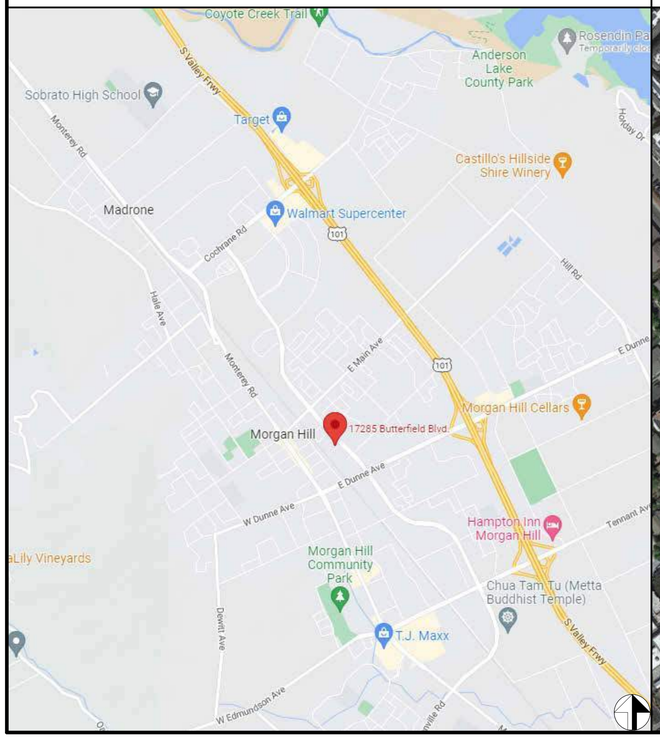
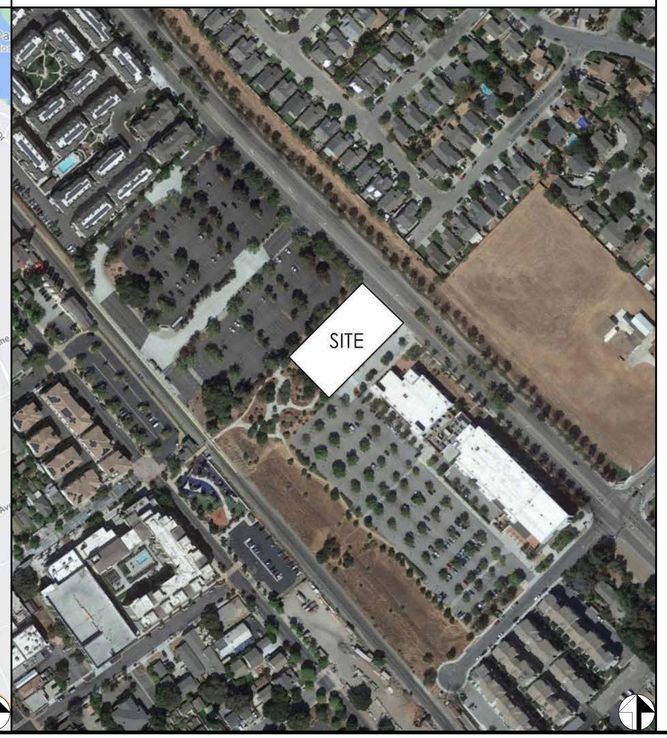
BUTTERFIELD FIRE STATION

17285 BUTTERFIELD BLVD. MORGAN HILL, CA 95037

LOCATION MAP



VICINITY MAP



PROJECT DATA

PROJECT ADDRESS:	17285 BUTTERFIELD BLVD. MORGAN HILL, CA 95037
ASSESSOR'S PARCEL NO.	(726-15-072)
OWNER:	CITY OF MORGAN HILL
GOVERNING AGENCY:	CITY OF MORGAN HILL DEVEOPMENT SERVICES ZONING: PUBLIC FACILITIES
GOVERNING CODES:	2022 CBC 2022 CMC 2022 CEC 2022 CPC 2022 CFC 2022 CALIFORNIA GREEN BUILDING STANDARDS 2022 CALIFORNIA ENERGY CODE
SCOPE OF WORK:	CONSTRUCT A NEW ONE-STORY FIRE STATION, INCLUDING AN APPARATUS BAY, WITH ASSOCIATED SUPPORT AREAS
OCCUPANCY GROUP:	B, R-2, S-2
CONSTRUCTION TYPE:	V-B SPRINKLERED

ALLOWABLE BLDG AREA:

B	36,000 S.F.
R-2	28,000 S.F.
S-2	54,000 S.F.

ACTUAL BLDG AREA:

FIRST FLOOR	6,065 S.F.
TOTAL BUILDING AREA	6,065 S.F.

ACTUAL AREA:

B ACTUAL:	1,280 S.F.
R-2 ACTUAL:	1,460 S.F.
S-2 ACTUAL:	3,325 S.F.

SITE AREA:	78,408 S.F. (1.8 ACRES)
NUMBER OF STORIES:	1
MAX BUILDING HEIGHT:	ALLOWABLE 60' - 0" ACTUAL 21' - 6"

PARKING:

PARKING PROVIDED:

VISITOR	4 SPACES PROVIDED AT (E) ADJACENT LOT
ACCESSIBLE	1 SPACE PROVIDED AT (E) ADJACENT LOT
STAFF	6 SECURE SPACES PROVIDED ON SITE
TOTAL	11 SPACES PROVIDED

PROJECT DESCRIPTION:

CONSTRUCTION OF A NEW WOOD FRAMED FIRE STATION, SURROUNDING LANDSCAPING AND FLAT WORK ON EXISTING UNDEVELOPED LOT. ACCESSIBLE PARKING WILL BE PROVIDED ON ADJACENT PARKING LOT.

LEGAL DESCRIPTION

PARCEL: (726-15-072)
LEGAL DESCRIPTION:

DEFFERED SUBMITTAL

1. THIS PROJECT IS TO BE PROTECTED THROUGHOUT BY AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903 OF THE CA FIRE CODE (NFPA 13).
2. PLANS FOR THE DESIGN AND INSTALLATION OF THE FIRE PROTECTION SYSTEM(S) ARE A SEPARATE SUBMITTAL AND SHALL BE SUBMITTED AND APPROVED, PRIOR TO ANY INSTALLATION OF WORK.
3. PRE-FABRICATED WOOD ROOF TRUSSES

NOTE:
A REGISTERED CALIFORNIA ARCHITECT, CIVIL OR STRUCTURAL ENGINEER SHALL OBSERVE THE WORK OF CONSTRUCTION AND SUBMIT AFFIDAVITS ATTESTING TO THE COMPLIANCE OF THE CONSTRUCTION WITH THE APPROVED CONTRACT DOCUMENTS.

PROJECT TEAM

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ALTERNATES

ADD ALTERNATE #1:
COVERED PARKING STRUCTURE

ADD ALTERNATE #2:
SOLAR ON BUILDING (ARRAY 1)

ADD ALTERNATE #3:
SOLAR ON PARKING STRUCTURE (ARRAY 2)

ADD ALTERNATE #4:
CONCRETE HOSE DRYING RACK

ADD ALTERNATE #5:
MICRO GRID SYSTEM

LICENSED ARCHITECT
JEFFREY A. KATZ
C31823
REN. 09/10/23
STATE OF CALIFORNIA

coar DESIGN GROUP
previously JKA
200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

ABBREVIATIONS

&	AND
L	ANGLE
@	AT
℄	CENTERLINE
ϕ	DIAMETER OR ROUND
#	POUND OR NUMBER
ACOUS.	ACOUSTICAL
A.D.	AREA DRAIN
ADJ.	ADJUSTABLE
AGGR.	AGGREGATE
ALUM.	ALUMINUM
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
ASPH.	ASPHALT
BD.	BOARD
BITUM.	BITUMINOUS
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
CAB.	CABINET
C.B.	CATCH BASIN
CEM.	CEMENT
CER.	CERAMIC
C.I.	CAST-IRON
CJ	CONTROL JOINT
CLG.	CEILING
CLKG.	CAULKING
CLO.	CLOSET
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
CORR.	CORRIDOR
CTSK.	COUNTERSUNK
C.T.	CERAMIC TILE
DBL.	DOUBLE
DET	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DISP.	DISPENSER
DN.	DOWN
DWR.	DRAWER
DS.	DOWNSPOUT
D.S.P.	DRY STANDPIPE
DWG.	DRAWING
E.	EAST
EA.	EACH
E.J.	EXPANSION JOINT
ELE.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EMER.	EMERGENCY
ENCL.	ENCLOSURE
EQ.	EQUAL
EQPT.	EQUIPMENT
EXST.	EXISTING
EXPO.	EXPOSED
EXP.	EXPANSION
EXT	EXTERIOR
F.A.	FIRE ALARM
F.D.	FLOOR DRAIN
FDN	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.H.C.	FIRE HOSE CABINET
FIN.	FINISH
FL	FLOOR
FLASH	FLASHING
FLUOR.	FLUORESCENT
F.O.B.	FACE OF BLOCK
F.O.C.	FACE OF CONCRETE
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUDS
F.S.	FULL SIZE
FT	FOOT OR FEET
FTG.	FOOTING
FURR.	FURRING
F.F.E.	FINISHED FLOOR ELEVATION
GA.	GAUGE
GALV.	GALVANIZED
G.B.	GRAB BAR
GLASS	GLASS
GR	GRADE
GYP.	GYPSUM
H.B.	HOSE BIB
H.C.	HOLLOW CORE
HDWD.	HARDWOOD
HDW.	HARDWARE
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H	HEIGHT
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
IRRIG.	IRRIGATION
JT.	JOINT
LAM.	LAMINATED
LAV.	LAVATORY
MAX.	MAXIMUM
M.C.	MEDICINE CABINET
MECH.	MECHANICAL
MET.	METAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC	MISCELLANEOUS
M.O.	MASONRY OPENING
MTD.	MOUNTED
NO.	NORTH
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.A.	OVERALL
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPNG.	OPENING
OPP.	OPPOSITE
PC.	PRE-CAST
PL.	PLATE
P.LAM.	PLASTIC LAMINATE
PLAS.	PLASTER
PLYWD	PLYWOOD
PR.	PAIR
PT.	POINT
P.T.DISP.	PAPER TOWEL DISPENSER
RECP.	RECEPTACLE
RAD.	RADIUS
R.D.	ROOF DRAIN
REF.	REFERENCE
REFR.	REFRIGERATOR
REINF.	REINFORCED
REQ.	REQUIRED
RM.	ROOM
R.O.	ROUGH OPENING
RS.	RE-SAWN
RWD.	REDWOOD
R.W.L.	RAIN WATER LEADER
SO.	SOUTH
S.C.	SOLID CORE
S.C.DISP.	SEAT COVER DISPENSER
SCHD.	SCHEDULE
S.DISP.	SOAP DISPENSER
SECT.	SECTION
SH.	SHELF OR SHEET
SHR.	SHOWER
SIM	SIMILAR
SPEC.	SPECIFICATION
SQ.	SQUARE
ST.STL.	STAINLESS STEEL
STA.	STATION
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
STRUC.	STRUCTURAL
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
S.M.	SHEET METAL
T.C.	TOP OF CURB
TEL.	TELEPHONE
TER.	TERRAZZO
TG	TEMPERED GLASS
T&G	TONGUE AND GROOVE
THK.	THICK
T.P.	TOP OF PAVEMENT
T.P.DISP.	TOILET PAPER DISPENSER
T.V.	TELEVISION
TYP.	TYPICAL
T.O.	TOP OF
T.O.F.	TOP OF FRAMING
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF SHEATHING
U.O.N.	UNLESS OTHERWISE NOTED
UR	URINAL
VERT.	VERTICAL
VEST.	VESTIBULE
V.I.F.	VERIFY IN FIELD
V.T.R.	PLUMBING VENT THRU ROOF
W	WEST
W/	WITH
W.C.	WATER CLOSET
WD.	WOOD
W/O	WITHOUT
WP.	WATERPROOF
WPJ	WEAKENED PLANE JOINT
WSCT	WAINSCOT
WT.	WEIGHT

GENERAL NOTES

DIVISION 1

1.1 DIMENSIONS SHOWN ON THE FLOOR PLANS, SECTIONS AND DETAILS ARE TO FACE OF STUDS, COLUMN GRID LINES AND FACE OF CONCRETE AND BLOCK WALLS, UNLESS OTHERWISE NOTED OR SHOWN.

1.2 CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.

1.3 ALL ITEMS ARE BASE BID UNLESS OTHERWISE NOTED OR SPECIFIED.

1.4 BRAND OR TRADE NAME, SUBSTITUTIONS OF "EQUALS": REQUESTS FOR SUBSTITUTIONS OF AN ITEM AS AN "EQUAL" TO ANY ITEM INDICATED OR SPECIFIED MUST BE INCLUDED AS A PART OF THE CONTRACTOR'S BID PROPOSAL, AS SPECIFIED IN THE GENERAL CONDITIONS.

1.5 WRITTEN DIMENSIONS TAKE PRECEDENCE OVER GRAPHIC SCALE. DO NOT SCALE DRAWINGS.

1.6 ALL REQUIRED PERMITS MUST BE OBTAINED FROM FIRE PLAN CHECK BEFORE BUILDING IS OCCUPIED.

1.7 THESE PLANS AND ALL WORK SHALL COMPLY WITH THE CALIFORNIA BUILDING STANDARDS CODE FOUND IN THE STATE OF CALIFORNIA TITLE 24 CCR, AS AMENDED AND ADOPTED BY SANTA CLARA COUNTY.

1.8 CONTRACTOR SHALL THOROUGHLY COORDINATE ALL TRADES AS REQUIRED TO COMPLETE ALL WORK INDICATED AND NECESSARY FOR THE PROJECT.

1.9 THE CONTRACTOR SHALL ENFORCE ALL SAFETY MEASURES. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATION.

1.10 CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

1.11 NO HAZARDOUS MATERIALS WILL BE USED OR STORED WITHIN THE BUILDING WHICH EXCEED THE QUANTITIES SHOWN ON CBC TABLE 5003.1.1.

1.12 WORK NOT SPECIFICALLY INDICATED OR SPECIFIED BUT WHICH IS REQUIRED FOR THE COMPLETION OF THE WORK SHALL BE PROVIDED IN THE SAME MANNER AS SIMILAR WORK WHICH IS REQUIRED OR SPECIFIED WITHOUT ADDITIONAL CHARGE.

DIVISION 2

2.1 CONTRACTOR SHALL REPLACE IN KIND ANY TRAFFIC SENSORS DAMAGED DURING CONSTRUCTION.

2.2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND / OR BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEY OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.

2.3 CONTRACTOR SHALL PROTECT EXISTING SITE FEATURES AND SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED DURING CONSTRUCTION.

2.4 THE CONSTRUCTION, REMODEL, OR DEMOLITION OF A BUILDING SHALL COMPLY WITH THE REQUIREMENTS OF SANTA CLARA COUNTY.

DIVISION 6

6.1 PROVIDE FIRE BLOCKING AT FLOOR, CEILING AND MID HEIGHT OF WALLS OVER 10'-0".

DIVISION 7

7.1 STRUCTURAL AND FIRE RESISTIVE INTEGRITY SHALL BE MAINTAINED AT PENETRATIONS FOR MECHANICAL, PLUMBING, ELECTRICAL, AND COMMUNICATIONS PIPE, DUCT AND CONDUIT AS INDICATED.

7.2 PENETRATION OF FIRE RESISTIVE WALLS, FLOOR - CEILING ASSEMBLIES AND ROOF - CEILINGS SHALL BE PROTECTED AS REQUIRED IN CBC SECTION 712 AND 713.

DIVISION 8

8.1 EVERY EXIT DOOR SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE.

8.2 CONTRACTOR SHALL PROVIDE ACCESS PANELS REQUIRED BY THE PLUMBING, AIR CONDITIONING AND OTHER INSTALLERS, AS REQUIRED BY CODE. ANY ACCESS PANEL IN A FIRE RATED WALL OR CEILING SHALL HAVE THE SAME FIRE RATING AS THE WALL OR CEILING IN WHICH THEY OCCUR.

8.3 A FLOOR OR LANDING NOT MORE THE 1/4" BELOW THE THRESHOLD IS REQUIRED AT EACH SIDE OF AN EXIT DOOR.

8.4 DOOR HARDWARE SHALL BE LEVER TYPE.

8.5 MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS.

DIVISION 9

9.1 STUCCO, PLASTER AND GYPSUM BOARD SHALL TERMINATE WITH A "J" MOLDING WHERE THE EDGE IS EXPOSED UNLESS NOTED OR SPECIFIED OTHERWISE.

9.2 GYPSUM BOARD FOR FIRE RATED ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH CBC CHAPTER 7.

9.3 INTERIOR FINISHES SHALL COMPLY WITH THE PROVISIONS OF CBC CHAPTER 8.

9.4 ALL DECORATIVE MATERIALS SHALL BE MAINTAINED IN A FLAME-RETARDANT CONDITION.

DIVISION 10

10.1 BUILDING NUMBERS SHALL BE EASILY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

DIVISION 21

21.1 WHEN SERVING MORE THAN 100 SPRINKLER HEADS, AUTOMATIC SPRINKLER SYSTEMS SHALL BE SUPERVISED BY AN APPROVED CENTRAL PROGRAM OR REMOTE STATION SERVICE OR SHALL BE PROVIDED WITH A LOCAL ALARM WHICH WILL GIVE AN AUDIBLE SIGNAL AT A CONSTANTLY ATTENDED LOCATION.

DIVISION 22

22.1 ALL DRAIN LINES WITHIN WALLS ARE TO BE WRAPPED IN SOUND INSULATION BATTS.

DIVISION 23

23.1 FIRE DAMPER ASSEMBLIES, INCLUDING SLEEVES AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO INSTALLATION.

DIVISION 26

26.1 EXIT SIGNS MUST BE INTERNALLY ILLUMINATED (UFC SEC. 1212.4 & CBC SEC.1006).

26.2 TWO SEPARATE POWER SUPPLIES SHALL BE PROVIDED FOR EXIT SIGNS PER(CBC SEC. 1006).

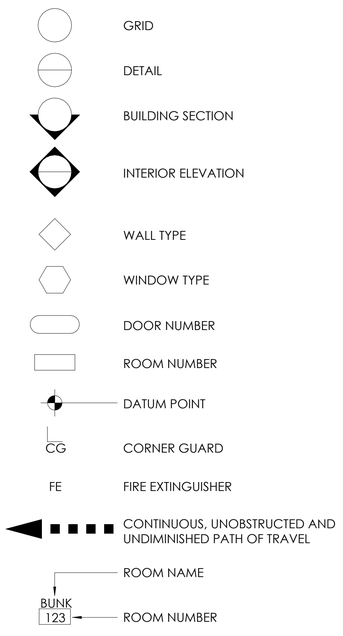
DIVISION 33

33.1 IT SHOULD BE NOTED THAT WHILE EXISTING UTILITY DRAWINGS ARE AVAILABLE, THERE IS NO ASSURANCE THAT ALL UTILITIES ARE SHOWN. THE CONTRACTOR SHALL PROCEED WITH CAUTION TO INSURE THAT ALL UTILITIES ENCOUNTERED, WHETHER OR NOT OF RECORD, SHALL BE PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL ALSO TAKE PRECAUTIONS NECESSARY TO PROTECT HIMSELF AND ALL EMPLOYEES FROM INJURY WHICH MAY BE CAUSED BY CONTACT WITH UTILITY SERVICES.

FIRE NOTES

1. AT LEAST ONE PORTABLE FIRE EXTINGUISHER WITH A MINIMUM RATING OF 2A10BC SHALL BE PROVIDED WITHIN 75' MAXIMUM TRAVEL DISTANCE FOR EACH 3,000 SQUARE FEET OR PORTION THEREOF ON EACH FLOOR (CFC 906, UFC STANDARD 10-1, TITLE 19, SECT. 3.29). SEE PLANS FOR LOCATIONS.
2. AT LEAST ONE FIRE EXTINGUISHER WITH A MINIMUM RATING OF 4A20BC SHALL BE PROVIDED OUTSIDE OF EACH MECHANICAL, ELECTRICAL OR BOILER ROOM. (CFC 906, UFC STANDARD 10-1, TITLE 19, SECT. 3.29). SEE PLANS FOR LOCATIONS.
3. COMPLETE PLANS AND SPECIFICATIONS FOR FIRE-EXTINGUISHING SYSTEMS, INCLUDING AUTOMATIC SPRINKLERS AND WET AND DRY STANDPIPES, HALON SYSTEMS AND OTHER SPECIAL TYPES OF AUTOMATIC FIRE-EXTINGUISHING SYSTEMS, BASEMENT PIPE INLETS, AND OTHER FIRE-PROTECTION SYSTEMS AND APPURTENANCES THERETO SHALL BE SUBMITTED BY THE CONTRACTOR TO FIRE AND LIFE SAFETY FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. (CFC 901.2)
4. FIRE-EXTINGUISHING SYSTEMS SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH CBC 903.
5. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS AND WATER-FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY MONITORED WHERE THE NUMBER OF SPRINKLERS IS 100 OR MORE. (CBC 904.3.1, CFC 903.4)
6. COMPLETE PLANS AND SPECIFICATIONS FOR FIRE ALARM SYSTEMS INCLUDING AUTOMATIC SPRINKLERS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE FIRE MARSHAL FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. (CFC 1001.3)
7. INSTALLATION OF FIRE ALARM SYSTEMS SHALL BE IN ACCORDANCE WITH CFC 907.
8. AN APPROVED AUDIBLE SPRINKLER FLOW ALARM SHALL BE PROVIDED ON THE EXTERIOR OF THE BUILDING IN AN APPROVED LOCATION. AN APPROVED AUDIBLE SPRINKLER FLOW ALARM TO ALERT THE OCCUPANTS SHALL BE PROVIDED IN THE INTERIOR OF THE BUILDING IN A NORMALLY OCCUPIED LOCATION.
9. ANY TIME A BUILDING IS OCCUPIED THE MEANS OF EGRESS SHALL BE ILLUMINATED AT AN INTENSITY OF NOT LESS THEN 1 FOOT-CANDLE AT THE FLOOR LEVEL.
10. EGRESS ILLUMINATION REQUIRES A SOURCE OF EMERGENCY POWER WHEN THE OCCUPANT LOAD IS 100 OR MORE.

SYMBOLS



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E3.3	ROOF PLAN - PHOTOVOLTAIC
E5.1	POWER SINGLE LINE DIAGRAM & LOW VOLTAGE DIAGRAMS
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E6.1	PANEL SCHEDULES
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FE0.1	FIRE ALARM EQUIPMENT LIST, GENERAL NOTES & DETAILS
FE3.1	FLOOR PLAN - FIRE ALARM
SHADE STRUCTURE	
1.0	ELEVATION
2.0	ANCHOR BOLT LAYOUT
3.0	FRAME
4.0	ROOF LAYOUT
5.0	ELECTRICAL

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
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SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-2

CLEAR FLOOR SPACE FOR WHEELCHAIRS

1. MINIMUM CLEAR FLOOR OR GROUND SPACE REQUIRED TO ACCOMMODATE A SINGLE, STATIONARY WHEELCHAIR AND OCCUPANT IS 30" x 48". MINIMUM CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE POSITIONED FOR FORWARD OR PARALLEL APPROACH TO AN OBJECT. FLOOR OR GROUND SPACE FOR WHEEL CHAIRS MAY BE PART OF THE KNEE SPACE AND TOE CLEARANCE REQUIRED UNDER SOME OBJECTS. ONE FULL UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR SPACE.
2. ALCOVES ARE TO BE 60" WIDE WHEN GREATER THAN 15" DEEP.
3. PROVIDE AN ADDITIONAL 6" WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 24" DEEP AND DESIGNED FOR FRONT APPROACH.

HAZARDS AND PROTRUDING OBJECTS

1. OBJECTS WITH LEADING EDGES BETWEEN 27" AND 80" ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4" INTO CIRCULATION PATH.
2. OBJECTS MOUNTED WITH THEIR LEADING EDGES AT OR BELOW 27" ABOVE THE FINISHED FLOOR MAY PROTRUDE ANY AMOUNT.
3. OBJECTS MOUNTED ON POSTS / PYLONS MAY OVERHANG 12" MAXIMUM FROM 27" TO 80" ABOVE THE GROUND OR FINISHED FLOOR.
4. PROTRUDING OBJECTS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE.
5. ANY OBSTRUCTION OVERHANGING A PEDESTRIAN WAY SHALL BE A MINIMUM OF 80" ABOVE THE WALKING SURFACE AS MEASURED TO THE BOTTOM OF THE OBSTRUCTION. GUARDRAILS OR OTHER BARRIERS SHALL BE PROVIDED WHERE THE VERTICAL CLEARANCE IS LESS THAN 80". SUCH GUARDRAILS SHALL BE LOCATED 27" MAX ABOVE FINISHED FLOOR.

PARKING

1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE TO AN ACCESSIBLE ENTRANCE.
2. SURFACE SLOPES OF PARKING SPACES FOR THE PHYSICALLY DISABLED SHALL NOT EXCEED 1/4 INCH PER FOOT (2% GRADIENT) IN ANY DIRECTION.
3. DISABLED PARKING SPACES SHALL BE LOCATED SO AS NOT TO REQUIRE USERS TO WHEEL OR WALK BEHIND ANY OTHER NON-DISABLED OR DISABLED PARKING SPACE. OTHER THAN TO PASS BEHIND THE PARKING SPACE IN WHICH THEY PARKED.
4. IN EACH PARKING AREA, A BUMPER OR CURB SHALL BE PROVIDED AND LOCATED TO PREVENT ENCROACHMENT OF CARS OVER THE REQUIRED WIDTH OF ADJACENT ACCESSIBLE ROUTES.
5. PARKING SPACES RESERVED FOR PERSONS WITH DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE, CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT, IN WHITE ON DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70" IN AREA AND, WHEN IN THE PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80" FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. WHEN NOT IN THE PATH OF TRAVEL SIGNS MAY ALSO BE ON THE WALL AT THE INTERIOR END OF THE PARKING SPACE AT A MIN. HEIGHT OF 60" FROM THE PARKING SPACE FINISHED GRADE, GROUND, OR SIDEWALK MEASURED TO THE BOTTOM OF THE SIGN.
6. ADDITIONAL LANGUAGE OR AN ADDITIONAL SIGN BELOW THE ISA SHALL STATE "MINIMUM FINE $250"
7. VAN ACCESSIBLE SPACES SHOULD BE IDENTIFIED WITH THE ADDITIONAL WORDS "VAN ACCESSIBLE" ON THE SPACE IDENTIFICATION SIGN, ONE IN EVERY SIX ACCESSIBLE SPACES, BUT NEVER LESS THAN ONE, MUST BE VAN ACCESSIBLE.

WALKS AND SIDEWALKS

1. WALKS AND SIDEWALKS SHALL HAVE A CONTINUOUS COMMON SURFACE NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL WHICH EXCEED 1/4", AND SHALL BE A MINIMUM OF 48" IN WIDTH.
2. SURFACE CROSS SLOPES SHALL NOT EXCEED 2%. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 5%.
3. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER. ENLONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.
4. WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1 VERTICAL TO 20 HORIZONTAL, IT SHALL COMPLY WITH THE PROVISIONS OF RAMPS.
5. WHEN ABRUPT CHANGES IN LEVEL NOT EXCEEDING 1/2" OCCUR, THEY SHALL BE BEVELED WITH A SLOPE NO GREATER THE 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL (50%), EXCEPT THAT LEVEL CHANGES NOT EXCEEDING 1/4" MAY BE VERTICAL.
6. ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE EXCEEDING 1/2" SHALL COMPLY WITH THE REQUIREMENTS FOR CURB RAMPS AND RAMPS.
7. WALKS SHALL BE PROVIDED WITH A LEVEL AREA NOT LESS THAN 60" x 60" AT A DOOR OR GATE THAT SWINGS TOWARD THE WALK, AND NOT LESS THAN 48" x 44" DEEP AT A DOOR OR GATE THAT SWINGS AWAY FROM THE WALK.
8. WALKS SHALL EXTEND A MINIMUM OF 24" TO THE SIDE OF THE STRIKE EDGE OF A DOOR OR GATE THAT SWINGS TOWARD THE WALK.
9. WALK AND SIDEWALK SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT.
10. ABRUPT CHANGES IN LEVEL 4" OR MORE IN A VERTICAL DIMENSION BETWEEN WALKS, SIDEWALKS OR OTHER PEDESTRIAN WAYS AND ADJACENT SURFACES OR FEATURES SHALL BE IDENTIFIED BY A 6" MIN. HIGH CURB ABOVE WALK SURFACE OR GUARDRAIL W/ 2"-4" CENTERED HIGH GUIDE RAIL

ENTRANCES AND DOORS

1. ALL PRIMARY ENTRANCES AND EXTERIOR GROUND FLOOR EXIT DOORS TO BUILDINGS AND FACILITIES SHALL BE MADE ACCESSIBLE TO THE PHYSICALLY DISABLED.
2. ALL ACCESSIBLE ENTRANCES SHALL BE IDENTIFIED WITH ONE STANDARD INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS IDENTIFYING THE LOCATION OF NEAREST ACCESSIBLE ENTRANCE, AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRIAN WAYS.
3. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 36 INCHES IN WIDTH, AND NOT LESS THAN 80" IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE MOUNTED SO THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32".
4. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP, PINCH OR TWIST THE OPENING HARDWARE AND MUST BE OPERABLE WITH ONE HAND.
5. THE OPERABLE PARTS OF LEVER HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE MOUNTED BETWEEN 34" MINIMUM AND 44" MAXIMUM ABOVE THE FLOOR AND NOT REQUIRE MORE THAN 5 POUNDS OF FORCE TO OPERATE.
6. THE FLOOR OR LANDING LENGTH ON EACH SIDE OF AN ENTRANCE OR A PASSAGE DOOR SHALL BE LEVEL AND CLEAR AT LEAST 60" IN THE DIRECTION OF THE DOOR SWING AND AT LEAST 48" OPPOSITE THE DIRECTION OF THE DOOR SWING AS MEASURED AT RIGHT ANGLES TO THE FACE OF THE DOOR IN THE CLOSED POSITION. THE WIDTH OF THE LEVEL AND CLEAR AREA ON THE SIDE WHICH THE DOOR SWINGS SHALL EXTEND A MINIMUM OF 24" PAST THE STRIKE EDGE OF THE DOOR FOR DOORS WITH LATCH SIDE APPROACH AND 36" FOR DOORS REQUIRING HINGE SIDE APPROACH. REFER TO DETAIL B3 ON THIS DRAWING FOR ADDITIONAL CLEARANCE REQUIREMENTS.
7. THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.
8. THE BOTTOM 10" OF ALL DOORS (EXCEPT SLIDING) SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION WHERE NARROW FRAME DOORS ARE USED, A 10" HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR, WHICH WILL ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST. SURFACES ALONG THIS AREA MUST BE WITHIN 1/16" OF THE SAME PLANE AS THE OTHER. CAVITITES CREATED BY KICK PLATES MUST BE CAPPED.
9. THE MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS. FOR EXTERIOR DOORS AND 5 LBS. FOR INTERIOR DOORS. SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY NOT EXCEED 15 LBS.
10. DOOR CLOSERS REQUIRE AT LEAST 5 SECONDS TO CLOSE FROM AN OPEN POSITION OF 90 DEGREES TO 12 DEGREES FROM THE LATCH
11. EACH GRADE-LEVEL EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE SIGN WITH THE WORD "EXIT". EACH EXIT DOOR THAT LEADS DIRECTLY TO GRADE-LEVEL EXTERIOR EXIT BY MEANS OF STAIRWAY OR RAMP IS IDENTIFIED BY A TACTILE SIGN THAT STATES "EXIT STAIR DOWN," "EXIT RAMP DOWN," "EXIT STAIR UP," OR "EXIT RAMP UP" AS APPROPRIATE. EACH EXIT DOOR THAT LEADS DIRECTLY TO GRADE-LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE OR EXIT PASSAGEWAY IS IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE", EACH ACCESS DOOR FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY THAT IS REQUIRED TO HAVE A VISUAL EXIT SIGN IS IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE". EACH DOOR THROUGH AN HORIZONTAL EXIT IS IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "TO EXIT".
12. VISION LIGHTS MUST HAVE BOTTOM OF AT LEAST ONE GLAZED PANEL LOCATED 43" MAX. ABOVE FLOOR FINISH.

STAIRS AND STAIRWAYS

1. STAIRWAYS SHALL HAVE HANDRAILS ON EACH SIDE. EVERY STAIRWAY REQUIRED TO BE MORE THAN 88" IN WIDTH SHALL BE PROVIDED WITH NOT LESS THAN ONE INTERMEDIATE HANDRAIL FOR EACH 88" OF REQUIRED WIDTH. INTERMEDIATE HANDRAILS SHALL BE SPACED APPROXIMATELY EQUALLY WITHIN THE ENTIRE WIDTH OF THE STAIRWAY.
2. THE UPPER APPROACH AND THE LOWER TREAD OF EACH INTERIOR STAIR SHALL BE MARKED BY A STRIPE OF CLEARLY CONTRASTING COLOR 2" WIDE MINIMUM & 4"WIDE MAXIMUM AND PLACED PARALLEL TO, AND NOT MORE THAN, 1" FROM THE NOSE OF THE STEP OR LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIPE IS TO EXTEND THE FULL WIDTH OF THE STEP. THE STRIPE SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE TREADS OF THE STAIR.
3. WHERE STAIRS OCCUR OUTSIDE OF A BUILDING, THE UPPER APPROACH AND ALL TREADS SHALL BE MARKED BY A STRIPE OF CLEARLY CONTRASTING COLOR 2" WIDE MIN & 4" WIDE MAX. AND PLACED PARALLEL TO, AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OF LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIPE IS TO EXTEND THE FULL WIDTH OF THE STEP, THE STRIPE SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP-RESISTANT AS THE TREADS OF THE STAIR. A PAINTED STRIPE SHALL BE ACCEPTABLE.
4. ALL STAIR TREAD SURFACES SHALL BE SLIP-RESISTANT.

HANDRAILS ON STAIRS

1. HANDRAILS AT STAIRWAYS SHALL BE 34" TO 38" ABOVE THE NOSING OF THE TREADS.
2. HANDRAILS AT THE TOP OF STAIRWAYS SHALL EXTEND A MINIMUM OF 12" OF LEVEL DISTANCE BEYOND THE TOP NOSING. HANDRAILS AT THE BOTTOM OF STAIRWAYS SHALL EXTEND A MINIMUM OF TREAD WIDTH PLUS 12" BEYOND THE BOTTOM NOSING BEFORE THEY ARE RETURNED. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF THE WIDTH OF ONE TREAD FROM THE BOTTOM RISER. THE REMAINDER OF THE EXTENSION IS HORIZONTAL (LEVEL).
3. WHERE THE EXTENSION OF THE HANDRAIL IN THE DIRECTION OF THE STAIR RUN WOULD CREATE A HAZARD, THE EXTENSION SHALL BE MADE AT RIGHT ANGLES, ON THE FACE OF A RETURNING WALL. WHERE THE STAIRS ARE CONTINUOUS THE HANDRAIL SHALL BE CONTINUOUS AND NEED NOT EXTEND OUT INTO THE LANDING.
4. HANDRAILS SHALL NOT REDUCE THE REQUIRED WIDTH OF STAIR. WHERE HANDRAIL EXTENSIONS PROTRUDE MORE THAN 4 1/2" INTO AN ADJACENT ROUTE OF TRAVEL, PROVIDE CANE-DETECTABLE RAIL AT 27" ABOVE LANDING.
5. HANDRAILS SHALL BE CONTINIOUS WITHIN THE FULL LENGTH OF EACH STAIR FLIGHT OR RAMP RUN. INSIDE HANDRAILS ON SWITCHBACK OR DOGLEG STAIRS AND RAMPS SHALL BE CONTINUOUS BETWEEN FLIGHTS OR RUNS.

RAMPS

1. ALL RAMPS USED AS EXITS AND ANY PATH OF TRAVEL HAVING A SLOPE GREATER THAN 1:20 SHALL COMPLY WITH THE REQUIREMENTS OF THIS SECTION. RAMPS SHALL HAVE THE LEAST POSSIBLE SLOPE.
2. PEDESTRIAN RAMPS SHALL HAVE A MINIMUM WIDTH OF 48". RAMPS SERVING AN OCCUPANCY LOAD GREATER THAN 300 SHALL HAVE A MINIMUM WIDTH OF 60".
3. ALL RAMPS IN AREAS ACCESSIBLE TO PERSONS WITH DISABILITIES ON A PATH OF TRAVEL OR SERVING EXITS SHALL HAVE A 1:12 MAXIMUM SLOPE WITH CROSS SLOPES NO GREATER THAN 1:50. LANDINGS NOT TO EXCEED 1:50 IN ANY DIRECTION.
4. INTERMEDIATE LANDINGS OCCURRING AT NO DIRECTION CHANGE TO BE 60" LONG, RAMPS W/ INTERMEDIATE LANDING < OR EQUAL TO 30 DEGREES SHALL BE OF 60" LENGTH AND 60" WIDTH, INTERMEDIATE LANDINGS OCCURRING AT > EQUAL TO 30 DEGREES SHALL BE OF 72" LENGTH AND 60" WIDTH.
5. THE LEVEL LANDING WIDTH OF ANY RAMP SHALL EXTEND 24" PAST THE STRIKE EDGE OF ANY EXTERIOR DOOR OR GATE.
6. DOORS STANDING IN ANY POSITION SHALL NOT REDUCE THE MINIMUM DIMENSION OF THE RAMP TO LESS THAN 42" OR THE REQUIRED WIDTH BY MORE THAN 3".
7. HANDRAILS ARE REQUIRED ON RAMPS WHEN THE SLOPE EXCEEDS 1:20 (5%). HANDRAILS AT RAMPS SHALL RUN ALONG BOTH SIDES OF A RAMP, BE CONTINUOUS THE FULL LENGTH, AND EXTENSIONS AT THE TOP AND BOTTOM OF THE RAMP SHALL BE 12" MIN.
8. THE HANDRAIL GRIP SURFACE AT RAMPS SHALL BE MOUNTED BETWEEN 34" AND 38" ABOVE THE RAMP SURFACE.
9. ALL HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS.
10. ALL HANDRAILS PROJECTED FROM A WALL SHALL BE MOUNTED WITH A MINIMUM 1-1/2 INCHES BETWEEN THE WALL AND THE HANDRAIL.
11. THE HAND GRIP PORTION OF HANDRAILS SHALL BE NOT LESS THAN 1-1/4" NOR MORE THAN 2" IN CROSS-SECTIONAL DIMENSION OR SHAPE AND SHALL PROVIDE AN EQUIVALENT SMOOTH GRIPPING SURFACE WITH NO SHARP CORNERS. HANDRAIL GRIPPING SURFACES WITH A NON-CIRCULAR CROSS SECTION SHALL HAVE A PERIMETER DIMENSION OF 4"MIN. AND 6 1/4" MAX. AND A CROSS SECTION DIMENSION OF 2 1/4" MAX.
12. HANDRAILS CANNOT PROJECT INTO THE REQUIRED CLEAR WIDTH OF THE RAMP MORE THAN 3 1/2" FROM EACH SIDE OF THE RAMP AT THE HANDRAIL HEIGHT.

SANITARY FACILITIES (GENERAL)

1. ALL DOORWAYS LEADING TO SANITARY FACILITIES SHALL HAVE 32" CLEAR, UNOBSTRUCTED OPENINGS.
2. ALL SINKS, FAUCET CONTROLS, AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.
3. LAVATORIES SHALL BE MOUNTED WITH A MINIMUM DISTANCE OF 18" FROM A WALL OR PARTITION TO THE CENTER OF THE FIXTURE. ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM AND/OR COUNTER SURFACE NO HIGHER THAN 34" ABOVE THE FLOOR.

TOILET ROOM FIXTURES AND ACCESSORIES

1. THE HEIGHT OF ACCESSIBLE WATER CLOSETS SHALL BE A MINIMUM OF 17" AND A MAXIMUM OF 19" MEASURED TO THE TOP OF THE TOILET SEAT.
2. PROVIDE 17" MINIMUM - 18" MAXIMUM FROM THE CENTERLINE OF THE WATER CLOSET TO THE ADJACENT WALL.
3. TOILET AND URINAL FLUSH CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. CONTROLS FOR THE FLUSH VALVES SHALL BE MOUNTED ON THE OPEN (WIDE) SIDE OF THE TOILET STALL. TOILET AND URINAL FLUSH CONTROLS SHALL BE NO MORE THAN 44" ABOVE THE FLOOR. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS.
4. WHERE URINALS ARE PROVIDED, AT LEAST ONE STALL HAVE A CLEAR SPACE 30" WIDE BY 48" LONG IN FRONT OF THE URINAL. AT LEAST ONE URINAL WITH 13 1/2" MIN. RIM PROJECTION FROM THE WALL AND A MAXIMUM OF 17" ABOVE THE FLOOR SHALL BE INSTALLED.
5. AMBULATORY STALLS ARE REQUIRED WHERE 6 OR MORE STALLS ARE PROVIDED WITHIN A MULTIPLE ACCOMODATION TOILET ROOM OR WHERE THE COMBINATION OF URINALS AND WATER CLOSETS TOTALS SIX OR MORE FIXTURES. AMBULATORY ACCESSIBLE COMPARTMENTS SHALL BE 60" DEEP MIN. AND 35"MIN - 37" MAX WIDE. COMPARTMENT DOORS SHALL NOT SWING INTO THE MINIMUM REQUIRED COMPARTMENT AREA.
6. A CLEAR FLOOR SPACE 30" WIDE BY 48" LONG SHALL BE PROVIDED IN FRONT OF A LAVATORY TO ALLOW FORWARD APPROACH. SUCH CLEAR SPACE SHALL ADJOIN OR OVERLAP AN ACCESSIBLE ROUTE AND SHALL EXTEND INTO KNEE AND TOE SPACE UNDERNEATH LAVATORY.
7. LAVATORIES SHALL BE MOUNTED WITH A CLEARANCE OF AT LEAST 29" FROM THE FLOOR TO THE BOTTOM OF THE APRON WITH 27" MINIMUM KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30" IN WIDTH WITH 8" MINIMUM DEPTH AT THE TOP. TOE CLEARANCE SHALL BE SAME WIDTH AND A MINIMUM OF 9 INCHES HIGH FROM THE FLOOR AND A MINIMUM OF 17"-19"MAXIMUM DEEP FROM THE FRONT OF THE LAVATORY.
8. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
9. MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL HAVE BOTTOM OF REFLECTIVE SURFACE 40" MAX. ABOVE FINISHED FLOOR; MIRRORS MOUNTED ELSEWHERE SHALL HAVE BOTTOM EDGE OF REFLECTIVE SURFACE 35" MAX. ABOVE FINISHED FLOOR. TOP EDGE OF MIRRORS SHOULD BE 74" HIGH TO BE USEABLE BY AMBULATORY PEOPLE.
10. LOCATE PAPER TOWEL DISPENSERS, SANITARY NAPKIN DISPENSERS, AND WASTE RECEPTACLES WITH ALL OPERABLE PARTS NOT MORE THAN 40" FROM THE FLOOR.
11. LOCATE TOILET TISSUE DISPENSERS ON THE WALL 7-9" FROM THE FRONT OF THE WATER CLOSET TO THE CENTERLINE OF THE DISPENSER. THE OUTLET OF THE DISPENSER SHALL BE 19" MIN. ABOVE FINISHED FLOOR AND SHALL NOT BE LOCATED BEHIND GRAB BARS. DISPENSERS SHALL NOT BE OF A TYPE THAT CONTROLS DELIVERY OR THAT DOES NOT ALLOW CONTINIOUS PAPER FLOW.
12. DOORS CANNOT SWING INTO THE REQUIRED CLEAR FLOOR SPACE AT ANY FIXTURE OTHER THAN THE DOOR TO THE ACCESSIBLE WATER CLOSET COMPARTMENT. A DOOR, IN ANY POSITION, MAY ENCROACH INTO THE TURNING SPACE BY 12" MAX
13. CLEARANCE AROUND WATER CLOSET SHALL BE 60" WIDE x 56" DEEP PROVIDED IN FRONT OF THE WATER CLOSET, NO OTHER FIXTURES CAN BE LOCATED WITHIN THIS AREA. A MIN. 60" WIDE AND 48" DEEP MANEUVERING SPACE SHALL BE PROVIDED IN FRONT OF THE WATER CLOSET.
14. SANITARY NAPKIN DISPOSAL UNITS, IF PROVIDED, SHALL COMPLY WITH SECTION 11B-309.4 AND SHALL BE WALL MOUNTED AND LOCATED ON THE SIDE WALL BETWEEN THE REAR WALL OF THE TOILET AND THE TOILET PAPER DISPENSER. ADJACENT TO THE TOILET PAPER DISPENSER. THE DISPOSAL UNIT SHALL BE LOCATED BELOW THE GRAB BAR WITH THE OPENING OF THE DISPOSAL UNIT 19 INCHES MINIMUM ABOVE THE FINISH FLOOR.

MULTIPLE ACCOMMODATION TOILET ROOMS

1. A CLEAR SPACE, MEASURED FROM THE FLOOR TO A HEIGHT OF 27" ABOVE THE FLOOR, WITHIN THE SANITARY FACILITY ROOM, OF SUFFICIENT SIZE TO INSCRIBE A CIRCLE OF A DIAMETER NOT LESS THAN 60 INCHES, OR A T SHAPED SPACE IN ACCORDANCE WITH 11B-304.3.2 SHALL BE PROVIDED.
2. CLEARANCE AROUND A WATER CLOSET SHALL BE 60" MIN. MEASURED PERPENDICULAR FROM THE SIDE WALL AND 56" MIN. MEASURED PERPENDICULAR FROM THE REAR WALL. A 48" LONG CLEAR SPACE IN FRONT OF WATER CLOSET SHALL BE PROVIDED IF THE COMPARTMENT HAS AN END OPENING DOOR (FACING THE WATER CLOSET). A 60" LONG CLEAR SPACE SHALL BE PROVIDED IN COMPARTMENT WHEN DOOR IS LOCATED AT THE SIDE. GRAB BARS SHALL NOT PROJECT MORE THAN 3" INTO CLEAR SPACE SPECIFIED ABOVE.
3. WATER CLOSET COMPARTMENT SHALL BE EQUIPPED WITH DOOR THAT HAS AN AUTOMATIC CLOSING DEVICE, AND A CLEAR UNOBSTRUCTED OPENING WIDTH OF 32" WHEN LOCATED AT THE END, AND 34" WHEN LOCATED AT SIDE. WHEN THE DOOR IS POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
4. EXCEPT FOR DOOR OPENINGS, A CLEAR UNOBSTRUCTED ACCESS NOT LESS THAN 44" SHALL BE PROVIDED TO ALL WATER CLOSET COMPARTMENTS DESIGNED FOR USE BY THE DISABLED. THE SPACE IMMEDIATELY IN FRONT OF A WATER CLOSET COMPARTMENT SHALL BE NOT LESS THAN 48" AS MEASURED AT RIGHT ANGLES TO THE COMPARTMENT DOOR IN ITS CLOSED POSITION.
5. THE WATER CLOSET AND DOOR MANEUVERING CLEARANCE CANNOT OVERLAP IN THE ACCESSIBLE STALL.
6. STALL DOORS TO BE HINGED 4" MAXIMUM OPPOSITE THE WATER CLOSET FOR FRONT OR SIDE OPENING DOORS.
7. STALL DOORS CANNOT SWING INTO THE REQUIRED CLEAR AREA AT THE WATER CLOSET.
8. A DOOR PULL SHALL BE PLACED ON BOTH SIDES OF THE DOOR NEAR THE LATCH.

GRAB BARS

1. GRAB BARS SHALL BE LOCATED ON ONE SIDE AND THE BACK OF THE PHYSICALLY DISABLED TOILET STALL OR COMPARTMENT AND SHALL BE SECURELY ATTACHED 33" MINIMUM-36" MAXIMUM, MEASURED TO THE TOP OF GRIPING SURFACE, ABOVE AND PARALLEL TO THE FLOOR.
2. GRAB BARS AT THE SIDE SHALL BE AT LEAST 42" LONG WITH THE FRONT END POSITIONED 54"MINIMUM FROM THE BACK OF THE STALL AND WITH THE FRONT END POSITIONED 24" MINIMUM IN FRONT OF THE WATER CLOSET. THE SIDE GRAB BAR SHALL BE LOCATED 12" MAXIMUM FROM THE REAR WALL. GRAB BARS AT THE BACK SHALL NOT BE LESS THAN 36" LONG AND SHALL EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24"MINIMUM ON THE OTHER SIDE.
3. THE DIAMETER OR WIDTH OF THE GRIPPING SURFACES OF A GRAB BAR WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4"MIN AND 2" MAXIMUM. GRAB BARS WITH NON CIRCULAR CROSS SECTIONS SHALL HAVE A CROSS SECTION DIMENSION OF 2" MAXIMUM AND A PERIMETER DIMENSION OF 4" MIN AND 4.8" MAXIMUM. IF THE GRAB BARS ARE MOUNTED ADJACENT TO A WALL, THE SPACE BETWEEN THE WALL AND THE GRAB BARS SHALL BE 1-1/2".
4. GRAB BARS, AND ANY WALL OR OTHER SURFACE ADJACENT TO IT, SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS.
5. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
6. GRAB BARS SHALL BE DESIGNED TO SUPPORT A 250 POUND FORCE.
7. NO OBJECT TO BE MOUNTED WITHIN 1 1/2" BELOW OR 12" ABOVE ANY GRAB BAR.

SIGNAGE

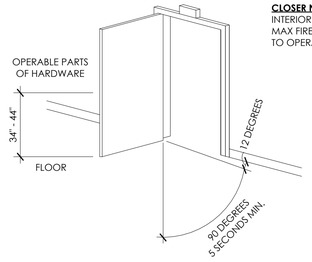
1. BASELINE OF THE HIGHEST LINE OF RAISED CHARACTER TO BE 60" MAXIMUM AND BASELINE OF THE LOWEST BRAILLE CELLS TO BE 48" MINIMUM ABOVE FINISHED FLOOR.
2. TACTILE ROOM IDENTIFICATION SIGNS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18" MIN. x 18" MIN. CENTERED ON SIGN IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING.

TELEPHONES

1. PROVIDE A 30" X 48" CLEAR SPACE AT TELEPHONE. THE CLEAR SPACE MAY INCLUDE KNEE SPACE UNDER THE TELEPHONE.
2. THE HIGHEST OPERABLE PART OF THE TELEPHONE SHALL BE 48" MAX.
3. TELEPHONES MOUNTED IN A CORNER THAT REQUIRE WHEELCHAIR USERS TO REACH DIAGONALLY SHALL HAVE THE HIGHEST OPERABLE PART NO HIGHER THAN 48" AFF.
4. THE CORD FROM THE TELEPHONE TO THE HANDSET SHALL BE AT LEAST 29" LONG.
5. ALL PUBLIC TELEPHONES SHALL HAVE VOLUME CONTROL AND BE IDENTIFIED WITH APPROPRIATE SIGNAGE
6. TELEPHONES SHALL HAVE PUSH-BUTTON CONTROLS WHERE SERVICE FOR SUCH EQUIPMENT IS AVAILABLE. ALL OPERABLE PARTS, INCLUDING BUT NOT LIMITED TO COIN RETURN, SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE TO ACTIVATE OPERABLE PARTS SHALL NOT EXCEED 5LBS MAX.

ADDITIONAL REQUIREMENTS

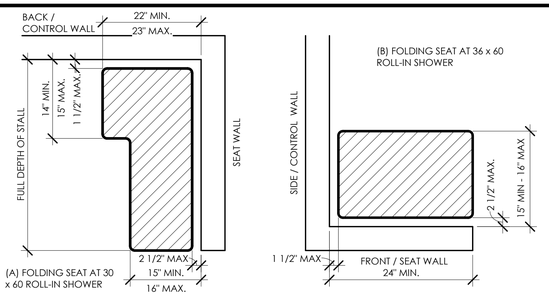
1. THE TOP OF THE BOX OF THE OPERATING HANDLE OF SWITCHES INTENDED TO BE USED BY OCCUPANTS OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL COMPLY WITH SECTION 11B-308 EXCEPT THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX.
2. ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL COMPLY WITH SECTION 11B-308 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.
3. HIGHEST OPERABLE PART OF FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED NO LESS THAN 42" AND NOT MORE THAN 48" MEASURED VERTICALLY FROM ABOVE THE LEVEL OF THE ADJACENT FLOOR, WORKING PLATFORM, GROUND SURFACE, OR SIDEWALK TO THE HIGHEST POINT OF THE ACTIVATING HANDLE OR LEVER OF THE BOTTOM.
4. INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PHYSICALLY DISABLED PERSONS. THE SYMBOL SPECIFIED ABOVE SHALL CONSIST OF A WHITE FIGURE ON BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595C.
5. ALL CONTROLS TO BE 15" MIN. TO 48" MAX., REGARDLESS OF APPROACH. WHERE A HIGH FORWARD REACH IS OVER AN OBSTRUCTION, THE CLEAR FLOOR SPACE SHALL EXTEND BENEATH THE ELEMENT FOR A DISTANCE NOT



NOTE:
DOOR CLOSERS, IF PRESENT, MUST BE SET SO THAT IT TAKES THE DOOR AT LEAST 5 SECONDS FROM 90 DEGREES TO 12 DEGREES FROM THE LATCH

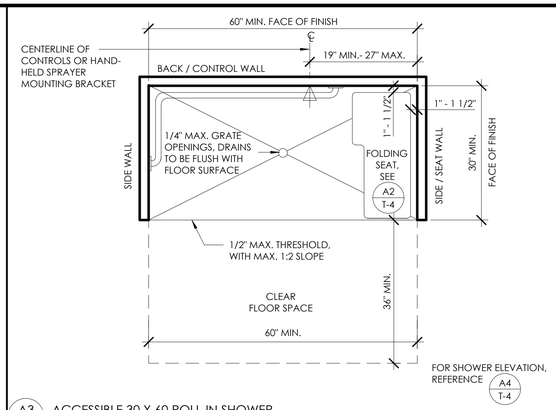
CLOSER NOTE:
INTERIOR DOOR / EXTERIOR DOOR 5 LBS. MAX FIRE RATED DOOR 15 LBS. MAX FORCE TO OPERATE

A1 T-4 ACCESSIBLE HARDWARE REQUIREMENTS
SCALE: 1/4" = 1'-0"

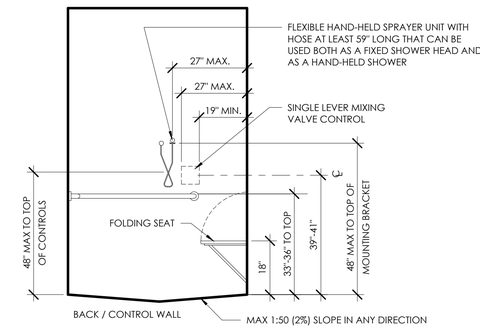


NOTES:
1. WHEN FOLDED, THE SHOWER SEAT DOES NOT EXTEND MORE THAN 6" FROM THE MOUNTING WALL.
2. SHOWER SEAT PROVIDES MINIMUM STRUCTURAL STRENGTH TO SUPPORT A 250 LB. POINT LOAD.
3. GRAB BARS ARE LOCATED ON WALLS ADJACENT TO AND OPPOSITE THE SEAT.
4. CONTINUOUS L-SHAPED GRAB BAR IS PROVIDED ALONG THE WALLS OPPOSITE FROM AND ADJACENT TO THE SEAT (BUT NOT TO EXTEND TO INCLUDED THAT PORTION OF WALL OVER THE SEAT.
5. THE TOP OF THE SEAT SHALL BE 17" MIN. AND 19" MAX. ABOVE FINISH FLOOR.
6. THE SEAT SHALL BE INSTALLED SO THAT IT EXTENDS TO A POINT WITHIN 3" OF THE COMPARTMENT ENTRY.

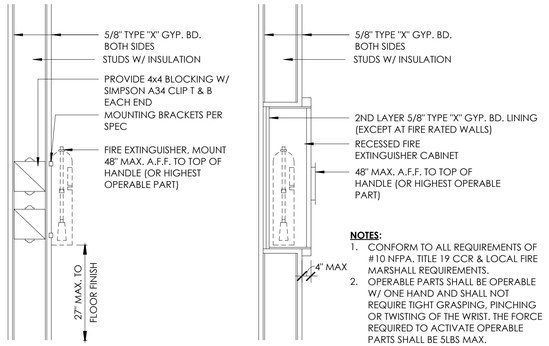
A2 T-4 SHOWER SEAT
SCALE: 1" = 1'-0"



A3 T-4 ACCESSIBLE 30 X 60 ROLL-IN SHOWER
SCALE: 3/4" = 1'-0"

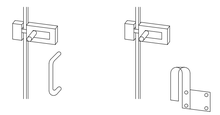


A4 T-4 ACCESSIBLE 30 X 60 ROLL-IN SHOWER - ELEVATION
SCALE: 1/2" = 1'-0"



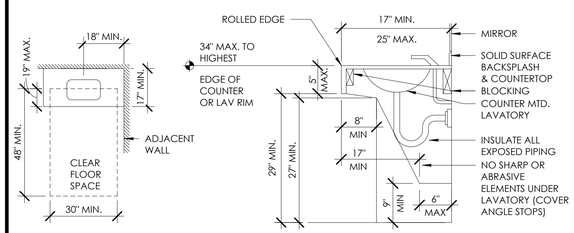
NOTES:
1. CONFORM TO ALL REQUIREMENTS OF #10 NFPA, TITLE 19 CCR & LOCAL FIRE MARSHALL REQUIREMENTS.
2. OPERABLE PARTS SHALL BE OPERABLE W/ ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5LBS MAX.

B1 T-4 FIRE EXTINGUISHER CABINET
SCALE: 1" = 1'-0"



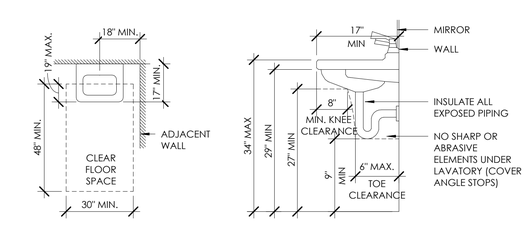
NOTE:
THE INSIDE AND OUTSIDE OF THE COMPARTMENT DOORS TO ACCESSIBLE STALLS MUST BE EQUIPPED WITH A LOOP OR U-SHAPED HANDLE NEAR THE LATCH. THE LATCH MUST BE FLIP-OVER STYLE, SLIDING OR OTHER HARDWARE OPERABLE W/ONE HAND AND NOT REQUIRING TIGHT GRASPING, PINCHING, OR TWISTING TO OPERATE

B2 T-4 TOILET DOOR STALL HARDWARE
SCALE: 1/4" = 1'-0"



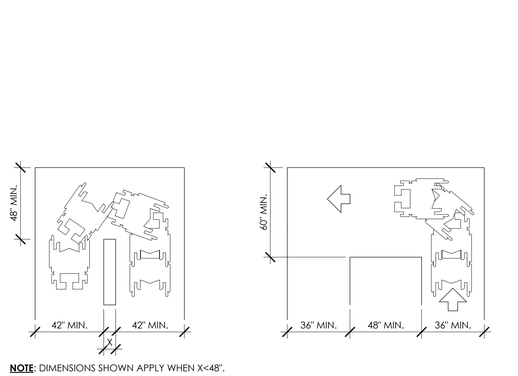
NOTE:
1. THE ACCESSIBLE LAVATORIES SHALL COMPLY WITH THE FOLLOWING:
   - A. THE FAUCETS CONTROLS, AND OPERATING MECHANISM ARE:
     1. THE TYPE WHICH DOES NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST & BE OPERABLE W/ONE HAND.
     2. HAS AN OPERATING FORCE OF LESS THAN OR EQUAL TO 5 LBS.
   - B. IF SELF-CLOSING VALVES ARE USED, THEY SHALL REMAIN OPEN FOR GREATER THAN 10 SECONDS.
   - C. CLEAR FLOOR SPACE NOT TO EXTEND MORE THAN 19" UNDER LAVATORY.

C1 T-4 COUNTER MOUNTED LAVATORY
SCALE: 1/2" = 1'-0"



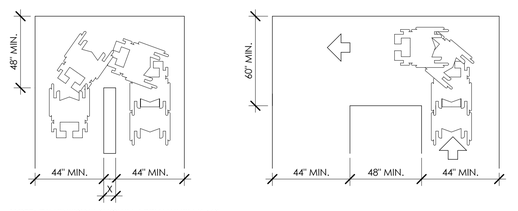
NOTE:
1. THE ACCESSIBLE LAVATORIES SHALL COMPLY WITH THE FOLLOWING:
   - A. THE FAUCETS CONTROLS, AND OPERATING MECHANISM ARE:
     1. THE TYPE WHICH DOES NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
     2. HAS AN OPERATING FORCE OF LESS THAN OR EQUAL TO 5 LBS.
     3. BE OPERABLE WITH ONE HAND
   - B. IF SELF-CLOSING VALVES ARE USED, THEY SHALL REMAIN OPEN FOR GREATER THAN 10 SECONDS

C2 T-4 WALL MOUNTED LAVATORY
SCALE: 1/2" = 1'-0"



NOTE: DIMENSIONS SHOWN APPLY WHEN X<48".

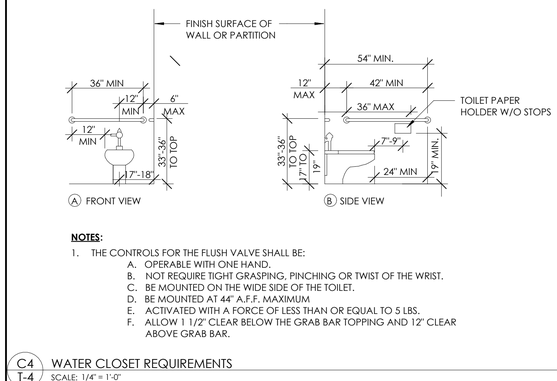
TURNS AROUND AN OBSTRUCTION - 36" AISLES, 90 DEGREE TURN



NOTE: DIMENSIONS SHOWN APPLY WHEN X<48".

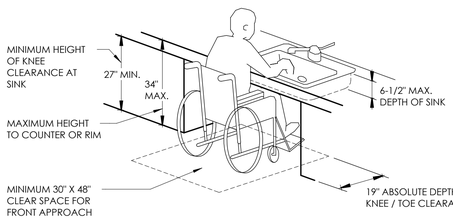
TURNS AROUND AN OBSTRUCTION - 44" AISLES, 90 DEGREE TURN

D3 T-4 TURNS AROUND AN OBSTRUCTION
SCALE: NTS

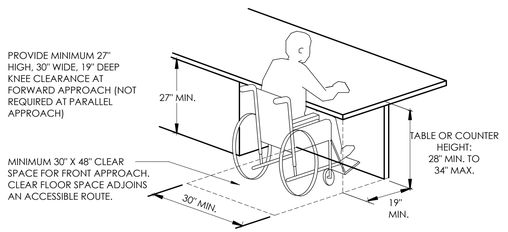


NOTES:
1. THE CONTROLS FOR THE FLUSH VALVE SHALL BE:
   - A. OPERABLE WITH ONE HAND.
   - B. NOT REQUIRE TIGHT GRASPING, PINCHING OR TWIST OF THE WRIST.
   - C. BE MOUNTED ON THE WIDE SIDE OF THE TOILET.
   - D. BE MOUNTED AT 44" A.F.F. MAXIMUM
   - E. ACTIVATED WITH A FORCE OF LESS THAN OR EQUAL TO 5 LBS.
   - F. ALLOW 1 1/2" CLEAR BELOW THE GRAB BAR TOPPING AND 12" CLEAR ABOVE GRAB BAR.

C4 T-4 WATER CLOSET REQUIREMENTS
SCALE: 1/4" = 1'-0"

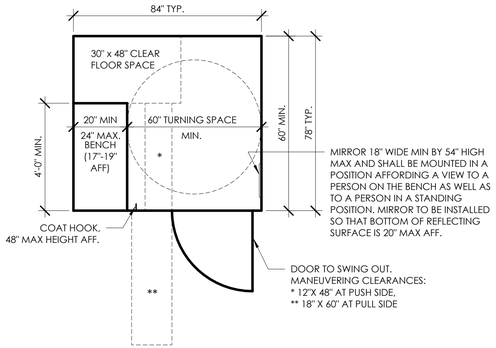


D1 T-4 ACCESSIBLE SINK
SCALE: N.T.S.



NOTES:
1. WHERE FOOD OR DRINK IS SERVED AT COUNTERS EXCEEDING 34" IN HEIGHT FOR CONSUMPTION BY CUSTOMERS SEATED OR STANDING AT THE COUNTER, A PORTION OF THE MAIN COUNTER WHICH IS 60" MINIMUM IN LENGTH SHALL BE PROVIDED.
2. WHEN A PARALLEL APPROACH IS PROVIDED KNEE CLEARANCE IS NOT REQUIRED.
3. PARALLEL APPROACH IS ALLOWED AT SALES AND SERVICES COUNTERS, NOT DINING AND WORK SURFACES. SEE D3 T-4

D2 T-4 ACCESSIBLE TABLE OR COUNTER WITH FORWARD APPROACH
SCALE: N.T.S.



D4 T-4 DRESSING ROOM DETAIL
SCALE: 3/8" = 1'-0"

LICENSED ARCHITECT
JEFFREY A. KATZ
C-31818123
REN. 09/10/23
STATE OF CALIFORNIA

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previously JKA
200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

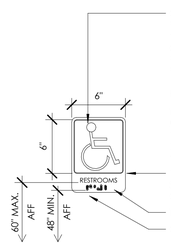
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
ACCESSIBILITY DETAILS

SHEET NUMBER:
T-4



COLOR OF PICTOGRAM: PICTOGRAMS & THEIR FIELD SHALL HAVE A NON-GLARE FINISH. PICTOGRAMS SHALL CONTRAST W/ THEIR FIELD W/ EITHER A LIGHT PICTOGRAM ON A DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD.

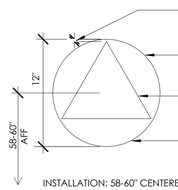
BRAILLE: GRADE 2

TEXT: 5/8" HIGH MINIMUM -2" MAXIMUM, UPPERCASE SANSERIF 1/32" RAISED LETTERS POSITIONED DIRECTLY BELOW PICTOGRAM BUT NOT IN PICTOGRAM FIELD

1/4" THICK SOLID PLASTIC SIGN - ATTACH W/ADHESIVE, COLOR TO MATCH

TEXT

GRADE 2 BRAILLE



VERTICES OF TRIANGLE SHALL BE LOCATED 1/4" MAX FROM THE EDGE OF THE CIRCLE ON UNISEX SIGNAGE

1/4" THICK SOLID PLASTIC SIGN - ATTACH W/ADHESIVE, COLOR TO MATCH PT-1 AT UNISEX, AT WOMEN'S

1/4" - WIDE RAISED 1/32" (EQ TRIANGLE OR CIRCLE AS OCCURS)

CIRCLE TO CONTRAST WITH DOOR. TRIANGLE TO CONTRAST WITH CIRCLE

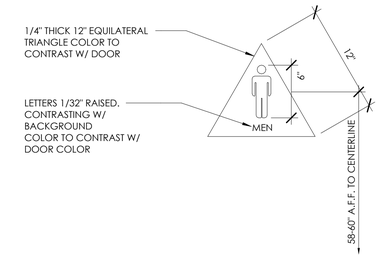
INSTALLATION: 58-60" CENTERED ABOVE FINISH FLOOR, CENTER OF DOOR

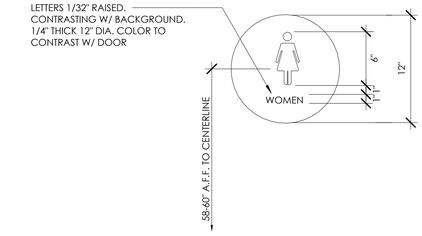
INSTALLATION: SIGNS TO BE INSTALLED SO THAT TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48" MINIMUM ABOVE FINISH FLOOR MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60" MAXIMUM ABOVE FINISH FLOOR MEASURED FROM THE HIGHEST LINE OF RAISED CHARACTERS.

NOTES:

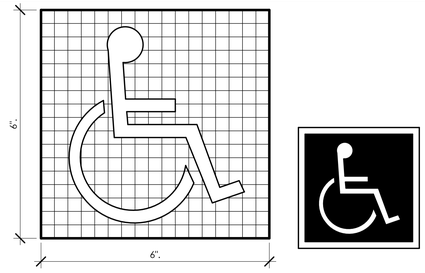
1. PICTOGRAM AND TEXT SHOWN IS FOR UNISEX RESTROOM. AT MEN'S AND WOMEN'S RESTROOM ADJUST PICTOGRAM AND TEXT TO MATCH. SEE A3/T-6
2. EDGES OF SIGNS SHALL BE ROUNDED, CHAMFERED OR EASED. CORNERS OF SIGNS SHALL HAVE A MINIMUM RADIUS OF 1/8 INCH.

A1 / T-6 RESTROOM SIGNAGE
SCALE: 1 1/2" = 1'-0"





A3 / T-6 DOOR MOUNTED TOILET ROOM SIGNAGE
SCALE: 1 1/2" = 1'-0"



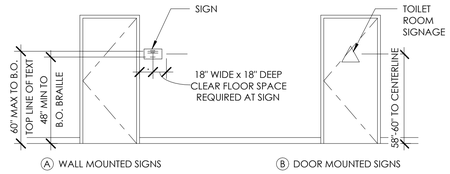
(A) SYMBOL PROPORTIONS

(B) DISPLAY CONDITIONS

THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE SHALL BE COLOR NO.15090 IN FEDERAL STANDARD 595C.

NOTE: PROVIDE ACCESSIBILITY SIGN AT ALL ACCESSIBLE ENTRANCE DOORS

B2 / T-6 INTERNATIONAL SYMBOL OF ACCESSIBILTY SIGNAGE
SCALE:NTS



(A) WALL MOUNTED SIGNS

(B) DOOR MOUNTED SIGNS

NOTES:

1. ALL SIGNAGE SHALL CONFORM TO CBC & ADAAG
2. SEE DOOR SCHEDULE FOR LOCATIONS AND TEXT
3. WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE 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 LEAF, 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" MINIMUM BY 18" MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION. 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.

B3 / T-6 SIGNAGE DETAIL
SCALE: 1/4" = 1'-0"

WHEN SIGNS IDENTIFY PERMANENT ROOMS AND SPACES OF A BUILDING, THEY SHALL COMPLY WITH THE FOLLOWING:

1. ***FINISH AND CONTRAST.*** CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND.
2. ***PROPORTIONS.*** CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".
3. ***RAISED CHARACTERS AND PICTOGRAM SYMBOL SIGNS.*** WHEN RAISED CHARACTERS ARE REQUIRED OR WHEN PICTORIAL SYMBOLS (PICTOGRAMS) ARE USED ON SUCH SIGNS, THEY SHALL CONFORM TO THE FOLLOWING:
   - A. ***CHARACTER STYLE.*** CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.
   - B. ***CHARACTER HEIGHT.*** 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".
   - C. ***PICTORIAL SYMBOLS.*** PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6" MIN. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.
   - D. ***CHARACTER PLACEMENT.*** BRAILLE SHALL BE POSITIONED BELOW CORRESPONDING TEXT IN A HORIZONTAL FORMAT, FLUSH LEFT OR CENTERED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW ENTIRE TEXT, AND SEPARATED 3/8" MIN. AND 1/2" MAX. FROM ANY OTHER TACTILE CHARACTERS AND 3/8" MIN. FROM RAISED BORDERS AND DECORATIVE ELEMENTS.
4. ***BRAILLE.*** CONTRACTED GRADE 2 BRAILLE SHALL BE PLACED A MIN. OF 3/8" AND A MAX. OF 1/2" DIRECTLY BELOW THE TACTILE CHARACTERS; FLUSH LEFT OR CENTERED. WHEN TACTILE TEXT IS MULTILINED, ALL BRAILLE IS PLACED BELOW ALL LINES OF TACTILE TEXT. DOTS SHALL BE 1/10" ON CENTER IN EACH CELL WITH 3/10" SPACE BETWEEN CELLS. DOTS SHALL BE RAISED 0.025" MIN.- 0.037"MAX. ABOVE THE BACKGROUND. BRAILLE DOTS SHALL BE DOMED OR ROUNDED. 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.
5. ***MOUNTING LOCATION AND HEIGHT.*** SIGNS TO BE MOUNTED ON WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. MOUNTING HEIGHT TO BE 48" MINIMUM FROM THE BASELINE OF THE LOWEST BRAILLE CELLS TO 60" MAXIMUM AFF TO THE HIGHEST LINE OF RAISED CHARACTERS. SIGNS TO BE MOUNTED SO AS TO AVOID THE SWING OF A DOOR OR PROTRUDING OBJECT. SEE B-3 / T-6

C1 / T-6 IDENTIFICATION SIGNS
SCALE:NTS

WHEN SIGNS DIRECT TO OR GIVE INFORMATION ABOUT PERMANENT ROOMS AND FUNCTIONAL SPACES OF A BUILDING OR SITE, THEY SHALL COMPLY WITH THE FOLLOWING:

1. ***FINISH AND CONTRAST.*** CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND.
2. ***PROPORTIONS.*** CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60 PERCENT MINIMUM TO 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".
3. ***CHARACTER HEIGHT.*** MINIMUM CHARACTER HEIGHT SHALL COMPLY WITH TABLE 11B-703.5.5. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPROACH TOWARDS THE SIGN. CHARACTER HEIGHT SHALL BE BASED ON THE UPPERCASE LETTER "I". SEE C4 / T-6

C2 / T-6 DIRECTIONAL AND INFORMATIONAL SIGNS
SCALE:NTS

WHEN SIGNS IDENTIFY, DIRECT TO, OR GIVE INFORMATION ABOUT ACCESSIBLE ELEMENTS AND FEATURES OF A BUILDING OR SITE, THEY SHALL INCLUDE THE APPROPRIATE SYMBOL OF ACCESSIBILITY AND SHALL COMPLY WITH THE FOLLOWING:

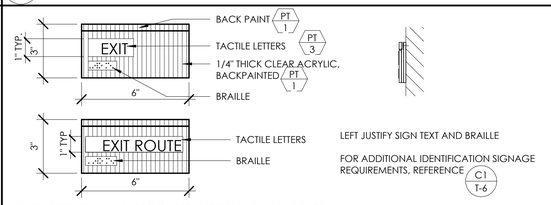
1. ***FINISH AND CONTRAST.*** CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND.
2. ***SYMBOLS OF ACCESSIBILITY.*** THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PHYSICALLY DISABLED PERSONS. (2016 CBC SEC. 11B-703.7.2.1). SEE SYMBOL ON B2 / T-6

C3 / T-6 ACCESSIBILITY SIGNS
SCALE:NTS

HEIGHT TO FINISH FLOOR OR GROUND FROM BASELINE OF CHARACTER	HORIZONTAL VIEWING DISTANCE	MINIMUM CHARACTER HEIGHT
40 INCHES TO LESS THAN OR EQUAL TO 70 INCHES	LESS THAN 72 INCHES	5/8 INCH
	72 INCHES AND GREATER	5/8 INCH PLUS 1/8 INCH PER FOOT OF VIEWING DISTANCE ABOVE 72 INCHES
GREATER THAN 70 INCHES TO LESS THAN OR EQUAL TO 120 INCHES	LESS THAN 180 INCHES	2 INCHES
	180 INCHES AND GREATER	2 INCHES PLUS 1/8 INCH PER FOOT OF VIEWING DISTANCE ABOVE 180 INCHES
GREATER THAN 120 INCHES	LESS THAN 21 FEET	3 INCHES
	21 FEET AND GREATER	3 INCHES PLUS 1/8 INCH PER FOOT OF VIEWING DISTANCE ABOVE 21 FEET

NOTE: THE MINIMUM HEIGHT IS MEASURED USING AN UPPERCASE LETTER "I". LOWER CASE CHARACTERS ARE PERMITTED. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPROACH TOWARDS THE SIGN.

C4 / T-6 VISUAL CHARACTER HEIGHT TABLE
SCALE:NTS



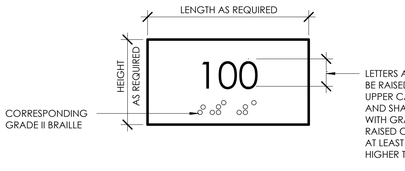
LEFT JUSTIFY SIGN TEXT AND BRAILLE

FOR ADDITIONAL IDENTIFICATION SIGNAGE REQUIREMENTS, REFERENCE C1 / T-6

TACTILE EXIT SIGNS SHALL BE REQUIRED AT THE FOLLOWING LOCATIONS:

1. EACH GRADE-LEVEL EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORD, " **EXIT**".
2. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF A STAIRWAY OR RAMP SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE FOLLOWING WORDS AS APPROPRIATE:
   A. "**EXIT STAIR DOWN**" B. "**EXIT RAMP DOWN**"
   C. "**EXIT STAIR UP**" D. "**EXIT RAMP UP**"
3. 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**".
4. EACH EXIT ACCESS DOOR FROM AND 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**".
5. EACH EXIT DOOR THROUGH A HORIZONTAL EXIT SHALL BE IDENTIFIED BY A SIGN WITH THE WORDS, " **TO EXIT**".
6. 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 INCH (9.5 MM) MINIMUM AND 1/2 INCH (12.7 MM) MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH (9.5 MM) MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS.

D3 / T-6 TACTILE EXIT SIGNS
SCALE: 3" = 1'-0"



FOR OTHER IDENTIFICATION SIGNAGE REQUIREMENTS, SEE C1 / T-6

NOTES:

1. REFER TO DOOR SCHEDULE FOR SIGN LOCATION AND VERBIAGE. VERIFY ALL TEXT WITH ARCHITECT PRIOR TO FABRICATION.
2. REFER TO SIGNAGE DETAIL ON ARCHITECTURAL SHEETS FOR SPECIFIC SIGN DESIGN, COLORS AND FINISHES.

D4 / T-6 ROOM IDENTIFICATION SIGNAGE
SCALE: 1 1/2" = 1'-0"

LICENSED ARCHITECT
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

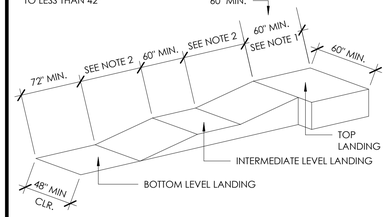
SHEET TITLE:

SIGNAGE ACCESSIBILITY DETAILS

SHEET NUMBER:

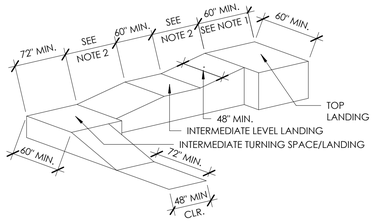
T-6

NOTE 1: WHERE DOORS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING AREA. DOORS WHEN FULLY OPEN SHALL NOT REDUCE THE REQUIRED RAMP LANDING WIDTH BY MORE THAN 3". DOORS IN ANY POSITION, SHALL NOT REDUCE THE MIN. DIMENSION OF THE RAMP LANDING TO LESS THAN 42"



STRAIGHT RAMP RUN

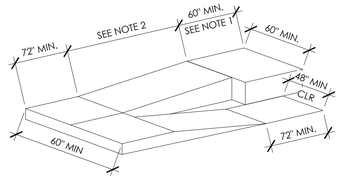
NOTE 2: MAXIMUM HORIZONTAL DISTANCE OF EACH RAMP AND RUN VARY
NOTE 3: RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12
NOTE 4: CROSS SLOPE OF RAMPS SHALL NOT BE STEEPER THAN 1:48
NOTE 5: LANDINGS SHALL COMPLY W/ SECTION 11B-405.7 &11B-302. CHANGES IN LEVEL ARE NOT PERMITTED.



NOTE 7: RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING 72" MINIMUM BY 72" MINIMUM.

RAMP WITH TURNING PLATFORM
(WHEN DIRECTION OF RAMP CHANGES 30 DEGREES OR MORE)

NOTE 6: A CURB, 2" HIGH MINIMUM, OR A BARRIER SHALL BE PROVIDED THAT PREVENTS PASSAGE OF A 4" DIAMETER SPHERE, WHERE ANY PORTION OF THE SPHERE IS WITHIN 4" OF THE FINISH FLOOR OR GROUND SURFACE. TO PREVENT WHEEL ENTRAPMENT, THE CURB OR BARRIER SHALL PROVIDE A CONTINUOUS AND UNINTERRUPTED BARRIER ALONG THE LENGTH OF THE RAMP.

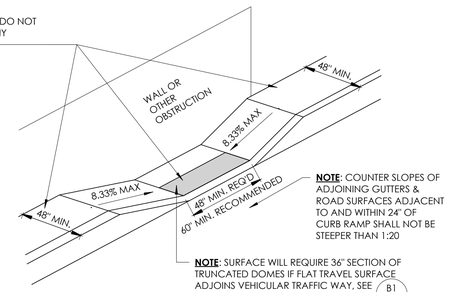


SEE B4/T-7 FOR RAMP HANDRAIL

RAMP WITH INTERMEDIATE SWITCH-BACK PLATFORM

A1 T-7 RAMP DETAILS
SCALE: N.T.S.

NOTE: SLOPE OF LANDING AREAS DO NOT EXCEED 2% IN ANY DIRECTION

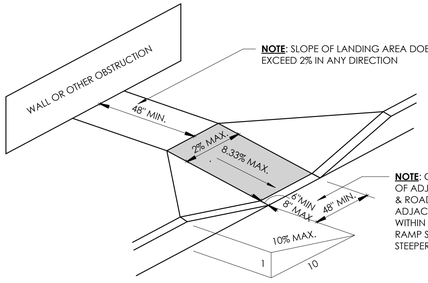


NOTE: COUNTER SLOPES OF ADJOINING GUTTERS & ROAD SURFACES ADJACENT TO AND WITHIN 24" OF CURB RAMP SHALL NOT BE STEEPER THAN 1:20

NOTE: SURFACE WILL REQUIRE 36" SECTION OF TRUNCATED DOMES IF FLAT TRAVEL SURFACE ADJOINS VEHICULAR TRAFFIC WAY, SEE B1 T-7

NOTES:
1. THE CROSS SLOPE OF CURB RAMPS AND BLENDED TRANSITIONS SHALL BE 1:48 MAXIMUM.
2. FINISHED SURFACE OF RAMP IS STABLE, FIRM, AND SLIP RESISTANT.
3. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. COUNTER SLOPES SHALL NOT BE STEEPER THAN 1:20 WITHIN 24" OF CURB RAMP.

A3 T-7 STANDARD IN-LINE CURB RAMP
SCALE: N.T.S.



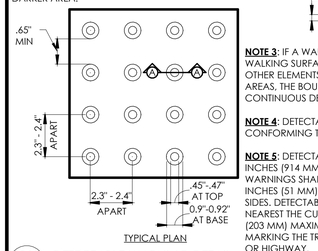
NOTE: COUNTER SLOPES OF ADJOINING GUTTERS & ROAD SURFACES ADJACENT TO AND WITHIN 24" OF A CURB RAMP SHALL NOT BE STEEPER THAN 1:20

NOTES:
1. THE CROSS SLOPE OF CURB RAMPS AND BLENDED TRANSITIONS SHALL BE 1:48 MAXIMUM.
2. FINISHED SURFACE OF RAMP IS STABLE, FIRM, AND SLIP RESISTANT.
3. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. COUNTER SLOPES SHALL NOT BE STEEPER THAN 1:20 WITHIN 24" OF CURB RAMP.
4. DETECTABLE WARNING SURFACE IS REQUIRED ON SHADED PORTION OF THE RAMP. DETECTABLE WARNINGS SHALL EXTEND 36" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING FLARED SIDES) SEE B1 T-7

A4 T-7 STANDARD CURB-CUT RAMP
SCALE: N.T.S.

NOTE 1: DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A BASE DIAMETER OF 0.9" MIN-0.92" MAX, TAPERING TO 0.45" MIN-0.47" MAX AT THE TOP, A HEIGHT OF 0.2" AND A CENTER TO CENTER SPACING OF 2.3" MIN-2.4" MAX AND A BASE TO BASE SPACING OF 0.65" MIN MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID. CENTER TO CENTER SPACING OF 1.6" MIN AND 2.4" MAX ACCEPTABLE FOR DOMES IN RADIAL PATTERN.

NOTE 2: THE DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, WHETHER LIGHT ON DARK OR DARK ON LIGHT AND 70% MINIMUM WITH ADJACENT WALKING SURFACES. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. CONTRAST SHALL BE DETERMINED BY: CONTRAST=[(B1-B2)/B1] X 100 PERCENT WHERE B1= LIGHT REFLECTANCE VALUE OF THE LIGHTER AREA, AND B2 = LIGHT REFLECTANCE VALUE OF THE DARKER AREA.



TYPICAL PLAN

TYPICAL PLAN SECTION A-A

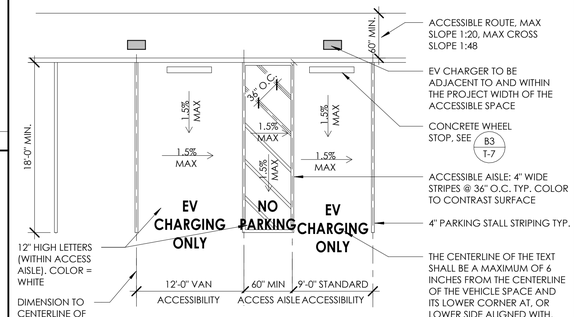
NOTE 3: IF A WALK CROSSES OR ADJOINS A VEHICULAR WAY, AND THE WALKING SURFACES ARE NOT SEPARATED BY CURBS, RAILINGS OR OTHER ELEMENTS BETWEEN THE PEDESTRIAN AREAS AND THE VEHICULAR AREAS, THE BOUNDARY BETWEEN THE AREAS SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING WHICH IS 36" WIDE.

NOTE 4: DETECTABLE WARNING SURFACES SHALL BE YELLOW CONFORMING TO FS33538 OF FEDERAL STANDARD 595C.

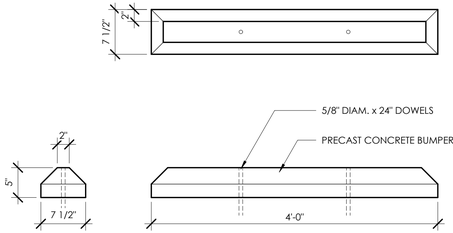
NOTE 5: DETECTABLE WARNINGS AT CURB RAMPS SHALL EXTEND 36 INCHES (914 MM) IN THE DIRECTION OF TRAVEL. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN LESS 2 INCHES (51 MM) MAXIMUM ON EACH SIDE. EXCLUDING ANY FLARED SIDES. DETECTABLE WARNINGS SHALL BE LOCATED SO THE EDGE NEAREST THE CURB IS 6 INCHES (152 MM) MINIMUM AND 8 INCHES (203 MM) MAXIMUM FROM THE LINE AT THE FACE OF THE CURB MARKING THE TRANSITION BETWEEN THE CURB AND THE GUTTER, STREET OR HIGHWAY.

B1 T-7 DETECTABLE WARNING DETAIL
SCALE: NONE

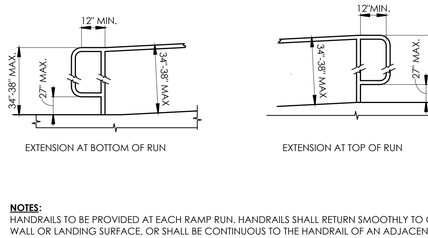
NOTES:
1. WHERE NEW ELECTRICAL VEHICLE CHARGING STATIONS (EVCS) ARE ADDED TO A FACILITY WITH EXISTING, REQUIREMENTS SHALL APPLY ONLY TO EXISTING.
2. DETECTABLE WARNINGS SHALL NOT BE PERMITTED IN VEHICLE SPACES AND ACCESS AISLES
3. WHERE A VEHICLE SPACE SERVING EVCS STATION IS PARALLEL TO THE TRAFFIC FLOW THE LENGTH OF THE VEHICLE SPACE SHALL BE 20'-0" MINIMUM
4. VEHICLE SPACES SERVING STANDARD AND VAN EVCS SHALL HAVE AN ADJACENT ACCESS AISLE.
5. VEHICLE SPACES SERVING AMBULATORY EVCS SHALL BE 120" WIDE MINIMUM AND SHALL NOT BE REQUIRED TO HAVE AN ADJACENT ACCESS AISLE
6. WHERE 5-25 EVCS ARE PROVIDED, ONE VAN ACCESSIBLE EVCS SHALL BE PROVIDED AND IDENTIFIED BY AN ISA
7. EV CHARGERS SHALL BE ADJACENT TO, AND WITHIN THE PROJECTED WIDTH OF, THE VEHICLE SPACE BEING SERVED. EXCEPTION: WHERE EV CHARGERS ARE SERVING MORE THAN ONE EVCS, THE EV SHALL BE ADJACENT TO, AND WITHIN THE COMBINED PROJECTED WIDTH OF, THE VEHICLE SPACES BEING SERVED. FOR ALTERATIONS AT AN EXISTING FACILITY WHERE AN ACCESSIBLE ROUTE OR GENERAL CIRCULATION PATH IS NOT PROVIDED ADJACENT TO THE HEAD END OF THE VEHICLE SPACE OR ACCESS AISLE, THE EV CHARGER MAY BE LOCATED WITHIN THE PROJECTED WIDTH OF THE ACCESS AISLE 36" MAXIMUM FROM THE HEAD END OF THE SPACE. WHERE VEHICLE SPACE IS PARALLEL TO TRAFFIC FLOW, THE EV CHARGER SHALL BE ADJACENT TO, AND 48" MAXIMUM FROM THE HEAD END OR FOOT END OF THE VEHICLE SPACE OR ACCESS AISLE BEING SERVED
8. VEHICLE SPACES AND ACCESS AISLES SHALL BE DESIGNED SO THAT PERSONS USING THEM ARE NOT REQUIRED TO TRAVEL BEHIND VEHICLE SPACES OR PARKING SPACES OTHER THAN THE VEHICLE SPACE IN WHICH THEIR VEHICLE HAS BEEN LEFT TO CHARGE.



B2 T-7 ELECTRICAL VECHILE CHARGING STATIONS
SCALE: 1/8" = 1'-0"

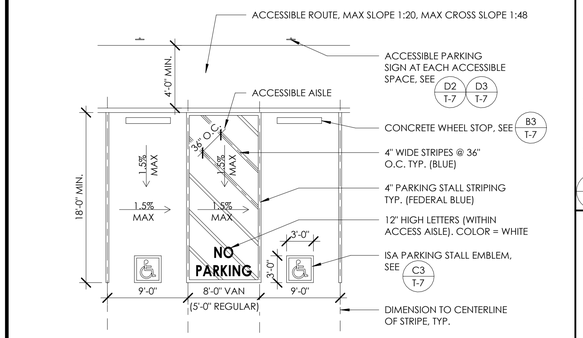


B3 T-7 WHEEL STOP
SCALE: 1" = 1'-0"

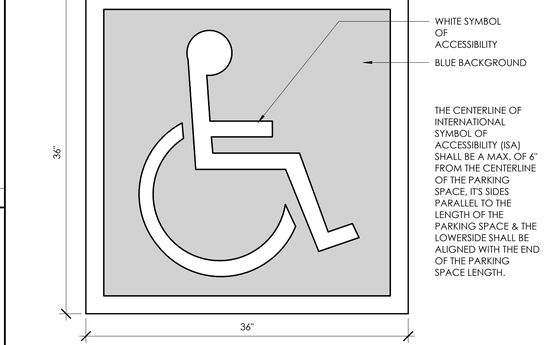


NOTES:
HANDRAILS TO BE PROVIDED AT EACH RAMP RUN. HANDRAILS SHALL RETURN SMOOTHLY TO GUARD, WALL OR LANDING SURFACE, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP RUN. ALL SURFACES SHALL BE SLIP-RESISTANT.

B4 T-7 RAMP HANDRAILS AND HANDRAIL EXTENSIONS
SCALE: NTS



C1 T-7 ACCESSIBLE PARKING SPACE - DOUBLE
SCALE: 1/8" = 1'-0"



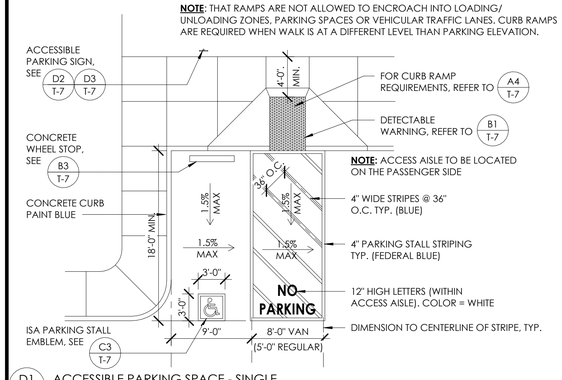
C3 T-7 INTERNATIONAL SYMBOL OF ACCESSIBILTY PARKING STALL EMBLEM
SCALE: 1 1/2" = 1'-0"

SIGN TO BE REFLECTIVE

REFERENCE C3 T-6 FOR ADDITIONAL IDENTIFICATION SIGNAGE REQUIREMENTS.

D4 T-7 ACCESSIBLE ROUTE SIGN
SCALE: 3" = 1'-0"

NOTE: THAT RAMPS ARE NOT ALLOWED TO ENCROACH INTO LOADING/ UNLOADING ZONES, PARKING SPACES OR VEHICULAR TRAFFIC LANES. CURB RAMPS ARE REQUIRED WHEN WALK IS AT A DIFFERENT LEVEL THAN PARKING ELEVATION.



D1 T-7 ACCESSIBLE PARKING SPACE - SINGLE
SCALE: 1/8" = 1'-0"

TYPICAL ACCESSIBLE PARKING SIGNAGE

SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA, AND SHALL BE MOUNTED ON A POST SET IN CONCRETE, 80 INCHES FROM THE BOTTOM OF THE SIGN TO FINISHED GRADE. SIGN SHALL BE RECTANGULAR WITH A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON A DARK BLUE BACKGROUND. ADDITIONAL LANGUAGE OR AN ADDITIONAL SIGN BELOW THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL STATE "Minimum Fine $250" SEE D3 T-7

TYPICAL VAN ACCESSIBLE PARKING SIGNAGE

SIGN SHALL BE SAME AS ABOVE, WITH ADDITIONAL SIGN "VAN ACCESSIBLE" MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY. SEE D3 T-7

NOTE: A PARKING SPACE IDENTIFICATION SIGN SHALL BE VISIBLE FROM EACH PARKING SPACE. 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.

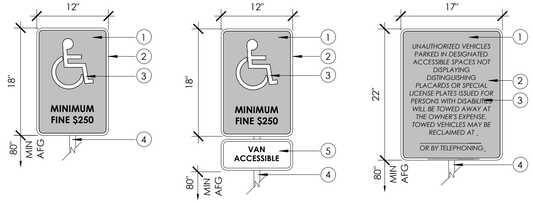
PARKING LOT ACCESSIBILITY SIGNAGE

AN ADDITIONAL SIGN SHALL BE POSTED IN A CONSPICUOUS PLACE AT EACH ENTRANCE TO OFF-STREET PARKING FACILITIES OR IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH ACCESSIBLE STALL OR SPACE. THE SIGN SHALL NOT BE LESS THAN 17 INCHES BY 22 INCHES IN SIZE WITH LETTERING NOT LESS THAN ONE INCH IN HEIGHT, AND SHALL CLEARLY AND CONSPICUOUSLY STATE 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 ARE TO BE FILLED IN WITH APPROPRIATE INFORMATION AS A PERMANENT PART OF THE SIGN. SEE D3 T-7

D2 T-7 PARKING SIGNAGE
SCALE: 3" = 1'-0"



1. BLUE BACKGROUND
2. REFLECTORIZED SIGN CONSTRUCTED OR PORCELAIN STEEL
3. WHITE SYMBOL
4. 2" DIAMETER GALVANIZED PIPE

1. BLUE BACKGROUND
2. REFLECTORIZED SIGN CONSTRUCTED OR PORCELAIN STEEL
3. WHITE SYMBOL
4. 2" DIAMETER GALVANIZED PIPE
5. INDICATES STALL IS VAN ACCESSIBLE

1. BLUE BACKGROUND
2. REFLECTORIZED SIGN CONSTRUCTED OR PORCELAIN STEEL
3. WHITE LETTERING AND SYMBOL
4. 2" DIAMETER GALVANIZED PIPE
5. TOW AWAY INFORMATION TO BE FILLED IN PERMANENTLY AS PART OF SIGN PRIOR TO INSTALLATION

D3 T-7 ACCESSIBLE PARKING SIGN
SCALE: 1" = 1'-0"

LICENSED ARCHITECT
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C-31018323
REN. 09/10/23
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

SHEET TITLE:

SITE ACCESSIBILITY DETAILS

SHEET NUMBER:

T-7

CalGreen Mandatory Measures Compliance Checklist

Number	Description	Compliance	Reference
3 Green Building			
301.1	Scope	Yes	T-1
301.3	Nonresidential additions and alterations. [BSC]	No	
301.3.1	Nonresidential additions and alterations that cause updates to plumbing fixtures only	No	
301.3.2	Waste Division	Yes	01 35 00
301.4	Public schools and community colleges	No	
301.5	Health facilities	No	
302	Mixed Occupancy Buildings	Yes	T-1
303.1	Phased projects	No	
303.1.1	Tenant improvements	No	
301	General	No	
303	Phased projects	No	
302.1	Mixed Occupancy Buildings	Yes	T-1
5.1 Planning and Design			
5.106.1	Storm water pollution prevention	Yes	C6.0
5.106.4.1	Bicycle parking. [BSC-CG]	Yes	A1.1
5.106.4	Bicycle parking	Yes	A1.1
5.106.4.2	Bicycle parking. [DSA-SS]	No	
5.106.5.2.1	Parking stall marking (Clean Air Vehicle)	Yes	A1.1
5.106.8	Light Pollution Reduction	Yes	26 56 00
5.106.10	Grading and paving	Yes	C3.0
5.102.1	Definitions	No	
5.101.1	Scope	No	
5.106.1.1	Local ordinance	Yes	T-1
5.106.1.2	Best management practices (BMP)	Yes	SEE CIVIL DARWINGS
5.106.4.1.1	Short-term bicycle parking	Yes	A1.1
5.106.4.1.2	Long-term bicycle parking	Yes	A1.1
5.106.4.2.2	Staff bicycle parking	No	
5.106.4.2.1	Student bicycle parking	No	
5.106.5.2	Designated parking for clean air vehicles	Yes	A1.1
5.106.5.3	Electric vehicle (EV) charging [N]	No	
5.106.5.3.1	Single charging space requirements [N]	No	
5.106.5.3.2	Multiple charging space requirements [N]	No	
5.106.5.3.3	EV charging space calculations [N]	No	
5.106.5.3.4	Identification [N]	No	
5.106.5.3.5	[N]	No	
5.106	Site development	Yes	A1.1
5.102	Definitions	No	
5.101	General	No	
5.2 Energy Efficiency			
5.201	General	Yes	E0.1
5.201.1	Scope [BSC-CG]. California Energy Code [DSA-SS]	Yes	E0.1
5.3 Water Efficiency + Conservation			
5.303	Indoor water use	Yes	P0.1
5.303.1.1	Building in excess of 50,000 square feet	No	
5.303.1.2	Excess consumption	No	
5.303.3	Water conserving plumbing fixtures and fittings	Yes	P0.3
5.303.3.1	Water closets	Yes	P0.3
5.303.4	Commercial kitchen equipment	No	
5.304.1	Scope	Yes	P0.3
5.304.2	Outdoor water use in landscape area equal to or greater than 500 square feet	Yes	SEE LANDSCAPE DRAWINGS
5.304.3	Outdoor wateruse in rehabilitated landscape projects equal to or greater than 2,500 square feet	No	
5.303.5	Areas of addition or alteration	No	
5.303.6	Standards for plumbing fixtures and fittings	Yes	P0.1
5.301	General	Yes	P0.1
5.301.1	Scope	Yes	P0.1
5.302	Definitions	No	
5.302.1	Definitions	No	
5.303.1	Meters	Yes	C5.0
5.303.3.2	Urinals	No	
5.303.3.3	Showerheads	Yes	P0.3
5.303.3.3.1	Single showerheads	Yes	P0.3
5.303.3.3.2	Multiple showerheads serving one shower	No	

CalGreen Mandatory Measures Compliance Checklist

Number	Description	Compliance	Reference
5.303.3.4	Faucets and fountains	Yes	P0.3
5.303.3.4.1	Nonresidential lavetory faucets	Yes	P0.3
5.303.3.4.2	Kitchen faucets	Yes	P0.3
5.303.3.4.3	Wash fountains	No	
5.303.3.4.4	Metering faucets	No	
5.303.3.4.5	Metering faucets for wash fountains	No	
5.303.4.1	Food waste disposers	Yes	P0.3
5.304	Outdoor water use	Yes	SEE LANDSCAPE DRAWINGS
5.304.4	Outdoor water use in landscape are of 2,500 square feet or less	No	
5.304.5	Graywater or rainwater use in landscape areas	No	
5.304.6	Outdoor portable water use in landscape areas [DSA-SS]	No	
5.304.6.1	Newly constructed landscape. [DSA-SS]	Yes	SEE LANDSCAPE DRAWINGS
5.304.6.2	Rehabilitated landscape. [DSA-SS]	No	
5.304.7	Irrigation Design	Yes	SEE LANDSCAPE DRAWINGS
5.304.7.1	Irrigation controllers	Yes	SEE LANDSCAPE DRAWINGS
5.4 Material Conservation and Resource Efficiency			
5.401	General	Yes	A3.1
5.401.1	Scope	No	
5.402	Definitions	No	
5.402.1	Definitions	No	
5.407	Water Resistance and moisture management	Yes	A4.3 - A4.9
5.407.1	Weather protection	Yes	A4.3 - A4.9
5.407.2.1	Sprinklers	Yes	FP2.1
5.407.2.2	Interior door protection	Yes	A6.1
5.407.2.2.1	Exterior door protection	Yes	A6.1
5.407.2.2.2	Flashing	Yes	A7.5
5.407.2	Moisture control	Yes	A7.5
5.408	Construction waste reduction, disposal and recycling	Yes	01 52 00
5.408.1	Construction waste management	Yes	01 52 00
5.408.1.1	Construction waste management plan	Yes	01 52 00
5.408.1.2	Waste management company	No	
5.408.1.3	Waste stream reduction alternate	No	
5.408.1.4	Documentation	Yes	01 52 00
5.408.2	Universal waste	Yes	01 52 00
5.408.3	Excavated soil and land clearing debris	Yes	02 41 19
5.408.3	Excavated soil and land clearing debris	Yes	02 41 19
5.410.1	Recycling by occupants	No	
5.410.1.1	Additions	No	
5.410.1.2	Sample ordinance	No	
5.410.2	Commissioning [N]	No	
5.410	Building maintenance and operations	Yes	01 82 00
5.410.2.1	Owner's or owner representive's project requirements (OPR). [N]	Yes	01 74 00
5.410.2.2	Basis of design (BOD). [N]	Yes	01 10 00
5.410.2.3	Commissioning plan. [N]	Yes	01 41 00
5.410.2.4	Functional performance testing. [N]	Yes	01 41 00
5.410.2.5	Documentation and training. [N]	Yes	01 82 00
5.410.2.5.2	Systems operations training. [N]	Yes	01 82 00
5.410.2.6	Commissioning report. [N]	Yes	01 82 00
5.410.4	Testing and adjusting	Yes	01 41 00
5.410.4.2	Systems	Yes	01 60 00
5.410.2.5.1	Systems manual. [N]	Yes	01 60 00
5.410.4.3	Procedures	Yes	01 07 00
5.410.4.3.1	HVAC balancing	Yes	23 05 93
5.410.4.4	Reporting	Yes	23 05 93
5.410.4.5	Operation and maintenance (O & M) manual	Yes	01 73 00
5.410.4.5.1	Inspections and reports	Yes	01 41 00
5.5 Environmental Quality			
5.501.1	Scope	No	
5.502	Definitions	No	
5.502.1	Definitions	No	
5.503	Fireplaces	No	
5.501	General	No	
5.503.1	Fireplaces	No	
5.503.1.1	Woodstoves	No	

CalGreen Mandatory Measures Compliance Checklist

Number	Description	Compliance	Reference
5.504	Pollutant control	Yes	01 35 20
5.504.1	Pollutant control	Yes	01 35 20
5.503.1	Fireplaces	No	
5.504.3	Covering of duct openings and protection of mechanical equipment during construction	Yes	23 00 50
5.504.4	Finish material pollutant control	Yes	DIVISION 09
5.504.4.1	Adhesives, sealants and caulks	Yes	09 91 13
5.504.4.3	Paints and coatings	Yes	09 91 23
5.504.4.3.2	Verification	No	
5.504.4.4	Carpet systems	No	
5.504.4.4.1	Carpet cushion	No	
5.504.4.4.2	Carpet adhesive	No	
5.504.4.3.1	Aerosol paints and coatings	Yes	09 91 23
5.504.4.5	Composite wood products	Yes	DIVISION 06
5.508.2.4	Refrigerant receivers	Yes	M4.1
5.504.4.5.3	Documentation	Yes	M4.1
5.504.4.6	Resiliant floor systems	No	
5.504.4.6.1	Verification of compliance	No	
5.504.7	Environmental tobacco smoke (ETS) control	No	
5.505	Indoor moisture control	Yes	DIVISION 07
5.505.1	Indoor moisture control	Yes	DIVISION 07
5.505	indoor air quality	Yes	01 35 20
5.504.5.3	Filters	Yes	23 00 50
5.506.2	Outside air delivery	Yes	23 00 50
5.507	Environmental comfort	Yes	23 00 50
5.507.4	Acoustical control	No	
5.507.4.1	Exterior noise transmission, prescriptive method	Yes	A4.8 - A4.9
5.507.4.2	Performance method	No	
5.507.4.2.1	Site features	No	
5.507.4.2.2	Documentation of compliance	No	
5.507.4.3	Interior sound transmission	No	
5.507.4.1.1	Noise exposure where noise contours are not readily available	No	
5.508	Outdoor air quality	Yes	DIVISION 23
5.508.2.3.1	Coil coating	Yes	DIVISION 23
5.508.1	Ozone depletion and greenhouse gas reductions	Yes	DIVISION 23
5.508.1.1	Chlorofluorocarbons (CFCs)	Yes	DIVISION 23
5.508.1.2	Halons	Yes	DIVISION 23
5.508.2.1	Refrigerant piping	Yes	DIVISION 23
5.508.2.1.1	Threaded pipe	Yes	DIVISION 23
5.508.2.1.2	Copper pipe	Yes	DIVISION 23
5.508.2.1.2.1	Anchorage	Yes	DIVISION 23
5.508.2	Supermarket refrigerant leak reduction	No	
5.508.2.1.3	Flared tubing connections	Yes	DIVISION 23
5.508.2.1.4	Elbows	Yes	DIVISION 23
5.508.2.2	Valves	Yes	DIVISION 23
5.508.2.2.1	Pressure relief valves	Yes	DIVISION 23
5.508.2.2.2	Access valves	Yes	DIVISION 23
5.508.2.2.2.1	Valve caps	Yes	DIVISION 23
5.508.2.2.2.2	Seal caps	Yes	DIVISION 23
5.508.2.2.2.2.1	Chain tethers	Yes	DIVISION 23
5.508.2.2.1.1	Pressure detection	Yes	DIVISION 23
5.508.2.3	Refrigerated service cases	Yes	DIVISION 23
5.508.2.6.2	Second vacuum	Yes	DIVISION 23
5.508.2.6.1	First vacuum	Yes	DIVISION 23
5.508.2.5	Pressure testing	Yes	DIVISION 23
5.508.2.5.1	Minimum pressure	Yes	DIVISION 23
5.508.2.5.2	Leaks	Yes	DIVISION 23
5.508.2.5.3	Allowable pressure change	Yes	DIVISION 23
5.508.2.6	Evacuation	Yes	DIVISION 23
5.508.2.6.3	Third vacuum	Yes	DIVISION 23
7 Installer and Special Inspector Qualifications			
702.2	Special inspection [HCD]	Yes	DIVISION 23
703	Verifications	Yes	DIVISION 23
702.1	Installer Training	Yes	DIVISION 23
702	Qualifications	Yes	DIVISION 23
703.1	Documentation	Yes	DIVISION 23

LICENSED ARCHITECT
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(CONSULTANT LOGO)

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

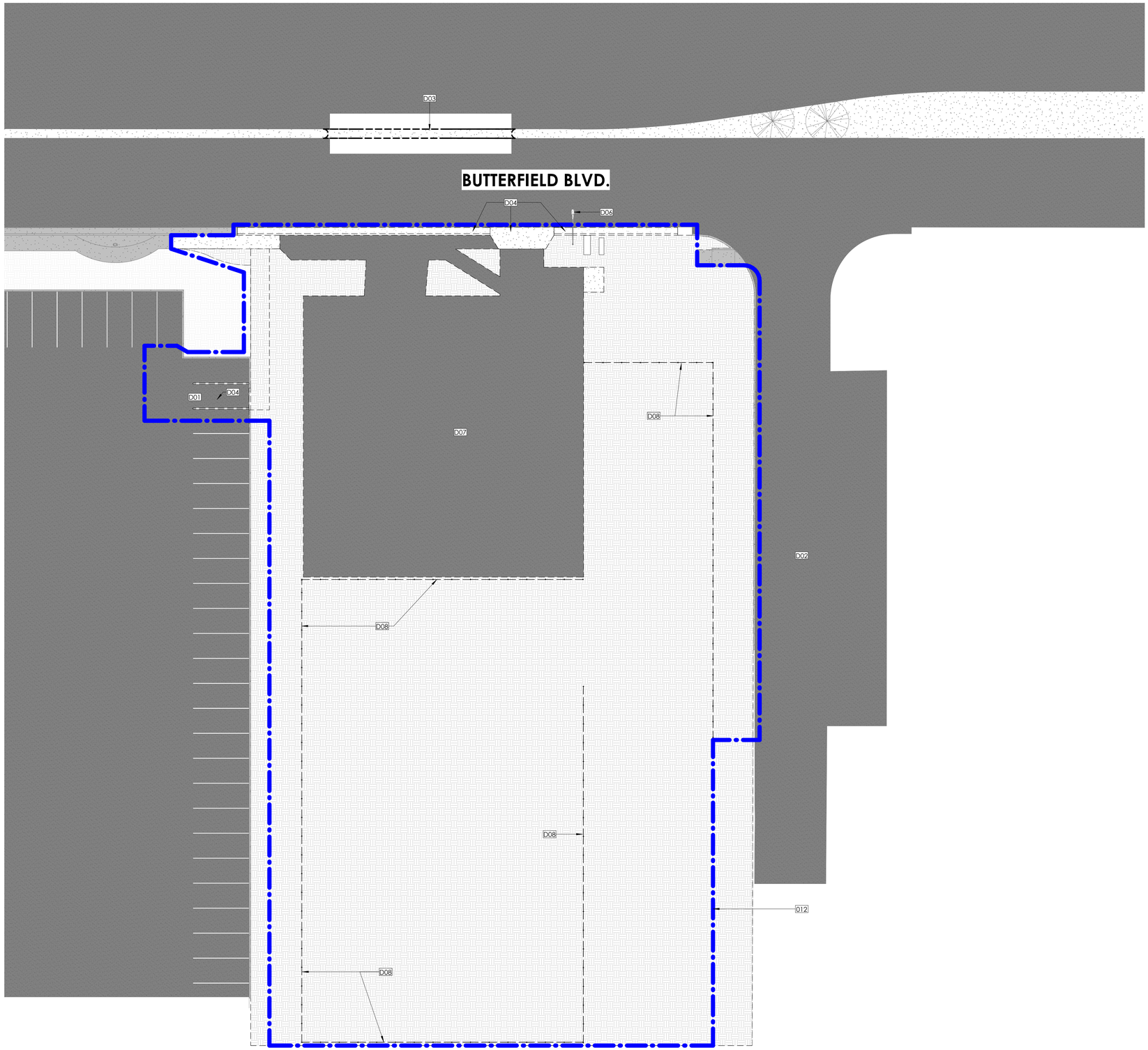
211101

SHEET TITLE:

CALGREEN COMPLIANCE

SHEET NUMBER:

T-8



D1 DEMO SITE PLAN
AD1.1 SCALE: 1/16" = 1'-0"

CONSTRUCTION NOTES

012 AREA OF WORK
D01 REMOVE EXISTING STRIPING FROM EXISTING PARKING SPACES
D02 EXISTING DRIVEWAY TO REMAIN
D03 DEMO PORTION OF TRAFFIC BARRIER
D04 DEMO AND REMOVE CURB, GUTTER AND DRIVEWAY
D06 EXISTING STREET LIGHT TO REMAIN
D07 DEMO AND REMOVE EXISTING A/C PAVING
D08 DEMO AND REMOVE EXISTING 6' HIGH CHAIN LINK FENCE

SITE NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY CONFIRM EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO CIVIL DRAWINGS FOR EXISTING UNDERGROUND UTILITY MAINS AND SERVICE LINES.
3. IF UTILITIES TO REMAIN IN PLACE ARE DAMAGED, CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY AND MAKE REPAIRS TO SAID LINES AS QUICKLY AS POSSIBLE, AT NO EXPENSE TO THE OWNER.
4. DEMOLITION OF UTILITIES TO BE STAGED AS REQUIRED SO THAT EXISTING SERVICE TO REMAIN BUILDINGS ARE NOT INTERRUPTED.
5. WITHIN THE LIMIT OF DEMOLITION, REMOVE ALL PAVING AND AGGREGATE BASE, STRUCTURES, TREES AND PLANTS, TOPSOILS, ORGANIC MATERIAL AND MISCELLANEOUS ITEMS UNLESS OTHERWISE NOTED ON PLANS. EXCAVATE TO PAD ELEVATION OR SUBGRADE DEPTH FOR PROPOSED CONSTRUCTION AS INDICATED ON PROJECT DOCUMENTS. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
6. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEBRIS AND UNSUITABLE MATERIALS FROM ENTERING STORM DRAINS, SANITARY SEWERS AND STREETS. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
7. DUST CONTROL SHALL BE IMPLEMENTED DURING DEMOLITION.
8. REFER TO SECTION 01 52 40 CONSTRUCT WASTE MANAGEMENT FOR ADMINISTRATIVE AND PROCEDURAL REQUIREMENTS FOR DIVERSION OF NON-HAZARDOUS CONSTRUCTION AND DEMOLITION WASTE FROM LANDFILL

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100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

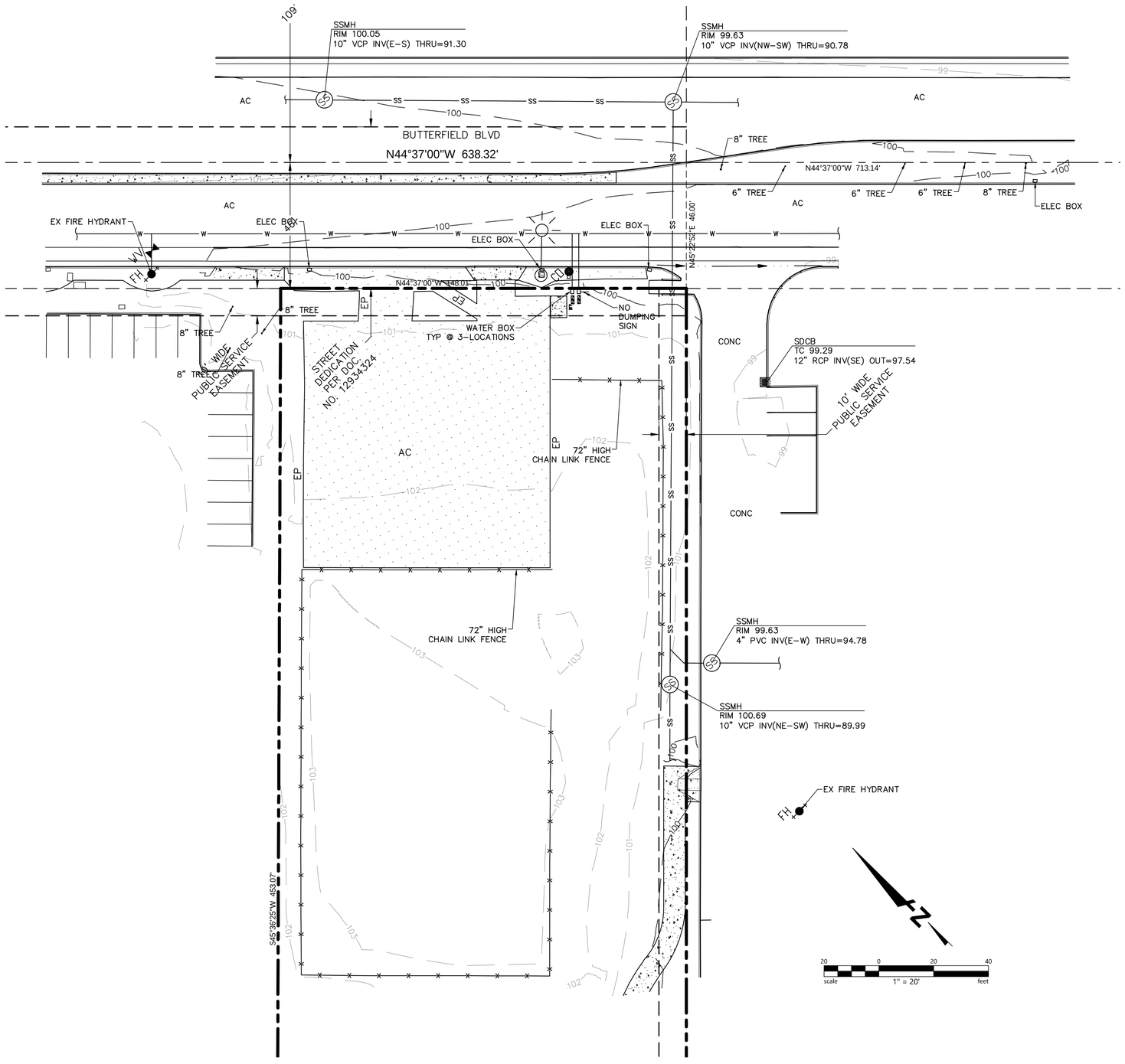
211101

SHEET TITLE:

DEMO SITE PLAN

SHEET NUMBER:

AD1.1



ABBREVIATIONS:

AC	ASPHALTIC CONCRETE
BC	BEGINNING OF CURVE
BLDG	BUILDING
BW	BACK OF WALK
CL	CENTERLINE
CONC	CONCRETE
DIA	DIAMETER
EB	ELECTRIC BOX
EC	END OF CURVE
FH	FIRE HYDRANT
FL	FLOW LINE
GND	GROUND ELEVATION
HC	HANDICAPPED
HCR	HANDICAP RAMP
INV	INVERT ELEVATION
LG	LIP OF GUTTER
PRC	POINT OF REVERSE CURVE
PVC	POLYVINYL CHLORIDE
RPC	REINFORCED CONCRETE PIPE
SD	STORM DRAIN
SDCB	STORM DRAIN CATCH BASIN
SSCO	STROM SEWER CLEAN OUT
SW	SIDEWALK
TC	TOP OF CURB
TYP	TYPICAL
VCP	VITIRFIED CLAY PIPE
WV	WATER VALVE
W/	WITH

LEGEND:

- ASPHALTIC CONRETE
- CONCRETE
- BOUNDARY LINE
- FENCE LINE
- FLOW LINE
- STORM CATCH BASIN
- SANITARY SEWER MANHOLE
- STORM SEWER CLEAN OUT
- STREET LIGHT
- WATER VALVE
- FIRE HYDRANT
- SIGN
- BACK FLOW PREVENTION DEVICE
- WATER METER

EXISTING CONDITION NOTES:

1. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE KNOWN UNDERGROUND UTILITIES. THE TYPES, LOCATIONS, EXTENTS, SIZES AND DEPTHS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND WERE OBTAINED FROM VARIOUS SOURCES, INCLUDING TOPOGRAPHIC FIELD SURVEYS, AND AS-BUILT DRAWINGS PROVIDED BY THE PROPERTY OWNER. ABANDONED UNDERGROUND UTILITIES MAY EXIST, THE LOCATION OF WHICH ARE NOT KNOWN. CONTRACTOR IS CAUTIONED THAT THE TYPES, LOCATIONS, EXTENTS, SIZES AND DEPTHS OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS MAY NOT BE THE TYPES, LOCATIONS, EXTENTS, SIZES AND DEPTHS ENCOUNTERED IN THE FIELD.

2. ONLY EXCAVATION AND PHYSICAL EXPOSURE WILL REVEAL THE ACTUAL TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING EXISTING UNDERGROUND UTILITIES WITHIN THE AREA OF WORK. CONTRACTOR SHALL RETAIN A PRIVATE UTILITY LOCATOR TO IDENTIFY EXISTING UTILITIES. THE CONTRACTOR SHALL POTHOLE AS NECESSARY AT CONNECTION LOCATIONS AND PROPOSED UTILITY CROSSINGS TO FULLY LOCATE AND IDENTIFY EXISTING UTILITIES. POTHOLING SHALL BE DONE AND THE RESULTS, INCLUDING ANY CONFLICTS IDENTIFIED, REPORTED TO THE ENGINEER PRIOR TO THE START OF WORK.

3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK TO AVOID CONFLICTS BETWEEN SEWER LATERALS, STORM DRAINS, WATER MAINS, AND ALL OTHER UNDERGROUND UTILITIES.

4. UTILITY INFORMATION IS OBTAINED BY AS-BUILT INFORMATION AS WELL AS SURVEY OBSERVATION. ALL EXISTING UTILITY INFORMATION IN THIS PLAN SET IS IDENTIFIED PER THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD FOR LEVEL OF QUALITY. BELOW IS A LIST OF THE LEVEL OF QUALITY CATEGORIES WITH THE ASSOCIATED DEFINITION PER ASCE STANDARDS.

   (C) – INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

   (D) – UTILITY LOCATION INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

REGISTERED PROFESSIONAL ENGINEER JAMES T. MCCOLLUM No. 64852 EXP. 6/30/23 CIVIL STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

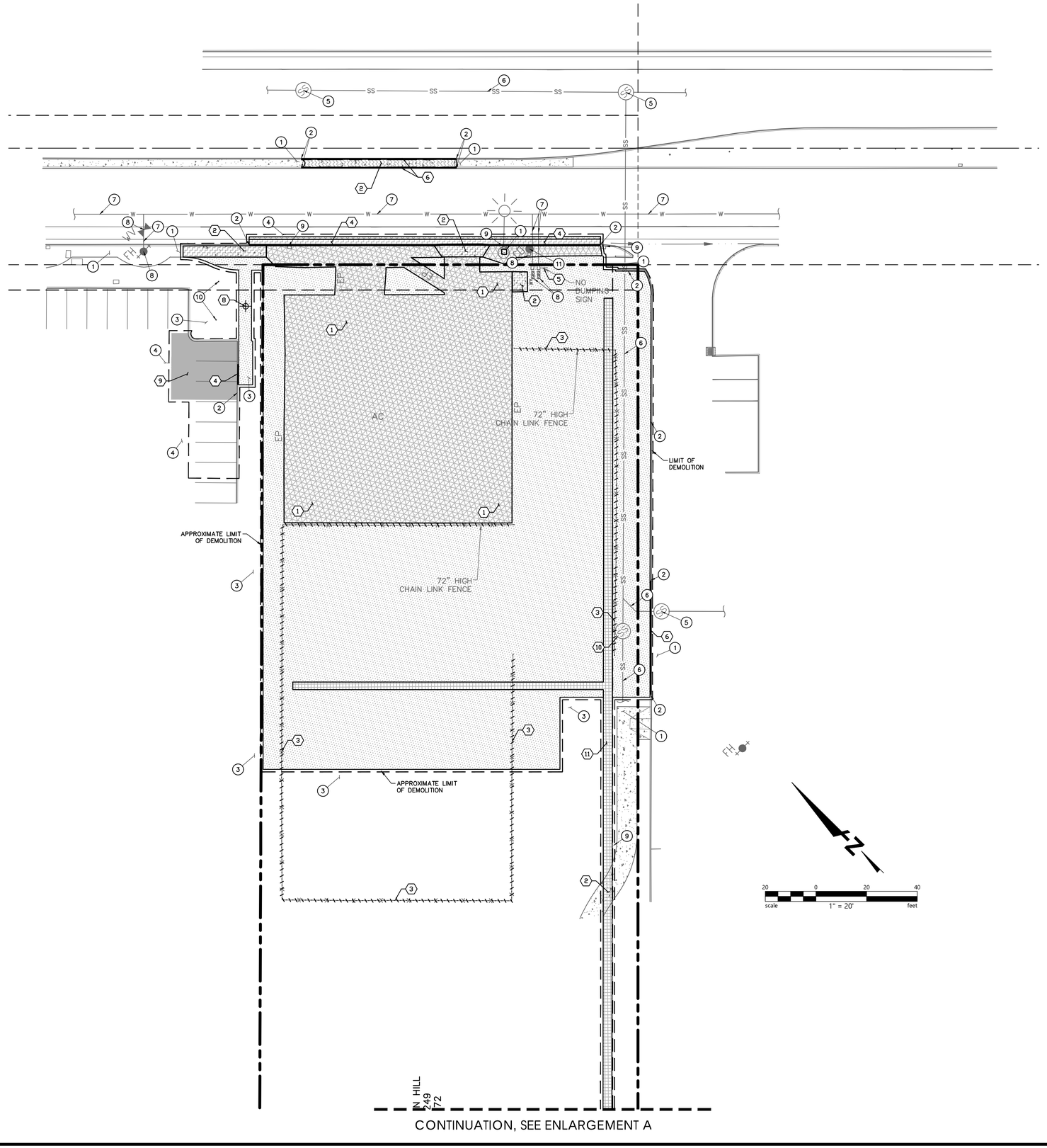
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

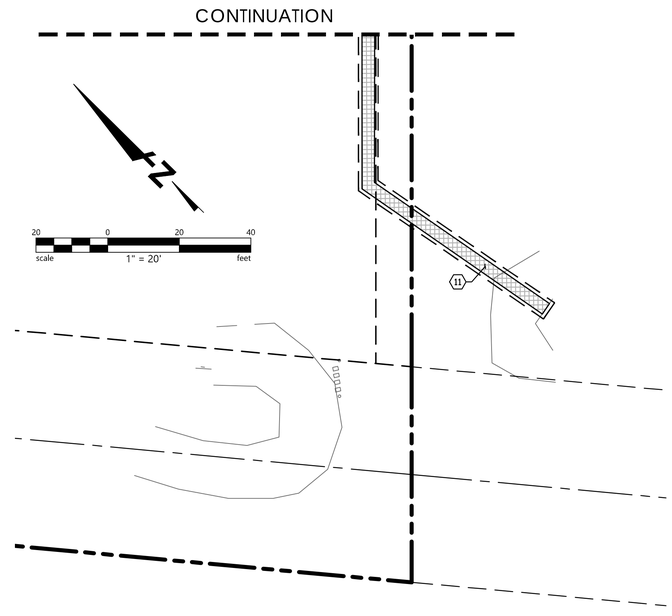
PROJECT NUMBER:
211224

SHEET TITLE:
EXISTING CONDITIONS

SHEET NUMBER:
C1.0



CONTINUATION, SEE ENLARGEMENT A



ENLARGEMENT A

DEMOLITION ITEMS:

1. REMOVE EX AC PAVEMENT
2. REMOVE EX CONCRETE
3. REMOVE EX FENCING AND FOOTING
4. REMOVE EX CURB AND GUTTER
5. REMOVE EX SIGN
6. REMOVE EX CURB
7. CLEAR AND GRUB
8. REMOVE EX TREE
9. AC GRIND AND OVERLAY
10. REMOVE AND RELOCATE EX SANITARY SEWER MANHOLE
11. APPROXIMATE UTILITY TRENCH LIMITS

PROTECTION ITEMS:

1. PROTECT EX CONCRETE
2. PROTECT EX CONCRETE CURB
3. PROTECT EX LANDSCAPE
4. PROTECT EX ASPHALT
5. PROTECT EX SANITARY SEWER STRUCTURE
6. PROTECT EX SANITARY SEWER LINE
7. PROTECT EX WATER LINE
8. PROTECT EX WATER STRUCTURE
9. PROTECT EX ELECTRICAL STRUCTURE
10. PROTECT EX TREE
11. PROTECT EX STORM DRAIN STRUCTURE

DEMOLITION NOTES:

1. CONTRACTOR TO USE CAUTION WHEN WORKING ADJACENT TO EXISTING BUILDING.
2. CONTRACTOR TO CLEAR AND GRUB WITHIN THE LIMITS OF PROPOSED WORK, UNLESS OTHERWISE NOTED ON PLANS.
3. RIM ELEVATIONS FOR EXISTING UTILITY STRUCTURES SHALL BE RAISED TO PROPOSED SURFACE ELEVATIONS.
4. THE UTILITY LINES AND STRUCTURES SHOWN ON THESE PLANS ARE DERIVED FROM RECORD DATA AND/OR SURFACE OBSERVATION AND ARE APPROXIMATE ONLY. ACTUAL LOCATION AND SIZE, TOGETHER WITH THE PRESENCE OF ANY ADDITIONAL UTILITY LINES AND STRUCTURES NOT SHOWN ON THIS PLAN, SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS IN THE FIELD AND INFORMATION SHOWN ON THESE PLANS.
5. THE CONTRACTOR IS REQUIRED BY STATE LAW TO ACTIVELY RESEARCH THE WORK AREA PRIOR TO COMMENCEMENT OF CONSTRUCTION, REFERENCE ANY MONUMENTS, AND REPLACE THOSE DAMAGED OR REMOVED DURING CONSTRUCTION.
6. THE LIMITS OF DEMOLITION SHOWN ARE APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING SURROUNDINGS, LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, AND SIDEWALKS AND AVOIDING ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES OR HAZARDOUS CONDITIONS.
7. EXISTING CURB AND SIDEWALK AND LANDSCAPE/IRRIGATION WITHIN THE PROJECT LIMITS THAT ARE DAMAGED OR DISPLACED, EVEN THOUGH THEY WERE NOT TO BE REMOVED, SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST.
8. PROTECT ALL EXISTING UTILITIES AND SITE FEATURES FROM BEING DAMAGED, UNLESS OTHERWISE NOTED. ALL UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE ENGINEER.

REGISTERED PROFESSIONAL ENGINEER — JAMES T. MCCOLLUM — No. C 64852 EXP. 6/30/23 CIVIL — STATE OF CALIFORNIA

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CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

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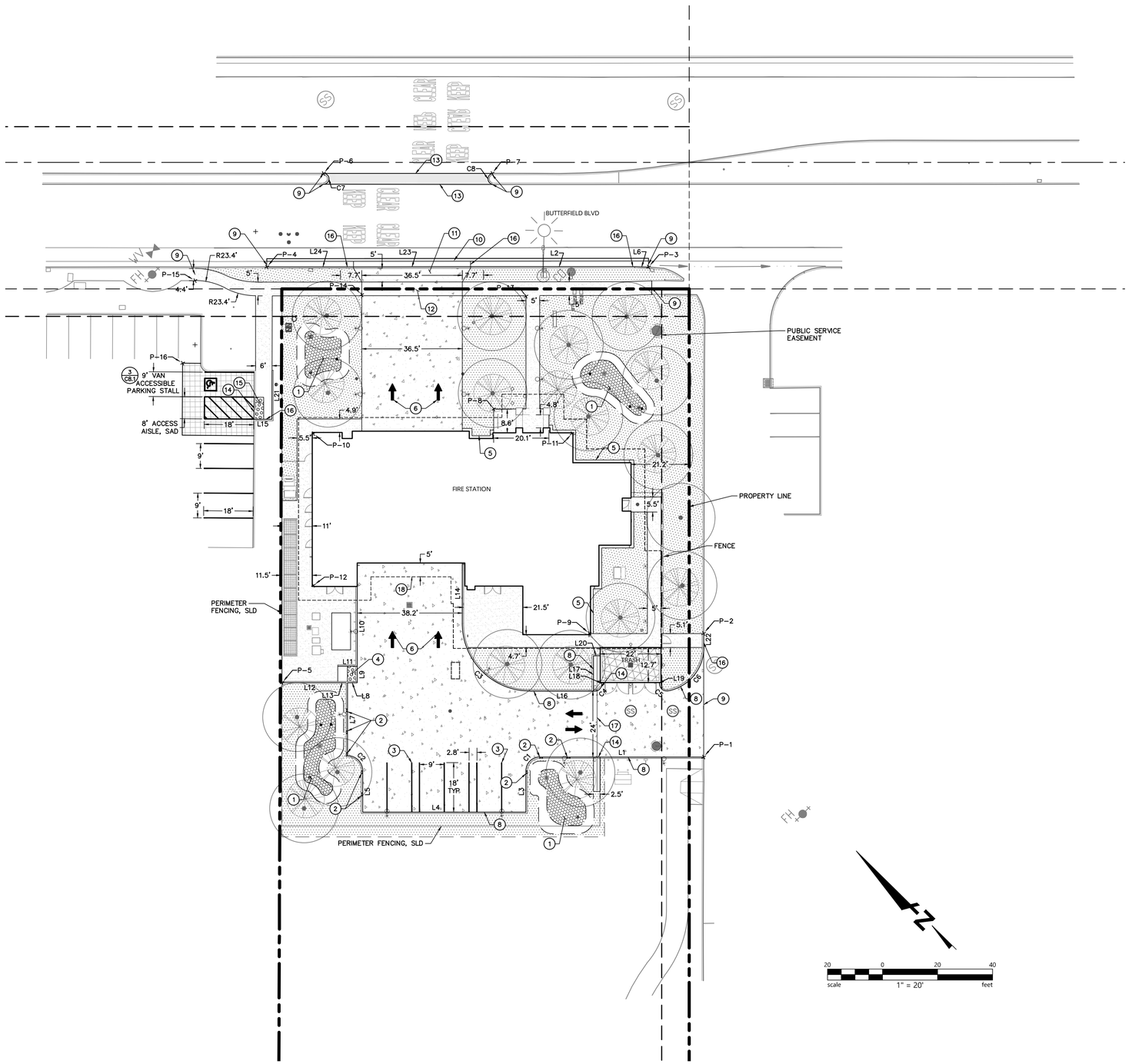
DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C2.0



SURFACE IMPROVEMENTS LEGEND:

- REINFORCED CONCRETE WALK (4" PCC WITH 6X6X10 WELDED WIRE MESH/4" AB)
- HEAVY VEHICULAR CONCRETE (8" PCC W/#3 REBAR @ 24 O.C.E.W/12" AB)
- LIGHT VEHICULAR CONCRETE (6" PCC W/#3 REBAR @ 24 O.C.E.W/12" AB)
- CAST-IN-PLACE DETECTABLE WARNING SURFACE
- LANDSCAPED AREA, SLD
- BIOTREATMENT AREA
- ASPHALT ($3\frac{1}{2}$" AC/$12\frac{1}{2}$" CLASS II AB, TI=6.0)
- FLUSH CURB
- AC GRIND AND OVERLAY(MIN. 2" AC)

SURFACE IMPROVEMENTS NOTES:

1. THE LIMITS OF WORK ARE APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING SURROUNDINGS, LANDSCAPE, AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION, AVOIDING ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS-SLOPES OR HAZARDOUS CONDITIONS.
2. EXISTING CONCRETE SHALL BE REMOVED AT THE NEAREST EXPANSION JOINTS.
3. NEW WORK SHALL MATCH EXISTING AS CLOSELY AS POSSIBLE IN FINISH, SCORING, AND COLOR.
4. EXISTING SITE FEATURES (CURBS, CONCRETE WALKS, LANDSCAPE, IRRIGATION, ETC.) DEMOLISHED DURING CONSTRUCTION SHALL BE REPLACED IN KIND.
5. REFER TO ARCHITECTURAL PLANS FOR JOINT PATTERNS
6. PROVIDE $\frac{1}{4}$"X$\frac{1}{4}$" V-NOTCH IN V-GROOVE TRACK @ 16" O.C. FOR DRAINAGE.
7. APPROXIMATE LIMIT OF OVER EXCAVATION PER PROJECT

LEGEND:

1. BIORETENTION AREA (1/C8.1)
2. CURB CUT (3/C8.0)
3. 4" WIDE WHITE PAVEMENT STRIPE
4. CURB RAMP (7/C8.1)
5. CONCRETE MOW STRIP, SAD
6. TYPE I 10' ARROW CALTRANS STANDARD SHEET A24A
7. TRASH ENCLOSURE, SAD
8. VERTICAL CURB (11/C8.0)
9. CONFORM TO EX CONCRETE (5/C8.0)
10. AC PLUG, TYP (6/C8.1)
11. CONCRETE DRIVEWAY WITH DETACHED SIDEWALK (1/C8.1)
12. DETACHED CONCRETE SIDEWALK (2/C8.1)
13. CONFORM TO EX AC (9/C8.0)
14. FLUSH CURB (2/C8.0)
15. DETECTABLE WARNING SURFACE (1/C8.0)
16. CONCRETE CURB AND/OR GUTTER (2/C8.1)
17. VEHICULAR ROLLING GATE SECTION, SLD. SEE NOTE #6
18. APPROXIMATE LIMIT OF OVER EXCAVATION, SEE NOTE 7.

LINE TABLE		
LINE NO.	LENGTH	DIRECTION
L1	59.56'	N44° 37' 00.00"W
L2	54.96'	S44° 39' 35.70"E
L3	15.00'	S45° 23' 00.00"W
L4	59.33'	N44° 37' 00.00"W
L5	15.00'	N45° 23' 00.00"E
L6	5.00'	S42° 56' 24.02"E
L7	26.50'	N45° 23' 00.00"E
L8	3.50'	S44° 37' 00.00"E
L9	6.00'	N45° 23' 00.00"E
L10	29.00'	N45° 23' 00.00"E
L11	7.00'	S44° 37' 00.00"E
L12	20.29'	N44° 37' 00.00"W
L13	3.00'	N44° 37' 00.00"W
L14	22.07'	N45° 23' 00.00"E
L15	6.00'	N44° 24' 11.75"W
L16	23.67'	N44° 37' 00.00"W
L17	12.83'	N45° 23' 00.00"E
L18	0.67'	S45° 23' 00.00"W
L19	0.63'	N45° 23' 00.00"E
L20	2.50'	S44° 37' 00.00"E
L21	17.78'	S45° 35' 48.25"W
L22	5.14'	S45° 23' 29.15"W
L23	52.00'	S44° 39' 35.70"E
L24	26.76'	S44° 39' 35.70"E

CURVE TABLE			
CURVE NO.	LENGTH	RADIUS	DELTA
C1	7.85'	5.00'	90.00°
C2	8.66'	5.50'	90.22°
C3	38.48'	24.50'	90.00°
C4	3.93'	2.50'	90.00°
C5	4.42'	2.50'	101.21°
C6	22.00'	16.00'	78.78°
C7	6.13'	1.95'	179.83°
C8	5.38'	2.05'	150.36°

REFERENCE POINTS FOR IMPROVEMENTS			
POINT #	DESCRIPTION	NORTHING	EASTING
P-1	FACE OF CURB	11197.12	4348.91
P-2	FACE OF CURB	11228.67	4380.88
P-3	FACE OF CURB	11336.50	4461.66
P-4	FACE OF CURB	11435.26	4364.27
P-5	FACE OF CURB	11325.14	4260.52
P-6	FACE OF CURB	11444.47	4402.91
P-7	FACE OF CURB	11400.86	4445.97
P-8	CORNER OF CONC	11340.30	4385.39
P-9	GRIDLINE INTERSECTION G/8	11258.24	4351.70
P-10	GRIDLINE INTERSECTION A/1	11380.64	4333.02
P-11	GRIDLINE INTERSECTION A/7	11313.73	4399.04
P-12	GRIDLINE INTERSECTION F/1	11341.89	4293.75
P-13	CORNER OF CONC	11360.75	4422.84
P-14	CORNER OF CONC	11403.58	4381.28
P-15	CONCRETE WALK	11450.33	4342.38
P-16	AC	11432.46	4317.88

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:

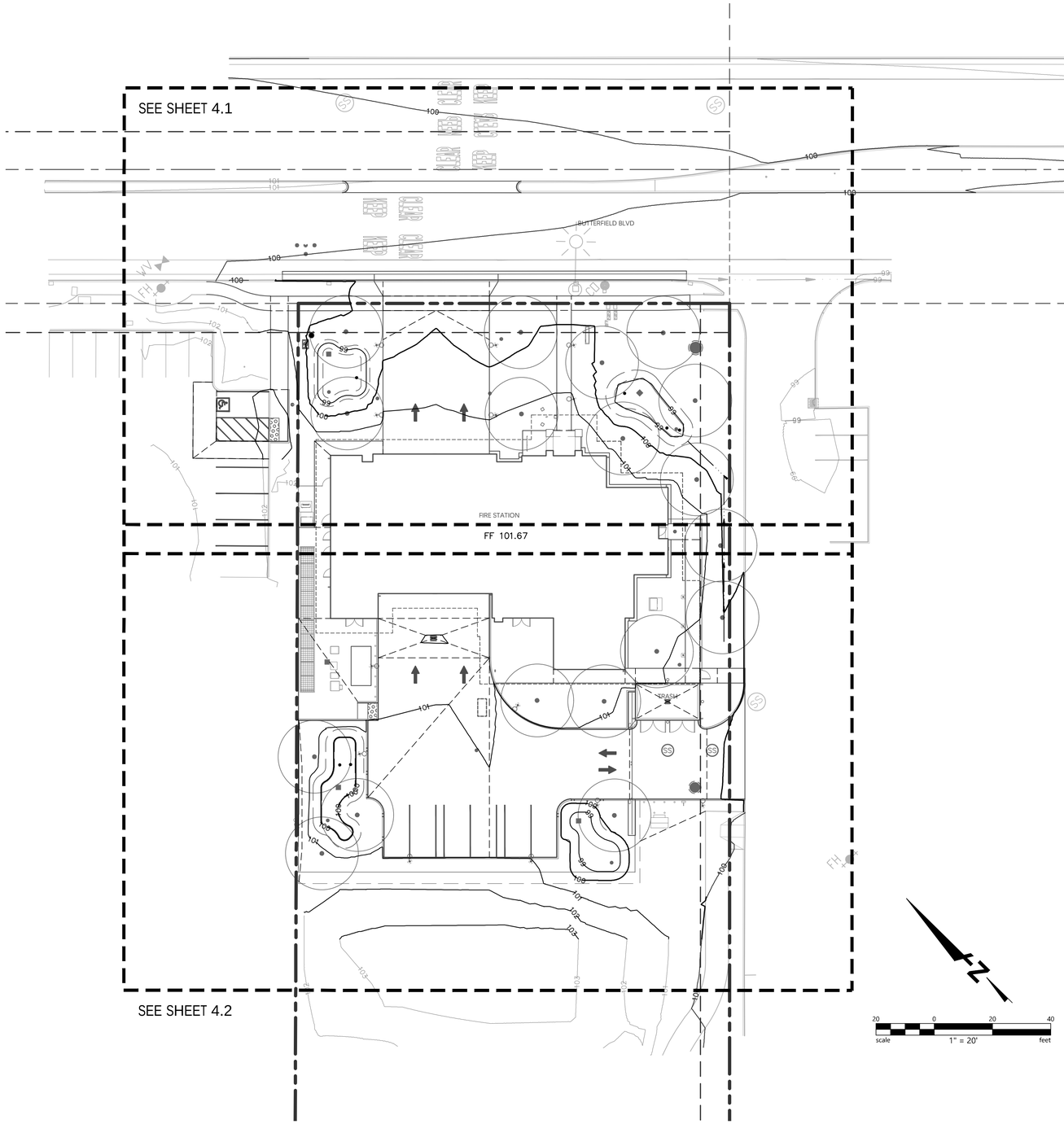
211224

SHEET TITLE:

SURFACE IMPROVEMENT PLAN

SHEET NUMBER:

C3.0



GRADING LEGEND:

- FLOW LINE
- GRADE BREAK
- 100 PROPOSED CONTOUR
- 99 EXISTING CONTOUR
- XX PROPOSED SLOPE
- XX EXISTING SLOPE
- FF: XX.XX ELEVATION LABEL:

AC	ASPHALT CONCRETE
CC:	CONCRETE
EX:	EXISTING
FF:	FINISHED FLOOR
FL:	FLOW LINE
GB:	GRADE BREAK GROUND
GND:	GROUND
LG:	LIP OF GUTTER
RIM:	UTILITY STRUCTURE RIM
TC:	TOP OF CURB
TH:	THRESHOLD
TSL:	TOP OF SOIL LAYER

GRADING NOTES:

1. PROPOSED SITE PLAN AND UTILITIES HAS BEEN SCREENED FOR CLARITY.
2. GRADING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS AND THE REQUIREMENTS AND RECOMMENDATIONS CONTAINED IN THE PROJECT GEOTECHNICAL REPORT.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO CONFORM TO THE LINES, GRADES, SECTIONS, AND DIMENSIONS AS SET FORTH ON THESE PLANS. GRADED AREAS SHALL CONFORM TO THE VERTICAL ELEVATIONS SHOWN WITHIN TOLERANCE OF ONE-TENTH OF A FOOT IN LANDSCAPED AREAS AND TWO-HUNDREDTHS OF A FOOT IN HARDSCAPED OR PAVED AREAS. WHERE GRADED AREAS DO NOT CONFORM TO THESE TOLERANCES, THE CONTRACTOR SHALL BE REQUIRED TO DO CORRECTIVE GRADING, AT NO EXTRA COST TO THE OWNER.
4. CONTRACTOR SHALL FIELD VERIFY FINISHED FLOOR ELEVATIONS OF EXISTING BUILDINGS PRIOR TO STARTING CONSTRUCTION.
5. CONTRACTOR SHALL TAKE CAUTION WHEN GRADING ADJACENT TO EXISTING BUILDINGS, TO PROTECT EXISTING FOUNDATIONS AND TO NOT TO COVER EXISTING VENTS.
6. RIMS OF UTILITY STRUCTURES SHALL BE ADJUSTED TO FINISHED GRADE IN AREAS OF RE-GRADING. IN PAVED AREAS, ELEVATION DIFFERENCE SHALL NOT BE MORE THAN ½ INCH BETWEEN RIMS AND ADJACENT SURFACE.
7. WHERE IMPROVEMENTS INVOLVE ADA ACCESSIBILITY, CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING PARAMETERS THAT NEED TO BE MET WITH THE FINISHED CONSTRUCTION:
   a. WALKWAYS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 4.9% AND A MAXIMUM CROSS SLOPE OF 2%.
   b. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ALL DIRECTIONS, INCLUDING DIAGONAL.
   c. ADA PARKING STALLS AND STRIPED AISLE SHALL HAVE A MAXIMUM SLOPE OF 2% IN ALL DIRECTIONS, INCLUDING DIAGONAL.
   d. TRANSITIONS BETWEEN PROPOSED IMPROVEMENTS AND EXISTING CONDITIONS SHALL BE SMOOTH AND FREE OF ABRUPT CHANGES.

* CONTRACTOR SHALL FIELD VERIFY EXISTING GRADES AT CONFORMS PRIOR TO FORMING/AC WORK.

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

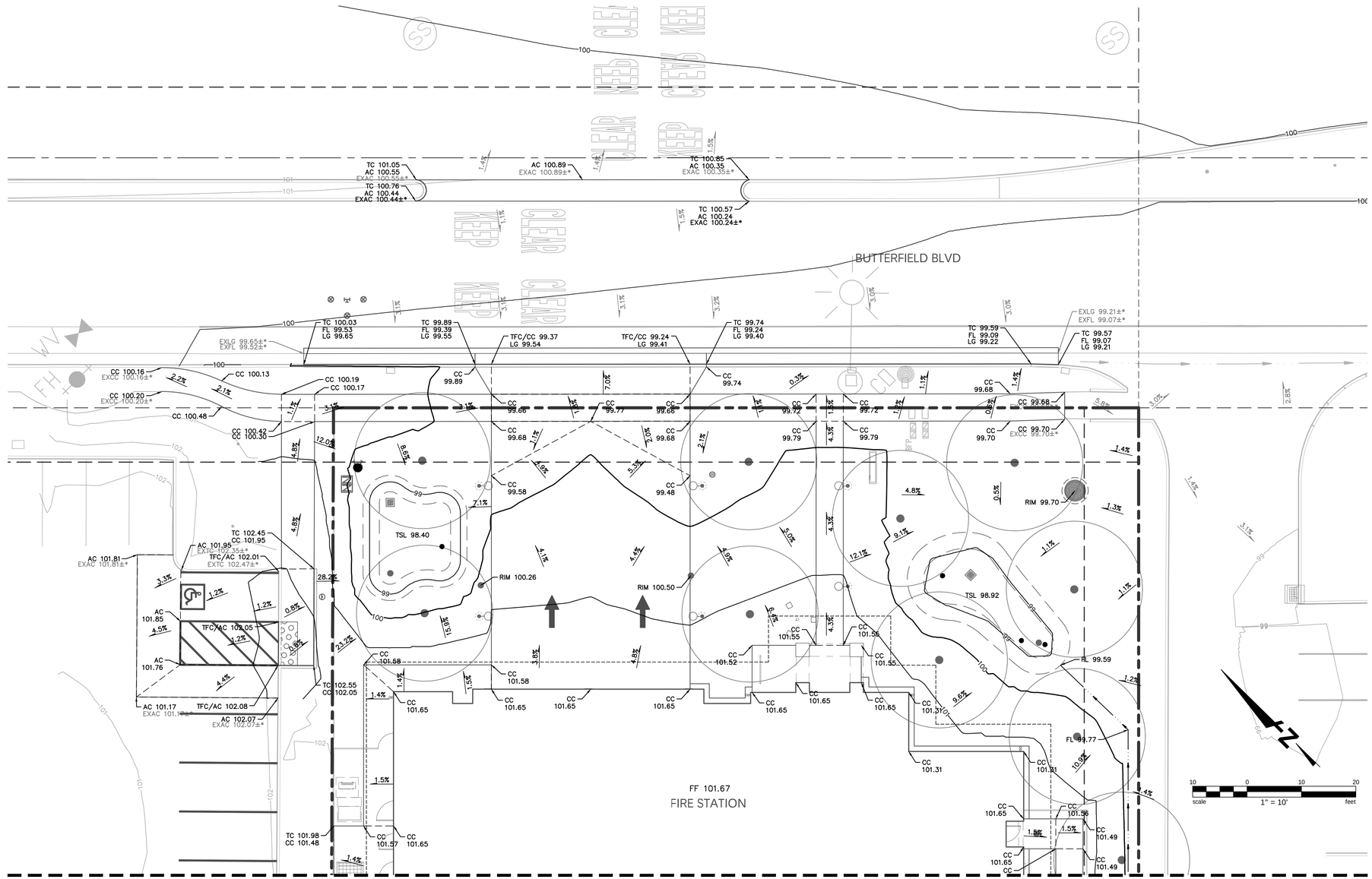
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

SHEET TITLE:
GRADING PLAN

SHEET NUMBER:
C4.0



CONTINUATION, SEE SHEET 4.2

GRADING LEGEND:

- FLOW LINE
- GRADE BREAK
- 100 PROPOSED CONTOUR
- 99 EXISTING CONTOUR
- XX% PROPOSED SLOPE
- X.X% EXISTING SLOPE
- FF: XX.XX ELEVATION LABEL:

AC ASPHALT CONCRETE
CC: CONCRETE
EX: EXISTING
FF: FINISHED FLOOR
FL: FLOW LINE
GB: GRADE BREAK GROUND
GND: GROUND
LG: LIP OF GUTTER
RIM: UTILITY STRUCTURE RIM
TC: TOP OF CURB
TH: THRESHOLD
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GRADING NOTES:

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   d. TRANSITIONS BETWEEN PROPOSED IMPROVEMENTS AND EXISTING CONDITIONS SHALL BE SMOOTH AND FREE OF ABRUPT CHANGES.

* CONTRACTOR SHALL FIELD VERIFY EXISTING GRADES AT CONFORMS PRIOR TO FORMING/AC WORK.

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

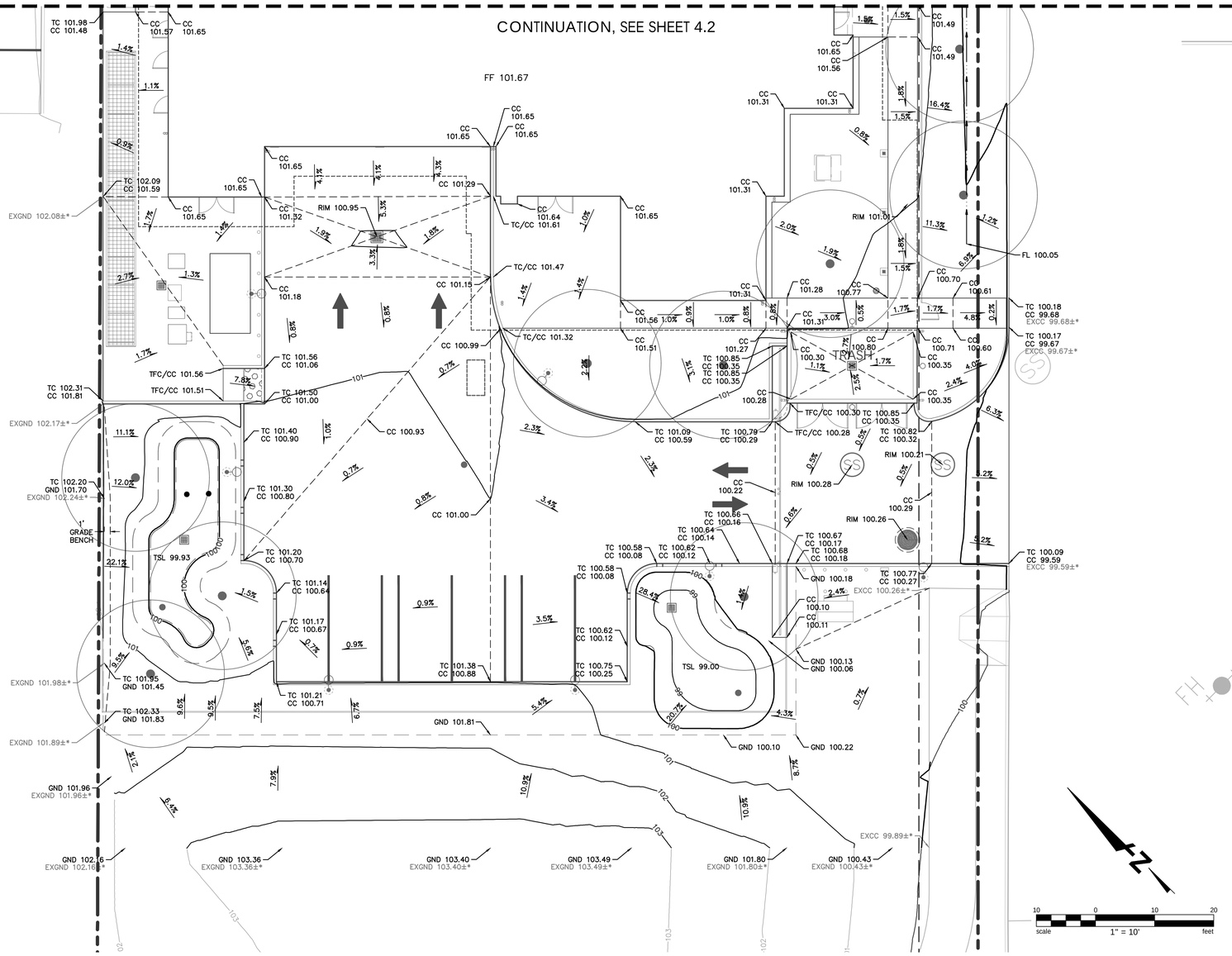
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

SHEET TITLE:
GRADING PLAN

SHEET NUMBER:
C4.1


CONTINUATION, SEE SHEET 4.2
FF 101.67
TSL 99.93
TSL 99.00
RIM 100.95
RIM 101.01
RIM 100.28
RIM 100.26
RIM 101.21
FL 100.05
1' GRADE BENCH
EXGND 102.08±*
EXGND 102.17±*
EXGND 102.24±*
EXGND 101.98±*
EXGND 101.89±*
EXGND 101.96±*
EXGND 102.16±*
EXGND 103.36±*
EXGND 103.40±*
EXGND 103.49±*
EXGND 101.80±*
EXGND 100.43±*
EXCC 99.89±*
EXCC 100.26±*
EXCC 99.68±*
EXCC 99.67±*
EXCC 99.59±*
TC 101.98 CC 101.48
CC 101.57
CC 101.65
TC 102.09 CC 101.59
TC 101.56 CC 101.06
TFC/CC 101.56
TFC/CC 101.51
TC 101.50 CC 101.00
TC 102.31 CC 101.81
TC 101.40 CC 100.90
TC 102.20 GND 101.70
TC 101.30 CC 100.80
TC 101.20 CC 100.70
TC 101.14 CC 100.64
TC 101.17 CC 100.67
TC 101.95 GND 101.45
TC 102.33 GND 101.83
TC 101.21 CC 100.71
GND 101.81
GND 101.96
GND 102.16
GND 103.36
GND 103.40
GND 103.49
GND 101.80
GND 100.43
GND 100.10
GND 100.22
GND 101.18
GND 100.13
GND 100.06
CC 101.29
CC 101.32
CC 101.64
TC/CC 101.61
CC 101.15
TC/CC 101.47
CC 100.99
TC/CC 101.32
CC 101.51
CC 101.09
CC 100.59
CC 100.79
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TC 100.62
CC 100.12
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CC 100.25
TC 101.38
CC 100.88
CC 101.28
CC 100.77
CC 101.27
CC 100.80
CC 100.30
CC 100.85
CC 100.35
CC 100.28
TFC/CC 100.30
TFC/CC 100.28
TC 100.82
CC 100.32
CC 100.29
TC 100.67
CC 100.17
TC 100.68
CC 100.18
GND 100.18
TC 100.77
CC 100.27
CC 100.10
CC 100.11
CC 100.70
CC 100.71
CC 100.60
CC 100.61
CC 100.35
TC 100.18
CC 99.68
TC 100.17
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TC 100.09
CC 99.59
CC 100.29
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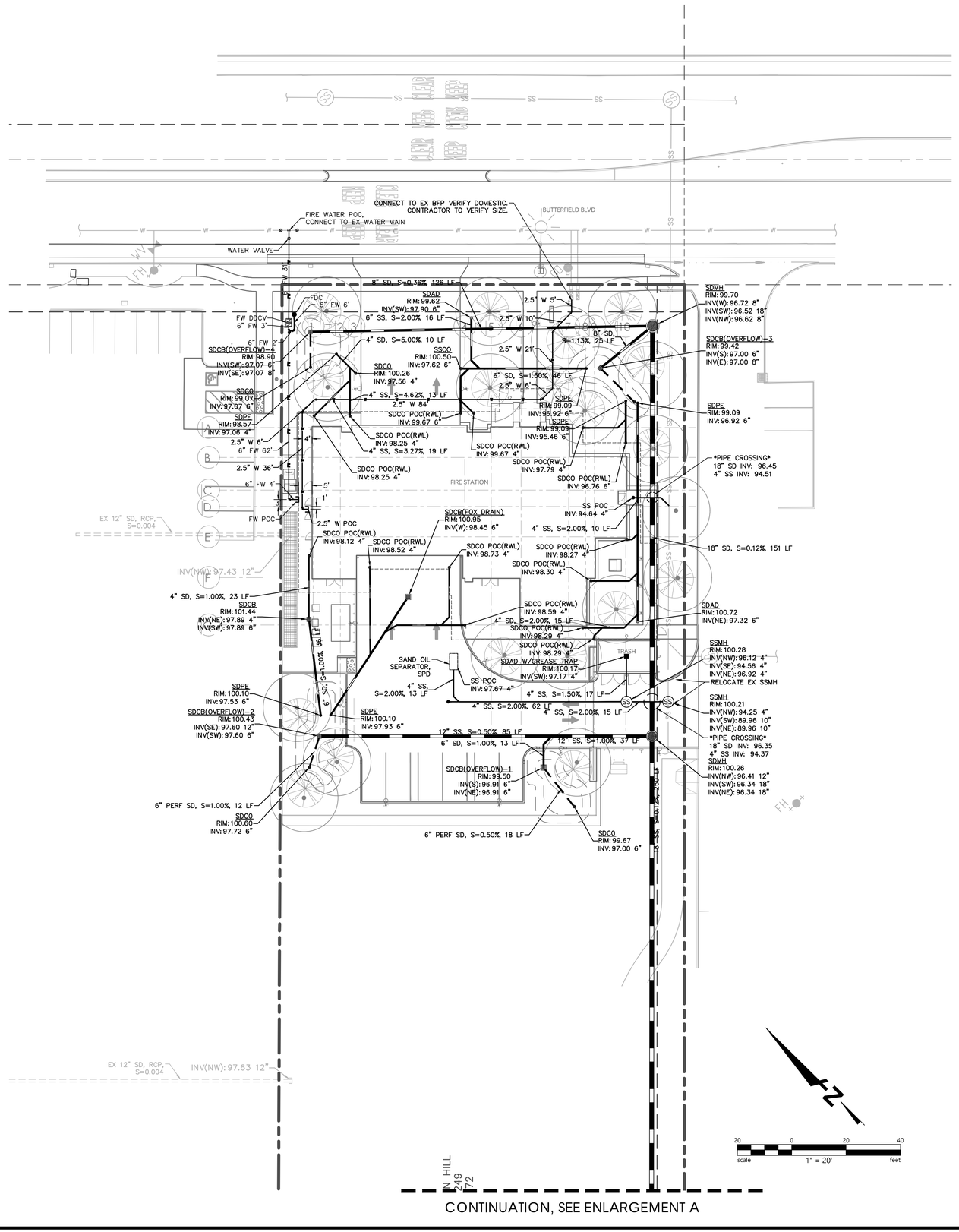


UTILITY SCHEDULE

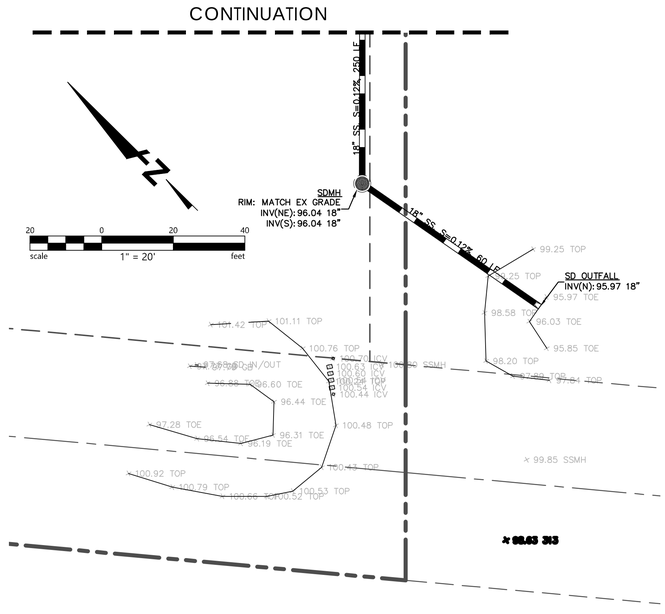
PIPING	
SYSTEM:	MATERIAL
WATER (DOMESTIC)	DUCTILE IRON PIPE CLASS 50
WATER (FIRE)	DUCTILE IRON PIPE CLASS 50
STORM DRAIN	PVC SDR 35
STORM SUB DRAIN/PERF PIPE	HDPE SDR 35
SANITARY SEWER	PVC SDR 26
STRUCTURES	
SYSTEM:	DETAIL
FIRE WATER	
FDC	PER DETAIL 2, C8.1
DDCV	PER DETAIL 3, C8.4
GATE VALVE	PER DETAIL 1, C8.3
STORM DRAIN	
MANHOLE	PER DETAIL 2, C8.4
CLEANOUT	PER DETAIL 8, C8.0
CLEANOUT (BIOTREATMENT)	PER DETAIL 4, C8.2
SDCB	PER DETAIL 3, C8.2
SD OUTFALL	PER DETAIL 2, C8.5
SDPE(POP-UP EMITTER)	PER DETAIL 7, C8.2
SDAD	PER DETAIL 10, C8.0
SDCB(FOX DRAIN)	PER DETAIL 1, C8.2
SANITARY SEWER	
MANHOLE	PER DETAIL 1, C8.4
CLEANOUT	PER DETAIL 8, C8.0

UTILITY LEGEND

- STORM DRAIN LINE
- SANITARY SEWER LINE
- WATER LINE
- FIRE WATER
- STORM DRAIN DROP INLET
- STORM DRAIN MANHOLE
- STORM DRAIN CLEANOUT
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- BACK FLOW PREVENTOR
- WATER VALVE
- FDC

UTILITY NOTES:

1. PROPOSED SITE PLAN HAS BEEN SCREENED FOR CLARITY.
2. RIM ELEVATIONS FOR EXISTING UTILITY STRUCTURES SHALL BE RAISED TO PROPOSED SURFACE ELEVATIONS. EXISTING STRUCTURES LOCATED WITHIN PROPOSED VEHICULAR ROADWAY, AN H-20 TRAFFIC-RATED TOP SHALL BE USED TO REPLACE THE EXISTING TOP OF THE ADJUSTED STRUCTURE.
3. PROTECT ALL EXISTING UTILITIES AND SITE FEATURES FROM BEING DAMAGED, UNLESS OTHERWISE NOTED. ALL UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE ENGINEER.
4. THE EXISTING UTILITY LINES AND STRUCTURES SHOWN ON THESE PLANS ARE DERIVED FROM RECORD DATA, UNDERGROUND UTILITY SURVEY AND/OR SURFACE OBSERVATION AND ARE APPROXIMATE ONLY. ACTUAL LOCATION AND SIZE, TOGETHER WITH THE PRESENCE OF ANY ADDITIONAL UTILITY LINES AND STRUCTURES NOT SHOWN ON THIS PLAN, SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS IN THE FIELD AND INFORMATION SHOWN ON THESE PLANS.
5. THRUST BLOCKS SHALL BE INSTALLED AT ALL BENDS AND TEES ON WATER MAINS & FIRE SERVICE LINES. CONTRACTOR MAY USE RESTRAIN JOINTS INSTEAD OF THRUST BLOCKS AT ALL BENDS AND TEES. CONTRACTOR SHALL BE RESPONSIBLE TO CALCULATE THE RESTRAIN JOINT LENGTH.
6. EXISTING UNDERGROUND UTILITIES, INCLUDING THOSE MARKED UNKNOWN, ARE BASED ON SURVEY COMPLETED BY OTHERS AND PROVIDED TO BKF ENGINEERS FOR INCLUSION IN PLANS.
7. EXISTING PIPE LINES MAY HAVE CATHODIC PROTECTION. CONTRACTOR SHALL ENSURE THAT ALL CONNECTIONS TO EXISTING PIPE LINES ARE ELECTRICALLY COMMON WITH THE PIPE LINE.
8. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION.
9. LENGTH OF PIPES ARE HORIZONTAL DISTANCES FROM CENTER TO CENTER OF STRUCTURES, ROUNDED TO THE NEAREST FOOT AND ARE SHOWN FOR ENGINEERING CALCULATIONS ONLY. CONTRACTOR SHALL ESTIMATE THEIR OWN PIPE LENGTHS PRIOR TO BIDDING.
10. FIRE SERVICE SIZE IS SHOWN FOR REFERENCE ONLY. FIRE SERVICE SIZE SHALL BE CONFIRMED BY A LICENSED FIRE PROTECTION ENGINEER OR DESIGN-BUILD CONTRACTOR IN CONJUNCTION WITH THE FIRE SPRINKLER SYSTEM DESIGN AND CALCULATIONS. CONTRACTOR IS CAUTIONED NOT TO ORDER ANY MATERIALS RELATED TO THE FIRE SERVICE UNTIL SAID SIZING IS CONFIRMED. IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION (AHJ), SHOP DRAWINGS OF THE FIRE SERVICE SHALL BE SUBMITTED TO THE AHJ BY THE INSTALLING CONTRACTOR. SHOP DRAWINGS OF THE FIRE SERVICE ARE NOT REQUIRED TO BE SUBMITTED TO THE CIVIL ENGINEER OF RECORD.
11. UTILITY TRENCHES PARALLEL TO FOUNDATIONS ARE TO HAVE A MINIMUM OF 18" INCHES CLEARANCE, SEE STRUCTURAL DRAWINGS FOR ADDED CLEARANCE AND TRENCHING DEPTHS ADJACENT TO STRUCTURAL FOUNDATIONS.
12. UTILITY TRENCHING PER DETAIL 1 ON SHEET C8.5.



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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

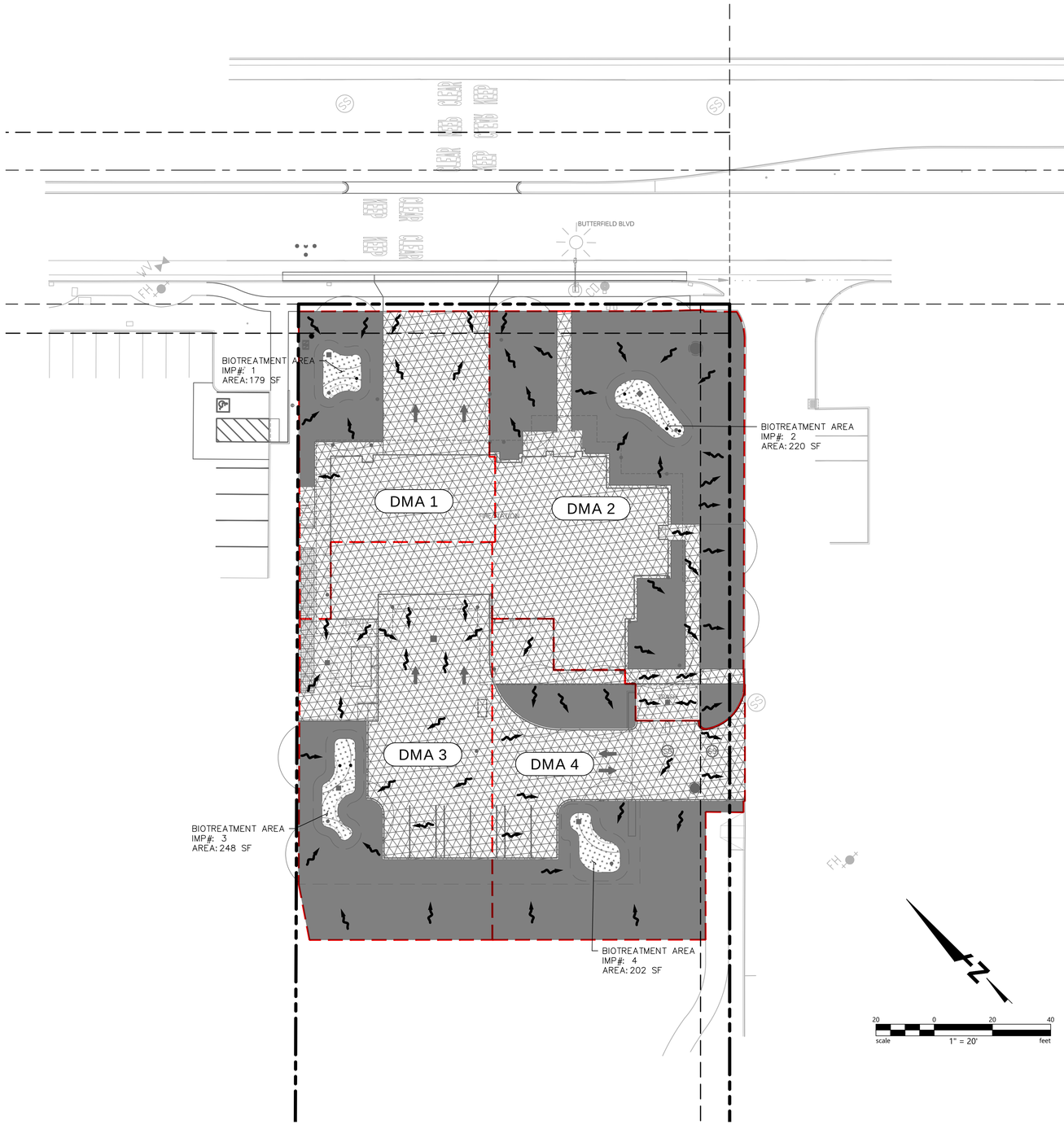
17285 Butterfield Blvd. Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER: 211224

SHEET TITLE: UTILITY PLAN

SHEET NUMBER: C5.0



SURFACE CLASSIFICATION	A Pre-Project (sq. ft.)	B Post-project (sq. ft.)
IMPERMEABLE	8,619	17,866
PERMEABLE	23,762	14,515
Totals:	**32,381**	**32,381**

LEGEND:

IMPERVIOUS SURFACE

PERVIOUS SURFACE

BIORETENTION AREA

CALCULATION TABLE OF STORMWATER DETENTION SIZING

[DMA] NAME	(1) DMA Area (sf)	(2) Pervious Area (sf)	(3) Impervious Area (sf)	(4) Retention Tributary Area* (1) - (2) = (4)	(5) Runoff Coefficient**	(6) 95th Percentile 24-hr Rainfall Depth (in)	(7) Required Retention Volume (cu ft) (4)x(5)x(6)/12=(7)	(8) Available Retention Volume*** (cu ft) (10)x(11)*40%=(8)	(9) % Replacement of Impervious Credit	(10) Available Bioretention Area (sf)	(11) Gravel storage Depth (ft)
DMA 1	5,515	1,193	4,135	2,162	0.54	1.70	166	179	50%	179	2.5
DMA 2	10,955	6,096	4,590	4,427	0.29	1.70	182	214	10%	214	2.5
DMA 3	8,734	2,757	5,720	4,466	0.45	1.70	287	297	35%	248	3.0
DMA 4	7,149	3,517	3,392	3,416	0.32	1.70	156	162	5%	202	2.0
TOTAL	**32,354**	**13,563**	**17,837**	**14,470**			**635**	**852**	**100%**	**843**	

* Sized reduced by 0.5 x (8,641 SF x % Replacement of impervious Credit (9)) to calculate Retention Tributary Arec

** Runoff factor calculated using WEF Manual of Practice Equation C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04 where 'I' is %Impervious

*** Prosity of gravel assumed to be 40%

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:

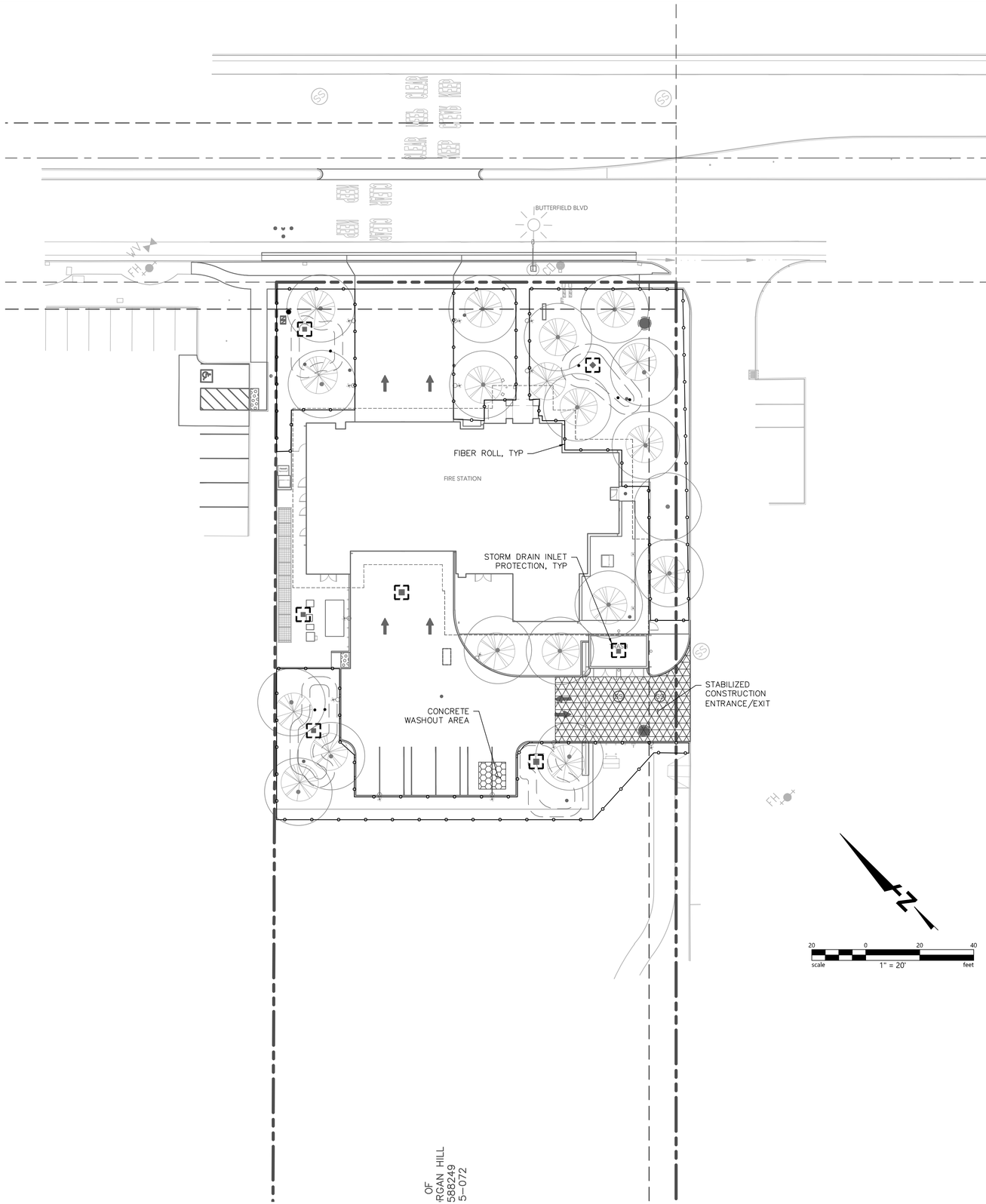
211224

SHEET TITLE:

STORMWATER MANAGEMENT PLAN

SHEET NUMBER:

C6.0



LEGEND

STORM DRAIN INLET PROTECTION (2 / C7.1)

FIBER ROLL (4 / C7.1)

STABILIZED CONSTRUCTION ENTRANCE/EXIT (1 / C7.1)

CONCRETE WASHOUT (3 / C7.1)

EROSION CONTROL NOTES:

1. REFERENCE: "CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICE (BMP) HANDBOOK", LATEST EDITION.
2. CONSTRUCTION AREAS SHOWN ARE CONCEPTUAL. ACTUAL PLACEMENT TO BE DETERMINED BY CONTRACTOR BASED ON CURRENT BEST MANAGEMENT PRACTICES. CONTRACTOR SHALL SUBMIT A CONSTRUCTION STAGING PLAN.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN EFFECT AND MAINTAINED BY THE CONTRACTOR ON A YEAR-ROUND BASIS UNTIL ALL DISTURBED AREAS ARE STABILIZED UNLESS OTHERWISE PERMITTED BY THE CITY INSPECTOR.
4. AS PART OF THE GRADING OPERATIONS, THE CONTRACTOR SHALL ENSURE THAT THE SITE IS WATERED PRIOR TO THE COMMENCEMENT OF GRADING.
5. ALL INLETS RECEIVING STORM WATER RUNOFF FROM THE PROJECT AREA MUST BE EQUIPPED WITH REQUIRED INLET PROTECTION.
6. ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIALS AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF ENTERING THE STORM DRAIN SYSTEM.
7. ALL CONCRETE SLURRY SHALL BE CONTAINED IN CONCRETE WASH-OUT AREAS DESIGNATED ON-SITE.
8. STOCKPILED EARTHEN MATERIAL SHALL BE EITHER COVERED WITH A TARP OR WATERED SUFFICIENTLY TO ELIMINATE DUST.
9. TEMPORARY EROSION CONTROLS TO STABILIZE ALL DENUDED AREAS UNTIL PERMANENT EROSION CONTROLS ARE ESTABLISHED.
10. DELINEATE WITH FIELD MARKERS CLEARING LIMITS, EASEMENTS, SETBACKS, SENSITIVE OR CRITICAL AREAS, BUFFER ZONES, TREES, AND DRAINAGE COURSES.
11. PERFORM CLEARING AND EARTH MOVING ACTIVITIES ONLY DURING DRY WEATHER.
12. USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING AND OBTAIN ALL NECESSARY PERMITS.
13. PROTECT ALL STORM DRAIN INLETS IN VICINITY OF SITE USING SEDIMENT CONTROLS SUCH AS BERMS, FIBER ROLLS, OR FILTERS.
14. TRAP SEDIMENT ON-SITE, USING BMPS SUCH AS SEDIMENT BASINS OR TRAPS, EARTHEN DIKES OR BERMS, SILT FENCES, CHECK DAMS, SOIL BLANKETS OR MATS, COVERS FOR SOIL STOCK PILES, ETC.
15. DIVERT ON-SITE RUNOFF AROUND EXPOSED AREAS; DIVERT OFF-SITE RUNOFF AROUND THE SITE (E.G., SWALES AND DIKES).
16. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
17. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
18. NO CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A DESIGNATED AREA WHERE WASHWATER IS CONTAINED AND TREATED.
19. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS/WASTES PROPERLY TO PREVENT CONTACT WITH STORMWATER.
20. CONTRACTOR SHALL TRAIN AND PROVIDE INSTRUCTION TO ALL EMPLOYEES/SUBCONTRACTORS RE: CONSTRUCTION BMPS.
21. CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASHWATER OR SEDIMENTS, RINSE WATER FROM ARCHITECTURAL COPPER, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
22. CONTRACTOR SHALL PROVIDE INLET PROTECTION AT THE NEAREST DOWNSTREAM STORM DRAIN ALONG PROJECT SITE.
23. AS A PART OF THE BID DOCUMENTS, THE BIDDER SHALL DESIGNATE A QUALIFIED SWPPP PRACTITIONER (QSP) TO IMPLEMENT THE PROVISIONS OF THE SWPPP AND THE CONSTRUCTION SITE MONITORING PROGRAM (CSMP), AND SHALL COMPLY WITH THE NARRATIVE EFFLUENT STANDARDS.

LOCATION OF CONSTRUCTION ACTIVITIES IS PRELIMINARY AND SHALL BE SUPERSEDED BY FINALIZED CONSTRUCTION ACTIVITY LOCATIONS, SHOWN/UPDATED BY CONTRACTOR.

REGISTERED PROFESSIONAL ENGINEER JAMES T. MCCORMICK No. 64852 EXP. 6/30/23 CIVIL STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

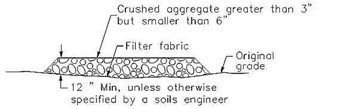
DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

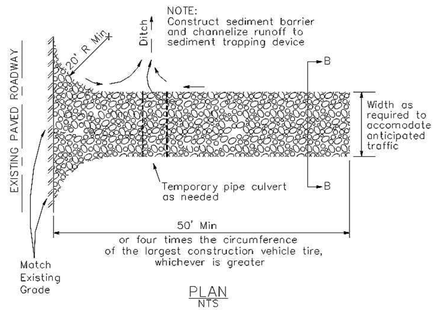
SHEET TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
C7.0

Stabilized Construction Entrance/Exit TC-1



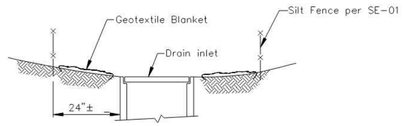
SECTION B–B
NTS



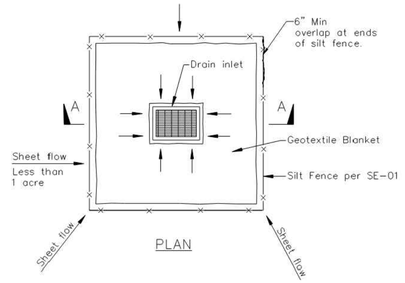
PLAN
NTS

① **STABILIZED CONSTRUCTION ENTRANCE/EXIT**
NTS

Storm Drain Inlet Protection SE-10



SECTION A–A



PLAN

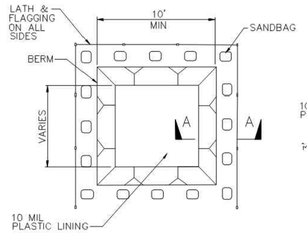
DI PROTECTION TYPE 1
NOT TO SCALE

NOTES:

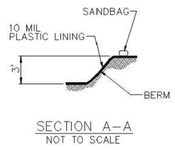
1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.

② **STORM DRAIN INLET PROTECTION**
NTS

Concrete Waste Management WM-8



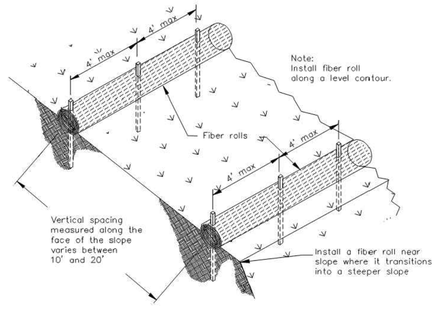
PLAN
NOT TO SCALE
TYPE "BELOW GRADE"



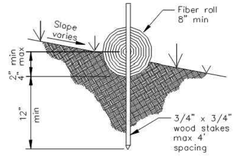
SECTION A–A
NOT TO SCALE

③ **CINCRETE WASTE MANAGEMENT**
NTS

Fiber Rolls SE-5



TYPICAL FIBER ROLL INSTALLATION
N.T.S.



ENTRENCHMENT DETAIL
N.T.S.

④ **FIBER ROLLS**
NTS

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

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DESCRIPTION:	DATE:
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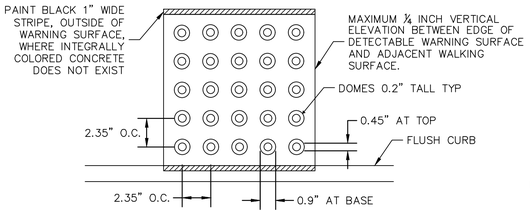
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

SHEET TITLE:
EROSION CONTROL DETAILS

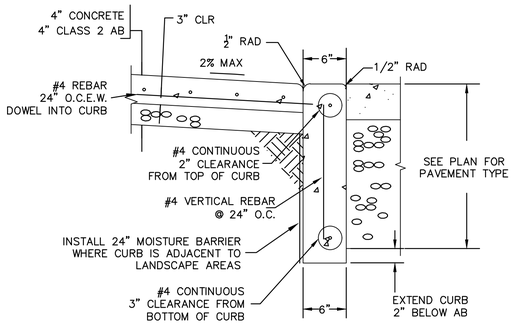
SHEET NUMBER:
C7.1



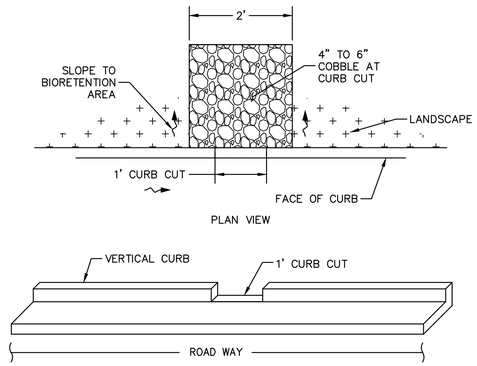
NOTES:

1. DETECTABLE WARNING SURFACE SHALL BE CAST–IN PLACE WITHIN CONCRETE ARMOR–TILE OR APPROVED EQUAL.
2. THE DETECTABLE WARNING SURFACE SHALL BE INSTALLED ALONG THE FULL WIDTH AND 3' DEPTH ON THE CURB RAMP, EXCLUDING THE FLARED SIDES AND INSIDE THE GROOVED BORDER. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE PLACED BETWEEN 6 AND 8 INCHES FROM THE FACE OF FLUSH CURB, UNLESS INDICATED OTHERWISE.
3. COLOR OF DETECTABLE WARNING SURFACE SHALL BE YELLOW CONFORMING TO FS33538 OF FEDERAL STD. 595C.
4. DETECTABLE WARNING SURFACE SHALL BE SLIP–RESISTANT.
5. DETECTABLE WARNING SURFACE SHALL DIFFER FROM ADJOINING SURFACES IN RESILIENCY OR SOUND–ON–CANE CONTACT.

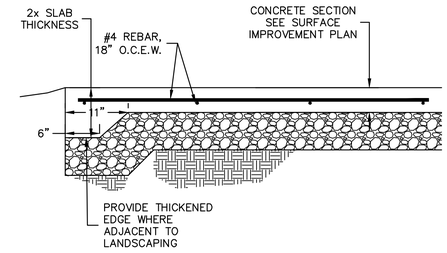
1 CAST–IN–PLACE DETECTABLE WARNING SURFACE
NTS



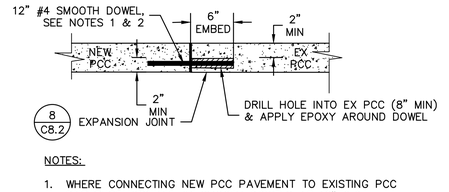
2 FLUSH CURB
NTS



3 CURB CUT
NTS



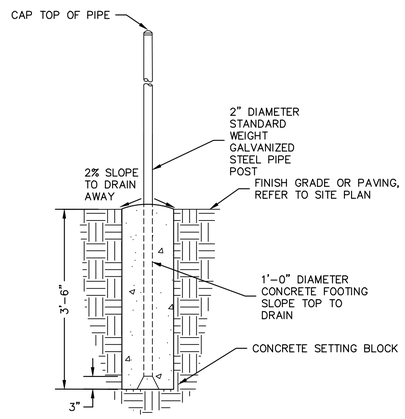
4 THICKENED EDGE
NTS



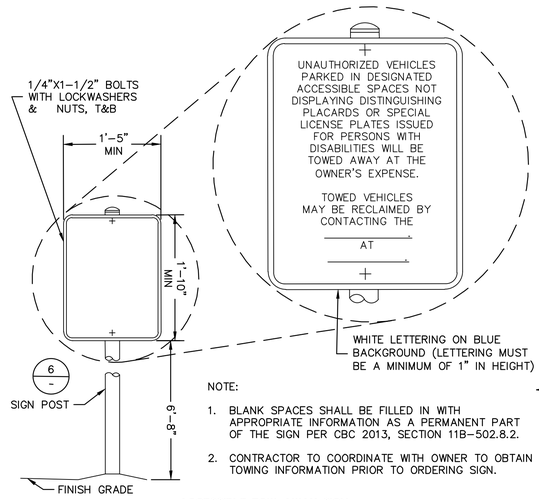
NOTES:

1. WHERE CONNECTING NEW PCC PAVEMENT TO EXISTING PCC PAVEMENT, INSTALL #4 SMOOTH DOWELS AT 18" O.C.
2. WHERE CONNECTING NEW CONCRETE CURB TO EXISTING CONCRETE CURB, INSTALL #4 SMOOTH DOWELS AT TOP & BOTTOM WITH 2" MIN COVER.

5 CONCRETE CONFORM
NTS



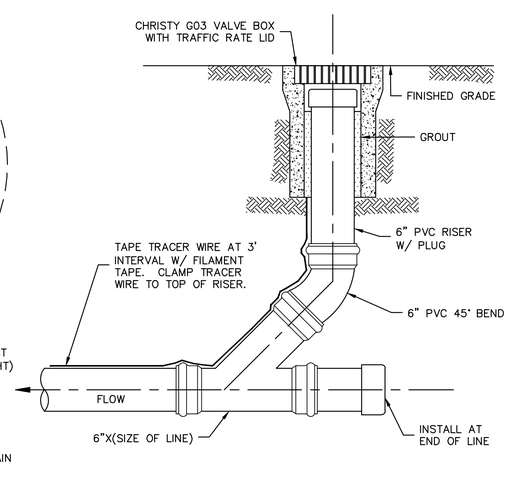
6 ACCESSIBLE SIGN POST FOOTING
NTS



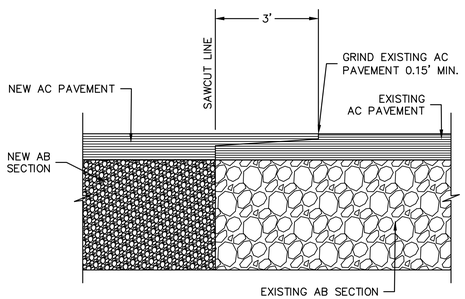
NOTE:

1. BLANK SPACES SHALL BE FILLED IN WITH APPROPRIATE INFORMATION AS A PERMANENT PART OF THE SIGN PER CBC 2013, SECTION 11B–502.8.2.
2. CONTRACTOR TO COORDINATE WITH OWNER TO OBTAIN TOWING INFORMATION PRIOR TO ORDERING SIGN.

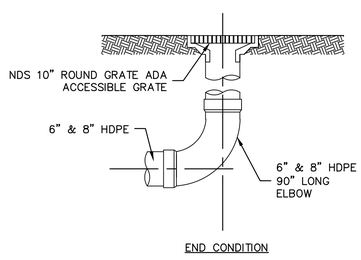
7 ACCESSIBLE TOW–AWAY SIGN
NTS

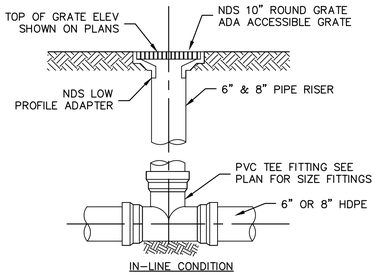


8 CLEANOUT
NTS



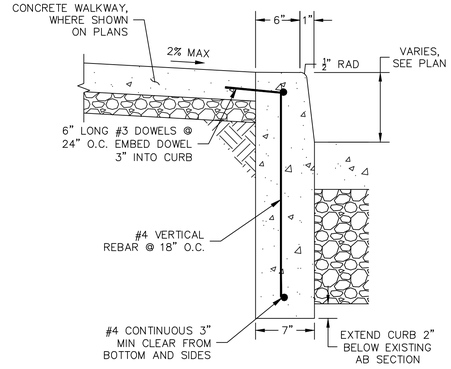
9 PAVEMENT CONMFORM
NTS





NOTE: SEE NDS DRAINAGE PRODUCTS CATALOG FOR INSTALLATION.

10 AREA DRAIN
NTS



11 VERTICAL CURB
NTS

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

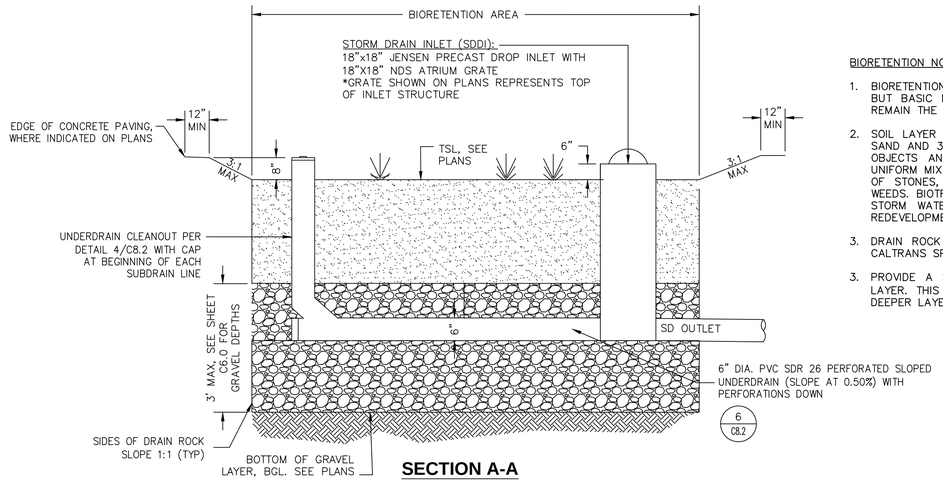
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

SHEET TITLE:
DETAILS

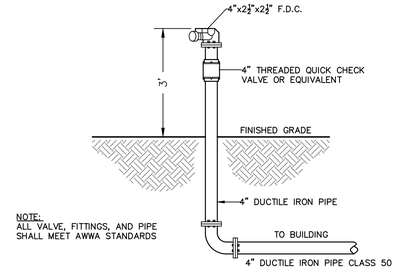
SHEET NUMBER:
C8.0



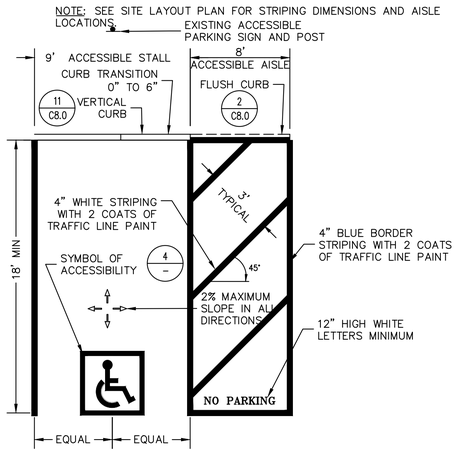
1 **BIOTREATMENT AREA**
NTS

BIORETENTION NOTES

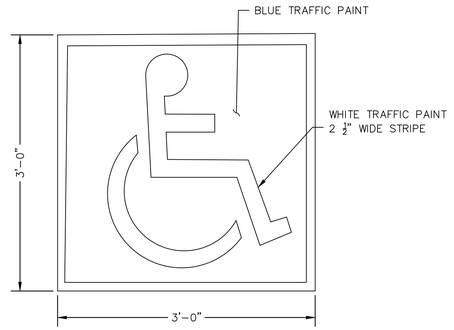
1. BIORETENTION AREAS WILL VARY AS TO LOCATION OF HIGH AND LOW POINTS BUT BASIC MATERIALS AND CONSTRUCTION METHODS SHOWN ABOVE SHALL REMAIN THE SAME.
2. SOIL LAYER SHALL CONSIST OF A UNIFORM MIX OF 60%–70% CONSTRUCTION SAND AND 30%–40% COMPOST, FREE OF STONES, STUMPS, ROOTS, OR SIMILAR OBJECTS AND FREE OF NOXIOUS WEEDS.SOIL LAYER SHALL CONSIST OF A UNIFORM MIX OF 60%–70% CONSTRUCTION SAND AND 30%–40% COMPOST, FREE OF STONES, STUMPS, ROOTS, OR SIMILAR OBJECTS AND FREE OF NOXIOUS WEEDS. BIOTREATMENT SOIL MIX SHALL MEET THE CITY OF FOLSOM MANUAL OF STORM WATER QUALITY CONTROL STANDARDS FOR NEW DEVELOPMENT AND REDEVELOPMENT.
3. DRAIN ROCK LAYER SHALL CONSIST OF CLASS 2 PERMEABLE MATERIAL PER CALTRANS SPECIFICATION SECTION 68-1.025.
3. PROVIDE A SANDY LOAM TOP LAYER ABOVE THE BIORETENTION SOIL MEDIA LAYER. THIS LAYER SHOULD BE A MINIMUM OF SIX (6) INCHES DEEP, BUT A DEEPER LAYER IS RECOMMENDED TO PROMOTE HEALTHY VEGETATION.



2 **FIRE DEPARTMENT CONNECTION**
NTS

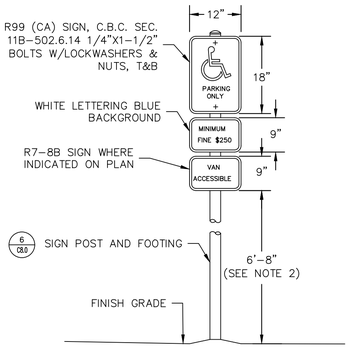


3 **VAN ACCESSIBLE PARKING STALL**
NTS



NOTE: EMBLEM MUST BE LOCATED IN STALL SO THAT IT IS VISIBLE BY A TRAFFIC ENFORCEMENT OFFICER WHEN A VEHICLE IS PROPERLY PARKED IN THE SPACE (CENTER AT ENTRANCE TO STALL IS RECOMMENDED).

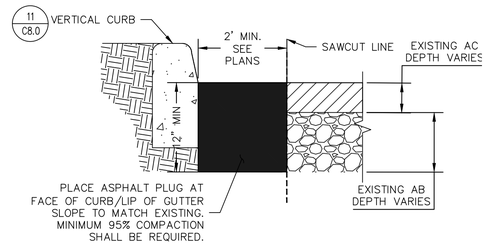
4 **SYMBOL OF ACCESSIBILITY**
NTS



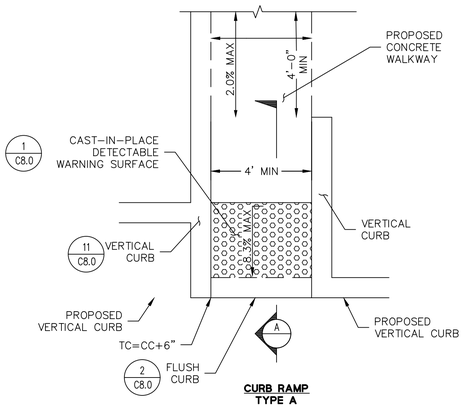
NOTES:

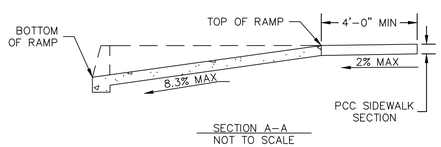
1.) SIGN CODES PER CALTRANS MUTCD AND CALTRANS SIGN SPECIFICATIONS SEPT. 2006
2.) CONTRACTOR TO INSTALL SIGNS SO THAT OVERALL HEIGHT OF VAN ACCESSIBLE STALL SIGN MATCHES THE OVERALL HEIGHT OF STANDARD ACCESSIBLE STALL SIGN.
3.) SIGNS TO BE REFLECTORIZED & CONSTRUCTED OF PORCELAIN STEEL WITH BEADED TEXT OR EQUAL.

5 **VAN ACCESSIBLE PARKING STALL SIGN AND FOOTING**
NTS



6 **AC PLUG**
NTS





7 **CURB RAMP**
NTS

REGISTERED PROFESSIONAL ENGINEER JAMES T. MCCOY No. 64852 EXP. 6/30/23 CIVIL STATE OF CALIFORNIA

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SHEET TITLE:
DETAILS

SHEET NUMBER:
C8.1

Detail of DD600 System

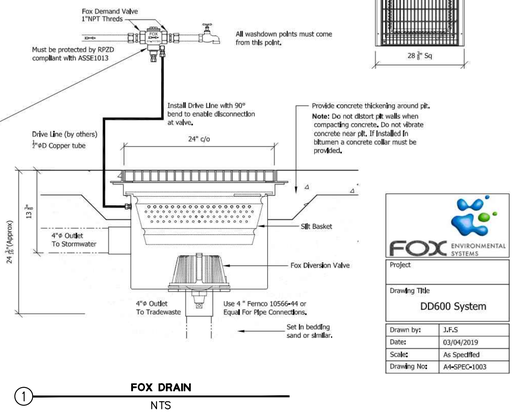
Model: DD600
Manufacturer: Fox Environmental Systems
Max Working Pressure: 170 PSI
Grate Class: Class D Heavy Duty
RPZ: Compliant with ASSE1013

Note:
This is a schematic representation only. Slab size and gradient to engineers details as arranged by customer. All plumbing and electrical connections to be installed by certified tradesmen in accordance with relative authorities requirements. Tradesmen to be engaged by the purchaser.

Placement of UPC Shield

Model: DD600 Manufacturer: Fox Environmental Systems
Max Working Pressure: 170 PSI ASSE1013
Grate Class: Class B Heavy Duty
RPZ: Compliant with ASSE1013 IAPMO IGC 234

IAPMO IGC 234 2016
File Number 10153

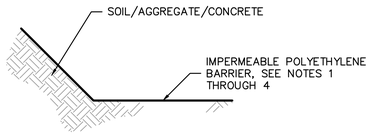


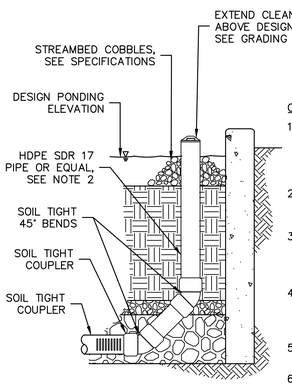
Plan View
Scale 1:20

FOX ENVIRONMENTAL SYSTEMS

Project	
Drawing Title	DD600 System
Drawn by:	J.F.S
Dates	03/04/2019
Scale:	As Specified
Drawing No:	A4-SPEC-1003

① **FOX DRAIN**
NTS





CONSTRUCTION NOTES:

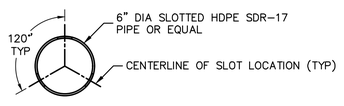
1. ALL MATERIAL AND WORKMANSHIP FOR CLEANOUTS SHALL CONFORM TO SANTA CLARA COUNTY STANDARD SPECIFICATIONS AND APPLICABLE CODES PER SANTA CLARA COUNTY DBI AND PUBLIC WORKS.
2. CLEANOUT PIPE AND FITTINGS SHALL BE SAME SIZE AND MATERIAL AS SLOTTED UNDERDRAIN PIPE.
3. COVER SHALL BE TRAFFIC RATED WITH TAMPER RESISTANT LOCKING MECHANISM. COVER SHALL INCLUDE CASTING OF "CO" OR EQUAL.
4. CLEANOUT COVERS AND LIDS MUST COMPLY WITH SANTA CLARA COUNTY PUBLIC WORKS STANDARD ACCESSIBILITY REQUIREMENTS.
5. CLEANOUT SHALL BE INSTALLED TO ALLOW FOR MAINTENANCE ACCESS TO ALL PIPES.
6. ALL FITTINGS SHALL BE SOIL TIGHT.

④ **CLEANOUT IN TREATMENT AREA**
NTS

CONSTRUCTION NOTES:

1. LINER SHALL BE HDPE CONFORMING TO GEOSYNTHETIC RESEARCH INSTITUTE (GRI) GM13 OR LLDPE CONFORMING TO GRI GM17.
2. LINER SHALL LAY FLUSH WITH GROUND WITH NO AIR VOIDS BELOW THE LINER PRIOR TO BACKFILLING MATERIAL ABOVE THE LINER. CONTOUR THE SUBGRADE AS NEEDED TO ENSURE LINER LAYS FLUSH WITH GROUND.
3. OVERLAP LINER PER MANUFACTURER'S RECOMMENDATIONS.
4. ALL SEAMS SHALL BE WELDED PER MANUFACTURER'S RECOMMENDATIONS UNLESS OTHERWISE SPECIFIED.
5. SECURE LINER CONTINUOUSLY WITH DOUBLE-SIDED TAPE ALONG LINER EDGE AND SINGLE SIDED TAPE ALONG THE TOP EDGE OF LINER TO HOLD LINER IN PLACE DURING BACKFILLING.
6. TOP OF LINER TO BE AT LEAST 3" BELOW FINISH GRADE OF BIORETENTION SOIL EXCEPT WHEN ADJACENT TO BUILDING WALL. WHEN ADJACENT TO BUILDING WALL, LINER OR EQUAL WATERPROOFING SHALL EXTEND TO TOP OF FREEBOARD ELEVATION.
7. APPLY BUTYL MASTIC CAULK, BATTEN STRIP, AND NEOPRENE RUBBER PAD CONTINUOUSLY ALONG TOP EDGE OF LINER.
8. APPLY BEAD OF POLYURETHANE ELASTOMERIC SEALANT CONTINUOUSLY ALONG TOP EDGE OF BATTEN STRIP ASSEMBLY.

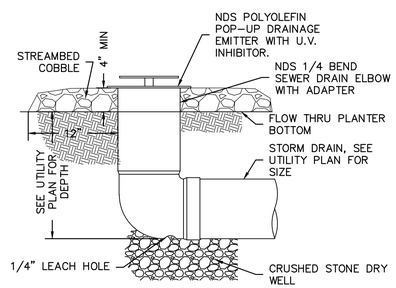
⑤ **IMPERMEABLE LINER**
NTS



GENERAL NOTES:

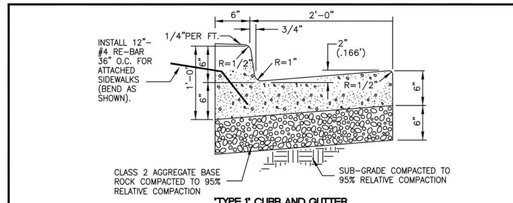
1. ALL PERFORATIONS SHALL BE SLOTTED TYPE AND MEASURING 0.032 INCH WIDE (MAX), SPACED AT 0.25 INCH (MIN), AND PROVIDING A MINIMUM INLET AREA OF 5.0 SQUARE INCH PER LINEAR FOOT OF PIPE.
2. PERFORATIONS SHALL BE LOCATED IN VALLEYS OF CORRUGATIONS, ORIENTED PERPENDICULAR TO LONG AXIS OF PIPE, AND EVENLY SPACED AROUND CIRCUMFERENCE AND LENGTH OF PIPE.

⑥ **UNDERDRAIN**
NTS

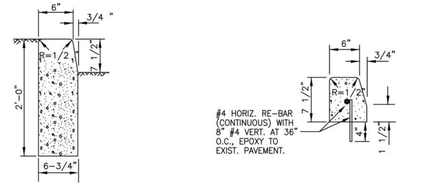


SECTION

⑦ **SD EMITTER**
NTS

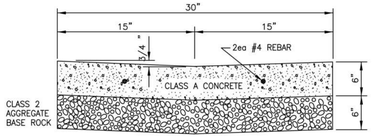


"TYPE 1" CURB AND GUTTER



"TYPE 2" FULL VERTICAL CURB

"TYPE 3" (TEMPORARY) EXTRUDED CURB

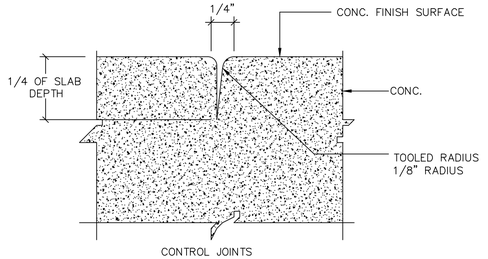


"TYPE 4" VALLEY GUTTER

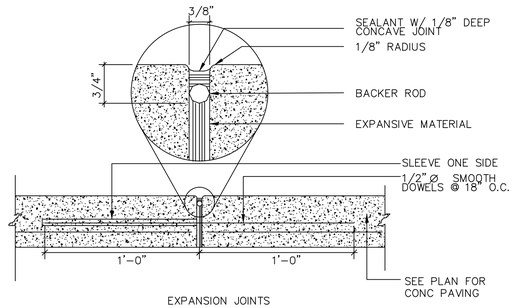
NOTES:
1. A DEEP SCORE JOINT AT EVERY 10' (1/4" X 1 1/4" MIN.) AND A FELT SEPARATOR AT EVERY 60' (1/2") SHALL BE INSTALLED FOR ALL GUTTER TYPES.
2. TYPE 3 (TEMPORARY) EXTRUDED CURB SHALL ONLY BE USED UPON WRITTEN APPROVAL BY THE CITY ENGINEER.

City of Morgan Hill, Public Works Department			CONCRETE CURB AND/OR GUTTER TYPES	DRAWING NO.
CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED		A-3

② **CONCRETE CURB AND/OR GUTTER**
NTS



CONTROL JOINTS

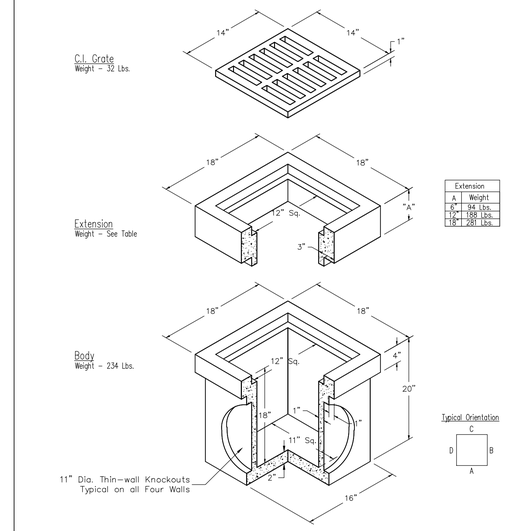


EXPANSION JOINTS

NOTE:

1. EXPANSION JOINTS AND CONTROL JOINTS SHALL BE PLACED AT A MAXIMUM SPACING OF 15 FEET O.C. & 5 FEET O.C., RESPECTIVELY.
2. JOINTS SHALL BE PLACED TO CREATE RECTANGULAR SHAPES WITH AN ASPECT RATIO OF 1:1.5 MAXIMUM.
3. CONSTRUCTION JOINTS SHALL BE PLACED WHEN CONCRETE POUR IS INTERRUPTED LONG ENOUGH FOR THE PLACED CONCRETE TO HARDEN.

⑧ **EXPANSION AND CONTROL JOINT**
NTS



Extension	
A	Weight
6"	94 Lbs.
12"	188 Lbs.
18"	281 Lbs.

Notes :
1. Bedding Shall be 6" Cement Stabilized Sand or Select Material.

Oldcastle Precast	CB-121218	12" x 12" CATCH BASIN STANDARD DRAWING
2120 FM 359 S Brookshire, TX 77423 Phone: 713-934-7900 Fax: 713-934-7901	FILE NAME: 266-12x12-DIC	
	ISSUE DATE: JANUARY, 2007	
	www.oldcastlebrookshire.com	Copyright © 2007 Oldcastle Precast, Inc.

③ **OLD CASTLE PRECAST STORM RAINCATCH BASIN**
NTS

REGISTERED PROFESSIONAL ENGINEER JAMES T. MCCOMBS No. C 64858 EXP. 6/30/23 CIVIL STATE OF CALIFORNIA

coar DESIGN GROUP
previously JKA
200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

BKF
980 9TH STREET SUITE 2300 SACRAMENTO, CA 95814 (916) 556-5800 www.bkf.com

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

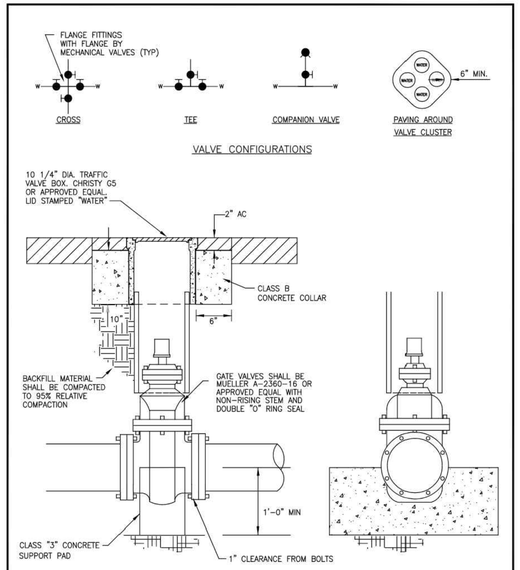
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

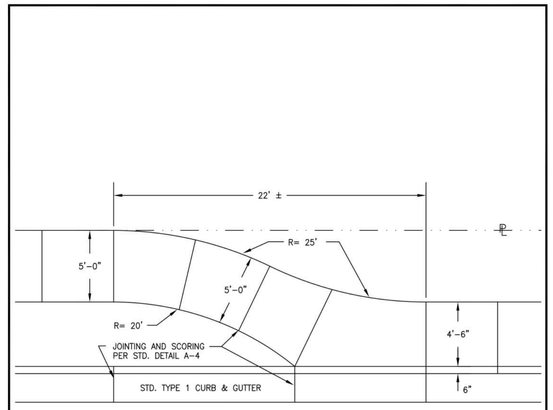
SHEET TITLE:
DETAILS

SHEET NUMBER:
C8.2



City of Morgan Hill, Public Works Department			TYPICAL VALVE INSTALLATION	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED		W-12

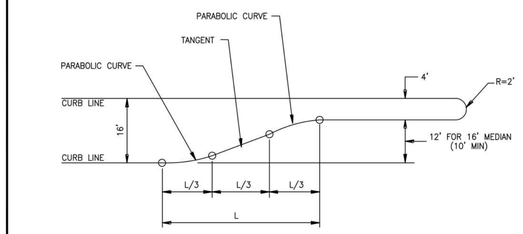
1 **TYPICAL VALVE INSTALLATION**
NTS



NOTE: 1. SHORTER TRANSITION MAY BE USED UPON CITY ENGINEER APPROVAL

City of Morgan Hill, Public Works Department			RESIDENTIAL SIDEWALK TRANSITION	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED		A-6

2 **RESIDENTIAL SIDEWALK TRANSITION**
NTS

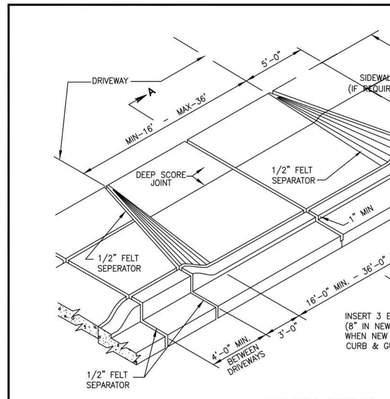


L-LENGHT OF TAPER			OFFSET DISTANCE FOR LANE WIDTH OF		
60'	90'	120'			
DIST FROM BEG OF TAPER			10'	11'	12'
5	7.5	10	.16	.17	.19
10	15.0	20	.62	.69	.75
15	22.5	30	1.41	1.55	1.69
20	30.0	40	2.50	2.75	3.00
30	45.0	60	5.00	5.50	6.00
40	60.0	80	7.50	8.25	9.00
45	67.5	90	8.59	9.45	10.31
50	75.0	100	9.38	10.31	11.25
55	82.5	110	9.84	10.83	11.81
60	90.0	120	10.00	11.00	12.00

NOTES:
1. OFFSETS ARE MEASURED FROM A BASE LINE WHICH IS THE CURB LINE EXTENDED.
2. DISTANCE ALONG THE BASE LINE IS MEASURED FROM THE POINT OF TANGENCY AT THE BEGINNING OF TAPER.
3. TAPER LENGTH SHALL BE 90' UNLESS OTHERWISE APPROVED.

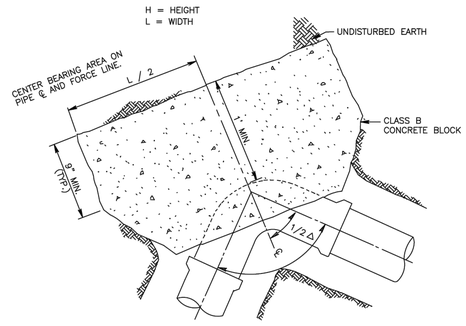
City of Morgan Hill, Public Works Department			STANDARD MEDIAN TAPER	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	REVISED		A-24

3 **STANDARD MEDIAN TAPER**
NTS



City of Morgan Hill, Public Works Department			INDUSTRIAL DRIVEWAY APPROACH COMMERCIAL SIDEWALK	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED		A-10

4 **COMMERCIAL DRIVEWAY**
NTS

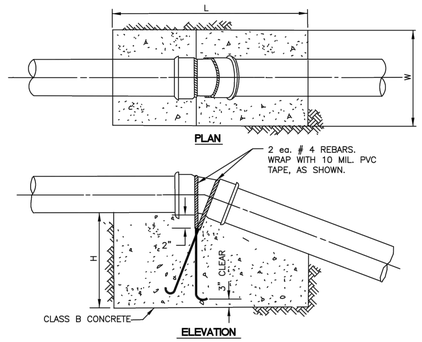


NOTES:
1. CONCRETE SHALL BE KEPT CLEAR OF FLANGES, NUTS, AND BOLTS.
2. CENTER OF H COINCIDES WITH CENTERLINE OF PIPE.
3. "MEGA-LUG" (OR APPROVED EQUAL) TYPE GLANDS AND FASTENERS MAY BE USED BUT SHALL NOT BE USED AS A REPLACEMENT FOR THE USE OF THRUST BLOCKS.

PIPE SIZE	DIMENSIONS – L x H (200 PSI TEST)			
	11 1/4°	22 1/2°	45°	90°
4"–6"	1'0" x 1'0"	1'5" x 1'5"	1'9" x 1'9"	2'3" x 2'3"
8"	1'0" x 1'0"	1'5" x 1'5"	2'0" x 2'0"	2'10" x 2'10"
10"	1'5" x 1'5"	2'0" x 2'0"	2'8" x 2'8"	3'5" x 3'5"
12"	1'9" x 1'9"	2'3" x 2'3"	3'0" x 3'0"	4'2" x 4'2"
14"	1'9" x 1'9"	2'8" x 2'8"	3'6" x 3'6"	4'10" x 4'10"
16"	2'0" x 2'0"	2'10" x 2'10"	4'0" x 4'0"	5'5" x 5'5"
18"	3'0" x 3'0"	4'0" x 4'0"	5'0" x 5'0"	6'6" x 6'6"

City of Morgan Hill, Public Works Department			ELBOW THRUST BLOCK HORIZONTAL AND DOWNWARD THRUSTS	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	REVISED		W-17

5 **ELBOW THRUST BLOCK**
NTS



NOTES:
1. CONCRETE SHALL BE KEPT CLEAR OF FLANGES, NUTS & BOLTS.
2. "MEGA-LUG" (OR APPROVED EQUAL) TYPE GLANDS AND FASTENERS MAY BE USED BUT SHALL NOT BE USED AS A REPLACEMENT FOR THE USE OF THRUST BLOCKS.

DIMENSIONS (150 PSI TEST)

PIPE SIZE	11 1/4° BEND			22 1/2° BEND			45° BEND		
	L	W	H	L	W	H	L	W	H
6"	2'0"	2'0"	1'0"	2'0"	2'0"	2'0"	2'0"	2'0"	2'0"
8"	2'0"	2'0"	1'0"	2'0"	3'0"	2'0"	2'0"	4'0"	2'0"
10"	2'0"	3'0"	2'0"	2'0"	4'0"	2'0"	2'0"	4'0"	3'0"
12"	2'0"	3'0"	2'0"	2'0"	6'0"	2'0"	2'0"	6'6"	3'0"
18"	3'0"	3'0"	3'0"	3'0"	6'0"	3'0"	3'0"	5'0"	5'0"

City of Morgan Hill, Public Works Department			ELBOW THRUST BLOCK UPWARD THRUST	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	REVISED		W-18

6 **ELBOW THRUST BLOCK**
NTS

REGISTERED PROFESSIONAL ENGINEER JAMES T. MCCONNELL No. 64852 EXP. 6/30/23 CIVIL STATE OF CALIFORNIA

coar DESIGN GROUP previously JKA
200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

BKF
980 9TH STREET SUITE 2300 SACRAMENTO, CA 95814 (916) 556-5800 www.bkf.com

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

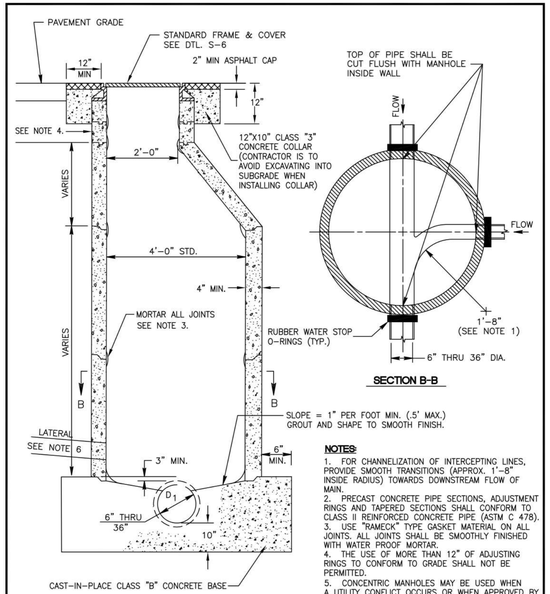
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

SHEET TITLE:
DETAILS

SHEET NUMBER:
C8.3



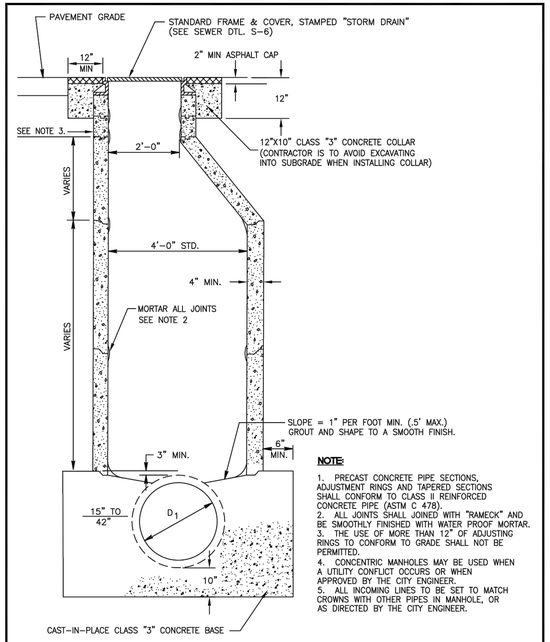
SECTION B-B

NOTES:

1. FOR CHANNELIZATION OF INTERCEPTING LINES, PROVIDE SMOOTH TRANSITIONS (APPROX. 1'-8" INSIDE RADIUS) TOWARDS DOWNSTREAM FLOW OF MAIN.
2. PRECAST CONCRETE PIPE SECTIONS, ADJUSTMENT RINGS AND TAPERED SECTIONS SHALL CONFORM TO CLASS II REINFORCED CONCRETE PIPE (ASTM C 478).
3. USE "RAMECK" TYPE GASKET MATERIAL ON ALL JOINTS. ALL JOINTS SHALL BE SMOOTHLY FINISHED WITH WATER PROOF MORTAR.
4. THE USE OF MORE THAN 12" OF ADJUSTING RINGS TO CONFORM TO GRADE SHALL NOT BE PERMITTED.
5. CONCENTRIC MANHOLES MAY BE USED WHEN A UTILITY CONFLICT OCCURS OR WHEN APPROVED BY THE CITY ENGINEER.
6. LATERALS MAY BE CONNECTED DIRECTLY INTO THE MAN HOLE BARREL SECTION AT THE END OF CUL DE SACS. OTHER APPLICATIONS REQUIRE APPROVAL BY THE CITY ENGINEER.

City of Morgan Hill, Public Works Department			SANITARY SEWER MANHOLE PIPE SIZES 6" TO 36"	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED		S-4

1 **SANITARY SEWER MANHOLE**
NTS

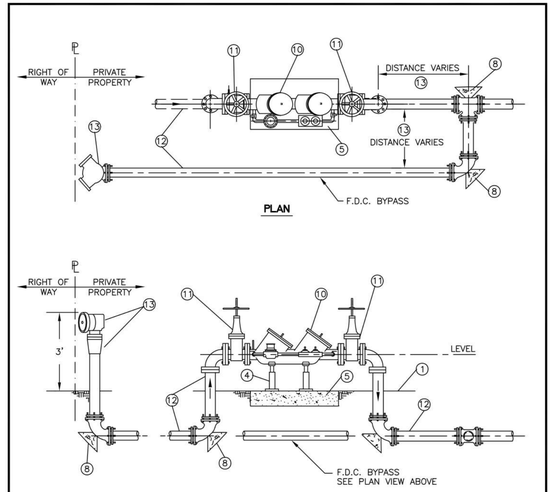


NOTE:

1. PRECAST CONCRETE PIPE SECTIONS, ADJUSTMENT RINGS AND TAPERED SECTIONS SHALL CONFORM TO CLASS II REINFORCED CONCRETE PIPE (ASTM C 478).
2. ALL JOINTS SHALL JOINED WITH "RAMECK" AND BE SMOOTHLY FINISHED WITH WATER PROOF MORTAR.
3. THE USE OF MORE THAN 12" OF ADJUSTING RINGS TO CONFORM TO GRADE SHALL NOT BE PERMITTED.
4. CONCENTRIC MANHOLES MAY BE USED WHEN A UTILITY CONFLICT OCCURS OR WHEN APPROVED BY THE CITY ENGINEER.
5. ALL INCOMING LINES TO BE SET TO MATCH CROWNS WITH OTHER PIPES IN MANHOLE, OR AS DIRECTED BY THE CITY ENGINEER.

City of Morgan Hill, Public Works Department			STORM DRAIN MANHOLE PIPE SIZES 15" TO 42"	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED		SD-1

2 **STORM DRAIN MANHOLE**
NTS



PROFILE

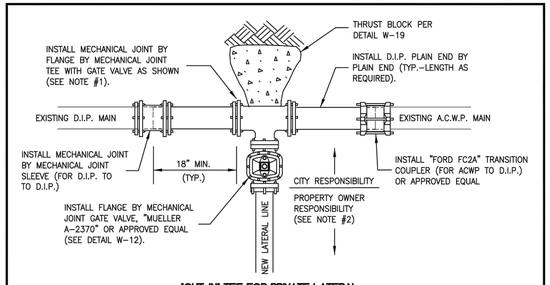
FOR NOTES AND LEGEND, SEE DETAIL W-10.

NOTES:

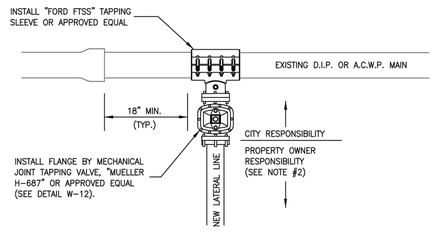
1. REQUESTED DEVIATIONS FROM THE F.D.C. BYPASS CONFIGURATION (IF BYPASS IS REQUIRED) ABOVE SHALL BE SUBMITTED IN THE FORM OF A PLAN AND PROFILE DRAWING AND MUST BE APPROVED BY THE CITY ENGINEER.
2. APPLICATION SHOWN IS FOR PRIVATELY MAINTAINED FIRE SERVICES, SEE DETAILS W-9 AND W-11 FOR METER (IF REQUIRED) AND CONNECTION INFORMATION.

City of Morgan Hill, Public Works Department			DOUBLE DETECTOR CHECK VALVE ASSEMBLY	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED		W-8

3 **DOUBLE DETECTOR CHECK VALVE**
NTS



"CUT-IN" TEE FOR PRIVATE LATERAL



"HOT TAP" TIE-IN FOR PRIVATE LATERAL

NOTES:

1. THE APPLICATIONS SHOWN ARE INTENDED FOR USE IN CONNECTING PRIVATE LATERALS FOR PRIVATELY MAINTAINED FIRE SERVICE LINES. METHODS OF CONNECTIONS SHOWN MAY BE USED FOR PUBLICLY MAINTAINED CONNECTIONS. REFER TO APPROVED IMPROVEMENT PLANS FOR EXACT APPLICATIONS AND CONFIGURATIONS.
2. CUSTOMER TO PERFORM TEE INSTALLATION OR TAP. THE OWNER SHALL BE RESPONSIBLE FOR THE WATER LATERAL STARTING AT THE CUSTOMER SIDE OF THE COMPANION VALVE AND ENDING AT A POINT LOCATED ON THE PRIVATE PROPERTY.

City of Morgan Hill, Public Works Department			PRIVATE WATER LATERAL CONNECTIONS 4" AND GREATER	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	03/15/07 DATE	REVISED		W-9

4 **WATER LATERAL CONNECTIONS**
NTS

LEGEND

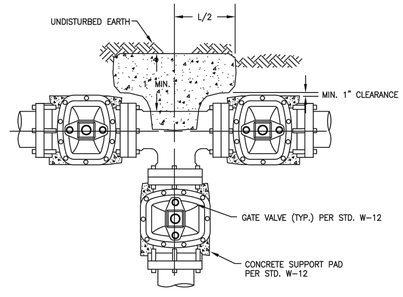
1. FINISHED GRADE.
2. SERVICE SIZE GALVANIZED STEEL PIPE FROM WATER METER.
3. REDUCED PRESSURE BACKFLOW PREVENTER FEBCO 825Y (OR APPROVED EQUAL) FOR SIZES 1" TO 2" AND FEBCO 825 YD (OR APPROVED EQUAL) FOR SIZES 2 1/2" TO 4".
4. ADJUSTABLE PIPE SADDLE SUPPORT, GALVANIZED STEEL, SUITABLE FOR SUPPORTING GENERAL PIPNG 4" AND LARGER, FROM FLOOR (12" MIN. AND 18" MAX. DISTANCE FROM BOTTOM OF DEVICE TO FLOOR).
5. 6" CONCRETE ENCLOSURE PAD, SIZE AS SHOWN ON THE PLAN.
6. SERVICE SIZE GALVANIZED STEEL PIPE RISER WITH A MINIMUM OF TWO (2) UNIONS FOR THREADED CONNECTIONS.
7. 90° ELBOW, FLANGED OR THREADED.
8. CONCRETE THRUST BLOCK (SEE DETAIL W-17 FOR MINIMUM THRUST BLOCK DIMENSIONS.)
9. WATER SERVICE BY OTHERS PER DTL. W-1
10. DOUBLE DETECTOR CHECK VALVE ASSEMBLY TO BE FEBCO 806 YD OR APPROVED EQUAL
11. VALVES TO BE MUELLER O.S & Y.A-2473-6 OR APPROVED EQUAL, CHAINED AND LOCKED WITH "KNOX BOX" TYPE LOCK, AND TAMPER SWITCH.
12. ALL PIPE SHALL BE DUCTILE IRON PIPE (D.I.P), AND ALL FITTINGS SHALL BE FLANGED.
13. FIRE DEPARTMENT CONNECTION, F.D.C., SHALL BE 4" RISER X 2.5" X 2.5" SIAMESE CONNECTIONS AND STRAIGHT WAY CHECK VALVE, ("KWIK-CHECK" OR APPROVED EQUAL), WITH METAL CAPS. WHEN THE F.D.C. SERVES ON-SITE FIRE HYDRANTS, THE ASSEMBLY SHALL BE 6" MINIMUM (RISER) x 2.5" x 2.5" x 2.5" x 2.5" (CONNECTIONS). LOCATION OF F.D.C. RISER TO BE NO MORE THAN 40' FROM THE NEAREST FIRE HYDRANT. CONTRACTOR MAY BE REQUIRED TO INSTALL A NEW HYDRANT IF THE ABOVE ABOVE REQUIREMENT CANNOT BE MET. LOCATION OF BYPASS CONNECTION SHALL BE MADE BEHIND THE THE DEVICE (DOWN-STREAM SIDE).
14. TYPE OF PIPE FROM THIS POINT INWARD, PER APPROVED PLAN.

NOTES:

1. GATE VALVES AND TEST COCKS ARE REQUIRED.
2. WATER SUPPLY- NO CONNECTIONS OR TEES WILL BE ALLOWED BETWEEN THE WATER METER AND BACKFLOW UNIT.
3. PROTECTION FROM FREEZE DAMAGE MAY BE REQUIRED IN EXPOSED AREAS.
4. DEVICE MUST BE ACCESSIBLE FOR TESTING AND MAINTENANCE.
5. WRAP BURIED GALVANIZED PIPE WITH 10 MIL PVC TAPE.
6. ASSEMBLY MUST BE TESTED BY A TESTER APPROVED BY THE CITY OF MORGAN HILL. THE CITY APPROVED TESTER LIST CAN BE OBTAINED BY CALLING 408-776-7333.
7. ASSEMBLY MUST BE LOCATED ABOVE GROUND AND DIRECTLY BEHIND WATER METER AS SHOWN ON DTL W-6 ,W-7 AND W-8.
8. ADDITIONAL INFORMATION MAY BE OBTAINED FROM M.H. ORDINANCE 647 NEW SERIES, ADOPTED OCT, 1993
9. ALL DEVICES MUST BE APPROVED BY THE "FOUNDATION FOR CROSS CONNECTION AND HYDRAULIC RESEARCH".

City of Morgan Hill, Public Works Department			BACKFLOW PREVENTION LEGEND & NOTES	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED		W-10

5 **BACKFLOW PREVENTOR**
NTS



NOTES:

1. CONCRETE SHALL BE KEPT CLEAR OF FLANGES, NUTS, AND BOLTS.
2. "MEGA-LUG" (OR APPROVED EQUAL) TYPE GLANDS AND FASTENERS MAY BE USED BUT SHALL NOT BE USED AS A REPLACEMENT FOR THE USE OF THRUST BLOCKS.

BLOCKING FOR PIPE TEES		
PIPE SIZE	BEARING (SQ. FT.)	L X H
6"	3	1'-9"X1'-9"
8"	5	2'-3"X2'-3"
10"	9	3'-0"X3'-0"
12"	12	3'-5"X3'-5"
10"	16	4'-0"X4'-0"
12"	21	4'-7"X4'-7"

City of Morgan Hill, Public Works Department			TEE THRUST BLOCK	DRAWING NO.
Jim Ashcraft, CITY ENGINEER	4/1/96 DATE	REVISED		W-19

6 **THRUST BLOCK**
NTS

REGISTERED PROFESSIONAL ENGINEER JAMES T. MCCOMBS No. C 64852 EXP. 6/30/23 CIVIL STATE OF CALIFORNIA

coar DESIGN GROUP previously JKA
200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

BKF 980 9TH STREET SUITE 2300 SACRAMENTO, CA 95814 (916) 556-5800 www.bkf.com

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

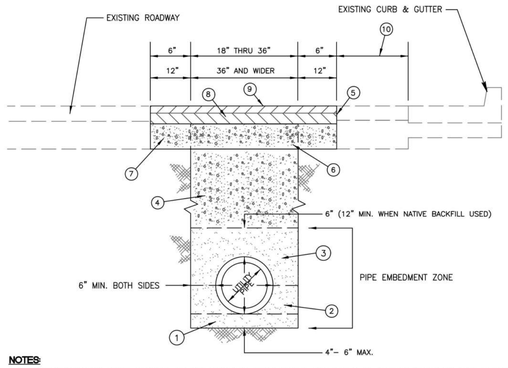
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

SHEET TITLE:
DETAILS

SHEET NUMBER:
C8.4



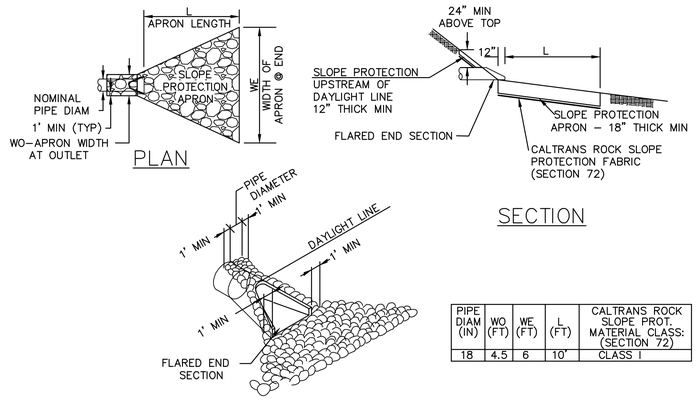
NOTES:

A. PIPE EMBEDMENT SHALL CONFORM TO THE PRACTICE RECOMMENDED FOR CLASS III MATERIAL (SAND) IN ASTM D 2321 "UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY–FLOW APPLICATIONS".

1. SAND BEDDING, HAND PLACED AND COMPACTED TO MIN. 90% RELATIVE COMPACTION, 4" MIN. TO 6" MAX.
2. HAUNCHING; HAND PLACED AND COMPACTED SAND TO MIN. 90% RELATIVE COMPACTION TO SPRING LINE OF PIPE.
3. INITIAL SAND BACKFILL, INSTALL AND COMPACT TO A MINIMUM OF 6" ABOVE PIPE CROWN (12" MIN. FOR NATIVE).
4. 100% CLASS 2 AGGREGATE BASE ROCK BACKFILL COMPACTED IN LIFTS TO 95% RELATIVE COMPACTION. FLOODING OR JETTING SHALL ONLY BE ALLOWED UPON CITY ENGINEER APPROVAL. NATIVE BACKFILL MAY BE USED DURING THE CONSTRUCTION OF NEW STREETS ONLY AND SHALL BE USED ONLY UPON APPROVAL OF THE CITY ENGINEER AND UPON THE RECOMMENDATION OF A QUALIFIED SOILS ENGINEER/SOILS REPORT.
5. SAW CUT EXISTING PAVEMENT, ALL VERTICAL EDGES SHALL BE TACKED PRIOR TO PAVING.
6. 8" (MIN) CLASS 2 AGGREGATE BASE ROCK, COMPACTED TO 95% RELATIVE COMPACTION.
7. AT THE DISCRETION OF THE PROJECT INSPECTOR, THE EXISTING BASE ROCK MAY REMAIN FOR THIS TRENCH WIDTH PROVIDED THAT THE BASE ROCK IS COMPACTED AND IS NOT CONTAMINATED.
8. MATCH EXIST. AC SECTION OR 6" MIN. IN 2 LIFTS. BASE COURSE TO BE 3/4" TYPE B AC, AND SURFACE COURSE TO BE 1/2" TYPE B AC.
9. SURFACE SHALL BE FOG SEALED AFTER PAVING. EXISTING ROADWAY SURFACE SHALL BE REPLACED IN KIND.
10. IF DISTANCE IS LESS THAN 3 FEET, PAVEMENT RESTORATION SHALL EXTEND TO LIP OF GUTTER.

City of Morgan Hill Public Works Department	TRENCH RESTORATION/BACKFILL FOR TRENCH WIDTHS GREATER THAN 18"	DRAWING NO.
CITY ENGINEER — DATE: 4/1/96 — REVISED: 3/15/07		U-3

1 TRENCH RESTORATION/BACKFILL
NTS



PIPE DIAM (IN)	WO (FT)	WE (FT)	L (FT)	CALTRANS ROCK SLOPE PROT. MATERIAL CLASS: (SECTION 72)
18	4.5	6	10'	CLASS I

2 ROCK SLOPE PROTECTION
NTS

REGISTERED PROFESSIONAL ENGINEER — JAMES T. McCULLOUGH — No. C 64852 — EXP. 6/30/23 — CIVIL — STATE OF CALIFORNIA

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previously JKA
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BKF
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SUITE 2300
SACRAMENTO, CA 95814
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

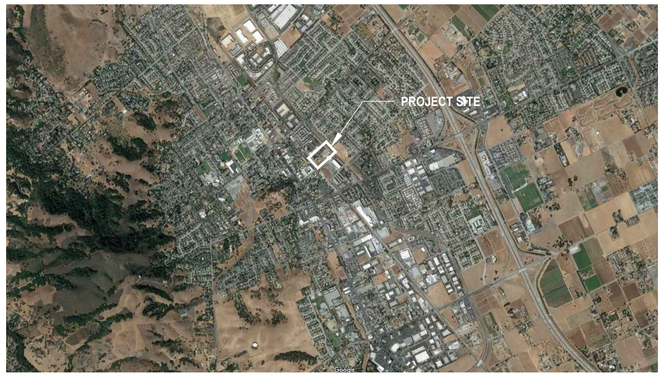
DESCRIPTION:	DATE:
95% CONSTRUCTION DOCUMENTS	01/16/23
100% CONSTRUCTION DOCUMENTS	03/23/23

PROJECT NUMBER:
211224

SHEET TITLE:
DETAILS

SHEET NUMBER:
C8.5

SITE VICINITY PLAN



PROJECT MAP

N

N.T.S.

GENERAL NOTES:

1. THE DRAWINGS AND SPECIFICATIONS DESCRIBE IN GENERAL THE QUALITY AND CHARACTER OF THE MATERIALS, SHAPE AND CONFIGURATION OF IMPROVEMENTS AND THE DESIGN INTENT OF THE COMPLETED, INSTALLED WORK. MISCELLANEOUS ITEMS OF WORK, MATERIAL, EQUIPMENT, ETC., NECESSARY TO COMPLETE THE INSTALLATION SHALL BE PROVIDED BY THE CONTRACTOR WHETHER OR NOT MENTIONED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
2. CONTRACTOR SHALL PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED IN KIND AT NO ADDITIONAL COST TO THE OWNER. BARRICADES, SIGNS, LIGHTS, ETC., REQUIRED FOR THE PROTECTION OF PUBLIC, PERSONNEL, PROPERTY AND MATERIAL SHALL BE PROVIDED FOR AND MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR, AND SHALL CONFORM TO ALL GOVERNING CODES, ORDINANCES AND REGULATIONS.
3. THE CONTRACTOR SHALL EMPLOY ALL MEANS NECESSARY TO CONTROL DUST AT AND NEAR THE SITE OF WORK AND ALONG APPROACH ROUTES TO THE CONSTRUCTION SITE.
4. CONTRACTOR SHALL PROVIDE ALL TOOLS, TRANSPORTATION, UTILITIES, TEMPORARY FACILITIES, AND OTHER SERVICES AS NECESSARY FOR PROPER EXECUTION OF THE WORK, AND SHALL ASSUME FULL RESPONSIBILITY FOR PROTECTION AND SAFEKEEPING OF THESE ELEMENTS DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE IN ADVANCE FOR APPROVAL OF THE MATERIAL STORAGE AREA AT THE JOB SITE.
5. CONTRACTOR SHALL MAINTAIN GOOD CLEANLINESS PRACTICES AT THE JOB SITE. EXCESS BUILDING MATERIALS AND DEBRIS SHALL BE REMOVED PROMPTLY FROM THE JOB SITE AND DISPOSED OF AT AN APPROVED DUMPSITE. THE JOB SITE SHALL BE LEFT CLEAN AT THE END OF EACH WORKDAY. BEFORE ACCEPTANCE BY THE OWNER'S REPRESENTATIVE, THE COMPLETED CONSTRUCTION SHALL BE CLEARED, ANY APPLICABLE LABELS REMOVED, AND ALL OTHER TOUCHUP WORK COMPLETED. ALL FINISH MATERIALS SHALL BE PROTECTED AT ALL TIMES AGAINST SUBSEQUENT DAMAGE UNTIL FINAL ACCEPTANCE BY THE OWNER.
6. CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DIFFERENCES IN LOCATIONS OF EXISTING UTILITIES FROM THAT SHOWN, OR ANY CONFLICTS WITH THE DESIGN BEFORE CONTINUING WORK IN THAT AREA.
8. PROVIDE ADEQUATE COVER FOR THE PROTECTION OF ALL PROPOSED AND EXISTING UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT.
9. ANY REVISIONS OR ADDITIONAL WORK REQUIRED AS A RESULT OF FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. WORK PERFORMED BY THE CONTRACTOR WITHOUT WRITTEN AUTHORIZATION SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR WHO SHALL BEAR ALL COSTS ATTRIBUTABLE THERETO. ANY AND ALL REVISIONS SHALL BE IN WRITTEN CHANGE ORDER FORM AND APPROVED AND AUTHORIZED BY THE OWNER BEFORE BEGINNING WORK.
10. ALL REVIEWS AND APPROVALS REQUIRED BY LANDSCAPE ARCHITECT REFERENCED WITHIN THESE DRAWINGS SHALL BE REFERRED TO THE OWNER'S REPRESENTATIVE.

LANDSCAPE SHEET INDEX

L0.00	LANDSCAPE GENERAL NOTES
L1.00	IRRIGATION NOTES & LEGEND
L1.01	IRRIGATION PLAN
L1.02	IRRIGATION DETAILS
L1.03	IRRIGATION DETAILS
L1.04	IRRIGATION DETAILS
L2.00	PLANTING SCHEDULE & NOTES
L2.01	PLANTING PLAN
L2.02	PLANTING DETAILS
L2.03	PLANTING PALETTE

PROJECT TEAM

LANDSCAPE ARCHITECT:
RHAA LANDSCAPE ARCHITECTS
225 MILLER AVENUE
MILL VALLEY, CALIFORNIA, 94941

PH: 415 383 7900

PROJECT MANAGER: KENDRA MANNING
EMAIL: KENDRA.MANNING@RHAA.COM

PRINCIPAL: MANUELA KING
EMAIL: MANUELA@RHAA.COM

ABBREVIATIONS

AL	ALIGN	FOC	FACE OF CURB	QTY	QUANTITY
AC	ASPHALTIC CONCRETE	FT	FOOT/FEET	R	RADIUS
AD	AREA DRAIN	FTG	FOOTING	REC	RECOMMENDATION
ARCH	ARCHITECTURE	GA	GAUGE	REQ'D	REQUIRED
BLDG	BUILDING	GAL	GALLON	RIM	RIM ELEVATION
BOS	BOTTOM OF SLOPE	GALV	GALVANIZED	SAD	SEE ARCHITECTURAL DRAWINGS
BS	BOTTOM OF STAIRS	GB	GRADE BREAK	SED	SEE ELECTRICAL DRAWINGS
CB	CATCH BASIN	GC	GALLON CAN	SSD	SEE STRUCTURAL DRAWINGS
CJ	CONTROL JOINT	GPM	GALLONS PER MINUTE	SCD	SEE CIVIL DRAWINGS
CL	CENTERLINE	HORIZ	HORIZONTAL	SD	STORM DRAIN
CLR	CLEAR	ID	INSIDE DIAMETER	SPEC'D	SPECIFIED
CO	CLEAN OUT	INV	INVERT ELEVATION	SPECS	SPECIFICATIONS
COL	COLUMN	L.O.W	LIMIT OF WORK	SF	SQUARE FEET
CONC	CONCRETE	MAX	MAXIMUM	SS	STAINLESS STEEL
CONT	CONTINUOUS	MFG	MANUFACTURER	STD	STANDARD
CTR	CENTER	MH	MANHOLE	STPA	STORMWATER TREATMENT
CY	CUBIC YARD	MIN	MINIMUM	PA	PLANTING AREA
DG	DECOMPOSED GRANITE	(N)	NEW	TC	TOP OF CURB
DI	DRAIN INLET	NIC	NOT IN CONTRACT	TOF	TOP OF FOOTING
DIA	DIAMETER	NTS	NOT TO SCALE	TOW	TOP OF WALL
DWGS	DRAWINGS	OC	ON CENTER	TS	TOP OF STAIRS
ELEV	ELEVATION	OD	OUTSIDE DIAMETER	TW	TOP OF WALL
EQ	EQUAL	PA	PLANTING AREA	TYP	TYPICAL
(A)	EXISTING	PERF	PERFORATED	VERT	VERTICAL
FFE	FINISH FLOOR ELEVATION	PIP	POURED-IN-PLACE		
FG	FINISH GRADE	PL	PROPERTY LINE		
FL	FLOWLINE	POC	POINT OF CONNECTION		
FOB	FACE OF BUILDING	PSI	POUNDS PER SQUARE INCH		

LICENSED LANDSCAPE ARCHITECT
Manuela King License No. 5577
Signature
05-31-2024
Renewal Date
03-29-2025
Date
STATE OF CALIFORNIA

coar DESIGN GROUP
previously JKA
6353 DEL CERRO BLVD., SAN DIEGO, CA 92120
619.698.9177 | www.coargroup.com

rhaa Landscape Architecture & Planning
325 Miller Avenue, Mill Valley, CA 94941
T 415 383 7900 rhaa.com

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

211101

SHEET TITLE:

LANDSCAPE GENERAL NOTES

SHEET NUMBER:

L0.00

WATER EFFICIENT LANDSCAPE (MWELO) WORKSHEET - NON-RESIDENTIAL

Project Information

Date	21-Dec-2022
Project Applicant	RHAA Landscape Architecture and Planning
Project Address	17285 Butterfield Blvd. Morgan Hill, CA 95037
Total Landscape Area	11,650 sq ft
Project Type	New
Water Supply Type	Potable
Project Contact Project Applicant	Manuela King (Principal RHAA), PH: (415) 383 7900
Project Contact Project Owner	

"I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package" — Manuela King CA LA # 3271

Name of City Morgan Hill

Reference Evapotranspiration (Eto) = **49.5** inches/year

Hydrozone (a)			Plant Description	Plant Factor (PF) (g)	Irr Method (b)	Irrigation Efficiency IE (c)	ETAF (PF/IE) (f)	Landscape Area (sq ft)	ETAF x Area	Estimated Total Water Use (ETWU) (e)
REGULAR LANDSCAPE AREAS										
Shrubs	1		Low	0.3	Drip	0.81	0.37	3,818	1,414	43,398
Bioretention	2		Low	0.3	Drip	0.81	0.37	442	164	5,024
Trees	3		Mod	0.4	Drip	0.81	0.49	50	25	758
Trees	4		Mod	0.4	Drip	0.81	0.49	40	20	606
Shrubs	5		Low	0.3	Drip	0.81	0.37	2,448	907	27,826
Shrubs	6		Low	0.3	Drip	0.81	0.37	1,224	453	13,913
Bioretention	7		Low	0.3	Drip	0.81	0.37	367	136	4,172
Trees	8		Mod	0.4	Drip	0.81	0.49	20	10	303
Bioretention	9		Low	0.3	Drip	0.81	0.37	982	364	11,162
Trees	10		Low	0.3	Drip	0.81	0.37	60	22	682
Shrubs	11		Low	0.3	Drip	0.81	0.37	2,199	814	24,995
							TOTALS	11,650 (A)	4,328 (B)	

SPECIAL LANDSCAPE AREAS (SLA)						
Recreation Areas				1	0	0	0
Edible Plants				1	0	0	0
Recycled Water				1	0	0	0
				TOTALS	0 (C)	0 (D)	

ETWU Total	132,838
Maximum Allowed Water Allowance (MAWA) (e)	160,892

(a) ***Hydrozone #/Planting Description*** E.g. 1.) front lawn 2.) low water use plantings 3.) medium water use planting

(b) ***Irrigation Method*** overhead spray or drip

(c) ***Irrigation Efficiency*** 0.75 for spray head 0.81 for drip

(d) ***ETWU* (Annual Gallons Required) =** *Eto x 0.62 x ETAF x Area* where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.

(e) ***MAWA (Annual Gallons Allowed) =*** *(Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]* where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total special landscape area in square feet,

(f) ***ETAF Evapotranspiration Ajustment Factor*** Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

ETAF Calculations

Regular Landscape Areas		
Total ETAF x Area	4,328	(B)
Total Area	11,650	(A)
Average ETAF	0.37	(B/A)

All Landscape Areas		
Total ETAF x Area	4,328	(B + D)
Total Area	11,650	(A + C)
Sitewide ETAF	0.37	(B + D) / (A + C)

(g) ***Plant Factor***

Very Low Water Use	0.1
Low Water Use	0.1 - 0.3
Moderate Water Use	0.4 - 0.6
High Water Use	0.7 - 1.0

IRRIGATION NOTES

1. REFER TO PLANS, DETAILS AND SPECIFICATIONS FOR IRRIGATION SYSTEM COMPONENTS, INSTALLATION, MAINTENANCE, SCHEDULING, AND REPORTING REQUIREMENTS.
2. THE CONTRACTOR SHALL COMPLY WITH LOCAL WATER DISTRICT PROCEDURES & REQUIREMENTS, ALL CITY OF MORGAN HILL REQUIREMENTS, AND THE STATE WATER EFFICIENT LANDSCAPE ORDINANCE. ORDINANCE CRITERIA HAS BEEN APPLIED ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.
3. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS ARE TO BE INSTALLED WITHIN PLANTING AREAS TO THE GREATEST EXTENT POSSIBLE. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED.
4. THE CONTRACTOR IS TO INVESTIGATE THE EXISTING AND PROPOSED FINISHED CONDITION OF THE WORK. THE CONTRACTOR SHALL IMMEDIATE NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS AND/OR DISCREPANCIES BETWEEN EXISTING AND PROPOSED CONDITIONS WHICH WILL AFFECT THE WORK, BEFORE PROCEEDING WITH THE WORK. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.
5. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES, INCLUDING THE INSTALLATION OF ALL PIPE, CONDUIT AND SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES.
6. PRIOR TO TRENCHING AND DIGGING, CONTACT USA "811" TO LOCATE ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION DRAWINGS SUCH AS UNDERGROUND UTILITIES, VAULTS, ETC. THE CONTRACTOR SHALL AVOID CONFLICTS WITH UNDERGROUND UTILITIES, NEW PLANTING, SITE OR ARCHITECTURAL ELEMENTS, AND EXISTING TREES; ANY DAMAGE TO THESE CAUSED BY THE INSTALLATION OF THE IRRIGATION SYSTEM SHALL BE REPAIRED AND/OR REPLACED AT NO EXPENSE TO THE OWNER.
7. DO NOT TRENCH OR INSTALL IRRIGATION PIPING OR EQUIPMENT IN LIME-TREATED SOIL.
8. THE CONTRACTOR SHALL VERIFY FLOW RATE AND PRESSURE AT THE POINT OF CONNECTION PRIOR TO THE INSTALLATION OF THE IRRIGATION SYSTEM AND NOTIFY THE OWNER'S REPRESENTATIVE OF TEST RESULTS BEFORE CONSTRUCTION BEGINS. NOTIFY LANDSCAPE ARCHITECT IF PRESSURE IS GREATER OR LESS THAN THE STATIC PRESSURE STATED ON THE PLANS TO DETERMINE IF PRESSURE REGULATION OR A BOOSTER PUMP IS REQUIRED.
9. THE CONTRACTOR SHALL OBTAIN AS-BUILT IRRIGATION DRAWINGS OF ALL EXISTING IRRIGATION SYSTEM(S) FROM THE OWNER'S REPRESENTATIVE FOR REFERENCE DURING NEW AND RETROFIT WORK.
10. CONTRACTOR TO FIELD VERIFY CONDITION OF ALL EXISTING IRRIGATION EQUIPMENT IMPACTED BY NEW CONSTRUCTION AND REPAIR AND REPLACE AS NECESSARY.
11. INSTALL ALL IRRIGATION EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS.
12. INSTALL ONE SPARE COMMON AND CONTROL WIRE FROM EACH CONTROLLER IN A CONTINUOUS LOOP THROUGH EACH VALVE BOX FOR FUTURE USE.
13. WHERE PIPE SIZES HAVE BEEN OMITTED OR THERE IS A CONFLICT, REFER TO THE LATERAL PIPE SIZING CHART FOR SIZES. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION, PIPE SIZES MAY NEED TO BE ADJUSTED ACCORDINGLY. ALL LATERAL END RUNS SHALL BE 1" SIZE UNLESS OTHERWISE NOTED.
14. THE REMOTE CONTROL VALVES SPECIFIED ON THE DRAWINGS ARE PRESSURE REDUCING TYPES. SET THE DISCHARGE PRESSURE AS RECOMMENDED BY MANUFACTURER.
15. CONTRACTOR TO ASSUME (4) ADDITIONAL CONTROL VALVES TO BE INSTALLED AS NEEDED.
16. LARGE AREAS OF ORNAMENTAL GRASSES ARE TO BE IRRIGATED BY A DEDICATED CONTROL VALVE.
17. ALL IRRIGATION BOXES AND LIDS TO BE BLACK.
18. LOCATE BUBBLERS AND EMITTERS ON UPHILL SIDE OF PLANT OR TREE.
19. CONTRACTOR TO MAINTAIN EXISTING PLANTED AREAS THROUGHOUT CONSTRUCTION AND COORDINATE OPERATIONS TO KEEP EXISTING PLANTING AREAS ALIVE AND HEALTHY. EXISTING AND NEW IRRIGATION SYSTEMS SHALL BE INSTALLED, ADJUSTED AND MAINTAINED TO PROVIDE 100% COVERAGE OF PLANTING AREAS AND TO PREVENT MISTING, OVERSPRAY AND RUNOFF ONTO BUILDINGS, WALLS WINDOWS, PAVED AREAS, ETC.
20. FLUSH AND ADJUST IRRIGATION EMITTERS, NOZZLES AND OUTLETS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.
21. CONTRACTOR SHALL MAKE FINAL CONNECTION BETWEEN ELECTRICAL SUPPLY AND THE CONTROLLER, AND BETWEEN THE MAIN LINE AND WATER SOURCE AT THE POINT OF CONNECTION(S).
22. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH. IT IS THE RESPONSIBILITY OF THE LANDSCAPE MAINTENANCE CONTRACTOR TO PROGRAM THE IRRIGATION CONTROLLER(S) TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS AND SLOPES, SUN, SHADE AND WIND EXPOSURE.
23. THE CONTRACTOR SHALL COORDINATE VALVE NUMBERING, CONTROLLER OPERATIONS AND PROGRAMMING WITH OWNER'S REPRESENTATIVE.
24. STATION OPERATION TIMES SHALL NOT DELIVER WATER EXCEED THE SOIL INFILTRATION RATE(S) AS DETERMINED BY THE SOILS REPORT(S).
25. THE CONTRACTOR SHALL PROVIDE THE OWNER'S REPRESENTATIVE WITH CLEAR AS-BUILT PLANS OF THE INSTALLED OF IRRIGATION SYSTEM.

IRRIGATION LEGEND

- C — 2-WIRE WEATHER BASED IRRIGATION CONTROLLER SYSTEM: 48-STATION IRRITROL MC-E IRRIGATION CONTROLLER W/ CL-100-WIRELESS WEATHER SENSING SYSTEM AND RS1000 WIRELESS RAIN SENSOR. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- MV — MASTER VALVE: IRRITROL, COMPATIBLE WITH CONTROLLER, PER CITY STANDARDS
- S — FLOW SENSOR: PVC-TEE FLOW SENSOR BY IRRITROL, PER CITY STANDARDS
- BACKFLOW PREVENTOR: SEE CIVIL
- MAINLINE: SCH 40 PVC, 2"
- LATERAL LINE: SCH 40 PVC, 1" AND LARGER, SEE SIZING CHART
- # — SLEEVE: SCH 40 PVC, SIZE AS SHOWN
- GATE VALVE: MUELLER A-2360, RED AND WHITE OR APPROVED EQUAL, PER CITY STANDARDS
- QUICK COUPLING VALVE: RAINBIRD MODEL 44 RC, PER CITY OF MORGAN HILL STANDARDS, OR APPROVED EQUAL
- FLUSH RELIEF VALVE: HUNTER, OR APPROVED EQUAL, PER DETAIL. (1) AT END OF EACH COLLECTOR LATERAL PER SPECIFICATIONS.
- REMOTE CONTROL VALVES: GRISWOLD 2000 SERIES PER CITY STANDARDS, OR APPROVED EQUAL
- X / 1" / XX — CONTROLLER / STATION NUMBER; FLOW RATE (GPM); VALVE SIZE (INCHES)
- SUB-SURFACE DRIP ZONE: 1/2" BLACK POLYETHYLENE DRIP EMITTER LINE W/ 0.6 GPH PRESSURE REGULATING EMITTERS. 22" O.C. LINE SPACING. 18" O.C. EMITTER SPACING DRIPLINE BY RAINBIRD, XFS DRIPLINE W/ COPPER ROOT INTRUSION PROTECTION & QF DRIPLINE HEADER, OR EQUAL.
- TREE DEEP ROOT WATERING BUBBLER: HUNTER ROOT WATERING SYSTEM, RZWS-36 (36" DEEP), 50 (0.5 GPM), CV (W/ CHECK VALVE). (2) PER TREE.
- POC — POINT OF CONNECTION

PVC PIPE SIZING						TYPICAL VALVE SIZING
0 - 6	GPM:	0.75"	29 - 45	GPM:	2.0"	00 - 25 GPM: 1.0" VALVE
7 - 12	GPM:	1.0"	46 - 65	GPM:	2.5"	26 - 35 GPM: 1.25"
13 - 28	GPM:	1.5"	66 - 100	GPM:	3.0"	36 - 50 GPM: 1.5"
						51 - 100 GPM: 2"

LICENSED LANDSCAPE ARCHITECT — Manuela King License No. 3271 — Signature — 05-31-2024 Renewal Date — 03-24-2025 Date — STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

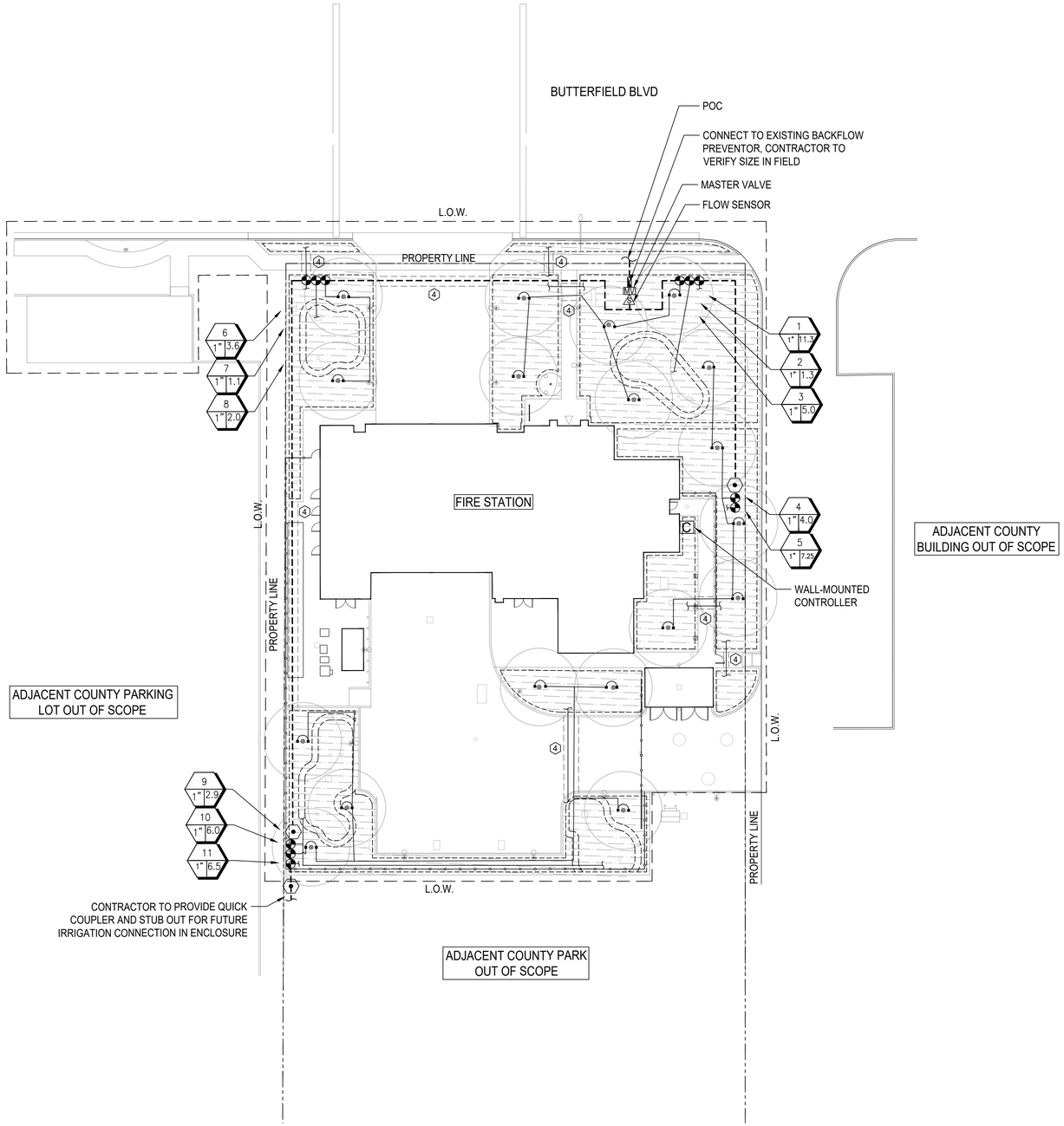
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER: 211101

SHEET TITLE: IRRIGATION NOTES & LEGEND

SHEET NUMBER: L1.00



SCALE: 1" = 20'-0"

0 10' 20' 40'

LICENSED LANDSCAPE ARCHITECT
Melanie King License No. 5271
Signature
05-31-2024
Renewal Date
03-29-2025
Date
STATE OF CALIFORNIA

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100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

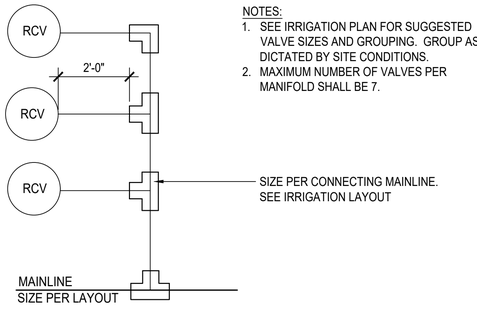
211101

SHEET TITLE:

IRRIGATION PLAN

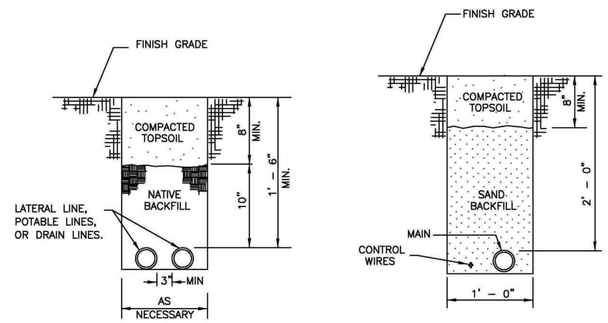
SHEET NUMBER:

L1.01



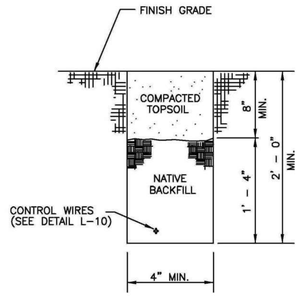
NOTES:
1. SEE IRRIGATION PLAN FOR SUGGESTED VALVE SIZES AND GROUPING. GROUP AS DICTATED BY SITE CONDITIONS.
2. MAXIMUM NUMBER OF VALVES PER MANIFOLD SHALL BE 7.

5 VALVE GROUPINGS
SCALE: 1/2" = 1'-0"



LATERAL LINE AND POTABLE LINE

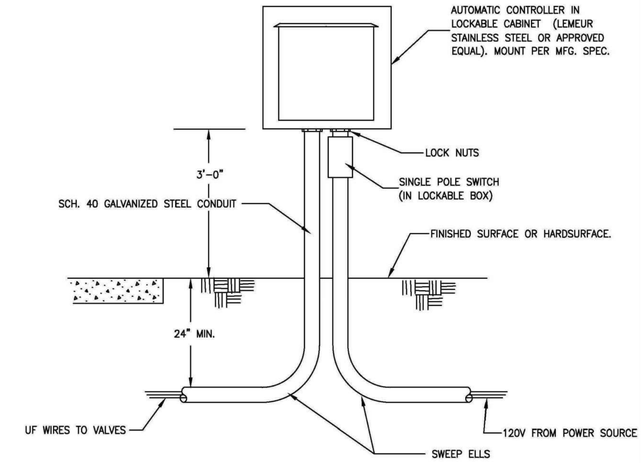
MAIN AND CONDUCTORS



CONDUCTORS ONLY

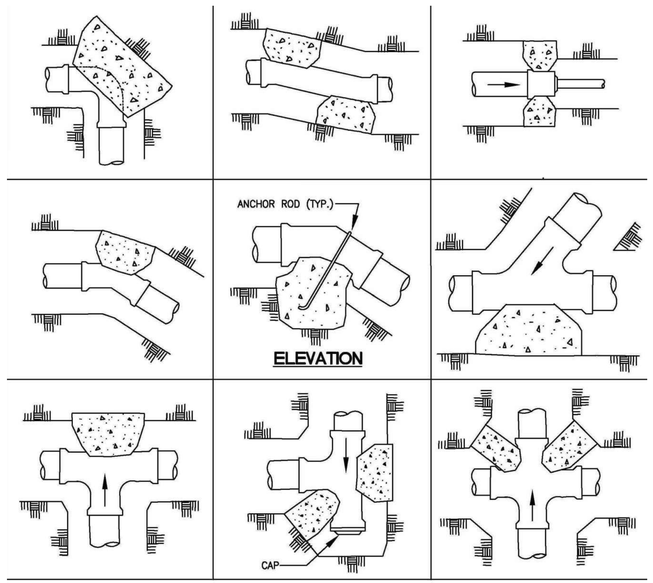
NOTES:
1. TAPE AND BUNDLE WIRING AT 10 FOOT INTERVALS.
2. NATIVE BACKFILL AND TOP SOIL TO BE FREE OF ROCK AND DEBRIS.(3/4" MAX. ROCK SIZE)

3 IRRIGATION TRENCHING (CITY STANDARD)
SCALE:NTS



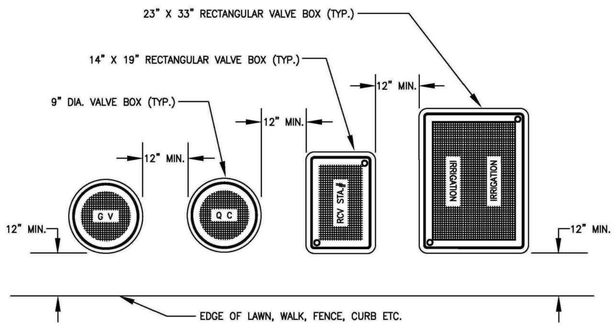
NOTES:
1. IRRITROL MC+ (SIZE AS REQUIRED) CONTROLLER NOT SHOWN.
2.. SEE "ELECTRICAL SECTION" FOR POWER SOURCE CONNECTIONS.

1 CONTROLLER WALL MOUNT (CITY STANDARD)
SCALE:NTS



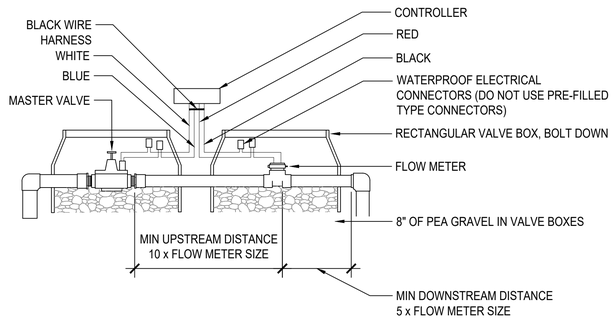
NOTES:
1. ALL PLASTIC PIPE TO BE INSTALLED ACCORDING TO THESE DETAILS UNLESS OTHERWISE NOTED OR DETAILED.
2. THE PORTLAND CEMENT CONCRETE USED FOR THRUST BLOCKS SHALL BE 420–C–2000 CONCRETE.
3. ALL ANCHOR RODS SHALL BE GALVANIZED STEEL, MINIMUM 1/2" DIAMETER, WRAPPED AROUND PIPE.
4. SIZE OF THRUST BLOCKS SHALL BE SPECIFIED ON PLANS.
5. THRUST BLOCKS SHALL BE USED FOR PLASTIC PIPES WITH 3" DIAMETER OR LARGER.
6. FLOW DIRECTION INDICATED BY ⟶
7. ALL VIEWS ARE PLAN VIEW UNLESS OTHERWISE SHOWN.

6 THRUST BLOCK (CITY STANDARD)
SCALE:NTS



NOTES:
1. CENTER BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER / SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREAS.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER / SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN AREA ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
5. AVOID COMPACTING SOIL AROUND AROUND VALVE BOX EDGES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. ALL BOXES SHALL BE "CARSON" OR APPROVED EQUAL, AND BE EQUIPPED WITH BOLT DOWN LIDS.
7. ALL VALVE BOX LIDS SHALL IDENTIFY EQUIPMENT CONTAINED IN BOX BY MOLDING OR BRASS TAG TO LID AS FOLLOWS:
   - GATE VALVE – "G.V."
   - QUICK COUPLER – "Q.C."
   - REMOTE CONTROL VALVE – "R.C.V. STA. #___"
   - MISCELANEOUS ELECTRICAL EQUIPMENT – "ELECTRICAL"
   - MISCELANEOUS IRRIGATION EQUIPMENT – "IRRIGATION"

4 VALVE BOX (CITY STANDARD)
SCALE:NTS



2 MASTER VALVE AND FLOW METER
SCALE: 3/4" = 1'-0"

Michael King License No. 5571
Signature
05-31-2024
Renewal Date
03-24-2025
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LICENSED LANDSCAPE ARCHITECT
STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

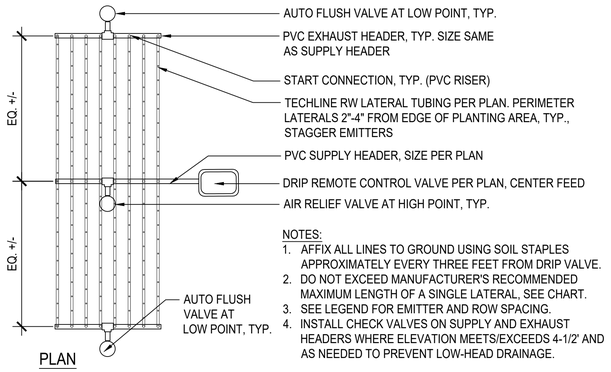
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:
211101

SHEET TITLE:
IRRIGATION DETAILS

SHEET NUMBER:
L1.02

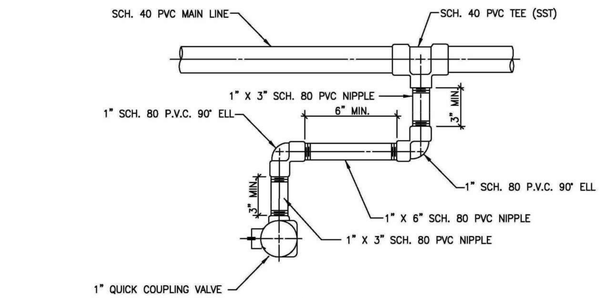


PLAN

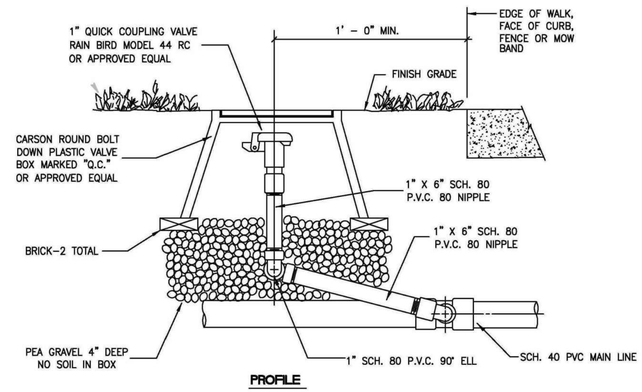
NOTES:
1. AFFIX ALL LINES TO GROUND USING SOIL STAPLES APPROXIMATELY EVERY THREE FEET FROM DRIP VALVE.
2. DO NOT EXCEED MANUFACTURER'S RECOMMENDED MAXIMUM LENGTH OF A SINGLE LATERAL, SEE CHART.
3. SEE LEGEND FOR EMITTER AND ROW SPACING.
4. INSTALL CHECK VALVES ON SUPPLY AND EXHAUST HEADERS WHERE ELEVATION MEETS/EXCEEDS 4-1/2' AND AS NEEDED TO PREVENT LOW-HEAD DRAINAGE.

5 LINEAR DRIP TUBING LAYOUT

SCALE: NTS



PLAN

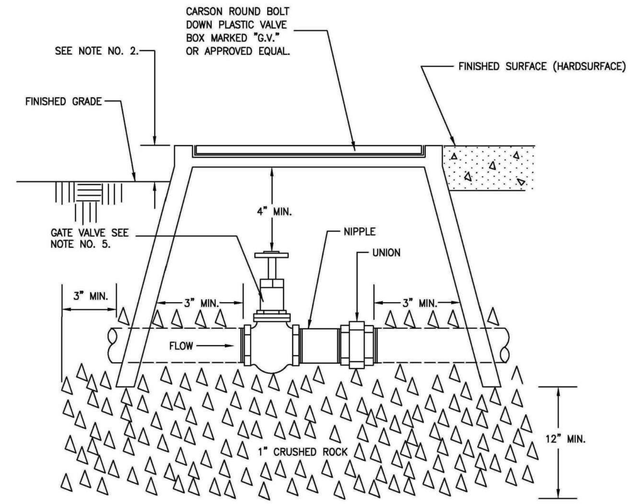


PROFILE

NOTES:
1. ALL PIPING TUBE TO BE 1" OR LARGER.
2. VALVE BOX LID TO HAVE "Q.C." MOLDED INTO TOP OF LID OR BRASS TAG INSTALLED ON LID MARKED "Q.C.".

3 QUICK COUPLING VALVE (CITY STANDARD)

SCALE:NTS

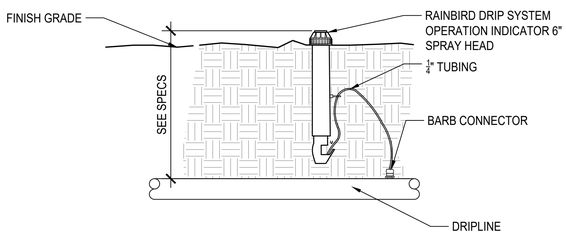


NOTES:
1. AREA AROUND BOX CAN EITHER BE PLANTED, HARDSURFACE OR A COMBINATION.
2. TOP OF BOX:
   1/2" ABOVE GRADE OR LAWN.
   1" ABOVE GRADE FOR GROUND COVER OR SHRUBS.
3. CLOSE NIPPLES SHALL NOT BE USED.
4. CRUSHED ROCK SHALL COVER VALVE BOX PIPE OPENINGS TO PREVENT SOIL ENTRY.
5. GATE VALVE SHALL BE "RED & WHITE", OR APPROVED EQUAL.

1 GATE VALVE (CITY STANDARD)

SCALE:NTS

NOTE:
1. LOCATE INDICATOR STAKE AT THE FARTHEST AND/OR HIGHEST POINT ON THE ZONE.

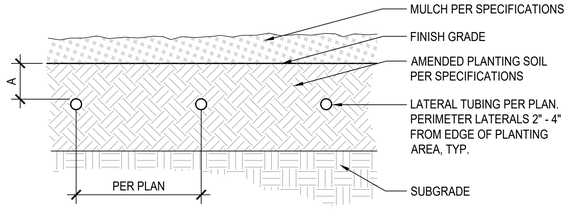


6 DRIP OPERATION INDICATOR

SCALE: NTS

NOTES:
1. INSTALL TUBING PER "A" DEPTH BELOW FINISH GRADE, STAPLE IN PLACE PER LAYOUT DETAIL.

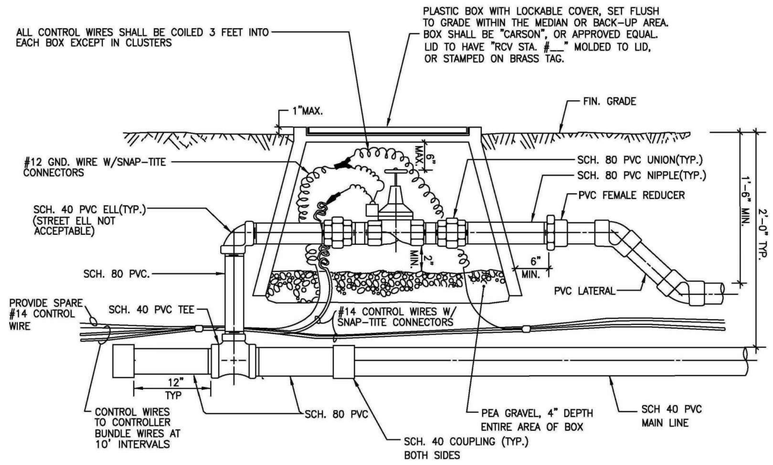
"A" DEPTH	
AT TURF	0'-6"
AT PLANTING	0'-4"



4 DRIP TUBING SUBGRADE INSTALLTION

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

NOTE: PROVIDE EACH VALVE WITH AN EMBOSSED PLASTIC OR METAL TAG SHOWING CONTROLLER & STATION NUMBER.



NOTE: CONTROL VALVE TO BE GRISWOLD 2000 SERIES OR APPROVED EQUAL.

NOTE: HEAVILY COAT ALL THREADED AREAS WITH JOINT COMPOUND.

2 REMOTE CONTROL VALVE (CITY STANDARD)

SCALE:NTS

LICENSED LANDSCAPE ARCHITECT
Michelle King License No. 5571
Signature
05-31-2024
Renewal Date
03-29-2025
Date
STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

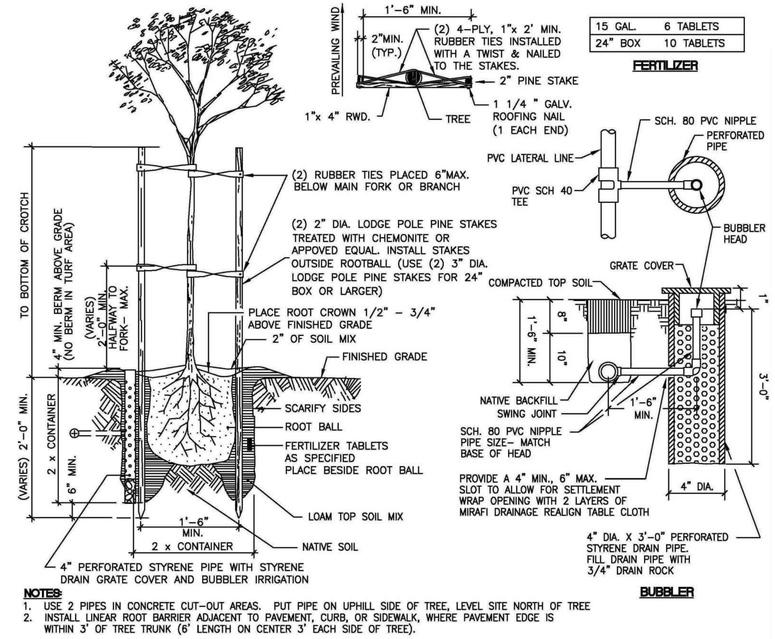
17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:
211101

SHEET TITLE:
IRRIGATION DETAILS

SHEET NUMBER:
L1.03



NOTES:

1. USE 2 PIPES IN CONCRETE CUT-OUT AREAS. PUT PIPE ON UPHILL SIDE OF TREE, LEVEL SITE NORTH OF TREE
2. INSTALL LINEAR ROOT BARRIER ADJACENT TO PAVEMENT, CURB, OR SIDEWALK, WHERE PAVEMENT EDGE IS WITHIN 3' OF TREE TRUNK (6' LENGTH ON CENTER 3' EACH SIDE OF TREE).

1 TREE PLANTING & STAKING W/ BUBBLER (CITY STANDARD)

SCALE:NTS

LICENSED LANDSCAPE ARCHITECT
Michael King License No. 5571
Signature
05-31-2024
Renewal Date
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STATE OF CALIFORNIA

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PROJECT NUMBER:
211101

SHEET TITLE:
IRRIGATION DETAILS

SHEET NUMBER:
L1.04

SYMBOL	ABBR	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	HEIGHT	SPREAD	WATER USE	QUANTITY
PERENNIALS									
	ACH MIL	Achillea millefolium	COMMON YARROW	1 GAL	2' O.C.	2'	2'	LOW	26
	ANI HAR	Anigozanthos Harmony	RED-YELLOW KANGAROO PAW	1 GAL	30" O.C.	4'	3'	LOW	15
	ERI GRA	Eriogonum grande var. rubescens	SAN MIGUEL ISLAND BUCKWHEAT	1 GAL	2' O.C.	2'	2'	LOW	18
	PEN MAR	Penstemon heterophyllus 'Margarita BOP'	MARGARITA BOP FOOTHILL PENSTEMON	1 GAL	2' O.C.	2'	2'	LOW	15
GROUNDCOVERS									
	ARC EME	Arctostaphylos Emerald Carpet	EMERALD CARPET MANZANITA	5 GAL	5' O.C.	1'	5'	MEDIUM	64
	ARC PAC	Arctostaphylos Pacific Mist	PACIFIC MIST MANZNITA	5 GAL	6' O.C.	2'	6'	LOW	32
	BAC PIL	Baccharis pilularis 'Twin Peaks'	DWARF COYOTE BRUSH	5 GAL	5' O.C.	2'	5'	LOW	25
BIORETENTION									
	IRI DOU	Iris douglasiana	DOUGLAS IRIS	1 GAL	2' O.C.	2'	2'	LOW	15
	JUN PAN	Juncus patens	BLUE RUSH	1 GAL	3' O.C.	2'	2'	LOW	114
	LEY CON	Leymus condensatus 'Canyon Prince'	CANYON PRINCE WILD RYE	1 GAL	3' O.C.	3'	3'	LOW	113

TREE SCHEDULE

SYMBOL	ABBR	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	HEIGHT	SPREAD	WATER USE	QUANTITY
TREES									
	ARB MAR	Arbutus 'Marina'	MARINA STRAWBERRY TREE (STANDARD)	24" BOX	AS SHOWN	40'	35'	LOW	5
	PIS CHI	Pistacia chinensis	CHINESE PISTACHE	24" BOX	AS SHOWN	30'	25'	LOW	2
	PLA RAC	Platanus racemosa	CALIFORNIA SYCAMORE	24" BOX	AS SHOWN	40'	25'	MODERATE	8
	QUE AGI	Quercus agrifolia	COAST LIVE OAK	24" BOX	AS SHOWN	30'	30'	VERY LOW	3

PLANT SCHEDULE

SYMBOL	ABBR	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	HEIGHT	SPREAD	WATER USE	QUANTITY
SHRUBS									
	ARC HOW	*Arctostaphylos densiflora 'Howard McMinn'*	HOWARD MCMINN MANZANITA	15 GAL	6' O.C.	6'	6'	LOW	2
	RHA CAL	*Rhamnus californica 'Eve Case'*	EVE CASE COFFEEBERRY	5 GAL	5' O.C.	6'	6'	LOW	10
	RIB SAN	Ribes sanguineum	RED FLOWERING CURRANT	5 GAL	4' O.C.	5'	4'	LOW	3
GRASSES									
	FES CAL	Festuca californica	CALIFORNIA FESCUE	1 GAL	3' O.C.	3'	3'	LOW	131
	FES MAI	Festuca mairei	ATLAS FESCUE	1 GAL	3' O.C.	30"	30"	LOW	222

LICENSED LANDSCAPE ARCHITECT
Michael King License No. 5271
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

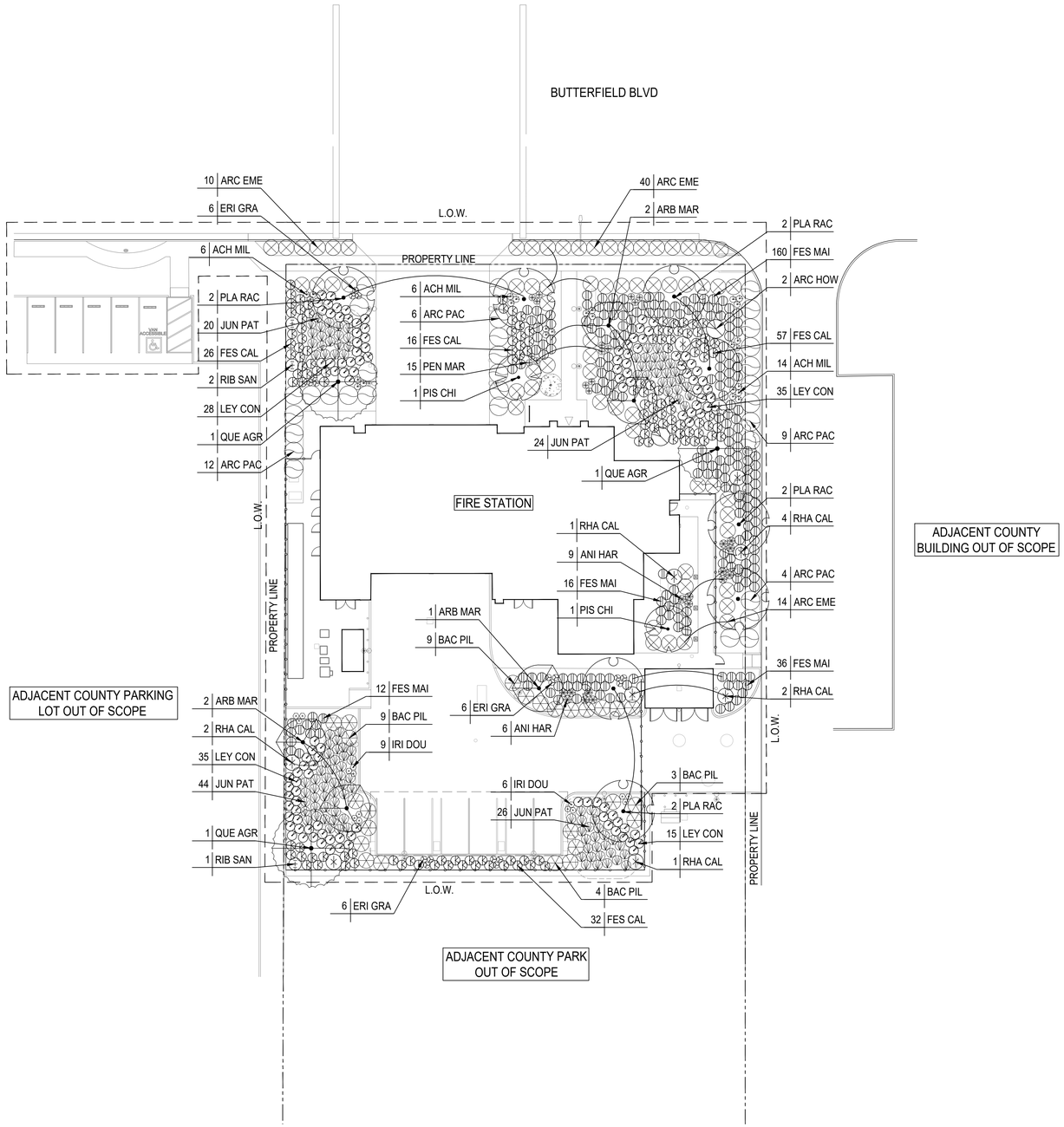
PROJECT NUMBER:
211101

SHEET TITLE:
PLANTING SCHEDULE

SHEET NUMBER:
L2.00

NOTES

1. REFER TO SPECIFICATIONS FOR SOIL PREPARATION, PLANTING, AND MAINTENANCE PERIOD REQUIREMENTS.
2. CONTRACTOR TO REFER TO PLANT LIST FOR PLANT SIZE AND SPACING. USE TRIANGULAR SPACING UNLESS OTHERWISE NOTED.
3. PLANT QUANTITIES ARE PROVIDED FOR CONTRACTOR'S CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES SHOWN IN PLANTING PLANS.
4. CONTRACTOR TO SUBMIT PLANT SAMPLES FOR APPROVAL BY LANDSCAPE ARCHITECT, SEE SPECS.
5. LANDSCAPE ARCHITECT TO INSPECT PLANTING LAYOUT PRIOR TO INSTALLATION. CONTRACTOR TO PROVIDE IN SITU 10' X 10' MOCKUP OF ALL PLANT MIXES FOR APPROVAL BY LANDSCAPE ARCHITECT.
6. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES, STRUCTURES, AND IRRIGATION LINES BEFORE DIGGING.
7. GROUNDCOVERS ARE TO EXTEND UNDER TREE AND SHRUB PLANTINGS FOR FULL COVERAGE. SPACE GROUNDCOVER 18" AWAY FROM TREES AND 12" AWAY FROM SHRUBS.
8. SEE GRADING PLAN FOR FINISH GRADES. ALL FINISH GRADES REFER TO FINISH GRADE OF MULCHED LANDSCAPE.



SCALE: 1" = 20'-0"

0 10' 20' 40'

LICENSED LANDSCAPE ARCHITECT
Melanie King License No. 5571
Signature
05-31-2024
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100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

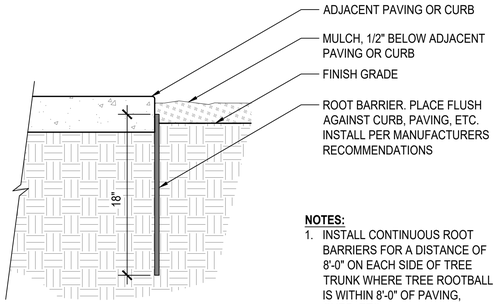
211101

SHEET TITLE:

PLANTING PLAN

SHEET NUMBER:

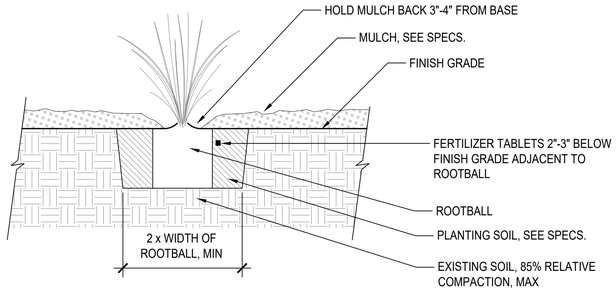
L2.01



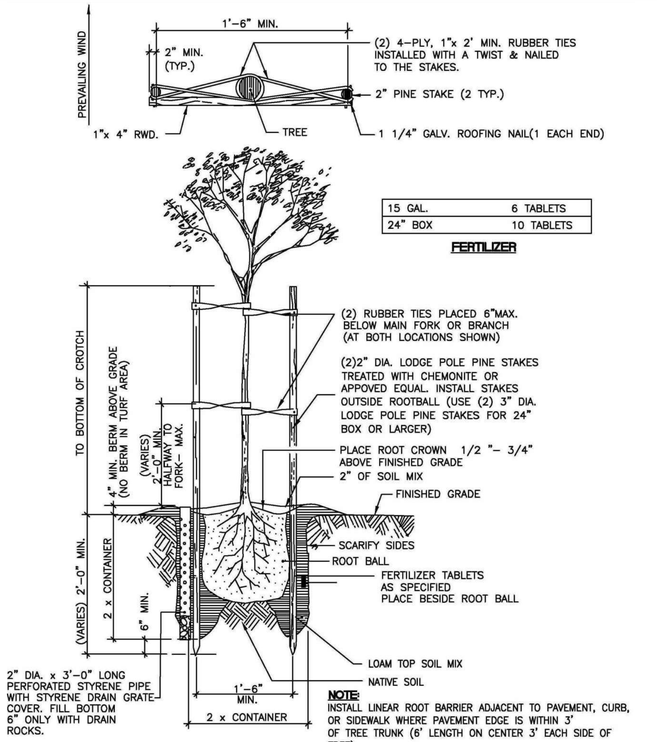
NOTES:
1. INSTALL CONTINUOUS ROOT BARRIERS FOR A DISTANCE OF 8'-0" ON EACH SIDE OF TREE TRUNK WHERE TREE ROOTBALL IS WITHIN 8'-0" OF PAVING, CURB, ETC.

5 ROOT BARRIER
SCALE: 1-1/2" = 1'-0"

NOTE:
1. SEE SPECS FOR MORE INFORMATION REGARDING PLANT INSTALLATION AND SOIL PREPARATION.

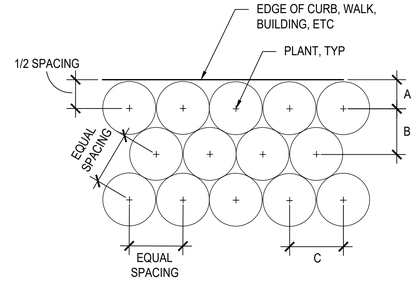


3 ORNAMENTAL GRASS PLANTING
SCALE: 1" = 1'-0"



NOTE: INSTALL LINEAR ROOT BARRIER ADJACENT TO PAVEMENT, CURB, OR SIDEWALK WHERE PAVEMENT EDGE IS WITHIN 3' OF TREE TRUNK (6' LENGTH ON CENTER 3' EACH SIDE OF TREE).

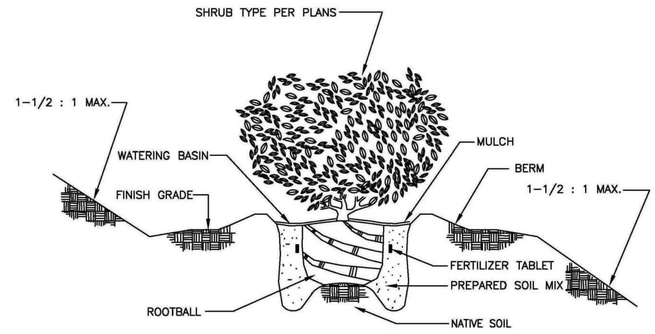
1 TREE PLANTING AND STAKING (CITY STANDARD)
SCALE:NTS



NOTES:
1. SEE PLANTING PLAN FOR SPACING BY PLANT SPECIES.
2. INSTALL TRIANGULATED PLANT LAYOUT, UNLESS OTHERWISE SHOWN ON PLANS.

PLANT SPACING	A	B	C
12"	6"	10"	12"
1'-6"	9"	1'-4"	1'-6"
2'-0"	12"	1'-9"	2'-0"
2'-6"	1'-3"	2'-2"	2'-6"
3'-0"	1'-6"	2'-7"	3'-0"
3'-6"	1'-9"	3'-0"	3'-6"
4'-0"	2'-0"	3'-6"	4'-0"
4'-6"	2'-3"	3'-11"	4'-6"
5'-0"	2'-6"	4'-4"	5'-0"

4 PLANTING LAYOUT
SCALE: NTS



NOTES:
1. SET CROWN 1-1/2" ABOVE FINISH GRADE TO ALLOW FOR SETTLEMENT.
2. WELL DEVELOPED SHRUB ROOTBALL; LIGHTLY SCARIFY PERIMETER.
3. SLOW RELEASE FERTIZER TABLET AS PERSPECIFICATIONS.
4. 4" HIGH BERM TEMPORARY WATER BASIN. INSIDE DIAMETER TO EQUAL ROOTBALL DIAMETER.
5. PLANTING HOLE; TWO TIMES DIAMETER AND DEPTH OF SHRUB ROOTBALL. SCARIFY SIDES AND BOTTOM.
6. MULCH AS PER SPECIFICATIONS.
7. BACKFILL MIXTURE AS PER SPECIFICATIONS.

2 SHRUB PLANTING (CITY STANDARD)
SCALE:NTS

LICENSED LANDSCAPE ARCHITECT
Michelle King License No. 5571
Signature
05-31-2024
Renewal Date
03-29-2025
Date
STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:
211101

SHEET TITLE:
PLANTING DETAILS

SHEET NUMBER:
L2.02

TREES

Arbutus 'Marina'
MARINA STRAWBERRY TREE

Pistacia chinensis
CHINESE PISTACHE

Platanus racemosa
CALIFORNIA SYCAMORE

Quercus agrifolia
COAST LIVE OAK

GROUNDCOVERS

Arctostpahylos 'Emerald Carpet'
EMERALD CARPET MANZANITA

Arctostaphylos 'Pacific Mist'
PACIFIC MIST MANZANITA

Baccharis pilularis
DWARF COYOTE BRUSH

PERENNIALS

Achillea millefolium
COMMON YARROW

Anigozanthos Harmony
RED-YELLOW KANGAROO PAW

Eriogonum grande var. rubescens
SAN MIGUEL ISLAND BUCKWHEAT

Penstemon heterophyllus 'Margarita BOP'
MARGARITA BOP FOOTHILL PENSTEMON

BIORETENTION

Iris douglasiana
DOUGLAS IRIS

Juncus patens
BLUE RUSH

Leymus condensatus 'Canyon Prince'
CANYON PRINCE WILD RYE

GRASSES

Festuca californica
CALIFORNIA FESCUE

Festuca mairei
ATLAS FESCUE

SHRUBS

Arctostaphylos densiflora 'Howard McMinn'
HOWARD MCMINN MANZANITA

Rhamnus californica 'Eve Case'
EVE CASE COFFEEBERRY

Ribes sanguineum
RED FLOWERING CURRANT

LICENSED LANDSCAPE ARCHITECT
Michael King License No. 5571
Signature
05-31-2024
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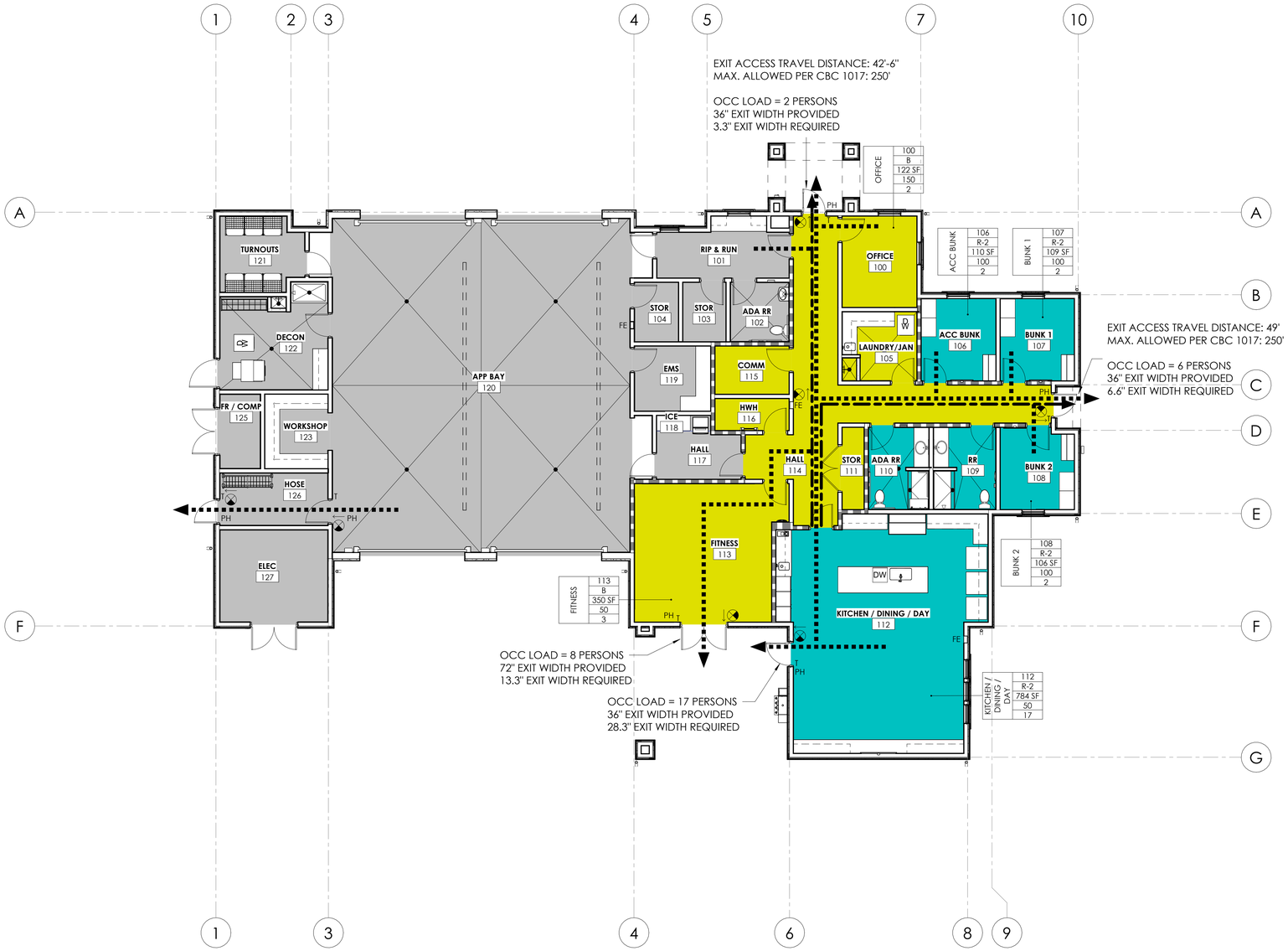
PROJECT NUMBER:
211101

SHEET TITLE:
PLANT PALETTE

SHEET NUMBER:
L2.03



D1 EGRESS PLAN
A0.1 SCALE: 1/8" = 1'-0"

ROOM NUMBER	DESCRIPTION	SQ. FT.	LOAD FACTOR	FLOOR OCCUP	CLASS
100	OFFICE	122 SF	150	1	B
101	RIP & RUN	124 SF	0		S-2
102	ADA RR	62 SF			S-2
103	STOR	46 SF	0		S-2
104	STOR	47 SF	0		S-2
105	LAUNDRY/JAN	91 SF			B
106	ACC BUNK	110 SF	100	2	R-2
107	BUNK 1	109 SF	100	2	R-2
108	BUNK 2	106 SF	100	2	R-2
109	RR	90 SF			R-2
110	ADA RR	88 SF			R-2
111	STOR	32 SF	0		B
112	KITCHEN / DINING / DAY	784 SF	50	16	R-2
113	FITNESS	350 SF	50	8	B
114	HALL	427 SF	0		B
115	COMM	64 SF			B
116	HWH	42 SF	0		B
117	HALL	71 SF	0		S-2
118	ICE	15 SF			S-2
119	EMS	89 SF	0		S-2
120	APP BAY	1770 SF			S-2
121	TURNOUTS	106 SF			S-2
122	DECON	184 SF			S-2
123	WORKSHOP	84 SF			S-2
125	FR / COMP	54 SF			S-2
126	HOSE	101 SF			S-2
127	ELEC	178 SF			S-2

NOTES

1. OCCUPANT LOAD CALCULATIONS FOR BUNK ROOMS ARE BASED ON ACTUAL USAGE.
2. GRADE LEVEL AREAS DESIGNATED AS EXIT DISCHARGE COMPONENTS FOR BUILDING SHALL BE PERMANENTLY MAINTAINED. SUCH AREAS SHALL NOT BE DEVELOPED OR OTHERWISE ALTERED IN THEIR CAPACITY TO PROVIDE CONTINUOUS, UNOBSTRUCTED, AND UNDIMINISHED MEANS OF EGRESS FOR THE BUILDING OCCUPANT. IF SUCH AREAS ARE SOLD INDEPENDENT OF THE BUILDING THEY SERVE, AN EXIT DISCHARGE COMPLYING WITH THE REQUIREMENTS OF SECTION 1006 SHALL BE PROVIDED FOR THE BUILDING.
3. DOORS IN THE MEANS OF EGRESS SYSTEM TO BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.

WALL LEGEND

- X10 EXTERIOR WALL
- X12 STUD WALL W/ GYP - 1HR
- X6 STUD WALL W/ GYP - 1HR
- X6 STUD WALL W/ GYP
- X4 STUD WALL W/ GYP
- (#) WALL TYPES, SEE SHEET A4.9 AND A4.10 FOR WALL FRAMING SIZES AND LOCATION, SEE STRUCTURAL

EGRESS LEGEND

- EXIT SIGN, SEE ELECTRICAL DRAWINGS AND TACTILE EXIT SIGN
- PATH OF TRAVEL
- EXIT ACCESS TRAVEL DISTANCE
- FE FIRE EXTINGUISHER
- T TACTILE EXIT SIGN
- PH PANIC HARDWARE SEE DOOR SCHEDULE

ROOM NAME | XXX | XXX | XXX | XXX | XXX
- ROOM NUMBER
- OCCUPANCY TYPE
- NET SQ. FT.
- OCC. LOAD FACTOR
- OCCUPANTS

- B OCCUPANCY
- R-2 OCCUPANCY
- S-2 OCCUPANCY

LICENSED ARCHITECT
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C-18823
REN. 09/10/23
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

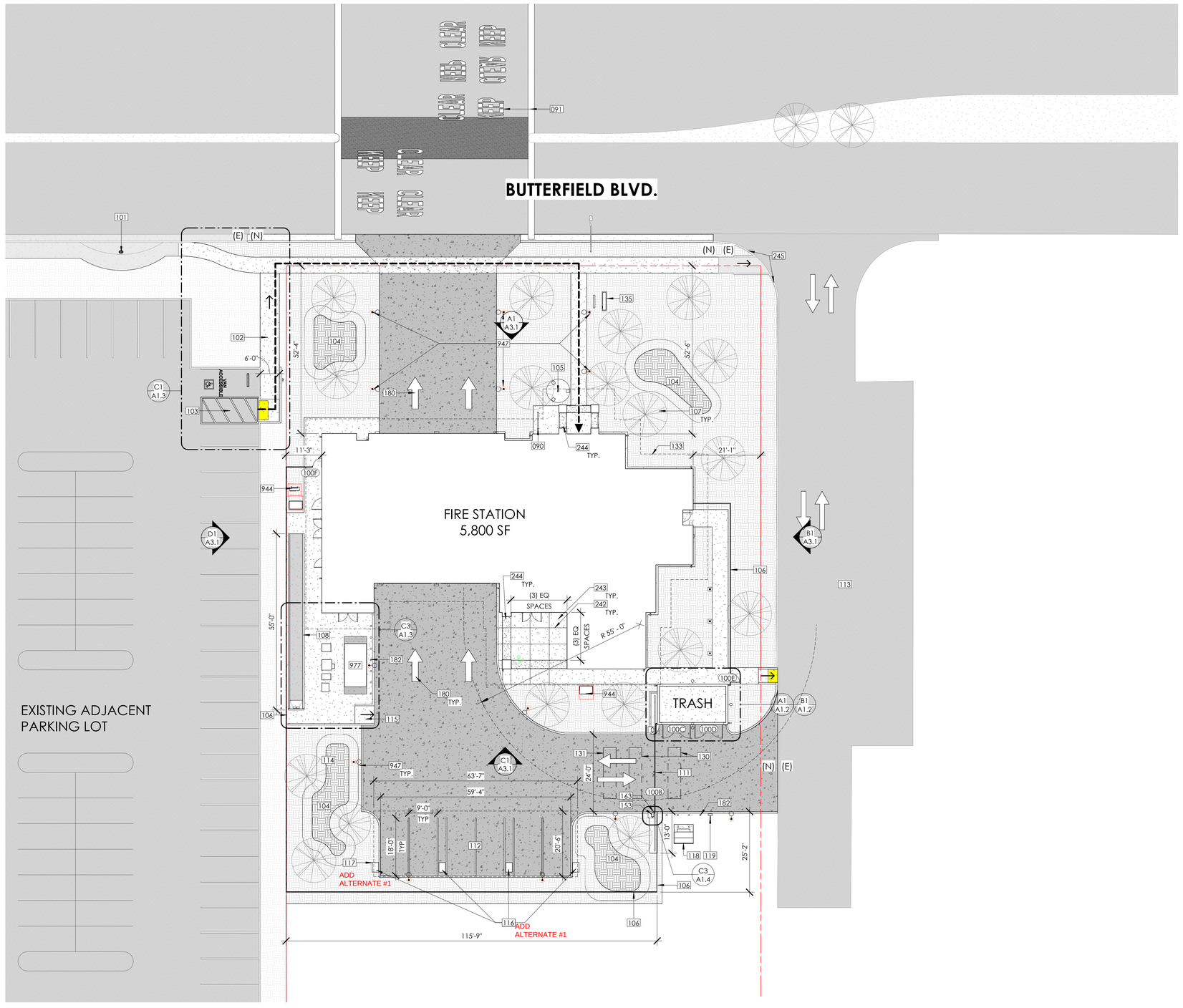
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER: 211101

SHEET TITLE: EGRESS PLAN

SHEET NUMBER: A0.1



D1 SITE PLAN
A1.1 SCALE: 1/16" = 1'-0"

CONSTRUCTION NOTES

090 BIKE RACK, SEE: C4/A1.5
091 ROAD STRIPING
101 EXISTING FIRE HYDRANT
102 ACCESSIBLE CONC. WALKWAY FROM EXISTING PARKING LOT TO EXISTING SIDEWALK
103 NEW STRIPING FOR VAN ACCESSIBLE PARKING SPACE AND PUBLIC PARKING
104 BIORETENTION AREA
105 35-0" HIGH ALUMINUM FLAG POLE, SEE: D1/A1.5
106 STEEL ORNAMENTAL 6' HIGH FENCE
107 NEW TREES, SEE LANDSCAPE
108 HOSE DRYING RACK, SEE: D3/A1.3 ADD ALTERNATE #4
111 ROLLING GATE, SEE: D3/A1.3
112 SECURE PARKING (6)
113 EXISTING DRIVEWAY
114 MICROGRID AREA
115 CURB RAMP
116 CONCRETE PIERS FOR PV SHADE STRUCTURE, SEE: A3/A1.5
117 SHADE STRUCTURE WITH PV PANELS. SEE ALTERNATE SECTION 01 23 00
118 PG&E TRANSFORMER AND PAD, SEE ELECTRICAL
119 KEYPAD ON PEDESTAL TO OPEN GATE, SEE: B2/A1.5
130 EXIT LOOP
131 SAFETY LOOP
133 LINE OF OVER EXCAVATION, SEE GEOTECHNICAL REPORT
135 MONUMENT SIGN, SEE: D3/A1.5
153 ROLLING GATE CONTROLLER ON CONCRETE PAD
163 KNOX KEY SWITCH AND OPTICOM SENSOR OPENING DEVICE
180 DIRECTIONAL ARROW ROAD STRIPING, TYP
182 METAL BOLLARD TYP., SEE: B3/A1.5
242 CONTROL JOINTS
243 BROOM FINISH
244 SALT FINISH BORDER
245 (E) CURB
944 HVAC EQUIPMENT, SEE MECHANICAL
947 LIGHTING FIXTURE, SEE ELECTRICAL
977 STAND BY GENERATOR ON HOUSEKEEPING PAD, SEE ELECTRICAL

SITE NOTES

1. FIRE APPARATUS ACCESS ROAD OBSTRUCTION: AUTOMATIC GATES SHALL BE PROVIDED WITH BOTH AN OPTICOM DETECTION SYSTEM AND A KNOX KEY SWITCH OVERRIDE. PROVISIONS SHALL BE TAKEN TO OPERATE THE GATE UPON THE LOSS OF POWER.
2. AT ALL DOORWAYS, VERIFY SET LEVEL OF CONCRETE
3. DIMENSIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY. REFER TO CIVIL DRAWINGS FOR LOCATION COORDINATES.
4. CONTRACTOR TO PROVIDE ALL REQUIRED TRENCHING AND CONNECTIONS TO EXISTING UTILITIES U.O.N. SEE CIVIL, PLUMBING, AND ELECTRICAL DRAWINGS.
5. SEE ENLARGED PLANS FOR ADDITIONAL INFORMATION.
6. PATCH AND REPAIR EXISTING STREET AS REQUIRED AFTER INSTALLATION OF NEW UTILITIES.
7. ACCESSIBLE ROUTE FROM PARKING AND PUBLIC RIGHT OF WAY SHALL NOT EXCEED 1.5% CROSS SLOPE AND SHALL HAVE MAXIMUM SLOPE IN THE DIRECTION OF TRAVEL OF LESS THAN 4.5%. ALL NEW WORK SHALL BE ACCESSIBLE. ALL NEW WALKWAYS SHALL CONFORM TO CBC 11B-402. PAVING MATERIALS NOT OTHERWISE NOTED SHALL BE CONCRETE.
   - CONCRETE SHALL SLOPE MIN 1/8" PER FOOT AWAY FROM BUILDINGS, SEE CIVIL DRAWINGS.
   - EXTERIOR DOOR LANDINGS SHALL SLOPE 1/4" PER FOOT MAXIMUM AWAY FROM BUILDING FOR DRAINAGE.
8. REFER TO CIVIL ENGINEERING DRAWINGS FOR SIDEWALK GRADES.
9. REFER TO CIVIL ENGINEERING DRAWINGS AND LANDSCAPE PLANS FOR SITE FEATURES NOT OTHERWISE INDICATED.
10. PARKING AND PEDESTRIAN SITE SIGNAGE SHALL COMPLY WITH CBC SECTIONS 11B-502 & 11B-703.7.2.1.
11. BUILDING SIGNAGE SHALL COMPLY WITH CBC 11B-703.
12. PEDESTRIAN GATES SHALL COMPLY WITH CBC 1008.2 & 11B-206.5.
13. PROVIDE PLUMBING CLEANOUT DRAINS AT ALL RWL CONNECTIONS WITHIN 60' OUTSIDE OF BUILDING'S FOOTPRINT, USE CHRISTY VALVE BOX W/ TRAFFIC RATED LID, SEE CIVIL DRAWINGS.

SITE PLAN LEGEND

- EXISTING ASPHALT, SEE CIVIL
- NEW ASPHALT, SEE CIVIL
- EXISTING CONCRETE DRIVEWAY, SEE CIVIL
- NEW CONCRETE DRIVEWAY/PARKING, SEE CIVIL
- EXISTING CONCRETE WALKWAY, SEE CIVIL
- NEW CONCRETE WALKWAY, SEE CIVIL
- NEW BIORETENTION AREA, SEE CIVIL
- NEW LANDSCAPE, SEE LANDSCAPE
- PROPERTY LINE
- ACCESSIBLE PATH OF TRAVEL

LICENSED ARCHITECT
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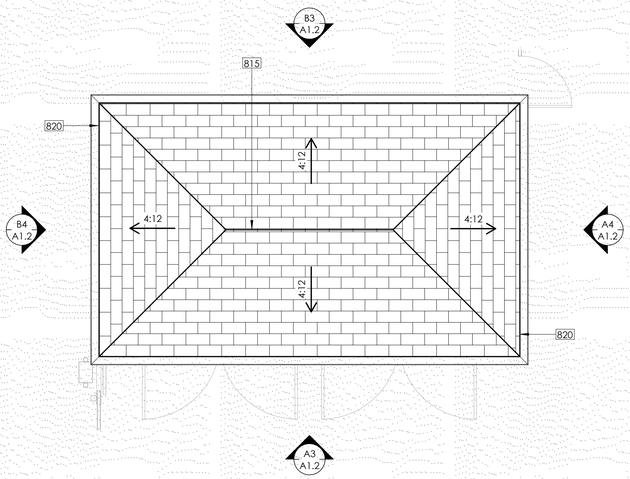
NOT FOR CONSTRUCTION

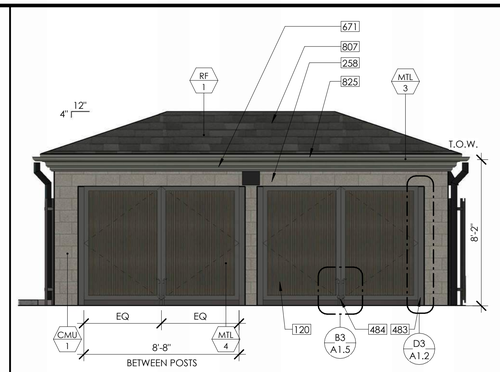
PROJECT NUMBER:
211101

SHEET TITLE:
SITE PLAN

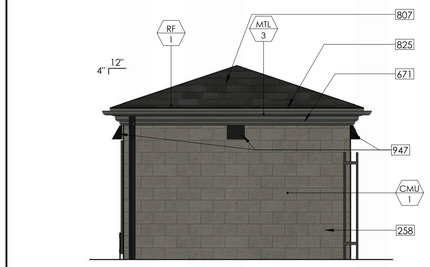
SHEET NUMBER:
A1.1



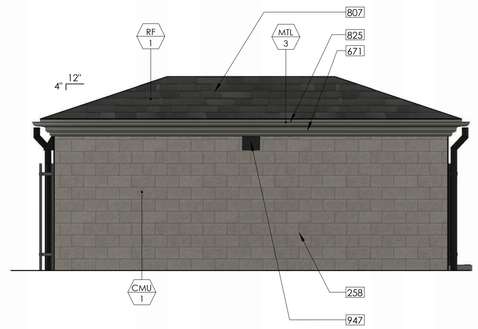
A1 TRASH ENCLOSURE ROOF PLAN
A1.2 SCALE: 1/4" = 1'-0"



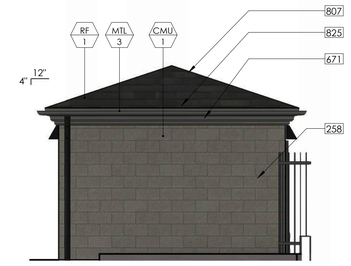
A3 TRASH ENCLOSURE WALL - SOUTH
A1.2 SCALE: 1/4" = 1'-0"



A4 TRASH ENCLOSURE WALL - EAST
A1.2 SCALE: 1/4" = 1'-0"



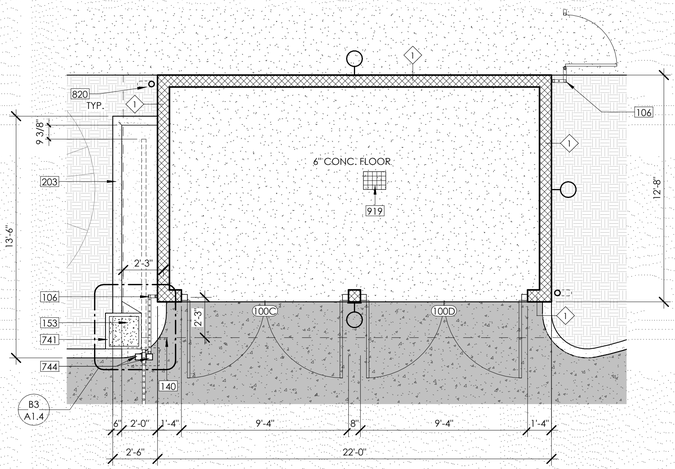
B3 TRASH ENCLOSURE WALL - NORTH
A1.2 SCALE: 1/4" = 1'-0"



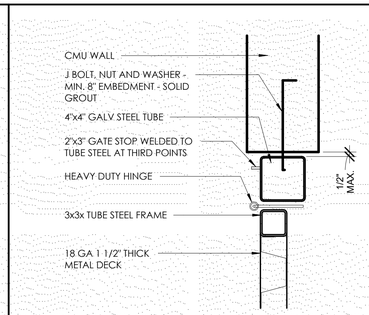
B4 TRASH ENCLOSURE WALL - WEST
A1.2 SCALE: 1/4" = 1'-0"

CONSTRUCTION NOTES

106	STEEL ORNAMENTAL 6' HIGH FENCE SEE: A1 / A1.5
120	TRASH ENCLOSURE GATE
140	CMU WALL FTG BELOW, SEE STRUCTURAL
153	ROLLING GATE CONTROLLER ON CONCRETE PAD
203	CONCRETE CURB AND GATE ACCESS SLAB
258	CMU BLOCK WALL, SEE STRUCTURAL
260	POLYURETHANE BASED CONSTRUCTION ADHESIVE
364	SHAPED RAFTER TAIL
380	ROOF TRUSS, SEE STRUCTURAL
483	6'-0" HIGH STEEL DOORS, HUNG INDEPENDENTLY FROM WALLS ON STEEL POSTS
484	CANE BOLT SLEEVES FOR LOCKING DOORS IN OPEN AND CLOSED POSITION
507	J BOLT WITH NUT AND WASHER - 8" MIN. EMBEDMENT - SOLID GROUT
618	PREFINISHED STUCCO COAT - STYROFOAM SHAPED CORNICE
671	STUCCO FINISHED STYROFOAM CORNICE
741	24" SQ CONC. GATE OPERATOR PEDESTAL, FLUSH WITH TOP OF CURB
744	4" GATE GUIDE POST
806	ROOFING PER PLAN
807	ASPHALT SHINGLE ROOFING
815	RIDGE VENT
820	RAIN WATER LEADER TYP.
825	1/2 ROUND 6" GUTTER SYSTEM
827	GUTTER STRAP AT 24" OC
845	GSM FLASHING WITH DRIP EDGE
868	WATER RESISTANT BARRIER OVER FLASHING
919	FLOOR DRAIN, SEE CIVIL
947	LIGHTING FIXTURE, SEE ELECTRICAL

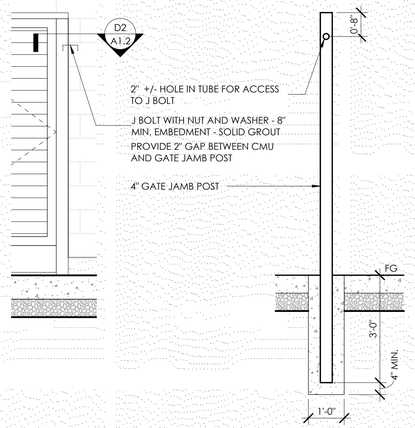


B1 ENLARGED TRASH ENCLOSURE FLOOR PLAN
A1.2 SCALE: 1/4" = 1'-0"

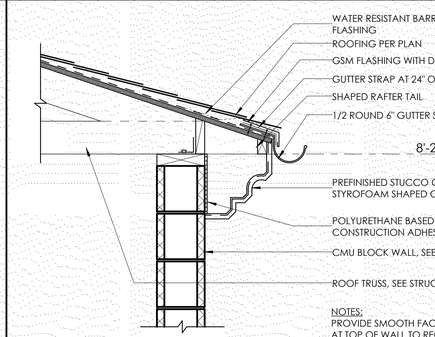


NOTE:
MITER ALL CORNERS, WELD AND GRIND SMOOTH. GALVANIZE ALL ITEMS AFTER FABRICATION. DO NOT WELD GALVANIZED ITEMS.

D2 TRASH ENCLOSURE GATE DETAIL
A1.2 SCALE: 1 1/2" = 1'-0"

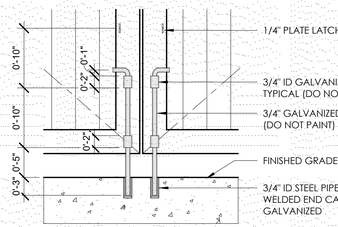


D3 TRASH ENCLOSURE POST HOLE DETAIL
A1.2 SCALE: 1/2" = 1'-0"



NOTES:
PROVIDE SMOOTH FACE CMU AT TOP OF WALL TO RECEIVE CORNICE ADHESIVE

C4 CORNICE AT CMU
A1.2 SCALE: 1" = 1'-0"



D4 CANE BOLT DETAIL
A1.2 SCALE: 1" = 1'-0".

EXTERIOR FINISH SCHEDULE

MATERIAL	TYPE	DESCRIPTION NAME	DESCRIPTION COLOR
BRK	1	BRICK VENEER	SANDMOLD - TIVOLI
CMU	1	CONCRETE MASONRY UNIT	SPLITFACE -128
CNC	1	CONCRETE (POLISHED)	NATURAL
CNC	2	CONCRETE (HIGH DENSITY)	NATURAL
GL	1	GLAZING	CLEAR
IRWP	1	IMPACT RESISTANT WALL PANEL	
MTL	1	FACTORY FINISH	DARK MEDIUM BRONZE
MTL	2	FACTORY FINISH	RAL 7013 - BROWN GREY
MTL	3	FACTORY FINISH	PPG DURANAR - NATURAL SUADE
MTL	4	FACTORY FINISH	TO MATCH PT-2
MTL	5	FACTORY FINISH	BRONZE
PT	1	PAINT	NATURE'S ESSENTIALS
PT	2	PAINT	DEEP CREEK
PT	4	PAINT	CHANTILLY LACE
RF	1	ASPHALT SHINGLES	CLIFFSIDE GRAY
S	1	STUCCO	PT-1

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DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

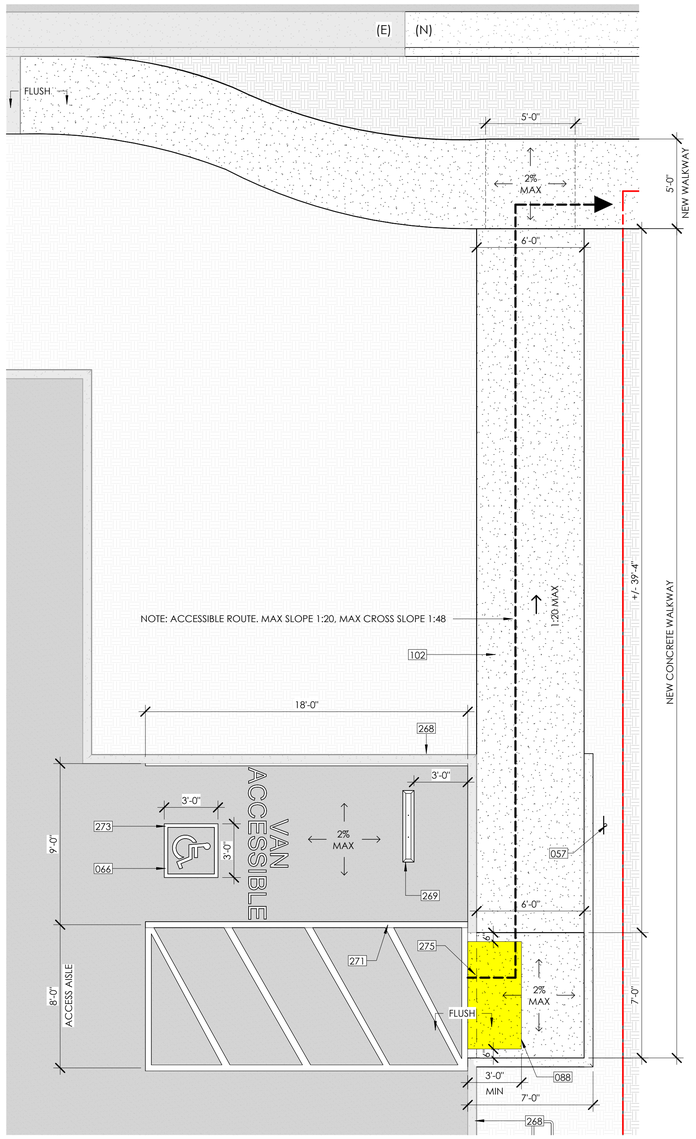
211101

SHEET TITLE:

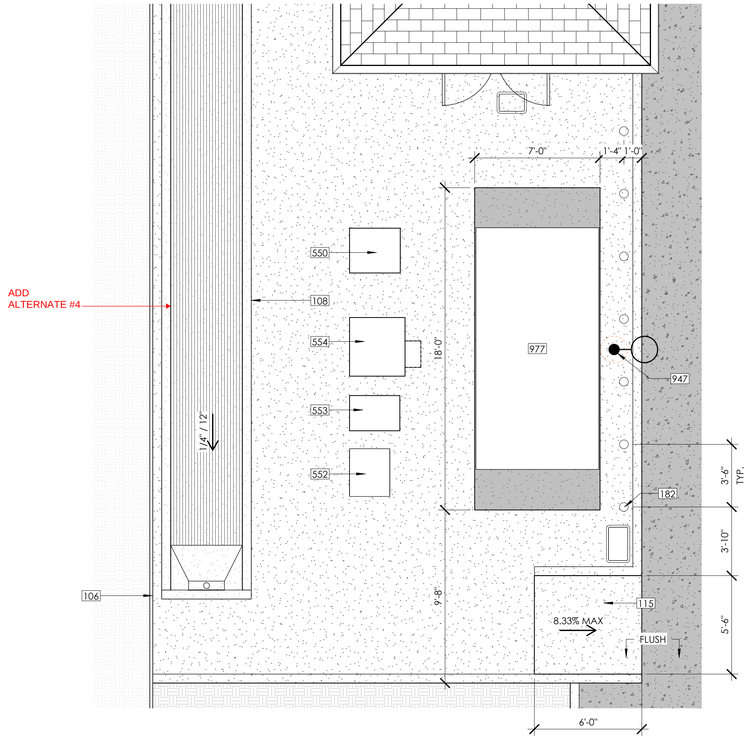
ENLARGED SITE PLANS

SHEET NUMBER:

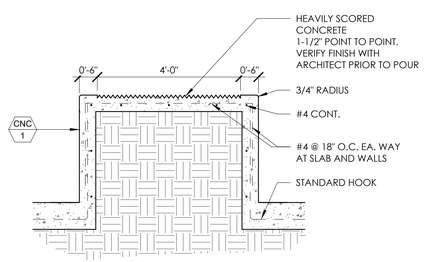
A1.2



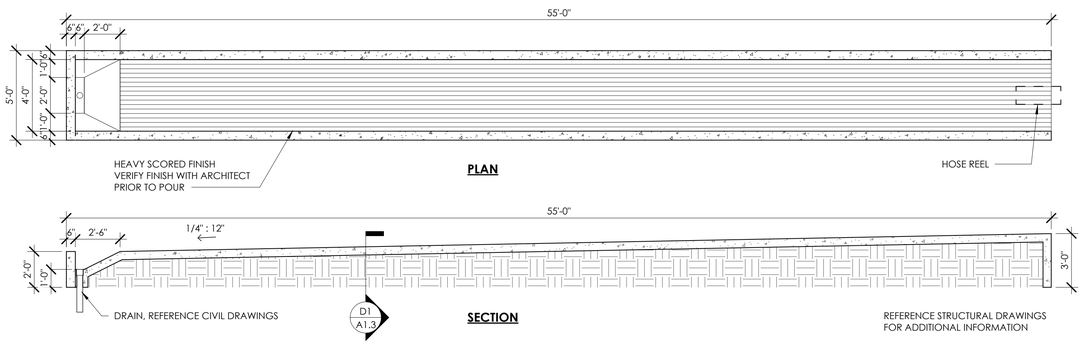
C1 A1.3 ACCESSIBLE PARKING STALL
SCALE: 1/4" = 1'-0"



C3 A1.3 ENLARGED GENERATOR AREA
SCALE: 1/4" = 1'-0"



D1 A1.3 HOSE DRYING RACK - SECTION
SCALE: 1/2" = 1'-0"



D3 A1.3 HOSE DRYING RACK - PLAN AND SECTION
SCALE: 1/4" = 1'-0" ADD ALTERNATE #4

CONSTRUCTION NOTES

057 ACCESSIBLE PARKING SIGN, SEE D2/T-7 AND D3/T-7
066 DISABLED PARKING SPACE AND ACCESS AISLE, REFERENCE: D1/T-7
088 TRUNCATED DOME DETECTABLE WARNING SURFACE
102 ACCESSIBLE CONC. WALKWAY FROM EXISTING PARKING LOT TO EXISTING SIDEWALK
106 STEEL ORNAMENTAL 6' HIGH FENCE SEE: A1 / A1.5
108 HOSE DRYING RACK, SEE B3 / A1.3 , ADD ALTERNATE #4
115 CURB RAMP
182 METAL BOLLARD TYP. SEE B3 / A1.5
268 (E) CURB
269 CONCRETE WHEEL STOP, SEE B3/T-7
271 4" PARKING STALL STRIPING TYP. (FEDERAL BLUE)
273 ISA PARKING STALL EMBLEM, SEE C3/T-7
275 (E) CURB TO BE REMOVED
550 TRANSFORMER 'TX-ES', SEE ELECTRICAL , ADD ALTERNATE #5
552 ENERGY MONITORING ENCLOSURE, SEE ELECTRICAL, ADD ALTERNATE #5
553 ENERGY SYSTEM INVERTER 'INV-ES', SEE ELECTRICAL, ADD ALTERNATE #5
554 BATTERY ENCLOSURE, SEE ELECTRICAL, ADD ALTERNATE #5
947 LIGHTING FIXTURE, SEE ELECTRICAL
977 STAND BY GENERATOR ON HOUSEKEEPING PAD, SEE ELECTRICAL

NOTES

1. UPON COMPLETION AND INSTALLATION OF THE GATE, THE CONTRACTOR SHALL CONTACT THE CHULA VISTA FIRE DEPARTMENT AND REQUEST AN INSPECTION AND ACCEPTANCE TEST BY CALLING THE INSPECTION LINE AT (619) 691-5029.

2. THE CONTRACTOR SHALL TEST THE OPERATION AND REQUIRED EMERGENCY ACCESS FEATURES OF THE GATE FULLY AND SUCCESSFULLY PRIOR TO THE ACCEPTANCE TEST. FAILURE TO MEET ALL OF THE REQUIREMENT AND SPECIFICATIONS ON THE APPROVED PLANS WILL RESULT IN A FAILED INSPECTION. FAILED INSPECTION FEES SHALL BE PAID BY THE INSTALLING CONTRACTOR PRIOR TO SCHEDULING A REINSERTION OR ACCEPTANCE TEST.

3. THE PROPOSED GATE SHALL NOT BE PUT IN OPERATION UNTIL A SUCCESSFUL FIRE INSPECTION AND ACCEPTANCE TEST IS PERFORMED, DOCUMENTED AND FINALIZED.

4. NO OTHER LOCKS OR LATCHES SHALL BE INSTALLED ON THE GATE(S).

5. GATE AND EQUIPMENT PLACEMENT SHALL NOT ENCROACH INTO THE REQUIRED CVFD TURNING RADIUS OR INTERFERE WITH THE USE OF FIRE PROTECTION EQUIPMENT; I.E. FIRE HYDRANTS, FIRE DEPARTMENT CONNECTIONS, FIRE SPRINKLER VALVES, ETC.

6. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR, OR THEIR DESIGNATED REPRESENTATIVE, TO BE ON THE JOB SITE DURING THE INSPECTION WITH APPROVED PLANS. FAILURE TO DO SO WILL RESULT IN THE CANCELLATION OF THE INSPECTION. CANCELED INSPECTIONS WILL BE COUNTED AS ONE INSPECTION.

7. ALL GATE COMPONENTS SHALL BE MAINTAINED IN AN OPERATIVE CONDITION AT ALL TIMES AND SHALL BE REPLACED OR REPAIRED WHEN DEFECTIVE.

8. ANY GATE REQUIRED TO HAVE A BATTERY BACK-UP SYSTEM SHALL HAVE A SEMI-ANNUAL TEST OF THAT SYSTEM PERFORMED AND A RECORD KEPT ON FILE.

9. RECORDS SHALL BE MAINTAINED ON-SITE AND ARE SUBJECT TO REVIEW AT THE REQUEST OF THE FIRE DEPARTMENT.

10. THE BACK-UP POWER SUPPLY SYSTEM SHALL BE DESIGNED AND PROGRAMMED TO OPEN THE GATE TO ITS FULLY OPEN POSITION, IN THE EVENT OF A/C POWER LOSS. THE ACCESS SYSTEM SHALL MAINTAIN THE GATE IN THE OPEN POSITION UNTIL THE A/C POWER SUPPLY IS RESTORED. THE BATTERY BACK-UP FEATURE SHALL NOT BE USED FOR NORMAL OPERATION OR ANY PURPOSE OTHER THAN FOR EMERGENCY ACCESS.

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

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SHEET TITLE:

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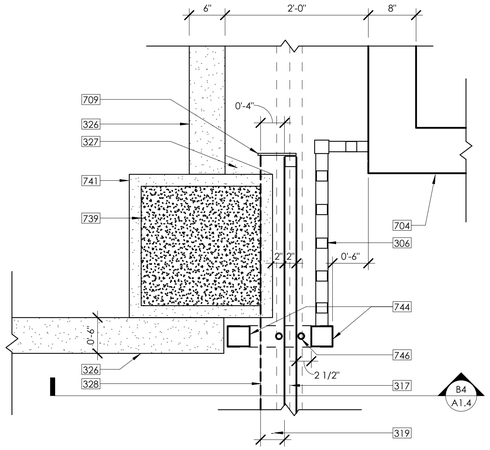
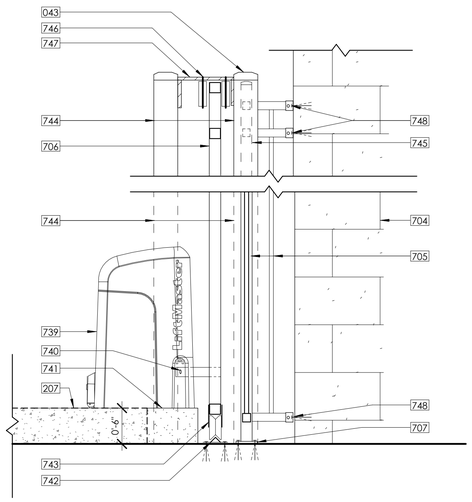
SHEET NUMBER:

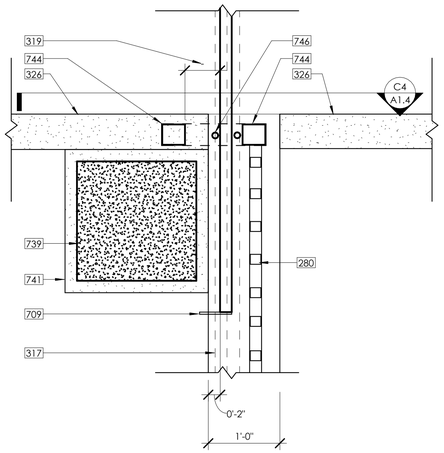
A1.3



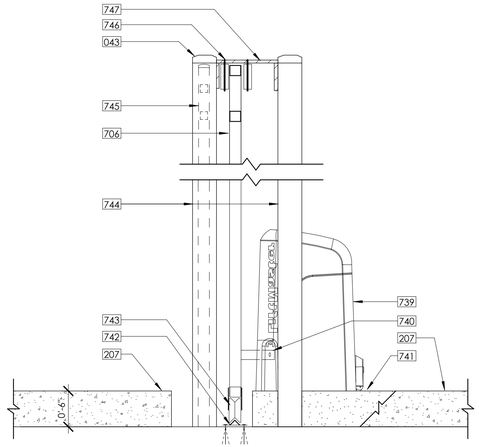
B3 A1.4 ENLARGED ROLLING GATE PLAN - NORTH
SCALE: 1" = 1'-0"



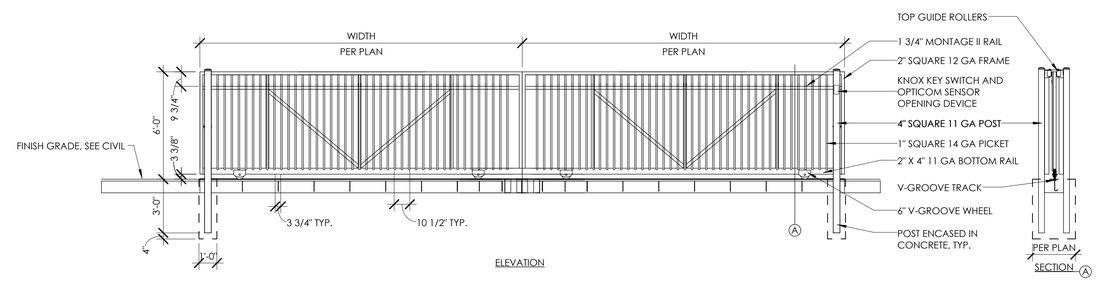
B4 A1.4 ROLLING GATE SECTION - NORTH
SCALE: 1" = 1'-0"



C3 A1.4 ENLARGED ROLLING GATE PLAN - SOUTH
SCALE: 1" = 1'-0"



C4 A1.4 ROLLING GATE SECTION - SOUTH
SCALE: 1" = 1'-0"



NOTES:
1. CONTINUOUS WELD ALL CONNECTIONS.
2. GALVANIZE ALL ITEMS AFTER FABRICATION.
3. MITER ALL CORNERS.

D3 A1.4 VEHICULAR ROLLING GATE - WEST ELEVATION
SCALE: 1/4" = 1'-0"

CONSTRUCTION NOTES

003 V-GROOVE TRACK
005 TOP GUIDE ROLLERS
006 6" V-GROOVE WHEEL
043 ROUND POST CAP, TYP.
163 KNOX KEY SWITCH AND OPTICOM SENSOR OPENING DEVICE
173 FINISH GRADE, SEE CIVIL
204 POST ENCASED IN CONCRETE, TYP.
207 CONCRETE CURB, SEE SLAB AND CURB PLAN
280 FENCING PER PLAN
306 CLOSURE FENCING SEE A1/A1.5
317 GATE V-TRACK BELOW
319 PROVIDE ENOUGH ROOM FOR GATE OPERATOR CHAIN CLEARANCES
321 1 3/4" MONTAGE II RAIL
322 2" SQUARE 12 GA FRAME
323 4" SQUARE 11 GA POST
324 1" SQUARE 14 GA PICKET
325 2" X 4" 11 GA BOTTOM RAIL
326 6" CONCRETE CURB, PER PLAN
327 PROVIDE CONCRETE TAPERED EDGE FOR DRAINAGE
328 LINE OF GATE CHAIN
704 CMU PER PLAN
705 CLOSURE FENCE PICKET
706 ROLL GATE PER PLAN
707 CLOSURE FENCING W/ WELDED ATTACHMENT PLATE, ATTACH TO CONCRETE WITH 1/2"X5" CONCRETE ANCHOR, TYP. AT THIS LOCATION
709 CHAIN CONNECTION BRACKET
739 GATE OPERATOR
740 CHAIN ATTACHMENT BRACKET
741 24" SQ CONC. GATE OPERATOR PEDESTAL, FLUSH WITH TOP OF CURB
742 GATE V-TRACK, ATTACH TO CONCRETE W/ 1/2"X3-3/4" CONCRETE ANCHORS
743 ROLL GATE V-WELL ASSEMBLEY
744 4" GATE GUIDE POST
745 FENCING PER PLAN, (SHOWN DASHED FOR CLARITY)
746 GATE GUIDE ROLLER ASSEMBLY
747 1/2" TOP PLATE FULLY WELDED TO 4" GATE GUIDE POSTS
748 PICKET CROSS RAIL, ATTACH TO CMU W/ 1/4"X3" MASONRY SCREW ANCHOR

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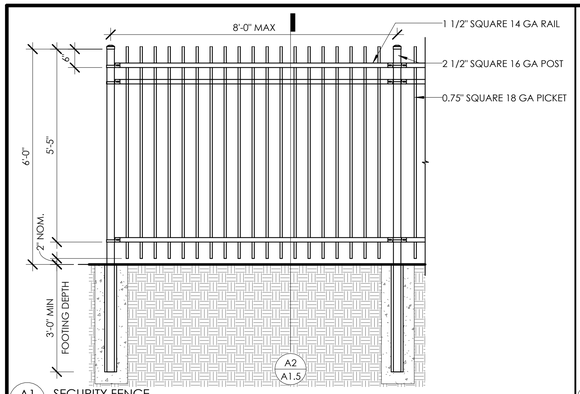
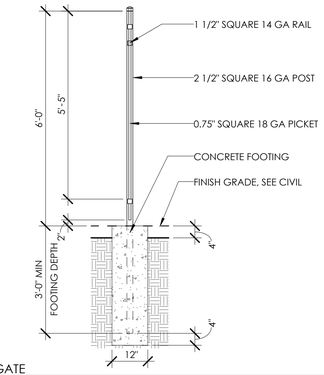
SHEET NUMBER:

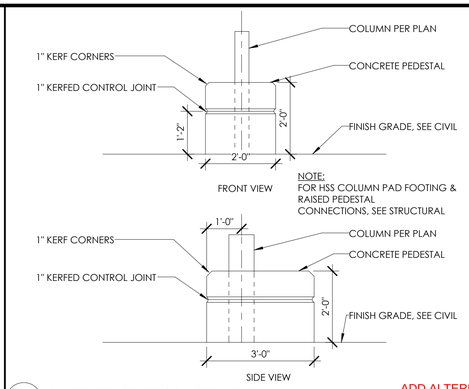
A1.4



A1 SECURITY FENCE
A1.5 SCALE: 1/2" = 1'-0"

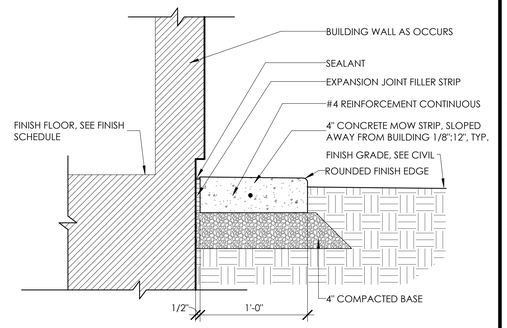


A2 SECURITY FENCE / GATE
A1.5 SCALE: 1/2" = 1'-0"

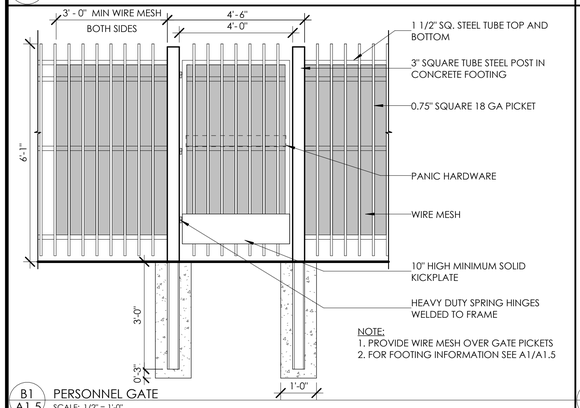


A3 SHADE STRUCTURE CONCRETE PIER
A1.5 SCALE: 1/2" = 1'-0"

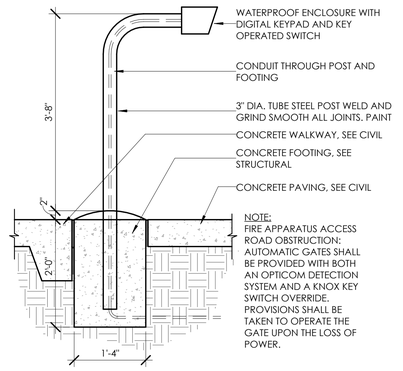
ADD ALTERNATE #1



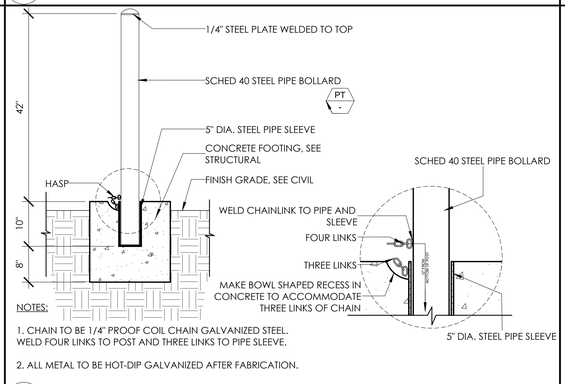
A4 CONCRETE MOW STRIP
A1.5 SCALE: 1 1/2" = 1'-0"



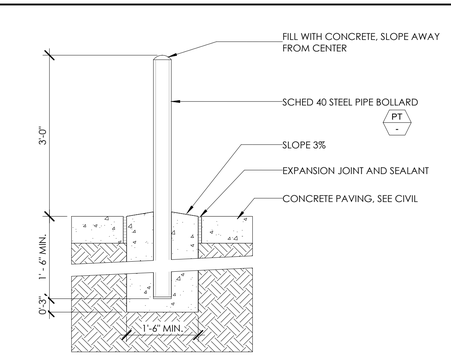
B1 PERSONNEL GATE
A1.5 SCALE: 1/2" = 1'-0"



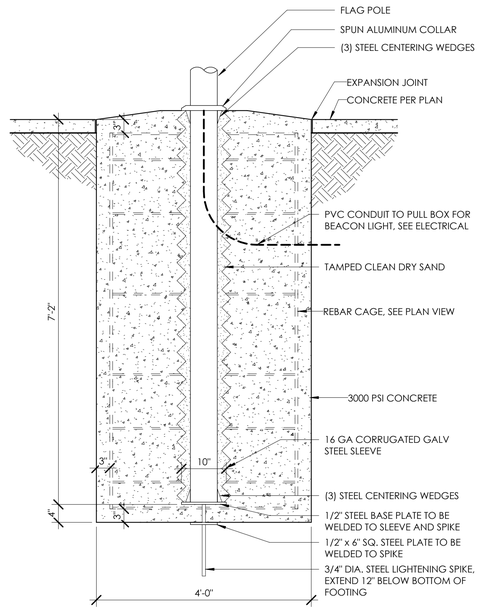
B2 GATE CONTROLLER
A1.5 SCALE: 3/4" = 1'-0"



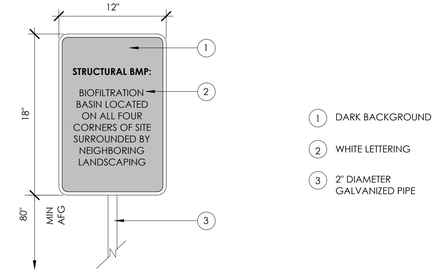
B3 REMOVABLE STEEL PIPE BOLLARD
A1.5 SCALE: 3/4" = 1'-0"



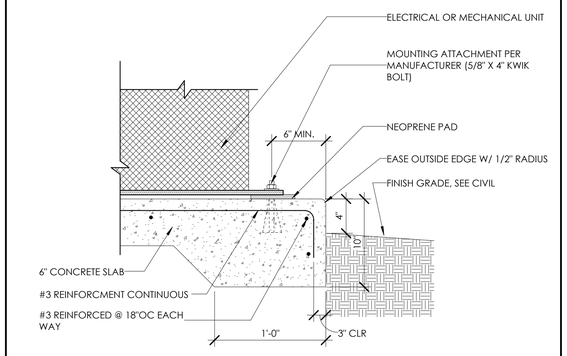
B4 FIXED STEEL PIPE BOLLARD
A1.5 SCALE: 3/4" = 1'-0"



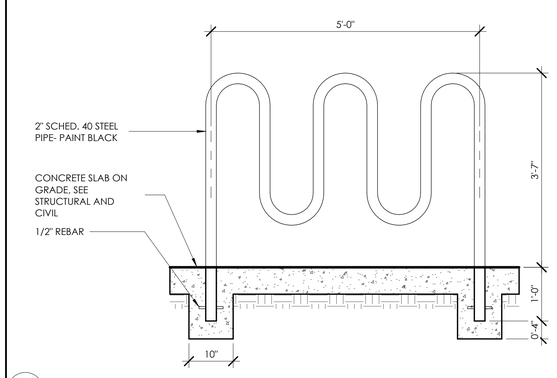
D1 FLAG POLE FOOTING - SECTION
A1.5 SCALE: 3/4" = 1'-0"



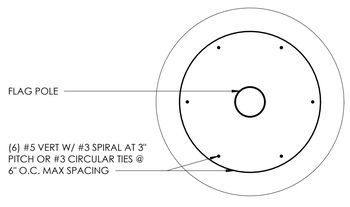
C2 BMP SIGNAGE DETAIL
A1.5 SCALE: 1 1/2" = 1'-0"



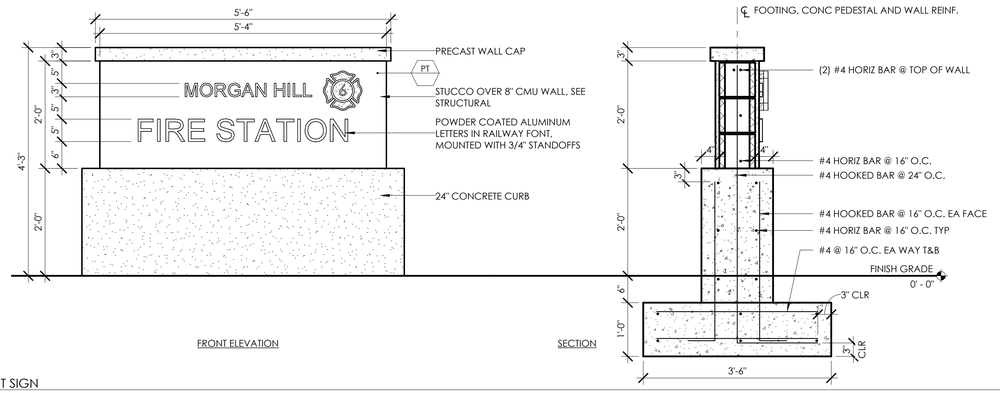
C3 EQUIPMENT HOUSE KEEPING PAD
A1.5 SCALE: 1 1/2" = 1'-0"



C4 BICYCLE RACK
A1.5 SCALE: 3/4" = 1'-0"



D2 FLAG POLE FOOTING - PLAN
A1.5 SCALE: 3/4" = 1'-0"



D3 MONUMENT SIGN
A1.5 SCALE: 3/4" = 1'-0"

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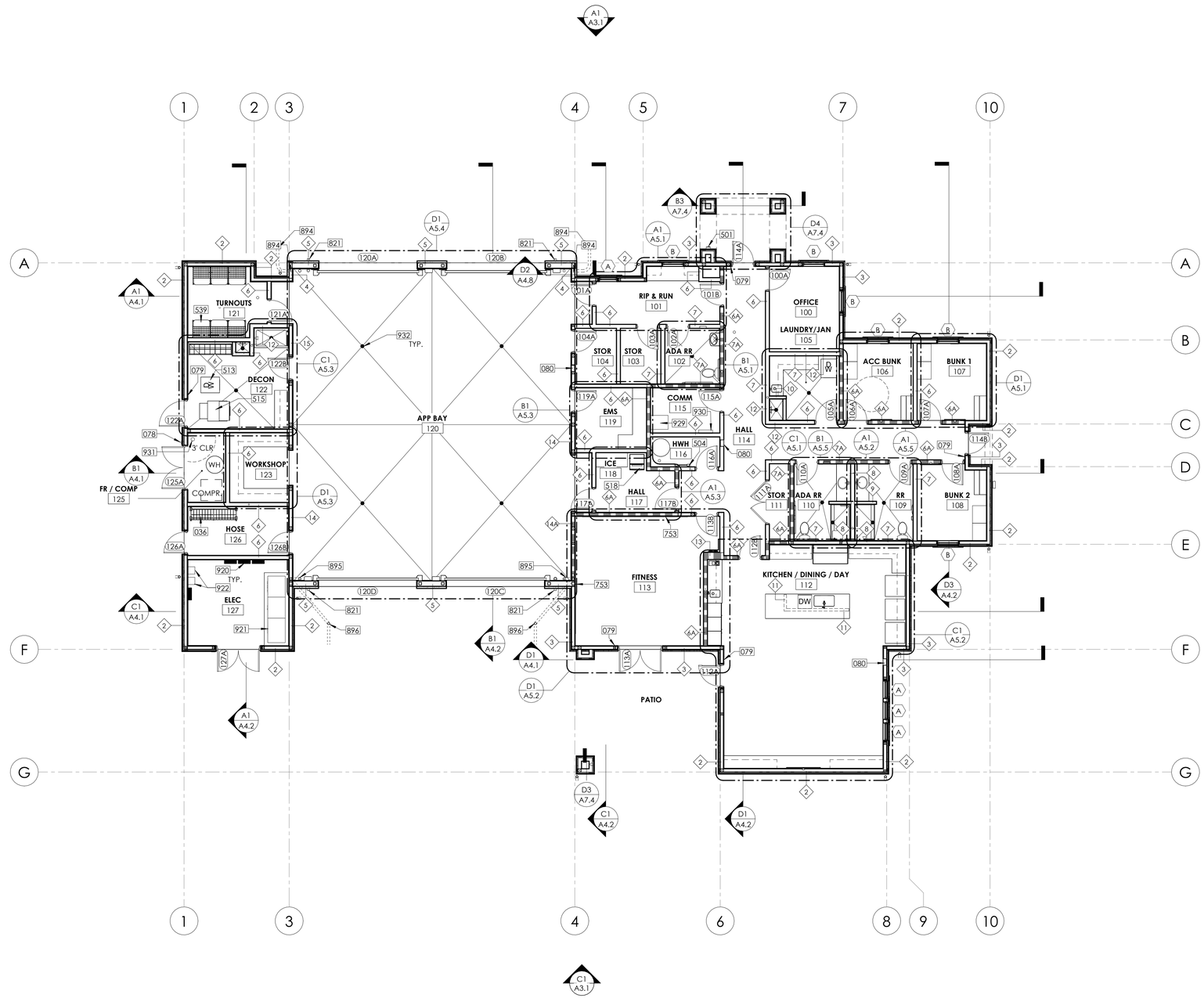
SITE DETAILS

SHEET NUMBER:

A1.5



D1 A2.1 FLOOR PLAN
SCALE: 1/8" = 1'-0"

CONSTRUCTION NOTES

036	WALL MOUNTED HOSE STORAGE RACK, PROVIDE BLOCKING
078	PROVIDE ROOM IDENTIFICATION SIGNAGE, VERIFY TEXT WITH OWNER, SEE T-6
079	PROVIDE TACTILE EXIT SIGN, SEE SHEET T-3
080	RECESSED FIRE EXTINGUISHER AND CABINET, SEE B1/T-4
501	911 EMERGENCY PHONE
504	ROOF ACCESS LADDER, SEE D1/A7.6
513	TURNOUT DRYER
515	LEFT-JUSTIFIED EXTRACTOR
518	ICE MACHINE
539	TURNOUT LOCKERS
753	MIRROR, SEE A3/T-3
821	ROOF OVERFLOW DRAIN PROVIDE COW TONGUE FLANGE AT EXTERIOR PENETRATION, TYP.
894	RWL CONNECTION TO UNDERGROUND DRAINAGE
895	CLEAN OUT ABOVE SILL PLATE
896	CLEAN OUT IN DRIVEWAY AT SITE UNDERGROUND DRAINAGE CONNECTION
920	ELECTRICAL PANELS, SEE ELECTRICAL
921	MAIN SWITCHBOARD, SEE ELECTRICAL
922	SOLAR INVERTER, SEE ELECTRICAL
929	MAIN DISTRIBUTION FRAME, SEE ELECTRICAL
930	FIRE ALARM CONTROL PANEL, SEE FIRE ALARM ELECTRICAL
931	FIRE SPRINKLER RISER LOCATION, SEE PLUMBING
932	FLOOR DRAINS, TYP. PER DETAIL C2/A7.4, SEE PLUMBING OTHERWISE

WALL LEGEND

- X10 EXTERIOR WALL
- X12 STUD WALL W/ GYP - 1HR
- X6 STUD WALL W/ GYP - 1HR
- X6 STUD WALL W/ GYP
- X4 STUD WALL W/ GYP
- (#) WALL TYPES, SEE SHEET A4.9 AND A4.10 FOR WALL FRAMING SIZES AND LOCATION, SEE STRUCTURAL

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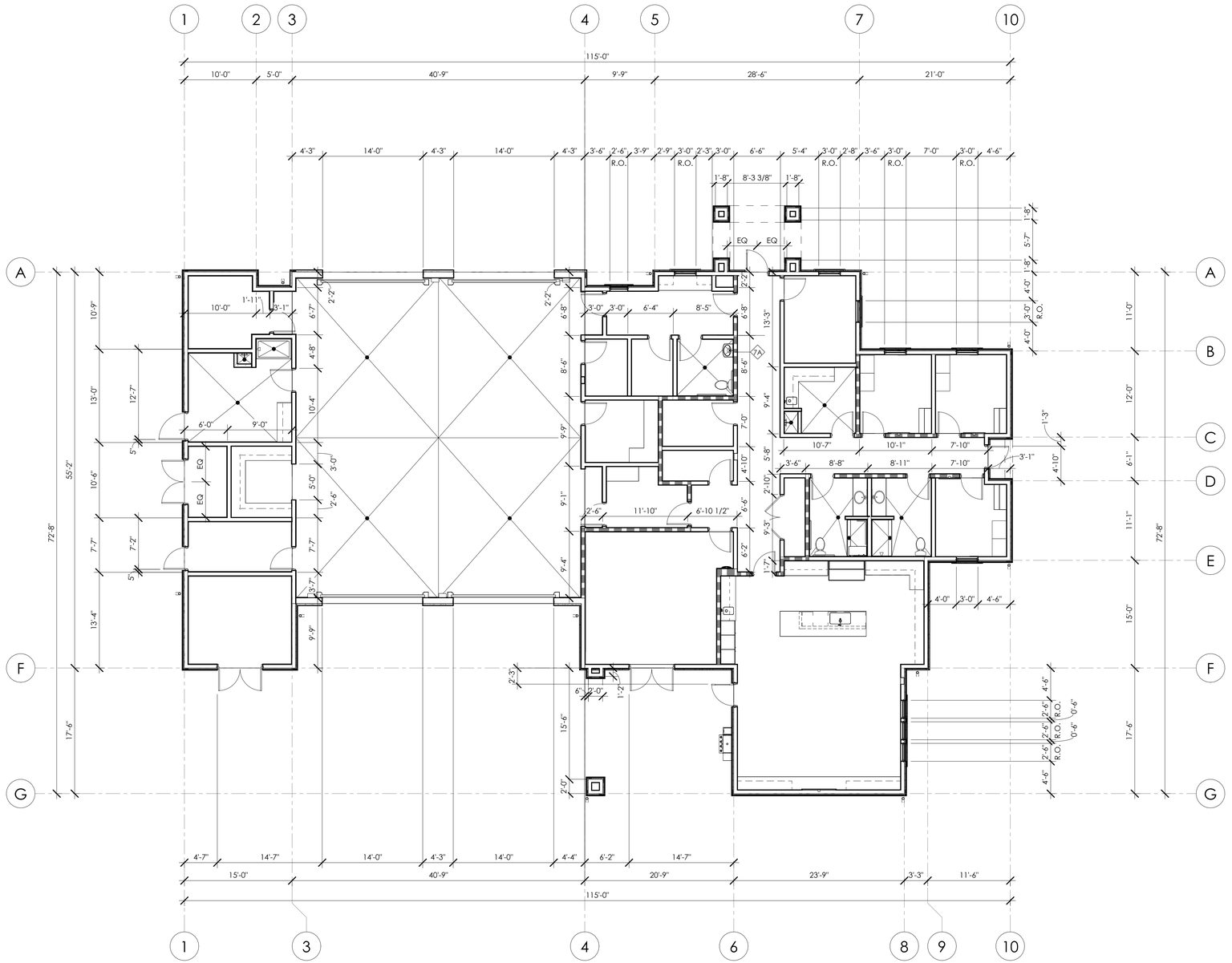
FLOOR PLAN

SHEET NUMBER:

A2.1



D1 DIMENSION PLAN
A2.2 SCALE: 1/8" = 1'-0"

WALL LEGEND

- X10 EXTERIOR WALL
- X12 STUD WALL W/ GYP - 1HR
- X6 STUD WALL W/ GYP - 1HR
- X6 STUD WALL W/ GYP
- X4 STUD WALL W/ GYP
- (#) WALL TYPES, SEE SHEET A4.9 AND A4.10 FOR WALL FRAMING SIZES AND LOCATION, SEE STRUCTURAL

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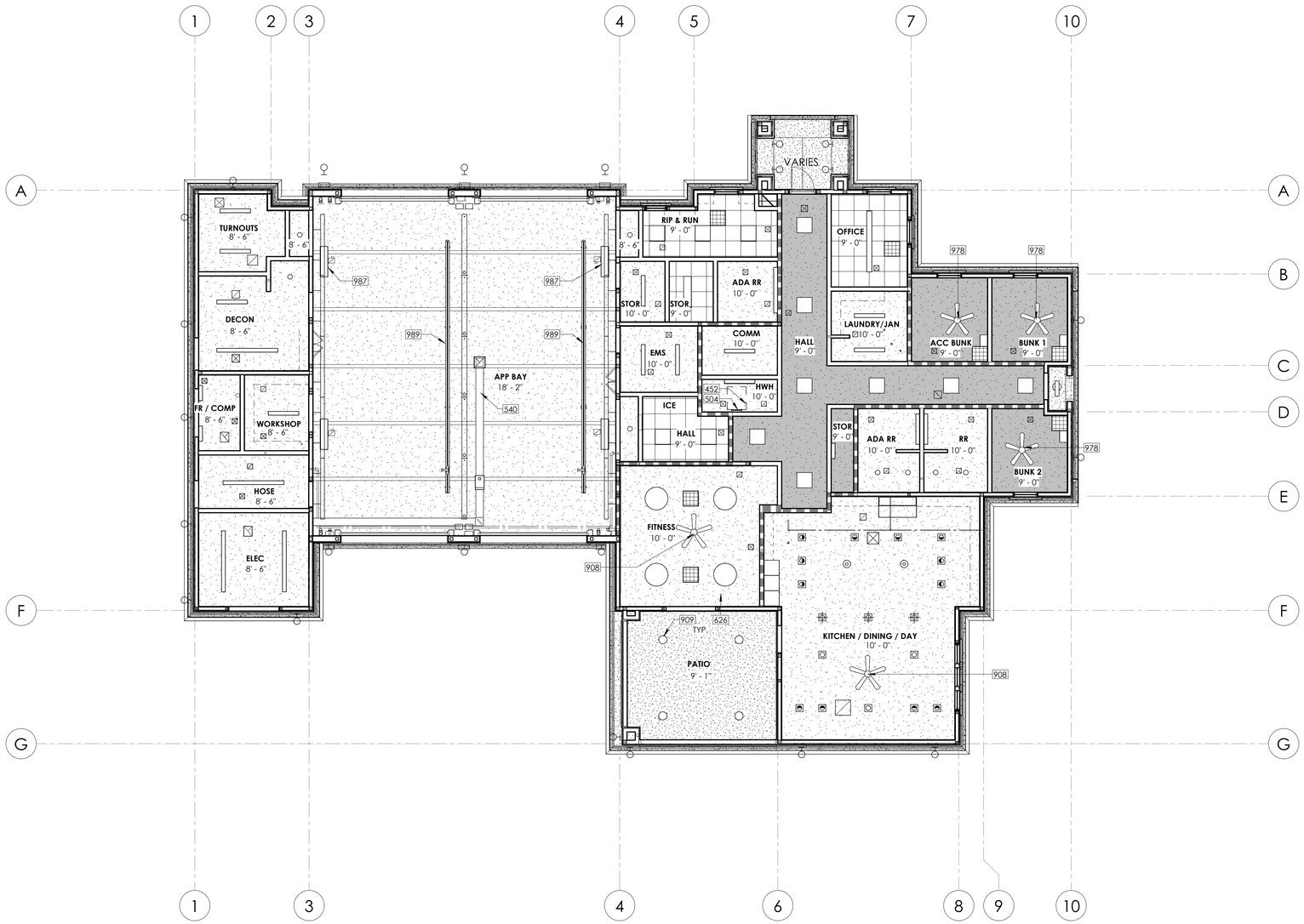
SHEET TITLE:

DIMENSION FLOOR PLAN

SHEET NUMBER:

A2.2



D1 REFLECTED CEILING PLAN
A2.3 SCALE: 1/8" = 1'-0"

CONSTRUCTION NOTES

452 ROOF HATCH ACCESS
504 ROOF ACCESS LADDER, SEE D1/A7.6
540 VEHICLE EXHAUST SYSTEM RAIL AND SUPPORTS, SEE
626 APPLY 5/8" GYPSUM BOARD CEILING TO UNDERSIDE OF STRUCTURE
908 56" CEILING FAN
909 CEILING MOUNTED EXTERIOR DOWN LIGHT ABOVE
978 44" CEILING FAN
987 RADIANT HEATER, SEE MECHANICAL
989 PLYMOVENT SYSTEM, SEE MECHANICAL

RCP NOTES

1. CONTRACTOR SHALL VERIFY DIMENSIONS AND LAYOUT OF ALL FIXTURES AND EQUIPMENT WITH ARCHITECT PRIOR TO ROUGH IN. REQUEST CLARIFICATION FOR ANY DIMENSIONS NOT SHOWN.
2. PROVIDE STAINLESS STEEL ACCESS PANELS AS REQUIRED FOR MECHANICAL EQUIPMENT, SEE MECHANICAL. ACCESS TO ABOVE-CEILING MECHANICAL EQUIPMENT, SEE STRUCTURAL DRAWINGS.
3. SEE ROOM FINISH SCHEDULE FOR CEILING HEIGHTS NOT SHOWN.
4. SUSPENDED CEILING SHALL COMPLY WITH CBC.
5. EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OR APPROACH.
6. HEADER (DOUBLE STUDS AT JAMB) - ALL DOORS AND WINDOWS.
7. NOTES & SYMBOLS APPLY TO ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY. NO LIMITATION OF APPLICATION SHALL BE CONSTRUED WITHOUT SPECIFIC NOTATION.
8. PENDANT LIGHT FIXTURE LOCATION DIMENSIONS ARE NOMINAL. VERIFY IN FIELD TO MAINTAIN 45° SWING CLEARANCES TO FIXED ELEMENTS.
9. SEE ELECTRICAL DRAWINGS FOR HORNS, SPEAKERS, PULL STATIONS, LIGHT FIXTURES AND OTHER FEATURES NOT OTHERWISE SHOWN.
10. SEE ELECTRICAL DRAWINGS FOR EXIT SIGNS AND EMERGENCY LIGHTING CONDITIONS.
11. SEE MECHANICAL DRAWINGS FOR PIPING, REGISTERS, AND VENTS NOT OTHERWISE SHOWN. MECHANICAL DUCT LOCATION DIMENSIONS ARE NOMINAL. VERIFY IN FIELD TO MAINTAIN CLEARANCES TO FIXED ELEMENTS.

RCP LEGEND

- 2X2 SUSPENDED ACOUSTICAL PANEL CEILING AND GRID
- GYPSUM BOARD CEILING 1HR, SEE C1/A7.7
- GYPSUM BOARD CEILING, FOR DROPPED CEILING DETAIL SEE A2/A7.7
- 3-COAT 7/8" MIN. THICK STUCCO OVER METAL LATH OVER 2 LAYERS GRADE D BUILDING PAPER
- EXTERIOR WALL
- STUD WALL W/ GYP - 1HR
- STUD WALL W/ GYP
- STUD WALL W/ GYP
- LARGE CEILING PLAN
- LINEAR PENDANT LIGHT, SEE ELECTRICAL
- LED PANEL LIGHT, SEE ELECTRICAL
- LINEAR LIGHT FIXTURE, SEE ELECTRICAL
- PENDANT LIGHT FIXTURE, SEE ELECTRICAL
- RECESSED MOUNTED LIGHT, SEE ELECTRICAL
- RECESSED MOUNTED LIGHT, SEE ELECTRICAL
- RECESSED MOUNTED LIGHT, SEE ELECTRICAL
- SURFACE MOUNTED LIGHT, SEE ELECTRICAL
- SURFACE MOUNTED LIGHT, SEE ELECTRICAL
- WALL SCONCE LIGHT, SEE ELECTRICAL
- ROUND EXHAUST DUCT, SEE MECHANICAL
- SUPPLY AIR DIFFUSER, SEE MECHANICAL
- EXHAUST AIR DIFFUSER, SEE MECHANICAL
- MECHANICAL BOX, SEE MECHANICAL
- HVAC CEILING CASSETTE, SEE MECHANICAL

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

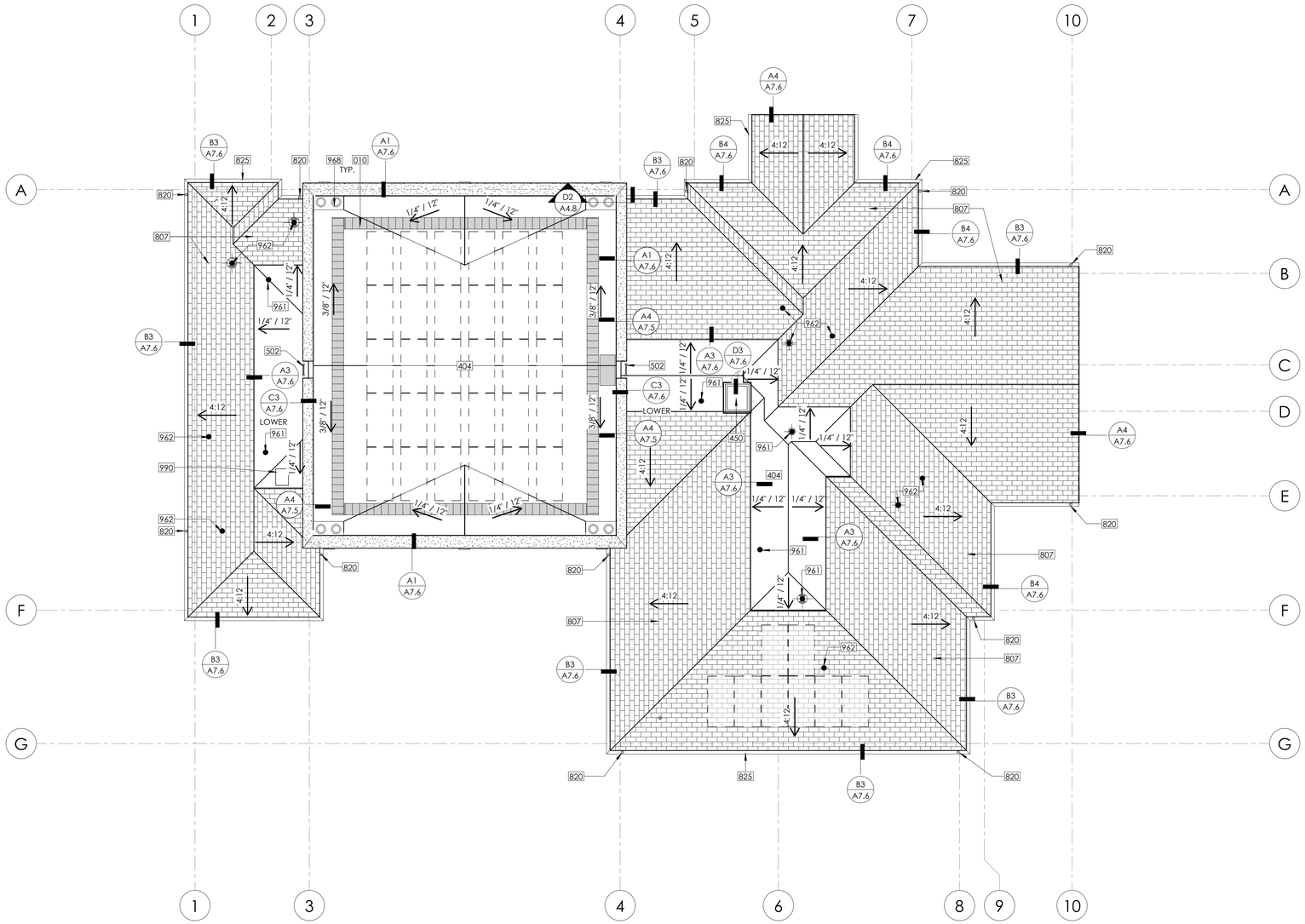
211101

SHEET TITLE:

REFLECTED CEILING PLAN

SHEET NUMBER:

A2.3



D1 ROOF PLAN
A2.4 SCALE: 1/8" = 1'-0"

CONSTRUCTION NOTES

010 ROOF WALKWAY PADS
404 SINGLE PLY MEMBRANE ROOF,
450 ROOF ACCESS HATCH AND SAFETY RAILING
502 FIXED LADDER, PROVIDE NOTCH IN CORNICE AT LADDER ACCESS
807 ASPHALT SHINGLE ROOFING
820 RAIN WATER LEADER TYP.
825 1/2 ROUND 6" GUTTER SYSTEM
961 TPO PLUMBING VENT FLASHING, SEE: D2/A7.6
962 ASPHALT SHINGLE PLUMBING VENT FLASHING, SEE: B4/A7.6
968 ROOF DRAIN AND OVER FLOW DRAIN, SEE PLUMBING AND SEE: D4/A7.6
990 PLYMOVENT EXHAUST FAN

ROOF NOTES

1. ALL ROOF ASSEMBLIES SHALL HAVE A CLASS A FIRE RATING.
2. EXPOSED VALLEY FLASHING SHALL BE AT LEAST 24 GAUGE CORROSION-RESISTANT METAL INSTALLED OVER A MINIMUM 36" WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF 72 ASTM CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY.
3. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE LOCATIONS OF EQUIPMENT, VENTS, DUCTS, ETC.
4. VAPOR BARRIER WILL BE PROVIDED ON WARM-IN WNITER SIDE OF ATTIC INSULATION.
5. DUCT AND CONDUIT PENETRATIONS THROUGH ROOF, SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
6. BATT INSULATION R-30 AT ROOF CAVITY, ENCLOSING CONDITIONED SPACE.
7. FOR ADD ALTERNATE 2 &3 CONTRACTOR TO INCLUDE SOLAR PANEL ROOFING ATTACHMENT SYSTEMS, ROOF FLASHING, WATERPROOF SEALANT AT ALL ROOF PENNTRATIONS, SEE SECTION 01 23 00 ALTERNATES FOR ADDITIONAL INFORMATION ON SOLAR PANEL RACKING SYSTEM TYPES.

UNVENTED ATTIC VENT CALCULATIONS

MORGAN HILL, CA 95037:
ZONE 4
ROOF R VALUE = R49
(PER ICC TABLE R402.1.2)
TOTAL RIGID INSULATION THAT CAN BE USED = R15
(PER IBC TABLE 1203.3)

(3) PCS 1" RIGID INSULATION @ R6 = 18R
9" BATT INSULATION @ R30
5/8" PLYWOOD ROOF DECK = R0.77
(2) 60 MIL VAPOR BARRIER @ R0.12 = R0.24
ASPHALT SHINGLE ROOFING = R0.94
TOTAL R VALUE IS 49.95 > 49

SEE UNVENTED ENCLOSED ATTIC INSULATION ASSEMBLY DETAIL
SEE: C1 / A7.6

ROOF LEGEND

PV PANELS ADD ALTERNATE #2

TPO ROOFING

ASPHALT SHINGLE ROOFING

ROOF WALKWAY PADS

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PROJECT NUMBER:
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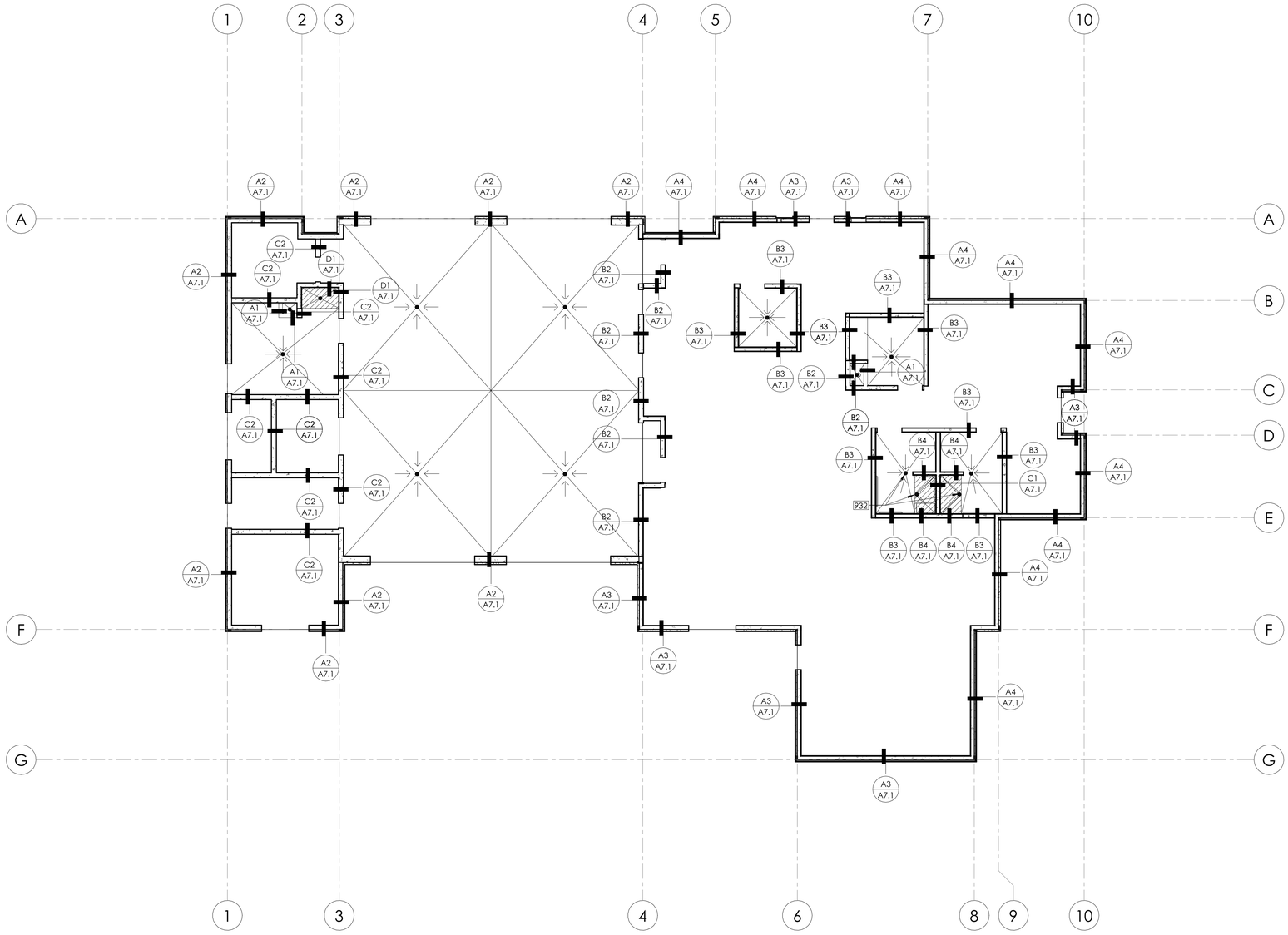
SHEET TITLE:
ROOF PLAN

SHEET NUMBER:
A2.4



D1 A2.5 CURB PLAN
SCALE: 1/8" = 1'-0"

CONSTRUCTION NOTES

932 FLOOR DRAINS, TYP. PER DETAIL C2/A7.4. SEE PLUMBING OTHERWISE

CURB LEGEND

- CONCRETE CURB, SEE STRUCTURAL AND CURB DETAILS
- CONCRETE CURB, SEE STRUCTURAL AND CURB DETAILS
- 6" HIGH CURB
- DEPRESSED SLAB, SEE STRUCTURAL

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PROJECT NUMBER:

211101

SHEET TITLE:

SLAB AND CURB PLAN

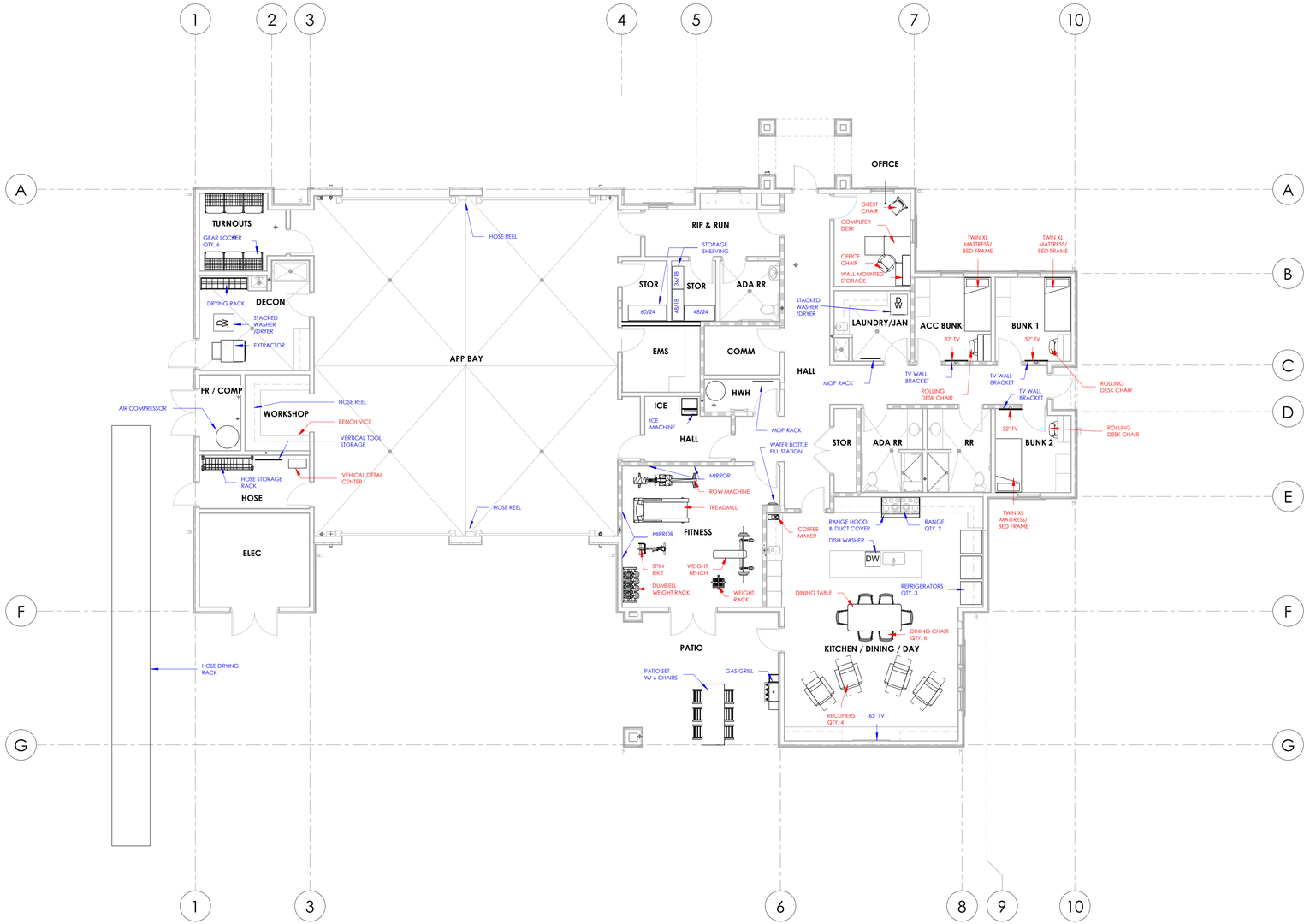
SHEET NUMBER:

A2.5

CONSTRUCTION NOTES

SEE CUT SHEET PACKAGE FOR ITEMS INCLUDED IN BASE BID

SEE FF&E PACKAGE FOR OWNER FURNISHED ITEMS



D1 A2.6 FURNITURE PLAN
SCALE: 1/8" = 1'-0"

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PROJECT NUMBER:

211101

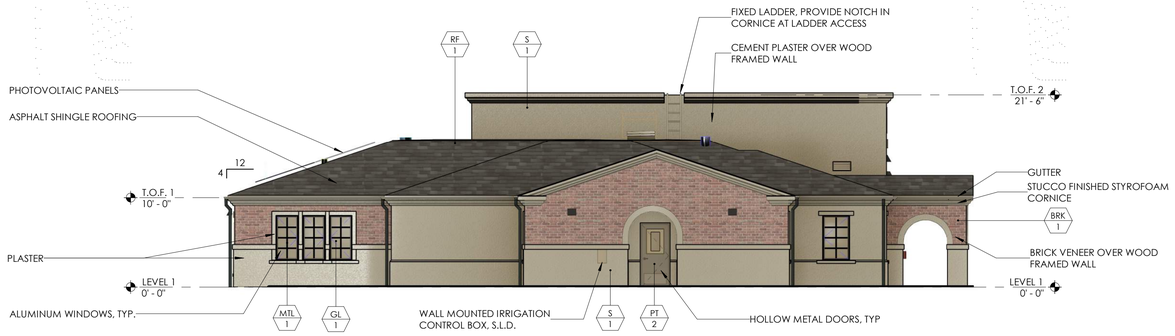
SHEET TITLE:

FITMENT PLAN

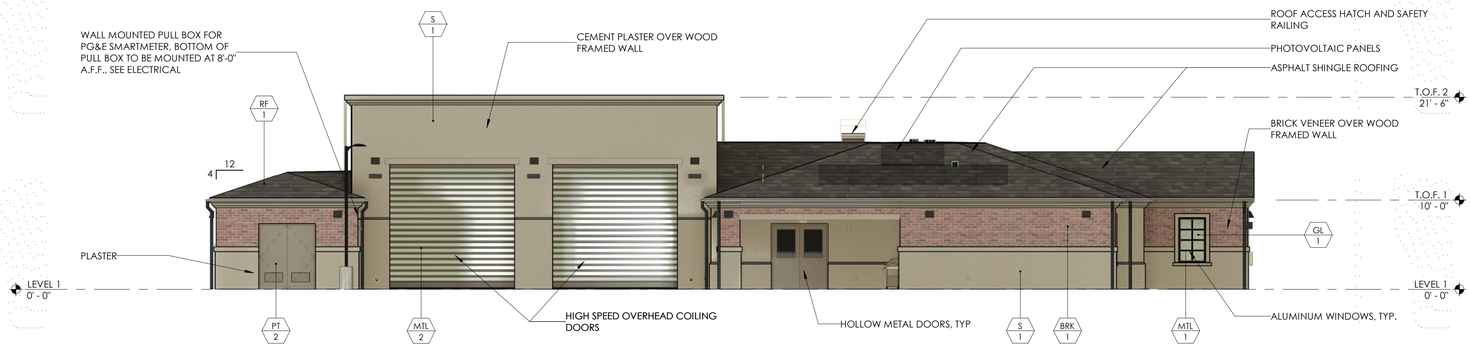
SHEET NUMBER:

A2.6

A1 / A3.1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



B1 / A3.1 EAST ELEVATION
SCALE: 1/8" = 1'-0"



C1 / A3.1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

D1 / A3.1 WEST ELEVATION
SCALE: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE

MATERIAL	TYPE	DESCRIPTION	
		NAME	COLOR
BRK	1	BRICK VENEER	SANDMOLD - TIVOLI
CMU	1	CONCRETE MASONRY UNIT	SPLITFACE -128
GL	1	GLAZING	CLEAR
MTL	1	FACTORY FINISH	DARK MEDIUM BRONZE
MTL	2	FACTORY FINISH	RAL 7013 - BROWN GREY
MTL	3	FACTORY FINISH	PPG DURANAR - NATURAL SUADE
MTL	4	FACTORY FINISH	TO MATCH PT-2
MTL	5	FACTORY FINISH	BRONZE
PT	1	PAINT	NATURE'S ESSENTIALS
PT	2	PAINT	DEEP CREEK
RF	1	ASPHALT SHINGLES	CLIFFSIDE GRAY
S	1	STUCCO	PT-1

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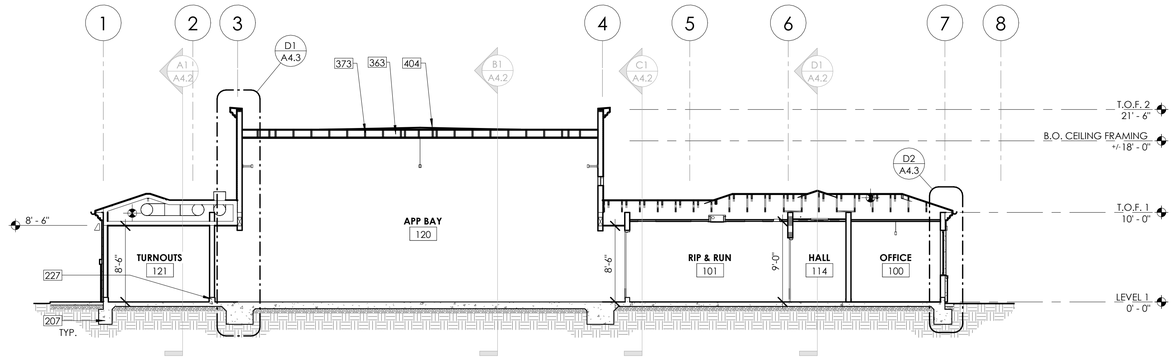
SHEET TITLE:

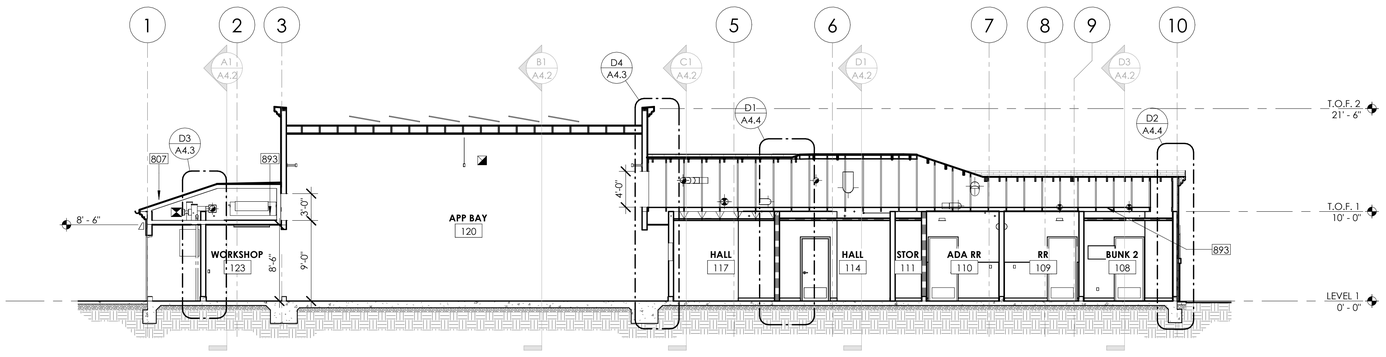
EXTERIOR ELEVATIONS

SHEET NUMBER:

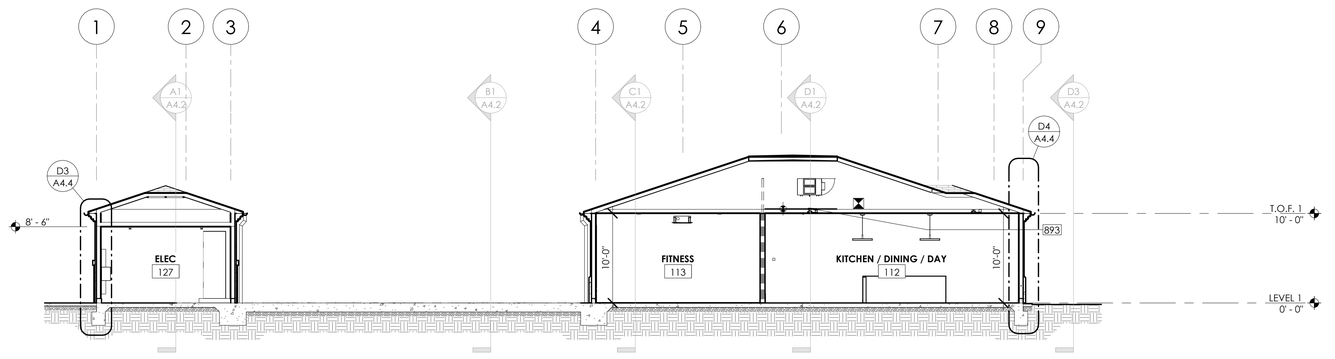
A3.1



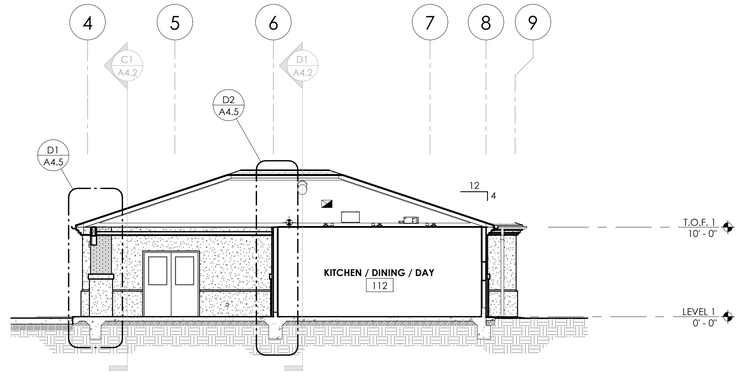
A1 BUILDING SECTION
A4.1 SCALE: 1/8" = 1'-0"



B1 BUILDING SECTION
A4.1 SCALE: 1/8" = 1'-0"



C1 BUILDING SECTION
A4.1 SCALE: 1/8" = 1'-0"



D1 BUILDING SECTION
A4.1 SCALE: 1/8" = 1'-0"

CONSTRUCTION NOTES

207 CONCRETE CURB, SEE SLAB AND CURB PLAN
227 WALL CURB
363 GLU-LAM BEAM, SEE STRUCTURAL
373 LAMINATED VENEER LUMBER BEAM, REFERENCE STRUCTURAL DRAWINGS
404 SINGLE PLY MEMBRANE ROOF,SEE: B1 / A7.6
807 ASPHALT SHINGLE ROOFING
893 ATTIC SHEATHING FOR MECHANICAL ACCESS, SEE STRUCTURAL

NOTES

1. SEE EXTERIOR ELEVATIONS FOR EXTERIOR FINISHES AND SEE INTERIOR FINISH SCHEDULE FOR INTERIOR FINISHES.
2. ALL 1 HR RATED INTERIOR WALLS ARE TO TERMINATE AT THE UNDERSIDE OF ROOF TRUSSES WITH A 1 HR RATED HORIZONTAL SHAFTWALL CEILING JUST BELOW THE BOTTOM CHORD OF THE TRUSSES. SEE DETAIL C1/A7.7
3. PROVIDE INSULATION BELOW ROOF SHEATING PER C1 / A7.6.
4. PROVIDE R-19 BATT INSULATION AT EXTERIOR WALLS.
5. PROVIDE SOUND ATTENUATION BATT INSULATION AT INTERIOR WALLS.
6. PROVIDE SOUND ATTENUATION BATT INSULATION ABOVE CEILINGS AT ALL RESTROOMS AND ROOMS WITH EQUIPMEENT.
7. NOTES AND SYMBOLS ARE TO APPLY AT ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION, SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY. NO LIMITATION OF APPLICATION SHALL BE CONSTRUED WITHOUT SPECIFIC NOTATION.
8. ALL PENETRATIONS THROUGH EXTERIOR ROOF AND WALLS, AND FLOORS SHALL BE FLASHED AND SEALED WEATHER TIGHT. ALL PENETRATIONS THROUGH THE BUILDING INSULATION ENVELOPE SHALL BE PACKED WITH INSULATION.
9. PROVIDE OPENING FLASHINGS AT ALL WINDOWS, DOORS, LOUVERS AND SIMILAR WALL OPENINGS PER DETAIL A1/A7.4
10. PROVIDE FIRESTOPPING AT CONCEALED SPACES, INCLUDING FURRED SPACES, CEILING/FLOOR LEVELS AND 10'-0" INTERVALS ALONG LENGTHS OF WALL, SOFFITS, DROP CEILINGS, AND COVE CEILINGS PER CBC 718.
11. REFER TO MECHANICAL DRAWINGS FOR REGISTERS AND VENTS NOT OTHERWISE SHOWN.
12. REFER TO ELECTRICAL DRAWINGS FOR HORNS, SPEAKERS, PULL STATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN.

LICENSED ARCHITECT
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PROJECT:

CITY OF MORGAN HILL

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NOT FOR CONSTRUCTION

PROJECT NUMBER:

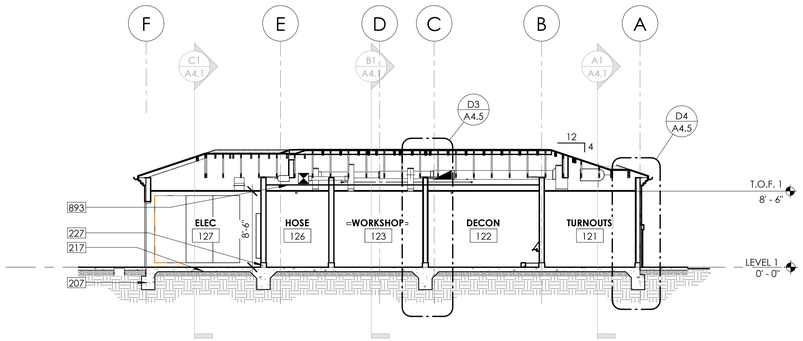
211101

SHEET TITLE:

BUILDING SECTIONS

SHEET NUMBER:

A4.1



A1 A4.2 BUILDING SECTION
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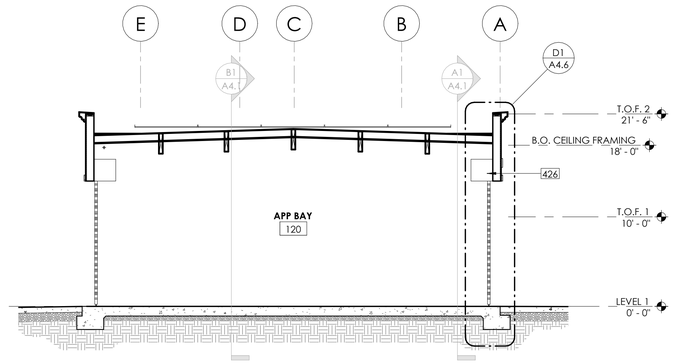

B1 A4.2 BUILDING SECTION
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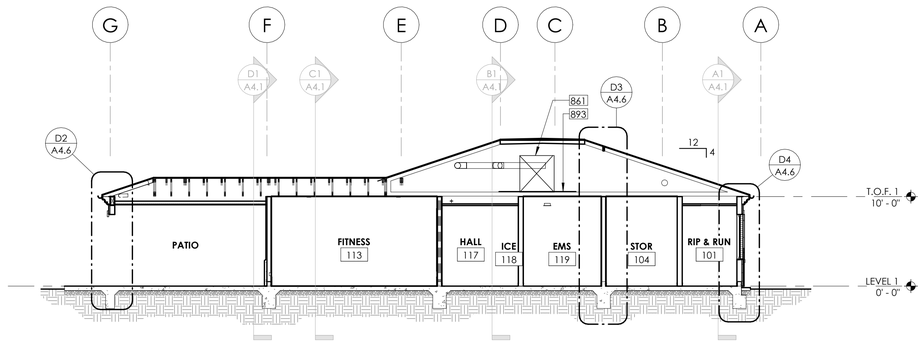

C1 A4.2 BUILDING SECTION
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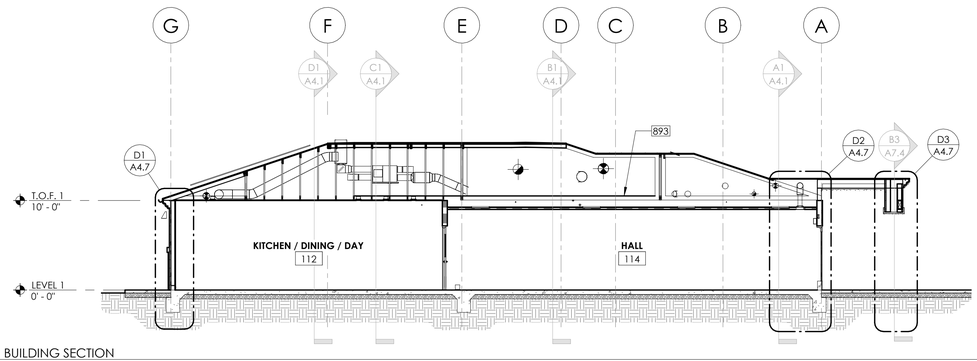
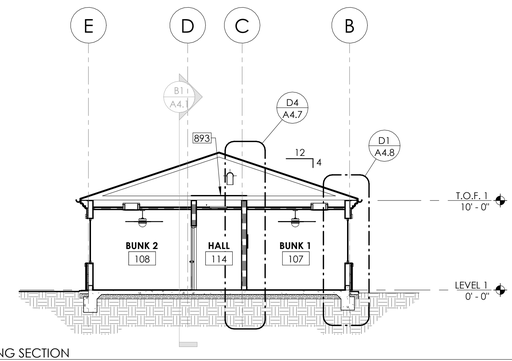


D1 A4.2 BUILDING SECTION
SCALE: 1/8" = 1'-0"



D3 A4.2 BUILDING SECTION
SCALE: 1/8" = 1'-0"

CONSTRUCTION NOTES

207 CONCRETE CURB, SEE SLAB AND CURB PLAN
217 CONCRETE SLAB, SEE STRUCTURAL
227 WALL CURB
426 OVERHEAD SECTIONAL DOOR
861 ATTIC ACCESS OPENING
893 ATTIC SHEATHING FOR MECHANICAL ACCESS, SEE STRUCTURAL

NOTES

1. SEE EXTERIOR ELEVATIONS FOR EXTERIOR FINISHES AND SEE INTERIOR FINISH SCHEDULE FOR INTERIOR FINISHES.
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3. PROVIDE INSULATION BELOW ROOF SHEATING PER C1 / A7.6.
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9. PROVIDE OPENING FLASHINGS AT ALL WINDOWS, DOORS, LOUVERS AND SIMILAR WALL OPENINGS PER DETAIL A1/A7.4
10. PROVIDE FIRESTOPPING AT CONCEALED SPACES, INCLUDING FURRED SPACES, CEILING/FLOOR LEVELS AND 10'-0" INTERVALS ALONG LENGTHS OF WALL, SOFFITS, DROP CEILINGS, AND COVE CEILINGS PER CBC 718.
11. REFER TO MECHANICAL DRAWINGS FOR REGISTERS AND VENTS NOT OTHERWISE SHOWN.
12. REFER TO ELECTRICAL DRAWINGS FOR HORNS, SPEAKERS, PULL STATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN.

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NOT FOR CONSTRUCTION

PROJECT NUMBER:

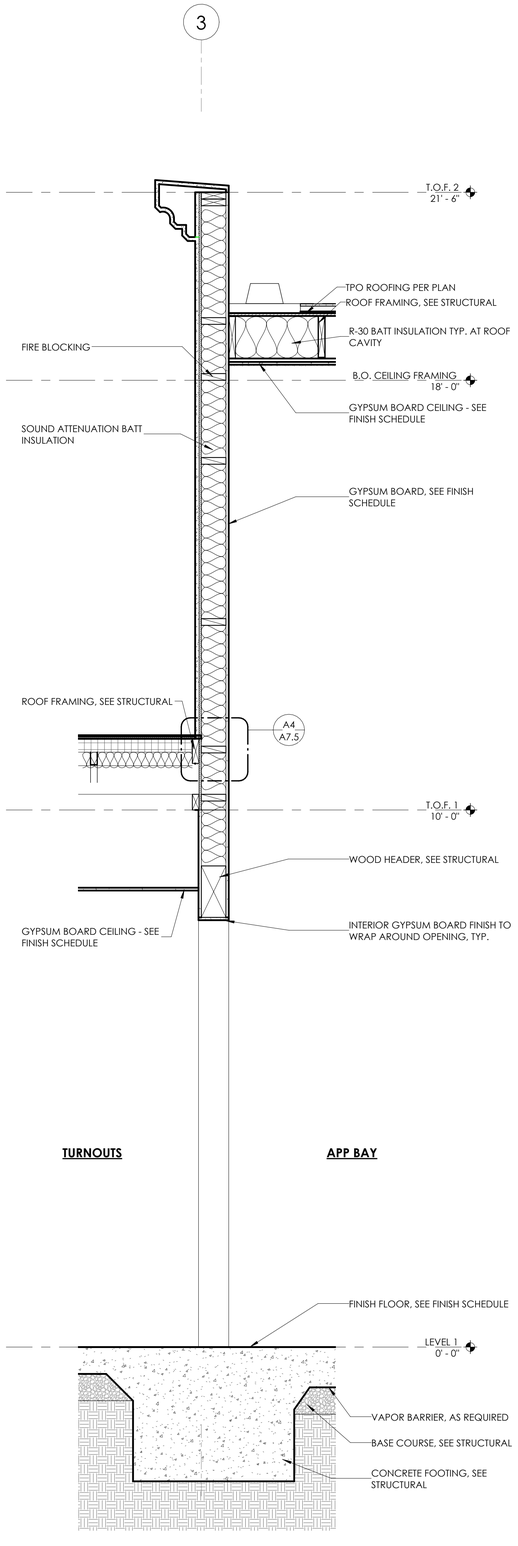
211101

SHEET TITLE:

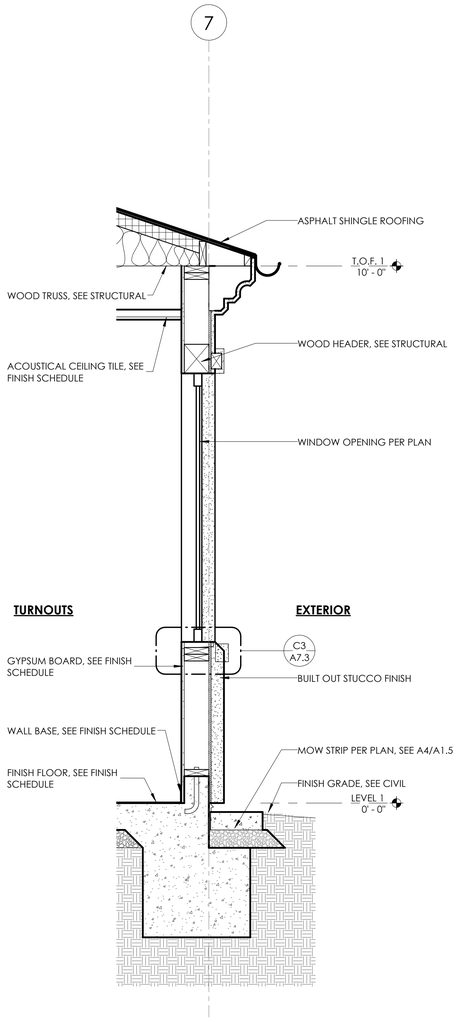
BUILDING SECTIONS

SHEET NUMBER:

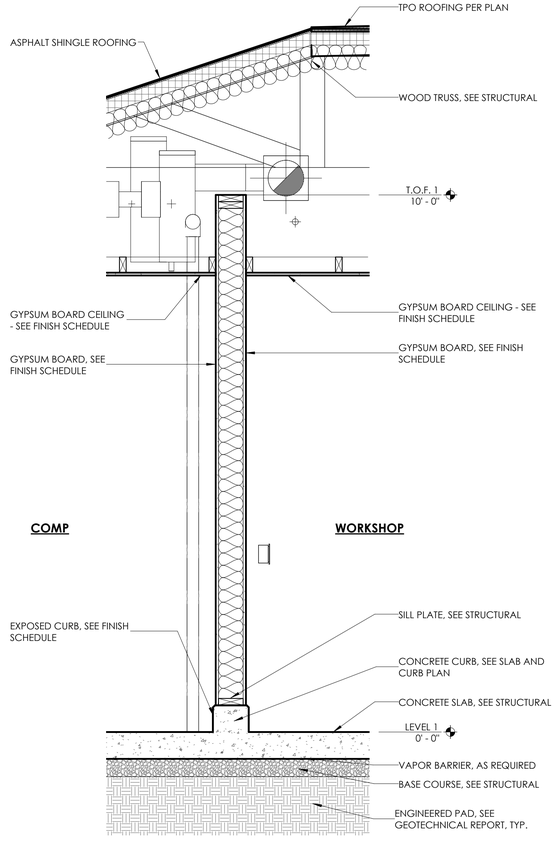
A4.2



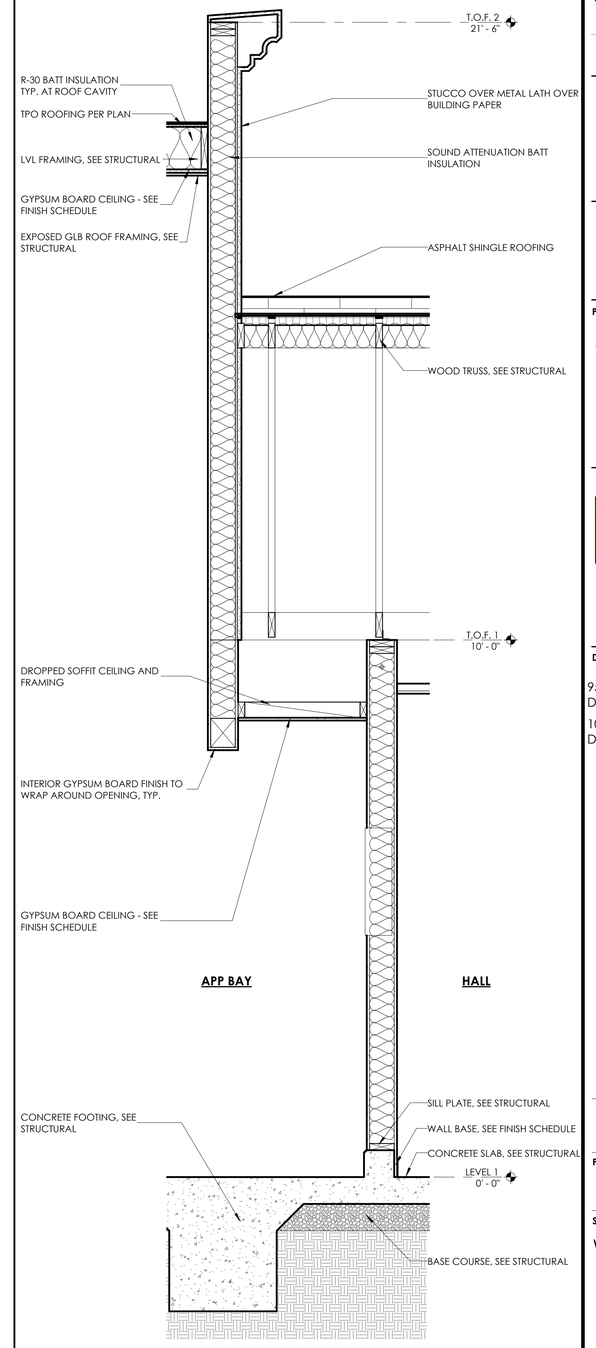
D1 A4.3 WALL SECTION 1
SCALE: 3/4" = 1'-0"



D2 A4.3 WALL SECTION 2
SCALE: 3/4" = 1'-0"



D3 A4.3 WALL SECTION 3
SCALE: 3/4" = 1'-0"



D4 A4.3 WALL SECTION 4
SCALE: 3/4" = 1'-0"

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CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

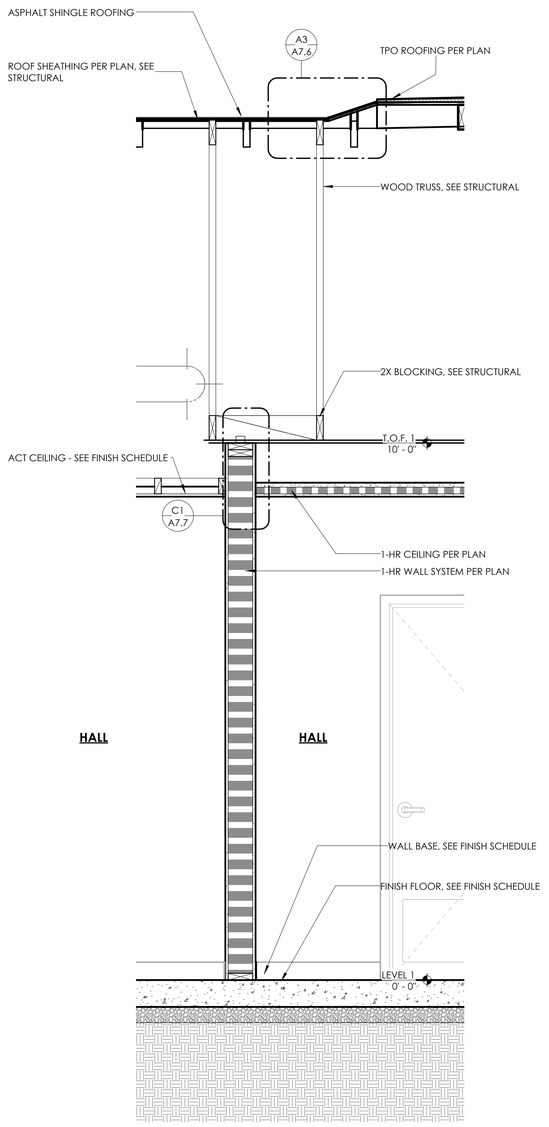
211101

SHEET TITLE:

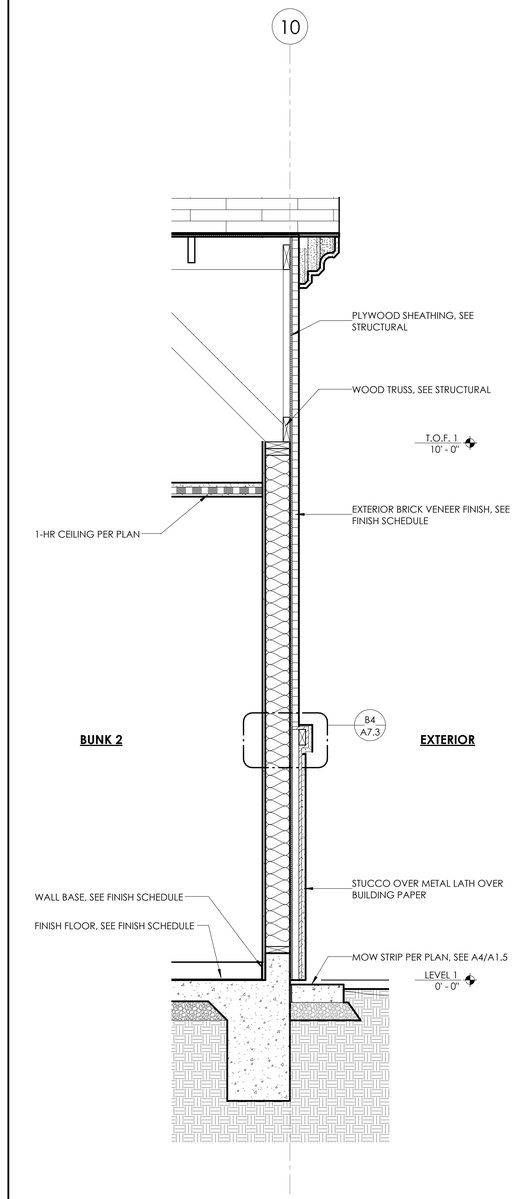
WALL SECTIONS

SHEET NUMBER:

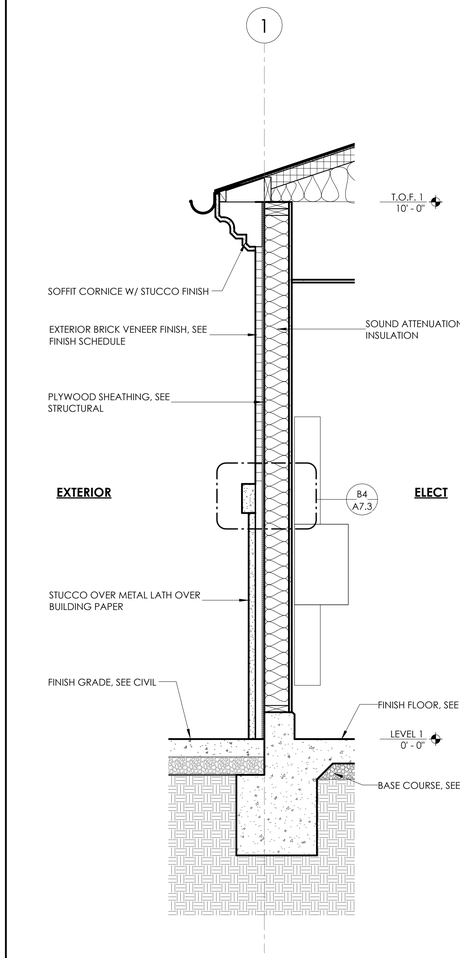
A4.3



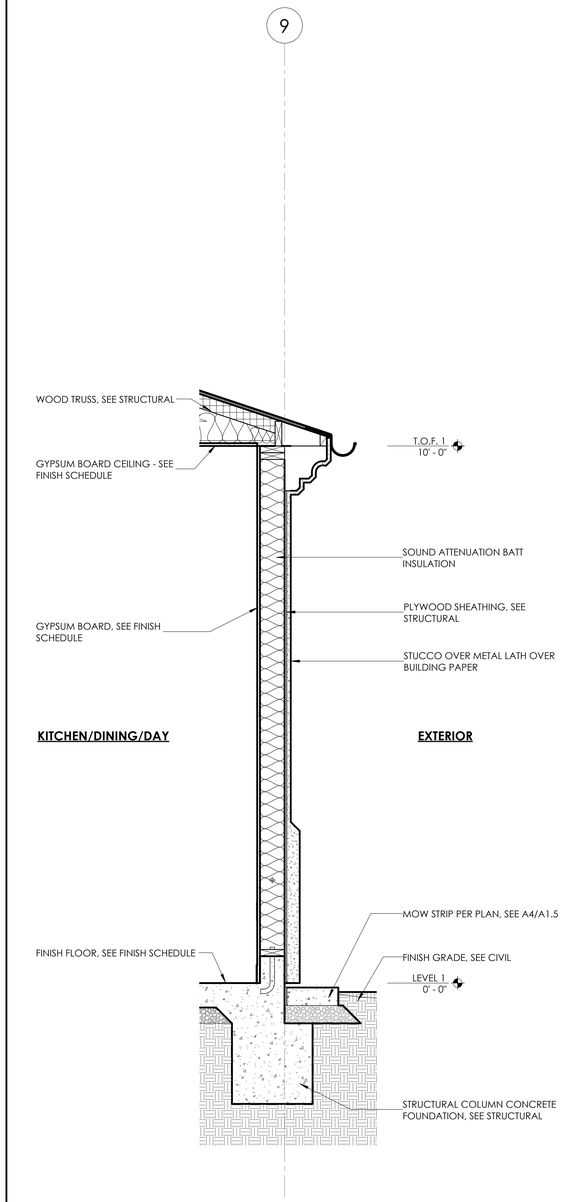
D1 WALL SECTION 5
A4.4 SCALE: 3/4" = 1'-0"



D2 WALL SECTION 6
A4.4 SCALE: 3/4" = 1'-0"



D3 WALL SECTION 7
A4.4 SCALE: 3/4" = 1'-0"



D4 WALL SECTION 8
A4.4 SCALE: 3/4" = 1'-0"

LICENSED ARCHITECT
JEFFREY A. KATZ
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STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

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PROJECT NUMBER:

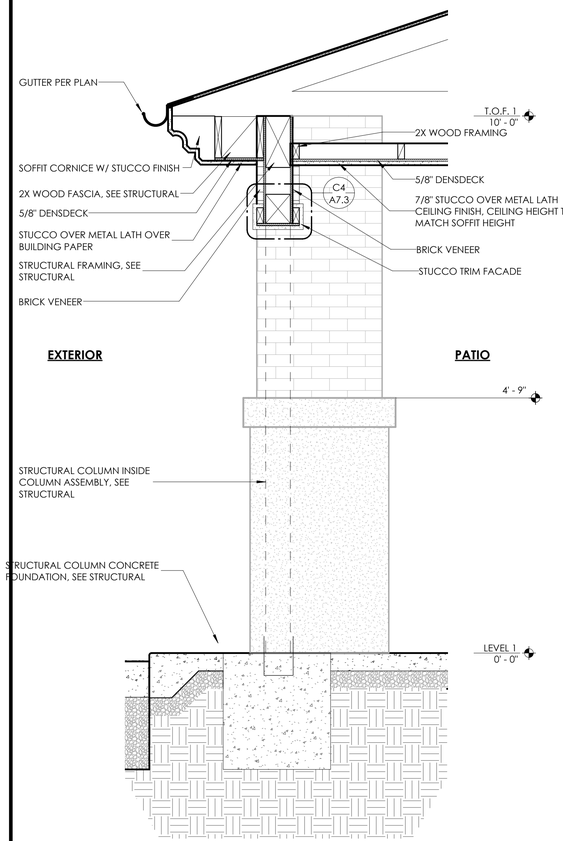
211101

SHEET TITLE:

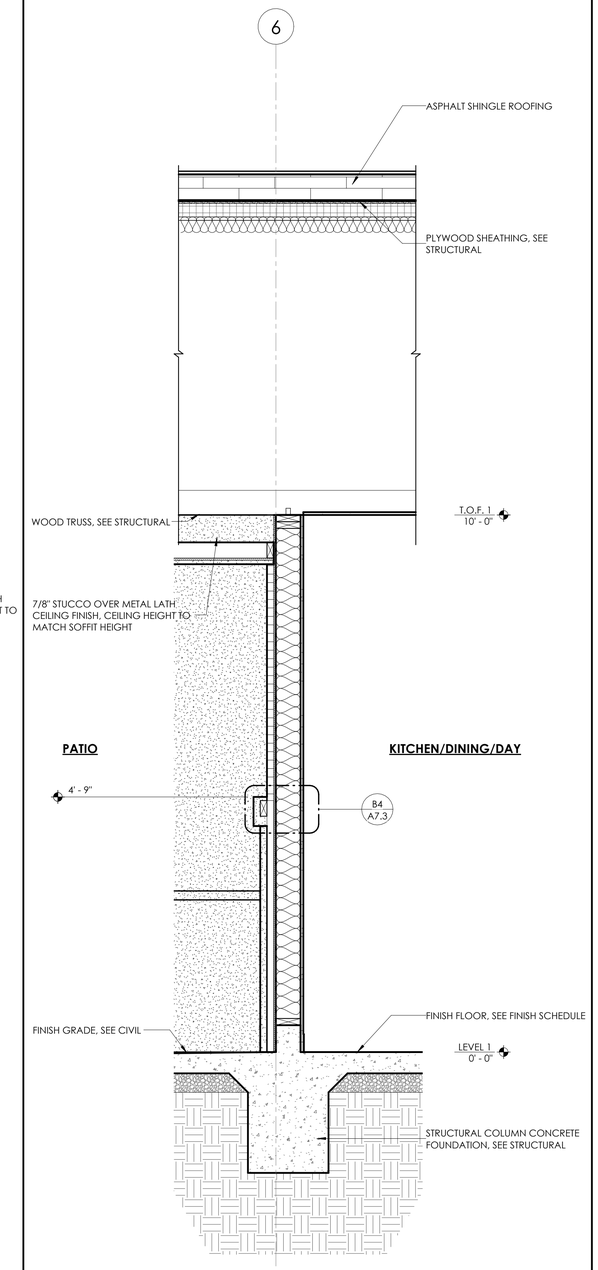
WALL SECTIONS

SHEET NUMBER:

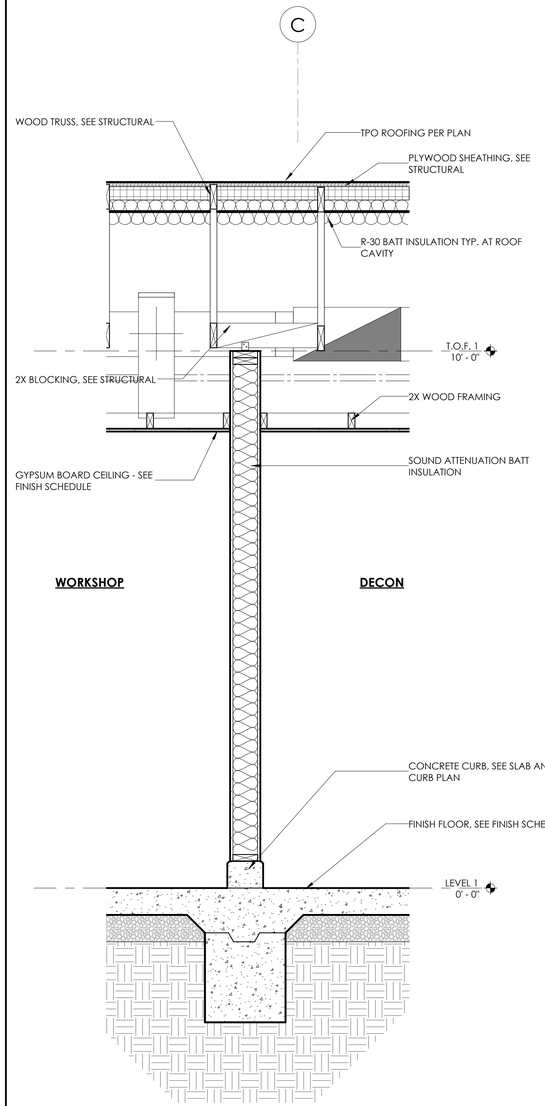
A4.4



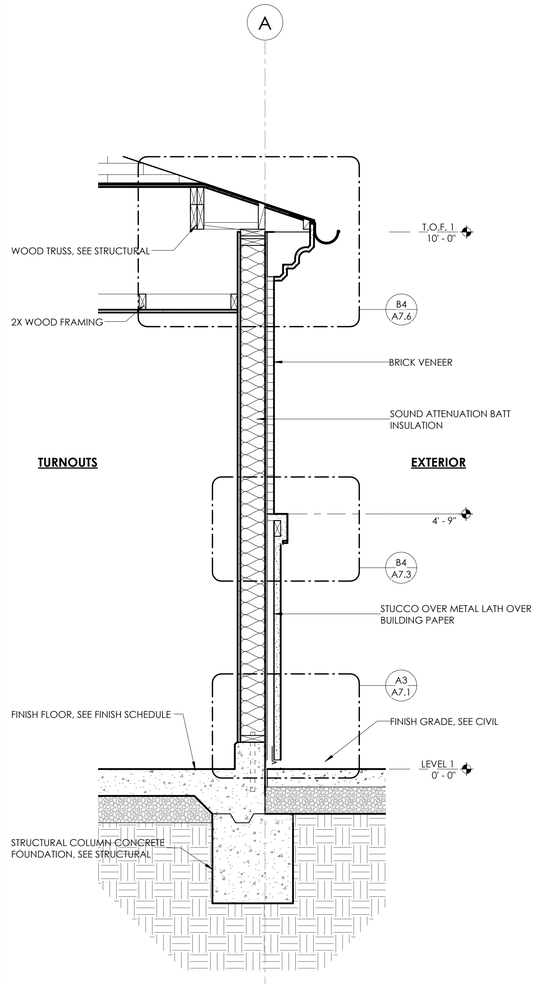
D1 WALL SECTION 9
A4.5 SCALE: 3/4" = 1'-0"



D2 WALL SECTION 10
A4.5 SCALE: 3/4" = 1'-0"



D3 WALL SECTION 11
A4.5 SCALE: 3/4" = 1'-0"



D4 WALL SECTION 12
A4.5 SCALE: 3/4" = 1'-0"

LICENSED ARCHITECT
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PROJECT:

CITY OF MORGAN HILL

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NOT FOR CONSTRUCTION

PROJECT NUMBER:

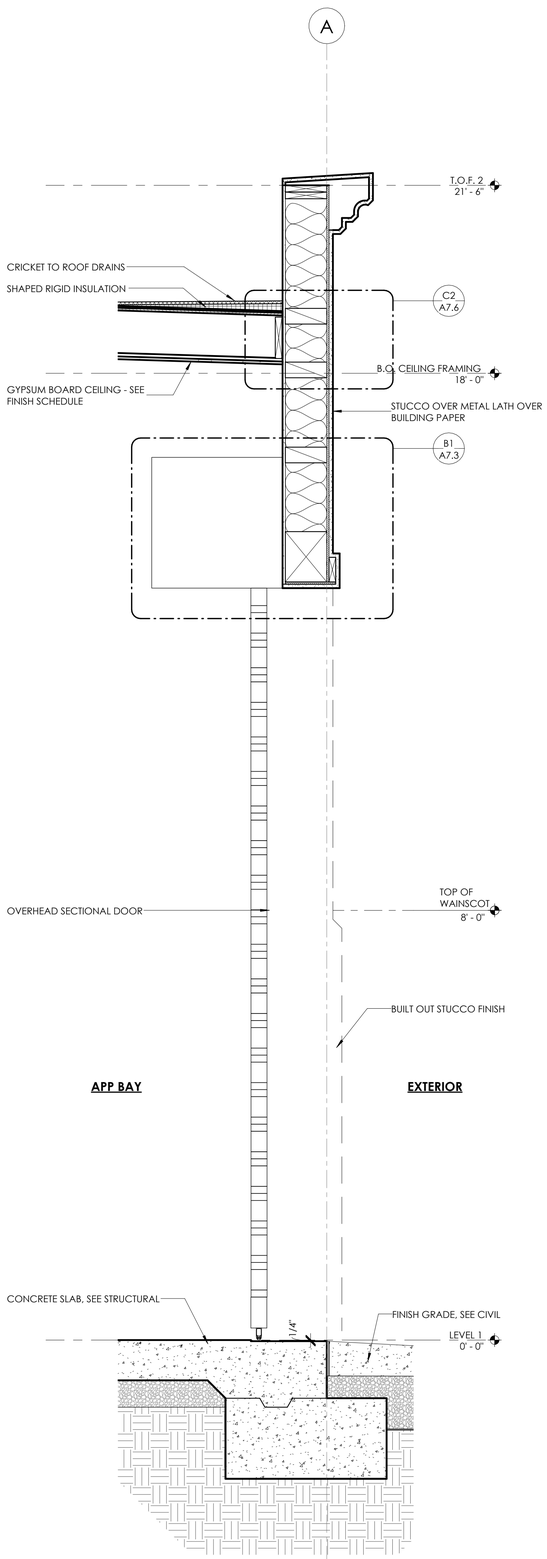
211101

SHEET TITLE:

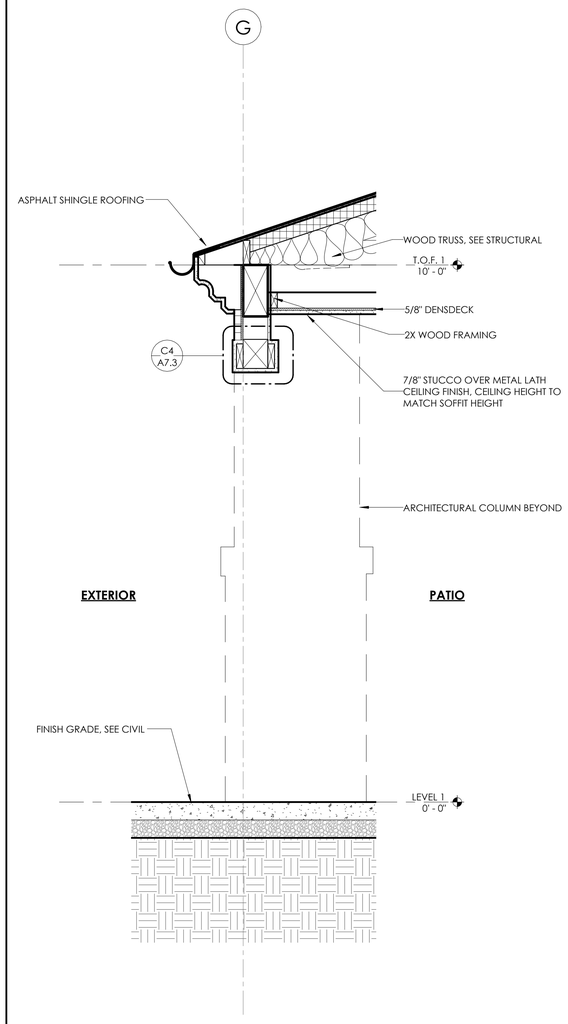
WALL SECTIONS

SHEET NUMBER:

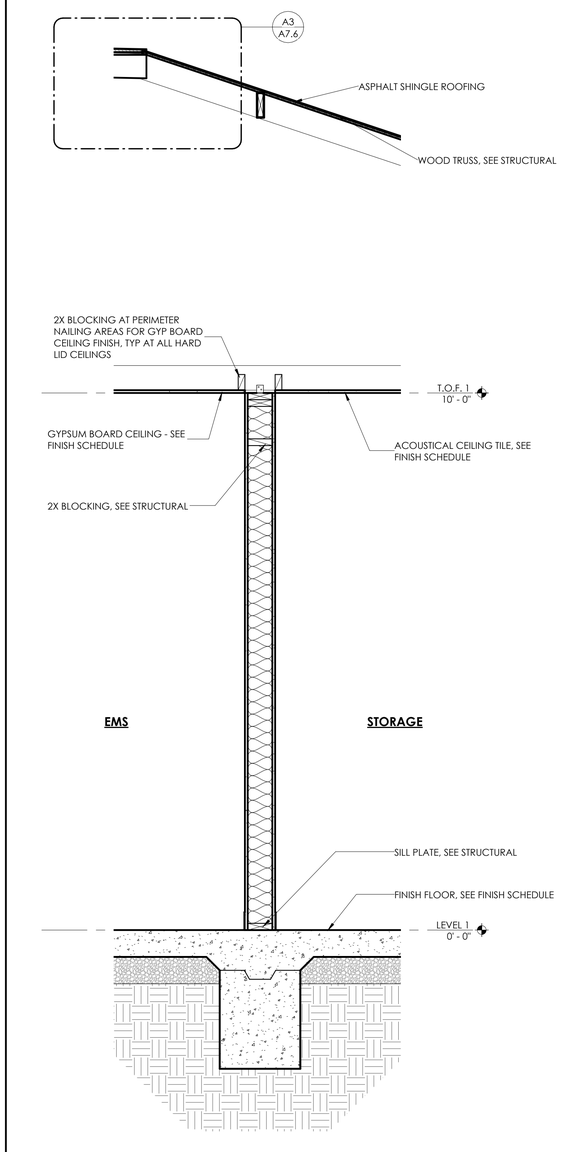
A4.5



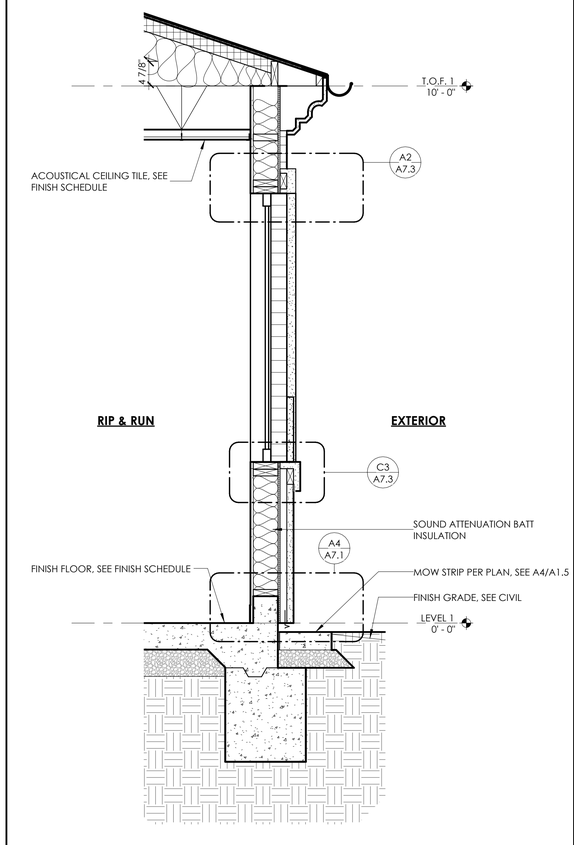
D1 A4.6 WALL SECTION 13
SCALE: 3/4" = 1'-0"



D2 A4.6 WALL SECTION 14
SCALE: 3/4" = 1'-0"



D3 A4.6 WALL SECTION 15
SCALE: 3/4" = 1'-0"



D4 A4.6 WALL SECTION 16
SCALE: 3/4" = 1'-0"

LICENSED ARCHITECT
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
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DESCRIPTION:	DATE:
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NOT FOR CONSTRUCTION

PROJECT NUMBER:

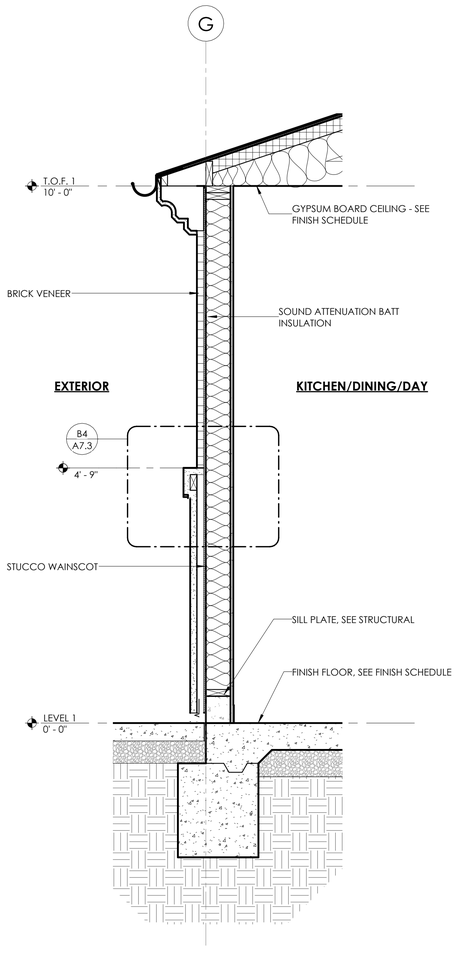
211101

SHEET TITLE:

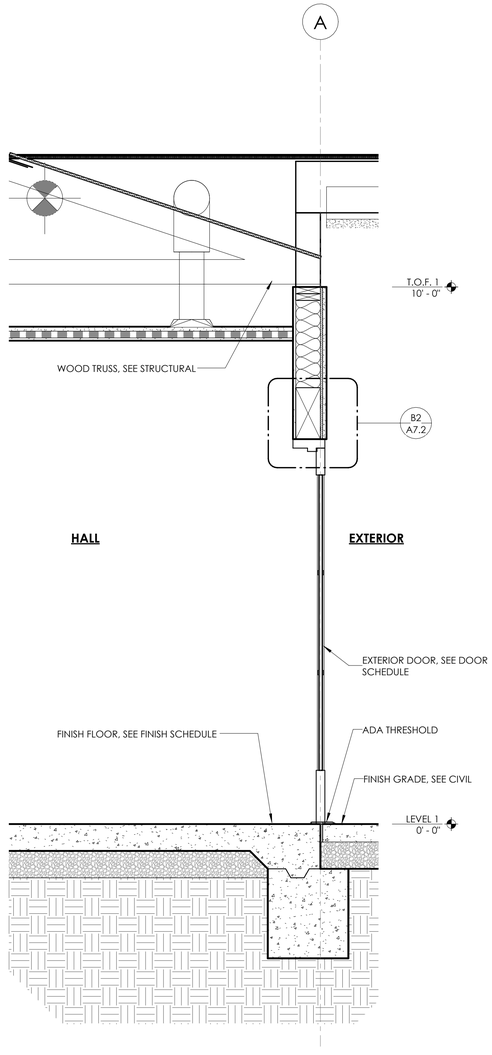
WALL SECTIONS

SHEET NUMBER:

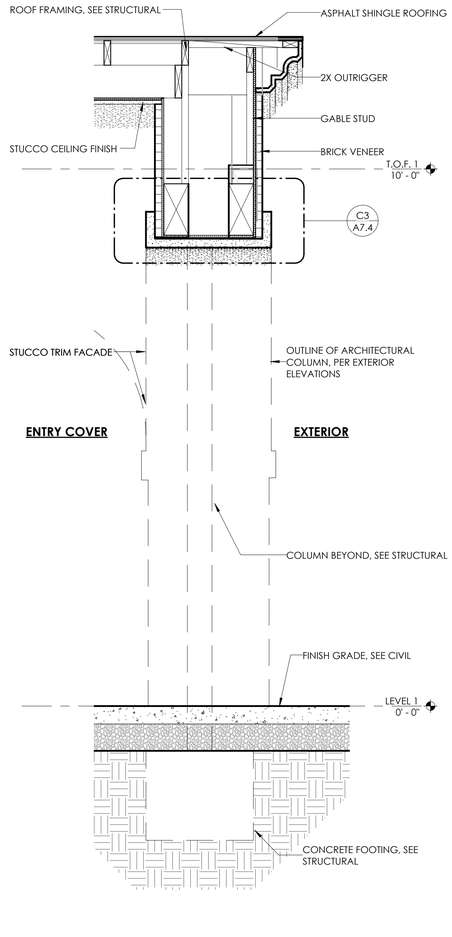
A4.6



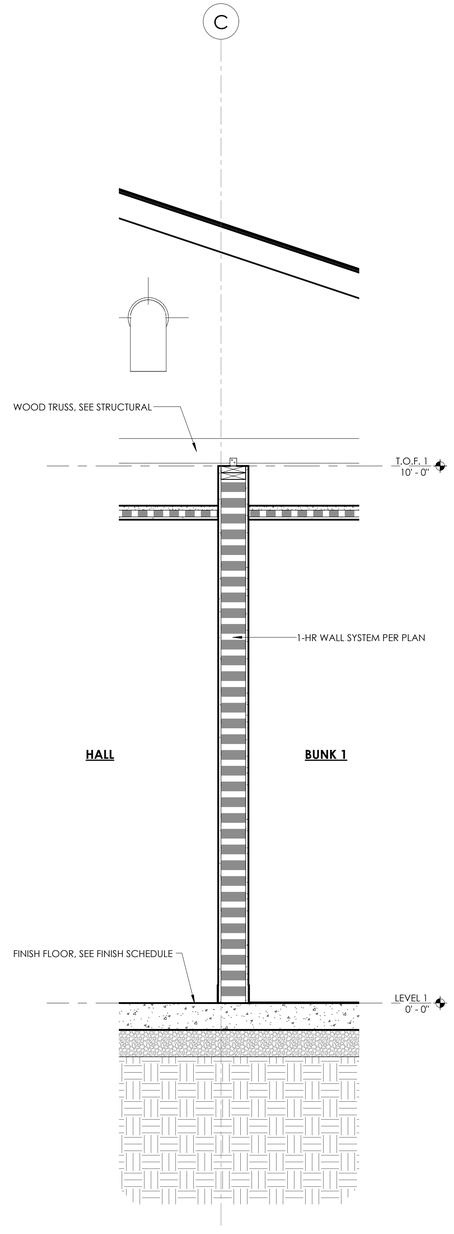
D1 A4.7 WALL SECTION 17
SCALE: 3/4" = 1'-0"



D2 A4.7 WALL SECTION 18
SCALE: 3/4" = 1'-0"



D3 A4.7 WALL SECTION 19
SCALE: 3/4" = 1'-0"



D4 A4.7 WALL SECTION 20
SCALE: 3/4" = 1'-0"

LICENSED ARCHITECT
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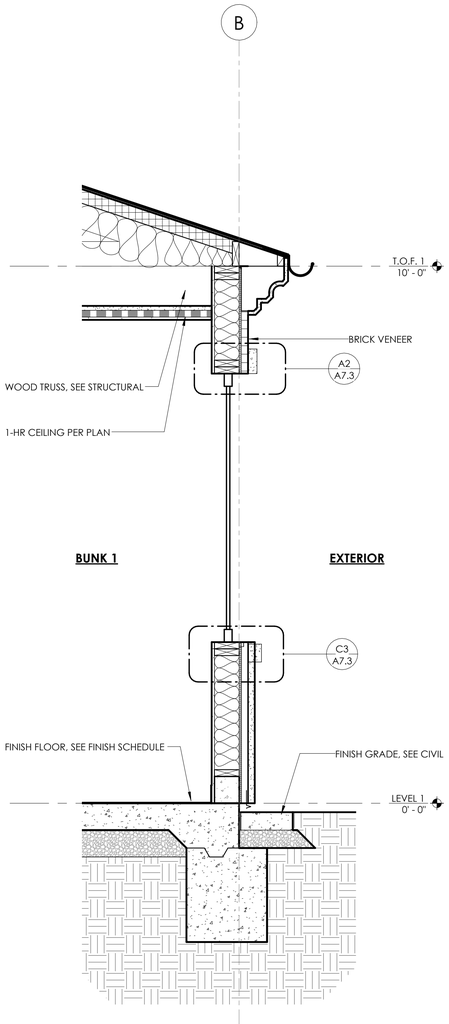
211101

SHEET TITLE:

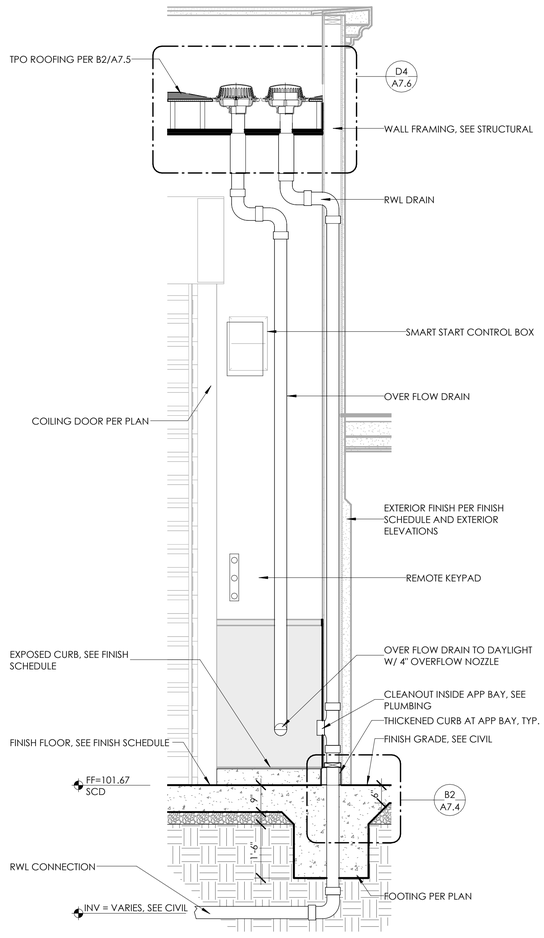
WALL SECTIONS

SHEET NUMBER:

A4.7



D1 WALL SECTION 21
A4.8 SCALE: 3/4" = 1'-0"



D2 WALL SECTION 22
A4.8 SCALE: 1/2" = 1'-0"

LICENSED ARCHITECT
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PROJECT NUMBER:

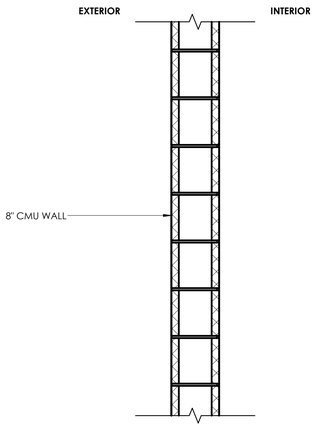
211101

SHEET TITLE:

WALL SECTIONS

SHEET NUMBER:

A4.8



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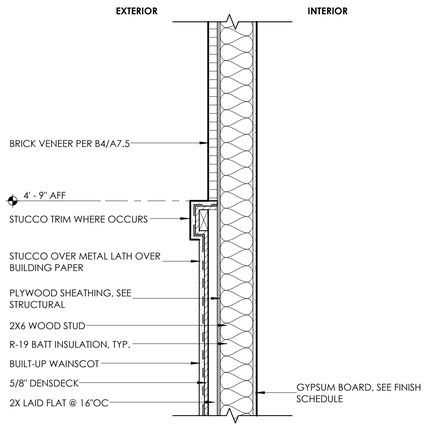
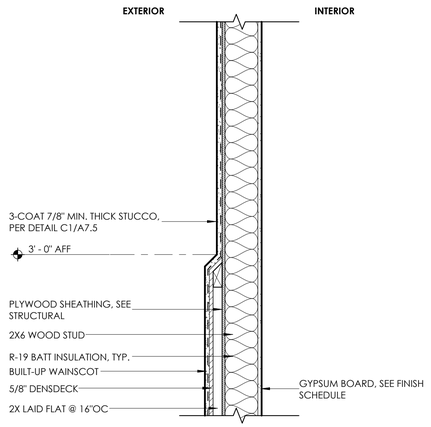


2 2A

NOTE: PROVIDE SOUND ATTENUATION INSULATION AT 2A



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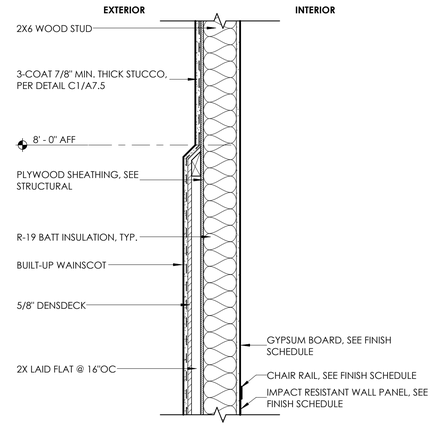

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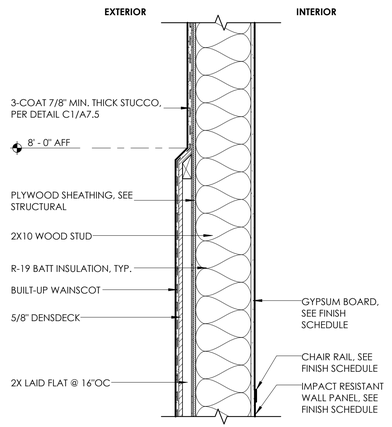

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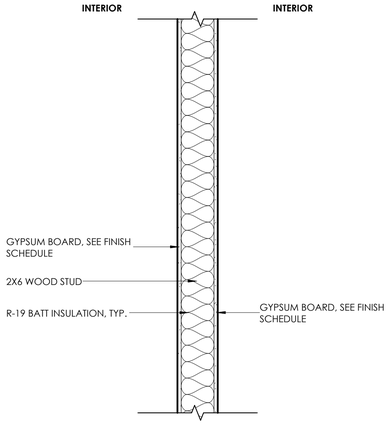
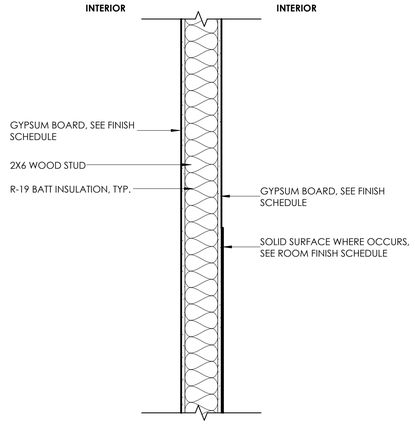


6 6A

NOTE: WALL TYPE 6A HAS A 1-HOUR FIRE RATING UL #305, SEE RATED WALL LISTING NOTES ON D1 / A7.9

RATED WALL RUNS FULL HEIGHT TO UNDERSIDE OF MANUFACTURED TRUSSES AND TERMINATES AT A RATED HORIZONTAL SHAFTWALL, SEE: C1 / A7.7

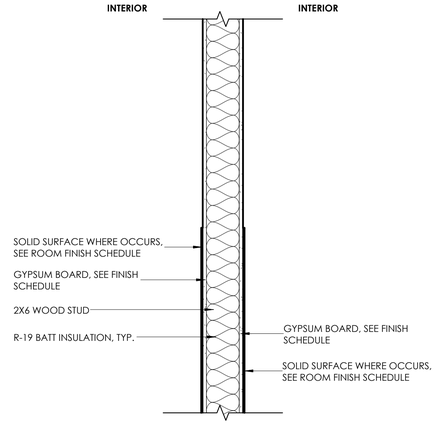
PROVIDE SOUND ATTENUATION INSULATION AT 6A



7 7A

NOTE: WALL TYPE 7A HAS A 1-HOUR FIRE RATING UL #305, SEE RATED WALL LISTING NOTES ON D1 / A7.9

RATED WALL RUNS FULL HEIGHT TO UNDERSIDE OF MANUFACTURED TRUSSES AND TERMINATES AT A RATED HORIZONTAL SHAFTWALL, SEE: C1 / A7.7



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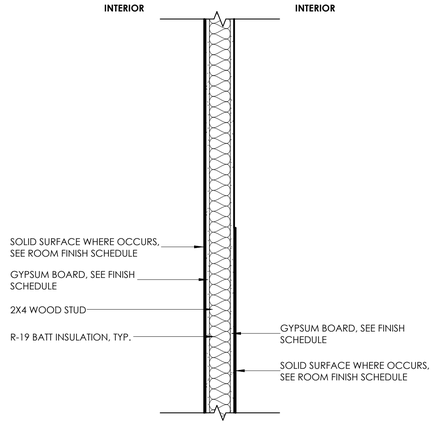

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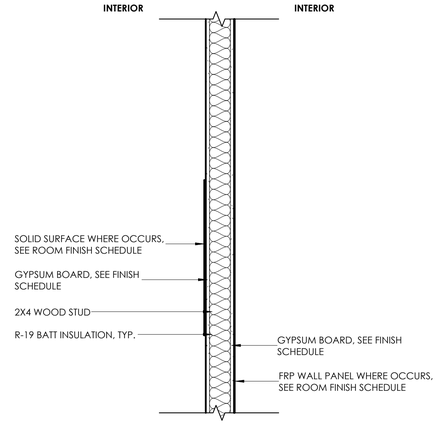

10

LICENSED ARCHITECT
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

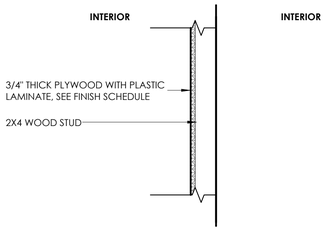
211101

SHEET TITLE:

WALL TYPES

SHEET NUMBER:

A4.9



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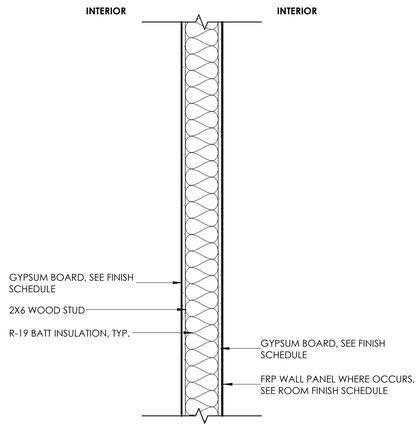
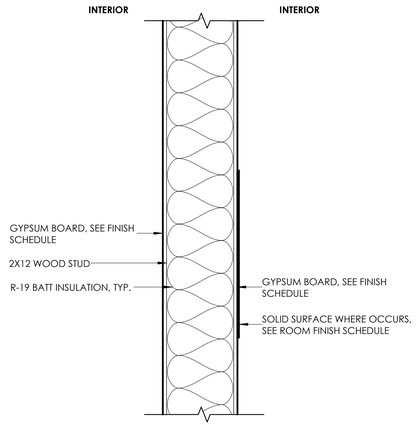


12 12A

NOTE: WALL TYPE 12A HAS A 1-HOUR FIRE RATING UL #305, SEE RATED WALL LISTING NOTES ON D1 / A7.9

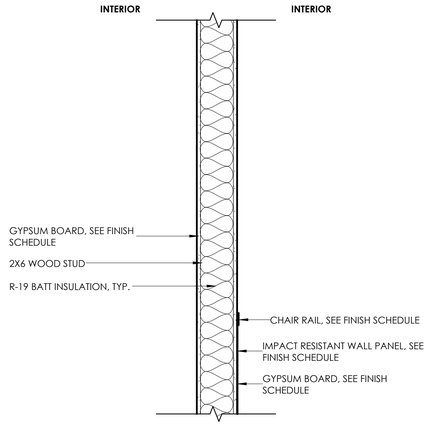
RATED WALL RUNS FULL HEIGHT TO UNDERSIDE OF MANUFACTURED TRUSSES AND TERMINATES AT A RATED HORIZONTAL SHAFTWALL. SEE: C1 / A7.7



13

NOTE: WALL TYPE 13 HAS A 1-HOUR FIRE RATING UL #305, SEE RATED WALL LISTING NOTES ON D1 / A7.9

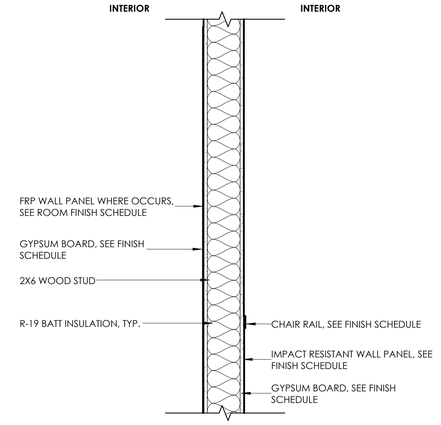
RATED WALL RUNS FULL HEIGHT TO UNDERSIDE OF MANUFACTURED TRUSSES AND TERMINATES AT A RATED HORIZONTAL SHAFTWALL. SEE: C1 / A7.7



14A 14

NOTE: WALL TYPE 14 HAS A 1-HOUR FIRE RATING UL #305, SEE RATED WALL LISTING NOTES ON D1 / A7.9

RATED WALL RUNS FULL HEIGHT TO UNDERSIDE OF MANUFACTURED TRUSSES AND TERMINATES AT A RATED HORIZONTAL SHAFTWALL. SEE: C1 / A7.7



15

LICENSED ARCHITECT
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NOT FOR CONSTRUCTION

PROJECT NUMBER:

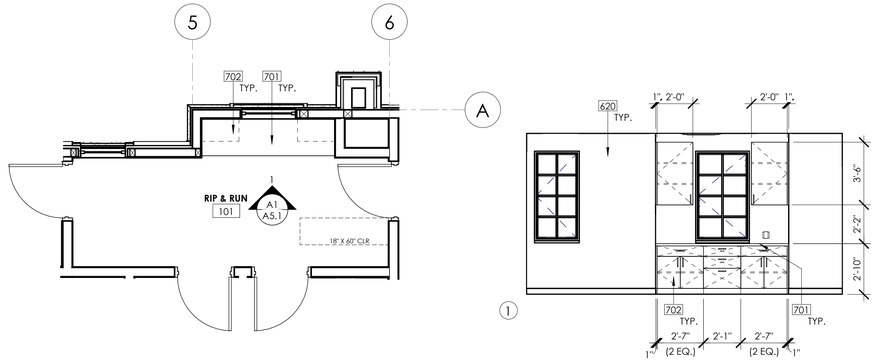
211101

SHEET TITLE:

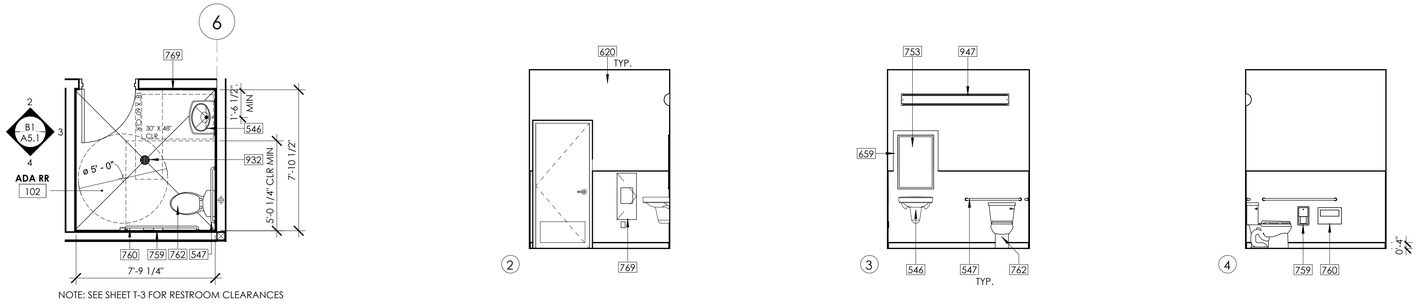
WALL TYPES

SHEET NUMBER:

A4.10

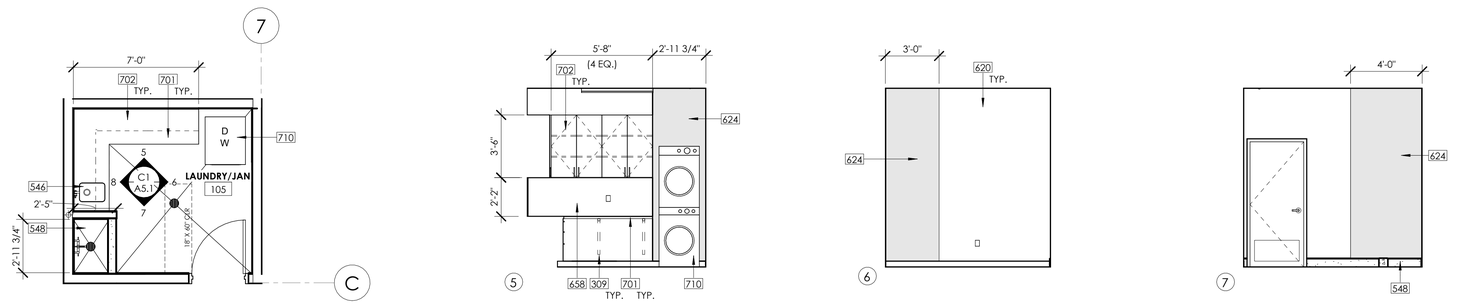


A1 A5.1 101 - RIP & RUN - ENLARGED PLAN AND INTERIOR ELEVATIONS
SCALE: 1/4" = 1'-0"

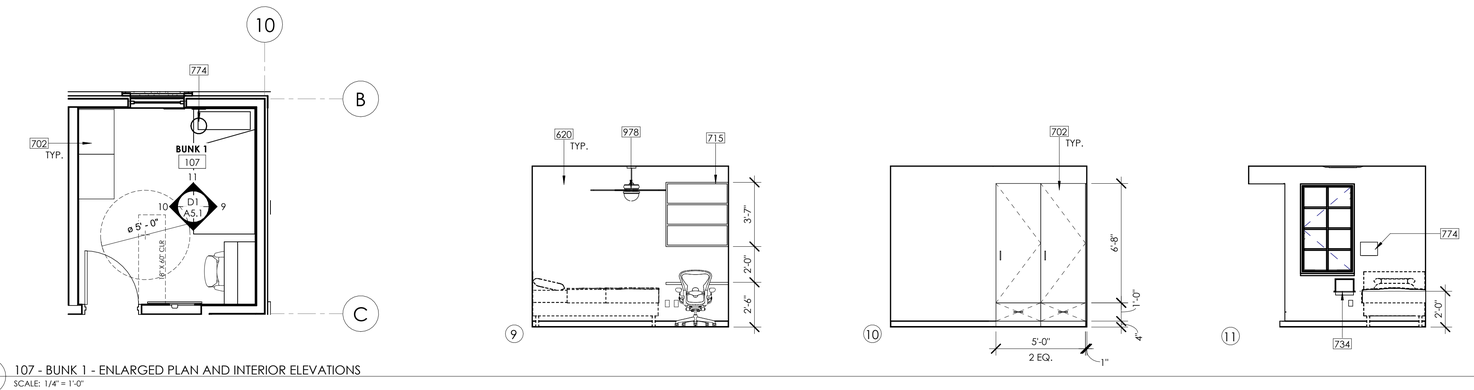


NOTE: SEE SHEET T-3 FOR RESTROOM CLEARANCES

B1 A5.1 102 - ADA RR - ENLARGED PLAN AND INTERIOR ELEVATIONS
SCALE: 1/4" = 1'-0"



C1 A5.1 105 - LAUNDRY/JAN - ENLARGED PLAN AND INTERIOR ELEVATIONS
SCALE: 1/4" = 1'-0"



D1 A5.1 107 - BUNK 1 - ENLARGED PLAN AND INTERIOR ELEVATIONS
SCALE: 1/4" = 1'-0"

CONSTRUCTION NOTES

309	COUNTERTOP SUPPORTS SEE C1/A7.8
546	SINK, SEE PLUMBING AND C1/T-4
547	GRAB BAR, SEE T-3 AND T-4
548	INTEGRATED CONCRETE MOP SINK, SEE PLUMBING
620	GYPSUM BOARD, SEE FINISH SCHEDULE
624	FRP WALL PANEL WHERE OCCURS, SEE ROOM FINISH SCHEDULE
658	SOLID SURFACE BACKSPLASH
659	SOLID SURFACE SURROUND
701	COUNTERTOP, SEE FINISH SCHEDULE
702	BUILT-IN CABINETRY, SEE SHEET A7.8 & FINISH SCHEDULE
710	WASHER AND DRYER
715	BUILT-IN SHELF SEE D1/A7.7
734	BUILT-IN PHONE CHARGING NICHE SEE A2/A7.4
753	MIRROR, SEE A3/T-3
759	TOILET PAPER DISPENSER
760	SEAT COVER DISPENSER
762	TOILET, SEE PLUMBING AND D3/T-3
769	PAPER TOWEL DISPENSER AND RECEPTACLE
774	BEDSIDE TASK LIGHT, SEE ELECTRICAL
932	FLOOR DRAINS, TYP. PER DETAIL C2/A7.4, SEE PLUMBING OTHERWISE
947	LIGHTING FIXTURE, SEE ELECTRICAL
978	44" CEILING FAN

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

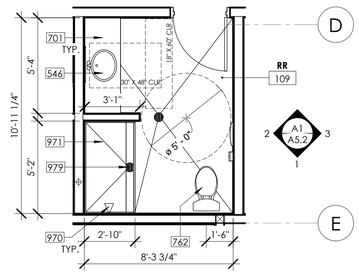
211101

SHEET TITLE:

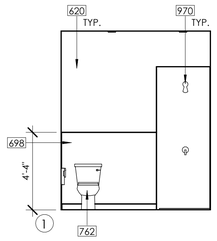
INTERIOR ELEVATIONS

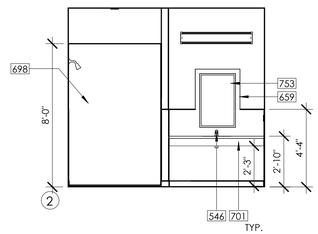
SHEET NUMBER:

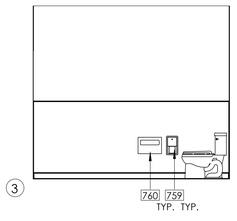
A5.1



NOTE: CONFIRM SHOWER PAN CLEARANCES PRIOR TO WALL INSTALLATION
SEE SHEET T-3 FOR RESTROOM CLEARANCES



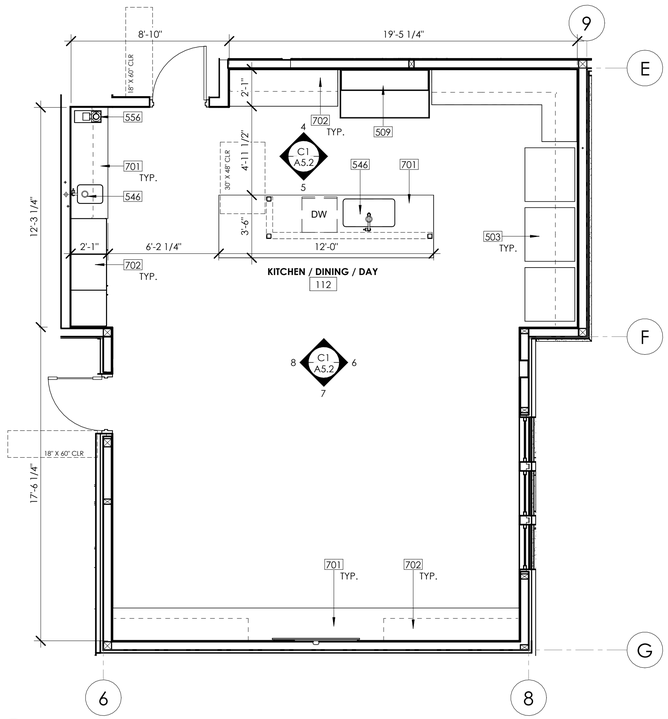


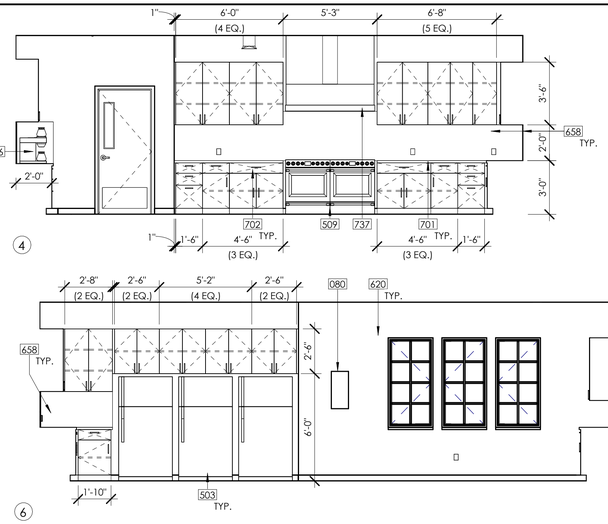


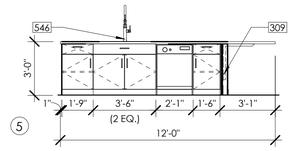
CONSTRUCTION NOTES

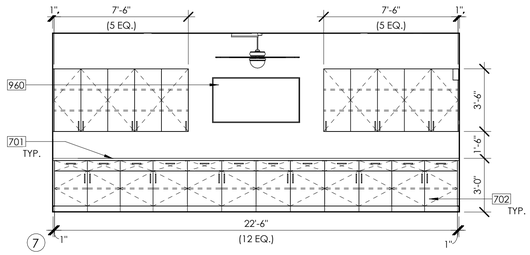
080	RECESSED FIRE EXTINGUISHER AND CABINET, SEE B1/T-4
309	COUNTERTOP SUPPORTS SEE C1/A7.8
503	REFRIGERATOR
509	STOVE/OVEN
519	BOTTLE FILL STATION
546	SINK, SEE PLUMBING AND C1/T-4
556	COFFEE MAKER
620	GYPSUM BOARD, SEE FINISH SCHEDULE
658	SOLID SURFACE BACKSPLASH
659	SOLID SURFACE SURROUND
698	SOLID SURFACE WAINSCOT
701	COUNTERTOP, SEE FINISH SCHEDULE
702	BUILT-IN CABINETRY, SEE SHEET A7.8 & FINISH SCHEDULE
737	RANGE HOOD
753	MIRROR, SEE A3/T-3
759	TOILET PAPER DISPENSER
760	SEAT COVER DISPENSER
762	TOILET, SEE PLUMBING AND D3/T-3
770	7'-0" TALL MIRROR, MOUNT 12" A.F.F.
960	OWNER FURNISHED CONTRACTOR INSTALLED TV
970	SHOWER HEAD
971	SHOWER PAN
979	TRENCH DRAIN, SEE PLUMBING

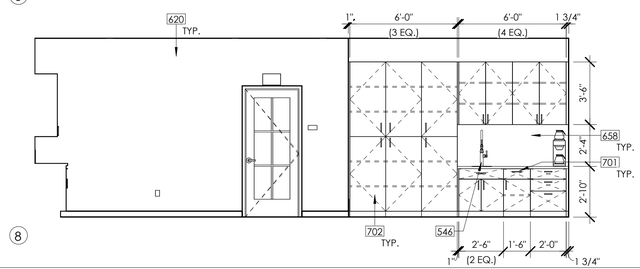
A1 A5.2 109 - RR - ENLARGED PLAN AND INTERIOR ELEVATIONS
SCALE: 1/4" = 1'-0"



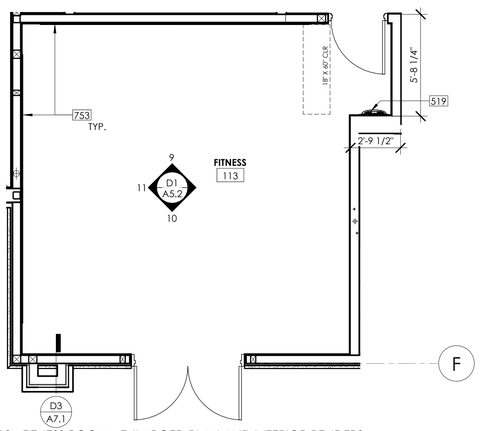


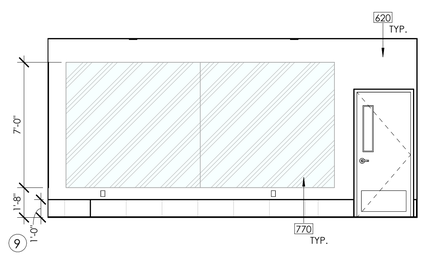


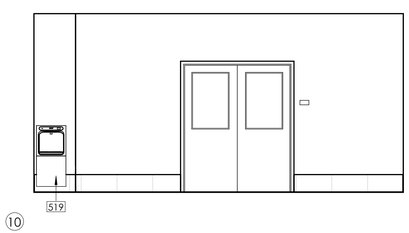


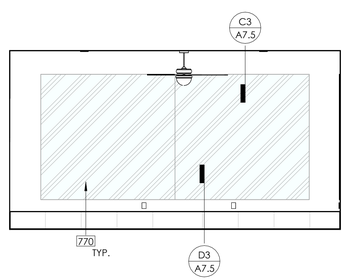


C1 A5.2 112 - KITCHEN/DINING/DAY - ENLARGED PLAN AND INTERIOR ELEVATIONS
SCALE: 1/4" = 1'-0"









D1 A5.2 113 - FITNESS ROOM - ENLARGED PLAN AND INTERIOR RENDERS
SCALE: 1/4" = 1'-0"

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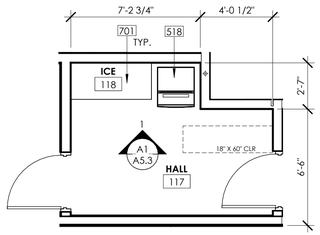
211101

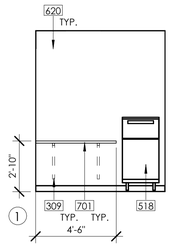
SHEET TITLE:

INTERIOR ELEVATIONS

SHEET NUMBER:

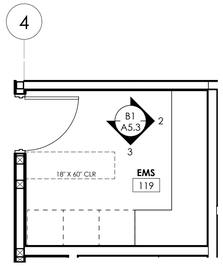
A5.2

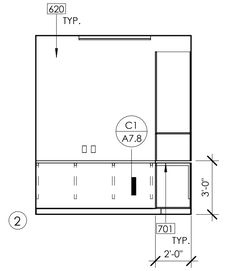


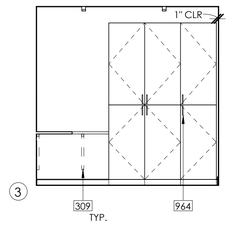


A1 / A5.3 117 - HALL - ENLARGED PLAN AND INTERIOR ELEVATIONS

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

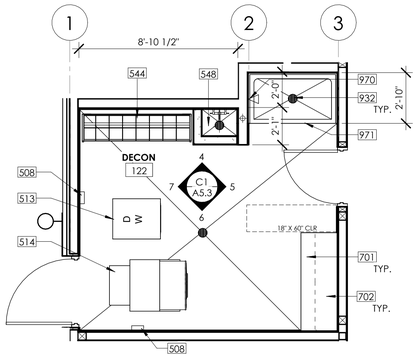




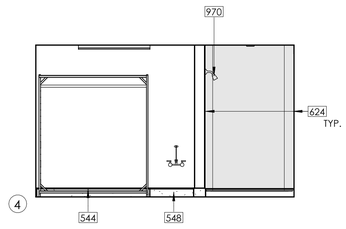


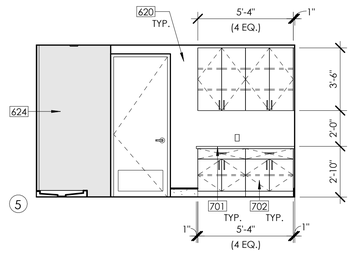
B1 / A5.3 119 - EMS - ENLARGED PLAN AND INTERIOR ELEVATIONS

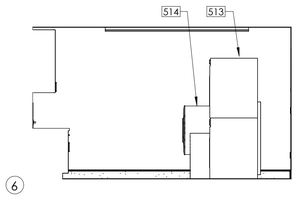
SCALE: 1/4" = 1'-0"

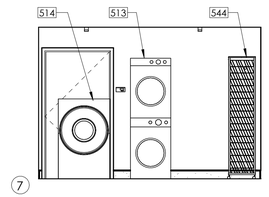


NOTE: CONFIRM SHOWER PAN CLEARANCES PRIOR TO WALL INSTALLATION



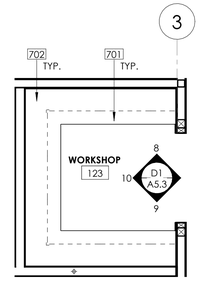


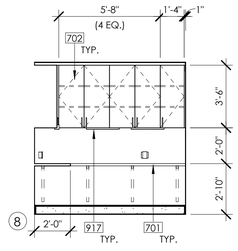


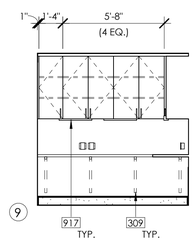


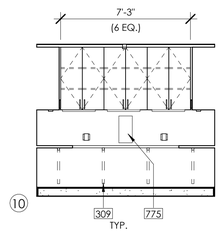
C1 / A5.3 122 - DECON - ENLARGED PLAN AND INTERIOR ELEVATIONS

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









D1 / A5.3 123 - WORKSHOP - ENLARGED PLAN AND INTERIOR ELEVATIONS

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

CONSTRUCTION NOTES

309	COUNTERTOP SUPPORTS SEE C1/A7.8
508	UTILITY CONNECTION BOX
513	TURNOUT DRYER
514	GEAR DRYING CABINET
518	ICE MACHINE
544	DRYING SYSTEM
548	INTEGRATED CONCRETE MOP SINK, SEE PLUMBING
620	GYPSUM BOARD, SEE FINISH SCHEDULE
624	FRP WALL PANEL WHERE OCCURS, SEE ROOM FINISH SCHEDULE
701	COUNTERTOP, SEE FINISH SCHEDULE
702	BUILT-IN CABINETRY, SEE SHEET A7.8 & FINISH SCHEDULE
775	PNEUMATIC HOSE REAL
917	UNDER CABINET LIGHTING, SEE ELECTRICAL
932	FLOOR DRAINS, TYP. PER DETAIL C2/A7.4, SEE PLUMBING OTHERWISE
964	LOCKS TO BE PROVIDED TO THESE CABINETS
970	SHOWER HEAD
971	SHOWER PAN

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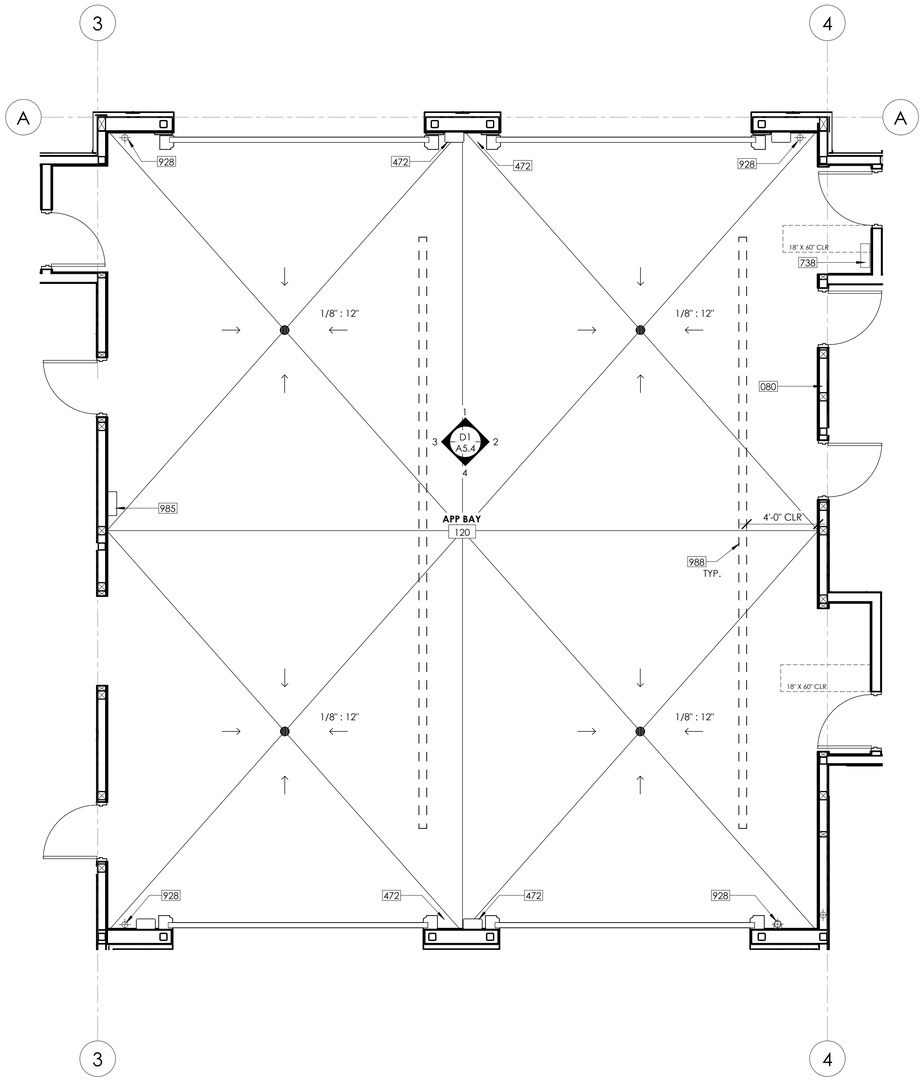
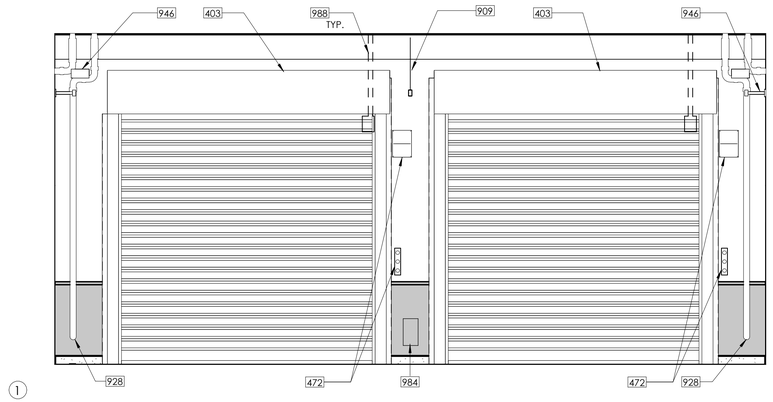
SHEET TITLE:

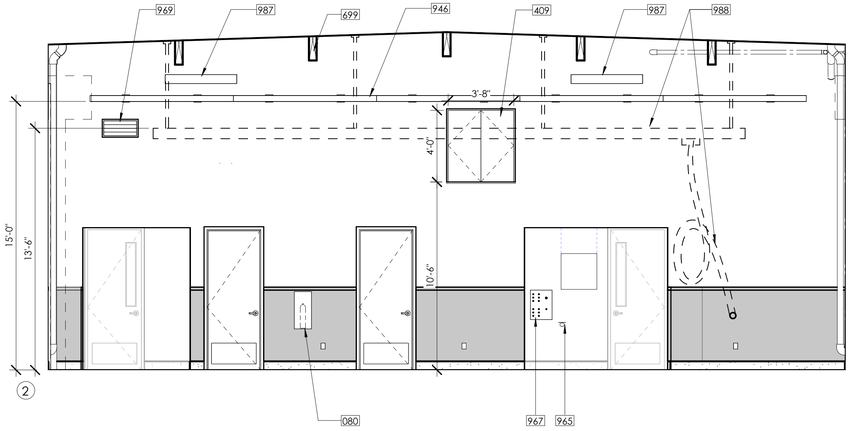
INTERIOR ELEVATIONS

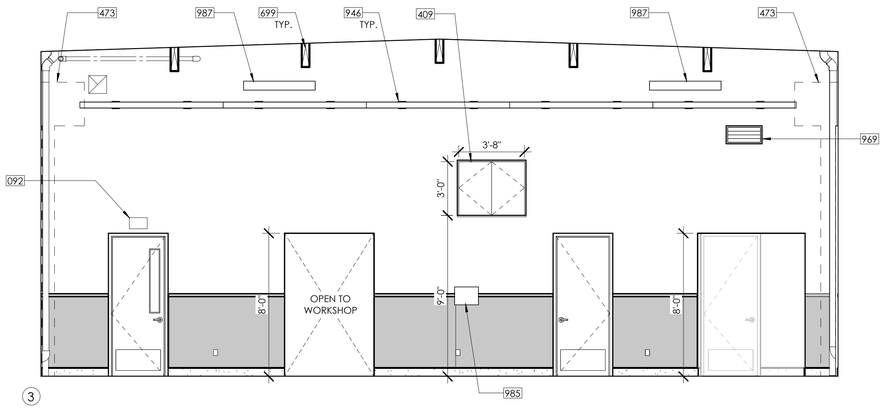
SHEET NUMBER:

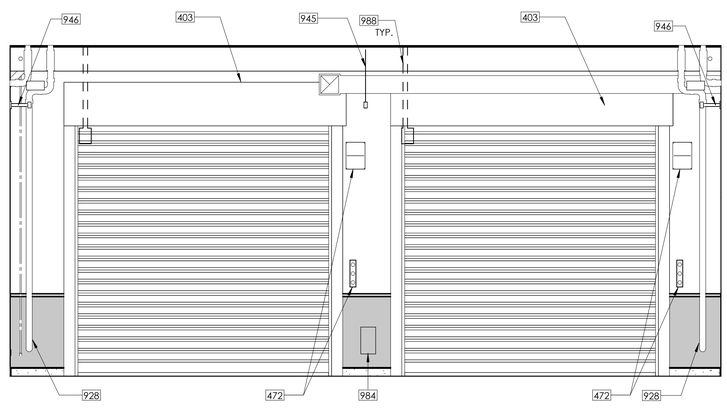
A5.3











D1 A5.4 120 - APP BAY
SCALE: 1/4" = 1'-0"

CONSTRUCTION NOTES

080	RECESSED FIRE EXTINGUISHER AND CABINET, SEE B1/T-4
092	EXIT SIGN, SEE ELECTRICAL
403	HIGH SPEED OVERHEAD COILING DOORS
409	ATTIC ACCESS HATCH
472	OVERHEAD COILING DOOR CONTROL PANEL
473	OVERHEAD COILING DOOR, SHOWN DASHED FOR CLARITY
699	EXPOSED BEAM, TYP., SEE STRUCTURAL
738	COILING DOOR MASTER CONTROL STATION
909	CEILING MOUNTED EXTERIOR DOWN LIGHT ABOVE
928	EXPOSED OVERFLOW PIPING, SEE PLUMBING
945	CEILING-MOUNTED LIGHT FIXTURE, SEE ELECTRICAL
946	WALL-MOUNTED LIGHT FIXTURE, SEE ELECTRICAL
965	HOSE BIB, SEE PLUMBING
967	MASTER APP BAY DOOR CONTROLS, SEE ELECTRICAL
969	LOUVER PER MECHANICAL
984	SURFACE MOUNTED HOSE REEL, SEE PLUMBING
985	PLYMOVENT CONTROL PANEL, SEE MECHANICAL
987	RADIANT HEATER, SEE MECHANICAL
988	PLYMOVENT SYSTEM, SHOWN DASHED FOR CLARITY, SEE MECHANICAL

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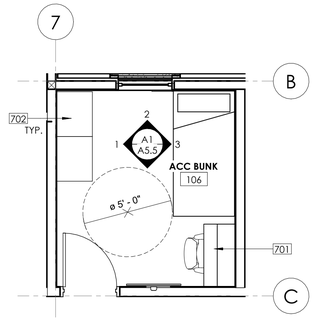
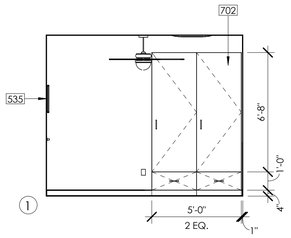
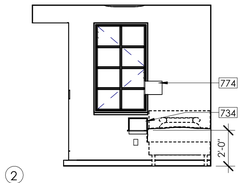
INTERIOR ELEVATIONS

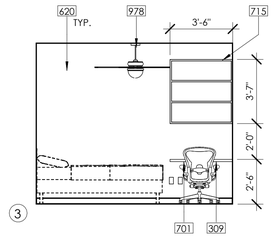
SHEET NUMBER:

A5.4

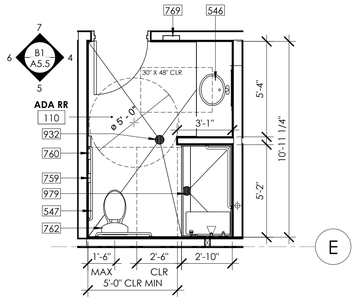


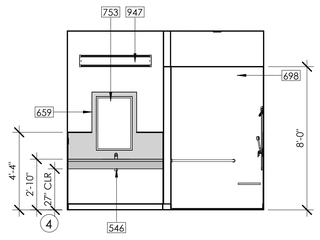


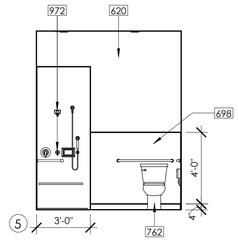


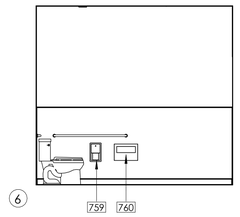


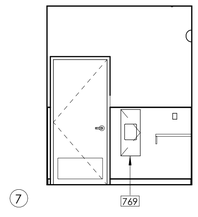
A1 106 - ACC BUNK - ENLARGED PLAN AND INTERIOR ELEVATIONS
A5.5 SCALE: 1/4" = 1'-0"











B1 110 - ADA RR - ENLARGED PLAN AND INTERIOR ELEVATIONS
A5.5 SCALE: 1/4" = 1'-0"

CONSTRUCTION NOTES

309	COUNTERTOP SUPPORTS SEE C1/A7.8
535	WALL HUNG TV
546	SINK, SEE PLUMBING AND C1/T-4
547	GRAB BAR, SEE T-3 AND T-4
620	GYPSUM BOARD, SEE FINISH SCHEDULE
659	SOLID SURFACE SURROUND
698	SOLID SURFACE WAINSCOT
701	COUNTERTOP, SEE FINISH SCHEDULE
702	BUILT-IN CABINETRY, SEE SHEET A7.8 & FINISH SCHEDULE
715	BUILT-IN SHELF SEE D1/A7.7
734	BUILT-IN PHONE CHARGING NICHE SEE A2/A7.4
753	MIRROR, SEE A3/T-3
759	TOILET PAPER DISPENSER
760	SEAT COVER DISPENSER
762	TOILET, SEE PLUMBING AND D3/T-3
769	PAPER TOWEL DISPENSER AND RECEPTACLE
774	BEDSIDE TASK LIGHT, SEE ELECTRICAL
932	FLOOR DRAINS, TYP. PER DETAIL C2/A7.4, SEE PLUMBING OTHERWISE
947	LIGHTING FIXTURE, SEE ELECTRICAL
972	ACCESSIBLE SHOWER HEAD AND CONTROLS
978	44" CEILING FAN
979	TRENCH DRAIN, SEE PLUMBING

LICENSED ARCHITECT
JEFFREY A. KATZ
C-31818
REN. 09/10/23
STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

SHEET TITLE:

INTERIOR ELEVATIONS

SHEET NUMBER:

A5.5

ROOM FINISH SCHEDULE

ROOMS		FLOOR		BASE		WAINSCOT		WALLS								CEILING			CASEWORK				
								NORTH		EAST		SOUTH		WEST									
NUMBER	DESCRIPTION	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	HEIGHT	COUNTERTOP	COLOR	CABINET	COLOR	REMARKS
100	OFFICE	CPT	CPT-1	RB	RB-1	-	-	GWB	PT-3	GWB/GWBFR	PT-3	GWB	PT-3	GWB	PT-3	ACT	ACT-1	9' - 0"	-	-	-	-	
101	RIP & RUN	CNC	CNC-1	RB	RB-1	-	-	GWB	PT-3	GWBFR	PT-3	GWB	PT-3	GWB	PT-3	ACT	ACT-1	9' - 0"	SSU	SSU-1	PL	PL-2/PL-3	3
102	ADA RR	CNC	CNC-1	SSU	SSU-5	SSU	SSU-4	GWBWR	PT-3	GWBFRWR	PT-3	GWBFRWR	PT-3	GWBWR	PT-3	GWB	PT-4	10' - 0"	-	-	-	-	3
103	STOR	CNC	CNC-1	RB	RB-1	-	-	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-3	ACT	ACT-1	9' - 0"	-	-	-	-	6
104	STOR	CNC	CNC-1	RB	RB-1	-	-	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-4	10' - 0"	-	-	-	-	6
105	LAUNDRY/JAN	CNC	CNC-1	RB	RB-1	FRP	FRP-1	GWBWR	PT-3	GWBFRWR	PT-3	GWBWR	PT-3	GWBWR	PT-3	GWB	PT-4	10' - 0"	SSU	SSU-1	PL	PL-4	3, 6
106	ACC BUNK	CPT	CPT-1	RB	RB-1	-	-	GWB-2	PT-3	GWB-2	PT-3	GWBFR-2	PT-3	GWBFR-2	PT-3	GWB	PT-4	9' - 8"	SSU	SSU-1	WD/PL	WD-1/PL-1	3, 6
107	BUNK 1	CPT	CPT-1	RB	RB-1	-	-	GWB-2	PT-3	GWB-2	PT-3	GWBFR-2	PT-3	GWB-2	PT-3	GWB	PT-4	9' - 8"	SSU	SSU-1	WD/PL	WD-1/PL-1	3, 6
108	BUNK 2	CPT	CPT-1	RB	RB-1	-	-	GWBFR-2	PT-3	GWB-2	PT-3	GWB-2	PT-3	GWB-2	PT-3	GWB	PT-4	9' - 8"	SSU	SSU-1	WD/PL	WD-1/PL-1	6
109	RR	CNC/CT	CNC-1	SSU	SSU-5	SSU	SSU-4	GWBFRWR	PT-3	GWBWR	PT-3	GWBWR	PT-3	GWBWR	PT-3	GWB	PT-4	10' - 0"	SSU	SSU-1	-	-	3
110	ADA RR	CNC/CT	CNC-1	SSU	SSU-5	SSU	SSU-4	GWBFRWR	PT-3	GWBWR	PT-3	GWBWR	PT-3	GWBFRWR	PT-3	GWB	PT-4	10' - 0"	SSU	SSU-1	-	-	3
111	STOR	CNC	CNC-1	RB	RB-1	-	-	GWB	PT-3	GWBFR	PT-3	GWBFR	PT-3	GWB	PT-3	GWB	PT-4	10' - 0"	-	-	-	-	
112	KITCHEN / DINING / DAY	CNC	CNC-1	RB	RB-1	-	-	GWB/GWBFR	PT-3	GWB	PT-3	GWB	PT-3	GWB/GWBFR	PT-3	GWB	PT-4	10' - 0"	SSU	SSU-1	PL	PL-2/PL-3	3, 6
113	FITNESS	RM	RM-1	RM	RM-1	-	-	GWB/GWBFR	PT-3	GWB/GWBFR	PT-3	GWB	PT-3	GWB/GWBFR	PT-3	GWB	PT-4	10' - 0"	-	-	-	-	2, 3, 6
114	HALL	CNC	CNC-1	RB	RB-1	-	-	GWB/GWBFR	PT-3	GWB	PT-3	GWB/GWBFR	PT-3	GWB/GWBFR	PT-3	GWB	PT-4	9' - 0"	-	-	-	-	
115	COMM	CNC	CNC-1	RB	RB-1	-	-	GWBFR	PT-3	GWB	PT-3	GWB	PT-3	GWBFR	PT-3	GWB	PT-4	10' - 0"	-	-	-	-	
116	HWH	CNC	CNC-1	RB	RB-1	-	-	GWB	PT-3	GWB	PT-3	GWB/GWBFR	PT-3	GWBFR	PT-3	GWB	PT-4	10' - 0"	-	-	-	-	5, 6
117	HALL	CNC	CNC-1	RB	RB-1	-	-	GWBFR	PT-3	GWBFR	PT-3	GWBFR	PT-3	GWB	PT-3	ACT	ACT-1	9' - 0"	-	-	-	-	3
118	ICE	CNC	CNC-1	RB	RB-1	-	-	GWB	PT-3	GWBFR	PT-3	-	-	GWB	PT-3	GWB	ACT-1	9' - 0"	SSU	SSU-1	-	-	
119	EMS	CNC	CNC-1	RB	RB-1	-	-	GWB	PT-3	GWBFR	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-4	10' - 0"	SSU	SSU-1	-	-	3
120	APP BAY	CNC	CNC-2	CNC	CNC-1	IRWP	IRWP-1	GWB	PT-3	GWB/GWBFR	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-4	18' - 0"	-	-	-	-	1, 3, 4, 5
121	TURNOUTS	CNC	CNC-1	CNC	CNC-1	-	-	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-4	8' - 6"					4, 6
122	DECON	CNC	CNC-1	CNC	CNC-1	FRP	FRP-1	GWBWR	PT-3	GWBWR	PT-3	GWBWR	PT-3	GWBWR	PT-3	GWB	PT-4	8' - 6"	SSU	SSU-1	PL	PL-4	3, 4, 6
123	WORKSHOP	CNC	CNC-1	CNC	CNC-1	-	-	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-4	8' - 6"	SSU	SSU-1	PL	PL-4	3, 4
125	FR / COMP	CNC	CNC-1	CNC	CNC-1	-	-	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-4	8' - 6"	-	-	-	-	4
126	HOSE	CNC	CNC-1	CNC	CNC-1	-	-	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-4	8' - 6"	-	-	-	-	4, 6
127	ELEC	CNC	CNC-1	CNC	CNC-1	-	-	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-3	GWB	PT-4	8' - 6"	-	-	-	-	4

FINISH SCHEDULE

MATERIAL	TYPE	DESCRIPTION				LOCATION
		NAME	MANUFACTURER	STYLE	COLOR	
ACT	1	ACOUSTIC CEILING TILE	ARMSTRONG	ULTIMA	WHITE	SEE ROOM FINISH SCHEDULE
BRK	1	BRICK VENEER	MCNEAR	SANDMOLD	SANDMOLD - TIVOLI	EXTERIOR WALLS
CMU	1	CONCRETE MASONRY UNIT	BASALITE	SPLITFACE	SPLITFACE -128	TRASH ENCLOSURE
CNC	1	CONCRETE (POLISHED)		SMOOTH FINISH	NATURAL	SEE ROOM FINISH SCHEDULE
CNC	2	CONCRETE (HIGH DENSITY)		SMOOTH FINISH	NATURAL	APPARATUS BAY FLOOR
CPT	1	CARPET	MILLIKEN	NORDIC STORIES - ISOGRAD - QS	IGD122-120 SPIRTLAND	OFFICE & BUNK FLOORING
FRP	1	FIBERGLASS REINFORCED PLASTIC	CRANE COMPOSITES	LINEN TEXTURE	SOUTH BEACH IVORY	LAUNDRY/JAN & DECON
GL	1	GLAZING	VITRO		CLEAR	
IRWP	1	IMPACT RESISTANT WALL PANEL	PROTEK SYSTEMS	SD-50 SUPPER DUTY WALL SYSTEM		APPURATUS BAY WAINSCOT AND CHAIR RAIL
MTL	1	FACTORY FINISH	ARCADIA CUSTOM	-	DARK MEDIUM BRONZE	ALUMINUM WINDOWS
MTL	2	FACTORY FINISH	HORMANN	-	RAL 7013 - BROWN GREY	OVERHEAD COILING DOORS
MTL	3	FACTORY FINISH	PPG DURANAR	-	PPG DURANAR - NATURAL SUADE	
MTL	4	FACTORY FINISH	VERCO DECK	16 GA CORRIGATED STEEL PANEL	TO MATCH PT-2	
MTL	5	FACTORY FINISH	AMERISTAR	-	BRONZE	FENCE & GATES
PL	1	PLASTIC LAMINATE	WILSONART	FINE VELVET FINISH	(4990-38) FLAX LINEN	BUNK ROOM BOX SHELF CASEWORK & COUNTERTOP
PL	2	PLASTIC LAMINATE	WILSONART	TRACELESS FINISH	(15603) SESAME VELVET ELM	UPPER CASEWORK
PL	3	PLASTIC LAMINATE	WILSONART	TRACELESS FINISH	(15602) ACORN VELVET ELM	LOWER & PANTRY CASEWORK
PL	4	PLASTIC LAMINATE	WILSONART	FINE VELVET FINISH	(4878-38) PEWTER MESH	LAUNDRY/JAN, DECON & WORKSHOP CASEWORK
PT	1	PAINT	BENJAMIN MOORE	EGGSHELL	NATURE'S ESSENTIALS	EXTERIOR FIELD PAINT
PT	2	PAINT	BENJAMIN MOORE	SEMI-GLOSS	DEEP CREEK	EXTERIOR HM DOOR & TRIM PAINT
PT	3	PAINT	BENJAMIN MOORE	EGGSHELL	MUSKOKA TRAIL	INTERIOR FIELD PAINT
PT	4	PAINT	BENJAMIN MOORE	EGGSHELL	CHANTILLY LACE	INTERIOR CEILING PAINT
PT	5	PAINT	BENJAMIN MOORE	SEMI-GLOSS	SQUIRREL TAIL	INTERIOR HM DOOR & TRIM PAINT
RB	1	RUBBER BASE	JOHNSONITE	STANDARD COVE	29 - MOON ROCK	WALL BASE
RF	1	ASPHALT SHINGLES	OWENS CORNING	DURATION COOL PLUS	CLIFFSIDE GRAY	ROOFING
RM	1	RUBBER MAT	TARKETT	TRIUMPH SPORTS FLOORING (3/8 ")	LB9 - RAINSTORM	FITNESS FLOOR & WALL BASE
S	1	STUCCO			PT-1	STUCCO COLOR
SSU	1	SOLID SURFACE	CORIAN	1/2" THICK	RAIN CLOUD	OVERALL COUNTERTOPS
SSU	2	SOLID SURFACE	CORIAN	1/4" THICK	RAIN CLOUD	COUNTERTOP BACKSPLASH
SSU	3	SOLID SURFACE	SWANSTONE	-	WHITE (010)	SHOWER PAN
SSU	4	SOLID SURFACE	AVONITE	1/4" THICK	WHITE	WAINSCOT & FULL PANEL WALL
SSU	5	SOLID SURFACE	AVONITE	1/2" THICK	WHITE	4" HIGH RESTROOM WALL BASE
WD	1	WOOD	-	ROTARY CUT WHITE BIRCH	CLEAR	BUNK CASEWORK
WD	2	WOOD DOOR	MASONITE ARCHITECTURAL	ASPIRO SERIES ROTARY CUT WHITE BIRCH	COCOA BEAN	WOOD DOORS

FINISH NOTES

1. PROVIDE SD-50 HEAVY DUTY WALL PANELS AS INDICATED ON INTERIOR ELEVATIONS
2. PROVIDE 12" HIGH RUBBER MAT BASE
3. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION
4. SACK AND PATCH CONCRETE CURB TO PROVIDE SMOOTH FINISH WITH UNIFORM COLOR WHERE EXPOSED SEAL, CONCRETE SLAB AND CURB
5. PAINT ALL EXPOSED PIPING AND EXHAUST DUCT WORK
6. PROVIDE BLOCKING FOR STORAGE SHELVING SYSTEMS OR WALL HUNG EQUIPMENT

MATERIAL LEGEND

ABBR	DESCRIPTION
ACT	ACOUSTIC CEILING TILES
BRK	BRICK VENEER
CNC	CONCRETE (SEALED)
CPT	CARPET
CMU	CONCRETE MASONRY UNIT
CT	CERAMIC TILE
EXP	EXPOSED STRUCTURE
EL	ELASTOMETRIC DECK COATING
FRP	FIBERGLASS REINFORCED PLASTIC
GL	GLAZING
GWB	GYPSUM WALL BOARD 5/8" UON
GWB-2	GYPSUM WALL BOARD, SOUND ABSORBENT
GWBFR	GYPSUM WALL BOARD, FIRE RESISTANT (5/8") TYPE-X
GWBFR-2	GYPSUM WALL BOARD, FIRE RESISTANT (5/8") TYPE-X / SOUND ABSORBANT
GWBFRWR	GYPSUM WALL BOARD, FIRE RESISTANT (5/8") TYPE-X / WATER RESISTANT
GWBWR	GYPSUM WALL BOARD, WATER RESISTANT (5/8")
IRWP	IMPACT RESISTANT WALL PANEL
MTL	METAL (FACTORY FINISH)
PL	PLASTIC LAMINATE
PT	PAINT
PLYWD	1/2" PLYWOOD, PAINTED
RB	RUBBER BASE
RM	RUBBER MAT
RF	ASPHALT SHINGLE ROOFING
SM	SHEET METAL
SSU	SOLID SURFACE
SS	STAINLESS STEEL
STN	STAIN (WOOD)
S	STUCCO - PORTLAND CEMENT PLASTER
VCT	VINYL COMPOSITION TILE
WD	WOOD

LICENSED ARCHITECT
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C31823
REN. 09/10/23
STATE OF CALIFORNIA

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619.698.9177 | www.coargroup.com

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

SHEET TITLE:

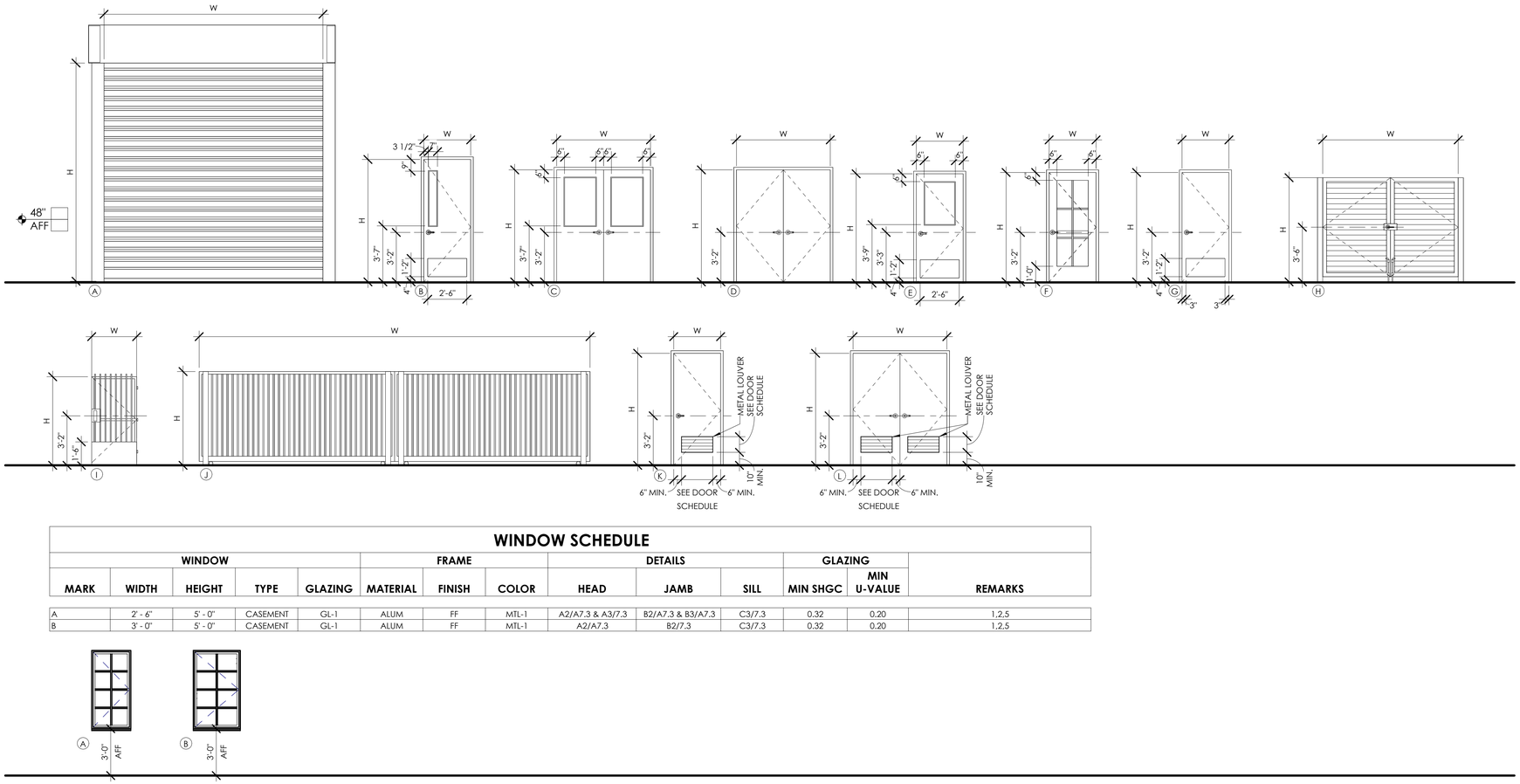
ROOM FINISH & FINISH SCHEDULE

SHEET NUMBER:

A6.1

DOOR SCHEDULE

MARK	TYPE	DOOR WIDTH	DOOR HEIGHT	ELEV	DOOR DEPTH	DOOR MATERIAL	DOOR FINISH	DOOR COLOR INT/EXT	LOUVER SIZE	HOUR	FRAME MATERIAL	FRAME FINISH	FRAME COLOR INT/EXT	DETAIL HEAD	DETAIL JAMB	DETAIL THRESHOLD	HARDWARE GROUP	REMARKS
100A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	WD	STN	WD-2		-	HM	PT	PT-5	A1/A1.5	A1/A1.5	C2/A7.2	16	6, 7
100B	SLIDING/ROLLING GATE	25' - 0"	6' - 0"	J	0' - 2"	MTL	FF	MTL-5		-	MTL	FF	MTL-5	C1/A1.5	C1/A1.5	N/A	03	8
100C	GATE	8' - 8"	6' - 4"	H	0' - 3"	MTL	PT	MTL-4		-	MTL	PT	MTL-4	B1/A1.5	B1/A1.5	N/A	02	
100D	GATE	8' - 8"	6' - 4"	H	0' - 3"	MTL	PT	MTL-4		-	MTL	PT	MTL-4	B1/A1.5	B1/A1.5	N/A	02	
100E	GATE	2' - 10 1/2"	5' - 6"	I	0' - 1 1/2"	MTL	FF	MTL-5		-	MTL	FF	MTL-5	B1/A1.5	B1/A1.5	N/A	01	8
100F	GATE	2' - 10 1/2"	5' - 6"	I	0' - 1 1/2"	MTL	FF	MTL-5		-	MTL	FF	MTL-5	B1/A1.5	B1/A1.5	N/A	01	8
101A	SINGLE	3' - 0"	7' - 10"	B	0' - 1 3/4"	HM/GLASS	PT	PT-5		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	21	3, 6, 10
101B	SINGLE	3' - 0"	7' - 0"	B	0' - 1 3/4"	WD/GLASS	FF	WD-2		20 MIN	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	22	6, 10
102A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	HM	PT	PT-5		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	19	1, 5
103A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	HM	PT	PT-5		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	12	6
104A	SINGLE	3' - 0"	7' - 10"	G	0' - 1 3/4"	HM	PT	PT-5		-	HM	PT	PT-5	A2/A7.2	B2/A7.2	C2/A7.2	12	6
105A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	WD	FF	WD-2		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	11	3, 6, 7
106A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	WD	FF	WD-2		20 MIN	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	17	3, 5, 6, 7
107A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	WD	FF	WD-2		20 MIN	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	17	3, 5, 6, 7
108A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	WD	FF	WD-2		20 MIN	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	18	3, 5, 6, 7
109A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	WD	FF	WD-2		20 MIN	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	19	1, 3, 5
110A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	WD	FF	WD-2		20 MIN	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	19	1, 3, 5
111A	DOUBLE	6' - 0"	7' - 0"	D	0' - 1 3/4"	HM	PT	PT-5		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	10	6
112A	SINGLE	3' - 0"	7' - 2"	F	0' - 1 3/4"	HM/GLASS	PT	PT-5/PT-2		-	HM	PT	PT-5/PT-2	B3/A7.2	D4/A7.2	D3/A7.2	07	9, 10
112B	SINGLE	3' - 0"	7' - 0"	B	0' - 1 3/4"	WD/GLASS	FF	WD-2		20 MIN	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	20	3, 6, 10
113A	DOUBLE	6' - 0"	7' - 2"	C	0' - 1 3/4"	HM	PT	PT-5/PT-2		-	HM	PT	PT-5/PT-2	B3/A7.2	D4/A7.2	D3/A7.2	04	9, 10
113B	SINGLE	3' - 0"	7' - 0"	B	0' - 1 3/4"	WD/GLASS	FF	WD-2		-	HM	PT	PT-5	A2/A7.2	B2/A7.2	C1/A7.2	20	6
114A	SINGLE	3' - 0"	7' - 0"	F	0' - 1 3/4"	HM/GLASS	PT	PT-5/PT-2		-	HM	PT	PT-5/PT-2	B3/A7.2	D4/A7.2	C2/A7.2	06	2, 4, 9, 10
114B	SINGLE	3' - 0"	7' - 0"	E	0' - 1 3/4"	HM/GLASS	PT	PT-5/PT-2		-	HM	PT	PT-5/PT-2	B3/A7.2	D4/A7.2	C1/A7.2	07	4, 9, 10
115A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	WD	FF	WD-2		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	11	3, 6
116A	SINGLE	3' - 0"	7' - 0"	G	0' - 1 3/4"	HM	PT	PT-5		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	11	6
117A	SINGLE	3' - 0"	7' - 10"	B	0' - 1 3/4"	HM/GLASS	PT	PT-5		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	21	6, 10
117B	SINGLE	3' - 0"	7' - 0"	B	0' - 1 3/4"	WD/GLASS	FF	WD-2		20 MIN	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	22	3, 6, 10
119A	SINGLE	3' - 0"	7' - 10"	G	0' - 1 3/4"	HM	PT	PT-5		-	HM	PT	PT-5	A2/A7.2	B2/A7.2	C2/A7.2	15	4, 6
120A	COILING	14' - 0"	14' - 0"	A	0' - 1"	MTL/GLASS	FF	MTL-2		-	MTL	FF	-	B1/A7.3 & D1/A7.3	C4/A7.2	C3/A7.2	23	
120B	COILING	14' - 0"	14' - 0"	A	0' - 1"	MTL/GLASS	FF	MTL-2		-	MTL	FF	-	B1/A7.3 & D1/A7.3	C4/A7.2	C3/A7.2	23	
120C	COILING	14' - 0"	14' - 0"	A	0' - 1"	MTL/GLASS	FF	MTL-2		-	MTL	FF	-	B1/A7.3 & D1/A7.3	C4/A7.2	C3/A7.2	23	
120D	COILING	14' - 0"	14' - 0"	A	0' - 1"	MTL/GLASS	FF	MTL-2		-	MTL	FF	-	B1/A7.3 & D1/A7.3	C4/A7.2	C3/A7.2	23	
121A	SINGLE	3' - 0"	7' - 10"	G	0' - 1 3/4"	HM	PT	PT-5		-	HM	PT	PT-5	A1/A7.2	B1/A7.2	C2/A7.2	14	6
122A	SINGLE	3' - 8"	7' - 2"	K	0' - 1 3/4"	HM	PT	PT-5/PT-2	12"H X 24"W	-	HM	PT	PT-5/PT-2	B3/A7.2	D4/A7.2	D3/A7.2	08	6
122B	SINGLE	3' - 0"	7' - 10"	G	0' - 1 3/4"	HM	PT	PT-5		-	HM	PT	PT-5	A2/A7.2	B2/A7.2	C2/A7.2	13	6
125A	DOUBLE	6' - 0"	7' - 2"	L	0' - 1 3/4"	HM	PT	PT-5/PT-2	12"H X 24"W	-	HM	PT	PT-5/PT-2	B3/A7.2	D4/A7.2	D3/A7.2	05	6, 11
126A	SINGLE	3' - 0"	7' - 2"	E	0' - 1 3/4"	HM/GLASS	PT	PT-5/PT-2		-	HM	PT	PT-5/PT-2	B3/A7.2	D4/A7.2	D3/A7.2	06	4, 6, 9, 10
126B	SINGLE	3' - 0"	7' - 10"	B	0' - 1 3/4"	HM/GLASS	PT	PT-5		-	HM	PT	PT-5	A2/A7.2	B2/A7.2	C2/A7.2	09	6, 10
127A	DOUBLE	6' - 0"	7' - 2"	L	0' - 1 3/4"	HM	PT	PT-5/PT-2	12"H X 24"W	-	HM	PT	PT-5/PT-2	B3/A7.2	D4/A7.2	D3/A7.2	05	6, 10



WINDOW SCHEDULE

MARK	WINDOW WIDTH	WINDOW HEIGHT	WINDOW TYPE	WINDOW GLAZING	FRAME MATERIAL	FRAME FINISH	FRAME COLOR	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	GLAZING MIN SHGC	GLAZING MIN U-VALUE	REMARKS
A	2' - 6"	5' - 0"	CASEMENT	GL-1	ALUM	FF	MTL-1	A2/A7.3 & A3/7.3	B2/A7.3 & B3/A7.3	C3/7.3	0.32	0.20	1,2,5
B	3' - 0"	5' - 0"	CASEMENT	GL-1	ALUM	FF	MTL-1	A2/A7.3	B2/7.3	C3/7.3	0.32	0.20	1,2,5

DOOR NOTES

1. TOILET ROOM ISA SIGNAGE AND TEXT ON WALL ADJACENT TO DOOR, SEE T-3
2. PROVIDE ISA SYMBOL ON DOOR
3. RATE FRAME TO MATCH DOOR, PROVIDE SMOKE SEALS
4. KEYPAD LOCK
5. PROVIDE LOCK FUNCTION: PRIVACY WITH "OCCUPIED" INDICATOR
6. PROVIDE ROOM IDENTIFICATION SIGNAGE, VERIFY TEXT WITH OWNER, SEE
7. PROVIDE ACOUSTICAL RATED DOOR
8. PROVIDE WIRE MESH
9. PROVIDE EXIT SIGNAGE, SEE D3/T-5
10. PANIC HARDWARE
11. FIRE CONTROL ROOM IDENTIFICATION SIGNAGE ON EXTERIOR

WINDOW NOTES

1. PROVIDE BLACKOUT WINDOW BLINDS
2. WATERPROOFING AROUND WINDOW, SEE (D1 / A7.4)
3. VERTICAL BLIND
4. PROVIDE MIN 20" NET CLEAR OPENING
5. PROVIDE TEMPERED GLASS AT ROOM

LICENSED ARCHITECT
JEFFREY A. KATZ
C31818223
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STATE OF CALIFORNIA

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previously JKA
200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

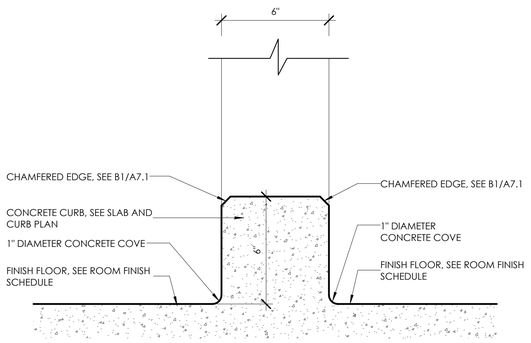
211101

SHEET TITLE:

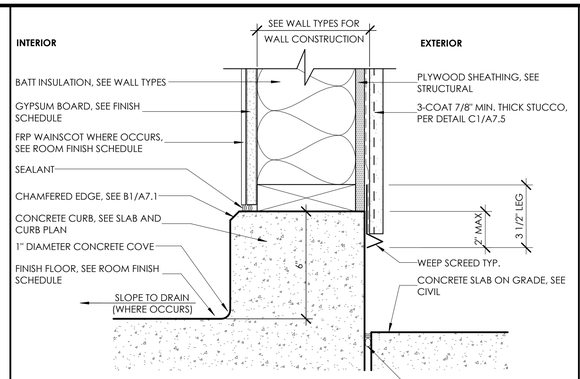
DOOR AND WINDOW SCHEDULE

SHEET NUMBER:

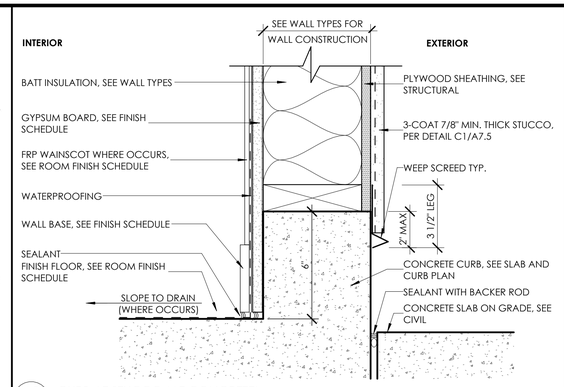
A6.2



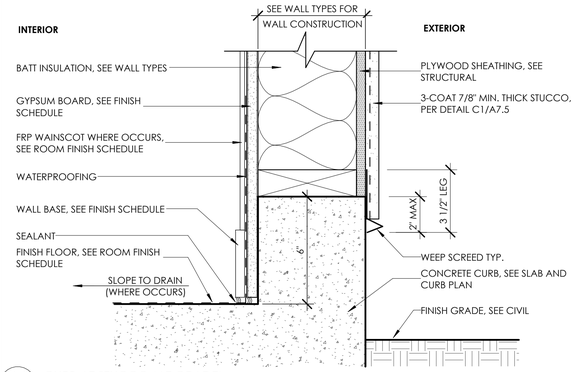
A1 A7.1 CURB AT MOP SINK
SCALE: 3" = 1'-0"



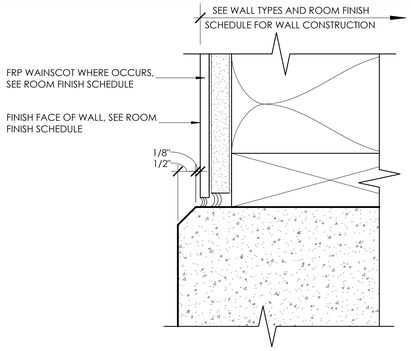
A2 A7.1 EXPOSED CURB AT STUCCO (AT CONCRETE)
SCALE: 3" = 1'-0"



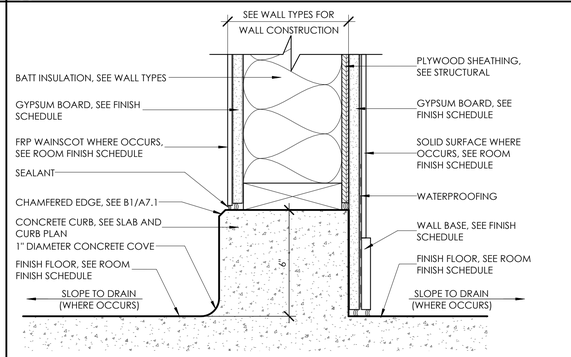
A3 A7.1 CURB AT STUCCO (AT CONCRETE)
SCALE: 3" = 1'-0"



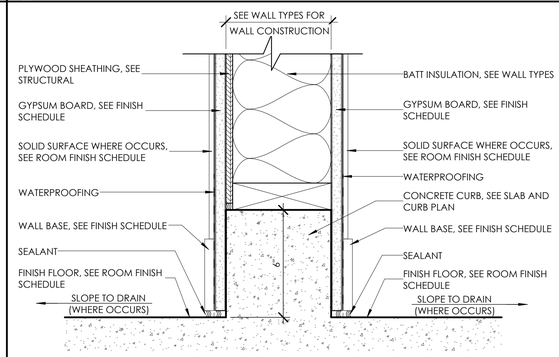
A4 A7.1 CURB AT STUCCO (AT GRADE)
SCALE: 3" = 1'-0"



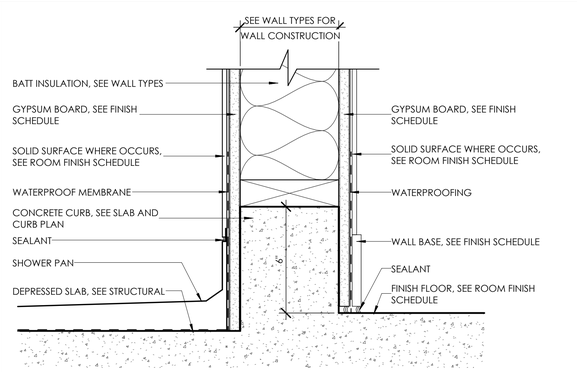
B1 A7.1 CHAMFER EDGE DETAIL
SCALE: 6" = 1'-0"



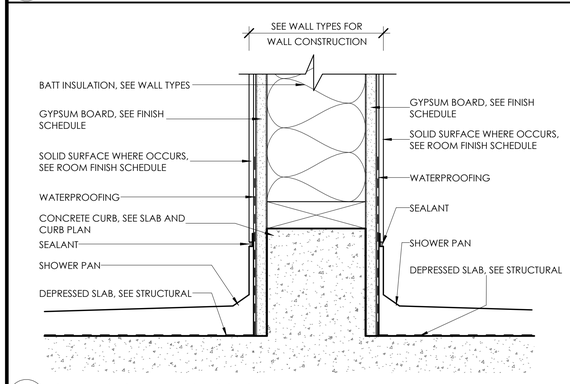
B2 A7.1 EXPOSED CURB
SCALE: 3" = 1'-0"



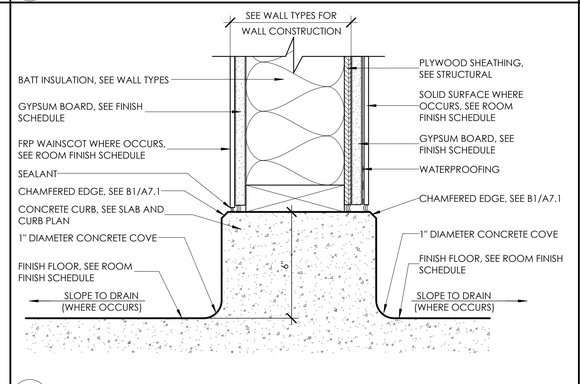
B3 A7.1 CONCEALED CURB
SCALE: 3" = 1'-0"



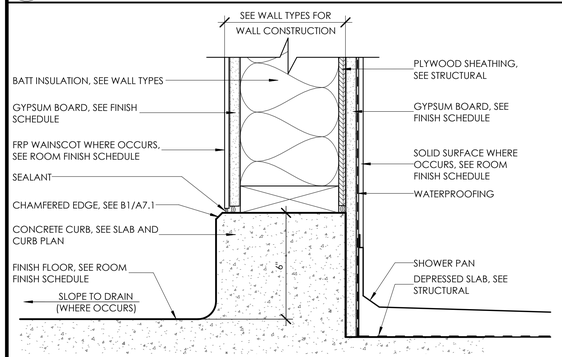
B4 A7.1 CURB AT SHOWER PAN
SCALE: 3" = 1'-0"



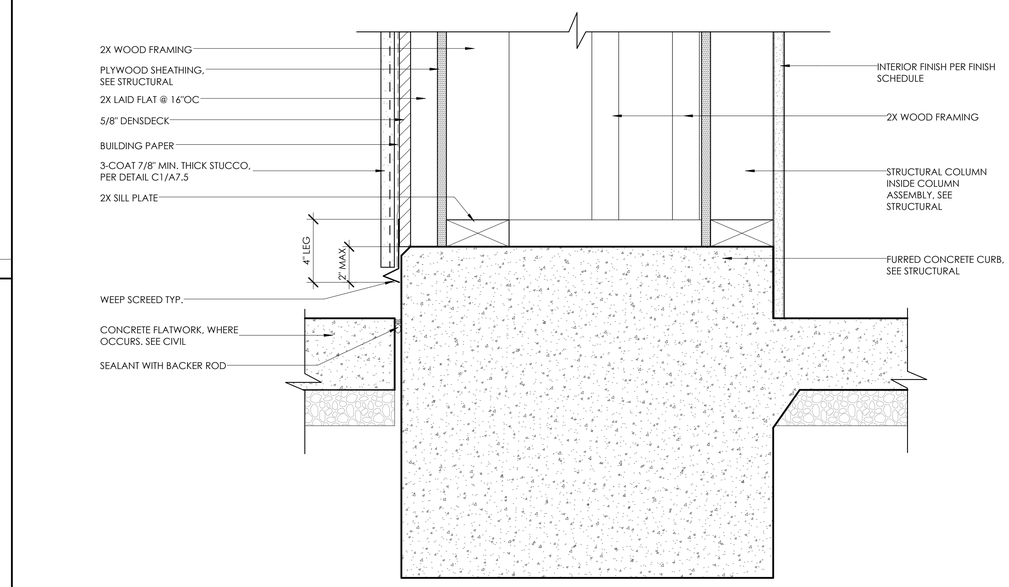
C1 A7.1 CURB AT SHOWER PAN (AT CONCRETE WALL)
SCALE: 3" = 1'-0"



C2 A7.1 EXPOSED CURB BOTH SIDES
SCALE: 3" = 1'-0"



D1 A7.1 CURB AT SHOWER PAN AND EXPOSED CURB
SCALE: 3" = 1'-0"



D3 A7.1 ARCHITECTURAL COLUMN AT FURRED CONCRETE CURB
SCALE: 3" = 1'-0"

LICENSED ARCHITECT
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
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100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

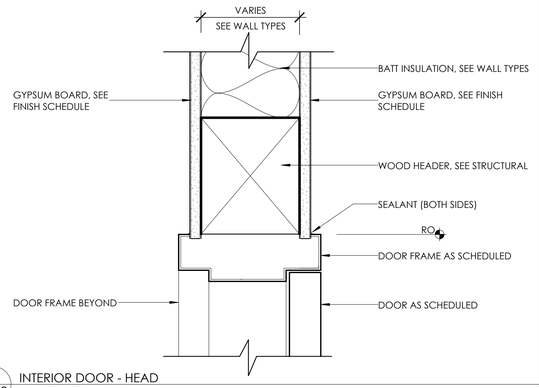
211101

SHEET TITLE:

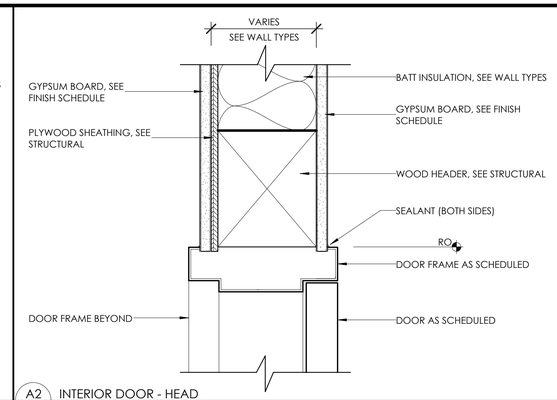
CURB TYPES

SHEET NUMBER:

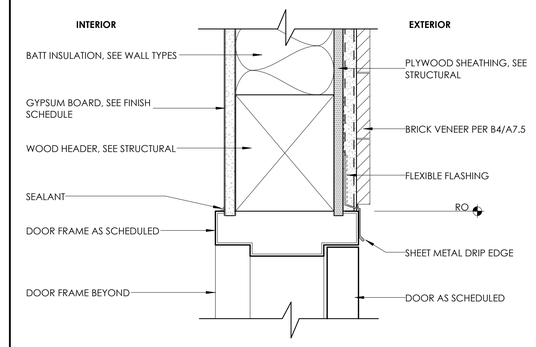
A7.1



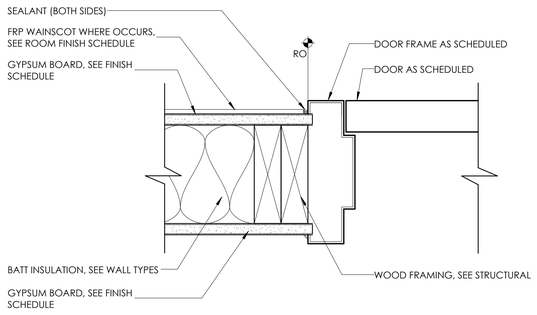
A1 A7.2 INTERIOR DOOR - HEAD
SCALE: 3" = 1'-0"



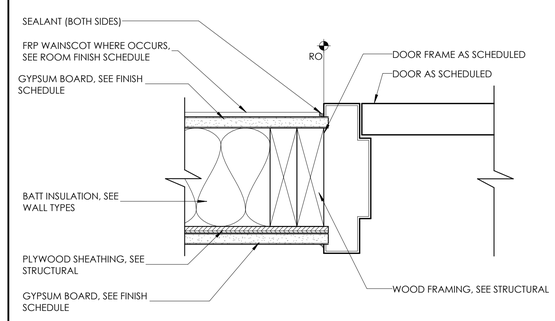
A2 A7.2 INTERIOR DOOR - HEAD
SCALE: 3" = 1'-0"



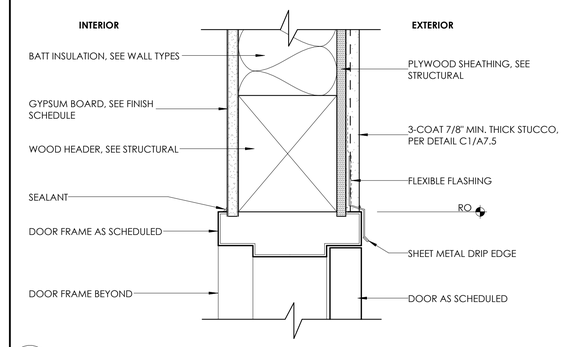
A3 A7.2 EXTERIOR DOOR AT BRICK VENEER - HEAD
SCALE: 3" = 1'-0"



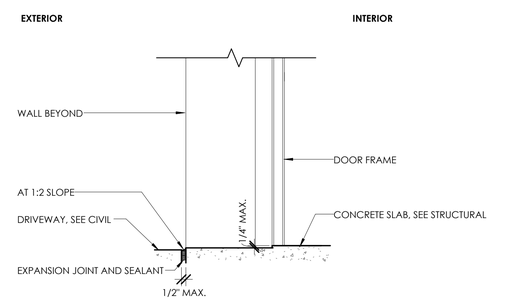
B1 A7.2 INTERIOR DOOR -JAMB
SCALE: 3" = 1'-0"



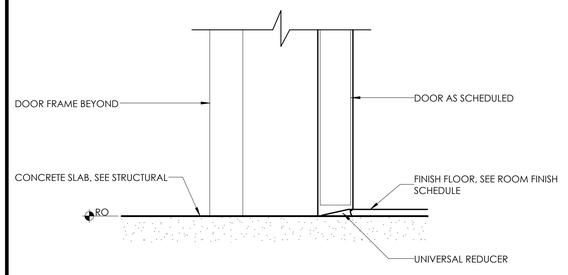
B2 A7.2 INTERIOR DOOR -JAMB
SCALE: 3" = 1'-0"



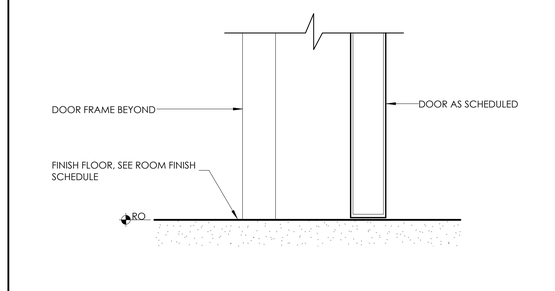
B3 A7.2 EXTERIOR DOOR AT STUCCO - HEAD
SCALE: 3" = 1'-0"



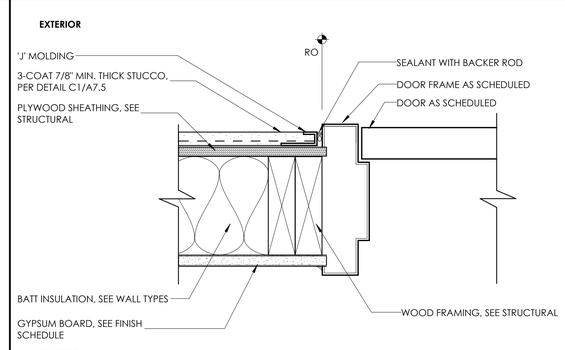
B4 A7.2 COILING DOOR - THRESHOLD
SCALE: 1 1/2" = 1'-0"



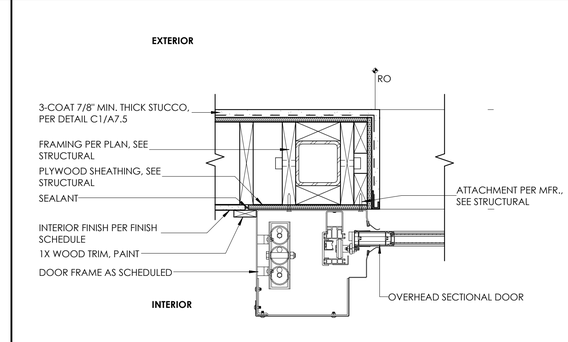
C1 A7.2 INTERIOR DOOR - THRESHOLD
SCALE: 3" = 1'-0"



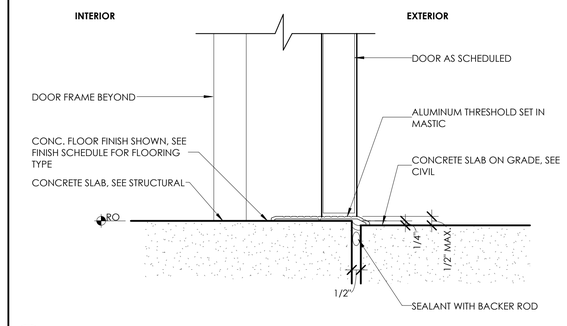
C2 A7.2 INTERIOR DOOR - THRESHOLD
SCALE: 3" = 1'-0"



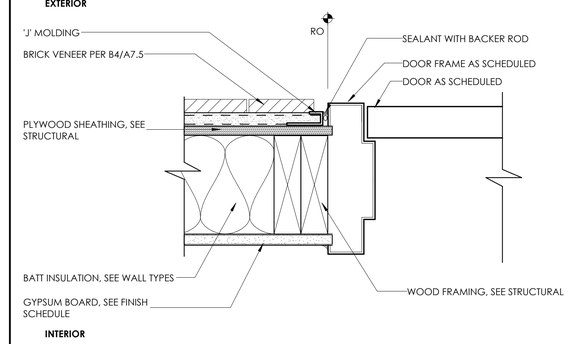
C3 A7.2 EXTERIOR DOOR AT STUCCO - JAMB
SCALE: 3" = 1'-0"



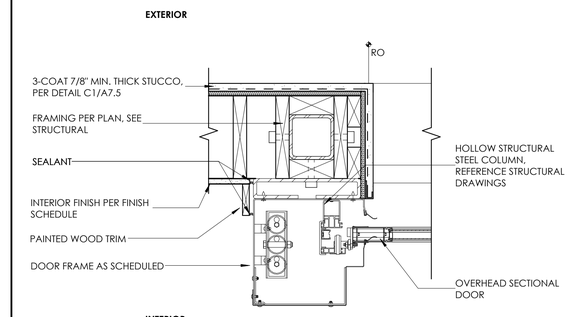
C4 A7.2 OVERHEAD SECTIONAL DOOR - JAMB
SCALE: 1 1/2" = 1'-0"



D2 A7.2 EXTERIOR DOOR - THRESHOLD
SCALE: 3" = 1'-0"



D3 A7.2 EXTERIOR DOOR AT BRICK - JAMB
SCALE: 3" = 1'-0"



D4 A7.2 COILING DOOR JAMB AT HSS
SCALE: 1 1/2" = 1'-0"

LICENSED ARCHITECT
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

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DESCRIPTION:	DATE:
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100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

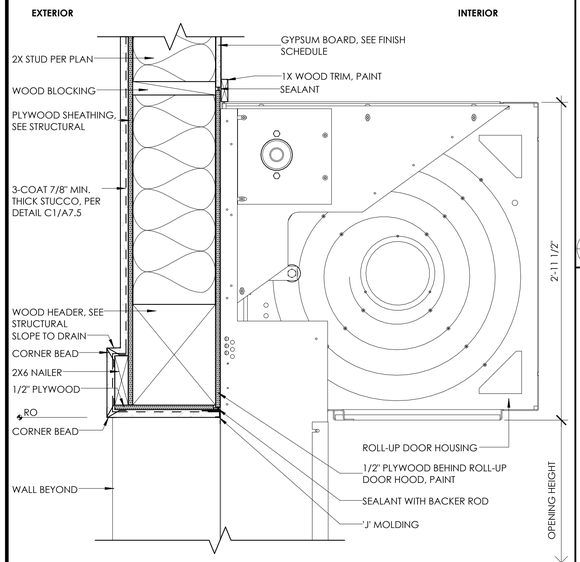
211101

SHEET TITLE:

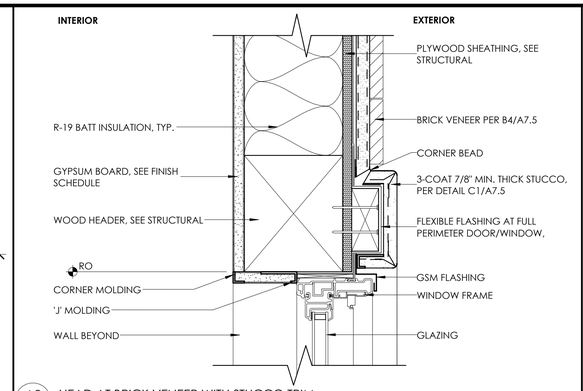
DOOR DETAILS

SHEET NUMBER:

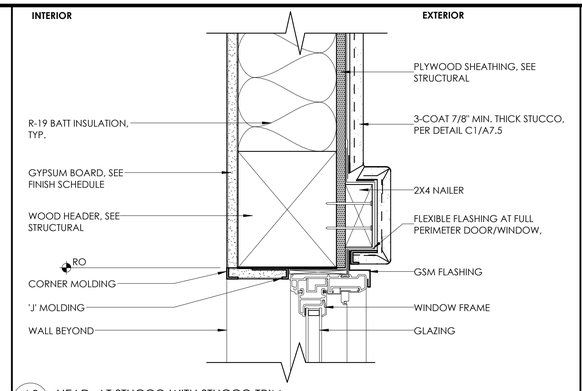
A7.2



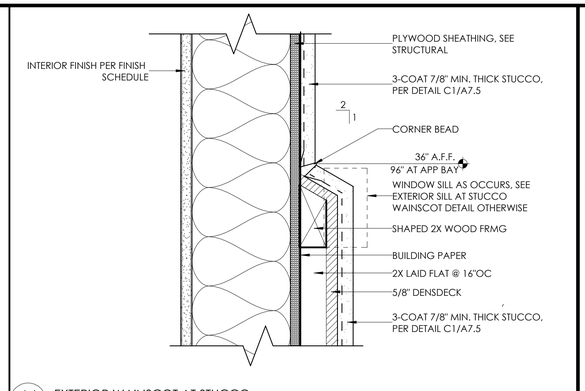
B1 A7.3 OVERHEAD SECTIONAL DOOR - HEAD
SCALE: 1 1/2" = 1'-0"



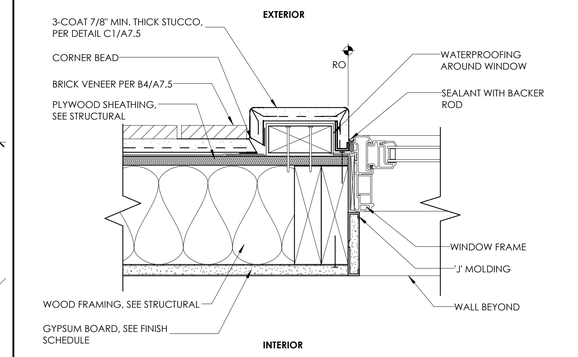
A2 A7.3 HEAD AT BRICK VENEER WITH STUCCO TRIM
SCALE: 3" = 1'-0"



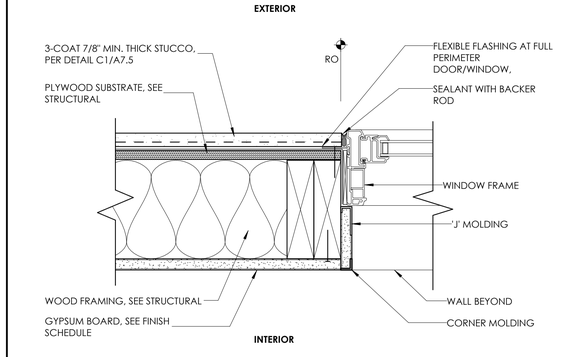
A3 A7.3 HEAD AT STUCCO WITH STUCCO TRIM
SCALE: 3" = 1'-0"



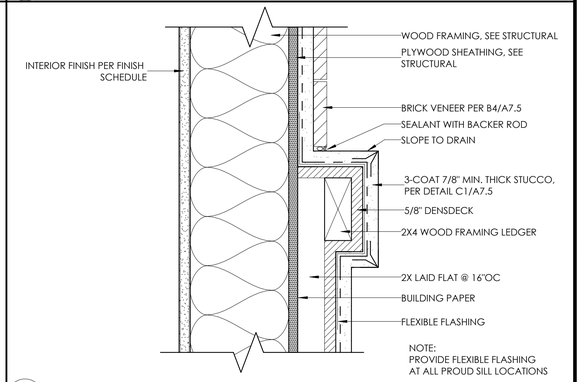
A4 A7.3 EXTERIOR WAINSCOT AT STUCCO
SCALE: 3" = 1'-0"



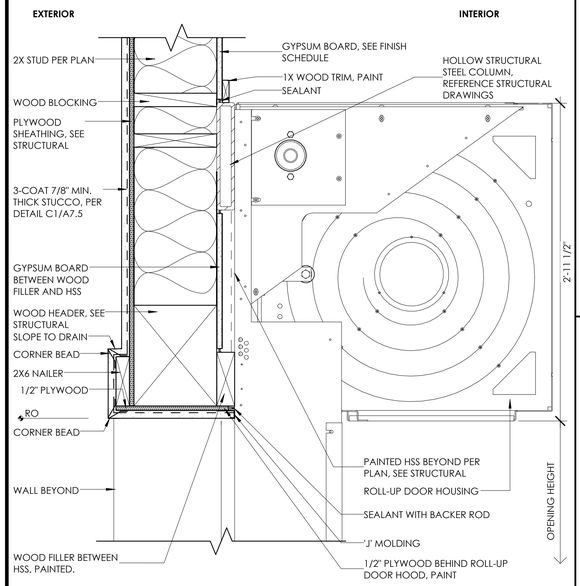
B2 A7.3 JAMB AT BRICK VENEER WITH STUCCO TRIM
SCALE: 3" = 1'-0"



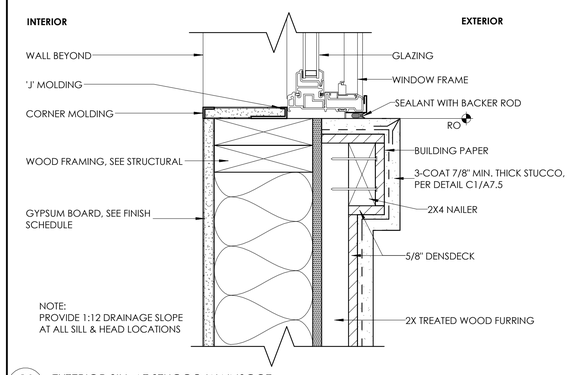
B3 A7.3 JAMB AT STUCCO
SCALE: 3" = 1'-0"



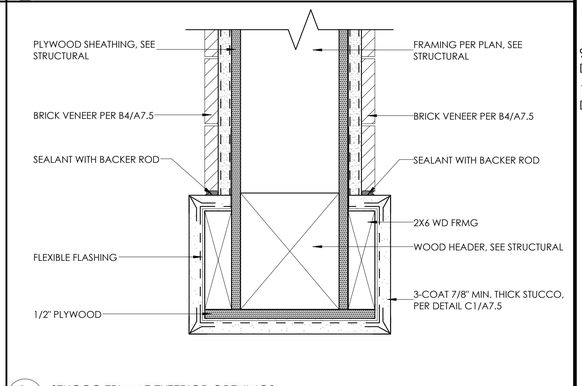
B4 A7.3 EXTERIOR WALL BRICK VENEER TO STUCCO TRANSITION
SCALE: 3" = 1'-0"



D1 A7.3 COILING DOOR HEAD AT HSS
SCALE: 1 1/2" = 1'-0"



C3 A7.3 EXTERIOR SILL AT STUCCO WAINSCOT
SCALE: 3" = 1'-0"



C4 A7.3 STUCCO TRIM AT EXTERIOR OPENINGS
SCALE: 3" = 1'-0"

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

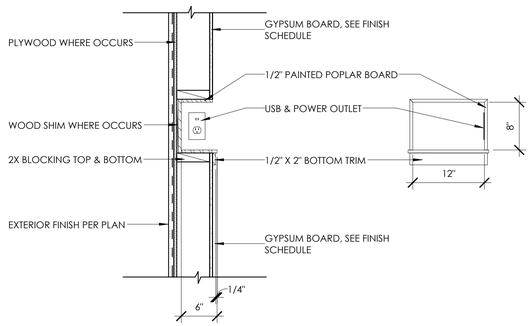
211101

SHEET TITLE:

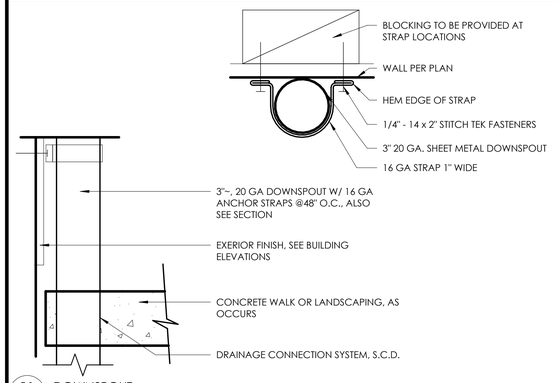
DOOR AND WINDOW DETAILS

SHEET NUMBER:

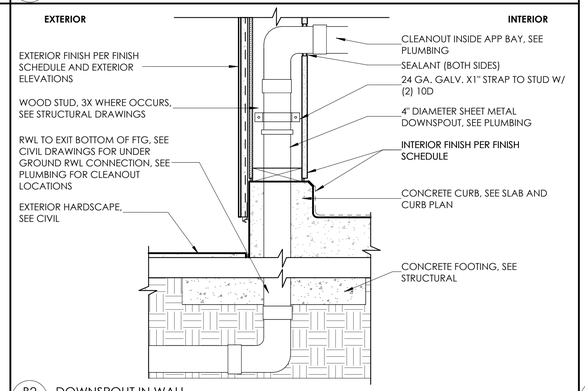
A7.3



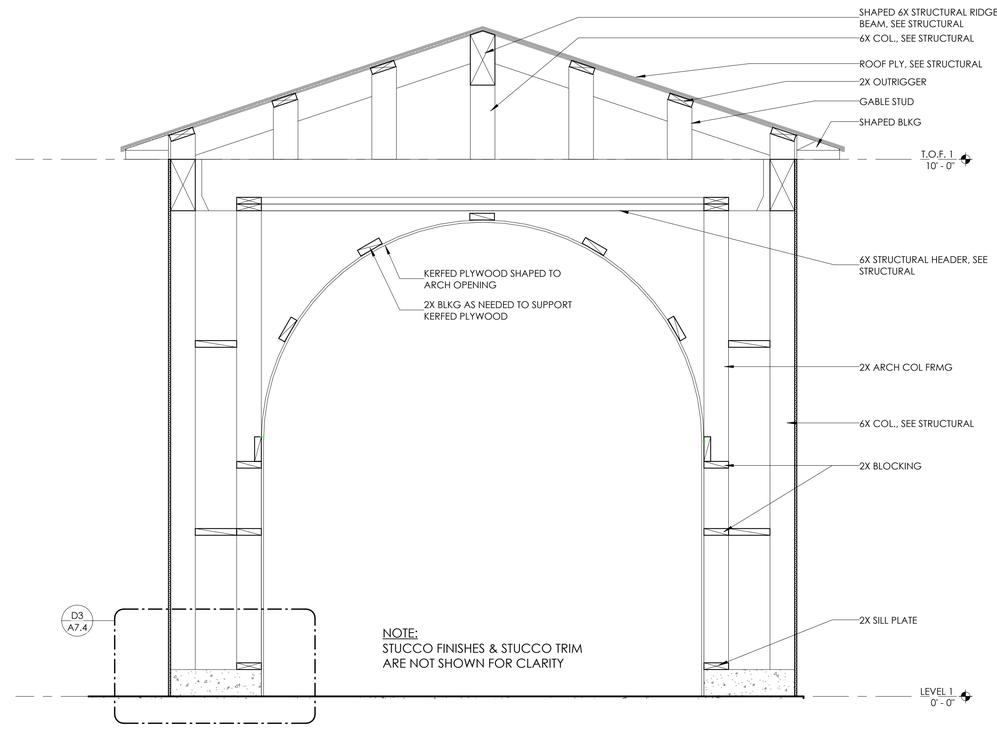
A2 A7.4 BUILT IN - PHONE NICHE
SCALE: 1" = 1'-0"



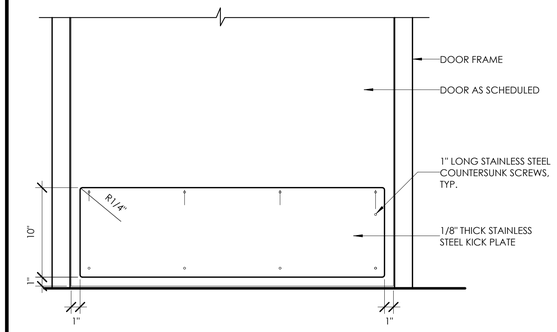
B1 A7.4 DOWNSPOUT
SCALE: 3" = 1'-0"



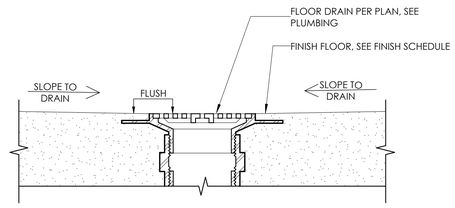
B2 A7.4 DOWNSPOUT IN WALL
SCALE: 1 1/2" = 1'-0"



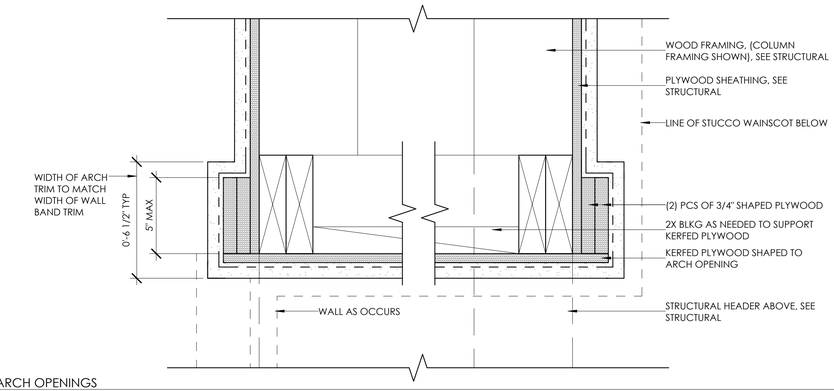
B3 A7.4 FRAMING AT ARCHED OPENINGS
SCALE: 3/4" = 1'-0"



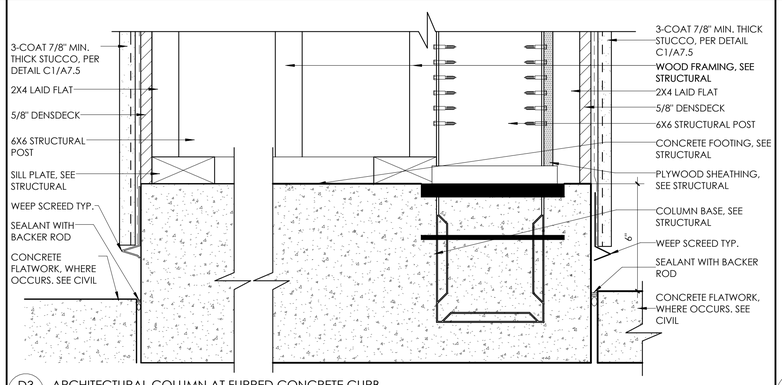
C1 A7.4 DOOR - KICK PLATE
SCALE: 1 1/2" = 1'-0"



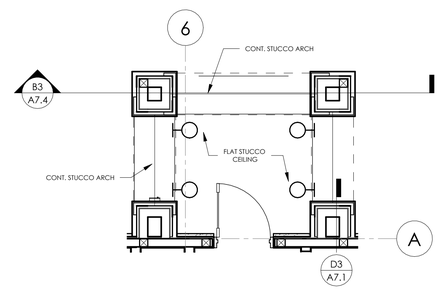
C2 A7.4 FLOOR DRAIN @ CONCRETE
SCALE: 3" = 1'-0"



C3 A7.4 STUCCO AT ARCH OPENINGS
SCALE: 3" = 1'-0"



D3 A7.4 ARCHITECTURAL COLUMN AT FURRED CONCRETE CURB
SCALE: 3" = 1'-0"



D4 A7.4 ENLARGED ENTRY PLAN
SCALE: 1/4" = 1'-0"

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PROJECT NUMBER:

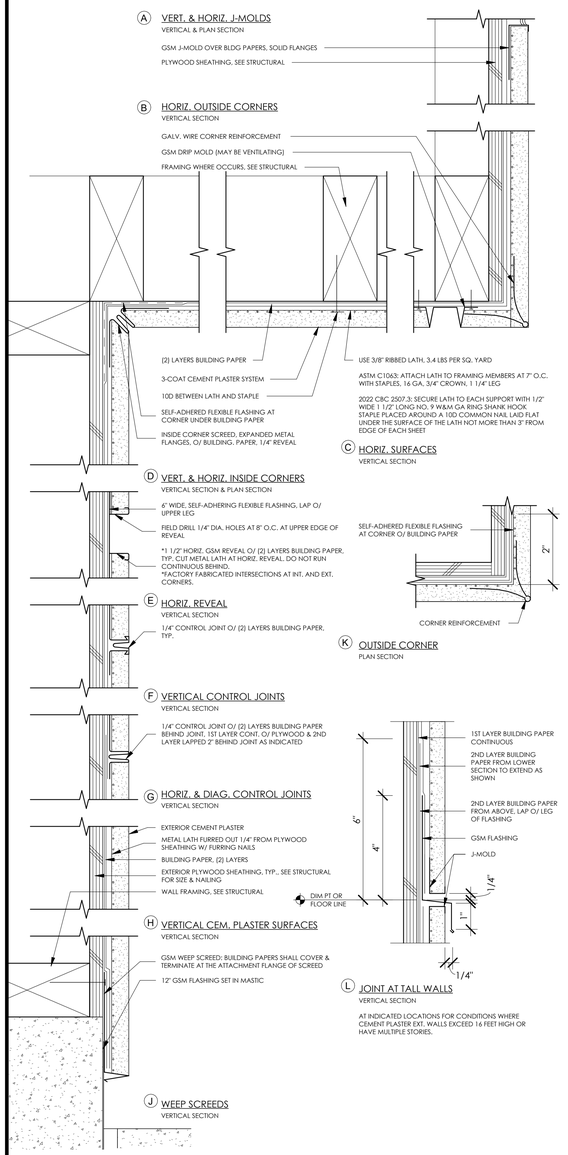
211101

SHEET TITLE:

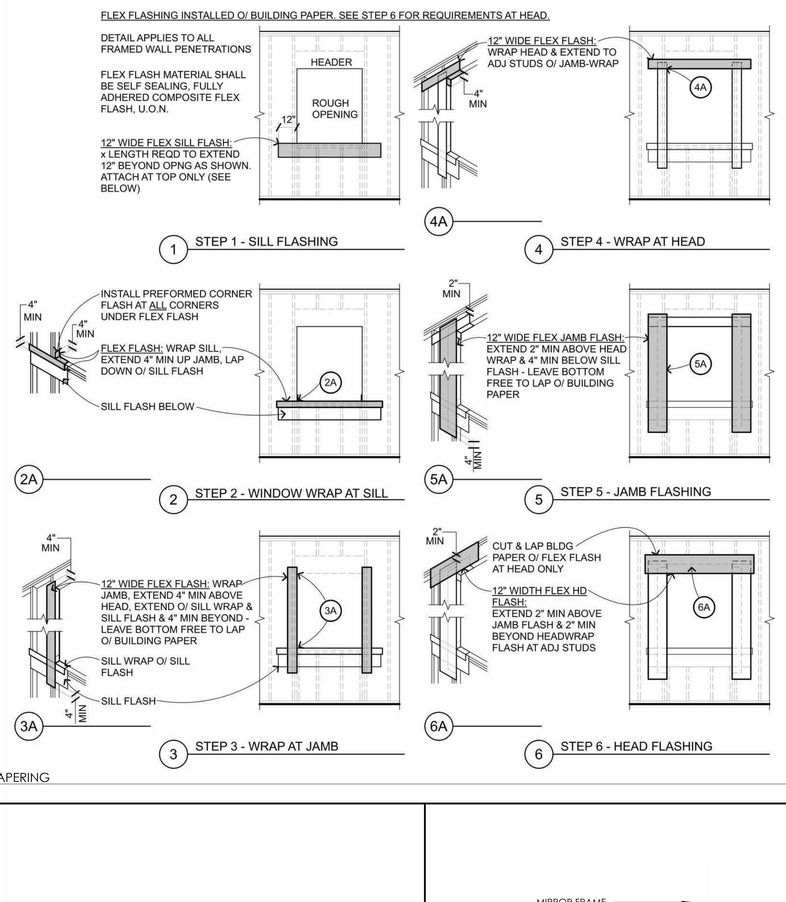
DETAILS

SHEET NUMBER:

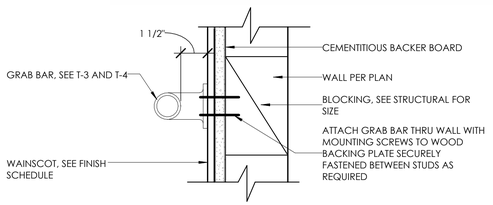
A7.4



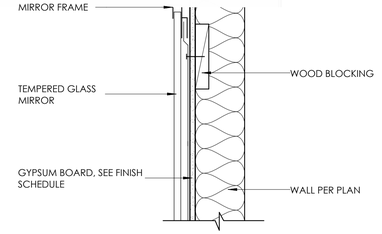
C1 STUCCO DETAIL
A7.5 SCALE: 6" = 1'-0"



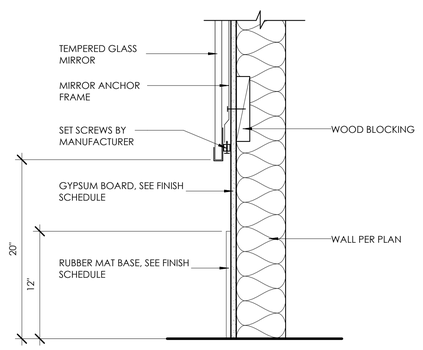
B2 TYP FLASHING/PAPERING
A7.5 SCALE: 1/2" = 1'-0"



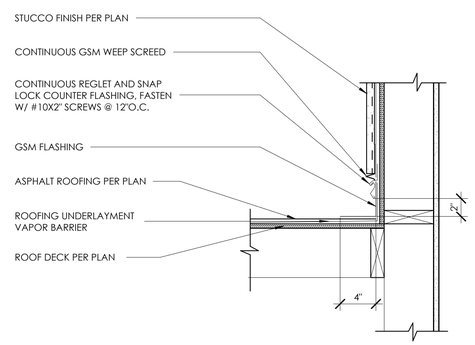
C2 GRAB BAR MOUNTING DETAIL
A7.5 SCALE: 3" = 1'-0"



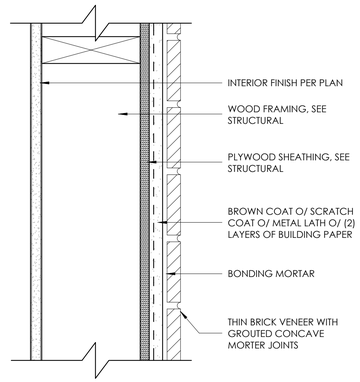
C3 MIRROR WALL MOUNTING
A7.5 SCALE: 1 1/2" = 1'-0"



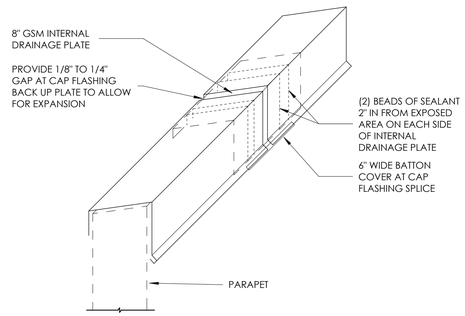
D3 MIRROR WALL MOUNTING AT BASE
A7.5 SCALE: 1 1/2" = 1'-0"



A4 ASPHALT ROOF FLASHING @ PARAPET WALL
A7.5 SCALE: 1 1/2" = 1'-0"



B4 BRICK VENEER
A7.5 SCALE: 3" = 1'-0"



C4 COPING SPLICE PLATE
A7.5 SCALE: 3/8" = 1'-0"

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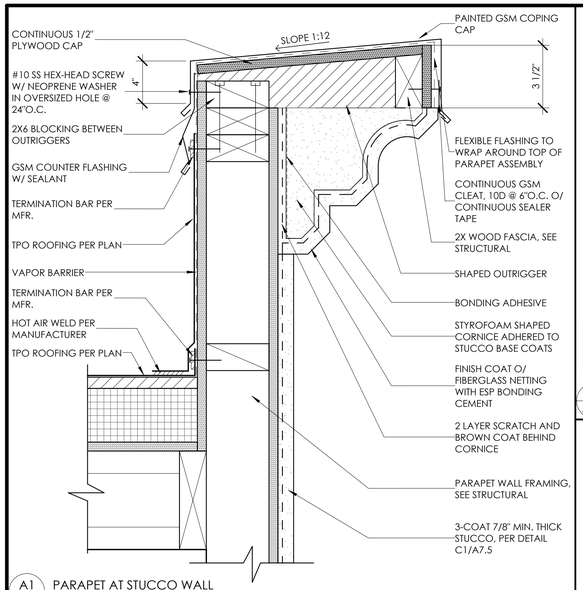
SHEET TITLE:

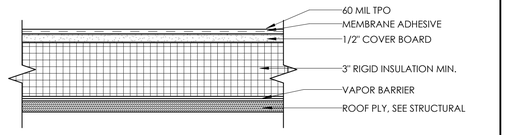
DETAILS

SHEET NUMBER:

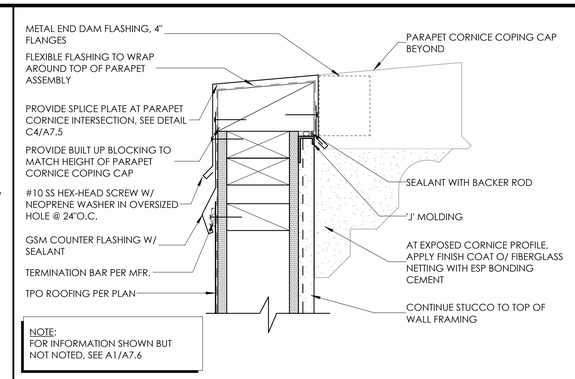
A7.5



A1 A7.6 PARAPET AT STUCCO WALL
SCALE: 3" = 1'-0"

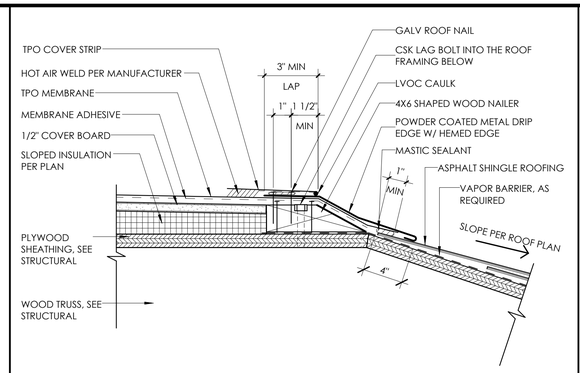


B1 A7.6 TPO ROOFING
SCALE: 3" = 1'-0"

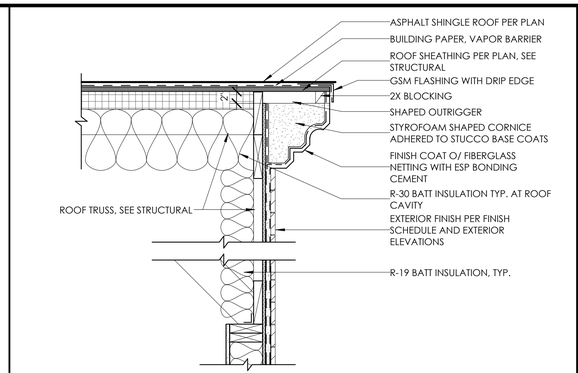


NOTE:
FOR INFORMATION SHOWN BUT NOT NOTED, SEE A1/A7.6

A2 A7.6 PARAPET CUT AT ACCESS LADDER
SCALE: 3" = 1'-0"

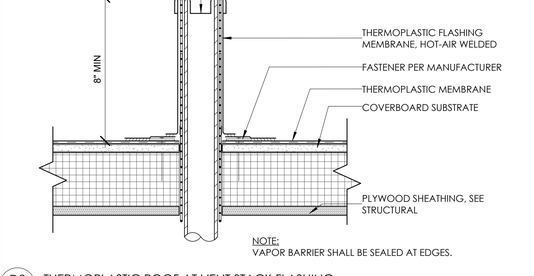


A3 A7.6 TPO AT ASPHALT SHINGLE EDGE
SCALE: 3" = 1'-0"

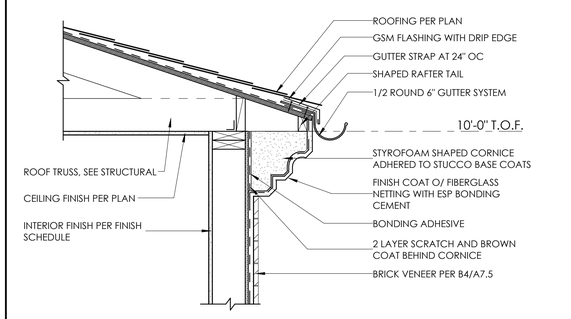


A4 A7.6 ASPHALT ROOF W/ CORNICE RAKE
SCALE: 1" = 1'-0"

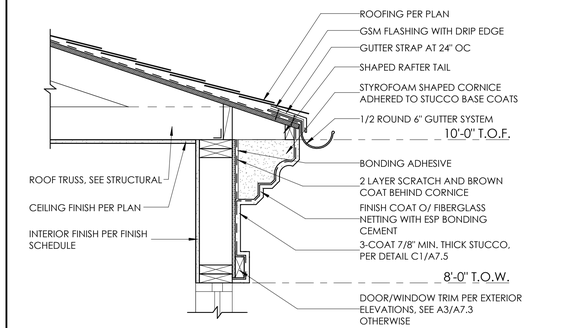
NOTES:
1. PROVIDE WITH VANDAL PROOF CAP PER PLUMBING DRAWINGS.
2. SEE VENT THROUGH ROOF ON PLUMBING DRAWINGS.



B2 A7.6 ASPHALT SHINGLE ROOF - VENT THROUGH ROOF DETAIL
SCALE: 3" = 1'-0"

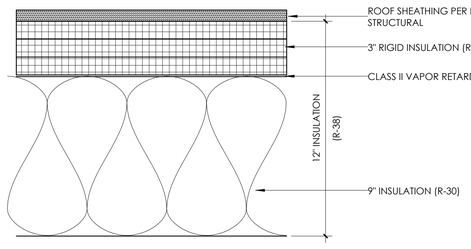


B3 A7.6 GUTTER AT CORNICE WITH BRICK VENEER
SCALE: 1" = 1'-0"

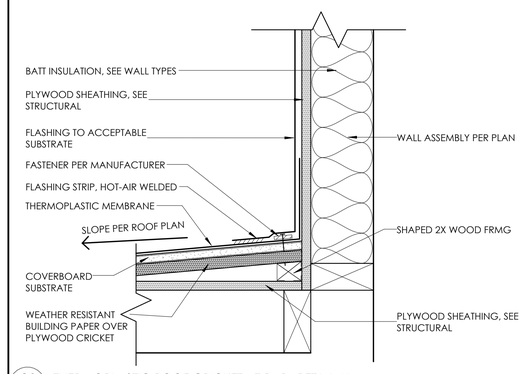


B4 A7.6 GUTTER AT CORNICE
SCALE: 1" = 1'-0"

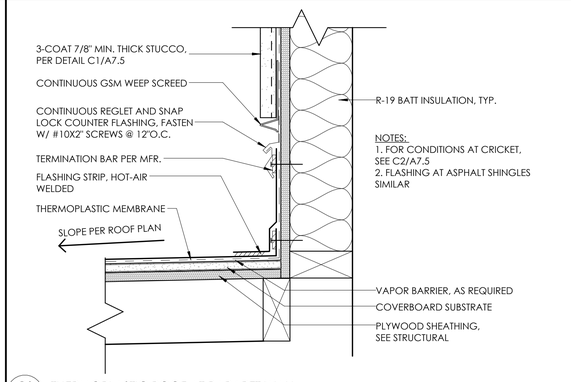
MORGAN HILL IS ZONE 4	(3) PCS RIGID INSULATION @ R6 = 18R
TOTAL CEILING R VALUE = R49	9" BATT INSULATION @ R30
(PER TABLE ICC R402.1.2)	5/8" PLYWOOD ROOF DECK = R0.77
RIGID INSULATION = R15	(2) 60 MIL VAPOR BARRIER @ R0.12 = R0.24
(PER TABLE IBC 1203.3)	ASPHALT SHINGLE ROOFING = R0.94
	TOTAL R VALUE IS 49.95 > 49



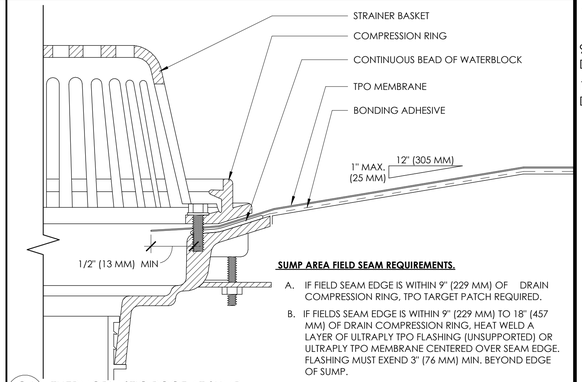
C1 A7.6 UNVENTED ENCLOSED ATTIC INSULATION ASSEMBLY
SCALE: 3" = 1'-0"



C2 A7.6 THERMOPLASTIC ROOF CRICKET AT PARAPET WALL
SCALE: 3" = 1'-0"



C3 A7.6 THERMOPLASTIC ROOF AT PARAPET WALL
SCALE: 3" = 1'-0"

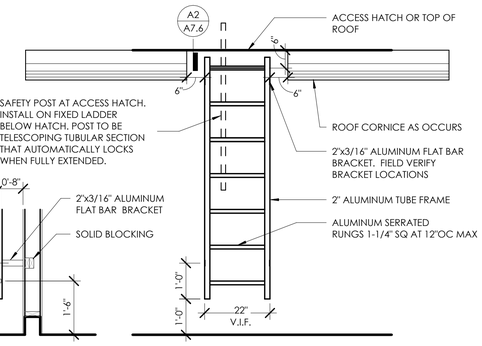


SUMP AREA FIELD SEAM REQUIREMENTS.

A. IF FIELD SEAM EDGE IS WITHIN 9" (229 MM) OF DRAIN COMPRESSION RING, TPO TARGET PATCH REQUIRED.

B. IF FIELDS SEAM EDGE IS WITHIN 9" (229 MM) TO 18" (457 MM) OF DRAIN COMPRESSION RING, HEAT WELD A LAYER OF ULTRAPLY TPO FLASHING (UNSUPPORTED) OR ULTRAPLY TPO MEMBRANE CENTERED OVER SEAM EDGE. FLASHING MUST EXEND 3" (76 MM) MIN. BEYOND EDGE OF SUMP.

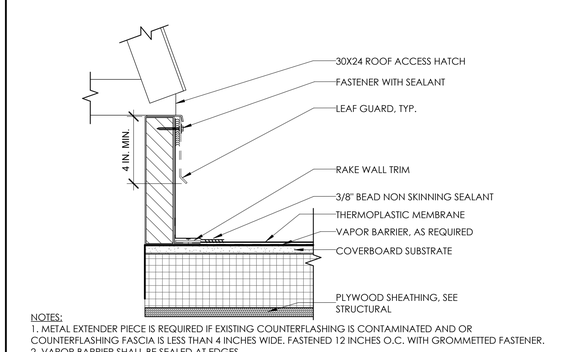
C4 A7.6 THERMOPLASTIC ROOF AT SUMP
SCALE: 6" = 1'-0"



D1 A7.6 ROOF ACCESS LADDER
SCALE: 1/2" = 1'-0"

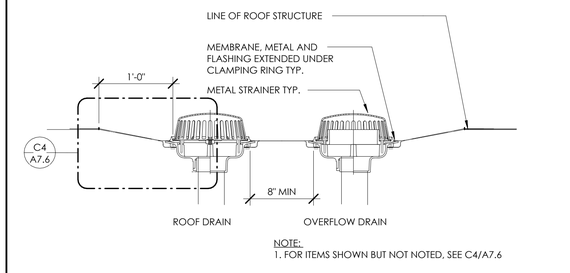
NOTE:
VAPOR BARRIER SHALL BE SEALED AT EDGES.

D2 A7.6 THERMOPLASTIC ROOF AT VENT STACK FLASHING
SCALE: 3" = 1'-0"



NOTES:
1. METAL EXTENDER PIECE IS REQUIRED IF EXISTING COUNTERFLASHING IS CONTAMINATED AND OR COUNTERFLASHING FASCIA IS LESS THAN 4 INCHES WIDE. FASTENED 12 INCHES O.C. WITH GROMMETTED FASTENER.
2. VAPOR BARRIER SHALL BE SEALED AT EDGES.

D3 A7.6 THERMOPLASTIC ROOF AT ROOF HATCH
SCALE: 3" = 1'-0"



NOTE:
1. FOR ITEMS SHOWN BUT NOT NOTED, SEE C4/A7.6

D4 A7.6 THERMOPLASTIC ROOF AT ROOF DRAIN
SCALE: 1" = 1'-0"

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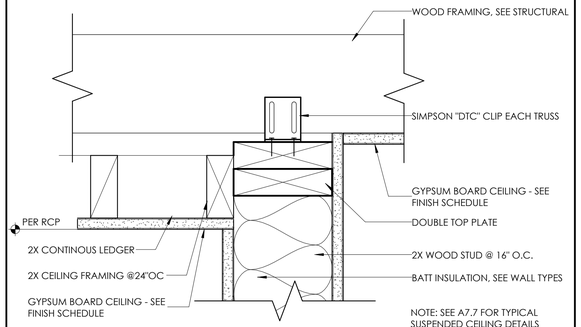
211101

SHEET TITLE:

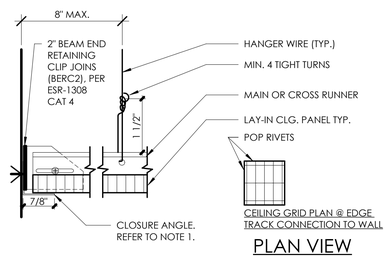
ROOFING DETAILS

SHEET NUMBER:

A7.6



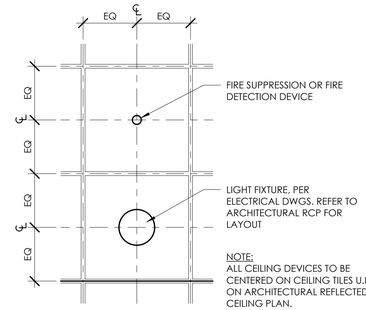
A2 A7.7 DROPPED GYP BOARD CEILING
SCALE: 3" = 1'-0"



PLAN VIEW

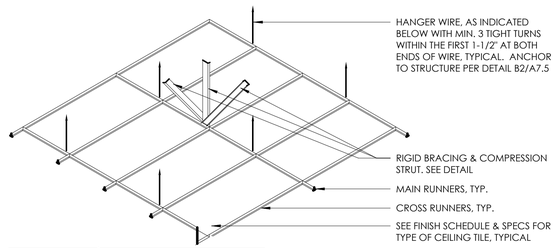
NOTE:
1. ONE END OF CEILING GRID SHALL BE POP RIVETED TO THE CLOSURE ANGLE. THE OTHER END IN EACH HORIZONTAL DIRECTION SHALL BE ATTACHED BY SLOTTED CLIP, ESR-1308. AS SHOWN ABOVE DETAIL AND SEE LOCATION DIAGRAM

A3 A7.7 EDGE DETAIL
SCALE: 6" = 1'-0"



NOTE:
ALL CEILING DEVICES TO BE CENTERED ON CEILING TILES U.N.O. ON ARCHITECTURAL REFLECTED CEILING PLAN.

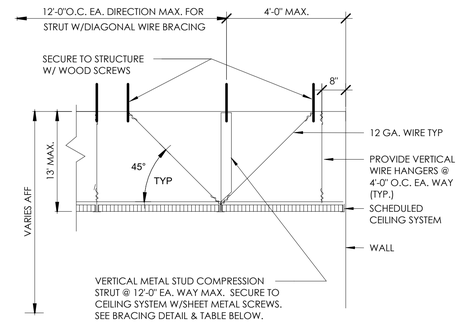
A4 A7.7 TYP. ACOUTICAL PANEL CEILING
SCALE: 3/4" = 1'-0"



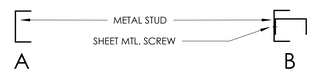
ITEM	ACOUSTICAL PANEL CLG.
MAIN RUNNER	"HEAVY DUTY" PER ASTM C635
CROSS RUNNER	"HEAVY DUTY" PER ASTM C635
GALV. HANGER WIRES (EA. WAY)	#12 GA. @ 4'-0" O.C.
RIGID BRACING & COMP. STRUT	PER @ 12'-0" O.C. EA. WAY

*SECTION PROPERTIES FOR COLD ROLLED CHANNELS (CRC) AND HAT CHANNELS SHALL BE IN COMPLIANCE WITH SSMA (ICC ER-4943P)

B3 A7.7 CEILING SUSPENSION DETAIL
SCALE: 12" = 1'-0"



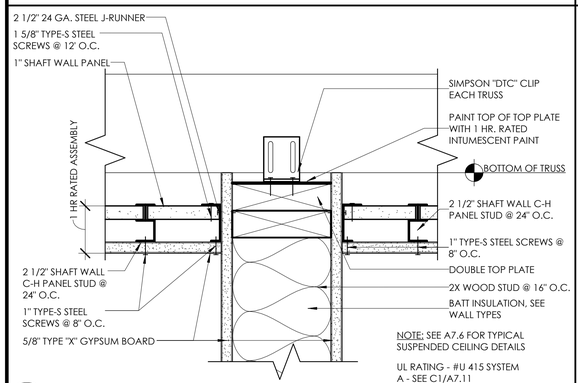
COMPRESSION STRUT TABLE



LENGTH OF STRUT	TYPE	DESCRIPTION
0" TO 8'-0"	A	1 - 3 5/8" x 25 GA. MTL. STUD
8'-1" TO 10'-0"	B	2 - 1 5/8" x 25 GA. MTL STUDS W/ SHEET MTL. SCREWS @ 12" O.C.
10'-1" TO 15'-0"	B	2 - 2 1/2" x 25 GA. MTL. STUDS W/ SHEET MTL. SCREWS @ 12" O.C.
15'-1" TO 20'-0"	B	2 - 3 5/8" x 25 GA. MTL STUDS W/ SHEET MTL. SCREWS @ 12" O.C.

NOTES:
1. SUSPENDED CEILINGS SHALL COMPLY WITH ASCE 7 13.5.6.2.2
2. PERIMETER SUPPORT ON MINIMUM 2" CLOSURE ANGLES, 2 ADJACENT ENDS OF CEILING GRID SHALL BE ATTACHED TO CLOSURE ANGLES WHILE OTHER ENDS SHALL HAVE 3/4" CLEARANCE FROM WALLS AND REST UPON AND BE FREE TO SLIDE ON CLOSURE ANGLES.

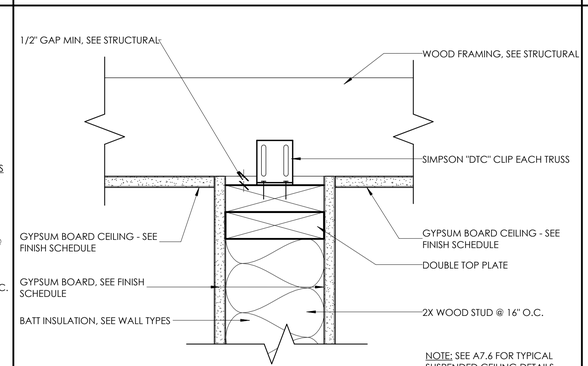
A4 A7.7 SUSPENDED CEILING DETAIL
SCALE: 1/2" = 1'-0"



NOTE: SEE A7.6 FOR TYPICAL SUSPENDED CEILING DETAILS

UL RATING - #U 415 SYSTEM
A - SEE C1/A7.11

C1 A7.7 ONE HOUR RATED WALL AND CEILING AT CONNECTION OF WALL TO TRUSS
SCALE: 3" = 1'-0"



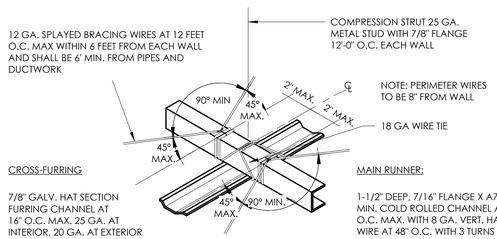
NOTE: SEE A7.6 FOR TYPICAL SUSPENDED CEILING DETAILS

C2 A7.7 TYPICAL TOP OF WALL ATTACHMENT @ WALL PERPENDICULAR TO TRUSS
SCALE: 3" = 1'-0"

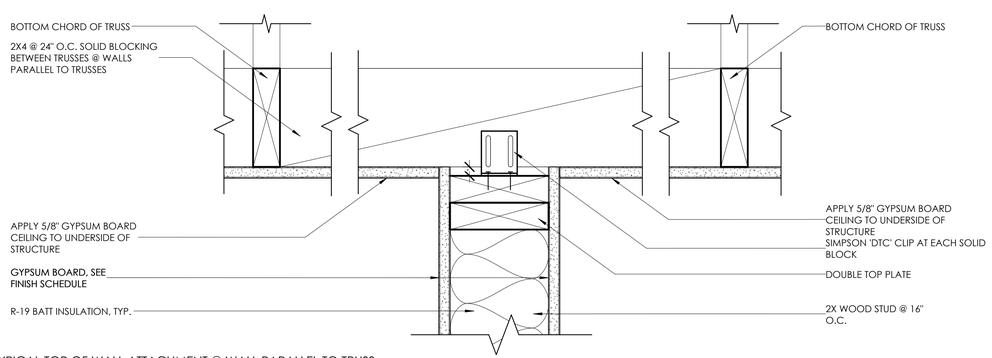
MECHANICAL AND LIGHT FIXTURES SHALL BE CONNECTED TO (1) VERTICAL 12 GA. WIRE ATTACHED TO OPPOSING CORNERS ALONG FIXTURES DIAGONAL.

FOR STRUTS 4' TO 8' IN LENGTH, A MINIMUM 25 GA. METAL STUD WITH 1-5/8" FLANGE AND 1/2" LIP MAY BE USED. PROVIDE CALS FOR STRUTS GREATER THAN 8' IN LENGTH

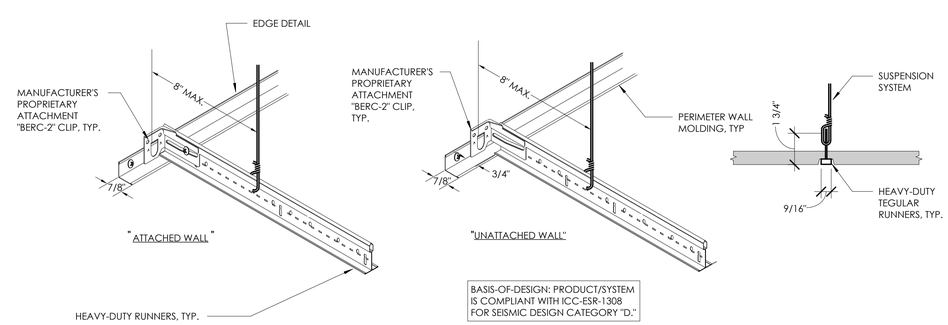
LATERAL FORCE BRACING MEMBERS SHALL BE A MINIMUM OF 6" FROM ALL HORIZONTAL PIPING OR DUCT WORK NOT PROVIDED WITH BRACING RESTRAINTS FOR HORIZONTAL FORCES



C3 A7.7 SUSPENDED CEILING DETAIL
SCALE: 3" = 1'-0"



D1 A7.7 TYPICAL TOP OF WALL ATTACHMENT @ WALL PARALLEL TO TRUSS
SCALE: 3" = 1'-0"



BASIS-OF-DESIGN: PRODUCT/SYSTEM IS COMPLIANT WITH ICC-ESR-1308 FOR SEISMIC DESIGN CATEGORY "D."

D3 A7.7 CEILING SUSPENSION SYSTEM & EDGE
SCALE: 3" = 1'-0"

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/22/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

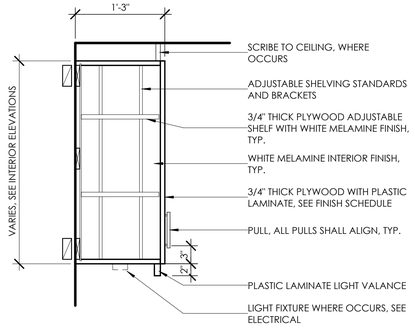
211101

SHEET TITLE:

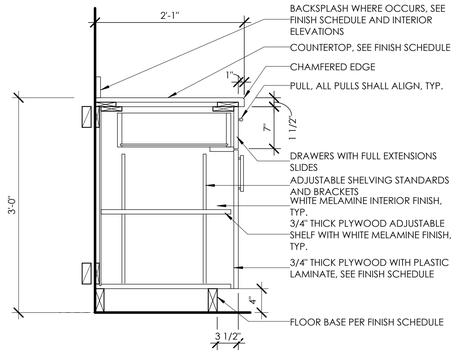
CEILING DETAILS

SHEET NUMBER:

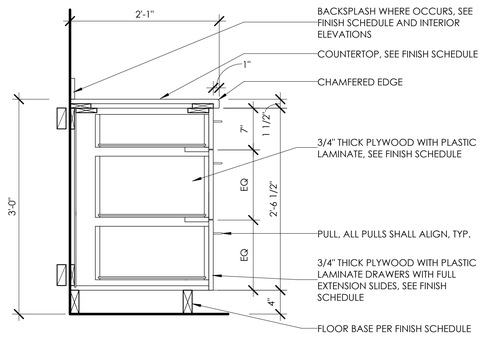
A7.7



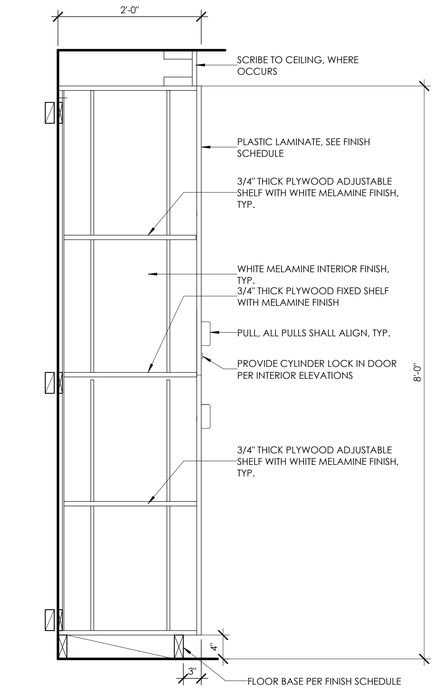
A1 UPPER CASEWORK DETAIL
A7.8 SCALE: 1" = 1'-0"



A2 CASEWORK DETAIL
A7.8 SCALE: 1" = 1'-0"

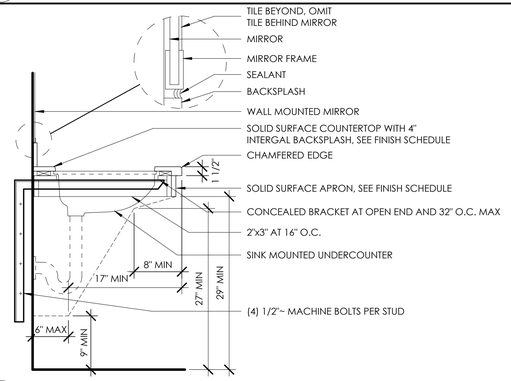


A3 CASEWORK DETAIL
A7.8 SCALE: 1" = 1'-0"

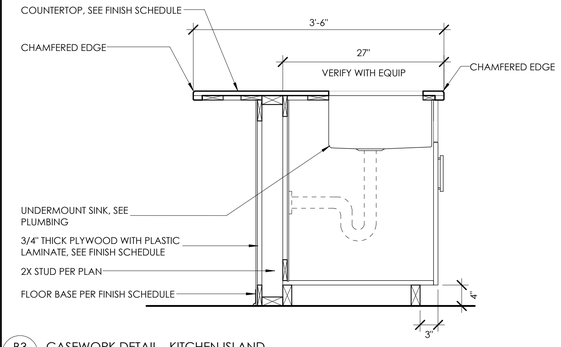


NOTE: PROVIDE CONTINUOUS HINGE AND SPLINE

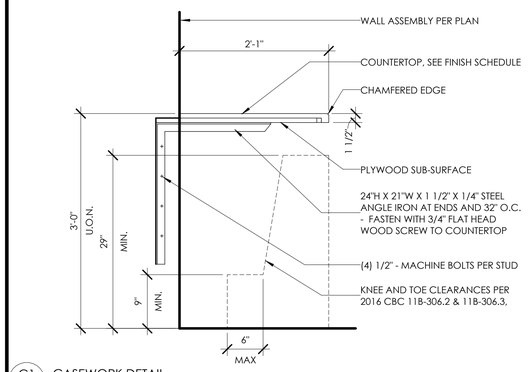
B4 STORAGE CABINET DETAIL
A7.8 SCALE: 1" = 1'-0"



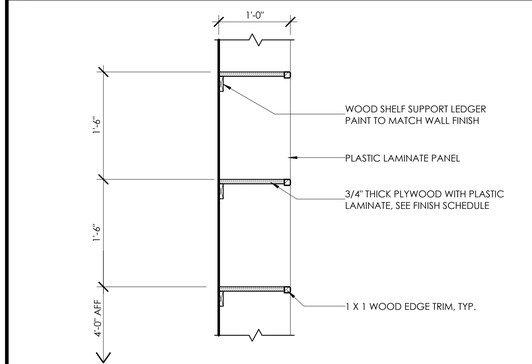
B1 RESTROOM COUNTER DETAIL WITH SINK
A7.8 SCALE: 1" = 1'-0"



B3 CASEWORK DETAIL - KITCHEN ISLAND
A7.8 SCALE: 1" = 1'-0"

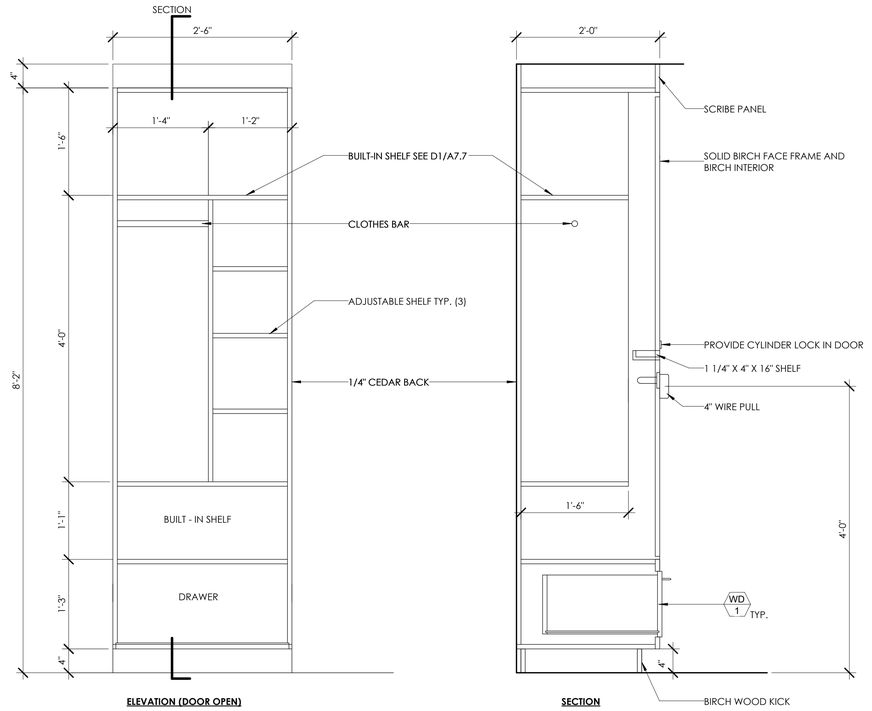


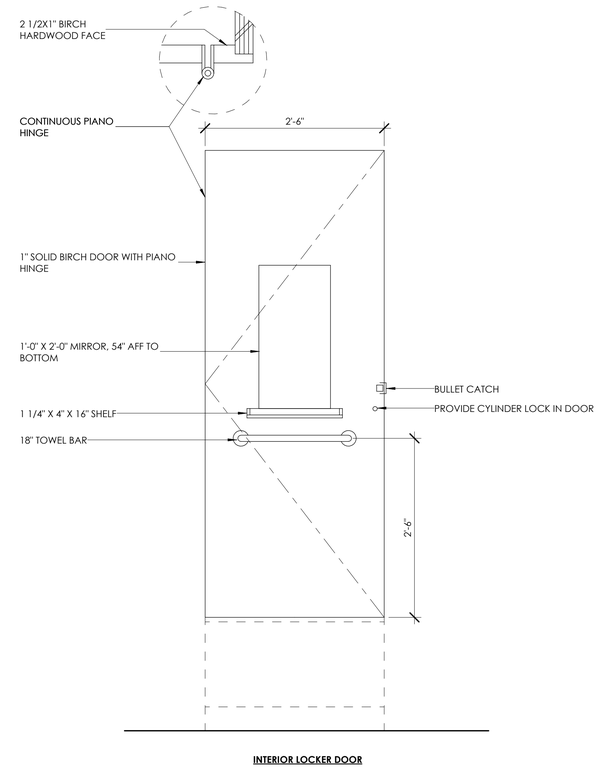
C1 CASEWORK DETAIL
A7.8 SCALE: 1" = 1'-0"



D1 OPEN SHELF DETAIL
A7.8 SCALE: 1" = 1'-0"

NOTE: CONSTRUCT AS SEPARATE UNITS AND BOLT TOGETHER IN FIELD. MATCH GRAIN ON DOOR AND DRAWER FRONTS. PROVIDE SOLID BIRCH FACE FRAME AND BIRCH INTERIOR





D2 BUNK ROOM LOCKERS
A7.8 SCALE: 1" = 1'-0"

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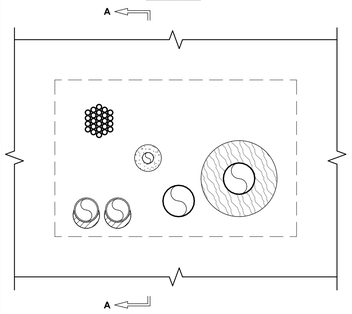
SHEET TITLE:

CASEWORK DETAILS

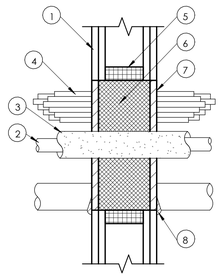
SHEET NUMBER:

A7.8

FRONT VIEW



SECTION A-A



1. 1-HOUR OR 2-HOUR GYPSUM WALL ASSEMBLY TO INCLUDE:
   A. 2X4 STUD LUMBER AT 16" O.C., OR
   B. 3-1/2" WIDE MIN. STEEL STUDS, SPACED MAX. 24: O.C. AND
   C. NOMINAL 5/8" THICK GYPSUM WALLBOARD, TYPE, NUMBER OF LAYERS, AND SHEET ORIENTATION AS SPECIFIED IN THE INDIVIDUAL UL DESIGN.
2. ONE OR MORE OF THE FOLLOWING PIPES, IN ANY COMBINATION MAY BE INSTALLED WITHIN THE OPENING:
   A. MAX. 4" NOMINAL DIA. STEEL PIPE
   B. MAX. 4" NOMINAL DIA. CAST OR DUCTILE IRON PIPE
   C. MAX. 3" NOMINAL DIA. COPPER PIPE OR TUBING
   D. MAX. 3" NOMINAL DIA. STEEL CONDUIT OR EMT
   E. MAX. 2" NOMINAL DIA. PVC PLASTIC PIPE
   F. MAX. 2" NOMINAL DIA. CPVC PLASTIC PIPE
3. [OPTIONAL] ONE OR MORE METALLIC PIPES MAY BE INSULATED WITH THE FOLLOWING TYPES OF PIPE INSULATION:
   A. MIN. 1" TO MAX. 2" THICK GLASS-FIBER PIPE INSULATION
   B. MIN. 1/2" TO MAX. 3/4" THICK AB/PVC PIPE INSULATION
4. ONE MAX. 3" DIA. CABLE BUNDLE.
5. MIN. 1-1/4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AS A BACKER AROUND THE PERIMETER OF THE OPENING.
6. MIN. 3-1/2" OR 4-3/4" THICKNESS MINERAL WOOL (MIN. 4 PCCF DENSITY) TIGHTLY PACKED FOR 1-HOUR OR 2-HOUR FIRE-RATING-RESPECTIVELY.
7. MINIMUM 5/8" DEPTH INTUMESCENT FIRESTOP SEALANT.
8. MINIMUM 1/2" BEAD INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES:

1. WITH STEEL STUDS, MAX. AREA OF SQUARE, RECTANGULAR, OR CIRCULAR OPENING IS 240 SQ. IN. WITH A MAX. DIMENSION OF 20".
2. WITH WOOD STUDS, MAX. AREA OF SQUARE, RECTANGULAR, OR CIRCULAR OPENING IS 210 SQ. IN. WITH A MAX. DIMENSION OF 14-1/2"
3. ANNULAR SPACE BETWEEN PENETRANTS AND PERIPHERY OF OPENING = MIN. 0", MAX. 22".
4. ANNULAR SPACE BETWEEN PENETRANTS = MIN. 1", MAX. 22".

USING HILTI FIRESTOP SYSTEMS GUIDE FOR SPECIFIERS, 2011 EDITION.
FIRESTOP FOR MULTIPLE PENETRATING ITEMS THROUGH GYPSUM WALL ASSEMBLY,
UL SYSTEM NO. W-L-8079

A1 / A7.9 FIRESTOPPING - AT 1-HOUR OR 2-HOUR GYPSUM WALL ASSEMBLY
SCALE: NTS

UL #U415 SYSTEM A-

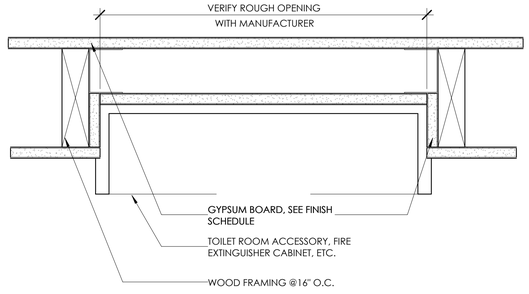
FLOOR, SIDE AND CEILING RUNNERS- "J" SHAPED RUNNER, MIN 2 1/2" DEEP WITH UNEQUAL LEGS OF 1" AND 2" FABRICATED FROM MIN 24 MSG GALVANIZED STEEL. RUNNERS POSITIONED WITH SHORT LEG TOWARD FINISHED SIDE OF WALL. RUNNERS ATTACHED TO STRUCTURAL SUPPORTS WITH STEEL FASTENERS LOCATED NOT GREATER THAN 2" FROM ENDS AND NOT GREATER THAN 24" O.C.

STEEL STUDS- "C-H" SHAPED STUDS, MIN 2 1/2" DEEP FABRICATED FROM MIN 25 MSG GALVANIZED STEEL. CUT TO LENGTHS 3/8" - 1/2" LESS THAN FLOOR TO CEILING HEIGHT AND SPACED 24" O.C.

SHAFT WALL PANEL- GYPSUM LINER PANELS NOM. 1" THICK, 24" WIDE. PANELS CUT 1" LESS IN LENGTH THAN FLOOR TO CEILING HEIGHT. VERTICAL EDGES INSERTED IN "H" POSITION OF "C-H" STUDS. FREE EDGE OF END PANELS ATTACHED TO LONG LEG OF VERTICAL "J" RUNNERS WITH 1 5/8" LONG TYPE S STEEL SCREWS SPACED NOT GREATER THAN 12" O.C.

GYPSUM BOARD- GYPSUM PANELS, WITH BEVELED, SQUARE OR TAPERED EDGES, NOM. 5/8" THICK, 48" WIDE, APPLIED VERTICALLY OR HORIZONTALLY, ATTACHED TO STUDS WITH 1" LONG TYPE S STEEL SCREWS SPACED 12" WHEN INSTALLED VERTICALLY OR 8" WHEN INSTALLED HORIZONTALLY. HORIZONTAL JOINTS NEED NOT BE BACKED BY STEEL FRAMING.

C1 / A7.9 CEILING RATED ASSEMBLIES UL LISTING NOTES
SCALE: NTS



C2 / A7.9 ACCESSORY AT RATED WALL
SCALE: 3" = 1'-0"

UL #U305-

WOOD STUDS- 2X WOOD STUDS SPACED 16 IN. O.C. MAX, EFFECTIVELY FIRESTOPPED

JOINTS AND NAIL HEADS- JOINTS COVERED WITH JOINT COMPOUND AND PAPER TAPE. JOINT COMPOUND AND PAPER TAPE MAY BE OMITTED WHEN SQUARE EDGE BOARDS ARE USED.

GYPSUM BOARD- 5/8 IN. THICK PAPER OR VINYL SURFACED, WITH BEVELED, SQUARE, OR TAPERED EDGES, APPLIED EITHER HORIZONTALLY OR VERTICALLY. GYPSUM PANELS NAILED 7 IN. OC WITH 6D CEMENT COATED NAILS 1-7/8 IN. LONG, 0.0915 IN. SHANK DIAM AND 15/64 IN. DIAM HEADS. WHEN USED IN WIDTHS OTHER THAN 48 IN., GYPSUM PANELS ARE TO BE INSTALLED HORIZONTALLY. GYPSUM PANELS TO BE INSTALLED ON BOTH SIDES OF INTERIOR PARTITIONS .

BATTS AND BLANKETS- GLASS FIBER INSULATION, PLACED TO COMPLETELY OR PARTIALLY FILL THE STUD CAVITIES.

D1 / A7.9 WALL RATED ASSEMBLIES UL LISTING NOTES
SCALE: NTS

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PROJECT NUMBER:

211101

SHEET TITLE:

FIRESTOPPING DETAILS

SHEET NUMBER:

A7.9

F WOOD FRAMING NOTES

1. HEADERS, BEAMS, POSTS, TOP PLATE SPLICES, AND ETC., ARE PER 1/S1.2 AND 3/S1.2 WHERE NOT NOTED ON PLAN AND DETAILS. WALLS AT SEISMIC SEPARATIONS SHALL BE CONSIDERED EXTERIOR WALLS.
2. ALL BEAMS AND JOISTS SHALL BE SEAT CUT FOR FULL UNIFORM BEARING AT SUPPORTS, INCLUDING BEAM SEATS AND COLUMN CAPS.
3. THE GENERAL CONTRACTOR SHALL MEASURE GLULAM BEAM SIZES AND CAMBERS AS DELIVERED TO THE JOB SITE AND SHALL REPORT FINDINGS TO THE ENGINEER PRIOR TO ERECTION. PROVIDE 5,000 FT. RADIUS CAMBER ON ALL SIMPLE SPAN GLULAM BEAMS UNO. WHERE INDICATED ON PLAN, C = ¾" INDICATES MIDSPAN CAMBER IN INCHES.
4. 3½" AND 5½" WIDTHS MAY BE SUBSTITUTED FOR 3⅛" & 5⅛" WIDTHS, RESPECTIVELY, AT INDUSTRIAL APPEARANCE GRADE GLULAM MEMBERS UNO.
5. SEE 10/S1.2 FOR SHEATHING NAILING REQUIREMENTS. ALL NAILING NOT NOTED OR DETAILED OTHERWISE SHALL BE PER 9/S1.2. NAIL LENGTH TO BE SUFFICIENT TO MEET CBC PENETRATION REQUIREMENTS. NAILS INTO PRESSURE TREATED MATERIAL SHALL BE HOT DIP GALVANIZED. NAILS AT BORATE TREATED LUMBER MAY BE CLEAR ZINC COATED. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AT EXTERIOR EXPOSURES.
6. EXTERIOR STUD WALL SHALL BE 2x6 @ 16"oc UNLESS NOTED OTHERWISE. INTERIOR BEARING WALLS AND SHEAR WALLS SHALL BE 2x6 @ 16"oc UNLESS NOTED OTHERWISE. PROVIDE 1¾x9¼ LVL STUDS @ 16"oc AT 9¼" WALLS AS LOCATED BY ARCHITECT. SEE ARCHITECTURAL DRAWINGS FOR OTHER INTERIOR WALL FRAMING SIZES. COORDINATE STUD AND PLATE SIZES WITH THE REQUIREMENTS OF THE SHEAR WALL SCHEDULE.
7. WOOD POST SIZES ARE TO MATCH BEAM AND STUD WIDTH, UNO. WHERE POST OCCURS ABOVE RAISED FLOOR, PROVIDE SOLID BLOCKING AT FLOOR FRAMING TO MATCH WIDTH OF POST. PEN PER J/S0.2 TO POSTS AT ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS. POSTS AT HOLDOWNS TO BE FULL HEIGHT AND PER 8/S1.2
8. FOR ROOF DRAINAGE, TOP OF FRAMING BETWEEN NOTED POINTS IS A STRAIGHT LINE.
9. ALL MECHANICAL SUPPLY AND RETURN OPENINGS TO BE BETWEEN FRAMING UNO.
10. HSS OR PIPE COLUMNS IN STUD WALLS ARE TO BE TRIMMED PER 5/S1.3. REFER TO PLANS AND DETAILS FOR OTHER REQUIREMENTS.
11. JOISTS AND RAFTERS ARE PER PLAN. UNLESS NOTED OTHERWISE, PROVIDE "LU" HANGER AT FLUSH FRAMING AND "HU" HANGER WHERE HANGER IS SHOWN SKEWED PER PLAN AND/OR HANGER SEAT IS INDICATED TO BE SLOPED. HANGER SIZE TO BE CORRECT FULL SIZE FOR JOIST SIZE (I.E. LU210 FOR 2x10). FILL ALL NAIL HOLES.
12. ROUND HOLES IN STEEL PLATES TO BE 1/16" OVERSIZE. SLOTTED HOLES IN STEEL PLATES SHALL BE 1/16" WIDER THAN THE BOLT DIAMETER AND HAVE A LENGTH OF 2 TIMES THE BOLT DIAMETER. THE DIRECTION OF THE SLOTTED LENGTH IS INDICATED ON THE DETAILS (VSH OR HSH). INSTALL BOLT AT THE CENTER LINE OF THE HOLE. BOLT HOLES IN WOOD SHALL BE ROUND AND 1/32" OVERSIZE. CUT OFF BOLT THREADED END FLUSH WITH NUT WHEN REQUIRED BY FINISHES AND 1" MAXIMUM FROM NUT OTHERWISE. PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BOLT BEARS ON WOOD. USE PLATE OR MALLEABLE IRON WASHERS AT EXPOSED CONDITIONS OR AS INDICATED.
13. ALL BOLTED OR NAILED STRAP CONNECTIONS SHALL HAVE AN EQUAL NUMBER OF BOLTS OR NAILS EACH SIDE OF THE SPLICE JOINT. THE FIRST BOLT OR NAIL FROM EACH SIDE OF THE SPLICED OR STRAPPED MEMBER SHALL BE EQUIDISTANT FROM THE SPLICE. STRAPS USING 16d NAILS ON 2x MATERIAL TO BE INSTALLED ON THE 1½" EDGE OF THE MEMBER.
14. THE CONTRACTOR SHALL VERIFY THAT THE MOISTURE CONTENT OF ALL FRAMING LUMBER AND SHEATHING MEET THE REQUIREMENTS OF THE SPECIFICATIONS AT THE TIME OF INSTALLATION AND AT CLOSE-IN. THE CONTRACTOR SHALL PROVIDE ALLOWANCE FOR DIFFERENTIAL SHRINKAGE BETWEEN FLOORS, ETC.
15. VENTING IS REQUIRED IN ENCLOSED FRAMING AREAS, SAD. DRILL BLOCKING AND LEDGERS AND PROVIDE SKIP BLOCKING AS DETAILED.
16. SAD FOR CEILING INFO. WHERE REQUIRED PROVIDE CEILING JOISTS PER 8/S1.3, UNO.
17. ALL SHEATHING SHALL HAVE 1/8" GAP AT ALL EDGES AND JOINTS. TYPICAL SHEATHING:
    A. FLAT ROOF SHEATHING (SLOPE 2:12 OR LESS): 15/32 " T&G APA RATED SHEATHING (40/20) EXP 1 WITH 10d @ 6"oc EDGES (PEN) AND 12"oc FIELD UNO ON PLANS. LAY PERPENDICULAR TO FRAMING MEMBERS. BLOCK EDGES WITH 2x4 LAID FLAT WHERE NOTED ON THE PLANS AND DETAILS. NO PANELS LESS THAN 24" WIDE SHALL BE USED. STAGGER SHEETS.
    B. SLOPING ROOF SHEATHING (SLOPE GREATER THAN 2:12): 15/32 " APA RATED SHEATHING (32/16) EXP 1 WITH 10d @ 6"oc EDGES (PEN) AND 12"oc FIELD UNO ON PLANS. LAY PERPENDICULAR TO FRAMING MEMBERS. PROVIDE SHEATHING CLIPS AT UNSUPPORTED EDGES UNLESS NOTED TO BE BLOCKED ON PLANS. NO PANELS LESS THAN 24" WIDE SHALL BE USED. STAGGER SHEETS.
    C. ATTIC SHEATHING: 23/32 " T&G APA RATED SHEATHING (48/24) EXP 1 WITH 10d @ 6"oc EDGES (PEN) AND 12"oc FIELD UNO ON PLANS. LAY PERPENDICULAR TO & GLUE TO FRAMING MEMBERS IMMEDIATELY PRIOR TO FULL NAILING (DO NOT SPOT NAIL). BLOCK EDGES WITH 2x4 LAID FLAT AS NOTED ON THE PLANS AND DETAILS. NO PANELS LESS THAN 24" WIDE SHALL BE USED. STAGGER SHEETS. ALTERNATE FASTENER: SIMPSON WSV #9x2" MIN SCREW (ICC ESR-1472). MIN 1¼" FRAMING/BLOCKING EMBEDMENT.

G STEEL NOTES

1. COORDINATE TOP OF FOOTING ELEVATIONS AS DETERMINED BY THE CONTRACTOR PER C/S0.1.
2. TOP OF STEEL ELEVATIONS ARE TO BE DETERMINED BY THE CONTRACTOR BASED ON ARCHITECTURAL DRAWINGS AND STRUCTURAL DRAWINGS.
3. ALL STEEL FRAMING IN WOOD FRAMING SHALL BE TRIMMED PER 5/S1.3 UNO, GENERAL CONTRACTOR TO COORDINATE WITH SUBCONTRACTORS. REFER TO PLANS AND DETAILS FOR OTHER REQUIREMENTS.

H ENGINEERED LUMBER FRAMING NOTES

1. BASIS OF DESIGN IS REDBUILT LVL PER ICC ESR-2993.
2. NAIL SPACING SHALL NOT BE LESS THAN MINIMUM PER MANUFACTURER. SEE 10/S1.2 FOR PANEL EDGE NAILING.
3. JAMB STUDS SHALL MATCH TYPICAL LVL STUDS. SILLS, HEADERS, AND TRIM STUDS MAY BE EITHER LVL OR SAWN LUMBER. TOP PLATES SHALL BE SAWN LUMBER.
4. WOOD AGAINST CMU OR CONCRETE SHALL BE PRESERVATIVE TREATED PER AWPA STANDARD U1. "USE CATEGORY" UC2 AT INTERIOR. CUT FACES SHALL BE BRUSH TREATED WITH EQUIVALENT PRESERVATIVE PRIOR TO INSTALLATION.

E FOUNDATION NOTES

1. ALLOWABLE (ASD) FOUNDATION DESIGN PRESSURES ARE:

   SHALLOW FOOTINGS:
   DEAD LOAD + LIVE LOAD = 3,000 PSF
   DEAD LOAD + LIVE LOAD + LATERAL = 4,000 PSF

2. ALL SOILS WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE REQUIREMENTS OF THE GEOTECHNICAL REPORT NOTED BELOW, AND CHAPTER 18 OF THE CBC. ALL FOUNDATIONS SHALL BEAR ON FIRM, UNDISTURBED, NATIVE SOILS OR ENGINEERED FILL AT OR EXCEEDING DEPTHS SHOWN ON THE DRAWINGS. ENGINEERED FILL TO BE COMPACTED PER GEOTECHNICAL REPORT. INCREASE FILL AND OR FOOTING DEPTH AS REQUIRED BY GEOTECHNICAL ENGINEER. ALL FOOTING EXCAVATIONS SHALL BE AS NEAT AS PRACTICABLE. MAXIMUM OVER EXCAVATION IN WIDTH SHALL BE LESS THAN 12 INCHES OR 25% OF FOOTING WIDTH, WHICH EVER IS LESS. 6 INCHES MAXIMUM PER SIDE. LARGER OVER-EXCAVATIONS IN WIDTH SHALL BE FILLED WITH ADDITIONAL REINFORCED CONCRETE AS DIRECTED BY THE ENGINEER, OR FORMWORK SHALL BE PROVIDED. OVER-EXCAVATIONS IN DEPTH MAY BE FILLED WITH LEAN CONCRETE OR COMPACTED APPROVED BACKFILL. ALL LOOSE SOILS SHALL BE REMOVED FROM EXCAVATIONS PRIOR TO PLACEMENT OF REINFORCING OR CONCRETE. GEOTECHNICAL REPORT BY:

   GEOCON CONSULTANTS, INC.
   REPORT NO. E9291-04-01
   DATED: MAY 18, 2022

3. WHERE BOTTOM OF ADJACENT FOOTINGS ARE DIFFERENT PROVIDE STEPPED FOOTING PER 5/S1.1.
4. USE 5/8" DIAMETER x 12" (18" AT CURBS) ANCHOR BOLTS (AB) AT 48"oc WHERE NOT OTHERWISE NOTED. MINIMUM EMBEDMENT INTO CONCRETE IS 7" (EXCLUDING CURB) UNLESS DETAILED OTHERWISE. ANCHOR BOLTS ARE TO BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE. SEE SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS. MINIMUM TWO ANCHOR BOLTS PER SILL PIECE.
5. TYPICAL SLAB: 6" CONCRETE REINFORCED WITH #4 @ 12"oc EACH WAY AT MID-DEPTH OVER VAPOR RETARDER (PER SPECIFICATIONS) AND 7" MINIMUM FREE DRAINING COMPACTED CRUSHED ROCK ON SUBGRADE PER THE GEOTECHNICAL RECOMMENDATIONS, AND AS APPROVED BY THE GEOTECHNICAL ENGINEER. DO NOT DRIVE CONCRETE TRUCKS OR LARGE SCREED MACHINES ON VAPOR RETARDER WITHOUT ADDITIONAL BUFFER MATERIAL AND APPROVAL FROM THE STRUCTURAL ENGINEER.
6. APPARATUS BAY SLAB: 9" CONCRETE REINFORCED WITH #5 @ 12"oc EACH WAY AT MID-DEPTH OVER VAPOR RETARDER (PER SPECIFICATIONS) AND 4" MINIMUM FREE DRAINING COMPACTED CRUSHED ROCK ON SUBGRADE PER THE GEOTECHNICAL RECOMMENDATIONS, AND AS APPROVED BY THE GEOTECHNICAL ENGINEER. DO NOT DRIVE CONCRETE TRUCKS OR LARGE SCREED MACHINES ON VAPOR RETARDER WITHOUT ADDITIONAL BUFFER MATERIAL AND APPROVAL FROM THE STRUCTURAL ENGINEER.
7. REFER TO ARCHITECTURAL AND PLUMBING DRAWINGS FOR DEPRESSED SLABS FOR ARCHITECTURAL FLOORING OR INSERTS, SLOPED SLABS TO DRAIN AND PIPES OR CONDUITS AT SLAB. SEE 8/S1.1 AT DEPRESSED SLAB & 7/S1.1 FOR PIPES AND CONDUITS.
8. PROVIDE CONTROL JOINTS PER 6/S1.1 (OR CONSTRUCTION/DOWEL JOINTS AT CONTRACTOR'S OPTION) AS SHOWN ON PLAN AND AS REQUIRED TO MEET A MAXIMUM SPACING IN FEET OF 3 TIMES THE SLAB DEPTH IN INCHES (FOR EXAMPLE 3x4" = 12'-0"oc MAX) AND 15'-0"oc MAX. INSTALL JOINTS TO DIVIDE SLAB INTO RECTANGULAR AREAS WITH LONG DIMENSION LESS THAN 1.5 x SHORT DIMENSION. INSTALL JOINTS AT FACE OF STUDS OF WALL WHERE POSSIBLE. SUBMIT JOINT LAYOUT PLAN FOR REVIEW PRIOR TO PLACEMENT.
9. TOP OF FOOTING ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR BASED ON INFORMATION FROM THE CIVIL DRAWINGS, GEOTECHNICAL REPORT, LANDSCAPE, ETC.

ABBREVIATIONS

AB	ANCHOR BOLT	FTG	FOOTING	PNL	PANEL
ABV	ABOVE	GA	GAGE or GAUGE	PSF	POUNDS PER SQUARE FOOT
AC	AIR CONDITIONING	GALV	GALVANIZED	PSI	POUNDS PER SQUARE INCH
ADJ	ADJACENT	GB	GRADE BEAM	PSL	PARALLEL STRAND LUMBER
ADDL	ADDITIONAL	GL	GRIDLINE	PTDF	PRESSURE TREATED DOUGLAS FIR
ALT	ALTERNATE	GLB	GLUE LAMINATED BEAM	PT	POINT
ALUM	ALUMINUM	GR	GRADE	R	RADIUS
ARCH	ARCHITECT	HD	HOLD DOWN	RBS	REDUCED BEAM SECTION
AYC	ALASKAN YELLOW CEDAR	HDG	HOT-DIP GALVANIZED	RFTR	RAFTER
@	AT	HDR	HEADER	REF	REFERENCE
BF	BRACED FRAME	HGR	HANGER	REINF	REINFORCING
BLDG	BUILDING	HK	HOOK	REQD	REQUIRED
BLK/BLKG	BLOCK/BLOCKING	HORIZ	HORIZONTAL	RET	RETAINING
BLW	BELOW	HSB	HIGH STRENGTH BOLT	REV	REVISION
BM	BEAM	HSG	HIGH STRENGTH GROUT	RF	ROOF
BN	BOUNDARY NAIL	HSH	HORIZONTAL SLOTTED HOLE	RWD	REDWOOD
BOT	BOTTOM	HSS	HOLLOW STRUCTURAL SECTION	S	AMERICAN STANDARD BEAM
BRG	BEARING	HT	HEIGHT	SAD	SEE ARCHITECTURAL DRAWINGS
BTWN	BETWEEN	ID	INSIDE DIAMETER	SB	SOLID BLOCK
BU	BUILT-UP	IJ	I SHAPED WOOD BUILT UP TRUSS	SC	SLIP CRITICAL
BYND	BEYOND	INT	INTERIOR	SCD	SEE CIVIL DRAWINGS
C	AMERICAN STANDARD CHANNEL	JST	JOIST	SCHED	SCHEDULE
CA	CALIFORNIA	JT	JOINT	SED	SEE ELECTRICAL DRAWINGS
CANT	CANTILEVER	KP	KING POST	SEOR	SEE STRUCTURAL ENGINEER OF RECORD
CB	CARRIAGE BOLT	L	STEEL ANGLE	SFRS	SEISMIC FORCE RESISTING SYSTEM
CFS	COLD FORMED STEEL	Lb or #	POUND(s)	SHTG	SHEATHING
CIP	CAST IN PLACE	LGMF	LIGHT GAGE METAL FRAMING	SIM	SIMILAR
CGL	CERTIFIED GLUED LUMBER	LGMFC	LIGHT GAGE METAL FRAMING CONTRACTOR	SKYLT	SKYLIGHT
CJ	CONTROL JOINT	LL	LIVE LOAD	SLD	SEE LANDSCAPE DRAWINGS
℄	CENTERLINE	LLH	LONG LEG HORIZONTAL	SMS	SHEET METAL SCREW
CJP	COMPLETE JOINT PENETRATION	LLV	LONG LEG VERTICAL	SMD	SEE MECHANICAL DRAWINGS
CLG	CEILING	LOC	LOCATION	SOG	SLAB ON GRADE
CLR	CLEAR	LS	LAG SCREW	SPCG	SPACING
COL	COLUMN	LSL	LAMINATED STRAND LUMBER	SPD	SEE PLUMBING DRAWINGS
CONC	CONCRETE	LVL	LAMINATED VENEER LUMBER	SPEC	SPECIFICATION
CONN	CONNECTION	LWC	LIGHTWEIGHT CONCRETE	SQ	SQUARE
CONT	CONTINUOUS	MAX	MAXIMUM	SS	SELECT STRUCTURAL or STAINLESS STEEL
COORD	COORDINATE/ COORDINATION	MB	MACHINE BOLT	STGR	STAGGERED
CMU	CONCRETE MASONRY UNIT	MBM	METAL BUILDING MANUFACTURER	STD	STANDARD
CSK	COUNTERSINK	MC	MISCELLANEOUS CHANNEL	STIFF	STIFFENER
CW	CUT WASHER	MECH	MECHANICAL	STL	STEEL
DBA	DEFORMED BAR ANCHOR	MEZZ	MEZZANINE	STRUCT	STRUCTURAL
DBL	DOUBLE	MF	MOMENT FRAME	SW	SHEAR WALL
DCW	DEMAND CRITICAL WELD	MFR	MANUFACTURER	SYM	SYMMETRICAL
DF	DOUGLAS FIR	MIN	MINIMUM	T&B	TOP AND BOTTOM
DIA or ⌀	DIAMETER	MISC	MISCELLANEOUS	T&G	TONGUE AND GROOVE
DIAG	DIAGONAL	MW	MALLEABLE IRON WASHER	THK	THICK
DIM	DIMENSION	MTL	METAL	THRD	THREADED
DIST	DISTANCE	MJ	MECH UNIT	THRU	THROUGH
DJ	DOWEL JOINT	(N)	NEW	TL	TOTAL LOAD
DL	DEAD LOAD	NA	NOT APPLICABLE	TN	TOE NAIL
DN	DOWN	NO or #	NUMBER	TOC	TOP OF CONCRETE
DO	DITTO	NS	NEAR SIDE	TOF	TOP OF FRAMING
DWG	DRAWING	NSG	NON-SHRINK GROUT	TOM	TOP OF MASONRY
DWL	DOWEL	NTS	NOT TO SCALE	TOP	TOP OF PLYWOOD
EA	EACH	NWC	NORMAL-WEIGHT CONCRETE	TOS	TOP OF STEEL
EE	EACH END	OC	ON CENTER	TOT	TOTAL
EF	EACH FACE	OD	OUTSIDE DIAMETER	TU	TILT UP
ELEC	ELECTRICAL	OPH	OPPOSITE HAND	TYP	TYPICAL
ELEV	ELEVATOR/ELEVATION	OPNG	OPENING	UNO	UNLESS NOTED OTHERWISE
EMBED	EMBEDMENT	OPP	OPPOSITE	VERT	VERTICAL
EQ	EQUAL	OVS	OVERSIZED	VIF	VERIFY IN FIELD
EQUIP	EQUIPMENT	OW	OTHERWISE	VSH	VERTICAL SLOTTED HOLE
ES	EACH SIDE	OWT	OPEN WEB TRUSS	W	WIDE FLANGE STEEL BEAM
EW	EACH WAY	℄	PLATE or PROPERTY LINE	W/	WITH
(E)	EXISTING	PA	POST ABOVE	W/O	WITHOUT
EXP	EXPANSION	PAF	POWER ACTUATED FASTENERS	WD	WOOD
EXT	EXTERIOR	PEN	PANEL EDGE NAIL	WHS	WELDED HEADED STUD
FDN	FOUNDATION	PERP	PERPENDICULAR	WLD	WELDED
FIN	FINISH	PES	PANEL EDGE SCREWS	WP	WORK POINT/WATERPROOF
FG	FINISH GRADE	PJP	PARTIAL JOINT PENETRATION	WS	WOOD SCREW
FLR	FLOOR	PLF	POUNDS PER LINEAR FOOT	WT	WEIGHT
FN	FACE NAIL			WTS	WELDED THREADED STUD
FOC	FACE OF CONCRETE			WWR	WELDED WIRE REINFORCEMENT
FOM	FACE OF MASONRY				
FOS	FACE OF STUD				
FRMG	FRAMING				
FS	FAR SIDE				

ADMINISTRATIVE REQUIREMENTS FOR ESSENTIAL SERVICES FACILITIES

C

THE ADMINISTRATIVE REQUIREMENTS SHALL BE MET IN ACCORDANCE WITH THE CALIFORNIA ADMINISTRATIVE CODE (CAC) CHAPTER 4; ARTICLES 1, AND 3 FOR NON-STATE OWNED OR STATE LEASED ESSENTIAL SERVICES BUILDINGS.

1. APPROVED PLANS AND SPECIFICATIONS PER CAC SECTION 4-207 - APPROVED PLANS AND SPECIFICATIONS SHALL MEAN, PLANS, SPECIFICATIONS, ADDENDA AND CHANGE ORDERS WHICH HAVE BEEN DULY APPROVED BY THE APPROPRIATE ENFORCEMENT AGENCY PURSUANT TO SECTIONS 16013 AND 16016 OF THE HEALTH AND SAFETY CODE AND WHICH ARE IDENTIFIED BY A STAMP BEARING THE NAME OF THE ENFORCEMENT AGENCY, THE IDENTIFICATION NUMBER, THE DATE AND SIGNATURE OF THE QUALIFIED REVIEWER AS REQUIRED IN SECTION 16011 OF THE ESSENTIAL SERVICES BUILDING SEISMIC SAFETY ACT OF 1986 (ACT).
2. OBSERVATIONS OF WORK PER CAC SECTION 4-211 (a) - THE OBSERVATION OF WORK OF CONSTRUCTION, RECONSTRUCTION, ALTERATION OR ADDITION SHALL BE UNDER THE GENERAL RESPONSIBLE CHARGE OF THE ARCHITECT, STRUCTURAL ENGINEER, CIVIL ENGINEER OR, UNDER CERTAIN CONDITIONS, A REGISTERED MECHANICAL OR ELECTRICAL ENGINEER FOR WORK INVOLVING ONLY THOSE RESPECTIVE BRANCHES OF ENGINEERING. A GEOTECHNICAL ENGINEER SHALL PROVIDE THE OBSERVATIONS FOR PLACEMENT OF FILLS AND SHALL SUBMIT A VERIFIED REPORT ATTESTING TO THE COMPLIANCE OF THE ENGINEERED FILL.
3. PROJECT INSPECTOR PER CAC SECTION 4-211 (b) - THE OWNER MUST PROVIDE FOR AND REQUIRE COMPETENT, ADEQUATE AND CONTINUOUS INSPECTION OF ALL CONSTRUCTION WORK BY A PROJECT INSPECTOR APPROVED FOR EACH INDIVIDUAL PROJECT BY THE ENFORCEMENT AGENCY.
4. SPECIAL INSPECTION PER CAC SECTION 4-211 (c) - SPECIAL INSPECTION BY INSPECTORS SPECIALLY APPROVED BY THE ENFORCEMENT AGENCY MAY BE REQUIRED PER THE STATEMENT OF SPECIAL INSPECTION FORM AND AS SUMMARIZED PER E/S0.1.
5. SUPERVISION OF CONSTRUCTION BY THE ENFORCEMENT AGENCY PER CAC SECTION 4-212 - DURING THE CONSTRUCTION, RECONSTRUCTION, REPAIR, ALTERATION OF OR ADDITION TO ANY ESSENTIAL SERVICES BUILDING, THE ENFORCEMENT AGENCY AS PROVIDED IN THE ACT SHALL MAKE SUCH SITE VISITS AND OBSERVATIONS AS IN ITS JUDGMENT IS NECESSARY OR PROPER FOR ENFORCEMENT OF THE ACT AND THE PROTECTION OF THE SAFETY OF THE OCCUPANT OF THE BUILDING AND THE PUBLIC.
6. TESTING PER CAC SECTION 4-213 (a) - GENERAL. TESTS OF MATERIALS ARE REQUIRED AS SET FORTH IN THE APPROVED PLANS AND SPECIFICATIONS AND IN PART 2, TITLE 24, CCR AND E/S0.1. A LIST OF ALL REQUIRED TESTS OF MATERIALS AND OF ALL REQUIRED SPECIAL INSPECTIONS SHALL BE PREPARED AND SUBMITTED BY THE ARCHITECT, STRUCTURAL ENGINEER, OR CIVIL ENGINEER IN GENERAL RESPONSIBLE CHARGE OF THE PROJECT AT THE TIME THE PLANS AND SPECIFICATIONS ARE STAMPED FOR IDENTIFICATION BY THE ENFORCEMENT AGENCY.
7. VERIFIED REPORTS PER CAC SECTION 4-214 - ALL PARTIES DEFINED IN SECTION 4-214 SHALL SUBMIT VERIFIED REPORTS TO THE ENFORCEMENT AGENCY. THESE REPORTS SHALL STATE THAT THE WORK DURING THE PERIOD COVERED BY THE REPORT HAS BEEN PERFORMED AND MATERIALS HAVE BEEN USED AND INSTALLED IN EVERY MATERIAL RESPECT IN COMPLIANCE WITH THE DULY APPROVED PLANS AND SPECIFICATIONS.
8. CHANGES IN THE APPROVED PLANS AND SPECIFICATIONS PER CAC SECTION 4-215 - ALL WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS EXCEPT WHERE DOCUMENTS AUTHORIZING CHANGES HAVE BEEN SUBMITTED BY THE RESPONSIBLE ARCHITECT OR REGISTERED ENGINEER TO THE ENFORCEMENT AGENCY FOR REVIEW AND APPROVAL. THESE DOCUMENTS SHALL DESCRIBE THE AUTHORIZED CHANGES, SHOW THE INCREASE OR DECREASE IN THE CONTRACT COST INVOLVED AND SHALL CONTAIN THE SIGNATURES OF THE RESPONSIBLE ARCHITECT OR REGISTERED ENGINEER AND THE OWNER AND SHALL BEAR THE APPROVAL STAMP OF THE ENFORCEMENT AGENCY.
9. FINAL CERTIFICATION OF COMPLIANCE PER CAC SECTION 4-216 - THE CERTIFICATION OF COMPLIANCE FOR THE ESSENTIAL SERVICES BUILDING SHALL BE ISSUED BY THE ENFORCEMENT AGENCY WHEN THE PROJECT HAS BEEN COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS AS TO SAFETY OF DESIGN AND CONSTRUCTION WITH SECTION 16000-16023 OF THE HEALTH AND SAFETY CODE (ESSENTIAL SERVICES BUILDING SEISMIC SAFETY ACT) AND WITH THE REQUIREMENTS OF THE CAC. THE CERTIFICATION OF COMPLIANCE WILL BE EVIDENCED BY A LETTER OR A CERTIFICATE OF OCCUPANCY EACH OF WHICH SHALL CONTAIN A STATEMENT THAT THE BUILDING DESIGN AND REVIEW OF THE WORK OF CONSTRUCTION HAVE BEEN COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 16000 THROUGH 16023 OF THE HEALTH AND SAFETY CODE AND OF PART 1, TITLE 24, CCR. THE CERTIFICATE OF COMPLIANCE WILL BE DIRECTED TO THE OWNER OF THE ESSENTIAL SERVICES BUILDING. LOCAL ENFORCEMENT AGENCIES SHALL FORWARD ONE COPY OF THE CERTIFICATION OF COMPLIANCE TO THE DSA HEADQUARTERS OFFICE IN SACRAMENTO.
10. DUTIES PER CAC 4-217 THROUGH 4-220 - EACH PARTY, AS DEFINED IN THESE SECTIONS, SHALL COMPLY WITH THE DUTIES STATED IN EACH SECTION.

D SPECIAL INSPECTION BY OWNERS TESTING AGENCY

SPECIAL INSPECTIONS AND TESTING SHALL BE PERFORMED BY AN APPROVED AGENCY IN ACCORDANCE WITH CBC CHAPTER 17 AND THE STATEMENT OF SPECIAL INSPECTIONS AS REQUIRED BY CBC SECTIONS 1704.2.3 AND 1704.3 FOR BUILDING STRUCTURAL ELEMENTS SUMMARIZED AS FOLLOWS:

1. **SHOP FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES** PER CBC SECTION 1704.2.5 OR ALTERNATIVELY, APPROVED FABRICATORS SHALL SUBMIT A CERTIFICATE OF COMPLIANCE PER CBC SECTION 1704.2.5.1 INCLUDING GLULAM BEAM INSPECTION CERTIFICATES.
2. **STRUCTURAL STEEL CONSTRUCTION** PER CBC SECTIONS 1705.2, 1705.12.1, 1705.13.1, AND TABLE 1705.2.3 INCLUDING MATERIAL IDENTIFICATION, SHOP AND FIELD WELDING, AND INSTALLATION OF HIGH-STRENGTH BOLTS.
3. **CONCRETE CONSTRUCTION** PER CBC SECTIONS 1705.3, AND TABLE 1705.3 INCLUDING FORMWORK, REINFORCING STEEL, CAST-IN-PLACE BOLTS, MIX DESIGNS, CONCRETE SAMPLES, AND PLACEMENT FOR ALL CONCRETE. REINFORCING DOWELS FROM FOOTINGS TO RETAINING WALLS SHALL BE INSPECTED PRIOR TO PLACEMENT OF FOOTING CONCRETE AND WALL GROUT OR CONCRETE. CONTINUOUS OR ISOLATED SPREAD FOOTINGS WITH DESIGN STRENGTH NO GREATER THAN 2500 PSI, NON-STRUCTURAL SLABS ON GRADE, AND EXTERIOR FLATWORK DO NOT REQUIRE SPECIAL INSPECTION PER CBC SECTION 1705.3.
4. **WOOD CONSTRUCTION** PER CBC SECTIONS 1705.5, 1705.11.1, AND 1705.12.2 INCLUDING NAILING, BOLTING, AND ANCHORING OF ALL DRAG STRUTS; TOP PLATE SPLICES, LEDGER SPLICES, SIMPSON HARDWARE, BRACES, AND HOLDOWNS; AND NAILING, BOLTING, AND ANCHORING OF ALL SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS WHERE THE FASTENER SPACING OF THE SHEATHING IS 4" APART OR LESS.
5. **SOILS** PER CBC SECTION 1705.6, TABLE 1705.6, AND THE APPROVED SOILS REPORT INCLUDING SUBGRADE PREPARATION, FOUNDATION BEARING MATERIALS AND DEPTH OF EXCAVATIONS, AND VERIFICATION, PLACEMENT AND TESTING OF CONTROLLED FILL.
6. **SPECIAL CASES** PER CBC SECTION 1705.1.1 AND PRODUCT ICC REPORTS FOR ALL STRUCTURAL MATERIALS AND SYSTEMS REQUIRED TO BE INSTALLED IN ACCORDANCE WITH ADDITIONAL MANUFACTURER'S INSTRUCTIONS THAT PRESCRIBE REQUIREMENTS NOT CONTAINED IN THE CBC OR REFERENCED STANDARDS INCLUDING POST-INSTALLED ANCHOR BOLTS IN CONCRETE AND CMU.

A DESIGN CRITERIA

DESIGN CRITERIA:	2019 CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2 (CBC)
ROOF LIVE LOAD:	20 PSF (REDUCIBLE)
FUTURE SOLAR:	3 PSF
RISK CATEGORY:	IV
WIND DATA:	ULTIMATE WIND SPEED (3 SEC GUST) IN MPH: 110 WIND EXPOSURE: C INTERNAL WIND PRESSURE COEFFICIENT (GCPI) = ±0.18 COMPONENTS AND CLADDING DESIGN PRESSURES FOR SYSTEMS DESIGNED BY OTHERS SHALL COMPLY WITH THE "ASCE 7-16" DESIGN STANDARD
EARTHQUAKE DATA:	SEISMIC IMPORTANCE FACTOR, I_e: 1.5 MAPPED SPECTRAL RESPONSE ACCELERATIONS: S_S = 1.61; S_1 = 0.60 SITE CLASS: D SPECTRAL RESPONSE COEFFICIENTS: S_{DS} = 1.07; S_{D1} = 0.68 SEISMIC DESIGN CATEGORY: D SEISMIC FORCE RESISTING SYSTEM(S): WOOD FRAMED SHEAR WALLS RESPONSE MODIFICATION FACTOR(S): R = 6.5 DESIGN BASE SHEAR: 39.2k (ASD) SEISMIC RESPONSE COEFFICIENT(S), C_S = 0.24 (ULTIMATE) ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE MAXIMUM ANTICIPATED STORY DRIFT = 0.01 X HEIGHT PROVIDE DEFORMATION COMPATIBILITY PER ASCE 7 SECTION 12.12.5 FOR NON-STRUCTURAL ITEMS, INCLUDING CLADDING, STAIRS, GLAZING, ETC.
SCOPE:	NEW 1-STORY WOOD-FRAMED ESSENTIAL SERVICE FACILITY AND CMU TRASH ENCLOSURE SUPPORTED ON SHALLOW SPREAD FOOTINGS.

B GENERAL NOTES

1. REFER TO SHEETS S1.1, S1.2, S1.3 AND S1.4 FOR STANDARD DETAILS OF CONSTRUCTION. REFER TO THE PROJECT SPECIFICATIONS FOR MATERIALS AND METHODS.
2. BUILDING DIMENSIONS SHOWN ARE FOR GENERAL REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS (SAD) FOR ALL ACTUAL BUILDING DIMENSIONS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER SO CLARIFICATION CAN BE MADE PRIOR TO COMMENCING WORK.
3. STRUCTURAL DRAWINGS SHALL NOT BE SCALED. ALL DIMENSIONS AND FIT SHALL BE DETERMINED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK.
4. DETAILS NOT FULLY OR SPECIFICALLY SHOWN SHALL BE OF SAME NATURE AS OTHER SIMILAR CONDITIONS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR SIDEWALK SLABS AND DIMENSIONS.
6. COORDINATION OF MECHANICAL, ELECTRICAL, PLUMBING, AND SITE UTILITY SYSTEMS WITH THE STRUCTURAL SYSTEM IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. USE DETAILS ON SHEETS S1.1 THROUGH S1.4. AT CONDITIONS WHERE THESE DETAILS DO NOT APPEAR TO AP

M MATERIAL DATA

(INFORMATION SHOWN IS FOR STRUCTURAL DESIGN REFERENCE ONLY. SEE THE PROJECT SPECIFICATIONS FOR ALL MATERIAL SPECIFICATIONS.)

CONCRETE 28-DAY MINIMUM DESIGN STRENGTH:
- F'_c = 3,000 PSI FOUNDATIONS (DESIGNED FOR 2,500 PSI)
- F'_c = 3,000 PSI INTERIOR SLAB ON GRADE

REINFORCING STEEL:
- ASTM A615 GRADE 60 OR A706 GRADE 60 (F_y = 60,000 PSI)

STRUCTURAL STEEL (UNO):
- ANGLE AND PLATES - ASTM A36 (Fy = 36,000 PSI)
- RECTANGULAR HSS - ASTM A500 GRADE C (Fy = 50,000 PSI)

FASTENERS:
- MACHINE BOLTS SHALL BE ASTM A307 GRADE A
- ANCHOR RODS SHALL BE ASTM F1554 GR 36 UNO
- ARC-WELDING ELECTRODES SHALL BE E70

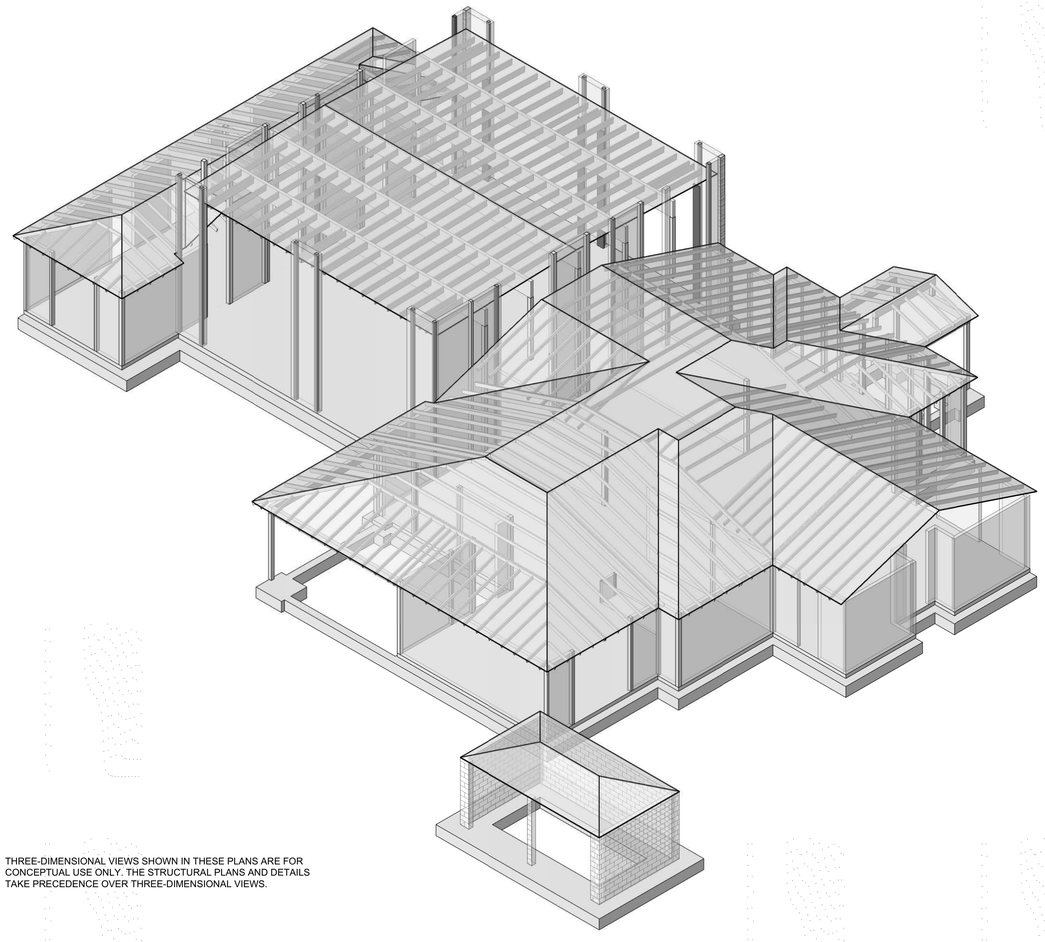
WOOD BASE DESIGN STRESSES (UNO):

SAWN LUMBER MEMBER	SPECIES AND MINIMUM GRADE, UNO	F_b (PSI)	F_v (PSI)	E (PSI)
6x POSTS	DOUGLAS FIR - #1	1200	170	$1.6x10^6$
6x BEAMS	DOUGLAS FIR - #1	1350	170	$1.6x10^6$
4x POSTS & BEAMS	DOUGLAS FIR - #1	1000	180	$1.7x10^6$
2x JOISTS, RAFTERS	DOUGLAS FIR - #2	900	180	$1.6x10^6$
ℙ MATERIAL	DOUGLAS FIR - #2	900	180	$1.6x10^6$
2x STUDS	DOUGLAS FIR - #2	900	180	$1.6x10^6$

GLUE-LAMINATED WOOD DESIGN STRESSES:
F_b = 2,400 PSI, F_v = 265 PSI FOR SIMPLE SPAN BEAMS.

MANUFACTURED WOOD PRODUCTS:
- LVL (JOISTS, STUDS) F_b = 2,600 PSI E = $2.0x10^6$ PSI
- LSL (BLOCKING) F_b = 2,325 PSI E = $1.55x10^6$ PSI

FOR METAL CONNECTOR DESIGNATION REFER TO SIMPSON STRONG-TIE PER SPECIFICATIONS.



THREE-DIMENSIONAL VIEWS SHOWN IN THESE PLANS ARE FOR CONCEPTUAL USE ONLY. THE STRUCTURAL PLANS AND DETAILS TAKE PRECEDENCE OVER THREE-DIMENSIONAL VIEWS.

L MANUFACTURED ROOF TRUSS NOTES

1. MANUFACTURED ROOF TRUSSES ARE AT 24"oc UNO.
2. REFER TO PLAN FOR ROOF TRUSS TYPE. REFER TO ARCHITECTURAL DRAWINGS FOR SHAPE, OVERHANG, DIMENSIONS, SLOPES, SPAN, DRAINAGE, ETC. LOCATION OF BEARING POINTS ARE AS INDICATED ON THE DRAWINGS.
3. MANUFACTURER SHALL PROVIDE THE FOLLOWING: TRUSS CALCULATIONS AND TRUSS DESIGN DRAWINGS (INCLUDING TRUSS LAYOUT PLAN), BOTH PREPARED AND SIGNED BY A CIVIL OR STRUCTURAL ENGINEER (STATE OF CALIFORNIA). TRUSS CALCULATIONS AND TRUSS DESIGN DRAWINGS SHALL BE PROVIDED FOR EACH TRUSS PROFILE TYPE PER CBC SECTION 2303.4. THE TRUSS LAYOUT PLAN SHALL SHOW ALL TRUSS TYPES, TRUSS PLACEMENT LOCATIONS, PERMANENT AND TEMPORARY BRACING LOCATIONS, ALL TRUSS TO TRUSS CONNECTIONS, ALL LIVE AND DEAD LOADING CONDITIONS, AND TRUSS HANGERS. TRUSS CALCULATIONS SHALL BE BASED UPON LOADS, BEARING POINTS, AND CONDITIONS SPECIFIED HEREIN. TRUSS LAYOUT, TRUSS PROFILES, LOCATIONS OF GIRDER TRUSSES AND BEARING LOCATIONS SHALL BE AS SHOWN ON THE STRUCTURAL PLANS.
4. NO UPLIFT REACTIONS AT SUPPORT POINTS DUE TO APPLICATION OF VERTICAL LIVE OR DEAD LOADS ARE ALLOWED.
5. THE CONTRACTOR SHALL VERIFY TRUSS DIMENSIONS, MECHANICAL LOADS AND LOCATIONS. ETC., AND AFFIX A REVIEW STAMP PRIOR TO SUBMITTAL TO ARCHITECT/ENGINEER.
6. CHANGES MADE IN TRUSS LAYOUT CONFIGURATION REQUIRING ADDITIONAL ENGINEERING REVIEW AND/OR DETAILING WILL BE CONSIDERED A SUBSTITUTION AND EXTRA SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF INVESTIGATING AND REVIEWING THE ADEQUACY AND/OR ACCEPTABILITY OF SUCH SUBSTITUTION.
7. THE CONTRACTOR SHALL SUBMIT TRUSS SUBMITTAL PACKAGE TO THE ARCHITECT/ENGINEER FOR REVIEW AND COMMENT. FOLLOWING ARCHITECT/ENGINEER REVIEW, CONTRACTOR SHALL THEN SUBMIT REVIEWED TRUSS SUBMITTAL TO THE BUILDING DEPARTMENT FOR REVIEW. TRUSS FABRICATION SHALL NOT COMMENCE UNTIL APPROVAL IS RECEIVED FROM THE BUILDING DEPARTMENT.
8. TRUSS MANUFACTURER SHALL PROVIDE HANGERS AND CONNECTORS ADEQUATE FOR LOADS FOR ALL TRUSS-TO-TRUSS, TRUSS-TO-BEAM, AND BEAM-TO-TRUSS CONNECTIONS.
9. TRUSS TOP CHORD TO BE 2x6, MINIMUM.
10. TRUSS MANUFACTURER TO PROVIDE VERTICAL WEB MEMBER AT TRUSS SUPPORTS, BRIDGING, AND BLOCKING AS REQUIRED.
11. THE POSITIONS, WEIGHTS, AND METHODS OF ATTACHMENT OF ALL MECHANICAL UNITS, ELECTRICAL FIXTURES, PLUMBING, FIRE SPRINKLERS, ETC. SHALL BE INCLUDED IN THE DESIGN OF THE TRUSSES BY THE TRUSS MANUFACTURER AND SHALL BE VERIFIED BY THE ARCHITECT. SAD FOR ATTIC ACCESS SIZE AND LOCATIONS. ADDITIONAL TRUSSES OR SPECIAL DESIGNED TRUSSES MAY BE REQUIRED. ALL "GABLE END TRUSSES" TO HAVE CLEAR SPACE BETWEEN WEBS FOR WALL VENT. SIZE TO MATCH ARCHITECTURAL DRAWINGS.
12. TRUSS MANUFACTURER SHALL REVIEW AND DESIGN "GABLE END TRUSSES" FOR DEAD LOAD AND LIVE LOAD FROM ROOFS IN COMBINATION WITH DL FROM END WALLS, PARAPETS, SOFFIT FRAMING MEMBERS, AND ALL ARCHITECTURAL FINISHES, ETC., INCLUDING WIND LOAD PERPENDICULAR TO TRUSS.
13. SUPERIMPOSED LOADS FROM THE JACK TRUSSES OR SECONDARY FRAMING (I.E. CALIFORNIA FRAMING, FURRED CEILINGS, ETC.) SHALL BE INCLUDED IN THE DESIGN OF SUPPORTING TRUSSES.
14. BRACING SHALL BE PROVIDED TO BRACE THE TOP CHORD OF TRUSSES WHERE "PIGGY BACK" TRUSSES ARE USED.
15. BOTTOM CHORD TRUSS MEMBERS HAVING A GYPSUM BOARD CEILING ATTACHED SHALL PROVIDE A LEVEL SURFACE WITH A MAXIMUM VARIATION OF ¼" IN 10'-0" IN ANY DIRECTION.
16. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED, SPLICED, OR OTHERWISE ALTERED IN ANY WAY WITHOUT WRITTEN CONCURRENCE AND APPROVAL OF AN ENGINEER.
17. MANUFACTURED ROOF TRUSS DESIGN LOADS:
    - A. TOP CHORD DEAD LOAD = 15 PSF LIVE LOAD = 20 PSF
    - B. BOTTOM CHORD DEAD LOAD = 8 PSF LIVE LOAD = 10 PSF (BOTTOM CHORD LIVE LOAD DOES NOT ACT SIMULTANEOUSLY WITH OTHER IMPOSED LIVE LOADS)
    - C. SPECIAL LOADS AND CONCENTRATED LOADS ARE AS NOTED ON THE DRAWINGS.

J SHEAR WALL NOTES

1. PEN = PLYWOOD/OSB SHEATHING EDGE NAILING. BLOCK ALL UNSUPPORTED EDGES WITH 2x MATERIAL UNO. BLOCK EDGES WITH 3x (OR (2)1¾"x) MATERIAL WHERE NAILING IS 4"oc OR LESS. SEE 10/S1.2 FOR NAIL STAGGER AT ALL 3x (OR (2)1¾"x).
2. SEE 7/S1.2 FOR SCHEMATIC SHEAR WALL CONSTRUCTION.
3. FIELD NAILING TO BE 12"oc UNO.
4. ALL SHEATHING NAILS TO BE COMMON WIRE. SEE F/S0.1 AND SPECIFICATIONS FOR OTHER NAIL REQUIREMENTS.
5. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS TO HAVE SHEATHING AND PEN NAILING PER SHEAR WALL TYPE 'A'.
6. SHEAR WALL LENGTHS, WHERE NOTED, ARE MINIMUM. DO NOT LOCATE HOLDOWNS FROM THESE DIMENSIONS. SAD FOR ACTUAL WALL LENGTHS.
7. HOLDOWN REFERS TO SIMPSON STRONG TIE CO. HOLDOWNS. INSTALL HOLDOWNS AND REQUIRED POSTS PER 8/S1.2 AND 11/S1.2SEE PLANS FOR OTHER REQUIREMENTS.
8. EDGE NAIL WALL SHEATHING TO STUDS OR POSTS WITH HOLDOWNS.
9. PORTIONS OF INTERIOR WALL SURFACES ADJACENT TO SPECIFIED SHEAR WALLS SHALL BE SHEATHED FOR THE FULL, UNINTERRUPTED LENGTH TO MATCH EXTERIOR WALLS OR WITH GYPSUM BOARD OF THE SAME THICKNESS TO PROVIDE AN EVEN WALL SURFACE FOR FINISH MATERIALS.
10. SHEAR WALLS MORE THAN ONE VERTICAL PANEL IN HEIGHT SHALL HAVE STAGGERED HORIZONTAL OR VERTICAL SPLICE JOINTS.
11. WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6"oc ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3x (OR (1)1¾"x) OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
12. ANCHOR BOLTS (AB) FOR SHEAR WALLS SHALL INCLUDE STEEL PLATE WASHERS, A MINIMUM OF 0.229 INCH BY 3 INCHES SQUARE IN SIZE, BETWEEN THE SILL PLATE AND NUT. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO ⅜" LARGER THAN THE AB DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1¾", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. PLATE WASHER TO EXTEND WITHIN ½" OF SHEAR WALL SHEATHING UNO. PROVIDE OVERSIZED PLATE WASHER OR OFFSET AB AS REQUIRED. AT DOUBLE-SIDED SHEAR WALLS, STAGGER AB AS REQUIRED. AB TO BE PLACED A MINIMUM OF 4½" AND A MAXIMUM OF 12" FROM ENDS OF ALL SILL PLATES AND AT NOTCHES IN SILL PLATES.
13. NO OPENINGS ARE ALLOWED IN SHEAR WALLS UNLESS SHOWN ON THE STRUCTURAL PLANS. OPENINGS NOTED ARE PER 6/S1.2 . COORDINATE ANY OPENINGS NOT SHOWN WITH THE STRUCTURAL ENGINEER.

SHEAR WALL SCHEDULE

SW	APA RATED SHEATHING	NAILING (PEN)	ANCHORAGE					REMARKS
			⅝"ø BOLT FDN		AT FRAMING			
			2x SILL	3x SILL	16d	A35	SDS *	
Ⓐ	15/32" (32/16) EXP 1	10d @ 6"oc	32"oc	48"oc	6"oc	24"oc	16"oc	
Ⓑ	15/32" (32/16) EXP 1	10d @ 4"oc	24"oc	32"oc	4"oc	16"oc	10"oc	AT ALL ADJOINING PANEL EDGES PROVIDE (2) 1¾"x MIN AT LVL, 3x MIN AT SAWN
Ⓒ	15/32" (32/16) EXP 1	10d @ 3"oc	16"oc	24"oc	3"oc	8"oc	8"oc	
Ⓓ	15/32" (32/16) EXP 1	10d @ 2"oc	-	16"oc	(2) ROWS @ 4"oc	8"oc	6"oc	
Ⓔ	15/32" (32/16) EXP 1 BOTH SIDES	10d @ 3"oc	-	12"oc	(2) ROWS @ 2"oc	6"oc	(2) ROWS @ 6"oc	

* 2x SILL: SDS¼x4½", 3x SILL: SDS¼x6". FOR SDS @ 6"oc OR LESS, PROVIDE 4x BLKG BLW.

K CONCRETE MASONRY UNIT NOTES

1. CONCRETE MASONRY UNIT CONSTRUCTION SHALL BE PER 2/S1.4UNO. USE DOUBLE OPEN END WHERE POSSIBLE AND SINGLE OPEN END OTHERWISE. ALL CELLS TO BE GROUTED SOLID. ALL CMU TO BE LAID IN RUNNING BOND. LAP REINFORCING IN CMU GROUT PER 1/S1.4 .
2. PROVIDE INVERTED BOND BEAM UNITS AT FOUNDATION LEVEL. SEE SPECIFICATIONS FOR CLEANOUT AND GROUTING REQUIREMENTS.
3. DOWELS FROM FOUNDATION ARE TO MATCH SIZE AND ALIGNMENT WITH THE WALL VERTICAL REINFORCEMENT. EXTEND DOWELS FROM FOUNDATION INTO WALL TO PROVIDE MINIMUM LAP WITH WALL VERTICAL REINFORCEMENT. INSTALL DOWEL BARS PER PLAN AND 3/S1.4 . ALL DOWELS TO EXTEND TO THE LOWEST FOUNDATION REINFORCEMENT AND END WITH A STANDARD HOOK.
4. WALL REINFORCING SHALL BE PER SCHEDULE BELOW AND 3/S1.4 UNO.
5. PROVIDE (2) #5 IN BOND BEAM UNITS AT THE TOPS OF ALL WALLS AND AT EACH FLOOR AND ROOF ELEVATION, UNO.
6. PROVIDE SASH UNITS AT ALL OPENINGS TYPICAL UNO.
7. SET ALL LEDGER AND CONNECTOR BOLTS PER 9/S1.4 . 1" GROUT AROUND BOLT REQUIRED.
8. SAD FOR TYPE OF FINISH, LOCATION, COLOR, ETC. SEE SPECIFICATIONS OTHERWISE.
9. VERTICAL CONTROL JOINTS SHALL BE SPACED NO GREATER THAN 1.5x THE WALL HEIGHT BUT NOT GREATER THAN 25'-0"oc. SEE 2/S1.4 .

REGISTERED PROFESSIONAL ENGINEER CHRIS S. WILSON No. 5[illegible] STRUCTURAL STATE OF CALIFORNIA
03/13/2023

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION — CAL FIRE SINCE 1850 — MORGAN HILL UNIT 1905 FIRE

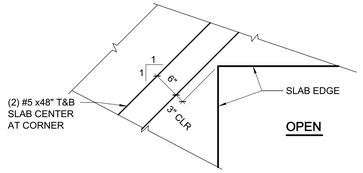
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

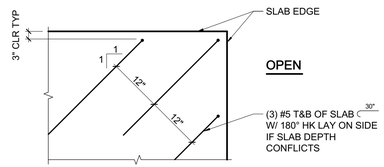
PROJECT NUMBER:
22342

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
S0.2

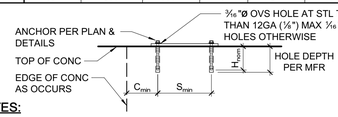


INSIDE SLAB CORNER - PLAN VIEW



12 OUTSIDE & INSIDE SLAB CORNER - PLAN VIEW
3/4" = 1'-0"

SCREW ANCHOR IN 2500 PSI MIN CONCRETE							
ANCHOR TYPE	ANCHOR AND PILOT HOLE DIA	MINIMUM EMBEDMENT H_{nom}	MINIMUM EDGE DIST C_{min}	MINIMUM SPCG S_{min}	MINIMUM CONCRETE THICKNESS H_{min}	MINIMUM INSTALL TORQUE (FT-LB)	MAXIMUM INSTALL TORQUE (FT-LB)
SIMPSON TITEN HD (ICC-ESR 2713)	¼"	1⅜"	1½"	1½"	3¼"	10	24
	⅜"	2½"	1¾"	3"	4"	10	50
	½"	3¼"	1¾"	3"	5"	10	65
	⅝"	4"	1¾"	3"	6"	10	100
HILTI KH-EZ (ICC-ESR 3027)	¼"	1⅜"	1½"	1½"	3¼"	10	18
	⅜"	2½"	1½"	3"	4"	10	40
	½"	3"	1¾"	3"	4¾"	10	45
	⅝"	3¼"	1¾"	4"	5"	10	85

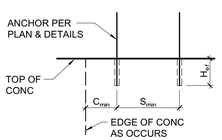


NOTES:

1. INSTALL SCREW ANCHORS PER MANUFACTURER'S INFORMATION AND ICC REPORT INSTRUCTIONS. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705 OF THE CBC AND THE REQUIREMENTS OF THE ICC REPORTS. INSTALLED ANCHORS SHALL BRING CONNECTED PLIES INTO FIRM CONTACT, MEETING THE INSTALL TORQUE BUT NOT EXCEEDING THE MAXIMUM INSTALL TORQUE.
2. CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.
3. HOLES TO BE DRILLED W/ ROTARY DRILL ONLY. WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A REASONABLE CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
4. THE SPECIAL INSPECTOR SHALL PERFORM PERIODIC/CONTINUOUS INSPECTION IN ACCORDANCE WITH TABLE 1705.3. THE SPECIAL INSPECTOR SHALL INSPECT ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND TIGHTENING TORQUE.

13 SCREW ANCHOR IN CONCRETE
3/4" = 1'-0"

ADHESIVE ANCHOR IN 2500 PSI MIN CONCRETE						
ADHESIVE TYPE	ANCHOR THRD ROD	ANCHOR REBAR	PILOT HOLE	MIN EMBED UNO H_{ef}	MIN EDGE DISTANCE C_{min}	MIN SPCG S_{min}	MIN CONC DEPTH H_{min}
SIMPSON SET-XP (ICC-ESR 2508)	⅜"ø	#3	½"ø	3"	1¾"	3"	H_{ef} + 2½"
	½"ø	#4	⅝"ø	4"	1¾"	3"	H_{ef} + 3¼"
	⅝"ø	#5	¾"ø	5"	1¾"	3"	H_{ef} + 3¾"
HILTI HIT-HY 200R (ICC-ESR 3187)	⅜"ø	N/A	⅞"ø	3"	1¾"	1⅞"	H_{ef} + 1¼"
	N/A	#3	½"ø	3"	1¾"	1⅞"	
	½"ø	N/A	⅝"ø	4"	1¾"	2½"	
	N/A	#4	⅝"ø	4"	1¾"	2½"	
	⅝"ø	#5	¾"ø	5"	1¾"	3⅛"	H_{ef} + 1½"

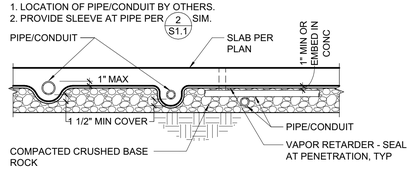


NOTES:

1. INSTALL ADHESIVE ANCHORS PER MANUFACTURER'S INFORMATION AND ICC REPORT.
2. CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING, AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.
3. HOLES TO BE DRILLED W/ ROTARY DRILL ONLY. WHEN DRILLING HOLES IN EXISTING CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A REASONABLE CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
4. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705 AND THE REQUIREMENTS OF THE ICC REPORTS. THE SPECIAL INSPECTOR SHALL PERFORM PERIODIC/CONTINUOUS INSPECTION IN ACCORDANCE WITH TABLE 1705.3. THE SPECIAL INSPECTOR SHALL INSPECT ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND ADHESIVE INJECTION.

14 ADHESIVE ANCHOR IN CONCRETE
3/4" = 1'-0"

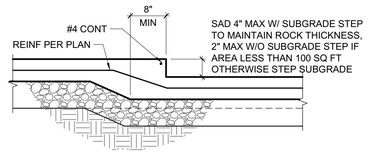
NOTES:
1. LOCATION OF PIPE/CONDUIT BY OTHERS.
2. PROVIDE SLEEVE AT PIPE PER 2 S1.1 SIM.



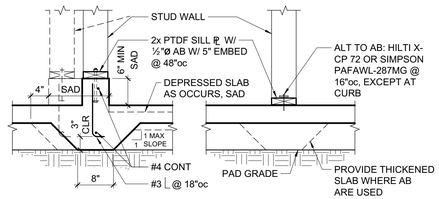
PIPE/CONDUIT REQUIRING EMBEDMENT IN CONC

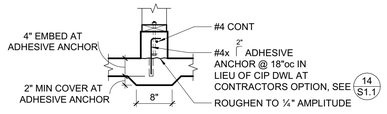
PIPE/CONDUIT IN COMPACTED ROCK

7 CONDUIT & PIPE AT SLAB ON GRADE
3/4" = 1'-0"



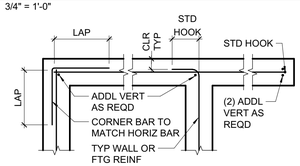
8 DEPRESSED SLAB - 4" MAX
3/4" = 1'-0"



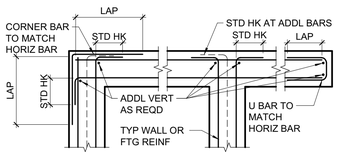


ALT CURB OPTION

9 NON-BEARING STUD WALL AT SLAB
3/4" = 1'-0"



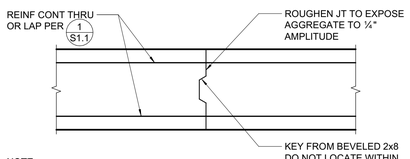
PLAN VIEW - SINGLE LAYER



PLAN VIEW - 2 OR MORE LAYERS

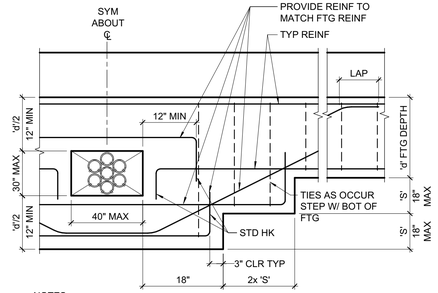
NOTE:
FOOTING REINFORCING AT CORNER AND INTERSECTION TO BE SIMILAR

10 TYPICAL CORNER, INTERSECTION AND END REINFORCING
3/4" = 1'-0"



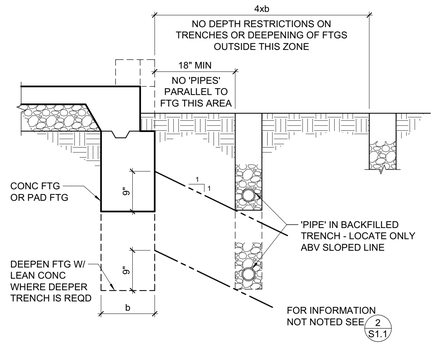
NOTE:
LOCATION OF JOINTS TO BE SUBMITTED TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO PLACEMENT OF CONCRETE

11 FOOTING CONSTRUCTION JOINT
3/4" = 1'-0"

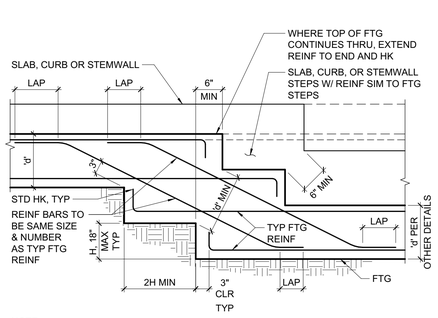


NOTES:
1. DO NOT LOCATE BLOCKOUT WITHIN 48" OF SHEAR WALL HOLD DOWN, IN FRAME FOUNDATIONS OR COLUMN PAD FOOTINGS.
2. MINIMUM DISTANCE BETWEEN BLOCKOUTS OR OTHER PIPES TO BE 48".

3 FOUNDATION BLOCKOUT
3/4" = 1'-0"

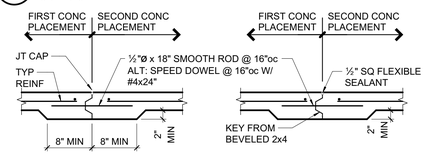


4 TRENCHING ADJACENT TO FOOTING
3/4" = 1'-0"

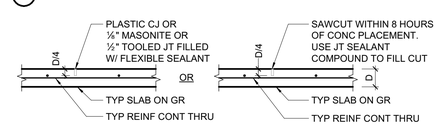


NOTE:
REMOVE ALL EARTH LOOSENED DURING EXCAVATION AND FILL W/ CONCRETE.

5 STEPPED FOOTING
3/4" = 1'-0"



A CONSTRUCTION/DOWEL JOINT



B CONTROL JOINT

6 SLAB ON GRADE JOINTS
3/4" = 1'-0"

MINIMUM BAR LAPS FOR REINFORCING STEEL CONCRETE STRENGTH: 3000 PSI OR GREATER - (STAGGER SPLICES)					
SIZE	LAP LENGTH	SIZE	LAP LENGTH	SIZE	LAP LENGTH
#3	17"	#6	34"	#9	86"
#4	24"	#7	56"	#10	105"
#5	34"✳	#8	70"	#11	126"

(CLASS B TOP BAR)
BAR SPCG SHALL NOT BE LESS THAN 4x BAR DIA OR 4".
✳ WHERE COVER NOT LESS THAN 1½", #5 LAP LENGTH = 28"

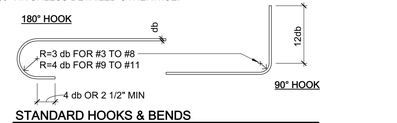
CONC COVER FOR REINF STL ..... **'CLR'**

CAST AGAINST EARTH OR GR ..... 3"

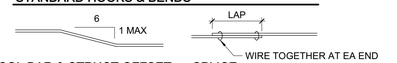
EXPOSED TO EARTH (FORMED) OR WEATHER
#5 & SMALLER ..... 1½"
#6 & LARGER ..... 2"

NOT EXPOSED TO EARTH OR WEATHER
#5 & SMALLER ..... 1"
#6 & LARGER, & ALL BM STIRRUPS, COL TIES & SPIRALS ..... 1½"

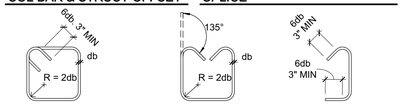
ALL REINF SHALL EXTEND AS FAR AS POSSIBLE. WHERE BAR SPLICES ARE REQUIRED, BARS SHALL BE LAPPED PER SCHEDULE ABOVE UNLESS DETAILED OTHERWISE. WHERE REINF TERMINATES AT END OF MEMBER, REINF SHALL END IN A STD 90° OR 180° HK UNLESS DETAILED OTHERWISE.



STANDARD HOOKS & BENDS



COL BAR & STRUCT OFFSET SPLICE

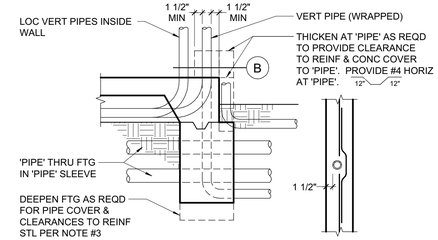


135° STIRRUP TIES #3, #4, #5

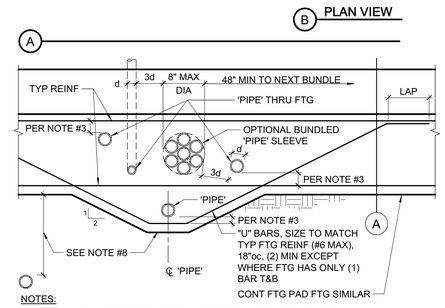
STIRRUP #3, #4, #5

CROSSTIE #3, #4, #5

1 TYPICAL REINFORCING DETAIL (f'c = 3000psi MIN)
3/4" = 1'-0"



B PLAN VIEW



NOTES:
1. 'PIPE' = ANY PENETRATION THRU OR EMBEDDED IN FOUNDATION.
2. ALL PIPES THROUGH FOOTINGS TO BE WRAPPED OR SLEEVED AS FOLLOWS:
   a. SLEEVES: PROVIDE 1" MIN CLEAR ALL AROUND O.D. PIPE TO I.D. SLEEVE, UNO. SEAL SLEEVE ENDS W/ MASTIC OR PLASTIC BITUMINOUS CEMENT.
   b. WRAPPED VERTICAL PIPES: PROVIDE ⅛" NOMINAL SHEET FOAM W/ (3) WRAPS MINIMUM, UNO.
   c. WRAPPED HORIZONTAL PIPES: PROVIDE ⅛" NOMINAL SHEET FOAM W/ (8) WRAPS MINIMUM, UNO.
   d. UNDERGROUND FIRE LINES 4" AND LARGER:
      1. SLEEVES: PROVIDE 2" MIN CLEAR ALL AROUND O.D. PIPE TO I.D. SLEEVE. SEAL ENDS PER ABOVE.
      2. WRAPPED: PROVIDE ¼" NOMINAL SHEET FOAM W/ (16) WRAPS MINIMUM.
3. WRAPPED AND SLEEVED PIPES SHALL HAVE 1½" MIN CLEAR TO REINF STEEL. MINIMUM CONCRETE COVER AT PIPES TO BE 3".
4. CLEARANCE BETWEEN 'PIPES' TO BE 3d MIN TYP W/ A MAXIMUM OF (8) PIPES PER 48". GROUPS OF PIPES MAY BE BUNDLED AS SHOWN, EXCEPT IN PAD FOOTINGS.
5. NO 'PIPE' TO RUN PARALLEL IN FOOTINGS, STEM OR CURB.
6. PVC CONDUIT ('PIPE') EMBEDDED IN CURB/STEM MAY BE WIRE TIED TO HORIZONTAL REINF.
7. NO HORIZONTAL PIPES ALLOWED THROUGH FOOTING WITHIN 2'-0" EACH SIDE OF HOLDOWNS OR STEEL COLUMNS. NO VERTICAL PIPES ALLOWED IN FOOTINGS AT BRACED FRAMES.
8. PROVIDE 18" MIN OF COMPACTED FILL ABOVE PIPES UP TO 12"ø, FOR LARGER PIPES INCREASE COMPACTED FILL DEPTH 1'-0" FOR EACH 6" INCREASE IN PIPE DIAMETER. OTHERWISE DEEPEN FOOTING AS SHOWN.

2 PIPES THRU FOOTING
3/4" = 1'-0"

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STATE OF CALIFORNIA
03/13/2023

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

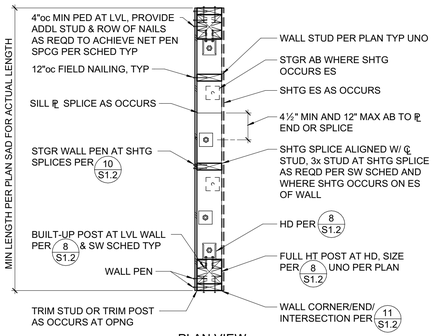
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

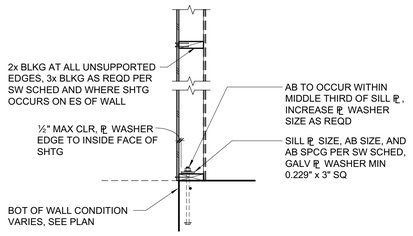
PROJECT NUMBER:
22342

SHEET TITLE:
TYPICAL CONCRETE DETAILS

SHEET NUMBER:
S1.1



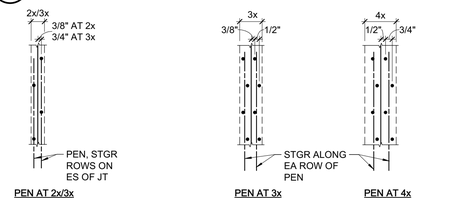
PLAN VIEW



SECTION

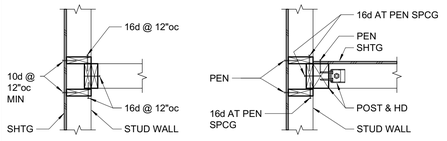
NOTES:
1. PEN = PLYWOOD/OSB EDGE NAILING PER SW SCHED.
2. SILL ℄ AB WASHER HOLE MAY BE OVERSIZED UP TO ⅜". WASHER MAY BE DIAG SLOTTED UP TO 1¾" IN LENGTH. WHERE HOLE IS OVERSIZED OR SLOTTED, PROVIDE STD CUT WASHER.

7 SCHEMATIC SHEAR WALL CONSTRUCTION
3/4" = 1'-0"

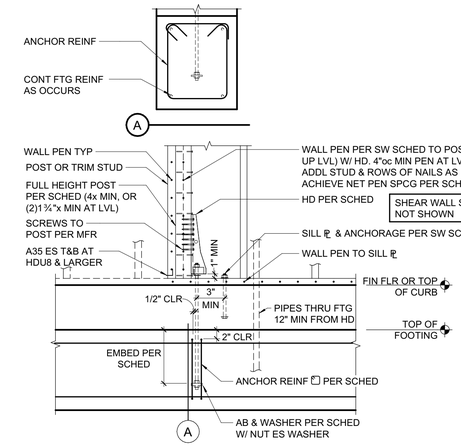


NOTE:
SHEATHING SHEETS ARE TO BE AS LARGE AS POSSIBLE. STAGGER SHEETS. JOINTS ARE TO BE CENTERED OVER BEARING. NAIL HEADS SHALL BE DRIVEN FLUSH W/ SHEATHING. MINIMUM SHEATHING SIZE IS 24" WIDTH x 48" LENGTH AT FLOOR AND ROOF, AND 12"x48" AT WALLS.

10 SHEATHING NAILING
1 1/2" = 1'-0"



11 TYPICAL PLAN VIEW OF STUD WALL INTERSECTIONS
3/4" = 1'-0"



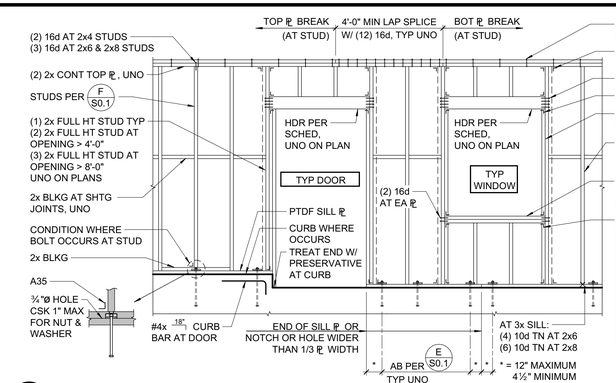
HOLDOWN	AB OR THRD ROD	WASHER AT AB	EMBED	ANCHOR REINF ES (2 TOT)	MIN POST SIZE UNO ON PLANS	MIN POST SIZE UNO ON PLANS LVL STITCH W/ (2) ROWS 10d @ 8"oc STGR
HDU2	⅝"ø	¼"x2½" SQ	14"	#3	4x	(2) 1¾"x
HDU4	⅝"ø	¼"x2½" SQ	14"	#3	4x	(2) 1¾"x
HDU5	⅝"ø	¼"x2½" SQ	14"	#3	4x	(2) 1¾"x
HDU8	⅞"ø	⅜"x3" SQ	16"	#4	6x6	(3) 1¾"x
HDU11	1"ø	⅜"x3½" SQ	16"	#4	6x6	(3) 1¾"x
HDU14*	1"ø	⅜"x3½" SQ	16"	#4	6x6	(4) 1¾"x

*NUTS AT ANCHOR ROD TO BE HEAVY HEX

8 TYPICAL HOLDOWN - ANCHOR REINFORCEMENT
3/4" = 1'-0"

RIM JOIST/BLKG TO TOP ℄, TOE NAIL	10d @ 6"oc
TRUSSES, JOISTS OR RAFTERS AT ALL BEARING POINTS TOE NAILS EACH SIDE	(2) 10d
TRUSSES, JOISTS OR RAFTERS TO SIDE OF STUDS EIGHT (8) INCH JOISTS OR LESS	(3) 16d
FOR EACH ADDITIONAL 4 INCHES OF DEPTH OF JOIST	(1) 16d
BLOCKING BETWEEN JOISTS OR RAFTERS: TO JOIST OR RAFTERS - TOE NAILS EA SIDE, EA END	(2) 10d
TO JOIST OR RAFTER BEARINGS - TOE NAILS EA SIDE	(2) 10d
BLOCKING BETWEEN STUDS, EACH END TOE NAILS	(2) 10d OR (2) 16d
BRIDGING TO JOIST, TOE NAIL EACH END	(2) 8d
2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAIL	(2) 16d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d @ 16"oc
SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANELS	(3) 16d @ 16"oc
TOP PLATE TO STUD, END NAIL	(2) 16d
STUD TO SOLE PLATE, TOE NAIL	(4) 8d
DOUBLE STUDS AT EXTERIOR WALLS, FACE NAIL	16d @ 12"oc
DOUBLE STUDS, FACE NAIL	16d @ 24"oc
DOUBLE TOP PLATES, FACE NAIL	16d @ 12"oc
TOP PLATES, LAPS & INTERSECTIONS, FACE NAIL	(3) 16d
CONTINUOUS HEADER, TWO PIECES	16d @ 16"oc ALONG EACH EDGE
DOUBLE TOP PLATE LAP AT CORNER	(3) 16d
CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	(3) 16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d
BUILT-UP CORNER STUDS	16d @ 12"oc
POST TO SILL/SOLE/TOP PLATE, EACH SIDE TOE NAIL	(4) 10d
LVL STUD TO SOLE PLATE, TOE NAIL	(5) 8d
TOP PLATE TO LVL STUD, END NAIL	(3) 16d

9 NAILING SCHEDULE
3/4" = 1'-0"

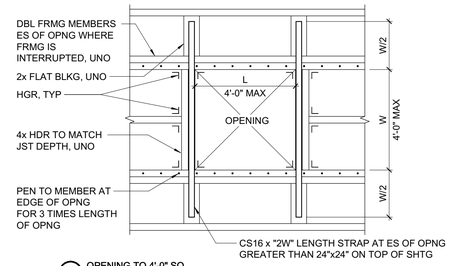


AT LVL STUD WALL, A "2x" OR "STUD" SHALL BE THE SAME AS A SINGLE LVL STUD.

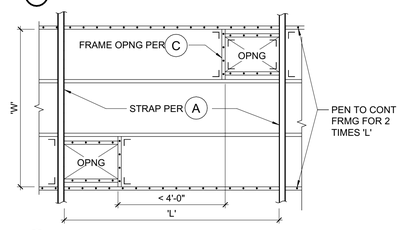
HEADER SCHEDULE		
MAX SPAN	NOMINAL HEADER	
	BRG	NON-BRG
6'-0"	4x8 OR 6x6	4x6 OR 6x6
8'-0"	4x10 OR 6x8	4x8 OR 6x6
10'-0"	4x12 OR 6x10	4x10 OR 6x8
12'-0"	6x12	4x10 OR 6x8

1. HEADERS TO MATCH WIDTH OF WALL STUDS.
2. HEADERS TO BE DF #1, MIN UNO.
3. FOR LARGER OPENINGS, SEE PLANS.
4. HEADER MAY BE USED AS LOWER TOP ℄ AS REQD BY OPENING HEIGHT.
5. AT LVL WALLS, USE 6x HEADER + 4x + SHIM.

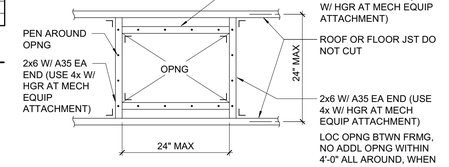
1 TYPICAL STUD WALL AND OPENING FRAMING
3/8" = 1'-0"



A OPENING TO 4'-0" SQ



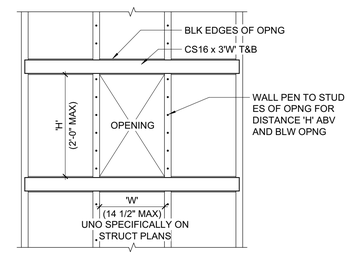
B CLOSELY SPACED OPENINGS BETWEEN FRAMING



PLAN

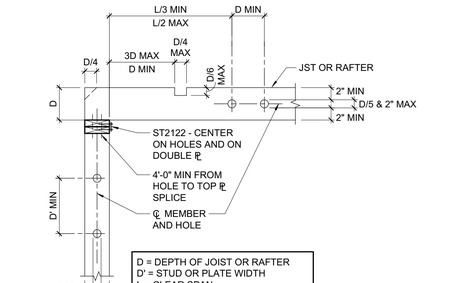
C ISOLATED OPENING BETWEEN FRAMING UP TO 24"

5 OPENING IN DIAPHRAGM
3/4" = 1'-0"



NOTES:
1. OPENINGS < 6" SQ DO NOT REQUIRE BLOCKING AND STRAPPING.
2. NO ADDITIONAL OPENINGS WITHIN 4'-0" ALL AROUND.
3. NO OPENINGS PERMITTED IN SHEAR WALL C OR HIGHER OR IN SHEAR WALLS LESS THAN 10'-0" LONG UNLESS SPECIFICALLY DETAILED ON STRUCTURAL PLANS. CONTACT STRUCTURAL ENGINEER FOR ASSISTANCE.
4. FRAME OPENINGS PER 1/S1.2 WHERE STUDS ARE INTERRUPTED.

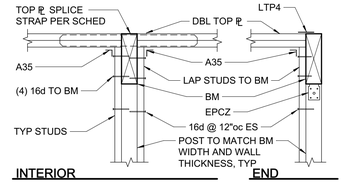
6 SMALL OPENINGS IN SHEAR WALLS
3/4" = 1'-0"



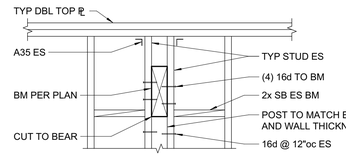
D = DEPTH OF JOIST OR RAFTER
D' = STUD OR PLATE WIDTH
L = CLEAR SPAN

NOTE: DO NOT NOTCH OR DRILL STUDS AND JOISTS WITHIN D' OR D OF KNOTS IN WOOD

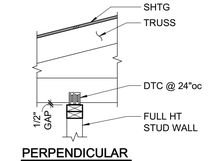
2 HOLES AND NOTCHES IN WOOD STUDS, JOISTS, AND PLATES
3/4" = 1'-0"



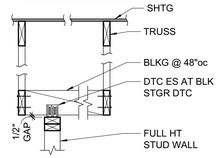
INTERIOR END



3 TYPICAL BEAM IN AND THRU STUD WALL
3/4" = 1'-0"



PERPENDICULAR



PARALLEL

NOTE:
INSTALL SLOT NAILS AT ℄ OF SLOT W/ 1/16" GAP BTWN NAIL HEAD & CLIP

4 TYPICAL NON-BEARING STUD WALL DETAILS
3/4" = 1'-0"

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

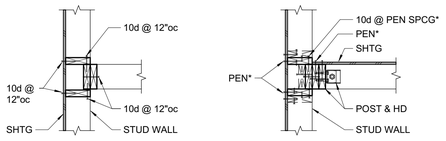
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

PROJECT NUMBER:
22342

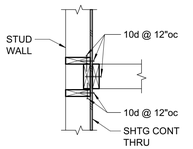
SHEET TITLE:
TYPICAL WOOD DETAILS

SHEET NUMBER:
S1.2

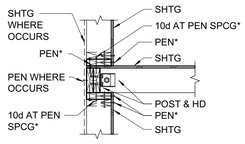


A STUDS AT INTERSECTION

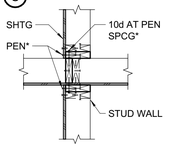
B HD AT INTERSECTION



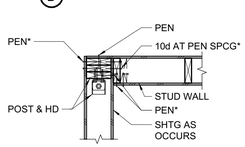
C STUDS AT INTERSECTION



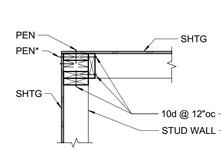
D HD AT INTERSECTION



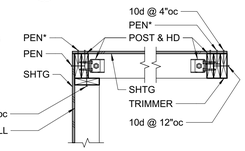
E STUDS AT INTERSECTION



F HD AT CORNER



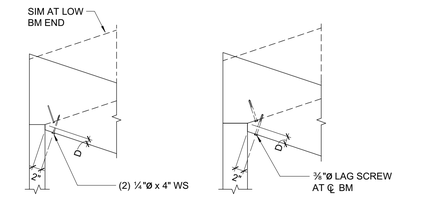
G STUDS AT CORNER



H HD AT CORNER AND END

* = 4"oc MIN, PROVIDE ADDL STUD & ROW OF NAILS AS REQD TO ACHIEVE NET PEN SPCG PER SCHED TYP

10 TYPICAL PLAN VIEW OF LVL STUD WALL INTERSECTIONS
3/4" = 1'-0"



A CASE 1 (WHERE D IS LESS THAN OR EQUAL TO 1½")

B CASE 2 (WHERE D IS GREATER THAN 1½")

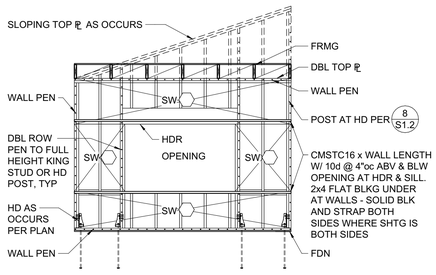
NOTES:
1. DO NOT OVERCUT NOTCHES OR SEAT CUTS.
2. D MAX = BEAM DEPTH/4 SEE OTHER DETAILS FOR ADDITIONAL NOTCH OR SEAT CUT SIZE INFORMATION.
3. MINIMUM LAG SCREW LENGTH = D + 2½".

7 BEAM SEAT CUT/NOTCH REINFORCEMENT
3/4" = 1'-0"

CEILING JOIST SCHEDULE			
MAX SPAN	JOIST SIZE	HANGER IF REQUIRED	LEDGER IF REQUIRED
9'-0"	2x4 @ 16"oc	LU24	2x4 W/ (2) 16d @ 16"oc
12'-6"	2x6 @ 16"oc	LU26	2x6 W/ (3) 16d @ 16"oc
14'-0"	2x8 @ 16"oc	LU28	2x8 W/ (4) 16d @ 16"oc
19'-0"	2x10 @ 16"oc	LU210	2x10 W/ (5) 16d @ 16"oc

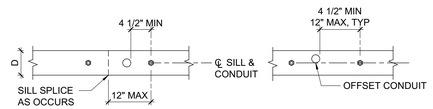
NOTES:
1. CEILING JOIST SCHEDULE IS BASED ON LL = 10 psf.
2. WHERE LEDGERS ARE NAILED THROUGH WALL SHTG, USE 20d NAILS IN LIEU OF 16d NAILS.
3. PROVIDE MIDSPAN BLOCKING AT 2x10 JOISTS.

8 CEILING JOIST SCHEDULE
3/4" = 1'-0"



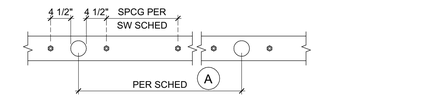
NOTE:
FRAMING SHOWN IS SCHEMATIC,
SEE PLAN FOR SPECIFIC REQUIREMENTS

9 SCHEMATIC SHEAR WALL ELEVATION
1/4" = 1'-0"

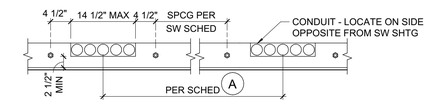


CASE 1 - SINGLE, CONDUIT DIAMETER ≤ D/3, MIN SPCG = 16"oc

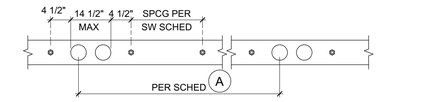
CASE 2 - SPLIT IN SILL



CASE 3 - SINGLE, CONDUIT DIAMETER > D/3



CASE 4 - NOTCH FOR CONDUIT

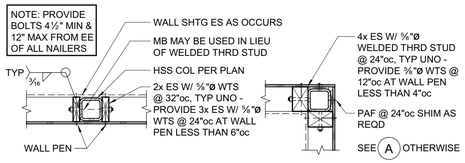


CASE 5 - MULTI CONDUIT, DIAMETER > D/3

SCHEDULE A			
	CASE 3	CASE 4	CASE 5
SW (A)	48"	32"	48"
SW (B)	64"	48"	64"
SW (C)	80"	64"	N/A
SW (D)	N/A	N/A	N/A

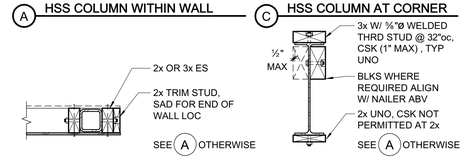
NOTE:
1. ALL PENETRATIONS THROUGH SHEAR WALL SILL PLATE SHALL CONFORM TO THE REQUIREMENTS OF THIS DETAIL OR BE REROUTED PRIOR TO INSTALLATION OF SILL.
2. PROVIDE ADDITIONAL ANCHOR BOLTS AS REQUIRED TO MEET INDICATED SPACINGS. ADDITIONAL ANCHOR BOLTS TO BE INSTALLED AT CENTERLINE OF SILL PLATE PER 13/S1.1 WHERE NECESSARY. AB DIA AS REQD BY SW SCHED.

4 HOLES IN PLATES AT SHEAR WALLS
3/4" = 1'-0"



A HSS COLUMN WITHIN WALL

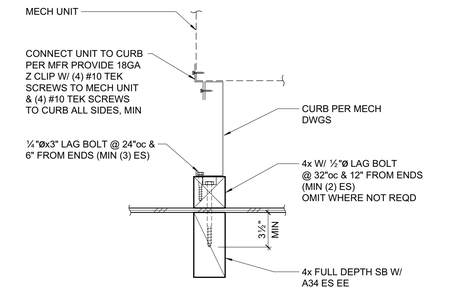
C HSS COLUMN AT CORNER



B HSS COLUMN AT END OF WALL (EDGE OF OPNG SIM)

D WIDE FLANGE NAILER (CHANNEL & HSS SIM)

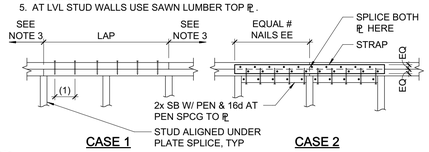
5 TYPICAL STEEL BEAM/COLUMN NAILERS
3/4" = 1'-0"



6 MECHANICAL CURB DETAIL
1 1/2" = 1'-0"

TOP PLATE SPLICE SCHEDULE		
MARK	LAP SPLICE (CASE 1)	STRAP SPLICE (CASE 2)
A	(12) 16d PER 4'-0" MIN LAP	MSTC28
B	(22) 16d PER 4'-0" MIN LAP	MSTC40
C	(26) 16d PER 6'-0" MIN LAP	MSTC52
D	(32) 16d PER 6'-0" MIN LAP	MSTC66
E	(36) 16d PER 8'-0" MIN LAP	MSTC28 EA SIDE
F	(44) 16d PER 8'-0" MIN LAP	MSTC40 EA SIDE
G	(50) 16d PER 10'-0" MIN LAP	MSTC52 EA SIDE

NOTES:
1. AT LAP SPLICES, SPACE NAILS @ 3"oc MIN (MAX 12"oc). STAGGER AT 2½" GAGE.
2. USE STRAP SPLICE WHERE BM INTERSECTS TOP ℄ .
3. NAILS TO MATCH LAP SPLICE ES OF SPLICE (16d @ 12"oc MAX)
4. USE SPLICE TYPE A UNO.
5. AT LVL STUD WALLS USE SAWN LUMBER TOP ℄ .

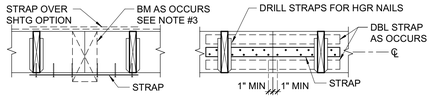


CASE 1 CASE 2

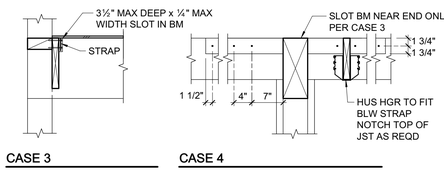
1 TOP PLATE SPLICE SCHEDULE AND DETAILS
3/4" = 1'-0"

LEDGER SPLICE SCHEDULE				
MARK	CASE	STRAP/PLATE	CASE	STRAP/PLATE
(A)	1	MSTA24	2	MSTA24
(B)	1	MSTA30	2	MSTA30
(C)	2	MSTI48	3	MSTI60
(D)	2	CMST14x5'-6"	3	CMST14x6'-0"
(E)	2	(2) MSTI48	4	℄ ¼" W/ (6) 1"ø MB ES OF SPLICE

SPLICE NOTES:
1. PROVIDE 3x OR (2) 2x STUDS AT SPLICE
2. ALL NAILS TO BE 10d NAIL ALL HOLES
3. FOR CASE 1, SPLICE W/ MSTA36 AT BM
4. USE SPLICE TYPE 'A' UNO
5. AT LVL LEDGER CASE 1 IS NOT PERMITTED

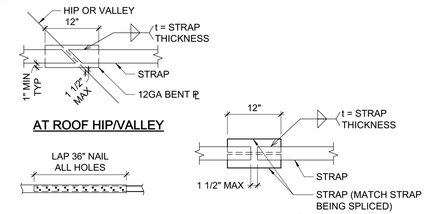


CASE 1 CASE 2



CASE 3 CASE 4

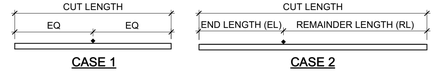
2 LEDGER OR RIM SPLICE SCHEDULE
3/4" = 1'-0"



NAILED LAP SPLICE ALTERNATE - WELDED LAP SPLICE

TIE STRAP SCHEDULE						
MARK	STRAP	MIN. NAILING ES OF ◆	MAX. NAIL SPACING (SEE NOTES #1 & #2)			MIN. END LENGTH (EL)
			CASE 1	CASE 2		
				EL	RL	
(A)	CS16	(10) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	12"
(B)	CS14	(13) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	16"
(C)	CMSTC16	(25) 10d	10d @ 3"oc STGR	FILL ALL NAIL HOLES	10d @ 3"oc STGR	24"
(D)	CMST14	(33) 10d	10d @ 3½"oc STGR	FILL ALL NAIL HOLES	10d @ 3½"oc STGR	32"
(E)	CMST12	(43) 10d	10d @ 3½"oc STGR	FILL ALL NAIL HOLES	10d @ 3½"oc STGR	48"

1. CASE 1 APPLIES UNLESS END LENGTH (EL) IS NOTED ON PLANS. WHERE END LENGTH (EL) IS NOTED, SEE CASE 2.
2. AS REQUIRED, PROVIDE CLOSER NAIL SPACING TO MEET MINIMUM NAILING EACH SIDE OF ◆ .



CASE 1 CASE 2

3. LOCATE STRAPS OVER SHEATHING AND BLOCK UNDER STRAP W/ FLAT 2x6 (2x4 AT CS16/CS14) WHERE NO FRAMING OCCURS, UNO.
4. SEE PLANS FOR STRAP LENGTHS, LOCATIONS AND DETAILS, UNO.
5. SPLICE STRAPS AS SHOWN WHERE LENGTH PER PLAN EXCEEDS AVAILABLE PRODUCT LENGTH

3 TIE STRAP SCHEDULE
3/4" = 1'-0"

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

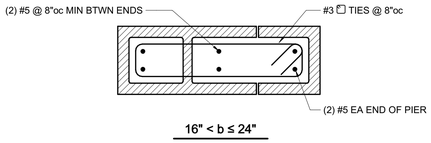
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

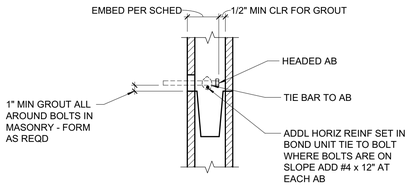
PROJECT NUMBER:
22342

SHEET TITLE:
TYPICAL WOOD DETAILS

SHEET NUMBER:
S1.3



8 REINFORCING AT SHORT WALL SEGMENTS - PLAN VIEW
1 1/2" = 1'-0"



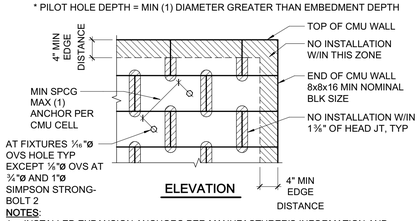
8" CMU WALL EMBEDMENT	12" CMU WALL EMBEDMENT	16" MIN PILASTER EMBEDMENT
5½"	9½"	12"

NOTE:
1. USE TEMPLATE TO SET ALL BOLTS.
2. EMBEDMENT TOLERANCE IS ±½" AND AS REQUIRED FOR CLEARANCE TO CMU.
3. AB SHALL PROJECT NOT LESS THAN ¼" OR MORE THAN 1" BEYOND NUT. REMOVE EXCESS THREADS WHERE NUT IS TO BE COUNTERSUNK FLUSH

9 BOLT EMBEDMENT SCHEDULE
1" = 1'-0"

CARBON STL EXP ANCHORS IN 2000 PSI MIN CMU				
ANCHOR TYPE	ANCHOR & PILOT HOLE DIA	MINIMUM EMBEDMENT DEPTH*	MIN SPCG S_{min}	INSTALL TORQUE (FT-LB)
SIMPSON STRONG-BOLT 2 (IAPMO ER-240)	⅜"	2⅜"	4"	20
	½"	3½"		35
	⅝"	4⅜"		55
	¾"	5¼"		100
HILTI KB1 (IAPMO-ES 677)	⅜"	2⅜"	3"	15
	½"	3⅜"	4"	25
	⅝"	4½"	5"	35
	¾"	5½"	6"	50

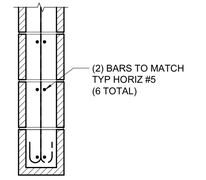
* PILOT HOLE DEPTH = MIN (1) DIAMETER GREATER THAN EMBEDMENT DEPTH



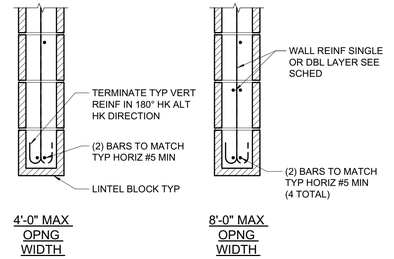
ELEVATION

NOTES:
1. INSTALLED EXPANSION ANCHORS PER MANUFACTURER'S INFORMATION AND EVALUATION REPORT INSTRUCTIONS. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705 AND THE REQUIREMENTS OF THE ICC REPORT.
2. CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR AND SHALL CONSIDER BOLT SPACING WHEN SELECTING ANCHOR TYPE.
3. NO CORE DRILLING PERMITTED. USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. USE ROTARY DRILL ONLY. MAINTAIN 1" CLEARANCE BETWEEN REINFORCEMENT AND ANCHOR. WHEN REINFORCEMENT IS PRESENT IN DRILLED HOLE ABANDON THE HOLE. FILL ABANDONED HOLES W/ DRY PACK AND FINISH TO MATCH CMU. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
4. THE SPECIAL INSPECTOR SHALL PERFORM PERIODIC/CONTINUOUS INSPECTION IN ACCORDANCE WITH TABLE 1705.3. THE SPECIAL INSPECTOR SHALL INSPECT ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, MASONRY TYPE, MASONRY COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), MASONRY THICKNESS, AND TIGHTENING TORQUE.

10 EXPANSION ANCHORS IN CMU
3/4" = 1'-0"



12'-0" MAX OPNG WIDTH

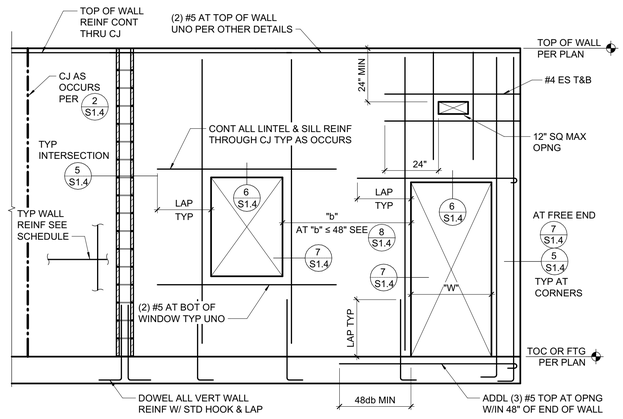


4'-0" MAX OPNG WIDTH

8'-0" MAX OPNG WIDTH

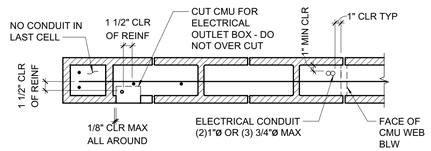
NOTE:
EXTEND SPECIFIED HORIZONTAL BARS BEYOND EACH SIDE OF THE OPENING PER 3/S1.4.

6 REINFORCING AT LINTELS
1" = 1'-0"



NOTES:
1. "W" DENOTES WIDTH OF OPENINGS. SEE ARCH DWGS FOR SIZE & LOCATION.
   "b" DENOTES DIMENSION BETWEEN OPENINGS. SEE ARCH DWGS.
2. DO NOT PLACE ELECTRICAL CONDUIT IN THE SAME CELL AS VERTICAL JAMB BARS. SEE 4/S1.4 & 7/S1.4 .
3. MASONRY WALL PIERS SHALL NOT BE LESS THAN 16" WIDE SEE 8/S1.4 .
4. FOR DOUBLE LAYER REINFORCED WALLS, REINFORCING SHOWN OCCURS AT EACH FACE.
5. ALL HORIZONTAL REINFORCING IN CMU WALLS SHALL TERMINATE WITH 180° STANDARD HOOK UNO.
6. ALL VERTICAL REINFORCING SHALL BE FULL HEIGHT OF WALL UNO.

3 TYPICAL CMU WALL REINFORCING
3/8" = 1'-0"

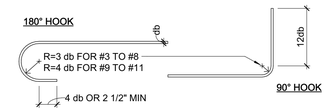


NOTES:
1. DETAILS SHOWN ARE FOR WALLS ONLY.
2. CONDUITS SHALL NOT BE LOCATED IN WALL PIERS PER 8/S1.4.
3. CONDUIT SHALL BE SPACED 24"oc MIN APART.
4. DO NOT TIE CONDUIT TO PARALLEL REINFORCING.
5. PLACE CONDUIT IN CELLS WITHOUT REINFORCING.
6. DO NOT PLACE CONDUITS IN JAMB CELLS PER 7/S1.4 .

4 PIPES, CONDUIT, AND JUNCTION BOXES
1" = 1'-0"

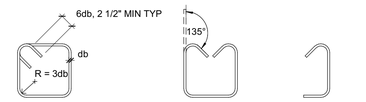
MINIMUM BAR LAPS FOR REINFORCING STEEL AT MASONRY STRENGTH: 2000 PSI OR GREATER (STAGGER SPLICES)					
SIZE	LAP LENGTH	SIZE	LAP LENGTH	SIZE	LAP LENGTH
#3	12"	#6	54"	#9	82"
#4	24"	#7	64"		
#5	36"	#8	72"		

MINIMUM CLEARANCES 'CLR'
CMU TO BAR ..... ½"
BAR TO BAR ..... 2"
ALL REINFORCING BARS SHALL EXTEND AS FAR AS POSSIBLE



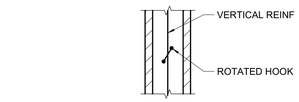
STANDARD HOOKS & BENDS

COL BAR & STRUCT OFFSET SPLICE



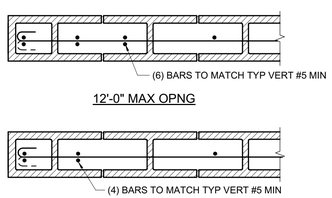
135° STIRRUP TIES #3, #4, #5 | STIRRUP #3, #4, #5 | CROSSTIE #3, #4, #5

1 TYPICAL CMU REINFORCING DETAILS (f'm = 2000psi MIN)
3/4" = 1'-0"



SINGLE LAYER

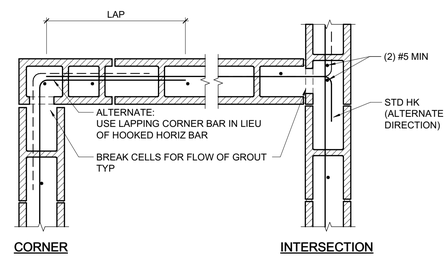
A HORIZ REINF 180° HOOK AT END OF WALL



END OF WALL OR 4'-0" MAX OPNG

NOTES:
1. ALL JAMB BARS SHALL BE FULL HEIGHT OF WALL.
2. ELECTRICAL CONDUIT REQUIRED NEAR THE EDGE OF ANY OPENING GREATER THAN 4'-0" SHALL BE ROUTED VERTICALLY IN FIRST OPEN ADJACENT CELL (THAT IS WITHOUT JAMB BARS OR TYPICAL WALL BAR), THEN HORIZONTALLY TO DESIRED LOCATION.

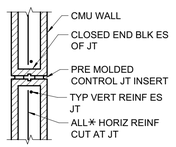
7 REINFORCING AT JAMB OR END OF WALL
1" = 1'-0"



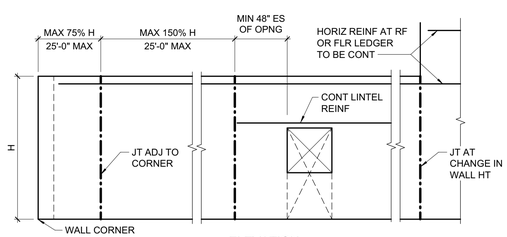
CORNER INTERSECTION

SINGLE LAYER

5 REINFORCING AT WALL INTERSECTIONS
1" = 1'-0"



SITE WALL



ELEVATION

2 CMU WALL CONTROL JOINT
3/4" = 1'-0"

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03/13/2023

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CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

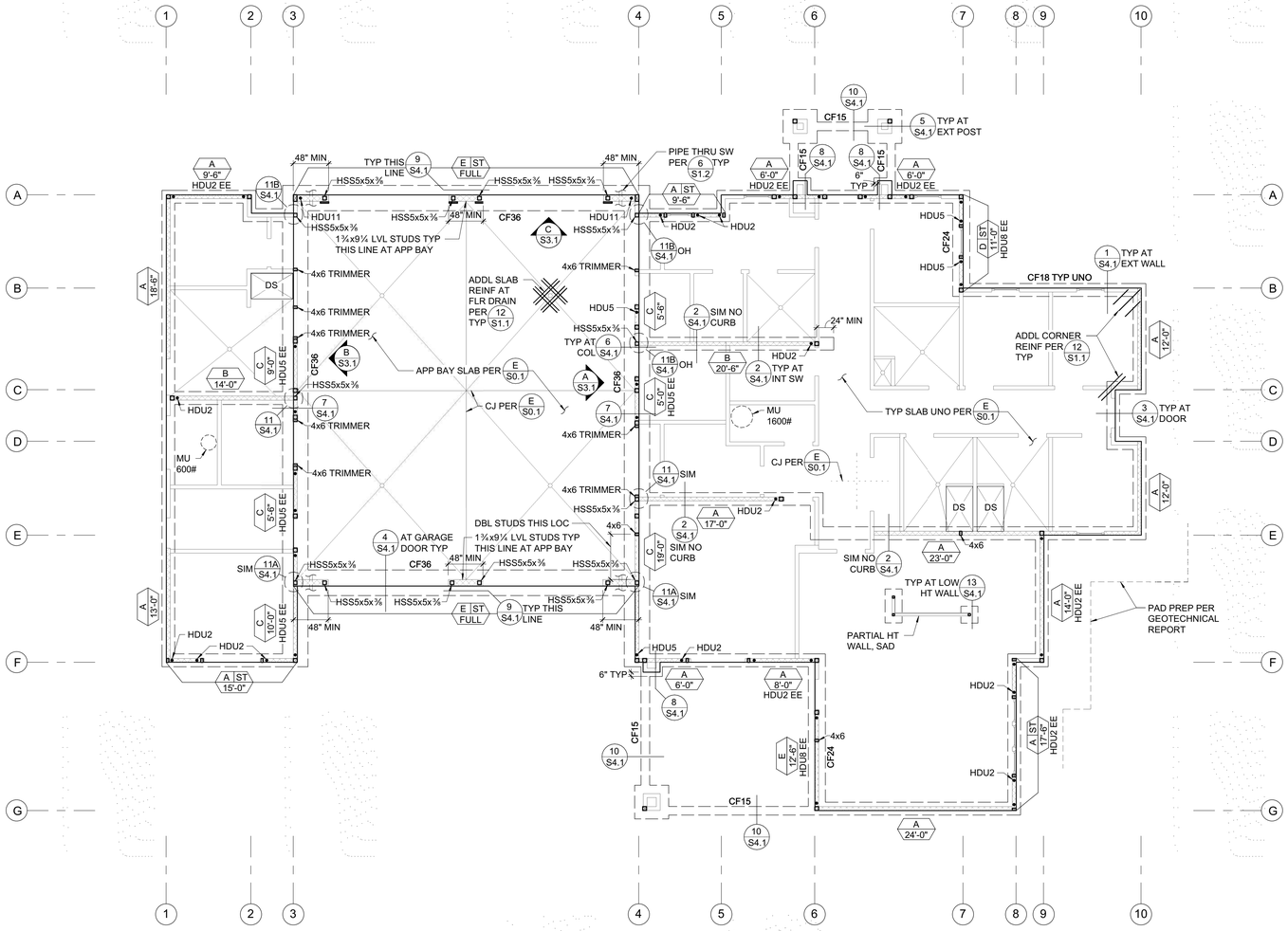
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

PROJECT NUMBER:
22342

SHEET TITLE:
TYPICAL CMU DETAILS

SHEET NUMBER:
S1.4



FOUNDATION PLAN

1/8" = 1'-0"

FOUNDATION PLAN NOTES:

1. REFER TO SHEETS S0.1, S1.1, S1.2, S1.3 AND S1.4 FOR GENERAL NOTES AND TYPICAL DETAILS. THE FOLLOWING DETAIL REFERENCES ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. ALL GENERAL NOTES AND TYPICAL DETAIL SHEETS NOTED ABOVE ARE APPLICABLE AND SHALL BE FOLLOWED.
2. DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
3. SEE DETAILS OR CURB PLAN FOR CURB LOCATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES. PROVIDE LONGER ANCHOR BOLTS AT CURBS PER D/S0.1.
4. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS SHALL BE SHEATHED AS SHEAR WALL TYPE 'A' PER SHEAR WALL SCHEDULE, UNO.
5. PLUMBING AND ELECTRICAL CONDUIT AND GROUND STRAP SHALL NOT BE LAID WITHIN FOUNDATIONS. NO UTILITY PIPES OR CONDUITS SHALL BE LOCATED THRU COLUMN FOOTINGS OR FRAME FOOTINGS. NO PIPES OR CONDUITS THRU SILL PLATES SHALL BE WITHIN 12" OF HOLDOWN BOLTS. NO MECHANICAL, ELECTRICAL, OR PLUMBING OPENINGS SHALL BE LOCATED IN SHEAR WALLS UNLESS SHOWN AND DETAILED ON THE STRUCTURAL DRAWINGS. NO VERTICAL OR HORIZONTAL PIPES OR CONDUITS SHALL BE LOCATED THROUGH STEEL FRAMES, STEEL COLUMNS, OR STEEL BASE PLATES. PROVIDE FURRING AND/OR THICKENED CONCRETE WHERE REQUIRED TO CLEAR UTILITY SYSTEMS. NOTIFY STRUCTURAL ENGINEER/ARCHITECT PRIOR TO ANY INSTALLATION NOT CONFORMING TO THESE DETAILS.

   PIPES THROUGH FOOTINGS SHALL BE PER 2/S1.1 AND 3/S1.1 .

   PIPES PARALLEL TO FOOTINGS SHALL BE PER 4/S1.1 .

   PIPES AT SLAB ON GRADE SHALL BE PER 7/S1.1 .

   PIPES THROUGH WOOD FRAMING SHALL BE PER 2/S1.2 AND 4/S1.3 .
6. CONTRACTOR SHALL DETERMINE FOUNDATION STEP LOCATIONS BASED ON GEOTECHNICAL REPORT, CIVIL, ARCHITECTURAL AND LANDSCAPE DRAWINGS. STEP FOOTING PER 5/S1.1.

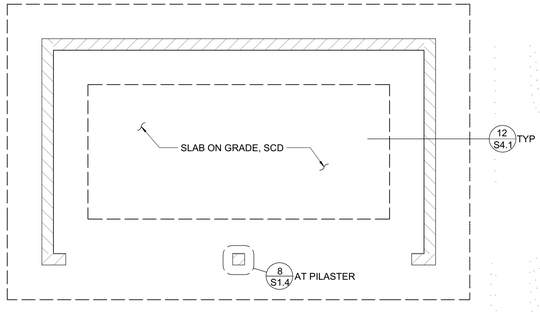
PLAN LEGEND

SYMBOL	REFERENCE DETAIL	DESCRIPTION
	1/S1.2	INDICATES STRUCTURAL WALL.
A 10'-0"	7/S1.2 J/S0.2	INDICATES SHEAR WALL TYPE AND MINIMUM WALL LENGTH. SYMBOL LOCATION INDICATES SHEATHED FACE OF WALL UNLESS NOTED OTHERWISE.
A ST 20'-0"	9/S1.3	INDICATES STRAPPED SHEAR WALL WITH TYPE AND OVERALL WALL LENGTH, SEE ARCHITECTURAL DRAWINGS FOR OPENINGS.
⊠	F/S0.1	INDICATES WOOD POST.
⊠•	8/S1.2	INDICATES POST WITH HOLDOWN. POSTS WITH HOLDOWN ARE FULL HEIGHT FROM SILL TO TOP PLATE.
□	5/S1.3	INDICATES STEEL COLUMN.
		INDICATES FOUNDATION.
CF24		INDICATES CONTINUOUS FOOTING SIZE AND REINFORCING PER SCHEDULE.
F2.0		INDICATES PAD FOOTING SIZE AND REINFORCING PER SCHEDULE.
DS	8/S1.1	INDICATES DEPRESSED SLAB, SEE ARCHITECTURAL AND PLUMBING DRAWINGS FOR COMPLETE LOCATIONS, DEPTH AND SLOPE INFORMATION.
88		INDICATES GRIDLINE.
1 S3.1		INDICATES ELEVATION.

CONTINUOUS FOOTING SCHEDULE

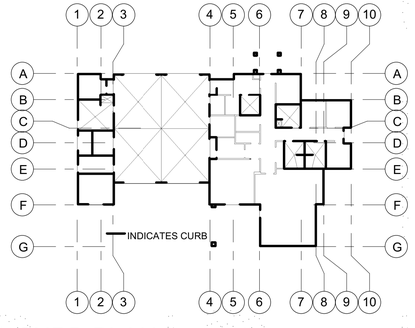
MARK	'b'	'd'	REINF 'a'	NOTES
CF15	15"	18"	(1) #5 T&B	#3 TIES @ 24"oc
CF18	18"	18"	(2) #5 T&B	#3 TIES @ 9"oc
CF24	24"	18"	(3) #5 T&B	#3 TIES @ 6"oc
CF36	36"	18"	(4) #5 T&B	#3 TIES @ 9"oc

TYPICAL STRUCTURAL WALL BLOCKING FOR ALL GRAB BAR, HANDRAIL, SHOWER SEAT, AND OTHER ARCHITECTURAL (A), MECHANICAL (M), ELECTRICAL (E), PLUMBING (P) ATTACHMENTS SHALL BE 4x MINIMUM x WALL STUD DEPTH WITH A34 TOP AND BOTTOM, EACH END TYPICAL.



TRASH ENCLOSURE - FOUNDATION PLAN

1/4" = 1'-0"



CURB PLAN

1" = 30'-0"

SHEAR WALL SCHEDULE

SW	APA RATED SHEATHING	NAILING (PEN)	ANCHORAGE ⅝"ø BOLT FDN.		AT FRAMING			REMARKS
			2x SILL	3x SILL	16d	A35	SDS *	
A	15/32 " (32/16) EXP 1	10d @ 6"oc	32"oc	48"oc	6"oc	24"oc	16"oc	
B	15/32 " (32/16) EXP 1	10d @ 4"oc	24"oc	32"oc	4"oc	16"oc	10"oc	AT ALL ADJOINING PANEL EDGES PROVIDE (2) 1¾"x MIN AT LVL, 3x MIN AT SAWN
C	15/32 " (32/16) EXP 1	10d @ 3"oc	16"oc	24"oc	3"oc	8"oc	8"oc	
D	15/32 " (32/16) EXP 1	10d @ 2"oc	-	16"oc	(2) ROWS @ 4"oc	8"oc	6"oc	
E	15/32 " (32/16) EXP 1 BOTH SIDES	10d @ 3"oc	-	12"oc	(2) ROWS @ 2"oc	6"oc	(2) ROWS @ 6"oc	

* 2x SILL: SDS¼x4½". 3x SILL: SDS¼x6". FOR SDS @ 6"oc OR LESS, PROVIDE 4x BLKG BLW.

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03/13/2023

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

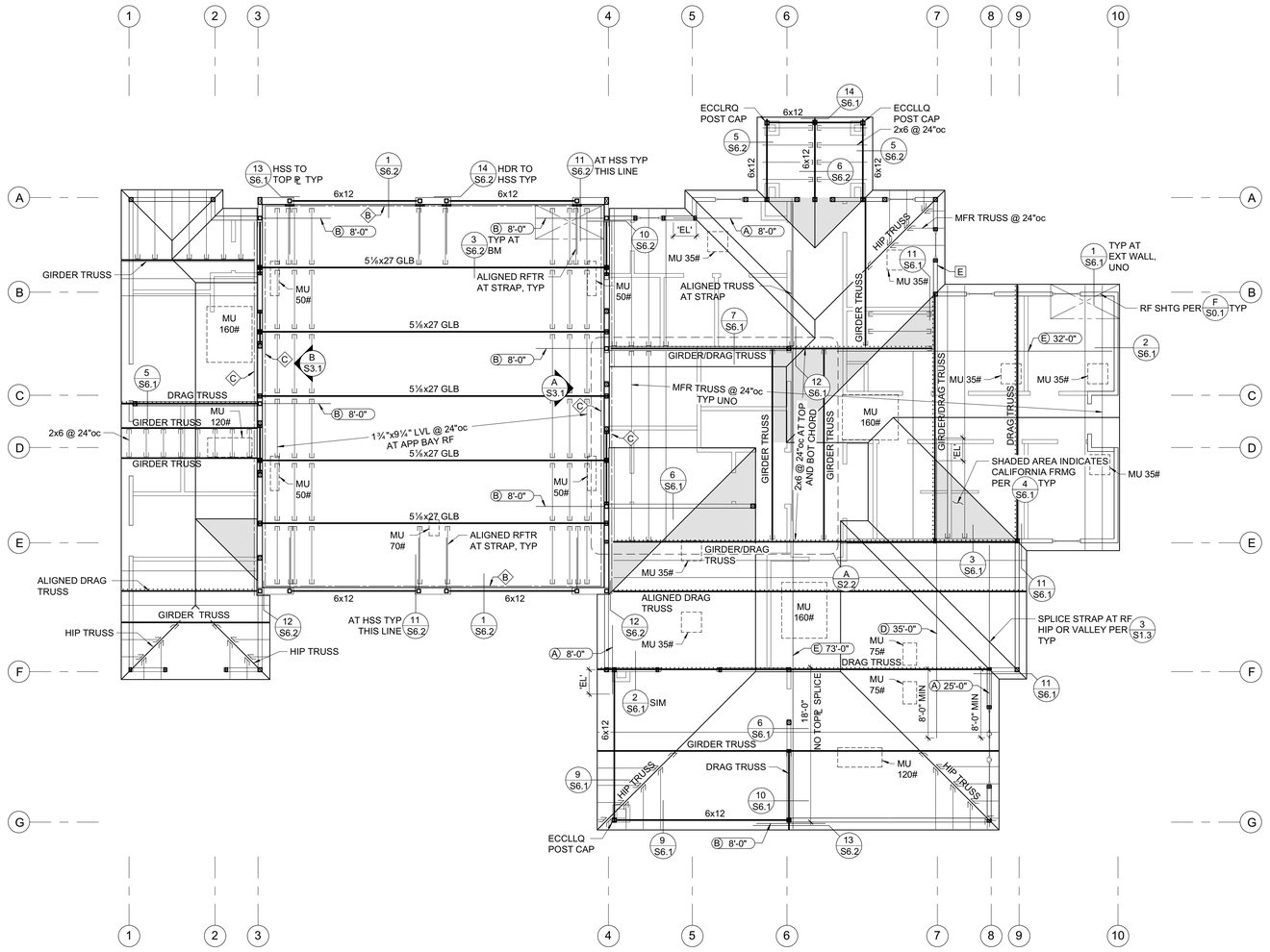
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

PROJECT NUMBER: 22342

SHEET TITLE: FOUNDATION PLAN

SHEET NUMBER: S2.1

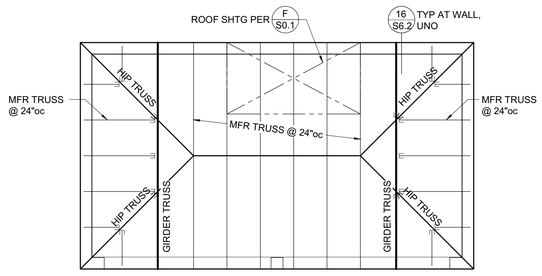


ROOF FRAMING PLAN

1/8" = 1'-0"

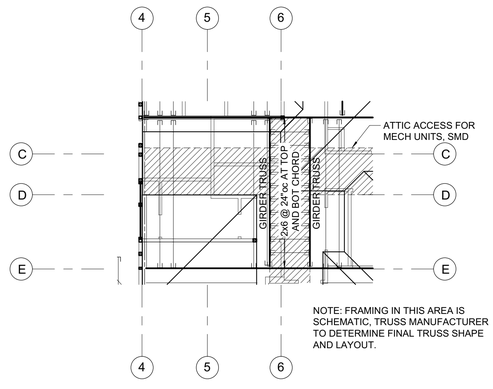
TYPICAL STRUCTURAL WALL BLOCKING FOR ALL GRAB BAR, HANDRAIL, SHOWER SEAT, AND OTHER ARCHITECTURAL (A), MECHANICAL (M), ELECTRICAL (E), PLUMBING (P) ATTACHMENTS SHALL BE 4x MINIMUM x WALL STUD DEPTH WITH A34 TOP AND BOTTOM, EACH END TYPICAL.

TRUSS MANUFACTURER SHALL COORDINATE LOCATION OF ALL RECESSED CEILING ITEMS (LIGHTING, MECHANICAL DIFFUSERS, EXHAUST FANS, SKYLIGHTS, FIRE SPRINKLERS, ETC.) AND ADJUST LAY-OUT AS NECESSARY TO INSTALL ITEMS IN LOCATIONS SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS. AT TRUSSES OFF LAY-OUT, DO NOT PROVIDE RAFTER TAIL.



TRASH ENCLOSURE - ROOF FRAMING PLAN

1/4" = 1'-0"



A SCHEMATIC TRUSS LAYOUT AT ATTIC INTERSECTION

3/32" = 1'-0"

FRAMING PLAN NOTES:

1. REFER TO SHEETS S0.1, S1.2 AND S1.3 FOR GENERAL NOTES AND TYPICAL DETAILS. THE FOLLOWING DETAIL REFERENCES ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. ALL GENERAL NOTES AND TYPICAL DETAIL SHEETS NOTED ABOVE ARE APPLICABLE AND SHALL BE FOLLOWED.
2. DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
3. MECHANICAL, ELECTRICAL AND PLUMBING PENETRATIONS THROUGH WALLS, ROOFS OR FLOORS SHALL BE PER REFERENCES BELOW UNLESS SHOWN AND DETAILED OTHERWISE ON THE STRUCTURAL PLANS. NOTIFY ARCHITECT/ENGINEER PRIOR TO ANY INSTALLATION NOT CONFORMING TO THESE DETAILS.

   PENETRATIONS THROUGH SHEAR WALLS SHALL BE PER 6/S1.2 .

   PENETRATIONS THROUGH FLOORS/ROOFS SHALL BE PER 5/S1.2 .
4. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS SHALL BE SHEATHED AS SHEAR WALL TYPE **'A'** PER SHEAR WALL SCHEDULE, UNLESS NOTED OTHERWISE.

PLAN LEGEND

SYMBOL	REFERENCE DETAIL	DESCRIPTION
———	1/S1.2	INDICATES STRUCTURAL WALL.
☒	F/S0.1	INDICATES WOOD POST.
□	5/S1.3	INDICATES STEEL COLUMN.
5⅛x12 GLB C=1"	F/S0.1	INDICATES GLULAM BEAM SIZE AND CAMBER. WHERE NO CAMBER IS SPECIFIED SEE WOOD FRAMING NOTES FOR TYPICAL GLULAM BEAM CAMBER.
. . . . .	10/S1.2	INDICATES PANEL EDGE NAILING ALONG FULL LENGTH OF MEMBER.
E	F/S0.1	INDICATES HANGER.
— – —		INDICATES LEDGER. SEE PLAN FOR SIZE AND ANCHORAGE.
88		INDICATES GRIDLINE.
1 S3.1		INDICATES ELEVATION.
MU 1,000#	6/S1.3	INDICATES APPROXIMATE LOCATION, SIZE AND MAXIMUM WEIGHT OF MECHANICAL UNIT. SEE MECHANICAL DRAWINGS FOR ANCHORAGE AND ADDITIONAL INFORMATION.
A	1/S1.3	INDICATES TOP PLATE SPLICE. SPLICE TYPE SHALL OCCUR ALONG THE ENTIRE LENGTH OF THE WALL, UNO. PROVIDE SPLICE TYPE **'A'** IF NOT NOTED ON PLANS.
A	2/S1.3	INDICATES LEDGER/RIM SPLICE. SPLICE TYPE SHALL OCCUR ALONG THE ENTIRE LENGTH OF THE WALL, UNO. PROVIDE SPLICE TYPE **'A'** IF NOT NOTED ON PLANS.
A 4'-0"	3/S1.3	INDICATES TIE STRAP. SEE SCHEDULE FOR STRAP, NAILING AND LENGTH.

TOP PLATE SPLICE SCHEDULE

MARK	LAP SPLICE (CASE 1)	STRAP SPLICE (CASE 2)
A	(12) 16d PER 4'-0" MIN LAP	MSTC28
B	(22) 16d PER 4'-0" MIN LAP	MSTC40
C	(26) 16d PER 6'-0" MIN LAP	MSTC52
D	(32) 16d PER 6'-0" MIN LAP	MSTC66
E	(36) 16d PER 8'-0" MIN LAP	MSTC28 EA SIDE
F	(44) 16d PER 8'-0" MIN LAP	MSTC40 EA SIDE
G	(50) 16d PER 10'-0" MIN LAP	MSTC52 EA SIDE

LEDGER SPLICE SCHEDULE

MARK	CASE	STRAP/PLATE	CASE	STRAP/PLATE
A	1	MSTA24	2	MSTA24
B	1	MSTA30	2	MSTA30
C	2	MSTI48	3	MSTI60
D	2	CMST14x5'-6"	3	CMST14x6'-0"
E	2	(2) MSTI48	4	℄ ¼" W/ (6) 1"Ø MB ES OF SPLICE

TIE STRAP SCHEDULE

MARK	STRAP	MIN. NAILING ES OF ◆	MAX. NAIL SPACING (SEE NOTES #1 & #2) CASE 1	CASE 2 EL	CASE 2 RL	MIN. END LENGTH (EL)
A	CS16	(10) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	12"
B	CS14	(13) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	16"
C	CMSTC16	(25) 10d	10d @ 3"oc STGR	FILL ALL NAIL HOLES	10d @ 3"oc STGR	24"
D	CMST14	(33) 10d	10d @ 3½"oc STGR	FILL ALL NAIL HOLES	10d @ 3½"oc STGR	32"
E	CMST12	(43) 10d	10d @ 3½"oc STGR	FILL ALL NAIL HOLES	10d @ 3½"oc STGR	48"

1. CASE 1 APPLIES UNLESS END LENGTH (EL) IS NOTED ON PLANS. WHERE END LENGTH (EL) IS NOTED, SEE CASE 2.
2. AS REQUIRED, PROVIDE CLOSER NAIL SPACING TO MEET MINIMUM NAILING EACH SIDE OF ◆ .

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03/13/2023

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BUTTERFIELD FIRE STATION

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DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

PROJECT NUMBER:

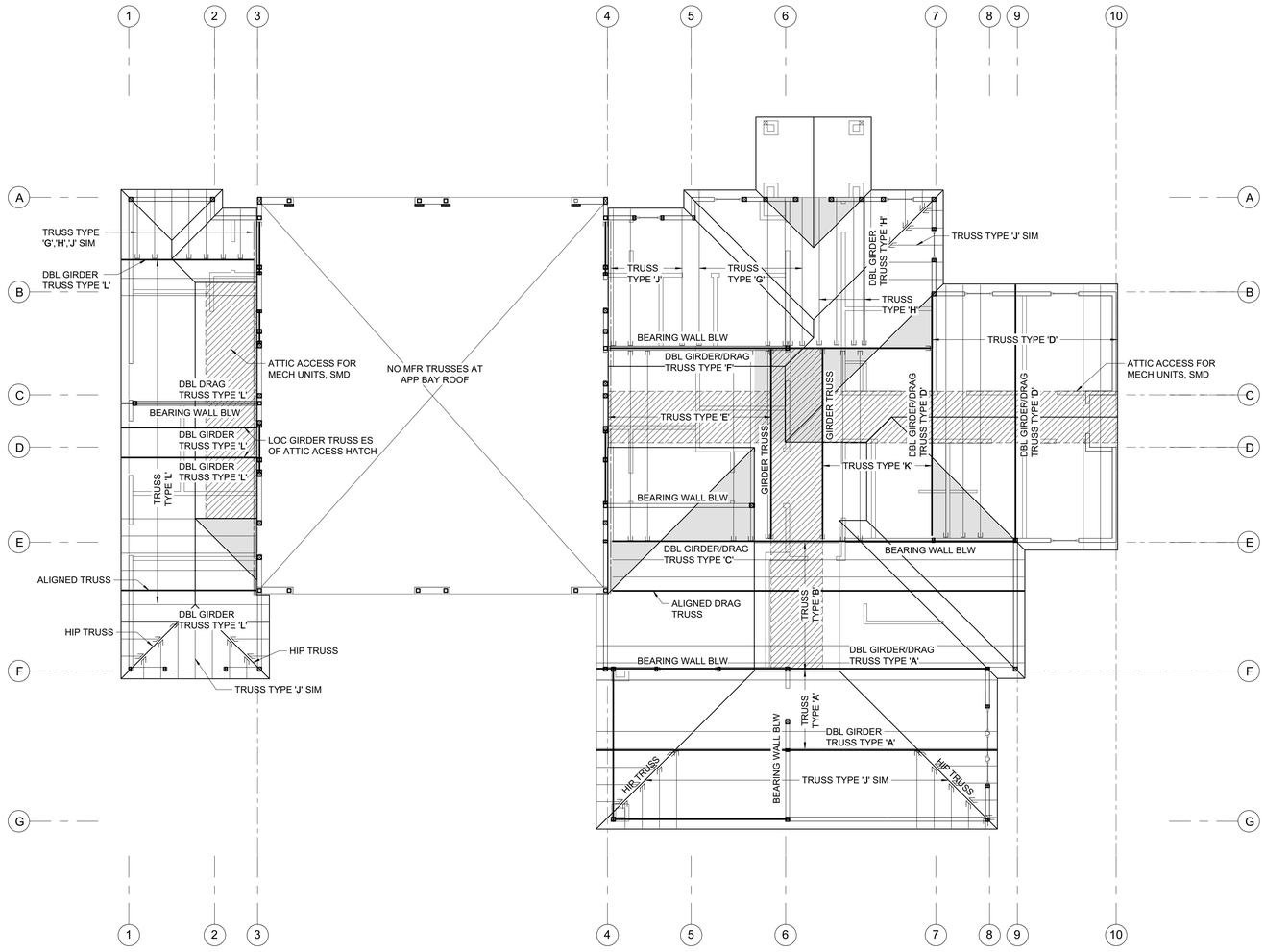
22342

SHEET TITLE:

ROOF FRAMING PLAN

SHEET NUMBER:

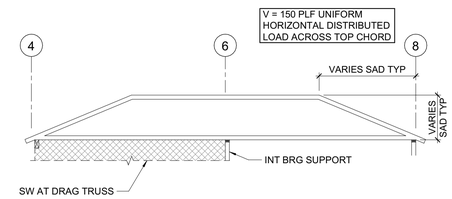
S2.2



TRUSS LAYOUT PLAN

1/8" = 1'-0"

TRUSS MFR TO DESIGN "DRAG TRUSSES FOR ASD SEISMIC AXIAL LOADS T/C (TENSION/COMPRESSION DRAG LOAD) AND V (DISTRIBUTED TRIBUTARY DIAPHRAGM LOAD AT TOP CHORD) AS INDICATED SIMULTEOUSLY. T/C + V APPLY ONLY TO TRUSSES LABELED "DRAG TRUSS" OR "GIRDER/DRAG TRUSS" PER PLAN

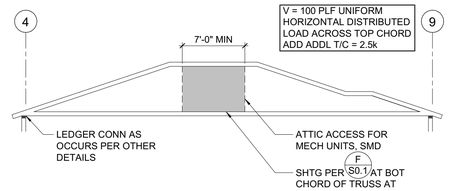


1 TRUSS 'A'

1/8" = 1'-0"

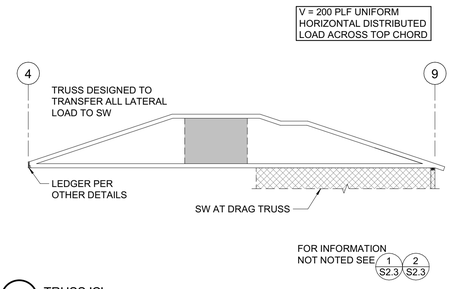
TRUSS MFR TO DESIGN BOTTOM CHORD OF TRUSS AT ATTIC SPACE FOR THE FOLLOWING:

DEAD LOAD = 15 PSF + MECH UNIT WT
LIVE LOAD = 20 PSF



2 TRUSS 'B'

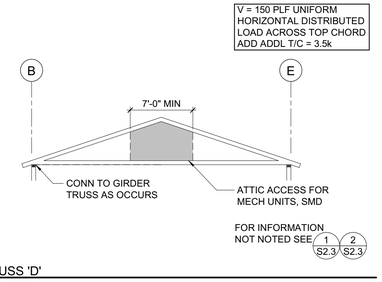
1/8" = 1'-0"



FOR INFORMATION NOT NOTED SEE 1 S2.3 2 S2.3

3 TRUSS 'C'

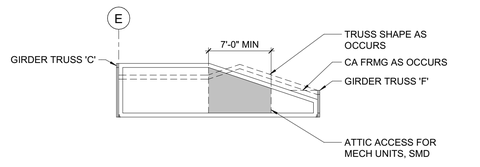
1/8" = 1'-0"



FOR INFORMATION NOT NOTED SEE 1 S2.3 2 S2.3

4 TRUSS 'D'

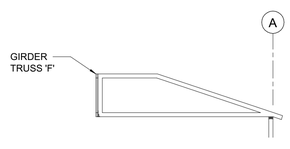
1/8" = 1'-0"



FOR INFORMATION NOT NOTED SEE 1 S2.3 2 S2.3

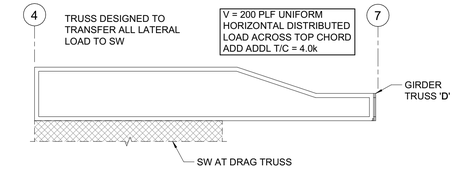
10 TRUSS 'K'

1/8" = 1'-0"



8 TRUSS 'H'

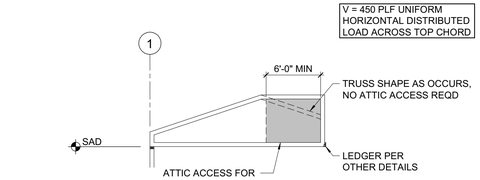
1/8" = 1'-0"



FOR INFORMATION NOT NOTED SEE 1 S2.3

6 TRUSS 'F'

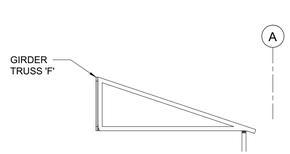
1/8" = 1'-0"



FOR INFORMATION NOT NOTED SEE 1 S2.3 2 S2.3

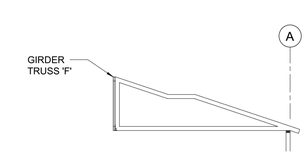
11 TRUSS 'L'

1/8" = 1'-0"



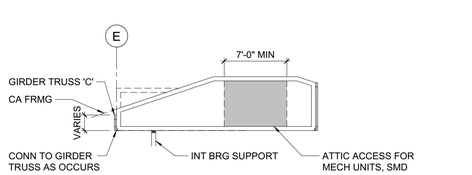
9 TRUSS 'J'

1/8" = 1'-0"



7 TRUSS 'G'

1/8" = 1'-0"



FOR INFORMATION NOT NOTED SEE 2 S2.3

5 TRUSS 'E'

1/8" = 1'-0"

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95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

PROJECT NUMBER:

22342

SHEET TITLE:

TRUSS PLAN AND FRAMING ELEVATIONS

SHEET NUMBER:

S2.3

ADD ALTERNATE #1

FOUNDATION PLAN NOTES:

1. REFER TO SHEETS S0.1, S1.1, S1.2, S1.3 AND S1.4 FOR GENERAL NOTES AND TYPICAL DETAILS. THE FOLLOWING DETAIL REFERENCES ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. ALL GENERAL NOTES AND TYPICAL DETAIL SHEETS NOTED ABOVE ARE APPLICABLE AND SHALL BE FOLLOWED.

2. DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

3. SEE DETAILS OR CURB PLAN FOR CURB LOCATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES. PROVIDE LONGER ANCHOR BOLTS AT CURBS PER D/S0.1.

4. PLUMBING AND ELECTRICAL CONDUIT AND GROUND STRAP SHALL NOT BE LAID WITHIN FOUNDATIONS. NO UTILITY PIPES OR CONDUITS SHALL BE LOCATED THRU COLUMN FOOTINGS OR FRAME FOOTINGS. NO PIPES OR CONDUITS THRU SILL PLATES SHALL BE WITHIN 12" OF HOLDOWN BOLTS. NO MECHANICAL, ELECTRICAL, OR PLUMBING OPENINGS SHALL BE LOCATED IN SHEAR WALLS UNLESS SHOWN AND DETAILED ON THE STRUCTURAL DRAWINGS. NO VERTICAL OR HORIZONTAL PIPES OR CONDUITS SHALL BE LOCATED THROUGH STEEL FRAMES, STEEL COLUMNS, OR STEEL BASE PLATES. PROVIDE FURRING AND/OR THICKENED CONCRETE WHERE REQUIRED TO CLEAR UTILITY SYSTEMS. NOTIFY STRUCTURAL ENGINEER/ARCHITECT PRIOR TO ANY INSTALLATION NOT CONFORMING TO THESE DETAILS.

   PIPES THROUGH FOOTINGS SHALL BE PER 2/S1.1 AND 3/S1.1 .

   PIPES PARALLEL TO FOOTINGS SHALL BE PER 4/S1.1 .

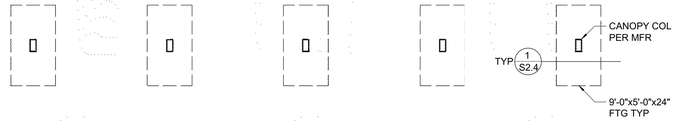
   PIPES AT SLAB ON GRADE SHALL BE PER 7/S1.1.

5. CONTRACTOR SHALL DETERMINE FOUNDATION STEP LOCATIONS BASED ON GEOTECHNICAL REPORT, CIVIL, ARCHITECTURAL AND LANDSCAPE DRAWINGS. STEP FOOTING PER 5/S1.1.

PLAN LEGEND

SYMBOL	REFERENCE DETAIL	DESCRIPTION
▯		INDICATES STEEL COLUMN.
⌐ ‒ ‒ ¬		INDICATES FOUNDATION.

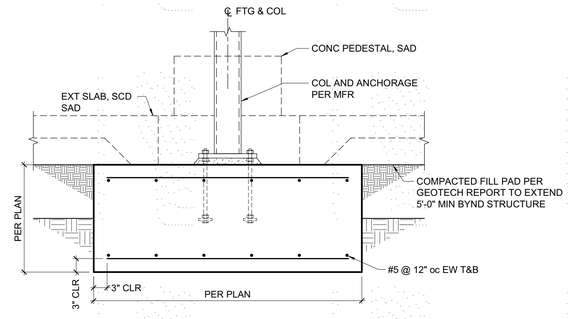
ALL FOUNDATION INFORMATION PROVIDED FOR CARPORT/SOLAR CANOPY IS ESTIMATED AND SUBJECT TO CHANGE ONCE CARPORT/SOLAR CANOPY COLUMN REACTIONS, ANCHOR BOLT PLANS AND DRAWINGS HAVE BEEN SUBMITTED FOR REVIEW AND COORDINATION



CARPORT/SOLAR CANOPY FOUNDATION PLAN

ADD ALTERNATE #1

1/8" = 1'-0"



1 HSS COLUMN PAD FOOTING

ADD ALTERNATE #1

3/4" = 1'-0"

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CHRIS S. WILSON
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

PROJECT NUMBER:

22342

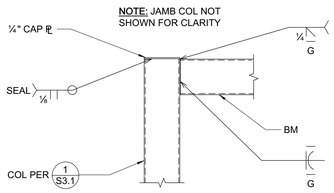
SHEET TITLE:

CARPORT/SOLAR CANOPY FOUNDATION PLAN - ADD ALTERNATE

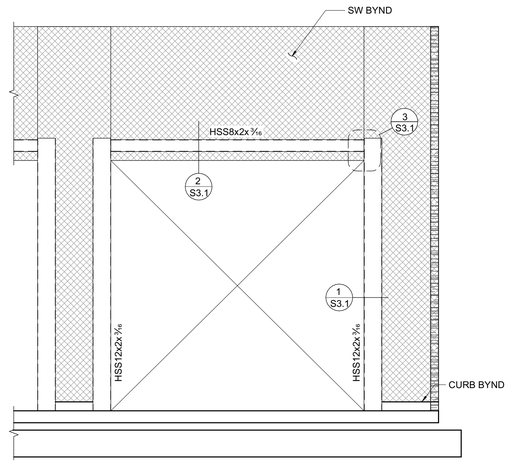
SHEET NUMBER:

S2.4

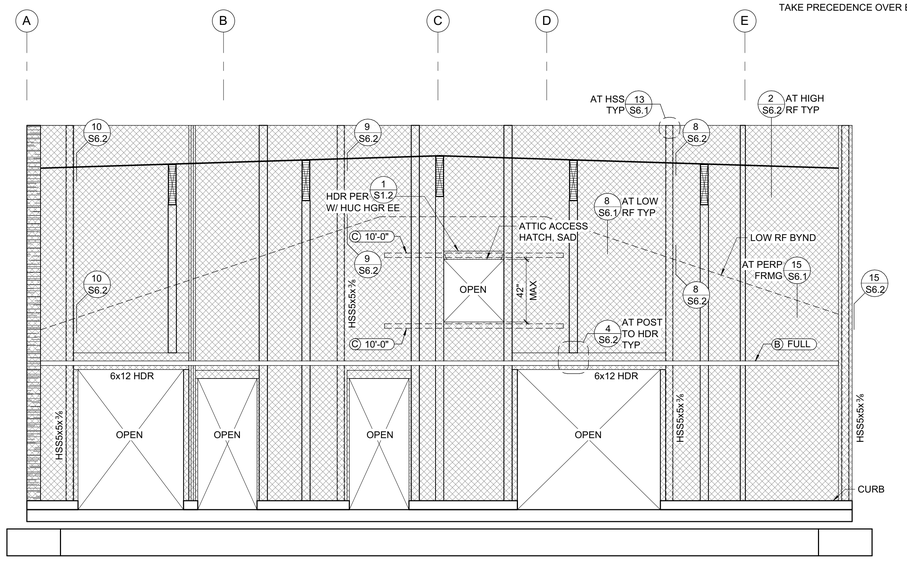
ELEVATION VIEWS SHOWN IN THESE PLANS ARE FOR CONCEPTUAL USE ONLY. THE STRUCTURAL PLANS AND DETAILS TAKE PRECEDENCE OVER ELEVATION VIEWS.



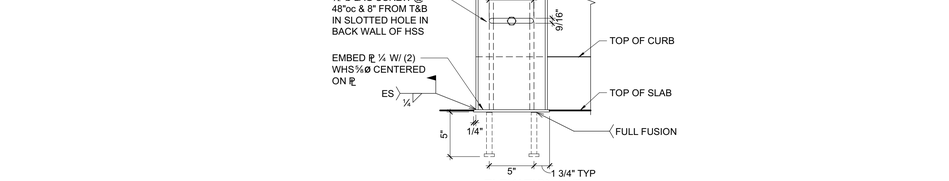
3 HSS BEAM TO HSS COLUMN
3/4" = 1'-0"



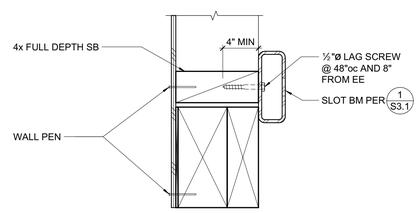
C DOOR FRAME ELEVATION
1/4" = 1'-0"



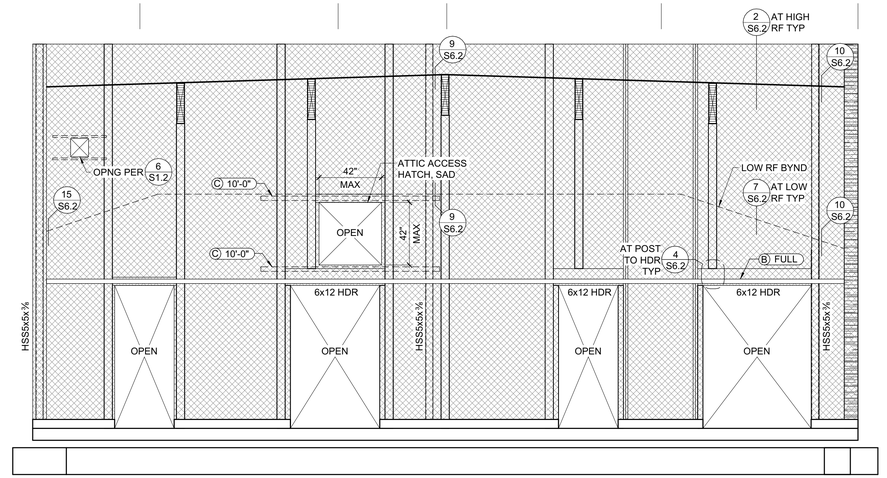
A GRIDLINE 4 ELEVATION
1/4" = 1'-0"



1 DOOR SUPPORT
1 1/2" = 1'-0"



2 DOOR SUPPORT
1 1/2" = 1'-0"



B GRIDLINE 3 ELEVATION
1/4" = 1'-0"

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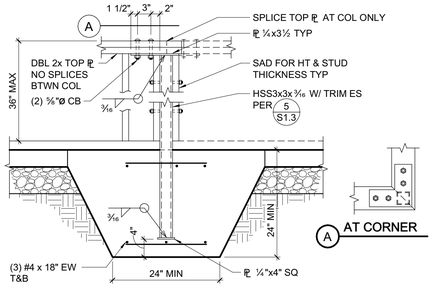
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

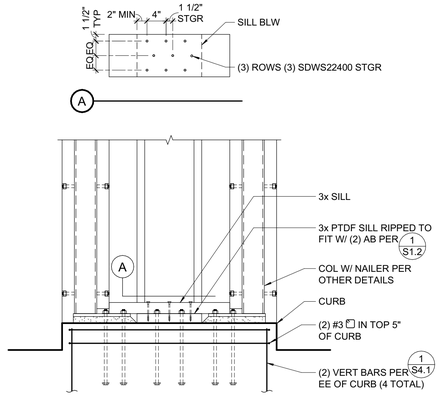
PROJECT NUMBER:
22342

SHEET TITLE:
FRAMING ELEVATIONS

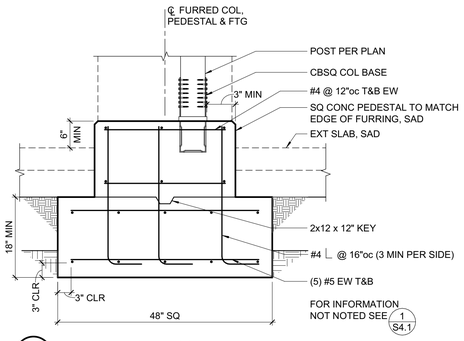
SHEET NUMBER:
S3.1



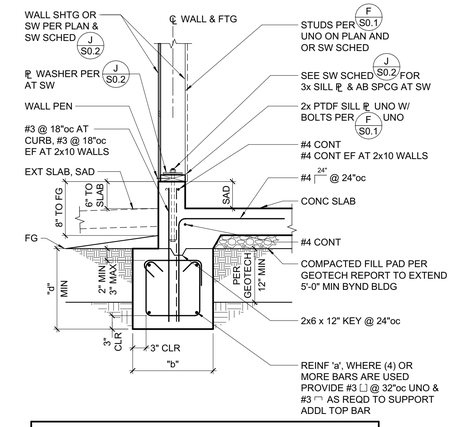
13 LOW HEIGHT WALL
3/4" = 1'-0"



9 WALL FRAMING AT PIER
3/4" = 1'-0"

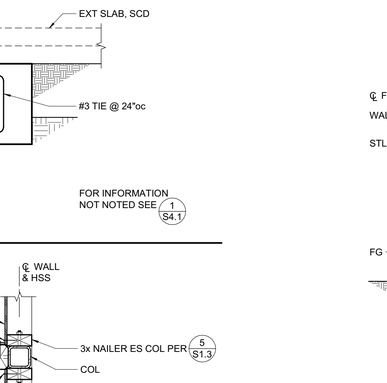


5 PAD FOOTING AT POST
3/4" = 1'-0"

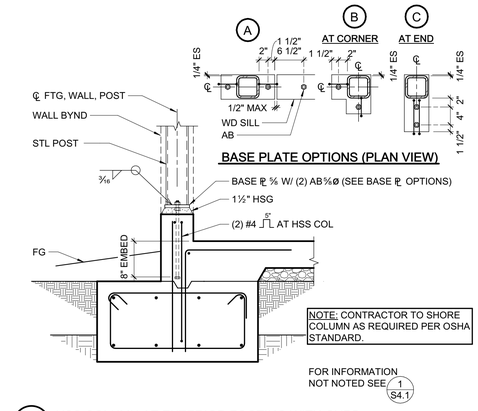


CONTINUOUS FOOTING SCHEDULE				
MARK	'b'	'd'	REINF 'a'	NOTES
CF15	15"	18"	(1) #5 T&B	#3 TIES @ 24"oc
CF18	18"	18"	(2) #5 T&B	#3 TIES @ 9"oc
CF24	24"	18"	(3) #5 T&B	#3 TIES @ 6"oc
CF36	36"	18"	(4) #5 T&B	#3 TIES @ 9"oc

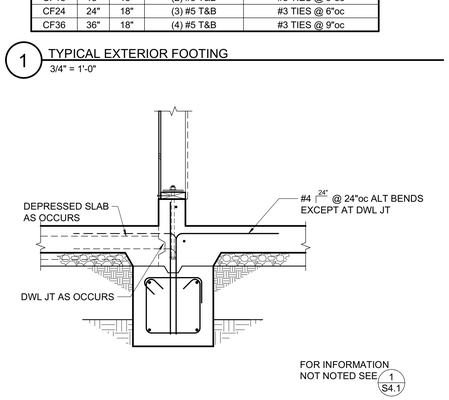
1 TYPICAL EXTERIOR FOOTING
3/4" = 1'-0"



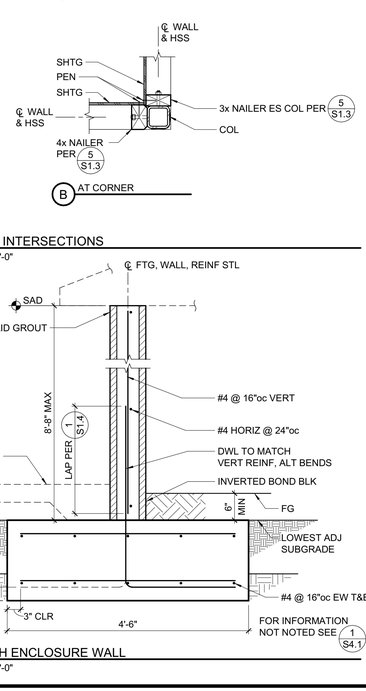
10 TIE BEAM
3/4" = 1'-0"



6 HSS COLUMN AT EXTERIOR FOOTING WITH CURB
3/4" = 1'-0"

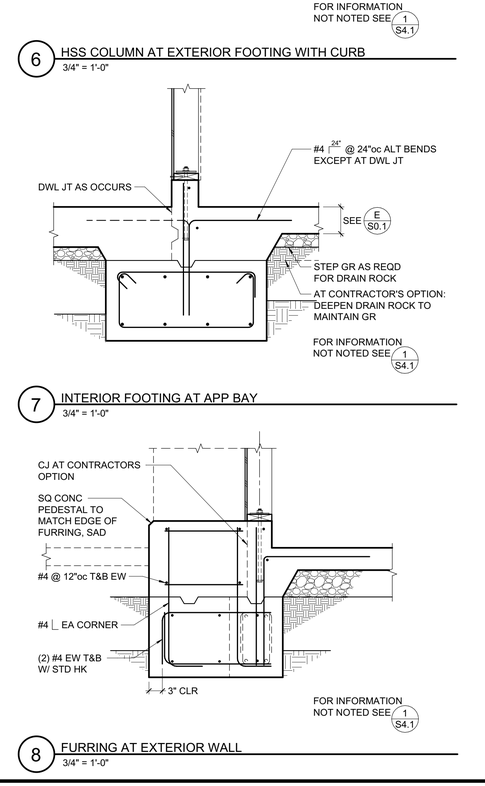


2 INTERIOR FOOTING AT CURB
3/4" = 1'-0"



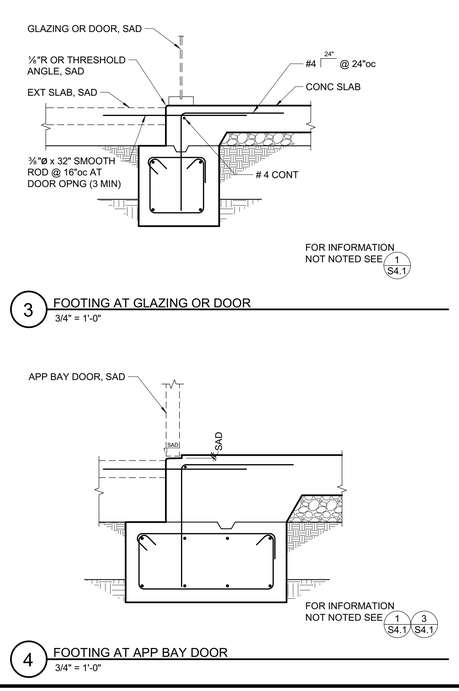
11 WALL INTERSECTIONS
3/4" = 1'-0"

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



7 INTERIOR FOOTING AT APP BAY
3/4" = 1'-0"

8 FURRING AT EXTERIOR WALL
3/4" = 1'-0"



3 FOOTING AT GLAZING OR DOOR
3/4" = 1'-0"

4 FOOTING AT APP BAY DOOR
3/4" = 1'-0"

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PERMIT SUBMITTAL

PROJECT NUMBER:

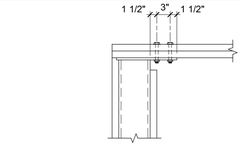
22342

SHEET TITLE:

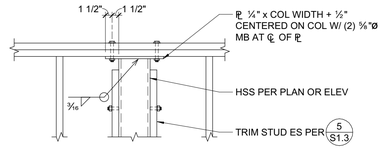
FOUNDATION DETAILS

SHEET NUMBER:

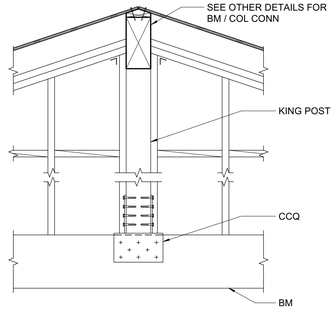
S4.1



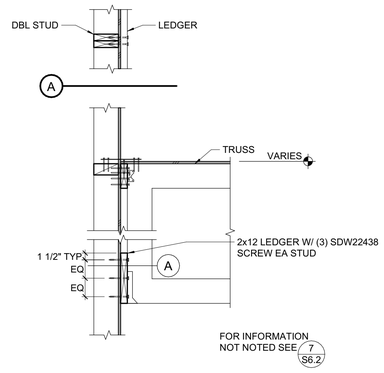
AT END OF WALL



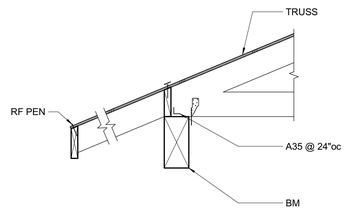
13 HSS COLUMN AT TOP PLATE
3/4" = 1'-0"



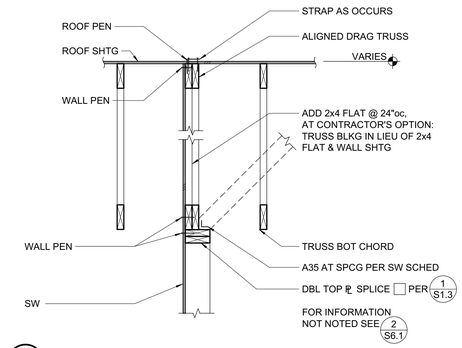
14 BEAM AT WALL OPENING
3/4" = 1'-0"



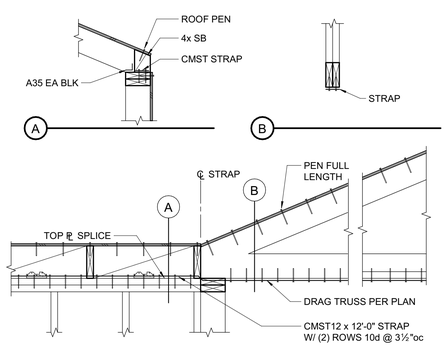
15 PERPENDICULAR TRUSS AT LEDGER
3/4" = 1'-0"



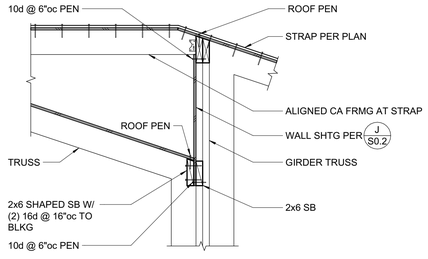
9 TRUSS AT BEAM
3/4" = 1'-0"



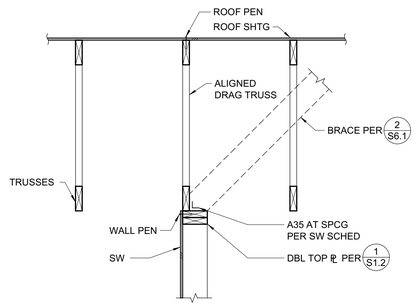
10 TRUSS SHEAR TRANSFER AT EXTERIOR WALL
3/4" = 1'-0"



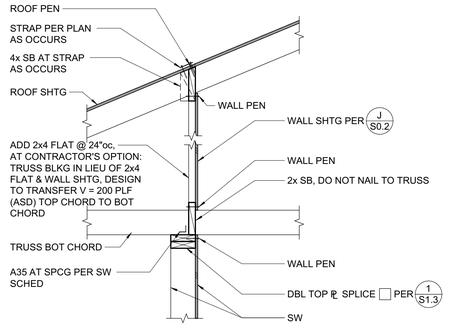
11 STRAP TOP PLATE TO DRAG TRUSS
3/4" = 1'-0"



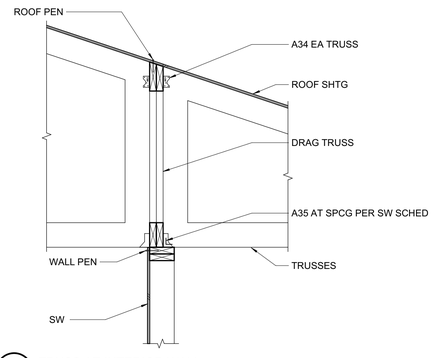
12 STRAP AT TRUSS
3/4" = 1'-0"



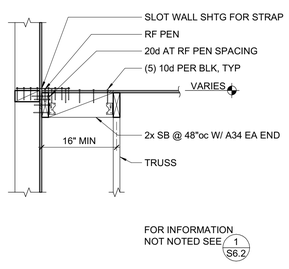
5 TRUSS AT INTERIOR WALL
3/4" = 1'-0"



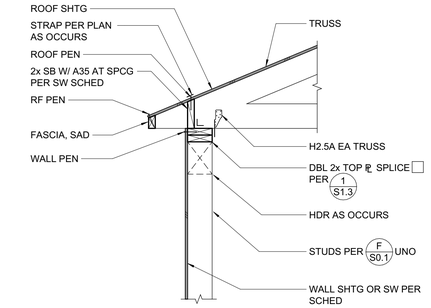
6 TRUSS SHEAR TRANSFER AT NON BEARING WALL
3/4" = 1'-0"



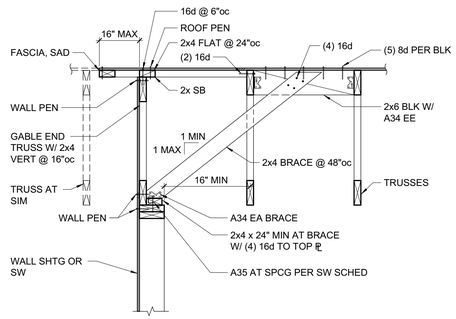
7 TRUSS AT INTERIOR WALL
3/4" = 1'-0"



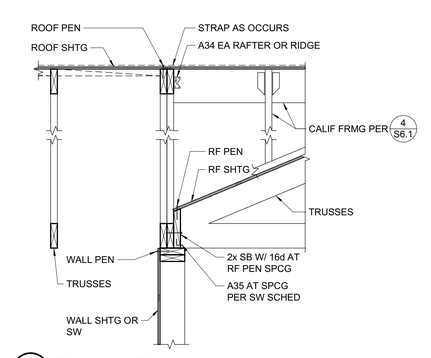
8 PARALLEL TRUSS AT LEDGER
3/4" = 1'-0"



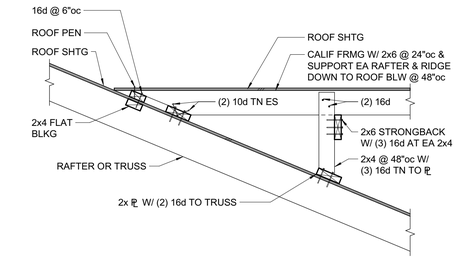
1 TRUSS AT EXTERIOR WALL
3/4" = 1'-0"



2 TRUSS PARALLEL AT EXTERIOR WALL
3/4" = 1'-0"



3 TRUSS AT INTERIOR WALL
3/4" = 1'-0"



4 CALIFORNIA FRAMING
3/4" = 1'-0"

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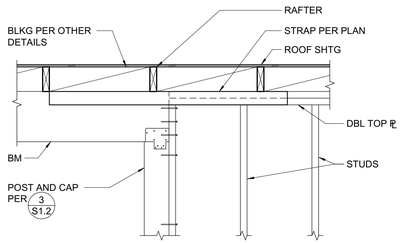
22342

SHEET TITLE:

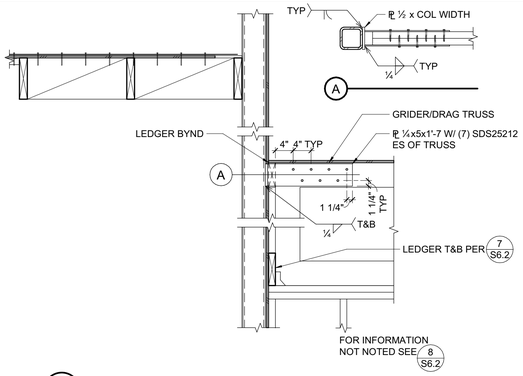
WOOD DETAILS

SHEET NUMBER:

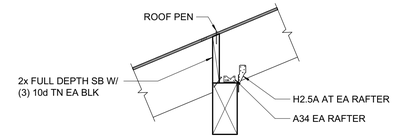
S6.1



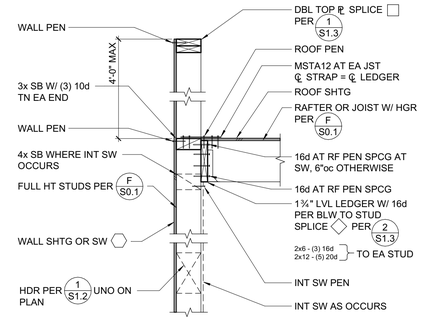
13 DRAG TOP PLATE TO ALIGNED BEAM
3/4" = 1'-0"



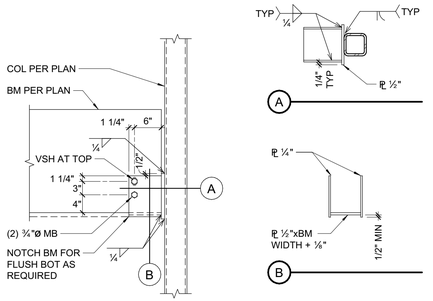
9 HSS COLUMN AT HIGH ROOF TO LOW ROOF TRANSITION
3/4" = 1'-0"



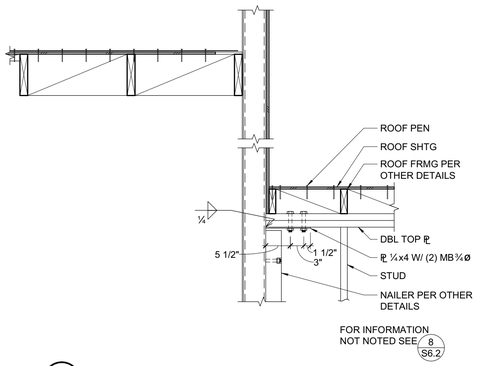
5 FRAMING AT BEAM
3/4" = 1'-0"



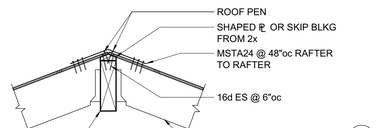
1 WALL ANCHORAGE AT EXTERIOR WALL
3/4" = 1'-0"



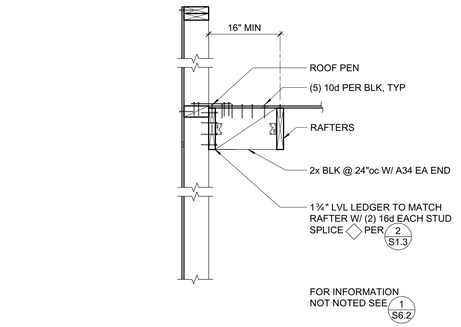
14 BEAM CONNECTION AT HSS COLUMN
3/4" = 1'-0"



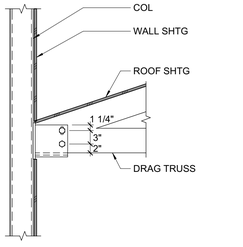
10 HSS COLUMN AT HIGH ROOF TO LOW ROOF TRANSITION
3/4" = 1'-0"



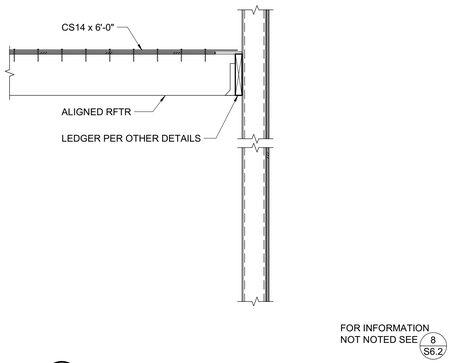
6 FRAMING AT BEAM
3/4" = 1'-0"



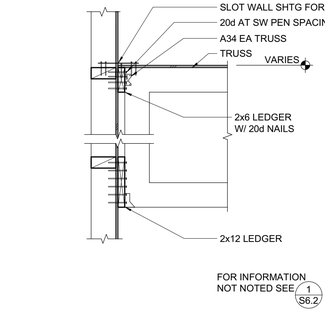
2 PARALLEL FRAMING AT EXTERIOR WALL
3/4" = 1'-0"



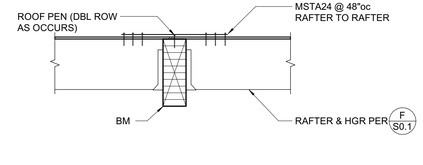
15 PERPENDICULAR TRUSS AT LEDGER
3/4" = 1'-0"



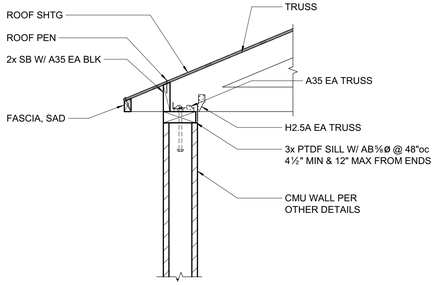
11 HSS COLUMN AT HIGH ROOF TO LOW ROOF TRANSITION
3/4" = 1'-0"



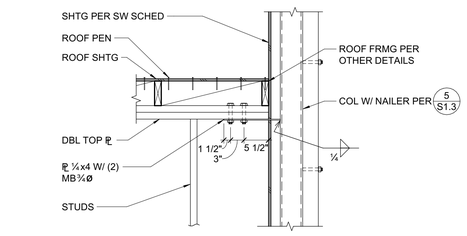
7 PERPENDICULAR TRUSS AT LEDGER
3/4" = 1'-0"



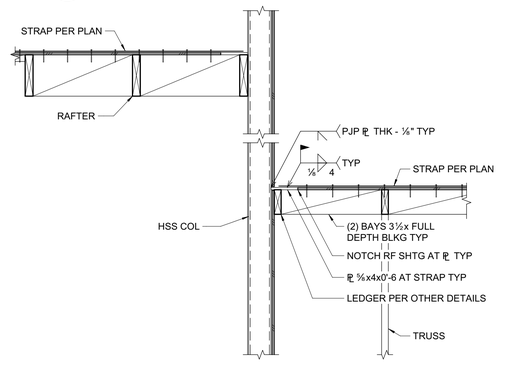
3 FRAMING AT BEAM
3/4" = 1'-0"



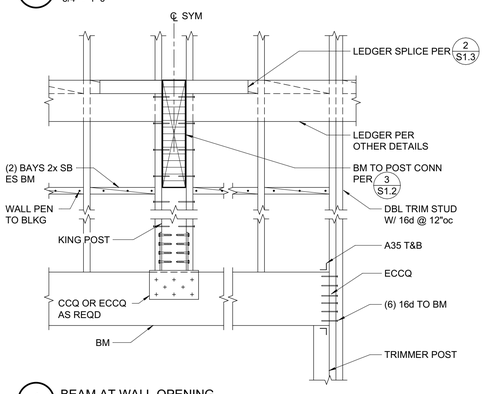
16 TRUSS AT CMU WALL
3/4" = 1'-0"



12 LOW ROOF TO HSS COLUMN TIE
3/4" = 1'-0"



8 HSS COLUMN AT HIGH ROOF TO LOW ROOF TRANSITION
3/4" = 1'-0"



4 BEAM AT WALL OPENING
3/4" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
CLAIRE S. WILSON
No. 5
STRUCTURAL
STATE OF CALIFORNIA
03/13/2023

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PERMIT SUBMITTAL

PROJECT NUMBER:

22342

SHEET TITLE:

WOOD DETAILS

SHEET NUMBER:

S6.2

SYMBOLS LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	---	MODULATING CONTROL VALVE
	---	TWO POSITION CONTROL VALVE
	---	3 WAY VALVE
	---	ANCHOR
	---	ANGLE GLOBE VALVE
	AVN	ANGLE VALVE
	AQ	AQUASTAT
	AD	AREA DRAIN
	---	AUTOMATIC AIR VENT
	---	AUTOMATIC FLOW CONTROL
	BFP, BP, DCW	BACKFLOW PREVENTER
	---	BALANCING VALVE
	---	BALL JOINT
	---	BALL VALVE
	---	BOTTOM CONNECTION
	---	BUTTERFLY VALVE
BPT	BPT	BYPASS TIMER
	CBV	CALIBRATED BALANCE VALVE
	CB, RD	CATCH BASIN, ROOF DRAIN
	---	CHECK VALVE
	---	CIRCUIT SETTER VALVE
	CP	CIRCULATING PUMP
	CO	CLEANOUT
DS	DS	DYNAMIC SENSOR
	---	ECCENTRIC REDUCER
	EJ	EXPANSION JOINT
F	FD	FIRE DAMPER
	FDC	FIRE DEPARTMENT CONNECTION
FS	FS	FIRE/SMOKE DAMPER

SYMBOLS LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	GM	GAS METER
	GPR	GAS PRESSURE REGULATOR
	---	GATE VALVE WITH HOSE ADAPTER
	---	GATE VALVE
	---	GLOBE VALVE
	HD	HOPPER DRAIN
	HB	HOSE BIBB
	---	INVERTED BUCKET TRAP
	---	MANUAL AIR VENT
	---	MODULATING CONTROL VALVE
	---	PIPE BREAK
	---	PIPE CAP
	---	PIPE DOWN
	---	PIPE UP
	PRV	PRESSURE REGULATING VALVE
	---	REDUCER
SD	SD	SMOKE DAMPER
	---	SOLENOID VALVE
TS X	TS	TEMPERATURE SENSOR
	---	THERMOMETER
T X	T	THERMOSTAT
	TP	TRAP PRIMER
	---	TWO POSITION CONTROL VALVE
	---	UNION
	---	VALVE IN RISER/DROP
	VB	VALVE IN VALVE BOX
	---	WALL CLEANOUT
	WHA	WATER HAMMER ARRESTOR
S x	---	WALL SWITCH

DUCT LEGEND

SINGLE LINE SYMBOL	DOUBLE LINE SYMBOL	DESCRIPTION
24x12	24x12	RECTANGULAR DUCT: WIDTH x DEPTH (PLAN VIEW) DEPTH x WIDTH (SECTION VIEW)
26x14L	26x14L	ACOUSTICALLY LINED RECTANGULAR DUCT - DIMENSIONS ARE OUTSIDE
		MANUAL AIR DAMPER
R or D	R or D	RISE OR DROP DUCT IN DIRECTION OF AIR FLOW
	OR	RECTANGULAR TO RECTANGULAR TRANSISTION OR ROUND TO ROUND TRANSITION, MAX. SLOPE OF 1:3
		RECTANGULAR TO ROUND TRANSITION, MAX. SLOPE OF 1:3
	W, R, R/W = 1.5	ELBOW, RECTANGULAR, SMOOTH RADIUS, WITHOUT TURNING VANES
		SQUARE/RECTANGULAR DUCT ELBOW WITH TURNING VANES
		CONVERGING OR DIVERGING TEE, 45° ENTRY, RECTANGULAR MAIN AND BRANCH. WHEN REDUCING MAIN, SIDE OF TAKE OFF OR ENTRY BRANCH TO BE FLAT, OTHER SIDES MAX. SLOPE OF 1:3
ROUND DUCT		ROUND DUCT TAKE OFF FROM RECTANGULAR VIA SMOOTH BELL MOUTH
		RECTANGULAR DUCT TEE MAD'S ON THE 2 BRANCHES, THROAT SIZED FOR EQUAL PRESSURE DROP
		RECTANGULAR DUCT SPLIT MAD'S, THROAT SIZED FOR EQUAL PRESSURE DROP
		SUPPLY AIR, SUPPLY DROP/RISE
		RETURN AIR, RETURN AIR DROP/RISE
		EXHAUST AIR, EXHAUST AIR DROP/RISE
		FLEXIBLE DUCT (ROUND)
10"Ø, 18"Ø, 12"Ø	10"Ø, 18"Ø, 12"Ø	45° REDUCING LATERAL FITTING

HVAC ABBREVIATIONS

SYMBOL	DESCRIPTION
ABC	ABOVE CEILING
ABV	ABOVE
ACC DR	ACCESS DOOR
ACC P	ACCESS PANEL
ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP, INCHES WATER COLUMN
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATTEN	ATTENUATORS
ATV	ACOUSTIC TURNING VANE
BD	BALANCE DAMPER
BDD	BACK DRAFT DAMPER
BHP	BRAKE HORSE POWER
BTUH	BRITISH THERMAL UNITS PER HOUR
CAP	CAPACITY
CD	CONDENSATE DRAIN
CEF	CEILING EXHAUST FAN
CFH	CUBIC FEET OF GAS PER HOUR
CFM	CUBIC FEET OF AIR FLOW PER MINUTE
CHV	CHECK VALVE
CLG	CEILING
CLR	CLEAR
CONC	CONCRETE
COND	CONDENSER
CONN	CONNECT/CONNECTION
CONT	CONTINUATION
DB	DRY BULB
DTR	DOWN THROUGH ROOF
DWG	DRAWING
EA	EXHAUST AIR
EAD	EXHAUST AIR DAMPER
EC	EVAPORATIVE COOLER
EDB	ENTERING DRY BULB
EER	ENERGY EFFICIENCY RATING
EF	EXHAUST FAN
EFF	EFFICIENCY
EH	EXHAUST HOOD
EL	ELEVATION
ELEC	ELECTRIC/ELECTRICAL
ENT	ENTERING
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
EVAP	EVAPORATOR
EW	ENTERING WATER
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXT	EXPANSION TANK
f	CUBIC FEET OF AIR FLOW PER MINUTE
F	DEGREES FAHRENHEIT
FA	FROM ABOVE
FB	FROM BELOW
FC	FLEXIBLE CONNECTION
FLA	FULL LOAD AMPS
FLR	FLOOR
FPM	FEET PER MINUTE
FSD	FIRE AND SMOKE DAMPER
FT (')	FOOT OR FEET
FT ^{2}	SQUARE FEET
FV	FACE VELOCITY
GA	GAUGE
GALV	GALVANIZED
GI	GALVANIZED IRON
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HC	HEATING COIL
HDG	HEAVY DUTY GRILLE
HP	HORSE POWER
HPS	HIGH PRESSURE STEAM
ICF	INSTANTENEOUS CURRENT FLOW
IE	INVERT ELEVATION
IN, (")	INCH
IN ^{2}	SQUARE INCHES

SYMBOL	DESCRIPTION
KEF	KITCHEN EXHAUST FAN
KW	KILOWATTS
LAV	LAVATORY
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
MAT	MIXED AIR TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	THOUSAND BTUs PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
OA	OUTSIDE AIR
OAD	OUTSIDE AIR DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OV	OUTLET VELOCITY
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE/ PRESSURE REGULATING VALVE
PSI (G) (A)	POUNDS PER SQUARE INCH (GAUGE) (ABSOLUTE)
RA	RETURN AIR
RAD	RETURN AIR DAMPER
REF	ROOF EXHAUST FAN
RF	RETURN FAN
RPM	REVOLUTIONS PER MINUTE
RLA	RATED LOAD AMPS
RV	RELIEF VENTILATOR
S & R	SUPPLY AND RETURN
SA	SUPPLY AIR
SAD	SEE ARCHITECTURAL DRAWINGS
SB	SECURITY BARS
SD	SPLITTER DAMPER
SEER	SEASONAL ENERGY EFFICIENCY RATING
SF	SUPPLY FAN
SG	STEAM GENERATOR
SK	SINK
SM	SHEET METAL
SOV	SHUT OFF VALVE
SP	STATIC PRESSURE
SPD	STATIC PRESSURE DROP
SQ FT	SQUARE FEET
SQ IN	SQUARE INCHES
SS	STAINLESS STEEL
STR	STRAINER
STRUC	STRUCTURAL
TA	TO ABOVE
TB	TO BELOW
T.C.C.	TEMPERATURE CONTROL CONTRACTOR
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UCD	UNDERCUT DOOR
UF	UNDERFLOOR
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UTR	UP THROUGH ROOF
V (VTR)	VENT (VENT THROUGH ROOF)
VAC	VACUUM
VD	VOLUME DAMPER
VF	VENTILATION FAN
VFC	VARIABLE FREQUENCY CONTROLLER
VLV	VALVE
VRF	VARIABLE REFRIGERANT FLOW
VSD	VARIABLE SPEED DRIVE
VV	VARIABLE AIR VOLUME CONTROLLER
VVRH	VARIABLE AIR VOLUME CONTROLLER WITH REHEAT COIL
W	WATTS
WALL MTD (R)	WALL MOUNTED (RECESSED)
WB	WET BULB
WC	WATER CLOSET
WMS	WIRE MESH SCREEN
WP	WORKING PRESSURE
WPD	WATER PRESSURE DROP FEET OF WATER COLUMN
WT	WEIGHT

TABLE OF BRANCH DUCT (SA, RA, EA) SIZES TO INDIVIDUAL DIFFUSERS, GRILLES, & REGISTERS

CFM	DUCT SIZE (INCHES) (1)				REMARKS (3) (4)
	ROUND	SQUARE	RECTANGULAR	MIN. AREA (SQ. IN.) (2)	
0-210	8"	8x8	8x6	48	8x8 MIN ON RA & EA
211-380	10"	10x10	10x8	80	
381-600	12"	12x12	12x10, 16x8	120	
601-900	14"	14x14	14x12, 16x10, 20x8	160	
901-1300	16"	16x16	16x14, 18x12, 22x10	220	
1301-1800	18"	18x18	18x16, 20x14, 22x12	264	
1801-2400	20"	20x20	22x16, 24x14, 30x12	340	

NOTES:

(1) SIZE OF BRANCH DUCT IF SHOWN ON PLANS OR FROM ABOVE TABLE IS NOT THE INLET SIZE TO DIFFUSER, GRILLE OR REGISTER. PROVIDE PLENUM BOX SEE NOTE (3)

(2) MINIMUM DUCT AREA TO BE USED FOR ALTERNATE DUCT SIZES (DIFFERENT THAN THIS TABLE) WHEN REQUESTED BY CONTRACTOR FOR SA, RA, AND EA.

(3) SEE 6/M5.1 FOR PLENUM BOX AT DIFFUSER/REGISTER/GRILLE AND FOR DETAIL OF DUCT BRANCH CONNECTION TO OUTLET (AND INLET) PLENUMS AT DIFF/REG/GRILLE.

(4) ALL DUCT SIZES SHALL BE SHOWN CLEARLY ON THE CONTRACTOR'S SUBMITTAL DRAWINGS. SHOW SIZE OF EACH DUCT ON THE PLANS AT EACH DUCT LOCATION.

MECHANICAL GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, AND INDUSTRY STANDARDS.
2. COORDINATE EXACT LOCATION OF EQUIPMENT AND ALL PENETRATIONS THROUGH ROOF, FLOORS, AND WALLS WITH ARCHITECTURAL STRUCTURAL SYSTEMS PRIOR TO COMMENCING WORK.
3. COORDINATE EXACT SIZE AND ROUTING OF DUCTWORK WITH ARCHITECTURAL PLANS, STRUCTURE, AND EQUIPMENT PRIOR TO COMMENCING WORK.
4. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES.
5. FURNISH AND INSTALL MANUAL AIR DAMPERS AT ALL DUCT BRANCH TAKEOFFS TO A SINGLE DIFFUSER OR GRILLE. INSTALL MANUAL AIR DAMPERS AS CLOSE TO MAIN DUCTS AS POSSIBLE.
6. FLEXIBLE DUCTWORK CONNECTIONS TO CEILING DIFFUSERS ARE LIMITED TO 5' MAXIMUM LENGTH.
7. WHERE INLET DUCT DIAMETER AND DIFFUSER NECK SIZE ARE THE SAME (I.E. 9"ø AND 9x9) CONTRACTOR SHALL OVERSIZE THE SHEET METAL PLENUM TO ACCOMODATE THE ROUND DUCT CONNECTION.
8. REFER TO DETAIL 5/M5.1 FOR INSTALLATION OF FIRE SMOKE DAMPERS IN ACCORDANCE TO MANUFACTURER'S REQUIREMENTS.

REGISTERED PROFESSIONAL ENGINEER ANTHONY COLACCHI M 29743 EXPIRES 6/30/24 MECHANICAL STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

capital engineering
RANCHO CORDOVA, CALIFORNIA

IS - HC/AL PM - DESIGN TEAM | 220613.00 PROJECT NO.

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

211101

SHEET TITLE:

HVAC SCHEDULES, LEGENDS & NOTES

SHEET NUMBER:

M0.1

DIFFUSER, REGISTER & GRILLE SCHEDULE

SYMBOL	DESCRIPTION	KRUEGER	METALAIRE	NAILOR	TITUS	TUTTLE & BAILEY
CD	MODULAR CORE SURFACE MOUNT CEILING DIFFUSER BEVEL FRAME 2" DROP	1240 FRAME 21 - 1""	9000-2	7500-S	MCD BORDER TYPE 6	SQD-SB
CD-2	MODULAR CORE SURFACE MOUNT CEILING DIFFUSER FLAT FRAME	1240 FRAME 22	9000-1	7500-B	MCD BORDER TYPE 1	SQD-SF
CDL	MODULAR CORE LAY-IN CEILING DIFFUSER FOR T-BAR CEILING 24x24 PANEL	1240 FRAME 23	9000-6P	7500-L	MCD BORDER TYPE 3	SQD-LT
CR	CEILING RETURN WITH " EGG CRATE CORE SURFACE MOUNT	EGC-5	CC5D	61 EC-S	MODEL 50 F BORDER TYPE 1	CRE500-SF
CRL	CEILING RETURN WITH " EGG CRATE CORE IN 24x24 PANEL FOR T-BAR CEILING	EGC-5TB	CC5D-TBD	61 EC-L	MODEL 50 F BORDER TYPE 3	CRE500-LT
S *	DOUBLE DEFLECTION SUPPLY GRILLE WITH VERTICAL FRONT BARS, 2" SPACING	880 V	V 4004 S	61 DV	300 RS	T54
R & E *	RETURN OR EXHAUST GRILLE WITH 35° OR 45° HORIZONTAL BARS.	S 80 H	SRH	7145 H	350 RL	T70D

NOTES:
1. ALL SYMBOLS NOTED MAY NOT BE USED. REFER TO PLANS FOR SIZE AND QUANTITY.
2. ALL SUPPLY AIR DIFFUSERS ARE 4 WAY BLOW UNLESS SHOWN OTHERWISE.
3. FURNISH ALL PRODUCTS OF A SINGLE MANUFACTURER.
4. PROVIDE ALUMINUM REGISTERS FOR SHOWERS AND DAMP AREAS
5. COORDINATE DIFFUSER TYPE WITH REFLECTED CEILING PLAN.
6. OPPOSED BLADE DAMPERS ARE NOT REQUIRED AT DIFFUSERS, REGISTERS OR GRILLES.
7. PROVIDE MANUAL AIR DAMPERS AT EACH BRANCH DUCT TO A SINGLE DIFFUSER, REGISTER OR GRILLE.
8. SEE 6/M5.1 FOR PLENUM BOX AT DIFF/REG/ GRILLE AND FOR DETAIL OF DUCT BRANCH CONNECTION TO OUTLET (AND INLET) PLENUMS AT DIFF/REG/GRILLE.

GRAVITY ROOF VENTILATOR SCHEDULE

UNIT	LOCATION	"COOK" MODEL NO.	TYPE	TOTAL THROAT SIZE	CFM	S.P. (IN. W.G.)	OPER. WT. (LBS.)	MOUNTING DETAIL	NOTES
GRV 1	ROOF	PR	OUTLET	16"	1200	0.12	70	3 M5.1	1
GRV 2,4	ROOF	PR	INTAKE	16"	1200	0.1	70	3 M5.1	1
GRV 3,5	ROOF	PR	OUTLET	8"	600	0.4	40	3 M5.1	1
GRV 6	ROOF	PR	INTAKE	8"	600	0.3	40	3 M5.1	1

NOTES:
1. PROVIDE WITH MANUFACTURER'S ROOF CURB, BDD, AND BIRDSCREEN.

VRF INDOOR UNIT SCHEDULE

EQUIP TAG	LOCATION	"LG" MODEL NO.	TYPE	SUPPLY AIR [CFM]	MIN. OA [CFM]	COOLING CAP. TOT. [MBH]	COOLING CAP. SENS. [MBH]	HEATING CAP. [MBH]	REFR. LINE SIZE RL [IN]	REFR. LINE SIZE RS [IN]	ELECTRICAL DATA VOLT/PH	ELECTRICAL DATA MCA	OPER. WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
HP-1-1	EMS / TURNOUTS / WORKSHOP/ DECON	ARNU543M3A4	DUCTED	1200	1200	54.0	42.09	62.08	3/8	5/8	208/1	3.1	120	1/M5.2	4/M5.2	1,2,3,4
HP-2-1	106 - ACC BUNK 1	ARNU053TRD4	CASSETTE	275	30	5.5	3.9	6.3	1/4	1/2	208/1	0.25	35	4/M5.1	4/M5.2	1,2,5
HP-2-2	107 - BUNK 1	ARNU053TRD4	CASSETTE	275	30	5.5	3.9	6.3	1/4	1/2	208/1	0.25	35	4/M5.1	4/M5.2	1,2,5
HP-2-3	108 - BUNK 2	ARNU053TRD4	CASSETTE	275	30	5.5	3.9	6.3	1/4	1/2	208/1	0.25	35	4/M5.1	4/M5.2	1,2,5
HP-2-4	100 - OFFICE	ARNU053TRD4	CASSETTE	275	30	5.5	3.9	6.3	1/4	1/2	208/1	0.25	35	4/M5.1	4/M5.2	1,2,5
HP-2-5	114 KITCHEN / DINING / DAYROOM	ARNU763B4A4	DUCTED	1750	450	76.4	76.4	86	3/8	3/4	208/1	5.2	120	1/M5.2	4/M5.2	1,2,3,4
HP-2-6	113 - FITNESS	ARNU053TRD4	CASSETTE	275	60	5.5	3.9	6.26	1/4	1/2	208/1	0.25	35	4/M5.1	4/M5.2	1,2,5
HP-2-7	113 - FITNESS	ARNU053TRD4	CASSETTE	275	60	5.5	3.9	6.26	1/4	1/2	208/1	0.25	35	4/M5.1	4/M5.2	1,2,5
HP-2-8	101 - RIP & RUN	ARNU053TRD4	CASSETTE	375	60	5.5	3.9	6.26	1/4	1/2	208/1	0.25	35	4/M5.1	4/M5.2	1,2,5

NOTES:

1. UNITS SELECTED AT 75°F DB SUMMER , 65°F DB WINTER RETURN AIR TEMPERATURES. COOLING AND HEATING CAPACITIES SCHEDULED ARE NET TOTAL CAPACITIES.
2. PROVIDE WITH 2" MERV-13 THROWAWAY FILTER.
3. PROVIDE WITH FILTER BOX WITH DIFFERENTIAL PRESSURE SENSOR.
4. PROVIDE VARIABLE SPEED CONTROL.
5. PROVIDE 3-SPEED (LOW/MEDIUM/HIGH) CONTROL.

VRF OUTDOOR UNIT SCHEDULE

EQUIP TAG	LOCATION	"LG" MODEL NO.	COOLING CAP. [MBH]	HEATING CAP. [MBH]	REFR. LINE SIZE RL [IN]	REFR. LINE SIZE RS [IN]	ELECTRICAL DATA VOLT/PH	ELECTRICAL DATA MCA	ELECTRICAL DATA MOP	IEER [EER]	COP	OPER. WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
VRF-CU-1	GRADE - WEST	ARUM048GSS5	49.15	54.12	1/2	1-1/8	208/3	24.0	40	13		300	1/M5.1	4/M5.2	1,2,3
VRF-CU-2	GRADE - EAST	ARUM121BTE5	96	108	1/2	1-1/8	208/3	28.5	40	25.10		550	1/M5.1	4/M5.2	1,2,3

NOTES:

1. UNITS SELECTED AT 103°F DB / 71°F WB SUMMER AMBIENT, 24°F DB WINTER AMBIENT AIR TEMPERATURES. COOLING AND HEATING CAPACITIES SCHEDULED ARE NET TOTAL CAPACITIES.
2. PROVIDE WITH CRANKCASE HEATER, EVAP FREEZE STAT, WINTER START CONTROL, COMPRESSOR START ASSIST CAPACITOR AND RELAY, LOW AMBIENT KIT, CONTROLLER MOTOR MASTER CONTROL, BALL BEARING FAN MOTOR.
3. SEE 1/M4.1 FOR VRF PIPING DIAGRAMS.

VRF BRANCH SELECTOR SCHEDULE

EQUIP TAG	LOCATION	"LG" MODEL NO.	# OF PORTS	ELECTRICAL DATA VOLT/PH	ELECTRICAL DATA RLA	OPER. WT. [LBS]	MOUNTING DETAIL	NOTES
BS-1	114 KITCHEN / DINING / DAYROOM	PRHR043A	4	208/1	0.09	75	7/M5.1	1,2
BS-2	114 KITCHEN / DINING / DAYROOM	PRHR063A	6	208/1	0.09	75	7/M5.1	1,2

NOTES:

1. FOR REFRIGERANT PIPE SIZING, SEE VRF PIPING DIAGRAM ON 1/M4.1. CONTRACTOR SHALL PROVIDE COORDINATED SHOP DRAWINGS WITH PIPE SIZES AND ROUTING PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE FULL PORT BALL VALVE AT EACH BRANCH, INSTALL PER MANUFACTURER'S INSTRUCTIONS.

ELECTRIC RADIANT HEATER SCHEDULE

EQUIP TAG	LOCATION	"BLACK BODY INFRARED" MODEL	CAP. [KW]	ELECTRICAL DATA VOLT/PH	ELECTRICAL DATA RLA	OPER. WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
RH-1	127 APPARATUS BAY	41-6000U	6.0	208/1	29.5	50	6/M5.2	5/M5.2	1
RH-2	127 APPARATUS BAY	41-6000U	6.0	208/1	29.5	50	6/M5.2	5/M5.2	1
RH-3	127 APPARATUS BAY	41-6000U	6.0	208/1	29.5	50	6/M5.2	5/M5.2	1
RH-4	127 APPARATUS BAY	41-6000U	6.0	208/1	29.5	50	6/M5.2	5/M5.2	1

NOTES:

1. PROVIDE WITH MANUFACTURER'S WALL MOUNTING BRACKETS FOR HORIZONTAL DISCHARGE AIR. INSTALL AS HIGH ON WALL AS POSSIBLE, WHILE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION REQUIREMENTS.

FAN SCHEDULE

EQUIP TAG	"COOK" MODEL	CFM	SP [IN. W.G.]	RPM	VOLT/PH	HP (W)	OPER WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
CEF-1	GC-148	100	0.20	861	115/1	(35)	20	7/M5.2		1
CEF-2	GC-148	100	0.20	861	115/1	(35)	20	7/M5.2		1
IEF-1	100SQN17DEC	700	0.30	1557	115/1	(99)	70	8/M5.2		1

NOTES:

1. PROVIDE WITH MANUFACTURER'S BACKDRAFT DAMPER ACCESSORY.

ENERGY RECOVERY VENTILATOR (ERV) SCHEDULE

UNIT	AREA SERVED	"MANUFACTURE" MODEL NO.	CFM	ESP (IN. W.G.)	COOLING INPUT POWER (W)	HEATING INPUT POWER (W)	ELECTRICAL DATA VOLT/PH	ELECTRICAL DATA SUPPLY FAN WATT	ELECTRICAL DATA SUPPLY FAN FLA	ELECTRICAL DATA EXHAUST FAN WATT	ELECTRICAL DATA EXHAUST FAN FLA	MCA	MOCP	OPER. WT. (LBS.)	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
ERV 1	HP/2-5 THRU HP/2-7	"FANTECH" SHR-700	600	0.60	670	670	120/1	503	2.7	503	2.7	6.88	15	220	1 M5.2	3 M5.2	1, 2
ERV 2	HP/2-1 THRU HP/2-4	"FANTECH" SHR-700	600	0.60	670	670	120/1	503	2.7	503	2.7	6.88	15	220	1 M5.2	3 M5.2	1, 2
ERV 3	HP/1-1	"LG" ARVU123ZFA2	1200	0.80	1000	1000	208/1	503	5.4	503	5.4	6.82	10	335	1 M5.2	3 M5.2	1, 2

NOTES:
1. PROVIDE UNIT WITH MANUFACTURER'S HANGER CLIP.
2. PROVIDE UNIT WITH FILTER BOX AT THE OUTSIDE AIR INTAKE WITH THROWAWAY MERV 13 FILTERS.

REGISTERED PROFESSIONAL ENGINEER ANTHONY COLACCHI M 29743 EXPIRES 6-30-2024 MECHANICAL STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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RANCHO CORDOVA, CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

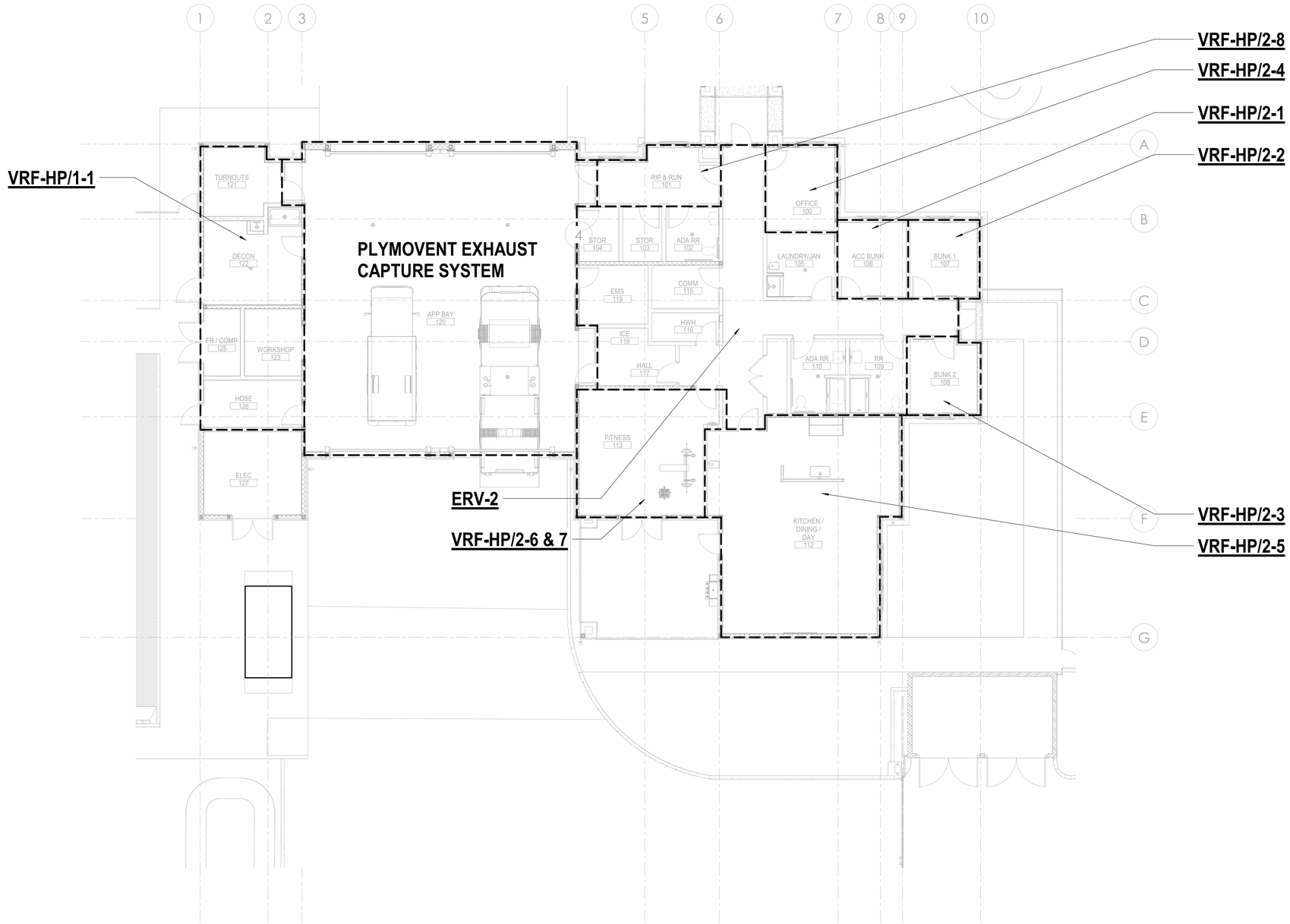
CAL FIRE SINCE 1885 MORGAN HILL 1980 FIRE

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER: 211101

SHEET TITLE: MECHANICAL SCHEDULES

SHEET NUMBER: M0.2



1 / M1.1 HVAC ZONING PLAN

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

REGISTERED PROFESSIONAL ENGINEER
ANTHONY COLACCHIA
M 29743
RENEWAL 08/31/2024
STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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RANCHO CORDOVA, CALIFORNIA

IS - HC/AL — PM - DESIGN TEAM
220613.00 — PROJECT NO.

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

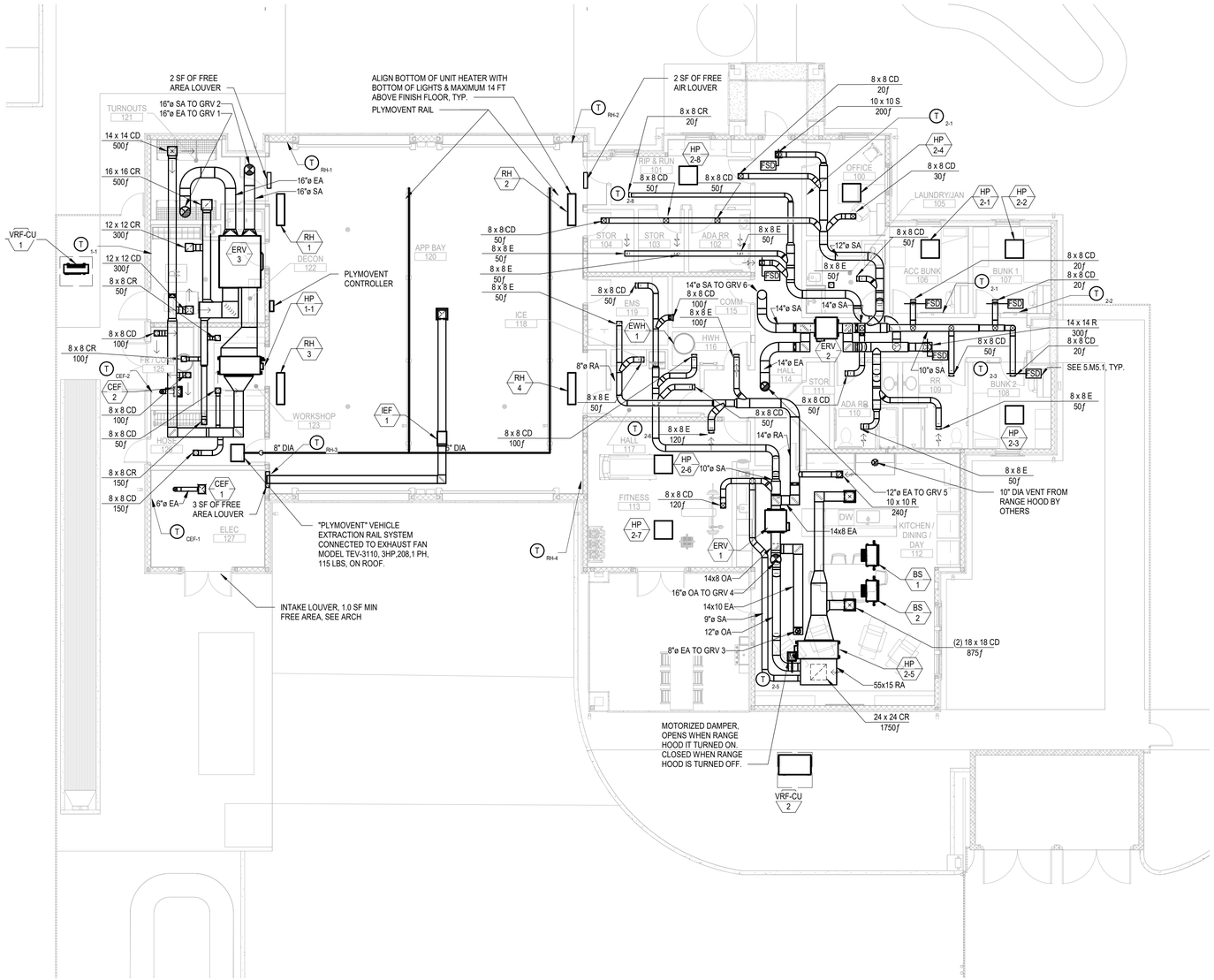
211101

SHEET TITLE:

HVAC ZONING PLAN

SHEET NUMBER:

M1.1



1 M2.1 HVAC FLOOR PLAN

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

REGISTERED PROFESSIONAL ENGINEER
ANTHONY COLACCHI
M 29743
RENEW: 8/31/24
STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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BUTTERFIELD FIRE STATION

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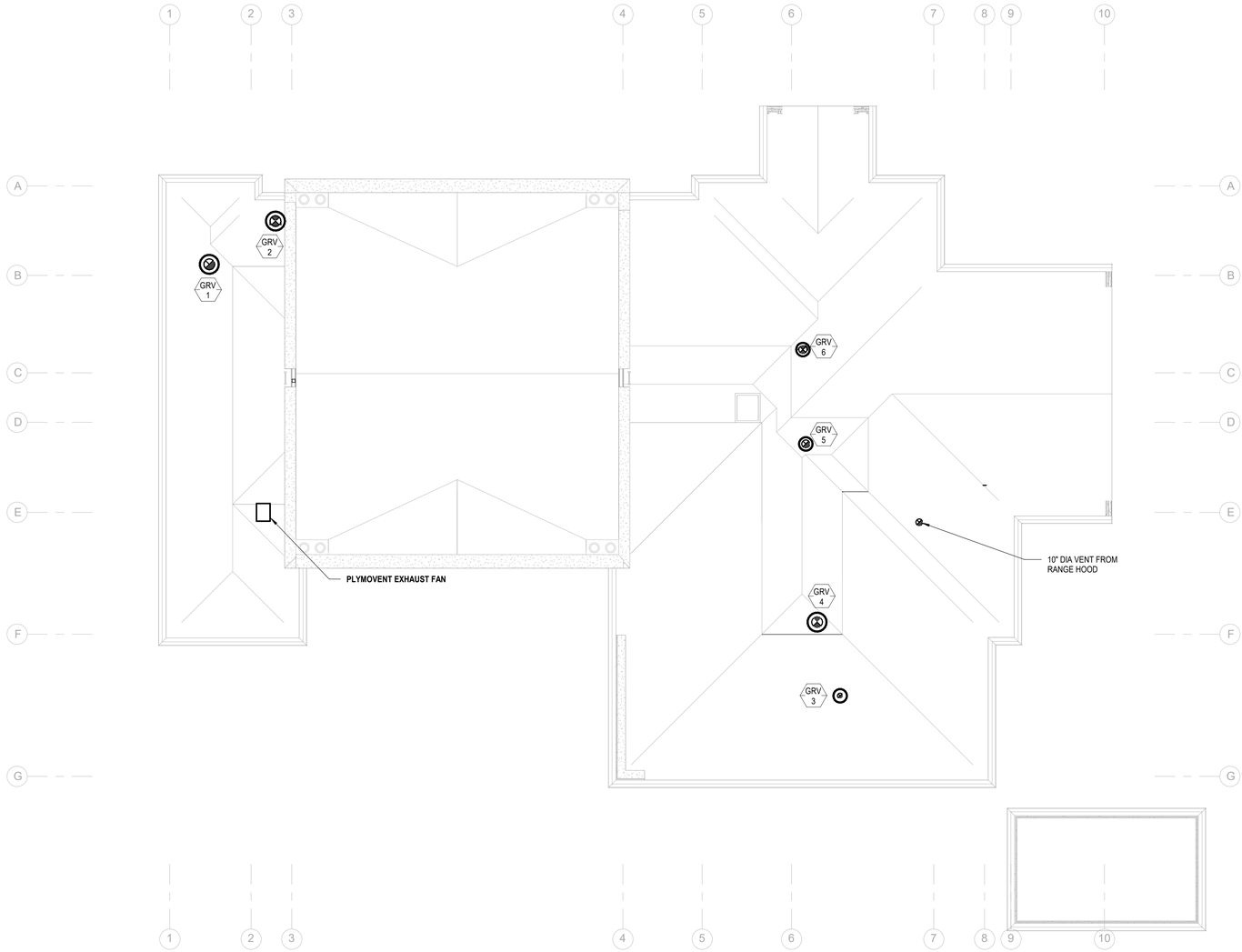
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER: 211101

SHEET TITLE: HVAC FLOOR PLAN

SHEET NUMBER: M2.1



1 M2.2 HVAC ROOF PLAN

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

REGISTERED PROFESSIONAL ENGINEER
ANTHONY COLACCHI
M 29743
RENEW: 8-31-24
MECHANICAL
STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

211101

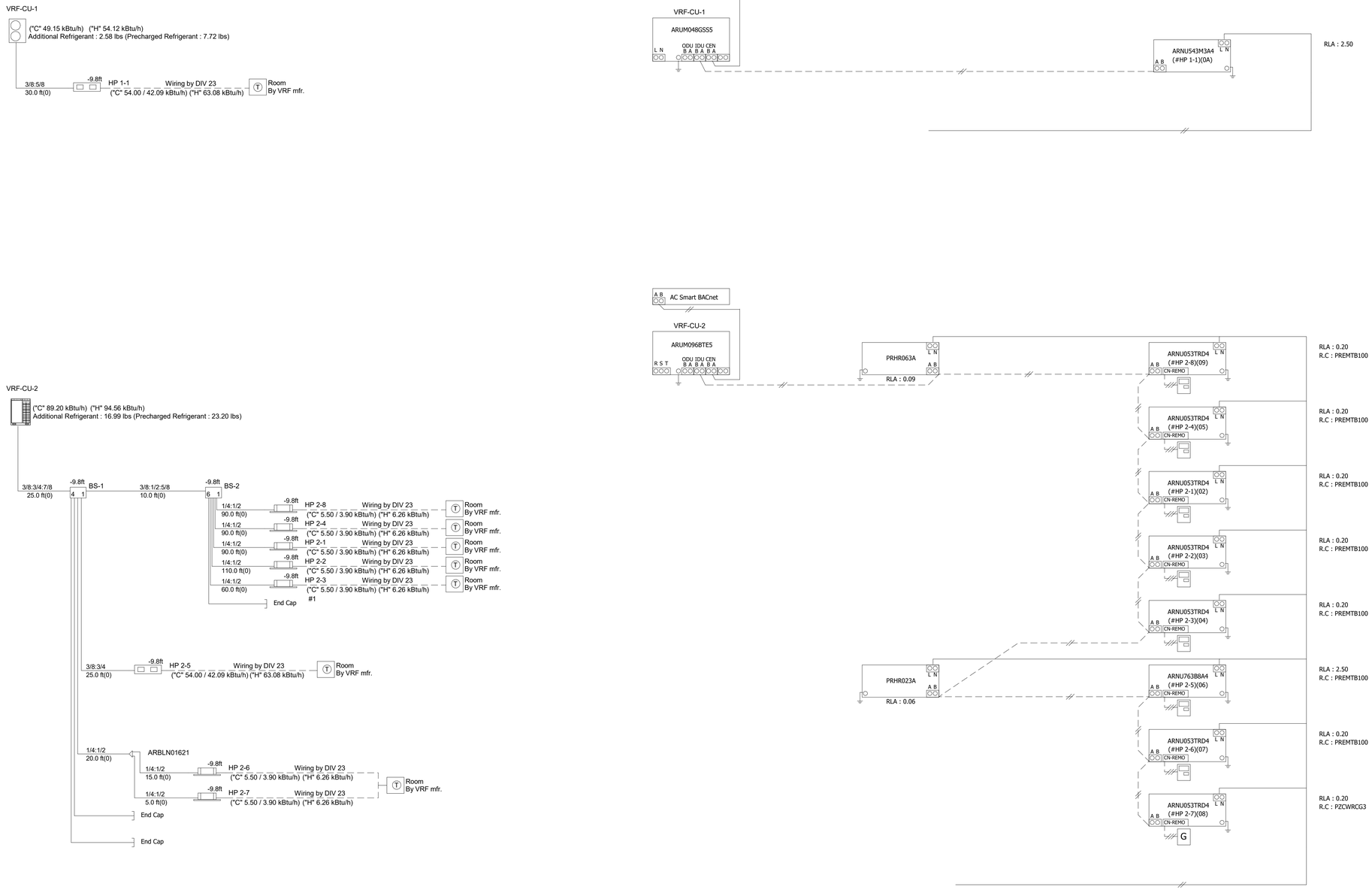
SHEET TITLE:

HVAC ROOF PLAN

SHEET NUMBER:

M2.2

Note :
Power wiring, breaker size, and disconnects should follow local code and NEC.
Multi-frame outdoor units require a separate power connection for each frame.



1 M4.1 VRF Diagrams
SCALE: 12" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
ANTHONY COLACCHI
M 29743
RENEW: 8/31/24
MECHANICAL
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DESCRIPTION:	DATE:
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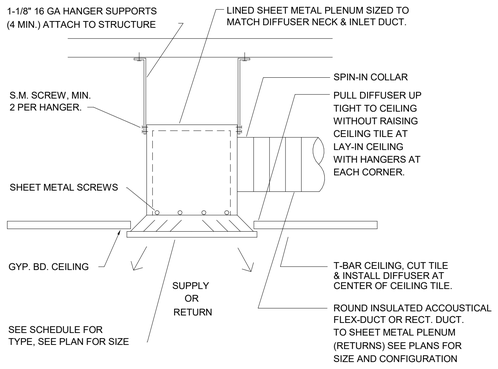
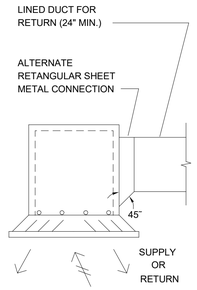
100% CONSTR. DRAWINGS	03/23/23

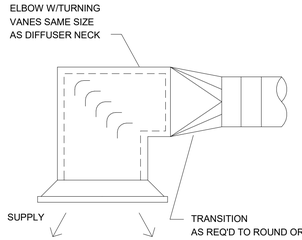
PROJECT NUMBER:
211101

SHEET TITLE:
VRF PIPING AND WIRING DIAGRAMS

SHEET NUMBER:
M4.1



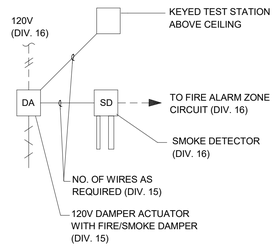




RETURN, EXHAUST & SUPPLY REGISTER DETAIL

6 / M5.1

SCALE : NONE



WIRING DIAGRAM

FIRE DAMPERS SHALL BE STATE FIRE MARSHAL APPROVED AND INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. MANUFACTURER'SINSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITY. DETAILS SHOWN ARE FOR REFERENCE ONLY.

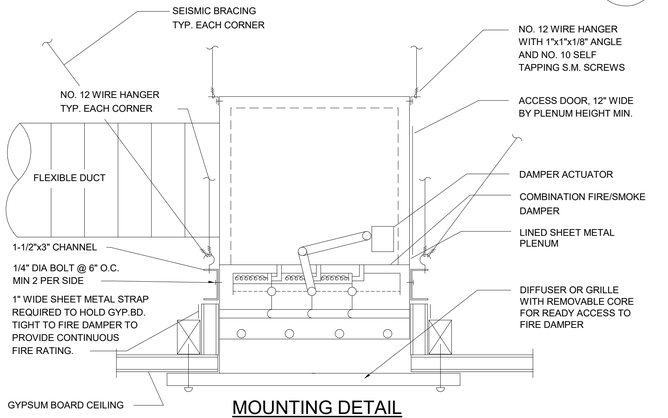
NOTES :

1. INSTALLATION SHALL BE PER THE DAMPER MANUFACTURER'S U.L. LISTING FOR DAMPER IN THE PLANE OF THE RATED SURFACE AND ACTUATOR OUTSIDE OF THE DUCT. MANUFACTURER SHALL PROVIDE ALL COMPONENTS NECESSARY TO INSTALL THE DAMPERS PER THIS REQUIREMENT.
2. WIRE TO CLOSE DAMPER UPON SENSING OF SMOKE IN AIR STREAM. PROVIDE ALL WIRING, CONDUIT, RELAYS, ETC. REQUIRED TO RENDER SYSTEM COMPLETE.

COMBINATION FIRE/SMOKE DAMPER DETAIL AT CEILING

5 / M5.1

SCALE : NONE

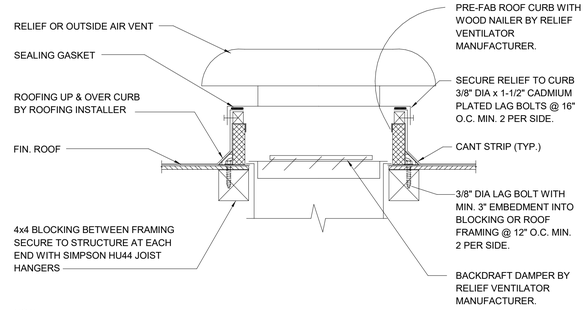


MOUNTING DETAIL

RELIEF/INTAKE VENT MOUNTING

3 / M5.1

SCALE : NONE

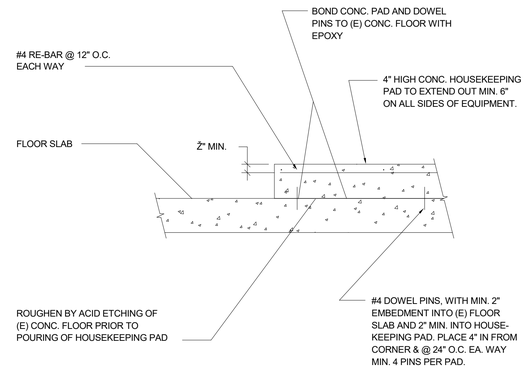


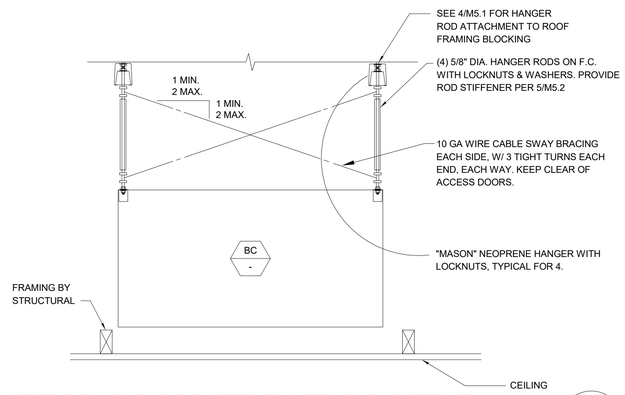
NOTE:
O.A.V.-2B MOUNTED SIMILAR
EXCEPT OMIT BACKDRAFT DAMPER.

CONC. EQUIPMENT PAD

2 / M5.1

SCALE : NONE

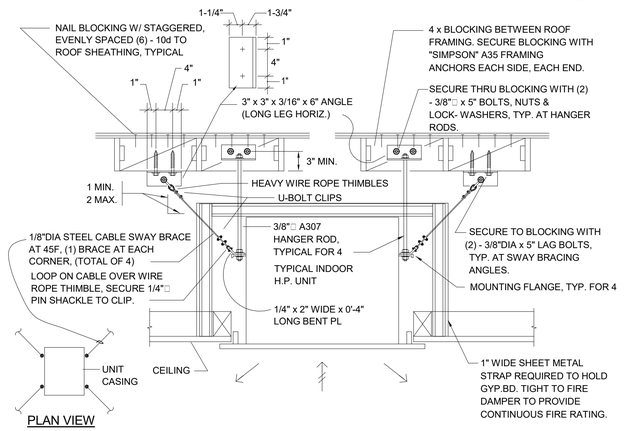




VRF BRANCH CONTROLLER MOUNTING

7 / M5.1

SCALE : NONE

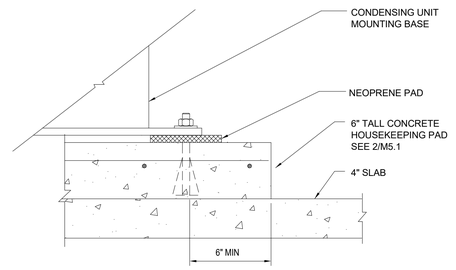


PLAN VIEW

CLG. MTD. H.P. INDOOR UNIT MOUNTING

4 / M5.1

SCALE : NONE



GRADE MTD. CONDENSING MTG. DTL.

1 / M5.1

SCALE : NONE

REGISTERED PROFESSIONAL ENGINEER
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M 29743
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100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

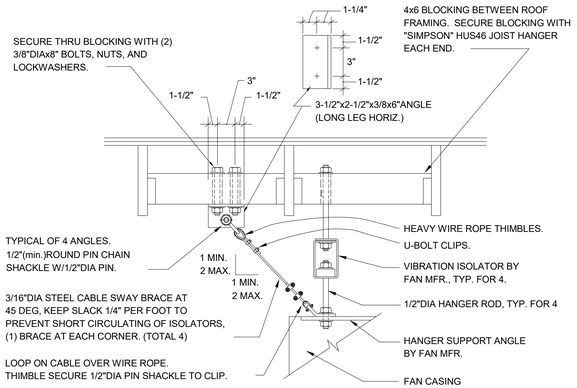
211101

SHEET TITLE:

HVAC DETAILS

SHEET NUMBER:

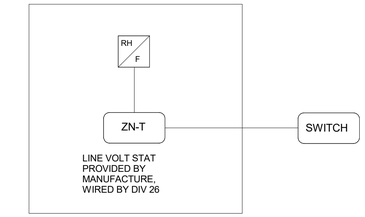
M5.1



EXHAUST FAN MOUNTING DETAIL

SCALE : NONE

8 / M5.2



SEQUENCE OF OPERATION

GENERAL

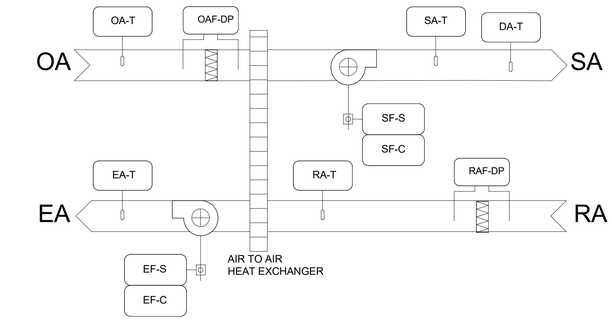
THE RADIANT HEATERS WILL BE ENABLED VIA WALL SWITCH. ONE SWITCH WILL ENABLE RADIANT HEATERS SERVING TWO BAYS. TOTAL OF FOUR SWITCHES.

HEATING CONTROL
THE HEATERS WILL HAVE LOCAL LINE VOLT THERMOSTAT PROVIDED WITH THE UNIT AND WIRED BY TCC. THE THERMOSTAT WILL ENABLE TO TURN ON HEATING WHENEVER THE ZN-T FALLS BELOW 70F.

RADIANT HEAT CONTROLS

SCALE : NONE

5 / M5.2



UNIT SUPPLY AND EXHAUST FAN CONTROL:
THE CONSTANT SPEED SUPPLY FAN (SF-C) AND EXHAUST FAN (EF-C) WILL BE STARTED BASED ON OCCUPANCY SCHEDULE (OCC-SCHEDULE). WHEN THE SUPPLY FAN STATUS (SF-S) INDICATES THE FAN STARTED, THE CONTROL SEQUENCE WILL BE ENABLED. IF EVER THE FAN STATUS (SF-S) DOES NOT MATCH THE FAN COMMAND, THE BMS WILL GENERATE AN ALARM.

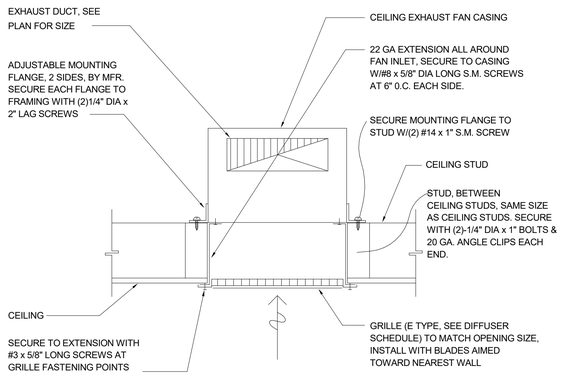
UNOCCUPIED MODE:
THE UNIT WILL REMAIN OFF DURING UNOCCUPIED PERIODS.

OVER-RIDE:
THE OVER-RIDE BUTTON WILL PLACE THE SYSTEM INTO 100% RECIRCULATION MODE WITH NO OUTDOOR VENTILATION AIR, IF NEEDED. DUE TO THE OUTDOOR SMOKE OR ODOROUS CONDITION.

ERV CONTROLS

SCALE : NONE

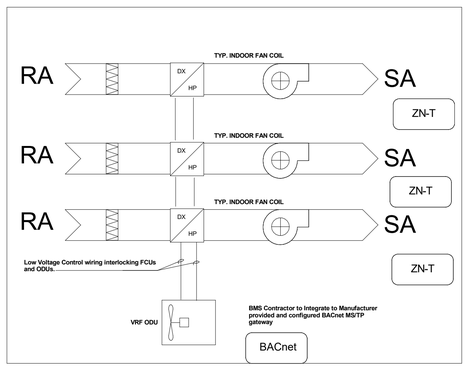
3 / M5.2

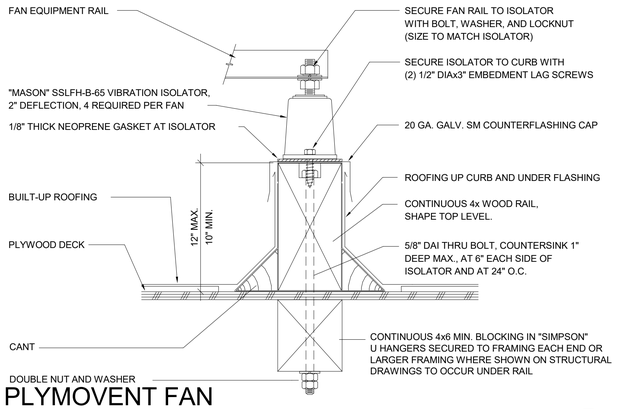


CEILING EXHAUST FAN DETAIL

SCALE : NONE

7 / M5.2

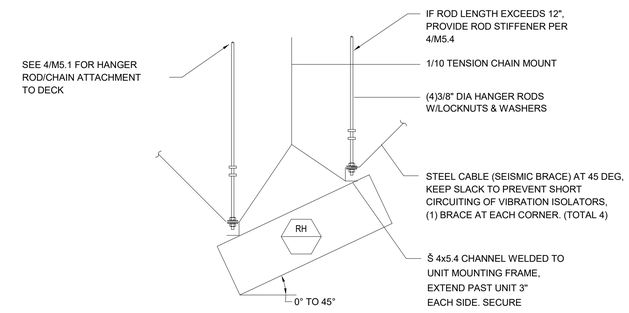




PLYMOVENT FAN MOUNTING W/ ISOLATOR DETAIL

SCALE : NONE

2 / M5.2



RADIANT HEATER DETAIL

SCALE : NONE

6 / M5.2

VRF SEQUENCE OF OPERATION

UPON VRF STARTUP - MECHANICAL CONTRACTOR SHALL PROVIDE COMMISSIONING REPORT TO CONTROLS CONTRACTOR IDENTIFYING WHICH FAN COILS ARE CONNECTED TO WHICH ZONES. THIS REPORT WILL LINK THE FCU TAGS PROVIDED BY THE BACNET GATEWAY TO ACTUAL ZONE NUMBERS/LOCATIONS SHOWN ON THE DRAWING.

GENERIC SEQUENCE OF OPERATION
SUPPLY FAN CONTROL: THE SUPPLY FAN (SF-C) WILL BE STARTED BASED ON OCCUPANCY SCHEDULE. WHEN THE SUPPLY FAN STATUS (SF-S) INDICATES THE FAN STARTED, THE CONTROL SEQUENCE WILL BE ENABLED.

TEMPERATURE CONTROL: THE UNIT WILL CONTROL TO MAINTAIN THE LOCALLY ADJUSTABLE ZONE TEMPERATURE SETPOINT (ZN-SP) AS SENSED BY THE ZONE TEMPERATURE (ZN-T) SENSOR.

OCCUPIED MODE: OCCUPANCY MODE WILL BE CONTROLLED VIA A NETWORK INPUT

UNOCCUPIED MODE: THE UNIT WILL CYCLE TO MAINTAIN UNOCCUPIED ZONE SETPOINTS DURING UNOCCUPIED PERIODS.

COOLING MODE: THE DX COIL WILL BE STAGED IN SEQUENCE TO MAINTAIN THE TEMPERATURE SETPOINT.

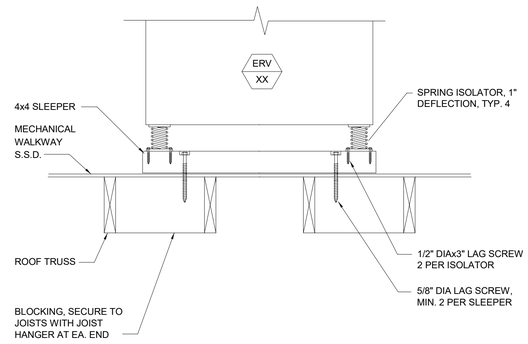
HEATING MODE: THE DX COIL WILL BE STAGED IN SEQUENCE TO MAINTAIN THE TEMPERATURE SETPOINT.

ALL VRF PROGRAMMING AND STARTUP TO BE PROVIDED BY VRF SUPPLIER.

VRF SYSTEM CONTROLS

SCALE : NONE

4 / M5.2



ERV MOUNTING DETAIL

SCALE : NONE

1 / M5.2

REGISTERED PROFESSIONAL ENGINEER
ANTHONY COLACCHI
M 29743
RENEWAL 08/31/24
MECHANICAL
STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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capital engineering
RANCHO CORDOVA, CALIFORNIA

IS - HC/AL — PM - DESIGN TEAM
220613.00 — PROJECT NO.

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

211101

SHEET TITLE:

HVAC DETAILS

SHEET NUMBER:

M5.2

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 1 of 15)
Project Address:		Date Prepared: 3/13/2023

This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Conditioned Floor Area	5465
02	Climate Zone	4	05	Total Unconditioned Floor Area	65
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	2
☒ Office (B)	☐ Retail (M)	☐ Non-refrigerated Warehouse (S)			
☒ Hotel/ Motel Guest Rooms (R-1)	☐ School (E)	☐ Healthcare Facility (I)			
☐ High-Rise Residential (R-2/R-3)	☐ Relocatable Class Bldg (E)	☒ Other (write in)	See Table J		

B. PROJECT SCOPE

This table Includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

01	02	03
Air System(s)	Wet System Components	Dry System Components
☒ Heating Air System	☐ Water Economizer	☐ Air Economizer
☒ Cooling Air System	☐ Pumps	☒ Electric Resistance Heat
Mechanical Controls	☐ System Piping	☒ Fan Systems
☒ Mechanical Controls (existing to remain, altered or new)	☐ Cooling Towers	☒ Ductwork (existing to remain, altered or new)
	☐ Chillers	☒ Ventilation
	☐ Boilers	☐ Zonal Systems/ Terminal Boxes

Registration Number: — Registration Date/Time: — Registration Provider: Energysoft

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 2 of 15)
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C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01		02		03		04		05		06		07		08	09
System Summary §110.1, §110.2, §140.4	AND	Pumps §140.4(k)	AND	Fans/ Economizers §140.4(c), §140.4(e)	AND	System Controls §110.2, §120.2, §140.4(f)	AND	Ventilation §120.1	AND	Terminal Box Controls §140.4(d)	AND	Distribution §120.3, §140.4(l)	AND	Cooling Towers §110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES
Mandatory Measures Compliance (See Table Q for Details)								COMPLIES							

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number: — Registration Date/Time: — Registration Provider: Energysoft

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

This table is used to demonstrate compliance for mechanical equipment with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4(a), §140.4(b) and §140.4(k) or §141.0(b)2 for alterations.

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)

01	02	03	04	05	06	07	08	09	10	11
				Equipment Sizing per Mechanical Schedule (kBtu/h) §140.4 (a&b)						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 / Title 20	Smallest Size Available[1] §140.4(a)	Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
VRF HP 2-1	Variable Refrigerant Flow	VRF heat pump, air cooled	Yes	121.81	135	0	118.39	119.7	33.62	40.5
VRF-HP-1-1	Variable Refrigerant Flow	VRF heat pump, air cooled	Yes	43.31	48	0	34.48	36	5.51	8.53
RH 1-4	Unitary AC/ Condensers	AC, air cooled, split (1 phase)	Yes	81.84	20.46	0	0	0	56.65	27.16

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per §140.4(a). Healthcare facilities are excepted.*

[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*

[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*

[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b).*

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
VRF HP 2-1	>=65,000 and <135,000	47 °Fdb/ 43 °Fwb OSA	COP	3.3	4.3	EER IEER	11.0 14.6	15.5 29.6

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 4 of 15)
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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
VRF-HP-1-1	<65,000	47 °Fdb/ 43 °Fwb OSA	HSPF	7.7	12	SEER	13.0	23
RH 1-4	<65,000					SEER	14.0	14

Electric Resistance Heating

01	02	03	04
Name or Item Tag	Equipment Description	Output Capacity (kW)	Applicable Exception to §140.4(e) Allowing Electric Resistance Heating
RH 1-4	Other	6	Exception3: Total capacity of electric-resistance heating systems serving the entire building is less than 10% of the total design output capacity of all heating equipment serving the entire building

G. PUMPS

This section does not apply to this project.

Registration Number: — Registration Date/Time: — Registration Provider: Energysoft

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 5 of 15)
Project Address:		Date Prepared: 3/13/2023

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(e) and §140.4(m) for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name:	ARNU053TRD4	Economizer:[1]	NA: <=54 kBtu/h cooling	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
VRF	Other (Transfer, VAV box)	1	265	BHP	0.07	NA	NA
Total System Design Supply Airflow (CFM):			265	Total System Design (B)HP:	0.07	Maximum System Fan Power (B)HP:	

System Name:	ARNU053TRD4	Economizer:[1]	NA: <=54 kBtu/h cooling	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
VRF	Other (Transfer, VAV box)	1	265	BHP	0.07	NA	NA
Total System Design Supply Airflow (CFM):			265	Total System Design (B)HP:	0.07	Maximum System Fan Power (B)HP:	

System Name:	ARNU053TRD4	Economizer:[1]	NA: <=54 kBtu/h cooling	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
VRF	Other (Transfer, VAV box)	1	265	BHP	0.07	NA	NA
Total System Design Supply Airflow (CFM):			265	Total System Design (B)HP:	0.07	Maximum System Fan Power (B)HP:	

Registration Number: — Registration Date/Time: — Registration Provider: Energysoft

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STATE OF CALIFORNIA
Mechanical Systems
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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 6 of 15)
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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	ARNU053TRD4	Economizer:[1]	NA: <=54 kBtu/h cooling	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
VRF	Other (Transfer, VAV box)	1	1750	BHP	0.92	NA	NA
Total System Design Supply Airflow (CFM):			1750	Total System Design (B)HP:	0.92	Maximum System Fan Power (B)HP:	

System Name:	ARNU763B8A4	Economizer:[1]	NA: <=54 kBtu/h cooling	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
VRF	Other (Transfer, VAV box)	1	265	BHP	0.07	NA	NA
Total System Design Supply Airflow (CFM):			265	Total System Design (B)HP:	0.07	Maximum System Fan Power (B)HP:	

Registration Number: — Registration Date/Time: — Registration Provider: Energysoft

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 7 of 15)
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H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	ARNU053TRD4	Economizer:[1]	NA: <=54 kBtu/h cooling	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
VRF	Other (Transfer, VAV box)	1	265	BHP	0.07	NA	NA
EF	Exhaust	1	0	BHP	0.29	NA	NA
Total System Design Supply Airflow (CFM):			265	Total System Design (B)HP:	0.36	Maximum System Fan Power (B)HP:	

System Name:	ARNU543M3A4	Economizer:[1]	NA: <=54 kBtu/h cooling	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Variable Air Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
VRF	Other (Transfer, VAV box)	1	1744	BHP	0.74	NA	NA
Total System Design Supply Airflow (CFM):			1744	Total System Design (B)HP:	0.74	Maximum System Fan Power (B)HP:	

System Name:	RH 1-4	Economizer:[1]	NA: <=54 kBtu/h cooling	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Constant Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
SF	Supply	4	800	BHP	0	NA	NA
EF	Exhaust	1	0	BHP	0.11	NA	NA
Total System Design Supply Airflow (CFM):			800	Total System Design (B)HP:	0.12	Maximum System Fan Power (B)HP:	

Registration Number: — Registration Date/Time: — Registration Provider: Energysoft

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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H. FAN SYSTEMS & AIR ECONOMIZERS

[1] *FOOTNOTES: Computer room economizers must meet requirements of §140.9(a) and will be documented on the NRCC-PRC-E document.*

[2] *The unit used for HP must be consistent for all fans within a system.*

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats §110.2(b) & (c)[1], §120.2(a)or §141.0(b)2E	Shut-Off Controls §120.2(e)	Isolation Zone Controls §120.2(g)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
VRF HP 2-1	Multi-zone w/ DDC to zone	<= 25,000 ft²	EMCS	Auto Timer Switch	NA: Serves < 25k ft²	EMCS	NA: Single Zone	NA: No operable windows
VRF-HP-1-1	Multi-zone w/ DDC to zone	<= 25,000 ft²	EMCS	Auto Timer Switch	NA: Serves < 25k ft²	EMCS	NA: Single Zone	NA: No operable windows
RH 1-4	Single zone	<= 25,000 ft²	Setback	4 Hour Timer	NA: Serves < 25k ft²	EMCS	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

*Notes: Controls with a * require a note in the space below explaining how compliance is achieved. EX: system 1: SA Temp Reset: Exempt because zones compliant with §140.4(d) ; EXCEPTION 1 to §140.4(f)

Registration Number: — Registration Date/Time: — Registration Provider: Energysoft

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 9 of 15)
Project Address:		Date Prepared: 3/13/2023

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3& for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventisiltion systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☐	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☒	Check this box if the project included Nonresidential or Hotel/Motel spaces
	☐	Check this box if the project included new or altered high-rise residential dwelling units.
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per §120.1(c)2.

Nonresidential and Hotel/ Motel Ventilation Systems

04		05		06		07	
System Name	VRF HP 2-1	System Design OA CFM Airflow[1]	831	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)2 [2]	
						Provided per §120.1(c) (NR and Hotel/Motel))	

08	09	10	11	12	13	14	15	16
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]				Exh. Vent per §120.1(c)4			DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]
	Occupancy Type[4]	Conditioned Floor Area (ft²)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM	
VRF-HP/2-1	Barracks sleeping area	120.8		12	18.1	0	0	DCV: NA: Not required per §120.1(d)3
								Occ Sensor: NA: Not required space type
VRF-HP/2-2	Barracks sleeping area	121.7		12	18.3	0	0	DCV: NA: Not required per §120.1(d)3
								Occ Sensor: NA: Not required space type
VRF-HP/2-3	Barracks sleeping area	122.5		12	18.4	0	0	DCV: NA: Not required per §120.1(d)3
								Occ Sensor: NA: Not required space type

Registration Number: — Registration Date/Time: — Registration Provider: Energysoft

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REGISTERED PROFESSIONAL ENGINEER — ANTHONY COLACCHIA — M 29743 — RENEWAL 08/31/24 — MECHANICAL — STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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capital engineering
RANCHO CORDOVA, CALIFORNIA

IS - HC/AL — PM - DESIGN TEAM
220613.00 — PROJECT NO.

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION — CAL FIRE SINCE 1885 — MORGAN HILL 1980 FIRE

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER: 211101

SHEET TITLE: TITLE - 24

SHEET NUMBER: M7.1

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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J. VENTILATION AND INDOOR AIR QUALITY

VRF-HP/2-4	Office space	137.3			20.6	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required per §120.1(d)3
VRF-HP/2-5	Kitchenettes	832			0	249.6	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required per §120.1(d)3
VRF-HP/2-6&7	Health club/ weight rooms	373.5			56	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required per §120.1(d)3
VRF-HP/2-8	Corridor	1296.1			194.4	0	700	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required per §120.1(d)3
17	Total System Required Min OA CFM				326	18	Ventilation for this System Complies?		Yes

04	05			06		07
System Name	VRF-HP-1-1	System Design OA CFM Airflow[1]	81	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))

08	09	10	11	12	13	14	15	16
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]
	Occupancy Type[4]	Conditioned Floor Area (ft²)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM	
VRF-HP/1-1	All others	538.2			80.7	0	0	DCV: NA: Not required per §120.1(d)3 Occ Sensor: NA: Not required space type

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 11 of 15)
Project Address:		Date Prepared: 3/13/2023

J. VENTILATION AND INDOOR AIR QUALITY

17	Total System Required Min OA CFM				81	18	Ventilation for this System Complies?		Yes

04	05			06		07
System Name	RH 1-4	System Design OA CFM Airflow[1]	700	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)2 [2] Provided per §120.1(c) (NR and Hotel/Motel))

08	09	10	11	12	13	14	15	16
Space Name ot item Tag	Mechanical Ventilation Required per §120.1(c)3 [3]					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 [6]
	Occupancy Type[4]	Conditioned Floor Area (ft²)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM	
120 - APP BAY	Parking Garage	1923			0	1442.2	700	DCV: NA: Not required per §120.1(d)3 Occ Sensor: NA: Not required space type
17	Total System Required Min OA CFM				0	18	Ventilation for this System Complies?		Yes

[1] FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system

[2] Air filtration requirements apply to the following three system types per §120.1(c)1A : space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.

[3] Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.

[4] See Standards Tables 120.1-A and 120.1-B.

[5] For lecture halls with fixed seating, the expected number of occupants shall be shall be determined in accordance with the California Building Code.

[6] §120.2(e)3 requires systems serving rooms that are required by §130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft² or smaller, multipurpose rooms less than 1,000 ft², classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by §130.1(c).

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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Project Address:		Date Prepared: 3/13/2023

L. DISTRIBUTION (DUCTWORK and PIPING)

This table is used to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.4(l) for duct leakage testing.

Duct Leakage Sealing

The answers to the questions below apply to the following duct systems:		VRF HP 2-1	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities		
12	No	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.		
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:		
		☐ Outdoors		
		☐ In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces		
		☐ In an unconditioned crawl space		
		☐ In other unconditioned spaces		
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.		
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.		
17	Yes	Duct system shall be sealed in accordance with the California Mechanical Code		

The answers to the questions below apply to the following duct systems:		VRF-HP-1-1	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities		
12	No	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.		
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:		
		☐ Outdoors		
		☐ In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces		
		☐ In an unconditioned crawl space		

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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L. DISTRIBUTION (DUCTWORK and PIPING)

		☐	In other unconditioned spaces
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	Duct system shall be sealed in accordance with the California Mechanical Code	

The answers to the questions below apply to the following duct systems:		RH 1-4	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities		
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.		
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:		
		☐ Outdoors		
		☐ In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces		
		☐ In an unconditioned crawl space		
		☐ In other unconditioned spaces		
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.		
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.		
17	Yes	Duct system shall be sealed in acordance with the California Mechanical Code		

M. COOLING TOWERS

This section does not apply to this project.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title	Field Inspector Pass	Field Inspector Fail
NRCI-MCH-01-E - Must be submitted for all buildings	☐	☐

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title	Systems/Spaces To Be Field Verified	Field Inspector Pass	Field Inspector Fail
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	HP 2-1 VRF-R1; HP 1-1 VRF; RH 1-4;	☐	☐
NRCA-MCH-03-A - Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes". If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".	RH 1-4;	☐	☐
NRCA-MCH-11-A Automatic Demand Shed Controls	HP 2-1 VRF-R1; HP 1-1 VRF; RH 1-4;	☐	☐
NRCA-MCH-18-A Energy Management Control Systems	HP 2-1 VRF-R1; HP 1-1 VRF; RH 1-4;	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	Yes	M-Sheets

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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Project Address:		Date Prepared: 3/13/2023

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Aaron Wintersmith	Documentation Author Signature:
Company: Capital Engineering Consultants Inc.	Signature Date: 03/13/2023
Address: 11020 Sun Center Dr #100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cordova CA 95670	Phone: 916-851-3500

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 building owner at occupancy.

Responsible Designer Name: Anthony Colacchia	Responsible Designer Signature:
Company: Capital Engineering	Date Signed: 2023-03-13
Address:	License: M29743
City/State/Zip:	Phone:

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

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STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PLB-E
This document is used to demonstrate compliance for nonresidential occupancies with requirements in §110.1, §110.3, §120.3, and §140.5, and with requirements in §141.0 for additions and alterations, for domestic water heating scopes using the prescriptive path. For high-rise residential and hotel/motel occupancies compliance is demonstrated with requirements in §110.1, §110.3, §120.3, §150.0 and §150.1(c)8, and with requirements §150.2 for additions.		
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 1 of 8)
Project Address:		Date Prepared: 3/13/2023

A. GENERAL INFORMATION

01	Project Location (city)		02	Climate Zone	4
03	Occupancy Types Within Project (select all that apply):				
☒	Nonresidential	☐ High-Rise Residential	☐ Hotel/Motel		
☐	State Building	☐ Healthcare Facility	☐ Other (Write In)		

B. PROJECT SCOPE

This table includes domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in §140.5, §150.1(c)8, and §141.0(a), or §141.0(b)2N for additions or alterations. Solar water heating systems are documented on the NRCC-SRA compliance document. Combined hydronic water heating systems are documented on the NRCC-MCH compliance document.

01	02	03		
My project consists of (check all that apply):	System Type[1,2]	System Components		
☒ New system (DHW system being installed for the first time in newly constructed building)	Individual System (serving nonresidential spaces)	☒ Equipment	☒ Distribution	☒ Controls
☒ New system (DHW system being installed for the first time in newly constructed building)	Individual Dwelling Units System(s)	☒ Equipment	☒ Distribution	☒ Controls
☐ System Alteration (equipment, distribution or controls)		☐ Equipment	☐ Distribution	☐ Controls

[1] FOOTNOTES: Point of use water heaters, or other non-central systems used to serve nonresidential spaces, are considered individual systems.

[2] Dwelling units refers to hotel/motel guest rooms and units in a high-rise residential occupancy.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

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STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PLB-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 2 of 8)
Project Address:		Date Prepared: 3/13/2023

C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with water heating requirements. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. or the table indicated as not compliant for guidance.

01	02	03	04
Domestic Hot Water Equipment	Distribution Systems	Controls	Compliance Results
Table F	Table G	Table H	
	Yes	Yes	COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table is includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

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STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-PLB-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page: (Page 3 of 8)
Project Address:		Date Prepared: 3/13/2023

F. DOMESTIC HOT WATER EQUIPMENT

This table is used to demonstrate compliance with mandatory equipment requirements in §110.1 and §110.3. For high-rise residential and hotel/motel occupancies, compliance with prescriptive requirements in §150.1(c)8 must also be demonstrated and with §150.2 for addition and alteration scopes.

Equipment Schedule: Individual Systems

01	02	03	04	05	06
Name or Item Tag	Equipment Type	Volume (gal)	Max GPM/ First Hour Rating (FHR)	Rated Uniform Energy Factor (UEF)	Minimum Required Uniform Energy Factor (UEF)[1]

[1] FOOTNOTE: Compliant equipment may be found in the Modernized Appliance Efficiency Database System (MAEDBS) on the Energy Commission website: https://cacertappliances.energy.ca.gov/Pages/Search/AdvancedSearch.aspx

Water Heating Equipment in Individual Dwelling Units[1]

Equipment Type (select all that apply):				
16	☐	Gas/propane instantaneous water heater with input rating <= 200,000 BTUH and no storage tank. Note: Can not comply using the prescriptive path with a storage tank per §150.1(c)8A: (New Construction Only)		
	☐	Gas/propane storage type water heater with input rating <= 75,000 BTUH (New Construction only)		
		☐	Rated volume <= 55 gal	
		☐	Rated volume > 55 gal	
	☐	A single heat pump water heater with storage tank located in the garage or conditioned space. (New Construction Only)		
		☐	Water heater meets the requirements of NEEA Advanced Water Heater Specification Tier 3 or higher.	
	☐	A single heat pump water heater with storage tank located in the garage or conditioned space and be placed on an incompressible, rigid insulated surface with minimum R-10. (Alterations in climate zones 1-15 Only)		
		☐	Water heater meets the requirements of NEEA Advanced Water Heater Specification Tier 3 or higher.	
	☐	No gas connection to existing water heater location for replacement water heater. Consumer electric water heater must meet Title 20 Appliance Efficiency requirements (see Equipment Schedule above) per §150.2(b)1H: (Alterations only)		

	Yes	No	Not Applicable	Requirement
17				

[1] FOOTNOTE: Dwelling Units refers to hotel/motel guest rooms and units in a high-rise residential occupancy.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance | Report Version: 2019.1.003 Schema Version: rev 20200601 | Report Generated: 2023-03-13 11:41:24

REGISTERED PROFESSIONAL ENGINEER ANTHONY COLACCHIA M 29743 EXPIRES 8-31-2024 MECHANICAL STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

coar DESIGN GROUP
previously JKA
200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

capital engineering
RANCHO CORDOVA, CALIFORNIA

IS - HC/AL PM - DESIGN TEAM | 220613.00 PROJECT NO.

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION CAL FIRE SINCE 1885 MORGAN HILL 1980 FIRE

DESCRIPTION: **DATE:**

95% CONSTR. DRAWINGS 01/16/23

100% CONSTR. DRAWINGS 03/23/23

PROJECT NUMBER: 211101

SHEET TITLE: TITLE - 24

SHEET NUMBER: M7.2

F. DOMESTIC HOT WATER EQUIPMENT

Water Heating Equipment All Occupancies

	Yes	No	Not Applicable	Requirement
18				
19				
20				

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

This table is used to demonstrate compliance for nonresidential occupancies with distribution requirements in §120.3 and §140.5. For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements §110.3(c), §120.3, §150.0, §150.1

Distribution in Individual Dwelling Units

	Yes	No	Not Applicable	Requirement
08	○	○	●	The dwelling unit is designed to have fenestration products with a weighted average U-factor <=0.24 plus one of the following options per §150.1(c)8Ai : (New Construction Only) • Compact hot water distribution system field verified by a HERS Rater per Reference Appendix RA4.4.16 • A drain water heat recovery system that is field verified by a HERS rater per Reference Appendix RA3.6.9
				☐ Compact hot water distribution system
				☐ A drain water heat recovery system
				One of the following options is included in the design per §150.1(c)8Aiv : (New Construction Only) • Compact hot water distribution system field verified by HERS rater per Reference Appendix RA4.4.6 and a drain water heat recovery system that is field verified by a HERS rater per Reference Appendix RA3.6.9 • A photovoltaic system capacity of 0.3kWdc (for climate zones 2-15) or 1.1kWcd (for climate zones 1 & 16) larger than the requirement specified in §150.1(c)14.
				☐ Compact hot water distribution system and a drain water heat recovery system

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

				☐ A photovoltaic system
09	○	○	●	One of the following options is included in the design per §150.1(c)8Av : (New Construction only) • Compact hot water distribution system per Reference Appendix RA4.4.6 for projects in climates zones 1 and 16. • A photovoltaic system capacity of 0.3kWdc (form climate zones 1 and 16) larger than the requirement specified in §150.1(c)14.
10	○	○	●	
				☐ Compact hot water distribution system
				☐ A photovoltaic system

Mandatory Pipe Insulation All Occupancies

11	☒	For systems serving dwelling units, pipe insulation for the following applications is specified to have a minimum wall thickness of 1 in or a minimum R-value of 7.7 per §150.0(j)2A : • The first 5ft of cold water pipes form storage tank • All hot water piping with nominal diameter of 3/4 in - 1 in • All hot water piping with nominal diameter < 3/4 in associated with DHW recirculation systems • Piping with nominal diameter < 3/4 from heating source to storage tank or between tanks • Piping with nominal diameter < 3/4 buried below grade • All hot water pipes with nominal diameter < 3/4 from heating source to kitchen fixtures
12	☒	For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A (see below) per §120.3 : • Recirculating system piping, including supply and return piping of the water heater • The first 8 ft of hot and cold outlet piping, including between storage tank and heat trap, for a nonrecirculating storage system • Pipes that are externally heated
13	☒	Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service per §120.3(b) and §150.0(j)3

TABLE 120.3-A PIPE INSULATION THICKNESS

Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hour per ft² per °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Diameter (in)		
			< 1	1 to < 1.5	1.5 to < 4
			Minimum Insulation Required		
105-140	0.22 - 0.28	100	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11

H. DOMESTIC HOT WATER CONTROLS

This table is used to demonstrate compliance with control requirements in §110.3 for all occupancies. For high-rise residential and hotel/motel occupancies, compliance is also demonstrated with requirements in §150.1(c)8.

	Yes	No	Not Applicable	Requirement
01	☒	☐	☐	Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per §110.3(a).
02	☐	☐	☒	Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per §110.3(c)1 unless covered by California Plumbing Code 613.0.
03	☐	☐	☒	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c)2 unless systems serves healthcare facility.
04	☐	☐	☒	For recirculation systems serving multiple dwelling units, design includes automatic pump controls per §150.1(c)8Bii, or §150.2 for additions or alterations.
05	☐	☐	☒	For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix RA4.4.9 per §150.1(c)8.
06	☐	☐	☒	For replacement single heat pump water heaters serving individual dwelling units in climate zone 1-15, design includes communication interface that meets demand responsive control requirements of §110.12(a) per §150.2(b)1Hiii.

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title	Field Inspector	
	Pass	Fail
NRCI-PLB-01-E - Must be submitted for all buildings	☐	☐
NRCI-PLB-03-E - Must be submitted for high-rise residential and hotel/motel single dwelling unit hot water distribution systems to be recognized for compliance.	☐	☐

J.DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to service water heating requirements.

K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Aaron Wintersmith	Documentation Author Signature:
Company: Capital Engineering Consultants Inc.	Signature Date: 03/13/2023
Address: 11020 Sun Center Dr #100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cordova CA 95670	Phone: 916-851-3500

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: Anthony Colacchia	Responsible Designer Signature:
Company: Capital Engineering	Date Signed: 2023-03-13
Address:	License: M29743
City/State/Zip:	Phone:

REGISTERED PROFESSIONAL ENGINEER ANTHONY COLACCHIA M 29743 RENEWAL 08/31/2024 MECHANICAL STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

coar DESIGN GROUP
previously JKA
200 E STREET, SANTA ROSA, CA 95404
619.698.9177 | www.coargroup.com

capital engineering
RANCHO CORDOVA, CALIFORNIA

IS - HC/AL — PM - DESIGN TEAM
220613.00 — PROJECT NO.

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION — CAL FIRE SINCE 1885 — MORGAN HILL 1980 FIRE

DESCRIPTION: **DATE:**

95% CONSTR. DRAWINGS 01/16/23

100% CONSTR. DRAWINGS 03/23/23

PROJECT NUMBER:
211101

SHEET TITLE:
TITLE - 24

SHEET NUMBER:
M7.3

PLUMBING ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
ABC	ABOVE CEILING	NO	NORMALLY OPEN
ACC DR	ACCESS DOOR	NTS	NOT TO SCALE
ACC P	ACCESS PANEL	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
AFF	ABOVE FINISHED FLOOR	OFOI	OWNER FURNISHED, OWNER INSTALLED
AFG	ABOVE FINISHED GRADE	OH	OVERHEAD
AFP	ABOVE FINISHED PAVEMENT	OS & Y	OUTSIDE SCREW AND YOKE
AHV	AIR HOSE VALVE	PH	PHASE
ASH	AUTOMATIC SPRINKLER HEAD	PLBG	PLUMBING
BEL	BELOW	PLD	PLANTER DRAIN
BFF	BELOW FINISHED FLOOR	PO	PLUGGED OUTLET
BFG	BELOW FINISHED GRADE	PRS	PRE-RINSE SINK
BFP	BACKFLOW PREVENTER	PS	POT SINK
BLDG	BUILDING	PT	PLASTER TRAP
CA	COMPRESSED AIR	(R)	RISER
CDC	CALIFORNIA DEPARTMENT OF CORRECTIONS	REC	RECESSED
CFF	CAPPED FOR FUTURE	REQD	REQUIRED
CLG	CEILING	REV	REVISION
CMP	CORRUGATED METAL PIPE	RM	ROOM
COL	COLUMN	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
CONN	CONNECT/CONNECTION	RWL	RAIN WATER LEADER
CONT	CONTINUATION	SD	STORM DRAIN
CWH	COLD WATER HEADER	SH	SHOWER
(D)	DROP	SPEC	SPECIFICATION
DF	DRINKING FOUNTAIN	SS	STAINLESS STEEL/SERVICE SINK
DIA	DIAMETER	STD	STANDARD
DN	DOWN	STRUC	STRUCTURAL
DW	DRY WELL	(TA)	TO ABOVE
DW	DISHWASHER	(TB)	TO BELOW
DWG	DRAWING	T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
(E)	EXISTING	TD	TRENCH DRAIN
EW	EYE WASH	TEMP	TEMPERATURE
EWC	ELECTRIC WATER COOLER	TOC	TOP OF CONCRETE
FA	FROM ABOVE	TS	TAMPER SWITCH
FB	FROM BELOW	TYP	TYPICAL
FD	FLOOR DRAIN	UF	UNDER FLOOR
FFE	FINISHED FLOOR ELEVATION	UG	UNDERGROUND
FF	FINISHED FLOOR	UL	UNDERWRITERS' LABORATORIES
FLR	FLOOR	UR	URINAL
FSR	FIRE SPRINKLER RISER	US	UNDER SLAB
FT	FLOOR TOILET	V	VENT
/FT	PER FOOT	VTR	VENT THRU ROOF
FTK	FLUSH TANK	VO	VALVED OUTLET
FU	FIXTURE UNIT	VW	VACUUM WASTE
FV	FLUSH VALVE	W/	WITH
GAL	GALLONS	W/O	WITHOUT
HS	HAND SINK	W	WASTE
HWH	HOT WATER HEATER	WC	WATER CLOSET
IE	INVERT ELEVATION	WC/L	WATER CLOSET AND LAVATORY
KEC	KITCHEN EQUIPMENT CONTRACTOR	WF	WASH FOUNTAIN
KS	KITCHEN SINK	ZCV	ZONE CONTROL VALVE
LV	LAVATORY		
(N)	NEW		
NC	NORMALLY CLOSED		

SYMBOLS LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	---	ANGLE GLOBE VALVE
	AVN	ANGLE VALVE
	AQ	AQUASTAT
	AD	AREA DRAIN
	---	AUTOMATIC AIR VENT
	---	AUTOMATIC FLOW CONTROL
	BFP, BP, DCW	BACKFLOW PREVENTER, REDUCE PRESSURE, DOUBLE CHECKVALVE
	---	BALANCING VALVE
	---	BALL JOINT
	---	BALL VALVE
	---	BOTTOM CONNECTION
	---	BUTTERFLY VALVE
BPT	BPT	BYPASS TIMER
	CBV	CALIBRATED BALANCE VALVE
	CB, RD	CATCH BASIN, ROOF DRAIN
	---	CHECK VALVE
	---	CIRCUIT SETTER VALVE
	CP	CIRCULATING PUMP
	CO	CLEANOUT
DS	DS	DYNAMIC SENSOR
	---	ECCENTRIC REDUCER
	EJ	EXPANSION JOINT
FD	FD	FIRE DAMPER
	FDC	FIRE DEPARTMENT CONNECTION
	FHC	FIRE HOSE RACK AND CABINET
	FH	FIRE HYDRANT
FS	FS	FIRE/SMOKE DAMPER
	---	FLEXIBLE CONNECTOR
	---	FLOAT & THERMOSTATIC TRAP
	FD	FLOOR DRAIN
	FS	FLOOR SINK
	FLV	FLOW LIMITING VALVE
FS	FS	FLOW SWITCH
	GCK	GAGE COCK

SYMBOLS LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	GSCK, PC	GAS COCK, PLUG COCK
	GM	GAS METER
	GPR	GAS PRESSURE REGULATOR
	---	GATE VALVE WITH HOSE ADAPTER
	---	GATE VALVE
	---	GLOBE VALVE
	HD	HOPPER DRAIN
	HB	HOSE BIBB
	HB	HOSE BIBB
H X	H	HUMIDISTAT
	---	INVERTED BUCKET TRAP
	---	LIMIT OF DEMOLITION
	---	MANUAL AIR VENT
	---	MODULATING CONTROL VALVE
	---	PIPE BREAK
	---	PIPE CAP
	---	PIPE DOWN
	---	PIPE GUIDE
	---	PIPE UP
	---	POINT OF CONNECTION
	PIV	POST INDICATOR VALVE
	---	PRESSURE RELIEF VALVE
	---	REDUCER
SD	SD	SMOKE DAMPER
SD	SKD	SMOKE DETECTOR
	---	SOLENOID VALVE
	---	STRAINER
TS X	TS	TEMPERATURE SENSOR
	---	TEST PLUG
	---	THERMOMETER
T X	T	THERMOSTAT
	TP	TRAP PRIMER
	---	TWO POSITION CONTROL VALVE
	---	UNION
	---	VALVE IN RISER/DROP
	VB	VALVE IN VALVE BOX
	---	WALL CLEANOUT

REGISTERED PROFESSIONAL ENGINEER ANTHONY COLACCHI M 29743 EXPIRES 6-30-24 MECHANICAL STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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capital engineering
RANCHO CORDOVA, CALIFORNIA
IS - HC/AL — PM - DESIGN TEAM
220613.00 — PROJECT NO.

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
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PROJECT NUMBER:

211101

SHEET TITLE:

PLUMBING LEGEND & ABBREVIATIONS

SHEET NUMBER:

P0.1

PLUMBING EQUIPMENT SCHELULE

SOI 1	SAND OIL INTERCEPTOR "JENSEN PRECAST" MODEL JP750EPE-SO, 750 GALLON
EWH 1	ELECTRIC WATER HEATER "BRADFORD" MODEL E32-120R-3, 119 GAL STORAGE, 74 GPH RECOVERY @ 100F, 120F OUTLET TEMP, 18 KW INPUT, FLA 50, 208V/3PH, WEIGHT 1,600 LBS
CP 1	CIRCULATION PUMP "B&G" MODEL ECOCIRC XL 20-35B, 5 GPM, 12 HEAD, 1/12 HP, 1.3 AMP, 115V/1PH, VARIABLE SPEED ECM MOTOR, WEIGHT 20 LBS
EWH 2	ELECTRIC WATER HEATER "BRADFORD" MODEL LE250LN3-3, 47 GAL STORAGE, 25 GPH RECOVERY @ 100F, 120F OUTLET TEMP, 12 KW INPUT, 208V/3PH, WEIGHT 600 LBS
CP 2	CIRCULATION PUMP "B&G" MODEL ECOCIRC XL 20-35B, 3 GPM, 12 HEAD, 1/12 HP, 1.3 AMP, 115V/1PH, VARIABLE SPEED ECM MOTOR, WEIGHT 20 LBS
ET 1	EXPANSION TANK "WESSELS" MODEL TXA-35, 10 GALLON, WEIGHT 200 LBS
ET 2	EXPANSION TANK "WESSELS" MODEL TXA-12, 5 GALLON, WEIGHT 150 LBS
CA 1	AIR COMPRESSOR "INGERSOLL-RAND" TYPE-30 MODEL 2475N5P, FULLY PACKAGED 2 STAGE 17 CFM @ 175 PSIG, 80 GALLON STORAGE, 5 HP, 208V/3PH, 26.6 AMPS, WEIGHT 650 LBS
RD 1	REFRIGERATED AIR DRYER "INGERSOLL-RAND" MODEL D251N, 15 SCFM @ 100 DEGREES, 1/8 HP, 115V/1PH, 3.2 AMPS, WEIGHT 650 LBS

PLUMBING GENERAL NOTES

1. ACCESS PANELS SHALL BE PROVIDED AS NECESSARY TO PROPERLY ACCESS THE PLUMBING SYSTEM INCLUDING VALVES, REFER TO SPECIFICATION SECTION 08310.
2. OFFSET VENT THROUGH ROOFS 10'-0" MINIMUM FROM AIR INTAKES AND 4'-0" FROM OUTSIDE WALLS.
3. HVAC EQUIPMENT IS SHOWN FOR THE COORDINATION OF UTILITIES ONLY. REFER TO 'M' SHEETS FOR MORE INFORMATION.
4. THE CONNECTION OF NATURAL GAS LINES TO EQUIPMENT SHALL INCLUDE A LINE SIZE SHUT-OFF VALVE, UNION AND A MINIMUM 6" LONG DIRT LEG WITH ACCESSIBLE END CAP.
5. THE CONNECTION OF CONDENSATE DRAIN LINES TO HVAC EQUIPMENT SHALL INCLUDE A MINIMUM 2" DEEP "P"-TRAP AND PLUGGED TEE AT ALL OFFSETS.
6. PROVIDE WATER HAMMER ARRESTORS (WHA) AS INDICATED ON PLUMBING PLANS AND/OR AS DESCRIBED WITHIN DIVISION 22 SPECIFICATIONS. SIZING SHALL BE IN ACCORDANCE WITH PDI STANDARD WH-201.
7. FOR PIPES PASSING THROUGH, UNDER OR PARALLEL TO BUILDING FOOTINGS, RETAINING WALLS ETC. REFER TO STRUCTURAL DETAILS, 'S' SHEETS, FOR TYPICAL ARRANGEMENT.
8. CONTRACTOR SHALL FIELD VERIFY ALL POINTS OF CONNECTION TO SITE PIPING (LOCATIONS AND INVERT) PRIOR TO EXCAVATION, FABRICATION AND INSTALLATION OF ASSOCIATED PIPING RUNS. NOTIFY ARCHITECT AND OR ENGINEER IMMEDIATELY IF POINTS OF CONNECTION OR INVERTS ARE DIFFERENT THAN REPRESENTED ON THE DRAWINGS.
9. OFFSET ALL RISERS AND DROPS TO AVOID PENETRATIONS AT TOP PLATES.
10. PENETRATION OF PIPES, CONDUIT, ETC., IN WALLS AND/OR FLOORS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY THE STATE FIRE MARSHAL.
11. SEAL ALL PIPE PENETRATIONS THRU FLOORS WATERTIGHT.
12. DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC ONLY. CONTRACTOR SHALL FIELD VERIFY WHERE POSSIBLE, EXACT LOCATIONS, SIZES, AND ELEVATIONS OF ALL ITEMS SHOWN PRIOR TO THE INSTALLATION OF ANY NEW WORK.
13. THE DRAWINGS ARE NOT INTENDED TO SHOW EVERY OFFSET OR FITTING OR EVERY STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED DURING INSTALLATION OF THE WORK. LOCATION OF ALL ITEMS NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. EXACT LOCATIONS NECESSARY TO SECURE BEST CONDITIONS AND RESULTS MUST BE DETERMINED AT THE JOB SITE AND SHALL HAVE THE APPROVAL OF THE ARCHITECT BEFORE BEING INSTALLED.
14. ALL VALVES SHOWN SHALL BE FULL LINE SIZE UNLESS OTHERWISE NOTED.
15. CLOSELY COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO TRENCHING OR INSTALLATION OF NEW. IDENTIFY SIZE AND LOCATIONS OF ALL PENETRATIONS THROUGH FOUNDATIONS, WALLS OR ROOFS PRIOR TO FABRICATION OF ANY SYSTEMS OR ORDERING MATERIALS AFFECTED BY POSSIBLE COORDINATION CONFLICTS.
16. CONCRETE ANCHORS SHALL BE HILTI, KWIK BOLT TZ 3/8" WITH EMBEDMENT AS PER STRUCTURAL PLAN. ANCHORS SHALL BE TESTED PER IR 19-1, INTERPRETIVE REGULATION FOR EXPANSION ANCHORS IN HARDENED CONCRETE. ANCHOR TEST SHALL BE 968 LBS. TENSION.
17. PIPING SHALL BE SUPPORTED AND BRACED IN STRICT COMPLIANCE WITH DIVISION 22 SPECIFICATIONS.
18. PENETRATION OF PIPES, CONDUITS, ETC., IN WALLS AND/OR FLOORS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY THE STATE FIRE MARSHAL.
19. ALL NEW SANITARY WASTE PIPING SHOWN SHALL BE SLOPED AT 1/4" PER FOOT MINIMUM UNLESS OTHERWISE NOTED ON PLANS. WHERE SLOPES LESS THAN 1/4" PER FOOT ARE INDICATED, CONTRACTOR SHALL SLOPE NEW PIPING UNIFORMLY BETWEEN UPPER TERMINAL OF PIPE AND THE POINT OF CONNECTON TO THE SITE PIPING (AS INDICATED ON THE CIVIL PLANS) TO ACHIEVE MAXIMUM SLOPE POSSIBLE AND IN NO CASE SHALL THE PIPING BE SLOPED LESS THAN THE MINIMUM INDICATED.
20. CONCEAL ALL PIPING IN WALL FURRING, PARTITIONS, ETC., EXCEPT AT MECHANICAL ROOMS.
21. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS AND EXACT LOCATIONS OF PLUMBING FIXTURES.
22. SEE 3 / P5.1 FOR HOT WATER RETURN PIPING DIAGRAM AT A SINGLE FAUCET/OUTLET.

PIPING, DUCTWORK, & ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7,13.6.8, AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON PREPAPPROVED INSTALLATION GUIDE (E.G., SMACNA OR OSHPD OPM FOR 2013 CBC OR LATER). COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF REVORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP ☐ MD ☐ PP ☐ E ☐ OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS

MP ☐ MD ☐ PP ☒ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVED (OPM #) #0043-13.

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 29 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED: SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCET PLUGS FOR 110/220 VOLT RECEPTACLES HAVING FLEXIBLE CABLE
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE RETRAINED WITH TEMPORARY ATTACHMENTS.

THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTION SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

REGISTERED PROFESSIONAL ENGINEER
ANTHONY COLACCHI
M 29743
EXPIRES 6-30-24
STATE OF CALIFORNIA

DATE SIGNED: 03/23/23

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220613.00 PROJECT NO.

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
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PROJECT NUMBER:

211101

SHEET TITLE:

PLUMBING NOTES & SCHEDULE

SHEET NUMBER:

P0.2

PLUMBING FIXTURE SCHEDULE

ADA	SYMBOL	FIXTURE	FIXTURE MANUFACTURER AND MODEL No.	FAUCET OR VALVE MANUFACTURER AND MODEL No.	TRIM MANUFACTURER AND MODEL No.	REMARKS	VENT	WASTE		COLD WATER		HOT WATER	
								BRANCH	OUTLET	BRANCH	OUTLET	BRANCH	OUTLET
♿	WC-1	WATER CLOSET FLOOR MOUNTED TANK TYPE ADA	"KOHLER" MODEL K-3658, COMFORT HEIGHT ELONGATED BOWL, PRESSURE ASSIST FLUSHOMETER TANK, "KOHLER" K-4666 OPEN FRONT SEAT WITH SELF SUSTAINING CHECK HINGE, 1.28 GPF, FLOOR MOUNT, PROVIDE SUPPLY AND STOP, ADA.	1.28, ADA COMPLIANT, 1.28 GPF (MANUAL)	SEAT: "CHURCH" MODEL 295SSCT OR "BEMIS" MODEL 1955SSCT. PROVIDE WITH SELF-SUSTAINING CONCEALED CHECK HINGES, ONE PIECE STEEL POST HINGES, WHITE COLOR.	WHERE USED FOR CBC ACCESSIBLE WATER CLOSETS, THE FLUSH VALVE HANDLE SHALL BE MOUNTED ON THE WIDE SIDE OF THE WATER CLOSET ENCLOSURE.	2"	4"	4"	1-1/4"	1"	-	-
	WC-2	WATER CLOSET FLOOR MOUNTED TANK TYPE STD	"KOHLER" MODEL K-3575, STANDARD HEIGHT, ELONGATED BOWL, PRESSURE ASSIST FLUSHOMETER TANK, "KOHLER" K-46666 OPEN FRONT SEAT WITH SELF SUSTAINING HINGE, 1.6 GPF, FLOOR MOUNT, PROVIDE SUPPLY AND STOP.	1.28, ADA COMPLIANT, 1.28 GPF (MANUAL)	SEAT: "CHURCH" MODEL 295SSCT OR "BEMIS" MODEL 1955SSCT. PROVIDE WITH SELF-SUSTAINING CONCEALED CHECK HINGES, ONE PIECE STEEL POST HINGES, WHITE COLOR.		2"	4"	4"	1-1/4"	1"	-	-
♿	L-1	LAVATORY WALL MOUNTED HOT AND COLD WATER ADA	"KOHLER" MODEL K-2005 21-1/4x18-1/8" , VITREOUS CHINA, WALL HUNG WITH CONTROURED BACK AND SIDE SPLASH SHIELDS, FRONT OVERFLOW, CONCEALED ARM RECESS. 4" CENTERS. ADA COMPLIANT.	"CHICAGO" 116.648.AB.4 FAUCET, TOUCHLESS SENSOR WITH AERATOR WITH 0.35 GPM FLOW RATE, TEMPERATURE CONTROL HANDLE KIT. WITH VANDAL RESISTANT ECONO-FLO SPRAY OUTLET. WITH IPS CONNECTIONS, ADA COMPLIANT. SET FLOW TIMER TO 10 SECONDS MIN. LONG TERM POWER SYSTEM-30 YEAR BATTERY LIFE.	ADA COMPLIANT. LAVATORY GRID DRAIN WITH 4-1/4" OFFSET TAILPIECE, INTEGRAL PERFORATED GRID NO. 7723.018, CHROME FINISH. MOUNT P-TRAP FLUSH TO WALL, AND PROVIDE INSULATED DRAIN PIPING. CARRIER: "J.R. SMITH" 0700 OR "ZURN" Z1231	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE CONCEALED ARMS AND FLOOR SUPPORT, WITH FEET OF SUPPORT SECURELY ANCHORED TO FLOOR. IN ADDITION ANCHOR TOP OF SUPPORT TO WALL CONSTRUCTION.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
	L-2	LAVATORY COUNTER MOUNTED HOT AND COLD WATER STD	"KOHLER" MODEL K-2210 19"x15" UNDERMOUNT SINK, "DELTA" MODEL #520-MPU SINGLE LEVER, SOLID BRASS BODY. POP-UP DRAIN 4" CENTERS. 0.4 GPM MAXIMUM FLOW RATE. PROVIDE SUPPLIES, STOPS AND 17 GA. CHROME PLATED BRASS P-TRAP, COUNTER MOUNT.	"CHICAGO" 116.648.AB.4 FAUCET, TOUCHLESS SENSOR WITH AERATOR WITH 0.35 GPM FLOW RATE, TEMPERATURE CONTROL HANDLE KIT. WITH VANDAL RESISTANT ECONO-FLO SPRAY OUTLET. WITH IPS CONNECTIONS, ADA COMPLIANT. SET FLOW TIMER TO 10 SECONDS MIN. LONG TERM POWER SYSTEM-30 YEAR BATTERY LIFE.	ADA COMPLIANT. LAVATORY GRID DRAIN WITH 4-1/4" OFFSET TAILPIECE, INTEGRAL PERFORATED GRID NO. 7723.018, CHROME FINISH. MOUNT P-TRAP FLUSH TO WALL, AND PROVIDE INSULATED DRAIN PIPING.	COUNTER MOUNTED.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
♿	S-1	SINK COUNTER MOUNTED HOT AND COLD WATER ADA	"ELKAY" MODEL LRADQ2219-65-BP, 22"x19"x6.5" DEEP SINGLE BOWL, 18 GAUGE STAINLESS STEEL GAUGE,LEDGE BACK WITH SELF-RIM. PROVIDE SINGLE FAUCET HOLE. PROVIDE REAR DRAIN LOCATION. PROVIDE FACTRORY ADHERED VANDEL RESISTANT BACKING PLATE AT FAUCET, AND SLOT AT FAUCET FOR VANDAL RESISTANT PIN. PROVIDE SUPPLIES, STOPS & CHROME-PLATED BRASS P-TRAP.	"CHICAGO" ECAST MODEL 1100-E35-317ABCP(VVAVVP) FAUCET, WITH INDEXED WRIST BLADE HANDLES, 8" LONG SWIVEL SPOUT, VANDAL RESISTANT. PROVIDE 1.5 GPM VANDAL RESISTANT LAMINAR FLOW AERATOR.	"ELKAY" MODEL LKAD35, OFFSET CRUMB CUP STRAINER WITH BASKET AND P-TRAP. INSTALL P-TRAP FLUSH TO WALL.	PROVIDE CLEANOUT FOR EACH FIXTURE.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
	KS-1	SINK COUNTER MOUNTED HOT AND COLD WATER	"BLANCO" MODEL 440107 32"x19x10" DEEP SINGLE BOWL UNDERMOUNT SINK. STAINLESS STEEL 18 GAUGE TYPE 304. PROVIDE "IN-SINK-ERATOR" MODEL BADGER-5XP GARBAGE DISPOSAL 120V - 1e, 3/4 HP, AIR-ACTIVATED COUNTER TOP MOUNTED SWITCH. PROVIDE CHROME-PLATED BRASS P-TRAP.	"BLANCO" MODEL 401990 SOLENTA FAUCET, W/ PULL-DOWN SPRAY, RIGID/SWING FAUCET.	"ELKAY" MODEL LKAD18, OFFSET STRAINER DRAIN AND P-TRAP. INSTALL P-TRAP FLUSH TO WALL.	PROVIDE CLEANOUT FOR EACH FIXTURE.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
	PF-1	POT FILLER WALL MOUNTED		"CHICAGO" 515-ABCP POT FILLER FAUCET			-	-	-	3/4"	1/2"	-	-
	SS-1	SERVICE SINK FLOOR MOUNTED	"FLORESTONE" MSR-2424, 24"x24"x10" MOLDED ONE PIECE RECEPTOR, MR-375 3" INTEGRAL DRAIN WITH 18 GA. STAINLESS STEEL GRID, MR-371 FAUCET WITH VACUUM BREAKER AND BUCKET HOOK, MR-372 MOP HANGER WITH 3 CLAMPS, AND MR-370, 60" HOSE WITH SS CLAMP, TWO MR-377 24" PANELS AND TWO 24" MR-373 STAINLESS STEEL RIM GUARD.	"CHICAGO" MODEL 540-LD-897-WXF FAUCET 8" O.C. WITH LEVER HANDLES, CHROME FINISH, VACUUM BREAKER, TOP BRACE, PAIL HOOK AND 3/4" HOSE THREAD OUTLET AND CAST IRON TRAP.	"FIAT" MODEL 1453-BB STRAINER, PROVIDE SUITABLE BLOCKING FOR TOP BRACE AS PART OF ROUGH-IN FOR FAUCET WITH P-TRAP	PROVIDE "FIAT" MODEL 832-AA HOSE & BRACKET AND "FIAT" MODEL 889-CC MOP RACK	2"	2"	2"	3/4"	3/4"	3/4"	3/4"
♿	BF-1	BOTTLE FILLER INWALL MOUNTED ADA	"ELKAY" ezH2O MODEL LZWSMDK 8 GPH, 115 V, 1 PL, 5.0 FLA, SENOR OPERATED, PROVIDE SPARE REPLACEMENT FILTER.		WITH P-TRAP	1.1 FLA @ 115V/60Hz. MAX POWER DRAW 15 W.	1-1/2"	2"	2"	3/4"	1/2"	-	-
	HB-1	HOSE BIBB	"ACORN" MODEL 8121, BENT NOSE WITH FLANGE, CARTRIDGE OPERATED WITH LOCK SHIELD AND REMOVABLE KEY HANDLE, VACUUM BREAKER. POLISHED CHROME.		WITH INTEGRAL VACUUM BREAKER.	PROVIDE RECESSED 16 GA. STAINLESS STEEL HINGED BOX WITH FULL 180° HINGED LOCKING COVER. MOUNT 18" ABOVE FINISHED GRADE OR FLOOR	-	-	-	3/4"	3/4"	-	-
	HB-2	HOSE BIBB	"SMITH" MODEL 5509QT, STAINLESS STEEL BOX WITH LOCK SHIELD AND REMOVABLE KEY HANDLE, NON-FREEZE HYDRANT. POLISHED CHROME.		WITH INTEGRAL VACUUM BREAKER.	MOUNT 18" ABOVE FINISHED GRADE OR FLOOR	-	-	-	3/4"	3/4"	-	-
	HB-3	WALL HYDRANT	"ACORN" MODEL 8151, 18 GA., TYPE 304 STAINLESS STEEL RECESSED WITH WALL FLANGE, LOCKING COVER, VACUUM BREAKER, LOOSE KEY. BRASS FINISH.		WITH INTEGRAL VACUUM BREAKER.		-	-	-	3/4"	3/4"	-	-
	FD	FLOOR DRAIN	"SMITH" 2005Y, 5" DIA., NB TOP, CAST IRON BODY, TRAP PRIMER CONNECTION.	TYPE "B" STRAINER FOR EXPOSED CONCRETE TYPE "S" STRAINER FOR TILE FLOOR TYPE "SL STRAINER FOR COMPOSITION FLOOR	PROVIDE FLASHING RING AND CLAMP AT FLOORS WITH WATER RESISTANT MEMBRANE. SET TOP OF DRAIN SLIGHTLY BELOW FLOOR TO INSURE DRAINAGE. INSTALL VENTED P-TRAP. WHERE TRAP PRIMERS ARE INDICATED PROVIDE PROPER CONNECTION TO P-TRAP.		2"	2" 3" 4"	2" 3" 4"	-	-	-	-
	AD	AREA DRAIN	"ZURN" Z673,EXTRA-HEAVY-DUTY DRAIN 4" DIA, CAST IRON BODY, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, MEMBRANE FLASHING CLAMP AND FRAME, TOP SECURED WITH SLOTTED SCREWS, SUSPENDED SEDIMENT BUCKET.		PROVIDE FLASHING RING AND CLAMP AT FLOORS WITH WATER RESISTANT MEMBRANE. SET TOP OF DRAIN SLIGHTLY BELOW FLOOR TO INSURE DRAINAGE. INSTALL VENTED P-TRAP. WHERE TRAP PRIMERS ARE INDICATED PROVIDE PROPER CONNECTION TO P-TRAP.		-	4"	4"	-	-	-	-
	FS	FLOOR SINK	FLOOR SINK, "SMITH" 3100, ACID RESISTANT, DOME BOTTOM STRAINER.		PROVIDE ANCHOR FLANGE, SEEPAGE PAN AND CLAMPING COLLAR. PROVIDE WHITE A.R.E. SEDIMENT BUCKET. PROVIDE 1/2 GRATE.	INSTALL FS FLUSH WITH FLOOR	2"	2" 3" 4"	2" 3" 4"	-	-	-	-
	CB	CATCH BASIN	"WATTS" FD-524, ACID RESISTANT, ALL STAINLESS STEEL.		PROVIDE ANCHOR FLANGE, SEEPAGE PAN AND CLAMPING COLLAR. PROVIDE WHITE A.R.E. SEDIMENT BUCKET. PROVIDE 1/2 GRATE.	INSTALL FLUSH WITH FLOOR NO SOLID BAFFLES, TOP GRATE TO BE MODIFIED TO ACCEPT UNIT DRAIN OUTLET	2"	4"	4"	-	-	-	-
	TP-1	ELECTRONIC TRAP PRIMER	"PPP" PRIME-RITE TRAP PRIMER VALVE, MODEL MPB-500 115V CONNECTION BY DIV. 26.	PROVIDE BALL VALVE AT EACH TP LOCATION. SEE 2/P5.1 FOR CONNECTION OF TRAP PRIMER TO FLOOR DRAIN. SEE 4/P5.1 FOR ELECTRONIC TRAP PRIMER ASSEMBLY.		INSTALL PER MANUFACTURERS INSTRUCTIONS. PROVIDE DISTRIBUTION UNIT WITH FEEDER PIPING FOR A MAX. OF FOUR TRAPS WHEN NEEDED. PROVIDE SURFACE MOUNT BOX IN CHASES & MECHANICAL ROOMS. PROVIDE RECESSED BOX WITH ACCESS DOOR ALL OTHER LOCATIONS.	-	-	-	1/2"	1/2"	-	-
	WB	WASHMACHINE WASHER BOX	"GUY GRAY" WB200, TWO (2) "PPC INC." WHA-500L WATER HAMMER ARRESTORS.	INTEGRAL	INTEGRAL	WITH HOT AND COLD WATER HOSE BIBBS AND DRAIN CONNECTION	1-1/2"	2"	2"	3/4"	1/2"	3/4"	1/2"
	RIM	REFRIGERATOR ICE MAKER BOX	"GUY GRAY" BIM875, 18 GAUGE STEEL FACEPLATE, 20 GAUGE STEEL BOX, COMPRESSION VALVE.				-	-	-	1/2"	1/4"	-	-
	SH-1	SHOWER FLUSH MOUNTED	"SYMMONS" MODEL 3505-H321-V-CYL-B SHOWER SYSTEM WITH HAND SPRAY. INCLUDES 1.5 GPM SHOWER HEAD, MIXING VALVE, DETACHABLE SPRAY HEAD WITH 5' METAL HOSE. PROVIDE "J.R. SMITH" 2010C(B) NB 6" SQUARE DRAIN WITH STRAINER. PROVIDE HOT AND COLD WATER STOPS. SHOWER HEADS SHALL BE ROUGHED IN AT 78" ABOVE FINISH FLOOR.	COMPLETE WITH HOT AND COLD WATER PRESSURE BALANCED MIXING VALVES, 1.5 GPM FLOW CONTROL, TEMPTROL PRESSURE BALANCING VALVE WITH ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN, VANDAL RESISTANT ESCUTCHEON SCREWS, NON-SHARED DIVERTER VALVE.	INTEGRAL	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS.	-	-	-	3/4"	1/2"	3/4"	1/2"
	RF/OF	ROOF DRAIN OVERFLOW	COMBINATION ROOF DRAIN AND OVERFLOW 4" DIA PIPE SIZE MAX. - "ZURN" MODEL Z165 5" DIA & 6" DIA - "ZURN" MODEL Z164	SECURE DECK TO ROOF. PROVIDE 6" HIHG CAST IRON DOME TYPE STRAINER INLET AND CLAMPING COLLARS FOR PRIMARY AND OVERFLOW. 2-5/16" FROM DECK PLATE TO OVERFLOW INLET.			-	4" 5" 6"	4" 5" 6"	-	-	-	-

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220613.00 PROJECT NO.

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CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
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100% CONSTR. DRAWINGS	03/23/23

PROJECT NUMBER:

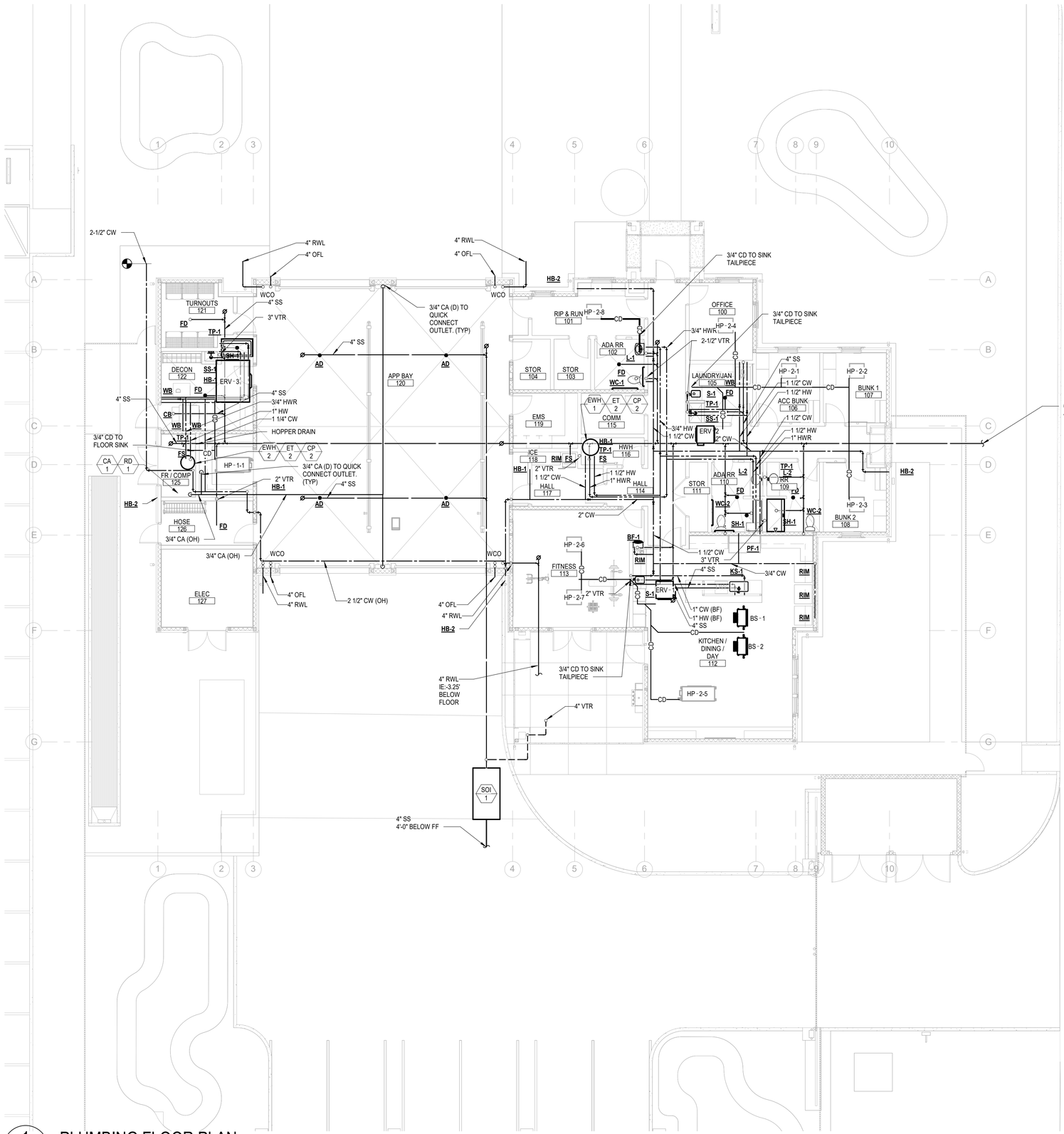
211101

SHEET TITLE:

PLUMBING FIXTURES SCHEDULE

SHEET NUMBER:

P0.3



1 P2.1 PLUMBING FLOOR PLAN

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

REGISTERED PROFESSIONAL ENGINEER ANTHONY COLACCHI M 29743 RENEW: 8-31-24 MECHANICAL STATE OF CALIFORNIA

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CAL FIRE SINCE 1885 MORGAN HILL 1906 FIRE

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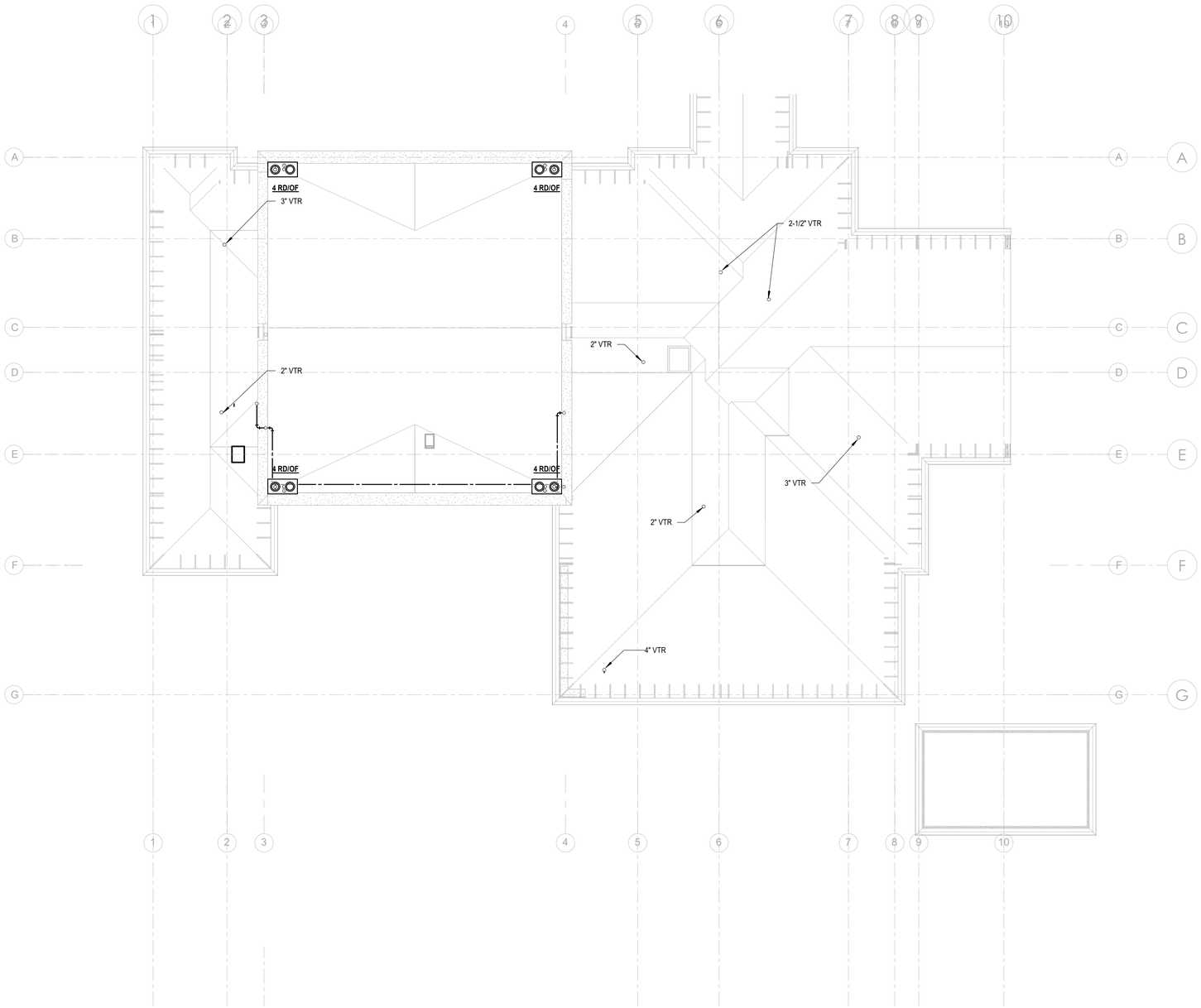
SHEET TITLE:
PLUMBING FLOOR PLAN

SHEET NUMBER:
P2.1



1 P2.2 PLUMBING ROOF PLAN

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

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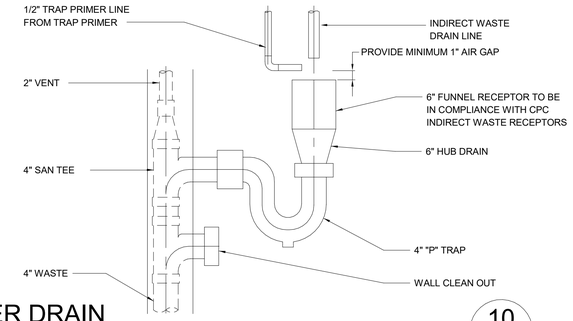
SHEET TITLE:

PLUMBING ROOF PLAN

SHEET NUMBER:

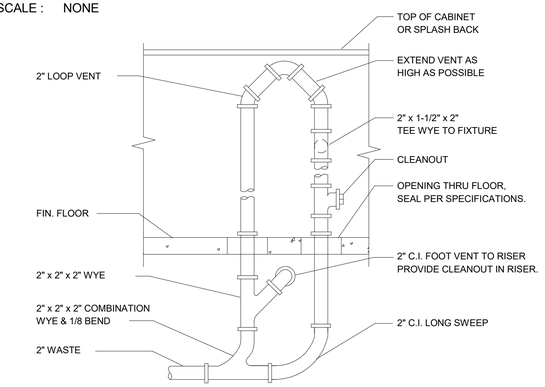
P2.2



HOPPER DRAIN

SCALE : NONE

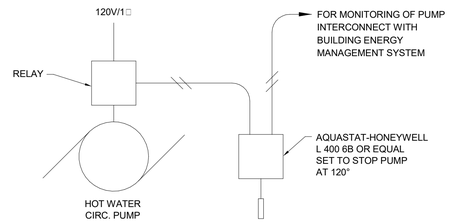
10 P5.1



LOOP VENT DETAIL

SCALE : NONE

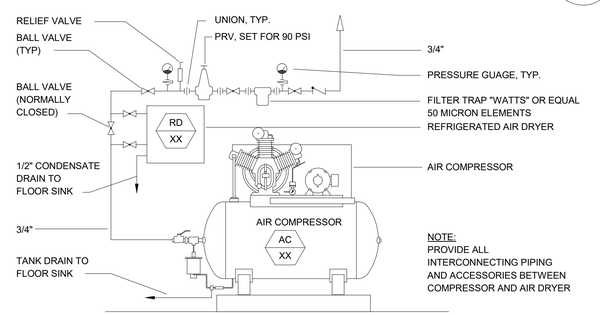
9 P5.1



HW CIRCULATION PUMP CONTROL

SCALE : NONE

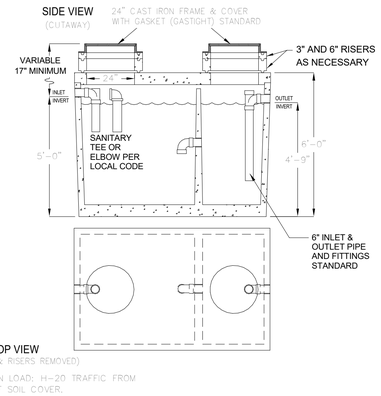
8 P5.1



AIR COMPRESSOR PIPING DIAGRAM

SCALE : NONE

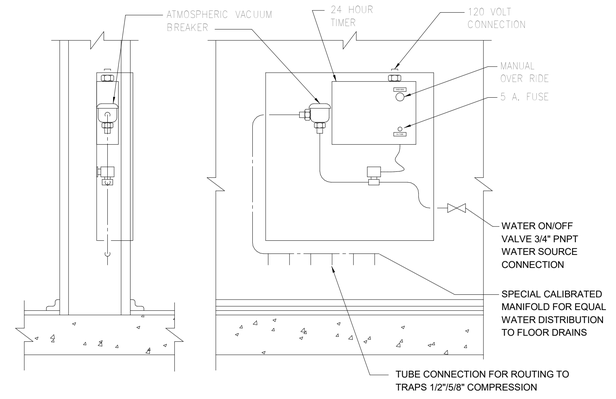
7 P5.1



SAND/OIL INTERCEPTOR

SCALE : NONE

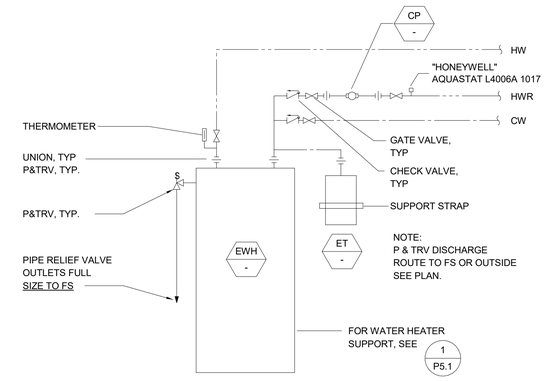
5 P5.1



ELECTRONIC TRAP PRIMER TPV-1

SCALE : NONE

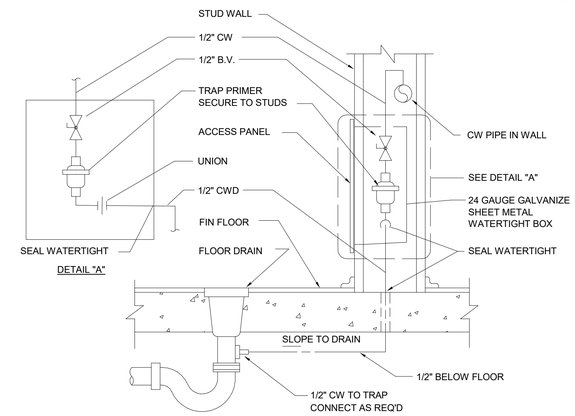
4 P5.1



ELECTRIC WATER HEATER PIPING

SCALE : NONE

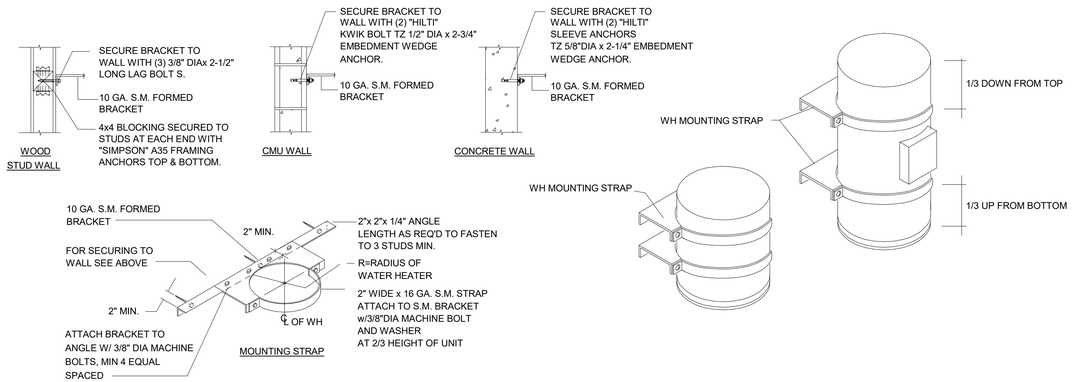
3 P5.1



TRAP PRIMER TO FLOOR DRAIN

SCALE : NONE

2 P5.1



WATER HEATER SUPPORT

20 GAL OR LARGER - FLOOR INSTALLATION

SCALE : NONE

1 P5.1

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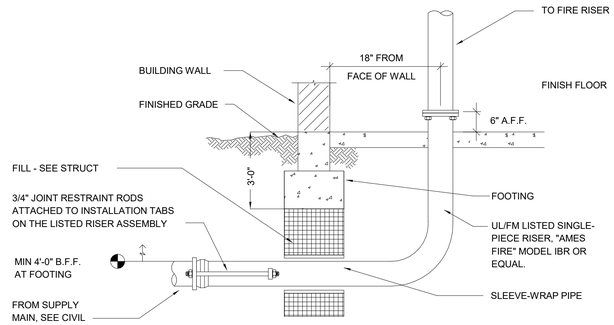
SHEET TITLE: PLUMBING DETAIL

SHEET NUMBER: P5.1

FIRE SPRINKLER LEGEND

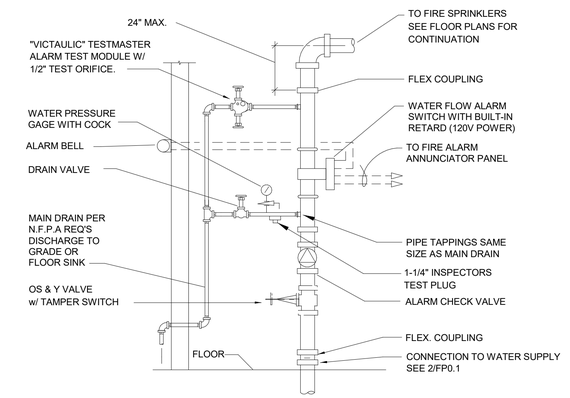
SYMBOL	ABBREVIATION	DESCRIPTION
ATF	ATF	AUTOMATIC FIRE SPRINKLER PIPING
	BFP/WM	BACKFLOW PREVENTOR
	FDC	FIRE DEPARTMENT CONNECTION
	FH	FIRE HYDRANT
F	F	FIRE SPRINKLER PIPING
D	D	FIRE SPRINKLER PIPING DRAIN
	FSR	FIRE SPRINKLER RISER
	OS & Y	OUTSIDE STEM & YOKE VALVE
	PIV	POST INDICATOR VALVE
		UPRIGHT FIRE SPRINKLER HEAD
		PENDANT FIRE SPRINKLER HEAD
		SIDEWALL FIRE SPRINKLER HEAD



FIRE WATER SERVICE ENTRANCE

SCALE : NONE

2
FP0.1



WET PIPE FIRE SPRINKLER RISER

SCALE : NONE

1
FP0.1

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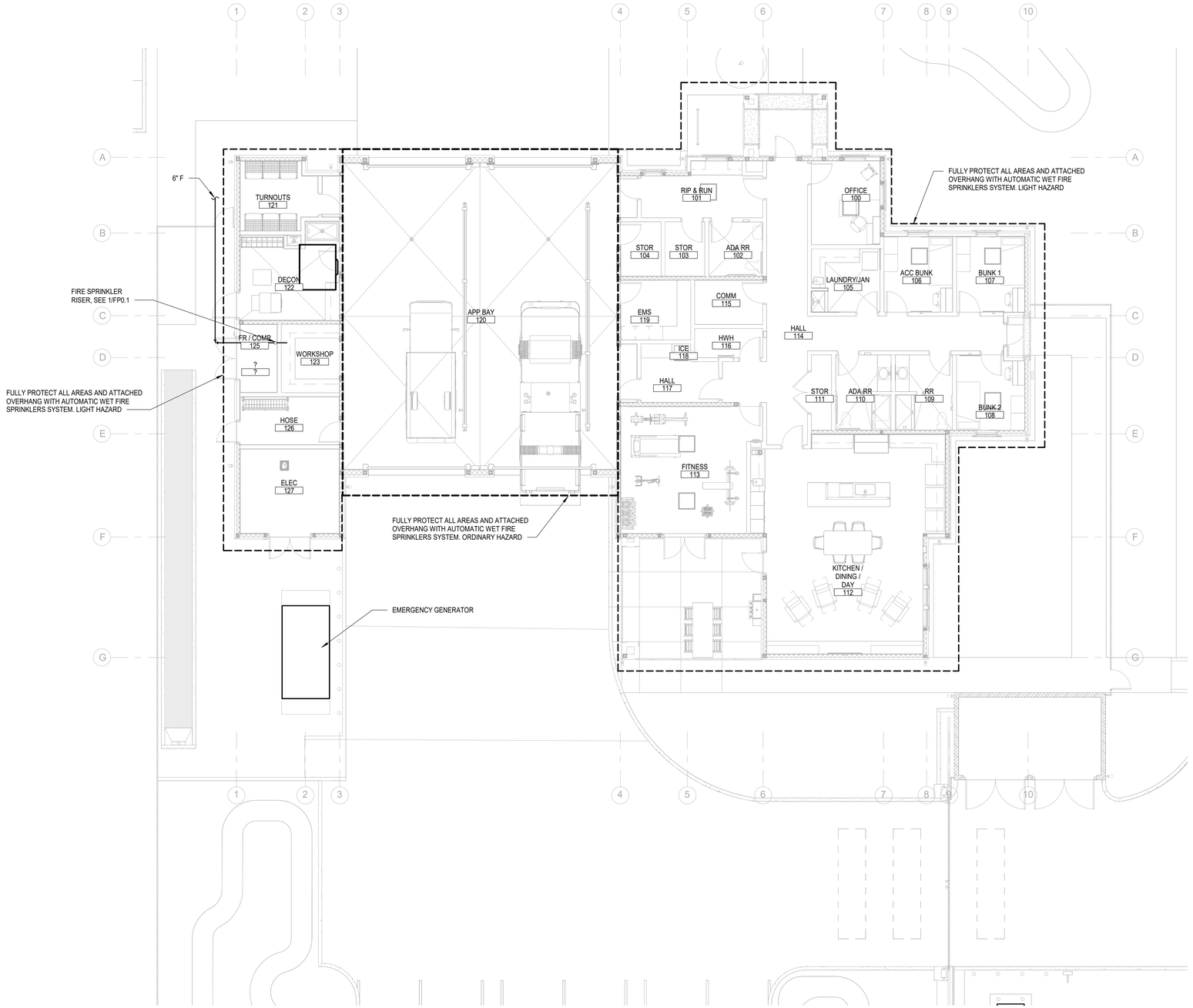
SHEET TITLE:

FIRE PROTECTION LEGENDS

SHEET NUMBER:

FP0.1



1 FP2.1 FIRE PROTECTION FLOOR PLAN

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

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SHEET TITLE:

FIRE PROTECTION FLOOR PLAN

SHEET NUMBER:

FP2.1

ANCHORAGE NOTES

ELECTRICAL ANCHORAGE NOTES:

ALL ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16, CHAPTER 13, 26, AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING ELECTRICAL COMPONENTS SHALL BE BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.

A. COMPONENT WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM WALL.

THE ANCHORAGE OF ALL ELECTRICAL COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY.

ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE, COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

LIGHT FIXTURES:

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

SURFACE-MOUNTED LIGHT FIXTURES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES. THE CLAMPING DEVICE SHALL COMPLETELY SURROUND THE SUPPORTING CEILING RUNNER AND BE MADE OF STEEL WITH A MINIMUM THICKNESS OF #14 GAGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A #12 GAGE SLACK SAFETY WIRE SHALL BE CONNECTED FROM EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE EIGHT (8) FEET OR LONGER OR EXCEED 56 LB. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED EIGHT (8) FEET.

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

LIGHT FIXTURES WEIGHING GREATER THAN 10 LB. BUT LESS THAN OR EQUAL TO 56 LBS. MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO (2) #12 GAGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTURE ABOVE. EXCEPTION: ALL LIGHT FIXTURES GREATER THAN TWO BY FOUR FEET WEIGHING LESS THAN 56 LBS. SHALL HAVE A #12 GAGE SLACK SAFETY WIRE AT EACH CORNER.

ALL LIGHT FIXTURES WEIGHING GREATER THAN 56 LB. SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR (4) TAUT #12 GAGE HANGER WIRES (ONE AT EACH CORNER) ATTACHED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS. THE FOUR (4) TAUT #12 GAGE WIRES OR OTHER APPROVED HANGERS, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, SHALL BE CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE FIXTURE.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
CATV	CABLE TV
CB	CIRCUIT BREAKER
CO	CONDUIT ONLY
CU	COPPER
DP	DISTRIBUTION PANEL
E.C.	ELECTRICAL CONTRACTOR
E.G.C.	EQUIPMENT GROUNDING CONDUCTOR
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EQPT	EQUIPMENT
EXT	EXTERIOR
(E)	EXISTING
(ER)	EXISTING EQUIPMENT TO BE RELOCATED
(EX)	EXISTING EQUIPMENT TO BE DEMOLISHED
FA	FIRE ALARM
FMC	FLEXIBLE METALLIC CONDUIT
FO	FIBER OPTIC
FTL	FEED THROUGH LUGS
G.E.C.	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTING TYPE RECEPTACLE
INV	INVERTER, EM LIGHTING OR PHOTOVOLTAIC.
IDF	INTERMEDIATE DISTRIBUTION FRAME
L	LOCKABLE
LTG	LIGHTING
LV	LOW VOLTAGE
MC	METAL CLAD CABLING
MCB	MAIN CIRCUIT BREAKER
MDF	MAIN DISTRIBUTION FRAME
MFGR	MANUFACTURER
MLO	MAIN LUGS ONLY
MTD	MOUNTED
(N)	NEW
N.E.C.	NATIONAL ELECTRICAL CODE
NEU	NEUTRAL
NIEC	NOT IN ELECTRICAL CONTRACT
OAH	OVERALL HEIGHT
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
P	INDICATES FIXTURES ON PHOTOCELL CONTROL
PA	PUBLIC ADDRESS
PNL	PANEL
S.A.D.	SEE ARCHITECTURAL DRAWINGS
SIG	SIGNAL SYSTEM
SPD	SURGE PROTECTION DEVICE
STC	SIGNAL TERMINAL CABINET
SWBD	SWITCHBOARD
TELE	TELEPHONE
UFER	CONCRETE ENCASED CU G.E.C.
UON	UNLESS OTHERWISE NOTED
UG	UNDERGROUND
VAV	VAV BOX, SEE MECHANICAL DIVISION DRAWINGS FOR LOCATIONS. PROVIDE TOGGLE TYPE DISCONNECT SWITCH.
WP	WEATHER PROOF, NEMA 3R. EQUALS "WHILE IN USE" TYPE WHEN APPLIED TO EXTERIOR POWER RECEPTACLES
XFMR	TRANSFORMER

GENERAL ELECTRICAL NOTES

21. THE CONTRACTOR SHALL PAY FOR ALL REQUIRED PERMITS AND INSPECTION FEES.
22. THE CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
23. ALL EXIT SIGNS SHALL COMPLY WITH THE RELEVANT PORTIONS OF SECTIONS 1008 AND 1013 OF THE CBC.
24. ALL MECHANICAL DIVISION EQUIPMENT LOW VOLTAGE CONTROL WIRING AND RACEWAY SHALL BE PROVIDED AND INSTALLED AS SPECIFIED IN MECHANICAL DIVISION U.O.N.
25. COORDINATE INSTALLATION OF ALL RECESSED LUMINAIRE(S) WITH MECHANICAL DIVISION PRIOR TO INSTALLATION OF HVAC DUCTS AND SPRINKLER HEADS. ENSURE AFTER INSTALLATION OF LUMINAIRE(S) THAT THERE IS NO CONTACT BETWEEN DUCTS AND LUMINAIRE(S) TO AVOID VIBRATION IN LUMINAIRE(S).
26. USE FLEXIBLE CONDUIT FOR ALL MOTOR, TRANSFORMER, RECESSED LUMINAIRE CONNECTIONS, AND CONNECTIONS BETWEEN TWO SEPARATE STRUCTURES AND FOR ALL FINAL CONNECTIONS TO "CRITICAL EQUIPMENT" AS DEFINED IN SPECIFICATIONS. MINIMUM 1/2" DIAMETER, LIQUID TIGHT TYPE USED OUTDOORS AND IN ALL WET LOCATIONS; PROVIDE WITH CODE-SIZE (MINIMUM #12) BARE GROUND WIRE IN ALL FLEXIBLE CONDUIT.
27. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR ALL BRANCH CIRCUITS FEEDING OUTLETS AS NOTED ON THE DRAWINGS.
28. FOR FLUSH MOUNTED PANELBOARDS THE CONTRACTOR SHALL STUB A MINIMUM OF FOUR (4) 3/4" CONDUITS FROM THE PANEL UP INTO THE ACCESSIBLE CEILING ABOVE FOR FUTURE CIRCUITS.
29. ALL CONDUIT CONNECTORS TO OUTLET OR JUNCTION BOXES SHALL HAVE INSULATED THROATS (MANUFACTURED AS AN INTEGRAL PART OF THE CONNECTOR). AFTER-MARKET INSERTABLE THROATS ARE NOT ACCEPTABLE.
30. ALL CIRCUITS IN ALL JUNCTION BOXES AND DEVICES SHALL BE CLEARLY IDENTIFIED BY MEANS OF "EZ" NUMBERING TAGS OR EQUIVALENT, TO IDENTIFY THE CIRCUIT NUMBER OR RELAY SUPPLYING THE CONDUCTOR. ALL JUNCTION BOXES SHALL BE LABELED PER SPECIFICATIONS.
31. ALL SURFACE MOUNTED POWER AND SIGNAL BOXES IN FINISHED AREAS SHALL BE "WIREMOLD" TYPE, WITH MATCHING RACEWAYS. SURFACE MOUNTED STEEL JUNCTION BOXES AND/OR EMT ARE NOT ACCEPTABLE.
32. ALL LOCATIONS OF BARE METAL SURFACE MOUNTED CONDUIT, BOXES, PANEL COVERS, AND RELATED FITTINGS OR ACCESSORIES INSTALLED IN FINISHED AREAS (BOTH INTERIOR AND EXTERIOR) SHALL BE FINISH PAINTED TO MATCH THE SURFACE TO WHICH THEY ARE MOUNTED TO (AFTER INSTALLATION). PAINTING SHALL INCLUDE DIFFERENT COLORS AS REQUIRED TO MATCH EXISTING STRIPING OR OTHER BUILDING FEATURES TO WHICH THE EQUIPMENT IS ATTACHED AND VISIBLE. VERIFY EXACT JUNCTION BOX LOCATION(S) AND ROUTING OF EXPOSED RACEWAYS WITH THE ARCHITECT PRIOR TO ROUGH-IN.
33. PROVIDE A BLANK COVER PLATE (COLOR TO MATCH ADJACENT DEVICES OR AS SPECIFICALLY CALLED FOR IN SPECIFICATIONS) FOR ALL JUNCTION BOXES (NEW AND EXISTING) ON THE PROJECT WHEN NO DEVICE IS INSTALLED.
34. FOR OUTDOOR 15 AND 20-AMPERE, 125 AND 250-VOLT RECEPTACLES: RECEPTACLES LOCATED IN "WET" LOCATIONS SHALL HAVE "IN-USE" TYPE WEATHERPROOF COVER PLATES PROVIDED AND INSTALLED; RECEPTACLES LOCATED IN "DAMP" LOCATIONS SHALL HAVE "IN-USE" TYPE WEATHERPROOF COVER PLATES IN LOCATIONS DEEMED TO BE "IN-USE" WITH CORD AND PLUG ATTACHED.
35. TWO OR THREE DIFFERENT PHASES SUPPLIED BY A 3-PHASE PANEL MAY SHARE A SINGLE NEUTRAL ONLY IF CIRCUIT POSITIONS ARE ADJACENT IN THE PANEL. PROVIDE COMMON HANDLE-TIE ON BREAKERS FOR MULTI-WIRE BRANCH CIRCUITS, WITH COMMON NEUTRAL, PER NEC REQUIREMENTS.

GENERAL ELECTRICAL NOTES

1. PRIOR TO BID THE CONTRACTOR SHALL VISIT THE SITE TO ADEQUATELY DETERMINE ALL PRE-EXISTING CONDITIONS. BY THE ACT OF SUBMITTING A BID, THE CONTRACTOR WILL BE DEEMED TO HAVE COMPLIED WITH THE FOREGOING, TO HAVE ACCEPTED SUCH CONDITIONS, AND TO HAVE MADE ALLOWANCES THEREFORE IN PREPARING THE BID.
2. PROVIDE PARITY SIZED GREEN GROUND WIRE IN ALL POWER CONDUITS, BRANCH CIRCUITS (LIGHTING & POWER) AND HOMERUNS. PROVIDE ADDITIONAL ISOLATED GROUND, GREEN WITH YELLOW STRIPE, TO ALL ISOLATED GROUND RECEPTACLES.
3. PROVIDE PULLROPE IN ALL EMPTY CONDUITS THROUGHOUT THE PROJECT.
4. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION & CONNECTION REQUIREMENTS OF ALL LUMINAIRE(S) AND ALL OUTLET, SWITCH, AND ELECTRICAL RELATED DEVICE MOUNTING HEIGHTS AND LOCATIONS. COORDINATE LOCATIONS OF ALL LUMINAIRE(S) AND JUNCTION BOXES WITH MECHANICAL DIVISION PRIOR TO ROUGH-IN. COORDINATE LOCATIONS OF ELECTRICAL DEVICES WITH FURNITURE PLANS PRIOR TO ROUGH-IN.
5. REFER TO MECHANICAL PLANS FOR EXACT LOCATION(S) OF ALL MECHANICAL EQUIPMENT, AND CONFIRM EXACT CONNECTION REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL DIVISION, PRIOR TO ROUGH-IN. VERIFY EXACT REQUIREMENTS FOR VOLTAGE, PHASE, HORSE-POWER, OR KVA RATINGS, OF ALL MECHANICAL DIVISION EQUIPMENT REQUIRING ELECTRICAL CONNECTION.
6. VERIFY EXACT CONNECTION REQUIREMENTS, OUTLET TYPE(S), MOUNTING HEIGHT(S) AND LOCATION(S) OF ALL OWNER-SUPPLIED EQUIPMENT, AND ALL EQUIPMENT PROVIDED UNDER OTHER SECTIONS OF THE SPECIFICATIONS, PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR EQUIPMENT LOCATIONS.
7. COORDINATE TRENCHING WITH OWNER AND OTHER TRADES BEFORE BEGINNING WORK.
8. ALL CONDUIT PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS SHALL BE SEALED AND EQUIPPED WITH U.L. LISTED FIRE PENETRATION ASSEMBLIES TO MAINTAIN FIRE SEPARATION RATING.
9. DO NOT INSTALL ANY OUTLETS BACK TO BACK IN STUD WALLS OR DE-MOUNTABLE PARTITIONS.
10. THE CONTRACTOR SHALL VERIFY ALL CEILING TYPES BEFORE ORDERING OF LUMINAIRE(S). ALSO VERIFY THAT ALL FEATURES CALLED FOR IN LUMINAIRE DESCRIPTIONS ON THE LUMINAIRE SCHEDULE ARE INCLUDED WITH CATALOG NUMBERS LISTED ON THE LUMINAIRE SCHEDULE WHEN LUMINAIRE ORDERS ARE PLACED, AND ARE INCLUDED AS PART OF THE LIGHTING SUBMITTALS FOR THIS PROJECT. IF A DISCREPANCY EXISTS, CONTACT THE ARCHITECT AND ELECTRICAL ENGINEER FOR CLARIFICATION PRIOR TO BID.
11. CIRCUITRY AND CONDUIT ROUTING SHOWN ON THE PLANS IS DIAGRAMMATIC ONLY. THIS CONTRACTOR IS RESPONSIBLE FOR BECOMING COMPLETELY FAMILIAR WITH THE ARCHITECTURAL AND STRUCTURAL CONDITIONS AND LIMITATIONS IN THE BUILDING AND TO PROVIDE ALL LABOR, TOOLS AND MATERIALS REQUIRED TO PRODUCE A COMPLETELY CONCEALED INSTALLATION WHEREVER INDICATED ON THE PLANS.
12. MAINTAIN "AS-BUILT" RECORDS AT ALL TIMES, SHOWING EXACT LOCATION OF ALL UNDERGROUND AND/OR CONCEALED CONDUITS AND SERVICES INSTALLED UNDER THIS CONTRACT, INCLUDING CIRCUIT IDENTIFICATION WHERE APPLICABLE. PROVIDE OWNER WITH "AS-BUILT" DOCUMENTS AS INDICATED IN THE SPECIFICATIONS, AND/OR CALLED FOR IN THE SPECIFICATIONS.
13. DRAWINGS INDICATE THE LOCATION(S) OF DEVICES, LUMINAIRE(S) AND EQUIPMENT, AND THE CIRCUIT NUMBER AND PANEL DESIGNATED TO SUPPLY THEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETELY CONNECTING ALL ELECTRICAL DEVICES TO CIRCUITS INDICATED ON THE DRAWINGS.
14. UNLESS OTHERWISE NOTED, ALL WORK SHOWN ON DRAWINGS IS NEW AND TO BE PROVIDED AND INSTALLED COMPLETE UNDER THIS CONTRACT.
15. ALL EQUIPMENT GROUNDING SHALL CONFORM TO ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, LATEST EDITION.
16. ALL EXTERIOR CONDUIT ABOVE GRADE, INCLUDING ALL ROOF MOUNTED CONDUIT, SHALL BE GALVANIZED RIGID STEEL. COAT ALL EXPOSED THREADS WITH GALVANIZING PAINT. PAINT ALL SURFACE MOUNTED RACEWAYS AND PULLBOXES TO MATCH SURROUNDING CONDITIONS, AS DIRECTED BY THE ARCHITECT.
17. ALL ELECTRICAL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LATEST EDITION OF THE N.E.C., AS WELL AS STATE, AND LOCAL CODES AND REQUIREMENTS.
18. ALL CONDUIT SHALL BE CONCEALED, UNLESS OTHERWISE NOTED.
19. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE AVAILABLE SHORT CIRCUIT CURRENT AT THE MAIN SWITCHBOARD INCOMING TERMINALS WITH THE UTILITY COMPANY, AND TO VERIFY THAT ALL POWER AND SIGNAL SERVICE PROVISIONS, INCLUDING CONCRETE EQUIPMENT PADS, CONDUITS, PULLBOXES AND CLEARANCES, MEET THE UTILITY COMPANY'S REQUIREMENTS, PRIOR TO INSTALLATION.
20. EQUIPMENT OVERLOADS AND FUSES SHALL BE PROVIDED AND INSTALLED AS PER NAME PLATE ON THE EQUIPMENT ACTUALLY PROVIDED.

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REGISTERED PROFESSIONAL ENGINEER — No.14738 Exp. 6/23 — ELECTRICAL — STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

CAL FIRE SINCE 1885 — MORGAN HILL 1980 FIRE

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

SHEET TITLE:

GENERAL NOTES, LIST OF DRAWINGS

SHEET NUMBER:

E0.1

ELECTRICAL SYMBOLS LIST

- DC — SECURITY SYSTEM DOOR CONTACT. PROVIDE 1/2" C.O. ROUGH-IN FROM NEAREST ACCESSIBLE CEILING AREA, TO DOOR FRAMING. PROVIDE 1" C.O. WITHIN ALL NON-ACCESSIBLE AREAS FOR WIRING AND DEVICE BY OTHERS.
- M — SECURITY SYSTEM CEILING MOUNT 360° MOTION DETECTOR. PROVIDE 1" C.O. WITHIN ALL NON-ACCESSIBLE AREAS FOR WIRING, DEVICE AND MOUNT, BY OTHERS
- GB — SECURITY SYSTEM CEILING MOUNT GLASS BREAK DETECTOR. PROVIDE 1" C.O. WITHIN ALL NON-ACCESSIBLE AREAS FOR WIRING, DEVICE AND MOUNT, BY OTHERS
- K — WALL MOUNTED SECURITY SYSTEM KEYPAD, UP 48" TO TOP OF BOX. PROVIDE 3/4" STUB-UP FROM WALL MOUNT LOCATION TO ACCESSIBLE CEILING SPACES, AND PROVIDE 1" C.O. WITHIN ALL NON-ACCESSIBLE AREAS FOR WIRING AND DEVICE BY OTHERS.
- S — FIRE ALARM SYSTEM SMOKE DETECTOR, CEILING MOUNTED
- M — FIRE ALARM SYSTEM MONITOR MODULE
- S 15 — FIRE ALARM SYSTEM STROBE, WALL MOUNTED, UP 80" U.O.N. ADJACENT NUMBER INDICATES STROBE CANDELLA RATING
- F 15 — FIRE ALARM SYSTEM HORN/STROBE, WALL MOUNTED, UP 80" U.O.N. ADJACENT NUMBER INDICATES STROBE CANDELLA RATING
- H WP — FIRE ALARM SYSTEM WEATHERPROOF HORN, WALL MOUNTED, UP 90" U.O.N.
- 1 — PROJECT NUMBERED NOTE, OR SHEET NUMBERED, AS NOTED ON PLAN.
- COPPER GROUND ROD, 10' L x 3/4"ø, SEE SPECS
- 100A 3P — CIRCUIT BREAKER, INDICATES 100 AMP, 3 POLE
- M — UTILITY METER
- CONDUCTOR LANDING LUGS
- CONDUIT TURN DOWN
- CONDUIT TURN UP
- CONTINUATION
- CONDUIT STUB
- 4004N — ELECTRICAL FEEDER TAG, PER COPPER FEEDER SCHEDULE
- F / 1 — MECHANICAL EQUIPMENT DESIGNATION, REFER TO MECHANICAL PLANS.
- 1/E0.1 / - — DETAIL OR SHEET REFERENCE CALLOUT. INDICATES DETAIL 1, SHEET E-0.1. WHEN ADJACENT EQUIPMENT, APPLIES TO EQUIPMENT IDENTIFIED ONLY.
- 1/E0.1 / TYP — DETAIL OR SHEET REFERENCE CALLOUT. INDICATES DETAIL 1, SHEET E-0.1. WHEN ADJACENT EQUIPMENT, APPLIES TO TYPICAL EQUIPMENT SERIES.

BRANCH CIRCUIT NOMENCLATURE

EXAMPLES:

LA1-3	1-POLE BRANCH CIRCUIT TO CB
LA1-1,3,5	1-POLE BRANCH CIRCUIT FOR MULTI CIRCUIT HOMERUNS TO SEPARATE CB'S.
LA1-[1,3]	2-POLE BRANCH CIRCUIT TO COMMON CB
LA1-[1,3,5]	3-POLE BRANCH CIRCUIT TO COMMON CB

ELECTRICAL SYMBOLS LIST

- MAIN SWITCHBOARD, DISTRIBUTION PANEL, OR MOTOR CONTROL CENTER
- SURFACE MOUNTED PANELBOARD OR EQUIPMENT AS NOTED ON DRAWINGS. 6' - 6" TO TOP
- FLUSH MOUNTED PANELBOARD OR EQUIPMENT AS NOTED ON DRAWINGS. 6' - 6" TO TOP.
- PAD MOUNTED UTILITY TRANSFORMER, PER UTILITY CO. REQUIREMENTS.
- CONDUIT AND WIRE CONCEALED IN CEILING OR WALL
- CONDUIT AND WIRE UNDERGROUND, OR CONCEALED UNDER SLAB
- CONDUIT AND WIRE RUN EXPOSED, PAINTED TO MATCH ALL ADJACENT FINISHES WITHIN FINISHED SPACES
- HOMERUN TO PANELBOARD OR TERMINAL BOARD, AS NOTED ON PLANS
- CROSSMARKS INDICATE QUANTITY OF #12 CONDUCTORS PLUS PARITY SIZED GROUND CONDUCTOR. NO HASHMARKS INDICATES (2) #12 PLUS PARITY SIZED GROUND CONDUCTOR.
  - GROUND WIRE
  - SHORT CROSSMARK(S) INDICATE PHASE CONDUCTOR(S); LONG CROSSMARK(S) INDICATE NEUTRAL CONDUCTOR(S)
- (#10) — WIRE SIZE 10 AWG FOR ALL CONDUCTORS, INCLUDING GROUND WIRE THROUGHOUT THE COMPLETE CIRCUIT
- 20A 3PG 125V DUPLEX RECEPTACLE, UP 18" U.O.N. - 'WP' INDICATES WEATHERPROOF.
- 20A 3PG 125V DOUBLE DUPLEX RECEPTACLE, UP 18" U.O.N.
- 20A 3PG 125V DUPLEX RECEPTACLE, MOUNTED ABOVE COUNTER.
- x2 — 20A 3PG 125V DUPLEX RECEPTACLE, WITH INTEGRAL TYPE A USB OUTLETS, QUANITITY INDICATED BY "x_"
- 20A 3PG 125V DUPLEX RECEPTACLE, FLUSH CEILING MOUNT.
- SURFACE MOUNTED WIREMOLD RACEWAY WITH RECEPTACLES AS INDICATED ON PLANS
- SURFACE MOUNTED WIREMOLD RACEWAY RISER
- DATA OUTLET, WALL MOUNTED, UP 18" U.O.N.
- DATA OUTLET, WALL MOUNTED, MOUNTED ABOVE COUNTER.
- DATA OUTLET, FLUSH CEILING MOUNT.
  - 'AP' - ACCESS POINT
  - 'P' - PROJECTOR
- FLUSH WALL MOUNTED INDOOR PUBLIC ADDRESS SPEAKER & SIGNAL SYSTEM CLOCK, UP 96" U.O.N.
- FLUSH WALL MOUNTED INDOOR PUBLIC ADDRESS SPEAKER, UP 96" U.O.N. - "WP" INDICATES WEATHERPROOF
- FLUSH WALL MOUNTED SIGNAL SYSTEM CLOCK, UP +96" U.O.N.
- FLOOR BOX ASSEMBLY, IN-SLAB. DOUBLE DUPLEX RECEPTACLE, AND DATA OUTLET.
- FIRE RATED POKE THRU ASSEMBLY FLOOR BOX
- $m — LINE VOLTAGE MOTOR RATED SWITCH INSTALLED AT EQUIPMENT SHOWN
- MOTOR DISCONNECT SWITCH, HORSEPOWER RATED, FUSED
  - PLAN SPECIFIC DIMENSIONED SYMBOL, BASED ON INDUSTRY STANDARD FRAME SIZES
  - DIAGRAMAMTIC SYMBOL
- MOTOR DISCONNECT SWITCH, HORSEPOWER RATED, NON FUSED
  - PLAN SPECIFIC DIMENSIONED SYMBOL, BASED ON INDUSTRY STANDARD FRAME SIZES
  - DIAGRAMAMTIC SYMBOL
- VFD — VARIABLE FREQUENCY DRIVE, FURNISHED BY MECHANICAL, INSTALLED AND CONNECTED COMPLETE BY ELECTRICAL.

ELECTRICAL SYMBOLS LIST

- $a — LINE VOLTAGE SINGLE POLE TOGGLE SWITCH, LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED, UP 48" U.O.N.
- $2 — LINE VOLTAGE TWO POLE TOGGLE SWITCH, UP 48" U.O.N.
- $3 — LINE VOLTAGE THREE-WAY TOGGLE SWITCH, UP 48" U.O.N.
- $k — LINE VOLTAGE KEY OPERATED TOGGLE SWITCH
- $m — LINE VOLTAGE MOTOR RATED TOGGLE SWITCH INSTALLED AT EQPT SHOWN
- $ p — LINE VOLTAGE TOGGLE SWITCH WITH PILOT LIGHT, LIGHT IS ON WHEN CIRCUIT IS CLOSED, UP 48" U.O.N.
- S ab — LOW VOLTAGE MOMENTARY CONTACT SWITCH - SEE LOW VOLTAGE RELAY SCHEDULE, LOWER CASE LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED, UP 48" U.O.N.
- kS ab — LOW VOLTAGE KEYED MOMENTARY CONTACT SWITCH - SEE LOW VOLTAGE RELAY SCHEDULE, LOWER CASE LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED, UP 48" U.O.N.
- a OS b — WALL MOUNTED SWITCH TYPE INFRARED OCCUPANCY SENSOR; UP 48" U.O.N.; SINGLE OR DUAL AS NOTED BY LETTERS ADJACENT. SET TO FIXED 20 MINUTE TIME DELAY AND MAX SENSITIVITY
- a DS b — WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR; UP 48" U.O.N.; SINGLE OR DUAL AS NOTED BY LETTERS ADJACENT. SET TO FIXED 20 MINUTE TIME DELAY AND MAX SENSITIVITY
- OSD — WALL MOUNTED DIGITAL DUAL TECHNOLOGY DIMMING OCCUPANCY SENSOR SWITCH; UP 48" U.O.N.
- S a — WALL MOUNTED DIGITAL SWITCH, UP 48" U.O.N.; LOWER CASE LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED
- 2 D a,b — WALL MOUNTED SINGLE OR MULTI-ZONE DIGITAL DIMMER SWITCH, UP 48" U.O.N.; LOWER CASE LETTERS ADJACENT INDICATE RESPECTIVE ZONES TO BE SIMULTANEOUSLY MANUALLY CONTROLLED; NUMERAL DESIGNATES NUMBER OF ZONES ASSIGNED TO THE DEVICE
- CEILING MOUNTED DUAL TECHNOLOGY DIGITAL OCCUPANCY SENSOR
- WALL MOUNTED DUAL TECHNOLOGY DIGITAL OCCUPANCY SENSOR
- LOW VOLTAGE COLD TEMPERATURE PIR OCCUPANCY SENSOR
- CEILING MOUNTED LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR
- Z3,Z4 / P — SINGLE OR MULTI-ZONE SWITCHING OR DIMMING OPEN LOOP DIGITAL DAYLIGHTING SENSOR; NOTATIONS ADJACENT IDENTIFY DAYLIGHT ZONES ASSIGNED TO THE DEVICE. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN
- Z1 / P — SINGLE ZONE SWITCHING OR DIMMING CLOSED LOOP DIGITAL DAYLIGHTING SENSOR; NOTATIONS ADJACENT IDENTIFY DAYLIGHT ZONES ASSIGNED TO THE DEVICE. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN
- Z1 / P — DAYLIGHT CONTROL PHOTOCELL - BRACKET MOUNTED; NOTATIONS ADJACENT IDENTIFY DAYLIGHT ZONES ASSIGNED TO THE DEVICE. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN
- Z2 — INDICATES DAYLIGHT ZONE CONTROLLED VIA PHOTOCELL
- RC 2 — ROOM CONTROLLER; ADJACENT NUMERAL REFERS TO THE NUMBER OF ZONES TO BE CONTROLLED. VENDOR OR CONTRACTOR TO PROVIDE QUANTITY OF ROOM CONTROLLERS REQUIRED FOR THE NUMBER OF CONTROLLED ZONES.
- PC — PLUG LOAD ROOM CONTROLLER
- NB — NETWORK BRIDGE
- MBR — MASTER WIRELESS BORDER ROUTER & NB - SWITCH IN NETWORK CABINET
- BR 1 — SECONDARY WIRELESS BORDER ROUTER
- IR — ISOLATED RELAY INTERFACE
- EC — EMERGENCY LIGHTING CONTROL MODULE
- P — OCCUPANCY SENSOR POWER PACK MOUNTED IN CONCEALED ACCESSIBLE LOCATION

CALIFORNIA GREEN BUILDING STANDARDS COMPLIANCE

ALL EXTERIOR LUMINAIRES SPECIFIED IN THESE CONTRACT DOCUMENTS COMPLY WITH THE REQUIREMENTS OF THE CALIFORNIA ENERGY CODE AND THE CALIFORNIA GREEN BUILDING STANDARDS CODE, SECTION A5.106.8 LIGHT POLLUTION REDUCTION. EXTERIOR LUMINAIRES COMPLY WITH BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS AS DEFINED IN IESNA TM-15-11 AND BUG RATINGS DO NOT EXCEED THE MAXIMUM ALLOWABLE RATINGS FOR THIS PROJECT.

ELECTRICAL SYMBOLS LIST

ALL SWITCH AND CONTROL MOUNTING HEIGHTS OF 48" SHALL BE TO TOP OF THE DEVICE BOX. ALL RECEPTACLES WITH MOUNTING HEIGHT OF UP TO 18" SHALL BE NO LOWER THAN 15" TO BOTTOM OF THE DEVICE BOX, TYPICAL, U.O.N.

- LA2-42 — AREA BRANCH CIRCUIT TAG. INDICATES BRANCH CIRCUIT FOR ALL LIGHTING SHOWN IN AREA (OR ADJACENT CONNECTED AREA), U.O.N.
- AA1 — INDICATES LUMINAIRE TYPE, SEE LUMINAIRE SCHEDULE
- RECESSED 2'x2', 2'x4' OR 1'x4' LUMINAIRE, FULLY LENSED
- EM EM / E E — INDICATES EMERGENCY LUMINAIRE. SEE ABBREVIATIONS FOR TYPE OF EMERGENCY SOURCE
- SUSPENDED LINEAR LUMINAIRE
  - INDICATES AIRCRAFT CABLE SUPPORT POINT (VERIFY WITH MFGR)
  - INDICATES COMBINATION AIRCRAFT CABLE/ELECTRICAL FEED POINT (VERIFY WITH MFGR)
- SURFACE CEILING, WALL OR COVE MOUNTED LUMINAIRE
- UNDER CABINET LUMINAIRE
- SURFACE CEILING MOUNTED LUMINAIRE
- PENDANT MOUNTED LUMINAIRE
- WALL MOUNTED LUMINAIRE
- RECESSED DOWNLIGHT LUMINAIRE
- RECESSED WALLWASH LUMINAIRE
- POLE ARM-MOUNTED AREA LUMINAIRE; ARROW INDICATES DIRECTION OF LIGHT DISTRIBUTION WHEN NOT PARALLEL TO ARM ORIENTATION
- POST-TOP PEDESTRIAN-SCALE AREA LUMINAIRE; ARROW INDICATES DIRECTION OF LIGHT DISTRIBUTION
- WALL MOUNTED EXIT SIGN, ARROWS AS NOTED ON PLANS. SHADED AREA INDICATES NUMBER OF FACES

REGISTERED PROFESSIONAL ENGINEER — PIETER COLEMAN BOER — No.14738 — Exp. 6/23 — ELECTRICAL — STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

CAL FIRE SINCE 1885 — MORGAN HILL UNIT — FIRE

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

SHEET TITLE:

ELECTRICAL SYMBOLS LIST

SHEET NUMBER:

E0.2

LUMINAIRE SCHEDULE

TYPE	MOUNTING	DESCRIPTION	MANUFACTURER CATALOG NUMBER	LIGHT SOURCE	POWER SUPPLY	VOLT	INPUT WATTS	REMARKS
AM1	PENDANT	DECORATIVE PENDANT AT ISLAND WITH STEPPED SPUN AND EXTRUDED ALUMINUM SHADE AND HOUSING WITH FIELD ADJUSTABLE SINGLE CABLE SUSPENSION WITH DIRECT/INDIRECT DISTRIBUTION. 9" DIAMETER X 12" HEIGHT. WHITE INTERNAL DIFFUSER. BLACK OR WHITE CANOPY AND CORD FINISH AND BLACK, WHITE, OR CUSTOM PAINTED SHADE FINISH TO BE DETERMINED BY THE ARCHITECT.	EUREKA - STELLA 4272DI-9-LED-35-80-120V-DV-C-36-CANOPY FINISH-POWER CORD FINISH-SHADE FINISH-WH	3500K LED 80 CRI 2253 LM	0-10V DIMMING (100%-1%)	120V	29W	
AN1	RECESSED	RECESSED 2X2 LUMINAIRE WITH EXTRUDED ALUMINUM FRAME HOUSING, INJECTION MOLDED COMPOSITE END PLATES, END PLATE GRID LOCK HARDWARE, OPTICAL GRADE ACRYLIC LENS WITH WAVESTREAM REFRACTIVE OPTICS. 3 1/16" DEEP.	COOPER METALUX 22EN-LD2-34-UNV-L835-CD	3500K LED 80 CRI 3400 LM	0-10V DIMMING (100%-1%)	120V	29W	
AN2	RECESSED	SIMILAR TO TYPE AN1 EXCEPT WITH 1X4 CONFIGURATION.	COOPER METALUX 14EN-LD2-33-UNV-L835-CD	3500K LED 80 CRI 3300 LM	0-10V DIMMING (100%-1%)	120V	29W	
BA1	SURFACE	CANOPY DOWNLIGHT WITH MARINE GRADE ALUMINUM BASE PLATE, INTEGRAL HEAT SINKS WITH INTERLOCKING LENS BASE AND FOUR POINT MOUNTING HOLES AND ONE WIREWAY HOLE. FULL REFLECTOR COVER. UV STABILIZED, HIGH IMPACT RESISTANT, INJECTION MOLDED POLYCARBONATE LENS WITH CAPTIVE 'TORX' FASTENERS. HIGH IMPACT RESISTANT, INJECTION MOLDED POLYCARBONATE LENS BASE. DIE CUT CLOSED CELL EPDM GASKET AND STAINLESS FASTENERS. 15" SQUARE X 6" DEEP. STANDARD FINISH TO BE DETERMINED BY THE ARCHITECT.	KENALL MS15FL-PP-FINISH-25L35K-120	3500K LED 80 CRI 3259 LM	0-10V DIMMING (100%-1%)	120V	30W	
BB1	SURFACE	SURFACE MOUNTED SCONCE WITH CAST AND EXTRUDED ALUMINUM HOUSING CONSTRUCTION WITH FROSTED 1/8" HIGH IMPACT WHITE ACRYLIC DIFFUSER WITH CUSTOM RED LEDS. 19" H X 3" W X 4" D. POWDER COATED FINISH TO BE DETERMINED BY THE ARCHITECT.	VISA OW5524-MOD(RED LEDS)-MVOLT-FINISH	RED LED	NON-DIMMED	UNV	11W	
BC1	SURFACE	WALL MOUNTED DOWNLIGHT SCONCE WITH PRESSURE DIE CAST MARINE GRADE ALUMINUM HOUSING, SILICONE GASKETING, STAINLESS STEEL FASTENERS, AND LOW IRON GLASS LENS. IES TYPE IV OPTICAL DISTRIBUTION. PROVIDE 4" OCTAGONAL J-BOX MOUNTING PLATE. 10.5" W X 8" H X 5" D. PRE PAINT DE-GREASE AND PHOSPHATE PROCESS. POWDER COATED FINISH TO BE DETERMINED BY THE ARCHITECT.	LIGMAN ULEW-30021-28W-T4-W35-FINISH-120/277V-4MP	3500K LED 80 CRI 3200 LM	NON-DIMMED	UNV	28W	
BC2	SURFACE	SIMILAR TO TYPE BC1 EXCEPT WITH SMALLER HOUSING SIZE, TYPE III OPTICAL DISTRIBUTION, AND LOWER LUMEN OUTPUT. 8.11" W X 8" H X 5" D.	LIGMAN ULEW-30011-14W-T3-W35-FINISH-120/277V-4MP	3500K LED 80 CRI 1660 LM	NON-DIMMED	UNV	14W	
BD1	SURFACE	WALL MOUNTED UPLIGHT SCONCE WITH PRESSURE DIE CAST MARINE GRADE ALUMINUM HOUSING, SILICONE GASKETING, STAINLESS STEEL FASTENERS, AND LOW IRON FROSTED GLASS LENS. IES TYPE IV OPTICAL DISTRIBUTION. PROVIDE 4" OCTAGONAL J-BOX MOUNTING PLATE. 10.5" W X 8" H X 5" D. PRE PAINT DE-GREASE AND PHOSPHATE PROCESS. POWDER COATED FINISH TO BE DETERMINED BY THE ARCHITECT.	LIGMAN ULEW-30021-20W-T4-W35-FINISH-120/277V-4MP-F	3500K LED 80 CRI 2422 LM	NON-DIMMED	UNV	20W	
BE1	POLE MTD	POLE MOUNTED AREA LIGHT WITH DIE CAST ALUMINUM DRIVER HOUSING AND STRAIGHT ANGLED SPUN ALUMINUM ROUND SHADE. INDIVIDUAL REFRACTOR OPTICS WITH IES TYPE IV OPTICAL DISTRIBUTION. CLEAR LENS WITH BACKLIGHT SHIELD. 120MA OPERATION. 18" DIA. X 13.5" H. 16' TAPERED POLE WITH STRAIGHT BRACKET ARM AND HANG STRAIGHT ASSEMBLY MOUNTED ON 36" RAISED CONCRETE ANCHOR BASE FOR 16' OVERALL HEIGHT FROM GROUND TO BOTTOM OF LUMINAIRE. POWDER COATED FINISH TO BE DETERMINED BY THE ARCHITECT.	STERNBERG LIGHTING LUMINAIRE: 1A-GL1960-S-BFR-12L-35-T4-MDL012-CA-EZ-BLOC-TAHPM-FINISH POLE: 550T5-316-.125-RCC-FINISH	3500K LED 80 CRI 3599 LM	NON-DIMMED	UNV	39W	
BE2	POLE MTD	SIMILAR TO TYPE BE1 EXCEPT WITH IES TYPE V OPTICAL DISTRIBUTION AND WITHOUT BACKLIGHT SHIELD.	STERNBERG LIGHTING LUMINAIRE: 1A-GL1960-S-BFR-12L-35-T5-MDL012-CA-EZ-TAHPM-FINISH POLE: 550T5-316-.125-RCC-FINISH	3500K LED 80 CRI 3599 LM	NON-DIMMED	UNV	39W	
BE3	POLE MTD	SIMILAR TO TYPE BE1 EXCEPT WITH IES TYPE II OPTICAL DISTRIBUTION, LOWER LUMEN OUTPUT, 60MA OPERATION, 15' POLE HEIGHT WITH 12' OVERALL HEIGHT FROM GROUND TO BOTTOM OF LUMINAIRE, AND LIGHTLY DIFFUSED ACRYLIC LENS.	STERNBERG LIGHTING LUMINAIRE: 1A-GL1960-S-BFR-12L-35-T2-MDL006-SV1-EZ-BLOC-TAHPM-FINISH POLE: 550T5-315-.125-RCC-FINISH	3500K LED 80 CRI 2057 LM	NON-DIMMED	UNV	20W	
BF1	GROUND	WALKWAY BOLLARD WITH EXTRUDED AND DIE CAST MARINE GRADE ALUMINUM WITH IES TYPE III OPTICAL DISTRIBUTION. 2" DEEP X 4" WIDE X 39.3" OVERALL HEIGHT SHAFT WITH 2.5" X 5.7" TOP. PAINTED POLYESTER POWDER COATED FINISH TO BE DETERMINED BY THE ARCHITECT.	LIGMAN LIGHTING: UPRA-10002-8W-T3-W35-FINISH-120/277V	3500K LED 80 CRI 855 LM	NON-DIMMING	UNV	8W	
BG1	GROUND	FLUSH IN GRADE UPLIGHT WITH COMPRESSION MOLDED POLYESTER HOUSING WITH BRUSHED STAINLESS STEEL FACEPLATE, TEMPERED CLEAR BOROSILICATE GLASS LENS WITH ANTI SLIP SURFACE. TWO CONDUIT ENTRIES FOR THROUGH WIRING, INTEGRAL POWER MODULE, NARROW SPOT DISTRIBUTION WITH INTERNAL HONEYCOMB LOUVER, 360 DEGREE ROTATION, AND 15 DEGREE TILT ADJUSTMENT. 10" APERTURE, 18" L X 12" W X 12" DEEP HOUSING.	HYDREL PDX10-BSS-18LED-WHT30K-MVOLT-NSP-FLCAS-34S-IHL	3000K LED 80 CRI 1000 LM	NON-DIMMING	UNV	19W	
BH1	GROUND	LOW PROFILE LINEAR WALLWASH LUMINAIRE; ANODIZED ALUMINUM HOUSING WITH DIE CAST ENDCAPS; DOUBLE SEALED POLYCARBONATE LENS; IP66 RATED SUITABLE FOR WET LOCATIONS; STANDARD OUTPUT WITH 45° BEAM SPREAD, GLARE SHIELD, AND BLADE LOUVER. SWIVEL MOUNT WITH PERMAPOST MOUNTING OPTION. FINISH AS SELECTED BY ARCHITECT.	ORGATECH 1400-4-LS-35-U-ND-45-SW-FINISH-B-G-P	3500K LED 80 CRI 1092 LM	NON-DIMMING	UNV	14W	

LUMINAIRE SCHEDULE

TYPE	MOUNTING	DESCRIPTION	MANUFACTURER CATALOG NUMBER	LIGHT SOURCE	POWER SUPPLY	VOLT	INPUT WATTS	REMARKS
AA1	SURFACE	SURFACE MOUNTED LINEAR VANITY LUMINAIRE, 20-GAUGE STEEL HOUSING WITH SPRING FASTENED ALUMINUM END CAPS, EXTRUDED ROUND PROFILE ACRYLIC LENS, MEDIUM OUTPUT. NOM. 4' LENGTH X 2" W X 3" H. SINGLE OR DUAL GANG ELECTRICAL BOX COVER PLATE. GLOSS WHITE POLYESTER POWDER COATED FINISH.	PRUDENTIAL SNAP-PRO R1-PRO-LED35-MO-4'-WA-YGW-UNV-SUR-ND-EBCP1G/2G	3500K LED 80 CRI 2960 LM/4'	NON-DIMMED	120V	26W	
AA2	SURFACE	SIMILAR TO TYPE AA1 EXCEPT 6' LENGTH.	PRUDENTIAL SNAP-PRO R1-PRO-LED35-MO-6'-WA-YGW-UNV-SUR-ND-EBCP1G/2G	3500K LED 80 CRI 2960 LM/4'	NON-DIMMED	120V	39W	
AB1	SURFACE	4FT LED 'STRIP' LUMINAIRE WITH DIE-FORMED COLD ROLLED STEEL HOUSING, 'PAINT-AFTER-FABRICATION' WHITE FINISH, WITH CURVED, FROSTED ACRYLIC DIFFUSER, HEAVY-GAGE WIRE GUARD W/WHITE FINISH. 3.5" H X 2.75" W.	H.E. WILLIAMS 75R-4-L50-8-35-WG-75-DRV-UNV	3500K LED 80 CRI 4867 LM/4'	NON-DIMMED	120V	33W	
AB2	SURFACE	SIMILAR TO TYPE AB1 EXCEPT 2' LENGTH AND LOWER LUMEN OUTPUT.	H.E. WILLIAMS 75R-2-L15-8-35-WG-75-DRV-UNV	3500K LED 80 CRI 1458 LM	NON-DIMMED	120V	11W	
AB3	SURFACE	SIMILAR TO TYPE AB1 EXCEPT 8' LENGTH AND LOWER LUMEN OUTPUT.	H.E. WILLIAMS 75R-4-L60-8-35-WG-75-DRV-UNV	3500K LED 80 CRI 2916 LM/4'	NON-DIMMED	120V	40W	
AB4	PENDANT	SIMILAR TO TYPE AB1 EXCEPT PENDANT MOUNTED WITH AIRCRAFT CABLE SUSPENSION KIT.	H.E. WILLIAMS 75R-4-L50-8-35-WG-75-DRV-UNV ACF-D-96-ACJ-D-96	3500K LED 80 CRI 4867 LM/4'	NON-DIMMED	120V	33W	
AC1	PENDANT	PENDANT MOUNTED DIRECT/INDIRECT LINEAR LUMINAIRE WITH EXTRUDED ALUMINUM CONSTRUCTION HOUSING, WIDESPREAD UPLIGHT OPTIC, FLUSH DOWNLIGHT DIFFUSER, AND CAST ALUMINUM ENDCAPS. 50": FULLY ADJUSTABLE AIRCRAFT CABLE SUSPENSION KIT WITH HARD CEILING HARDWARE. 2.5" X 2.5" X 8' LENGTH COMPRISED OF (1) 8' MODULE. WHITE, BLACK, OR SATIN ALUMINUM POLYESTER PAINTED FINISH TO BE DETERMINED BY THE ARCHITECT.	FINELITE HP-X-P-ID-8'-B-B-835-WSO-F-120 SC-FC-1%-FA50-C4-FE-FINISH	3500K LED 80 CRI 4234 LM/4'	0-10V DIMMING (100%-1%)	120V	70W	
AD1	SURFACE	CEILING MTD DOWNLIGHT WITH SOLID ALUMINUM OUTER RING WITH INTERNAL LIGHT GUIDE AND DIFFUSING LENS. 0.75" D X 7" DIAMETER. WHITE POLYESTER POWDER COATED FINISH.	JUNO JSF-7IN-35K-90CRI-MVOLT-ZT-WH	3500K LED 80 CRI 1000 LM	NON-DIMMED	120V	13W	
AE1	SURFACE	SURFACE MOUNTED LED UNDERCABINET, 22" IN LENGTH WITH EXTRUDED ALUMINUM CONSTRUCTION HOUSING WITH OPAL WHITE ACRYLIC DIFFUSER. 1" D X 3.75" W. WHITE POLYESTER PAINTED FINISH.	JUNO UPS-22IN-30K-90CRI-WH	3000K LED 90 CRI 731 LM	NON-DIMMING	120V	11W	COORDINATE VALANCE TO CONCEAL LUMINAIRE FROM VIEW WITH CASEWORK CONTRACTOR.
AF1	SURFACE	BEDSIDE TASK LIGHT WITH ARTICULATING ALUMINUM ARMS WITH 8' CORD FOR HARDWIRED APPLICATIONS AND INTEGRAL LED DRIVER. FINGERTIP TOUCH DIMMING ON HEAD. TITANIUM, BRONZE, OR BLACK PAINTED FINISH TO BE DETERMINED BY THE ARCHITECT.	WAC LIGHTING BL-1021L/R-3000K-FINISH	3000K LED 80 CRI 315 LM	INTEGRAL DIMMER	120V	9W	COORDINATE RIGHT OR LEFT HAND ARTICULATION DEPENDING UPON WHICH SIDE OF THE BED THE LUMINAIRE IS MOUNTED.
AG1	SURFACE	36" DIA DRUM WITH ROLLED AND WELDED EXTRUDED ALUMINUM CONSTRUCTION HOUSING WITH EDGE LIT WAVE GUIDE AND SECONDARY ACRYLIC DIFFUSER. 2.5" DEEP. ROUNDED OR SOFT EDGE PROFILE TO BE DETERMINED BY THE ARCHITECT. TEXTURED MATTE, GLOSS WHITE, OR CUSTOM COLOR TO BE DETERMINED BY THE ARCHITECT.	PRUDENTIAL GAZERDS/H-36-LED35-LO-FINISH-D1-SC-UNV-SURF-X3-DM01	3500K LED 80 CRI 4162 LM	0-10V DIMMING (100%-1%)	120V	35W	
AH1	SURFACE	24" SQUARE SURFACE MOUNTED LUMINAIRE WITH ROLLED AND WELDED EXTRUDED ALUMINUM CONSTRUCTION HOUSING WITH EDGE LIT WAVE GUIDE AND SECONDARY ACRYLIC DIFFUSER. 2.5" DEEP. ROUNDED OR SOFT EDGE PROFILE TO BE DETERMINED BY THE ARCHITECT. TEXTURED MATTE, GLOSS WHITE, OR CUSTOM COLOR TO BE DETERMINED BY THE ARCHITECT.	PRUDENTIAL GAZE-SQS/H-24-LED35-MO-FINISH-D1-SC-UNV-SURF-X3-DM01	3500K LED 80 CRI 4059 LM	0-10V DIMMING (100%-1%)	120V	35W	
AH1E	SURFACE	SIMILAR TO TYPE AH1 EXCEPT WITH INTEGRAL 800 LUMEN EMERGENCY BATTERY PACK.	PRUDENTIAL GAZE-SQS/H-24-LED35-MO-FINISH-D1-SC-UNV-SURF-X3-DM01-EMHE	3500K LED 80 CRI 4059 LM	0-10V DIMMING (100%-1%) + EM EMERGENCY BATTERY	120V	35W	
AJ1	SURFACE	4' WET LOCATION LUMINAIRE WITH MARINE GRADE EXTRUDED ALUMINUM CONSTRUCTION HOUSING WITH CAST ALUMINUM END CAPS. LINEAR RIBBED WHITE POLYCARBONATE LENS WITH INTERNAL SPECULAR ALUMINUM REFLECTOR. WHITE POWDER COATED FINISH AND EPDM GASKETING. 6.5" W X 4" D.	NEWSTAR VIC-4-N-L1-35-1C-RW-12-WH	3500K LED 80 CRI 2700 LM/4'	NON-DIMMED	120V	25W	
AJ2	SURFACE	SIMILAR TO TYPE AJ1 EXCEPT 8' LENGTH.	NEWSTAR VIC-4-N-L1-35-1C-RW-12-WH-TM	3500K LED 80 CRI 2700 LM/4'	NON-DIMMED	120V	50W	
AJ3	SURFACE	SIMILAR TO TYPE AJ1 EXCEPT 2' LENGTH.	NEWSTAR VIC-2-N-L1-35-1C-RW-12-WH	3500K LED 80 CRI 2700 LM/4'	NON-DIMMED	120V	13W	
AK1	SURFACE	8FT LED 'STRIP' LUMINAIRE WITH DIE-FORMED COLD ROLLED STEEL HOUSING, 'PAINT-AFTER-FABRICATION' WHITE FINISH, WITH CURVED, FROSTED ACRYLIC DIFFUSER, HEAVY-GAGE WIRE GUARD W/WHITE FINISH. 3.5" H X 2.75" W.	H.E. WILLIAMS 75R-8-L100-8-35-WG-75-DRV-UNV	3500K LED 80 CRI 4867 LM/4'	NON-DIMMED	120V	66W	CONTINUOUS ROW MOUNTED TO UNISTRUT CHANNEL IN LENGTHS AND CONFIGURATIONS INDICATED ON THE PLANS. WALL MOUNTED ON CUSTOM BRACKET ARMS.
AK2	PENDANT	8FT LED 'STRIP' LUMINAIRE WITH DIE-FORMED COLD ROLLED STEEL HOUSING, 'PAINT-AFTER-FABRICATION' WHITE FINISH, WITH CURVED, FROSTED ACRYLIC DIFFUSER, HEAVY-GAGE WIRE GUARD W/WHITE FINISH. 3.5" H X 2.75" W. PROVIDE AIRCRAFT CABLE SUSPENSION KITS AT 48" ON CENTER.	H.E. WILLIAMS 75R-8-L100-8-35-WG-75-DRV-UNV-ACF/ACJ-D-48-5-8D-W	3500K LED 80 CRI 4867 LM/4'	NON-DIMMED	120V	66W	CONTINUOUS ROW MOUNTED TO UNISTRUT CHANNEL IN LENGTHS AND CONFIGURATIONS INDICATED ON THE PLANS. SUSPENDED WITH STAINLESS STEEL AIRCRAFT CABLE.
AL1	RECESSED	RECESSED DOWNLIGHT WITH FORMED STEEL CONSTRUCTION HOUSING, 4" DIAMETER SELF FLANGED 'COMFORT CLEAR' ALUMINUM REFLECTOR. WIDE 'BATWING' DISTRIBUTION. 2" MAX. CEILING THICKNESS.	LIGHTOLIER FRAME: 4R-N ENGINE: C4L-20-8-35-W-Z10-U TRIM: C4-R-DL-CC-P	3500K LED 80 CRI 2000 LM	0-10V DIMMING (100%-1%)	120V	19W	
AL2	RECESSED	SIMILAR TO TYPE AL1 EXCEPT WITH WALLWASH DISTRIBUTION AND LOWER LUMEN OUTPUT.	LIGHTOLIER FRAME: 4R-N ENGINE: C4L-15-8-35-W-Z10-U TRIM: C4-R-WW-CC-P	3500K LED 80 CRI 1500 LM	0-10V DIMMING (100%-1%)	120V	14W	
AL3	RECESSED	SIMILAR TO TYPE AL1 EXCEPT WITH DECORATIVE GLASS CYLINDRICAL TRIM. 6" TRIM COLLAR WITH 4" DIAMETER X 2" HIGH GLASS CYLINDER.	LIGHTOLIER FRAME: 4R-N ENGINE: C4L-20-8-35-W-Z10-U TRIM: C4-R-DL-CC-D4A04	3500K LED 80 CRI 2000 LM	0-10V DIMMING (100%-1%)	120V	19W	

REGISTERED PROFESSIONAL ENGINEER
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

SHEET TITLE:

LUMINAIRE SCHEDULE

SHEET NUMBER:

E0.3

LUMINAIRE SCHEDULE

TYPE	MOUNTING	DESCRIPTION	MANUFACTURER CATALOG NUMBER	LIGHT SOURCE	POWER SUPPLY	VOLT	INPUT WATTS	REMARKS
EX1	SURFACE	SURFACE WALL MOUNTED. 5/8" PRESSURE DIE CAST ALUMINUM SINGLE FACE EXIT SIGN. AVAILABLE IN FINE GRAIN BRUSHED ALUMINUM. 3MM REFRACTIVE LIGHT GUIDE, LIGHT ENGINE, PHOTOLUMINESCENT PANEL, HOUSED IN A SINGLE INJECTION-MOLDED FRAME ASSEMBLY. NO EXPOSED FASTENERS. REMOVEABLE FACE WITH FIELD SELECTABLE CHEVRON DIRECTIONAL INDICATORS. 25-YEAR SERVICE LIFE. PROVIDE ALL MOUNTING ACCESSORIES, PARTS, STENCIL FACES, KNOCK-OUT DIRECTIONAL ARROW INDICATORS, ETC., AS REQUIRED FOR EXIT SIGNS THAT FULLY CONFORM TO THE CONFIGURATIONS AS INDICATED ON THE LIGHTING PLANS. STANDARD FACTORY FRAME COLOR TO BE DETERMINED BY THE ARCHITECT.	EVENLITE AUR-1-BODY COLOR-1B	N/A	N/A	120V	2W	
EX2	SURFACE	SIMILAR TO TYPE EX1 EXCEPT CEILING MOUNTED.	EVENLITE AUR-1-BODY COLOR-CN	N/A	N/A	120V	2W	

END OF LUMINAIRE SCHEDULE

REGISTERED PROFESSIONAL ENGINEER
PAUL COLEMAN
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

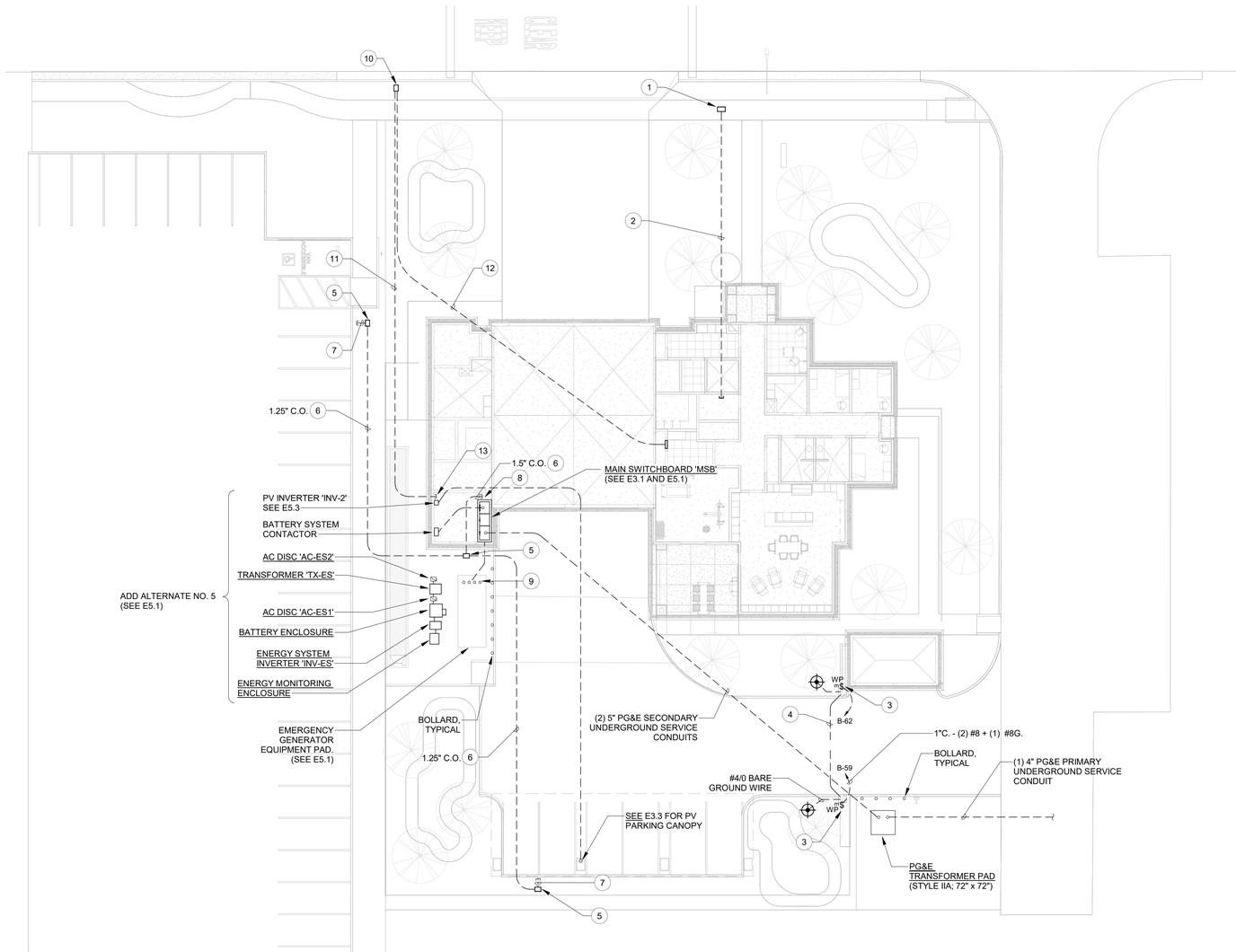
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
LUMINAIRE SCHEDULE

SHEET NUMBER:
E0.4



1 SITE PLAN - ELECTRICAL
1/16" = 1'-0"

SHEET NUMBERED NOTES

1 PROVIDE FLUSH IN-GRADE BROADBAND UTILITY PULLBOX WITH STEEL LID, LABELED PER UTILITY PROVIDER REQUIREMENTS. VERIFY PULLBOX SPEC WITH UTILITY PRIOR TO ROUGH-IN. COORDINATE EXACT LOCATION WITH UTILITY COMPANY AND OTHER TRADES PRIOR TO ROUGH-IN. ORIENT PARALLEL AND PERPENDICULAR TO SITE LINES.

2 PROVIDE (2) 2" UNDERGROUND SCHEDULE 40 PVC RACEWAYS FOR BROADBAND UTILITY SERVICE FIBER CABLING. STUB UP IN COMM 115, ADJACENT TO TELECOM BACKBOARD.

3 PROVIDE POWER CONNECTION AND WEATHERPROOF MOTOR RATED DISCONNECT SWITCH FOR MOTORIZED GATE. COORDINATE EXACT SWITCH LOCATION WITH GATE INSTALLER. HOMERUN CIRCUIT INDICATED TO ELEC 127 USING 1" UNDERGROUND SCHEDULE 40 PVC RACEWAY.

4 PROVIDE 3/4" UNDERGROUND SCHEDULE 40 PVC RACEWAY FOR GATE CONTROL WIRING. CONTROL WIRING TO BE PROVIDED AND INSTALLED BY GATE INSTALLER. COORDINATE LOCATION AND CONDUIT TERMINATIONS WITH GATE INSTALLER.

5 PROVIDE FLUSH IN-GRADE PULLBOX, CHRISTY N9 OR EQUAL, WITH CONCRETE LID LABELED "POWER", FOR FUTURE EV CHARGER WIRING. COORDINATE EXACT LOCATION WITH ARCHITECT. SEE 2/E7.1.

6 PROVIDE UNDERGROUND SCHEDULE 40 PVC RACEWAY OF INDICATED SIZE FOR FUTURE EV CHARGER WIRING. SEE 1/E-7.1.

7 PROVIDE (2) 1" UNDERGROUND SCHEDULE 40 PVC RACEWAYS FOR FUTURE EV CHARGER WIRING. STUB, CAP AND MARK ADJACENT TO PARKING LOT, PER 5/E7.3.

8 STUB UP UNDERGROUND RACEWAY AND CAP IN ELEC 127 ADJACENT TO MAIN SWITCHBOARD. SEE 6/E-7.3.

9 VERIFY GENERATOR FEEDER, JACKET HEATER, BATTERY CHARGER, AND ATS CONTROL CONDUIT STUB-UP LOCATIONS WITH GENERATOR EQUIPMENT, PRIOR TO ROUGH-IN.

10 PROVIDE FLUSH IN-GRADE PULLBOX, CHRISTY N9 OR EQUAL, WITH CONCRETE LID LABELED "TRAFFIC CONTROL", FOR FUTURE TRAFFIC WARNING LIGHTS WIRING. COORDINATE EXACT LOCATION WITH ARCHITECT. SEE 2/E7.1.

11 PROVIDE 1" UNDERGROUND SCHEDULE 40 PVC RACEWAY FOR FUTURE TRAFFIC WARNING LIGHTS POWER WIRING. SEE1/E7.1.

12 PROVIDE 1" UNDERGROUND SCHEDULE 40 PVC RACEWAY FOR FUTURE TRAFFIC WARNING LIGHTS CONTROL WIRING. STUB UP AND CONNECT TO MASTER APP BAY DOOR CONTROL PANEL. SEE E3.1 AND 1/E7.1.

13 STUB UP UNDERGROUND RACEWAY AND CAP IN ELEC 127, FOR FUTURE EXTENSION TO TRAFFIC SIGNAL POWER SOURCE. SEE 6/E-7.3.

REGISTERED PROFESSIONAL ENGINEER
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

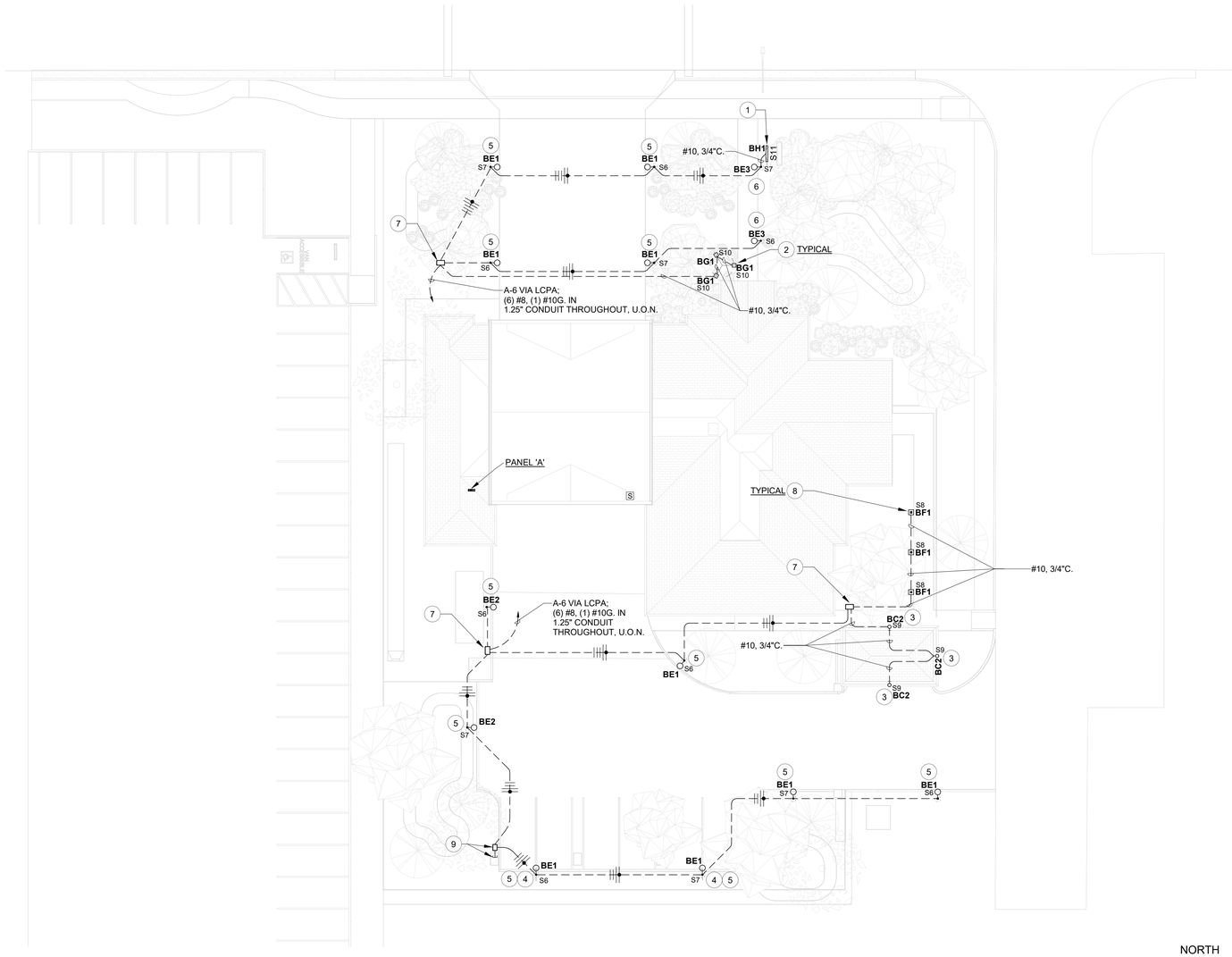
NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
SITE PLAN - ELECTRICAL

SHEET NUMBER:
E1.1

MORGAN HILL BUTTERFIELD FIRESTATION - 222057 | R23



1 SITE PLAN - LIGHTING
1/16" = 1'-0"

NORTH

SHEET NUMBERED NOTES

1 MONUMENT SIGN LIGHTER.
2 IN GRADE FLAGPOLE UPLIGHTS. SEE DETAIL 9/E7.1.
3 WALL MOUNTED AT 6'-9" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
4 PROVIDE AND INSTALL LUMINAIRE IF ADDITIVE ALTERNATE FOR PV CANOPY IS NOT ACCEPTED.
5 SEE DETAIL 6/E7.2.
6 SEE DETAIL 7/E7.2.
7 PROVIDE FLUSH IN-GRADE PULLBOX WITH CONCRETE LID LABELED "LIGHTING". SIZE PULLBOX PER NEC.
8 SEE DETAIL 1/E7.3.
9 STUB OUT 1" CONDUIT WITH PULL ROPE FOR ADD-ALTERNATE CANOPY LIGHTING.

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

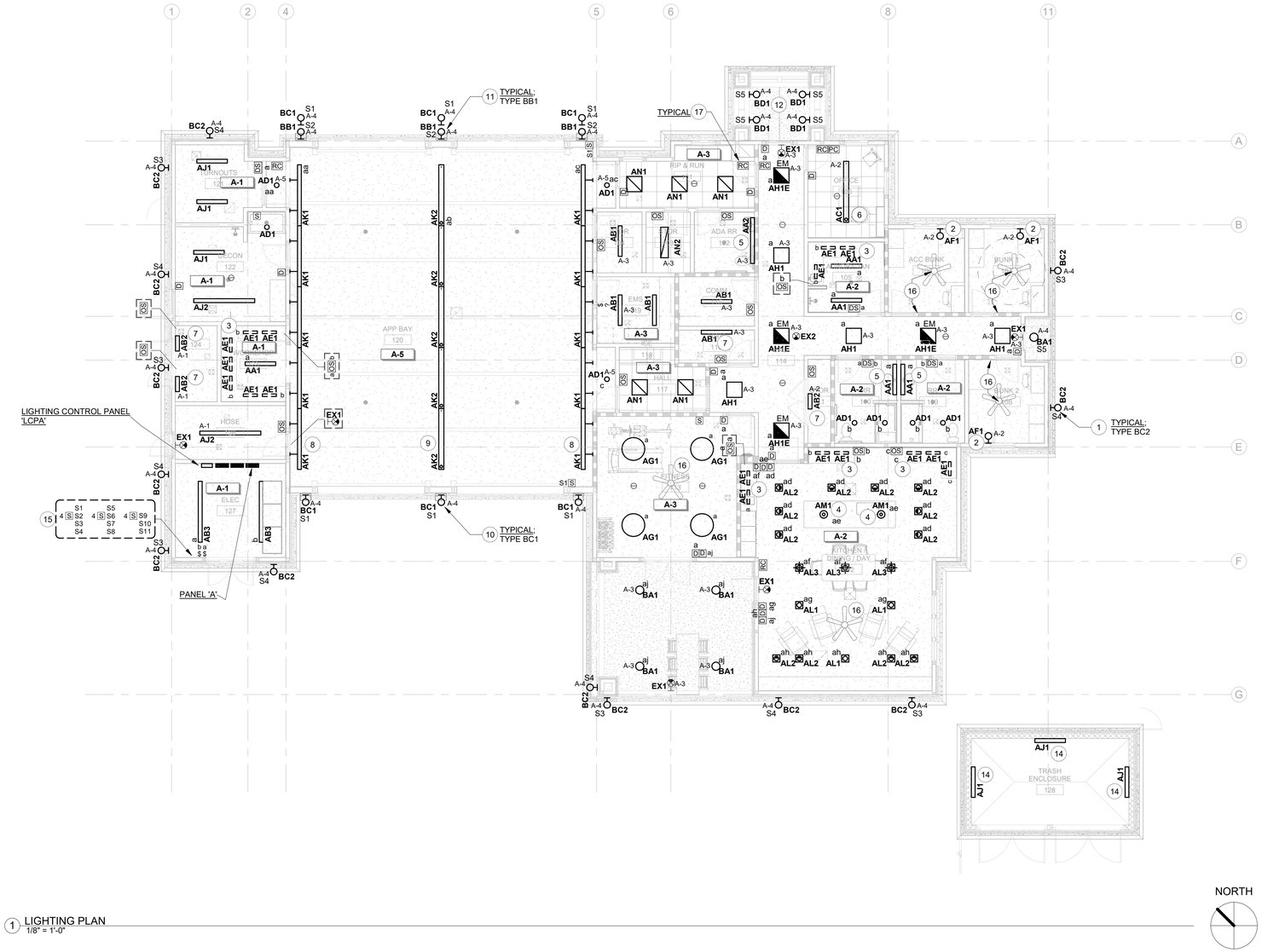
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER: 211101

SHEET TITLE: SITE PLAN - LIGHTING

SHEET NUMBER: E1.2



1 LIGHTING PLAN
1/8" = 1'-0"

SHEET NUMBERED NOTES

1 WALL MOUNTED AT 8'-0" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
2 BEDSIDE TASK LIGHT. VERIFY EXACT MOUNTING LOCATION WITH THE ARCHITECT.
3 UNDERCABINET LIGHT. SEE DETAIL 10/E7.1.
4 PENDANT MOUNTED AT 7'-0" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
5 WALL MOUNTED AT 8'-0" A.F.F. TO THE CENTERLINE OF THE LUMINAIRE.
6 PENDANT MOUNTED AT 7'-6" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
7 WALL MOUNTED AT 8'-3" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
8 WALL MOUNTED AT 15'-0" A.F.F. TO THE BOTTOM OF THE LUMINAIRE. SEE DETAIL 3/E7.3.
9 PENDANT MOUNTED AT 15'-0" A.F.F. TO THE BOTTOM OF THE LUMINAIRE. SEE DETAIL 2/E7.3.
10 WALL MOUNTED AT 14'-0" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
11 WALL MOUNTED AT 7'-0" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
12 WALL MOUNTED UPLIGHT AT 8'-0" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
14 WALL MOUNTED AT 7'-6" A.F.F. TO THE CENTERLINE OF THE LUMINAIRE.
15 EXTERIOR LIGHTING OVERRIDE SWITCHES. LABEL BUTTONS AS FOLLOWS:

S1: APP BAY
S2: APP RED LT
S3: WALL SCONCE
S4: WALL SCONCE
S5: ENTRY UPLT.
S6: POLE LT.
S7: POLE LT.
S8: BOLLARD
S9: SCONCE TRASH
S10: FLAG POLE
S11: SIGN

VERIFY EXACT PROGRAMMING WITH OWNER.

16 FAN AND FAN LIGHT CONTROLS BY OTHERS. COORDINATE EXACT WALL LOCATION WITH ARCHITECT.
17 IN ROOMS WITH HARD-LID CEILING, MOUNT ROOM CONTROLLERS ON WALL 7'-0" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECT.

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PROJECT:

CITY OF MORGAN HILL

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Morgan Hill, CA 95037

DESCRIPTION:	DATE:
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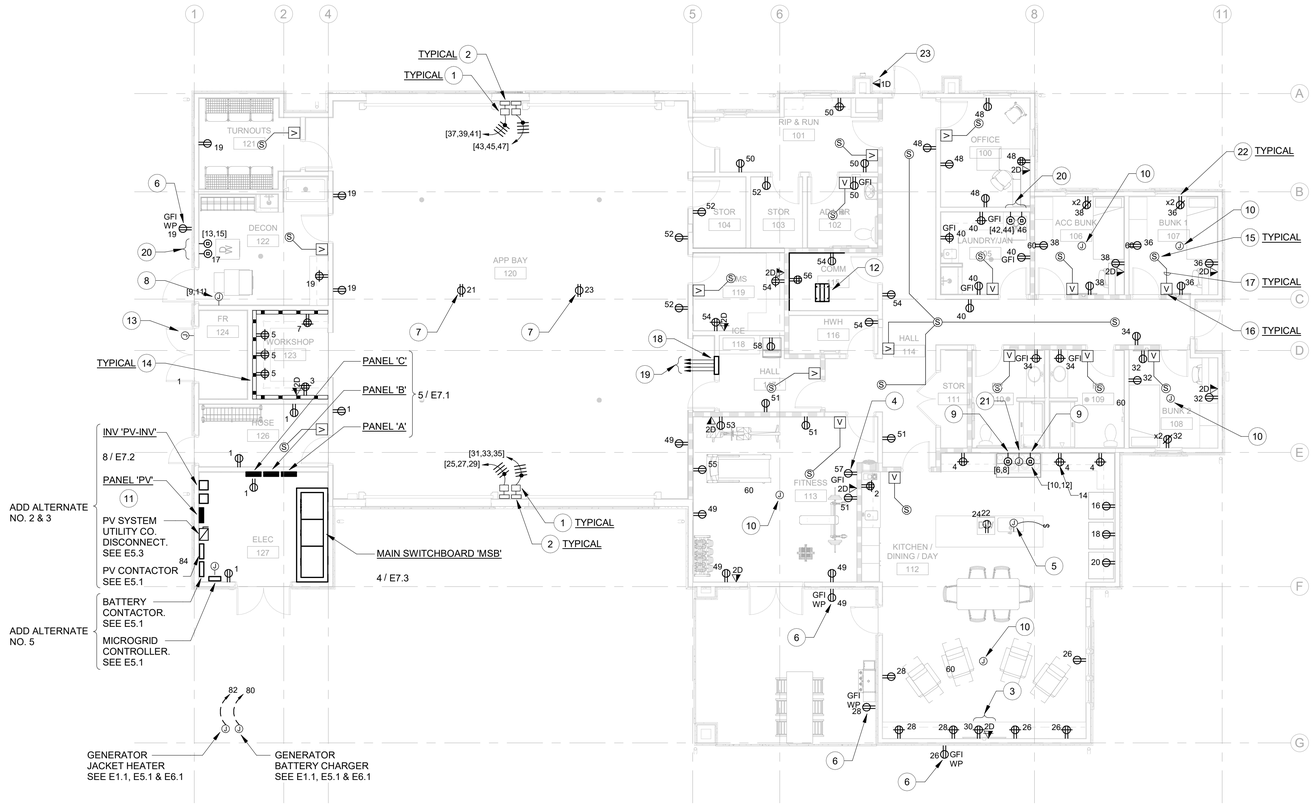
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
FLOOR PLAN - LIGHTING

SHEET NUMBER:
E2.1



1 FLOOR PLAN - POWER & SIGNA
1/8" = 1'-0"

SHEET NUMBERED NOTES

1. COILING DOOR CONTROL PANEL/DISCONNECT SWITCH, FLUSH MOUNTED HIGH ON WALL. ROUTE CIRCUITRY SHOWN THROUGH PANEL/SWITCH AND CONNECT COMPLETE TO DOOR MOTOR. SEE 2/E5.1.
2. PROVIDE 3-PHASE, 208V-240V BUCK-BOOST XFMR FOR COILED APP BAY DOOR MOTOR. MOTOR REQUIRES 240V MINIMUM. WALL MOUNT ADJACENT TO MOTOR. SEE 2/E5.1.
3. FLUSH WALL MOUNTED AV/POWER BOX ASSEMBLY (BEHIND FLAT PANEL DISPLAY). HUBBELL NET SELECT FPTV 2-GANG BOX #NSAV62M, OR EQUAL, WITH DUPLEX RECEPTACLE AND (2) DATA JACKS. VERIFY MOUNTING HEIGHT AND LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. SEE ARCHITECTURAL ELEVATION DRAWINGS.
4. PROVIDE GFI RECEPTACLE FOR BOTTLE FILLER. COORDINATE EXACT MOUNTING HEIGHT WITH BOTTLE FILLER INSTALLER.
5. PROVIDE POWER CONNECTION FOR UNDER COUNTER GARBAGE DISPOSAL. RUN CIRCUIT THROUGH TOGGLE SWITCH FLUSH MOUNTED TO SIDE OF CABINETRY, AS SHOWN. COORDINATE SWITCH LOCATION WITH CABINETRY MANUFACTURER AND INSTALLER, TO AVOID CONFLICTS WITHIN CABINETRY.
6. PROVIDE FLUSH WALL MOUNTED WEATHERPROOF COVER WITH LOCKING LATCH, PASS & SEYMOUR 4600 SERIES, OR EQUAL. REQUIRES SPECIAL ROUGH-IN.
7. CEILING MOUNTED RECEPTACLE FOR CORD DROP POWER REEL. PROVIDE MOTORIZED CORD REEL ATTACHED TO STRUCTURE ABOVE USING FACTORY CEILING MOUNT, WITHIN 12" OF CEILING RECEPTACLE. CORD REEL SHALL BE RATED 15 AMPS, 120 VOLTS WITH 40 FOOT LONG 12/3 CORD AND THREE SINGLE NEMA 5-15R RECEPTACLES AT END OF CORD. PROVIDE CEILING MOUNTED HUBBELL MODEL HBLC40123TT. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. SEE 7/E7.1.
8. PROVIDE POWER CONNECTION FOR WASHER-EXTRACTOR. COORDINATE EXACT LOCATION WITH ARCHITECT.
9. PROVIDE NEMA 14-50R RECEPTACLE FOR COMBINATION OVEN/RANGE. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
10. PROVIDE POWER CONNECTION IN CEILING FOR SURFACE MOUNTED CEILING FAN. COORDINATE EXACT LOCATION WITH ARCHITECT. CONNECT COMPLETE.
11. PV AC COLLECTOR PANEL. SEE 1/E-5.4.
12. PROVIDE FLOOR MOUNTED 2-POST RACK, CHATSWORTH MODEL #55053-703, OR EQUAL. COORDINATE EXACT LOCATION WITH CITY IT STAFF.
13. PROVIDE POWER CONNECTION FOR FIRE SPRINKLER ALARM BELL AND WATER FLOW ALARM SWITCH. COORDINATE EXACT LOCATION WITH DIVISION 21.
14. PROVIDE 4000 SERIES WIREMOLD RACEWAY, MOUNTED ABOVE COUNTER, WITH SEPARATE CHANELS FOR LINE AND LOW VOLTAGE WIRING AND DEVICES. INCLUDE ALL REQUIRED FITTINGS, COVERS AND BLANK PLATES.
15. PROVIDE SPEAKER, FLUSH IN CEILING, FOR RING DOWN ALERT SYSTEM. SEE 3/E5.2 FOR RING DOWN ALERT SYSTEM DIAGRAM.
16. PROVIDE SOUND ATTENUATOR FOR ROOM RINGDOWN ALERT SYSTEM SPEAKER. MOUNT FLUSH IN WALL ADJACENT TO ROOM LIGHTING CONTROL SWITCH. SEE 3/E5.2 FOR RING DOWN ALERT SYSTEM DIAGRAM.
17. PROVIDE 1/2" CONDUIT FROM BOX TO CEILING SPEAKER, AS SHOWN, FOR VOLUME CONTROL SWITCH AND CONTROL WIRING, BY RING DOWN SYSTEM VENDOR. SEE 3/E5.2 FOR RING DOWN ALERT SYSTEM DIAGRAM.
18. RECESSED NEMA 1 ENCLOSURE FOR MASTER APP BAY DOOR CONTROLS, PROVIDED BY DOOR CONTRACTOR, INSTALLED BY ELECTRICAL.
19. 3/4" CONDUITS, (1) PER APP BAY DOOR, FOR MASTER DOOR CONTROL WIRING. ROUTE CONCEALED IN WALLS AND CEILING TO WALL MOUNTED DOOR CONTROLLER FOR EACH DOOR. CONTROL WIRING TO BE INSTALLED BY DOOR CONTRACTOR. SEE 2/E5.1.
20. PROVIDE (2) RECEPTACLES FOR COMBO WASHER/DRYER UNIT. COORDINATE RECEPTACLE NEMA TYPE REQUIRED WITH WASHER/DRYER MANUFACTURER. MOUNT AT +48" AFF ON CENTER.
21. PROVIDE POWER CONNECTION FOR RANGE HOOD. COORDINATE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT.
22. PROVIDE COMBINATION DUPLEX POWER-USB OUTLET RECEPTACLE IN WALL PHONE CHARGING NICHE. SEE ARCHITECTURAL INTERIOR ELEVATIONS AND A2/A7.4. TEXT INDICATES QUANTITY OF USB OUTLETS PER RECEPTACLE.
23. PROVIDE DATA OUTLET FOR STATION 911 TELEPHONE. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH TELEPHONE INSTALLER.

GENERAL SHEET NOTES

1. ALL BRANCH CIRCUITRY SHOWN ON THIS PLAN SHALL HOMERUN TO PANEL 'B', U.O.N.

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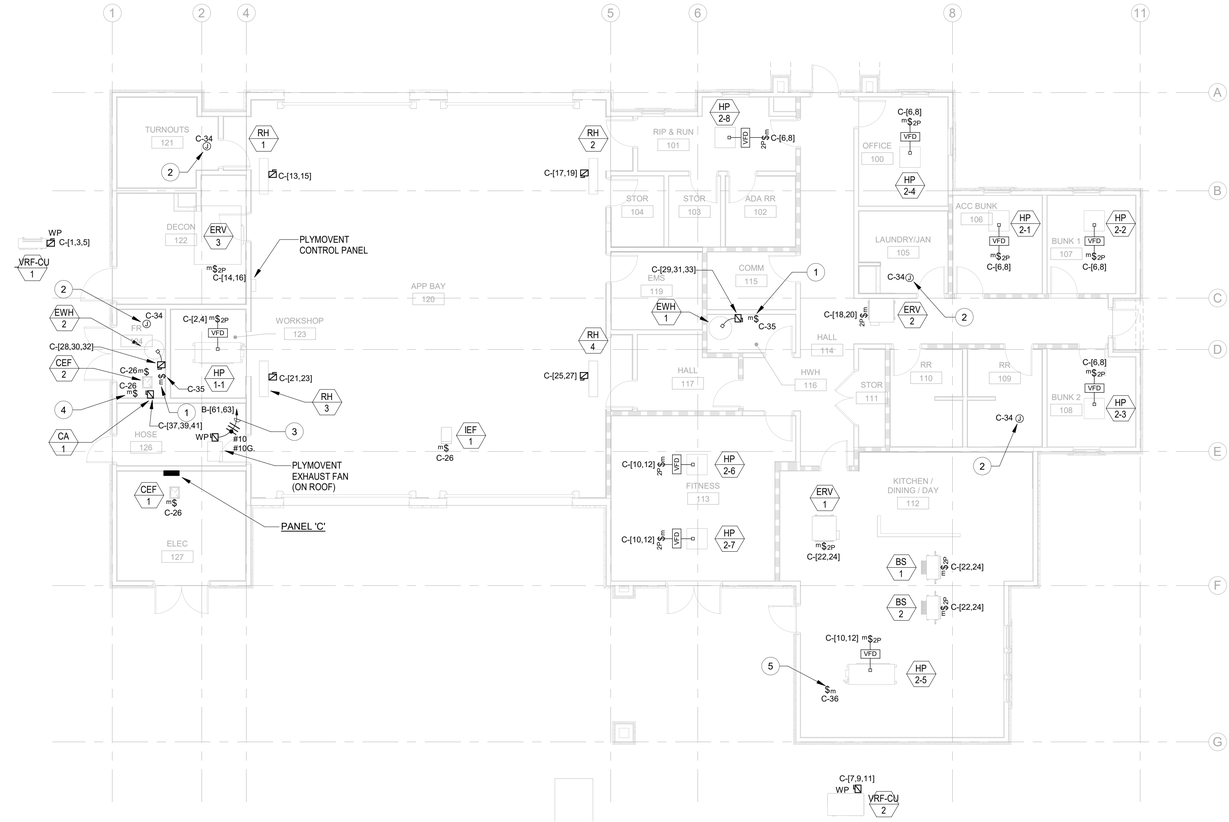
PROJECT NUMBER:
211101

SHEET TITLE:
FLOOR PLAN - POWER & SIGNAL

SHEET NUMBER:
E3.1

MECHANICAL EQUIPMENT FEEDER SCHEDULE

TYPE	NUMBER	VOLTAGE	POLES	MCA	kVA	MOCP	WIRE & CONDUIT	PANEL	CKT #
BS	1	208 V	2	0.09 A	0.02 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	22,24
BS	2	208 V	2	0.09 A	0.02 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	22,24
CA	1	208 V	3	26.6 A	9.58 kVA	35	(3) #10 + (1) #10G. IN 3/4" C.	C	37,39,41
CEF	1	120 V	1	0.304 A	0.04 kVA	15	(2) #12 + (1) #12G. IN 3/4" C.	C	26
CEF	2	120 V	1	0.304 A	0.04 kVA	15	(2) #12 + (1) #12G. IN 3/4" C.	C	26
ERV	1	208 V	2	6.88 A	1.14 kVA	15	(2) #12 + (1) #12G. IN 3/4" C.	C	22,24
ERV	2	208 V	2	6.88 A	1.14 kVA	15	(2) #12 + (1) #12G. IN 3/4" C.	C	18,20
ERV	3	208 V	2	6.82 A	1.13 kVA	10	(2) #12 + (1) #12G. IN 3/4" C.	C	14,16
EWH	1	208 V	3	50 A	18.01 kVA	60	(3) #4 + (1) #10G. IN 1" C.	C	29,31,33
EWH	2	208 V	3	33.3 A	12.00 kVA	40	(3) #8 + (1) #10G. IN 3/4" C.	C	28,30,32
HP	1-1	208 V	2	3.1 A	0.52 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	2,4
HP	2-1	208 V	2	0.25 A	0.04 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	6,8
HP	2-2	208 V	2	0.25 A	0.04 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	6,8
HP	2-3	208 V	2	0.25 A	0.04 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	6,8
HP	2-4	208 V	2	0.25 A	0.04 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	6,8
HP	2-5	208 V	2	5.2 A	0.87 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	10,12
HP	2-6	208 V	2	0.25 A	0.04 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	10,12
HP	2-7	208 V	2	0.25 A	0.04 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	10,12
HP	2-8	208 V	2	0.25 A	0.04 kVA		(2) #12 + (1) #12G. IN 3/4" C.	C	6,8
IEF	1	120 V	1	0.86 A	0.10 kVA	15	(2) #12 + (1) #12G. IN 3/4" C.	C	26
PLY	EF	208 V	2	16 A	3.33 kVA	20	(2) #10 + (1) #10G. IN 3/4" C.	B	61,63
RH	1	208 V	2	29.5 A	6.14 kVA	35	(2) #10 + (1) #10G. IN 3/4" C.	C	13,15
RH	2	208 V	2	29.5 A	6.14 kVA	35	(2) #10 + (1) #10G. IN 3/4" C.	C	17,19
RH	3	208 V	2	29.5 A	6.14 kVA	35	(2) #10 + (1) #10G. IN 3/4" C.	C	21,23
RH	4	208 V	2	29.5 A	6.14 kVA	35	(2) #10 + (1) #10G. IN 3/4" C.	C	25,27
VRV-HP	1	208 V	3	24 A	6.92 kVA	40	(3) #10 + (1) #10G. IN 3/4" C.	C	1,3,5
VRV-HP	2	208 V	3	30.9 A	8.91 kVA	40	(3) #10 + (1) #10G. IN 3/4" C.	C	7,9,11



NORTH

1 FLOOR PLAN - MECHANICAL POWER
1/8" = 1'-0"

SHEET NUMBERED NOTES

1 PROVIDE POWER CONNECTION AND 1-POLE MOTOR RATED SWITCH FOR WATER HEATER CIRCULATION PUMP. COORDINATE EXACT LOCATION WITH DIVISION 22.

2 PROVIDE POWER CONNECTION FOR TRAP PRIMER IN FLOOR. COORDINATE EXACT LOCATION WITH DIVISION 22.

3 HOMERUN TO CIRCUIT INDICATED VIA PLYMOVENT CONTROL PANEL, MOUNTED TO WEST APP BAY WALL. COORDINATE PANEL LOCATION WITH ARCHITECT.

4 PROVIDE POWER CONNECTION AND MOTOR RATED DISCONNECT SWITCH FOR REFRIGERANT DRYER, ADJACENT TO AIR COMPRESSOR. COORDINATE EXACT LOCATION WITH DIVISION 22.

5 PROVIDE MOTOR RATED SWITCH AND POWER CONNECTION FOR MOTORIZED DAMPER. COORDINATE EXACT LOCATION WITH DIVISION 23.

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

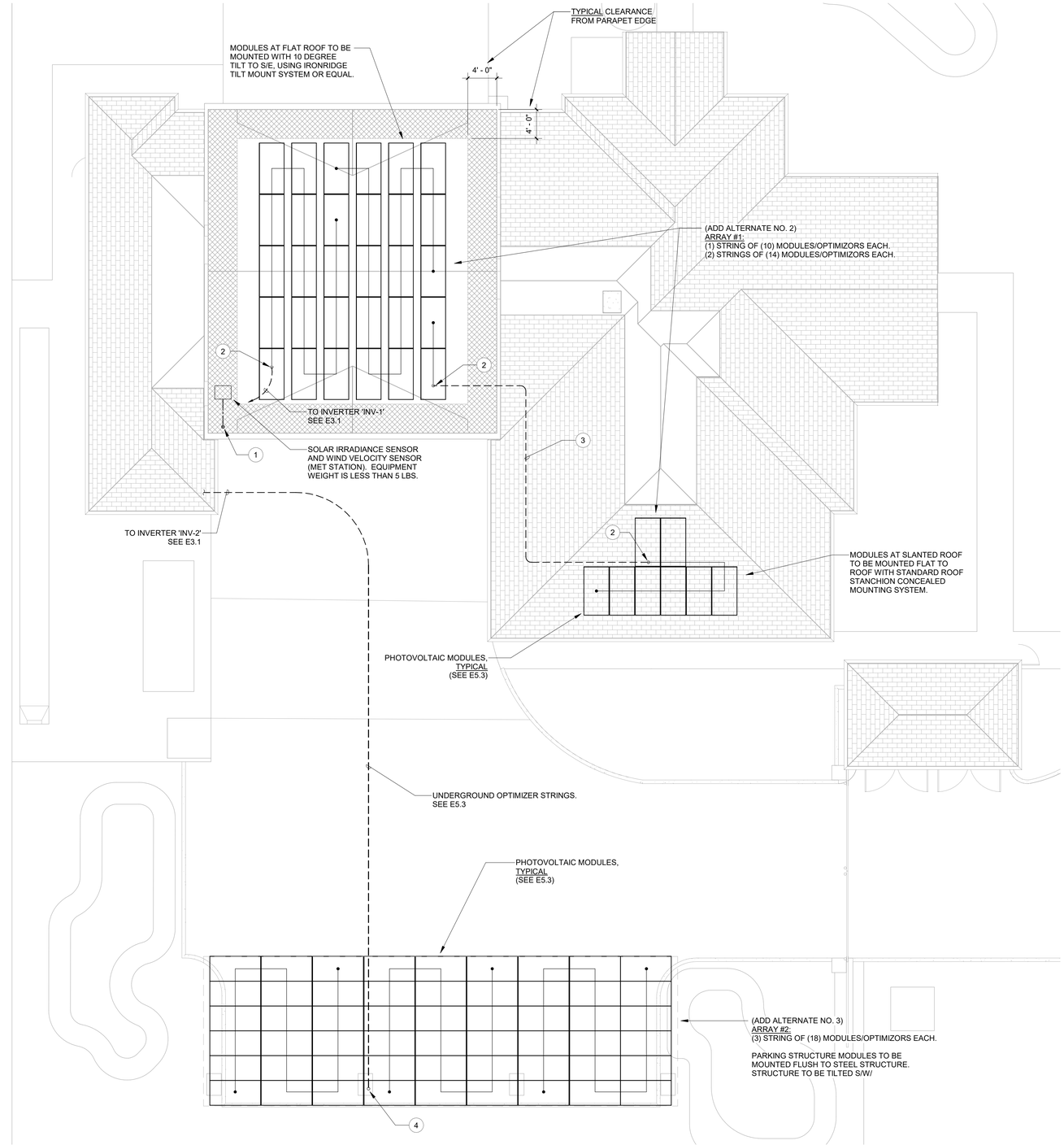
SHEET TITLE:

FLOOR PLAN - MECHANICAL POWER

SHEET NUMBER:

E3.2

MORGAN HILL BUTTERFIELD FIRESTATION - 222057 R23



1 ROOF PLAN - PHOTOVOLTAIC
1/8" = 1'-0"

SHEET NUMBERED NOTES

1 CONDUIT PENETRATION TO APP BAY BELOW. CONTINUE TO ELEC ROOM 127.
2 PROVIDE WEATHER-TIGHT PENETRATION TO ATTIC BELOW.
3 STRING ROUTED CONCEALED UNDER ROOF, IN ATTIC, IN 3/4"C. LABELED "SOLAR CIRCUIT".
4 RUN UP INSIDE STRUCTURAL COLUMN AND PIER.

PV SYSTEM SUMMARY

PV MODULE:	CANADIAN SOLAR BIHIKU CS3W-445
WATTS/MODULE:	445 W
QUANTITY:	92
PV INVERTER:	SOLAR EDGE SE17.3KUS EACH
INVERTER kW:	17.3 EACH
CEC EFFECIENCY:	97.5%
QUANTITY:	(2)
TOTAL DC RATING:	40940 W
CEC RATING:	39000 W

MOUNTING & STRUCTURE:
MODULES SHALL BE MOUNTED IN CONFIGURATIONS SHOWN ON ROOF PLAN. ATTACH MODULES TO STRUCTURE AS DEPICTED ON ARCHITECTURAL AND STRUCTURAL DRAWINGS.

CALCULATIONS:
PROVIDE ALL STRUCTURAL AND WIND LOADING CALCULATIONS REQUIRED.

GENERAL NOTES

A. ALL STRING/OPTIMIZER WIRING SHALL BE NEATLY ARRANGED ALONG UNDERSIDE OF MODULES UTILIZING APPROPRIATE STRING MANAGEMENT HARDWARE, MATCHING THE RACKING SYSTEM.

B. ALL ROOF MOUNT CONDUIT SHALL BE SET ON DURA-BLOC (OR EQUAL) ROOFTOP SUPPORTS WITH MINIMUM 3-1/2" DISTANCE FROM BOTTOM OF CONDUIT TO TOP OF ROOF SURFACE. WHERE STUBS ARE SHOWN; STUB OUT BENEATH MODULES WITH A MINIMUM 5" GOOSENECK IN DOWNWARD DIRECTION TO MITIGATE WATER ENTRY.

C. CONTRACTOR SHALL DEVELOP STRINGING PLAN WITH STRINGS SEPARATED IN QUANTITIES SHOWN ON DIAGRAM. PROVIDE ALL CONDUIT JUMPERS REQUIRED TO ACCOMMODATE CONSTRUCTED STRING PLAN.

D. ALL SOLAR CIRCUITS FOR ROOF ARRAY TO BE RUN CONCEALED. NO VISIBLE EMT OR RGS ON ROOF, EXCEPT AS REQUIRED AND NOT VISIBLE FROM BELOW.

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PROJECT NUMBER:
211101

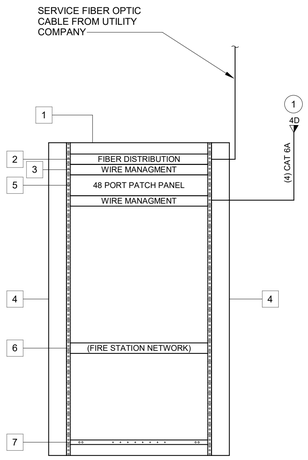
SHEET TITLE:
ROOF PLAN - PHOTOVOLTAIC

SHEET NUMBER:
E3.3

MORGAN HILL BUTTERFIELD FIRESTATION - 222057 R23

DETAIL NUMBERED NOTES

1. PROVIDE CATEGORY 6A DATA CABLING IN QUANTITIES SHOWN, HOMERUN TO EACH DEVICE. SEE FLOOR PLANS FOR EXACT LOCATION AND QUANTITIES.



MDF - COMM 115

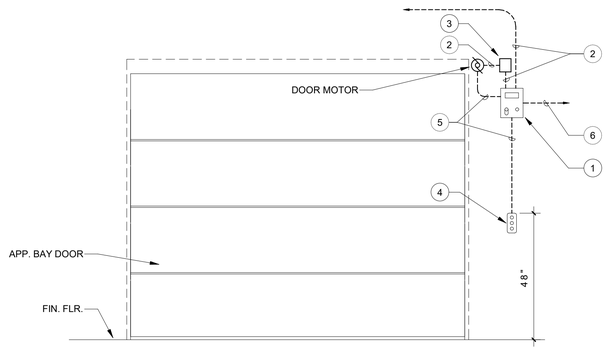
3 SINGLE LINE DIAGRAM - DATA ELEVATION
NOT TO SCALE

DATA RACK SCHEDULE

ID	DESCRIPTION
1	FLOOR MOUNTED, 2-POST RACK.
2	FIBER ENCLOSURE, W/ (3) 12-STRAND LC CONNECTOR CASSETS, 1RU
3	HORIZONTAL CABLE MANAGMENT, 1RU
4	VERTICAL CABLE MANAGEMENT, LENGTH PER RACK HEIGHT.
5	CAT 6A FLAT QUICKPORT PATCH PANEL, 48-PORT, 2RU
6	SPACE FOR ACTIVE NETWORK EQUIPMENT BY CITY.
7	HORIZONTAL COPPER GROUND BAR

NOTE

- INFOMRATION SHOWN IS FOR REFERENCE AND BIDDING PURPOSES ONLY. COORDINATE/VERIFY EXACT BOX REQUIREMENTS AND LOCATIONS WITH THE DOOR INSTALLER AND APPROVED SHOP DRAWINGS PRIOR TO ROUGH-IN.
- CONDUIT AND BOXES TO BE FLUSH MOUNTED AND CONCEALED IN WALLS. REFER TO STRUCTURAL PLANS FOR EMBEDDED CONDUIT DETAILS.
- CONDUITS ARE GRS TYPE.



DETAIL NUMBERED NOTES

1. DOOR CONTROL PANEL/DISCONNECT SWITCH, FLUSH MOUNTED HIGH ON WALL. CONTROL PANEL PROVIDED BY DOOR CONTRACTOR, WIRED AND CONNECTED COMPLETE BY ELECTRICAL CONTRACTOR. COORDINATE EXACT LOCATION WITH DOOR CONTRACTOR.
2. DOOR MOTOR ELECTRICAL CONNECTIONS. SEE E3.1 AND E6.1. CONCEAL CONDUIT IN WALL.
3. 3-PHASE, 208V-240V BUCK-BOOST TRANSFORMER.
4. RECESSED BOX FOR UP/DOWN CONTROL STATION, FLUSH MOUNTED IN WALL. CONTROL STATION PROVIDED AND INSTALLED BY DOOR CONTRACTOR.
5. 1/2" C. FOR DOOR CONTROL WIRING. CONTROL WIRING PROVIDED AND INSTALLED BY DOOR CONTRACTOR. CONCEAL CONDUIT IN WALL.
6. 3/4" C. FOR MASTER CONTROL WIRING, TO HOMERUN TO MASTER DOOR CONTROL PANEL. SEE E3.1.

2 APPARATUS BAY DOOR POWER DIAGRAM
NOT TO SCALE

PHOTOVOLTAIC AND BATTERY ENERGY STORAGE SYSTEM CODE SUMMARY AND SYSTEM VALUES

RELEVANT CONTRUCTION CODE:
2022 CBC - REQUIRES SOLAR READY ONLY (NO INSTALLATION REQUIREMENTS FOR SYSTEM COMPONENTS).
- PLANS INCLUDE ADD ALTERNATE WORK FOR BOTH THE PV AND BATTERY ENERGY STORAGE SYSTEMS.
- ADD ALTERNATE CONTRACT DESCRIPTIONS INDENTIFY MINIMUM BASE SCOPE OF WORK FOR SOLAR READY.

- ADD ALTERNATE NO. 2: SOLAR ON BUILDING ROOF (ARRAY 1)
- ADD ALTERNATE NO. 3: SOLAR ON PARKING STRUCTURE (ARRAY 2)
- ADD ALTERNATE NO. 5: MICROGRID SYSTEM (BATTERY ENERGY STORAGE)

PHOTOVOLTAIC SYSTEM VALUES:
- BUILDING PERFORMANCE ENERGY MODEL SHOWS A YEARLY PROJECTED USAGE OF **53,000 kWH PER YEAR**.
- THE PROJECT PV SYSTEM (AS DESIGNED) CAN GENERATE **61,000 kWH PER YEAR** WITH STANDARD WEATHER CONDITIONS.

BATTERY ENERGY STORAGE SYSTEM (WITH MICROGRID OPERATION):
- BUILDING ELECTRICAL DESIGN LOADS SHOW A YEARLY PEAK POWER REQUIREMENT OF **167 kW** PEAK USAGE.
- THE PROJECT BATTERY SYSTEM (AS DESIGNED) CAN SUPPORT UP TO **125 kW** PEAK OUTPUT.
- THE PROJECT DIESEL GENERATOR (AS DESIGNED) CAN SUPPORT AN ADDITIONAL **75 kW** PEAK OUTPUT.
- THE PROJECT BATTERY SYSTEM (AS DESIGNED) CAN SUPPORT **176 kWH** OF ENERGY STORAGE.
- DAILY kWH USAGE IS NOT KNOWN (DEPENDENT ON HOW THE BUILDING IS USED). BASED ON THE **53,000 kWH** PROJECTED ANNUAL BUILDING USAGE, DAILY USAGE COULD BE **+/- 145 kWH PER DAY**.
- THE BATTERY SYSTEM COULD SUPPORT THE 145 kWH PER DAY USAGE FOR **30 TO 36 HOURS OF BACKUP**, WITHOUT PV OR UTILITY GRID SUPPORT.
- BACK-UP WOULD BE MUCH LONGER (OR INDEFINITE) WITH DAILY SOLAR PV GENERATION AND GENERATOR BACK-UP.

COPPER FEEDER SCHEDULE

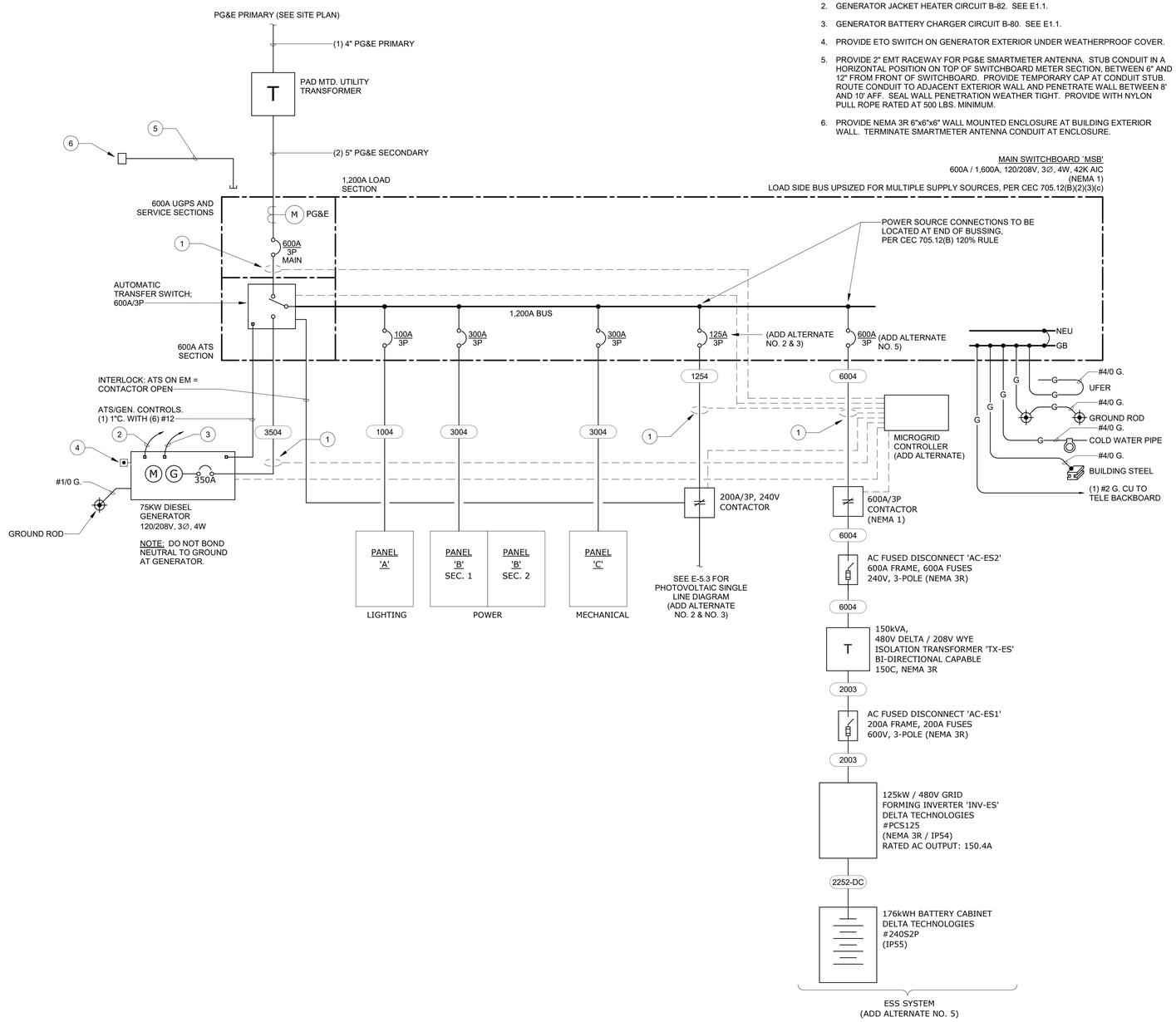
ID	CONDUIT	CONDUCTORS
6004	(2) 3"	(2) SETS: (4) 300 MCM & (1)#1 G.
3504	(1) 4"	(4) 500 MCM & (1)#2 G.
3004	(1) 3"	(4) 350 MCM & (1)#2 G.
2252-DC	(1) 2"	(2) #4/0 & (1)#4 G.
2003	(1) 2"	(3) #3/0 & (1)#6 G.
1254	(1) 2"	(4) #1 & (1)#6 G.
1004	(1) 2"	(4) #1 & (1)#6 G.

FEEDER TAG KEY

400 4 N
- INDICATES DOUBLE NEUTRAL
- WIRE QUANTITY
- FEEDER AMPACITY

DETAIL NUMBERED NOTES

1. PROVIDE AND INSTALL 3-PHASE CT'S FOR FEEDER AMP MEASUREMENT.
2. GENERATOR JACKET HEATER CIRCUIT B-82. SEE E1.1.
3. GENERATOR BATTERY CHARGER CIRCUIT B-80. SEE E1.1.
4. PROVIDE ETO SWITCH ON GENERATOR EXTERIOR UNDER WEATHERPROOF COVER.
5. PROVIDE 2" EMT RACEWAY FOR PG&E SMARTMETER ANTENNA. STUB CONDUIT IN A HORIZONTAL POSITION ON TOP OF SWITCHBOARD METER SECTION, BETWEEN 6" AND 12" FROM FRONT OF SWITCHBOARD. PROVIDE TEMPORARY CAP AT CONDUIT STUB. ROUTE CONDUIT TO ADJACENT EXTERIOR WALL AND PENETRATE WALL BETWEEN 8' AND 10' AFF. SEAL WALL PENETRATION WEATHER TIGHT. PROVIDE WITH NYLON PULL ROPE RATED AT 500 LBS. MINIMUM.
6. PROVIDE NEMA 3R 6"x6"x6" WALL MOUNTED ENCLOSURE AT BUILDING EXTERIOR WALL. TERMINATE SMARTMETER ANTENNA CONDUIT AT ENCLOSURE.



1 SINGLE LINE DIAGRAM - POWER
NO SCALE

REGISTERED PROFESSIONAL ENGINEER COLEEN PALMER No.14738 Exp. 6/23 ELECTRICAL STATE OF CALIFORNIA

coar DESIGN GROUP
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

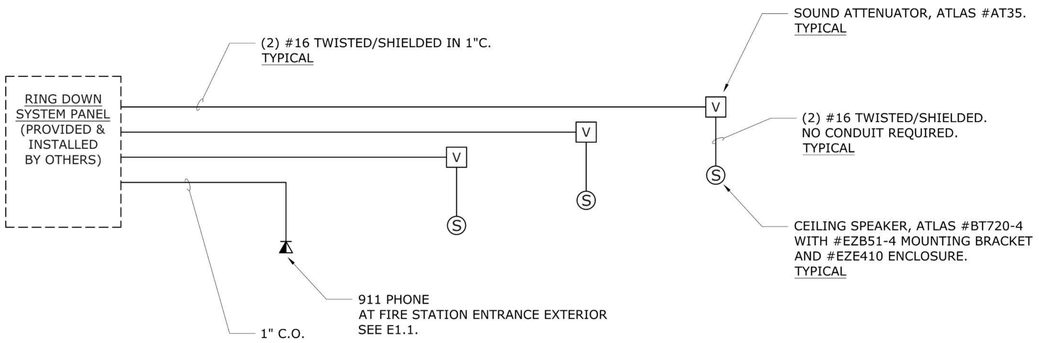
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
POWER SINGLE LINE DIAGRAM & LOW VOLTAGE DIAGRAMS

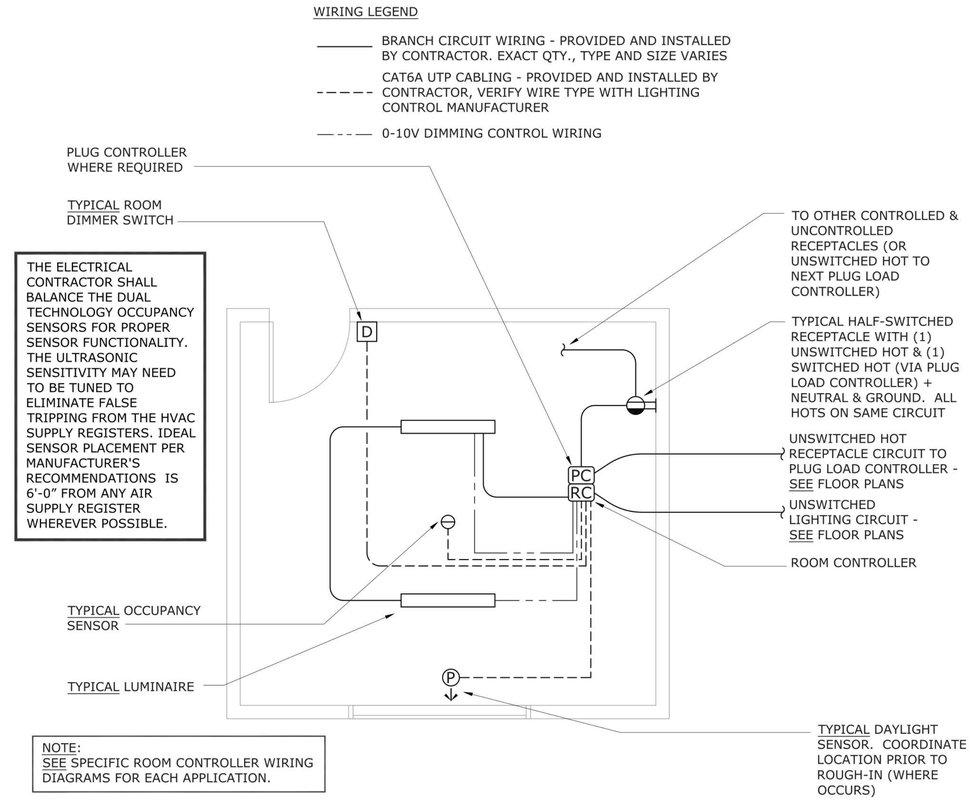
SHEET NUMBER:
E5.1



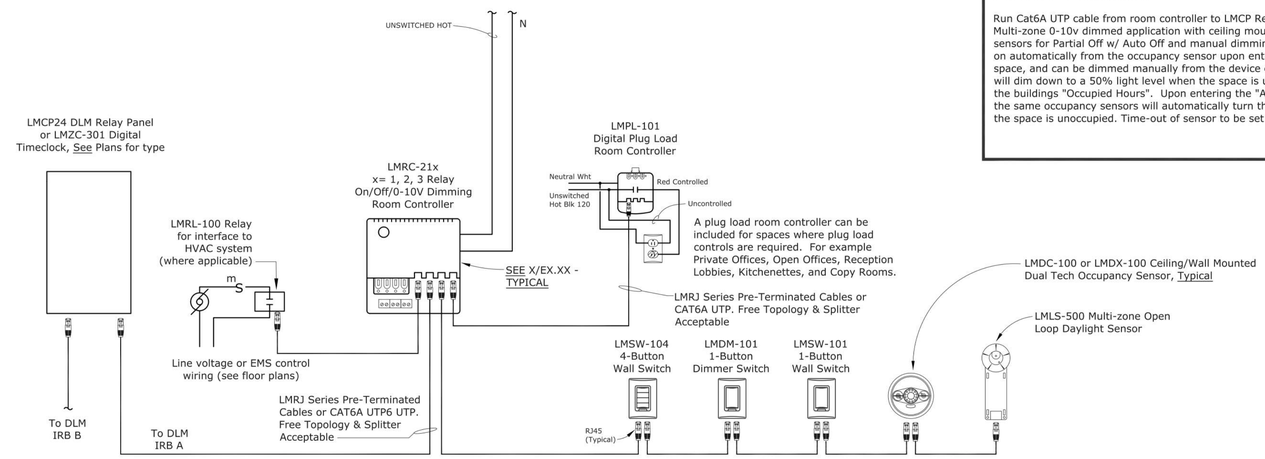
3 RING DOWN ALERT SYSTEM DIAGRAM
NO SCALE

GENERAL NOTES

1. SPEAKER AND LUMINAIRE QUANTITIES SHOWN HERE ARE DIAGRAMMATIC. SEE E3.1 FOR EXACT QUANTITY.



1 TYPICAL ROOM CONTROL DIAGRAM
NO SCALE



2 RELAY PANEL OR TIMECLOCK & ROOM CONTROLLER WIRING DIAGRAM
NO SCALE

CORRIDORS & STAIRWAYS:

Run Cat6A UTP cable from room controller to LMCP Relay Panel. Multi-zone 0-10v dimmed application with ceiling mounted occupancy sensors for Partial Off w/ Auto Off and manual dimming. Lights will turn on automatically from the occupancy sensor upon entering the space, and can be dimmed manually from the device on the wall. Lights will dim down to a 50% light level when the space is un-occupied during the buildings "Occupied Hours". Upon entering the "After-Hours" mode, the same occupancy sensors will automatically turn the lights off when the space is unoccupied. Time-out of sensor to be set at 20 minutes.

REGISTERED PROFESSIONAL ENGINEER COLEMAN RADER No.14738 Exp. 6/23 ELECTRICAL STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

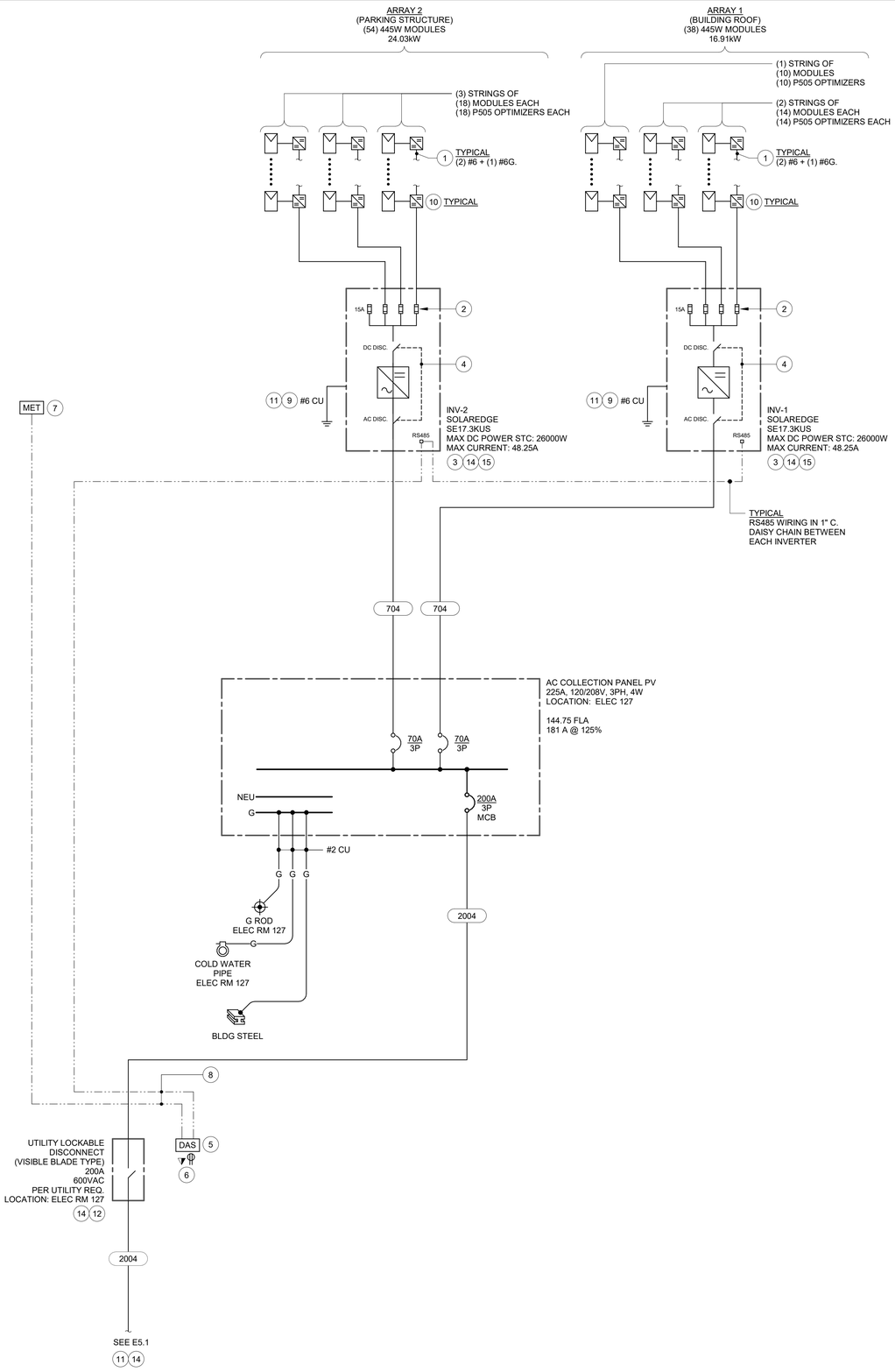
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
CONTROL DIAGRAMS

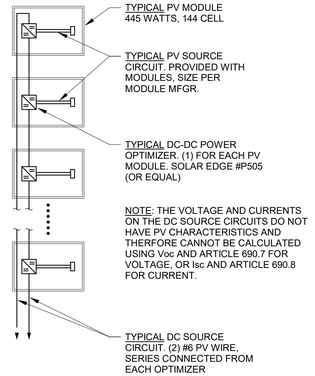
SHEET NUMBER:
E5.2



1 SINGLE LINE DIAGRAM - PHOTOVOLTAIC
NO SCALE

PV SYSTEM FEEDER SCHEDULE		
ID	SETS	FEEDER DESCRIPTION
2004	(1) SET	(4) #3/0 & (1) #4 G IN (1) 2" C.
704	(1) SET	(4) #4 & (1) #6 G IN (1) 1 1/4" C.

FEEDER TAG KEY
400 4 N
INDICATES DOUBLE NEUTRAL
WIRE QUANTITY
FEEDER AMPACITY



2 DC-DC OPTIMIZER DETAIL
NO SCALE

SHEET NUMBERED NOTES

1. DC OUTPUT CIRCUIT FROM DC-DC OPTIMIZER TO INVERTER DC INPUT CONNECTIONS, SEE DETAIL 2, THIS SHEET. TYPICAL (2) #6 + (1)#6G. ALSO SEE GENERAL NOTES ON SHEET E9.01 FOR WIRING MANAGMENT AND REQUIREMENTS.
2. DC INTERFACE - 1000V DC, NEMA 3R, UL 1741. PROVIDE WITH 15A FUSES IN DIN RAIL MOUNTED FUSE HOLDERS. FUSE BOX SHALL BE LOCATED IN ELEC 127, ADJACENT TO PV INVERTER, FOR DC STRING INPUT ONTO INVERTER DC BUS.
3. INVERTERS TO BE CERTIFIED WITH THE CALIFORNIA ENERGY COMMISSION AND UL1741 LISTED. INVERTER ASSEMBLY TO INCLUDE INTEGRAL AC AND DC DISCONNECTS (NOT SHOWN).
4. INVERTERS SHALL BE PROVIDED WITH A COMBINED DC AND AC DISCONNECTION MEANS. ASSEMBLY SHALL INCLUDE DC FUSES AND FUSE HOLDERS IN QUANTITIES REQUIRED.
5. PROVIDE A COMPLETE PHOTOVOLTAIC DATA ACQUISITION SYSTEM ('DAS') TO ALLOW OWNER TO REMOTELY VIEW REAL-TIME VISUAL METERS OF SYSTEM PERFORMANCE, HISTORICAL GRAPHS, LOCAL WEATHER DATA AND CUSTOM PROJECT DETAILS TO CLIENT SATISFACTION. THIS INCLUDES ALL HEAD END EQUIPMENT, SOFTWARE AND LICENSING FEES. THIS SHALL ALSO INCLUDE INSTALLATION OF ANY METROLOGICAL EQUIPMENT REQUIRED AT THE ROOF FOR WEATHER MONITORING. UTILIZE DECK MONITORING SOFTWARE OR EQUAL.
6. PROVIDE AND INSTALL FULLY TERMINATED CAT. 6 NETWORK JACK/CABLE AT DAS EQUIPMENT & 120V DUPLEX RECEPTACLE. DAS EQUIPMENT LOCATION BY SOLAR INTEGRATOR. CONFIRM EXACT LOCATION PRIOR TO ROUGH-IN.
7. PROVIDE COMPACT METEOROLOGICAL WEATHER STATION (MET) AT ROOF, COLUMBIA WEATHER SYSTEMS OR EQUAL. MET STATION SHALL BE FULLY COMPATIBLE WITH DAS EQUIPMENT, CONFIRM COMPATIBILITY PRIOR TO ROUGH-IN.
8. PROVIDE 1" RACEWAY WITH RS-485 WIRING FOR MONITORING EQUIPMENT COMMUNICATIONS. CONFIRM EXACT WIRING TYPE AND QUANTITY WITH DAS AND MET SYSTEMS SUPPLIERS PRIOR TO ROUGH-IN.
9. PROVIDE GROUNDING CONNECTION FROM INVERTER ASSEMBLY TO MAIN SWITCHBOARD GROUND BUS PER CEC 690.47 AND MANUFACTURERS INSTRUCTIONS.
10. PV SYSTEM SINGLE MODULE OPTIMIZER. OPTIMIZERS SHALL BE PROVIDED WITH INTERNAL CURRENT LIMITING FUNCTIONS AS DESCRIBED IN 690.8(B)(2) EXCEPTION 1.
11. ALL PV SYSTEM INTERCONNECTIONS WITH THE DISTRIBUTION SYSTEM SHALL COMPLY WITH CEC ARTICLE 690. PROVIDE AND INSTALL ALL GROUNDING AS REQUIRED BY NEC ARTICLE 250, 690, 705 AND SYSTEM MANUFACTURER.
12. KNIFE TYPE DISCONNECT TO BE CLEARLY LABELED "SOLAR SYSTEM DISCONNECT" AND LOCATED WITHIN 10 FT. OF THE MAIN SERVICE METER PER UTILITY COMPANY REGULATIONS. EXACT DISCONNECT TYPE SHALL BE A UTILITY CO. APPROVED PHOTOVOLTAIC DISCONNECT. COORDINATE EXACT TYPE WITH PG&E PRIOR TO ROUGH-IN.
14. PROVIDE PV SYSTEM PLACARDS AS REQUIRED BY LOCAL UTILITY COMPANY.
15. PHOTOVOLTAIC SYSTEM INVERTER, RAPID SHUT-DOWN COMPLIANT, WITH MODULE LEVEL OPTIMIZED STRING CONFIGURATIONS.

PV SYSTEM GENERAL NOTES

1. UNLESS OTHERWISE NOTED, ALL WORK SHOWN ON DRAWINGS IS NEW AND TO BE PROVIDED AND INSTALLED UNDER THIS CONTRACT.
2. ALL EXTERIOR EQUIPMENT / BOXES / COMBINERS SHALL BE NEMA 3R RATED FOR OUTDOOR USE.
3. ALL BARE METAL RACEWAYS SHALL BE RGS; U.O.N.
4. ALL CONDUCTORS TO BE SIZED PER NEC T310.15(B)(16) WITH APPROPRIATE AMBIENT TEMPERATURE CORRECTION FACTORS PER NEC T310.15(B)(3)(c) AND/OR NEC 310.15(B)(2). CONDUCTORS SHALL ALSO BE DERATED PER NEC TABLE 310.15(B)(3)(a) FOR MORE THAN (3) CURRENT CARRYING CONDUCTORS IN A COMMON RACEWAY.
5. ALL CONDUIT CONNECTORS TO OUTLET OR JUNCTION BOXES SHALL HAVE INSULATED THROATS (MANUFACTURED AS AN INTEGRAL PART OF THE CONNECTOR). AFTER-MARKET INSERTABLE THROATS ARE NOT ACCEPTABLE.
6. COORDINATE ALL UTILITY SYSTEM RELATED ITEMS WITH UTILITY CO, INCLUDING APPLICATION FOR UTILITY INTERCONNECT AGREEMENT.
7. ALL SYSTEM COMPONENTS AND EQUIPMENT / WIRING TO COMPLY WITH NEC ARTICLE 690 AND OTHER APPLICABLE CODES, REGULATIONS AND LOCAL ORDINANCES.
8. ALL INVERTERS TO BE CERTIFIED WITH THE CALIFORNIA ENERGY COMMISSION AND UL1741 LISTED, UTILITY INTERACTIVE, SIZE AND RATINGS AS NOTED ON PLANS.
9. ALL AC FEEDERS SIZED TO NEC T310.15(B)(16), 75 DEGREE COLUMN WHEN USED WITH 75 DEGREE TERMINATIONS AND EQUIPMENT. USE 90 DEGREE COLUMN WHEN USED WITH PV EQUIPMENT RATED WITH 90 DEGREE TERMINATIONS. CONDUCTOR SIZES TO BE BASED ON FULL EQUIPMENT NAMEPLATE LOADS.
10. ALL CONDUIT FILL (AC AND DC) TO BE 40% MAXIMUM.
11. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT (BOTH AC AND DC), SIZED PER NEC 250 AND 690.
12. ALL DC CIRCUITS TO BE 2-WIRE + GROUND, (90 DEGREE COLUMN), RATED FOR MIN. 156% OF Isc.
13. ALL AC AND DC WIRING IN CONDUIT TO BE RHW-2, THWN-2, OR XHHW-2 (90 DEGREE) WET RATED FOR USE WITH 90 DEGREE LISTED TERMINALS ON PV EQUIPMENT.
14. ALL DC WIRING SHALL BE MINIMUM **1000V** RATED.
15. ALL DC WIRING TO BE LISTED "PV WIRE" (90 DEGREE) WET RATED AND SUNLIGHT RESISTANT. LOOSELY BUNDLE AND SECURE ALL INDIVIDUAL STRING WIRING NEATLY ALONG UNDERSIDE OF MODULES.
16. ALL GROUNDING PER NEC 250 AND 690-45. BOND ALL METAL SURFACES / FRAMES / EQUIPMENT WITH MIN. #2 GROUND STRAP AS NOTED ON DETAIL 3/EPV5.2. WEEB MAY BE UTILIZED AT MODULE FRAME GROUNDING.
17. ALL PV MODULES TO BE UL 1703 LISTED, WITH TYPE 2 FIRE RATING.
18. ALL UNDERGROUND RACEWAYS TO BE SCHEDULE 40 PVC, UNLESS OTHERWISE NOTED.
19. ALL IN-GROUND PULL BOXES TO BE FLUSH STYLE WITH CONCRETE LIDS.
20. INVERTER(S) SHALL BE PROVIDED WITH DC AFCI PROTECTION PER CEC 690.11. INVERTERS SHOWN ON THIS SET OF DOCUMENTS ARE PROVIDED WITH DC AFCI PROTECTION, ANY SUBSTITUTIONS SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER OF RECORD FOR REVIEW.
21. INVERTER(S) SAHLL BE PROVIDED WITH INTEGRAL GROUND-FAUL PROTECTION PER CEC 690.35. INVERTERS SHOWN ON THIS SET OF DOCUMENTS ARE PROVIDED WITH INTEGRAL GROUND FAULT PROTECTION, ANY SUBSTITUTIONS SHALL BE SUBMITTED TO THE ELECTRICAL ENTINEER OF RECORD FOR REVIEW.
22. ALL PV MODULE DC CABLE CONNECTORS SHALL BE MC4 TYPE (OR EQUAL), REQUIRING A TOOL FOR OPENING OF PV CONNECTIONS PER CEC 690.33. PV MODULES SHOWN ON THIS SET OF DOCUMENTS ARE PROVIDED WITH MC4 CONNECTORS, ANY SUBSTITUTIONS SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER OF RECORD FOR REVIEW.

REGISTERED PROFESSIONAL ENGINEER
COLEEN PIERCE
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

SHEET TITLE:

SINGLE LINE DIAGRAM - PHOTOVOLTAIC

SHEET NUMBER:

E5.3

LOAD CALCULATION: MSB

Volts: 120/208V 3PH, 4W
Phases: 3
Wires: 4
A.I.C. Rating: 65,000
MCB Rating: 600 A
Enclosure Rating: NEMA 1

Notes:

Circuit Description	Trip	Poles	Connected Load (kVA)	Remarks
PANEL 'A'	20	3	4.73	
PANEL 'B'	20	3	94.45	
PANEL 'C'	20	3	86.11	
			185.29	

Panel Totals	
TOTAL DEMAND kVA:	173.08 kVA
MAX DEMAND AMPS:	480.43 A
DEMAND AMPS AT...	600.535 A

Notes:

C

Location: ELEC 127
Supply From: MSB
Mounting: SURFACE
Enclosure: NEMA 1
Notes:

Volts: 120/208V 3PH, 4W
Phases: 3
Wires: 4
A.I.C. Rating: 22kAIC
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 300 A

CKT	Circuit Description	Type	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Type	Circuit Description	CKT
1					2.31			0.26			2	15 A	H	HP-1-1	2
3	VRV-HP-1	H	40 A	3		2.31			0.26						4
5							2.31			0.10	2	15 A	H	HP-2-1 THRU HP2-4, HP-2-8	6
7					2.97			0.10							8
9	VRV-HP-2	H	40 A	3		2.97			0.47		2	15 A	H	HP-2-5, HP2-6, HP2-7	10
11							2.97			0.47					12
13	RH-1	H	35 A	2	3.07			0.57			2	15 A	H	ERV-1, BS-1, BS-2	14
15						3.07			0.57						16
17	RH-2	H	35 A	2			3.07			0.57	2	15 A	H	ERV-2	18
19					3.07			0.57							20
21	RH-3	H	35 A	2		3.07			0.59		2	15 A	H	ERV-3	22
23							3.07			0.59					24
25	RH-4	H	35 A	2	3.07			0.56			1	15 A	H	IEF-1, CEF-1, CEF-2, RD-1	26
27						3.07			4.00						28
29							6.00			4.00	3	20 A	M	EWH-2	30
31	EWH-1	M	60 A	3	6.00			4.00							32
33						6.00			0.04		1	20 A	M	TRAP PRIMERS	34
35	CP-1, CP-2	H	20 A	1			0.31			0.10	1	20 A	H	MOTORIZED DAMPER HP-2-5	36
37					3.19			0.00			1	20 A	--	SPARE	38
39	CA-1	H	35 A	3		3.19			0.00		1	20 A	--	SPARE	40
41							3.19			0.00	1	20 A	--	SPARE	42

DEMAND LOAD SUMMARY	CONNECTED...	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MIS...	30.05	100.00%	30.05
TYPE "L": LIGHTING / CONTINUOUS...			
TYPE "R": RECEPTACLES			
TYPE "H" HVAC / MECHANICAL...	56.06	100.00%	56.06
TOTALS:	86.11		86.11

PANEL TOTALS	kVA	AMPS	AMPS AT 125%
PHASE A:	29.74	251.464 A	314.33 A
PHASE B:	29.61	250.371 A	312.963 A
PHASE C:	26.76	223.015 A	278.769 A

A

Location: ELEC 127
Supply From: MSB
Mounting: SURFACE
Enclosure: NEMA 1
Notes:

Volts: 120/208V 3PH, 4W
Phases: 3
Wires: 4
A.I.C. Rating: 22kAIC
Mains Type: MCB
Mains Rating: 100 A
MCB Rating: 100 A

CKT	Circuit Description	Type	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Type	Circuit Description	CKT
1	TURN OUT, ELEC, WORKSHOP	L	20 A	1	0.63			0.79			1	20 A	L	OFFICE, LAUNDRY, KITCHEN	2
3	RR, HALL, FITNESS, PATIO, RIP	L	20 A	1		0.94			0.55		1	20 A	L	EXTERIOR BUILDING	4
5	APPARATUS BAY 120	L	20 A	1			1.14			0.67	1	20 A	L	EXTERIOR SITE	6
7								0.00			1	20 A	--	SPARE	8
9	SPARE	--	20 A	1		0.00			0.00		1	20 A	--	SPARE	10
11	SPARE	--	20 A	1			0.00			0.00	1	20 A	--	SPARE	12
13	SPARE	--	20 A	1	0.00			0.00			1	20 A	--	SPARE	14
15	SPARE	--	20 A	1		0.00			0.00		1	20 A	--	SPARE	16
17	SPARE	--	20 A	1			0.00			0.00	1	20 A	--	SPARE	18
19	S P A C E	--	--	1	--			--			1	--	--	S P A C E	20
21	S P A C E	--	--	1		--			--		1	--	--	S P A C E	22
23	S P A C E	--	--	1			--			--	1	--	--	S P A C E	24

DEMAND LOAD SUMMARY	CONNECTED...	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MIS...			
TYPE "L": LIGHTING / CONTINUOUS...	4.73	125.00%	5.92
TYPE "R": RECEPTACLES			
TYPE "H" HVAC / MECHANICAL...			
TOTALS:	4.73		5.92

PANEL TOTALS	kVA	AMPS	AMPS AT 125%
PHASE A:	1.42	11.87 A	14.838 A
PHASE B:	1.49	12.528 A	15.66 A
PHASE C:	1.82	15.227 A	19.033 A

B

Location: ELEC 127
Supply From: MSB
Mounting: SURFACE
Enclosure: NEMA 1
Notes:

Volts: 120/208V 3PH, 4W
Phases: 3
Wires: 4
A.I.C. Rating: 22kAIC
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 300 A

CKT	Circuit Description	Type	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Type	Circuit Description	CKT
1	122, 126, 127, FS BELL	R; M	20 A	1	1.02			1.00			1	20 A	R	KITCHEN 112 - COUNTER	2
3	WORKSHOP 123	R	20 A	1		0.36			0.54		1	20 A	R	KITCHEN 112 - COUNTER	4
5	WORKSHOP 123	R	20 A	1			0.54			4.15	2	50 A	R	KITCHEN 112 - OVEN/RANGE	6
7	WORKSHOP 123	R	20 A	1	0.36			4.15							8
9	DECON 122 -	M	25 A	2		1.87			4.15		2	50 A	R	KITCHEN 112 - OVEN/RANGE	10
11	WASHER/EXTRACTOR						1.87			4.15					12
13	DECON 122 - DRYER	M	50 A	2	3.12			0.20			1	20 A	M	KITCHEN 112 - RANGE HOOD	14
15						3.12			0.80		1	20 A	M	KITCHEN 112 - REFRIGERATOR	16
17	DECON 122 - WASHER	M	20 A	1			1.20			0.80	1	20 A	M	KITCHEN 112 - REFRIGERATOR	18
19	120, 121, 122, EXTERIOR	R	20 A	1	0.90			0.80			1	20 A	M	KITCHEN 112 - REFRIGERATOR	20
21	APP BAY 120 - CORD REEL	M	20 A	1		1.80			1.50		1	20 A	M	KITCHEN 112 - DISHWASHER	22
23	APP BAY 120 - CORD REEL	M	20 A	1			1.80			1.66	1	20 A	M	KITCHEN 112 - DISPOSAL	24
25					1.60			0.72			1	20 A	R	DINING/DAY 112, EXTERIOR	26
27	APP BAY 120 - COILING DOOR	M	20 A	3		1.60			0.72		1	20 A	R	DINING/DAY 112, EXTERIOR	28
29							1.60			1.00	1	20 A	R	DINING/DAY - TELEVISION	30
31					1.60			0.72			1	20 A	R	BUNK 2 108	32
33	APP BAY 120 - COILING DOOR	M	20 A	3		1.60			0.54		1	20 A	R	109, 110, 114	34
35							1.60			0.72	1	20 A	R	BUNK 1 107	36
37					1.60			0.72			1	20 A	R	ACC BUNK 106	38
39	APP BAY 120 - COILING DOOR	M	20 A	3		1.60			0.90		1	20 A	R	LAUNDRY/JAN 105	40
41							1.60			3.12	2	50 A	M	LAUNDRY/JAN 105 - DRYER	42
43					1.60			3.12							44
45	APP BAY 120 - COILING DOOR	M	20 A	3		1.60			1.20		1	20 A	M	LAUNDRY/JAN 105 - WASHER	46
47							1.60			1.08	1	20 A	R	OFFICE 100, HALL 114	48
49	FITNESS 113, APP BAY 120	R	20 A	1	0.90			0.72			1	20 A	R	101, 102, 103, 104	50
51	113, 114, 117	R	20 A	1		0.72			0.72		1	20 A	R	103, 104, 120	52
53	FITNESS 113 - EQUIPMENT	R	20 A	1			1.50			0.90	1	20 A	R	114, 115, 116, 119	54
55	FITNESS 113 - EQUIPMENT	R	20 A	1	1.50			1.00			1	20 A	R	COMM 115 - MDF	56
57	FITNESS 113 - BOTTLE FILLER	M	20 A	1		0.60			0.50		1	20 A	R	ICE 118	58
59	SITE GATE	M	25 A	1			1.44			0.50	1	20 A	M	CEILING FANS	60
61	PLYMOVENT EXHAUST FAN	H	20 A	2	1.66			1.44			1	20 A	M	SITE GATE	62
63						1.66			--		1	--	--	S P A C E	64
65	SPARE	--	20 A	1			0.00			0.00	1	20 A	--	SPARE	66
67	SPARE	--	20 A	1	0.00			0.00			1	20 A	--	SPARE	68
69	SPARE	--	20 A	1		0.00			0.00		1	20 A	--	SPARE	70
71	S P A C E	--	--	1			--			--	1	--	--	S P A C E	72
73	S P A C E	--	--	1	--			--			1	--	--	S P A C E	74
75	S P A C E	--	--	1		--			--		1	--	--	S P A C E	76
77	S P A C E	--	--	1			--			--	1	--	--	S P A C E	78
79	S P A C E	--	--	1	--			0.80			1	20 A	M	GEN. BATT. CHARGER	80
81	S P A C E	--	--	1		--			1.80		1	20 A	M	GEN. JACKET HEATER	82
83	S P A C E	--	--	1			--			0.50	1	20 A	M	MICROGRID CONTROLLER	84

DEMAND LOAD SUMMARY	CONNECTED...	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MIS...	54.34	100.00%	54.34
TYPE "L": LIGHTING / CONTINUOUS...			
TYPE "R": RECEPTACLES	36.78	63.59%	23.39
TYPE "H" HVAC / MECHANICAL...	3.33	100.00%	3.33
TOTALS:	94.45		81.06

PANEL TOTALS	kVA	AMPS	AMPS AT 125%
PHASE A:	31.24	262.07 A	327.587 A
PHASE B:	29.89	249.089 A	311.361 A
PHASE C:	33.32	279.37 A	349.212 A

LOW VOLTAGE RELAY LIGHTING CONTROL PANEL LCPA

ZONE/SWITCH DESIGNATION	RELAY NO.	LINE VOLTAGE CIRCUIT	LOAD VA	ROOM NAME / FIXTURE TYPE	MASTER SWITCH ZONE GROUP	NOTES	PROGRAM CHANNEL
aa	1	A-5	411	APPARATUS BAY			
ab	2	A-5	395	APPARATUS BAY			
ac	3	A-5	427	APPARATUS BAY			
ad	4	A-2	136	KITCHEN			
ae	5	A-2	70	KITCHEN			
af	6	A-2	69	KITCHEN			
ag	7	A-2	46	DINING			
ah	8	A-2	85	DINING			
aj	9	A-3	144	PATIO			
ak	10						
al	11						
am	12						
an	13						
S11	14	A-6	50	SIGN	2		
S10	15	A-6	69	FLAGPOLE	2		
S9	16	A-6	51	SCONCE	2		
S8	17	A-6	30	BOLLARD	2		
S7	18	A-6	259	POLE	1		
S6	19	A-6	306	POLE	2		
S5	20	A-4	48	EXTERIOR BLDG	2		
S4	21	A-4	102	EXTERIOR BLDG	1		
S3	22	A-4	30	EXTERIOR BLDG	2		
S2	23	A-4	51	EXTERIOR BLDG	2		
S1	24	A-4	48	EXTERIOR BLDG	2		

NOTES:
1 PROVIDE AN ASTRO-DIAL MASTER CHANNEL; ASTRO-ON, TIMECLOCK-OFF.
RELAYS NOTED SHALL BE AUTOMATICALLY CONTROLLED BY THE RESPECTIVE ASTRO CHANNEL FOR EXTERIOR CONTROL.
2 PROVIDE AN ASTRO-DIAL MASTER CHANNEL; ASTRO-ON, ASTRO-OFF.
RELAYS NOTED SHALL BE AUTOMATICALLY CONTROLLED BY THE RESPECTIVE ASTRO CHANNEL FOR EXTERIOR CONTROL.
*3 PROVIDE (1) EMERGENCY LIGHTING CONTROL MODULE FOR EACH RELAY INDICATED WITH AN ASTERISK.
SEE TYPICAL SWITCHED EMERGENCY LIGHT FIXTURE CONNECTION DETAIL 3/E5.3.

REGISTERED PROFESSIONAL ENGINEER
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

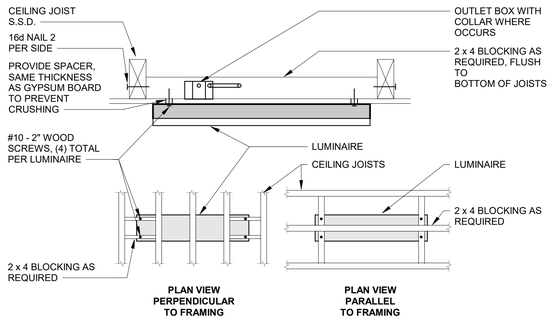
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

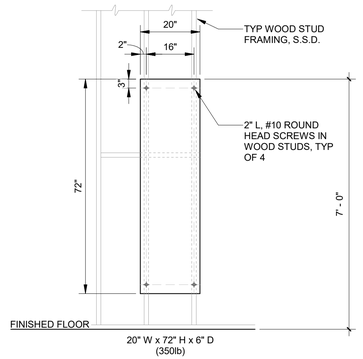
PROJECT NUMBER:
211101

SHEET TITLE:
PANEL SCHEDULES

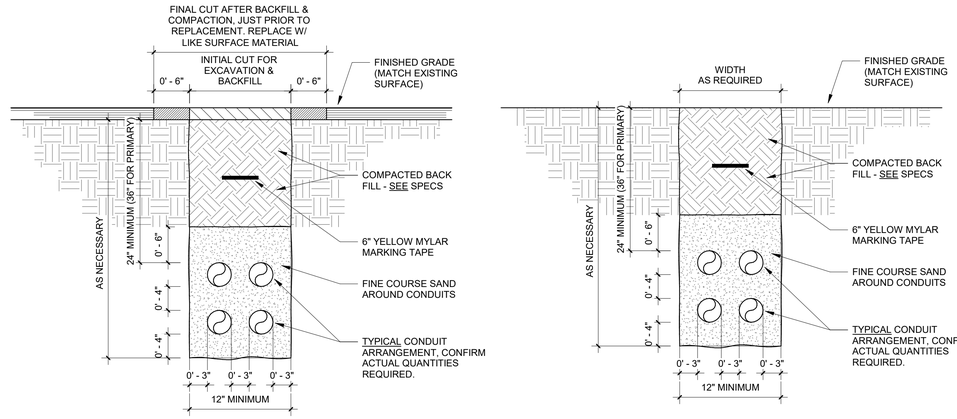
SHEET NUMBER:
E6.1



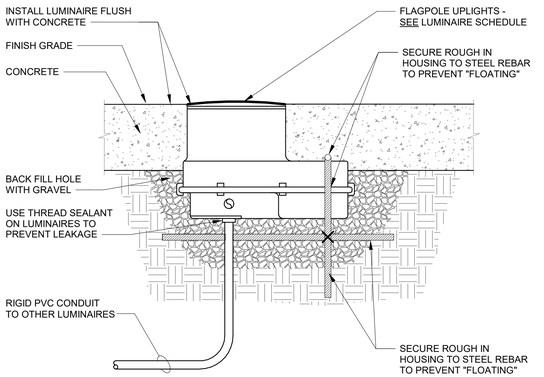
8 TYPICAL SURFACE CEILING MOUNTED LUMINAIRE
NO SCALE



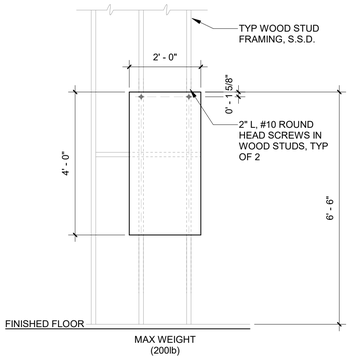
5 PANELBOARD MOUNTING - WOOD STUDS
NOT TO SCALE



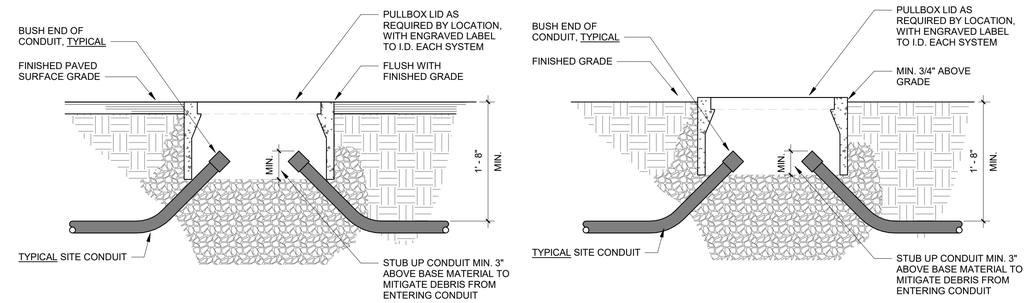
1 TYPICAL TRENCH SECTIONS
NO SCALE



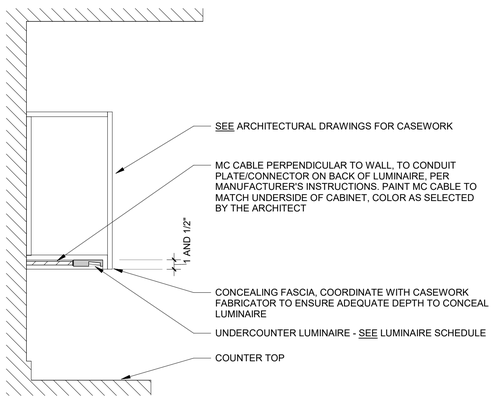
9 IN GRADE UPLIGHT
NO SCALE



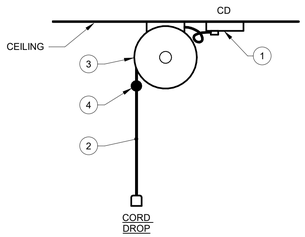
6 FIRE ALARM PANEL MOUNTING - WOOD STUDS
NOT TO SCALE



2 TYPICAL PULLBOX SECTION
NO SCALE



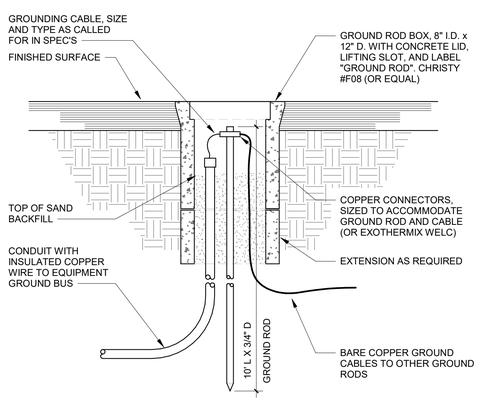
10 UNDERCABINET LUMINAIRE
NO SCALE



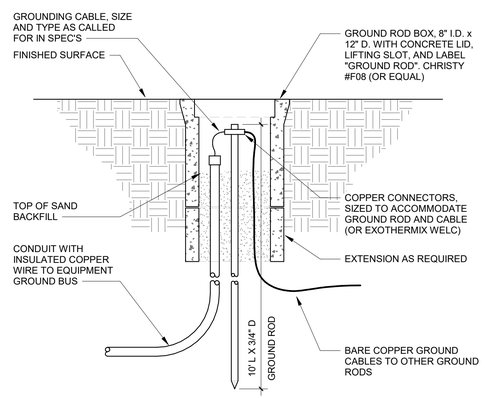
NUMBERED DETAIL NOTES

1. TWIST-LOCK RATED RECEPTACLE AS NOTED ON ELECTRICAL PLAN.
2. PROVIDE 40FT MIN. CORD LENGTH.
3. CEILING MOUNTED INDUSTRIAL CORD REEL. ATTACH USING (3) 5/16" TEKS 5 SELF DRILLING SCREWS.
4. SET HEIGHT OF CORD AS DIRECTED BY THE OWNER VIA BALL STOP.

7 TYPICAL CORD DROP REEL
NOT TO SCALE



4 GROUND ROD - FINISHED SURFACE
NO SCALE



3 GROUND ROD - EARTH
NO SCALE

REGISTERED PROFESSIONAL ENGINEER
COLEMAN PRUDHOMME
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

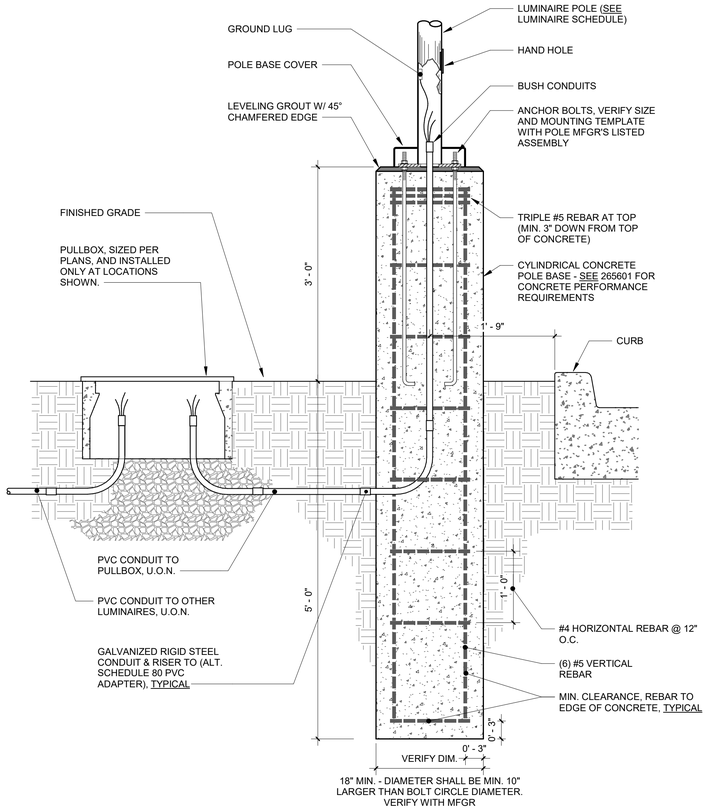
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

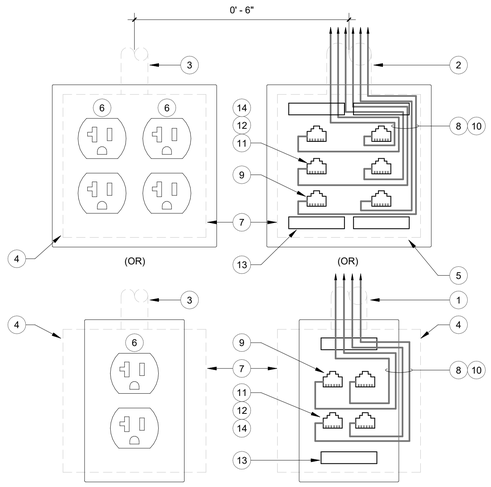
PROJECT NUMBER:
211101

SHEET TITLE:
DETAILS

SHEET NUMBER:
E7.1



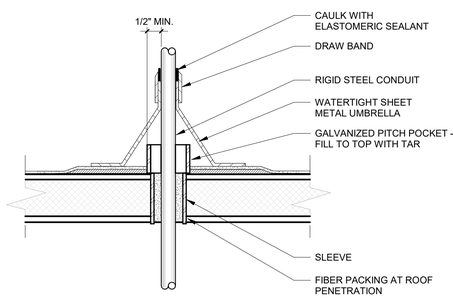
6 RAISED POLE BASE RAISED WITH PULLBOX
NO SCALE



1 COMBINATION POWER & DATA OUTLETS
NO SCALE

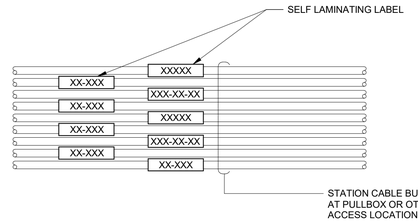
DETAIL NUMBERED NOTES

1. PROVIDE 1" CONDUIT STUBBED UP TO NEAREST ACCESSIBLE CONCEALED CEILING, U.O.N. - BUSH CONDUIT END(S)
2. PROVIDE 1-1/4" CONDUIT STUBBED UP TO NEAREST ACCESSIBLE CONCEALED CEILING, U.O.N. - BUSH CONDUIT END(S)
3. POWER CONDUIT & WIRES - SEE FLOOR PLANS
4. PROVIDE 4" SQUARE BOX, 2-1/8" DEEP, WITH TWO-GANG PLASTER RING
5. PROVIDE 4" SQUARE BOX, 3-1/2" DEEP, WITH TWO-GANG PLASTER RING
6. PROVIDE 20AMP, 120V, 3PG DOUBLE DUPLEX RECEPTACLE
7. LOCATE BOXES ADJACENT TO EACH OTHER & ALIGN COVER PLATES
8. TERMINATE CABLES AT EACH JACK. PROVIDE QUANTITY OF JACKS AS NOTED ON PLANS
9. WHERE NO DATA JACK IS REQUIRED, PROVIDE BLANK SPACER.
10. PROVIDE HOMERUN DATA CABLES TO RESPECTIVE PATCH PANEL.
11. MODULAR FACEPLATE WITH ANGLED OR FLAT EXIT (VERIFY WITH I.T. STANDARDS.
12. TYPICAL 8 PIN 8 POS, T568B DATA JACK, COLORED BLUE (VERIFY WITH I.T. STANDARDS).
13. PANDUIT, EFPL-1, 1.80 x 0.375 INCH. WHITE, POLYESTER LABEL. LABELS SHALL HAVE CAPACITY FOR 2 COLUMNS FOR LASER PRINTERS AND SHALL BE LABELED AS NOTED IN SPECIFICATIONS (VERIFY WITH I.T. STANDARDS).
14. SEE FLOOR PLANS FOR QUANTITY & TYPE OF JACKS IN EACH LOCATION.
15. TYPICAL SINGLE OR DOUBLE GANG FACEPLATE, FINISH AS DIRECTED BY ARCHITECT.

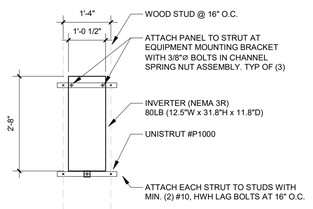


NOTE:
COORDINATE INSTALLATION WITH GENERAL CONTRACTOR

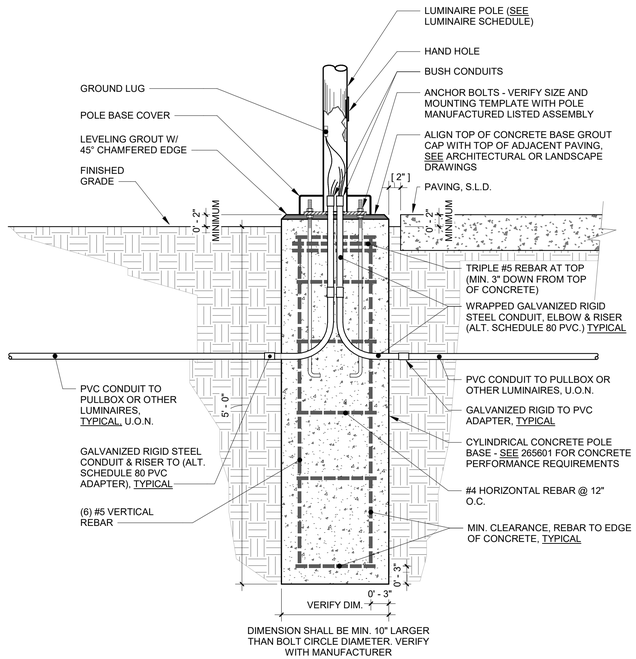
4 ROOF PENETRATION DETAIL
NO SCALE



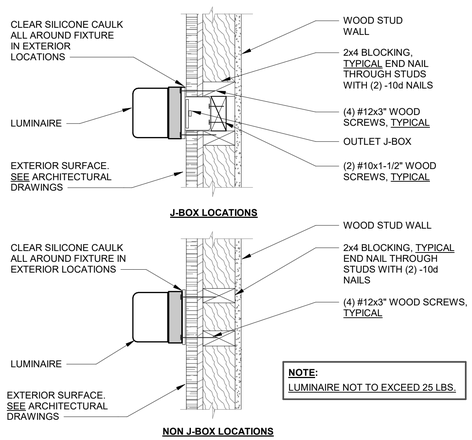
2 TYPICAL STATION CABLE LABELING
NO SCALE



8 INTERIOR INVERTER MOUNTING
NOT TO SCALE



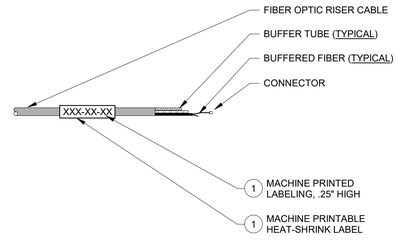
7 POLE BASE IN PLANTING
NO SCALE



5 TYPICAL SURFACE WALL MOUNTED LUMINAIRE
NO SCALE

DETAIL NOTES

1. LABEL LOCATION AT FIBER OPTIC RISER CABLE, LABEL TYPE PANDUIT MMP350-C .75" x 3.5" 316 STAINLESS, MACHINE .25" H PRINTING.



3 TYPICAL FIBER OPTIC CABLE LABELING
NO SCALE

REGISTERED PROFESSIONAL ENGINEER
PIETER COLEMAN BUTLER
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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

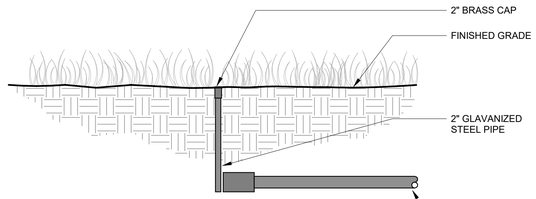
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
DETAILS

SHEET NUMBER:
E7.2



NOTES:

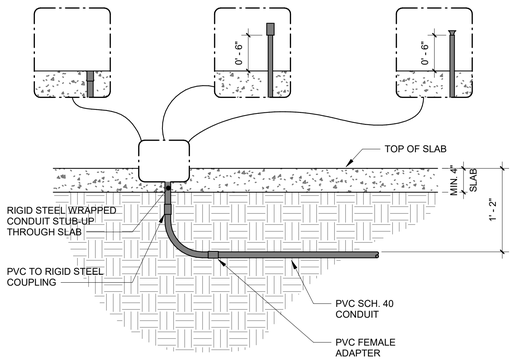
1. ENGRAVE BRASS CAP INDICATING FUNCTION & FINAL DESTINATION
2. RECORD ALL ACTUAL STUB-OUT LOCATIONS ON AS-BUILT DRAWINGS

5 CONDUIT STUB-OUT
NOT TO SCALE

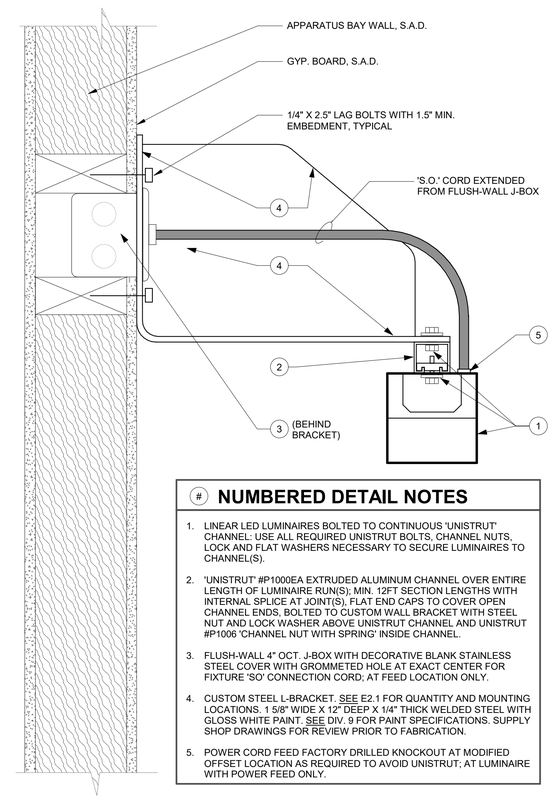
A. RIGID STEEL COUPLING FLUSH WITH TOP OF SLAB. PROVIDE FLUSH PLUG ON COUPLING.

B. STUB-UP 6" AT LOCATION SHOWN ON DRAWINGS. CAP WITH THREADED COMBINATION COUPLING (RIGID STEEL TO EMT AND PLUG). SET SCREW CONNECTORS NOT ALLOWED.

C. STUB-UP 6" AT LOCATION SHOWN ON DRAWINGS. BUSH END OF CONDUIT.



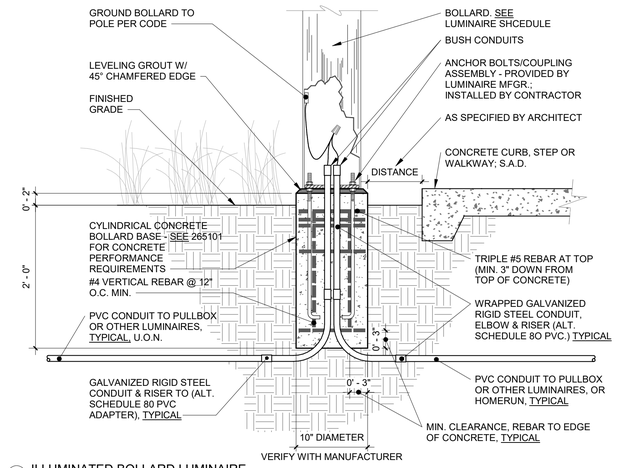
6 CONDUIT STUB-UP DETAILS
NOT TO SCALE



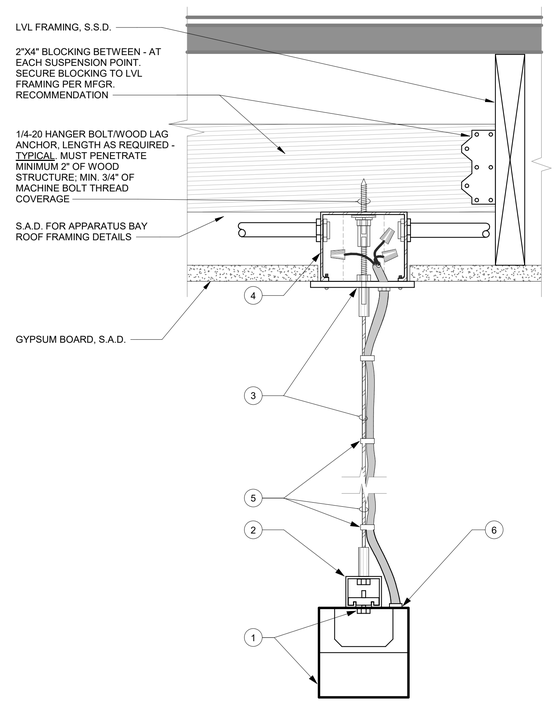
NUMBERED DETAIL NOTES

1. LINEAR LED LUMINAIRES BOLTED TO CONTINUOUS 'UNISTRUT' CHANNEL: USE ALL REQUIRED UNISTRUT BOLTS, CHANNEL NUTS, LOCK AND FLAT WASHERS NECESSARY TO SECURE LUMINAIRES TO CHANNEL(S).
2. 'UNISTRUT' #P1000EA EXTRUDED ALUMINUM CHANNEL OVER ENTIRE LENGTH OF LUMINAIRE RUN(S); MIN. 12FT SECTION LENGTHS WITH INTERNAL SPLICE AT JOINT(S), FLAT END CAPS TO COVER OPEN CHANNEL ENDS, BOLTED TO CUSTOM WALL BRACKET WITH STEEL NUT AND LOCK WASHER ABOVE UNISTRUT CHANNEL AND UNISTRUT #P1006 'CHANNEL NUT WITH SPRING' INSIDE CHANNEL.
3. FLUSH-WALL 4" OCT. J-BOX WITH DECORATIVE BLANK STAINLESS STEEL COVER WITH GROMMETED HOLE AT EXACT CENTER FOR FIXTURE 'SO' CONNECTION CORD; AT FEED LOCATION ONLY.
4. CUSTOM STEEL L-BRACKET. SEE E2.1 FOR QUANTITY AND MOUNTING LOCATIONS. 1 5/8" WIDE X 12" DEEP X 1/4" THICK WELDED STEEL WITH GLOSS WHITE PAINT. SEE DIV. 9 FOR PAINT SPECIFICATIONS. SUPPLY SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION.
5. POWER CORD FEED FACTORY DRILLED KNOCKOUT AT MODIFIED OFFSET LOCATION AS REQUIRED TO AVOID UNISTRUT; AT LUMINAIRE WITH POWER FEED ONLY.

3 BRACKET MOUNTED LUMINAIRE IN APPARATUS BAY
12" = 1'-0"



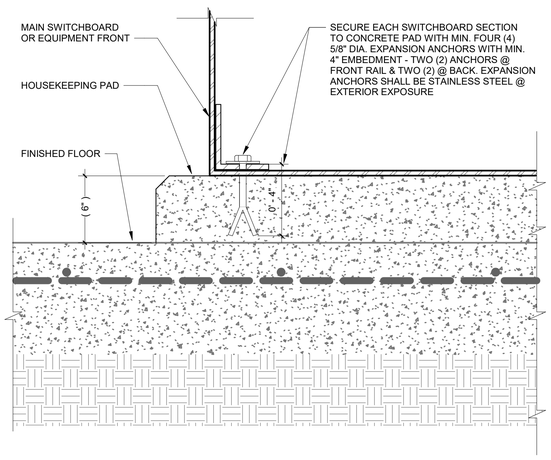
1 ILLUMINATED BOLLARD LUMINAIRE
1" = 1'-0"



NUMBERED DETAIL NOTES

1. LUMINAIRES AT APPARATUS BAY, BOLTED TO CONTINUOUS 'UNISTRUT' CHANNEL; USE ALL REQUIRED UNISTRUT BOLTS, CHANNEL NUTS, LOCK AND FLAT WASHERS NECESSARY TO SECURE LUMINAIRES TO CHANNEL(S).
2. 'UNISTRUT' #P1000EA EXTRUDED ALUMINUM CHANNEL OVER ENTIRE LENGTH OF LUMINAIRE RUN(S); MIN. 12FT SECTION LENGTHS WITH INTERNAL SPLICE AT JOINT(S), FLAT END CAPS TO COVER OPEN CHANNEL ENDS, SUSPENDED FROM STRUCTURE ABOVE USING STAINLESS STEEL AIRCRAFT CABLE SUSPENSION KITS SUPPLIED WITH FIXTURE(S), MAX. 4'-0" O.C.
3. AIRCRAFT CABLE SUSPENSION ASSEMBLY: SECURE TO UNISTRUT CHANNEL USING UNISTRUT CHANNEL NUTS, LOCK AND FLAT WASHERS; SECURE TO STRUCTURE ABOVE USING 1/4" THREADED STUD.
4. 4" x 1-1/2" GALVANIZED STEEL OCTAGONAL J-BOX AT FEED END ONLY. PROVIDE AND INSTALL DECORATIVE COVER WITH GROMMETED HOLE AT CENTER FOR LUMINAIRE 'SO' CONNECTING CORD; SECURE TO BLOCKING.
5. 18/4 'SO' CORD WITH STRAIN RELIEF AT FEED END ONLY; SECURED TO AIRCRAFT CABLE WITH WHITE NYLON CORD RETAINERS EVERY 12" MINIMUM.
6. POWER CORD FEED FACTORY DRILLED KNOCKOUT AT MODIFIED OFFSET LOCATION AS REQUIRED TO AVOID UNISTRUT; AT LUMINAIRE WITH POWER FEED ONLY.

2 PENDANT MOUNTED LUMINAIRE IN APPARATUS BAY
NO SCALE



4 EXTENDED ELECTRICAL EQUIPMENT PAD
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER — COLEEN [illegible] — No.14738 Exp. 6/23 — ELECTRICAL — STATE OF CALIFORNIA

coar DESIGN GROUP
previously JKA
6353 DEL CERRO BLVD., SAN DIEGO, CA 92120
619.698.9177 | www.coargroup.com

O'MAHONY & MYER
ELECTRICAL ENGINEERING & LIGHTING DESIGN
45343 REDWOOD HWY., SUITE 245
SAN RAFAEL, CALIFORNIA 94903
(415) 492-CM2(VF)AX (415) 479-9662

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
DETAILS

SHEET NUMBER:
E7.3

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page:	(Page 7 of 9)
Project Address:	17285 Butterfield Blvd	Date Prepared:	2/10/2023

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This table includes areas using the wattage allowance per specific area from Table 140.7-B /Table 170.2-S. More than one specific area allowance may be taken in a single project, if applicable. However, multiple specific area allowances may not be taken for the exact same area on the site.

01	02	03	04	05	06	07	08	09	10
Area Description	Specific Area Type per Table 140.7-B	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		Specific Area (ft^2)[1]	Allowed Density (W/ft^2)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	# of Luminaires	Design Watts	
Canopy	NonSalesCanopy	536	0.3	144.7	BA1	30	4	120	144.7
					BD1	20	4	80	
							Total Design Watts for this Area:	200	
								Total Allowance (Watts) All Areas:	144.7

[1] *FOOTNOTES: See Table 140.7-B /Table 170.2-S for rules for calculating the specific areas (ft^2 for these additional lighting allowances.*
[2] *For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 08 instead of number of luminaires.*

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-LTO-E - Must be submitted for all buildings

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page:	(Page 8 of 9)
Project Address:	17285 Butterfield Blvd	Date Prepared:	2/10/2023

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	Canopy; Automotive; Pedestrian;

Registration Number: | Generated Date/Time: | Documentation Software: EnergyPro
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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page:	(Page 9 of 9)
Project Address:	17285 Butterfield Blvd	Date Prepared:	2/10/2023

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Pieter Colenbrander	Documentation Author Signature: P. Colenbrander
Company: O'Mahony & Myer	Signature Date: 2023-02-10
Address: 4340 Redwood Hwy, Ste 245	CEA/ HERS Certification Identification (if applicable): E14738
City/State/Zip: San Rafael CA 94903	Phone: 415-492-0420

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: Pieter Colenbrander	Responsible Designer Signature: P. Colenbrander
Company: O'Mahony & Myer	Date Signed: 2023-02-10
Address: 4340 Redwood Hwy Suite 245	License: E14738
City/State/Zip: San Rafael CA 94903	Phone: 415-492-0420

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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page:	(Page 4 of 9)
Project Address:	17285 Butterfield Blvd	Date Prepared:	2/10/2023

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
BG1	BG1-IN-GRADE	☐ Linear	19	Mfr. Spec	3	New	☒	---	NA: < 6200 lumens	☐	☐
BH1	BH1-WALLWASHER	☐ Linear	14	Mfr. Spec	1	New	☒	---	NA: < 6200 lumens	☐	☐
								Total Design Watts:	1104		

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)

[1] *FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)*
[2] *For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.*
[3] *Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.*
[4] *Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by 130.2(b)/ 160.5(c)*

G. SHIELDING REQUIREMENTS (BUG)

This section does not apply to this project.

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Outdoor Lighting
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CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
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H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings

01	02	03	04	05	
Area Description	Shut-Off 130.2(c)1 / 160.5(c)	Auto-Schedule 130.2(c)2 / 160.5(c)	Motion Sensor 130.2(c)3 / 160.5(c)	Field Inspector	
				Pass	Fail
Canopy	Astronomical Timer	Provided	NA: Not permitted by H&LS	☐	☐
Automotive	Astronomical Timer	Provided	NA: Not permitted by H&LS	☐	☐
Pedestrian	Astronomical Timer	Provided	NA: Not permitted by H&LS	☐	☐

[1] *FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.*
[2] *Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.*
[3] *Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.*

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CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
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I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))

This table includes areas using allowance calculations per 140.7 / 170.2(e). General Hardscape Allowance is per Table 140.7-A/Table 170.2-R while "Use it or lose it" Allowances are per Table 140.7-B /Table 170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.
Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

	01				
		"Use it or lose it" Allowance (select all that apply) (select all that apply)			
	☒ General Hardscape Allowance Table I (below)	☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☒ Per Specific Area Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft^2)	Allowed Density (W/ft^2)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
Automotive	7888	0.021	165.6	852	0.2	170.4	336
Pedestrian	8677	0.021	182.2	977	0.2	195.4	378
						Initial Wattage Allowance for Entire Site (Watts):	250
						Instances of Initial Wattage Allowance (LZ 0 only)[1]	
						Total General Hardscape Allowance (Watts):	964

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
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This document is used to demonstrate compliance with requirements in 110.9, 130.0, 130.2, 140.7, and 141.0(b)2L for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e)6, 180.1(a) and 180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities.

A. GENERAL INFORMATION

01	Project Location (city)	Morgan Hill	04	Total Illuminated Hardscape Area (ft^2)	16565
02	Climate Zone	4			
03	Outdoor Lighting Zone per Title 24 Part 1 10.114 or as designated by Authority Having Jurisdiction (AHJ):				
☐ LZ-0: Very Low - Undeveloped Parkland		☐ LZ-2: Moderate - Urban Clusters		☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval	
☐ LZ-1: Low - Rural Areas		☒ LZ-3: Moderately High - Urban Areas			
05	Occupancy Types within Project				
• Gymnasium • Office • Support Areas • Warehouse					

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv for alterations.

My Project Consists of:

01	02
☒ New Lighting System	Must Comply with Allowances from 140.7 / 170.2(e)6
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? ○ Yes ○ No

03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%		

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*

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STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page:	(Page 2 of 9)
Project Address:	17285 Butterfield Blvd	Date Prepared:	2/10/2023

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: if any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv											Compliance Results		
01		02		03		04		05	06		07		08	09
General Hardscape Allowance 140.7(d)1 / 170.2(e)6 (See Table I)	+	Per Application 140.7(d)2 / 170.2(e)6 (See Table J)	+	Sales Frontage 140.7(d)2 (See Table K)	+	Ornamental 140.7(d)2 / 170.2(e)6 (See Table L)	+	Per Specific Area 140.7(d)2 / 170.2(e)6 (See Table M)	OR	Existing Power Allowance 141.0(b)2L / 180.2(b)4Bv (See Table N)	=	**Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**
964	+	---	+	---	+	---	+	144.7	OR	---	=	1,108	≥	1,104	COMPLIES
										Shielding Compliance (See Table G for Details)					N/A
										Controls Compliance (See Table H for Details)					COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
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F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1,2]	How is Wattage determined	Total Number Luminaires[2]	Luminaire Status[3]	Excluded per 140.7(a) / 170.2(e)6A	Design Watts	Cutoff Req. > 6,200 initial lumen output 130.2(b) / 160.5(c)[4]	Field Inspector	
										Pass	Fail
BA1	BA1-CANOPY DOWN	☐ Linear	30	Mfr. Spec	4	New	☐	120	NA: < 6200 lumens	☐	☐
BB1	BB1-SCONCE	☐ Linear	11	Mfr. Spec	3	New	☐	33	NA: < 6200 lumens	☐	☐
BC1	BC1-SCONCE	☐ Linear	28	Mfr. Spec	6	New	☐	168	NA: < 6200 lumens	☐	☐
BC2	BC2-SCONCE	☐ Linear	14	Mfr. Spec	15	New	☐	210	NA: < 6200 lumens	☐	☐
BD1	BD1-WALL UPLIGHT	☐ Linear	20	Mfr. Spec	4	New	☐	80	NA: < 6200 lumens	☐	☐
BE1	BE1-AREA POLE	☐ Linear	39	Mfr. Spec	9	New	☐	351	NA: < 6200 lumens	☐	☐
BE2	BE2-AREA POLE	☐ Linear	39	Mfr. Spec	2	New	☐	78	NA: < 6200 lumens	☐	☐
BE3	BE3-AREA POLE	☐ Linear	20	Mfr. Spec	2	New	☐	40	NA: < 6200 lumens	☐	☐
BF1	BF1-BOLLARD	☐ Linear	8	Mfr. Spec	3	New	☐	24	NA: < 6200 lumens	☐	☐

Registration Number: | Generated Date/Time: | Documentation Software: EnergyPro
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Pieter Colenbrander
REGISTERED PROFESSIONAL ENGINEER
No.14738
Exp. 6/23
ELECTRICAL
STATE OF CALIFORNIA

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:

211101

SHEET TITLE:

TITLE 24 DOCUMENTATION

SHEET NUMBER:

E8.1

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-LTI-E
Project Name:	Morgan Hill Butterfield Fire Station	Report Page:	(Page 7 of 9)
Project Address:	17285 Butterfield Blvd	Date Prepared:	2/10/2023

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE
This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING
This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS
This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))
This section does not apply to this project.

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS
This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS
This section does not apply to this project.

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S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)
This section does not apply to this project.

T. DWELLING UNIT LIGHTING
This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	Whole Building Time Switch; Office; Corridor; Restroom; Kitchen; Storage; Fitness; Laundry;

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CERTIFICATE OF COMPLIANCE			NRCC-LTI-E
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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	Documentation Author Signature:
Pieter Colenbrander	P. Colenbrander
Company: O'Mahony & Myer	Signature Date: 2023-02-10
Address: 4340 Redwood Hwy, Ste 245	CEA/ HERS Certification Identification (if applicable): E14738
City/State/Zip: San Rafael CA 94903	Phone: 415-492-0420

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature:
Pieter Colenbrander	P. Colenbrander
Company: O'Mahony & Myer	Date Signed: 2023-02-10
Address: 4340 Redwood Hwy Suite 245	License: E14738
City/State/Zip: San Rafael CA 94903	Phone: 415-492-0420

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F. INDOOR LIGHTING FIXTURE SCHEDULE

AN1	AN1-2X2	No	NA	29	Mfr. Spec	5	No	145	☐	☐
AN2	AN2-1X4	No	NA	29	Mfr. Spec	2	No	58	☐	☐
							Total Designed Watts: CONDITIONED SPACES	2,903		

Designed Wattage: Unconditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change[1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field Inspector	
									Pass	Fail
AJ1	AJ1-SURFACE LINEAR 4	No	NA	25	Mfr. Spec	3	No	75	☐	☐
							Total Designed Watts: UNCONDITIONED SPACES	75		

[1]*FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B / 170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2]*Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS
This section does not apply to this project.

H. INDOOR LIGHTING CONTROLS (Not including PAFs)
This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03	
		Field Inspector	
		Pass	Fail
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	☐	☐
NA < 4,000W subject to multilevel	Whole Building Auto Time Switch	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

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H. INDOOR LIGHTING CONTROLS (Not including PAFs)

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) / 160.5(b)4A	Multi-Level Controls 130.1(b) / 160.5(b)4B	Shut-Off Controls 130.1(c) // 160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) / 160.5(b)4D	Secondary Daylighting 130.1(d) / 160.5(b)4D	Interlocked Systems 140.6(a)1/ 170.2(e)2A	Field Inspector	
								Pass	Fail
Office	Office (<=250 square feet)	Readily Accessible	Dimmer	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
Corridor	Corridor	Readily Accessible	Dimmer	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
Restroom	Restroom	Readily Accessible	NA: Enclosed area <1005F	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
Kitchen	Kitchen/ Food Preparation	Readily Accessible	Dimmer	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
Bunks	All Other Space Types	Readily Accessible	Dimmer	NA: Elec. equip. rm	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
Storage	All Other Space Types	Readily Accessible	NA: Enclosed area <1005F	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
Electrical	Electrical Mechancial Telephone Room	Readily Accessible	NA: Enclosed area <1005F	NA: Elec. equip. rm	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
Garage	Auto Repair	Readily Accessible	Dimmer	See Building Level	NA:Garage < 36sf opening	NA:Garage < 36sf opening	No	☐	☐
Fitness	Exercise Center Gymnasium	Readily Accessible	Dimmer	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
Laundry	Laundry	Readily Accessible	Dimmer	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No	☐	☐
							13		
							Plan Sheet Showing Daylit Zones:		

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I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment	
					Area Category	PAF
Office	Office (<=250 square feet)	0.65	731	475.2	No	No
Restroom	Restroom	0.65	240	156	No	No
Storage	All Other Space Types	0.4	278	111.2	No	No
Laundry	Laundry	0.45	84	37.8	No	No
Kitchen / Dining	Kitchen/ Food Preparation	0.95	784	744.8	No	No
Fitness	Exercise Center Gymnasium	0.5	350	175	No	No
Corridor	Corridor	0.4	498	199.2	No	No
Garage	Auto Repair	0.55	1,770	973.5	No	No
Workshop	All Other Space Types	0.6	84	50.4	No	No
Electrical	Electrical Mechancial Telephone Room	0.4	178	71.2	No	No
		TOTALS:	4,997	2,994.3	See Tables J, or P for detail	

Unconditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment	
					Area Category	PAF
Trash Enclosure	All Other Space Types	0.4	234	93.6	No	No
		TOTALS:	234	93.6	See Tables J, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM
This section does not apply to this project.

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This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.

A. GENERAL INFORMATION

01	Project Location (city)	Morgan Hill	04	Total Conditioned Floor Area (ft²)	4,997
02	Climate Zone	4	05	Total Unconditioned Floor Area (ft²)	234
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1

● Gymnasium ● Office ● Support Areas ● All Other Occupancies

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Area Category Method	4997	Area Category Method	234
☐ New Lighting System - Parking Garage				
Total Area of Work (ft²)	4997		234	

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C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b)1 / 170.2(e)	Allowed Lighting Power per 140.6(b) / 170.2(e) (Watts)							Adjusted Lighting Power per 140.6(a) / 170.2(e) (Watts)					Compliance Results
	01	02	03	04		05		06	07		08		09
	Complete Building 140.6(c)1	Area Category 140.6(c)2 / 170.2(e)4	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 / 170.2(e)4B (+)	=	Total Allowed (Watts)	≥	Total Designed (Watts)	Adjustments PAF Lighting Control Credits 140.6(a)2 / 170.2(e)1B (-)	=	Total Adjusted (Watts) *Includes Adjustments		05 must be >= 08 140.6 / 170.2(e)
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)				
Conditioned		2,994.3	0		=	2,994	≥	2,903	0	=	2903		COMPLIES
Unconditioned		93.6	0		=	94	≥	75	0	=	75		COMPLIES
								Controls Compliance (See Table H for Details)					COMPLIES
								Rated Power Reduction Compliance (See Table Q for Details)					

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

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F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change[1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field Inspector	
									Pass	Fail
AA1	AA1-LINEAR 4	No	NA	26	Mfr. Spec	5	No	130	☐	☐
AA2	AA2-LINEAR 6	No	NA	39	Mfr. Spec	1	No	39	☐	☐
AB1	AB1-STRIP	No	NA	33	Mfr. Spec	3	No	99	☐	☐
AB2	AB2-STRIP	No	NA	11	Mfr. Spec	3	No	33	☐	☐
AB3	AB3-STRIP	No	NA	40	Mfr. Spec	2	No	80	☐	☐
AB4	AB4-STRIP	No	NA	33	Mfr. Spec	1	No	33	☐	☐
AC1	AC1-LINEAR 8	No	NA	70	Mfr. Spec	1	No	70	☐	☐
AD1	AD1-SURFACE DOWN	No	NA	13	Mfr. Spec	8	No	104	☐	☐
AE1	AE1-UNDERCABINET	No	NA	11	Mfr. Spec	17	No	187	☐	☐
AG1	AG1-DRUM 36"	No	NA	35	Mfr. Spec	4	No	140	☐	☐
AH1	AH1-SURFACE SQUARE	No	NA	35	Mfr. Spec	4	No	140	☐	☐
AH1E	AH1E-SURFACE SQUARE	No	NA	35	Mfr. Spec	4	No	140	☐	☐
AJ1	AJ1-SURFACE LINEAR 4	No	NA	25	Mfr. Spec	3	No	75	☐	☐
AJ2	AJ2-SURFACE LINEAR 8	No	NA	50	Mfr. Spec	2	No	100	☐	☐
AK1	AK1-SURFACE STRIP 8	No	NA	66	Mfr. Spec	10	No	660	☐	☐
AK2	AK2-PENDANT STRIP 8	No	NA	66	Mfr. Spec	5	No	330	☐	☐
AL1	AL1-RECESSED ROUND	No	NA	19	Mfr. Spec	3	No	57	☐	☐
AL2	AL2-RECESSED ROUND	No	NA	14	Mfr. Spec	12	No	168	☐	☐
AL3	AL3-RECESSED ROUND	No	NA	19	Mfr. Spec	3	No	57	☐	☐
AM1	AM1-DECORATIVE	No	NA	29	Mfr. Spec	2	No	58	☐	☐

REGISTERED PROFESSIONAL ENGINEER
PIETER COLENBRANDER
No.14738
Exp. 6/23
ELECTRICAL
STATE OF CALIFORNIA

coar DESIGN GROUP
previously JKA
6353 DEL CERRO BLVD., SAN DIEGO, CA 92120
619.698.9177 | www.coargroup.com

O'MAHONY & MYER
ELECTRICAL ENGINEERING & LIGHTING DESIGN
4340 REDWOOD HWY., SUITE 245
SAN RAFAEL, CALIFORNIA 94903
(415) 492-0420 FAX (415) 479-1600

PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

17285 Butterfield Blvd.
Morgan Hill, CA 95037

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE SINCE 1885
MORGAN HILL 1906 FIRE

DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
TITLE 24 DOCUMENTATION

SHEET NUMBER:
E8.2

0' - 7 1/2"

0' - 1 1/8"

PHOTOVOLTAIC SYSTEM AC DISCONNECT

RATED AC OPERATING CURRENT: 48.25 A AC
AC NOMINAL OPERATING VOLTAGE: 208 VAC

NOTES:
1. LOCATE AT PHOTOVOLTAIC INTERCONNECTION DISCONNECT.
2. RED BACKGROUND, REFLECTIVE WHITE LETTERING (MIN. 1/4" TEXT)
3. LABELS SHALL BE UV SUN RESISTANT, WITH ADHESIVE SUITABLE FOR OUTDOOR ENVIRONMENT.

0' - 5 3/4"

0' - 1 1/8"

WARNING: PHOTOVOLTAIC POWER SOURCE

NOTES:
1. LOCATE AT 10' INCREMENTS ALONG ALL EXPOSED PHOTOVOLTAIC SYSTEM CONDUIT RUNS.
2. LOCATE AT ALL COVERS, ENCLOSURES, J-BOXES AND CONDUIT BODIES.
3. RED BACKGROUND, REFLECTIVE WHITE LETTERING (MIN. 3/8" TEXT)
4. LABELS SHALL BE UV SUN RESISTANT, WITH PERMANENT ADHESIVE BOND SUITABLE FOR SURFACE MATERIAL APPLICATION.
5. REFERENCE: CEC 690.31(G)

0' - 4"

0' - 1 3/4"

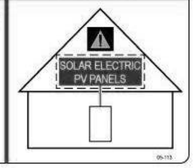
PV SYSTEM DISCONNECT

TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

NOTES:
1. LOCATE AT ALL INVERTER AC/DC DISCONNECT(S).
2. RED BACKGROUND, REFLECTIVE WHITE LETTERING (MIN. 1/4" TEXT)
3. LABELS SHALL BE UV SUN RESISTANT, WITH PERMANENT ADHESIVE BOND SUITABLE FOR SURFACE MATERIAL APPLICATION.
4. REFERENCE: CEC 690.15(D)

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN CONDUCTORS OUTSIDE THE ARRAY. CONDUCTORS WITHIN THE ARRAY REMAIN ENERGIZED IN SUNLIGHT



pv-labels.com 05-113

NOTES:
1. LOCATE NOT MORE THAN 3' FROM THE SERVICE DISCONNECTING MEANS.
2. RED BACKGROUND, REFLECTIVE WHITE LETTERING (MIN. 3/8" & 3/16" TEXT)
3. LABELS SHALL BE UV SUN RESISTANT, WITH PERMANENT ADHESIVE BOND SUITABLE FOR SURFACE MATERIAL APPLICATION.
4. REFERENCE: CEC 690.56(C)(1)

0' - 4"

0' - 4"

DIRECT CURRENT PHOTOVOLTAIC POWER SOURCE

MAXIMUM VOLTAGE:
1000 VDC

MAXIMUM CIRCUIT CURRENT:
25 AMPS DC

MAXIMUM RATED DC-DC OUTPUT CURRENT
18 AMPS

NOTES:
1. LOCATE AT DC INPUT DEVICE.
2. RED BACKGROUND, REFLECTIVE WHITE LETTERING (MIN. 1/4" & 1/8" TEXT)
3. LABELS SHALL BE UV SUN RESISTANT, WITH ADHESIVE SUITABLE FOR OUTDOOR ENVIRONMENT.
4. REFERENCE: CEC 690.53

0' - 6"

0' - 1"

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

NOTES:
1. LOCATE WITHIN 3' OF RAPID SHUTDOWN SWITCH.
2. RED BACKGROUND, REFLECTIVE WHITE LETTERING (MIN. 1/4" TEXT)
3. LABELS SHALL BE UV SUN RESISTANT, WITH ADHESIVE SUITABLE FOR OUTDOOR ENVIRONMENT.
4. REFERENCE: CEC 690.56(C)(3)

Power Optimizer
For North America
P370 / P400 / P401 / P485 / P505

POWER OPTIMIZER

PV power optimization at the module-level

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module-level monitoring
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)
- Module-level voltage shutdown for installer and firefighter safety

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/ Power Optimizer
For North America
P370 / P400 / P401 / P485 / P505

Optimizer model (typical module compatibility)	P370 (for higher-power 60 and 72-cell modules)	P400 (for 72 & 96-cell modules)	P401 (for high power 60 and 72 cell modules)	P485 (for high-voltage modules)	P505 (for higher current modules)	
INPUT						
Rated Input DC Power[1]	370	400		485	505	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	60	80	60	125[2]	83[2]	Vdc
MPPT Operating Range	8 - 60	8 - 80	8-60	12.5 - 105	12.5 - 83	Vdc
Maximum Short Circuit Current (Isc)	11	10.1	13.75	11	14	Adc
Maximum Efficiency	99.5					%
Weighted Efficiency	98.8					%
Overvoltage Category	II					
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)						
Maximum Output Current	15					Adc
Maximum Output Voltage	60		85			Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)						
Safety Output Voltage per Power Optimizer	1 ± 0.1					Vdc
STANDARD COMPLIANCE						
Photovoltaic Rapid Shutdown System	NEC 2014, 2017 & 2020			NEC 2014, 2017 & 2020	NEC 2014, 2017 & 2020	
EMC	FCC Part 15 Class B, IEC61000-6-2, IEC61000-6-3					
Safety	IEC62109-1 (class II safety), UL1741					
Material	UL94 V-0, UV Resistant					
RoHS	Yes					
INSTALLATION SPECIFICATIONS						
Maximum Allowed System Voltage	1000					Vdc
Compatible Inverter(s)	All SolarEdge Single Phase and Three Phase inverters					
Dimensions (W x L x H)	129 x 153 x 27.5 / 5.1 x 6 x 1.1	129 x 153 x 33.5 / 5.1 x 6 x 1.3	129 x 153 x 29.5 / 5.1 x 6 x 1.16	129 x 153 x 33.5 / 5.1 x 6 x 1.3	129 x 162 x 59 / 5.1 x 6.4 x 2.3	mm / in
Weight (including cables)	655 / 1.4	750 / 1.7	655 / 1.4	845 / 1.9	1064 / 2.3	gr / lb
Input Connector	MC4[3]			Single or dual MC4[4]	MC4[3]	
Input Wire Length	0.16 / 0.52, 0.9 / 2.95[4]	0.16 / 0.52	0.16 / 0.52, 0.9 / 2.95[4]	0.16 / 0.52	0.16 / 0.52	m / ft
Output Wire Type / Connector	Double Insulated / MC4					
Output Wire Length	1.2 / 3.9					m / ft
Operating Temperature Range[5]	-40 to +85 / -40 to +185					°C / °F
Protection Rating	IP68 / NEMA6P					
Relative Humidity	0 - 100					%

(1) Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed
(2) NEC 2017 requires max input voltage be not more than 80V
(3) For other connector types please contact SolarEdge
(4) For dual version for parallel connection of two modules use 1 MC4 - Y-ADAPTER. In the case of an odd number of PV modules in one string, installing one P485 dual version power optimizer connected to the end of the string, and connecting the remaining single module to the shared input connectors with the supplied pair of leads
(5) For ambient temperature above +85°C / +185°F, power de-rating is applied. Refer to Power Optimizer Temperature De-Rating Technical Note for more details.

PV System Design Using a SolarEdge Inverter[6][7]		Single Phase HD-Wave	Single phase	Three Phase for 208V grid	Three Phase for 277/480V grid	
Minimum String Length (Power Optimizers)	P370, P400, P405	8		10	18	
	P485, P505	6		8	14	
Maximum String Length (Power Optimizers)		25		25	50	
Maximum Nominal Power per String		5700[8] (6000 with SE7600-US - SE9400-US)	5250[8]	6000[8]	12750[8]	W
Parallel Strings of Different Lengths or Orientations		Yes				

(6) For design using a mix of modules refer to: http://www.solaredge.com/sites/default/files/string_sizing_na.pdf
(7) It is not allowed to mix P485/P505 with P370/P400/P401 in one string
(8) If the inverters rated AC power / maximum nominal power per string, then the maximum power per string will be able to reach up to the inverters maximum input DC power. Refer to: https://www.solaredge.com/sites/default/files/se-power-optimizer-single-string-design-application-note.pdf
(9) For 208V grid, it is allowed to install up to 7,250W per string when the maximum power difference between each string is 1,000W
(10) For 277/480V grid it is allowed to install up to 15,000W per string when the maximum power difference between each string is 2,000W

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Intertek RoHS

Three Phase Inverters for the 120/208V Grid
for North America
SE14.4KUS / SE17.3KUS

INVERTERS

The best choice for SolarEdge enabled systems

- Specifically designed to work with power optimizers
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for superior efficiency (97.5%) and longer strings
- Built-in type 2 DC and AC Surge Protection, to better withstand lightning events
- Small, lightest in its class, and easy to install outdoors or indoors on provided bracket
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- Built-in module-level monitoring with Ethernet, wireless or cellular communication for full system visibility
- Integrated Safety Switch
- UL1741 SA certified, for CPUC Rule 21 grid compliance

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/ Three Phase Inverters for the 120/208V Grid[(1)]
for North America
SE14.4KUS / SE17.3KUS

MODEL NUMBER	SE14.4KUS	SE17.3KUS	
APPLICABLE TO INVERTERS WITH PART NUMBER	SExKK-USx2YxxxX		
OUTPUT			
Rated AC Power Output	14400	17300	W
Maximum apparent AC output power	14400	17300	VA
AC Output Line Connections	Wye / N; PE; 4W + PE		
AC Output Voltage Minimum-Nominal-Maximum[2] (L-N)	105-120-132.5		Vac
AC Output Voltage Minimum-Nominal-Maximum[2] (L-L)	183-208-229		Vac
AC Frequency Min-Nom-Max[3]	59.3 - 60 - 60.5		Hz
Continuous Output Current (per Phase)	40	48.25	Aac
GFDI Threshold	1		A
Utility Monitoring, Islanding Protection, Country Configurable Set Points	Yes		
THD	< 3		%
Power Factor Range	+/- 0.85 to 1		
INPUT			
Maximum DC Power (Module STC)	21600	26000	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage DC+ to DC-	600		Vdc
Nominal Input Voltage DC+ to DC-	400		Vdc
Maximum Input Current	40	48.25	Adc
Maximum Input Short Circuit Current	55		Adc
Reverse-Polarity Protection	Yes		
Ground-Fault Isolation Detection	367kΩ Sensitivity[4]		
CEC Weighted Efficiency	97.5		%
Night-time Power Consumption	< 4		W
ADDITIONAL FEATURES			
Supported Communication Interfaces	2 x RS485, Ethernet, Cellular (optional)		
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi access point for local connection		
Rapid Shutdown	NEC2014, NEC2017 and NEC2020 compliant/certified		
RS485 Surge Protection Plug-in	Supplied with the inverter, Built-in		
AC, DC Surge Protection	Type II, field replaceable, Built-in		
DC Fuses (Single Pole)	25A, Built-in		
Smart Energy Management	Export Limitation		
DC SAFETY SWITCH			
DC Disconnect	Integrated		
STANDARD COMPLIANCE			
Safety	UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07		
Grid Connection Standards	IEEE1547, Rule 21, Rule 14 (HI)		
Emissions	FCC part15 class A		
INSTALLATION SPECIFICATIONS			
AC output conduit size / AWG range	¾" or 1" / 6 - 10 AWG		
DC input conduit size / AWG range	¾" or 1" / 6 - 12 AWG		
Number of DC inputs pairs	4		
Dimensions with Safety Switch (H x W x D)	31.8 x 12.5 x 11.8 / 808 x 317 x 300		in / mm
Weight with Safety Switch	76.2 / 35.5		lb / kg
Cooling	Fans (user replaceable)		
Noise	< 42		dBA
Operating Temperature Range	-40 to +140 / -40 to +60[5]		°F / °C
Protection Rating	NEMA 3R		
Mounting	Bracket provided		

(1) For 277/480V inverters refer to: https://www.solaredge.com/sites/default/files/se-three-phase-us-inverter-277-480V-setapp-datasheet.pdf
(2) For other regional settings please contact SolarEdge support
(3) Where permitted by local regulations
(4) For power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf

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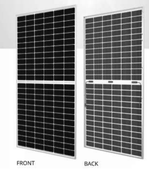

BiHiKu
HIGH POWER BIFACIAL MONO PERC MODULE
435 W ~ 460 W
UP TO 30% MORE POWER FROM THE BACK SIDE
CS3W-435|440|445|450|455|460MB-AG

MORE POWER

- Up to 30% more power from the back side
- 24 % higher front side power than conventional modules
- Low NMOT: 41 ± 3 °C; Low temperature coefficient (Pmax): -0.34 % / °C
- Better shading tolerance

MORE RELIABLE

- Lower internal current, lower hot spot temperature
- Minimizes micro-crack impacts
- Heavy snow load up to 5400 Pa, wind load up to 3600 Pa *

- 12 Years — **Enhanced Product Warranty on Materials and Workmanship***
- 30 Years — **Linear Power Performance Warranty***

1st year power degradation no more than 2%
Subsequent annual power degradation no more than 0.45%

*According to the applicable Canadian Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*
ISO 9001:2015 / Quality management system
ISO 14001:2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety

PRODUCT CERTIFICATES*
IEC 61215 / IEC 61730 / CE / MCS / ENAETRO / UKCA
FSEC (US Florida) / UL 61730 / IEC 61701 / IEC 62716 / IEC 60068-2-68
Take-e-way

* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your product and applicable in the regions in which the products will be used.

CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 20 years, it has successfully delivered over 63 GW of premium-quality solar modules across the world.

* For detailed information, please refer to Installation Manual.

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199 Lushan Road, SND, Suzhou, Jiangsu, China, 215129, www.csisolar.com, support@csisolar.com

ENGINEERING DRAWING (mm)

CS3W-435MB-AG / I-V CURVES

ELECTRICAL DATA | STC*

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)	Module Efficiency
CS3W-435MB-AG	435 W	40.5 V	10.75 A	48.5 V	11.42 A	19.5%
	5% 457 W	40.5 V	11.29 A	48.5 V	11.99 A	20.5%
Bifacial Gain**	10% 479 W	40.5 V	11.83 A	48.5 V	12.56 A	21.4%
	20% 522 W	40.5 V	12.90 A	48.5 V	13.70 A	23.4%
	30% 566 W	40.5 V	13.98 A	48.5 V	14.85 A	25.3%
CS3W-440MB-AG	440 W	40.7 V	10.82 A	48.7 V	11.48 A	19.7%
	5% 462 W	40.7 V	11.36 A	48.7 V	12.05 A	20.7%
Bifacial Gain**	10% 484 W	40.7 V	11.90 A	48.7 V	12.63 A	21.7%
	20% 528 W	40.7 V	12.98 A	48.7 V	13.78 A	23.6%
	30% 572 W	40.7 V	14.07 A	48.7 V	14.92 A	25.6%
CS3W-445MB-AG	445 W	40.9 V	10.89 A	48.9 V	11.56 A	19.9%
	5% 467 W	40.9 V	11.43 A	48.9 V	12.12 A	20.9%
Bifacial Gain**	10% 490 W	40.9 V	11.98 A	48.9 V	12.69 A	21.9%
	20% 534 W	40.9 V	13.07 A	48.9 V	13.85 A	23.9%
	30% 579 W	40.9 V	14.16 A	48.9 V	15.00 A	25.9%
CS3W-450MB-AG	450 W	41.1 V	10.96 A	49.1 V	11.60 A	20.1%
	5% 473 W	41.1 V	11.51 A	49.1 V	12.18 A	21.2%
Bifacial Gain**	10% 495 W	41.1 V	12.06 A	49.1 V	12.76 A	22.2%
	20% 540 W	41.1 V	13.15 A	49.1 V	13.92 A	24.2%
	30% 585 W	41.1 V	14.25 A	49.1 V	15.08 A	26.2%
CS3W-455MB-AG	455 W	41.3 V	11.02 A	49.3 V	11.66 A	20.4%
	5% 478 W	41.3 V	11.57 A	49.3 V	12.24 A	21.4%
Bifacial Gain**	10% 501 W	41.3 V	12.12 A	49.3 V	12.83 A	22.4%
	20% 546 W	41.3 V	13.22 A	49.3 V	13.99 A	24.4%
	30% 592 W	41.3 V	14.33 A	49.3 V	15.16 A	26.5%
CS3W-460MB-AG	460 W	41.5 V	11.09 A	49.5 V	11.72 A	20.6%
	5% 483 W	41.5 V	11.64 A	49.5 V	12.31 A	21.6%
Bifacial Gain**	10% 506 W	41.5 V	12.20 A	49.5 V	12.89 A	22.7%
	20% 552 W	41.5 V	13.31 A	49.5 V	14.06 A	24.7%
	30% 598 W	41.5 V	14.42 A	49.5 V	15.24 A	26.8%

ELECTRICAL DATA | NMOT*

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)
CS3W-435MB-AG	326 W	38.0 V	8.59 A	45.8 V	9.21 A
CS3W-440MB-AG	330 W	38.2 V	8.65 A	46.0 V	9.26 A
CS3W-445MB-AG	334 W	38.3 V	8.71 A	46.2 V	9.31 A
CS3W-450MB-AG	338 W	38.5 V	8.76 A	46.4 V	9.35 A
CS3W-455MB-AG	341 W	38.7 V	8.82 A	46.6 V	9.40 A
CS3W-460MB-AG	345 W	38.9 V	8.87 A	46.8 V	9.45 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m² spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA

Specification	Data
Cell Type	Mono-crystalline
Cell Arrangement	144 [2 X (12 X 6)]
Dimensions	2132 × 1048 × 30 mm (83.9 × 41.3 × 1.2 in)
Weight	28.4 kg (62.6 lbs)
Front / Back Glass	2.0 mm heat strengthened glass with anti-reflective coating
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4.0 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	400 mm (15.7 in) (+) / 280 mm (11.0 in) (-) or customized length*
Connector	T4 series or MC4 EVO2
Per Pallet	33 pieces
Per Container (40' HQ)	660 pieces or 627 pieces (only for US)

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

ELECTRICAL DATA

Operating Temperature	-40°C ~ +85°C
Max. System Voltage	1500 V (IEC/UL) or 1000 V (IEC/UL)
Module Fire Performance	TYPE 29 (UL 61730) or CLASS C (IEC61730)
Max. Series Fuse Rating	25 A
Application Classification	Class A
Power Tolerance	0 ~ + 10 W
Power Reliability*	70 %

* Power Reliability = $P_{max} > / = P_{min}$; both P_{min} and P_{max} are tested under STC, Bifaciality Tolerance: ± 5 %.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.34 % / °C
Temperature Coefficient (Voc)	-0.26 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	41 ± 3°C

PARTNER SECTION

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. CSI Solar Co., Ltd. reserves the right to make necessary adjustement to the information described herein at any time without further notice.
Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

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CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE SINCE 1885
MORGAN HILL 1950 FIRE

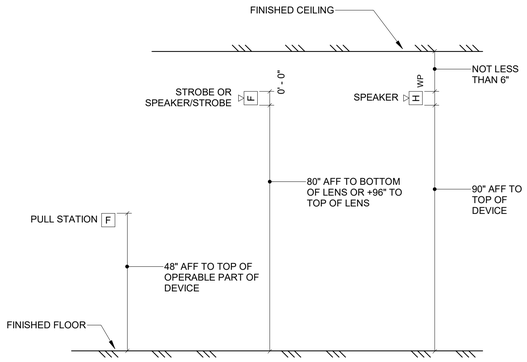
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

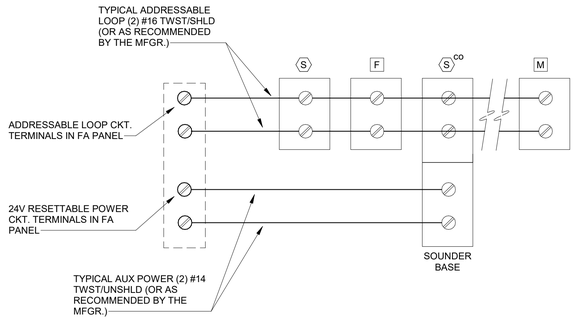
PROJECT NUMBER:
211101

SHEET TITLE:
PV DATA SHEETS & PLACARDS

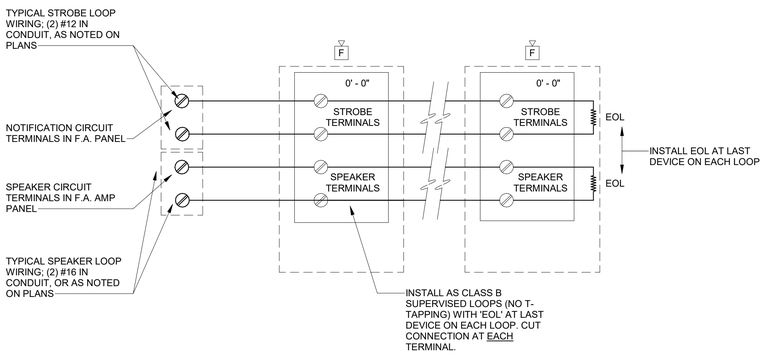
SHEET NUMBER:
E9.1



1 FIRE ALARM DEVICE MOUNTING HEIGHT DETAIL
NO SCALE



2 TYPICAL ADDRESSABLE INITIATION LOOP WIRING
NO SCALE



3 TYPICAL NOTIFICATION / SPEAKER CIRCUIT WIRING
NO SCALE

SEQUENCE OF OPERATION MATRIX

		RESPONSE				
		ANNUNCIATE AT FIRE ALARM CONTROL PANEL (FACP)	ANNUNCIATE AT FIRE ALARM ANNUNCIATOR PANEL (FAAP)	ANNUNCIATE AT OFF-SITE MONITORING STATION	ANNUNCIATE AUDIBLE/VISUAL DEVICES IN ALL AREAS	SHUTDOWN OF APPLICABLE HVAC UNIT AND/OR MOTORIZED DAMPERS
ACTIVATION OF INITIATION DEVICES	WATER FLOW	X	X	X	X	
	AREA SMOKE OR HEAT DETECTOR	X	X	X	X	X
MALFUNCTION	INITIATION CIRCUITS	X	X	X		
	NOTIFICATION APPLIANCE CIRCUITS	X	X	X		
	FIRE ALARM CONTROL PANEL (FACP)	X	X	X		
	POWER FAILURE	X	X	X		

SEQUENCE OF OPERATION NOTES

1. ACTIVATION OF ANY INITIATION DEVICE WILL PLACE THE FIRE ALARM CONTROL PANEL IN ALARM MODE AND WILL ACTIVATE ALL NOTIFICATION APPLIANCES. THE FIRE ALARM CONTROL PANEL SHALL DISPLAY THE ZONE (NON-ADDRESSABLE) OF THE ACTIVATED INITIATION DEVICE(S).
2. UPON ALARM CONDITION, AUTO-DIALER TO NOTIFY THE OFF-SITE MONITORING STATION.
3. WHEN THE PANEL IS IN ALARM CONDITION, THE NOTIFICATION APPLIANCES MAY BE DEACTIVATED ("SILENCED") AT THE FIRE ALARM CONTROL PANEL. ACTIVATION OF ANOTHER INITIATION DEVICE WILL PLACE THE CONTROL PANEL BACK IN ALARM CONDITION AND WILL AGAIN ACTIVATE ALL NOTIFICATION APPLIANCES.
4. FAILURE OF THE FIRE ALARM SYSTEM COMPONENTS, WIRING OR POWER SUPPLY SHALL PLACE THE FIRE ALARM CONTROL PANEL IN TROUBLE CONDITION, RESULTING IN AN AUDIBLE AND VISUAL (LED) ALARM AT THE FIRE ALARM CONTROL PANEL ONLY. THE AUDIBLE ALARM MAY BE SILENCED AT THE CONTROL PANEL, BUT THE VISUAL ALARM WILL REMAIN ACTIVE UNTIL THE FAILED CONDITIONS ARE CORRECTED AND CLEARED.
5. UPON TROUBLE CONDITION, AUTO-DIALER TO NOTIFY THE OFF-SITE MONITORING STATION.

GENERAL FIRE ALARM NOTES

1. FINAL FIRE ALARM TEST SHALL BE MADE WITH THE DSA INSPECTOR OF RECORD (IOR). LOCAL FIRE AUTHORITY SHALL BE NOTIFIED OF DATE AND TIME OF FINAL ALARM TESTING AND SHALL ASSIST/WITNESS SUCH TESTING WHEN ABLE. ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF (48) HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
2. FIRE ALARM CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 907.6.2. MONITORING SHALL BE TESTED AND VERIFIED AS SENDING THE CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT AND/OR PROVISIONS
3. FIRE ALARM DEVICE MOUNTING HEIGHTS:
   a. HORN INTERIOR/EXTERIOR: 90" MIN. TO TOP OF DEVICE ABOVE FINISHED FLOOR, OR 100" MAX TO TOP OF DEVICE, BUT NOT LESS THAN 6" FROM CEILING.
   b. WALL MOUNTED HORN/STROBE: BETWEEN 80" TO BOTTOM OF DEVICE LENS TO +96" TO TOP OF DEVICE LENS ABOVE FINISH FLOOR, BUT NOT LESS THAN 6" FROM CEILING.
   c. CONTROL PANELS / ANNUNCIATORS: 48" TO BOTTOM OF EQUIPMENT.
4. AUDIBLE FIRE ALARM SYSTEM LEVEL SHALL BE AT LEAST 15dBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL IN ALL OCCUPIABLE AREAS, OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, MEASURED AT 5 FEET ABOVE THE FLOOR. AUDIBLE SIGNALS SHALL NOT BE LESS THAN 75dBA AT 10 FEET, OR MORE THAN 110dBA AT THE MINIMUM HEARING DISTANCE.
5. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL THREE DISTINCTIVE FIRE ALARM SOUND PER NFPA 72.
6. APPLICABLE CODES:
   a. CBC 2022; CEC 2022; CMC 2022; CFC 2022.
   b. STATE FIRE MARSHAL TITLE 19, PUBLIC SAFETY.
   c. NFPA 72, 2022 EDITION W/CA AMENDMENTS, FIRE ALARM CODE.
7. STROBES SHALL FLASH AT A RATE NOT EXCEEDING TWO FLASHES PER SECOND, AND NOT LESS THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISUAL DEVICES WITHIN 55 FEET OF EACH OTHER SHALL BE SYNCHRONIZED.
8. FIRE ALARM CONTRACTOR SHALL PROVIDE A COPY OF NFPA 72 SYSTEM RECORD OF COMPLETION, SYSTEM RECORD OF INSPECTION, AND TESTING.
9. POWER SERVICE TO THE FACP AND CENTRAL STATION AUTO DIALER SHALL BE ON A DEDICATED BRANCH CIRCUIT WITH A RED MARKING AND IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL".
10. INSTALL ALL WIRING IN CONDUIT, MIN. 3/4" CONDUIT. ALL FIRE ALARM SYSTEM WIRING SHALL BE FPL (FIRE POWER LIMITED) OR FPLP (FIRE POWER LIMITED PLENUM RATED) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.
11. CONDUIT AND WIRING SHALL BE PER MANUFACTURERS REQUIREMENTS.
12. ALL FIRE ALARM COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICES/EQPT. SHALL EXCEED 20LBS. WITHOUT SPECIAL MOUNTING DETAILS.
13. INSTALLATION OF SYSTEM SHALL NOT BE STARTED UNTIL COMPLETE SET OF CONSTRUCTION DOCUMENTS (WITH DEVICE TYPES AND LISTINGS) HAVE BEEN REVIEWED AND APPROVED BY THE LOCAL AHJ.
14. A STAMPED SET OF APPROVED PLANS SHALL BE ON THE JOB SITE AT ALL TIMES AND SHALL BE USED FOR INSTALLATION.
15. ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT/ENGINEER OF RECORD.
16. THE CONTRACTOR SHALL INSTALL AND ADJUST ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
17. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 3 FEET FROM ANY SUPPLY DIFFUSER. IN AREAS OF CONSTRUCTION OR POSSIBLE DAMAGE /CONTAMINATION, INSTALLED DEVICES SHALL BE COVERED UNTIL AREA IS READY TO BE TURNED OVER TO THE OWNER.
18. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE ALARM DEVICE. DO NOT SPLICE WIRE. THERE MUST BE AT LEAST 6" OF WIRE LEAD FROM THE BOX TO THE DEVICE. ALL BOXES TO BE SIZED PER CEC FOR PROPER VOLUME WITH INSTALLED WIRING AND DEVICES.
19. SUPERVISING STATION: AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72, AS AMENDED BY CFC CHAPTER 80. THE SUPERVISION STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011.

FIRE ALARM EQUIPMENT LIST

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
M	ADDRESSABLE MONITOR MODULE
C R	ADDRESSABLE CONTROL / RELAY MODULE
S	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR
-	DETECTOR BASE
F	ADDRESSABLE PULL STATION
S	VISUAL STROBE, WALL MOUNT, SELECTABLE CANDELA UL 1971 PUBLIC MODE NOTIFICATION
F	COMBINATION VISUAL STROBE AND SPEAKER (1W TAP), WALL MOUNT, SELECTABLE CANDELA UL 1971 PUBLIC MODE NOTIFICATION

FIRE ALARM WIRING LEGEND

TAG	DESCRIPTION	CABLING
A	INITIATION CIRCUIT	(2) #16 TWISTED/UNSHIELDED - WESTPENN 990S (OR WESTPENN AQC225 (WET))
B	STROBE NOTIFICATION CIRCUIT(S)	(2) #12 THHN/THWN
C	24V AUX POWER CIRCUIT	(2) #14 TWISTED/UNSHIELDED - WESTPENN 994S (OR WESTPENN AQC226 (WET))

NOTE:
CONTRACTOR SHALL VERIFY EXACT CABLE/WIRE TYPES WITH SYSTEM MANUFACTURER PRIOR TO ROUGH-IN. INSTALL WIRING IN 3/4" CONDUIT MIN.

FIRE ALARM SYSTEM DESCRIPTION

1. THE FIRE ALARM SYSTEM SHALL BE AN AUTOMATIC CONVENTIONAL SYSTEM WITH STYLE 4, CLASS B WIRING FOR IDC'S, NAC'S, AND SLC'S.
2. PROVIDE COMPLETE PROGRAMMING, AND ALL NECESSARY DEVICES FOR COMPLETE SYSTEM.
3. CIRCUIT PATHWAY SURVIVABILITY SHALL BE LEVEL 1.
4. PROVIDE AND INSTALL NEW EQUIPMENT, DEVICES AND REQUIRED MODULES AND PROVIDE CONNECTIONS COMPLETE FOR A FULLY FUNCTIONING EXPANSION OF THE EXISTING FIRE ALARM SYSTEM.
5. SYSTEM INSTALLATION SHALL BE BY A LICENSED ELECTRICAL OR FIRE ALARM CONTRACTOR WITH A CALIFORNIA C-10 LICENSE, REGULARLY ENGAGED IN THE INSTALLATION AND COMMISSIONING OF FIRE ALARM SYSTEMS TO NFPA 72 STANDARDS. INSTALLING CONTRACTOR'S NAME AND CONTACT INFORMATION SHALL BE LISTED IN THE NFPA CLOSE OUT DOCUMENTATION AT COMPLETION OF PROJECT.

FIRE ALARM SCOPE OF WORK

1. REFER TO SECTION 283101 FOR FIRE ALARM SYSTEM REQUIREMENTS. PROVIDE COMPLETE SYSTEM SHOP DRAWINGS AND OBTAIN AHJ APPROVAL, PER SECTION 283101-1.7
2. PROVIDE A NEW FIRE ALARM CONTROL PANEL AT THE BUILDING.
3. TERMINATE EACH NOTIFICATION CIRCUIT TO THE (N) FACP.
4. TERMINATE THE INITIATION CIRCUITS TO THE FACP.

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PROJECT:

CITY OF MORGAN HILL

BUTTERFIELD FIRE STATION

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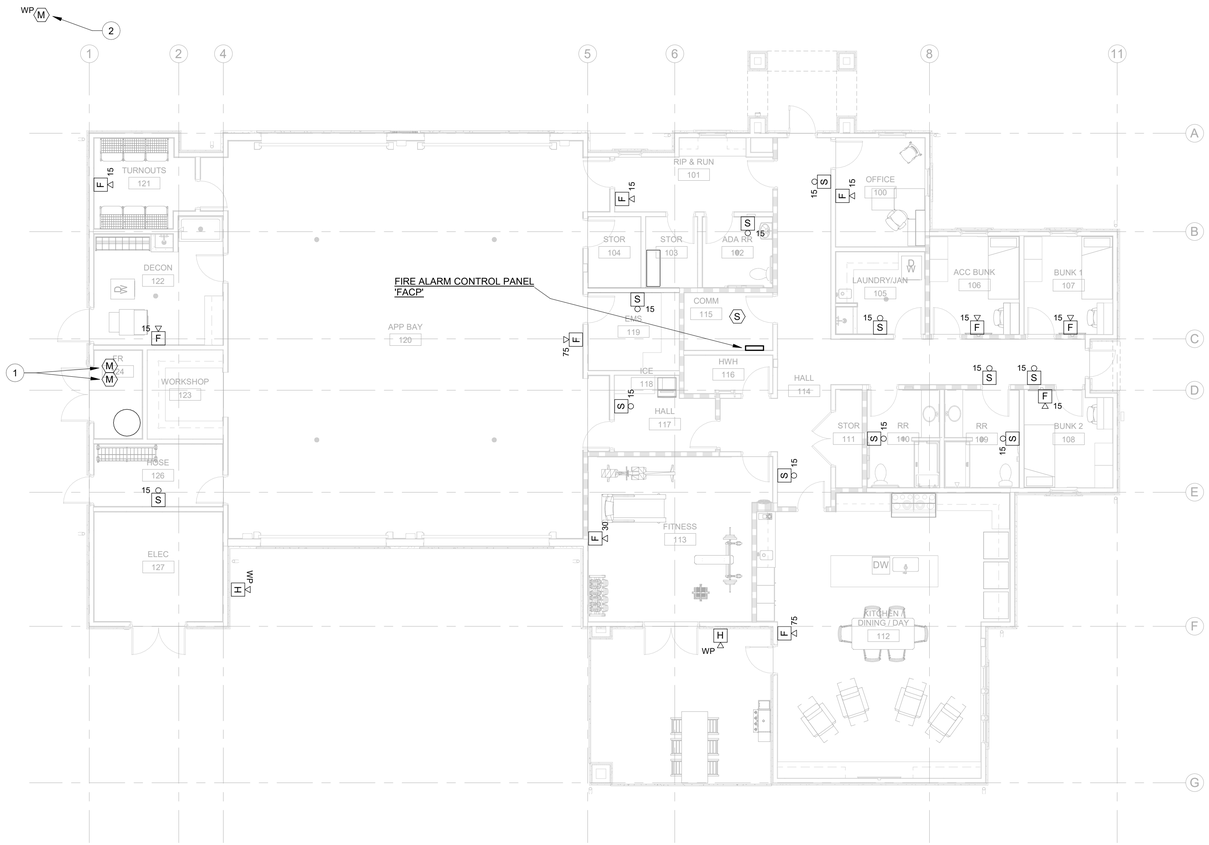
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
FIRE ALARM EQUIPMENT LIST, GENERAL NOTES & DETAILS

SHEET NUMBER:
FE0.1



1 FLOOR PLAN - FIRE ALARM
1/8" = 1'-0"

NORTH

SHEET NUMBERED NOTES

1 PROVIDE MONITOR MODULES AT FIRE SPRINKLER RISER TAMPER AND FLOW SWITCHES. PROGRAM FIRE ALARM SYSTEM TO PRODUCE A TROUBLE SIGNAL AT THE PANEL UPON TAMPER SWITCH ACTIVATION AND AN ALARM IN THE EVENT OF SPRINKLER SYSTEM WATER FLOW.

2 PROVIDE MONITOR MODULE IN A WEATHERPROOF BOX AT SITE DOUBLE DETECTOR CHECK VALVE. COORDINATE EXACT LOCATION WITH CIVIL. PROGRAM FIRE ALARM SYSTEM TO PRODUCE A TROUBLE SIGNAL AT THE PANEL UPON CHECK VALVE TAMPER SWITCH ACTIVATION.

NOTE:

THE FIRE ALARM SYSTEM IS A DEFERRED SUBMITTAL. PLANS ARE FOR REFERENCE ONLY TO SHOW INTENT. CONTRACTOR TO INCLUDE FIRE ALARM SYSTEMS IN PROJECT BID. SEE SPEC SECTION 28 31 01 FOR FIRE ALARM SYSTEM DEFERRED APPROVAL INSTRUCTIONS.

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PROJECT:

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BUTTERFIELD FIRE STATION

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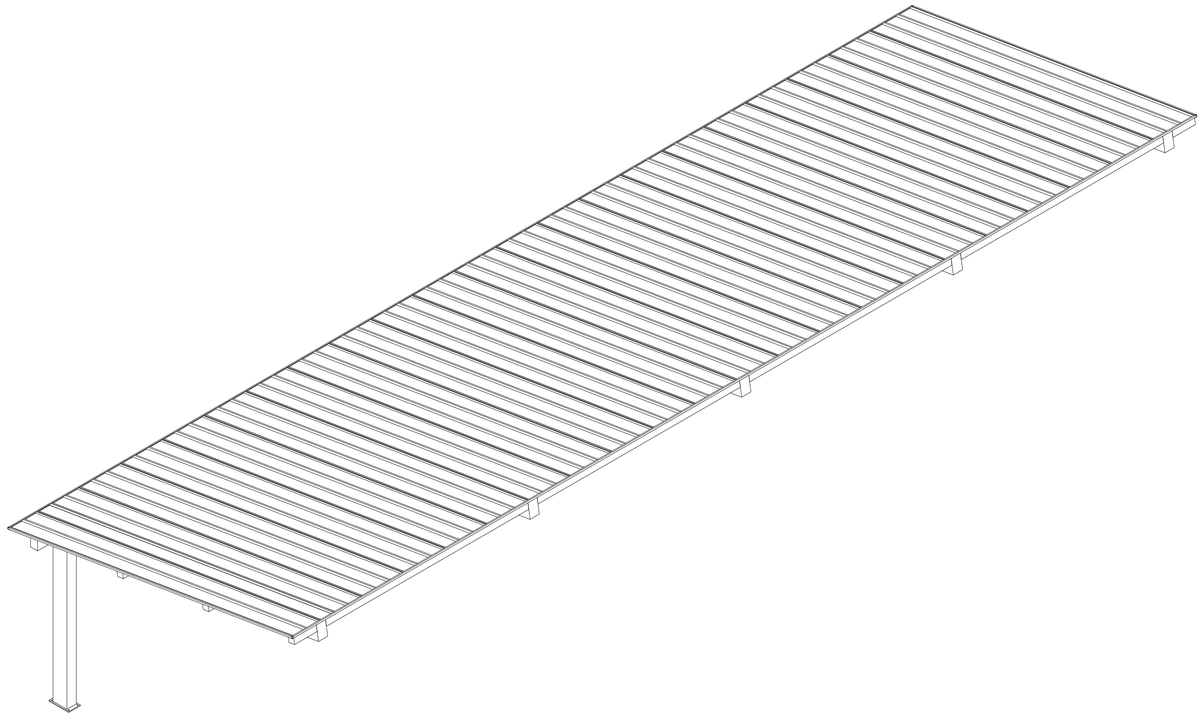
DESCRIPTION:	DATE:
95% CONSTR. DRAWINGS	01/16/23
100% CONSTR. DRAWINGS	03/23/23

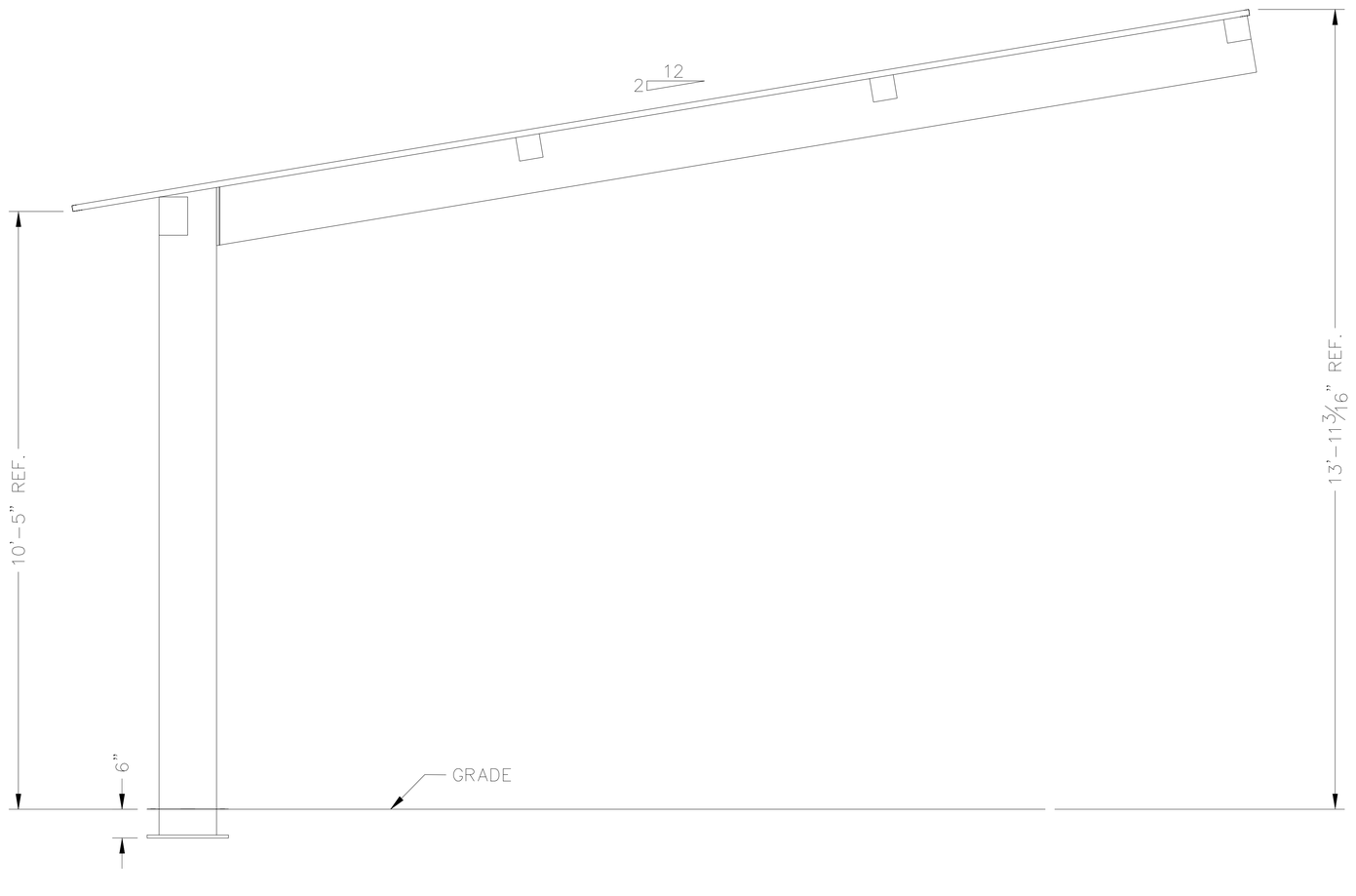
NOT FOR CONSTRUCTION

PROJECT NUMBER:
211101

SHEET TITLE:
FLOOR PLAN - FIRE ALARM

SHEET NUMBER:
FE3.1





PRELIMINARY: NOT FOR CONSTRUCTION

ICON
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1455 LINCOLN AVE.
HOLLAND MI, 49423

616.396.0919
800.748.0985
616.396.0944 FX

ADD ALTERNATE #1

Elevation

DRAWN BY:	RGB
DATE:	11/2/2022
PRELIMINARY ID:	77367
REVISION:	A
BUILDING TYPE:	MC20.5X65-10M
PROJECT NAME:	

SHEET 1.0

Engineering\AcadStandard\Blocks\Titles\CONPRETB
QF-73-01-42

DWG:ineering\Standards\MC\20.5X65\M-P2-20-90-150\Drawings\Preliminary\MC20.5x65-10M-P2-20-90-150~77367.dwg

PRELIMINARY: NOT FOR CONSTRUCTION

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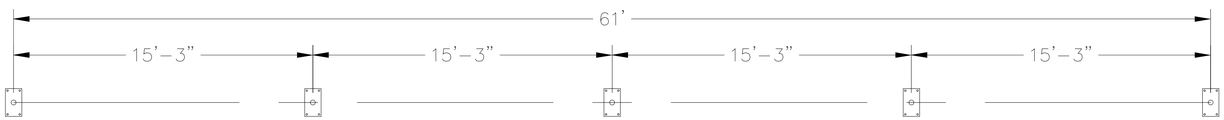
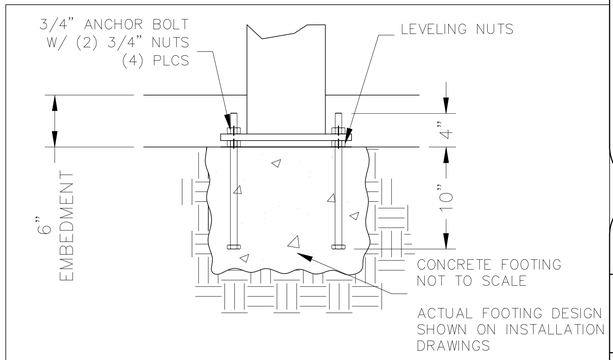
Anchor Bolt Layout

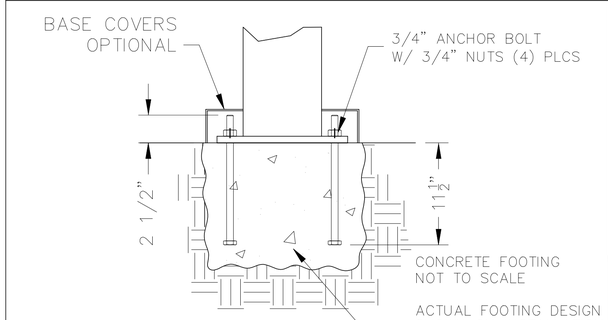
ADD ALTERNATE #1





PRELIMINARY DRAWINGS SHOWN AS 6" BURIED

STANDARD BASE CONNECTION
COLUMN TYPE: A (6" BURIED)



OPTIONAL BASE CONNECTION
COLUMN TYPE: B (SURFACE MOUNT W/ COVERS)

DRAWN BY:
RGB
DATE:
11/2/2022
PRELIMINARY ID:
77367
REVISION:
A
BUILDING TYPE:
MC20.5X65-10M
PROJECT NAME:

SHEET
2.0

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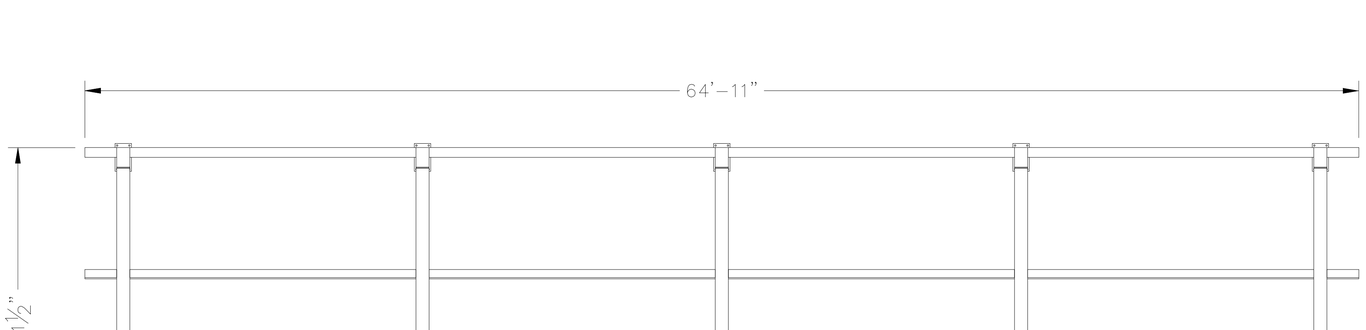

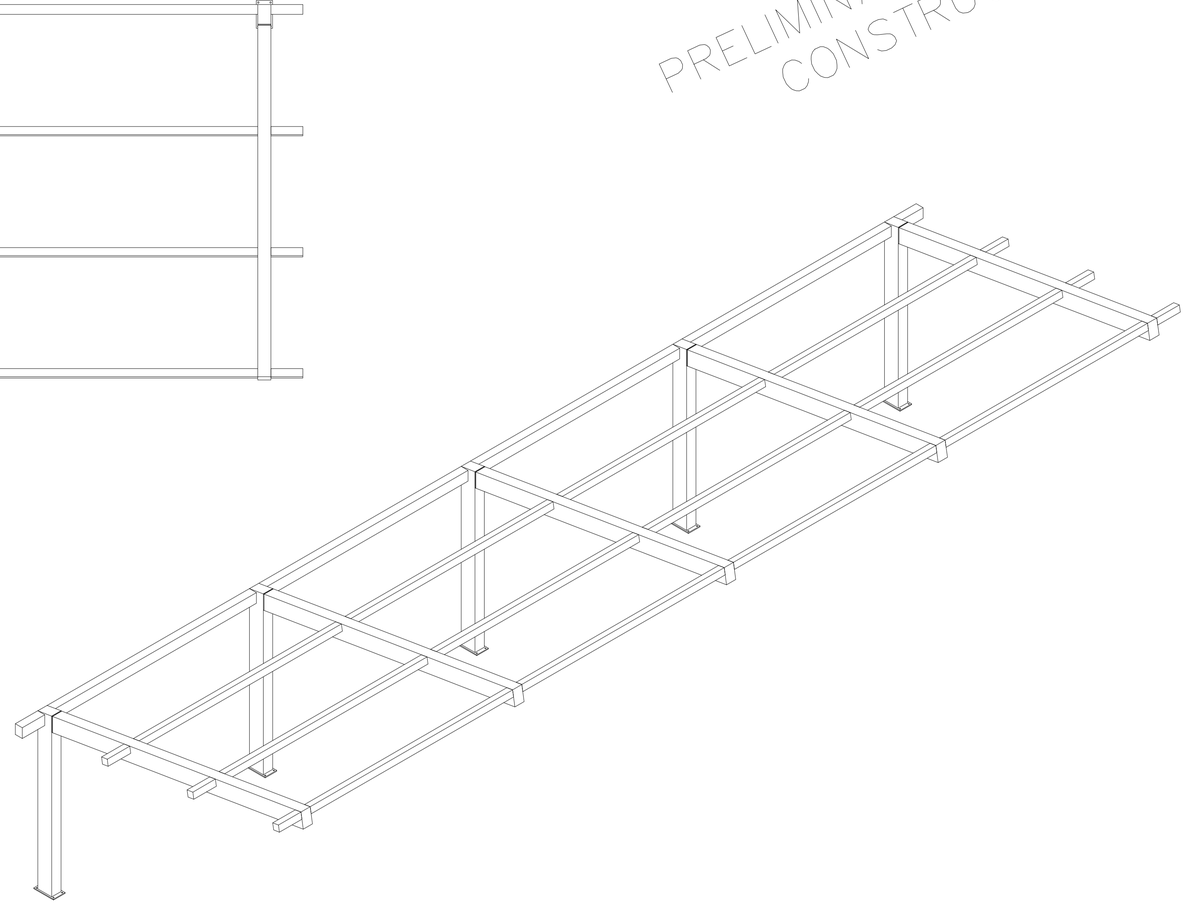

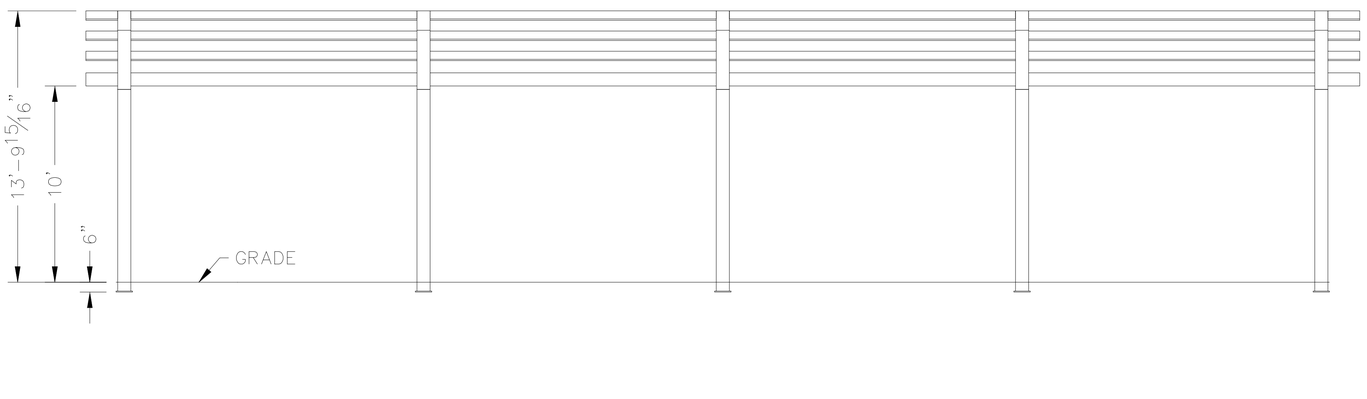

ALL STRUCTURAL COMPONENTS WILL BE:
TUBE: ASTM A500 GRADE B
PLATE: ASTM A36
BOLTS: ASTM A325
NUTS: ASTM A563
WELDING: GMAW

NOTE:
COLUMN SIZE: HSS 12x8x1/2

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ADD ALTERNATE #1

Frame

DRAWN BY:
RGB
DATE:
11/2/2022
PRELIMINARY ID:
77367
REVISION:
A
BUILDING TYPE:
MC20.5X65-10M
PROJECT NAME:

SHEET
3.0

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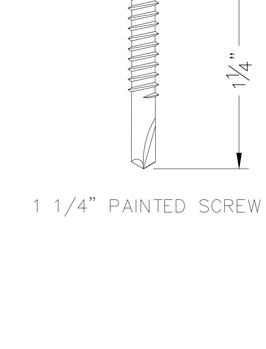
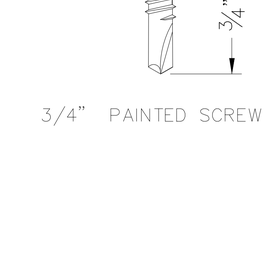
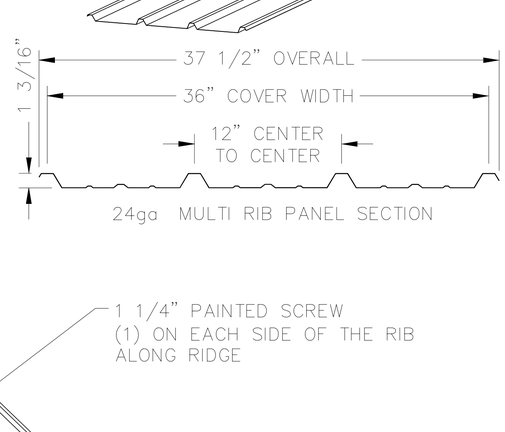
DWG:ineering\Standards\MC\20.5X65\M-P2-20-90-150\Drawings\Preliminary\MC20.5x65-10M-P2-20-90-150~77367.dwg



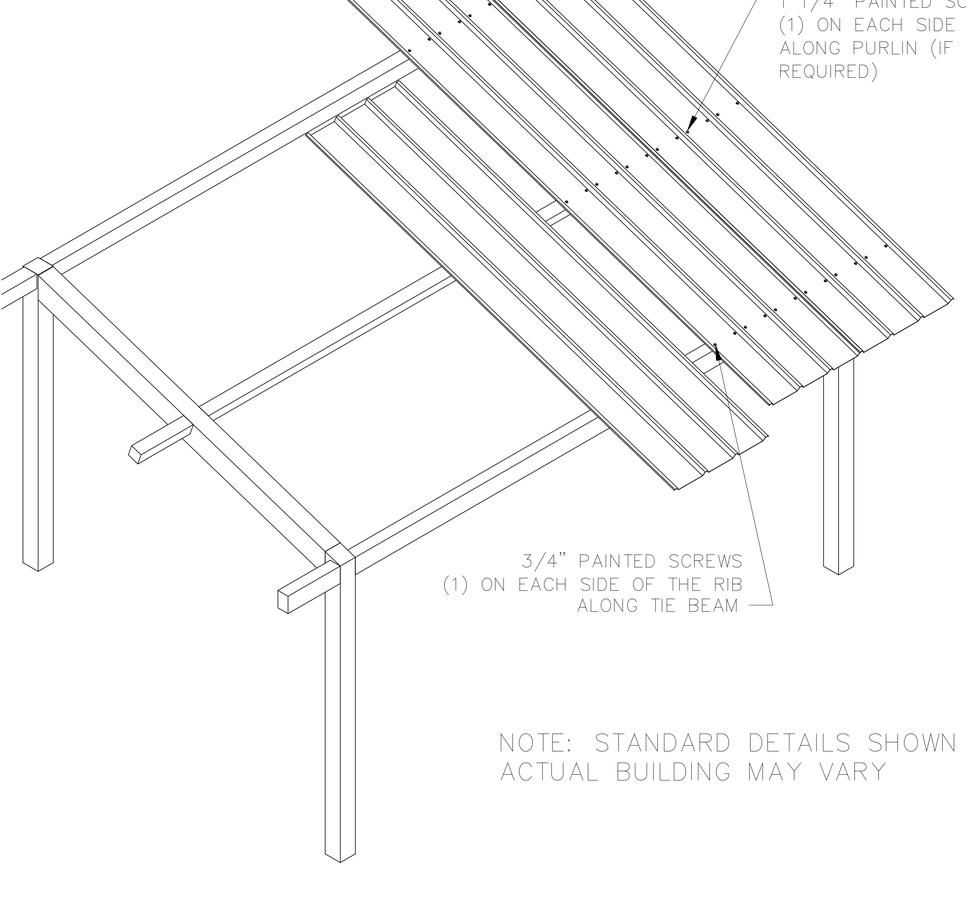
1 1/4" PAINTED SCREW



3/4" PAINTED SCREW



24ga MULTI RIB PANEL SECTION



NOTE: STANDARD DETAILS SHOWN
ACTUAL BUILDING MAY VARY

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ADD ALTERNATE #1

Roof Layout

DRAWN BY:	RGB
DATE:	11/2/2022
PRELIMINARY ID:	77367
REVISION:	A
BUILDING TYPE:	MC20.5X65-10M
PROJECT NAME:	

SHEET
4.0

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QF-73-01-42

DWG:Engineering\Standards\MC\20.5X65\M-P2-20-90-150\Drawings\Preliminary\MC20.5x65-10M-P2-20-90-150~77367.dwg

ELECTRICAL INFORMATION - MONOSLOPE CANTILEVER

ICON'S STANDARD ELECTRICAL IS DESIGNED TO ACCOMMODATE Ø1/2" CONDUIT WITH A Ø3" INLET HOLE ON THE BOTTOM OF EACH COLUMN.
THE CONDUIT PATHWAY RUNS THROUGH THE COLUMN, RAFTER, AND RIDGE BEAM THROUGH ALL BOLTED CONNECTIONS AS SHOWN.
IF YOU HAVE SPECIAL ELECTRICAL REQUIREMENTS, PLEASE OUTLINE ANY CHANGES BELOW AS DESCRIBED.

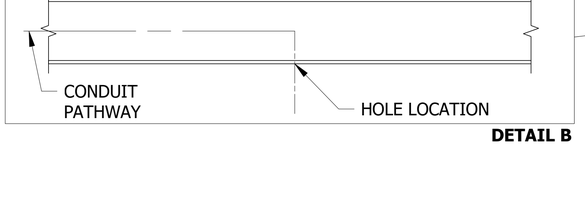
PLEASE NOTE: DESIGN LIMITATIONS ON HOLE/CUTOUT SIZES MAY APPLY.
ICON WILL REACH OUT TO DISCUSS ANY SUCH LIMITATIONS AS NEEDED.

NOTE: ICON SHELTER FRAME IS NOT UL LISTED TO ACT AS A CONDUIT FOR ELECTRICAL WIRING. CONSULT LOCAL BUILDING CODES WHEN PLANNING YOUR ELECTRICAL SYSTEM.

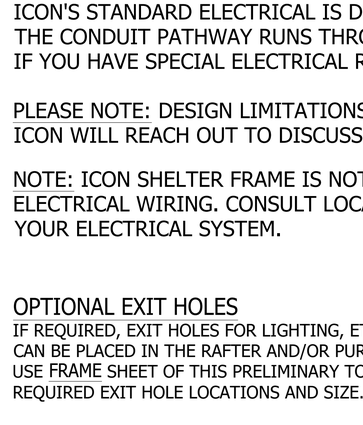
PRELIMINARY: NOT FOR CONSTRUCTION

OPTIONAL EXIT HOLES

IF REQUIRED, EXIT HOLES FOR LIGHTING, ETC.
CAN BE PLACED IN THE RAFTER AND/OR PURLIN.
USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED EXIT HOLE LOCATIONS AND SIZE.



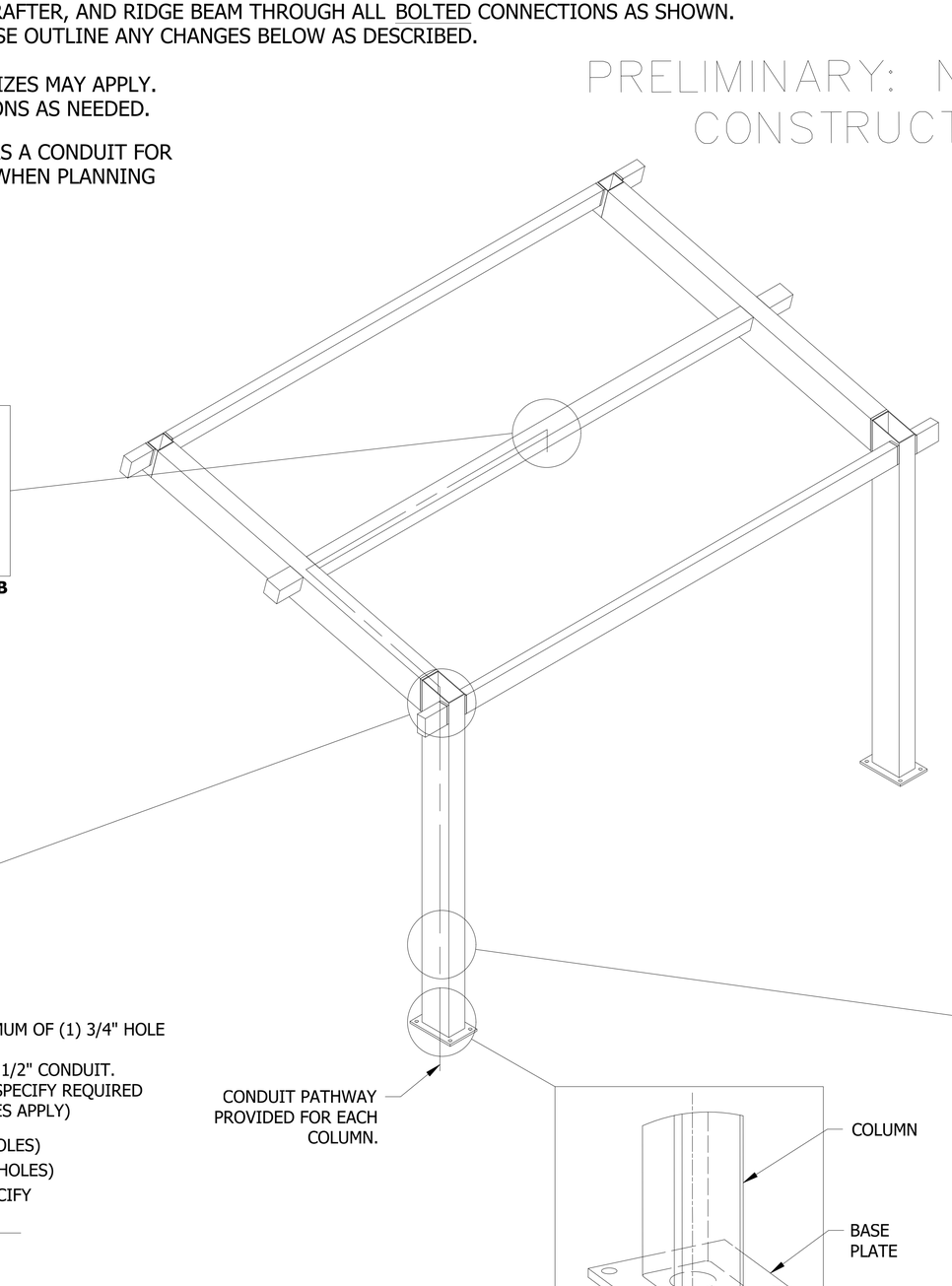
DETAIL B

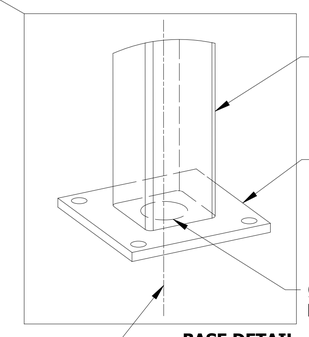


DETAIL A

ICON PROVIDES A MINIMUM OF (1) 3/4" HOLE AT
EACH CONNECTION FOR 1/2" CONDUIT.
IF APPLICABLE, PLEASE SPECIFY REQUIRED CONDUIT SIZE: (CHARGES APPLY)

- ☐ 3/4" CONDUIT (1" HOLES)
- ☐ 1" CONDUIT (1 1/4" HOLES)
- ☐ OTHER (PLEASE SPECIFY





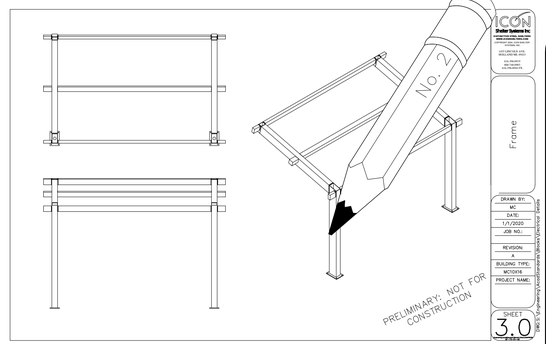
BASE DETAIL

NOTE: BUILDING DEPICTED ON THIS SHEET FOR ILLUSTRATION PURPOSES ONLY. ACTUAL LAYOUT AND FRAME MEMBER QUANTITIES VARY BY DESIGN. PLEASE REFER TO ELEVATION AND FRAME SHEETS IN THIS PRELIMINARY FOR ORDER-SPECIFIC CONFIGURATION.

STEPS:

1. CONDUIT HOLE SIZE (DETAIL A)
2. ELECTRICAL EXIT HOLES (DETAIL B)
3. ELECTRICAL ACCESS & COVER PLATES (DETAIL C)
4. ELECTRICAL CONDUIT PATHWAY (DETAIL D)

IF REQUIRED, PLEASE DRAW THE NECESSARY ELECTRICAL CONDUIT PATHWAY ON THE FRAME SHEET OF THIS PRELIMINARY.



DETAIL D

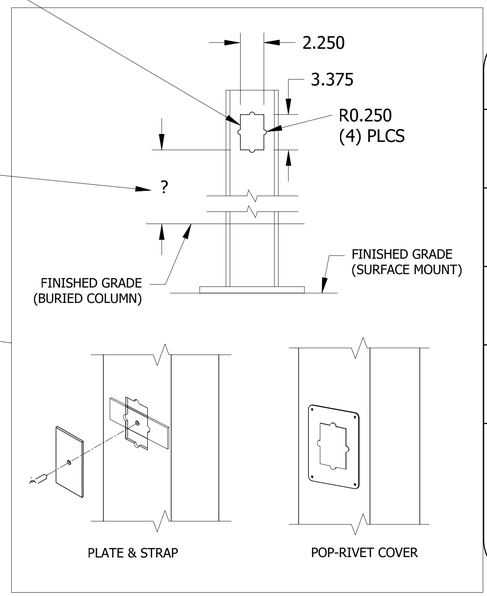
OPTIONAL CUTOUTS

USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED CUTOUT LOCATIONS (CHARGES APPLY)
SEE REQUIRED INFO BELOW

(1) STANDARD CUTOUT SIZE SHOWN. SPECIFY IF OTHER SIZE REQUIRED.

(2) CUTOUTS WILL BE ON INSIDE FACE OF COLUMN UNLESS OTHERWISE INDICATED ON FRAME SHEET.

(3) SPECIFY HEIGHT ABOVE FINISHED GRADE FOR EACH CUTOUT AS SHOWN



DETAIL C

(4) COVER PLATES PROVIDED UPON REQUEST (CHARGES APPLY)
PLEASE SPECIFY TYPE AND QUANTITY REQUIRED:

- ☐ PLATE & STRAP
- ☐ POP-RIVET COVER PLATE

HOW MANY REQUIRED?_____

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ADD ALTERNATE #1

Electrical

DRAWN BY:	RGB
DATE:	11/2/2022
PRELIMINARY ID:	77367
REVISION:	A
BUILDING TYPE:	MC20.5X65-10M
PROJECT NAME:	

SHEET 5.0

Engineering\AcadStandard\Blocks\Titles\CONPRETB QF-73-01-42

DWG:Engineering\Standards\MC\20.5X65\M-P2-20-90-150\Drawings\Preliminary\MC20.5X65-10M-P2-20-90-150~77367.dwg