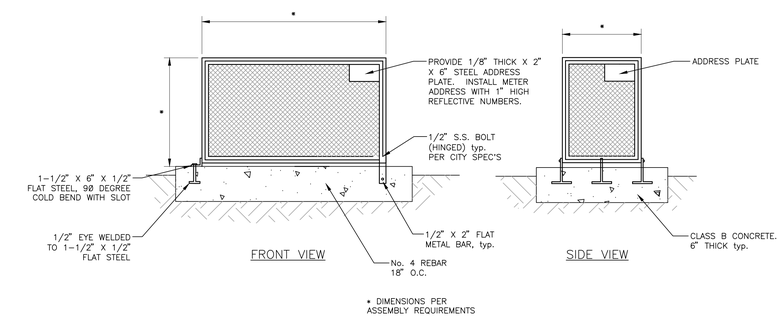


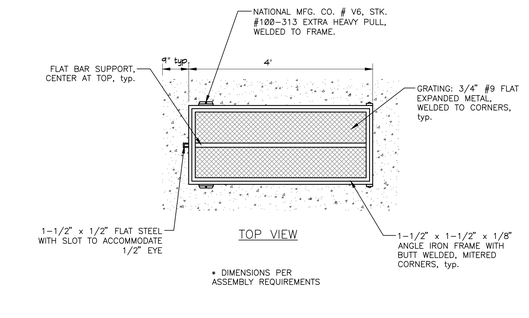
4 BACKFLOW PREVENTER

3/8" = 1'-0" DL-IR-BAC-04



5 BACKFLOW PREVENTER CAGE

3/4" = 1'-0" DL-IR-BAC-01

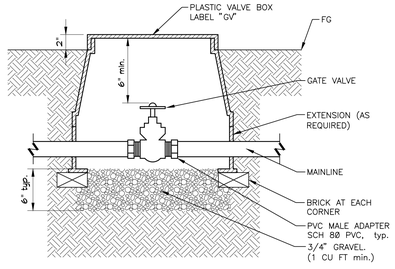


6 BACKFLOW PREVENTER CAGE

3/4" = 1'-0" DL-IR-BAC-02

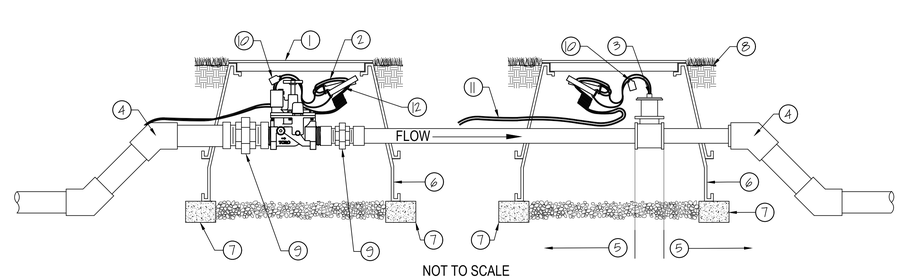
NOTES:

1. ALL EXPOSED PARTS SHALL BE SAND BLASTED SMOOTH AND POWDER COATED, FOREST GREEN.
2. ALL OUTSIDE WELDS SHALL BE GROUND SMOOTH.
3. HINGE FABRICATED FROM ¼" STAINLESS STEEL. BOLT, WASHERS AND AIRCRAFT NUTS, BURR THREAD TO PREVENT REMOVAL.
4. METAL GRATING SHALL BE INSTALLED AND WELDED TO INSIDE OF ENCLOSURE. POWDER COATED FOREST GREEN.
5. VACUUM BREAKER MANIFOLD NOT TO EXCEED 42" INCHES IN LENGTH IN ORDER FOR CAGE CLEARANCE.
6. INSTALL BACKFLOW PREVENTER BLANKET PER MANUFACTURER'S RECOMMENDATIONS.



7 GATE VALVE

1 1/2" = 1'-0" DL-IR-VAL-09



1. VALVE BOX
2. CONDUCTORS
3. FLOW SENSOR
4. PVC ELL – 45 DEGREE
5. MIN. 10 X PIPE DIA. UPSTREAM MIN. 5 X PIPE DIA. DOWNSTREAM
6. EXTENTIONS AS NECESSARY
7. BRICK SUPPORT
8. VALVE BOX SET 2" ABOVE FG
9. UNION
10. IDENTIFICATION TAG
11. COMMUNICATION CABLE
12. WATER PROOF SPLICE

8 MASTER VALVE - FLOW SENSOR W/ UNION

1 1/2" = 1'-0" DL-IR-SEN-02

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Sheet Content:

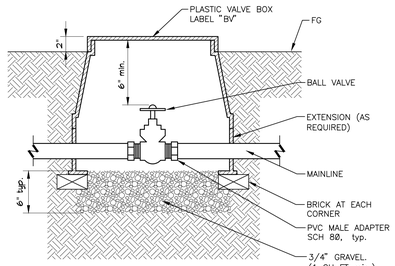
IRRIGATION DETAILS

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

Sheet No.

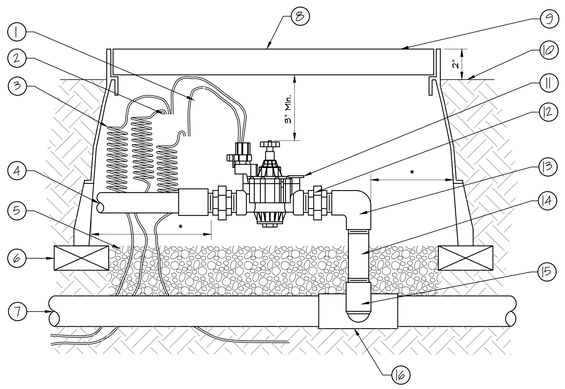
LA-2.3

Drawn by: ----
Plot date: 05.27.2020



1 BALL VALVE

1 1/2" = 1'-0" DL-IR-VAL-10



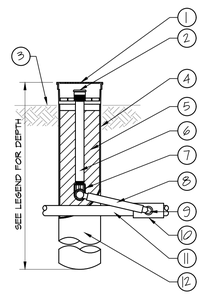
1. INTERNAL IDENTIFICATION TAG
2. WATERPROOF CONNECTION
3. 36" OF COILED WIRE
4. PVC LATERAL PIPE
5. 3" Min. DEPTH OF 3/4" GRAVEL
6. BRICK SUPPORT
7. PVC MAINLINE PIPE
8. VALVE BOX IDENTIFICATION TAG
9. PLASTIC VALVE BOX
10. FG
11. REMOTE CONTROL VALVE
12. UNION
13. PVC SCH 80 ELL
14. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
15. SCH 80 NIPPLE (2" LENGTH, HIDDEN) AND SCH 80 ELL
16. PVC SCH 80 TEE OR ELL

NOTES:
* 5 X THE DIAMETER OF THE PIPE

2 REMOTE CONTROL VALVE - GLOBE - W/ UNION

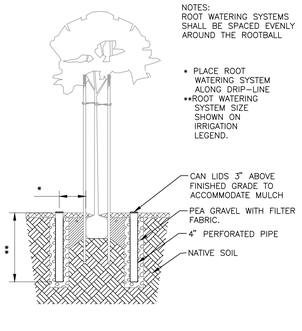
3" = 1'-0" DL-IR-VAL-08

1. 4" GRATE (3" ABOVE FG)
2. BUBBLER (SEE IRRIGATION LEGEND)
3. FG
4. FILTER FABRIC
5. PEA GRAVEL
6. 1/2" PVC SCHEDULE 80 NIPPLE
7. 1/2" 90 DEGREE ELL
8. 12" SWING ASSEMBLY
9. 1/2" MALE NPT INLET
10. PVC SCHEDULE 40 TEE OR ELL
11. LATERAL PIPE
12. PERFORATED PIPE CANISTER 4" dia.



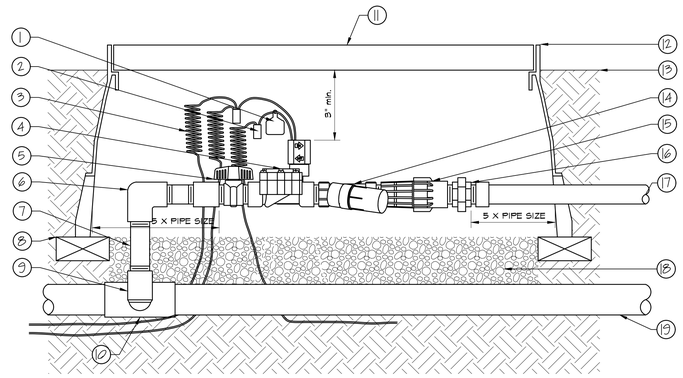
3 BUBBLER IN ROOT WATERING SYSTEM

1 1/2" = 1'-0" DL-IR-SPR-DEEP-03



4 ROOT WATERING SYSTEM PLACEMENT

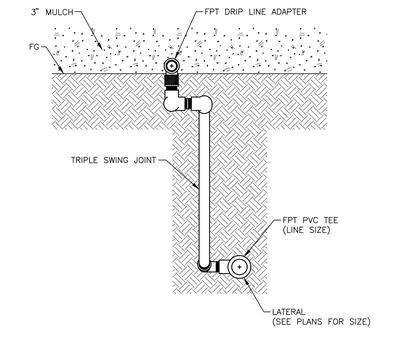
3/8" = 1'-0" DL-IR-SPR-DEEP-06



1. INTERNAL IDENTIFICATION TAG
2. WATERPROOF CONNECTION
3. 36" OF COILED WIRE
4. REMOTE CONTROL VALVE
5. BALL VALVE (LINE SIZE)
6. SCH 40 ELL
7. SCH 80 NIPPLE (LENGTH AS REQUIRED) typ.
8. BRICK SUPPORT
9. SCH 80 NIPPLE (2" LENGTH, HIDDEN) AND SCH 40 ELL
10. SCH 40 TEE OR ELL
11. VALVE BOX IDENTIFICATION TAG
12. PLASTIC VALVE BOX (2" ABOVE FG)
13. FG
14. INLINE MESH FILTER (SEE SCHEDULE FOR MESH SIZE)
15. PRESSURE REGULATOR
16. UNION
17. LATERAL TO DRIP
18. 3/4" GRAVEL. 3" DEPTH min.
19. MAINLINE

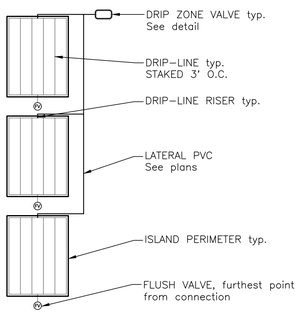
5 DRIP ZONE VALVE

3" = 1'-0" DL-IR-VAL-12



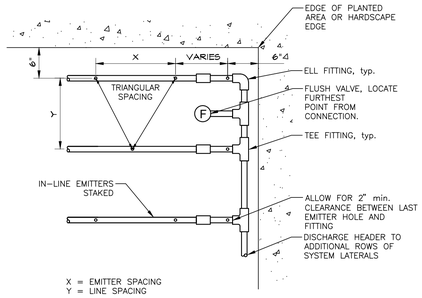
6 DRIP-LINE RISER DETAIL

3" = 1'-0" DL-IR-SPR-DRIP-35



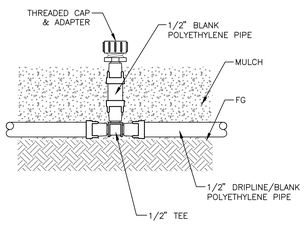
7 DRIPLINE MANIFOLD LAYOUT

1/8" = 1'-0" DL-IR-SPR-DRIP-39



8 DRIPLINE LAYOUT

1" = 1'-0" DL-IR-SPR-DRIP-02



9 FLUSH VALVE - MANUAL - ON GRADE

6" = 1'-0" DL-IR-SPR-DRIP-33

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Project:

Sheriff Area 2 Sub-Station
1129 N. Armstrong Ave., Fresno, CA
APN: 310-133-04, -05, and -06
ISSUE DATE: 05.27.2020
PROJECT NO: T80293 / 19003
FILE NAME: 20-03-002_LSa

Sheet Content:

IRRIGATION DETAILS

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

LA-2.4

Drawn by: ----

Plot date: 05.27.2020