



BUILDING AND SITE IMPROVEMENTS FOR:

WEST END REGIONAL NAVIGATION CENTER

11109 JASMINE STREET

FONTANA, CALIFORNIA 92337

APPLICABLE CODES

BUILDING CODES:

2025 CBC/ 2024 IBC
2025 CMC/ 2024 IRC
2025 CEC/ 2024 NEC
2025 CMC/ 2024 UMC
2025 CPE/ 2024 UPC
2025 BUILDING ENERGY EFFICIENCY STANDARDS
GREEN BUILDING CODE FOR NON-RESIDENTIAL BUILDINGS

FEDERAL REQUIREMENTS

AMERICANS WITH DISABILITIES GUIDELINES AND STANDARDS
2010 EDITION.

THE CONSTRUCTION PLANS AND CALCULATIONS SHALL
COMPLY WITH ALL OF THE REQUIREMENTS OF THE
CALIFORNIA BUILDING CODE 2019 EDITION AND CALIFORNIA
TITLE 24 REQUIREMENTS.

PROJECT DIRECTORY

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PROJECT DATA

PROJECT DESCRIPTION:

RENOVATION TO INCLUDE CONVERSION OF EXISTING OFFICE/WAREHOUSE
STRUCTURE INTO A PRIVATELY OPERATED PERMANENT SHELTER FACILITY.

SCOPE OF WORK SHALL INCLUDE INTERIOR ALTERATIONS, MINOR EXTERIOR
IMPROVEMENTS, DETACHED COVERED ACCESSORY STORAGE STRUCTURE,
SITE MODIFICATIONS, INCLUDING PERIMETER FENCING AND ROLLING GATE
AND ON-SITE ACCESSIBILITY REMEDIATION.

ALL SHELTER RESIDENTS SHALL BE AMBULATORY.

THIS FACILITY IS NOT INTENDED TO PROVIDE SERVICES TO PATRONS WITH
AMBULATORY CARE NEEDS INCLUDING MEDICAL, SURGICAL, PSYCHIATRIC,
NURSING AS DEFINED CBO CH 2-15.

APN #: 0238-111-53

ACRES: 1.65 AC

PARCEL NO.: 16613 PARCEL 2 BOOK 204 PAGE 71

ZONING: INDUSTRIAL (I-L)

OCCUPANCY GROUP:

DORMITORY AREA R-2 RESIDENTIAL
OFFICE AREAS & SUPPORT B
DINING FACILITY A-2
& COMMERCIAL KITCHEN
LOCKER STORAGE S-2
TRASH ENCLOSURE S-2

CONSTRUCTION TYPE:

TYPE V-B

SPRINKLERS: YES - EXISTING SYSTEM SHALL BE
MODIFIED TO ACCOMMODATE
NEW CONFIGURATION UNDER
SEPARATE PERMIT.

NUMBER OF STORIES:

2

PROJECT AREA:

PROPOSED FIRST FLOOR: 33,984 SQ. FT. (NO CHANGE)
PROPOSED SECOND FLOOR: 1,564 SQ. FT. (EXISTING)
4,461 SQ. FT. (NEW)
TOTAL PROJECT AREA: 40,004 SQ. FT.

ACCESSORY STRUCTURES:
"OPEN SIDED
COVERED LOCKER AREA 1,688 SQ. FT. (NEW)
"EXISTING TRASH ENCLOSURE
WITH NEW ROOF 211 SQ. FT. EXISTING
(NEW ROOF)

OCCUPANT LOAD CALCULATION

	AREAS	LOAD FACTOR	TOTAL OCC.	EXITS REQ'D.
OFFICE & OFFICE, SUPPORT	1,688 S.F.	1/150	11	1
OFFICE & OFFICE, SUPPORT CIRCULATION	1,043 S.F.	(INCIDENTAL TO OCCUPANT LOAD)		
DORMITORY & SUPPORT DORMITORY	12,040 S.F.	1/50	241	2
DORMITORY & SUPPORT DORMITORY CIRCULATION	6,066 S.F.	(INCIDENTAL TO OCCUPANT LOAD)		
KITCHEN	316 S.F.	1/200	2	1
DINING	1,745 S.F.	1/15	116	2
STORAGE	514 S.F.	1/500	2	1
TOILET/SHOWER	2,316 S.F.	(INCIDENTAL TO OCCUPANT LOAD)		
TOTAL:	28,141 S.F.		312	7

NOTE:

- EXISTING EXIT DOORS ARE LOCATED GREATER THAN 1/3 THE
DIAGONAL DISTANCE OF THE FLOOR PLATE AND EXIT ACCESS
TRAVEL DISTANCE IN ALL GAGES IS LESS THAN 250' PER CBC
CHAPTER 10, TABLE 1012.2 WITH A BUILDING EQUIPPED WITH AN
AUTOMATIC FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH CBC
SECTION 909.3.1.1.
- PER TABLE 909.4 OCCUPANCY GROUP R-2 SHOULD HAVE A 1-HOUR
SEPARATION FROM GROUP B.
- REFER TO EXIT PLAN ANALYSIS, SHEET EX-1 FOR ANALYSIS AND
SUMMARY OF AREA SEPARATIONS, EXIT QUANTITIES AND PATH OF
TRAVEL FOR EACH AREA NOTED ABOVE.

CITY OF FONTANA PROJECT REQUIREMENTS:

- PER CITY REQUIREMENTS, AT LEAST 65% OF CONSTRUCTION WASTE
MATERIALS ARE TO BE RECYCLED. CONTRACTOR TO COORDINATE WITH
THE CITY.
- PER CITY REQUIREMENTS, CONTRACTOR TO COMPLETE THE
CONSTRUCTION AND DEMOLITION PROJECT WASTE MANAGEMENT, WASTE
REDUCTION AND RECYCLING PLAN.
- HEALTH DEPARTMENT APPROVAL REQUIRED BEFORE ANY COOKING
OPERATIONS.
- ALL CONSTRUCTION ACTIVITIES THAT ARE ANTICIPATED TO EXCEED THE
NOISE STANDARDS SET FORTH IN FIG. 15-10 SHALL BE LIMITED TO THE
HOURS OF 7:00AM TO 8:00PM MONDAY THROUGH SATURDAY, EXCEPT IN
THE CASE OF AN EMERGENCY. NOISE ASSOCIATED WITH CONSTRUCTION,
REPAIR, REMODELING OR GRADING OF ANY REAL PROPERTY MUST
COMPLY WITH THE STANDARDS SET FORTH IN FIG. 15-10 BETWEEN
8:00PM AND 7:00AM MONDAY THROUGH SATURDAY AND AT ANY TIME
ON SUNDAY OR CITY RECOGNIZED HOLIDAYS. ALL ON-SITE
CONSTRUCTION EQUIPMENT SHALL HAVE PROPERLY OPERATING
MUFFLERS AND APPLICANT SHOULD UTILIZE THE QUIETEST EQUIPMENT
AVAILABLE.

BASIC ALLOWABLE BUILDING AREA INCREASE
CBC CODE ANALYSIS - SEPARATED OCCUPANCIES

- PROPOSED OCCUPANCIES
• B - BUSINESS (OFFICES)
• R-2 RESIDENTIAL
• A-2 DINING FACILITIES

- CONSTRUCTION TYPE: TYPE V-B FULLY SPRINKLERED

- SEPARATED OCCUPANCIES 508.2

- ALLOWABLE AREA FACTOR TABLE 506.2

OCC	BASE (NS)	SPRINK AREA (S/M)	AT TABLE AREA (NFA (S) 3 X BASE ALLOWED	STORIES (NS)	STORIES (S)
A-2	6,000	24,000	18,000	1	2 NO INCREASE
R-2	7,000	28,000	21,000	2	3 NO INCREASE
B	9,000	27,000	27,000	2	3

- BASIC ALLOWABLE TYPE V-B

- MOST RESTRICTIVE A-2

- FRONTAGE INCREASE L_F (SEE NO. 6 BELOW)

- F_F = (F_F - 0.25) x W/30

- F_F = (1.0 - 0.25) x 30/30 = .75 x 1 = .75 (PER TABLE 506.3.3)

- ALLOWABLE AREA TABULATION Δ_a = A_t + (NS x IF)

- FOR A-2 OCCUPANCY: 24,000 + (6,000 x .75)

- FOR R-2 OCCUPANCY: 28,000 + (7,000 x .75)

- FOR B OCCUPANCY: 27,000 + (9,000 x .75)

- FOR A-2 OCCUPANCY: 24,000 + (6,000 x .75)

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- FOR A-2 OCCUPANCY: 24,000 + (6,000 x .75)

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1. WORK DETAILED ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION," (LATEST EDITION AND SUPPLEMENTS), THE UNIFORM BUILDING CODE (FOR EXCAVATION AND GRADING), AMERICAN PUBLIC WORKS ASSOCIATION (APWA) STANDARD PLANS AND CALIFORNIA BUILDING CODE (CBC).
2. PRIOR TO POURING OF CONCRETE, THE INSPECTOR OF RECORD SHALL INSPECT AND APPROVE THE FOOTING EXCAVATIONS AND LEAVE A CERTIFICATE ON THE SITE FOR THE BUILDING INSPECTOR AND THE CONTRACTOR. NO CONCRETE SHALL BE POURED UNTIL THE BUILDING INSPECTOR HAS ALSO INSPECTED AND APPROVED THE FOOTING EXCAVATIONS.
3. GRADES AND CONTOURS INDICATED ON THE PLANS ARE TO FINISHED SURFACE, AND NOT ROUGH GRADES. CONTRACTOR SHALL SUBTRACT THE STRUCTURAL THICKNESS OF PAVEMENTS AND TOP-SOIL THICKNESS IN LANDSCAPED AREAS, TO OBTAIN DESIRED ROUGH GRADES.
4. TEMPORARY WET WEATHER EROSION CONTROL TO BE INSTALLED BETWEEN OCTOBER 1 AND APRIL 15. OBTAIN GRADING INSPECTOR'S APPROVAL OF THE PROCEDURES. REFER TO SHEET CS-01 FOR EROSION CONTROL PLAN.
5. STANDARD 12" HIGH BERM IS REQUIRED AT TOP OF GRADED SLOPES.
6. NO FILL TO BE PLACED, UNTIL THE DSA HAS INSPECTED AND APPROVED THE BOTTOM EXCAVATION.
7. CONCENTRATED DRAINAGE MUST BE CONDUCTED TO THE STREET IN APPROVED NON-EROSIVE DEVICES OR TO EXISTING STORM DRAIN SYSTEM.
8. EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH THE REGULATIONS OF THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY. EXCAVATIONS SHALL BE STABILIZED WITHIN 30 DAYS OF INITIAL EXCAVATION. TEMPORARY EXCAVATIONS SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
9. THIS PLAN IS FOR GRADING PURPOSES ONLY AND DOES NOT CONSTITUTE APPROVAL OF BUILDINGS.
10. DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.
11. EXISTING TOPOGRAPHY SHOWN HEREON WAS TAKEN FROM A SURVEY DATED SEPTEMBER 03, 2024 BY SPIO LAND SURVEYING SURVEYING.
12. CONSTRUCTION STAKING FOR IMPROVEMENTS SHOWN ON THESE PLANS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR.
13. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON THE PLANS.
14. DIMENSIONS TO PIPELINES ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
15. DIMENSIONS ARE IN FEET OR DECIMALS THEREOF.
16. CURB DIMENSIONS AND RADI ARE TO BOTTOM OF CURB FACE.
17. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800-422-4133) PRIOR TO ANY EXCAVATION.

- A. IF ANY CONSTRUCTION OPERATIONS COVERED BY THESE PLANS SHALL EXTEND INTO, OR THROUGH, OR SHALL BE COMMENCED DURING THE PERIOD OF OCTOBER 1ST TO APRIL 30TH, THE INSPECTOR WILL BE REQUIRED TO SUBMIT PLANS OF THE TEMPORARY EROSION CONTROL METHODS AND DEVICES THAT WILL BE USED IN CONNECTION WITH THE CONSTRUCTION OPERATIONS TO BE PERFORMED DURING THAT PERIOD. SAID PLANS SHALL BE SUBMITTED TO THE INSPECTOR OF RECORD ON OR BEFORE SEPTEMBER 15TH OR AT LEAST 15 DAYS BEFORE THE COMMENCEMENT OF CONSTRUCTION OPERATIONS, AND SHALL BE APPROVED BY THEM BEFORE ANY CONSTRUCTION IS PERFORMED DURING SAID PERIOD.
- B. GROUND WATERING FOR DUST CONTROL PURPOSES SHALL BE REQUIRED DURING CONSTRUCTION, PURSUANT TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) RULE 403.
- C. TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED BETWEEN OCTOBER 15TH AND MAY 15TH TO THE SATISFACTION OF THE GRADING INSPECTOR. THEY SHALL BE RELOCATED OR MODIFIED AS AND WHEN THE GRADING INSPECTOR SO DIRECTS AS THE WORK PROGRESSES. PLEASE REFER TO SHEET C6.01 FOR EROSION CONTROL PLANS.
- D. MATERIALS TAKEN OFF-SITE SHALL BE EITHER SUFFICIENTLY WATERED OR SECURELY COVERED TO PREVENT EXCESSIVE AMOUNTS OF DUST. EXPORTED SOIL SHALL BE TESTED FOR HAZARDOUS MATERIALS.
- E. THE SITE SHALL BE FENCED TO REDUCE WIND-BLOWN DUST. CONSTRUCTION MATERIALS NOT STORED BEHIND THE TEMPORARY FENCES SHALL BE COVERED. STORED SOIL AND SAND SHALL BE COVERED WITH SOIL. FENCES, WHEN SOIL BURNS, WHETHER INSIDE OR BEHIND THE TEMPORARY WALL, DEBRIS SHALL BE CLEANED UP DAILY AND PUT IN A DUMPTER WHICH SHALL HAVE A LID AND THE LID SHALL BE SECURED AT THE END OF THE DAY.
- F. LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS, AND PERIODICALLY THEREAFTER DIRECTED BY THE INSPECTOR OF RECORD.
- G. EROSION CONTROL DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE GRADING INSPECTOR OF RECORD.
- H. EXCEPT WHEN THE INSPECTOR OF RECORD DIRECTS OTHERWISE, REMOVABLE PROTECTIVE DEVICES REQUIRED SHALL BE IN PLACE AT THE END OF EACH WORK DAY WHEN THE FIVE-DAY RAIN FORECAST EXCEEDS 40%, AND SHALL BE MAINTAINED DURING THE RAINY SEASON (OCTOBER 1 THROUGH APRIL 30).
- I. SURFACE PROTECTION MEASURES DAMAGED DURING A RAINSTORM SHALL ALSO BE IMMEDIATELY REPAIRED.

APPLICABLE CODES AS OF JANUARY 1, 2025

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR	
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR	
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR	
2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR	
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR	
2022 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CCR	
2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR	
2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR	
2022 CALIFORNIA GREEN BUILDING STANDARD CODE (CALGREEN), PART 11, TITLE 24 CCR	
2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR	
TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS	

APPLICABLE STANDARDS

FOR ALL OF APPLICABLE STANDARDS, INCLUDING CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS, REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80.

- AMERICANS WITH DISABILITIES ACT (ADA), TITLE II, OR TITLE III
- FOR TITLE II: UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) OR ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36). (28 CFR 35.151(C))
- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SPPWC)

NOTE: TITLE II APPLIES TO PROJECTS FUNDED AND/OR USED BY STATE AND LOCAL GOVERNMENT SERVICES. TITLE III COVERS PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES.

1. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY JOIN CONDITIONS FOR GRADING AND DRAINAGE WORK. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITIONS HAVE BEEN EVALUATED.
2. THE CONTRACTOR FURTHER SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING SAFETY OF PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT
3. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK. COORDINATION IS THE CONTRACTORS RESPONSIBILITY AND ANY COSTS INCURRED DUE TO LACK OF COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR THE ENGINEER, PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND NOT TO THE EXPENSE OF THE OWNER OR ENGINEER.
5. CHANGES TO THE CONSTRUCTION DOCUMENTS FOR THIS PROJECT SHALL BE DONE IN WRITING AND APPROVED BY THE ENGINEER OF RECORD AND DSA. THE ENGINEER SHALL NOT BE RESPONSIBLE, OR LIABLE FOR UNAUTHORIZED CHANGES OR USES OF THE CONSTRUCTION DOCUMENTS.
6. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OR ENGINEER BEFORE PROCEEDING WITH THE WORK IN QUESTION.
7. THE CONTRACTOR SHALL OBTAIN AN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.) PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE 5 FEET OR DEEPER.
8. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

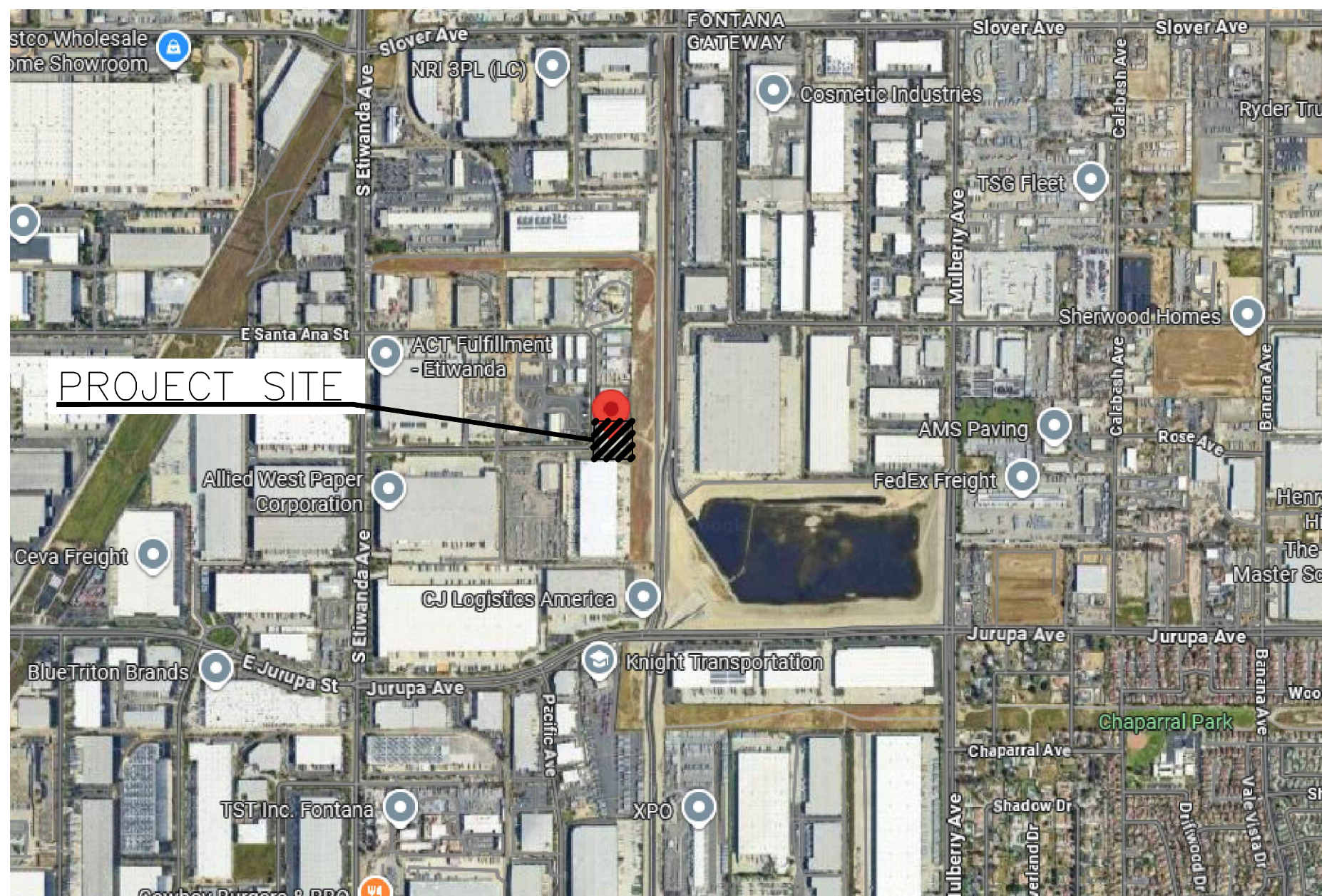
1. WALKS AND SIDEWALK SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4" PER FOOT (2% GRADIENT) (SEC. 11B-403.3)
2. WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1:20 (5% GRADIENT) IT SHALL COMPLY WITH THE PROVISIONS OF SECTION 11B-401 AS A PEDESTRIAN RAMP (SEC. 11B-403.3)
3. WALK AND SIDEWALK SURFACES WITH A SLOPE OF LESS THAN 6% GRADIENT SHALL BE AT LEAST AS SLIP-RESISTANT AS THAT DESCRIBED AS A MEDIUM SALTED FINISH (SEC. 11B-403.2)
4. WALK & SIDEWALK SURFACES WITH A SLOPE OF 6% OR MORE GRADIENT SHALL BE SLIP-RESISTANT (SEC. 11B-403.2)
5. ALL WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE LEVEL AREAS AT LEAST 5' IN LENGTH AT INTERVALS OF AT LEAST EVERY 400' (SEC. 11B-403.7)
6. 60"x60" LEVEL LANDING IS SPECIFIED AS A MINIMUM DIMENSION. EXTENT OF LANDING SHALL BE INCREASED TO ACCOMMODATE THE FINAL DORR WIDTH. (SEC. 11B-404.2.4)
7. WALKS AND SIDEWALKS SHALL HAVE A CONTINUOUS COMMON SURFACE, NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2", AND SHALL BE A MINIMUM OF 48" WIDE. (SEC. 11B-403.1, 11B-403.3, 11B-403.5.1, 11B-403.5.3, 11B-403.5.4, 11B-403.5.5)
8. WHEN ABRUPT CHANGES IN LEVEL NOT EXCEEDING 1/2" OCCUR, THEY SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1 UNIT VERTICAL TO 2 UNITS HORIZONTAL (50%), EXCEPT THAT LEVEL CHANGES NOT EXCEEDING 3/4" MAY BE VERTICAL (SEC. 11B-303.3 AND FIGURE 11B-303.3)
9. ABRUPT CHANGES IN LEVEL ALONG ANY PATH OF TRAVEL EXCEEDING 1/2" SHALL COMPLY WITH THE REQUIREMENTS FOR CURB RAMPS (SEC. 11B-403.4)
10. MANEUVERING CLEARANCES AT DOORS SHALL BE 44 INCHES MINIMUM IN LENGTH MEASURED PERPENDICULAR TO THE FACE OF THE DOOR IN THE CENTER POSITION. THE WIDTH OF THE MANEUVERING CLEARANCE SHALL EXCEED BEYOND THE STRIKE EDGE AT THE FULL SIDE OF THE DOOR. (SEC. 11B-809.8.3)
11. WALKS, SIDEWALKS, AND PEDESTRIAN WAYS SHALL BE FREE OF GRATINGS WHEREVER POSSIBLE. GRID OPENINGS IN GRATINGS SHALL BE 1/2" WIDE MAX IN THE DIRECTION OF TRAFFIC FLOW. ELONGATED OPENINGS, IF PROVIDED SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL (SEC. 11B-302.3)
12. ABRUPT CHANGES IN LEVEL, 4" OR MORE, EXCEPT BETWEEN A WALK OR A SIDEWALK AND ADJACENT STREETS OR DRIVEWAYS SHALL BE IDENTIFIED BY A 6" HIGH CURBS ABOVE WALK SURFACE (SEC. 11B-303.5)
13. PROVIDE SIGNS WHERE REQUIRED DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY TO DIRECT PEDESTRIAN TO PRIMARY ACCESSIBLE ENTRANCE AND AT EVERY MAJOR JUNCTION ALONG OR LEADING TO AN ACCESSIBLE ROUTE. PROVIDE SIGNS THAT INDICATE THE DIRECTION TO ACCESSIBLE BUILDING ENTRANCES AND SHALL COMPLY WITH SECTION 11B-703 AND SECTION 11B-216.6.
14. TRUNCATED DOMES SHALL BE PROVIDED WHERE NEEDED TO MEET CBC CODE REQUIREMENTS, SEE ARCHITECTURAL PLANS FOR LOCATIONS.

1. A PRE-PAVING MEETING WITH INSPECTOR OF RECORD AND ENGINEER IS REQUIRED 48 HOURS PRIOR TO PAVING.
2. CLASS 2 AGGREGATE BASE SHOULD CONFORM TO SECTION 26-1.02A OF THE STANDARD SPECIFICATIONS FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) AND SHOULD BE COMPACTED TO A DRY DENSITY OF AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AT NEAR OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 1557-02.
3. THE PCC PAVEMENT SLAB SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF APPROXIMATELY 3,200 PSI.
4. ADJACENT PAVEMENTS SLAB SECTIONS SHALL HAVE A TRAPEZOIDAL KEYED CONSTRUCTION JOINT, AS AN ALTERNATIVE TO THE KEYED JOINT, DOWEL BETWEEN CONSTRUCTION JOINTS CAN BE USED. DOWELS SHALL CONSIST OF 1" DIAMETER REBAR SPACED AT 12" ON CENTER. DOWELS SHOULD BE EMBEDDED A MINIMUM OF SIX INCHES INTO THE SLAB ON EITHER SIDE OF THE CONSTRUCTION JOINT.

1. ALL GRADING SHALL CONFORM TO THE LATEST CALIFORNIA BUILDING CODE (CBC) CHAPTERS 17, 18, 33, APPENDIX J AND ALL APPLICABLE SECTIONS.
2. A GRADING PERMIT SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF ANY WORK ON THE SITE.
3. A PRE-GRADING MEETING AT THE SITE IS REQUIRED BEFORE START OF GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER, GEOLOGIST, CITY INSPECTOR AND TRIBAL MONITOR.
4. ISSUANCE OF A GRADING PERMIT DOES NOT ELIMINATE THE NEED FOR PERMITS FROM OTHER REGULATORY AGENCIES WITH REGULATORY RESPONSIBILITIES FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE WORK AUTHORIZED IN THIS PLAN.
5. ALL WORK UNDER THIS PERMIT SHALL BE LIMITED TO WORK WITHIN THE PROPERTY LINE. A SEPARATE CONSTRUCTION, EXCAVATION OR ENDOACHMENT PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS MAY BE REQUIRED FOR ANY WORK WITHIN THE COUNTY RIGHT-OF-WAY.
6. APPROVAL OF THESE PLANS DOES NOT AUTHORIZE ANY WORK OR GRADING TO BE PERFORMED UNTIL THE EFFECTIVE PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED AND VALID GRADING PERMIT HAS BEEN ISSUED.
7. THIS PLAN IS FOR GRADING AND ONSITE DRAINAGE PURPOSES ONLY AND IS NOT TO BE USED FOR THE PURPOSE OF CONSTRUCTING OFFSITE IMPROVEMENTS. ISSUANCE OF A PERMIT BASED ON THIS PLAN DOES NOT CONSTITUTE APPROVAL OF DRIVEWAY LOCATIONS OR SIZES, PARKING LOT STRUCTURAL SECTIONS OR LAYOUT, ADA-RELATED REQUIREMENTS, LANDSCAPING, BUILDING LOCATIONS OR FOUNDATIONS, WALLS, CURBING, OR OTHER ON-SITE FACILITIES OR OTHER ITEMS NOT RELATED DIRECTLY TO THE BASIC GRADING OPERATION. ONSITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED BUILDING PERMIT PLANS. OFFSITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE TO PLANS APPROVED FOR THIS PURPOSE BY THE ENGINEERING DEPARTMENT.
8. MAXIMUM CUT AND FILL SLOPE = 2:1 (HORIZONTAL TO VERTICAL) AND MAXIMUM VERTICAL HEIGHT = 30 FEET, UNLESS AN APPROVED GEOTECHNICAL REPORT CAN JUSTIFY A STEEPER AND TALLER SLOPE.
9. NO FILL SHALL BE PLACED ON EXISTING GROUND UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL AND OTHER DELETERIOUS MATERIAL.
10. FILL SLOPES SHALL NOT HAVE LESS THAN 90% RELATIVE COMPACTION, OR AS RECOMMENDED ON THE APPROVED GEOTECHNICAL REPORT.
11. IT IS THE GRADING CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ADEQUATE COMPACTION HAS BEEN ATTAINED ON THE ENTIRE GRADING SITE, INCLUDING FILL AREAS OUTSIDE THE BUILDING PADS AND ON ALL FILL SLOPES.
12. UNLESS OTHERWISE RECOMMENDED IN AN APPROVED GEOTECHNICAL REPORT, OVER-EXCAVATION SHALL BE AT LEAST 24 INCHES MINIMUM BELOW THE BOTTOM OF FOOTINGS OR TO COMPETENT NATIVE SOIL OR BEDROCK MATERIALS, WHICHEVER IS DEEPER, AS APPROVED BY THE PROJECTS GEOTECHNICAL ENGINEER OR GEOLOGIST.
13. GRADING PLANS SHALL BE REVIEWED AND SIGNED BY THE PROJECTS GEOTECHNICAL ENGINEER.

14. EARTHWORK VOLUMES:
CUT 84 (CY), FILL 255 (CY), TOTAL DISTURBED AREA
10,736 (SF), OVEREXCAVATION
(REMEDIAL) 310 (CY), IMPORT 171 (CY), EXPORT 0 (CY)

15. EARTHWORK QUANTITIES ARE SHOWN FOR GRADING PERMIT PURPOSES ONLY, AND THE CITY OF FONTANA IS NOT RESPONSIBLE FOR THEIR ACCURACY.
16. A COPY OF THE GRADING PERMIT AND APPROVED GRADING PLANS MUST BE IN THE POSSESSION OF A RESPONSIBLE PERSON AND AVAILABLE AT THE SITE AT ALL TIMES.
17. ANY ONSITE RETAINING WALLS SHOWN ON THE GRADING PLANS ARE FOR REFERENCE ONLY. RETAINING WALLS ARE NOT CHECKED, PERMITTED, OR OBLIGATED FOR BY THIS PERMIT. SEPARATE RETAINING WALL PERMIT IS REQUIRED FOR ALL RETAINING WALLS FROM THE BUILDING AND SAFETY DEPARTMENT
18. ANY WALLS, FENCES, STRUCTURES AND/OR APPURTENANCES ADJACENT TO THIS PROJECT ARE TO BE PROTECTED IN PLACE. IF GRADING OPERATIONS DAMAGE OR ADVERSELY AFFECT SAID ITEMS IN ANY WAY, THE CONTRACTOR AND/OR DEVELOPER IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNER(S).
19. FOR SITES WITH PROTECTED SPECIES OR TREES, THE PROPOSED GRADING MAY BE SUBJECT TO A SEPARATE PERMIT.
20. ADEQUATE FIRE ACCESS AROUND BUILDINGS (INCLUDING GARAGES) SHOULD BE PROVIDED AS APPROVED BY THE FIRE DEPARTMENT.
21. EXISTING DRAINAGE COURSES SHALL NOT BE OBSTRUCTED, ALTERED, OR DIVERTED WITHOUT PRIOR APPROVAL FROM THE CITY OF FONTANA, ENGINEERING DEPARTMENT. A STREAMBED ALTERATION AGREEMENT MAY ALSO BE REQUIRED FROM THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE.
22. DRAINAGE EASEMENTS SHALL NOT BE OBSTRUCTED, ALTERED OR DIVERTED WITHOUT PRIOR APPROVAL OF THE CITY OF FONTANA, LAND DEVELOPMENT DIVISION.
23. SETBACKS AND BUILDING LOCATIONS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND MUST BE REVIEWED AND APPROVED UNDER A SEPARATE BUILDING PERMIT.
24. UTILITY AND SEPTIC IMPROVEMENTS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND MUST BE REVIEWED AND APPROVED UNDER A SEPARATE BUILDING PERMIT.
25. ON PROJECTS DISTURBING ONE ACRE OR MORE, THE FOLLOWING NOTE MUST BE ADDED TO A NOTICE OF INTENT (NOI) HAS BEEN FILED WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) AND A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF CALIFORNIA GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (PERMIT NO. CA00803001) FOR ALL OPERATIONS ASSOCIATED WITH THESE PLANS. THE PERMITTEE SHALL KEEP A COPY OF THE SWPPP ON SITE AS REQUIRED BY THE STATE WATER RESOURCES CONTROL BOARD.
26. IN CONJUNCTION WITH THE CALIFORNIA GENERAL PERMIT FOR PROPOSED DISTURBANCE OVER ONE ACRE, AN ACTIVE WASTEWATER DISCHARGE ID # (WQID) MUST BE INCLUDED ON THE FINAL GRADING PLAN.
27. GRADING CERTIFICATIONS SHALL BE PROVIDED USING CITY APPROVED FORMS.
28. ALL FLOOD ZONE REQUIREMENTS MUST BE REFLECTED OR ACCOUNTED FOR ON THE GRADING PLANS. ELEVATIONS OR CONSTRUCTION NOTES MUST BE INCLUDED IN THE PLANS TO ENSURE COMPLIANCE WITH ALL APPLICABLE FIRST FLOOR ELEVATION REQUIREMENTS PER FEMA, SAN BERNARDINO COUNTY, AND CITY OF FONTANA DEVELOPMENT CODE GUIDELINES.
29. STRICT ADHERENCE TO DUST CONTROL REQUIREMENTS SHALL BE ENFORCED AND ALL DUST SHALL BE CONTROLLED BY WATERING.
30. ALL GRADING OPERATIONS SHALL CEASE IF WIND VELOCITIES EXCEED 25 M.P.H. THE PROJECT SITE SHALL BE REGULARLY WATERED TO MITIGATE BLOWING DUST DURING THE DURATION OF HIGH WIND CONDITIONS.
31. ALL CONSTRUCTION WASTE RELATED DOCUMENTS AND PERMITS SHALL BE PROCESSED BY THE BUILDING AND SAFETY DEPARTMENT.
32. ALL GRADED SLOPES IN EXCESS OF THREE TO ONE SHALL BE STABILIZED AND PLANTED WITH GROUNDCOVERS AND TREES OR SHRUBS.
33. CITY OF FONTANA CONSTRUCTION INSPECTION HOURS: 7:00AM TO 5:00PM - MONDAY THROUGH FRIDAY.



SCALE: N.T.S.



BRANDOW & JOHNSTON
700 SOUTH FLOWER ST. SUITE 1200
LOS ANGELES, CA. 90017
TEL (213) 596-4500
FAX (213) 596-4599

CITY OF FONTANA
16860 VALENCIA AVE.
FONTANA, CA 92335
(909) 350-7600

ED MELO, P.E.
DIRECTOR OF CIVIL ENGINEERING

SHT. NO.	DESCRIPTION
C1.1	TITLE SHEET & GENERAL NOTES
C2.1	TYPICAL DETAILS
C2.2	TOPOGRAPHIC SURVEY (FOR REFERENCE ONLY)
C3.1	DEMOLITION PLAN
C4.1	PRECISE GRADING PLAN
C5.1	UTILITY PLAN
C6.1	EROSION CONTROL PLAN

THE BASIS OF HORIZONTAL CONTROL FOR THIS PROJECT IS CALIFORNIA COORDINATE SYSTEM NAD83 ZONE 5, (2010.00) DETERMINED LOCALLY BY THE FOLLOWING N.G.S. CONTINUOUS OPERATING REFERENCE STATIONS (C.O.R.S.):

N.G.S. C.O.R.S. NOCO:
NORTHING = 1793440.74' EASTING = 6692256.04'

NORTHING = 1842810.22 EASTING = 8707890.57
MAPPING ANGLE = 0°16'30" SCALE FACTOR = 1.00004471

ELEVATIONS SHOWN HEREON ARE BASED UPON
CITY OF FONTANA BENCHMARK ID 579,
ELEVATION 922.56 FEET (NAVD 88).

DESCRIPTION:
JURUPA & BANANA N/W COR RR SPK IN PP
897939

BORDERS ARCHITECTS
ARCHITECTURE | PLANNING | COMMERCIAL INTERIORS

1675 SCENIC AVENUE
SUITE 210
COSTA MESA, CA
92626

(949) 851-1317
www.bordersarchitect.com

STAMP

CONSULTANT

PROJECT

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

TITLE SHEET AND GENERAL NOTES

Revisions	By	Date
⚠ PC CORR 1/BID ISSUE 1	MFM	4/29/26

Drawn

Date _____

Project No.

Scale

Sheet



**Underground
Service Alert**
of Southern California
Call: TOLL FREE
**1-800
227-2600**

C1.1

STAMP

CONSULTANT

PROJECT

WESTEND
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

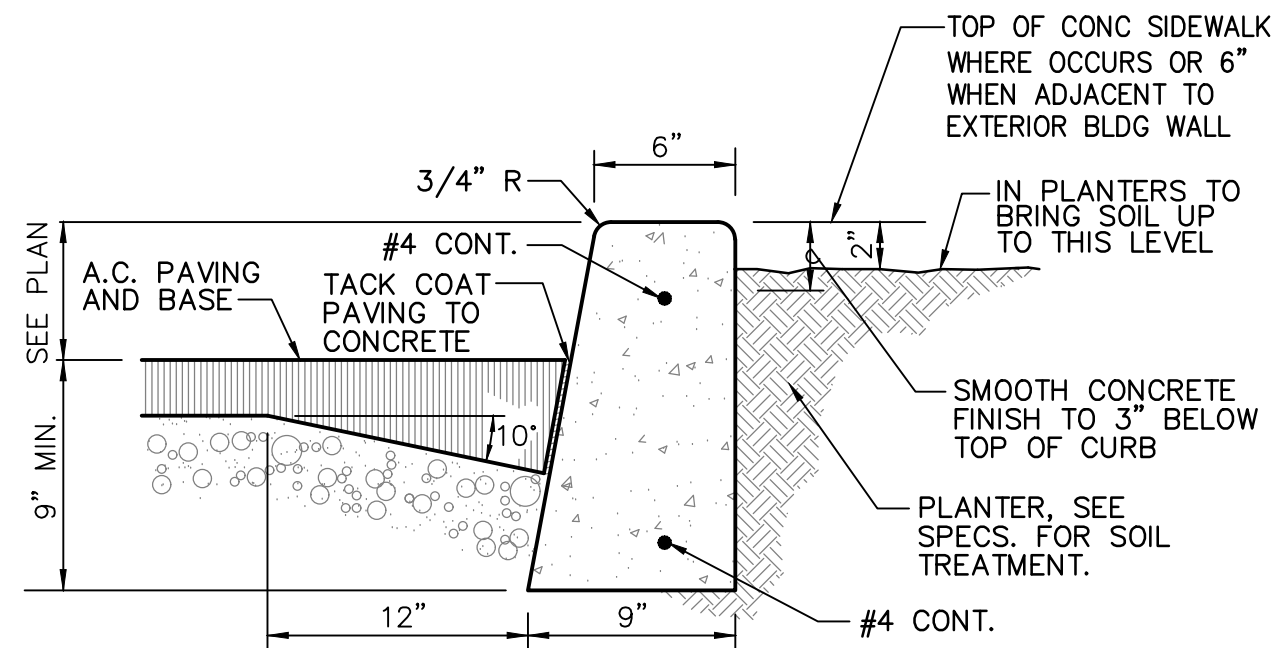
TYPICAL DETAILS

Revisions	By	Date
1	PC CORR 1/BID ISSUE	1MFM4/29/26

Drawn
Date
Project No.
Scale

Sheet

C2.1



NOTES: (TYPICAL @ ALL SIMILAR CONDITIONS)

1. BOTTOM OF CURB TO BE SET ON COMPACTED SUB-BASE OR NATURAL UNDISTURBED SOIL (PER SOILS REPORT).
2. FINISH ALL EXPOSED CONCRETE SURFACES SMOOTH.
3. PROVIDE 1/2" EXPANSION JOINTS AT 25'-0" O.C. MAX. AND AT CURVES, TANGENTS AND CORNERS.
4. PORTLAND CEMENT CONCRETE, $f_c=3000$ psi

CONCRETE CURB DETAIL

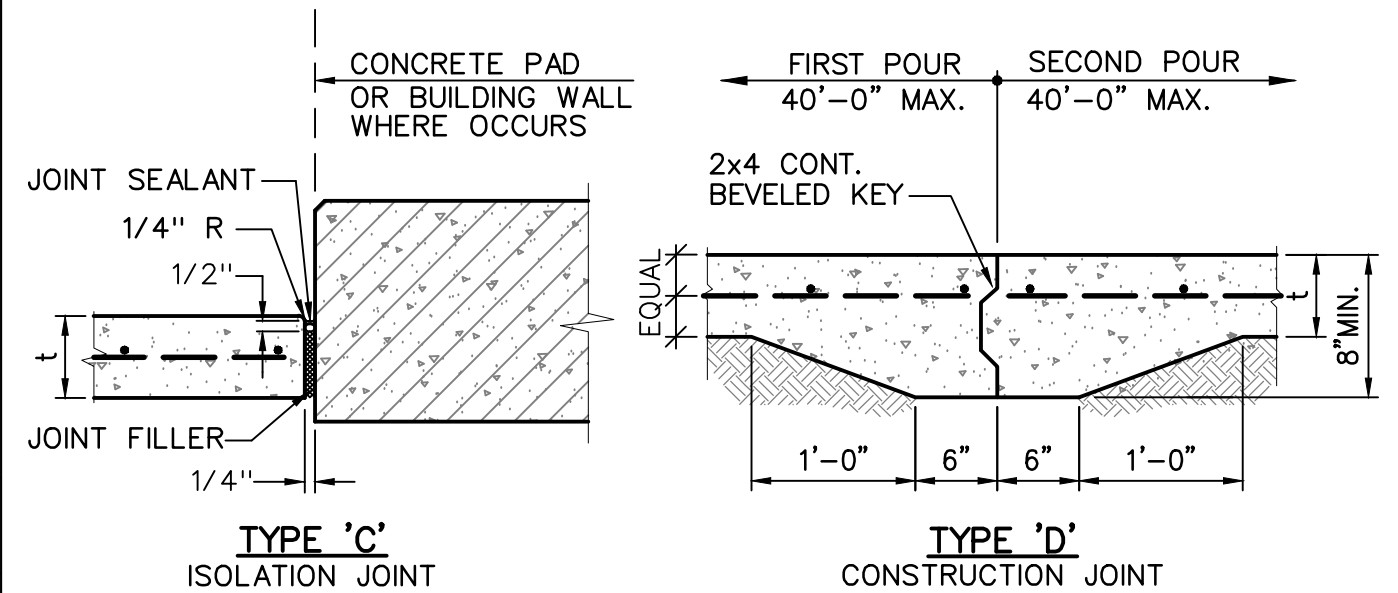
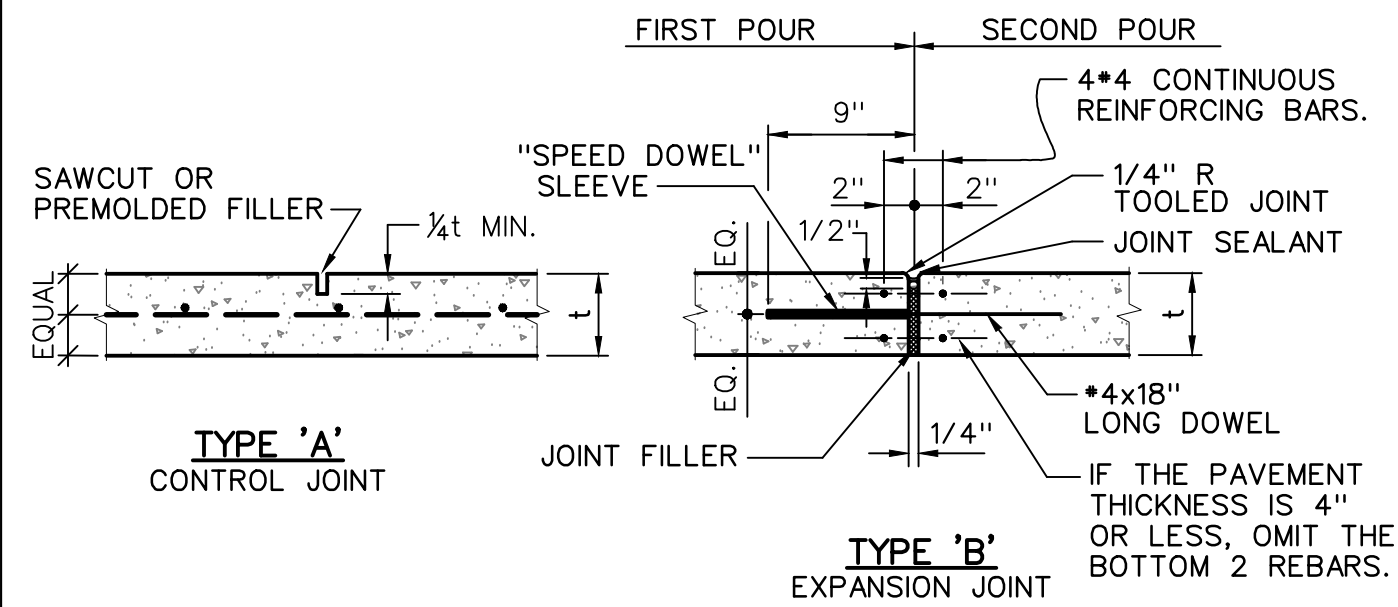
SCALE:
NO SCALE

4

CONCRETE PAVEMENT

SCALE:
NO SCALE

1



SUGGESTED SPACING OF CONTROL JOINTS

PAVEMENT/SLAB THICKNESS (IN)	LESS THAN 3/4 INCH AGGREGATE: SPACING (FT)	LARGER THAN 3/4 INCH AGGREGATE: SPACING (FT)
3	4	6
4	8	10
5	10	13
6	12	15
7	14	18
8	16	20
9	18	23
10	20	25

* GIVEN SPACING ALSO APPLY TO THE DISTANCE FROM CONTROL JOINTS TO PARALLEL ISOLATION JOINTS OR TO PARALLEL EXPANSION JOINTS.

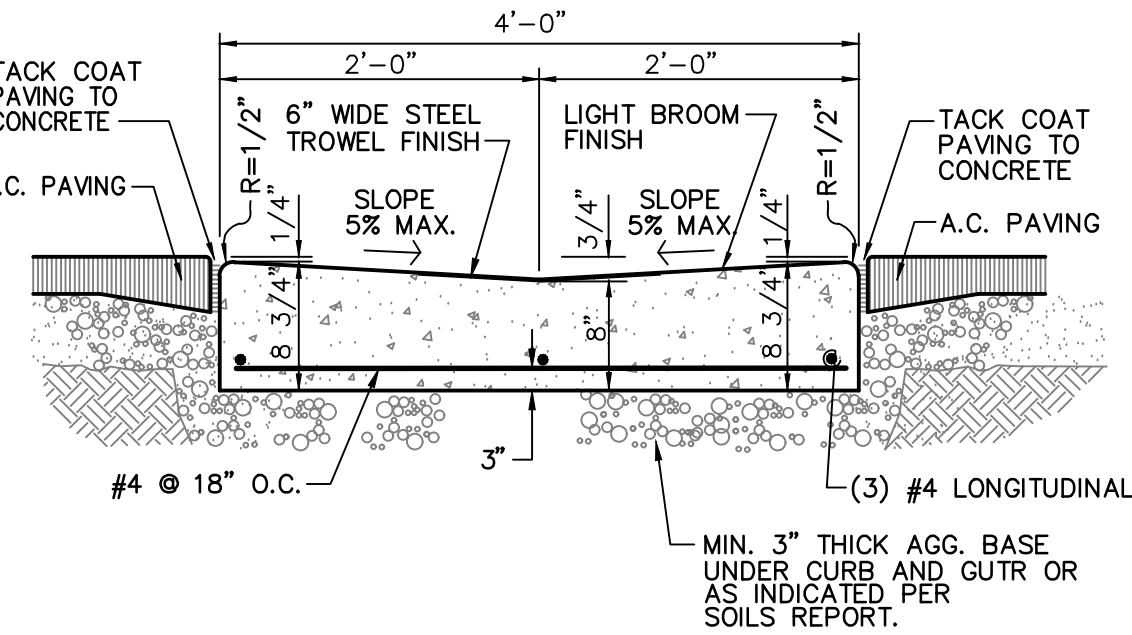
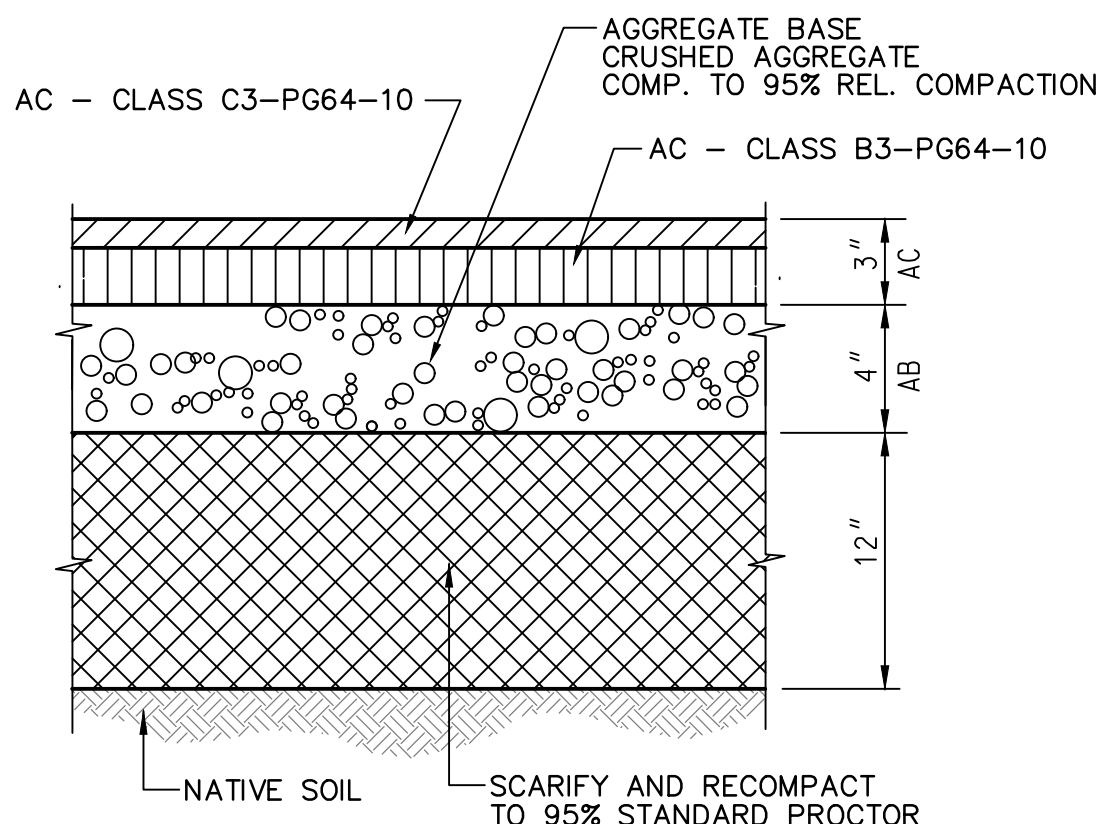
NOTES:

1. SEE SPECIFICATIONS FOR TYPE OF JOINT SEALANT AND JOINT FILLER.
2. PLACE 18" LONG #4 DOWELS AT 24" O.C. (TYPE 'B' ONLY)
3. SPACING OF JOINTS PER TABLE HEREON.
4. STOP SLAB REINFORCING AT EXPANSION JOINT.

CONSTRUCTION JOINTS

SCALE:
NO SCALE

2



NOTES:

1. PORTLAND CEMENT CONCRETE, $f_c=3200$ psi, W/C RATIO 0.5 MAX.

LONGITUDINAL CONCRETE GUTTER

SCALE:
NO SCALE

7

AC PAVEMENT DETAIL

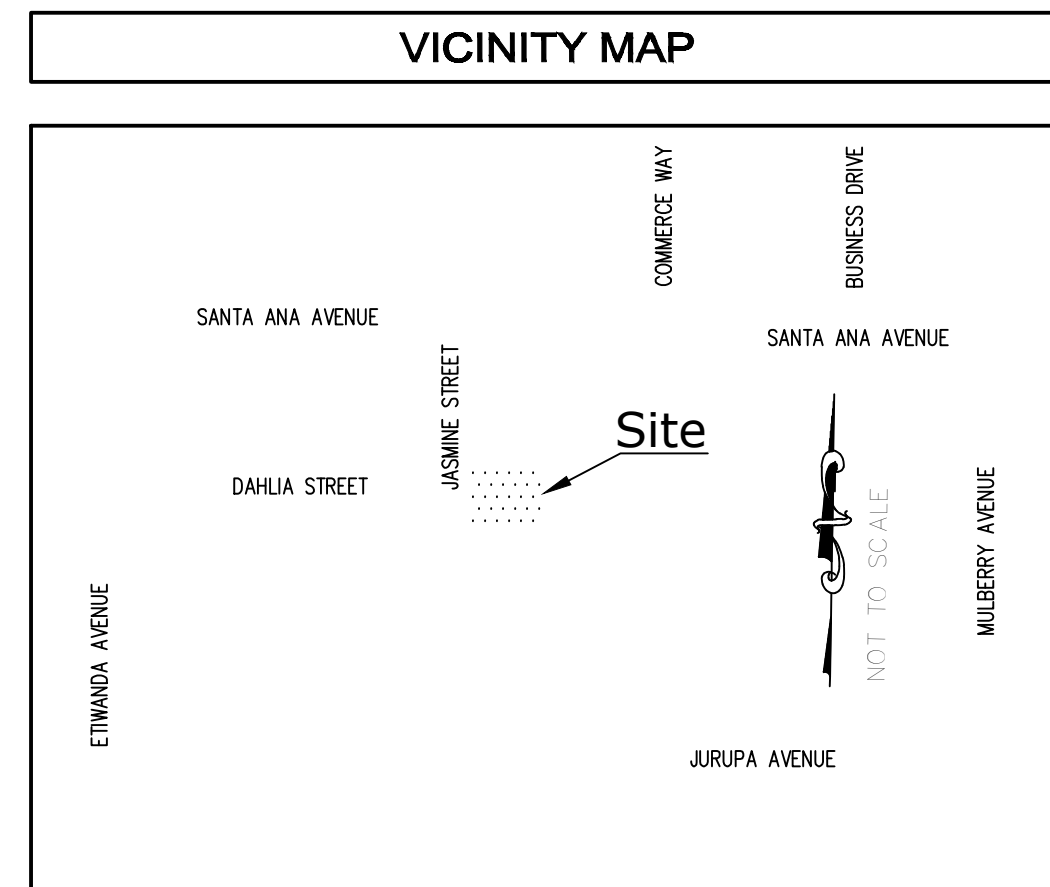
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3

TOPOGRAPHIC SURVEY

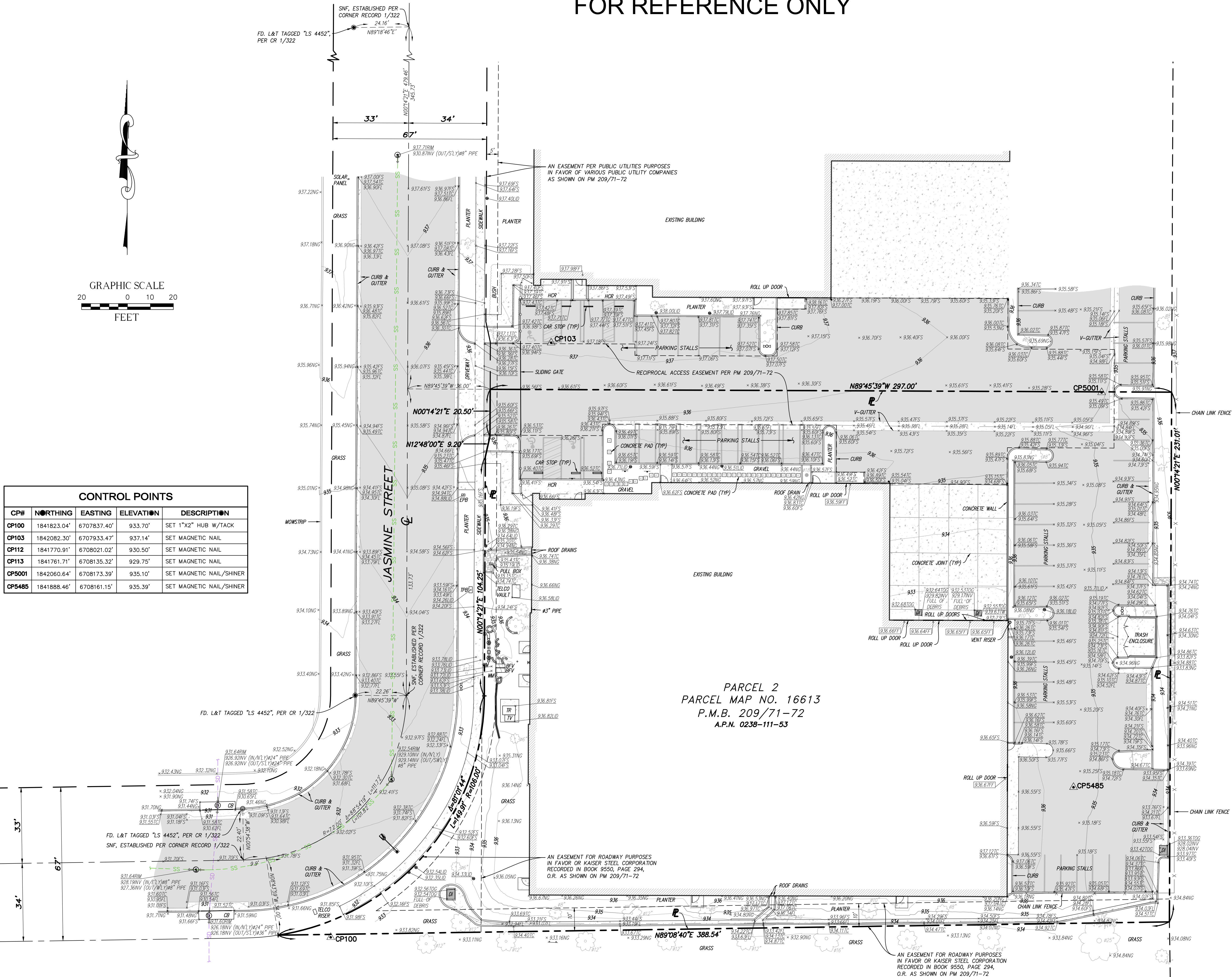
11109 JASMINE STREET, FONTANA, CA 92337

FOR REFERENCE ONLY



WESTEND NAVIGATION CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



GRAPHIC SCALE
20 0 20
FEET

CONTROL POINTS				
CP#	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP100	1841823.04'	6707837.40'	933.70'	SET 1"x2" HUB W/TACK
CP103	1842082.30'	6707933.47'	937.14'	SET MAGNETIC NAIL
CP112	1841770.91'	6708021.02'	930.50'	SET MAGNETIC NAIL
CP113	1841761.71'	6708135.32'	929.75'	SET MAGNETIC NAIL
CP5001	1842060.64'	6708173.39'	935.10'	SET MAGNETIC NAIL/SHINER
CP5485	1841888.46'	6708161.15'	935.39'	SET MAGNETIC NAIL/SHINER

LEGEND

- ASPHALT PAVEMENT
- BACKFLOW PREVENTER
- CAP STOP
- CONCRETE PAVEMENT
- CONTROL POINT
- DOOR
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- FLOW DIRECTION
- FUND MONUMENT AS NOTED
- GATE
- GUARD POST
- HANDICAP
- IRRIGATION CONTROL VALVE
- PALM TREE
- P.G&E TOWER
- SEWER MANHOLE
- SOIL
- STORM DRAIN MANHOLE
- STREET LIGHT
- TREE (TYPICAL)
- TREE STUMP
- WATER VALVE
- ASSESSOR'S PARCEL NUMBER
- BACKFLOW PREVENTER
- CATCH BASIN
- CONCRETE
- DIAMETER OF EXISTING TREE
- DRAIN INLET
- ELECTRIC PULL BOX
- FINISH FLOOR
- FINISH SURFACE
- FLOW LINE
- HANDICAP RAMP
- WARE
- NATURAL GROUND
- PROPERTY LINE
- TELECO PULL BOX
- TELECO VAULT
- TOP OF CURB
- TOP OF GRADE
- TOP OF WALL
- TRANSFORMER
- TYPICAL
- WATER METER
- BLOCK WALL
- CENTERLINE
- CHAIN LINK FENCE
- CONCRETE/RETAINING WALL
- EASEMENT LINE
- FLOW LINE
- INTERIOR LOT LINE
- INTERIOR LOT LINE
- OVERHANG
- OVERHEAD LINE
- PROPERTY LINE
- RIGHT-OF-WAY
- SANITARY SEWER LINE
- STORM DRAIN LINE
- WROUGHT IRON FENCE

BASIS OF BEARINGS		BENCHMARK	
THE BASIS OF HORIZONTAL CONTROL FOR THIS PROJECT IS CALIFORNIA COORDINATE SYSTEM NAD83 ZONE 5, (2010.00) DETERMINED LOCALLY BY THE FOLLOWING N.G.S. CONTINUOUS OPERATING REFERENCE STATIONS (C.O.R.S.):		ELEVATIONS SHOWN HEREON ARE BASED UPON CITY OF FONTANA BENCHMARK ID 579, ELEVATION 922.56 FEET (NAVD 88).	
N.G.S. C.O.R.S. EMPF	NORTHING = 1860639.59'	EASTING = 6705286.97'	
N.G.S. C.O.R.S. WOOD	NORTHING = 1793440.74'	EASTING = 6692256.04'	
THE COMBINATION FACTOR FOR THIS PROJECT WAS APPLIED AT THE FOLLOWING POINT:			
NORTHING = 1842816.22'	EASTING = 6707898.37'		
MAPPING ANGLE = 071630"	SCALE FACTOR = 1.00004471		

CP112

CP113

TITLE

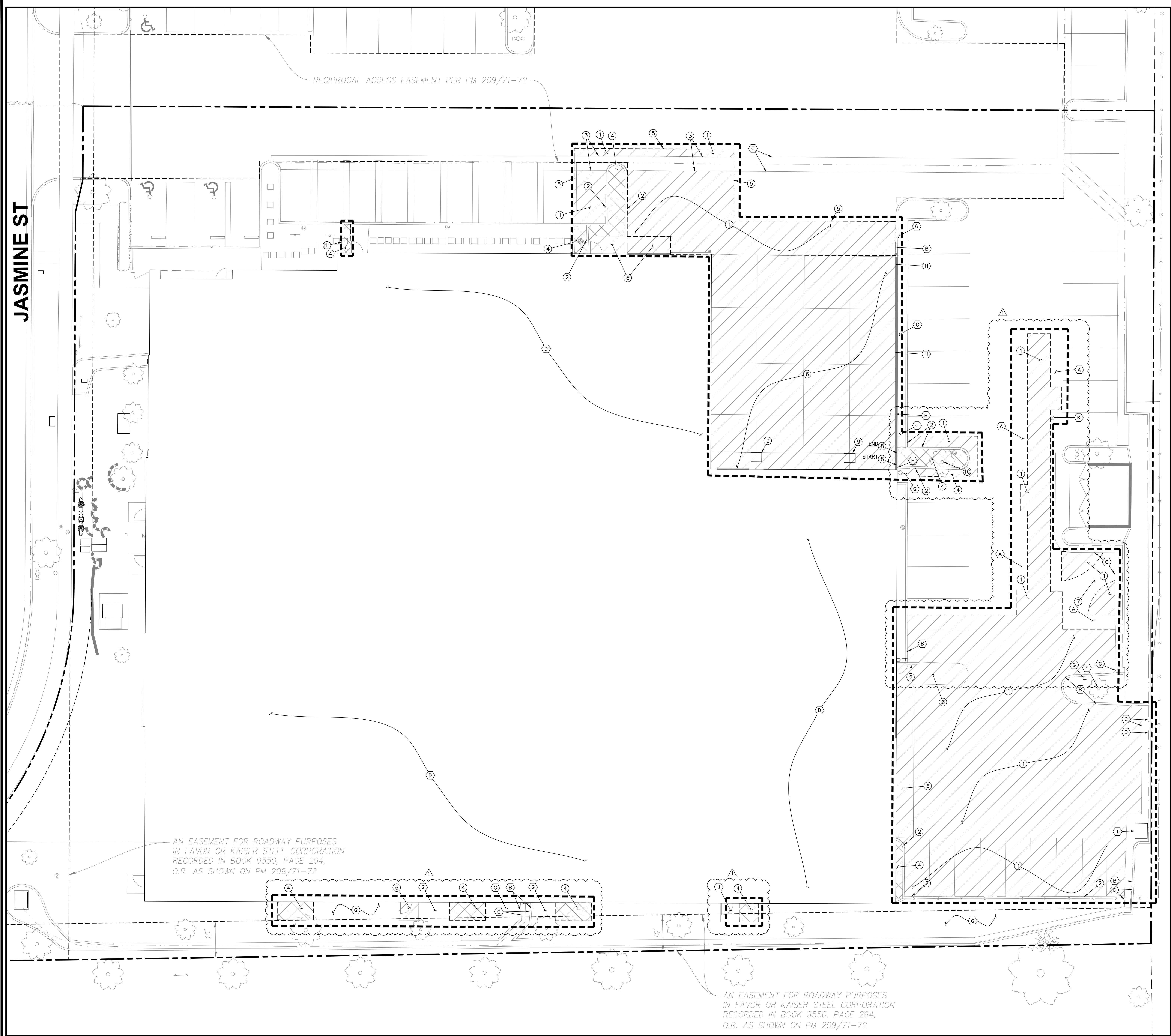
TOPOGRAPHIC
SURVEY (FOR
REFERENCE ONLY)

Revisions By Date
PC CORR 1/BID ISSUE 1/MFM/4/29/26

Drawn
Date
Project No.
Scale

Sheet

C2.2



REMOVAL NOTES:

- 1 REMOVE EXISTING ASPHALT PAVEMENT.
- 2 REMOVE EXISTING CONCRETE CURB.
- 3 REMOVE EXISTING CONCRETE GUTTER.
- 4 REMOVE EXISTING LANDSCAPE.
- 5 SAWCUT.
- 6 REMOVE EXISTING CONCRETE PAVEMENT.
- 7 REMOVE EXISTING STRIPING.
- 8 SAWCUT AND REMOVE EXISTING WALL.
- 9 REMOVE EXISTING DRAIN INLET.
- 10 REMOVE EXISTING TREE.
- 11 REMOVE EXISTING STEPPING STONE.

SALVAGE NOTES:

- A PROTECT IN PLACE ASPHALT CONCRETE.
- B PROTECT IN PLACE EXISTING CONCRETE CURB.
- C PROTECT IN PLACE EXISTING CONCRETE GUTTER.
- D PROTECT IN PLACE EXISTING BUILDING.
- E PROTECT EXISTING FENCE.
- F PROTECT IN PLACE EXISTING TREE.
- G PROTECT IN PLACE EXISTING LANDSCAPE.
- H PROTECT IN PLACE EXISTING WALL.
- I PROTECT IN PLACE EXISTING DRAIN INLET.
- J PROTECT IN PLACE EXISTING CONCRETE PAVEMENT.
- K PROTECT IN PLACE EXISTING WATER VALVE.

LEGEND:

- EXISTING BUILDING
- REMOVE EXISTING AC/CONCRETE PAVEMENT
- REMOVE EXISTING LANDSCAPE
- SAWCUT
- LIMIT OF WORK

STAMP

CONSULTANT

PROJECT

WESTEND
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

DEMOLITION PLAN

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Sheet

C3.1



RECIPROCAL ACCESS EASEMENT PER PM 209/71-72

JASMINE ST

2'39" W 36.00'

N00°14'21"E 20.50'

48'00"E 9.10'

N89°45'39"W 237.00'

AN EASEMENT FOR ROADWAY PURPOSES
IN FAVOR OF KAISER STEEL CORPORATION
RECORDED IN BOOK 9550, PAGE 294
O.R. AS SHOWN ON PM 209/71-72

AN EASEMENT FOR ROADWAY PURPOSES
IN FAVOR OF KAISER STEEL CORPORATION
RECORDED IN BOOK 9550, PAGE 294,
O.R. AS SHOWN ON PM 209/71-72

CONSTRUCTION NOTES:

1. CONSTRUCT ASPHALT PAVEMENT PER DETAIL 3 ON SHEET C2.1.
2. CONSTRUCT CONCRETE PAVEMENT PER DETAIL 1 ON SHEET C2.1.
3. CONSTRUCT CONCRETE CURB PER DETAIL 4 ON SHEET C2.1.
4. NEW LANDSCAPE PER LANDSCAPE PLANS.
5. NEW FENCE PER ARCHITECTURAL PLANS.
6. CONSTRUCT RAISED CONCRETE SLAB PER STRUCTURAL PLANS.
7. CONSTRUCT CURB RAMP PER SPWVC S-111-5.
8. NEW DG PER ARCHITECTURAL PLANS.
9. NEW PARKING STRIPING PER ARCHITECTURAL PLANS.
10. NEW PLAY AREA PER ARCHITECTURAL PLANS.
11. CONSTRUCT FLUSH CURB PER DETAIL 6 ON SHEET C2.1.
12. CONSTRUCT LONGITUDINAL V-GUTTER PER DETAIL 7 ON SHEET C2.1.

LEGEND

- | | |
|--|----------------------------------|
| | EXISTING BUILDING OUTLINE |
| | NEW CONCRETE PAVEMENT |
| | NEW PLANTER AREA |
| | NEW ASPHALT PAVEMENT |
| | NEW DECOMPOSED GRANITE |
| | NEW PLAY AREA |
| | PROPOSED SPOT ELEVATION |
| | EXISTING SPOT ELEVATION |
| | PROP. CONTOUR (1' INTERVAL) |
| | EXIST. CONTOUR (1' INTERVAL) |
| | PROPERTY LINE |
| | RIDGE |
| | GRADE BREAK LINE |
| | FLOW LINE |
| | EXIST. FENCE |
| | PROPOSED FENCE |
| | G GAS MAIN |
| | SS SANITARY SEWER |
| | SD STORM DRAIN |
| | W WATER MAIN |
| | RW RECLAIMED WATER |
| | FW FIRE WATER |
| | E ELECTRIC CABLE (FOR REF. ONLY) |
| | T TELEPHONE (FOR REF. ONLY) |
| | C EXIST. GAS MAIN |
| | SS EXIST. SANITARY SEWER |
| | SD EXIST. STORM DRAIN |
| | W EXIST. WATER MAIN |
| | RW EXIST. RECLAIMED WATER |
| | FW EXIST. FIRE WATER |
| | E EXIST. ELECTRIC U/G CABLE |
| | C EXIST. COMMUNICATION |
| | V VALVE |
| | U UTILITY CAP |



GRAPHIC SCALE

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

STAMP

CONSULTANT

PROJECT

**WESTEND
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

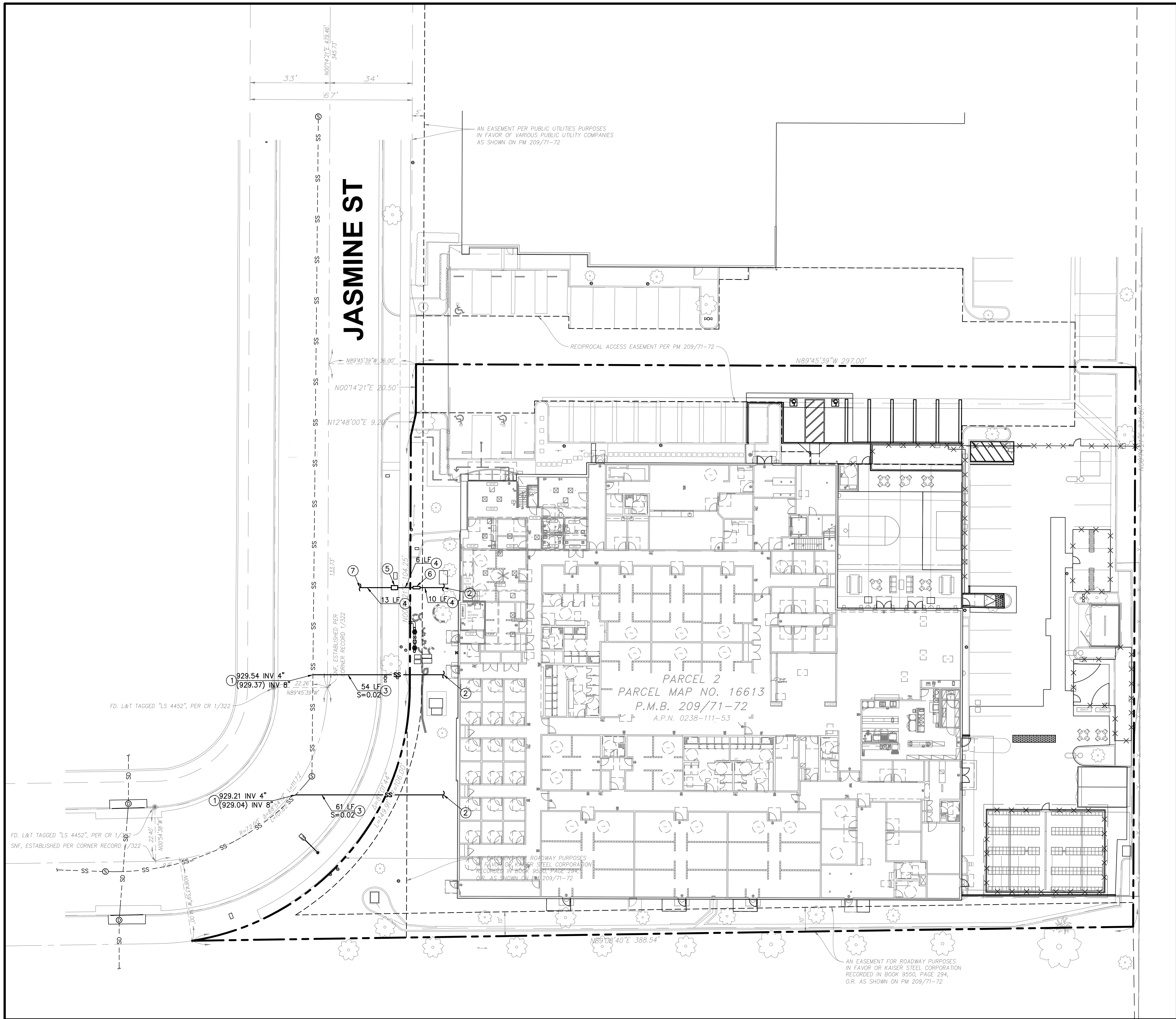
UTILITY PLAN

Revisions	By	Date
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Drawn
Date
Project No.
Scale

Sheet

C5.1



CONSTRUCTION NOTES:

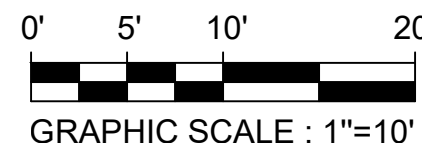
- CONNECT TO EXISTING CITY SEWER MAIN. VERIFY IN FIELD. COORDINATE WITH CITY OF FONTANA.
- CONNECT TO BUILDING. COORDINATE WITH PLUMBING PLAN.
- NEW 4 INCH SEWER LINE.
- NEW 2-1/2" DOMESTIC WATER LINE.
- NEW DOMESTIC WATER METER. COORDINATE WITH WATER PURVEYOR.
- NEW 2-1/2" REDUCED PRESSURE PRINCIPAL ASSEMBLY, WILKINS MODEL 375A OR APPROVED EQUAL.
- CONNECT TO EXISTING PUBLIC WATER MAIN. VERIFY IN FIELD FOR LOCATION. COORDINATE WITH WATER PURVEYOR.

LEGEND

	EXISTING BUILDING OUTLINE
	PROPERTY LINE
	RIDGE
	GRADE BREAK LINE
	FLOW LINE
	EXIST. FENCE
	PROPOSED FENCE
	GAS MAIN
	SANITARY SEWER
	STORM DRAIN
	WATER MAIN
	RECLAIMED WATER
	FIRE WATER
	ELECTRIC CABLE (FOR REF. ONLY)
	TELEPHONE (FOR REF. ONLY)
	EXIST. GAS MAIN
	EXIST. SANITARY SEWER
	EXIST. STORM DRAIN
	EXIST. WATER MAIN
	EXIST. RECLAIMED WATER
	EXIST. FIRE WATER
	EXIST. ELECTRIC U/G CABLE
	EXIST. COMMUNICATION
	VALVE
	UTILITY CAP



UTILITY PLAN





Revisions	By	Date
Δ PC CORR 1/BID ISSUE	1MFM	4/29/26

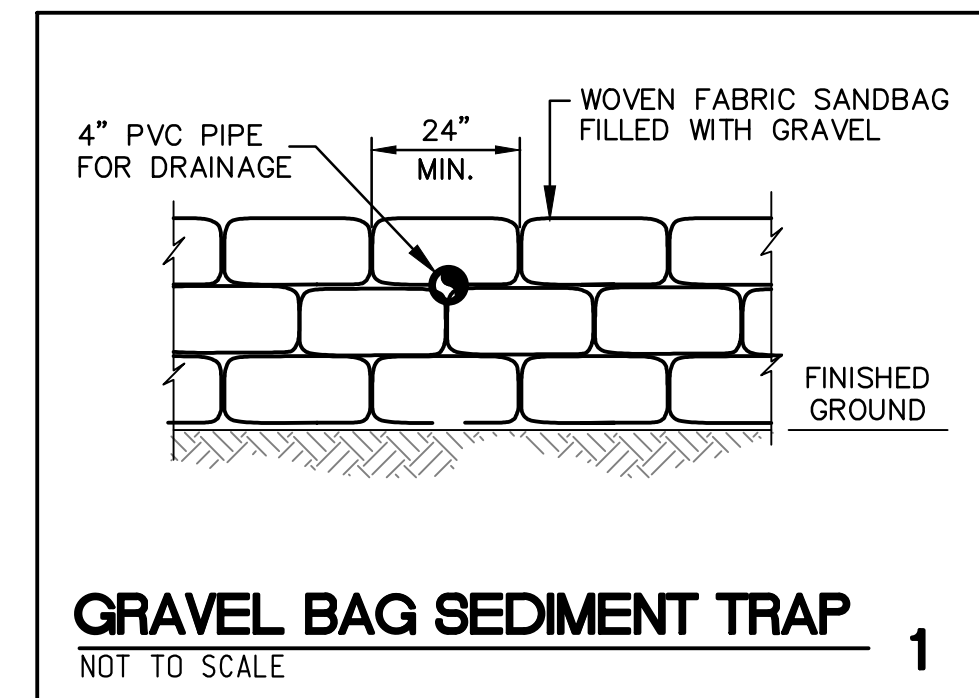
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Project No.	
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EROSION CONTROL NOTES

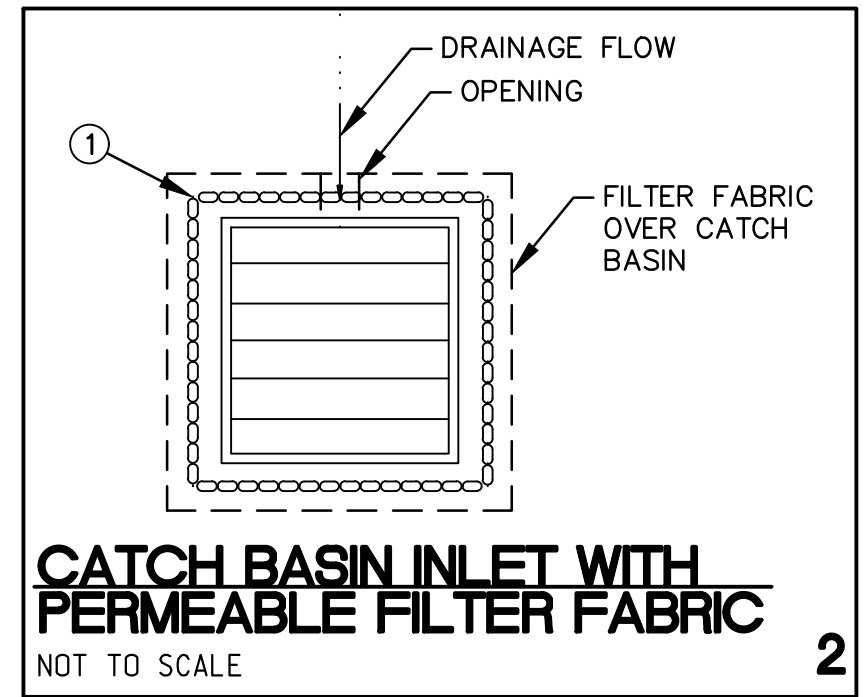
- 1 SINGLE ROW GRAVEL BAGS - 2 BAGS HIGH PER SE-8 OF CASQA BMP.
- 2 INSTALL TEMPORARY CONSTRUCTION FENCE WITH WIND SCREEN.
- 3 CATCH BASIN INLET FILTER PER DETAIL 2 HEREON.
- 4 SEDIMENT TRAP OUTLET PER DETAIL 1 HEREON.
- 5 STABILIZED CONSTRUCTION ENTRANCE PER TC-1 OF CASQA BMP. SEE HEREON.
- 6 INSTALL TEMPORARY CONSTRUCTION WIND SCREEN TO EXISTING FENCE.

LEGEND

- EXISTING BUILDING OUTLINE
- GRAVEL OR SAND BAGS
- SCREENED FENCE

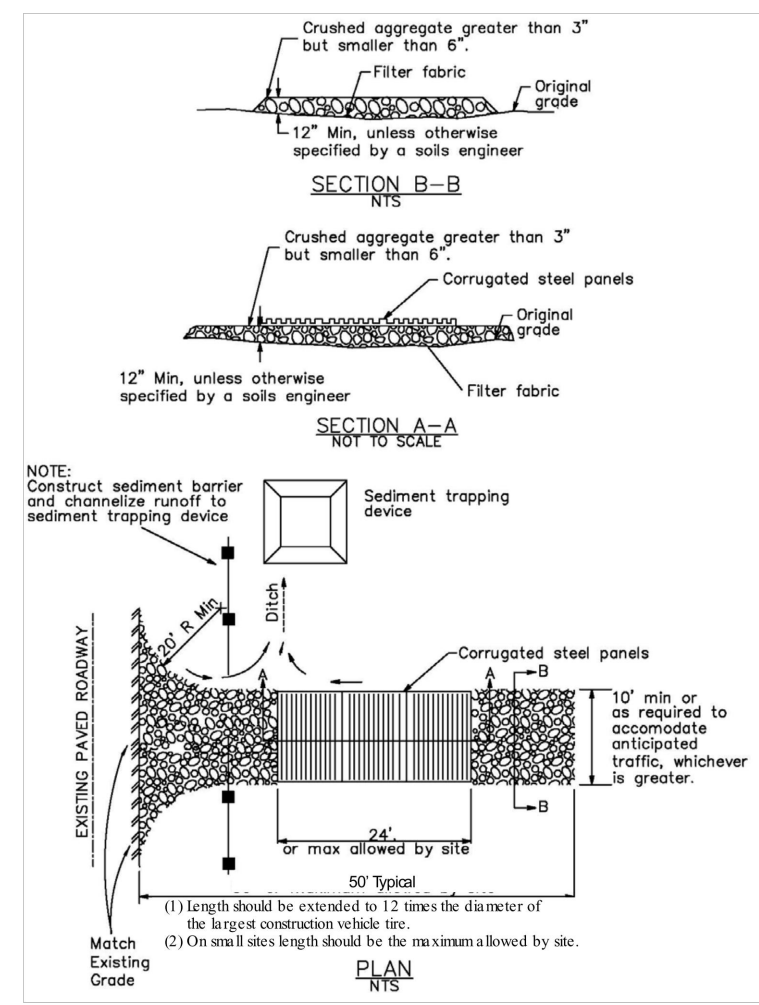


GRAVEL BAG SEDIMENT TRAP
NOT TO SCALE 1



CATCH BASIN INLET WITH
PERMEABLE FILTER FABRIC
NOT TO SCALE 2

Stabilized Construction Entrance/Exit TC-1



STORM WATER POLLUTION CONTROL

CONSTRUCTION MEANS CONSTRUCTING, CLEARING, GRADING OR EXCAVATION THAT RESULT IN SOIL DISTURBANCE. CONSTRUCTION INCLUDES STRUCTURE TEARDOWN (DEMOLITION). IT DOES NOT INCLUDE ROUTINE MAINTENANCE TO MAINTAIN ORIGINAL LINE AND GRADE, HYDRAULIC CAPACITY, OR ORIGINAL PURPOSE OF FACILITY; EMERGENCY CONSTRUCTION ACTIVITIES REQUIRED TO IMMEDIATELY PROTECT PUBLIC HEALTH AND SAFETY; INTERIOR REMODELING WITH NO OUTSIDE EXPOSURE OF CONSTRUCTION MATERIAL OR CONSTRUCTION WASTE TO STORM WATER; MECHANICAL PERMIT WORK; OR SIGN PERMIT WORK.

(ORDER NO. 01-182, NPDES PERMIT NO. CAS004001 - PART 5: DEFINITIONS)

1. ERODED SEDIMENTS AND POLLUTANTS SHALL BE RETAINED ON SITE AND SHALL NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE OR WIND.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION-RELATED MATERIALS SHALL BE COVERED AND/OR PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY WIND OR WATER.
3. FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND SHALL NOT CONTAMINATE THE SOIL NOR THE SURFACE WATERS. APPROVED TOXIC STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY AND SHALL NOT BE WASHED INTO THE DRAINAGE SYSTEM.
4. NON-STORM WATER RUNOFF FROM EQUIPMENT AND VEHICLE WASHING AND ANY OTHER ACTIVITY SHALL BE CONTAINED ON THE PROJECT SITE.
5. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTE ON-SITE UNTIL IT CAN BE APPROPRIATELY DISPOSED OF OR RECYCLED.
6. TRASH AND CONSTRUCTION -RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF STORM WATER AND DISPERSAL BY WIND.
7. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE STREET/PUBLIC WAYS. ACCIDENTAL DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR BY ANY OTHER MEANS.
8. RETENTION BASINS OF SUFFICIENT SIZE SHALL BE PROVIDED TO RETAIN STORM WATER RUNOFF ON-SITE AND SHALL BE PROPERLY LOCATED TO COLLECT ALL TRIBUTARY SITE RUNOFF.
9. WHERE RETENTION OF STORM WATER RUNOFF ON-SITE IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, RUNOFF MAY BE CONVEYED TO THE STREET AND THE STORM DRAIN SYSTEM PROVIDED THAT AN APPROVED FILTERING SYSTEM IS INSTALLED AND MAINTAINED ON-SITE DURING THE CONSTRUCTION DURATION.

TYPICAL DEMOLITION DEBRIS NOTES

1. EROSION CONTROL DEVICES SHOWN ON THE PLAN MAY BE REMOVED WHEN APPROVED BY THE BUILDING OFFICIAL IF THE DEMOLITION OPERATION HAS PROGRESSED TO THE POINT WHERE THEY ARE NO LONGER REQUIRED.
2. ALL SILT AND DEBRIS SHALL BE REMOVED FROM ALL DEVICES WITHIN 24 HOURS AFTER EACH RAINSTORM AND BE DISPOSED OF PROPERLY.
3. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO FEET. THE DEVICE SHALL BE DRAINED OR PUMPED WITHIN 24 HOURS AFTER EACH RAINSTORM. PUMPING AND DRAINING OF ALL BASINS AND DRAINAGE DEVICES MUST COMPLY WITH THE APPROPRIATE BMP FOR DEWATERING OPERATIONS.
4. THE PLACEMENT OF ADDITIONAL DEVICES TO CONTAIN POLLUTANTS WITHIN THE SITE IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER. ADDITIONAL DEVICES AS NEEDED SHALL BE INSTALLED TO RETAIN SEDIMENTS AND OTHER POLLUTANTS ON SITE.
5. STORM WATER POLLUTION DEVICES ARE TO BE MODIFIED, AS NEEDED, AS THE PROJECT PROGRESSES. THE DESIGN AND PLACEMENT OF THESE DEVICES IS THE RESPONSIBILITY OF THE FIELD ENGINEER. PLANS REPRESENTING CHANGES MUST BE SUBMITTED FOR APPROVAL IS REQUESTED BY THE BUILDING OFFICIAL.
6. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORM WATER FROM THE PROJECT SITE AT ALL TIMES.
7. POLLUTANTS MUST BE RETAINED ON-SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA PUMPS, SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
8. CONTRACTORS ARE RESPONSIBLE TO INSPECT THAT ALL BMPS ARE INSTALLED AND FUNCTIONING PROPERLY IF THERE IS A 40% CHANCE OF 0.25 INCHES OR GREATER OF PREDICTED PRECIPITATION, AND AFTER ACTUAL PRECIPITATION. A CONSTRUCTION SITE INSPECTION CHECKLIST AND INSPECTION LOG SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES AND AVAILABLE FOR REVIEW BY THE BUILDING OFFICIAL.
9. MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
10. A STAND-BY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (NOVEMBER 1 TO APRIL 15). NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERGENCY DEVICES WHEN RAIN IS IMMINENT.

BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES

DETAILED IN THE CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICES HANDBOOK

EROSION CONTROL

EC-1 SCHEDULING

SEDIMENT CONTROL

SE-5 FIBER ROLLS

SE-6 GRAVEL BAG BERM

SE-7 STREET SWEEPING AND VACUUMING

SE-10 STORM DRAIN INLET PROTECTION

TRACKING CONTROL

TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT

TC-3 ENTRANCE/OUTLET TIRE WASH

WIND EROSION CONTROL

WE-1 WIND EROSION CONTROL

NON-STORM WATER CONTROL

NS-1 WATER CONSERVATION PRACTICES

NS-3 PAVING AND GRINDING OPERATIONS

NS-6 IL/LIGT CONNECTION/ILLEGAL DISCHARGE DETECTION

AND REPORTING

NS-8 VEHICLE AND EQUIPMENT CLEANING

NS-9 VEHICLE AND EQUIPMENT FUELING

NS-10 VEHICLE AND EQUIPMENT MAINTENANCE

NS-11 PILE DRIVING OPERATION

WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL

WM-1 MATERIAL DELIVERY AND STORAGE

WM-2 MATERIAL USE

WM-3 STOCKPILE MANAGEMENT

WM-4 SPILL AND PREVENTION CONTROL

WM-5 SOLID WASTE MANAGEMENT

WM-8 CONCRETE WASTE MANAGEMENT

WM-9 SANITARY/SEPTIC WASTE MANAGEMENT

SECTION 2 OF THE CASQA BMP CONSTRUCTION HANDBOOK, JULY 2012, IS PART OF THESE EROSION CONTROL PLANS, INCLUDING BUT NOT LIMITED TO:

- MINIMUM REQUIREMENTS
- GOOD HOUSEKEEPING PRACTICES
- STAFF TRAINING
- SITE INSPECTIONS
- BMP MONITORING AND MAINTENANCE
- STORMWATER POLLUTION CONTROL DOCUMENTATION

ACCESSIBILITY NOTES

Publicly funded buildings, structures, sidewalks, curbs and related facilities shall be accessible to and usable by persons with disabilities as follows:

Chapter 1, Section 1.9.1.1, Part 2, Title 24, CCR (aka California Building Code), Division of State Architect

- All buildings, structures, sidewalks, curbs and related facilities constructed in the state by the use of state, county or municipal funds, or the funds of any political subdivision of the state.
- All buildings, structures, and facilities, which are leased, rented, contracted, sublet or hired by any municipal, county or state division of government, or by a special district.
- All publicly funded buildings used for congregate residences or for one- or two-family dwelling unit purposes shall conform to the provisions applicable to living accommodations.
- All existing publicly funded buildings and facilities when alterations, structural repairs or additions are made to such buildings or facilities. For detailed requirements on existing buildings, see CBC 11B-202.
- With respect to buildings, structures, sidewalks, curbs and related facilities not requiring a building permit, building standards published in the California Building Standards Code relating to access for persons with disabilities and other regulations adopted pursuant to Government Code Section 4450, and in effect at the time construction is commenced, shall be applicable.

All privately funded public accommodations, as defined and commercial facilities, as defined, shall be accessible to persons with disabilities as follows:

Chapter 1, Section 1.9.1.2, Part 2, Title 24, CCR (aka California Building Code).

Exception: Certain types of privately funded multi-story buildings do not require installation of an elevator to provide access above and below the first floor.

- Any building, structure, facility, complex or improved area or portions thereof that are used by the general public.
- Any sanitary facilities that are made available for public, clients, or employees in such accommodations or facilities.
- Any curb or sidewalk intended for public use that is constructed in this State with private funds.
- All existing privately funded public accommodations when alterations, structural repairs or additions are made to such public accommodation as set forth under CBC 11B.

A. SITE DEVELOPMENT & ACCESSIBLE ROUTE OF TRAVEL per CBC 11B-206

- Accessible Route of Travel is defined as "a continuous unobstructed path connecting all accessible elements and spaces in an accessible building or facility that can be negotiated by a person with a disability using a wheelchair and that is also safe for and usable by persons with other disabilities, and that is consistent with the definition of "Path of travel".
- Site development and grading shall be designed to provide access to all entrances and exterior ground floor exits, and access to normal paths of travel, and where necessary to provide access, shall incorporate pedestrian ramps, curb ramps, etc.
- At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones and public streets or sidewalks to the accessible building entrance they serve. The accessible route shall, to the maximum extent feasible, coincide with the route for the general public.
- The accessible route of travel shall be the most practical direct route between accessible building entrances, accessible site facilities, and the accessible entrance to the site. If access is provided for pedestrians from a pedestrian tunnel or elevated walkway, entrances to the building from each tunnel or walkway must be accessible.
- When more than one building or facility is located on a site, accessible routes of travel complying with this section shall be provided between buildings and accessible site facilities, accessible elements, and accessible spaces that are on the same site. Exception: An accessible route shall not be required between accessible buildings, accessible facilities, accessible elements and accessible spaces if the only means of access between them is a vehicular way not providing pedestrian access.
- When a building or portion of a building is required to be accessible or adaptable, an accessible route of travel complying with this section shall be provided to all portions of the building, to accessible building entrances, and between the building and the public way.
- Except within an individual dwelling unit, an accessible route of travel shall not pass through kitchens, storage rooms, restrooms, closets or other spaces used for similar purposes, except as permitted by CBC Chapter 10.
- At least one accessible route shall connect the following:
 - Accessible buildings, facilities, elements and spaces that are on the same site.
 - Accessible building or facility entrances with all accessible spaces and elements and with all accessible dwelling units within the building or facility.
 - The accessible route shall, to the maximum extent feasible coincide with the route for the general public.
 - Accessible entrance of each accessible dwelling unit with those exterior and interior spaces and facilities that serve the accessible dwelling unit.
- Where more than one route of travel is provided, all routes shall be accessible.

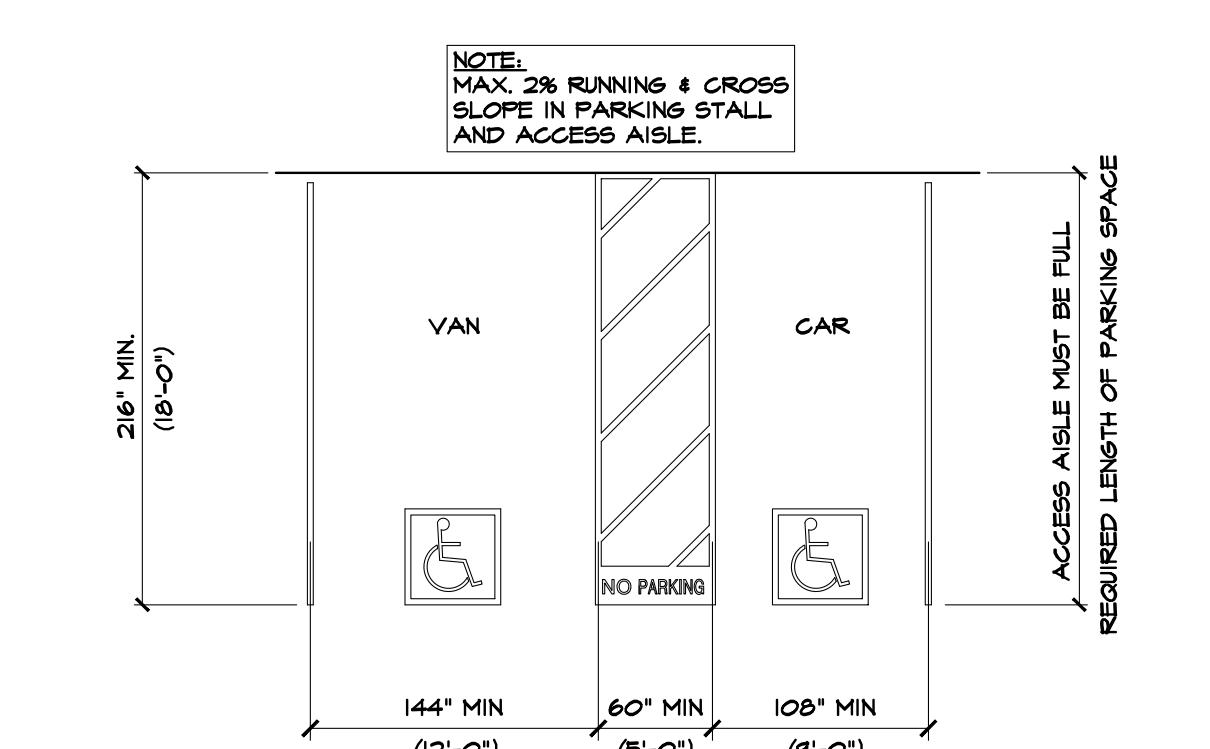
B. ACCESSIBLE PARKING per CBC 11B-208 & 11B-502

- Each lot or parking structure where parking is provided for the public as clients, guests or employees, shall provide accessible parking as required by this section.
- Provide disabled parking spaces as required by Table 11B-208.2 for parking lot/structure.

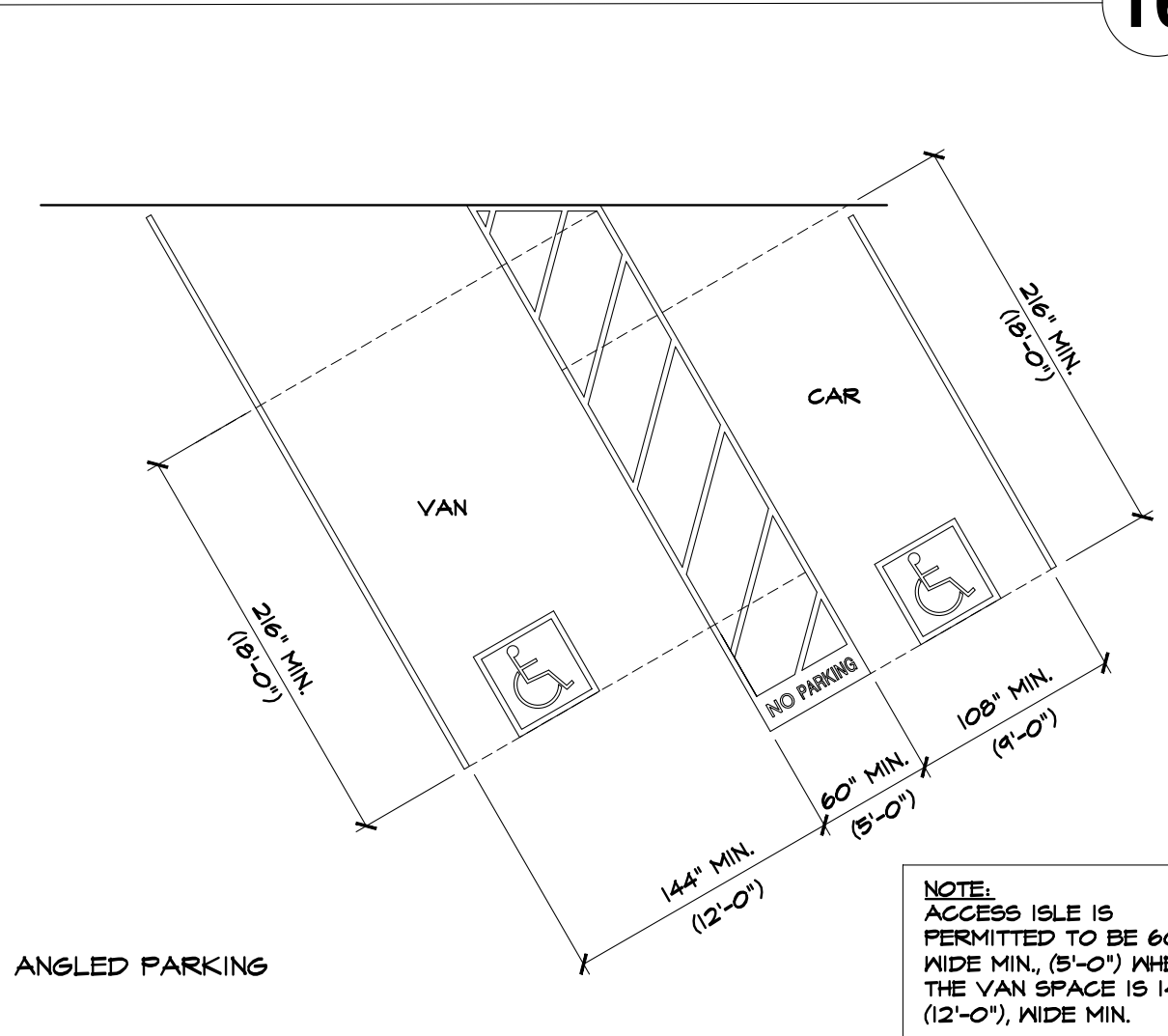
Total # parking spaces provided	Minimum # of accessible spaces required
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1000	2% of total
1001 & over	20 plus one for each 100 or fraction thereof over 1,001

- At facilities providing medical care and other services for persons with mobility impairments, parking spaces complying with this section shall be provided in accordance with Section 11B-502, except as follows per 11B-208.2:

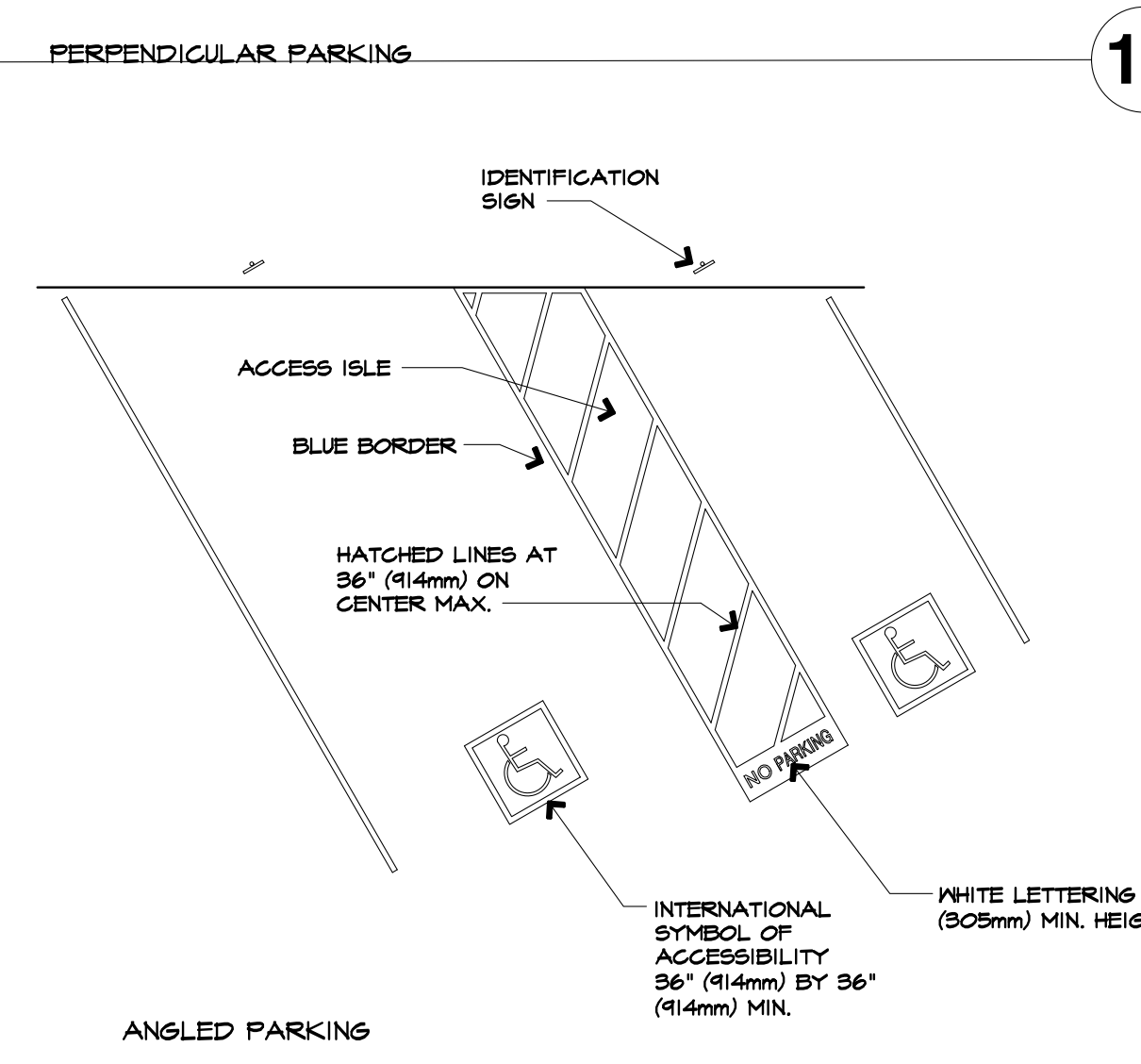
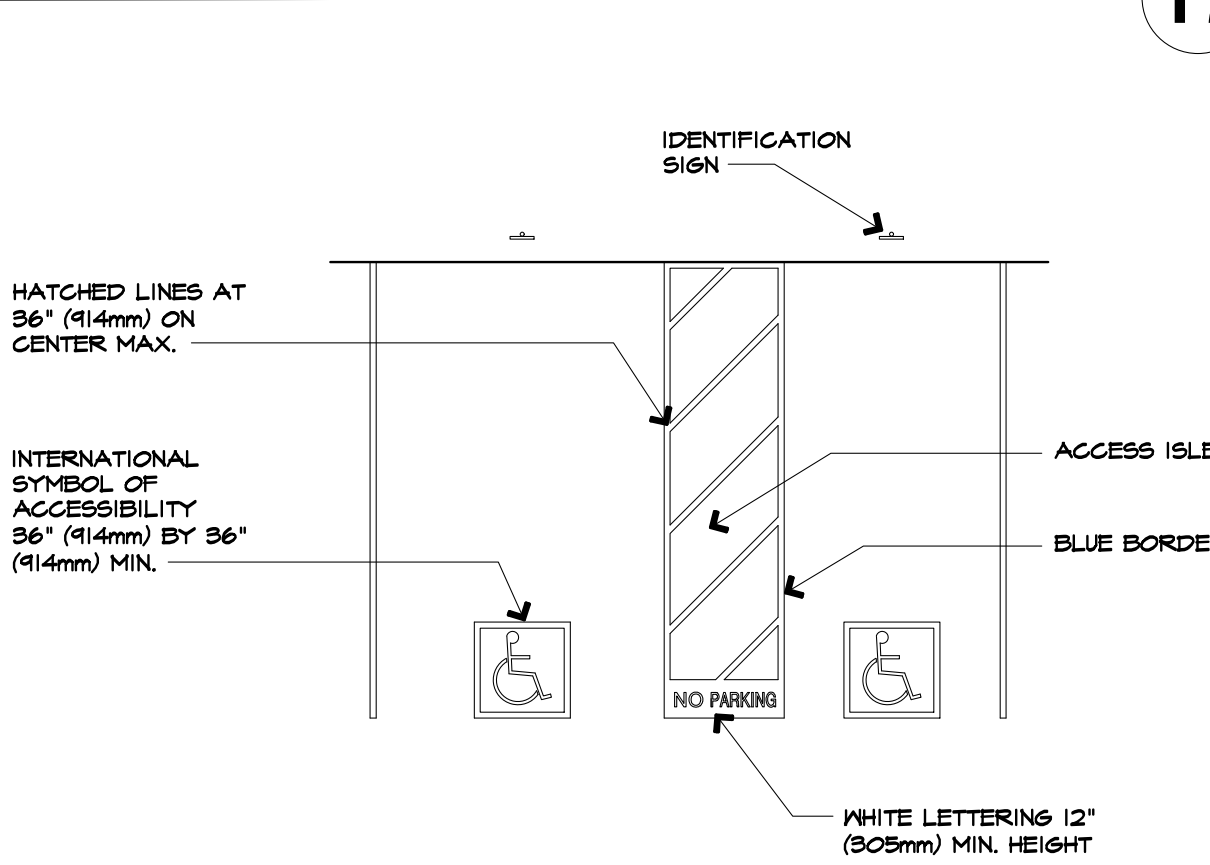
- Outpatient units and facilities: 10% of the total number of parking spaces provided serving each such outpatient unit or facility and free standing buildings providing out patient clinical services of a hospital.
 - Units and facilities that specialize in treatment or services for persons with mobility impairments: 20% of the total number of parking spaces provided serving each such unit or facility.
- Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance (as near as practical to an accessible entrance).
 - In parking facilities that do not serve a particular building, accessible parking shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility.
 - In buildings with multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located closest to the accessible entrances.
 - Where single accessible parking spaces are provided, they shall be 14 feet wide and lined to provide a 9-foot parking area and a 5-foot loading and unloading access aisle on the passenger side of the vehicle. The words "NO PARKING" shall be painted on the ground within each 5-foot loading and unloading access aisle. This notice shall be painted in white letters not less than 12 inches high and located so that it is visible to traffic enforcement officials.
 - When more than one accessible parking space is provided in lieu of providing a 14-foot wide space for each parking space, two spaces can be provided within a 23-foot wide area lined to provide a 9-foot wide parking area on each side of a 5-foot wide loading and unloading access aisle in the center. The words "NO PARKING" shall be painted on the ground within each 5-foot wide loading and unloading access aisle. This notice shall be painted in white letters not less than 12 inches high and located so that it is visible to traffic enforcement officials.
 - One in every six accessible spaces or fraction thereof, but not less than one, shall be served by an access aisle 96 inches wide minimum placed on the passenger side when the vehicle is going forward into the parking space and shall be designated "van accessible". All such spaces may be grouped on one level of a parking structure.
 - The minimum length of an accessible parking space shall be 18' and access aisles shall extend the full length of the required spaces they serve.



PERPENDICULAR PARKING



PERPENDICULAR AND ANGLED PARKING SPACES



ANGLED AND PERPENDICULAR PARKING IDENTIFICATION

- Accessible parking spaces shall be so located that persons with disabilities are not required to wheel or walk behind parked cars other than their own accessible space.
- Ramps shall not encroach into any accessible parking space or the adjacent access aisle.
- Surface slopes of accessible parking spaces shall be the minimum possible and shall not exceed one unit vertical to 48 units horizontal (2-percent slope) in any direction.
- In each parking area, a bumper or curb shall be provided and located to prevent encroachment of cars over the required width of walkways.
- Pedestrian ways which are accessible to people with disabilities shall be provided from each such parking space to related facilities, including curb cuts or ramps as needed.
- Provide minimum vertical clearances of 8'-2" at accessible parking spaces and along at least one vehicle access route to such spaces from side entrances and exits.
- Each parking space 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 the International Symbol of Accessibility in white on a dark blue background. The sign shall not be smaller than 70 square inches in area and, when in a path of travel, shall be posted at a minimum height of 80 inches from the bottom of the sign to the parking space finished grade. Signs to identify accessible parking spaces may be centered on wall at the interior end of the parking space.
- An additional sign or additional language below the symbol of accessibility shall state "Minimum Fine \$250".
- Van accessible parking spaces shall have an additional sign stating "Van Accessible" mounted below the symbol of accessibility.
- An additional sign shall also be posted in a conspicuous place at each entrance to off-street parking facilities, or immediately adjacent to on-site accessible parking and visible above each parking space. The sign shall be not less than 17 inches by 22 inches in size with lettering not less than 1 inch in height, which clearly and conspicuously states 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 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."

- The surface of each accessible parking space or stall shall have a surface identification duplicating either of the following schemes:
 - By outlining or painting the stall or space in blue and outlining on the ground in the stall or space in white or suitable contrasting color a profile view depicting a wheelchair with occupant; OR, 36" x 36" with centerline of symbol not more than 6" maximum from centerline of stall.
 - By outlining a profile view of a wheelchair with occupant in white on blue background. The profile view shall be located so that it is visible to a traffic enforcement officer when a vehicle is properly parked in the space and shall be 36 inches wide by 36 inches wide, with centerline of symbol not more than 6" maximum from centerline of stall.
- All entrances to and vertical clearances within parking structures shall comply with this section where required for accessibility to access parking spaces shall have a minimum vertical clearance of 8-feet 2-inches.
- When direct access is provided for pedestrians from a parking garage to a building, each direct entrance from the garage to the building must be accessible.

C. PASSENGER DROP-OFF & LOADING ZONES per CBC 11B-209 & 11B-502

- When provided, passenger drop-off and loading zones shall be located on an accessible route of travel and shall not overlap vehicular way.
- Where provided, one passenger drop-off and loading zone shall provide an access aisle at least 60 inches wide and 20 feet long adjacent and parallel to the vehicle pull-up space. Vehicle standing spaces and access aisles shall be level with surface slopes not exceeding 1:48 (2 percent) in all directions. If there are curbs between the access aisle and the vehicle pull-up space, then a curb ramp shall be provided.
- Provide minimum vertical clearance of 114 inches at accessible passenger loading zones and along at least one vehicle access route to such areas from site entrances and exits.
- Valet parking facilities shall provide at least one passenger drop off and loading zone complying with 11B-503 and 11B-208.1.
- Where provided, bus stop pads shall have a firm, stable surface with a minimum clear length of 96 inches (measured from the curb or roadway edge) and a minimum clear width of 60 inches (measured parallel to the vehicle roadway), a vehicle extend allowed by legal or site constraints. Bus stop pads shall connect to streets, sidewalks or pedestrian paths as part of an accessible route. Newly constructed bus stop pads must provide a detectable transition between the loading/alighting and the roadway. The detectable transition shall consist of a curb with face sloped at 35 degrees maximum from vertical or detectable warnings complying with sections 11B-705.1.1 and 11B-705.1.2.4.
- Where provided, bus stop shelters shall be installed so as to permit a wheelchair user to enter the shelter from the public way and access a clear floor area of 30 inches by 48 inches, completely within the shelter. Such shelters shall be connected by an accessible route to the boarding area.

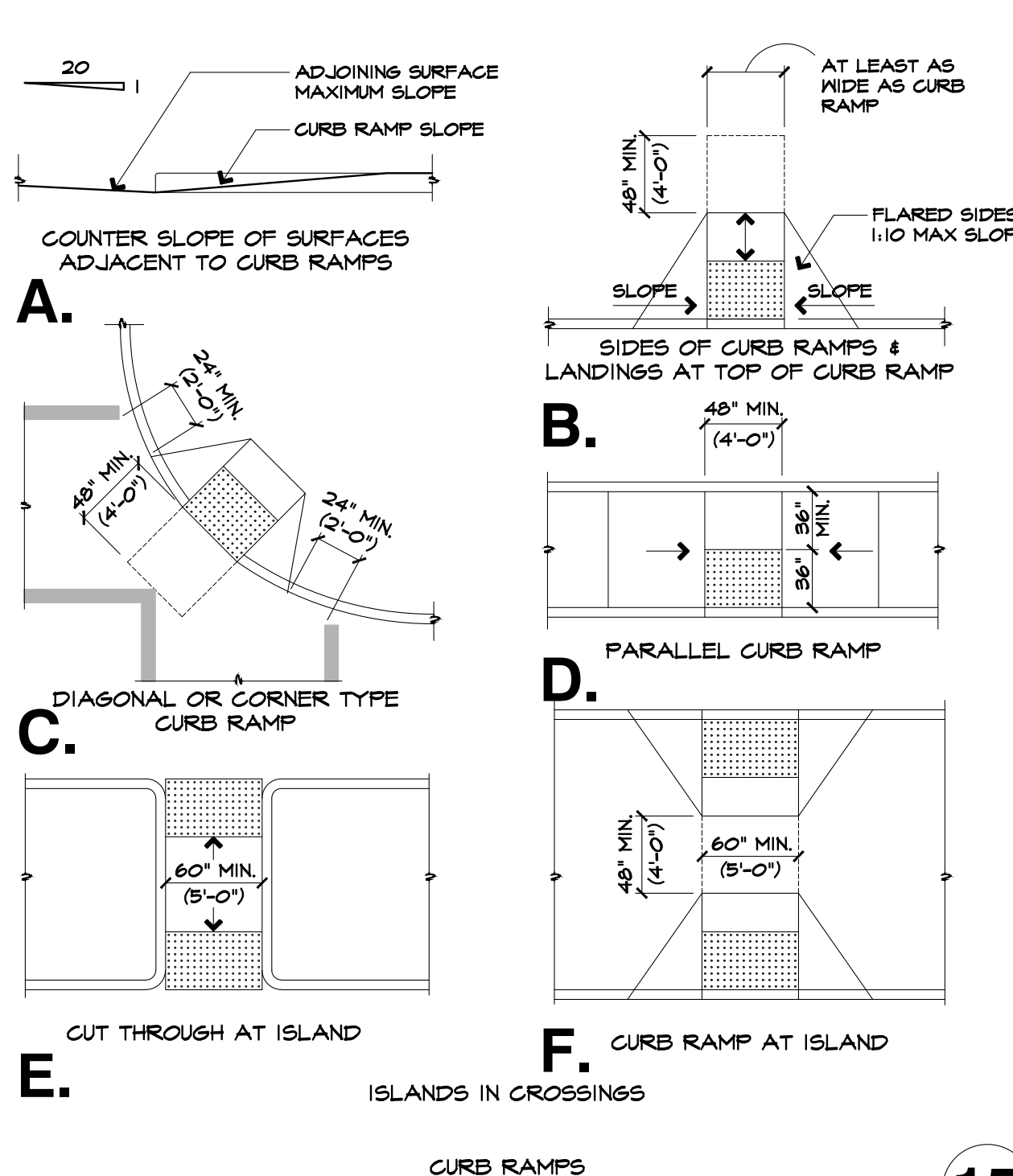
D. WALKS & SIDEWALKS per CBC 11B-303 and CBC 11B-304

- Walks and sidewalks subject to these regulations shall have a continuous common surface, and not interrupted by steps or by abrupt changes in level exceeding 1/8". Changes in level between 1/4" and 1/2" shall be beveled.
- Walks and sidewalks shall be 48" minimum in width.
- When changes in level not exceeding 1/2" occur, they shall be beveled with a slope no greater than one unit vertical to 2 units horizontal (50 percent), except that level changes not exceeding 1/4" may be vertical.
- When abrupt changes in level greater than 1/2" are necessary; they shall comply with the requirements for curb ramps.
- Walk and sidewalk surfaces shall be slip-resistant as follows:
 - Surfaces with a slope of less than 6% gradient shall be at least a slip-resistant as that described as a medium salted finish.
 - Surfaces with a slope of 6% or greater gradient shall be slip-resistant.
- When the slope in the direction of travel of any walk exceeds one vertical to 20 units horizontal (5 percent gradient), it shall comply with the provisions of this section.
- Walks and sidewalk surface cross slopes shall not exceed 1:48. All walks with continuous gradients shall have level areas at least 5 feet in length at levels of at least every 400 feet.
- Walks shall be provided with a level area not less than 60 inches by 60 inches at a door or gate that swings toward the walk, and not less than 4'-10" inches wide by 44 inches deep at a door or gate that swings away from the walk.
- Level area of walks shall extend 36 inches to the side of the strike edge of a door or gate that swings toward the walk.
- Walks, sidewalks, and pedestrian ways shall be free of gratings whenever possible. For gratings located in the surface of any of these areas, grid openings in gratings shall be limited to 1/2" in the direction of traffic flow. If gratings have elongated openings, they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

E. CURB RAMPS per CBC 11B-406

Curb Ramp is defined as "a sloping pedestrian way, intended for pedestrian traffic, which provides access between a walk or sidewalk to a surface located above or below an adjacent curb face".

- Curb Ramps shall be constructed at each corner of street intersections where a pedestrian way crosses a curb. The preferred and recommended location for curb ramps is in the center of the crosswalk or each street corner. Where it is necessary to locate a curb ramp in the center of the curb return and the street surfaces are marked to identify pedestrian crosswalks, the lower end of the curb ramp shall terminate within such crosswalk areas.
- Provide curb ramps per all requirements of this section.
- Curb ramps shall be a minimum of 4 feet in width and shall lie, generally, in a single sloped plane, with a minimum of surface warping and cross slope.
- The slope of curb ramps shall not exceed one unit vertical to 12 units horizontal (8.33 percent slope).
- Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes.
- Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp or accessible route, shall not exceed one unit vertical to 20 units horizontal (5 percent slope) within 4 feet of the top and bottom of the curb ramp. The slope of the fanned or flared sides of curb ramps shall not exceed one unit vertical to 10 horizontal (10 percent slope).
- A level landing 4 feet deep shall be provided at the upper end of each curb ramp over its full width to permit safe egress from the ramp surface, or the slope of the fanned or flared sides of the curb ramp shall not exceed one unit vertical to 10 units horizontal (8.33 percent slope).
- The surface of each curb ramp and its flared sides shall comply with Section 11B-405.10, 11B-405.5.4, and 11B-302. Floor and Ground Surfaces, and shall be of contrasting finish from that of the adjacent sidewalk.



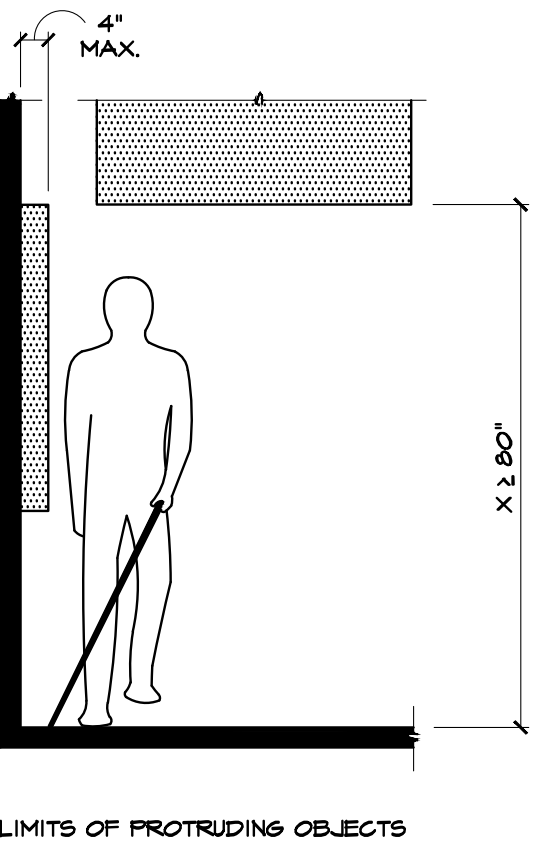


Level area is defined as "a specified surface that does not have a slope in any direction exceeding 1/4 inch in one foot from the horizontal (2.083% gradient)."

-
- Diagram illustrating elongated openings in floor or ground surfaces. The diagram shows a rectangular area with a grid of vertical lines representing openings. A horizontal double-headed arrow at the top is labeled "DOMINANT DIRECTION OF TRAVEL". A vertical double-headed arrow on the left is labeled "LONG DIMENSION OF OPENING TO DOMINANT DIRECTION OF TRAVEL". A dimension line at the bottom left indicates a height of "1/2\" MAX". Below the diagram, the text "ELONGATED OPENINGS IN FLOOR OR GROUND SURFACES" is written.

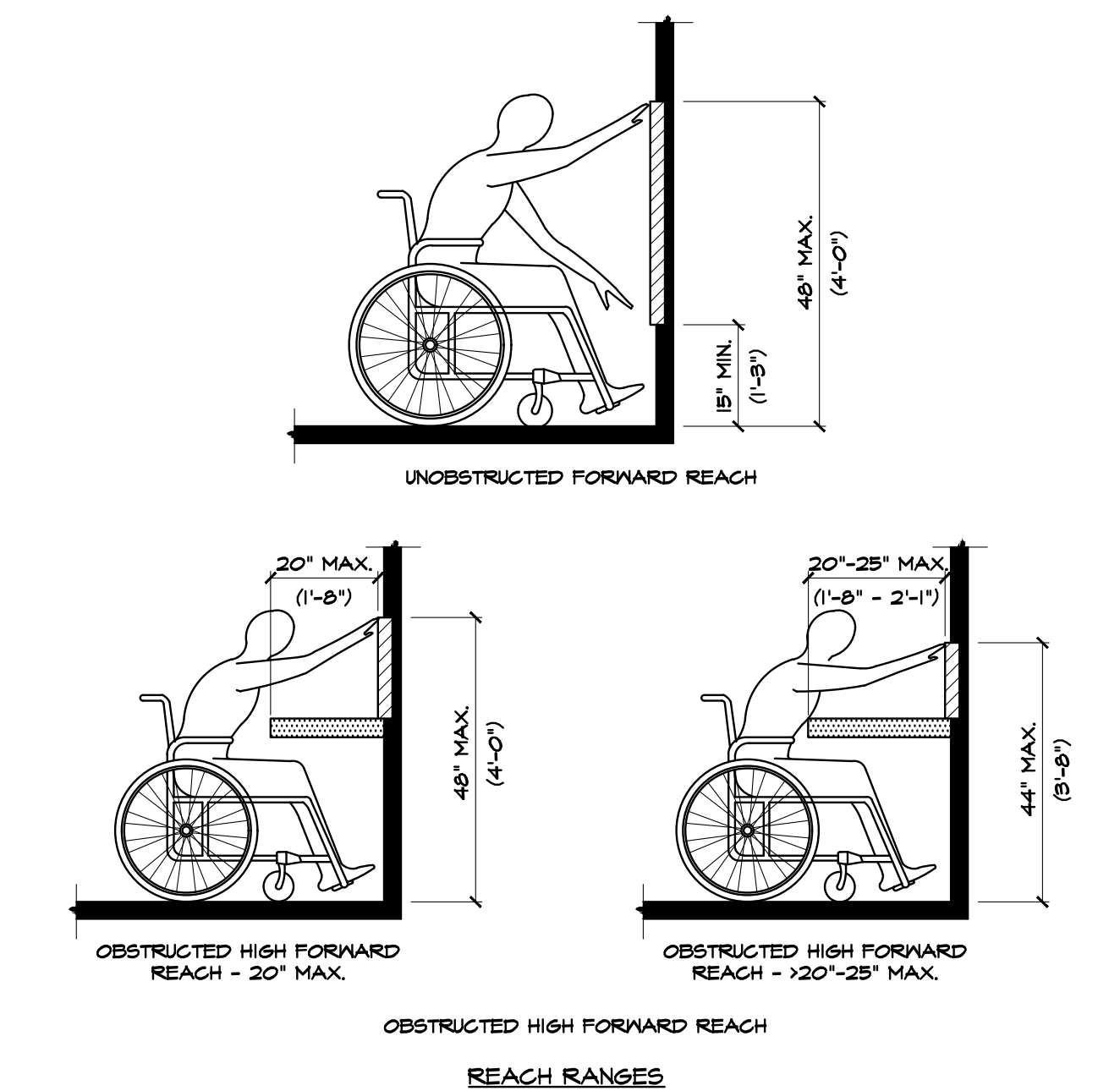
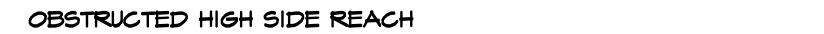
Level area is defined as "a specified surface that does not have a slope in any direction exceeding 1/4 inch in one foot from the horizontal (2.083% gradient)."

1. Absrupt changes in level, except between a walk or sidewalk and an adjacent street or driveway, exceeding 4 inches in a vertical dimension, such as at planters or fountains located in or adjacent to walks, sidewalks, or other pedestrian ways, shall be identified by warning curbs projecting at least 6 inches in height above the walk or sidewalk surface to warn the blade of a potential drop off.
2. When a guard or handrail is provided, no curb is required when a wheel guide rail is provided so that it prevents the passage of a 4" diameter sphere where any portion of the sphere is within 4" of the finish floor or ground surface of the walk or sidewalk, the walk is 5 percent or less gradient or no adjacent hazard exists.
3. Objects projecting from walks with their leading edges between 27 inches and 80 inches above the finished floor shall protrude no more than 4 inches into walks, halls, corridors, passageways, or aisles.
4. Objects mounted with their leading edges at or below 27 inches above the finished floor may protrude any amount into walks, halls, corridors, passageways, or aisles.
5. Free-standing objects mounted on posts or pylons may overhang 12 inches maximum from 27 inches to 80 inches above the ground or finished floor.
6. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.
7. Walks, halls, corridors, passageways, aisles, or other circulation spaces shall have 80 inches minimum clear head room.
8. Any obstruction that overhangs a pedestrian way shall be a minimum of 80 inches above the walking surface as measured from the bottom of the obstruction.
9. Where a guy support is used parallel to a path of travel, including, but not limited to sidewalks, a guy brace, sidewalk guy or similar device shall be used to prevent an overhanging obstruction as defined.
10. 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 vehicular areas, the boundary between the areas shall be defined by a continuous detectable warning which is 36 inches wide, complying with 11B-705 section.
11. Transit boarding platforms shall conform to the requirements of Section 11B-810. Only approved DSA/C detectable warning products and detectable surfaces shall be installed as provided in the California Code of Regulations, Title 24, Part 1, Articles 2, 3, and 4.



1. Stairways shall have handrails on each side, and every stairway required to be more than 18 inches in width shall be provided with not less than one intermediate handrail for each 88 inches of horizontal travel. Intermediate handrails shall be spaced approximately equally across the entire width of the stairway. Handrails shall be continuous along both sides of the stairway.
2. The top of handrail gripping surface shall be mounted 34 to 38 inches above the nosing of the tread.
3. Handrails shall extend a minimum of 12 inches beyond the top nosing and 12 inches plus or safety distance beyond the bottom nosing and ends shall be returned or terminated in new posts or safety terminals.
4. The handgrip portion of handrails shall be not less than 1-1/4 inches or more than 2" max. inches in diameter and shall be free of any sharp edges or protrusions on the handgrip gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Gripping surfaces (top or sides) shall be uninterrupted by newel posts, other construction elements, or obstructions. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. Edge shall have a minimum radius of 1/8 inch.
5. The orientation of at least one handrail shall be in the direction of the run of the stair and perpendicular to the direction of the stair nosing, and shall not reduce the minimum required width of stairs.
6. Handrails projecting from a wall shall have a space of 1-1/2 inches between the wall and the handrail. Handrails may be located in a recess if the recess is a maximum of 3 inch deep and extends at least 18 inches above the top of the rail. Handrails shall not rotate within their fitting.
7. The upper approach and the lower tread of each stair shall be marked by a strip of clearly contrasting color at least 2 inches wide minimum, to a maximum of 4" wide, placed parallel to and not more than 1 inch from the nose of the step or upper approach to alert the visually impaired. The stripe shall extend the full width of the step or upper approach. The stripe shall be of material that is at least as slip resistant as the other treads of the stair.
8. Where stairways occur outside a building, the upper approach and all treads shall be marked by a contrasting color at least 2 inches wide minimum to a maximum of 4 inches wide and placed parallel to and not more than 1" from the nose of the step or landing to alert the visually impaired. The stripe shall be of a material that is at least as slip-resistant as the other treads of the stair. A painted strip shall be acceptable. Grooves are not permitted.
9. All tread surfaces shall be slip-resistant. Weather exposed stairs and their approaches shall be designed so that water will not accumulate on walking surfaces. Treads shall have smooth, non-slip surfaces. Slip-resistant surfaces (except for treads) shall be sloped (lower front edge). Treads shall be permitted to have a slope not steeper than 1:48.

2. Operable parts of fuel dispensers shall be permitted to be 54 inches (1372 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.



Work Station is defined as "an area defined by equipment and/or work surfaces intended for use by employees only, generally for one or a small number of employees at a time..."

- California's standards for signage are more stringent and are significantly larger and wider than Federal law, Americans with Disabilities Act (ADA) Section 4.30.

The International Symbol of Accessibility shall be the standard used to identify facilities that are accessible to and usable by physically disabled persons as set forth in Title 24 and as specifically required in this Section.

1. Qualified historical buildings shall comply with the State Historical Building Code, Part 8, Title 24, of the California Code of Regulations as printed in Part 2 of Title 24.
2. When a commercial facility is located in a private residence, the portion of the residence used exclusively as a residence is not covered by Chapter 118, that portion used both for the commercial facility and for residential purposes is covered by the new construction and alteration requirements of this code.
3. The portion of the residence covered extends to those elements used to enter the commercial facility, including the homeowner's front sidewalk, if any, the door or entry way, and hallways; and those portions of the residence, interior or exterior, available to or to be used by employees or visitors of the commercial facility, including sanitary facilities.

(949) 851-1317

STAMP



CONSULTANT

PROJECT

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

THIS SHEET IS FOR DOCUMENTATION PURPOSES ONLY. ALL WORK SHOWN IS EXISTING TO REMAIN AND NOT IN SCOPE.

FOR



FONTANA
CALIFORNIA

TITLE

ACCESSIBILITY DOCUMENTATION

[illegible]

Sheet

ACC-2

1. **Bathing and toilet facilities that serve buildings, facilities or portions of buildings or facilities that are required by these standards to be accessible to persons with disabilities, shall be on an accessible route and shall conform to the requirements of Section 11B-601.**
2. **Where separate facilities are provided for persons of each sex, these facilities shall be accessible to persons with disabilities. Where unisex facilities are provided, these facilities shall be accessible to persons with disabilities.**

A = Adult dimensions (age 12 and over)
E2= Elementary dimensions (9-12 years)
E = Elementary dimensions (5-8 years)
K = Kindergarten and preschool dimensions (3-4 years)

- NOTE: See also Section 11B-703 for additional signage requirements applicable to sanitary facilities.**

7. In existing buildings, a single accommodation toilet water closet may be located in an area which provides a clear space of 36" wide by 48 inches long in front of the water closet.

9. Provide an 18 inches clearance at the strike side of water closet compartment doors (no exception)

16. Show that toilet room floors shall have a smooth, hard, non-absorbent surface such as Portland cement, concrete, ceramic tile or other PCC-DAC Corri (Rev. 6/6/2008) Page 3 of 10 www.ladbs.org www.icclab.org City of Los Angeles Department of Building and Safety - Engineering Bureau Sanitary Facilities, Drinking Fountains, Telephones, Alterations, and Sinks approved material which extends upward on the walls at least 5'. Walls within water closet compartments and walls within 24" of the front and sides of urinals shall be similarly finished to a height of 48" and, except for structural elements, the materials used in such walls shall be a type which is not adversely affected by moisture.

7. Note that the structural strength of grab bars, tub and shower seats, fasteners, and mounting devices shall meet the following specifications:

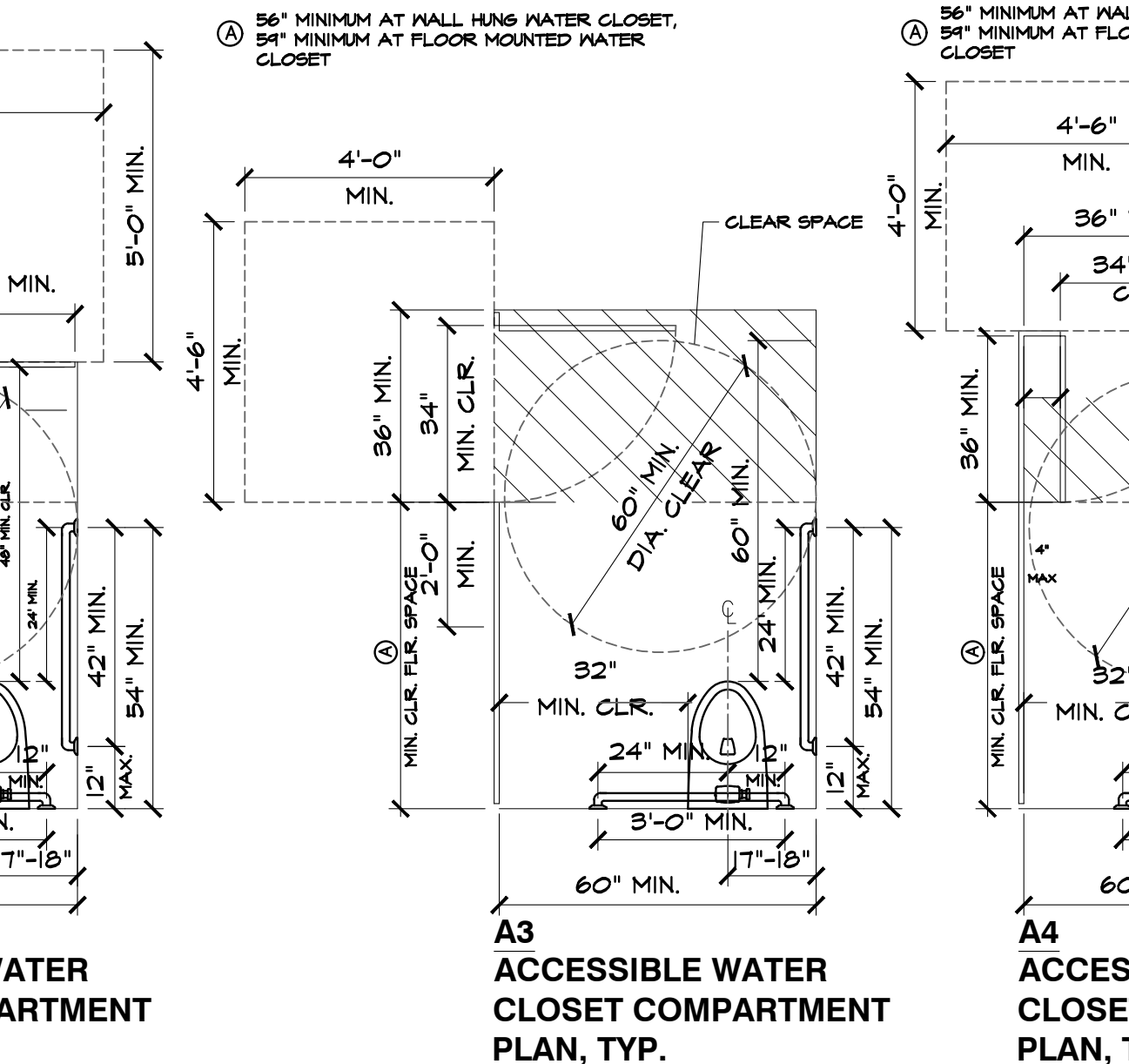
7. Note that the structural strength of grab bars, tub and shower seats, fasteners, and mounting devices shall meet the following specifications:



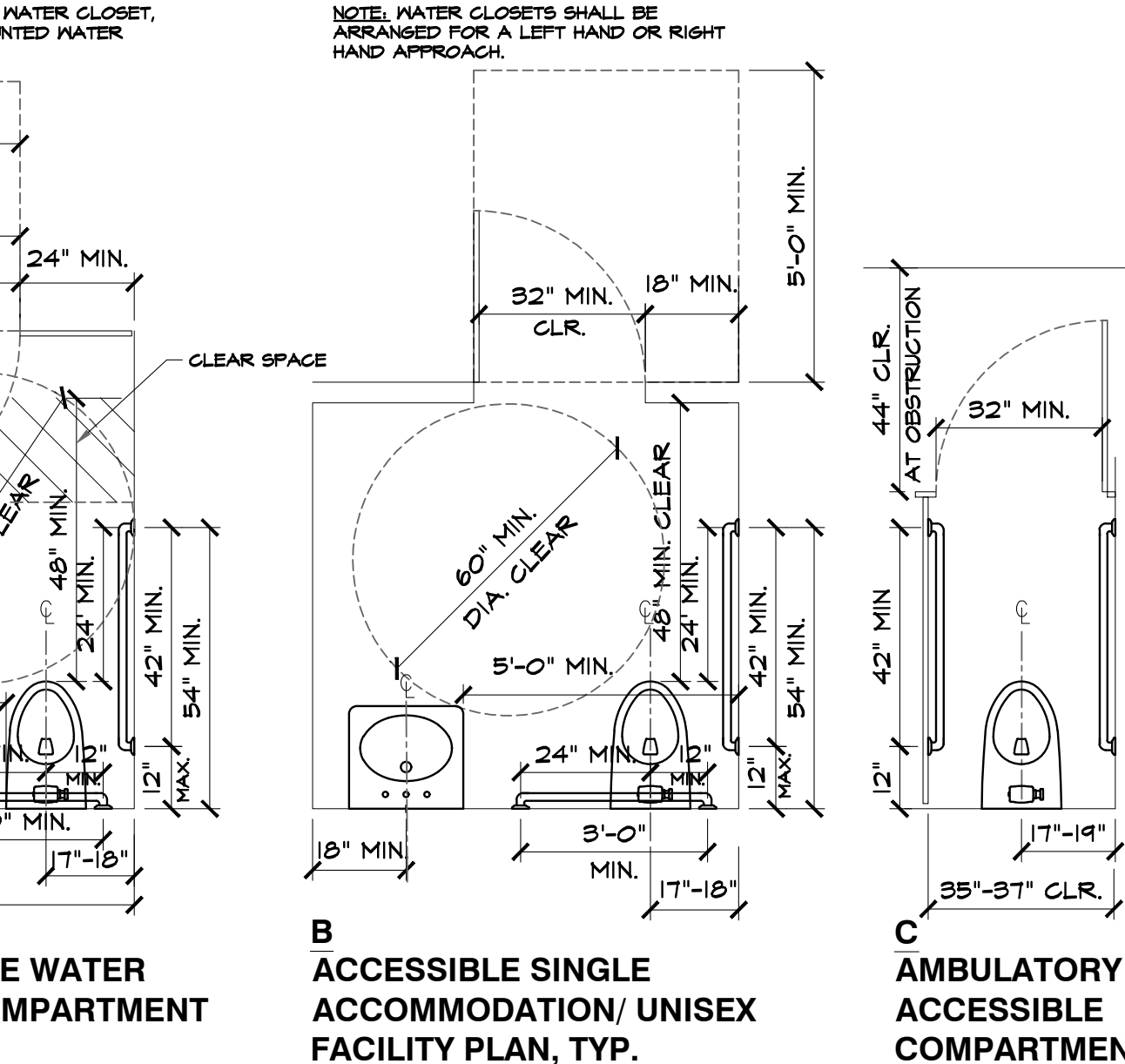
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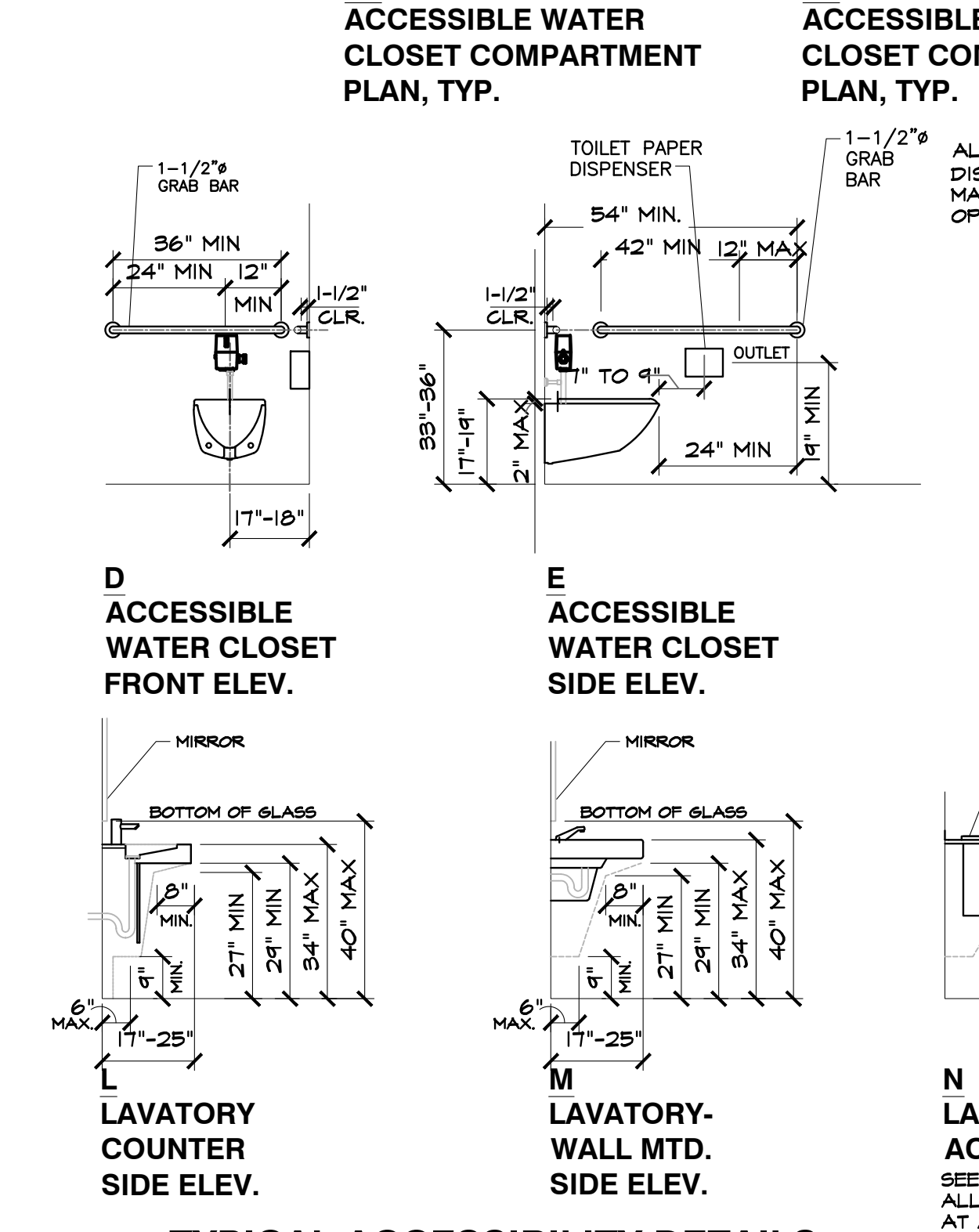
SCALE: 6" = 1'-0" 01 ENTRANCE SIGN



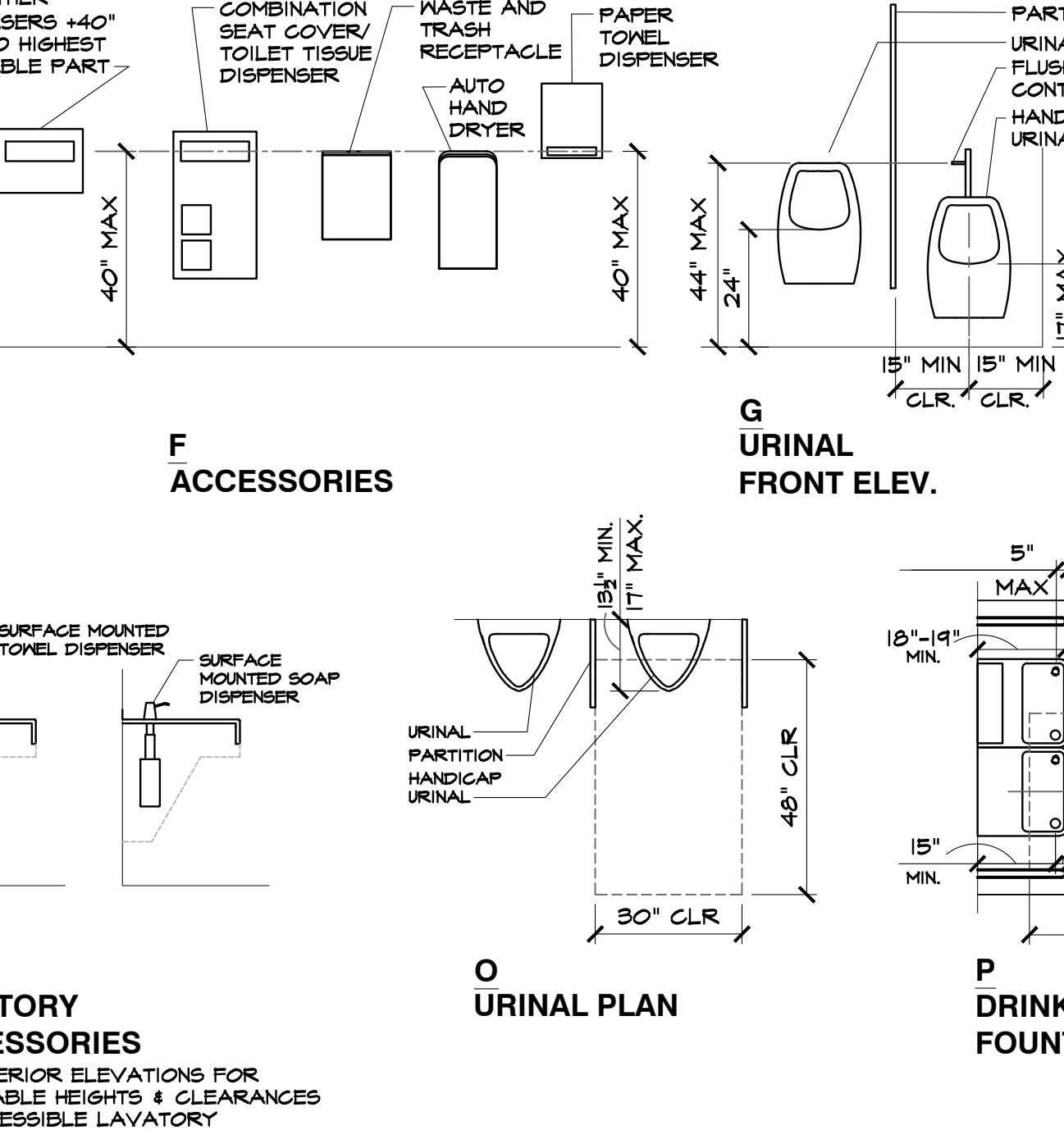
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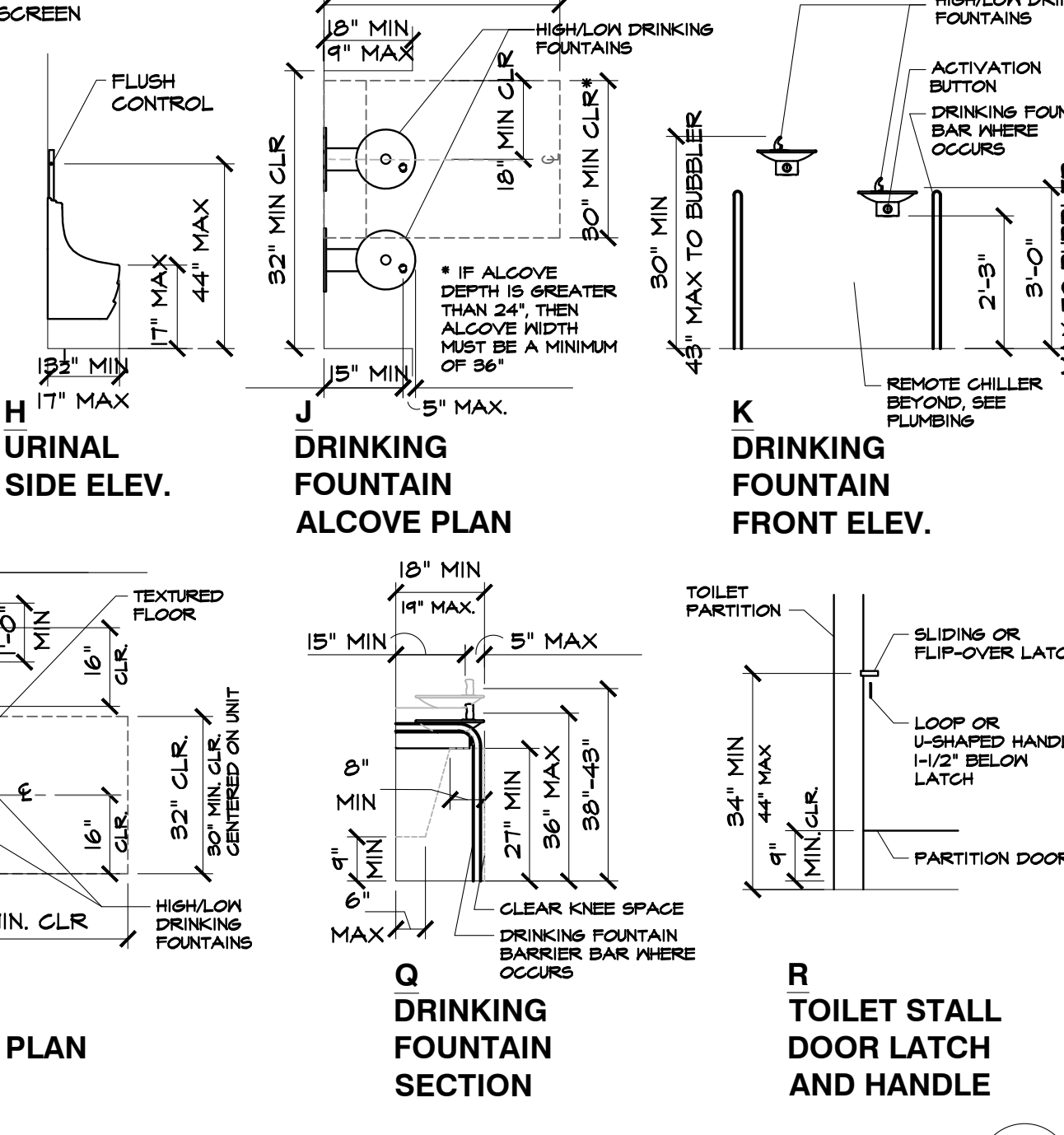
9. Provide an 18 inches clearance at the strike side of water closet compartment doors (no exception)



SCALE: $3/8 = 1 - 0$



E WATER MPARTMENT	ACCESSIBLE SINGLE ACCOMMODATION/ UNISEX FACILITY PLAN, TYP.	AMBULATORY ACCESSIBLE COMPARTMENT
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PROJECT

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

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FOR



TITL

ACCESSIBILITY DOCUMENTATION

Drawn	MFM
Date	2/13/26
Project No.	25011
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ACC-3

STAMP



CONSULTANT

PROJECT

WEST END
REGIONAL
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



FONTANA
CALIFORNIA

TITLE

CAL GREEN
BUILDING
STANDARDS

Revisions	By	Date
△ PC CORR 1/BD ISSUE	MMF	4/24/26

Drawn

MMF

Date

2/3/26

Project No.

2501

Scale

NONE

Sheet

CG-3



AIA
California

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (January 2023)

Y	N/A	RESPON- SIBILITY
ARCH	ENG	GC, O

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

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

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

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

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT.1,2

Less Water and Less Exempt Compounds in Grams per Liter

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

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

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

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter

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

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

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

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

TABLE 5.504.4.3 - CONT.

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

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

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

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

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

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

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

5.504.4.4 Carpet Systems.

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

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

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

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

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

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

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

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European E36 JS standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS:

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

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

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93150 THROUGH 93120.12

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

Y	N/A	RESPON- SIBILITY
ARCH	ENG	GC, O

5.504.4.6 Resilient flooring systems. Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350)

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

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

5.504.4.7 Thermal insulation. Comply with the requirements of the California Department of Public Health, "Standard Method of the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 1.2, January 2017 (Emission testing method for California Specification 01350).

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

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

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

See California Department of Public Health's website for certification programs and testing labs.

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

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

Exceptions: Existing mechanical equipment.

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

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

SECTION 5.505 INDOOR MOISTURE CONTROL

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

SECTION 5.506 INDOOR AIR QUALITY

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

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

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

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

SECTION 5.507 ENVIRONMENTAL COMFORT

5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 88 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, unless either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

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

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of not less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

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

Exceptions:

1. L_w or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
2. L_w or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.
2. Within the 65 CNEL or L_w noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

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

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

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

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

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

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

SECTION 5.508 OUTDOOR AIR QUALITY

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

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

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

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

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

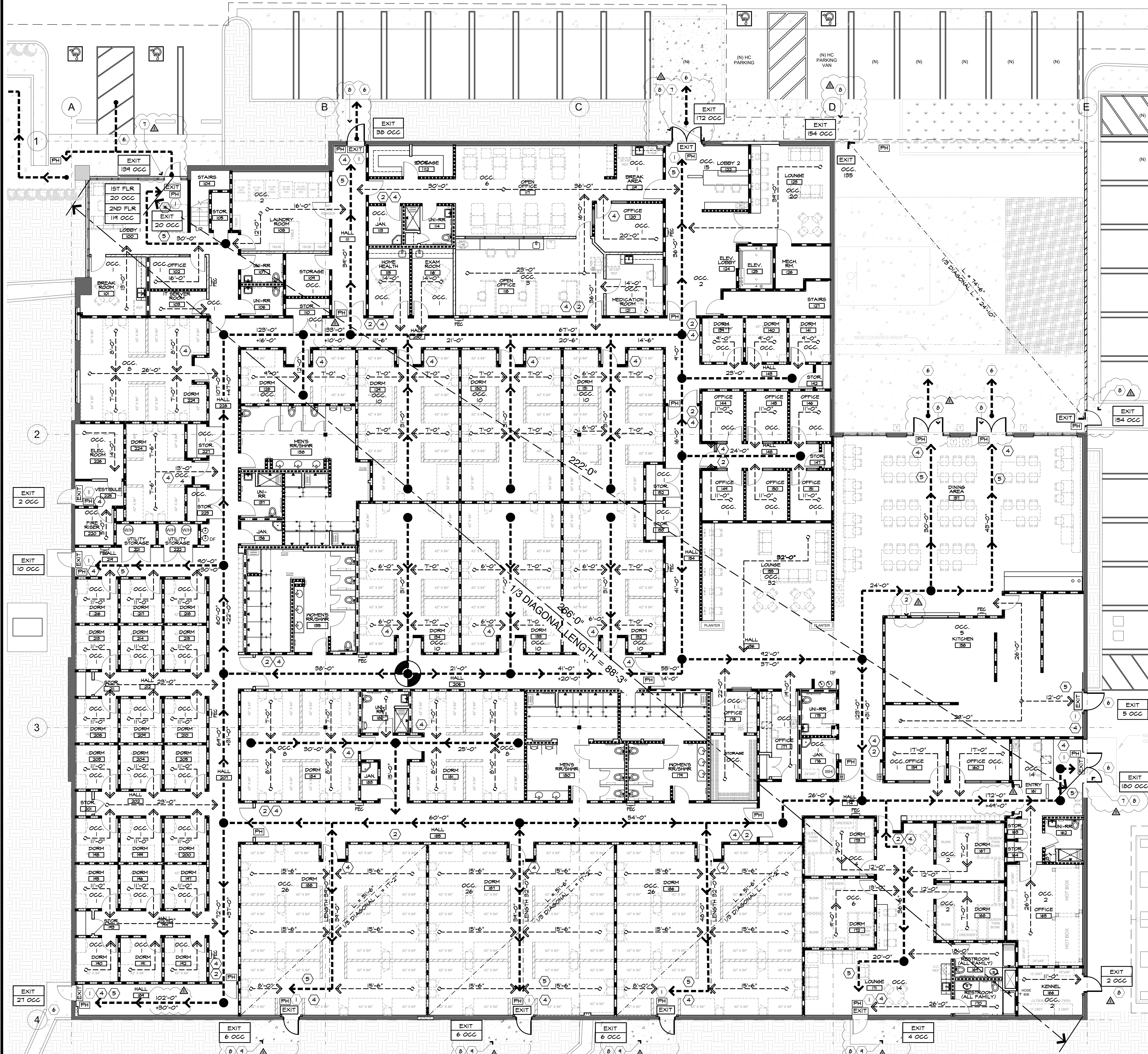
Exception: Valves with seal caps that are not removed from the valve during stem operation.

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

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

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

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



FIRST FLOOR EGRESS PLAN
SCALE: 1/8" = 1'-0"

EGRESS PLAN GENERAL NOTES

1. REFER TO SITE PLAN SHEET SP-1.1 FOR EXTERIOR ELEMENTS, WALKWAYS, ETC.
2. REFER TO ACC-1, ACC-2, ACC-3 AND GENERAL NOTES & EXIT AND OCCUPANT LOADS, SHEET C5-1 FOR ADDITIONAL INFORMATION REGARDING OCCUPANCY, SIGNAGE, CLEARANCES, DEFINITIONS, ETC., NOT SHOWN HERE.
3. PROVIDE TACTILE EXIT SIGNS AT LOCATIONS AS SHOWN ON PLAN PER CBC SECTION 10B.4 AND SECTION 11B-103. ALL SIGNS TO MATCH BUILDING STANDARD SIGNAGE.
4. PER CBC TABLE 1012.2, EXIT ACCESS TRAVEL DISTANCE SHALL BE MEASURED FROM THE MOST REMOTE POINT WITHIN A STORY ALONG THE NATURAL AND UNOBSTRUCTED PATH OF HORIZONTAL AND VERTICAL EGRESS TRAVEL TO THE ENTRANCE OF AN EXIT. THE EXIT ACCESS TRAVEL DISTANCE SHALL NOT EXCEED 250 FEET FOR GROUP R-2 & B OCCUPANCY WITHIN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1.
5. THE MINIMUM NUMBER OF EXITS REQUIRED PER CBC TABLE 1006.3.1 FOR GROUP R-2 & B OCCUPANCY SHALL BE AS FOLLOWS:
1-500 OCCUPANTS (PERSONS PER STORY) 2 EXITS (PER STORY)
501-1,000 3
MORE THAN 1,000 4
6. FIRE EXTINGUISHER TO BE RECESSED IN LOCKABLE/TAMPER PROOF CABINET, LOCATE PER FIRE MARSHAL. SEE DETAIL 22/A-10.2.
7. REFER TO OCC-1 AND OCC-2 FOR OCCUPANT LOADS FOR EACH AREA.

EGRESS PLAN LEGEND

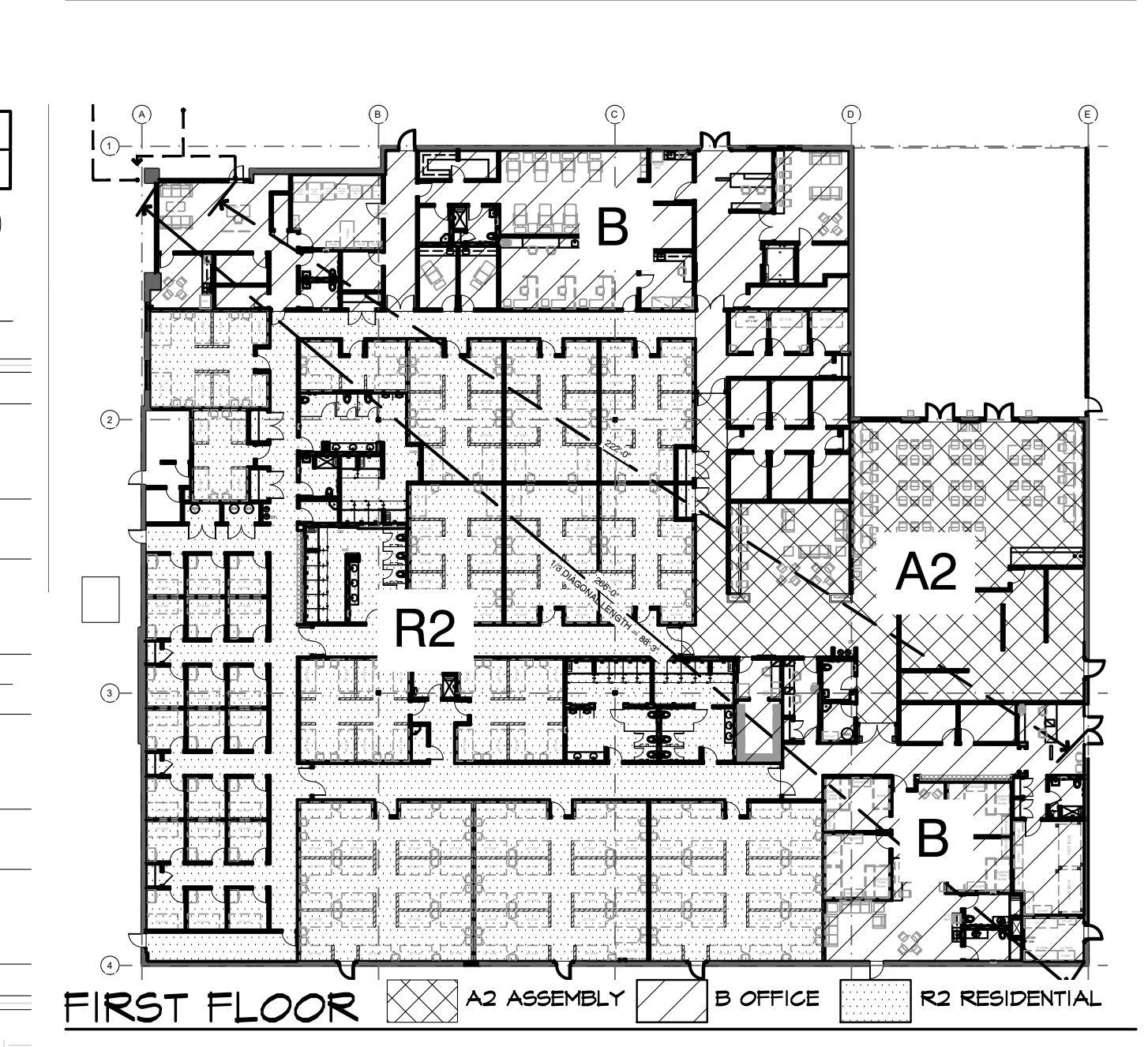
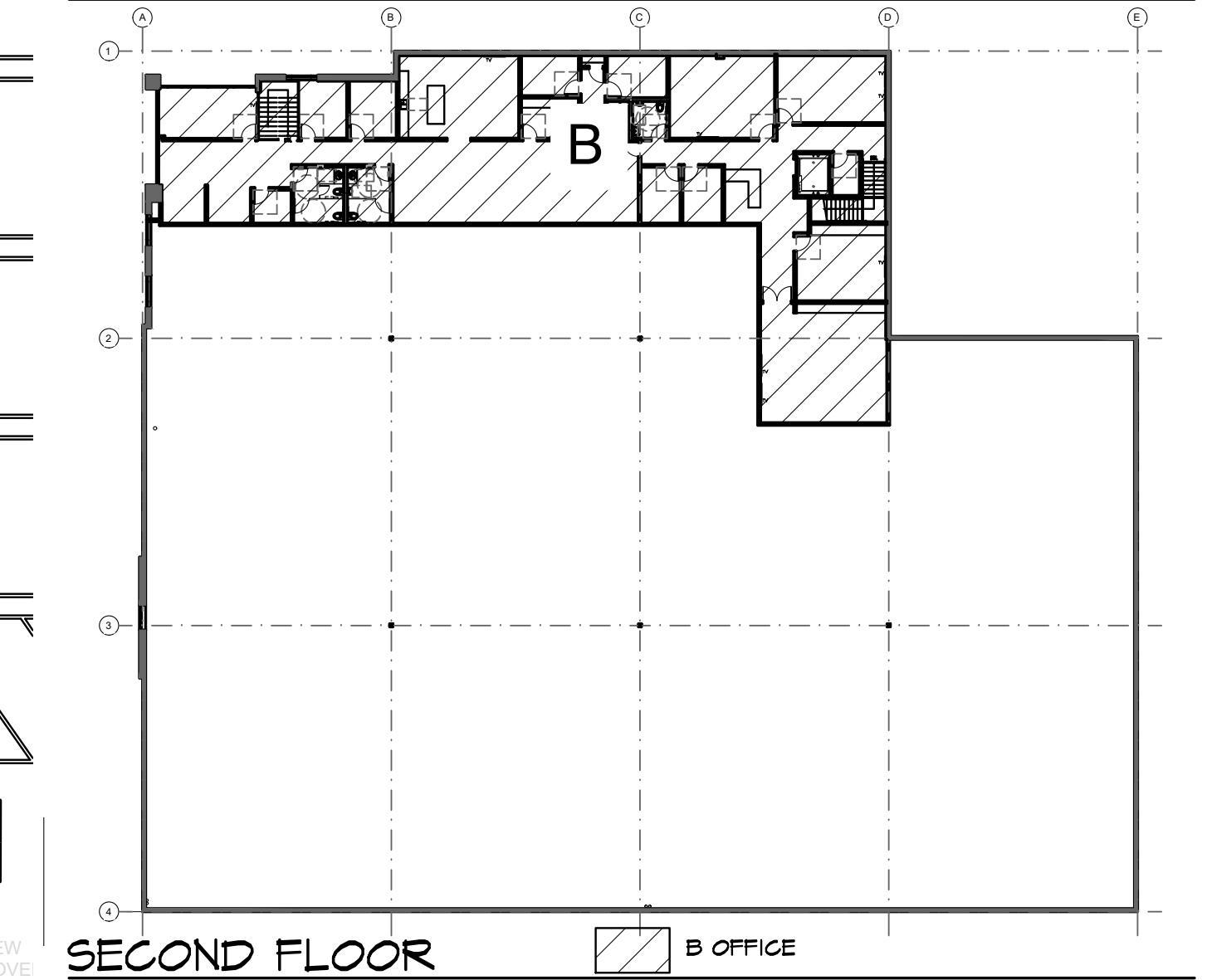
PH DENOTES "PANIC HARDWARE" AT THIS DOOR(S)

EGRESS PLAN KEY NOTES

1. PROVIDE TACTILE EXIT SIGN: "EXIT", PER CBC SECTION 10B.4. SEE DETAIL 18/A-SHEET A-10.2. TACTILE SIGNS SHALL COMPLY WITH CBC SECT. 11B-103.
2. PROVIDE TACTILE EXIT SIGN: "EXIT ROUTE", PER CBC SECTION 10B.4. SEE DETAIL 18/A-10.2. TACTILE SIGNS SHALL COMPLY WITH CBC SECT. 11B-103.
3. PROVIDE TACTILE EXIT SIGN: "EXIT STAIR DOWN", PER CBC SECTION 10B.4. SEE DETAIL 18/A-10.2. TACTILE SIGNS SHALL COMPLY WITH CBC SECT. 11B-103.
4. DEDICATED EXIT DOOR. SEE SHEET A-2.1 AND A-2.2 FOR ILLUMINATED SIGNAGE LOCATIONS. REFER TO SHEET A-10 FOR DOOR OR GATE HARDWARE AND OPERATING DEVICES.
5. ACCESSIBLE PATH OF TRAVEL TO EXTERIOR DOOR.
6. ACCESSIBLE PATH OF TRAVEL FROM EXTERIOR DOOR TO CLEAR RIGHT OF WAY, SEE SHEET SP-1.1.
7. EXISTING OR NEW INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) LOCATION AT DOOR OR SIDELIGHT GLAZING PER CBC CH 11B.
8. LEVEL LANDINGS AT ACCESSIBLE DOOR TO COMPLY WITH CBC SEC 11B 540.3, 11B 404, 11B 405, 100B.3 AND 1604.
9. ACCESSIBLE AREA OF REFUGE AT EXTERIOR EGRESS. MINIMUM 30'x32' TO ACCOMMODATE (1) WHEEL CHAIR SPACE / 200' OCC.

NOTE- REFER TO SHEET OCC-1 FOR ADDITIONAL INFORMATION:
1. (CP)=DISTANCE TRAVELED BEFORE CHOICE OF (2) EXITS
(EA)=MAXIMUM DISTANCE BEFORE REACHING AN EXIT
2. EGRESS COMMON PATH OF TRAVEL PER CBC 1006.2.1, 1004.2 AND TABLE 1006.2.1.
3. EGRESS FOR OUTSIDE AREA PER CBC 1004.7.

SUMMARY AREA OF SEPARATIONS



CONSULTANT

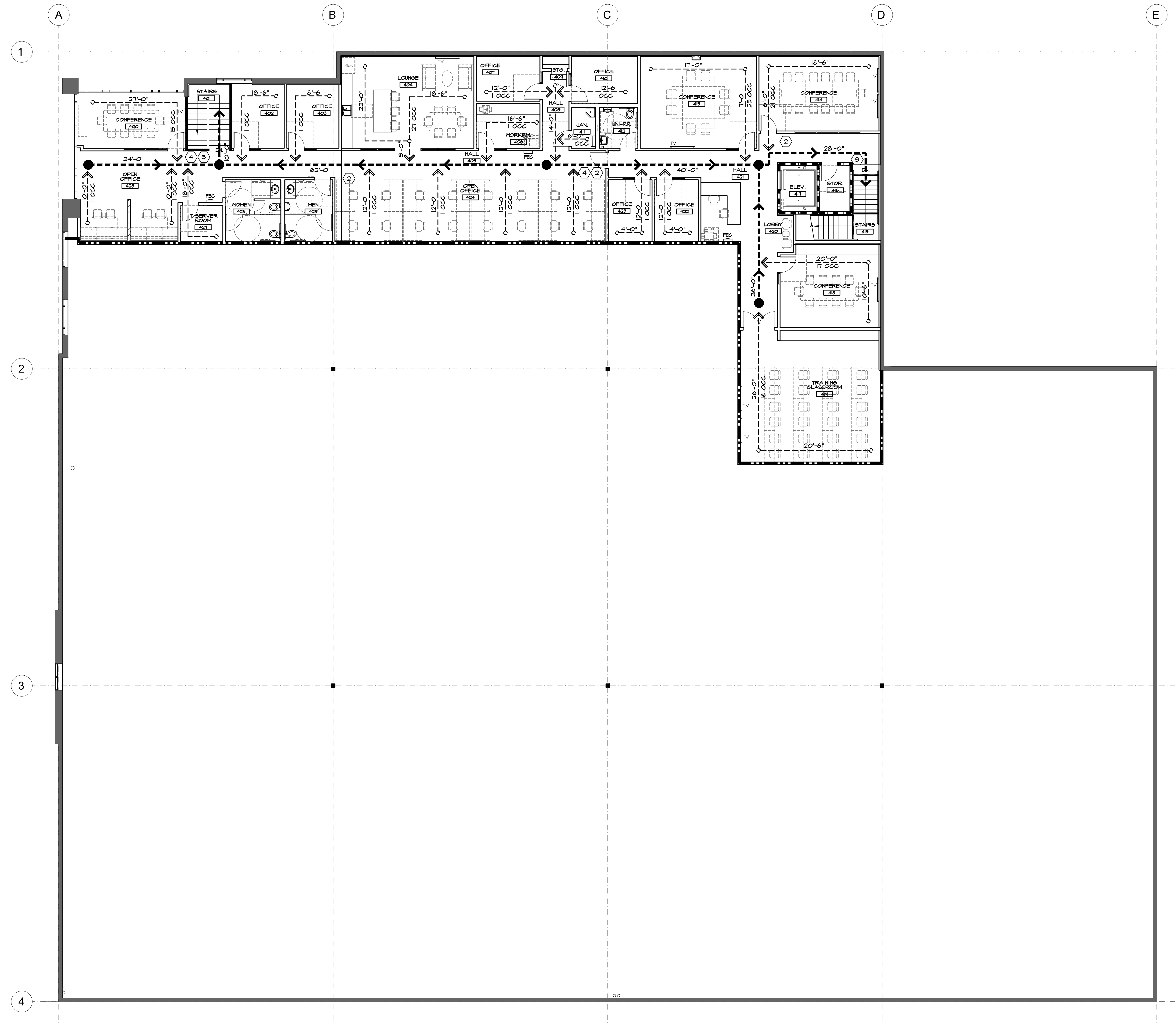
PROJECT
**WEST END
REGIONAL
NAVIGATION
CENTER**
11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



TITLE
EGRESS PLAN

Revisions	By	Date
1. PG CORR 1/BID ISSUE	DAE	4/24/26

Drawn MFM
Date 2/13/26
Project No. 25011
Scale AS NOTED



SECOND FLOOR EGRESS PLAN
SCALE: 1/8" = 1'-0"

EGRESS PLAN GENERAL NOTES

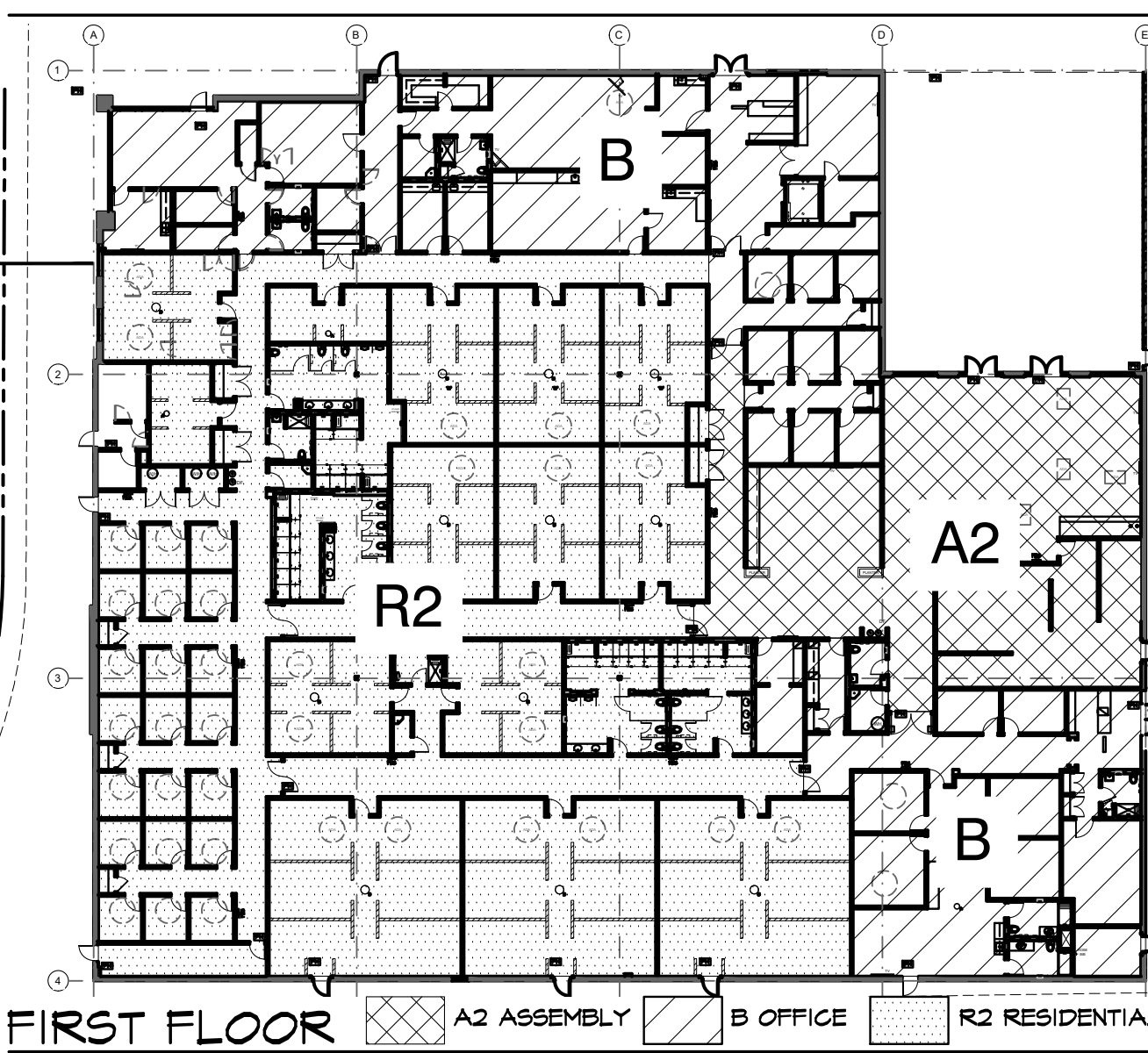
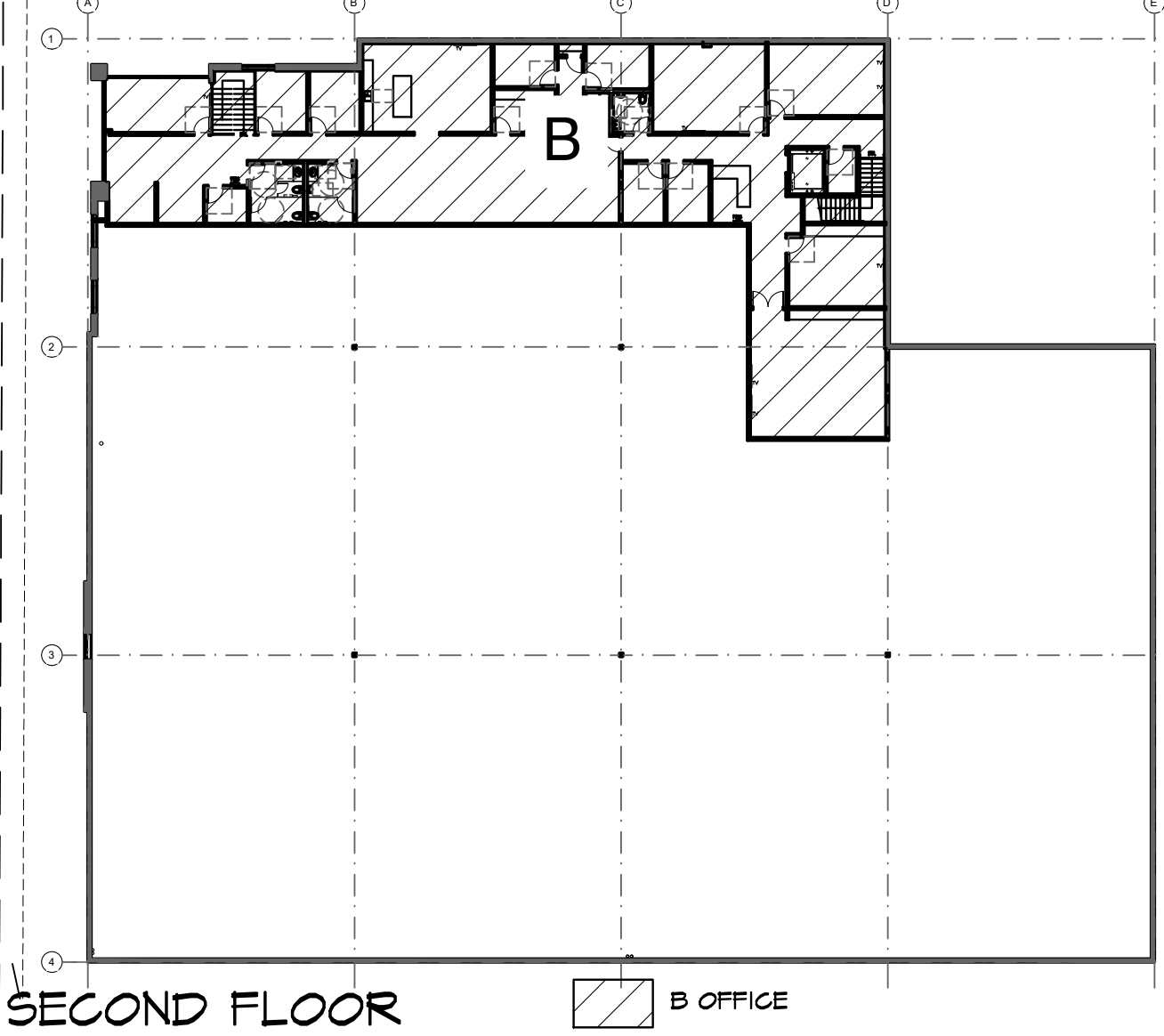
1. REFER TO SITE PLAN SHEET SP-1.I FOR EXTERIOR ELEMENTS, WALKWAYS , ETC.
2. REFER TO ACC-1, ACC-2, ACC-3 AND GENERAL NOTES & EXIT AND OCCUPANT LOADS, SHEET CS-1 FOR ADDITIONAL INFORMATION REGARDING OCCUPANCY, SIGNAGE, CLEARANCES, DEFINITIONS, ETC., NOT SHOWN HERE.
3. PROVIDE TACTILE EXIT SIGNS AT LOCATIONS AS SHOWN ON PLAN PER CBC SECTION 10B.4 AND SECTION 10B-103. ALL SIGNS TO MATCH BUILDING STANDARD SIGNAGE.
4. PER CBC TABLE 1017.2, EXIT ACCESS TRAVEL DISTANCE SHALL BE MEASURED FROM THE MOST REMOTE POINT WITHIN A STORY ALONG THE NATURAL AND UNOBSTRUCTED PATH OF HORIZONTAL AND VERTICAL EGRESS TRAVEL TO THE ENTRANCE OF AN EXIT. THE EXIT ACCESS TRAVEL DISTANCE SHALL NOT EXCEED 250 FEET FOR GROUP R-2 & B OCCUPANCY WITHIN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1.
5. THE MINIMUM NUMBER OF EXITS REQUIRED PER CBC TABLE 1006.3.1 FOR GROUP R-2 & B OCCUPANCY SHALL BE AS FOLLOWS:
1-500 OCCUPANTS (PERSONS PER STORY) 2 EXITS (PER STORY)
501-1,000 3
MORE THAN 1,000 4
6. FIRE EXTINGUISHER TO BE RECESSED IN LOCKABLE/TAMPER PROOF CABINET, LOCATE PER FIRE MARSHAL, SEE DETAIL 22/A-10.2.
7. REFER TO OCC-1 AND OCC-2 FOR OCCUPANT LOADS FOR EACH AREA.

EGRESS PLAN KEY NOTES

1. PROVIDE TACTILE EXIT SIGN, "EXIT", PER CBC SECTION 10B.4. SEE DETAIL 18A/SHEET A-10.2. TACTILE SIGNS SHALL COMPLY WITH CBC SECT. 10B-103.
2. PROVIDE TACTILE EXIT SIGN, "EXIT ROUTE", PER CBC SECTION 10B.4. SEE DETAIL 18B/A-10.2. TACTILE SIGNS SHALL COMPLY WITH CBC SECT. 10B-103.
3. PROVIDE TACTILE EXIT SIGN, "EXIT STAIR DOWN", PER CBC SECTION 10B.4. SEE DETAIL 18C/A-10.2. TACTILE SIGNS SHALL COMPLY WITH CBC SECT. 10B-103.
4. DEDICATED EXIT DOOR, SEE SHEET A-2.1 AND A-2.2 FOR ILLUMINATED SIGNAGE LOCATIONS. REFER TO SHEET A-10 FOR DOOR OR GATE HARDWARE AND OPERATING DEVICES.
5. ACCESSIBLE PATH OF TRAVEL TO EXTERIOR DOOR.
6. ACCESSIBLE PATH OF TRAVEL FROM EXTERIOR DOOR TO CLEAR RIGHT OF WAY, SEE SHEET SP-1.I.

- NOTE: REFER TO SHEET OCC-2 FOR ADDITIONAL INFORMATION:
1. (CP)=DISTANCE TRAVELED BEFORE CHOICE OF (2) EXITS
(EA)=MAXIMUM DISTANCE BEFORE REACHING AN EXIT
 2. EGRESS COMMON PATH OF TRAVEL PER CBC 1006.2.1, 1004.2 AND TABLE 1006.2.1.
 3. EGRESS FOR OUTSIDE AREA PER CBC 1004.7.

SUMMARY AREA OF SEPARATIONS



STAMP



CONSULTANT

PROJECT

**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



**FONTANA
CALIFORNIA**

TITLE

EGRESS PLAN

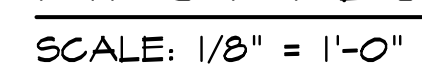
Revisions	By	Date
△ PC CORR 1/BID ISSUE 1	MMF	4/24/26

Drawn	MMF
Date	2/13/26
Project No.	25011
Scale	AS NOTED

Sheet

EX-2

1. REFER TO EX-1 FOR EGRESS PATH OF TRAVEL NOT SHOWN THIS SHEET.
2. SEE EX-1 FOR EGRESS PATH OF TRAVEL AT FIRST FLOOR.



EXIT ACCESS TRAVEL DISTANCE		
PER CBC 1017 AND TABLE 1017.2		
OCCUPANCY	MAX DISTANCE (FT) WITH AUTO SPRINKLERS	
	NOT TO EXCEED	REMARKS
A	250 FEET	250 > -COMPLIES
B	300 FEET	300 > -COMPLIES
R-2	250 FEET	250 > -COMPLIES

COMMON PATH OF EGRESS

PER CBCB SEC 1006.2.1 AND TABLE 1006.2.1 EGRESS -COMMON
OF PATH OF TRAVEL

MAXIMUM DISTANCE BEFORE (2) EXITS REQUIRED		
OCCUPANCY	MAX COMMON PATH OF TRAVEL (FT)	
	NOT TO EXCEED	REMARKS
A	75 FEET	75' > -COMPLIES
B	75 FEET	75' > -COMPLIES
R-2	125 FEET	125' > -COMPLIES

FOR



FONTANA
CALIFORNIA

TITLE

OCCUPANCY PLAN

[illegible]

Drawn MFM

Date	2/13/26
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Date	2/12/22
Project No.	25011

Scale	AS NOTED
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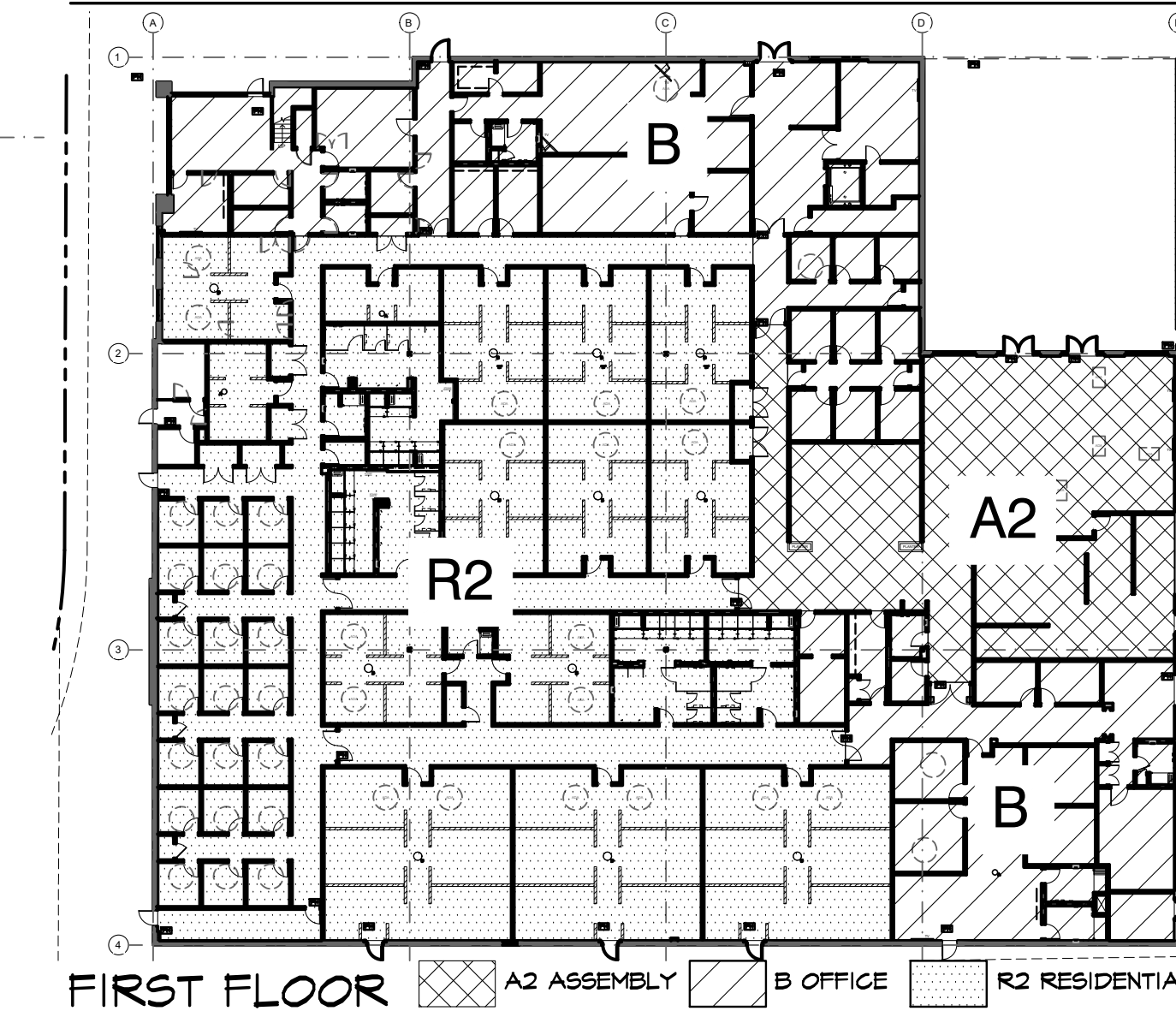
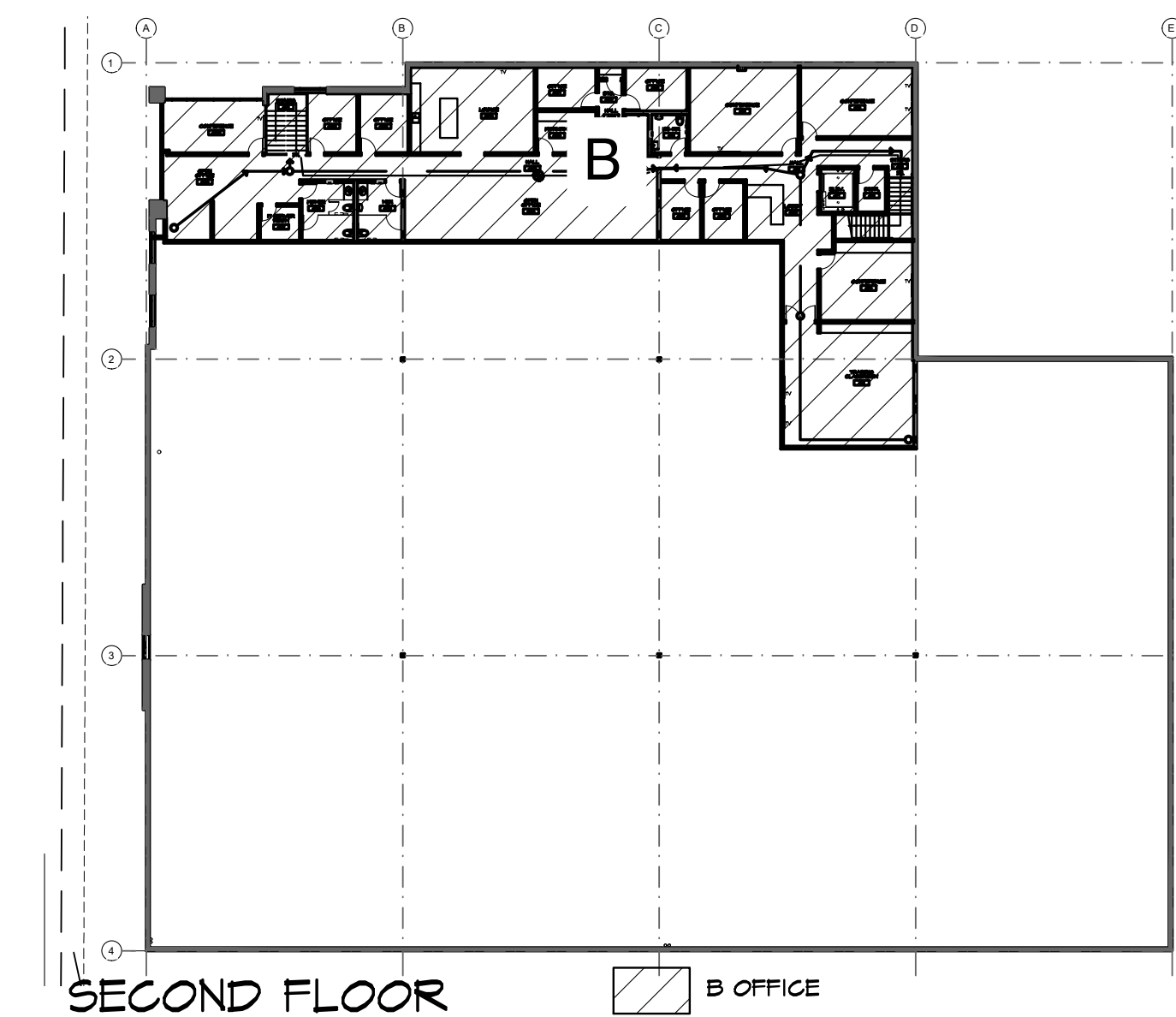
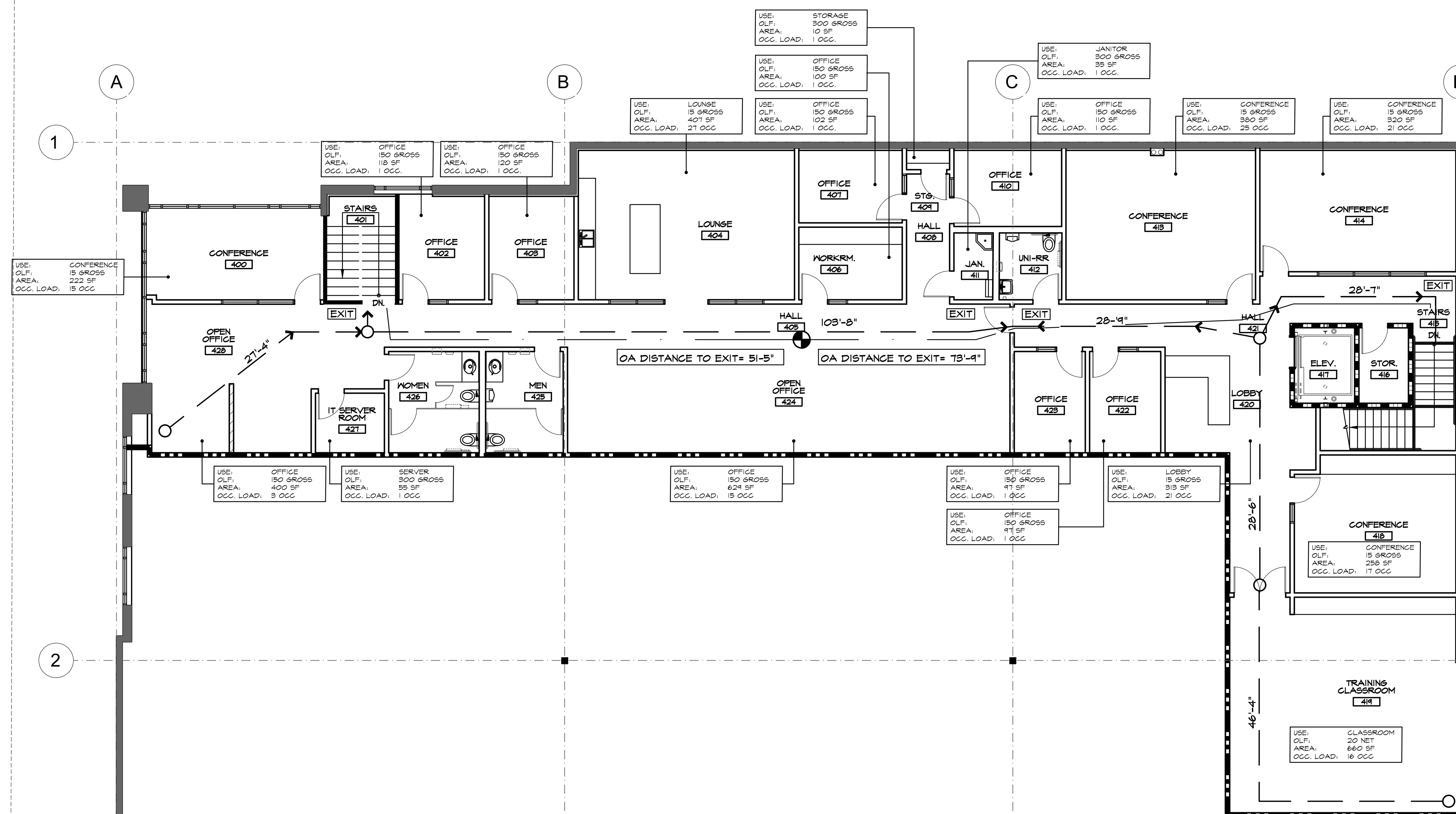
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OCC-1



OCCUPANCY PLAN GENERAL NOTES

1. REFER TO EX-2 FOR EGRESS PATH OF TRAVEL THIS AREA.
2. SEE EX-1 FOR EGRESS PATH OF TRAVEL AT FIRST FLOOR.



EXIT ACCESS TRAVEL DISTANCE

PER CBC 1017 AND TABLE 1017.2

OCCUPANCY	MAX DISTANCE (FT) WITH AUTO SPRINKLERS	NOT TO EXCEED	REMARKS
A	250 FEET	250' > -COMPLIES	
B	300 FEET	300' > -COMPLIES	
R-2	250 FEET	250' > -COMPLIES	

COMMON PATH OF EGRESS

PER CBCB SEC 1006.2.1 AND TABLE 1006.2.1 EGRESS -COMMON OF PATH OF TRAVEL MAXIMUM DISTANCE BEFORE (2) EXITS REQUIRED

OCCUPANCY	MAX COMMON PATH OF TRAVEL (FT)	NOT TO EXCEED	REMARKS
A	75 FEET	75' > -COMPLIES	
B	75 FEET	75' > -COMPLIES	
R-2	125 FEET	125' > -COMPLIES	

SITE PLAN GENERAL NOTES

1. NEW SLURRY COAT OVER ALL EXISTING ASPHALT PARKING/SITE AREAS, SEE CIVIL DRAWINGS FOR LOCATIONS.
2. NEW PARKING STALL STRIPINGS PER CITY STANDARDS, AT LOCATIONS AS INDICATED ON PLAN.
3. POWER WASH ALL CONCRETE AREAS THAT ARE TO REMAIN.
4. POWER WASH EXTERIOR OF BUILDING AS NEEDED. PATCH/REPAIR BUILDING WALL CRACKS BLEND NEW TO EXISTING CONSTRUCTION.
5. FIELD VERIFY EXISTING IRRIGATION, ELECTRICAL CONDUITS, ETC. WITHIN AREA OF IMPROVEMENTS, PRIOR TO COMMENCING CONSTRUCTION. RELOCATE AS NEEDED ANY BELOW GRADE SYSTEMS THAT MAY CONFLICT WITH NEW WALKWAY/RAMP LAYOUT AND OTHER IMPROVEMENTS, TYPICAL.
6. PROTECT IN PLACE AS NEEDED, EXISTING ADJACENT LANDSCAPING IRRIGATION AND OTHER ELEMENTS THAT ARE TO REMAIN, DURING CONSTRUCTION. SEPARATE IRRIGATION AS REQUIRED TO ACCOMMODATE NEW LANDSCAPING.
7. NEW CONCRETE WALKWAYS SHALL HAVE MAX. SLOPE 1:20 (5%) IN DIRECTION OF TRAVEL AND 1:50 (2%) CROSS SLOPE. PROVIDE MIN. 4'-0" CLR. WIDTH TYP. AND MEDIUM BROOM SLIP RESISTANT FINISH UNLESS NOTED OTHERWISE.
8. CONSTRUCTION IN THE PUBLIC RIGHT OF WAY AND PROJECTION BEYOND THE PROPERTY LINES OR INTO SETBACKS SHALL COMPLY WITH ALL CITY OF FONTANA CODES AND REQUIREMENTS.
9. PEDESTRIANS SHALL BE PROTECTED DURING CONSTRUCTION, REMODELING AND DEMOLITION ACTIVITIES AS REQUIRED BY CITY OF COSTA MESA CODES AND REQUIREMENTS.

10. REFER TO SHEET A-0.1 FOR SITE DEMOLITION INFORMATION.
11. REFER TO CIVIL ENGINEERING DRAWINGS FOR SITE WORK SCOPE AND UTILITY INFORMATION.
12. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL UTILITY INFORMATION NOT SHOWN ON ARCHITECTURAL DRAWINGS.
13. REFER TO SHEET A-0.2 FOR DEMOLITION WORK AT INTERIOR OF BUILDING.
14. REFER TO SHEET A-10 DOOR SCHEDULE FOR SITE'S DOOR INFORMATION.

PARKING TABULATION	
PROVIDED EXISTING:	PROPOSED:
(1) ACC. VAN	(1) ACC. VAN
(1) ACC. STD.	(1) ACC. STD.
(18) STD.	(6) STD.
	(2) NEW STD.
TOTAL (15) EXIST. SP.	(16) SPACES

SITE & BLDG INFORMATION

SITE AREA: 71,874 SF (1.65 ACRE)
EXISTING BUILDING COVERAGE (FOOTPRINT): 33,984 SF, 47.28%
EXISTING FLOOR AREA
FIRST FLOOR: 33,984 SF
SECOND FLOOR: 1,862 SF
TOTAL AREA: 35,846 SF
EXISTING FAR: .445
NEW PROPOSED BUILDING COVERAGE
PROPOSED FLOOR AREA
FIRST FLOOR: 33,984 SF (NO CHANGE)
SECOND FLOOR: 6,282 SF
TOTAL AREA: 40,266 SF
ACCESSORY BLDGS
COVERED LOCKER STORAGE: 1,461 SF
OUTDOOR PATIO: 341 SF
TOTAL AREA: 2,802 SF
NEW PROPOSED BUILDING COVERAGE: 33,984 + 2,802 SF / 71,874 SF = 51.3%
PROPOSED FAR: 40,266 SF / 71,874 SF = .556

SITE PLAN KEYNOTES

1. SEE TRANSFORMER AND PAD WITH 12" DIA. CONCRETE BOLLARDS.
2. EXISTING FIRE SPRINKLER BACK FLOW DEVICE, SEE CIVIL DRAWINGS AND FIRE SPRINKLER DRAWINGS.
3. EXISTING WATER METER AND BACK FLOW, SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
4. EXISTING PAINTED WROUGHT IRON FENCE, PEDESTRIAN GATE AND ROLLING GATE FENCE TO REMAIN AS IS.
5. EXISTING CHAINLINK FENCING AND RELATED TO REMAIN AS IS.
6. EXISTING CHAIN LINK FENCING AND RELATED AT SITE PERIMETER TO BE DEMOLISHED AND REMOVED.
7. LINE INDICATES PATH OF TRAVEL FROM PUBLIC RIGHT OF ACCESSIBLE WAY TO BUILDING ACCESSIBLE ENTRY AND THROUGHOUT INTERIOR OF BUILDING.
8. ACCESSIBLE CLEAR SPACE AT ENTRY OF EGRESS DOOR OR GATE.
9. FIELD PAINTED CORRUGATED METAL GATE(S) AT EXISTING TRASH ENCLOSURE TO REPAIR AND REPAINTED AS REQUIRED TO AN ACCEPTABLE CONDITION.
10. EXISTING +/- 6'-0" H CMU TRASH ENCLOSURE TO REMAIN, REPAIR/RECONDITION AS REQUIRED, PROVIDE NEW STEEL POSTS, WIRE MESH PANELS AND METAL ROOF AT TOP OF CMU WALLS, SEE DETAIL 3 SHEET SP-1.2.
11. DETECTIBLE WARNING AT ZERO CURB FACE, CURB OR A/C PAVING AS SHOWN ON PLAN. SEE DETAIL 7/SP-1.4.
12. NEW OR EXISTING STANDARD PARKING STALL PER CITY OF FONTANA DEVELOPMENT STANDARDS.
13. CLEAN AIR/VEHICLE POOL STANDARD PARKING STALL PER CITY OF FONTANA DEVELOPMENT STANDARDS WITH ACCESS LANE.
14. NEW OR EXISTING VAN ACCESSIBLE PARKING STALL AND SIGNAGE. SEE DETAIL 5 / SP-1.4.
15. NEW OR EXISTING STANDARD ACCESSIBLE PARKING STALL WITH ACCESS LANE AND SIGNAGE. SEE DETAIL 5 / SP-1.4.
16. NEW PLAYGROUND AREA WITH SOFTSCAPE SURFACE AND PLAYGROUND STRUCTURE (NIC) OVER COMPACTED FILL.
17. NEW OR EXISTING PLANTED AREA / PLANTER/ DG AREA, SEE CIVIL ENGINEERING DRAWINGS.
18. NEW ACCESSIBLE COMPOSITE GATE MATCH ADJACENT FENCE, SEE NOTE 46, AT PLAYGROUND/COURTYARD AREA, SANCTUARY EXISTING CONCRETE WALL. REFER TO DOOR SCHEDULE SPECIFIC FOR GATE HARDWARE SPECIFICATION.
19. LINE OF ROOF OVERHANG, ROOF CANOPY OR COVERED ROOF AREA.
20. NEW CONCRETE WALKWAY OR PAD. PROVIDE 2% MAX SLOPE AND CROSS SLOPE, TYPICAL. REFER TO ACC-1 FOR TYPICAL INFORMATION.
21. EXISTING TRUCK WELL AND LOADING DOCK TO BE INFILLED WITH COMPACTED SOIL. EXISTING SUMP PUMP AND RELATED TO BE DEMOLISHED AND REMOVED. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
22. ELECTRICAL AND FIRE RISER EQUIPMENT ACCESS LOCATION. SEE FLOOR PLAN FOR ADDITIONAL INFORMATION.
23. NEW OR EXISTING HOSE BIBB LOCATION, SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
24. NEW PLAYGROUND EQUIPMENT (NIC)
25. NEW BASKETBALL BACKBOARD LOCATION (NIC)
26. EXISTING SITE ENTRY SIGNAGE, SEE DETAIL 1 / SP-1.4.
27. SYMBOL OF ACCESSIBILITY SIGNAGE AT ENTRY DOOR, SEE DETAIL 7, SHEET ACC-3.
28. LOCATION OF MOTORIZED GATE CONTROL, SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
29. WEATHERPROOF, GFCI DUPLEX RECEPTACLE. SEE ELECTRICAL DRAWINGS.
30. AREA DRAIN. SEE PLUMBING / CIVIL DRAWINGS.
31. 4" DIA. CONCRETE BOLLARD. SEE DETAIL 25 / SP-1.2.
32. NEW MOTORIZED SOLID FENCE AND ROLLING GATE WITH KNOX BOX AT LOCATION AS SHOWN, SEE DETAIL 5 / SP-1.2.
33. NEW SOLID FENCE ACCESSIBLE PEDESTRIAN GATE WITH CARD READER, SEE DOOR SCHEDULE AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. SEE DETAIL 2 / SP-1.4.
34. EXISTING ROOF DRAIN SCUPPER AND OVERFLOW, PROVIDE SPLASH BLOCK AT LANDSCAPED AREAS AS REQUIRED, REPAIR ANY DAMAGED METAL LEADERS.
35. EXISTING STORM DRAIN COLLECTOR BOX, SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
36. EXISTING DRAINAGE CURB/SWALE WITH CURB, RECONFIGURE AS REQUIRED, SEE CIVIL DRAWINGS.
37. EXISTING STONE RIP/RAP AT SWALE TO BE REMOVED AND REPLACED WITH TURF BLOCK (OR EQUAL) AND DG OR TURF AT DG RUN AREA, SEE CIVIL DRAWINGS.
38. BUILDING MOUNTED LIGHT FIXTURE LOCATION. SEE ELECTRICAL LIGHT FIXTURE LEGEND FOR SCHEDULE.
39. COVERED LOCKER STORAGE AREA, SEE DETAILS 2 & 5/SP-1.3.
40. 8' X 20' X 8'-6" H STORAGE CONTAINER SET ON CONCRETE PAD OR LEVELING BLOCKS AT EXISTING A/C PAVING AREA.
41. PREFABRICATED "TUFF SHED" SECURITY BUILDING LOCATION (NIC) SET ON LEVELING BLOCKS AT A/C PAVING.
42. FREE STANDING FURNITURE (NIC) AS SHOWN
43. PROPOSED BELOW GRADE GREASE WASTE INTERCEPTOR, SEE CIVIL AND PLUMBING DRAWINGS
44. KITCHEN HVAC/HOOD EQUIPMENT TO BE LOCATED ON ROOF, SEE ROOF PLAN, MECHANICAL AND KITCHEN DRAWINGS FOR LOCATION, SHOWN HERE SCHEMATIC ON PLAN.
45. ACCESSIBLE PATH OF TRAVEL AT STRIPED AREA, SEE DETAIL 20 / SP-1.3.
46. NEW 6'-0" H. COMPOSITE FENCE, SEE DETAIL 12 / SP-1.4.
47. 8'-0" X 11'-0" PREFABRICATED HOT BOX ENCLOSURE 2 RUNNERS WITH SUBFLOOR (BY OPERATOR) WITH HOT BOX UNIT AND (2) STORAGE SHELF UNITS.

EXTERIOR FIXTURES

- LED POLE LIGHT
- LED WALL MOUNT
- LED WALL SCORCE
- 8 FT. LED STRIP SURFACE MOUNT

SITE LEGEND

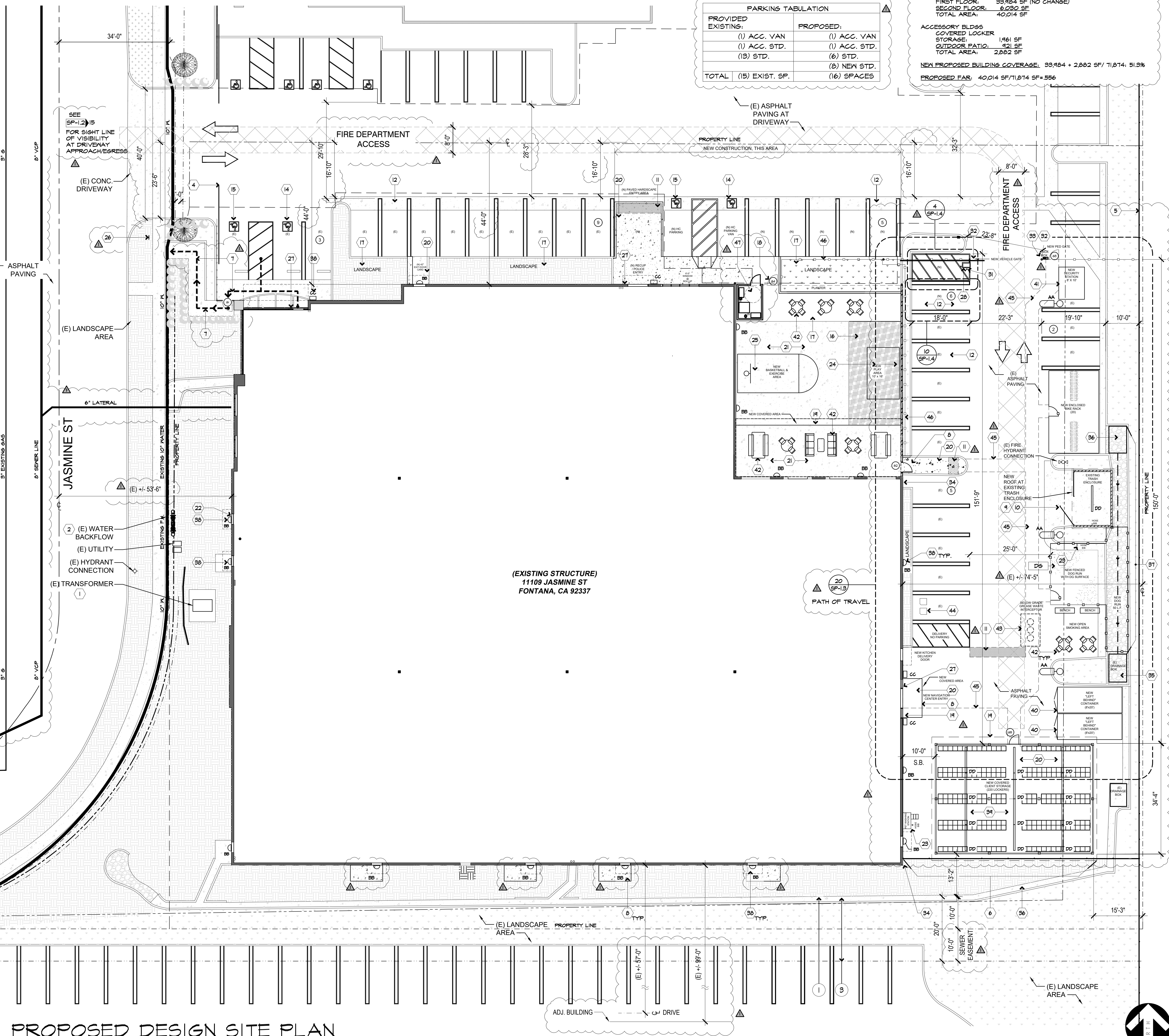
- ACCESSIBLE PATH OF TRAVEL
- FIRE DEPARTMENT ACCESS

PROPERTY LEGAL DESCRIPTION:

PARCEL MAP NO. 16613 IN THE CITY OF FONTANA, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, BEING A SUBDIVISION OF LOT 7, TRACT NO. 8554, AS PER MAP RECORDED IN BOOK 128 MAPS, PAGES 13-17, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EASEMENT NOTES

1. AN EASEMENT FOR PUBLIC UTILITIES PURPOSES IN FAVOR OF VARIOUS PUBLIC UTILITY COMPANIES, AS SHOWN ON MAP OF TRACT NO. 8554, M.B. 123 / 13-17.
2. AN EASEMENT FOR RAILROAD PURPOSES IN FAVOR OF SOUTHERN PACIFIC TRANSPORTATION COMPANY, AS SHOWN ON MAP OF TACT NO. 8554, M.B. 123 / 13-17.
3. AN EASEMENT FOR DRAINAGE PURPOSES IN FAVOR OF THE COUNTY OF SAN BERNARDINO, AS SHOWN ON MAP OF TRACT NO. 8554, M.B. 123 / 13-17.
4. AN EASEMENT FOR ROADWAY PURPOSES IN FAVOR OF KAISER STEEL CORPORATION, RECORDED NOVEMBER 14, 1978, IN BOOK 4560, PAGE 284, O.R.



PROPOSED DESIGN SITE PLAN

SCALE: 1"=150'-0"

STAMP



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PROJECT

WEST END
REGIONAL
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CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



FONTANA
CALIFORNIA

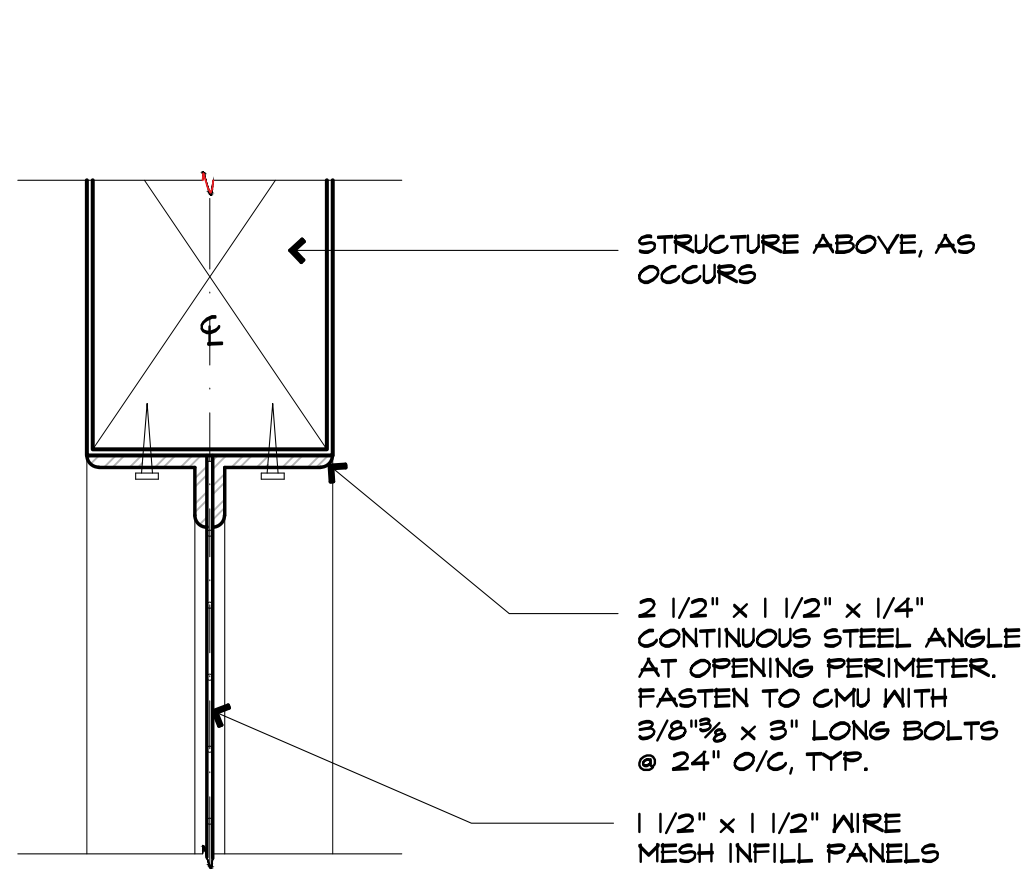
TITLE

SITE PLAN
& PROJECT
INFORMATION

Revisions	By	Date
1. PG CORR 1/BID ISSUE	MMF	4/24/26

Drawn: MMF
Date: 2/13/26
Project No.: 25011
Scale: 1/8"=1'-0"

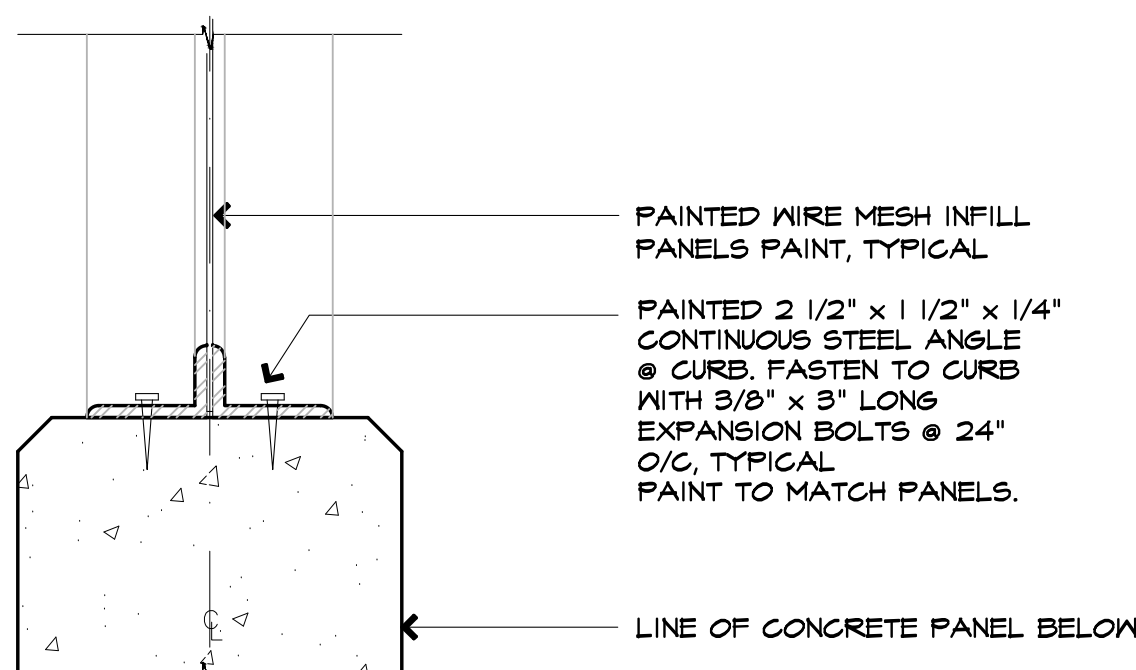
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WIRE SCREEN HEAD

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

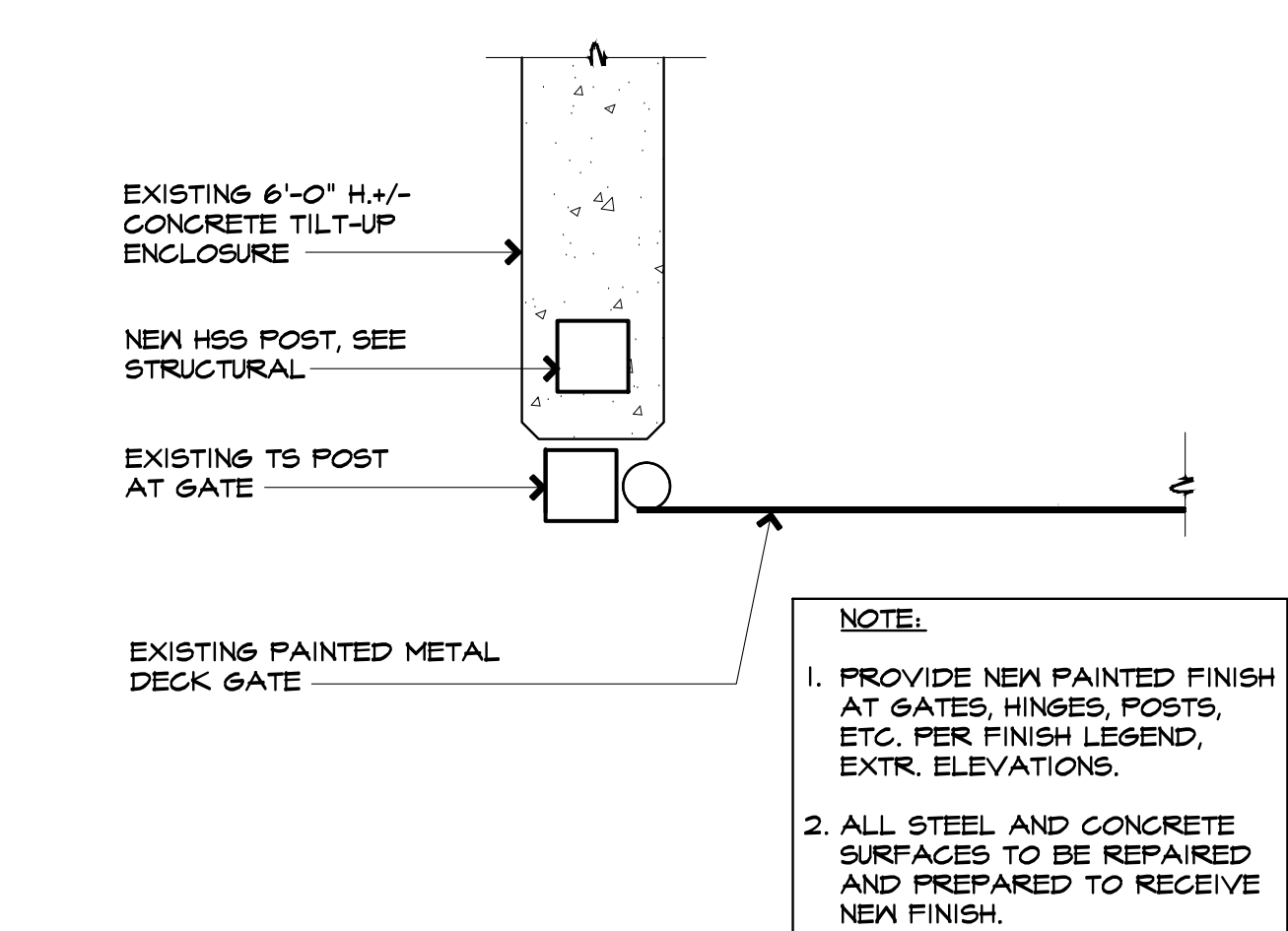
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WIRE SCREEN SILL/JAMB

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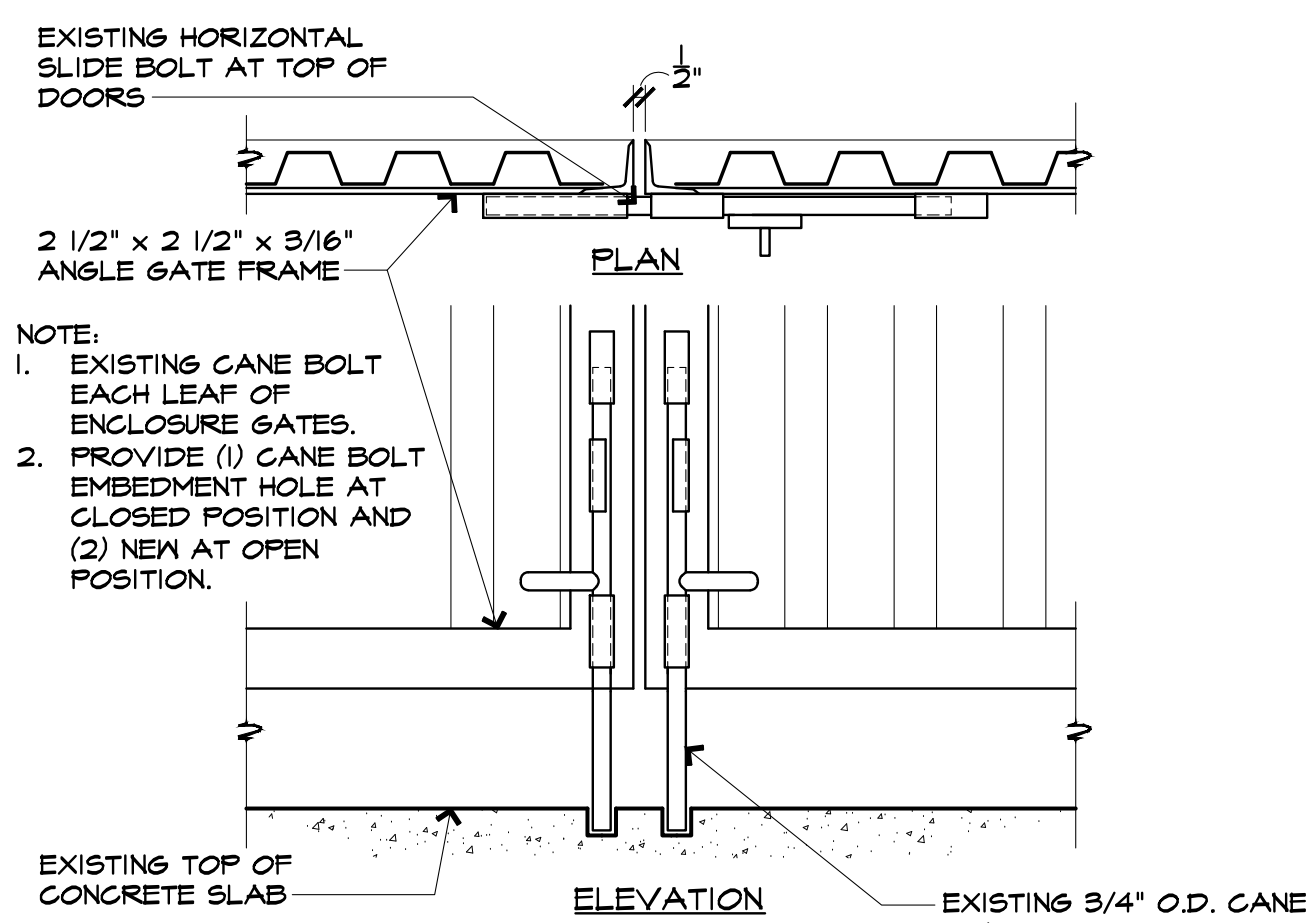
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TYP. JAMB

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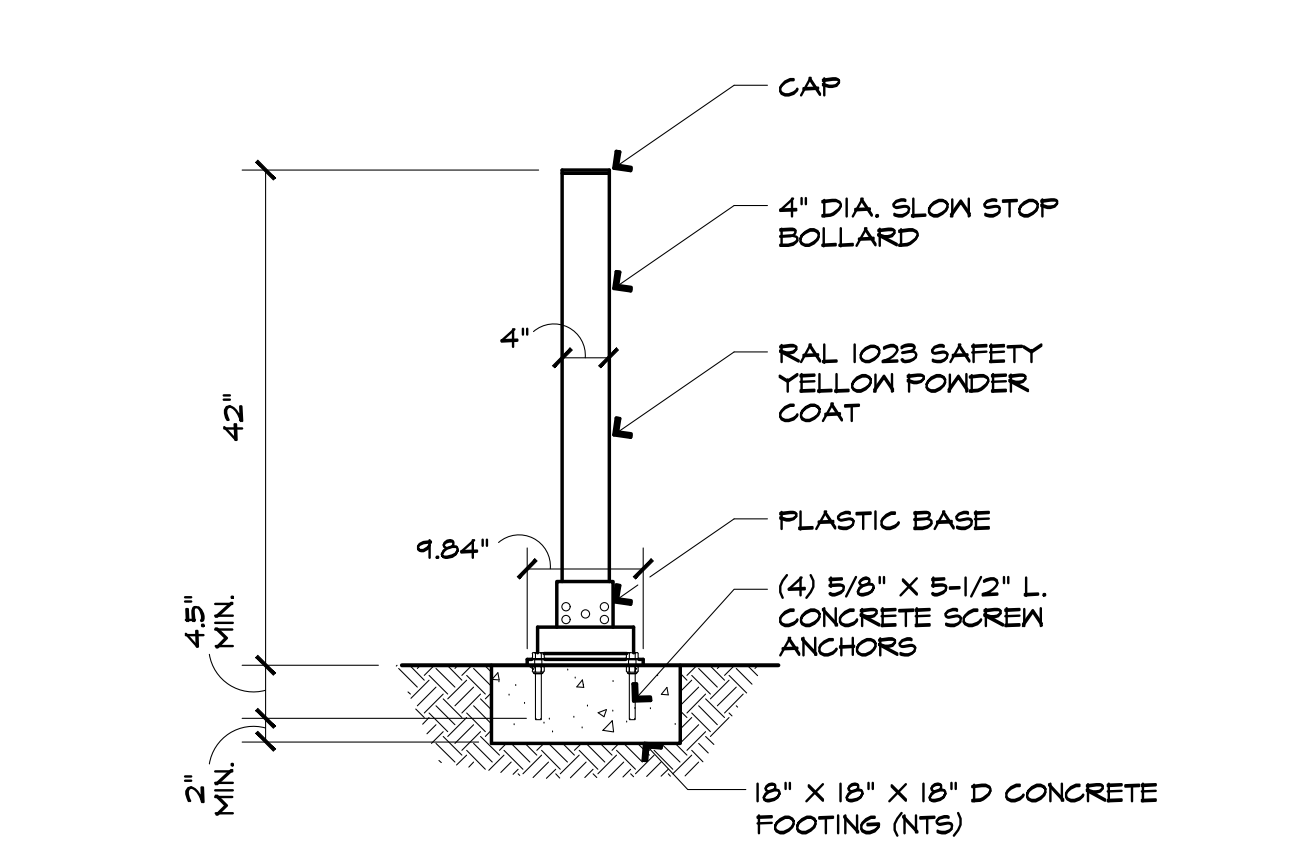
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GATE CANE BOLT DETAIL

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

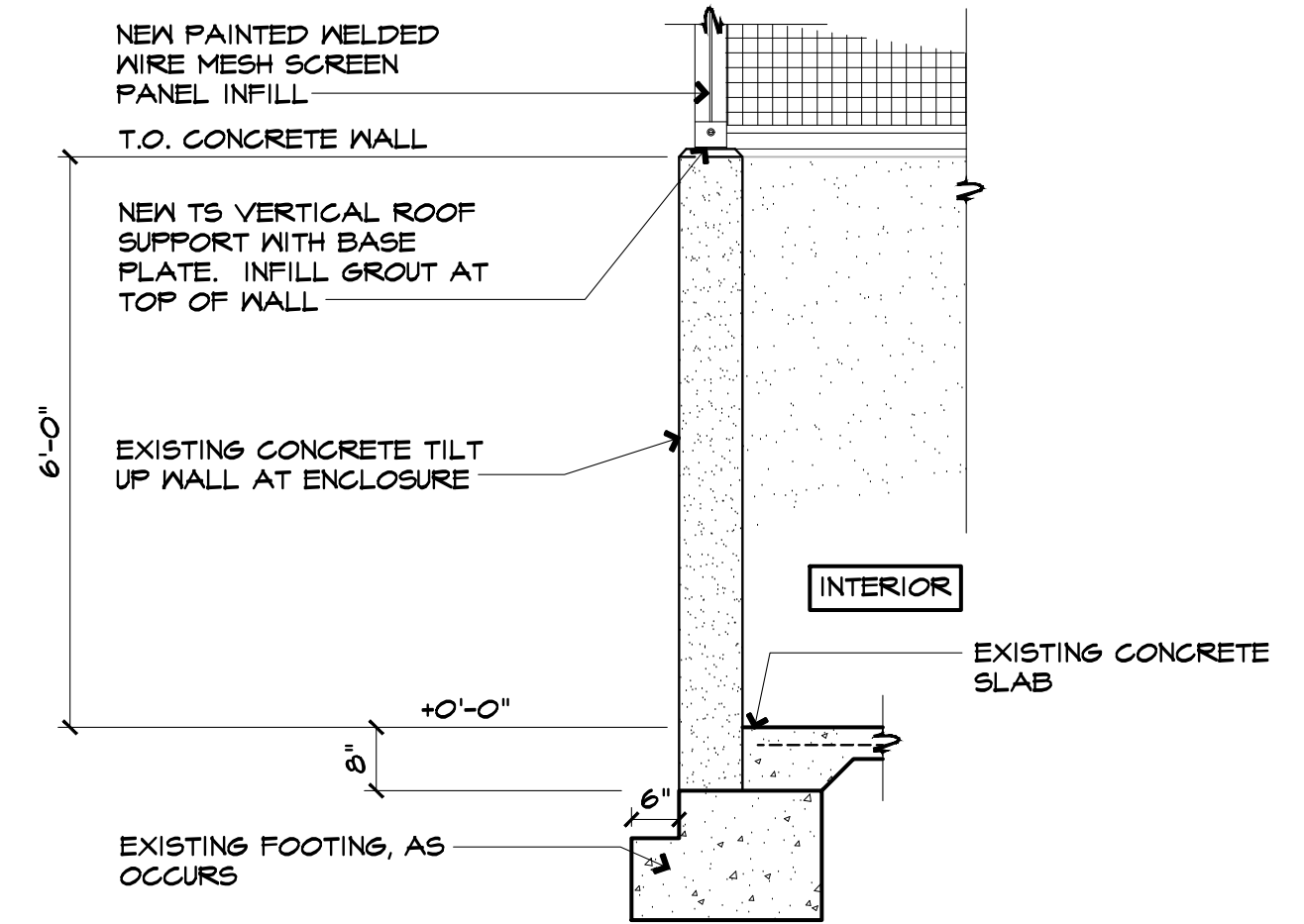
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FLEXIBLE PIPE BOLLARD

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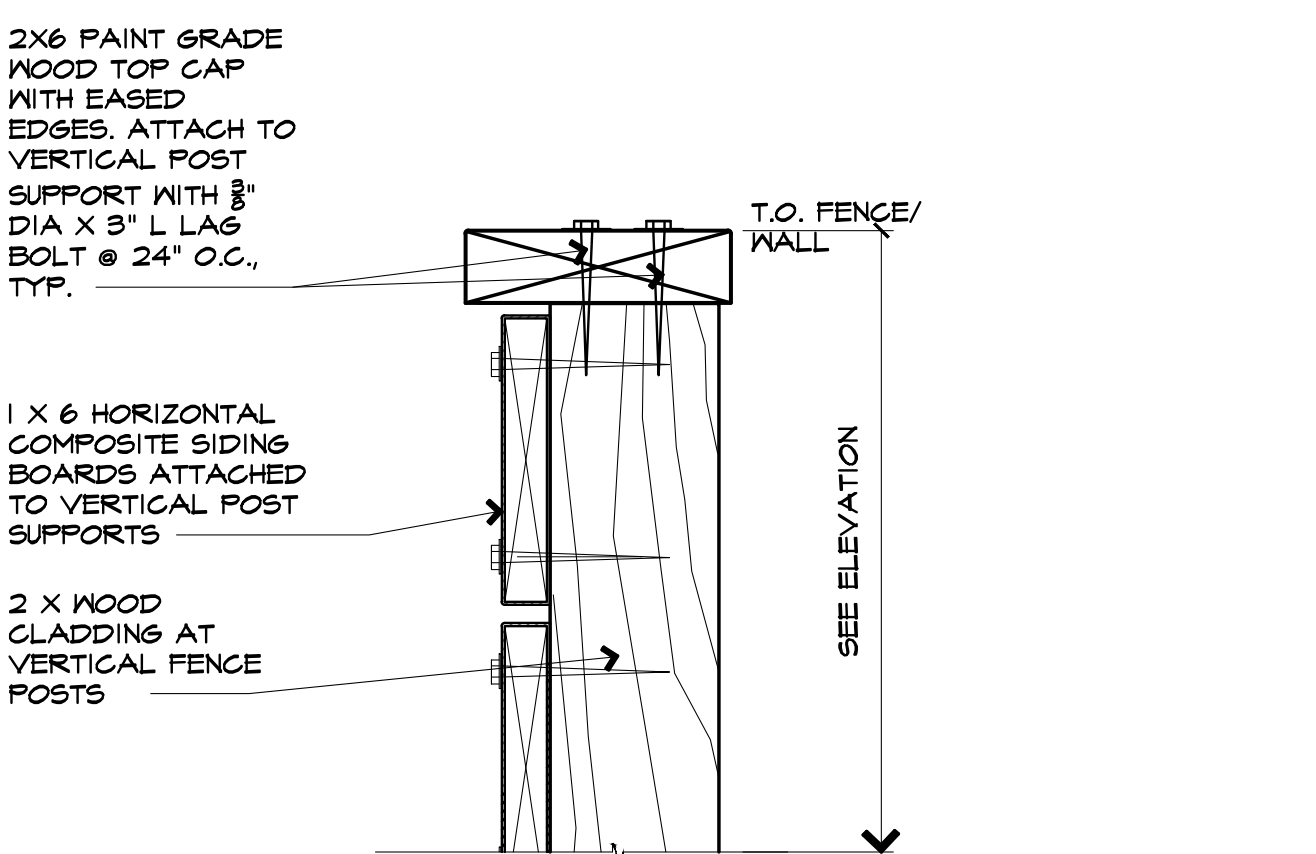
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TRASH ENCLOSURE SECTION

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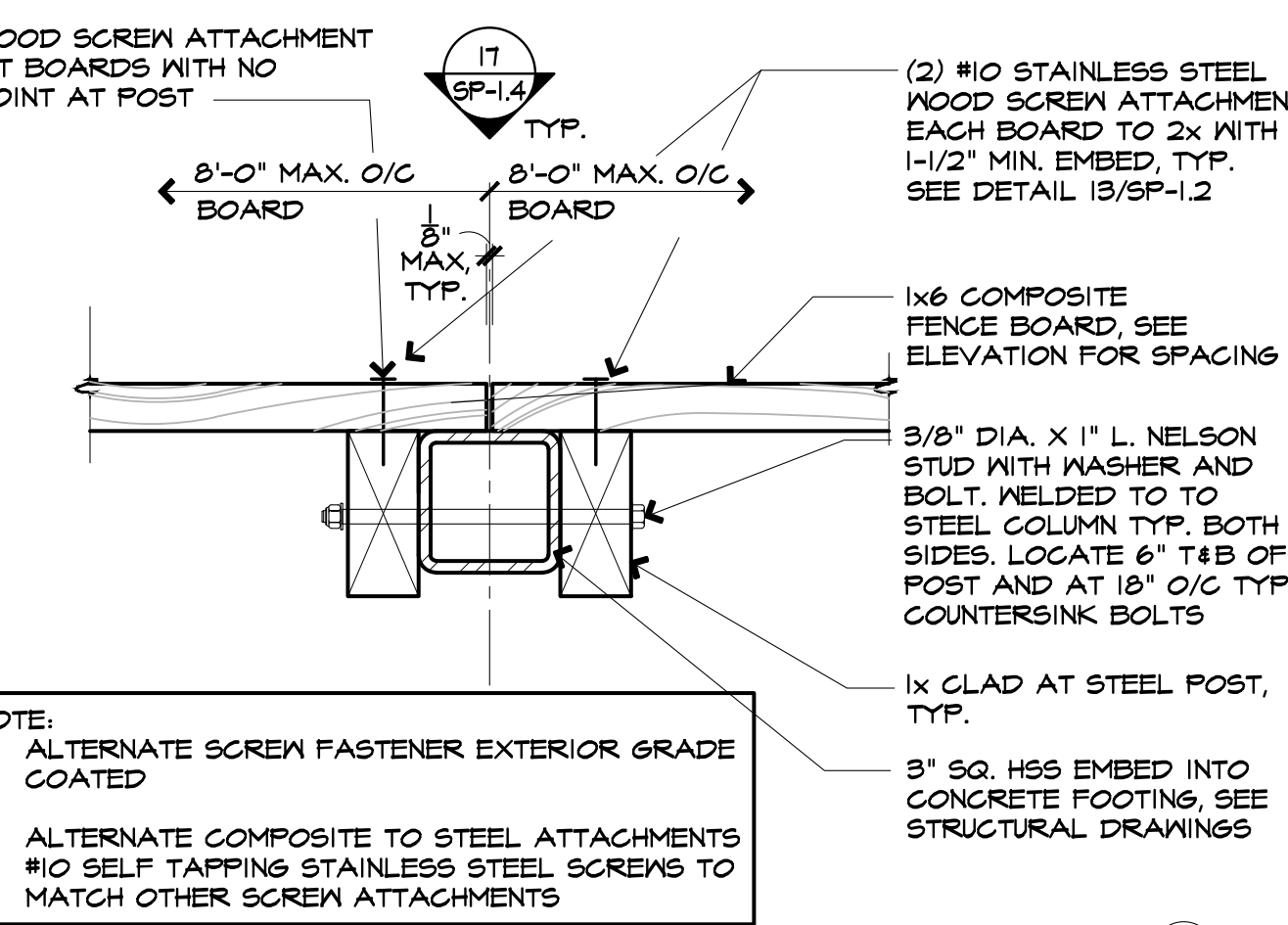
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SCREEN FENCE CAP

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

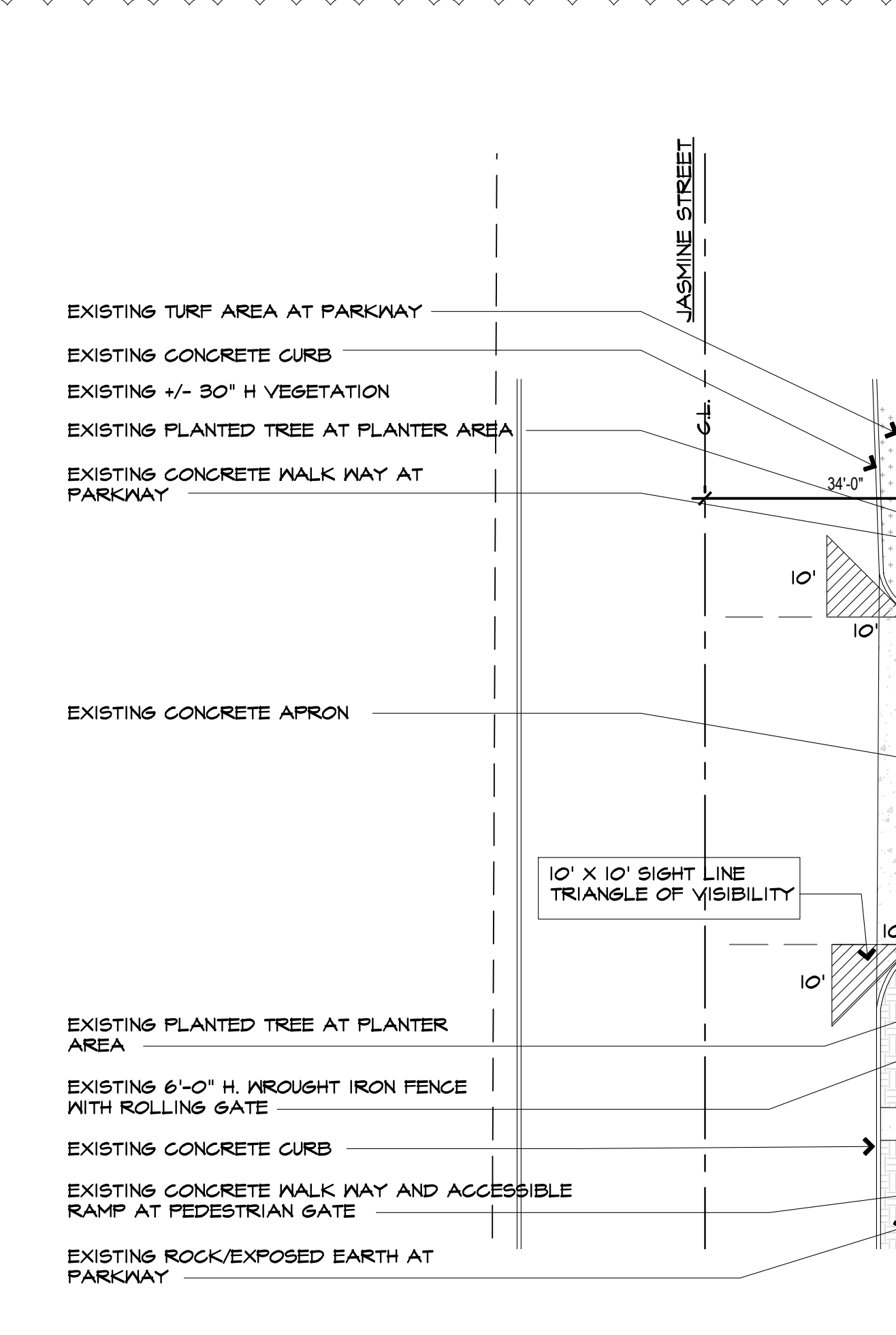
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WOOD FENCE POST JOINT

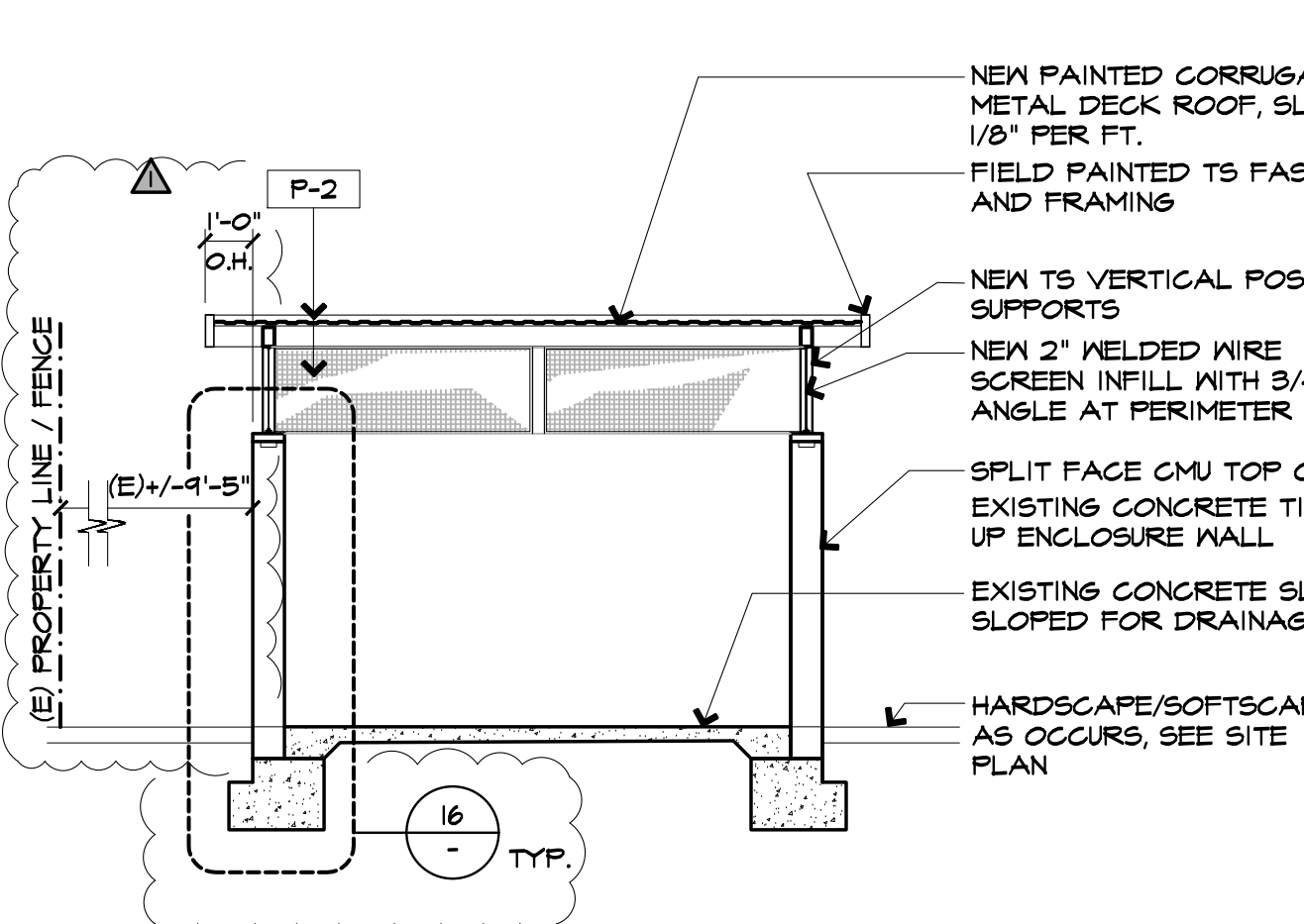
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18



LINE OF SITE-VISIBILITY TRIANGLE

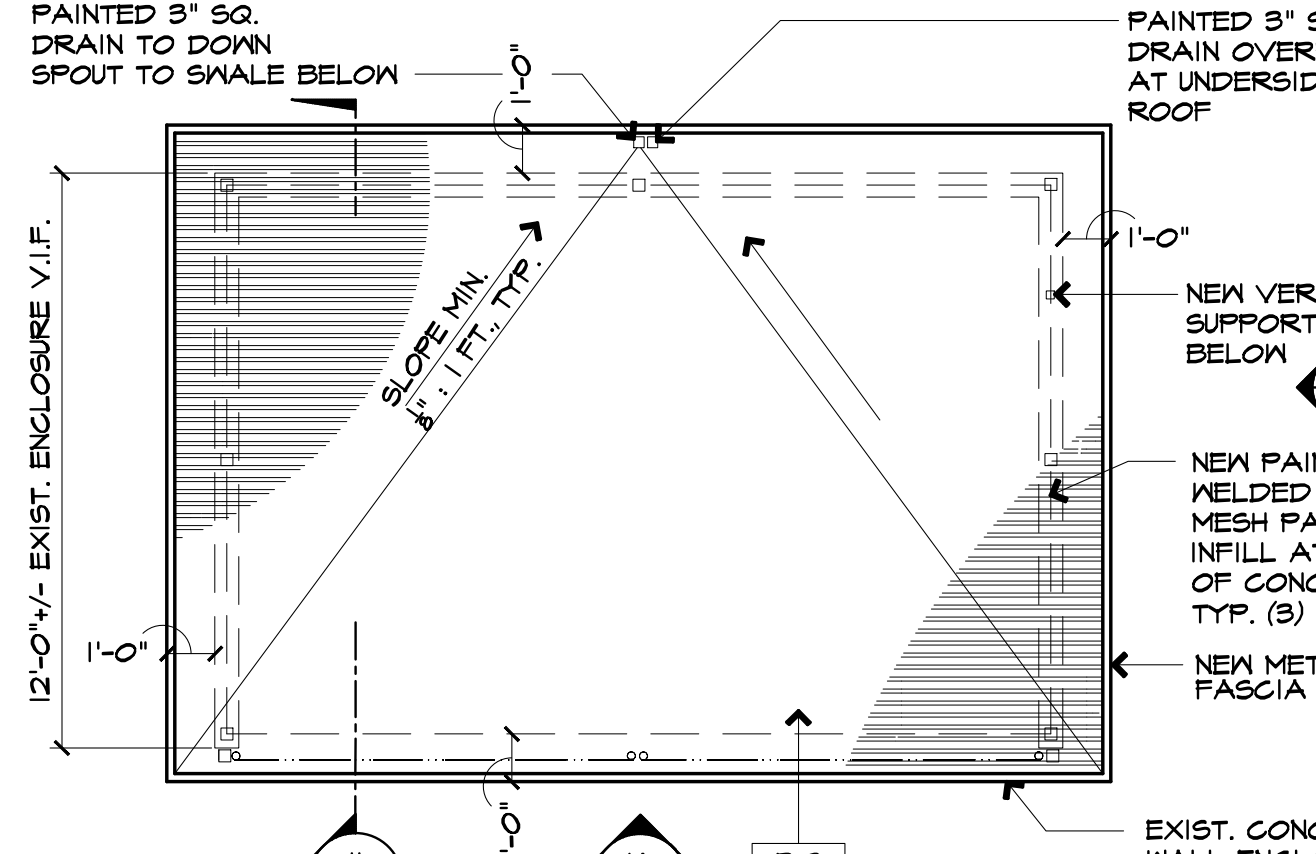
SCALE: 1/8"=1'-0"



TRASH ENCLOSURE SECTION

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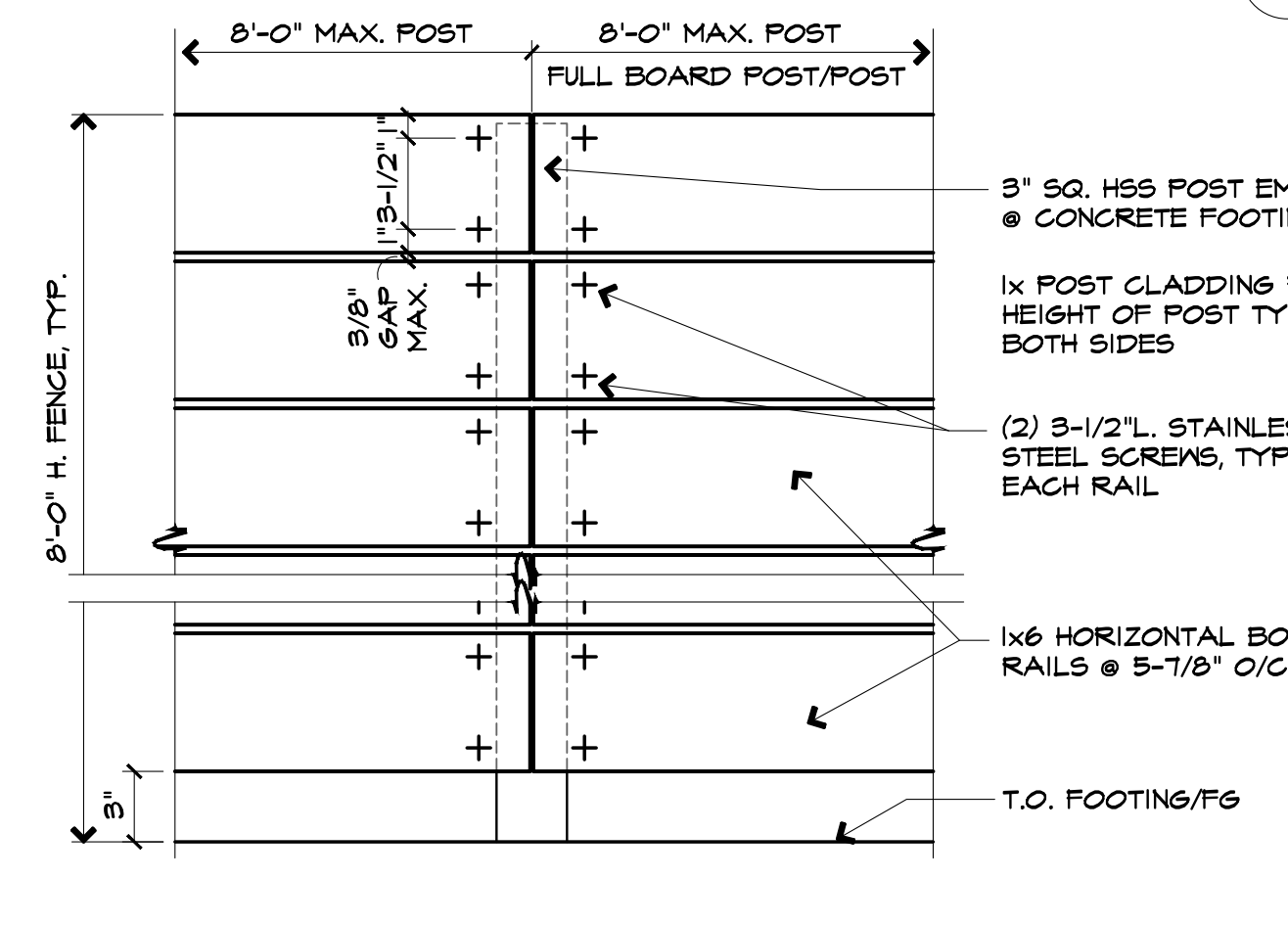
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(N) ROOF AT EXISTING ENCL.

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

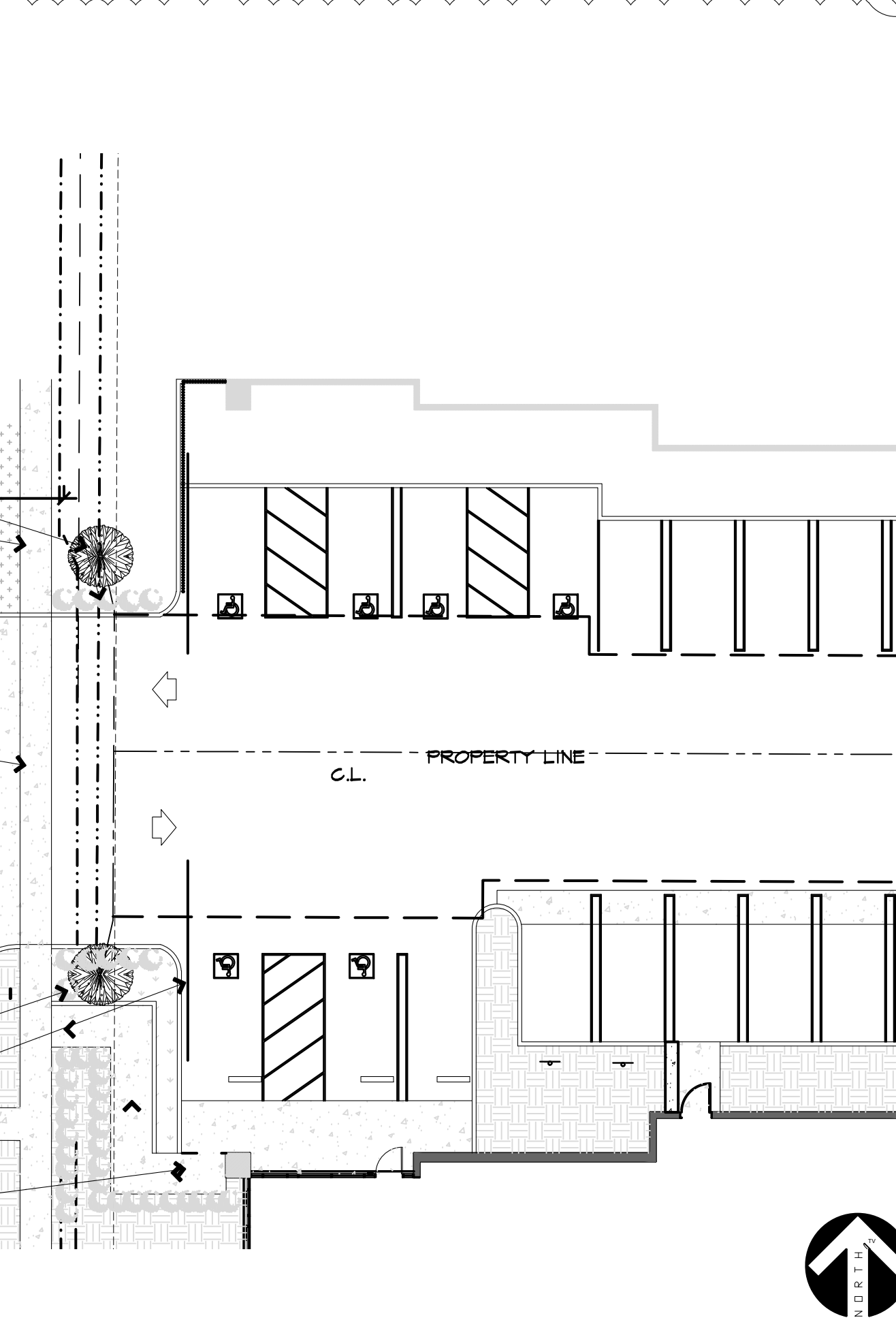
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COMPOSITE FENCE ELEVATION

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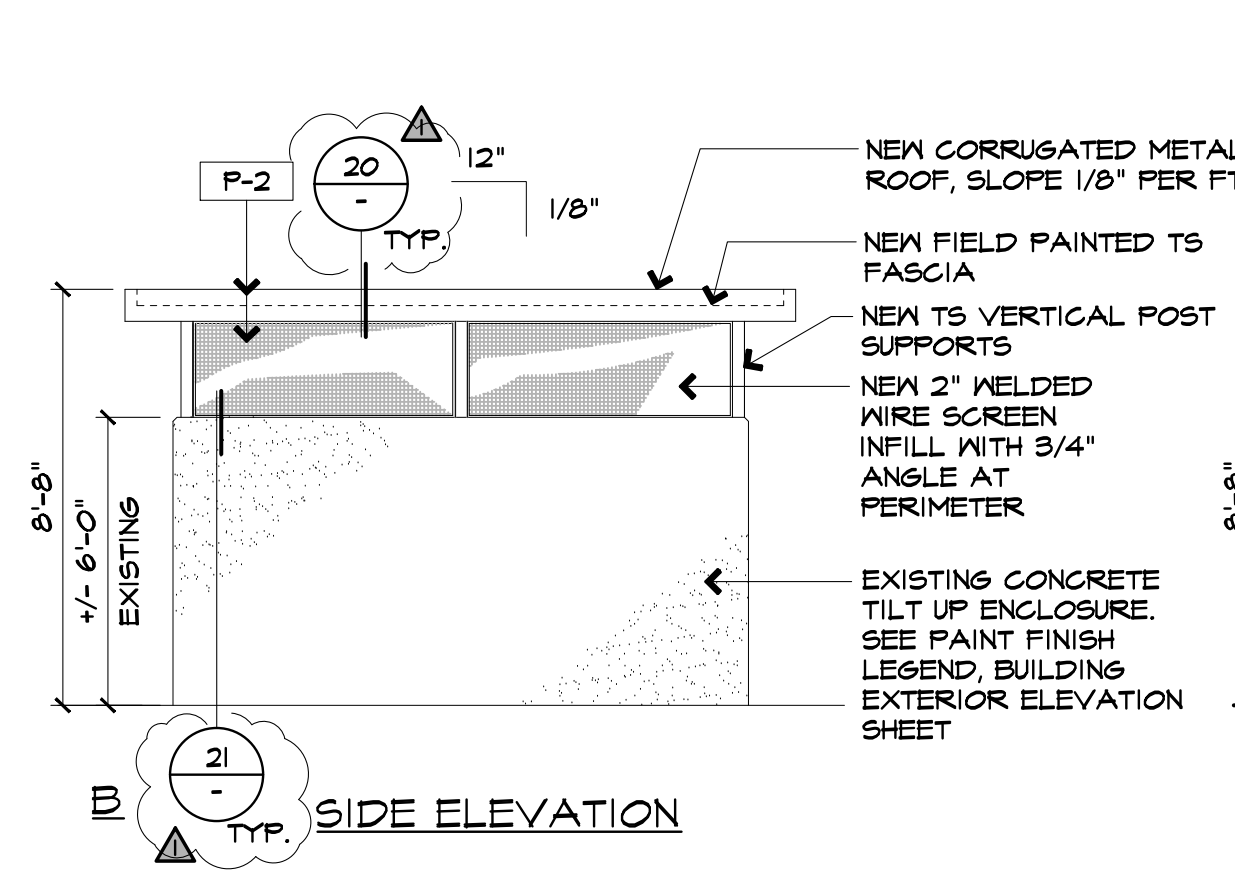
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SLOPED ROOF SECTION @ OUTDOOR AREA

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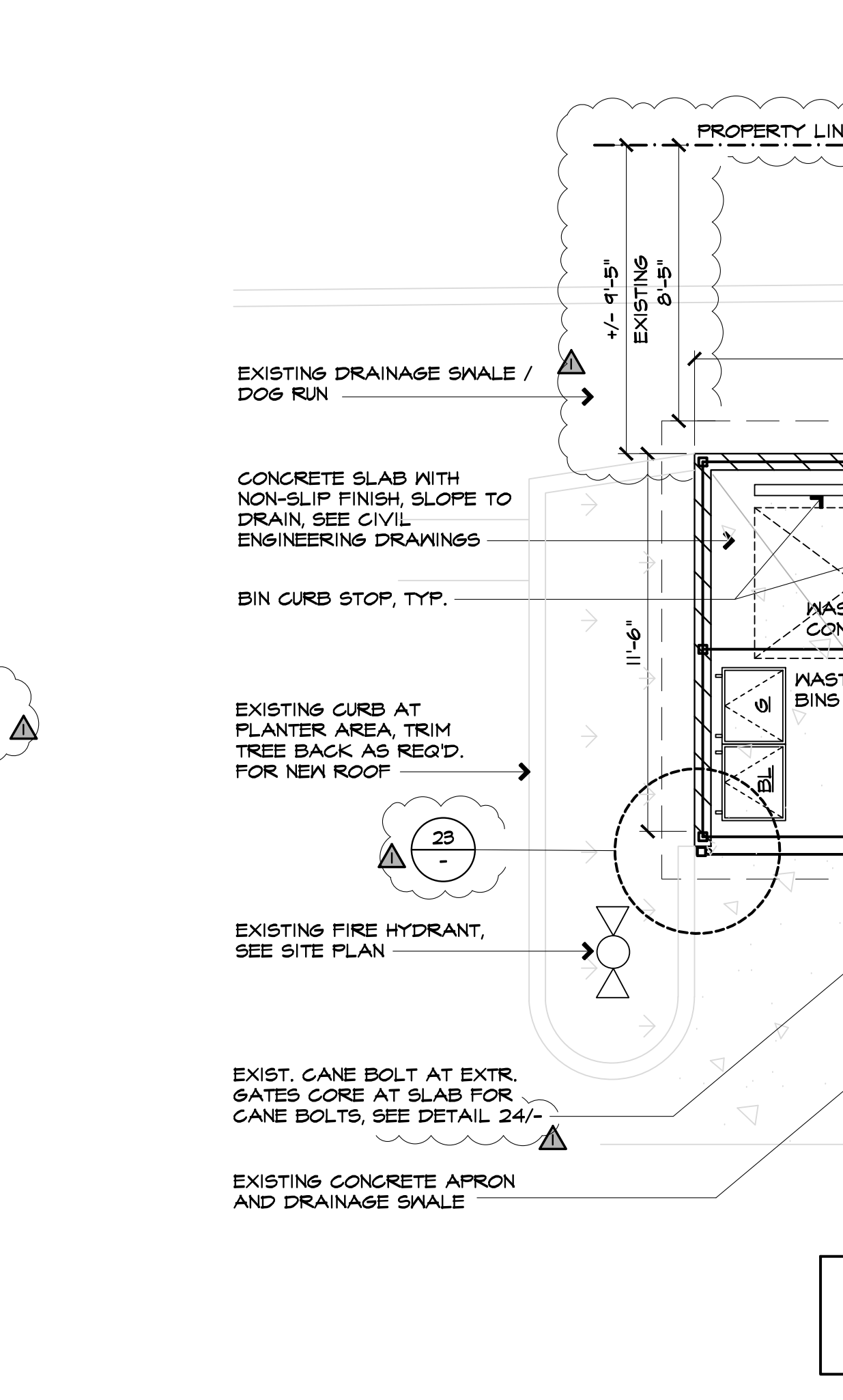
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TRASH ENCLOSURE EXTERIOR ELEVATIONS

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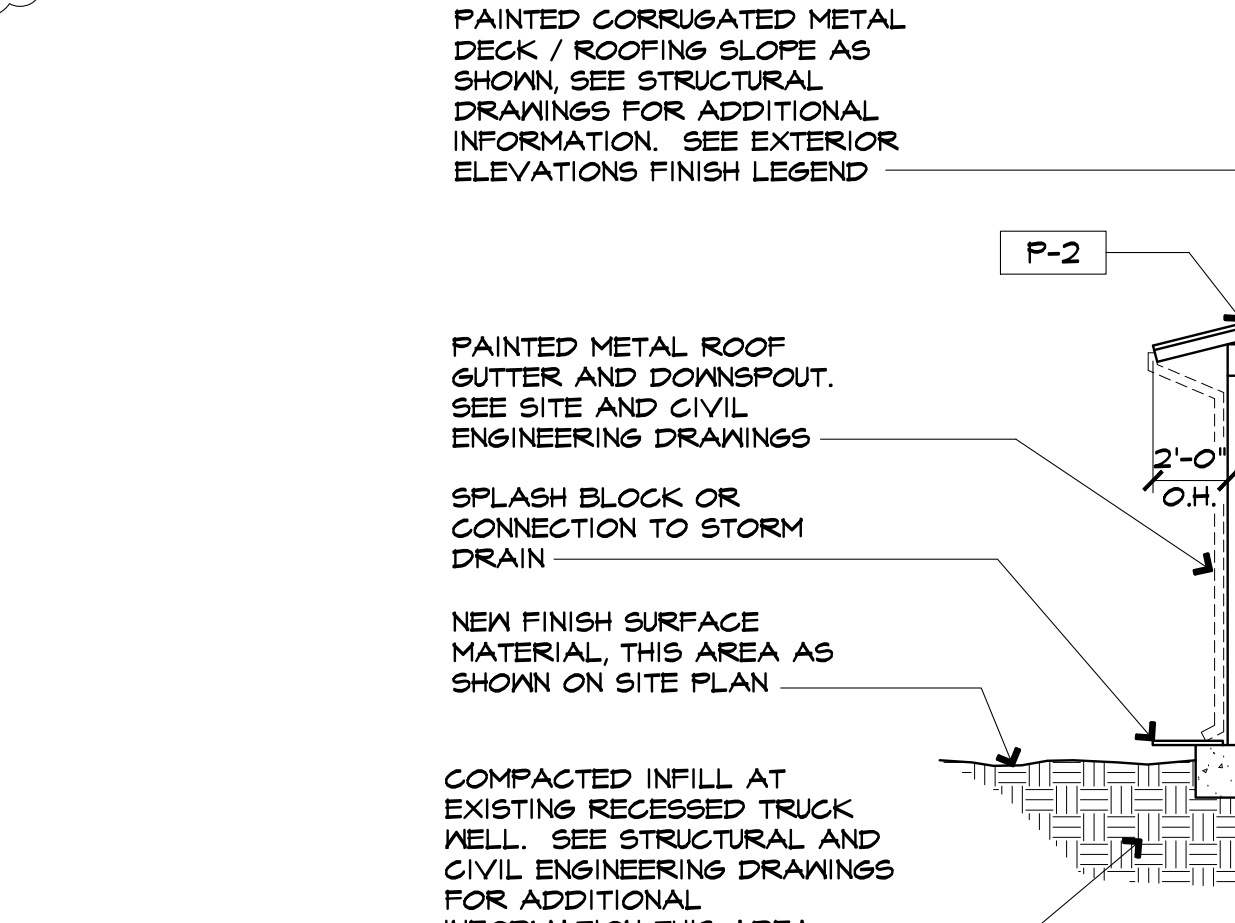
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ENLARGED EXISTING TRASH ENCLOSURE CONSTRUCTION PLAN

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

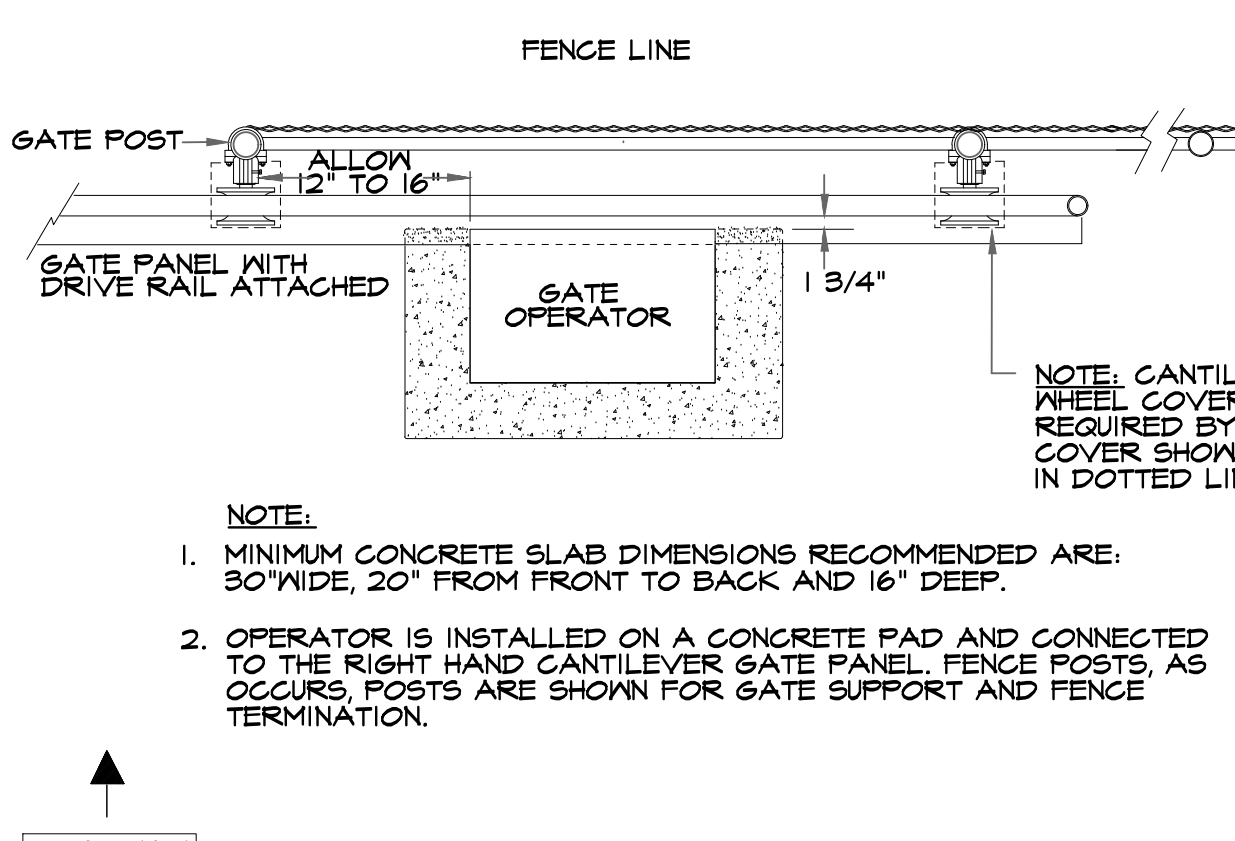
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SLIDE GATE OPERATOR (TYP) R.H. CANTILEVER GATE PANEL

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

4



SLIDE GATE OPERATOR (TYP) R.H. CANTILEVER GATE PANEL

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

5



DEMOLITION LEGEND

- EXISTING EXTERIOR SHELL WINDOW WALL TO REMAIN.
- EXISTING INTERIOR PARTITION OR BUILDING SHELL WALLS TO REMAIN.
- EXISTING INTERIOR OR EXTERIOR PARTITION OR DOOR TO BE REMOVED.

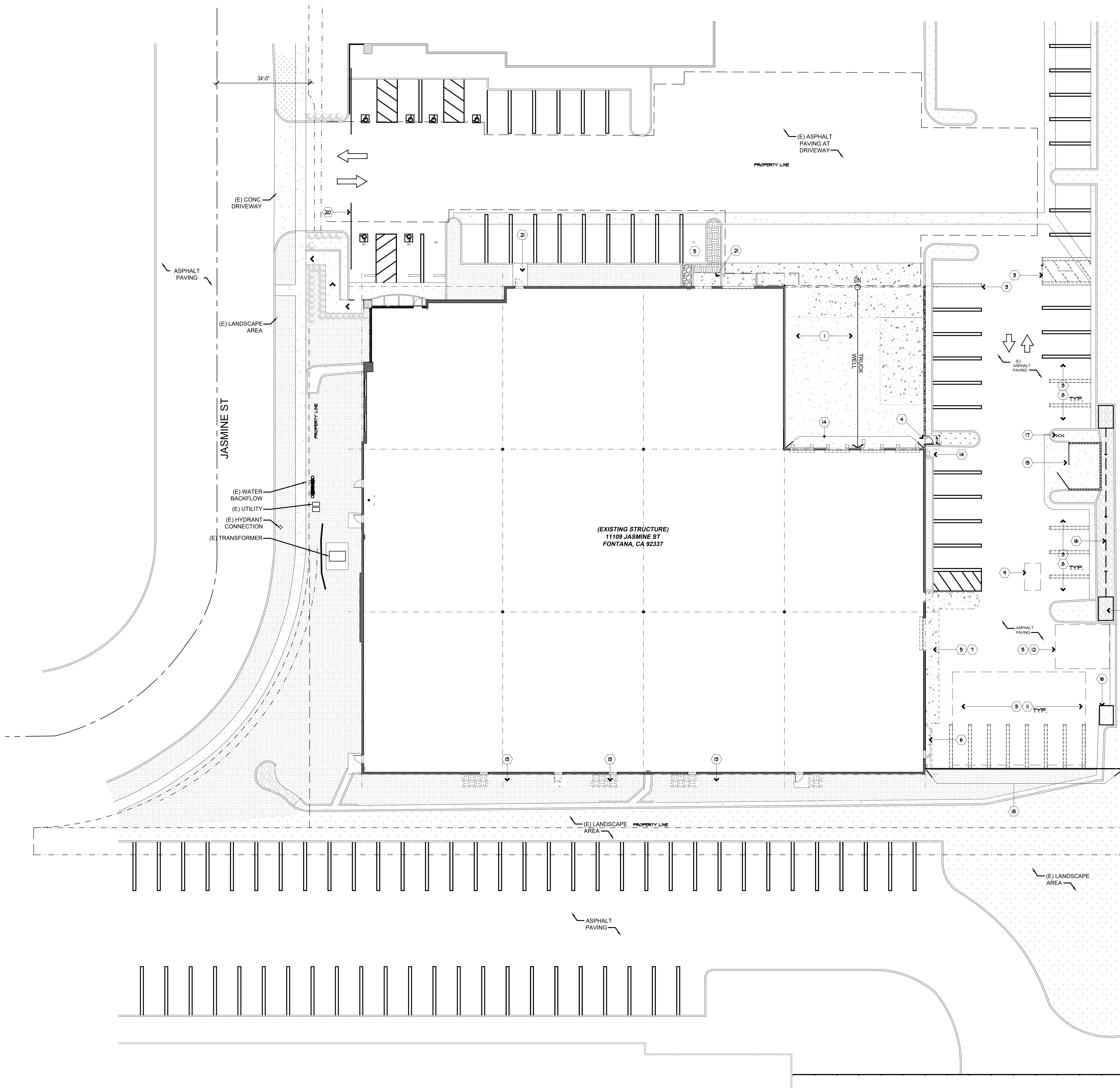
GENERAL DEMOLITION NOTES

- PROVIDE SHORING DRAWINGS AND PROVISIONS WHERE DEMOLITION MAY ENDANGER STRUCTURAL ELEMENTS OF THE EXISTING STRUCTURE.
- PROVIDE PROTECTIVE BARRICADES AS REQUIRED TO ENSURE SAFETY OF WORKERS AND/OR OCCUPANTS.
- REMOVE ALL ABANDONED DEBRIS ON-SITE AS THE RESULT OF DEMOLITION ACTIVITIES AND/OR AS DIRECTED BY CITY REPRESENTATIVE.
- REFER TO CIVIL ENGINEERING DRAWINGS FOR COMPLETE INFORMATION THAT MAY NOT BE SHOWN ON THIS DRAWING.
- REFER TO SHEET A-0.2 FOR DEMOLITION SCOPE OF WORK FOR THE STRUCTURE.

DEMOLITION PLAN NOTES

- EXISTING TRUCK WELL TO BE DEMOLISHED AND PREPARED FOR NEW INFILL/CONSTRUCTION AS SHOWN ON SHEET SP-1.1. UTILIZE EXISTING DRAIN TO ACCOMMODATE NEW PLANTED AREA AS NOTED.
- DEMOLISH AND REMOVE EXISTING RIP/RAP AT DRAINAGE SWALE, PREPARE TO RECEIVE NEW PAVERS AT DOG RUN AREA.
- REMOVE EXISTING PARKING STRIPINGS AS SHOWN TYPICAL. SEE CIVIL DRAWINGS.
- SAWCUT EXISTING CONCRETE RETAINING WALL AT TRUCK WELL TO ACCOMMODATE NEW GATE.
- EXISTING A/C PAVING OR CONCRETE, THIS AREA TO BE REMOVED AND PREPARED TO RECEIVE NEW CONCRETE SLAB. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING LANDSCAPING, THIS AREA, TO BE REMOVED AND REPLACED.
- EXISTING CONCRETE CURB AND SIDEWALK TO BE DEMOLISHED AND REMOVED, AS OCCURS.
- DEMOLISH AND REMOVE EXISTING CONCRETE CURB, WHEEL STOPS ETC. AREA AS SHOWN.
- SAW CUT EXISTING A/C PAVING AND EXCAVATE AREA AS REQUIRED TO ACCOMMODATE GREASE TRAP INTERCEPTOR. SEE CIVIL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. EXACT LOCATION TO BE DETERMINED. REFER TO CIVIL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- ~~EXISTING POLE SIGNAGE, PAVES AND FOOTINGS TO BE DEMOLISHED AND REMOVED. SEE SP-1.1 FOR ADDITIONAL INFORMATION.~~
- PREPARE THIS AREA TO RECEIVE NEW CONCRETE FOOTINGS AND STRUCTURAL SUPPORTS FOR BIN STORAGE ROOF STRUCTURE. SEE ENLARGED PLAN AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PREPARE THIS AREA TO RECEIVE NEW SLAB ON LEVEL CONCRETE FOR NEW CONTAINER STORAGE UNITS.
- REMOVE EXISTING LANDSCAPE AND PREPARE THIS AREA TO RECEIVE NEW CONCRETE PAD FOR EXIT LANDING.
- EXISTING DOCK LOADING BUMPERS AND RELATED EQUIPMENT INCLUDING SUMP PUMP AND DRAINS, ETC. TO BE DEMOLISHED AND REMOVED TO ACCOMMODATE NEW BACKFILL.
- EXISTING CONCRETE TRASH ENCLOSURE TO REMAIN AS-IS. RESTORE / REFURBISH DAMAGED GATES, CURBS, BLOCKING AS REQUIRED TO RECEIVE REFURBISHMENT. NEW ROOF STRUCTURE TO BE ADDED TO EXISTING STRUCTURE. SEE DETAIL 9/SP-1.2 FOR ADDITIONAL INFORMATION.
- EXISTING CONCRETE COLLECTOR DRAINAGE BOX TO REMAIN AS-IS. RE-WORK AS REQUIRED TO ACCOMMODATE NEW BELOW GRADE STORM DRAINAGE PIPING. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING FIRE HYDRANT CONNECTION TO REMAIN AS-IS.
- EXISTING CHAINLINK FENCE AND POST / FOOTINGS AT SITE TO BE DEMOLISHED AND REMOVED.
- EXISTING CHAINLINK FENCE AT PROPERTY LINE TO REMAIN AS-IS UNLESS NOTED OTHERWISE. REPAIR TO LIKE-NEW CONDITION.
- EXISTING M.I. GATE AND FENCE TO REMAIN AS-IS UNLESS NOTED OTHERWISE.
- NEW DOOR LOCATION, SEE FLOOR PLAN AND SITE PLAN FOR ADDITIONAL INFORMATION.

NOT USED



SITE DEMOLITION PLAN

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

STAMP



CONSULTANT

PROJECT

**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



**FONTANA
CALIFORNIA**

TITLE

**1ST FLOOR
DEMOLITION PLAN
& NOTES**

Revisions	By	Date
△ PC CORR 1/BID ISSUE 1	MMF	4/24/26

Drawn MMF
Date 2/3/26
Project No. 25011
Scale 1/8"=1'-0"

Sheet

A-0.2

DEMOLITION WALL LEGEND

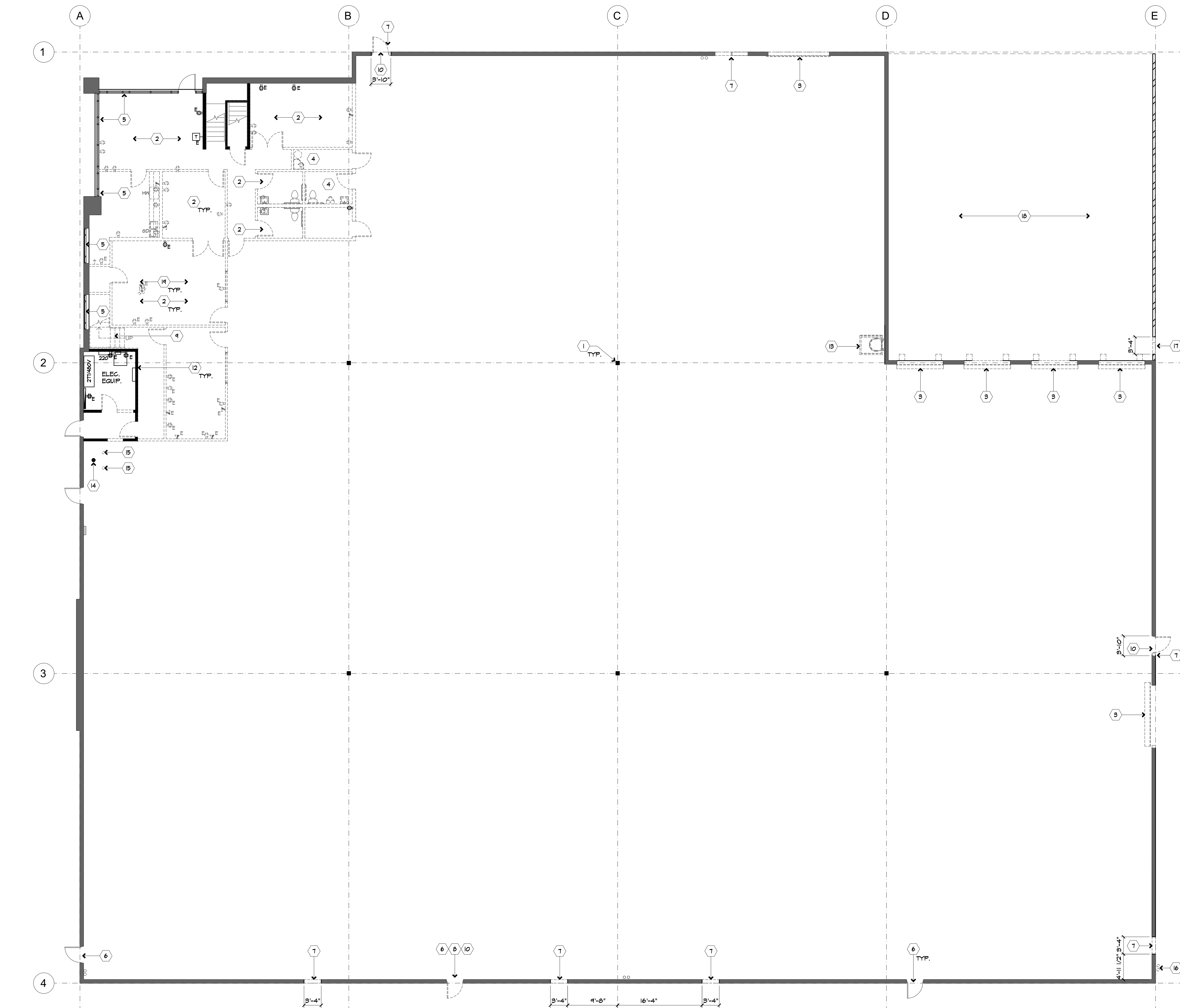
- EXISTING EXTERIOR SHELL WALL TO REMAIN
- EXISTING INTERIOR PARTITION OR BUILDING CORE WALLS TO REMAIN.
- EXISTING INTERIOR PARTITION OR DOOR TO BE REMOVED
- EXISTING DOOR TO BE REMAIN
- U.N.O., EXISTING RECEPTACLE TO BE REMOVED

GENERAL DEMOLITION NOTES

- ALL ELECTRICAL RECEPTACLES, TEL/COMM DATA, SWITCHING, CONDUIT, WIRING, ETC. SHALL BE SAFELY TERMINATED AND REMOVED BACK TO UTILITY ROOM.
- COVER AND PROTECT IN PLACE ALL EXTERIOR DOORS, FRAMES, HARDWARE & STOREFRONT SYSTEMS THAT ARE TO REMAIN DURING DEMOLITION.
- PATCH AND REPAIR EXISTING WALLS NOTED TO REMAIN WHERE CONNECTING WALLS WERE REMOVED AS NECESSARY.
- DEMOLITION CONTRACTOR TO COORDINATE WITH OWNER FOR THE DISPOSAL ALL DEMOLISHED EQUIPMENT.
- ALL AREAS OF DEMOLITION SHALL BE CLEANED AND PATCHED AS NEEDED IN PREPARATION TO RECEIVE NEW FINISH AT LATER DATE.
- GENERAL CONTRACTOR IS REQUIRED TO PROVIDE MEASURES DURING DEMOLITION AND OTHER DUST CREATED WORK TO ENSURE DUST CONTAMINATED AIR DOES NOT GO INTO ADJACENT PREMISES.
- ALL UTILITY SHALL BE GAPPED WITH LIKE MATERIAL PER INSPECTOR SATISFACTION.
- GENERAL CONTRACTOR TO REMOVE ANY FURNITURE, FIXTURES AND EQUIPMENT REMAINING IN AREA OF WORK.
- SHORING DRAWINGS FOR DEMOLITION SHALL BE PROVIDED BY OTHERS AS A SEPARATE PERMIT/SUBMITTAL.
- REFER TO SHEET A-0.1 FOR RELATED SITE DEMOLITION WORK.

DEMOLITION KEY NOTES

- EXISTING STRUCTURAL COLUMNS TO REMAIN, PROTECT IN PLACE. REMOVE ALL NON-STRUCTURAL FURRING FROM AROUND COLUMN.
- REMOVE ALL EXISTING FLOOR FINISHES DOWN TO SUB-FLOOR. SCRAPE, GRIND AND PREPARE FLOOR DECKING AS NEEDED READY TO RECEIVE NEW FINISHES.
- REMOVE EXISTING ROLL-UP WAREHOUSE DOOR AND RELATED HARDWARE. PREPARE TO RECEIVE NEW STOREFRONT SYSTEM AS OCCURS.
- EXISTING PLUMBING FIXTURES TO BE DEMOLISHED. TERMINATE PLUMBING WASTE, VENT & WATER PIPING PER CODE.
- EXISTING STOREFRONT SYSTEM TO REMAIN, COVER AND PROTECT IN PLACE.
- REMOVE EXISTING CONCRETE SLAB AT EXISTING DOOR (PREPARE FOR NEW SLAB WHERE OCCURS AT NEW/EXISTING DOOR AREAS). SEE SP-1.1.
- REMOVE EXISTING CONCRETE WALL PANEL FOR NEW DOOR.
- PREP FOR NEW WALL IN-FILL, SEE WALL LEGEND WALL CONSTRUCTION PLAN.
- NON-CONFORMING EXISTING STAIR TO DEMOLISHED AND REMOVED.
- REMOVE EXISTING DOOR AND FRAME. PREP FOR NEW DOOR AND FRAME.
- REMOVE ALL EXISTING ABANDONED FLOOR MOUNTED BOLT ATTACHMENTS, BRACKETS, ETC. THROUGHOUT AND PREPARE FLOOR AS REQUIRED FOR NEW FINISH, TYPICAL.
- EXISTING WALL FRAMING TO REMAIN. REMOVE EXISTING GYP. BOARD BOTH SIDES AND PREPARE TO RECEIVE NEW 5/8" TYPE 'X' GYP BOARD AS REQUIRED.
- EXISTING ROOF HATCH AND LADDER TO BE DEMOLISHED AND REMOVED. REMOVE HATCH AND RAILING AT ROOF.
- EXISTING FIRE RISER LOCATION. PROTECT IN PLACE.
- EXISTING BOLLARDS TO BE REMOVED.
- EXISTING ROOF DRAINSPOUT AT EXTERIOR TO BE DEMOLISHED AS REQUIRED TO ACCOMMODATE NEW CONFIGURATION, SEE EXTERIOR ELEVATIONS.
- SANICUT EXISTING LOW CONCRETE RETAINING WALL AT TRUCKWELL TO ACCOMMODATE NEW MAIN GATE.
- EXISTING TRUCKWELL / LOADING DOCK TO BE DEMOLISHED AND PREPARED FOR INFILL, SEE CIVIL DRAWINGS AND SITE PLAN FOR ADDITIONAL INFORMATION.
- EXISTING SUSPENDED CEILING SYSTEM AT EXISTING CONSTRUCTION TO BE DEMOLISHED. REMOVE ALL ABANDONED GRID, TILE, SUSPENSION SYSTEMS, CABLING, CONDUIT, ETC. SEE DEMOLITION PLAN FOR ADDITIONAL INFORMATION.



FIRST FLOOR BUILDING DEMOLITION PLAN

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

STAMP



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FOR



TITLE

**2ND FLOOR
DEMOLITION PLAN
& NOTES**

Revisions	By	Date
△ PC CORR 1/BID ISSUE 1	MFM	4/24/26

Drawn MFM
Date 2/3/26
Project No. 25011
Scale 1/8"=1'-0"

Sheet

A-0.3

DEMOLITION WALL LEGEND

- EXISTING EXTERIOR SHELL WALL TO REMAIN
- EXISTING INTERIOR PARTITION OR BUILDING CORE WALLS TO REMAIN.
- EXISTING INTERIOR PARTITION OR DOOR TO BE REMOVED
- U.N.O., EXISTING RECEPTACLE TO BE REMOVED

GENERAL DEMOLITION NOTES

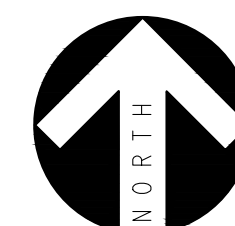
- ALL ELECTRICAL RECEPTACLES, TEL/COMM DATA, SWITCHING, WIRING, ETC. SHALL BE SAFELY TERMINATED AND REMOVED BACK TO UTILITY ROOM.
- COVER AND PROTECT IN PLACE ALL EXTERIOR DOORS, FRAMES, HARDWARE & STOREFRONT SYSTEMS THAT ARE TO REMAIN DURING DEMOLITION.
- PATCH AND REPAIR EXISTING WALLS NOTED TO REMAIN WHERE CONNECTING WALLS WERE REMOVED AS NECESSARY.
- DEMOLITION CONTRACTOR TO COORDINATE WITH OWNER FOR THE DISPOSAL ALL DEMOLISHED EQUIPMENT.
- ALL AREAS OF DEMOLITION SHALL BE CLEANED AND PATCHED AS NEEDED IN PREPARATION TO RECEIVE NEW FINISH AT LATER DATE.
- GENERAL CONTRACTOR IS REQUIRED TO PROVIDE MEASURES DURING DEMOLITION AND OTHER DUST CREATED WORK TO ENSURE DUST CONTAMINATED AIR DOES NOT GO INTO ADJACENT PREMISES.
- ALL UTILITY SHALL BE GAPPED WITH LIKE MATERIAL PER INSPECTOR SATISFACTION.
- GENERAL CONTRACTOR TO REMOVE ANY FURNITURE, FIXTURES AND EQUIPMENT REMAINING IN AREA OF WORK.
- SHORING DRAWINGS FOR DEMOLITION SCOPE AS REQUIRED SHALL BE PROVIDED BY OTHERS AS A SEPARATE PERMIT / SUBMITTAL.

DEMOLITION KEY NOTES

- EXISTING STRUCTURAL COLUMNS TO REMAIN, PROTECT IN PLACE. REMOVE ALL NON-STRUCTURAL FURRING FROM AROUND COLUMN.
- REMOVE ALL EXISTING FLOOR FINISHES DOWN TO SUB-FLOOR. SCRAPE, GRIND AND PREPARE FLOOR DECKING AS NEEDED READY TO RECEIVE NEW FINISHES.
- DEMOLISH AND REMOVE SUSPENDED CEILING, LIGHTING, CONDUIT, ETC.
- EXISTING STOREFRONT SYSTEM TO REMAIN, COVER AND PROTECT IN PLACE.
- EXISTING CONSTRUCTION, THIS AREA TO REMAIN UNLESS NOTED OTHERWISE.
- EXISTING LADDER AND ROOF HATCH AND ROOF MOUNTED RAILING TO BE DEMOLISHED.
- EXISTING WALL FRAMING TO REMAIN. REMOVE EXISTING GYP. BOARD, BOTH SIDES AND PREPARE TO RECEIVE 5/8" TYPE 'X' GYP. BOTH SIDES AS REQUIRED.
- EXISTING WINDOW OR DOOR ASSEMBLY TO BE DEMOLISHED AND REMOVED.

SECOND FLOOR BUILDING DEMOLITION PLAN

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





**WEST END
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**1ST FLOOR WALL
TYPE KEY PLAN
NOTES & LEGEND**

Revisions	By	Date
1. PG CORR 1/BID ISSUE	MMF	4/24/26

Drawn MFM
Date 2/13/26
Project No. 25011
Scale 1/8"=1'-0"

WALL LEGEND

NOTE: LEGEND APPLIES TO FIRST AND SECOND FLOOR. NOT ALL WALL TYPES APPEAR ON EITHER FLOOR.

- A** EXISTING EXTERIOR STOREFRONT OR GLAZING TO REMAIN.
- B** EXISTING WALL TO REMAIN.
- C** NEW EXTERIOR GLAZING SEE ELEVATION, SCHEDULE AND DETAILS
- D** PREFABRICATED COOLER WALL.
- E** NEW ONE HOUR RATED ELEVATOR SHAFT WALL: 2X WOOD STUDS AT 16" O/C WITH 5/8" FIRECODE AT GYPSUM FIBEROCK PANELS WITH FINISHED JOINTS. PROVIDE MINERAL FIBER INSULATION AT STUD SPACE.
REF DTL'S: 3, 5 & 7/A-1.2
UL DESIGN U314
- F** CONCRETE WALL-NON RATED FULL HEIGHT FURRING: 250S125-33 METAL STUDS AT 24" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD AT INTERIOR SPACE SIDE, EXTEND FURRING TO 6" ABOVE CEILING AT CEILING AREAS, WHERE NO CEILING EXISTS, PROVIDE STUD SPACING AT 16" O/C AND EXTEND TO UNDERSIDE OF ROOF DECK. PROVIDE R-11 (U.N.O.) THERMAL INSULATION WITHIN FURRING. DENSISHIELD SUBSTRATE AT MET/TILE AREAS
- G** NEW (1) HOUR RATED PARTITION: 12'-0" H. 362S125-33 @ 16" O/C WITH 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES UNLESS NOTED OTHERWISE. FINISH EXPOSED TOP OF WALL AS REQUIRED. MINERAL WOOL INSULATION AND RATED MOISTURE RESISTANT GYP BOARD AT MET/TILE AREAS.
REF DTL'S: 5/A-13.1 AND 1/A-14.3
- H** NEW NON-RATED INTERIOR PARTITION: 12'-0" H. (UNDERSIDE OF 2ND FLOOR STRUCTURE AT FIRST FLOOR LOCATIONS) - 250S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES, UNLESS NOTED OTHERWISE. FINISH EXPOSED TOP OF WALL AS REQUIRED. BATT INSULATION FOR SOUND. DENSISHIELD SUBSTRATE AT MET/TILE AREAS. SEE ELEVATION FOR TILE INSTALLATION METHOD.
REF DTL'S: 2, 4, 5 & 7/A-13.1
- I** NEW NON-RATED INTERIOR PARTITION: 12'-0" H. (UNDERSIDE OF 2ND FLOOR STRUCTURE AT FIRST FLOOR LOCATIONS) - 250S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES, UNLESS NOTED OTHERWISE. BATT INSULATION FOR SOUND. DENSISHIELD SUBSTRATE AT MET/TILE AREAS. SEE ELEVATION FOR TILE INSTALLATION METHOD.
REF DTL'S: 2/A-13.1 AND 3/A-14.3
- J** NEW NON-RATED INTERIOR PARTITION TO UNDERSIDE OF ROOF AT SECOND FLOOR: 12'-0" H. - 362S125-33 METAL STUDS AT 24" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD BOTH SIDES AND BATT INSULATION FOR SOUND.
- K** NEW NON-RATED INTERIOR PARTITION: 10'-0" H. - 250S125-33 METAL STUDS AT 16" O/C WITH DENSISHIELD SUBSTRATE AT MET/TILE AREAS, TYPICAL, UNLESS NOTED OTHERWISE. FINISH TOP OF WALL AS REQUIRED. BATT INSULATION FOR SOUND. SEE ELEVATION FOR TILE INSTALLATION METHOD.
REF DTL'S: 5/A-13.1 AND 1/A-14.3
- L** NEW NON-RATED PLUMBING WALL: 600S125-33 METAL STUDS AT 16" O/C WITH (2) LAYER 5/8" TYPE 'X' GYPSUM BOARD ONE SIDE. EXTEND TO 6" ABOVE CEILING. DENSISHIELD SUBSTRATE AT MET/TILE AREAS. (362S125-33 AT WALLS 'G' AND 'Q' LOCATIONS)
REF DTL: 4, 5 & 15/A-13.1
- M** NEW (1) HOUR RATED INTERIOR PARTITION: 10'-0" H. 250S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES UNLESS NOTED OTHERWISE. FINISH EXPOSED TOP EDGE OF WALL AS REQUIRED. MINERAL WOOL BATT INSULATION.
REF DTL: 5 & 10/A-14.2
- N** NEW NON-RATED LOW PARTITION: 4'-0" H. - 250S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES. PROVIDE PAINT GRADE NOT SHAPED TOP GAP AND SCHEDULED MARLITE PANELS FULL HEIGHT OF WALL WITH MANUFACTURER'S TRIM PIECES. PROVIDE KING POST SUPPORTS AT END OF WALLS AND INTERMEDIATE SUPPORTS PER DETAIL. PROVIDE ELECTRICAL CHASE FOR EMERGENCY/NIGHT LIGHTING AS SCHEDULED.
REF DTL: 5 & 10/A-14.2
- O** NEW EXTERIOR TILT UP CONCRETE WALL. IN-FILL: ALIGN WITH EXISTING ADJACENT.
REF DTL: 1, 2, 3/A-14.1
- P** NEW (1) HOUR RATED FULL HEIGHT OCCUPANCY SEPARATION WALL: 4'-21"-0" H. TO UNDERSIDE OF EXISTING ROOF SHEATHING - 600S125-43 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES. PROVIDE SLIP TRACK DEFLECTION TOP TRACK TOP OF WALL. FIRE SAFE JOINTS AND PENETRATIONS AND MINERAL WOOL INSULATION.
REF DTL'S: 1, 4 & 4/A-14.2, 10/A-14.3
- Q** NEW (1) HOUR RATED INTERIOR CORRIDOR PARTITION: 12'-0" H. - 362S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES, UNLESS NOTED OTHERWISE. FINISH EXPOSED TOP OF WALL AS REQUIRED. MINERAL WOOL BATT INSULATION. DENSISHIELD SUBSTRATE AT MET/TILE AREAS. SEE ELEVATION FOR TILE INSTALLATION METHOD.
REF DTL'S: 5/A-13.1 AND 5/A-14.3
- R** NON RATED PLUMBING WALL FURRING: 362S125-33 METAL STUDS AT 16" O/C WITH 5/8" TYPE 'X' GYPSUM BOARD OR DENSISHIELD SUBSTRATE AT MET/TILE AREAS. EXTEND FULL HEIGHT OF WALL.
REF DTL'S: 4/A-13.1 SIM, 5/A-13.1
- S** NEW GLAZING AT GYP. BOARD WALL, SEE ELEVATION.
REF DTL'S: 2 & 3/A-10.3
- T** NEW (1) HOUR RATED STRUCTURAL 2X WOOD STUD SHEAR WALL, SEE STRUCTURAL DRAWINGS FOR SPECIFICATIONS. INSTALL 5/8" TYPE 'X' GYPSUM BOARD OVER PLYWOOD AND OPPOSITE SIDE FOR (1) HOUR RATED ASSEMBLY. PROVIDE MINERAL WOOL INSULATION, FIRE SAFE JOINTS AND PENETRATIONS. ALIGN FINISH SUBSTRATES AT IN PLANE LOCATIONS.
REF DTL'S: 14 & 15/A-14.2 SIM 15/A-14.2 SIM
- U** NEW NON-RATED STRUCTURAL 2X WOOD STUD SHEAR WALL, SEE STRUCTURAL DRAWINGS FOR SPECIFICATIONS. INSTALL 5/8" TYPE 'X' GYPSUM BOARD OVER PLYWOOD AND OPPOSITE SIDE FOR (1) HOUR RATED ASSEMBLY. PROVIDE SOUND BATT INSULATION FOR SOUND. ALIGN FINISH SUBSTRATES AT IN PLANE LOCATIONS.
REF DTL'S: 14 & 15/A-14.2 SIM 15/A-14.2 SIM
- V** EXISTING INTERIOR PARTITION TO REMAIN. PATCH/REPAIR AND PREPARE FOR SCHEDULED FINISH. REPAIR RATED CONDITIONS, FIRE SAFE JOINTS AND PENETRATIONS TO LIKE-NEW CONDITION WHERE REQUIRED.
- W** NEW (1) HOUR RATED FULL HEIGHT OCCUPANCY SEPARATION WALL: 4'-15'-0" H. TO UNDERSIDE OF ROOF STRUCTURE ABOVE (FROM SECOND FLOOR AT 13'-6" A.F.F.) - 600S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD BOTH SIDES. PROVIDE SLIP TRACK TOP OF WALL. FIRE SAFE JOINTS AND PENETRATIONS AND MINERAL WOOL INSULATION.
REF DTL'S: 3, 4 & 9/A-14.2

GENERAL NOTES

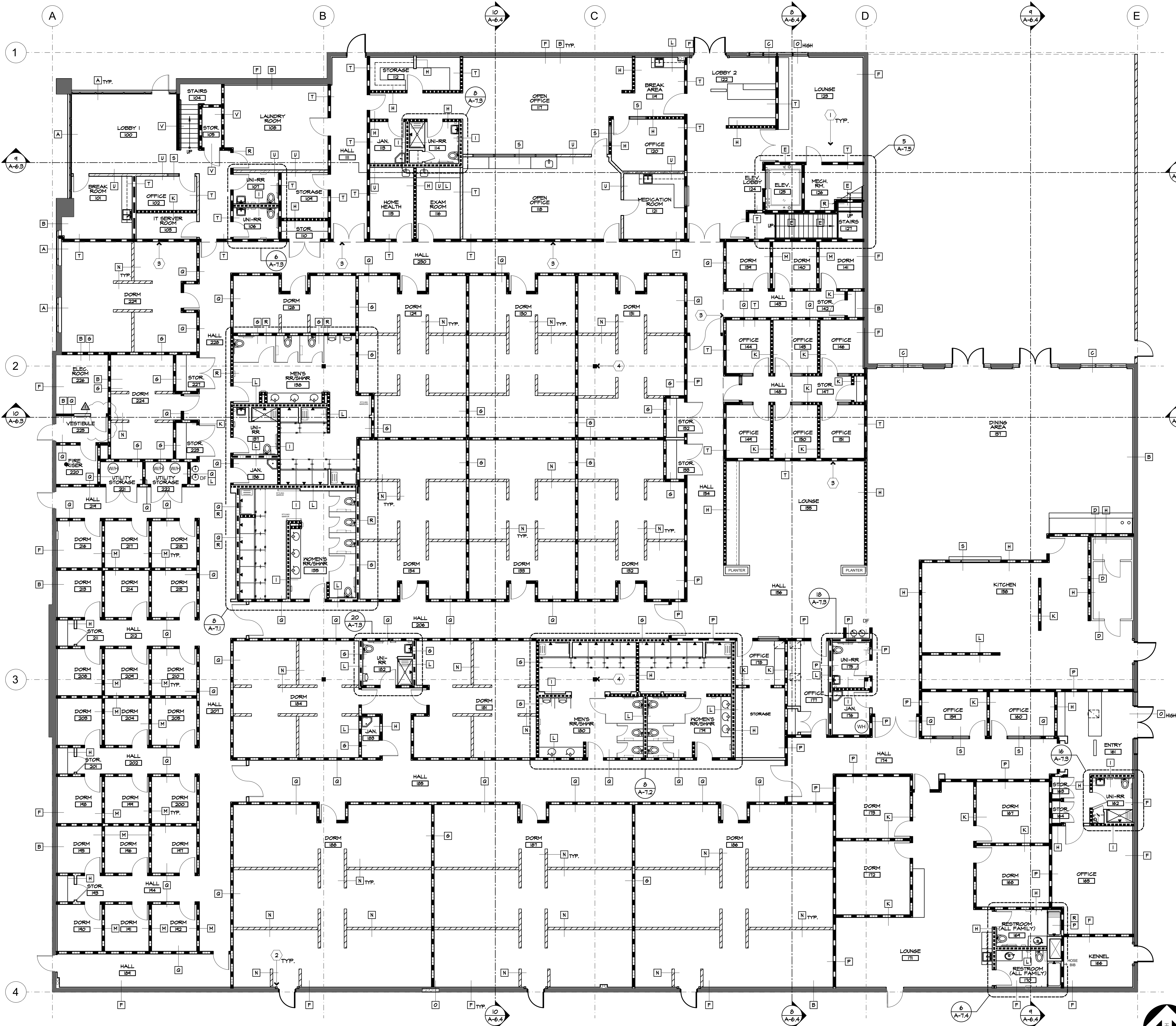
- REFER TO SHEET A-1.1 & A-1.3 FOR WALL LAYOUT LOCATING DIMENSIONS, DOOR AND WINDOW SYMBOLS, MILLWORK REFERENCE SYMBOLS, ETC.
- REFER TO SHEETS A-6.1 AND A-6.2 FOR ADDITIONAL EXTERIOR WALL INFORMATION.
- SEE FINISH LEGEND SHEET A-4.1 FOR MOISTURE BARRIER COATINGS REQUIRED IN LIEU OF BELOW SLAB VAPOR BARRIER.
- REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- REFER TO DETAILS 1 & 11/A-14.2 FOR PENETRATIONS AT RATED CONDITIONS.

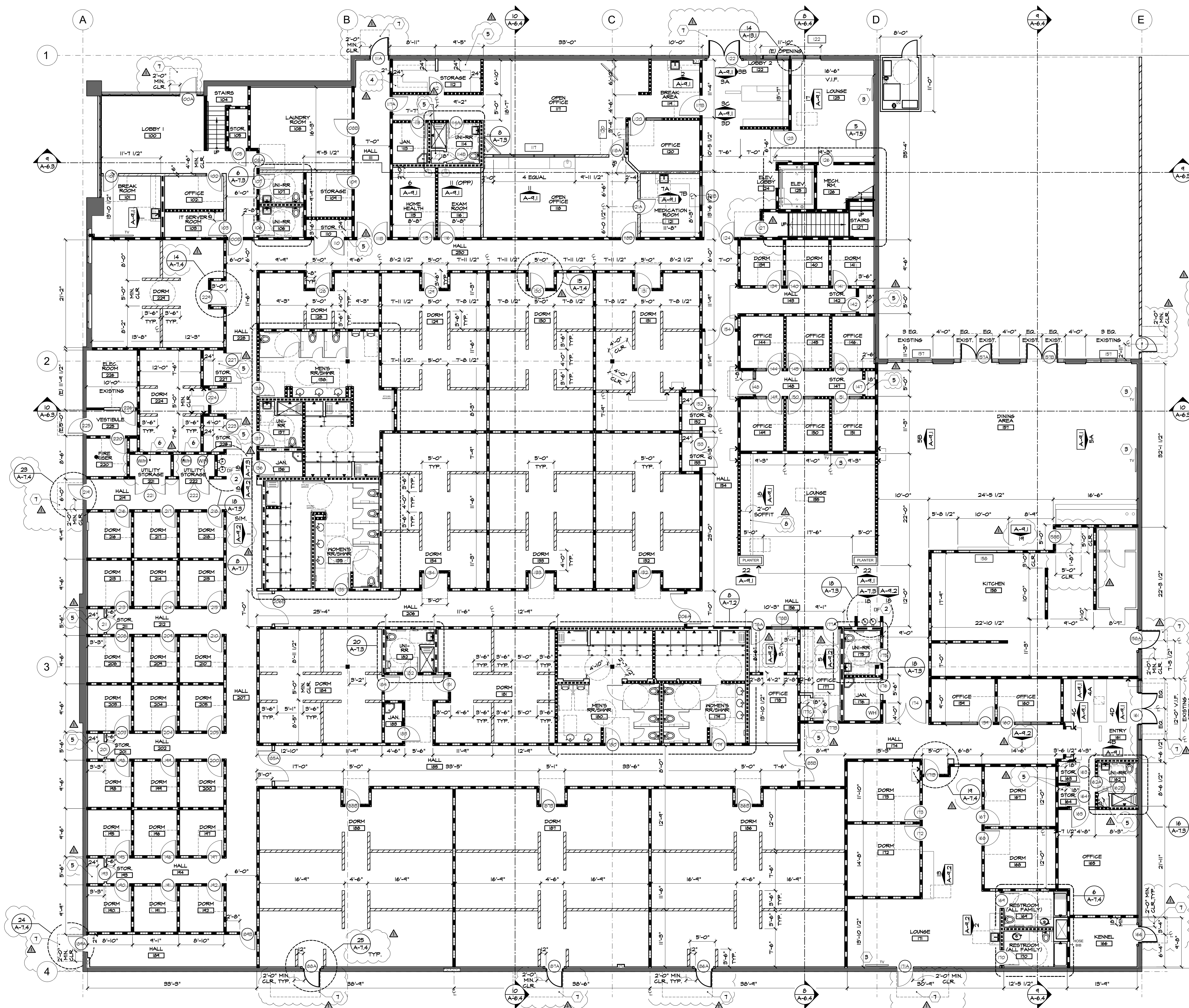
WALL TYPE KEY PLAN NOTES (FIRST FLOOR ONLY)

- DENOTES SHEAR WALL LOCATION. ALL IN PLANAR FINISHES TO ALIGN AT ADJACENT NON-SHEAR WALLS. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND LOCATIONS.
- STRUCTURAL REINFORCING SUPPORT AT NEW DOOR LOCATION, SEE STRUCTURAL DRAWINGS.
- LINE OF SECOND FLOOR ABOVE.
- EXISTING STRUCTURAL COLUMN.

FIRST FLOOR - WALL TYPE KEY PLAN

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





FIRST FLOOR - CONSTRUCTION FLOOR PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES

- ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O.
- SEE STRUCTURAL DRAWINGS FOR ALL STUD FRAMING AND CONNECTION DETAILS.
- PATCH AND REPAIR ALL EXISTING WALLS AS REQUIRED TO RECEIVE NEW FINISHES.
- STORE ANY UNUSED DOOR AND HARDWARE SETS AS DIRECTED BY THE GENERAL CONTRACTOR.
- SEE EGRESS PLAN SHEET EX-1 FOR LOCATION OF TACTILE EXIT SIGNS.
- SEE SHEET A-1.0 FOR WALL TYPES, WALL LEGEND AND ELEVATION INFORMATION.
- NEW ELEVATORS SHALL BE PROVIDED WITH PHASE I EMERGENCY RECALL OPERATION AND PHASE II EMERGENCY IN CAR OPERATION IN ACCORDANCE WITH CALIFORNIA CODE OF REGULATIONS, TITLE 8, DIVISION 1, CHAPTER 4, SUBCHAPTER 6, ELEVATOR SAFETY ORDERS.
- ELEVATOR MACHINE ROOM SHALL HAVE SAME FIRE RATING AS THE ELEVATOR SHAFT.
- STANDBY POWER IS REQUIRED FOR ELEVATOR PER CALIFORNIA CODE OF REGULATIONS, TITLE 8.
- REFER TO FIRST FLOOR WALL TYPE PLAN SHEET A-1.0 FOR WALL CONSTRUCTION INFORMATION.
- REFER TO STRUCTURAL DRAWINGS FOR SHEAR WALLS AND OTHER INFORMATION.
- REFER TO DETAIL 8/A-14.2 FOR TYPICAL BACKING AT WOOD WALL CONDITIONS AND REFER TO DETAIL 12/A-19.1 FOR TYPICAL BACKING AT METAL STUD CONDITIONS.

LEGEND

30"x48" OR 60"x60" CLR. MANUEVERING SPACE AT DOORS.

FLOOR PLAN NOTES

- NOT USED
- ENCLOSED GLASS DOORS - GLASS INDUSTRIAL DESIGN 10MM TINTED ASPETRIAL SINGLE DOOR WITH 1950S FIN.
- ADA DRINKING FOUNTAIN, SEE DETAIL 5/ACC-8.
 - LOCATION OF WALL MOUNTED FLAT SCREEN TV, PROVIDE NECESSARY BACKING AT WALL PER DETAIL 12/A-19.1.
 - CLOTHING SHELF AND POLE, SEE DETAIL 20/A-12.1.
 - ADJUSTABLE SHELVING IN STORAGE CLOSET, SEE DETAIL 5/A-12.1, TYP. SEE PLAN FOR SHELVING CONFIGURATION PER CLOSET.
 - WATER HEATER, SEE PLUMBING DRAWINGS, PROVIDE SEISMIC BRACING (TIES) PER CBC REQUIREMENTS.
 - MANUEVERING SPACE AT ACCESSIBLE DOOR.
 - LINE OF SOFFIT ABOVE.

STAMP



CONSULTANT

PROJECT

WEST END
REGIONAL
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 923

FOR



TITLE

1ST FLOOR
CONSTRUCTION
FLOOR PLAN,
NOTES & LEGEND

Revisions	By	Date
1	PC	2/3/26
2	DAE	4/29

Drawn MFM
Date 2/3/26
Project No. 25011
Scale 1/8"=1'-0"

Sheet

STAMP



CONSULTANT

PROJECT

**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



**FONTANA
CALIFORNIA**

TITLE

**2ND FLOOR WALL
TYPE KEY PLAN
NOTES & LEGEND**

Revisions	By	Date
△ PC CORR 1/BID ISSUE	MMF	4/24/26

Drawn	MMF
Date	2/13/26
Project No.	25011
Scale	1/8"=1'-0"

Sheet

A-1.2

WALL LEGEND

NOTE: LEGEND APPLIES TO FIRST AND SECOND FLOOR. NOT ALL WALL TYPES APPEAR ON EITHER FLOOR.

- A** EXISTING EXTERIOR STOREFRONT OR GLAZING TO REMAIN.
- B** EXISTING WALL TO REMAIN.
- C** NEW EXTERIOR GLAZING SEE ELEVATION, SCHEDULE AND DETAILS
- D** PREFABRICATED COOLER WALL
- E** NEW ONE HOUR RATED ELEVATOR SHAFT WALL: 2X WOOD STUDS AT 24" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD AT INTERIOR SPACE SIDE. EXTEND FURRING TO 6" ABOVE CEILING AT INTERIOR SPACES. PROVIDE MINERAL FIBER INSULATION AT STUD SPACE.
- REF DTL'S:
3, 5 & 7/A-1.2
UL DESIGN U814
- F** CONCRETE WALL-NON RATED FULL HEIGHT FURRING: 250S125-33 METAL STUDS AT 24" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD AT INTERIOR SPACE SIDE. EXTEND FURRING TO 6" ABOVE CEILING AT INTERIOR SPACES. WHERE NO CEILING EXISTS, PROVIDE STUD SPACING AT 16" O/C AND EXTEND TO UNDERSIDE OF ROOF DECK. PROVIDE R-11 (U.N.O.) THERMAL INSULATION WITHIN FURRING. DENSHEILD SUBSTRATE AT NET/TILE AREAS
- REF DTL'S:
6, 7 & 9/A-1.1
- G** NEW (1) HOUR RATED PARTITION: 12'-0" H. 362S125-33 @ 16" O/C WITH 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES UNLESS NOTED OTHERWISE. FINISH EXPOSED TOP OF WALL AS REQUIRED. MINERAL WOOL INSULATION WITHIN FURRING. DENSHEILD SUBSTRATE AT NET/TILE AREAS.
- REF DTL'S:
5/A-13.1 AND
9/A-14.3
- H** NEW NON-RATED INTERIOR PARTITION: 12'-0" H. (UNDERSIDE OF 2ND FLOOR STRUCTURE AT FIRST FLOOR LOCATIONS) - 250S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES UNLESS NOTED OTHERWISE. FINISH EXPOSED TOP OF WALL AS REQUIRED. BATT INSULATION FOR SOUND. DENSHEILD SUBSTRATE AT NET/TILE AREAS. SEE ELEVATION FOR TILE INSTALLATION METHOD.
- REF DTL'S:
2, 4, 5 & 7/A-13.1
- I** NEW NON-RATED INTERIOR PARTITION: 12'-0" H. (UNDERSIDE OF 2ND FLOOR STRUCTURE AT FIRST FLOOR LOCATIONS) - 250S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES UNLESS NOTED OTHERWISE. BATT INSULATION FOR SOUND. DENSHEILD SUBSTRATE AT NET/TILE AREAS. SEE ELEVATION FOR TILE INSTALLATION METHOD.
- REF DTL'S:
2/A-13.1 AND
9/A-14.3
- J** NEW NON-RATED INTERIOR PARTITION TO UNDERSIDE OF ROOF AT SECOND FLOOR: 12'-0" H. - 362S125-33 METAL STUDS AT 24" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD BOTH SIDES AND BATT INSULATION FOR SOUND.
- REF DTL'S:
5/A-13.1 AND
9/A-14.3
- K** NEW NON-RATED INTERIOR PARTITION: 10'-0" H. - 250S125-33 METAL STUDS AT 16" O/C WITH DENSHEILD SUBSTRATE AT NET/TILE AREAS. TYPICAL, UNLESS NOTED OTHERWISE. FINISH TOP OF WALL AS REQUIRED. BATT INSULATION FOR SOUND. SEE ELEVATION FOR TILE INSTALLATION METHOD.
- REF DTL'S:
5/A-13.1 AND
1/A-14.3
- L** NEW NON-RATED PLUMBING WALL: 600S125-33 METAL STUDS AT 16" O/C WITH (2) LAYER 5/8" TYPE 'X' GYPSUM BOARD ONE SIDE. EXTEND TO 6" ABOVE CEILING. DENSHEILD SUBSTRATE AT NET/TILE AREAS. (362S125-33 AT WALLS 'G' AND 'Q' LOCATIONS)
- REF DTL'S:
4, 5 & 15/A-13.1
- M** NEW (1) HOUR RATED INTERIOR PARTITION: 10'-0" H. 250S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES UNLESS NOTED OTHERWISE. FINISH EXPOSED TOP EDGE OF WALL AS REQUIRED. MINERAL WOOL BATT INSULATION.
- REF DTL'S:
5/A-13.1 AND
1 & 6/A-14.3
- N** NEW NON-RATED LOW PARTITION: 4'-0" H. - 250S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES UNLESS NOTED OTHERWISE. PROVIDE PAINT GRADE NOT SHAPED TOP GAP AND SCHEDULED MARLBLE PANELS FULL HEIGHT OF WALL WITH MANUFACTURER'S TRIM PIECES. PROVIDE KING POST SUPPORTS AT END OF WALLS AND INTERMEDIATE SUPPORTS PER DETAIL. PROVIDE ELECTRICAL CHASE FOR EMERGENCY/NIGHT LIGHTING AS SCHEDULED.
- REF DTL'S:
5 & 10/A-14.2
- O** NEW EXTERIOR TILT UP CONCRETE WALL IN-FILL: ALIGN WITH EXISTING ADJACENT.
- REF DTL'S:
1, 2, 3/A-14.1
- P** NEW (1) HOUR RATED FULL HEIGHT OCCUPANCY SEPARATION WALL: +/- 27'-0" H. TO UNDERSIDE OF EXISTING ROOF SHEATHING - 600S125-43 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES. PROVIDE SLIP TRACK DEFLECTION TOP TRACK TOP OF WALL. FIRE SAFE JOINTS AND PENETRATIONS AND MINERAL WOOL INSULATION.
- REF DTL'S:
1, 4 & 9/A-14.2,
10/A-14.3
- Q** NEW (1) HOUR RATED INTERIOR CORRIDOR PARTITION: 12'-0" H. - 362S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD TYPICAL BOTH SIDES UNLESS NOTED OTHERWISE. FINISH EXPOSED TOP OF WALL AS REQUIRED. MINERAL WOOL BATT INSULATION. DENSHEILD SUBSTRATE AT NET/TILE AREAS. SEE ELEVATION FOR TILE INSTALLATION METHOD.
- REF DTL'S:
5/A-13.1 AND
5/A-14.3
- R** NON RATED PLUMBING WALL FURRING: 362S125-33 METAL STUDS AT 16" O/C WITH 5/8" TYPE 'X' GYPSUM BOARD OR DENSHEILD SUBSTRATE AT NET/TILE AREAS. EXTEND FULL HEIGHT OF WALL.
- REF DTL'S:
4/A-13.1 SIM,
5/A-13.1
- S** NEW GLAZING AT GYP. BOARD WALL, SEE ELEVATION.
- REF DTL'S:
2 & 3/A-10.3
- T** NEW (1) HOUR RATED STRUCTURAL 2X WOOD STUD SHEAR WALL, SEE STRUCTURAL DRAWINGS FOR SPECIFICATIONS. INSTALL 5/8" TYPE 'X' GYPSUM BOARD OVER PLYWOOD AND OPPOSITE SIDE FOR (1) HOUR RATED ASSEMBLY. PROVIDE MINERAL WOOL INSULATION, FIRE SAFE JOINTS AND PENETRATIONS. ALIGN FINISH SUBSTRATES AT IN PLANE LOCATIONS.
- REF DTL'S:
14 & 15/A-14.2
13/A-14.3
- U** NEW NON-RATED STRUCTURAL 2X WOOD STUD SHEAR WALL, SEE STRUCTURAL DRAWINGS FOR SPECIFICATIONS. INSTALL 5/8" TYPE 'X' GYPSUM BOARD OVER PLYWOOD AND OPPOSITE SIDE WALL ASSEMBLY. PROVIDE SOUND BATT INSULATION FOR SOUND. ALIGN FINISH SUBSTRATES AT IN PLANE LOCATIONS.
- REF DTL'S:
14/A-14.2 SIM
15/A-14.2 SIM
- V** EXISTING INTERIOR PARTITION TO REMAIN. PATCH/REPAIR AND PREPARE FOR SCHEDULED FINISH. REPAIR RATED CONDITIONS, FIRE SAFE JOINTS AND PENETRATIONS TO LIKE-NEW CONDITION WHERE REQUIRED.
- W** NEW (1) HOUR RATED FULL HEIGHT OCCUPANCY SEPARATION WALL: +/- 15'-0" H. TO UNDERSIDE OF ROOF STRUCTURE ABOVE (FROM SECOND FLOOR AT 13'-6" A.F.F.) - 600S125-33 METAL STUDS AT 16" O/C WITH (1) LAYER 5/8" TYPE 'X' GYPSUM BOARD BOTH SIDES. PROVIDE SLIP TRACK DEFLECTION TOP TRACK TOP OF WALL. FIRE SAFE JOINTS AND PENETRATIONS AND MINERAL WOOL INSULATION.
- REF DTL'S:
3, 4 & 9/A-14.2

GENERAL NOTES

- REFER TO SHEET A-1.1 & A-1.3 FOR WALL LAYOUT LOCATING DIMENSIONS, DOOR AND WINDOW SYMBOLS, MILLWORK REFERENCE SYMBOLS, ETC.
- REFER TO SHEETS A-6.1 AND A-6.2 FOR ADDITIONAL EXTERIOR WALL INFORMATION.
- SEE FINISH LEGEND SHEET A-4.1 FOR MOISTURE BARRIER COATING REQUIRED IN LIEU OF BELOW SLAB VAPOR BARRIER.
- REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- REFER TO DETAILS 1 & 11/A-14.2 FOR PENETRATIONS AT RATED CONDITIONS.

(SHEET A-1.1 ONLY)

WALL TYPE KEY PLAN NOTES (FIRST FLOOR ONLY)

- △ (1) DENOTES SHEAR WALL LOCATION. ALL IN PLANAR FINISHES TO ALIGN AT ADJACENT NON-SHEAR WALLS. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND LOCATIONS.
- (2) STRUCTURAL REINFORCING SUPPORT AT NEW DOOR LOCATION, SEE STRUCTURAL DRAWINGS.
- (3) LINE OF SECOND FLOOR ABOVE.
- (4) EXISTING STRUCTURAL COLUMN.

SECOND FLOOR - WALL TYPE KEY PLAN

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

STAMP



CONSULTANT

PROJECT

**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 923

FOR



TITLE

**2ND FLOOR
CONSTRUCTION
FLOOR PLAN,
NOTES & LEGEND**

Revisions	By	Da
PC CORR 1/BID ISSUE 1 DAE	DAE	4/24

Drawn MFM
Date 2/13/26
Project No. 25011
Scale 1/8"=1'-0"

Sheet

A-1.3

GENERAL NOTES

- ALL DIMENSIONS ARE TO FACE OF FINISH UNO.
- SEE STRUCTURAL DRAWINGS FOR ALL STUD FRAMING AND CONNECTION DETAILS.
- PATCH AND REPAIR ALL EXISTING WALLS AS REQUIRED TO RECEIVE NEW FINISHES.
- STORE ANY UNUSED DOOR AND HARDWARE SETS AS DIRECTED BY THE GENERAL CONTRACTOR.
- SEE EGRESS PLAN SHEET EX-1 FOR LOCATION OF TACTILE EXIT SIGNS.
- SEE SHEET A-1.2 FOR WALL TYPES, WALL LEGEND AND ELEVATION INFORMATION.
- NEW ELEVATORS SHALL BE PROVIDED WITH PHASE I EMERGENCY RECALL OPERATION AND PHASE II EMERGENCY IN CAR OPERATION IN ACCORDANCE WITH CALIFORNIA CODE OF REGULATIONS, TITLE 8, DIVISION 1, CHAPTER 4, SUBCHAPTER 6, ELEVATOR SAFETY ORDERS.
- ELEVATOR MACHINE ROOM SHALL HAVE SAME FIRE RATING AS THE ELEVATOR SHAFT.
- STANDBY POWER IS REQUIRED FOR ELEVATOR PER CALIFORNIA CODE OF REGULATIONS, TITLE 8.

FLOOR PLAN NOTES

- LOCATION OF WALL MOUNTED FLAT SCREEN TV, PROVIDE NECESSARY BACKING AT WALL PER DETAIL 12/A-13.1.
- ADJUSTABLE SHELVING IN STORAGE CLOSET, SEE DETAIL 5/A-12.1, TYP. SEE PLAN FOR SHELVING CONFIGURATION PER CLOSET.
- TYPICAL MANEUVERING SPACE AT ACCESSIBLE DOOR
- TYPICAL MANEUVERING SPACE AT APPLIANCE OR COUNTER



SECOND FLOOR - CONSTRUCTION FLOOR PLAN

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



Revisions	By	Date
1. PG CORR 1/BID ISSUE	MFM	4/24/26

Drawn MFM
Date 2/13/26
Project No. 25011
Scale 1/8"=1'-0"

CEILING LEGEND

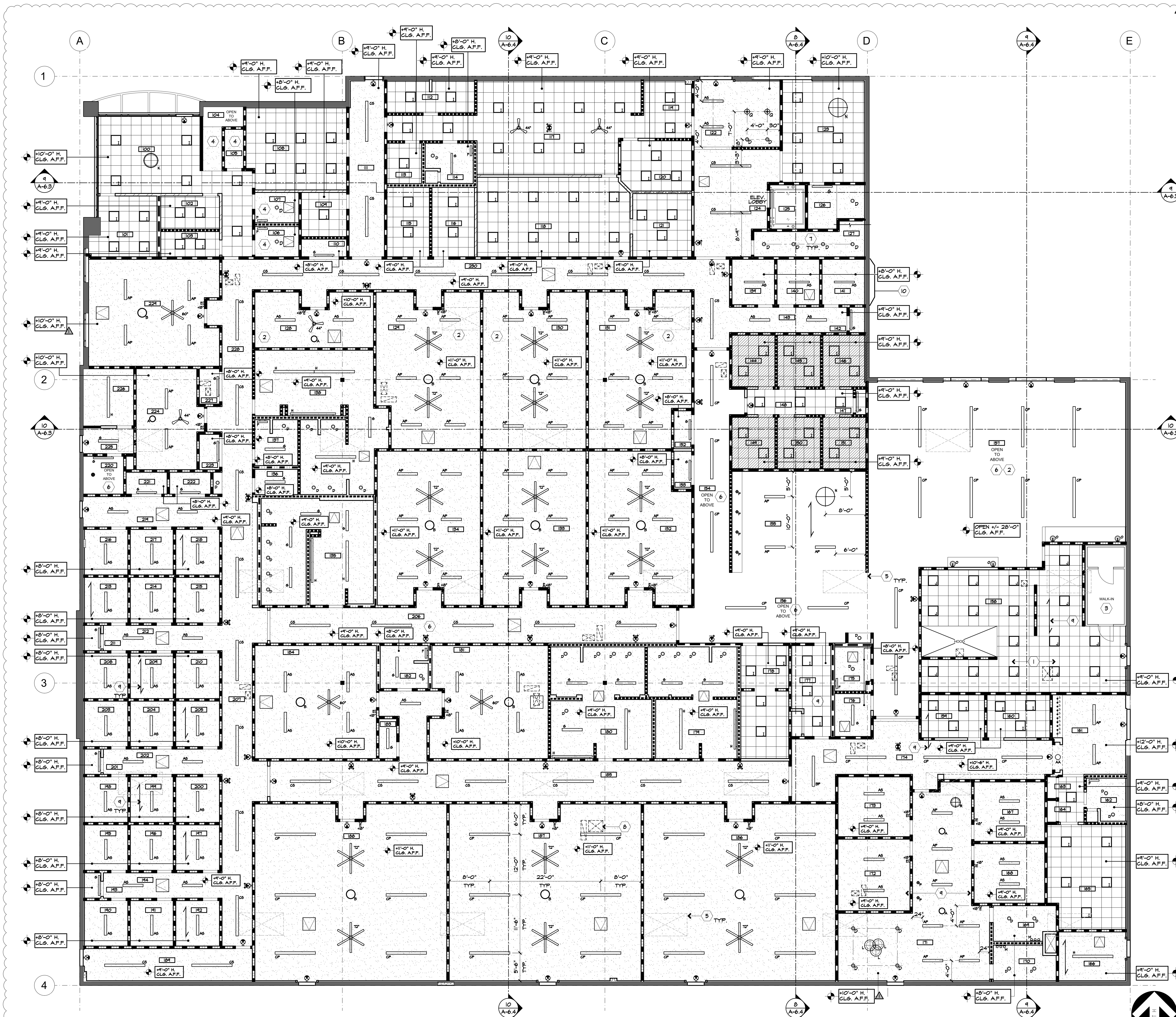
- NEW 2' X 2' SUSPENDED T-BAR GRID AND ACOUSTICAL PANEL SYSTEM. SEE GENERAL NOTE 1 & 2, PLAN NOTE #1.
- NEW JOISTED GYPSUM BOARD CEILINGS, HEIGHT AS NOTED ON PLAN, U.N.O.
- HATCH PATTERN INDICATES FIBERGLASS SOUND INSULATION BATTS AT CEILING
- EXISTING SKYLIGHT AT ROOF
- CEILING JOIST LOCATION, SEE STRUCTURAL DRAWINGS
- 4 FT. LED LINEAR PENDANT (P) OR SURFACE MOUNT (S)
- 6 FT. LED LINEAR PENDANT (P) OR SURFACE MOUNT (S)
- 8 FT. LED LINEAR PENDANT (P) OR SURFACE MOUNT (S)
- 12" FLUSH MOUNT CEILING LIGHT
- 4" LED DOWNLIGHT, DAMP & RATED OPTION AVAILABLE
- LED NIGHT LIGHT, 18" A.F.F.
- 2 FT. LED STRIP SURFACE MOUNT, CEILING OR WALL PER PLAN
- 4 FT. LED STRIP SURFACE MOUNT, CEILING OR WALL PER PLAN
- 8 FT. LED STRIP SURFACE MOUNT, CEILING OR WALL PER PLAN
- 2'X2' LED RECESSED LIGHT FIXTURE
- 2'X2' LED RECESSED FLAT PANEL KITCHEN FIXTURE
- LED DRUM PENDANT, 34" DIA
- LED (3) LIGHT RING PENDANT, 24" DIA, EACH FIXTURE
- LED WALL SCONCE, 24" WIDE
- LED ECHO PENDANT, 44" DIA.
- LED METAL WALL SCONCE WITH WIRE CAGE, 12" DIA. SHADE
- LED CYLINDER PENDANT, 6" DIA. x 12" HIGH
- LED CHICAGO PENDANT, 12" METAL DIA. SHADE
- LED DRUM PENDANT, 23" DIA.
- LED INDUSTRIAL PENDANT, 3" DIA. x 15" HIGH
- CEILING FAN - 44" DIA, 3 BLADE
- CEILING FAN - 60" DIA, 6 BLADE
- CEILING FAN - 72" DIA, 6 BLADE
- ILLUMINATED EXIT SIGN WITH DIRECTIONAL ARROW AS INDICATED, CEILING MTD.
- ILLUMINATED EXIT SIGN WITH DIRECTIONAL ARROW AS INDICATED, WALL MTD. IN ALL AREAS WITHOUT CEILINGS.
- 24" x 24" - FLUSH ACCESS PANEL
- 30" x 30" - FLUSH ACCESS PANEL
- 14" DIAMETER SOLATUBE
INTERIOR FLOOR TO CEILING = 10'-0" A.F.F.
INTERIOR FLOOR TO ROOF = +/- 27'-0" - 24'-0" A.F.F.
- 21" DIAMETER SOLATUBE
INTERIOR FLOOR TO CEILING = 11'-0" A.F.F.
INTERIOR FLOOR TO ROOF = +/- 27'-0" - 24'-0" A.F.F.

GENERAL CEILING NOTES

1. SUSPENDED T-BAR CEILING IS NEW AS INDICATED BY CEILING LEGEND, HEIGHT AS INDICATED ON PLAN. PROVIDE SEISMIC BRACING TYP. AT NEW SYSTEMS PER DETAIL 25/A-1. REFER TO ELECTRICAL ENGINEERING DRAWINGS FOR LIGHTING, SWITCHING, CIRCUITING ETC. SPECIFICATIONS.
2. PROVIDE NEW LIGHTING PER ARCHITECTS DRAWINGS. PROVIDE LIGHT FIXTURE SUPPORT PER DETAIL 25/A-13.
3. LIGHTS, HVAC REGISTERS, ETC. SHALL BE LOCATED PER THE ARCHITECTS DRAWINGS, CONDITIONS OR OMISSIONS SHALL BE BROUGHT THE ATTENTION OF THE ARCHITECT PRIOR TO INSTALLATION. SEE ELECTRICAL ENGINEERING DRAWINGS FOR SPECIFICATIONS, CIRCUITING, SWITCHING, ETC. REFER TO MECHANICAL ENGINEERING DRAWINGS FOR HVAC, EQUIPMENT DUCTING, ETC. REFER TO KITCHEN CONSULTANT DRAWINGS FOR KITCHEN RELATED EQUIPMENT, DUCTING, ETC.
4. VENTILATION TO BE PROVIDED PER CBC SECTION 1203. REFER TO MECHANICAL ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION.
5. PROVIDE CONTINUOUS WALL ANGLE AT ALL WALLS THAT PENETRATE THE CEILING GRID PER DETAIL 17 & 20/A-13.1.
6. ALL GYPSUM BOARD CEILINGS HEIGHTS TO BE LOCATED AS NOTED ON PLAN PER DETAIL 15/A-13.1.
7. SPRINKLER HEADS SHALL BE CENTERED IN ACOUSTIC TILE.
8. PROVIDE NEW ARMSTRONGS ACOUSTICAL CEILING TILE. #2082 ULTIMA HIGH NEG. 24"x24" WITH 4/16" SURFACINE GRID, COLOR: WHITE.
9. SEE SHEET A-5 FOR SKYLIGHT SCOPE.
10. EXISTING FIRE SPRINKLER SYSTEM TO BE MODIFIED AS REQUIRED TO ACCOMMODATE NEW OCCUPANCY GROUP AND PLAN CONFIGURATION UNDER SEPARATE PERMIT.
11. PROVIDE 30"x30" (1) HOUR RATED FLUSH ACCESS PANEL AT DORM AND LARGER ROOM AREAS. 24"x24" AT SMALLER ROOM LOCATIONS PER CMG AND CFC REQUIREMENTS. PANELS TO BE GSPMUL LISTED WITH INSULATION GASKETS AND SELF CLOSING.

CEILING PLAN KEY NOTES

1. PROVIDE ARMSTRONGS CEILING TILES, 24" X 24" X 5/8" VINYL FACE CEILING TILES WITH 15/16" FRELUDE GRID AT KITCHEN AREAS, COLOR: WHITE.
2. PROVIDE NEW INSULATION AT UNDERSIDE OF ROOF PER T24 ENERGY CALCULATIONS. S.G. TO PROVIDE PREPARED INSTALLATION METHOD WITH WHITE SCRIM SHEET, TYPICAL THROUGHOUT U.N.O.
3. PREFABRICATED WALK-IN COOLER WITH PACKAGE LIGHTING.
4. EXISTING GYP. BOARD CEILING AT ELECTRICAL ROOM, STAIRS AND EXISTING BATHROOMS TO REMAIN. PATCH AND REPAIR TO LIKE-NEW CONDITION.
5. EXISTING SKYLIGHT LOCATION.
6. OPEN CEILING AREA TO STRUCTURE ABOVE.
7. STAIR DOWNLIGHTS IN SLOPED GYP. BOARD CEILING.
8. DUCT CHASE FROM RTU ABOVE, SEE MECHANICAL DRAWINGS.
9. JOISTS AT SUSPENDED T-BAR CEILING AREAS, SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
10. REFER TO DETAIL 15/A-14.2 FOR RATED CEILING ASSEMBLY AT R2 TO B OCCUPANCY THIS AREA.



FIRST FLOOR - REFLECTED CEILING PLAN

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



**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



**2ND FLOOR
REFLECTED
CEILING PLAN,
NOTES & LEGEND**

Revisions	By	Date
1. PG CORR 1/ BID ISSUE	MMF	4/24/26

Drawn	MMF
Date	2/3/26
Project No.	25011
Scale	1/8"=1'-0"

CEILING LEGEND

- NEW 2' X 2' SUSPENDED T-BAR GRID AND ACOUSTICAL PANEL SYSTEM, SEE GENERAL NOTE 1 & 8, PLAN NOTE #1.
- NEW JOISTED GYPSUM BOARD CEILINGS, HEIGHT AS NOTED ON PLAN, UNO.
- HATCH PATTERN INDICATES FIBERGLASS SOUND INSULATION BATTS AT CEILING
- EXISTING SKYLIGHT AT ROOF
- CEILING JOIST LOCATION, SEE STRUCTURAL DRAWINGS
- 4 FT. LED LINEAR PENDANT
- 6 FT. LED LINEAR PENDANT
- 8 FT. LED LINEAR PENDANT
- 4" LED DOWNLIGHT, DAMP & RATED OPTION AVAILABLE
- LED NIGHT LIGHT, 18" A.F.F.
- 2 FT. LED STRIP SURFACE MOUNT, CEILING OR WALL PER PLAN
- 4 FT. LED STRIP SURFACE MOUNT, CEILING OR WALL PER PLAN
- 8 FT. LED STRIP SURFACE MOUNT, CEILING OR WALL PER PLAN
- 2'X2' LED RECESSED LIGHT FIXTURE
- 2'X2' LED RECESSED FLAT PANEL KITCHEN FIXTURE
- LED DRUM PENDANT, 34" DIA
- LED (3) LIGHT RINGS PENDANT, 24" DIA, EACH FIXTURE
- LED WALL SCONCE, 24" WIDE
- LED ECHO PENDANT, 44" DIA.
- LED METAL WALL SCONCE WITH WIRE CASE, 12" DIA. SHADE
- LED CYLINDER PENDANT, 6" DIA. x 12" HIGH
- LED CHICAGO PENDANT, 12" METAL DIA. SHADE
- LED DRUM PENDANT, 23" DIA.
- LED INDUSTRIAL PENDANT, 3" DIA. x 15" HIGH
- 44" CEILING FAN - 44" DIA, 3 BLADE
- 60" CEILING FAN - 60" DIA, 6 BLADE
- 72" CEILING FAN - 72" DIA, 6 BLADE
- ILLUMINATED EXIT SIGN WITH DIRECTIONAL ARROW AS INDICATED, CEILING MTD.
- ILLUMINATED EXIT SIGN WITH DIRECTIONAL ARROW AS INDICATED, WALL MTD. IN ALL AREAS WITHOUT CEILING.
- 14" DIAMETER SOLUTEBE
INTERIOR FLOOR TO CEILING = 10'-0" A.F.F.
INTERIOR FLOOR TO ROOF = +/- 27'-0" - 29'-0" A.F.F.
- 21" DIAMETER SOLUTEBE
INTERIOR FLOOR TO CEILING = 11'-0" A.F.F.
INTERIOR FLOOR TO ROOF = +/- 27'-0" - 29'-0" A.F.F.

GENERAL CEILING NOTES

- SUSPENDED T-BAR CEILING IS NEW AS INDICATED BY CEILING LEGEND, HEIGHT AS INDICATED ON PLAN. PROVIDE SEISMIC BRACING TYP. AT NEW SYSTEMS PER DETAIL 25/A-13.1. REFER TO ELECTRICAL ENGINEERING DRAWINGS FOR LIGHTING, SWITCHING, CIRCUITING ETC. SPECIFICATIONS.
- PROVIDE NEW LIGHTING PER ARCHITECT'S DRAWINGS. PROVIDE LIGHT FIXTURE SUPPORT PER DETAIL 25/A-13.1.
- LIGHTS, HVAC REGISTERS, ETC. SHALL BE LOCATED PER THE ARCHITECT'S DRAWINGS, CONFLICTS OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO INSTALLATION. SEE ELECTRICAL ENGINEERING DRAWINGS FOR SPECIFICATIONS, CIRCUITING, SWITCHING, ETC. REFER TO MECHANICAL ENGINEERING DRAWINGS FOR HVAC, EQUIPMENT DUCTING, ETC. REFER TO KITCHEN CONSULTANT DRAWINGS FOR KITCHEN RELATED EQUIPMENT, DUCTING, ETC.
- VENTILATION TO BE PROVIDED PER CBC SECTION 1203. REFER TO MECHANICAL ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE CONTINUOUS WALL ANGLE AT ALL WALLS THAT PENETRATE THE CEILING GRID PER DETAIL 17 & 20/A-13.1.
- ALL GYPSUM BOARD CEILING HEIGHTS TO BE LOCATED AS NOTED ON PLAN PER DETAIL 15/A-13.1.
- SPRINKLER HEADS SHALL BE CENTERED IN ACOUSTIC TILE.
- PROVIDE NEW ARMSTRONGS ACOUSTICAL CEILING TILE: #2082 ULTIMA HIGH NRG. 24"X24" WITH 5/16" SURFACING GRID, COLOR WHITE.
- SEE SHEET A-5 FOR SKYLIGHT SCOPE.
- EXISTING FIRE SPRINKLER SYSTEM TO BE MODIFIED AS REQUIRED TO ACCOMMODATE NEW OCCUPANCY GROUP AND PLAN CONFIGURATION UNDER SEPARATE PERMIT.

CEILING PLAN KEY NOTES

- PROVIDE ARMSTRONGS CEILING TILES, 24"X24"X5/8" VINYL FACE CEILING TILES WITH 15/16" PRELUDE GRID, COLOR: WHITE.
- LINEAR WALL FIXTURE TO BE SURFACE MOUNTED AT 10'-0" A.F.F.
- GYP. BOARD CEILING.
- EXISTING ROOF LADDER AND HATCH TO BE REMOVED AND RELOCATED TO NEW LOCATION. INFILL OPENINGS AT ROOF. SEE ROOF PLAN.
- NEW ROOF HATCH AND LADDER LOCATION, SEE ROOF PLAN FOR ADDITIONAL INFORMATION.
- EXISTING SKYLIGHT LOCATION.
- OPEN CEILING AREA TO STRUCTURE ABOVE.
- DUCT CHASE FROM RTU ABOVE, SEE MECHANICAL DRAWINGS.
- PROVIDE NEW INSULATION AT UNDERSIDE OF ROOF PER T24 ENERGY CALCULATIONS. GC TO PROVIDE INSTALLATION METHOD WITH WHITE SCRIM SHEET, TYPICAL THROUGHOUT UNLESS NOTED OTHERWISE.

SECOND FLOOR - REFLECTED CEILING PLAN

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



Revisions	By	Date
1. PC CORR 1/BID ISSUE	MMF	4/24/26

Drawn	MMF
Date	2/3/26
Project No.	25011
Scale	1/8"=1'-0"

OUTLET LOCATION LEGEND

- DUPLEX WALL RECEPTACLE @ 18" A.F.F. (U.N.O.)
- DEDICATED DUPLEX WALL RECEPTACLE @ 18" A.F.F. (U.N.O.)
- DEDICATED 220V, DUPLEX WALL RECEPTACLE @ 18" A.F.F. (U.N.O.)
- DOUBLE DUPLEX WALL RECEPTACLE @ 18" A.F.F. (U.N.O.)
- DEDICATED DOUBLE DUPLEX WALL RECEPTACLE @ 18" A.F.F. (U.N.O.)
- USB CHARGING PORT, SEE ELEVATION 12/A-10.1 FOR LOCATION AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
- COMBINATION TEL/DATA WALL RECEPTACLE @ 18" A.F.F. (U.N.O.)
- FLAT SCREEN TV CLOCK OUTLET AND DATA CONDUIT.
- 3/4" CONDUIT ONLY UP INTO CEILING SPACE FOR CARD READER, DOOR RELEASE WIRING. ACCESS CONTROL SHALL BE A DEFERRED SUBMITTAL. SEE SHEET 05-1.
- J-BOX LOCATION
- 110V, FLUSH FLOOR DUPLEX AND TELE/DATA RECEPTACLE. PROVIDE CONDUIT CONNECTION TO WALL MOUNTED TV CLOCK RECEPTACLE AND WALL MOUNTED TELE/DATA RECEPTACLE

GENERAL OUTLET LOCATION NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR POWER AND CONDUIT REQUIREMENTS.
2. PROVIDE ELECTRICAL AND TEL/DATA OUTLETS AS SHOWN ON PLAN. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF WORK.
3. SEE DEMOLITION PLAN FOR RECEPTACLES TO BE REMOVED.
4. WHERE RECEPTACLES ARE REMOVED SAFELY TERMINATE ELECTRICAL AT NEAREST JUNCTION BOX AND TEL/DATA BACK TO PUNCHDOWN BOARD.
5. ALL FURNITURE SHOWN IS N.I.C. AND IS LOCATED FOR REFERENCE ONLY.
6. ALL FACE PLATES SHALL BE IN SAME COLOR AND STYLE. CONFIRM COLOR TO BE WHITE.
7. REFER TO ELECTRICAL ENGINEERING DRAWINGS FOR ELECTRICAL SPECIFICATIONS.
8. REFER TO A-1.0 FOR WALL RATINGS CONSTRUCTION TYPE.

OUTLET LOCATION PLAN KEY NOTES

1. LOCATION OF ELECTRICAL SUB-PANEL. SEE ELECTRICAL DRAWINGS.
2. WALL MOUNTED HAND DRYER LOCATION. SEE ENLARGED RESTROOM PLAN 8/A-4.1 AND ELECTRICAL DRAWINGS.
3. PROVIDE FULL HT. X 4'-0" W. X 3/4" THICK FIRE RETARDANT PLYWOOD TELEPHONE BACKBOARD. PAINT TO MATCH ADJACENT WALL. MOUNT AT TOP EDGE OF CEILING.
4. 60" CLEAR DIAMETER ADA TURNING RADIUS, TYPICAL.
5. 30" X 48" ADA CLEAR FLOOR AREA.
6. AT LEAST (1) WASHER AND (1) DRYER SHALL BE ACCESSIBLE AND COMPLY WITH 2025 CBC SECTION XXX.

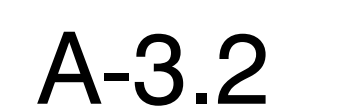
EQUIPMENT LEGEND (OUTSIDE OF KITCHEN)

- COPIER (N.I.C.) LOCATION, 120V STANDARD OUTLET
- MICROWAVE OVEN (N.I.C.) LOCATION, 120V STANDARD OUTLET
- DISHWASHER, PROVIDE FRIGIDAIRE, #FFBD2420US, ADA COMPLIANT, STAINLESS STEEL FINISH.
- METAL DETECTOR, N.I.C. 120V. STANDARD OUTLET
- FULL SIZE REFRIGERATOR, N.I.C. 120V. STANDARD OUTLET
- UNDERCOUNTER REFRIGERATOR, N.I.C. 120V. STANDARD OUTLET
- PRINTER (N.I.C.) LOCATION, 120V. STANDARD OUTLET AND DATA CONDUIT
- CLOTHES WASHER AND DRYER STACKED UNITS (N.I.C.): PROVIDE DIRECT VENT TO O.S.A.
G1 = 50 LB; WASHER/DRYER 34.4"W x 51.3"D x 84.3"H
G2 = 30 LB; WASHER/DRYER, 31.4"W x 45.5"D x 79.1"H
- CLOTHES WASHER AND DRYER NON-STACKED (N.I.C.): PROVIDE DIRECT VENT TO O.S.A.
H1 = 30 LB WASHER, 31 5/16"W x 36 4/5"D x 44"H
H2 = 30 LB DRYER, 31.5"W x 34.6"D x 63.4"H
- FLAT SCREEN TV MONITOR (N.I.C.), PROVIDE MOUNT BRACKET BACKING IN WALL (SEE WALL PLAN). PROVIDE CLOCK OUTLET AND DATA CONDUIT.
- HOT BOX (N.I.C.) LOCATION: PROVIDE (4) DEDICATE CIRCUITS FOR HEATER BOXES.
- HOT BOX (N.I.C.) LOCATION: PROVIDE (2) DEDICATE CIRCUITS FOR HEATER BOXES.

FIRST FLOOR - OUTLET PLAN

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





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



**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



**1ST FLOOR
FINISH PLAN,
NOTES, LEGEND
& SPECS**

Revisions	By	Date
1	PC	CORR 1/BED ISSUE DAE 4/24/26

Drawn MFM
Date 2/3/26
Project No. 2501
Scale 1/8"=1'-0"

A-4.1

FINISH NOTES

- ALL CONCRETE FLOORS TO BE THOROUGHLY CLEANED AND REPAIRED OF ALL CRACKS. PROVIDE KRETES (MYR) WATER PROOFING MEMBRANE AND PREPARE FOR NEW FLOOR FINISH, AS SPECIFIED.
- PAINT ALL WALLS AND GYP. BOARD CEILING WITH (2) COATS OF P-1 PAINT SEMI-GLOSS U.N.O.
- ALL WALLS TO RECEIVE (B-1) BASE U.N.O. SEE DETAIL 1/A-12.1
- PROVIDE REDUCER STRIP AT FLOOR FINISH CHANGES, PER DETAILS AS NOTED.
- ALL PAINTED WALLS TO BE PAINTED WITH DUNN EDWARDS, ACRY-MALL OR EQUAL, SEMI-GLOSS FINISH U.N.O.
- ALL GYPSUM BOARD CEILINGS TO BE PAINTED DUNN EDWARDS, ACRY-MALL OR EQUAL P-1, SEMI-GLOSS FINISH U.N.O.
- SEE MILLWORK ELEVATIONS FOR PLASTIC LAMINATE LOCATIONS.
- NOT USED
- PROVIDE TILE COUNCIL OF AMERICA (TCA) INSTALLATION METHOD FOR TILE INSTALLATION NOTE.
- ALL MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH THE MANUFACTURER'S REQUIREMENTS FOR THE APPLICATION OF EACH FINISH.
- ALL FLOOR TRANSITIONS TO OCCUR AT THE CENTERLINE OF THE DOOR IN A CLOSED POSITION (U.N.O.).
- ALL PAINT GRADE DOORS TO BE PAINTED P-7, DUNN EDWARDS, SPARTA WALL OR EQUAL SEMI-GLOSS FINISH U.N.O.
- INTERIOR WALL & CEILING FINISH SHALL HAVE A FLAME SPREAD INDEX NOT GREATER THAN CLASS C AS SPECIFIED IN TABLE 603.13 FOR R-2 OCCUPANCY FOR LOCATIONS DESIGNATED.

FINISH PLAN KEY NOTES

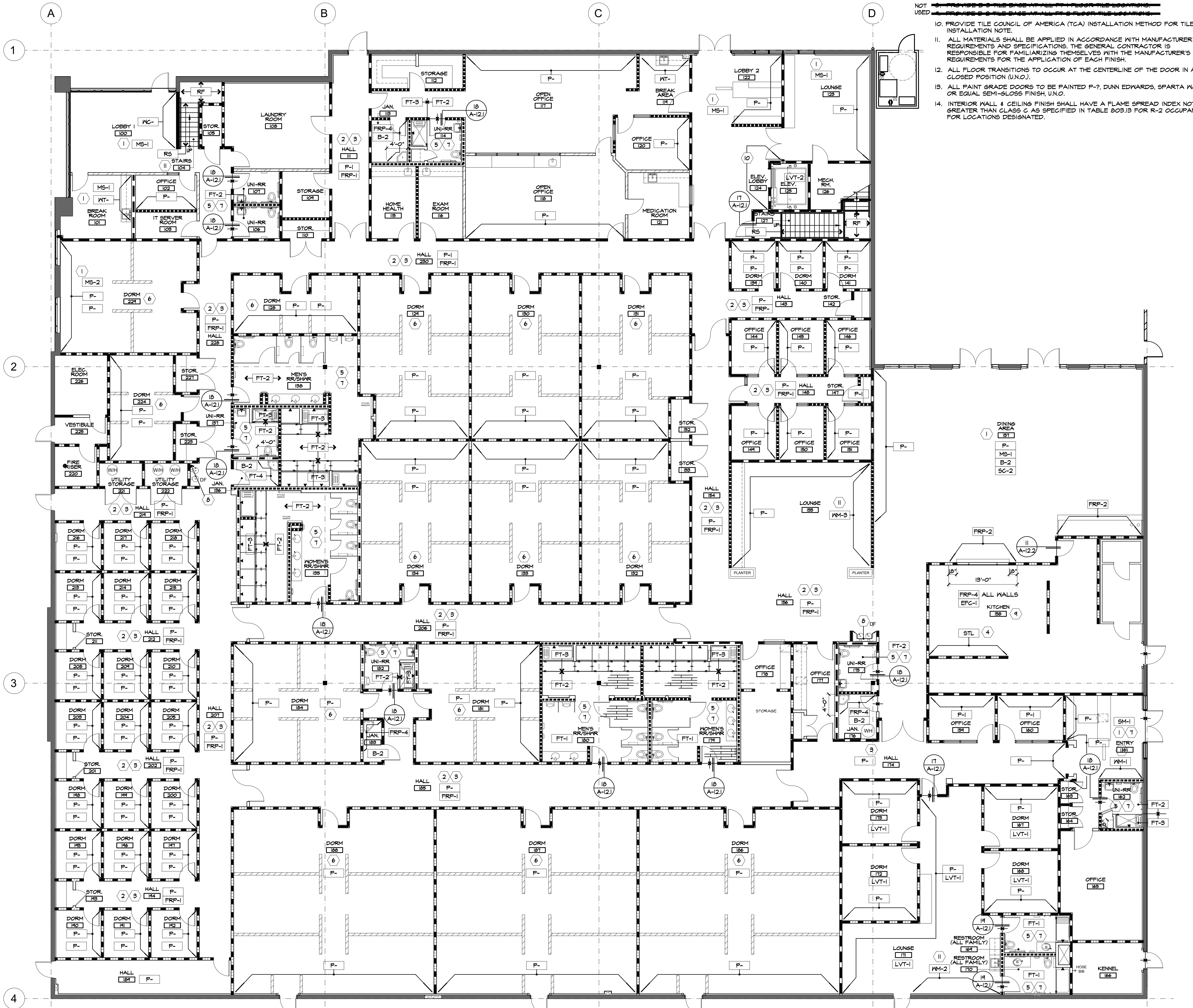
- PROVIDE MECHO SHADES ON ALL EXTERIOR WINDOWS.
- PROVIDE FRP-1 ON HALLWAY WALLS (111, 143, 148, 154, 185, 194, 202, 206, 207, 212, 219, 228, 230) AS INDICATED. INSTALL AT +48" ABOVE MALL BASE. PROVIDE ALL TRIMS J-CAP INSIDE CORNERS, OUTSIDE CORNERS, OUTSIDE LOCKERS AND DIVIDER BAR AS REQUIRED. SEE FINISH LEGEND.
- PAINT WALLS ABOVE FRP-1 WITH (2) COATS P-7 PAINT.
- PROVIDE STAINLESS STEEL FULL HEIGHT WALL PANELS WITH S.5. TRIMS AT COOKLINE IN KITCHEN 158.
- PROVIDE SCHLUTER COVED BASE TRIM (B-3) IN ALL RESTROOMS BETWEEN FLOOR AND WALL TILE TRANSITION.
- PROVIDE FRP-3 ON ALL LOW WALL PARTITIONS WITH SOLID SURFACE S5-2 CAP AT TOP OF LOW WALL. SEE DETAIL 8/A-12.1.
- PROVIDE SCHLUTER TRIM AT ALL EXPOSED TILE EDGES U.N.O. JOLLY 5/16" ANODIZED ALUMINUM TRIM. PROVIDE CLEAN, STRAIGHT MITERED CORNERS. FILE AWAY ALL SHARP CORNERS AS REQUIRED.
- PROVIDE WALL TILE AT DRINKING FOUNTAIN. REFER TO ELEVATION 18/A-12 FOR FINISHES.
- INSTALL FRP 4'-0" X 8'-0" SHEETS ABOVE 6' COVED BASE. PAINT REMAINING WALLS ABOVE TO CEILING, WITH ALL MATCHING TRIM. REFER TO 10/A-4.2 FOR ELEVATOR FINISHES.
- PROVIDE LEVE 4 WALL FINISH AT ALL WALLS RECEIVING (NM) WALL MURAL. INSTALL PER MANUFACTURER'S DIRECTIONS. CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH TILE INSTALLATION PROCESS AND ALL ASSOCIATED LABOR AND PURCHASE OF MATERIALS AND TRIMS ASSOCIATED WITH THE REQUIRED INSTALLATION PROCESS.

FINISH LEGEND

- B-1 WALL BASE, JOHNSONITE 4" RUBBER BASE, COLOR: T.B.D.
- B-2 WALL BASE, DAL TILE, COLOR WHEEL CLASSIC 6x6 SANITARY COVED BASE, SLIM FOOT TILE, COLOR: ARCTIC WHITE.
- B-3 BASE, SCHLUTER COVE BASE, DILEX-AHKA ANODIZED ALUMINUM FINISH.
- B-4 BASE, STAINLESS STEEL 4" SLIM FOOT COVED BASE.
- SC-1 SEALED CONCRETE FLOORS: CLEAR COAT MATTE FINISH.
- SC-2 SEALED CONCRETE FLOORS: CLEAR GREASE AND ACID RESISTANT FINISH, HEALTH DEPT. APPROVED AQUA MIX PENETRATING SEALER OR EQUAL.
- EPG-1 EPOXY FLOOR COATINGS 3" TROVELED EPOXY FLOOR SYSTEM, COLOR: T.B.D. WITH 6" H. MIN. 3/8" SELF COVED BASE. SEE DETAIL 4/A-12.2. SUBMIT COLOR SAMPLE FOR ARCHITECT'S APPROVAL.
- LVT-1 LUXURY VINYL TILES, 6" X 48", SHAW CONTRACT TERRAIN II 20 MIL. STYLE #0454V, COLOR: PRINE, ASHLAR INSTALLATION.
- LVT-2 LUXURY VINYL TILES, 6" X 48", SHAW CONTRACT, TERRAIN II 20 MIL. STYLE #0454V, COLOR: ELM, ASHLAR INSTALLATION.
- FT-1 DAL TILE, MOSAIC FLOOR TILE KEYSTONES COLOR BODY PORCELAIN MOSAIC TILE BLENDS #K16 HEXAGON 2"x2", GROUT: T.B.D.
- FT-2 DAL TILE, FLOOR TILE ACREAGE, COLOR BODY PORCELAIN 8"x48" PLANK, STETSON ACIS STAGGERED INSTALLATION, GROUT: T.B.D.
- RS BURKE RUBBER FLOORING STAIR SYSTEM, ENDURA ROUND PROFILE UNI STEP TREAD AND RISER W V-1 STRIPE, COLOR: T.B.D.
- RF BURKE RUBBER FLOORING, ENDURA SOLID COLOR RUBBER TILES, ROUND PROFILE, COLOR: T.B.D.
- SVT AHF SHEET VINYL 6" SELF COVE MIXED AND VARIEGATED COLOR FROST #H92MOOS.
- NT-1 WALL TILE: DAL TILE 3x24 PORCELAIN BULLNOSE TILE OUTLANDER, PALAZZO DESIGN MARINE #0055.
- NT-2 WALL TILE: DAL TILE, 12x24 PORCELAIN TILE OUTLANDER, PALAZZO DESIGN MARINE #0055.
- NT-3 WALL TILE: DAL TILE 3x24 PORCELAIN BULLNOSE TILE OUTLANDER GRANDE DESIGN MARINE #0055.
- NT-4 WALL TILE: DAL TILE 12x24 PORCELAIN TILE OUTLANDER GRANDE DESIGN MARINE #0055.
- NT-5 WALL TILE: DAL TILE, 9-3/4"x9-3/4" PORCELAIN TILE OH MY DOS VENDOR #61754, ITEM #4944-481445.
- NT-6 WALL TILE: AMERICAN OLEAN, 10x24" GLAZED CERAMIC TILE, COLOR STORY, ICE WHITE #0025.
- NT-7 WALL TILE: AMERICAN OLEAN, 10x24" GLAZED CERAMIC TILE, COLOR STORY, BLACK #0044.
- NT-8 WALL TILE: AMERICAN OLEAN, 10x24" GLAZED CERAMIC TILE, COLOR STORY, LEMON ZEST #0075.
- NT-9 WALL TILE: AMERICAN OLEAN, 1/2"x12" GLAZED JOLLY TILE TRIM, COLOR STORY, BLACK #0044.
- NT-10 WALL TILE: AMERICAN OLEAN, 8"x24" GLAZED CERAMIC TILE COLOR GREEN APPLE #0076.
- NT-11 WALL TILE: DAL TILE 12 X 24 GLAZED CERAMIC TILE LUMINGUE KEAVE MALL, NAVY K184, INSTALL IN A SUBWAY PATTERN.
- NT-12 WALL TILE: EMSEER TILE, 6 X 12 WALL TILE, EXHALE CIELO, INSTALL IN A BRICK PATTERN.
- NT-13 WALL TILE: EMSEER TILE, 12"x24" PORCELAIN TILE, KUDOS #SKU F23KUD01224P, COLOR: INDIGO MATTE FINISH, SUBWAY INSTALLATION PATTERN, GROUT: T.B.D.
- NT-14 WALL TILE: EMSEER TILE, 3"x12" PORCELAIN BULLNOSE TILE KUDOS #SKU F23KUD0111224P, COLOR: INDIGO MATTE FINISH, GROUT: T.B.D.
- FRP-1 MARLITE PANELS, SYMMETRIX WITH SANI-COAT BEAD BOARD WHITE PANEL WITH WHITE GROUT. #55100 B62.
- FRP-2 MARLITE PANELS, SYMMETRIX HORIZONTAL SUBWAY PANELS, GROUT #55116.
- FRP-3 MARLITE PANELS, ARTIZAN MAX WOODGRAIN PANELS 2043 MAX OLIVWOOD MATT FINISH.
- FRP-4 MARLITE STANDARD WALL PANELS, S1005 WHITE.
- STL STAINLESS STEEL FULL HEIGHT WALL PANELS.
- NM-1 WALL MURAL: COMMERCIAL GRADE PROSTIK TYPE II CUSTOM WALL MURAL BY (MAGICHURALS.COM) MURAL DESIGN T.B.D. CONTRACTOR TO ALLOW A BUDGET COST OF \$1,100 FOR THE PURCHASE OF THE MURAL ONLY.
- NM-2 WALL MURAL: COMMERCIAL GRADE PROSTIK TYPE II CUSTOM WALL MURAL BY (MAGICHURALS.COM) MURAL DESIGN T.B.D. CONTRACTOR TO ALLOW A BUDGET COST OF \$2,500 FOR THE PURCHASE OF THE MURAL ONLY.
- NM-3 WALL MURAL: COMMERCIAL GRADE PROSTIK TYPE II CUSTOM WALL MURAL BY (MAGICHURALS.COM) MURAL DESIGN T.B.D. CONTRACTOR TO ALLOW A BUDGET COST OF \$2,500 FOR THE PURCHASE OF THE MURAL ONLY.
- S5-1 SOLID SURFACE: WILSONART, ICE STAUARIO.
- S5-2 SOLID SURFACE: CORIAN, CIRRUS WHITE.
- S5-3 SOLID SURFACE: HIMAC, BLACK #5022.
- PL-1 PLASTIC LAMINATE: WILSONART STUDIO TEAK, #1460K-18 LINEARITY FINISH.
- PL-2 PLASTIC LAMINATE: WILSONART, NATURAL, RECON #1496-38 FINE VELVET FINISH.
- PL-3 PLASTIC LAMINATE: WILSONART, WHITE TIGRES, #4783-60 MATT FINISH.
- PL-4 PLASTIC LAMINATE: WILSONART, WHITE CYPRESS #1746K-12 MATT FINISH.
- PL-5 PLASTIC LAMINATE: WILSONART, CATALINA # 18042-60 MATT FINISH.
- CC-1 COLOR CORE: FORMICA, COLOR CORE 2 GLOSS FINISH, COLOR T.B.D, FINISH.
- TP-1 SCRANTON TOILET PARTITIONS, SOLID HDPE PLASTIC, FLOOR MOUNTED, OVERHEAD BRACED. COLOR: T.B.D ORANGE PEAL FINISH.
- SP-1 SCRANTON SHOWER AND DRESSING ROOM PARTITION SYSTEM, SOLID HDPE PLASTIC, FLOOR AND CEILING MOUNTED WITH INTEGRATED HEAD RAIL, CURTAIN AND HOOKS FOR BOTH SHOWER UNIT AND DRESSING RM. COLOR: T.B.D ORANGE PEAL FINISH.
- MS-1 MECHO SHADE: SOHO COLLECTION 140 SERIES (5% OPEN) COLOR: 1414 SULLIVAN 4 SILVER BIRCH OUTSIDE MOUNT.
- MS-2 MECHO SHADE: CLASSIC BLACKOUT 0700 SERIES COLOR: 0702 LIGHT GREY OUTSIDE MOUNT.

FIRST FLOOR - FINISH PLAN

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





**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



**2ND FLOOR
FINISH PLAN,
NOTES, LEGEND
& SPECS**

Revisions	By	Date
PC CORR 1/BID ISSUE 1	DAE	4/24/26

Drawn MFM
Date 2/3/26
Project No. 2501
Scale 1/8"=1'-0"

FINISH NOTES

- ALL CONCRETE FLOORS TO BE THOROUGHLY CLEANED AND REPAIRED OF ALL CRACKS. PROVIDE KRETS (MYR) WATER PROOFING MEMBRANE AND PREPARE FOR NEW FLOOR FINISH, AS SPECIFIED.
- PAINT ALL WALLS AND GYP. BOARD CEILING WITH (2) COATS OF P-1 PAINT SEMI-GLOSS UNO.
- ALL WALLS TO RECEIVE (B-1) BASE UNO. SEE DETAIL 11/A-12.1
- PROVIDE REDUCER STRIP AT FLOOR FINISH CHANGES, PER DETAILS AS NOTED.
- ALL PAINTED WALLS TO BE PAINTED WITH DUNN EDWARDS, ACRY-MALL OR EQUAL, SEMI-GLOSS FINISH, UNO.
- ALL GYPSUM BOARD CEILINGS TO BE PAINTED DUNN EDWARDS, ACRY-MALL OR EQUAL P-1, SEMI-GLOSS FINISH, UNO.
- SEE MILLWORK ELEVATIONS FOR PLASTIC LAMINATE LOCATIONS.
- PROVIDE FRP-1 ON HALLWAY WALLS (111, 143, 148, 154, 185, 194, 202, 206, 207, 212, 219, 228, 230) AS INDICATED. INSTALL AT +48" ABOVE WALL BASE. PROVIDE ALL TRIMS J-CAP INSIDE CORNERS, OUTSIDE CORNERS, OUTSIDE LOCKERS AND DIVIDER BAR AS REQUIRED. SEE FINISH LEGEND.
- PROVIDE STAINLESS STEEL FULL HEIGHT WALL PANELS WITH S.S. TRIMS AT COOKLINE IN KITCHEN 158.
- PROVIDE SCHLUTER COVED BASE TRIM (B-3) IN ALL RESTROOMS BETWEEN FLOOR AND WALL TILE TRANSITION.
- PROVIDE FRP-3 ON ALL LOW WALL PARTITIONS WITH SOLID SURFACE 55-2 CAP AT TOP OF LOW WALL. SEE DETAIL 8/A-12.1.
- PROVIDE SCHLUTER TRIM AT ALL EXPOSED TILE EDGES UNO. JOLLY 5/16" ANODIZED ALUMINUM TRIM. PROVIDE CLEAN, STRAIGHT MITERED CORNERS. FILE AWAY ALL SHARP CORNERS AS REQUIRED.
- PROVIDE WALL TILE AT DRINKING FOUNTAIN, REFER TO ELEVATION 18/A-12 FOR FINISHES.
- INSTALL FRP 4'-0" X 8'-0" SHEETS ABOVE 6" COVED BASE. PAINT REMAINING WALLS ABOVE TO CEILING, WITH ALL MATCHING TRIM. REFER TO 10/A-4.2 FOR ELEVATOR FINISHES.
- PROVIDE LEVE 4 WALL FINISH AT ALL WALLS REGIEVING (NM) WALL MURAL. INSTALL PER MANUFATERS DIRECTIONS. CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH TIN INSTALLATION PROCESS AND ASSOCIATED LABOR AND PURCHASE OF MATERIALS AND TRIMS ASSOCIATED WITH THE REQUIRED INSTALLATION PROCESS.

FINISH PLAN KEY NOTES

- PROVIDE MECO SHADES ON ALL EXTERIOR WINDOWS.
- PROVIDE FRP-1 ON HALLWAY WALLS (111, 143, 148, 154, 185, 194, 202, 206, 207, 212, 219, 228, 230) AS INDICATED. INSTALL AT +48" ABOVE WALL BASE. PROVIDE ALL TRIMS J-CAP INSIDE CORNERS, OUTSIDE CORNERS, OUTSIDE LOCKERS AND DIVIDER BAR AS REQUIRED. SEE FINISH LEGEND.
- PAINT WALLS ABOVE FRP-1 WITH (2) COATS P-7 PAINT.
- PROVIDE STAINLESS STEEL FULL HEIGHT WALL PANELS WITH S.S. TRIMS AT COOKLINE IN KITCHEN 158.
- PROVIDE SCHLUTER COVED BASE TRIM (B-3) IN ALL RESTROOMS BETWEEN FLOOR AND WALL TILE TRANSITION.
- PROVIDE FRP-3 ON ALL LOW WALL PARTITIONS WITH SOLID SURFACE 55-2 CAP AT TOP OF LOW WALL. SEE DETAIL 8/A-12.1.
- PROVIDE SCHLUTER TRIM AT ALL EXPOSED TILE EDGES UNO. JOLLY 5/16" ANODIZED ALUMINUM TRIM. PROVIDE CLEAN, STRAIGHT MITERED CORNERS. FILE AWAY ALL SHARP CORNERS AS REQUIRED.
- PROVIDE WALL TILE AT DRINKING FOUNTAIN, REFER TO ELEVATION 18/A-12 FOR FINISHES.
- INSTALL FRP 4'-0" X 8'-0" SHEETS ABOVE 6" COVED BASE. PAINT REMAINING WALLS ABOVE TO CEILING, WITH ALL MATCHING TRIM. REFER TO 10/A-4.2 FOR ELEVATOR FINISHES.
- REFER TO 10/A-4.2 FOR ELEVATOR FINISHES.
- PROVIDE LEVE 4 WALL FINISH AT ALL WALLS REGIEVING (NM) WALL MURAL. INSTALL PER MANUFATERS DIRECTIONS. CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH TIN INSTALLATION PROCESS AND ASSOCIATED LABOR AND PURCHASE OF MATERIALS AND TRIMS ASSOCIATED WITH THE REQUIRED INSTALLATION PROCESS.

FINISH LEGEND

- B-1 WALL BASE, JOHNSONITE 4" RUBBER BASE, COLOR: T.B.D.
- B-2 WALL BASE, DAL TILE, COLOR WHEEL CLASSIC 6x6 SANITARY COVED BASE, SLIM FOOT TILE, COLOR: ARCTIC WHITE.
- B-3 BASE, SCHLUTER COVE BASE, DILEX-AHKA ANODIZED ALUMINUM FINISH.
- B-4 BASE: STAINLESS STEEL 4" SLIM FOOT COVED BASE.
- SC-1 SEALED CONCRETE FLOORS: CLEAR COAT MATTE FINISH.
- SC-2 SEALED CONCRETE FLOORS: CLEAR GREASE AND ACID RESISTANT FINISH, HEALTH DEPT. APPROVED AQUA MIX PENETRATING SEALER OR EQUAL.
- EFC-1 EPOXY FLOOR COATINGS 8" TPOVELED EPOXY FLOOR SYSTEM, COLOR: T.B.D. WITH 6" H. MIN. 3/8 SELF COVED BASE, SEE DETAIL 4/A-12.2. SUBMIT COLOR SAMPLE FOR ARCHITECT'S APPROVAL. CONTACT: CPS WEST, CRAIG HUNT, (904) 984-6100, craig@cps-west.com.
- LVT-1 LUXURY VINYL TILES, 6' X 48", SHAW CONTRACT TERRAIN II 20 MIL. STYLE #0484V, COLOR: PRINE, ASHLAR INSTALLATION.
- LVT-2 LUXURY VINYL TILES, 6' X 48", SHAW CONTRACT, TERRAIN II 20 MIL. STYLE #0484V, COLOR: ELM, ASHLAR INSTALLATION.
- FT-1 DAL TILE, MOSAIC FLOOR TILE KEYSTONES COLOR BODY PORCELAIN MOSAIC TILE BLENDS #DK16 HEXAGON 2"x2", GROUT: T.B.D.
- FT-2 DAL TILE, FLOOR TILE, ACREAGE, COLOR BODY PORCELAIN 8"x48" PLANK, STETSON ACID STAGGERED INSTALLATION, GROUT: T.B.D.
- RS BURKE RUBBER FLOORINGS STAIR SYSTEM, ENDURA ROUND PROFILE UNI STEP TREAD AND RISER IV V-1 STRIPE COLOR: TBD
- RF BURKE RUBBER FLOORINGS, ENDURA SOLID COLOR RUBBER TILES, ROUND PROFILE. COLOR: TBD
- SVT AHF SHEET VINYL, 6' SELF COVE MIXED AND VARIEGATED COLOR FROST #H52MO03.
- NT-1 WALL TILE, DAL TILE 3x24 PORCELAIN BULLNOSE TILE OUTLANDER, PALAZZO DESIGN MARINE #0055.
- NT-2 WALL TILE, DAL TILE, 12x24 PORCELAIN TILE OUTLANDER, PALAZZO DESIGN MARINE #0055.
- NT-3 WALL TILE, DAL TILE 3x24 PORCELAIN BULLNOSE TILE OUTLANDER GRANDE DESIGN MARINE #0055.
- NT-4 WALL TILE, DAL TILE 12x24 PORCELAIN TILE OUTLANDER GRANDE DESIGN MARINE #0055.
- NT-5 WALL TILE, DAL TILE, 4-3/4"x9-3/4" PORCELAIN TILE OH MY DOG VENDOR #61754, ITEM #99991-481445.
- NT-6 WALL TILE, AMERICAN OLEAN, 18x24" GLAZED CERAMIC TILE, COLOR STORY, ICE WHITE #0025.
- NT-7 WALL TILE, AMERICAN OLEAN, 18x24" GLAZED CERAMIC TILE, COLOR STORY, BLACK #0049.
- NT-8 WALL TILE, AMERICAN OLEAN, 18x24" GLAZED CERAMIC TILE, COLOR STORY, LEMON ZEST #0015.
- NT-9 WALL TILE, AMERICAN OLEAN, 1/2"x12" GLAZED JOLLY TILE TRIM, COLOR STORY, BLACK #0049.
- NT-10 WALL TILE, AMERICAN OLEAN, 8"x24" GLAZED CERAMIC TILE COLOR GREEN APPLE #0016.
- NT-11 WALL TILE, DAL TILE 12 X 24 GLAZED CERAMIC TILE LUMINIQUE MEAVE WALL, NAVY KID, INSTALL IN A SUBWAY PATTERN.
- NT-12 WALL TILE, EMSEER TILE, 6 X 12 WALL TILE, EXHALE CIELO, INSTALL IN A BRICK PATTERN.
- NT-13 WALL TILE, EMSEER TILE, 12"x24" PORCELAIN TILE, KUDOS #5KU F23KUDON1224P, COLOR: INDIGO MATTE FINISH, SUBWAY INSTALLATION PATTERN, GROUT: T.B.D.
- NT-14 WALL TILE, EMSEER TILE, 9"x12" PORCELAIN BULLNOSE TILE KUDOS #5KU F23KUDON1224P, COLOR: INDIGO MATTE FINISH, GROUT: T.B.D.
- FRP-1 MARLITE PANELS, SYMMETRIX WITH SANI-COAT BEAD BOARD WHITE PANEL WITH WHITE GROUT. #55100 B62.
- FRP-2 MARLITE PANELS, SYMMETRIX HORIZONTAL SUBWAY PANELS, GROUT 55916.
- FRP-3 MARLITE PANELS, ARTIZAN MAX WOODGRAIN PANELS 2043 MAX OLIVEMOOD MATT FINISH.
- FRP-4 MARLITE STANDARD WALL PANELS: 91005 WHITE.
- STL STAINLESS STEEL FULL HEIGHT WALL PANELS.
- NM-1 WALL MURAL: COMMERCIAL GRADE PROSTIK TYPE II CUSTOM WALL MURAL BY (MAGICMURALS.COM) MURAL DESIGN TBD. CONTRACTOR TO ALLOW A BUDGET COST OF \$1,700 FOR THE PURCHASE OF THE MURAL ONLY.
- NM-2 WALL MURAL: COMMERCIAL GRADE PROSTIK TYPE II CUSTOM WALL MURAL BY (MAGICMURALS.COM) MURAL DESIGN TBD. CONTRACTOR TO ALLOW A BUDGET COST OF \$2,000 FOR THE PURCHASE OF THE MURAL ONLY.
- NM-3 WALL MURAL: COMMERCIAL GRADE PROSTIK TYPE II CUSTOM WALL MURAL BY (MAGICMURALS.COM) MURAL DESIGN TBD. CONTRACTOR TO ALLOW A BUDGET COST OF \$2,500 FOR THE PURCHASE OF THE MURAL ONLY.
- SS-1 SOLID SURFACE: WILSONART, ICE STARUARI0.
- SS-2 SOLID SURFACE: CORIAN, CIRRIUS WHITE.
- SS-3 SOLID SURFACE: HIMAC, BLACK #5022.
- PL-1 PLASTIC LAMINATE: WILSONART STUDIO TEAK, #1960K-18 LINEARITY FINISH.
- PL-2 PLASTIC LAMINATE: WILSONART, NATURAL RECON #1996-38 FINE VELVET FINISH.
- PL-3 PLASTIC LAMINATE: WILSONART, WHITE TIGRES, #4783-60 MATT FINISH.
- PL-4 PLASTIC LAMINATE: WILSONART, WHITE CYPRESS #1976K-12 MATT FINISH.
- PL-5 PLASTIC LAMINATE: WILSONART, CATALINA # 18092-60 MATT FINISH.
- CC-1 COLOR CORE: FORMICA, COLOR CORE 2 GLOSS FINISH, COLOR TBD. FINISH
- TP-1 SCRANTON TOILET PARTITIONS, SOLID HDPE FLASIC, FLOOR MOUNTED, OVERHEAD BRACED. COLOR: TBD ORANGE FEAL FINISH.
- SP-1 SCRANTON SHOWER AND DRESSING ROOM PARTITION SYSTEM, SOLID HDP PLASTIC, FLOOR AND CEILING MOUNTED WITH INTEGRATED HEAD RAIL, CURTAIN AND HOOKS FOR BOTH SHOWER UNIT AND DRESSING RM. COLOR: TBD ORANGE FEAL FINISH.
- MS-1 MECO SHADE: SOHO COLLECTION 190 SERIES (5% OPEN) COLOR: 1919 SULLIVAN 9 SILVER BIRCH OUTSIDE MOUNT.
- MS-2 MECO SHADE: CLASSIC BLACKOUT 0700 SERIES COLOR: 0702 LIGHT GREY OUTSIDE MOUNT.

SECOND FLOOR - FINISH PLAN

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



**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



**SLAB
PLAN**

Revisions	By	Date
PC CORR 1/BID ISSUE	MMF	4/24/26

Drawn MFM
Date 2/13/26
Project No. 25011
Scale AS NOTED

SLAB PLAN LEGEND

- CURB AREAS
- TRENCH DRAIN SEE PLUMBING DRAWINGS
- PLUMBING FIXTURE, SEE PLUMBING DRAWINGS
- NEW CONCRETE SLAB AREA
- AREA FLOOR DRAIN, SEE PLUMBING DRAWINGS
- DEPRESSED SLAB AREA AT TO RECEIVE TILE FLOOR OVER THICKSET MORTAR BASE, SEE DETAIL 24 / A-14.3
- RAISED CONCRETE CURB AREA +6" A.F.F., SEE DETAIL 21-24 / A-14.3
- SHEAR WALL LOCATIONS, SEE STRUCTURAL DRAWINGS WITH POSTS AS OCCURS
- NEW CONCRETE FOOTING AT WALL, SEE STRUCTURAL DRAWINGS
- FLOOR SINK, SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION
- 18" DIAMETER FLOOR RECESS AT DRAIN AT KITCHEN AREA WITH MINIMAL SLOPE

SLAB PLAN GENERAL NOTES

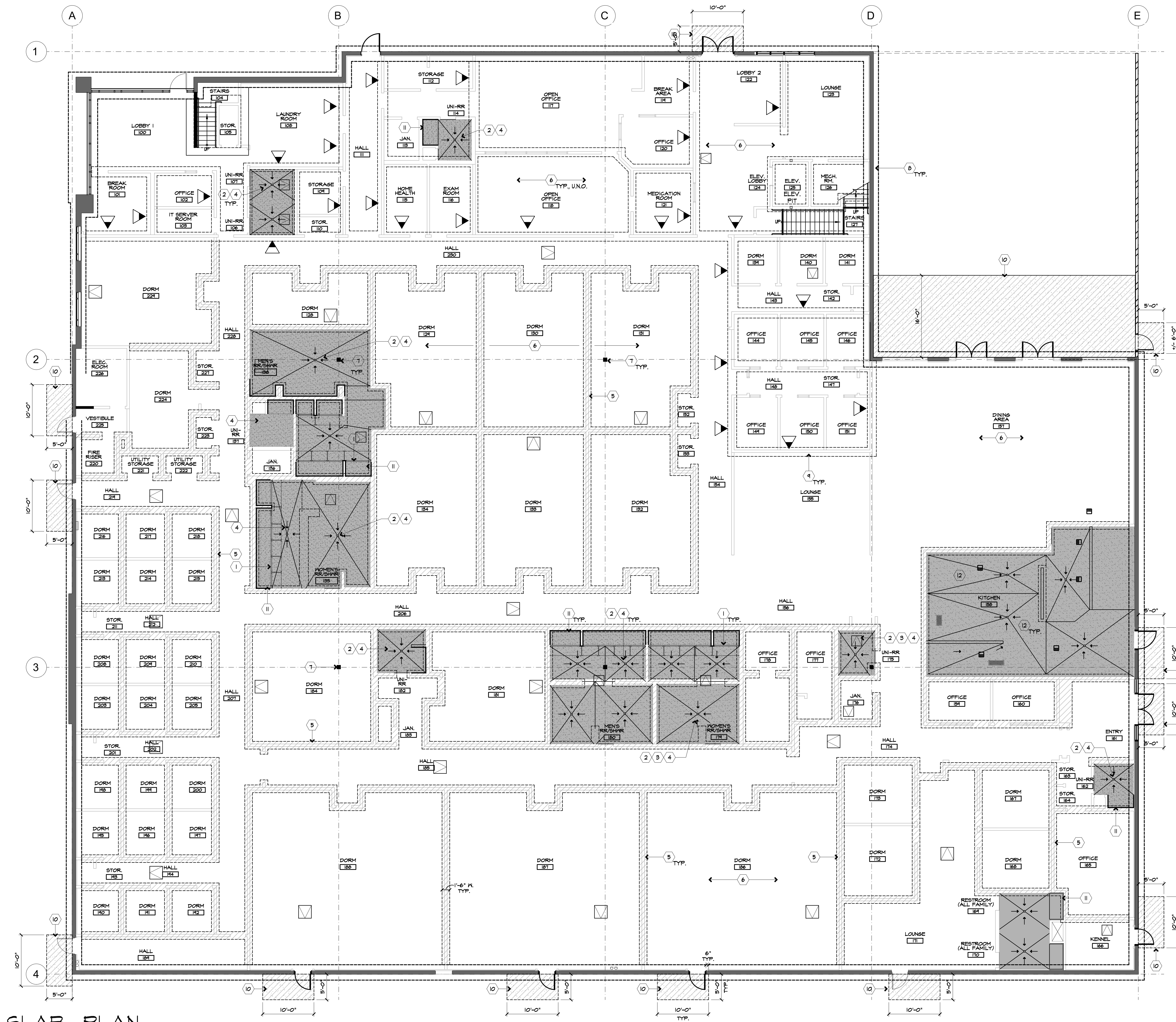
- ALL LARGE CRACKS AND DEFICIENCIES @ SLAB TO BE PREPARED AS REQUIRED TO RECEIVE NEW FINISH AS SCHEDULED.
- EXISTING CONCRETE SUBSTRATE SHALL BE PREPARED AS REQUIRED TO RECEIVE SCHEDULED FINISH. FINISHES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TESTING / REMEDIATION AS MAY BE REQUIRED FOR ACCESSIBLE INSTALLATION.
- INFILL SLAB PATCH BACK AT SANKUT SLAB AREAS TO ACCOMMODATE NEW UTILITIES WASTE LINES, ETC. REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING FOR ADDITIONAL LOCATION NOT SHOWN ON THIS PLAN.
- REFER TO FINISH PLAN AND SPECIFICATIONS FOR FINISH MATERIALS AND SPECIFICATIONS ALL PRODUCTS TO BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.
- EXISTING CONCRETE SUBSTRATE TO BE PREPARED TO RECEIVE NEW SCHEDULED FINISH. NEW FINISHES TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TESTING / REMEDIATION REQUIRED FOR AN ACCEPTABLE INSTALLATION.
- REFER TO PLUMBING DRAWINGS AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION NOT SHOWN HERE.
- ALL AREAS SERVED BY FLOOR DRAINS SHALL SLOPE MINIMUM 1/4" SLOPE PER FOOT, TYPICAL.
- FINISH FLOOR CROSS DRAINS SHALL BE 1/8" PER FOOT, TYPICAL.
- WALL HATCH/WALL TYPES NOT SHOWN HERE FOR CLARITY, SEE WALL PLANS FOR TYPES.
- FIRST FLOOR AREAS ARE CONCRETE SLAB ON GRADE. SECOND FLOOR IS PLYWOOD SUBSTRATE. NOTE (1) HOUR RATED HORIZONTAL AREAS. BUILD UP SLOPE AS REQUIRED WITH MORTAR BASE FOR SLOPE.

SLAB PLAN KEY NOTES

- NEW TRENCH DRAIN, SEE PLUMBING DRAWINGS.
- NEW FLOOR DRAIN, SEE PLUMBING DRAWINGS.
- NEW RECESSED SLAB.
- NEW SLOPED SLAB TO DRAIN, MINIMUM 1/4" PER FOOT, TYPICAL.
- NEW CONCRETE FOOTING AT WALL, SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING CONCRETE SLAB THROUGHOUT TO REMAIN EXCEPT WHERE SHOWN TO BE REMOVED OR WHERE REQUIRED FOR UTILITY SANKUT AREAS. PROVIDE SLAB PATCH BACK AT DEMOLISHED AREA, SEE STRUCTURAL DRAWINGS.
- EXISTING CONCRETE PAD FOOTING AND STRUCTURAL COLUMN AS OCCURS.
- EXISTING CONTINUOUS FOOTING AT EXTERIOR WALL, AS OCCURS.
- NEW WOOD POST OR SHEAR WALL, AS OCCURS, NOTED BY SHEAR WALL SYMBOL. SEE STRUCTURAL DRAWINGS.
- NEW SLAB ON GRADE REINFORCED CONCRETE LANDING / CONCRETE PAD. SEE SP-1.1 FOR ADDITIONAL INFORMATION.
- NEW CONCRETE CURB AT SHOWER AREAS, SEE DETAIL 21/A-14.3.
- MINIMAL DEPRESSED SLAB AT FLOOR DRAIN.

NOTE:

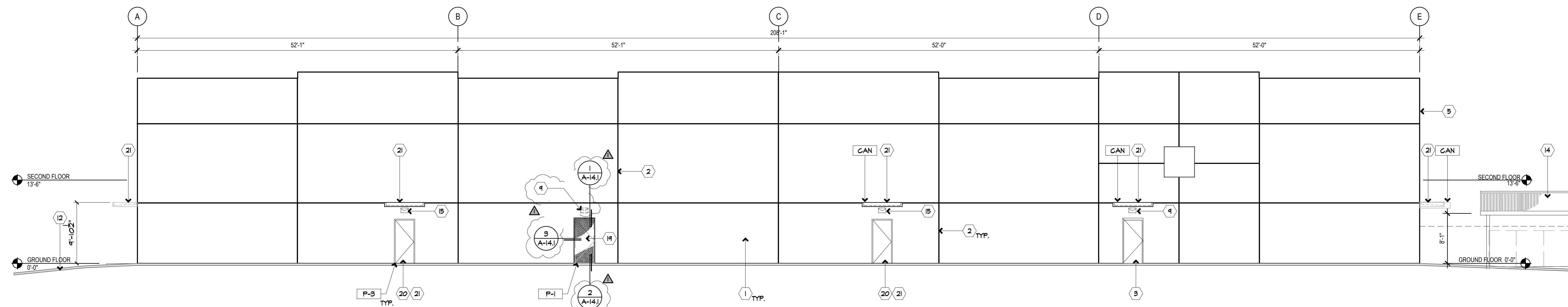
- CONCRETE SLAB REMOVED FOR NEW UTILITIES SHALL BE REPLACED WITH NEW TO ALIGN AND MATCH EXISTING, SEE IRC STANDARD AND STRUCTURAL DRAWINGS. SEE STRUCTURAL DRAWINGS FOR TIE OF CONCRETE SLAB.



SLAB PLAN

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

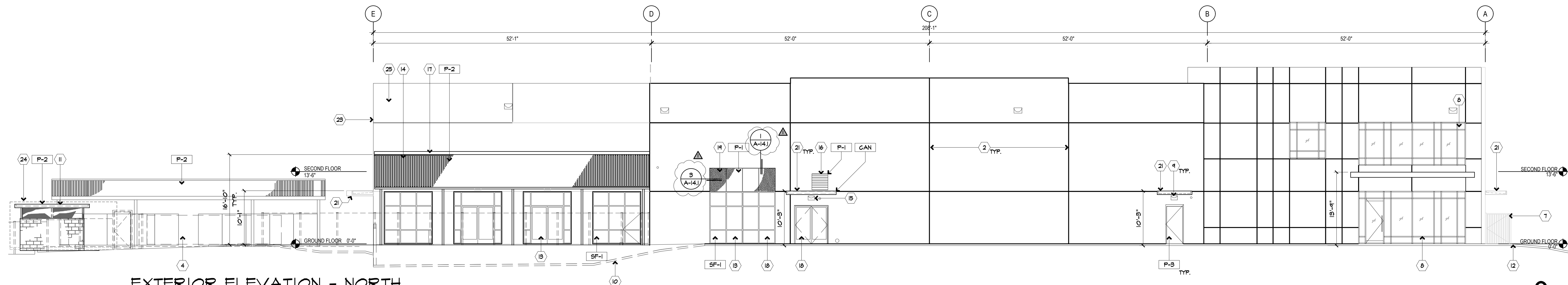




EXTERIOR ELEVATION - SOUTH

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

7



EXTERIOR ELEVATION - NORTH

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

9

ELEVATION GENERAL NOTES

- EXISTING BUILDING EXTERIOR TO BE PRESSURE WASHED AND PREPARED TO RECEIVE NEW FINISH WHERE SHOWN, SEE EXTERIOR FINISH LEGEND THIS SHEET.

EXTERIOR FINISH NOTES:

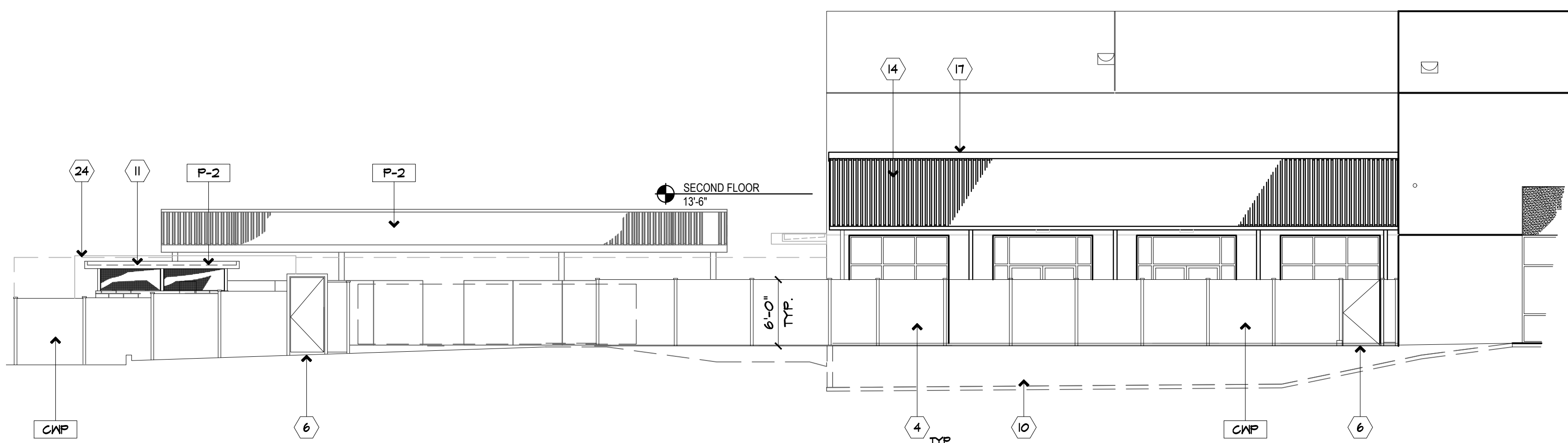
- ALL NEW EXTERIOR STOREFRONT FINISH TO BE ANODIZED ALUMINUM TO MATCH EXISTING.
- ALL NEW EXTERIOR METAL DOORS AND FRAMES TO BE PAINTED TO MATCH EXISTING EXTERIOR DOOR FINISH.
- NEW METAL ROOF STRUCTURES, PAINTED TO MATCH DUNN EDWARDS DET680 ESPRESSO MACCHIATO
- ALL NEW EXTERIOR PLASTER INFILL PAINT TO MATCH EXISTING BUILDING FINISH.
- ALL NEW EXTERIOR GUTTERS AND DOWNSPOUTS TO BE PAINTED TO MATCH EXISTING.

EXTERIOR FINISH LEGEND:

- P-1** PAINTED EXTERIOR BUILDING SURFACES, TO MATCH EXISTING BUILDING
- P-2** PAINT AT METAL, ROOFS /POSTS ETC. DUNN EDWARDS DET680 ESPRESSO MACCHIATO
- P-3** PAINT AT METAL, DOORS / FRAMES MATCH EXISTING
- EXT-1** EXTERIOR PLASTER TEXTURE FINISH OVER FRAMING TO MATCH EXISTING
- CMP-1** COMPOSITE FENCE PANEL: FIBERON, WILDWOOD EDEN COLLECTION COLOR: KOA
- SF-1** STOREFRONT SYSTEM: FINISH, CLEAR ANODIZED ALUMINUM
- CAN** CANOPY: PREFABRICATED AWNINGS, LUMISHADE, 8" C-CHANNEL COLOR, KYMAR, MAPES BRONZE

ELEVATION NOTES

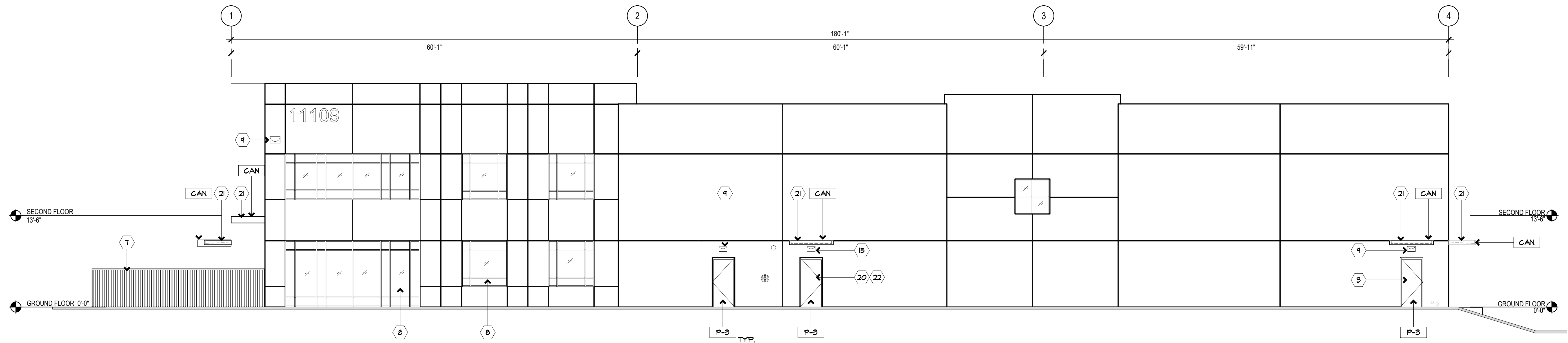
- EXISTING CONCRETE TILT UP EXTERIOR WALL.
- EXISTING PANEL JOINT AT EXTERIOR WALL.
- EXISTING STEEL MAN DOOR.
- NEW SOLID FENCING AT PERIMETER. REFER TO FINISH LEGEND CMP-1
- EXISTING ROOF DRAIN DOWNSPOUT.
- NEW GATES TO MATCH FENCE.
- EXISTING W.I. GATE AND FENCE.
- EXISTING STOREFRONT GLAZING SYSTEM.
- EXISTING WALL MOUNTED LIGHT FIXTURE AT EXTERIOR (DEMOLISH AT ABANDONED DOOR LOCATIONS).
- EXISTING RECESSED TRUCK WELL TO BE INFILLED, SEE SITE PLAN FOR ADDITIONAL INFORMATION.
- EXISTING CMU TRASH ENCLOSURE WITH NEW ROOF.
- LINE OF EXISTING LANDSCAPE/GRADING, SEE CIVIL DRAWINGS.
- NEW STOREFRONT GLAZING SYSTEM, SEE SCHEDULE.
- NEW SLOPED METAL ROOF STRUCTURE AND METAL ROOF, PAINT PER SCHEDULE.
- NEW WALL MOUNTED LIGHT FIXTURE AT EXTERIOR DOOR, SEE ELECTRICAL DRAWINGS.
- EXISTING LOUVER TO REMAIN, PROVIDE WEATHERPROOFING WITH MOISTURE RESISTANT GYP. BOARD OVER WRB AT INTERIOR SIDE OF LOUVER.
- NEW METAL FLASHING AT PARAPET, PAINT TO MATCH ROOF.
- NEW TEMPERED STOREFRONT GLAZING ENTRY SYSTEM OR WINDOW, SEE SCHEDULE. SOLAR BAN 60 ACQUITY UNO.
- NEW EXTERIOR PLASTER/METAL STUD INFILL WHERE EXISTING DOOR HAS BEEN REMOVED, SEE DETAILS ON SHEET A-14.1. FINISH TO MATCH ADJACENT BUILDING FINISH.
- SAW CUT EXISTING CONCRETE PANEL TO ACCOMMODATE NEW DOOR OR WINDOW, SEE PLAN, SHEET A-1.1 AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- NEW PREFABRICATED CANOPY STRUCTURE OVER EXTERIOR DOOR, SEE DETAIL 24 AND 25/A-14 FOR ADDITIONAL INFORMATION. REFER TO FINISH LEGEND.
- NEW MAN DOOR, SEE SCHEDULE. PAINT TO MATCH EXISTING EXTERIOR DOORS
- NEW GUTTER AND DOWNSPOUT, SEE PLAN.
- LINE OF METAL CONTAINER BEYOND.
- EXISTING CONCRETE TRUCKWELL WALL, SAWCUT FOR NEW GATE. PAINT FINISH.



ENLARGED ENTRY - NORTH ELEVATION

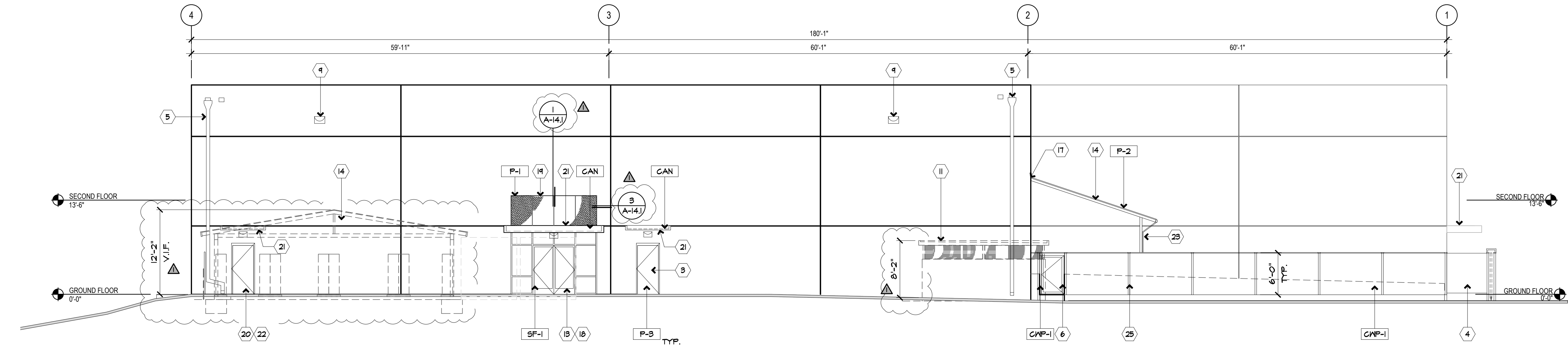
SCALE: 1/4" = 1'-0"

15



EXTERIOR ELEVATION - WEST
SCALE: 1/8" = 1'-0"

6



EXTERIOR ELEVATION - EAST
SCALE: 1/8" = 1'-0"

8

ELEVATION GENERAL NOTES

1. EXISTING BUILDING EXTERIOR TO BE PRESSURE WASHED AND PREPARED TO RECEIVE NEW FINISH WHERE SHOWN, SEE EXTERIOR FINISH LEGEND THIS SHEET.

EXTERIOR FINISH NOTES:

1. ALL NEW EXTERIOR STOREFRONT FINISH TO BE ANODIZED ALUMINUM TO MATCH EXISTING.
2. ALL NEW EXTERIOR METAL DOORS AND FRAMES TO BE PAINTED TO MATCH EXISTING EXTERIOR DOOR FINISH.
3. NEW METAL ROOF STRUCTURES.
4. ALL NEW EXTERIOR PLASTER INFILL PAINT TO MATCH EXISTING BUILDING FINISH.
5. ALL NEW EXTERIOR GUTTERS AND DOWNSPOUTS TO BE PAINTED TO MATCH EXISTING.
6. APEX AT MECHANICAL SCREEN.

EXTERIOR FINISH LEGEND:

- P-1 PAINTED EXTERIOR BUILDING SURFACES, TO MATCH EXISTING BUILDING
P-2 PAINT AT METAL: ROOFS /POSTS ETC. DUNN EDWARDS DET680 ESPRESSO MACCHIATO
P-3 PAINT AT METAL: DOORS / FRAMES MATCH EXISTING
EXT-1 EXTERIOR PLASTER TEXTURE FINISH OVER FRAMING TO MATCH EXISTING
CMP-1 COMPOSITE FENCE PANEL: FIBERON, WILDWOOD EDEN COLLECTION COLOR: KOA
SF-1 STOREFRONT SYSTEM: ARCADIA SYSTEM: FINISH, CLEAR ANODIZED ALUMINUM
CAN CANOPY: PREFABRICATED AWNING: LUMISHADE, 8' C-CHANNEL COLOR: KYNAR, MAPES BRONZE

ELEVATION NOTES

- 1 EXISTING CONCRETE TILT UP EXTERIOR WALL.
2 EXISTING PANEL JOINT AT EXTERIOR WALL.
3 EXISTING STEEL MAN DOOR.
4 NEW SOLID FENCING AT PERIMETER. REFER TO FINISH LEGEND CMP-1
5 EXISTING ROOF DRAIN DOWNSPOUT.
6 NEW GATES TO MATCH FENCE.
7 EXISTING M.I. GATE AND FENCE.
8 EXISTING STOREFRONT GLAZING SYSTEM.
9 EXISTING WALL MOUNTED LIGHT FIXTURE AT EXTERIOR.
10 EXISTING RECESSED TRUCK WELL TO BE INFILLED, SEE SITE PLAN FOR ADDITIONAL INFORMATION.
11 EXISTING CMU TRASH ENCLOSURE WITH NEW ROOF.
12 LINE OF EXISTING LANDSCAPE/GRADING, SEE CIVIL DRAWINGS.
13 NEW STOREFRONT GLAZING SYSTEM, SEE SCHEDULE.
14 NEW SLOPED METAL ROOF STRUCTURE AND METAL ROOF, PAINT PER SCHEDULE.
15 NEW WALL MOUNTED LIGHT FIXTURE AT EXTERIOR DOOR, SEE ELECTRICAL DRAWINGS.
16 EXISTING LOUVER TO REMAIN, PROVIDE WEATHERPROOFING WITH MOISTURE RESISTANT GYP. BOARD OVER WRB AT INTERIOR SIDE OF LOUVER.
17 NEW METAL FLASHING AT PARAPET, PAINT TO MATCH ROOF.
18 NEW TEMPERED STOREFRONT GLAZING ENTRY SYSTEM OR WINDOW, SEE SCHEDULE. SOLOAR BAN 60 ACUTY U.N.O.
19 NEW EXTERIOR PLASTER/METAL STUD INFILL WHERE EXISTING DOOR HAS BEEN REMOVED, SEE DETAILS ON SHEET A-14.1. FINISH TO MATCH ADJACENT BUILDING FINISH.
20 SAW CUT EXISTING CONCRETE PANEL TO ACCOMMODATE NEW DOOR OR WINDOW, SEE PLAN, SHEET A-1.1 AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
21 NEW PREFABRICATED CANOPY STRUCTURE OVER EXTERIOR DOOR, SEE DETAIL 24 AND 25/A-14.1 FOR ADDITIONAL INFORMATION. REFER TO FINISH LEGEND
22 NEW MAN DOOR, SEE SCHEDULE. PAINT TO MATCH EXISTING EXTERIOR DOORS
23 NEW GUTTER AND DOWNSPOUT, SEE PLAN.
24 LINE OF METAL CONTAINER BEYOND.
25 EXISTING CONCRETE TRUCKWELL WALL, SAWCUT FOR NEW GATE. PAINT FINISH.

STAMP



CONSULTANT

PROJECT

WEST END
REGIONAL
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



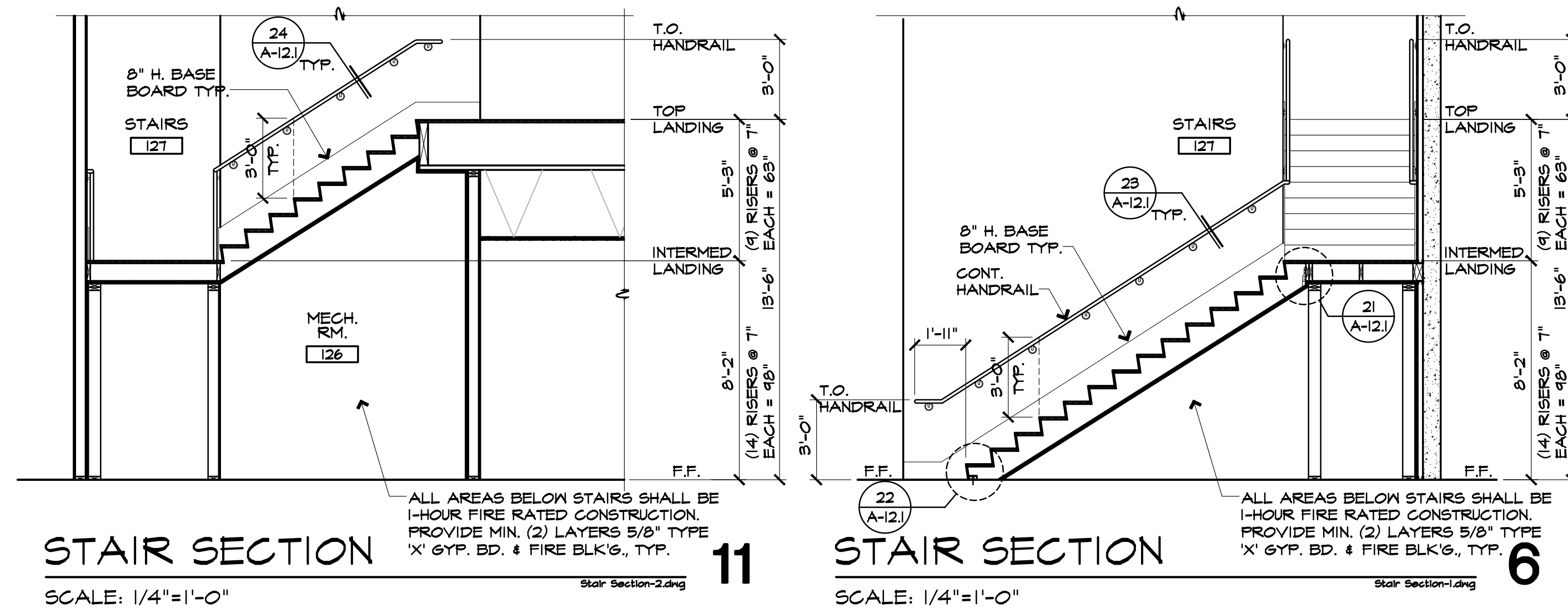
TITLE

EAST & WEST
EXTERIOR
ELEVATIONS,
BUILDING SECTIONS
& NOTES

Revisions	By	Date
1 PC CORR 1/BID ISSUE	DAE	4/24/26

Drawn	MFM
Date	2/3/26
Project No.	25011
Scale	AS NOTED

Sheet

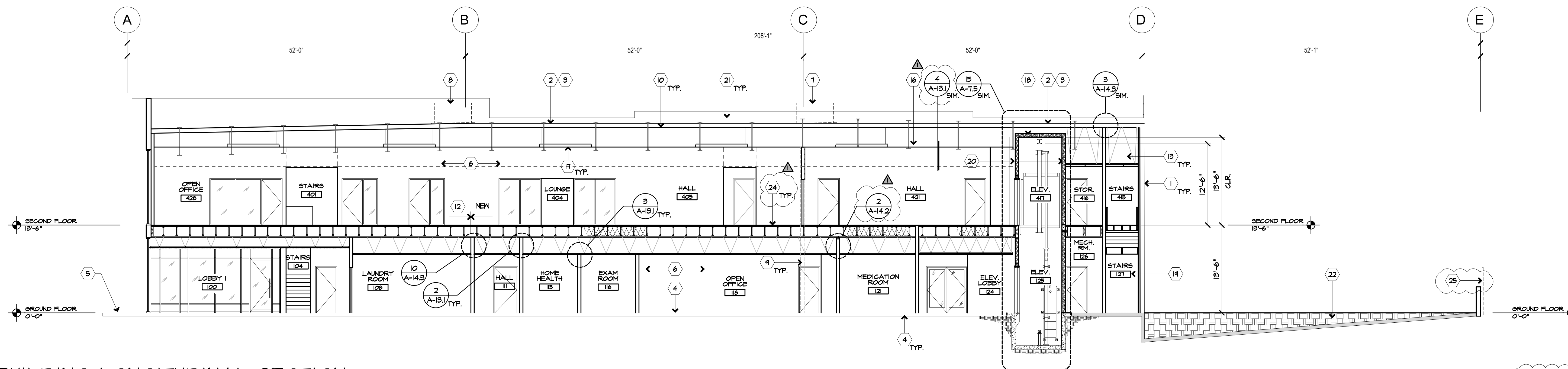


STAIR SECTION

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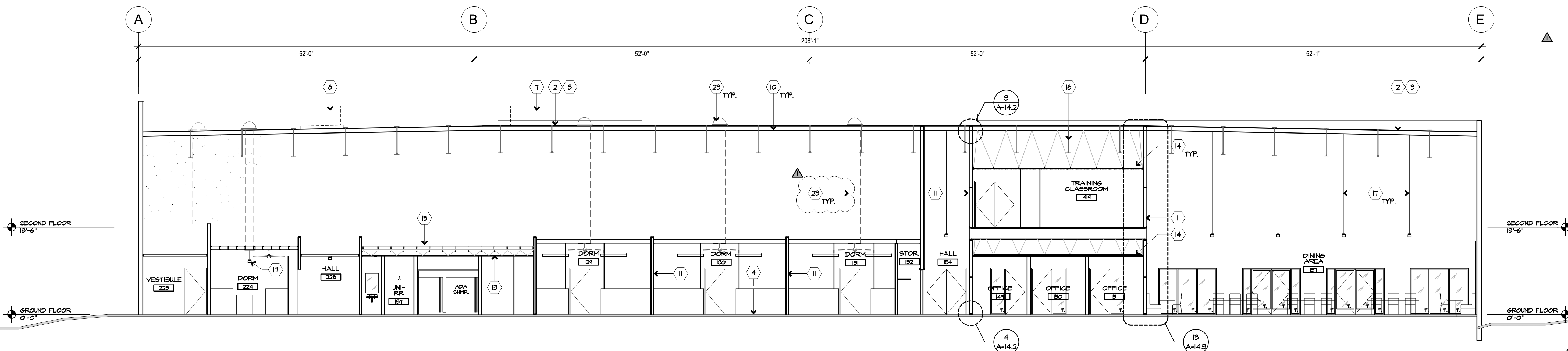
STAIR SECTION

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



BUILDING LONGITUDINAL SECTION

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



BUILDING LONGITUDINAL SECTION

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

SECTION NOTES:

- EXISTING CONCRETE PANEL TILT UP WALL AND FOOTINGS.
- EXISTING ROOF FRAMING.
- EXISTING ROOFING TO REMAIN.
- EXISTING CONCRETE SLAB ON GRADE.
- EXISTING FINISH GRADE OR FINISH HARDSCAPE, SEE PLAN.
- NEW CONSTRUCTION, SEE CONSTRUCTION PLAN FOR ADDITIONAL INFORMATION.
- NEW MECHANICAL EQUIPMENT WITH PLATFORM, SEE ROOF PLAN, MECHANICAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING MECHANICAL UNIT, SEE MECHANICAL DRAWINGS.
- EXISTING COLUMN AS OCCURS.
- NEW INSULATION AT ROOF AREA, AS INDICATED ON MECHANICAL DRAWINGS AND TITLE-24 FORMS.
- METAL STUD DEMISING/SEPARATION PARTITION WALL FULL HEIGHT TO STRUCTURE ABOVE, SEE CONSTRUCTION FLOOR PLAN WALL LEGEND FOR SPECIFICATION.
- EXISTING FLOOR FRAMING AS OCCURS.
- SUSPENDED GYP. BOARD CEILING, SUSPEND FROM STRUCTURE ABOVE. SEE 15/A-13.1 FOR ADDITIONAL INFORMATION.
- SUSPENDED ACOUSTIC TILE CEILING SYSTEM, SUSPEND FROM STRUCTURE ABOVE, SEE 23/A-13.1 FOR ADDITIONAL INFORMATION. SEE REFLECTED CEILING PLAN.
- NEW JOISTED GYPSUM BOARD CEILING, HEIGHT AS NOTED ON PLAN, U.N.O.
- EXISTING ROOF TRUSS.
- SUSPENDED LIGHT FIXTURE, SEE REFLECTED CEILING PLAN.
- NEW ELEVATOR RATED ASSEMBLY.
- ONE HOUR RATED ASSEMBLY AT STAIR CASE.
- ELEVATOR SHAFT ASSEMBLY AND HOIST WAY, SEE PLAN.
- EXISTING SKYLIGHT TO REMAIN.
- NEW COMPACTED FILL WITH TOP SOIL SURFACE AT INFILLED TRUCK WELL AREA, SEE PLAN.
- NEW SOLATUBE SKYLIGHT, SEE 11 & 12/A-14.1 AND A-2.1 / A-2.2 FOR SPECIFICATIONS.
- NEW FLOOR FRAMING, SEE STRUCTURAL DRAWINGS.
- NEW FENCE SCREEN AT SITE, SEE PLAN.

STAMP



CONSULTANT

PROJECT

WEST END
REGIONAL
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

BUILDING
LONGITUDINAL
SECTIONS
& NOTES

Revisions	By	Date
1	PC	4/24/26
2		
3		
4		
5		
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Drawn	MFM
Date	2/13/26
Project No.	25011
Scale	AS NOTED

Sheet

A-6.4



CONSULTANT

PROJECT
**WEST END
REGIONAL
NAVIGATION
CENTER**
11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



TITLE
**ENLARGED
RESTROOMS
PLANS & NOTES
ROOM 135, 137
& 138**

Revisions	By	Date
1. PC CORR 1/BID ISSUE	DAE	4/24/26

Sheet **A-7.1**

GENERAL TOILET ROOM NOTES

- ALL DIMENSIONS ARE TO FACE OF FINISH OR CENTERLINE OF FIXTURE AS INDICATED.
- PROVIDE NEW BELOW COUNTER TRAP AND HOT WATER INSULATION PER DETAIL 4/A-11.1 TYPICAL THROUGHOUT.
- REFER TO DETAILS 8 AND 9/A-11.1 FOR TYPICAL ACCESSORY INSTALLATION.
- REFER TO FINISH PLANS FOR FINISH SPECIFICATIONS AND LEGEND ON SHEET A-4.1 AND A-4.2.
- CONTRACTOR TO V.I.F. ALL DIMENSIONS PRIOR TO THE WORK AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- REFER TO PLUMBING ENGINEERING DRAWINGS FOR FIXTURE SCHEDULE, SPECIFICATIONS OF WATER CLOSETS, URINAL, LAVATORIES, FAUCETS AND INFORMATION NOT SHOWN HERE.
- REFER TO RESTROOM ACCESSORIES LEGEND, THIS SHEET FOR SPECIFICATIONS.
- REFER TO 14/A-11.1 FOR TYPICAL FIXTURE LOCATIONS, GRAB BAR CONFIGURATIONS AND ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

RESTROOM ACCESSORIES LEGEND

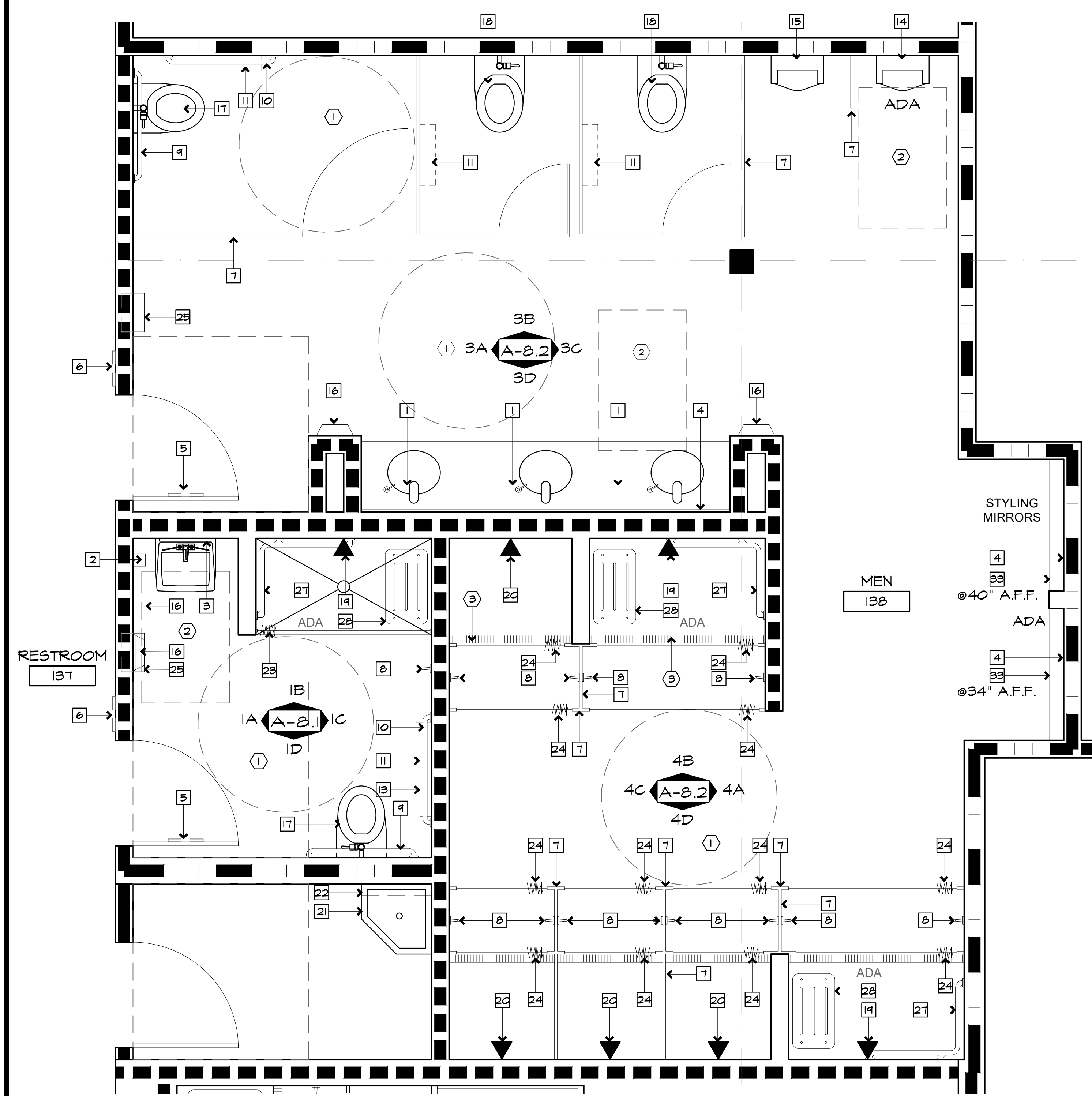
- PROVIDE COUNTER MOUNTED AUTOMATIC SENSOR SOAP DISPENSER; BOBRICK, B-824
- WALL MOUNTED AUTOMATIC SENSOR SOAP DISPENSER; BOBRICK, B-2012
- MIRROR: BOBRICK #B-240-1836 SERIES (OR EQUAL), 18" N x 36" H. BOTTOM OF REFLECTIVE SURFACE @ 40" A.F.F.
- MIRROR: BOBRICK #B-240 SERIES (OR EQUAL) FULL WIDTH x 44" H. BOTTOM OF REFLECTIVE SURFACE @ 40" A.F.F.
- DOOR MOUNTED SIGN, SEE DETAILS 14 & 15/A-11.1.
- WALL MOUNTED SIGN, SEE DETAIL 9/A-11.1.
- SCRANTON, FLOOR MOUNTED OVERHEAD BRACED HIGH DENSITY PLASTIC TOILET PARTITIONS (TP-1) AND/OR SHOWER PARTITIONS (SP-1). AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 4" MIN. ABOVE FINISH FLOOR AND 6" DEEP MIN. BEYOND COMPARTMENT SIDE FACE OF PARTITION. SEE FINISH LEGEND ON SHEET A-4.1.
- TOWEL HOOK: BOBRICK #B-216 TYP. AT EACH SHOWER STALL, MOUNT AT 44" MAX. A.F.F. @ ACCESSIBLE STALL, 60" A.F.F. @ STANDARD STALL. (2) HOOKS PER STALL.
- GRAB BAR: BOBRICK #B-5806X36 OR EQUAL, 36" L. REAR MOUNTED PER DETAIL 14/A-11.1.
- GRAB BAR: BOBRICK #B-5806X48 OR EQUAL, 48" L. SIDE MOUNTED PER DETAIL 14/A-11.1.
- SURFACE MOUNTED TOILET TISSUE DISPENSER; BOBRICK, B-2842
- SURFACE MOUNTED TOILET SEAT COVER DISPENSER; BOBRICK, B-221, SEE DETAIL 18/A-1.4.
- SURFACE MOUNTED SANITARY NAPKIN DISPOSAL; BOBRICK, B-254
- ACCESSIBLE URINAL, SEE DETAIL 20/A-11.1 AND PLUMBING DRAWINGS.
- STANDARD URINAL, SEE PLUMBING DRAWINGS.
- WALL MOUNTED ELECTRIC HAND DRYER; BOBRICK, B-1125 SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
- ACCESSIBLE TOILET, SEE PLUMBING DRAWINGS AND 14/A-11.1.
- STANDARD TOILET, SEE PLUMBING DRAWINGS.
- ACCESSIBLE ADJUSTABLE SHOWER SPRAY UNIT WITH 54" LONG HOSE AND MIXING VALVE, SEE PLUMBING DRAWINGS.
- STANDARD SHOWER SPRAY UNIT WITH MIXING VALVE, SEE PLUMBING DRAWINGS.
- JANITOR'S SERVICE SINK 24" x 8" SEE PLUMBING DRAWINGS
- REGENCY SPACE SOLUTIONS 24" LONG FIXED SHELF WITH UTILITY HOOKS, #600NSUB24.
- PROVIDE BOBRICK SHOWER OR TUB CURTAIN #204-3, ROD #B-610TX60, AND HOOKS #204-1.
- PROVIDE SCRANTON, HEAVY DUTY COMMERCIAL GRADE SHOWER CURTAIN AND HOOKS SYSTEM TO WORK WITH SCRANTON SHOWER COMPONENTS. PROVIDE CUT SHEET TO ARCHITECTS FOR APPROVAL.
- PROVIDE SEMI-RECESSED 12 GALLON TRASH RECEPTACLE; BOBRICK, B-3644.
- ACCESSIBLE ADJUSTABLE TUB / SHOWER SPRAY UNIT, SEE PLUMBING DRAWINGS.
- BOBRICK B-58616 TWO-WALL GRAB BAR, 1-1/4" DIA. 24" x 36", SEE DETAIL 5/A-11.1.
- BOBRICK B-5143 RECTANGULAR FOLDING SHOWER SEAT, SEE DETAIL 5/A-11.1.
- GRAB BAR: BOBRICK #B-5806X24 OR EQUAL, 24" L. AT ADA TUB. SEE DETAIL XX/XX.
- GRAB BAR: BOBRICK #B-5806X18 OR EQUAL, 18" L. AT ADA TUB. SEE DETAIL XX/XX.
- TUB SEAT: SEACHROME, #STSB-300150-TWA, REMOVABLE SEAT, 30"x15" WITH ADJUSTABLE POSTS.
- ACCESSIBLE TUB, SEE PLUMBING DRAWINGS.
- STAINLESS STEEL SHELF; BOBRICK #B-245 SERIES, FULL WIDTH PER PLAN X 5"D.
- WOOD-WALL: MIRROR: MATTHEWSON, CASTIR SOLID WOOD FLAT WALL MIRROR 36" x 36", SKU #11006849 COLOR: BLACK

PARTIAL ENLARGED PLAN KEY NOTES

- 5'-0" DIA. CLEAR FLOOR AREA CLEAR OF OBJECTS FROM FLOOR TO 12" A.F.F. TYP. SEE ACC-3 FOR CLEAR DIMENSIONS.
- 30" x 48" CLEAR FLOOR AREA CLEAR OF OBJECTS FROM FLOOR TO 12" A.F.F. TYP. SEE ACC-3 FOR CLEAR DIMENSIONS.
- FLOOR TRENCH DRAIN, SEE PLUMBING DRAWINGS.
- PROVIDE ALL REQUIRED DIMENSIONS AS NOTED IN CONFIGURATION AS ON DETAIL 5/ACC-3.

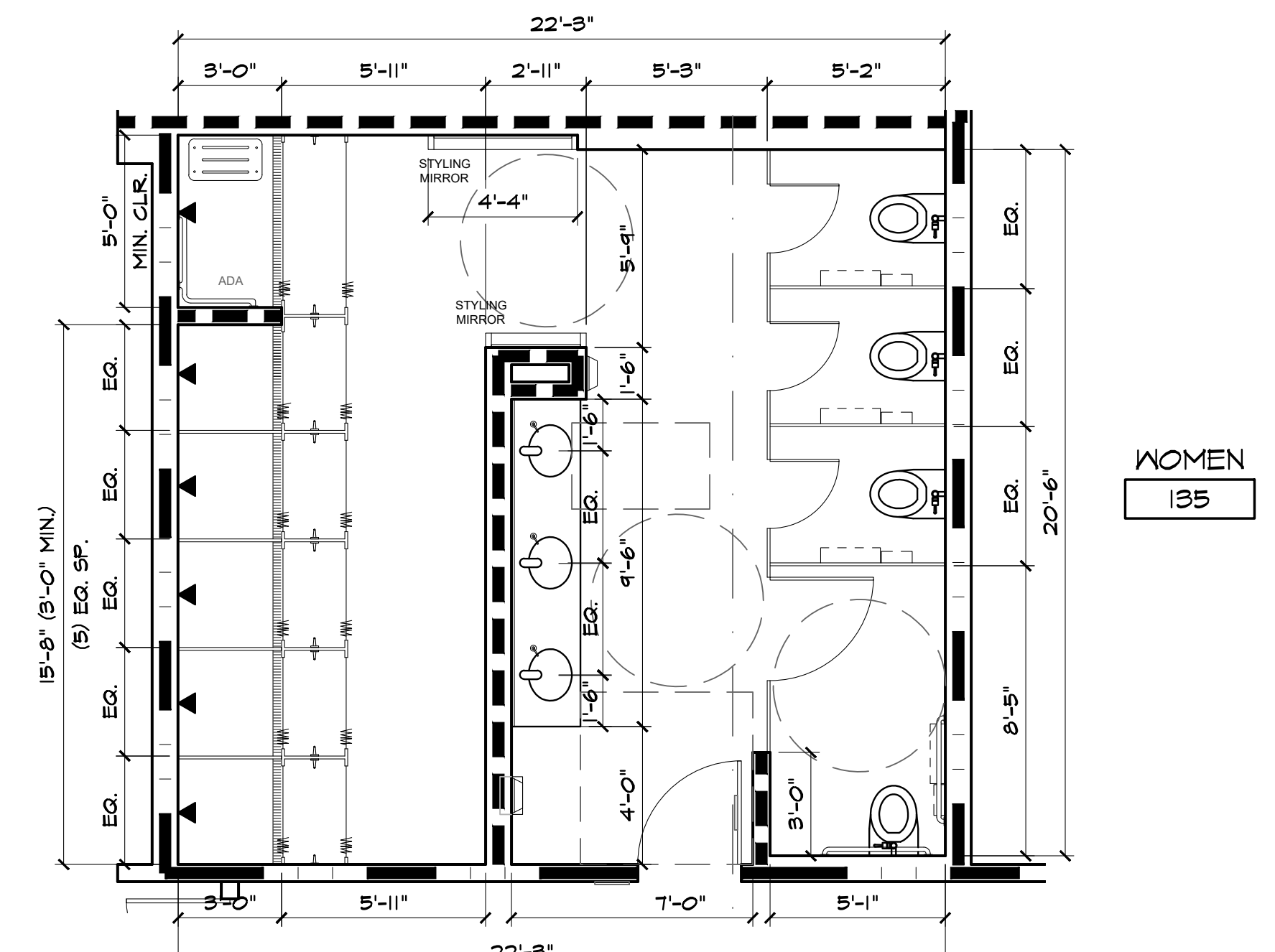
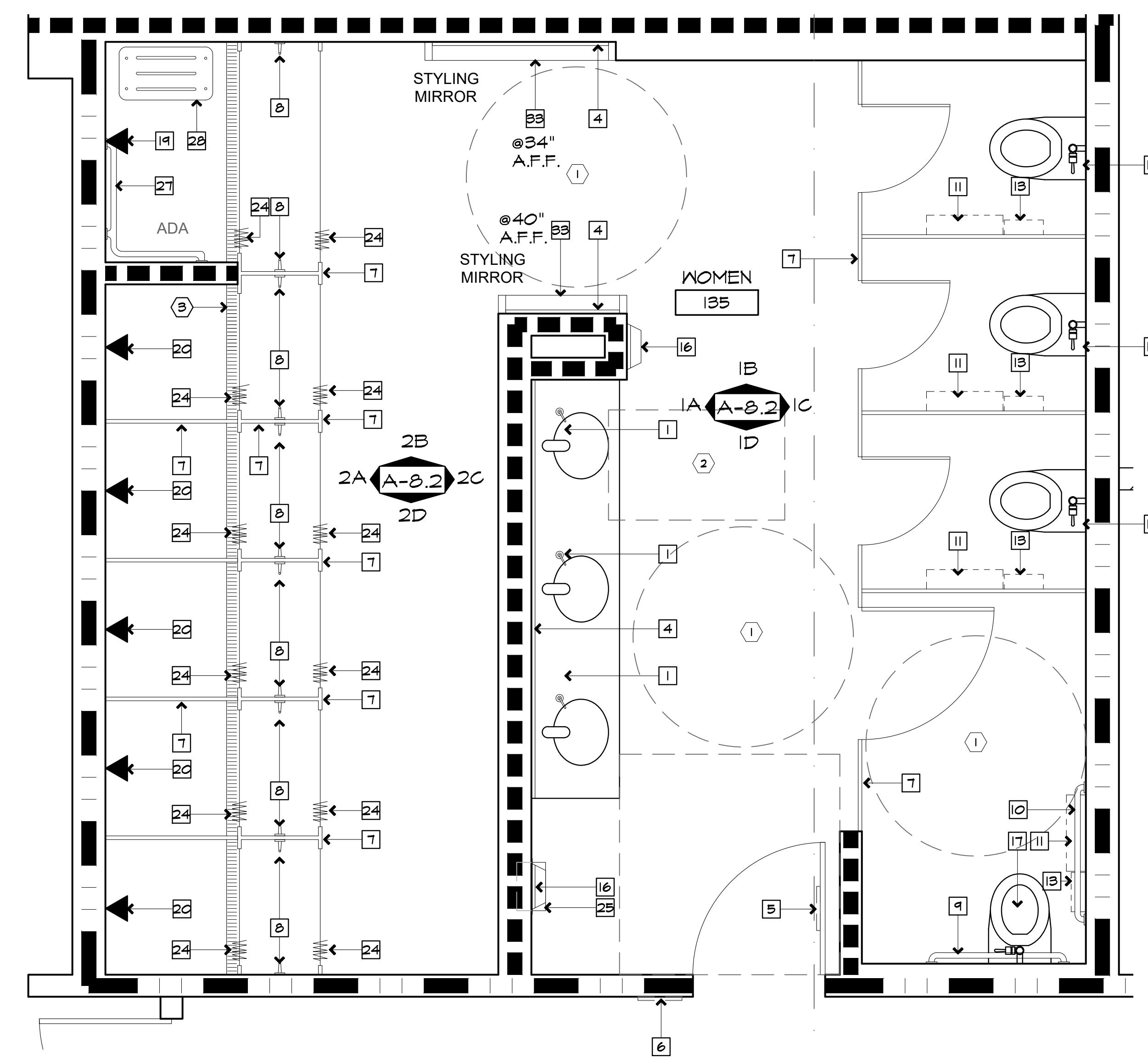
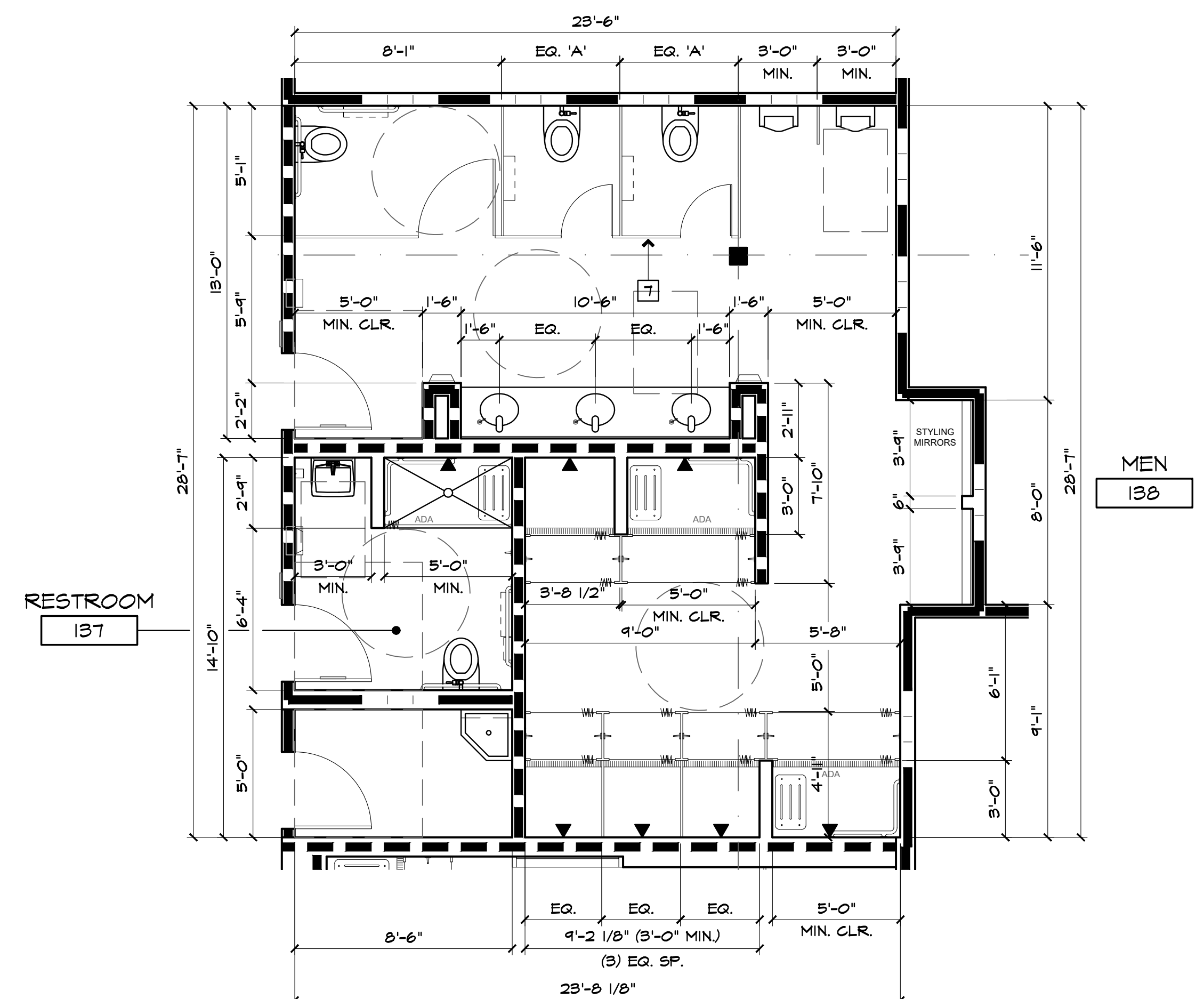
NOTE:

- REFER TO LARGE SCALE ENLARGED PLANS, THIS AREA, FOR ADDITIONAL INFORMATION, SEE DETAIL 8, THIS SHEET.



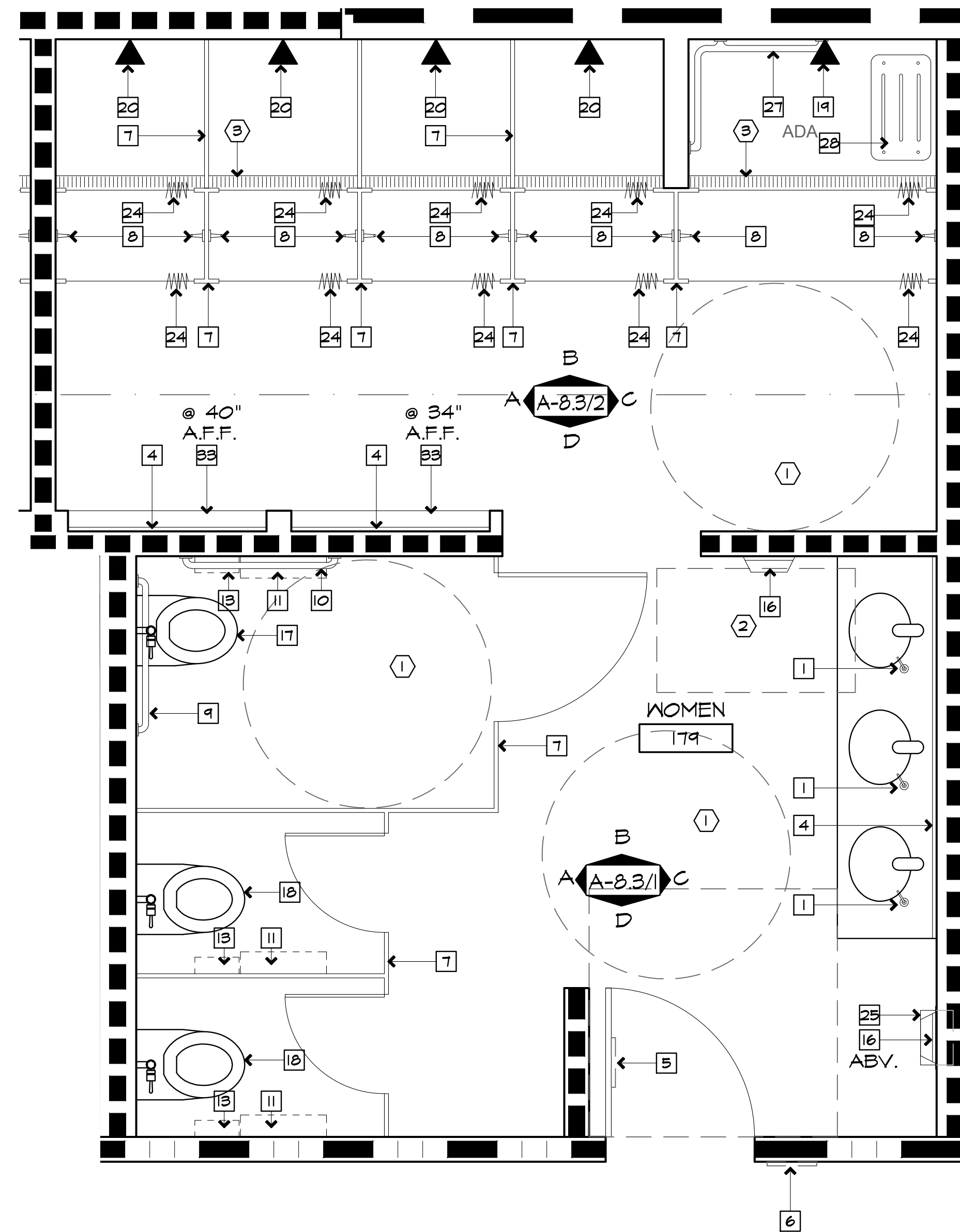
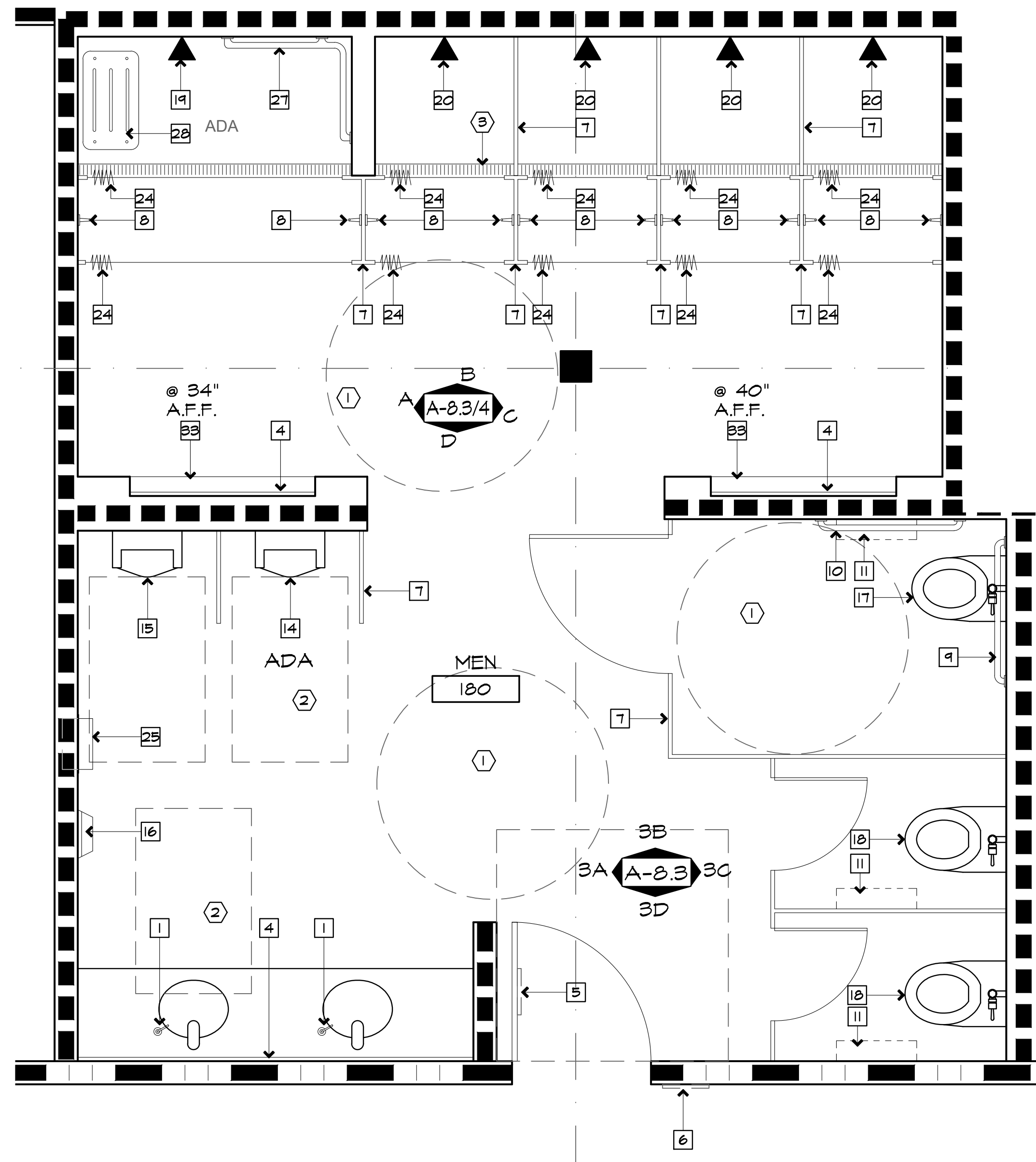
RESTROOM RM. 137, MEN RESTROOM RM. 138, WOMEN RESTROOM RM. 135

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



PARTIAL ENLARGED DIMENSIONED PLAN - WOMEN 135, RESTROOM 137 & MEN 138

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



GENERAL TOILET ROOM NOTES

- ALL DIMENSIONS ARE TO FACE OF FINISH OR CENTERLINE OF FIXTURE AS INDICATED.
- PROVIDE NEW BELOW COUNTER TRAP AND HOT WATER INSULATION PER DETAIL 4/A-1.1 TYPICAL THROUGHOUT.
- REFER TO DETAILS 8 AND 9/A-1.1 FOR TYPICAL ACCESSORY INSTALLATION.
- REFER TO FINISH PLANS FOR FINISH SPECIFICATIONS AND LEGEND ON SHEET A-4.1 AND A-4.2.
- CONTRACTOR TO V.I.F. ALL DIMENSIONS PRIOR TO THE WORK AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- REFER TO PLUMBING ENGINEERING DRAWINGS FOR FIXTURE SCHEDULE, SPECIFICATIONS OF WATER CLOSETS, URINAL, LAVATORIES, FAUCETS AND INFORMATION NOT SHOWN HERE.
- REFER TO RESTROOM ACCESSORIES LEGEND, THIS SHEET FOR SPECIFICATIONS.
- REFER TO 19/A-1.1 FOR TYPICAL FIXTURE LOCATIONS, GRAB BAR CONFIGURATIONS AND ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

RESTROOM ACCESSORIES LEGEND

- PROVIDE COUNTER MOUNTED AUTOMATIC SENSOR SOAP DISPENSER; BOBRICK; B-824
- WALL MOUNTED AUTOMATIC SENSOR SOAP DISPENSER; BOBRICK; B-2012
- MIRROR; BOBRICK #B-240-1836 SERIES (OR EQUAL), 18" N x 36" H. BOTTOM OF REFLECTIVE SURFACE @ +40" A.F.F.
- MIRROR; BOBRICK #B-240 SERIES (OR EQUAL) FULL WIDTH X 44" H. BOTTOM OF REFLECTIVE SURFACE @ +40" A.F.F.
- DOOR MOUNTED SIGN, SEE DETAILS 14 & 15/A-1.1.
- WALL MOUNTED SIGN, SEE DETAIL 9/A-1.1.
- SCRANTON, FLOOR MOUNTED OVERHEAD BRACED HIGH DENSITY PLASTIC TOILET PARTITIONS (TP-1) AND/OR SHOWER PARTITIONS (SP-1), AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 4" MIN. ABOVE FINISH FLOOR AND 6" DEEP MIN. BEYOND COMPARTMENT SIDE FACE OF PARTITION. SEE FINISH LEGEND ON SHEET A-4.1.
- TOILET HOOK; BOBRICK #B-216 TYP. AT EACH SHOWER STALL, MOUNT AT +44" MAX. A.F.F. @ ACCESSIBLE STALL, 60" A.F.F. @ STANDARD STALL. (2) HOOKS PER STALL.
- GRAB BAR; BOBRICK #B-5806X36 OR EQUAL, 36" L. REAR MOUNTED PER DETAIL 19/A-1.1.
- GRAB BAR; BOBRICK #B-5806X48 OR EQUAL, 48" L. SIDE MOUNTED PER DETAIL 19/A-1.1.
- SURFACE MOUNTED TOILET TISSUE DISPENSER; BOBRICK; B-2842
- SURFACE MOUNTED TOILET SEAT COVER DISPENSER; BOBRICK; B-221, SEE DETAIL 18/A-1.4.
- SURFACE MOUNTED SANITARY NAPKIN DISPOSAL; BOBRICK; B-254
- ACCESSIBLE URINAL, SEE DETAIL 20/A-1.1 AND PLUMBING DRAWINGS.
- STANDARD URINAL, SEE PLUMBING DRAWINGS.
- WALL MOUNTED ELECTRIC HAND DRYER; BOBRICK; B-7125 SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
- ACCESSIBLE TOILET, SEE PLUMBING DRAWINGS AND 19/A-1.1.
- STANDARD TOILET, SEE PLUMBING DRAWINGS.
- ACCESSIBLE ADJUSTABLE SHOWER SPRAY UNIT WITH 54" LONG HOSE AND MIXING VALVE, SEE PLUMBING DRAWINGS.
- STANDARD SHOWER SPRAY UNIT WITH MIXING VALVE, SEE PLUMBING DRAWINGS.
- JANITOR'S SERVICE SINK 24" X 8" SEE PLUMBING DRAWINGS
- REGENCY SPACE SOLUTIONS 24" LONG FIXED SHELF WITH UTILITY HOOKS, #600NSB24.
- PROVIDE BOBRICK SHOWER OR TUB CURTAIN #204-3, ROD #B-610TX60, AND HOOKS #204-1.
- PROVIDE SCRANTON, HEAVY DUTY COMMERCIAL GRADE SHOWER CURTAIN AND HOOKS SYSTEM TO WORK WITH SCRANTON SHOWER COMPONENTS. PROVIDE CUT SHEET TO ARCHITECTS FOR APPROVAL.
- PROVIDE SEMI-RECESSED 12 GALLON TRASH RECEPTACLE; BOBRICK; B-3644.
- ACCESSIBLE ADJUSTABLE TUB / SHOWER SPRAY UNIT, SEE PLUMBING DRAWINGS.
- BOBRICK B-58616 TWO-WALL GRAB BAR, 1-1/4" DIA. 24" X 36", SEE DETAIL 5/A-1.1.
- BOBRICK B-5143 RECTANGULAR FOLDING SHOWER SEAT, SEE DETAIL 5/A-1.1.
- GRAB BAR; BOBRICK #B-5806X24 OR EQUAL, 24" L. AT ADA TUB. SEE DETAIL XX/XX.
- GRAB BAR; BOBRICK #B-5806X18 OR EQUAL, 18" L. AT ADA TUB. SEE DETAIL XX/XX.
- TUB SEAT; SEACHROME, #STSB-300150-TWA, REMOVABLE SEAT, 30"x15" WITH ADJUSTABLE POSTS.
- ACCESSIBLE TUB, SEE PLUMBING DRAWINGS.
- STAINLESS STEEL SHELF; BOBRICK #B-245 SERIES, FULL WIDTH PER PLAN X 5"D.
- WOOD WALL MIRROR; WATTFARCOM, CASTIN SOLID WOOD FLAT WALL MIRROR 36" X 36", SKJ M11006B49 COLOR: BLACK

PARTIAL ENLARGED PLAN KEY NOTES

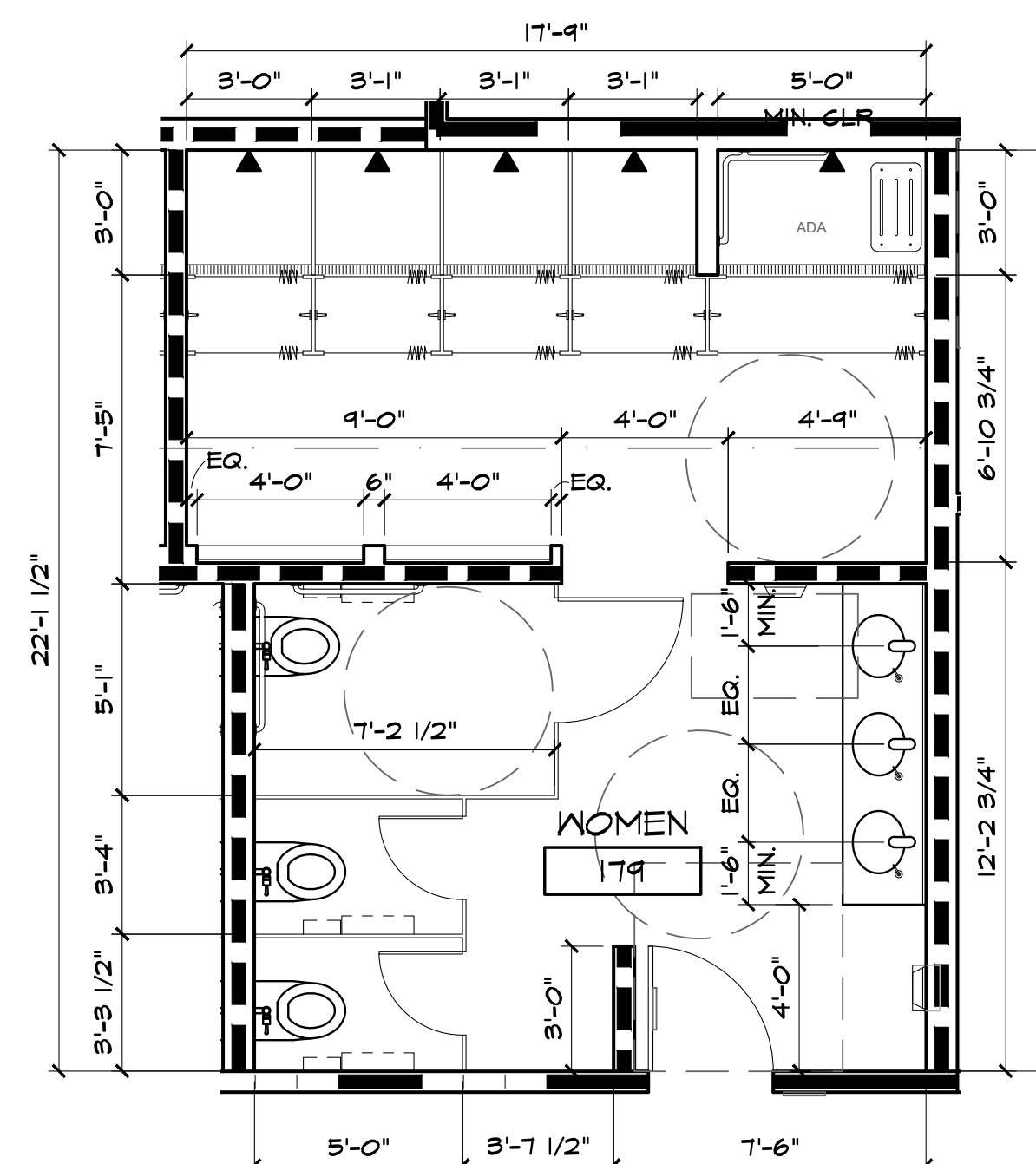
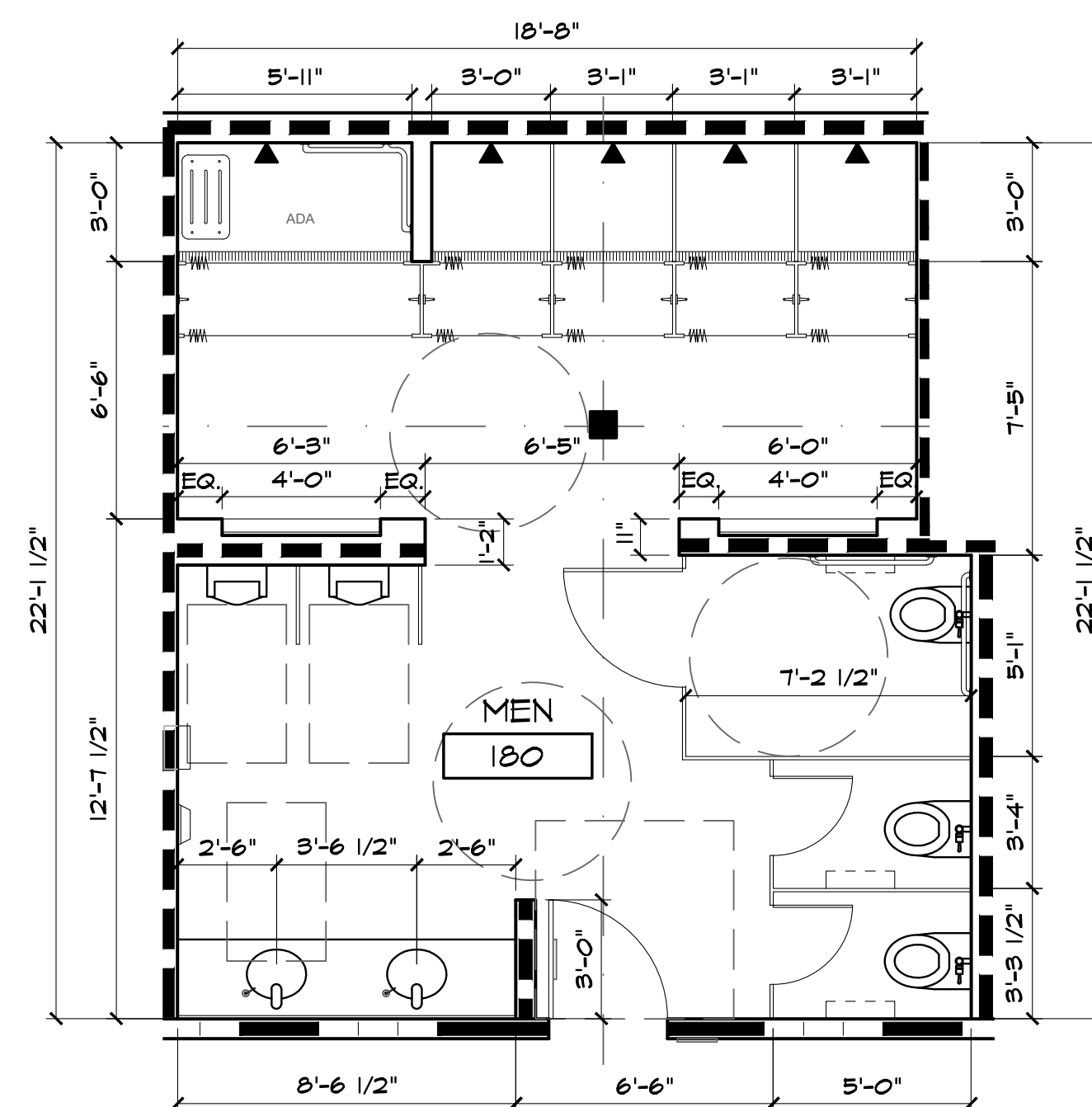
- 5'-0" DIA. CLEAR FLOOR AREA CLEAR OF OBJECTS FROM FLOOR TO +21" A.F.F. TYP. SEE ACC-3 FOR CLEAR DIMENSIONS.
- 30" x 48" CLEAR FLOOR AREA CLEAR OF OBJECTS FROM FLOOR TO +21" A.F.F. TYP. SEE ACC-3 FOR CLEAR DIMENSIONS.
- FLOOR TRENCH DRAIN, SEE PLUMBING DRAWINGS.
- PROVIDE ALL REQUIRED DIMENSIONS AS NOTED IN CONFIGURATION AS ON DETAIL 5/ACC-3.

NOTE:

- REFER TO LARGE SCALE ENLARGED PLANS, THIS AREA, FOR ADDITIONAL INFORMATION, SEE DETAIL 8, THIS SHEET.

PARTIAL ENLARGED TOILET/SHOWER ROOM PLAN - WOMEN 179 AND MEN 180

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



PARTIAL ENLARGED DIMENSIONED PLAN - WOMEN 179 AND MEN 180

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

STAMP



CONSULTANT

PROJECT

**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



**FONTANA
CALIFORNIA**

TITLE

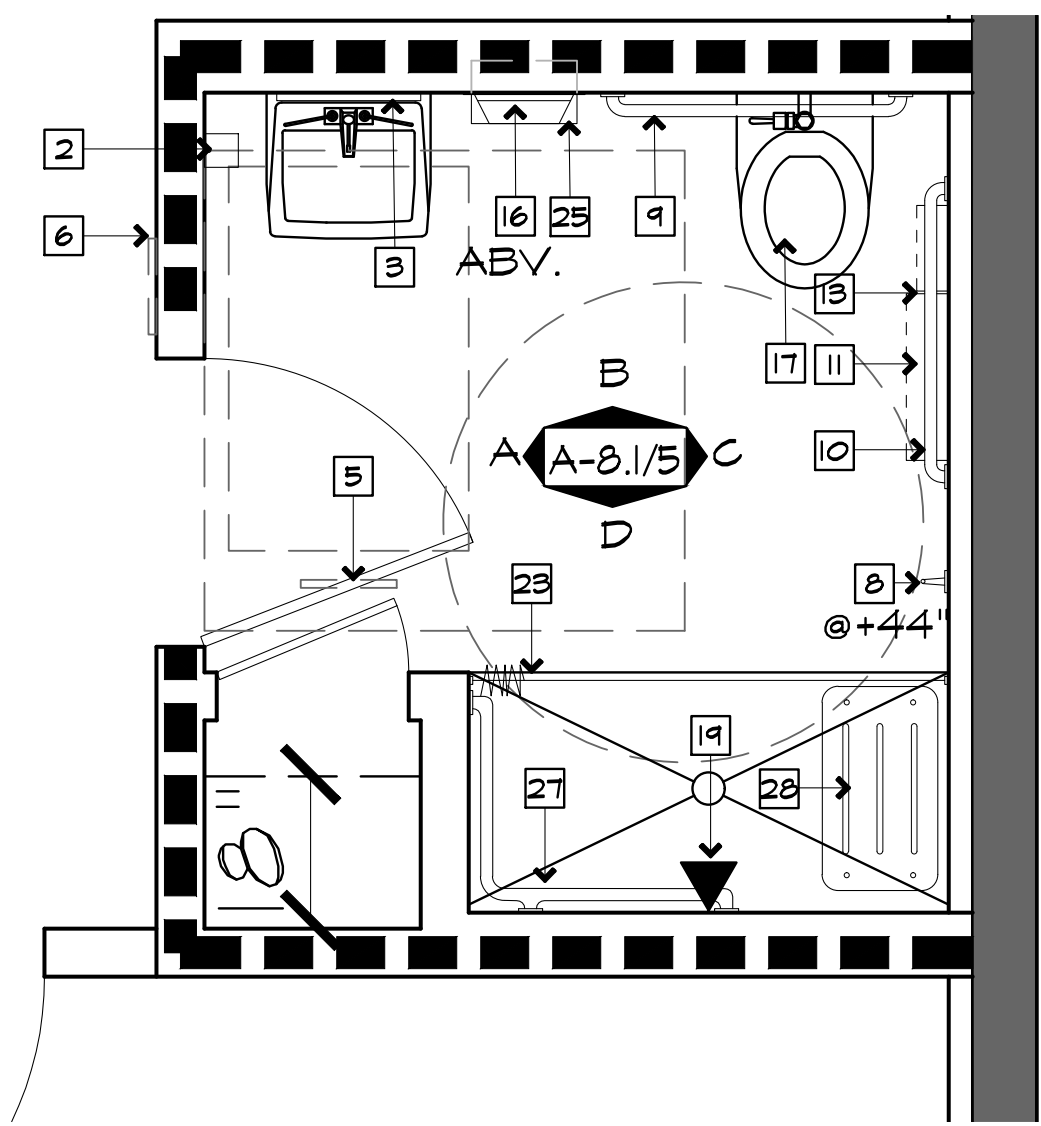
**ENLARGED
RESTROOMS
PLANS & NOTES
ROOM 179 & 180**

Revisions	By	Date
1. PC CORR 1/BID ISSUE	DAE	4/24/26

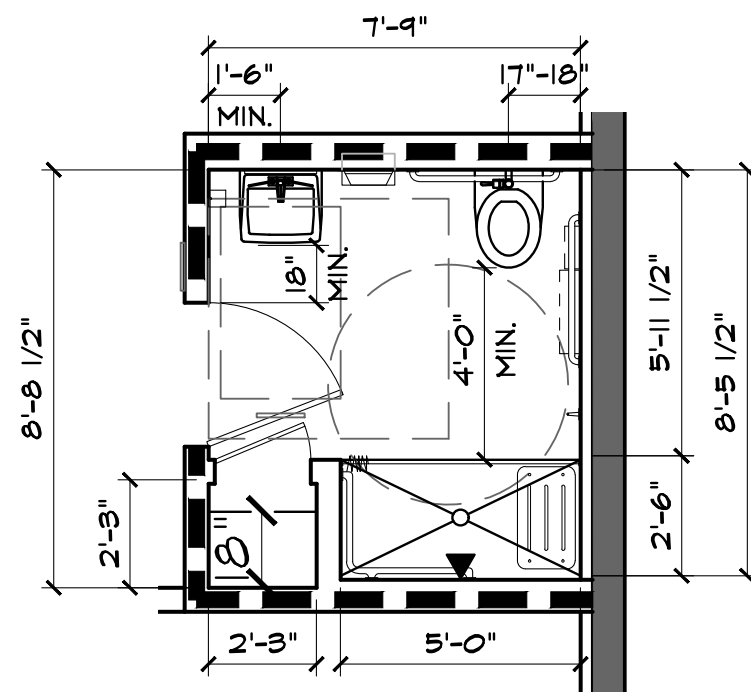
Drawn	MFM
Date	2/3/26
Project No.	25011
Scale	AS NOTED

Sheet

A-7.2

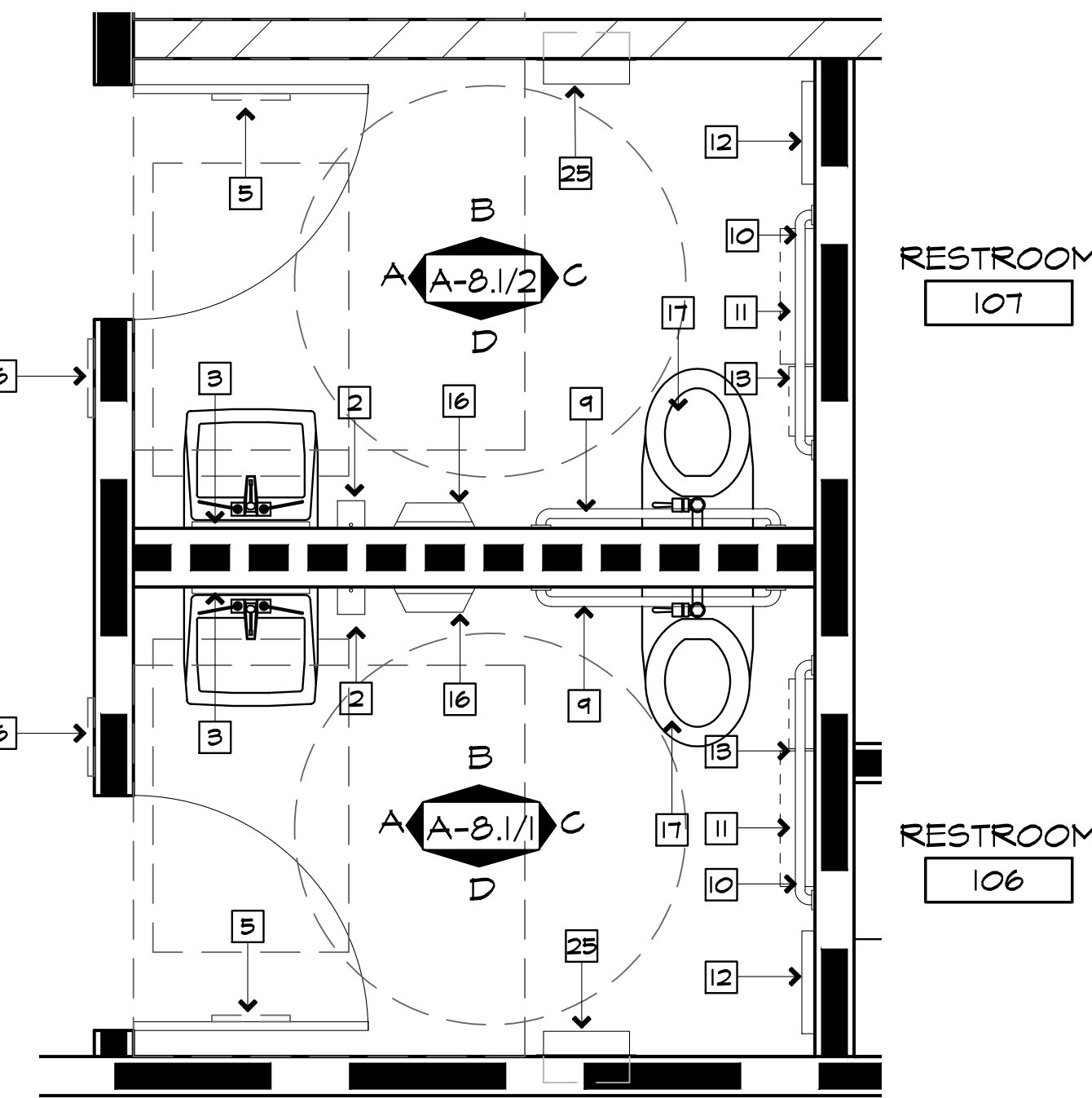


SCALE: 1/2"=1'-0"

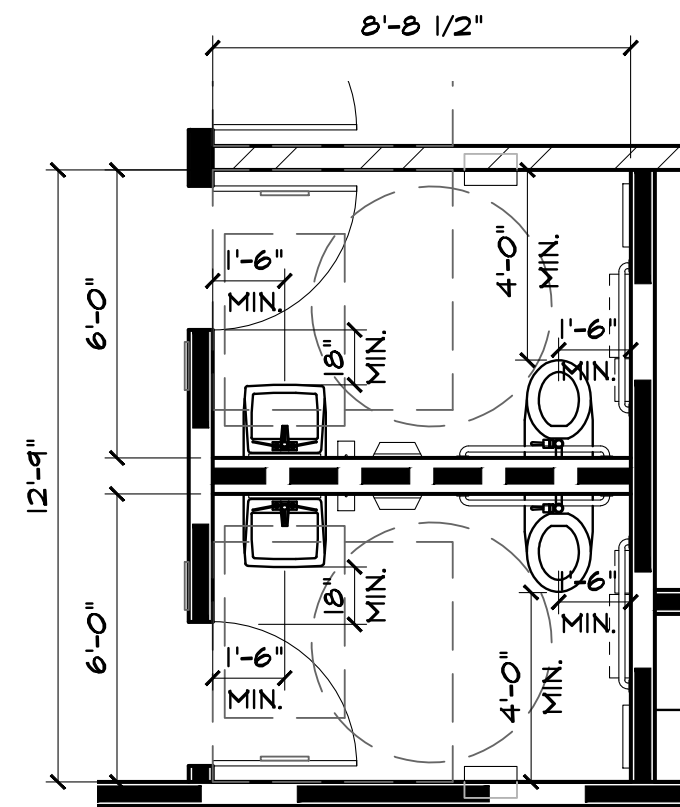


SCALE: 1/4"=1'-0"

RESTROOM
162



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



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

RESTROOM
107

RESTROOM
106

GENERAL TOILET ROOM NOTES

- ALL DIMENSIONS ARE TO FACE OF FINISH OR CENTERLINE OF FIXTURE AS INDICATED.
- PROVIDE NEW BELOW COUNTER TRAP AND HOT WATER INSULATION PER DETAIL 4/A-II.1 TYPICAL THROUGHOUT.
- REFER TO DETAILS B AND 9/A-II.1 FOR TYPICAL ACCESSORY INSTALLATION.
- REFER TO FINISH PLANS FOR FINISH SPECIFICATIONS AND LEGEND ON SHEET A-4.1 AND A-4.2.
- CONTRACTOR TO V.I.F. ALL DIMENSIONS PRIOR TO THE WORK AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
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- REFER TO RESTROOM ACCESSORIES LEGEND, THIS SHEET FOR SPECIFICATIONS.
- REFER TO 19/A-II.1 FOR TYPICAL FIXTURE LOCATIONS, GRAB BAR CONFIGURATIONS AND ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

RESTROOM ACCESSORIES LEGEND

- PROVIDE COUNTER MOUNTED AUTOMATIC SENSOR SOAP DISPENSER; BOBRICK; B-824
- MALL MOUNTED AUTOMATIC SENSOR SOAP DISPENSER; BOBRICK; B-2012
- MIRROR; BOBRICK #B-240-1836 SERIES (OR EQUAL), 18" N x 36" H. BOTTOM OF REFLECTIVE SURFACE @ +40" A.F.F.
- MIRROR; BOBRICK #B-240 SERIES (OR EQUAL) FULL WIDTH x 44" H. BOTTOM OF REFLECTIVE SURFACE @ +40" A.F.F.
- DOOR MOUNTED SIGN, SEE DETAILS 14 & 15/A-II.1.
- MALL MOUNTED SIGN, SEE DETAIL 9/A-II.1.
- SCRANTON, FLOOR MOUNTED OVERHEAD BRACED HIGH DENSITY PLASTIC TOILET PARTITIONS (TP-I) AND/OR SHOWER PARTITIONS (SP-I), AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 4" MIN. ABOVE FINISH FLOOR AND 6" DEEP MIN. BEYOND COMPARTMENT SIDE FACE OF PARTITION. SEE FINISH LEGEND ON SHEET A-4.1.
- TOWEL HOOK; BOBRICK #B-216 TYP. AT EACH SHOWER STALL, MOUNT AT +44" MAX. A.F.F. @ ACCESSIBLE STALL, 60" A.F.F. @ STANDARD STALL. (2) HOOKS PER STALL.
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- GRAB BAR; BOBRICK #B-5806X48 OR EQUAL, 48" L. SIDE MOUNTED PER DETAIL 19/A-II.1.
- SURFACE MOUNTED TOILET TISSUE DISPENSER; BOBRICK; B-2842
- SURFACE MOUNTED TOILET SEAT COVER DISPENSER; BOBRICK; B-221, SEE DETAIL 18/A-4.4.
- SURFACE MOUNTED SANITARY NAPKIN DISPOSAL; BOBRICK; B-254
- ACCESSIBLE URINAL, SEE DETAIL 20/A-II.1 AND PLUMBING DRAWINGS.
- STANDARD URINAL, SEE PLUMBING DRAWINGS.
- MALL MOUNTED ELECTRIC HAND DRYER; BOBRICK; B-7125 SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
- ACCESSIBLE TOILET, SEE PLUMBING DRAWINGS AND 19/A-II.1.
- STANDARD TOILET, SEE PLUMBING DRAWINGS.
- ACCESSIBLE ADJUSTABLE SHOWER SPRAY UNIT WITH 54" LONG HOSE AND MIXING VALVE, SEE PLUMBING DRAWINGS.
- STANDARD SHOWER SPRAY UNIT WITH MIXING VALVE, SEE PLUMBING DRAWINGS.
- JANITOR'S SERVICE SINK 24" x 8" SEE PLUMBING DRAWINGS
- REGENCY SPACE SOLUTIONS 24" LONG FIXED SHELF WITH UTILITY HOOKS, #600NSB24.
- PROVIDE BOBRICK SHOWER OR TUB CURTAIN #204-3, ROD #B-610TX60, AND HOOKS #204-1.
- PROVIDE SCRANTON, HEAVY DUTY COMMERCIAL GRADE SHOWER CURTAIN AND HOOKS SYSTEM TO WORK WITH SCRANTON SHOWER COMPONENTS. PROVIDE CUT SHEET TO ARCHITECTS FOR APPROVAL.
- PROVIDE SEMI-RECESSED 12 GALLON TRASH RECEPTACLE; BOBRICK; B-3644.
- ACCESSIBLE ADJUSTABLE TUB / SHOWER SPRAY UNIT, SEE PLUMBING DRAWINGS.
- BOBRICK B-58616 TWO-WALL GRAB BAR, 1-1/4" DIA. 24" X 36", SEE DETAIL 5/A-II.1.
- BOBRICK B-5193 RECTANGULAR FOLDING SHOWER SEAT, SEE DETAIL 8/A-II.1.
- GRAB BAR; BOBRICK #B-5806X24 OR EQUAL, 24" L. AT ADA TUB. SEE DETAIL XX/XX.
- GRAB BAR; BOBRICK #B-5806X18 OR EQUAL, 18" L. AT ADA TUB. SEE DETAIL XX/XX.
- TUB SEAT; SEACHROME, #STSB-300150-TWA, REMOVABLE SEAT, 30"x15" WITH ADJUSTABLE POSTS.
- ACCESSIBLE TUB, SEE PLUMBING DRAWINGS.
- STAINLESS STEEL SHELF; BOBRICK #B-245 SERIES, FULL WIDTH PER PLAN X 5"D.
- WOOD WALL MIRROR; WATTFARGOM, CASTIN SOLID WOOD FLAT WALL MIRROR 36" X 36", SKU M1006B49 COLOR: BLACK

PARTIAL ENLARGED PLAN KEY NOTES

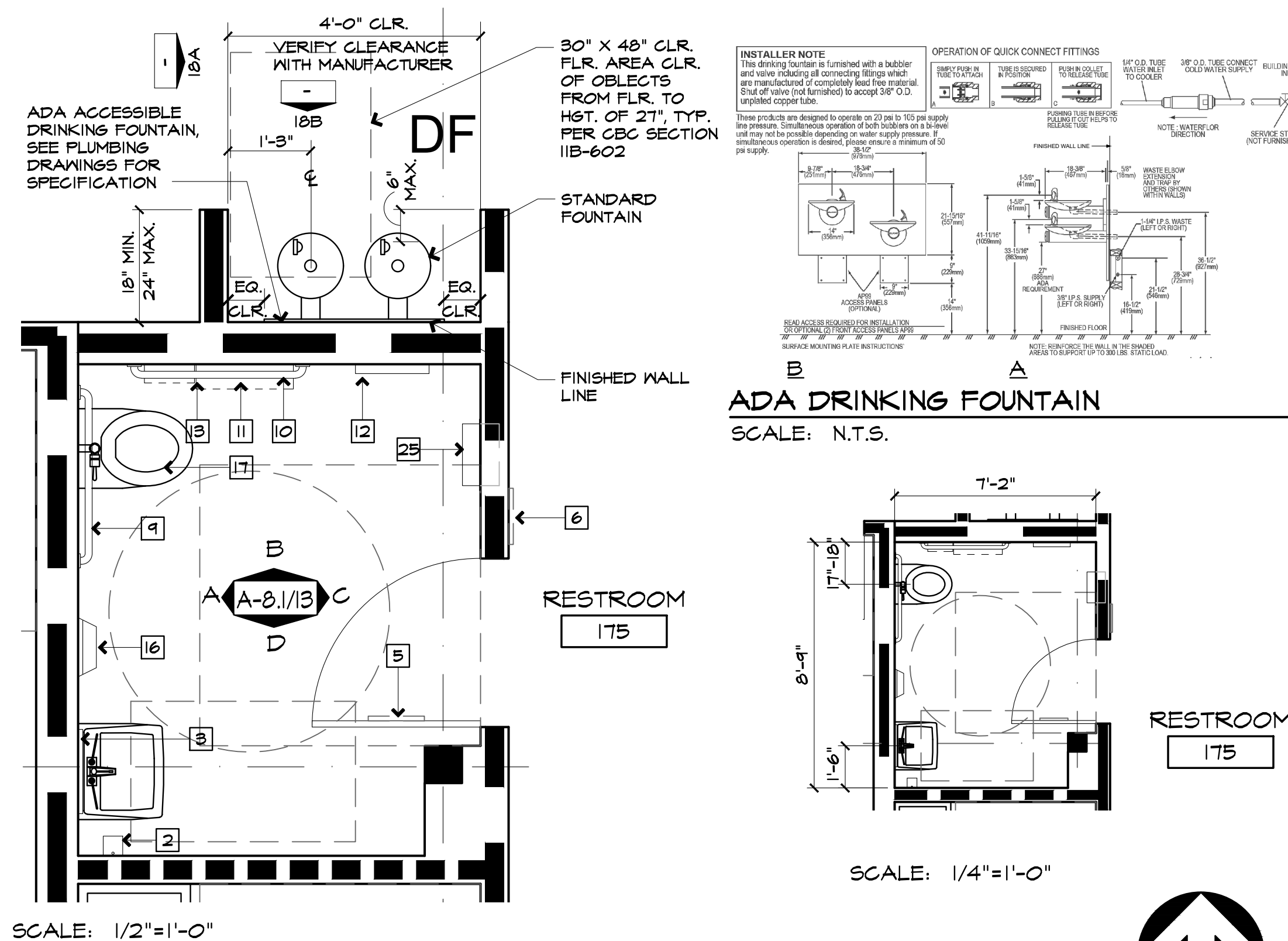
- 5'-0" DIA. CLEAR FLOOR AREA CLEAR OF OBJECTS FROM FLOOR TO +21" A.F.F. TYP. SEE ACC-3 FOR CLEAR DIMENSIONS.
- 30" x 48" CLEAR FLOOR AREA CLEAR OF OBJECTS FROM FLOOR TO +21" A.F.F. TYP. SEE ACC-3 FOR CLEAR DIMENSIONS.
- FLOOR TRENCH DRAIN, SEE PLUMBING DRAWINGS.
- PROVIDE ALL REQUIRED DIMENSIONS AS NOTED IN CONFIGURATION AS ON DETAIL 5/ACC-3.

NOTE:

- REFER TO LARGE SCALE ENLARGED PLANS, THIS AREA, FOR ADDITIONAL INFORMATION, SEE DETAIL B, THIS SHEET.

PARTIAL ENLARGED RR 162 PLAN

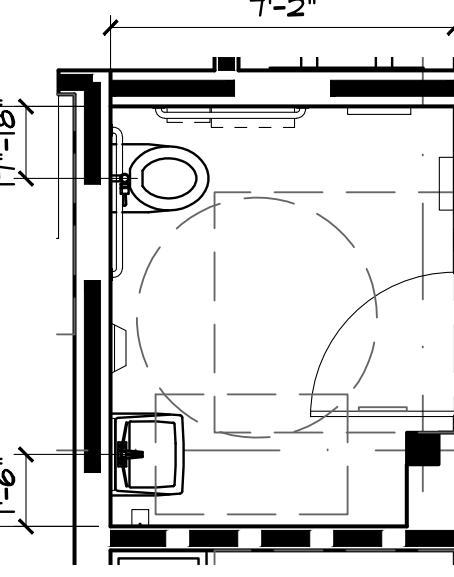
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SCALE: 1/2"=1'-0"

ADA DRINKING FOUNTAIN

SCALE: N.T.S.

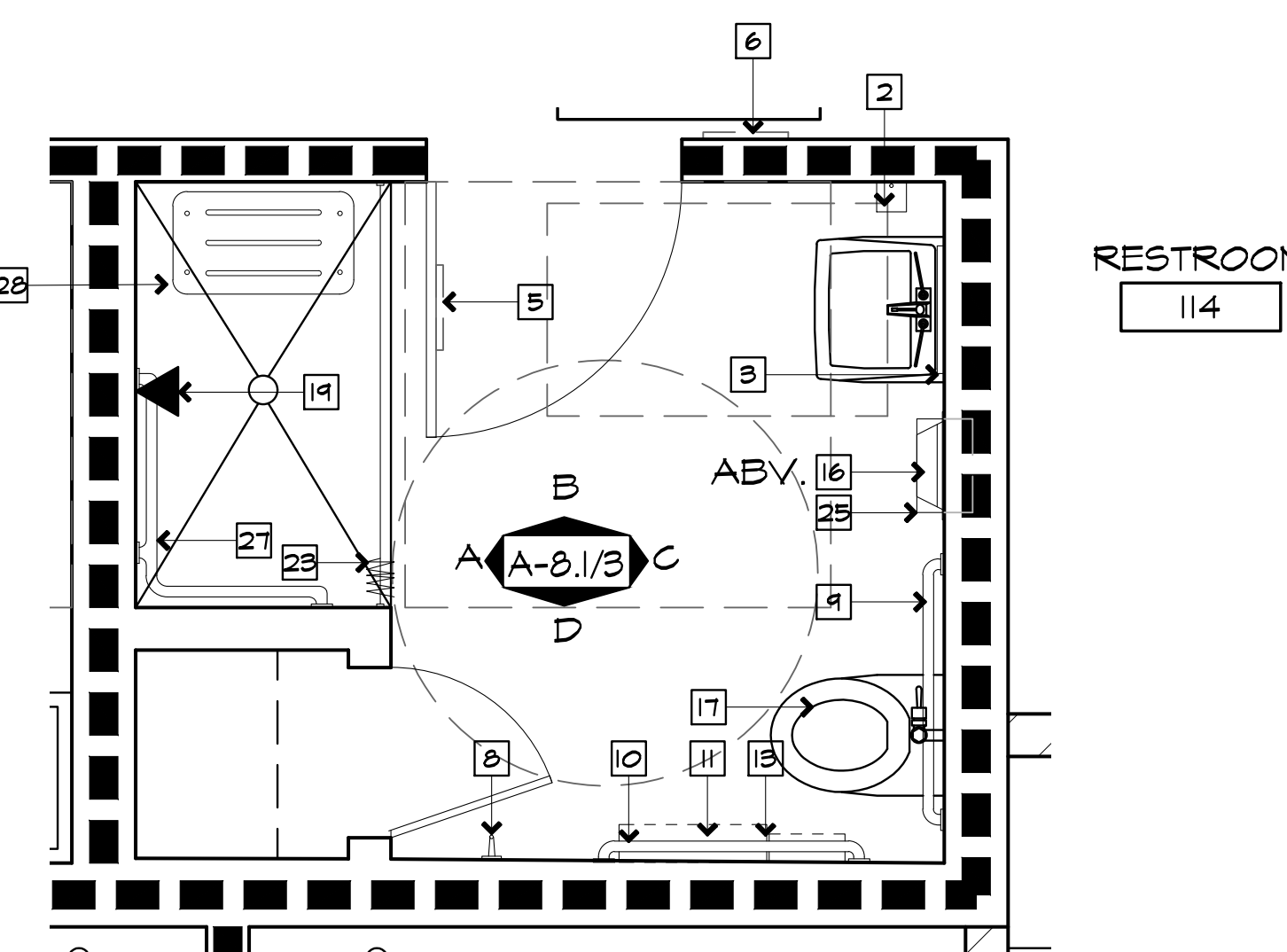


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RESTROOM
175

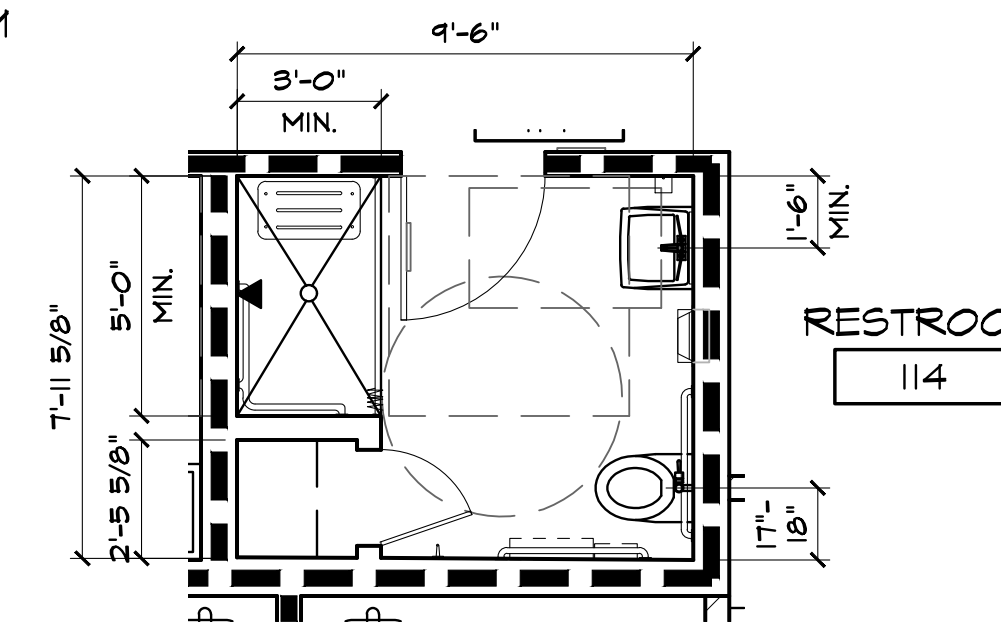
PARTIAL ENLARGED RR 106 & 107 PLAN

SCALE: AS NOTED



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

RESTROOM
114

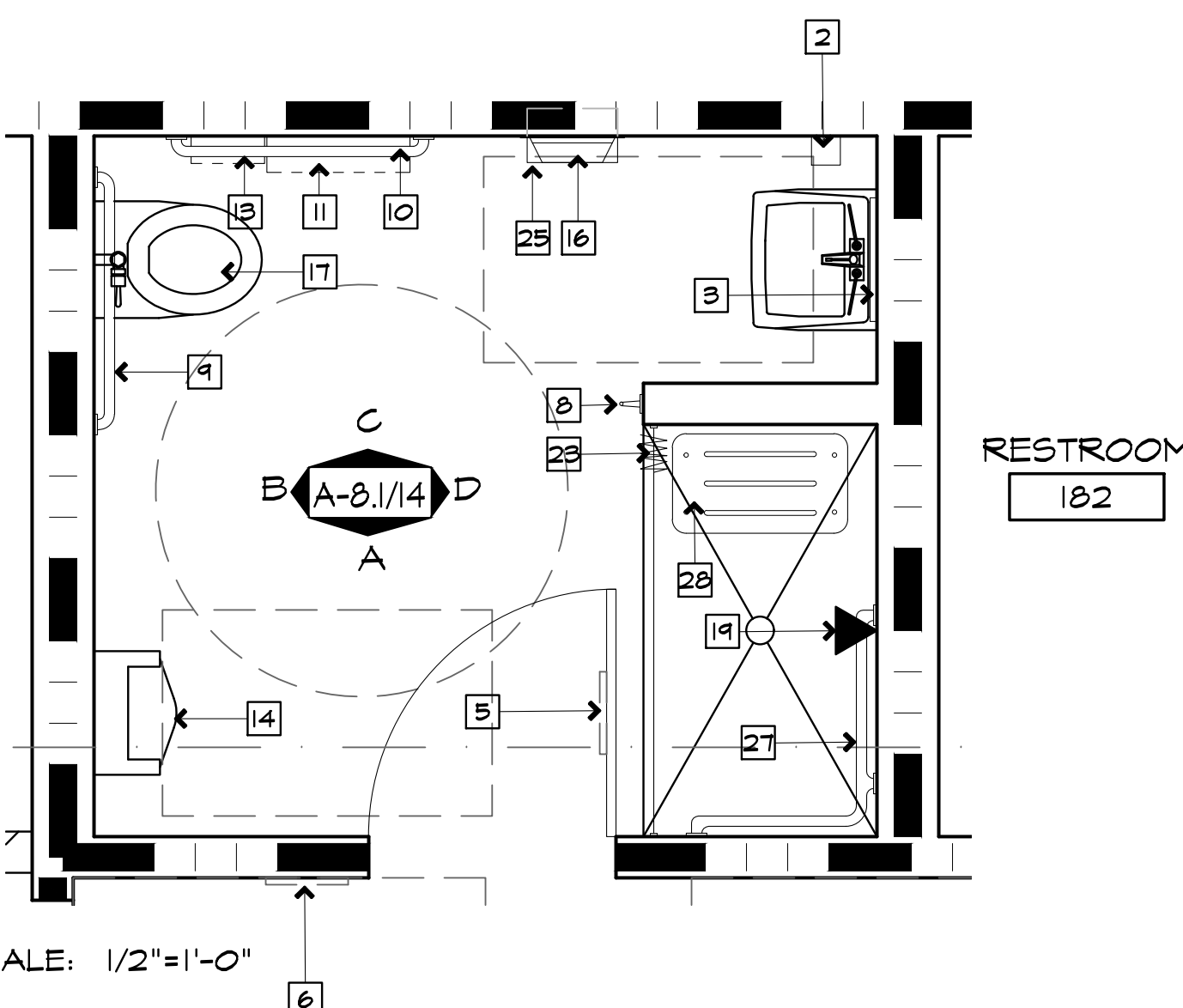


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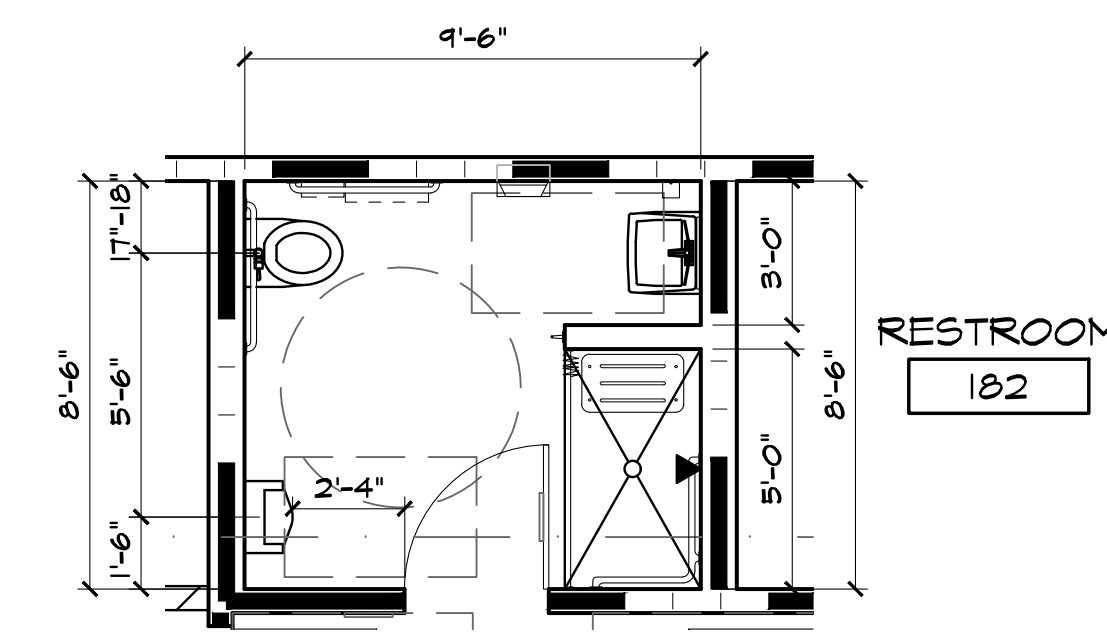
RESTROOM
114

PARTIAL ENLARGED RR 175 PLAN

SCALE: AS NOTED



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

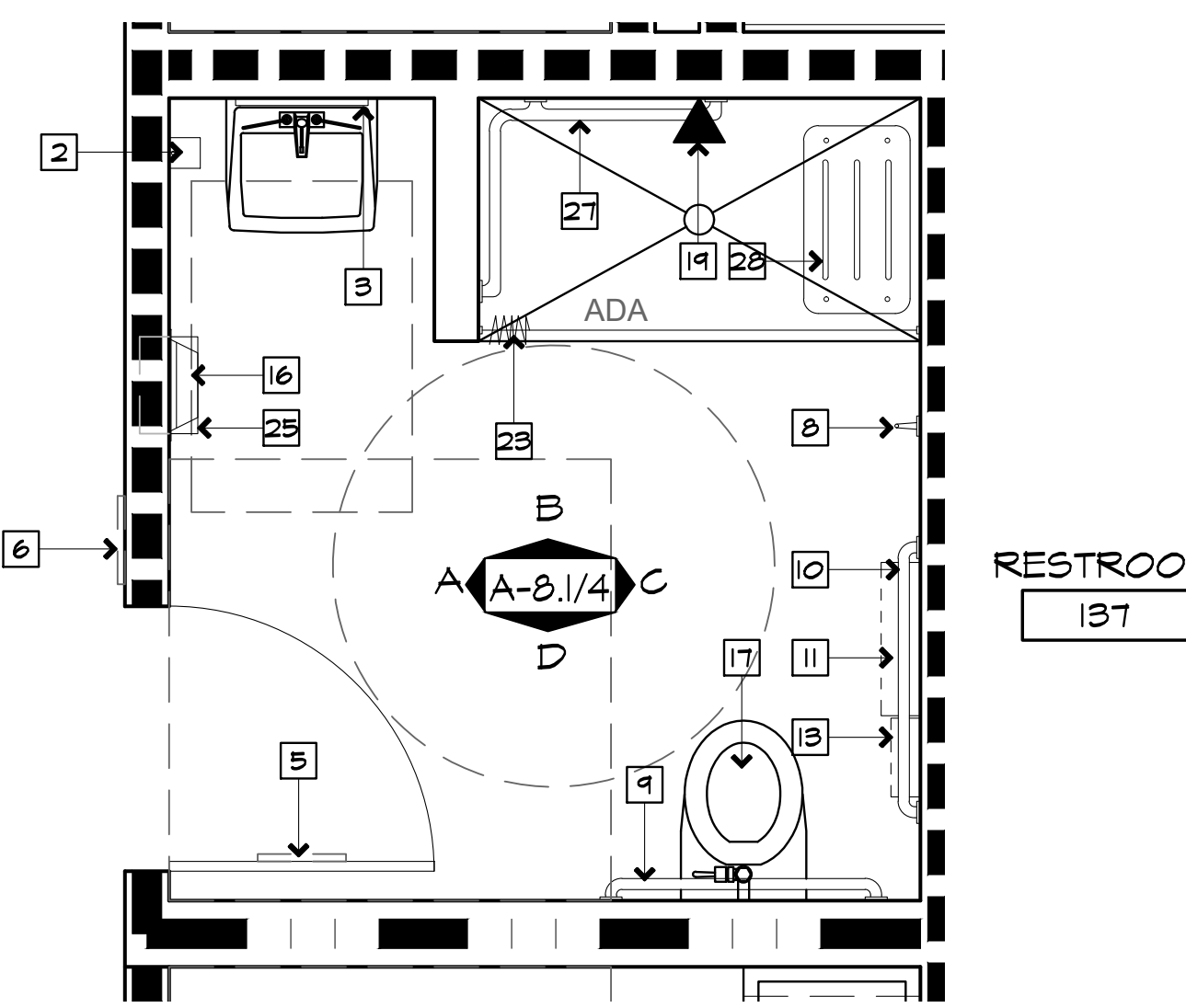


SCALE: 1/4"=1'-0"

RESTROOM
182

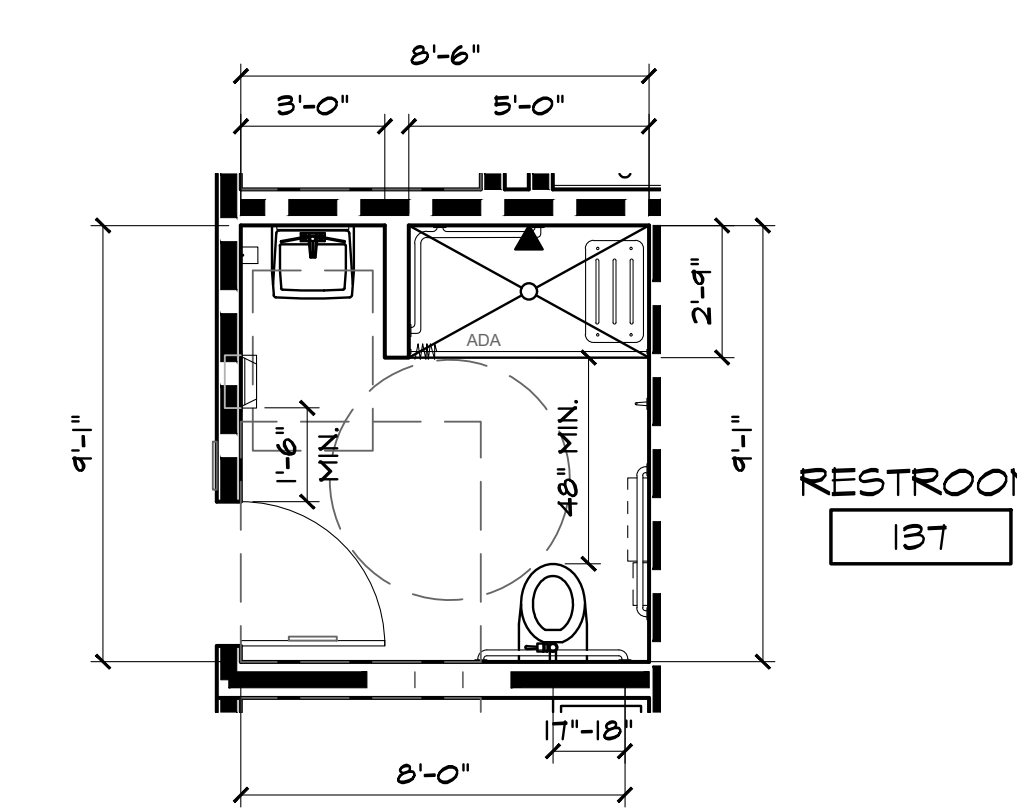
PARTIAL ENLARGED RR 114 PLAN

SCALE: AS NOTED



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

RESTROOM
137



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

RESTROOM
137

PARTIAL ENLARGED RR 182 PLAN

SCALE: AS NOTED

PARTIAL ENLARGED RR 137 PLAN

SCALE: AS NOTED

STAMP



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WEST END REGIONAL NAVIGATION CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

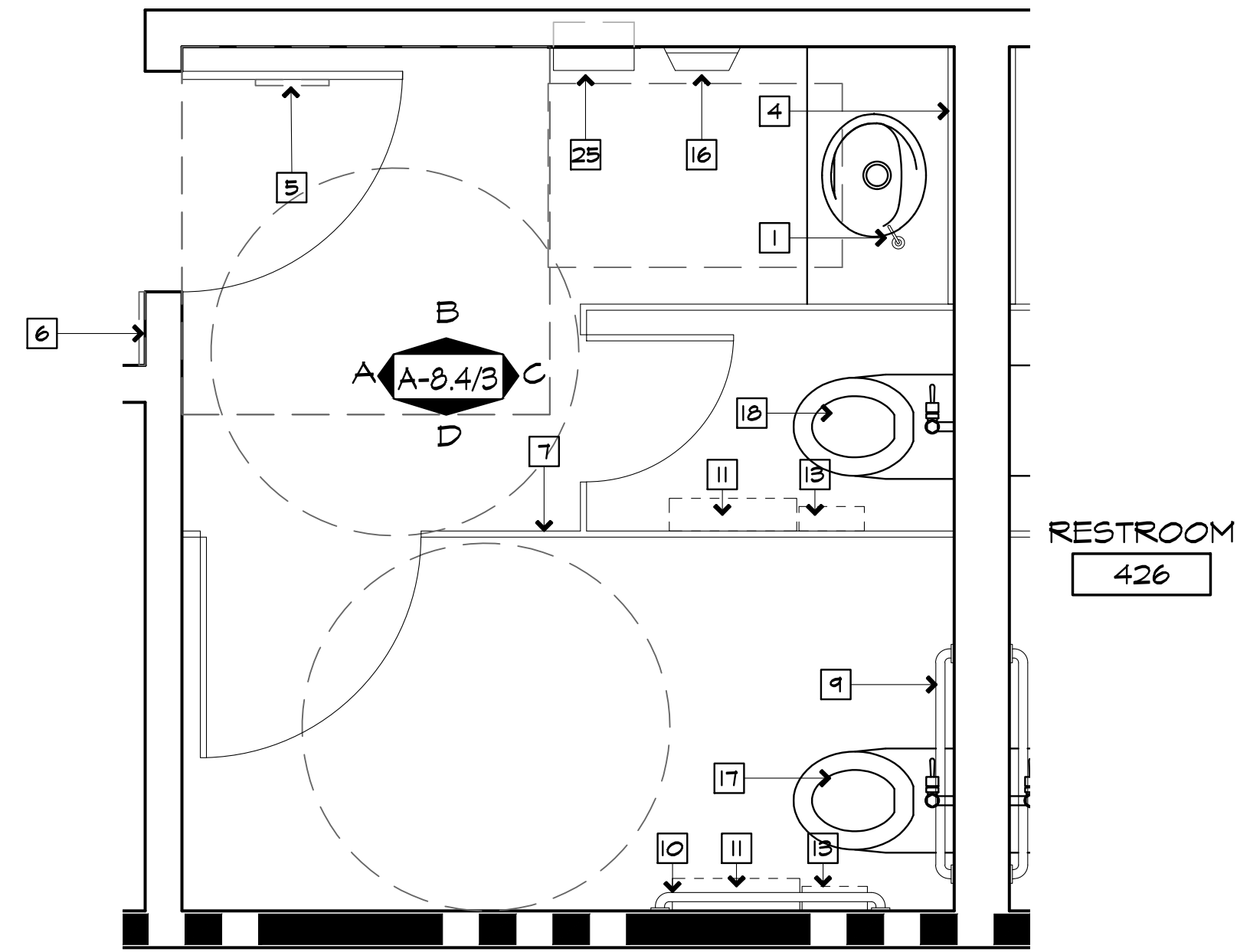
ENLARGED RESTROOMS PLANS & NOTES ROOMS 106, 107, 114, 137, 162, 175 & 182

Revisions	By	Date
1. PG CORR 1/BID ISSUE	DAE	4/24/26

Drawn	MFM
Date	2/3/26
Project No.	25011
Scale	AS NOTED

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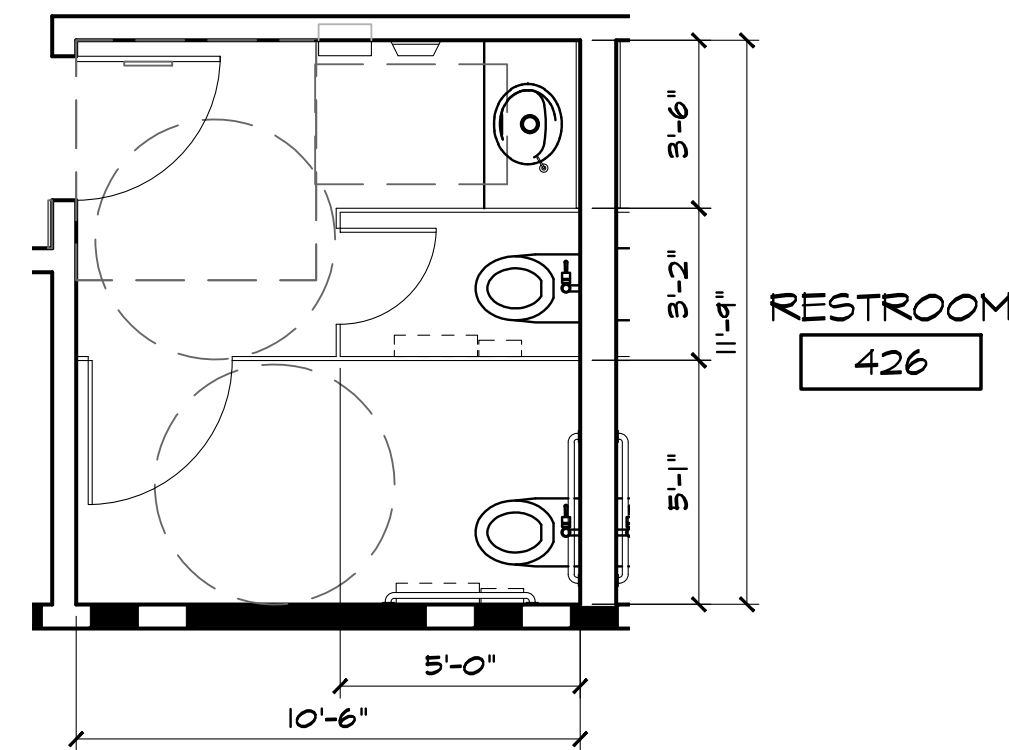
A-7.3



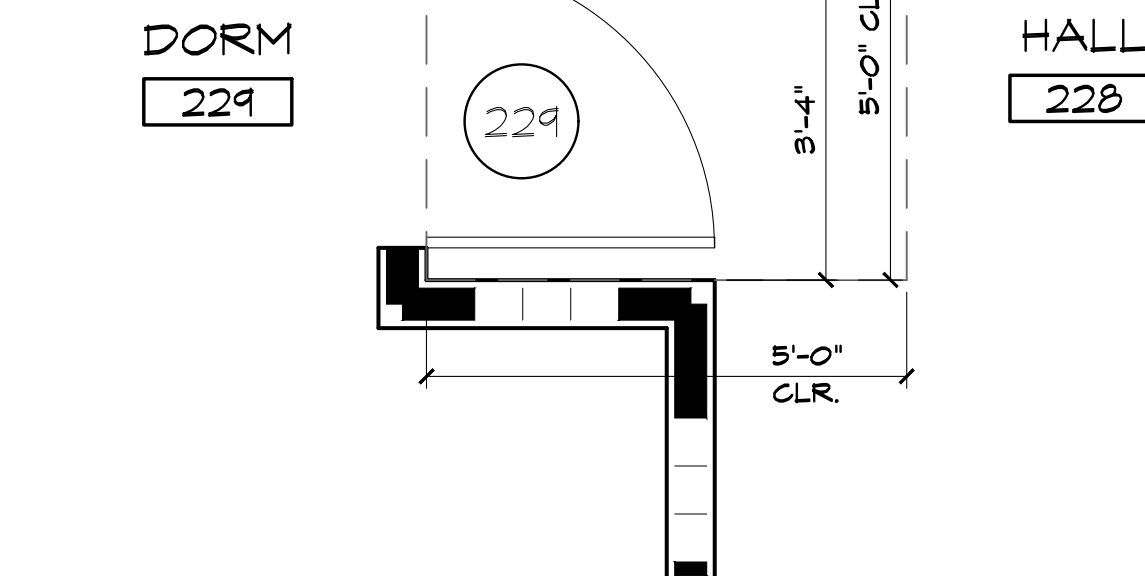
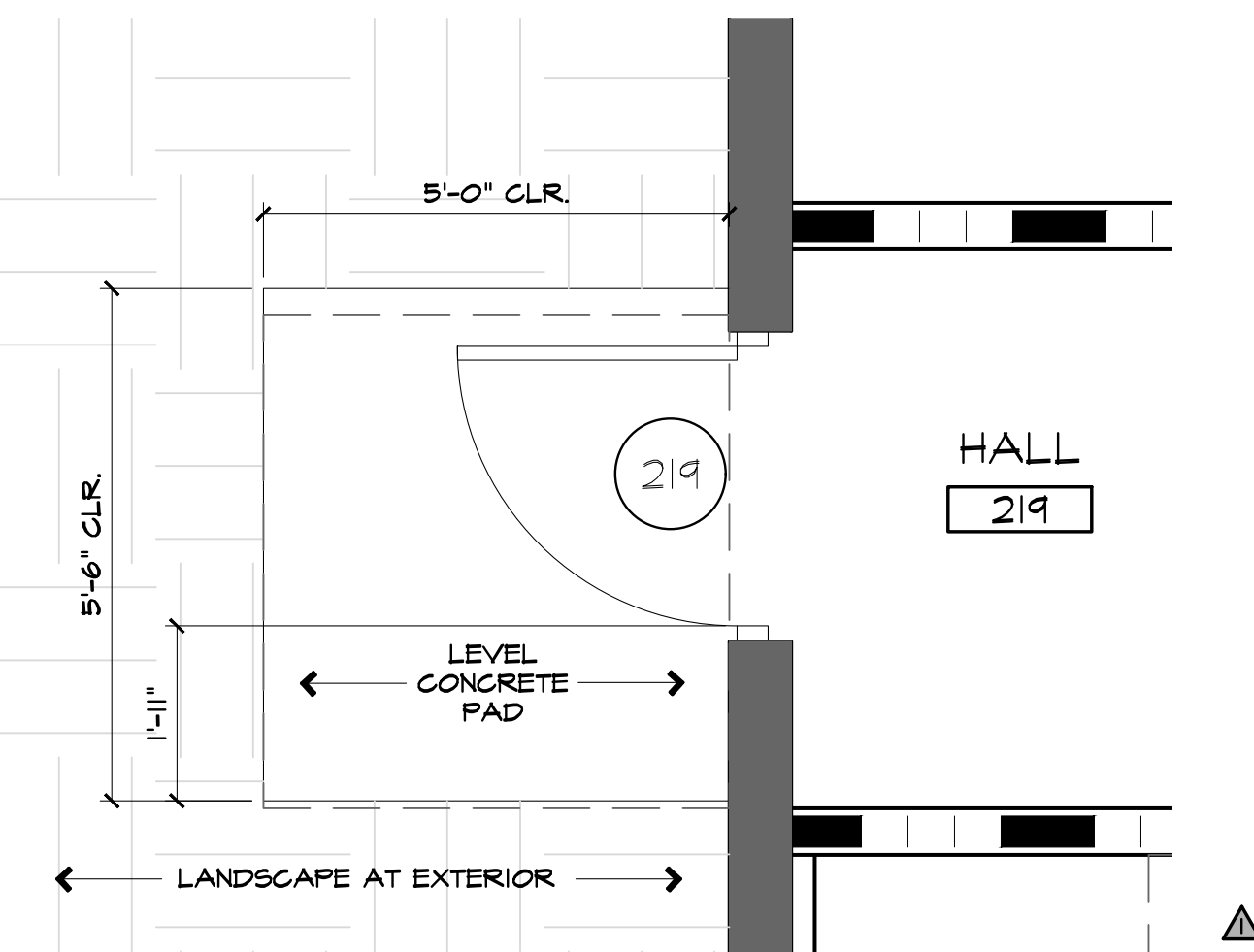
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PARTIAL ENLARGED RR 426 PLAN

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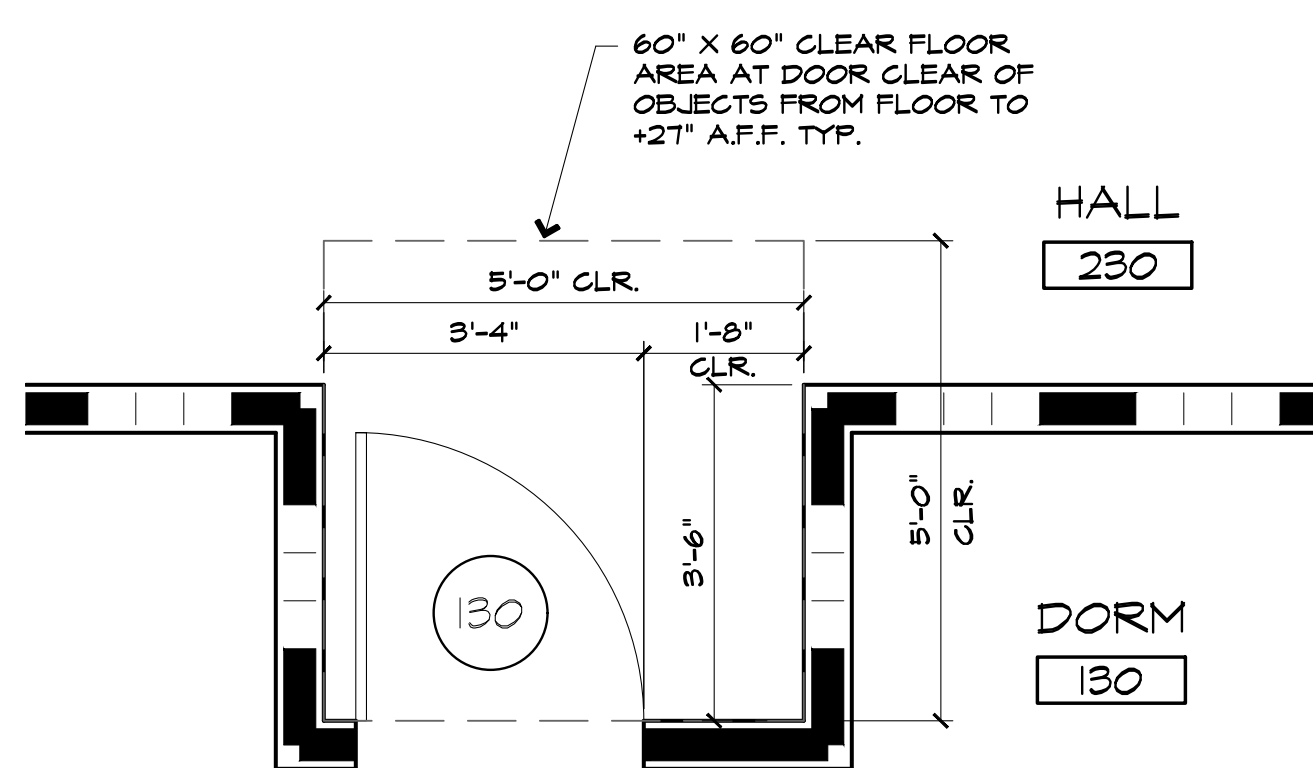


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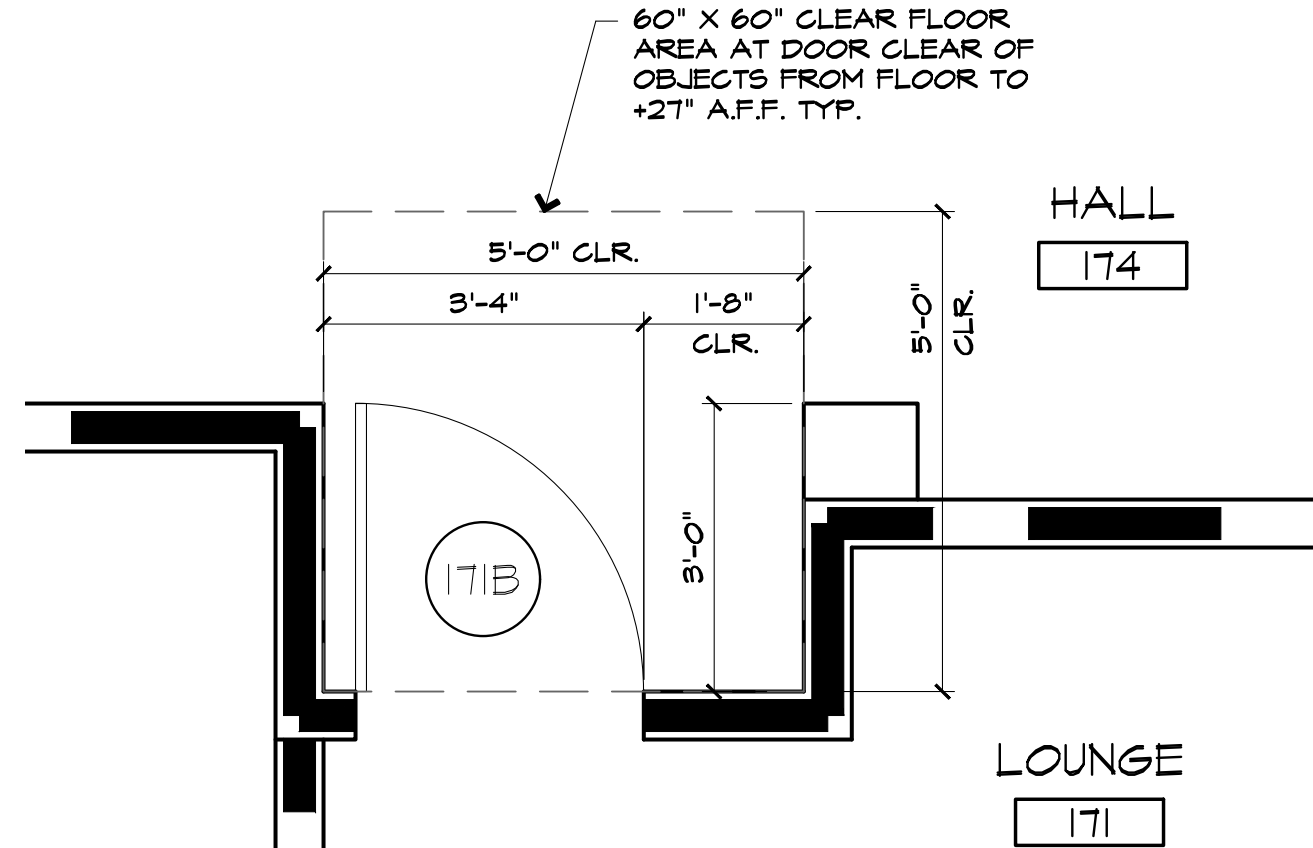
DOOR PLAN - RM. 229

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



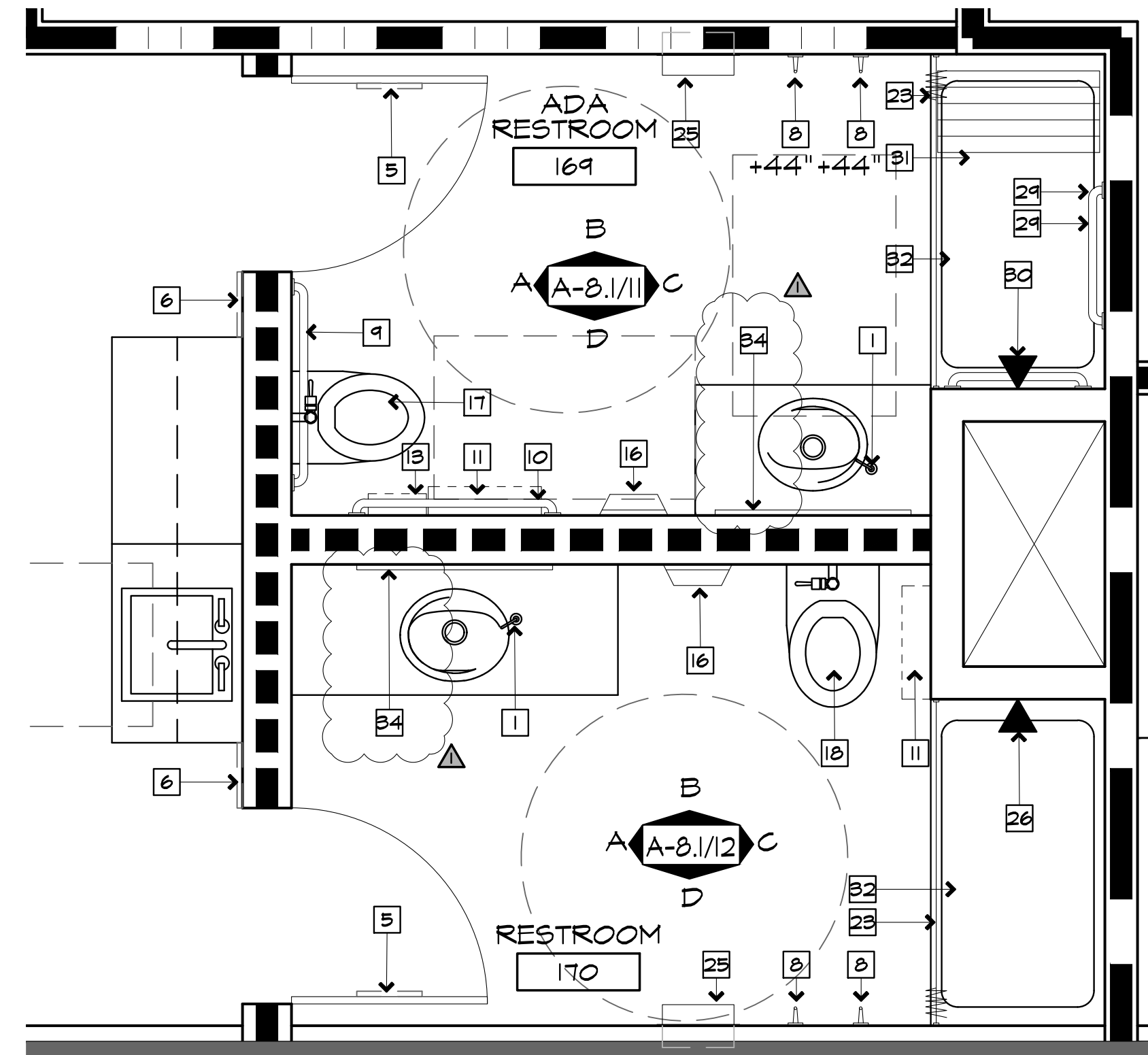
DOOR PLAN - RM. 189

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



DOOR PLAN - RM. 171

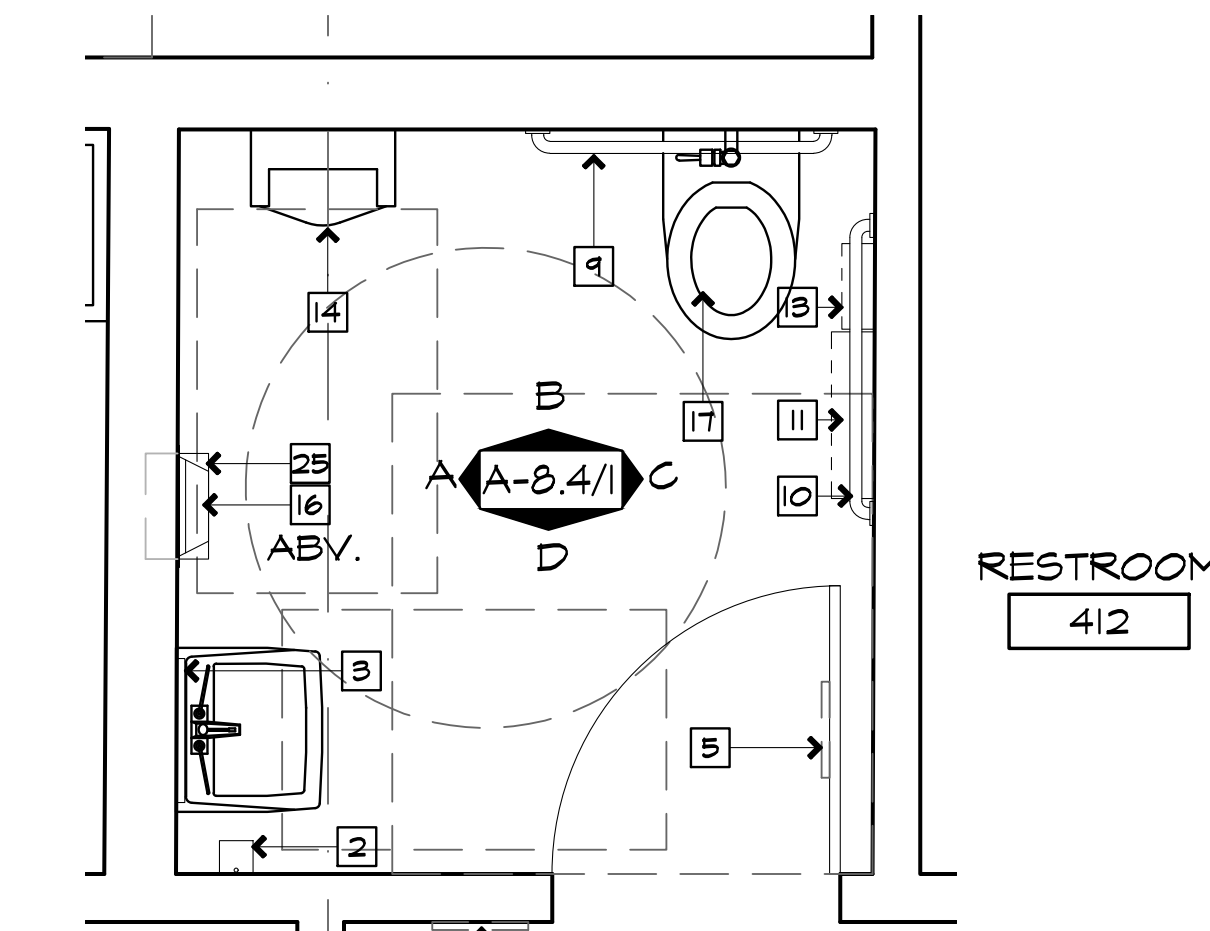
SCALE: 1/2"=1'-0"



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

PARTIAL ENLARGED RR 169 & 170 PLAN

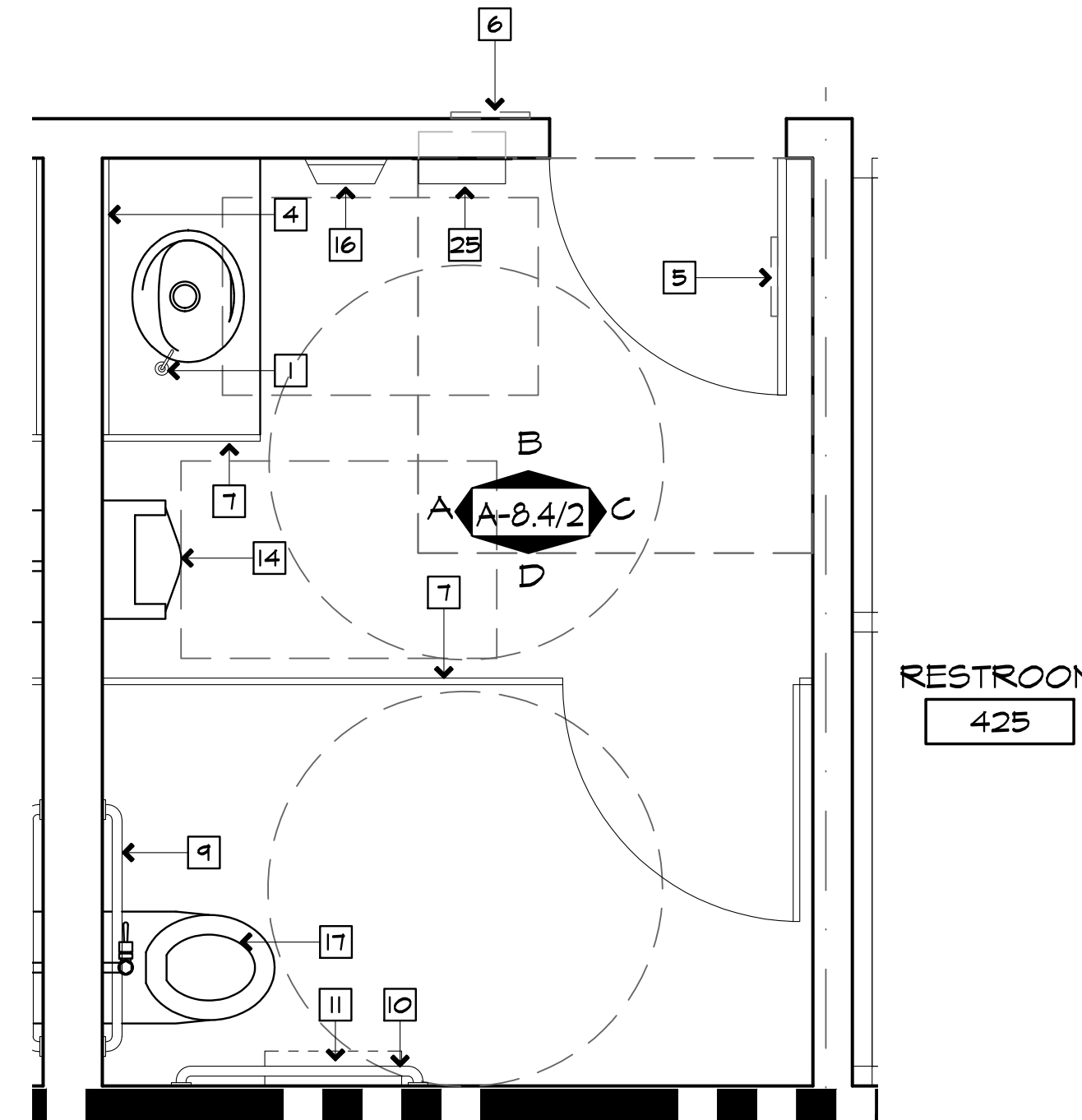
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SCALE: 1/2"=1'-0"

PARTIAL ENLARGED RR 412 PLAN

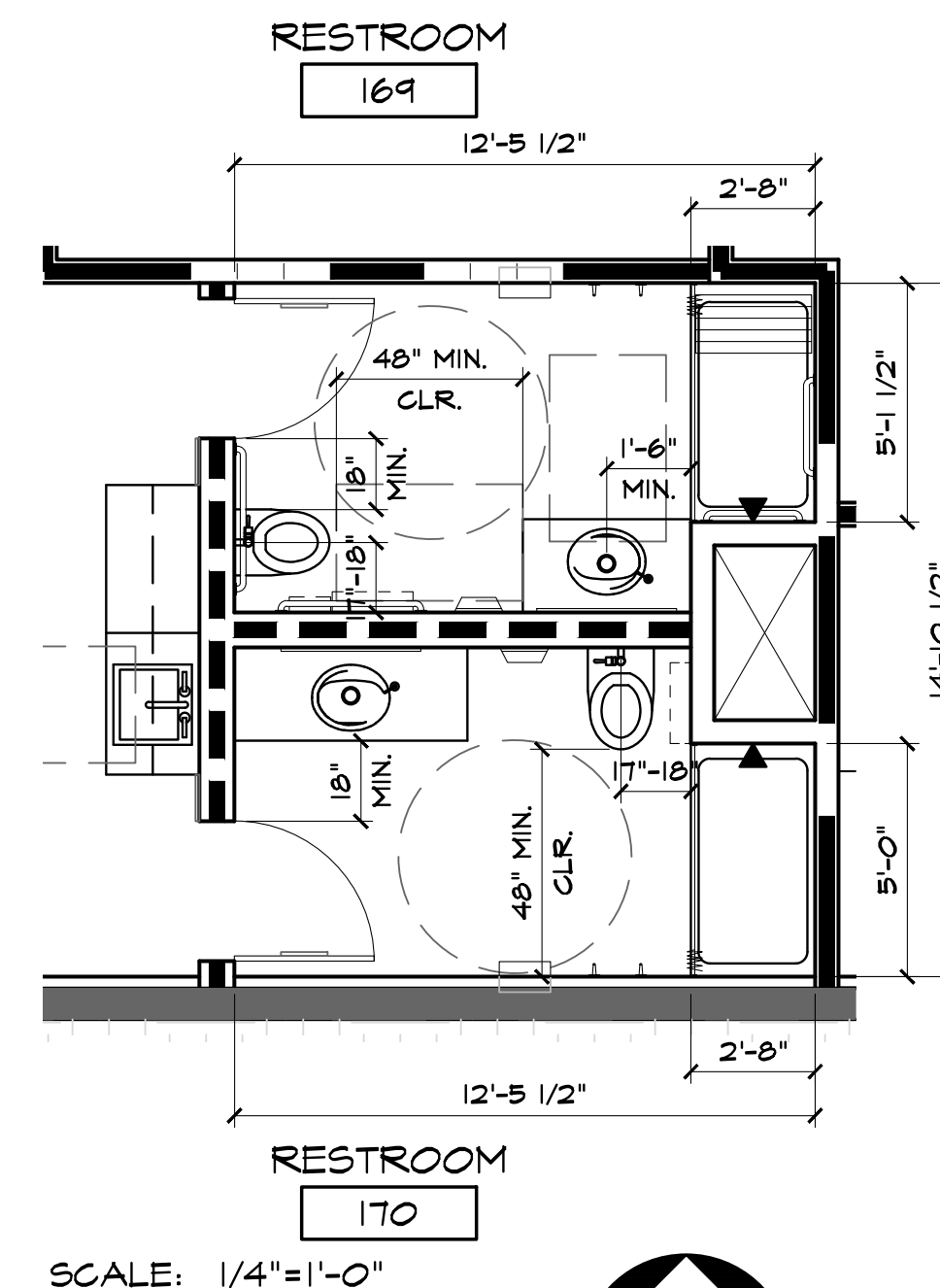
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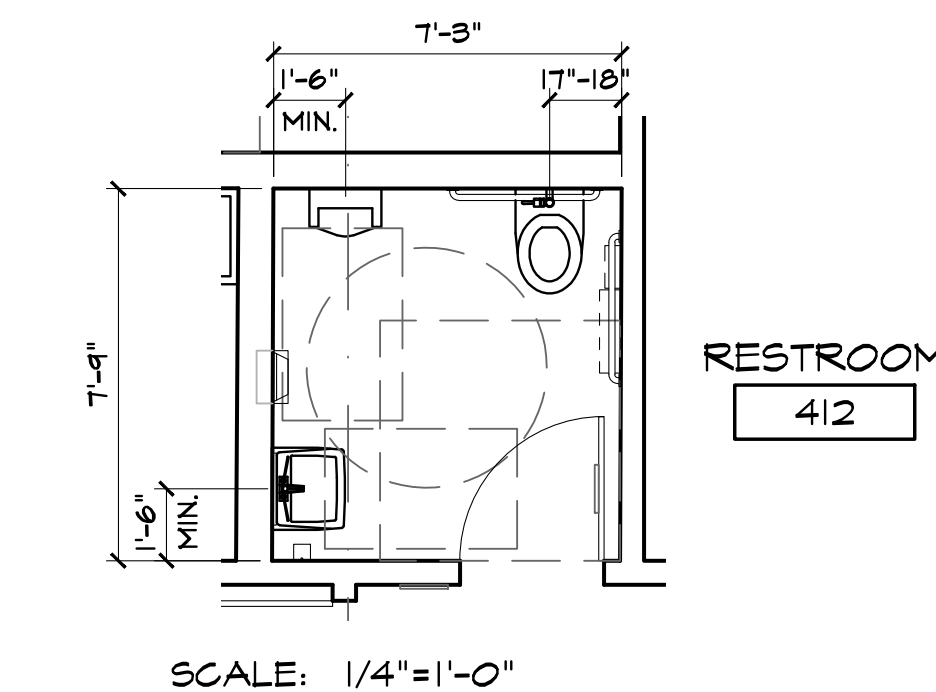
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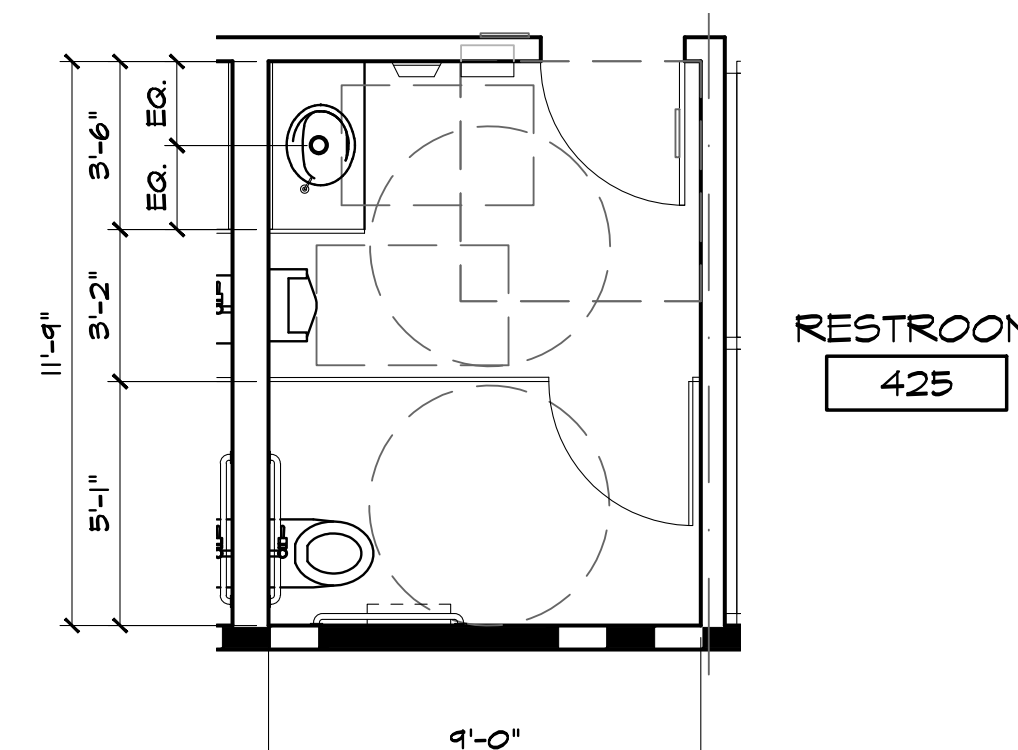
SCALE: AS NOTED



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



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



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

GENERAL TOILET ROOM NOTES

- ALL DIMENSIONS ARE TO FACE OF FINISH OR CENTERLINE OF FIXTURE AS INDICATED.
- PROVIDE NEW BELOW COUNTER TRAP AND HOT WATER INSULATION PER DETAIL 4/A-11.1 TYPICAL THROUGHOUT.
- REFER TO DETAILS 8 AND 9/A-11.1 FOR TYPICAL ACCESSORY INSTALLATION.
- REFER TO FINISH PLANS FOR FINISH SPECIFICATIONS AND LEGEND ON SHEET A-4.1 AND A-4.2.
- CONTRACTOR TO V.I.F. ALL DIMENSIONS PRIOR TO THE WORK AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- REFER TO PLUMBING ENGINEERING DRAWINGS FOR FIXTURE SCHEDULE, SPECIFICATIONS OF WATER CLOSETS, URINAL, LAVATORIES, FAUCETS AND INFORMATION NOT SHOWN HERE.
- REFER TO RESTROOM ACCESSORIES LEGEND, THIS SHEET FOR SPECIFICATIONS.
- REFER TO 14/A-11.1 FOR TYPICAL FIXTURE LOCATIONS, GRAB BAR CONFIGURATIONS AND ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

RESTROOM ACCESSORIES LEGEND

- PROVIDE COUNTER MOUNTED AUTOMATIC SENSOR SOAP DISPENSER, BOBRICK, B-824
- WALL MOUNTED AUTOMATIC SENSOR SOAP DISPENSER, BOBRICK, B-2012
- MIRROR, BOBRICK #B-240-1836 SERIES (OR EQUAL), 18" N. x 36" H. BOTTOM OF REFLECTIVE SURFACE @ +40" A.F.F.
- MIRROR, BOBRICK #B-240 SERIES (OR EQUAL) FULL WIDTH x 44" H. BOTTOM OF REFLECTIVE SURFACE @ +40" A.F.F.
- DOOR MOUNTED SIGN, SEE DETAILS 14 & 15/A-11.1.
- WALL MOUNTED SIGN, SEE DETAIL 9/A-11.1.
- SCRANTON FLOOR MOUNTED OVERHEAD BRACED HIGH DENSITY PLASTIC TOILET PARTITIONS (TP-1) AND/OR SHOWER PARTITIONS (SP-1), AT LEAST ONE SIDE PARTITION SHALL PROVIDE A TOE CLEARANCE OF 4" MIN. ABOVE FINISH FLOOR AND 6" DEEP MIN. BEYOND COMPARTMENT SIDE FACE OF PARTITION. SEE FINISH LEGEND ON SHEET A-4.1.
- TOWEL HOOK, BOBRICK #B-216 TYP. AT EACH SHOWER STALL, MOUNT AT +44" MAX. A.F.F. @ ACCESSIBLE STALL, 60" A.F.F. @ STANDARD STALL. (2) HOOKS PER STALL.
- GRAB BAR, BOBRICK #B-5806X36 OR EQUAL, 36" L. REAR MOUNTED PER DETAIL 14/A-11.1.
- GRAB BAR, BOBRICK #B-5806X48 OR EQUAL, 48" L. SIDE MOUNTED PER DETAIL 14/A-11.1.
- SURFACE MOUNTED TOILET TISSUE DISPENSER, BOBRICK, B-2842
- SURFACE MOUNTED TOILET SEAT COVER DISPENSER, BOBRICK, B-221, SEE DETAIL 18/A-11.1.
- SURFACE MOUNTED SANITARY NAPKIN DISPOSAL, BOBRICK, B-254
- ACCESSIBLE URINAL, SEE DETAIL 20/A-11.1 AND PLUMBING DRAWINGS.
- STANDARD URINAL, SEE PLUMBING DRAWINGS.
- WALL MOUNTED ELECTRIC HAND DRYER, BOBRICK, B-1125 SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
- ACCESSIBLE TOILET, SEE PLUMBING DRAWINGS AND 14/A-11.1.
- STANDARD TOILET, SEE PLUMBING DRAWINGS.
- ACCESSIBLE ADJUSTABLE SHOWER SPRAY UNIT WITH 54" LONG HOSE AND MIXING VALVE, SEE PLUMBING DRAWINGS.
- STANDARD SHOWER SPRAY UNIT WITH MIXING VALVE, SEE PLUMBING DRAWINGS.
- JANITOR'S SERVICE SINK 24" x 8" SEE PLUMBING DRAWINGS
- REGENCY SPACE SOLUTIONS 24" LONG FIXED SHELF WITH UTILITY HOOKS, #600NSB24.
- PROVIDE BOBRICK SHOWER OR TUB CURTAIN #204-3, ROD #B-610TX60, AND HOOKS #204-1.
- PROVIDE SCRANTON HEAVY DUTY COMMERCIAL GRADE SHOWER CURTAIN AND HOOKS SYSTEM TO WORK WITH SCRANTON SHOWER COMPONENTS. PROVIDE CUT SHEET TO ARCHITECTS FOR APPROVAL.
- PROVIDE SEMI-RECESSED 12 GALLON TRASH RECEPTACLE, BOBRICK, B-3644.
- ACCESSIBLE ADJUSTABLE TUB / SHOWER SPRAY UNIT, SEE PLUMBING DRAWINGS.
- BOBRICK B-58616 TWO-WALL GRAB BAR, 1-1/4" DIA. 24" x 36", SEE DETAIL 5/A-11.1.
- BOBRICK B-5143 RECTANGULAR FOLDING SHOWER SEAT, SEE DETAIL 5/A-11.1.
- GRAB BAR, BOBRICK #B-5806X24 OR EQUAL, 24" L. AT ADA TUB. SEE DETAIL XX/XX.
- GRAB BAR, BOBRICK #B-5806X18 OR EQUAL, 18" L. AT ADA TUB. SEE DETAIL XX/XX.
- TUB SEAT, SEACHROME, #STB-300150-TWA, REMOVABLE SEAT, 30"x15" WITH ADJUSTABLE POSTS.
- ACCESSIBLE TUB, SEE PLUMBING DRAWINGS.
- STAINLESS STEEL SHELF, BOBRICK #B-245 SERIES, FULL WIDTH PER PLAN X 5'D.
- WOOD WALL MIRROR, WATTFARGOM, CASTIN SOLID WOOD FLAT WALL MIRROR 36" x 36", SKJ M1100684R COLOR: BLACK.

PARTIAL ENLARGED PLAN KEY NOTES

- 5'-0" DIA. CLEAR FLOOR AREA CLEAR OF OBJECTS FROM FLOOR TO +21" A.F.F. TYP. SEE ACC-3 FOR CLEAR DIMENSIONS.
- 30" x 48" CLEAR FLOOR AREA CLEAR OF OBJECTS FROM FLOOR TO +21" A.F.F. TYP. SEE ACC-3 FOR CLEAR DIMENSIONS.
- FLOOR TRENCH DRAIN, SEE PLUMBING DRAWINGS.
- PROVIDE ALL REQUIRED DIMENSIONS AS NOTED IN CONFIGURATION AS ON DETAIL 5/ACC-3.

NOTE:

- REFER TO LARGE SCALE ENLARGED PLANS, THIS AREA, FOR ADDITIONAL INFORMATION, SEE DETAIL 8, THIS SHEET.

STAMP



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WEST END REGIONAL NAVIGATION CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

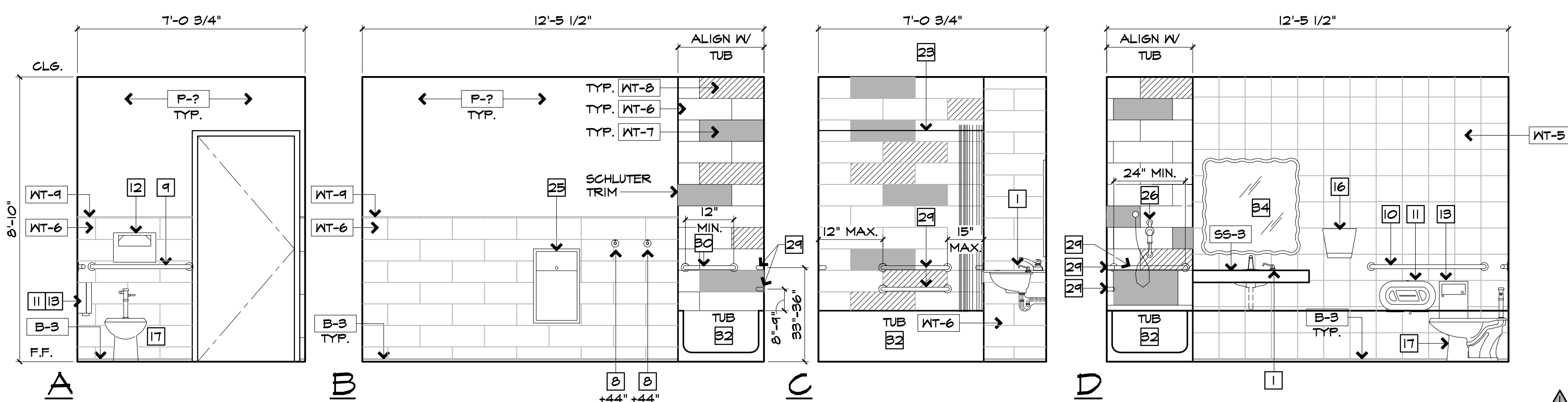
ENLARGED RESTROOMS PLANS & NOTES ROOMS 169, 170 412, 425 & 426

Revisions	By	Date
1. PG CORR 1/BID ISSUE	DAE	4/24/26

Drawn	MFM
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Project No.	25011
Scale	AS NOTED

Sheet

A-7.4



RESTROOM 169

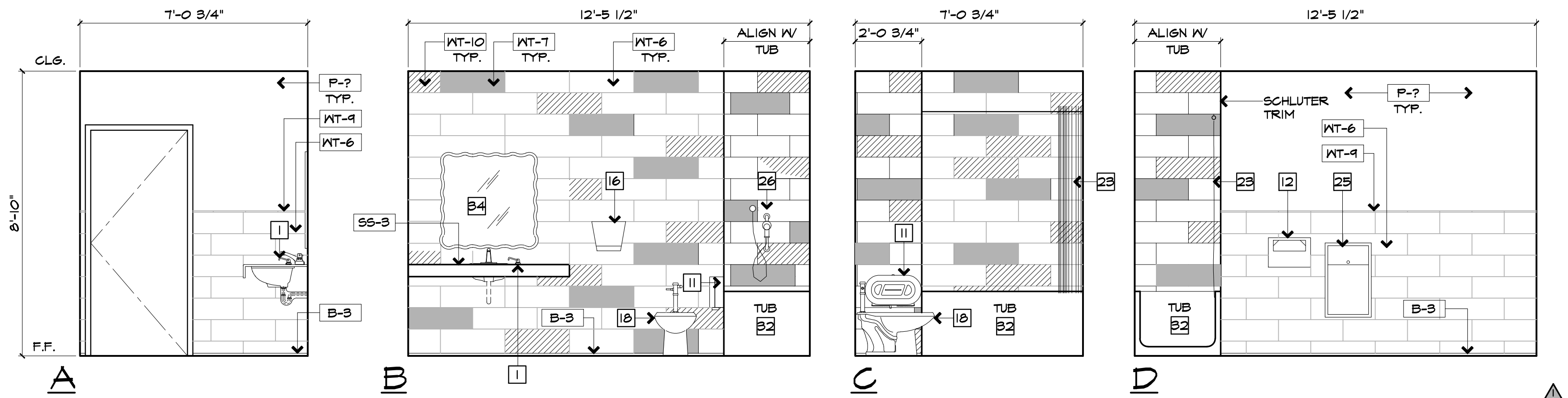
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RESTROOM 106

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

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RESTROOM 170

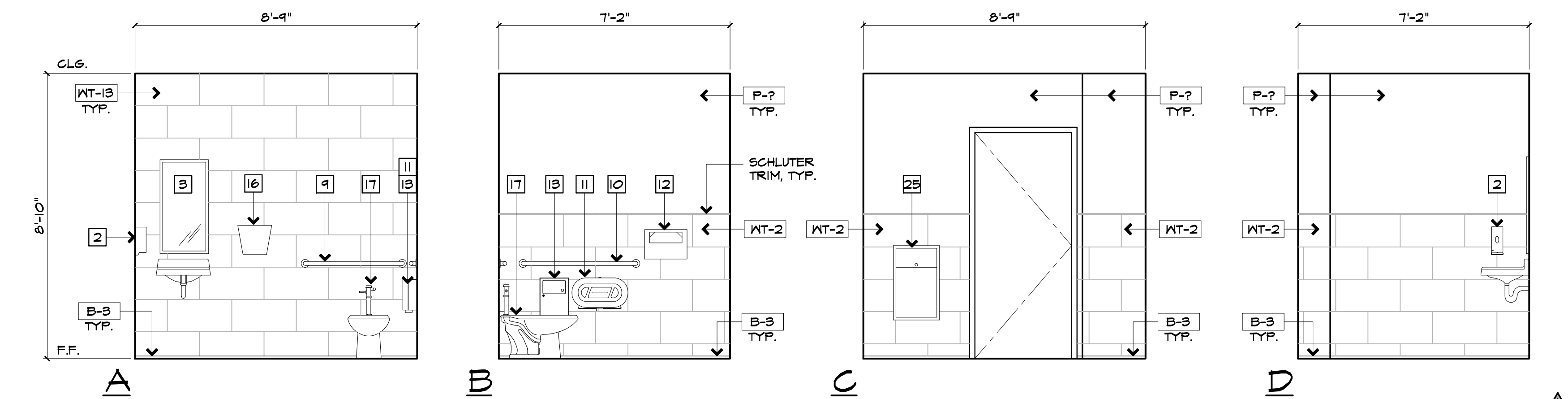
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RESTROOM 107

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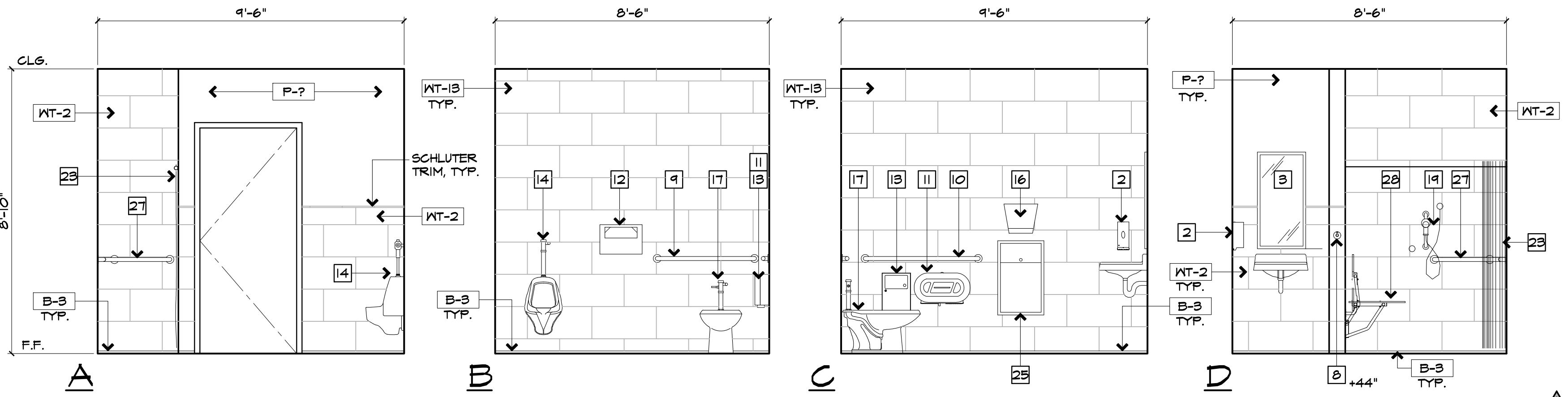
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RESTROOM 114

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

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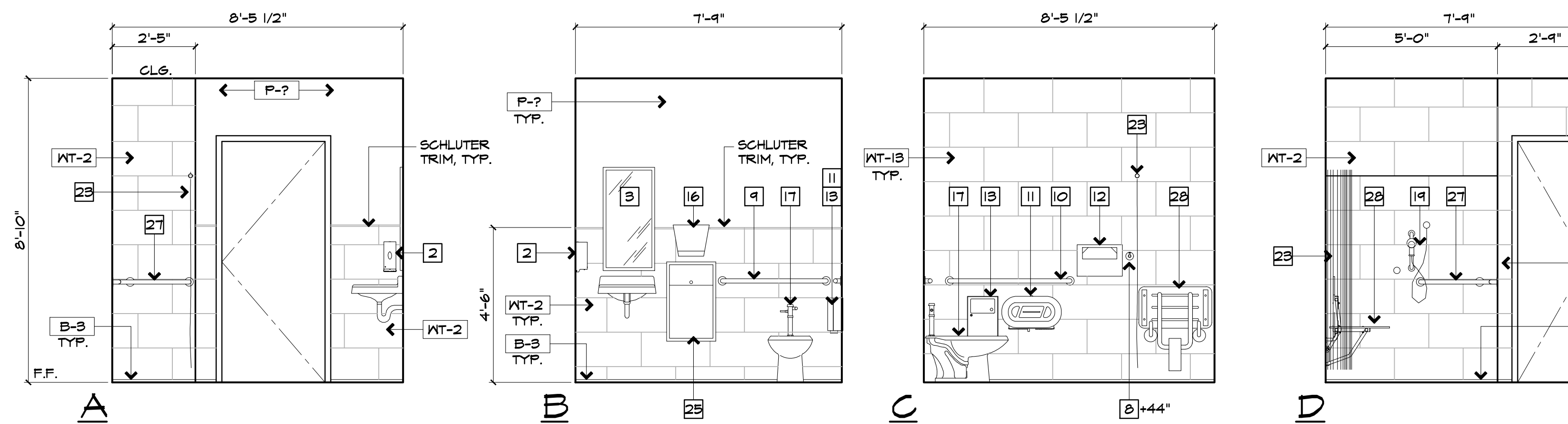
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RESTROOM 137

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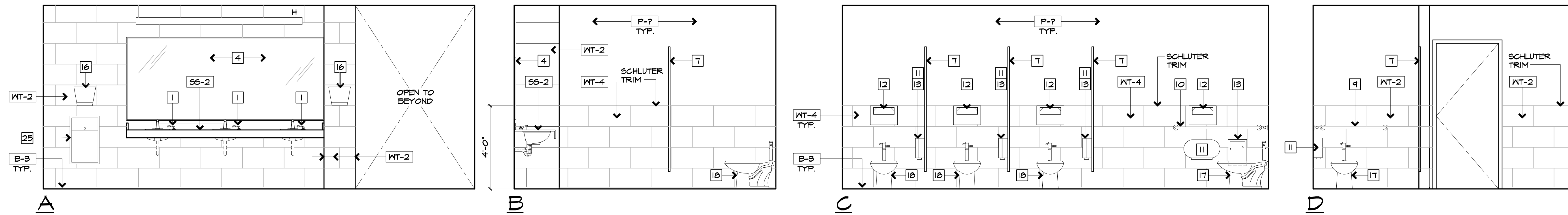
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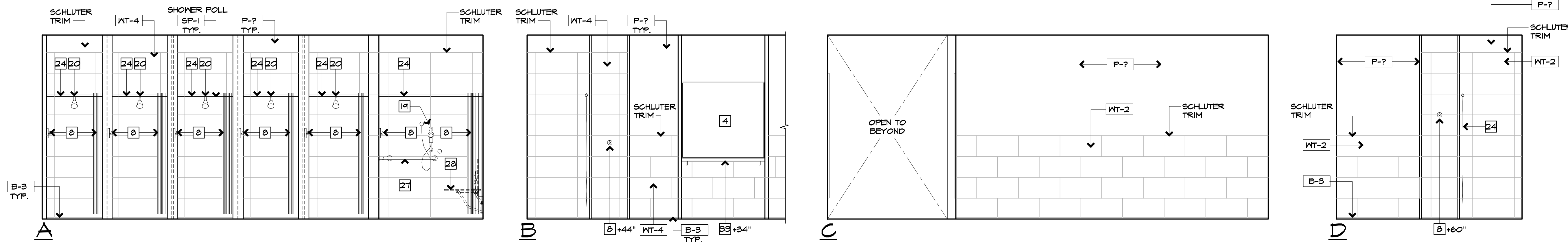
NOTE:
REFER TO SHEET A-7.1 FOR
RESTROOM ACCESSORIES LEGEND.





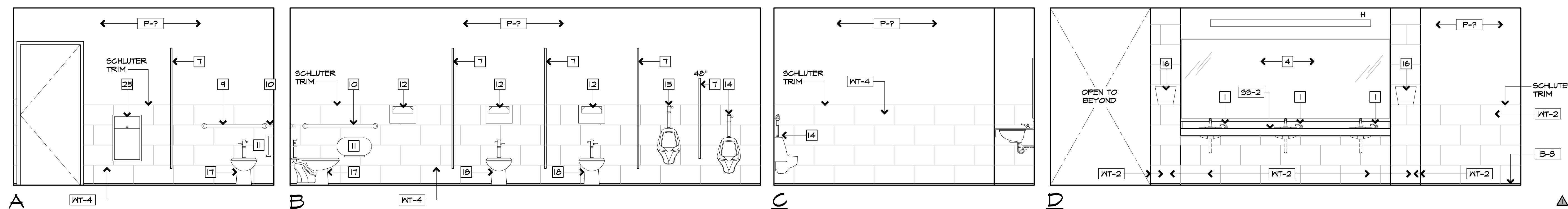
WOMEN RESTROOM RM. 135

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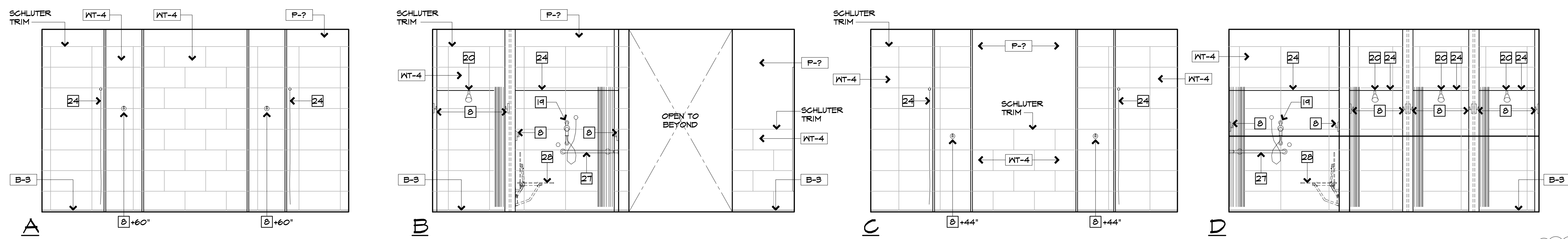
WOMEN SHOWER RM. 135

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



RESTROOM - MEN RM. 138

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



RESTROOM - MEN'S SHOWER RM. 138

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

NOTE:
REFER TO SHEET A-7J FOR
RESTROOM ACCESSORIES LEGEND.



Revisions	By	Date
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Date 2/3/26
Project No. 25011
Scale AS NOTED

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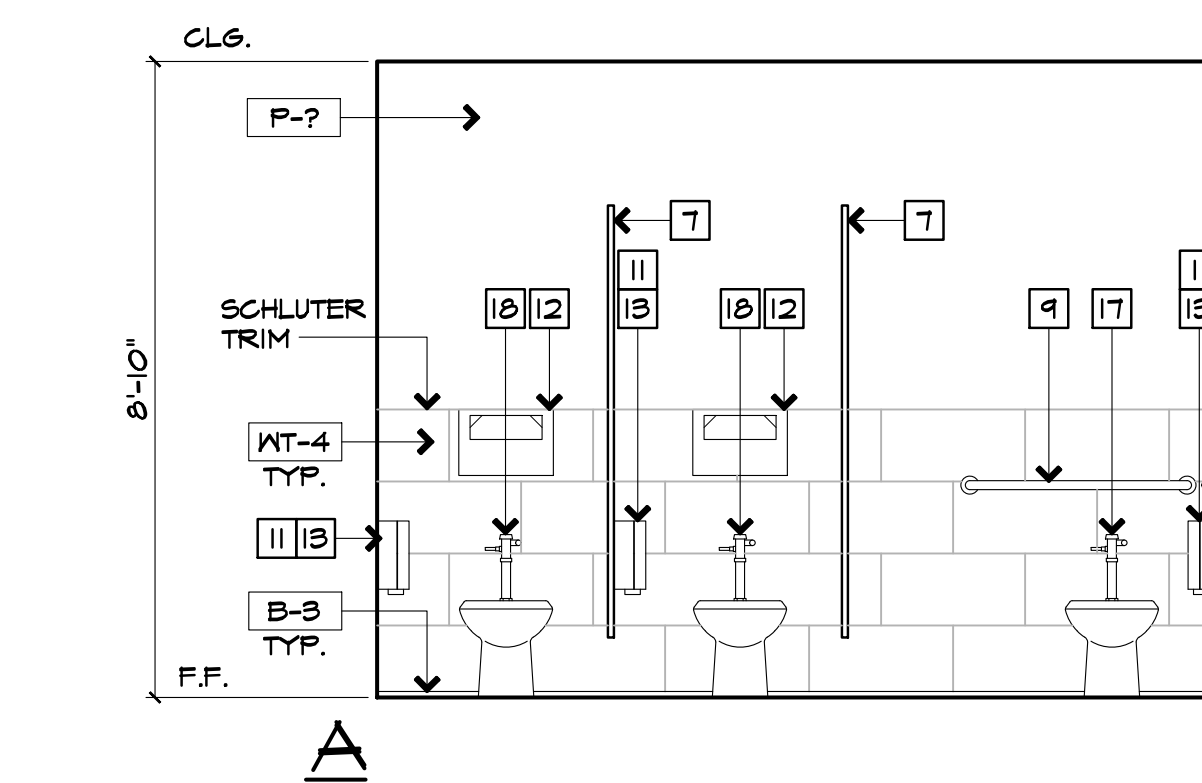


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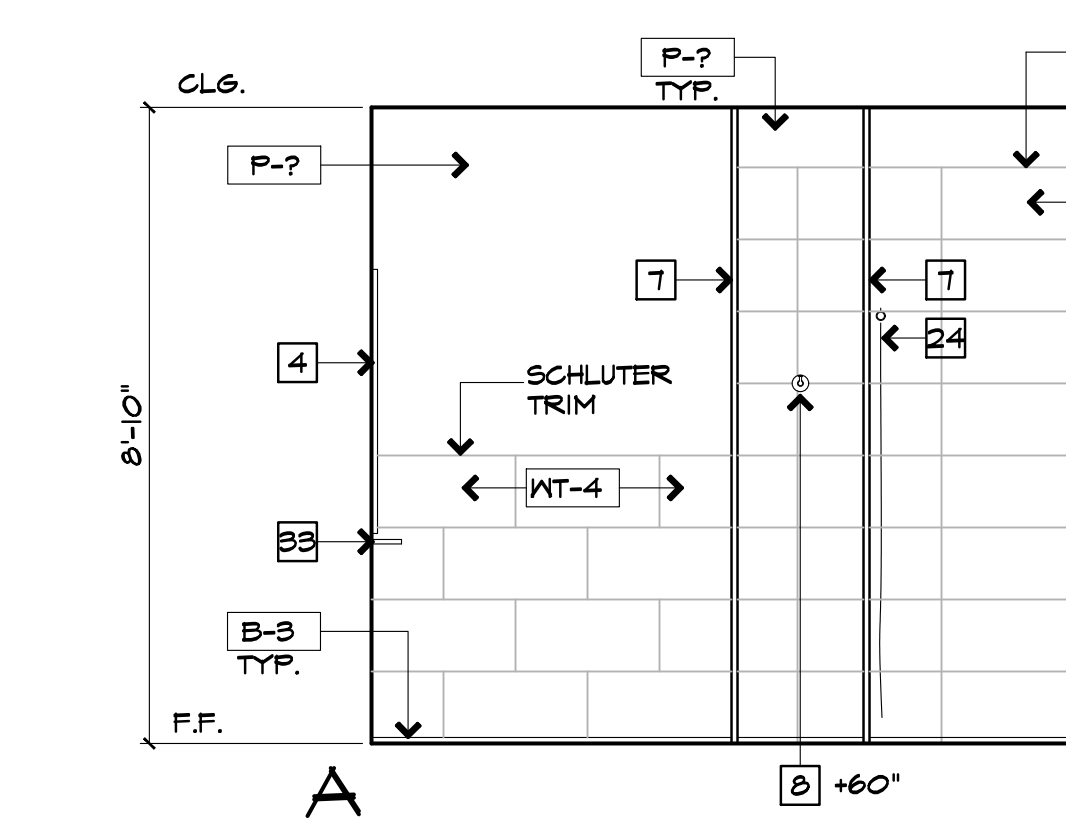
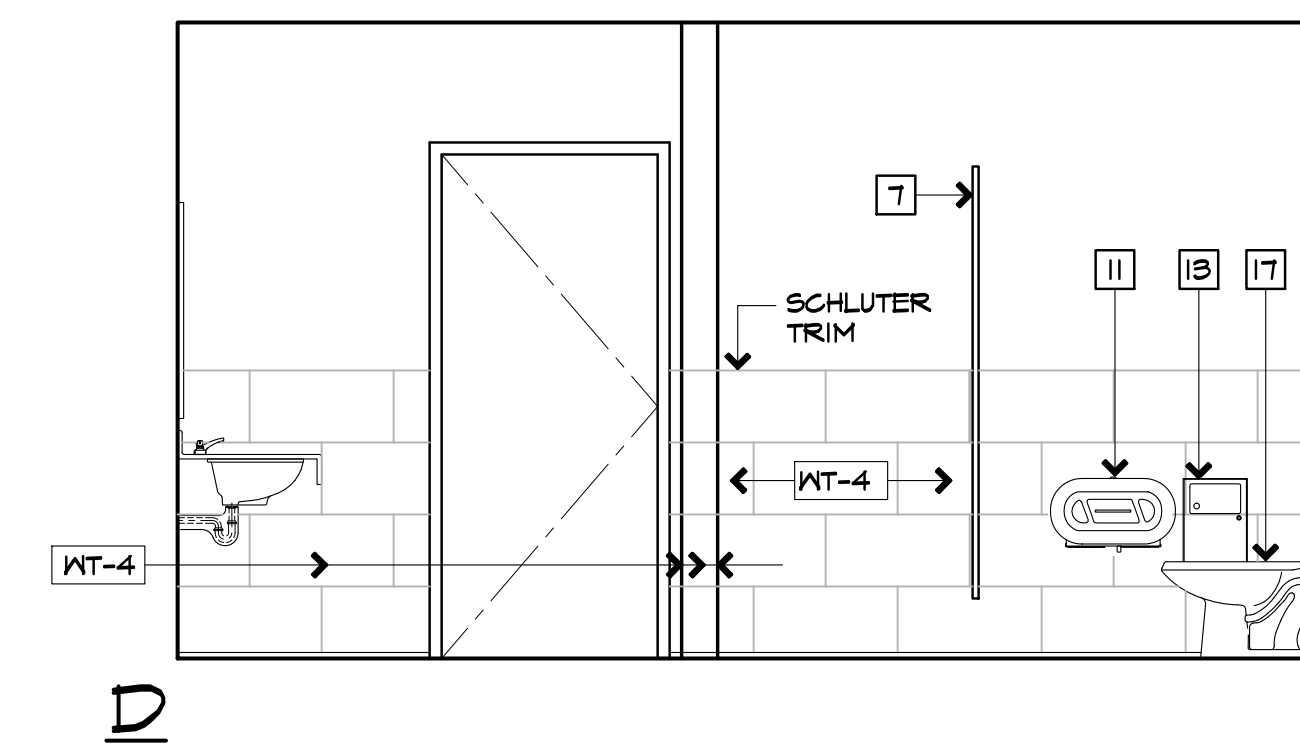
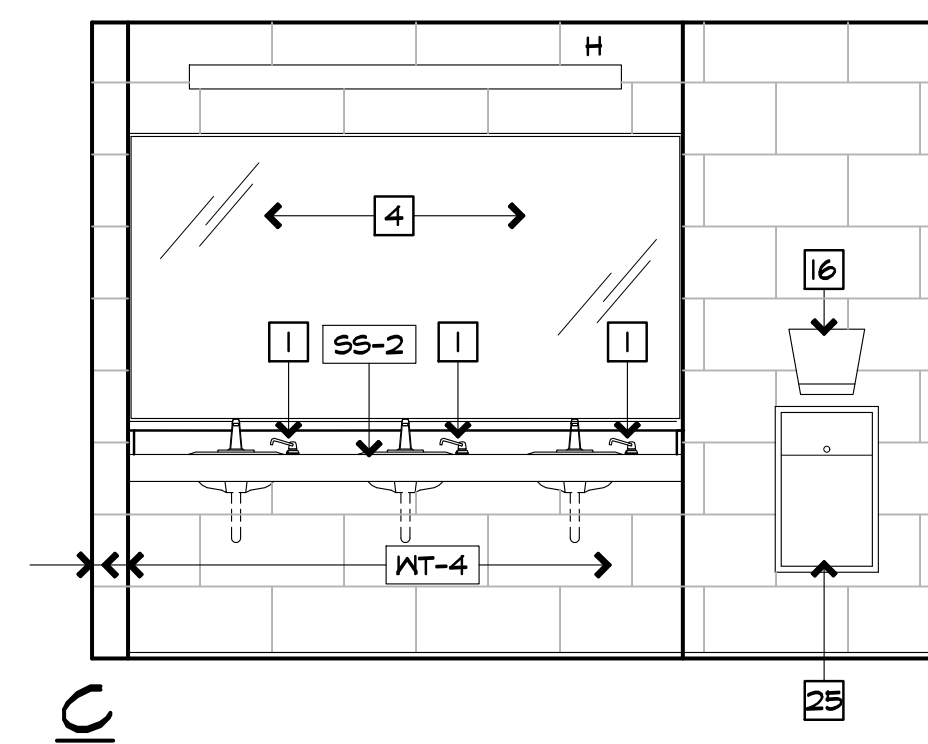
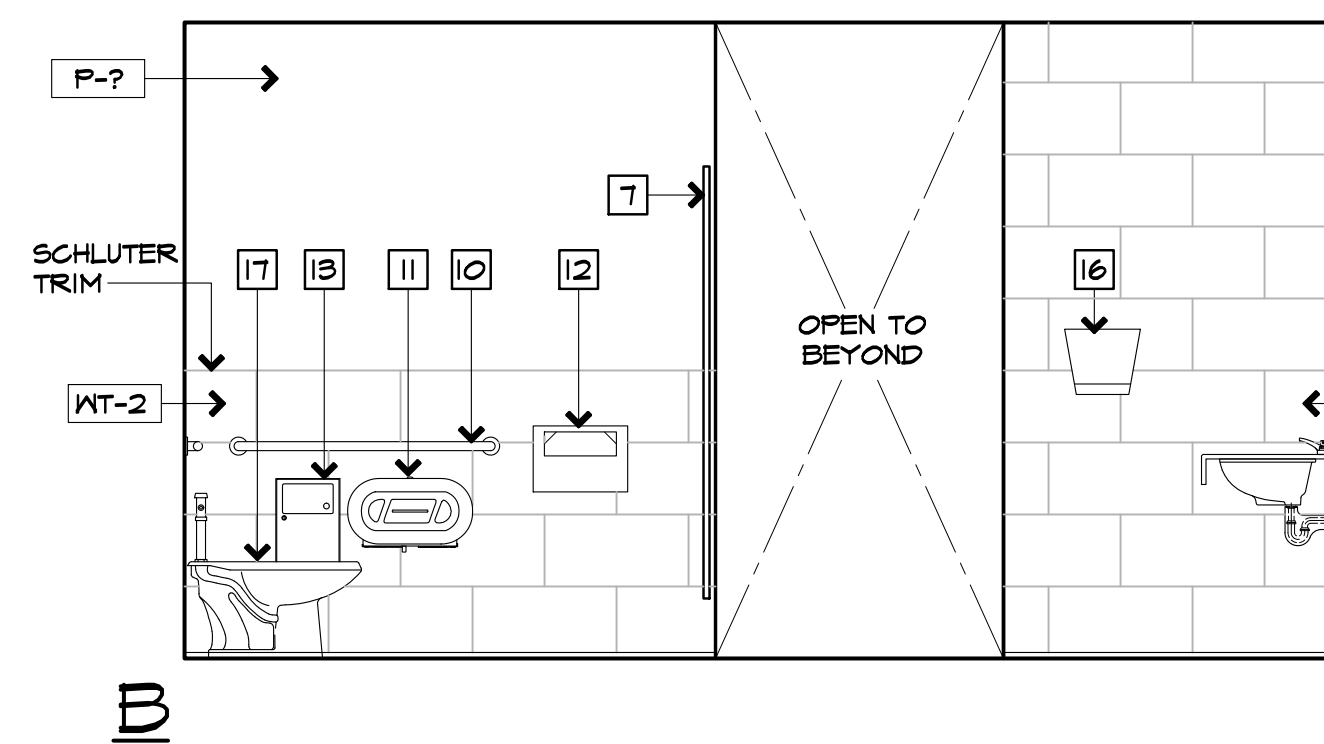
**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



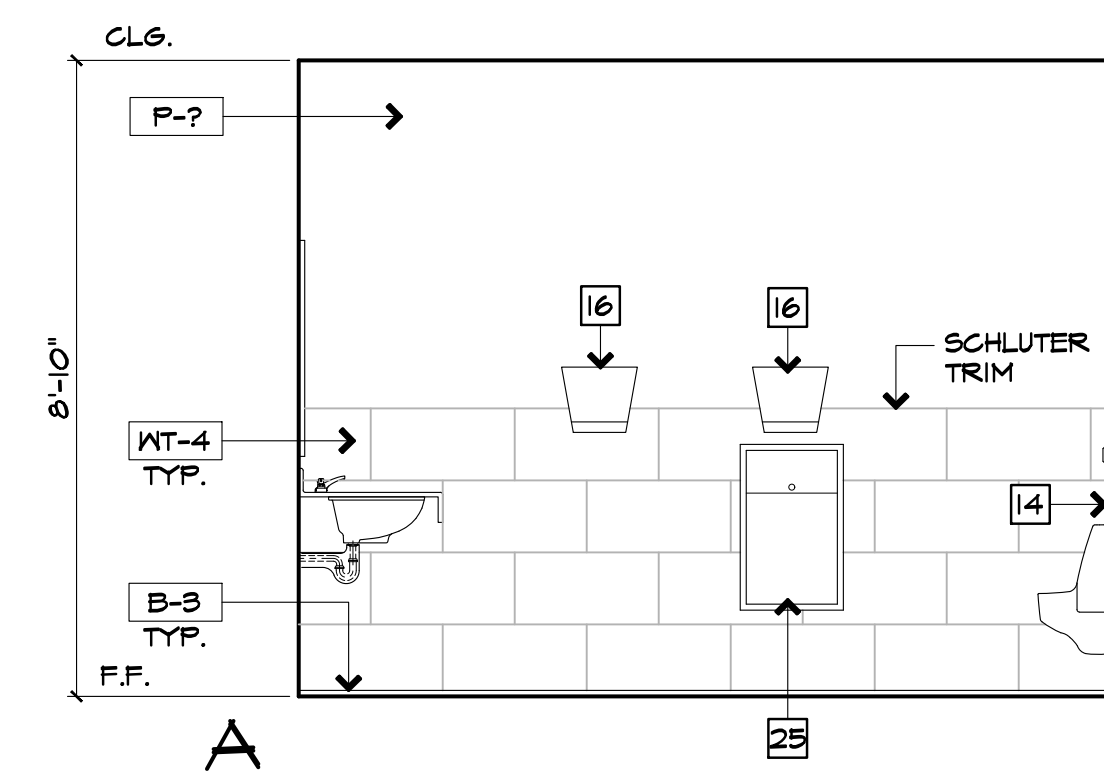
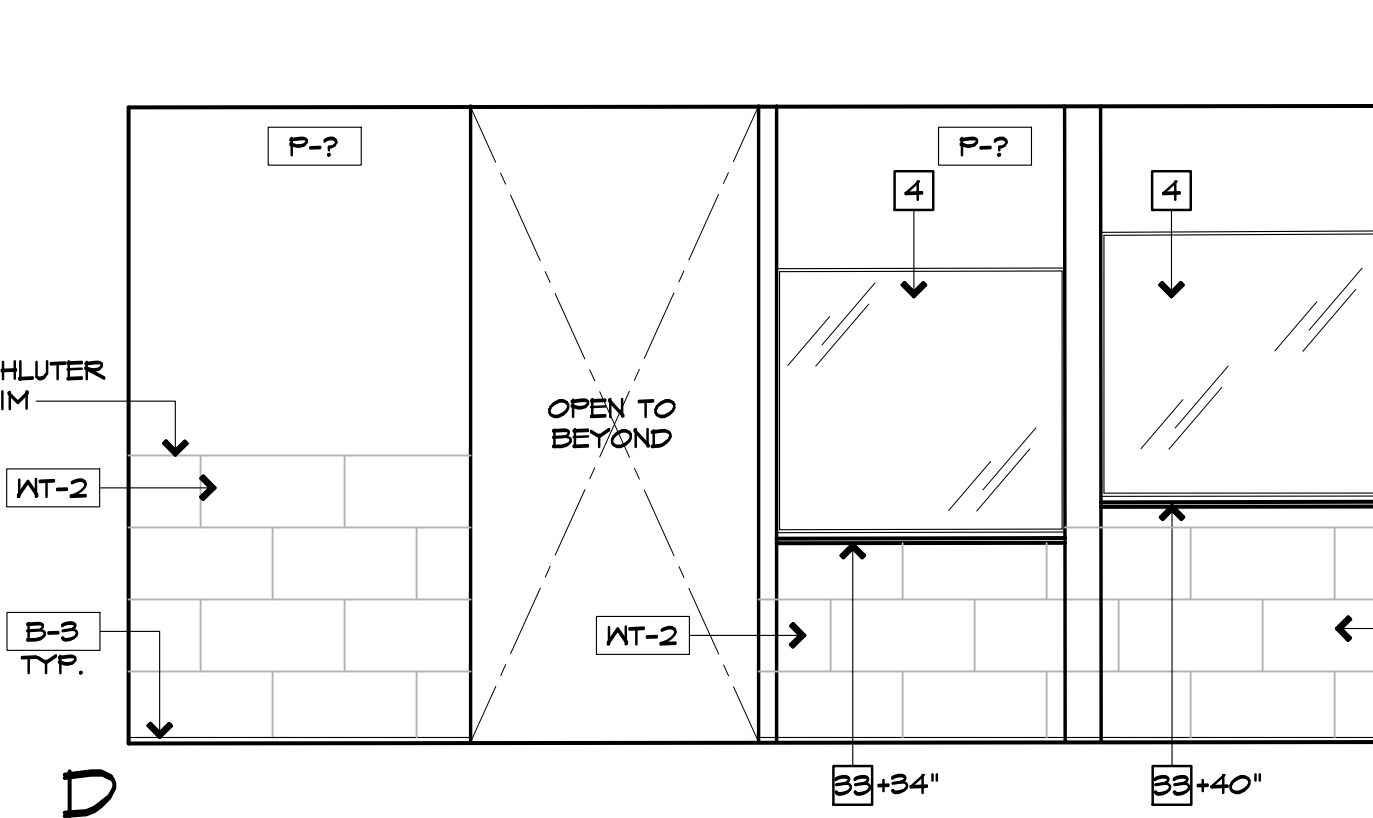
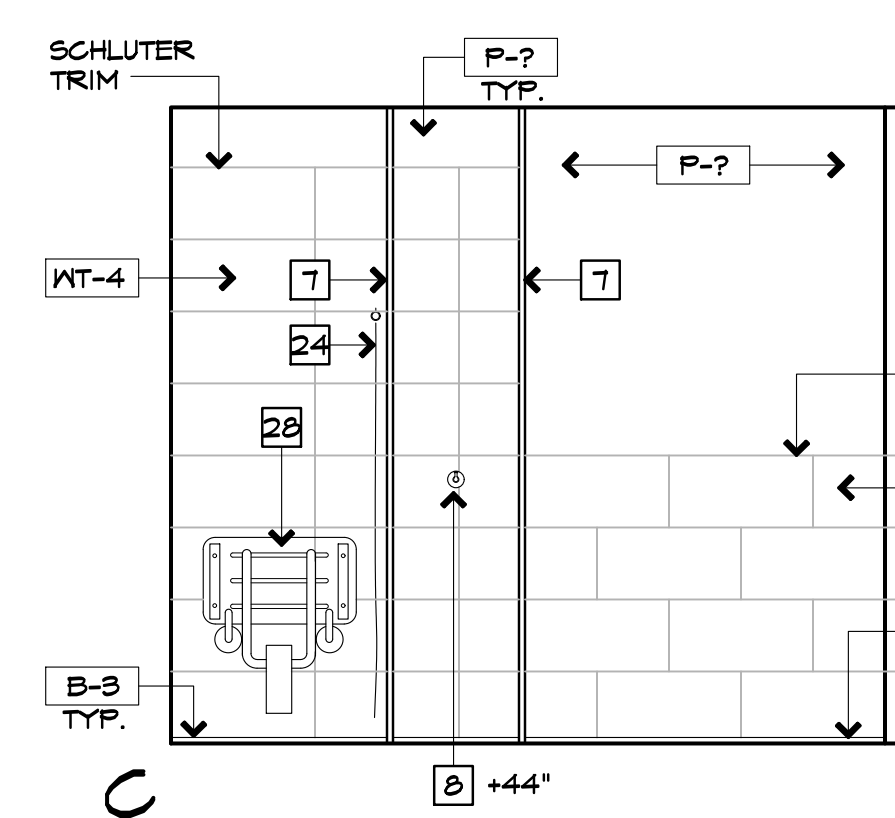
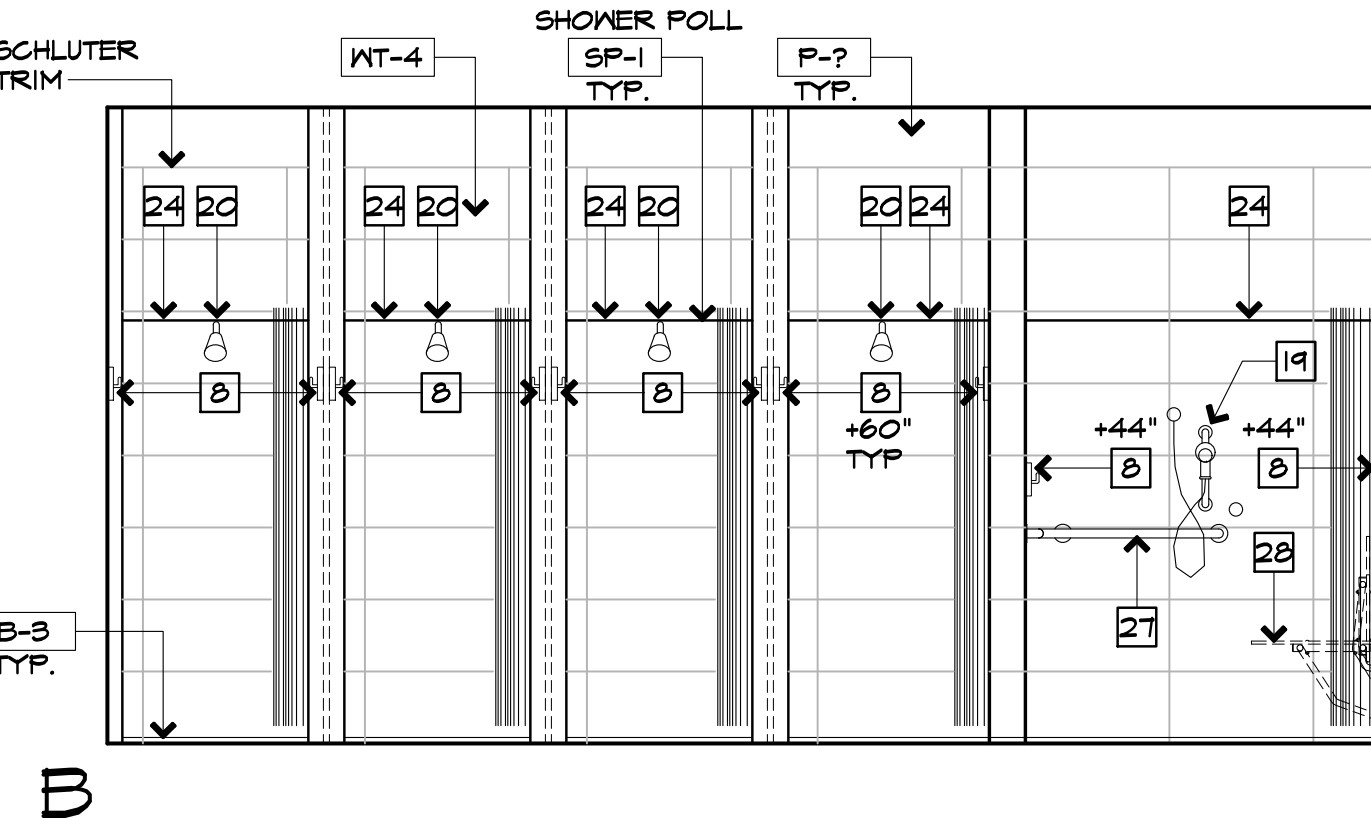
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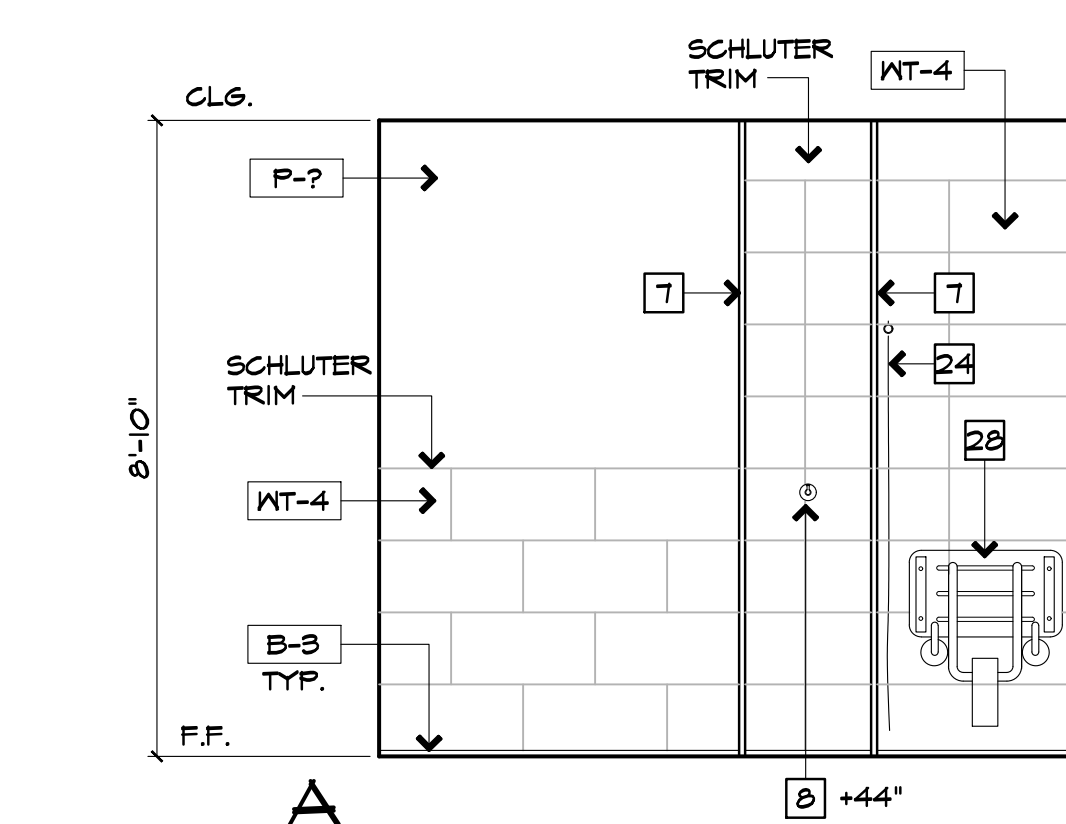
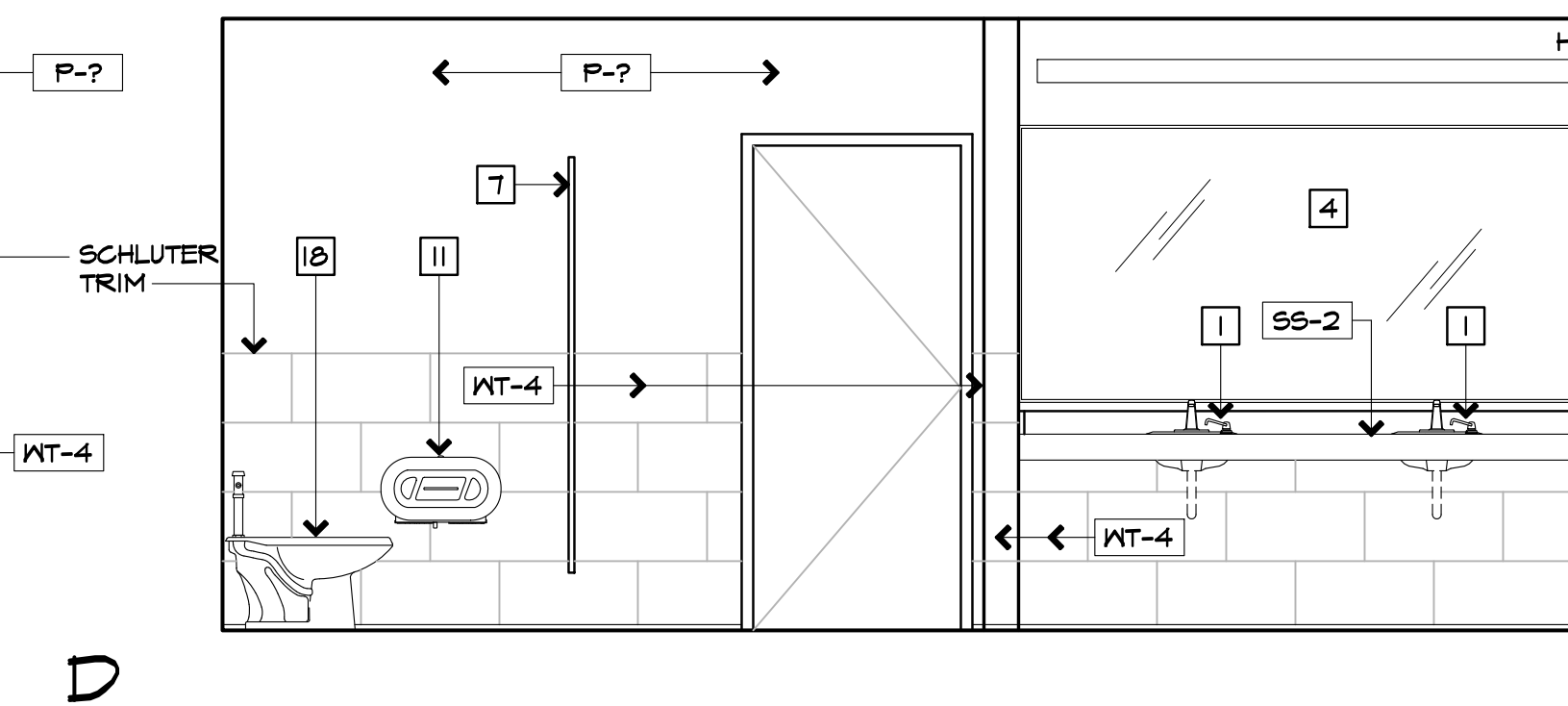
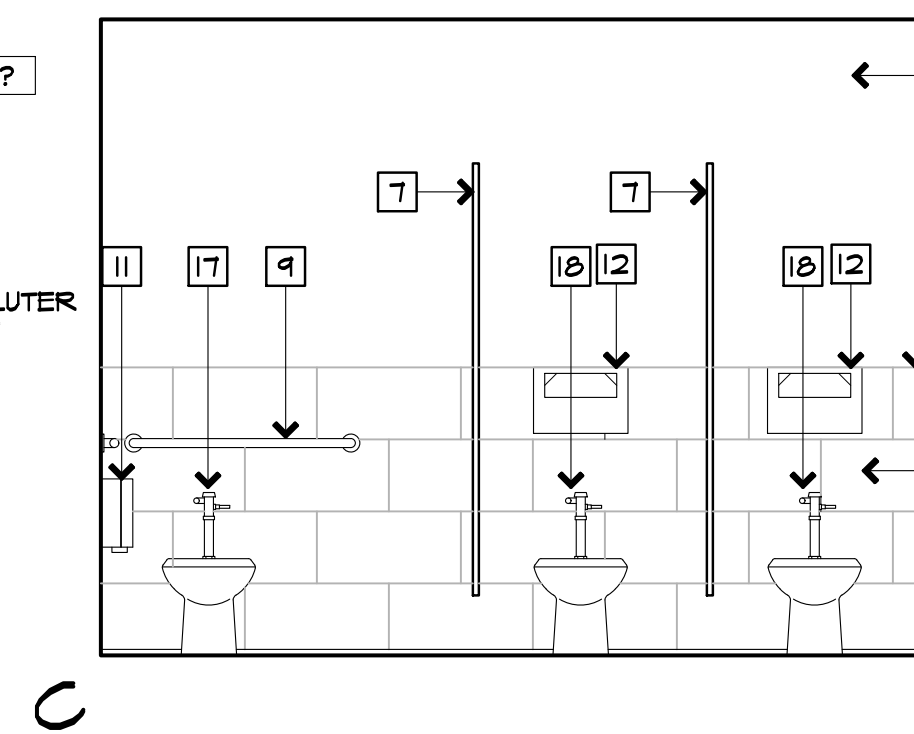
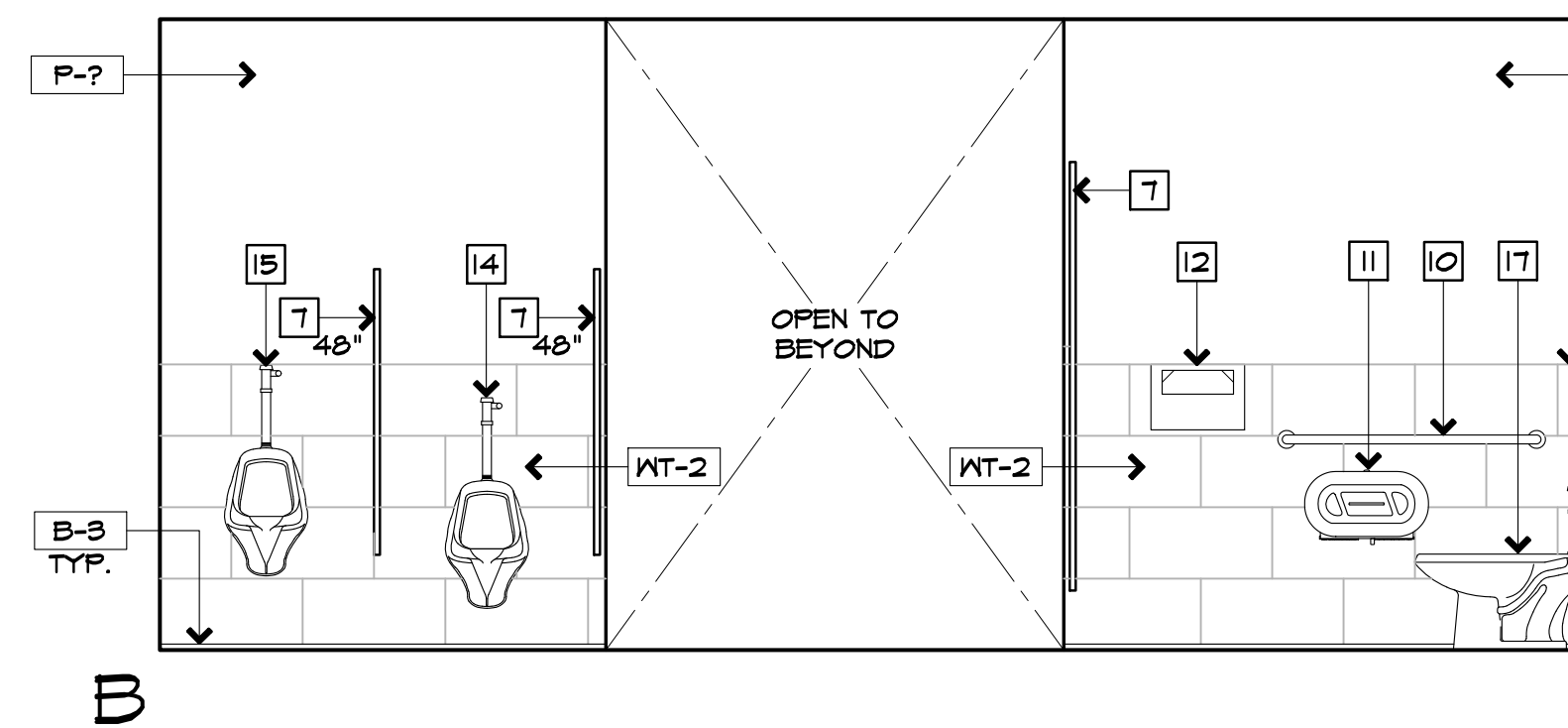
RESTROOM 179

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



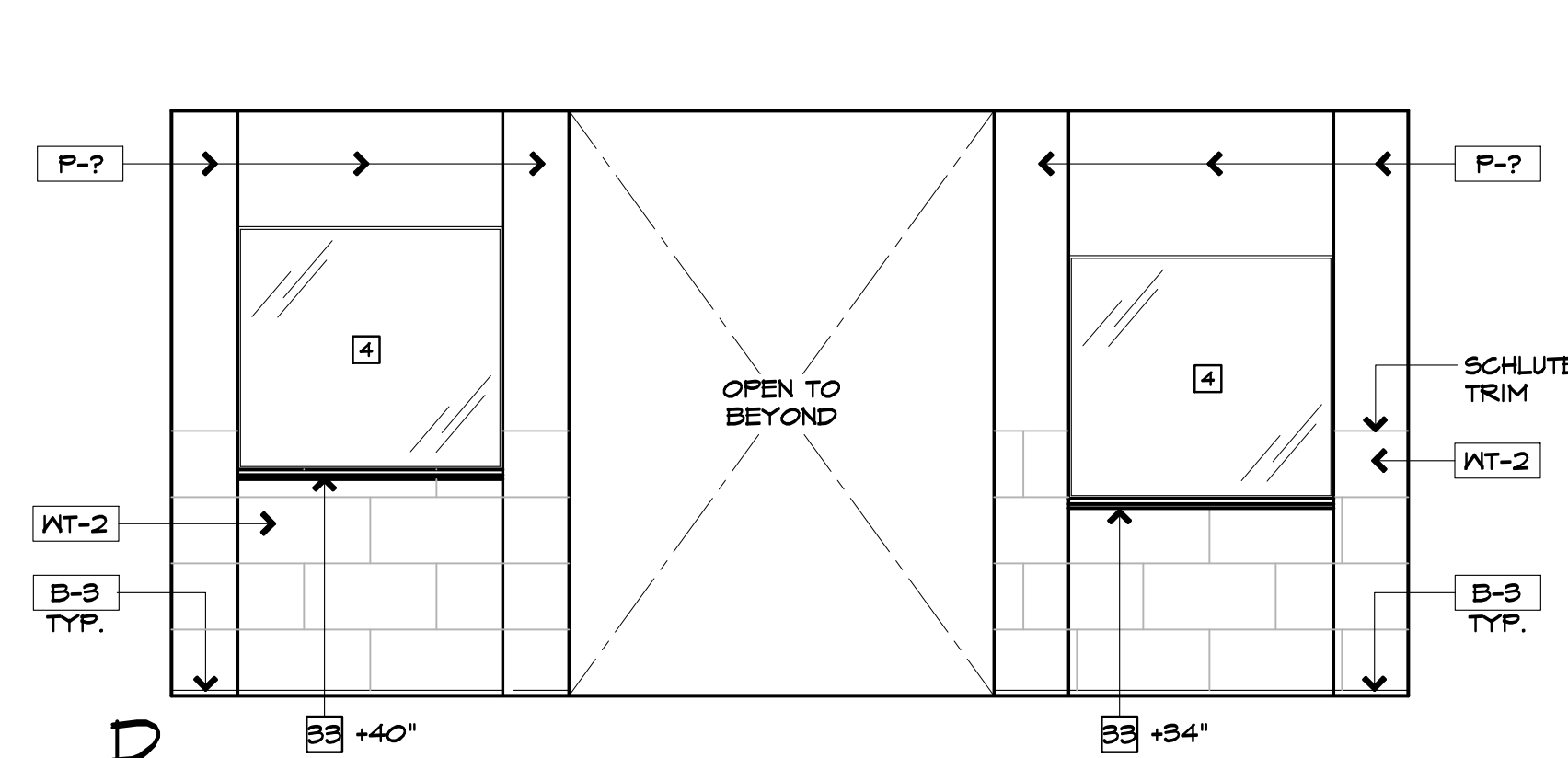
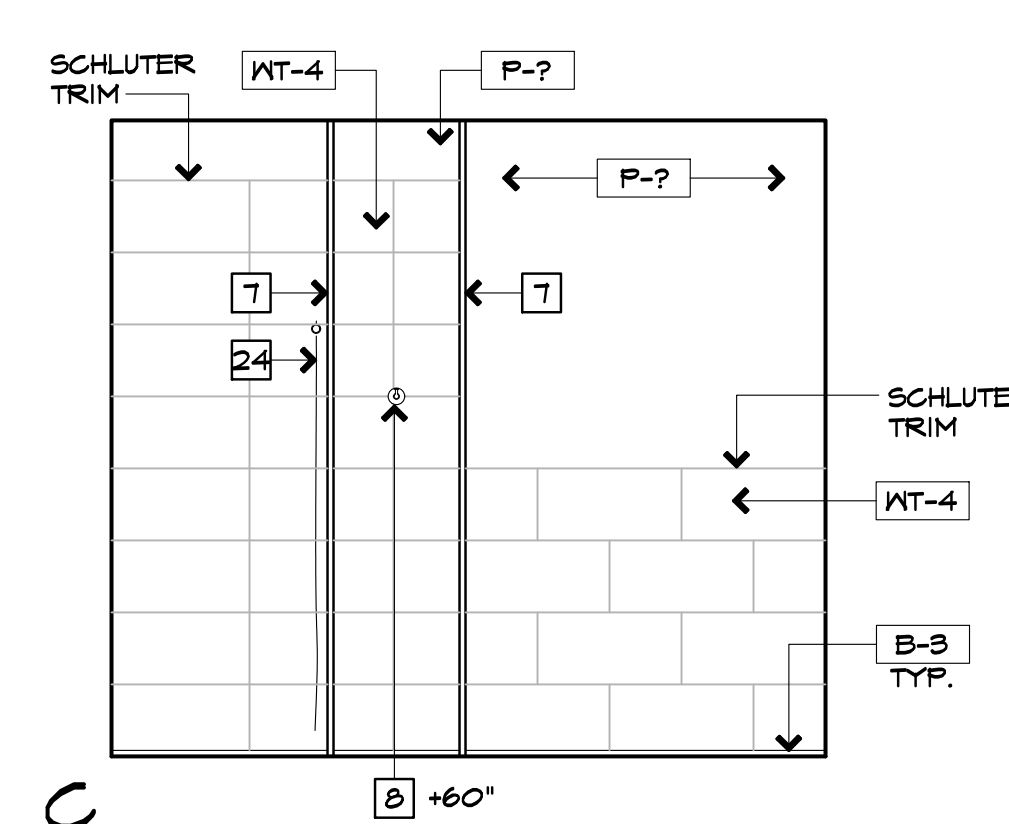
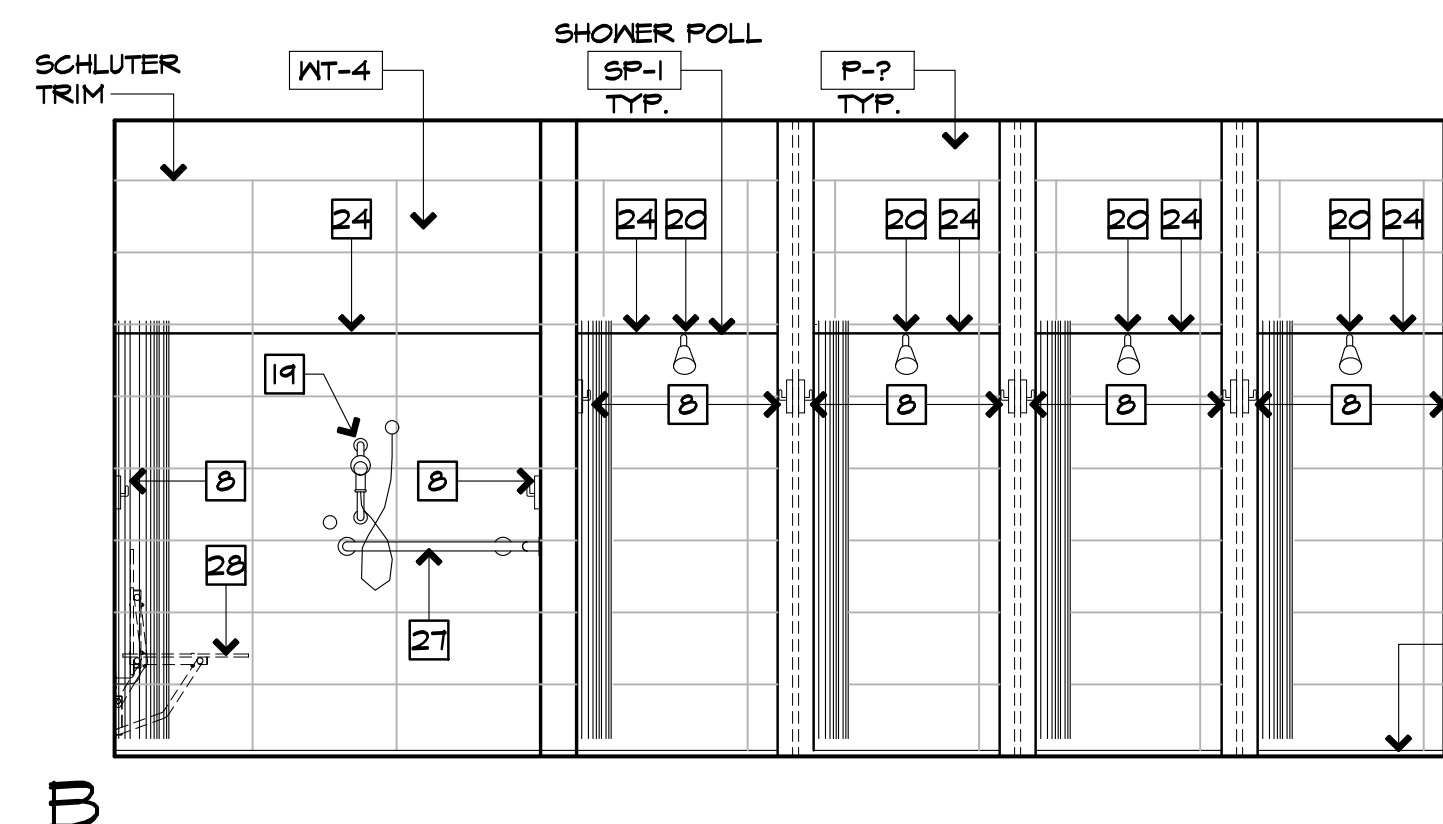
RESTROOM 180

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



RESTROOM 180

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



NOTE:
REFER TO SHEET A-7.1 FOR
RESTROOM ACCESSORIES LEGEND.

FOR



TITLE

**RESTROOM
INTERIOR
ELEVATIONS
179 & 180**

Revisions	By	Date
PC CORR 1/BID ISSUE	DAE	4/24/26

Drawn MFM
Date 2/3/26
Project No. 25011
Scale AS NOTED

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**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

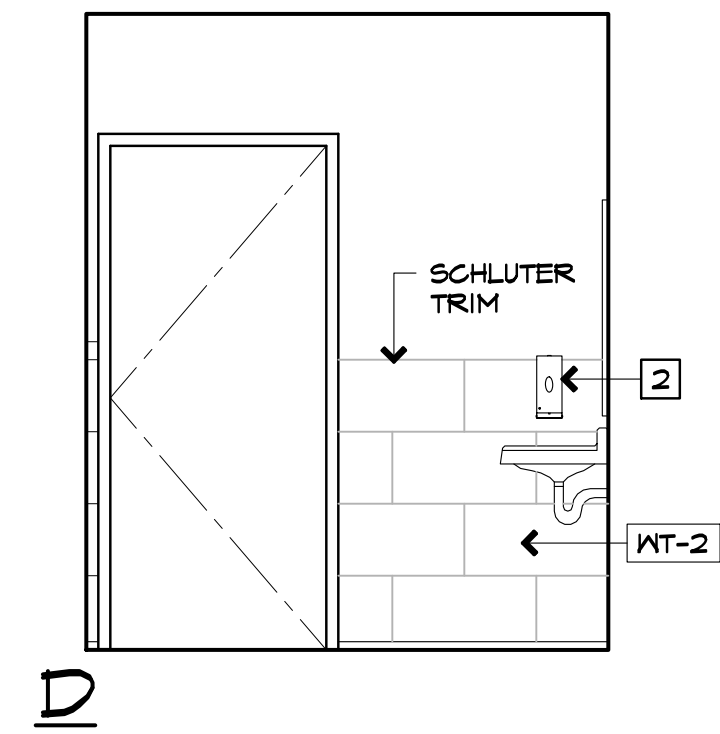
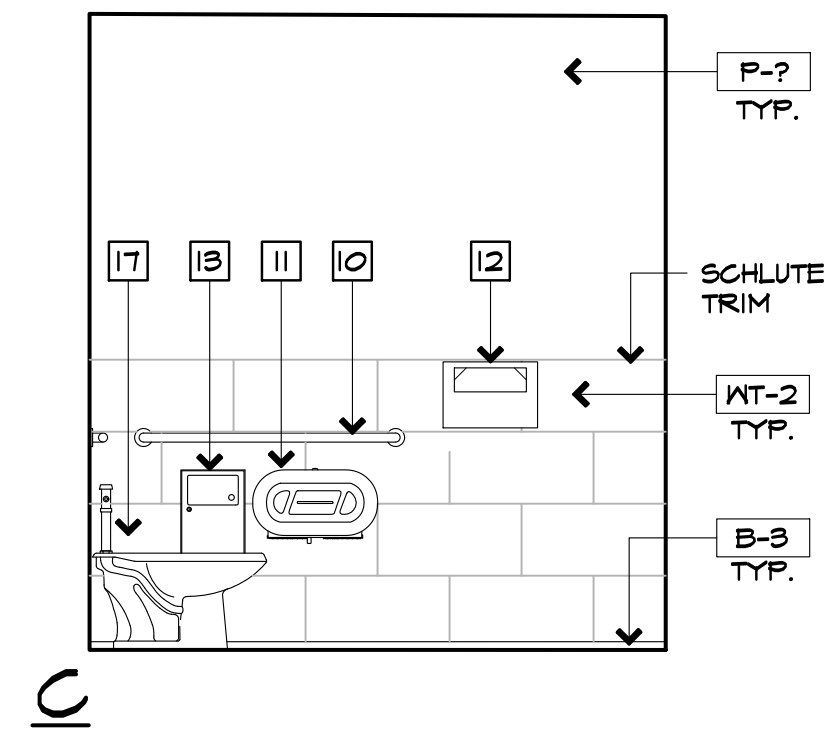
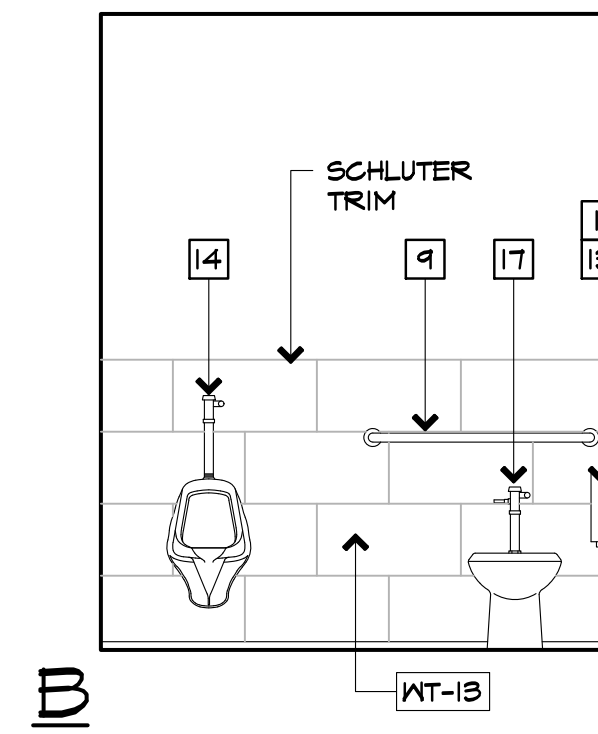
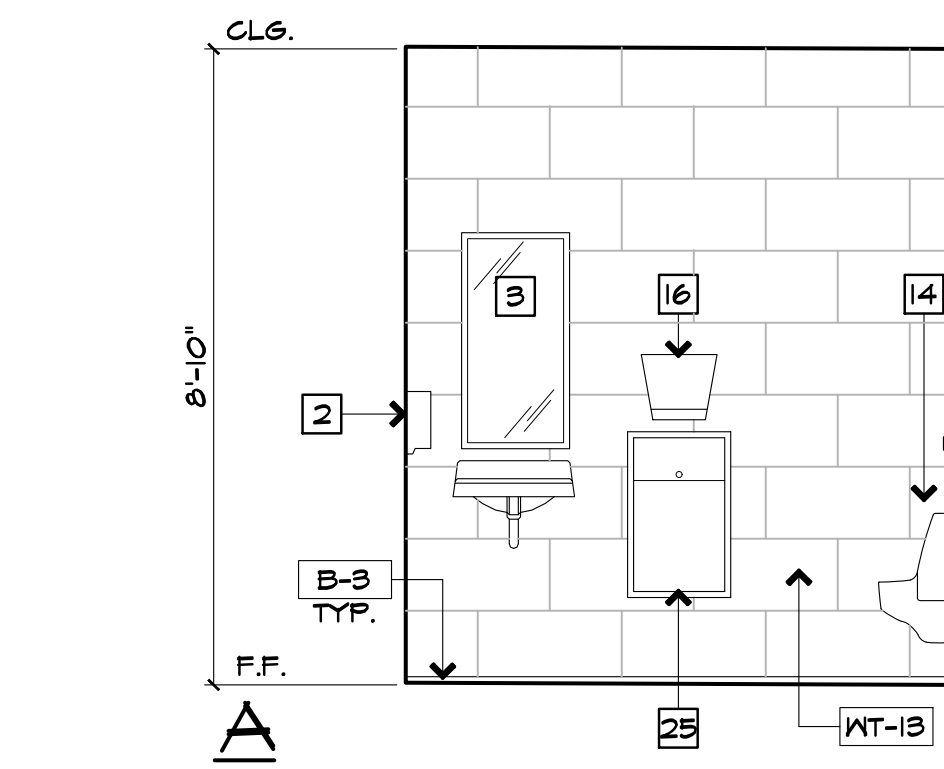
**RESTROOM
INTERIOR
ELEVATIONS 412,
425 & 426**

Revisions	By	Date
△ PC CORR 1/BID ISSUE	MFM	4/24/26

Drawn MFM
Date 2/3/26
Project No. 25011
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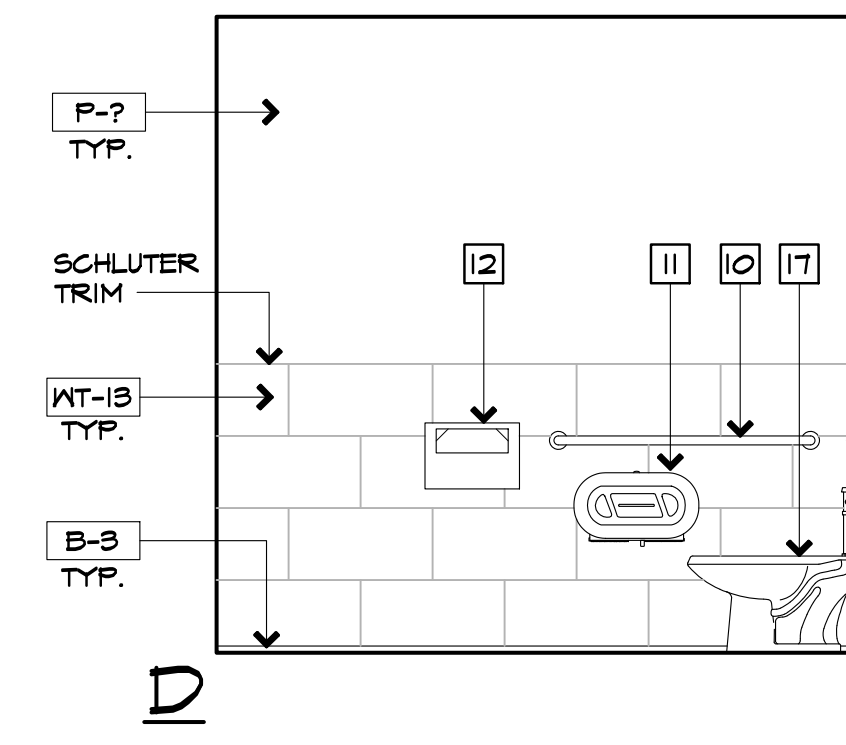
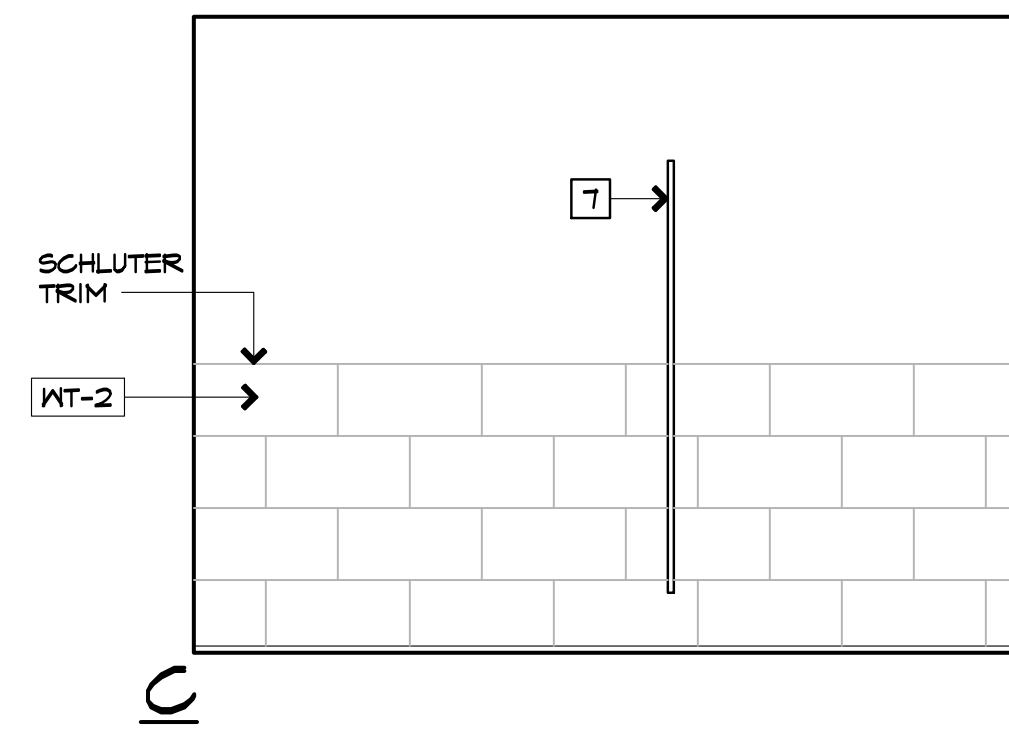
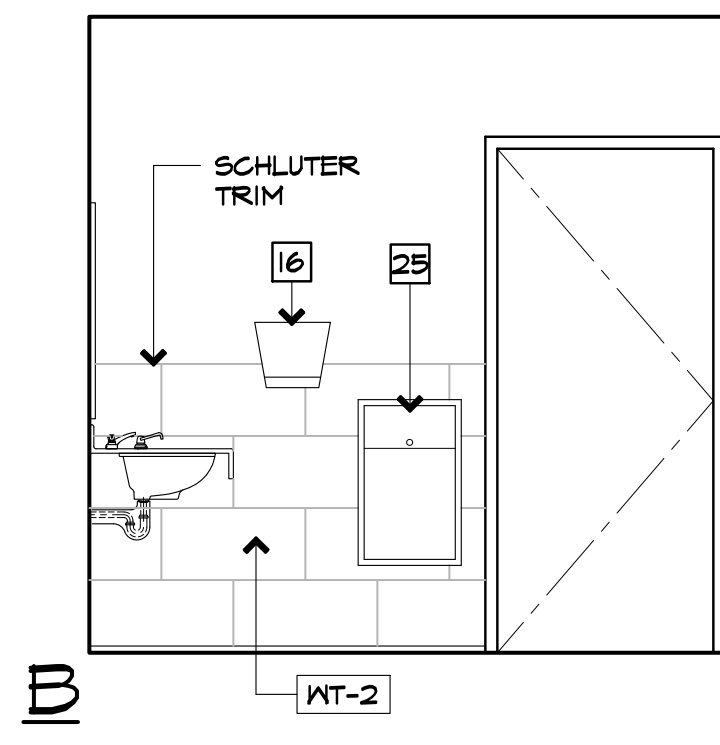
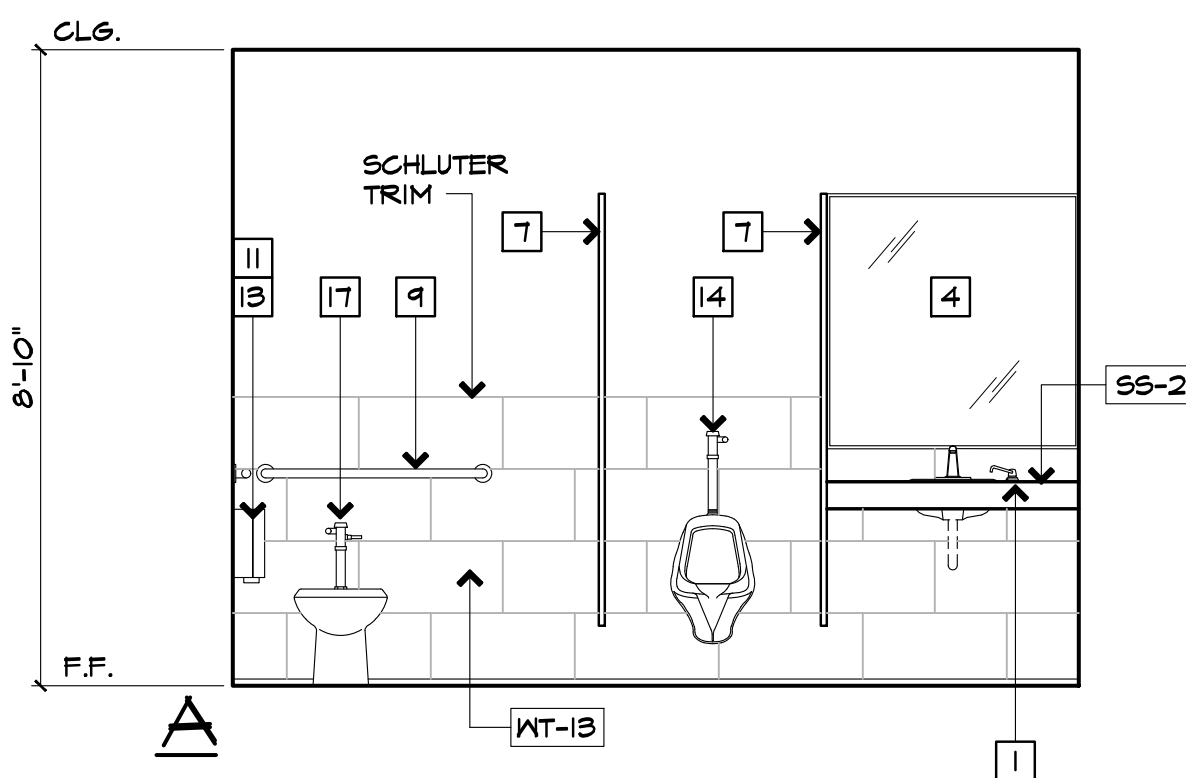
A-8.4



RESTROOM 412

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

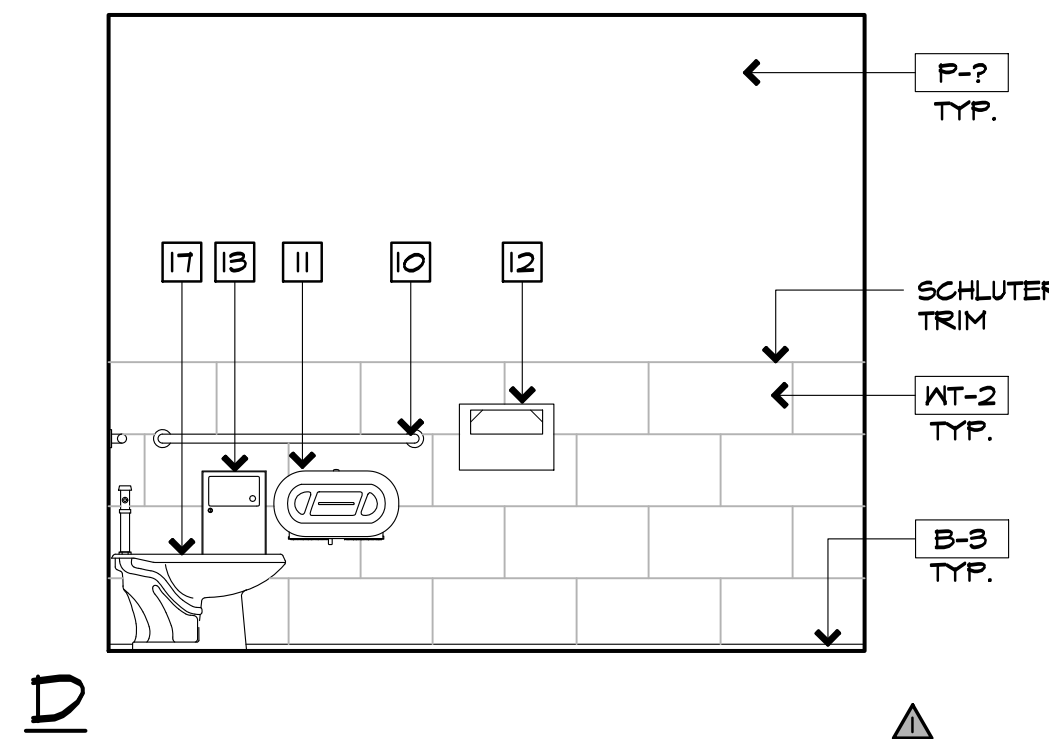
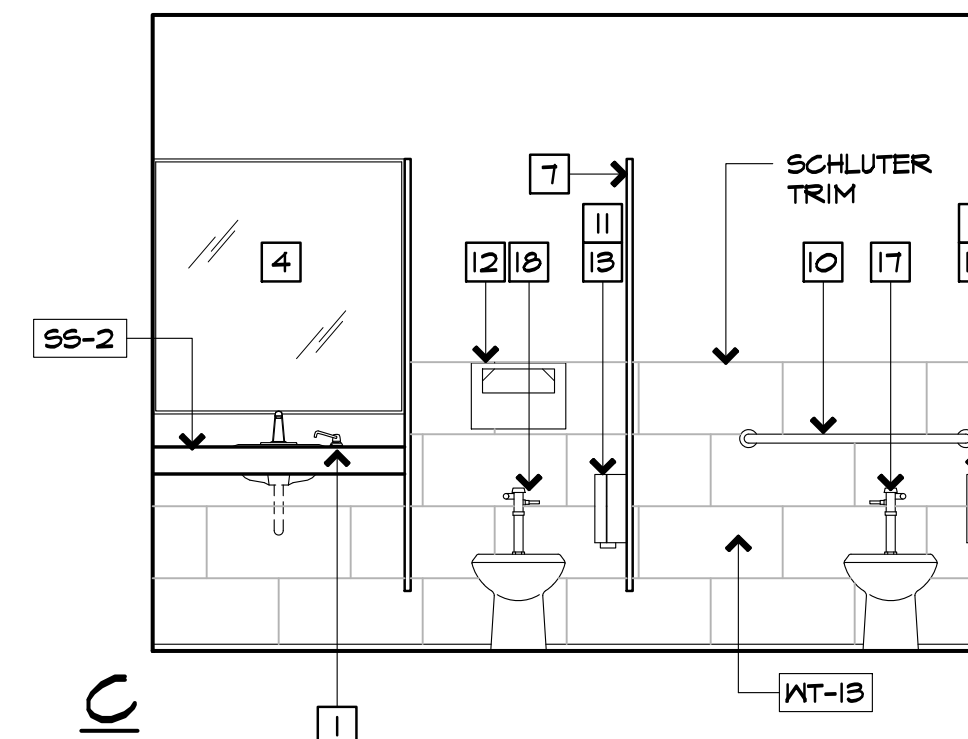
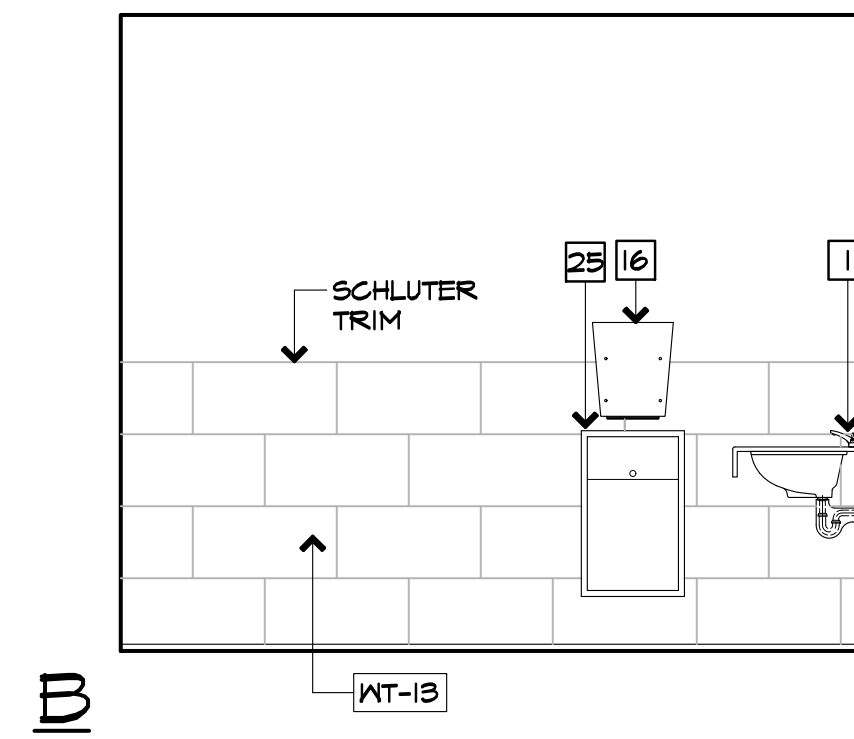
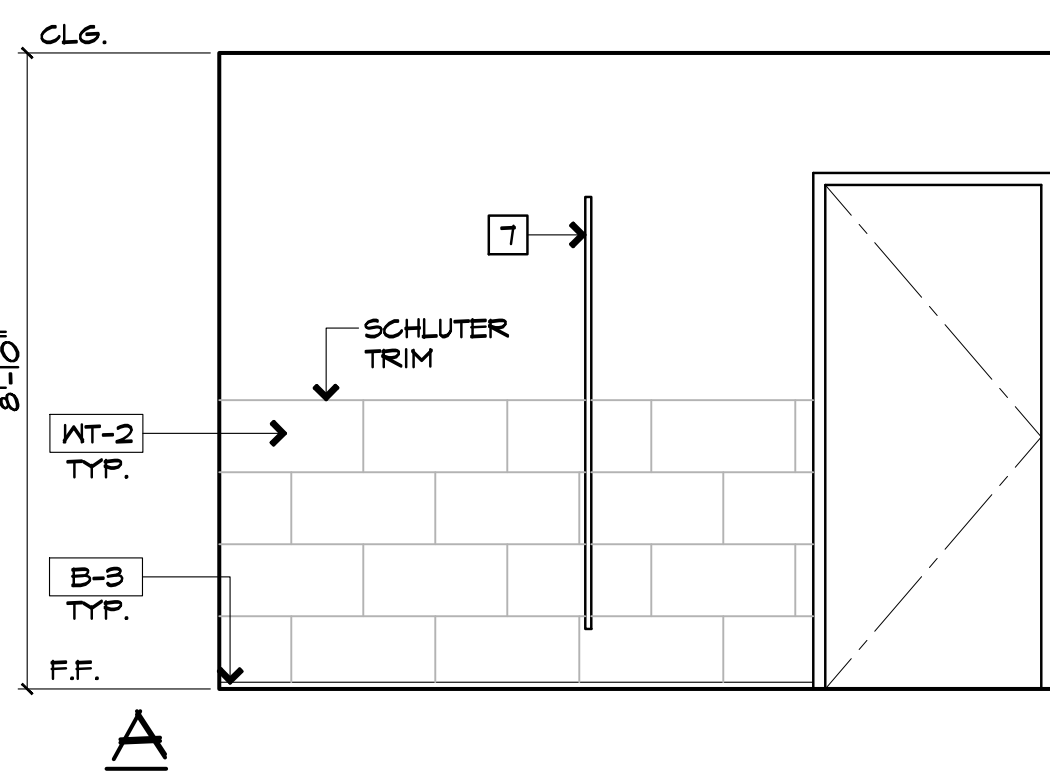
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RESTROOM 425

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

2



RESTROOM 426

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

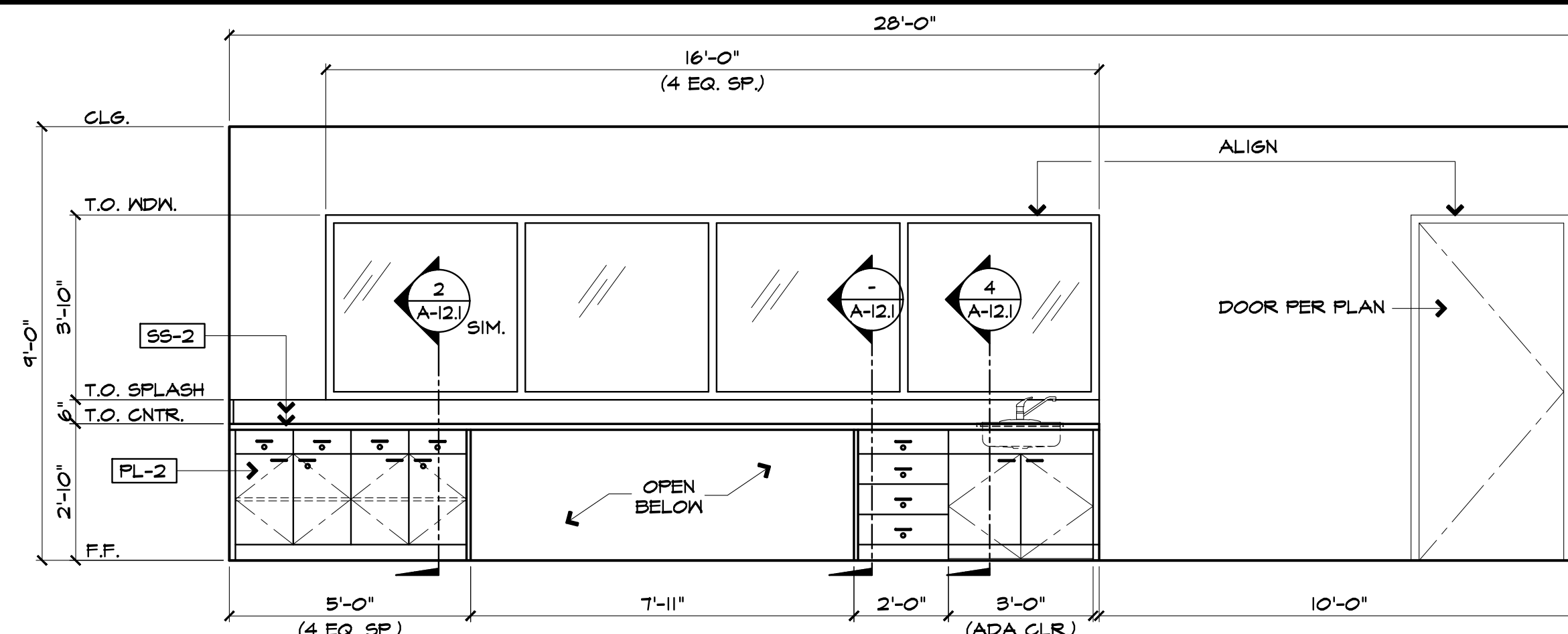
3

NOTE:
REFER TO SHEET A-1.1 FOR
RESTROOM ACCESSORIES LEGEND.



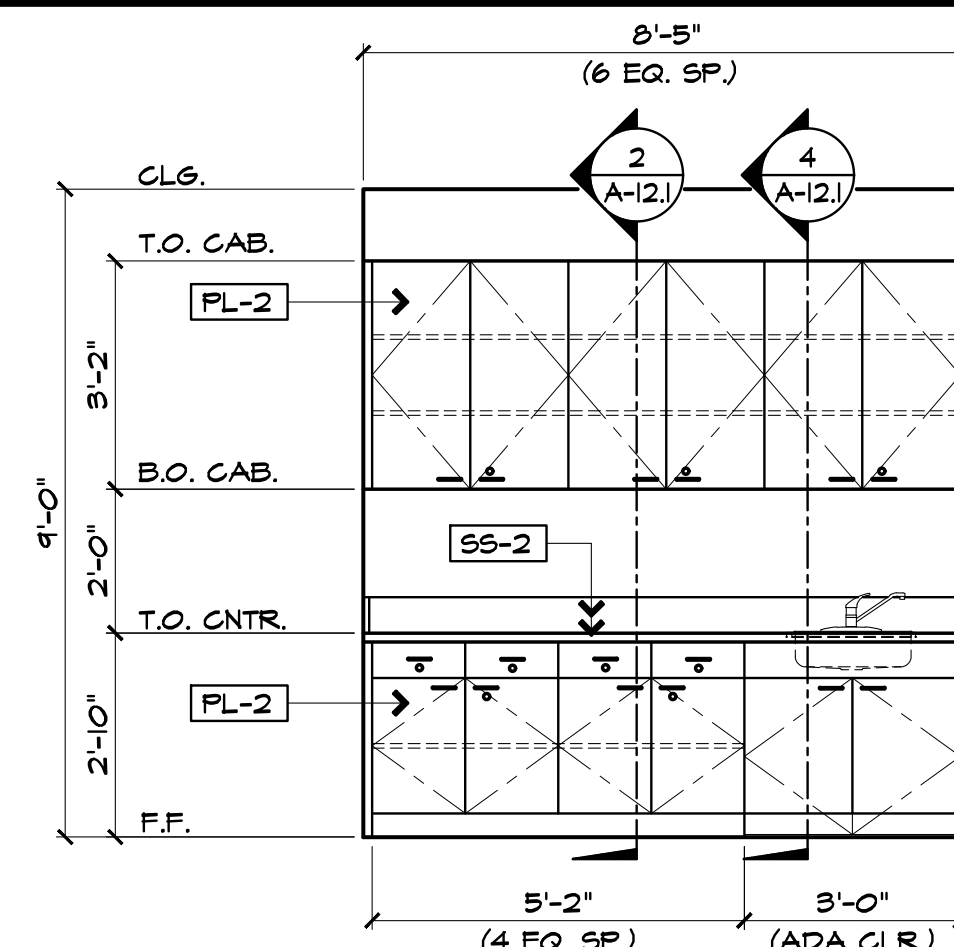
Revisions	By	Date
△ PC CORR 1/BID ISSUE	DAE	4/24/26

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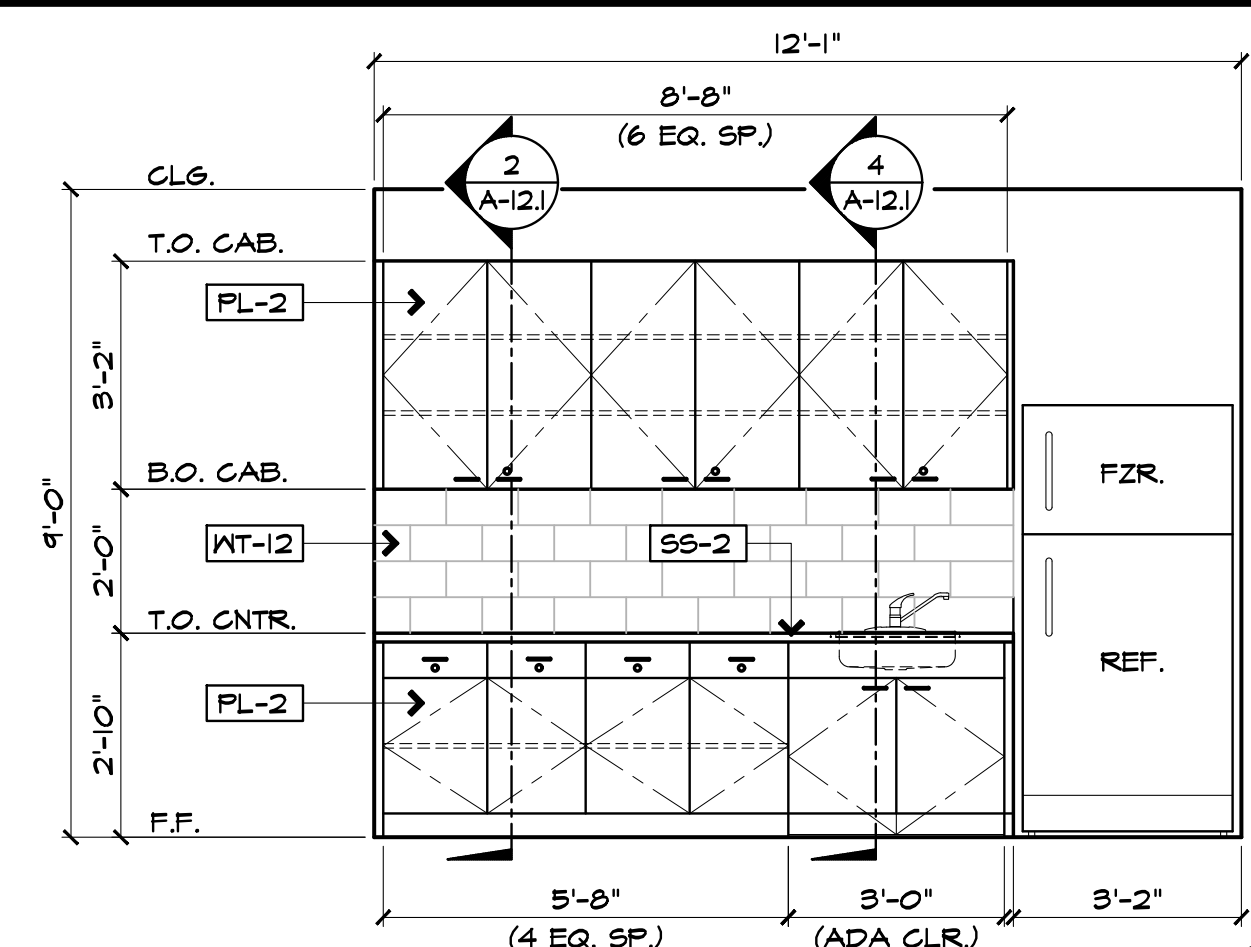
OPEN OFFICE 118 ELEVATION

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



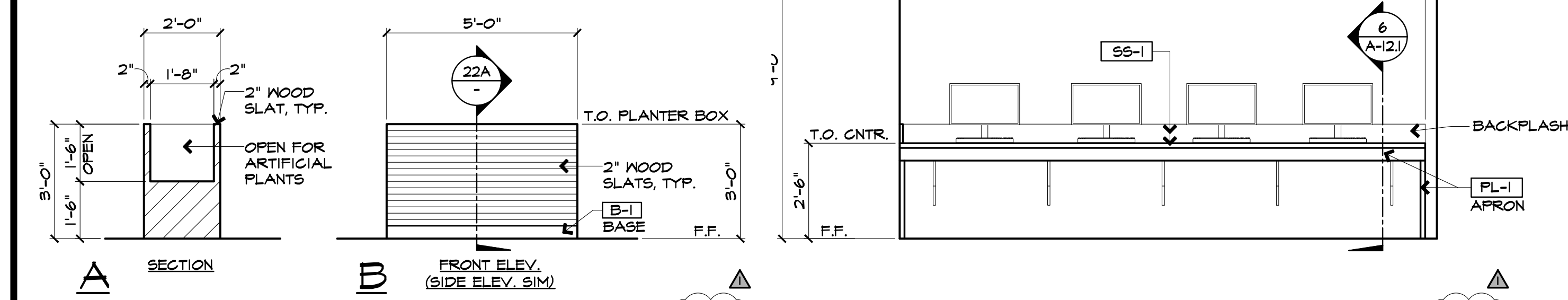
HOME HEALTH 115 ELEV. (RM. 116 OPP. SIM.)

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



BREAK ROOM 101 ELEVATION

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



PLANTER BOX AT HALL 156

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

LOUNGE 123 ELEVATION

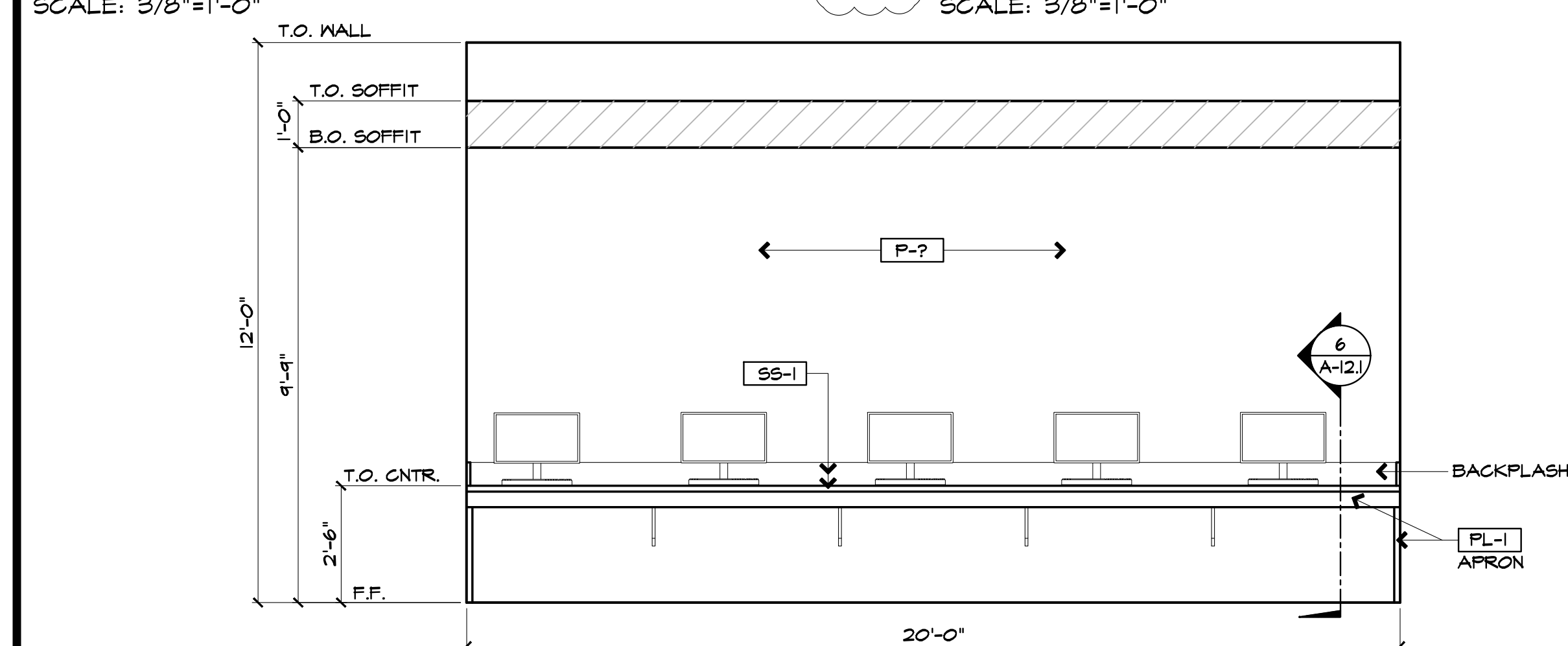
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MEDICATION ROOM 121 ELEVATION

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

BREAK AREA 119 ELEVATION

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



LOUNGE 155 ELEVATION

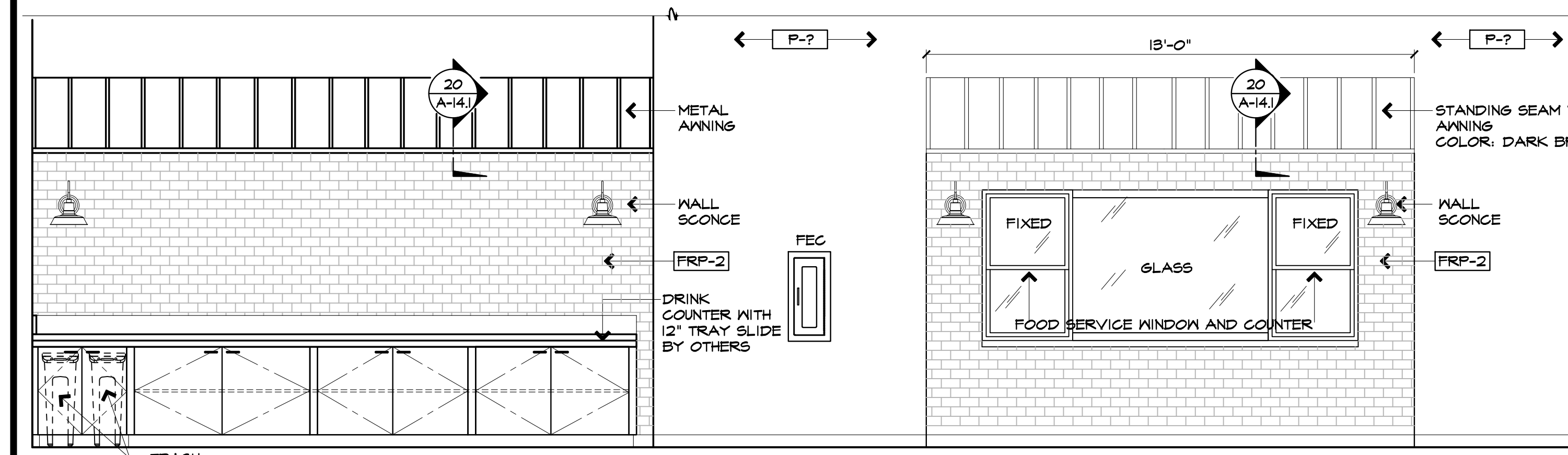
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LOBBY #2 122 ELEVATION

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

ENTRY AREA 161 ELEVATION

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



DINING 157 KITCHEN WINDOW AND DRINK COUNTER ELEVATION

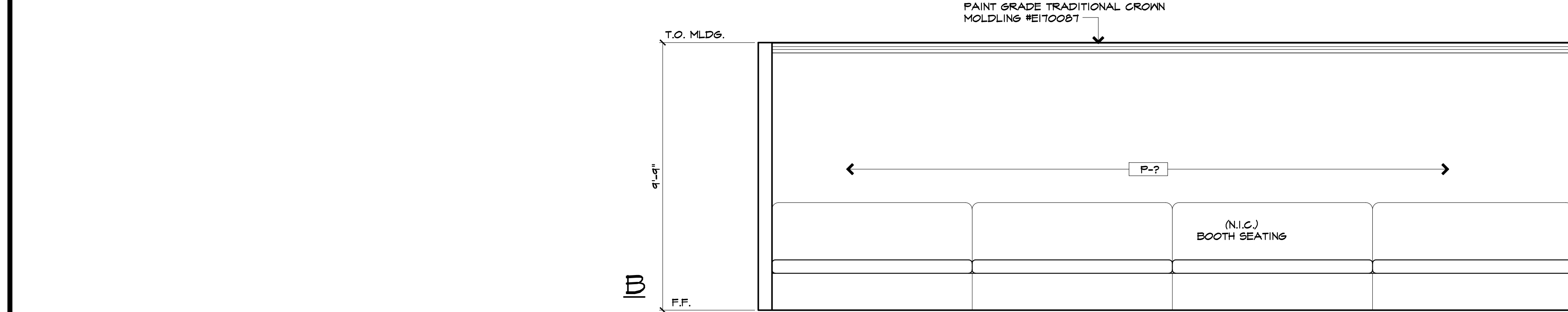
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ENTRY AREA 161 ELEVATION

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

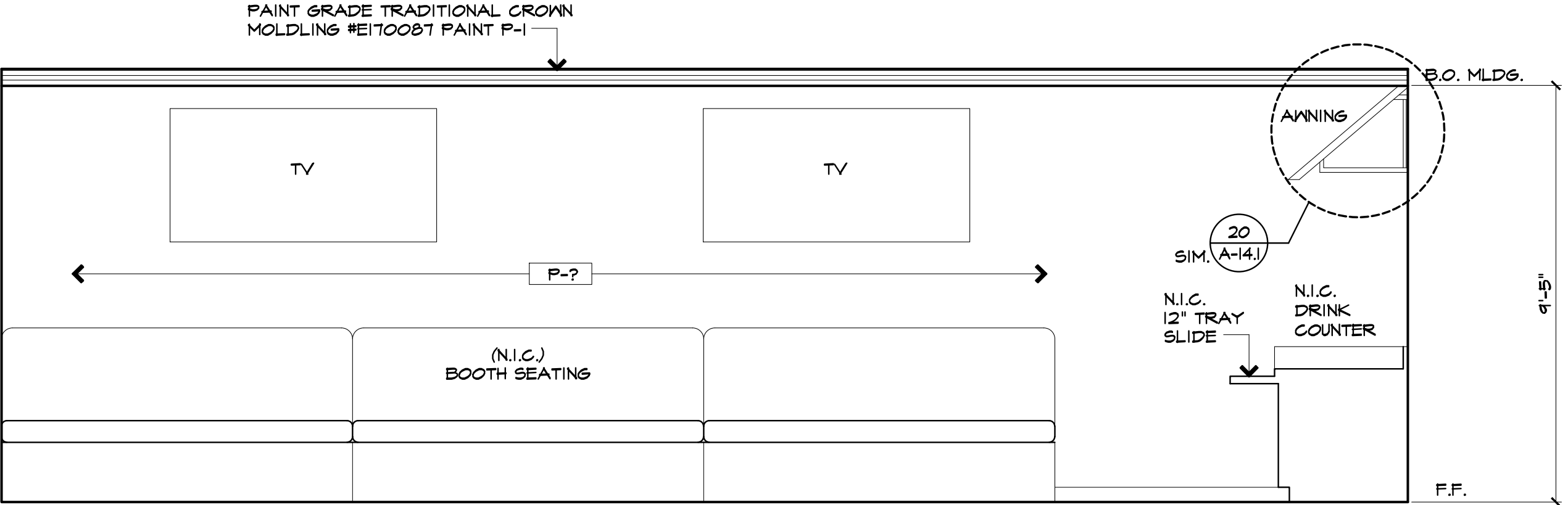
ENTRY AREA 161 ELEVATION

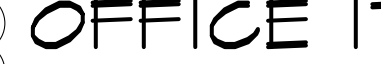
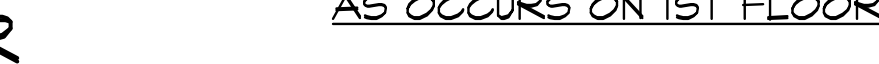
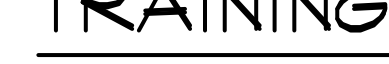
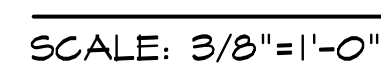
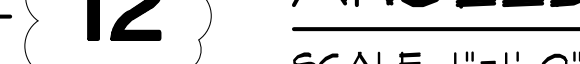
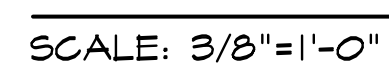
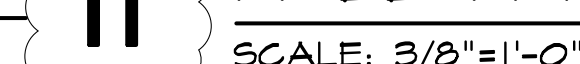
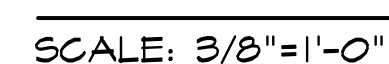
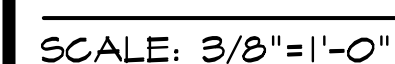
SCALE: 3/8"=1'-0"



DINING 157 BANQUETTE ELEVATION

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



Sheet

DOOR & WINDOW SCHEDULE



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FOR



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TITLE

**DOOR & WINDOW
SCHEDULE**

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Date 2/13/26
Project No. 25011
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Sheet

A-10

FIRST FLOOR - RESIDENTIAL / OFFICE

FIRST FLOOR - RESIDENTIAL / OFFICE

SITE

DOOR NO.	DOOR					CORE MAT.	FACE MAT.	TYPE	GLASS	FRAME			LABEL	HARDWARE		REMARKS PH = PANIC HARDWARE	
	SIDELIGHT	HEIGHT	DOOR SIZE							MAT.	DETAIL			TYPE NO.	CLSR.		
			WIDTH	HEIGHT	THICK.						HEAD	JAMB					SILL
100A	-	-	3'-0"	7'-0"	-	AL	GL*	-	TEMP	AL	-	-	-	-	08	YES	EXISTING TO REMAIN, PH
100B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	30	YES	CARD READER
101	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	9	-	LOCK-OFFICE
102	2'-0"	7'-0"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	I	-	AL	-	-	-	-	9	-	LOCK-OFFICE
103	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	32	-	LOCK-STORAGE
105	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	23	YES	EXISTING TO REMAIN, LOCK-STORAGE
106	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	10	YES	PRIVACY
107	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	10	YES	PRIVACY
108A	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	21	YES	LOCK-CLASSROOM
108B	-	-	3'-6"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	28	YES	CARD READER
109	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	32	YES	LOCK-STORAGE
110	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	H	-	AL	-	-	-	20 MIN	34	YES	LOCK-STORAGE, KICKPLATE (BOTH SIDES)
111A	-	-	3'-6"	7'-0"	1 3/4"	HM	PAINT GD	C	-	HM	-	-	-	-	07	YES	LOCK-ENTRY, PH
111B	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	H	TEMP	AL	-	-	-	20 MIN	13	YES	PH, 8"X32" VISION PANEL EA. DR.
112	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	33	-	LOCK-STORAGE
113	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	32	-	LOCK-JANITOR
114A	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	11	YES	PRIVACY LOCK
114B	-	-	2'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	37	-	LOCK-STORAGE
115	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	20	YES	LOCK-OFFICE
116	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	20	YES	LOCK-OFFICE
117A	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	31	YES	CARD READER
117B	-	-	4'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	30	YES	CARD READER
118A	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	15	-	LOCK-OFFICE
118B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	31	YES	CARD READER
120	3'-0"	3'-6"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD	M	-	AL	-	-	-	-	15	-	LOCK-OFFICE
121A	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	16	YES	LOCK-OFFICE, DUTCH DOOR
121B	-	-	4'-0"	4'-2"	-	-	STL	O	-	STL	-	-	-	20 MIN	41	YES	FIRE RATED ROLL DOWN CURTAIN DOOR W/ LOCK
122	-	-	PR 3'-0"	7'-0"	1 3/4"	AL	GL*	Q	TEMP	AL	-	-	-	-	02	YES	PH
123	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	H	-	AL	-	-	-	20 MIN 34-MHO	YES	CONFERENCE LATCHSET, MAG. HOLDERS	
124	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	H	TEMP	AL	-	-	-	20 MIN	13	YES	PH, 8"X32" VISION PANEL EA. DR.
126	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	19	YES	LOCK-STORAGE
127	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	A	-	AL	-	-	-	20 MIN	17	YES	LOCK-STORAGE
128	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
129	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
130	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
131	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
132	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
133	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
134	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
135	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	36-2	YES	LATCHSET W/ KICKPLATE BOTH SIDES
136	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	32	-	LOCK-JANITOR
137	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	10	YES	PRIVACY LOCK
138	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	36-2	YES	LATCHSET W/ KICKPLATE BOTH SIDES
139	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
140	-	-	3'-0"	7'-0"	1 3/4"	SC	MTL	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
141	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
142	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	17	-	LOCK-STORAGE
144	1'-10"	7'-0"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	J	TEMP	AL	-	-	-	-	15	-	LOCK-OFFICE
145	2'-0"	7'-0"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	I	TEMP	AL	-	-	-	-	15	-	LOCK-OFFICE
146	2'-0"	7'-0"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	I	TEMP	AL	-	-	-	-	15	-	LOCK-OFFICE
147	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	17	YES	LOCK-STORAGE
148	1'-4"	7'-0"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	A	FIRE	AL	-	-	-	20 MIN	24	YES	LATCHSET, 45 MIN. SIDELIGHT ASSEMBLY
149	1'-10"	7'-0"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	J	TEMP	AL	-	-	-	-	15	-	LOCK-OFFICE
150	2'-0"	7'-0"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	I	TEMP	AL	-	-	-	-	15	-	LOCK-OFFICE
151	2'-0"	7'-0"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	I	TEMP	AL	-	-	-	-	15	-	LOCK-OFFICE
152	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	H	-	AL	-	-	-	20 MIN	34	YES	LOCK-STORAGE
153	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	H	-	AL	-	-	-	20 MIN	34	YES	LOCK-STORAGE
154	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	H	TEMP	AL	-	-	-	20 MIN	13-DE	YES	PH, 8"X32" VISION PANEL EA. DR.
157A	PR 1'-10"	7'-0"	PR 3'-0"	7'-0"	-	AL	GL*	E	TEMP	AL	-	-	-	-	02	YES	LOCK, PH
157B	PR 1'-10"	7'-0"	PR 3'-0"	7'-0"	-	AL	GL*	E	TEMP	AL	-	-	-	-	02	YES	LOCK, PH
158A	-	-	3'-6"	7'-0"	1 3/4"	HM	FLD FT MTL	C	-	HM	-	-	-	-	03	YES	LOCK-ENTRY
158B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	26	YES	CARD READER
159	PR 3'-0"	3'-6"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	K	TEMP	AL	-	-	-	-	09	-	LOCK-OFFICE
160	PR 3'-0"	3'-6"	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	K	TEMP	AL	-	-	-	-	09	-	LOCK-OFFICE
161	PR 2'-10"	7'-0"	PR 3'-0"	7'-0"	-	AL	GL*	F	TEMP	AL	-	-	-	-	02	YES	LOCK, PH
162A	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	11	YES	PRIVACY LOCK
162B	-	-	2'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	37	-	LOCK-STORAGE
163	-	-	PR 2'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	B	-	AL	-	-	-	-	38	-	LOCK-STORAGE
164	-	-	PR 2'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	B	-	AL	-	-	-	-	38	-	LOCK-STORAGE
165	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	27	YES	CARD READER
166	-	-	3'-0"	7'-0"	1 3/4"	HM	FLD FT MTL	P	-	HM	-	-	-	-	01	-	LOCK-CLASSROOM, KENNEL DOOR W/ LOUVERS
167	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD WD	G	-	AL	-	-	-	-	39	YES	LOCK-CLASSROOM

DOOR NOTES

- ALL NEW & EXISTING HARDWARE THROUGHOUT AREA OF REMODEL SHALL BE MINIMUM LEVER STYLE, PUSH-PULL OR PANIC TYPE WITH SINGLE ACTION AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. OPERABLE PARTS OF SUCH HARDWARE SHALL BE MOUNTED 34" MIN. AND 44" MAX. ABOVE THE FINISHED FLOOR. FIELD VERIFY AND PROVIDE IF NOT EXISTING.
- GLAZING SHALL COMPLY WITH CBC SECT. 2406.4 FOR HAZARDOUS LOCATIONS TYPICAL.
- ALL GLASS WITHIN 24" OF A DOOR IN CLOSED POSITION AND WHERE BOTTOM EDGE OF GLAZING IS LESS THEN 60" ABOVE WALKING SURFACE, INCLUDING ALL SIDELIGHTS, MUST BE TEMPERED PER CBC SECT. 2406.4.2, ITEM NO. 6.
- "T" INDICATES TEMPERED GLASS. TEMPERED IDENTIFICATION SHALL BE ETCHED OR CERAMIC FIRED IN THE GLASS AND READABLE FROM THE INSIDE OF THE BUILDING AFTER INSTALLATION. TEMPERED SPANDREL GLASS MAY BE USE REMOVABLE PAPER LABEL BY MFR., PER CBC SECT. 2406.3.
- ALL RATED ASSEMBLIES SHALL HAVE SMOKE AND DRAFT CONTROL.
- FIELD VERIFY ALL EXISTING DOOR OPENINGS.
- ALL EXTERIOR DOORS TO HAVE TACTILE EXIT SIGNS PER CBC 1009.2B.6.1, SEE FLOOR PLAN FOR LOCATIONS.
- ALL STOREFRONT EXIT DOORS SHALL HAVE SIGN POSTED ABOVE STATING "THESE DOORS SHALL REMAIN UNLOCKED DURING BUSINESS HOURS" PER CBC
- SLIDING DOORS SHALL COMPLY WITH CBC REQUIREMENTS FOR ACCESSIBILITY. DOORS SHALL BE SET SO THAT DOORS ARE 12" MIN IN THE OPEN POSITION TO ALLOW ACCESS AT DOOR FULL.

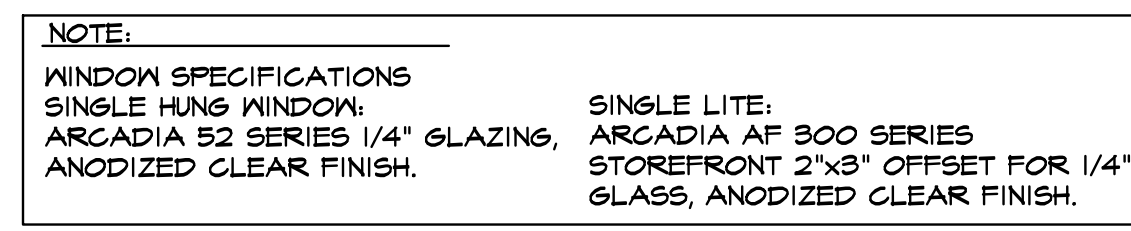
HARDWARE TYPES

- SEE SPECIFICATIONS FOR HARDWARE TYPES.

DOOR NO.	DOOR					CORE MAT.	FACE MAT.	TYPE	GLASS	FRAME				LABEL	HARDWARE		REMARKS
	SIDELIGHT		DOOR SIZE							MAT.	DETAIL				TYPE NO.	CLSR.	
	WIDTH	HEIGHT	WIDTH	HEIGHT	THICK.						HEAD	JAMB	SILL				
168	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	39	YES	LOCK-CLASSROOM
169	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	10	YES	PRIVACY LOCK
170	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	10	YES	PRIVACY LOCK
171A	-	-	3'-0"	7'-0"	1 3/4"	HM	FLD FT MTL C(SIM)	-	HM	-	-	-	-	-	06	YES	EXISTING TO REMAIN, ALARM, PH
171B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
172	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	39	YES	LOCK-CLASSROOM
173	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	39	YES	LOCK-CLASSROOM
174	-	-	PR 4'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	H	TEMP	AL	-	-	-	20 MIN	14	YES	HOLD OPEN, PH, 8"X32" VISION PANEL EA. DR.
175	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	11	YES	PRIVACY LOCK
176	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	32	-	LOCK-JANITOR
177A	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	31	YES	LOCK-OFFICE, CARD READER
177B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	31	YES	LOCK-OFFICE, CARD READER
177C	-	-	PR 2'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	B	-	AL	-	-	-	-	38	-	LOCK-STORAGE
178A	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	31	YES	LOCK-OFFICE, CARD READER
178B	-	-	4'-0"	4'-2"	-	-	STL	O	-	STL	-	-	-	20 MIN	41	YES	FIRE RATED ROLL DOWN COUNTER DOOR W/ LOCK
179	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	36-2	YES	LATCHSET W/ KICKPLATE BOTH SIDES
180	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	36-2	YES	LATCHSET W/ KICKPLATE BOTH SIDES
181	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
182	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	11	YES	PRIVACY LOCK
183	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	37	-	LOCK-JANITOR
184	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
185A	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	H	-	AL	-	-	-	20 MIN	13-DE	YES	PH, 8"X32" VISION PANEL EA. DR.
185B	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	H	-	AL	-	-	-	20 MIN	13-DE	YES	PH, 8"X32" VISION PANEL EA. DR.
186A	-	-	3'-0"	7'-0"	1 3/4"	HM	FLD FT MTL	C	-	HM	-	-	-	-	05	YES	LOCK-CLASSROOM, ALARM, PH
186B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
187A	-	-	3'-0"	7'-0"	1 3/4"	HM	FLD FT MTL	C	-	HM	-	-	-	-	05	YES	LOCK-CLASSROOM, ALARM, PH
187B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
188A	-	-	3'-0"	7'-0"	1 3/4"	HM	FLD FT MTL	C	-	HM	-	-	-	-	05	YES	LOCK-CLASSROOM, ALARM, PH
188B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
189A	-	-	3'-0"	7'-0"	1 3/4"	HM	FLD FT MTL	C(SIM)	-	HM	-	-	-	-	06	YES	EXISTING TO REMAIN, ALARM, PH
189B	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	12	YES	LATCHSET, PH
190	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
191	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
192	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
193	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	37	-	LOCK-STORAGE
195	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
196	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
197	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
198	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
199	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
200	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
201	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	37	-	LOCK-STORAGE
203	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
204	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
205	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
206A	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	H	-	AL	-	-	-	20 MIN	13-DE	YES	LOCK, PH, 8"X32" VISION PANEL EA. DR.
206B	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	H	-	AL	-	-	-	20 MIN	13-DE	YES	LOCK, PH, 8"X32" VISION PANEL EA. DR.
208	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
209	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
210	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
211	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	-	37	YES	LOCK-STORAGE
213	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
214	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
215	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
216	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
217	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
218	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	39	YES	LOCK-CLASSROOM
219	-	-	3'-0"	7'-0"	1 3/4"	HM	FLD FT MTL	C(SIM)	-	AL	-	-	-	-	06	YES	EXISTING TO REMAIN, ALARM, PH
220	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	19	YES	LOCK-STORAGE
221	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	B	-	AL	-	-	-	20 MIN	34	-	LOCK-STORAGE
222	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	B	-	AL	-	-	-	20 MIN	34	-	LOCK-STORAGE
223	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	B	-	AL	-	-	-	20 MIN	34	-	LOCK-STORAGE
224	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	40	YES	LOCK-CLASSROOM
225	-	-	3'-0"	7'-0"	1 3/4"	HM	FLD FT MTL	C(SIM)	-	HM	-	-	-	-	04	YES	EXISTING TO REMAIN, PH
226	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	19-RP	YES	LOCK-STORAGE, PH
227	-	-	PR 3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	B	-	AL	-	-	-	20 MIN	34	YES	LOCK-STORAGE
229	-	-	3'-0"	7'-0"	1 3/4"	SC	PAINT GD MD	G	-	AL	-	-	-	20 MIN	40	YES	LOCK-CLASSROOM
61	-	-	3'-4"	6'-0"	-	-	-	-	-	MTL.	-	-	-	-	6101	YES	PH, EXISTING GATE TO REMAIN
62	-	-	3'-0"	6'-0"	-	SC	COMP.	-	-	MTL.	22/SP-1.4 51	-	-	-	6102	YES	PH
63	-	-	3'-0"	6'-8"	-	SC	COMP.	-	-	MTL.	22/SP-1.4	-	-	-	6104	YES	CARD READER, PH
64	-	-	3'-0"	6'-0"	-	SC	COMP.	-	-	MTL.	22/SP-1.4	-	-	-	6102	YES	PH
65	-	-	3'-0"	6'-0"	-	-	CHAIN	-	-	MTL.	17/SP-1.4	-	-	-	6103	YES	PH

SECOND FLOOR - OFFICE / CONFERENCE

WINDOW TYPES



DOOR TYPES

- VISION PANEL, WHERE
OCCURS, SEE SCHEDULE
& DETAIL 7/A-10.3

1. SEE SPECIFICATIONS FOR HARDWARE TYPES



STAMP



CONSULTANT

PROJECT

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

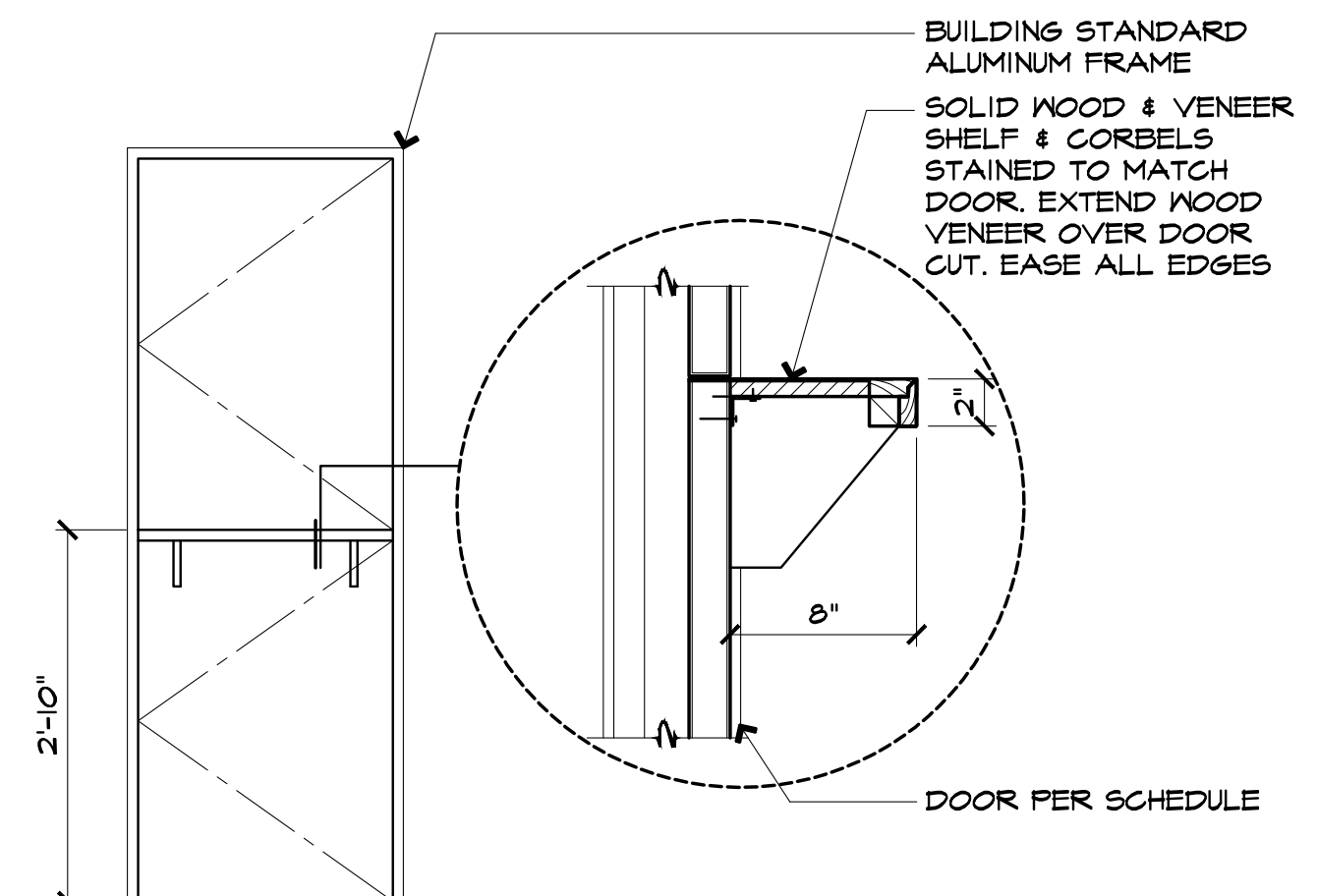


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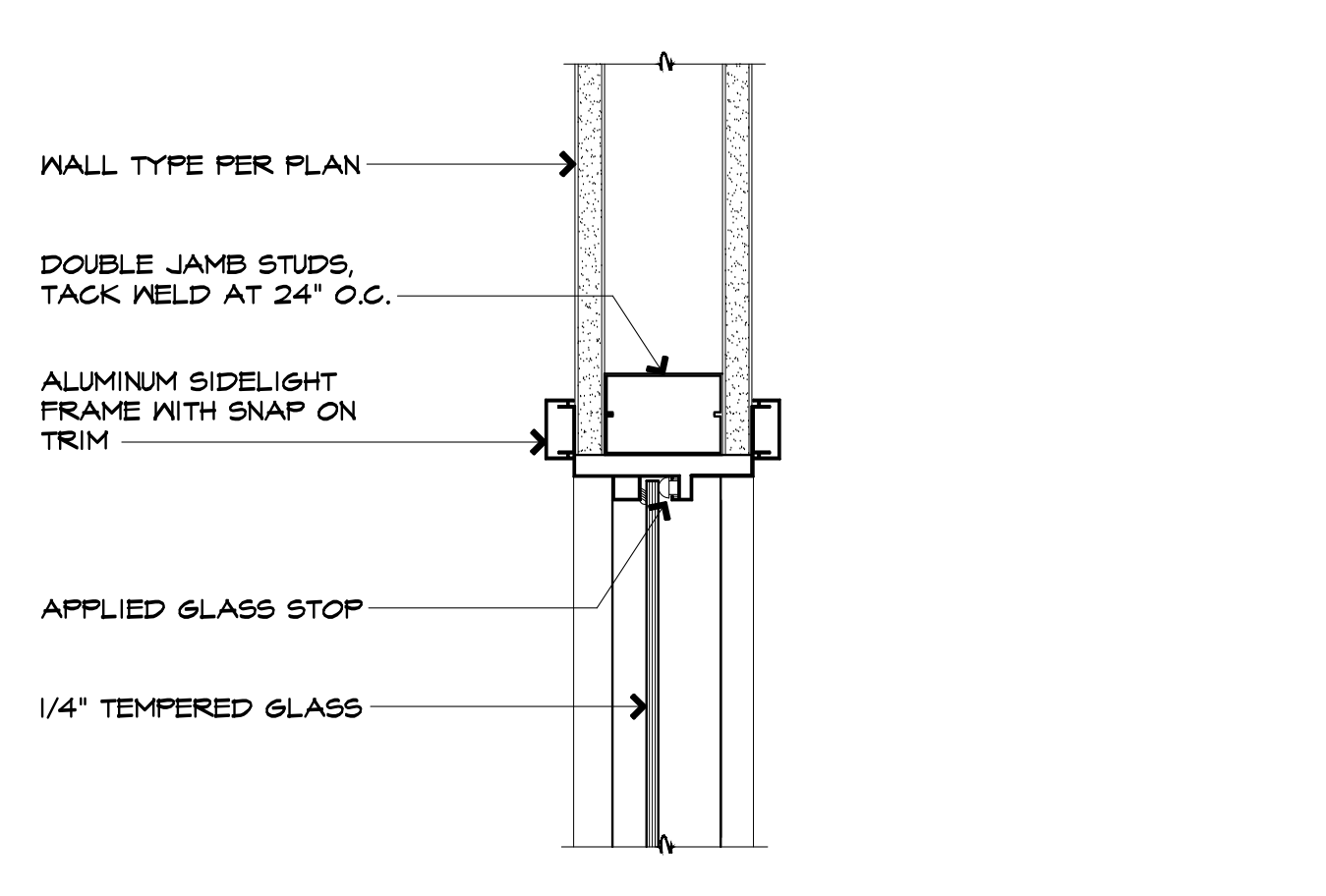
DOOR & WINDOW SCHEDULE

Drawn	MFM
Date	2/13/26
Project No.	25011
Scale	AS NOTED

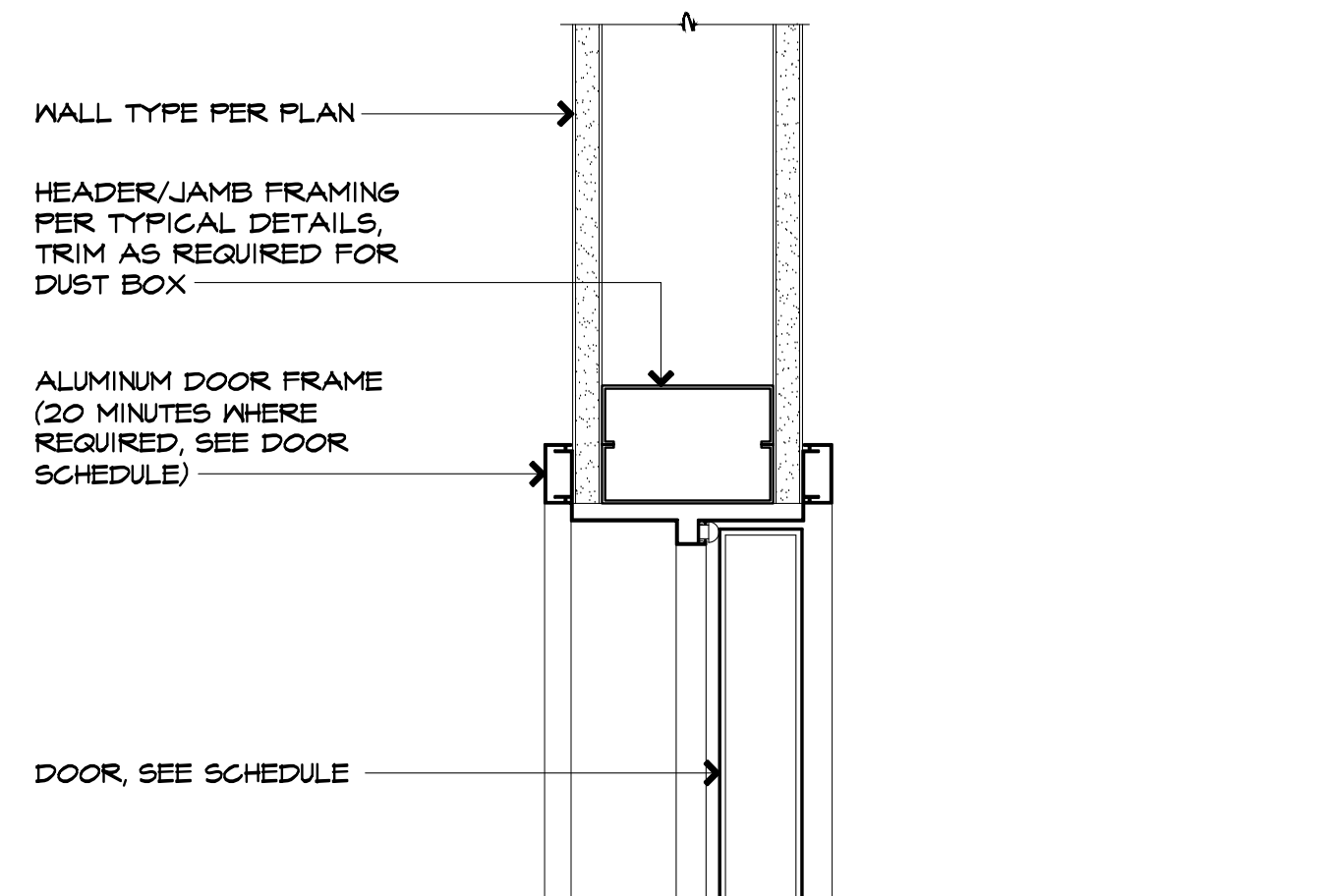
Sheet



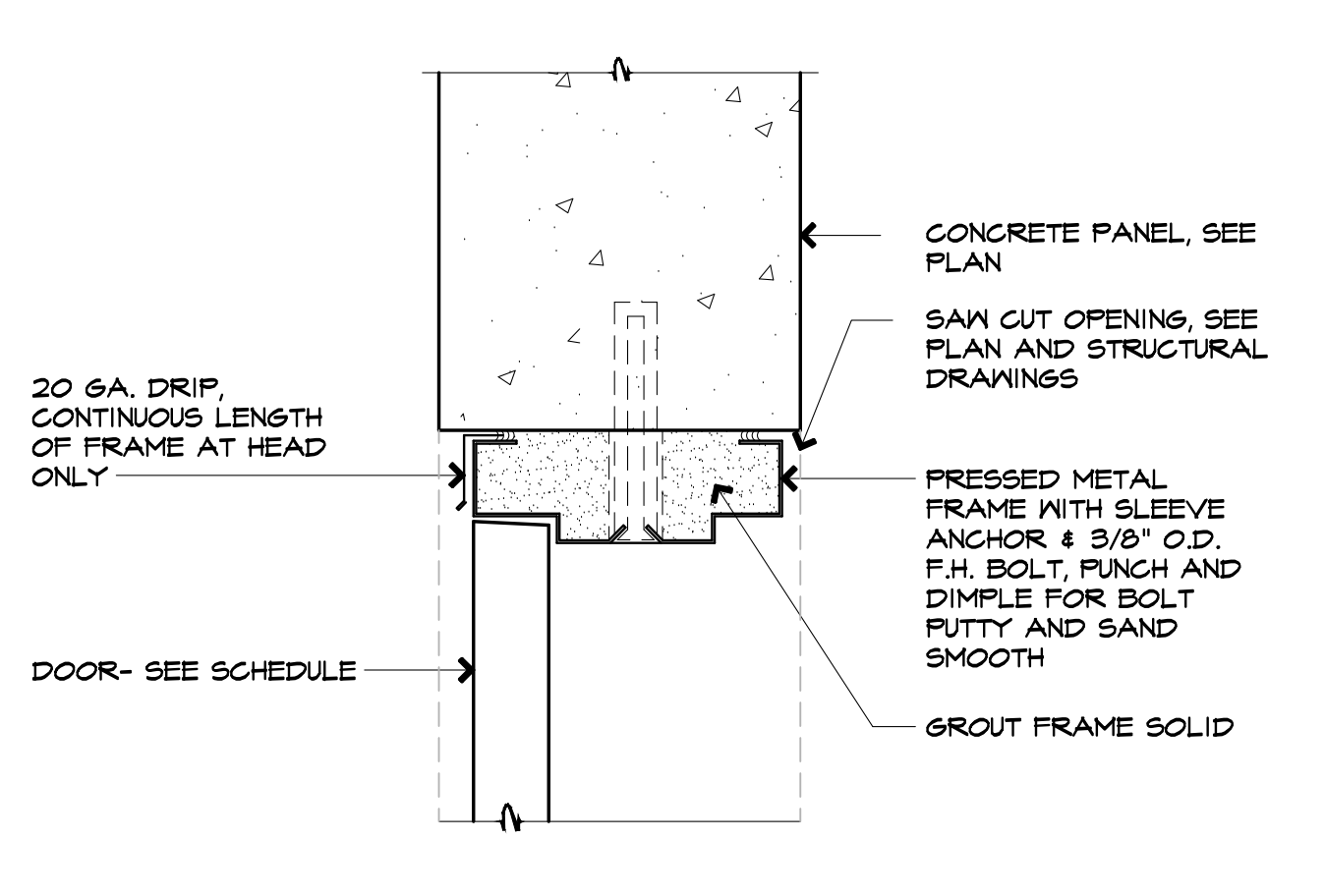
SECTION AT DUTCH DOOR
SCALE: N.T.S.



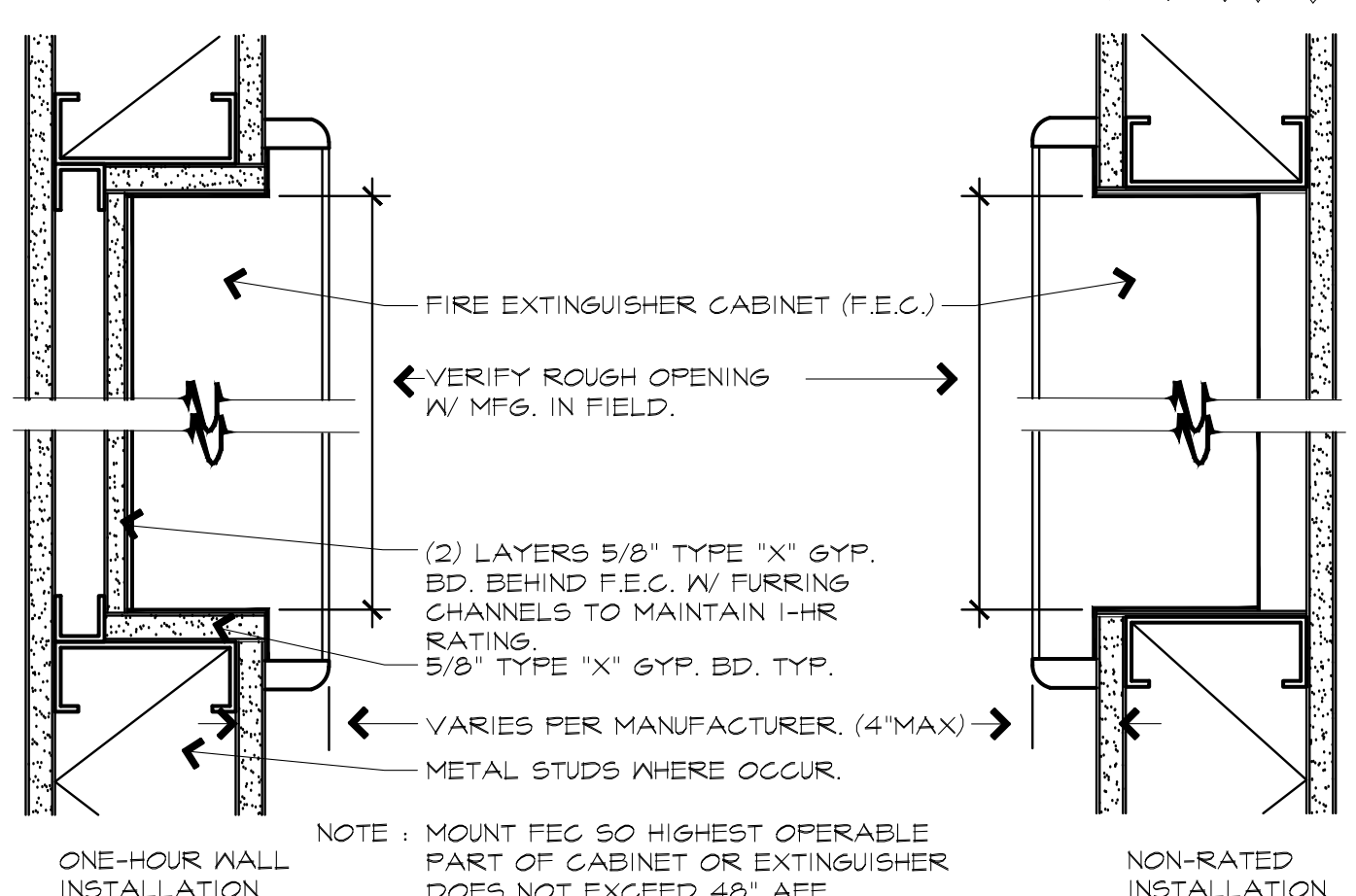
SIDELIGHT JAMB (HEAD SIM.)
SCALE: 3"=1'-0"



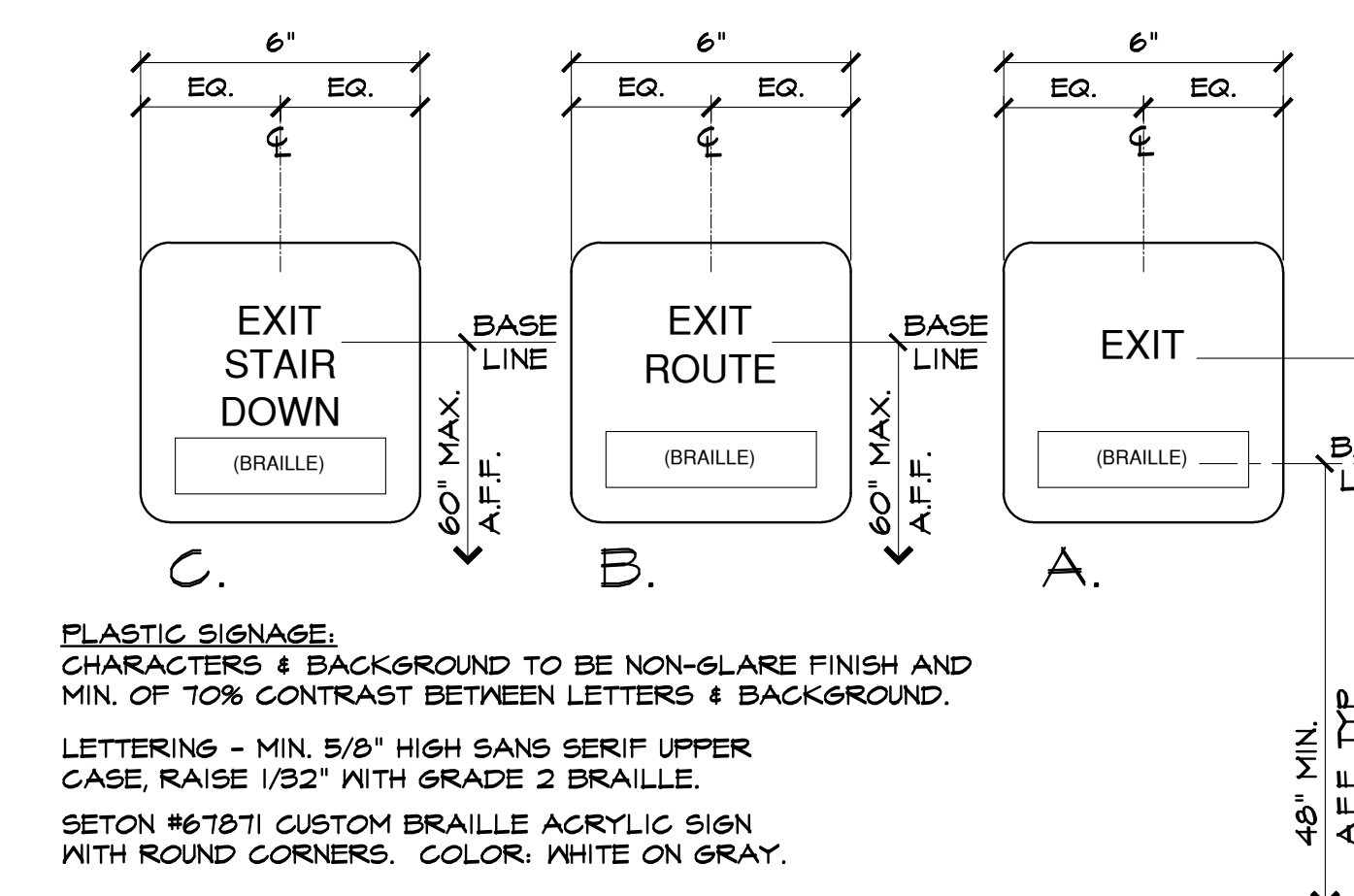
DOOR JAMB (HEAD SIMILAR)
SCALE: 3"=1'-0"



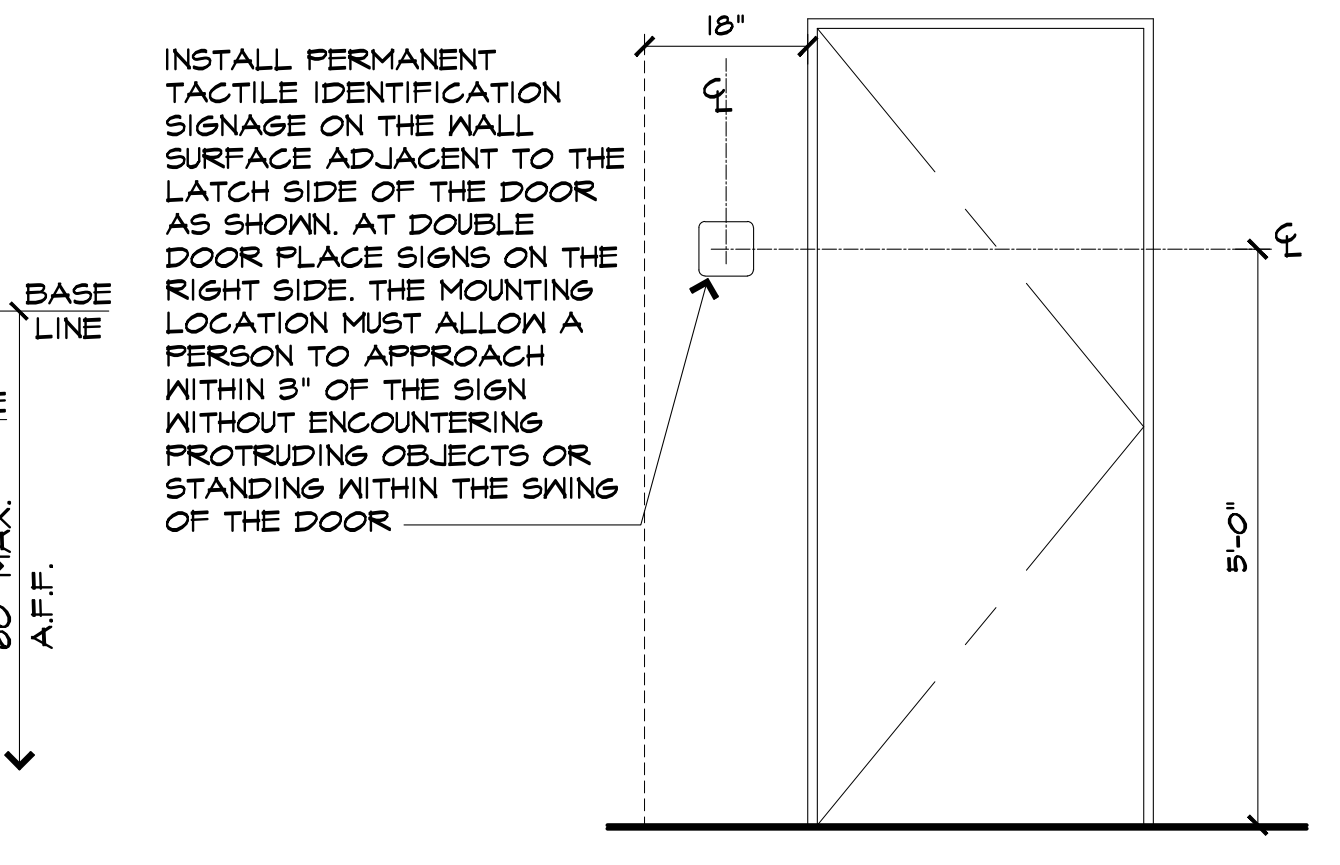
METAL DR. FRAME HEAD (JAMB SIM.)
SCALE: 3"=1'-0"



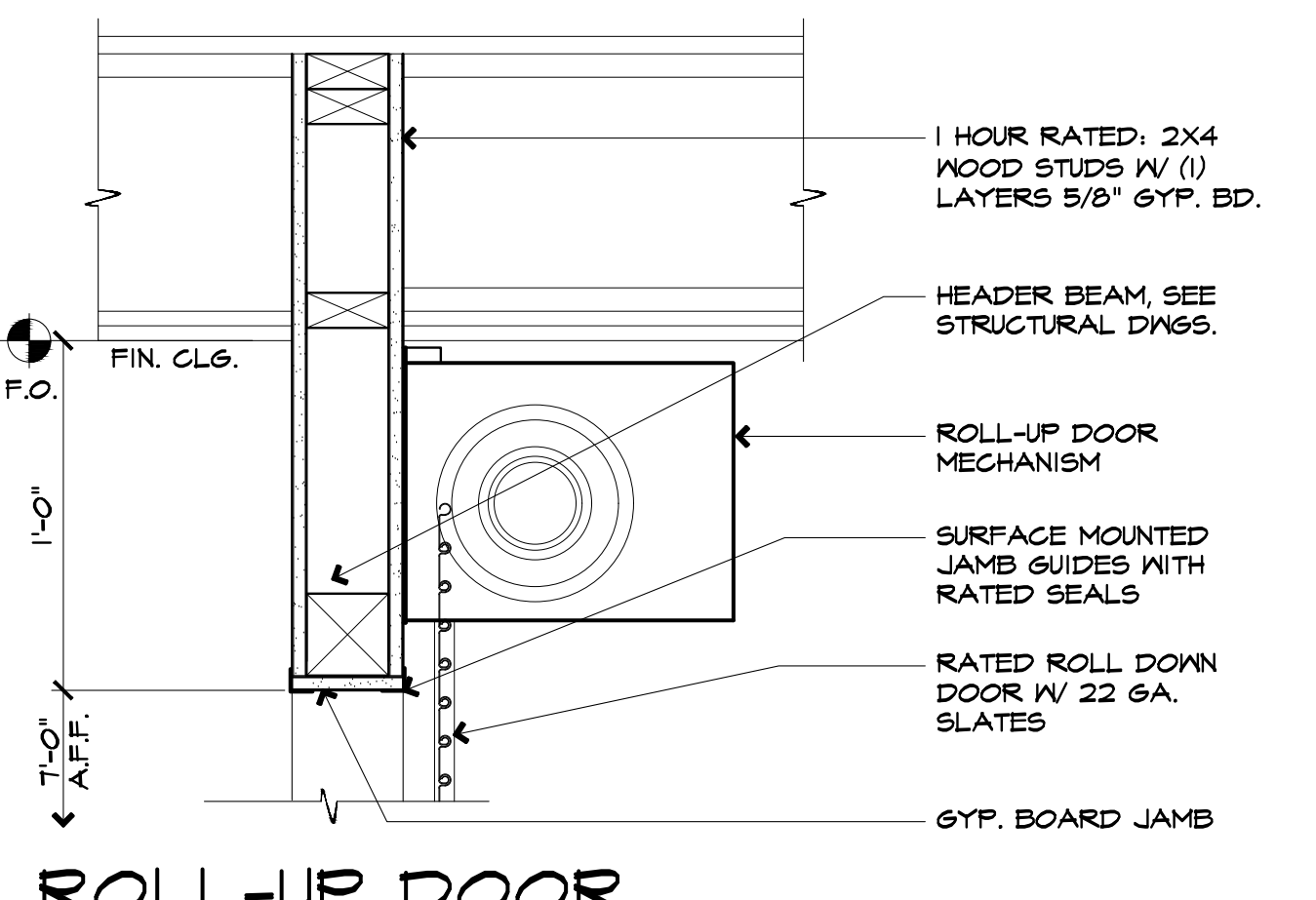
FIRE EXTINGUISHER CABINET
SCALE: 3"=1'-0"



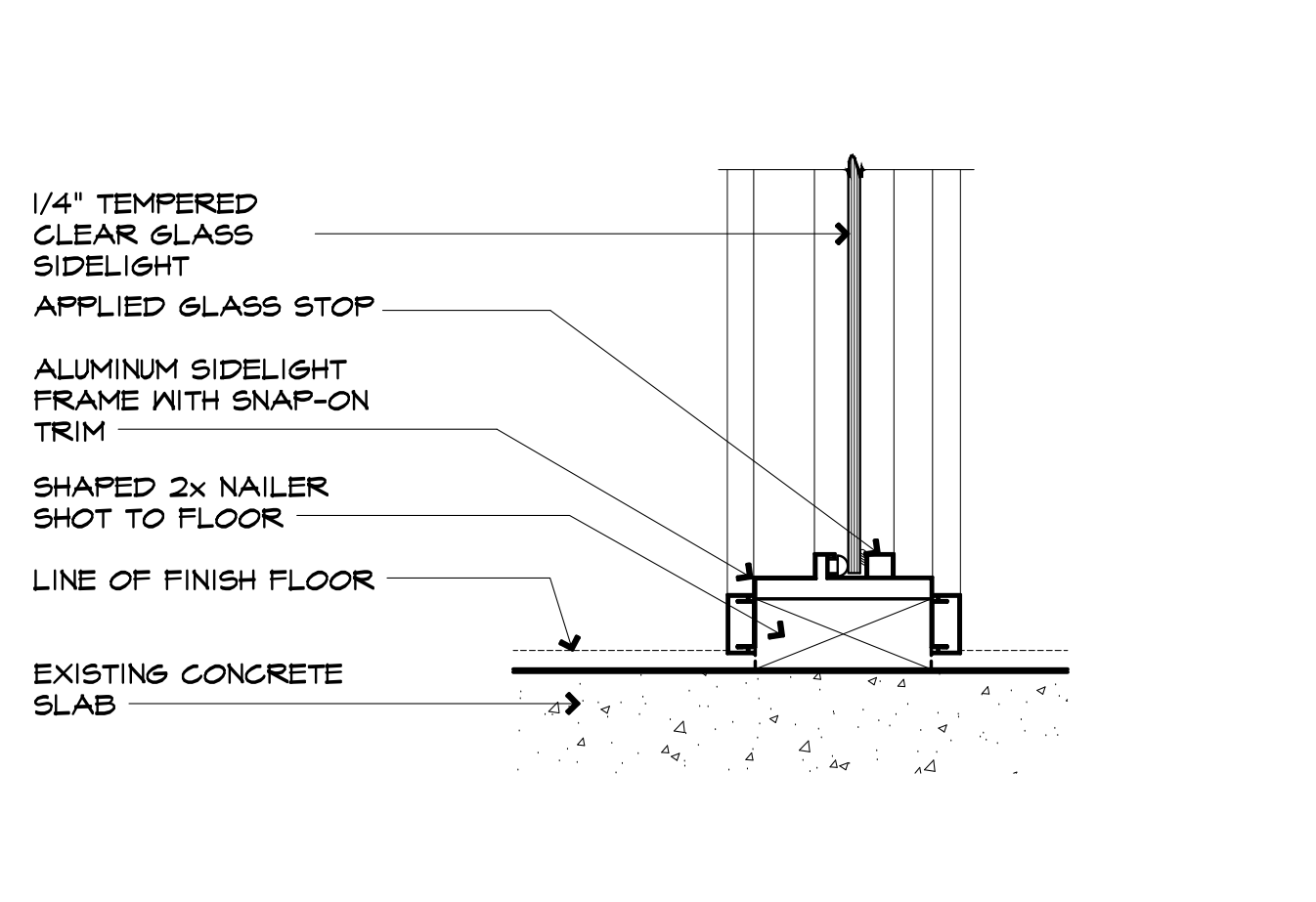
TACTILE SIGNAGE
SCALE: 3"=1'-0"



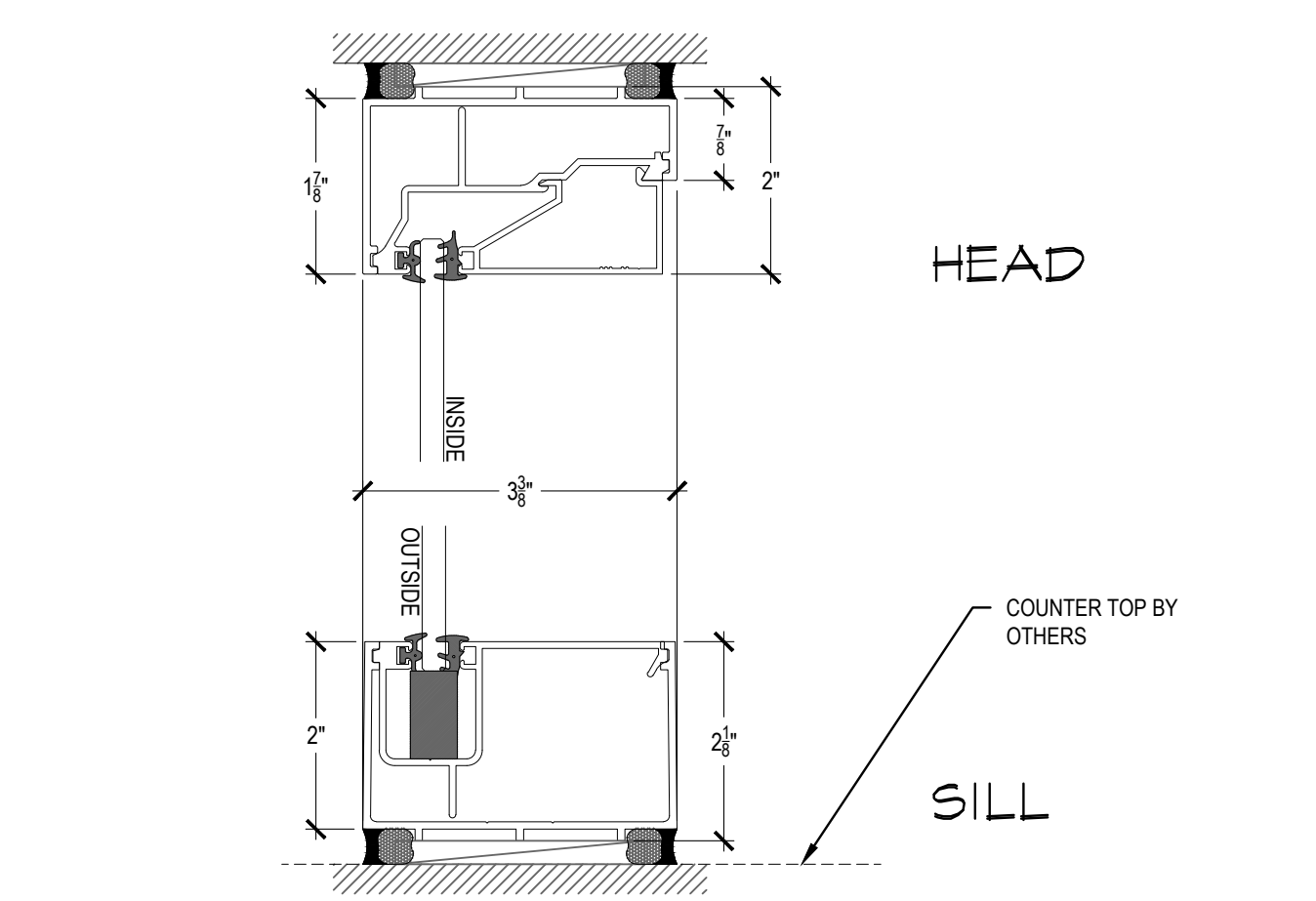
ROLL-UP DOOR HEAD CONDITION (20 MIN.)
SCALE: 1 1/2"=1'-0"



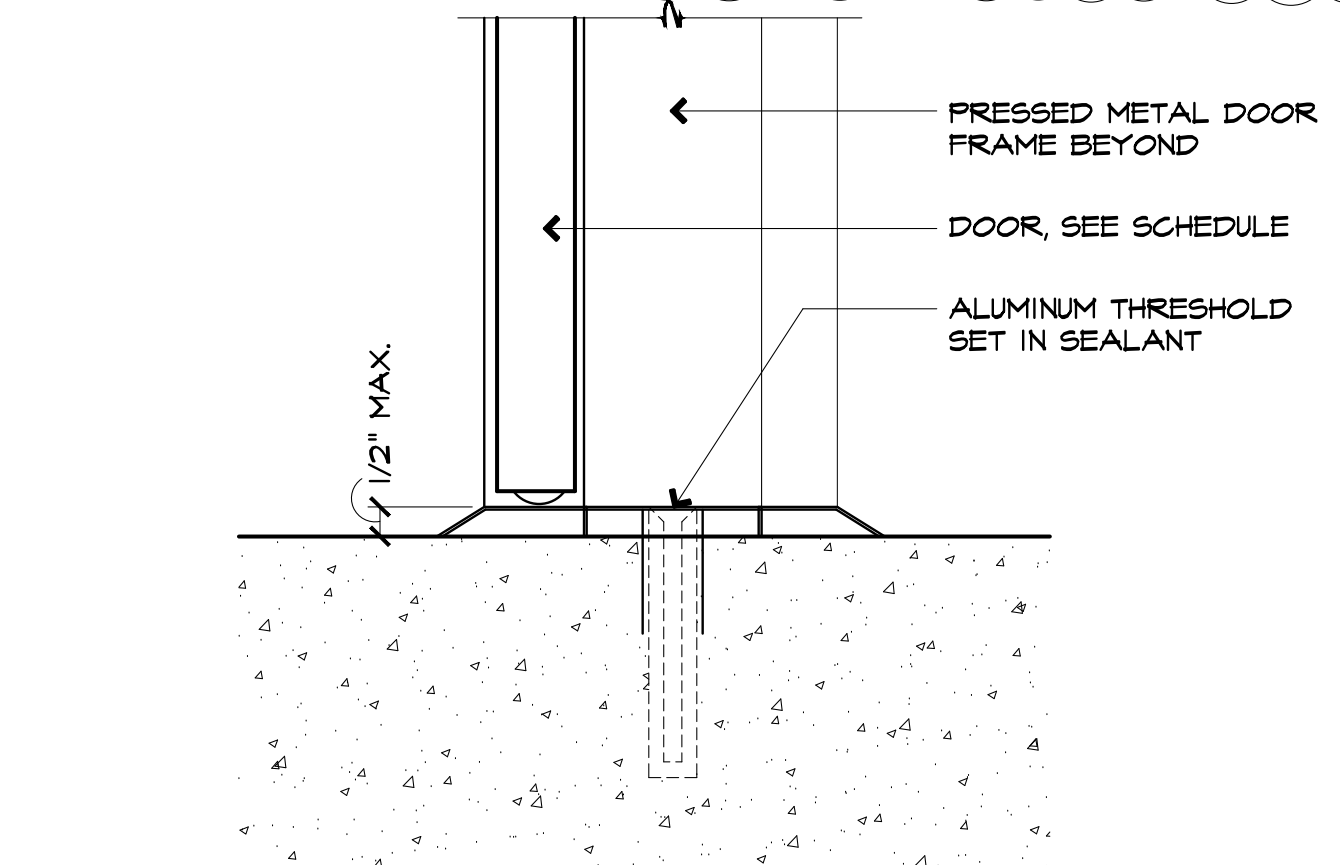
SIDELIGHT MULLION
SCALE: 3"=1'-0"



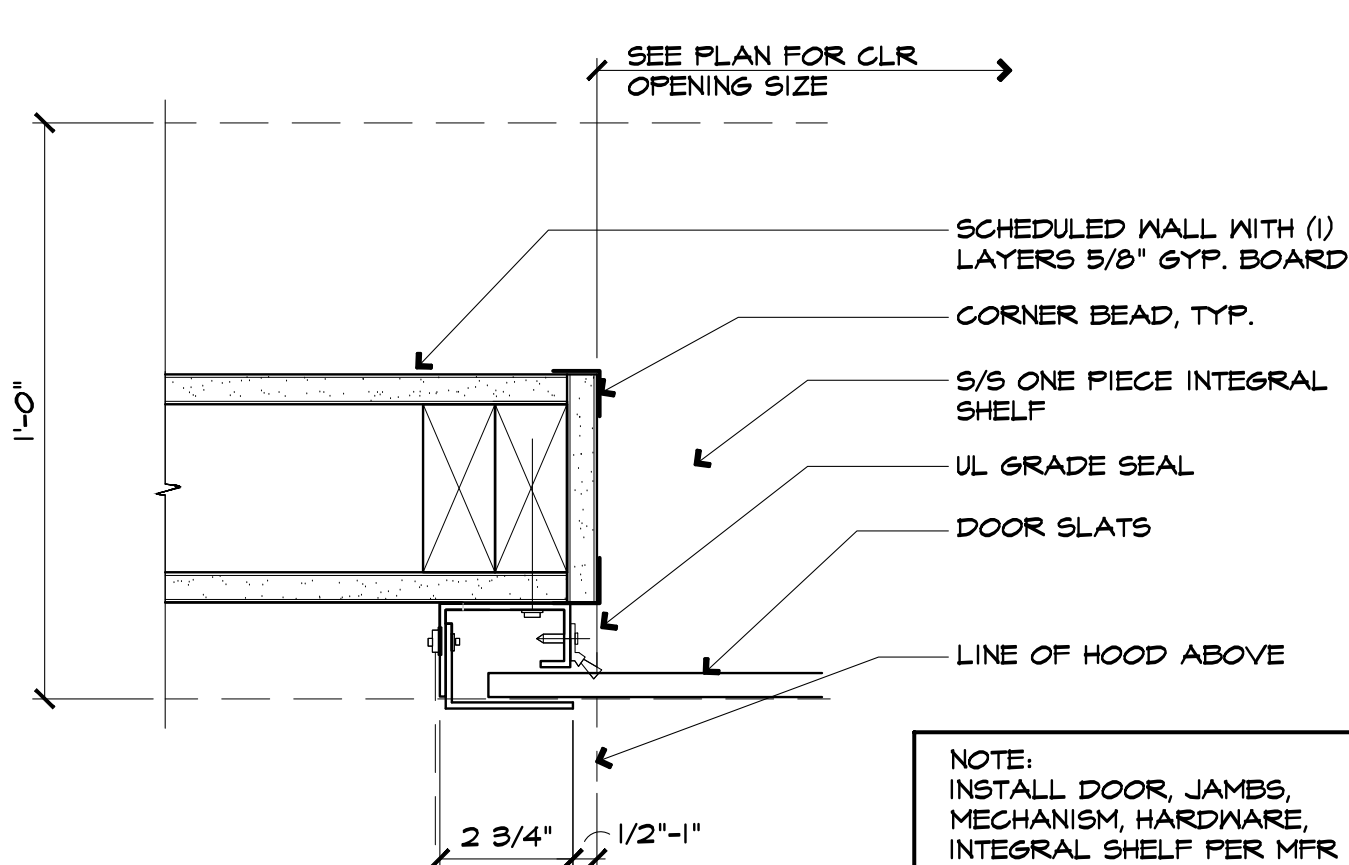
THRESHOLD AT DOOR
SCALE: 3"=1'-0"



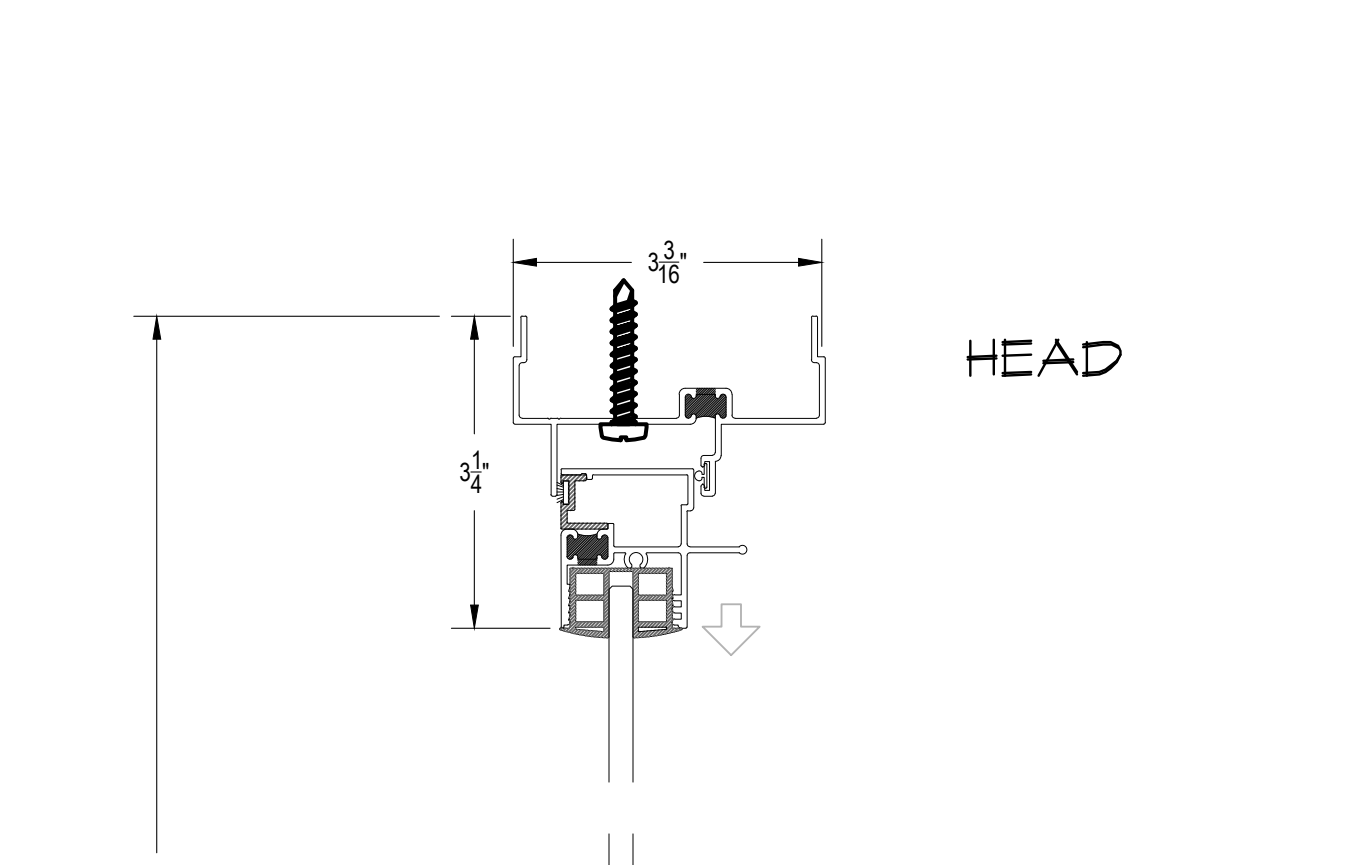
FIXED GLAZING
SCALE: 6"=1'-0"



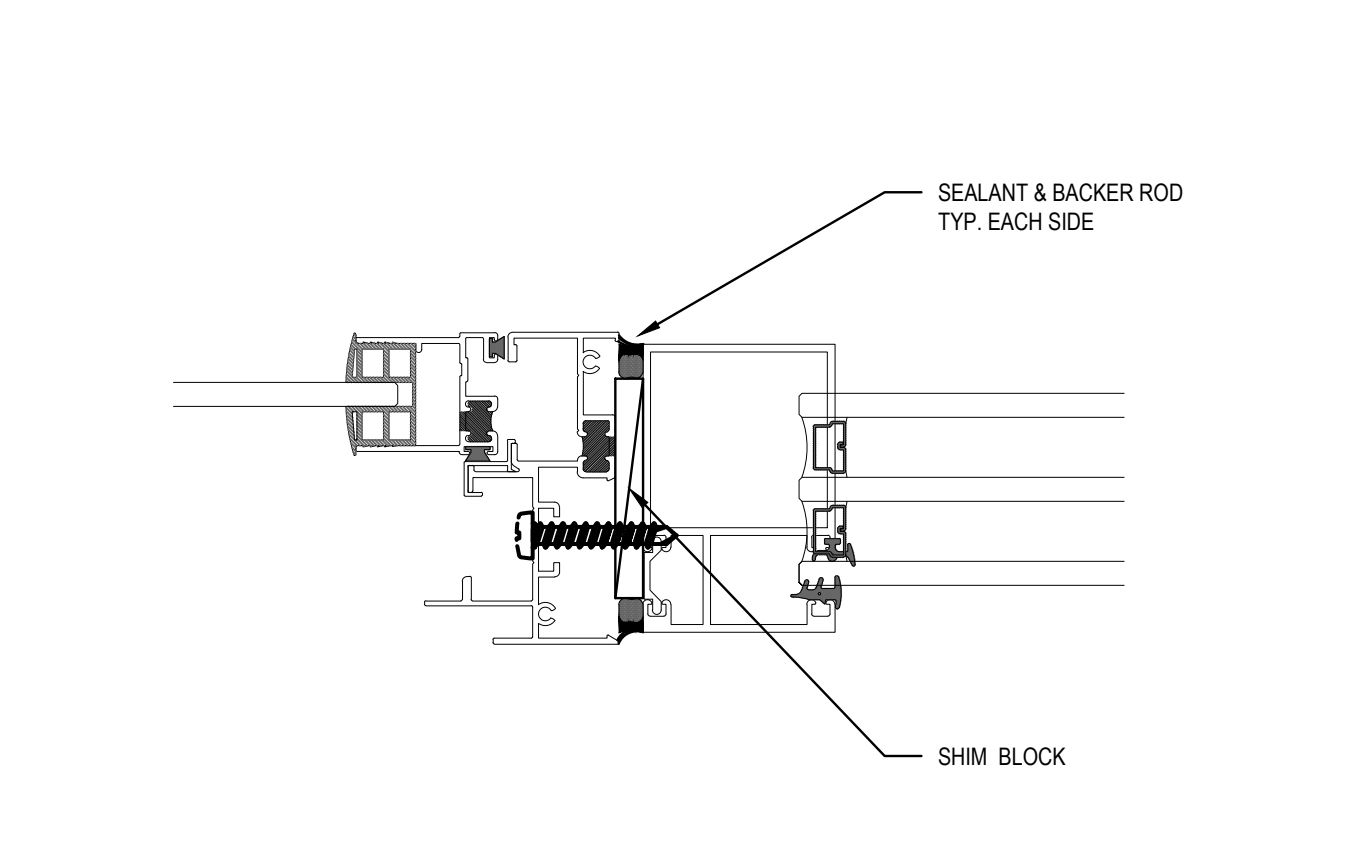
THRESHOLD DETAIL
SCALE: 3"=1'-0"



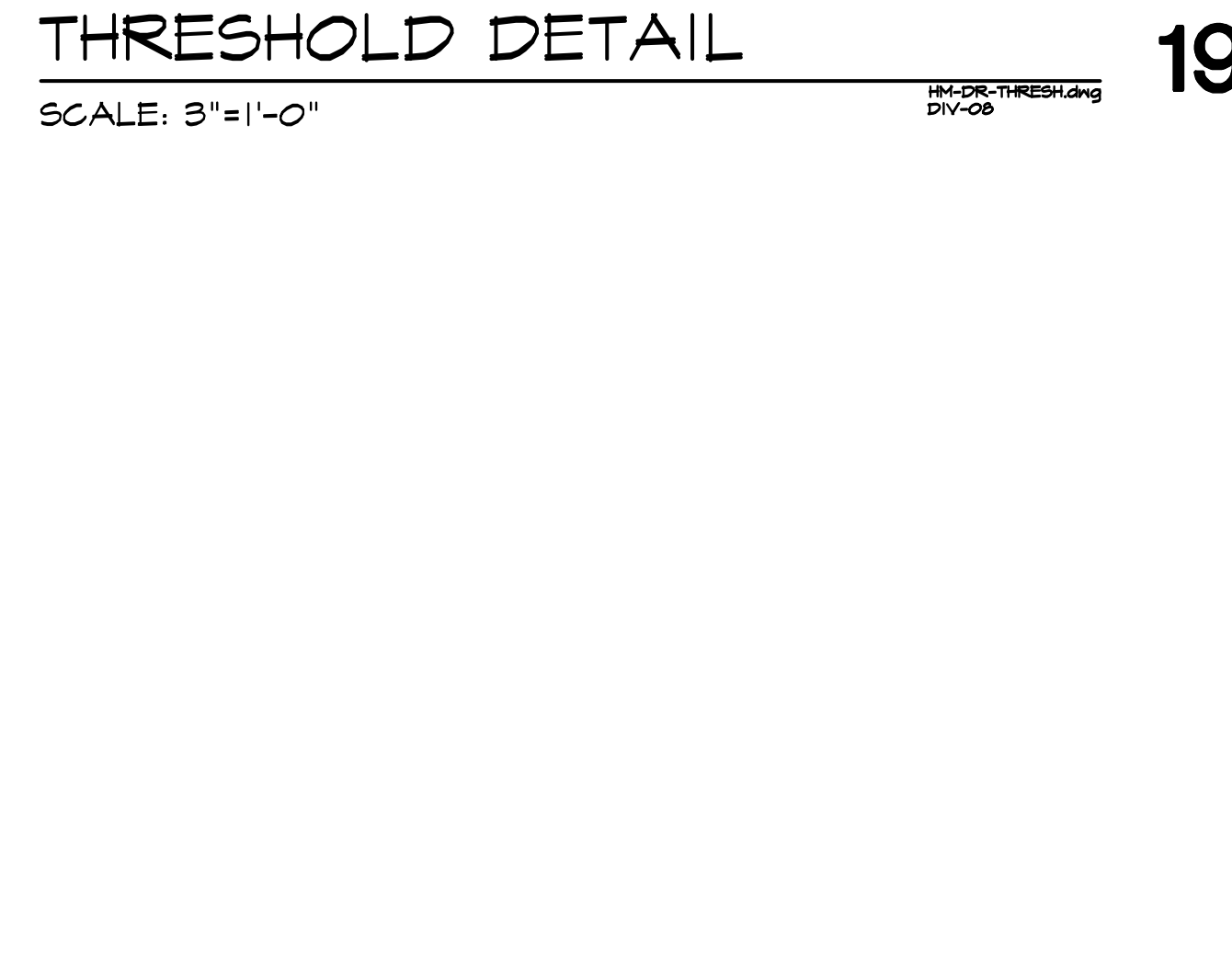
JAMB @ ROLL-UP DOOR (20 MIN.)
SCALE: 3"=1'-0"



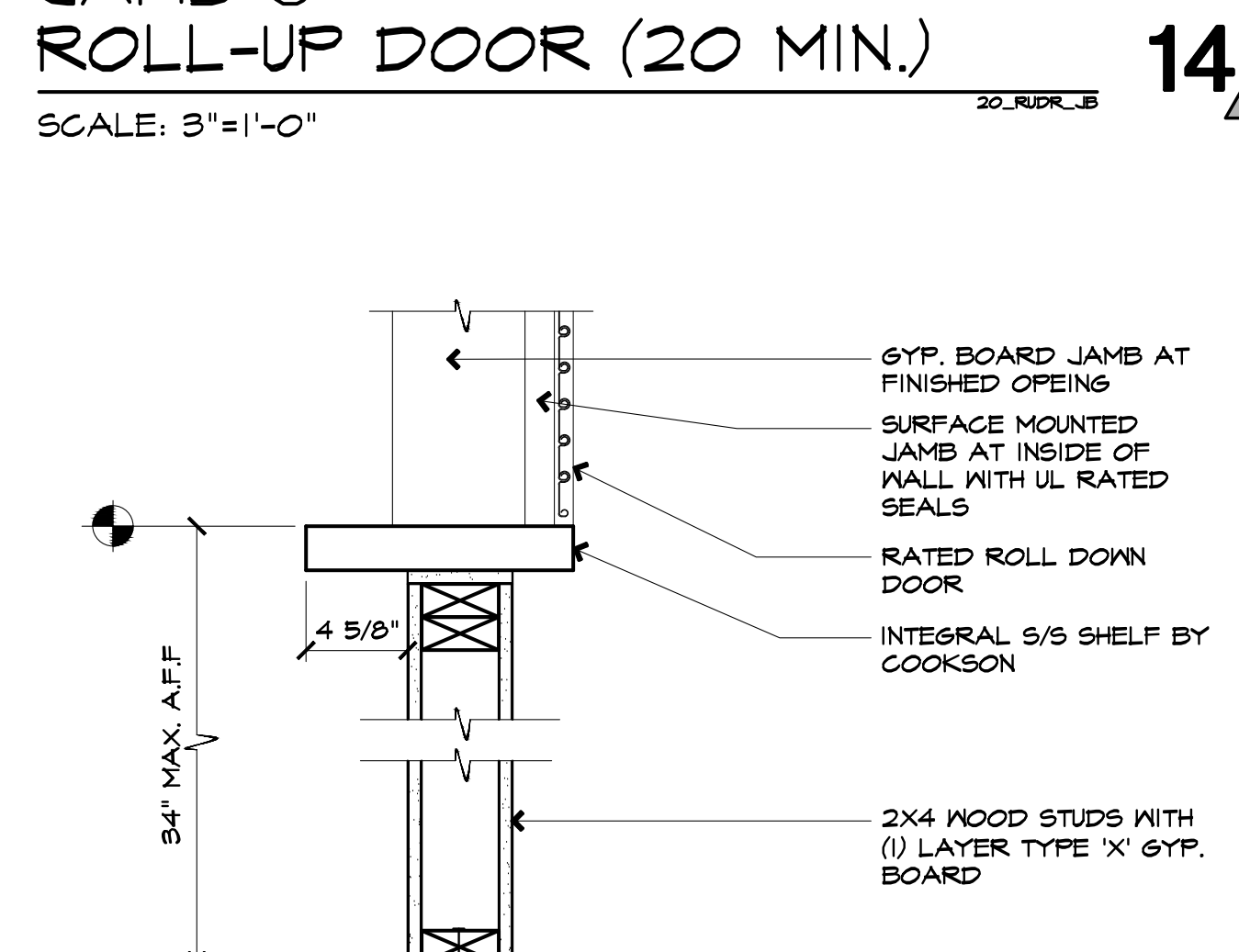
PASS THRU WINDOW
SCALE: 6"=1'-0"



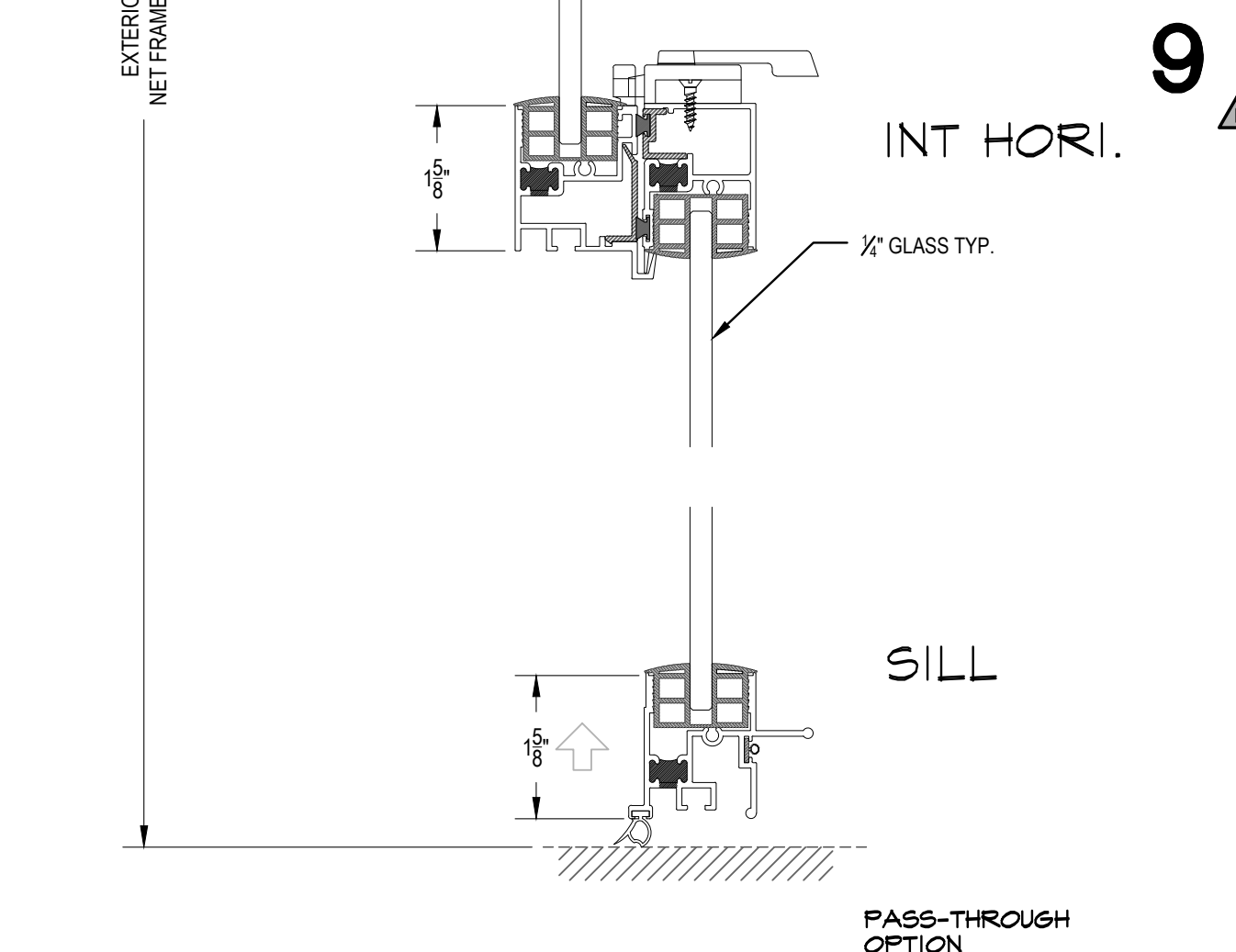
PASS THRU TO FIXED JAMB
SCALE: 6"=1'-0"



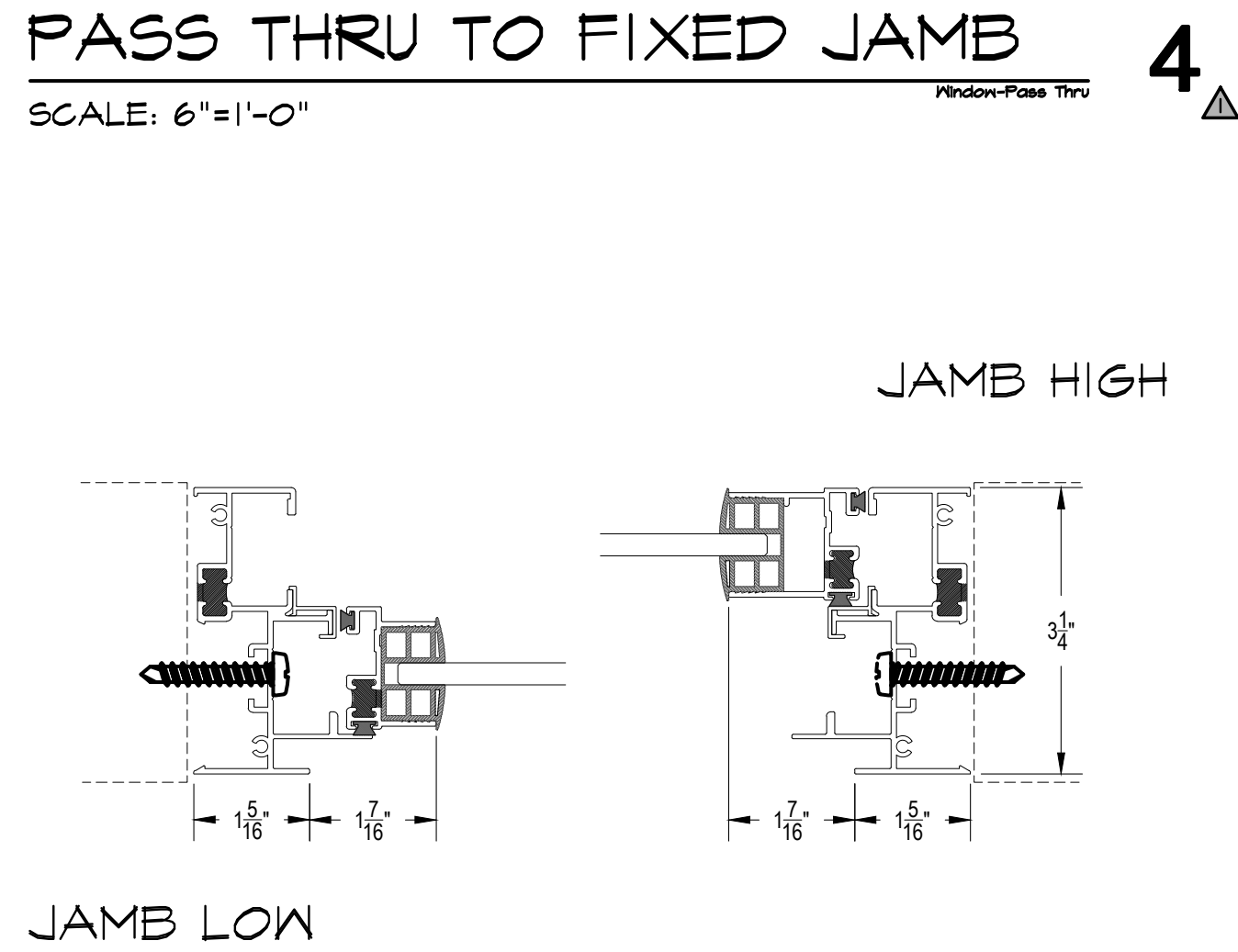
ROLL-UP DOOR SHELF/SILL
SCALE: 1 1/2"=1'-0"



PASS THRU JAMB WALL
SCALE: 6"=1'-0"



PASS THRU JAMB LOW
SCALE: 6"=1'-0"



PASS THRU JAMB HIGH
SCALE: 6"=1'-0"

STAMP



CONSULTANT

PROJECT

**WEST END
REGIONAL
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



**FONTANA
CALIFORNIA**

TITLE

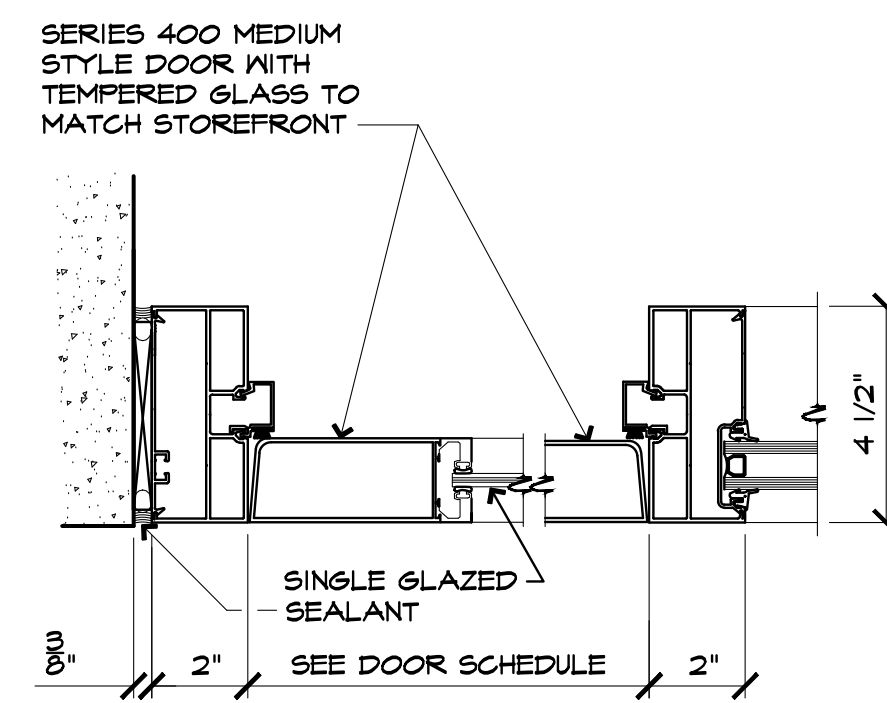
**DOOR & WINDOW
DETAILS**

Revisions	By	Date
△ PC CORR 1/BID ISSUE 1	MMF	4/24/26

Drawn	MMF
Date	2/3/26
Project No.	25011
Scale	AS NOTED

Sheet

A-10.3



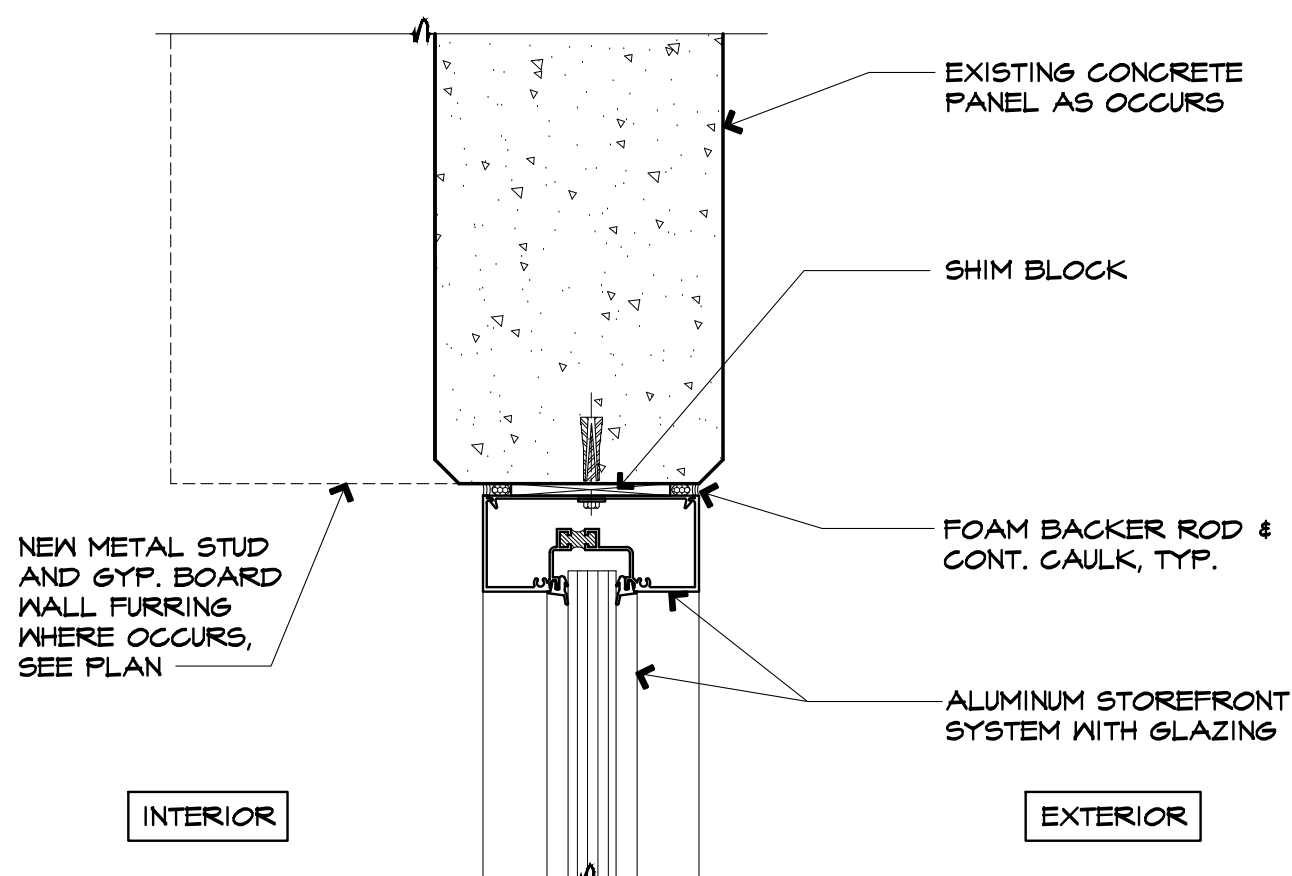
NOTE:
GLAZING IN DOORS AND
WITHIN 24" OF DOOR OR
WHERE GLAZING BOTTOM
EDGE IS LESS THAN 60"
ABOVE WALKING
SURFACE SHALL BE
TEMPERED. TEMPERED
IDENTIFICATION SHALL BE
ETCHED OR CERAMIC
FIRED ON THE GLASS
AND READABLE FROM
THE INSIDE OF THE
BUILDING AFTER
INSTALLATION.
(TEMPERED SPANDREL
GLASS MAY USE
REMOVABLE PAPER
LABEL BY MFR.)

JAMB A MULLION B

ENTRY DOOR JAMB & MULLION 1

SCALE: 3"=1'-0"

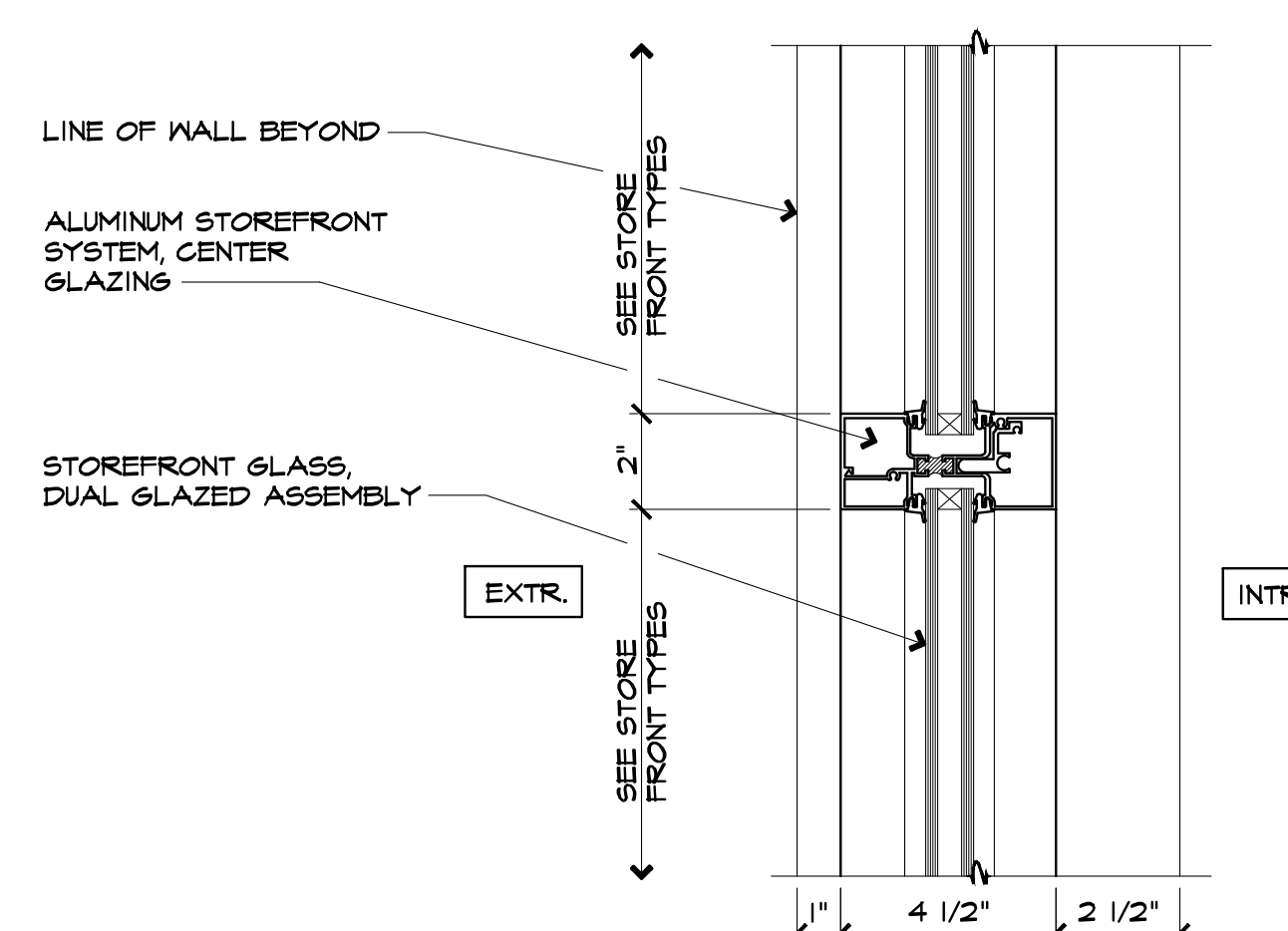
ENTRY-1.dwg
REV: 06-14-10



STOREFRONT JAMB (HEAD SIM.) 2

SCALE: 3"=1'-0"

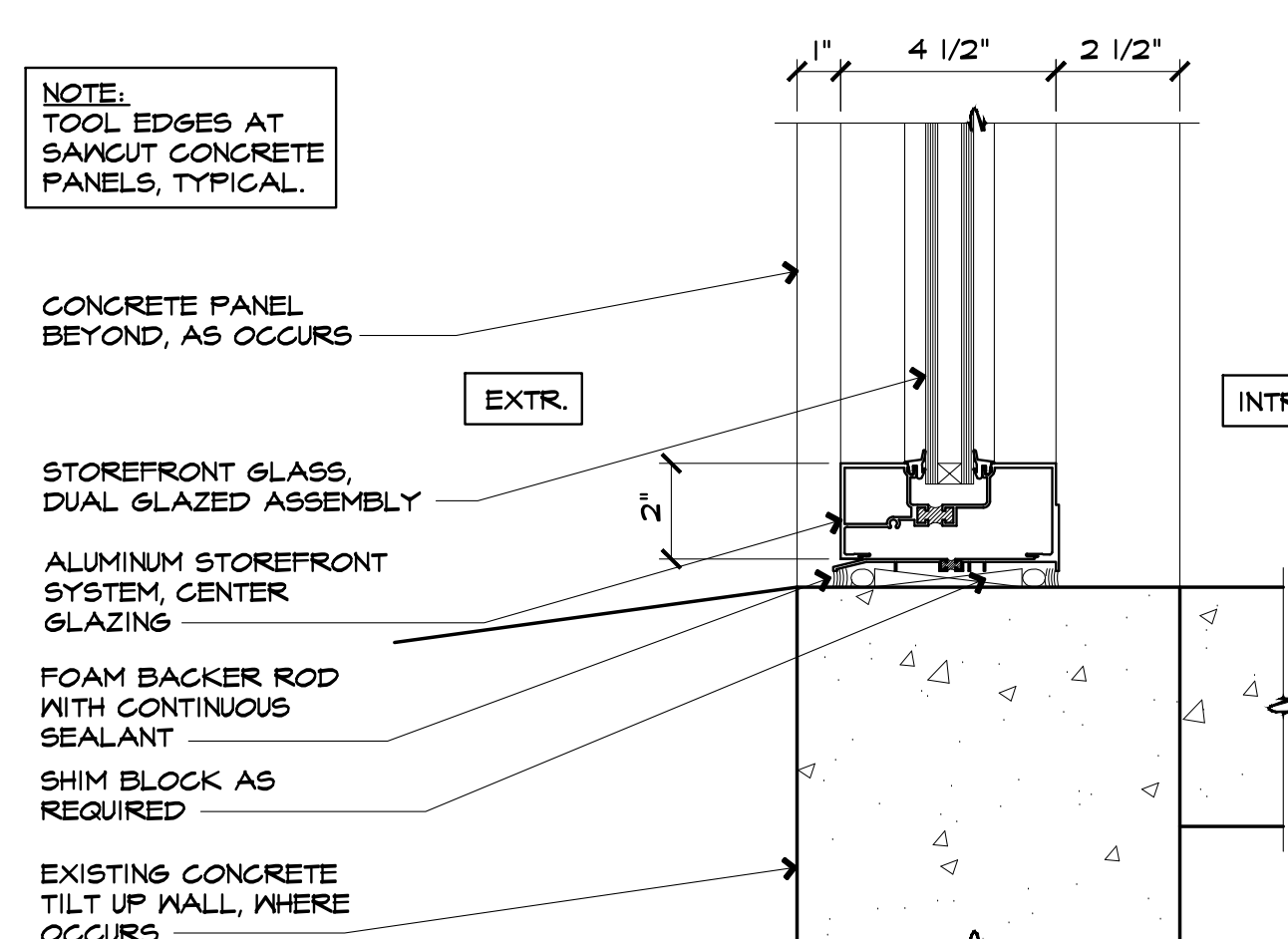
Storefront Jamb-1.dwg



HORIZONTAL MULLION 3

SCALE: 3"=1'-0"

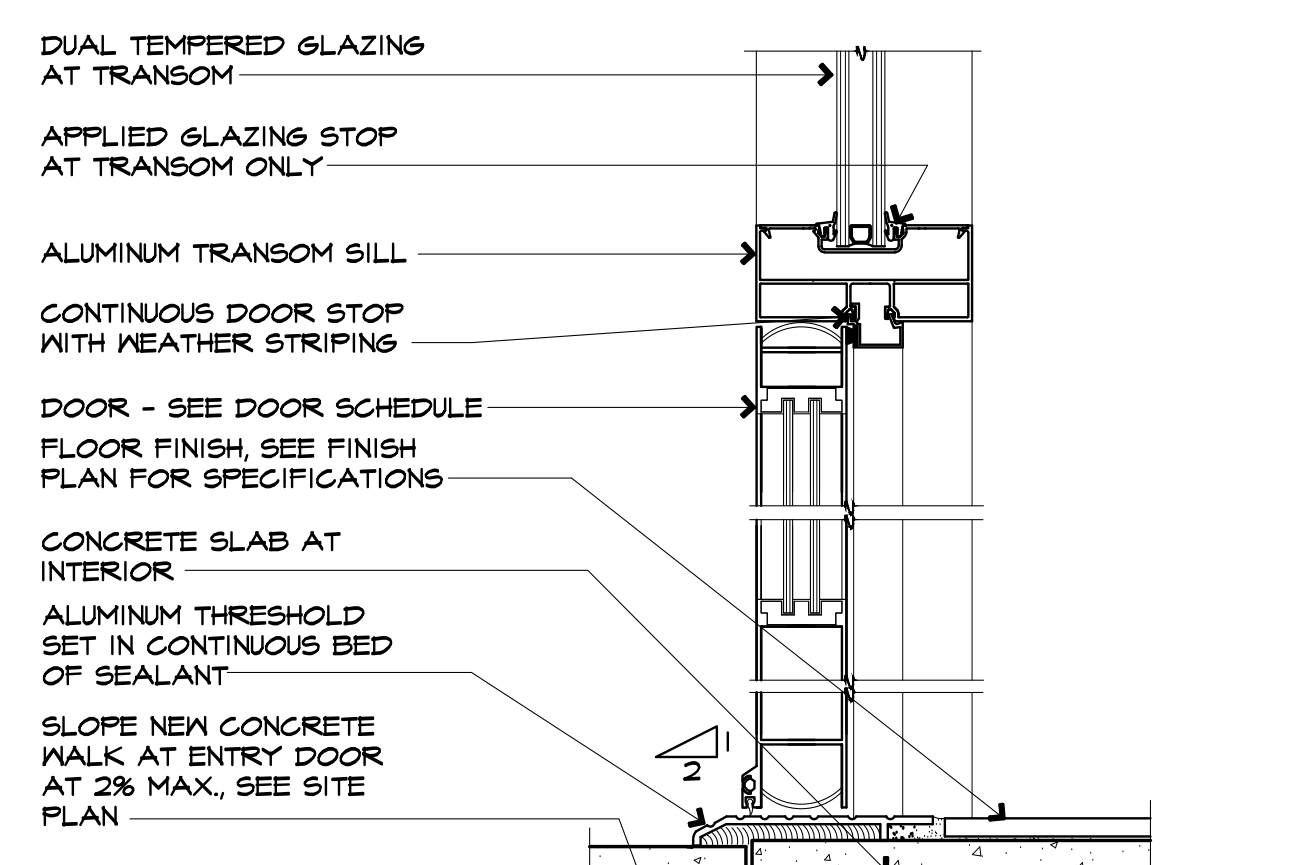
Mull Sections-Detail-1.dwg



GLAZING SILL 4

SCALE: 3"=1'-0"

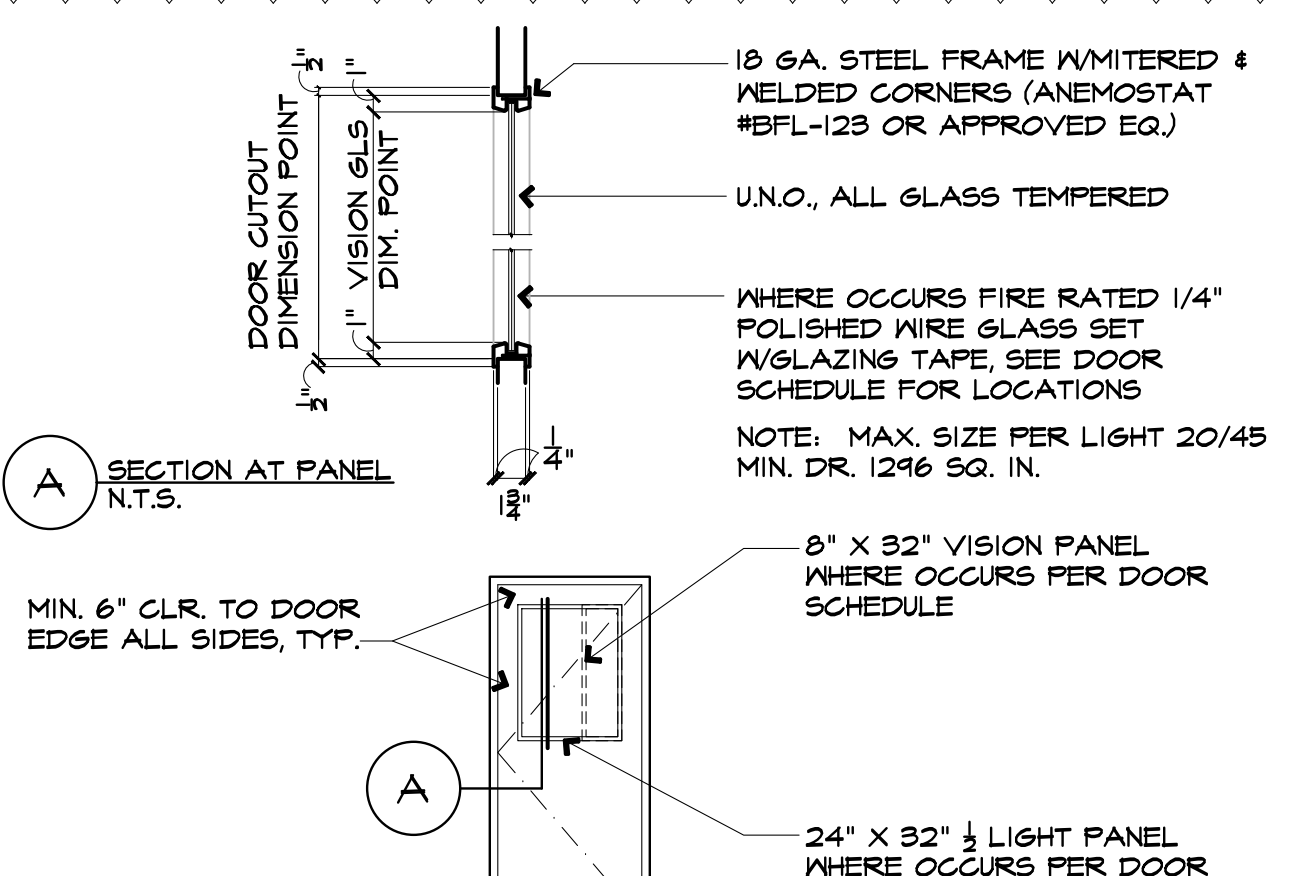
Mull Sections-Detail-12.dwg



STOREFRONT DOOR SILL / HEAD 5

SCALE: 3"=1'-0"

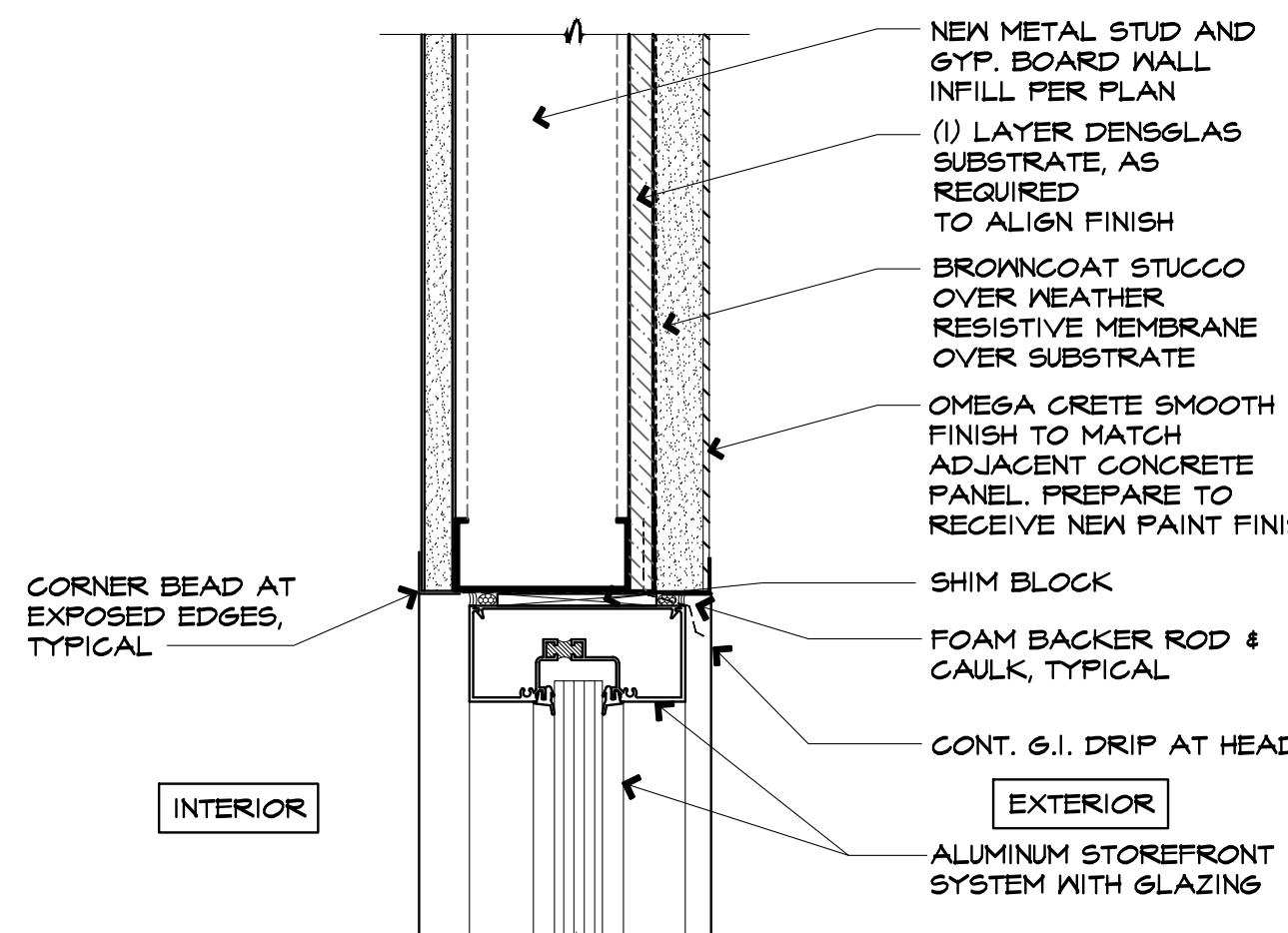
STOREFRONT-TYP.dwg



TYP. VISION/LIGHT PANEL 7

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

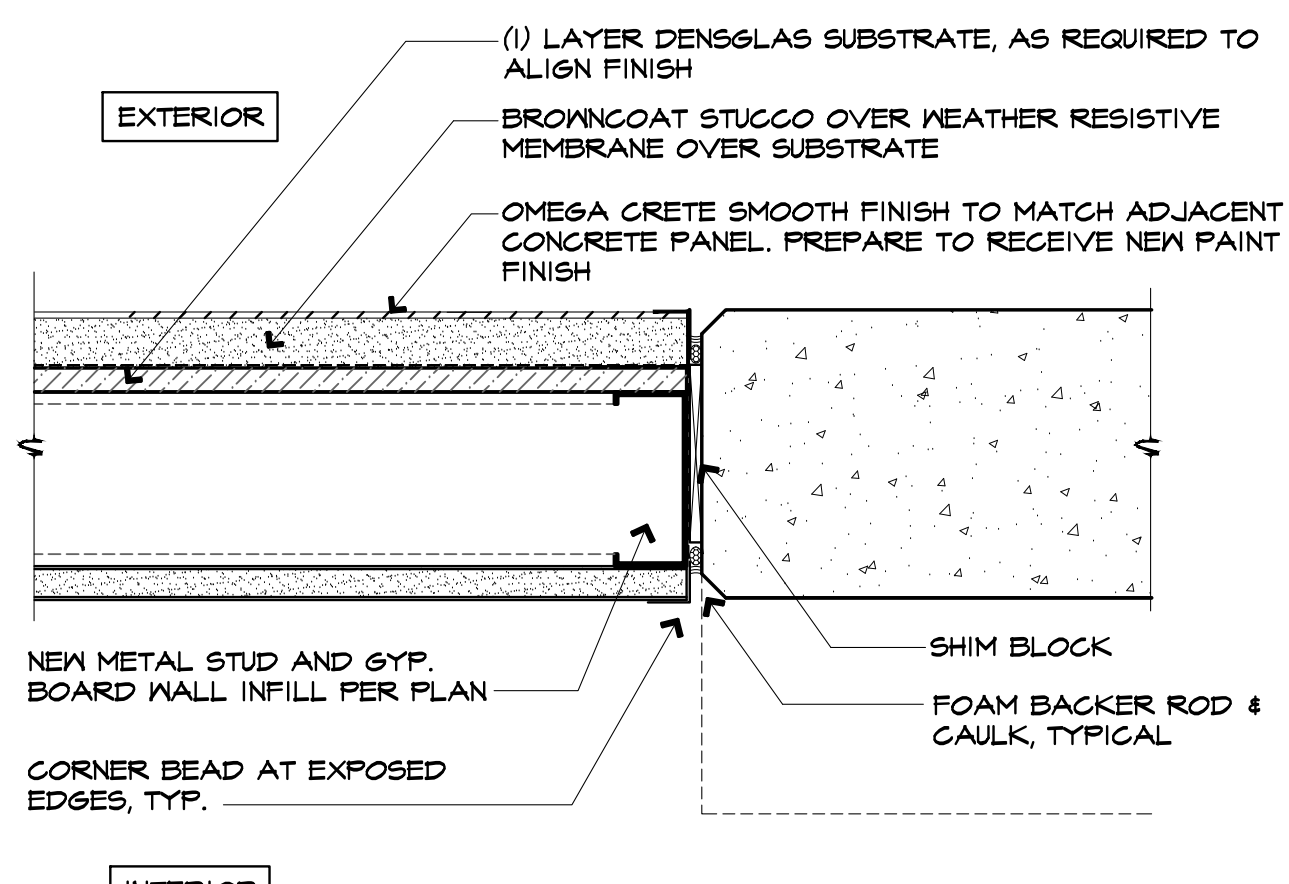
VisionPanel.dwg



STOREFRONT HEAD 8

SCALE: 3"=1'-0"

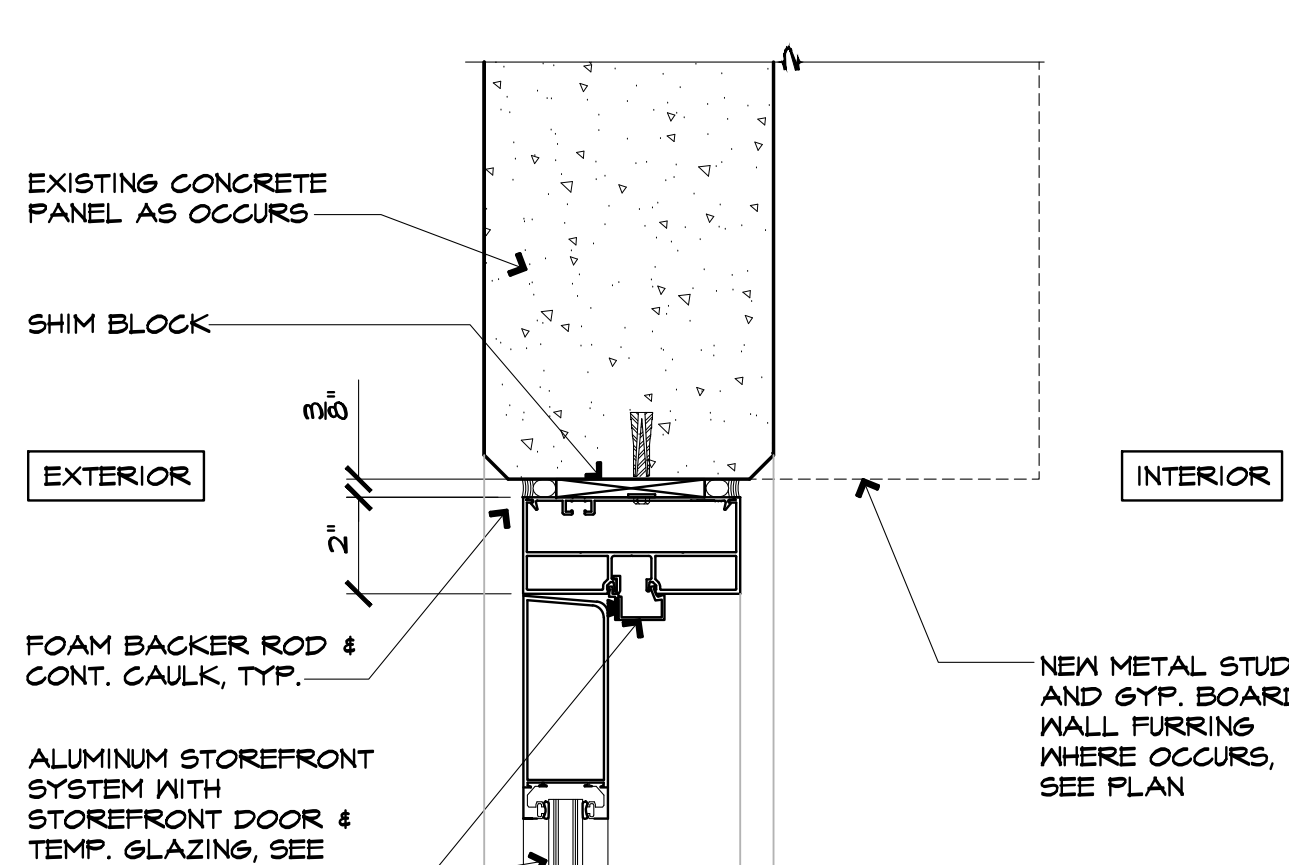
Infill Wall Storefront Head.dwg



EXTERIOR INFILL 9

SCALE: 3"=1'-0"

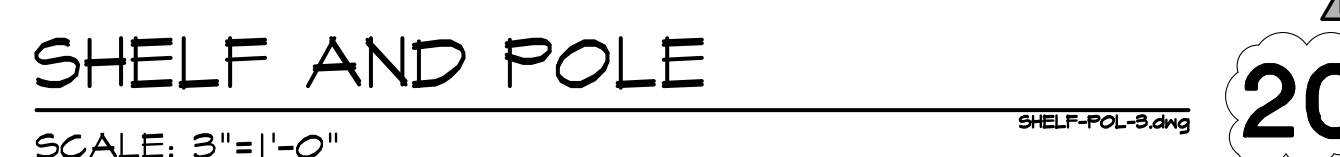
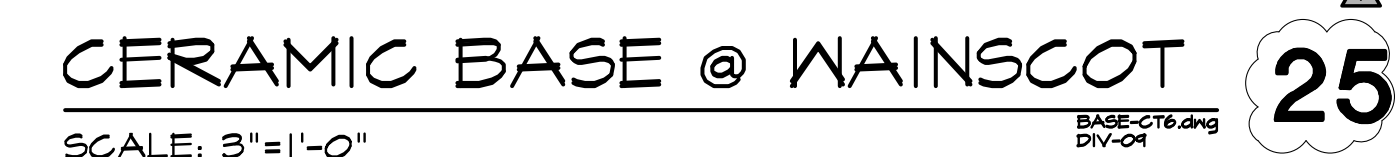
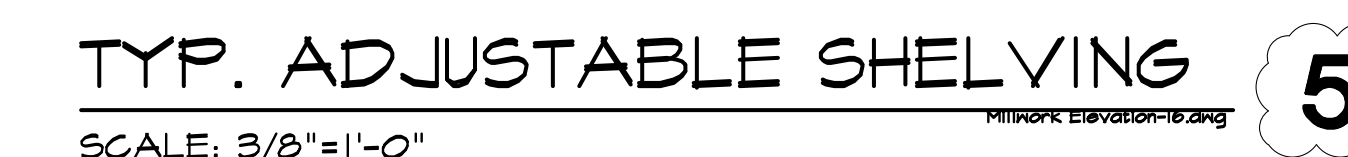
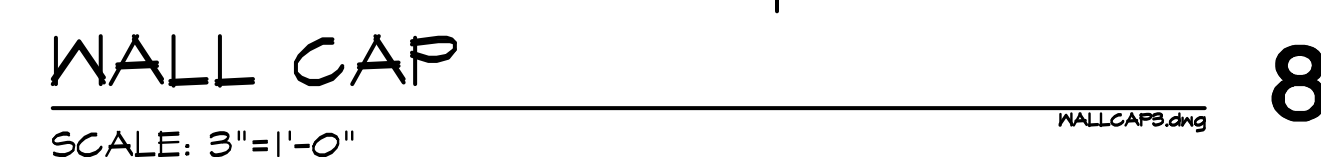
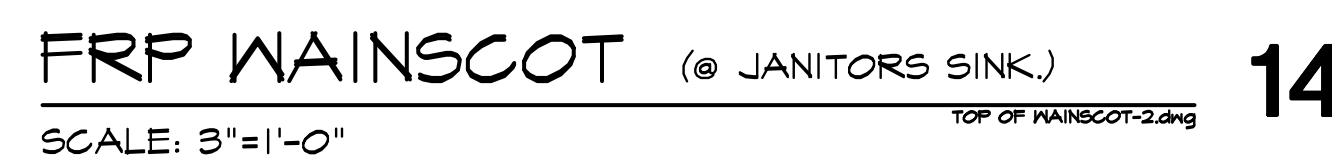
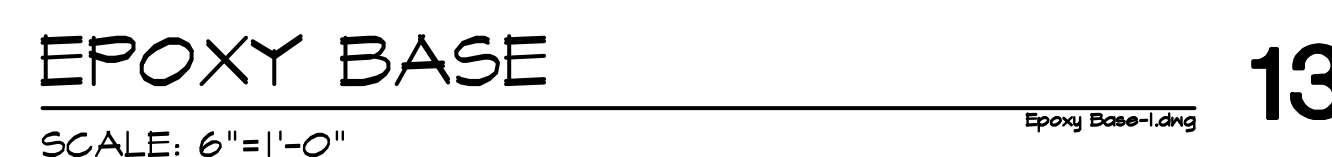
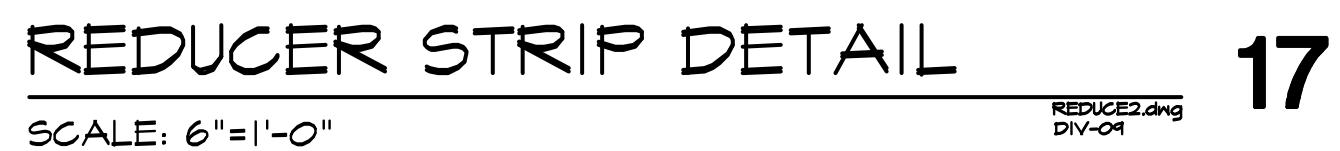
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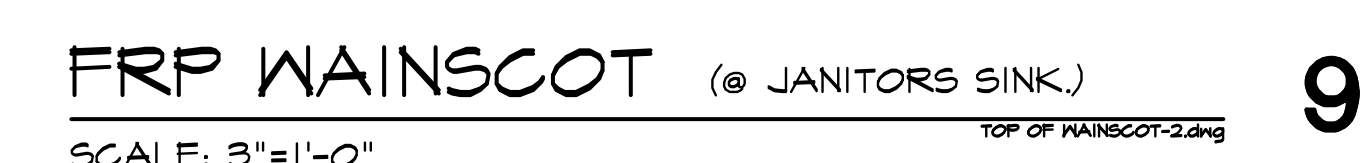
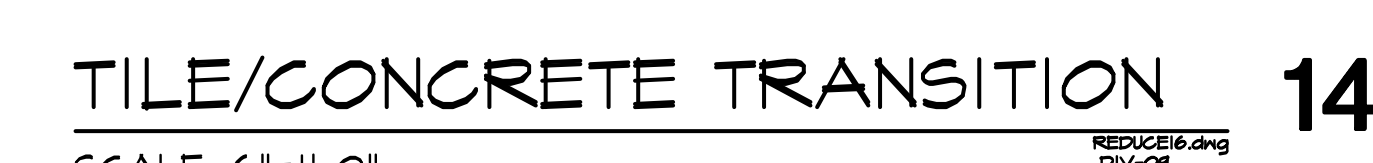
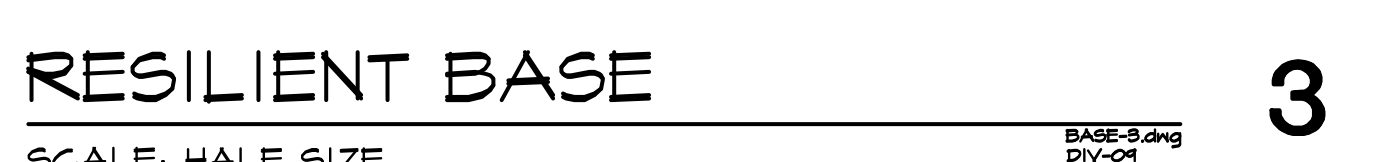
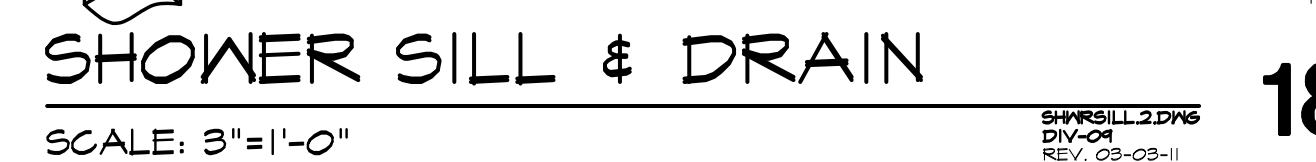
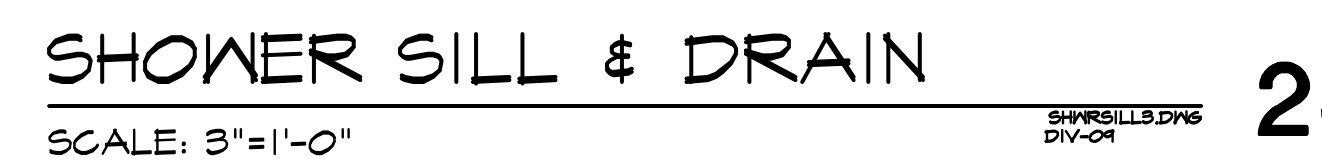
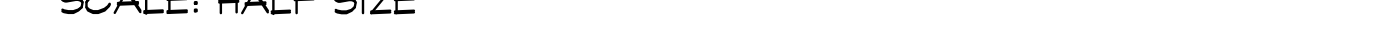
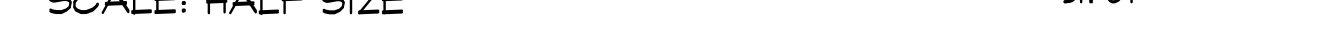
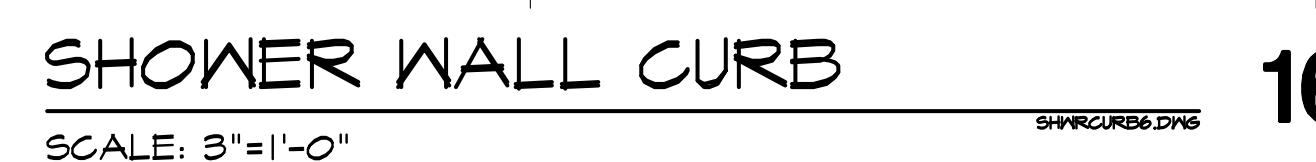


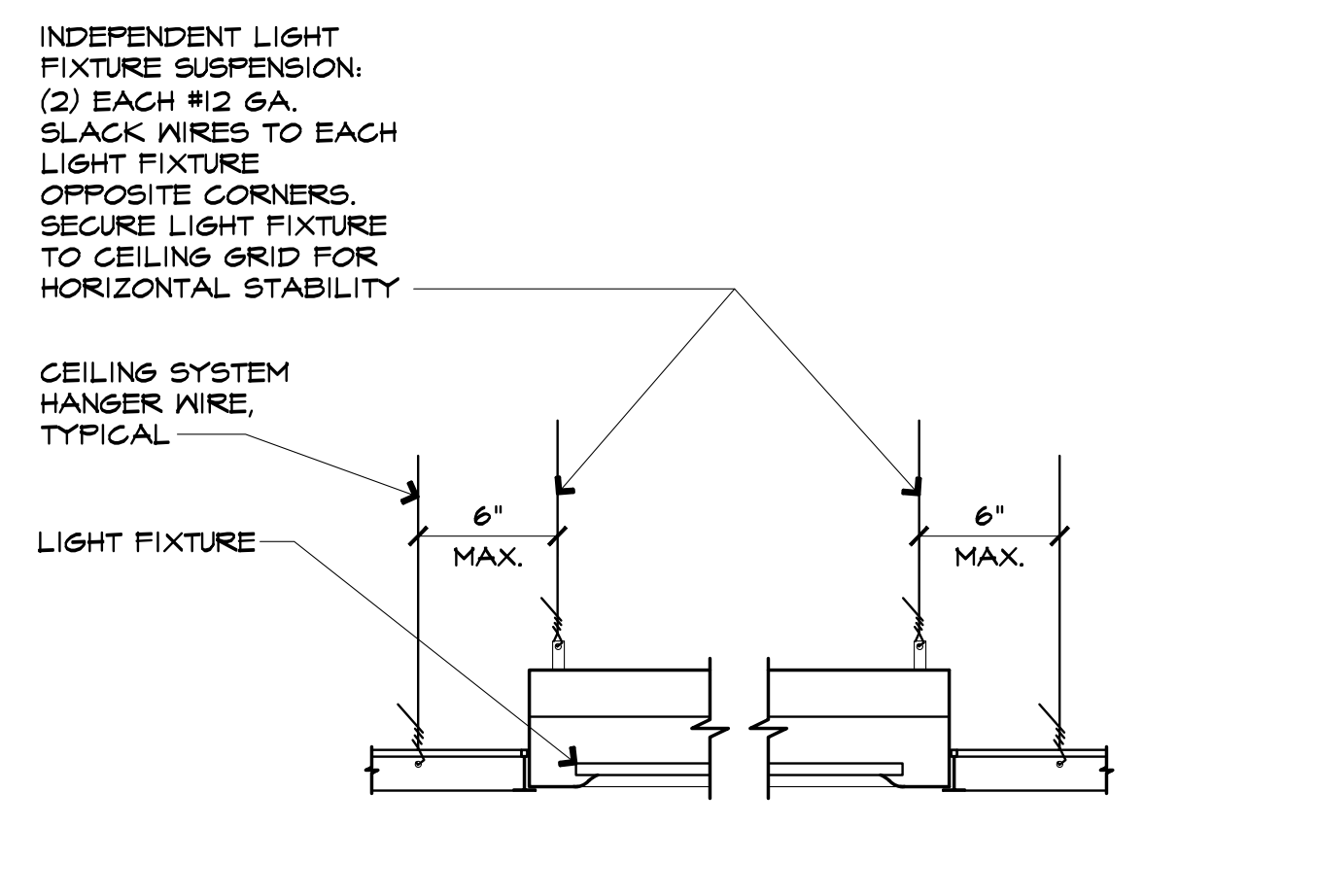
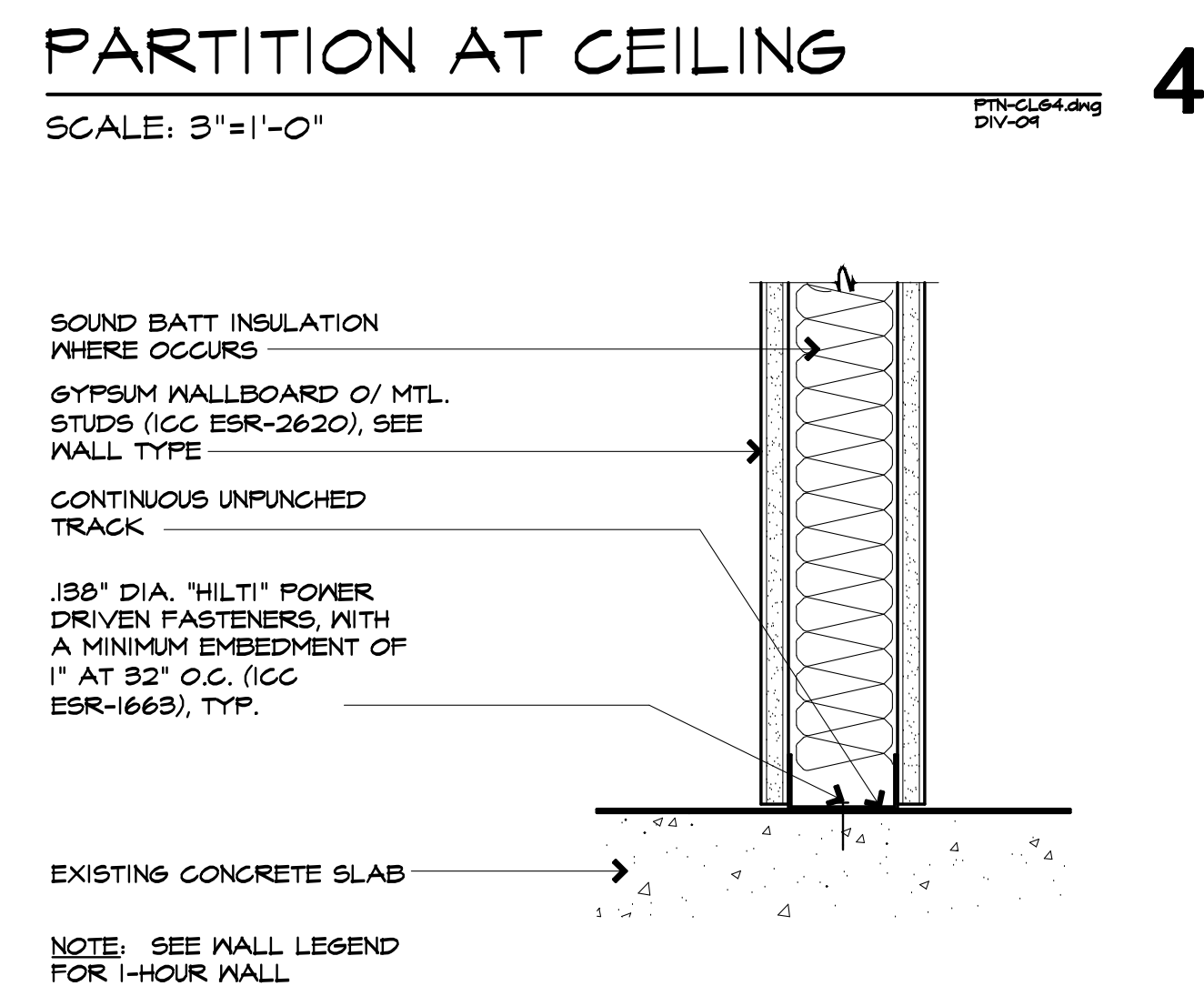
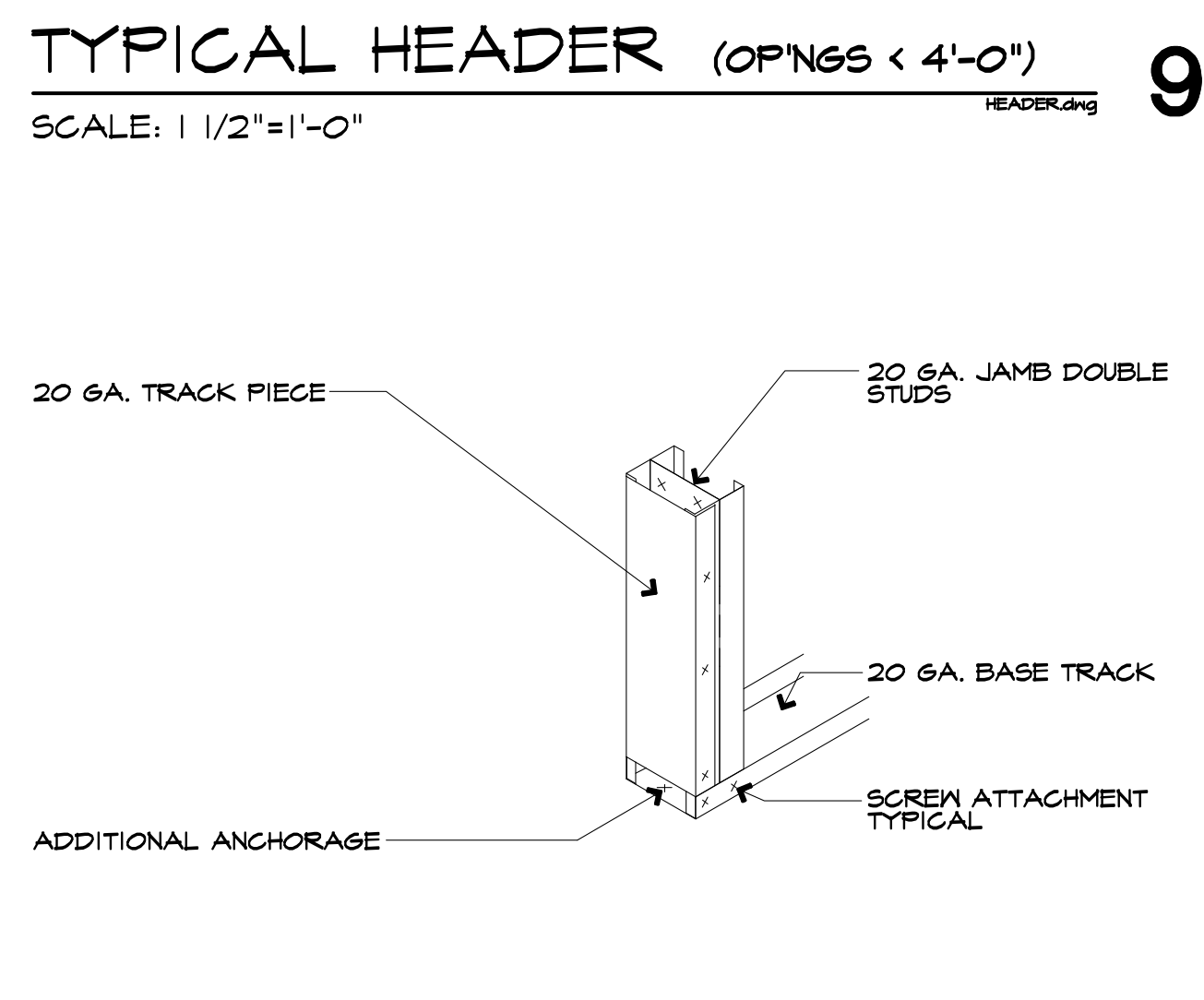
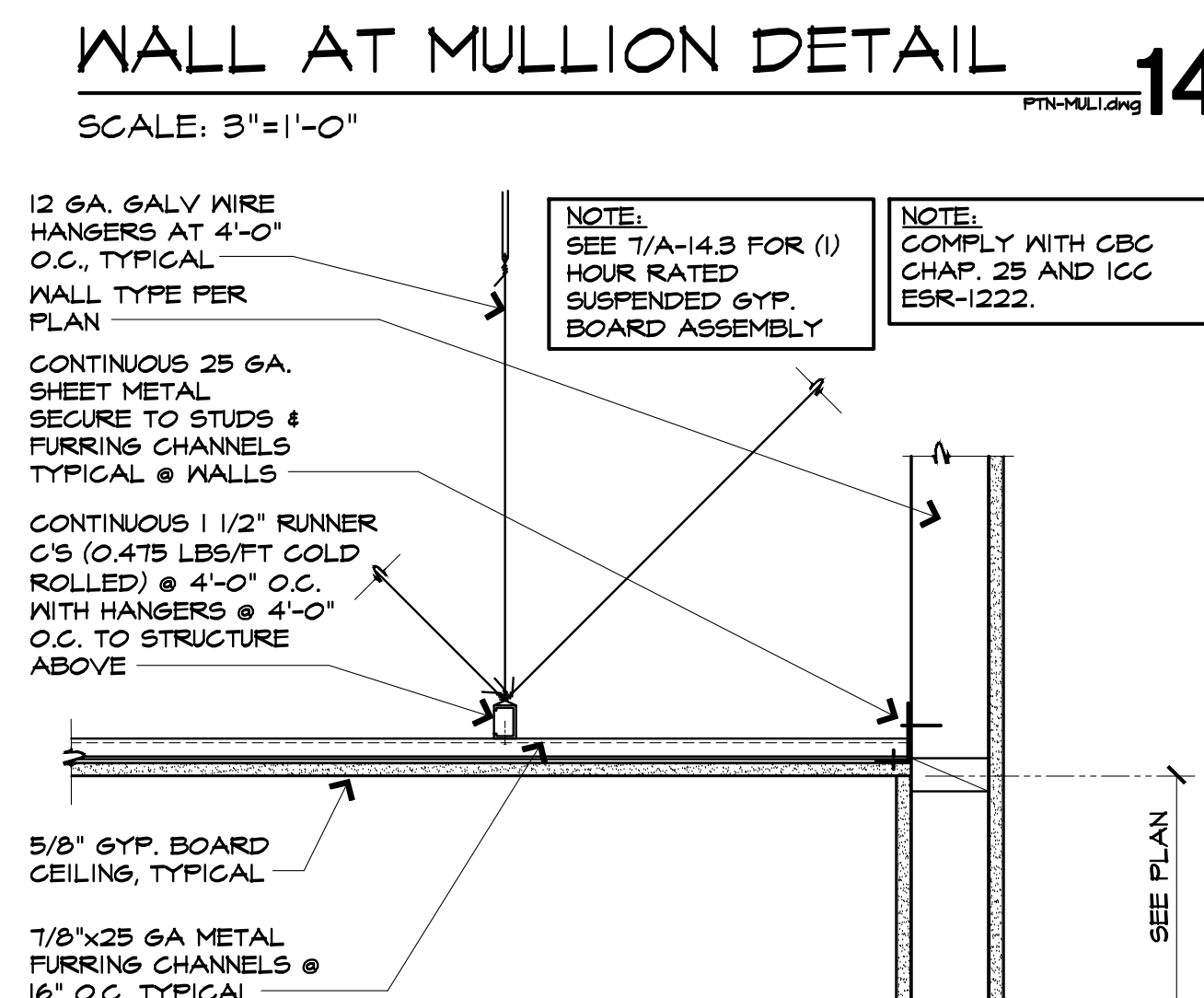
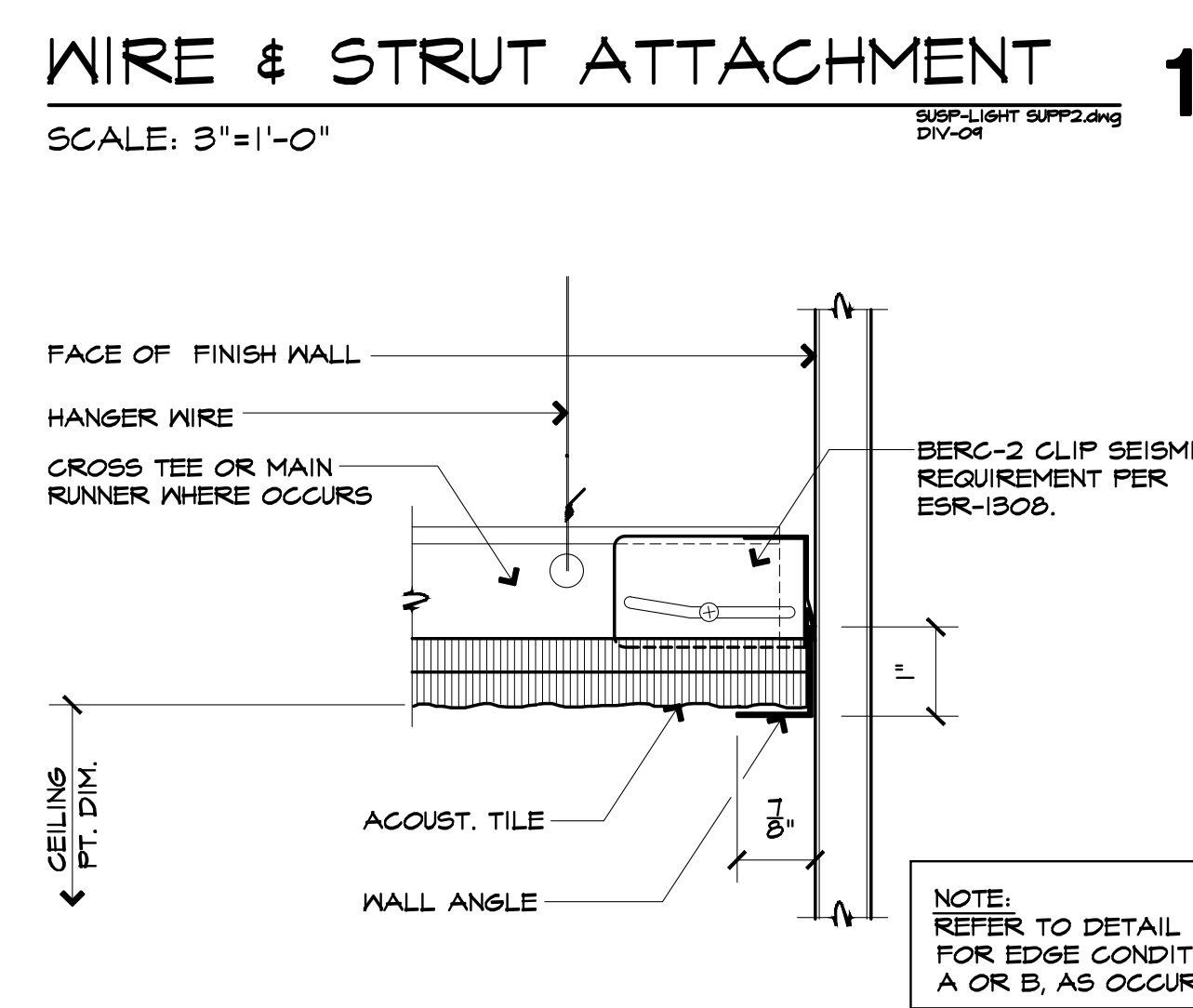
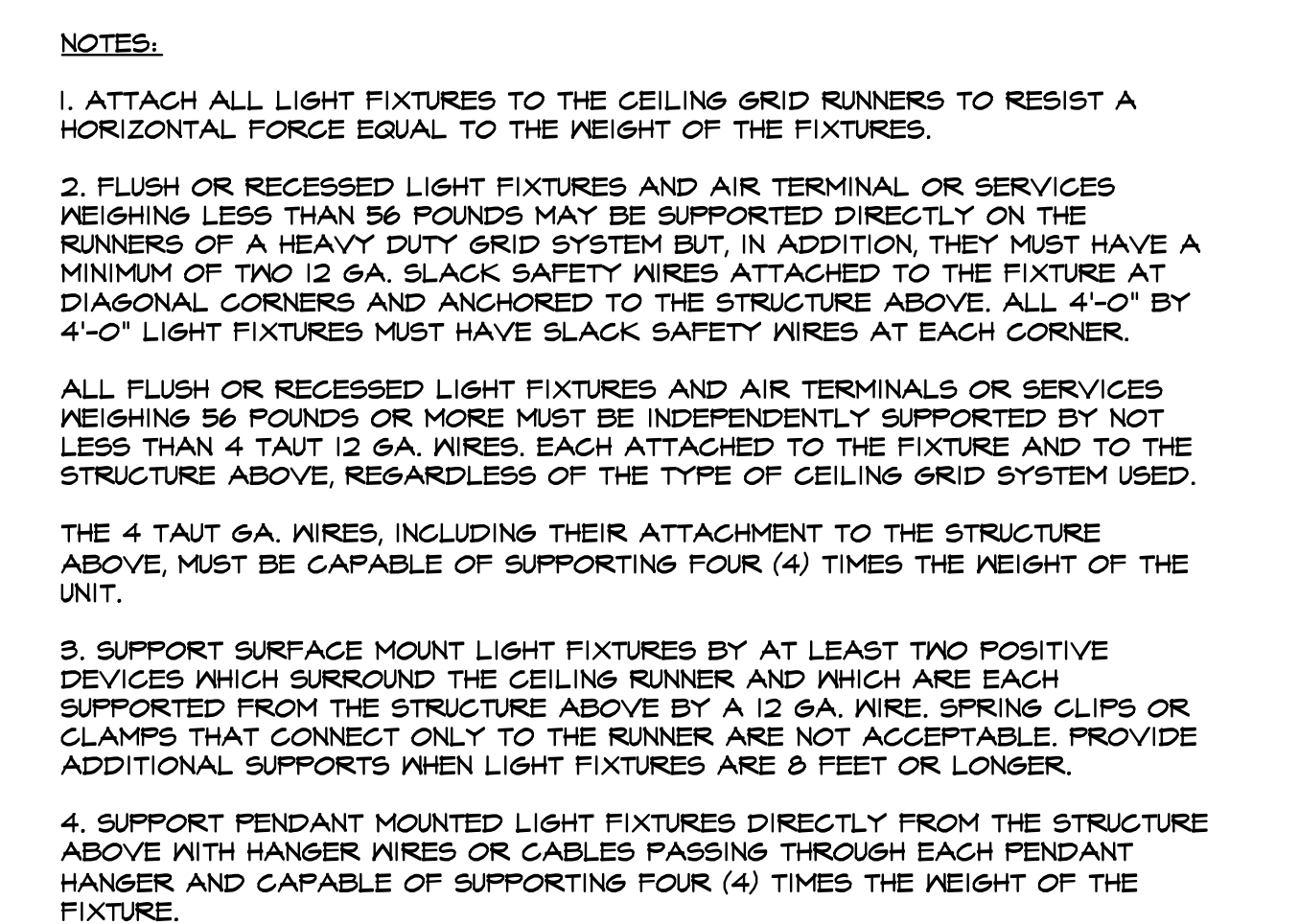
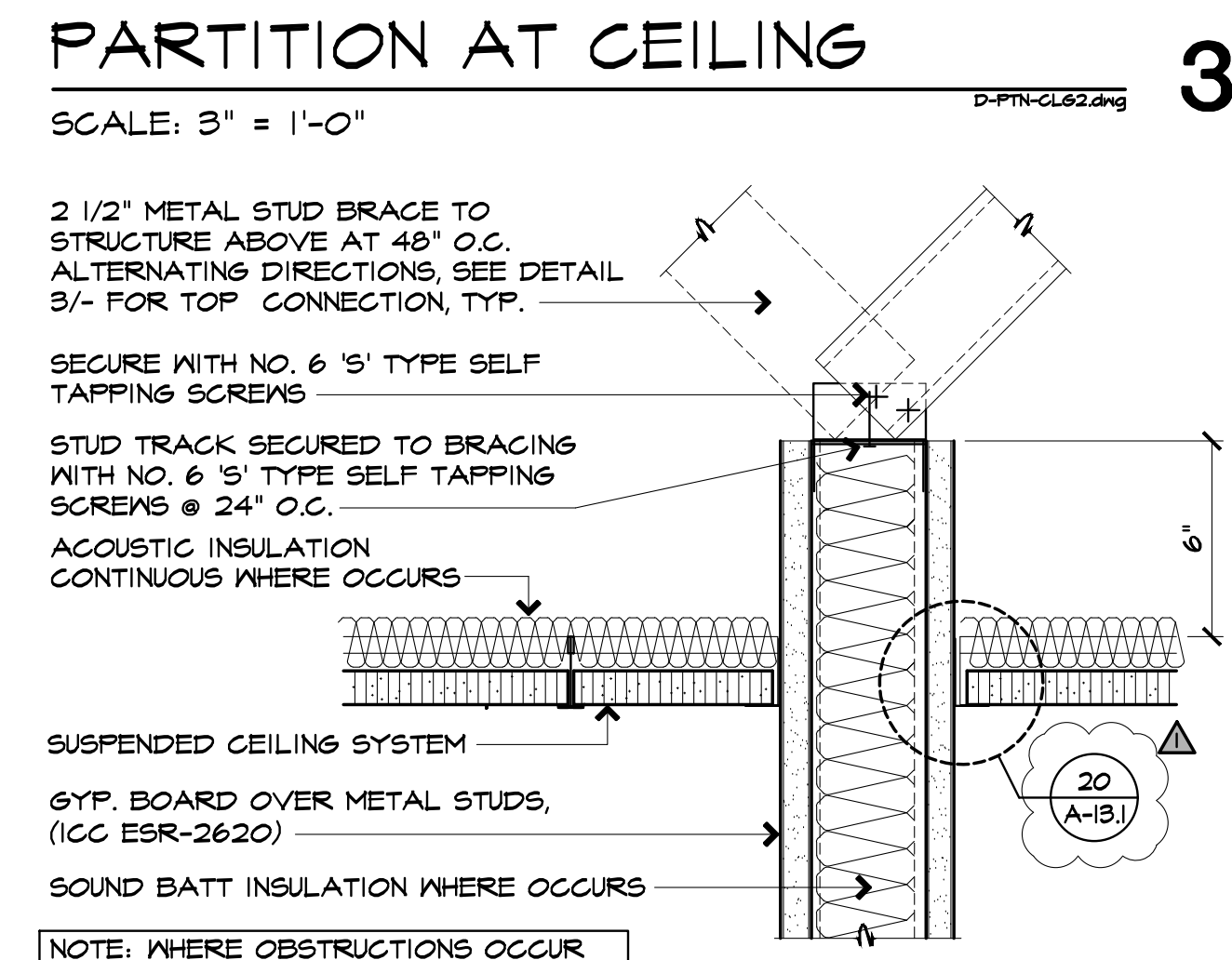
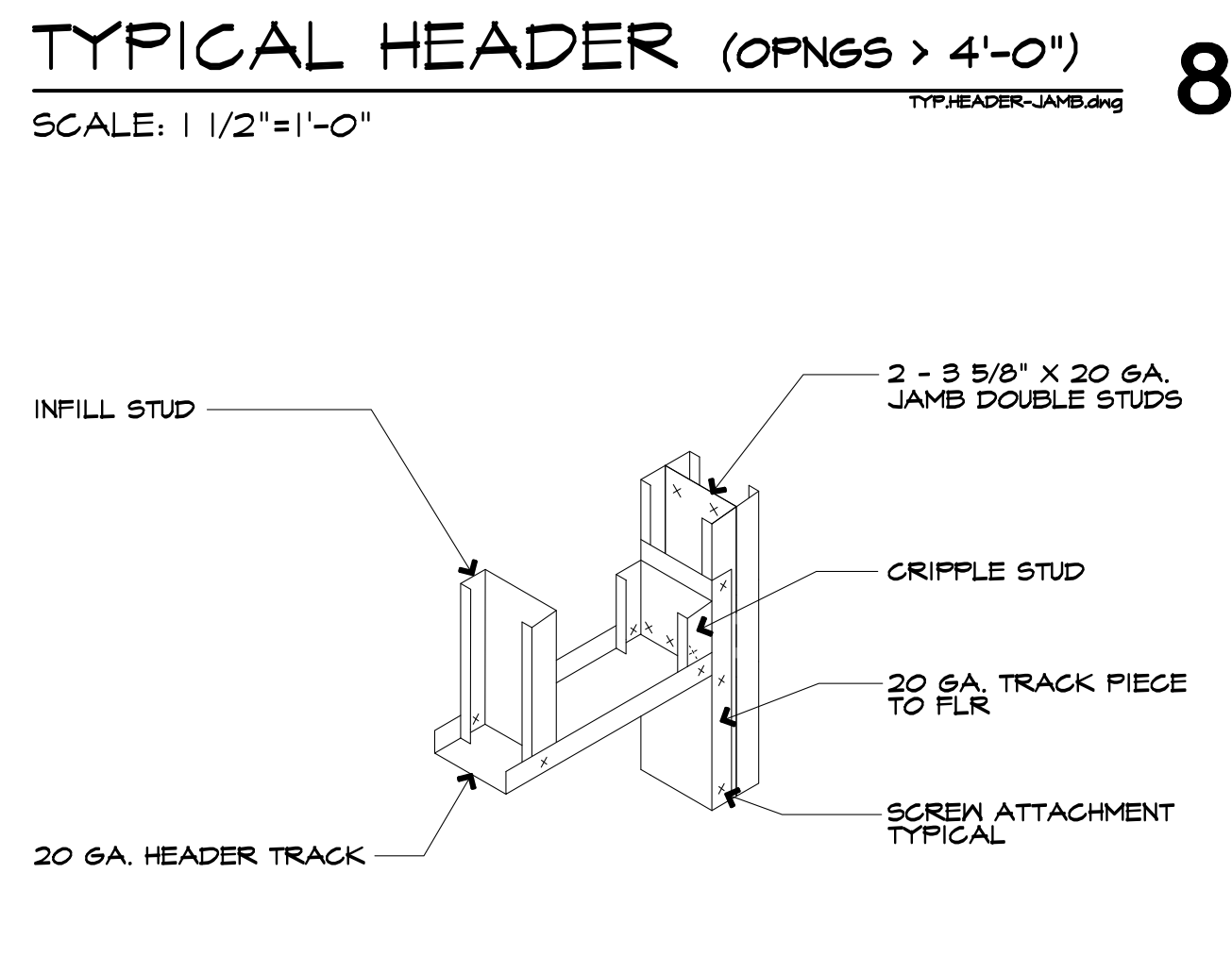
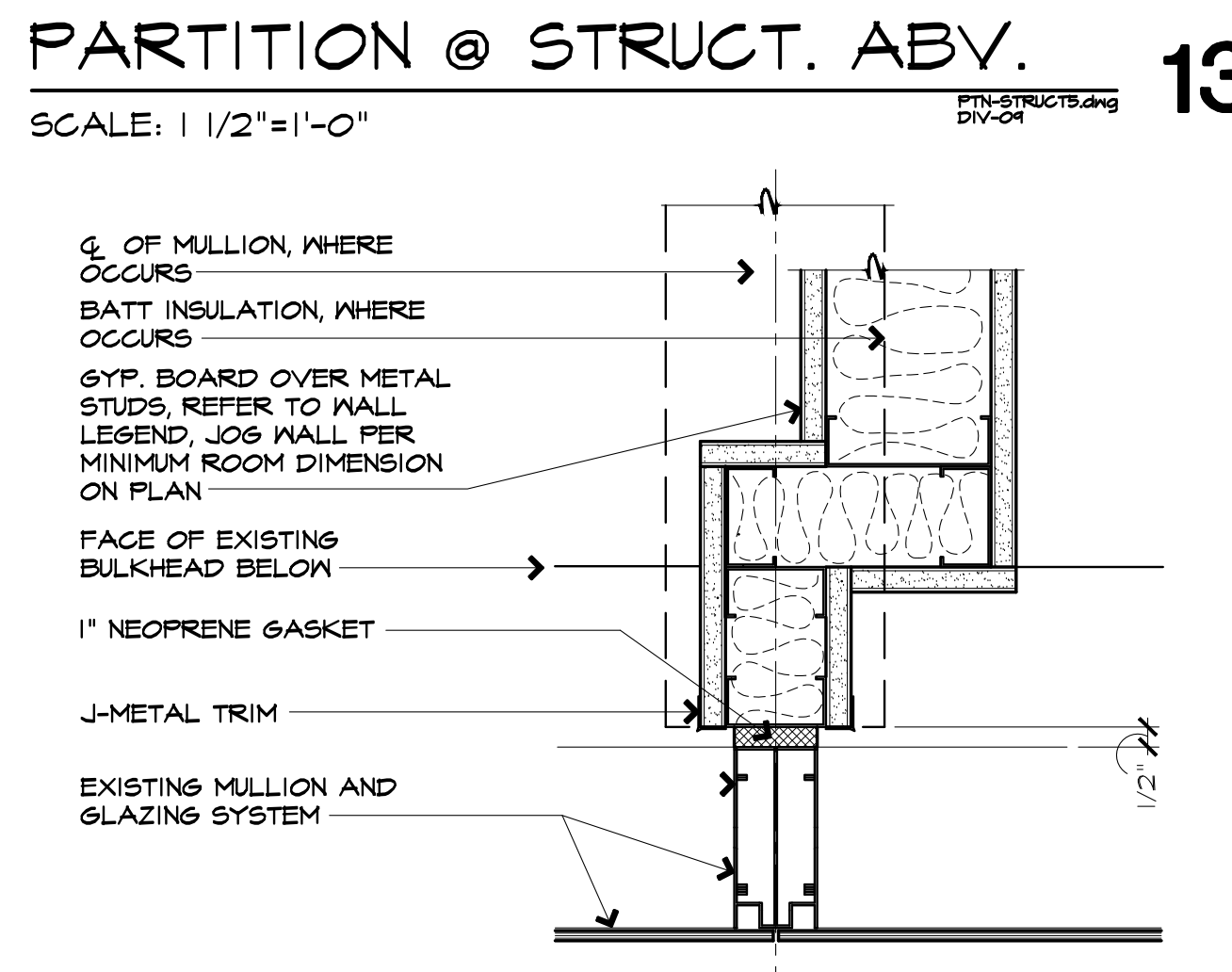
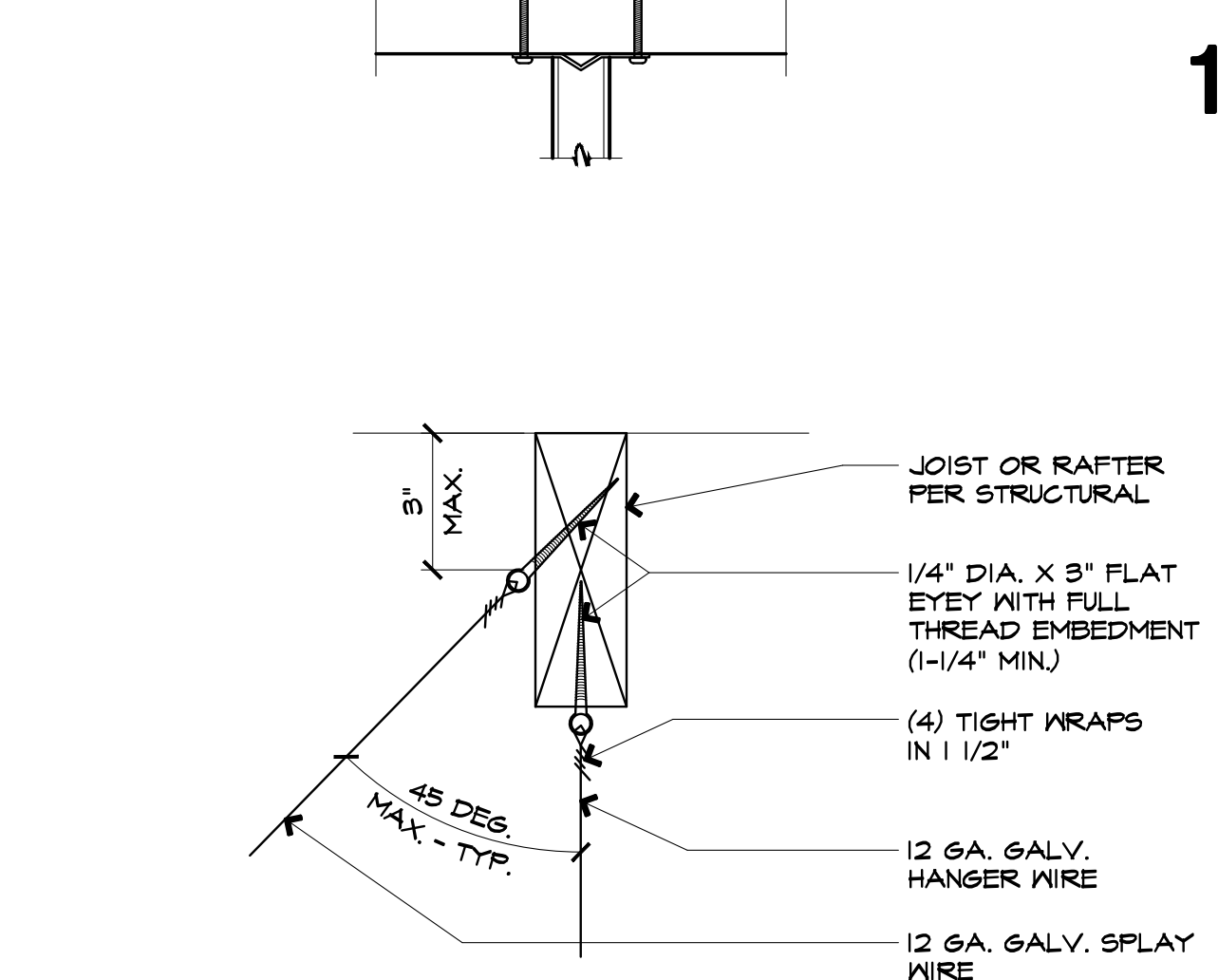
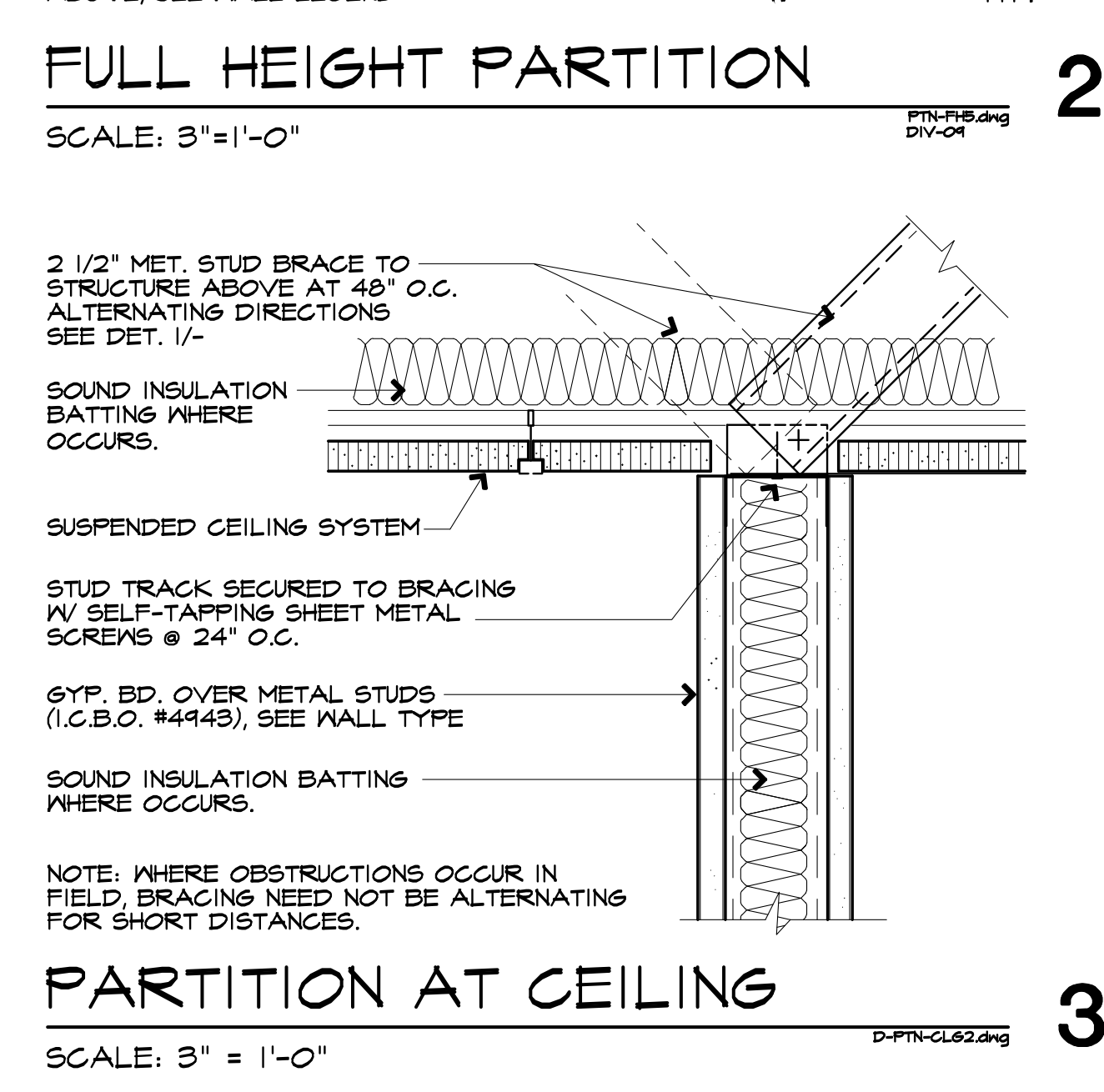
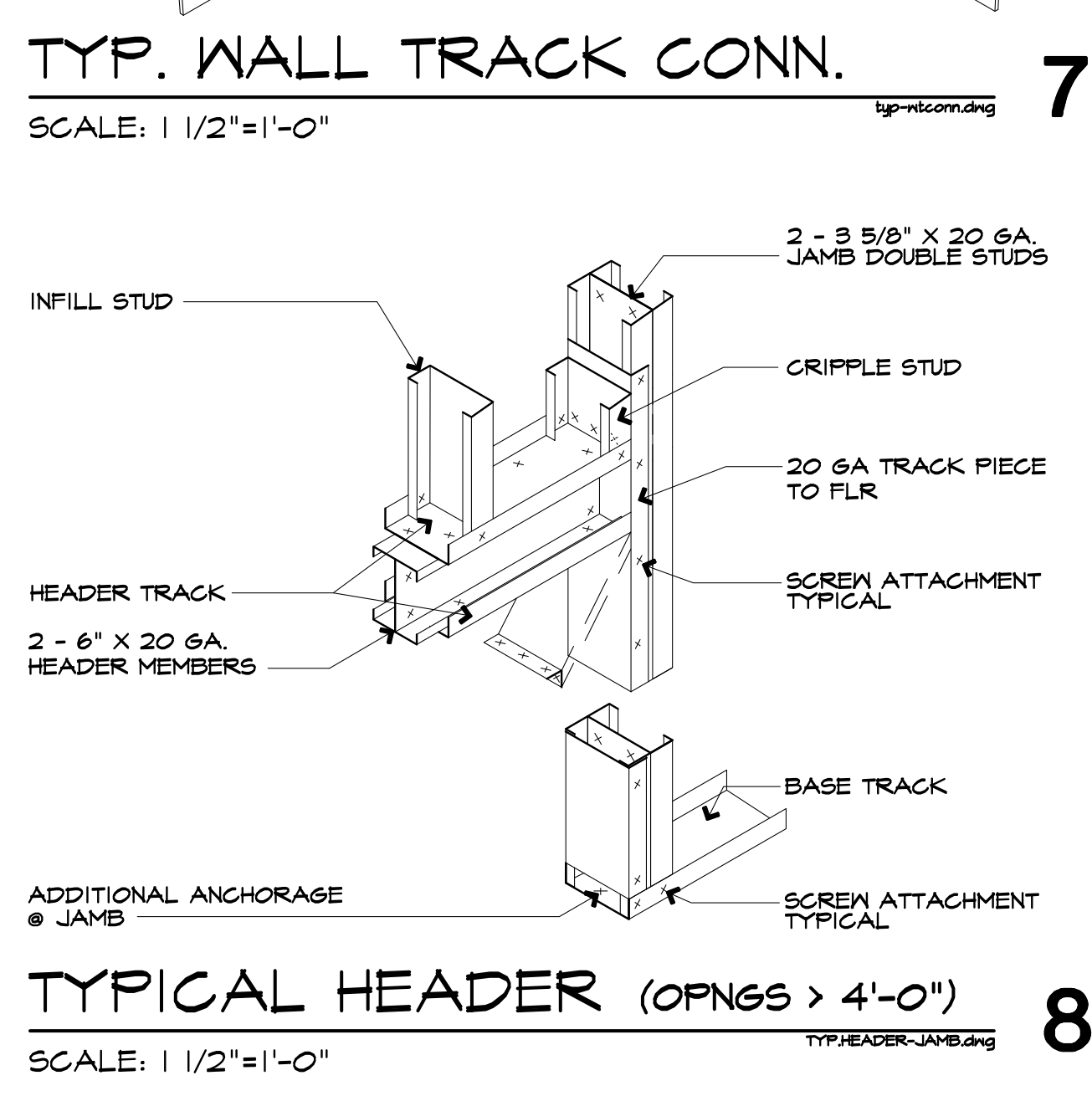
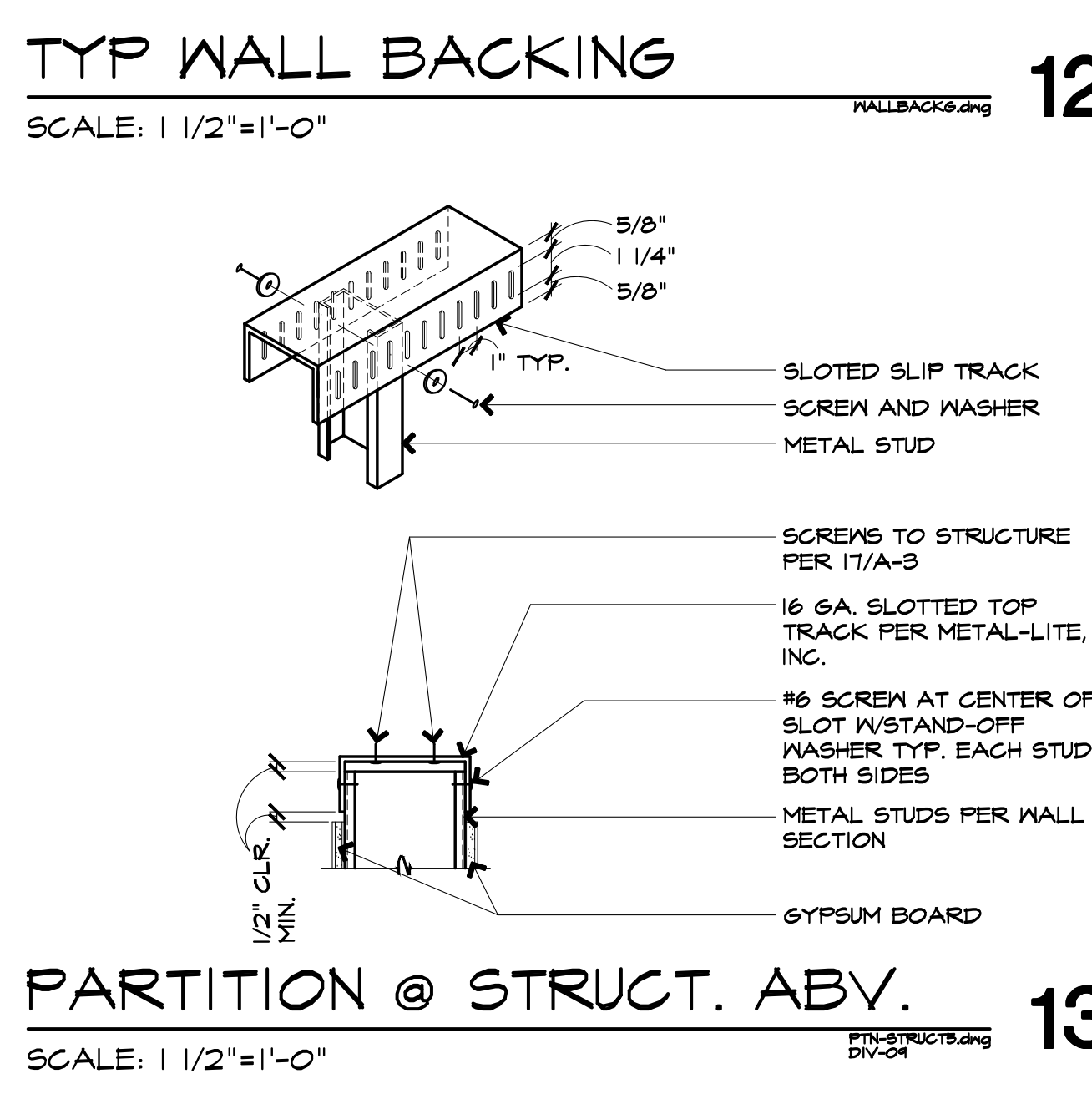
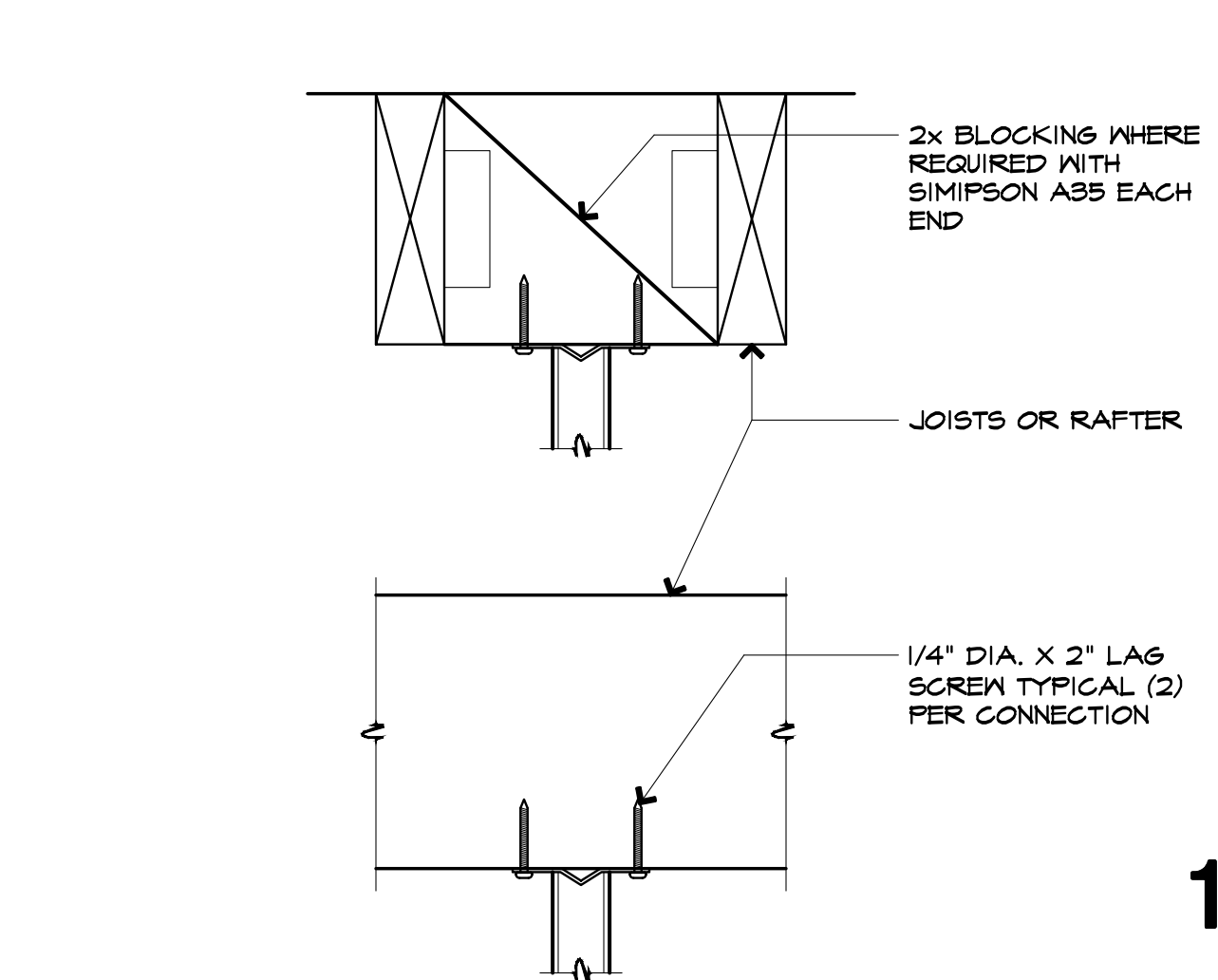
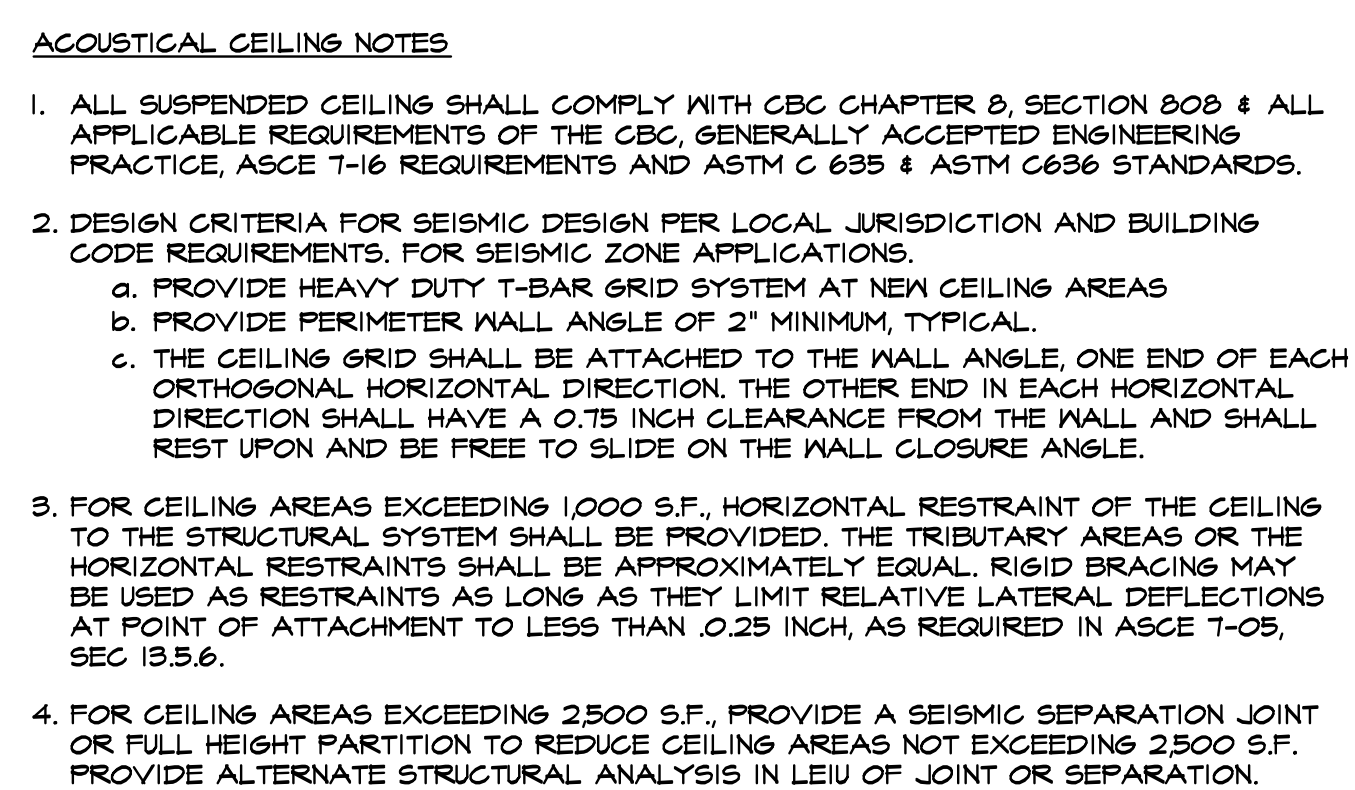
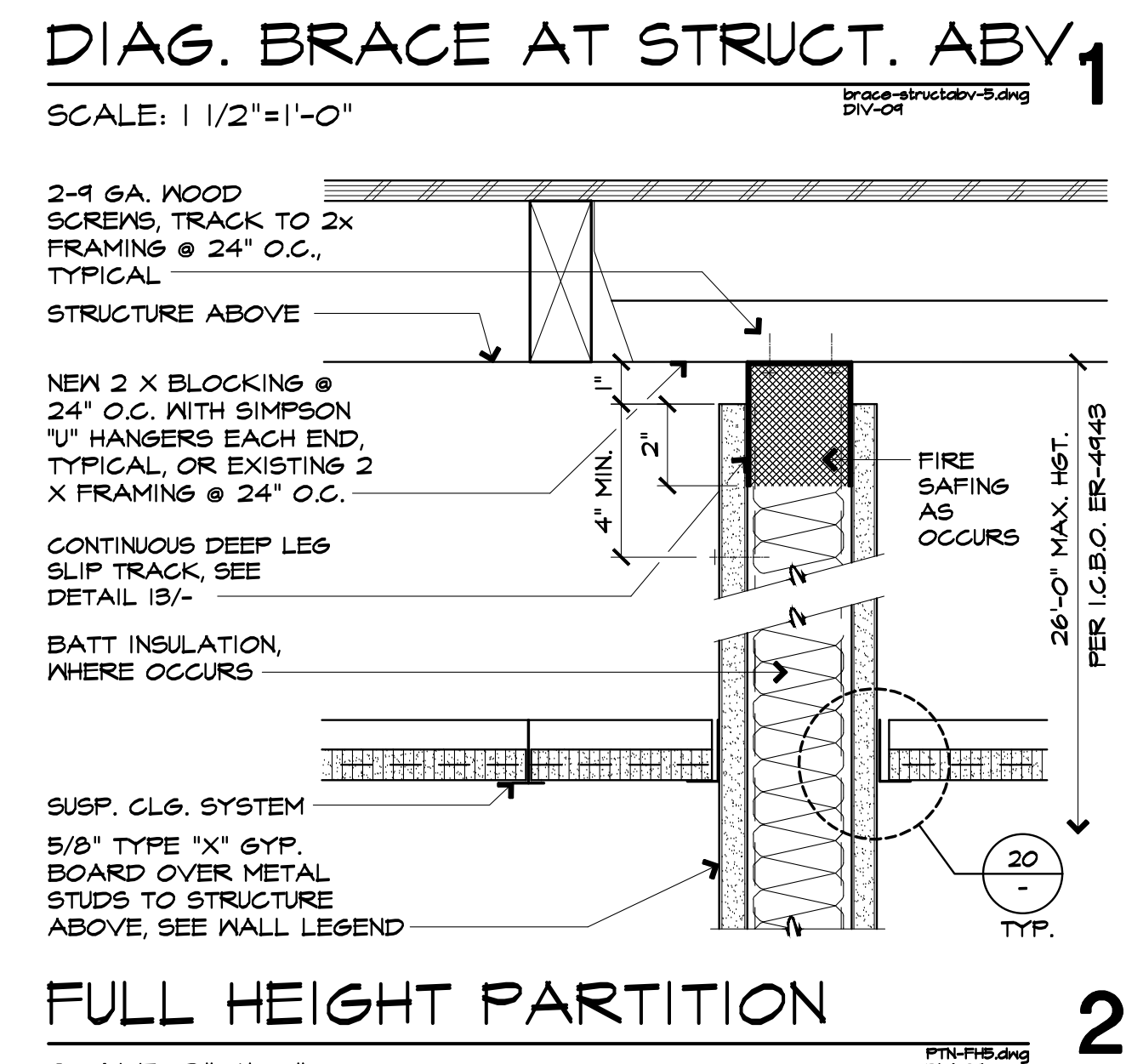
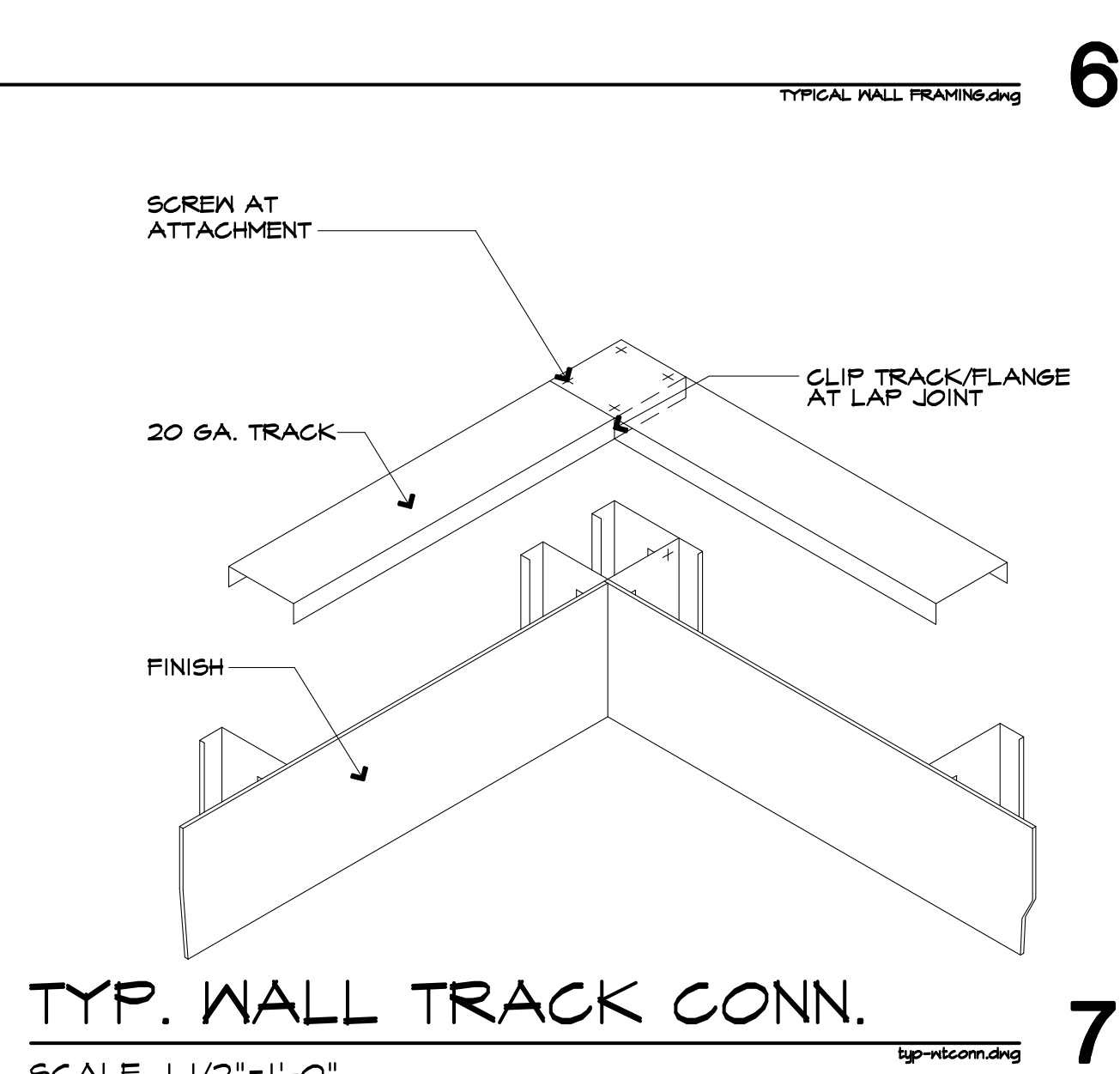
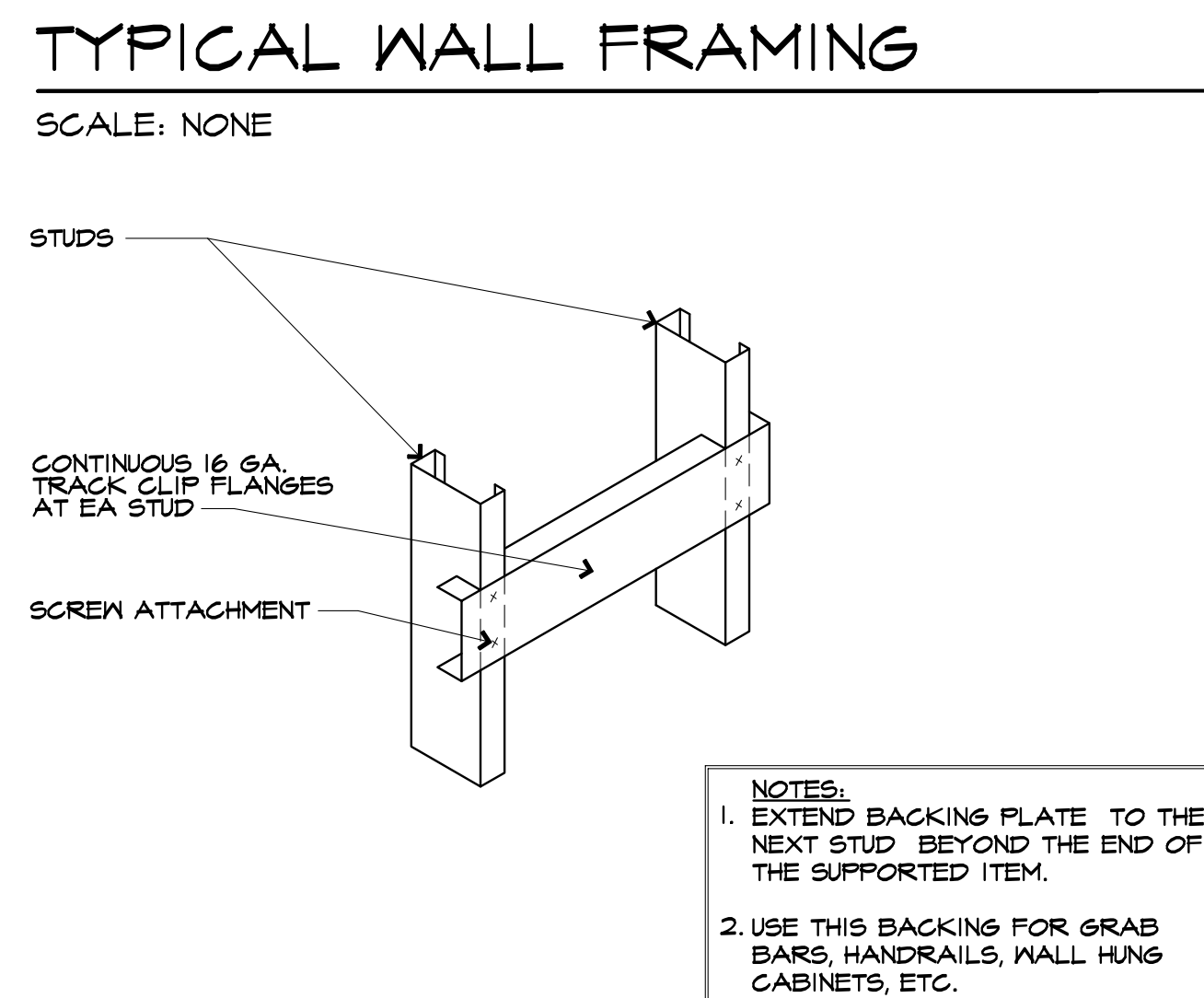
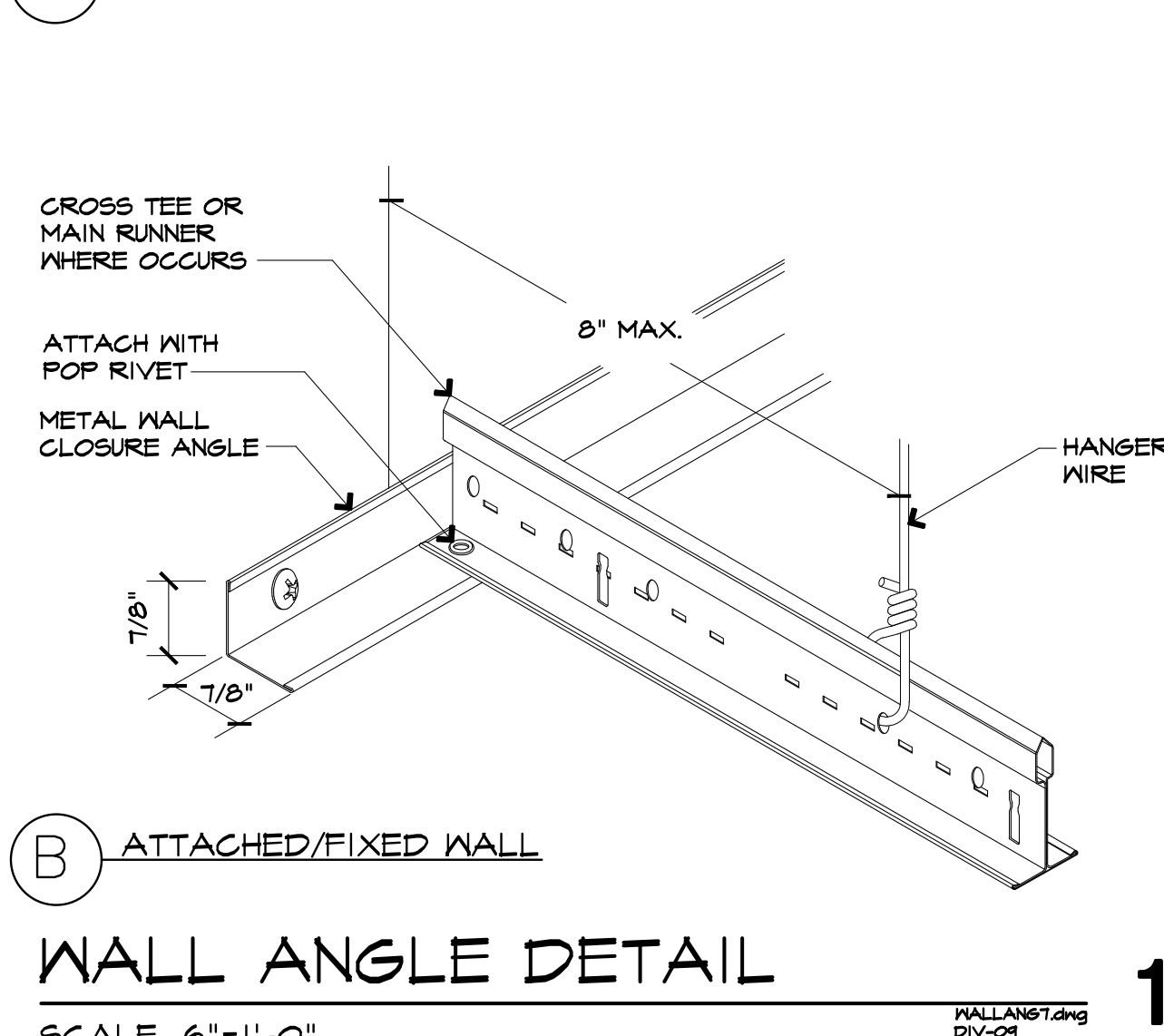
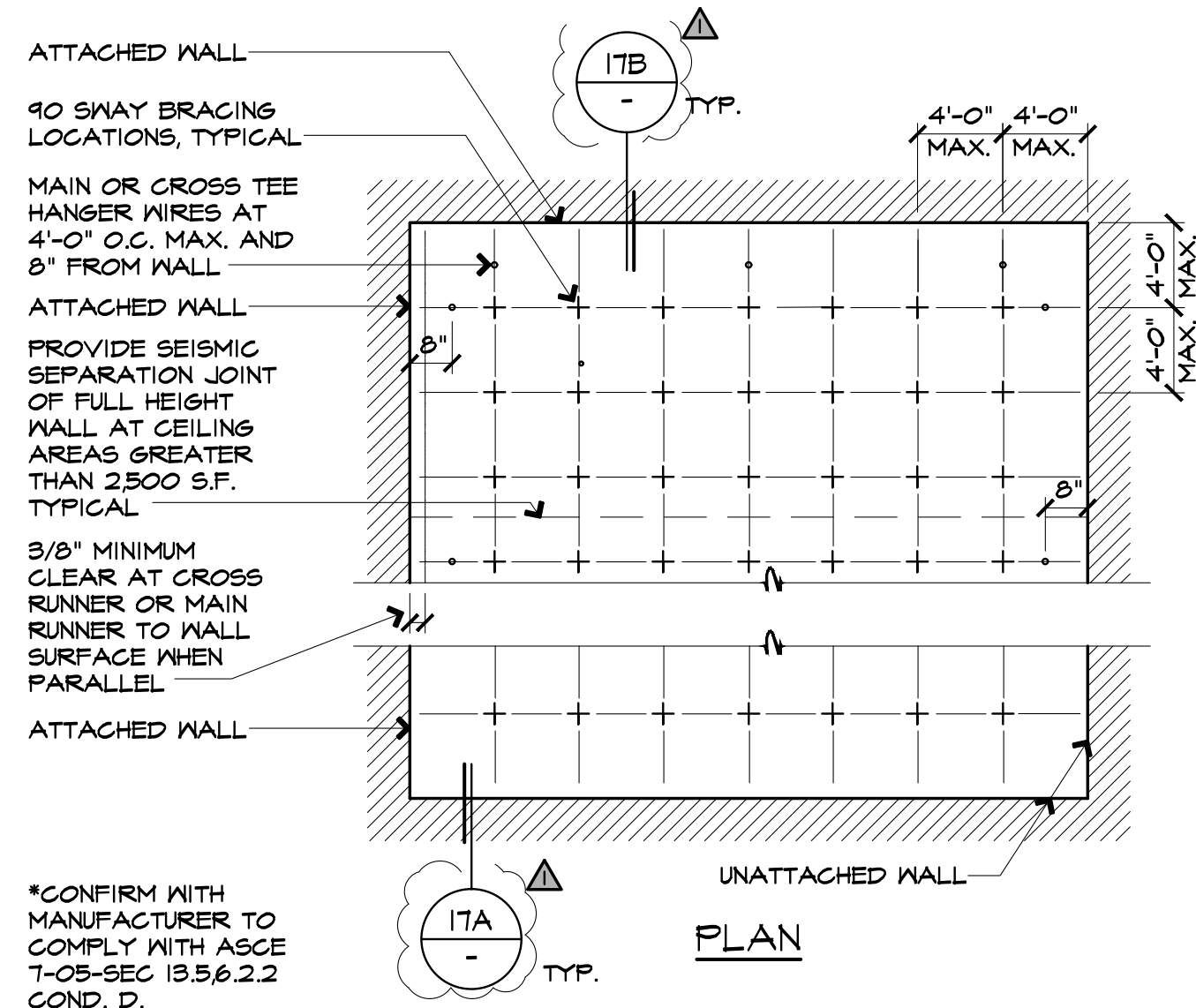
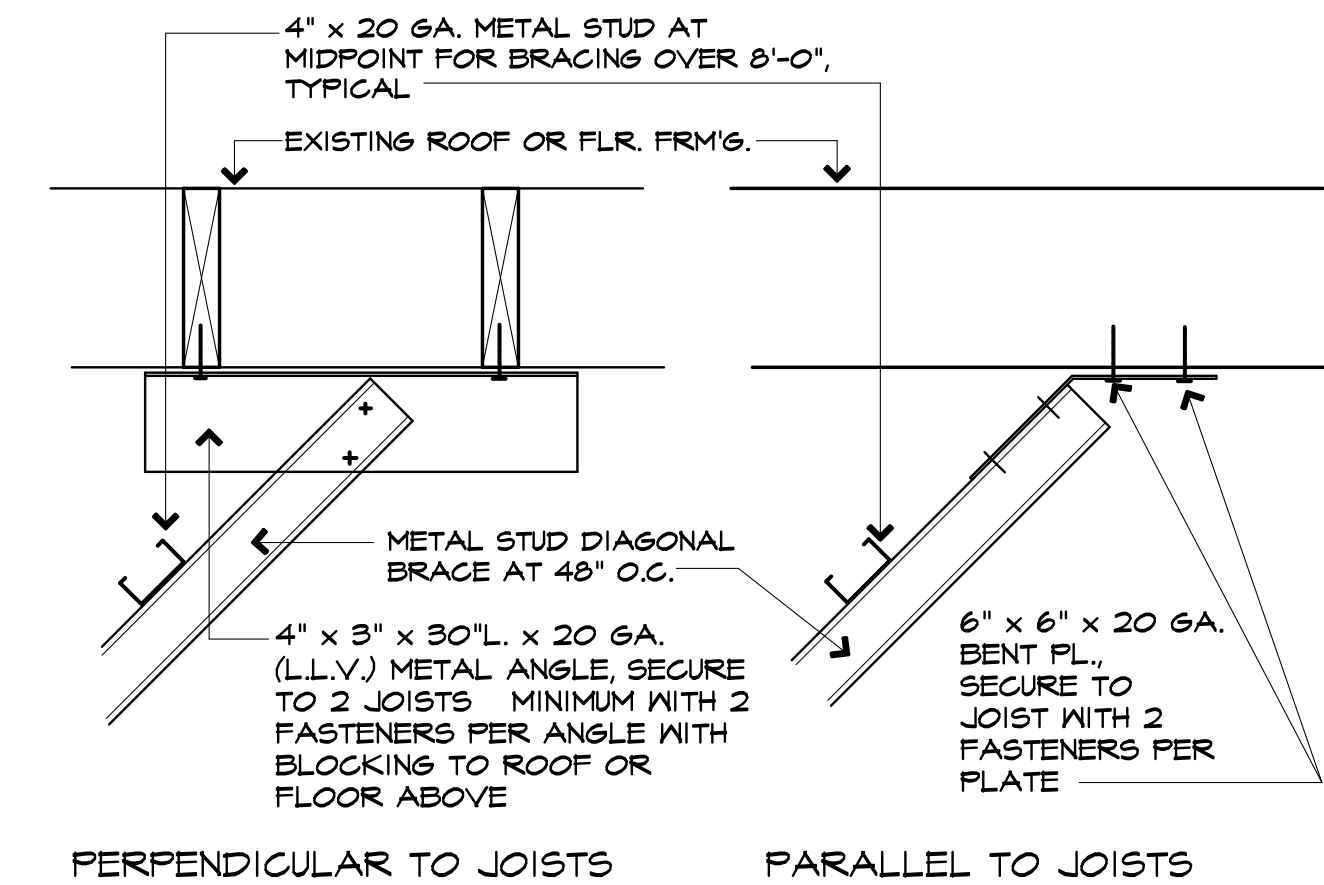
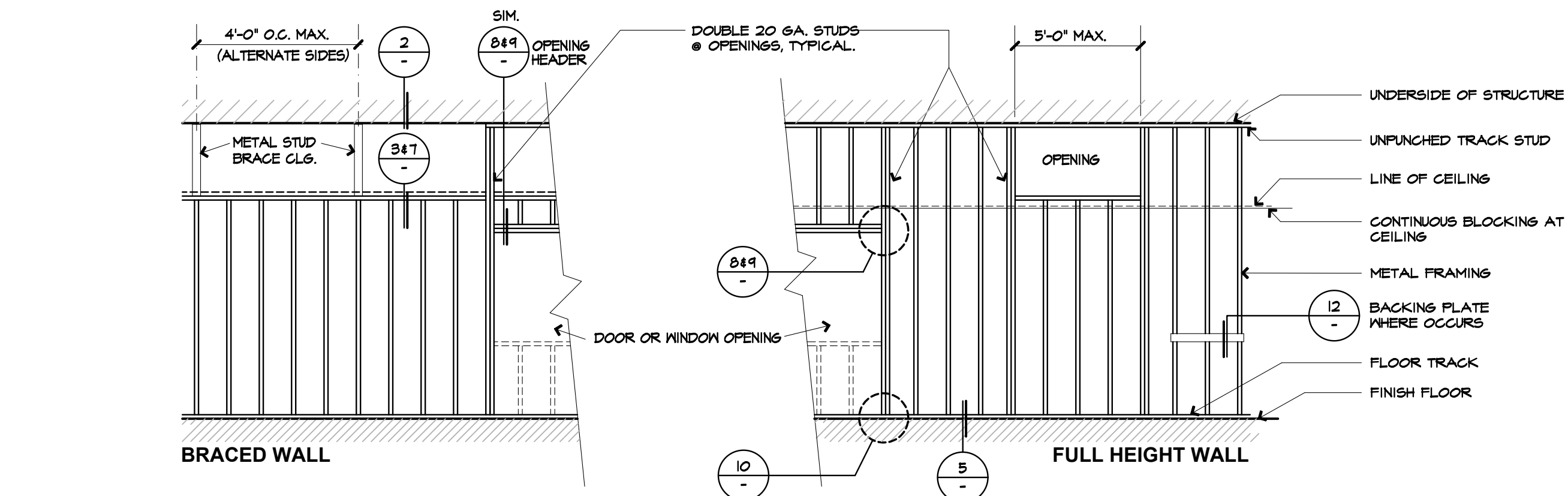
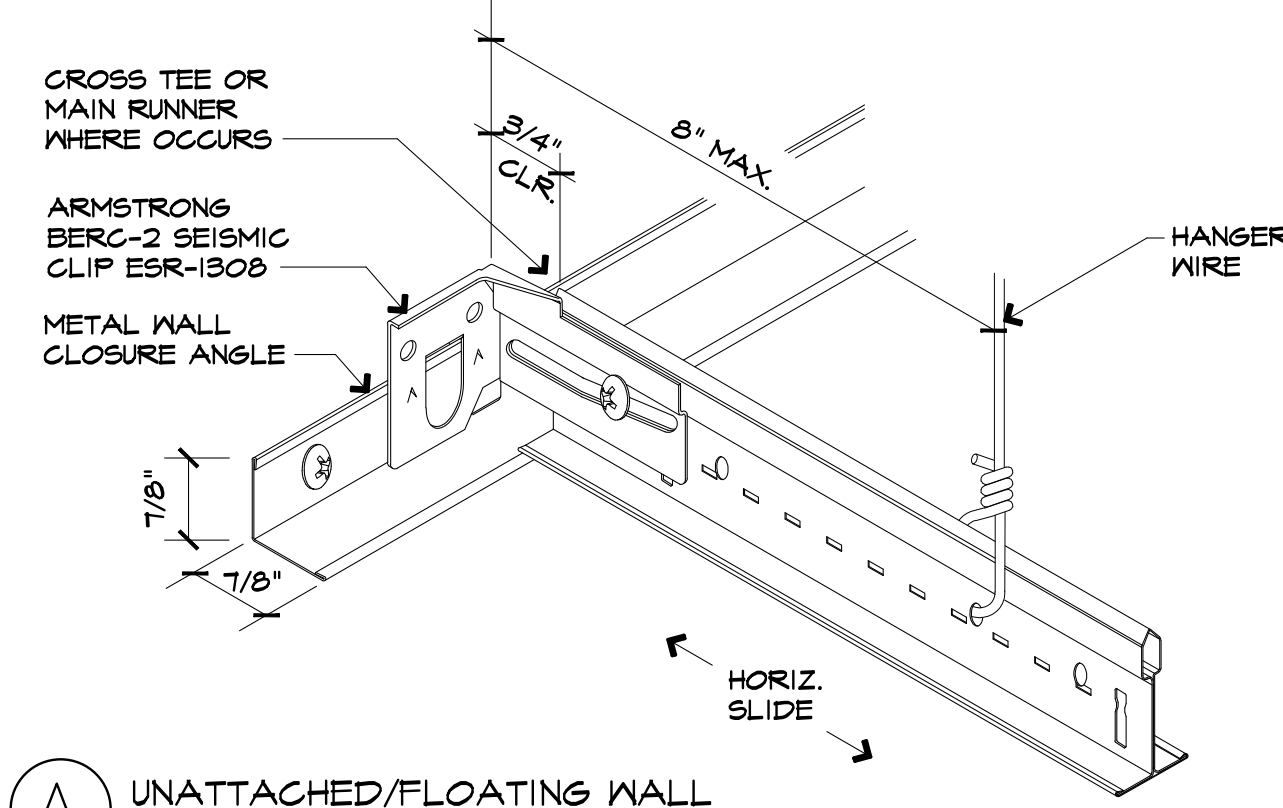
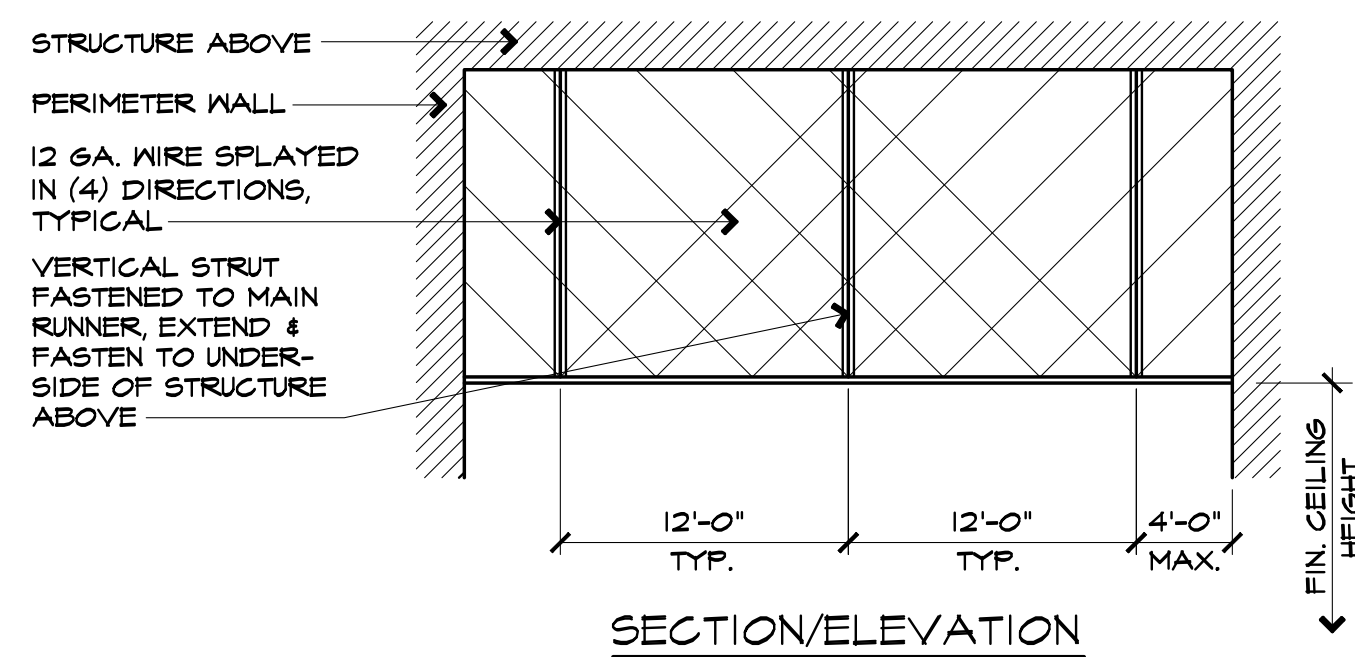
STOREFRONT DR. JAMB (HEAD SIM.) 10

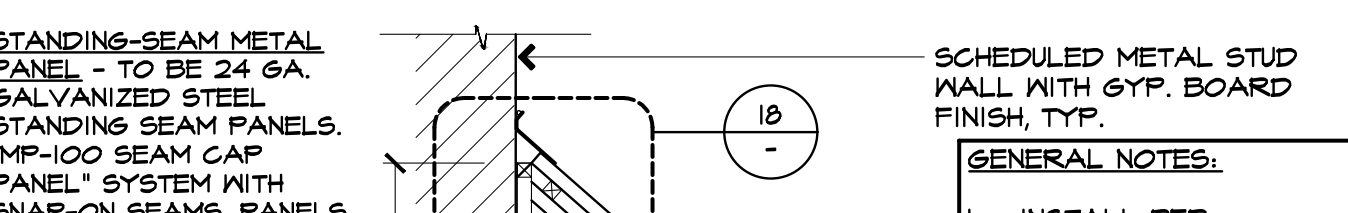
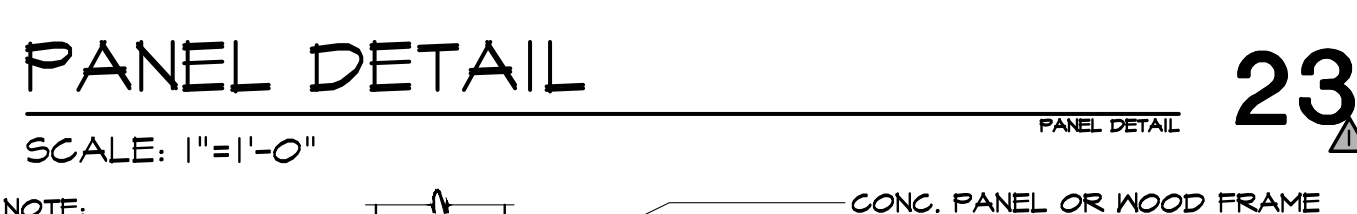
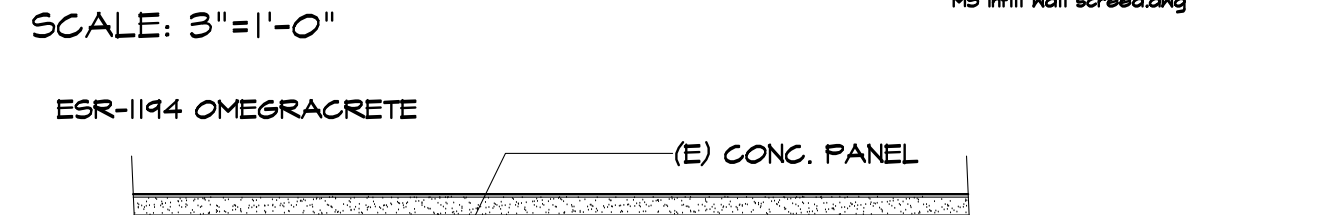
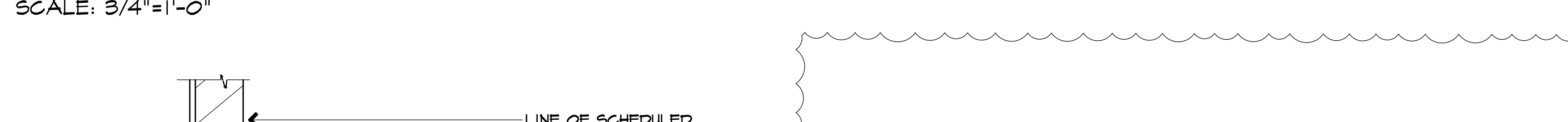
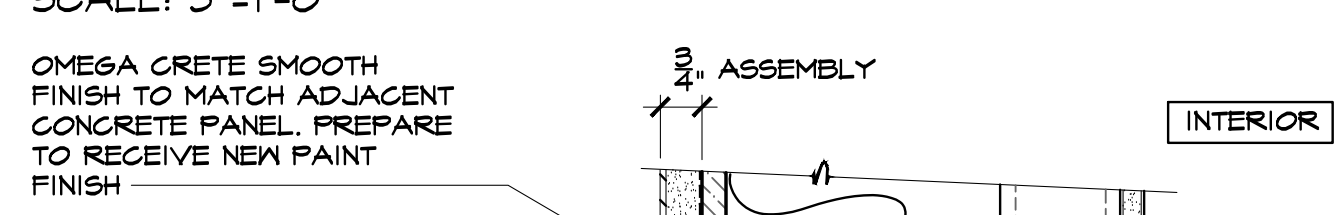
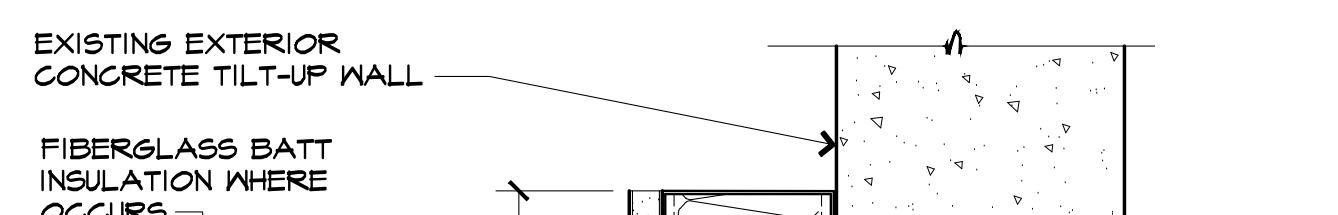
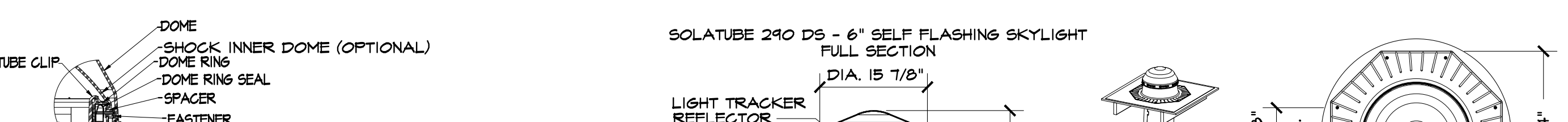
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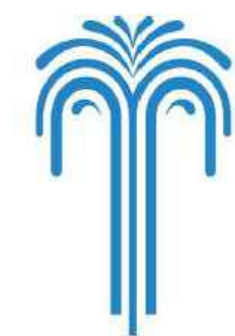
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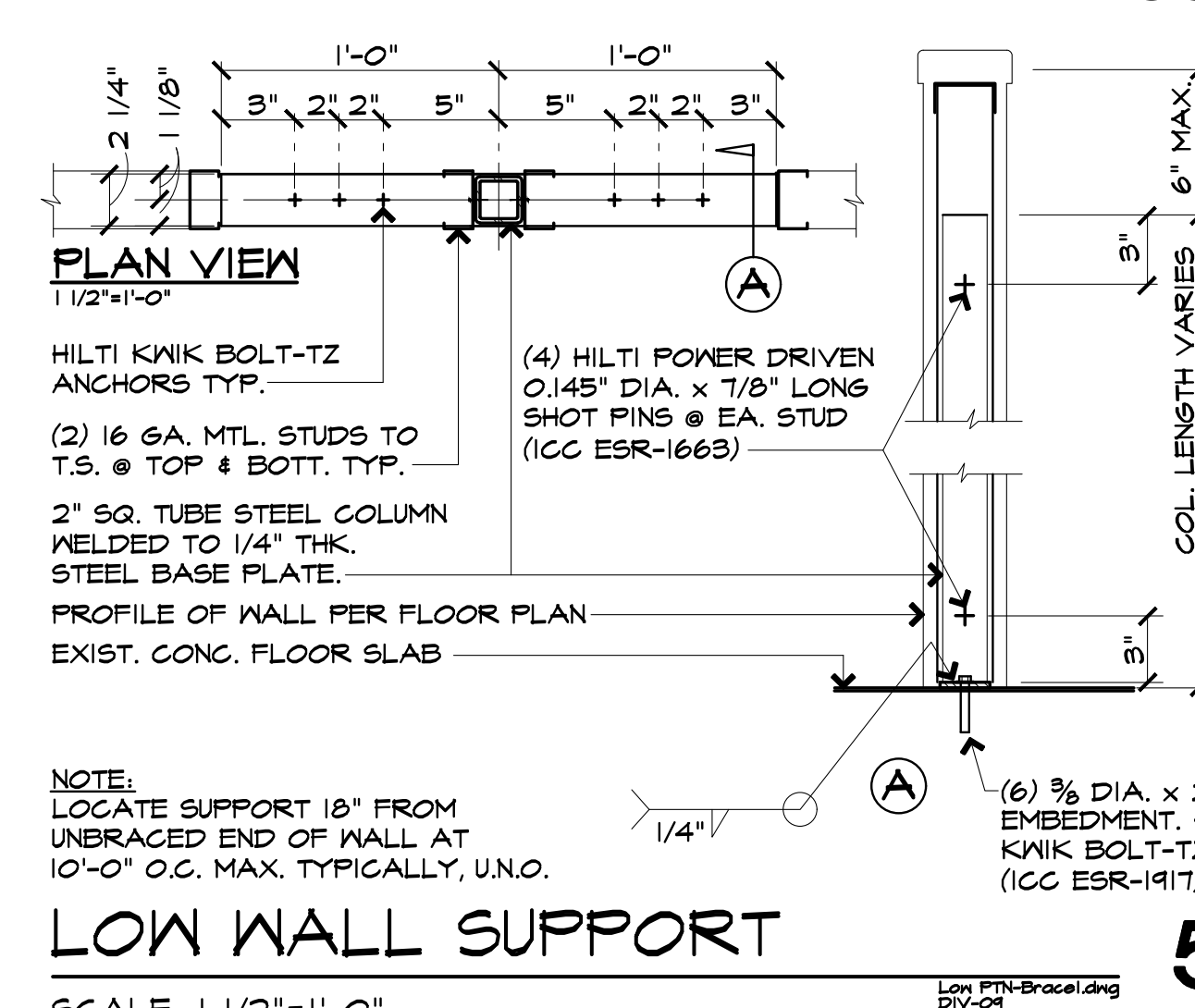
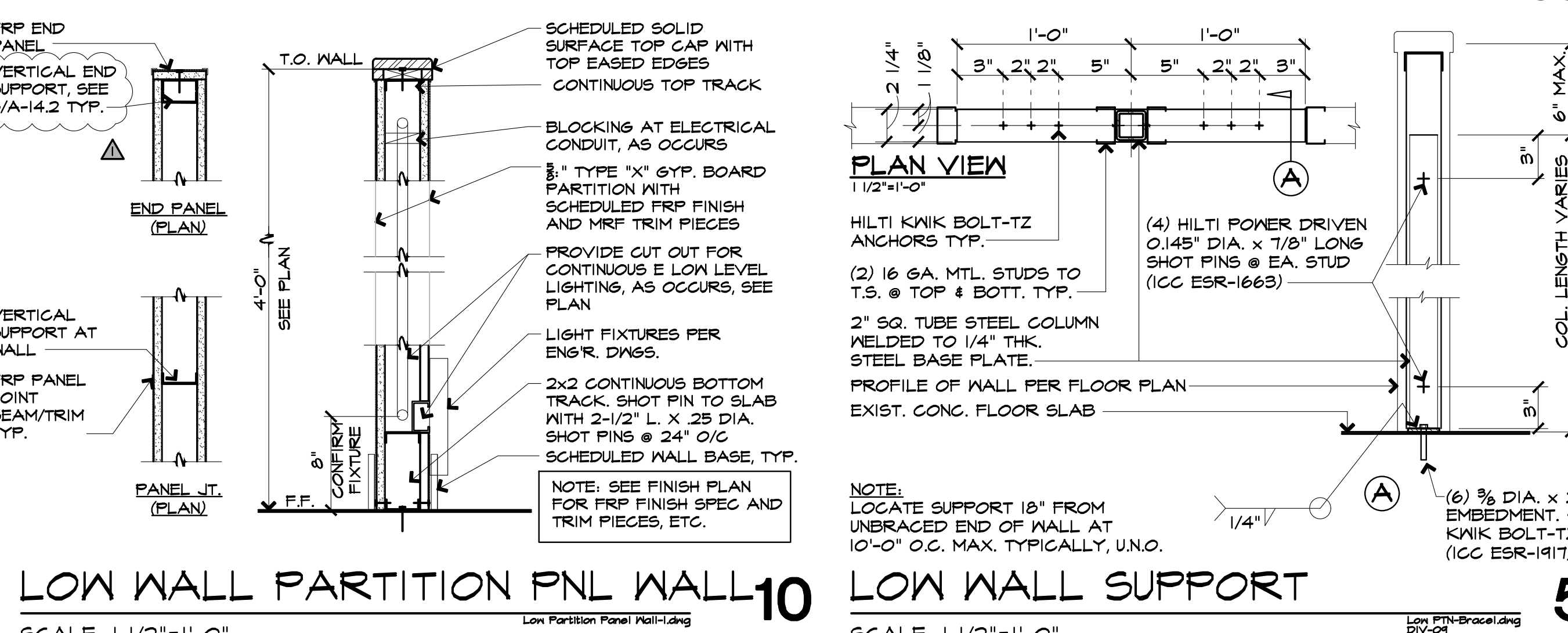
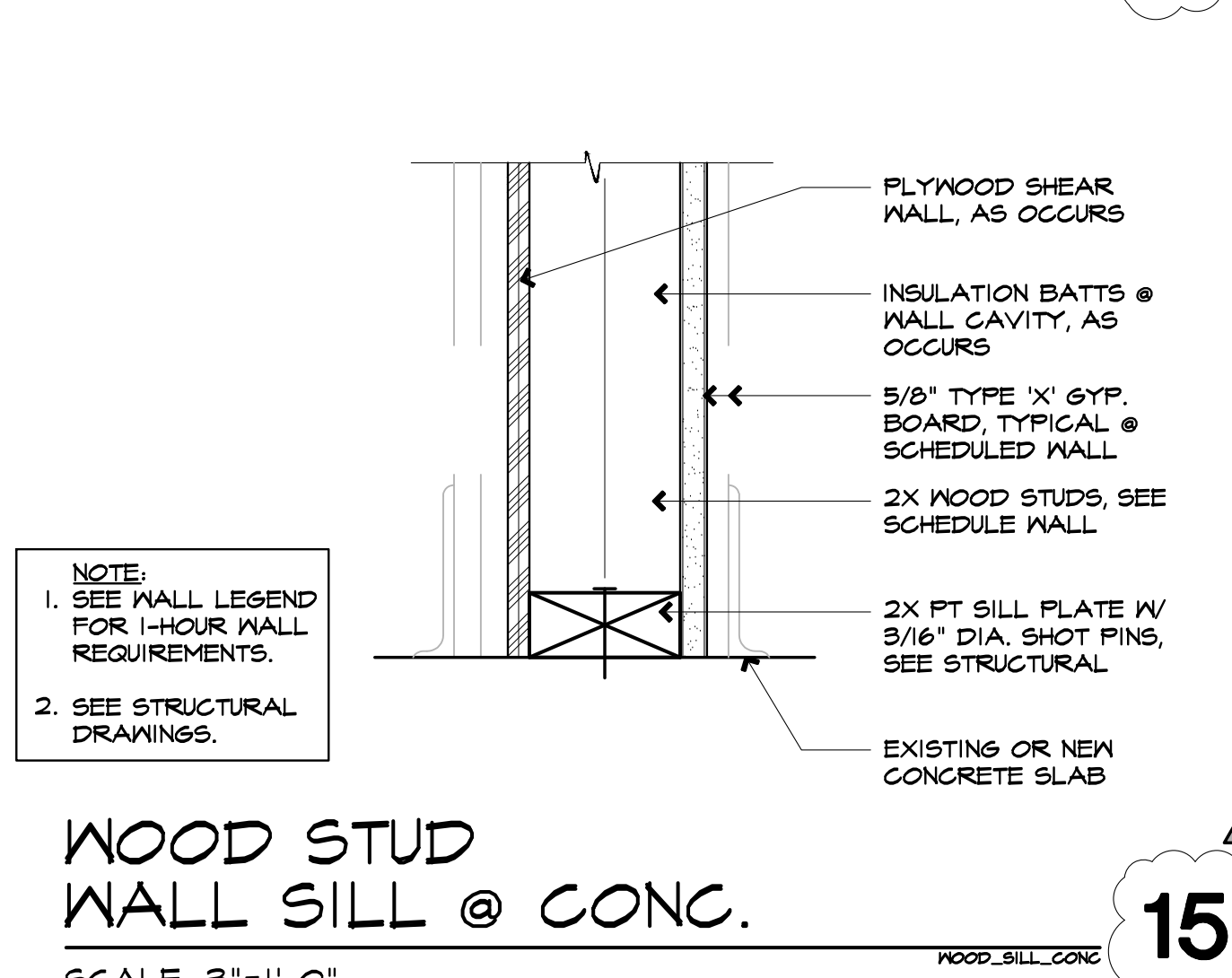
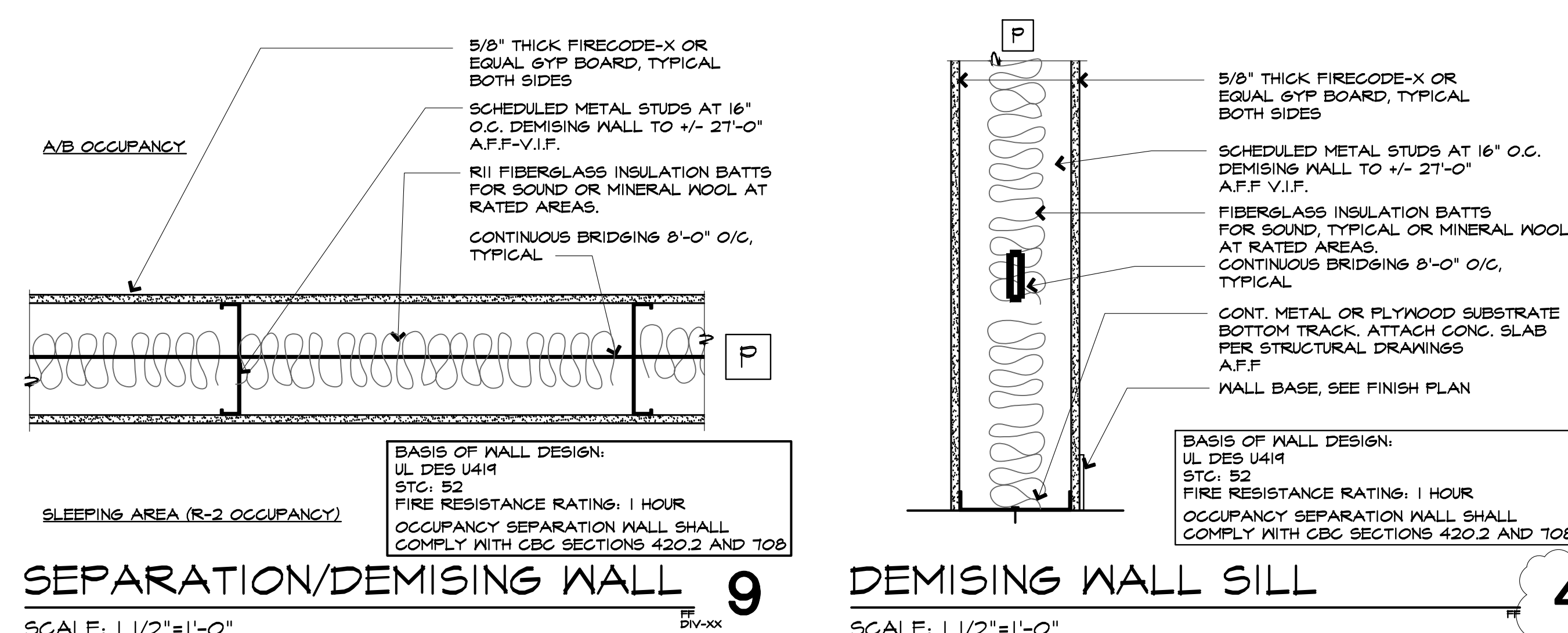
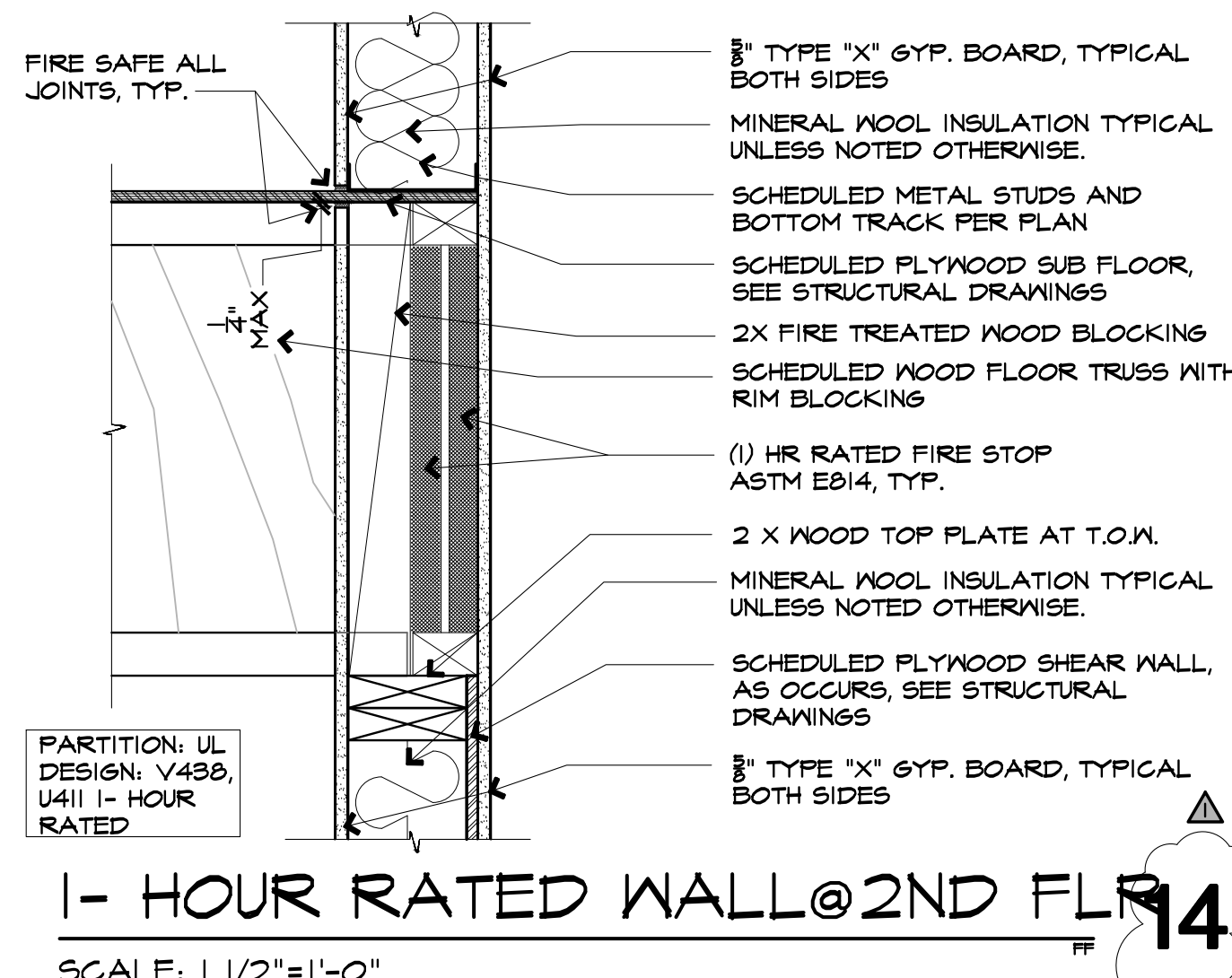
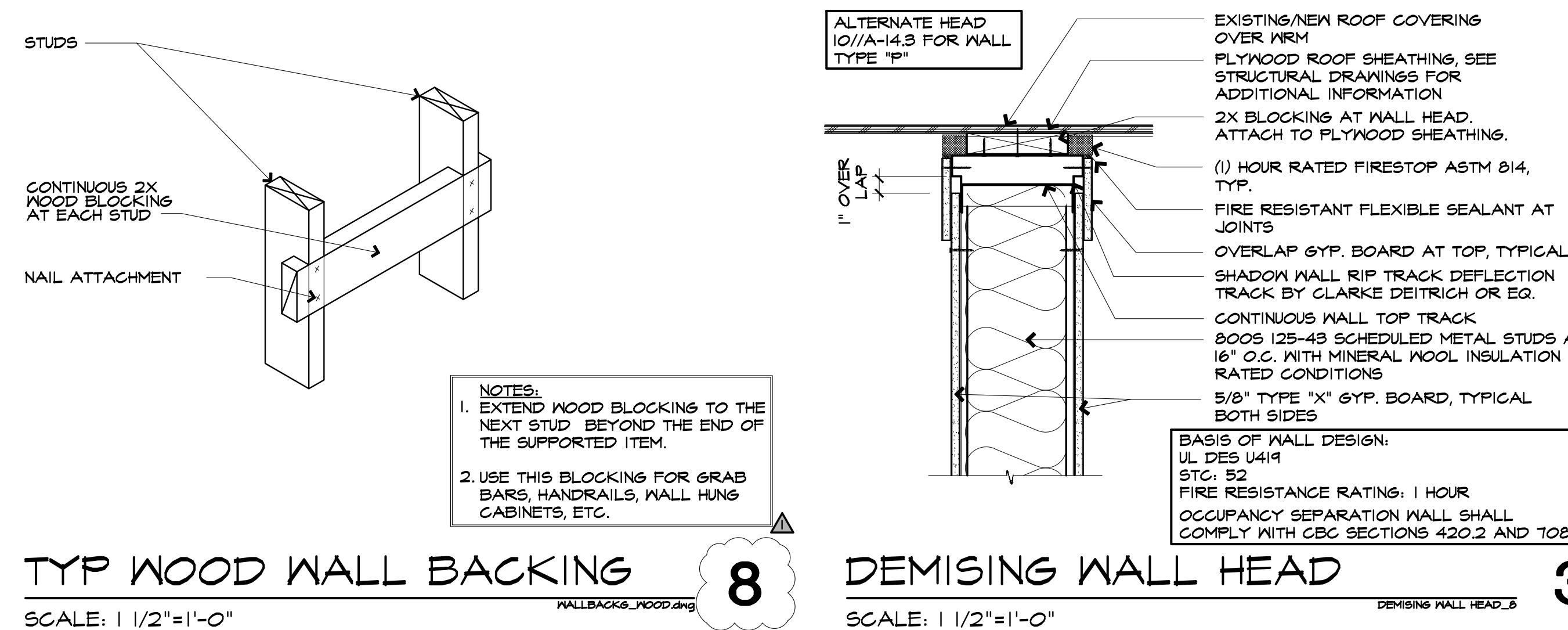
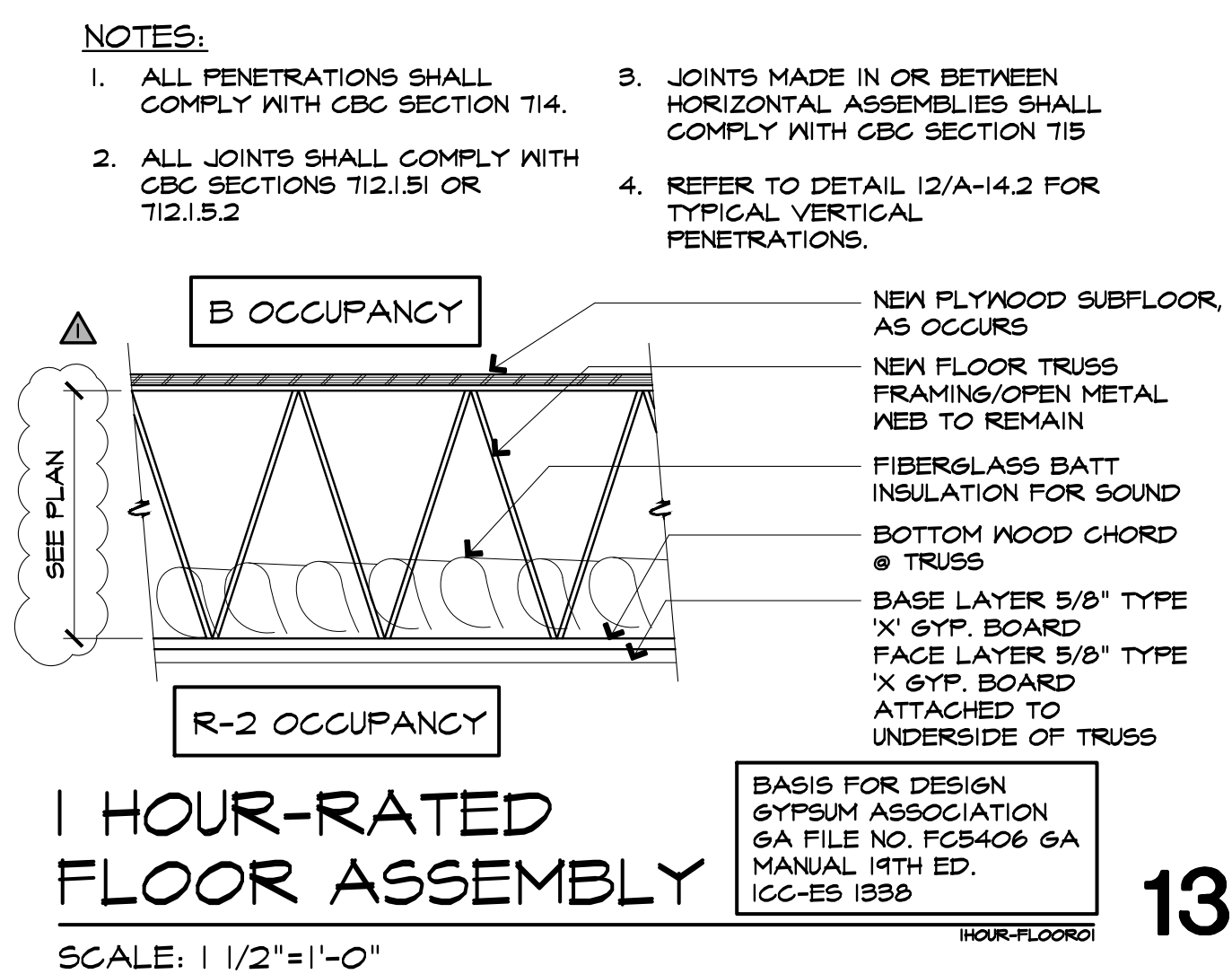
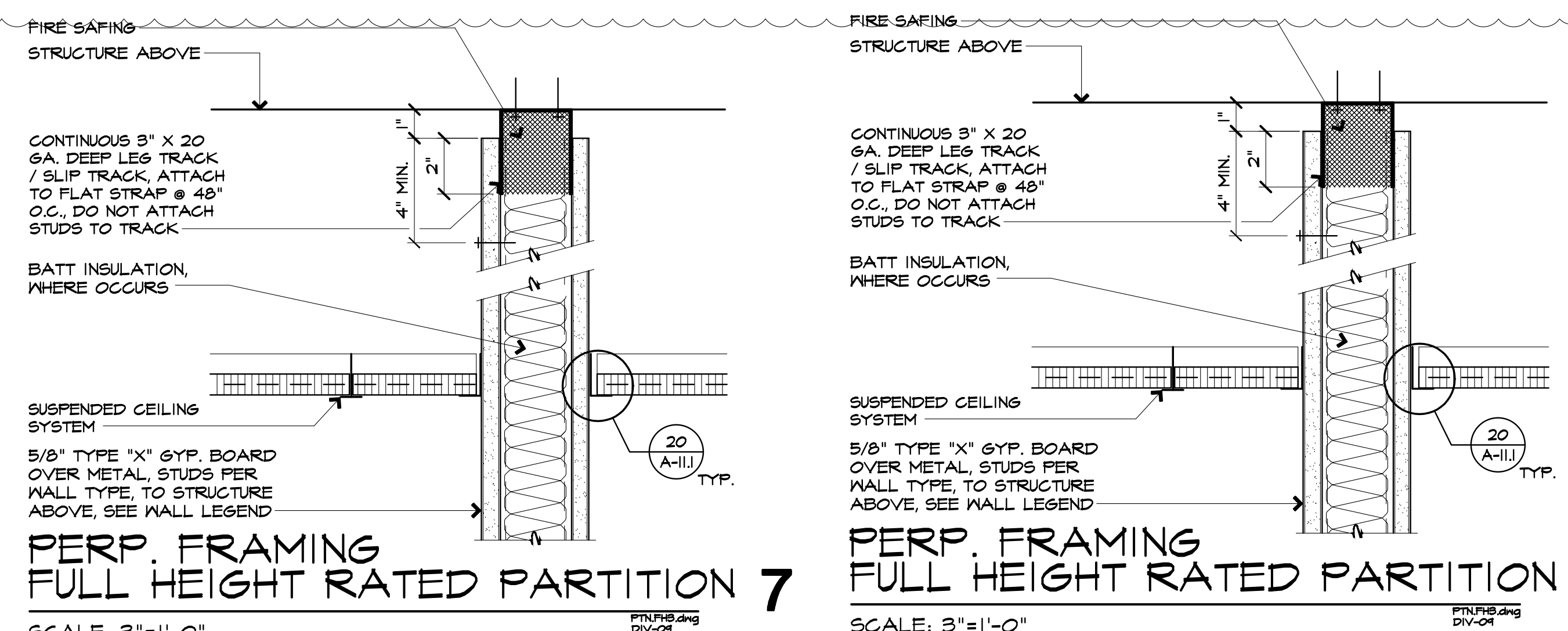
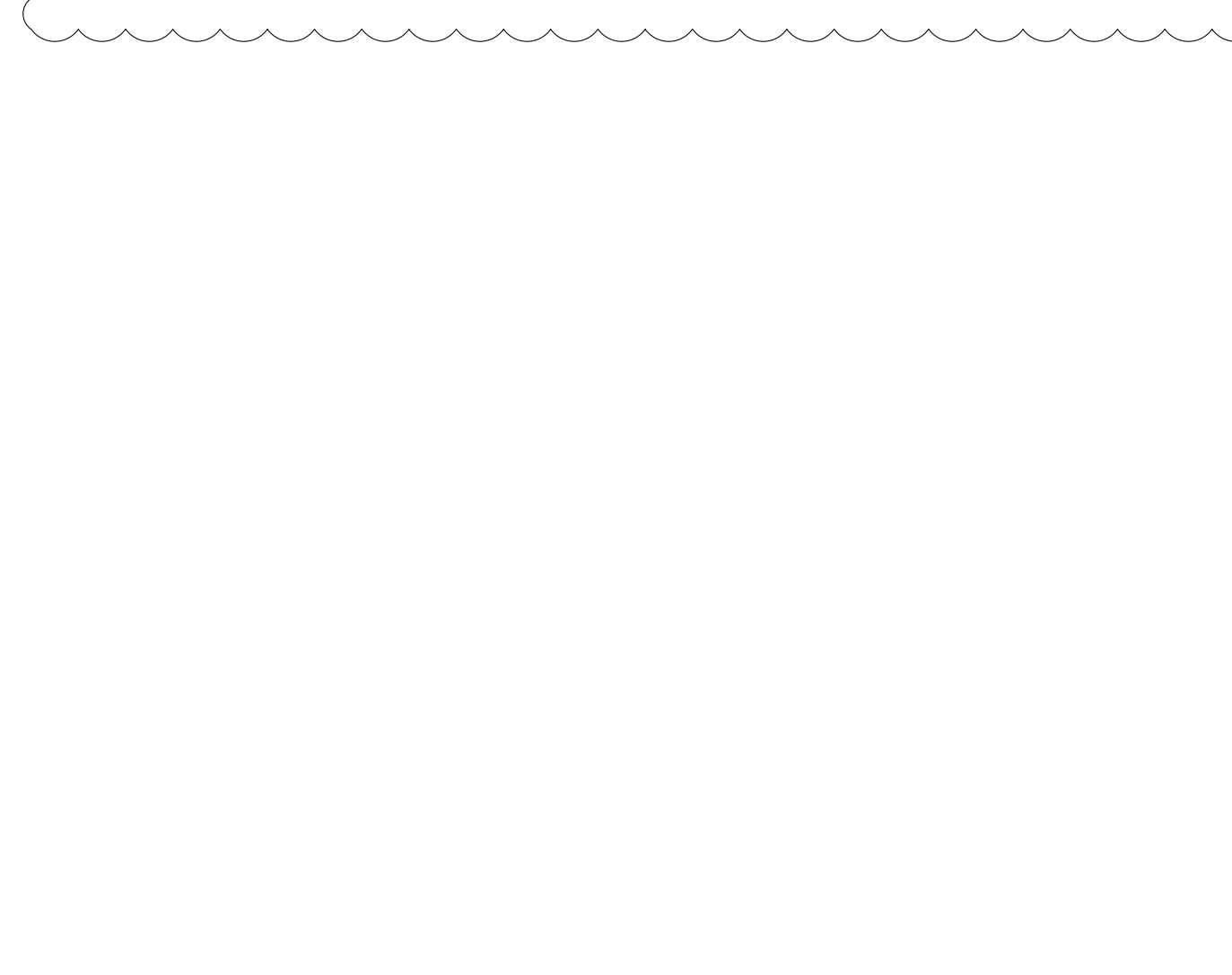
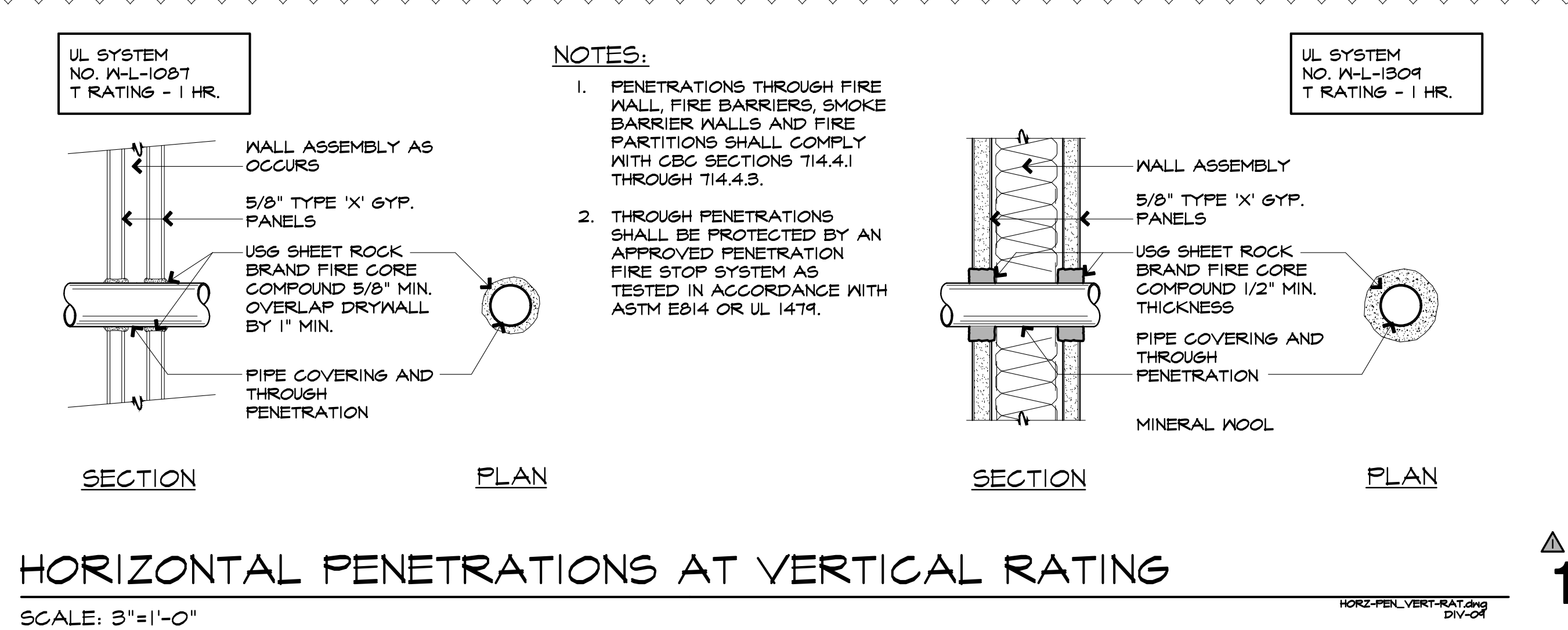
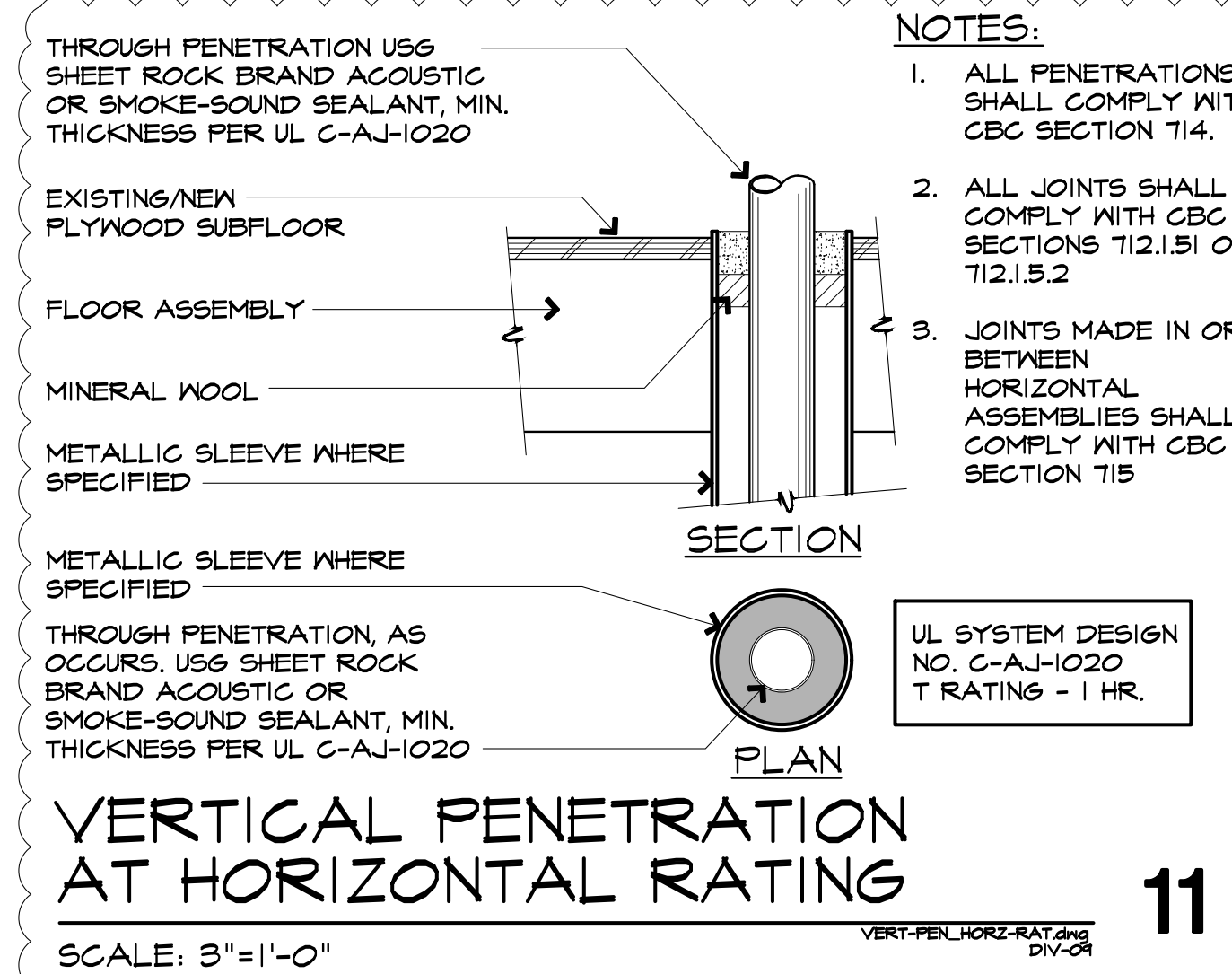


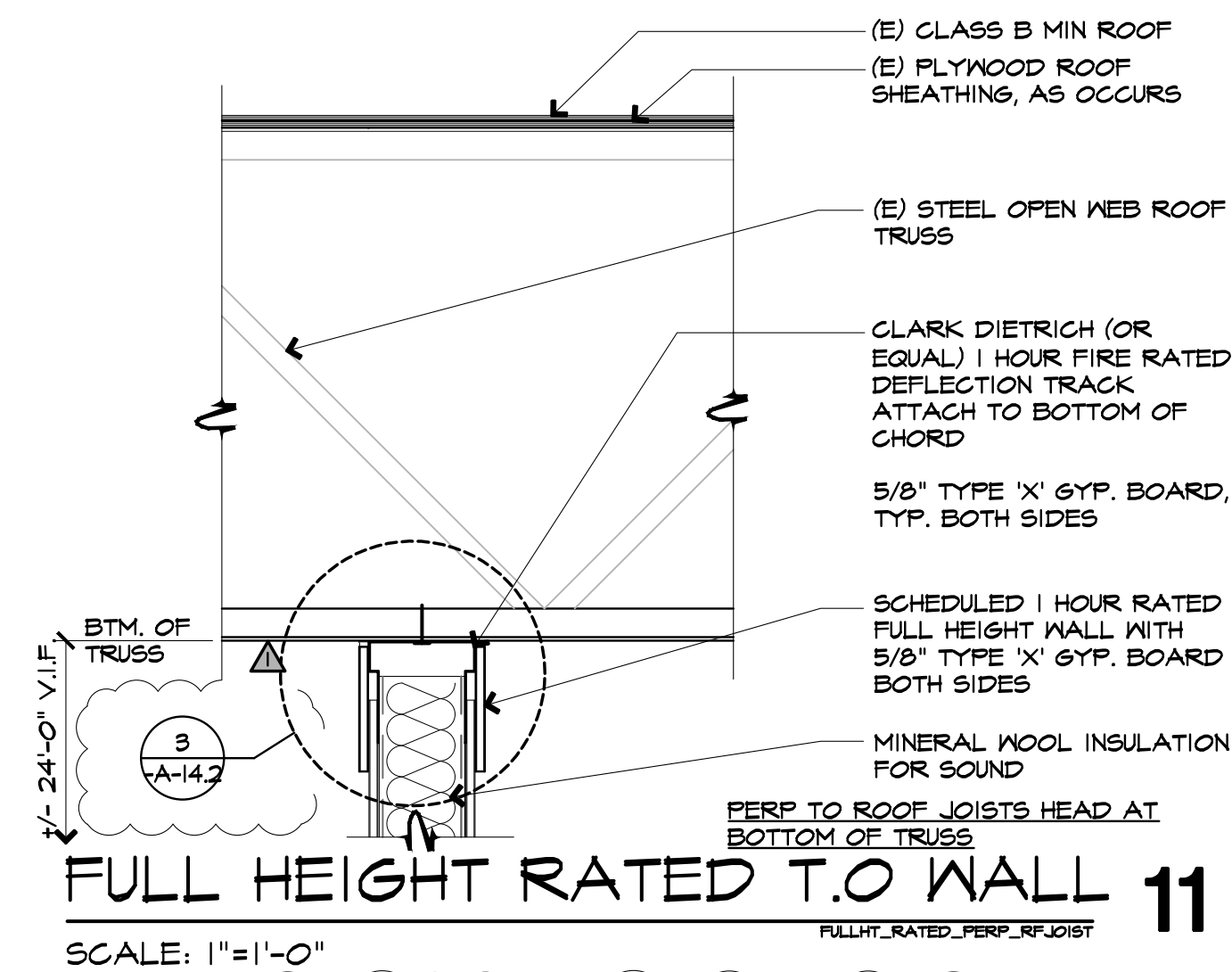




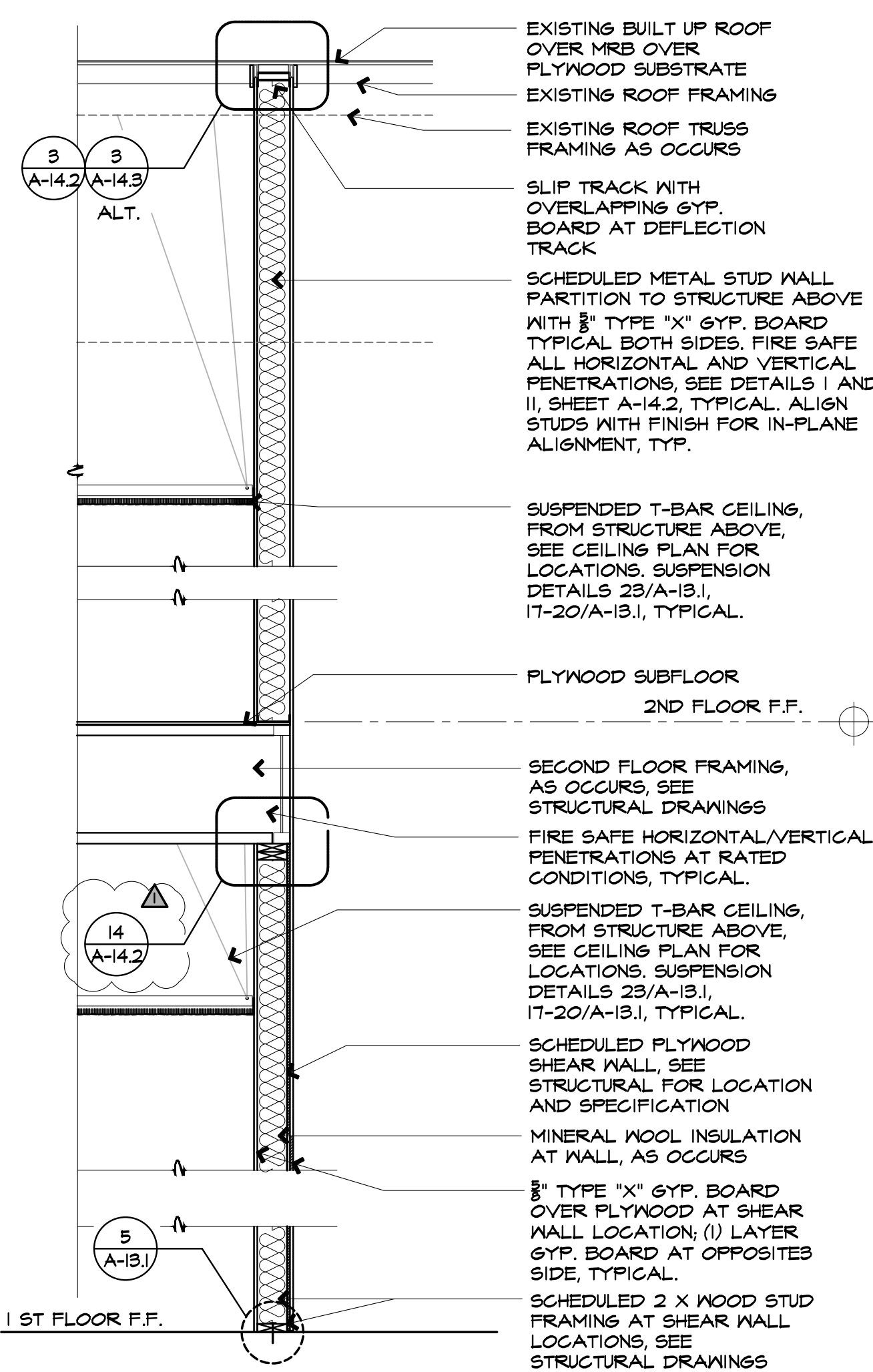
Revisions	By	Date
1. PC CORR 1/10 ISSUE	DAE	4/24/26

Drawn	MFM
Date	2/13/26
Project No.	25011
Scale	AS NOTED

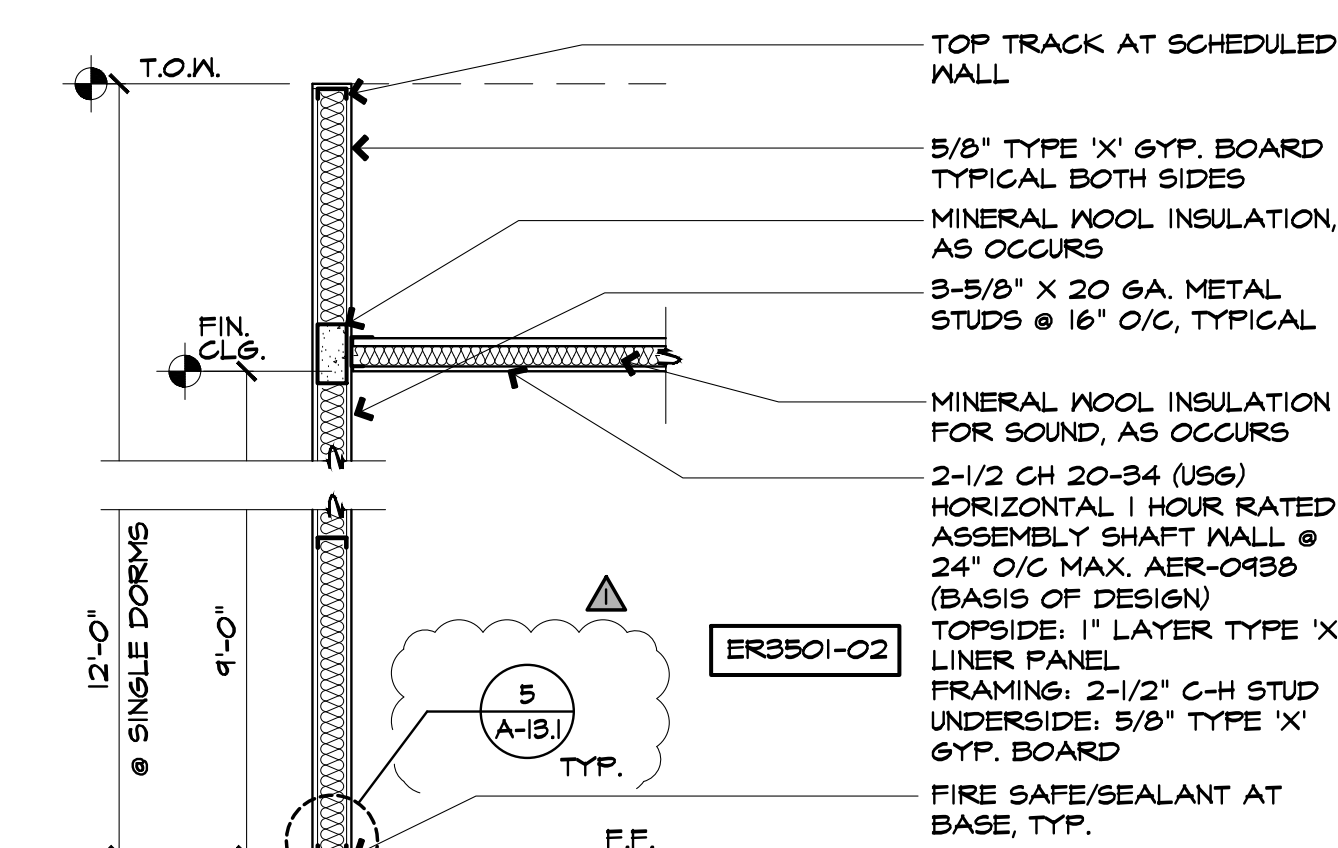




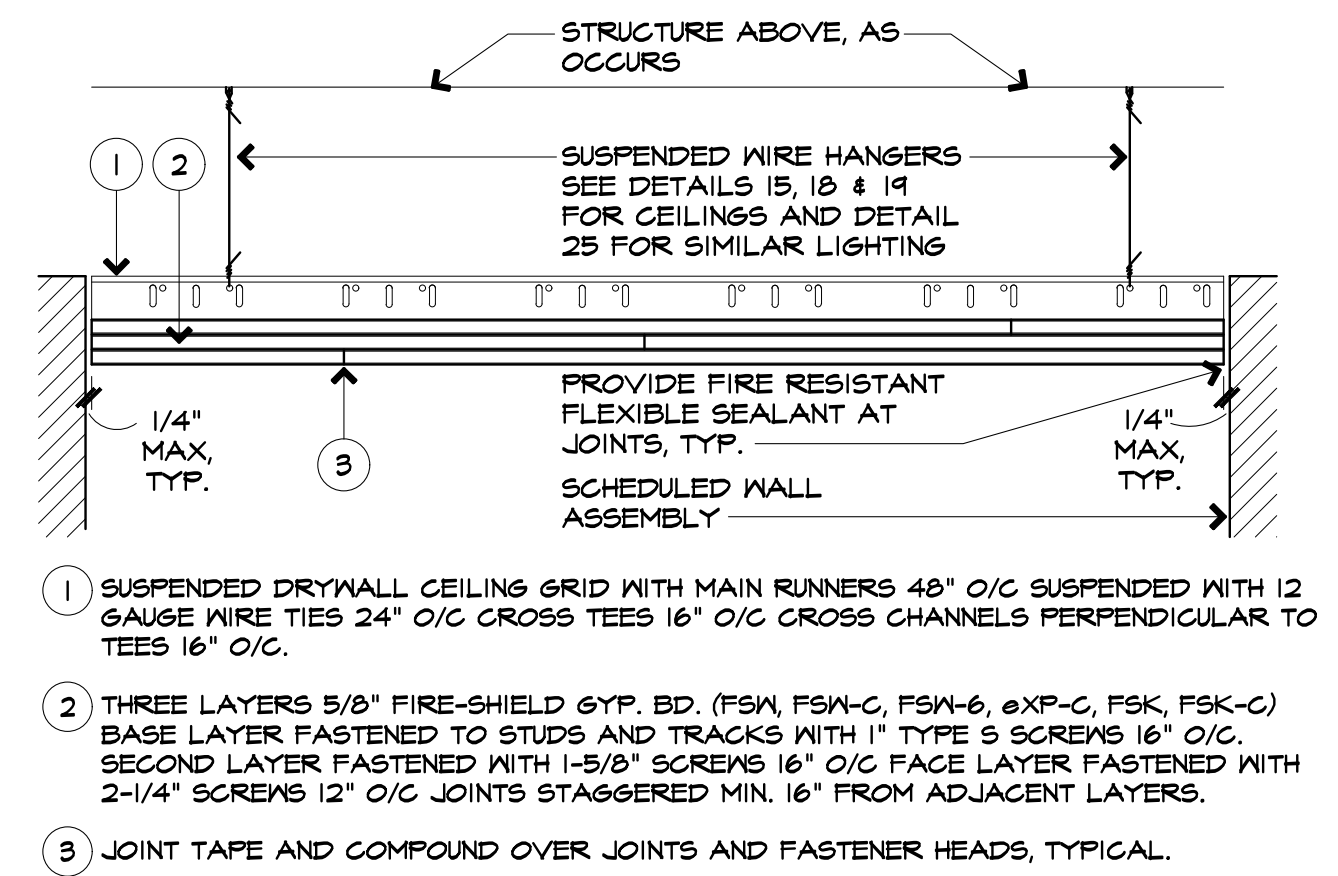
FULL HEIGHT RATED T.O WALL 11
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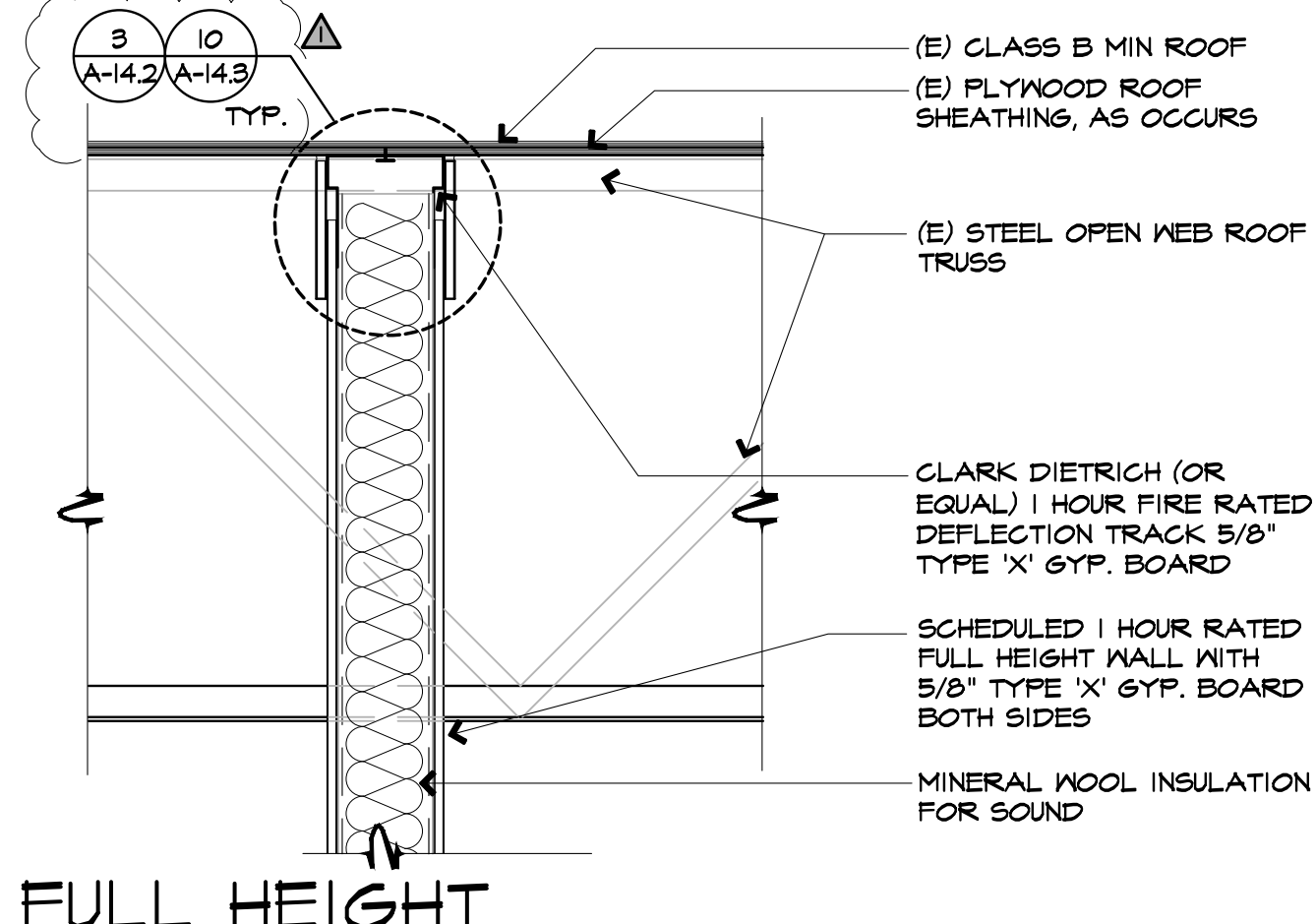
ONE HOUR RATED SHEAR WALL 13
SCALE: 1/2"=1'-0"



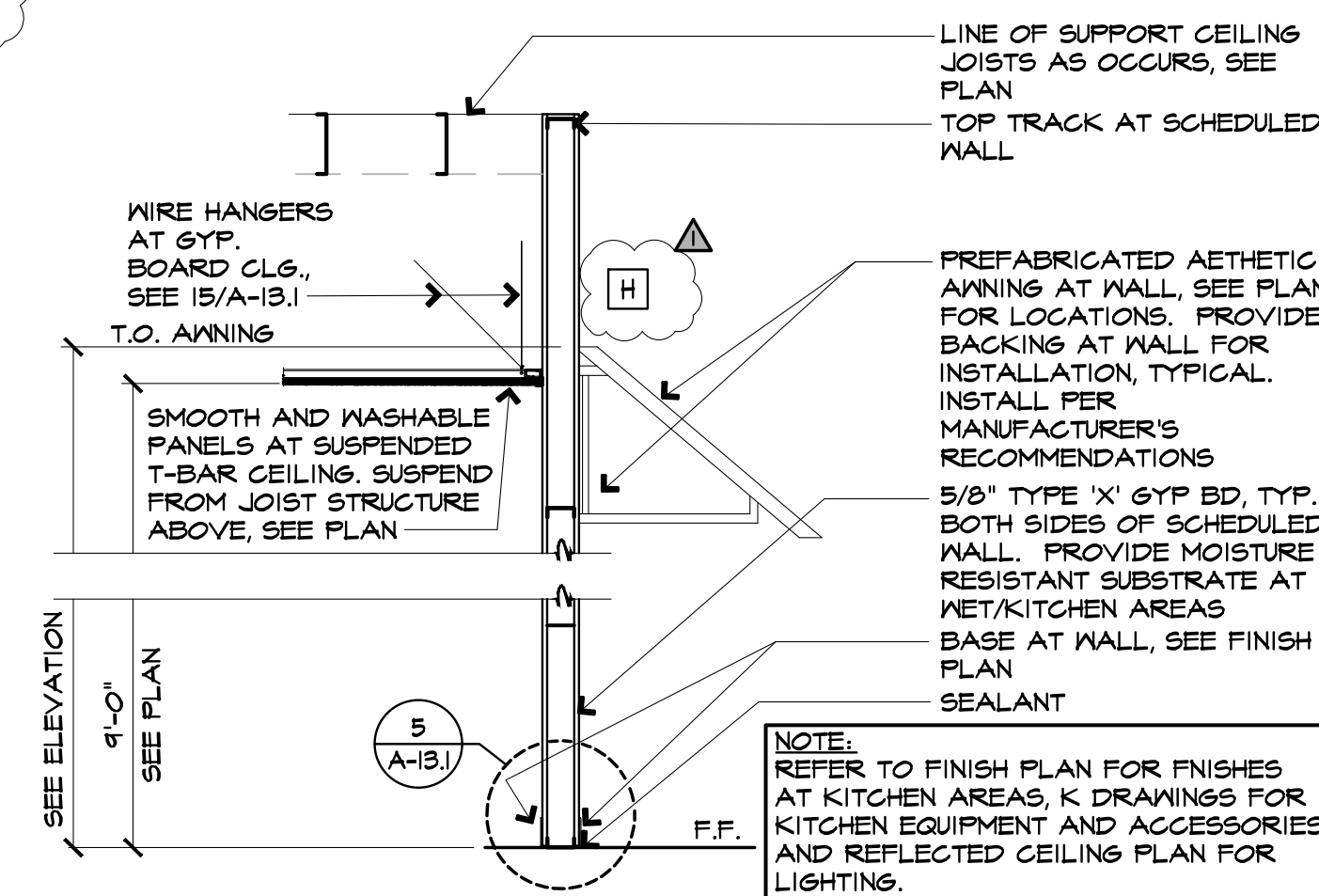
1 HR RATED PARTITION/CLG 6
SCALE: 1/2"=1'-0"



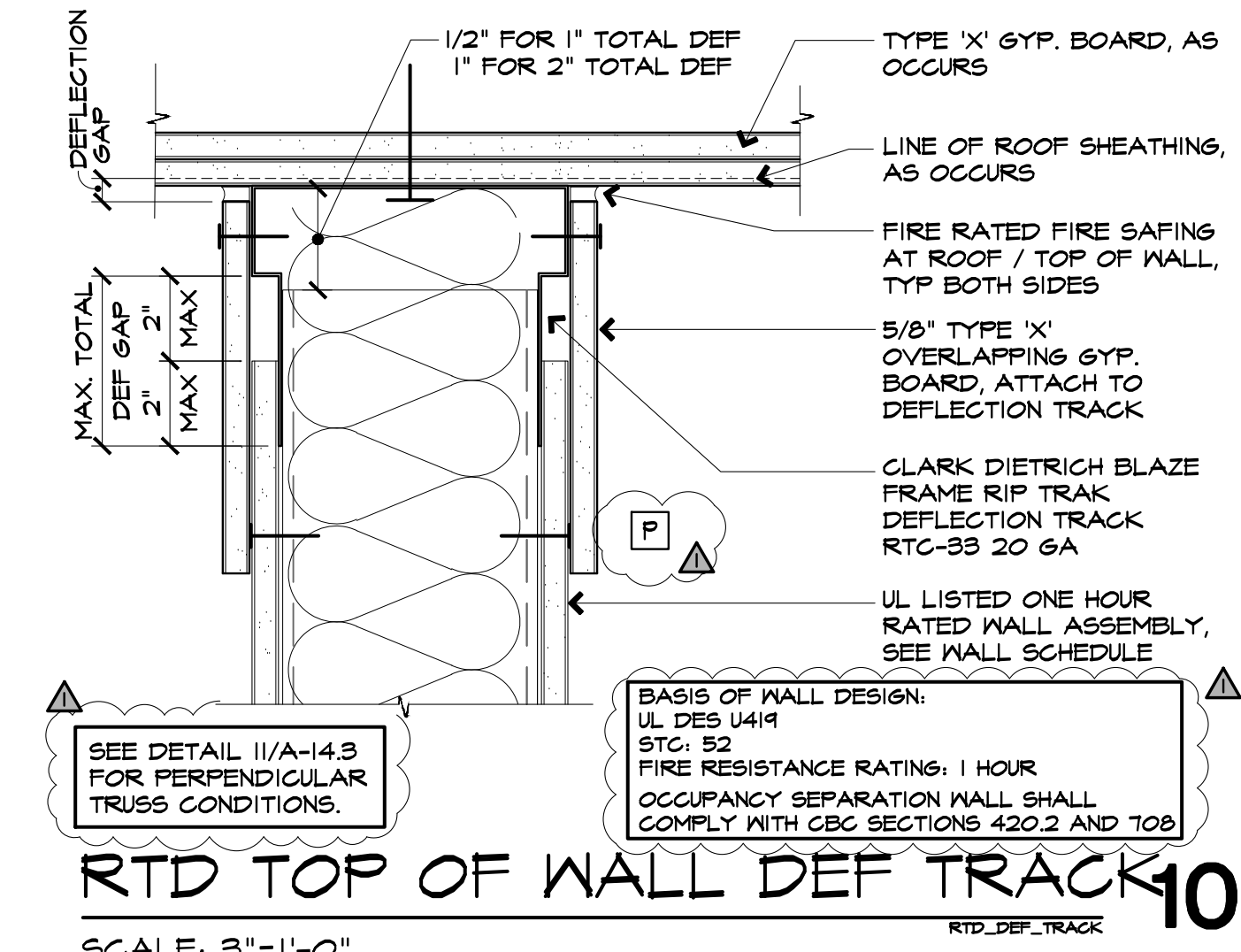
1 HOUR SUSPENDED CLG. ASSEMBLY 7
SCALE: 1/2"=1'-0"



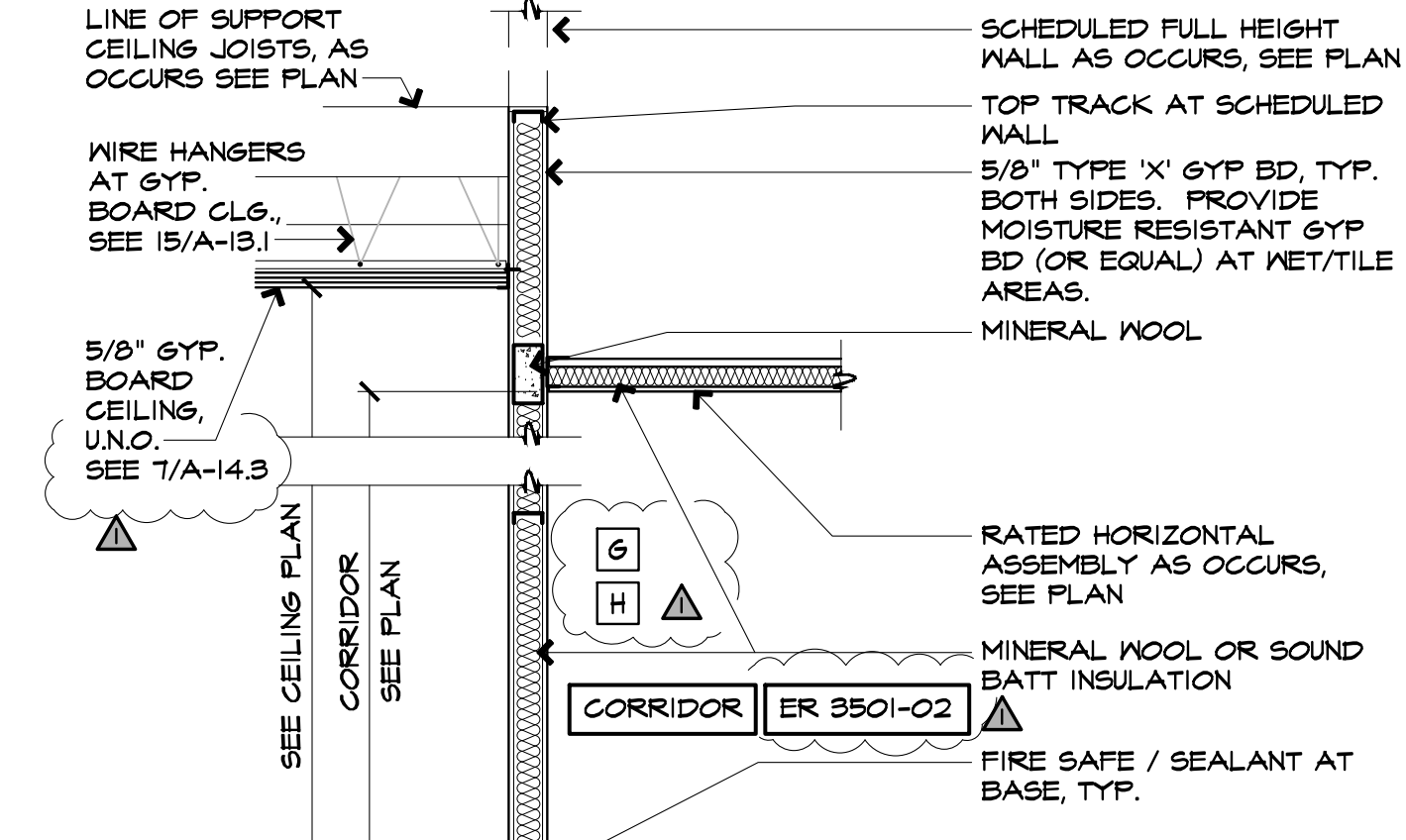
FULL HEIGHT RATED T.O WALL 8
SCALE: 1/2"=1'-0"



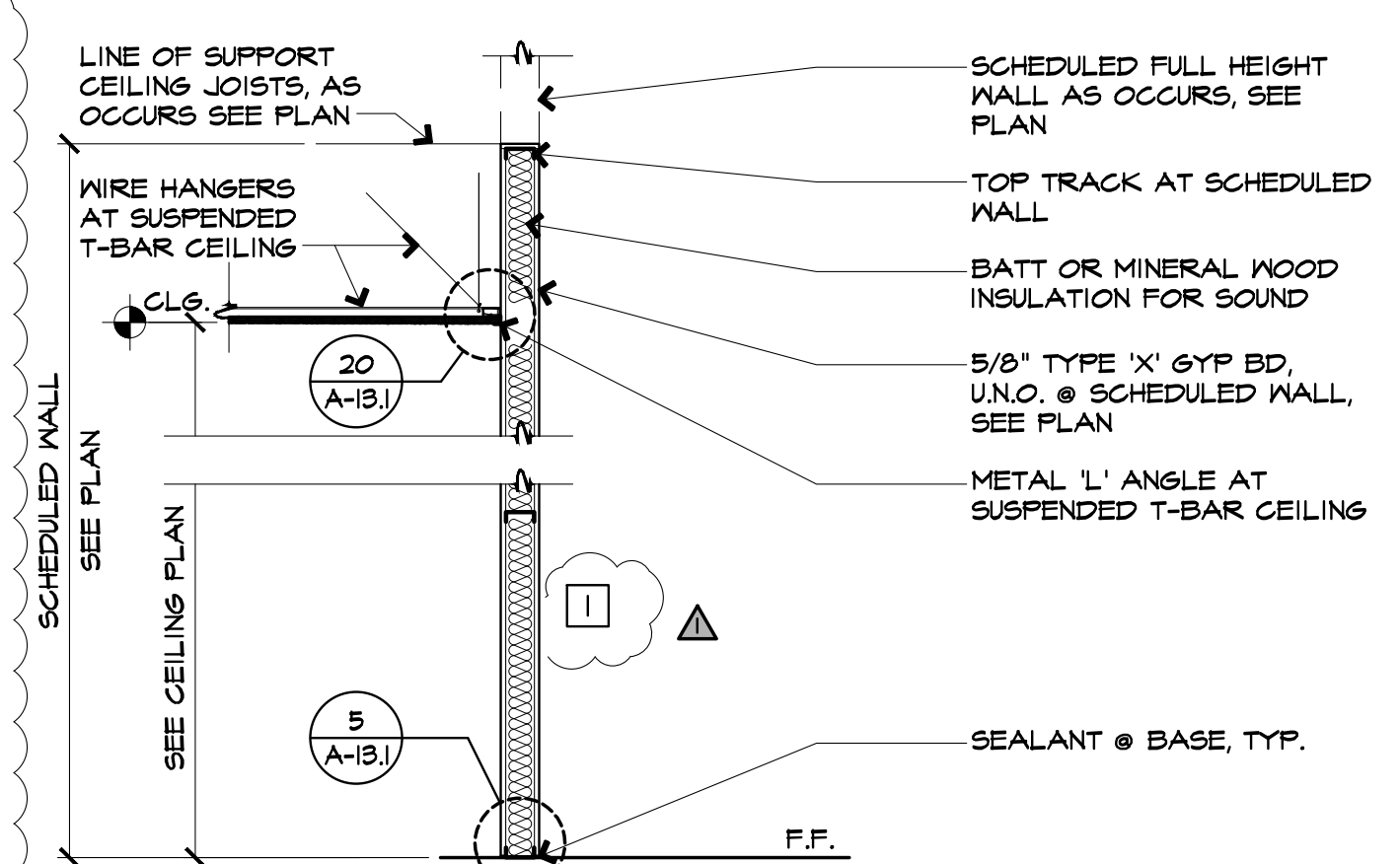
SUSPENDED CLG 9
SCALE: 1/2"=1'-0"



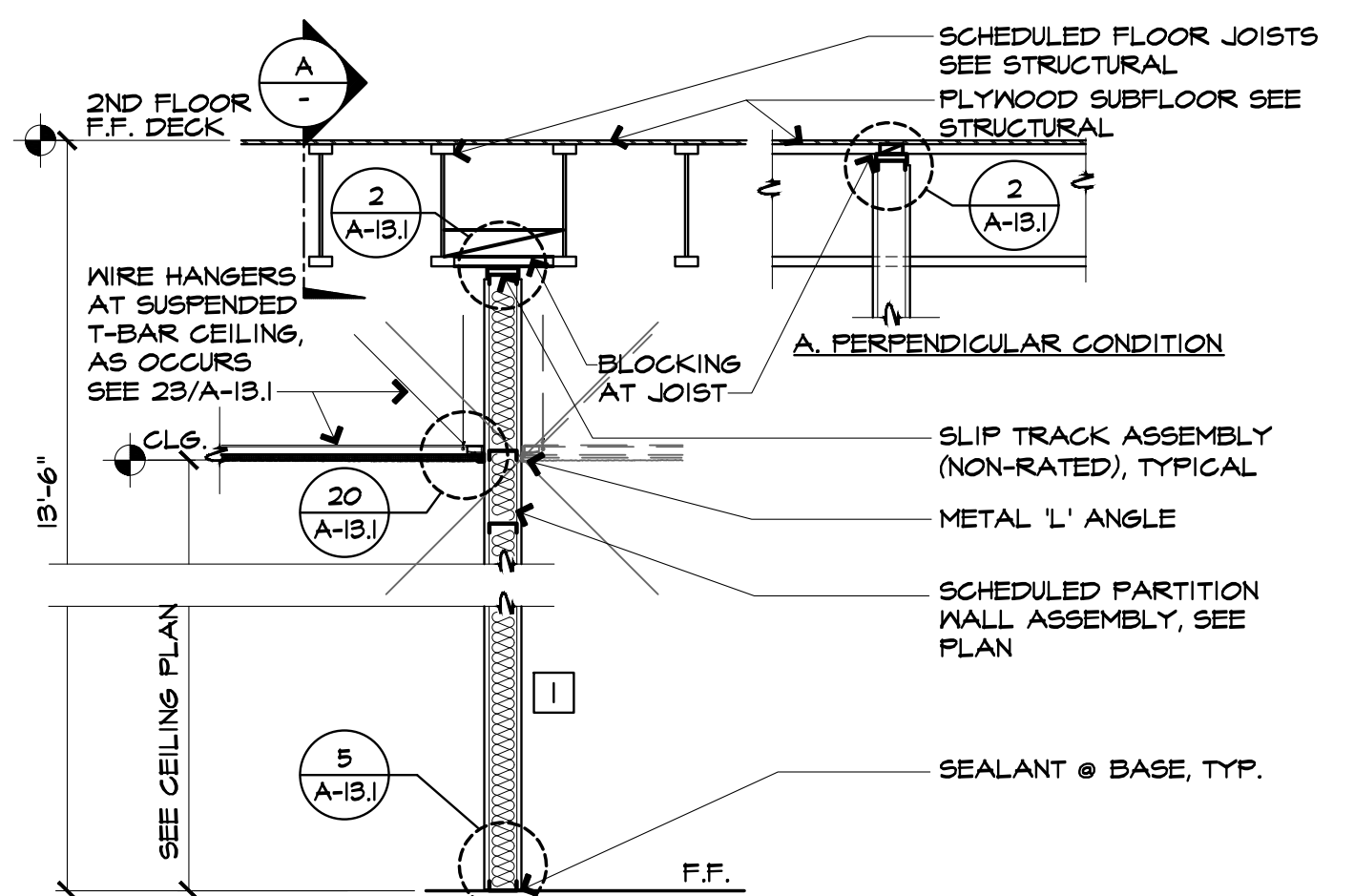
RTD TOP OF WALL DEF TRACK 10
SCALE: 3"=1'-0"



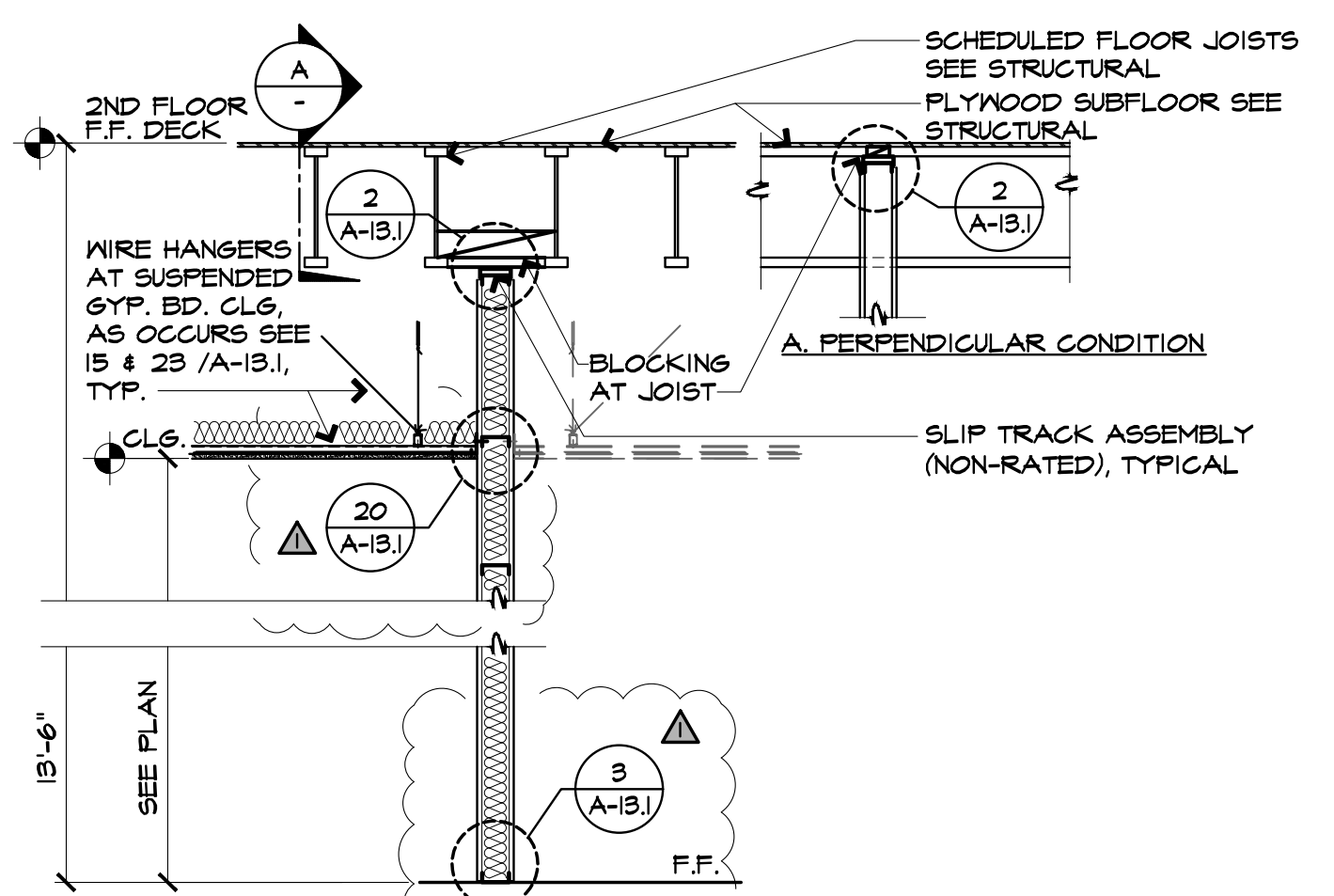
GYP. BD CLG AT CORRIDOR 1
SCALE: 1/2"=1'-0"



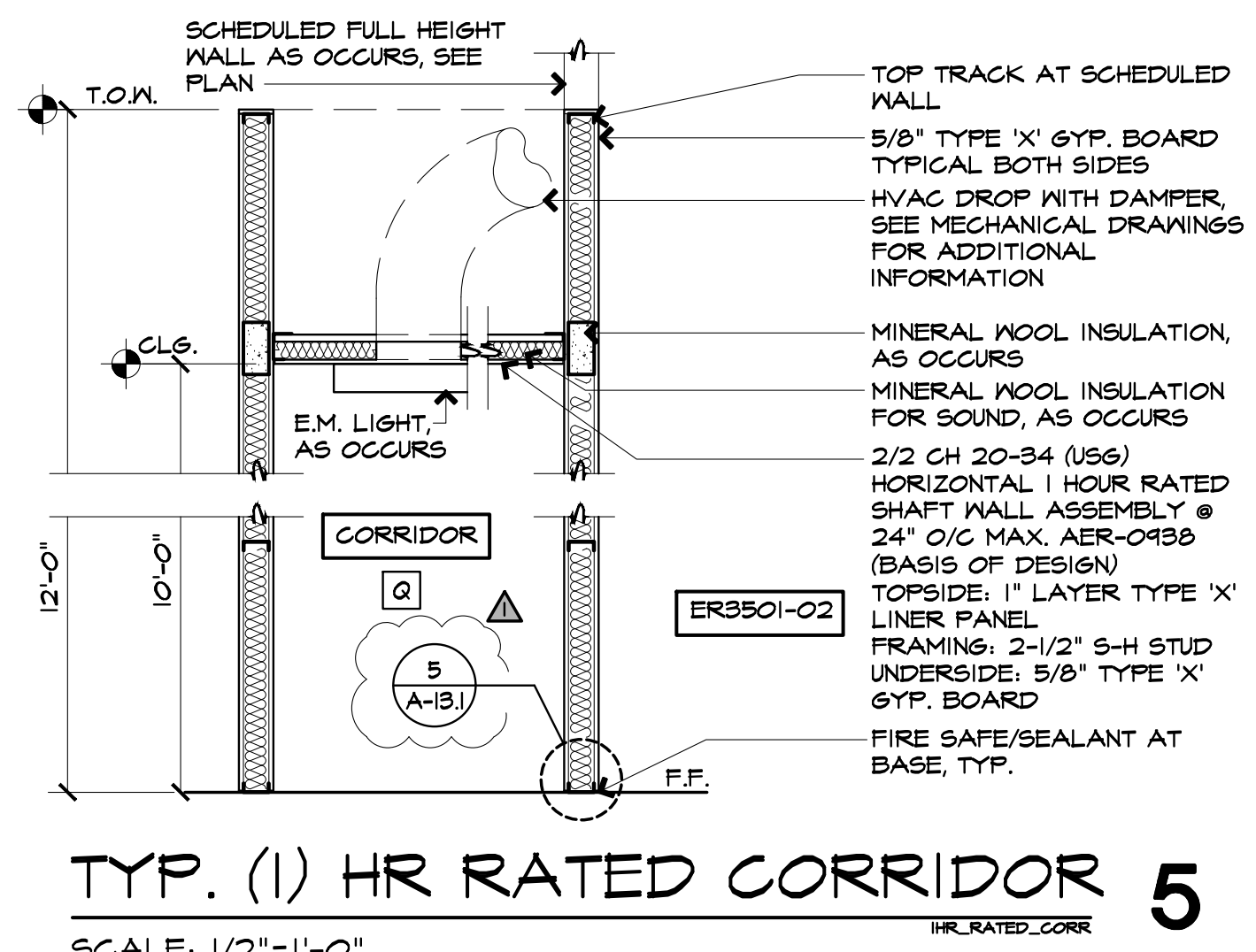
SUSPENDED CLG @ NON-RATED WALL 2
SCALE: 1/2"=1'-0"



SUSPENDED CLG/2ND FLR ABV 3
SCALE: 1/2"=1'-0"



GYP. BD. @ 2ND FLR ABOVE 4
SCALE: 1/2"=1'-0"



TYP. (I) HR RATED CORRIDOR 5
SCALE: 1/2"=1'-0"



Revisions	By	Date
1 PC CORR 1/BID ISSUE	MFM	4/24/26

Drawn	MFM
Date	2/13/26
Project No.	25011
Scale	AS NOTED

GENERAL NOTES

A. THESE DRAWINGS ARE THE PROPERTY OF AVANTI RESTAURANT SOLUTIONS, INC. WHETHER OR NOT THE ESTABLISHMENT FOR WHICH THEY ARE INTENDED IS COMPLETED, WE RESERVE THE RIGHT TO INCORPORATE DESIGN ELEMENTS AND DETAILS IN THESE PLANS TO PLANS HEREAFTER PREPARED BY US FOR OTHERS.

B. AVANTI RESTAURANT SOLUTIONS, INC. DOES NOT PERFORM ARCHITECTURAL, MECHANICAL, ELECTRICAL, HEATING OR STRUCTURAL ENGINEERING SERVICES. THE PURPOSE OF THESE PLANS IS TO ASSIST THE PLUMBER, ELECTRICIAN, GENERAL CONTRACTOR AND OTHERS UTILIZING THESE DRAWINGS TO COMPLETE THEIR WORK IN CONNECTION WITH THIS PROJECT.

C. THESE PLANS ARE NOT TO BE REPRODUCED OR DISTRIBUTED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF AVANTI RESTAURANT SOLUTIONS, INC. NOR BE USED BY ANY PERSON(S) EXCEPT UNDER OUR DIRECT SUPERVISION.

D. ALL FOODSERVICE AND RELATED EQUIPMENT SHALL BE NSF APPROVED AND IN CONFORMITY WITH LOCAL HEALTH REGULATIONS. INSTALLATION OF EQUIPMENT SHALL MEET SAME REQUIREMENTS. OWNER WILL HAVE TO APPLY FOR A SEPARATE HEALTH PERMIT ALTHOUGH HEALTH REQUIREMENTS WILL BE REVIEWED DURING BUILDING DEPARTMENT APPRAIZATION.

E. ALL FINISHED BUILDING DIMENSIONS SHALL BE VERIFIED BEFORE FABRICATION AND/OR INSTALLATION OF EQUIPMENT AND FIXTURES.

F. ALL ADJOINING EQUIPMENT AND COUNTERS SHALL BE SEALED TOGETHER TO PREVENT ENTRANCE OF MOISTURE AND VERMIN. ALL EQUIPMENT SHALL BE SMOOTHLY SEALED TO WALLS. FREE STANDING UNITS SHALL BE REMOVABLE AND EASILY ACCESSIBLE FOR CLEANING.

G. ALL WORKING SURFACES SHALL BE SMOOTH AND IMPERVIOUS.

H. ALL CUTTING BOARDS SHALL BE SANITARY NSF APPROVED CUTTING SURFACES.

I. ALL REFRIGERATED AND HEATED FOOD HOLDING EQUIPMENT SHALL BE PROVIDED WITH THERMOMETERS WHICH ARE EASILY READABLE.

J. STORAGE SHELVING SHALL HAVE THE LOWEST SHELF SET AT A MINIMUM OF 6" ABOVE THE FINISHED FLOOR.

K. STORAGE SHELVING, OTHER THAN WIRE OR SOLID FLAT METAL, MUST BE PROVIDED WITH A SMOOTH SURFACE, AND HAVE A NONABSORBENT AND NON-TOXIC FINISH.

L. ALL FLOOR MOUNTED FOODSERVICE EQUIPMENT, SUCH AS WORK TABLES, COUNTERS, ETC., SHALL BE MOUNTED ON MINIMUM 6" HIGH NSF APPROVED STAINLESS STEEL LEGS WITH ADJUSTABLE BULLET FEET. ALL CUSTOM FABRICATED STAINLESS STEEL WORK TABLES AND COUNTERS PLACED AGAINST WALLS SHALL HAVE BACKSPLASHES AND/OR RISERS SEALED TO WALL. (NOTE: SEE CUSTOM FABRICATED FOODSERVICE EQUIPMENT DETAILS FOR HEIGHT OF BACKSPLASHES). UNLESS OTHERWISE SPECIFIED, MOBILE COOKING EQUIPMENT SHALL BE MOUNTED ON NSF APPROVED CASTERS AND EQUIPPED WITH AGA APPROVED GAS HOSES, CONNECTORS, AND RESTRAINING DEVICES AS SUPPLIED BY THE K.E.C.

M. ALL SELF-CONTAINED REFRIGERATION TO INCLUDE CONDENSATE EVAPORATOR. EXCEPTION WILL BE ICE MACHINE WHICH WILL DRAIN INTO A FLOOR SINK.

N. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. K.E.C. MUST BE NOTIFIED OF ANY VARIATION FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.

O. LAST DATED REVISION VOIDS ALL PREVIOUS DRAWINGS.

P. ANY ERRORS, OMISSIONS, OR AMBIGUITIES ARE TO BE REPORTED TO THE KEC FOR CORRECTION OR RESOLUTION PRIOR TO COMMENCEMENT OF THE AFFECTED WORK. UNLESS EXPRESSLY STIPULATED OTHERWISE, NO OTHER ALLOWANCE WILL BE MADE BY THE KEC TO ANOTHERS FAVOR BY VIRTUE OF SUCH DISCREPANCIES. THE KEC ACCEPTS NO RESPONSIBILITY FOR CHARGES MADE NECESSARY BY ANY CODES, JOBSITE CONDITIONS, LABOR UNION CONTRACTS, REGULATIONS, GOVERNMENT AGENCIES, AND/OR EQUIPMENT LAYOUT CHANGES.

Q. WORK BY OTHER TRADES INDICATED ON THESE PLANS DOES NOT NECESSARILY REFLECT COMPLIANCE WITH EACH TRADE'S RESPECTIVE CODES AND REGULATIONS AND THEREFORE DO NOT RELIEVE THEM OF THEIR RESPONSIBILITY TO ASSURE SUCH.

R. WHERE A REVISION TO DETAILS NOTED ON THESE PLANS MIGHT FACILITATE EFFICIENCY OR CONTRIBUTE TO ARCHITECTURAL AESTHETICS, THE KEC MUST BE CONSULTED FOR APPROVAL PRIOR TO PROCEEDING WITH THE CHANGE. THE KEC SHALL ASSUME NO RESPONSIBILITY FOR ANY COSTS INCURRED DUE TO FAILURE BY THE PRINCIPAL RESPONSIBLE FOR THE CHANGE(S) TO NOTIFY THE KEC.

S. THE LOCAL BUILDING DEPARTMENT MAY REQUIRE THAT THESE DRAWINGS CONFORM WITH TITLE 24 CODE. THE OWNER, HIS ARCHITECT, OR HIS GENERAL CONTRACTOR SHALL VERIFY IF SUCH REQUIREMENTS ARE NECESSARY. THE OWNER SHALL PAY FOR ADDITIONAL COSTS WHICH MAY BE INCURRED IN ORDER TO PROVIDE ALL THE NECESSARY DATA TO MEET THE TITLE 24 CODE REQUIREMENTS AS DICTATED BY THE BUILDING DEPARTMENT AND ALL FEES OF LICENSED ENGINEER OR ARCHITECT.

#

KEY NOTES

1

KEY NOTE

2

KEY NOTE

3

KEY NOTE

4

KEY NOTE

5

KEY NOTE

6

KEY NOTE

LEGEND

0000

EQUIPMENT TAG

(X)

REMOTE REFRIGERATED EQUIPMENT

▲

SYSTEM IDENTIFICATION TAG

▲

REVISION NUMBER

X

K-4.1

ELEVATION / DETAIL NUMBER

X

K-4.1

ELEVATION / DETAIL FLAG

X

K-4.1

SHEET NUMBER

KEY NOTE

ABBREVIATIONS

KEC

KITCHEN EQUIPMENT CONTRACTOR

S/C

SELF-CONTAINED REFRIGERATION

GC

GENERAL CONTRACTOR

S/S

STAINLESS STEEL

OWN

OWNER

(E)

EXISTING

MC

MECHANICAL CONTRACTOR

(R)

RELOCATE

PC

PLUMBING CONTRACTOR

NTS

NOT TO SCALE

EC

ELECTRICAL CONTRACTOR

SAD

SEE ARCHITECTS DRAWINGS

1 FOODSERVICE EQUIPMENT PLAN
SCALE: 1/4" = 1'-0"

BORDERS ARCHITECTS

ARCHITECTURE | PLANNING | COMMERCIAL INTERIORS

1675 SCENIC AVENUE

SUITE 210

COSTA MESA, CA

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CONSULTANT

AVANTI

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PROJECT

WEST END REGIONAL NAVIGATION CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR

TITLE

FOODSERVICE EQUIPMENT PLAN

Revisions

By

Date

▲

PC CORR 1/BID ISSUE 1

AVRS/04/29/26

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Drawn

J.L.

Date

09/15/2025

Project No.

25011

Scale

Sheet

K-1.1

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FOODSERVICE EQUIPMENT AND UTILITY SCHEDULE																						
ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT REMARKS	SUPPLIED BY	INSTALLED BY	HOT WATER SIZE (IN)	COLD WATER SIZE (IN)	GAS SIZE (IN)	GAS INPUT (MBTU)	DIRECT WASTE SIZE (IN)	INDIRECT WASTE SIZE (IN)	PLUMBING REMARKS	ROUGH-IN	VOLTS	PHASE	AMPS	KW	HP	ELECTRICAL REMARKS	ITEM NO.
1	1	AIR CURTAIN	MARS AIR SYSTEMS	STD236-1UA-OB		KEC									J-BOX	120	1	5.1			WIRE THRU DOOR ACTIVATED MICRO-SWITCH	1
2	6	DRY STORAGE SHELVING	QUANTUM	WR86-2160GY-5		KEC																2
3	1	SPARE NUMBER																				3
4	1	WALK-IN COOLER	KOLPAK	CUSTOM		KEC									J-BOX	115	1	5.0			WIRE THRU V.P. LIGHTS AND SWITCH	4
5	4	DRY STORAGE SHELVING	QUANTUM	WR86-2160GY-5		KEC																5
6	1	EVAPORATOR COIL (COOLER)	CUSTOM	REF		KEC						3/4"			J-BOX	120	1	10.0				6
7	1	WALK-IN FREEZER	KOLPAK	CUSTOM		KEC									J-BOX	115	1	10.0			WIRE THRU V.P. LIGHTS AND HEAT STRIPS	7
8	5	DRY STORAGE SHELVING	QUANTUM	WR86-2160GY-5		KEC																8
9	1	EVAPORATOR COIL (FREEZER)	CUSTOM	REF		KEC						3/4"			J-BOX	120	1	10.0				9
10	1	REMOTE CONDENSING UNIT	VERIFY	CUSTOM		KEC									J-BOX	208	3					10
11	1	REMOTE CONDENSING UNIT	VERIFY	CUSTOM		KEC									J-BOX	208	3					11
12	1	PREP TABLE W/ PREP SINK	CUSTOM	S/S FAB		KEC						2"			DUPLEX	120	1	20.0			(2 EA) DEDICATED RECEPTACLES	12
13	1	FAUCET, DECK MOUNT	T&S BRASS	B-1122		KEC		1/2"	1/2"													13
14	1	DBL OVERSHELF	CUSTOM	S/S FAB		KEC																14
15	6	TRASH RECEPTACLE	CFS	34202306		KEC																15
16	1	UTILITY CHASE	CUSTOM	S/S FAB		KEC																16
17	1	SPARE NUMBER																				17
18	2	WATER FILTER	MANITOWOC	AR-10000		KEC			1/2"				1/2"	F.W. TO ITEM #19								18
19	1	ICE MAKER	MANITOWOC	IYT0900A		KEC			1/2"				1/2"	F.W. FROM ITEM #18	J-BOX	208	1	9.5	1.976			19
20	1	ICE BIN	MANITOWOC	D-570		KEC							3/4"									20
21	1	FLOOR TROUGH	EAGLE	ASFT-1236-SG		KEC						4"										21
22	1	FAUCET, DECK MOUNT	T&S BRASS	B-1141-CR		KEC		1/2"	1/2"													22
23	1	HANDSINK	CUSTOM	S/S FAB		KEC						2"										23
24	3	SOAP & TOWEL DISPENSER	BY OWNER	BY OWNER		OWN																24
25	1	FAUCET, SPLASH MOUNT	T&S BRASS	B-0231		KEC		1/2"	1/2"													25
26	1	DBL WALL SHELF	CUSTOM	S/S FAB		KEC																26
27	1	PREP TABLE W/ PREP SINK	CUSTOM	S/S FAB		KEC							2"		DUPLEX	120	1	20.0			(2 EA) DEDICATED RECEPTACLES	27
28	1	SPARE NUMBER																				28
29	1	SPARE NUMBER																				29
30	1	FIRE SUPPRESSION SYSTEM	CAPTIVE AIRE	CUSTOM		KEC									J-BOX	120	1	8.0				30
31	1	EXHAUST HOOD CONTROL PANEL	CAPTIVE AIRE	CUSTOM		KEC									J-BOX	120	1	10.0			REFER TO EXHAUST HOOD SHOP DRAWINGS	31
32	1	WALL FLASHING	CUSTOM	S/S FAB		KEC																32
33	1	EXHAUST HOOD (TYPE 1)	CAPTIVE AIRE	S/S FAB		KEC									J-BOX	120	1	5.0			WIRE THRU V.P. LIGHTS AND SWITCH	33
34	1	MAKE UP AIR PLENUM	CAPTIVE AIRE	CUSTOM		KEC																34
35	1	SPARE NUMBER																				35
36	1	DBL CONVECTION OVEN	GARLAND	MCO-GS-20M		KEC				1"	120,000				SIMPLEX	120	1	19.6	1.76		REQ'S PER EACH DECK	36
37	1	6 OPEN BURNER	GARLAND	C36-6M		KEC				1 1/4"	210,000											37
38	1	REFRIGERATED BASE	TRUE	TRCB-72-HC		KEC									SIMPLEX	115	1	9.9	1.1385	1/3		38
39	1	GRIDDLE	GARLAND	GTGG36-G36M		KEC				3/4"	81,000											39
40	1	TILT SKILLET	CLEVELAND RANGE	SGL-30-T1		KEC		1/2"	1/2"	3/4"	113,000				J-BOX	120-208	1	6.0	33			40
41	1	FLOOR TROUGH	EAGLE	ASFT-1224-SG		KEC						4"										41
42	1	SPARE NUMBER																				42
43	1	SPARE NUMBER																				43
44	1	CHEF'S TABLE	CUSTOM	S/S FAB		KEC									DUPLEX	120	1	20.0			(2 EA) DEDICATED RECEPTACLES	44
45	1	DBL OVERSHELF	CUSTOM	S/S FAB		KEC																45
46	1	SPARE NUMBER																				46
47	1	SPARE NUMBER																				47
48	1	SPARE NUMBER																				48
49	1	SPARE NUMBER																				49
50	1	REACH-IN REFRIGERATOR	TRUE	STA2R-2S-HC		KEC									SIMPLEX	115	1	9.4	1.081	1 1/4		50
51	1	REACH-IN FREEZER	TRUE	STA1F-1S-HC		KEC									SIMPLEX	115	1	6.0	0.69	1/2		51
52	2	HANDSINK	EAGLE	HSA-10		KEC		1/2"	1/2"			1 1/2"										52
53	1	SPARE NUMBER																				53
54	1	SPARE NUMBER																				54
55	1	REACH-IN REFRIGERATOR	TRUE	STA1R-1G-HC		KEC									SIMPLEX	115	1	3.8	0.437	1/4		55
56	1	HOT HOLDING CABINET	METRO	C569-SDS-U		KEC									SIMPLEX	120	1	16.7	2			56
57	1	SERVICE COUTNER	CUSTOM	S/S FAB		KEC																57
58	1	DROP-IN COLD PAN	DELFIELD	N8130BP		KEC						1/2"			J-BOX	115	1	2.0	0.23	0.17		58
59	1	FOOD WELL	WELLS	MOD-200TDM		KEC						1/2"			J-BOX	208	1	8.7	1.8096			59
60	1	SPARE NUMBER																				60
61	1	SPARE NUMBER																				61
62	1	THREE COMPARTMENT SINK	CUSTOM	S/S FAB		KEC						3"										62
63	1	DBL WALL SHELF	CUSTOM	S/S FAB		KEC																63
64	1	FAUCET, SPLASH MOUNT	T&S BRASS	B-0231		KEC		1/2"	1/2"													64
65	1	PRE-RINSE W/ FAUCET	T&S BRASS	B-0133-ADF08-B		KEC		1/2"	1/2"													65
66	1	SPARE NUMBER																				66
67	1	WALL SHELF	CUSTOM	S/S FAB		KEC																67
68	1	CLEAN DISH LANDING	CUSTOM	S/S FAB		KEC																68
69	1	EXHAUST HOOD (TYPE 2)	CAPTIVE AIRE	CUSTOM		KEC																69
70	1	DISHWASHER, HIGH TEMP	HOBART	CDH-1		KEC		3/4"				3/4"			J-BOX	208	3	35.0				70
71	1	PRE-RINSE	T&S BRASS	B-0133		KEC		1/2"	1/2"													71
72	1	SCRAP SINK	CUSTOM	S/S FAB		KEC																72
73	1	SOILED DISH LANDING	CUSTOM	S/S FAB		KEC						2"										73
74	1	TRASH CAN (ROUND)	CFS	84103223		KEC																74
75	1	SLANTED GLASS RACK	CUSTOM	S/S FAB		KEC																75
76	1	SPARE NUMBER																				76
77	1	PASS SHELF	CUSTOM	S/S FAB		KEC																77
78	1	BEVERAGE COUNTER W/ TRAY SLIDE	CUSTOM	MILLWORK/S/S FAB		KEC																78
79	1	AIR POT BREWER	FETCO	C53016		KEC			1/2"						J-BOX	208	1	22.2	3.5			79
80	1	I.T. BREWER	FETCO	M1221US-1A117-PM001		KEC			1/4"						J-BOX	120	1	14.7	1.7			80
81	1	BEVERAGE COUNTER TROUGH DRAIN	CUSTOM	S/S FAB		KEC							1/2"									81

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PROJECT

WEST END
REGIONAL
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR

TITLE

FOODSERVICE
EQUIPMENT
SCHEDULE

Revisions	By	Date
△ PC CORR 1/BIID ISSUE 1	AVRS	04/29/26
△		
△		
△		
△		
△		

DrawnJ.L.

Date09/15/2025

Project No.25011

Scale

Sheet

K-1.2

PLUMBING NOTES

A.

PLUMBER TO PROVIDE BACKFLOW PREVENTERS IN WATER SUPPLY LINES AS REQUIRED BY LOCAL CODES

B.

PLUMBER TO SPECIFY AND LOCATE EQUIPMENT AND UTILITIES FOR THESE LOCATIONS

C.

PLUMBER TO CONNECT ALL WATER LINES, GAS LINES, WASTE LINE, ETC. TO FULLY CONNECT ALL EQUIPMENT AND RUN CONDENSATE LINES FROM UNITS TO DRAINS AND THESE LINES TO BE NO SMALLER THAN THE STUB-OUT OF THE FIXTURE. PLUMBER TO PROVIDE GATE VALVES, CUT-OFFS, TRAPS, HYDROSTATIC SHOCK ELIMINATORS, PRESSURE REGULATORS AND MATERIALS NECESSARY TO CONNECT ALL LINES, UNLESS OTHERWISE SPECIFIED IN THE ITEM SPECIFICATIONS. FAUCETS, DRAIN OUTLET FITTINGS IN FIXTURES AND SPECIALTY ITEMS ARE TO BE FURNISHED BY THE KITCHEN EQUIPMENT SUPPLIER AS OUTLINED IN THE ITEM SPECIFICATIONS.

D.

ALL WORK TO BE PERFORMED IN FULL ACCORDANCE WITH THE APPLICABLE CODES RELATING TO INSTALLATION AND HOOK-UP OF EQUIPMENT, OMISSIONS, OR ERRORS ON THE SCHEDULE DO NOT RELIEVE THE PLUMBING CONTRACTOR FROM COMPLETE FINAL PLUMBING RESPONSIBILITY.

E.

ALL OUTLETS AND CONNECTIONS SHOWN RELATE TO KITCHEN EQUIPMENT ONLY. REFER TO ARCHITECTURAL/ENGINEERING PLANS FOR ADDITIONAL REQUIREMENTS

F.

ALL DIMENSIONS GIVEN ARE FROM COLUMN CENTERLINES AND/OR FINISHED WALLS AND ARE IN INCHES TO 2'-0". ELEVATIONS GIVEN ARE FROM FINISHED FLOORS. ALL ROUGH-INS SHOWN ARE TO BE RUN INSIDE WALLS (EXCEPT STUB-UPS) LOCATIONS INDICATE POINT OF EXIT FROM WALLS, CEILINGS OR FLOORS.

G.

ALL FLOOR DRAINS TO SET 1/2" BELOW FINISHED FLOOR UNLESS OTHERWISE NOTED. DO NOT SLOPE FLOORS SO CLOSE TO DRAINS AS TO CREATE "PITS" OR "DIPS" IN FLOOR. MINIMUM RADIUS OF SLOPE TO BE 24" FROM CENTERLINE OF DRAIN.

H.

PLUMBER TO RUN HARD COPPER DRAINLINE HIGH AS POSSIBLE IN WALK-IN VAULT FROM BLOWER COIL TO WALL THEN SLOPING DOWN TO A POINT 18" ABOVE FLOOR THEN THRU WALL FORMING A "P" TRAP FLAT AGAINST WALL ABOVE DRAIN THEN EXTENDING TO DRAIN. SECURE LINES IN A NEAT MANNER AND FINISH WITH CHROMATONE PAINT - SEAL ALL PENETRATIONS

I.

REFER TO PLUMBING ENGINEERS DRAWINGS FOR TRUNK LINES

WATER SUPPLY REQUIREMENTS

ALL WATER SUPPLIED KITCHEN EQUIPMENT SYSTEMS ARE SUBJECT TO CONTAMINATION AND FAILURE DUE TO MINERAL CONTENT FOUND IN MOST WATER SUPPLIES. TO MINIMIZE SERVICE PROBLEMS AND TO MEET WARRANTY REQUIREMENTS A WATER TREATMENT (SOFTENING) SYSTEM IS RECOMMENDED WHEN WATER QUALITY IS FOUND TO EXCEED LIMITS STATED BELOW AND IN OPERATORS MANUALS. RECOMMENDED MINIMUM WATER QUALITY STANDARDS ARE TOTAL DISSOLVED SOLIDS (TDS) CONTENT SHOULD NOT EXCEED 30 PARTS PER MILLION; AND WATER PH SHOULD BE 7.0 OR HIGHER.

PLUMBING LEGEND

(0000)

EQUIPMENT IDENTIFICATION TAG - SEE EQUIPMENT SCHEDULE

●

COLD WATER SUPPLY

○

HOT WATER SUPPLY

⊗

DIRECT DRAIN CONNECTION

⚡

GAS SUPPLY

⚡

GAS SUPPLY W/ HOSE

⌚

FLOOR SINK - 12" X 12"

⌚

FLOOR SINK - 8" X 8"

⌚

FLOOR SINK - 12" DIA.

⊕

FLOOR DRAIN

GAS / WATER / DRAIN LINE BY P.C.

⊙

STEAM - SUPPLY

⊙

STEAM - CONDENSATE RETURN

□

KEY NOTE

⚠

REVISION NUMBER

#

KEY NOTES

1

KEY NOTE

2

KEY NOTE

3

KEY NOTE

4

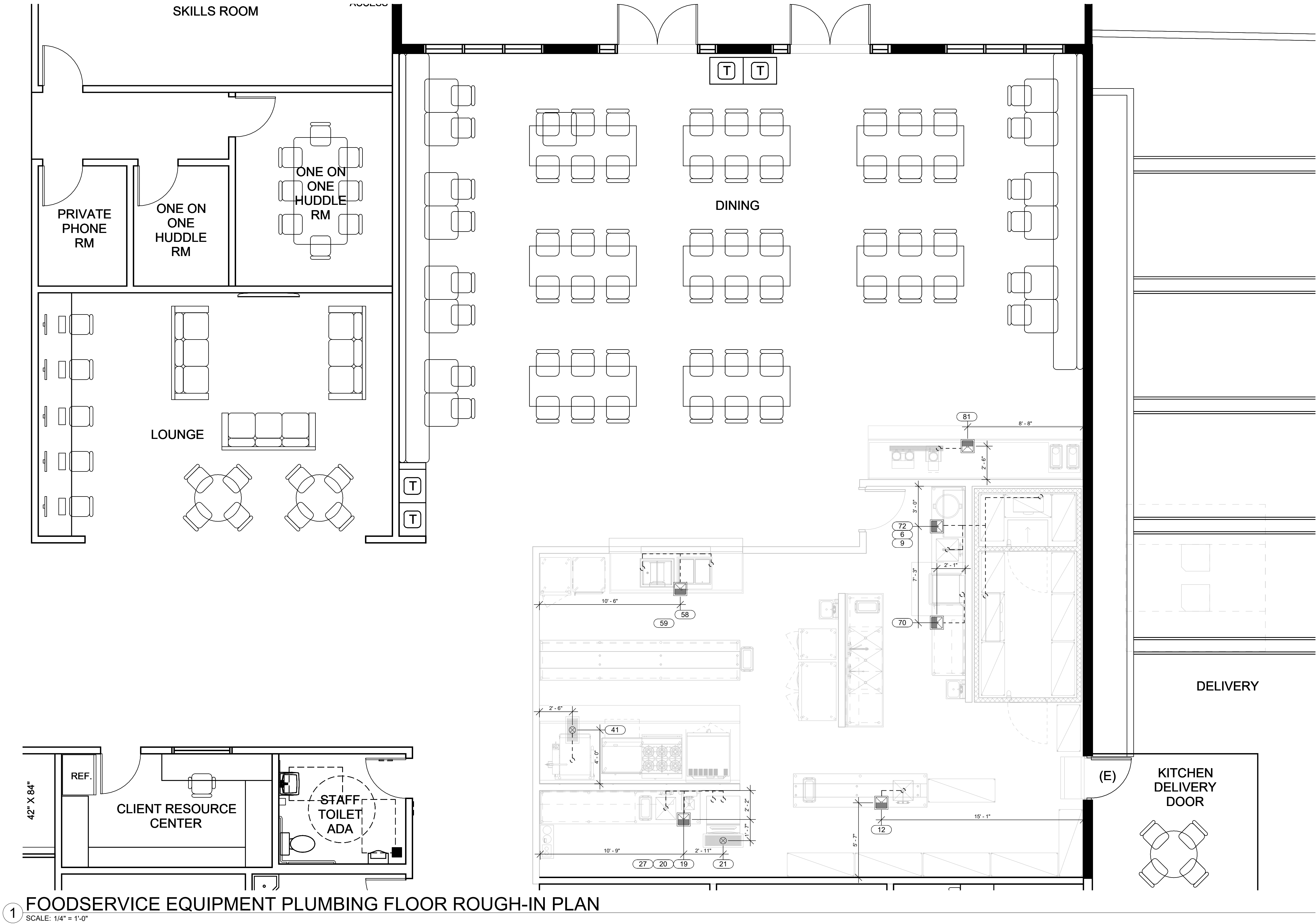
KEY NOTE

5

KEY NOTE

6

KEY NOTE



1 FOODSERVICE EQUIPMENT PLUMBING FLOOR ROUGH-IN PLAN
SCALE: 1/4" = 1'-0"

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PROJECT

WEST END
REGIONAL
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR

TITLE

FOODSERVICE
EQUIPMENT
PLUMBING
FLOOR
ROUGH-IN
PLAN

Revisions	By	Date
⚠ PC CORR I/BID ISSUE 1	AVRS	04/29/26
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Drawn	J.L.	
Date	09/15/2025	
Project No.	25011	
Scale		

Sheet

K-2.1

PLUMBING NOTES

A.

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B.

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PLUMBING LEGEND

(0000)

EQUIPMENT IDENTIFICATION TAG - SEE EQUIPMENT SCHEDULE

●

COLD WATER SUPPLY

○

HOT WATER SUPPLY

⊗

DIRECT DRAIN CONNECTION

⊕

GAS SUPPLY

⊕

GAS SUPPLY W/ HOSE

⊕

FLOOR SINK - 12" X 12"

⊕

FLOOR SINK - 8" X 8"

⊕

FLOOR SINK - 12" DIA.

⊕

FLOOR DRAIN

GAS / WATER / DRAIN LINE BY P.C.

⊕

STEAM - SUPPLY

⊕

STEAM - CONDENSATE RETURN

⊕

KEY NOTE

⚠

REVISION NUMBER

#

KEY NOTES

1

KEY NOTE

2

KEY NOTE

3

KEY NOTE

4

KEY NOTE

5

KEY NOTE

6

KEY NOTE

1 FOODSERVICE EQUIPMENT PLUMBING WALL ROUGH-IN PLAN
SCALE: 1/4" = 1'-0"

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PROJECT
WEST END
REGIONAL
NAVIGATION
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11109 JASMINE STREET
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FOR

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EQUIPMENT
PLUMBING
WALL
ROUGH-IN
PLAN

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⚠ PC CORR 1/BD ISSUE 1	AVRS	04/29/26
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Drawn J.L.
Date 09/15/2025
Project No. 25011
Scale

Sheet
K-2.2

ELECTRICAL NOTES

A.

ALL ELECTRICAL OUTLETS SHOWN ON THIS PLAN ARE FOR FIXTURES SPECIFIED AS FURNISHED BY THE KITCHEN EQUIPMENT SUPPLIER. FOR FURTHER BLDG ELECTRICAL REQUIREMENTS (TELEPHONES, CLOCKS, SIGNS, EXHAUST HOOD SWITCHING, ETC.) SEE OTHER PLANS.

B.

ALL DIMENSIONS GIVEN ARE IN INCHES TO 2'-0" AND ARE FROM CENTERLINES AND/OR FINISHED WALLS. ELEVATIONS GIVEN ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. ALL ROUGH-INS SHOWN ARE TO BE RUN INSIDE WALLS (EXCEPT STUB-UPS). LOCATION INDICATES POINT OF EXIT FROM WALLS, CEILINGS OR FLOORS. ALL CONVENIENCE OUTLETS ARE TO BE SET HORIZONTALLY. ALL 115 VOLT OUTLETS NOT DESIGNATED WITH SPECIFIC LOADS TO BE RATED AT 20.0 AMPS.

C.

ELECTRICIAN TO CONNECT ALL ELECTRICAL EQUIPMENT AND FIXTURES AND DO ANY INTERNAL WIRING REQUIRED IN THE FIXTURES AS REQUIRED BY THE SPECIFICATIONS. ALL ELECTRICAL OUTLET COVER PLATES ARE TO BE STAINLESS STEEL AND ARE TO BE FURNISHED BY THE ELECTRICIAN, AS WELL AS THE RECEPTACLE, UNLESS OTHERWISE SPECIFIED IN THE ITEM SPECIFICATIONS. EACH COVER PLATE SHALL BE LABELED WITH PANEL NAME AND CIRCUIT NUMBER THAT SERVES IT. ALL DISCONNECT SWITCHES REQUIRED ARE TO BE FURNISHED AND INSTALLED BY THE ELECTRICIAN AT TIME OF INSTALLATION.

D.

ALL WORK TO BE PERFORMED IN FULL ACCORDANCE WITH ALL APPLICABLE CODES RELATING TO HOOK-UP, INSTALLATION AND WIRING OF EQUIPMENT. OMISSIONS OR ERRORS ON THE SCHEDULE DO NOT RELIEVE THE ELECTRICIAN FROM COMPLETE FINAL CONNECTION RESPONSIBILITY.

E.

ELECTRICAL REQUIREMENTS FOR THIS AREA SHALL BE SPECIFIED AND LOCATED BY OTHERS.

F.

CONTROL CIRCUIT FROM ELECTRICIAN FURNISHED AND INSTALL SHUNT TRIP BREAKER(S) TO FIRE CONTROL SYSTEM CONTROL MICRO-SWITCH. SHUNT TRIP BREAKER(S) TO BE UNDER EXHAUST HOOD. IN CASE OF FIRE, ALL POWER TO EQUIPMENT UNDER HOOD WILL BE SHUT OFF. ALL GAS EQUIPMENT LOCATED UNDER HOOD WILL ALSO BE SHUT OFF IN CASE OF FIRE. MUST BE WIRED THAT IN THE EVENT OF POWER FAILURE, FIRE CONTROL SYSTEM WILL NOT BE ACTIVATED AND WHEN POWER IS RESTORED, FIRE SYSTEM WILL NOT DISCHARGE. ALL WORK MUST BE COORDINATED WITH THE AIRPORT FACILITIES GROUP RESPONSIBLE FOR FIRE DETECTION AND SUPPRESSION.

G.

SPIRAL WRAP NECESSARY LENGTH OF STRIP HEATER ON DRAIN LINE. USE "E-Z" HEAT (OR EQUAL) 115V 1PH. WIRE HEATER TO FAN CIRCUIT OF BLOWER COIL SO THAT HEATER IS ALWAYS ON EXCEPT DURING DEFROST CYCLE. STRIP HEATER FURNISHED BY KITCHEN EQUIPMENT SUPPLIER TO ELECTRICAL CONTRACTOR FOR HOOK-UP.

H.

CONVENIENCE OUTLET TO BE 115 VOLTS, 15 AMPS, SINGLE PHASE, NEMA 5-15R, GFI.

I.

CABINET MOUNTED RECEPTACLE ARE TO BE FLUSH MOUNTED TO FACE OF CABINET.

ELECTRICAL LEGEND

0000

EQUIPMENT IDENTIFICATION TAG - SEE EQUIPMENT SCHEDULE

(H)

(H) = INSTALL RECEPTACLE HORIZONTALLY

⊖

120V SIMPLEX RECEPTACLE

⊖⊖

120V DUPLEX RECEPTACLE

⊖⊖⊖

QUADPLEX RECEPTACLE

⊖⊖⊖⊖

208/220V RECEPTACLE

⚡

COMBINATION DUPLEX W/ 2 PORT DATA

Ⓜ

JUNCTION BOX - POWER

Ⓜ

JUNCTION BOX - DATA

Ⓜ

BEVERAGE CONDUIT STUB-OUT

○

LIGHT

⚡

SWITCH

Ⓜ

MOTOR

—

WIRING RUN

Ⓜ

SOLENOID (REFRIGERATION)

Ⓜ

TEMP. CONTROL (REFRIGERATION)

Ⓜ

TIME CLOCK (REFRIGERATION)

□

KEY NOTE

⚠

REVISION NUMBER

#

EQUIPMENT IDENTIFICATION TAG - SEE EQUIPMENT SCHEDULE

1

KEY NOTE

2

KEY NOTE

3

KEY NOTE

4

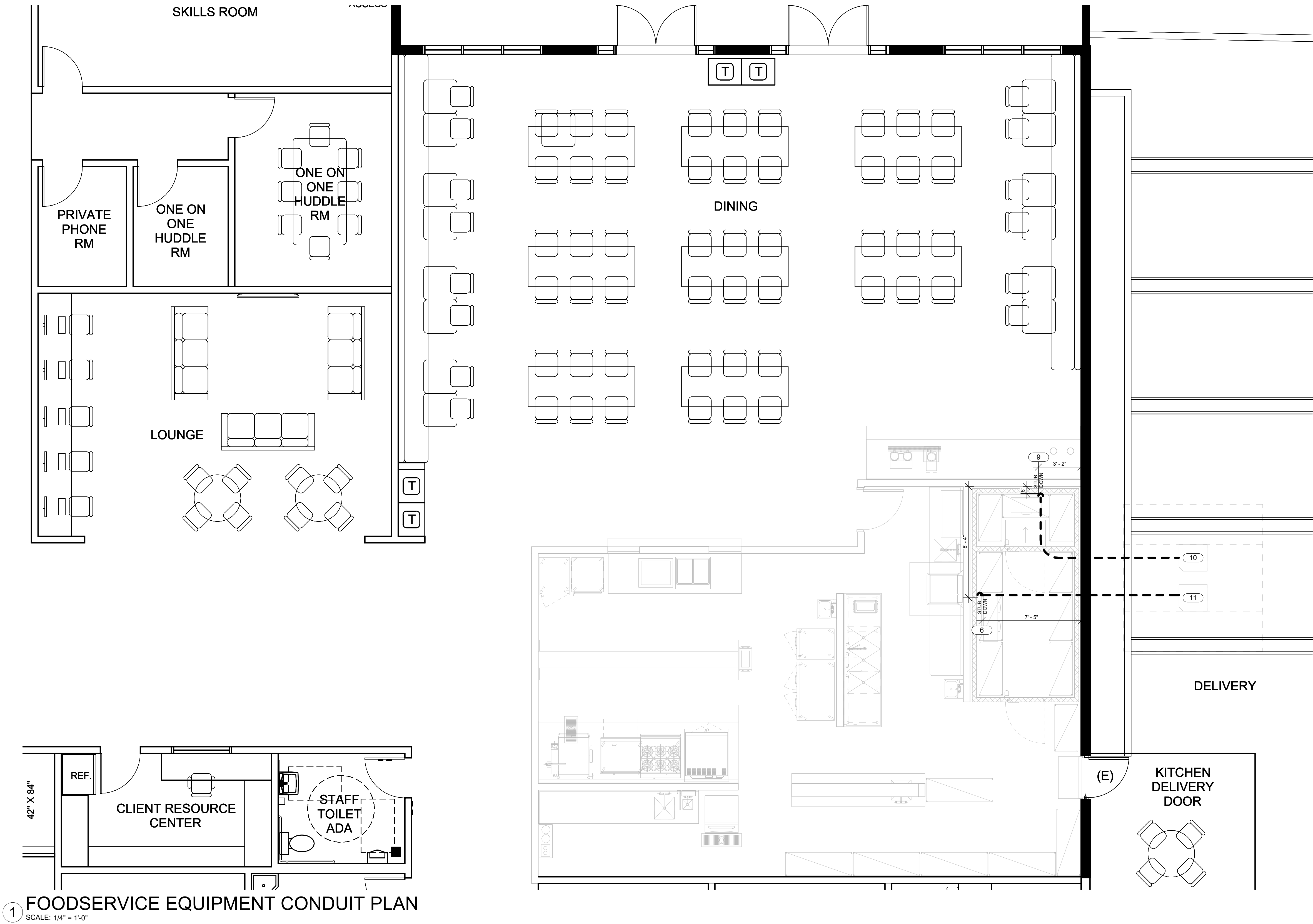
KEY NOTE

5

KEY NOTE

6

KEY NOTE



1 FOODSERVICE EQUIPMENT CONDUIT PLAN
SCALE: 1/4" = 1'-0"

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K-3.1

ELECTRICAL NOTES	
A.	ALL ELECTRICAL OUTLETS SHOWN ON THIS PLAN ARE FOR FIXTURES SPECIFIED AS FURNISHED BY THE KITCHEN EQUIPMENT SUPPLIER. FOR FURTHER BLDG ELECTRICAL REQUIREMENTS (TELEPHONES, CLOCKS, SIGNS, EXHAUST HOOD SWITCHING, ETC.) SEE OTHER PLANS.
B.	ALL DIMENSIONS GIVEN ARE IN INCHES TO 2'-0" AND ARE FROM CENTERLINES AND/OR FINISHED WALLS. ELEVATIONS GIVEN ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. ALL ROUGHINS SHOWN ARE TO BE RUN INSIDE WALLS (EXCEPT STUB-UPS). LOCATION INDICATES POINT OF EXIT FROM WALLS, CEILINGS OR FLOORS. ALL CONVENIENCE OUTLETS ARE TO BE SET HORIZONTALLY. ALL 115 VOLT OUTLETS NOT DESIGNATED WITH SPECIFIC LOADS TO BE RATED AT 20.0 AMPS.
C.	ELECTRICIAN TO CONNECT ALL ELECTRICAL EQUIPMENT AND FIXTURES AND DO ANY INTERNAL WIRING REQUIRED IN THE FIXTURES AS REQUIRED BY THE SPECIFICATIONS. ALL ELECTRICAL OUTLET COVER PLATES ARE TO BE STANDARD STEEL. ALL ELECTRICAL PANELS AND THE ELECTRICIAN, AS WELL AS THE RECEIPTABLE, UNLESS OTHERWISE SPECIFIED IN THE ITEM SPECIFICATIONS. EACH COVER PLATE SHALL BE LABELED WITH PANEL NAME AND CIRCUIT NUMBER THAT SERVES IT. ALL DISCONNECT SWITCHES REQUIRED ARE TO BE FURNISHED AND INSTALLED BY THE ELECTRICIAN AT TIME OF INSTALLATION.
D.	ALL WORK TO BE PERFORMED IN FULL ACCORDANCE WITH ALL APPLICABLE CODES RELATING TO HOOK-UP, INSTALLATION AND WIRING OF EQUIPMENT. OMISSIONS OR ERRORS ON THE SCHEDULE DO NOT RELIEVE THE ELECTRICIAN FROM COMPLETE FINAL CONNECTION RESPONSIBILITY.
E.	ELECTRICAL REQUIREMENTS FOR THIS AREA SHALL BE SPECIFIED AND LOCATED BY OTHERS.
F.	CONTROL CIRCUIT FROM ELECTRICIAN FURNISHED AND INSTALL SHUNT TRIP BREAKER(S) TO FIRE CONTROL SYSTEM CONTROL, MICRO-SWITCH, SHUNT TRIP BREAKER(S) TO BE UNDER EXHAUST HOOD. IN CASE OF FIRE, ALL POWER TO EQUIPMENTS ON THE SCHEDULE WILL BE SHUT OFF. ALL GAS EQUIPMENT LOCATED UNDER HOOD WILL ALSO BE SHUT OFF IN CASE OF FIRE. FIRE WIRED THAT IN THE EVENT OF POWER FAILURE, FIRE CONTROL SYSTEM WILL NOT BE ACTIVATED AND WHEN POWER IS RESTORED, FIRE SYSTEM WILL NOT DISCHARGE. ALL WORK MUST BE COORDINATED WITH THE AIRPORT FACILITIES GROUP RESPONSIBLE FOR FIRE DETECTION AND SUPPRESSION.
G.	SPIRAL WIRE PIP NECESSARY LENGTH OF STRIP HEATER ON DRAIN LINE. USE "E-2" HEAT (OR EQUAL) 15W 1PH. WIRE HEATER TO FAN CIRCUIT OF BLOWER COIL. SO THAT HEATER IS ALWAYS ON EXCEPT DURING DEFOST CYCLE. STRIP HEATER FURNISHED BY KITCHEN EQUIPMENT SUPPLIER TO ELECTRICAL CONTRACTOR FOR HOOK-UP.
H.	CONVENIENCE OUTLET TO BE 115 VOLTS, 15 AMPS, SINGLE PHASE, NEMA 5-15R, GFI.
I.	CABINET MOUNTED RECEPTACLE ARE TO BE FLUSH MOUNTED TO FACE OF CABINET.

- | ELECTRICAL LEGEND | |
|-------------------|---|
| 0000 | EQUIPMENT IDENTIFICATION TAG - SEE EQUIPMENT SCHEDULE |
| (H) | (H) = INSTALL RECEPTACLE HORIZONTALLY |
| ⊖ | 120V SIMPLEX RECEPTACLE |
| ⊖ | 120V DUPLEX RECEPTACLE |
| ⊕ | QUADPLEX RECEPTACLE |
| ⊕ | 208/220V RECEPTACLE |
| ⚡ | COMBINATION DUPLEX W/ 2 PORT DATA |
| ① | JUNCTION BOX - POWER |
| ② | JUNCTION BOX - DATA |
| ⊕ | BEVERAGE CONDUIT STUB-OUT |
| ○ | LIGHT |
| ⚡ | SWITCH |
| ⚡ | MOTOR |
| ⚡ | WIRING RUN |
| ⊖ | SOLENOID (REFRIGERATION) |
| ⊖ | TEMP. CONTROL (REFRIGERATION) |
| ⊖ | TIME CLOCK (REFRIGERATION) |
| □ | KEY NOTE |
| △ | REVISION NUMBER |

#	KEY NOTES
1	KEY NOTE
2	KEY NOTE
3	KEY NOTE
4	KEY NOTE
5	KEY NOTE
6	KEY NOTE



K-3.2

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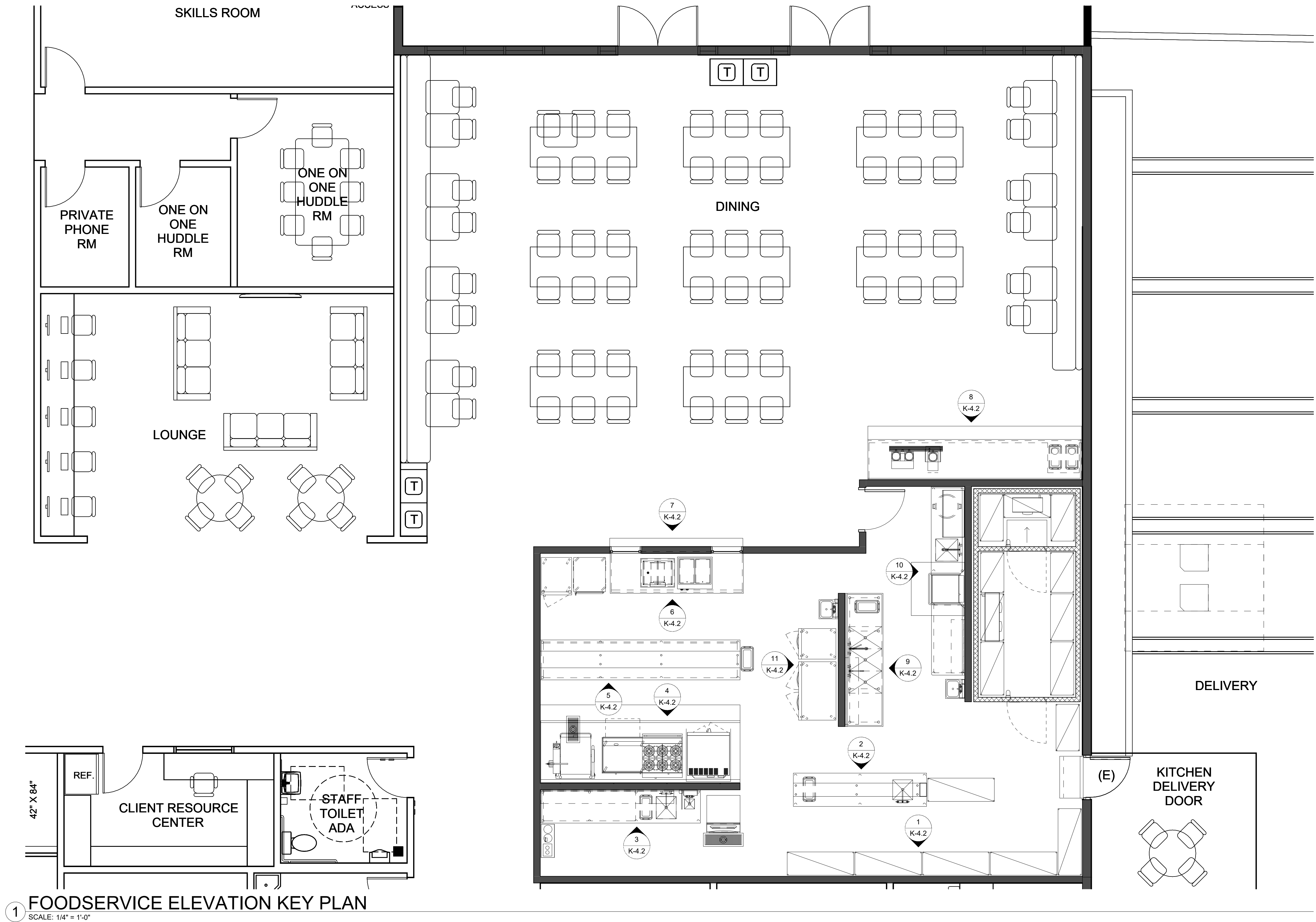
FOODSERVICE
ELEVATION
KEY PLAN

Revisions	By	Date
△ PC CORR I/BID ISSUE 1	AVRS	04/29/26
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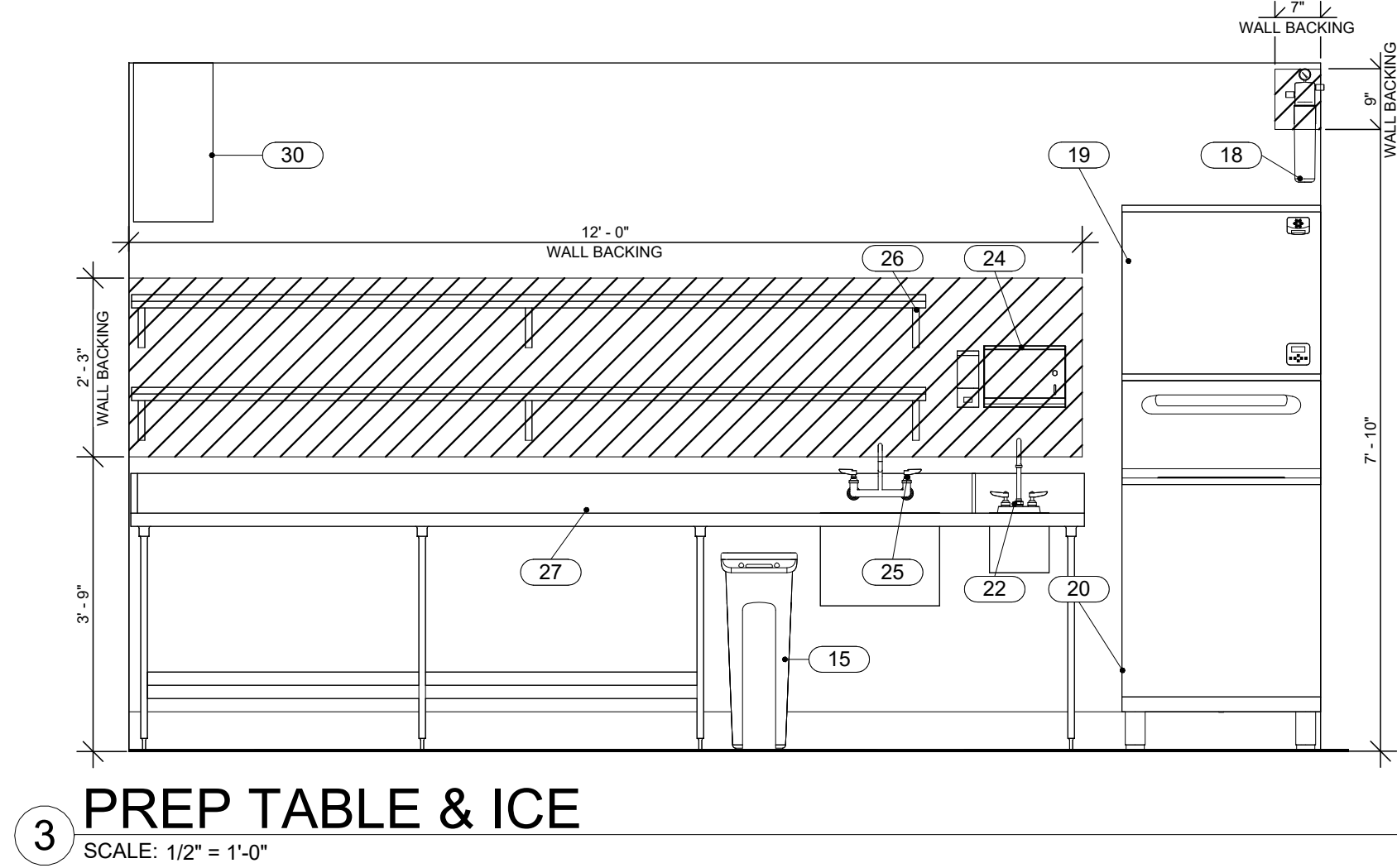
K-4.1



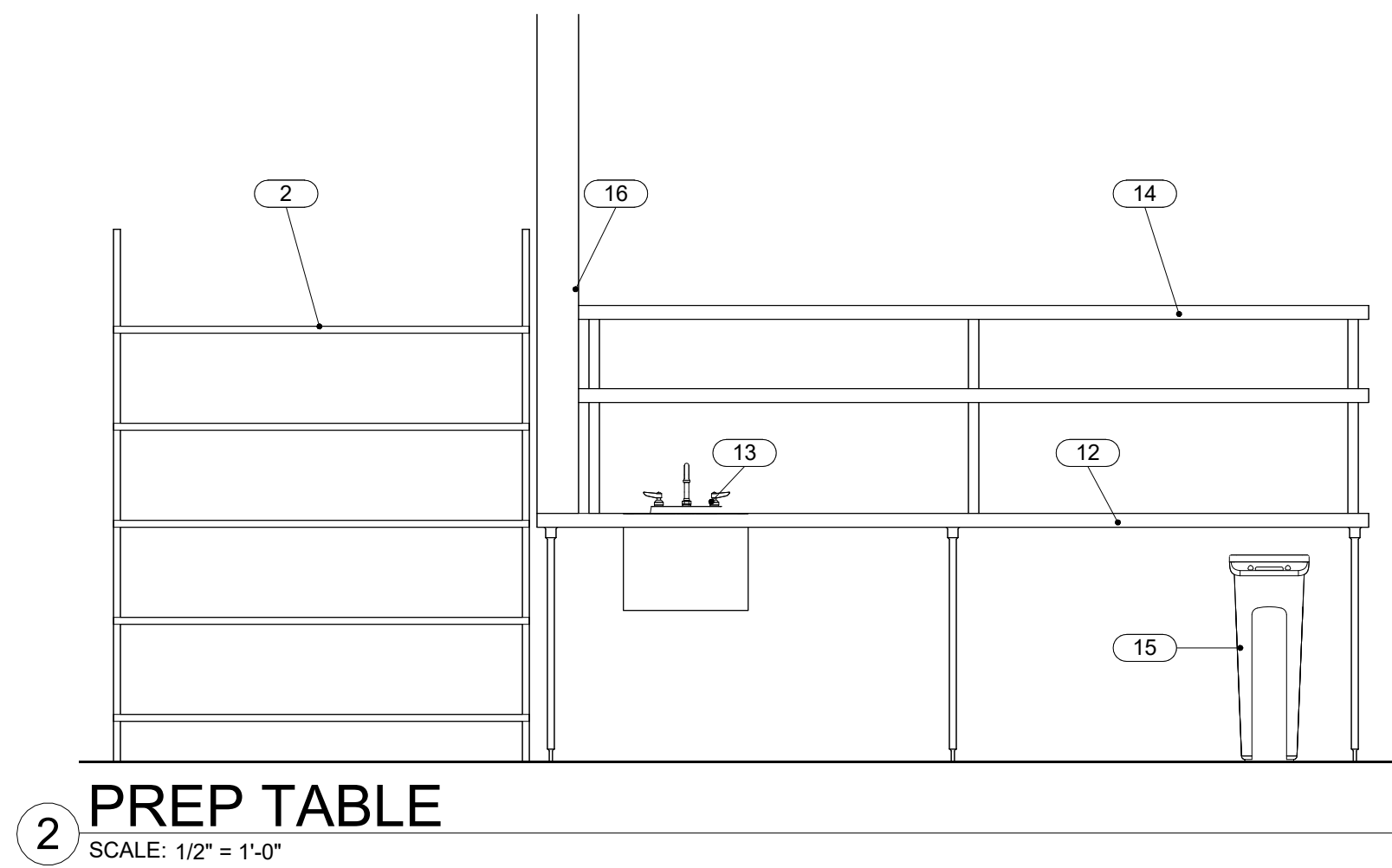
1 FOODSERVICE ELEVATION KEY PLAN
SCALE: 1/4" = 1'-0"

Revisions	By	Date
1 PC CORR I/BID ISSUE 1	AVRS	04/29/26
2		
3		
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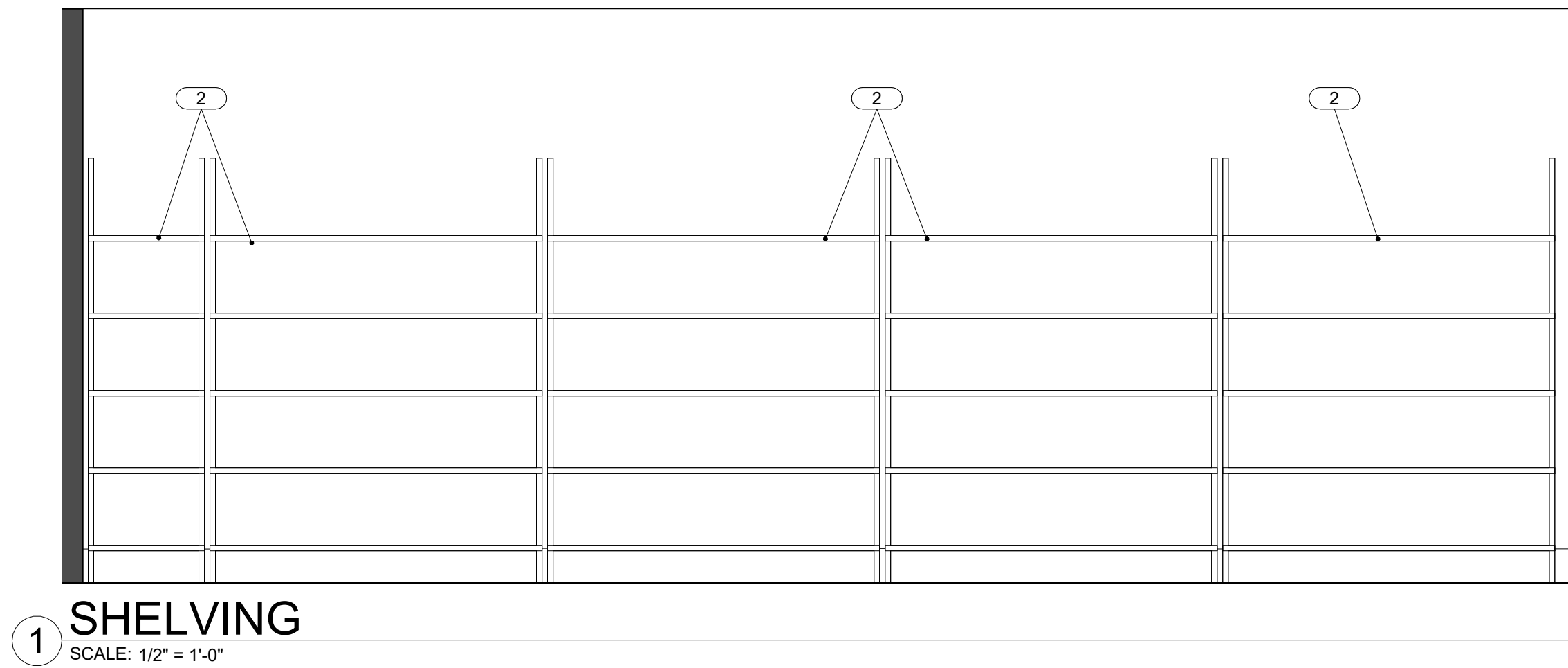
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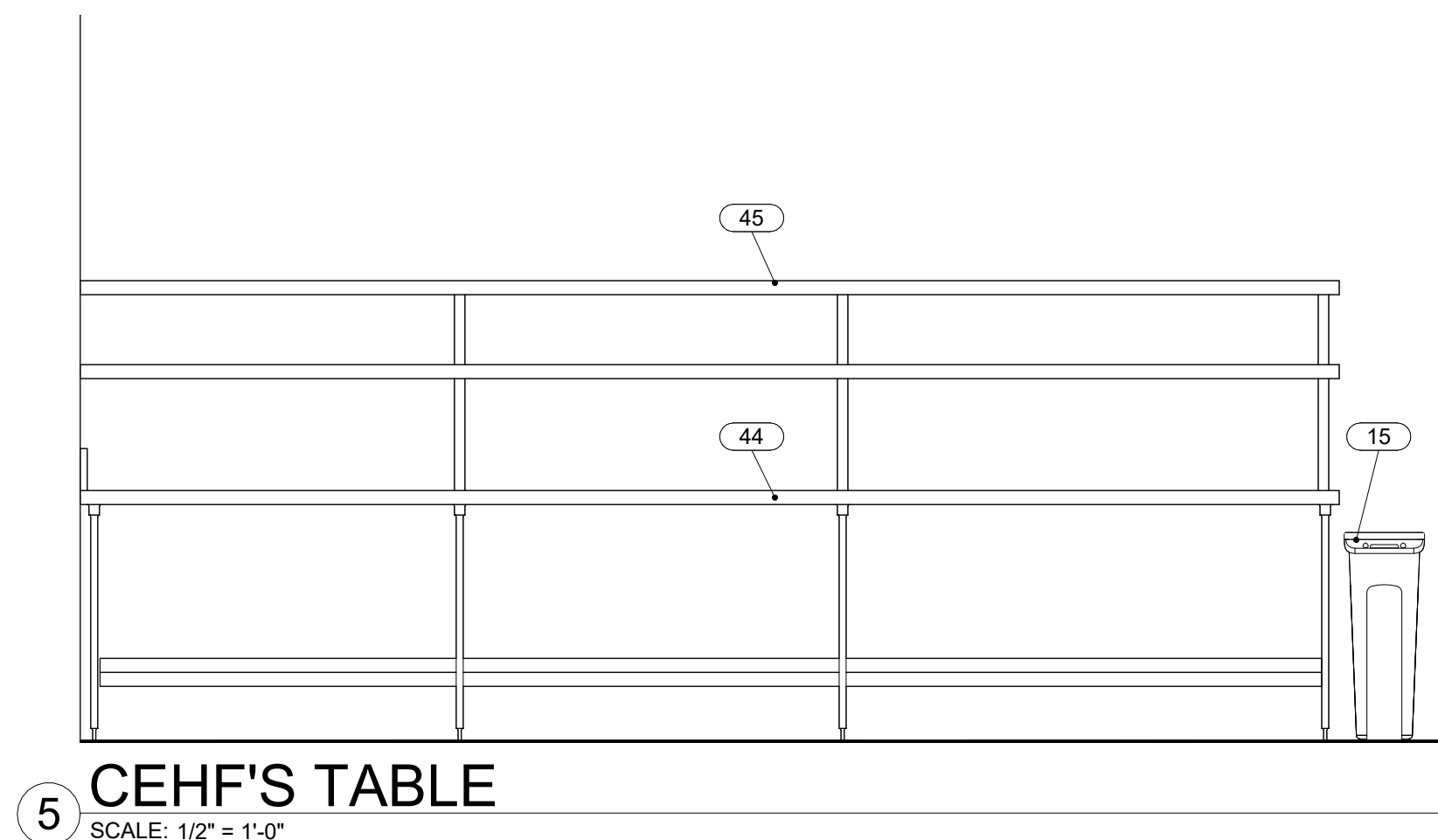
3 PREP TABLE & ICE
SCALE: 1/2" = 1'-0"



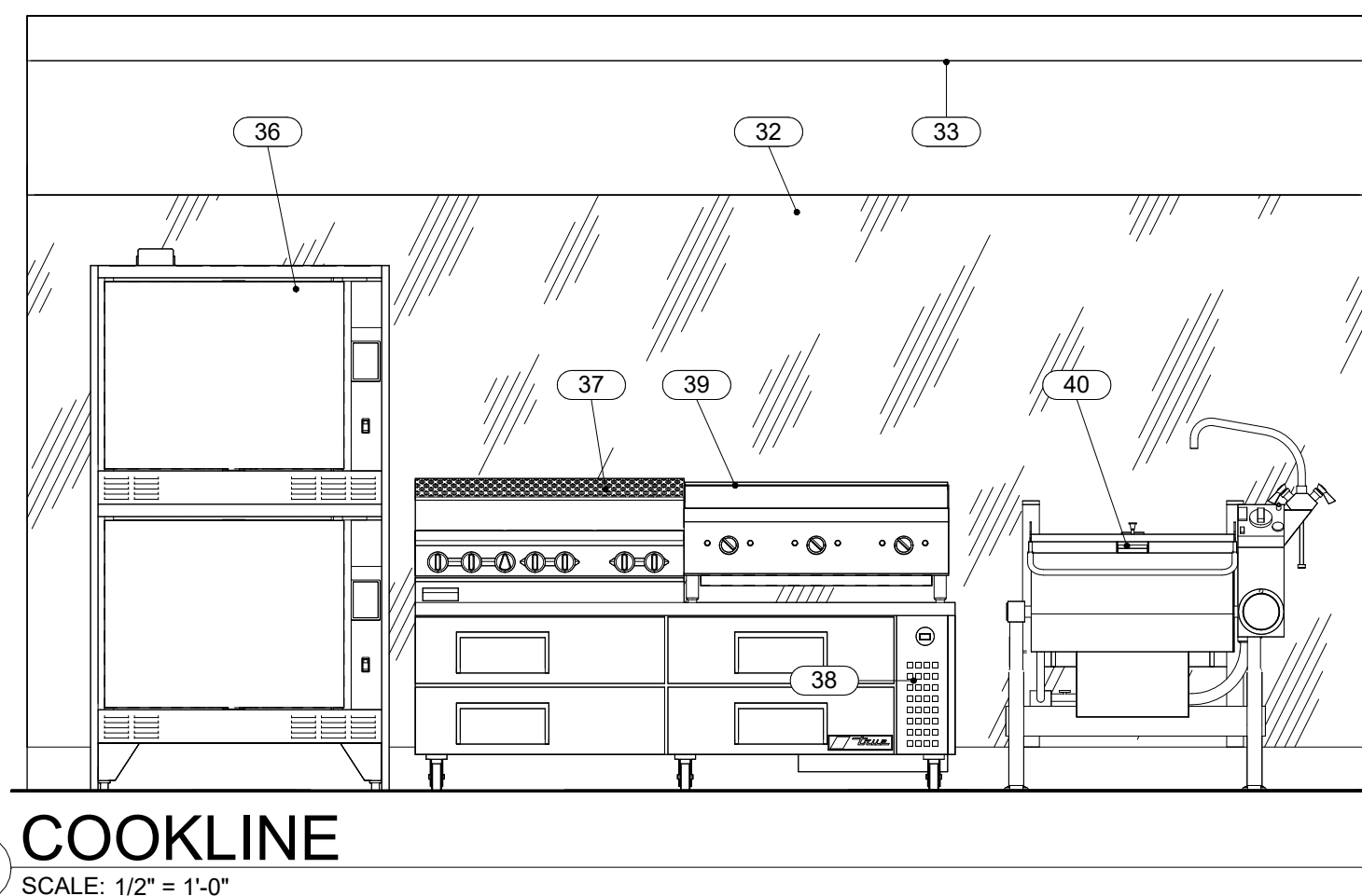
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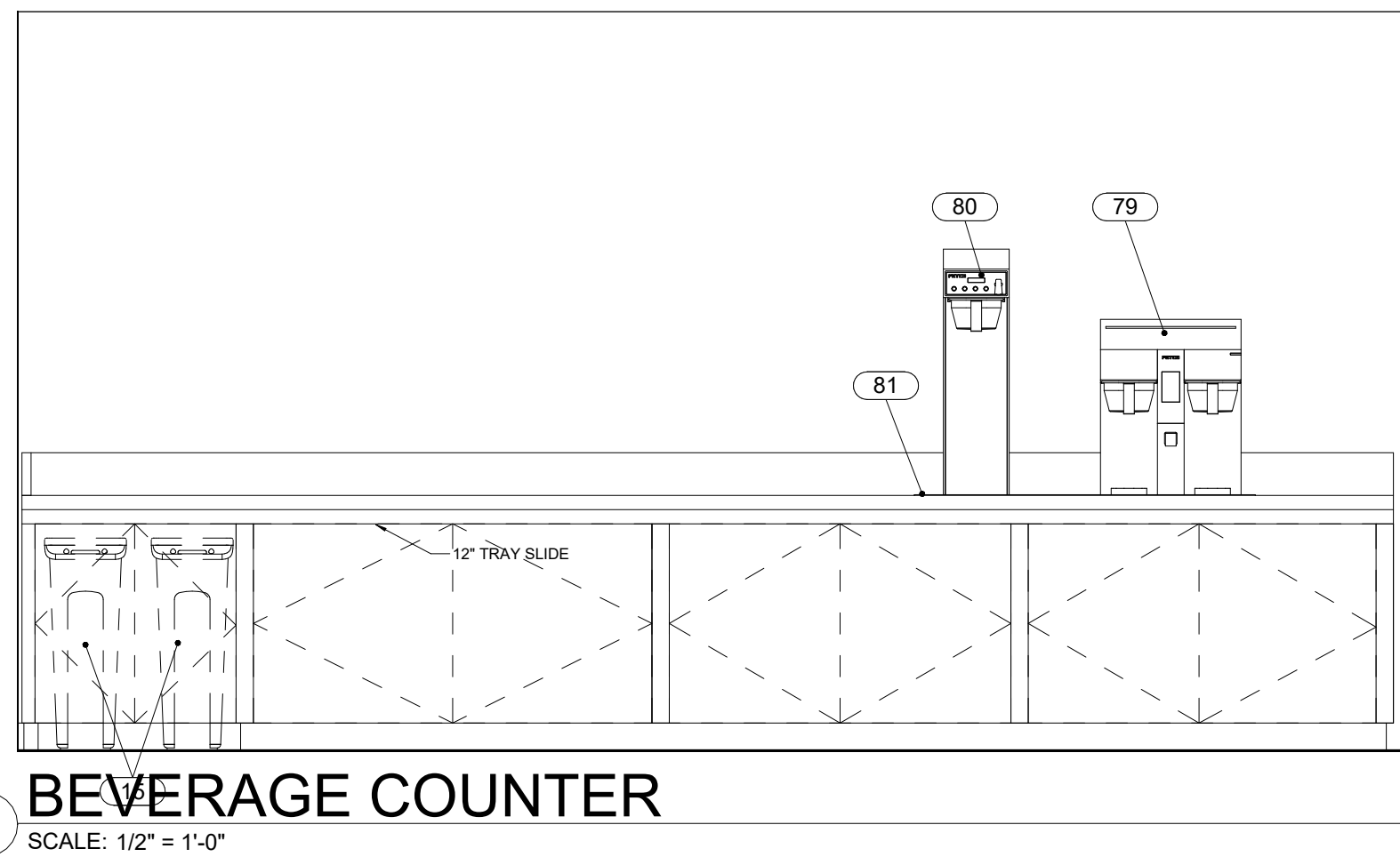
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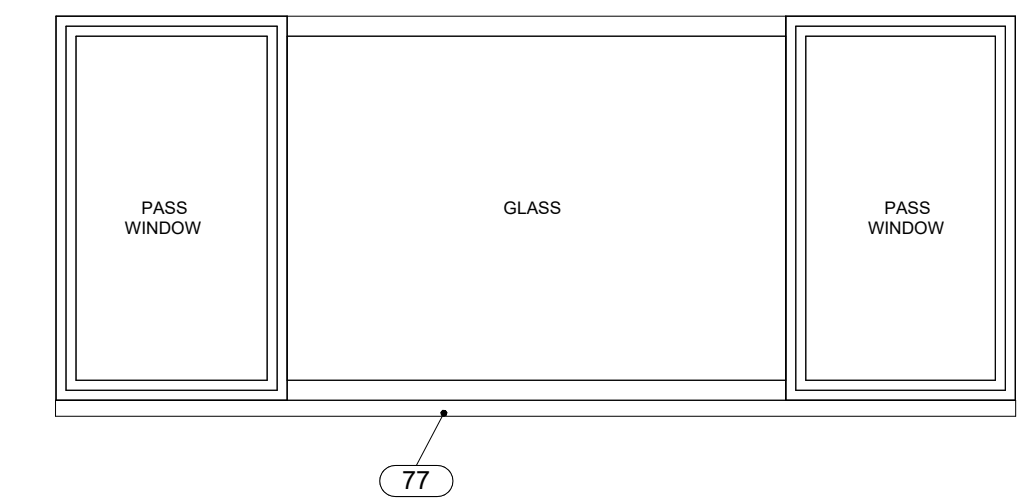
5 CEHF'S TABLE
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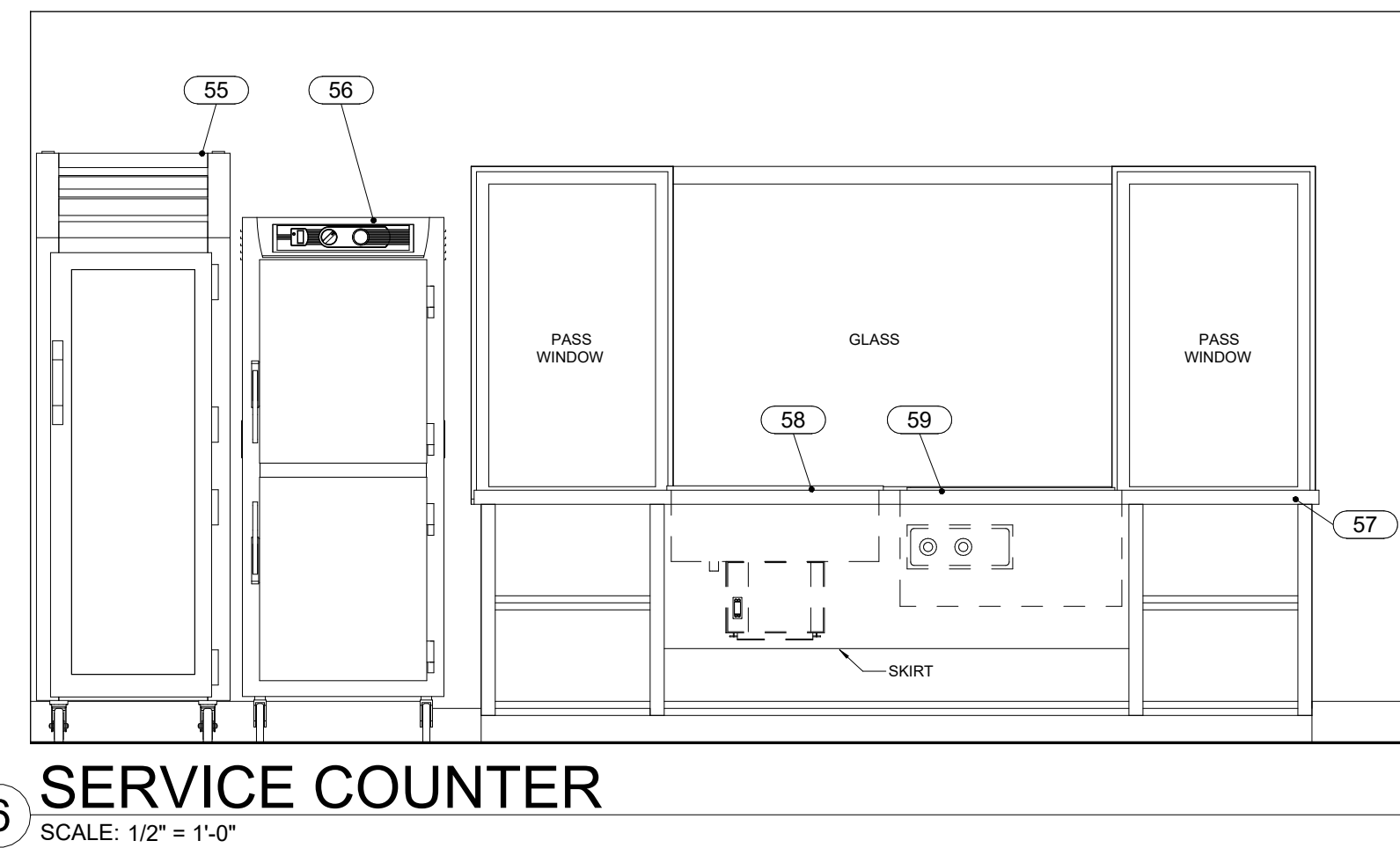
4 COOKLINE
SCALE: 1/2" = 1'-0"



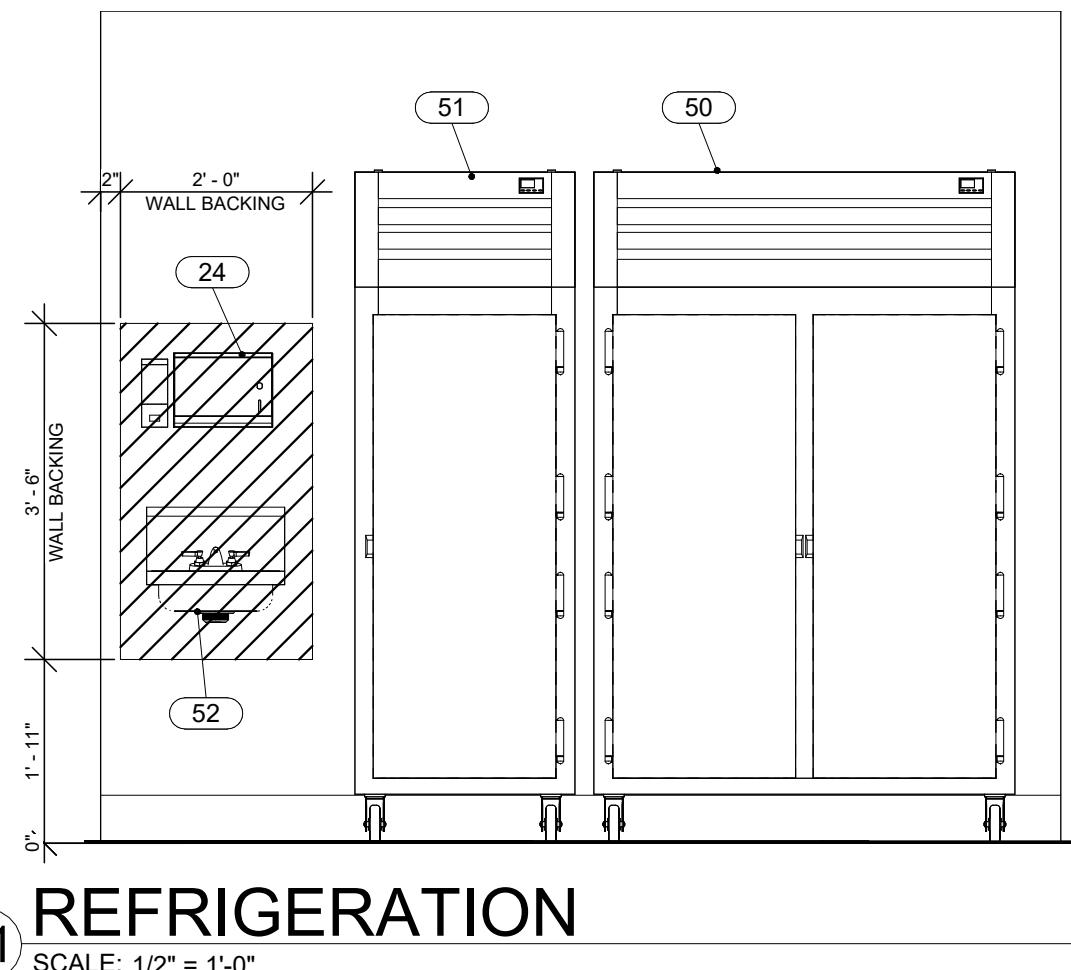
8 BEVERAGE COUNTER
SCALE: 1/2" = 1'-0"



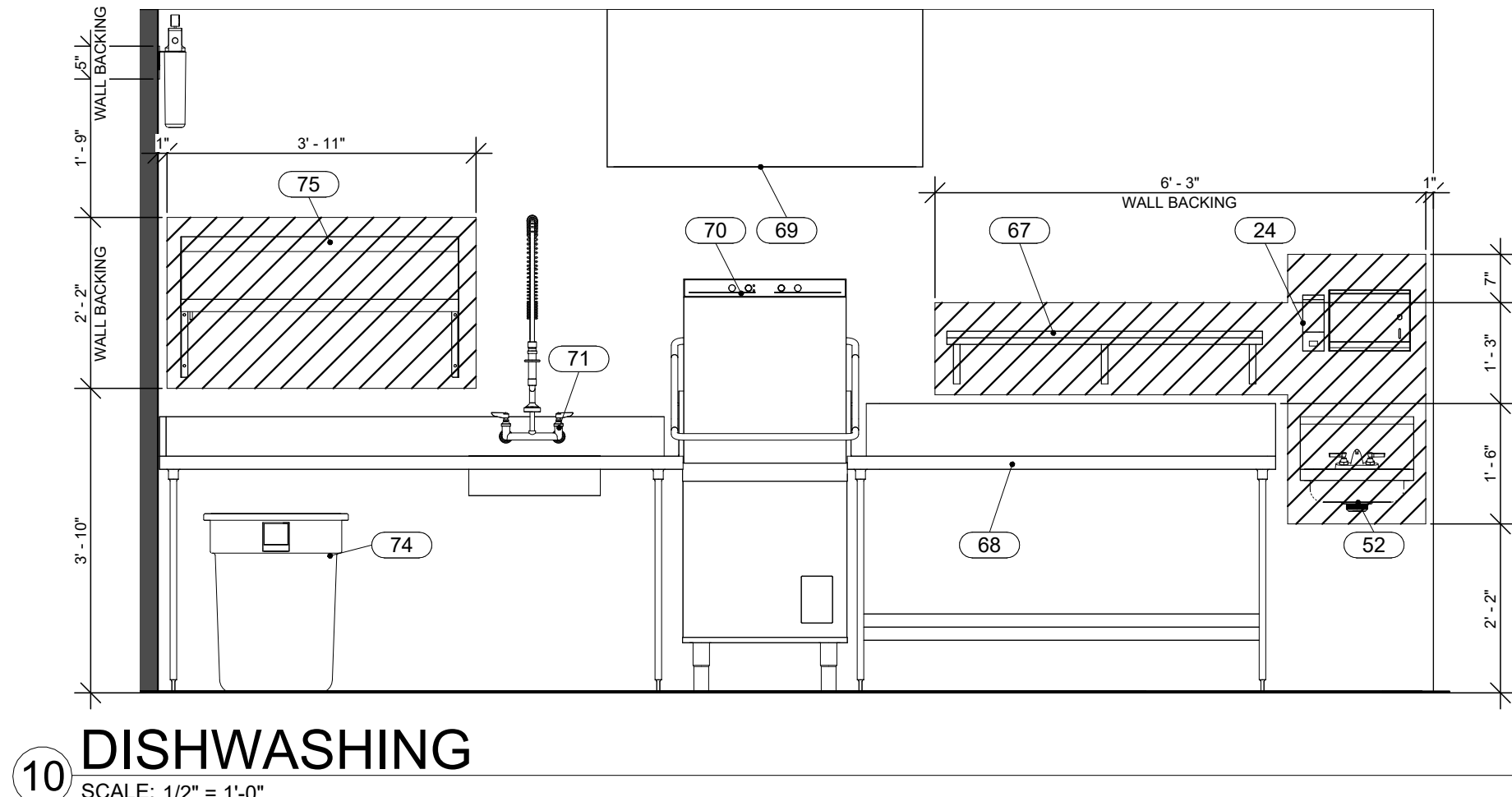
7 PASS SHELF
SCALE: 1/2" = 1'-0"



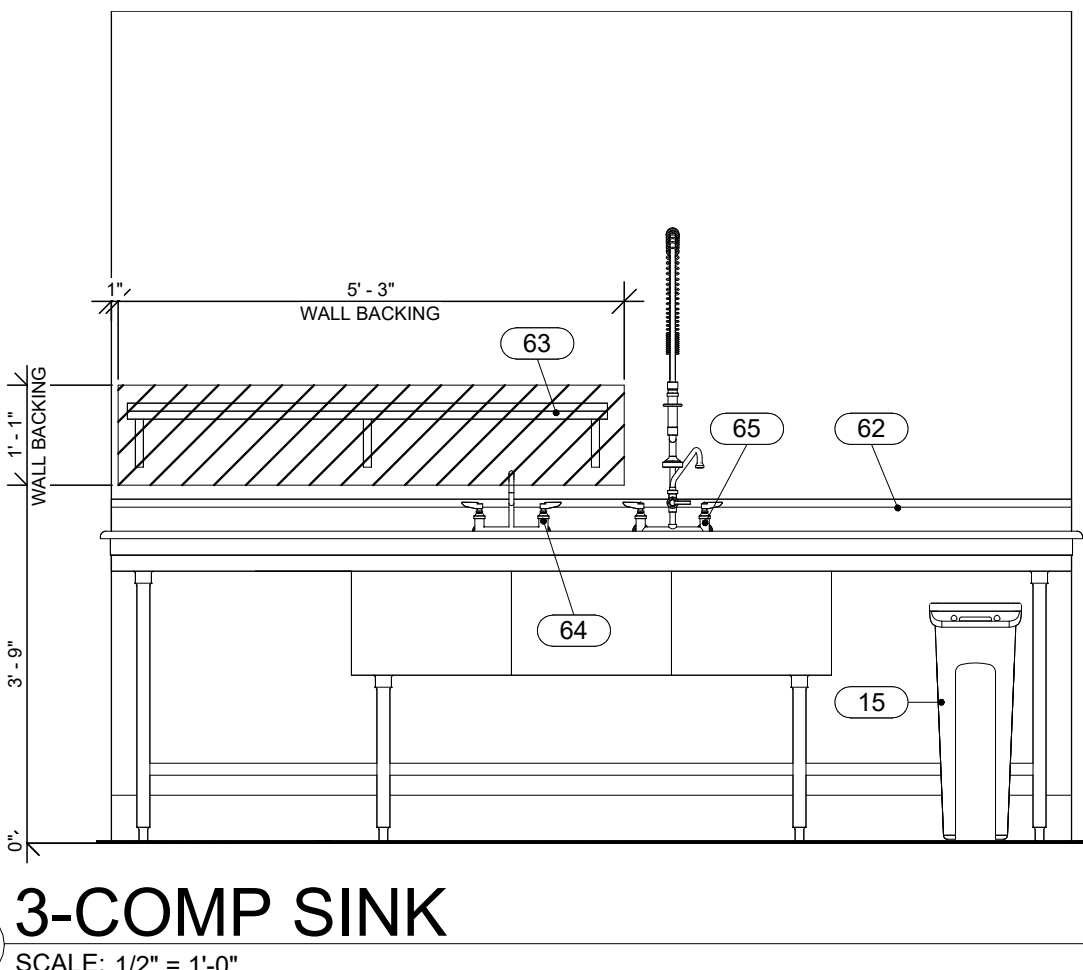
6 SERVICE COUNTER
SCALE: 1/2" = 1'-0"



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



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



9 3-COMP SINK
SCALE: 1/2" = 1'-0"

FOR QUESTIONS, CALL THE
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PATENT NUMBERS
EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

HOOD INFORMATION - JOB#8489978

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP		END TO END	ROW
1		6024 ND-2	CAPTIVEAIRE	15' 6"	600 DEG	I	HEAVY	187	2900			4"	12"	1450	1846	-0.665"	430 SS WHERE EXPOSED	ALONE	ALONE
2		4824 VHB-G-ND	CAPTIVEAIRE	4' 0"	700 DEG	II	N/A	150	600			4"	10"	600	1100	-0.090"	430 SS 100%	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)					FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #	QUANTITY	
1		CAPTRATE SOLID FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO						YES	741 LBS
2							0								NO	172 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 18.00" HIGH FRONT, LEFT.
		BACKSPLASH 80.00" HIGH X 187.00" LONG 430 SS VERTICAL.
		RIGHT SIDESPLASH 80.00" HIGH X 60.00" LONG 430 SS VERTICAL.
		RIGHT END STANDOFF <FINISHED> 1" WIDE 60" LONG INSULATED.
		BACKSPLASH - INSIDE CORNER 80.00" HIGH X 2.00" LEG LENGTH 430 SS VERTICAL.
		STRUCTURAL FRONT PANEL.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		SENSOR-CV.
		RIGHT WALL AS END PANEL.

WALL-MOUNT UTILITY CABINET

HOOD NO	LOCATION	SIZE	UTILITY CABINET(S)				WEIGHT
			TYPE	SIZE	MODEL #	QUANTITY	
1	WALL MNT	12"x48"x30"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	340.00 LBS

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE
HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT
____' - ____"

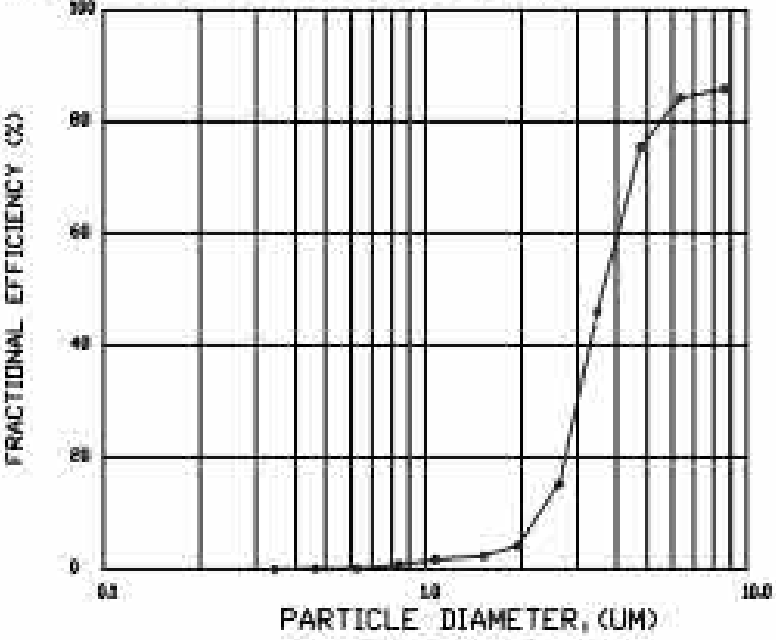
HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

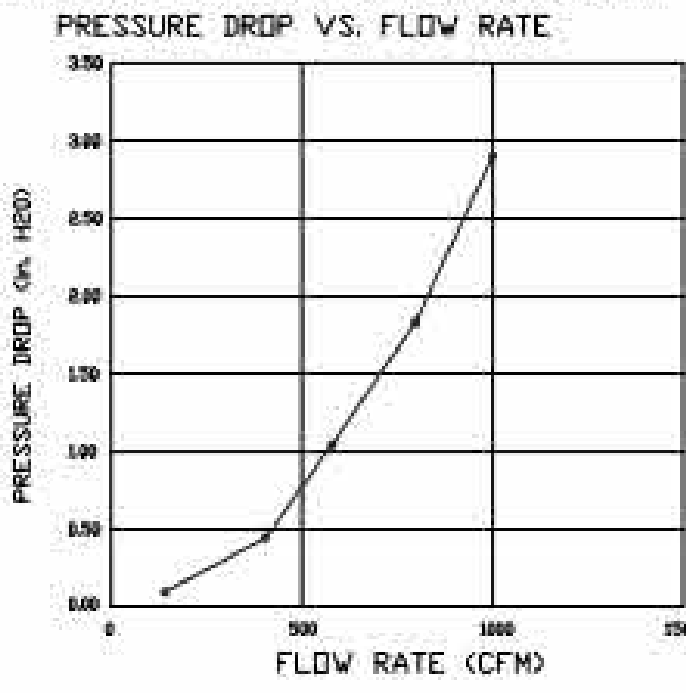
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APPROVED WITH NO EXCEPTION TAKEN	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
SIGNATURE _____	
YOUR TITLE _____ DATE _____	

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER

THE CAPTRATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-Baffle DESIGN IN CONJUNCTION WITH A SLOTTED REAR Baffle DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 95% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.
THE CAPTRATE GREASE-STOP SOLID WAS TESTED TO ASTM STANDARD ASTM F2519-05, MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.
EFFICIENCY VS. PARTICLE DIAMETER



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #56.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



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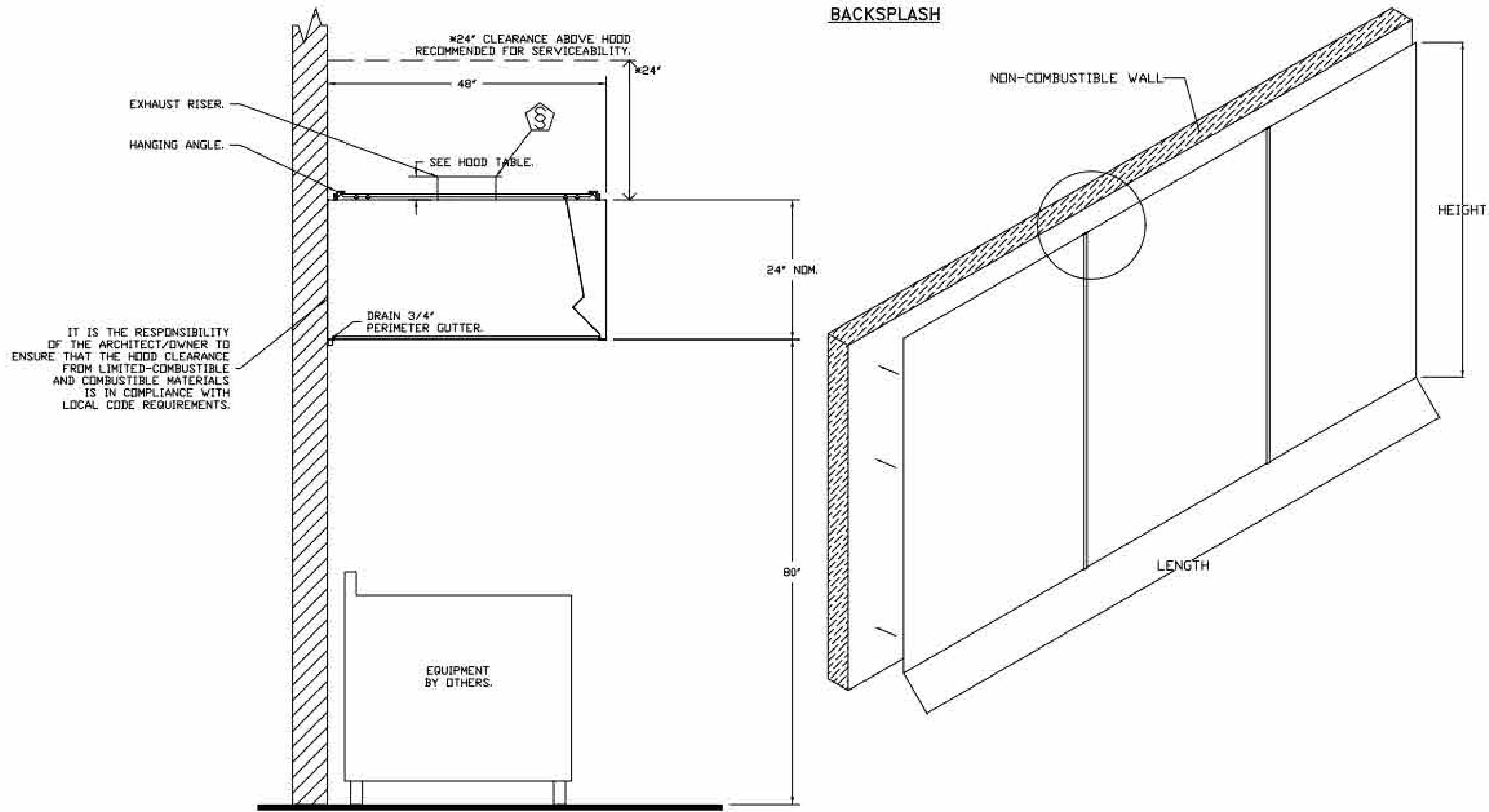
**EXHAUST
HOOD DETAILS**

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K-5.1



SECTION VIEW – MODEL 4824VHB-G-ND
HOOD – #2

- BACKSPLASH IS NOT
INSULATED AND IS UNSUITABLE
FOR INSTALL AGAINST
COMBUSTIBLE WALLS

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K-5.3

FIRE SYSTEM INFORMATION – JOB#8489978

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	40	39	WALL UTILITY CABINET LEFT	N/A

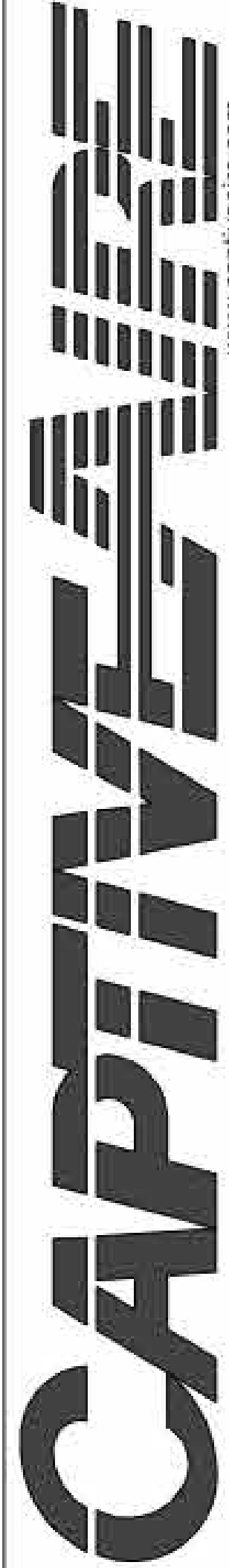
GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER – PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 – 0 – TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 – 0 – TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 – 0 – 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	2	0
		0 – 0 – 32-00002 QUIK SEAL – 1/2" (UL).	2	0
		0 – 0 – 361091 3/8" BRASS PLUG.	3	0
		0 – 0 – 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	2	0
		0 – 0 – 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	1	0
		0 – 0 – 79425 3/8" NPT FEMALE TO 1/2" MALE PRODPRESS ADAPTER.	3	0
		0 – 0 – 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	1	0
		0 – 0 – 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 – 0 – 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) – SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-300001-001 TANK – PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 87-300030-001 PRIMARY ACTUATOR KIT (PAK) – ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-300033-001 DIN CONNECTOR, CANFIELD PART #5J560-201-EU0A, TANK FIRE SUPPRESSION, SUBMINATURE SOLENOID CONNECTION (CED VENDOR 30377).	1	0
		0 – 0 – 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
		0 – 0 – 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	6	0
		0 – 0 – 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	9	0
		0 – 0 – 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
		0 – 0 – A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 – 0 – A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	1	0
		0 – 0 – B1145 3/8" BLACK IRON 90 ELL.	4	0
		0 – 0 – C81-22.5 CHROME PLATED PIPE FITTING 3/8" NPT 22.5 DEGREE ELBOW.	2	0
		0 – 0 – DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – SLPCCN-20FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UP TO 19' GAP. KIT CONTAINS 22 FEET OF BLACK MG WIRE, 22 FEET OF TAN MG WIRE, 20 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 – 0 – TANK STRAP TANK STRAP – USED FOR TANK FIRE SUPPRESSION.	6	0
		0 – 0 – TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
		16 – 16 – 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	9	0
		16 – 16 – DL-F NOZZLE – TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	9	0
		26 – 26 – QSA-3/8 QUIK SEAL – 3/8" (UL).	9	0
		34 – 34 – A0034331 RED COLOR – 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT.	1	0

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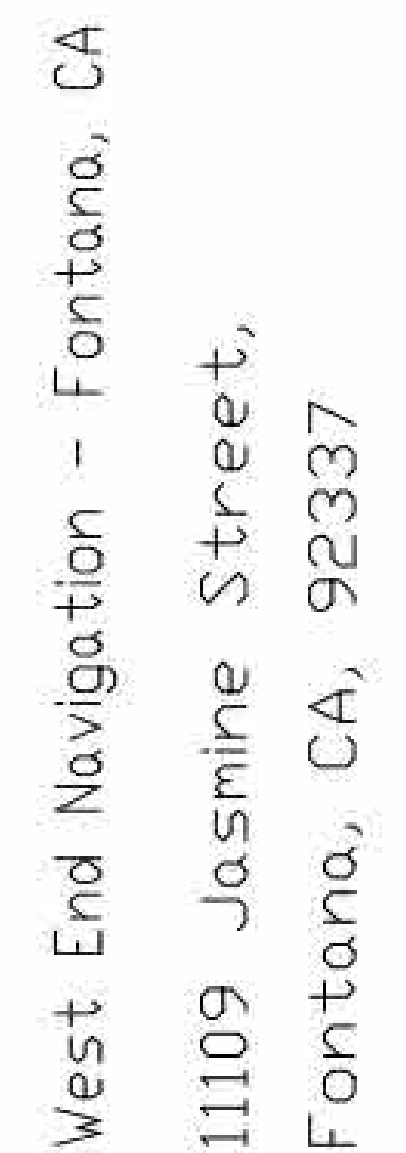
**EXHAUST
HOOD DETAILS**

Revisions	By	Date
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Drawn J.L.
Date 09/15/2025
Project No. 25011
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GENERAL REQUIREMENTS

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, PROJECT BOUNDARIES AND EXISTING CONDITIONS AT THE SITE PRIOR TO COMMENCEMENT OF WORK AND IMMEDIATELY NOTIFY STRUCTURAL ENGINEER OF RECORD (SEOR) AND ARCHITECT OF RECORD (AOR) OF ANY DISCREPANCY. THE CONTRACTOR SHALL CHECK DETAILS AND DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS WITH RELATED REQUIREMENTS ON OTHER CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE STRUCTURAL ENGINEER OF RECORD (SEOR) OF ANY CONFLICTS BETWEEN THE STRUCTURAL DRAWINGS AND OTHER CONSTRUCTION DOCUMENTS OR EXISTING CONDITIONS NOT SHOWN OR DIFFERENT THAN THOSE SHOWN ON CONTRACT DOCUMENT PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL NOT ORDER MATERIAL, FABRICATE ELEMENTS, OR CONSTRUCT ANY PORTION OF THE STRUCTURE THAT IS IN CONFLICT UNTIL RESOLUTION IS MADE. IN THE EVENT OF CONFLICTS, INCONSISTENCIES AND DISCREPANCIES BETWEEN OR AMONG THE CONTRACT DOCUMENTS THE AOR/SEOR DECIDE WHICH OF THE CONFLICTING REQUIREMENTS WILL GOVERN BASED UPON THE MOST STRINGENT OF THE REQUIREMENTS. THE CONTRACTOR SHALL PERFORM THE WORK CONSISTENT WITH THE AOR/SEOR'S DECISION WITHOUT ADJUSTMENT OF THE CONTRACT SUM OR CONTRACT TIME.
3. ALL DIMENSIONS ON STRUCTURAL DRAWINGS SHALL BE CHECKED BY CONTRACTOR AGAINST ARCHITECTURAL DIMENSIONS, WHERE DIMENSIONS ARE UNCLEAR OR OMITTED, REQUEST CLARIFICATION FROM THE STRUCTURAL ENGINEER OF RECORD (SEOR) AND ARCHITECT OF RECORD (AOR). DO NOT SCALE DRAWINGS. UNLESS NOTED OTHERWISE, PLAN DIMENSIONS INDICATE CENTERLINE OF BEAMS AND COLUMNS. LIGHT-FRAMED WALLS ARE DIMENSIONED TO FACE OF STUDS, AND FOOTINGS ARE CENTERED UNDER THE ELEMENTS THEY SUPPORT. ALL DIMENSIONS RELATED TO EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO START OF WORK.
4. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF DOOR AND WINDOW OPENINGS IN STRUCTURAL WALLS. SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS AND SLAB EDGES. SIZE AND LOCATION OF NON-BEARING WALLS AND OPENINGS; SIZE AND LOCATION OF CONCRETE CURBS, SLOPES, DEPRESSIONS, DRAINS, NON-STRUCTURAL PARTITIONS, CHANGES IN LEVEL, CHAMFERS AND REVEALS, INSERTS FOR FINISH SYSTEMS, EXTERIOR WALL FINISHES, STAIR SIZE, LOCATION, FRAMING AND DETAILS, UNLESS DETAILED ON STRUCTURAL DRAWINGS; DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
5. PROJECT SPECIFICATIONS SHALL BE A PART OF THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN GENERAL NOTES, PLANS, DETAILS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN. SPECIFIC NOTES AND DETAILS ON DRAWINGS GOVERN OVER GENERAL NOTES AND TYPICAL DETAILS. NOTIFY THE ARCHITECT OF RECORD (AOR) AND STRUCTURAL ENGINEER OF RECORD (SEOR) IMMEDIATELY WHERE CONFLICT OCCURS BETWEEN DRAWINGS AND SPECIFICATIONS. AOR/SEOR DECIDE WHICH OF THE CONFLICTING REQUIREMENTS WILL GOVERN BASED UPON THE MOST STRINGENT OF THE REQUIREMENTS.
6. REFER TO THE TYPICAL DETAIL SHEETS FOR TYPICAL CONSTRUCTION DETAILS. TYPICAL DETAILS APPLY TO ALL CONSTRUCTION DOCUMENTS AND MAY NOT BE SPECIFICALLY REFERENCED THEREIN. UNLESS SPECIFICALLY NOTED OR SHOWN OTHERWISE, CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THESE TYPICAL DETAILS PRIOR TO COMMENCEMENT OF WORK. WHERE CONDITIONS REQUIRE MODIFICATIONS OF A TYPICAL DETAIL, THE CONTRACTOR SHALL SUBMIT MODIFIED DETAIL FOR APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD (SEOR) PRIOR TO FABRICATION AND INSTALLATION. DETAIL OF CONSTRUCTION NOT SHOWN SHALL BE OF SAME NATURE AS THOSE SHOWN FOR SIMILAR CONSTRUCTION.
7. SCHEDULE CONSTRUCTION OPERATIONS IN SEQUENCE REQUIRED TO OBTAIN THE BEST RESULTS, WHERE INSTALLATION OF ONE PART OF THE WORK DEPENDS ON INSTALLATION OF OTHER COMPONENTS, BEFORE OR AFTER ITS OWN INSTALLATION. COORDINATE INSTALLATION OF DIFFERENT COMPONENTS TO ENSURE MAXIMUM PERFORMANCE AND ACCESSIBILITY FOR REQUIRED MAINTENANCE, SERVICE, AND REPAIR.
8. THESE DOCUMENTS SHALL NOT BE CONSTRUED AS STAND-ALONE DOCUMENTS. CONTRACTOR SHALL COORDINATE WITH ALL OTHER CONSULTANTS' WORK.
9. MODIFICATIONS AND SUBSTITUTION REQUESTS FOR MATERIALS SPECIFIED ON STRUCTURAL DRAWINGS MUST BE ACCEPTED IN WRITING BY STRUCTURAL ENGINEER OF RECORD (SEOR) PRIOR TO COMMENCEMENT OF WORK. CURRENT EVALUATION REPORTS AND PRODUCT INFORMATION SHALL BE PROVIDED TO THE STRUCTURAL ENGINEER DEMONSTRATING ADEQUACY OF THE REQUIRED CAPACITY AND PERFORMANCE OF THE MATERIAL TO BE SUBSTITUTED. ARCHITECT OF RECORD (AOR) AND STRUCTURAL ENGINEER OF RECORD (SEOR) AT THEIR DISCRETION, MAKE DETERMINATION AS TO WHETHER OR NOT THE PROPOSED CONTRACTOR'S MODIFICATIONS AND/OR SUBSTITUTIONS IS ACCEPTABLE.
10. CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION OR NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN OF TEMPORARY ERECTION AIDS, FORMWORK, SCAFFOLDING, SAFETY MEASURES, SHORING OF ANY PORTION OF WORK DUE TO CONSTRUCTION EQUIPMENT, MACHINERY AND MATERIALS, AND PROTECTION OF ADJACENT PROPERTIES. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. VISITS TO THE SITE BY THE STRUCTURAL ENGINEER OF RECORD (SEOR) AND ARCHITECT OF RECORD (AOR) SHALL NOT CONSTITUTE ACCEPTANCE OF CONSTRUCTION MEANS AND METHODS AND DO NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES FOR THE ABOVE. CONSTRUCTION MATERIALS AND ERECTION LOADS SHALL BE DISTRIBUTED WHEN PLACED ON THE STRUCTURE SUCH THAT THEY DO NOT EXCEED DESIGN LIVE LOADS OR RESULT IN AN UNBALANCED LOADING CONDITION. CONSTRUCTION LOADS ON ELEVATED SLABS SHALL NOT RESULT IN EXCESSIVE SHORT-TERM OR LONG-TERM DEFLECTIONS.
11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS OF THE LATEST EDITION OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA, AND ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS AS THEY APPLY TO THE PROJECT. THE STRUCTURAL ENGINEER OF RECORD (SEOR) AND THE OWNER SHALL NOT BE HELD RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS.
12. ALL STRUCTURAL FRAMING SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMPORARY BRACING, AS REQUIRED, SHALL BE INSTALLED AND LEFT IN PLACE UNTIL ADEQUATE PORTION OF THE STRUCTURE IS CONSTRUCTED FOR STABILITY.
13. MAXIMUM PERMANENT EQUIPMENT WEIGHTS, POSTED LOAD LIMITS OR OTHER RESTRICTIONS NOTED ON THE STRUCTURAL DRAWINGS SHALL NOT BE EXCEEDED WITHOUT PRIOR WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD (SEOR). UNLESS SPECIFICALLY STATED, THE STRUCTURE IS NOT DESIGNED TO SUPPORT TRAFFIC FROM FORK LIFTS, CRANES OR OTHER HEAVY CONSTRUCTION VEHICLES. ADEQUACY OF THE STRUCTURE TO SUPPORT TEMPORARY LOADS DURING CONSTRUCTION SHALL BE VERIFIED BY A LICENSED SHORING ENGINEER RETAINED BY CONTRACTOR. SHORING SYSTEM SHALL BE DESIGNED AS A COMPLETE SYSTEM THAT INCLUDES BUT NOT LIMITED TO GRAVITY LOADS AND LATERAL LOADS.
14. THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION IF THE STRUCTURAL ENGINEER'S SEAL AND SIGNATURE IS NOT AFFIXED TO THESE DRAWINGS.
15. CONTRACTOR SHALL ESTABLISH AND VERIFY SIZE AND LOCATION OF ALL OPENINGS AND INSERTS BY ALL TRADES PRIOR TO SUBMITTAL OF SHOP DRAWINGS AND CONSTRUCTION. PENETRATION THROUGH SLABS AND WALLS SHALL BE IDENTIFIED BY CONTRACTOR AND SUBMITTED TO STRUCTURAL ENGINEER OF RECORD (SEOR) FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF CONCRETE OR CMU. CORE DRILLING SHALL ONLY BE PERMITTED WHERE AUTHORIZED IN WRITING BY SEOR PRIOR TO PROCEEDING WITH THE WORK. CORE DRILLS SHALL NOT CUT ANY REINFORCING, UNLESS PERMITTED BY SEOR IN WRITING. INSPECTOR OF RECORD (IOR) SHALL BE PRESENT DURING CORE DRILLING FOR VERIFICATION. THE IOR IS TO DOCUMENT CORES EXAMINED INDICATING AN ABSENCE OF REINFORCING.
16. STRUCTURAL DRAWINGS INDICATE THE APPROXIMATE LOCATION OF EQUIPMENTS AND THEIR SECONDARY FRAMING SUPPORTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK BETWEEN SUBCONTRACTORS. IN ORDER TO PROVIDE NECESSARY DIMENSIONS IN A TIMELY MANNER TO ALL PARTIES INVOLVED, SECONDARY FRAMING SUPPORTING EQUIPMENTS SHALL BE PER TYPICAL DETAILS UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS.
17. SEE MECHANICAL, ELECTRICAL, AND PLUMBING (MEP) DRAWINGS FOR SIZE AND LOCATION OF EQUIPMENT PADS, EQUIPMENT ANCHORAGE TO STRUCTURE, AND EQUIPMENT WEIGHTS; ANCHORAGE AND SEISMIC BRACING OF DUCTWORK, PIPING, ELECTRICAL CONDUITS TO STRUCTURE; ELECTRICAL CONDUIT RUNS, OUTLETS AND BOXES IN CONCRETE SLABS AND WALLS; PIPE SLEEVES, TRENCHES, OPENINGS THROUGH WALLS AND SLABS FOR DUCTWORK, PIPE RUNS, AND ELECTRICAL CONDUIT RUNS.
18. MAKE ALLOWANCE FOR SHIM SPACE AT HEADERS AND JAMBS TO ALLOW FOR SETTLEMENT, DEFLECTION, AND MOVEMENT OF FRAMING. INSTALL WINDOWS, DOORS AND OTHER INSET ITEMS IN WALLS AFTER BUILDING LOADS ARE FULLY APPLIED.
19. STRUCTURAL JOINT DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS (EXPANSION, SEISMIC, SEPARATION, ETC) INDICATE THE MINIMUM CLEAR DISTANCE REQUIRED STRUCTURALLY. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND INFORMATION. ALL PIPES, DUCTS, CONDUIT, ETC., CROSSING SUCH JOINTS SHALL HAVE FLEXIBLE LINES WITH ADEQUATE RANGE OF MOTION.
20. REFER TO THE PROJECT SPECIFICATIONS FOR SHOP DRAWING REQUIREMENTS AND SUBMITTALS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD (SEOR) PRIOR TO FABRICATION. ALLOW FOR A REVIEW DURATION OF MINIMUM 10 BUSINESS DAYS. SUBMITTALS SHALL CONSIST OF EITHER ELECTRONIC FILES OR TWO HARD COPIES (ONE SET TO BE KEPT BY THE STRUCTURAL ENGINEER OF RECORD AND ONE REPRODUCIBLE SET TO BE RETURNED TO CONTRACTOR).

GENERAL REQUIREMENTS (CONTINUED)

21. REVIEW OF SHOP DRAWINGS AND SUBMITTALS BY THE ARCHITECT OF RECORD (AOR) AND STRUCTURAL ENGINEER OF RECORD (SEOR) IS FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND DOES NOT CONSTITUTE AUTHORIZATION TO DEVIATE FROM TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR WILL REMAIN RESPONSIBLE FOR ALL ERRORS IN DETAILING, FABRICATION, AND FOR CORRECT FITTING OF ALL STRUCTURAL MEMBERS, INCLUDING COORDINATION WITH OTHER TRADES.
22. SHOP DRAWINGS AND SUBMITTALS DO NOT CONSTITUTE CHANGE ORDERS. ANY PROPOSED CHANGES TO THE STRUCTURAL DOCUMENTS MUST BE SUBMITTED IN WRITING AS A REQUEST FOR SUBSTITUTION TO THE ARCHITECT AND SEOR FOR APPROVAL.
23. PREPARE TO-SCALE PROJECT-SPECIFIC SHOP DRAWINGS. SHOP DRAWINGS SHALL BE INDEPENDENTLY PRODUCED BY THE CONTRACTOR AND SHALL NOT BE A COPY OR REPRODUCTION OF THE CONTRACT DOCUMENTS.
24. LOAD-BEARING AND LATERAL-LOAD RESISTING WALLS ARE DESIGNED AS Laterally RESTRAINED AT FLOOR/ROOF LEVELS. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED TO RESIST DEAD, LIVE, LATERAL LOADS AND EQUIPMENT/CONSTRUCTION LOAD DURING CONSTRUCTION, AS NECESSARY.
25. ALL WORK IS NEW UNLESS INDICATED AS EXISTING (E).
26. IN AN EXISTING STRUCTURE WHERE MODIFICATIONS TO AN EXISTING LOAD-BEARING WALL IS REQUIRED, PROVIDE TEMPORARY BRACING/SHORING UNTIL NEW LOAD-BEARING WALL CONSTRUCTION IS COMPLETED AND LOAD PATH IS RESTORED.

STRUCTURAL DESIGN CRITERIA

1. GOVERNING CODE: ALL WORK SHALL BE IN CONFORMANCE WITH THE 2025 CALIFORNIA BUILDING CODE (CBC), INCLUDING ALL AMENDMENTS AND SUPPLEMENTS BY GOVERNING CODE AUTHORITY, AND OTHER CODES AND STANDARDS REFERENCED IN THE CONTRACT DOCUMENTS. ALL CODES AND STANDARDS REFERENCED IN CONTRACT DOCUMENTS SHALL BE THE LATEST EDITION AS NOTED BY CBC, CHAPTER 35, UNO.
2. GOVERNING CODE AUTHORITY: CITY OF FONTANA DEPARTMENT OF BUILDING AND SAFETY DIVISION.
3. GRAVITY DESIGN LOADS:

OFFICE BUILDINGS

CORRIDORS ABOVE FIRST FLOOR.....80 PSF

LOBBIES AND FIRST FLOOR CORRIDORS.....100 PSF

OFFICES.....50 (REDUCIBLE) +15 (PARTITIONS) PSF

ASSEMBLY AREAS

LOBBIES, MOVABLE SEATS, OTHER ASSEMBLY AREAS.....100 PSF

STAIRS AND EXIT WAYS.....100 PSF

LIGHT STORAGE.....125 PSF

ROOFS.....20 (REDUCIBLE) PSF

- 4. WIND DESIGN DATA:

BASIC DESIGN WIND SPEED.....95 MPH

WIND EXPOSURE.....C

RISK CATEGORY.....III

INTERNAL PRESSURE COEFFICIENT.....±0.18

EXTERIOR WIND PRESSURE (COMPONENT & CLADDING) BASED ON ZONE 5 AND:

COMPONENT TRIBUTARY AREA = 10 FT².....22 PSF

SEISMIC TRIBUTARY AREA = 500 FT².....14 PSF

- 5. EARTHQUAKE DESIGN DATA:

SITE CLASS.....DE

SPECTRAL RESPONSE ACCELERATION, Ss.....1.910 g

SPECTRAL RESPONSE ACCELERATION, S1.....0.620 g

DESIGN SPECTRAL RESPONSE ACCELERATION, Sds.....1.230 g

DESIGN SPECTRAL RESPONSE ACCELERATION, Sd1.....1.430 g

SEISMIC DESIGN CATEGORY.....D

- 6. MEZZANINE / SHELL BUILDING

INTERMEDIATE PRECAST SHEARWALLS

RISK CATEGORY.....II

SEISMIC IMPORTANCE FACTOR Ie.....1.0

RESPONSE MODIFICATION FACTOR R.....4.0

SEISMIC RESPONSE COEFFICIENT, Cs.....0.382

MEZZANINE

LIGHT FRAMED WOOD SHEARWALLS

RISK CATEGORY.....II

SEISMIC IMPORTANCE FACTOR Ie.....1.0

RESPONSE MODIFICATION FACTOR R.....6.5

SEISMIC RESPONSE COEFFICIENT, Cs.....0.235

CANOPY

STEEL SPECIAL CENTRILEVER COLUMN

RISK CATEGORY.....II

SEISMIC IMPORTANCE FACTOR Ie.....1.0

RESPONSE MODIFICATION FACTOR R.....2.5

SEISMIC RESPONSE COEFFICIENT, Cs.....0.492

ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATION & SLAB ON GRADE

1. FOUNDATION DESIGN BASED UPON PRESCRIPTIVE VALUES IN THE 2025 CBC
2. FOUNDATION BEARING AND FILL MATERIALS UNDER STRUCTURE SHALL BE INSPECTED AND APPROVED BY THE BUILDING INSPECTOR BEFORE PLACING CONCRETE.
3. UNLESS OTHERWISE STATED BY THE SPECIAL INSPECTOR, EXISTING UNDOCUMENTED FILL WITHIN THE BUILDING FOOTPRINT SHALL BE REMOVED AND RECOMPACTED. TOPSOILS, ORGANIC MATERIAL AND OTHER DEBRIS SHALL BE REMOVED AS DIRECTED BY THE SPECIAL INSPECTOR. NATIVE AND IMPORTED SOILS SHALL BE APPROVED AS FILL BY THE SPECIAL INSPECTOR PRIOR TO PLACEMENT.
4. CONTRACTOR SHALL COORDINATE BOTTOM OF FOOTINGS AND GRADE BEAMS WITH FINISH GRADE AND UTILITIES PRIOR TO EXCAVATION. COORDINATE WITH ARCHITECTURAL AND CIVIL PLANS FOR LOCATION OF FINISH GRADE, FINISH FLOOR, SLOPE AND DEPRESSIONS.
5. FOUNDATION ELEVATIONS AND OTHER OVEREXCAVATION REQUIREMENTS ON THE CONSTRUCTION DOCUMENTS SHALL BE USED FOR PRICING. ACTUAL DEPTH OF REMOVAL WILL BE DETERMINED AS DIRECTED BY THE SPECIAL INSPECTOR DURING GRADING. AT A MINIMUM UNO, EXCAVATIONS SHALL BE OVEREXCAVATED 12" MIN. BELOW AND ADJACENT TO ALL NEW FOUNDATION ELEMENTS AND RECOMPACTED TO 95% RELATIVE COMPACTION, SUBJECT TO APPROVAL FROM SITE INSPECTOR.
6. ALL TRENCHES SHALL COMPLY WITH APPLICABLE OSHA REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UNDERGROUND SERVICES WHETHER SHOWN ON THE DRAWINGS OR NOT, AND SHALL PROTECT ALL UTILITY LINES, ETC. ENCOUNTERED DURING EXCAVATION.
7. SUBGRADE WITHIN THE BUILDING FOOTPRINT SHALL BE MECHANICALLY COMPACTED IN LAYERS WITH THE APPROVAL OF THE SPECIAL INSPECTOR. BACKFILL, JETTING OR FLOODING IS NOT PERMITTED.
8. GEOTECHNICAL ENGINEER, IF REQUIRED BY SPECIAL INSPECTOR TO BE HIRED BY THE CONTRACTOR
9. SITES SUBJECT TO LIQUEFACTION ARE NOT COVERED UNDER THESE DESIGN AND CONSTRUCTION DOCUMENTS.

MINIMUM FOOTING AND SLAB ON GRADE SCHEDULE

MINIMUM FOOTING WIDTH	1'-6" FOR CONTINUOUS WALL FOOTINGS AND FOR ISOLATED PAD/COLUMN FOOTINGS
MINIMUM FOOTING EMBEDMENT	1'-6" BELOW LOWEST ADJACENT GRADE
MINIMUM SUBGRADE RELATIVE COMPACTION PER ASTM D1557	90% UNDER FOUNDATIONS, SLAB ON GRADE AND OTHER BACKFILL
MINIMUM SLAB ON GRADE	5" THICK W/ #4 @ 12" OC ON CENTER EACH WAY @ MID-DEPTH OVER 15 MIL VAPOR RETARDED COMFORMING TO ASTM E-1643 & ASTM F-1745 (CLASS A) OVER 2" CLEAN SAND

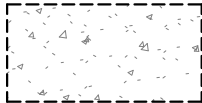

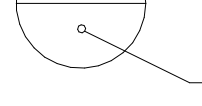

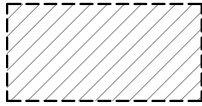
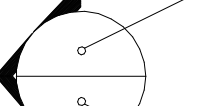

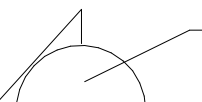
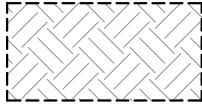
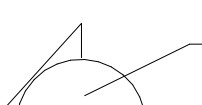

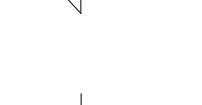

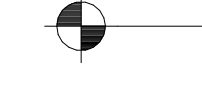


DESIGN LOAD BEARING VALUES OF SOILS (SHALLOW FOUNDATIONS)

ALLOWABLE SOIL BEARING	1500 PSF FOR CONTINUOUS FOOTINGS (DL+LL) AND FOR ISOLATED PAD FOOTINGS (DL+LL), AN ADDITIONAL 1/3 INCREASE IS PERMITTED FOR WIND OR SEISMIC EFFECTS
ALLOWABLE COEFFICIENT OF FRICTION	N/A
ALLOWABLE PASSIVE SOIL PRESSURE	100 PSF/FT OF DEPTH ON THE SIDES OF FOUNDATIONS POURED AGAINST UNDISTURBED OR RECOMPACTED SOIL. A ONE-THIRD INCREASE IS PERMITTED FOR WIND OR SEISMIC EFFECTS
LATERAL RESISTANCE	PROVIDED BY PASSIVE EARTH PRESSURE ONLY

DEMOLITION

1. DEMOLITION WORK SHALL BE CONDUCTED IN SUCH A MANNER AS TO NOT DAMAGE EXISTING ELEMENTS THAT ARE TO REMAIN IN THE FINISHED BUILDING.
2. VERIFY EXISTING BUILDING DIMENSIONS AND ELEVATIONS. NOTIFY AOR/SEOR OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK.
3. PROVIDE MEASURES NECESSARY TO PROTECT THE EXISTING STRUCTURE DURING DEMOLITION WORK. PROTECTIVE MEASURES SHALL REMAIN IN PLACE UNTIL THE FINAL STRUCTURAL ELEMENTS ARE IN PLACE AND ABLE TO SAFELY CARRY ALL IMPOSED EXISTING BUILDING LOADS. SUCH MEASURES INCLUDE, BUT NOT LIMITED TO, BRACING AND SHORING.
4. EXISTING ELEMENTS OF THE STRUCTURE THAT ARE TO REMAIN IN THE FINISHED BUILDING SHALL BE PROTECTED AS NECESSARY TO MINIMIZE DAMAGE DURING DEMOLITION WORK, ANY SUCH DAMAGE SHALL BE REPAIRED AND/OR REPLACED AT NO ADDED COST.
5. ROUGHEN EXISTING CONCRETE SURFACES AGAINST WHICH FRESH CONCRETE IS TO BE PLACED TO A FULL AMPLITUDE OF 1/4 INCH.
6. EXISTING CONCRETE ELEMENTS THAT ARE TO BE REMOVED BY CHIPPING SHALL BE STARTED WITH A 3/4 INCH DEEP SAW CUT. CORNERS SHALL BE DRILLED TO PREVENT OVER-CUTTING. EXPOSED SAW CUT LINES SHALL BE CLEAN, STRAIGHT AND SMOOTH.
7. EXISTING REINFORCING STEEL TO REMAIN SHALL BE CLEANED TO BARE METAL.
8. DEMOLISHED MATERIAL PLACED ON EXISTING FLOORS SHALL BE SPREAD OUT SUCH THAT IMPOSED LOADS DO NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING WHERE OVERLOAD IS ANTICIPATED.

MATERIALS AND SYMBOLS

MATERIALS	SYMBOLS
 CONCRETE	 NUMBER REFERENCE  SECTION OR DETAIL  SHEET REFERENCE
 CONCRETE BLOCK	 NUMBER REFERENCE  FULL HEIGHT SECTION  SHEET REFERENCE
 EARTH	 NUMBER REFERENCE  WALL OR FRAME ELEVATION  SHEET REFERENCE
 STEEL	 FINISH ELEVATION  REFER TO PLANS FOR DATUM  STEEL LATERAL FORCE RESISTING SYSTEM. SEE SHEET S001 AND SPECIFICATIONS

SHEET LIST	
Sheet Number	Sheet Name
S0.1	GENERAL NOTES
S0.2	GENERAL NOTES
S0.3	GENERAL NOTES
S0.4	GENERAL NOTES
S0.5	SPECIAL INSPECTION TABLES
S1.1	TYPICAL CONCRETE DETAILS
S1.2	TYPICAL CONCRETE DETAILS
S1.3	DETAILS
S1.4	DETAILS
S1.5	ELEVATOR DETAILS
S1.6	DETAILS
S1.7	MISC METAL STUD TYPICAL DETAILS
S1.8	EXISTING METAL STUD DETAILS
S1.9	MISC METAL STUD DETAILS
S1.10	SHEAR WALL CONSTRUCTION TYPICAL DETAILS
S1.11	DETAILS
S1.12	WOOD DETAILS
S1.13	ROOF FRAMING DETAILS
S2.0	SITE PLAN
S2.1	FOUNDATION PLAN
S2.2	2ND FLOOR FRAMING PLAN
S2.3	ROOF FRAMING PLAN
S3.1	LOCKER STORAGE PLANS AND ELEVATIONS
S3.2	TRASH ENCLOSURE PLANS
S3.3	ENLARGED STAIR PLAN
S4.1	DETAILS

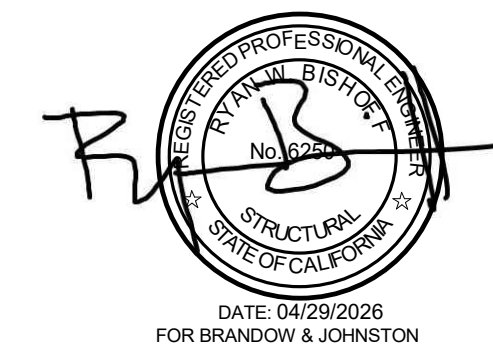


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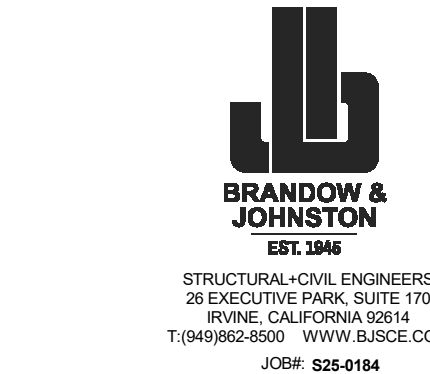
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STAMP



CONSULTANT



PROJECT

WESTEND
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

GENERAL NOTES

Revisions	By	Date
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Drawn	JY	
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STRUCTURAL STEEL

1. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE CURRENT CBC ADOPTED EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (ANSI/AISC 360) AND AISC "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS" (ANSI/AISC 341).
2. ALL WORK SHALL BE IN CONFORMANCE WITH ANY AND ALL TESTING, INSPECTION, QUALIFICATION, AND QUALITY ASSURANCE PROVISIONS AS REQUIRED BY THE CALIFORNIA BUILDING CODE AND ANY APPLICABLE STANDARDS (LATEST ADOPTED EDITION OF CURRENT CBC).
- ANSI/AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
 - ANSI/AISC 341 "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS"
 - AWS D1.1 "STRUCTURAL WELDING CODE - STEEL"
 - AWS D1.8 "STRUCTURAL WELDING CODE - SEISMIC SUPPLEMENT"
 - RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS"
 - ANSI/AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDING AND BRIDGES"
 - ANSI/AISC 358 "PREQUALIFIED CONNECTIONS FOR SPECIAL AND INTERMEDIATE STEEL MOMENT FRAMES FOR SEISMIC APPLICATIONS"

CONFORMANCE TO SUPPLEMENTS TO THESE STANDARDS, IF PUBLISHED ON OR BEFORE THE DATE OF PERMIT ISSUANCE, IS ALSO REQUIRED. ALTHOUGH THESE CONTRACT DOCUMENTS INCLUDE GENERAL REFERENCES TO CODES AND STANDARDS, AND REFERENCES TO OR INCLUSIONS OF SPECIFIED PROVISIONS, OMISSIONS OF ANY APPLICABLE CODE, STANDARD, OR PROVISION DOES NOT RELIEVE THE GENERAL CONTRACTOR FROM COMPLIANCE TO THE APPLICABLE REQUIREMENTS. COORDINATION OF QUALITY CONTROL AND QUALITY ASSURANCE IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

3. STRUCTURAL STEEL MATERIAL SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS, UNO:

WIDE FLANGE SECTIONS.....ASTM A992
PLATE, ANGLE, CHANNEL & TEES.....ASTM A36 (UNO)
PLATES USED IN SFRS.....ASTM A572 (50 KSI)
SQUARE OR RECTANGULAR HSS.....ASTM A500, GRADE C (50 KSI)
ROUND HSS.....ASTM A500, GRADE C (46 KSI)
PIPES.....ASTM A53, GRADE B (35 KSI)

4. HEADED STUD ANCHORS (SHEAR CONNECTOR STUDS) IN CONCRETE SHALL BE NELSON TYPE S3L (ICC ESR-2856) OR AN APPROVED EQUAL, AND SHALL CONFORM TO ASTM A29-12, GRADES 1010 THROUGH 1020, COLD-DRAWN STEEL, WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 65 KSI. HEADED STUDS WELDING TEST AND INSPECTION SHALL CONFORM TO AWS D1.1, CHAPTER 7.

5. FABRICATOR SHALL BE LICENSED IN CONFORMANCE WITH THE BUILDING CODE AND IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

6. ALL STEEL NOT ENCASED IN CONCRETE, MASONRY, OR FIREPROOFING SHALL BE SHOP PRIMED AND PAINTED PER SPECIFICATIONS, EXCEPT FOR TOP FLANGE OF BEAMS SUPPORTING METAL DECK. ANY ABRASIONS OR UNPAINTED AREAS SHALL BE REPAIRED AFTER ERECTION.

7. ALL STRUCTURAL STEEL AND MISCELLANEOUS STEEL PERMANENTLY EXPOSED TO WEATHER OR GROUND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A385 UNLESS A WEATHER PROOF COATING IS SPECIFIED BY THE ARCHITECT, UNO. STAINLESS AND WEATHERING STEELS, WHERE SPECIFIED, ARE EXEMPT FROM THIS REQUIREMENT. GALVANIZED SURFACES SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE REPAIRED AS NECESSARY. BOLTED CONNECTIONS PERMANENTLY EXPOSED TO WEATHER SHALL USE GALVANIZED HIGH-STRENGTH BOLTS, GRADE A325 TYPE 1 OR GALVANIZED ASTM F3125 GRADE F1852 TYPE 1. WELDED CONNECTIONS PERMANENTLY EXPOSED TO WEATHER SHALL RECEIVE ZINC TOUCH UP PAINT (COORDINATE WITH AOR). STEEL IN CONTACT WITH TREADED WOOD SHALL BE HOT DIP GALVANIZED, UNO.

8. PROVIDE UPWARD CAMBER FOR ALL BEAMS SPECIFIED TO HAVE CAMBER. AMOUNT MEASURES IN THE FIELD PRIOR TO ERECTION SHALL NOT DEVIATE MORE THAN ALLOWED BY AISC SPECIFICATIONS. BEAMS WITHOUT SPECIFIED CAMBER SHALL BE FABRICATED SO THAT ANY MINOR CAMBER DUE TO ROLLING SHALL BE UPWARD AFTER ERECTION.

9. COMPOSITE STRUCTURAL BEAMS AND GIRDERS ARE DESIGNED FOR UNSHORED CONSTRUCTION UNLESS NOTED OTHERWISE.

10. ALL ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL COMPLY WITH AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (ANSI/AISC 303), SECTION 10.

11. SEE ARCHITECTURAL DRAWINGS FOR NALER HOLES, WELDED STUDS OR OTHER ITEMS NOT SHOWN IN STRUCTURAL DRAWINGS.

12. FOR STEEL EMBEDDED IN CONCRETE OR MASONRY WHICH WILL INTERFERE WITH CONTINUOUS REINFORCING BARS, REQUEST CLARIFICATION FROM THE SEOR WHETHER TO PROVIDE HOLES FOR PASSAGE. DO NOT CUT HOLES IN STRUCTURAL STEEL WITHOUT PRIOR APPROVAL OF SEOR.

13. DO NOT CUT HOLES IN STRUCTURAL STEEL WITHOUT WRITTEN APPROVAL OF THE SEOR.

14. PLACE NON-SHRINK OR DRYPACK GROUT UNDER ALL BASE PLATES AND ALLOW TO CURE BEFORE APPLYING ANY LOAD.

15. ALL STRUCTURAL STEEL SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMPORARY BRACING SHALL BE INSTALLED AND SHALL BE LEFT IN PLACE UNTIL OTHER MEANS IS PROVIDED TO ADEQUATELY BRACE THE STRUCTURE.

16. SUBMIT SHOP DRAWINGS TO AOR AND SEOR FOR REVIEW AND, UPON REQUEST, TO GOVERNING CODE AUTHORITY. INDICATE AN ERECTION SEQUENCE OF WELDING TO MINIMIZE LOCKED-UP STRESSES OR DISTORTION FOR MOMENT-RESISTING STEEL FRAMES.

17. HOURLY FIRE RESISTIVE REQUIREMENTS FOR STRUCTURAL STEEL MEMBERS SHALL BE DETERMINED PER CBC TABLE 601. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING TYPES OF CONSTRUCTION AND FIREPROOFING MATERIALS.

18. CONTRACTOR SHALL PROVIDE ALLOWANCE FOR 5 TONS OR 2% OF STRUCTURAL STEEL, WHICHEVER IS GREATER, TO BE FABRICATED AND/OR ERECTED DURING THE PROGRESS OF CONSTRUCTION AS MAY BE DIRECTED BY THE AOR/SEOR. THE UNUSED PORTION SHALL BE CREDITED TO THE OWNER AT THE COMPLETION OF STRUCTURAL STEEL WORK.

19. MECHANICAL CONTRACTOR TO VERIFY ALL MECHANICAL UNIT LOCATIONS, SIZES AND OPENINGS. NOTIFY SEOR OF ANY DISCREPANCY PRIOR TO START OF WORK.

20. STEEL FABRICATOR TO LOCATE ALL BEAMS BASED ON INFORMATION FROM MECHANICAL CONTRACTOR AND SUBMIT STEEL BEAM LOCATION TO THE AOR AND SEOR FOR REVIEW AND APPROVAL.

21. REFER TO "HIGH-STRENGTH BOLT", "WELDING" AND "STEEL IN SEISMIC FORCE RESISTING SYSTEM (SFRS)" FOR RELATED SPECIFIC REQUIREMENTS AND NOTES FOR ADDITIONAL INFORMATION.

22. THE USE OF ROLLED STEEL SECTIONS AND/OR BOLTS MANUFACTURED OUTSIDE OF THE UNITED STATES WILL REQUIRE VERIFICATION THAT THE PRODUCTS COMPLY WITH APPLICABLE ASTM STANDARDS. MILL CERTIFICATES WILL BE REQUIRED FOR ALL STEEL. STEEL GRADES OTHER THAN ASTM A36 WILL REQUIRE TESTING BY AN APPROVED LABORATORY. ALL FOREIGN BOLTS MUST BE APPROVED BY COUNTY OF LOS ANGELES BUILDING AND SAFETY PRIOR TO THEIR USE.

23. BUY CLEAN CALIFORNIA ACT:
PUBLIC WORKS PROJECTS (THE UNIVERSITY OF CALIFORNIA SYSTEM, CALIFORNIA STATE UNIVERSITY SYSTEM, AND OTHER STATE AGENCIES) MUST USE ELIGIBLE MATERIALS THAT COMPLY WITH MAXIMUM ACCEPTABLE GLOBAL WARMING POTENTIAL (GWP) LIMIT AS SET BY THE DEPARTMENT OF GENERAL SERVICES (DGS) AS FOLLOWS. GWP LIMIT IS BASED ON A 100-YEAR LIFETIME IMPACT.

- HOT-ROLLED STRUCTURAL STEEL SECTIONS.....1,010 KG CO2 EQUIVALENT FOR ONE METRIC TON OF UNFABRICATED STRUCTURAL STEEL
- HOLLOW STRUCTURAL SECTIONS.....1,710 KG CO2 EQUIVALENT FOR ONE METRIC TON OF UNFABRICATED STRUCTURAL STEEL
- STEEL PLATES.....1,490 KG CO2 EQUIVALENT FOR ONE METRIC TON OF UNFABRICATED STRUCTURAL STEEL

STRUCTURAL STEEL (CONTINUED)

(a) HIGH-STRENGTH BOLTS:

1. SEE "STRUCTURAL STEEL" NOTES FOR ADDITIONAL INFORMATION.

2. JOINT ASSEMBLIES USING HIGH-STRENGTH BOLTS SHALL BE IN ACCORDANCE WITH THE CURRENT CBC ADOPTED EDITION OF THE "AISC (RCSC) SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".

3. HIGH-STRENGTH BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" PREPARED BY RCSC AND AS AMENDED BY CBC SECTION 2204. PROVIDE STANDARD SIZE HOLES UNLESS NOTED OTHERWISE.

4. ALL BOLTS SHALL BE HIGH-STRENGTH BOLTS, UNLESS NOTED OTHERWISE.

5. BOLTS WITH UPSET THREADS ARE NOT ALLOWED UNLESS NOTED OTHERWISE.

6. BOLTED CONNECTIONS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS UNO:

MACHINE BOLTS (MB).....ASTM A307
HIGH-STRENGTH BOLTS (TYP UNO ON DRAWINGS).....ASTM F3125 GRADE A325 (TYPE 1) UNO
HIGH-STRENGTH BOLTS (TWIST-OFF-TYPE TENSION-CONTROLLED).....ASTM F3125 GRADE F1852 (TYPE 1)
UNO TREADED RODS USED AS ANCHOR BOLTS.....ASTM F1554, GRADE 36 (UNO)
TREADED RODS USED IN SFRS.....ASTM F1554, GRADE 55 (WELDABLE WITH SUPPLEMENT S1)

7. PAINT SHALL NOT BE PERMITTED ON CONTACT SURFACES UNLESS NOTED OTHERWISE. CONTACT SURFACES OF BOLTED PARTS SHALL BE DESCALED AND FREE OF DIRT, OIL, BURRS, PITS, AND OTHER DEFECTS WHICH PREVENT SOLID SEATING OF PARTS.

8. ALL HIGH-STRENGTH BOLTS SHALL BE TIGHTENED TO SNUG-TIGHT CONDITION USING ASTM F3125 GRADE A325 BEARING TYPE BOLTS WITH THREADS INCLUDED IN SHEAR PLANE UNLESS NOTED OTHERWISE.

9. PROVIDE SLIP-CRITICAL CONNECTIONS IN SEISMIC FORCE RESISTANCE SYSTEM (SFRS). SLIP-CRITICAL BOLTS SHALL HAVE CLASS "A" FAYING SURFACES. SLIP-CRITICAL JOINT ASSEMBLIES SHALL BE FULLY PRE-TENSIONED BY TURN-OF-NUT TIGHTENING, TENSION CONTROL, CALIBRATED WRENCH TIGHTENING, TWIST-OFF BOLTS CONFORMING TO ASTM F3125 GRADE F1852, OR BY DIRECT TENSION INDICATOR TIGHTENING CONFORMING TO ASTM F959.

(b) STEEL WELDING:

1. SEE "STRUCTURAL STEEL" NOTES FOR ADDITIONAL INFORMATION.

2. WELDING PROCEDURES, ELECTRODES AND WELDER QUALIFICATIONS SHALL CONFORM TO THE CURRENT CBC ADOPTED EDITION OF THE CODE:
 - "STRUCTURAL WELDING CODE-STEEL AWS D1.1" BY AMERICAN WELDING SOCIETY.
 - AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" (ANSI/AISC 360).

3. WELDS SHALL BE PREQUALIFIED PER AWS D1.1. NON-PREQUALIFIED WELDED JOINTS SHALL BE QUALIFIED BY TEST AND SUPPORTING PROCEDURE QUALIFICATION RECORD (PQR).

4. WELDERS SHALL BE CERTIFIED TO CONFORM WITH AWS STANDARDS AND APPROVED BY THE GOVERNING CODE AUTHORITY.

5. SUBMIT TO AOR AND SEOR WRITTEN WELDING PROCEDURE SPECIFICATION (WPS) FOR ALL WELDS USED ON PROJECT PRIOR TO FABRICATION FOR REVIEW AND APPROVAL. FOR WELDS NOT PREQUALIFIED, THE SUPPORTING PROCEDURE QUALIFICATION RECORD (PQR) SHALL ALSO BE SUBMITTED WITH THE WPS. WPS SHALL BE IN ACCORDANCE TO AWS D1.1, AND SHALL INCLUDE THE FOLLOWING INFORMATION FOR EACH WELD TYPE POSITION

- A. BASE METAL TYPES AND THICKNESS.
- B. SKETCH OF JOINT DESCRIBING GEOMETRY AND APPLICABLE DIMENSIONS, WELD TYPE AND SIZE, SEQUENCE OF WELD DEPOSITION AND MAXIMUM LAYER THICKNESS AND BEAD WIDTHS.
- C. APPLICABLE WELD PROCESS (SWAM OF FCAW).
- D. ELECTRODE MANUFACTURER'S TECHNICAL INFORMATION AND CERTIFICATE OF CONFORMANCE.
- E. FILLER METAL PER AWS STANDARD AND ELECTRODE SPECIFICATION AND CLASSIFICATION.
- F. ELECTRICAL CHARACTERISTICS FOR WELD PROCESS USED SUCH AS TYPE OF CURRENT AND ACCEPTABLE RANGE OF CURRENT MEASURED IN AMPERAGE, VOLTAGE RANGE, AND ELECTRODE DIAMETER. FOR WELD FEED PROCESS, INDICATE MANUFACTURER RECOMMENDED WIRE SPEED, MELT OFF RATE AND DEPOSITION RATE.

6. WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED PER AWS D1.1 USING E70XX ELECTRODES UNLESS OTHERWISE NOTED. ELECTRODE DIAMETER SHALL NOT EXCEED PREQUALIFIED LIMITS SHOWN IN AWS D1.1 TABLE 3.7, AS APPLICABLE. FOR FCAW PROCESS, MAXIMUM ELECTRODE SIZE SHALL NOT EXCEED 1/8 INCH.

7. ALL FULL PENETRATION WELDS SHALL BE ULTRASONIC TESTED (UT) PER AWS D1.1 AND D1.8 REQUIREMENTS AS APPLICABLE.

8. SHOP WELDING, INCLUDING ULTRASONIC TESTING OF FULL PENETRATION WELDS SHALL BE PERFORMED ON THE PREMISES OF AN APPROVED FABRICATOR.

9. ALL GROOVE OR BUTT WELDS SHALL BE COMPLETE PENETRATION WELDS, UNO. ALL EXPOSED BUTT WELDS SHALL BE GROUND SMOOTH.

10. ALL EXPOSED WELDS ON ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL COMPLY WITH AISC CODE OF STANDARD PRACTICE, SECTION 10. GRIND ALL EXPOSED WELDS SMOOTH IN ALL STEEL DESIGNATED AS ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) OR WHERE INDICATED IN ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.

11. FIELD WELD SYMBOLS SHOWN IN CONTRACT DOCUMENT REFLECT ENGINEERING INTENT AND NO ATTEMPT IS MADE TO IDENTIFY AND/OR CLASSIFY TYPES OF WELDS. AT FABRICATOR'S OPTION, ANY WELD INDICATED ON CONTRACT DOCUMENT AS FIELD WELD MAY BE SHOP WELDED AND ANY WELD INDICATED ON CONTRACT DOCUMENT AS SHOP WELD MAY BE FIELD WELDED AND VICE VERSA. FABRICATOR SHALL CONSIDER MEANS & METHODS OF CONSTRUCTION, ERECTION TOLERANCES, PLACEMENT TOLERANCES, SEQUENCING, INSPECTION, ETC. WHEN DETERMINING SHOP VS. FIELD WELDS.

12. WELDING OF SHEET METAL AND METAL STUDS SHALL BE IN ACCORDANCE WITH AWS D1.3.

13. TESTING LABORATORY WILL VERIFY COMPLIANCE WITH ACCEPTED WPS AND WILL PROMPTLY NOTIFY AOR/SEOR IF DEVIATIONS ARE FOUND.

CONCRETE MASONRY UNITS

1. CONCRETE MASONRY UNIT MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE CURRENT CBC ADOPTED EDITION OF BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (TMS 402) AND "SPECIFICATIONS FOR MASONRY STRUCTURES" (TMS 602)

2. THE SPECIFIED COMPRESSIVE STRENGTH OF STRUCTURAL MASONRY (fm) IS 2,000 PSI UNO.

3. TESTING OF THE CONSTRUCTED MASONRY SHALL BE PROVIDED IN ACCORDANCE WITH TMS 602, ARTICLE 1.4B. WHERE VALUES OF fm GREATER THAN 2,000 PSI ARE SPECIFIED IN CONTRACT DOCUMENTS, VERIFICATION OF COMPLIANCE WITH THE REQUIREMENTS FOR THE SPECIFIED STRENGTH OF MASONRY SHALL BE PROVIDED USING PRISM TEST METHOD IN ACCORDANCE WITH TMS 602, ARTICLE 1.4B.3.

4. GROUT SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS OF ASTM C476 AND TMS 602 ARTICLE 2.2. DETERMINE COMPRESSIVE STRENGTH OF GROUT IN ACCORDANCE WITH ASTM C1019. AGGREGATES FOR COARSE GROUT SHALL CONFORM TO ASTM C404.

5. MORTAR MIX SHALL CONFORM TO THE REQUIREMENTS OF ASTM C270 TYPE S. MORTAR SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS GIVEN IN ASTM C270 TABLES 1 AND 2. MORTAR TYPE S SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 1,800 PSI AT 28 DAYS.

6. CONCRETE MASONRY UNITS (CMU) SHALL BE MEDIUM-WEIGHT HOLLOW LOAD-BEARING UNITS CONFORMING TO ASTM C90. USE OPEN-END BLOCKS AT VERTICAL REINFORCING AND BOND BEAM BLOCKS AT HORIZONTAL REINFORCING LOCATIONS. MINIMUM NET AREA COMPRESSIVE STRENGTH OF ASTM C90 CONCRETE MASONRY UNITS FOR TYPE S MORTAR SHALL BE 1,900 PSI.

7. WATER MUST BE CLEAN AND POTABLE AND FREE OF DELETERIOUS AMOUNTS OF OILS, ACIDS, ALKALIES, ORGANIC MATERIALS, AND SOLUBLE SALTS SUCH AS POTASSIUM AND SODIUM SULFATES.

8. CEMENT SHALL BE LOW ALKALI CONFORMING TO ASTM C150, TYPE I OR TYPE II. USE OF MASONRY CEMENT IS PROHIBITED.

9. GROUT SHALL BE A WORKABLE MIX SUITABLE FOR PLACING WITHOUT SEGREGATION AND SHALL BE THOROUGHLY MIXED. GROUT SHALL BE PLACED BY PUMPING OR AN APPROVED ALTERNATE METHOD AND SHALL BE PLACED BEFORE INITIAL SET OR HARDENING OCCURS. GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION DURING PLACING AND RECONSOLIDATED AFTER EXCESS MOISTURE HAS BEEN ABSORBED, BUT BEFORE PLASTICITY IS LOST.

10. GROUT POUR HEIGHT SHALL NOT EXCEED THAT INDICATED IN SECTION 2104.1.3.5 OF CBC. BETWEEN GROUT POURS OR WHERE GROUTING HAS BEEN STOPPED MORE THAN AN HOUR, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING GROUT POUR 1" TO 1 1/2" BELOW TOP OF MORTAR JOINT. GROUT SHALL BE PLACED IN A CONTINUOUS POUR IN GROUT LIFTS.

11. CELLS SHALL BE IN VERTICAL ALIGNMENT. ALL CELLS SHALL BE GROUTED SOLID UNLESS OTHERWISE NOTED.

12. SEE REINFORCING STEEL GENERAL NOTES FOR REINFORCING REQUIREMENTS IN CMU.

13. REINFORCING STEEL SHALL BE SECURED AGAINST DISPLACEMENT PRIOR TO GROUTING USING WIRE POSITIONERS. PROVIDE A MINIMUM OF ONE BAR DIAMETER, LARGEST SIZE AGGREGATE PLUS 1/4-INCH, OR 1/2-INCH, WHICHEVER IS GREATER. GROUT BETWEEN MAIN REINFORCING STEEL AND MASONRY UNIT.

14. REINFORCING STEEL SHALL HAVE A MINIMUM COVER, INCLUDING CMU FACE SHELL, AS FOLLOWS:
A. CMU NOT EXPOSED TO EARTH OR WEATHER 1 1/2"
B. CMU EXPOSED TO EARTH OR WEATHER:
NO.6 AND LARGER 2"
NO.5 AND SMALLER 1 1/2"

15. MINIMUM CLEARANCE BETWEEN PARALLEL REINFORCING STEEL SHALL BE THE GREATER OF ONE INCH, ONE NOMINAL BAR DIAMETER, OR 4/3 TIMES THE MAXIMUM SIZE OF AGGREGATE.

16. DOWELS IN FOOTINGS SHALL MATCH SIZE AND SPACING OF VERTICAL REINFORCING UNO. DOWELS SHALL BE SET TO ALIGN WITH CELLS CONTAINING REINFORCING STEEL.

17. PROVIDE 1/2" MINIMUM GROUT COVER AROUND ANCHOR BOLTS, REINFORCING STEEL DOWELS, AND OTHERS. INSERTS PENETRATING CMU SHELL. ANCHOR BOLTS SHALL BE HEADED TYPE BOLTS.

18. PROVIDE RUNNING BOND LAYOUT OF MASONRY BLOCK UNITS UNO IN ARCHITECTURAL DRAWINGS. BLOCK MODULES/MORTAR JOINTS SHOWN ON STRUCTURAL DRAWINGS ARE FOR PRESENTATION PURPOSES ONLY, AND NOT INTENDED TO SUPERCEDE ARCHITECTURAL DESIGN REQUIREMENTS.

19. PROVIDE VERTICAL CONTROL JOINTS IN CMU SITE WALLS AS SHOWN ON PLAN. UNO VERTICAL CONTROL JOINTS SHALL OCCUR AT 25'-4" OC MAXIMUM ALONG WALL LENGTH UNO. COORDINATE LOCATIONS OF CONTROL JOINTS WITH ARCHITECT OF RECORD (AOR).

20. TOPS OF CMU WALLS THAT WILL REMAIN EXPOSED TO WEATHER SHALL HAVE A 1 1/2" INCH THICK SOLID CMU CAP BLOCK, OR ROUNDED MORTAR CAP SLOPED TO PREVENT PONDING OF WATER.

21. ANCHOR VENEER USING APPROVED SEISMIC ANCHORS. UNO, PROVIDE ONE ANCHOR FOR EACH 2.67 SQUARE FEET OF VENEER AREA, SPACED AT A MAXIMUM OF 32 INCHES HORIZONTALLY AND 25 INCHES VERTICALLY. PROVIDE ADDITIONAL ANCHORS AROUND OPENINGS LARGER THAN 16 INCHES IN EITHER DIMENSION, SPACED AROUND PERIMETER OF OPENING AT A MAXIMUM OF 3 FEET ON CENTER AND WITHIN 12 INCHES OF OPENING. ANCHORS SHALL BE AT LEAST WIRE SIZE #17, CORROSION RESISTANT AND HAVE ENDS BENT TO FORM AN EXTENSION FROM THE BEND AT LEAST 2 INCHES LONG. EMBED ANCHORS INTO VENEER MORTAR BEDS A MINIMUM OF 1.5 INCHES WITH AT LEAST 5/8 INCH COVER TO OUTSIDE FACE.

22. PROVIDE CLEANOUT OPENING IN REINFORCED GROUTED MASONRY PER REQUIREMENTS OF SECTION 2104.1.3 OF CBC.

23. REMOVE MASONRY PROTRUSIONS EXTENDING GREATER THAN 1/4 INCH INTO CELLS OR CAVITIES TO BE GROUTED.

COLD-FORMED STEEL FRAMING

1. DESIGN, FABRICATION AND ERECTION OF COLD-FORMED STEEL FRAMING SHALL CONFORM TO THE CURRENT CBC ADOPTED EDITION OF THE SPECIFICATIONS AND STANDARD OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI), AS CONTAINED IN THE "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", INCLUDING ALL APPLICABLE AMENDMENTS.

2. ALL COLD-FORMED STEEL FRAMING SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMPORARY BRACING SHALL BE INSTALLED AND LEFT IN PLACE UNTIL OTHER MEANS IS PROVIDED TO ADEQUATELY BRACE THE STRUCTURE. ALL COLD-FORMED STEEL FRAMING SHALL BE BRACED AS REQUIRED BY SECTION D3 OF THE AISI SPECIFICATION.

3. COLD-FORMED STEEL GRADES (ASTM A1003):

18 GA (43 MILS) OR THINNER.....GRADE 33 (Fy = 33 KSI)
16 GA (54 MILS) AND THICKER.....GRADE 50 (Fy = 50 KSI)

4. SUBMIT COLD-FORMED STEEL FRAMING SHOP DRAWINGS AND SPECIFICATIONS TO THE SEOR AND AOR FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

5. COLD-FORMED STEEL STUDS AND TRACKS ARE TO BE ATTACHED WITH SHEET METAL SCREWS (SMS) WITH SIZES CALLED OUT ON THE DETAILS. PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHALL NOT BE LESS THAN 3 EXPOSED THREADS. SCREWS SHALL BE DART SELF DRILLING SCREWS (ICC ESR-1408) OR ITW BULDEX TEKS (ICC ESR-1976) AND SHALL BE INSTALLED AND TIGHTENED IN ACCORDANCE WITH SCREW MANUFACTURER'S RECOMMENDATIONS. SHEET METAL SCREWS SHALL COMPLY WITH ASTM C1513, SELF-DRILLING AND TAPPING TYPE, WITH PANCAKE FRAMER HEAD TYPE FOR #10 SMS AND HEX WASHER HEAD TYPE FOR #12 AND #14 (1/4") SMS UNLESS NOTED OTHERWISE.

6. COLD-FORMED STUD MEMBERS SHALL BE UNPUNCHED WHERE USED FOR THE FOLLOWING: HEADERS AND SILLS OF OPENINGS WIDER THAN 3'-0", AND BUILT-UP BOX AND BACK-TO-BACK SECTIONS. PUNCH-OUTS SHALL BE LOCATED IN THE CENTER OF THE WEB WITH A MINIMUM SPACING OF 24"OC. HAVE A MAXIMUM WIDTH OF HALF THE MEMBER DEPTH OR 2'-12", WHICHEVER IS LESS, AND A MAXIMUM LENGTH OF 4'-12". THE MINIMUM DISTANCE BETWEEN THE END OF THE MEMBER AND THE NEAR EDGE OF THE PUNCH-OUT SHALL BE 12".

7. WELDING OF LIGHT GAGE STEEL SHALL BE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.3.

REINFORCING STEEL

1. REINFORCING GRADES FOR CONCRETE OR MASONRY (UNO):
A. ALL BARS EXCEPT THOSE TO BE WELDED.....ASTM A615, GRADE 60
B. TIES AND STIRRUPS.....ASTM A615, GRADE 60
C. WELDED WIRE FABRIC.....ASTM A1064
D. ALL BARS TO BE WELDED.....ASTM A706, GRADE 60

NOTE: ALL BARS SHALL BE DEFORMED.

2. MAINTAIN SPECIFIED CONCRETE COVER FROM FACE OF CONCRETE TO EDGE OF ALL REINFORCEMENT AS FOLLOWS (UNO):

SPECIFIED CONCRETE COVER FOR CAST-IN-PLACE NON-PRESTRESSED CONCRETE MEMBERS			
CONCRETE EXPOSURE	MEMBER	REINFORCEMENT	SPECIFIED COVER (IN)
CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	ALL	ALL	3
		NO. 6 THROUGH NO. 18 BARS	2
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	ALL	NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER	1 1/2
		NO. 14 AND NO.18 BARS	1 1/2
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	SLABS, JOISTS, AND WALLS	NO. 11 BAR AND SMALLER	3/4
	BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES	PRIMARY REINFORCEMENT, STIRRUPS, TIES, SPIRALS, AND HOOPS	1 1/2

SPECIFIED CONCRETE COVER FOR CAST-IN-PLACE PRESTRESSED CONCRETE MEMBERS			
CONCRETE EXPOSURE	MEMBER	REINFORCEMENT	SPECIFIED COVER (IN)
CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	ALL	ALL	3
	SLABS, JOISTS, AND WALLS	ALL	1
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	ALL OTHER	ALL	1 1/2
	SLABS, JOISTS, AND WALLS	ALL	3/4
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES	PRIMARY REINFORCEMENT	1 1/2
	STIRRUPS, TIES	STIRRUPS, TIES	1

3. REINFORCEMENT SHALL BE PLACED IN ACCORDANCE WITH THE LATEST EDITIONS AND NOTES TO THE STEEL INSTITUTE (GRSI) "MANUAL OF STANDARD PRACTICE". EACH REINFORCING BAR SHALL BE WIRED TO A CROSS BAR AT A MAXIMUM SPACING OF 24"OC. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING IN POSITIONS SHOWN ON THE PLANS. DO NOT USE WOOD OR BRICK TO SUPPORT REINFORCING.

4. SPLICES IN CONTINUOUS REINFORCEMENT AS USED IN WALLS, WALL FOOTINGS, ETC., SHALL HAVE A CLASS "B" LAP (1'-6" MIN) AND THE SPLICES IN ADJACENT BARS SHALL BE NOT LESS THAN 5'-0" APART. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. BARS MAY BE WIRED TOGETHER AT SPLICES OR LAPS EXCEPT FOR TOP REINFORCING OF BEAMS AND SLABS OR WHERE SPECIFICALLY DETAILED TO BE SEPARATED. WELDED WIRE FABRIC SHALL BE LAPPED 12" MINIMUM. ADJACENT WELDED WIRE FABRIC (WWF) SHEET SHALL BE LAPPED 12 INCHES MINIMUM.

5. PROVISION FOR LAP SPLICES OR DOWELS SHALL BE PROVIDED ACROSS ALL CONSTRUCTION JOINTS AND SHALL BE THE SAME GRADE, SIZE AND SPACING AS REINFORCING CONTINUING BEYOND UNLESS NOTED OTHERWISE. IN LIEU OF SPLICES OR DOWELS, THE CONTRACTOR MAY SUBMIT FOR SEOR APPROVAL THE LOCATION AND MANUFACTURER DATA OF FORMSAVERS OR COUPLERS PRIOR TO THEIR USE.

6. ALL DOWELS, ANCHOR BOLTS AND OTHER HARDWARE TO BE SET IN CONCRETE SHALL BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE. NO WET SETTING, STABBING, RODDING OR OTHER MOVEMENT OF EMBEDDED ITEMS SHALL BE PERFORMED DURING PLACEMENT OF CONCRETE.

7. BEND REINFORCING BARS COLD.

8. REINFORCING BARS SHALL BE KEPT CLEAN AND FREE OF RUST.

9. DOWELS BETWEEN FOOTING AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE AND SPACING AS THE MAIN REINFORCING UNO.

10. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN PLACE INSPECTION IS MADE.

11. CHAIRS OR SPACERS FOR REINFORCING SHALL BE PLASTIC WHEN RESTING ON EXPOSED SURFACES.

12. WHERE LONGITUDINAL REINFORCING BARS ARE PLACED IN 2 OR MORE LAYERS, BARS IN THE UPPER LAYERS SHALL BE PLACED DIRECTLY ABOVE BARS IN THE BOTTOM LAYER.

13. ALL BENDS WITHIN STIRRUPS, HOOPS, AND CROSS-TIES SHALL ENGAGE A LONGITUDINAL BAR. PROVIDE #4 SPACER BAR WHERE A LONGITUDINAL BAR IS NOT SPECIFICALLY DETAILED.

14. WELDING OF REINFORCING BARS SHALL BE ASTM A706 AND BE PERFORMED PER AMERICAN WELDING SOCIETY (AWS) D1.4 USING MATCHING FILLER MATERIALS PER AWS TABLE 7.1, MINIMUM E80XX ELECTRODES.

15. CONTRACTOR SHALL PROVIDE ALLOWANCE FOR 5 TONS OR 2% OF REINFORCING STEEL WHICHEVER IS GREATER TO BE FABRICATED AND/OR PLACED DURING THE PROGRESS OF CONSTRUCTION AS MAY BE DIRECTED BY THE AOR/SEOR. THE UNUSED PORTION SHALL BE CREDITED TO THE OWNER AT THE COMPLETION OF CONCRETE WORK.

16. THE FOLLOWING REINFORCEMENT SHALL COMPLY WITH ASTM A706:
A. VERTICAL REINFORCEMENT AT INTERSECTIONS AND ENDS OF CONCRETE WALLS ENCLOSED IN TIES OR STIRRUPS (BOUNDARY ELEMENTS).
B. LONGITUDINAL MOMENT FRAME BEAMS AND COLUMNS REINFORCING BARS.
C. WELDED REINFORCING.

17. BUY CLEAN CALIFORNIA ACT:
PUBLIC WORKS PROJECTS (THE UNIVERSITY OF CALIFORNIA SYSTEM, CALIFORNIA STATE UNIVERSITY SYSTEM, AND OTHER STATE AGENCIES) MUST USE ELIGIBLE MATERIALS THAT COMPLY WITH MAXIMUM ACCEPTABLE GLOBAL WARMING POTENTIAL (GWP) LIMIT AS SET BY THE DEPARTMENT OF GENERAL SERVICES (DGS) AS FOLLOWS. GWP LIMIT IS BASED ON A 100-YEAR LIFETIME IMPACT.

- REINFORCING STEEL.....890 KG CO2 EQUIVALENT FOR ONE METRIC TON OF UNFABRICATED REINFORCING STEEL

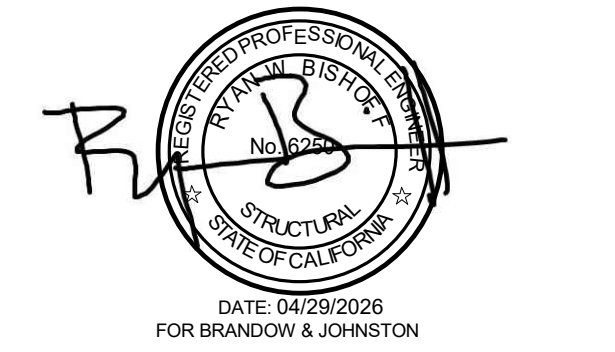


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METAL DECK

1. METAL DECK AND ACCESSORIES SHALL BE COLD FORMED GALVANIZED STEEL SHEETS IN CONFORMANCE WITH ASTM A653-SS GRADE 50 HAVING A MINIMUM YIELD STRENGTH OF 50,000 PSI WITH GALVANIZED COATING DESIGNATION OF G60 (MIN). GALVANIZING PROCESS SHALL BE HOT-DIP COMPLYING WITH ASTM A924. REFER TO ARCHITECTURAL SPECIFICATIONS WHERE SHOP-PRIMED AND FINISH COATING IS SPECIFIED.
2. SEE TYPICAL DETAILS FOR REINFORCING AROUND OPENINGS IN CONCRETE ON METAL DECK. CONTRACTOR SHALL COORDINATE SIZE AND LOCATIONS OF OPENINGS WITH THE VARIOUS TRADES. NO LOADS SHALL BE HUNG FROM DECK UNLESS SHOWN ON STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY SEOR.
3. FLOOR AND ROOF DECK IS DESIGNED FOR UNSHORED CONSTRUCTION. UNO. MAINTAIN 3 CONTINUOUS SPAN CONDITION WHEREVER POSSIBLE (2 SPAN MIN) EXCEPT AT STAIR LANDING AND WHERE NOTED OTHERWISE ON PLANS.
4. PROVIDE 2" MINIMUM BEARING AT ALL SUPPORTS. END LAPS OF METAL DECK SHALL BE A MINIMUM OF 2" AND SHALL OCCUR ONLY OVER SUPPORTS. DECK SHALL BE LAID OUT SO THAT A LOW FLUTE FALLS ON EACH PARALLEL SUPPORT.
5. ATTACH METAL DECK TO STEEL SUPPORTING MEMBERS BY WELDING AS SPECIFIED ON THE CONSTRUCTION DOCUMENTS. DECK WELDING SHALL BE IN COMPLIANCE WITH ANSI/AWS D1.3 USING E70 ELECTRODES. WELDERS SHALL BE AWS CERTIFIED AS REQUIRED BY THE GOVERNING CODE AUTHORITY. PUDDLE WELDS SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: 3/4" NOMINAL (1/2" EFFECTIVE) DIAMETER. SPACING FOR TOP SEAM, SIDE SEAM, BUTT JOINT, OR PUNCH-LOCK CONNECTION SHALL BE IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS. SEE TYPICAL METAL DECK DETAILS.
6. SUBMIT SHOP DRAWINGS FOR METAL DECK TO SEOR FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS SHALL SHOW TYPE OF DECK, LAYOUT OF DECK, THE SIZE AND LOCATION OF ANY OPENINGS OF WIDTH GREATER THAN 8" OR GROUP OF SMALLER OPENINGS, AND DECK ATTACHMENT METHOD.
7. ALTERNATES TO TYPE OF DECK AND FASTENING MAY BE ACCEPTED BY SEOR. CONTRACTOR SHALL SUBMIT SUBSTITUTION REQUEST IN WRITING PRIOR TO START OF CONSTRUCTION. DECK PROPERTIES SHALL BE EQUAL TO OR GREATER THAN THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS. ANY DECK OR METHOD OF FASTENING SHALL HAVE A CURRENT EVALUATION REPORT.
8. FOR COMPOSITE DECKS, PROVIDE STEEL DECKING WITH EMBOSMENTS TO FORM MECHANICAL LOCK BETWEEN STEEL DECKING AND CONCRETE. PROVIDE VENTED STEEL DECKING WHERE VAPOR-IMPERVIOUS MEMBRANE OCCURS OVER CONCRETE ON METAL DECK.
9. WELDED HEADED STUDS SHALL BE NELSON TYPE S3L (ICC ESR-2856) OR AN APPROVED EQUAL. WELDED HEADED STUDS SHALL BE INSTALLED WITH AN AUTOMATIC ELECTRIC ARC WELD GUN AND IN COMPLIANCE WITH AWS D1.1, CHAPTER 7.
10. DO NOT HANG FROM STEEL DECK IN EXCESS OF WHAT IS SHOWN IN TYPICAL DETAILS. CONTRACTOR SHALL PROVIDE SUPPLEMENTARY SECONDARY FRAMING AS REQUIRED FOR LOADING CONDITIONS NOT IN COMPLIANCE WITH CRITERIA INDICATED IN TYPICAL DETAILS.
11. SCORED CONCRETE PARALLEL TO STEEL DECK FLUTES AND MAINTAIN CONCRETE THICKNESS OVER DECK FLUTES AS INDICATED ON DRAWINGS AND METAL DECK SCHEDULE.
12. PROVIDE CLOSURE ANGLE AROUND ALL OPENINGS IN CONCRETE ON METAL DECK INCLUDING THOSE NOT SPECIFICALLY SHOWN ON DRAWINGS. CLOSURE ANGLES AT INTERIOR OPENINGS, WHERE NOT SPECIFICALLY SHOWN ON DRAWINGS SHALL BE 18 GAUGE MINIMUM, AND WELDED TO SUPPORTING MEMBERS OR METAL DECK.
13. ALL DECK WELDS IN EXPOSED AREA SHALL BE DE-SLAGGED, CLEANED AND PRIMED WITH ZINC-RICH PRIMER.
14. EDGE OF DECK CLOSURE PLATES INSTALLATION TOLERANCE SHALL BE HELD WITHIN ± 1/2" OF THE DIMENSIONS REQUIRED ON THE ARCHITECTURAL DRAWINGS. CONFIRM THE CUT LENGTH OF DECK AND EDGE OF DECK LOCATIONS FROM FIXED SURVEY REFERENCE LINES.
15. CONCRETE FILL CONSTRUCTION JOINTS PERPENDICULAR TO THE DECK FLUTES SHALL BE PLACED TWO-THIRDS OF THE SPAN IN THE DIRECTION OF POUR. CONSTRUCTION JOINTS PARALLEL TO THE DECK FLUTES SHALL BE PLACED 3 FEET FROM THE BEAM LINE.
16. NO PIPES, DUCTS OR ELECTRICAL CONDUITS SHALL BE PLACED IN CONCRETE FILL OVER METAL DECK, UNLESS APPROVED IN WRITING BY SEOR PRIOR TO CONCRETE PLACEMENT.
17. HOURLY FIRE RESISTANCE RATING REQUIREMENTS FOR FLOOR AND ROOF DECKS SHALL BE DETERMINED PER CURRENT CBC EDITION OF TABLE 601. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR BUILDING CONSTRUCTION TYPE AND FIREPROOFING MATERIAL.
18. CONCRETE ON METAL DECK SHALL HAVE INTEGRAL COMPOSITE RIBS AND INTERLOCKING SIDE LAPS.

PREMANUFACTURED WOOD I-JOIST

1. SEE FRAMING PLANS FOR FRAMING DIRECTIONS AND BEARING LOCATIONS.
2. TOP AND BOTTOM TRUSS CHORDS SHALL HAVE A MINIMUM SPECIFIC GRAVITY, G=0.50 (E.G. DOUGLAS FIR-LARCH).
3. MANUFACTURER: I-JOISTS SPECIFIED IN THESE PLANS ARE TO BE MANUFACTURED BY BOISE CASCADE WOOD PRODUCT, LLC W/ ICC-ES PUBLISHED VALUES. ANY I-JOISTS OTHER THAN THOSE SPECIFIED ARE TO BE BID AS ALTERNATE, AND ARE SUBJECT TO REVIEW AND APPROVAL OF THE ARCHITECT, OWNER AND BUILDING DEPARTMENT.
4. JOIST SHOP DRAWINGS, ERECTION DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL PRIOR TO FABRICATION OF JOISTS. ALL REQUIRED BRACING, CROSS BRIDGING AND BEARING IMPROVEMENTS SHALL BE SHOWN ON THE JOIST DRAWINGS. CALCULATIONS AND DRAWINGS SHALL BE SIGNED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
5. JOISTS SHALL BE DESIGNED FOR THEIR SELF WEIGHT AND THE FOLLOWING SUPERIMPOSED: (UNO ON PLANS)

ROOF JOISTS:

DL = 16 PSF
LL = 20 PSF
Δ_{REL-LL} ≤ L/240
Δ_{LL} ≤ L/360

FLOOR JOISTS:

DL = 20 PSF
PARTITION DL = 15 PSF
LL = 50 PSF
CORRIDOR LL = 100PSF
Δ_{REL-LL} ≤ L/240
Δ_{LL} ≤ L/480

6. SEE ARCHITECTURAL, MECHANICAL AND FIRE PROTECTION/SPRINKLER DRAWINGS FOR LOCATIONS AND WEIGHTS OF ADDITIONAL LOADS. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: MECHANICAL UNITS, MECHANICAL CURBS, WALLS, DRAFT STOPS, SPRINKLER MAINS, CONSTRUCTION LOADS, ETC. DEAD LOAD DEFLECTION MAY BE CAMBERED OUT.
7. DESIGN AND FABRICATION OF WOOD JOISTS SHALL CONFORM TO REQUIREMENTS OF THE BUILDING CODE. ALL JOISTS AND CONNECTORS USED SHALL HAVE ICC-ES APPROVAL, WHICH SHALL BE SUBMITTED WITH THE JOIST CALCULATIONS AND SHOP DRAWINGS. SUFFICIENT BEARING AREA SHALL BE PROVIDED BY THE CONNECTORS SO THAT THE BEARING STRESSES ON THE JOIST AND SUPPORTING MEMBERS DO NOT EXCEED THE MAXIMUM BEARING STRESSES ALLOWED.
8. THE JOIST SYSTEM PROVIDED SHALL BE A COMPLETE FRAMING SYSTEM INCLUDING JOISTS, BRACING, CROSS BRIDGING, JOIST HANGERS, WEB STIFFENERS AS REQUIRED BY CONTRACT DRAWINGS AND JOIST CALCULATIONS. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS OF OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS. FRAMING SHALL BE SIMILAR TO OPENINGS SHOWN ON PLANS OR JOIST MANUFACTURER MAY USE ALTERNATE FRAMING TO BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION OF JOISTS.
9. THE CONTRACTOR SHALL INSTALL ALL REQUIRED BRACING AND WEB FILLERS SPECIFIED ON CONTRACT DRAWINGS, JOIST MANUFACTURER SHOP DRAWINGS, AND BRACING REQUIRED FOR STABILITY DURING ERECTION.

CAST-IN-PLACE CONCRETE

1. CONCRETE SHALL BE MIXED, PLACED AND CURED IN ACCORDANCE WITH THE CURRENT CBC ADOPTED EDITION OF ACI 318, ACI 301, AND PROJECT SPECIFICATIONS.
2. STRUCTURAL CONCRETE SHALL MEET THE FOLLOWING DESIGN CRITERIA UNLESS NOTED OTHERWISE:

LOCATION	MIN COMPRESSIVE STRENGTH AT 28 DAYS (F _c)	CONCRETE TYPE	MAX AGGREGATE SIZE	MAX W/C/M RATIO	EXPOSURE CATEGORIES AND CLASSES			
FOUNDATIONS (UNO)	5,000 PSI	NORMAL-WEIGHT	1 1/2"	0.50	F0	S0	W2	C1
SLAB ON-GRADE	4,000 PSI	NORMAL-WEIGHT	1"	0.45	F0	S0	W0	C0
GRADE BEAM	5,000 PSI	NORMAL-WEIGHT	3/4"	0.50	F0	S0	W1	C1
CONCRETE OVER METAL DECK, CURBS & PAOS	4,000 PSI	LIGHT-WEIGHT	3/4"	N/A	F0	S0	W0	C0
CONCRETE CURB FOR ROOF TOP AHU	5,000 PSI	LIGHT-WEIGHT	3/4"	N/A	F0	S0	W1	C0
CONCRETE WALLS/ BASEMENT WALLS	4,000 PSI	NORMAL-WEIGHT	3/4"	0.50	F0	S0	W0	C0
CONCRETE PEDESTALS	4,000 PSI	NORMAL-WEIGHT	3/4"	0.50	F0	S0	W0	C0
ALL OTHER STRUCTURAL CONCRETE (UNO)	3,000 PSI	NORMAL-WEIGHT	1"	0.50	F0	S0	W0	C0

3. STRUCTURAL CONCRETE SHALL CONFORM TO PROJECT SPECIFICATIONS AND THE FOLLOWING REQUIREMENTS:

- A. MAXIMUM DRY UNIT WEIGHT OF LIGHT-WEIGHT CONCRETE SHALL NOT EXCEED 110 ± 3 PCF (PER ASTM C138). MAXIMUM DRY UNIT WEIGHT OF NORMAL-WEIGHT CONCRETE SHALL NOT EXCEED 150 ± 3 PCF.
- B. WHEN PLASTICIZER OR WATER REDUCER IS USED, MAXIMUM SLUMP SHALL BE 4" PRIOR TO ADMIXTURE AND 8" INCLUDING ADMIXTURE AT THE POINT OF DISCHARGE. IN THE ABSENCE OF PLASTICIZER AND WATER REDUCER, SLUMP AT THE POINT OF DISCHARGE SHALL NOT EXCEED 4" IN FLATWORK AND 5" ELSEWHERE.
- C. W/C/M INDICATES WATER TO CEMENTITIOUS MATERIALS RATIO BASED ON ALL CEMENTITIOUS AND SUPPLEMENTARY CEMENTITIOUS MATERIALS IN THE CONCRETE MIXTURE. THE MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO (W/C/M) FOR SLABS-ON-GRADE AND ALL OTHER SLABS RECEIVING ADHERED FLOORING FINISHES SENSITIVE TO MOISTURE SHALL NOT EXCEED 0.45. WATER-CEMENTITIOUS MATERIAL RATIO (W/C/M) FOR CONCRETE ON METAL DECK WITH VENTED FLUTES MAY BE 0.50. UNO.
- D. SLABS ON GRADE, TOPPING SLABS, AND ELEVATED CONCRETE FLOORS (INCLUDING CONCRETE ON METAL DECK) SHALL HAVE A MAXIMUM SHRINKAGE RATE OF 0.045% AT 28 DAYS PER ASTM C 157. SUBMIT SHRINKAGE TEST RESULTS AS PART OF CONCRETE MIX DESIGN FOR REVIEW AND APPROVAL BY SEOR.
- E. MAXIMUM AGGREGATE SIZE SHALL BE AS NOTED IN TABLE ABOVE, BUT NOT LARGER THAN THE LEAST OF ONE-FIFTH THE NARROWEST DIMENSION BETWEEN SIDES OF FORMS, ONE-THIRD THE DEPTH OF SLAB, AND THREE-FOURTH THE MINIMUM SPECIFIED CLEAR SPACING BETWEEN INDIVIDUAL REINFORCING BARS OR TENDONS.
- F. AGGREGATE GRADATION OF 3/8" MAXIMUM (PEA GRAVEL) SHALL NOT BE USED WHERE FINISHED CONCRETE SURFACE IS EXPOSED TO VIEW.
- G. FOR CONCRETE EXPOSURE CATEGORIES AND CLASSES REFER TO TABLE 19.3.1.1 OF ACI 318. CONCRETE MIXTURES SHALL CONFORM TO THE MOST RESTRICTIVE REQUIREMENTS OF TABLE 19.3.2.1 OF ACI 318 BASE ON EXPOSURE CLASSES ASSIGNED.
- H. CURING COMPOUNDS USED ON CONCRETE THAT IS TO RECEIVE FINISHES SHALL BE COMPATIBLE WITH TILE AND ADHESIVES OR GROUTS IN ACCORDANCE WITH MANUFACTURER'S DATA.
- I. MAXIMUM W/C/M LIMITS DO NOT APPLY TO LIGHT-WEIGHT CONCRETE.
- J. AIR CONTENT OF CONCRETE MIXTURE SHALL COMPLY WITH REQUIREMENTS OF SECTION 19.3.3 OF ACI 318.
- K. FOR EXPOSURE CLASS S1, S2 OR S3, MINERAL FILLERS DERIVED FROM CARBONATE AGGREGATE ARE PROHIBITED.
4. CONCRETE MIX PROPORTIONING SHALL BE BASED ON FIELD DATA AND/OR LABORATORY TRIAL MIXES AS REQUIRED BY CBC, ACI 318, ACI 214R AND ACI 301. THE CONCRETE SHALL BE WORKABLE AND MEET DURABILITY AND STRENGTH REQUIREMENT OF THE CODE. SUBMIT CONCRETE MIX PROPORTIONING DATA INCLUDING HISTORICAL STRENGTH RECORDS AND/OR LABORATORY TRIAL MIXES FOR EACH TYPE AND COMPRESSIVE STRENGTH PREPARED, SIGNED AND SEALED BY A CALIFORNIA LICENSED CIVIL OR STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL BY AOR/SEOR AND DSA'S LABORATORY ACCEPTANCE PROGRAM (LEA) PRIOR TO CONCRETE PLACEMENT.
5. AGGREGATES IN NORMAL-WEIGHT CONCRETE SHALL BE HARD ROCK AND CONFORM TO ASTM C33. AGGREGATES IN LIGHT-WEIGHT CONCRETE SHALL BE EXPANDED SHALE AND CONFORM TO ASTM C330. FOR CONCRETE IDENTIFIED AS BEING EXPOSED TO WATER IN SERVICE, EVIDENCE SHALL BE SUBMITTED THAT AGGREGATES IN THE CONCRETE MIXTURE ARE NOT ALKALI-SILICA REACTIVE OR ALKALI-CARBONATE REACTIVE.
6. CEMENTITIOUS MATERIALS USED IN CONCRETE MIXTURE SHALL COMPLY WITH TABLE 26.4.1.1(a) AND TABLE 19.3.2.1 OF ACI 318. MILL TESTS WITH CERTIFICATES OF COMPLIANCE SHALL BE SUBMITTED. FLY ASH OR OTHER POZZOLANS CONFORMING TO ASTM C618 CLASS F MAY BE USED AS A PARTIAL SUBSTITUTION FOR PORTLAND CEMENT BY WEIGHT IF THE MIX DESIGN IS PROPORTIONED BY FIELD EXPERIENCE OR TRIAL MIXTURES. WHERE CONCRETE IS SUBJECT TO CYCLES OF FREEZING AND THAWING AND APPLICATION OF DEICING CHEMICALS, SUPPLEMENTARY CEMENTITIOUS MATERIALS SHALL NOT EXCEED THE MAXIMUM PERCENTAGES ALLOWED IN TABLE 26.4.2.2(b) AND SECTION 26.4.2.2 OF ACI 318.
7. READY-MIXED CONCRETE SHALL BE BATCHED, MIXED AND DELIVERED IN CONFORMANCE WITH ASTM C94.
8. ADMIXTURES SHALL CONFORM WITH THE FOLLOWING REQUIREMENTS: WATER REDUCER AND SETTING TIME MODIFICATION IN CONFORMANCE WITH ASTM C494 (TYPE F OR G) SUPERPLASTICIZER IN CONFORMANCE WITH ASTM C1017 (TYPE I OR II), AIR ENTRAINMENT IN CONFORMANCE WITH ASTM C260. INHIBITING CHLORIDE-INDUCED CORROSION IN CONFORMANCE WITH ASTM C1582.
9. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL OR CAUSE SEGREGATION OF AGGREGATES. IN SUCH CASES, HOPPERS AND VERTICAL CHUTES OR TRUNKS SHALL BE OF VARIABLE LENGTHS SO THAT FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED SIX FEET. A SUFFICIENT NUMBER OF CHUTES OR TRUNKS SHALL BE USED TO ENSURE THE CONCRETE IS KEPT LEVEL AT ALL TIMES.
10. CONSTRUCTION JOINTS SHALL BE CLEANED AND ROUGHENED BY REMOVING THE ENTIRE SURFACE TO EXPOSE CLEAN AGGREGATE SOLIDLY EMBEDDED IN THE MORTAR MATRIX. SEE PLANS AND DETAILS FOR LOCATION AND TYPE OF CONSTRUCTION JOINT. LOCATIONS OF ADDITIONAL CONSTRUCTION JOINTS NOT SHOWN ON THESE PLANS SHALL BE SUBMITTED TO SEOR FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.
11. LEAN CONCRETE, WHERE SPECIFICALLY INDICATED, SHALL CONTAIN 2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
12. DRYPACK OR NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI, AND CONSIST OF MASTERFLOW 713, EUCON NS GROUT, SIKA GROUT 212, OR APPROVED EQUAL. FOR THICK GROUT LAYERS FOLLOW MANUFACTURER'S GUIDELINES TO ATTAIN THE REQUIRED STRENGTH, WHICH MAY INCLUDE THE ADDITION OF PEA FINE AGGREGATES. FOR BASE PLATES LARGER THAN 6 SQUARE FEET, USE HI-FLOW GROUT OR MASTERFLOW 928.
13. DO NOT USE ANY CONCRETE OR GROUT CONTAINING CHLORIDES. WATER USED IN MIX SHALL BE CLEAN AND POTABLE.
14. PRIOR TO ERECTING ANY ELEMENTS THAT LOAD THE FOUNDATION, CONCRETE MUST REACH AN UNCONFINED COMPRESSION STRENGTH OF MINIMUM 75% F_c AS DETERMINED BY TESTING OR PREVIOUSLY DOCUMENTED DATA FOR THE MIX DESIGN USED UNDER SIMILAR CONDITIONS, AND MUST BE ALLOWED TO CURE FOR A MINIMUM OF 3 DAYS.
15. MAINTAIN CONCRETE ABOVE 50 DEGREES FAHRENHEIT AND IN A MOIST CONDITION FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT UNLESS OTHERWISE ACCEPTED BY SEOR.
16. SEE ARCHITECTURAL DRAWINGS FOR WALL OPENING SIZES AND LOCATIONS, WALL OFFSETS, CHAMFERS, KERFS, DRIPS AND FOR EXTENT OF DEPRESSIONS, RAMPS, ETC.
17. PROVIDE SLEEVES FOR ALL PIPES THROUGH CONCRETE WALLS AND FOOTINGS WHERE SHOWN ON THESE DRAWINGS. CORING IS NOT PERMITTED WITHOUT PRIOR APPROVAL BY THE SEOR.
18. EXPOSED CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH 3/4" CHAMFER OR 1/2" RADIUS TOOLED EDGE, UNO.
19. SUBMIT SHOP DRAWINGS INDICATING LOCATIONS OF CONCRETE CONSTRUCTION JOINTS TO SEOR FOR REVIEW AND APPROVAL PRIOR TO CONCRETE PLACEMENT. LOCATE CONSTRUCTION JOINTS TO MINIMIZE EFFECTS OF SHRINKAGE AND AT POINTS OF LOW STRESS. HORIZONTAL CONSTRUCTION JOINTS ARE NOT PERMITTED IN BEAMS AND SLABS UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS OR APPROVED BY SEOR PRIOR TO CONCRETE PLACEMENT.
20. PRIOR TO PLACING CONCRETE, REINFORCING BARS (INCLUDING WELDED WIRE REINFORCEMENT), EMBEDDED PLATES, ANCHOR BOLTS, AND OTHER CONCRETE EMBEDMENTS SHALL BE WELL SECURED IN POSITION.
21. CONCRETE PLACEMENT SHALL CONFORM TO ACI 304 AND CONTRACT DOCUMENTS. INTENTIONALLY ROUGHEN ALL PREVIOUSLY HARDENED CONCRETE SURFACES TO A FULL AMPLITUDE OF 1/4-INCH AGAINST WHICH FRESH CONCRETE IS PLACED.
22. CURING COMPOUNDS, SEALERS, HARDENERS, ETC., USED ON CONCRETE THAT RECEIVES A FINISH SHALL BE APPROVED BY THE ARCHITECT BEFORE USE.

STRUCTURAL SUBMITTALS

1. REVIEW OF SHOP DRAWINGS AND SUBMITTALS BY THE AOR AND SEOR IS FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS.
2. SHOP DRAWINGS SHALL BE SUBMITTED TO THE SEOR FOR REVIEW PRIOR TO FABRICATION. THE CONTRACTOR WILL REMAIN RESPONSIBLE FOR ALL ERRORS OF DETAILING, FABRICATION, AND FOR CORRECT FITTING OF ALL STRUCTURAL MEMBERS INCLUDING COORDINATION WITH OTHER TRADES.
3. SHOP DRAWINGS SHALL BE SUBMITTED TO THE SEOR (ALLOW FOR A REVIEW DURATION OF 10 BUSINESS DAYS), AND SHALL CONSIST OF EITHER ELECTRONIC FILES OR ONLY ONE SET FOR OUR RECORDS AND ONE REPRODUCIBLE SET.
4. SEOR WILL RETURN THE ELECTRONIC FILES OR REPRODUCIBLE SET CLEARLY MARKED WITH COMMENTS. ANY REQUIRED RECORD SET COPIES SHALL BE MADE FROM THIS RETURNED SET.
5. REPRODUCTION OF STRUCTURAL PLANS & DETAILS FOR SHOP DRAWINGS IS PROHIBITED. SUBCONTRACTOR/FABRICATOR IS TO PROVIDE INDEPENDENTLY CREATED DRAWINGS BASED ON THE STRUCTURAL PLANS AND DETAILS.
6. SHOP DRAWINGS AND SUBMITTALS DO NOT CONSTITUTE CHANGE ORDERS. ANY PROPOSED CHANGES TO THE STRUCTURAL DOCUMENTS MUST BE SUBMITTED IN WRITING AS A REQUEST FOR SUBSTITUTION TO THE ARCHITECT AND SEOR FOR APPROVAL.
7. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.
8. SUBSTITUTION REQUESTS FOR MATERIALS SPECIFIED ON THE STRUCTURAL DOCUMENTS MAY BE CONSIDERED WITH MATERIALS HAVING EQUIVALENT OR GREATER CAPACITY AND PERFORMANCE. CURRENT EVALUATION REPORTS AND PRODUCT INFORMATION SHALL BE PROVIDED TO THE SEOR DEMONSTRATING EQUIVALENT QUALITIES OF THE MATERIAL TO BE SUBSTITUTED.

THE FOLLOWING LIST SUMMARIZES IMPORTANT STRUCTURAL SUBMITTALS FOR THIS PROJECT. REFER TO THE SPECIFICATIONS FOR A COMPLETE LIST AND ADDITIONAL REQUIREMENTS.

GENERAL

- QUALIFICATION DATA FOR APPROVED INSTALLERS AND FABRICATORS
- CERTIFICATES OF CONFORMANCE FOR PREFABRICATED MEMBERS

CONCRETE REINFORCEMENT

- MANUFACTURER'S PRODUCT DATA, SPECIFICATIONS AND INSTALLATION PROCEDURES FOR PROPRIETARY MATERIALS AND REINFORCEMENT
- STEEL PRODUCER'S CERTIFICATES OF MILL ANALYSIS, TENSILE AND BEND TESTS
- SHOP DRAWINGS FOR FABRICATION, BENDING AND PLACEMENT

CAST-IN-PLACE CONCRETE

- DESIGN MIX FOR EACH CONCRETE MIX
- MATERIAL TEST REPORTS
- MATERIAL CERTIFICATES FOR CEMENT, AGGREGATES AND ADMIXTURES
- MANUFACTURER'S PRODUCT DATA FOR WATERSTOPS, BONDING AGENTS, VAPOR RETARDERS, JOINT FILLER, CURING MATERIALS AND FLOOR TREATMENTS
- SHOP DRAWINGS FOR PROPOSED LOCATIONS OF ADDITIONAL CONSTRUCTION OR CONTROL JOINTS NOT SHOWN ON THE STRUCTURAL PLANS

CONCRETE MASONRY UNIT

- DESIGN MIX FOR GROUT
- MATERIAL TEST REPORTS

STRUCTURAL STEEL

- MANUFACTURER'S MILL CERTIFICATES
- MILL TEST REPORTS
- SHOP DRAWINGS FOR FABRICATION AND ASSEMBLY OF MEMBERS
- ERECTION PLAN SEQUENCE AND PROCEDURES
- WELDING PROCEDURE SPECIFICATIONS (WPS)
- TEST REPORTS FOR SHOP AND FIELD WELDED AND BOLTED CONNECTION

STEEL DECK

- SHOP DRAWINGS INDICATING TYPE, LAYOUT, DETAILS, AND OPENINGS LARGER THAN 1'-0"

COLD-FORMED METAL FRAMING

- SHOP DRAWINGS INDICATING LAYOUT AND DETAILS

ROUGH CARPENTRY

- PRODUCT DATA FOR TREATMENTS AND PRESERVATIVES
- MATERIAL CERTIFICATES FOR DIMENSION LUMBER

PREFABRICATED WOOD PRODUCTS

- SHOP DRAWINGS INDICATING LAYOUT & DETAILS
- ENGINEERING CALCULATIONS

GLUE LAMINATED BEAMS

- SHOP DRAWINGS INDICATING LAYOUT
- CERTIFICATE OF CONFORMANCE

SHORING AND EXCAVATIONS

1. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, APPROVALS, PERMITS, INSTALLATION AND MONITORING OF ALL TEMPORARY SHORING AND BRACING AS REQUIRED TO SUPPORT EXISTING FRAMING WHERE SUPPORT ELEMENTS (BEAMS, COLUMNS, AND BEARING WALLS) ARE TO BE REMOVED, EXCAVATIONS, AND WHERE INDICATED ON THE DESIGN DOCUMENTS.
2. DESIGN LOADS FOR SHORING AND BRACING OF FRAMING SHALL BE INDEPENDENTLY DETERMINED, BUT NOT LESS THAN THE DEAD LOADS AS STATED IN STRUCTURAL DESIGN CRITERIA WHERE NOTED.
3. TEMPORARY SOIL CUTS SHALL NOT EXCEED SLOPES RECOMMENDED IN THE SOIL REPORT, NOR THOSE SHOWN ON THE SHORING DRAWINGS FOR CONSTRUCTION OF FOUNDATIONS.
4. EXCAVATIONS AND FOUNDATION-RELATED SHORING SHALL BE PERFORMED UNDER THE CONTINUOUS INSPECTION AND APPROVAL OF THE GEOTECHNICAL ENGINEER. THE DESIGN OF SUCH SHALL BE BASED UPON RECOMMENDATIONS CONTAINED IN THE SOIL REPORT. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL DATA THEREIN AND SHALL KEEP A COPY OF THE REPORT AT THE JOB SITE AT ALL TIMES.
5. THE STRUCTURAL ENGINEER RESPONSIBLE FOR THE SHORING DESIGN (HEREAFTER CALLED THE SHORING ENGINEER) SHALL MAKE PERIODIC VISITS TO THE JOB SITE FOR THE PURPOSE OF OBSERVING THE INSTALLATION OF THE SHORING SYSTEM. OBSERVATIONS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, THE FOLLOWING:
- PRIOR TO THE START OF INSTALLATION, MEET WITH THE GEOTECHNICAL ENGINEER AND SHORING CONTRACTOR TO REVIEW ALL ASPECTS OF THE DESIGN AND INSTALLATION OF THE SHORING.
 - REVIEW OF CONDITIONS AT COMPLETION OF EXCAVATION. THE CONTRACTOR SHALL NOTIFY THE SHORING ENGINEER AT LEAST 48 HOURS PRIOR TO EACH OF THE ABOVE REQUIRED OBSERVATIONS.
6. WHERE MONITORING OF SHORING IS INDICATED ON THE DESIGN DOCUMENTS, CONTROL POINTS SHALL BE ESTABLISHED BY A LICENSED SURVEYOR TO MONITOR ANY HORIZONTAL AND VERTICAL MOVEMENTS OF THE SHORING. INITIAL READINGS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL, AND WEEKLY DATA SHALL BE SUBMITTED AS WORK PROGRESSES AND THROUGHOUT THE CONSTRUCTION PERIOD. ADDITIONAL READINGS SHALL BE OBTAINED WHEN REQUESTED BY THE BUILDING OFFICIAL. SHORING ENGINEER OR GEOTECHNICAL ENGINEER, IF HORIZONTAL OR VERTICAL MOVEMENT EXCEEDS THE ALLOWED AMOUNT, THE GEOTECHNICAL ENGINEER, SHORING ENGINEER AND STRUCTURAL ENGINEER SHALL EVALUATE SUCH MOVEMENT AND RECOMMEND CORRECTIVE MEASURES, IF NECESSARY, BEFORE WORK IS CONTINUED.

ABBREVIATIONS

AB	ANCHOR BOLT
ADDL	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ARCH	ARCHITECT(URAL)

B

BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAILING
BO	BOTTOM OF
BOTT, (B)	BOTTOM
BTWN	BETWEEN

C

C	CAMBER
CIP	CAST IN PLACE
CJ	CONTROL/CONSTRUCTION JOINT
CJP, CP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CTR(D)	CENTER(D)
CY	CUBIC YARDS

D

DB	BAR DIAMETER
DBL	DOUBLE
DC	DEMAND CRITICAL
DEMO	DEMOLISH, DEMOLITION
DIA, DIAM	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DO	DITTO
DWG	DRAWING

E

EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION, ELEVATOR
EMBED	EMBEDMENT
EN	EDGE NAIL
EO	EDGE OF
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXIST, (E)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR

F

FLR	FLOOR
FN	FIELD NAILING
FND	FOUNDATION
FO	FACE OF
FS	FAR SIDE
FT	FOOT, FEET
FTG	FOOTING

G

GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLBM, GB	GLUED-LAMINATED BEAM
GR	GRADE
GRBM	GRADE BEAM

H

HK	HOOK
HORIZ	HORIZONTAL
HS	HIGH STRENGTH
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT

I

ID	INSIDE DIAMETER
IN	INCH
INT	INTERIOR

ABBREVIATIONS

JT	JOINT
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K

K, KIP(S)	KILOPOUND
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH

L

L	ANGLE
LB, LBS	POUND(S)
LF	LINEAR FEET
LFRS	LATERAL FORCE RESISTING SYSTEM
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL

M

MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURE
MIN	MINIMUM
MW	MEDIUM WEIGHT

N

(N)	NEW
NDT	NON-DESTRUCTIVE TESTING
NS	NEAR SIDE
NTS	NOT TO SCALE
NW(C)	NORMAL WEIGHT (CONCRETE)

O

OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPP	OPPOSITE

P

PAF, PDF	POWDER DRIVEN/POWER ACTUATED FASTENER
PJP, PP	PARTIAL JOINT PENETRATION
PL	PLATE
PLF	POUND PER LINEAR FOOT
PSF	POUND PER SQUARE FOOT
PSI	POUND PER SQUARE INCH
PT	PRESSURE TREATED WOOD, POST/PRE-TENSIONED

R

R	RADIUS
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED

S

(S)EOR	(STRUCTURAL) ENGINEER OF RECORD
SC	SLIP CRITICAL
SCHED	SCHEDULE
SDS, SMS	SELF-DRILLING / SHEET METAL SCREW
SFRS	SEISMIC FORCE RESISTING SYSTEM
SIM	SIMILAR
SN	SILL NAILING
SOG	SLAB ON GRADE
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
SYM	SYMMETRICAL

T

T&B	TOP & BOTTOM
TO	TOP OF
TYP	TYPICAL

U

UNO	UNLESS NOTED OTHERWISE
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V

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POST-INSTALLED ANCHOR

1. POST-INSTALLED ANCHORS INCLUDE EXPANSION ANCHORS, SCREW ANCHORS, EPOXY ANCHORS/DOWELS, AND POWDER-ACTUATED FASTENERS.
2. INSTALL POST-INSTALLED ANCHORS PER MANUFACTURER'S RECOMMENDED SPECIFICATIONS.
3. WHEN INSTALLING POWER-INSTALLED ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE REINFORCING BARS OR OTHER EMBEDDED ITEMS SUCH AS ELECTRICAL/TELECOMMUNICATIONS CONDUIT AND GAS LINES. WHEN INSTALLING DRILL-IN ANCHORS INTO PRESTRESSED CONCRETE (PRE OR POST-TENSIONED), LOCATE TENDONS DURING INSTALLATION BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.
4. WHERE SPECIFIED ANCHOR EMBEDMENT DEPTH, SPACING OR EDGE DISTANCE CANNOT BE PROVIDED, NOTIFY THE SEOR AND IOR PRIOR TO INSTALLATION.
5. PATCH ABANDONED HOLES AND SPALLS USING NON-SHRINK GROUT AND REPAIR FINISHES AS REQUIRED. ANCHORS PENETRATING THROUGH WATER PROOFING OR VAPOR MEMBRANES SHALL BE SEALED OR FLASHED.
6. TESTING OF POST-INSTALLED ANCHORS IS REQUIRED UNO. TEST ANCHORS IN ACCORDANCE WITH THE PROVISIONS OF CBC 1910A.5 AND THE FOLLOWING:
- a. TEST 100% OF ANCHORS AT ALL STRUCTURAL APPLICATIONS UNO.
 - b. TEST 50% OF ANCHORS AT ALL NON-STRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE, UNO.
 - c. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME TYPE NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS. THEN RESUME INITIAL TEST FREQUENCY. IF THE ANCHORS ARE USED FOR THE SUPPORT AND BRACING OF NON-STRCTURAL COMPONENTS (PIPE, DUCT, OR CONDUIT), THE TWENTY (20) SHALL BE ONLY THOSE ANCHORS INSTALLED BY THE SAME TRADE.
 - d. ALL POST-INSTALLED ANCHORS ARE TO BE TENSION TESTED WITH THE EXCEPTION THAT TORQUE TESTING IS ALLOWED IF THE ANCHORS ARE SPECIFICALLY DESIGNED AS TORQUE CONTROLLED.
 - e. TENSION TESTS ACCEPTANCE: APPLY PROOF TEST LOADS TO ANCHORS WITHOUT REMOVING NUT IS POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD. ANCHORS TESTED WITH A HYDRAULIC JACK OR SPRING LOADED DEVICES SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO DISCERNIBLE MOVEMENT DURING THE TENSION TEST, E.G. AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT.
 - f. TORQUE TESTS ACCEPTANCE: ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH MUST ATTAIN THE MANUFACTURER'S RECOMMENDED TORQUE WITHIN 1/2 TURN OF THE NUT.
 - g. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
 - h. FIELD TESTING SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR OR INSPECTOR OF RECORD.
 - i. TESTING SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF THE SUBJECT ANCHORS.
 - j. INSPECTOR OF RECORDS SHALL REQUEST PROOF TEST VALUES FROM SEOR FOR EACH TYPE OF POST-INSTALLED ANCHORS AT LEAST 48 HOURS PRIOR TO TESTING.
7. INSTALLERS PLACING HORIZONTALLY OR UPWARDLY INCLINED ADHESIVE ANCHORS SHALL BE CERTIFIED BY ACI OR APPROVED EQUIVALENT.
8. RE-USE OF SCREW ANCHORS OR HOLES IS NOT PERMITTED.

POWDER ACTUATED FASTENERS (PAF)

1. ALLOWABLE POWDER-ACTUATED FASTENERS (PAF) SHALL BE EITHER ONE OF THE FOLLOWING UNO: HILTI X-U (ICC ESR-2269), SIMPSON POWER-DRIVEN FASTENERS (ICC ESR-2138), DEWALT CSI SPIRAL DRIVE PIN (ICC ESR-2024)
2. INSTALL PER MANUFACTURER'S RECOMMENDED SPECIFICATIONS.
3. PROVIDE 0.08" THICK X 1.1" SQUARE OR 1.425" ROUND WASHERS FOR ALL POWDER-ACTUATED FASTENERS.
4. THE MINIMUM EMBEDMENT OF PAF INTO CONCRETE SHALL BE 1" UNO.
5. THE EMBEDMENT OF PAF INTO STEEL SHALL BE THAT REQUIRED BY PAF MANUFACTURER ICC ESR REPORT.
6. TESTING OF PAF IS NOT REQUIRED.
7. MAINTAIN ALL APPLICABLE EDGE DISTANCE AT CURBS AND SLAB EDGES PER MANUFACTURER'S ICC ESR REPORT.

GLUED-LAMINATED FRAMING

1. STRUCTURAL GLUED-LAMINATED (GLULAM) TIMBER OF SOFTWOOD SPECIES SHALL BE IN CONFORMANCE WITH ANSI/AITC STANDARD A190.1 AND ASTM D3737, OR OTHER CODE APPROVED DESIGN, MANUFACTURING AND/OR QUALITY ASSURANCE PROCEDURES. MEMBERS SHALL BE MARKED WITH THE ENGINEERED WOOD SYSTEM APA EWS TRADEMARK INDICATING CONFORMANCE WITH THE MANUFACTURING, QUALITY ASSURANCE, AND MARKING PROVISIONS OF ANSI/AITC STANDARD A190.1. THE MANUFACTURER OR SELLER SHALL SUBMIT CERTIFICATES OF CONFORMANCE.
2. GLULAM TIMBERS SHALL BE MANUFACTURED TO MEET THE FOLLOWING REQUIREMENTS.
- A. **SIMPLE SPAN** (DF COMB. 24F V4):
NDS 24F-V4 REQUIREMENTS: Fb=1850 PSI TOP AND 2400 PSI BOTTOM; Fv=265 PSI; E=1,800,000 PSI WITH 1600 FT RADIUS CAMBER UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - B. **CONTINUOUS MULTIPLE SPANS AND CANTILEVERS** (DF COMB. 24F V8)
NDS 24F-V8 REQUIREMENTS: Fb=2400 PSI TOP AND BOTTOM; Fv=265 PSI; E=1,800,000 PSI WITH 1600 FT RADIUS CAMBER UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - C. NO CAMBER AT CANTILEVER PORTION UNO ON PLANS.
3. GLUED LAMINATED TIMBER EXPOSED TO WEATHER SHALL BE PRESSURE TREATED WITH PRESERVATIVE.
4. MOISTURE CONTENT OF GLU-LAMINATED MEMBERS SHALL NOT EXCEED 16% AT THE TIME OF INSTALLATION AND CLOSE-IN.
5. GLULAM TIMBER SHALL BE PROTECTED DURING SHIPPING AND FIELD HANDLING IN ACCORDANCE WITH AITC 111.
6. OTHER GLULAM TIMBER COMBINATIONS AS SPECIFIED IN APA'S CODE REPORT NER-486

EXISTING CONDITIONS

1. SEE "AS-BUILT" DRAWINGS FOR EXISTING BUILDING ITEMS NOT SHOWN OR NOTED.
2. FIELD VERIFY ALL CONDITIONS & DIMENSIONS PRIOR TO SHOP DRAWING PRODUCTION AND FABRICATION OF STRUCTURAL ELEMENTS.
3. WHERE ALL OTHER EXISTING CONDITIONS VARY SIGNIFICANTLY FROM THOSE SHOWN ON THESE DRAWINGS, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED PRIOR TO CONTINUED CONSTRUCTION RELATED TO SUBJECT CONDITIONS.
4. SHORE ALL EXISTING CONSTRUCTION AS REQUIRED, INCLUDING WHERE WELDING TO EXISTING STEEL FRAMING. SHORING DESIGN BY OTHERS.
5. ALL EXISTING CONCRETE SURFACES TO BE IN CONTACT WITH NEW CONCRETE SHALL BE ROUGHENED TO 1/4" MINIMUM AMPLITUDE. USE ICC APPROVED BONDING AGENT ON EXISTING CONCRETE PRIOR TO PLACING NEW CONCRETE.
6. VERIFY LOCATION OF EXISTING REBAR BEFORE FABRICATION USING NON-DESTRUCTIVE TESTING. EXISTING REINFORCING SHALL BE AVOIDED WHERE DRILLING FOR POST-INSTALLED ANCHORS OR CONCRETE DOWELS.
7. THE GENERAL CONTRACTOR SHALL COORDINATE THE WEIGHT AND SPECIFIC LOCATION OF ALL MECHANICAL EQUIPMENT WITH THE STRUCTURAL FRAMING. IF THE EQUIPMENT DEVIATES IN WEIGHT OR LOCATION FROM THOSE INDICATED IN THE DRAWINGS, THE STRUCTURAL ENGINEER'S APPROVAL MUST BE OBTAINED PRIOR TO INSTALLATION OF THE UNITS.
8. ALL EXISTING WOOD FRAMING MEMBERS SUPPORTING NEW MECHANICAL UNITS SHALL BE INSPECTED FOR DAMAGE AND DETERIORATION PRIOR TO INSTALLATION OF THE UNITS. NOTIFY THE STRUCTURAL ENGINEER IF DAMAGE OR DETERIORATION IS DISCOVERED.
9. ALL EXISTING (E) WOOD ELEMENTS TO REMAIN SHALL BE FIELD INSPECTED DURING CONSTRUCTION AND TREATED FOR DRYROT REMOVAL / CONTROL. WHERE EXISTING GLUE LAMINATED TIMBER BEAMS TO REMAIN ARE FOUND TO HAVE EXTENSIVE DRYROT DEEPER THAN THE TOP TWO LAMINATIONS (3"), THE STRUCTURAL ENGINEER SHALL BE NOTIFIED PRIOR TO CONTINUED CONSTRUCTION RELATED TO SUBJECT GLUE LAMINATED TIMBER BEAMS .
10. ALL EXISTING CONNECTIONS AT ELEMENTS TO BE REPLACED SHALL BE REPLACED OR RE-ATTACHED TO MATCH EXISTING CONDITIONS.
11. SEE PROJECT REPORTS AND ARCHITECTURAL DRAWINGS FOR HAZARDOUS MATERIALS (LEAD, ASBESTOS, ETC.) ABATEMENT REQUIREMENTS.
12. DO NOT CUT OR DAMAGE EXISTING CONCRETE OR MASONRY REINFORCEMENT EXCEPT AS CLEARLY INDICATED ON STRUCTURAL DRAWINGS. MAINTAIN AT LEAST 2 INCHES CLEAR TO EXISTING REINFORCEMENT, CONDUIT AND OTHER EMBEDDED ITEMS FROM CUTS, CORES, DRILL HOLES, SHOTPIINS, ETC. IN AREAS OF WORK, MARK LOCATIONS OF SUCH ITEMS USING NONDESTRUCTIVE METHODS SUCH AS GROUND PENETRATING RADAR OR X-RAY.

ROUGH CARPENTRY WOOD FRAMING

1. DESIGN, FABRICATION AND ERECTION OF WOOD FRAMING SHALL CONFORM TO THE CURRENT CBC ADOPTED EDITION OF THE NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION AND SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (SDPWS) BY AMERICAN WOOD COUNCIL (AWC).
2. ALL WORK SHALL BE IN CONFORMANCE WITH ANY AND ALL TESTING, INSPECTION, QUALIFICATION, AND QUALITY ASSURANCE PROVISIONS AS REQUIRED BY THE CALIFORNIA BUILDING CODE AND ANY APPLICABLE STANDARDS (LATEST ADOPTED EDITION OF CURRENT CBC).
3. ALL WOOD MEMBERS SHALL BE GRADED PER ASTM D245 AND COMPLY WITH USDOC PS 20. DOUGLAS FIR-LARCH (DF) SHALL BE FACTORY MARKED WITH WMPA OR WCLB STAMP. OTHER SPECIES SHALL BE GRADED BY AN AGENCY CERTIFIED BY THE ALSO BOARD OF REVIEW.
4. GRADE SHALL BE AS SPECIFIED IN THE WOOD FRAMING GRADE SCHEDULE UNLESS NOTED OTHERWISE.
5. ALL LUMBER SHALL BE STAMPED "S-DRY" AND MOISTURE CONTENT OF SAWN LUMBER SHALL NOT EXCEED 19% WHEN FRAMING STARTS OR SHEATHING IS APPLIED. ANY NONCOMPLIANT WORK SHALL BE REJECTED AND REFRAMED WITH ACCEPTABLE LUMBER.
6. FRAMING MEMBER GRADES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON THE DRAWINGS:

VERTICAL FRAMING MEMBERS	
2x4 STUDS, 4x4 POST	CONSTRUCTION
2x6 STUDS AND WIDER, 4x6 POST AND WIDER	NO.1
5x6 POST AND LARGER	SELECT STRUCTURAL
ALL OTHER VERTICAL MEMBERS	NO.2

HORIZONTAL FRAMING MEMBERS	
2" AND 3" THICKNESS	NO.1
HEADERS IN NON-BEARING WALLS SPANNING LESS THAN 4 FT	NO.2
ALL TOHER HORIZONTAL MEMBERS	SELECT STRUCTURAL
BEAM AND STRINGER 5" AND THICKER	SELECT STRUCTURAL
7. ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED. PROVIDE GALVANIZED OR HOT-DIPPED GALVANIZED FASTENERS AND HARDWARE CONNECTORS. AT PRESSURE TREATED LUMBER INCLUDING (BUT NOT LIMITED TO) ANCHOR BOLTS, NAILS, WASHERS, PLATES, HANGERS, CLIPS, HOLD-DOWNS, ETC.	NO.1

8. PLYWOOD SHALL BE STRUCTURAL 1, EXPOSURE 1, COMPLYING WITH DOC PS-1 AND PS-2 AND THE APPLICABLE STANDARDS LISTED IN CBC TABLE 2306.1. EACH SHEET OF PLYWOOD SHALL BE IDENTIFIED WITH THE APPROPRIATE TRADEMARK OF AN APPROVED TESTING AND GRADING AGENCY.
9. NAILS SHALL BE COMMON WIRE NAILS CONFORMING TO ASTM F1667, UNLESS OTHERWISE NOTED ON THE DRAWINGS. NAILING SHALL COMPLY WITH CBC SECTION 2303.6 AND FASTENING SCHEDULE AS NOTED IN CBC TABLE 2304.10.2.
10. BOLTS SHALL CONFORM TO ASTM A307. BOLT HOLES SHALL BE 1/32 TO 1/16 INCH LARGER THAN THE NOMINAL BOLT DIAMETER. PROVIDE STANDARD CUT PLATE WASHERS UNDER BOLT HEADS AND NUTS AGAINST WOOD. RETIGHTEN ALL BOLTS PRIOR TO CLOSING IN.
11. LAG SCREWS SHALL CONFORM TO ANSI/ASME B18.2.1. LAG SCREWS MUST BE INSERTED IN PREDRILLED HOLES. HOLE AT SHANK PORTION TO MATCH DIAMETER OF SHANK. HOLE AT THREADED PORTION TO BE 60 TO 70 PERCENT OF THE SHANK DIAMETER AND EQUAL TO LENGTH OF THE THREADED PORTION. USE SOAP OR OTHER LUBRICANTS TO FACILITATE INSTALLATION. DRIVING WITH HAMMER IS NOT PERMITTED. PROVIDE STANDARD CUT PLATE WASHERS LAG SCREW HEADS AGAINST WOOD.
12. ANCHOR BOLTS INTO CONCRETE OR CMU SHALL CONFORM TO ASTM F1554, GRADE 36, UNO.
13. WOOD CONNECTORS AND HOLD-DOWNS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY INC. CONNECTORS SHALL HAVE CURRENT ICC-ES EVALUATION REPORTS. CONNECTORS, HANGERS AND STRAPS SHALL BE FULLY BOLTED OR NAILED TO DEVELOP FULL STRENGTH PER MANUFACTURER'S SPECIFICATIONS.
14. GROUT SILL PLATES IF NECESSARY TO ACHIEVE FULL BEARING. ATTACH SILL PLATES TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS AT 4'-0" MAXIMUM UNLESS OTHERWISE NOTED. AT CORNERS, INTERSECTIONS, DOOR OPENINGS, SILL ENDS, AND CUTS EXCEEDING 1/3 THE SILL WIDTH, PLACE AN ANCHOR BOLT NOT MORE THAN 9" FROM THE NOTCH OR SILL END. ANCHOR BOLTS SHALL BE EMBEDDED A MINIMUM OF 8" INTO CONCRETE.
15. DOUBLE TOP PLATES ON ALL EXTERIOR AND BEARING WALLS SHALL BE LAPPED 4'-0" MINIMUM AT SPLICES AND NAILED WITH 8-16d NAILS, MINIMUM, EACH SIDE OF LAP, UNLESS OTHERWISE NOTED.
16. ALL HORIZONTAL FRAMING MEMBERS SHALL BE ERECTED WITH NATURAL OR BUILT-IN CAMBER UPWARD.
17. NOTCHING OR CUTTING OF STRUCTURAL LUMBER IS NOT PERMITTED UNLESS SPECIFICALLY DETAILED OR INDICATED. OBTAIN ARCHITECTS' (STRUCTURAL ENGINEER'S) APPROVAL FOR HOLES OR NOTCHES NOT DETAILED.
- A. CUTTING, NOTCHING AND BORED HOLES IN WOOD STUDS SHALL COMPLY WITH CBC SECTIONS 2308.5.9 AND 2308.5.10.
 - B. NOTCHING AND BORED HOLES IN WOOD JOISTS AND RAFTERS SHALL COMPLY WITH CBC SECTION 2308.4.2.4.
18. LATERAL SUPPORT OF JOISTS AND RAFTERS SHALL COMPLY WITH CBC SECTION 2308.4.2.3. JOISTS/RAFTERS SHALL BE SUPPORTED Laterally AT THE ENDS AND AT EACH SUPPORT BY SOLID BLOCKING EXCEPT WHERE THE ENDS OF THE JOISTS/RAFTERS ARE NAILED TO A HEADER OR RIM JOIST OR TO AN ADJOINING STUD OR BY OTHER APPROVED MEANS. SOLID BLOCKING SHALL NOT BE LESS THAN 2 INCHES IN THICKNESS AND THE FULL DEPTH OF THE JOIST/RAFTER. IN ADDITION, SOLID BLOCKING SHALL BE PROVIDED AS FOLLOWS:
- A. FLOOR AND ROOF JOISTS SHALL BE BLOCKED AT 8'-0" OC.
 - B. UNDER SUPPORTED TRANSVERSE PARTITIONS PERPENDICULAR TO THE JOIST.
19. PROVIDE DOUBLE JOIST UNDER ALL SUPPORTED PARTITION RUNNING PARALLEL TO THE FLOOR FRAMING.

ROUGH CARPENTRY WOOD FRAMING (CONTINUED)

20. WOOD STUD WALLS SHALL COMPLY WITH THE FOLLOWING:
- A. STUD WALL BRACING IN STUD WALLS NOT PLYWOOD SHEATHED SHALL COMPLY WITH CBC SECTION 2308.5.7.
 - B. FIREBLOCKING SHALL BE IN ACCORDANCE TO CBC SECTION 718.2.
 - C. STUDS TO BE SPACED AT 16" OC MAXIMUM.
21. BEAMS OR DRAG-STRUTS CONSISTING OF DOUBLE JOISTS SHALL BE LAMINATED TOGETHER WITH 16d NAILS AT 9" OC STAGGERED. BEAM OR DRAG-STRUT CONSISTING OF THREE OR MORE JOISTS SHALL BE LAMINATE TOGETHER WITH 1/2-INCH DIAMETER BOLTS AT 24" OC STAGGERED.
22. POSTS AND STUDS SHALL BEAR ON SILL PLATES UNLESS OTHERWISE NOTED.
23. ALL WALLS NOT OTHERWISE BRACED SHALL HAVE 1x6 DIAGONAL LET-IN BRACING AT 25' FEET INTERVALS. EACH BRACE SHALL COVER 3 STUD SPACES MINIMUM AND BE ATTACHED TO TOP AND BOTTOM PLATES WITH 3-8d NAILS.
24. FIREBLOCKED WALLS SHALL BE FIREBLOCKED SUCH THAT NO SPACE EXCEEDS 8 FEET IN HEIGHT. STAIR STRINGERS SHALL BE FIREBLOCKED AT EACH END AND AT MIDHEIGHT.
25. WHERE STUD WALLS JOIN CONCRETE OR MASONRY WALLS, THE END STUD SHALL BE BOLTED THERETO WITH 1/2" DIAMETER BOLTS AT TOP, BOTTOM AND MIDHEIGHT. SUCH BOLTS SHALL BE EMBEDDED INTO THE WALL NOT LESS THAN 2/3 THE THICKNESS OF THE WALL OR 8" MAXIMUM.
26. PLYWOOD SHALL BE GRADE MARKED C OR D. HORIZONTAL PLYWOOD SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS. FLOOR AND ROOF SHEATHING SHALL HAVE A PANEL INDEX OF 32/16 UNLESS OTHERWISE NOTED.
27. NAILING OF PLYWOOD TO BE APPROVED BY THE INSPECTOR BEFORE COVERING WITH ROOF, FLOOR OR WALL MATERIALS.
28. MACHINE APPLIED (PNEUMATIC) NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION AND TO THE APPROVAL OF THE GOVERNING CODE AUTHORITY AND THE ARCHITECT (STRUCTURAL ENGINEER). THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE APPLIED NAILING MAY BE USED ONLY ON PLYWOOD GREATER THAN 5/16" THICK. SHINERS SHALL BE REPLACED. IF NAIL HEADS PENETRATE THE OUTER PLY BY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY AND MACHINE NAILING SHALL BE DISCONTINUED.
29. REFER TO "WOOD FRAMING NAILING SCHEDULE" FOR MINIMUM CONNECTIONS REQUIREMENTS. REFER TO CBC TABLE 2304.10.2 FOR ADDITIONAL INFORMATION NOT INDICATED.
30. MOISTURE CONTENT OF SAWN LUMBER SHALL NOT EXCEED 19% WHEN FRAMING STARTS OR SHEATHING IS APPLIED. ANY NONCOMPLIANT WORK SHALL BE REJECTED AND REFRAMED WITH ACCEPTABLE LUMBER.
31. ARCHITECTURALLY EXPOSED TIMBERS 4" NOMINAL IN THE LEAST DIMENSION SHALL NOT CONTAIN BOXED HEART.
32. ALL CONNECTORS THAT ARE EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED, STAINLESS STEEL OR AN EQUIVALENT APPROVED BY THE SEOR.
33. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING.
34. HOLD-DOWN CONNECTOR BOLTS SHALL BE TIGHTENED TO FINGER TIGHT PLUS ONE HALF WRENCH TURN PRIOR TO COVERING THE WALL FRAMING.
35. HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

WOOD FRAMING NAILING SCHEDULE

1. PROVIDE MINIMUM CONNECTION REQUIREMENTS AS NOTED IN SCHEDULE BELOW UNLESS OTHERWISE NOTED ON PLANS.
2. NAIL SPACING SHALL NOT BE LESS THAN REQUIRED PENETRATION. EDGE AND END DISTANCES SHALL BE NOT LESS THAN HALF THIS SPACING. ALL SPACING AND EDGE AND END DISTANCES SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD. HOLES FOR NAILS, WHERE NECESSARY TO PREVENT SPLITTING, SHALL BE BORED OF A DIAMETER SMALLER THAN THAT OF THE NAILS. COMMON OR BOX NAILS MAY BE USED FOR NAILING AT TYPICAL CONNECTIONS NOTED BELOW (UNO.). FOR ALL CONNECTIONS OTHERWISE NOTED OR DETAILED ON PLANS, COMMON NAILS SHALL BE USED (SEE NAIL SCHEDULE BELOW).

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ^a	SPACING AND LOCATION
ROOF		
1. BLOCKING BETWEEN CEILING JOIST, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	4-8d BOX (2 1/2" x 0.113"); OR 3-8d COMMON (2 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES 7/16" CROWN	EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2-8d COMMON (2 1/2" x 0.131") 2-3" x 0.131" NAILS 2-3" 14 GAGE STAPLES	EACH END, TOENAIL
	2-16d COMMON (3 1/2" x 0.162") 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES	END NAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (3 1/2" x 0.162") @ 6" OC 3" x 0.131" NAILS @ 6" OC 3" x 14 GAGE STAPLES @ 6" OC	FACE NAIL
2. CEILING JOISTS TO TOP PLATE	4-8d BOX (2 1/2" x 0.113"); OR 3-8d COMMON (2 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES 7/16" CROWN	EACH JOIST, TOENAIL
3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	3-16d COMMON (3 1/2" x 0.162"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	PER TABLE 2308.7.3.1	FACE NAIL
5. COLLAR TIE TO RAFTER	3-10d COMMON (3" x 0.148"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE (SEE SECTION 2308.7.5, TABLE 2308.7.5)	3-10d COMMON (3" x 0.148"); OR 3-16d BOX (3 1/2" x 0.135"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131 NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	2 TOENAILS ON ONE SIDE AND 1 TOENAIL ON OPPOSITE SIDE OF RAFTER OR TRUSS
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2-INCH RIDGE BEAM	2-16d COMMON (3 1/2" x 0.162"); OR 3-16d BOX (3 1/2" x 0.135"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16 CROWN	END NAIL
	3-10d COMMON (3 1/2" x 0.148"); OR 4-16d BOX (3 1/2" x 0.135"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16 CROWN	TOE NAIL

WOOD FRAMING NAILING SCHEDULE (CONTINUED)

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ^a	SPACING AND LOCATION
WALL		
8. STUD TO STUD (NOT AT BRACED WALLS PANELS)	16d COMMON (3 1/2" x 0.162"); 10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	24" OC FACE NAIL 16" OC FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162"); 16d BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	16" OC FACE NAIL 12" OC FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (3 1/2" x 0.162") 16d BOX (3 1/2" x 0.135")	16" OC EACH EDGE, FACE NAIL 12" OC EACH EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	4-8d COMMON (2 1/2" x 0.131"); OR 4-10d BOX (3" x 0.128"); OR 5-8d BOX (2 1/2" x 0.113")	TOE NAIL
12. TOP PLATE TO TOP PLATE	16d COMMON (3 1/2" x 0.162"); 10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	16" OC FACE NAIL 12" OC FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON (3 1/2" x 0.162"); OR 12-16d BOX (3 1/2" x 0.135"); OR 12-10d BOX (3" x 0.128"); OR 12-3" x 0.131 NAILS; OR 12-3" 14 GAGE STAPLES, 7/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162"); 16d BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	16" OC FACE NAIL 12" OC FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	3-16d COMMON (3 1/2" x 0.135"); OR 3-16d BOX (3 1/2" x 0.135");OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	16" OC FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	3-16d BOX (3 1/2" x 0.135"); OR 4-8d COMMON (2 1/2" x 0.131"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-8d BOX (2 1/2" x 0.113"); OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL END NAIL
17. TOP PLATE, LAPS AT CORNERS AND INTERSECTION	2-16d COMMON (3 1/2" x 0.162"); OR 3-10d BOX (3" x 0.128");OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
18. 1" BRACE TO EACH STUD AND PLATE	3-8d BOX (2 1/2" x 0.113"); OR 2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 2-3" x 0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
19. 1" x 6" SHEATHING TO EACH BEARING	3-8d BOX (2 1/2" x 0.113"); OR 2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 2-1 3/4" 16 GAGE STAPLES, 1" CROWN	FACE NAIL
20. 1" x 8" AND WIDER SHEATHING TO EACH BEARING	3-8d COMMON (2 1/2" x 0.131"); OR 3-8d BOX (2 1/2" x 0.113"); OR 3-10d BOX (3" x 0.128"); OR 3-1 3/4" 16 GAGE STAPLES, 1" CROWN	FACE NAIL

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ^a	SPACING AND LOCATION
FLOOR		
21. JOIST TO SILL, TOP PLATE, OR GIRDER	4-8d BOX (2 1/2" x 0.113"); OR 3-8d COMMON (2 1/2" x 0.131"); OR FLOOR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
22. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d BOX (2 1/2" x 0.113"); 8d COMMON (2 1/2" x 0.131"); OR 10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	4" OC TOENAIL 6" OC TOENAIL
23. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2 1/2" x 0.113"); OR 2-8d COMMON (2 1/2" x 0.131"); OR FLOOR 3-10d BOX (3" x 0.128"); OR 2-1 3/4" 16 GAGE STAPLES, 1" CROWN	FACE NAIL
24. 2 SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3 1/2" x 0.135"); OR 2-16d COMMON (3 1/2" x 0.162")	BLIND AND FACE NAIL
25. 2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	3-16d BOX (3 1/2" x 0.135"); OR 2-16d COMMON (3 1/2" x 0.162")	EACH BEARING, FACE NAIL
26. BUILT-UP GIRDERS AND BEAM, 2" LUMBER LAYERS	20d COMMON (4" x 0.192") 10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN AND: 2-20d COMMON (4" x 0.192"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	24" OC FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES ENDS AND AT EACH SPLICE, FACE NAIL
27. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3-16d COMMON (3 1/2" x 0.162"); OR 4-16d BOX (3 1/2" x 0.135"); OR 4-10d BOX (3" x 0.128");OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST OR RAFTER, FACE NAIL
28. JOIST TO BAND JOIST OR RIM JOIST	3-16d COMMON (3 1/2" x 0.162"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
29. BRIDGING OR BLOCKING TO JOIST RAFTER OR TRUSS	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 2-3" x 0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL



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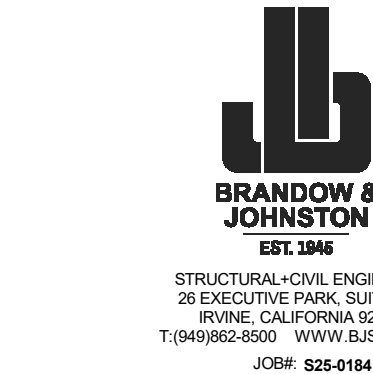
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TABLE 1705.2.1 OF CBC REQUIRED SPECIAL INSPECTIONS AND TEST OF STEEL CONSTRUCTION			
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD ^a
1. MATERIAL IDENTIFICATION AND TESTING OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:			
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	—	X	RCSC: 1.5, AISC 360, SECTION A3.3 & J3.1 AND APPLICABLE ASTM MATERIAL STANDARDS.
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	—	X	RCSC: 1.5 & 2.1; AISC 360: A3.3 & N3.2
c. TESTING OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS.	—	—	RCSC: 7.2, APPLICABLE ASTM MATERIAL STANDARDS
2. INSPECTION OF HIGH-STRENGTH BOLTING:			
a. SNUG-TIGHT JOINTS.	—	X	RCSC: 7-9, AISC 360, SECTION J3.1, J3.2, M2.5 & N5.6
b. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION	—	X	
c. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	—	
3. MATERIAL IDENTIFICATION AND TESTING OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:			
a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO ONFORM TO AISC 360.	—	X	AISC 360: A3.1
b. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	—	X	APPLICABLE ASTM MATERIAL STANDARDS
c. MANUFACTURER'S CERTIFIED TEST REPORTS.	—	X	AISC 360: A3.1 & N3.2
d. TESTING OF UNIDENTIFIED STEEL.	—	—	APPLICABLE ASTM MATERIAL STANDARDS
4. MATERIAL IDENTIFICATION OF WELDING CONSUMABLES AND TESTING OF WELDED ELEMENTS:			
a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	—	X	AISC 360, A3.5 & N3.2 AND APPLICABLE AWS A5 DOCUMENTS
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	—	X	AISC 360: N3.2
c. NONDESTRUCTIVE TESTING OF WELDED JOINTS.	—	—	AISC 360: N5.5
5. INSPECTION OF WELDING:			
a. STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:			
1. COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	X	—	AISC 360: J2, M2.4, & M4.5, AWS D1.1, AWS D1.8
2. MULTIPASS FILLET WELDS.	X	—	
3. SINGLE-PASS FILLET WELDS > 5/16"	X	—	
4. PLUG AND SLOT WELDS.	X	—	
5. SINGLE-PASS FILLET WELDS ≤ 5/16"	—	X	
6. FLOOR AND ROOF DECK WELDS.	—	X	AWS D1.3, SDI QA/QC
7. END-WELDED STUDS.	—	X	AWS D1.1
8. WELDED SHEET STEEL FOR COLD-FORMED FRAMING MEMBERS.	—	X	AWS D1.3
b. REINFORCING STEEL:			
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:			
a. DETAILS SUCH AS BRACING AND STIFFENING.	—	X	AISC 360: N5.8
b. MEMBER LOCATIONS.	—	X	
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	—	X	

a. WHERE APPLICABLE, SEE ALSO SECTION 1705A.13, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.

TABLE 1705.3 OF CBC REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION			
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD ⁽¹⁾
1. INSPECT AND TEST REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.			ACI 318: CH. 20, 25.2, 25.3, 25.5.1, 26.6.1-26.6.3, 26.13.1, 26.13.3.2, 26.13.3.3
a. REINFORCEMENT IN SPECIAL MOMENT FRAMES, BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS AND COUPLING BEAMS.	X	—	
b. ALL OTHER REINFORCEMENT.	—	X	
2. REINFORCING BAR WELDING:			
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	—	X	AWS D1.4
b. INSPECT SINGLE PASS FILLET WELDS, MAXIMUM 5/16"; NOT DEFINED IN 2.d OR 2.e	—	X	
c. INSPECT ALL OTHER WELDS.	X	—	
d. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS AND COUPLING BEAMS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	—	ACI 318: 18.2.8, 25.5.7, 26.6.4, 26.13.1.4, 26.13.3.2, 26.13.3.3
e. SHEAR REINFORCEMENT.	X	—	ACI 318: 17.8.2, 26.7.2, 26.8.2, 26.13.1, 26.13.3.3
3. INSPECT ANCHORS CAST IN CONCRETE.	—	X	
4. INSPECT AND TEST ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS ⁽²⁾			
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	—	ACI 318: 17.8.2.4, 26.7.2, 26.13.1, 26.13.3.2
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	—	X	ACI 318: 17.8.2, 26.7.2, 26.13.1, 26.13.3.2
5. VERIFY USE OF REQUIRED DESIGN MIX.	X	—	ACI 318: CH.19, 26.4, 26.13.3.2
6. PRIOR TO AND DURING CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	—	ASTM C31 ASTM C172 ACI 318: 26.4, 26.5, 26.12
7. INSPECT CONCRETE AND SHOTCRETE FOR PROPER APPLICATION TECHNIQUES.	X	—	ACI 318: 26.5, 26.13, ACI 506: 3.4
8. VERIFY MAINTENANCE OF SPECIFIC CURING TEMPERATURE AND TECHNIQUES.	—	X	ACI 318: 26.5.3-26.5.5, 26.13.3.3
9. INSPECT PRESTRESSED CONCRETE FOR:			
a. APPLICATION OF PRESTRESSING FORCES; AND	X	—	ACI 318: 26.10.2, 26.13.1, 26.13.3.2
b. GROUTING OF BONDED PRESTRESSING TENDONS.	X	—	
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	—	X	ACI 318: 26.9, 26.13.1, 26.13.3.3
11. FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OR REINFORCEMENT AT JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR:	—	X	ACI 318: 26.13.1.3
a. INSTALLATION OF THE EMBEDDED PARTS	X	—	ACI 550.5
b. COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS	X	—	
c. COMPLETION OF CONNECTIONS IN THE FIELD	X	—	
12. INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5	—	X	ACI 318: 26.13.1.3
13. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL	—	X	ACI 318: 26.10.2, 26.11.2, 26.13.3.3
14. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	—	X	ACI 318: 26.11.1.2(b), 26.13.3.3

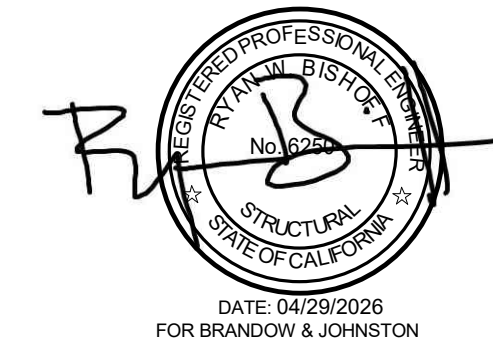
(a) WHERE APPLICABLE, SEE SECTION 1705A.13

(b) SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

(c) INSTALLATION OF ALL ADHESIVE ANCHORS IN HORIZONTAL AND UPWARDLY INCLINED POSITIONS SHALL BE PERFORMED BY AN ACI/CRSI CERTIFIED ADHESIVE ANCHOR INSTALLER, EXCEPT WHERE THE DESIGN TENSION ON THE ANCHORS IS LESS THAN 100 LBS AND THOSE ANCHORS ARE CLEARLY NOTED ON THE APPROVED CONSTRUCTION DOCUMENTS OR WHERE THE ANCHORS ARE SHEAR DOWELS ACROSS COLD JOINTS IN SLABS ON GRADE WHERE THE SLAB IS NOT PART OF THE LATERAL FORCE-RESISTING SYSTEM.

TABLE 1705.6 OF CBC REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	—	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	—	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	—	X
4. DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	—
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	—	X

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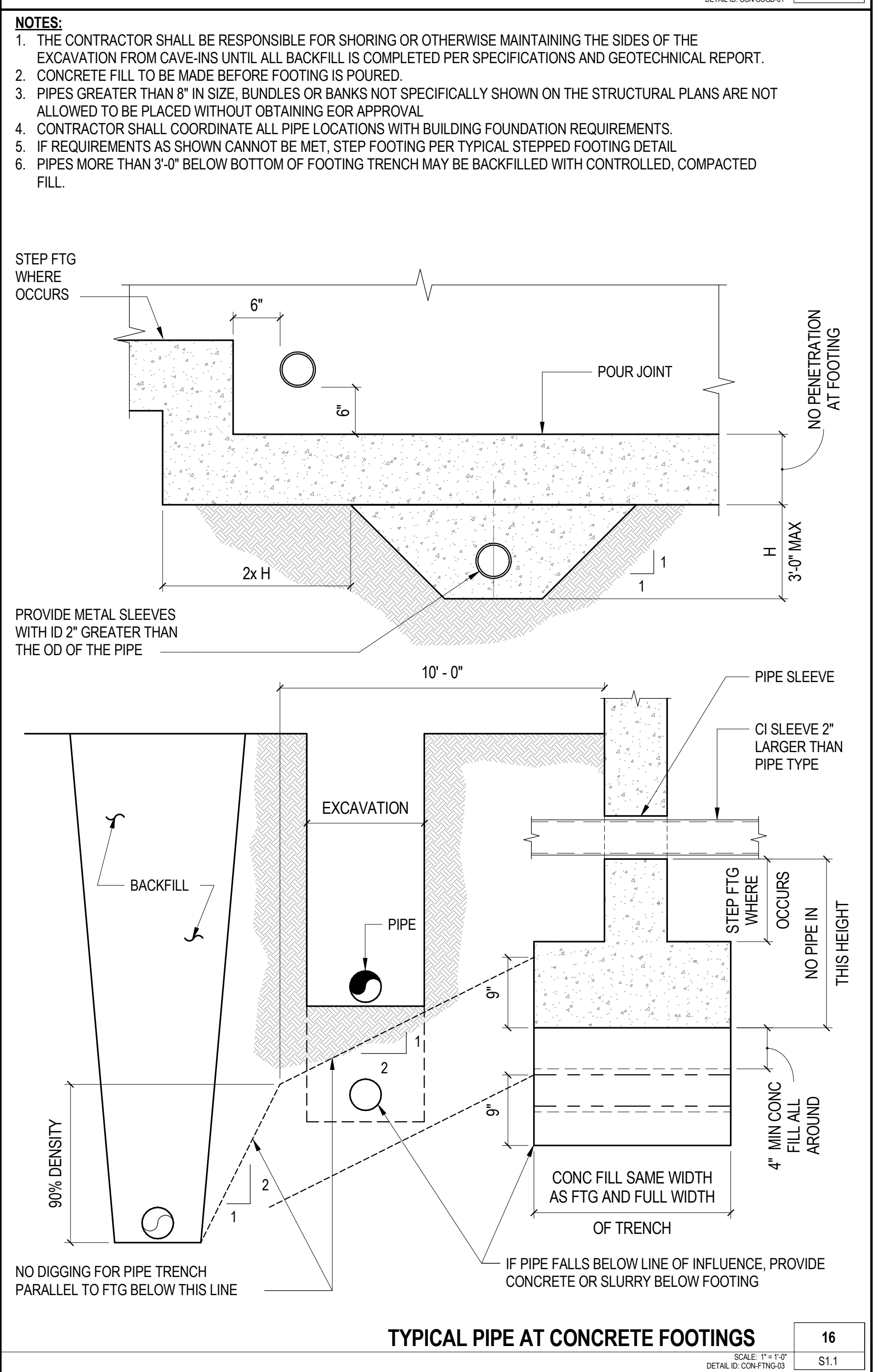
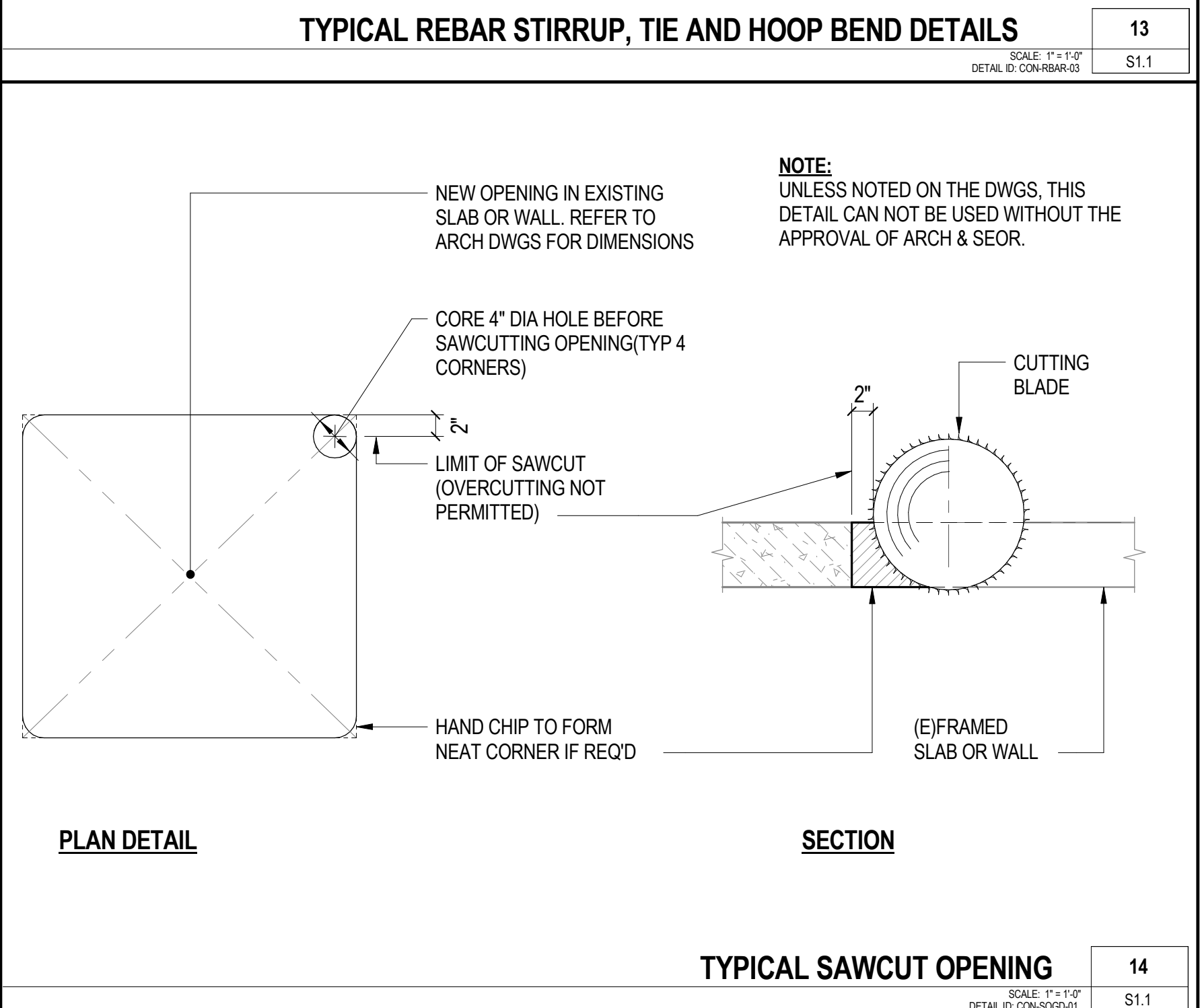
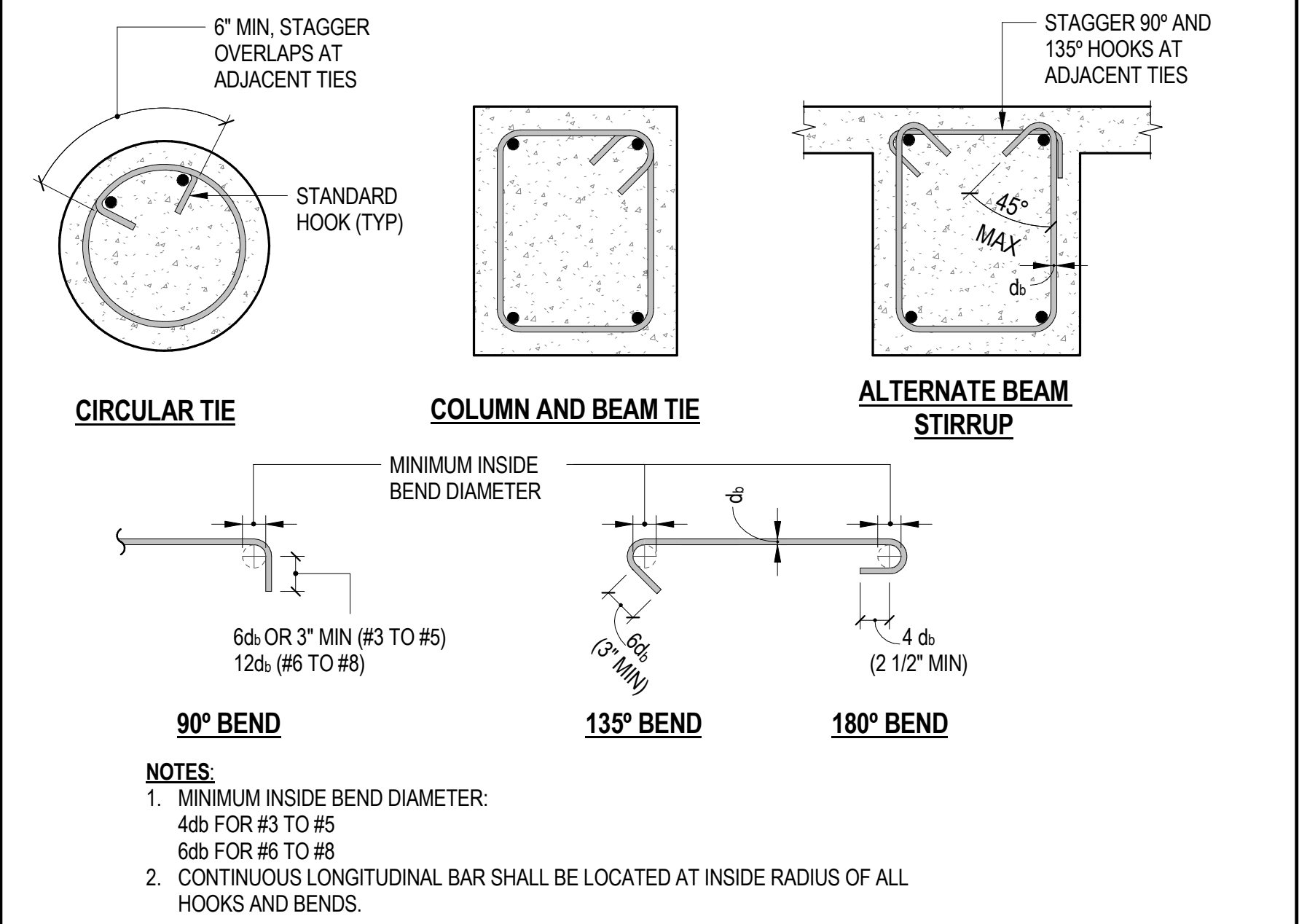
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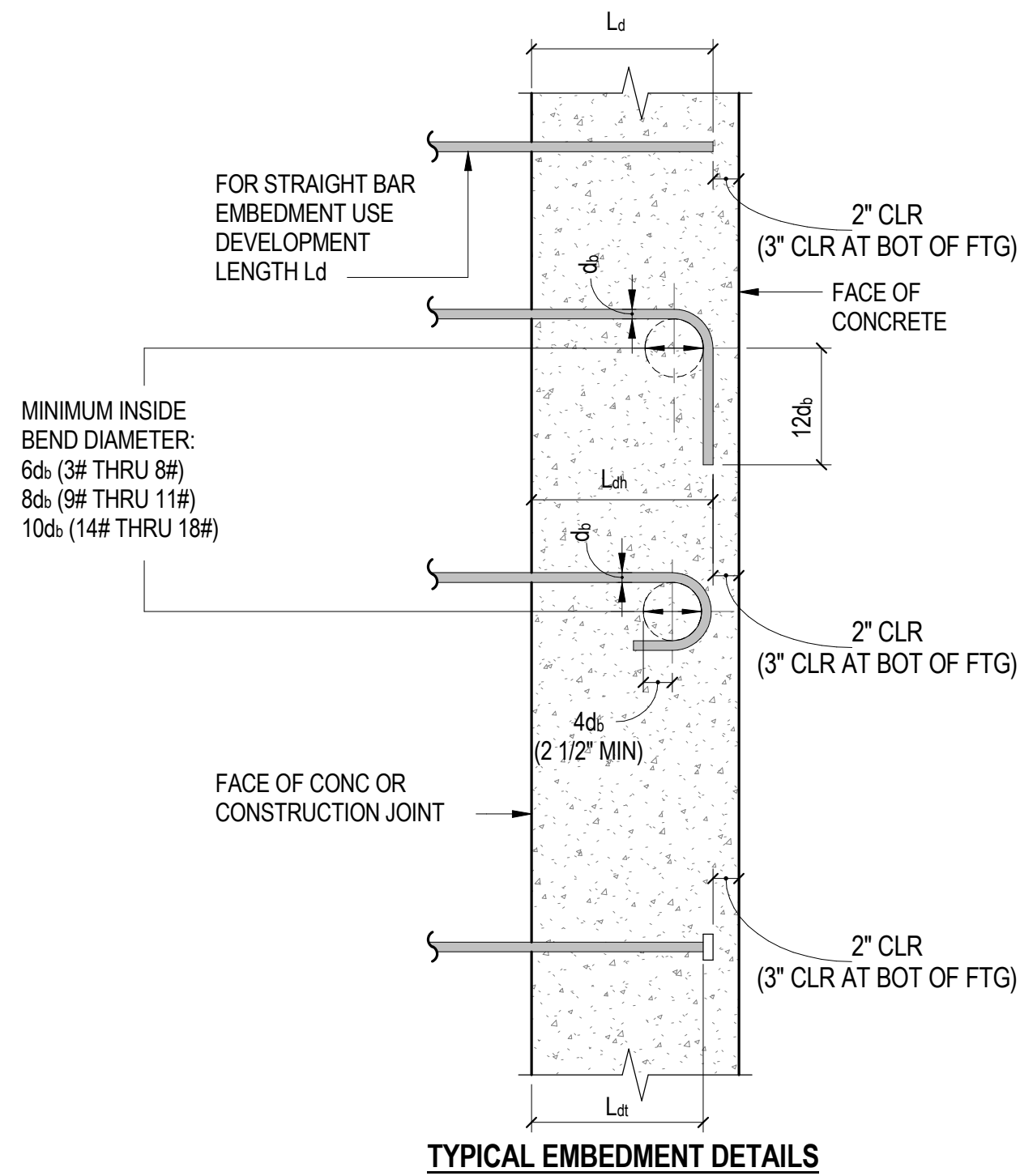
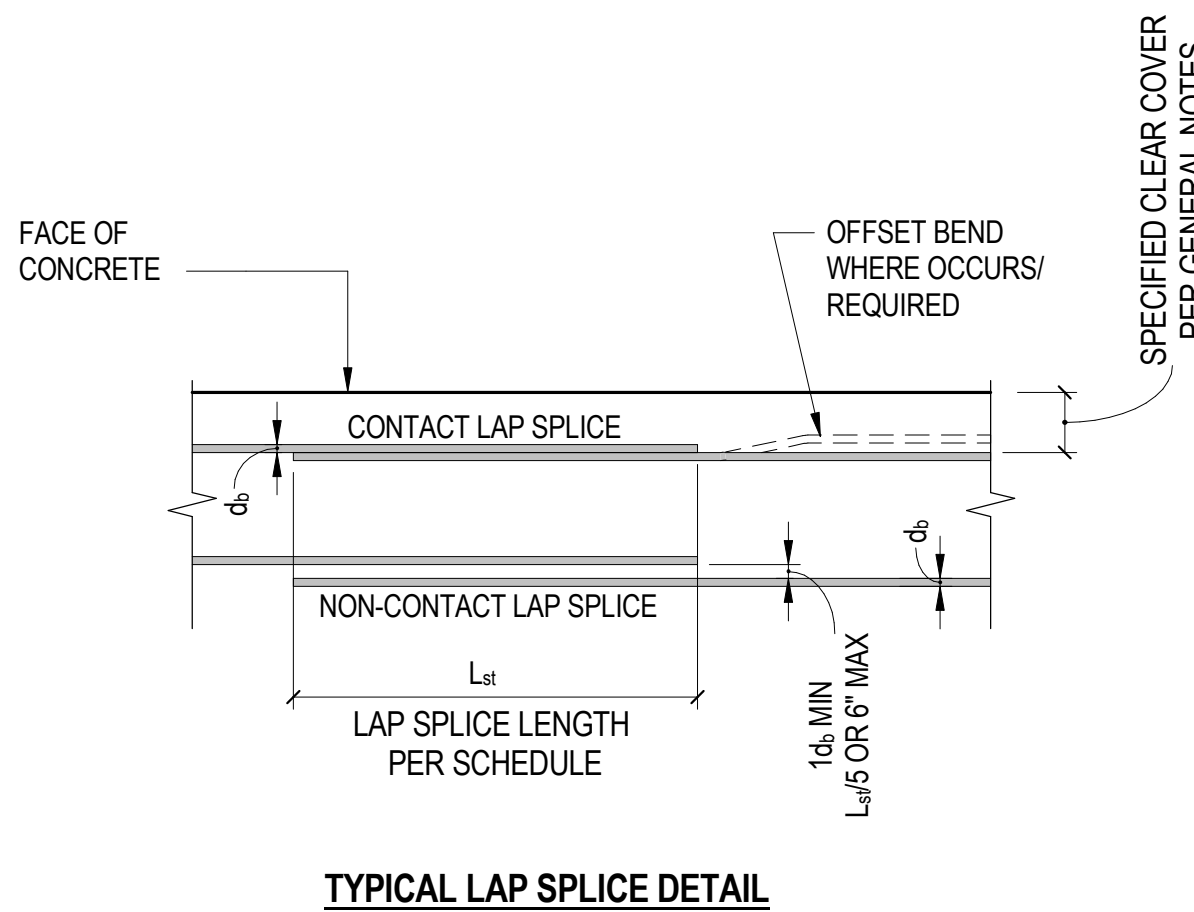
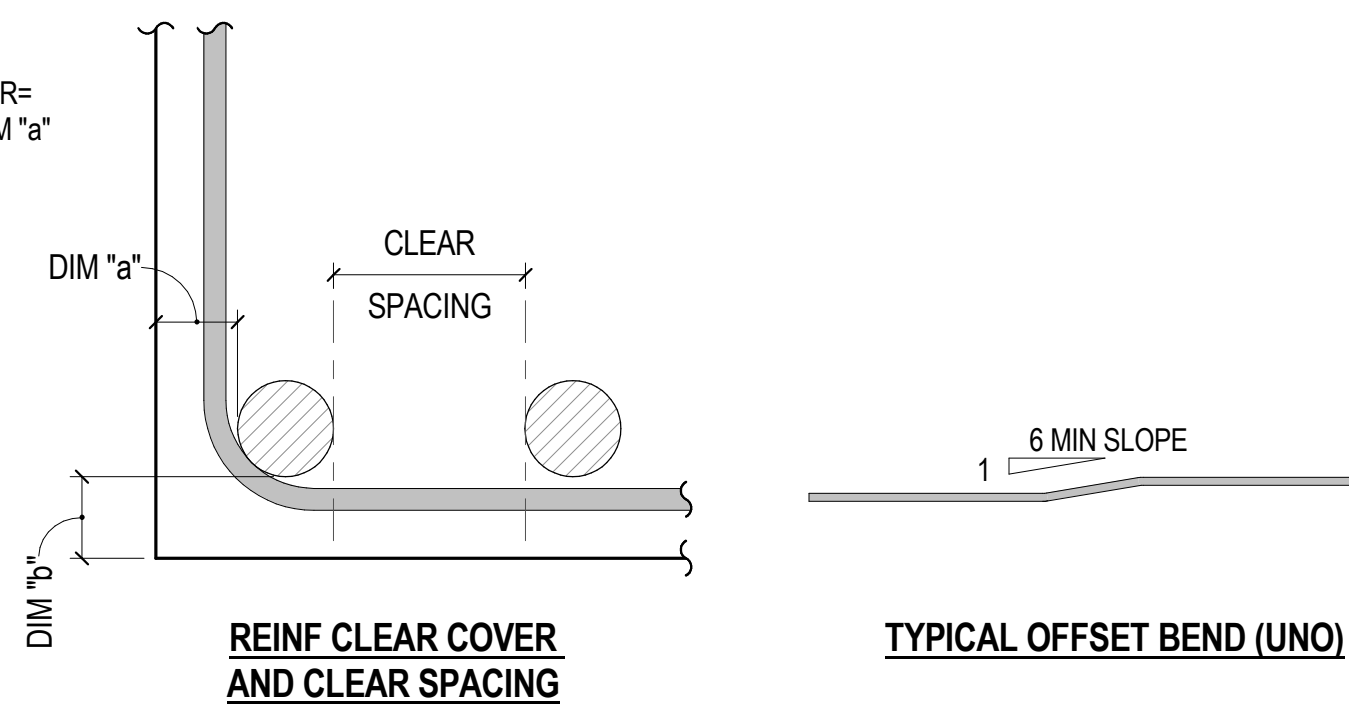
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STRAIGHT BAR DEVELOPMENT LENGTH (L _d) SCHEDULE (IN)																				
LONGITUDINAL REINFORCEMENT GRADE	LONGITUDINAL REINFORCEMENT		REINFORCEMENT CLEAR SPACING ≥ 5d _s AND REINFORCEMENT CLEAR COVER ≥ 2.5d _s						REINFORCEMENT CLEAR SPACING ≥ 3.0d _s AND REINFORCEMENT CLEAR COVER ≥ 1.4d _s						d _s ≤ REINFORCEMENT CLEAR SPACING < 3.0d _s OR SPECIFIED CLEAR COVER ≤ REINFORCEMENT CLEAR COVER < 1.4d _s					
			CONCRETE STRENGTH (f _c)						CONCRETE STRENGTH (f _c)						CONCRETE STRENGTH (f _c)					
	TOP BARS			OTHER BARS			TOP BARS			OTHER BARS			TOP BARS			OTHER BARS				
	SIZE	DIAMETER	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI
GRADE 60 (60 KSI)	#4	0.500	18	15	14	14	12	12	25	22	19	19	17	15	43	37	34	33	29	26
	#5	0.625	22	19	17	17	15	13	31	27	24	24	21	19	54	47	42	42	36	32
	#6	0.750	26	23	20	20	18	16	37	32	29	29	25	22	65	56	50	50	43	39
	#7	0.875	38	33	29	29	25	23	54	47	42	42	36	32	94	81	73	72	63	56
	#8	1.000	43	37	34	33	29	26	62	53	48	47	41	37	107	93	83	83	72	64

STANDARD HOOK (90° OR 180°) DEVELOPMENT LENGTH (L _{dh}) SCHEDULES (IN)										
LONGITUDINAL REINFORCEMENT GRADE	LONGITUDINAL REINFORCEMENT	CENTER-TO-CENTER SPACING OF HOOKED BAR < 6d _s ; AND, SIDE COVER (NORMAL TO PLANE OF HOOK) ≥ 6d _s (SEE NOTES 3 & 4)			CENTER-TO-CENTER SPACING OF HOOKED BAR ≥ 6d _s ; AND, SIDE COVER (NORMAL TO PLANE OF HOOK) ≥ 6d _s (SEE NOTES 3 & 4)			CONCRETE STRENGTH (f' _c)		
		CONCRETE STRENGTH (f' _c)			CONCRETE STRENGTH (f' _c)			CONCRETE STRENGTH (f' _c)		
		SIZE	DIAMETER	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI
GRADE 60 (60 KSI)	#4	0.500	10	9	9	6	6	6	6	6
	#5	0.625	13	12	12	8	8	8	8	8
	#6	0.750	17	16	15	11	10	10	10	10
	#7	0.875	21	20	19	14	13	12	12	12
	#8	1.000	26	24	24	16	15	15	15	15

LAP SPLICE (L _{st}) SCHEDULE (IN)																				
LONGITUDINAL REINFORCEMENT GRADE	LONGITUDINAL REINFORCEMENT		REINFORCEMENT CLEAR SPACING ≥ 5d _s AND REINFORCEMENT CLEAR COVER ≥ 2.5d _s						REINFORCEMENT CLEAR SPACING ≥ 2.5d _s AND REINFORCEMENT CLEAR COVER ≥ 1.25d _s						d _s ≤ REINFORCEMENT CLEAR SPACING < 2.5d _s OR REINFORCEMENT CLEAR COVER < 1.25d _s					
			CONCRETE STRENGTH (f' _c)						CONCRETE STRENGTH (f' _c)						CONCRETE STRENGTH (f' _c)					
	TOP BARS			OTHER BARS			TOP BARS			OTHER BARS			TOP BARS			OTHER BARS				
	SIZE	DIAMETER	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI	3,000 PSI	4,000 PSI	5,000 PSI
GRADE 60 (60 KSI)	#4	0.500	23	20	18	18	16	16	32	28	25	25	22	19	56	49	44	43	37	34
	#5	0.625	28	25	22	22	19	17	40	35	31	31	27	24	70	61	54	54	47	42
	#6	0.750	34	29	26	26	23	20	48	42	37	37	32	29	84	73	65	65	56	50
	#7	0.875	49	43	38	38	33	29	70	61	54	54	47	42	122	106	95	94	81	73
	#8	1.000	56	49	44	43	37	34	80	69	62	62	53	48	139	121	108	107	93	83



- DEVELOPMENT LENGTH SCHEDULE NOTES:
- THIS SCHEDULE IS BASED ON DEVELOPMENT LENGTH FOR 1.0 x REINFORCEMENT YIELD STRENGTH NOT CONSIDERING THE EFFECT OF CONFINING REINFORCEMENT.
 - FOR HOOKED BARS AND HEADED DEFORMED BARS, CONDITION NOTED IN TABLE FOR SIDE COVER ALSO APPLIES TO HOOKED BARS TERMINATING INSIDE COLUMN CORE WITH SIDE COVER NORMAL TO PLANE OF HOOK ≥ 2.5 INCHES.
 - FOR HOOKED BARS AND HEADED DEFORMED BARS, WHERE SIDE COVER NORMAL TO PLANE OF HOOK IS LESS THAN 6 d_s OR WHERE HOOKED BARS TERMINATING INSIDE COLUMN CORE WITH SIDE COVER NORMAL TO PLANE OF HOOK IS LESS THAN 2.5 INCHES, MULTIPLY THE TABULATED DEVELOPMENT LENGTH BY 1.25.
 - HOOKED OR HEADED DEFORMED BAR MAY BE USED WHERE STRAIGHT DEVELOPMENT LENGTH CAN NOT BE ACHIEVED.
 - d_s IS NOMINAL DIAMETER OF REINFORCEMENT.
 - FOR LIGHT-WEIGHT CONCRETE, MULTIPLY TABULATED DEVELOPMENT LENGTH FOR STRAIGHT DEVELOPMENT LENGTH AND STANDARD HOOKED LENGTH BY 1.33.
 - TABULATED VALUES ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) REINFORCEMENT.
 - THESE TABLES DO NOT APPLY TO SPECIAL REINFORCED CONCRETE SHEAR WALLS.
 - TOP BARS AS NOTED IN THE SCHEDULE REFERS TO HORIZONTAL REINFORCING WITH MORE THAN 12" OF CONCRETE PLACED BELOW REINFORCING BAR.
 - HEADED DEFORMED BARS SHALL BE HRC 555 (ICC ESR-2935) OR APPROVED EQUIVALENT.
 - FOR GRADE 80 (80 KSI) STRAIGHT DEVELOPMENT LENGTH, MULTIPLY TABULATE VALUES BY 1.53.
 - FOR GRADE 80 (80 KSI) HOOKED OR HEADED DEVELOPMENT LENGTH, MULTIPLY TABULATE VALUES BY 1.33.

- LAP SPLICE SCHEDULE NOTES:
- THIS SCHEDULE IS BASED ON LAP SPLICE FOR 1.0 x REINFORCEMENT YIELD STRENGTH NOT CONSIDERING THE EFFECT OF CONFINING REINFORCEMENT.
 - REINFORCEMENT CLEAR COVER FOR STRAIGHT BAR DEVELOPMENT IS BASED ON THE SMALLER VALUE ON BOTH SIDES.
 - FOR HOOKED BARS AND HEADED DEFORMED BARS, CONDITION NOTED IN TABLE ABOVE FOR SIDE COVER ALSO APPLIES TO HOOKED BARS TERMINATING INSIDE COLUMN CORE WITH SIDE COVER NORMAL TO PLANE OF HOOK ≥ 2.5 INCHES.
 - FOR HOOKED BARS AND HEADED DEFORMED BARS, WHERE SIDE COVER NORMAL TO PLANE OF HOOK IS LESS THAN 6 d_s OR WHERE HOOKED BARS TERMINATING INSIDE COLUMN CORE WITH SIDE COVER NORMAL TO PLANE OF HOOK IS LESS THAN 2.5 INCHES, MULTIPLY THE TABULATED DEVELOPMENT LENGTH BY 1.25.
 - MECHANICAL SPLICE TYPE 2 MAY BE USED IN LIEU OF STRAIGHT LAP SPLICE BARS.
 - MECHANICAL SPLICES SHALL BE INVENT (WAMPO ER-0129) OR APPROVED EQUIVALENT AND SHALL COMPLY WITH REQUIREMENTS OF ACI 318.
 - d_s IS NOMINAL DIAMETER OF REINFORCEMENT.
 - FOR LIGHT-WEIGHT CONCRETE, MULTIPLY TABULATED DEVELOPMENT LENGTH FOR STRAIGHT DEVELOPMENT LENGTH AND STANDARD HOOKED LENGTH BY 1.33.
 - TABULATED VALUES ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) REINFORCEMENT.
 - THESE TABLES DO NOT APPLY TO SPECIAL REINFORCED CONCRETE SHEAR WALLS.
 - TOP BARS AS NOTED IN THE SCHEDULE REFERS TO HORIZONTAL REINFORCING WITH MORE THAN 12" OF CONCRETE PLACED BELOW REINFORCING BAR.
 - WHERE BARS OF DIFFERENT SIZES ARE LAP SPICED, SPLICE LENGTH SHALL BE THE LARGER OF THE DEVELOPMENT LENGTH OF THE LARGER BAR AND THE LAP SPLICE LENGTH OF THE SMALLER BAR.
 - LAP SPLICES SHALL NOT BE USED FOR BARS LARGER THAN #11.
 - LAP SPLICES OF BARS IN A BUNDLE SHALL BE BASED ON THE LAP SPLICE LENGTH REQUIRED FOR INDIVIDUAL BARS WITHIN A BUNDLE. INCREASE 20 PERCENT FOR THREE-BAR BUNDLE AND 33 PERCENT FOR FOUR-BAR BUNDLE. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. ENTIRE BUNDLES SHALL NOT BE LAP SPICED.
 - FOR GRADE 80 (80 KSI) LAP SPLICE LENGTH, MULTIPLY TABULATED VALUES BY 1.53.

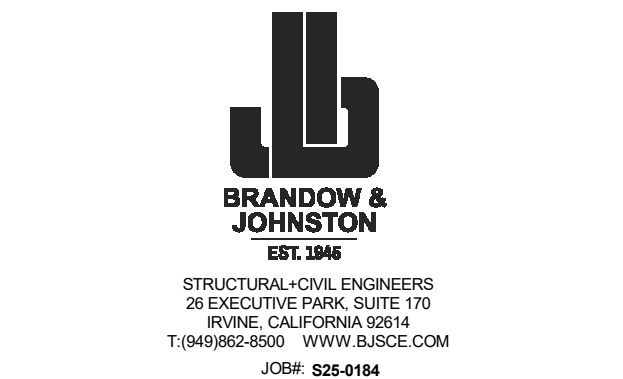
TYPICAL REINFORCEMENT DEVELOPMENT LENGTH AND LAP SPLICE SCHEDULES

4

S1.1



CONSULTANT



PROJECT

WESTEND
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

TYPICAL
CONCRETE
DETAILS

Revisions	By	Date
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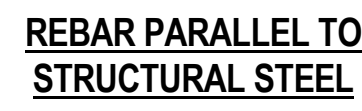
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Date 02/05/26
Project No. S25-0184
Scale As Shown

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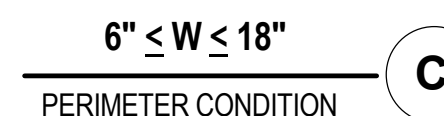
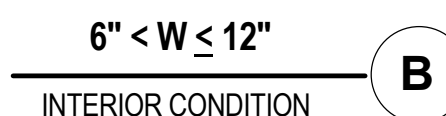
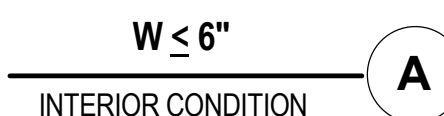
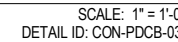
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NOTES:

- ### TYPICAL WELDED REINFORCING BARS DETAILS

SCALE: 1/2" = 1'-0"	S1.
DETAIL ID: CON-REAR-02	

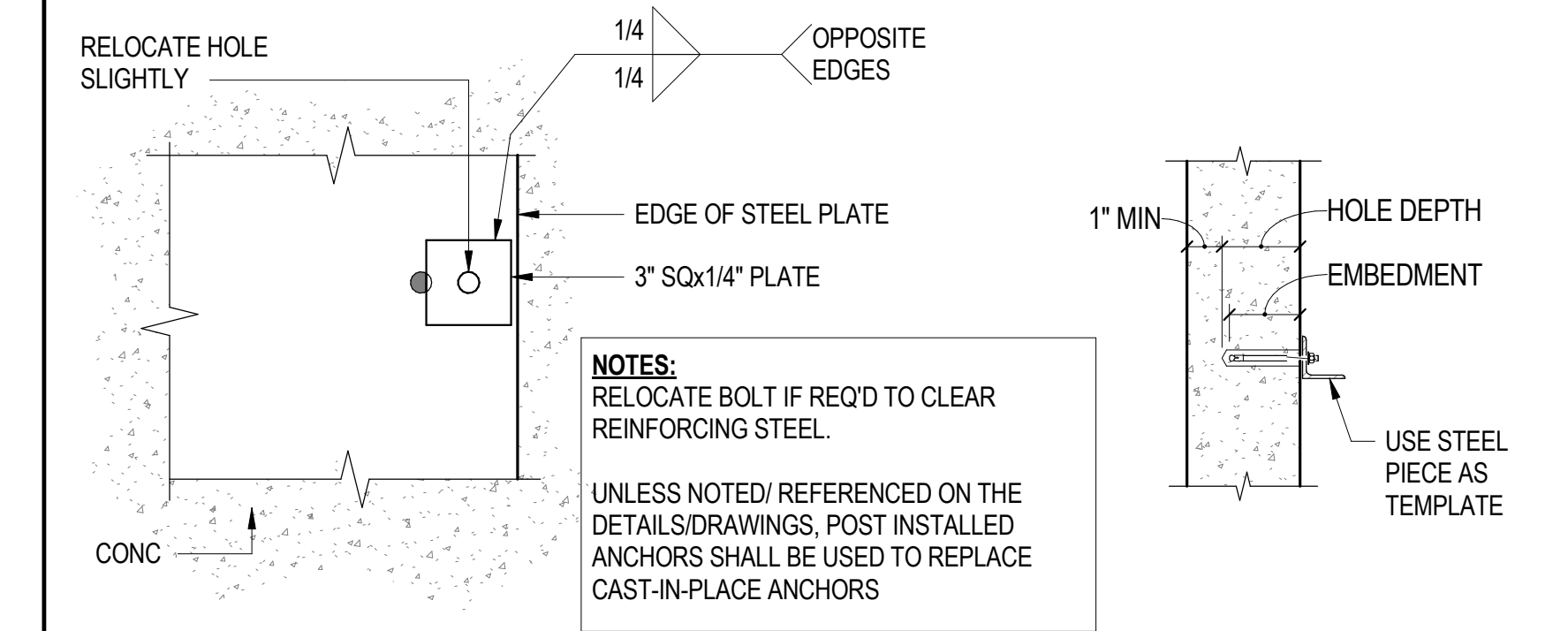


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| DETAIL ID: CON-PDCB-02 | |



SCALE: 3/4" = 1'-0"	\$1.5
DETAIL ID: CON-STREET-01	

TYPICAL ANCHOR INSTALLATION DESIGN AND TEST VALUES							
BOLT DIAMETER	3/8"	1/2"		5/8"		3/4"	
MIN EFFECTIVE EMBEDMENT	2"	2"	3 1/4"	3 1/4"	4"	3 3/4"	4 3/4"
MIN HOLE DEPTH	2 3/4"	2 3/4"	4 1/4"	4 1/4"	4 3/4"	4 3/4"	5 3/4"
MIN MEMBER THICKNESS	4"	4"	6"	5"	6"	6"	8"
INSTALLATION TORQUE CARBON STEEL	30 FT-LBS	50 FT-LBS		40 FT-LBS		110 FT-LBS	
INSTALLATION TORQUE STAINLESS STEEL	30 FT-LBS	40 FT-LBS		60 FT-LBS		125 FT-LBS	



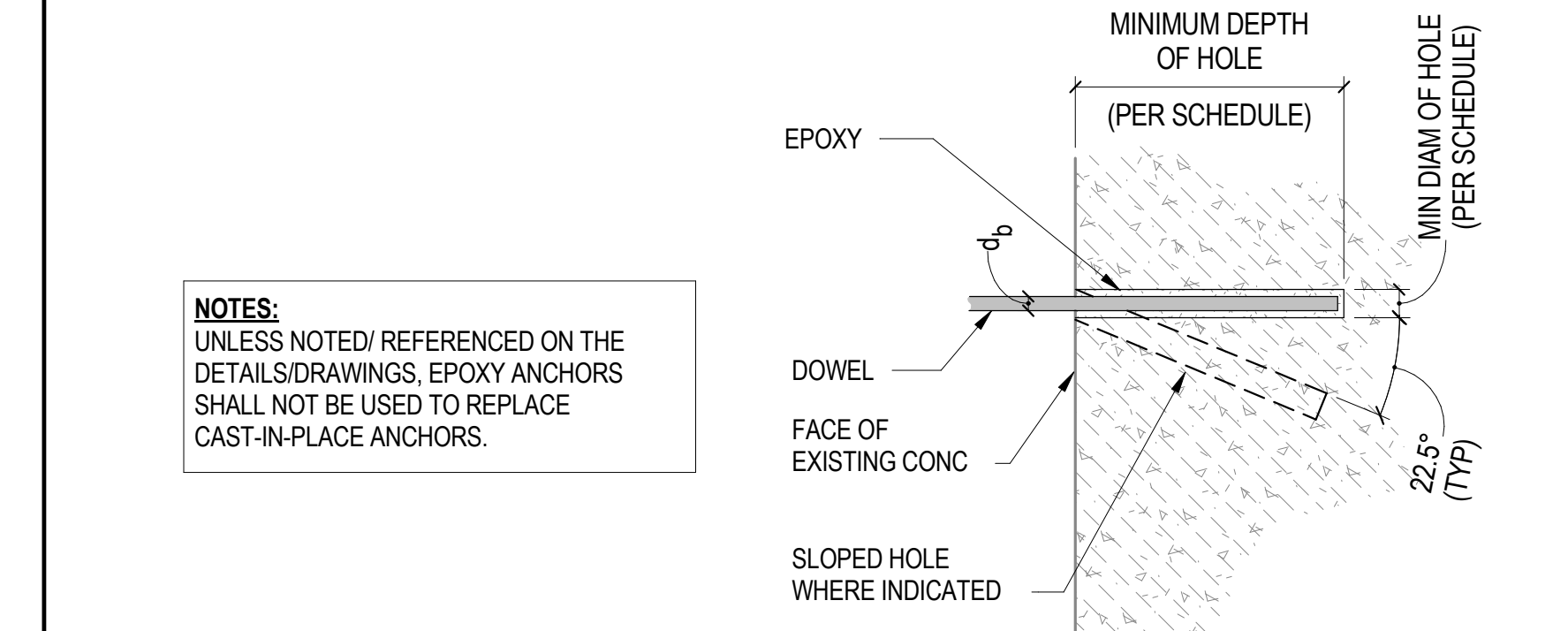
ANCHOR RELOCATION DETAIL

ANCHOR AT WALL OR SLAB

- NOTES:**
1. ALLOWABLE EXPANSION ANCHOR TYPES: HILTI KB-TZ2 (ICC ESR-4266).
 2. UNO INSTALL ANCHORS PER MANUFACTURER'S RECOMMENDED SPECIFICATIONS.
 3. THE TABULATED INSTALLATION AND TEST VALUES PERTAIN TO USE IN HARDROCK CONCRETE. LIGHT-WEIGHT CONCRETE AND CONCRETE FILL OVER METAL DECK. CONCRETE FILL OVER METAL DECK SHALL CONSIST OF 20GA MINIMUM METAL DECK WITH EITHER HARD ROCK OR LIGHT WEIGHT CONCRETE. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI.
 4. WHEN INSTALLING DRILLED-IN ANCHORS IN NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE REINFORCING BARS OR OTHER EMBEDDED ITEMS SUCH AS ELECTRICAL/TELECOMMUNICATIONS CONDUIT AND GAS LINES. WHEN INSTALLING DRILL-IN ANCHORS INTO PRESTRESSED CONCRETE (PRE OR POST-TENSIONED), LOCATE TENDONS DURING INSTALLATION BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.
 5. DRILLED EXPANSION TYPE ANCHOR BOLTS SHALL BE USED ONLY WHERE DETAILED OR FOR ATTACHMENT OF MECH, ELECTRICAL, OR MISC ACCESSORIES OR EQUIPMENT TO THE STRUCTURE.
 6. WHERE EDGE DISTANCE AND SPACING IS NOT SHOWN ON DETAILS, REFER ICC ESR REPORT FOR MINIMUM VALUES. WHERE SPECIFIED ANCHOR EMBEDMENT DEPTH, SPACING OR EDGE DISTANCE CANNOT BE PROVIDED, NOTIFY SEOR AND IOR PRIOR TO INSTALLATION.
 7. SPECIAL INSPECTION REQUIRED PER CBC TABLE 1705.3.
 8. USE STAINLESS STEEL ANCHORS FOR CONDITIONS EXPOSED BUILDING EXTERIOR, MOISTURE, AND WHERE SPECIFIED.

TYPICAL HILTI CONCRETE EXPANSION ANCHOR DETAIL

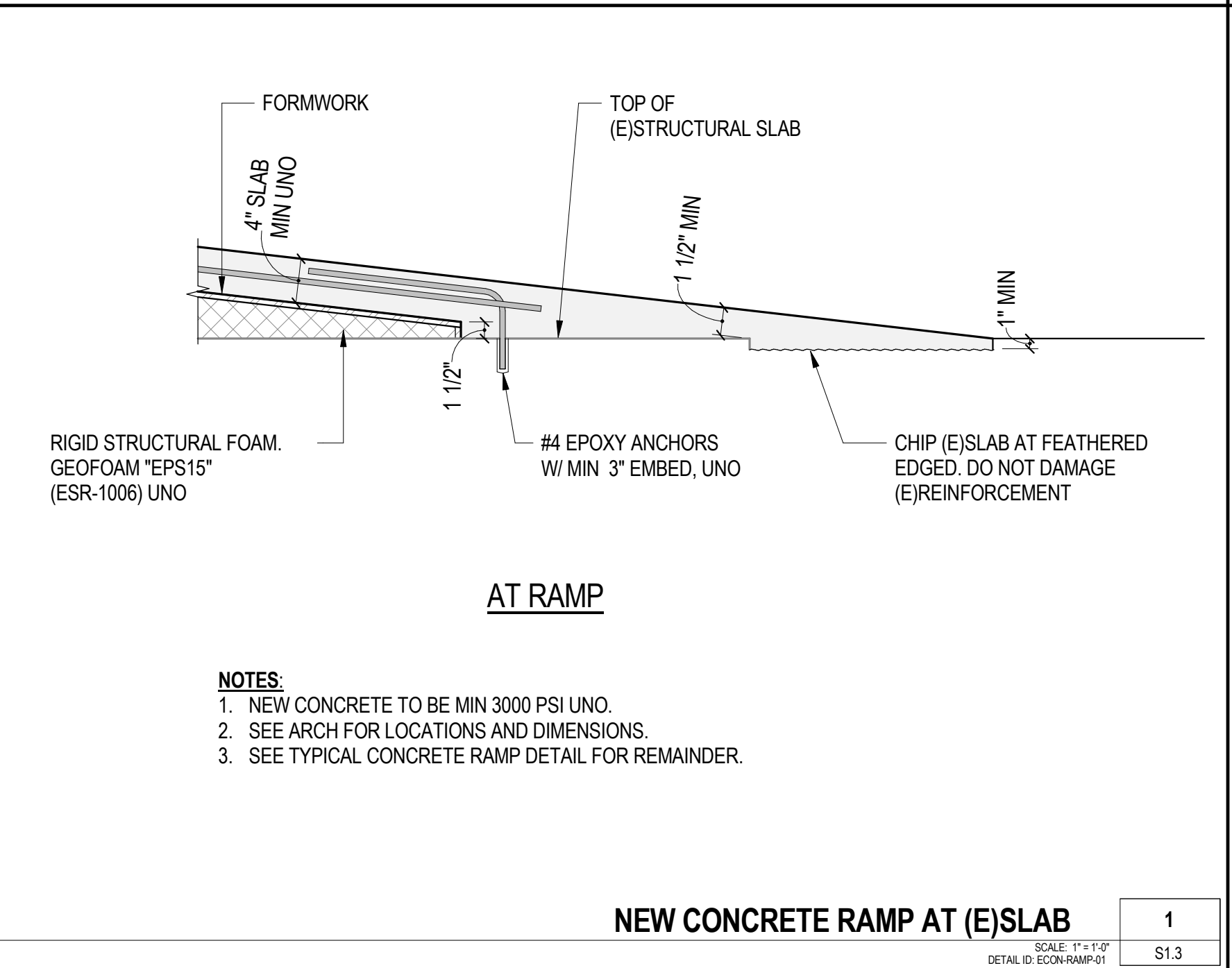
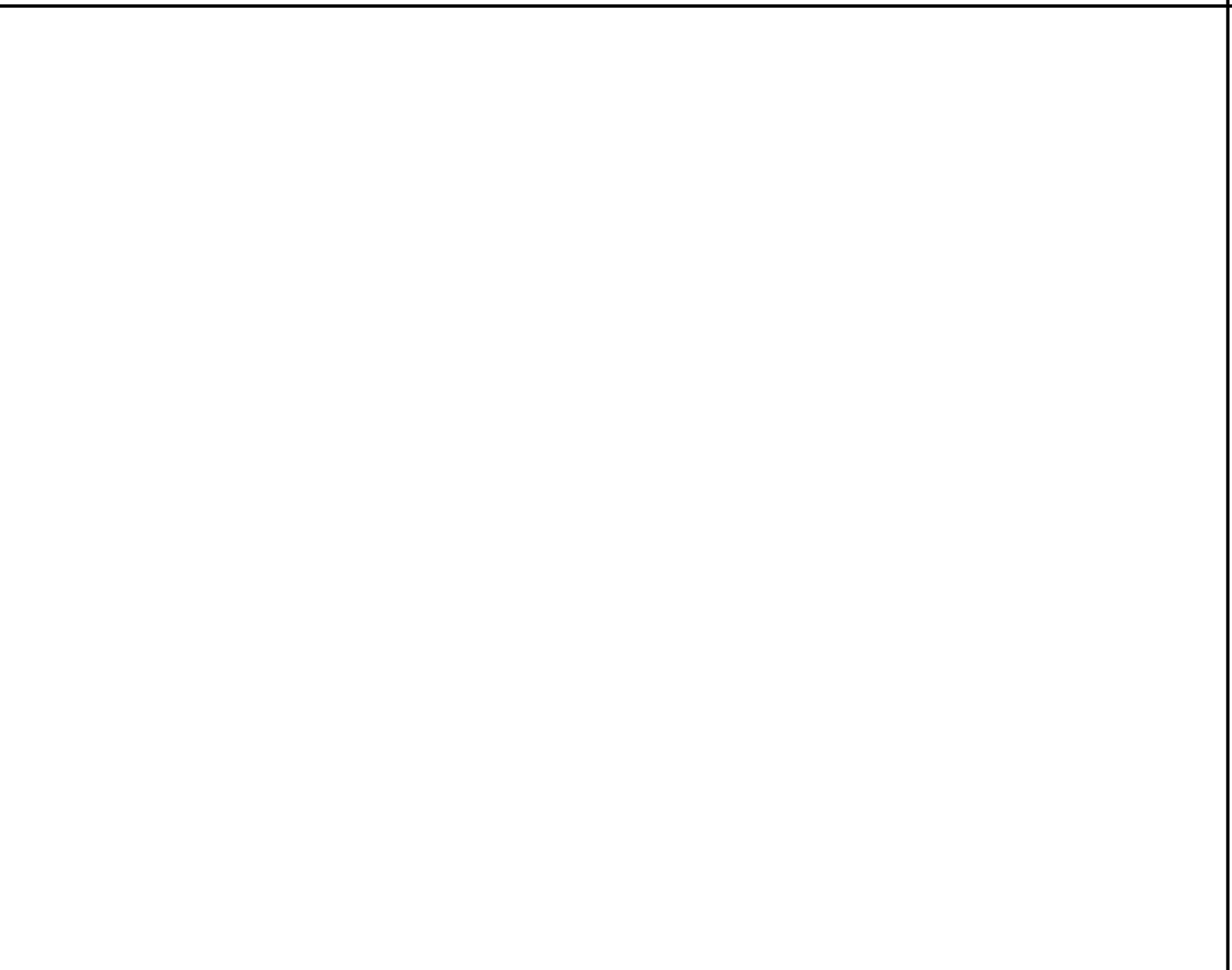
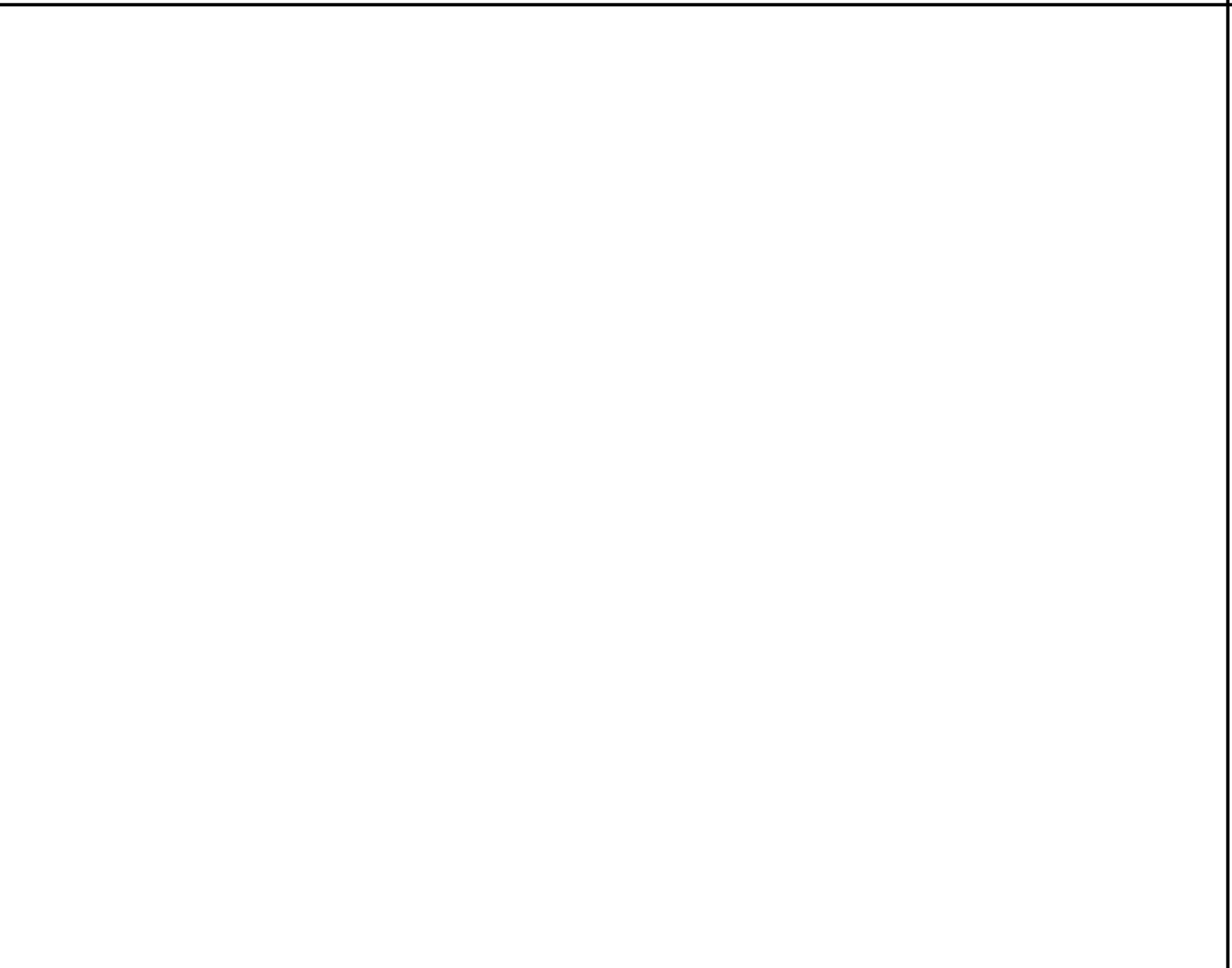
REBAR SIZE, ASTM A615 GRADE 60	MIN HOLE DIAM	MIN DEPTH	TENSION TEST LOAD	THREADED ROD DIAMETER, ASTM A36	MIN HOLE DIAM	MIN DEPTH	TENSION TEST LOAD
#3	1/2"	3"	2.8 KIPS	3/8"	7/16"	3 1/2"	2.5 KIPS
#4	5/8"	4"	4.4 KIPS	1/2"	9/16"	4 1/2"	4.3 KIPS
#5	3/4"	6"	5.8 KIPS	5/8"	1 1/16"	6"	5.8 KIPS
#6	1"	12"	8.5 KIPS	3/4"	1 3/16"	6 3/4"	9.0 KIPS
#7	1 1/8"	16"	11.7 KIPS	7/8"	1 5/16"	8"	11.5 KIPS
#8	1 1/4"	18"	13.8 KIPS	1"	1 1/16"	10"	19.4 KIPS
#9	1 3/8"	21"	23.0 KIPS	1 1/4"	1 5/16"	11 1/4"	22.9 KIPS



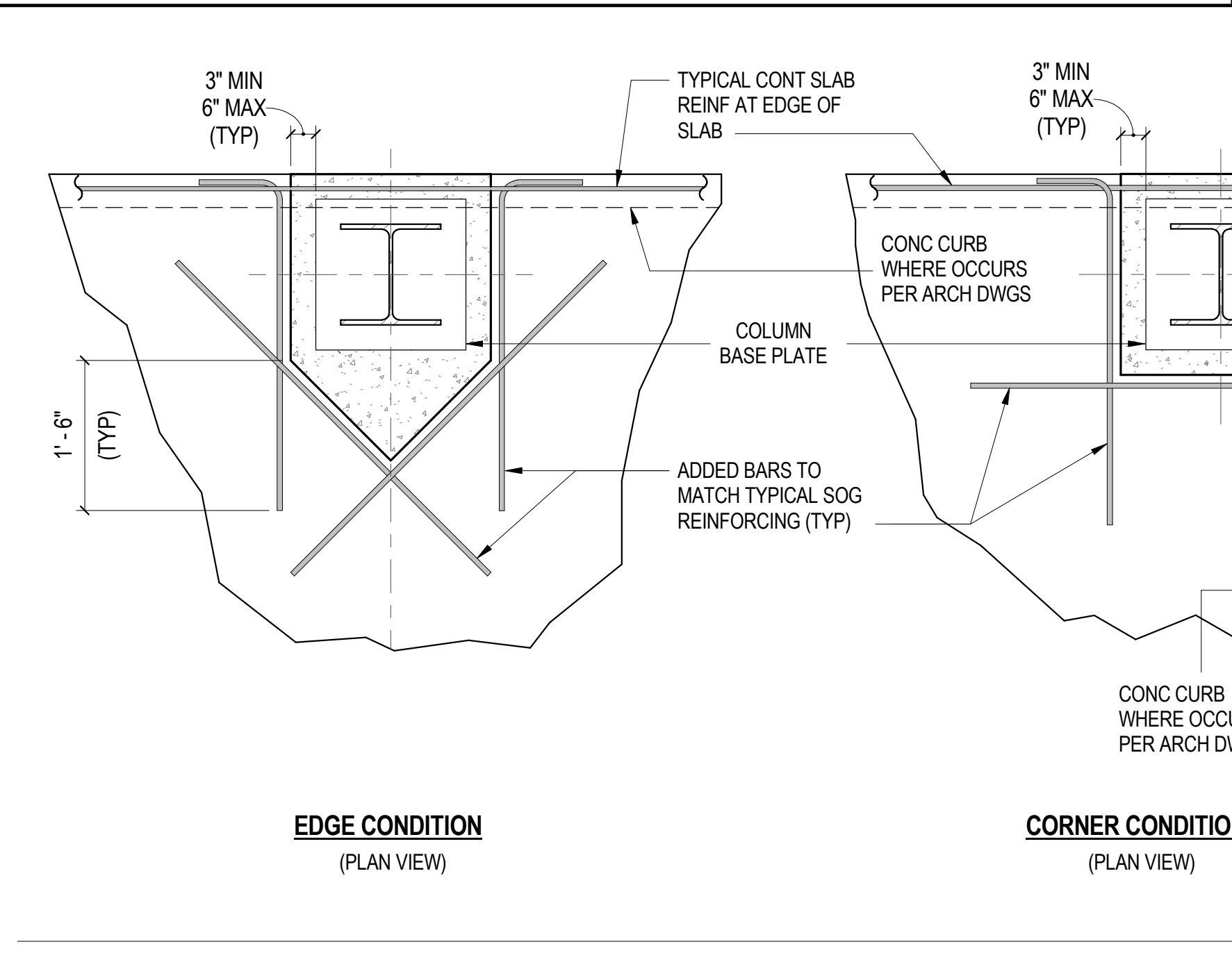
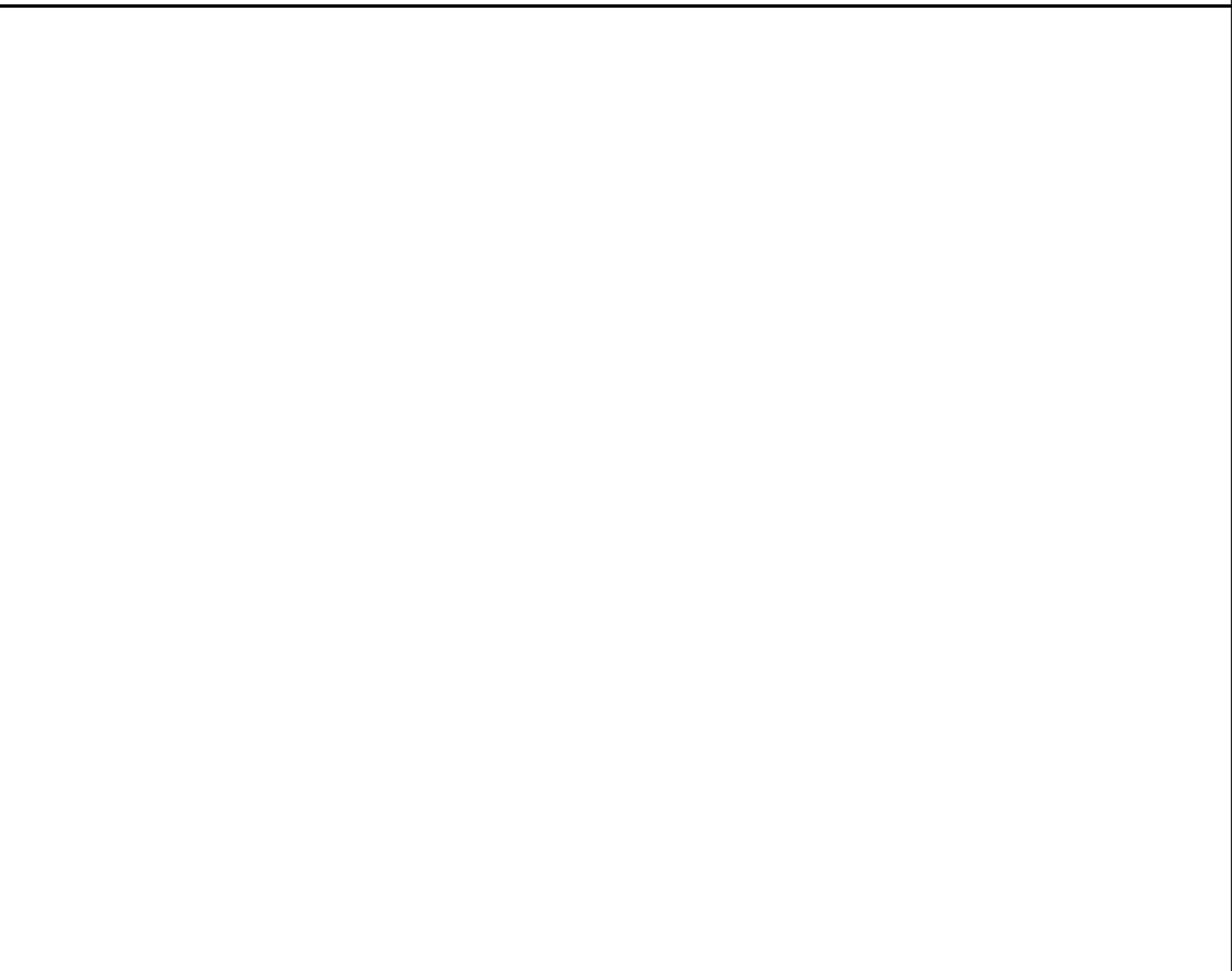
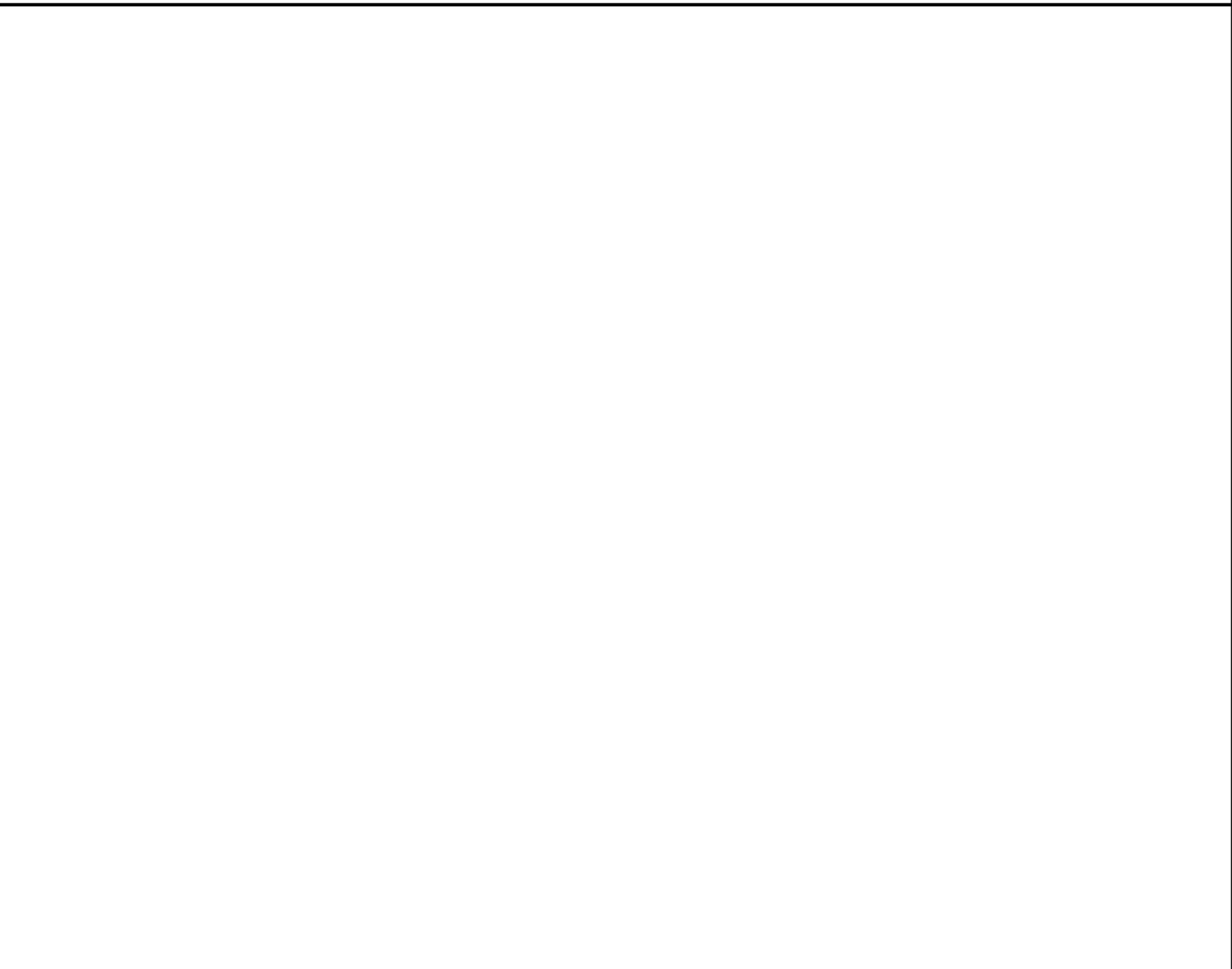
- NOTES:**
1. ALLOWABLE EPOXY TYPES: HILTI RE 500 V3 (ICC ESR-3814), HILTI HIT-HY 200 (ICC ESR-3187)
 2. UNO INSTALL PER MANUFACTURER'S SPECIFICATIONS. HOLE SHALL BE THOROUGHLY CLEANED AND ANCHOR SHALL BE FREE OF ANY MATERIAL THAT SHALL IMPAIR BOND TO CONCRETE.
 3. THE TABULATED INSTALLATION AND TEST VALUES PERTAIN TO USE IN HARDROCK CONCRETE WITH A MINIMUM STRENGTH OF 3,000 PSI.
 4. WHEN INSTALLING DRILLED-IN ANCHORS IN NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE REINFORCING BARS OR OTHER EMBEDDED ITEMS SUCH AS ELECTRICAL/TELECOMMUNICATIONS CONDUIT AND GAS LINES. WHEN INSTALLING DRILL-IN ANCHORS INTO PRESTRESSED CONCRETE (PRE OR POST-TENSIONED), LOCATE TENDONS DURING INSTALLATION BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.
 5. DRILLED EPOXY ANCHORS SHALL BE USED ONLY WHERE DETAILED.
 6. WHERE SPECIFIED ANCHOR EMBEDMENT DEPTH, SPACING OR EDGE DISTANCE CANNOT BE PROVIDED, NOTIFY SEOR AND IOR PRIOR TO INSTALLATION.
 7. SPECIAL INSPECTION REQUIRED PER CBC TABLE 1705.3.
 8. INSTALLERS PLACING HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS ADHESIVE ANCHORS SHALL BE CERTIFIED BY ACI OR APPROVED EQUIVALENT.
 9. ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE SPECIAL INSPECTOR OR INSPECTOR OF RECORD.
 10. FOR LOCATIONS WHERE TENSION TEST VALUES ARE NOT SPECIFIED IN THE DRAWINGS, CONSULT WITH THE SEOR.
 11. TESTING OF EPOXY DOWELS AT JOINTS BETWEEN NEW AND EXISTING SLABS-ON-GRADE OR #3 BARS AT CONCRETE CURBS IS NOT REQUIRED.
 12. EPOXY DOWELS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION.

TYPICAL HILTI EPOXY DOWEL ANCHOR DETAIL

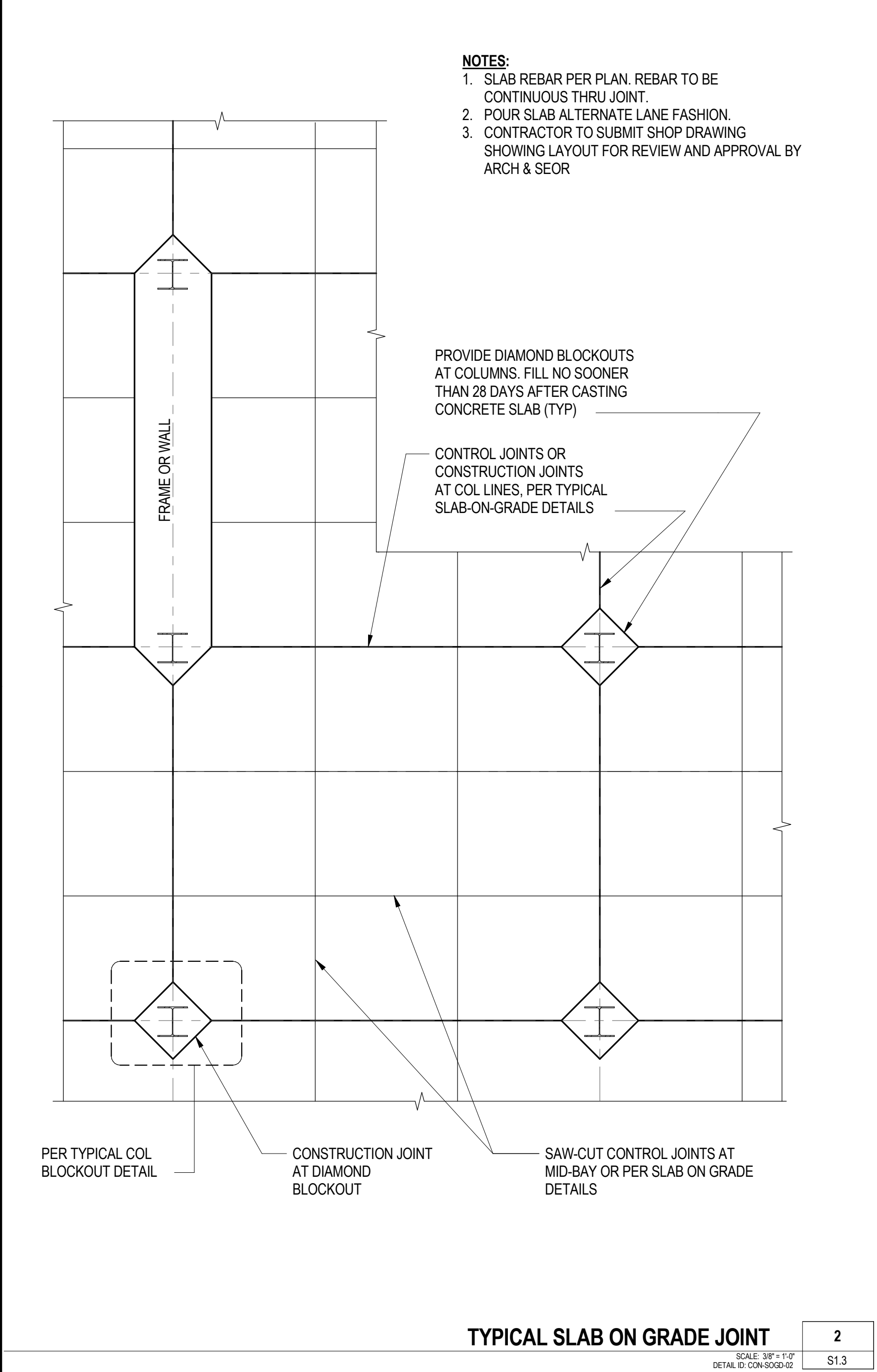
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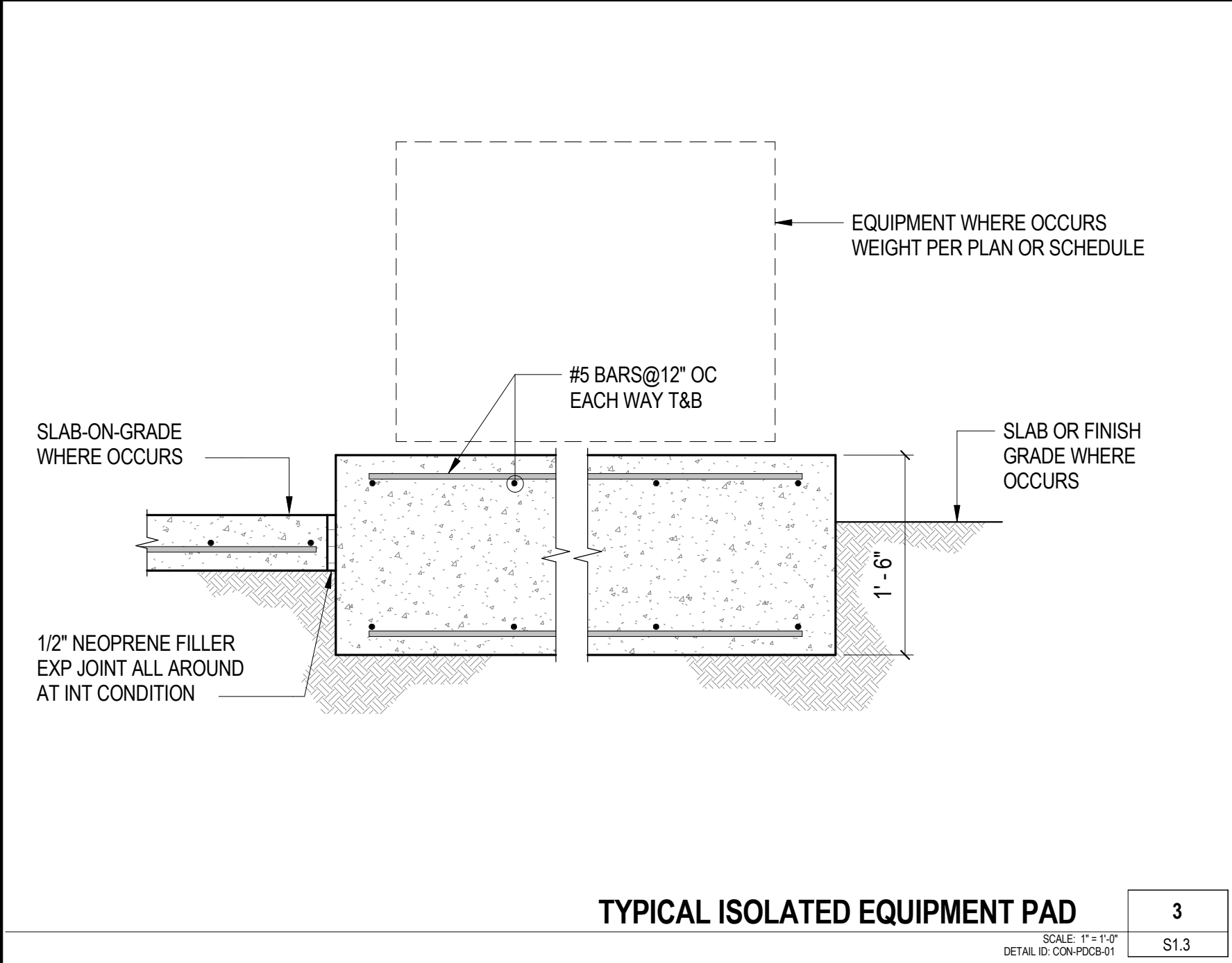
NEW CONCRETE RAMP AT (E)SLAB



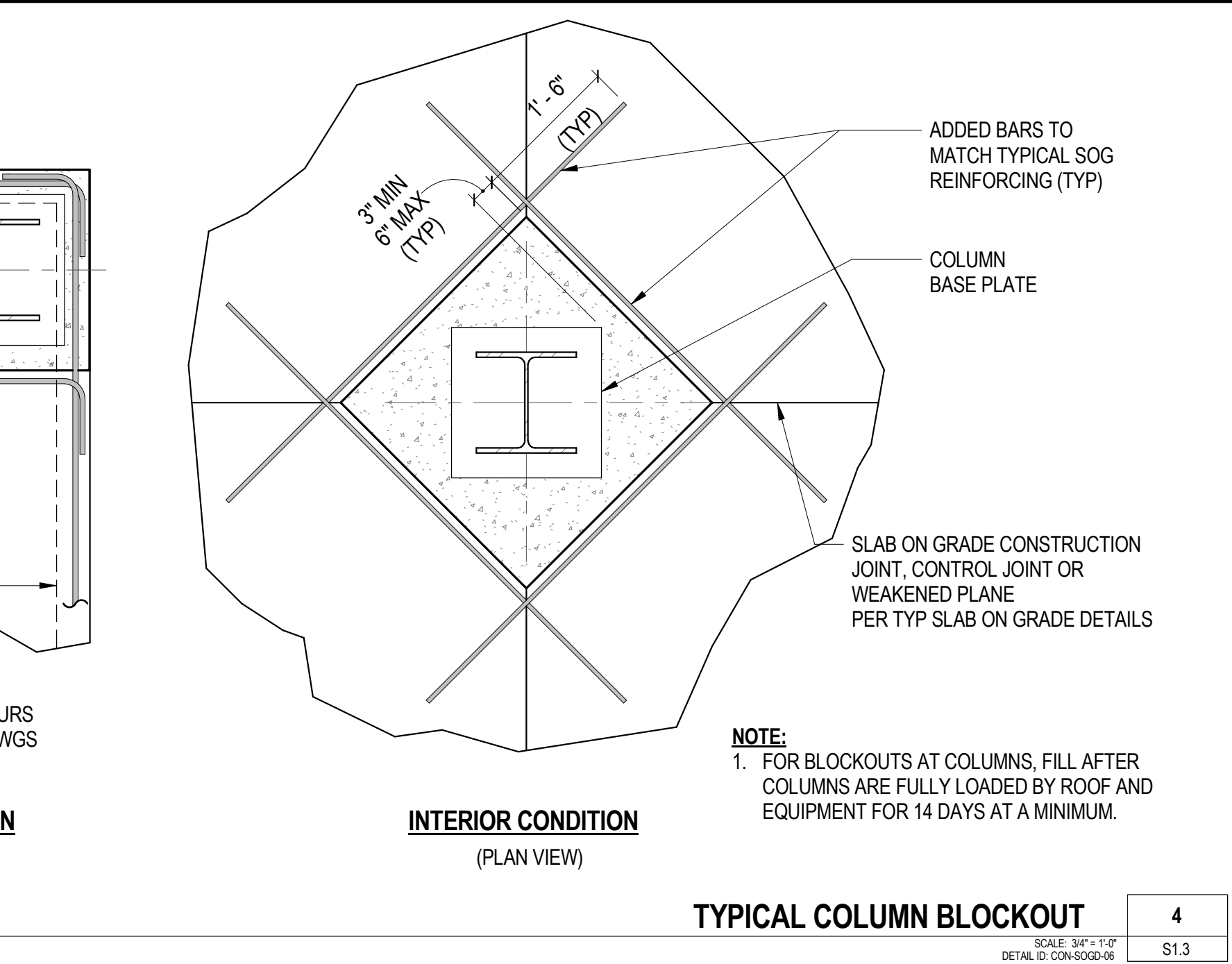
EDGE CONDITION (PLAN VIEW)



TYPICAL SLAB ON GRADE JOINT



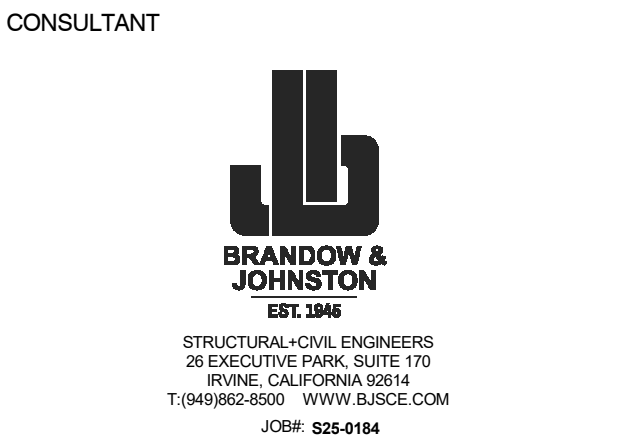
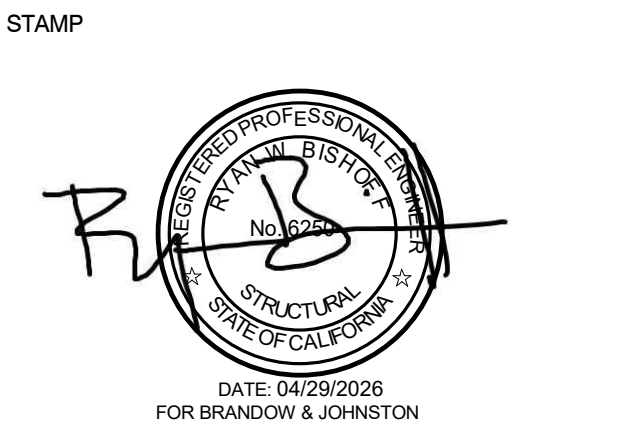
TYPICAL ISOLATED EQUIPMENT PAD



TYPICAL COLUMN BLOCKOUT



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PROJECT
**WESTEND
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



TITLE

DETAILS

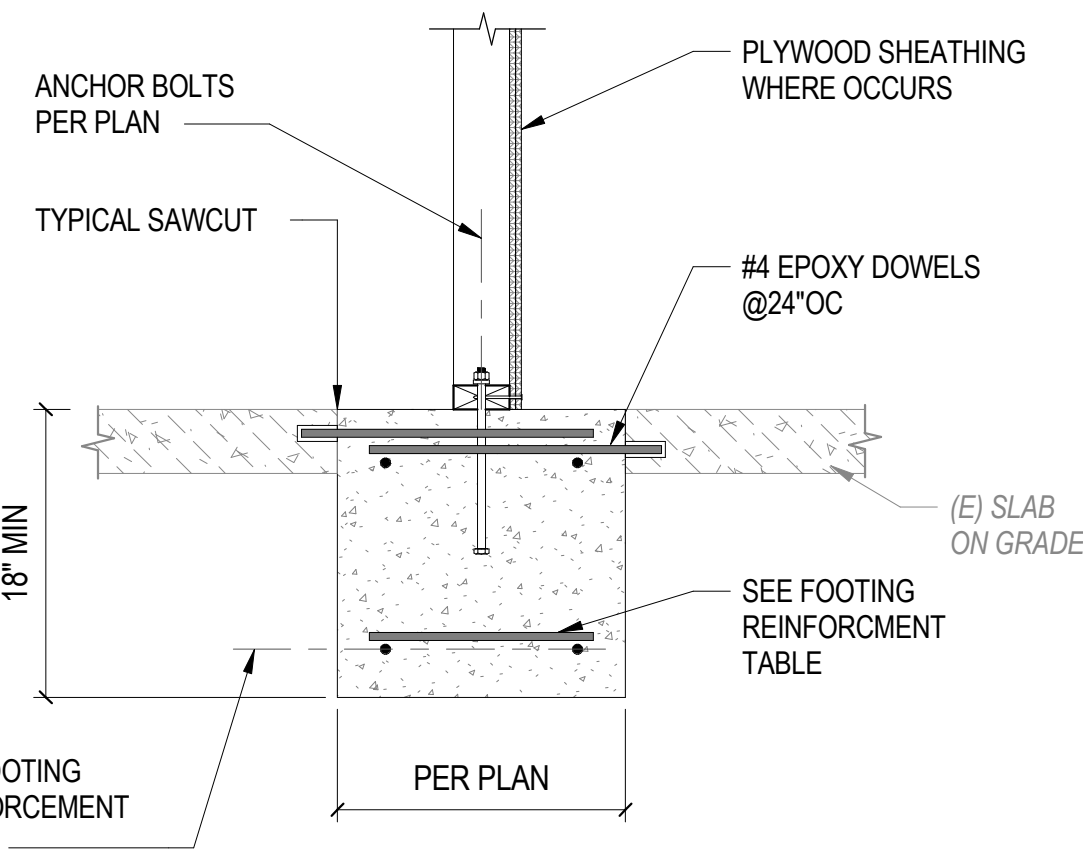
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S1.3

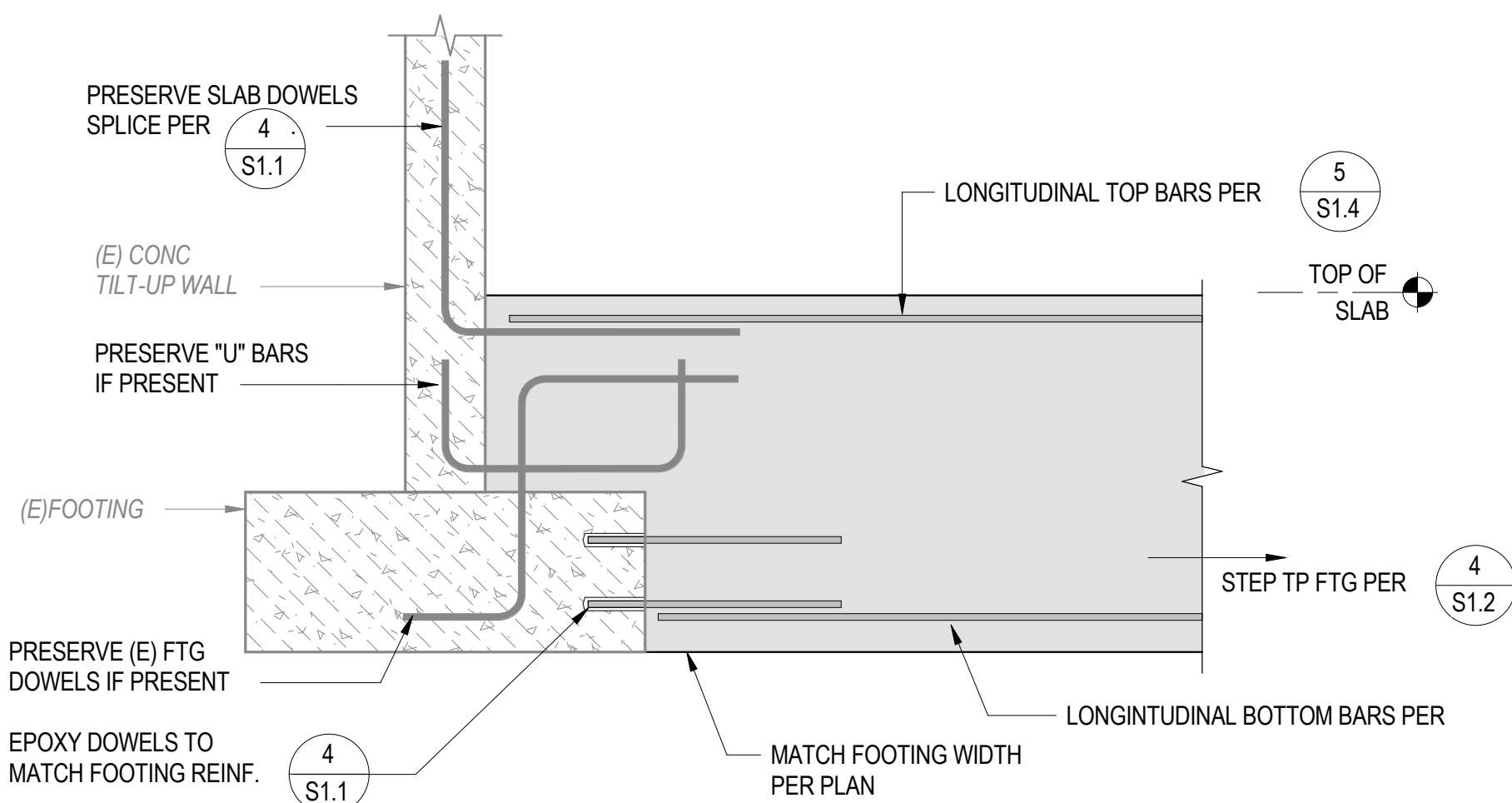
C:\Temp\Revit\S25-0184 Fontana Navigation Center S24 - jamasaki@bjpsa.com.rvt

FOOTING WIDTH	LONGITUDINAL REINFORCEMENT	TRANSVERSE REINFORCEMENT
2'-0"	2-#4 TOP & BOT	#5@18"OC BOT
2'-6"	3-#4 TOP & BOT	#5@18"OC BOT
3'-0"	3-#5 TOP & BOT	#5@18"OC BOT



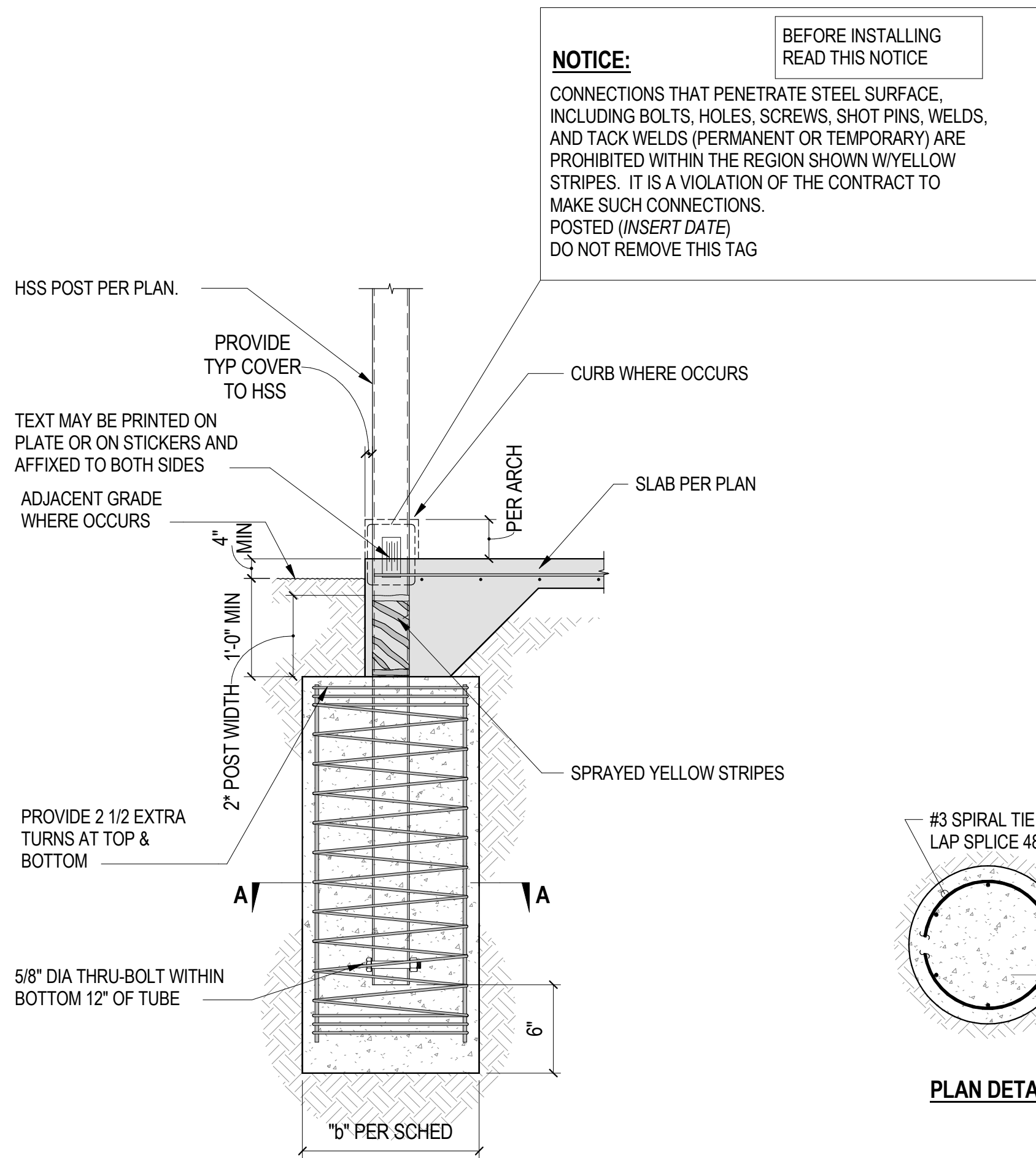
CONTINUOUS FOOTING AT EXISTING SLAB ON GRADE

5
S1.4



CONNECTION DETAIL TO (E) FOOTING

6
S1.4

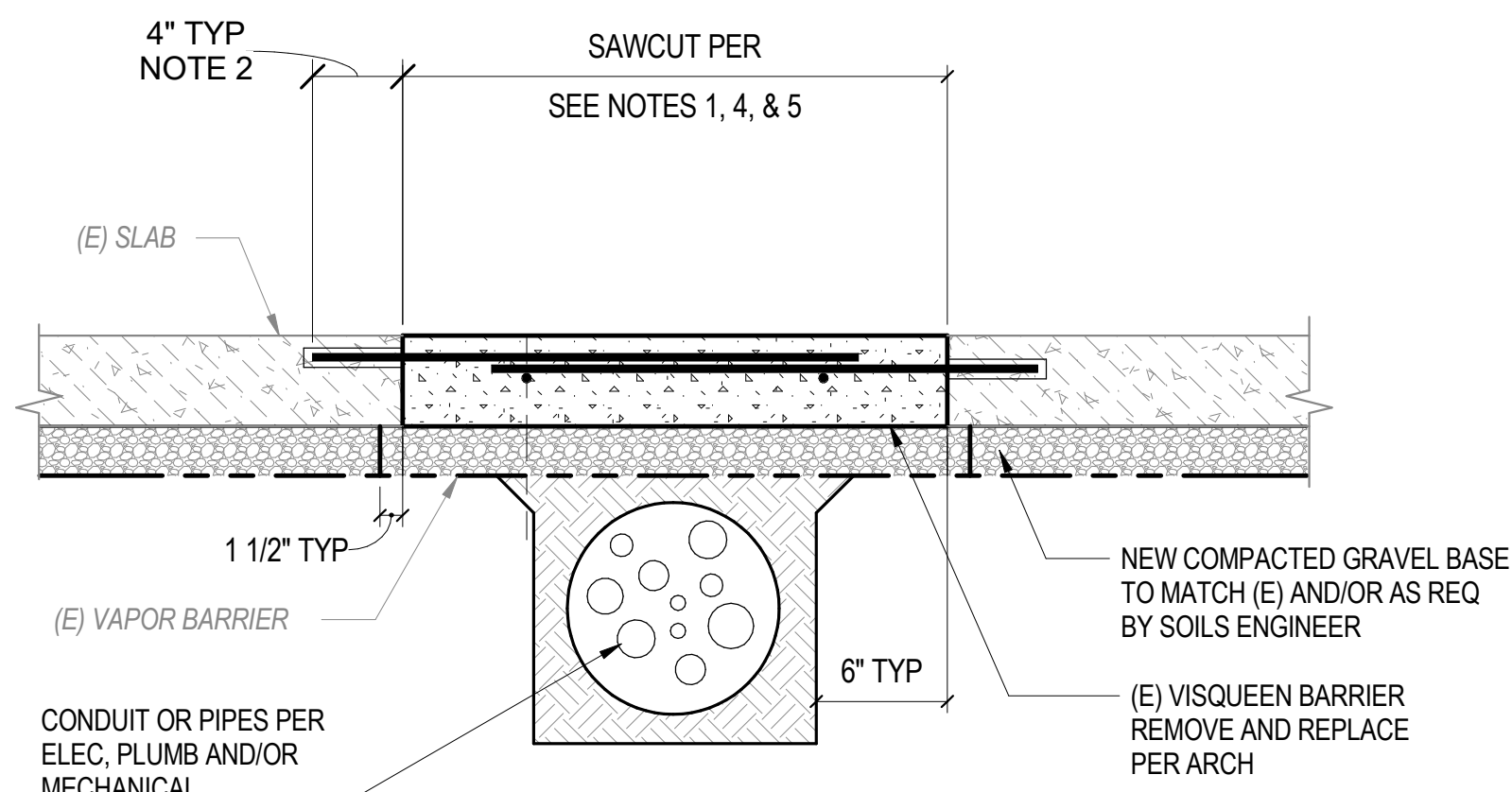


POLE FOOTING SCHEDULE

FTG MK	DIAMETER, b	DEPTH, d	VERT REINF	NOTES
P1	4'-0"	6'-6"	(15) #10 BARS	
P2	3'-6"	6'-0"	(11) #10 BARS	
P3	3'-0"	6'-0"	(9) #10 BARS	
P4	1'-6"	2'-0"	(6) #6 BARS	FENCE POST BY OTHER
P5	3'-0"	5'-6"	(9) #10 BARS	

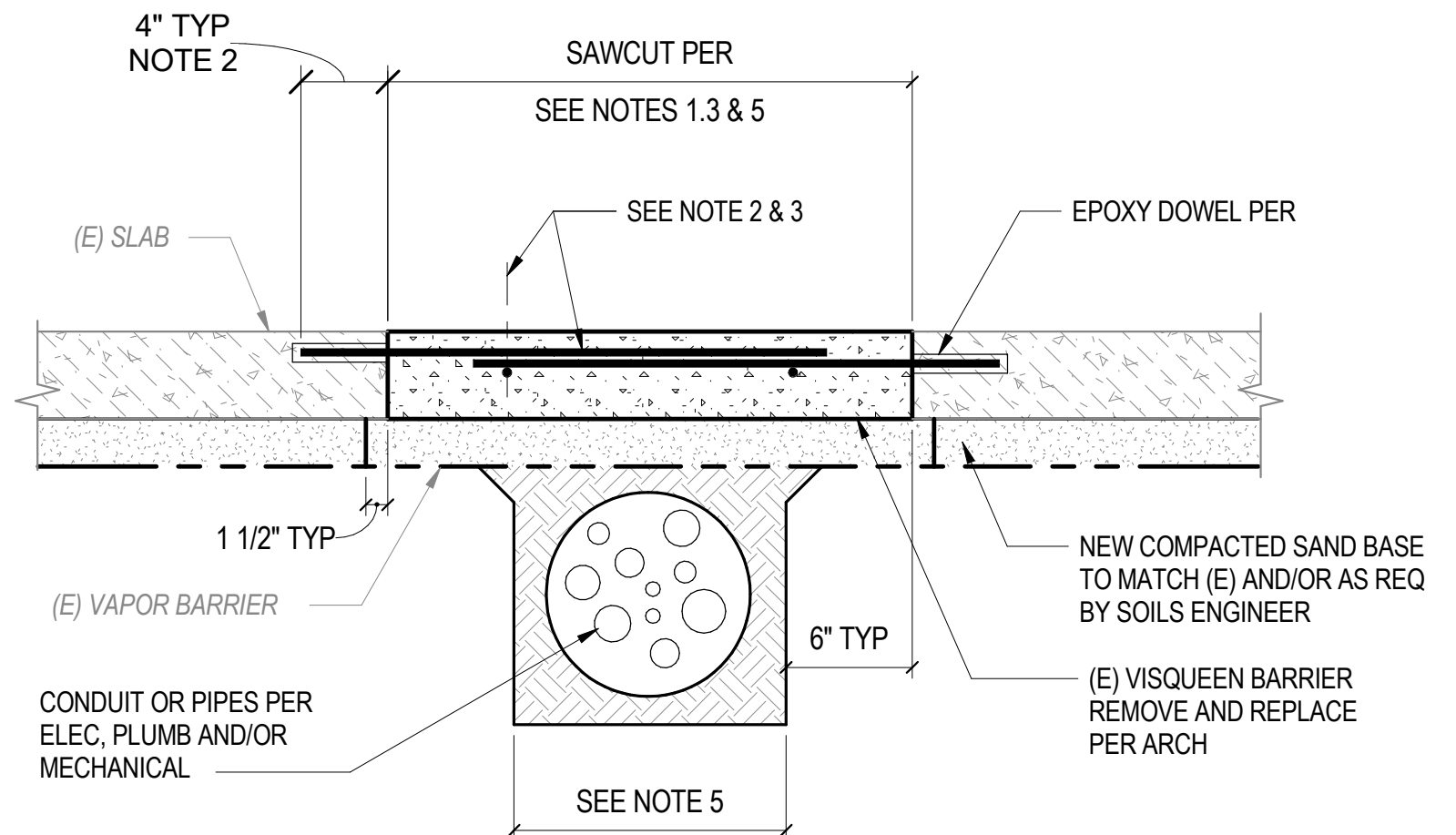
TYPICAL POLE FOOTING

8
S1.4



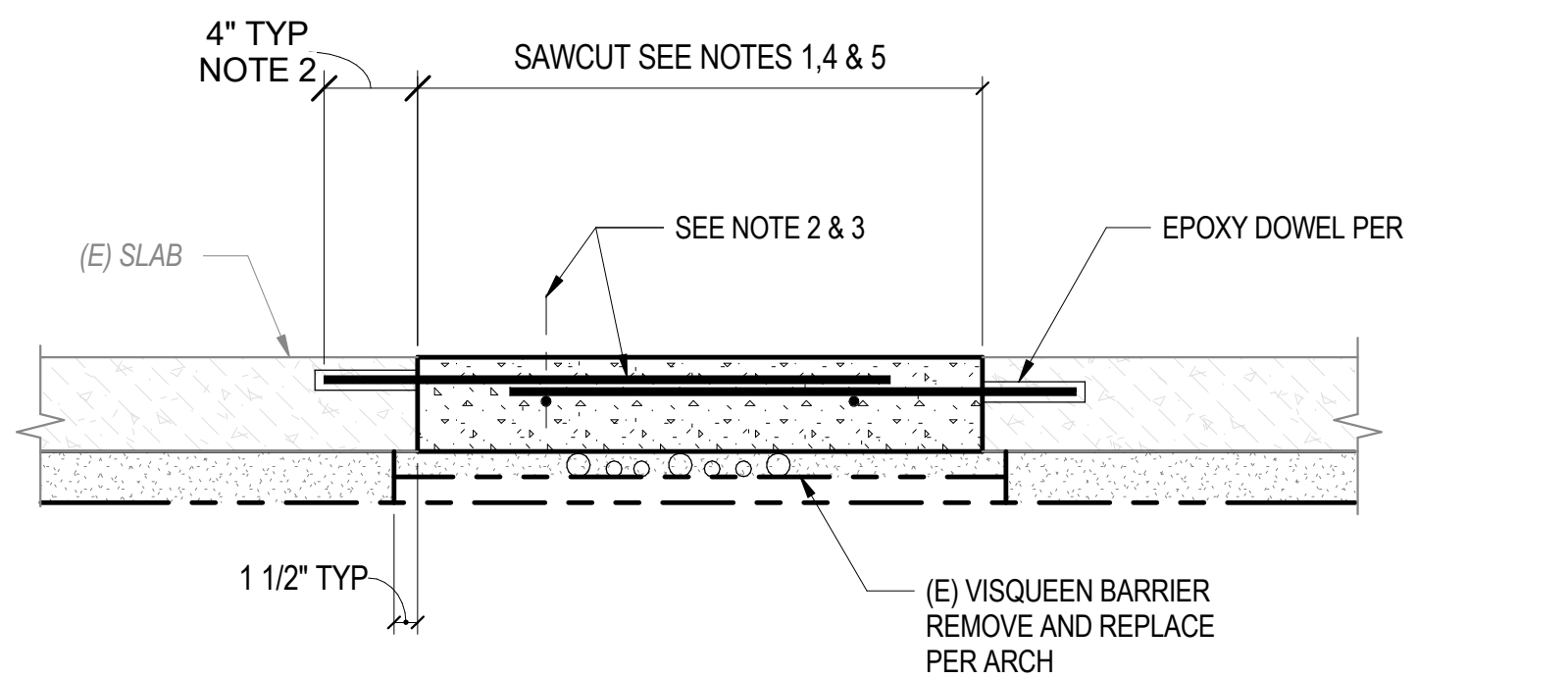
PLUMBING TRENCH GRAVEL BASE (VIF)

A



PLUMBING TRENCH SAND BASE (VIF)

B



ELECTRICAL TRENCH

C

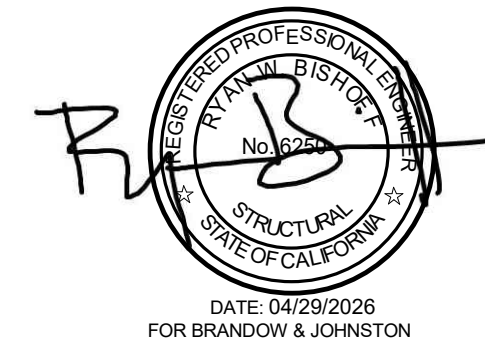
NOTES:

- SAW-CUTTING SHALL BE AVOIDED NEAR ANY OF THE (E) PAD FOOTING, GRADE BEAMS, AND CONT FOOTINGS
- REBAR TO MATCH (E) SIZE AND SPACING IN BOTH DIRECTIONS (#4@18"OC MIN) INSTALL REBAR IN SIMPSON "SET-XP" EPOXY ADHESIVE PER ICC ELVALUATION REPORT NUMBER #ESR-2508/ SPECIAL INSPECTION IS NOT REQUIRED UNLESS NOTED ON THE PLANS
- CONCRETE STRENGTH SHALL BE 4500 PSI AND WATER AND CEMENT RATIO SHALL BE 0.45 REBAR SHALL BE 60 KSI SPECIAL INSPECTION IN NOT REQUIRED
- REPLACE/RECOMPACT SOIL MATERIAL PER GEOTECHNICAL REPORT OR MATCH (E) COMPACTION
- FOR ANY SLAB ON GRADE SAW-CUTTING THAT IS NOT SHOWN ON THESE DRAWINGS. PRIOR TO CUTTING THE SLAB, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT SHOWING LOCATIONS, WIDTH, DEPTH AND LENGTH OF TRENCH, SIZE OF TRENCH WILL BE REQUIRED BY ELECTRICAL OR PLUMBING.
- VERIFY IN FIELD ALL EXISTING IN FORMATION
- CONTRACTOR SHALL DETERMINE WHICH TRENCH DETAIL TO USE, EXCEPT WHERE A DETAIL IS SPECIFICALLY REFERENCED ON THE PLAN.
- INSPECTION IS REQUIRED WHEN CALLED ON PLAN

TYPICAL TRENCH AT SLAB ON GRADE

3
S1.4

STAMP



CONSULTANT



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JOHN 525-0184

PROJECT

WESTEND
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



FONTANA
CALIFORNIA

TITLE

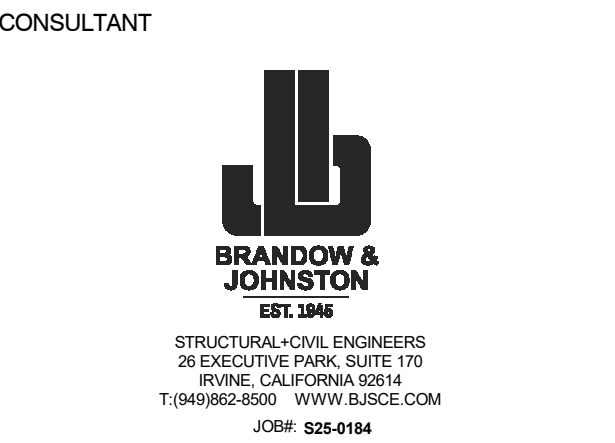
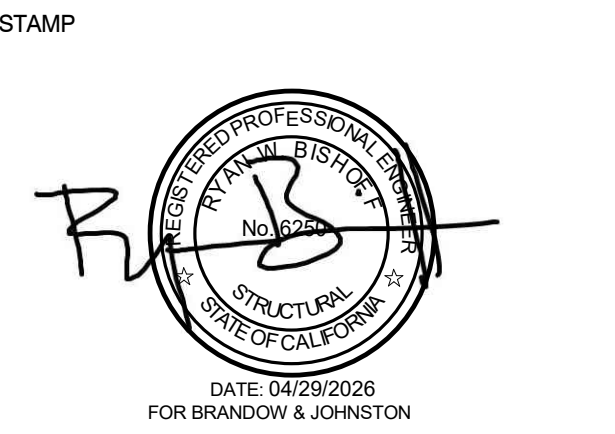
DETAILS

Revisions	By	Date
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Drawn	JY
Date	02/12/2026
Project No.	S25-0184
Scale	As Shown

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PROJECT
**WESTEND
NAVIGATION
CENTER**
11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



TITLE

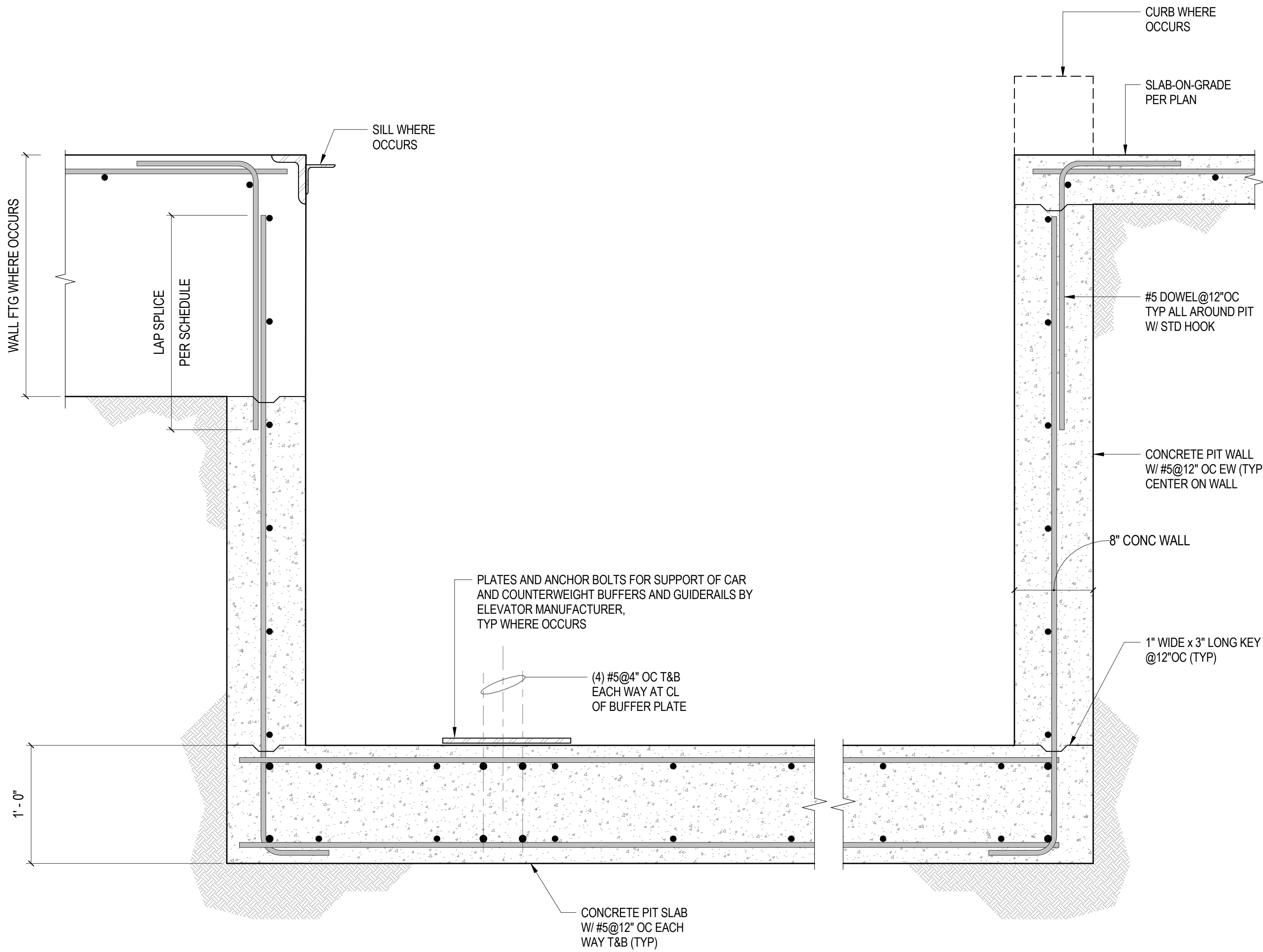
**ELEVATOR
DETAILS**

Revisions	By	Date
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Drawn JY
Date 02/12/2026
Project No. S25-0184
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Sheet

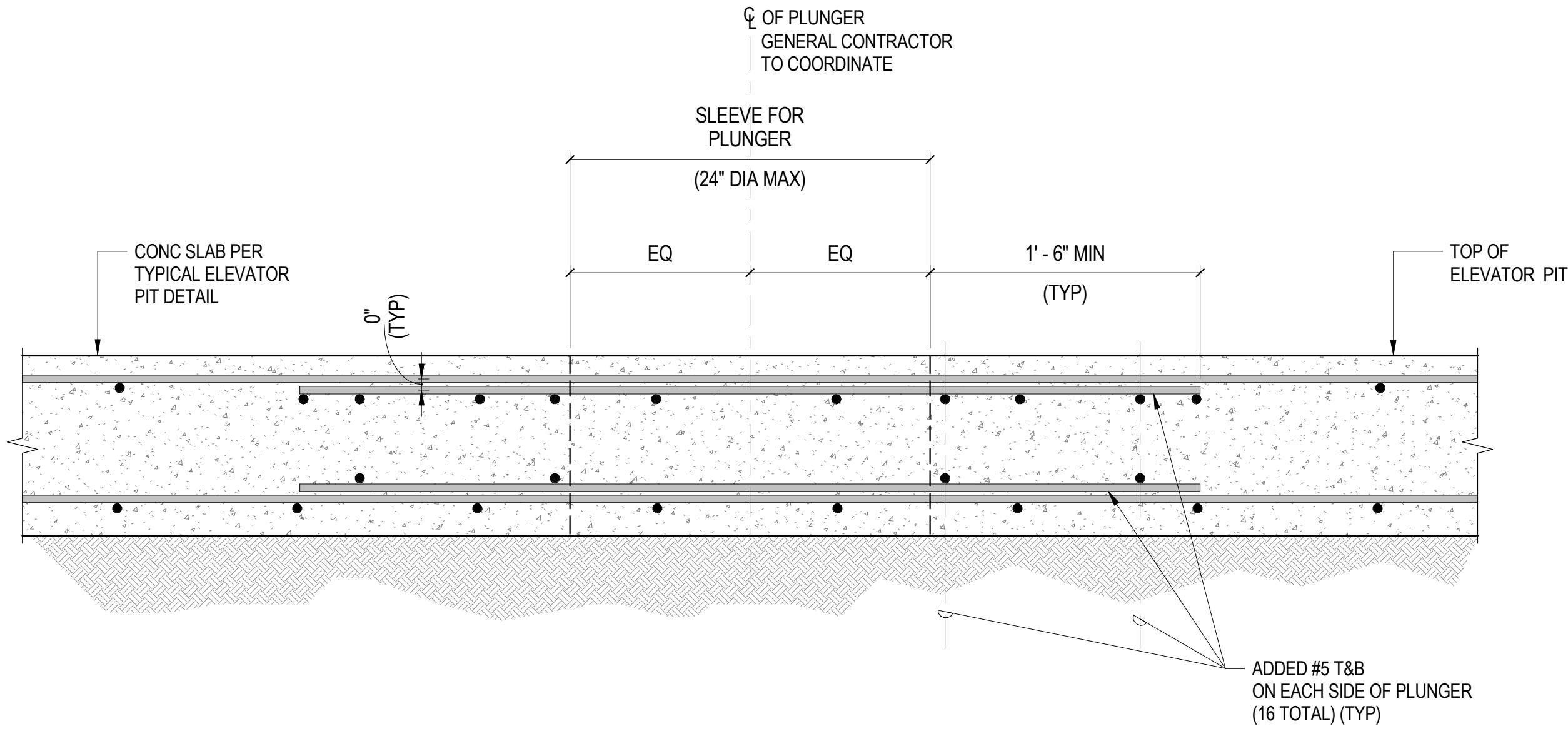
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TYPICAL ELEVATOR PIT ON GRADE

2

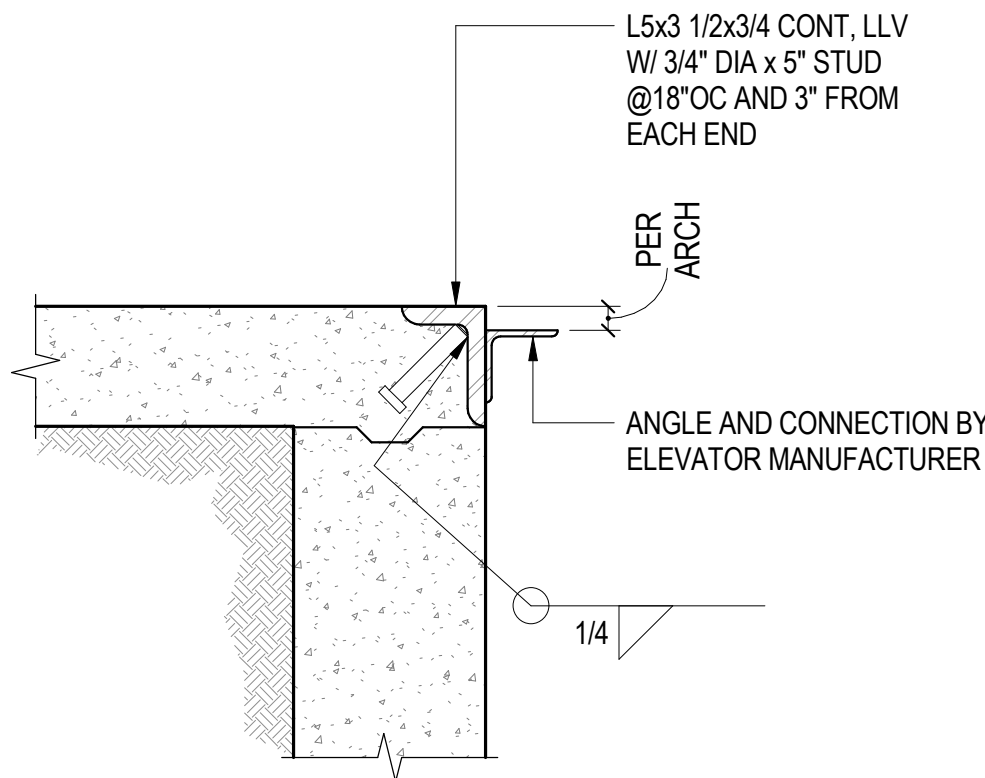
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TYPICAL ELEVATOR PLUNGER DETAIL

3

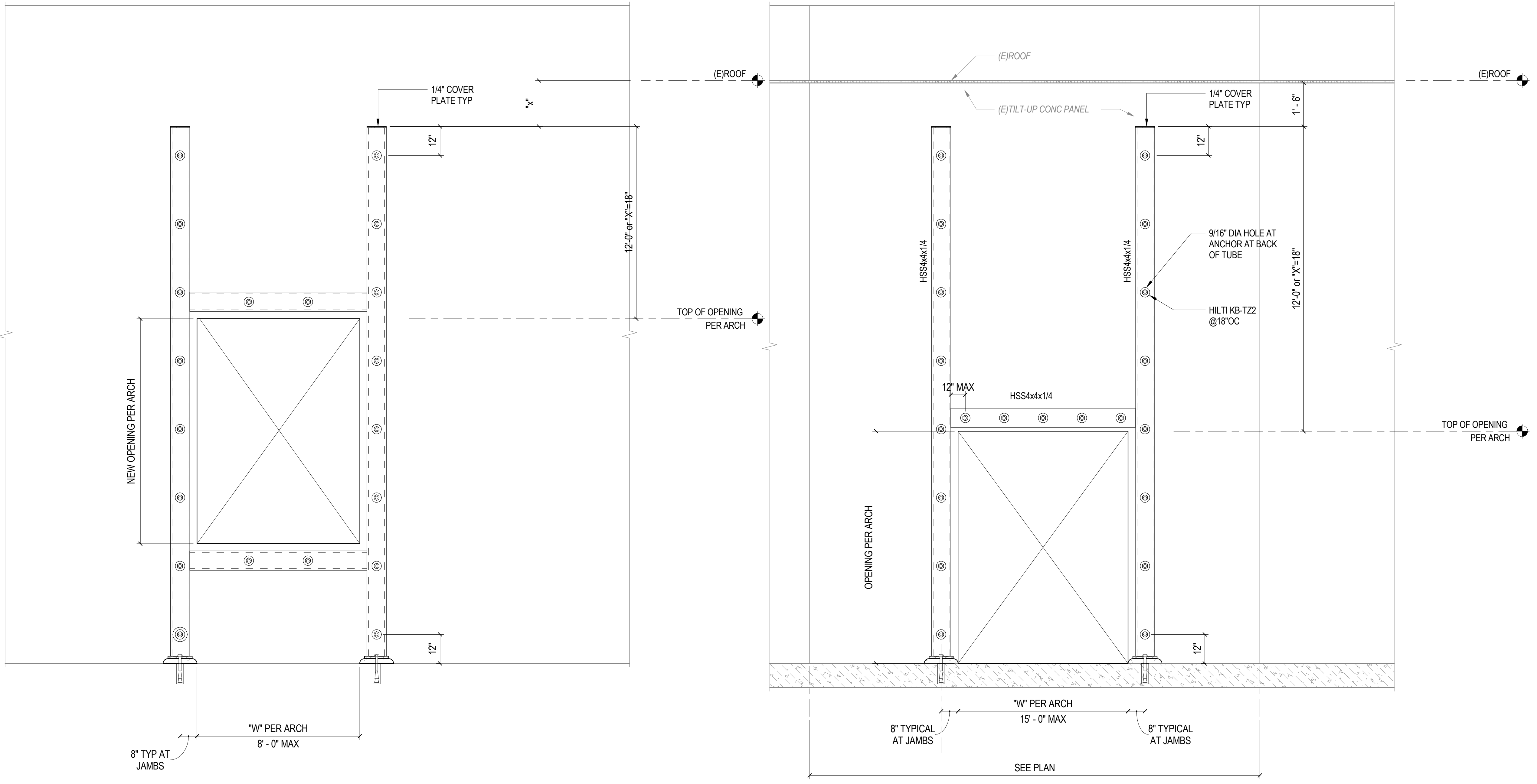
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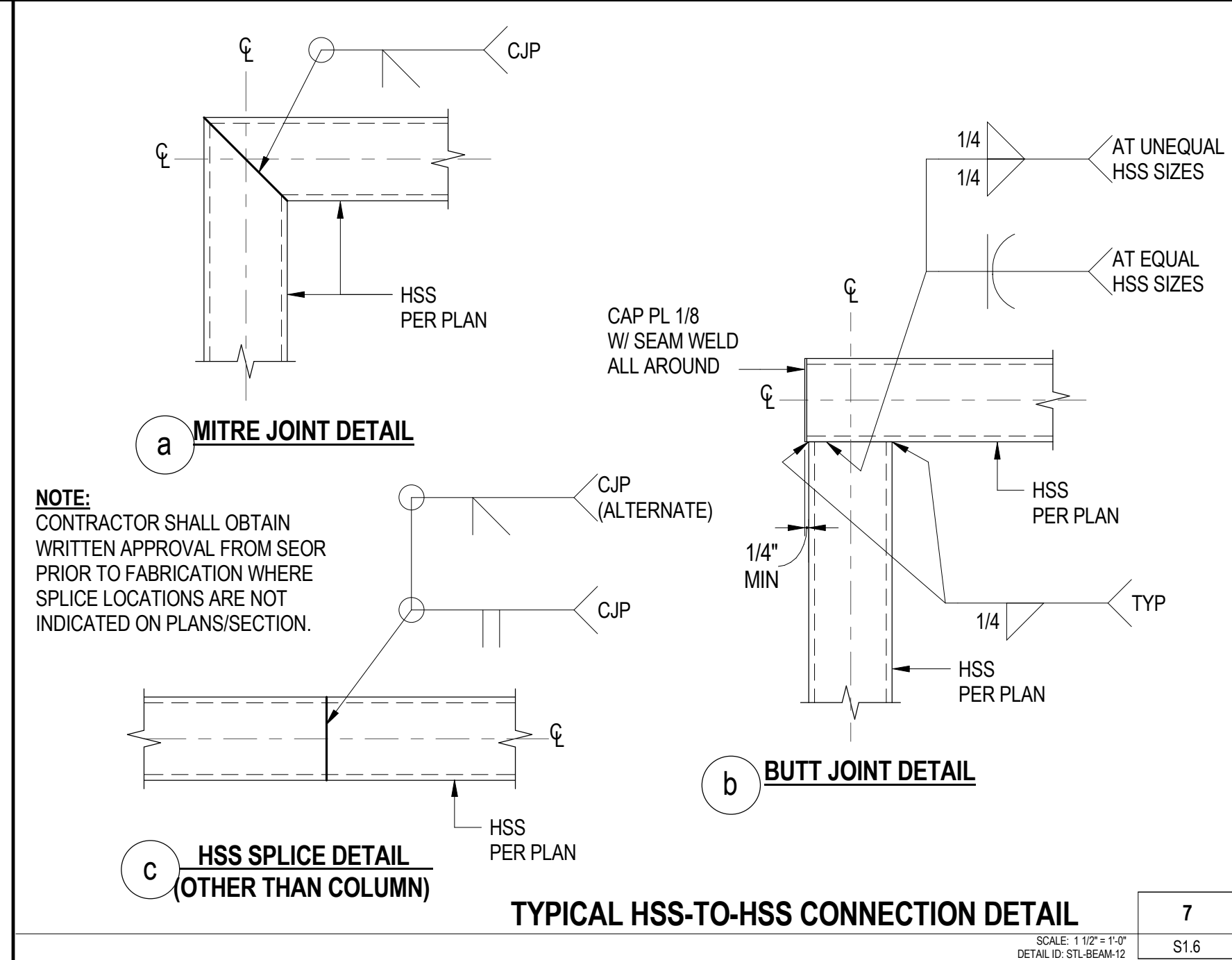
TYPICAL ELEVATOR SILL AT PIT

4

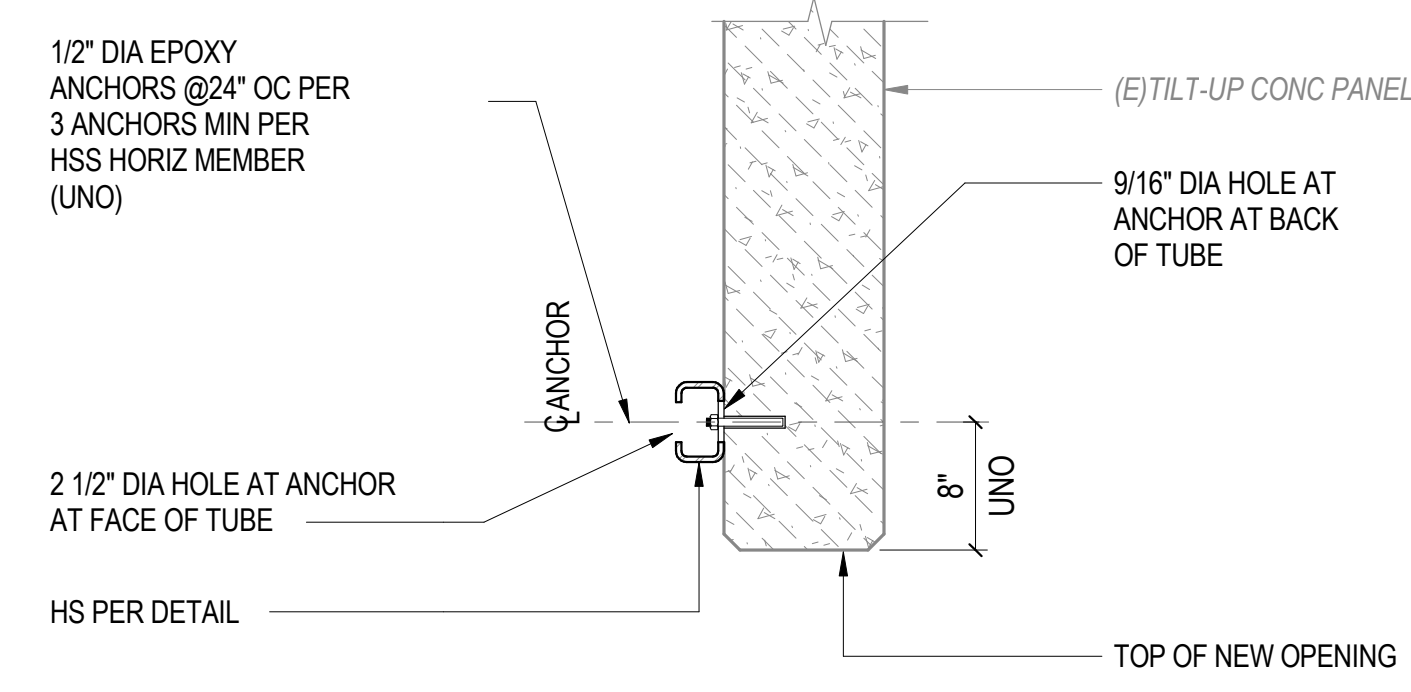
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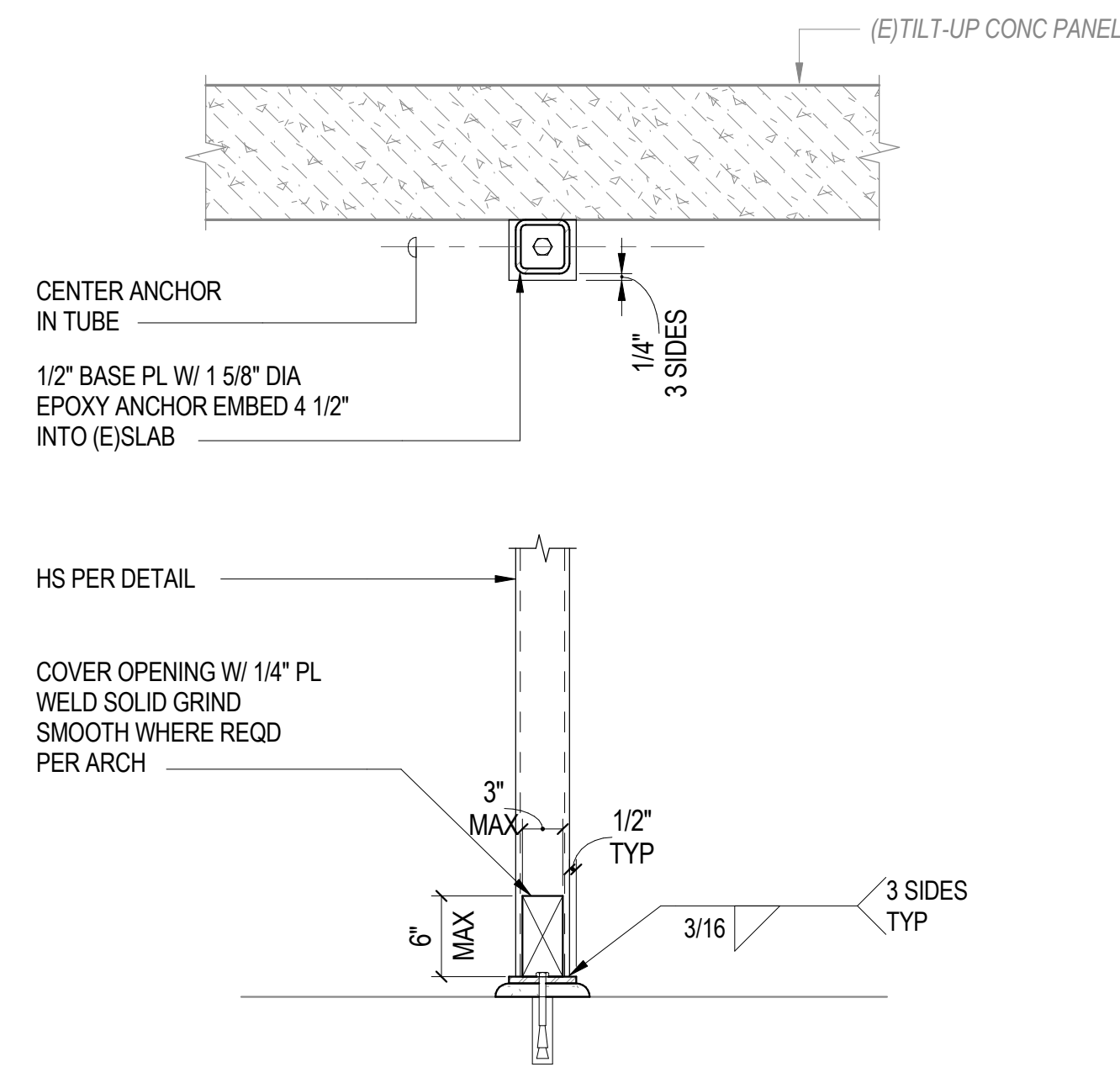
TYPICAL OPENING AT CONCRETE WALL 2
SCALE: 1/4" = 1'-0"
DETAIL BY: ESTL-WALL-018



TYPICAL HSS-TO-HSS CONNECTION DETAIL 7
SCALE: 1/2" = 1'-0"
DETAIL BY: ESTL-WALL-018

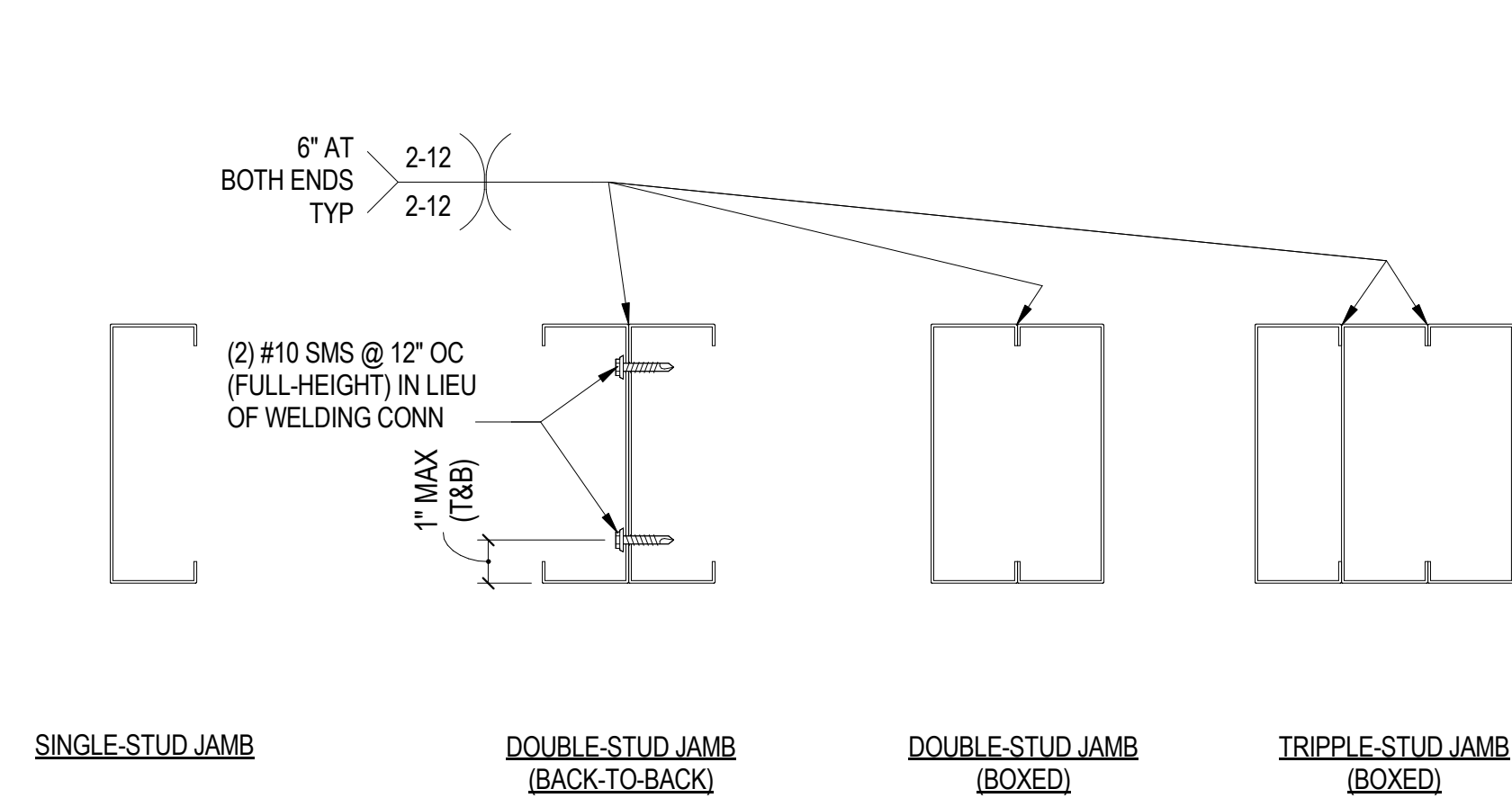


TYPICAL CONCRETE INFILL AT EXISTING CONCRETE OPENING 3
SCALE: 1/4" = 1'-0"
DETAIL BY: ESTL-WALL-018

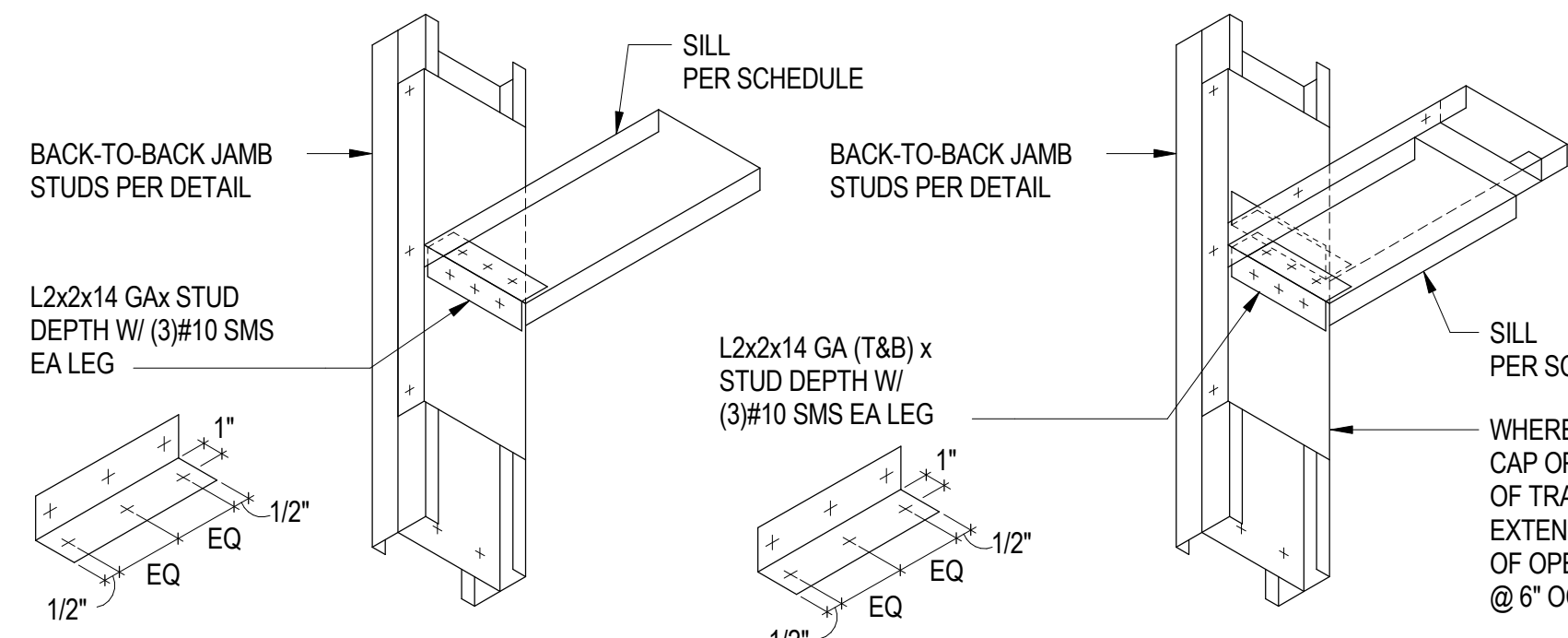


TYPICAL CONCRETE INFILL AT EXISTING CONCRETE OPENING 4
SCALE: 1/4" = 1'-0"
DETAIL BY: ESTL-WALL-018

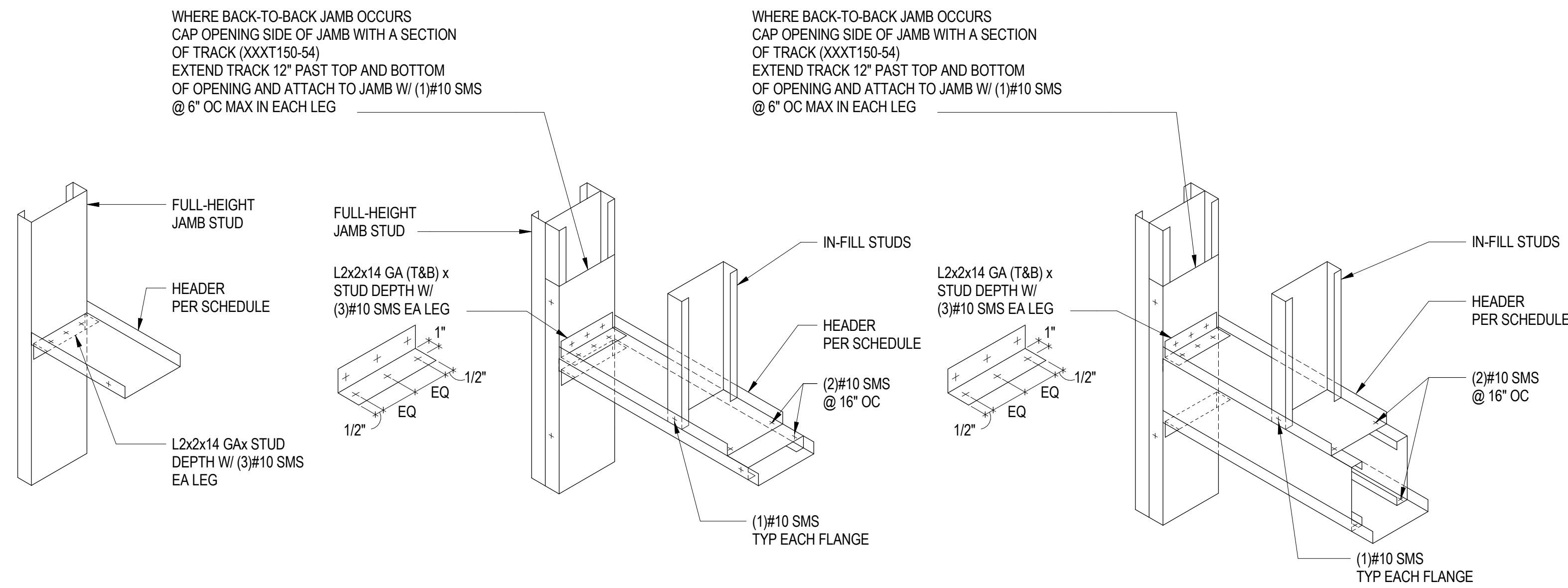
C:\Temp\Revit\S25-0184 Fontana Navigation Center S24 - Jyamasaki@jyaca.com.rvt



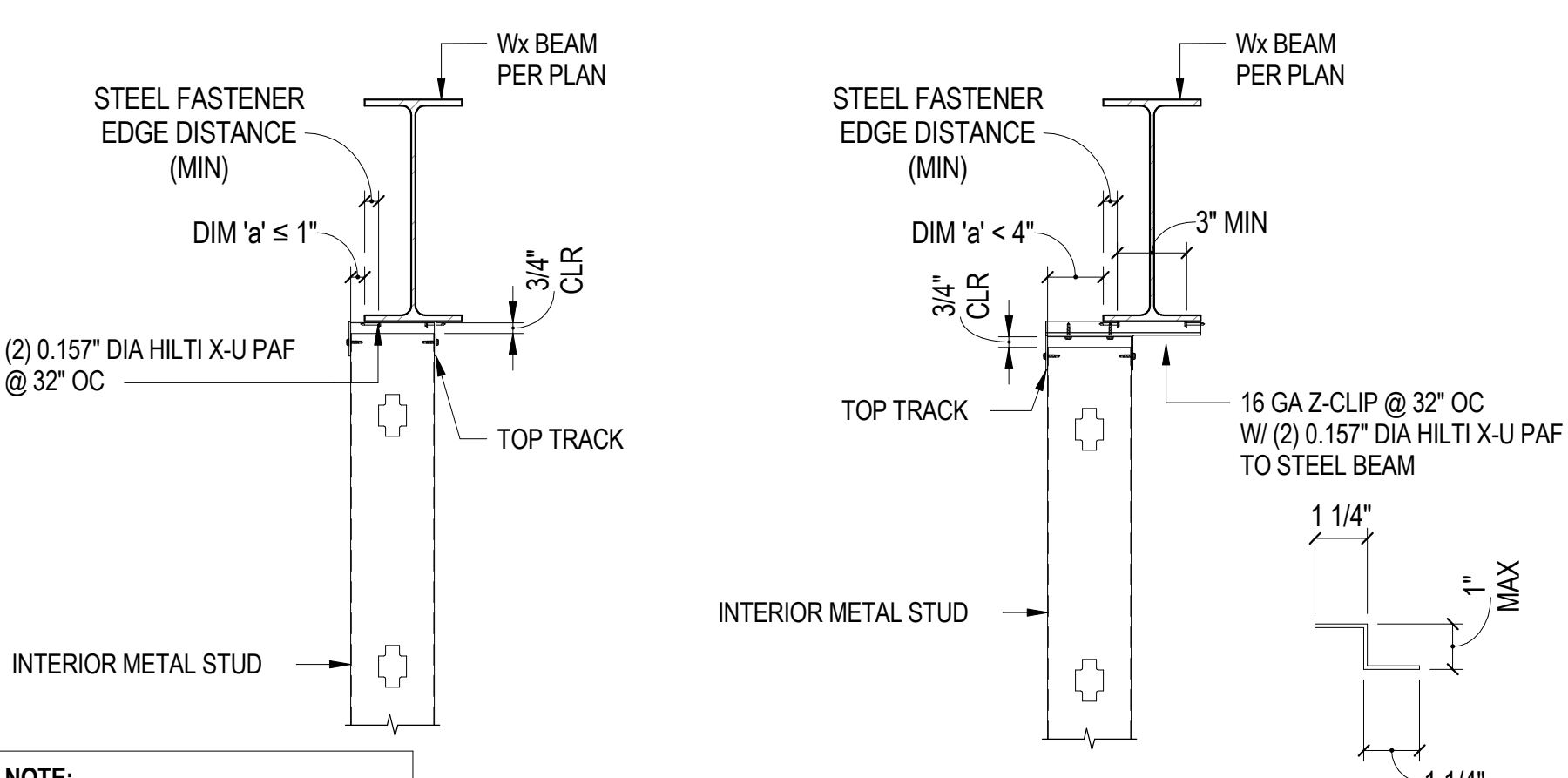
a JAMB SECTION CONFIGURATION



b SILL-TO-JAMB CONNECTION



c HEADER-TO-JAMB CONNECTION



d TOP TRACK CONNECTION TO UNDERSIDE OF STEEL BEAM

- NOTES:
1. REFER TO S00 SERIES FOR GENERAL NOTES.
 2. PROVIDE 16 GA STUDS MINIMUM WHERE EQUIPMENTS, CABINETS, ELECTRICAL PANELS, ETC ARE ATTACHED TO STUDS. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR LOCATIONS. PROVIDE BACKING PER TYPICAL DETAIL.
 3. WHERE WALLS HAVE CABINETS / CASEWORK ON BOTH SIDES, USE SPACING 12" OC WHERE 16" OC CALLED OUT.
 4. TOP & BOTTOM TRACK SIZE TO MATCH WALL STUDS. TOP & BOTTOM TRACK SHALL BE 1 GAUGE HEAVIER THAN WALL STUDS.
 5. AT FULL HT TRACK FOR TYPE "C" JAMB, STOP TRACK 2" FROM FLOOR AND TOP TRACK TO AVOID INTERFERENCE WITH SILL AND TOP TRACKS.
 6. REFER TO ARCHITECTURAL SPECIFICATIONS AND DRAWINGS FOR WALL THICKNESSES.
 7. CONTRACTOR MAY USE PRO-X HEADERS (APMO REPORT # 0286) AT INTERIOR NON-LOAD BEARING CONDITIONS IN LIEU OF THIS DETAIL. FOLLOW ALL REQUIREMENTS AND ATTACH TO JAMB STUDS PER ICC REPORT.
 8. INTERIOR STUD WALLS ARE DESIGNED TO LIMIT STUD DEFLECTION TO L/240, WHERE L IS DEFINED AS THE STUD SPAN BETWEEN LATERALLY RESTRAINED POINTS.
 9. METAL STUD SIZES ARE IDENTIFIED AS NOTED BELOW:

INDICATES MEMBER DEPTH (600 / 100 = 6 INCHES)

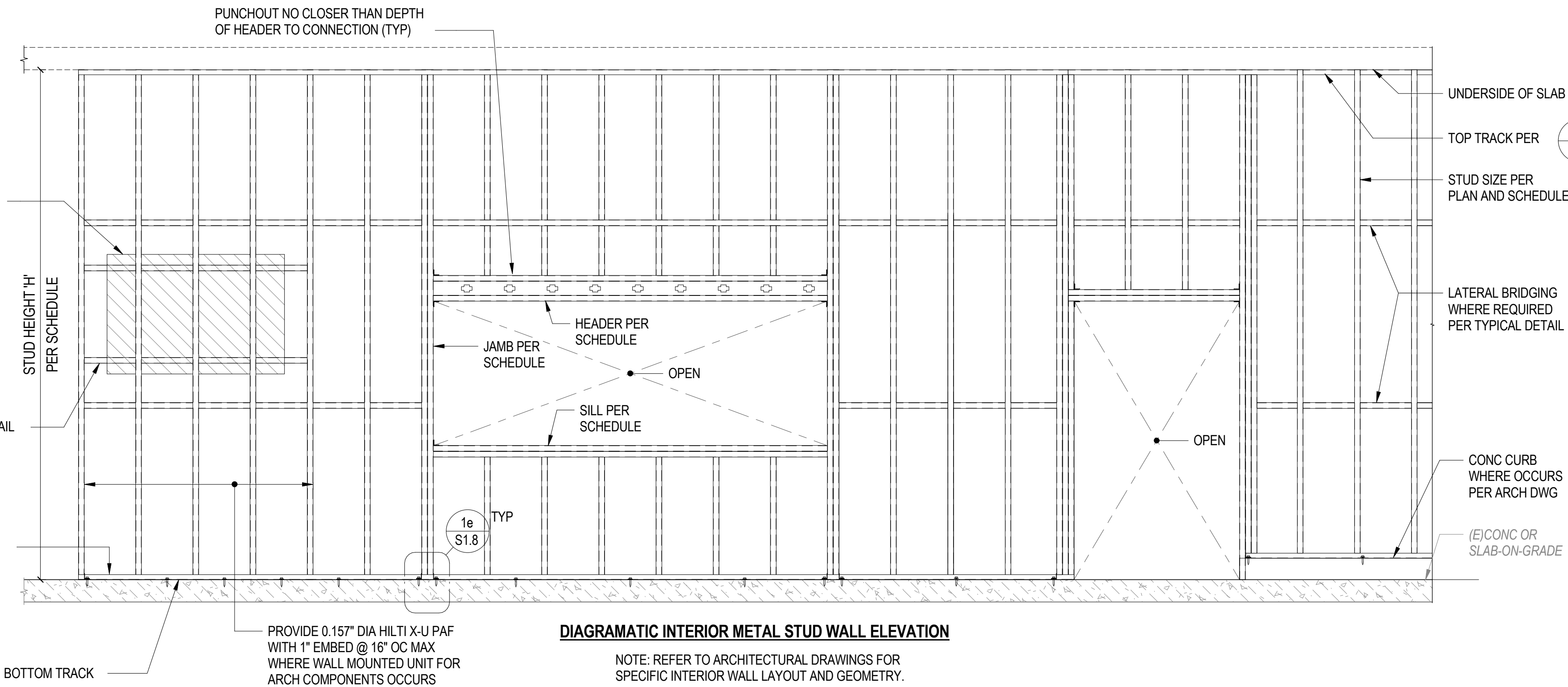
INDICATES SECTION THICKNESS (54 = 16GA)

INDICATES STUD (S) OR TRACK (T) SECTION

INDICATES FLANGE WIDTH (162 / 100 = 1 5/8")

TYPICAL BOTTOM TRACK AND CONNECTION TO SLAB: CONT XXXT150 BOTTOM TRACK ONE GAUGE HEAVIER THAN VERT STUDS (16 GA MIN) WITH #10 SMS EA FLANGE EA STUD PROVIDE 0.157" DIA HILTI X-U PAF WITH 1" EMBED @ 32" OC MAX STAGGERED (ICC ESR-2269) UNO

WALL MOUNTED MEP UNIT, ARCH COMPONENT, ETC. PER MECHARCH DWGS SEE TYPICAL DETAILS FOR REQUIRED WALL ASSEMBLY AND WEIGHT LIMITATIONS



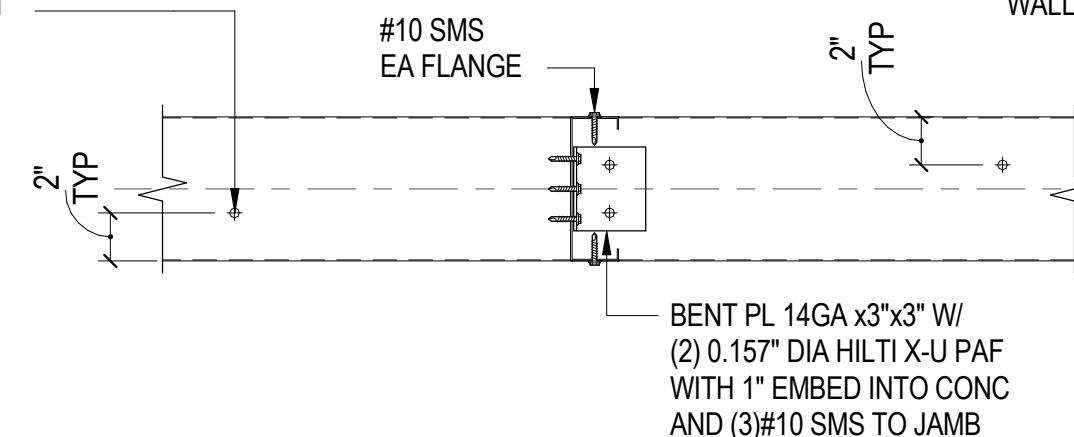
DIAGRAMATIC INTERIOR METAL STUD WALL ELEVATION

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFIC INTERIOR WALL LAYOUT AND GEOMETRY.

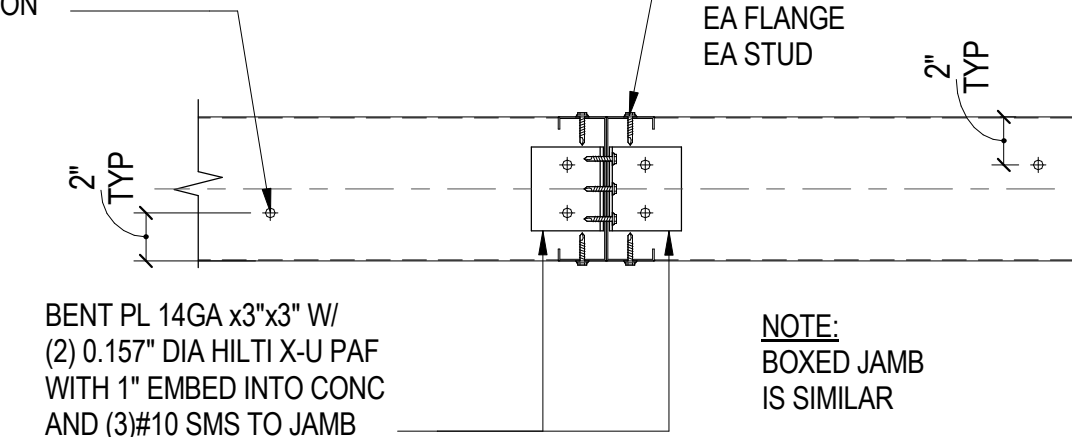
INTERIOR METAL STUD WALL SCHEDULE		
STUD DEPTH	STUD DESIGNATION	MAX HEIGHT
3 5/8"	362S162-33 @ 16" OC	17'-0"
4"	400162-33 @ 16" OC	18'-6"
6"	600162-33 @ 16" OC	25'-6"

INTERIOR WALL OPENING SCHEDULE				
MAX STUD HEIGHT "H"	MAXIMUM WALL OPENING WIDTH	JAMB SIZE	HEADER SIZE	SILL SIZE
15'-0"	4'-0"	SINGLE-STUD (XXXS162-54)	(2) 400S162-43	XXXT150-43
15'-0"	6'-0"	DOUBLE-STUD (XXXS162-54)	(2) 400S162-43	XXXT150-54
15'-0"	8'-0"	DOUBLE-STUD (XXXS162-54)	(2) 600S162-43	XXXT150-43 + XXXS162-43
15'-0"	10'-0"	DOUBLE-STUD (XXXS162-54)	(2) 600S162-43	XXXT200-43 + XXXS162-43
15'-0"	14'-0"	TRIPPLE-STUD (XXXS162-54)	(2) 800S162-54	XXXT200-54 + XXXS162-54

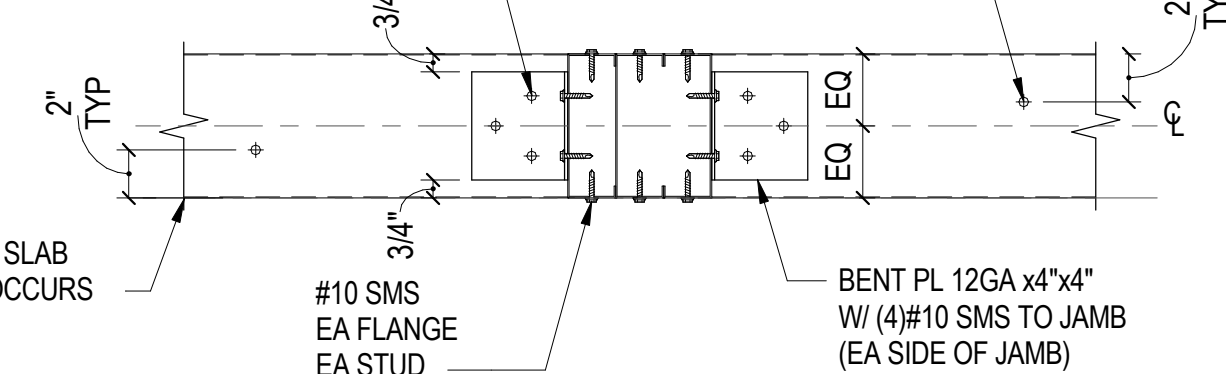
TYPICAL BOTTOM TRACK ATTACHMENT PER TYPICAL DIAGRAMATIC INTERIOR WALL ELEVATION



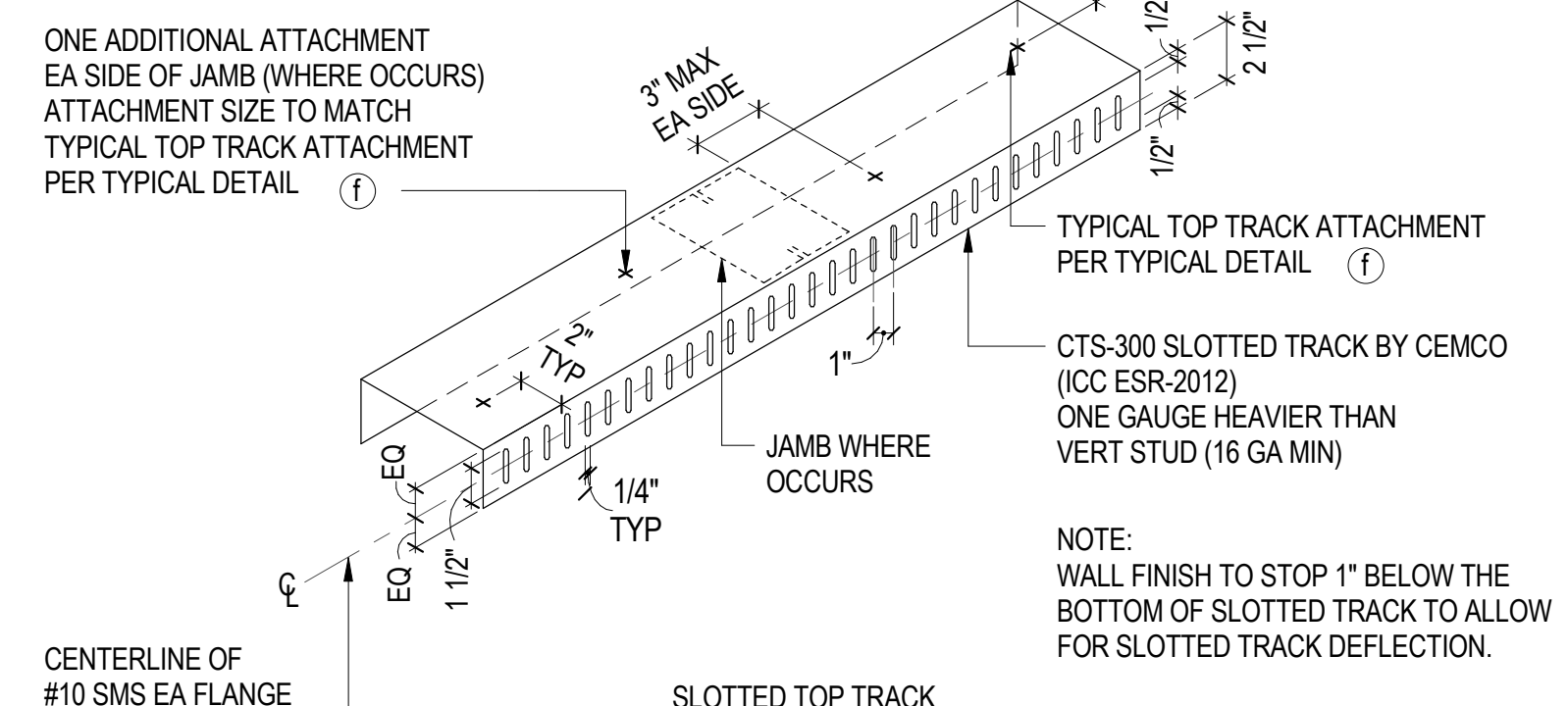
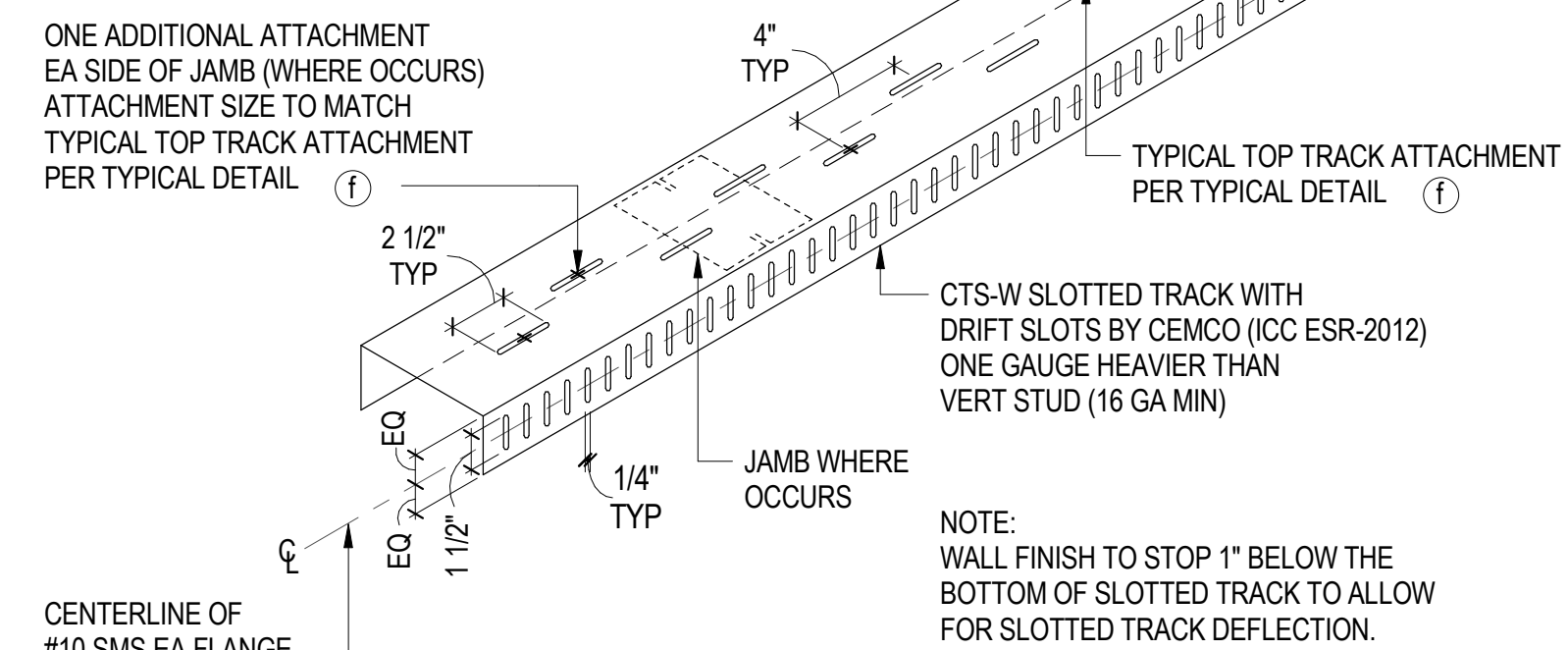
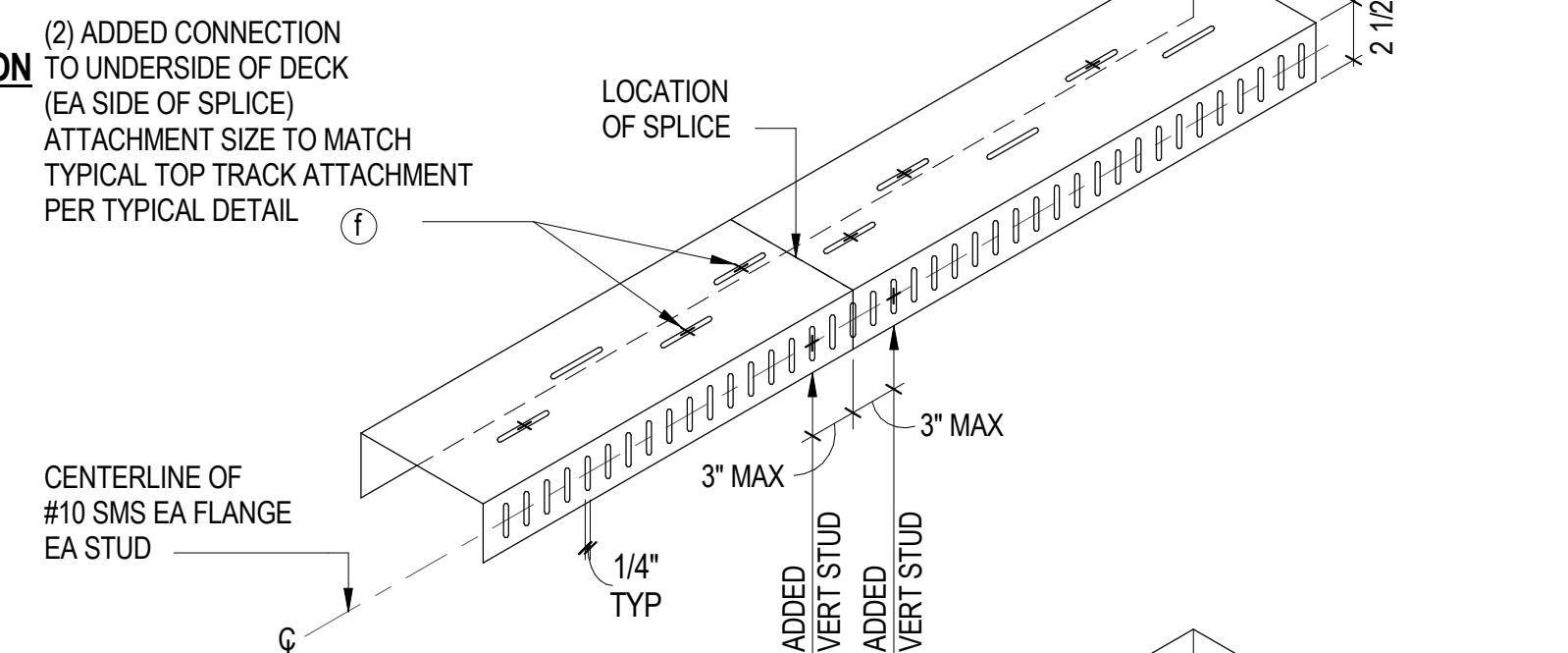
TYPICAL BOTTOM TRACK ATTACHMENT PER TYPICAL DIAGRAMATIC INTERIOR WALL ELEVATION



(3) 0.157" DIA HILTI X-U PAF WITH 1" EMBED INTO CONC (EA SIDE OF JAMB)



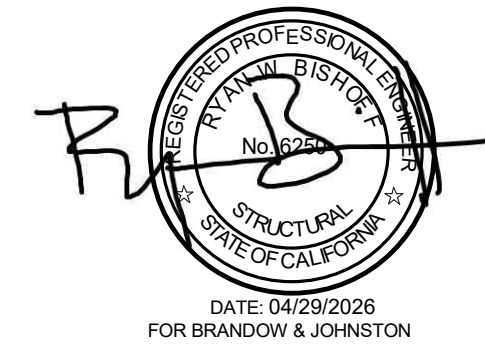
e JAMB TO BOTTOM TRACK CONNECTION



g TOP TRACK PROFILE

TYPICAL INTERIOR METAL STUD WALL CONSTRUCTION

SCALE: 1/8" = 1'-0" (DETAIL IS NOT A RATIO)



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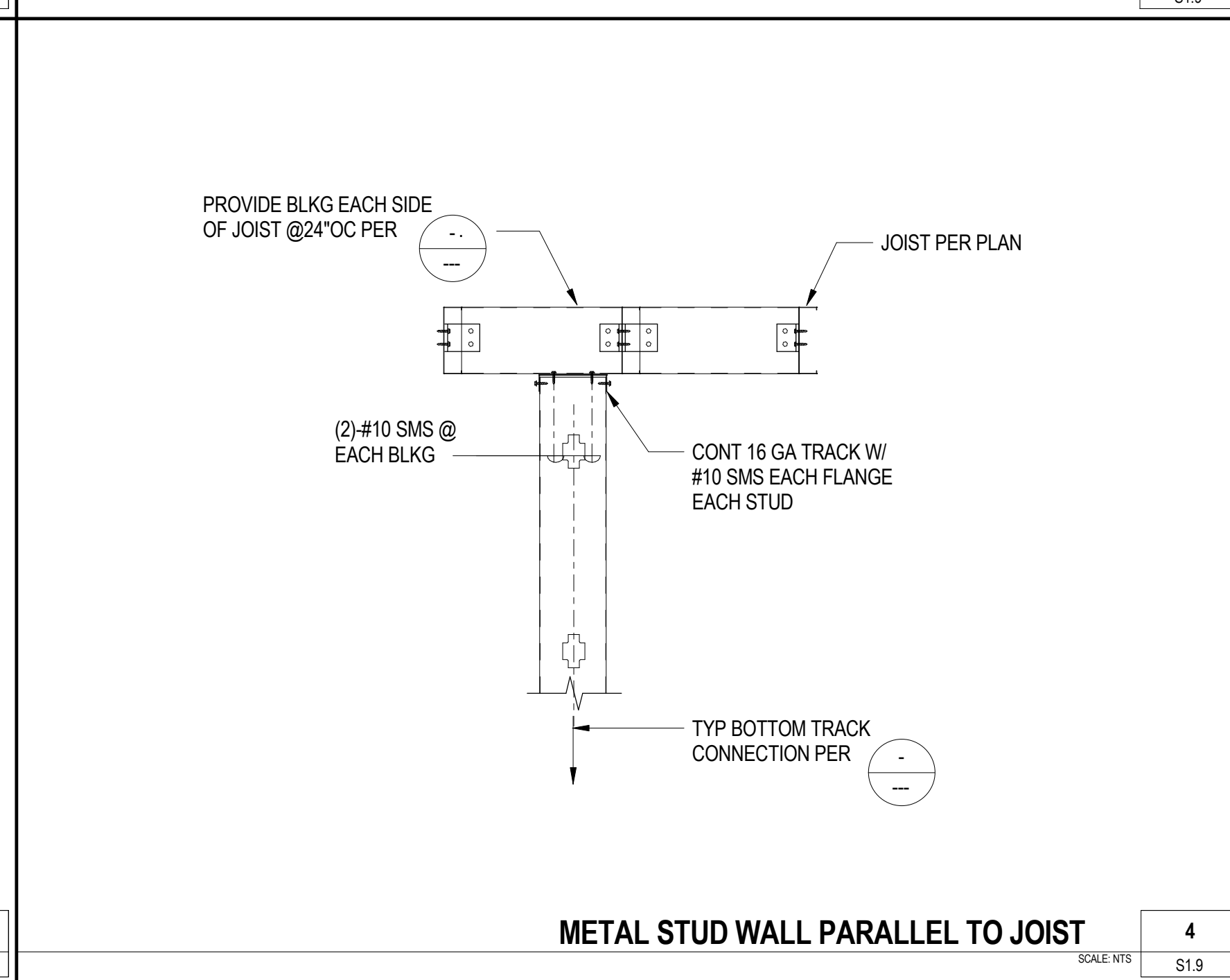
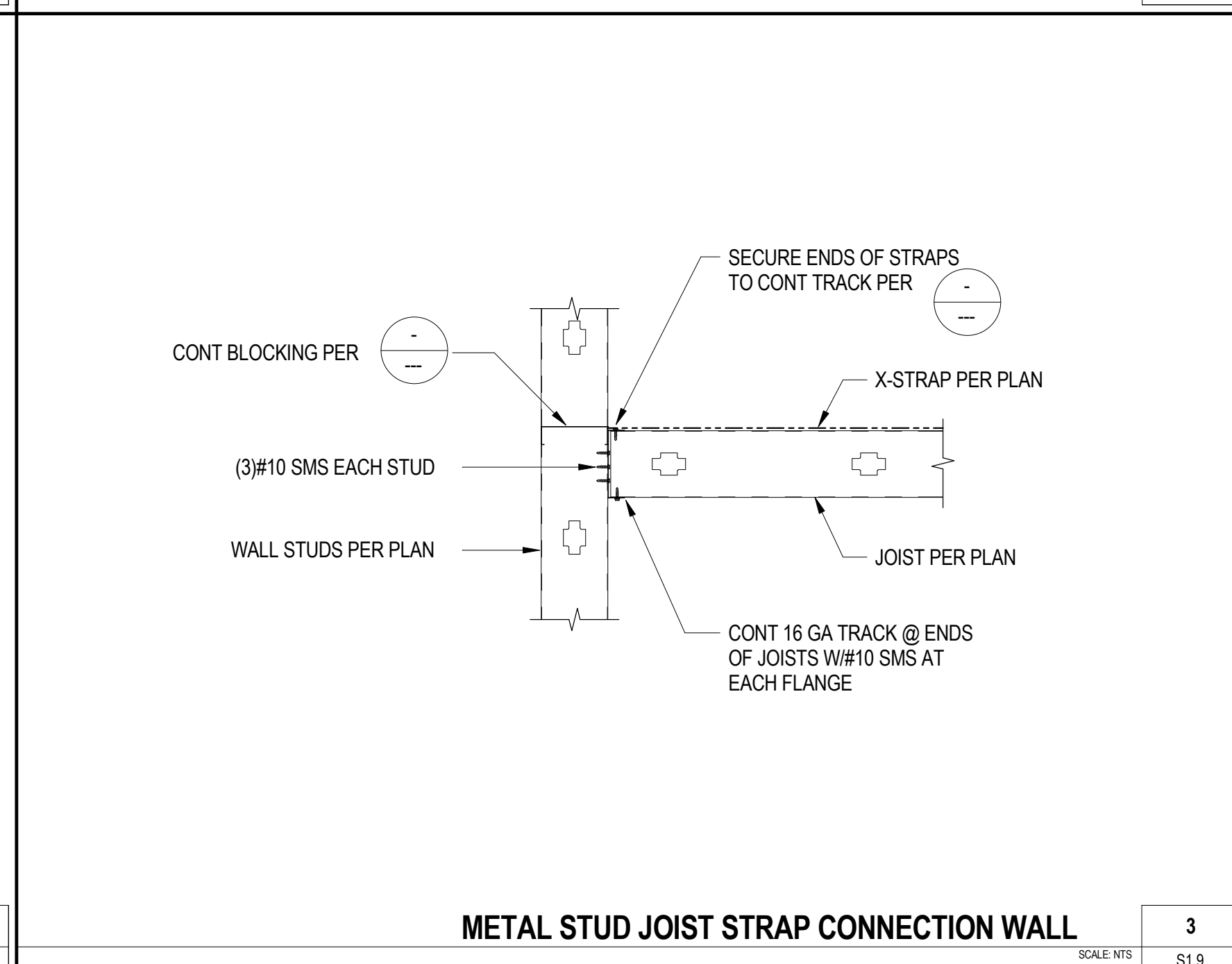
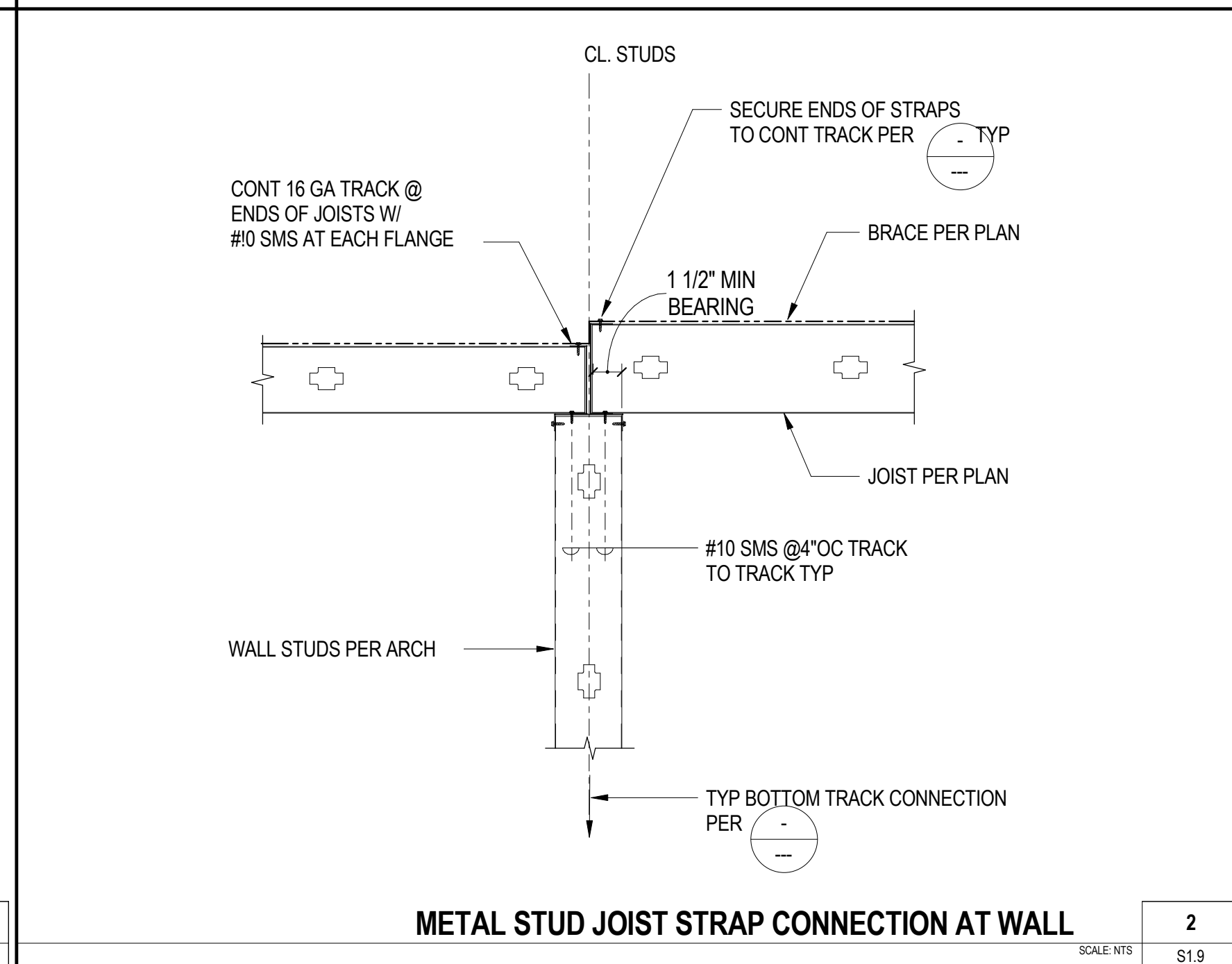
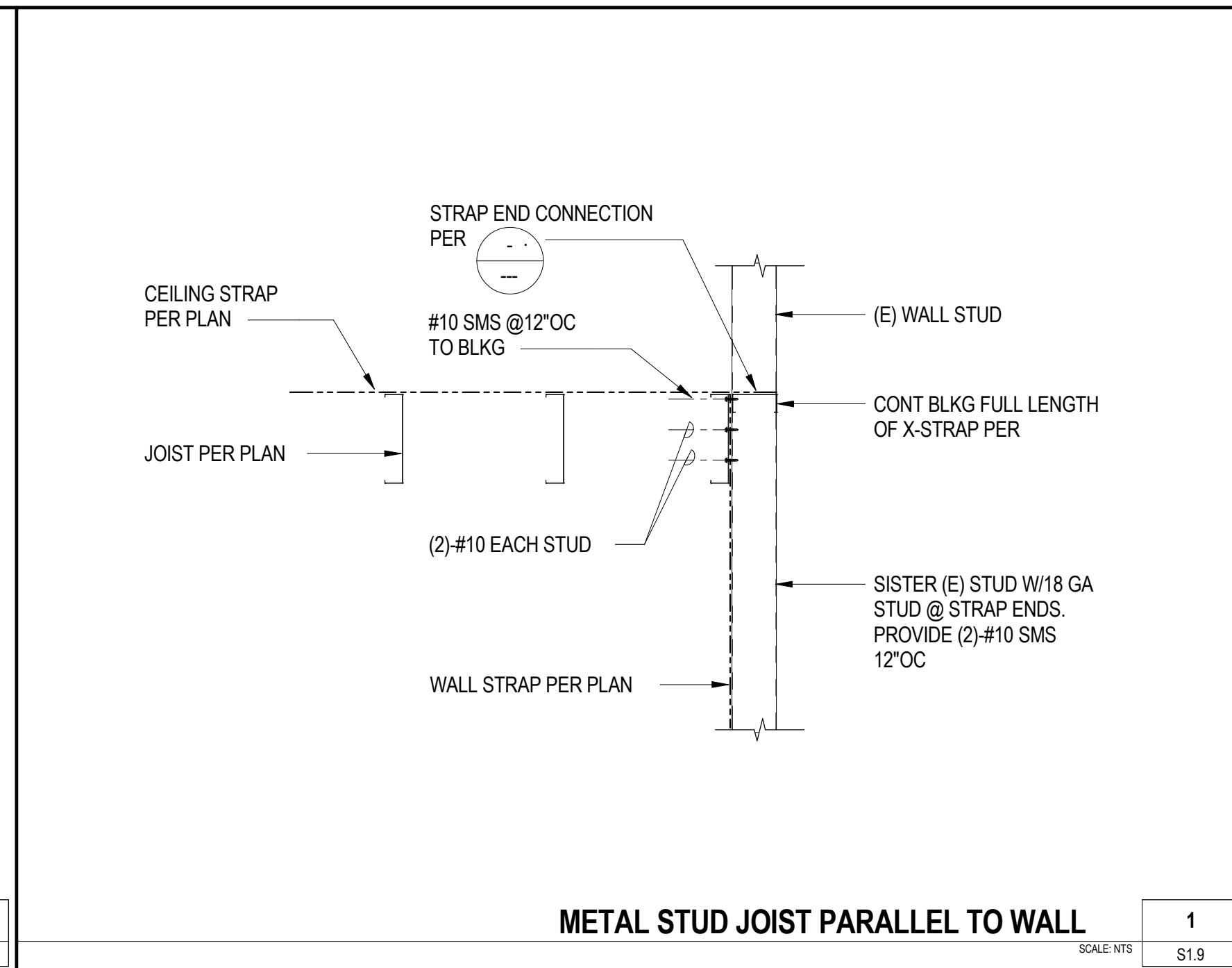
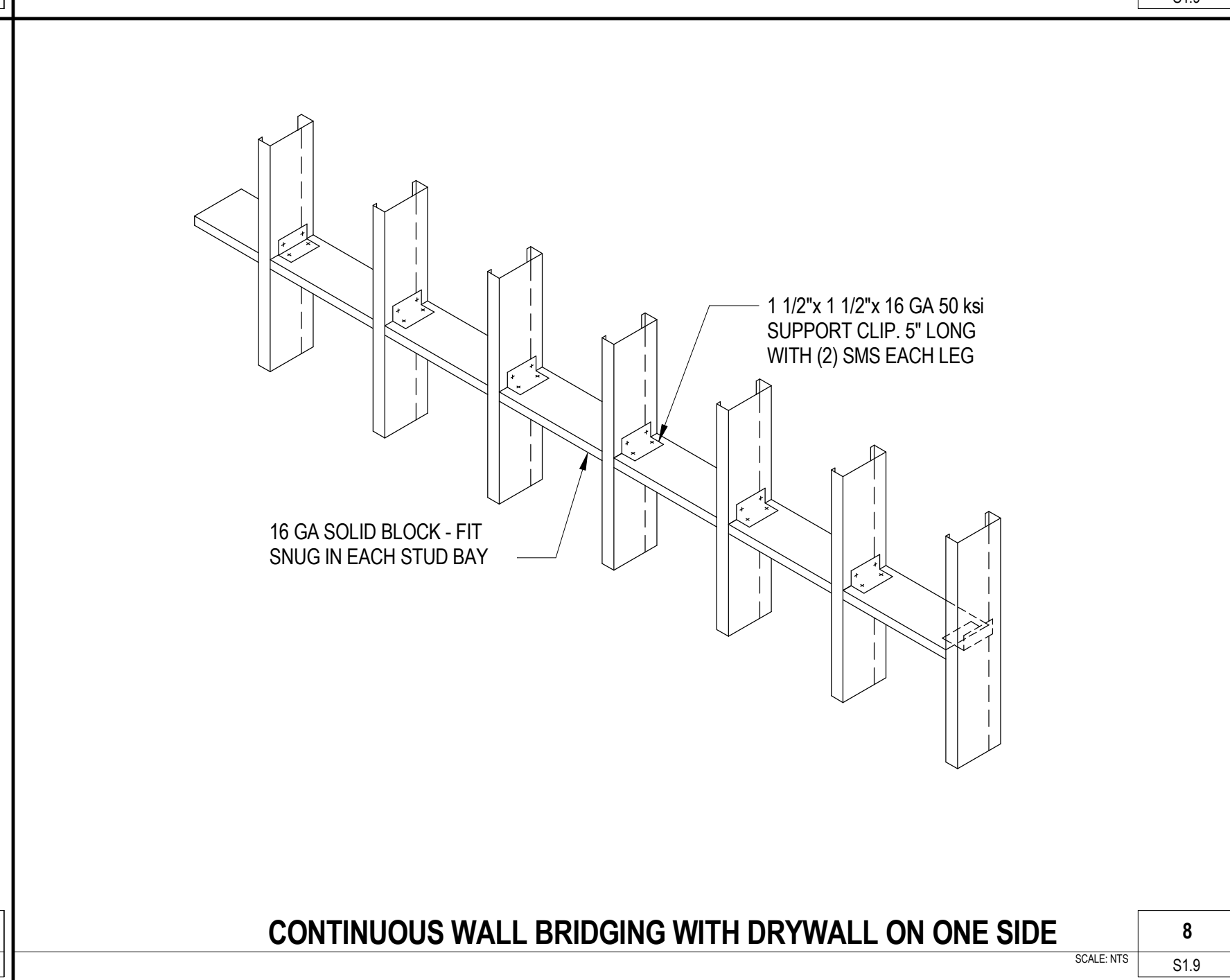
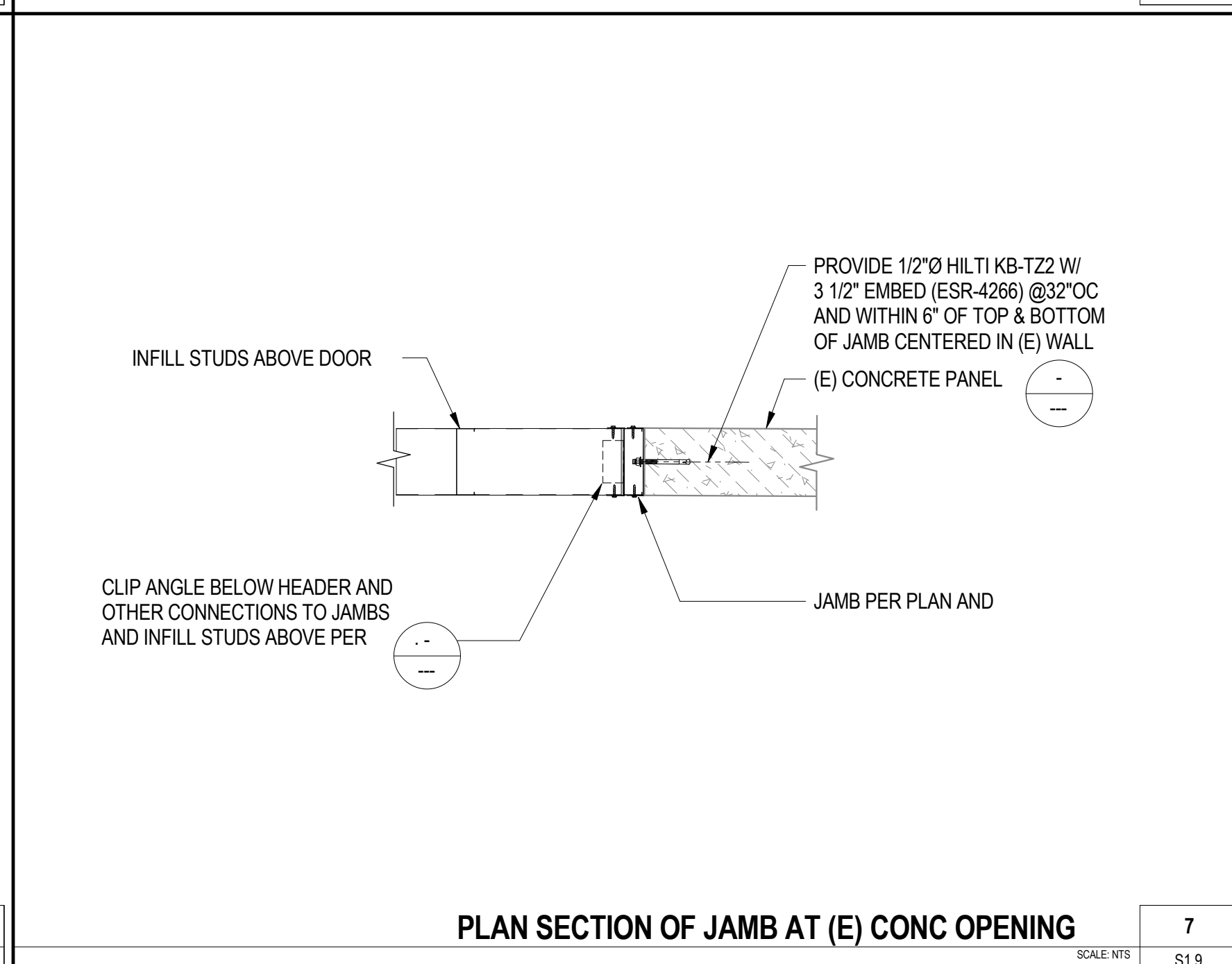
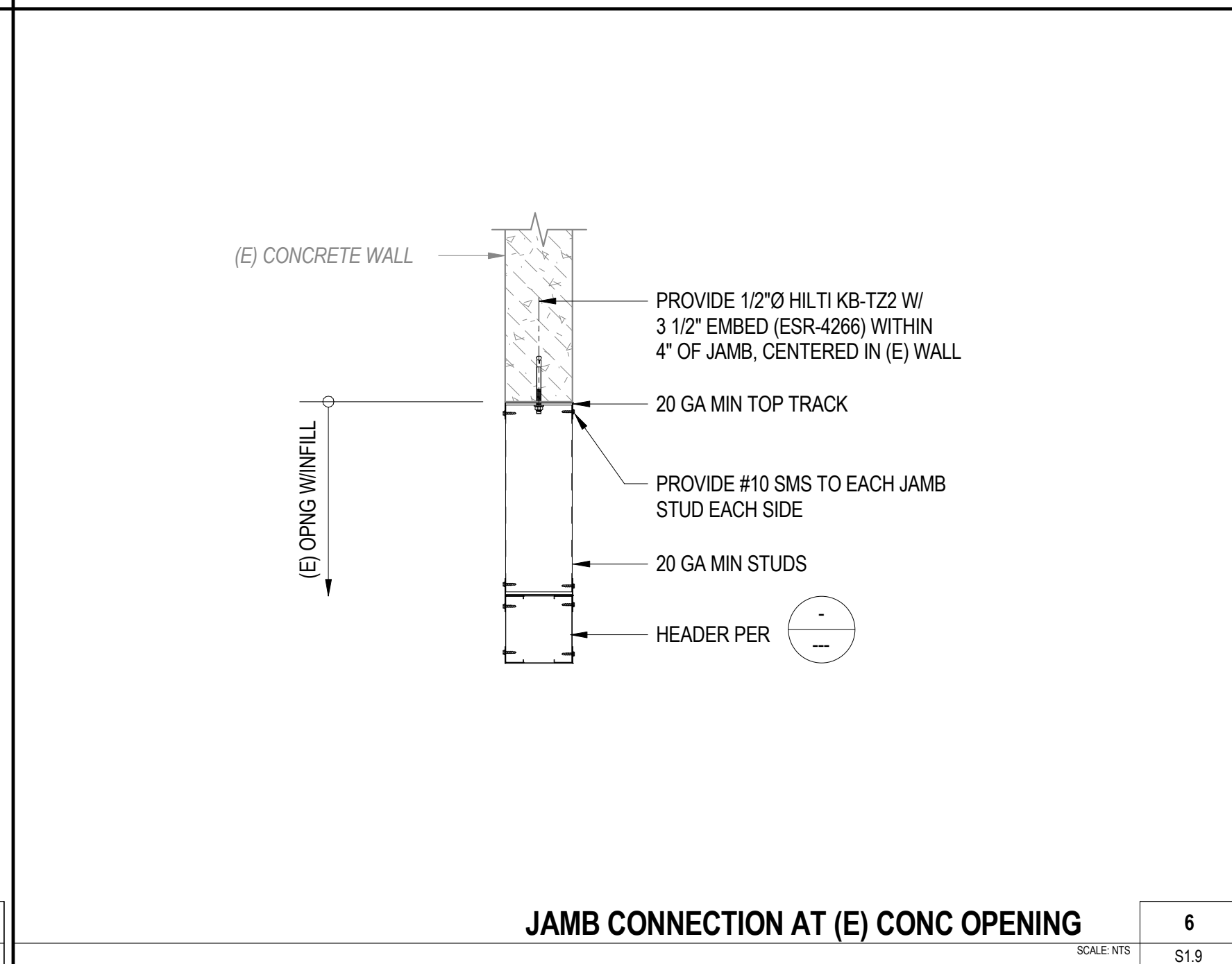
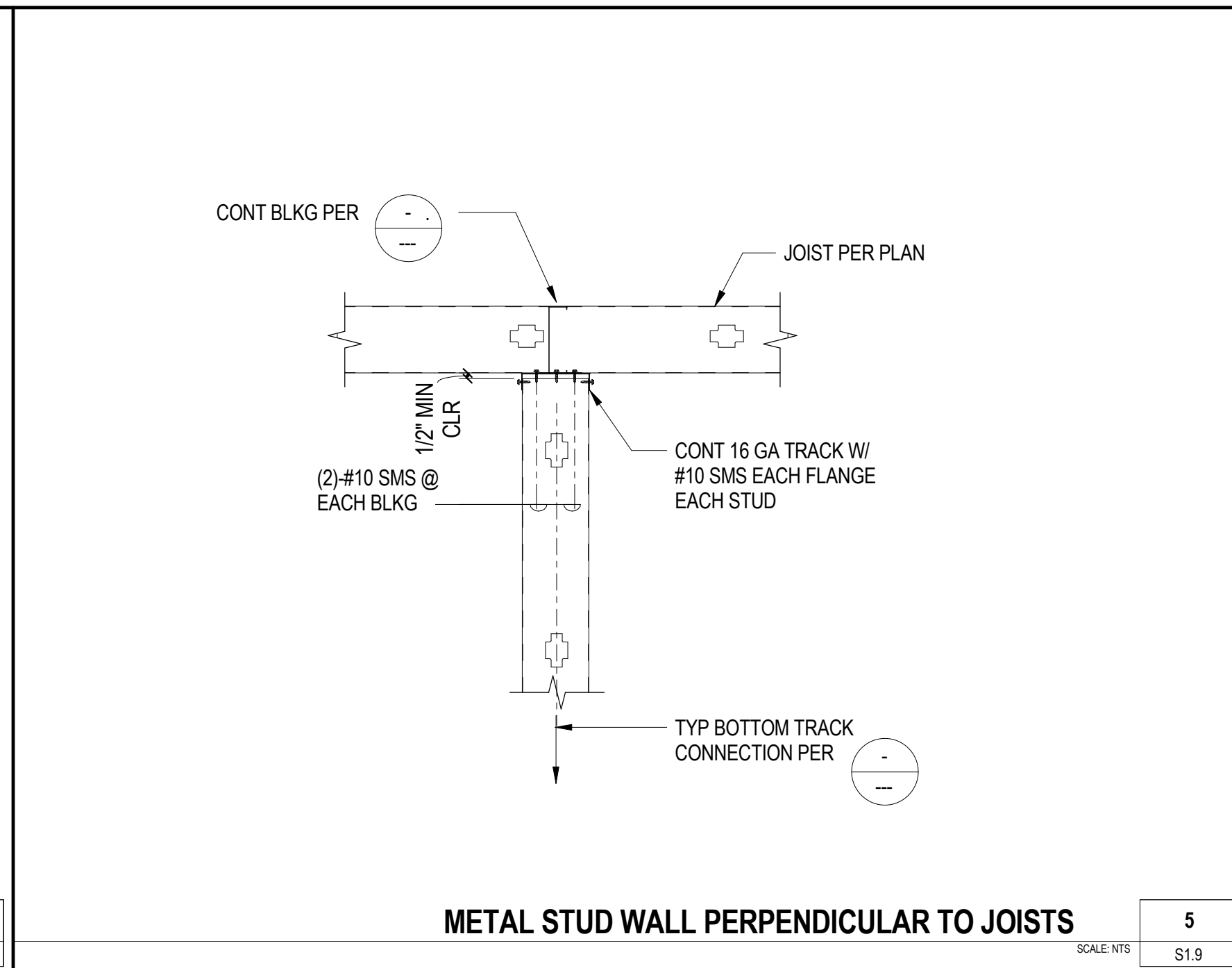
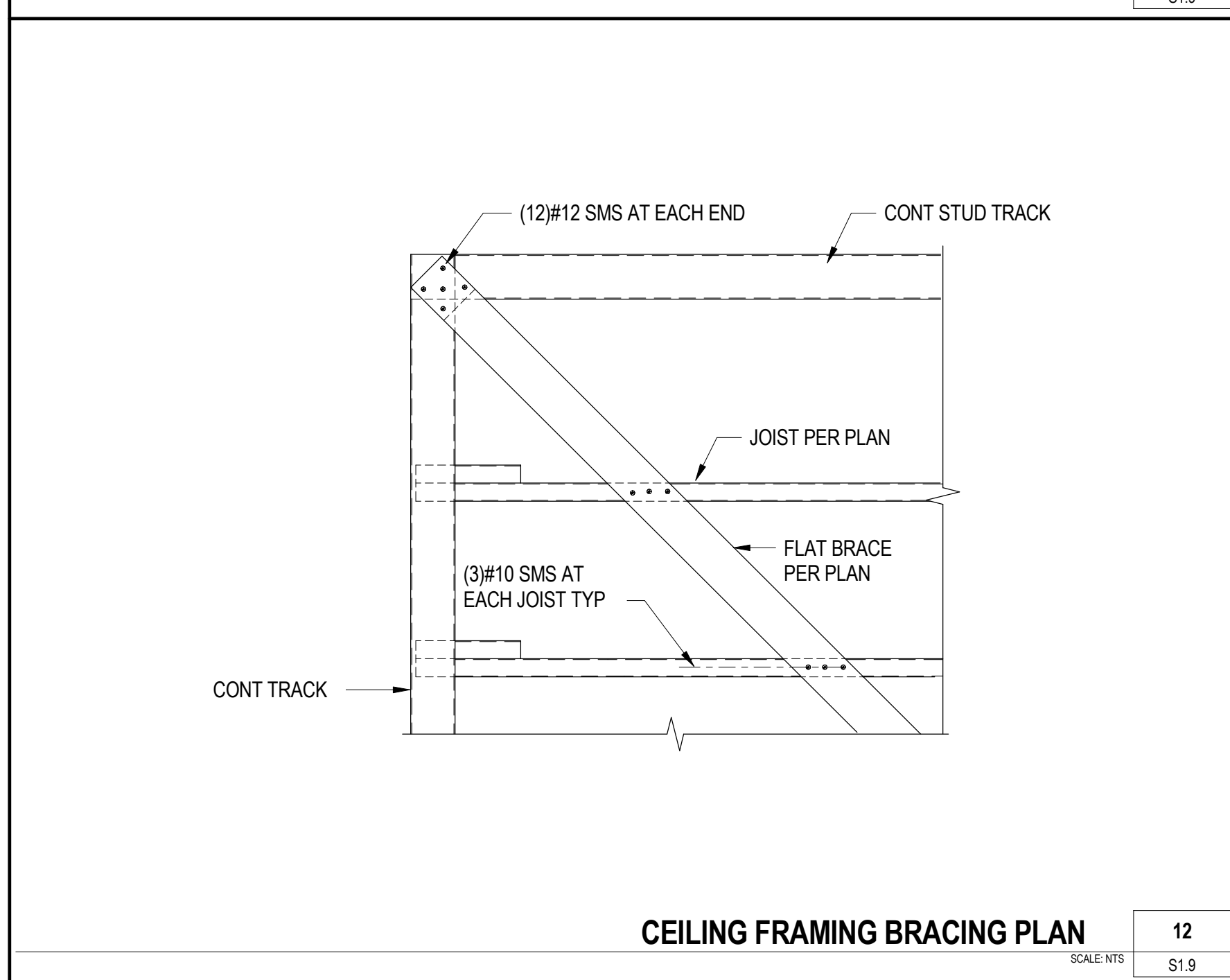
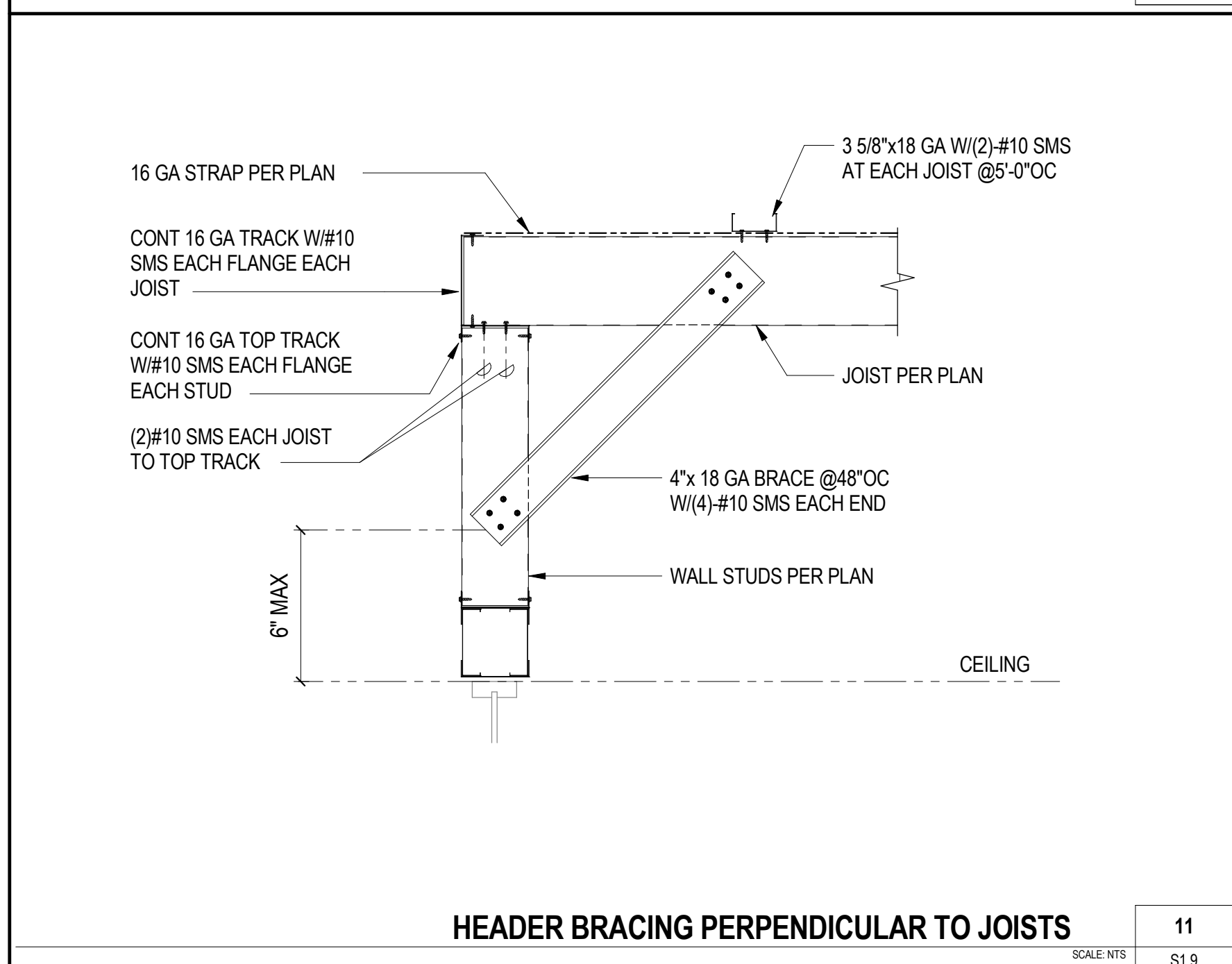
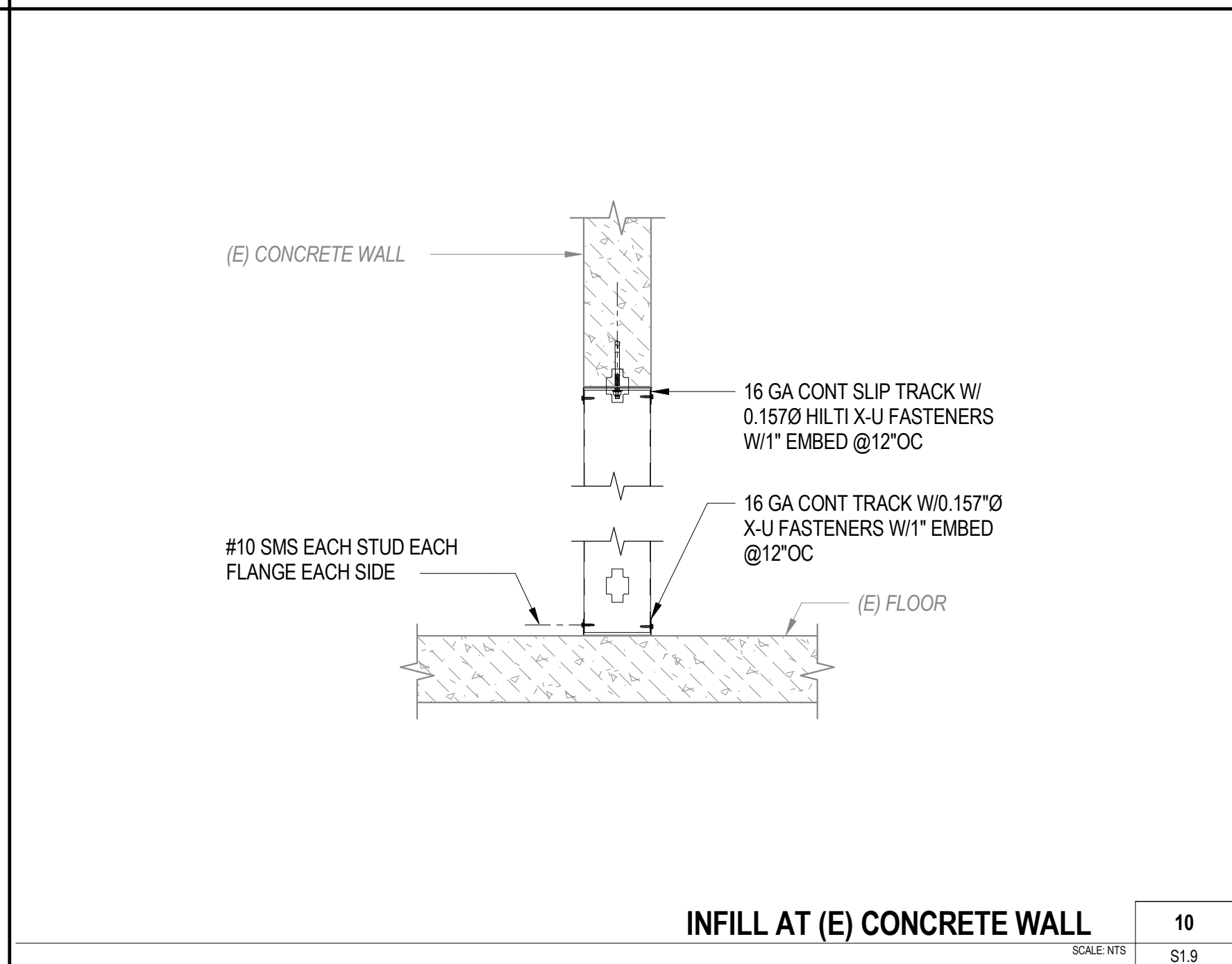
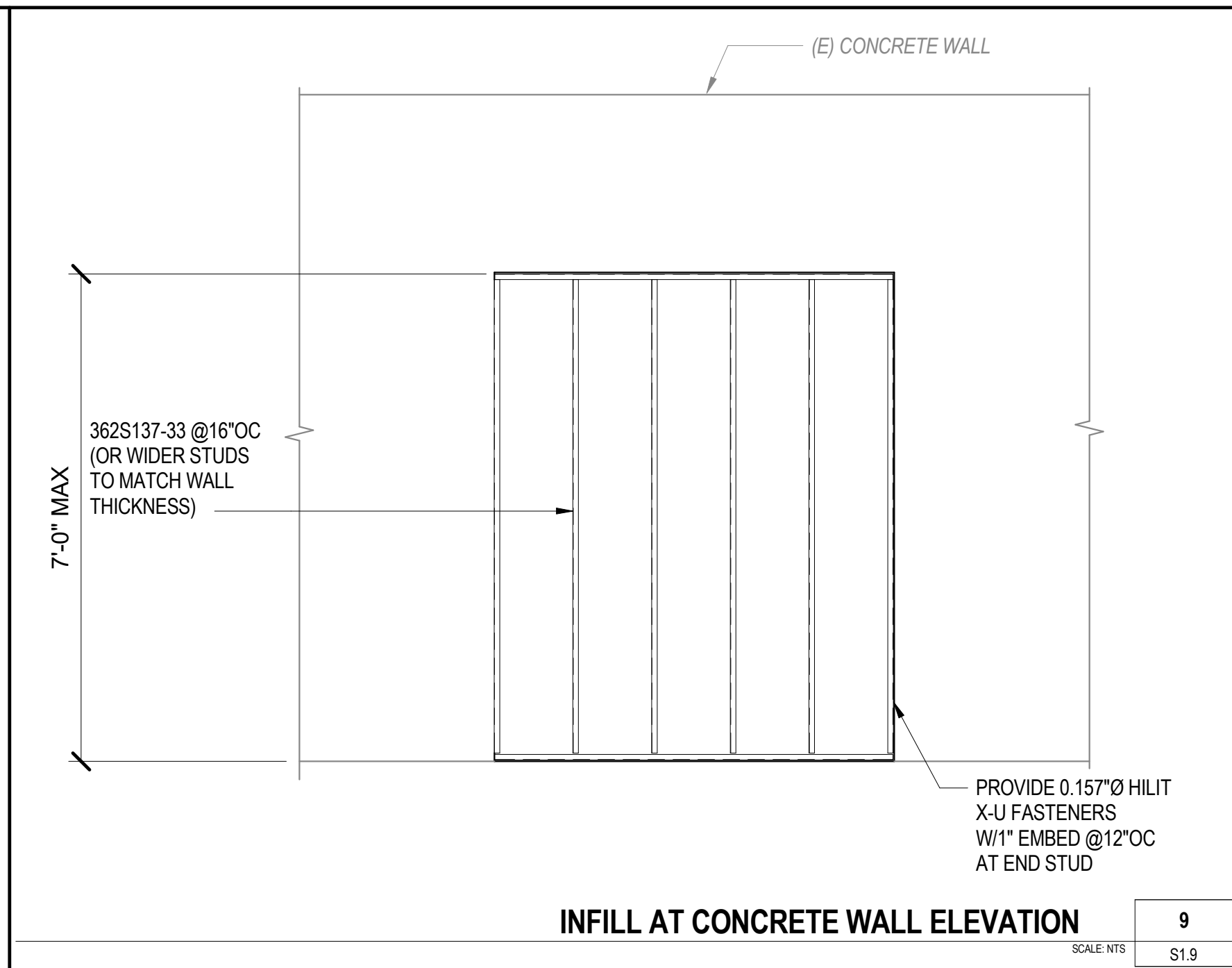
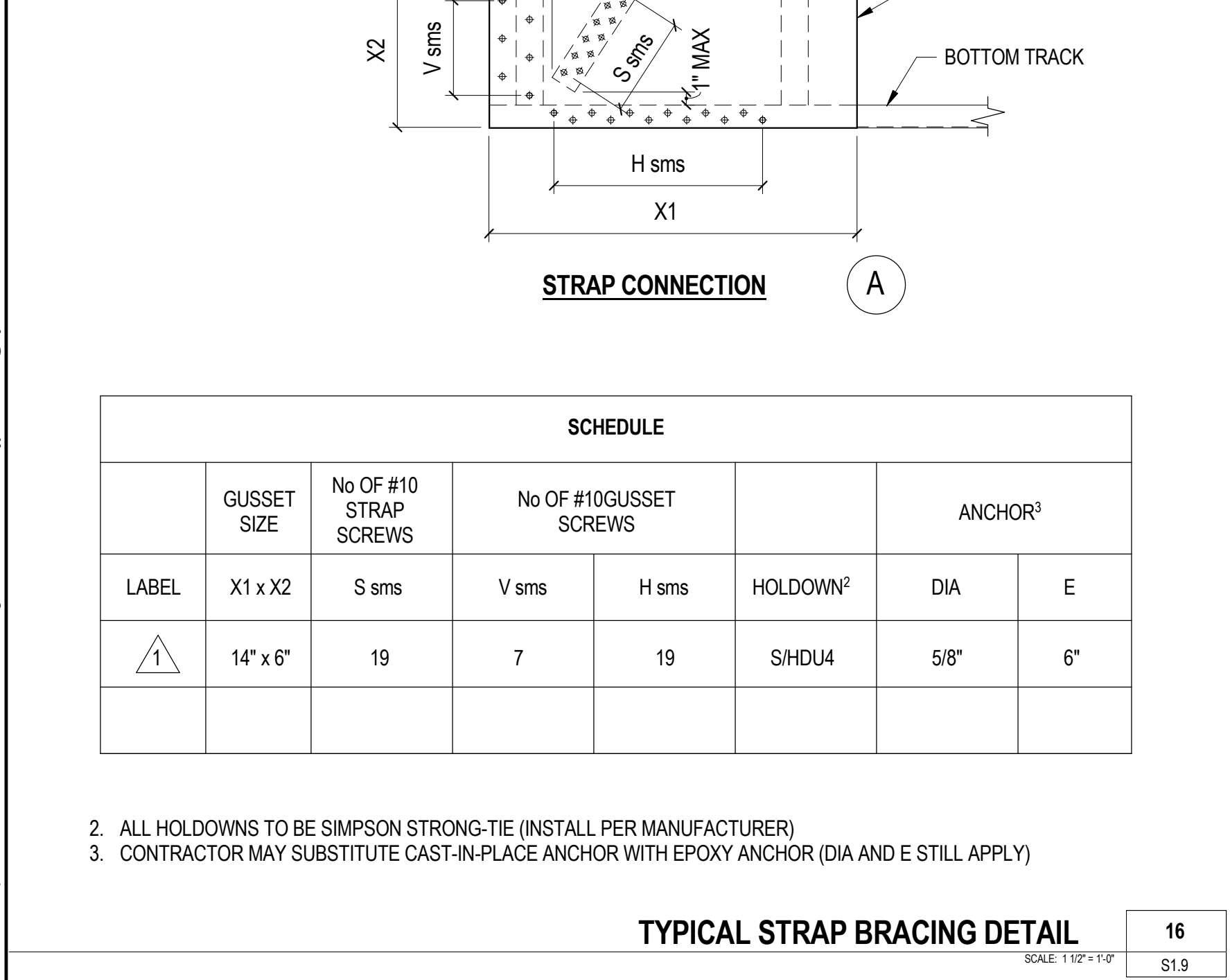
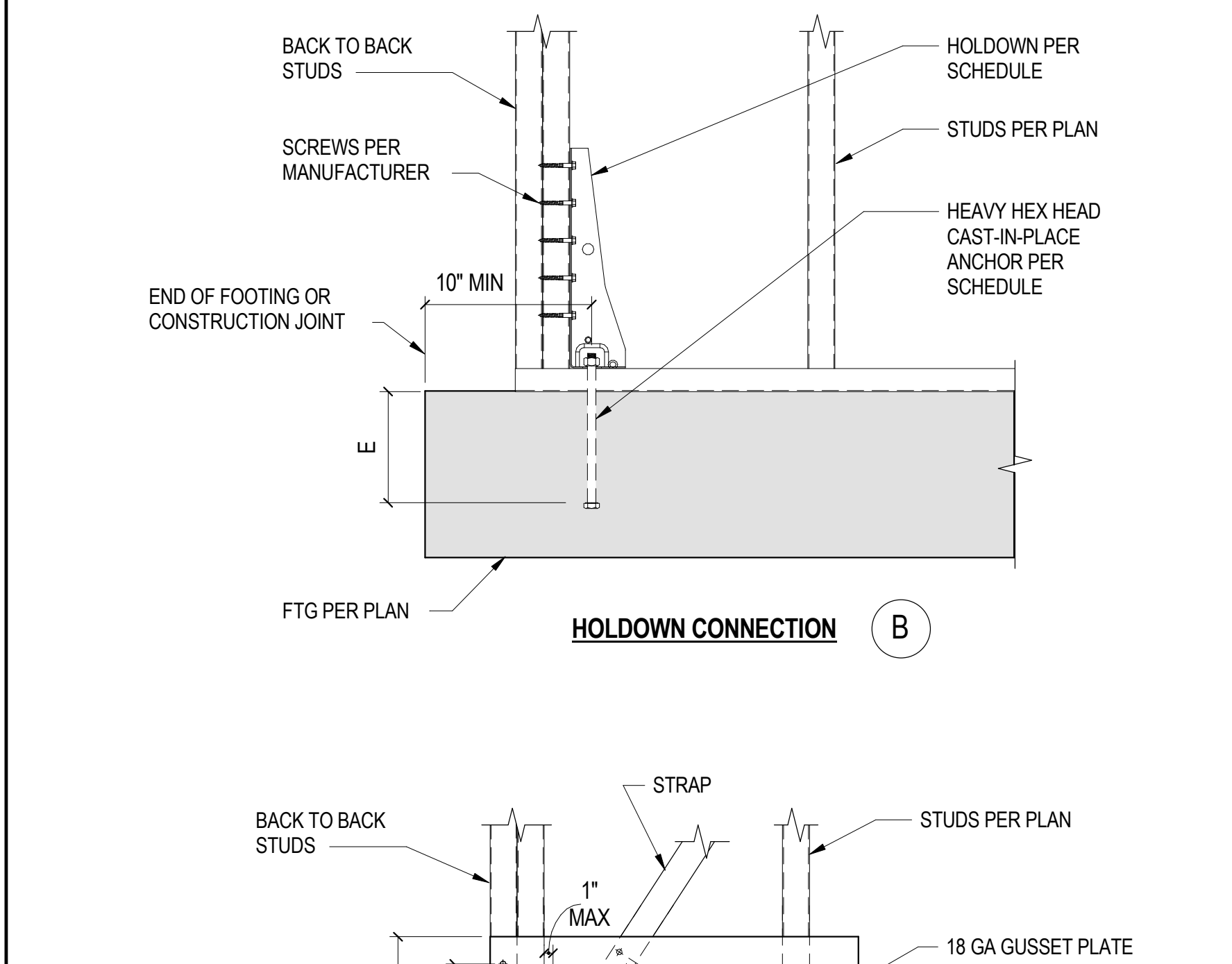
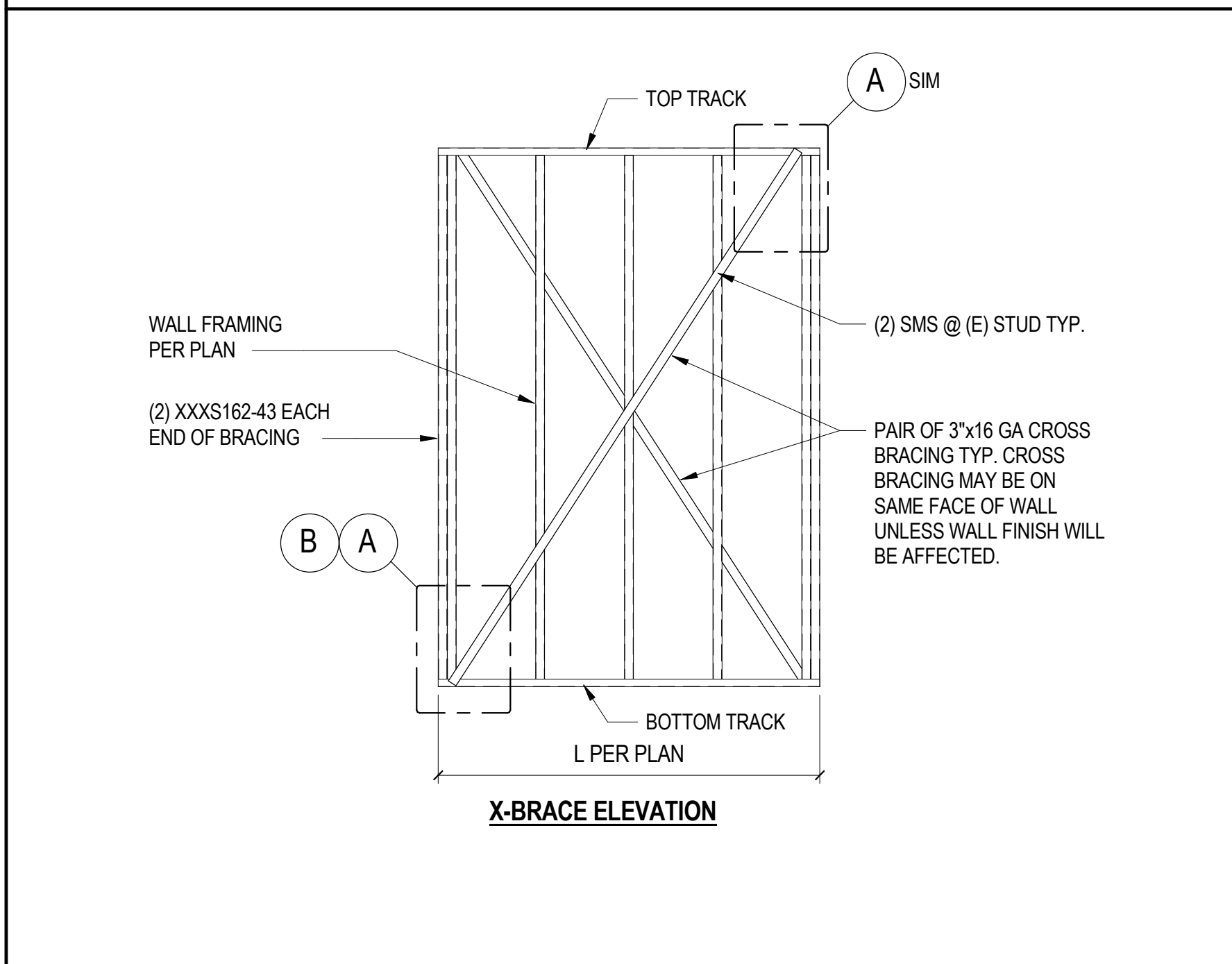
EXISTING METAL
STUD DETAILS

Revisions	By	Date
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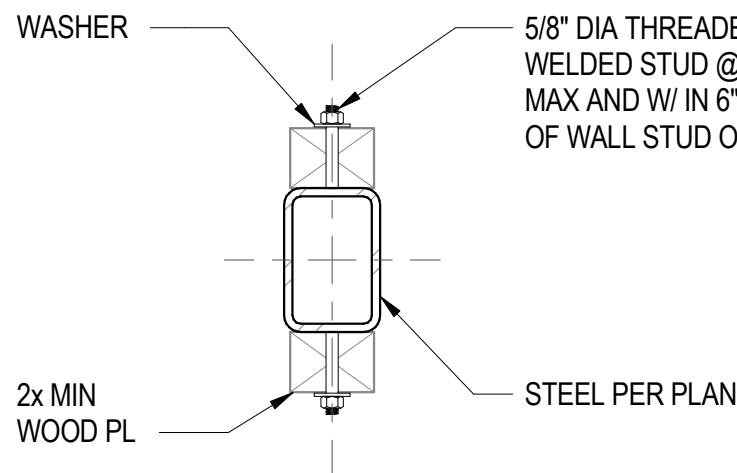
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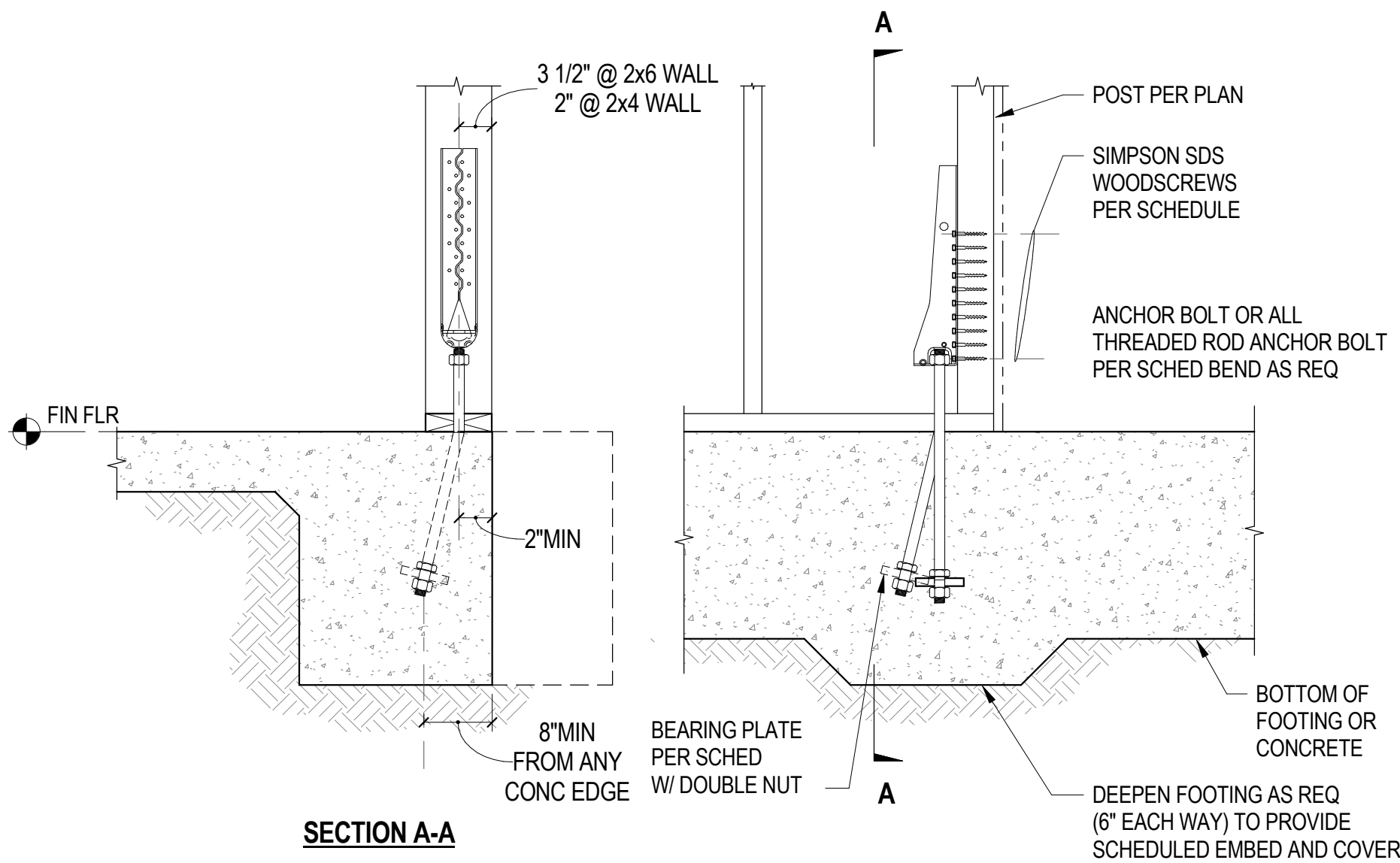
PLYWOOD SHEAR PANEL SCHEDULE						
PANEL DESIGNATION	STRUCT 1 PLYWOOD	NAILING (SEE NOTE 3)	A35 SPACING @ DBL TOP PL TO RIM/BLOCKING	FLOOR SILL BOLT SIZE AND SPACING (SEE NOTE 6)	FOUNDATION SILL BOLT SIZE AND SPACING (SEE NOTE 4)	SHEATHING SIDES
A	15/32"	10d @ 6" OC	24"	12GA WS @ 4" OC	5/8" DIA @ 24" OC	ONE SIDE
B	15/32"	10d @ 4" OC	16"	10GA WS @ 3" OC	5/8" DIA @ 16" OC	ONE SIDE
C	15/32"	10d @ 3" OC	12"	SDS25600 @ 6" OC	5/8" DIA @ 16" OC	ONE SIDE
D	15/32"	10d @ 2" OC	9"	SDS25600 @ 4" OC	5/8" DIA @ 12" OC	ONE SIDE
BB	15/32"	10d @ 4" OC	8"	SDS25600 @ 4" OC	5/8" DIA @ 8" OC	BOTH SIDES
CC	15/32"	10d @ 3" OC	6"	SDS25600 @ 3" OC	5/8" DIA @ 8" OC	BOTH SIDES
DD	15/32"	10d @ 2" OC	4"	SDS25600 @ 2" OC (STAGGERED)	5/8" DIA @ 6" OC	BOTH SIDES

- NOTES:**
- 3x TOP AND SILL PLATE REQUIRED. STAGGER NAILS INTO PLATES. USE ANCHOR BOLTS EXTENDING MINIMUM 7" INTO FOOTING, UNO.
 - PLYWOOD SHALL BE APPLIED OVER STUDS @ 16" OC ON ONE SIDE OR BOTH SIDES OF STUDS PER SCHEDULE ABOVE.
 - NAILING AT INTERMEDIATE MEMBERS TO SPACED 12" OC.
 - SILL PLATE DETAIL PER
 - PROVIDE 3"x3"x1/4" PLATE WASHERS AT SILL BOLTS.
 - WS = WOOD SCREW, SDS25600 = 1/4" DIA x 6" LONG SIMPSON'S SDS SCREW (ICC ESR-2236)
 - MINIMUM PENETRATION OF WOOD SCREWS INTO FIRST FLOOR TOP PLATES OR NAILER ON STEEL BEAM IS THE GREATER OF 8x SCREW DIAMETER OR 2 1/2".

- NOTES:**
- INDIVIDUAL PIECES OF PLYWOOD SHALL BE NOT LESS THAN 2'-0" IN LEAST DIMENSION NOR 8 FT. IN AREA.
 - AT WALL CORNERS OVERLAP ALTERNATING TOP PLATES AND PROVIDE SIMPSON'S T2ZZ TO WRAP CORNER AT EXTERIOR SIDE.
 - FOR SILL PLATE DETAIL SEE
 - FOR OPENINGS IN PLYWOOD SHEATHING, SEE
 - HOLD-DOWN ANCHOR BOLTS DO NOT REPLACE SILL BOLTS
 - PROVIDE FURRING BACKING OF THICKNESS AS REQUIRED TO MAINTAIN A COMMON WALL PANEL AT ALL WOOD STUD WALL SURFACES WHICH ARE ONLY PARTIALLY SHEATHED WITH STRUCTURAL PLYWOOD. COORDINATE AND ADJUST HEAD, JAMB AND SILL DETAILS AS REQUIRED FOR PROPER OVERALL WALL THICKNESS.



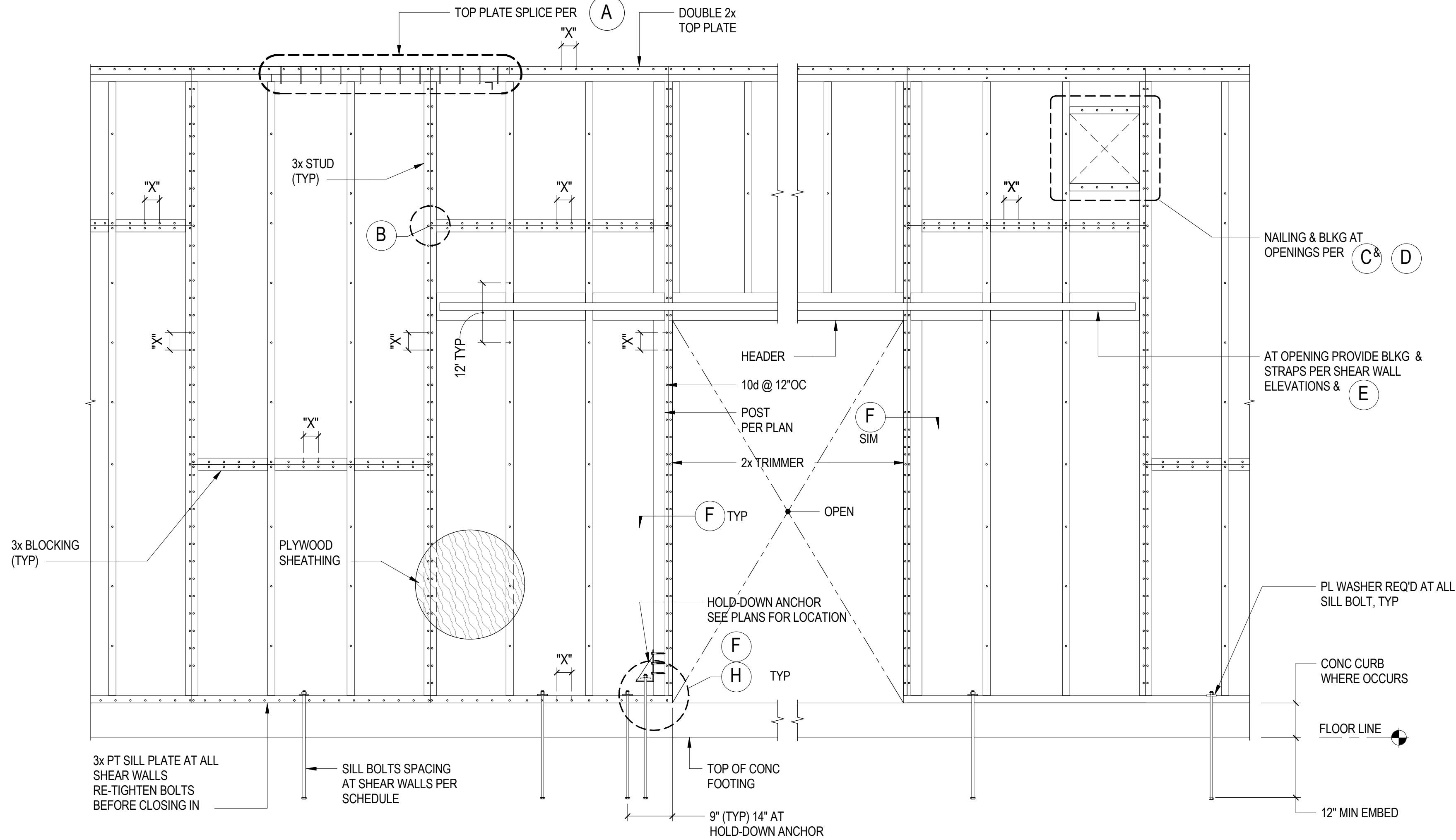
J NAILER DETAIL AND SCHEDULE



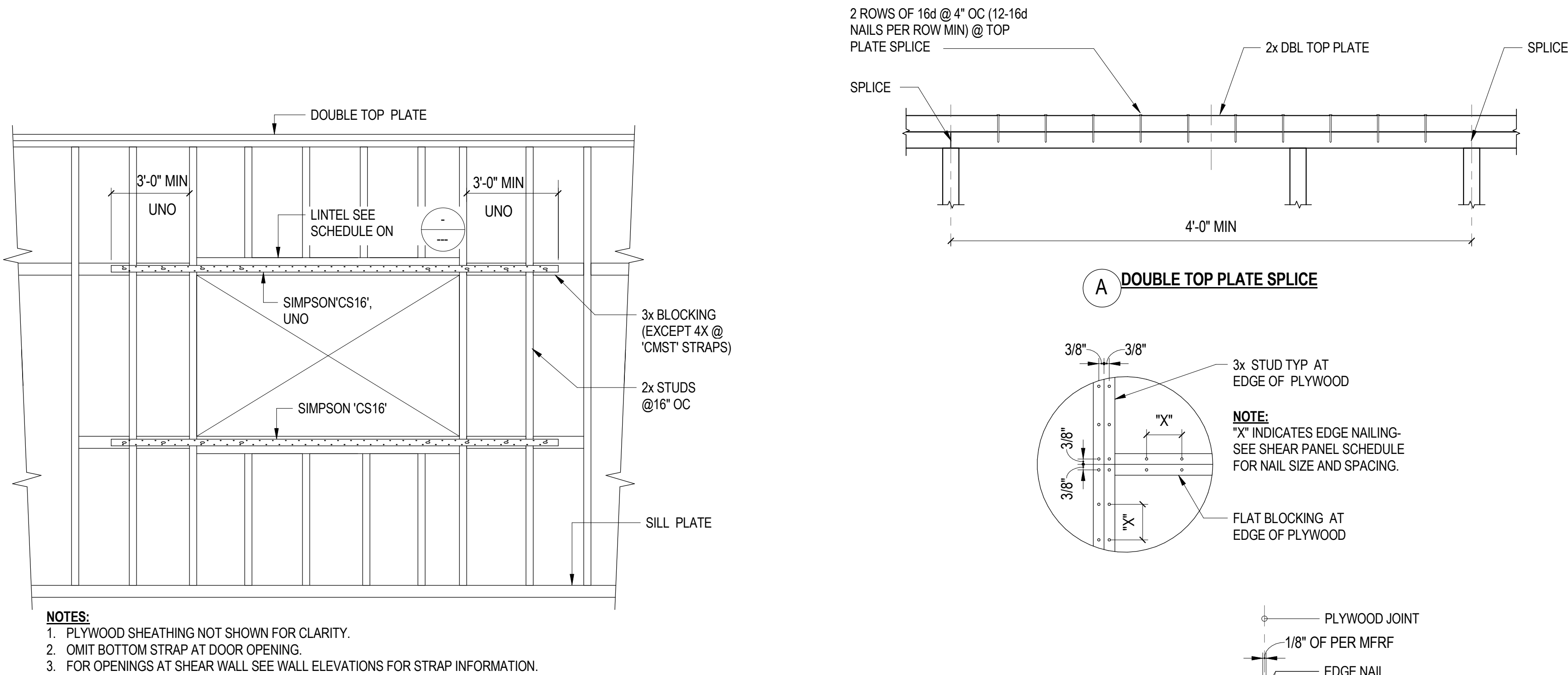
HOLD-DOWN SCHEDULE					
SIMPSON HOLD-DOWN SIZE	ANCHOR BOLT SIZE	MIN. POST SIZE (UNO ON PLANS)	ANCHOR EMBEDMENT	BEARING PLATE	F
HDU2	5/8" DIA	4x OR DBL 2x	12"	1 1/2" SQ x 3/4"	-
HDU4	5/8" DIA	4x OR DBL 2x	12"	1 1/2" SQ x 3/4"	-
HDU8	7/8" DIA	6x8	15"	2 1/4" SQ x 3/4"	-
HDU11	1" DIA	6x8	20"	4" SQ x 3/4"	-
HDU14	1" DIA	6x8	20"	4" SQ x 3/4"	-

- NOTES:**
- SEE PLAN FOR HOLD-DOWN LOCATIONS, TYPICAL, AS INDICATED ON PLANS.
 - POSTS SHALL BE SAME DEPTH AS WALL STUDS. EDGE NAIL TO POST.
 - WHERE DOUBLE HOLD-DOWN IS REQUIRED AT THE END OF WALL SEE DETAIL
 - WHERE DOUBLE HOLD-DOWN IS REQUIRE AT CORNER CONDITION SEE
 - FOR HOLD-DOWNS AT THE INTERSECTION OF INTERIOR SHEAR WALLS WITH EXTERIOR WALLS SEE

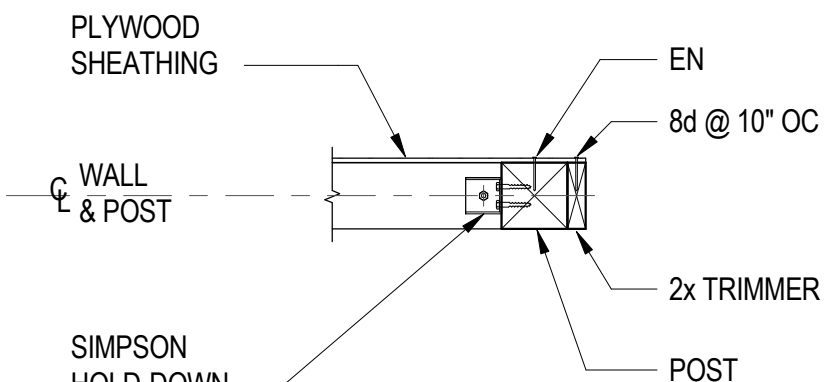
H SHEAR WALL HOLD-DOWNS



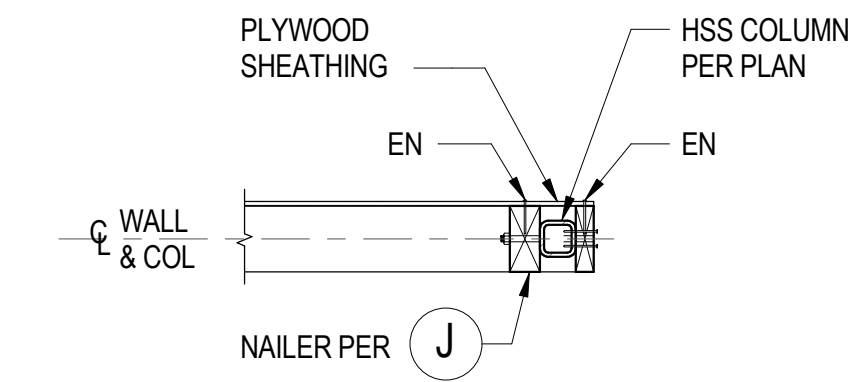
DIAGRAMMATIC WOOD SHEAR WALL ELEVATION
NOTE: REFER TO BUILDING ELEVATIONS FOR SPECIFIC FRAMING LAYOUT AND MEMBER CALL OUTS



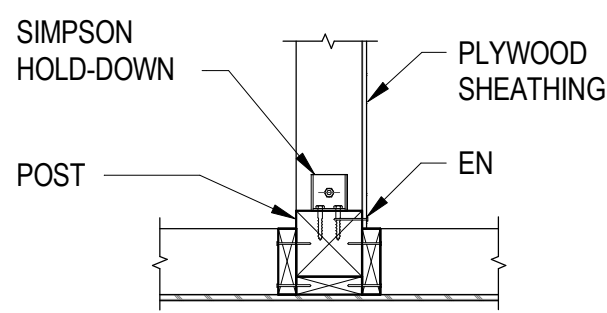
E OPENING STRAP DETAIL



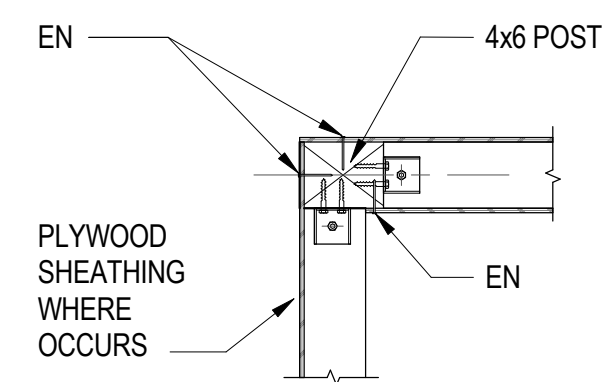
F1 PLAN SECTION



F4 PLAN SECTION

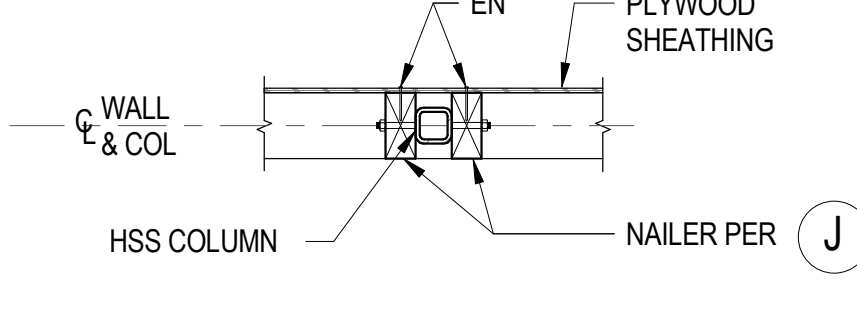


F2 PLAN SECTION

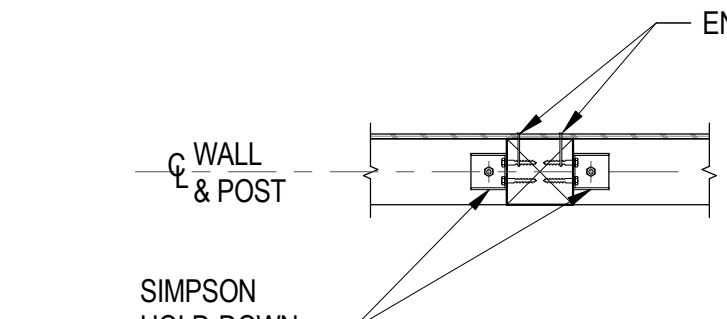


F5 PLAN SECTION

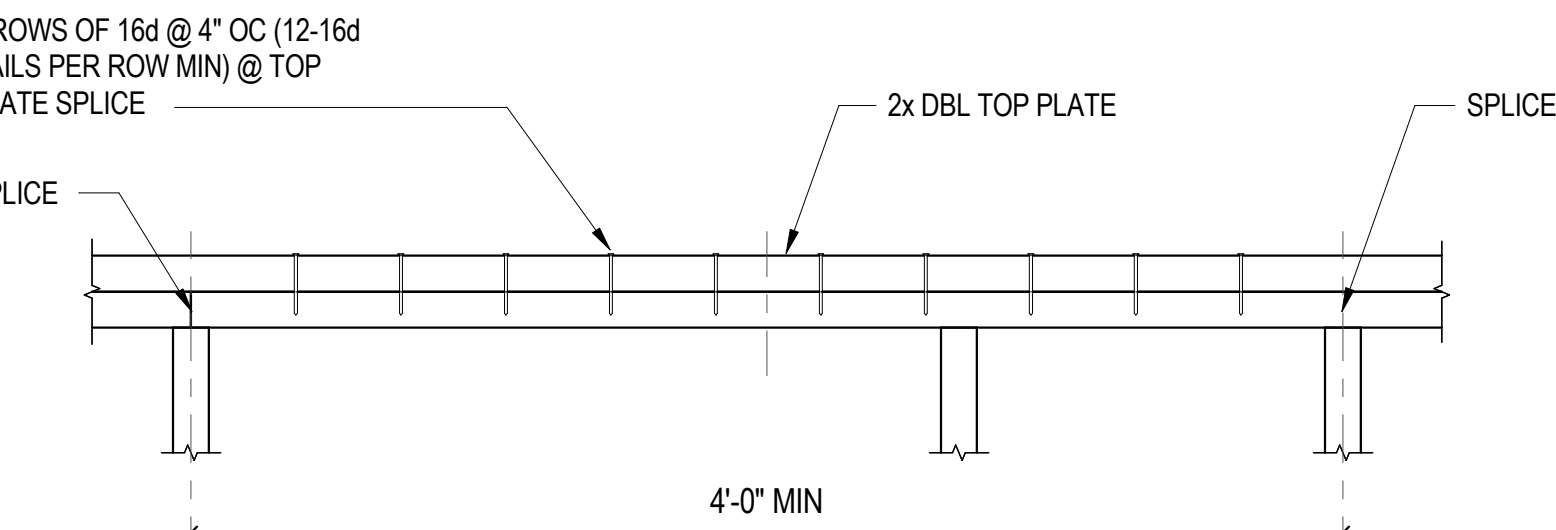
F POST DETAILS



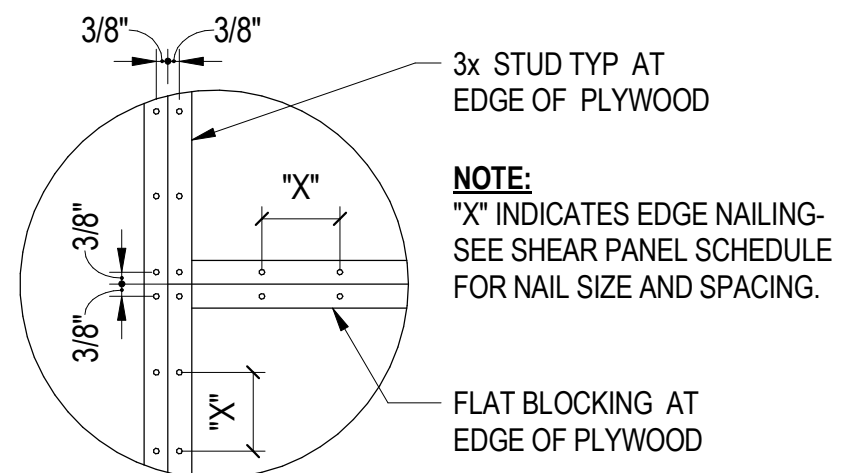
F3 PLAN SECTION



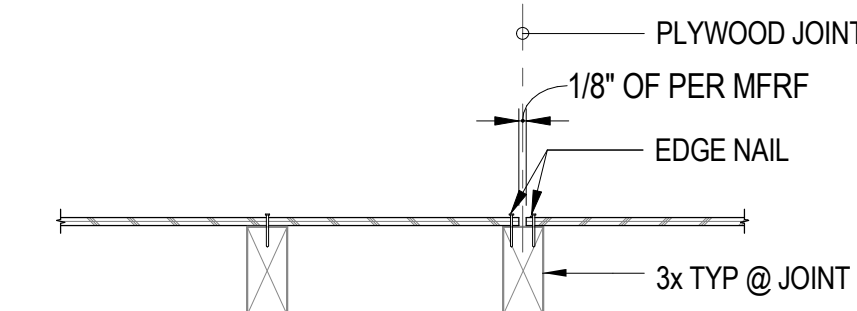
F6 PLAN SECTION



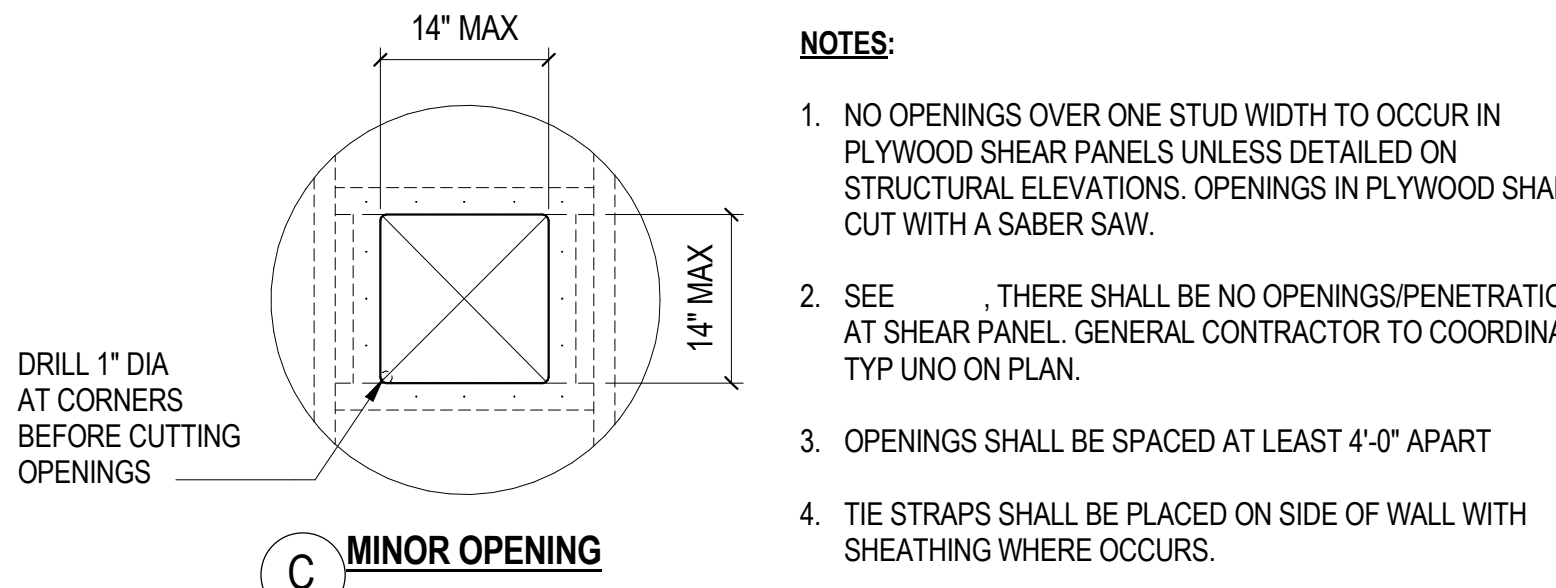
A DOUBLE TOP PLATE SPLICE



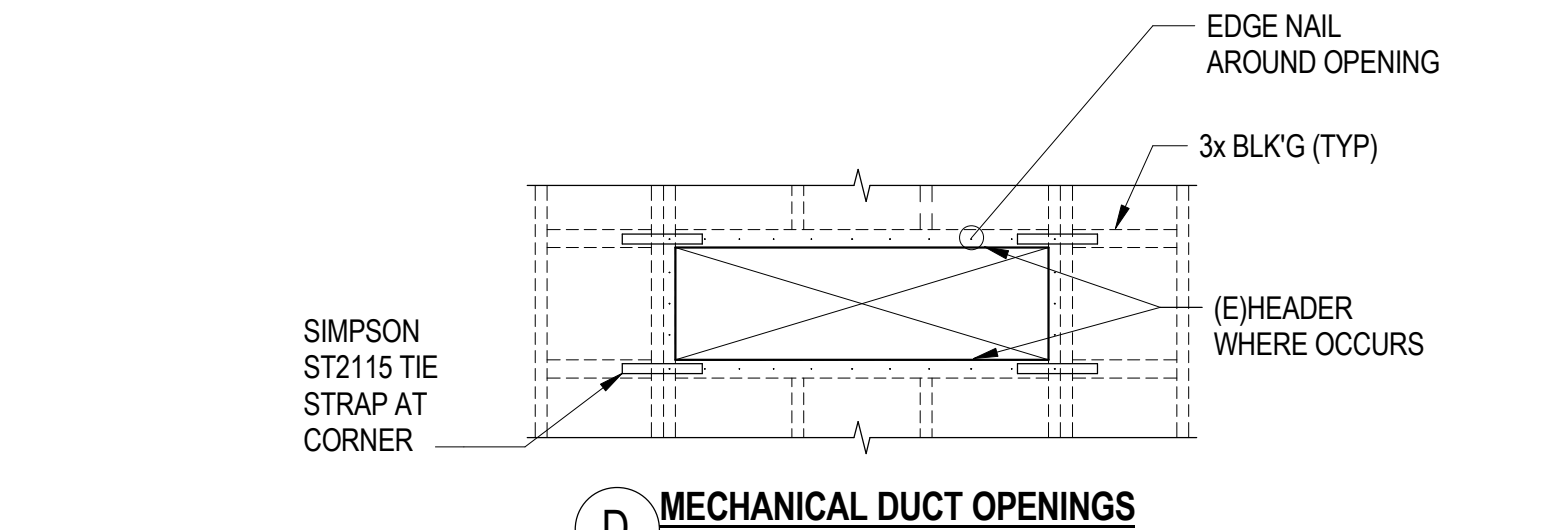
B NAILING AT SHEATHING SPLICE



B NAILING AT SHEATHING SPLICE

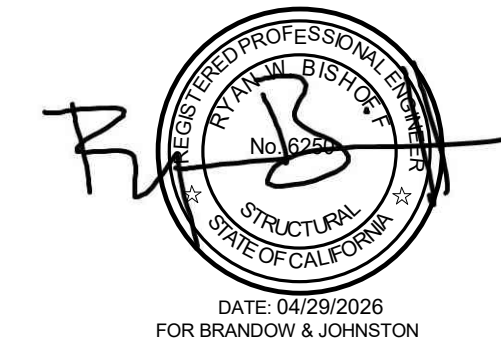


C MINOR OPENING



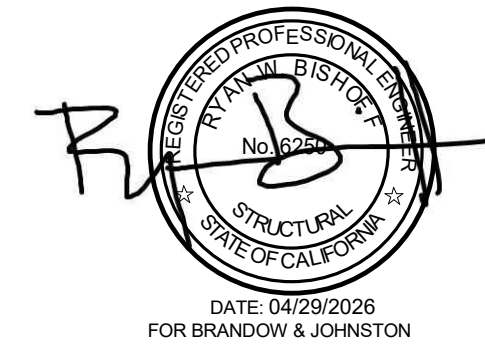
D MECHANICAL DUCT OPENINGS

TYPICAL SHEAR WALL CONSTRUCTION



Revisions	By	Date
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Drawn	JY
Date	02/12/2026
Project No.	S25-0184
Scale	As Shown



WESTEND
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



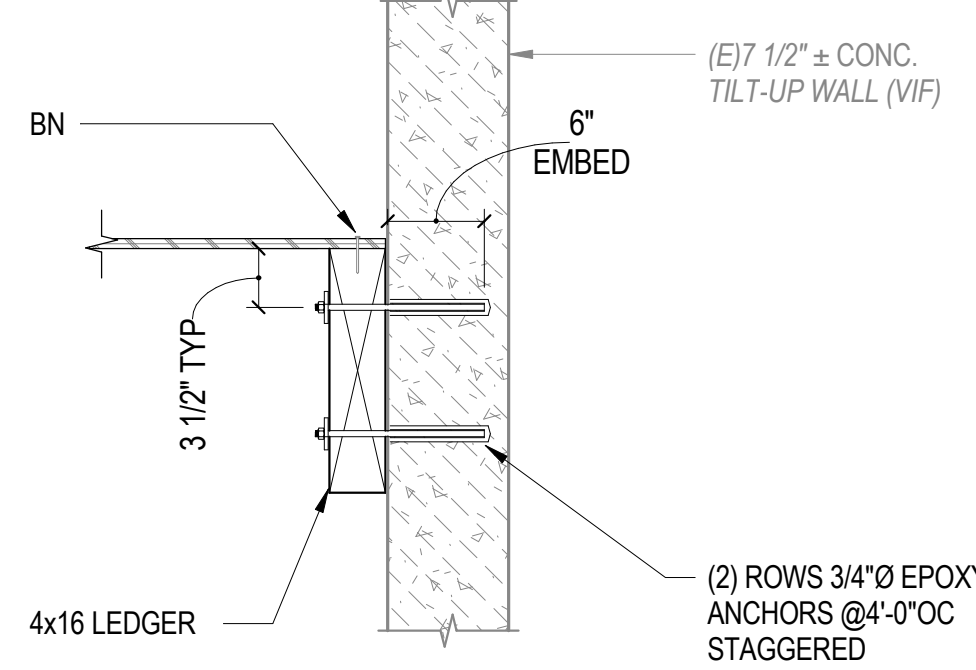
FONTANA
CALIFORNIA

DETAILS

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Drawn JY
Date 03/31/26
Project No. S25-0184
Scale As Shown

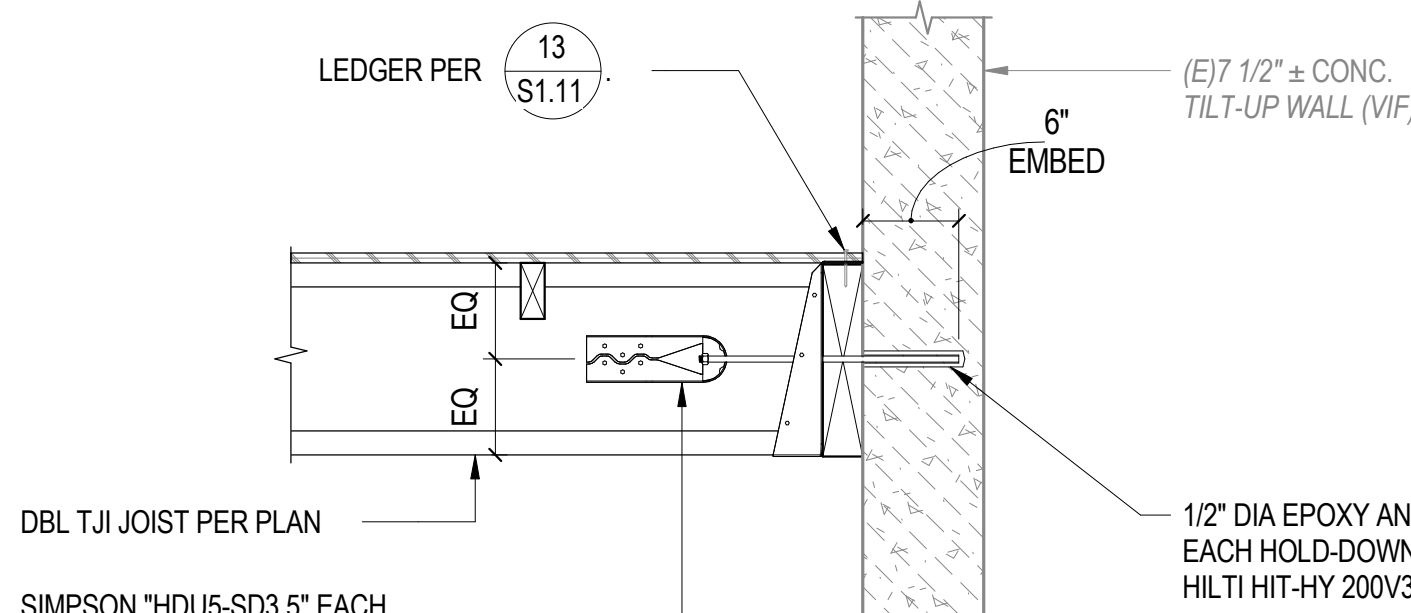
S1.11



LEDGER DETAIL

13

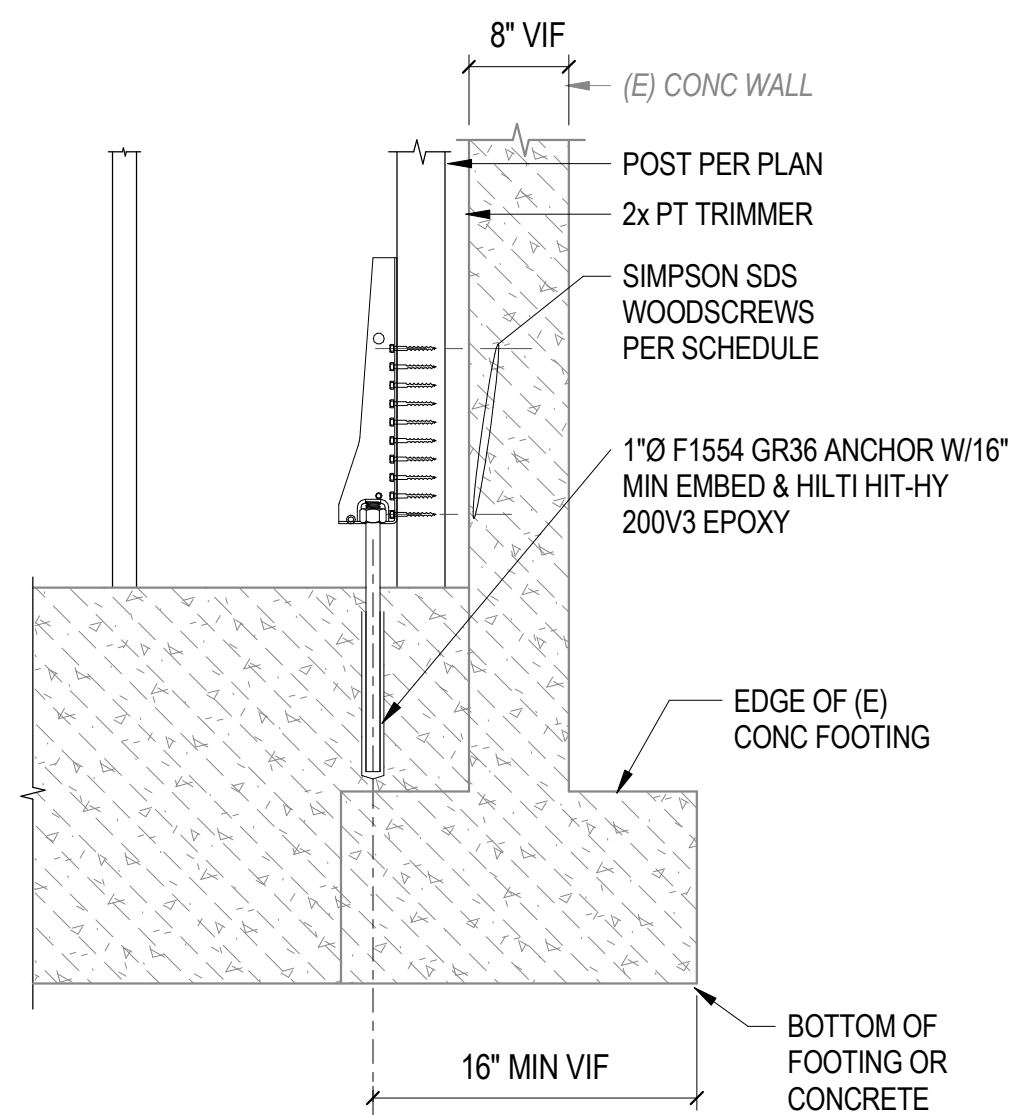
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DETAIL ID: EWOOD-SHRF-03



TYP WALL ANCHORS AT JOIST

9

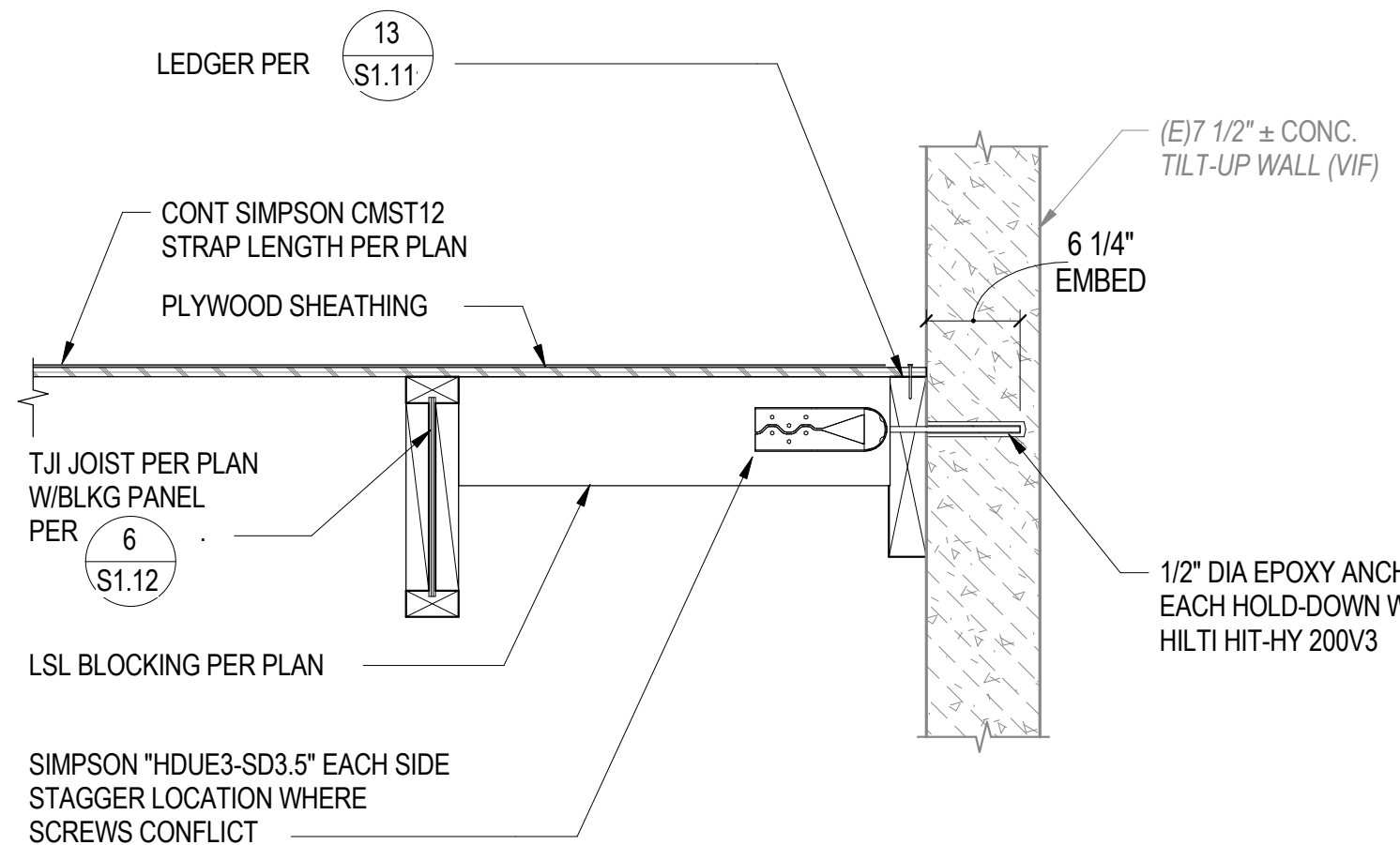
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DETAIL ID: EWOOD-SHRF-03



TYPICAL SIMPSON HOLDDOWN AT (E) FOOTING

14

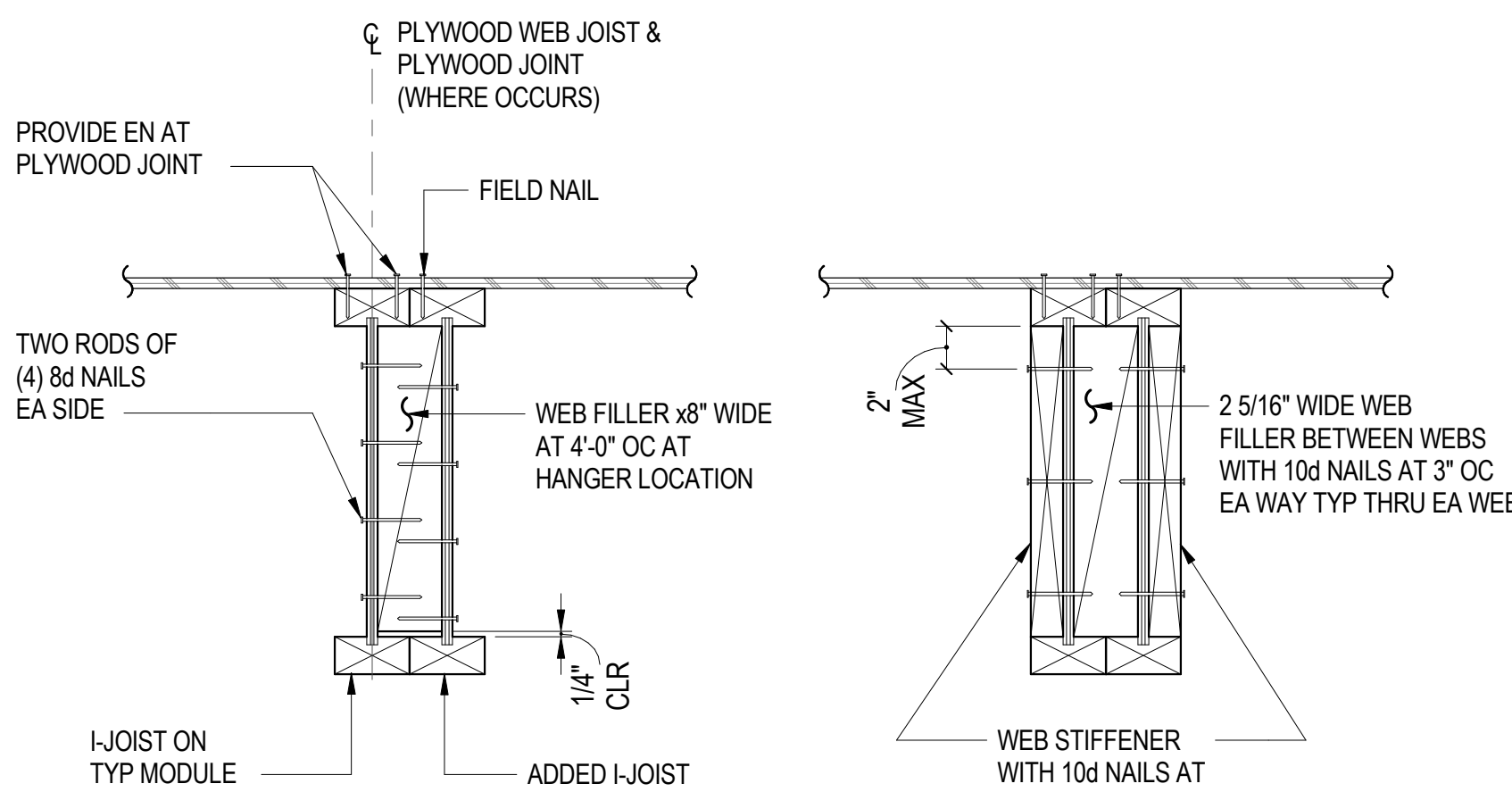
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TYP WALL ANCHOR AT JOIST

10

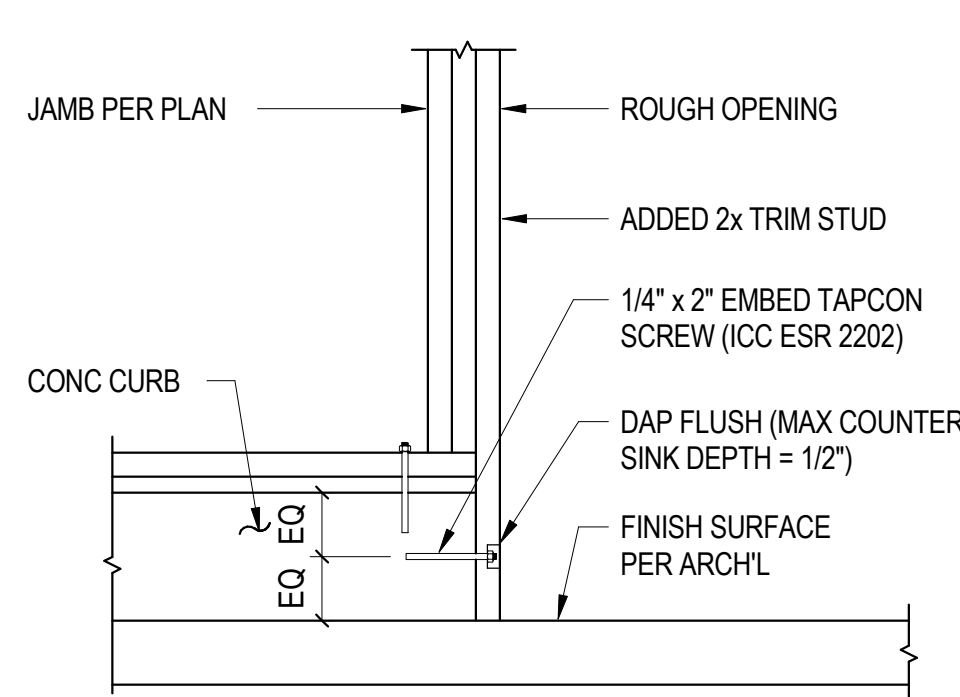
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DETAIL ID: EWOOD-SHRF-03



DOUBLE I-JOIST

11

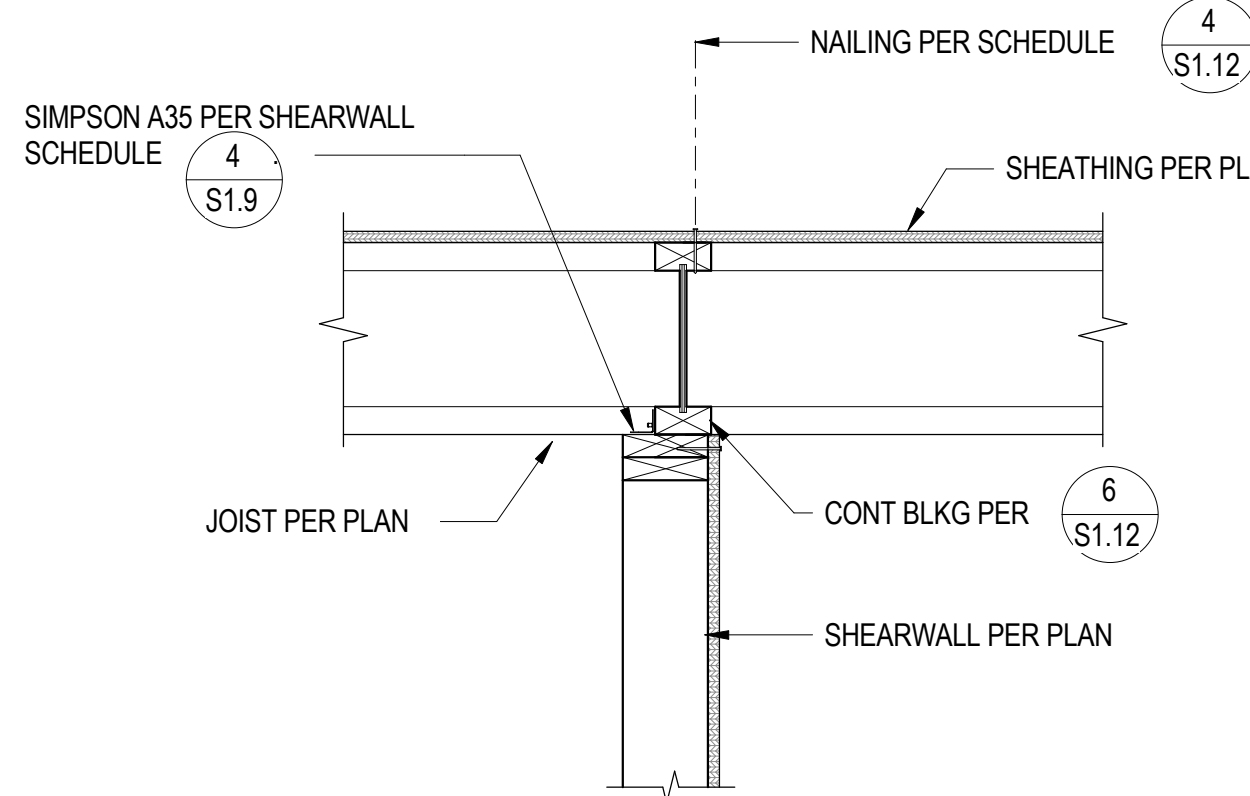
SCALE: 1/4" = 1'-0"
DETAIL ID: WOOD-JOIST-04



TYPICAL INT LOAD BEARING CONSTRUCTION

3

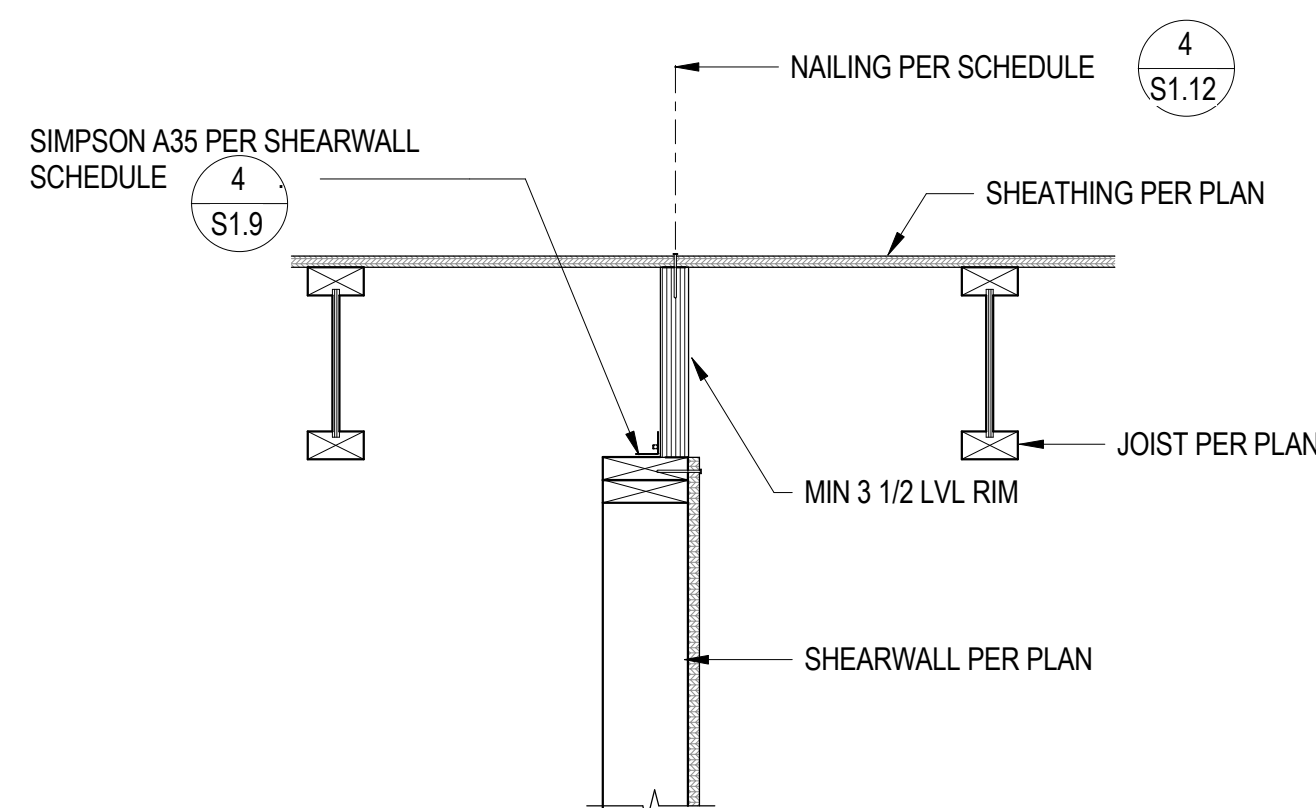
SCALE: 1/4" = 1'-0"
DETAIL ID: WOOD-INTLO



TOP OF SHEARWALL CONNECTION PERPENDICULAR TO JOIST

8

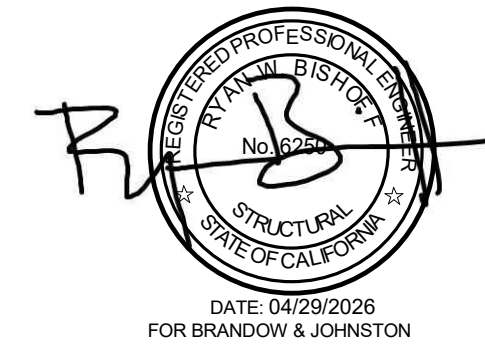
SCALE: 1/4" = 1'-0"
S1.11



TOP OF SHEARWLL CONNECTION PARALLEL TO JOISTS

4

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



**WESTEND
NAVIGATION
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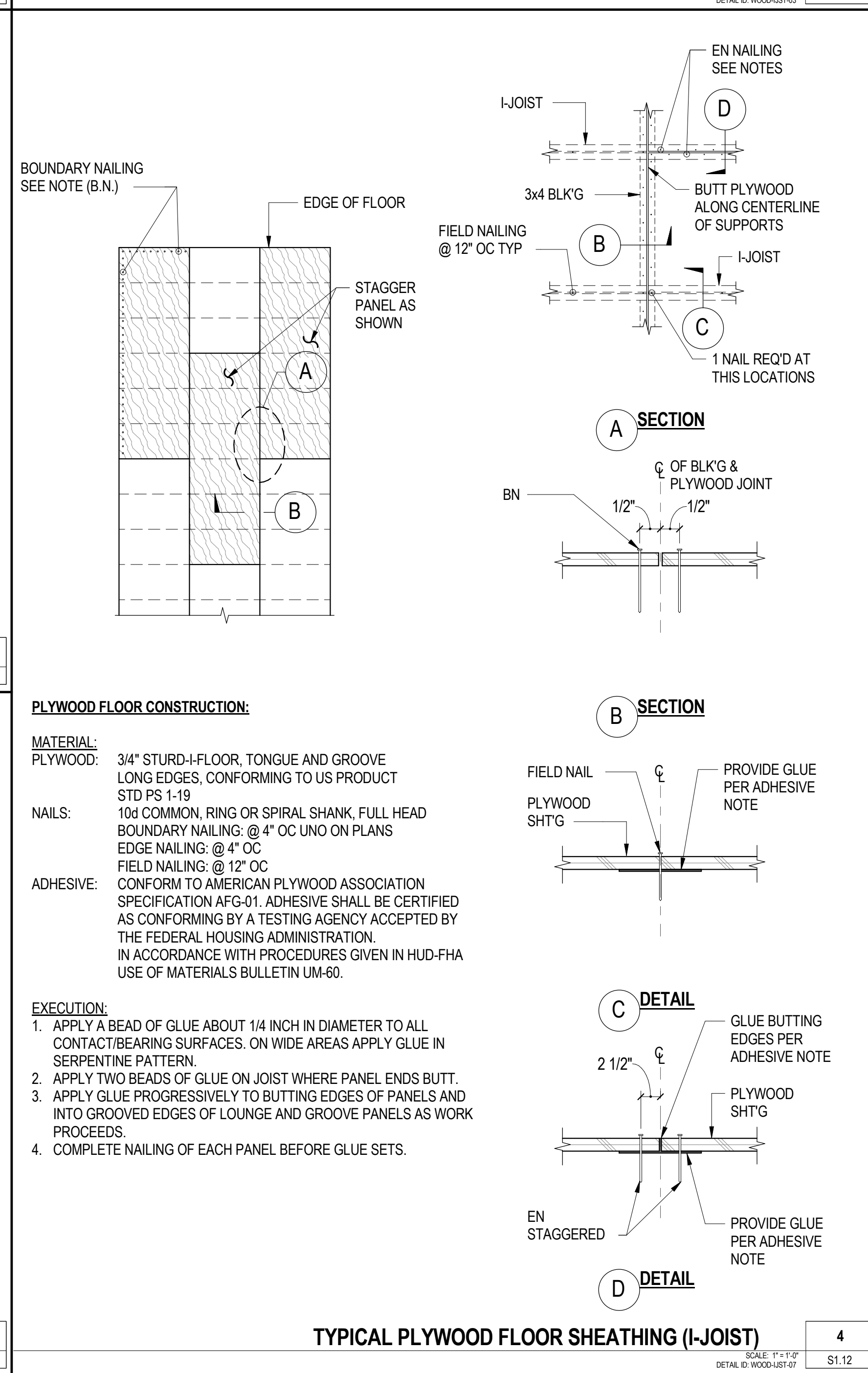
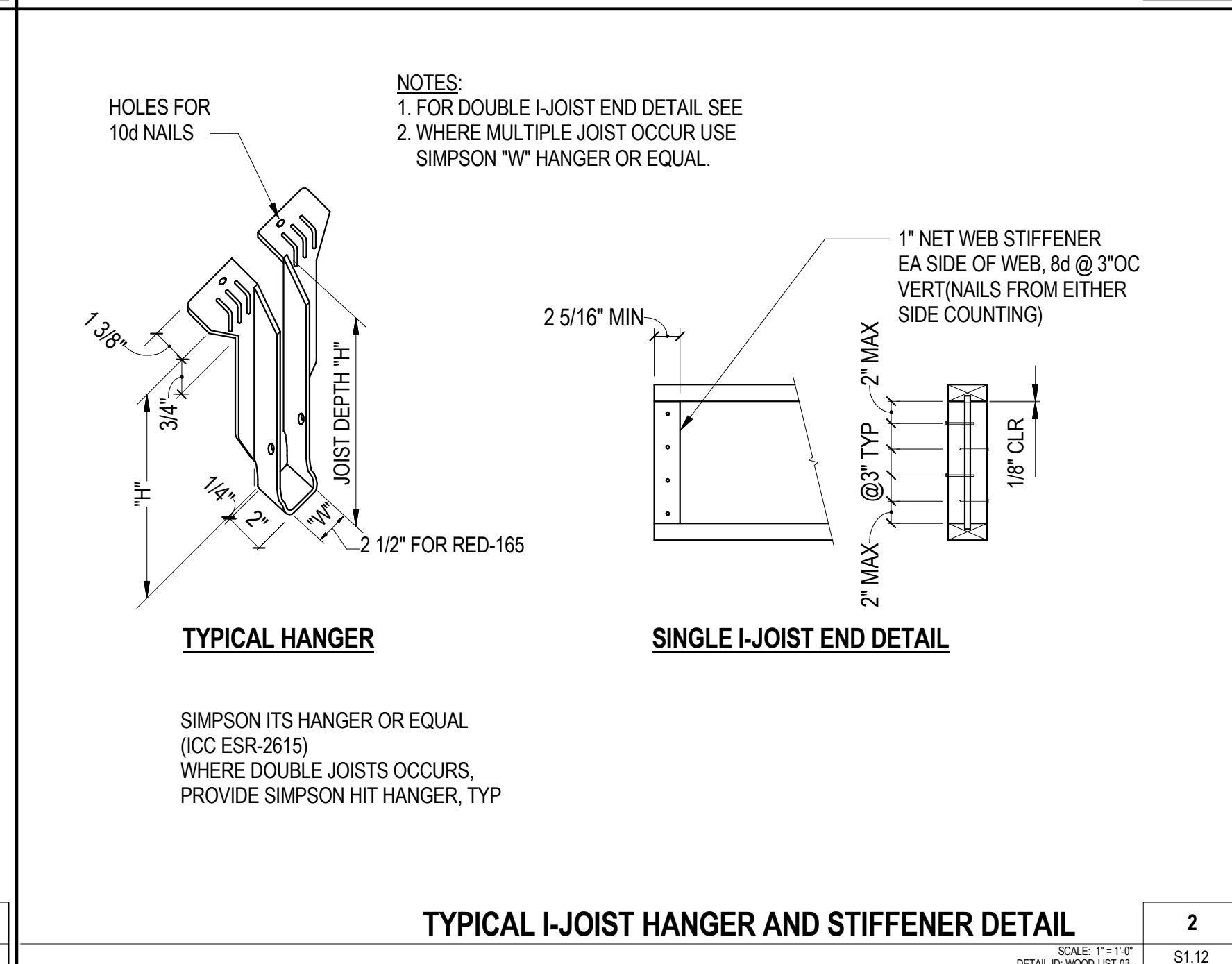
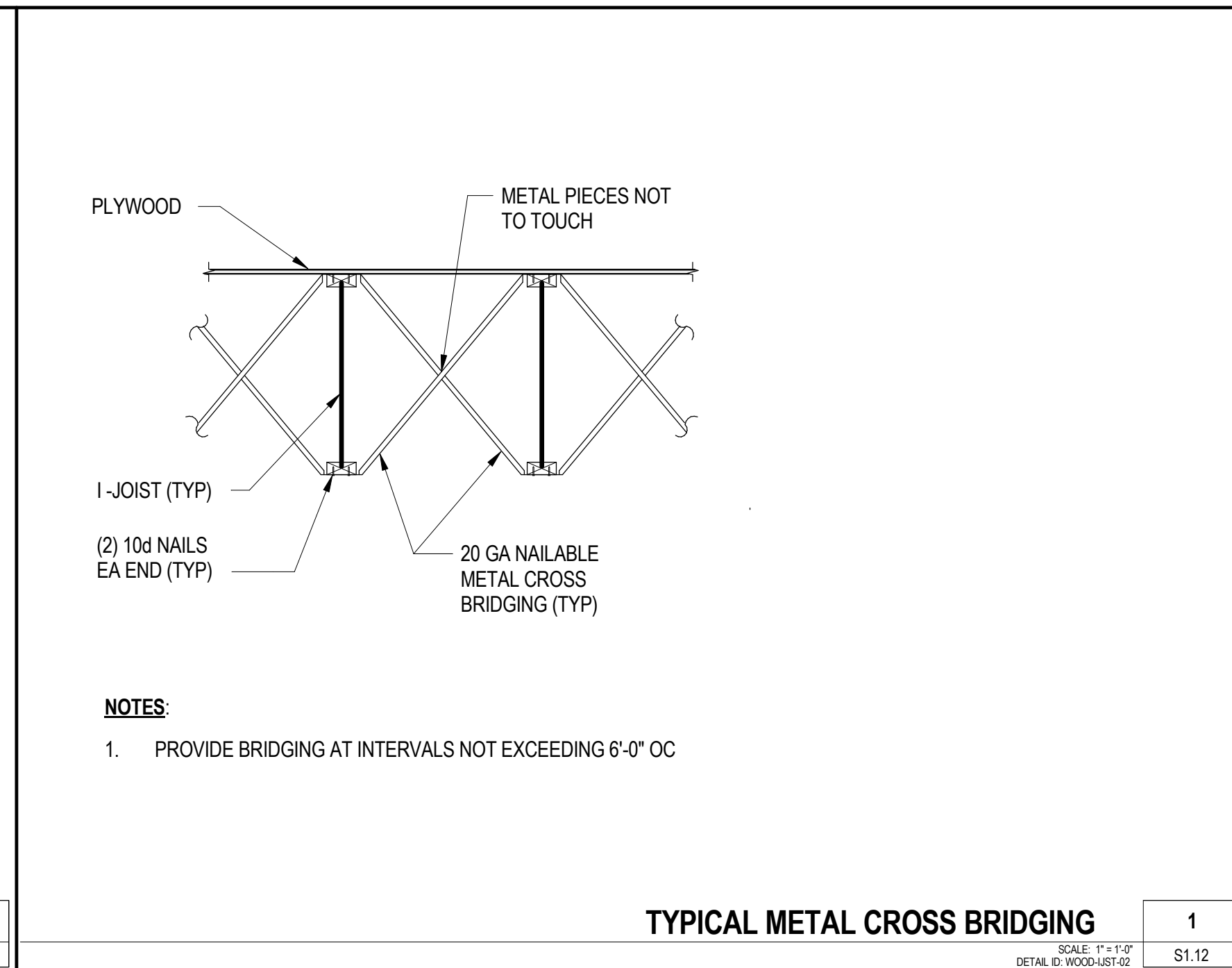
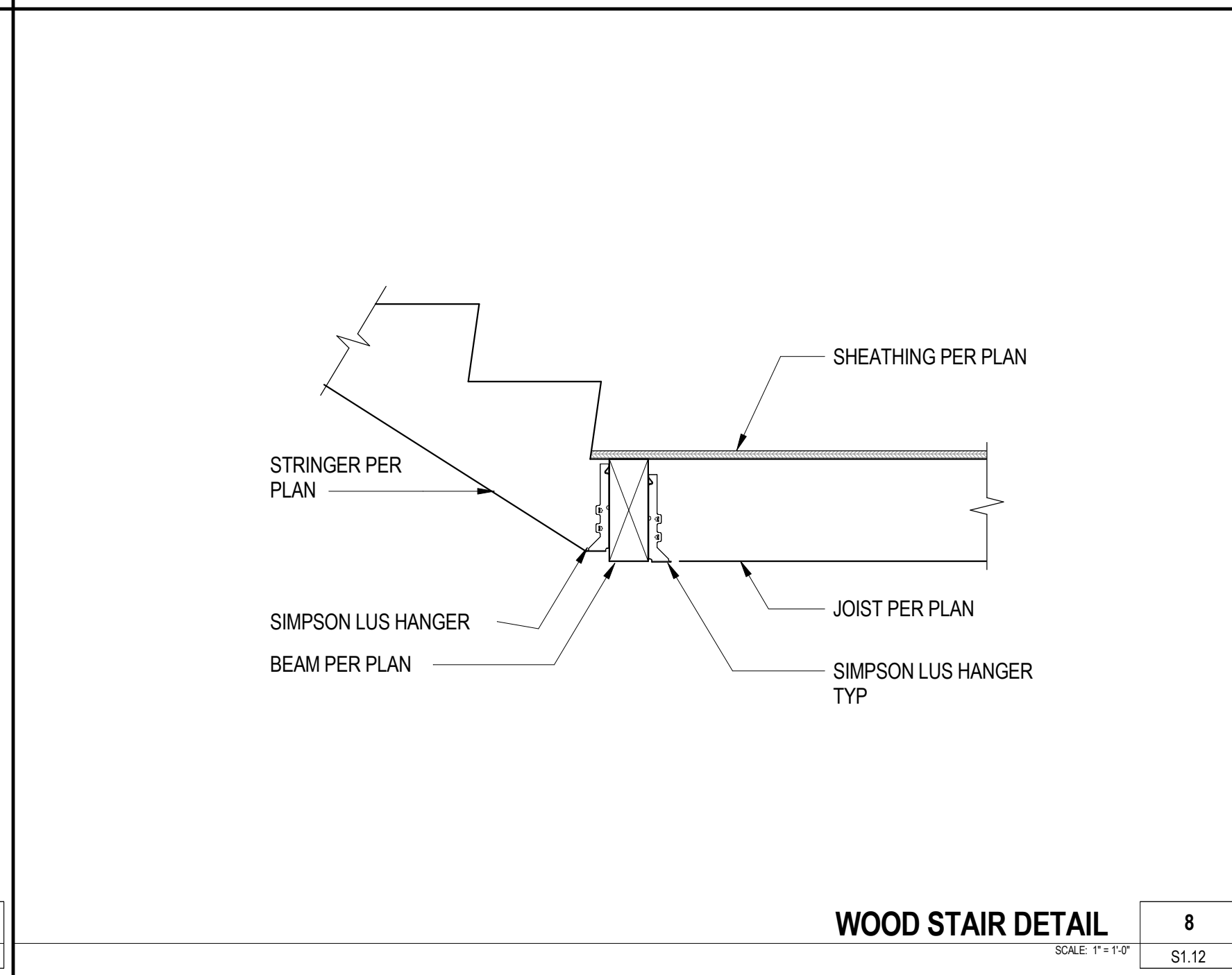
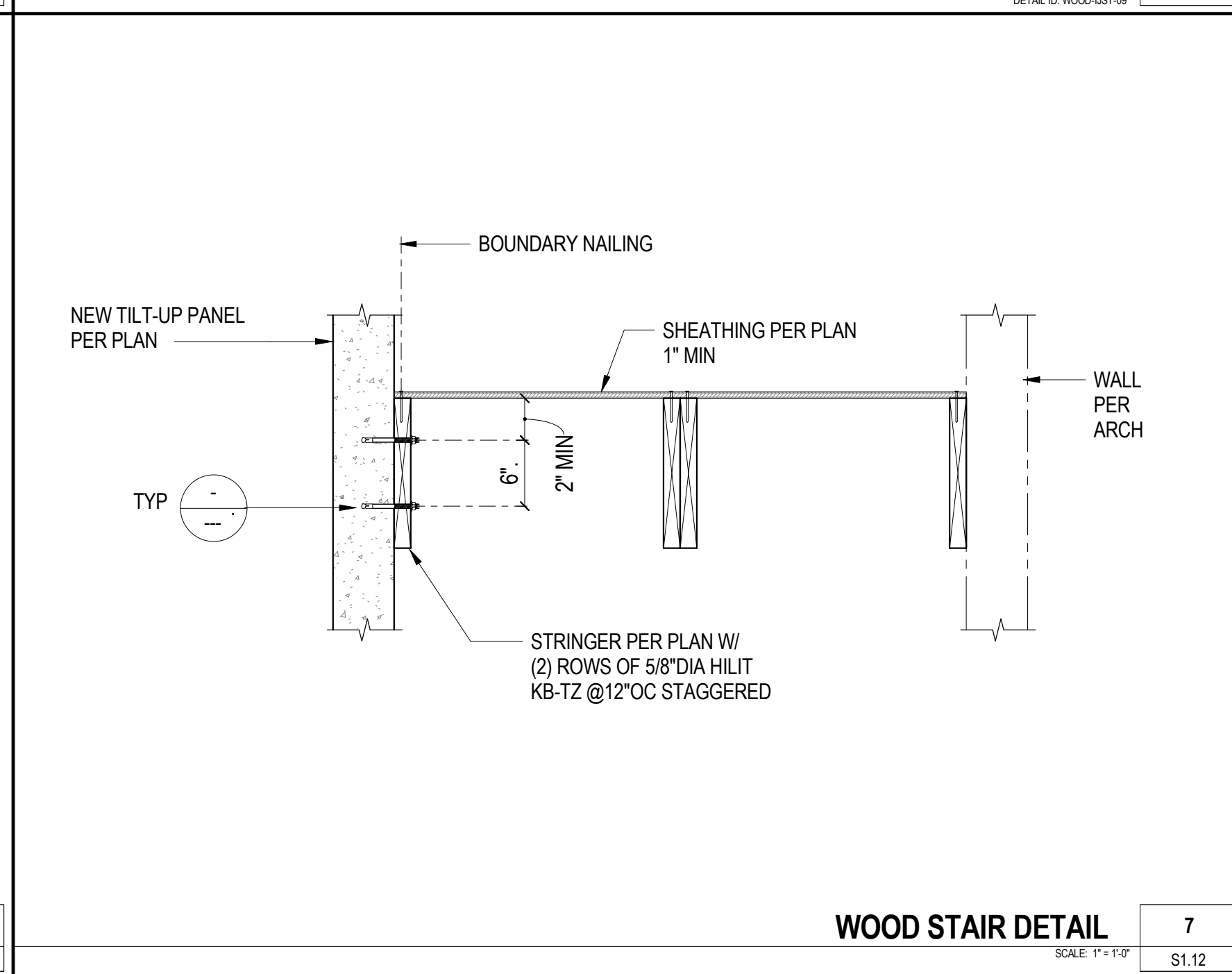
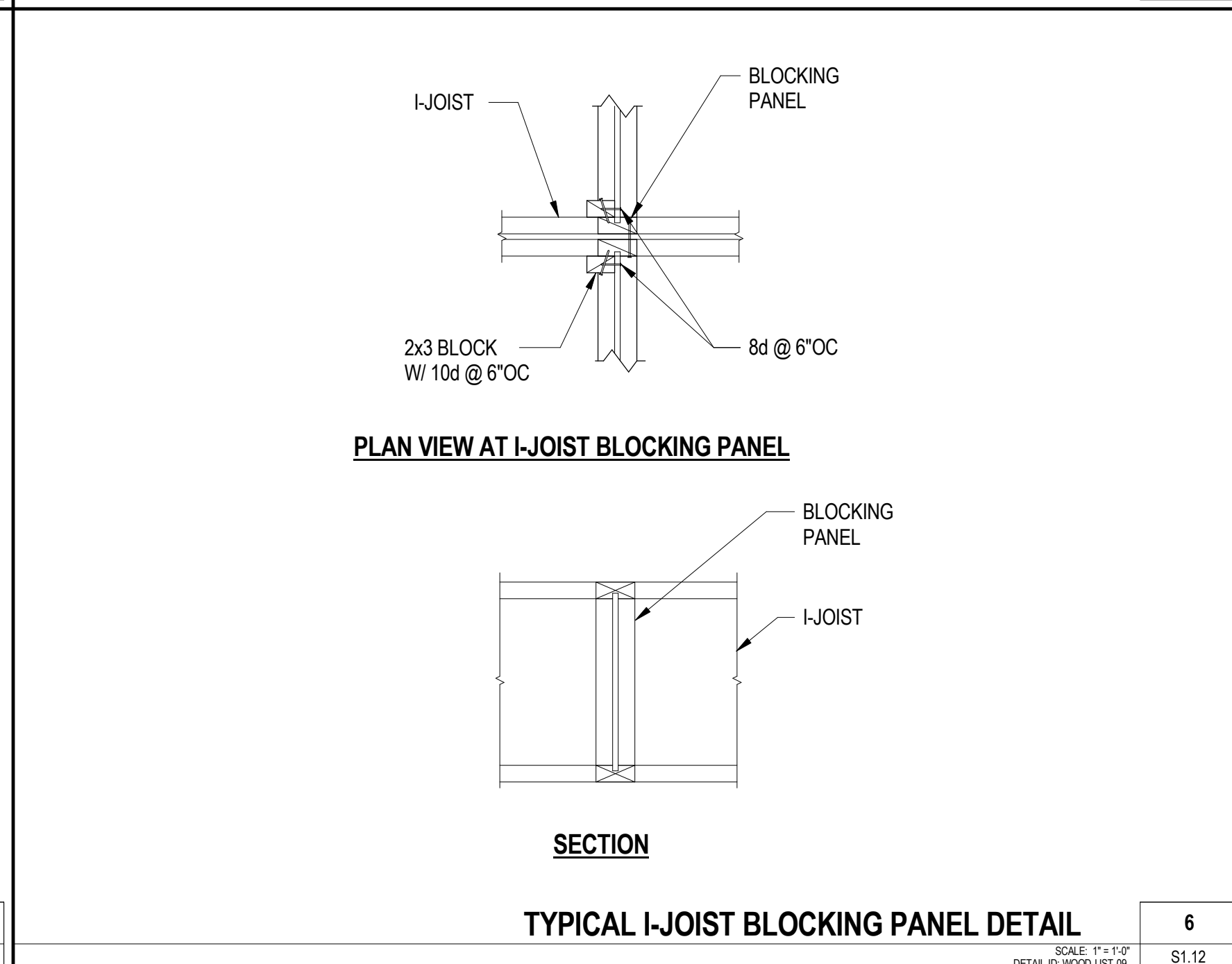
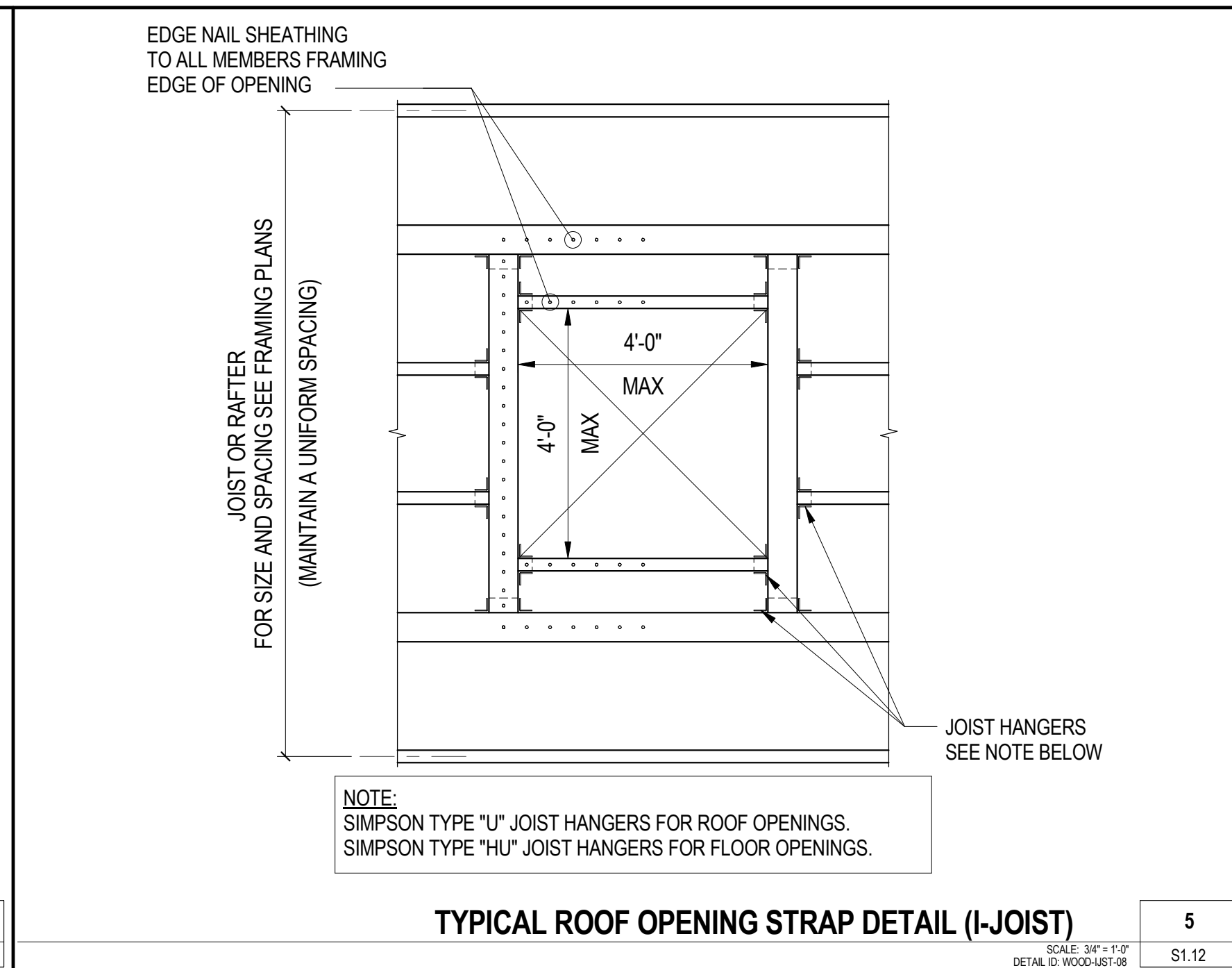
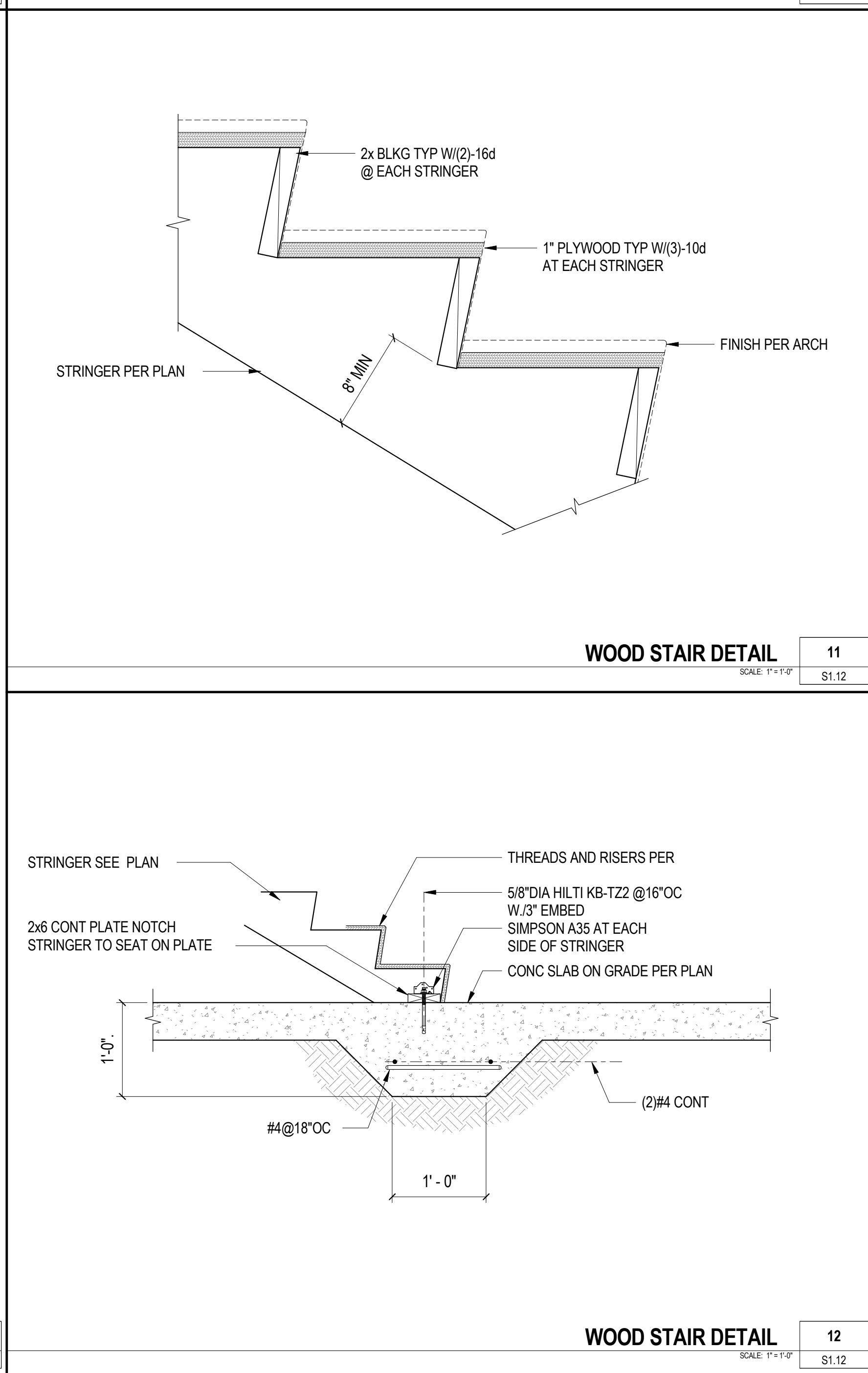
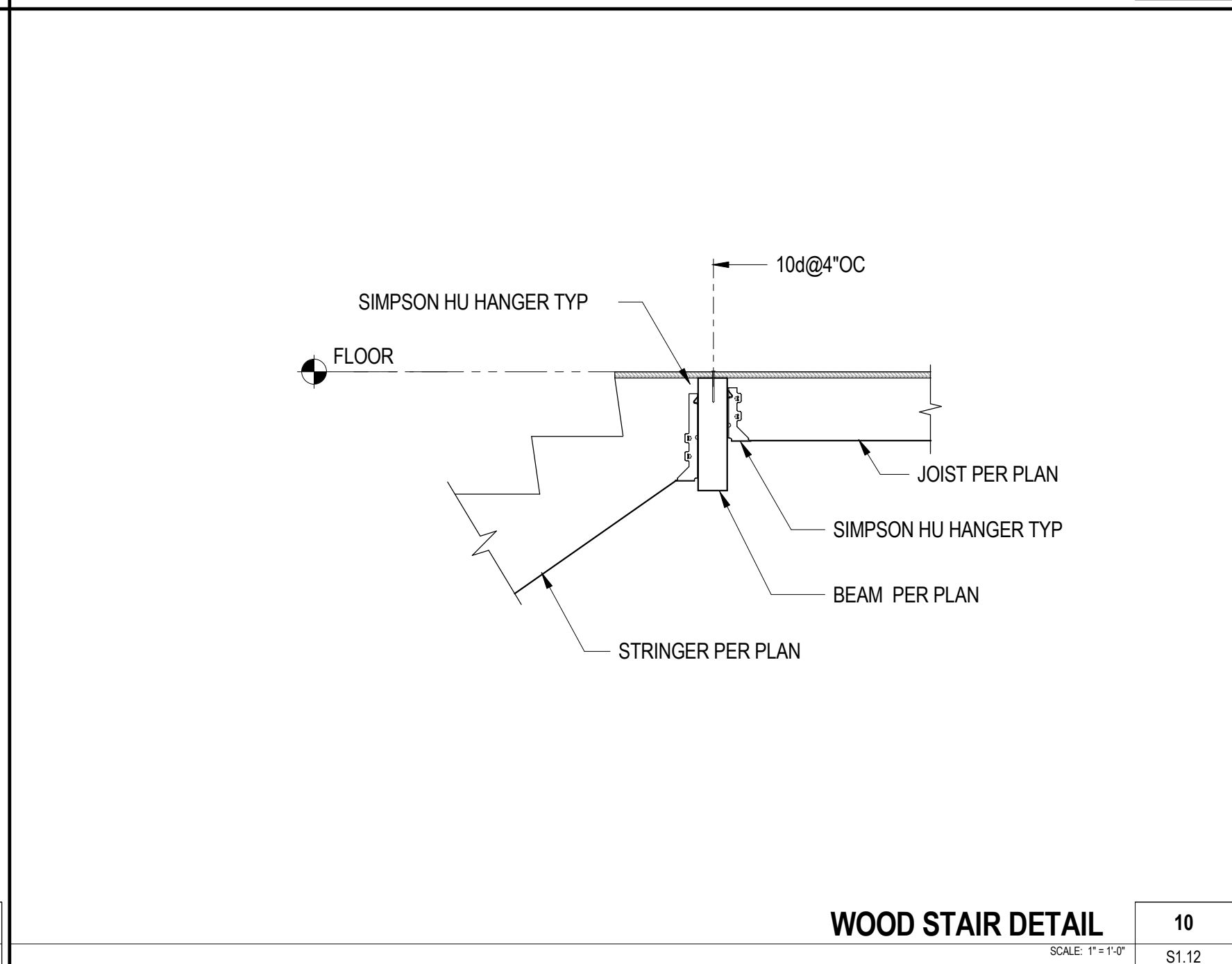
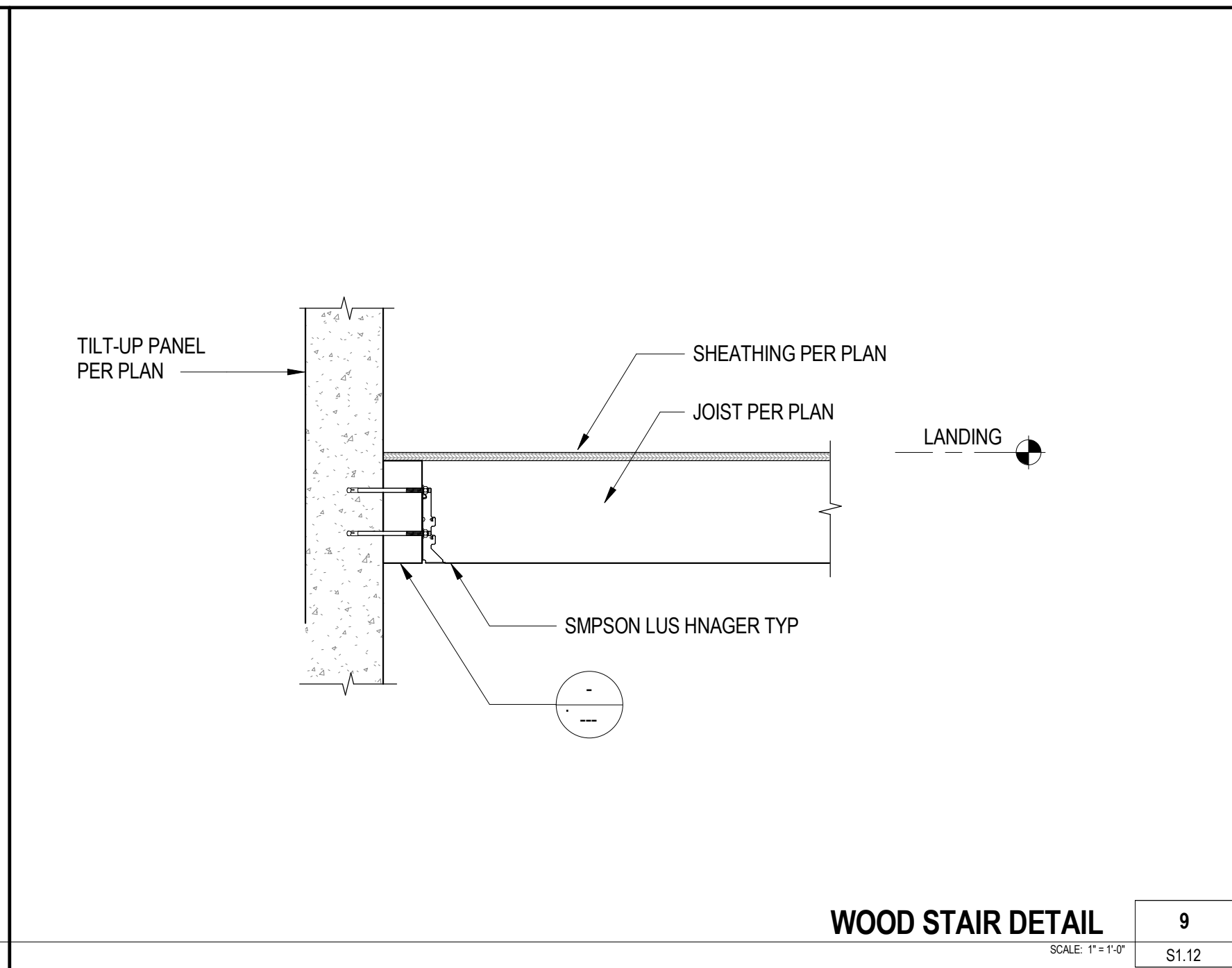
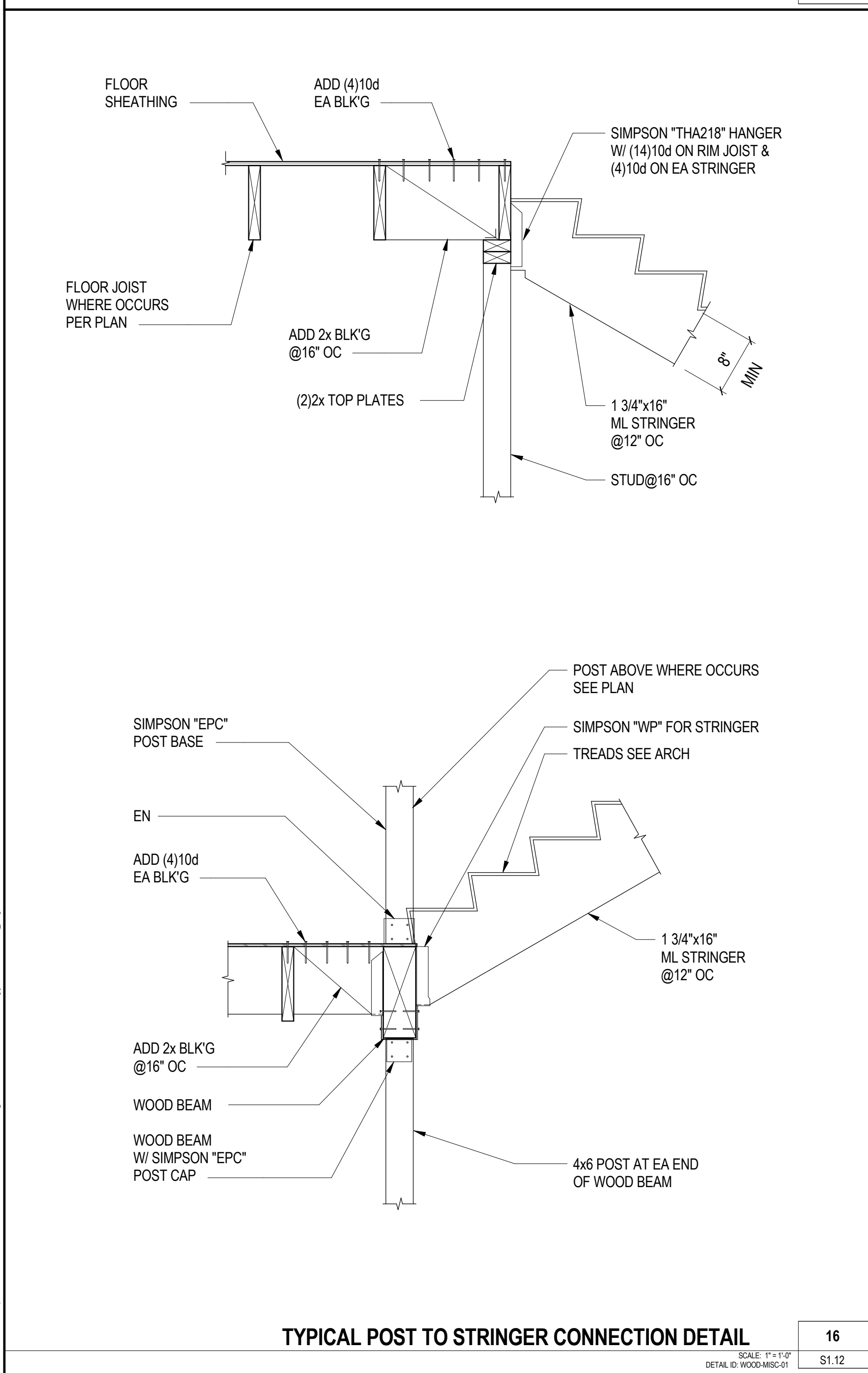
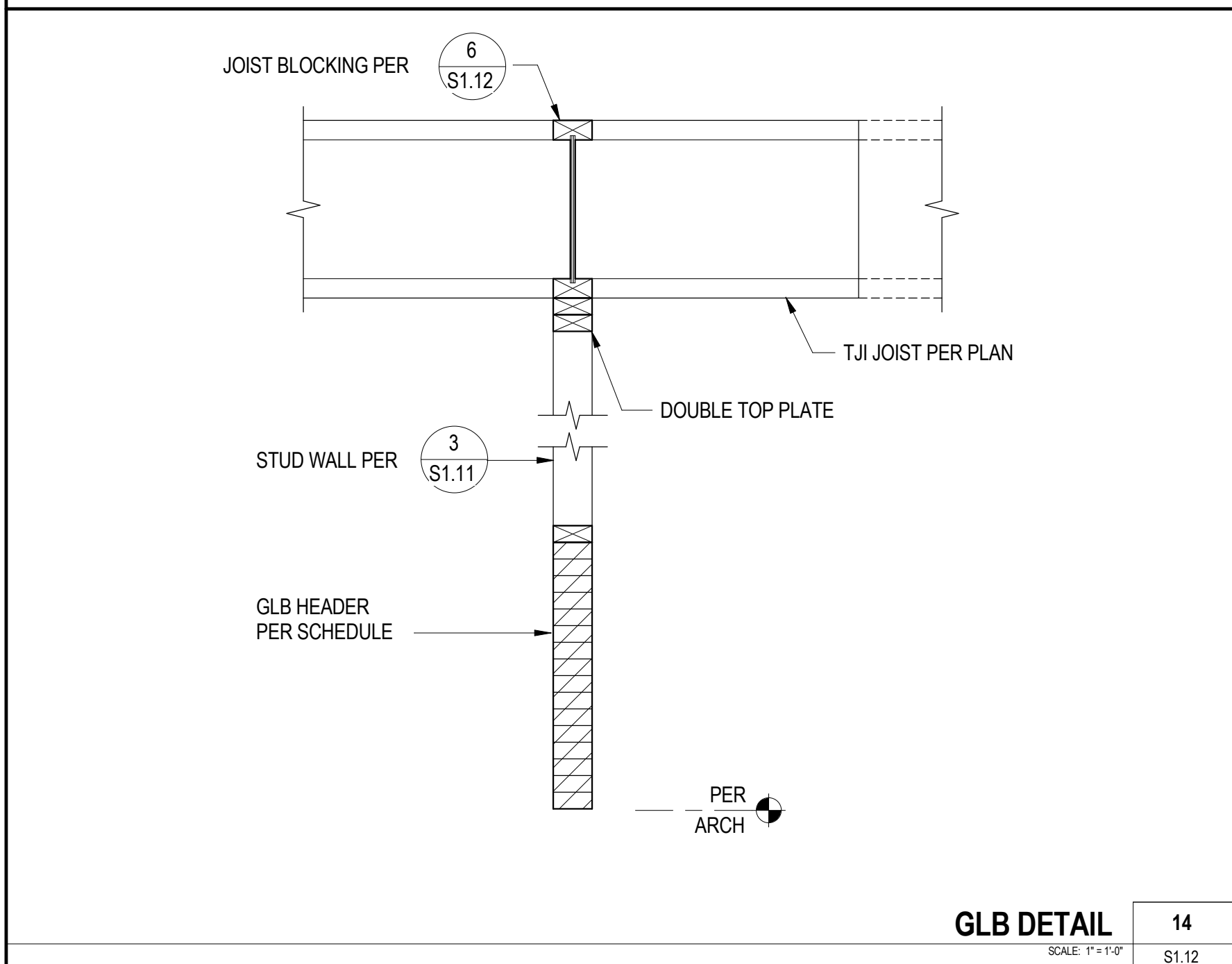
**FONTANA
CALIFORNIA**

WOOD DETAILS

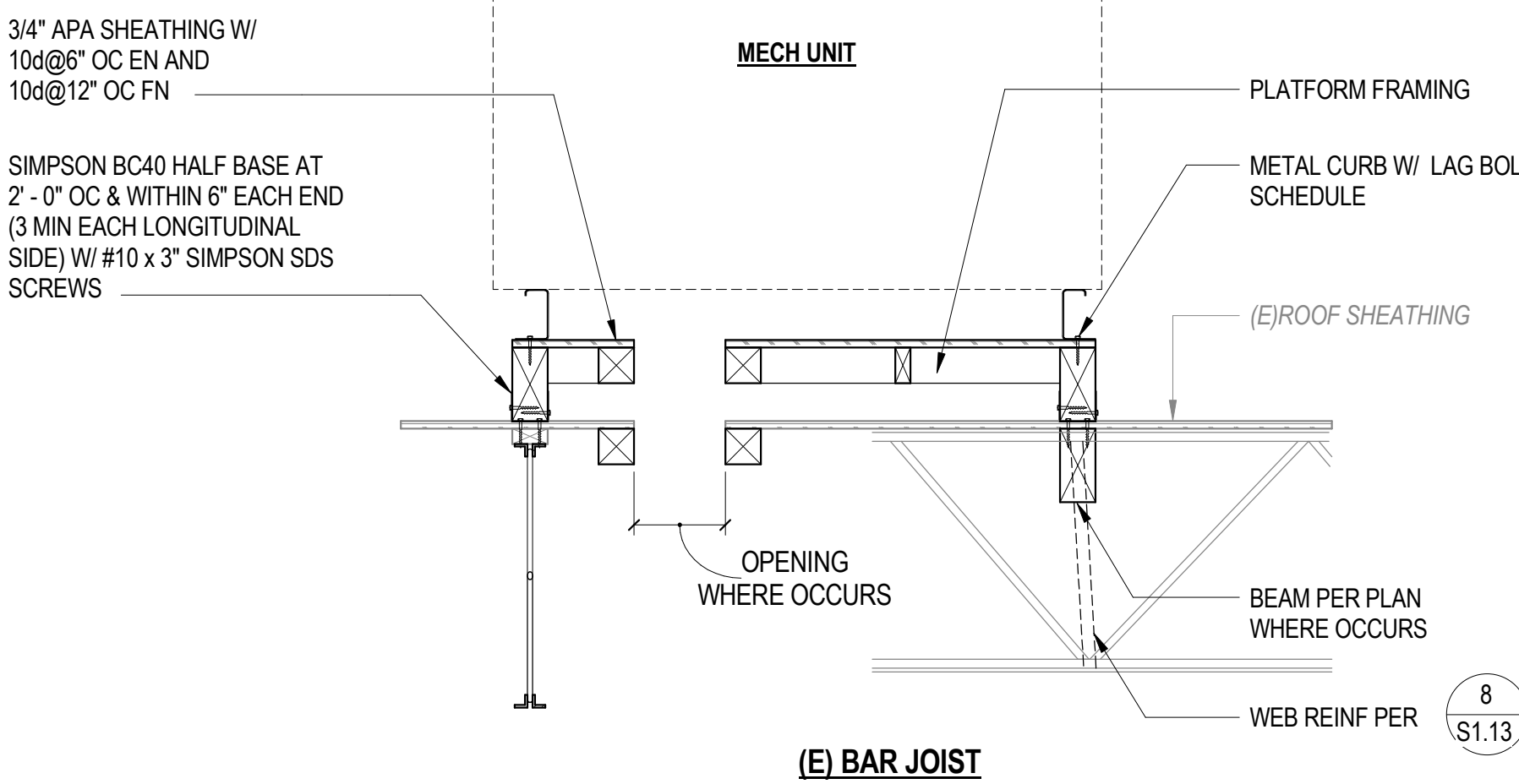
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Date 02/12/2026
Project No. S25-0184
Scale As Shown

S1.12

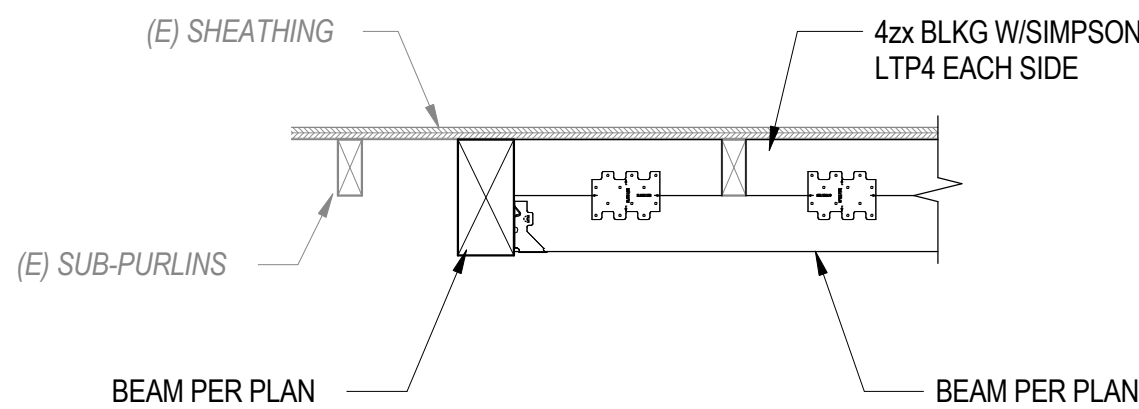


ANCHOR SCHEDULE			
EQUIPMENT	ANCHOR BOLTS	QUANTITY	DETAIL
DOAS-1 RTU-1	3/8"Ø 1/4" LONG LAG BOLT	6	
RTU1, RTU2, RTU-3, RTU-4, RTU-5, RTU-6, RTU-7, RTU-8, RTU-9, RTU-10, RTU-11, RTU-12, RTU-13, RTU-14, RTU-15, RTU-16, RTU-17, RTU-18	3/8"Ø 1/4" LONG LAG BOLT	4	



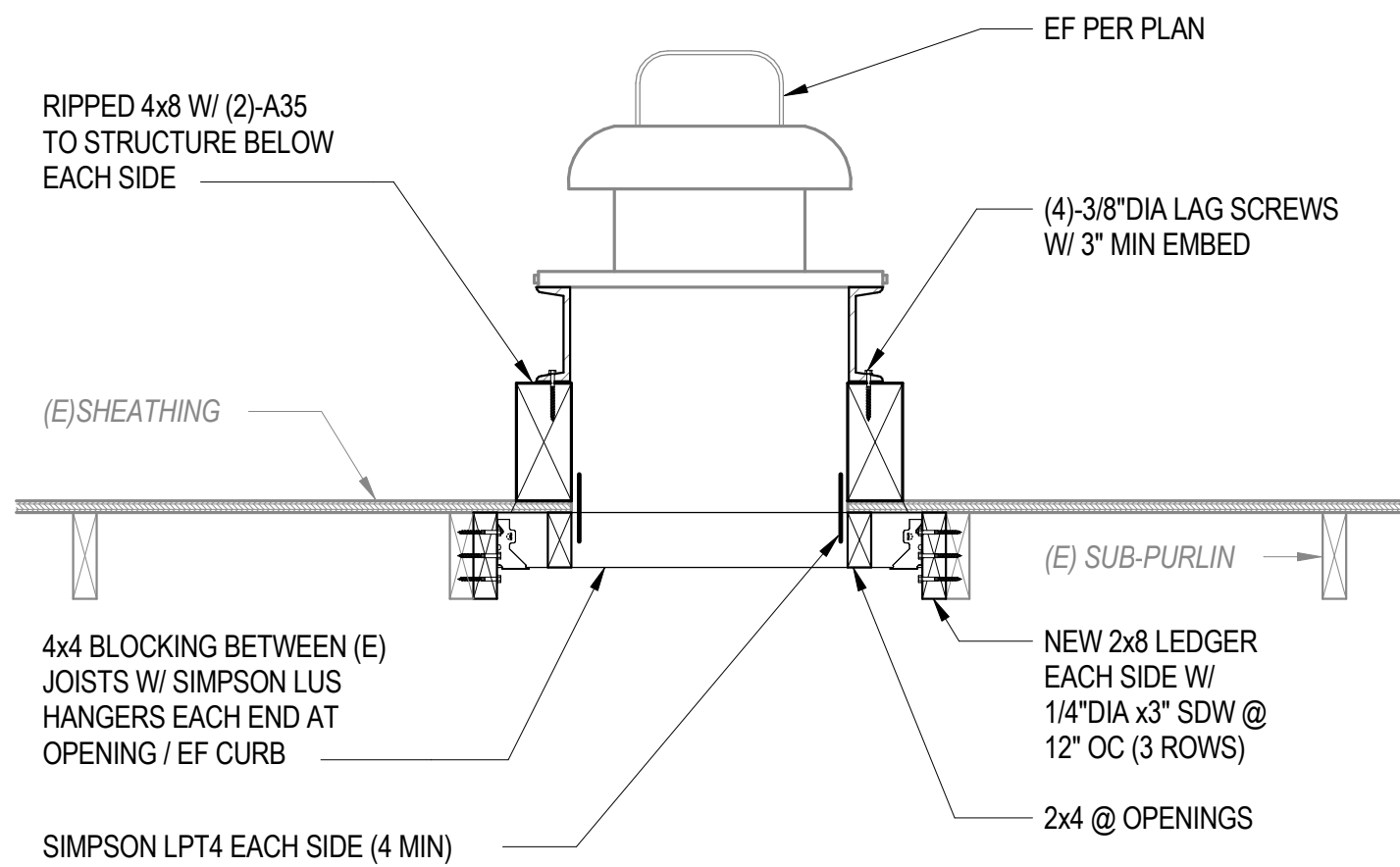
TYPICAL EQUIPMENT SUPPORT FRAMING

5
SCALE: 1/8" = 1'-0"
DETAIL ID: EMENT-FRAME-01A



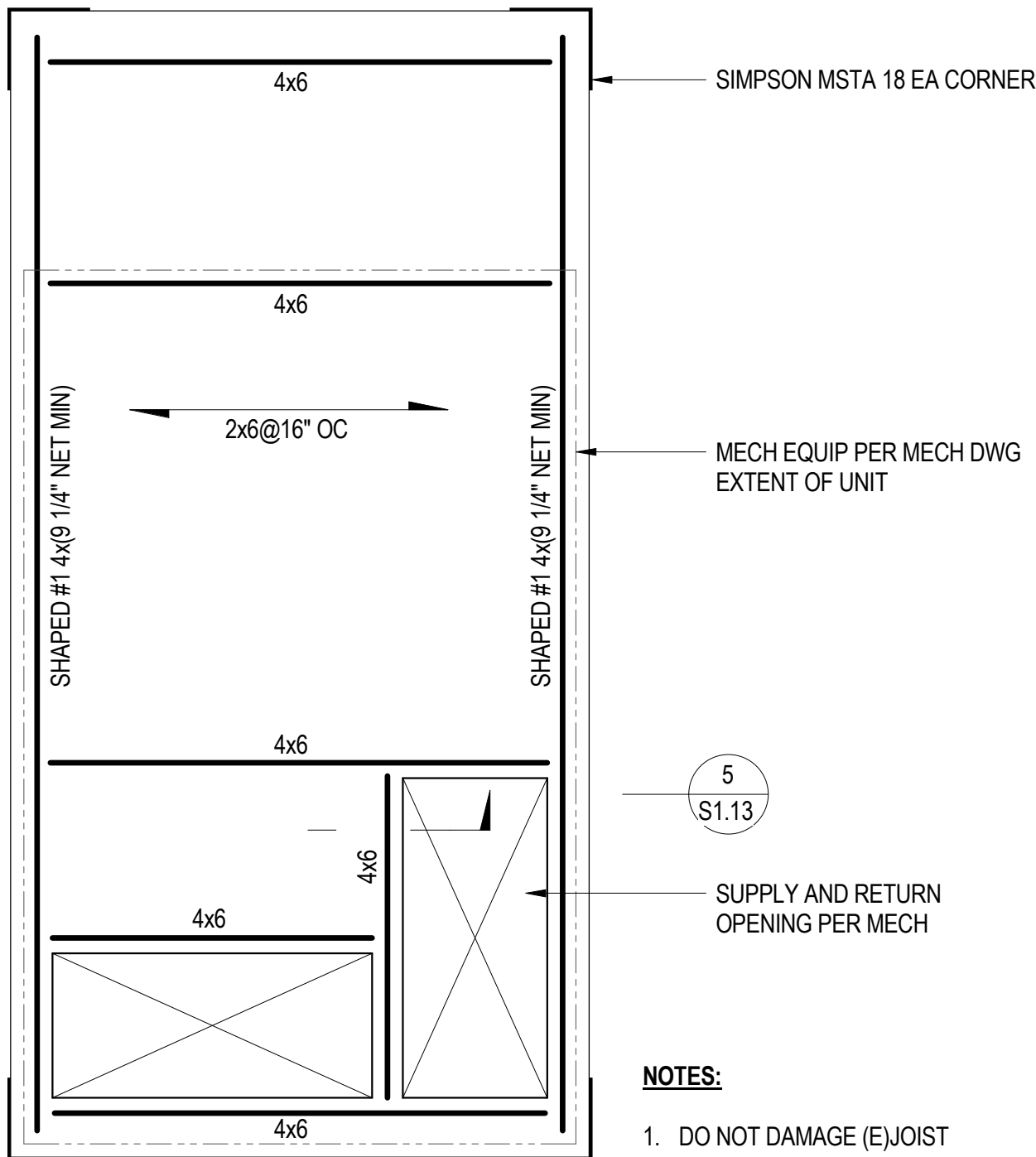
BEAM CONNECTION AT PANELIZED ROOF

10
SCALE: 1/4" = 1'-0"
S1.13



EXHAUST FAN ANCHORAGE

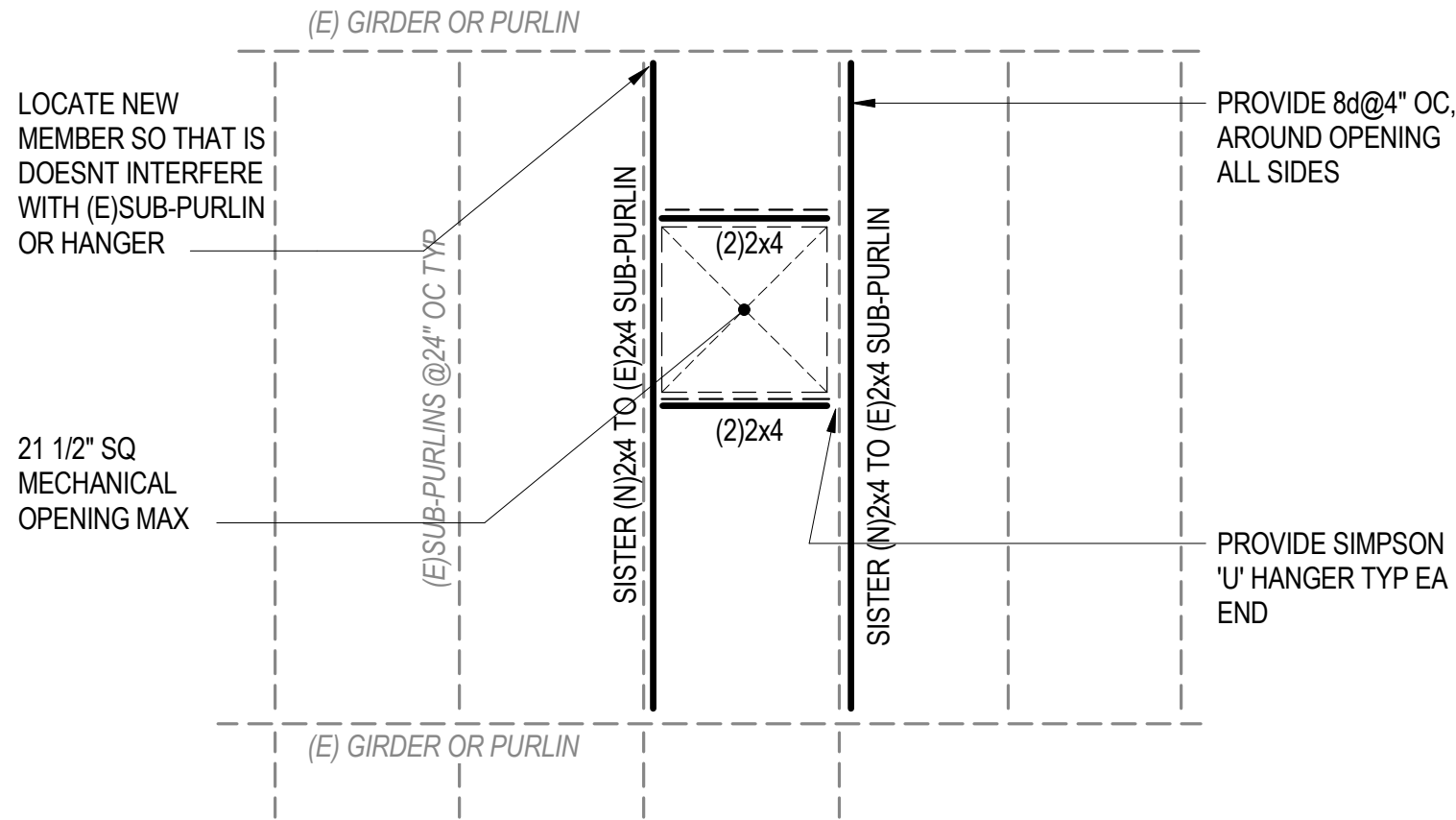
11
SCALE: 1/4" = 1'-0"
S1.13



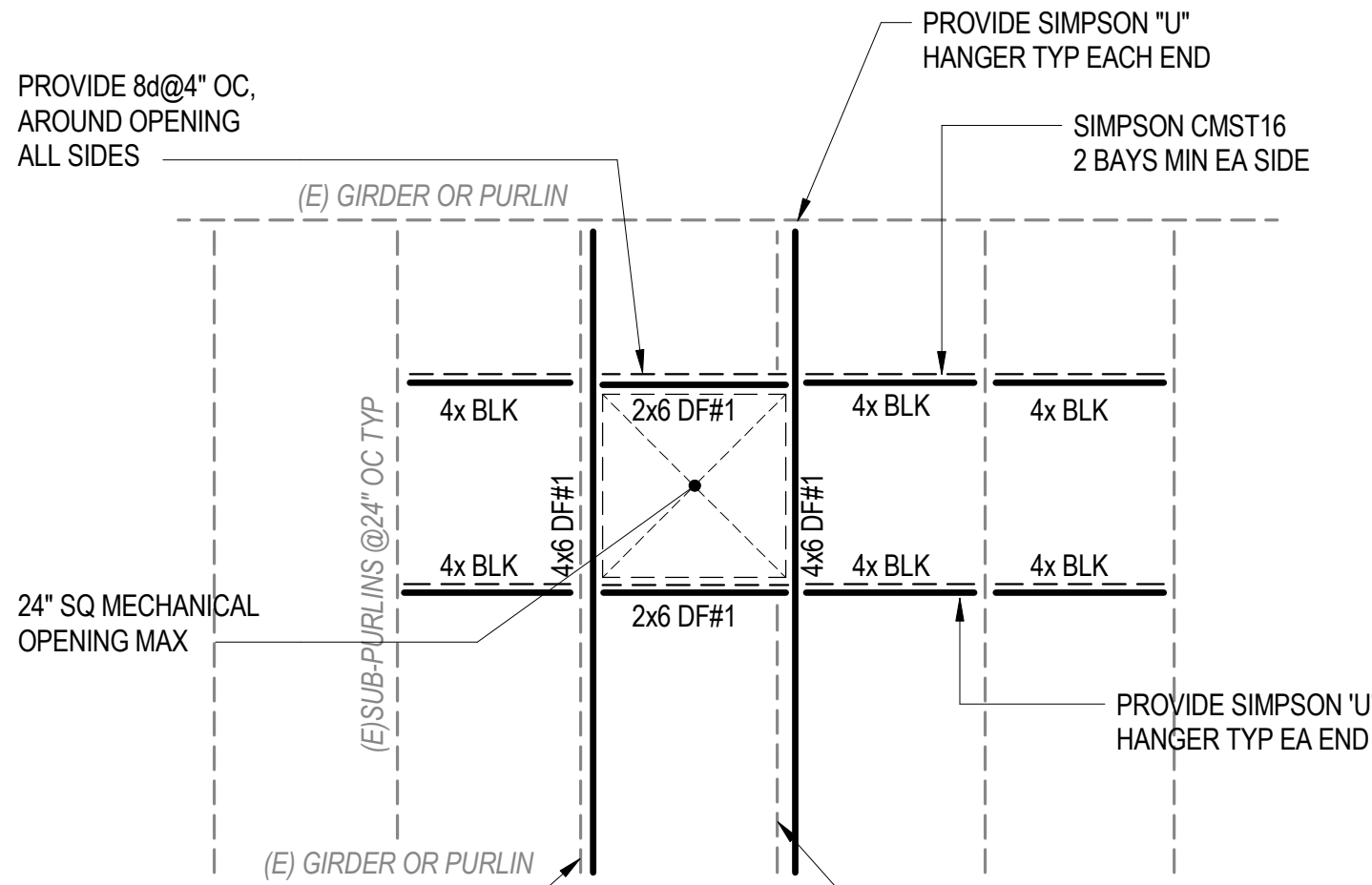
PLAN VIEW

TYPICAL EQUIPMENT SUPPORT FRAMING

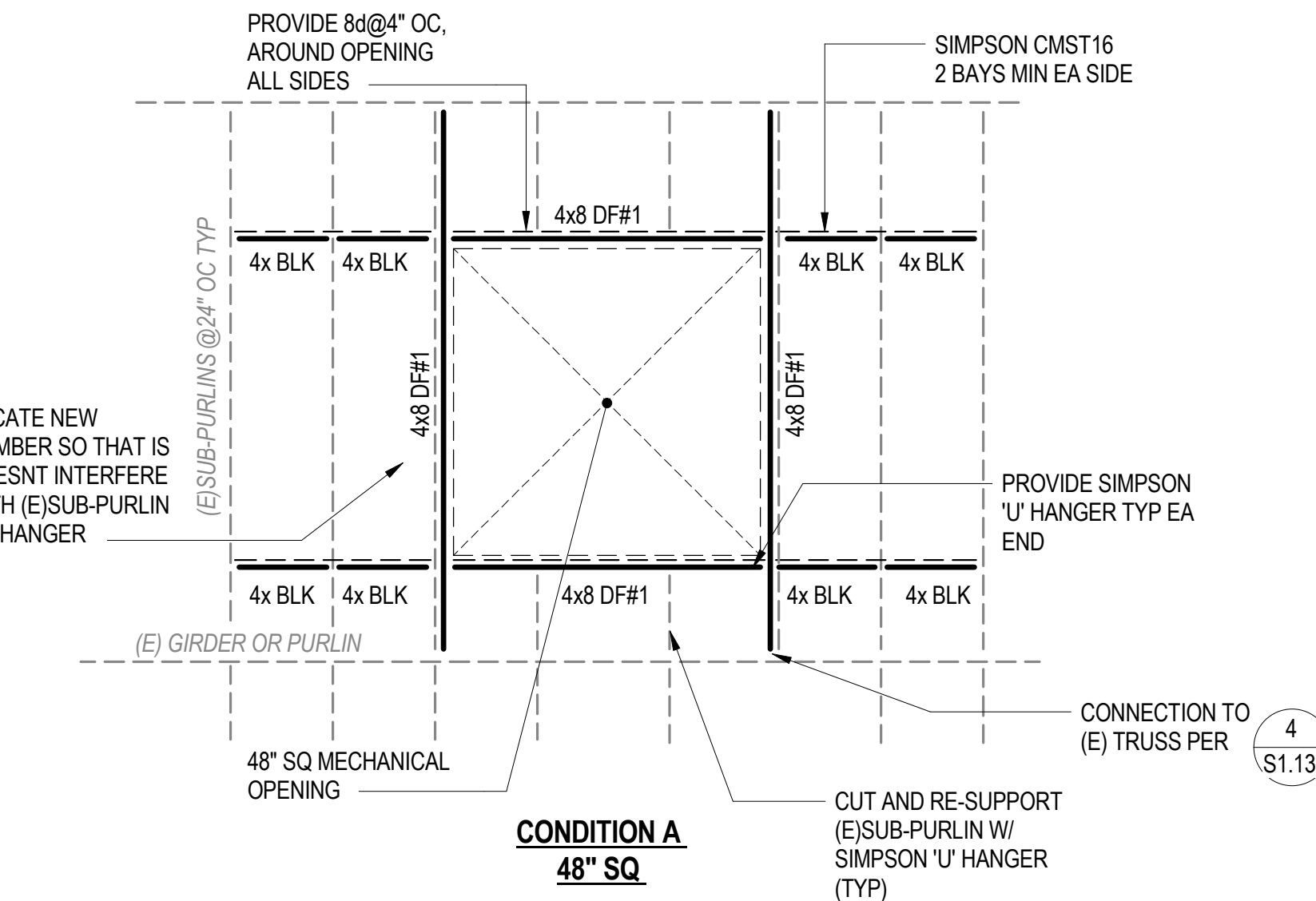
7
SCALE: 1/8" = 1'-0"
DETAIL ID: EMENT-FRAME-01



CONDITION A
21 1/2" SQ



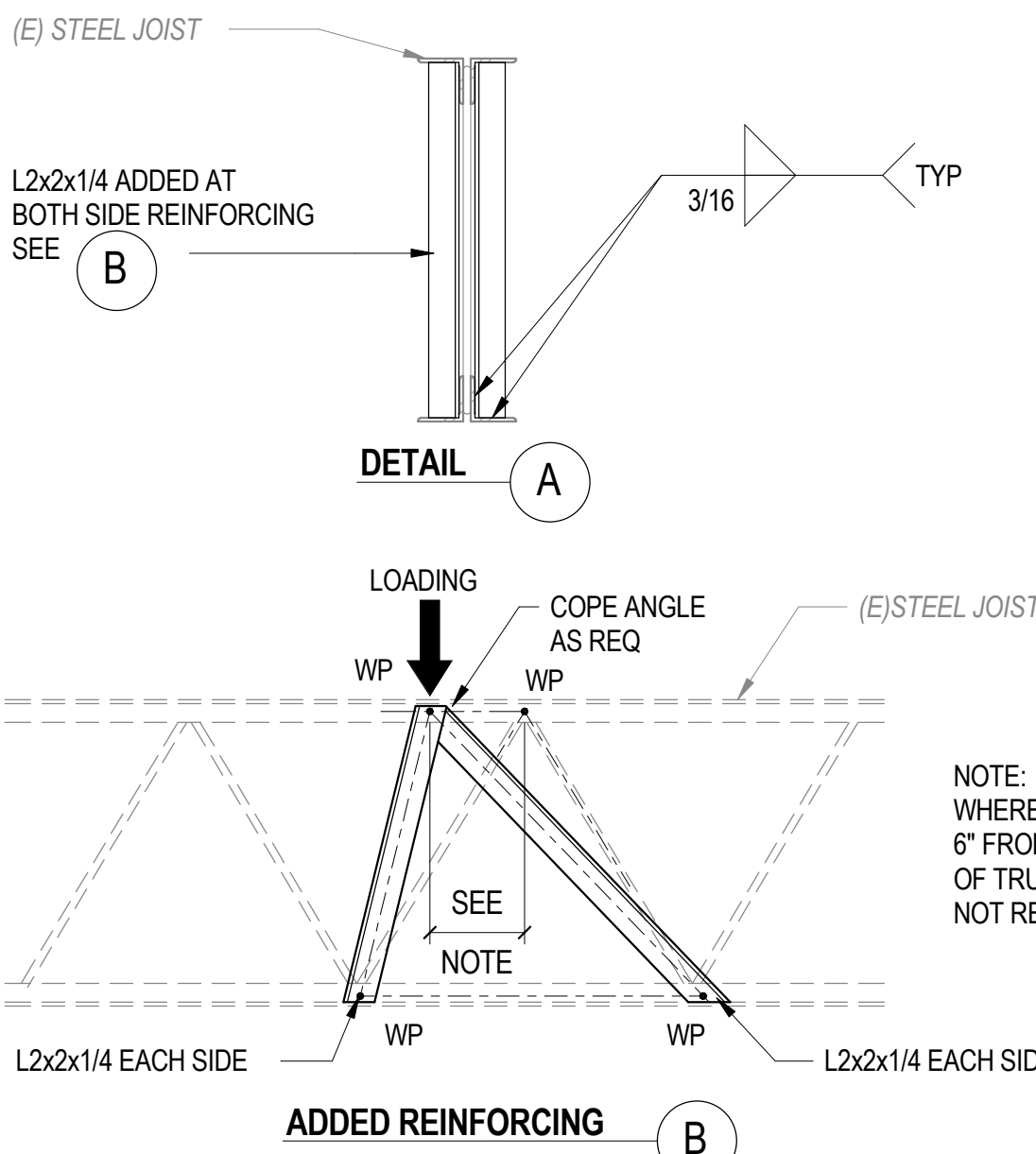
CONDITION B
24" SQ



CONDITION A
48" SQ

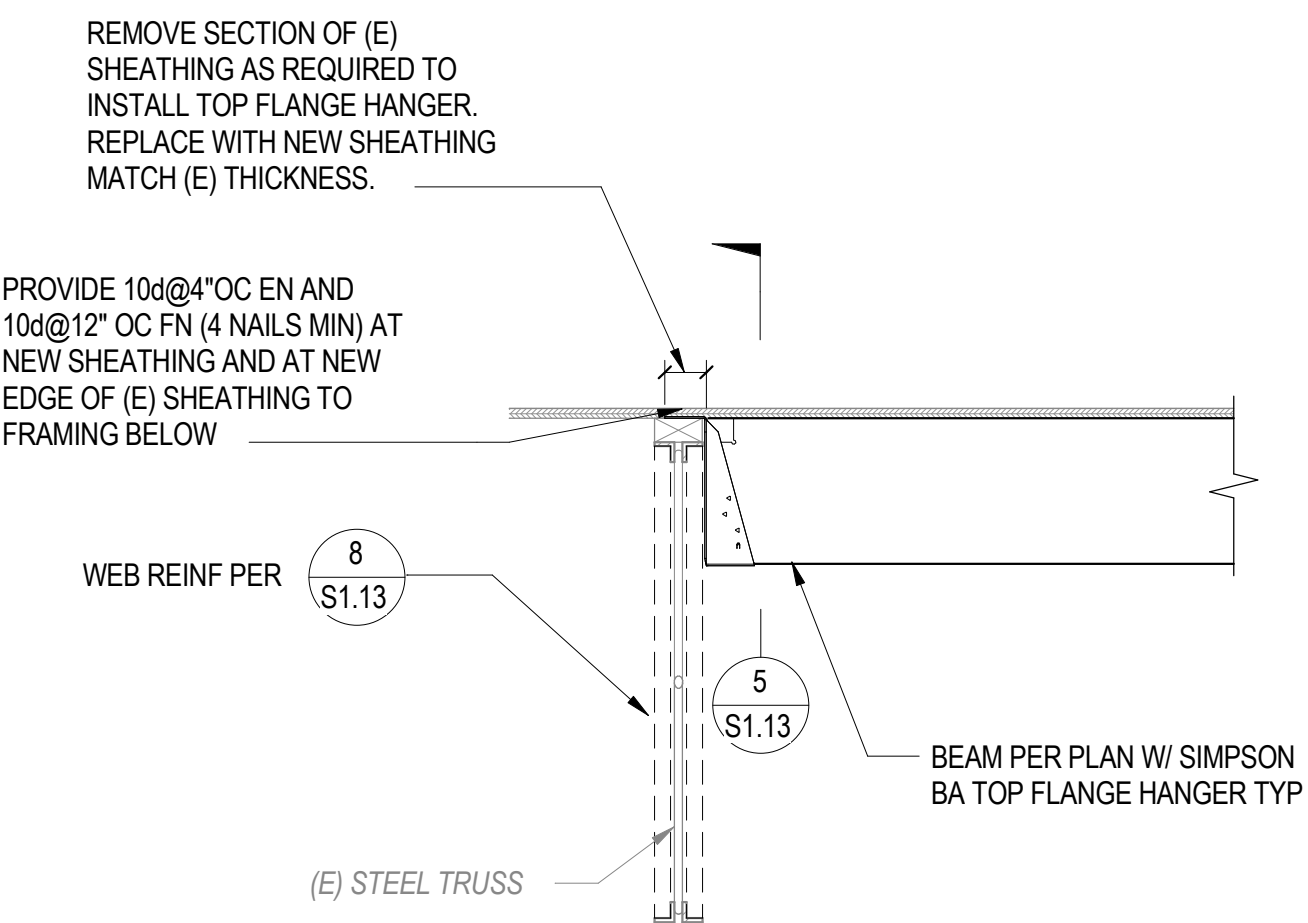
TYPICAL PANAELIZED OPEN FOR MECHANICAL EQUIPMENT

2
SCALE: 1/8" = 1'-0"
DETAIL ID: EMENT-OPEN-01



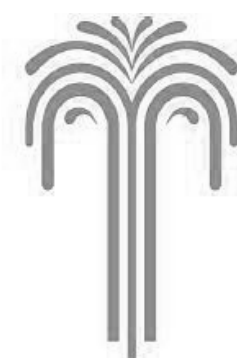
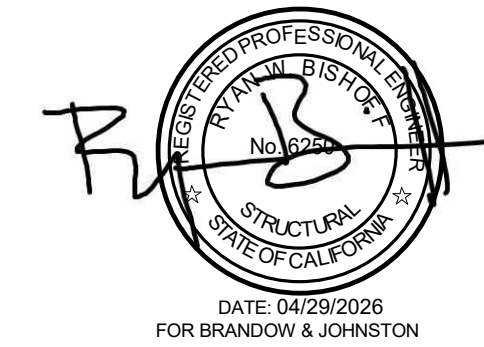
TYPICAL WEB TRUSS REINFORCING

8
SCALE: 1/4" = 1'-0"
S1.13



TYPICAL BEAM TO (E) ROOF CONNECTION

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

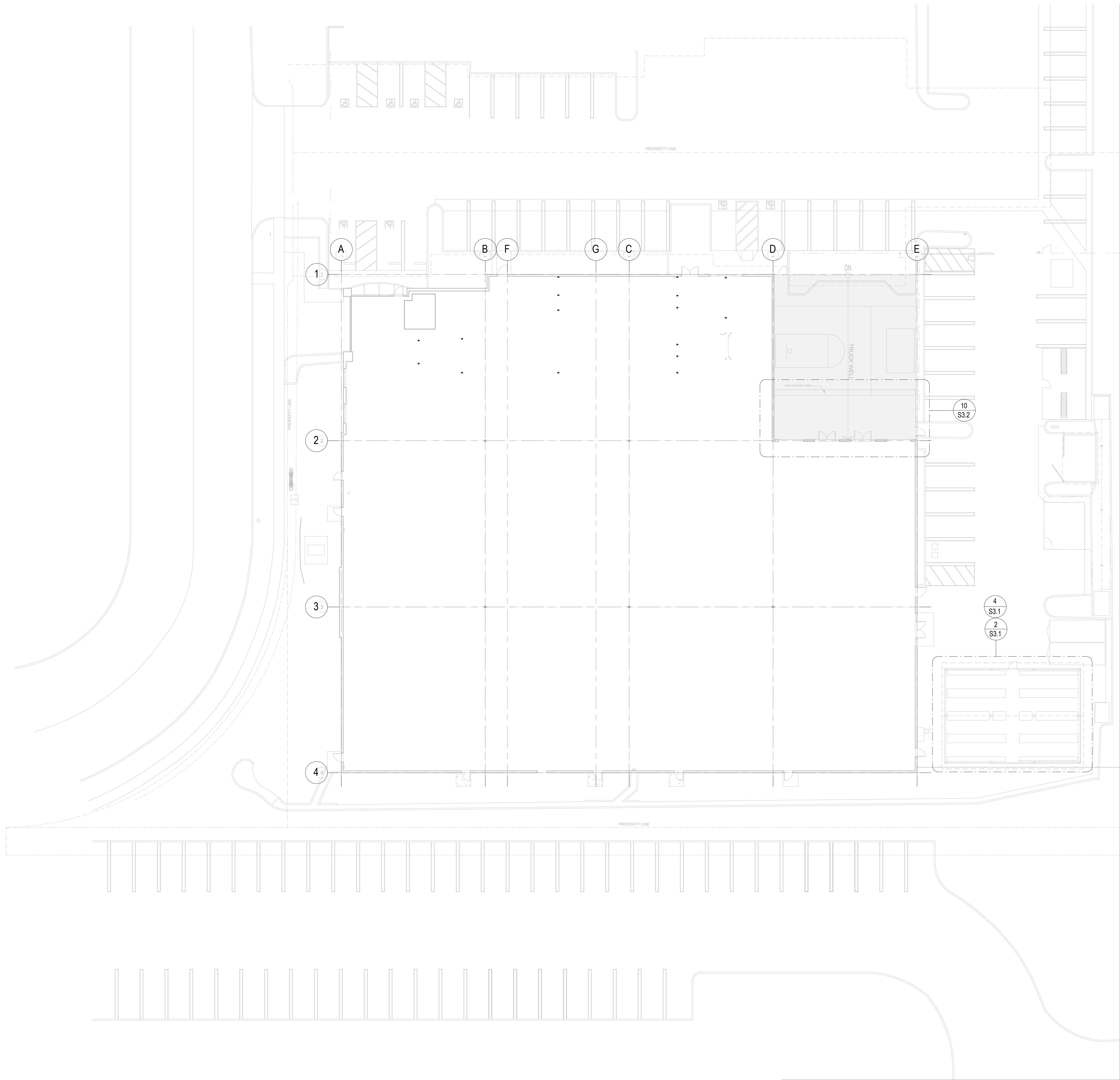


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Date	02/12/2026
Project No.	S25-0184
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SITE PLAN
SCALE: 1/8" = 1'-0"

1
S2.0

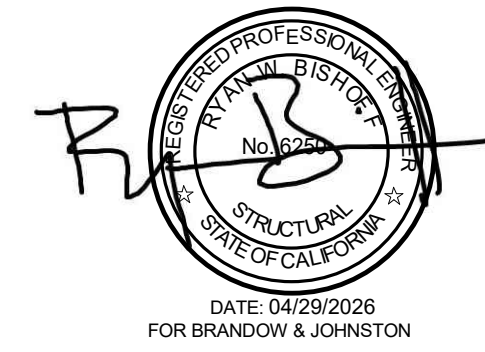


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JOHN: 852-8184

PROJECT

**WESTEND
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



**FONTANA
CALIFORNIA**

TITLE

SITE PLAN

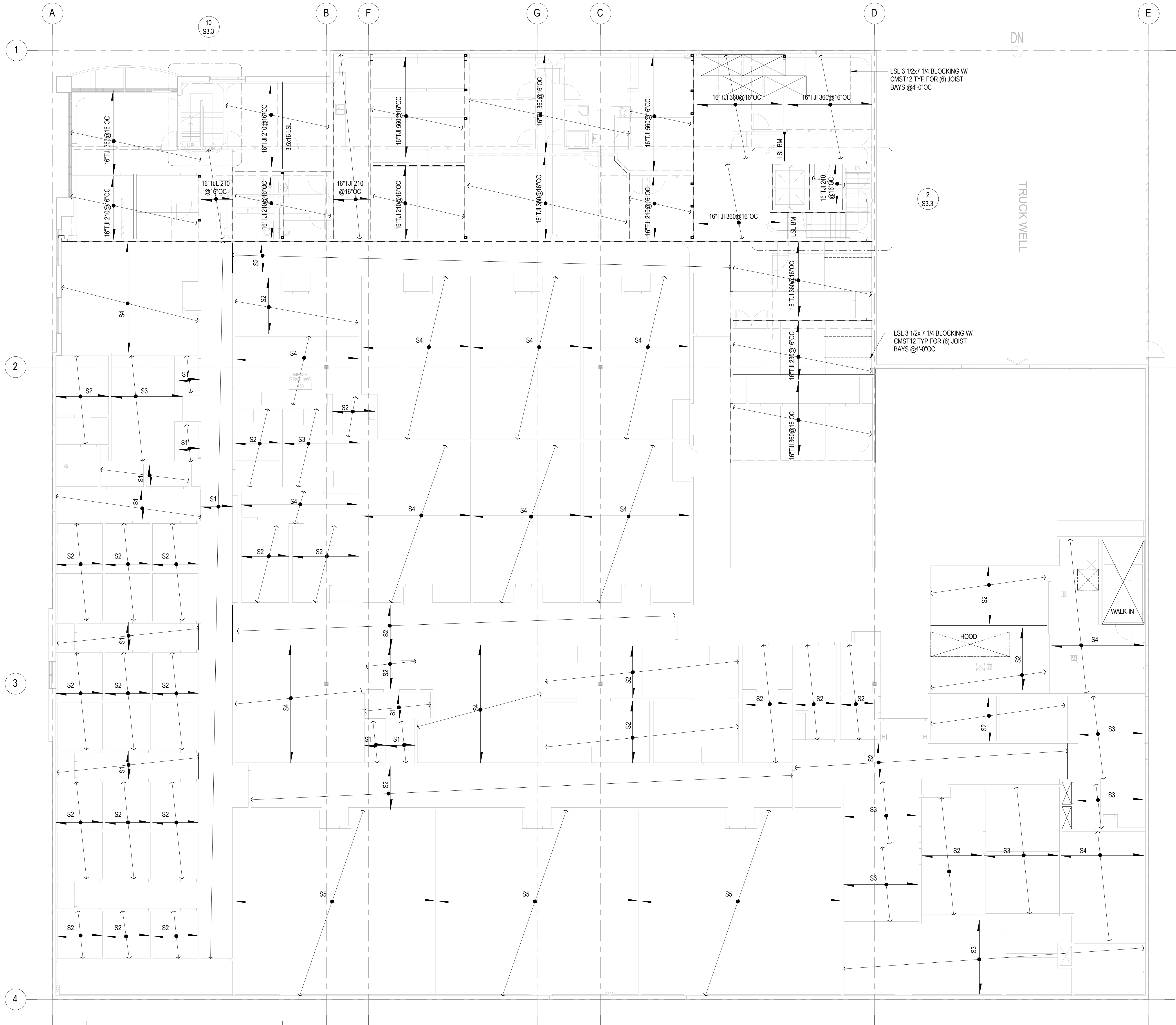
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Project No. S25-0184
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S2.0

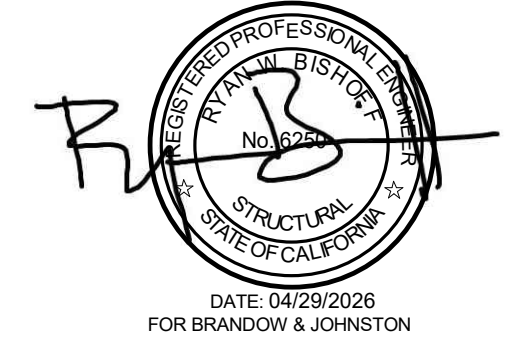




STUD SCHEDULE	
MEMBER TYPE	STUD DESIGNATION
S1	250S162-43@16"OC
S2	600S162-43@16"OC
S3	800S200-43@16"OC
S4	1000S200-54@16"OC
S5	1000S300-54@16"OC

- PLAN NOTES:
- ALL INFORMATION SHOWN WAS TAKEN FROM RECORD DRAWINGS. CONTRACTOR TO NOTIFY SEOR OF ANY DISCREPANCIES BETWEEN AS-BUILT CONDITIONS AND WHAT IS SHOWN ON THESE DRAWINGS.
 - INDICATES STRUCTURAL WALL BELOW
 - FOR TOP OF SHEARWALL TO FRAMING ABOVE SEE DETAILS

8
S1.11



WESTEND
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CENTER

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FONTANA, CALIFORNIA 92337



FONTANA
CALIFORNIA

ROOF FRAMING
PLAN

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Date 02/06/26
Project No. S25-0184
Scale As Shown

S2.3

ROOF FRAMING PLAN

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

1
S2.3

PLAN NOTES:

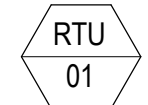
1. ALL EXISTING INFORMATION SHOWN ON DRAWINGS IS TAKEN FROM FIELD OBSERVATIONS. CONTRACTOR SHALL NOTIFY SEOR IF ANY DISCREPANCIES DISCOVERED DURING CONSTRUCTION VARY SIGNIFICANTLY FROM WHAT IS SHOWN ON THESE DRAWINGS

2. FOR GENERAL NOTES AND TYPICAL DETAILS SEE S0.1 AND S1.1 SERIES SHEETS

3. DO NOT SCALE STRUCTURAL DRAWING OR DETAILS

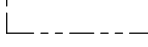
4. SEE ARCHITECTURAL OR MECHANICAL DRAWINGS FOR DIMENSIONS

5. INDICATES MAXIMUM UNIT WEIGHT



100 LBS

6. INDICATE ROOFTOP EQUIPMENT COORDINATE WITH OTHERS



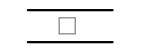
7. INDICATES (E) WALL ANCHOR @ 8'-0" OC MAX VERIFY IN FIELD



8. INDICATES (E) PURLIN TIE VERIFY IN FIELD



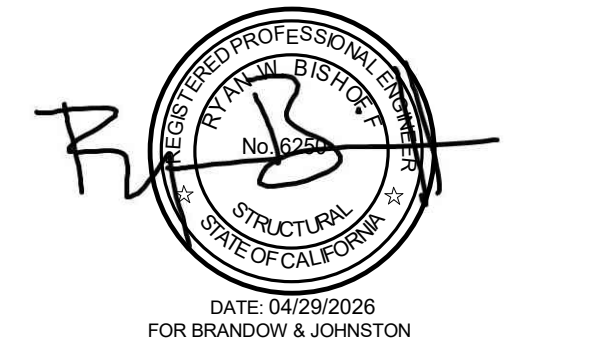
9. INDICATES (E) GIRDER TIE VERIFY IN FIELD



10. INDICATES TRUSS REINFORCEMENT PER

J10

1/841



WESTEND
NAVIGATION
CENTER

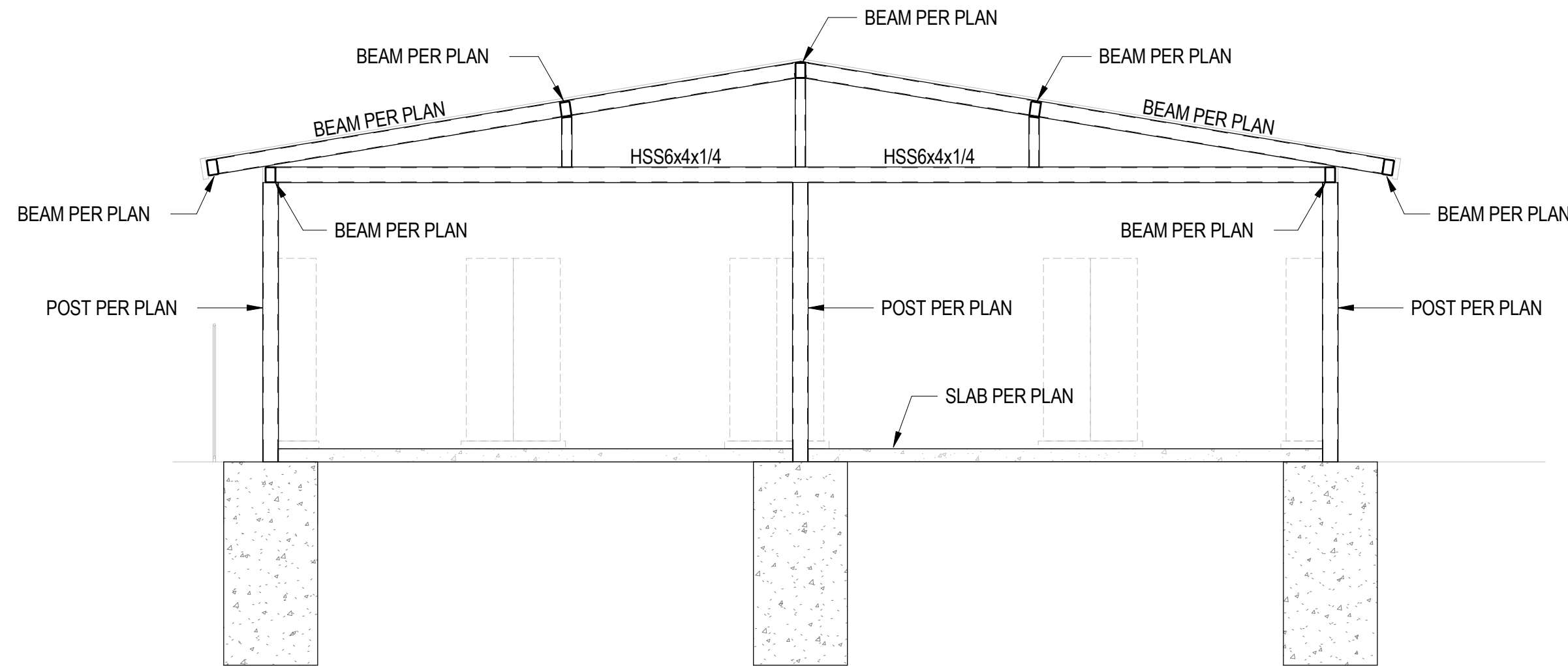
11109 JASMINE STREET
FONTANA, CALIFORNIA 92337



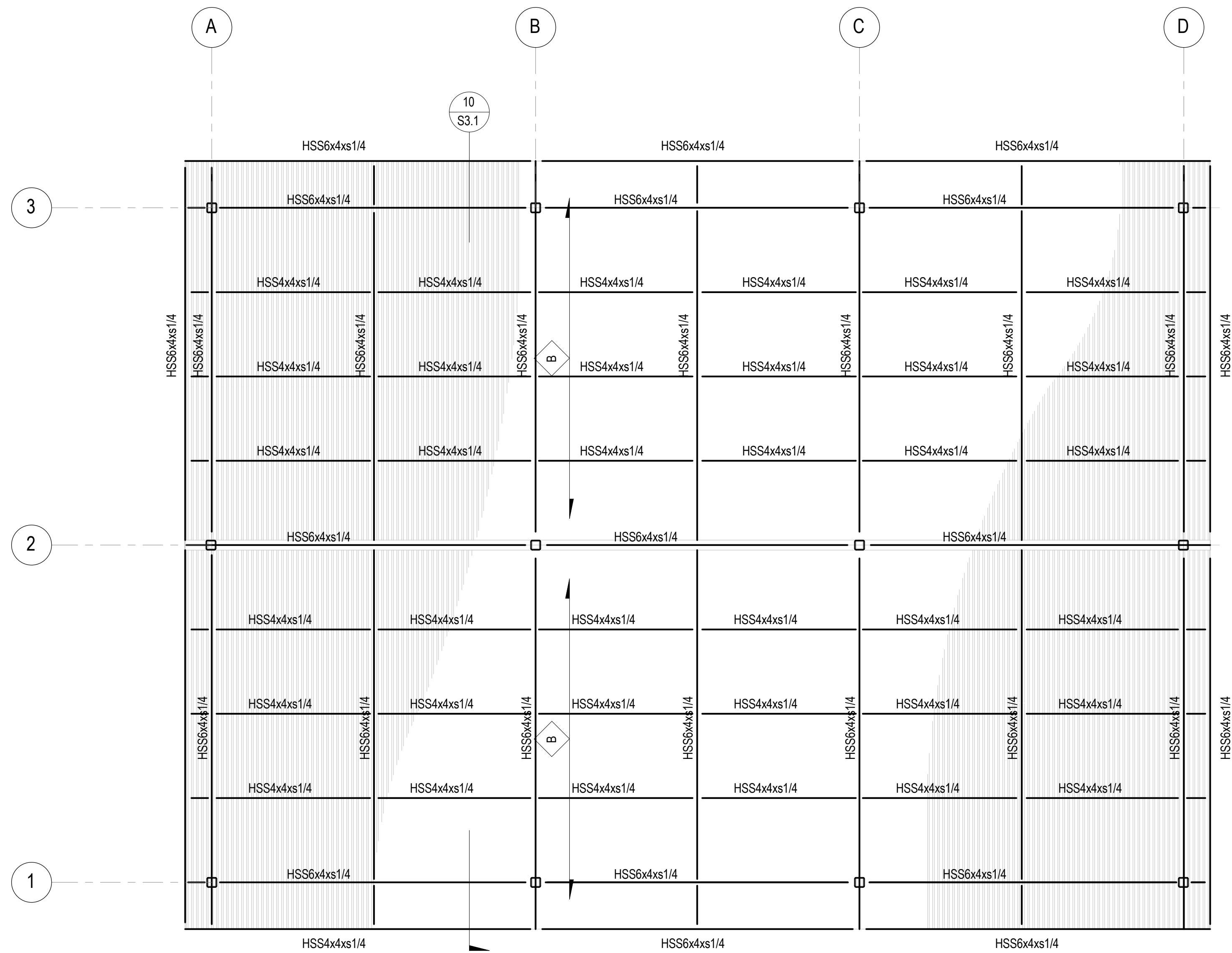
LOCKER
STORAGE PLANS
AND ELEVATIONS

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Project No. S25-0184
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STORAGE BIN SECTION
SCALE: 1/4"=1'-0"
S3.1

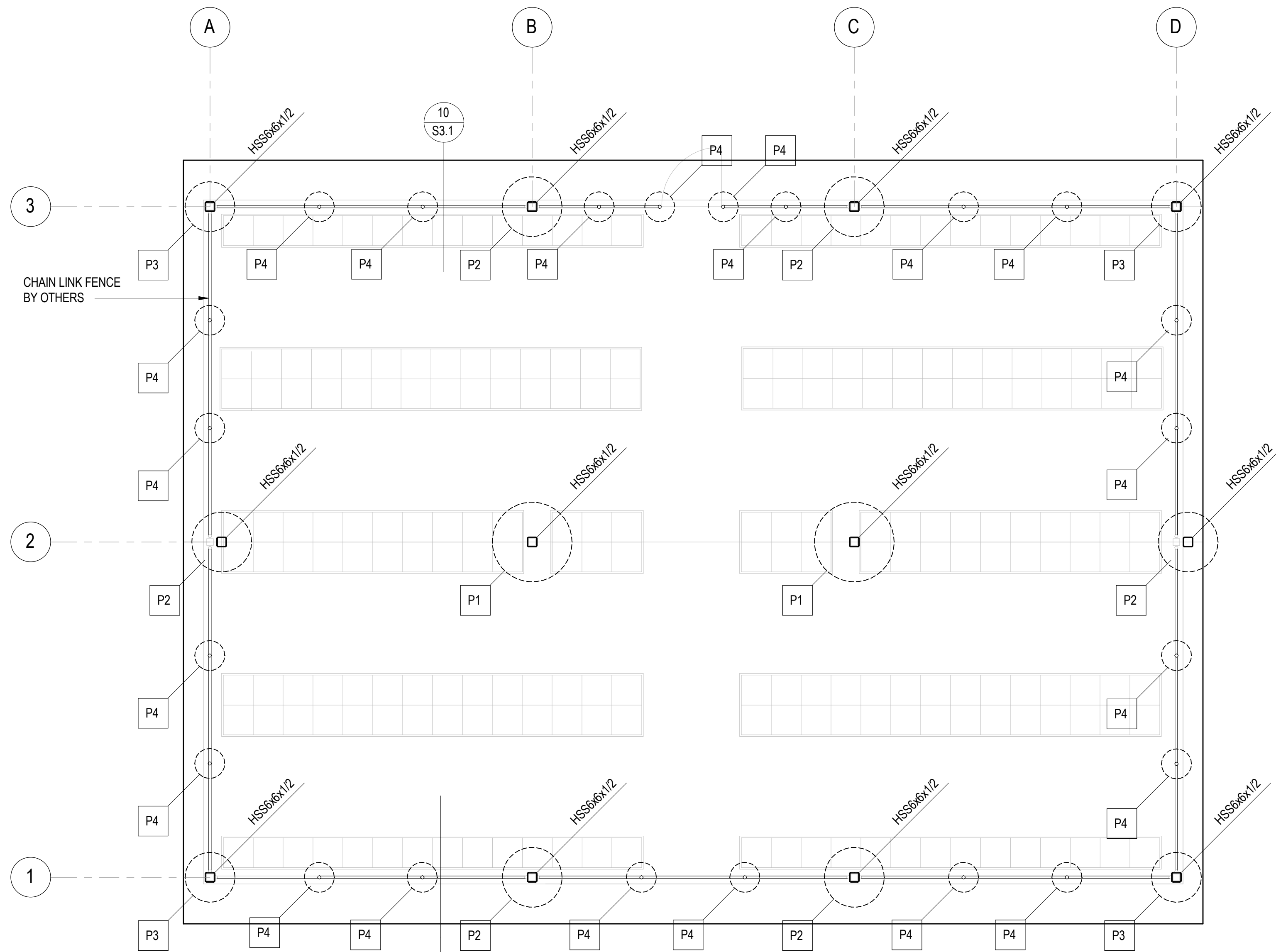


NOTES:

1. FOR HSS TO HSS CONNECTION SEE 7/S1.6

2. INDICATES METAL DECK SPAN AND TYPE PER 3/S3.2

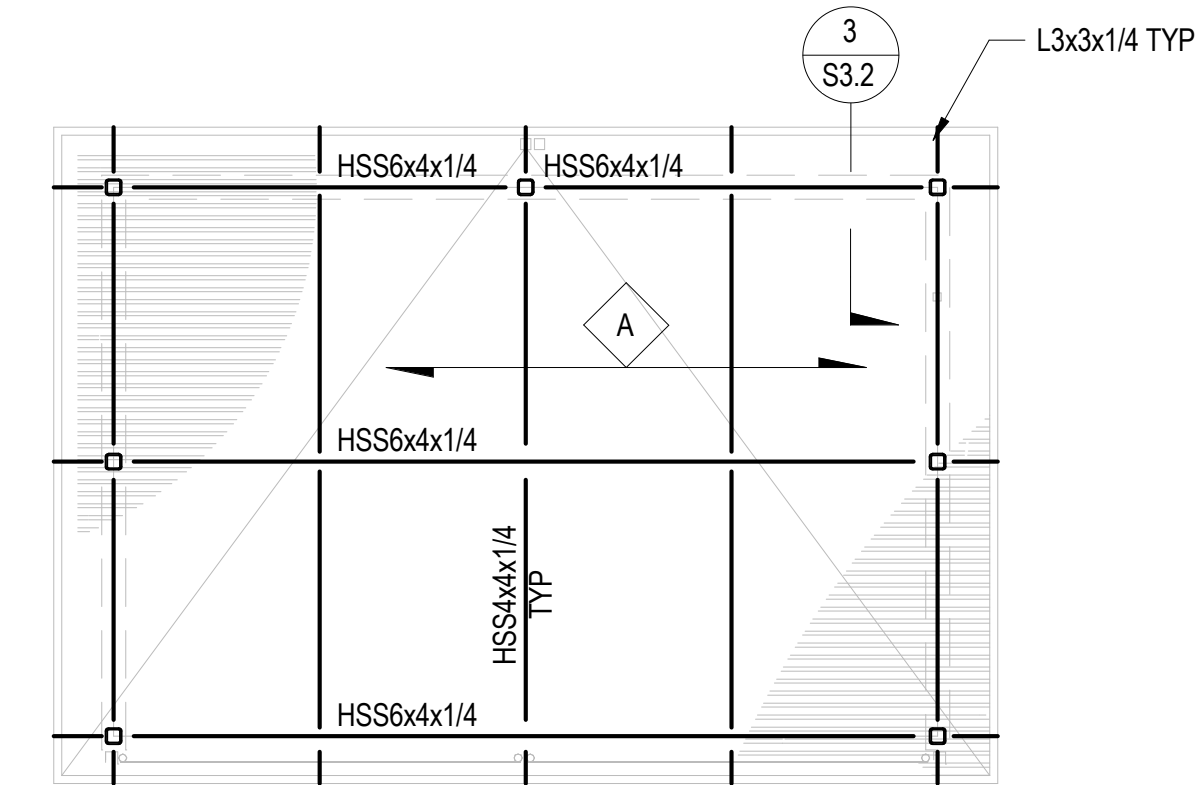
STORAGE LOCKER ROOF FRAMING PLAN
SCALE: 1/4"=1'-0"
S3.1



NOTE:

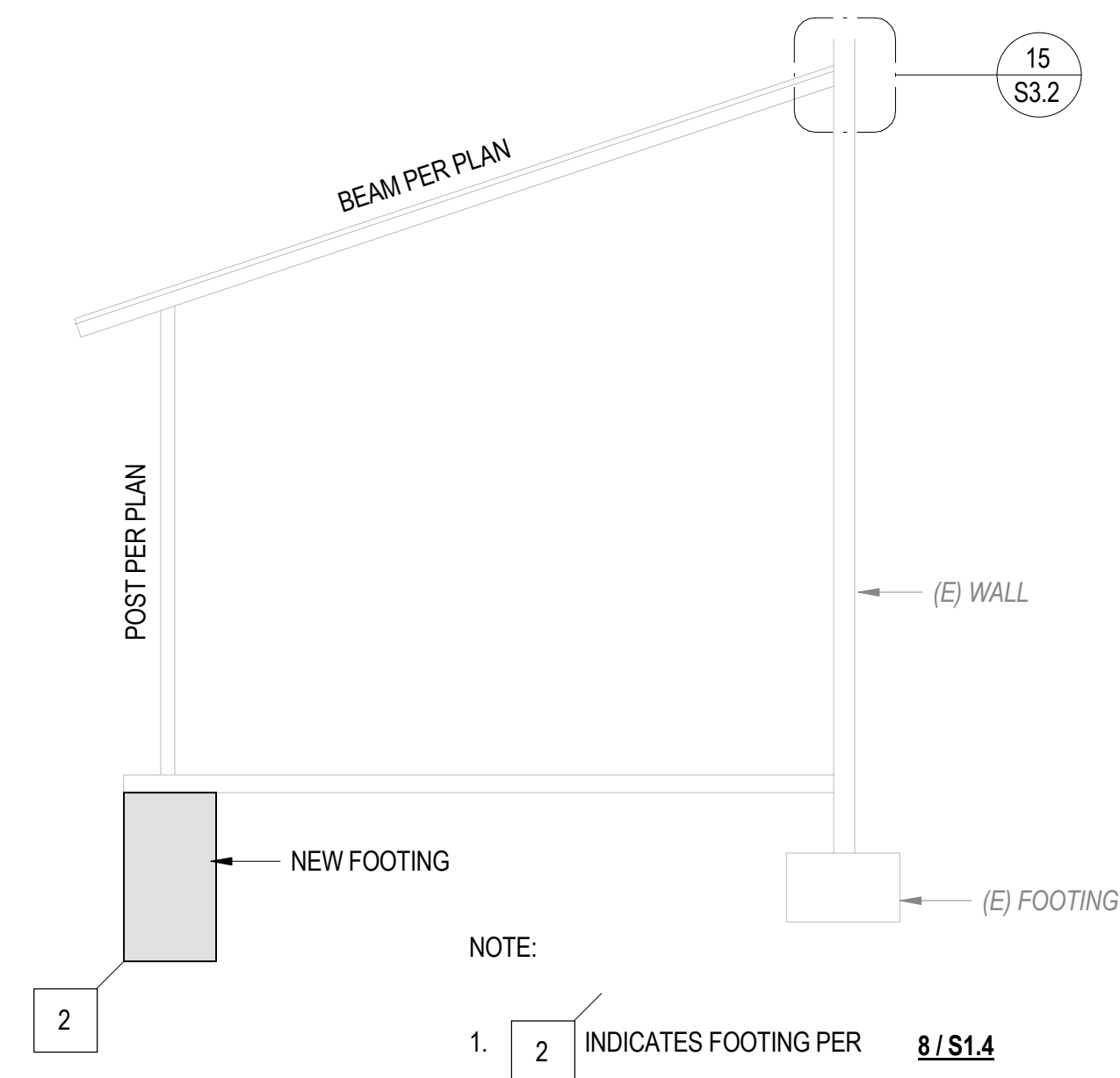
1. INDICATES FOOTING PER 8/S1.4

STORAGE LOCKER FOUNDATION PLAN
SCALE: 1/4"=1'-0"
S3.1



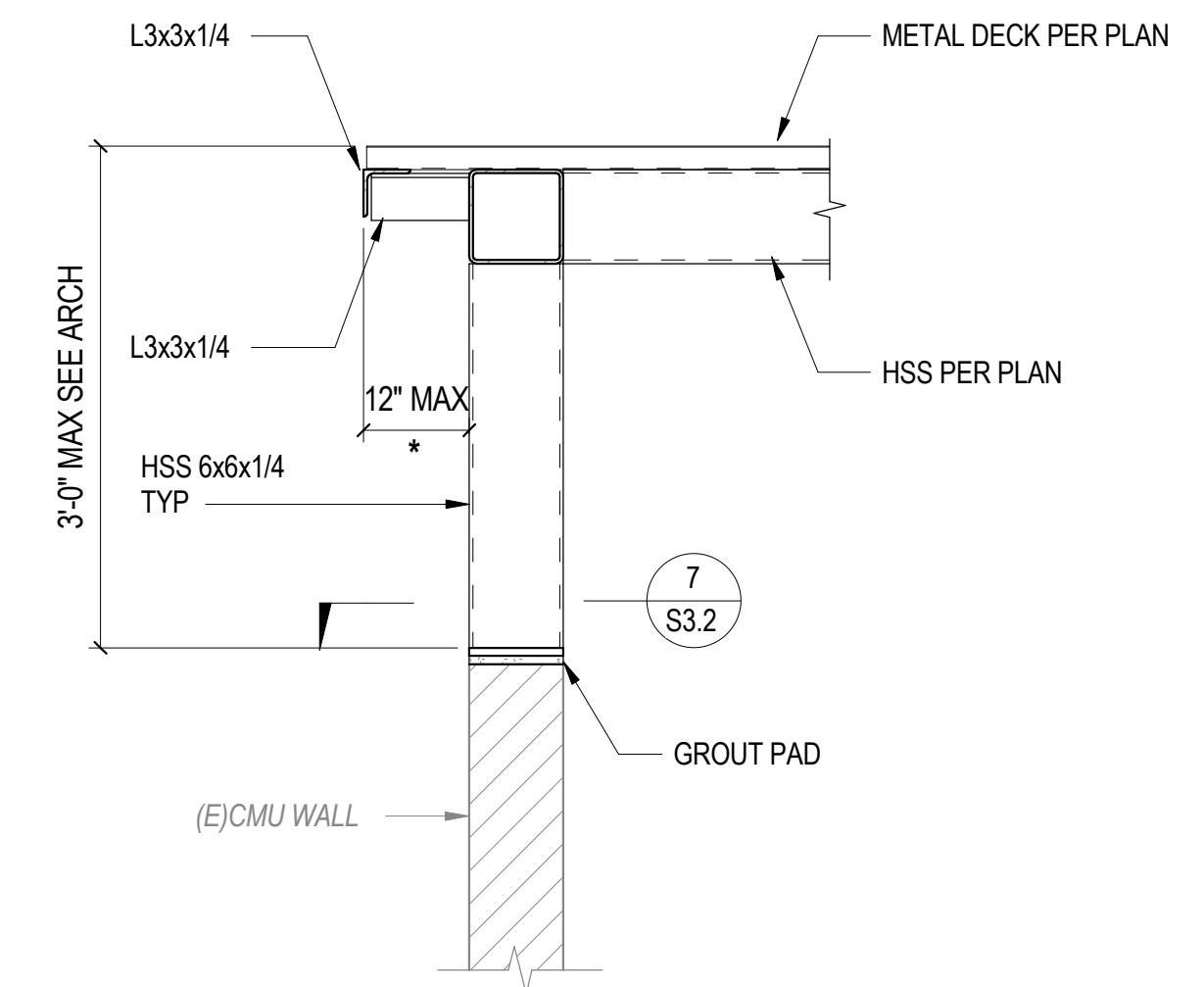
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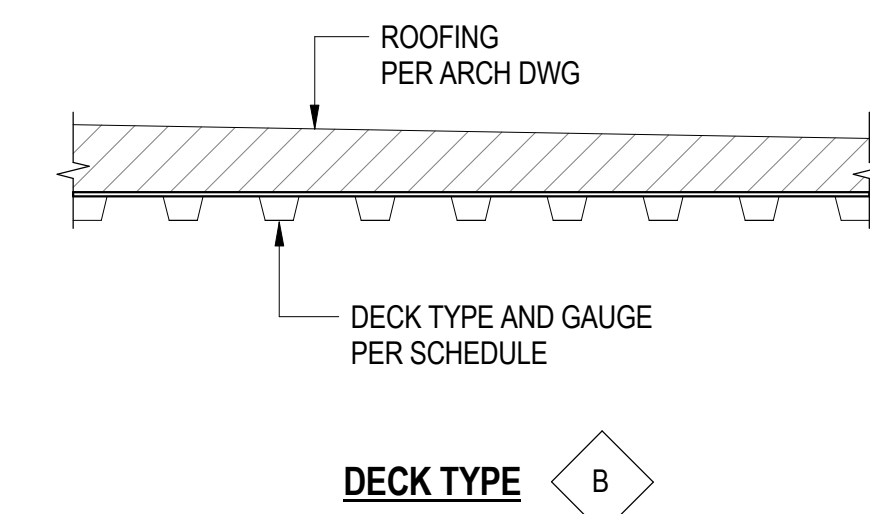
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11



7

11



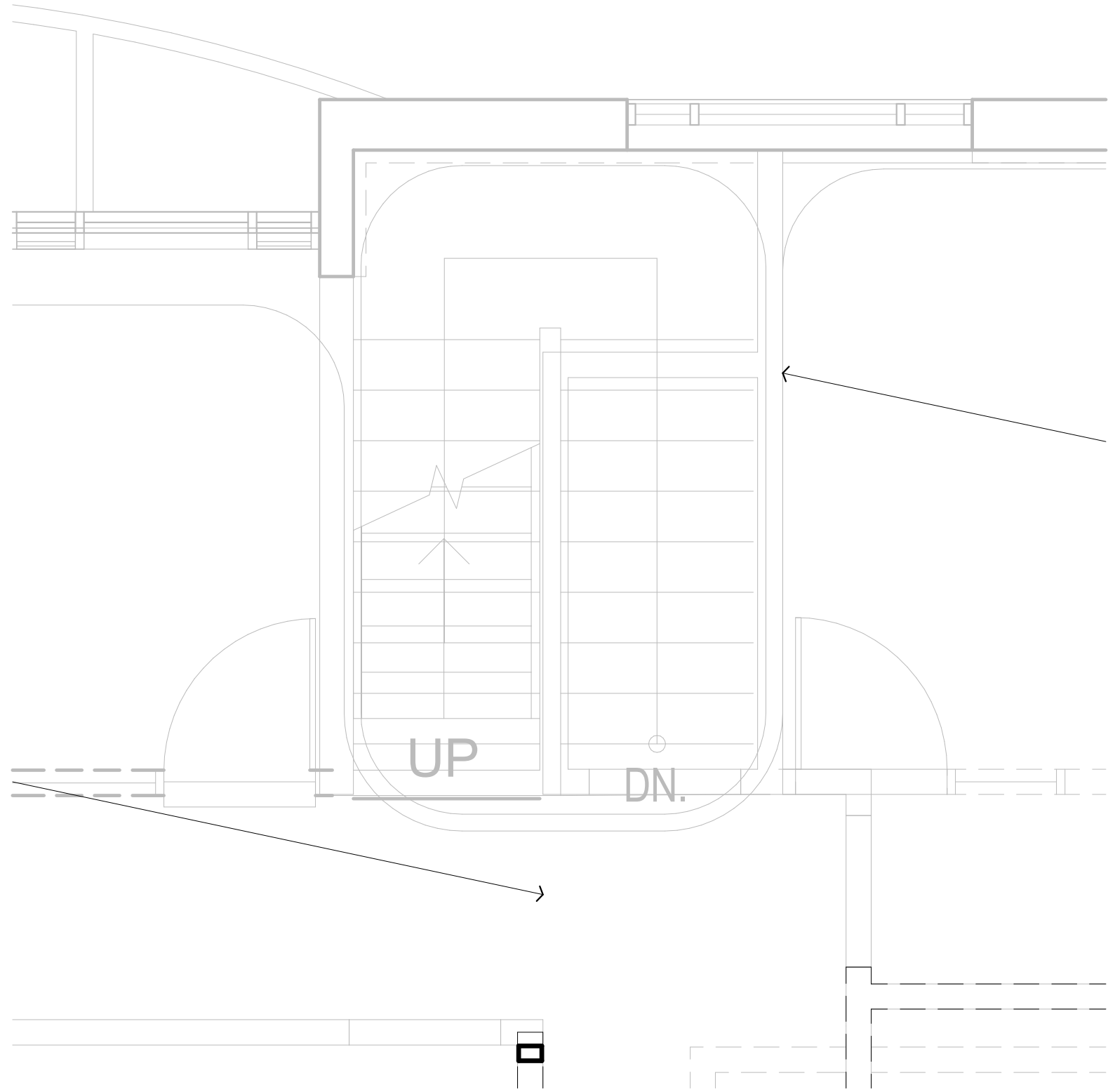
2

4

NOTES:

1. DECK SUPPORTING DEAD LOAD OF CONCRETE PLUS 20 PSF UNIFORM CONSTRUCTION LOAD OR 150 POUND CONCENTRATED CONSTRUCTION LIVE LOAD FOR FLEXURE. 4 PSF IS ADDED FOR NORMAL WEIGHT CONCRETE AND 3 PSF IS ADDED FOR LIGHT WEIGHT CONCRETE TO ACCOUNT FOR PONDING DUE TO DECK DEFLECTION BETWEEN SUPPORT MEMBERS. PROVIDE TEMPORARY SHORING AT MIDSPAN OF DECK WHERE CONCENTRATION LOAD IS EXPECTED TO EXCEED 4 PSF.
2. DEAD LOAD DEFLECTION LIMITED TO $L/160$ OR SPAN LENGTH, NOT TO EXCEED $3/4"$.
3. TOTAL SLAB DEPTH IS NOMINAL DEPTH FROM TOP OF CONCRETE TO BOTTOM OF STEEL DECK. PROVIDE POSITIVE VENTED DECKS AT ALL AREAS WHICH RECEIVE WATERPROOFING, MEMBRANE AND/OR INSULATION. PROVIDE POSITIVE VENTED DECKS AT ALL PERIMETERS AND REINFORCING.
4. PROVIDE MINIMUM $2"$ DEAD BEARING LENGTH AT DECK PERPENDICULAR TO BEAM AND MINIMUM $1\frac{1}{2}"$ BEARING LENGTH AT DECK PARALLEL TO BEAM AT ALL SUPPORTS.
5. DECKING SHALL BE CONTINUOUS OVER AT LEAST 2 SPANS AND 3 SPANS WHERE FRAMING PERMITS. SINGLE SPAN NOT PERMITTED. SINGLE SPAN SHOWING ON PLAN OR APPROVED BY SECTOR.
6. NO CUTS OR ELECTRICAL CONDUITS SHALL BE PLACED IN CONCRETE OVER METAL DECK, UNLESS SPECIFICALLY PERMITTED BY STRUCTURAL ENGINEER (SECTOR) PRIOR TO CONCRETE PLACEMENT.

1



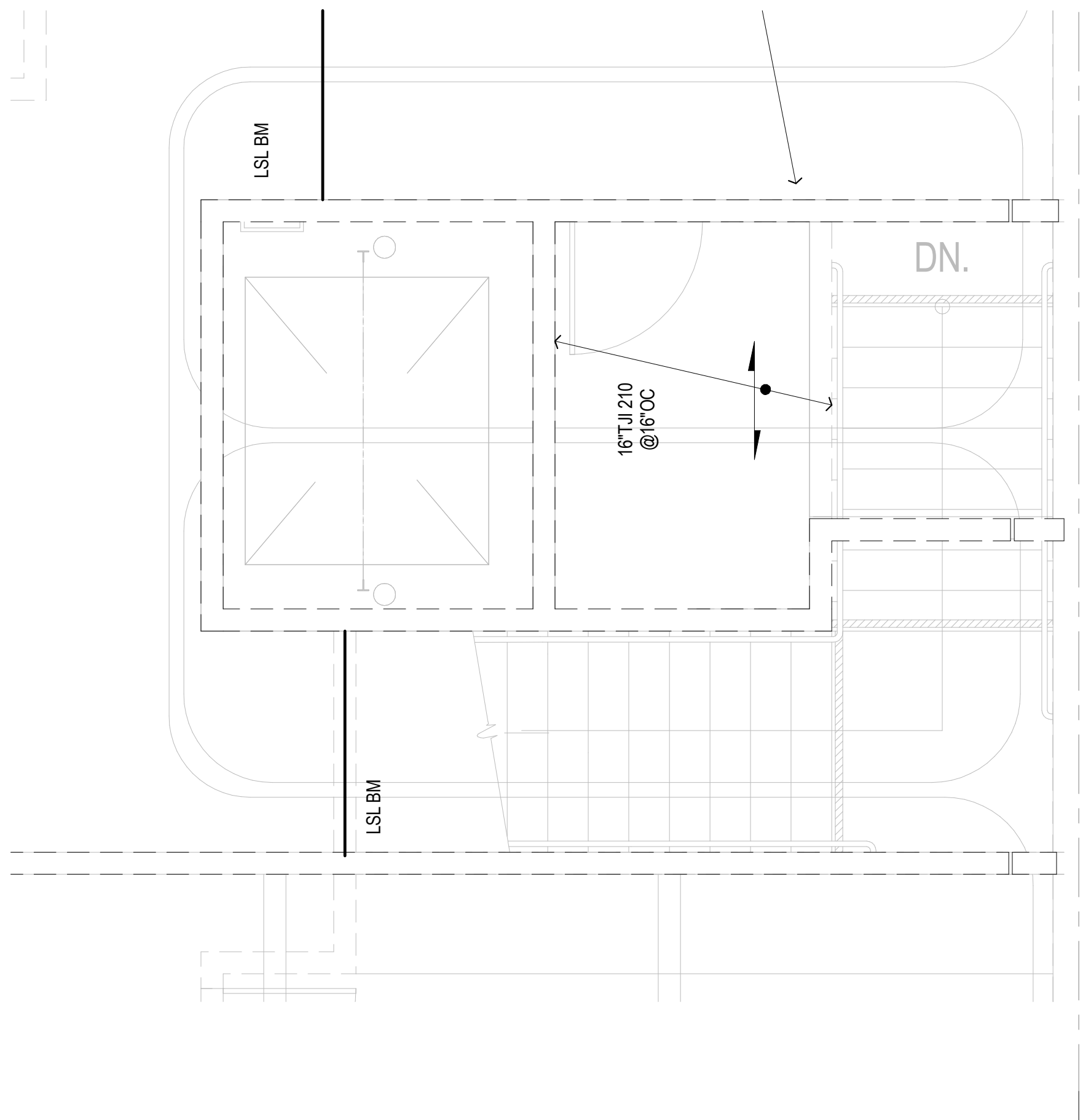
2ND FLOOR ENLARGED STAIR PLAN

10

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

S3.3

D



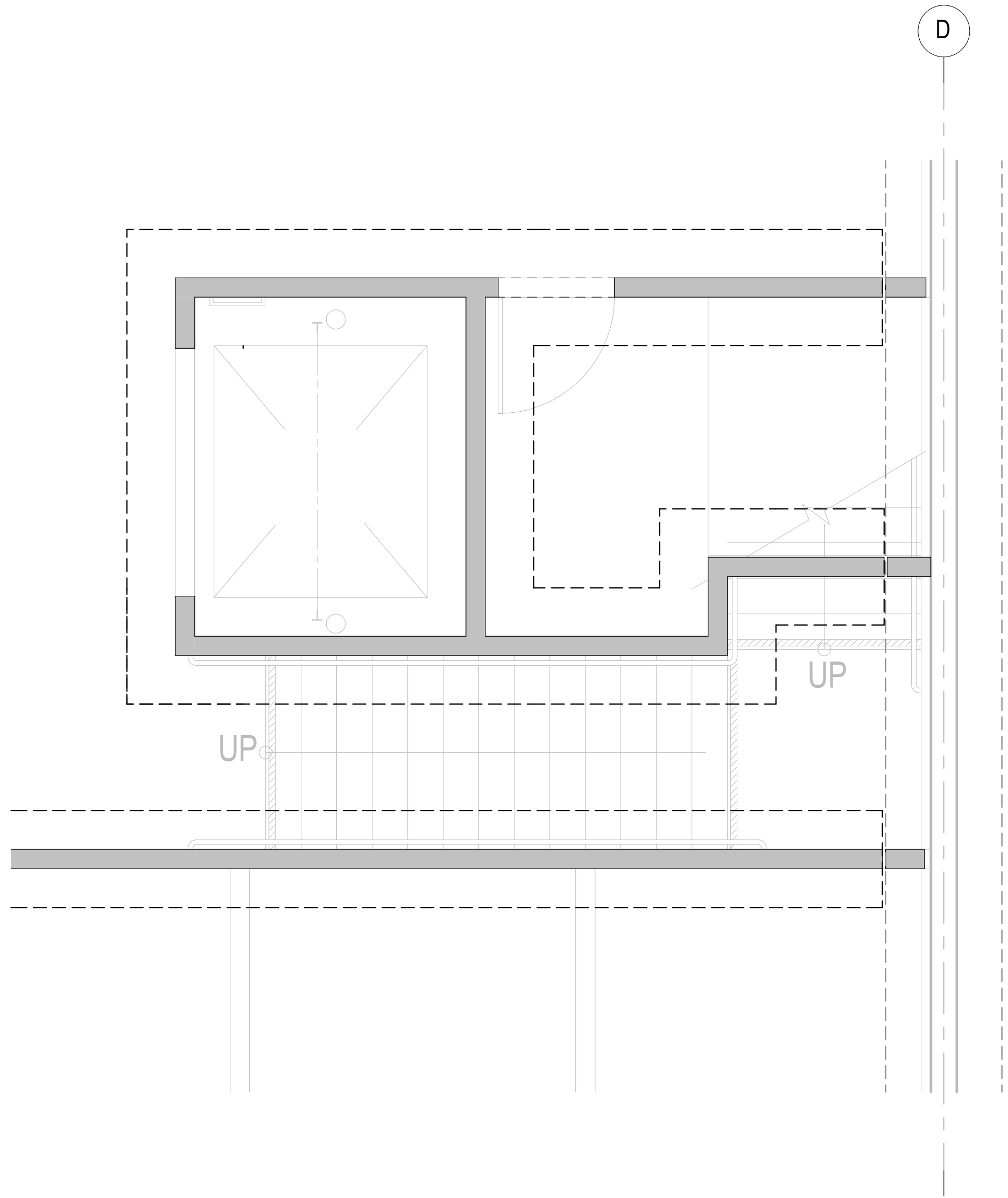
2ND FLOOR ENLARGED STAIR PLAN

2

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

S3.3

D



FOUNDATION ENLARGED STAIR PLAN

4

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

S3.3

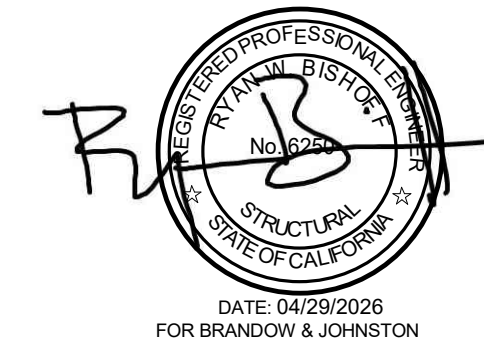


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JOHN: 822-6194

PROJECT

**WESTEND
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CENTER**

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FOR



TITLE

**ENLARGED STAIR
PLAN**

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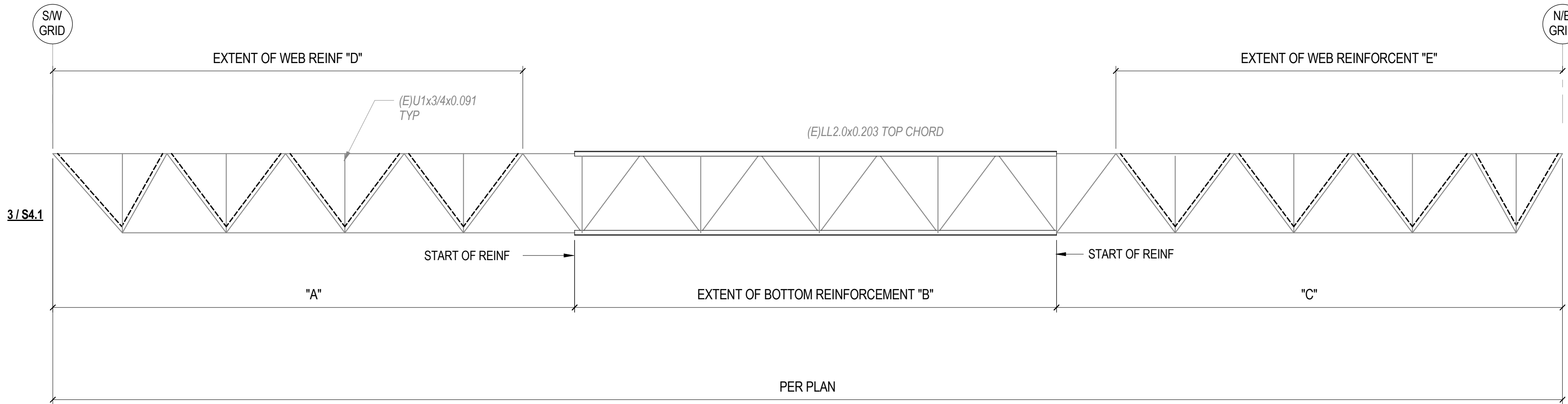
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S3.3

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- NOTE:
1. VERIFY EXISTING DIMENSIONS IN FIELD
 2. ----- INDICATES WEB REINFORCING PER
 3. FOR OPEN WEB STEEL JOIST REINFORCING SCHEDULE SEE **6/ S4.1**



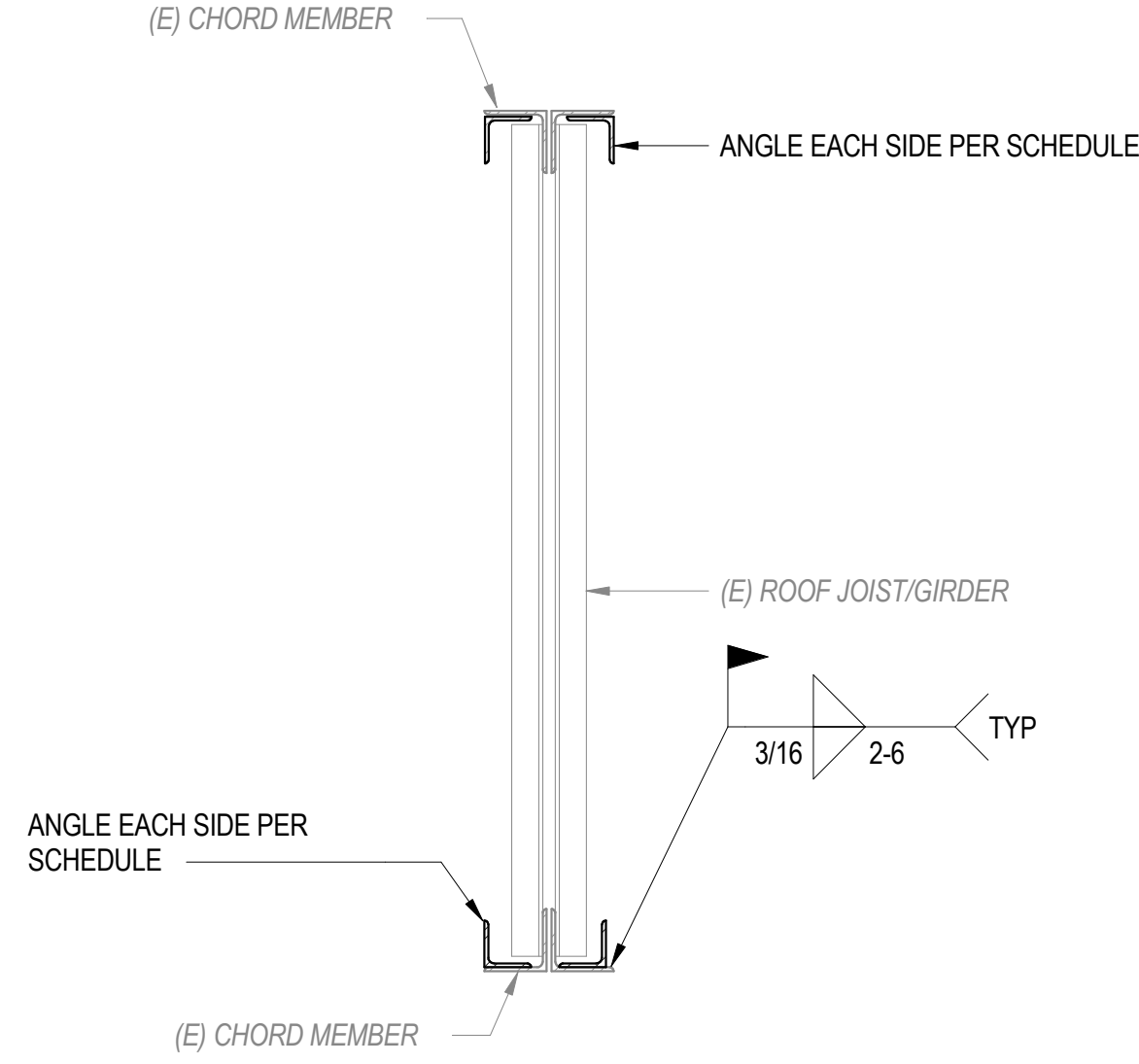
TRUSS REINFORCING ELEVATION

1
S4.1

OPEN WEB STEEL JOIST REINFORCING SCHEDULE							
JOIST MARK	MAX DIMENSION "a" (FT)	MIN CHORD REINF "b" (FT)	MAX DIMENSION "c" (FT)	CHORD REINF MEMBER SIZE	MIN WEB REINF "d" (FT)	MIN WEB REINF "e" (FT)	WEB REINF MEMBER SIZE
J1	21'-0"	18'-0"		L2x2x1/4	4'-0"	4'-0"	L2x2x1/4
J6							
J2					2'-0"		L2x2x1/4
J3					2'-0"		L2x2x1/4
J4					2'-0"		L2x2x1/4
J5					2'-0"		L2x2x1/4
J6					4'-0"		L2x2x1/4
J7					2'-0"		L2x2x1/4
J8					2'-0"		L2x2x1/4
J9	21'-0"	13'-0"		L2x2x1/4	2'-0"	2'-0"	L2x2x1/4

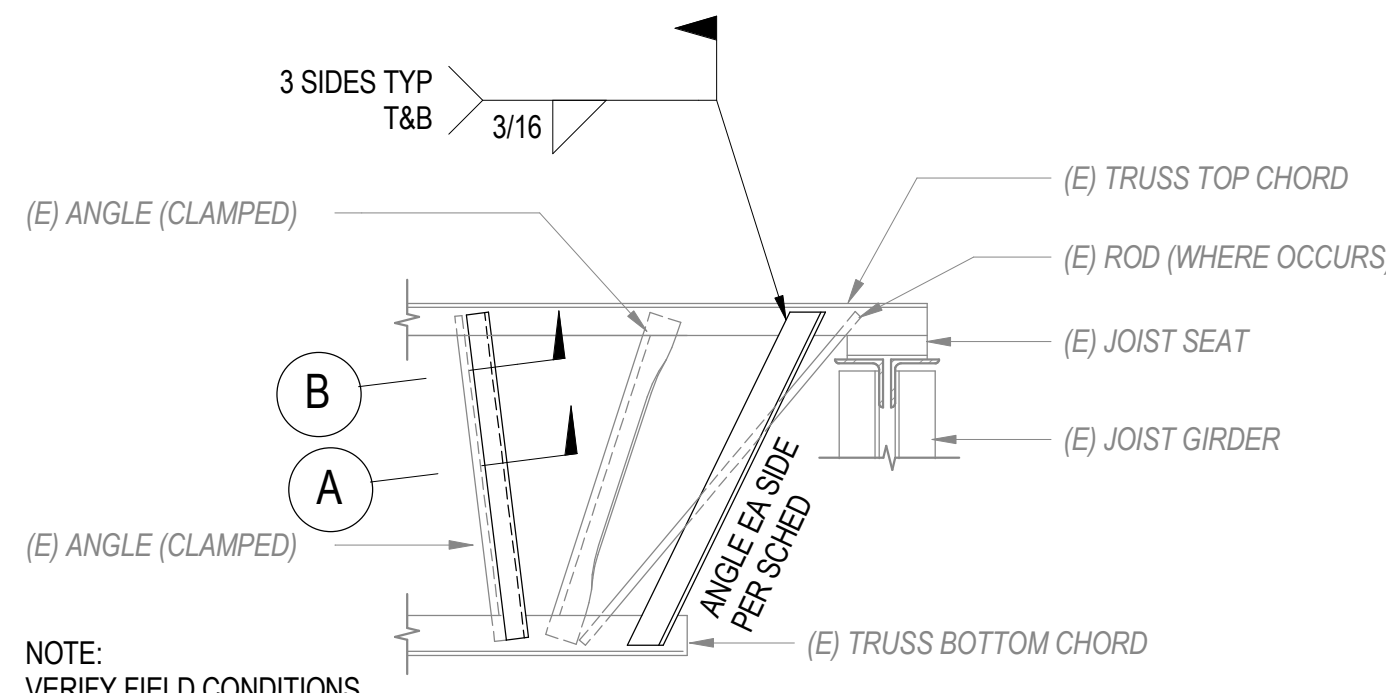
STEEL JOIST REINFORCING SCHEDULE

6
S4.1

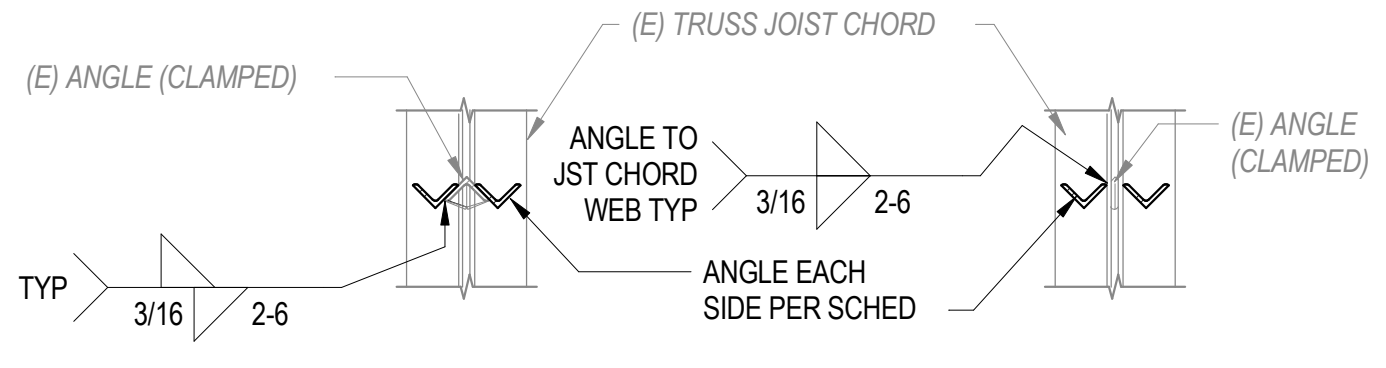


TRUSS CHORD REINFORCING DETAIL

2
S4.1

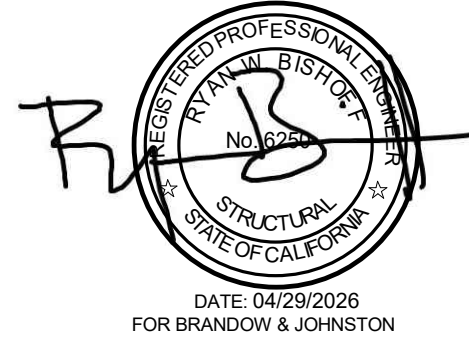


NOTE:
VERIFY FIELD CONDITIONS
AND NOTIFY THE ENGINEER
OF ANY DISCREPANCIES



TRUSS WEB REINFORCING DETAIL

3
S4.1



Revisions	By	Date
△		
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△		
△		
Drawn	JY	
Date	02/12/26	
Project No.	S25-0184	
Scale	As Shown	

PLUMBING NOTES			
1. CONTRACTOR SHALL PERFORM ALL WORK AS TO CONFORM TO LOCAL, STATE AND NATIONAL CODES AND THE REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.			
2. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO VERIFY LOCATION, ELEVATIONS AND SIZES OF ALL EXISTING PLUMBING AND INFORM THE ARCHITECT OF ANY DISCREPANCIES.			
3. FOR EXACT SPECIFICATIONS, MOUNTING HEIGHTS, COLORS, AND LOCATIONS OF ALL PLUMBING FIXTURES, REFER TO ARCHITECTURAL DRAWINGS.			
4. ACCURATE AS-BUILT DRAWINGS SHALL BE MADE DURING CONSTRUCTION AND SUBMITTED FOR APPROVAL UPON COMPLETION OF INSTALLATION.			
5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION, AND SERVICES NECESSARY FOR THE COMPLETION OF THE WORK.			
6. THESE DRAWINGS SHOW THE GENERAL SCHEME OF INSTALLATION AND ARE DIAGRAMMATIC IN SCOPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH ARCHITECT AND ALL OTHER TRADES. THIS INCLUDES COORDINATING THE LOCATION, SIZE AND ELEVATION OF ALL OPENINGS.			
7. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING AND START-UP OF THE SYSTEM. CONTRACTOR SHALL FILE, SECURE AND PAY FOR ALL NECESSARY APPROVALS, PERMITS AND INSPECTIONS. ALL WORK SHALL BE GUARANTEED TO BE FREE FROM DEFECT FOR ONE YEAR AFTER ACCEPTANCE OF THE INSTALLATION BY OWNER. ALL WORK SHALL BE IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5, 2022 CALIFORNIA PLUMBING CODE.			
8. THE PLUMBING SYSTEM SHALL BE TESTED IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5, 2022 CALIFORNIA PLUMBING CODE. CONTRACTOR TO COORDINATE TESTS WITH LOCAL OFFICIALS.			
9. DETAILS OF CONSTRUCTION AND OF WORKMANSHIP WHERE NOT SPECIFICALLY DESCRIBED HEREIN OR INDICATED ON THE DRAWINGS SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE COMPLETE SYSTEMS, LEFT IN GOOD WORKING ORDER, READY FOR OPERATION.			
10. ALL CONSTRUCTION AND MATERIALS SHALL BE AS SPECIFIED AND IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, LAWS, PERMITS, AND THE CONTRACT DOCUMENTS.			
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF ALL NEW CONSTRUCTION ON THE SITE.			
12. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS, AND VERIFY EXACT LOCATIONS AND ELEVATIONS OF PIPING POINTS OF CONNECTION BY MEANS OF PHYSICAL EXCAVATION AND SELECTIVE DEMOLITION BEFORE STARTING WORK. SHOULD A DISCREPANCY APPEAR IN THE CONTRACT DOCUMENTS, OR BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONDITIONS, NOTIFY THE ARCHITECT AT ONCE FOR INSTRUCTION ON HOW TO PROCEED.			
13. SEWER, WATER, AND STORM DRAIN SYSTEMS INDICATED IN THESE DRAWINGS SHALL EXTEND TO PLUMBING/CIVIL POINTS OF CONNECTION AT 5'-0" OUTSIDE OF THE BUILDING(S) UNLESS NOTED OTHERWISE. CONTINUATION OF THESE PIPING SYSTEMS ARE INDICATED ON THE CIVIL DRAWINGS WITH CORRESPONDING ASSOCIATED MATERIALS SPECIFIED UNDER A SEPARATE SECTION OF THE PROJECT SPECIFICATIONS. ALL SUCH PIPING SHALL BE INSTALLED IN A MANNER TO PROVIDE PROPER CONNECTION TO INVERT ELEVATIONS INDICATED ON CIVIL DRAWINGS. WHERE SIZES DIFFER BETWEEN PLUMBING AND CIVIL DRAWINGS, CONTRACTOR SHALL PROVIDE TRANSITION FITTINGS AS NECESSARY TO ALLOW FOR PROPER CONNECTION.			
14. HORIZONTAL SOL, WASTE, GREASE WASTE, AND TRAP PRIMER PIPING WITHIN THE BUILDING SHALL BE INSTALLED CONCEALED WITHIN WALLS, BELOW FINISH FLOOR, OR BELOW FINISH SLAB AS APPLICABLE UNLESS NOTED OTHERWISE. ALL OTHER HORIZONTAL PIPING WITHIN THE BUILDING SHALL BE INSTALLED CONCEALED ABOVE CEILING OR WITHIN WALLS AS APPLICABLE UNLESS NOTED OTHERWISE. ALL VERTICAL PIPING SHALL BE INSTALLED CONCEALED WITHIN WALLS UNLESS NOTED OTHERWISE. NO PIPING SHALL BE INSTALLED IN EXPOSED LOCATIONS UNLESS SPECIFICALLY NOTED AS SUCH ON PLANS.			
15. HORIZONTAL CONDENSATE PIPING SHALL SLOPE AT 1/8" PER FOOT UNLESS NOTED OTHERWISE.			
16. NATURAL GAS PIPE SIZING CALCULATIONS ARE BASED ON A CALORIC CONTENT OF 1,000 BTUS PER CUBIC FOOT.			
17. PIPING BETWEEN EACH PLUMBING FIXTURE AND THE NEAREST BRANCH OR MAIN PIPING RUN SHALL BE SIZED TO MATCH THE CORRESPONDING CONNECTION SIZE AT A MINIMUM UNLESS NOTED AS A LARGER SIZE ON PLANS. PIPE HEADERS IN WALLS SERVING BANKS OF FIXTURES SHALL BE FULL LINE SIZE FROM THE UPSTREAM END OF THE BRANCH LINE TO THE END TERMINAL UNLESS NOTED OTHERWISE.			
18. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS, ROUGH IN DIMENSIONS, AND MOUNTING HEIGHTS OF ALL FIXTURES, EQUIPMENT, ACCESS PANELS, HOSE BIBBS, RECESSED HOSE BIBBS, OVERFLOW DRAIN TERMINATION POINTS, AND OTHER EXPOSED PLUMBING ELEMENTS. WHERE DIMENSIONS ARE NOT INDICATED, SEEK ARCHITECT'S DIRECTION AND/OR APPROVAL PRIOR TO INSTALLATION.			
19. WHERE POSSIBLE, USE SAME ACCESS PANEL FOR SHUT-OFF VALVES, MIXING VALVES, TRAP PRIMERS AND WATER HAMMER ARRESTORS AND/OR INTERIOR WALL COMPONENTS WHEN LOCATED DIRECTLY ADJACENT IN SAME IMMEDIATE VICINITY. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.			
20. INTERIOR CLEANOUTS SHALL BE WALL CLEANOUTS RATHER THAN FLOOR CLEANOUTS UNLESS OTHERWISE INDICATED. SHALL BE READILY ACCESSIBLE, AND SHALL BE CAREFULLY COORDINATED WITH CASEWORK, EQUIPMENT, AND OTHER ITEMS TO AVOID CONFLICT. NOT ALL REQUIRED CLEANOUTS ARE INDICATED ON PLANS. WALL CLEANOUTS IN FINISHED SPACES SHALL BE INSTALLED IN ACCESS PANELS. SEE SPECIFICATIONS FOR ACCESS PANEL REQUIREMENTS.			
21. EXTERIOR YARD BOXES AND CLEANOUTS SHALL BE INSTALLED IN EXACT LOCATIONS INDICATED ON PLANS. IN THE EVENT OF A CONFLICT OR DISCREPANCY, NOTIFY THE ARCHITECT AT ONCE FOR INSTRUCTION ON HOW TO PROCEED.			
22. EXTERIOR WATER SHUT-OFF VALVES AND GAS SHUT-OFF COCKS SHALL BE INSTALLED WITHIN CONCRETE YARD BOXES. YARD BOX AND CLEANOUT COVERS SHALL BE CLEARLY STAMPED WITH "WATER," "GAS," OR "SEWER" AS APPLICABLE. YARD BOXES SHALL BE EQUIVALENT TO "CHRISTY" MODEL NO. 803. VALVES SHALL BE INSTALLED AND PROPERLY POSITIONED WITHIN YARD BOX TO ALLOW FOR FULL RANGE OF OPERATION. MAINTENANCE, REPAIR, AND REPLACEMENT. ALL YARD BOXES AND CLEANOUT COVERS SHALL ALIGN WITH SCORED HANDSCAPE PLANS. YARD BOX COVERS SHALL BE CONCRETE. SEWER CLEANOUT COVERS SHALL BE BRASS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.			
23. VERIFY EXACT LOCATIONS OF ALL MECHANICAL AND/OR OTHER EQUIPMENT INSTALLED BY OTHERS AND REQUIRING PLUMBING CONNECTIONS PRIOR TO ORDERING OF MATERIALS OR INSTALLATION. COORDINATE EXACT ROUGH-IN LOCATIONS AND REQUIREMENTS WITH OTHER INSTALLING CONTRACTORS AS APPLICABLE PRIOR TO INSTALLATION.			
24. ADA LAVATORIES AND SINKS SHALL BE PROVIDED WITH ADA INSULATED TRAP AND SUPPLY COVERS AS SPECIFIED.			
25. ADA WATER CLOSETS SHALL BE INSTALLED WITH FLUSH VALVE ACTUATOR HANDLE LOCATED ON THE WHEEL CHAIR ACCESS SIDE.			
26. SHUT-OFF VALVES, SHUT-OFF COCKS, WATER CONTROL DEVICES, CLEANOUTS, AND OTHER PIPING APPURTENANCES SHALL BE THE SAME SIZE AS PIPING SERVED UNLESS NOTED OTHERWISE.			
27. REFER TO MECHANICAL DRAWINGS FOR MECHANICAL MANDATORY MEASURES AND ASSOCIATED REQUIREMENTS.			
28. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE RATED ASSEMBLIES. PROVIDE FIRESTOPPING AT PENETRATIONS THROUGH FIRE RETARDANT CONSTRUCTION IN ACCORDANCE WITH SPECIFICATIONS.			
29. PENETRATIONS OF FIRE-RESISTIVE WALLS, FLOOR-CEILINGS AND ROOF-CEILINGS SHALL BE PROTECTED AS REQUIRED IN CBC SECTION 714.			
30. DOMESTIC WATER PIPING AND COMPONENTS SHALL BE PROVIDED AND INSTALLED IN COMPLIANCE WITH CALIFORNIA AB 1853 LEGISLATION (EFFECTIVE JANUARY 1, 2010), WHICH LIMITS THE ALLOWABLE LEAD CONTENT IN CERTAIN DOMESTIC WATER SYSTEM COMPONENTS.			
31. DOMESTIC WATER HEATERS SHALL WITHSTAND THE EFFECTS OF EARTHQUAKE MOTIONS DETERMINED IN ACCORDANCE WITH ASCE/SEI 7.			
32. SUBMIT SHOP DRAWINGS/DATA SUBMITTALS FOR ENGINEERS REVIEW. SUBMITTALS FOR THE FOLLOWING APPLICABLE ITEM AS WELL AS OTHER PERTINENT ITEMS: A. PIPING B. FITTINGS C. PIPE HANGERS AND SUPPORTS D. PIPE INSULATION E. PLUMBING FIXTURES F. PLUMBING EQUIPMENT, INCLUDING BUT NOT LIMITED TO, WATER HEATERS, PUMPS, AND INTERCEPTORS G. VALVES			
33. PER SOILS REPORT, WRAP ALL IRON AND COPPER PIPE AND FITTINGS BELOW SLAB OR GRADE WITH 8 MIL POLYETHYLENE WRAP AND 6" MINIMUM ENVELOPE OF CLEAN SAND ALL AROUND PIPE IN ACCORDANCE WITH ANSII/AWWA STANDARD C100A/21.5-18.			
HOT WATER INSULATION REQUIREMENTS (TEMPERATURE RANGE: 105-140°F)			
NOMINAL PIPE DIAMETER	MIN. INSULATION REQUIRED PER CBC TABLE 120.3-A	MIN. INSULATION REQUIRED PER CPC 609.12.2	MOST STRINGENT
1/2"	1" OR R-7.7	1/2"	1"
3/4"	1" OR R-7.7	3/4"	1"
1"	1-1/2" OR R-12.5	1"	1-1/2"
1-1/4"	1-1/2" OR R-12.5	1-1/4"	1-1/2"
1-1/2"	1-1/2" OR R-11	1-1/2"	1-1/2"
2"	1-1/2" OR R-11	2"	2"
2-1/2"	1-1/2" OR R-11	2"	2"
3"	1-1/2" OR R-11	2"	2"
1. CONTRACTOR SHALL PROVIDE THE MOST STRINGENT MINIMUM INSULATION REQUIRED, UNLESS OTHERWISE DIRECTED BY THE AIA.			

PLUMBING TITLE 24 MANDATORY MEASURES	
PLUMBING MANDATORY MEASURES: 110.1 – MANDATORY REQUIREMENTS FOR APPLIANCES ALL DOMESTIC HOT WATER APPLIANCES MUST MEET REQUIREMENTS OUTLINED IN THIS SECTION FOR NEWLY CONSTRUCTED, ADDITIONS AND ALTERATIONS. 110.3 – MANDATORY REQUIREMENTS FOR SERVICE WATER-HEATING SYSTEMS AND EQUIPMENT ALL DOMESTIC HOT WATER HEATERS MUST MEET REQUIREMENTS OUTLINED IN THIS SECTION FOR NEWLY CONSTRUCTED, ADDITIONS AND ALTERATIONS. SECTION 110.3 INCLUDES MANDATORY INSTALLATION REQUIREMENTS FOR OUTLET TEMPERATURE CONTROLS, DISTRIBUTION SYSTEM CONTROLS AND STORAGE TANK INSULATION. TITLE 20 - CALIFORNIA APPLIANCE EFFICIENCY REGULATIONS ALL DOMESTIC HOT WATER HEATERS MUST MEET EFFICIENCY REQUIREMENTS OUTLINED IN THIS SECTION FOR NEWLY CONSTRUCTED, ADDITIONS AND ALTERATIONS. WATER HEATERS MUST BE LISTED ON THE APPLIANCE EFFICIENCY DATABASE. 150.0(j) – INSULATION FOR PIPING AND TANKS INSULATION FOR STORAGE TANKS MUST COMPLY WITH SECTION 150.0(j)(1). PIPE INSULATION MUST COMPLY WITH SECTION 150.0(j)(2). SECTION 150.0(j)(3) REQUIRES INSULATION PROTECTION PER SECTION 120.3, INCLUDING REQUIREMENTS AROUND PIPES EXPOSED TO WEATHER, VAPOR RETARDERS FOR CHILLED WATER OR REFRIGERANT SUCTION PIPING, AND WATER PROOF, NON-CRUSHABLE CASING FOR PIPE INSULATION BURIED BELOW GRADE. SECTION 110.3 MANDATORY REQUIREMENTS FOR SERVICE WATER-HEATING SYSTEMS AND EQUIPMENT: a. CERTIFICATION BY MANUFACTURERS. ANY SERVICE WATER HEATING SYSTEM OR EQUIPMENT MAY BE INSTALLED ONLY IF THE MANUFACTURER HAS CERTIFIED THAT THE SYSTEM OR EQUIPMENT COMPLIES WITH ALL OF THE REQUIREMENTS OF THIS SUBSECTION FOR THAT SYSTEM OR EQUIPMENT. 1. IF MORE THAN ONE STANDARD IS LISTED IN THE APPLIANCE EFFICIENCY REGULATIONS, THE EQUIPMENT SHALL MEET ALL THE STANDARDS LISTED. AND 2. IF MORE THAN ONE TEST METHOD IS LISTED IN THE APPLIANCE EFFICIENCY REGULATIONS, THE EQUIPMENT SHALL COMPLY WITH THE APPLICABLE STANDARD WHEN TESTED WITH EACH TEST METHOD. AND 3. WHERE EQUIPMENT CAN SERVE MORE THAN ONE FUNCTION, SUCH AS BOTH HEATING AND COOLING, OR BOTH SPACE HEATING AND WATER HEATING, IT SHALL COMPLY WITH ALL THE REQUIREMENTS APPLICABLE TO EACH FUNCTION. AND 4. WHERE A REQUIREMENT IS FOR EQUIPMENT RATED AT ITS "MAXIMUM RATED CAPACITY" OR "MINIMUM RATED CAPACITY," THE CAPACITY SHALL BE AS PROVIDED FOR AND ALLOWED BY THE CONTROLS, DURING STEADY-STATE OPERATION. c. INSTALLATION. ANY SERVICE WATER-HEATING SYSTEM OR EQUIPMENT MAY BE INSTALLED ONLY IF THE SYSTEM OR EQUIPMENT COMPLIES WITH ALL OF THE APPLICABLE REQUIREMENTS OF THIS SUBSECTION FOR THE SYSTEM OR EQUIPMENT. 1. OUTLET TEMPERATURE CONTROLS. ON SYSTEMS THAT HAVE A TOTAL CAPACITY GREATER THAN 167,000 BTU/Hr, OUTLETS THAT REQUIRE HIGHER THAN SERVICE WATER TEMPERATURES AS LISTED IN THE ASHRAE HANDBOOK, APPLICATIONS VOLUME, SHALL HAVE SEPARATE REMOTE HEATERS, HEAT EXCHANGERS OR BOOSTERS TO SUPPLY THE OUTLET WITH THE HIGHER TEMPERATURE. EXCEPTION TO SECTION 110.3(c)(1): SYSTEMS COVERED BY CALIFORNIA PLUMBING CODE SECTION 613.0 SHALL INSTEAD FOLLOW THE REQUIREMENTS OF THAT SECTION. 2. CONTROLS FOR HOT WATER DISTRIBUTION SYSTEMS. SERVICE HOT WATER SYSTEMS WITH CIRCULATING PUMPS OR WITH ELECTRICAL HEAT TRACE SYSTEMS SHALL BE CAPABLE OF AUTOMATICALLY TURNING OFF THE SYSTEM. EXCEPTION TO SECTION 110.3(c)(2): SYSTEMS SERVING HEALTHCARE FACILITIES. 3. INSULATION. UNFIRE SERVICE WATER HEATER STORAGE TANKS AND BACKUP TANKS FOR SOLAR WATER-HEATING SYSTEMS SHALL HAVE: A. EXTERNAL INSULATION WITH AN INSTALLED R-VALUE OF AT LEAST R-3.5; OR B. INTERNAL AND EXTERNAL INSULATION WITH A COMBINED R-VALUE OF AT LEAST R-16; OR C. HEAT LOSS OF THE TANK SURFACE BASED ON AN 80°F WATER-AIR TEMPERATURE DIFFERENCE SHALL BE LESS THAN 6.5 BTU PER HOUR PER SQUARE FOOT. 4. WATER HEATING RECIRCULATION LOOPS SERVING MULTIPLE DWELLING UNITS, HIGH-RISE RESIDENTIAL, HOTEL/MOTEL, AND NONRESIDENTIAL OCCUPANCIES. A WATER HEATING RECIRCULATION LOOP IS A TYPE OF HOT WATER DISTRIBUTION SYSTEM THAT REDUCES THE TIME NEEDED TO DELIVER HOT WATER TO FIXTURES THAT ARE DISTANT FROM THE WATER HEATER, BOILER OR OTHER WATER HEATING EQUIPMENT. THE RECIRCULATION LOOP IS COMPRISED OF A SUPPLY PORTION, CONNECTED TO BRANCHES THAT SERVE MULTIPLE DWELLING UNITS, GUEST ROOMS, OR FIXTURES AND A RETURN PORTION THAT COMPLETES THE LOOP BACK TO THE WATER HEATING EQUIPMENT. A WATER HEATING RECIRCULATION LOOP SHALL MEET THE FOLLOWING REQUIREMENTS: A. AIR RELEASE VALVE OR VERTICAL PUMP INSTALLATION. AN AUTOMATIC AIR RELEASE VALVE SHALL BE INSTALLED ON THE RECIRCULATION LOOP PIPING ON THE INLET SIDE OF THE RECIRCULATION PUMP AND NO MORE THAN 4 FEET FROM THE PUMP. THIS VALVE SHALL BE MOUNTED ON TOP OF A VERTICAL RISER AT LEAST 12 INCHES IN LENGTH AND SHALL BE ACCESSIBLE FOR REPAIR, ADJUSTMENT AND REPAIR. ALTERNATIVELY, THE PUMP SHALL BE INSTALLED ON A VERTICAL SECTION OF THE RETURN LINE. B. RECIRCULATION LOOP BACKFLOW PREVENTION. A CHECK VALVE OR SIMILAR DEVICE SHALL BE LOCATED BETWEEN THE RECIRCULATION PUMP AND THE WATER HEATING EQUIPMENT TO PREVENT WATER FROM FLOWING BACKWARDS THROUGH THE RECIRCULATION LOOP. C. EQUIPMENT FOR PUMP PRIMING. A HOSE BIBB SHALL BE INSTALLED BETWEEN THE PUMP AND THE WATER HEATING EQUIPMENT. AN ISOLATION VALVE SHALL BE INSTALLED BETWEEN THE HOSE BIBB AND THE WATER HEATING EQUIPMENT. THIS HOSE BIBB IS USED FOR BLEEDING AIR OUT OF THE PUMP AFTER PUMP REPLACEMENT. D. PUMP ISOLATION VALVES. ISOLATION VALVES SHALL BE INSTALLED ON BOTH SIDES OF THE PUMP. THESE VALVES MAY BE PART OF THE FLANGE THAT ATTACHES THE PUMP TO THE PIPE. ONE OF THE ISOLATION VALVES MAY BE THE SAME ISOLATION VALVE AS IN ITEM C. E. COLD WATER SUPPLY AND RECIRCULATION LOOP CONNECTION TO HOT WATER STORAGE TANK. STORAGE WATER HEATERS AND BOILERS SHALL BE PLUMBED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE COLD WATER PIPING AND THE RECIRCULATION LOOP PIPING SHALL NOT BE CONNECTED TO THE HOT WATER STORAGE TANK DRAIN PORT. F. COLD WATER SUPPLY BACKFLOW PREVENTION. A CHECK VALVE SHALL BE INSTALLED ON THE COLD WATER SUPPLY LINE BETWEEN THE HOT WATER SYSTEM AND THE NEXT CLOSEST TEE ON THE COLD WATER SUPPLY LINE. THE SYSTEM SHALL COMPLY WITH THE EXPANSION TANK REQUIREMENTS AS DESCRIBED IN THE CALIFORNIA PLUMBING CODE SECTION 608.3. 5. SERVICE WATER HEATERS IN STATE BUILDINGS. ANY NEWLY CONSTRUCTED BUILDING CONSTRUCTED BY THE STATE SHALL DERIVE ITS SERVICE WATER HEATING FROM A SYSTEM THAT PROVIDES AT LEAST 60 PERCENT OF THE ENERGY NEEDED FOR SERVICE WATER HEATING FROM SITE SOLAR ENERGY OR RECOVERED ENERGY. PER THE STATUTORY REQUIREMENT OF CALIFORNIA PUBLIC RESOURCES CODE SECTION 25468. EXCEPTION TO SECTION 110.3(C)(5): BUILDINGS FOR WHICH THE STATE ARCHITECT DETERMINES THAT SERVICE WATER HEATING FROM SITE SOLAR ENERGY OR RECOVERED ENERGY IS ECONOMICALLY OR PHYSICALLY INFEASIBLE. 6. ISOLATION VALVES. INSTANTANEOUS WATER HEATERS WITH AN INPUT RATING GREATER THAN 6.8 MBTU/Hr (2 KW) SHALL HAVE ISOLATION VALVES ON BOTH THE COLD WATER SUPPLY AND THE HOT WATER PIPE LEAVING THE WATER HEATER, AND HOSE BIBBS OR OTHER FITTINGS ON EACH VALVE FOR FLUSHING THE WATER HEATER WHEN THE VALVES ARE CLOSED.	
CA ENERGY & GREEN BUILDING STANDARDS	
1. SEPARATE SUBMETERS SHALL BE INSTALLED IN ANY NEW ADDITION OR SPACE WITHIN THE ADDITION THAT IS PROJECTED TO CONSUME MORE THAN 1,000 GALLONS PER DAY. 2. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL BY THE FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES. 3. AN OPERATION AND SYSTEMS MANUAL SHALL BE PROVIDED TO THE OWNER OR REPRESENTATIVE AND TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION. 4. ARCHITECTURAL PAINTS AND COATINGS, ADHESIVES, CAULKS, AND SEALANTS SHALL COMPLY WITH THE VOLATILE ORGANIC COMPOUND (VOC) LIMITS LISTED IN TABLES E.604.4.1 - E.604.4.3. 5. THE VOC CONTENT VERIFICATION CHECKLIST, FORM GRN 2, SHALL BE COMPLETED AND VERIFIED PRIOR TO FINAL INSPECTION APPROVAL. THE MANUFACTURER'S SPECIFICATIONS SHOWING VOC CONTENT FOR ALL APPLICABLE PRODUCTS SHALL BE READILY AVAILABLE AT THE JOB SITE AND BE PROVIDED TO THE FIELD INSPECTOR FOR VERIFICATION.	

ABBREVIATIONS			
AD	ACCESS DOOR, AREA DRAIN	GPM	GALLON PER MINUTE
ADA	AMERICAN DISABILITIES ACT	HD	HEAD
ADJ	ADJUSTABLE	HP	HORSEPOWER
AF	ABOVE FINISHED FLOOR	HW	HOT WATER
AFG	ABOVE FINISHED GRADE	HWR	HOT WATER RETURN
AHJ	AUTHORITY HAVING JURISDICTION	ID	INSIDE DIAMETER
AP	ACCESS PANEL	IPS	INTERNATIONAL PIPE SIZE
AS	AS SHOWN	LF	LINEAR FEET
BAS	BUILDING AUTOMATION SYSTEM	MAX	MAXIMUM
BFP	BACKFLOW PREVENTER	M.C.	MECHANICAL CONTRACTOR
BTH	BATH TUB	MIN	MINIMUM
BT	BRITISH THERMAL UNITS	NTS	NOT TO SCALE
BTU	BTU	OD	OUTSIDE DIAMETER
BV	BALL VALVE	P.C.	PLUMBING CONTRACTOR
BY	BYPASS	PD	PUMP DISCHARGE
CAI	COMBUSTION AIR INTAKE	POC	POINT OF CONNECTION
CD	CONDENSATE DRAIN, CEILING	PRV	PRESSURE REDUCING VALVE, POWER ROOF VENTILATOR
CI	CAST IRON	PSI	POUNDS PER SQUARE INCH
CL	CEILING	PSIA	PSI ABSOLUTE
CLN	CLEANOUT	PSIG	PSI GAUGE
CONT	CONTINUOUS(S)(E)	RECIRC	RECIRCULATE(S), (OR), (ING), (ION)
CU	CUBIC FEET	RPM	REVOLUTIONS PER MINUTE
CU. FT.	CUBIC FEET	SD	STORM DRAIN
CW	COLD WATER	SQ. FT.	SQUARE FEET
CWV	COMBINED WASTE AND VENT	SWCI	SERVICE WEIGHT CAST IRON
DI	DUCTILE IRON	TYP	TYPICAL
DN	DIA	U.N.O	UNLESS NOTED OTHERWISE
DN	DOWN	VAC	VACUUM
E	EXISTING	WCO	WALL CLEANOUT
E.C.	ELECTRICAL CONTRACTOR, EDGE OF CURB	WHA	WATER HAMMER ARRESTOR WITH
EL	ELEVATION		
FCO	FLOOR CLEANOUT		
FPS	FEET PER SECOND		
FU	FIXTURE UNIT		
GA	NATURAL GAS		
GAL	GALLON		
GPD	GALLON PER DAY		
GPM	GALLON PER HOUR		

DOMESTIC WATER SYMBOLS	
SYMBOL	DESCRIPTION
	ANGLE VALVE
	ANTI-WATER HAMMER DEVICE (PDI RATING AS NOTED)
	CHECK VALVE
	CIRCUIT SETTER
	CIRCULATING PUMP
	COLD WATER CONNECTION
	HOSE BIB
	HOT WATER CONNECTION
	INSTANTANEOUS WATER HEATER
	PRESSURE REDUCING VALVE
	PRESSURE AND TEMPERATURE RELIEF VALVE
	REDUCED PRESSURE BACKFLOW PREVENTER
	SOLENOID VALVE
	STRAINER
	STOP VALVE
	THERMOSTATIC MIXING VALVE
	TRAP PRIMER
	WATER METER

GAS SYMBOLS	
SYMBOL	DESCRIPTION
	GAS PRESSURE REGULATOR
	GAS METER
	GAS CONNECTION

GENERAL SYMBOLS	
SYMBOL	DESCRIPTION
	POINT OF CONNECTION
	SHEET NOTE TAG
	DETAIL REFERENCE [DETAIL 1, DRAWING P600]
	RISER IDENTIFICATION TAG [DRAIN,WASTE,VENT #1]
	PIPE TAG [DOMESTIC COLD WATER, 12 WATER SOURCE FIXTURE UNITS]
	CONTINUATION
	TEE UP
	TEE DOWN
	DROP
	RISER
	CAP OR PLUG
	ACCESS PANEL

SANITARY SYMBOLS	
SYMBOL	DESCRIPTION
	ACCESS DOOR
	FD, FR, ETC. W/ TRAP
	FLOOR SINK W/ GRATE AS SHOWN
	FLOOR CLEANOUT
	WALL/HORIZONTAL CLEANOUT
	VENT THROUGH ROOF

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P012	FOOD SERVICE SCHEDULE	
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P302	PLUMBING SHEET SPECIFICATIONS	
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P202	2ND FLOOR DRAINAGE PLAN	
P211	PLUMBING ROOF PLAN	
P301	1ST FLOOR SERVICE PLAN	
P302	2ND FLOOR SERVICE PLAN	
P401	PLUMBING ENLARGED PLANS	
P402	PLUMBING ENLARGED PLANS	
P403	PLUMBING ENLARGED PLANS	
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P601	PLUMBING DRAINAGE RISER	
P602	PLUMBING DRAINAGE RISER	
P603	PLUMBING SERVICE RISER	
P604	PLUMBING SERVICE RISER	
P605	PLUMBING SERVICE RISER	
P606	PLUMBING SERVICE & GAS RISER	

APPLICABLE CODES	
APPLICABLE CODES AS OF JANUARY 1, 2026: 2025 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R. ; 2025 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. ; (2024 INTERNATIONAL BUILDING CODE) 2025 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. ; (2023 NATIONAL ELECTRICAL CODE) 2025 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R. ; (2024 UNIFORM MECHANICAL CODE) 2025 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. ; (2024 UNIFORM PLUMBING CODE) 2025 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R. ; 2025 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 C.C.R. ; (2024 INTERNATIONAL FIRE CODE) 2025 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen), PART 11, TITLE 24 C.C.R. ; 2025 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R. ; TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS	
SCOPE OF WORK	
PLUMBING DESIGN FOR NEW HOMELESS SHELTER AS PART OF TENANT IMPROVEMENT OF EXISTING BUILDING SANITARY, GREASE WASTE, VENT, DOMESTIC WATER, NATURAL GAS AND CONDENSATE. NEW 1,500 GALLON GRAVITY GREASE INTERCEPTOR NEW TANK TYPE GAS WATER HEATERS WITH TITLE 24 COMPLIANCE FORMS.	

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P011	PLUMBING SCHEDULES, & CALCULATIONS
P012	FOOD SERVICE SCHEDULE
P021	TITLE 24 COMPLIANCE DOCUMENTS
P031	PLUMBING SHEET SPECIFICATIONS
P302	PLUMBING SHEET SPECIFICATIONS
P101	PLUMBING SITE PLAN
P201	1ST FLOOR DRAINAGE PLAN
P202	2ND FLOOR DRAINAGE PLAN
P211	PLUMBING ROOF PLAN
P301	1ST FLOOR SERVICE PLAN
P302	2ND FLOOR SERVICE PLAN
P401	PLUMBING ENLARGED PLANS
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P604	PLUMBING SERVICE RISER
P605	PLUMBING SERVICE RISER
P606	PLUMBING SERVICE & GAS RISER



WATER AND WASTE SERVICE CALCULATIONS									
		JOB NAME: REGIONAL NAVIGATION CENTER - FONTANA				DATE: 04/29/26			
ITEM	FIXTURE TYPE	NO.	WASTE		COLD WATER		HOT WATER		TOTAL WATER
			FU	TOTAL	FU	TOTAL	FU	TOTAL	
FOODSERVICE EQUIPMENT									
K12	PREP SINK	1	0	0	1.5	1.5	1.5	1.5	2
K19	ICE MAKER	1	0	0	0.5	0.5	0	0	0.5
K21	FLOOR TROUGH	1	3	3	0.0	0	0	0	0
K23	HAND SINK	1	2	2	1.5	1.5	1.5	1.5	2
K25	PREP SINK	1	0	0	1.5	1.5	1.5	1.5	2
K40	TILT SKILLET	1	0	0	0.75	0.75	0.75	0.75	1
K41	FLOOR TROUGH	1	3	3	0.0	0	0	0	0
K52	HAND SINK	2	2	4	1.5	3	1.5	3	4
K64	3 COMPARTMENT SINK	1	3	3	4.5	4.5	4.5	4.5	6
K70	HIGH TEMP DISHWASHER	1	0	0	0	0	6	6	6
K71	PRE-RINSE SINK	1	0	0	4.5	4.5	4.5	4.5	6
K79	BREWER	1	0	0	0.5	0.5	0	0	0.5
K80	BREWER	1	0	0	0.5	0.5	0	0	0.5
PLUMBING FIXTURES									
WB-1	CLOTHES WASHER	4	3	12	3.0	12	3	12	16
DF-1	DRINKING FOUNTAIN	2	0.5	1	0.5	1	0	0	1
HB-1	HOSE BIBB	1	0	0	2.5	2.5	0	0	2.5
HB-1	HOSE BIBB (EA ADDTL)	6	0	0	1.0	6	0	0	6
RH-1	ROOF HYDRANT (EA ADDTL)	3	0	0	1.0	3	0	0	3
KS-1	KITCHEN SINK (DOMESTIC)	2	2	4	1.5	3	1.5	3	4
OB-1	WALL OUTLET BOX	6	0	0	0.5	3	0	0	3
L-1	LAVATORY (SINGLE)	16	1	16	0.75	12	0.75	12	16
L-2	LAVATORY (SINGLE)	7	1	7	0.75	5.25	0.75	5.25	7
MS-1	SERVICE SINK	5	3	15	2.25	11.25	2.25	11.25	15
FD-1	FLOOR DRAIN (EMERGENCY)	17	0	0	0.0	0	0	0	0
FS-1	FLOOR SINK RECEPTOR	8	3	24	0.0	0	0	0	0
SH-1	SHOWER	21	2	42	1.5	31.5	1.5	31.5	42
SH-2	SHOWER	5	2	10	1.5	7.5	1.5	7.5	10
BT-1	BATH TUB/SHOWER	2	3	6	3.0	6	3	6	8
S-1	SINK, 1-1/2" TRAP	6	2	12	1.5	9	1.5	9	12
UR-1	URINAL	7	4	28	4.0	28	0	0	28
TD-1	TRENCH DRAIN	12	0	0	0.0	0	0	0	0
TD-2	TRENCH DRAIN	4	0	0	0.0	0	0	0	0
WC-1	WATER CLOSET, FV	26	4	104	5.0	130	0	0	130
TOTAL FU					296.00		289.75		
								120.75	334.00
EQUIVALENT COLD WATER FLOW RATE (GPM):							117		
PRESSURE AVAILABLE AT MAIN (PSI):							83/70		
NEW 3" METER LOSS (PSI):							1.2		
NEW 3" BACKFLOW PREVENTER LOSS (PSI):							12		
PRESSURE AVAILABLE AT PRV INLET (PSI):							56.80		
NEW 3" PRV SETPOINT (PSI):							80		
3" PRV FALL-OFF PRESSURE AT FULL FLOW (PSI):							3		
PRESSURE AVAILABLE AT PRV OUTLET (PSI):							53.80		
ELEVATION RISE (FT):							26 FT		
EQUIVALENT PIPE LENGTH FROM METER TO MOST REMOTE FIXTURE (FT):							425		
FRICTION LOSS PRESSURE AVAILABLE (PSI):							22.52		
MAXIMUM ALLOWABLE FRICTION LOSS (PSI/100 FT):							5.30		

VALVE SCHEDULE					
TAG	MANUFACTURER MODEL NO.	APPLICATION	INLET	OUTLET	NOTES
PRV-1	ZURN 500XLYSBR	DOMESTIC WATER PRESSURE REDUCING VALVE	3"	3"	1, 4
NOTES: 1. VALVE 1 SHALL BE INSTALLED IN PARALLEL PER DETAIL 02/P7.2. 2. SET TO 7.0" W.C. 3. 1.5 GPM FLOW 4. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.					

PIPING MATERIAL SCHEDULE					
SYSTEM	ABBREVIATION	LOCATION	SIZE	MATERIAL	CONNECTION
DOMESTIC WATER	CW	BELOW GRADE	3" & UP	COPPER TYPE "L" ASTM B42	SOLDERED
		ABOVE GRADE	ALL	COPPER TYPE "L" ASTM B88	SOLDERED
DOMESTIC HOT WATER SUPPLY/RETURN	HW/R	ABOVE GRADE	ALL	COPPER TYPE "L" ASRM B88	SOLDERED
LOW PRESSURE GAS	G	ABOVE GRADE	ALL	SCH. 40 BLACK STEEL ASTM A53	COUPLED
SANITARY SEWER/VENT	S/W&V	BELOW GRADE	ALL	PVC PIPE ASTM D2665/D3034	SOLVENT
		ABOVE GRADE	ALL	NO HUB CAST IRON ASTM A74	COUPLED
GREASE WASTE	GW	BELOW GRADE	ALL	NO HUB CAST IRON ASTM A74	COUPLED
		ABOVE GRADE	ALL	NO HUB CAST IRON ASTM A74	COUPLED
CONDENSATE DRAIN	CD	ABOVE GRADE	ALL	COPPER TYPE "K" ASTM B75	SOLDERED
INDIRECT DRAIN	IND	ABOVE GRADE	ALL	PVC PIPE ASTM D2665/D3034	WELDED

KITCHEN HOT WATER DEMANDS

ITEM	DESCRIPTION	QTY	G.P.H.	TOTAL
K23,(2)K52	HAND SINK	3	5	15
K71,K72	PRE RINSE	1	15	15
K62,K64,K65	3-COMP SINK	1	45	45
K70	DISHWASHER	1	40	40
K12	PREP SINK	1	15	15
K40	TILT SKILLET	1	5	5
K27	PREP SINK	1	15	15
MS-1	MOP SINK	1	15	15

TOTAL HOT WATER G.P.H.

165

NOTES:

1. SINCE THE FOOD FACILITY USES MULTI SERVICE EATING AND DRINKING UTENSILS, THE WATER HEATER SHALL HAVE A RECOVERY RATE EQUAL TO OR GREATER THAN 100% OF THE COMPUTED HOURLY HOT WATER DEMAND.

2. CALCULATED HOT WATER DEMAND = 165 GPH

3. INLET WATER TEMPERATURE = 60°F

4. OUTLET WATER TEMPERATURE = 140°F

5. TEMPERATURE RISE = 80°F

POTABLE WATER PIPE SCHEDULE

NOMINAL TUBING SIZE	COLD WATER PIPING		HOT WATER PIPING	
	EQUIVALENT WSFUS FLUSH TANK	EQUIVALENT WSFUS FLUSH VALVE	EQUIVALENT WSFUS	REFER TO NOTE
1/2"	6	0	3	1
3/4"	16	0	8	
1"	30	0	16	
1-1/4"	56	14	28	
1-1/2"	103	35	46	
2"	259	136	119	
2-1/2"	469	351	245	

NOTES:

1. 1/2" NOMINAL TUBING SIZE IS FOR FIXTURE CONNECTIONS ONLY AND SHALL NOT BE USED FOR BRANCH PIPING.

2. SIZING BASED ON FRICTION LOSS OF 5.2 PSI PER 100 FEET.

3. GPM AND WSFUS LIMITED BY 8.0 FPS VELOCITY FOR COLD WATER.

4. GPM AND WSFUS LIMITED BY 5.0 FPS VELOCITY FOR HOT WATER.

5. INSIDE POTABLE WATER SUPPLY PIPING SHALL BE OF TYPE "L" COPPER.

GAS WATER HEATER SCHEDULE								
TAG	MANUFACTURER MODEL NO.	RECOVERY RISE (GAL.)	INPUT (MBH)	GAS PRESSURE (IN. OF WC.)	DIMENSIONS (DIA.X'H)	CAPACITY (GAL.)	WATER INLET	WATER OUTLET
WH-1	AO SMITH BTH-199	392 @ 60°F	199.9	8" WC	27 3/4" x 76 1/2"	100	1-1/2"	1-1/2"
WH-2	AO SMITH BTH-120	230 @ 60°F	120	8" WC	27 3/4" x 55 1/2"	60	1-1/2"	1-1/2"
WH-3	AO SMITH BTH-199	392 @ 60°F	199.9	8" WC	27 3/4" x 76 1/2"	100	1-1/2"	1-1/2"
WH-4	AO SMITH BTH-120	230 @ 60°F	120	8" WC	27 3/4" x 55 1/2"	60	1-1/2"	1-1/2"
NOTES: 1. ADJUST WATER HEATER OPERATING TEMPERATURE CONTROLS FOR 120°F HOT WATER 2. ADJUST WATER HEATER OPERATING TEMPERATURE CONTROLS FOR 140°F HOT WATER 3. INSTALL PER MANUFACTURER'S SPECIFICATIONS. PROVIDE ALL NECESSARY INSTALLATION HARDWARE. FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS.								

EXPANSION TANK SCHEDULE								
TAG	MANUFACTURER MODEL NO.	TYPE	VOLUME (GAL.)	HEIGHT (IN.)	DIAMETER (IN.)	WEIGHT (LBS.)	WATER CONN (IN.)	MOUNTING TYPE
ET-1	AMTROL RST-5	DIAPHRAGM	2	13	8	23	3/4	IN-LINE
NOTES: 1. EXPANSION TANK SHALL BE FABRICATED OF CARBON STEEL WITH POLYPROPYLENE LINER AND HEAVY DUTY, BUTYL RUBBER DIAPHRAGM. 2. EXPANSION TANK SHALL BE SUITABLE FOR USE IN POTABLE WATER SYSTEMS. 3. PROVIDE THE MANUFACTURER'S PRINTED SIZING INSTRUCTIONS ON THE THERMAL EXPANSION TANK.								

PUMP SCHEDULE							
TAG	MANUFACTURER MODEL NO.	TYPE	FLOW RATE (GPM)	PUMP HEAD (FT)	MOTOR POWER	ELECTRICAL	NOTES
RP-1	BELL & GOSSETT SERIES 100	INLINE	5.0	8	1/12 HP	120/160	1, 2, 3, 4, 5
NOTES: 1. LEAD FREE BRONZE BODY. 2. PROVIDE 3/4" COMPANION FLANGES. 3. PROVIDE WITH ADJUSTABLE TIMER AND THERMOSTAT. 4. BALANCING VALVES SHALL BE INSTALLED IN THE RECIRCULATION PIPING AS SHOWN ON PLANS. 5. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.							

GREASE INTERCEPTOR SCHEDULE						
TAG	LOCATION	MANUFACTURER & MODEL NO.	SIZE (L X W X H)	VOLUME (GALLONS)	SERVICE	MAXIMUM DRAINAGE FIXTURE UNITS (PER CURRENT CPC)
GI-1	SITE	JENSEN PRECAST JP1500G	130 1/4" x 72" x 72"	1500 GAL	SEE PLANS	172 DFU
NOTES: 1. HEIGHT WILL VARY BASED ON MAN-HOLE RISERS NEEDED FOR THE PROJECT. 2. INSTALL GREASE INTERCEPTOR AND SAMPLE BOX PER JENSEN PRECAST SPECIFICATIONS AND DETAIL 1/P501						

GREASE FIXTURE LOADS				
ID	DESCRIPTION	QTY	DFU	TOTAL DFU
FS-1	FLOOR SINK	5	3	15
K21, K41	TROUGH	2	3	6
MS-1	MOP SINK	1	3	3
K63	3-COMPARTMENT SINK	1	3	3
TOTAL DFU				27
NOTES: 1. DFU DRAINAGE FIXTURE UNIT PER CPC TABLE 702.1. 2. GREASE INTERCEPTOR MINIMUM SIZE: 1000 GAL PER CPC TABLE 1014.3.6.				

CONDENSATE DRAIN SIZING TABLE					
EQUIPMENT CAPACITY	MINIMUM CONDENSATE PIPE DIAMETER (INCHES)				
	3/4"	1"	1-1/4"	1-1/2"	2"
TONS OF REFRIGERATION	UP TO 20	21 - 40	41 - 90	91 - 125	126 - 250
NOTES: 1. BASED ON 2022 CPC TABLE 814.3.					

PLUMBING FIXTURE SCHEDULE										
TAG	FIXTURE	FIXTURE CONNECTIONS					GPM G.P.F	FLOOD RIM (A.F.F.)	DESCRIPTION	
		TRAP	WASTE	VENT	C.W.	H.W.				
WC-1	WATER CLOSET	INT.	4"	2"	1-1/4"	---	1.28 GPF	17"	MANSFIELD 1319 ADRIATIC ELONGATED FRONT FLUSH VALVE TOILET. PROVIDE WITH SLOAN REGAL 111-1.1 28-XL-CP BATTERY OPERATED FLUSH VALVE. PROVIDE WITH TRAPTEXT-1000 (OR EQUAL) METAL INSERT FOR PREVENTING CLOGS.	
UR-1	URINAL	INT.	2"	1-1/2"	3/4"	---	0.125 GPF	SEE ARCH.	MANSFIELD 414 CASCADE II WALL-HUNG VITREOUS CHINA URINAL. PROVIDE WITH SLOAN REGAL 186-0.125-CL-CP BATTERY-OPERATED FLUSH VALVE.	
L-1	LAVATORY	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	0.5 GPM	SEE ARCH.	MANSFIELD 217 MAPLE, UNDER-MOUNT LAVATORY OF VITREOUS CHINA. PROVIDE CHICAGO FAUCETS 3400-ABCP SINGLE SUPPLY METERING FAUCET WITH 0.2 GPC MAX. PROVIDE WITH STRAINER DRAIN. PROVIDE BRADLEY S59-4000A MIXING VALVE SET TO 105°F.	
L-2	LAVATORY	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	0.5 GPM	SEE ARCH.	MANSFIELD 2018BNS GRANDE ISLE, WALL HUNG LAVATORY OF VITREOUS CHINA. PROVIDE CHICAGO FAUCETS 3400-ABCP SINGLE SUPPLY METERING FAUCET WITH 0.2 GPC MAX. PROVIDE WITH STRAINER DRAIN. PROVIDE BRADLEY S59-4000A MIXING VALVE SET TO 105°F.	
BT-1	BATH TUB SHOWER	2"	2"	2"	1/2"	1/2"	1.5 GPM	SEE ARCH.	KOHLER K-28109 ENTITTY 60" X 30" ALCOVE BATH. DRAIN SIDE PER FLOOR PLAN. PROVIDE WITH SYMMONS ORIGINS 9604-PLR TUB/HAND SHOWER TRIM.	
TD-1	TRENCH DRAIN	2"	2"	1 1/2"				SEE ARCH.	ZURN STAINLESS STEEL LINEAR SHOWER DRAIN, MODEL ZS880-36.	
TD-2	TRENCH DRAIN	2"	2"	1-1/2"				SEE ARCH.	ZURN STAINLESS STEEL LINEAR SHOWER DRAIN, MODEL ZS880-60	
SH-1	SHOWER	2"	2"	2"	1/2"	1/2"	1.5 GPM	SEE ARCH.	ZURN TEMP-GARD III Z7301-SS-ST SHOWER HEAD TRIM	
SH-2	SHOWER	2"	2"	2"	1/2"	1/2"	1.5GPM	SEE	SYMMONS ORIGINS S-9603-PLR HAND SHOWER TRIM	
MS-1	MOP SINK	3"	3"	1-1/2"	1/2"	1/2"	2.2 GPM	ARCH.	ZURN Z1996-24 FLOOR MOUNTED MOP BASIN. PROVIDE WITH CHICAGO FAUCETS 897-RCF WALL MOUNTED FAUCET WITH INTEGRAL VACUUM BREAKER.	
S-1	SINK	2"	2"	2"	1/2"	1/2"	0.5 GPM	SEE	ELKAY LUSTERSTONE CLASSIC STAINLESS STEEL SINGLE BOWL, UNDERMOUNT ADA SINK MODEL ELUHAD141455PD. PROVIDE WITH KOHLER SIMPLICE K-596 FAUCET.	
KS-1	KITCHEN SINK	2"	2"	2"	1/2"	1/2"	0.5 GPM	ARCH.	ELKAY LUSTERSTONE CLASSIC STAINLESS STEEL DOUBLE BOWL DROP-IN ADA SINK MODEL LRAD291855. PROVIDE WITH KOHLER SIMPLICE K-596 FAUCET.	
FS-1	FLOOR SINK	3"	3"	1-1/2"	---	---	---	FLUSH	JAY R. SMITH #3004Y-12 SANICEPTOR SQUARE FLOOR SINK.	
FD-1	FLOOR DRAIN	2"	2"	1-1/2"	THRU TP	---	---	FLUSH	JAY R. SMITH #2005 5" ROUND FLOOR DRAIN WITH 2" NO-HUB OUTLET. PROVIDE WITH TRAP PRIMER CONNECTION.	
FCO	FLOOR CLEANOUT	---	SEE PLANS	---	---	---	N/A	FLUSH	JAY R. SMITH #4020, INSTALLED FLUSH WITH FLOOR.	
WCO	WALL CLEANOUT	---	SEE PLANS	---	---	---	N/A	18" AFF	JAY R. SMITH #4402, INSTALLED 18" ABOVE FINISHED FLOOR	
GCO	GRADE CLEANOUT	---	SEE PLANS	---	---	---	N/A	FLUSH	JAY R. SMITH #4220 SERIES, INSTALLED FLUSH WITH GRADE.	
TP-1	FLOW ACTIVATED TRAP PRIMER	---	---	---	1/2"	---	---	---	PPP INC. #P1-500 OR #P2-500 TRAP SEAL PRIMER. SEE DETAIL FOR MORE MODEL NUMBER AND DISTRIBUTION UNIT INFORMATION.	
SA	WATER HAMMER ARRESTOR	---	---	---	1/2"	1/2"	---	PER INSTALL	SHOCK ARRESTOR BY WATTS REGULATOR OR APPROVED EQUAL. PROVIDE AT END OF ALL BRANCHES.	
HB-1	HOSE BIBB	---	---	---	3/4"	---	2.2 GPM	---	ACORN #8161, 1/8 GDE, TYPE 304 STAINLESS STEEL, RECESSED SINGLE TEMPERATURE SUPPLY BOX WITH VACUUM BREAKER AND KEY LOCK DOOR.	
HB-2	HOSE BIBB	---	---	---	3/4"	---	2.2 GPM	SEE ARCH.	ACORN #8126CR-LF, ROUGH CHROME-PLATED WITH VACUUM BREAKER.	
RH-1	ROOF HYDRANT	---	---	---	3/4"	---	---	SEE ARCH.	ACORN #8126CR-LF, ROUGH CHROME-PLATED WITH VACUUM BREAKER.	
WB-1	WASHER WALLBOX	2"	2"	2"	1/2"	1/2"	0.5 GPM	APPROX 2'-10"	GUY GRAY FIRE RATED WASHING MACHINE OUTLET BOX #82375, WITH UP TO 2" STANDPIPE AND HOT AND COLD QUARTER TURN VALVES. INCLUDES WATER HAMMER ARRESTORS. RATED FOR 1 HOUR & 2 HOUR ASSEMBLIES.	
OB-1	OUTLET BOX	---	---	---	1/2"	---	---	---	GUY GRAY #87944 WITH 3/8" OUTLET, QUARTER TURN ARRESTOR VALVE, AND 1/2" SWEAT CONNECTION. PROVIDE WITH ASSE 1024 BACKFLOW DEVICE.	
DF-1	DRINKING FOUNTAIN	1-1/2"	1-1/2"	1-1/2"	1/2"	---	---	SEE ARCH.	ELKAY MODEL #EDF8PBM17C, WALL MOUNTED, BARRIER FREE ACCESS, BI-LEVEL.	

FOODSERVICE EQUIPMENT AND UTILITY SCHEDULE																						
ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT REMARKS	SUPPLIED BY	INSTALLED BY	HOT WATER SIZE (IN)	COLD WATER SIZE (IN)	GAS SIZE (IN)	GAS INPUT (MBTU)	DIRECT WASTE SIZE (IN)	INDIRECT WASTE SIZE (IN)	PLUMBING REMARKS	ROUGH-IN	VOLTS	PHASE	AMPS	KW	HP	ELECTRICAL REMARKS	ITEM NO.
6	1	EVAPORATOR COIL (COOLER)	CUSTOM	REF		KEC							3/4"		J-BOX	120	1	10.0				6
9	1	EVAPORATOR COIL (FREEZER)	CUSTOM	REF		KEC							3/4"	INDIRECT WASTE	J-BOX	120	1	10.0				9
12	1	PREP TABLE W/ PREP SINK	CUSTOM	S/S FAB		KEC							2"		DUPLEX	120	1	20.0			(2 EA) DEDICATED RECEPTACLES	12
13	1	FAUCET, DECK MOUNT	T&S BRASS	B-1122		KEC		1/2"	1/2"													13
18	1	WATER FILTER	MANITOWOC	AR-10000		KEC			1/2"				1/2"									18
19	1	ICE MAKER	MANITOWOC	IYT0900A		KEC			1/2"				1/2"		J-BOX	208	1	9.5	1.976			19
20	1	ICE BIN	MANITOWOC	D-570		KEC							3/4"									20
21	1	FLOOR TROUGH	EAGLE	ASFT-1236-SG		KEC						4"										21
22	1	FAUCET, DECK MOUNT	T&S BRASS	B-1141-CR		KEC		1/2"	1/2"													22
23	1	HANDSINK	CUSTOM	S/S FAB		KEC						2"										23
25	1	FAUCET, SPLASH MOUNT	T&S BRASS	B-0231		KEC		1/2"	1/2"													25
27	1	PREP TABLE W/ PREP SINK	CUSTOM	S/S FAB		KEC							2"		DUPLEX	120	1	20.0			(2 EA) DEDICATED RECEPTACLES	27
36	1	DBL. CONVECTION OVEN	GARLAND	MCO-GS-20M		KEC				1"	120,000				SIMPLEX	120	1	19.6	1.76		REQ'S PER EACH DECK	36
37	1	6 OPEN BURNER	GARLAND	C36-6M		KEC				1 1/4"	210,000											37
39	1	GRIDDLE	GARLAND	GTGG36-G36M		KEC				3/4"	81,000											39
40	1	TILT SKILLET	CLEVELAND RANGE	SGL-30-T1		KEC		1/2"	1/2"	3/4"	113,000				J-BOX	120-208	1	6.0	33			40
41	1	FLOOR TROUGH	EAGLE	ASFT-1224-SG		KEC						4"										41
52	2	HANDSINK	EAGLE	HSA-10		KEC		1/2"	1/2"			1 1/2"										52
58	1	DROP-IN COLD PAN	DELFIELD	N8130BP		KEC							1/2"		J-BOX	115	1	2.0	0.23	0.17		58
59	1	FOOD WELL	WELLS	MOD-200TDM		KEC							1/2"		J-BOX	208	1	8.7	1.8096			59
62	1	THREE COMPARTMENT SINK	CUSTOM	S/S FAB		KEC						3"										62
64	1	FAUCET, SPLASH MOUNT	T&S BRASS	B-0231		KEC		1/2"	1/2"													64
65	1	PRE-RINSE W/ FAUCET	T&S BRASS	B-0133-ADF08-B		KEC			1/2"	1/2"												65
70	1	DISHWASHER, HIGH TEMP	HOBART	CDH-1		KEC		3/4"					3/4"		J-BOX	208	3	35.0				70
71	1	PRE-RINSE	T&S BRASS	B-0133		KEC		1/2"	1/2"													71
79	1	AIR POT BREWER	FETCO	C53016		KEC			1/2"						J-BOX	208	1	22.2	3.5			79
80	1	I.T. BREWER	FETCO	M1221US-1A117-PM001		KEC			1/4"						J-BOX	120	1	14.7	1.7			80
81	1	BEVERAGE COUNTER TROUGH DRAIN	CUSTOM	S/S FAB		KEC							1/2"									81



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PROJECT

WESTEND
NAVIGATION
CENTER
11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

FOOD SERVICE
SCHEDULE

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn LEI
Date 04/29/2026
Project No. LEI # 25039
Scale AS NOTED

Sheet

P012

City of Dominic Water Heating System					CALIFORNIA ENERGY COMMISSION MSC-PUE-1		
Contract or Compliance					Report Name	Page 1 of 1	
Project Name REGIONAL NAVIGATION CENTER					Report Period	02/28/2012 12:13:02 PM (Page 1 of 1)	
03. DOMESTIC HOT WATER EQUIPMENT							
Name or ID	Quantity	System Status	Equipment Type	Volume (gpi)	Rated Input Capacity (Btu/Hr)	Minimum Efficiency Required	Maximum Standby Loss
WH-4	1	New/ Addition	Gas Storage	60	120	99	Must meet Federal/Minimum Requirements If applicable, must meet Federal Minimum Requirements
FOOTNOTE: 03 systems = 14MBtu/hr, with multiple units, gas water heaters with input capacity > 300,000 Btu/hr must meet 90% EUE requirements up to an input capacity weighted average of 300,000 Btu/hr.							
FOOTNOTE: Complete equipment may be found in the Modernized Appliance Efficiency Database System (MAEDS) or the Energy Commission website: http://www.energycommission.ca.gov/Programs/CEUE/DatabaseQuery.cfm							
System Name WH-1							
18	Yes	No	Not Applicable	Requirement			
18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Unfired storage tank insulation shall have internal + External >= 16 OR External >= 3.5. Label required per §132.3(c)				
18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	New rate buildings 65% of energy for service water heating from the solar energy or recovered energy per §132.3(c)(5)				
20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Insulation values for instantaneous water heater with input rating < 8,400 BTU/hr & 2 WHP has been specified per §132.3(c)				
21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	School buildings > 25,000 BTU and 4 stores must install a hot water pump heating system per §140.5(d). Water heating systems serving an individual building space may be an instantaneous electric water heater.				
			Air-Space Heat Pump Water Heaters (DHPWH) §132.3(f)				
22	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Backup heat is required when the temperature of the air in the conditioned space of the enclosure of the unit is below the Heating Water Medium of Environments for the Closest Location listed in Table 2 in referenced Table Appendix A-2.				
22	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Consumer integrated DHPWHs shall meet one of the following ventilation requirements:				
System Name WH-4							
18	Yes	No	Not Applicable	Requirement			
18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Unfired storage tank insulation shall have internal + External >= 16 OR External >= 3.5. Label required per §132.3(c)				
18	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	New rate buildings 65% of energy for service water heating from the solar energy or recovered energy per §132.3(c)				
20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Insulation values for instantaneous water heater with input rating < 8,400 BTU/hr & 2 WHP has been specified per §132.3(c)				
21	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	School buildings > 25,000 BTU and 4 stores must install a hot water pump heating system per §140.5(d). Water heating systems serving an individual building space may be an instantaneous electric water heater.				

DATE OF CHAIRMAN Domestic Water Heating System <small>(CONTINUED OF COMPLIANCE)</small>		CALIFORNIA ENERGY COMMISSION <small>NCEC PLAN NO.</small>	
Project Name REGIONAL NAVIGATOR CENTER		Report Type: <input type="checkbox"/> Design <input checked="" type="checkbox"/> As Prepared	Page # of # 2026-02-12T10:22:10Z 12

DOMESTIC HOT WATER DISTRIBUTION SYSTEM			
Mandatory Pipe Material Installation AS Occupancies - §120.5, §160.4			
	System Name	WH-A	Not Applicable
16	●	Requirement For systems serving dwelling units, pipe installation must meet the minimum insulation requirements in Table 160.4.A (see below) except: <ul style="list-style-type: none"> * Flaming that penetrates framing members shall not be required to meet pipe insulation for the distance of the framing penetration. Flaming that penetrates metal framing such as grommets, piping, wrapping or other insulating material to assure no contact to combustibles with the exterior wall framing, insulation shall also extend through the exterior wall framing. * Flaming initiated interior or exterior walls shall not be required to have pipe insulation if all of the requirements are met for compliance with Quality Insulation Installation (QII) as specified in the Reference Residential Appendix A.B.5.5. * Flaming surrounded with a minimum of 1 inch of wood insulation, 2 inches of crawlspace insulation, or 4 inches of attics insulation for non-chlorine based foam is not required to have pipe insulation. 	
17	●	For systems serving secondary spaces, pipe insulation for the following applications is specified to comply with Table 120.3.A1 or Table 120.3.A-2 (see below per §120.3.5): <ul style="list-style-type: none"> * Recirculating system piping, including supply and return piping of the water heater * The hot R.H. and cold outlet piping, including between storage tank and heat trap, for a nonrecirculating storage system * Pipes that are externally heated 	
18	●	For §120.3(b)(3), §160.4, pipe and appurtenance insulation that is protected from damage, including that due to sunlight, moisture, equipment maintenance, and animal intrusion, shall be installed with a minimum thickness of 1/2 inch of insulation. Pipe insulation buried below grade must be installed in a water proof and non-pyrophoric casing or sheath.	

TABLE 160.4-A PIPE INSULATION THICKNESS					
Fluid Temperature (°F)	Condensability Range (Btu/hr-sq ft-in °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Outside Diameter (in.)		
			< 1	1 to ≤ 1.5	1.5 to > 4 Multiplicity & Note(N/A)
105-140	0.22 - 0.38	100	1.0 or 107.7	1.5 or 112.5	Minimum Insulation Required 1.5 in or R-11
					2.0 in or R-15

DOMESTIC HOT WATER COOLERS - §110.1, §120.5, §160.4(a), §170.2(a), §180.1(b)(3)

This table is used to demonstrate compliance with control requirements in §120.3 for all occupancies. For nonresidential occupancies, compliance is demonstrated with requirements in §120.3 for multifamily residential and hotel/condominium occupancies; compliance is also demonstrated with requirements in §160.4(a)(6) §170.2(a)(6).

CA Building Energy Efficiency Standards - 2023 Nonresidential Compliance

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 Compliance Kit ICA-7273-0236-0001
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STATE OF CALIFORNIA Domestic Water Heating System										CALIFORNIA ENERGY COMMISSION MSC 15-1-1	
CERTIFICATE OF COMPLIANCE										Page 1 of 12	
Project Name:		REGIONAL NAVIGATION CENTER								Report Page:	
										Date Prepared:	
										2026-02-12T10:12:12-05:00	
F. DOMESTIC HOT WATER EQUIPMENT											
This table is used to demonstrate compliance with mandatory equipment requirements in §310.1 and §310.3. Compliance with prescriptive requirements in §450.5(c) / §470.6(d) must also be demonstrated and with §450.5 / §460.2 / §460.7 for additional and alternative options.											
Equipment Schedule: Water Heating Efficiency and Standby Loss											
		Q1		Q2		Q3		Q4			
System Name	WH-1	Space Type	Common Use Area	Exception to §450.5(c) / §470.6(d)§8		Exceptions Do Not Apply		Capacity-weighted Average Efficiency %		Q	
or Name of Tank	Quantity	System Status	Equipment Type	Volume (gal)	Rated Input (kBtu/Hr)	Rated Efficiency		Minimum Efficiency Required		Maximum Standby Loss	
WH-1	1	New/ Addition	Gas Storage	100	200	99		Must meet Federal Minimum Requirements		If applicable, must meet Federal Minimum Requirements	
WH-2	1	New/ Addition	Gas Storage	60	120	99		Must meet Federal Minimum Requirements		If applicable, must meet Federal Minimum Requirements	
WH-3	1	New/ Addition	Gas Storage	100	200	99		Must meet Federal Minimum Requirements		If applicable, must meet Federal Minimum Requirements	
WH-4	1	New/ Addition	Gas Storage	60	120	99		Must meet Federal Minimum Requirements		If applicable, must meet Federal Minimum Requirements	
System Name	WH-4	Space Type	Common Use Area	Exception to §450.5(c) / §470.6(d)§8		Exceptions Do Not Apply		Capacity-weighted Average Efficiency %		Q	
OS	06	07	08	09	10	11		12		13	

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance

Report Version: 2025-0000
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 Report Generated: 2026-02-12T10:12:12-05:00

Documentation Scheme: Energy Code Add

State of California Domestic Water Heating System CERTIFICATE OF COMPLIANCE		CALIFORNIA ENERGY COMMISSION MISC 05-04
Project Name:	REGIONAL NAVIGATION CENTER	<div style="display: flex; justify-content: space-between;"> <div>Report Page: _____</div> <div>Page 7 of 12</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Date Prepared: _____</div> <div>2024.02.12 17:10:59</div> </div>
DOMESTIC HOT WATER DISTRIBUTION SYSTEM		
Mandatory Pipe Insulation All Occupancies - 1520.3.1, 1503.4		
System Name	W1-1	
Yes	No Applicable	Requirement
16	<input checked="" type="radio"/>	<p>Pipe systems serving dwelling units, use pipe materials that meet the minimum insulation requirements in Table 1503.4.4 (see bold except):</p> <ul style="list-style-type: none"> Piping that penetrates framing members shall not be required to have pipe insulation for the distance of the framing penetration. Piping that penetrates metal framing shall use grommets, plugs, wrapping or other insulating material to assure that no contact is made with the metal framing. Insulation shall extend evenly against all framing members. Pipes installed in unvented or exterior walls shall not be required to have pipe insulation if all of the requirements are met for compliance with Quality Insulation Installation (QII) as specified in the Reference Residential Appendix A3.5. Pipes installed surrounded with a minimum of 1 inch of wall insulation, 2 inches of crawlspace insulation, or 4 inches of attics insulation, shall not be required to have pipe insulation.
17	<input checked="" type="radio"/>	<p>Pipe systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 1203.3.4 or Table 1203.3.4.4 (see bold except per 1520.3.4):</p> <ul style="list-style-type: none"> 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 heating coil, for a nonrecirculating storage system Pipes that are externally heated
18	<input checked="" type="radio"/>	<p>Per 1520.3.4 (5) 40°F, pipe and apparatus insulation shall be protected from heat and frost that due to sunlight, moisture, equipment malfunctions, and wind insulation requires results in temperatures with a cover suitable for outdoor service. Pipe insulation buried below grade must be installed in a water proof and non-crushable casing or sleeve.</p>

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
 Generated Version: 2025-03-05
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Documentation Features: Energy Code Cals

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STATE OF CALIFORNIA		CALIFORNIA ENERGY COMMISSION	
Domestic Water Heating System		NISC FILE #	
CERTIFICATE OF COMPLIANCE			
Project Name: REGIONAL NAVIGATION CENTER	Report Page: (Page 2 of 12)		
	(Date Prepared)	2008-02-17T10:11:05-08	
D. EXCEPTIONAL CONDITIONS			
This table is auto-filled with available 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 Domestic Water Heating System		NCEP PLAN CALIFORNIA ENERGY COMMISSION	
CERTIFICATE OF COMPLIANCE		Page 1 of 2	
Project Name: REGIONAL NAVIGATION CENTER		Report Period: 02/20/2024 Date Prepared: 02/26/24 12:17:10 PM	

DOMESTIC HOT WATER DISTRIBUTION SYSTEM
 Recirculation Loops in Central Systems Serving Dwelling Units, Hotel/Motel Guest Rooms, or Nonresidential Structures - §130.1, §170.26(2)

System Name	Unit-ID	Yes	No	Requirement
01	01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Air release valve on vertical pump installation per §130.10(4)(A)
02	02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Check valve or similar located between recirculation pump and water heating equipment to prevent backflow per §130.10(4)(B)
03	03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	From 1/2-in. (12.5-mm) installed between pump and recirculation valve between hot and cold water supply per §130.10(4)(C)
04	04	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Isolation valves on both sides of the pump per §130.10(4)(D)
05	05	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cold water and recirculation loop piping shall not be connected to the hot water storage tank drain port per §130.10(4)(E)
06	06	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cold water installed on cold water supply between hot water system and cold water line on cold water supply per §130.10(4)(F)
07	07	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: For heat pump water heating systems, the hot water return from the recirculation loop should connect to a recirculation loop tank and shall not directly connect to the primary heat pump water heater tank or the primary thermal storage tank per §170.26(2)(A)
08	08	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: For heat pump water heating systems, the hot source for the recirculation loop tank shall be electricity per §170.26(2)(A)
09	09	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: The recirculation loop tank temperature setpoint shall be at least 107°F lower than the primary thermal storage tank temperature setpoint - §170.26(2)(B)
10	10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: All hot water distribution piping shall be sized in accordance with the California Plumbing Code Appendix M per §170.26(2)(C)
11	11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: On a recirculation system with mechanical aid of thermocirculator, mixing valve and pump on each distribution supply and return loop and meet the requirements in Reference Appendix K&L, A.1, units building with 4.8 dwelling units, per §170.26(2)(D)
12	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: Insulation for hot water pipes shall be field verified as specified in Reference Appendix K&L 3.1, per §170.26(2)(E)

System Name			WH-4
Yes	No	Not Applicable	Requirement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction documents require manufacturer certification that service water heating systems are equipped with automatic pressure control capable of adjusting discharge pressure to meet 115.3.3.4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Systems with capacity > 157,000 BTU/h equipped with outlet temperature controls per 115.3.3.5.1 unless equipped by California Title 24 Code 115.3.3.5.2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Controls for circulating pumps or electrical heat trace systems are capable of automatic turning of the system per 115.3.3.6.1 unless system serves healthcare facility
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For recirculation systems serving multiple dwelling units, design include a mechanical and digital thermostat manual mixing valve on each distribution supply and return loop per 115.3.3.6.2 and 115.3.3.6.3 for all controls
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For recirculation systems serving individual dwelling units, design include manual or digital controls as specified in Reference Appendix A-4.9 per 115.3.3.6.3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Combustion or positive shut off shall be provided per 115.3.3.4.1 & 150.4.4.0 for all newly installed commercial boilers as follows: <ul style="list-style-type: none"> Boilers with input capacity < 150,000 Btu/h shall be designed to operate with a maximum gas valve opening of 1.0 psi pressure Boilers where one single service two or more boilers with a total combined input capacity of less than 2.5 MMBtu/h, shall be designed to operate with a maximum gas valve opening of 1.0 psi pressure
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Boiler combustion or positive shut off with force > 10 psi shall meet one of the following for newly installed boilers per 115.3.3.4.1 & 150.4.4.0: <ul style="list-style-type: none"> The motor shall be driven by a variable speed drive OR The motor shall include controls that limit the motor demand to < 30% of the total design effort at 50% of the design air volume
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Newly installed boilers with an input capacity (100,000 Btu/h) and a steady state full load combustion efficiency < 90% shall maintain excess (stack) input concentration < 75% by volume on a dry basis over firing rates of 20-500%. Combustion air volume shall be controlled such that response to firing rate or gas input concentration. Use of a nitrogen gas and combustion air control blower or burner shut is prohibited per 115.3.3.4.1 & 150.4.4.0.

OFFICE OF CALIFORNIA DOMESTIC WATER HEATING SYSTEM

CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance for nonresidential occupancies with requirements in **§110.2, §110.3, §110.4, §110.5, §110.6, §110.7, §110.8, §110.9, §110.10, §110.11, §110.12, §110.13, §110.14, §110.15, §110.16, §110.17, §110.18, §110.19, §110.20, §110.21, §110.22, §110.23, §110.24, §110.25, §110.26, §110.27, §110.28, §110.29, §110.30, §110.31, §110.32, §110.33, §110.34, §110.35, §110.36, §110.37, §110.38, §110.39, §110.40, §110.41, §110.42, §110.43, §110.44, §110.45, §110.46, §110.47, §110.48, §110.49, §110.50, §110.51, §110.52, §110.53, §110.54, §110.55, §110.56, §110.57, §110.58, §110.59, §110.60, §110.61, §110.62, §110.63, §110.64, §110.65, §110.66, §110.67, §110.68, §110.69, §110.70, §110.71, §110.72, §110.73, §110.74, §110.75, §110.76, §110.77, §110.78, §110.79, §110.80, §110.81, §110.82, §110.83, §110.84, §110.85, §110.86, §110.87, §110.88, §110.89, §110.90, §110.91, §110.92, §110.93, §110.94, §110.95, §110.96, §110.97, §110.98, §110.99, §110.100, §110.101, §110.102, §110.103, §110.104, §110.105, §110.106, §110.107, §110.108, §110.109, §110.110, §110.111, §110.112, §110.113, §110.114, §110.115, §110.116, §110.117, §110.118, §110.119, §110.120, §110.121, §110.122, §110.123, §110.124, §110.125, §110.126, §110.127, §110.128, §110.129, §110.130, §110.131, §110.132, §110.133, §110.134, §110.135, §110.136, §110.137, §110.138, §110.139, §110.140, §110.141, §110.142, §110.143, §110.144, §110.145, §110.146, §110.147, §110.148, §110.149, §110.150, §110.151, §110.152, §110.153, §110.154, §110.155, §110.156, §110.157, §110.158, §110.159, §110.160, §110.161, §110.162, §110.163, §110.164, §110.165, §110.166, §110.167, §110.168, §110.169, §110.170, §110.171, §110.172, §110.173, §110.174, §110.175, §110.176, §110.177, §110.178, §110.179, §110.180, §110.181, §110.182, §110.183, §110.184, §110.185, §110.186, §110.187, §110.188, §110.189, §110.190, §110.191, §110.192, §110.193, §110.194, §110.195, §110.196, §110.197, §110.198, §110.199, §110.200, §110.201, §110.202, §110.203, §110.204, §110.205, §110.206, §110.207, §110.208, §110.209, §110.210, §110.211, §110.212, §110.213, §110.214, §110.215, §110.216, §110.217, §110.218, §110.219, §110.220, §110.221, §110.222, §110.223, §110.224, §110.225, §110.226, §110.227, §110.228, §110.229, §110.230, §110.231, §110.232, §110.233, §110.234, §110.235, §110.236, §110.237, §110.238, §110.239, §110.240, §110.241, §110.242, §110.243, §110.244, §110.245, §110.246, §110.247, §110.248, §110.249, §110.250, §110.251, §110.252, §110.253, §110.254, §110.255, §110.256, §110.257, §110.258, §110.259, §110.260, §110.261, §110.262, §110.263, §110.264, §110.265, §110.266, §110.267, §110.268, §110.269, §110.270, §110.271, §110.272, §110.273, §110.274, §110.275, §110.276, §110.277, §110.278, §110.279, §110.280, §110.281, §110.282, §110.283, §110.284, §110.285, §110.286, §110.287, §110.288, §110.289, §110.290, §110.291, §110.292, §110.293, §110.294, §110.295, §110.296, §110.297, §110.298, §110.299, §110.300, §110.301, §110.302, §110.303, §110.304, §110.305, §110.306, §110.307, §110.308, §110.309, §110.310, §110.311, §110.312, §110.313, §110.314, §110.315, §110.316, §110.317, §110.318, §110.319, §110.320, §110.321, §110.322, §110.323, §110.324, §110.325, §110.326, §110.327, §110.328, §110.329, §110.330, §110.331, §110.332, §110.333, §110.334, §110.335, §110.336, §110.337, §110.338, §110.339, §110.340, §110.341, §110.342, §110.343, §110.344, §110.345, §110.346, §110.347, §110.348, §110.349, §110.350, §110.351, §110.352, §110.353, §110.354, §110.355, §110.356, §110.357, §110.358, §110.359, §110.360, §110.361, §110.362, §110.363, §110.364, §110.365, §110.366, §110.367, §110.368, §110.369, §110.370, §110.371, §110.372, §110.373, §110.374, §110.375, §110.376, §110.377, §110.378, §110.379, §110.380, §110.381, §110.382, §110.383, §110.384, §110.385, §110.386, §110.387, §110.388, §110.389, §110.390, §110.391, §110.392, §110.393, §110.394, §110.395, §110.396, §110.397, §110.398, §110.399, §110.400, §110.401, §110.402, §110.403, §110.404, §110.405, §110.406, §110.407, §110.408, §110.409, §110.410, §110.411, §110.412, §110.413, §110.414, §110.415, §110.416, §110.417, §110.418, §110.419, §110.420, §110.421, §110.422, §110.423, §110.424, §110.425, §110.426, §110.427, §110.428, §110.429, §110.430, §110.431, §110.432, §110.433, §110.434, §110.435, §110.436, §110.437, §110.438, §110.439, §110.440, §110.441, §110.442, §110.443, §110.444, §110.445, §110.446, §110.447, §110.448, §110.449, §110.450, §110.451, §110.452, §110.453, §110.454, §110.455, §110.**

<div style="display: flex; justify-content: space-between;"> <div> State of California Domestic Water Heating System Certificate of Compliance </div> <div> Project Name: REGIONAL NAVIGATOR CENTER Report Page: (Page 1 of 12) Date Prepared: 2024.02.12 17:10:59 </div> <div> REC-24-01 CALIFORNIA ENERGY COMMISSION </div> </div>			
System Name	Yes	Not Applicable	Requirement
01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction documents must be manufactured including that domestic water heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per §150.560
02	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Systems with capacity > 167,000 BTU/h equipped with outlet temperature controls per §150.563; unless covered by California Plumbing Code 610.0
03	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §150.563 unless systems serve healthcare facility
04	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For recirculation systems serving multiple dwelling units, designs include a mechanical and electrical thermostats manual mixing valve on each radiator supply and return loop per §150.261 or §140.010 for additions.
05	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For recirculation systems serving individual dwelling units, designs include manual or/automatic controls as specified in Reference Appendix 4.9.9 and §150.260
06	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Combustion or positive draft of air shall meet or exceed 6.0 per §120.043 & §160.400-401 new install residential commercial boilers as follows: <ul style="list-style-type: none"> Boilers with input capacity < 2.2 MBtu/h, in which the boiler is designed to operate with a nonpositive vent or pressure Boilers where one stack serves two or more boilers with a total combined input capacity less than 2.5 MBtu/h. Boiler combustion air fans with motor > 1/2 shall meet one of the following for newly installed boilers per §120.053 & §150.462: <ul style="list-style-type: none"> The fan motor shall be driven by a variable speed drive OR The fan motor shall include controls that limit the fan motor demand to <30% of the total design wattage at 50% of the design air volume.
07	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Newly installed boilers with input capacity (that's 1467 MBtu/h) and a steady state full-load combustion efficiency < 80% shall maintain excess (stack) gas concentrations < 75% by volume on a dry basis over firing rates of 20-500%. Combustion air control shall be controlled with respect to firing rate or a flow oxygen concentration. Use of a common gas and combustion air control loop and/or gas shut-in is prohibited per §150.561 or §160.400.600.

CA Building Energy Efficiency Standards - 2022 Noverember Compliance
 General Version: 2022.08.00
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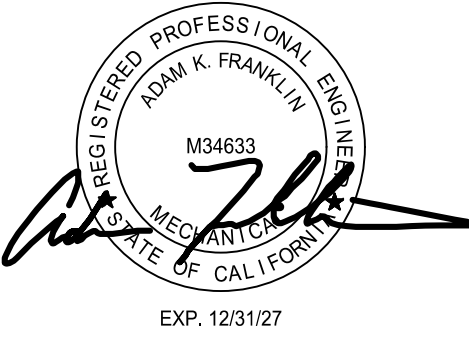


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TITLE 24
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DOCUMENTS

Revisions	By	Date
△ PC CORR 1/BID ISSUE 1	LEI	4/29/26
Drawn	LEI	
Date	04/29/2026	
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1 PC CORRY/BID ISSUE	1	LEI 4/29/20

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
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P031

SECTION 231123 - FACILITY NATURAL GAS PIPNG

PART 1 - GENERAL

1.1 SUMMARY

A. SECTION INCLUDES:

1. PIPES, TUBES, AND FITTINGS
2. PIPING AND TUBING JOINING MATERIALS.
3. MANUAL GAS SHUTOFF VALVES.
4. MOTORIZED GAS VALVES.
5. EARTHQUAKE VALVES.
6. PRESSURE REGULATORS.
7. DIELECTRIC UNIONS.

1.2 ACTION SUBMITTALS

- A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.

PART 2 - PRODUCTS

2.1 PIPES, TUBES, AND FITTINGS

- A. ABOVE GRADE, STEEL PIPE: ASTM A53/A53M, BLACK STEEL, SCHEDULE 40, TYPE E OR S, GRADE B.
1. MALLEABLE-IRON THREADED FITTINGS: ASME B16.3, CLASS 150, STANDARD PATTERN.
 2. WROUGHT-STEEL WELDING FITTINGS: ASTM A234/A234M FOR BUTT WELDING AND SOCKET WELDING.
 3. UNIONS: ASME B16.39, CLASS 150, MALLEABLE IRON WITH BRASS-TO-IRON SEAT, GROUND JOINT, AND THREADED ENDS.
- B. BELOW GRADE, PE PIPE: ASTM D2513, SDR 11.
1. PE FITTINGS: ASTM D2683, SOCKET-FUSION TYPE OR ASTM D3261, BUTT-FUSION TYPE WITH DIMENSIONS MATCHING PE PIPE.
 2. PE TRANSITION FITTINGS: FACTORY-FABRICATED FITTINGS WITH PE PIPE COMPLYING WITH ASTM D2513, SDR 11, AND STEEL PIPE COMPLYING WITH ASTM A53/A53M, BLACK STEEL, SCHEDULE 40, TYPE E OR S, GRADE B.
 3. ANODELESS SERVICE-LINE RISERS: FACTORY FABRICATED AND LEAK TESTED.
 4. UNDERGROUND PORTION: PE PIPE COMPLYING WITH ASTM D2513, SDR 11 INLET.
 5. OUTLET SHALL BE THREADED OR SUITABLE FOR WELDED CONNECTION.
 6. TRACER WIRE CONNECTION.
 7. ULTRAVIOLET SHIELD.
 8. STAKE SUPPORTS WITH FACTORY FINISH TO MATCH STEEL PIPE CASING OR CARRIER PIPE.
 - 9.

2.2 JOINING MATERIALS

- A. JOINT COMPOUND AND TAPE: SUITABLE FOR NATURAL GAS.
- B. WELDING FILLER METALS: COMPLY WITH AWS D10.12/D10.12M FOR WELDING MATERIALS APPROPRIATE FOR WALL THICKNESS AND CHEMICAL ANALYSIS OF STEEL PIPE BEING WELDED.
- C. BRAZING: FILLER METALS: ALLOY WITH MELTING POINT GREATER THAN 1000 DEG F COMPLYING WITH AWS AS 8/A5.8M. BRAZING ALLOYS CONTAINING MORE THAN 0.05 PERCENT PHOSPHORUS ARE PROHIBITED.

2.3 MANUAL GAS SHUTOFF VALVES

- A. GENERAL REQUIREMENTS FOR METALLIC VALVES, NPS 2 AND SMALLER: COMPLY WITH ASME B16.33.
1. CWP RATING: 125 PSIG.
 2. THREADED ENDS: COMPLY WITH ASME B1.20.1.
 3. DRYSEAL THREADS ON FLARE ENDS: COMPLY WITH ASME B1.20.3.
 4. TAMPERPROOF FEATURE: LOCKING FEATURE FOR VALVES INDICATED IN "UNDERGROUND MANUAL GAS SHUTOFF VALVE SCHEDULE" AND "UNDERGROUND MANUAL GAS SHUTOFF VALVE SCHEDULE" ARTICLES.
 5. LISTING: LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR VALVES 1 INCH AND SMALLER.
 6. SERVICE MARK: VALVES 1-1/4 INCHES TO NPS 2 SHALL HAVE INITIALS "VOG" PERMANENTLY MARKED ON VALVE BODY.

2.4 EARTHQUAKE VALVES

- B. EARTHQUAKE VALVES, MAXIMUM OPERATING PRESSURE OF 5 PSIG (34.5 KPA): COMPLY WITH ASCE 25.
1. LISTING: LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
 2. MAXIMUM OPERATING PRESSURE: 5 PSIG
 3. CAST-ALUMINUM BODY WITH NICKEL-PLATED CHROME STEEL INTERNAL PARTS.
 4. NITRILE-RUBBER VALVE WASHER.
 5. SIGHT WINDOWS FOR VISUAL INDICATION OF VALVE POSITION.
 6. THREADED END CONNECTIONS COMPLYING WITH ASME B1.20.1.
 7. WALL MOUNTING BRACKET WITH BUBBLE LEVEL INDICATOR.

2.5 PRESSURE REGULATORS

- A. GENERAL REQUIREMENTS:
1. SINGLE STAGE AND SUITABLE FOR NATURAL GAS.
 2. STEEL JACKET AND CORROSION-RESISTANT COMPONENTS.
 3. ELEVATION COMPENSATOR.
 4. END CONNECTIONS: THREADED FOR REGULATORS NPS 2 (DN 50) AND SMALLER.

B. LINE PRESSURE REGULATORS: COMPLY WITH ANSI Z21.60.

1. BODY AND DIAPHRAGM CASE: CAST IRON OR DIE-CAST ALUMINUM.
2. SPRINGS: ZINC-PLATED STEEL, INTERCHANGEABLE.
3. DIAPHRAGM PLATE: ZINC-PLATED STEEL.
4. SEAT DISC: NITRILE RUBBER RESISTANT TO GAS IMPURITIES, ABRASION, AND DEFORMATION AT THE VALVE PORT.
5. ORIFICE: ALUMINUM, INTERCHANGEABLE.
6. SEAL PLUG: ULTRAVIOLET-STABILIZED, MINERAL-FILLED NYLON.
7. SINGLE-PORT, SELF-CONTAINED REGULATOR WITH ORIFICE NO LARGER THAN REQUIRED AT MAXIMUM PRESSURE INLET, AND NO PRESSURE SENSING PIPING EXTERNAL TO THE REGULATOR.
8. PRESSURE REGULATOR SHALL MAINTAIN DISCHARGE PRESSURE SETTING DOWNSTREAM, AND NOT EXCEED 150 PERCENT OF DESIGN DISCHARGE PRESSURE AT SHUTOFF.

2.6 DIELECTRIC UNIONS

- A. DIELECTRIC UNIONS:
1. DESCRIPTION:
 - a. STANDARD: ASSE 1079.
 - b. PRESSURE RATING: 125 PSIG MINIMUM AT 180 DEG F
 - c. END CONNECTIONS: SOLDER-JOINT COPPER ALLOY AND THREADED FERROUS.

SECTION 223400 - FUEL-FIRED, DOMESTIC-WATER HEATERS

PART 1 - GENERAL

1.1 SUMMARY

A. SECTION INCLUDES:

1. GAS-FIRED, STORAGE, DOMESTIC-WATER HEATER.
2. GAS-FIRED, TANKLESS, DOMESTIC-WATER HEATER
3. DOMESTIC-WATER HEATER ACCESSORIES.

1.2 ACTION SUBMITTALS

- A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT.

PART 2 - PRODUCTS

2.1 GAS-FIRED, STORAGE, DOMESTIC-WATER HEATERS

A. DIRECT-VENT, GAS-FIRED, STORAGE, DOMESTIC-WATER HEATERS:

1. STANDARD: ANSI Z21.10.1/CSA 4.1.
2. STORAGE-TANK CONSTRUCTION:
 - a. STEEL.
 - b. TAPPINGS: ASME B1.20.1 PIPE THREAD.
 - c. PRESSURE RATING: 150 PSIG.
 - d. INTERIOR FINISH: COMPLY WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE-WATER TANK LININGS, INCLUDING EXTENDING LINING MATERIAL INTO TAPPINGS.
3. FACTORY-INSTALLED STORAGE-TANK APPURTENANCES:
 - a. ANODE ROD: REPLACEABLE MAGNESIUM.
 - b. DIP TUBE: REQUIRED UNLESS COLD-WATER INLET IS NEAR BOTTOM OF TANK.
 - c. DRAIN VALVE: CORROSION-RESISTANT METAL WITH HOSE-END CONNECTION.
 - d. INSULATION: COMPLY WITH ASHRAE/IES 90.1.
 - e. JACKET: STEEL WITH ENAMELED FINISH.
 - f. HEAT-TRAP FITTINGS: INLET TYPE IN COLD-WATER INLET AND OUTLET TYPE IN HOT-WATER OUTLET.
 - g. BURNER: FOR USE WITH DIRECT-VENT, GAS-FIRED, DOMESTIC-WATER HEATERS AND NATURAL-GAS FUEL.
 - h. IGNITION: STANDING PILOT OR ANSI Z21.20/CSA C22.2 NO. 60730-2-5, ELECTRIC, AUTOMATIC, GAS-IGNITION SYSTEM.
 - i. TEMPERATURE CONTROL: ADJUSTABLE THERMOSTAT.
 - j. COMBINATION TEMPERATURE-AND-PRESSURE RELIEF VALVE: ANSI Z21.22/CSA 4.4. INCLUDE RELIEVING CAPACITY AT LEAST AS GREAT AS HEAT INPUT AND INCLUDE PRESSURE SETTING LESS THAN WORKING-PRESSURE RATING OF DOMESTIC-WATER HEATER. SELECT RELIEF VALVE WITH SENSING ELEMENT THAT EXTENDS INTO STORAGE TANK.
4. DIRECT-VENT SYSTEM: THROUGH-WALL OR ROOF, COAXIAL- OR DOUBLE-CHANNEL VENT ASSEMBLY WITH DOMESTIC-WATER HEATER MANUFACTURERS OUTSIDE INTAKE/EXHAUST SCREEN.

2.2 GAS-FIRED, TANKLESS, DOMESTIC-WATER HEATERS

- A. STANDARD: ANSI Z21.10.3/CSA 4.3 FOR GAS-FIRED, INSTANTANEOUS, DOMESTIC-WATER HEATERS FOR INDOOR APPLICATION.
- B. CONSTRUCTION: COPPER PIPING OR TUBING COMPLYING WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE WATER, WITHOUT STORAGE CAPACITY.
1. TAPPINGS: ASME B1.20.1 PIPE THREAD.
 2. PRESSURE RATING: 150 PSIG
 3. INSULATION: COMPLY WITH ASHRAE/IES 90.1.
 4. JACKET: METAL, WITH ENAMELED FINISH, OR PLASTIC.
 5. BURNER: FOR USE WITH TANKLESS, DOMESTIC-WATER HEATERS AND NATURAL-GAS FUEL.
 6. AUTOMATIC IGNITION: MANUFACTURER'S PROPRIETARY SYSTEM FOR AUTOMATIC, GAS IGNITION.
 7. TEMPERATURE CONTROL: ADJUSTABLE THERMOSTAT.
- C. SUPPORT: BRACKET FOR WALL MOUNTING.
- D. CAPACITY AND CHARACTERISTICS: SEE WATER HEATER SCHEDULE.

2.3 DOMESTIC-WATER HEATER ACCESSORIES

A. DOMESTIC-WATER EXPANSION TANKS:

1. DESCRIPTION: STEEL, PRESSURE-RATED TANK CONSTRUCTED WITH WELDED JOINTS AND FACTORY-INSTALLED, BUTYL-RUBBER DIAPHRAGM. INCLUDE AIR PRECHARGE TO MINIMUM SYSTEM-OPERATING PRESSURE AT TANK.
2. CONSTRUCTION:
 - a. CAPACITY AND CHARACTERISTICS: SEE EXPANSION TANK SCHEDULE.
- E. GAS SHUTOFF VALVES: ANSI Z21.15/CSA 9.1, MANUALLY OPERATED. FURNISH FOR INSTALLATION IN PIPING.
- F. AUTOMATIC GAS VALVES: ANSI Z21.21/CSA 6.5, APPLIANCE, ELECTRICALLY OPERATED, ON-OFF AUTOMATIC VALVE.
- G. COMBINATION TEMPERATURE-AND-PRESSURE RELIEF VALVES: INCLUDE RELIEVING CAPACITY AT LEAST AS GREAT AS HEAT INPUT AND INCLUDE PRESSURE SETTING LESS THAN WORKING-PRESSURE RATING OF DOMESTIC-WATER HEATER. SELECT RELIEF VALVES WITH SENSING ELEMENT THAT EXTENDS INTO STORAGE TANK.
 1. GAS-FIRED, DOMESTIC-WATER HEATERS: ANSI Z21.22/CSA 4.4.
- G. PRESSURE RELIEF VALVES: INCLUDE PRESSURE SETTING LESS THAN WORKING-PRESSURE RATING OF DOMESTIC-WATER HEATER.
 1. GAS-FIRED, DOMESTIC-WATER HEATERS: ANSI Z21.22/CSA 4.4.
 - H. VACUUM RELIEF VALVES: ANSI Z21.22/CSA 4.4.
- I. DOMESTIC-WATER HEATER STANDS: MANUFACTURER'S FACTORY-FABRICATED STEEL STAND FOR FLOOR MOUNTING, CAPABLE OF SUPPORTING DOMESTIC-WATER HEATER AND WATER. PROVIDE DIMENSION THAT WILL SUPPORT BOTTOM OF DOMESTIC-WATER HEATER MINIMUM OF 18 INCHES ABOVE THE FLOOR.
- J. DOMESTIC-WATER HEATER MOUNTING BRACKETS: MANUFACTURER'S FACTORY-FABRICATED STEEL BRACKET FOR WALL MOUNTING, CAPABLE OF SUPPORTING DOMESTIC-WATER HEATER AND WATER.



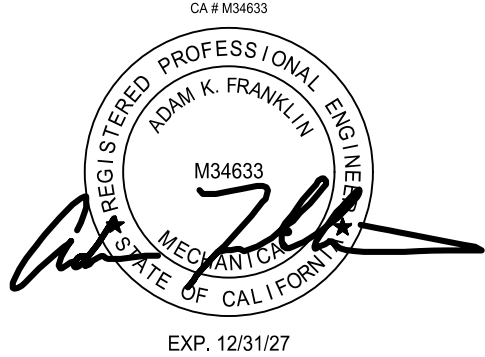
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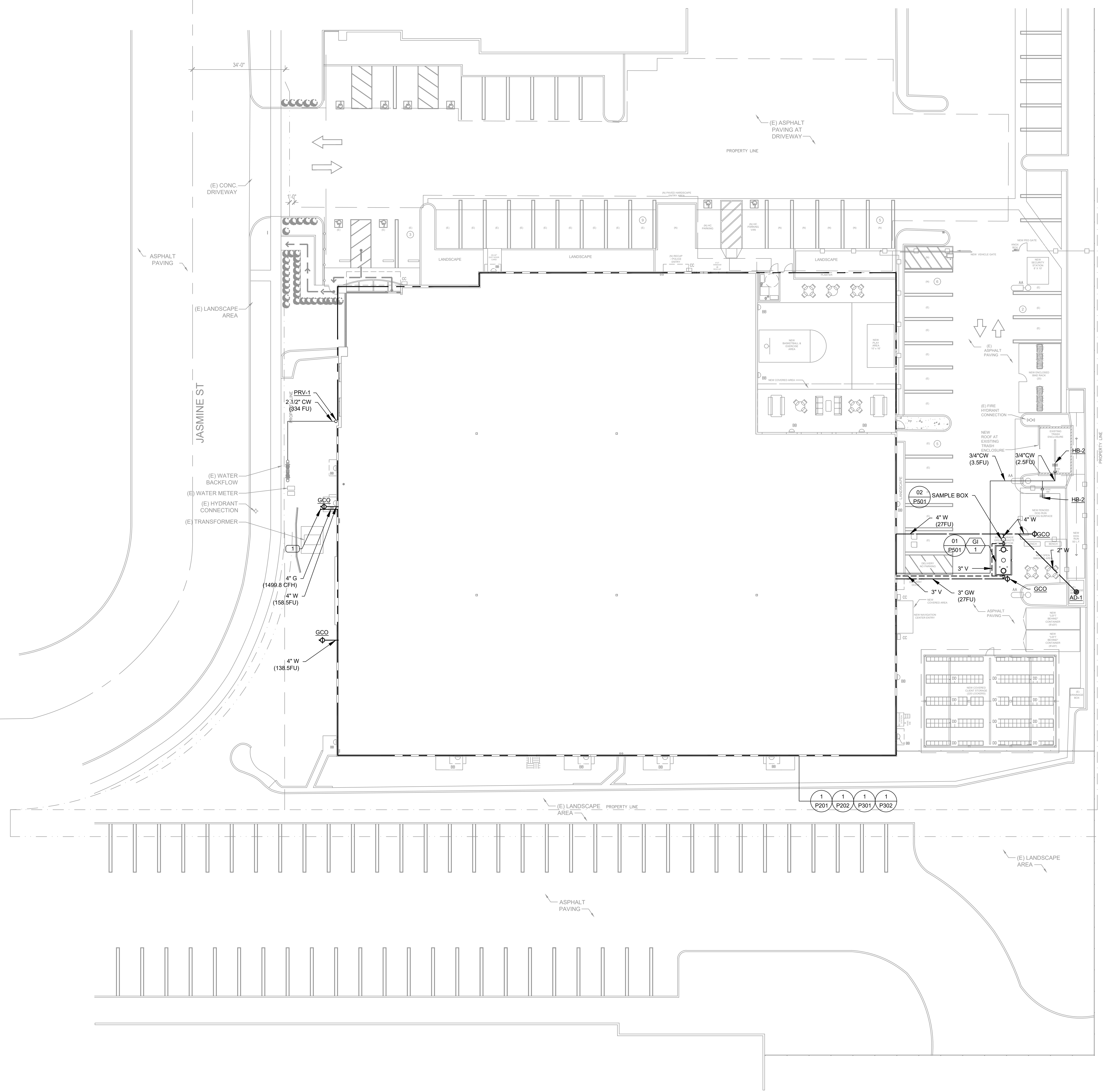
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Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn LEI
Date 04/29/2026
Project No. LEI # 25039
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P302



KEY NOTES

1. CONTRACTOR TO COORDINATE WITH GAS COMPANY TO PROVIDE GAS METER AND ALL REQUIRED COMPONENTS.



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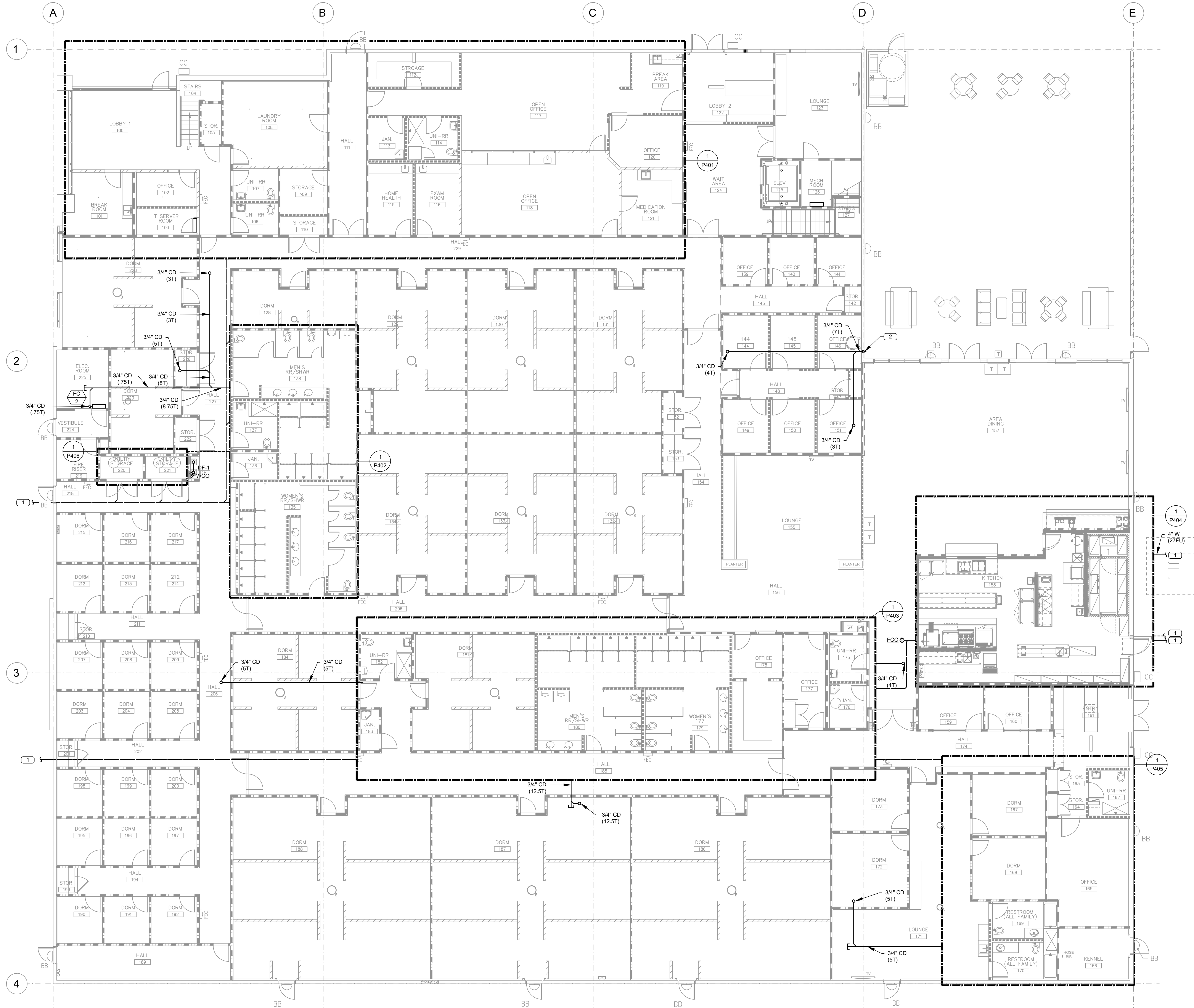
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P101



GENERAL NOTES

1. NOTIFY AND OBTAIN LANDLORD'S REPRESENTATIVE APPROVAL OF SCHEDULED DOWN TIME DURATIONS THAT WOULD AFFECT OTHER PARTS OF BUILDING OPERATION NOT IN SCOPE OF WORK PRIOR TO COMMENCING THE WORK.
2. PIPING SHALL BE IDENTIFIED WITH A SERVICE MARKING WITH INDICATED AIRFLOW WATER FLOW DIRECTION OF THE SERVICE.
3. PLUMBING VENTS SHALL MAINTAIN A MINIMUM DISTANCE OF 10'-0" FROM ALL AIR INTAKES. REFER TO MECHANICAL DRAWINGS FOR INTAKE LOCATIONS.
4. PROVIDE SHUT OFF VALVE FOR ALL CONNECTIONS AT PLUMBING FIXTURES.
5. INSULATION MATERIALS APPLIED TO PIPING SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE DENSITY NOT EXCEEDING 50.
6. REQUIRED OFFSETS, COMPONENTS, ACCESSORIES, AND FITTINGS MAY NOT BE SHOWN BUT SHALL BE PROVIDED AS REQUIRED TO AVOID INTERFERENCES WITH UNFORESEEN COMPONENTS.
7. PROVIDE DIELECTRIC UNIONS, GASKETS, AND FASTENERS AT DISSIMILAR METAL CONNECTIONS OF CONTACT POINTS.
8. TESTS SHALL BE COMPLETED BEFORE ANY PIPING INSULATION IS APPLIED.
9. PROVIDE ACCESS PANELS IN NON-ACCESSIBLE AREAS (RATED OR NON-RATED) MINIMUM 8"x8" SIZE FOR VALVES, METERS, OR DEVICES REQUIRING MAINTENANCE. INSTALL LARGER ACCESS PANELS FOR LARGER EQUIPMENT AS REQUIRED BY CODE. COORDINATE WITH ARCHITECT FOR APPROVAL OF FINAL LOCATIONS PRIOR TO INSTALLATION.
10. PROVIDE FIRESTOPPING FOR PIPE PENETRATIONS THROUGH RATED WALLS.
11. FIELD COORDINATE WITH THE STRUCTURAL CONTRACTOR THE EXACT LOCATION OF PIPING PENETRATIONS PRIOR TO ROUTING TO CONFIRM IT WILL NOT DISTURB EXISTING STRUCTURAL ELEMENTS.
12. FIELD VERIFY PRECISE PIPE ROUTING AND LOCATION OF ALL POC'S.
13. PATCH ANY CUT SLAB TO MATCH EXISTING
14. ALL SANITARY PIPING SHALL BE SLOPED AT 2% MINIMUM, UNLESS NOTED OTHERWISE.
15. PER CPC 309.5, THE PLUMBING PIPING SYSTEM WILL BE DESIGNED AND INSTALLED IN CONFORMANCE WITH SOUND LIMITATIONS AS REQUIRED IN CBC.
16. ALL CONDENSATE PIPING SHALL BE SLOPED AT 1% MINIMUM. FIELD VERIFY EXACT PIPE ROUTING. INSTALL ALL CONDENSATE PIPING PER FAN COIL MANUFACTURER INSTALLATION INSTRUCTIONS.
17. ANTI-SCALDING SHOWER AND TUB-SHOWER COMBINATION VALVES ARE REQUIRED, SEE CPC SECTION 418.
18. THE FLOW RATES FOR ALL PLUMBING FIXTURES SHALL COMPLY WITH THE MAXIMUM FLOW RATES SPECIFIED IN CBCSC SECTION 5.303.3.
19. SANITARY AND DOMESTIC PIPING SHOWN DIAGRAMMATICALLY. FIELD VERIFY BEFORE INSTALLATION.
20. NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE ACCORDING TO SECTION 609.10(1-3) OF THE 2022 CPC. CONTRACTOR SHALL PROVIDE A SIGNED DECLARATION TO THE INSPECTOR AT TIME OF INSPECTION THAT POTABLE WATER SYSTEM HAS BEEN DISINFECTED PER SECTION 609.10 OF THE 2022 CPC.

KEY NOTES

1. SEE P101 FOR CONTINUATION.
2. PENETRATE CONDENSATE DRAIN PIPE THROUGH WALL AND TERMINATE WITH MINIMUM 2" AIR GAP. PROVIDE REQUIRED PIPE SUPPORT. PAINT PIPING AND ACCESSORIES TO MATCH BUILDING.

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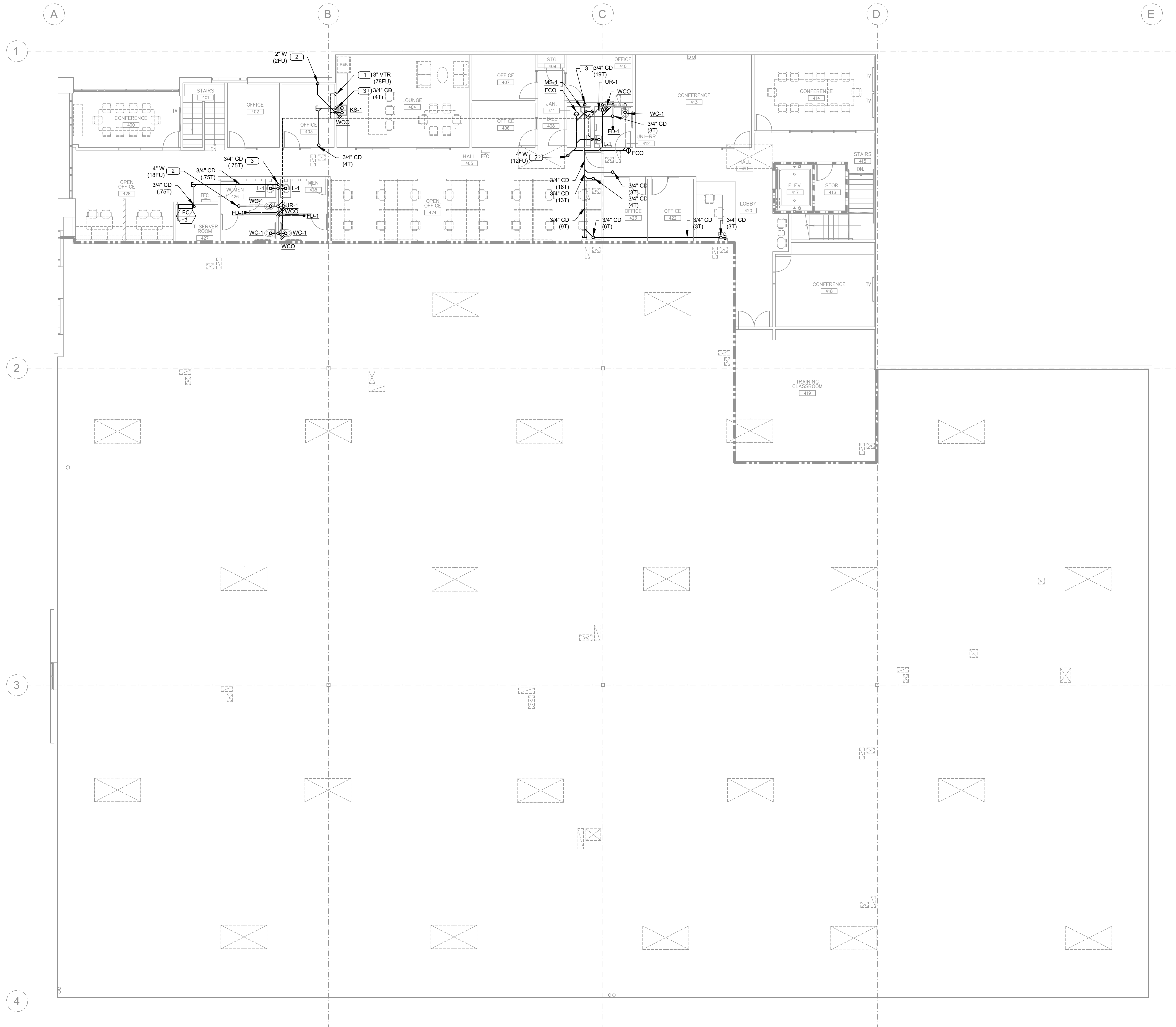
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Date	04/29/2026
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GENERAL NOTES

1. NOTIFY AND OBTAIN LANDLORD'S REPRESENTATIVE APPROVAL OF SCHEDULED DOWN TIME DURATIONS THAT WOULD AFFECT OTHER PARTS OF BUILDING OPERATION NOT IN SCOPE OF WORK PRIOR TO COMMENCING THE WORK.
2. PIPING SHALL BE IDENTIFIED WITH A SERVICE MARKING WITH INDICATED AIRFLOW WATER FLOW DIRECTION OF THE SERVICE.
3. PLUMBING VENTS SHALL MAINTAIN A MINIMUM DISTANCE OF 10'-0" FROM ALL AIR INTAKES. REFER TO MECHANICAL DRAWINGS FOR INTAKE LOCATIONS.
4. PROVIDE SHUT OFF VALVE FOR ALL CONNECTIONS AT PLUMBING FIXTURES.
5. INSULATION MATERIALS APPLIED TO PIPING SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE DENSITY NOT EXCEEDING 50.
6. REQUIRED OFFSETS, COMPONENTS, ACCESSORIES, AND FITTINGS MAY NOT BE SHOWN BUT SHALL BE PROVIDED AS REQUIRED TO AVOID INTERFERENCES WITH UN-FORESEEN COMPONENTS.
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8. TESTS SHALL BE COMPLETED BEFORE ANY PIPING INSULATION IS APPLIED.
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10. PROVIDE FIRESTOPPING FOR PIPE PENETRATIONS THROUGH RATED WALLS.
11. FIELD COORDINATE WITH THE STRUCTURAL CONTRACTOR THE EXACT LOCATION OF PIPING PENETRATIONS PRIOR TO ROUTING TO CONFIRM IT WILL NOT DISTURB EXISTING STRUCTURAL ELEMENTS.
12. FIELD VERIFY PRECISE PIPE ROUTING AND LOCATION OF ALL POC'S.
13. PATCH ANY CUT SLAB TO MATCH EXISTING
14. ALL SANITARY PIPING SHALL BE SLOPED AT 2% MINIMUM, UNLESS NOTED OTHERWISE.
15. PER CPC 309.5, THE PLUMBING PIPING SYSTEM WILL BE DESIGNED AND INSTALLED IN CONFORMANCE WITH SOUND LIMITATIONS AS REQUIRED IN CBC.
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KEY NOTES

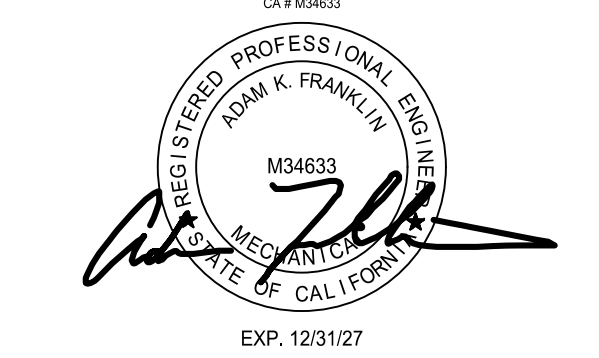
1. 3" VENT THRU ROOF.
2. WASTE PIPE DOWN TO 1ST FLOOR.
3. 3/4" CONDENSATE DRAIN DOWN, CONNECT TO SINK TAILPIECE. SEE DETAIL 04/P501.



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Adam K. Franklin, P.E.



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PROJECT

**WESTEND
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

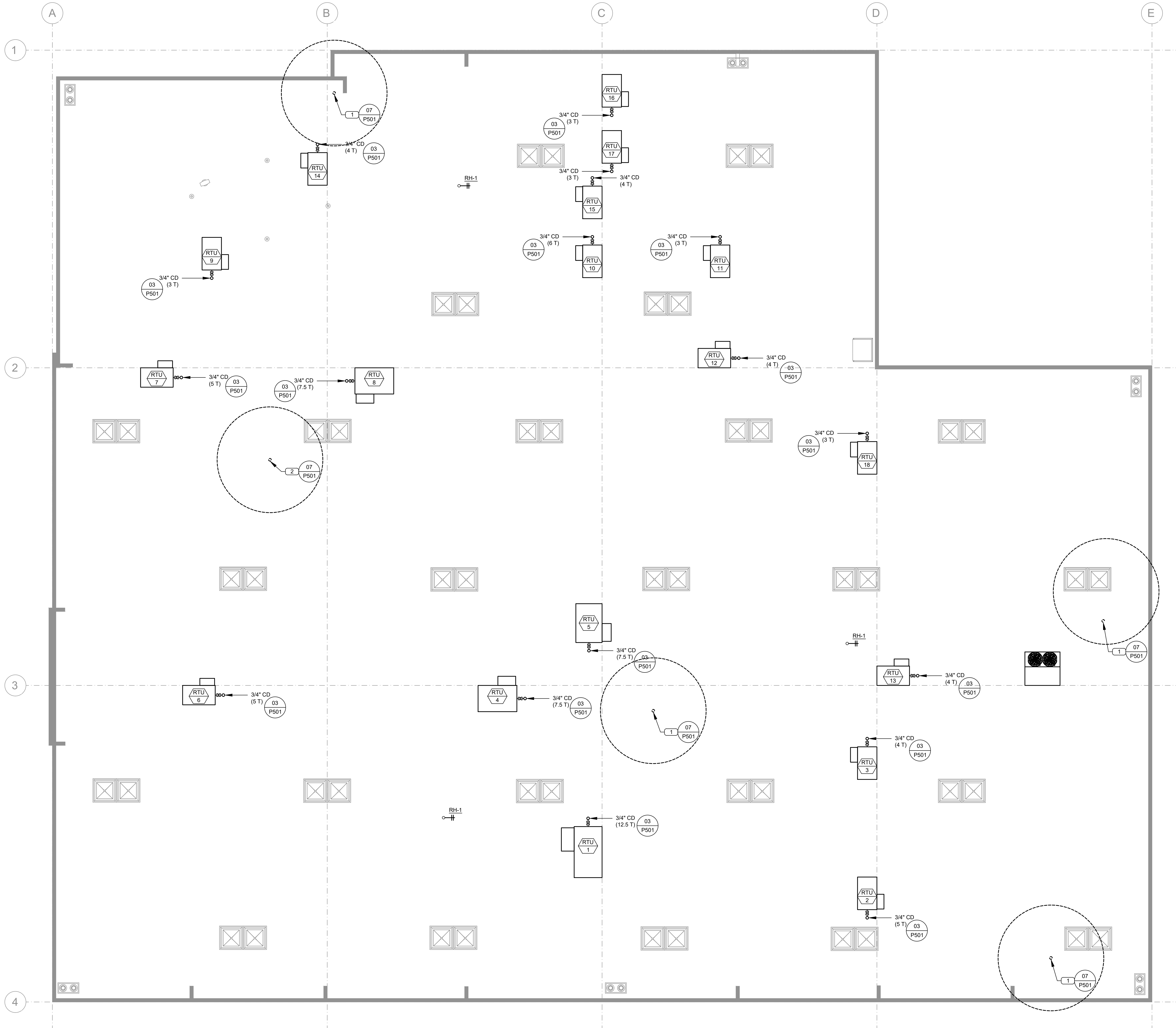
2ND FLOOR
DRAINAGE PLAN

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

P202



GENERAL NOTES

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2. PIPING SHALL BE IDENTIFIED WITH A SERVICE MARKING WITH INDICATED AIRFLOW WATER FLOW DIRECTION OF THE SERVICE.
3. PLUMBING VENTS SHALL MAINTAIN A MINIMUM DISTANCE OF 10'-0" FROM ALL AIR INTAKES. REFER TO MECHANICAL DRAWINGS FOR INTAKE LOCATIONS.
4. PROVIDE SHUT OFF VALVE FOR ALL CONNECTIONS AT PLUMBING FIXTURES.
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13. PATCH ANY CUT SLAB TO MATCH EXISTING
14. ALL SANITARY PIPING SHALL BE SLOPED AT 2% MINIMUM, UNLESS NOTED OTHERWISE.
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KEY NOTES

1. 3" VENT THRU ROOF.
2. 4" VENT THRU ROOF.



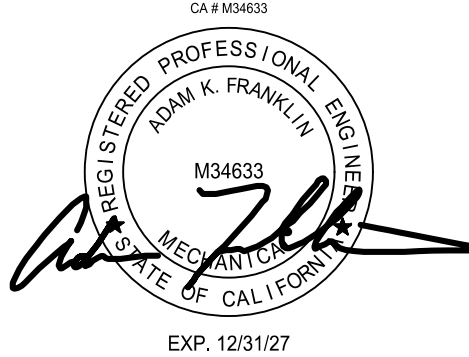
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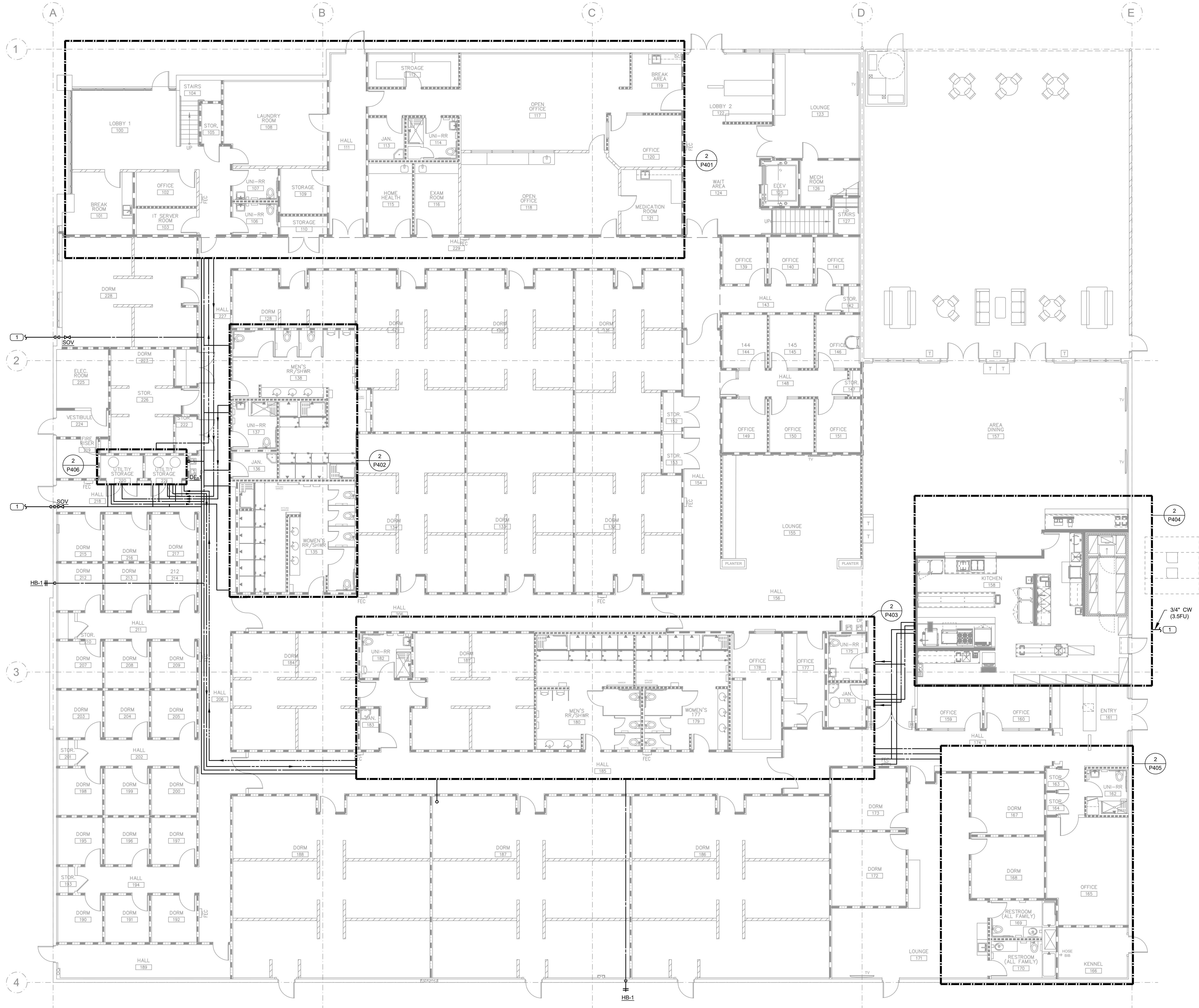
PLUMBING ROOF
PLAN

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn LEI
Date 04/29/2026
Project No. LEI # 25039
Scale AS NOTED

Sheet

P211



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KEY NOTES

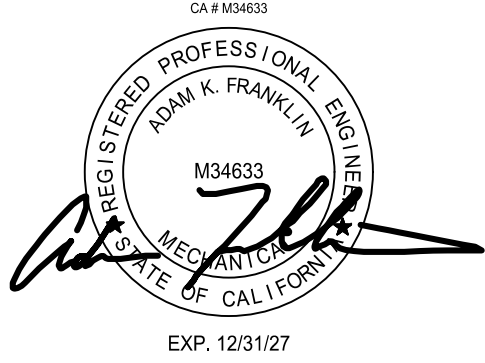
1. SEE P101 FOR CONTINUATION.



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FOR



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CALIFORNIA

TITLE

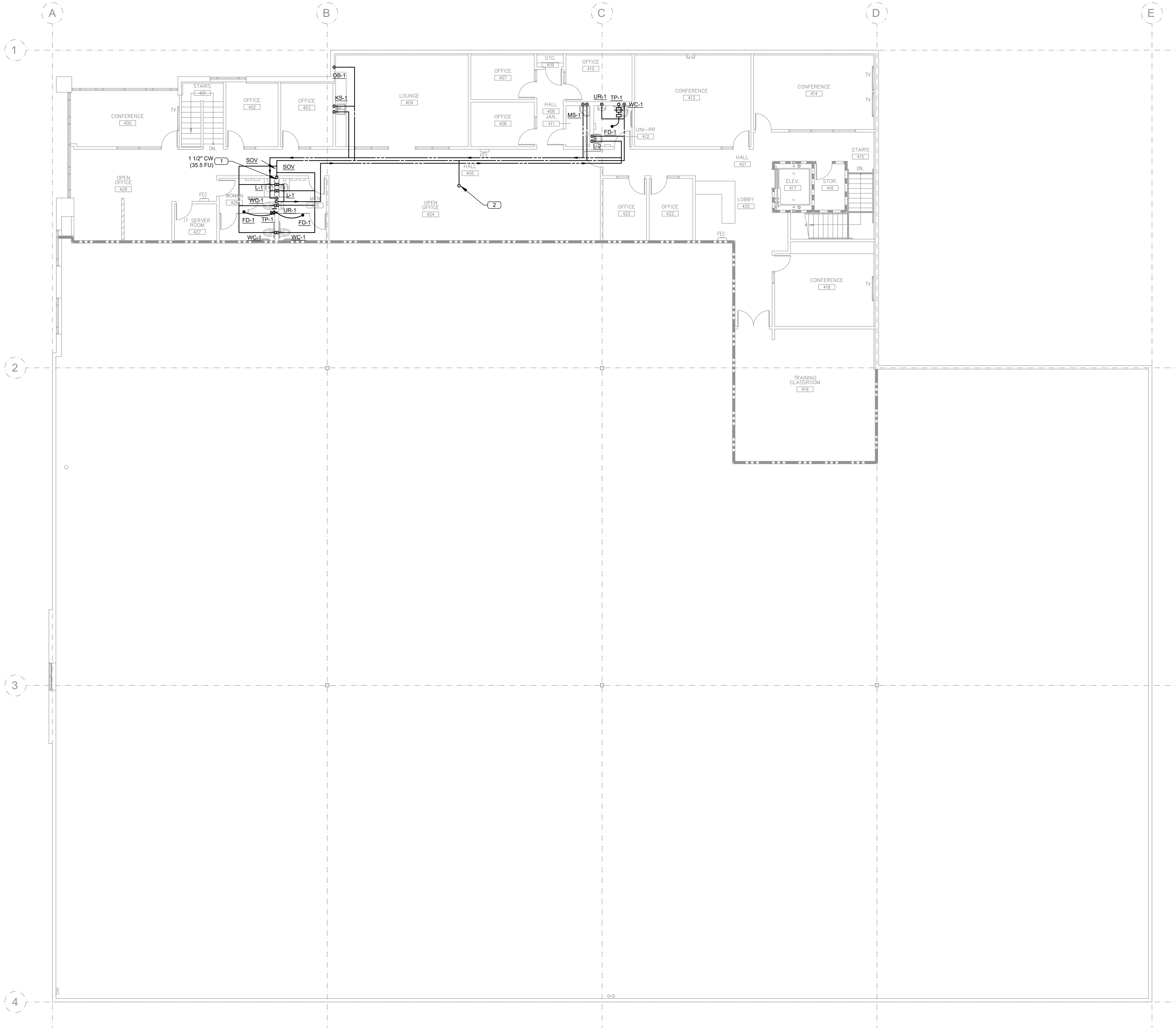
1ST FLOOR SERVICE
PLAN

Revisions	By	Date
Δ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

P301



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KEY NOTES

- 1. 1 1/2" DOMESTIC COLD WATER FROM BELOW.
- 2. 3/4" COLD WATER UP TO RH-1.



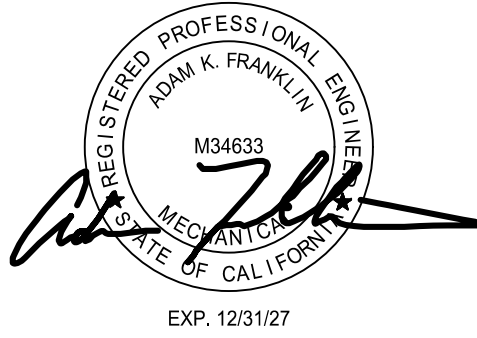
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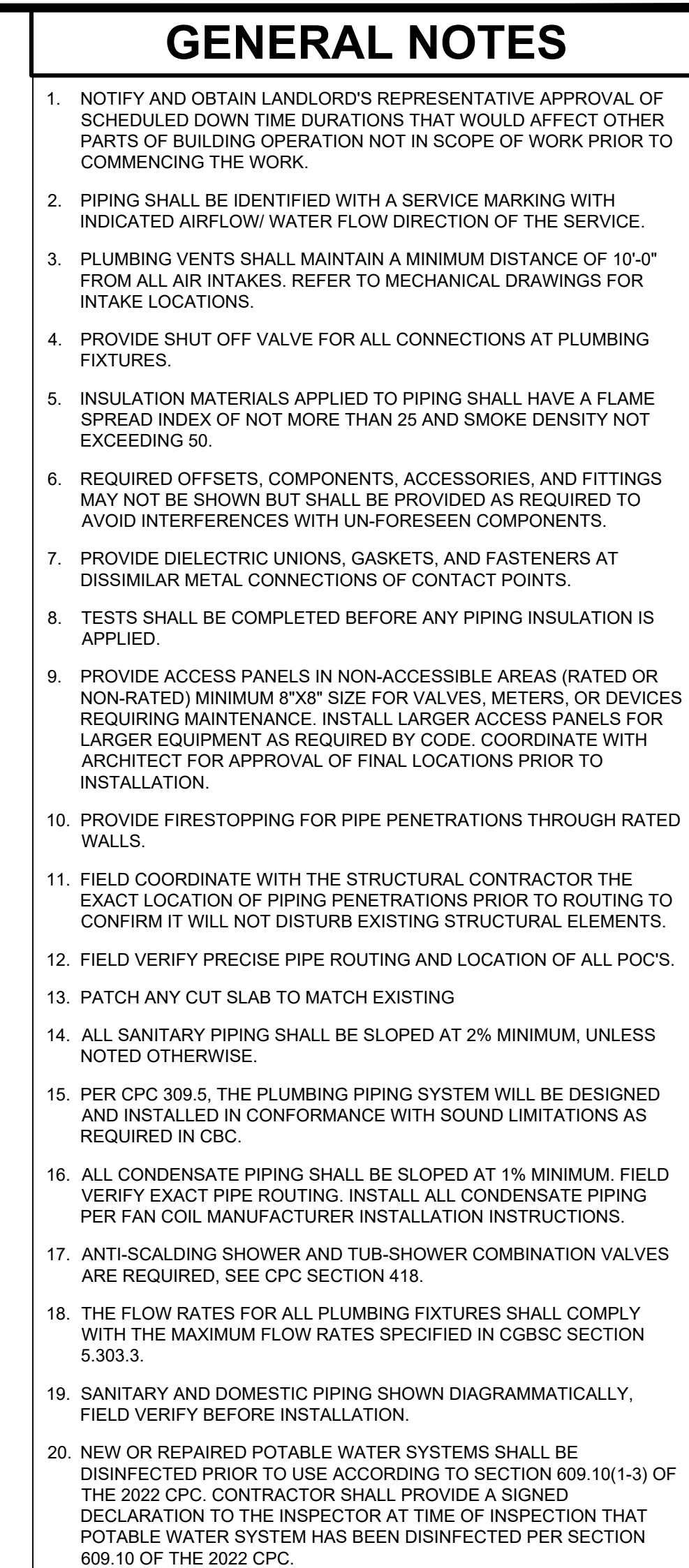
2ND FLOOR SERVICE
PLAN

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

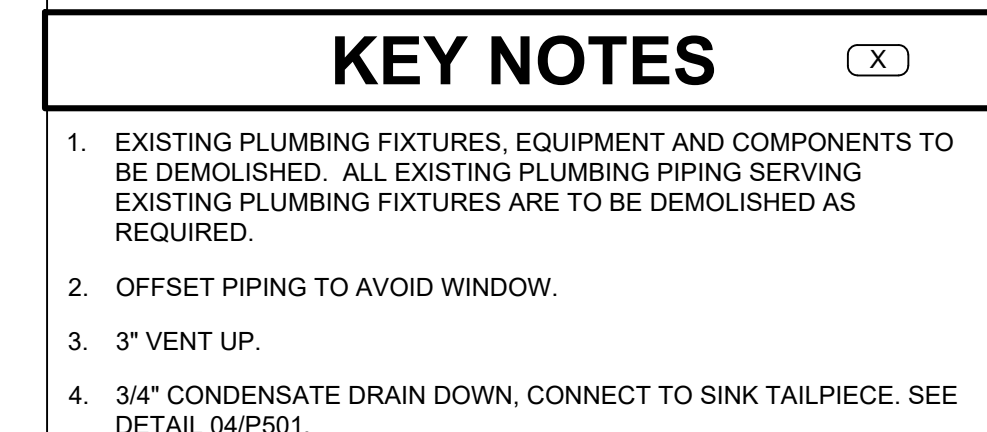
Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

P302



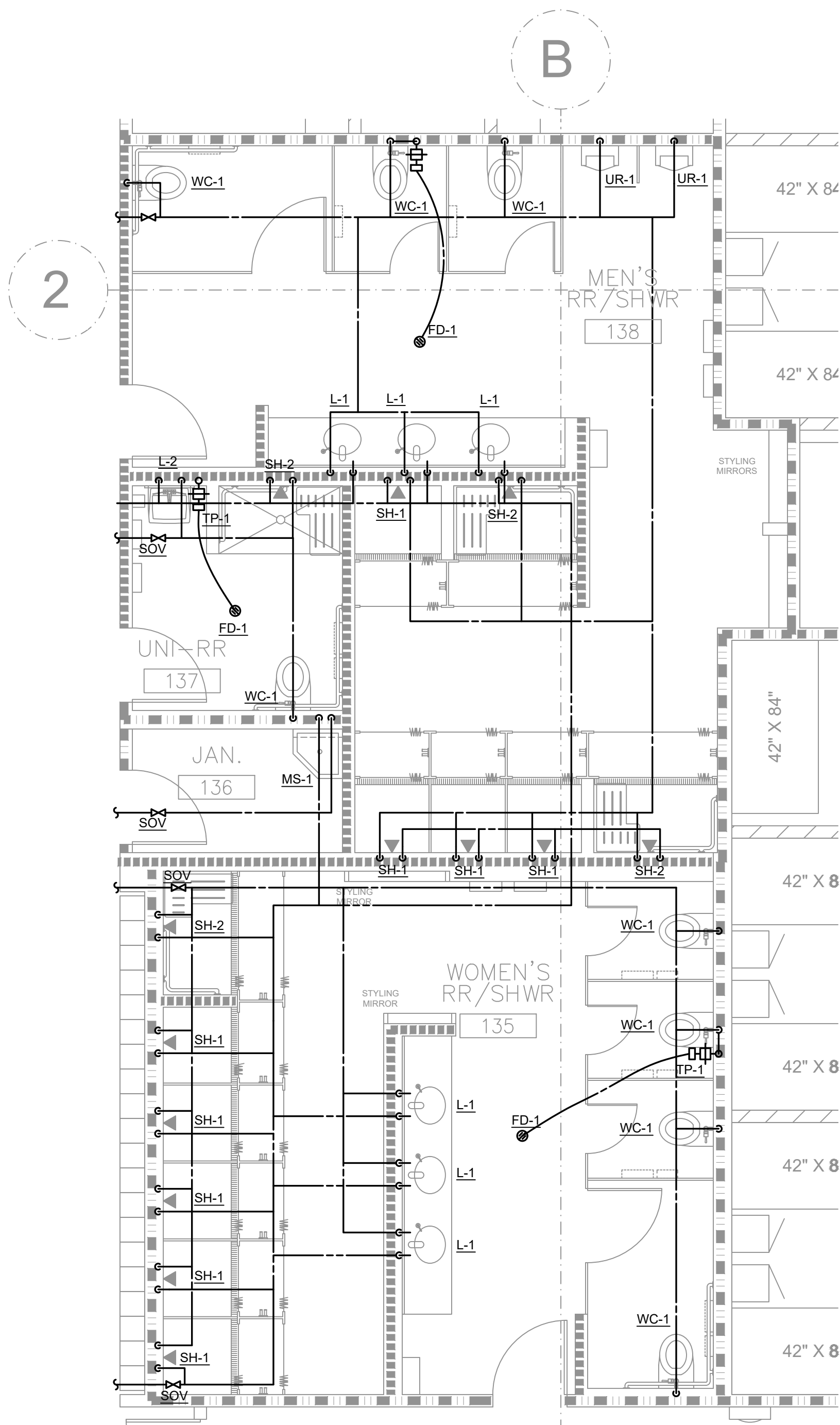
PLUMBING ENLARGED DRAINAGE PLAN	1/4" = 1'-0"	01
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Revisions	By	Date
1 PC CORR1/BID ISSUE 1	LEI	4/29/26

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Date	04/29/2026
Project No.	LEI # 25039
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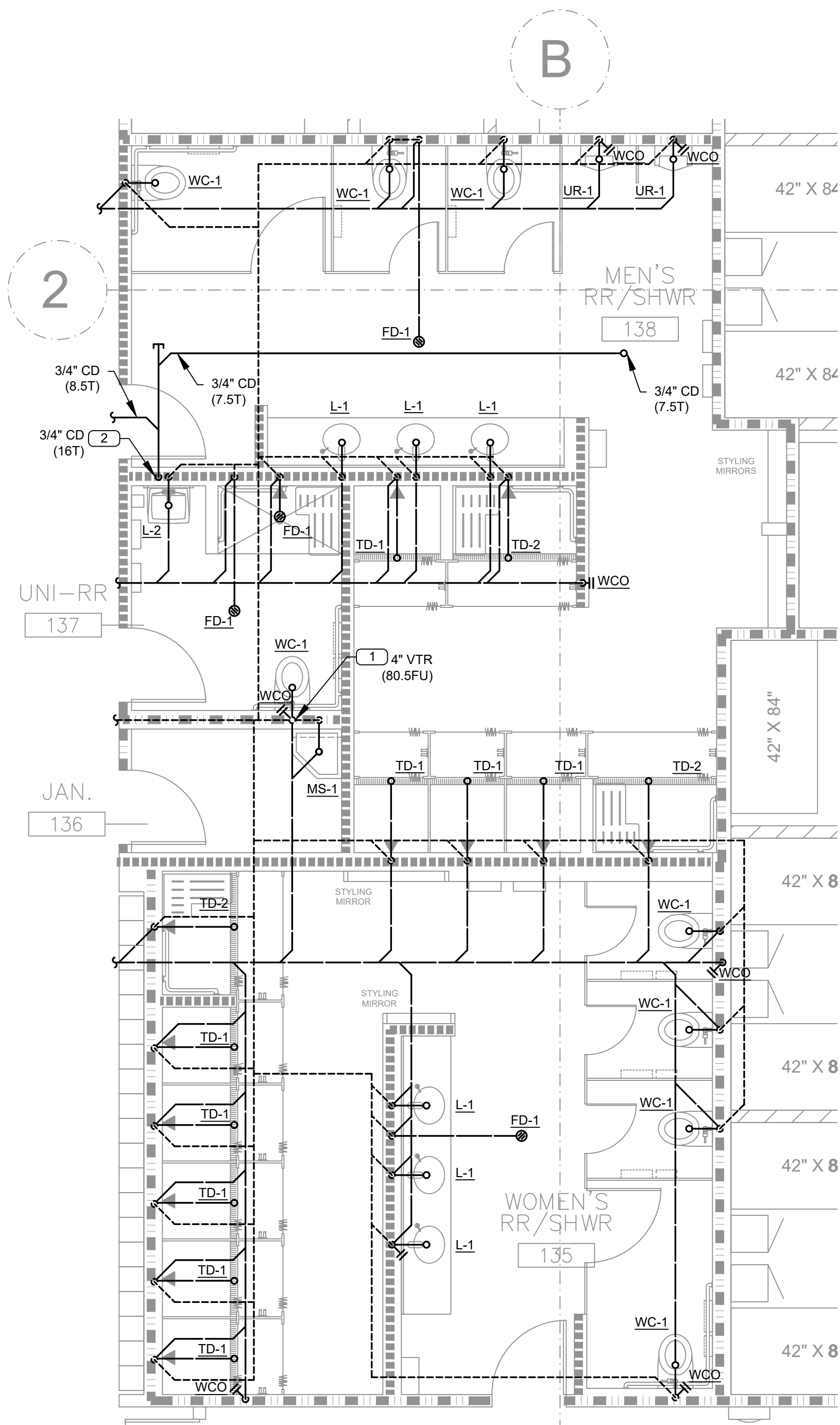
PLUMBING ENLARGED SERVICE PLAN	1/4" = 1'-0"	02
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PLUMBING ENLARGED SERVICE PLAN

1/4" = 1'-0"

02



PLUMBING ENLARGED DRAINAGE PLAN

1/4" = 1'-0"

01

GENERAL NOTES

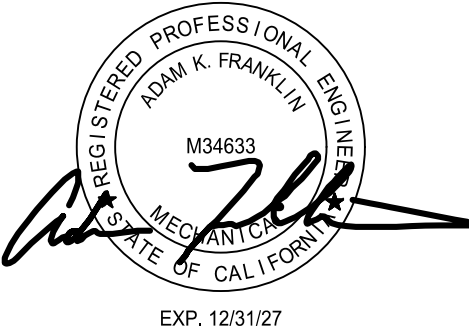
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KEY NOTES

1. 4" VENT UP.
2. 3/4" CONDENSATE DRAIN DOWN, CONNECT TO SINK TAILPIECE. SEE DETAIL 04/PS01.

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FOR



TITLE

PLUMBING
ENLARGED PLANS

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

P402

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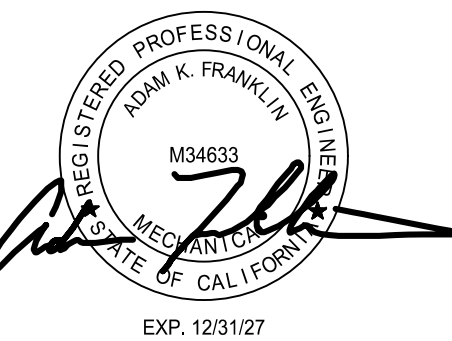
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PLUMBING ENLARGED DRAINAGE PLAN

1/4" = 1'-0"

01

KEY NOTES

1. 3" VENT UP.
2. 3/4" COLD WATER UP TO RH-1.
3. TERMINATE WATER HEATER DRAIN PAN AND T&P RELIEF VALVES AT MOP SINK WITH MINIMUM 1" AIR GAP.
4. 3/4" CONDENSATE DRAIN DOWN TO MOP SINK WITH MINIMUM 1" AIR GAP.
5. 3/4" CONDENSATE DRAIN DOWN, CONNECT TO SINK TAILPIPE. SEE DETAIL 04/P501.

FOR



TITLE

PLUMBING
ENLARGED PLANS

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
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Project No.	LEI # 25039
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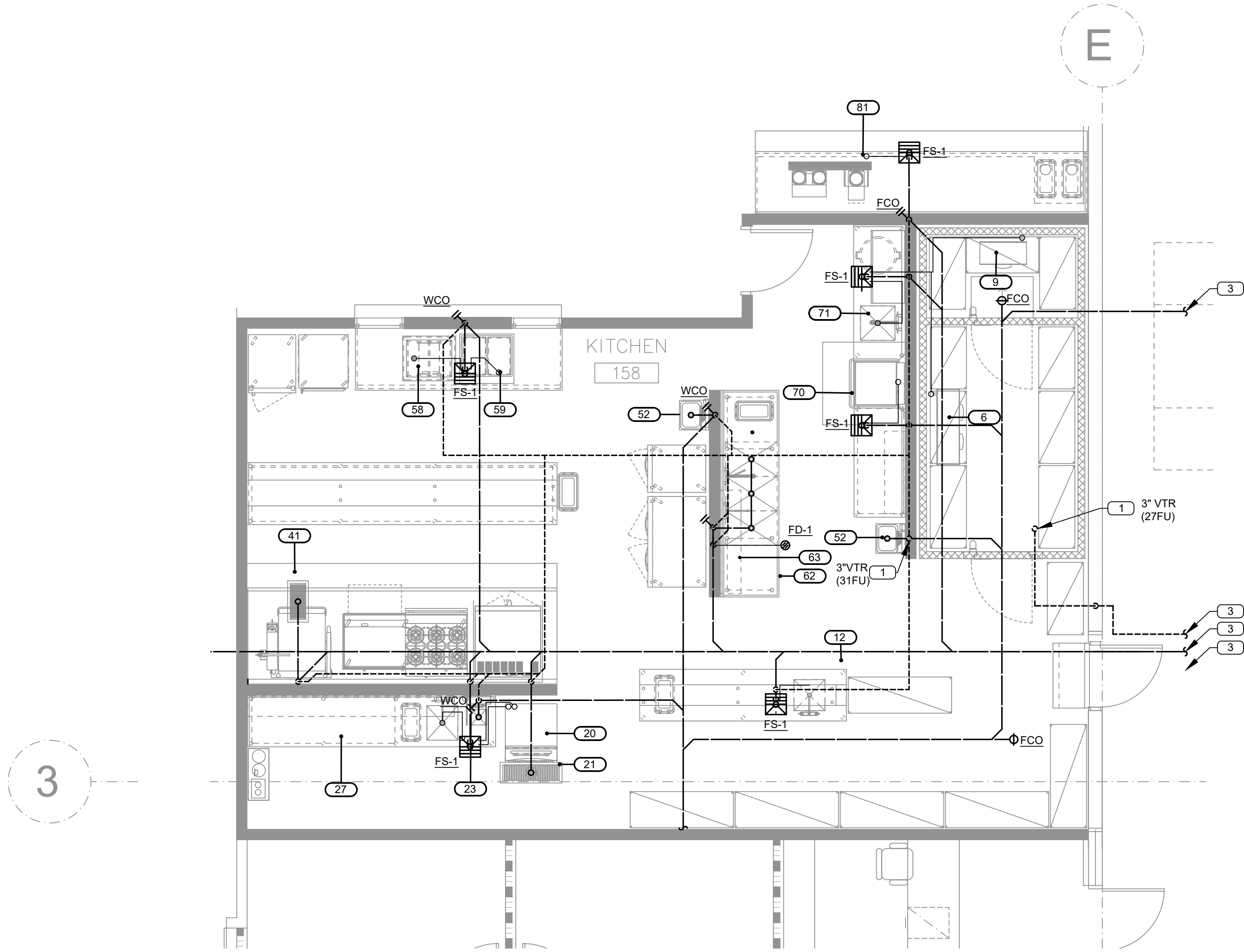
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P403

PLUMBING ENLARGED SERVICE PLAN

1/4" = 1'-0"

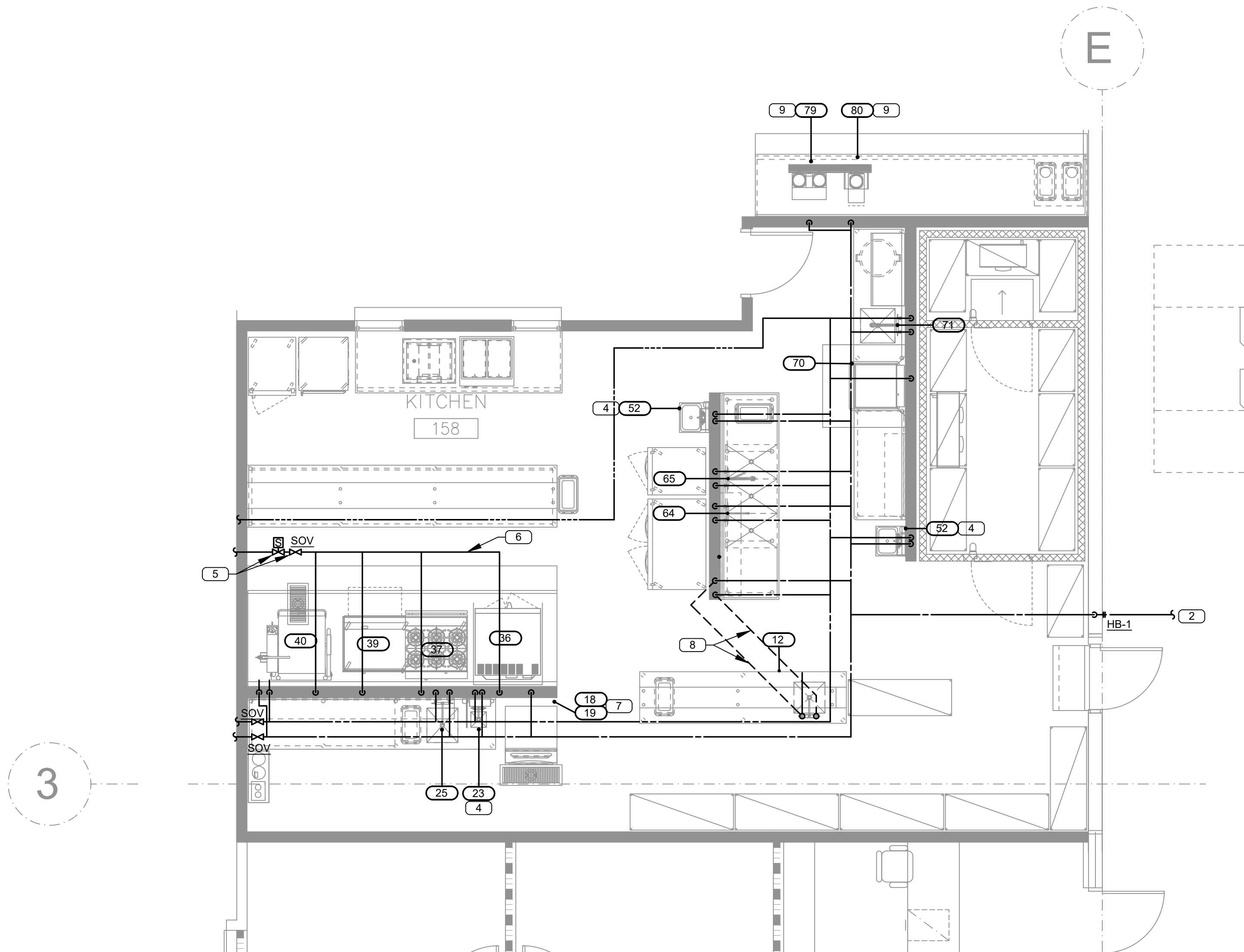
02



PLUMBING ENLARGED DRAINAGE PLAN

1/4" = 1'-0"

01



PLUMBING ENLARGED SERVICE PLAN

1/4" = 1'-0"

02

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9. PROVIDE ACCESS PANELS IN NON-ACCESSIBLE AREAS (RATED OR NON-RATED) MINIMUM 8"x8" SIZE FOR VALVES, METERS, OR DEVICES REQUIRING MAINTENANCE. INSTALL LARGER ACCESS PANELS FOR LARGER EQUIPMENT AS REQUIRED BY CODE. COORDINATE WITH ARCHITECT FOR APPROVAL OF FINAL LOCATIONS PRIOR TO INSTALLATION.
10. PROVIDE FIRESTOPPING FOR PIPE PENETRATIONS THROUGH RATED WALLS.
11. FIELD COORDINATE WITH THE STRUCTURAL CONTRACTOR THE EXACT LOCATION OF PIPING PENETRATIONS PRIOR TO ROUTING TO CONFIRM IT WILL NOT DISTURB EXISTING STRUCTURAL ELEMENTS.
12. FIELD VERIFY PRECISE PIPE ROUTING AND LOCATION OF ALL POC'S.
13. PATCH ANY CUT SLAB TO MATCH EXISTING
14. ALL SANITARY PIPING SHALL BE SLOPED AT 2% MINIMUM, UNLESS NOTED OTHERWISE.
15. PER CPC 309.5, THE PLUMBING PIPING SYSTEM WILL BE DESIGNED AND INSTALLED IN CONFORMANCE WITH SOUND LIMITATIONS AS REQUIRED IN CBC.
16. ALL CONDENSATE PIPING SHALL BE SLOPED AT 1% MINIMUM. FIELD VERIFY EXACT PIPE ROUTING. INSTALL ALL CONDENSATE PIPING PER FAN COIL MANUFACTURER INSTALLATION INSTRUCTIONS.
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18. THE FLOW RATES FOR ALL PLUMBING FIXTURES SHALL COMPLY WITH THE MAXIMUM FLOW RATES SPECIFIED IN CGBSC SECTION 5.303.3.
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KEY NOTES

1. 3" VENT UP.
2. 3/4" COLD WATER BELOW GRADE TO HOSE BIBBS. SEE P101 FOR CONTINUATION.
3. SEE SHEET P101 FOR CONTINUATION.
4. PROVIDE CHICAGO FAUCET 131-CABNF THERMOSTATIC MIXING VALVE, SET TO 104 DEG F.
5. INSTALL SOLENOID GAS VALVE AND SHUT OFF VALVE ON GAS SUPPLY TO KITCHEN EQUIPMENT. SIZE TO MATCH LINE SIZE. FIELD VERIFY PRECISE LOCATION. COORDINATE WITH FOOD SERVICE CONTRACTOR AND INTERCONNECT WITH EMERGENCY FIRE SUPPRESSION SYSTEM. IDENTIFY ON CEILING TILE LOCATION OF VALVES.
6. PROVIDE FULL SIZED GAS HEADER FOR KITCHEN EQUIPMENT.
7. SUPPLY LINE TO ROUTE TO WATER FILTER PRIOR TO ROUTING TO ICE MACHINE.
8. RUN COLD AND HOT WATER PIPING BELOW GROUND.
9. PROVIDE ASSE 1024 BACKFLOW PREVENTER ON SUPPLY LINE SERVING BEVERAGE MACHINE.



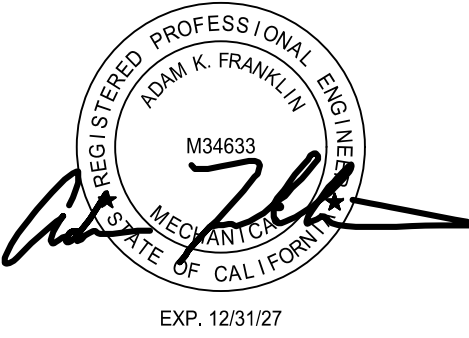
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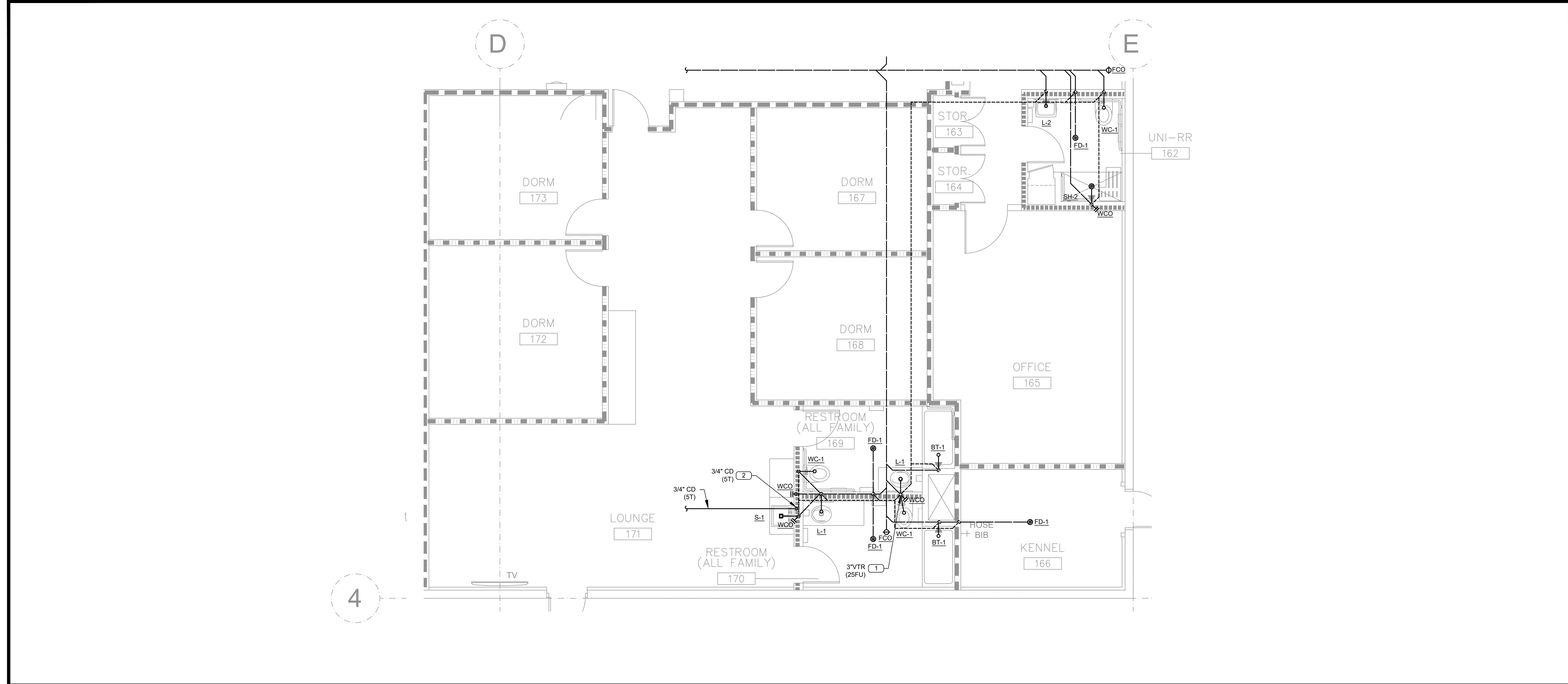
PLUMBING
ENLARGED PLANS

Revisions	By	Date
Δ PC CORR1/BID ISSUE 1	LEI	4/29/26

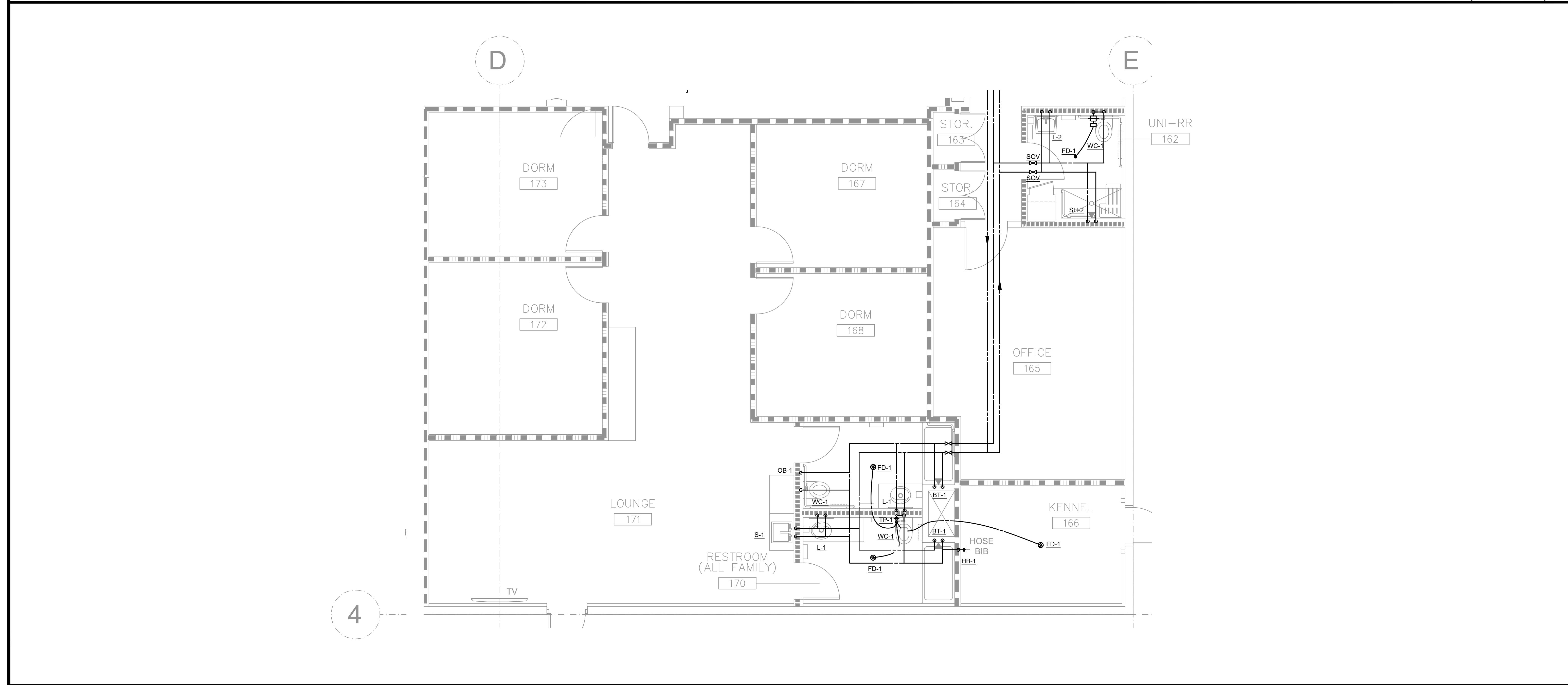
Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

P404



PLUMBING ENLARGED DRAINAGE PLAN 1/4" = 1'-0" 01



PLUMBING ENLARGED SERVICE PLAN 1/4" = 1'-0" 02

GENERAL NOTES

1. NOTIFY AND OBTAIN LANDLORD'S REPRESENTATIVE APPROVAL OF SCHEDULED DOWN TIME DURATIONS THAT WOULD AFFECT OTHER PARTS OF BUILDING OPERATION NOT IN SCOPE OF WORK PRIOR TO COMMENCING THE WORK.
2. PIPING SHALL BE IDENTIFIED WITH A SERVICE MARKING WITH INDICATED AIRFLOW/ WATER FLOW DIRECTION OF THE SERVICE.
3. PLUMBING VENTS SHALL MAINTAIN A MINIMUM DISTANCE OF 10'-0" FROM ALL AIR INTAKES. REFER TO MECHANICAL DRAWINGS FOR INTAKE LOCATIONS.
4. PROVIDE SHUT OFF VALVE FOR ALL CONNECTIONS AT PLUMBING FIXTURES.
5. INSULATION MATERIALS APPLIED TO PIPING SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE DENSITY NOT EXCEEDING 50.
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KEY NOTES

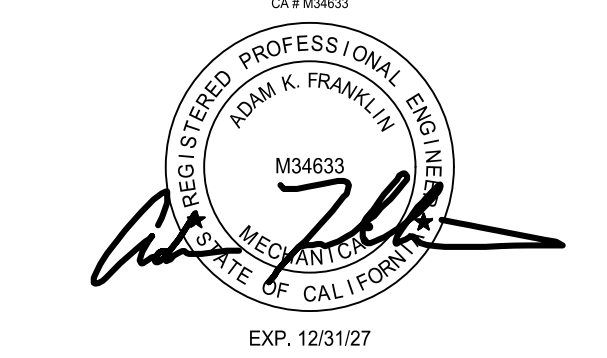
1. 3" VENT UP.
2. 3/4" CONDENSATE DRAIN DOWN, CONNECT TO SINK TAILPIECE. SEE DETAIL 04/P501.



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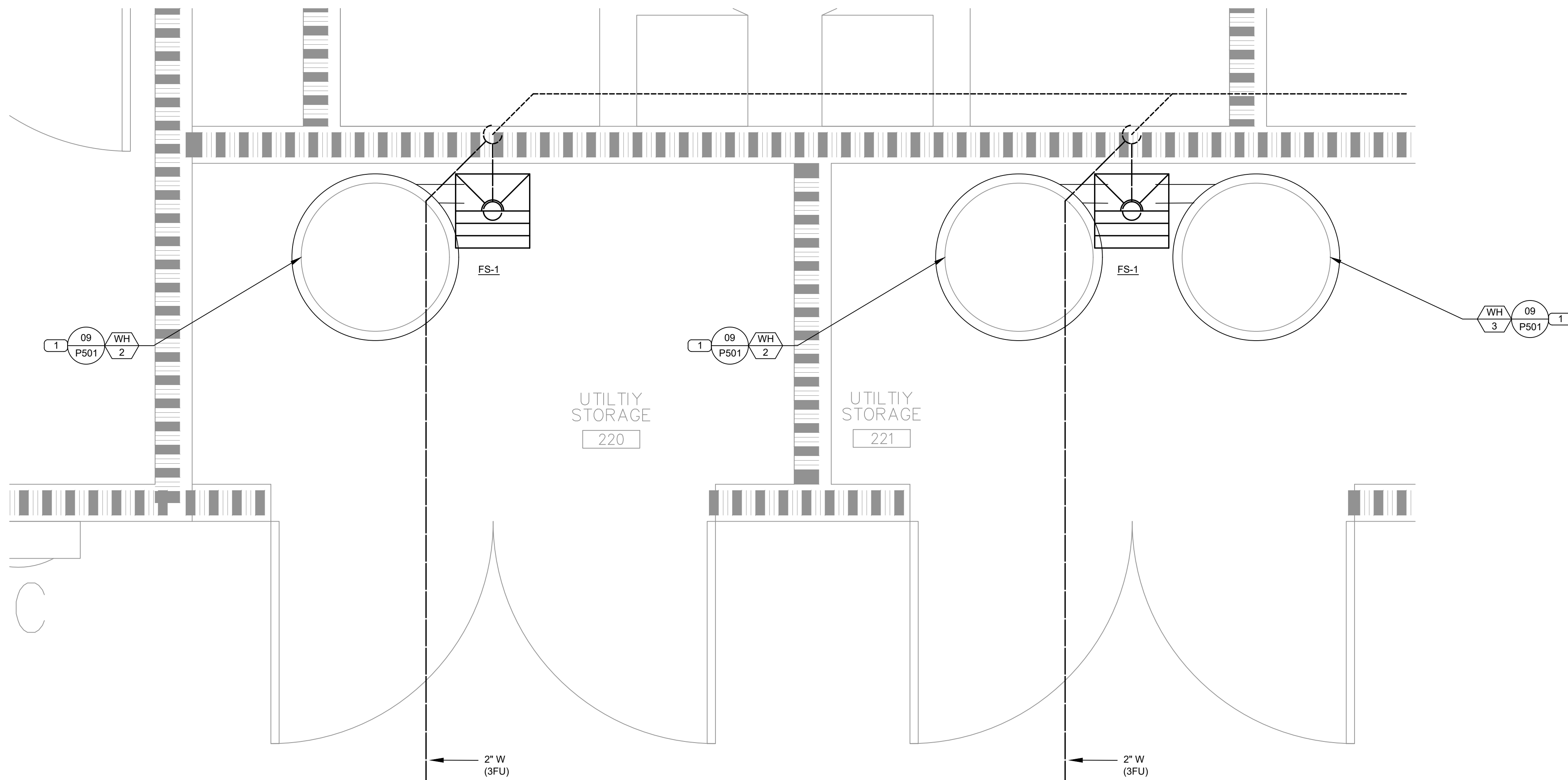
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ENLARGED PLANS

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

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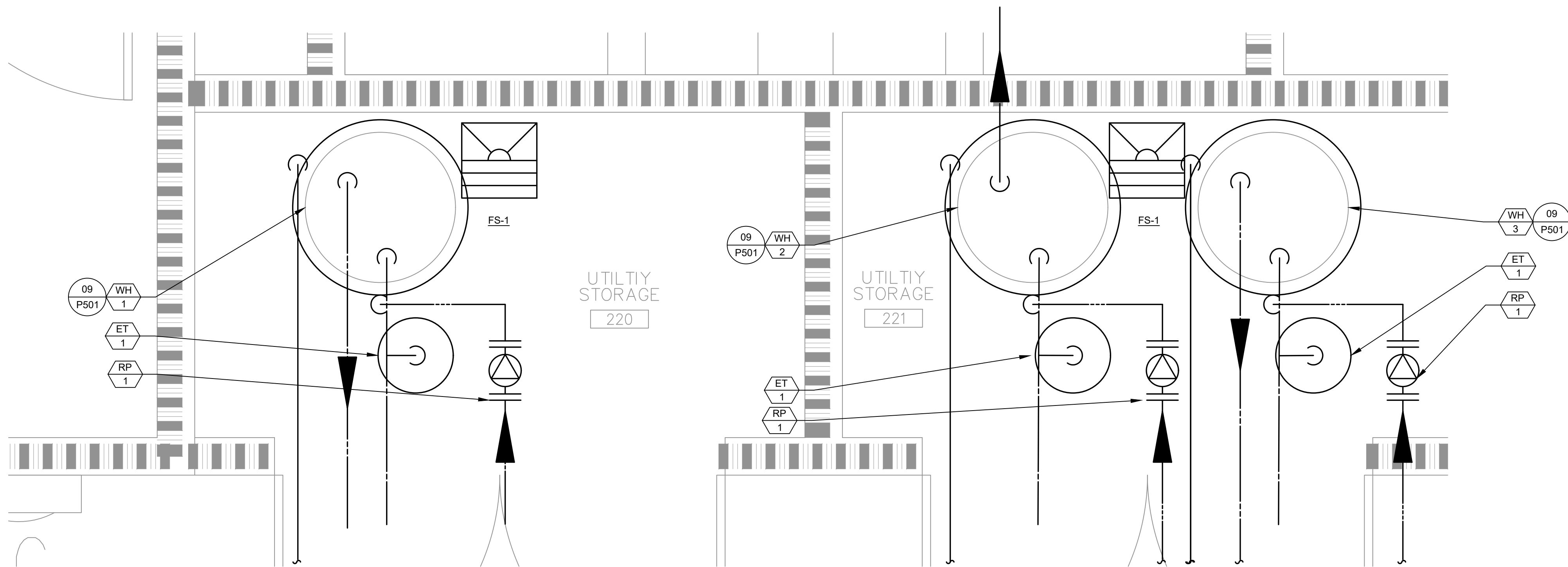
P405



PLUMBING ENLARGED DRAINAGE PLAN

1" = 1'-0"

01



PLUMBING ENLARGED SERVICE PLAN

1" = 1'-0"

02

GENERAL NOTES

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KEY NOTES

1. TERMINATE WATER HEATER DRAIN PAN AND T&P RELIEF VALVES AT FLOOR SINK WITH MINIMUM 1" AIR GAP.



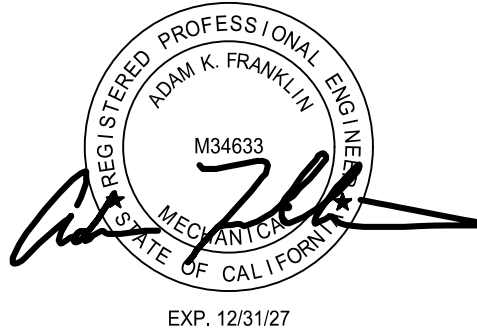
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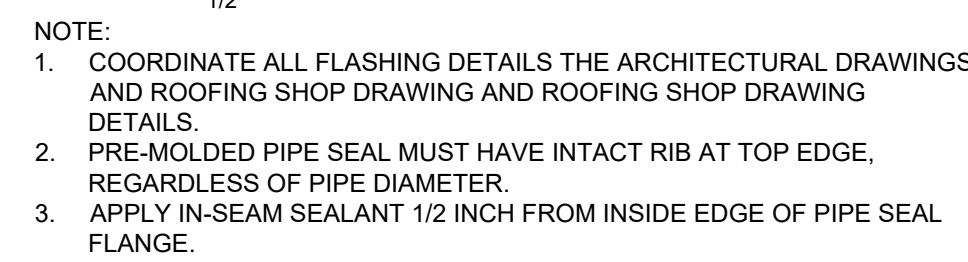
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Revisions	By	Date
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P406



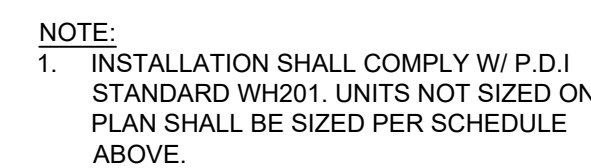
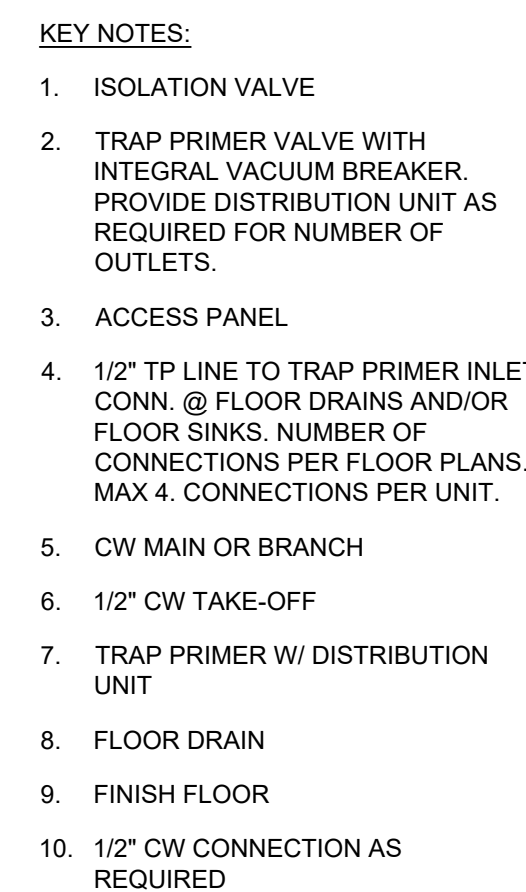
- KEY NOTES:**
1. SURE-SEAL WATER CUT-OFF MASTIC
 2. SURE-SEAL/BRITE-PLY PRE-MOLDED PIPE SEAL
 3. SURE-SEAL/BRITE -PLY EPDM MEMBRANE
 4. SURE-SEAL INSULATION
 5. SURE-SEAL IN-SEAM SEALANT (NOTE 3)
 6. SURE-SEAL/BRITE-PLY LAB SEALANT
 7. NOTE 2
 8. STAINLESS STEEL CLAMPING RING



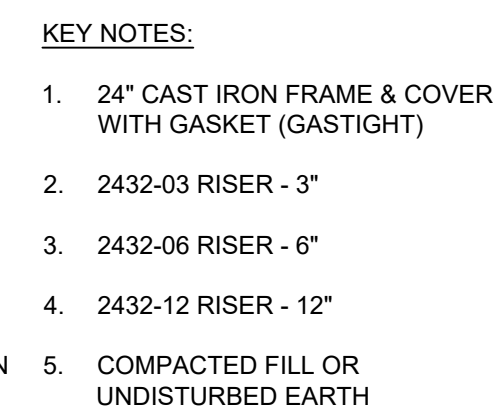
- KEY NOTES:**
1. LAVATORY
 2. ESCUTCHEON
 3. NEOPRENE HOSE AND CLAMPS
 4. TAILPIECE
 5. TRAP
 6. TO VENT THROUGH ROOF
 7. CONDENSATE PIPE FROM MECHANICAL UNITS



CONDENSATE TAILPIECE DETAIL (N.T.S.)	04
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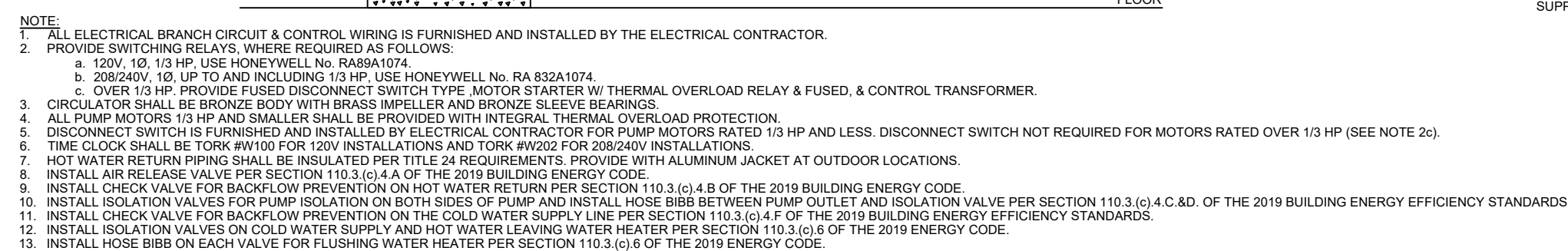


- KEY NOTES:**
1. WATER HAMMER ARRESTOR
 2. THREADED END CONNECTION
 3. FITTING ADAPTER
 4. ISOLATION VALVE
 5. ACCESS PANEL

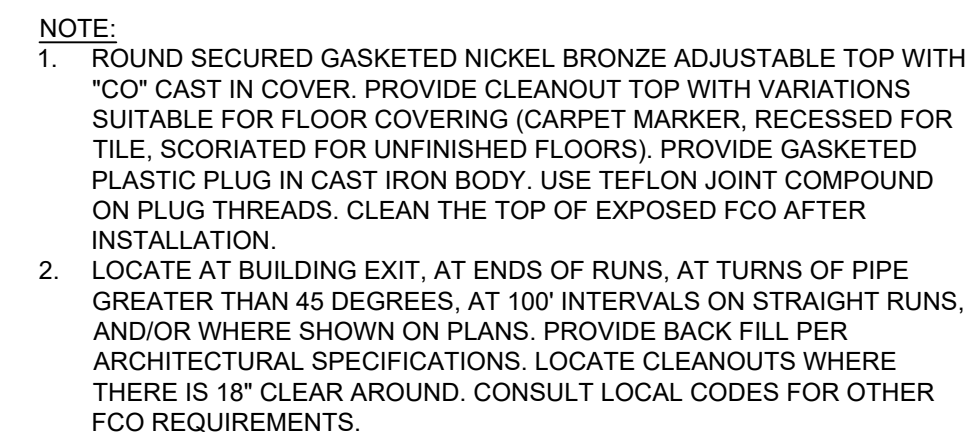


- NOTES:**
1. BOX WEIGHT: 1400LBS
 2. BOX DESIGN LOAD: H-20 TRAFFIC
 3. SAMPLE BOX MUST BE PLACED ON OR UNDISTURBED EARTH IN TRANSIT AND PRODUCT INFORMATION CONTAINED

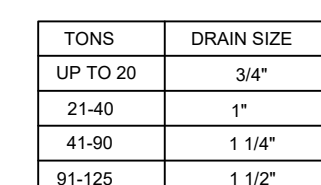
WATER HAMMER ARRESTOR	05
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- KEY NOTES:
1. PROVIDE 6" HIGH CONCRETE HOUSEKEEPING PAD 6" WIDER THAN WATER HEATER ON ALL SIDES OR APPROVED WATER HEATER STAND.
2. DRIP LEG.
3. ASME APPROVED T&P RELIEF VALVE AND DRAIN VALVE SHALL ROUTE TO CODE COMPLIANT TERMINATION WITH MINIMUM 1" AIR GAP.
4. CONCENTRIC TYPED TERMINATION. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. REMOVE BULB STRAPPED TO RETURN LINE W/ INSULATION COVER.
6. AQUASTAT TEMP. CONTROLLER.
7. DRAIN VALVE W/ HOSE THREAD AND VACUUM BREAKER.
8. AIR RELEASE VALVE. SEE NOTE #8.
9. CHECK VALVE. SEE NOTE #9.
10. ISOLATION VALVES. SEE NOTE #10.
11. CHECK VALVE. SEE NOTE #11.
12. ISOLATION VALVES. SEE NOTE #12.
13. HOSE BIBB. SEE NOTE #13.
14. FASTEN WATER HEATER TO WALL WITH TWO 1-1/2" GALVANIZED STRAPS POSITIONED 1/3 OF THE DISTANCE FROM THE TOP AND 1/3 OF THE DISTANCE FROM THE BOTTOM OF WATER HEATER.



- KEY NOTES:**
1. FLOOR SLAB ON GRADE
 2. SAME SIZE AS SEWER UNLESS NOTED OTHERWISE. MAXIMUM.
 3. LONG SWEEP ELBOW AT 90° TURN OF RUN
 4. COMBINATION WYE AND 45° BEND IN RUN. EIGHTH OF PIPE.
 5. SANITARY OR STORM SIZE LINE
 6. HUB AND SPIGOT CAST IRON PIPE BELOW FLOOR.
 7. MEMBRANE CLAMP

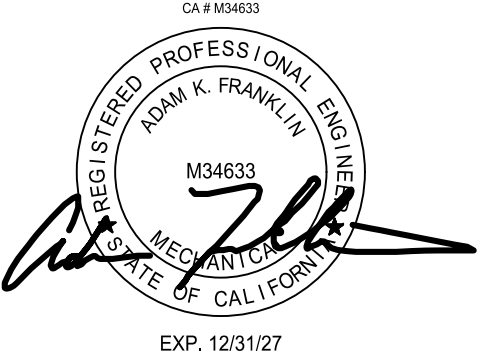


- KEY NOTES:**
1. VENT SAME SIZE AS DRAIN
 2. SEE PLANS FOR CONTINUATION
 3. CLEANOUT PLUG (THREADED)
 4. TYPE "M" COPPER TUBING WITH WROUGHT COPPER FITTING
 5. DIELECTRIC UNION
 6. HVAC EQUIPMENT
 7. FLEXIBLE CONNECTION

- NOTE:**
1. ALL INTERIOR CONDENSATE DRAINS ABOVE CEILING SHALL BE INSULATED.
 2. IF HORIZONTAL RUN IS GREATER THAN 15 FT. INSTALL VENT, SAME SIZE AS DRAIN.

FLOOR CLEANOUT DETAIL (N.T.S.)	06
--------------------------------	----

CONDENSATE DRAIN DETAIL (N.T.S.)	03
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PLUMBING DRAINAGE
RISER

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Drawn LEI
Date 04/29/2026
Project No. LEI # 25039
Scale AS NOTED

4" VTR
62.5 DFL

ROOF

SECOND FLOOR

FIRST FLOOR

ROOF

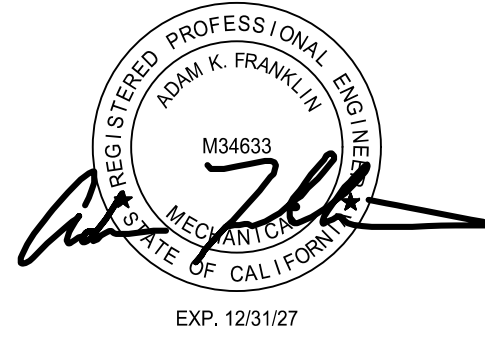
SECOND FLOOR

FIRST FLOOR

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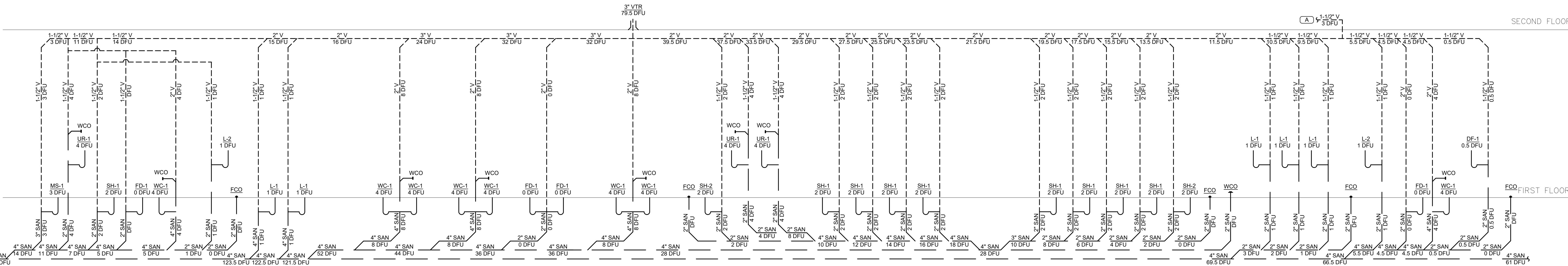
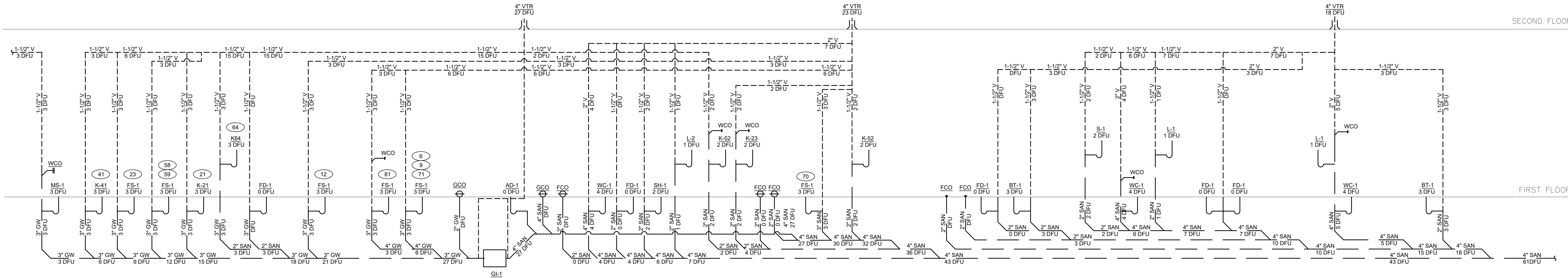
PLUMBING DRAINAGE
RISER

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Drawn	LEI
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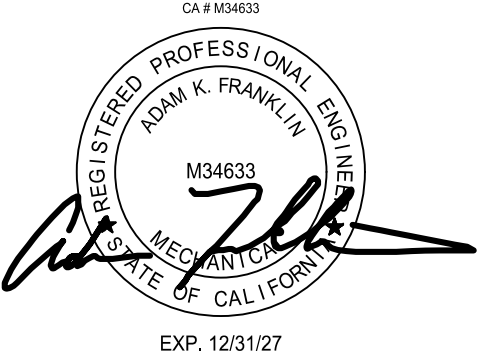
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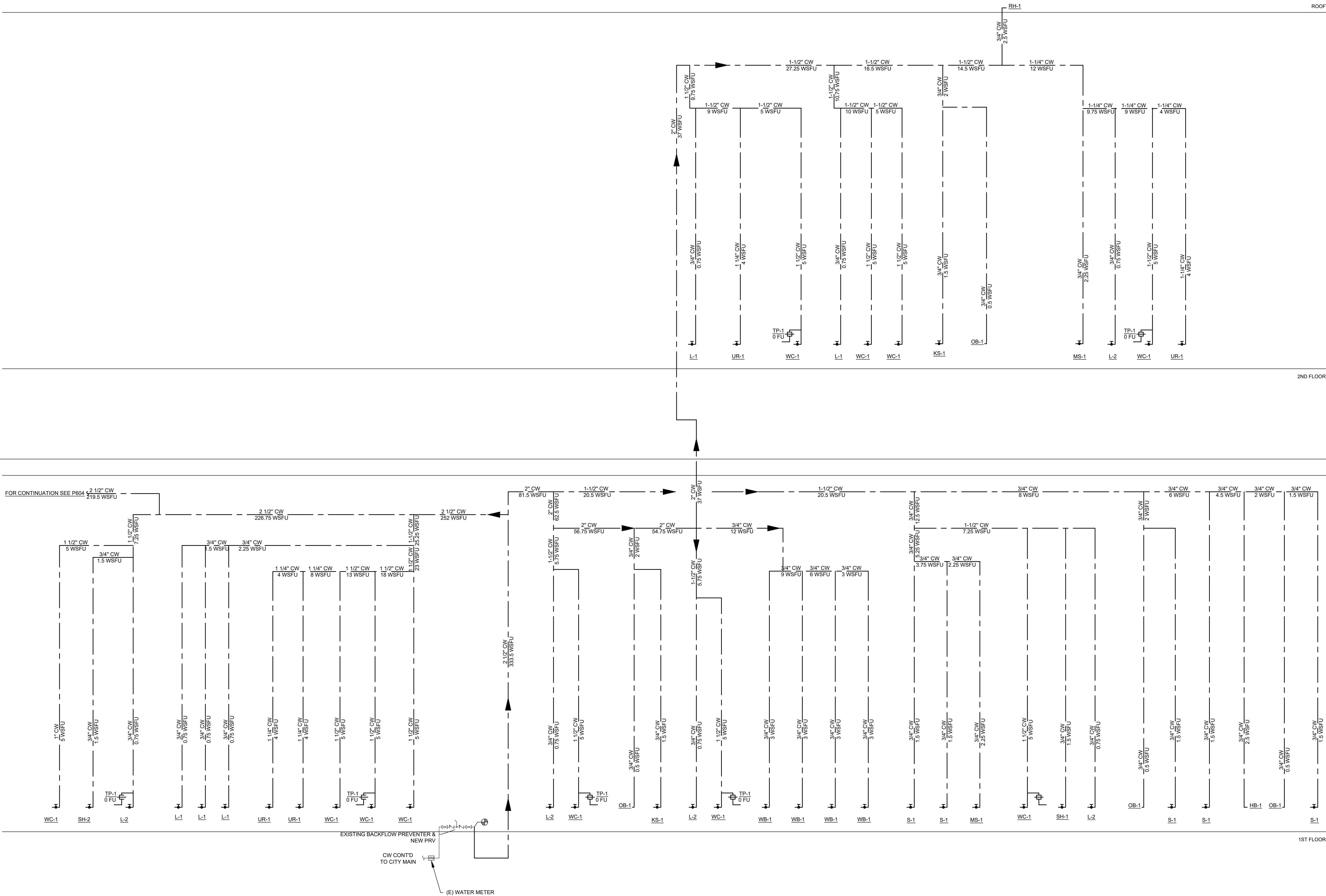
PLUMBING SERVICE
RISER

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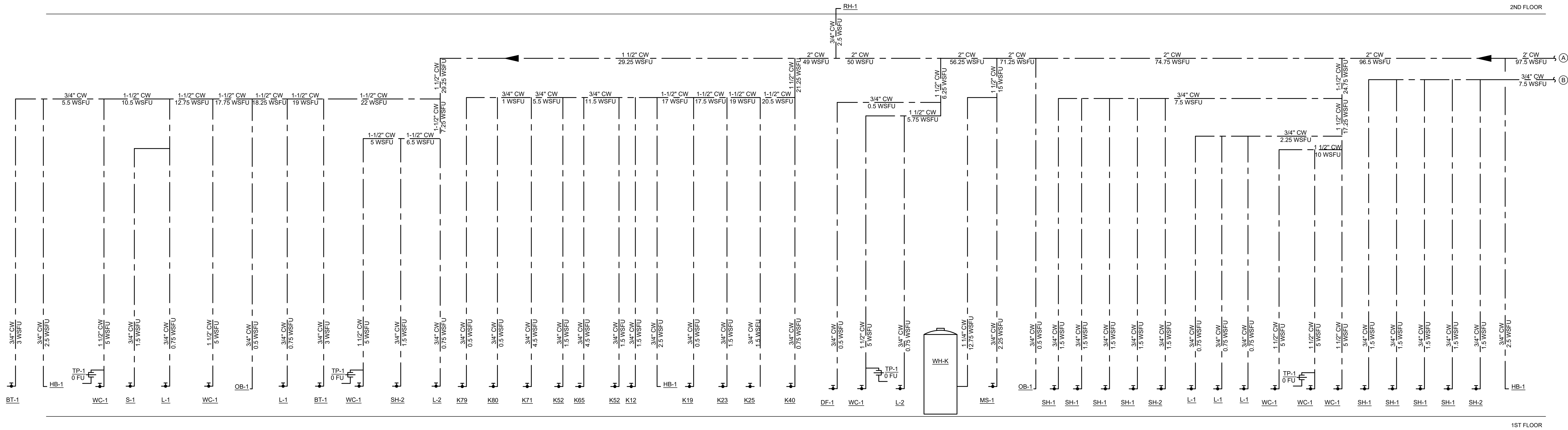
PLUMBING SERVICE
RISER

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Date 04/29/2026
Project No. LEI # 25039
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P604



1ST FLOOR

2ND FLOOR

1ST FLOOR

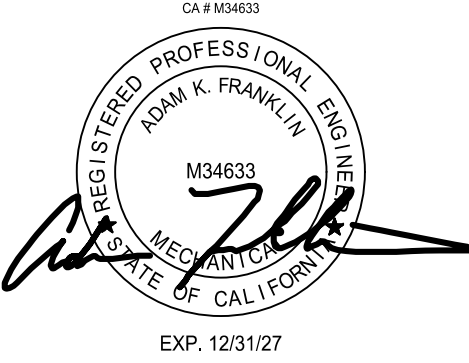
PLUMBING SERVICE RISER

1'-0" = 1'-0"

01

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PLUMBING SERVICE
RISER

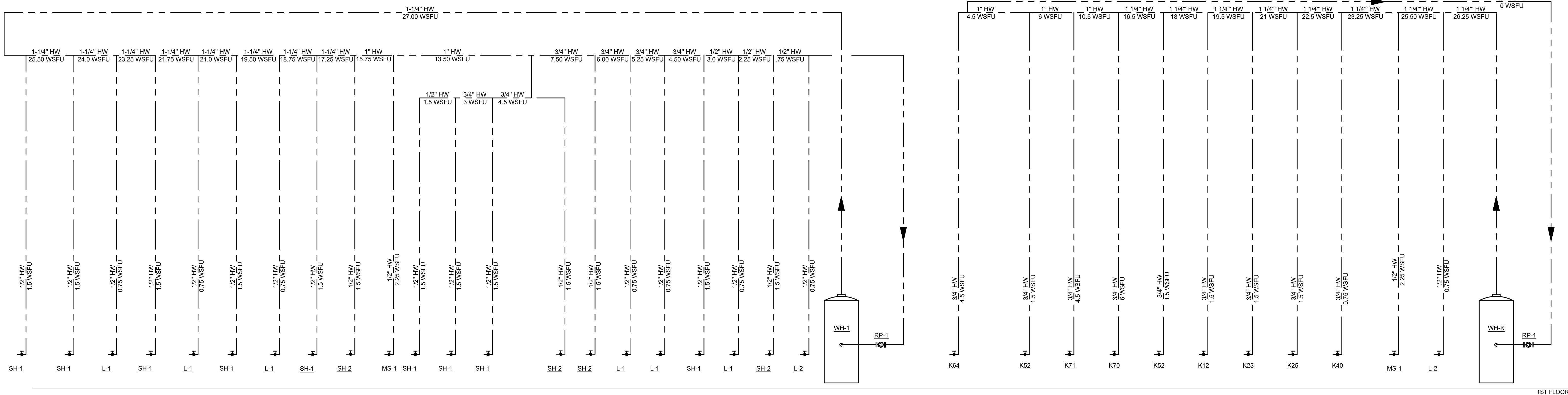
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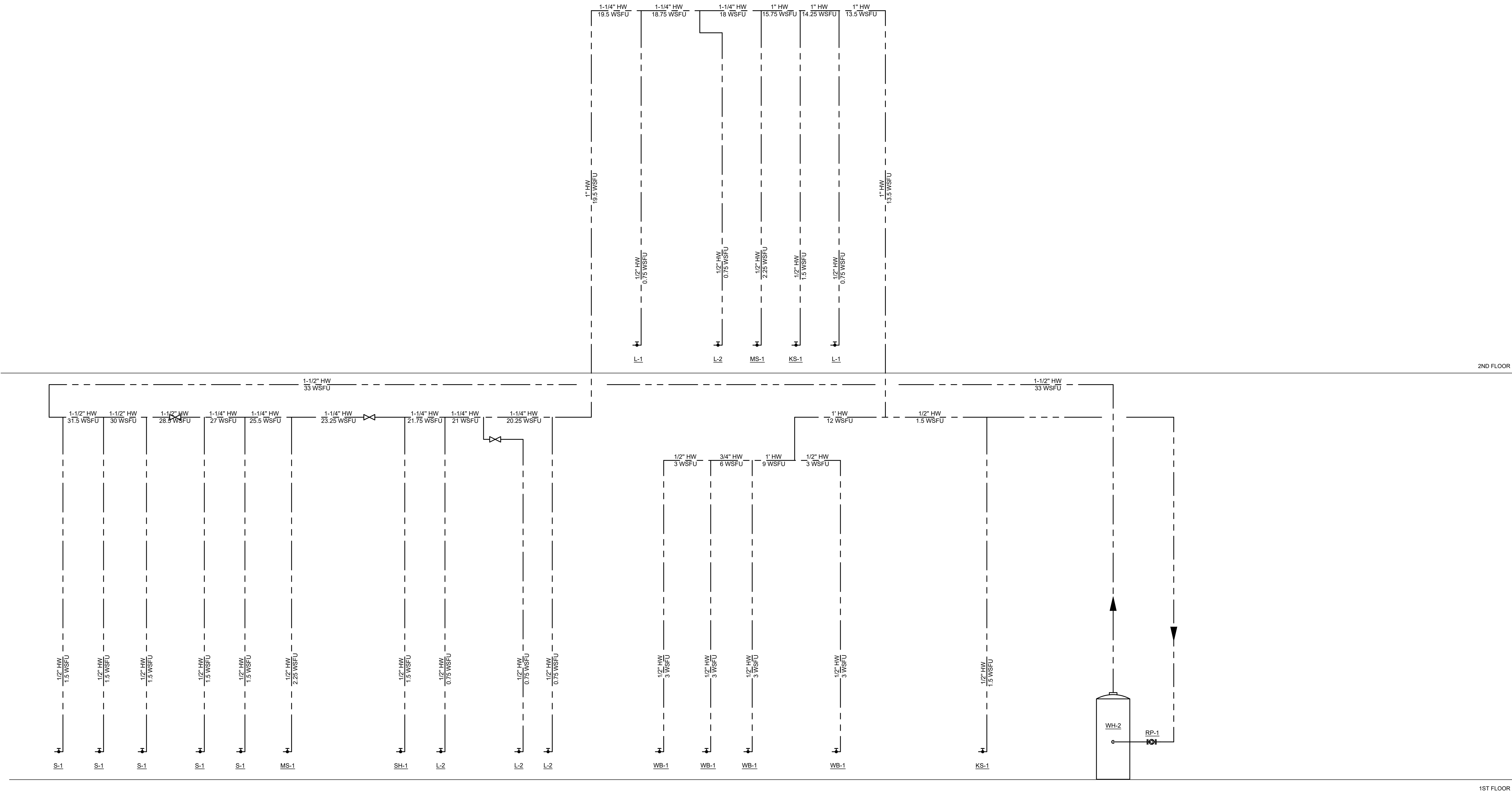
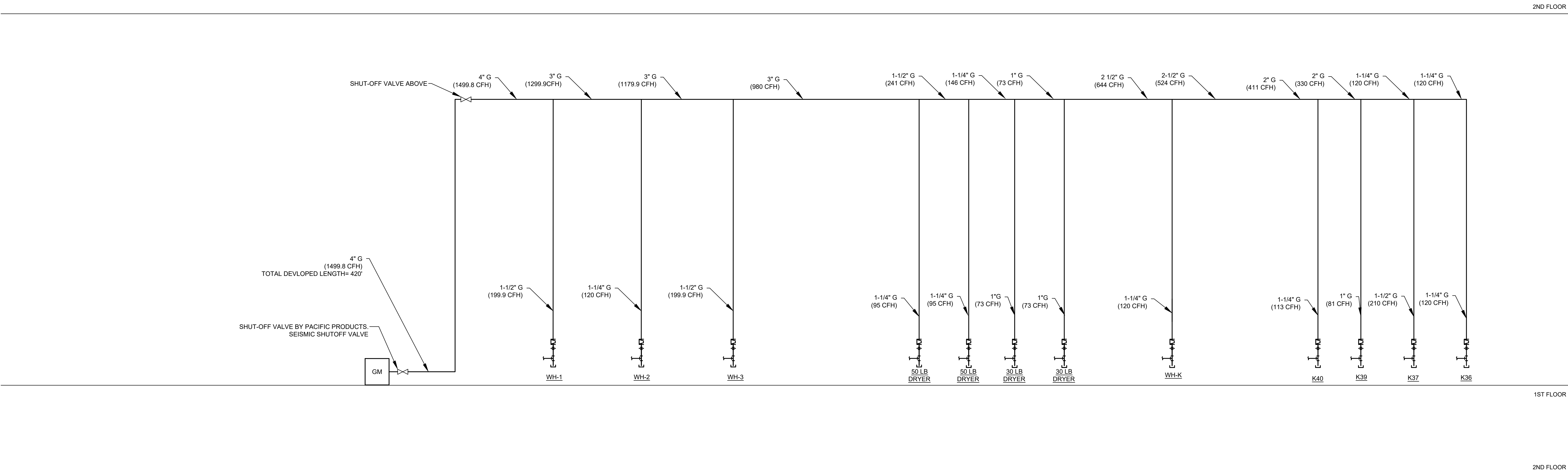
2ND FLOOR



1ST FLOOR

2ND FLOOR

1ST FLOOR



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MECHANICAL GENERAL NOTES
1. THE LATEST ADDITION OF THE OWNERS' AND/OR ARCHITECT'S GENERAL, SPECIAL AND SUPPLEMENTARY CONDITIONS AS WELL AS SEPARATE SPECIFICATIONS OR PROJECT MANUALS ARE COMPLEMENTARY TO THESE CONSTRUCTION DRAWINGS AND INCLUDED AS CONSTRUCTION DOCUMENTS.
2. FOLLOW APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS/ STANDARDS AS WELL AS INDUSTRY RECOGNIZED ASSOCIATION STANDARDS. USE GOOD COMMERCIAL CONSTRUCTION PRACTICES AND STANDARD OF CARE.
3. CONTRACTOR FILES, SECURES AND PAYS FOR ANY NECESSARY APPROVALS, PERMITS, LICENSES AND INSPECTIONS WHICH ARE REQUIRED BY ANY LEGALLY CONSTITUTED AUTHORITY.
4. CONTRACTOR TO EXAMINE THE SITE TO DETERMINE THE EXIST CONDITIONS EFFECTING THE MECHANICAL WORK. THE CONTRACTOR VERIFIES ALL DIMENSIONS NOTED ON THE PLANS.
5. DRAWINGS INDICATE THE GENERAL SCHEME OF THE INSTALLATION AND ARE DIAGRAMMATIC IN SCOPE. THE ENGINEER RESERVES THE RIGHT TO CHANGE THE LOCATION OF DUCTWORK, PIPING, DIFFUSERS, APPARATUS, ETC. TO A REASONABLE EXTENT AS THE BUILDING CONDITIONS MAY DICTATE PRIOR TO THEIR INSTALLATION WITHOUT EXTRA COST TO THE OWNER. THE EXACT LOCATION AND ARRANGEMENT OF ALL EQUIPMENT AND PARTS SHALL BE DETERMINED AS THE WORK PROGRESSES.
7. SCRAP, DEBRIS AND ABANDONED HVAC EQUIPMENT/DUCTWORK/SUPPLIES/CONTROLS AND ACCESSORIES SHALL, EXCEPT AS OTHERWISE SPECIFIED, BE REMOVED FROM THE SITE AND DISPOSED OF BY THIS CONTRACTOR.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR START-UP OF SYSTEMS.
9. WORK SHALL BE COMPLETED WITH A MINIMUM OF DUST AND DIRT. PROVIDE SUFFICIENT FIREPROOF TARPAPLINS AND COVER ALL EQUIPMENT IN WORK AREA.
10. CONTRACTOR FURNISHES SHOP DRAWINGS AND EQUIPMENT CUT SHEETS FOR REVIEW AND COMMENTS PRIOR TO ORDERING AND SHIPPING OF SUCH EQUIPMENT. SUBSTITUTIONS MUST BE IN SUBMITTAL FORM WITHOUT EXCEPTION. SUBSTITUTIONS SHALL BE APPROVED BY THE OWNER AND/OR LANDLORD.
11. THE ENGINEER'S REVIEW AND COMMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OBLIGATION TO COMPLY WITH THE INFORMATION CONTAINED IN THE CONTRACT DOCUMENTS.
12. EQUIPMENT SUBMITTALS FOR MECHANICAL EQUIPMENT ARE SUBMITTED TO THE ENGINEER FOR REVIEW. ANY SUBSTITUTIONS MUST BE IN SUBMITTAL FORM WITHOUT EXCEPTION. SUBSTITUTIONS SHALL ALSO BE APPROVED BY THE OWNER AND/OR LANDLORD.
13. SUBMIT SHOP DRAWINGS/DATA SUBMITTALS FOR ENGINEERS REVIEW. SUBMITTALS FOR THE FOLLOWING APPLICABLE ITEM AS WELL AS OTHER PERTINENT ITEMS: A. DUCTWORK B. DUCT INSULATION C. DAMPERS D. FILTERS E. FILTERS F. PIPE HANGERS AND SUPPORTS G. PIPE INSULATION H. FANS I. AIR HANDLERS J. FAN COIL UNITS K. DIFFUSERS, GRILLES, REGISTERS L. PACKAGED HEATING AND COOLING EQUIPMENT M. CONTROLS N. AIR BALANCING REPORT
14. THE ENGINEER'S SHOP DRAWING REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLY WITH THE INFORMATION INDICATED IN THE CONTRACT DOCUMENTS (I.E. PLANS, SCHEDULES, DETAILS, NOTES AND SPECIFICATIONS ETC.).
15. CONTRACTOR COORDINATES CONNECTIONS AT STREET WITH LOCAL UTILITY COMPANY(S).
16. CONTRACTOR DOES NOT ALLOW OR CAUSE ANY OF HISHER WORK TO BE COVERED UP OR CLOSED IN UNTIL IT HAS BEEN INSPECTED, TESTED, AND APPROVED BY AUTHORITIES HAVING JURISDICTION. SHOULD ANY OF HIS WORK BE COVERED UP OR CLOSED IN BEFORE SUCH INSPECTION, RE-SHIE SHOULD, AT THEIR OWN EXPENSE, UNCOVER THE WORK TO THE SATISFACTION OF THE INSPECTION PARTY.
17. PRIOR TO TESTING, CONTRACTOR MAKES SYSTEM ADJUSTMENTS REQUIRED FOR PROPER OPERATION. ADJUSTMENTS SHALL INCLUDE AIR BALANCING, HYDRONIC BALANCING, ETC. AN ADDITIONAL COMFORT BALANCE SHALL BE PROVIDED WITHIN A YEAR OF ACCEPTANCE OF THE COMPLETED PROJECT IF REQUESTED.
18. SYSTEMS BE TESTED IN ACCORDANCE WITH SMACNA STANDARDS AND THE LOCAL ENERGY CODE.
19. CONTRACTOR IS RESPONSIBLE FOR DISCONNECTING FACILITIES IN AREAS INDICATED FOR DEMOLITION ON THE ARCHITECTURAL DRAWINGS.
20. WHERE DEMOLITION OF EXISTING SERVICES RESULTS IN THE INTERRUPTION OF DUCTWORK, MECHANICAL PIPING, ETC. SERVING AREAS WHICH ARE TO REMAIN, INSTALL BYPASS CONNECTIONS AS REQUIRED TO RESTORE REMAINING SERVICES TO OPERATION. SIZING, MATERIAL, JOINTINGS AND INSULATION OF BYPASS CONNECTIONS MATCH EXISTING INSTALLATION.
21. LABEL ROOF MOUNTED EQUIPMENT AS TO THE AREA SERVED BY THE EQUIPMENT.
22. THE CONTRACTOR'S PROPOSAL AND BASE BID MUST COVER ALL ITEMS IN THE PLANS AND SPECIFICATIONS/NOTES EXACTLY AS DRAWN, NOTED, SCHEDULED, DETAILED AND SPECIFIED. SEE SPECIFICATIONS FOR SUBSTITUTION PROCEDURES.
23. RELOCATE AS SHOWN ON DRAWINGS. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL NECESSARY WIRING REQUIRED FOR THERMOSTAT RELOCATION, REMOVE AND RELOCATE SUPPLY AIR DIFFUSERS, RETURN AIR GRILLES, RETURN AIR REGISTERS AND EXHAUST AIR REGISTERS AS SHOWN ON PLANS.
24. PROVIDE LOW VOLTAGE CONTROL WIRING, TRANSFORMERS, ETC. ASSOCIATED WITH THE HVAC SYSTEMS AS SPECIFIED HEREIN AND SHOWN ON DRAWINGS.
25. FANS FOR AIR HANDLERS, PACKAGED ROOFTOP UNITS, SUPPLY FANS, EXHAUST FANS, ETC. ARE PROVIDED WITH ADJUSTABLE SHEAVES ON MOTOR DRIVE AND FIXED SHEAVE ON DRIVEN EQUIPMENT. SHEAVES SHALL BE SELECTED SUCH THAT DESIGN CFM IS ACHIEVED WITH DESIGN STATIC PRESSURE AT THE MIDRANGE OF THE SHEAVE ADJUSTMENT. WHERE ADJUSTABLE SHEAVES ARE NOT AVAILABLE FROM THE FACTORY FOR PACKAGED EQUIPMENT, CONTRACTOR SHALL CHANGE OUT MOTOR SHEAVES IN THE FIELD. ADJUSTABLE SHEAVES, GROOVE SIZES AND QUANTITIES SHALL BE SELECTED TO MATCH FACTORY INSTALLED SHEAVES ON DRIVEN EQUIPMENT. SHEAVES SHALL BE MANUFACTURED BY BROWNING OR APPROVED EQUALS.
26. PERFORM INSTALLATION IN A MANNER THAT THE NOISE CRITERIA LEVEL IN THE SPACE SHALL NOT EXCEED NC-35. NOISE LEVELS ABOVE THIS LIMIT WILL NOT BE ACCEPTED AND SHOULD BE CORRECTED BY THIS CONTRACTOR AT NO EXPENSE TO THE OWNER.
27. SUPPLY AND RETURN DUCTWORK IS PROVIDED WITH 1" INTERNAL ACROUSTIC LINING AT LEAST 20' FROM EACH AIR HANDLING UNIT. DUCTWORK DIMENSIONS NOTED ON THE PLANS ARE CLEAR INSIDE DIMENSIONS.
28. DUCT INSULATION HAS COMPOSITE (INSULATION, JACKET FACINGS AND ADHESIVE USED TO ADHERE JACKET FACINGS TO THE INSULATION) FIRE AND SMOKE HAZARD RATINGS AS TESTED BY PROCEDURE ASTM E-84, NFPA 265 AND UL 73, NOT EXCEEDING FLAME SPREAD OF 25, FUEL CONTRIBUTED OF 50 AND SMOKE DEVELOPED OF 50. ACCESSORIES SUCH AS ADHESIVES, MASTICS, CEMENTS, TAPES AND CLOTHS FOR FITTINGS SHALL HAVE COMPONENT RATINGS AS LISTED ABOVE.
29. LINED DUCTS AS SPECIFIED ON THE PLANS AND INSTALLED WITHIN CONDITIONED SPACE SHALL BE INTERNALLY LINED WITH 1" THICK DUCT LINER.
30. PIPE INSULATION IS HEAVY DENSITY FIBERGLASS SECTIONAL PIPE INSULATION WITH A MAXIMUM K- FACTOR OF 0.23 AT 75 DEGREES F MEAN TEMPERATURE WITH FACTORY APPLIED ALL SERVICE VAPOR BARRIER JACKET. DENSITY IS NOT LESS THAN 3 LBS. PER CUBIC FEET.
31. AIR MOVING SYSTEMS SUPPLYING AIR AT 2000 CFM OR MORE TO ENCLOSED SPACES WITHIN A BUILDING OR AREA MUST BE EQUIPPED WITH AN AUTOMATIC SHUT-OFF AND SMOKE DETECTION SYSTEM.
32. VERTICAL PIPING SHALL BE ANCHORED BY MEANS OF HEAVY STEEL CLAMPS SECURELY BOLTED OR WELDED TO THE PIPING AND WITH END EXTENSION BEARING ON THE BUILDING.
33. PIPING SHALL BE ERECTED SO AS TO ENSURE A PERFECT AND NOISELESS CIRCULATION THROUGHOUT THE SYSTEM.
34. VALVES AND SPECIALTIES BE SO PLACED AS TO PERMIT EASY OPERATION AND ACCESS.
35. PROVIDE STRAPS OR PIPING FOR EXPANSION AND CONTRACTION IN PORTIONS OF PIPEWORK, TO PREVENT UNDUE STRAINS ON PIPING OR APPARATUS CONNECTED THEREWITH. PROVIDE DOUBLE SWINGS AT RISER TRANSFORMS AND OTHER OFFSETS WHEREVER POSSIBLE TO TAKE UP EXPANSION. ARRANGE RISER BRANCHES TO TAKE UP MOTION OF RISER.
36. THE ENDS OF PIPE AND NIPPLES BE THOROUGHLY REAMED TO THE FULL INSIDE DIAMETER OF THE PIPE AND ALL BURRS FORMED IN THE CUTTING OF THE PIPES SHALL BE REMOVED.
37. PIPING IS INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE ASME CODE FOR PRESSURE PIPING.
38. PIPING AT EQUIPMENT AND CONTROL VALVES ARE SUPPORTED TO PREVENT STRAINS OR DISTORTIONS IN THE CONNECTED EQUIPMENT AND CONTROL VALVES. PIPING IS SUPPORTED TO ALLOW FOR REMOVAL OF EQUIPMENT, VALVES AND ACCESSORIES WITH A MINIMUM OF DISMANTLING AND WITHOUT REQUIRING ADDITIONAL SUPPORTS AFTER THESE ITEMS ARE REMOVED.
39. MISCELLANEOUS DRAINS, VENTS, RELIEFS AND OVERFLOWS FROM TANKS, EQUIPMENT, PIPING, RELIEF VALVES, PUMPS, ETC., SHALL BE RUN TO THE NEAREST OPEN SIGHT DRAIN. PROVIDE DRAIN VALVES WHENEVER REQUIRED FOR COMPLETE DRAINAGE OF PIPING, INCLUDING THE SYSTEM SIDE OF PUMPS. PROVIDE 1" AIR GAP AS REQUIRED BY LOCAL CODES.
41. THE CONTRACTOR GUARANTEES BY HIS ACCEPTANCE OF THE CONTRACT THAT WORK INSTALLED WILL BE FREE FROM ANY AND ALL DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF COMPLETION AND ACCEPTANCE OF WORK.
42. THE CONTRACTOR GUARANTEES BY HIS ACCEPTANCE OF THE CONTRACT THAT MECHANICAL EQUIPMENT INSTALLED WILL BE GUARANTEED BY THE MANUFACTURER FOR A PERIOD OF FIVE YEARS FROM DATE OF COMPLETION AND ACCEPTANCE OF WORK.
43. THE CONTRACTOR GUARANTEES BY HIS ACCEPTANCE OF THE CONTRACT THAT GUARANTEES WILL BE TRANSFERABLE TO THE BUILDING AT THE DATE OF COMPLETION AND ACCEPTANCE OF WORK.
44. THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS SHOWING FIELD INSTALLATION CONDITIONS.

MECHANICAL TITLE 24 MANDATORY MEASURES
SPACE CONDITIONING MANDATORY MEASURES: 110.5 PILOT LIGHTS PROHIBITED FOR NATURAL GAS EQUIPMENT PILOT LIGHTS ARE PROHIBITED ON NATURAL GAS FAN-TYPE CENTRAL FURNACES, POOL HEATERS, AND FIREPLACES. 110.10(i) INSULATION CERTIFICATION INSTALLED INSULATION SHALL BE CERTIFIED BY THE DEPARTMENT OF CONSUMER AFFAIRS PER TITLE 24, PART 2, CHAPTER 10-13, ARTICLE 10-13.1 THROUGH 10-13.10. 110.10(d) UREA FORMALDEHYDE INSULATION UREA FORMALDEHYDE INSULATION SHALL NOT BE INSTALLED UNLESS IN EXTERIOR SIDEWALLS WITH A FOUR-MIL-THICK PLASTIC POLYETHYLENE VAPOR RETARDER OR EQUIVALENT PLASTICS SHEATHING VAPOR RETARDER INSTALLED BEHIND THE UREA FORMALDEHYDE FOAM INSULATION AND THE INTERIOR SPACE. 110.10(c) INSULATING MATERIAL ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF THE CALIFORNIA BUILDING CODE. 110.6(i) DUCTS DUCTS ARE INSTALLED ON AN EXISTING SPACE. CONDITIONING DUCT, IT SHALL COMPLY WITH SECTION 604.0 OF THE CMC. 120.1(e) GENERAL VENTILATION AND INDOOR AIR QUALITY REQUIREMENTS ALL OCCUPABLE SPACES IN HIGH-RISE RESIDENTIAL, HOTEL/MOTEL, AND NONRESIDENTIAL BUILDINGS OTHER THAN HEALTHCARE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF (a) THROUGH (g). THE REQUIRED OUTDOOR AIR VENTILATION RATE AND AIR-DISTRIBUTION SYSTEM DESIGN SHALL BE CLEARLY IDENTIFIED ON THE PLANS. 120.1(c) NON RESIDENTIAL AND HOTEL/MOTEL BUILDINGS ALL OCCUPABLE SPACES SHALL MEET THE FOLLOWING 120.1(c) AIR FILTRATION REQUIREMENTS, AND EITHER 120.1(c)2 NATURAL VENTILATION, OR 120.1(c)3 MECHANICAL VENTILATION. A. THE FOLLOWING SYSTEM TYPES SHALL BE PROVIDED WITH AIR FILTERS TO CLEAN OUTSIDE AIR AND RETURN AIR PRIOR TO INTRODUCING INTO THE SPACE: i. NEWLY INSTALLED MECHANICAL SPACE CONDITIONING SYSTEMS THAT USE FORCED AIR DUCTS TO FLOW LONG TO SUPPLY AIR TO AN OCCUPABLE SPACE. ii. MECHANICAL SUPPLY, ONLY VENTILATION SYSTEMS THAT PROVIDE OUTSIDE AIR TO AN OCCUPABLE SPACE. iii. THE SUPPLY SIDE OF MECHANICAL BALANCED VENTILATION SYSTEMS, INCLUDING HEAT RECOVERY VENTILATION SYSTEMS AND ENERGY RECOVERY VENTILATION SYSTEMS THAT PROVIDE OUTSIDE AIR TO AN OCCUPABLE SPACE. B. AIR FILTERS SHALL HAVE AN EFFICIENCY MEV 13 WHEN TESTED PER ASHRAE STANDARD 52.2 OR A PARTICLE SIZE EFFICIENCY RATING PER 120.1(c)18. C. SYSTEM AIR FILTERS SHALL BE EITHER: i. NOMINAL 2 INCH MINIMUM DEPTH, OR ii. NOMINAL 1 INCH MINIMUM DEPTH, IF SIZED PER EQUATION 120.1-A BASED ON A MAXIMUM FACE VELOCITY OF 150 FPM. 120.1(c)2 NATURAL VENTILATION NATURALLY VENTILATED SPACES SHALL BE DESIGNED IN ACCORDANCE WITH 120.1(c)2a THROUGH 120.1(c)2c AND INCLUDE A MECHANICAL VENTILATION SYSTEMS DESIGNED IN ACCORDANCE WITH 120.1(c)3. 120.1(c)3 MECHANICAL VENTILATION OCCUPABLE SPACES SHALL BE VENTILATED WITH A MECHANICAL VENTILATION SYSTEM CAPABLE OF PROVIDING AN OUTDOOR AIRFLOW RATE (V2) TO THE ZONE NO LESS THAN THE LARGER OF 120.1(c)3a OR 120.1(c)3b. 120.1(c)2 TIMES OF OCCUPANCY MINIMUM OUTDOOR AIR RATE SHALL BE MET AT TIMES WHEN THE SPACE IS USUALLY OCCUPIED IN ACCORDANCE WITH 120.1(c). 120.1(c)2 PRE-OCCUPANCY THE LESSER OF THE MINIMUM RATE OF OUTDOOR AIR REQUIRED BY SECTION 120.1(c) OR THREE COMPLETE AIR CHANGES SHALL BE SUPPLIED TO THE ENTIRE BUILDING DURING THE 1-HOUR PERIOD IMMEDIATELY BEFORE THE BUILDING IS NORMALLY OCCUPIED. 120.1(c)3 REQUIRED DEMAND CONTROL VENTILATION DCV CONTROLS ARE REQUIRED FOR A SPACE WITH A DESIGN OCCUPANCY DENSITY 25 PEOPLE/1,000 F2 IF THE SYSTEM SERVING THE SPACE HAS ONE OR MORE OF THE FOLLOWING AN AIR ECONOMIZER MODULATING OUTSIDE AIR CONTACT, DESIGN OUTDOOR AIRFLOW RATE 3,000 CFM. 120.1(e) DUCTING FOR ZONAL HEATING AND COOLING UNITS WHERE A RETURN PLENUM IS USED TO DISTRIBUTE OUTDOOR AIR TO A ZONAL HEATING OR COOLING UNIT WHICH THEN SUPPLIES AIR TO A SPACE TO MEET 120.1(c)3, OUTDOOR AIR CHARGE EITHER: 1. WITHIN 5 FEET OF THE UNIT OR 2. WITHIN 15 FEET OF THE UNIT, SUBSTANTIALLY TOWARD THE UNIT, AND AT A VELOCITY NOT LESS THAN 500 FEET PER MINUTE. 120.1(f) DESIGN AND CONTROL REQUIREMENTS FOR QUANTITIES OF OUTSIDE AIR: 1. ALL MECHANICAL VENTILATION AND SPACE CONDITIONING SYSTEMS SHALL BE DESIGNED WITH AND HAVE INSTALLED DUCTWORK, DAMPERS, AND CONTROLS TO ALLOW OR PREVENT TO BE OPERATED AT THE LARGER OF: 120.1(c)3 MINIMUMS OR THE RATE REQUIRED FOR MAKE-UP OF EXHAUST SYSTEMS FOR AN EXEMPT OR COVERED PROCESS, CONTROL OF ODORS, OR CONTAMINANT REMOVAL IN A SPACE. 120.1(g) AIR CLASSIFICATION AND RECIRCULATION LIMITATIONS AIR CLASSIFICATION AND RECIRCULATION LIMITATIONS OF AIR SHALL BE BASED ON TABLE 120.1-A OR TABLE 120.1-C, AND IN ACCORDANCE WITH 120.1(g)1 THROUGH 4. 120.2(a) THERMOSTAT CONTROLS HEATING AND COOLING SUPPLY TO EACH SPACE-CONDITIONING ZONE OR DWELLING UNIT SHALL BE CONTROLLED BY AN INDIVIDUAL, THERMOSTATIC CONTROL THAT RESPONDS TO TEMPERATURE IN THE ZONE AND MEETS 120.2(b) REQUIREMENTS. 120.2(b) CRITERIA FOR ZONAL THERMOSTATIC CONTROLS 1. BEING SET TO 55 F OR LOWER, WHEN CONTROLLING HEATING, 120.2(b)2 BEING SET UP TO AT LEAST 5 F HIGHER, WHEN CONTROLLING COOLING, 120.2(b)3 PROVIDING A TEMPERATURE RANGE, OR DEAD BAND OF 0.85 F WITHIN WHICH HEATING AND COOLING TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM. 120.2(c) DAMPERS FOR AIR SUPPLY AND EXHAUST EQUIPMENT OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE UPON FAN SHUTDOWN. 120.2(h) AUTOMATIC DEMAND SHED CONTROLS SHALL MEET REQUIREMENTS IN 110.12(a) DEMAND RESPONSIVE (DR) CONTROL REQUIREMENTS. EITHER CERTIFIED SPECIFICATIONS/NOTES EXACTLY AS DRAWN, NOTED, SCHEDULED, DETAILED AND SPECIFIED, OR RESPONDING TO A DR SIGNAL FROM A CERTIFIED OPERAND 2.0B, VIRTUAL END NODE BY AUTOMATICALLY IMPLEMENTING THE CONTROL FUNCTIONS REQUESTED BY THE VIRTUAL END NODE FOR THE EQUIPMENT IT CONTROLS, CAPABLE OF COMMUNICATING USING W-H, ZIGBEE, BACNET, ETHERNET, AND/OR HARD-WIRING, MAY INCORPORATE AND USE ADDITIONAL PROTOCOLS BEYOND THOSE SPECIFIED IN 110.12(a)1 AND 2. SHALL CONTINUE TO OPERATE ALL OTHER CONTROL FUNCTIONS PROVIDED BY THE CONTROL, WHEN COMMUNICATIONS ARE DISABLED. THERMOSTATS SHALL COMPLY WITH REFERENCE JOINT APPENDIX 5 (A5) 110.12(b) NONRESIDENTIAL HVAC SYSTEMS WITH DDC TO THE ZONE LEVEL SHALL BE PROGRAMMED TO ALLOW CENTRALIZED DEMAND SHED OR NON-CRITICAL ZONES ON SIGNAL FROM A CENTRALIZED CONTACT OR SOFTWARE POINT WITHIN AN EMCS REMOTELY DECREASING THE OPERATING HEATING TEMPERATURE SETPOINTS BY A DEGREE OR MORE IN ALL NON-CRITICAL ZONES ON SIGNAL FROM A CENTRALIZED CONTACT OR SOFTWARE POINT WITHIN AN EMCS REMOTELY RESETTING THE TEMPERATURES IN ALL NON-CRITICAL ZONES TO ORIGINAL OPERATING LEVELS ON SIGNAL FROM A CENTRALIZED CONTACT OR SOFTWARE POINT WITHIN AN EMCS PROVIDING AN ADJUSTABLE RATE OF CHANGE FOR THE TEMPERATURE INCREASE, DECREASE, AND RESET THE FOLLOWING WHEN COMMUNICATIONS ARE DISABLED. FACILITY OPERATORS MANUAL CONTROL BY AUTHORIZED FACILITY OPERATORS UPON RECEIPT OF A DR SIGNAL, SPACE-CONDITIONING SYSTEMS SHALL CONDUCT A CENTRALIZED DEMAND SHED, AS SPECIFIED IN 110.12(b)1 AND 110.12(b)2, FOR NON-CRITICAL ZONES DURING THE DR PERIOD. 120.2(d) DIRECT DIGITAL CONTROLS (DDC) DDC TO THE ZONE SHALL BE PROVIDED AS SPECIFIED BY TABLE 120.2-A. THE DDC SYSTEM SHALL MEET CONTROL LOGIC REQUIREMENTS OF 120.1(c)3 AND 120.2(h) AND BE CAPABLE OF ALL THE FOLLOWING: MONITORING ZONE AND SYSTEM DEMAND FOR FAN PRESSURE, PUMP PRESSURE, HEATING AND COOLING TRANSFERRING ZONE AND SYSTEM DEMAND INFORMATION FROM ZONES TO AIR DISTRIBUTION SYSTEMS TO HEATING AND COOLING PLANT CONTROLLERS AUTOMATICALLY DETECTING THE ZONES AND SYSTEMS THAT MAY EXCESSIVELY DRIVING THE RESET LOGIC AND GENERATE AN ALARM OR OTHER INDICATION TO THE SYSTEM OPERATOR READILY ALLOW OPERATOR REMOVAL OF ZONES FROM THE RESET ALGORITHM FOR NEW BUILDINGS, TRENDDING AND GRAPHICALLY DISPLAYING INPUT AND OUTPUT POINTS RESETTING HEATING AND COOLING SETPOINTS IN ALL NON-CRITICAL ZONES UPON RECEIPT OF A SIGNAL FROM A CENTRALIZED CONTACT OR SOFTWARE POINT AS DESCRIBED IN 120.2(h). 120.4 AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS PORTIONS OF SUPPLY-AND-RETURN-AIR DUCTS CONVEYING HEATED OR COOLED AIR LOCATED IN ONE OR MORE OF THE FOLLOWING SPACES SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4 OUTDOORS IN A SPACE BETWEEN THE ROOF AND AN INSULATING CEILING IN A SPACE DIRECTLY UNDER A ROOF WITH FIXED VENTS OR OPENINGS TO THE OUTSIDE OR UNCONDITIONED SPACES, UNCONDITIONED SPACES, SUCH AS UNCONDITIONED CRAWLSPACE PORTIONS OF SUPPLY-AIR DUCTS THAT ARE NOT IN ONE OF THESE SPACES, INCLUDING DUCTS BURIED IN CONCRETE SLAB, SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 (OR ANY HIGHER LEVEL REQUIRED BY CMC 604.0) OR BE ENCLOSED IN DIRECTLY CONDITIONED SPACE. 120.4(d) DUCT AND PLENUM MATERIALS 120.4(d) FACTORY-FABRICATED DUCT SYSTEMS MUST COMPLY WITH UL 181 FOR DUCTS AND CLOSED SPACE SYSTEMS AND BE LABELED AS COMPLYING WITH UL 181. ALL PRESSURE SENSITIVE TAPES, HEAT ACTIVATED TAPES, AND MASTICS USED IN MANUFACTURE OF RIGID FIBERGLASS DUCTS SHALL COMPLY WITH UL 181 AND UL 181B. JOINTS AND SEAMS SHALL NOT BE SEALED WITH CLOTH BACK RUBBER ADHESIVE DUCT TAPES UNLESS COMBINED WITH MASTICS AND DRAWNINGS. FIELD-FABRICATED DUCT SYSTEMS SHALL COMPLY WITH UL 181. ALL CLOSURE SYSTEMS, INCLUDING PRESSURE SENSITIVE TAPES, MASTICS, AND AEROSOL SEALANTS, SHALL MEET THE APPLICABLE REQUIREMENTS OF UL 161A AND UL 191B. MASTIC SEALANTS SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF UL 161, UL 161A, AND UL 191B. JOINTS AND SEAMS SHALL NOT BE SEALED WITH CLOTH BACK RUBBER ADHESIVE DUCT TAPES UNLESS COMBINED WITH MASTICS AND DRAWNINGS. DRAWINGS USED WITH FLEXIBLE DUCTS SHALL BE EITHER STAINLESS STEEL, WORM DRIVE HOSE CLAMPS OR UL-RESISTANT NYLON DUCT TIES HAVE A MINIMUM TENSILE STRENGTH RATING OF 150 LBS. BE TIGHTENED AS RECOMMENDED BY THE MANUFACTURER AEROSOL SEALANT CLOSURES SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF UL 181, UL 161A, AND UL 161B, ASTM C731, C732 AND D2202. 120.4(c) ALL DUCT INSULATION PRODUCTION TEST R-VALUES SHALL BE BASED ON INSULATION ONLY AND TESTED IN ACCORDANCE WITH ASTM C518 OR ASTM C177 AND CERTIFIED PER 120.4(d) INSTALLED THICKNESS OF DUCT INSULATION USED TO DETERMINE ITS R-VALUE SHALL BE DETERMINED AS FOLLOWS DUCT BOARD, LINER, AND FACTORY-MADE RIGIDS: USE NORMAL INSULATION THICKNESS DUCT WRAP: USE 75% (25% COMPRESSION) OF NOMINAL THICKNESS FACTORY-MADE FLEXIBLE AIR DUCTS: DIVIDE THE DIFFERENCE BETWEEN THE ACTUAL OUTSIDE DIAMETER AND NOMINAL INSIDE DIAMETER BY TWO. 120.4(e) INSULATED FLEXIBLE DUCT PRODUCTS INSTALLED TO MEET THIS REQUIREMENT MUST INCLUDE LABELS (MAX. INTERVALS OF 3 FT) SHOWING THERMAL RESISTANCE PERFORMANCE VALUE FOR THE DUCT INSULATION ITSELF BASED ON TESTS IN 120.4 (c) AND INSTALLED THICKNESS BY 120.4(d)3. 120.4(f) PROTECTION OF INSULATION INSULATION SHALL BE PROTECTED FROM DAMAGE BY SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE AND WIND. CELLULAR FOAM INSULATION SHALL BE PROTECTED, OR BE PAINTED WITH A WATER RETARDANT COATING THAT PROVIDES SHIELDING FROM SOLAR RADIATION.

CA ENERGY AND GREEN BUILDING STANDARDS

INSPECTIONS AND CERTIFICATIONS

1. CONTRACTOR SHALL PERFORM FUNCTIONAL AND ACCEPTANCE TESTING FOR TITLE 24 PART 6 REGULATED SYSTEMS. COMPLY, POST, SUBMIT, OR MAKE AVAILABLE TO THE ENFORCING AGENCY ALL APPROPRIATE INSPECTIONS OR BUILDING OWNER, DOCUMENTATION IN ACCORDANCE WITH TITLE 24 PART 1 SECTION 10-103 AND TITLE 24 PART 11 TO INCLUDE BUT NOT LIMITED TO:

• INSTALLATION CERTIFICATE(S) FOR MANUFACTURED DEVICES REGULATED BY THE APPLIANCE EFFICIENCY REGULATIONS OF PART 6.

• CERTIFICATE(S) OF ACCEPTANCE FORMS. FORMS MUST BE FILED WITH THE ENFORCING AGENCY PRIOR TO RECEIVING FINAL OCCUPANCY PERMIT.

• APPROPRIATE CERTIFICATE(S) OF COMPLIANCE AND A LIST OF THE FEATURES, MATERIALS, AND COMPONENTS INSTALLED IN THE BUILDING(S) TO THE OWNER WITH INSTRUCTIONS ON HOW TO OPERATE THEM EFFICIENTLY.

• MAINTENANCE INFORMATION FOR ALL FEATURES, MATERIALS, COMPONENTS, AND MANUFACTURED DEVICES THAT REQUIRE ROUTINE MAINTENANCE FOR EFFICIENT OPERATION.

• FUNCTIONAL PERFORMANCE TESTING REPORT SCOPE AND CONTENT SHALL BE CONSISTENT WITH CALGREEN COMPLIANCE FORM "FUNCTIONAL PERFORMANCE TESTING" OR APPROVED EQUALS AND MAY INCORPORATE ACCEPTANCE FORMS REQUIRED UNDER THE CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS.

TESTING & ADJUSTING

THE TESTING AND ADJUSTING RESPONSIBILITIES FOR THE MECHANICAL CONTRACTOR ARE AS FOLLOWS:

1. THE HVAC SYSTEMS AND CONTROLS SHALL BE TESTED, ADJUSTED, AND BALANCED BY A LICENSED TAB CONTRACTOR IN ACCORDANCE WITH ONE OF THE FOLLOWING STANDARDS (CMC 314.1):

• TESTING AND BALANCING BUREAUS (TABB) CONSTRUCTION SPECIFICATION INSTITUTE MASTER FORMAT (SECTION 23 05 90 AND SECTION 15990)

• NATIONAL ENVIRONMENTAL BALANCING BUREAU(S) (NEBB) STANDARDS FOR TESTING, ADJUSTMENT, AND BALANCING OF ENVIRONMENTAL SYSTEMS (7TH EDITION)

• ASSOCIATED AIR BALANCE COUNCIL'S (AABC) NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCING (6TH EDITION)

• ASHRAE'S STANDARD 11-2008

2. REPORT REQUIRED:

• A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED AND PROVIDED TO THE CITY INSPECTOR PRIOR TO FINAL INSPECTION APPROVAL. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.

3. OPERATIONS AND SYSTEMS MANUAL:

• AN OPERATIONS AND SYSTEMS MANUAL SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION.

COMMISSIONING

1. CONTRACTOR TO PERFORM SYSTEMS COMMISSIONING FOR NONRESIDENTIAL BUILDINGS WITH CONDITIONED SPACE OF 10,000 SQUARE FEET OR MORE IN ACCORDANCE WITH TITLE 24 PART 6 SECTION 120.8, AND TITLE 24 PART 11 SECTION 5.410.

ACCEPTANCE TESTING

MANDATORY ACCEPTANCE TESTING PER TITLE 24, PART 6 SHALL BE AS FOLLOWS:

AN ABCR Agency SHALL ACT AS THE ACCEPTANCE AGENT AND PERFORM WORK REQUIRED IN THE FOLLOWING ACCEPTANCE TESTS AS DESCRIBED IN CHAPTER 13 OF THE 2022 NONRESIDENTIAL COMPLIANCE MANUAL. THIS SHALL INCLUDE FILLING OUT, SIGNING, AND SUBMITTING APPLICABLE FORMS LISTED ON THE MECHANICAL ENERGY COMPLIANCE FORMS.

SPECIFIC REQUIREMENTS AND ACCEPTANCE TESTING FORMS ARE AVAILABLE IN THE 2022 NONRESIDENTIAL COMPLIANCE MANUAL, WHICH CAN BE DOWNLOADED FROM www.energy.ca.gov/sites/default/files/2022-02/2022standards/.

ABBREVIATIONS

ABV

AC

AD

AFF

AFS

AHU

AHU

AMB

AP

BAS

BDD

BEL

BFF

BFP

BHP

BMS

BOD

BOO

BTU

BTUH

CC

CFM

CFSD

CL

CLG

CO

CO2

COMB

CON

CXA

(D)

dB

DB

DDB

DA

DIST

DN

DPT

DV

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Adam K. Franklin, P.E.



CONSULTANT



PROJECT

WESTEND NAVIGATION CENTER

11109 JASMINE STREET FONTANA, CALIFORNIA 92337

FOR



FONTANA CALIFORNIA

TITLE

MECHANICAL SCHEDULES & CALCULATIONS

Revisions	By	Date
Δ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn LEI
Date 04/29/2026
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ROOFTOP HVAC UNITS SCHEDULE																																							
GENERAL						EVAPORATOR FAN						COOLING COIL						HEATING COIL						COMPRESSOR		REFRIGERANT		FILTER	ELECTRICAL				NOTES						
TAG	MANUFACTURER MODEL NO.	SERVICE	LOCATION	TONS	OPERATING WEIGHT (LBS)	DIMENSIONS (L" X W" X H") INCLUDES HEIGHT OF CURB	TOTAL AIR FLOW (CFM)	OUTSIDE AIR (CFM)	ESP (IN. WG.)	MOTOR CONTROL	FAN SPEED (RPM)	BHP	AMBIENT SUMMER (°F) DB/WB	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	SEER2/[EER2]	EER/[EER]	ENTERING		LEAVING		AMBIENT WINTER (°F)	FUEL TYPE	TOTAL (MBH)	COP2/[HSPF2]	COP	EAT DB (°F)		LAT DB (°F)	TEMP RISE (°F)	NO.	TYPE		TYPE	UNIT	MCA (A)	MOC ² (A)	POWER EXH. MCA (A)	MOC ² (A)
																		DB (°F)	WB (°F)	DB (°F)	WB (°F)																		
RTU-1	CARRIER 50FEQM14A2A6-0A0A0	SEE PLANS	ROOF	12.5	1934	116" X 64" X 72"	5000	650	0.5	ECM	1374	1.26	98 / 68	150.56	111.35	—	10.6/[15]	80	67	59	57	41	HEAT PUMP	136.50	—	3.3	70	95	25	2	SCROLL	R-454B	MERV 13	460/3/60	26	30	8.1	14.6	1,2,3,4,5,6,8,9
RTU-2	CARRIER 50FEQA06A2A6-0A6A0	SEE PLANS	ROOF	5.0	960	75" X 47" X 56"	2000	240	0.5	ECM	1828	0.64	98 / 68	61.49	47.62	13.4/[11.5]	—	80	67	57	57	41	HEAT PUMP	56.90	3.7/[6.7]	—	70	96	26	1	SCROLL	R-454B	MERV 13	460/3/60	15	20	3.5	6.3	1,2,3,4,5,6,8,9
RTU-3	CARRIER 50FEQA05A2A6-0A6A0	SEE PLANS	ROOF	4.0	838	75" X 47" X 48"	1600	340	0.5	ECM	1648	0.48	98 / 68	49.86	37.83	13.4/[11.5]	—	80	67	57	57	41	HEAT PUMP	46.50	3.6/[6.7]	—	70	97	27	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-4	CARRIER 50FEQM08A2A6-0A0A0	SEE PLANS	ROOF	7.5	1278	88" X 60" X 51"	3000	400	0.5	ECM	1310	0.77	98 / 68	91.75	69.61	—	11.2/[15]	80	67	58	57	41	HEAT PUMP	84.60	—	3.4	70	96	26	2	SCROLL	R-454B	MERV 13	460/3/60	19	25	3.5	6.3	1,2,3,4,5,6,8,9
RTU-5	CARRIER 50FEQM08A2A6-0A0A0	SEE PLANS	ROOF	7.5	1278	88" X 60" X 51"	3000	460	0.5	ECM	1310	0.77	98 / 68	91.75	69.61	—	11.2/[15]	80	67	58	57	41	HEAT PUMP	84.60	—	3.4	70	96	26	2	SCROLL	R-454B	MERV 13	460/3/60	19	25	3.5	6.3	1,2,3,4,5,6,8,9
RTU-6	CARRIER 50FEQA06A2A6-0A6A0	SEE PLANS	ROOF	5.0	960	75" X 47" X 56"	2000	300	0.5	ECM	1828	0.64	98 / 68	61.49	47.62	13.4/[11.5]	—	80	67	57	57	41	HEAT PUMP	56.90	3.7/[6.7]	—	70	96	26	1	SCROLL	R-454B	MERV 13	460/3/60	15	20	3.5	6.3	1,2,3,4,5,6,8,9
RTU-7	CARRIER 50FEQA06A2A6-0A6A0	SEE PLANS	ROOF	5.0	960	75" X 47" X 56"	2000	310	0.5	ECM	1828	0.64	98 / 68	61.49	47.62	13.4/[11.5]	—	80	67	57	57	41	HEAT PUMP	56.90	3.7/[6.7]	—	70	96	26	1	SCROLL	R-454B	MERV 13	460/3/60	15	20	3.5	6.3	1,2,3,4,5,6,8,9
RTU-8	CARRIER 50FEQM08A2A6-0A0A0	SEE PLANS	ROOF	7.5	1278	88" X 60" X 51"	3000	550	0.5	ECM	1310	0.77	98 / 68	91.75	69.61	—	11.2/[15]	80	67	58	57	41	HEAT PUMP	84.60	—	3.4	70	96	26	2	SCROLL	R-454B	MERV 13	460/3/60	19	25	3.5	6.3	1,2,3,4,5,6,8,9
RTU-9	CARRIER 50FEQA04A2A6-0A6A0	SEE PLANS	ROOF	3.0	842	75" X 47" X 48"	1200	300	0.5	ECM	1628	0.31	98 / 68	36.21	27.13	13.4/[11.5]	—	80	67	58	57	41	HEAT PUMP	33.50	3.6/[6.7]	—	70	96	26	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-10	CARRIER 50FEQM07A2A6-0A6A0	SEE PLANS	ROOF	6.0	966	75" X 47" X 56"	2400	430	0.5	ECM	2062	0.92	98 / 68	70.44	54.57	—	11.2/[15]	80	67	57	57	41	HEAT PUMP	69.80	—	3.4	70	97	27	1	SCROLL	R-454B	MERV 13	460/3/60	16	25	3.5	6.3	1,2,3,4,5,6,8,9
RTU-11	CARRIER 50FEQA04A2A6-0A6A0	SEE PLANS	ROOF	3.0	842	75" X 47" X 48"	1200	480	0.5	ECM	1628	0.31	98 / 68	36.21	27.13	13.4/[11.5]	—	80	67	58	57	41	HEAT PUMP	33.50	3.6/[6.7]	—	70	96	26	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-12	CARRIER 50FEQA05A2A6-0A6A0	SEE PLANS	ROOF	4.0	838	75" X 47" X 48"	1600	230	0.5	ECM	1648	0.48	98 / 68	49.86	37.83	13.4/[11.5]	—	80	67	57	57	41	HEAT PUMP	46.50	3.6/[6.7]	—	70	97	27	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-13	CARRIER 50FEQA05A2A6-0A6A0	SEE PLANS	ROOF	4.0	838	75" X 47" X 48"	1600	420	0.5	ECM	1648	0.48	98 / 68	49.86	37.83	13.4/[11.5]	—	80	67	57	57	41	HEAT PUMP	46.50	3.6/[6.7]	—	70	97	27	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-14	CARRIER 50FEQA05A2A6-0A6A0	SEE PLANS	ROOF	4.0	838	75" X 47" X 48"	1600	470	0.5	ECM	1648	0.48	98 / 68	49.86	37.83	13.4/[11.5]	—	80	67	57	57	41	HEAT PUMP	46.50	3.6/[6.7]	—	70	97	27	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-15	CARRIER 50FEQA05A2A6-0A6A0	SEE PLANS	ROOF	4.0	838	75" X 47" X 48"	1600	240	0.5	ECM	1648	0.48	98 / 68	49.86	37.83	13.4/[11.5]	—	80	67	57	57	41	HEAT PUMP	46.50	3.6/[6.7]	—	70	97	27	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-16	CARRIER 50FEQA04A2A6-0A6A0	SEE PLANS	ROOF	3.0	842	75" X 47" X 48"	1200	390	0.5	ECM	1628	0.31	98 / 68	36.21	27.13	13.4/[11.5]	—	80	67	58	57	41	HEAT PUMP	33.50	3.6/[6.7]	—	70	96	26	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-17	CARRIER 50FEQA04A2A6-0A6A0	SEE PLANS	ROOF	3.0	842	75" X 47" X 48"	1200	260	0.5	ECM	1628	0.31	98 / 68	36.21	27.13	13.4/[11.5]	—	80	67	58	57	41	HEAT PUMP	33.50	3.6/[6.7]	—	70	96	26	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
RTU-18	CARRIER 50FEQA04A2A6-0A6A0	SEE PLANS	ROOF	3.0	842	75" X 47" X 48"	1200	270	0.5	ECM	1628	0.31	98 / 68	36.21	27.13	13.4/[11.5]	—	80	67	58	57	41	HEAT PUMP	33.50	3.6/[6.7]	—	70	96	26	1	SCROLL	R-454B	MERV 13	460/3/60	10	15	1.9	3.4	1,2,3,4,5,6,7,9
NOTES: 1. UNIT SHALL BE PROVIDED WITH 7-DAY, 24-HOUR PROGRAMMABLE WALL-MOUNTED THERMOSTAT. 2. UNIT SHALL BE PROVIDED WITH 14" FULL PERIMETER ROOF CURB. 3. UNIT MOUNTED (NEMA-3R) FUSED DISCONNECT FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. 4. UNIT SHALL BE PROVIDED WITH FILTER FRAME KIT. AFTER START-UP COMPLETION, REPLACE FACTORY FILTERS WITH NEW FILTERS. FILTERS TO MEET RATING SPECIFICATIONS IN SCHEDULE. 5. FILTER QUANTITY SHALL BE DETERMINED BY UNIT MANUFACTURER. 6. PROVIDE MICROMETL OSA ENTHALPY ECONOMIZER AND MODULATING POWER EXHAUST. POWER EXHAUST TO HAVE INDEPENDENT POWER CONNECTION. 7. PROVIDE MICROMETL OSA ENTHALPY ECONOMIZER. 8. PROVIDE SMOKE DETECTOR FOR UNIT AUTOMATIC SHUTDOWN. 9. OPERATING WEIGHT INCLUDES ACCESSORIES AND A 10% SAFETY FACTOR.																																							

DEDICATED OUTSIDE AIR UNIT SCHEDULE																																		
GENERAL							EVAPORATOR FAN				COOLING COIL						HEATING COIL						COMPRESSOR		FILTER		ELECTRICAL			NOTES				
TAG	MANUFACTURER MODEL NO.	SERVICE	LOCATION	TONS	OPERATING WEIGHT (LBS)	DIMENSIONS (L" X W" X H") INCLUDES HEIGHT OF CURB	TOTAL AIR FLOW (CFM)	OUTSIDE AIR (CFM)	ESP (IN. WG.)	MOTOR CONTROL	HP	AMBIENT SUMMER (°F) DB/WB	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	IEER	ENTERING AIR		LEAVING AIR		AMBIENT WINTER (°F)	FUEL TYPE	TOTAL INPUT (MBH)	COP	EAT DB (°F)	LAT DB (°F)	TEMP RISE (°F)	NO.	TYPE	PRE		FINAL	UNIT		
																DB (°F)	WB (°F)	DB (°F)	WB (°F)													VOLTS/ PHASE/ HERTZ	MCA (A)	MCCP (A)
DOAS-1	CAPTIVEAIRE CAS-HVAC2-1250-18-131-DOAS	SEE PLANS	ROOF	13.0	2445	82" X 81" X 81"	3200	3200	0.5	ECM	3	98 / 68	155.8	117.2	14.2	93	72	53	53	41	HEAT PUMP	103.2	4.1	41	70	29	1	SCROLL	MERV 8	MERV 13	460/3/60	38.4	40	1,2,3,4,5,6
NOTES: 1. UNIT SHALL BE PROVIDED WITH 20" FULL PERIMETER ROOF CURB. 2. UNIT MOUNTED (NEMA-3R) FUSED DISCONNECT FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. 3. FACTORY CONTROLLER. 4. FACTORY SINGLE POINT POWER, ELECTRICAL TO CONNECT. 5. PROVIDE SMOKE DETECTOR FOR UNIT AUTOMATIC SHUTDOWN. 6. OPERATING WEIGHT INCLUDES A 10% SAFETY FACTOR.																																		

SEQUENCE OF OPERATIONS	
RTU-1 THRU 18	Unit shall operate via a wall-mounted thermostat. Fan shall operate continuously during occupied hours. Cooling and heating modes shall operate as required by thermostat with cooling set point at 75°F (adj), deadband between 69-74°F (adj), and heating set point at 68°F (adj). Unit shall shut down automatically upon detection of smoke in the main supply-air duct.
DOAS-1	Unit to be interlocked with factory controller.

AIR DISTRIBUTION SCHEDULE						
TAG	MANUFACTURER MODEL NO.	CFM RANGE	NECK SIZE (IN)	FACE SIZE (IN)	FUNCTION	NOTES
SD-1	PRICE SPD	0-105	6	24 x 24	CEILING MOUNTED PLAQUE SUPPLY DIFFUSER	1,2,3,4
		106-230	8			
		231-415	10			
		416-625	12			
		626-800	14			
SD-2	PRICE RCDE	0-230	8	150	3-CONE ROUND CEILING DIFFUSER	1,2,3,4
		231-415	10	180		
		416-610	12	220		
		611-675	14	260		
		676-920	16	290		
SD-3	CAPTIVEAIRE DIPSP	0-400	10	24 x 24	LAMINAR FLOW SUPPLY DIFFUSER	1,2,3,4
		401-600	12			
RG-1/EG-1/TG-1	PRICE PDDR	0-95	6	12 x 12	CEILING MOUNTED DUCTED RETURN/EXHAUST/TRANSFER GRILLE	1,2,3,4
		96-205	8			
		206-370	10			
		0-95	6	24 x 24		
		96-205	8			
		206-370	10			
		371-600	12			
		601-910	14			
		911-1295	15 x 15			
1296-1770	18 x 18					
NOTES: 1. ALL PERFORMANCE DATA SHALL BE IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 70-1991. 2. UNLESS OTHERWISE NOTED, ALL DIFFUSERS/REGISTERS/GRILLES SHALL HAVE NC RATINGS LESS THAN 25. 3. COLOR TO BE ENAMEL WHITE UNLESS OTHERWISE SPECIFIED BY ARCHITECT. 4. COORDINATE FRAME TYPE WITH ARCHITECTURAL DRAWINGS CEILING/WALL TYPE.						

DUCT INSULATION SCHEDULE	
DUCT LOCATION	INSULATION R-VALUE (SUPPLY AND RETURN AIR DUCTS ONLY)
OUTDOORS, ATTICS, GARAGES, CRAWL SPACES, AND ALL OTHER UNCONDITIONED SPACES	8
ALL SPACES NOT MENTIONED ABOVE INCLUDING BURIED IN CONCRETE SLAB DIRECTLY IN CONDITIONED SPACE	4.2 NOT REQUIRED

KITCHEN AIR BALANCE					
GENERAL					
	KEF-1	KEF-2	DOAS-1	TRANSFER	BALANCE
KITCHEN FULLY ENGAGED	2900	600	3200	300	0
KEF-1 ON ONLY	2900	0	2600	300	0
KITCHEN PREP (KEFs OFF)	1800	0	1600	200	0
NOTES: 1. TRANSFER IS AIR TRANSFERRED FROM THE DINING AREA.					

DUCT CONSTRUCTION SCHEDULE			
SUPPLY/RETURN/GENERAL EXHAUST			
RECTANGULAR - PRESSURE EQUAL OR LESS THAN 1" WG POS. OR NEG.			
DIMENSION OF LONGEST SIDE OF DUCT (INCHES)	MINIMUM GAUGE OF SHEET METAL FOR ALL FOUR SIDES OF DUCT		TRANSVERSE REINFORCING AT AND BETWEEN DUCT JOINTS
	STEEL (GAUGE)	ALUMINUM THICKNESS (INCHES)	
UP THRU 12	26	0.020	1" POCKET LOCK 26 GAUGE, STANDING SEAM JOINT 26 GAUGE, 1" STANDING S SLIP 24 GAUGE JOINT MAX. ON 8" CENTERS
13 THRU 18	24	0.025	1" POCKET LOCK 24 GAUGE, STANDING SEAM JOINT 24 GAUGE, 1" STANDING S SLIP 24 GAUGE JOINT MAX. ON 8" CENTERS
19 THRU 30	24	0.025	1" POCKET LOCK 22 GAUGE, JOINT MAX ON 8" CENTERS WITH 1" X 1" X 1/8" ANGLES 4" FROM JOINT.
ROUND - PRESSURE EQUAL OR LESS THAN 2" WG POS. OR NEG.			
DUCT DIAMETER MAX WIDTH (IN.)	STEEL THICKNESS		TYPE
UP TO 14	0.019 INCHES (28 GA.)		SPRAL SEAM DUCT
16	0.022 INCHES (26 GA.)		SPRAL SEAM DUCT
18 THRU 20	0.028 INCHES (24 GA.)		SPRAL SEAM DUCT
22 THRU 24	0.034 INCHES (22 GA.)		SPRAL SEAM DUCT
NOTES: THE CONSTRUCTION FOR LOW PRESSURE RECTANGULAR SHEET METAL DUCTS SHALL BE MADE IN ACCORDANCE WITH RECOMMENDATIONS OF ASHRAE GUIDE, LATEST EDITION, OR AS PER SMACNA MANUAL, BUT NOT LESS THAN THE ABOVE WEIGHTS AND CONSTRUCTION.			

PIPING MATERIAL SCHEDULE				
SYSTEM	ABBREVIATION	SIZE	MATERIAL	CONNECTION
HEATING HOT WATER SUPPLY/RETURN	HHWS/R	2" OR SMALLER	COPPER TYPE "L"	SOLDERED
HEATING HOT WATER SUPPLY/RETURN	HHWS/R	2-1/2" OR LARGER	SCH. 40 CARBON STEEL	WELDED
CHILLED WATER SUPPLY/RETURN	CHWS/R	2" OR SMALLER	COPPER TYPE "L"	SOLDERED
CHILLED WATER SUPPLY/RETURN	CHWS/R	2-1/2" OR LARGER	SCH. 40 CARBON STEEL	WELDED
CONDENSER WATER SUPPLY/RETURN	CWS/R	2" OR SMALLER	COPPER TYPE "L"	SOLDERED
CONDENSER WATER SUPPLY/RETURN	CWS/R	2-1/2" OR LARGER	SCH. 40 CARBON STEEL	WELDED
REFRIGERANT PIPING GAS/LIQUID	REFRIG.	ALL	COPPER TYPE "ACR"	SOLDERED
CONDENSATE DRAIN	CD	1-1/4" OR SMALLER	COPPER TYPE "M"	SOLDERED
CONDENSATE DRAIN	CD	1-1/2" OR LARGER	COPPER TYPE "DW"	SOLDERED
INDUSTRIAL COLD WATER	ICW	ALL	COPPER TYPE "L"	SOLDERED
DOMESTIC COLD WATER	DCW	ALL	COPPER TYPE "L"	SOLDERED

PIPING INSULATION THICKNESS REQUIREMENTS							
FLUID TEMPERATURE RANGE (°F)	CONDUCTIVITY RANGE (BTU-inch per hour per square foot per °F)	INSULATION MEAN RATING TEMPERATURE (°F)	NOMINAL PIPE DIAMETER (INCHES)				
			< 1	1 TO < 1.5	1.5 TO < 4	4 TO < 8	> 8
SPACE HEATING AND SERVICE WATER HEATING SYSTEMS (STEAM, STEAM CONDENSATE, AND HOT WATER)							
ABOVE 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0
291 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0
105 - 140	0.22 - 0.28	100	1.0	1.5	1.5	1.5	1.5
SPACE COOLING SYSTEMS (CHILLED WATER, REFRIGERANT, AND BRINE)							
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0
BELOW 40	0.20 - 0.26	50	1.0	1.5	1.5	1.5	1.5

BUILDING VENTILATION CALCULATION												
SYSTEM	ZONE	ZONE TYPE	A _z (Zone Area)	MINIMUM OCCUPANT LOAD DENSITY (persons/1,000 ft2)	2025 CEC 120.1.e.3						TOTAL VENT. RATE PER SYSTEM (CFM)	DESIGN VENT. RATE (CFM)
					V _z = R _p x P _z OR R _q x A _z							
					R _p	P _z	V _z = R _p x P _z	R _q	V _z = R _q x A _z	LARGEST OF R _p x P _z AND R _q x A _z (CFM)		
RTU-1	DORM - 186	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	1309	5	15	7	98	0.15	196	196	589	650
	DORM - 187	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	1309	5	15	7	98	0.15	196	196		
	DORM - 188	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	1309	5	15	7	98	0.15	196	196		
	DORM - 167	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	165	5	15	1	12	0.15	25	25		
	DORM - 168	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	165	5	15	1	12	0.15	25	25		
RTU-2	DORM - 172	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	202	5	15	1	15	0.15	30	30	210	240
	DORM - 173	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	169	5	15	1	13	0.15	25	25		
	LOUNGE - 171	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	697	3	15	2	31	0.15	105	105		
	OFFICE - 159	OFFICE BUILDINGS - Office Space	106	5	15	1	8	0.15	16	16		
	OFFICE - 160	OFFICE BUILDINGS - Office Space	106	5	15	1	8	0.15	16	16		
RTU-3	OFFICE - 165	OFFICE BUILDINGS - Office Space	310	5	15	2	23	0.15	47	47	304	340
	ENTRY - 161	OFFICE BUILDINGS - Main Entry Lobbies	266	33	15	9	132	0.15	40	132		
	STOR - 163	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	8	2	15	0	0	0.15	1	1		
	STOR - 164	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	8	2	15	0	0	0.15	1	1		
	KENNEL - 166	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	128	2	15	0	4	0.15	19	19		
RTU-4	HALL - 174	GENERAL - Corridors	483	5	15	2	36	0.15	72	72	359	400
	OFFICE - 177	OFFICE BUILDINGS - Office Space	129	5	15	1	10	0.15	19	19		
	OFFICE - 178	OFFICE BUILDINGS - Office Space	210	5	15	1	16	0.15	32	32		
	DORM - 181	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	904	5	15	3	38	0.15	76	76		
	DORM - 184	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	539	5	15	3	40	0.15	81	81		
RTU-5	JAN - 183	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	27	2	15	0	1	0.15	4	4	414	460
	HALL - 185	GENERAL - Corridors	985	5	15	5	74	0.15	148	148		
	DORM - 132	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	570	5	15	3	43	0.15	86	86		
	DORM - 133	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	601	5	15	3	45	0.15	90	90		
	DORM - 134	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	602	5	15	3	45	0.15	90	90		
RTU-6	HALL - 206	GENERAL - Corridors	985	5	15	5	74	0.15	148	148	268	300
	DORM - 190	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 191	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 192	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 195	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
RTU-7	DORM - 196	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12	276	310
	DORM - 197	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 198	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 199	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 200	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
RTU-8	DORM - 203	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12	497	550
	DORM - 204	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 205	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	STOR - 193	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	16	2	15	0	0	0.15	2	2		
	STOR - 201	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	16	2	15	0	0	0.15	2	2		
RTU-9	HALL - 189	GENERAL - Corridors	212	5	15	1	16	0.15	32	32	267	300
	HALL - 194	GENERAL - Corridors	118	5	15	1	9	0.15	18	18		
	HALL - 202	GENERAL - Corridors	118	5	15	1	9	0.15	18	18		
	HALL - 206	GENERAL - Corridors	384	5	15	2	29	0.15	58	58		
	DORM - 207	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
RTU-10	DORM - 208	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12	388	430
	DORM - 209	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 212	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 213	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 214	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
RTU-11	DORM - 215	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12	435	480
	DORM - 216	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 217	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	77	5	15	0	6	0.15	12	12		
	DORM - 223	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	245	5	15	1	18	0.15	37	37		
	DORM - 228	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	531	5	15	3	40	0.15	80	80		
RTU-12	STOR - 210	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	16	2	15	0	0	0.15	2	2	267	300
	UTILITY STORAGE - 220	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	37	2	15	0	1	0.15	6	6		
	UTILITY STORAGE - 221	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	37	2	15	0	1	0.15	6	6		
	HALL - 211	GENERAL - Corridors	118	5	15	1	9	0.15	18	18		
	HALL - 218	GENERAL - Corridors	165	5	15	1	12	0.15	25	25		
RTU-13	STOR - 210	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	31	2	15	0	1	0.15	5	5	497	550
	STORAGE - 222	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	28	2	15	0	1	0.15	4	4		
	STORAGE - 226	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	28	2	15	0	1	0.15	4	4		
	JAN - 136	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	43	2	15	0	1	0.15	6	6		
	DORM - 128	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	237	5	15	1	18	0.15	36	36		
RTU-14	DORM - 129	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	591	5	15	3	44	0.15	89	89	267	300
	DORM - 130	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	591	5	15	3	44	0.15	89	89		
	DORM - 131	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	579	5	15	3	43	0.15	87	87		
	HALL - 227	GENERAL - Corridors	435	5	15	2	33	0.15	65	65		
	HALL - 229	GENERAL - Corridors	750	5	15	4	56	0.15	113	113		
RTU-15	LOBBY 1 - 100	OFFICE BUILDINGS - Main Entry Lobbies	266	33	15	9	132	0.15	40	132	435	480
	BREAK ROOM - 101	OFFICE BUILDINGS - Break Rooms	145	33	15	5	72	0.15	22	72		
	OFFICE - 102	OFFICE BUILDINGS - Office Space	76	5	15	0	6	0.15	11	4		
	STOR - 105	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	29	2	15	0	1	0.15	4	4		
	LAUNDRY ROOM - 108	HOTELS, MOTELS, RESORTS, DORMITORIES - Laundry Rooms, Central	318	5	15	2	24	0.15	47	47		
RTU-16	HALL - 111	GENERAL - Corridors	235	5	15	1	18	0.15	35	35	388	430
	STORAGE - 109	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	78	2	15	0	2	0.15	12	12		
	STORAGE - 112	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	110	2	15	0	3	0.15	17	17		
	JAN - 113	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	54	2	15	0	1	0.15	8	8		
	HOME HEALTH - 115	OFFICE BUILDINGS - Office Space	116	5	15	1	9	0.15	17	17		
RTU-17	EXAM ROOM - 116	OFFICE BUILDINGS - Office Space	116	5	15	1	9	0.15	17	17	267	300
	OPEN OFFICE - 117	OFFICE BUILDINGS - Office Space	637	5	15	3	48	0.15	96	96		
	OPEN OFFICE - 118	OFFICE BUILDINGS - Office Space	475	5	15	2	36	0.15	71	71		
	OFFICE - 120	OFFICE BUILDINGS - Office Space	138	5	15	1	10	0.15	21	21		
	OFFICE - 149	OFFICE BUILDINGS - Office Space	146	5	15	1	11	0.15	22	22		
RTU-18	BREAK AREA - 119	OFFICE BUILDINGS - Break Rooms	145	33	15	5	72	0.15	22	72	435	480
	LOBBY 2 - 122	OFFICE BUILDINGS - Main Entry Lobbies	247	33	15	8	122	0.15	37	122		
	ENTRY LOBBY - 123	OFFICE BUILDINGS - Main Entry Lobbies	368	33	15	10	151	0.15	46	151		
	LOUNGE - 124	OFFICE BUILDINGS - Main Entry Lobbies	325	33	15	11	161	0.15	49	161		
	DORM - 139	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	76	5	15	0	6	0.15	11	11		
RTU-19	DORM - 140	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	76	5	15	0	6	0.15	11	11	203	230
	DORM - 141	HOTELS, MOTELS, RESORTS, DORMITORIES - Barracks Sleeping Areas	76	5	15	0	6	0.15	11	11		
	STOR - 142	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	15	2	15	0	0	0.15	2	2		
	STOR - 147	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	10	2	15	0	0	0.15	2	2		
	STOR - 152	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	26	2	15	0	1	0.15	4	4		
RTU-20	STOR - 153	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	26	2	15	0	1	0.15	4	4	267	300
	HALL - 143	GENERAL - Corridors	116	5	15	1	9	0.15	17	17		
	HALL - 148	GENERAL - Corridors	105	5	15	1	8	0.15	16	16		
	HALL - 154	GENERAL - Corridors	308	5	15	2	23	0.15	46	46		
	OFFICE - 144	OFFICE BUILDINGS - Office Space	87	5	15	0	7	0.15	13	13		
RTU-21	OFFICE - 145	OFFICE BUILDINGS - Office Space	87	5	15	0	7	0.15	13	13	213	240
	OFFICE - 146	OFFICE BUILDINGS - Office Space	85	5	15	0	6	0.15	13	13		
	OFFICE - 149	OFFICE BUILDINGS - Office Space	87	5	15	0	7	0.15	13	13		
	OFFICE - 150	OFFICE BUILDINGS - Office Space	87	5	15	0	7	0.15	13	13		
	OFFICE - 151	OFFICE BUILDINGS - Office Space	87	5	15	0	7	0.15	13	13		
RTU-22	LOUNGE - 155	OFFICE BUILDINGS - Main Entry Lobbies	527	33	15	17	261	0.15	79	261	378	420
	HALL - 156	GENERAL - Corridors	784	5	15	4	59	0.15	118	118		
	CONFERENCE - 200	GENERAL - Conference/Meeting	222	33	15	7	110	0.15	33	110		
	OFFICE - 202	OFFICE BUILDINGS - Office Space	118	5	15	1	8	0.15	18	18		
	OFFICE - 203	OFFICE BUILDINGS - Office Space	120	5	15	1	9	0.15	18	18		
RTU-23	OPEN OFFICE - 226	OFFICE BUILDINGS - Office Space	412	5	15	2	31	0.15	62	62	423	470
	LOUNGE - 204	OFFICE BUILDINGS - Main Entry Lobbies	435	33	15	14	215	0.15	69	215		
	HALL - 205	GENERAL - Corridors	433	5	15	2	32	0.15	63	63		
	OFFICE - 206	OFFICE BUILDINGS - Office Space	100	5	15	1	8	0.15	15	15		
	OFFICE - 207	OFFICE BUILDINGS - Office Space	102	5	15	1	8	0.15	15	15		
RTU-24	OPEN OFFICE - 209	OFFICE BUILDINGS - Office Space	110	5	15	1	8	0.15	17	17	213	240
	OPEN OFFICE - 222	OFFICE BUILDINGS - Office Space	628	5	15	0	47	0.15	94	94		
	STOR - 208	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	10	2	15	0	0	0.15	2	2		
	STOR - 210	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	34	2	15	0	1	0.15	5	5		
	CONFERENCE - 212	GENERAL - Conference/Meeting	381	33	15	13	189	0.15	57	189		
RTU-25	CONFERENCE - 213	GENERAL - Conference/Meeting	320	33	15	11	158	0.15	48	158	347	390
	STOR - 215	OFFICE BUILDINGS - Occupiable Storage Rooms for Dry Materials	50	2	15	0	2	0.15	8	8		
	LOBBY - 218	OFFICE BUILDINGS - Main Entry Lobbies	311	33	15	10	154	0.15	47	154		
	HALL - 219	GENERAL - Corridors	292	5	15	1	22	0.15	44	44		
	OFFICE - 220	OFFICE BUILDINGS - Office Space	97	5	15	0	7	0.15	15	15		
RTU-26	OFFICE - 221	OFFICE BUILDINGS - Office Space	97	5	15	0						

STATE OF CALIFORNIA

Envelope Component Approach

CERTIFICATE OF COMPLIANCE

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Documentation Software: EnergyPro

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H. WALL ASSEMBLY SCHEDULE

Table 1: Wall Assembly Schedule

Table 2: Area-Weighted Average U-factor Compliance Calculation for Mass/Concrete Sandwich Panel/Log/ICF Walls

I. FLOOR ASSEMBLY SCHEDULE

Table 3: Floor Assembly Schedule

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B. PROJECT SCOPE

C. COMPLIANCE RESULTS

D. EXCEPTIONAL CONDITIONS

E. ADDITIONAL REMARKS

F. ROOF ASSEMBLY SCHEDULE

G. RATED ROOFING MATERIAL (COOL ROOF)

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A. GENERAL INFORMATION

B. PROJECT SCOPE

C. COMPLIANCE RESULTS

D. EXCEPTIONAL CONDITIONS

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F. ROOF ASSEMBLY SCHEDULE

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K. FENESTRATION AND GLAZED DOOR SCHEDULE

Table 1: Fenestration and Glazed Door Schedule

Table 2: Area-Weighted Average U-factor, SHGC, VT Compliance Calculation for Vertical Fenestration and Glazed Doors

L. DAYLIGHT IN LARGE ENCLOSED SPACES

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CERTIFICATE OF COMPLIANCE

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L. DAYLIGHT IN LARGE ENCLOSED SPACES

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CERTIFICATE OF COMPLIANCE

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L. DAYLIGHT IN LARGE ENCLOSED SPACES

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CERTIFICATE OF COMPLIANCE

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L. FLOOR ASSEMBLY SCHEDULE

M. EXTERIOR DOOR SCHEDULE

N. FENESTRATION AND GLAZED DOOR SCHEDULE

O. FLOOR ASSEMBLY SCHEDULE

STATE OF CALIFORNIA

Mechanical Systems

CERTIFICATE OF COMPLIANCE

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C. COMPLIANCE RESULTS

D. EXCEPTIONAL CONDITIONS

E. ADDITIONAL REMARKS

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

STATE OF CALIFORNIA

Mechanical Systems

CERTIFICATE OF COMPLIANCE

Project Name: Regional Navigation Center

Report Page: (Page 1 of 68)

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A. GENERAL INFORMATION

B. PROJECT SCOPE

C. COMPLIANCE RESULTS

D. EXCEPTIONAL CONDITIONS

E. ADDITIONAL REMARKS

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

STATE OF CALIFORNIA

Envelope Component Approach

CERTIFICATE OF COMPLIANCE

Project Name: Regional Navigation Center

Report Page: (Page 2 of 10)

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Signature: Michael Elias

Signature Date: 2025-04-29

CA-NRCC-001 Certification Identification (if applicable): 951.554.0661

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I, the undersigned, under penalty of perjury, certify that the information provided in this Certificate of Compliance is true and correct.

1. The information provided in this Certificate of Compliance is true and correct.

2. I am the design professional or the building design professional responsible 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 the 2024 Title 24 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 in connection with the building design or system design identified on this Certificate of Compliance.

5. I will ensure that a completed signed copy of this Certificate of Compliance shall be provided with the building permit(s) issued for the building, and made available to the enforcing agency for all applicable inspections. I understand that the information provided on this Certificate of Compliance is required to be included with the documentation submitted to the building department for all applicable inspections.

Responsible Person Name: Adam Franklin

Responsible Person Signature: Adam Franklin

Signature Date: 2025-04-29

CA-NRCC-001 Certification Identification (if applicable): 951.554.0661

Documentation Author Signature: Michael Elias

Signature Date: 2025-04-29

CA-NRCC-001 Certification Identification (if applicable): 951.554.0661

STATE OF CALIFORNIA

Envelope Component Approach

CERTIFICATE OF COMPLIANCE

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M. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

N. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

O. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

STATE OF CALIFORNIA

Mechanical Systems

CERTIFICATE OF COMPLIANCE

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Table 1: HVAC System Summary (Dry & Wet Systems)

STATE OF CALIFORNIA

Mechanical Systems

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Table 1: HVAC System Summary (Dry & Wet Systems)

STATE OF CALIFORNIA

Mechanical Systems

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Table 1: HVAC System Summary (Dry & Wet Systems)

STATE OF CALIFORNIA

Mechanical Systems

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Table 1: HVAC System Summary (Dry & Wet Systems)

BORDERS ARCHITECTS
ARCHITECTURE | PLANNING | COMMERCIAL INTERIORS

1675 SCENIC AVENUE
SUITE 210
COSTA MESA, CA
92626

(949) 851-1317
www.bordersarchitects.com

Adam K. Franklin, P.E.

CONSULTANT

WESTEND
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR

TITLE

TITLE 24
COMPLIANCE
DOCUMENTS

Revisions By Date

PC CORR1/BID ISSUE | LEI 4/29/26

Drawn
Date 04/29/2026
Project No. LEI # 25039
Scale AS NOTED

Sheet
M021

STATE OF CALIFORNIA		CALIFORNIA ENERGY COMMISSION	
Mechanical Systems		Mechanical Systems	
CERTIFICATE OF COMPLIANCE		CERTIFICATE OF COMPLIANCE	
Project Name: Regional Navigation Center	Report Page: (Page 42 of 68)	Date Prepared: 4/29/2024	

J. VENTILATION AND INDOOR AIR QUALITY									
RESTROOM	Toilet, private	166			0	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
LOUNGE	Main Entry Lobby	697			345	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				450	18	Ventilation for this System Complies?		Yes
04		05		06		07			
System Name	RTU-3	System Design OA CFM Airflow ¹		304	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) §141.0(b)(2) and §160.2(c)(2) ¹ Provided		
08	09	10	11	12	13	14	16		
Space Name or Item Tag		Mechanical Ventilation Required per §120.1(c)(3) ¹ & §160.2(c)(3)			Ehv. Vent per §120.1(d)(3) & §160.2(c)(4)		DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.1(d)(3) ¹ §160.2(c)(5D) §160.2(c)(5E) §160.2(c)(5D)		
Occupancy Type ⁴		Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ¹	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	NA: Not required per §120.1(d)(3)
OFFICE		Office space	522		78.3	0	0	DCV	NA: Not required space type
								Occ Sensor	NA: Not required space type
LOBBY		Main Entry Lobby	266		131.7	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type

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Mechanical Systems		Mechanical Systems	
CERTIFICATE OF COMPLIANCE		CERTIFICATE OF COMPLIANCE	
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J. VENTILATION AND INDOOR AIR QUALITY									
STORAGE	All others	32			4.8	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
HALLWAY	Corridor	832			124.8	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				268	18	Ventilation for this System Complies?		Yes
04		05		06		07			
System Name	RTU-7	System Design OA CFM Airflow ¹		276	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) §141.0(b)(2) and §160.2(c)(2) ¹ Provided		
08	09	10	11	12	13	14	16		
Mechanical Ventilation Required per §120.1(c)(3) ¹ & §160.2(c)(3)						Exh. Vent per §120.1(c)(4) & §160.2(c)(4)		DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.1(d)(3) ¹ §160.2(c)(5D) §160.2(c)(5E) §160.2(c)(5D)	
Space Name or Item Tag	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ¹	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	NA: Not required per §120.1(d)(3)
DORMS	Bedroom/living room (hotel/motel/dorm)	1469			220.3	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
STORAGE	All others	90			13.5	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type

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Mechanical Systems		Mechanical Systems	
CERTIFICATE OF COMPLIANCE		CERTIFICATE OF COMPLIANCE	
Project Name: Regional Navigation Center	Report Page: (Page 50 of 68)	Date Prepared: 4/29/2024	

J. VENTILATION AND INDOOR AIR QUALITY									
HALLWAY	Corridor	235			35.2	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
STORAGE	All others	242			36.3	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
RESTROOM	Toilet, private	75			0	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
OFFICE	Office space	1628			244.2	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
BREAK ROOM	Break room	130			64.4	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				380	18	Ventilation for this System Complies?		Yes
04		05		06		07			
System Name	RTU-11	System Design OA CFM Airflow ¹		435	System Design Transfer Air CFM		Air Filtration per §120.1(c) §141.0(b)(2) and §160.2(c)(2) ¹ Provided		
08	09	10	11	12	13	14	15	16	
Space Name or Item Tag Mechanical Ventilation Required per §120.1(c)(3) ¹ & §160.2(c)(3) Conditioned Floor Area (ft ²) # of Shower heads/ toilets # of people ¹ Required Min OA CFM Required Min CFM Provided per Design CFM DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.1(d)(3) ¹ §160.2(c)(5D) §160.2(c)(5E) §160.2(c)(5D) NA: Not required per §120.1(d)(3)									

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Mechanical Systems		Mechanical Systems	
CERTIFICATE OF COMPLIANCE		CERTIFICATE OF COMPLIANCE	
Project Name: Regional Navigation Center	Report Page: (Page 54 of 68)	Date Prepared: 4/29/2024	

J. VENTILATION AND INDOOR AIR QUALITY									
STAIRS	All others	97		0	0	0		DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
	Office space	650		97.5	0	0		DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
LOUNGE	Main Entry Lobby	435		215.3	0	0		DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
RESTROOM	Toilet, private	123		0	0	0		DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM			423	18	Ventilation for this System Complies?			Yes
	04		05		06		07		
System Name	RTU-15	System Design OA CFM Airflow ¹		213	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) §141.0(b)(2) and §160.2(c)(2) ¹ Provided	
08	09	10	11	12	13	14	15	16	
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(c)(3) ¹ & §160.2(c)(3)				Exh. Vent per §120.1(d)(4) & §160.2(c)(4)			DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.1(d)(3) ¹ §160.2(c)(5D) §160.2(c)(5E) §160.2(c)(5D)	
	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ¹	Required Min OA CFM	Required Min CFM	Provided per Design CFM		

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STATE OF CALIFORNIA		CALIFORNIA ENERGY COMMISSION	
Mechanical Systems		Mechanical Systems	
CERTIFICATE OF COMPLIANCE		CERTIFICATE OF COMPLIANCE	
Project Name: Regional Navigation Center	Report Page: (Page 45 of 68)	Date Prepared: 4/29/2024	

J. VENTILATION AND INDOOR AIR QUALITY									
04		05			06		07		
System Name	RTU-1	System Design OA CFM Airflow ¹		589	System Design Transfer Air CFM		Air Filtration per §120.1(c) §141.0(b)(2) and §160.2(c)(2) ¹ Provided		
	09	10	11	12	13	14	15	16	
Space Name or Item tag	Mechanical Ventilation Required per §120.1(c)(3) ¹ & §160.2(c)(3)				Ewh. Vent per §120.1(c)(4) & §160.2(c)(4)		DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.1(d)(3) ¹ §160.2(c)(5D) §160.2(c)(5E) §160.2(c)(5D)		
	Occupancy Type ¹	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ¹	Required Min OA CFM	Required Min CFM	Provided per Design CFM		DCV
DORMS	Bedroom/living room (hotel/motel/dorm)	3927			589	0	0		Occ Sensor
									NA: Not required per §120.1(d)(3)
17	Total System Required Min OA CFM				589	18	Ventilation for this System Complies?		
	04				05		06		07
System Name	RTU-2	System Design OA CFM Airflow ¹		450	System Design Transfer Air CFM		Air Filtration per §120.1(c) §141.0(b)(2) and §160.2(c)(2) ¹ Provided		
	09	10	11	12	13	14	15	16	
Space Name or Item tag	Mechanical Ventilation Required per §120.1(c)(3) ¹ & §160.2(c)(3)				Ewh. Vent per §120.1(c)(4) & §160.2(c)(4)		DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.1(d)(3) ¹ §160.2(c)(5D) §160.2(c)(5E) §160.2(c)(5D)		
	Occupancy Type ¹	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ¹	Required Min OA CFM	Required Min CFM	Provided per Design CFM		DCV
DORMS	Bedroom/living room (hotel/motel/dorm)	701			105.2	0	0		Occ Sensor
									NA: Not required per §120.1(d)(3)
									NA: Not required space type

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J. VENTILATION AND INDOOR AIR QUALITY									
DORMS	Bedroom/living room (hotel/motel/dorm)	1773			266	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
RESTROOM	Toilet, private	465			0	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
HALLWAY	Corridor	684			102.6	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				369	18	Ventilation for this System Complies?		Yes
04		05			06		07		
System Name	RTU-6	System Design OA CFM Airflow ¹		268	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) §141.0(b)(2) and §160.2(c)(2) ¹ Provided	
08	09	10	11	12	13	14	15	16	
Mechanical Ventilation Required per §120.1(c)(3) ¹ & §160.2(c)(3)		Occupancy Type ⁴		Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ¹	Required Min OA CFM	Required Min CFM	Provided per Design CFM
Space Name or Item Tag	Encl. Vent per §120.1(d)(3) & §160.2(c)(5D) §160.2(c)(5E) §160.2(c)(5D)						DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.1(d)(3) ¹ §160.2(c)(5D) §160.2(c)(5E) §160.2(c)(5D)		
DORMS	Bedroom/living room (hotel/motel/dorm)	924			138.6	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type

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Mechanical Systems		Mechanical Systems	
CERTIFICATE OF COMPLIANCE		CERTIFICATE OF COMPLIANCE	
Project Name: Regional Navigation Center	Report Page: (Page 49 of 68)	Date Prepared: 4/29/2024	

J. VENTILATION AND INDOOR AIR QUALITY									
STAIRS	All others	59			0	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
STORAGE	All others	29			4.4	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
RESTROOM	Toilet, private	104			0	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
LAUNDRY	Laundry room (dwellng unit)	316			47.4	0	0	DCV	NA: Not required per §120.1(d)(3)
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				347	18	Ventilation for this System Complies?		Yes
		04		05		06		07	
System Name	RTU-10	System Design OA CFM Airflow ¹		380	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) §141.0(b)(2) and §160.2(c)(2) ¹	
								Provided	
09		10	11	12	13	14	15	16	
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(c)(3) & §160.2(c)(5)				Eah. Vent per §120.1(c)(4 & §160.2(c)(6)				DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.2(c)(5) §160.2(c)(5) §160.2(c)(6) §160.2(c)(7)
	Occupancy Type ^a	Conditioned Floor Area (sf)	# of Shower stalls/toilets	# of people ¹	Required Min OA CFM	Required Min CFM	Provided per Design CFM		

DIVISION 232300 REFRIGERANT PIPING		<p>1. INSTALL CORE IN FILTER DRYERS AFTER LEAK TEST BUT BEFORE EVACUATION.</p> <p>2. EVACUATE ENTIRE REFRIGERANT SYSTEM WITH A VACUUM PUMP TO 500 MICROMETERS. IF VACUUM HOLDS FOR 12 HOURS SYSTEM IS READY FOR RECHARGING.</p> <p>3. BREAK VACUUM WITH REFRIGERANT GAS, ALLOWING PRESSURE TO BUILD UP TO 2 PSIG.</p> <p>4. CHARGE SYSTEM WITH A NEW FILTER-DRYER CORE IN CHARGING LINE.</p>
PART 1 - GENERAL		
1.1 SUMMARY		
A. SECTION INCLUDES:		<p>1. COPPER TUBE AND FITTINGS.</p> <p>2. VALVES AND SPECIALTIES.</p>
PART 2 - PRODUCTS		
2.1 PERFORMANCE REQUIREMENTS		
A. LINE TEST PRESSURE FOR REFRIGERANT R-134A:		<p>1. SUCTION LINES FOR AIR-CONDITIONING APPLICATIONS: 115 PSIG</p> <p>2. SUCTION LINES FOR HEAT-PUMP APPLICATIONS: 225 PSIG</p> <p>3. HOT GAS AND LIQUID LINES: 225 PSIG</p>
B. LINE TEST PRESSURE FOR REFRIGERANT R-407C:		<p>1. SUCTION LINES FOR AIR-CONDITIONING APPLICATIONS: 230 PSIG</p> <p>2. SUCTION LINES FOR HEAT-PUMP APPLICATIONS: 390 PSIG</p> <p>3. HOT-GAS AND LIQUID LINES: 380 PSIG</p>
C. LINE TEST PRESSURE FOR REFRIGERANT R-410A:		<p>1. SUCTION LINES FOR AIR-CONDITIONING APPLICATIONS: 300 PSIG</p> <p>2. SUCTION LINES FOR HEAT-PUMP APPLICATIONS: 535 PSIG</p> <p>3. HOT-GAS AND LIQUID LINES: 535 PSIG</p>
2.2 COPPER TUBE AND FITTINGS		<p>A. COPPER TUBE: ASTM B 280, TYPE ACR</p> <p>B. WROUGHT-COPPER FITTINGS, SOLDERED-JOINT: ASME B16.22</p> <p>C. WROUGHT-COPPER FITTINGS, BRAZED-JOINT: ASME B16.50</p> <p>D. WROUGHT-COPPER UNIONS: ASME B16.22</p> <p>E. SOLDER FILLER METALS: ASTM B 32. USE 95-5 TIN ANTIMONY OR ALLOY HB SOLDER TO JOIN COPPER SOCKET FITTINGS ON COPPER PIPE.</p> <p>F. BRAZING FILLER METALS: AWS A5.85.BM</p> <p>G. FLEXIBLE CONNECTORS:</p> <ol style="list-style-type: none"> 1. BODY: TIN-BRONZE BELLOWS WITH WOVEN, FLEXIBLE, TINNED-BRONZE-WIRE-REINFORCED PROTECTIVE JACKET. 2. END CONNECTIONS: SOCKET ENDS 3. OFFSET PERFORMANCE: CAPABLE OF MINIMUM 34-INCH MISALIGNMENT IN MINIMUM 7-INCH LONG ASSEMBLY. 4. WORKING PRESSURE RATING: FACTORY TEST AT MINIMUM 700 PSIG 5. MAXIMUM OPERATING TEMPERATURE: 250 DEG F
2.3 VALVES AND SPECIALTIES		<p>A. DIAPHRAGM PACKLESS VALVES:</p> <ol style="list-style-type: none"> 1. BODY AND BONNET: FORGED BRASS OR CAST BRONZE; GLOBE DESIGN WITH STRAIGHT-THROUGH OR ANGLE PATTERN. 2. DIAPHRAGM: PHOSPHOR BRONZE AND STAINLESS STEEL WITH STAINLESS-STEEL SPRING. 3. OPERATOR: RISING STEM AND HAND WHEEL. 4. SEAT: NYLON. 5. END CONNECTIONS: SOCKET, UNION, OR FLANGED. 6. WORKING PRESSURE RATING: 700 PSIG 7. MAXIMUM OPERATING TEMPERATURE: 275 DEG F <p>B. CHECK VALVES:</p> <ol style="list-style-type: none"> 1. BODY: DUCTILE IRON, FORGED BRASS, OR CAST BRONZE; GLOBE PATTERN. 2. BONNET: BOLTED DUCTILE IRON, FORGED BRASS, OR CAST BRONZE; OR BRASS HEX PLUG. 3. PISTON: REMOVABLE POLYETRAFLUOROETHYLENE SEAT. 4. CLOSING SPRING: STAINLESS STEEL. 5. MANUAL OPENING STEM SEAL CAP: PLATED-STEEL STEM AND GRAPHITE SEAL. 6. END CONNECTIONS: SOCKET, UNION, THREADED, OR FLANGED. 7. MAXIMUM OPENING PRESSURE: 150 PSIG 8. WORKING PRESSURE RATING: 700 PSIG 9. MAXIMUM OPERATING TEMPERATURE: 275 DEG F <p>C. SERVICE VALVES:</p> <ol style="list-style-type: none"> 1. BODY: FORGED BRASS WITH BRASS CAP INCLUDING KEY END TO REMOVE CORE. 2. CORE: REMOVABLE BALL-TYPE CHECK VALVE WITH STAINLESS-STEEL SPRING. 3. SEAT: POLYETRAFLUOROETHYLENE. 4. END CONNECTIONS: COPPER SPRINGS. 5. WORKING PRESSURE RATING: 700 PSIG. <p>D. SOLENOID VALVES: COMPLY WITH AHRF 700 AND UL 429; LISTED AND LABELED BY A NATIONAL RECOGNIZED TESTING LABORATORY (NRTL).</p> <ol style="list-style-type: none"> 1. BODY AND BONNET: PLATED STEEL. 2. SOLENOID TUBE: FLANGED, CLOSING SPRING, AND SEAT ORIFICE: STAINLESS STEEL. 3. SEAT: POLYETRAFLUOROETHYLENE. 4. END CONNECTIONS: THREADED. 5. ELECTRICAL: MOLDED, WATER-TIGHT COIL IN NEMA 250 ENCLOSURE OF TYPE REQUIRED BY LOCATION WITH 12-INCH CONDUIT ADAPTER, AND 24-V AC COIL. 6. WORKING PRESSURE RATING: 700 PSIG 7. MAXIMUM OPERATING TEMPERATURE: 240 DEG F <p>E. SAFETY RELIEF VALVES: COMPLY WITH 2010 ASME BOILER AND PRESSURE VESSEL CODE; LISTED AND LABELED BY AN NRTL.</p> <ol style="list-style-type: none"> 1. BODY AND BONNET: DUCTILE IRON AND STEEL, WITH NEOPRENE O-RING SEAL. 2. PISTON, CLOSING SPRING, AND SEAT INSERT: STAINLESS STEEL. 3. SEAT: POLYETRAFLUOROETHYLENE. 4. END CONNECTIONS: THREADED. 5. WORKING PRESSURE RATING: 700 PSIG. 6. MAXIMUM OPERATING TEMPERATURE: 240 DEG F <p>F. THERMOSTATIC EXPANSION VALVES: COMPLY WITH AHRF 750</p> <ol style="list-style-type: none"> 1. BODY, BONNET, AND SEAL CAP: FORGED BRASS OR STEEL. 2. DIAPHRAGM, PISTON, CLOSING SPRING, AND SEAT INSERT: STAINLESS STEEL. 3. PACKING AND GASKETS: NON-ASBESTOS. 4. CAPILLARY AND BULB: COPPER TUBING FILLED WITH REFRIGERANT CHARGE. 5. SUCTION TEMPERATURE: -40 DEG F 6. SUPERHEAT: ADJUSTABLE. 7. REVERSE-FLOW OPTION FOR HEAT-PUMP APPLICATIONS. 8. END CONNECTIONS: SOCKET, FLARE, OR THREADED UNION. 9. WORKING PRESSURE RATING: 700 PSIG <p>G. STRAIGHT-TYPE STRAINERS:</p> <ol style="list-style-type: none"> 1. BODY: WELDED STEEL WITH CORROSION-RESISTANT COATING. 2. SCREEN: 10-MESH STAINLESS STEEL. 3. END CONNECTIONS: SOCKET OR FLARE. 4. WORKING PRESSURE RATING: 700 PSIG 5. MAXIMUM OPERATING TEMPERATURE: 275 DEG F <p>H. MOISTURE/LIQUID INDICATORS:</p> <ol style="list-style-type: none"> 1. BODY: FORGED BRASS. 2. WINDOW: REPLACEABLE, CLEAR, FUSED GLASS WINDOW WITH INDICATING ELEMENT PROTECTED BY FILTER SCREEN. 3. INDICATOR: COLOR CODED TO SHOW MOISTURE CONTENT IN PARTS PER MILLION (PPM). 4. MINIMUM MOISTURE INDICATOR SENSITIVITY: INDICATE MOISTURE ABOVE 50 PPM. 5. END CONNECTIONS: SOCKET OR FLARE. 6. WORKING PRESSURE RATING: 700 PSIG 7. MAXIMUM OPERATING TEMPERATURE: 240 DEG F <p>I. PERMANENT FILTER DRYERS: COMPLY WITH AHRF 730</p> <ol style="list-style-type: none"> 1. BODY AND COVER: PAINTED-STEEL SHELL. 2. FILTER MEDIA: 10-MICRON PLEATED WITH INTEGRAL END RINGS, STAINLESS-STEEL SUPPORT. 3. DESICCANT MEDIA: ACTIVATED CHARCOAL. 4. DESIGNED FOR REVERSE FLOW (FOR HEAT-PUMP APPLICATIONS). 5. END CONNECTIONS: SOCKET. 6. ACCESS PORTS: NPS 1/4 CONNECTIONS AT ENTERING AND LEAVING SIDES FOR PRESSURE DIFFERENTIAL MEASUREMENT. 7. MAXIMUM PRESSURE LOSS: 2 PSIG 8. RATED FLOW: SEE MECHANICAL SCHEDULES ON DRAWINGS. 9. WORKING PRESSURE RATING: 700 PSIG 10. MAXIMUM OPERATING TEMPERATURE: 240 DEG F
PART 3 - EXECUTION		
3.1 INSTALLATION OF PIPING, GENERAL		<p>A. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS. INDICATED LOCATIONS AND ARRANGEMENTS WERE USED TO SIZE PIPE AND CALCULATE FRICTION LOSS. EXPANSION, FUME SING, AND OTHER DESIGN CONSIDERATIONS TO ALLOW FOR SERVICE AND INSPECTION. INSTALL PIPING AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE APPROVED ON SHOP DRAWINGS.</p> <p>B. INSTALL REFRIGERANT PIPING ACCORDING TO ASHRAE 15.</p> <p>C. INSTALL PIPING IN CONCEALED LOCATIONS UNLESS OTHERWISE INDICATED AND EXCEPT IN EQUIPMENT ROOMS AND SERVICE AREAS.</p> <p>D. INSTALL PIPING INDICATED TO BE EXPOSED AND PIPING IN EQUIPMENT ROOMS AND SERVICE AREAS AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED UNLESS SPECIFICALLY NOTED OTHERWISE.</p> <p>E. INSTALL PIPING ABOVE ACCESSIBLE CEILINGS TO ALLOW SUFFICIENT SPACE FOR CEILING PANEL REMOVAL.</p> <p>F. INSTALL PIPING ADJACENT TO MACHINES TO ALLOW SERVICE AND MAINTENANCE.</p> <p>G. INSTALL PIPING FREE OF SAGS AND BENDS.</p> <p>H. INSTALL FITTINGS FOR DIRECTION IN CHARGE AND BRANCH CONNECTIONS.</p> <p>I. SELECT SYSTEM COMPONENTS WITH PRESSURE RATING EQUAL TO OR GREATER THAN SYSTEM OPERATING PRESSURE.</p> <p>J. INSTALL PIPING AS SHORT AND DIRECT AS POSSIBLE, WITH A MINIMUM NUMBER OF JOINTS, ELBOWS, AND FITTINGS.</p> <p>K. ARRANGE PIPING TO ALLOW INSPECTION AND SERVICE OF REFRIGERATION EQUIPMENT. INSTALL VALVES AND SPECIALTIES IN ACCESSIBLE LOCATIONS TO ALLOW FOR SERVICE AND INSPECTION. INSTALL VALVES, SPECIALTIES, OR PANELS IF VALVES OR EQUIPMENT REQUIRING MAINTENANCE IS CONCEALED BEHIND FINISHED SURFACES.</p> <p>L. INSTALL REFRIGERANT PIPING IN PROTECTIVE CONDUIT WHERE INSTALLED BELOWGROUND.</p> <p>M. INSTALL REFRIGERANT PIPING IN RIGID OR FLEXIBLE CONDUIT IN LOCATIONS WHERE EXPOSED TO MECHANICAL INJURY.</p> <p>N. SLOPE REFRIGERANT PIPING AS FOLLOWS:</p> <ol style="list-style-type: none"> 1. INSTALL HORIZONTAL HOT-GAS DISCHARGE PIPING WITH A UNIFORM SLOPE DOWNWARD AWAY FROM COMPRESSOR. 2. INSTALL HORIZONTAL SUCTION LINES WITH A UNIFORM SLOPE DOWNWARD TO COMPRESSOR. 3. INSTALL TRAPS AND DOUBLE RISERS TO ENTRAIN OIL IN VERTICAL RUNS. 4. LIQUID LINES MAY BE INSTALLED LEVEL. <p>WHEN BRAZING OR SOLDERING, REMOVE SOLENOID-VALVE COILS AND SIGHT GLASSES, ALSO REMOVE VALVE STEMS, SEATS, AND PACKINGS, AND ACCESSIBLE INTERNAL PARTS OF REFRIGERANT SPECIALTIES. DO NOT APPLY HEAT NEAR SURROUNDING VALVE BULBS.</p> <p>INSTALL PIPING WITH ADEQUATE CLEARANCE BETWEEN PIPE AND ADJACENT WALLS AND HANGERS OR BETWEEN PIPES FOR INSULATION INSTALLATION.</p>
3.2 PIPE JOINT CONSTRUCTION		<p>A. REAM ENDS OF PIPES AND TUBES AND REMOVE BURRS.</p> <p>B. REMOVE SCALE, SLAG, DIRT, AND DEBRIS FROM INSIDE AND OUTSIDE OF PIPE AND FITTINGS BEFORE ASSEMBLY.</p> <p>C. SOLDERED JOINTS: CONSTRUCT JOINTS ACCORDING TO ASTM B 628 OR COATS "COPPER TUBE HANDBOOK."</p> <p>D. BRAZED JOINTS: CONSTRUCT JOINTS ACCORDING TO AWS "BRAZING HANDBOOK" CHAPTER "PIPE AND TUBE."</p> <ol style="list-style-type: none"> 1. USE TYPE BCU (COPPER-PHOSPHORUS) ALLOY FOR JOINING COPPER SOCKET FITTINGS WITH COPPER PIPE. 2. USE TYPE BAG (CADMIUM-FREE SILVER) ALLOY FOR JOINING COPPER WITH BRONZE OR STEEL.
3.3 INSTALLATION OF HANGERS AND SUPPORTS		<p>A. COMPLY WITH REQUIREMENTS FOR SEISMIC RESTRAINTS IN SECTION 230548 "VIBRATION AND SEISMIC CONTROLS FOR HVAC."</p> <p>B. INSTALL THE FOLLOWING PIPE ATTACHMENTS:</p> <ol style="list-style-type: none"> 1. ADJUSTABLE STEEL CLEVIS HANGERS FOR INDIVIDUAL HORIZONTAL RUNS LESS THAN 20 FEET LONG. 2. ROLLER HANGERS AND SPRING HANGERS FOR INDIVIDUAL HORIZONTAL RUNS 20 FEET OR LONGER. 3. PIPE ROLLER, MSS SP-86, TYPE 4A FOR MULTIPLE HORIZONTAL PIPING 20 FEET OR LONGER, SUPPORTED ON A TRAPEZE. 4. SPRING HANGERS TO SUPPORT VERTICAL RUNS. 5. COPPER-CLAD HANGERS AND SUPPORTS FOR HANGERS AND SUPPORTS IN DIRECT CONTACT WITH COPPER PIPE. <p>C. INSTALL HANGERS FOR COPPER TUBING, WITH MAXIMUM HORIZONTAL SPACING AND MINIMUM ROD DIAMETERS, TO COMPLY WITH MSS-58, LOCALLY ENFORCED CODES, AND AUTHORITIES HAVING JURISDICTION REQUIREMENTS, WHICHEVER ARE MOST STRINGENT.</p> <p>D. SUPPORT HORIZONTAL PIPING WITHIN 12 INCHES OF EACH FITTING.</p> <p>E. SUPPORT VERTICAL RUNS OF COPPER TUBING TO COMPLY WITH MSS-58, LOCALLY ENFORCED CODES, AND AUTHORITIES HAVING JURISDICTION REQUIREMENTS, WHICHEVER ARE MOST STRINGENT.</p>
3.4 SYSTEM CHARGING		<p>A. CHARGE SYSTEM USING THE FOLLOWING PROCEDURES:</p>

DIVISION 233113 METAL DUCTS

PART 1 - GENERAL

1.1 SUMMARY

A. SECTION INCLUDES:

1. SHEET METAL MATERIALS.
2. SINGLE-WALL RECTANGULAR DUCTS AND FITTINGS.
3. SINGLE-WALL ROUND DUCTS AND FITTINGS.
4. SEALANTS AND GASKETS.
5. HANGERS AND SUPPORTS.

PART 2 - PRODUCTS

2.1 SHEET METAL MATERIALS

- A. GENERAL MATERIAL REQUIREMENTS: COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," TABLE 5-1, "RECTANGULAR DUCTS," TABLE 5-2, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-3, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-4, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-5, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-6, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-7, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-8, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-9, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-10, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-11, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-12, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-13, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-14, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-15, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-16, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-17, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-18, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-19, "RECTANGULAR DUCTS/ANGULAR DUCTS," TABLE 5-20, 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DIVISION 23713 AIR DIFFUSERS, REGISTERS, AND GRILLES

- PART 1 - GENERAL
- 1.1 SUMMARY
- A. SECTION INCLUDES:
1. PLAQUE CEILING DIFFUSERS
 2. MODULAR CORED-DIRECTIONAL DIFFUSERS
 3. PERFORATED DIFFUSERS
 4. ROUND DIFFUSERS
 5. LINEAR SLOT DIFFUSERS
 6. DUCT OR WALL MOUNTED SUPPLY GRILLES
 7. PERFORATED RETURN REGISTERS
 8. CEILING, WALL, OR DUCT MOUNTED ADJUSTABLE BLADE FACE GRILLES
 9. ACCESSORIES

PART 2 - PRODUCTS

- 2.1 PLAQUE CEILING DIFFUSERS
- A. DESCRIPTION: THE SQUARE PLAQUE DIFFUSER SHALL BE SUPPLIED TO DELIVER A 360 DEGREE RADIAL HORIZONTAL AIR FLOW PATTERN. THE BACK CONE SHALL BE A ONE-PIECE DIE-FORMED DESIGN WITH SMOOTH, AERODYNAMICALLY DESIGNED SURFACES AND NO CORNER JOINTS.
- B. CONSTRUCTION:
1. DIFFUSER SHALL BE STEEL CONSTRUCTION AND SHALL CONSIST OF A SEAMLESS, ONE-PIECE, PRECISION FORMED BACKPAN THAT INCORPORATES A ROUND INLET COLLAR OF SUFFICIENT LENGTH FOR CONNECTING RIGID OR FLEXIBLE DUCT
 2. AN INNER PLAQUE ASSEMBLY SHALL BE INCORPORATED AND SHALL DROP NO MORE THAN 1/4 INCH BELOW THE CEILING PLANE TO ASSURE PROPER AIR DISTRIBUTION PERFORMANCE.
 3. THE INNER PLAQUE ASSEMBLY SHALL BE COMPLETELY REMOVABLE FROM THE ROOM SIDE TO ALLOW FOR FULL ACCESS TO ANY DAMPERS OR OTHER DUCTWORK COMPONENTS LOCATED NEAR THE DIFFUSER NECK.
 4. THE DIFFUSER SHALL INTEGRATE WITH ALL DUCT SIZES SHOWN ON THE PLANS WITHOUT AFFECTING THE FACE SIZE AND APPEARANCE OF THE UNIT.
 5. THE FACE PANEL SHALL HAVE SMOOTH EDGES AND ROUNDED CORNERS TO BLEND WITH THE BACK CONE.
- C. MOUNTING FRAME:
- 2.2 MODULAR CORED-DIRECTIONAL DIFFUSERS
- A. DESCRIPTION: FURNISH AND INSTALL MODULAR CORE CEILING DIFFUSERS OF SIZES, DISCHARGE PATTERNS, AND MOUNTING TYPES DESIGNATED BY THE PLANS AND AIR DISTRIBUTION SCHEDULE.
- B. CONSTRUCTION:
1. STEEL CONSTRUCTION
 2. THE DIFFUSER SHALL CONSIST OF AN OUTER FRAME ASSEMBLY TO FACILITATE MOUNTING AND SHALL INCLUDE AN INTEGRAL COLLAR TO ALLOW CONNECTION TO THE SQUARE DUCT.
 3. THE DIFFUSER CORE SHALL CONSIST OF FIRED LOUVER DIRECTIONAL MODULES THAT MAY BE EASILY FIELD ADJUSTED FROM THE DIFFUSER FACE WITHOUT ANY TYPE OF TOOL'S OR MECHANICAL DEVICE FOR FOUR-WAY HORIZONTAL DISCHARGE AIRFLOW UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 4. EACH LOUVERED MODULE SHALL BE EASILY REMOVABLE TO ALLOW ACCESS TO ANY DAMPER OR OTHER COMPONENT IN OR NEAR THE DIFFUSER NECK.
 5. THE CORE'S BLADE SPACING SHALL BE ONE INCH ON CENTER.

- 2.3 PERFORATED DIFFUSERS
- A. DESCRIPTION: AIR DEFLECTOR MODULE WITH ALLOW FULL FIELD ADJUSTMENT OF AIRFLOW PATTERN FROM ONE-WAY TO FOUR-WAY DISCHARGE WITH A REMOVABLE PERFORATED SQUARE FACEPLATE AND QUICK RELEASE SPRING LATCHES.
- B. CONSTRUCTION:
1. THE DIFFUSER SHALL INCLUDE FULLY ADJUSTABLE LOUVERED PATTERN CONTROLLERS MOUNTED ON THE FACE PANEL. THE PATTERN CONTROLLERS SHALL PERMIT FOUR-WAY, THREE-WAY, TWO-WAY, TWO-WAY CORNER, OR ONE-WAY AIRFLOW PATTERNS.
 2. THE BACKPAN AND PERFORATED FACE SHALL BE COATED STEEL CONSTRUCTION, WITH SNAP-IN MOUNTING TO THE EXTRUDED ALUMINUM BORDER AND MOUNTING FRAME. THE FRAMED FACE PANEL, SUB-ASSEMBLY SHALL CONNECT TO THE BACKPAN WITH SPRING CLIP LATCHES FOR EASE OF REMOVAL AND ACCESS TO PATTERN CONTROLLERS.
 3. WHEN INSTALLED, THE FACE PANEL SHALL BE FLUSH WITH THE BORDER FRAME.

- 2.4 ROUND DIFFUSERS
- A. DESCRIPTION: FURNISH AND INSTALL ROUND CONE CEILING DIFFUSERS OF SIZES AND MOUNTING TYPES DESIGNATED BY THE PLANS AND AIR DISTRIBUTION SCHEDULE.
- B. CONSTRUCTION:
1. DIFFUSERS SHALL BE HEAVY-GAUGE STEEL CONSTRUCTION, AND SHALL CONSIST OF FOUR SEAMLESS, ONE-PIECE, SPUN CONES THAT INCORPORATE A ROUND INLET COLLAR OF SUFFICIENT LENGTH FOR CONNECTING RIGID OR FLEXIBLE DUCT.
 2. THE DIFFUSER SHALL INTEGRATE WITH ALL DUCT SIZES SHOWN ON THE PLANS.
 3. AN INNER CONE ASSEMBLY SHALL CONSIST OF 3 CONES WHICH DROP BELOW THE CEILING PLANE. THE INNER CONE ASSEMBLY SHALL BE COMPLETELY REMOVABLE FROM THE DIFFUSER FACE TO ALLOW FOR FULL ACCESS TO ANY DAMPERS OR OTHER DUCTWORK COMPONENTS LOCATED NEAR THE DIFFUSER NECK.
 4. DIFFUSER TO ALLOW ADJUSTMENT OF THE INNER CONES BY REPOSITIONING SCREWS TO ACHIEVE BOTH HORIZONTAL OR VERTICAL AIR PATTERNS.

- 2.5 LINEAR SLOT DIFFUSERS
- A. DESCRIPTION: FURNISH AND INSTALL SLOT SUPPLY AND RETURN SLOT DIFFUSERS IN SLOT LENGTH, WIDTH, QUANTITY AND CAPACITIES AS SHOWN BY THE PLANS AND AIR DISTRIBUTION SCHEDULE.
- B. CONSTRUCTION:
1. THE SUPPLY DIFFUSERS SHALL HAVE AERODYNAMICALLY CURVED "ICE-TONG" SHAPED PATTERN CONTROLLERS FOR 180 DEGREE AIR PATTERN CONTROL, AND AIRFLOW DAMPERING, IF REQUIRED.
 2. THE RETURN UNITS SHALL MATCH THE SUPPLY UNITS IN APPEARANCE.
 3. THE DIFFUSER BORDER SHALL BE EXTRUDED ALUMINUM CONSTRUCTION WITH EXTRUDED ALUMINUM SPACERS AND FLUSH END CAPS.
 4. CONTINUOUS LENGTH UNITS SHALL BE PROVIDED WITH FACTORY ASSEMBLED CORNER MODULES TO SUIT DRAWINGS AND SITE CONDITIONS. SPICE PLATES AND ALIGNMENT PLATES SHALL BE PROVIDED TO ALIGN CONTINUOUS SLOT ASSEMBLIES.

- C. SLOT DIFFUSER PLENUM
1. THE PLENUMS SHALL BE CONSTRUCTED OF ZINC COATED STEEL.
 2. THE PLENUM ASSEMBLY SHALL HAVE STRAIGHT SHOULDERS FOR ENHANCED THROW CHARACTERISTICS.
 3. THE PLENUM ASSEMBLY SHALL HAVE A SIDE INLET CONFIGURATION IN SIZES TO SLOT DIFFUSERS WITH ONE TO FOUR SLOTS.
 4. THE PLENUM SHALL BE AVAILABLE TO SUIT BOTH DRYWALL AND LAY-IN APPLICATIONS.
 5. THE PLENUM SHALL BE INTERNALLY LINED WITH FIBER FREE INSULATION (SUPPLY ONLY).
- D. CABLE OPERATED VOLUME DAMPER CONTROLLER
1. COATED STEEL MILL FINISH
 2. PLENUM MOUNTED BRACKET ASSEMBLY

- 2.6 DUCT OR WALL MOUNTED SUPPLY GRILLES
- A. DESCRIPTION: FURNISH AND INSTALL DOUBLE DEFLECTION, 3/4-IN BLADE SPACE, 45-DEGREE TILT LOUVERED GRILLE WITH CAPACITIES AS SHOWN BY THE PLANS AND AIR DISTRIBUTION SCHEDULE.
- B. CONSTRUCTION:
1. THE GRILLE BLADES AND BORDER SHALL BE STEEL CONSTRUCTION.
 2. FRONT BLADES PARALLEL TO THE LONG DIMENSION.
- C. PROVIDE SPIRAL DUCT FRAME FOR INSTALLATION TO ROUND DUCTWORK.

- 2.7 PERFORATED RETURN REGISTERS
- A. DESCRIPTION: ROUND OPENING WITH A REMOVABLE PERFORATED SQUARE FACEPLATE AND QUICK RELEASE SPRING LATCHES.
- B. CONSTRUCTION:
1. THE BACKPAN AND PERFORATED FACE SHALL BE COATED STEEL CONSTRUCTION, WITH SNAP-IN MOUNTING TO THE EXTRUDED ALUMINUM BORDER AND MOUNTING FRAME. THE FRAMED FACE PANEL, SUB-ASSEMBLY SHALL CONNECT TO THE BACKPAN WITH SPRING CLIP LATCHES FOR EASE OF REMOVAL.

- 2.8 CEILING, WALL, OR DUCT MOUNTED ADJUSTABLE BLADE FACE GRILLES
- A. DESCRIPTION: FURNISH AND INSTALL SINGLE DEFLECTION, 3/4-IN BLADE SPACE, 45-DEGREE TILT LOUVERED GRILLE WITH CAPACITIES AS SHOWN BY THE PLANS AND AIR DISTRIBUTION SCHEDULE.
- B. CONSTRUCTION:
1. THE GRILLE BLADES AND BORDER SHALL BE STEEL CONSTRUCTION.
 2. FRONT BLADES PARALLEL TO THE LONG DIMENSION.
- C. PROVIDE SPIRAL DUCT FRAME FOR INSTALLATION TO ROUND DUCTWORK.

- 2.9 ACCESSORIES
- A. MOUNTING FRAME: THE DIFFUSER/REGISTER/GRILLE SHALL BE SUITABLE FOR LAY-IN OR SURFACE MOUNTED APPLICATIONS AS DESCRIBED IN THE REFLECTED CEILING OR FLOOR PLANS.
- B. SQUARE TO ROUND NECK ADAPTOR: GALVANIZED STEEL, SIZE TO MATCH AS DESCRIBED ON THE FLOOR PLANS.

DIVISION 237416 PACKAGED ROOFTOP AIR CONDITIONING UNITS

- PART 1 - GENERAL
- 1.1 SUMMARY
- A. SECTION INCLUDES:
1. UNIT CASING
 2. FAN, DRIVES, AND MOTORS
 3. COILS
 4. REFRIGERANT CIRCUIT COMPONENTS
 5. AIR FILTRATION
 6. GAS FURNACES
 7. DAMPERS
 8. CONTROLS
 9. ROOF CURBS
 10. ACCESSORIES

PART 2 - PRODUCTS

- 2.1 UNIT CASING
- A. GENERAL FABRICATION REQUIREMENTS FOR CASINGS, FORMED AND REINFORCED DOUBLE-WALL, INSULATED PANELS FABRICATED TO ALLOW REMOVAL FOR ACCESS TO INTERNAL PARTS AND COMPONENTS, WITH JOINTS BETWEEN SECTIONS SEALED.
- B. DOUBLE-WALL CONSTRUCTION:
1. OUTSIDE CASING WALL: GALVANIZED STEEL, MINIMUM 18 GAUGE THICK WITH MANUFACTURER'S STANDARD FINISH, WITH PITCHED ROOF PANELS AND KNOCKOUTS WITH GROMMET SEALS FOR ELECTRICAL AND PIPING CONNECTIONS AND LIFTING LUGS.
 2. INSIDE CASING WALL: G90 (Z275)-COATED GALVANIZED STEEL, 0.034 INCH, PERFORATED 40 PERCENT FREE AREA.
 3. FLOOR PLATE: G90 (Z275) GALVANIZED STEEL, TREADPLATE, MINIMUM 18 GAUGE THICK.
 4. CASING INSULATION:
 - a. MATERIALS: INJECTED POLYURETHANE FOAM INSULATION.
 - b. CASING PANEL R-VALUE: MINIMUM R-8.
 - c. INSULATION THICKNESS: 2 INCHES
 - d. THERMAL BREAK: PROVIDE CONTINUITY OF INSULATION WITH NO THROUGH-CASING METAL IN CASING WALLS, FLOORS, OR ROOF OF UNIT.
- A. PANELS AND DOORS:
1. PANELS:
 - a. FABRICATION: FORMED AND REINFORCED WITH SAME MATERIALS AND INSULATION THICKNESS AS CASING.
 - b. FASTENERS: TWO OR MORE CAM-LOCK TYPE FOR PANEL LIFT-OUT OPERATION. ARRANGEMENT SHALL ALLOW PANELS TO BE OPENED AGAINST AIR-PRESSURE DIFFERENTIAL.
 - c. GASKET: NEOPRENE, APPLIED AROUND ENTIRE PERIMETERS OF PANEL FRAMES.
 - d. SIZE: LARGE ENOUGH TO ALLOW INSPECTION AND MAINTENANCE OF AIR-HANDLING UNITS' INTERNAL COMPONENTS. DIMENSIONS TO BE AT LEAST 18 INCHES WIDE BY FULL HEIGHT OF UNIT CASING UP TO A MAXIMUM HEIGHT OF 60 INCHES.
2. ACCESS DOORS:
- a. HINGES: MINIMUM OF TWO BALL-BEARING HINGES OR STAINLESS-STEEL PIANO HINGE AND TWO WEDGE-LEVER TYPE LATCHES, OPERABLE FROM INSIDE AND OUTSIDE. ARRANGE DOORS TO BE OPENED AGAINST AIR-PRESSURE DIFFERENTIAL.
 - b. GASKET: NEOPRENE, APPLIED AROUND ENTIRE PERIMETERS OF PANEL FRAMES.
 - c. SIZE: LARGE ENOUGH TO ALLOW INSPECTION AND MAINTENANCE OF AIR-HANDLING UNITS' INTERNAL COMPONENTS. DIMENSIONS TO BE AT LEAST 24 INCHES WIDE BY FULL HEIGHT OF UNIT CASING UP TO A MAXIMUM HEIGHT OF 72 INCHES.
3. SERVICE LIGHT: 100-W VAPORPROOF FIXTURE WITH SWITCHED JUNCTION BOX LOCATED INSIDE ADJACENT TO DOOR.
4. LOCATIONS: EACH SECTION ACCESSED WITH DOOR.

- B. CONDENSATE DRAIN PANS:
1. LOCATION: EACH TYPE OF COOLING COIL.
 2. CONSTRUCTION:
 - a. SINGLE-WALL, STAINLESS-STEEL SHEET.
 3. DRAIN CONNECTION:
 - a. LOCATED AT LOWEST POINT OF PAN AND SIZED TO PREVENT OVERFLOW. TERMINATE WITH THREADED NIPPLE ON ONE END OF PAN.
 - b. MINIMUM CONNECTION SIZE: SEE DRAWINGS.
 4. SLOPE: MINIMUM 0.125-IN/FT. SLOPE, IN AT LEAST TWO PLANES TO COLLECT CONDENSATE FROM COOLING COILS.
 5. LENGTH: EXTEND DRAIN PAN DOWNSTREAM FROM LEAVING FACE.
 6. WIDTH: ENTIRE WIDTH OF WATER PRODUCING DEVICE.
 7. DEPTH: A MINIMUM OF 2 INCHES DEEP.
- 2.2 FANS, DRIVES, AND MOTORS
- A. FAN AND DRIVE ASSEMBLIES: STATICALLY AND DYNAMICALLY BALANCED AND DESIGNED FOR CONTINUOUS OPERATION AT MAXIMUM-RATED FAN SPEED AND MOTOR HORSEPOWER.
- B. SUPPLY-FAN FANS: CENTRIFUGAL, RATED ACCORDING TO AMCA 210; GALVANIZED OR PAINTED STEEL, MOUNTED ON SOLID-STEEL SHAFT:
 1. SHAFTS: WITH FIELD-ADJUSTABLE ALIGNMENT.
 - a. TURNED, GROUND, AND POLISHED HOT-ROLLED STEEL WITH KEYWAY.
2. SHAFT BEARINGS:
 - a. HEAVY-DUTY, SELF-ALIGNING, PILLOW-BLOCK TYPE WITH AN L-50 RATED LIFE OF MINIMUM 100,000 HOURS ACCORDING TO ABMA-B.
3. HOUSINGS: FORMED- AND REINFORCED-STEEL PANELS TO FORM CURVED SCROLL. HOUSINGS WITH SHAPED CUTOFF AND SPUR-METAL INLET BELL.
 - a. BRACING: STEEL ANGLES OR CHANNEL SUPPORTS FOR MOUNTING AND SUPPORTING FAN SCROLL.
 - b. WHEEL, MOTOR, AND ACCESSORIES.
4. CENTRIFUGAL FAN WHEELS: INLET FLANGE, BACKPLATE, AND SHALLOW BLADES WITH INLET AND TIP CURVED FORWARD IN ORDER TO PREVENT OVERFLOW AND MECHANICALLY FASTENED TO FLANGE AND BACKPLATE, STEEL OR ALUMINUM HUB SHAPED TO BACKPLATE AND FASTENED TO SHAFT WITH SETSCREWS.
5. MOUNTING: FOR INTERNAL VIBRATION ISOLATION CONTROL, FACTORY-MOUNT FANS WITH MANUFACTURER'S STANDARD RESTRAINED VIBRATION ISOLATION MOUNTING DEVICES HAVING A MINIMUM STATIC DEFLECTION OF 1 INCH.
6. SHAFT LUBRICATION LINES: EXTENDED TO A LOCATION OUTSIDE THE CASING.

- C. DRIVES, DIRECT, FACTORY-MOUNTED, DIRECT DRIVE, EC-MOTOR DESIGN.
- D. DRIVER, BELT, FACTORY-MOUNTED, V-BELT DRIVE, WITH ADJUSTABLE ALIGNMENT AND BELT TENSIONING, AND WITH 1.5 SERVICE FACTOR BASED ON FAN MOTOR:
 1. PULLEYS: CAST IRON OR CAST STEEL WITH SPLIT, TAPERED BUSHING, DYNAMICALLY BALANCED AT THE FACTORY.
 2. BELTS: OIL RESISTANT, NON-SPARKING AND NONSTATIC, IN MATCHED SETS FOR MULTIPLE-BELT DRIVES.
 3. BELT GUARDS: COMPLY WITH REQUIREMENTS SPECIFIED BY OSHA AND FABRICATE ACCORDING TO SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS: 0.146-INCH THICK, 3/4-INCH DIAMOND-MESH WIRE SCREEN, WELDED TO STEEL ANGLE FRAME, PRIME COATED.
- E. CONDENSER-COIL FAN, VARIABLE-SPEED PROPELLER, MOUNTED ON SHAFT OF PERMANENTLY LUBRICATED EC- MOTORS.
- F. RELIEF-AIR FAN: PROPELLER OR BACKWARD INCLINED, SHAFT MOUNTED ON PERMANENTLY LUBRICATED MOTOR. SEPARATE POWER TO FAN IS REQUIRED IF FROM A 3RD PARTY BRAND NAME.
- G. MOTORS:
 1. MOTOR SIZES: MINIMUM SIZE AS INDICATED, IF NOT INDICATED, LARGE ENOUGH SO DRIVEN LOAD WILL NOT REQUIRE MOTOR TO OPERATE IN SERVICE FACTOR RANGE ABOVE 1.0.
 2. ENCLOSURE TYPE: TOTALLY ENCLOSED, FAN COOLED.
 3. MOTOR PULLEYS: ADJUSTABLE PITCH FOR USE WITH 5 HP MOTORS AND SMALLER, FIXED PITCH FOR USE WITH MOTORS LARGER THAN 5 HP. SELECT PULLEY SIZE SO PITCH ADJUSTMENT IS AT THE MIDDLE OF ADJUSTMENT RANGE AT FAN DESIGN CONDITIONS.
 4. CONTROLLERS, ELECTRICAL DEVICES, AND WIRING: COMPLY WITH REQUIREMENTS FOR ELECTRICAL DEVICES AND CONNECTIONS SPECIFIED IN ELECTRICAL DRAWINGS.

- 2.3 COILS
- A. GENERAL REQUIREMENTS FOR COILS:
1. COMPLY WITH AHRI 410.
 2. FABRICATE COILS SECTION TO ALLOW REMOVAL AND REPLACEMENT OF COIL FOR MAINTENANCE AND TO ALLOW FOR EASE ACCESS FOR SERVICE AND MAINTENANCE OF COILS.
 3. COILS SHALL NOT ACT AS STRUCTURAL COMPONENT OF UNIT.
- B. SUPPLY-AIR/OUTDOOR-AIR REFRIGERANT COIL:
1. TUBES: COPPER
 2. FINS:
 - a. MATERIAL: ALUMINUM.
 - b. FIN SPACINGS: MAXIMUM 10 FINS PER INCH (MM).
 - c. FIN AND TUBE JOINTS: MECHANICAL BOND.
 - d. HEADERS: SEAMLESS COPPER HEADERS WITH BRAZED CONNECTIONS
 - e. FRAMES: GALVANIZED STEEL.
 - f. RATINGS: DESIGNED, TESTED, AND RATED ACCORDING TO ASHRAE 35 AND AHRI 410.
 - g. WORKING PRESSURE: MINIMUM 300 PSIG.

- 2.4 REFRIGERANT CIRCUIT COMPONENTS
- A. NUMBER OF REFRIGERANT CIRCUITS: ONE FOR UNITS 5-TONS OR LESS, TWO FOR UNITS LARGER THAN 5-TONS
- B. COMPRESSOR: HERMETIC, VARIABLE SPEED SCROLL, MOUNTED ON VIBRATION ISOLATORS, WITH INTERNAL OVERLOAD PROTECTION AND HEAT-PUMP HEATING DUTY.
- C. REFRIGERATION SPECIFICATIONS:
1. REFRIGERANT: R-410A
 2. EXPANSION VALVE WITH REPLACEABLE THERMOSTATIC ELEMENT.
 3. REFRIGERANT FILTER/DRYER.
 4. MANUAL-RESET HIGH-PRESSURE SAFETY SWITCH.
 5. AUTOMATIC-RESET LOW-PRESSURE SAFETY SWITCH.
 6. MINIMUM OFF-TIME RELAY.
 7. AUTOMATIC-RESET COMPRESSOR MOTOR THERMAL OVERLOAD.
 8. BRASS SERVICE VALVES INSTALLED IN COMPRESSOR SUCTION AND LIQUID LINES.
 9. LOW-AMBIENT KIT: HIGH-PRESSURE SENSOR.
 10. FOUR-WAY REVERSING VALVE WITH A REPLACEABLE MAGNETIC COIL, THERMOSTATIC EXPANSION VALVES WITH BYPASS CHECK VALVES, AND A SUCTION LINE ACCUMULATOR.

- 2.5 AIR FILTRATION
- A. PANEL FILTER:
1. DESCRIPTION: PLEATED, FACTORY-FABRICATED, SELF-SUPPORTED, DISPOSABLE AIR FILTERS WITH HOLDING FRAMES WITH MINIMUM MERV 13 RATING.
 2. FILTER UNIT CLASS: UL-900
 3. MEDIA: INTERLACED GLASS, SYNTHETIC OR COTTON FIBERS COATED WITH NONFLAMMABLE ADHESIVE AND ANTIMICROBIAL COATING.
- 2.6 GAS FURNACES
- A. DESCRIPTION: FACTORY ASSEMBLED, PIPED, AND WIRED; COMPLYING WITH ANSI Z21.47/CSA 2.3 AND NFPA 54.
- B. CSA APPROVAL: DESIGNED AND CERTIFIED BY AND BEARING LABEL OF CSA.
- C. BURNERS: STAINLESS STEEL
1. RATED MINIMUM TURNDOWN RATIO: 30 TO 1
 2. FUEL: NATURAL GAS
 3. IGNITION: ELECTRONICALLY CONTROLLED ELECTRIC SPARK OR HOT-SURFACE IGNITER WITH FLAME SENSOR.
 4. GAS CONTROL VALVE: MODULATING.
 5. GAS TRAIN: SINGLE-BODY, REGULATED, REDUNDANT, 24-V AC GAS VALVE ASSEMBLY CONTAINING PILOT SOLENOID VALVE, PILOT FILTER, PRESSURE REGULATOR, PILOT SHUTOFF, AND MANUAL SHUTOFF.
- D. HEAT-EXCHANGER AND DRAIN PAN: STAINLESS STEEL.
- E. VENTING, GRAVITY: GRAVITY VENTED
- F. GAS MANIFOLD: SAFETY SWITCHES AND CONTROLS COMPLYING WITH ANSI STANDARDS AND FM GLOBAL.

- 2.7 DAMPERS
- A. OUTDOOR- AND RETURN-AIR DAMPERS: ULTRA-LOW-LEAKAGE, DOUBLE-SKIN, AIRFOIL-BLADE, GALVANIZED STEEL DAMPERS, WITH COMPRESSIBLE JAMB SEALS AND EXTRUDED VINYL BASE. EDGE SEALS IN EXPOSED BLADES. MOUNTING MUST BE SINGLE GALVANIZED STEEL OPERATING RODS, ROTATING IN SINTERED BRONZE OR NYLON BEARINGS. LEAKAGE AT SINGLE DAMPER EXHAUSTION: 0.001 CFM/SG. FT. AT 1-INCH WG.
- B. ELECTRONIC DAMPER OPERATORS:
1. DIRECT-COUPLED TYPE DESIGNING FOR MINIMUM 60,000 FULL-STROKE CYCLES AT RATED TORQUE.
 2. ELECTRONIC DAMPER POSITION INDICATOR SHALL HAVE VISUAL SCALE INDICATING PERCENT OF TRAVEL AND 2- TO 10-V DC, FEEDBACK SIGNAL.
 3. OPERATOR MOTORS:
 - a. COMPLY WITH NEMA DESIGNATION, TEMPERATURE RATING, SERVICE FACTOR, ENCLOSURE TYPE, AND EFFICIENCY REQUIREMENTS FOR MOTORS SPECIFIED IN SECTION 230513 "COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT."
 - b. SIZE TO OPERATE WITH SUFFICIENT RESERVE POWER TO PROVIDE SMOOTH MODULATING ACTION OR TWO-POSITION ACTION.
 - c. PERMANENT SPLIT-CAPACITOR OR SHADED-POLE TYPE. GEAR TRAINS COMPLETELY OIL IMMERSED AND SEALED. EQUIP SPRING-RETURN MOTORS WITH INTEGRAL SPRING-MECHANISM IN HOUSINGS DESIGNED FOR EASY REMOVAL FOR SERVICE OR ADJUSTMENT OF LIMIT SWITCHES, AUXILIARY SWITCHES, OR FEEDBACK POTENTIOMETER.
 - d. BAROMETRIC RELIEF DAMPERS CAPABLE OF RELIEVING UP TO 100% RETURN AIR.

- 2.8 ELECTRICAL POWER CONNECTIONS
- A. UNIT SHALL HAVE A SINGLE CONNECTION OF POWER TO UNIT WITH UNIT-MOUNTED DISCONNECT SWITCH ACCESSIBLE FROM OUTSIDE UNIT AND CONTROL CIRCUIT TRANSFORMER WITH BUILT-IN OVERCURRENT PROTECTION.
- 2.9 CONTROLS
- A. BASIC UNIT CONTROLS:
1. CONTROL-VOLTAGE TRANSFORMER.
 2. WALL-MOUNTED THERMOSTAT OR SENSOR WITH THE FOLLOWING FEATURES:
 - a. HEAT-COOL-OFF SWITCH.
 - b. FAN ON-AUTO SWITCH.
 - c. FAN-SPEED SWITCH.
 - d. AUTOMATIC CHANGE-OVER.
 - e. ADJUSTABLE DEAD-BAND.
 - f. SET POINT ADJUSTMENT.
 - g. SCHEDULING.
 - h. DEGREE F INDICATION.
 - i. UNOCCUPIED-PERIOD-OVERRIDE PUSH BUTTON.
 - j. DATA ENTRY AND ACCESS PORT TO INPUT TEMPERATURE SET POINTS, OCCUPIED AND UNOCCUPIED PERIODS, AND OUTPUT ROOM TEMPERATURE SUPPLY-AIR TEMPERATURE, OPERATING MODE, AND STATUS.
- B. ECONOMIZER FAULT DETECTION INTERFACE MEETING LATEST ENERGY CODE MANDATED FEATURES
- C. ELECTRONIC CONTROLLER:
1. CONTROLLER SHALL HAVE VOLATILE-MEMORY BACKUP.
 2. SAFETY CONTROL OPERATION:
 - a. SMOKE DETECTORS: STOP FAN AND CLOSE OUTDOOR-AIR DAMPER IF SMOKE IS DETECTED, PROVIDE ADDITIONAL CONTACTS FOR ALARM INTERFACE TO FIRE ALARM CONTROL PANEL.
 - b. FIRE ALARM CONTROL PANEL INTERFACE.
 - c. LOW-DISCHARGE TEMPERATURE: STOP FAN AND CLOSE OUTDOOR-AIR DAMPER IF SUPPLY AIR TEMPERATURE IS LESS THAN 40 DEG F.
 - d. DEFROST CONTROL FOR CONDENSER COIL: PRESSURE DIFFERENTIAL SWITCH TO INITIATE DEFROST SEQUENCE.
3. FIXED MINIMUM OUTDOOR-AIR DAMPER OPERATION:
- a. OCCUPIED PERIODS: OPEN TO 25 PERCENT.
 - b. UNOCCUPIED PERIODS: CLOSE THE OUTDOOR AIR DAMPER.
4. ECONOMIZER OUTDOOR-AIR DAMPER OPERATION:
- a. MORNING WARM UP AND BUILDING OUTDOOR AIR FLUSH CYCLES.
 - b. OCCUPIED PERIODS: OPEN TO 10 PERCENT FIXED MINIMUM INTAKE, AND MAXIMUM 100 PERCENT OF THE FAN CAPACITY. CONTRAST EQUAL PERIODS OF AIRSIDE ECONOMIZER OPERATION WHEN OUTDOOR AIR IS LESS THAN 65 DEG F. USE OUTDOOR-AIR TEMPERATURE TO ADJUST MIXING DAMPERS. START RELIEF-AIR FAN (IF APPLICABLE) WITH END SWITCH ON OUTDOOR-AIR DAMPER. DURING ECONOMIZER CYCLE OPERATION, LOCK OUT COOLING.

- D. UNOCCUPIED PERIODS: CLOSE OUTDOOR-AIR DAMPER AND OPEN RETURN-AIR DAMPER.
- E. ON-BOARD FAULT DETECTION AND DIAGNOSTICS (FDD) THAT SENSES AND ALERTS WHEN THE ECONOMIZER IS NOT OPERATING PROPERLY. PER CALIFORNIA TITLE 24.
- F. INTERFACE REQUIREMENTS FOR HVAC INSTRUMENTATION AND CONTROL SYSTEM:
1. INTERFACE RELAY FOR SCHEDULED OPERATION.

2. INTERFACE RELAY TO PROVIDE INDICATION OF FAULT AT THE CENTRAL WORKSTATION AND DIAGNOSTIC CODE STORAGE.
3. PROVIDE BACNET COMPATIBLE INTERFACE FOR CENTRAL HVAC CONTROL WORKSTATION FOR THE FOLLOWING:
- a. ADJUSTING SET POINTS.
 - b. MONITORING SUPPLY FAN START, STOP, AND OPERATION.
 - c. INQUIRING DATA TO INCLUDE OUTDOOR-AIR DAMPER POSITION, SUPPLY- AND ROOM-AIR TEMPERATURE.
 - d. MONITORING OCCUPIED AND UNOCCUPIED OPERATIONS.
 - e. MONITORING CONSTANT AND VARIABLE MOTOR LOADS.
 - f. MONITORING VARIABLE-FREQUENCY DRIVE OPERATION.
 - g. MONITORING COOLING LOAD.
 - h. MONITORING ECONOMIZER CYCLES.
 - i. MONITORING AIR-DISTRIBUTION STATIC PRESSURE AND VENTILATION AIR VOLUME.

- 2.10 ROOF CURBS
- A. MATERIALS: GALVANIZED STEEL WITH CORROSION-PROTECTION COATING, WATERTIGHT, GASKETS, AND FACTORY-INSTALLED WOOD NAILS, COMPLYING WITH IBCA STANDARDS.
- a. CURB INSULATION AND ADHESIVE: COMPLY WITH NFPA 95A OR NFPA 90B.
 - b. MATERIALS: ASTM C 1071, TYPE I OR II.
 - c. THICKNESS: 1 INCH
2. APPLICATION: FACTORY APPLIED WITH ADHESIVE AND MECHANICAL FASTENERS TO THE INTERNAL SURFACE OF CURB.
3. LINER ADHESIVE: COMPLY WITH ASTM C916, TYPE I.
4. MECHANICAL FASTENERS: GALVANIZED STEEL, SUITABLE FOR ADHESIVE ATTACHMENT, MECHANICAL ATTACHMENT, OR WELDING ATTACHMENT TO DUCT WITHOUT DAMAGING LINER WHEN APPLIED AS RECOMMENDED BY MANUFACTURER AND WITHOUT CAUSING LEAKAGE IN CABINET.
5. LINER MATERIALS: APPLIED IN THIS LOCATION SHALL HAVE AIR-STREAM SURFACE COATED WITH A TEMPERATURE-RESISTANT COATING OR FACED WITH A PLAIN OR COATED FIBROUS MAT OR FABRIC DEPENDING ON SERVICE AIR VELOCITY.
6. LINER ADHESIVE: COMPLY WITH ASTM C916, TYPE I.
7. CURB CURB DIMENSIONS: HEIGHT OF 14 INCHES MINIMUM. ADAPTABLE HORIZONTAL DIMENSIONS AS REQUIRED FOR EXISTING ROOF OPENINGS.

- 2.11 ACCESSORIES
- A. FILTER DIFFERENTIAL PRESSURE SWITCH WITH SENSOR TUBING ON EITHER SIDE OF FILTER. SET FOR FINAL FILTER PRESSURE LOSS.
- B. REMOTE POTENTIOMETER TO ADJUST MINIMUM ECONOMIZER DAMPER POSITION.
- C. FACTORY INSTALLED DEMAND-CONTROLLED VENTILATION.
- D. SAFETIES:
1. SMOKE DETECTOR.
 2. CONDENSATE OVERFLOW SWITCH.
- E. COIL GUARDS OF PAINTED, GALVANIZED-STEEL, WIRE.
- F. VERTICAL VENT EXTENSIONS TO INCREASE THE SEPARATION BETWEEN THE OUTDOOR-AIR INTAKE AND THE FLUE GAS OUTLET.
- G. OUTDOOR AIR INTAKE WEATHER HOOD
- PART 3 - EXECUTION (NO ADDITIONAL INFORMATION)

DIVISION 238126 SPLIT SYSTEM AIR CONDITIONING UNITS

- PART 1 - GENERAL
- 1.1 SUMMARY
- A. SECTION INCLUDES: SPLIT-SYSTEM AIR-CONDITIONING AND HEAT-PUMP UNITS CONSISTING OF SEPARATE EVAPORATOR-FAN AND COMPRESSOR-CONDENSER COMPONENTS.

PART 2 - PRODUCTS

- 2.1 INDOOR UNITS
- A. CONCEALED EVAPORATOR-FAN COMPONENTS:
1. CHASSIS: GALVANIZED STEEL WITH FLANGED EDGES, REMOVABLE PANELS FOR SERVICING, AND INSULATION ON BACK OF PANEL.
 2. INSULATION: FACED, GLASS-FIBER DUCT LINER.
 3. REFRIGERANT COIL: COPPER TUBE, WITH MECHANICALLY BONDED ALUMINUM FINS AND THERMAL-EXPANSION VALVE, COMPLY WITH ARI 206/110.
 4. FAN: FORWARD-CURVED, DOUBLE-WIDTH WHEEL OF GALVANIZED STEEL, DIRECTLY CONNECTED TO MOTOR.
 5. FAN MOTORS:
 - a. MULTI-TAPPED, MULTISPEED WITH INTERNAL THERMAL PROTECTION AND PERMANENT LUBRICATION.
 - b. WIRING TERMINATIONS: CONNECT MOTOR TO CHASSIS WIRING WITH PLUG CONNECTION.
6. FILTERS: REPLACEABLE, PLEATED, MERV 13.
7. CONDENSATE DRAIN PANS:
 - a. FABRICATED WITH ONE PERCENT SLOPE IN AT LEAST TWO PLANES TO COLLECT CONDENSATE FROM COOLING COILS (INCLUDING COIL PIPING CONNECTIONS, COIL HEADERS, AND RETURN BENDS).
 - b. SINGLE-WALL, STAINLESS-STEEL SHEET.
 - c. DRAIN CONNECTION LOCATED AT LOWEST POINT OF PAN AND SIZED TO PREVENT OVERFLOW. TERMINATE WITH THREADED NIPPLE ON ONE END OF PAN.
- B. WALL-MOUNTED EVAPORATOR-FAN COMPONENTS:
1. CABINET: ENAMELED STEEL WITH REMOVABLE PANELS ON FRONT AND ENDS AND DISCHARGE DRAIN PANS WITH DRAIN CONNECTION.
 2. REFRIGERANT COIL: COPPER TUBE, WITH MECHANICALLY BONDED ALUMINUM FINS AND THERMAL-EXPANSION VALVE, COMPLY WITH ARI 206/110.
 3. FAN: DIRECT DRIVE, CENTRIFUGAL.
 4. FAN MOTORS:
 - a. MULTI-TAPPED, MULTISPEED WITH INTERNAL THERMAL PROTECTION AND PERMANENT LUBRICATION.
 - b. ENCLOSURE TYPE: TOTALLY ENCLOSED, FAN COOLED.
 - c. NEMA PREMIUM (TM) EFFICIENT MOTORS AS DEFINED IN NEMA MG 1.
 - d. CONTROLLERS, ELECTRICAL DEVICES, AND WIRING: COMPLY WITH REQUIREMENTS FOR ELECTRICAL DEVICES AND CONNECTIONS SPECIFIED IN ELECTRICAL SECTIONS.
 - e. MOUNT UNIT-MOUNTED DISCONNECT SWITCHES ON EXTERIOR OF UNIT.
 - f. FILTERS: PERMANENT, WASHABLE, MERV 4.
5. CONDENSATE DRAIN PANS:
 - a. FABRICATED WITH ONE PERCENT SLOPE IN AT LEAST TWO PLANES TO COLLECT CONDENSATE FROM COOLING COILS (INCLUDING COIL PIPING CONNECTIONS, COIL HEADERS, AND RETURN BENDS).
 - b. SINGLE-WALL, STAINLESS-STEEL SHEET.
 - c. DRAIN CONNECTION LOCATED AT LOWEST POINT OF PAN AND SIZED TO PREVENT OVERFLOW. TERMINATE WITH THREADED NIPPLE ON ONE END OF PAN.

- 2.2 OUTDOOR UNITS
- A. AIR-COOLED, COMPRESSOR-CONDENSER COMPONENTS:
1. CASING: STEEL, FINISHED WITH BAKED ENAMEL, WITH REMOVABLE PANELS FOR ACCESS TO CONTROLS, WEEP HOLES FOR WATER DRAINAGE, AND MOUNTING HOLES IN BASE. PROVIDE BRASS SERVICE VALVES, FITTINGS, AND GAGE PORTS ON EXTERIOR OF CASING.
 2. COMPRESSOR: HERMETICALLY SEALED WITH CRANKCASE HEATER AND MOUNTED ON VIBRATION ISOLATION DEVICE. COMPRESSOR MOTOR SHALL HAVE THERMAL- AND CURRENT-SENSITIVE OVERLOAD DEVICES. START CAPACITOR, RELAY, AND CONTACTOR.
 - a. COMPRESSOR TYPE: SCROLL.
 - b. COMPRESSOR TIME DELAY.
 - c. REFRIGERANT: R-410A.
 - d. REFRIGERANT COIL: COPPER TUBE, WITH MECHANICALLY BONDED ALUMINUM FINS AND LIQUID SUBCOOLER, COMPLY WITH ARI 206/110.
 3. HEAT-PUMP COMPONENTS: REVERSING VALVE AND LOW-TEMPERATURE-AIR CUTOFF THERMOSTAT.
 4. FAN: ALUMINUM-PROPELLER TYPE, DIRECTLY CONNECTED TO MOTOR.
 5. MOTOR: PERMANENTLY LUBRICATED, WITH INTEGRAL THERMAL-OVERLOAD PROTECTION.
 6. LOW AMBIENT KIT: PERMITS OPERATION DOWN TO 45 DEG F.
 7. MOUNTING BASE: POLYETHYLENE.

- 2.3 ACCESSORIES
- A. THERMOSTAT: WALL MOUNTED TO CONTROL COMPRESSOR AND EVAPORATOR FAN, WITH THE FOLLOWING FEATURES:
1. COMPRESSOR TIME DELAY.
 2. 24-HOUR TIME CONTROL OF SYSTEM STOP AND START.
 3. LIQUID-CRYSTAL DISPLAY INDICATING TEMPERATURE, SET-POINT TEMPERATURE, TIME SETTING, OPERATING MODE, AND FAN SPEED.
 4. FAN-SPEED SELECTION INCLUDING AUTO SETTING.
- B. AUTOMATIC-RESET TIMER TO PREVENT RAPID CYCLING OF COMPRESSOR.
- C. DRAIN HOSE: FOR CONDENSATE.
- D. CONDENSATE PUMP: FACTORY OR FIELD PROVIDED. VOLTAGE TO MATCH THE INDOOR UNIT, 1.0-5.0 GPH, 10-FT MAX SUCTION HEAD, 33-FT MAX DISCHARGE HEAD.



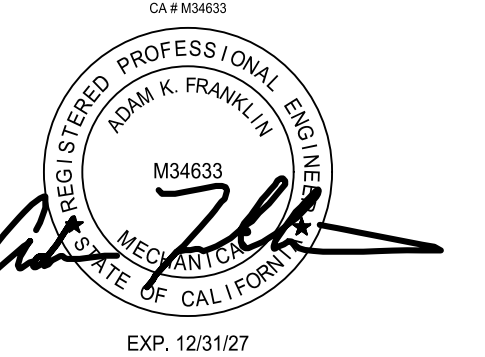
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PROJECT

WESTEND
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FOR



TITLE

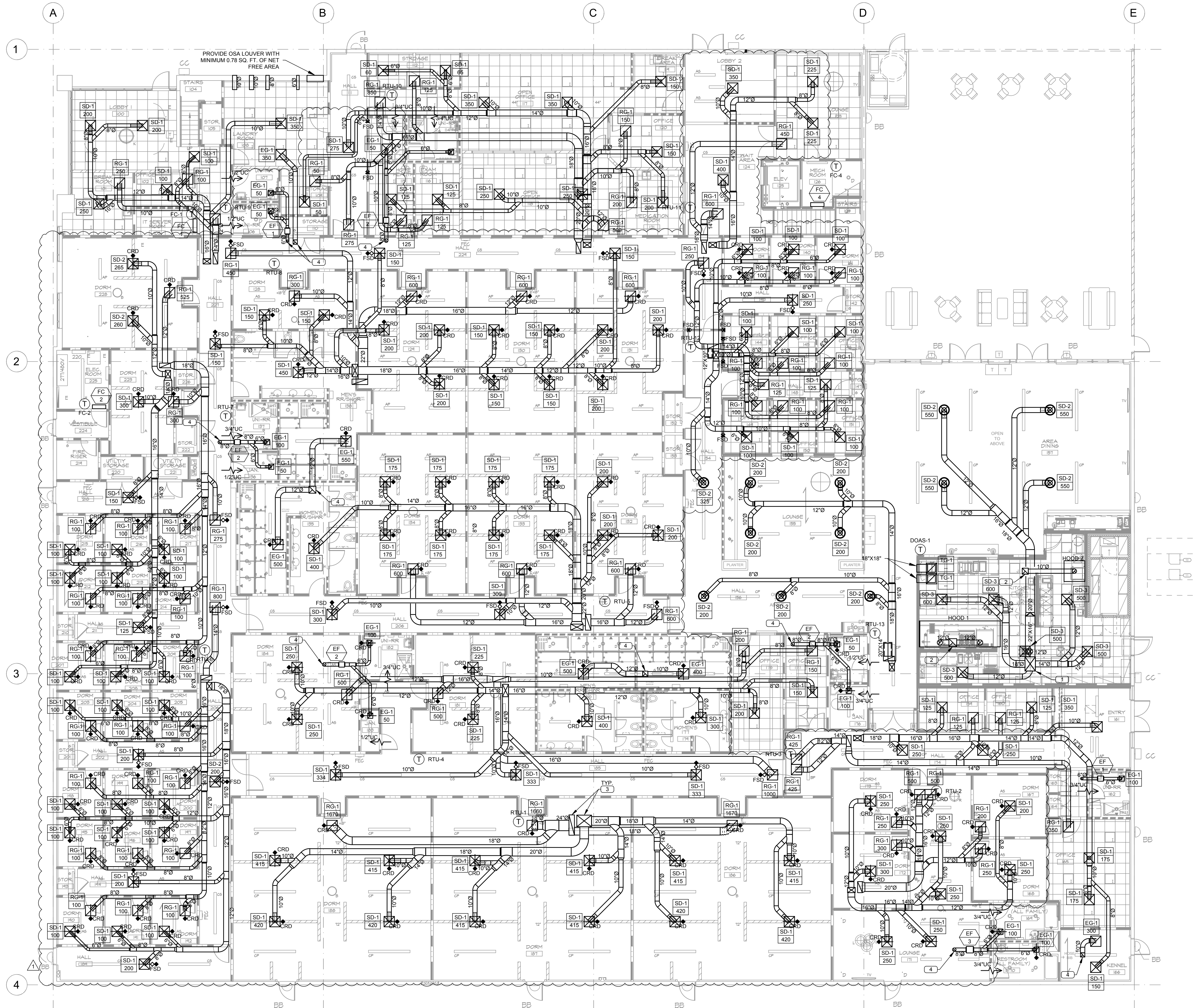
MECHANICAL
SHEET
SPECIFICATIONS

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

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GENERAL NOTES

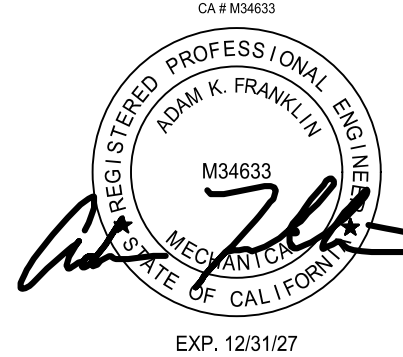
1. NOTIFY AND OBTAIN LANDLORD'S REPRESENTATIVE APPROVAL OF SCHEDULED DOWN TIME DURATIONS THAT WOULD AFFECT OTHER PARTS OF BUILDING OPERATION NOT IN SCOPE OF WORK PRIOR TO COMMENCING THE WORK.
2. TO REDUCE THE AMOUNT OF DUST, WATER, AND DEBRIS COLLECTED IN MECHANICAL EQUIPMENT AND DUCTS, ALL DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION EQUIPMENT COMPONENT OPENINGS SHALL BE COVERED FROM THE TIME OF DELIVERY AT THE JOBSITE THROUGHOUT CONSTRUCTION UNTIL FINAL START UP.
3. DUCTWORK AND PIPING SHALL BE IDENTIFIED WITH A SERVICE MARKING WITH INDICATED AIRFLOW/WATER FLOW DIRECTION OF THE SERVICE.
4. DUCT SIZE INDICATED ARE THE "FREE-AREA" INSIDE DIMENSIONS OF THE DUCT.
5. RECTANGULAR CAN BE SUBSTITUTED WITH ROUND DUCTS AS LONG AS IT MEETS OR EXCEEDS THE CROSS-SECTIONAL FREE AREA AND IS ABLE TO FIT IN THE IDENTIFIED SPACE.
6. MAINTAIN 3'-0" DISTANCE FROM ENVIRONMENTAL EXHAUST OUTLETS (AS DEFINED IN CMC 502.2.1) TO BUILDING OPENINGS AND 10'-0" DISTANCE TO MECHANICALLY FORCED AIR INLETS.
7. LABEL TEMPERATURE SENSORS AS TO THE UNIT THEY ARE SERVING.
8. INSULATION MATERIALS APPLIED TO DUCTWORK SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE DENSITY NOT EXCEEDING 50.
9. REQUIRED OFFSETS, COMPONENTS, ACCESSORIES, AND FITTINGS MAY NOT BE SHOWN BUT SHALL BE PROVIDED AS REQUIRED TO AVOID INTERFERENCES WITH UN-FORESEEN COMPONENTS.
10. PROVIDE DIELECTRIC UNIONS, GASKETS, AND FASTENERS AT DISSIMILAR METAL CONNECTIONS OF CONTACT POINTS.
11. FLEXIBLE DUCT CONNECTION TO AIR DIFFUSERS CONVEYING CONDITIONED AIR SHALL BE A MAXIMUM OF 5'-0".
12. PROVIDE COMPLETE AIR BALANCE FOR ALL MECHANICAL SYSTEMS IDENTIFIED IN THE SCOPE OF WORK. BALANCING CONTRACTOR SHALL BE AN INDEPENDENT THIRD PARTY MEMBER OF "AABC" OR "THE NEBB". MECHANICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TOOLS AS REQUIRED TO COMPLETE THE BALANCING OF THE SYSTEM.
13. DUCT SYSTEM SHALL BE SEALED TO A LEAKAGE RATE NOT TO EXCEED 6% OF NOMINAL AIR HANDLING AIRFLOW RATE. CONFIRM THROUGH FIELD VERIFICATION AND DIAGNOSTIC TESTINGS.
14. REFER TO THE PLUMBING DRAWINGS FOR CONDENSATE DRAIN PIPE ROUTING.
15. COORDINATE WITH STRUCTURAL ON ANY NEW SUPPORTS, EXISTING FIRE PROTECTION, ETC. PRIOR TO LAYING OUT DUCTWORK.
16. THERE SHALL BE A CLEAR RETURN PATH BACK TO THE HVAC UNIT IN THE PLENUM SPACE. REPORT ANY OBSTRUCTIONS SUCH AS FULL HEIGHT WALLS NOT SHOWN ON THE DRAWINGS TO THE ARCHITECT.
17. PROVIDE ACCESS PANELS IN NON-ACCESSIBLE AREAS (RATED OR NON-RATED) MINIMUM 12"X12" SIZE FOR COMBINATION FIRE/SMOKE DAMPERS. INSTALL LARGER ACCESS PANELS FOR LARGER EQUIPMENT AS REQUIRED BY CODE. COORDINATE WITH ARCHITECT FOR APPROVAL OF FINAL LOCATIONS PRIOR TO INSTALLATION.
18. PROVIDE FIRESTOPPING FOR PIPE AND PASS-THROUGH DUCT PENETRATIONS THROUGH RATED WALLS. DUCTWORK SHALL BE A MINIMUM 26 GA SHEET METAL. SEE ARCHITECTURAL PLANS FOR FIRE STOP DETAILS.
19. FIELD COORDINATE WITH THE STRUCTURAL CONTRACTOR THE EXACT LOCATION OF DUCT AND PIPING PENETRATIONS PRIOR TO ROUTING TO CONFIRM IT WILL NOT DISTURB EXISTING STRUCTURAL ELEMENTS.
20. IDENTIFY AND RE-SUPPORT EXISTING DUCTWORK, DEVICES, AND APPURTENANCES IF IT INTRUDES AT LOCATIONS OF PROPOSED HIGHER CEILING HEIGHTS.

KEY NOTES

1. DOAS UNIT SUPPLY AIR DUCT DROP DOWN FROM FLOOR ABOVE. SEE DRAWING M202 FOR CONTINUATION.
2. KITCHEN EXHAUST DUCT DROP DOWN FROM FLOOR ABOVE. SEE DRAWING M202 FOR CONTINUATION.
3. SUPPLY AND RETURN AIR DUCT DROPS DOWN FROM FLOOR ABOVE. SEE DRAWING M202 FOR CONTINUATION.
4. GENERAL EXHAUST DUCT DROP DOWN FROM FLOOR ABOVE. SEE DRAWING M202 FOR CONTINUATION.

STAMP

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PROJECT

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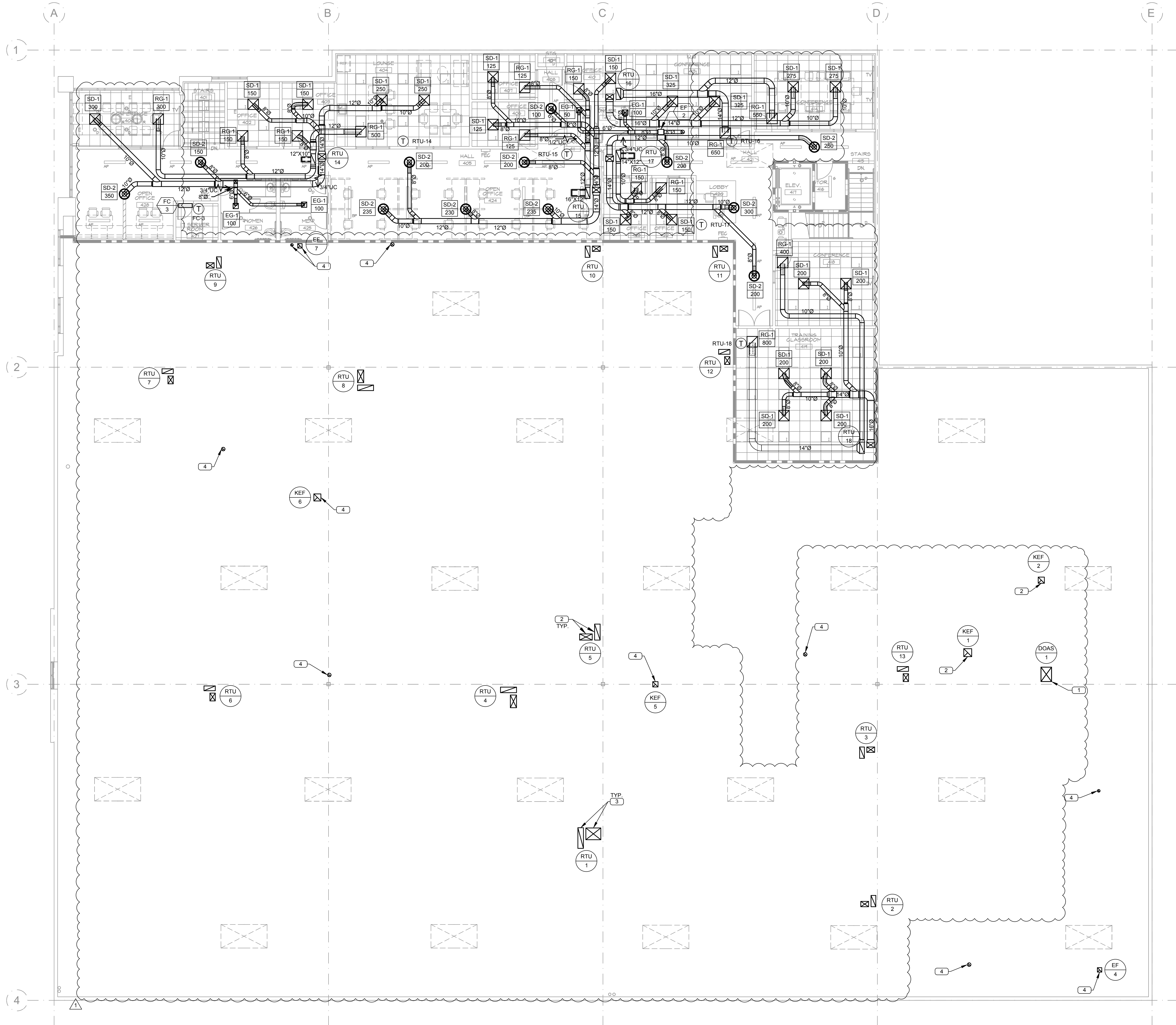
**1ST FLOOR
MECHANICAL PLAN**

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
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GENERAL NOTES

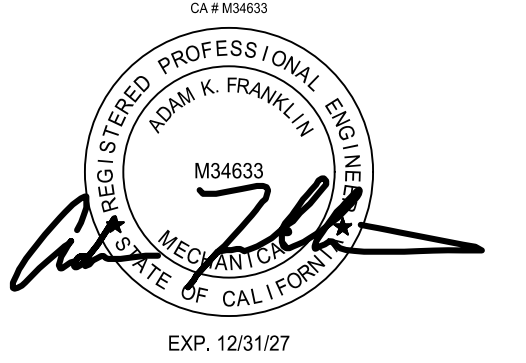
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KEY NOTES

1. SUPPLY AIR DUCT DOWN FROM ROOF, CONTINUED ON M201 1ST FLOOR PLAN.
2. KITCHEN EXHAUST DUCT DOWN FROM ROOF, CONTINUED ON M201 1ST FLOOR PLAN.
3. SUPPLY AND RETURN DUCTS DOWN FROM ROOF ABOVE, CONTINUED ON M201 1ST FLOOR PLAN.
4. GENERAL EXHAUST DUCT DOWN FROM ROOF ABOVE, CONTINUED ON M201 1ST FLOOR PLAN.

STAMP

Adam K. Franklin, P.E.



CONSULTANT



PROJECT

WESTEND NAVIGATION CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

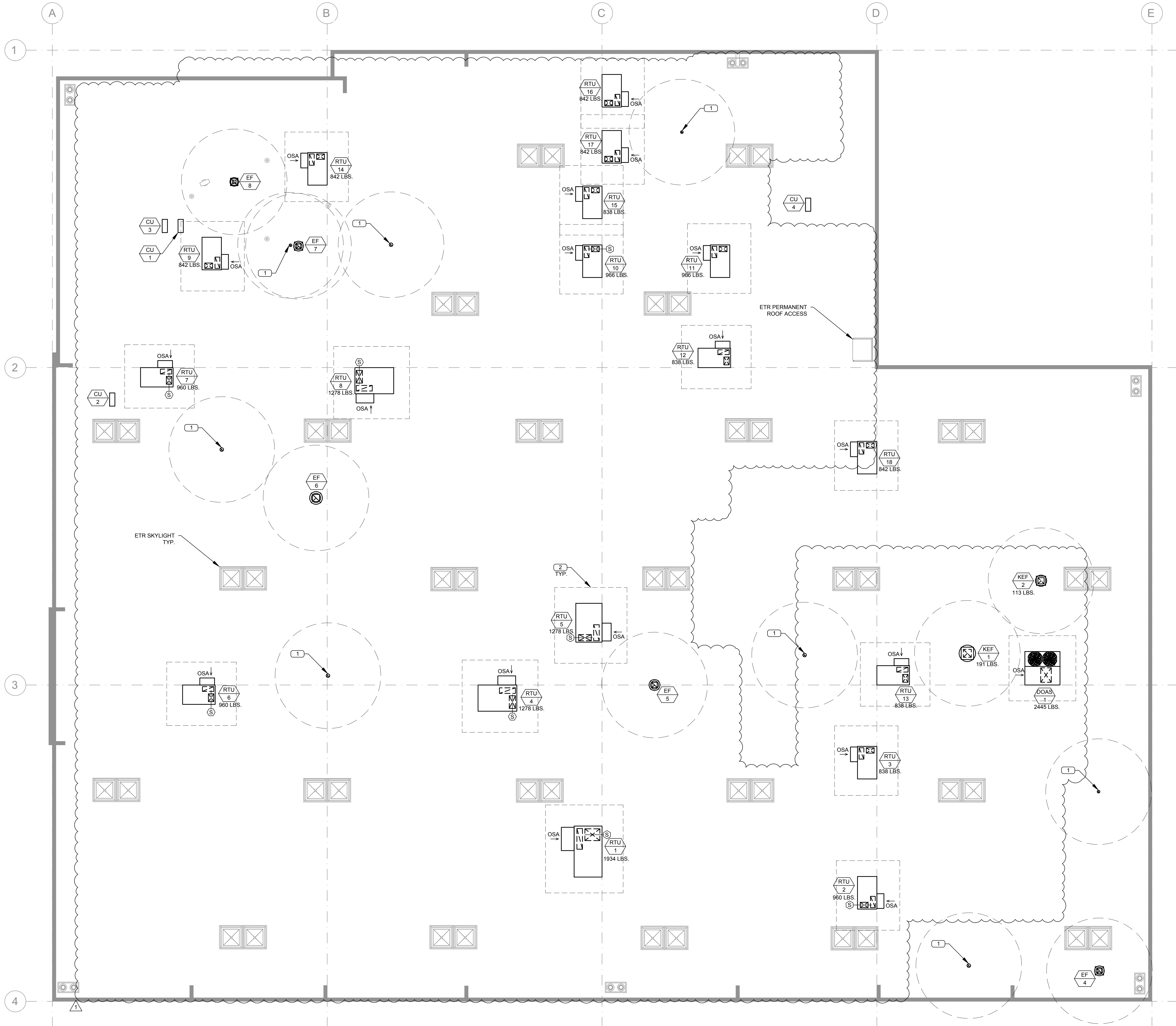
2ND FLOOR MECHANICAL PLAN

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

M202



GENERAL NOTES

1. NOTIFY AND OBTAIN LANDLORD'S REPRESENTATIVE APPROVAL OF SCHEDULED DOWN TIME DURATIONS THAT WOULD AFFECT OTHER PARTS OF BUILDING OPERATION NOT IN SCOPE OF WORK PRIOR TO COMMENCING THE WORK.
2. TO REDUCE THE AMOUNT OF DUST, WATER, AND DEBRIS COLLECTED IN MECHANICAL EQUIPMENT AND DUCTS, ALL DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION EQUIPMENT COMPONENT OPENINGS SHALL BE COVERED FROM THE TIME OF DELIVERY AT THE JOBSITE THROUGHOUT CONSTRUCTION UNTIL FINAL START UP.
3. DUCTWORK AND PIPING SHALL BE IDENTIFIED WITH A SERVICE MARKING WITH INDICATED AIRFLOW/WATER FLOW DIRECTION OF THE SERVICE.
4. DUCT SIZE INDICATED ARE THE "FREE-AREA" INSIDE DIMENSIONS OF THE DUCT.
5. RECTANGULAR CAN BE SUBSTITUTED WITH ROUND DUCTS AS LONG AS IT MEETS OR EXCEEDS THE CROSS-SECTIONAL FREE AREA AND IS ABLE TO FIT IN THE IDENTIFIED SPACE.
6. MAINTAIN 3'-0" DISTANCE FROM ENVIRONMENTAL EXHAUST OUTLETS (AS DEFINED IN CMC 502.2.1) TO BUILDING OPENINGS AND 10'-0" DISTANCE TO MECHANICALLY FORCED AIR INLETS.
7. LABEL TEMPERATURE SENSORS AS TO THE UNIT THEY ARE SERVING.
8. INSULATION MATERIALS APPLIED TO DUCTWORK SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE DENSITY NOT EXCEEDING 50.
9. REQUIRED OFFSETS, COMPONENTS, ACCESSORIES, AND FITTINGS MAY NOT BE SHOWN BUT SHALL BE PROVIDED AS REQUIRED TO AVOID INTERFERENCES WITH UN-FORESEEN COMPONENTS.
10. PROVIDE DIELECTRIC UNIONS, GASKETS, AND FASTENERS AT DISSIMILAR METAL CONNECTIONS OF CONTACT POINTS.
11. FLEXIBLE DUCT CONNECTION TO AIR DIFFUSERS CONVEYING CONDITIONED AIR SHALL BE A MAXIMUM OF 5'-0".
12. PROVIDE COMPLETE AIR BALANCE FOR ALL MECHANICAL SYSTEMS IDENTIFIED IN THE SCOPE OF WORK. BALANCING CONTRACTOR SHALL BE AN INDEPENDENT THIRD PARTY AND MEMBER OF "AABC" OR THE "NEBB". MECHANICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TOOLS AS REQUIRED TO COMPLETE THE BALANCING OF THE SYSTEM.
13. DUCT SYSTEM SHALL BE SEALED TO A LEAKAGE RATE NOT TO EXCEED 6% OF NOMINAL AIR HANDLING AIRFLOW RATE. CONFIRM THROUGH FIELD VERIFICATION AND DIAGNOSTIC TESTING.
14. REFER TO THE PLUMBING DRAWINGS FOR CONDENSATE DRAIN PIPE ROUTING.
15. COORDINATE WITH STRUCTURAL ON ANY NEW SUPPORTS, EXISTING FIRE PROTECTION, ETC. PRIOR TO LAYING OUT DUCTWORK.
16. THERE SHALL BE A CLEAR RETURN PATH BACK TO THE HVAC UNIT IN THE PLENUM SPACE. REPORT ANY OBSTRUCTIONS SUCH AS FULL HEIGHT WALLS NOT SHOWN ON THE DRAWINGS TO THE ARCHITECT.
17. PROVIDE ACCESS PANELS IN NON-ACCESSIBLE AREAS (RATED OR NON-RATED) MINIMUM 12"x12" SIZE FOR COMBINATION FIRE/SMOKE DAMPERS. INSTALL LARGER ACCESS PANELS FOR LARGER EQUIPMENT AS REQUIRED BY CODE. COORDINATE WITH ARCHITECT FOR APPROVAL OF FINAL LOCATIONS PRIOR TO INSTALLATION.
18. PROVIDE FIRESTOPPING FOR PIPE AND PASS-THROUGH DUCT PENETRATIONS THROUGH RATED WALLS. DUCTWORK SHALL BE A MINIMUM 26 GA SHEET METAL. SEE ARCHITECTURAL PLANS FOR FIRE STOP DETAILS.
19. FIELD COORDINATE WITH THE STRUCTURAL CONTRACTOR THE EXACT LOCATION OF DUCT AND PIPING PENETRATIONS PRIOR TO ROUTING TO CONFIRM IT WILL NOT DISTURB EXISTING STRUCTURAL ELEMENTS.
20. IDENTIFY AND RE-SUPPORT EXISTING DUCTWORK, DEVICES, AND APPURTENANCES IF IT INTRUDES AT LOCATIONS OF PROPOSED HIGHER CEILING HEIGHTS.

KEY NOTES

1. EXHAUST DUCT TO TERMINATE WITH LISTED WEATHERPROOF CAP. MAINTAIN AT LEAST 10' FROM ANY AIR INTAKE.
2. MANUFACTURER'S SERVICE CLEARANCE.



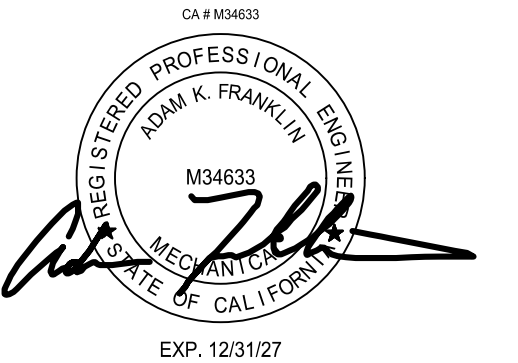
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FOR



TITLE

MECHANICAL
ROOF PLAN

Revisions	By	Date
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M211

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PROJECT

WESTEND
NAVIGATION
CENTER

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FOR



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CALIFORNIA

TITLE

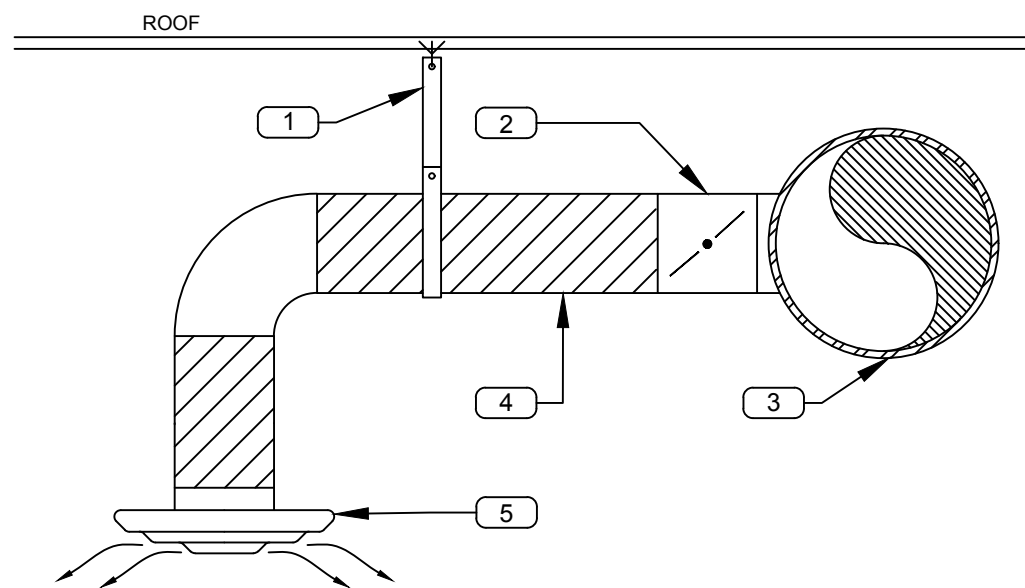
MECHANICAL
DETAILS

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn LEI
Date 04/29/2026
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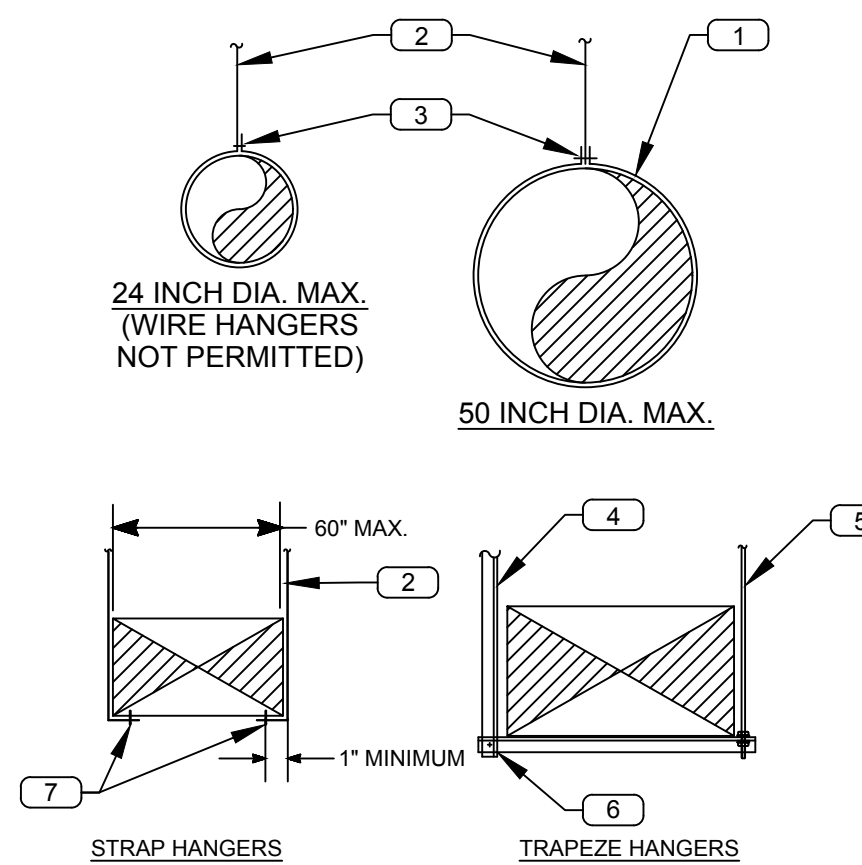
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M502



KEY NOTES:

1. 2" WIDE STRAP HANGER
2. VOLUME DAMPER
3. MAIN DUCT BRANCH
4. RIGID SPIRAL SHEET METAL DUCT
5. ROUND CONE DIFFUSER



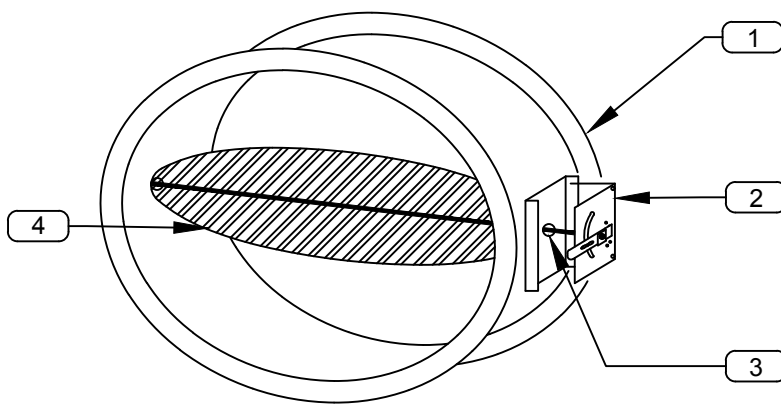
NOTES:

1. FOR HANGER SIZE AND SPACING, SEE SMACNA HVAC DUCT CONSTRUCTION STANDARDS TABLE 5.2
2. FOR UPPER ATTACHMENT TO BUILDING SEE SMACNA HVAC DUCT CONSTRUCTION STANDARDS FIG. 5-1 AND FIG. 5-2 WITH SPECIFIC BUILDING STRUCTURAL ENGINEER APPROVAL.
3. FOR BRACING AND OTHER SEISMIC REQUIREMENTS SEE GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS PUBLISHED BY SMACNA AND PPIC

KEY NOTES:

1. BAND (2) 1"X18 GA
2. HANGER STRAP
3. LOAD RATED FASTENER
4. ANGLE HANGER
5. ROD HANGER
6. BOLT CORNERS
7. SCREWS

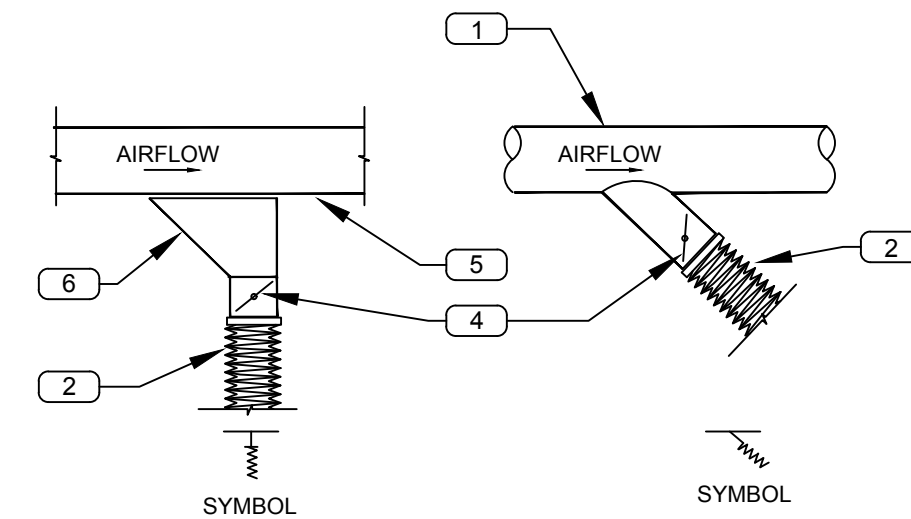
DETAIL OF EXPOSED DUCT RCD DIFFUSER 04



KEY NOTES:

1. 20 GA. GALV. STEEL FRAME
2. MANUAL OPERATOR WITH STANDOFF BRACKET, BOLT LOCKING AFTER AIR BALANCING
3. STEEL PLATED SHAFT W/ SYNTHETIC (ACETAL) SLEEVE TYPE BEARINGS
4. 20 GA. GALV. STEEL BLADES

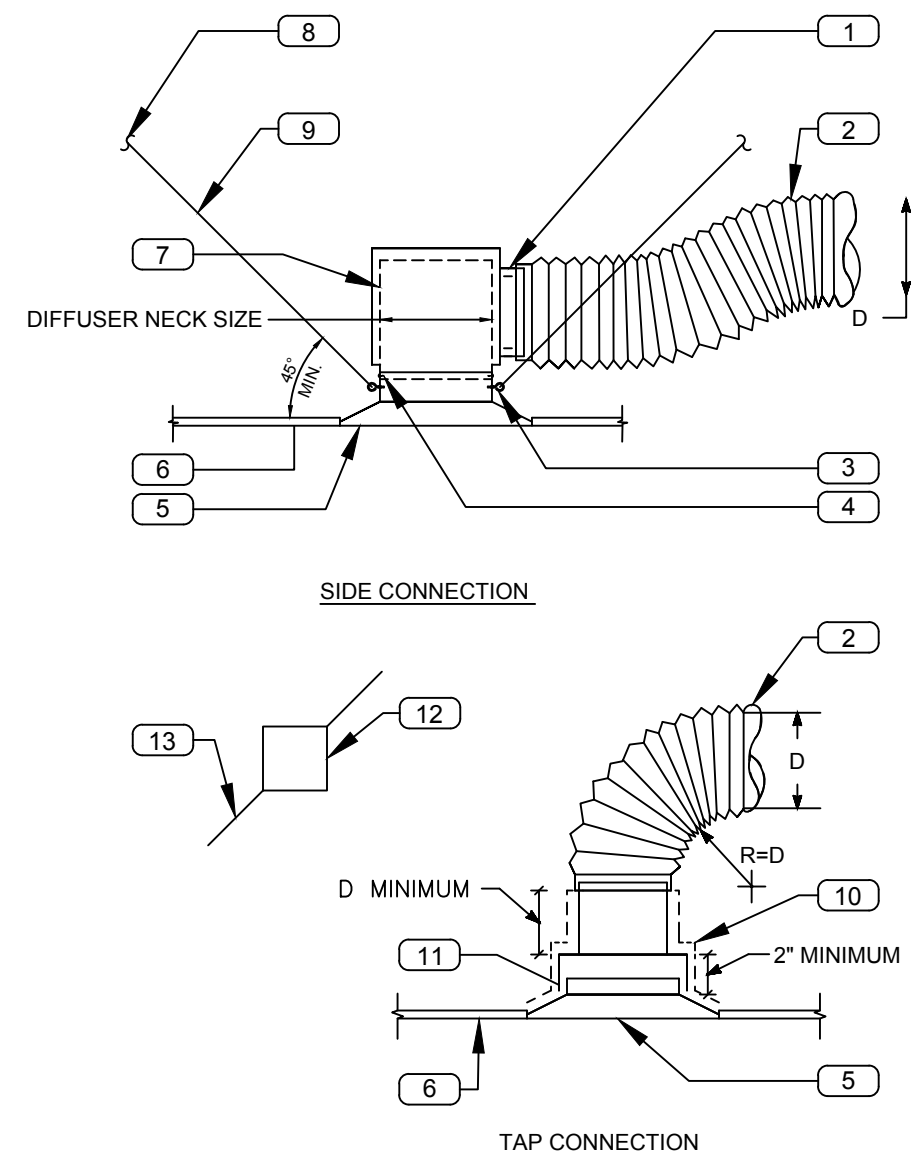
HORIZONTAL ROUND / RECT. DUCT SUPPORT DETAIL 01



KEY NOTES:

1. ROUND DUCTWORK
2. FLEXIBLE DUCT
3. STAINLESS STEEL DRAW BAND
4. VOLUME DAMPER
5. RECTANG. OR SQ DUCTWORK
6. CONICAL CONN.

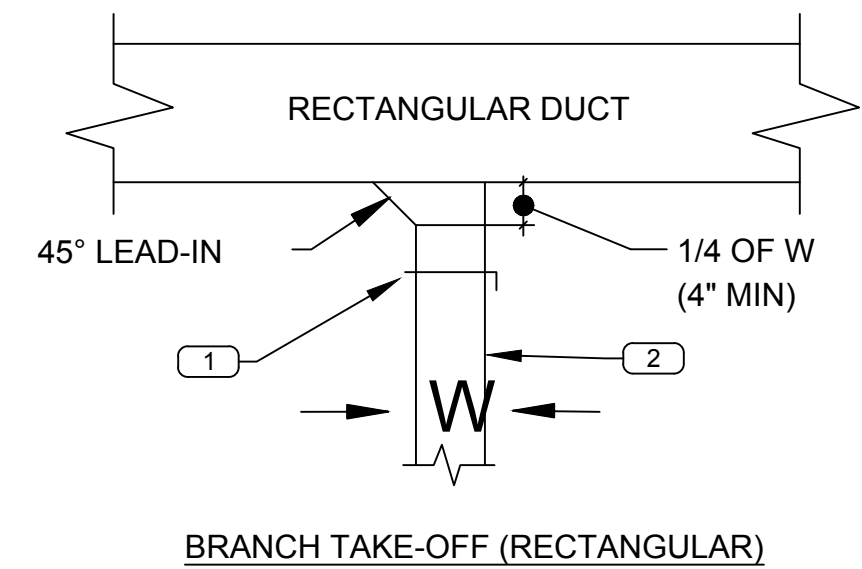
MANUAL VOLUME CONTROL DAMPER DETAIL 05



KEY NOTES:

1. SPIN-IN COLLAR
2. MAXIMUM 5FT. LENGTH FLEXIBLE DUCT
3. EYE BOLT
4. 3/8" SHEET METAL SCREW (TYP)
5. DIFFUSER
6. CEILING
7. 1" ACOUSTIC LINING
8. SUSPEND FROM STRUCTURE ABOVE PER "SMACNA" GUIDELINES
9. NO. 12 WIRE HANGER TYP. EACH CORNER 3 TWISTS WITHIN 1-1/2" AT EACH END
10. 1" THERMAL INSULATION
11. ROUND DUCT ADAPTER FOR RECTANGULAR DIFFUSER
12. SEE METAL BOX (PLAN VIEW)
13. NO. 12 SAFETY WIRE SEE SPEC SECTION 16800 FOR NUMBER 3 TWISTS WITHIN 1-1/2" AT EACH END

FLEXIBLE DUCT CONNECTIONS (N.T.S.) 02



NOTE:

1. TYPICAL FOR SUPPLY & RETURN RECTANGULAR TAKE-OFFS FOR TWO OR MORE AIR DEVICES

KEY NOTES:

1. MANUAL VOLUME DAMPER
2. BRANCH DUCT

CEILING DIFFUSER AND RETURN AIR REGISTER DETAIL 06

BRANCH DUCT TAKE-OFF DETAILS 03

APPLICABLE BUILDING CODES

ID	SETS	PHASE	NEUTRAL	GROUND	CONDUIT
S60Y	1	3 #4	1 #4	1 #8	1-1/4"
S125Y	1	3 #1	1 #1	1 #8	1-1/2"
S175Y	1	3 #2/0	1 #2/0	1 #4	2"
S300Y	1	3 #350kcmil	1 #350kcmil	1 #2	3"
S400Y	1	3 #600kcmil	1 #600kcmil	1 1/0"	4"
S500Y	2	3 #250kcmil	1 #250kcmil	1 1/0	3"
S700Y	2	3 #500kcmil	1 #500kcmil	1 2/0"	4"
S1000Y	3	3 #500kcmil	1 #500kcmil	3 #4	4"
S1600Y	4	3 #600kcmil	1 #600kcmil	1 3/0"	4"

The diagram shows a rectangular box representing a fixture. Inside the box is a circle with a dot in the center. Several lines with arrows point from text labels to specific parts of the symbol:

- A line points from the text "FIXTURE" to the left side of the rectangular box.
- A line points from the text "FIXTURE TYPE (SEE SCHEDULE)" to the top-right corner of the box.
- A line points from the text "INDICATES FIXTURE TYPE IS TYPICAL FOR SIMILAR SYMBOLS" to the top edge of the box.
- A line points from the text "NUMERAL INDICATES CIRCUIT DESIGNATION (NOT SHOWN UNLESS CLARIFICATION)" to the numeral "11" located to the right of the box.
- A line points from the text "NUMERIC SUFFIX INDICATOR" to the suffix "1" located to the right of the numeral "11".
- A line points from the text "LOWER CASE LETTER INDICATES SWITCH DESIGNATION NOT SHOWN WHERE ALL FIXTURE ROOMS ARE CONTROLLED BY SINGLE SWITCH" to the lower case letter "a" located below the numeral "11".

OF THE EXISTING DISTRIBUTION EQUIPMENT, (2) PANELBOARDS AND (1) TRANSFORMER ARE TO REMAIN. (2) PANELBOARDS AND (1) TRANSFORMER SHALL BE DEMOLISHED AND RETURNED TO OWNER.

PROVIDE (5) NEW PANELBOARDS, INCLUDING (3) GENERAL POWER PANELS SERVING THE SHELTER, (1) PANEL DEDICATED TO KITCHEN LOADS, AND (1) PANEL DEDICATED TO MECHANICAL ROOFTOP EQUIPMENT. PROVIDE (3) NEW TRANSFORMERS AS REQUIRED FOR DISTRIBUTION.

FOR

Sheet

E001

<div>GENERAL</div> <div><div><div>1. CONTRACTOR SHALL PERFORM ALL WORK AS TO CONFORM TO LOCAL, STATE AND NATIONAL CODES AND THE REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.</div><div>2. CONTRACTOR TO EXAMINE THE SITE TO DETERMINE THE EXACT CONDITIONS AFFECTING THE ELECTRICAL WORK.</div><div>3. DRAWINGS INDICATE THE GENERAL SCHEME OF THE INSTALLATION AND ARE DIAGRAMMATIC IN SCOPE. THE ENGINEER RESERVES THE RIGHT TO CHANGE THE LOCATION OF OUTLETS, CONDUIT, EQUIPMENT, APPARATUS, ETC. TO A REASONABLE EXTENT AS THE BUILDING CONDITIONS MAY DICTATE PRIOR TO THEIR INSTALLATION WITHOUT EXTRA COST TO THE OWNER. THE EXACT LOCATION AND ARRANGEMENT OF ALL EQUIPMENT AND PARTS SHALL BE DETERMINED AS THE WORK PROGRESSES.</div><div>4. DETAILS OF CONSTRUCTION AND OF WORKMANSHIP WHERE NOT SPECIFICALLY DESCRIBED HEREIN OR INDICATED ON THE DRAWINGS SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE COMPLETE SYSTEMS, LEFT IN GOOD WORKING ORDER, READY FOR OPERATION.</div><div>5. SCRAP AND DEBRIS, EXCEPT AS OTHERWISE SPECIFIED, SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THIS CONTRACTOR.</div><div>6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR START-UP OF ALL SYSTEMS.</div><div>7. ALL WORK SHALL BE DONE WITH A MINIMUM OF DUST AND DIRT. PROVIDE SUFFICIENT FIREPROOF TARPAPULINS AND COVER ALL EQUIPMENT IN WORK AREA WITH SAME DURING WORK OPERATIONS.</div><div>8. CONTRACTOR SHALL FURNISH SHOP DRAWINGS AND EQUIPMENT CUTS TO THE ARCHITECT FOR APPROVAL (MINIMUM (5) COPIES).</div><div>9. COORDINATE NEW SERVICE CONNECTIONS WITH LOCAL UTILITY COMPANY(S).</div><div>10. CONTRACTOR SHALL FILE, SECURE AND PAY FOR ANY NECESSARY APPROVALS, PERMITS AND INSPECTIONS.</div><div>11. ALL WORK SHALL BE GUARANTEED TO BE FREE FROM DEFECT FOR ONE YEAR AFTER ACCEPTANCE OF WORK.</div><div>12. PRIOR TO TESTING, CONTRACTOR SHALL MAKE ALL SYSTEM ADJUSTMENTS REQUIRED FOR PROPER OPERATION. ADJUSTMENTS SHALL INCLUDE TRANSFORMER TAPS, CIRCUIT BREAKER MAGNETIC SETTINGS, GROUND FAULT RELAY TRIP SETTINGS, BALLAST TAP SETTINGS, ETC.</div><div>13. CONTRACTOR TO COORDINATE TESTING WITH LOCAL OFFICIALS.</div><div>14. CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING AND MAKING SAFE ALL ELECTRICAL FACILITIES IN EXISTING STRUCTURE PRIOR TO DEMOLITION.</div><div>15. CONTRACTOR SHALL BE RESPONSIBLE FOR COMMISSIONING OF SYSTEMS AS REQUIRED BY LOCAL CODE.</div><div>16. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT.</div><div>17. PROVIDE AND MAINTAIN REQUIRED WORK SPACE, ACCESS TO WORK SPACE AND HEAD ROOM ABOUT ELECTRICAL EQUIPMENT PER TABLE 110.26(A)(1).</div></div></div> <div><div>CONDUCTORS</div><div><div><div>1. UNLESS OTHERWISE NOTED, CONDUCTOR TYPES SHALL BE AS INDICATED BELOW:</div><table><tr><th>LOCATION</th><th>CONDUCTORS</th></tr><tr><td>BRANCH CIRCUITS AND FEEDERS IN CONDUIT</td><td>THHN/THWN</td></tr><tr><td>CONCEALED BRANCH CIRCUITS</td><td>TYPE "AC" CABLE</td></tr><tr><td>UNDERGROUND OUTDOORS</td><td>RHW/THW/THWN</td></tr><tr><td>UNDERGROUND SERVICE ENTRANCE</td><td>RHW/USE</td></tr><tr><td>FIXTURE CONNECTIONS</td><td>SF-2</td></tr><tr><td>TEMPORARY LIGHT AND POWER</td><td>TYPE "NM" CABLE</td></tr></table></div><div><div>2. ALL WIRE AND CABLE SHALL BE COPPER CONDUCTORS. CONDUCTORS #10AWG AND SMALLER MAY BE SOLID. CONDUCTORS LARGER THAN #10AWG SHALL BE STRANDED.</div><div>3. CONDUCTORS #8AWG AND SMALLER MAY BE SPLICED USING NYLON SELF-INSULATED WIRE NUTS AS MANUFACTURED BY 3M "SCOTCHLOK", IDEAL "WIRE-NUT" OR APPROVED EQUAL.</div><div>4. CONDUCTORS LARGER THAN #8AWG SHALL BE SPLICED USING SPLIT BOLT CONNECTORS WITH TAPED JACKET. PREMANUFACTURED SPLICES BY ILSCO OR MAC PRODUCTS OR BY HYDRAULICALLY APPLIED COMPRESSION SPLICES. MANUFACTURERS TOOLING, DYES AND RECOMMENDATIONS SHALL GOVERN HYDRAULICALLY APPLIED COMPRESSION SPLICES.</div><div>5. EXCEPT WHERE EQUIPMENT, SUCH AS MOLDED CASE CIRCUIT BREAKERS, ARE SUPPLIED WITH FACTORY INSTALLED SET SCREW LUGS, ALL CONNECTIONS FOR CABLES 4/0 AND LARGER SHALL BE MADE USING NEMA 2 BOLT COMPRESSION LUGS. LUGS SHALL BE HYDRAULICALLY APPLIED USING MANUFACTURER'S TOOLING, DIES AND RECOMMENDED PROCEDURES.</div><div>6. CONTROL WIRING FOR HVAC EQUIPMENT UTILIZING CONTROL CIRCUIT VOLTAGES OF LESS THAN 60VAC SHALL BE #16AWG MULTI-CONDUCTOR NEC TYPE "CL2" WHEN INSTALLED IN ENVIRONMENTAL AIR PLENUMS. LOW VOLTAGE CONTROL CIRCUIT WIRING SHALL BE NEC TYPE "CL2P". LOW VOLTAGE CONTROL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE #725.</div><div>7. CONTROL WIRING FOR HVAC EQUIPMENT AND OTHER EQUIPMENT UTILIZING 120V CONTROLS SHALL BE #14AWG TYPE THHN/THWN INSTALLED IN RACEWAYS.</div><div>8. WHERE ISOLATED GROUND RECEPTACLES ARE INDICATED ON THE DRAWINGS, INSTALL AN INSULATED (GREEN WITH YELLOW STRIP) ISOLATED GROUND CONDUCTOR IN ADDITION TO THE REQUIRED GREEN EQUIPMENT GROUND CONDUCTOR WITH THE BRANCH CIRCUIT. IN CONCEALED LOCATIONS, TYPE "MC" CABLE SHALL BE UTILIZED FOR SUPPLY OF ISOLATED GROUND OUTLETS.</div><div>9. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL BRANCH CIRCUITS AND HOME RUNS SHALL BE #12AWG, QUANTITY AS INDICATED BY HASH MARKS.</div><div>10. ADJUST BRANCH CONDUCTOR SIZES AS REQUIRED FOR VOLTAGE DROP. MAXIMUM BRANCH CIRCUIT LENGTHS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:</div></div><table><tr><th></th><th>#12</th><th>#10</th><th>#8</th></tr><tr><td>120V, 1 PHASE, 15A</td><td>75'</td><td>125'</td><td>185'</td></tr><tr><td>120V, 1 PHASE, 20A</td><td>55'</td><td>95'</td><td>145'</td></tr><tr><td>208V, 1 PHASE, 20A</td><td>95'</td><td>160'</td><td>245'</td></tr><tr><td>208V, 3 PHASE, 20A</td><td>110'</td><td>185'</td><td>285'</td></tr></table><div><div>THE ABOVE LENGTHS REPRESENT "ONE-WAY" CIRCUIT LENGTH (NOT WIRE LENGTH) AND INCLUDE ALL VERTICAL RISES AND DROPS.</div><div>11. CONDUCTOR INSULATIONS SHALL BE COLOR CODED AS FOLLOWS:</div><table><tr><th></th><th>120/208V</th><th>277/480V</th></tr><tr><td>PHASE A</td><td>BLACK</td><td>BROWN</td></tr><tr><td>PHASE B</td><td>RED</td><td>ORANGE</td></tr><tr><td>PHASE C</td><td>BLUE</td><td>YELLOW</td></tr><tr><td>NEUTRAL</td><td>WHITE</td><td>WHITE</td></tr><tr><td>GROUND</td><td>GREEN</td><td>GREEN</td></tr></table><div>WHERE CONDUCTORS ARE NOT AVAILABLE WITH COLOR CODED INSULATION, COLORED TAPES SHALL BE APPLIED TO THE ENTIRE EXPOSED LENGTH OF CABLES IN PULL BOXES, SWITCHBOARDS, EQUIPMENT, ETC.</div><div>12. CONTROL CABLE CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH IECA STANDARDS.</div></div></div></div> <div><div>RACEWAYS</div><div><div>1. UNLESS OTHERWISE NOTED, RACEWAY TYPES SHALL BE AS INDICATED BELOW:</div><table><tr><th>LOCATION</th><th>RACEWAY</th></tr><tr><td>OUTDOORS, ABOVE GRADE...</td><td>GALVANIZED RIGID STEEL (GRS)</td></tr><tr><td>INDOOR FEEDERS AND SUB FEEDERS NOT EXPOSED TO PHYSICAL DAMAGE...</td><td>ELECTRICAL METALLIC TUBING (EMT)</td></tr><tr><td>INDOOR BRANCH CIRCUITS EXPOSED IN UTILITY AREAS...</td><td>ELECTRICAL METALLIC TUBING (EMT)</td></tr><tr><td>INDOOR BRANCH CIRCUITS CONCEALED...</td><td>(SEE "CONDUCTORS" SECTION)</td></tr><tr><td>INDOOR FIXTURE AND VIBRATING EQUIPMENT CONNECTIONS...</td><td>FLEXIBLE METALLIC CONDUIT</td></tr><tr><td>INDOOR AND OUTDOOR MOTOR CONNECTIONS...</td><td>LIQUID-TIGHT FLEXIBLE METAL CONDUIT</td></tr><tr><td>MOTOR CONNECTIONS IN ENVIRONMENTAL AIR PLENUMS...</td><td>FLEXIBLE METAL CONDUIT</td></tr><tr><td>UNDERGROUND...</td><td>TYPE "DB", SCHEDULE 40 RIGID (PVC), NON METALLIC CONDUIT</td></tr><tr><td>UNDERGROUND THROUGH GRADE...</td><td>GALVANIZED RIGID STEEL (GRS)</td></tr></table></div><div><div>2. GALVANIZED RIGID STEEL CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI #C80.1 AND UL #6. INSTALLATION OF GALVANIZED RIGID STEEL CONDUIT SHALL BE IN STRICT CONFORMANCE WITH NEC ARTICLE #344.</div><div>3. EMT SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI #C80.3 AND UL #797. INSTALLATION OF ELECTRICAL METALLIC TUBING SHALL BE IN STRICT CONFORMANCE WITH NEC ARTICLE #344. BENDING RADIUS SHALL NOT BE LESS THAN NEC TABLE 2, CHAPTER 9. SUPPORT SPACING SHALL NOT EXCEED 10'-0". ALL EMT COUPLINGS AND CONNECTORS SHALL BE OF THE CONCRETE-TIGHT AND RAIN-TIGHT TYPE. SET SCREW CONNECTORS SHALL NOT BE USED.</div><div>4. FLEXIBLE METAL CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH UL #1. INSTALLATION OF FLEXIBLE CONDUIT SHALL BE IN STRICT CONFORMANCE WITH NEC #348 AND SHALL BE LIMITED TO 6'-0" MAXIMUM LENGTHS FOR CONNECTIONS TO LIGHTING FIXTURES AND VIBRATING EQUIPMENT. BENDING RADIUS FOR FLEXIBLE METAL CONDUIT SHALL NOT BE LESS THAN THOSE PERMITTED FOR CONDUCTOR BENDING RADIUS. CONNECTORS FOR FLEXIBLE METAL CONDUIT SHALL BE OF SINGLE SCREW, MALLEABLE IRON CLAMPING TYPE (THOMAS & BETTS SERIES #250). FLEXIBLE METAL CONDUIT AND CONNECTORS SHALL BE UL LISTED AND APPROVED FOR SHEATH GROUNDING FOR BRANCH CIRCUITS OF 20A OR LESS IN LENGTHS NOT TO EXCEED 6'-0". PROVIDE A GROUNDING CONDUCTOR SIZED TO MEET NEC TABLE 250.122.</div><div>5. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE INSTALLED IN STRICT CONFORMANCE WITH NEC ARTICLE #350 AND SHALL BE LIMITED TO 3'-0" LENGTHS FOR CONNECTIONS TO MOTORS, OUTDOOR VIBRATING EQUIPMENT AND OTHER EQUIPMENT IN ENVIRONMENTAL AIR PLENUMS. LIQUID-TIGHT FLEXIBLE METAL CONDUIT AND FITTINGS SHALL BE APPROVED FOR GROUNDING PURPOSES. PROVIDE A SEPARATE EXTERNAL BONDING CONDUCTOR WHERE ANY OF THE FOLLOWING CONDITIONS EXIST:</div></div><div><div>5A. CONDUIT SIZE EXCEED 1 1/4" TRADE SIZE.</div><div>5B. 1/2" CONDUIT HOUSES A CIRCUIT PROTECTED IN EXCESS OF 20A.</div><div>5C. 3/4" THRU 1 1/4" CONDUIT HOUSES A CIRCUIT PROTECTED IN EXCESS OF 60A.</div></div><div><div>FITTINGS FOR LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE THOMAS & BETTS "VERS-A-GROUND" WITH OR WITHOUT EXTERNAL GROUND LUG AS REQUIRED ABOVE.</div><div>WHERE LIQUID-TIGHT FLEXIBLE METAL CONDUIT CONNECTIONS ARE MADE TO A MOTOR OR OTHER VIBRATING EQUIPMENT AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE RUN WITH THE CIRCUIT PER NEC SECTION 350.60.</div><div>6. INTERMEDIATE METAL CONDUIT, MANUFACTURED IN ACCORDANCE WITH UL #1242 MAY BE SUBSTITUTED FOR GALVANIZED RIGID STEEL CONDUIT IN ABOVE GRADE, INDOOR APPLICATIONS. IMC SHALL NOT BE PERMITTED IN OUTDOOR ABOVE OR BELOW GRADE APPLICATIONS. ALL OTHER REQUIREMENTS FOR GALVANIZED RIGID STEEL CONDUIT SHALL APPLY.</div><div>7. USE OF LIQUID-TIGHT FLEXIBLE METAL CONDUIT OR LIQUID NON-METALLIC SHALL NOT BE PERMITTED IN ENVIRONMENTAL AIR PLENUMS, INCLUDING RETURN AIR CEILING PLENUMS.</div><div>8. EXCEPT FOR SURFACE METAL AND SURFACE NON-METALLIC, ALL RACEWAYS SHALL BE INSTALLED CONCEALED WITH THE EXCEPTION OF BOILER ROOMS, UTILITY ROOMS, GARAGES AND OTHER AREAS SPECIFICALLY APPROVED BY THE ARCHITECT.</div><div>9. SEAL ALL PENETRATIONS THROUGH FIRE RESISTIVE ASSEMBLIES WITH APPROVED MATERIALS PER SEC. 709.6 AND 710, CBC.</div></div><div><div>SITE SERVICES</div><div><div>1. PROVIDE UNDERGROUND RACEWAY(S) FOR INCOMING TELEPHONE SERVICE. RACEWAYS SHALL BE 2" MINIMUM (UNLESS OTHERWISE LISTED).</div><div>2. ALL UNDERGROUND RACEWAYS, SHALL BE TYPE DB, SCHEDULE 40 PVC, RIGID NON-METALLIC CONDUIT, AND MANUFACTURED BY CARLON OR APPROVED EQUAL AND SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE #352.</div><div>3. NON-METALLIC RIGID CONDUIT SHALL BE MANUFACTURED IN STRICT CONFORMANCE WITH UL #651 AND NEMA #TC-2.</div><div>4. FITTINGS FOR RIGID NON-METALLIC CONDUIT SHALL BE OF THE SOLVENT CEMENTED TYPE AND SHALL BE MANUFACTURED IN STRICT CONFORMANCE WITH UL 3514 AND NEMA #TC-3. SOLVENT CEMENT PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.</div><div>5. WHEREVER POSSIBLE, RIGID NON-METALLIC CONDUIT ELBOWS, OFFSETS, ETC. SHALL BE MADE USING 90 DEGREE, 45 DEGREE AND 90 DEGREE FACTORY ELBOWS. WHERE FACTORY ELBOWS CANNOT BE ACCOMMODATED, FIELD BENDING SHALL USE HEATING BOXES, END PLUGS AND FORMING GUIDES AS RECOMMENDED BY THE MANUFACTURER. CARE SHALL BE EXERCISED TO ENSURE THAT THE INTERNAL DIAMETER OF CONDUITS IS NOT EFFECTIVELY REDUCED BY FIELD BENDING.</div><div>6. MINIMUM BENDING RADIUS FOR RIGID NON-METALLIC CONDUIT SHALL NOT BE LESS THAN PERMITTED BY NEC TABLE 2, CHAPTER 9.</div><div>7. MINIMUM BURIAL DEPTH FOR UNDERGROUND RIGID NON-METALLIC RACEWAY SHALL BE 30" BELOW FINISHED GRADE, WHERE LESSER DEPTHS ARE REQUIRED DUE TO SUBSURFACE OBSTACLES, ENCASE RACEWAYS IN MINIMUM 3" 3000 PSI CONCRETE ENVELOPE.</div><div>8. ALL PENETRATIONS THROUGH MANHOLES, HANDHOLES, FOUNDATIONS, ETC. SHALL BE MADE USING HOT-DIPPED GALVANIZED, RIGID STEEL (GRS) CONDUIT. MAKE TRANSITION FROM RIGID NON-METALLIC TO GRS AT 5'-0" FROM PENETRATION USING APPROVED TRANSITION COUPLING. PROVIDE 3" CONCRETE ENVELOPE AROUND TRANSITION COUPLING. EXTENDING 3'-0" IN EITHER DIRECTION TO MINIMIZE SHEAR FORCES AT TRANSITION COUPLING.</div><div>9. RISERS AT UTILITY POLES SHALL CONSISTS OF GRS ELBOWS AND CONDUCT TO 10'-0" ABOVE FINISHED GRADE FOR ELECTRICAL SUPPLIES. SPARE ELECTRICAL DUCTS SHALL BE CAPPED AT 6" ABOVE FINISHED GRADE.</div><div>10. WHERE THE SERVICES ARE TO BE OF THE SECONDARY TYPE SUPPLIED FROM EXISTING LOW VOLTAGE DISTRIBUTION OR POLE MOUNTED POWER COMPANY TRANSFORMERS, CONTRACTOR SHALL FURNISH AND INSTALL SERVICE CONDUCTORS SIZED AS INDICATED ON THE DRAWINGS, FROM THE SERVICE ENTRANCE SWITCHGEAR TO THE RISER POLE. PROVIDE ADEQUATE CABLE SLACK, COILED AT TOP OF RISER CONDUIT FOR FINAL CONNECTIONS BY THE POWER COMPANY.</div><div>11. LOW VOLTAGE SERVICE DUCTS FOR TELEPHONE MAY BE TERMINATED IN PVC ELBOWS AT RISER POLES AND EXTEND TO 6" ABOVE GRADE. CAP ALL DUCTS TO PREVENT ENTRANCE OF RAIN WATER.</div><div>12. COORDINATE RISER POLE LOCATIONS AND THE LOCATION OF RISER CONDUITS OF THE POLE (QUADRANT) WITH THE APPROPRIATE UTILITY.</div></div></div></div> <div><div>PANEL BOARDS AND CIRCUIT BREAKERS</div><div><div>1. EQUIPMENT INTERRUPTING RATINGS SHOWN ON SCHEDULES ARE BASED ON UL LISTED FULL RATING FOR 65,000A AVAILABLE SHORT CIRCUIT CURRENT AT THE SERVICE. CONTRACTOR SHALL INCREASE INTERRUPTING RATINGS AS REQUIRED FOR FULLY RATED EQUIPMENT.</div><div>2. PANELBOARDS SHALL BE OF DEAD FRONT CONSTRUCTION WITH AUTOMATIC OVERCURRENT DEVICES, VOLTAGE AND CURRENT RATINGS AS SHOWN. CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE UNLESS OTHERWISE NOTED. PANELBOARDS SHALL BE UL LISTED AS MANUFACTURED BY SQUARE D, GE OR WESTINGHOUSE.</div><div>3. ALL CIRCUIT BREAKERS SUPPLYING HVAC EQUIPMENT SHALL BE UL LISTED TYPE HACR.</div><div>4. PANELBOARDS SUPPLYING POWER TO MOTOR LOAD SHALL BE FULLY RATED FOR AVAILABLE FAULT CURRENT PER UL STANDARDS.</div><div>5. GFI OF MAIN PANEL TO BE TESTED AND CERTIFIED BY A QUALIFIED PERSON. CERTIFICATION TO BE SUBMITTED TO BUILDING DEPARTMENT.</div></div><div><div>WIRING DEVICES</div><div><div>1. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE UNLESS OTHERWISE INDICATED.</div><div>2. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, WIRING DEVICES USED SHALL BE AS SPECIFIED BELOW OR APPROVED EQUAL:</div></div><table><tr><th>DEVICE</th><th>MANUFACTURER & MODEL NUMBER</th></tr><tr><td>DUPLEX RECEPTACLE 125V, 20A, GROUNDED NEMA #5-20R.</td><td>LEVITON #5362</td></tr><tr><td>GFCI RECEPTACLE 125V, GROUNDED NEMA #5-15R</td><td>LEVITON #6599</td></tr><tr><td>TOGGLE SWITCH, 1 POLE 120/277V, 20A</td><td>(TOGGLE TYPE) LEVITON #5521 (KEY TYPE) LEVITON #1211-L</td></tr><tr><td>TOGGLE SWITCH, 1 POLE W/ PILOT LIGHT 125V, 15A</td><td>(TOGGLE TYPE) LEVITON #5226</td></tr><tr><td>TOGGLE SWITCH, 2 POLE 120/277V, 20A</td><td>(TOGGLE TYPE) #5522 (KEY TYPE) LEVITON #1222-I</td></tr><tr><td>TOGGLE SWITCH, 3 WAY 120/277V, 20A</td><td>(TOGGLE TYPE) LEVITON #5523 (KEY TYPE) LEVITON #1223-L</td></tr><tr><td>FAN SPEED CONTROL 120V, 12A, 1 POLE</td><td>LUTRON #N1F5-12E</td></tr><tr><td>LINEAR SLIDE SWITCH 120/277V, 20A</td><td>(1 POLE) LUTRON #N1-1PS (3 WAY) LUTRON #N1-3PS (4 WAY) LUTRON # N1-4PS</td></tr></table><div><div>3. WHERE SINGLE POLE, 3-WAY OR 4-WAY SWITCHES ARE GROUPED WITH DIMMERS OR FAN SPEED CONTROLS, PROVIDE LINEAR SLIDE SWITCHES BY LUTRON AS SPECIFIED ABOVE. PROVIDE MULTI-GANG COMMON WALL PLATE BY LUTRON. INDIVIDUALLY MOUNTED CONTROLS SHALL NOT BE ACCEPTED. CONTRACTOR SHALL DERATE DIMMERS IN ACCORDANCE WITH MANUFACTURER'S PROCEDURE FOR GANGED INSTALLATIONS.</div><div>4. WHERE GANGED RECEPTACLES INCLUDE A GROUND FAULT CIRCUIT INTERRUPTER, PROVIDE DECORATOR STYLE CONVENIENCE OUTLETS AND MULTI-GANG DECORATOR COVER PLATE.</div><div>5. WIRING DEVICE MOUNTING HEIGHTS SHALL BE AS FOLLOWS:</div></div><table><tr><th>DEVICE</th><th>MOUNTING HEIGHT</th></tr><tr><td>RECEPTACLES (GENERAL AREAS)</td><td>1'-4" A.F.F. TO BOTTOM</td></tr><tr><td>RECEPTACLES (ABOVE COUNTERS)</td><td>6" ABOVE BACKSPLASH & 44" A.F.F. MAX TO TOP</td></tr><tr><td>RECEPTACLES (UTILITY AREAS)</td><td>4'-0" A.F.F. TO TOP</td></tr><tr><td>LIGHT SWITCHES (ALL AREAS)</td><td>4'-0" A.F.F. TO TOP</td></tr><tr><td>THERMOSTAT & HVAC CONTROLS</td><td>4'-0" A.F.F. TO TOP</td></tr></table><div><div>MOUNTING HEIGHTS FOR OTHER DEVICES NOT SPECIFIED ABOVE SHALL BE IN ACCORDANCE WITH OSHA AND AMERICAN DISABILITIES ACT (ADA) REQUIREMENTS.</div><div>6. ALL RECEPTACLES INSTALLED WITHIN 6'-0" OF SINKS OR LAVATORIES SHALL BE PROVIDED WITH GROUND FAULT PROTECTION OR GROUND FAULT FEED THRU.</div><div>7. ALL RECEPTACLES INSTALLED IN TOILET ROOMS SHALL BE PROVIDED WITH GROUND FAULT PROTECTION OR GROUND FAULT FEED THRU.</div><div>8. ALL RECEPTACLES INSTALLED IN UNFINISHED BASEMENTS, GARAGES, CRAWL SPACES AND OUTDOORS AT GRADE SHALL BE PROVIDED WITH GROUND FAULT PROTECTION OR GROUND FAULT FEED THRU.</div><div>9. COVERPLATES FOR SURFACE MOUNTED WIRING IN UTILITY AREAS SHALL BE OF THE RAISED COVER TYPE AS MANUFACTURED BY MULBERRY, RACO OR APPROVED EQUAL.</div><div>10. COVERPLATES FOR WEATHERPROOF DUPLEX RECEPTACLES SHALL BE BELL #223-V WITH GASKET. COVERPLATES FOR WEATHERPROOF SWITCH SHALL BE BELL #224-V WITH GASKET.</div><div>11. ALL SWITCHES SHALL BE MOUNTED AT THE STRIKE SIDE OF DOORS. COORDINATE FINAL DOOR SWINGS WITH THE ARCHITECTURAL DRAWINGS.</div><div>12. WHERE OUTLETS ARE LOCATED IN COLUMN CLOSURES, PANELED WALLS, CUSTOM CABINETS, ETC., COORDINATE WITH ARCHITECTURAL ELEVATION DRAWINGS TO ENSURE THAT OUTLETS ARE CENTERED IN PANELS AND LOCATED ON FLAT PANELS.</div></div><div><div>BOXES</div><div><div>1. BOXES FOR BRANCH CIRCUIT WIRING DEVICES AND BRANCH CIRCUIT SPLICES SHALL BE AS INDICATED BELOW:</div><table><tr><td>FLUSH WIRING DEVICES ON METAL STUDS</td><td>RACO #172/173/174 (4" SQUARE)</td></tr><tr><td>FLUSH WIRING DEVICES ON WOOD STUDS</td><td>RACO #504/565 GANGABLE</td></tr><tr><td>FLUSH WIRING DEVICES IN MASONRY WALLS</td><td>RACO #690 (1 GANG)</td></tr><tr><td>GANG BOXES</td><td>RACO #951/953/953/954/955</td></tr><tr><td>CEILING BAR BOX (HUNG CEILING)</td><td>RACO #280/917</td></tr><tr><td>CEILING BAR BOX (WOOD JOIST)</td><td>RACO #326</td></tr><tr><td>SURFACE WIRING DEVICES (DRY AREAS)</td><td>RACO #192 (4" SQUARE)</td></tr><tr><td>SURFACE WIRING DEVICES (WET AREAS, 1 GANG)</td><td>BELL 270-L/273-L (F.S. TYPE)</td></tr><tr><td>SURFACE WIRING DEVICES (WET AREAS, 2 GANG)</td><td>BELL 276-4U/ 277-4L (F.S. TYPE)</td></tr></table></div><div><div>THE ABOVE MODEL NUMBERS ARE TYPICAL OF THE PRODUCTS REQUIRED. CONTRACTOR SHALL ADJUST MODEL NUMBERS AS REQUIRED TO SUIT JOB CONDITIONS, WALL THICKNESS, DEVICE REQUIREMENTS, ETC.</div><div>2. PULL AND JUNCTION BOXES SHALL BE CODE GAUGE ENAMELED STEEL, NEMA "1" WITH SCREW FASTENED COVERS WHEN USED IN INDOOR, DRY AREAS. STEEL GAUGE SHALL BE IN ACCORDANCE WITH NEC ARTICLE #314.40.</div><div>3. PULL AND JUNCTION BOXES UTILIZED IN INDOOR AREAS WHICH MAY BECOME DAMP (BOILER ROOMS, UTILITY ROOMS, CONNECTIONS TO UNDERGROUND RACEWAYS, ETC.) SHALL BE GALVANIZED TYPE NEMA "1".</div></div></div><div><div>4. PULL AND JUNCTION BOXES FOR USE OUTDOORS SHALL BE GALVANIZED AND OF NEMA "3R" CONSTRUCTION.</div><div>5. ALL PULL BOXES FASTENED TO EXTERIOR BLOCKS OR MASONRY WALLS SHALL BE PROVIDED WITH 1 1/2" CHANNEL FRAMING SPACERS ORIENTED VERTICALLY AT REAR OF ENCLOSURE TO ENSURE AIR CIRCULATION BEHIND ENCLOSURE.</div><div>6. OUTLET, SWITCH AND JUNCTION BOXES FOR BRANCH CIRCUIT WORK SHALL BE SIZED IN ACCORDANCE WITH NEC ARTICLE #314.16-#314.30.</div><div>7. PULLBOXES AND LARGER JUNCTION BOXES SHALL BE SIZED IN ACCORDANCE WITH NEC ARTICLE #314.28.</div><div>8. WHERE USE OF KNOCKOUTS IS DISCONTINUED BY CHANGES IN THE WORK, INSTALL PROPERLY SIZED KNOCKOUT SEALS BY THOMAS AND BETTS, RACOR, APPLETON OR EQUAL.</div></div><div><div>LIGHTING</div><div><div>1. COORDINATE FIXTURE LOCATIONS WITH INSTALLED DUCTWORK, SPRINKLERS, ARCHITECTURAL SOFFITS, ETC.</div><div>2. FIXTURES INSTALLED IN CLOSETS SHALL COMPLY WITH NEC ARTICLE #410-8 FOR LOCATION AND TYPE OF CONSTRUCTION.</div><div>3. ALL FIXTURES WEIGHING IN EXCESS OF 50LBS. SHALL BE SUPPORTED INDEPENDENTLY OF THE OUTLET BOX (SEE NEC #410.30 (A)).</div><div>4. WHERE TROFFERS ARE INSTALLED IN SUSPENDED CEILINGS, FIXTURES SHALL BE SECURELY FASTENED TO GRID WITH CONCEALED BOLTS, SCREWS, RIVETS, OR TEE BAR CLIPS. WHERE CEILING SUPPORT IS NOT ADEQUATE (ONE WIRE IN EACH CORNER OF THE FIXTURE), SUPPORT FIXTURE HOUSING INDEPENDENTLY OF THE GRID.</div><div>5. WHERE FIXTURE ARE PENDANT MOUNTED OR CHAIN HUNG, SUPPORTS SHALL BE ADEQUATE TO HOLD THE WEIGHT OF THE FIXTURE PLUS 250 LBS.</div><div>6. FIXTURE HOUSINGS SHALL NOT BE USED AS RACEWAYS, EXCEPT THOSE DESIGNED FOR INSTALLATION IN CONTINUOUS ROWS. MAKE BRANCH CIRCUIT SPLICES IN 4" SQUARE BOXES WITH BLANK COVER PLATES (NEC #410.30 (B)).</div><div>7. ALL BALLASTS FOR FLUORESCENT, BIAx AND OCTRON LAMPS SHALL BE OF THE RAPID START, CLASS "P", THERMALLY PROTECTED, HIGH POWER FACTOR, ENERGY SAVING TYPE AS MANUFACTURED BY GENERAL ELECTRIC, UNIVERSAL, ADVANCE OR APPROVED EQUAL. BALLASTS SHALL BE UL LISTED, CBM CERTIFIED AND CARRY A MINIMUM 2 YEAR WARRANTY.</div><div>8. ALL CEILING PENDANT MOUNTED AND WALL BRACKET MOUNTED FIXTURES SHALL BE PROVIDED WITH DECORATIVE CANOPIES MATCHING THE FIXTURE AND PENDANT FINISH.</div><div>9. ALL RECESSED INCANDESCENT FIXTURES SHALL BE THERMALLY PROTECTED.</div><div>10. RECESSED FIXTURES SHALL MAINTAIN A MINIMUM CLEARANCE OF 1/2" TO COMBUSTIBLE CONSTRUCTION AND 3" TO THERMAL INSULATION UNLESS UL LISTED FOR DIRECT CONTACT WITH THESE MATERIALS (NEC 410.116(A)).</div><div>11. CONNECTIONS TO FLUORESCENT TROFFERS SHALL CONSIST OF HIGH TEMPERATURE WIRING (SEE "CONDUCTORS" SECTION) IN FLEXIBLE METAL CONDUIT. CONNECTION SHALL NOT BE LESS THAN 4", NOR GREATER THAN 6" IN LENGTH.</div><div>12. ALL BALLASTS FOR RECESSED HID FIXTURES SHALL BE UL LISTED AND SHALL BE THERMALLY PROTECTED.</div><div>13. PROTECT ALL LAMPS, LENSES AND LOUVERS DURING CONSTRUCTION. ALL LAMPS, FIXTURE HOUSING, LENSES AND LOUVERS SHALL BE CLEANED UPON COMPLETION OF WORK BY ALL TRADES. REPLACE DEFECTIVE OR DAMAGED LAMPS, LENSES, LOUVERS AND BALLASTS AS REQUIRED AT THE TIME OF CLEANING.</div><div>14. WHEN SHOWN ABOVE DOOR, EXTERIOR BUILDING MOUNTED LIGHTING AT EGRESS DOORS SHALL BE MOUNTED WITH THE BOTTOM OF THE FIXTURE AT 6" ABOVE DOOR CASTING. LIGHTING SHALL BE MOUNTED ON STRIKE SIDE OF DOOR WITH TOP OF FIXTURE ALIGNED WITH THE TOP OF THE DOOR.</div><div>15. ALL INTERIOR FLUORESCENT FIXTURES IN UNHEATED ROOMS OR UNHEATED AREAS SHALL BE PROVIDED WITH RAPID START LAMP/BALLAST COMBINATIONS SUITABLE FOR STARTING AT 0° F.</div><div>16. BALLASTS FOR HID FIXTURES SHALL BE POWER FACTOR CORRECTED.</div><div>17. LIGHTS AND PANELS SHALL NOT BE RECESSED IN FIRE ASSEMBLIES.</div></div></div><div><div>GROUNDING</div><div><div>1. SERVICE ENTRANCE GROUNDING ELECTRODES SHALL INCLUDE THE FOLLOWING:</div><div>1A. REINFORCING BARS IN FOOTINGS.</div><div>1B. METAL UNDERGROUND WATER PIPE.</div><div>1C. AT LEAST ONE 3/4" X 10' CADWELDED GROUND ROD DRIVEN OUTSIDE BUILDING AS NEAR TO SERVICE ENTRANCE EQUIPMENT AS POSSIBLE.</div><div>1D. METAL FRAME OF BUILDING.</div></div><div><div>2. GROUNDING ELECTRODE CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NEC TABLE #250.66 AND NEC ARTICLE #250.102(C).</div><div>3. PROVIDE GROUNDING JUMPER AROUND WATER METER, JUMPER TO BE BARE STRANDED COPPER SIZED TO MATCH GROUNDING ELECTRODE CONDUCTOR SIZE. GROUNDING CLAMPS FOR WATER PIPING SHALL BE THOMAS AND BETTS SERIES 3900 "L" BOLT CLAMP. PROVIDE MALLEABLE IRON CONDUIT HUB WHERE CONDUCTOR IS HOUSED IN CONDUIT FOR PHYSICAL PROTECTION.</div><div>4. ALL GROUNDING CONNECTIONS TO REINFORCEMENT BARS AND GROUND RODS AND ALL UNDERGROUND GROUNDING CABLE SPLICES SHALL BE EXOTHERMIC WELDS BY CADWELD OR APPROVED EQUAL.</div><div>5. THE FOLLOWING COMPONENTS SHALL BE BONDED WITH A BARE COPPER CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE #250.66:</div><div>5A. SERVICE RACEWAYS.</div><div>5B. METER ENCLOSURES.</div><div>5C. SERVICE DISCONNECT ENCLOSURE.</div><div>5D. GROUNDING ELECTRODES.</div><div>6. WHERE MULTIPLE SERVICE DISCONNECTING MEANS ARE PROVIDED, THE GROUNDING ELECTRODE CONDUCTOR SHALL BE EXTENDED TO AND BONDED TO THE ENCLOSURE OF EACH DISCONNECTING MEANS.</div><div>7. THE FOLLOWING ITEMS SHALL BE BONDED TO THE SERVICE EQUIPMENT GROUND BUS USING CABLES SIZED IN ACCORDANCE WITH NEC TABLE #250.66:</div><div>7A. INTERIOR STEEL FRAME.</div><div>7B. STRUCTURAL STEEL FRAME.</div><div>7C. METAL SIDING (WHERE APPLICABLE).</div><div>8. GROUNDING OF ELECTRICAL EQUIPMENT AND ENCLOSURES DOWNSTREAM OF THE SERVICE DISCONNECT SHALL BE BY INSULATED GROUNDING CONDUCTOR. INCLUDE WITH ALL FEEDERS AND BRANCH CIRCUITS.</div><div>9. RECEPTACLE MOUNTING YOKE SHALL NOT BE USED FOR GROUNDING PURPOSES WITH RECESSED OUTLET BOXES. PROVIDE INSULATED GROUNDING JUMPER FROM OUTLET BOXES TO RECEPTACLE GROUNDING TERMINAL.</div></div></div></div></div>	LOCATION	CONDUCTORS	BRANCH CIRCUITS AND FEEDERS IN CONDUIT	THHN/THWN	CONCEALED BRANCH CIRCUITS	TYPE "AC" CABLE	UNDERGROUND OUTDOORS	RHW/THW/THWN	UNDERGROUND SERVICE ENTRANCE	RHW/USE	FIXTURE CONNECTIONS	SF-2	TEMPORARY LIGHT AND POWER	TYPE "NM" CABLE		#12	#10	#8	120V, 1 PHASE, 15A	75'	125'	185'	120V, 1 PHASE, 20A	55'	95'	145'	208V, 1 PHASE, 20A	95'	160'	245'	208V, 3 PHASE, 20A	110'	185'	285'		120/208V	277/480V	PHASE A	BLACK	BROWN	PHASE B	RED	ORANGE	PHASE C	BLUE	YELLOW	NEUTRAL	WHITE	WHITE	GROUND	GREEN	GREEN	LOCATION	RACEWAY	OUTDOORS, ABOVE GRADE...	GALVANIZED RIGID STEEL (GRS)	INDOOR FEEDERS AND SUB FEEDERS NOT EXPOSED TO PHYSICAL DAMAGE...	ELECTRICAL METALLIC TUBING (EMT)	INDOOR BRANCH CIRCUITS EXPOSED IN UTILITY AREAS...	ELECTRICAL METALLIC TUBING (EMT)	INDOOR BRANCH CIRCUITS CONCEALED...	(SEE "CONDUCTORS" SECTION)	INDOOR FIXTURE AND VIBRATING EQUIPMENT CONNECTIONS...	FLEXIBLE METALLIC CONDUIT	INDOOR AND OUTDOOR MOTOR CONNECTIONS...	LIQUID-TIGHT FLEXIBLE METAL CONDUIT	MOTOR CONNECTIONS IN ENVIRONMENTAL AIR PLENUMS...	FLEXIBLE METAL CONDUIT	UNDERGROUND...	TYPE "DB", SCHEDULE 40 RIGID (PVC), NON METALLIC CONDUIT	UNDERGROUND THROUGH GRADE...	GALVANIZED RIGID STEEL (GRS)	DEVICE	MANUFACTURER & MODEL NUMBER	DUPLEX RECEPTACLE 125V, 20A, GROUNDED NEMA #5-20R.	LEVITON #5362	GFCI RECEPTACLE 125V, GROUNDED NEMA #5-15R	LEVITON #6599	TOGGLE SWITCH, 1 POLE 120/277V, 20A	(TOGGLE TYPE) LEVITON #5521 (KEY TYPE) LEVITON #1211-L	TOGGLE SWITCH, 1 POLE W/ PILOT LIGHT 125V, 15A	(TOGGLE TYPE) LEVITON #5226	TOGGLE SWITCH, 2 POLE 120/277V, 20A	(TOGGLE TYPE) #5522 (KEY TYPE) LEVITON #1222-I	TOGGLE SWITCH, 3 WAY 120/277V, 20A	(TOGGLE TYPE) LEVITON #5523 (KEY TYPE) LEVITON #1223-L	FAN SPEED CONTROL 120V, 12A, 1 POLE	LUTRON #N1F5-12E	LINEAR SLIDE SWITCH 120/277V, 20A	(1 POLE) LUTRON #N1-1PS (3 WAY) LUTRON #N1-3PS (4 WAY) LUTRON # N1-4PS	DEVICE	MOUNTING HEIGHT	RECEPTACLES (GENERAL AREAS)	1'-4" A.F.F. TO BOTTOM	RECEPTACLES (ABOVE COUNTERS)	6" ABOVE BACKSPLASH & 44" A.F.F. MAX TO TOP	RECEPTACLES (UTILITY AREAS)	4'-0" A.F.F. TO TOP	LIGHT SWITCHES (ALL AREAS)	4'-0" A.F.F. TO TOP	THERMOSTAT & HVAC CONTROLS	4'-0" A.F.F. TO TOP	FLUSH WIRING DEVICES ON METAL STUDS	RACO #172/173/174 (4" SQUARE)	FLUSH WIRING DEVICES ON WOOD STUDS	RACO #504/565 GANGABLE	FLUSH WIRING DEVICES IN MASONRY WALLS	RACO #690 (1 GANG)	GANG BOXES	RACO #951/953/953/954/955	CEILING BAR BOX (HUNG CEILING)	RACO #280/917	CEILING BAR BOX (WOOD JOIST)	RACO #326	SURFACE WIRING DEVICES (DRY AREAS)	RACO #192 (4" SQUARE)	SURFACE WIRING DEVICES (WET AREAS, 1 GANG)	BELL 270-L/273-L (F.S. TYPE)	SURFACE WIRING DEVICES (WET AREAS, 2 GANG)	BELL 276-4U/ 277-4L (F.S. TYPE)
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LOCATION	RACEWAY																																																																																																																							
OUTDOORS, ABOVE GRADE...	GALVANIZED RIGID STEEL (GRS)																																																																																																																							
INDOOR FEEDERS AND SUB FEEDERS NOT EXPOSED TO PHYSICAL DAMAGE...	ELECTRICAL METALLIC TUBING (EMT)																																																																																																																							
INDOOR BRANCH CIRCUITS EXPOSED IN UTILITY AREAS...	ELECTRICAL METALLIC TUBING (EMT)																																																																																																																							
INDOOR BRANCH CIRCUITS CONCEALED...	(SEE "CONDUCTORS" SECTION)																																																																																																																							
INDOOR FIXTURE AND VIBRATING EQUIPMENT CONNECTIONS...	FLEXIBLE METALLIC CONDUIT																																																																																																																							
INDOOR AND OUTDOOR MOTOR CONNECTIONS...	LIQUID-TIGHT FLEXIBLE METAL CONDUIT																																																																																																																							
MOTOR CONNECTIONS IN ENVIRONMENTAL AIR PLENUMS...	FLEXIBLE METAL CONDUIT																																																																																																																							
UNDERGROUND...	TYPE "DB", SCHEDULE 40 RIGID (PVC), NON METALLIC CONDUIT																																																																																																																							
UNDERGROUND THROUGH GRADE...	GALVANIZED RIGID STEEL (GRS)																																																																																																																							
DEVICE	MANUFACTURER & MODEL NUMBER																																																																																																																							
DUPLEX RECEPTACLE 125V, 20A, GROUNDED NEMA #5-20R.	LEVITON #5362																																																																																																																							
GFCI RECEPTACLE 125V, GROUNDED NEMA #5-15R	LEVITON #6599																																																																																																																							
TOGGLE SWITCH, 1 POLE 120/277V, 20A	(TOGGLE TYPE) LEVITON #5521 (KEY TYPE) LEVITON #1211-L																																																																																																																							
TOGGLE SWITCH, 1 POLE W/ PILOT LIGHT 125V, 15A	(TOGGLE TYPE) LEVITON #5226																																																																																																																							
TOGGLE SWITCH, 2 POLE 120/277V, 20A	(TOGGLE TYPE) #5522 (KEY TYPE) LEVITON #1222-I																																																																																																																							
TOGGLE SWITCH, 3 WAY 120/277V, 20A	(TOGGLE TYPE) LEVITON #5523 (KEY TYPE) LEVITON #1223-L																																																																																																																							
FAN SPEED CONTROL 120V, 12A, 1 POLE	LUTRON #N1F5-12E																																																																																																																							
LINEAR SLIDE SWITCH 120/277V, 20A	(1 POLE) LUTRON #N1-1PS (3 WAY) LUTRON #N1-3PS (4 WAY) LUTRON # N1-4PS																																																																																																																							
DEVICE	MOUNTING HEIGHT																																																																																																																							
RECEPTACLES (GENERAL AREAS)	1'-4" A.F.F. TO BOTTOM																																																																																																																							
RECEPTACLES (ABOVE COUNTERS)	6" ABOVE BACKSPLASH & 44" A.F.F. MAX TO TOP																																																																																																																							
RECEPTACLES (UTILITY AREAS)	4'-0" A.F.F. TO TOP																																																																																																																							
LIGHT SWITCHES (ALL AREAS)	4'-0" A.F.F. TO TOP																																																																																																																							
THERMOSTAT & HVAC CONTROLS	4'-0" A.F.F. TO TOP																																																																																																																							
FLUSH WIRING DEVICES ON METAL STUDS	RACO #172/173/174 (4" SQUARE)																																																																																																																							
FLUSH WIRING DEVICES ON WOOD STUDS	RACO #504/565 GANGABLE																																																																																																																							
FLUSH WIRING DEVICES IN MASONRY WALLS	RACO #690 (1 GANG)																																																																																																																							
GANG BOXES	RACO #951/953/953/954/955																																																																																																																							
CEILING BAR BOX (HUNG CEILING)	RACO #280/917																																																																																																																							
CEILING BAR BOX (WOOD JOIST)	RACO #326																																																																																																																							
SURFACE WIRING DEVICES (DRY AREAS)	RACO #192 (4" SQUARE)																																																																																																																							
SURFACE WIRING DEVICES (WET AREAS, 1 GANG)	BELL 270-L/273-L (F.S. TYPE)																																																																																																																							
SURFACE WIRING DEVICES (WET AREAS, 2 GANG)	BELL 276-4U/ 277-4L (F.S. TYPE)																																																																																																																							

STATE OF CALIFORNIA

Indoor Lighting

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

Project Name: Regional Navigation Center

Report Page: (Page 12 of 13)

Date Prepared: 2/11/2026

IV. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	Whole Building Time Switch; CLASSROOM; CONFERENCE ROOM; DINING; DORM; EXAM; KITCHEN; LAUNDRY; LOBBY ENTRY; LOUNGE; BREAKROOM WAITING; MEDICATION; OFFICE < 250; OFFICE > 250; RESTROOM;
NRCA-LTI-03-A - Must be submitted for daylight responsive controls.	CONFERENCE ROOM; CORRIDOR; DINING; DORM; LOBBY ENTRY; LOUNGE; BREAKROOM WAITING; SERVER; STAIR; STORAGE;
NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	Whole Building Demand Response;

STATE OF CALIFORNIA

Indoor Lighting

CALIFORNIA ENERGY COMMISSION

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NRCC-LTI-E

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Report Page: (Page 11 of 13)

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P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Q. ONE-FOR-ONE LUMINAIRE 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.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

STATE OF CALIFORNIA

Indoor Lighting

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

Project Name: Regional Navigation Center

Report Page: (Page 10 of 13)

Date Prepared: 2/11/2026

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM									
RESTROOM	Restroom	Decorative/ Display A	0.35	2628	919.8	F	13.7	1	13.7
						F	13.7	1	13.7
						F	13.7	1	13.7
						F	13.7	1	13.7
						F	13.7	1	13.7
						F	13.7	1	13.7
						F	13.7	1	13.7
						F	13.7	1	13.7
Total Design Watts	Calculated Allowance (Watts):	Total Additional Allowance for this area:							
123.3	919.8	123.3							
11									
Total Additional Allowance (Watts) CONDITIONED SPACES		164							

STATE OF CALIFORNIA

Indoor Lighting

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE

NRCC-LTI-E

Project Name: Regional Navigation Center

Report Page: (Page 13 of 13)

Project Address: 11109 Jasmine St.

Date Prepared: 2/11/2026

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Rinaah Park

Documentation Author Signature: Rinaah Park

Company: Linwood Engineering, Inc.

Signature Date: 2026-02-11

Address: 3333 Michelson Dr. Suite 450

CEA/AEA/ECC Certification Identification (if applicable):

City/State/Zip: Irvine CA 92612

Phone: 714.424.0001

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 Person Name: Jason Rezell

Responsible Person Signature: Jason Rezell

Responsible Person Scope:

Company: Linwood Engineering, Inc.

Date Signed: 2026-02-11

Address: 3333 Michelson Dr. Suite 450

License: E25759

City/State/Zip: Irvine CA 92612

Phone: 714.424.0001



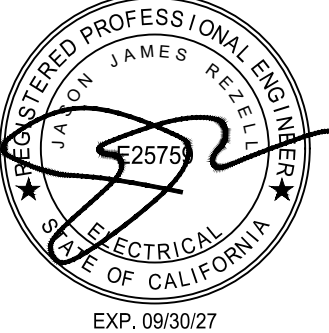
BORDERS ARCHITECTS
ARCHITECTURE | PLANNING | COMMERCIAL INTERIORS

1675 SCENIC AVENUE
SUITE 210
COSTA MESA, CA
92626

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www.bordersarchitects.com

STAMP

Jason J. Rezell, P.E.
CA # E25759



CONSULTANT



PROJECT

WESTEND
NAVIGATION
CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

TITLE 24
COMPLIANCE
DOCUMENTS

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn LEI
Date 04/29/2026
Project No. LEI # 25039
Scale AS NOTED

Sheet

E022

LIGHTING CONTROLS SEQUENCE OF OPERATION MASTER

PROVIDE A COMPLETE DIGITALLY NETWORKED LIGHTING CONTROLS SYSTEM COMPLETE WITH SENSORS, COMPONENTS, DEVICES, NETWORK INTERFACES, MASTER TIME SWITCH CONTROLLER, CONNECTIVITY, ETC. TO ENABLE THE FOLLOWING SEQUENCE OF OPERATIONS FOR EACH SPACE TYPE LISTED.

REFER TO PLANS FOR NUMBER AND LOCATIONS OF MANUAL CONTROL STATIONS FOR MULTI-WAY SWITCHING FOR SPECIFIC ROOMS. EACH SWITCH SHALL CONTROL LIGHTING IN AN AREA NOT TO EXCEED 5000 SQUARE FEET.

AFTER INSTALLATION PROVIDE START UP AND COMMISSIONING SERVICES TO MEET THESE CONTROL REQUIREMENTS, COMPLETE AND SUBMIT ACCEPTANCE TESTING AND COMPLIANCE DOCUMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION.

PROVIDE OWNER WITH (X) PROGRAMMING UNIT(S) AT COMPLETION OF INSTALLATION AND PROGRAMMING, AS WELL AS TRAINING AND OPERATION MANUALS.

A. CLASSROOM, DINING

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 3. EMERGENCY LIGHTING
 - a. FIXTURES PROVIDED WITH INTEGRAL BATTERY BACKUP WITH AN UNSWITCHED HOT FOR POWER FAILURE SENSING
 - b. FIXTURE SHALL BE CONTROLLED ALONG WITH ADJACENT FIXTURES UNDER NORMAL CONDITIONS

B. DORM

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 3. EMERGENCY LIGHTING
 - a. FIXTURES PROVIDED WITH INTEGRAL BATTERY BACKUP WITH AN UNSWITCHED HOT FOR POWER FAILURE SENSING
 - b. FIXTURE SHALL BE CONTROLLED ALONG WITH ADJACENT FIXTURES UNDER NORMAL CONDITIONS

C. KITCHEN, LAUNDRY

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 3. EMERGENCY LIGHTING
 - a. FIXTURES PROVIDED WITH INTEGRAL BATTERY BACKUP WITH AN UNSWITCHED HOT FOR POWER FAILURE SENSING
 - b. FIXTURE SHALL BE CONTROLLED ALONG WITH ADJACENT FIXTURES UNDER NORMAL CONDITIONS

D. EXAM, MEDICATION

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL

E. PRIVATE RESTROOMS, STORAGE, UTILITY ROOMS (<100SQFT)

1. AUTOMATIC ON/OFF CONTROLS
 - a. WALL BOX TYPE VACANCY SENSOR WITH MANUAL ON/OFF CONTROL

F. STORAGE, UTILITY ROOMS (>100SQFT)

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL

G. SMALL OFFICES ≤ 250SF, COPY ROOMS, BREAK ROOMS

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 3. RECEPTACLE CONTROL
 - a. AUTOMATIC CONTROL VIA PLUG LOAD CONTROLLER
 - i. UPON OCCUPANCY: CONTROLLED RECEPTACLES ENERGIZED
 - ii. UPON VACANCY: CONTROLLED RECEPTACLES DE-ENERGIZED
 - iii. [UPON DEMAND RESPONSE SIGNAL: CONTROLLED RECEPTACLES DE-ENERGIZED]

H. SMALL OFFICES ≤ 250SF WITH DAYLIGHTING

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. AUTOMATIC DAYLIGHTING CONTROL
 - a. IN ROOM PHOTOSENSOR REDUCES FIXTURE OUTPUT WHEN DAYLIGHT PRESENT AND OCCUPIED
 3. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 - i. OVERRIDES AUTOMATIC DAYLIGHTING CONTROL
 4. RECEPTACLE CONTROL
 - a. AUTOMATIC CONTROL VIA PLUG LOAD CONTROLLER
 - i. UPON OCCUPANCY: CONTROLLED RECEPTACLES ENERGIZED
 - ii. UPON VACANCY: CONTROLLED RECEPTACLES DE-ENERGIZED
 - iii. [UPON DEMAND RESPONSE SIGNAL: CONTROLLED RECEPTACLES DE-ENERGIZED]

I. CONFERENCE ROOMS

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 3. RECEPTACLE CONTROL
 - a. AUTOMATIC CONTROL VIA PLUG LOAD CONTROLLER
 - i. UPON OCCUPANCY: CONTROLLED RECEPTACLES ENERGIZED
 - ii. UPON VACANCY: CONTROLLED RECEPTACLES DE-ENERGIZED
 - iii. [UPON DEMAND RESPONSE SIGNAL: CONTROLLED RECEPTACLES DE-ENERGIZED]

J. CONFERENCE ROOMS WITH DAYLIGHTING

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. AUTOMATIC DAYLIGHTING CONTROL
 - a. IN ROOM PHOTOSENSOR REDUCES FIXTURE OUTPUT WHEN DAYLIGHT PRESENT AND OCCUPIED
 3. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 - i. OVERRIDES AUTOMATIC DAYLIGHTING CONTROL
 4. RECEPTACLE CONTROL
 - a. AUTOMATIC CONTROL VIA PLUG LOAD CONTROLLER
 - i. UPON OCCUPANCY: CONTROLLED RECEPTACLES ENERGIZED
 - ii. UPON VACANCY: CONTROLLED RECEPTACLES DE-ENERGIZED
 - iii. [UPON DEMAND RESPONSE SIGNAL: CONTROLLED RECEPTACLES DE-ENERGIZED]

K. MULTI-USER RESTROOMS

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 3. EMERGENCY LIGHTING
 - a. FIXTURES PROVIDED WITH INTEGRAL BATTERY BACKUP WITH AN UNSWITCHED HOT FOR POWER FAILURE SENSING
 - b. FIXTURE SHALL BE CONTROLLED ALONG WITH ADJACENT FIXTURES UNDER NORMAL CONDITIONS

L. HALLWAY

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING REDUCED TO 40% OUTPUT
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 3. EMERGENCY LIGHTING
 - a. FIXTURES PROVIDED WITH INTEGRAL BATTERY BACKUP WITH AN UNSWITCHED HOT FOR POWER FAILURE SENSING
 - b. FIXTURE SHALL BE CONTROLLED ALONG WITH ADJACENT FIXTURES UNDER NORMAL CONDITIONS

M. LOBBY

1. AUTOMATIC ON/OFF CONTROLS
 - a. TIME SCHEDULE CONTROL WITH DIGITAL ROOM CONTROLLER AS FOLLOWS:
 - i. TO BE DETERMINED BY OWNER
 - b. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING REDUCED TO 50% OUTPUT
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL PER SWITCH LEG SHOWN
 3. EMERGENCY LIGHTING
 - a. FIXTURES PROVIDED WITH INTEGRAL BATTERY BACKUP WITH AN UNSWITCHED HOT FOR POWER FAILURE SENSING
 - b. FIXTURE SHALL BE CONTROLLED ALONG WITH ADJACENT FIXTURES UNDER NORMAL CONDITIONS

N. MAIN ENTRY LOBBY

1. AUTOMATIC ON/OFF CONTROLS
 - a. TIME SCHEDULE CONTROL WITH DIGITAL ROOM CONTROLLER AS FOLLOWS:
 - i. TO BE DETERMINED BY OWNER
 - b. DUAL TECHNOLOGY OCCUPANCY SENSOR FOR AFTERHOURS OVERRIDE
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: OFF
 2. AUTOMATIC DAYLIGHTING CONTROL
 - a. IN ROOM PHOTOSENSOR REDUCES FIXTURE OUTPUT WHEN DAYLIGHT PRESENT AND OCCUPIED
 3. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL PER SWITCH LEG SHOWN
 - i. OVERRIDES AUTOMATIC DAYLIGHTING CONTROL
 4. EMERGENCY LIGHTING
 - a. FIXTURES PROVIDED WITH INTEGRAL BATTERY BACKUP WITH AN UNSWITCHED HOT FOR POWER FAILURE SENSING
 - b. FIXTURE SHALL BE CONTROLLED ALONG WITH ADJACENT FIXTURES UNDER NORMAL CONDITIONS

O. STAIRWELLS

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING REDUCED TO 50% OUTPUT
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL
 3. EMERGENCY LIGHTING
 - a. FIXTURE PROVIDED WITH INTEGRAL BATTERY BACKUP WITH AN UNSWITCHED HOT FOR POWER FAILURE SENSING
 - b. FIXTURE SHALL BE CONTROLLED ALONG WITH ADJACENT FIXTURES UNDER NORMAL CONDITIONS

P. MULTIPURPOSE ROOMS <1000SF -

1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL PER SWITCH LEG SHOWN
 3. RECEPTACLE CONTROL
 - a. AUTOMATIC CONTROL VIA PLUG LOAD CONTROLLER
 - i. UPON OCCUPANCY: CONTROLLED RECEPTACLES ENERGIZED
 - ii. UPON VACANCY: CONTROLLED RECEPTACLES DE-ENERGIZED
 - iii. [UPON DEMAND RESPONSE SIGNAL: CONTROLLED RECEPTACLES DE-ENERGIZED]

Q. MULTIPURPOSE ROOMS <1000SF WITH DAYLIGHTING-

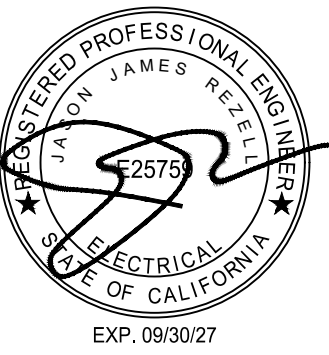
1. AUTOMATIC ON/OFF CONTROLS
 - a. DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DIGITAL ROOM CONTROLLER
 - i. UPON OCCUPANCY: LIGHTING ON TO 70% MAXIMUM
 - ii. UPON VACANCY: LIGHTING TO TURN OFF
 2. AUTOMATIC DAYLIGHTING CONTROL
 - a. IN ROOM PHOTOSENSOR REDUCES FIXTURE OUTPUT WHEN DAYLIGHT PRESENT AND OCCUPIED
 3. MANUAL USER CONTROL - DIGITAL LOW VOLTAGE SWITCHES
 - a. SEPARATE ON/OFF CONTROL AS WELL AS RAISE/LOWER CONTROL PER SWITCH LEG SHOWN
 - i. OVERRIDES AUTOMATIC DAYLIGHTING CONTROL
 4. RECEPTACLE CONTROL
 - a. AUTOMATIC CONTROL VIA PLUG LOAD CONTROLLER
 - i. UPON OCCUPANCY: CONTROLLED RECEPTACLES ENERGIZED
 - ii. UPON VACANCY: CONTROLLED RECEPTACLES DE-ENERGIZED
 - iii. [UPON DEMAND RESPONSE SIGNAL: CONTROLLED RECEPTACLES DE-ENERGIZED]

LUMINAIRE SCHEDULE										
TYPE	DESCRIPTION	MANUFACTURER	CATALOG #	LAMP TYPE	LAMP INFO	MOUNTING	LOAD (VA)	VOLTAGE	DIM TYPE	COMMENTS
A1	4' SUSPENDED LINEAR WITH 5100 LUMEN OUTPUT. "P" PENDANT "S" SURFACE	PRUDENTIAL LTG	S1-PRO LED35 SO 4 SAL YSL UNV CA [CEILING] DM01	INTEGRAL LED	5100 LM 80 CRI 3500K	PENDANT/ SURFACE	37.6	UNV	0-10V	CONFIRM CEILING CONFIGURATION AND MOUNTING HEIGHT WITH ARCHITECT.
A1E	SIMILAR TO FIXTURE TYPE 'A1' EXCEPT EQUIPPED WITH INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER. EMERGENCY BATTERY DELIVERS 1350 LUMENS.	PRUDENTIAL LTG	S1-PRO LED35 SO 4 SAL YSL UNV CA [CEILING] DM01 EMHE	INTEGRAL LED	5100 LM 80 CRI 3500K	PENDANT/ SURFACE	37.6	UNV	0-10V	CONFIRM CEILING CONFIGURATION AND MOUNTING HEIGHT WITH ARCHITECT.
A2	4' SUSPENDED LINEAR WITH 6500 LUMEN OUTPUT. "P" PENDANT "S" SURFACE	PRUDENTIAL LTG	S1-PRO LED35 HO 4 SAL YSL UNV CA [CEILING] DM01	INTEGRAL LED	6500 LM 80 CRI 3500K	PENDANT/ SURFACE	50	UNV	0-10V	CONFIRM CEILING CONFIGURATION AND MOUNTING HEIGHT WITH ARCHITECT.
A2E	SIMILAR TO FIXTURE TYPE 'A2' EXCEPT EQUIPPED WITH INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER. EMERGENCY BATTERY DELIVERS 1350 LUMENS.	PRUDENTIAL LTG	S1-PRO LED35 HO 4 SAL YSL UNV CA [CEILING] DM01 EMHE	INTEGRAL LED	6500 LM 80 CRI 3500K	PENDANT/ SURFACE	50	UNV	0-10V	CONFIRM CEILING CONFIGURATION AND MOUNTING HEIGHT WITH ARCHITECT.
B	8' SUSPENDED LINEAR FIXTURE. "P" PENDANT "S" SURFACE	PRUDENTIAL LTG	S1-PRO LED35 SO 6 SAL YSL UNV CA [CEILING] DM01	INTEGRAL LED	7650 LM 80 CRI 3500K	PENDANT/ SURFACE	56.4	UNV	0-10V	CONFIRM CEILING CONFIGURATION AND MOUNTING HEIGHT WITH ARCHITECT.
BE	SIMILAR TO FIXTURE TYPE 'B' EXCEPT EQUIPPED WITH INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER. EMERGENCY BATTERY DELIVERS 1350 LUMENS.	PRUDENTIAL LTG	S1-PRO LED35 SO 6 SAL YSL UNV CA [CEILING] DM01 EMHE	INTEGRAL LED	7650 LM 80 CRI 3500K	PENDANT/ SURFACE	56.4	UNV	0-10V	CONFIRM CEILING CONFIGURATION AND MOUNTING HEIGHT WITH ARCHITECT.
C	8' SUSPENDED LINEAR FIXTURE. "P" PENDANT "S" SURFACE	PRUDENTIAL LTG	S1-PRO LED35 HO 8 SAL YSL UNV CA [CEILING] DM01	INTEGRAL LED	13000 LM 80 CRI 3500K	PENDANT/ SURFACE	100	UNV	0-10V	CONFIRM CEILING CONFIGURATION AND MOUNTING HEIGHT WITH ARCHITECT.
CE	SIMILAR TO FIXTURE TYPE 'C' EXCEPT EQUIPPED WITH INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER. EMERGENCY BATTERY DELIVERS 1350 LUMENS.	PRUDENTIAL LTG	S1-PRO LED35 HO 8 SAL YSL UNV CA [CEILING] DM01 EMHE	INTEGRAL LED	13000 LM 80 CRI 3500K	PENDANT/ SURFACE	100	UNV	0-10V	CONFIRM CEILING CONFIGURATION AND MOUNTING HEIGHT WITH ARCHITECT.
D	4" DIAMETER APERTURE RECESSED DOWNLIGHT WITH 1500 LUMEN OUTPUT.	DMF LIGHTING	M4 NC R [RATING] DR02M 15 935 GA W O M4TR [STYLE] WH	INTEGRAL LED	1500 LM 90 CRI 3500K	RECESSED	18	UNV	0-10V	
DE	SIMILAR TO FIXTURE TYPE 'D' EXCEPT EQUIPPED WITH INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER.	DMF LIGHTING	M4 NC R [RATING] DR02M 15 935 GA W O M4TR [STYLE] WH EM	INTEGRAL LED	1500 LM 90 CRI 3500K	RECESSED	18	UNV	0-10V	
E	NIGHT LIGHT	PRESCOLITE	MW-V1-AL-PC	INTEGRAL LED	18 LM	SURFACE	2	UNV	NA	
F	SURFACE MOUNTED 2' LINEAR FIXTURE.	COLUMBIA LIGHTING	MPS2 35 LW CW ED1 U	INTEGRAL LED	2400 LM 80 CRI 3500K	SURFACE WALL OR CEILING	13.7	UNV	0-10V	
G1	SURFACE MOUNTED 4' LINEAR FIXTURE WITH 3600 LUMEN OUTPUT.	COLUMBIA LIGHTING	MPS4 35 MW CW ED1 U	INTEGRAL LED	3600 LM 80 CRI 3500K	SURFACE WALL OR CEILING	26.7	UNV	0-10V	
G2	SURFACE MOUNTED 4' LINEAR FIXTURE WITH 4500 LUMEN OUTPUT.	COLUMBIA LIGHTING	MP54 35 ML CW ED1 U	INTEGRAL LED	4500 LM 80 CRI 3500K	SURFACE WALL OR CEILING	31.6	UNV	0-10V	
G2E	SIMILAR TO FIXTURE TYPE 'G2' EXCEPT EQUIPPED WITH 10W INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER.	COLUMBIA LIGHTING	MP54 35 ML CW ED1 U ELL14	INTEGRAL LED	4500 LM 80 CRI 3500K	SURFACE WALL OR CEILING	31.6	UNV	0-10V	
H	SURFACE MOUNTED 8' LINEAR FIXTURE.	COLUMBIA LIGHTING	MPS8 35 LW CW ED1 U	INTEGRAL LED	7900 LM 80 CRI 3500K	SURFACE WALL OR CEILING	54.6	UNV	0-10V	
HE	SIMILAR TO FIXTURE TYPE 'H' EXCEPT EQUIPPED WITH 10W INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER.	COLUMBIA LIGHTING	MP58 35 LW CW ED1 U ELL14	INTEGRAL LED	7900 LM 80 CRI 3500K	SURFACE WALL OR CEILING	54.6	UNV	0-10V	
I1	RECESSED 2X2 FIXTURE WITH 2747 LUMEN OUTPUT.	COLUMBIA LIGHTING	LCAT22 35 LWG ED1 U	INTEGRAL LED	2747 LM 80 CRI 3500K	RECESSED	23	UNV	0-10V	
I1E	SIMILAR TO FIXTURE TYPE 'I1' EXCEPT EQUIPPED WITH INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER. EMERGENCY BATTERY DELIVERS 1400 LUMENS.	COLUMBIA LIGHTING	LCAT22 35 LWG ED1 U ELL14	INTEGRAL LED	2747 LM 80 CRI 3500K	RECESSED	23	UNV	0-10V	
I2	RECESSED 2X2 FIXTURE WITH 3380 LUMEN OUTPUT.	COLUMBIA LIGHTING	LCAT22 35 MLG ED1 U	INTEGRAL LED	3380 LM 80 CRI 3500K	RECESSED	29	UNV	0-10V	
I2E	SIMILAR TO FIXTURE TYPE 'I2' EXCEPT EQUIPPED WITH INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER. EMERGENCY BATTERY DELIVERS 1400 LUMENS.	COLUMBIA LIGHTING	LCAT22 35 MLG ED1 U	INTEGRAL LED	3380 LM 80 CRI 3500K	RECESSED	29	UNV	0-10V	
I3	RECESSED 2X2 FIXTURE WITH 3664 LUMEN OUTPUT.	COLUMBIA LIGHTING	LCAT22 35 HLG ED1 U	INTEGRAL LED	3664 LM 80 CRI 3500K	RECESSED	32	UNV	0-10V	
I3E	SIMILAR TO FIXTURE TYPE 'I3' EXCEPT EQUIPPED WITH INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER. EMERGENCY BATTERY DELIVERS 1400 LUMENS.	COLUMBIA LIGHTING	LCAT22 35 HLG ED1 U	INTEGRAL LED	3664 LM 80 CRI 3500K	RECESSED	32	UNV	0-10V	
J	LOW GLARE BACK-LIT LED PANEL WITH EXTERNAL DRIVER.	LITHONIA LIGHTING	CPX 2X2 3200LM 80 35K SWL MIN1 ZT MVOLT E10W	INTEGRAL LED	3200 LM 80 CRI 3500K	RECESSED	30.1	UNV	0-10V	
JE	SIMILAR TO FIXTURE TYPE 'J' EXCEPT EQUIPPED WITH 10W INTEGRAL BATTERY PACK CAPABLE OF PROVIDING 90 MINUTES OF EMERGENCY BACKUP POWER.	LITHONIA LIGHTING	CPX 2X2 3200LM 80 35K SWL MIN1 ZT MVOLT E10W	INTEGRAL LED	3200 LM 80 CRI 3500K	RECESSED	30.1	UNV	0-10V	
K	34" DIAMETER LED DRUM PENDANT FIXTURE	LUMETTA	P2034-W-L413-LED-UNIV-LTW-LBW	INTEGRAL LED	4837 LM 90 CRI 3500K	PENDANT	63	UNV	0-10V	CONFIRM CEILING CONFIGURATION, COLOR AND MOUNTING HEIGHT WITH ARCHITECT.
L	24" DIAMETER LED LIGHT RING	PRUDENTIAL LTG	0-20 LED35 SO YXX D1 SC UNV CA144" X3	INTEGRAL LED	4200 LM 90 CRI 3500K	PENDANT	70	UNV	0-10V	CONFIRM CEILING CONFIGURATION, COLOR AND MOUNTING HEIGHT WITH ARCHITECT.
M	24" WIDE LED WALL VANITY	AFX	EMAV2404LAJUBDK	INTEGRAL LED	1460 LM 90 CRI 3500K	WALL	23	UNV	0-10V	CONFIRM COLOR WITH ARCHITECT.
N	44" DIAMETER LED ECHO PENDANT	LUMETTA	EP54415-W-F2-0792-02-L413-LED-LTC4	INTEGRAL LED	6420 LM 90 CRI 3500K	PENDANT	63	UNV	0-10V	CONFIRM CEILING CONFIGURATION, COLOR AND MOUNTING HEIGHT WITH ARCHITECT.
O	12" DIAMETER SHADE LED METAL WALL SCONCE WITH WIRE CAGE	BARN LIGHT CO	BLE-W-HS12-400-WC-NA-LED16-3500K-FL-NA	INTEGRAL LED	1250 LM 90 CRI 3500K	WALL	16	UNV	0-10V	CONFIRM COLOR WITH ARCHITECT.
P	6" DIAMETER X 12" HIGH LED CYLINDER	LUMETTA	AP50612-W-F11-D715	INTEGRAL LED	2140 LM 90 CRI 3500K	RECESSED	21	UNV	0-10V	CONFIRM COLOR WITH ARCHITECT.
Q	12" DIAMETER METAL SHADE LED CHICAGO PENDANT	BARN LIGHT CO	BLE-C-OL12-LED16.8-3500K	INTEGRAL LED	1600 LM 90 CRI 3500K	PENDANT	16	120V	0-10V	CONFIRM COLOR WITH ARCHITECT.
R	23" DIAMETER LED DRUM PENDANT	LUMETTA	P2023-W-F2-L413-LED-UNIV-LTW-LBW	INTEGRAL LED	1605 LM 90 CRI 3500K	PENDANT	21	UNV	0-10V	CONFIRM COLOR WITH ARCHITECT.
S	3" DIAMETER X 15" HIGH LED INDUSTRIAL PENDANT	DAZUMA	HA077320-01B*10	INTEGRAL LED	3000K	PENDANT	8	120V	N/A	
AA	12" DIAMETER LED MODERN GOLD FLUSH MOUNT CEILING FIXTURE	Z-LITE	7702F12-MGLD-LED	INTEGRAL LED	2400 LM 90 CRI 3500K	CEILING	24	120V	0-10V	

NOTES:
- FIXTURES HAVE BEEN SELECTED SPECIFICALLY FOR COLOR TEMPERATURES, BEAM ANGLES, COLOR RENDITIONING INDICES, AND COATINGS. SUBSTITUTIONS REQUIRE SUBMITTAL OF NORMAL AND EGRESS PHOTOMETRY ALONG WITH INPUT VALUES FOR REVIEW IN CONJUNCTION WITH FIXTURE SUBMITTAL.
- LIGHT FIXTURES IN CONTACT WITH INSULATION SHALL BE U.L. LISTED FOR THERMAL BARRIER OR PROVIDED WITH 3" MINIMUM CLEARANCE.
- APPROVED EQUAL MEANS: LIGHTING FIXTURE PROPOSED BY CONTRACTOR AND APPROVED BY THE ARCHITECT/ENGINEER FOR INCORPORATION IN OR USE IN THE WORK OF THIS PROJECT AS EQUIVALENT IN ESSENTIAL ATTRIBUTES AND PERFORMANCE TO THE LIGHTING FIXTURES SPECIFIED IN THE CONTRACT DOCUMENTS.

STAMP

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FOR



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TITLE

LIGHTING FIXTURE SCHEDULE

Revisions	By	Date
Δ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

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E031

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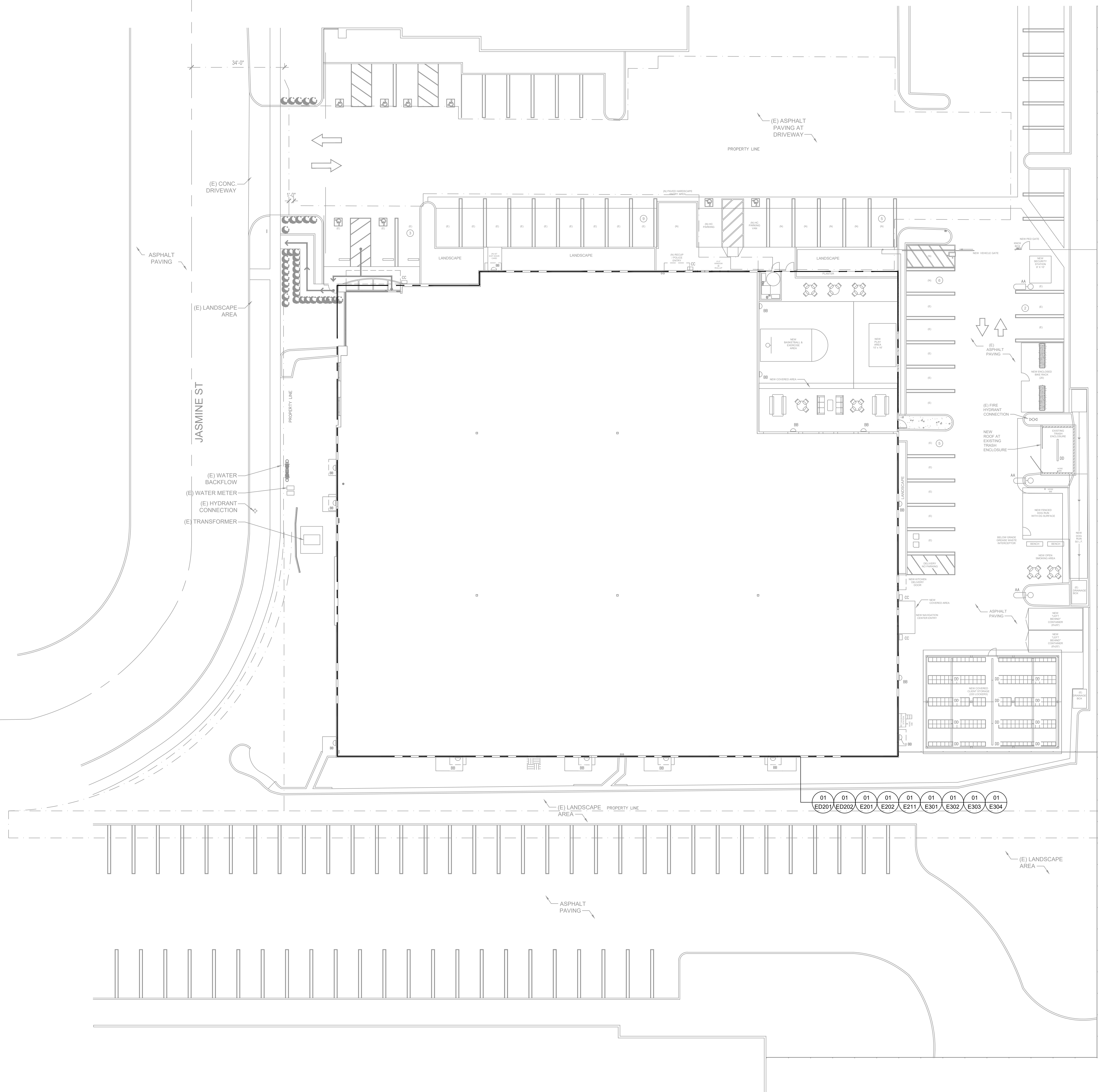
**ELECTRICAL SITE
PLAN**

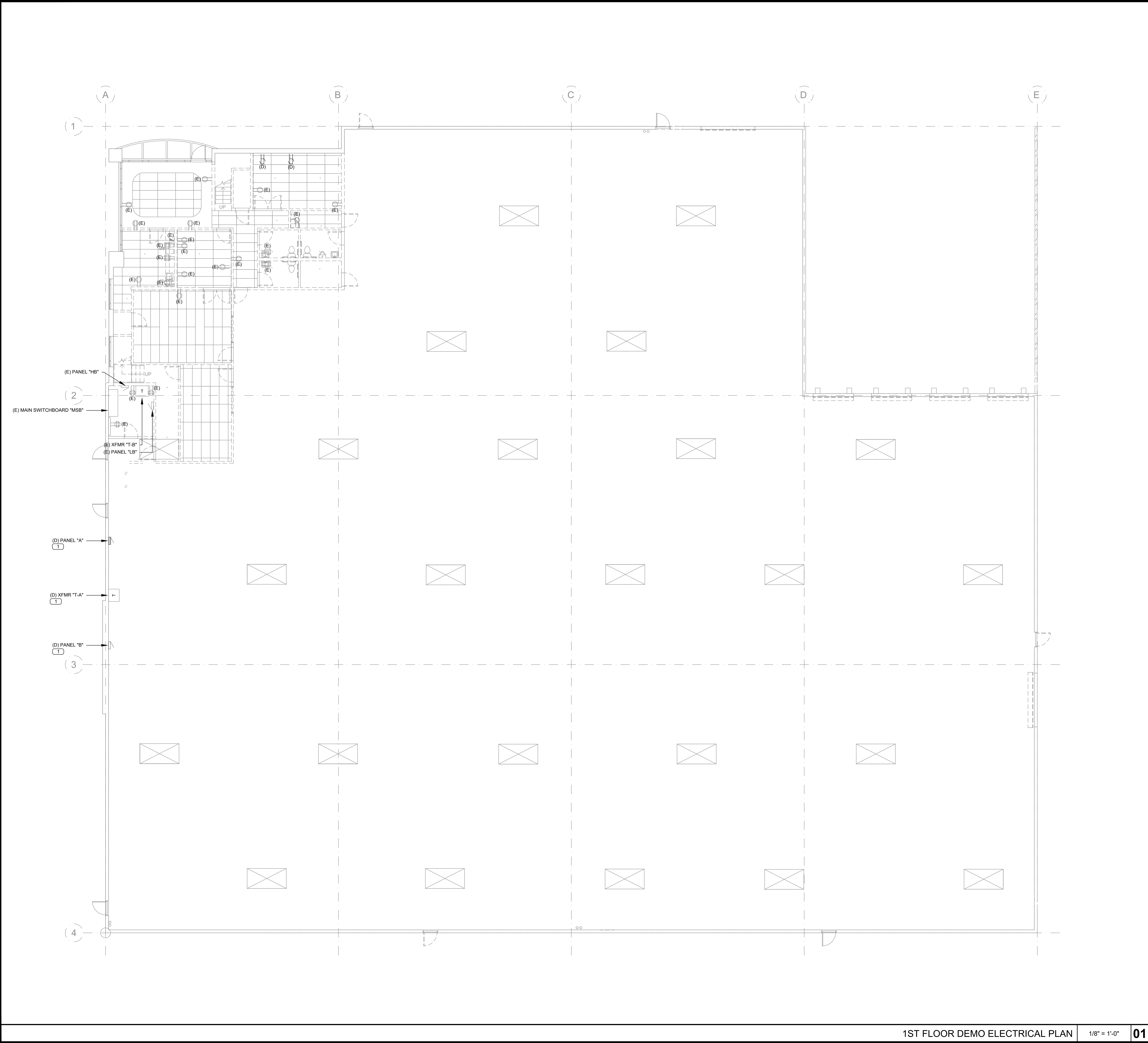
Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn LEI
Date 04/29/2026
Project No. LEI # 25039
Scale AS NOTED

Sheet

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- ### GENERAL NOTES

 - DEMOLISH OR RELOCATE DEVICES SHOWN DASHED, CROSSHATCHED AND/OR SHOWN ON DASHED WALLS (TO BE DEMOLISHED).
 - WHEN CONDUITS PENETRATING FLOORS ARE BEING DEMOLISHED, PATCH SURFACES PER ARCHITECTURAL SPECIFIC REQUIREMENTS.
 - FIRE ALARM SYSTEM ARE TO REMAIN CONNECTED AND OPERABLE DURING CONSTRUCTION UNTIL NEW FIRE ALARM SYSTEM IS INSTALLED, UNLESS NOTED OTHERWISE.
 - WORK PERFORMED INCLUDES PROVISIONS AND COORDINATION OF FIRE WATCH DURING SYSTEM DOWNTIME DURING TRANSITION AND TIE IN WORK.
 - COORDINATE POWER SHUTDOWN PROCEDURES WITH OWNER'S REPRESENTATIVE, AND WORK TO BE SCHEDULED TO MINIMIZE ANY DISRUPTION DURING OPERATING HOURS.
 - REFER TO ARCHITECTURAL PLANS FOR LIMITS OF SITE DEMOLITION. PROVIDE ADDITIONAL SAW CUTTING, REMOVAL, TRENCHING, EXCAVATION, BACKFILL AND REPLACEMENT OF HARDSCAPE & SOFTSCAPE TO MATCH EXISTING TO COMPLETE WORK SHOWN.
 - REFER TO POWER AND LIGHTING PLANS FOR RELOCATED DEVICES AND NEW OR RELOCATED BRANCH CIRCUITING.
 - WHERE EQUIPMENT, LIGHTING, OUTLETS, ETC. ARE TO BE DEMOLISHED MAINTAIN CIRCUIT CONTINUITY AS REQUIRED FOR EQUIPMENT AND DEVICES TO REMAIN, INCLUDING THOSE OUTSIDE OF PROJECT LIMITS. COORDINATE WITH NEW WORK AND RE-ROUTE CONDUITS/CONDUCTORS TO AVOID CONFLICT WITH NEW WORK. ACCESS PANEL AND PULL BOXES EXPOSED TO PUBLIC VIEW ARE NOT ACCEPTABLE. PROVIDE NEW CONDUIT/CONDUCTORS TO MATCH SIZES AND QUANTITIES TO NEAREST DEVICE OR PULL BOX TO REMAIN.
 - PRIOR TO COMMENCEMENT OF DEMOLITION WORK, TRACE EXISTING BRANCH CIRCUITS SERVING OFFICE AREA AND DOCUMENT QUANTITY AND SIZES OF BRANCH CIRCUITS TO VERIFY AVAILABILITY FOR RE-USE WITH NEW OFFICE FURNITURE POWER POLES.
- ### KEY NOTES

 - EXISTING ELECTRICAL EQUIPMENT TO BE DISCONNECTED AND RETURNED TO OWNER. REMOVE ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.



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TITLE

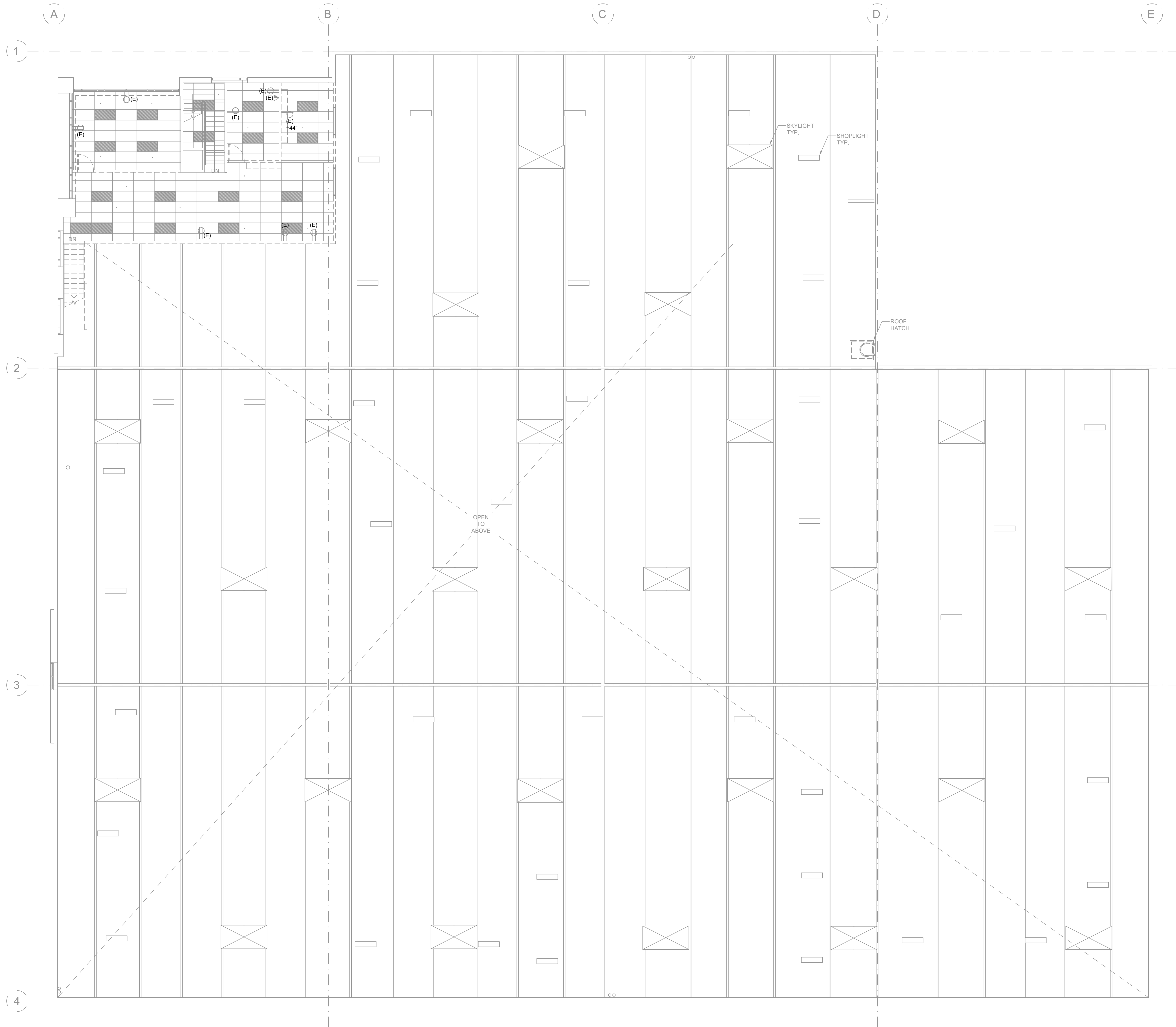
1ST FLOOR DEMO ELECTRICAL PLAN

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
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GENERAL NOTES

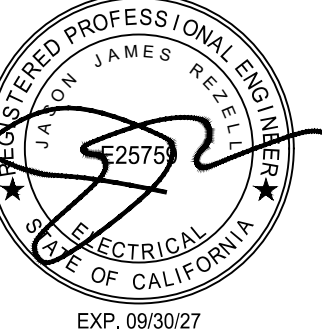
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2. WHEN CONDUITS PENETRATING FLOORS ARE BEING DEMOLISHED, PATCH SURFACES PER ARCHITECTURAL SPECIFIC REQUIREMENTS.
3. FIRE ALARM SYSTEM ARE TO REMAIN CONNECTED AND OPERABLE DURING CONSTRUCTION UNTIL NEW FIRE ALARM SYSTEM IS INSTALLED, UNLESS NOTED OTHERWISE.
4. WORK PERFORMED INCLUDES PROVISIONS AND COORDINATION OF FIRE WATCH DURING SYSTEM DOWNTIME DURING TRANSITION AND TIE IN WORK.
5. COORDINATE POWER SHUTDOWN PROCEDURES WITH OWNER'S REPRESENTATIVE, AND WORK TO BE SCHEDULED TO MINIMIZE ANY DISRUPTION DURING OPERATING HOURS.
6. REFER TO ARCHITECTURAL PLANS FOR LIMITS OF SITE DEMOLITION. PROVIDE ADDITIONAL SAW CUTTING, REMOVAL, TRENCHING, EXCAVATION, BACKFILL AND REPLACEMENT OF HARDSCAPE & SOFTSCAPE TO MATCH EXISTING TO COMPLETE WORK SHOWN.
7. REFER TO POWER AND LIGHTING PLANS FOR RELOCATED DEVICES AND NEW OR RELOCATED BRANCH CIRCUITING.
8. WHERE EQUIPMENT, LIGHTING, OUTLETS, ETC. ARE TO BE DEMOLISHED MAINTAIN CIRCUIT CONTINUITY AS REQUIRED FOR EQUIPMENT AND DEVICES TO REMAIN, INCLUDING THOSE OUTSIDE OF PROJECT LIMITS. COORDINATE WITH NEW WORK AND RE-ROUTE CONDUITS/CONDUCTORS TO AVOID CONFLICT WITH NEW WORK. ACCESS PANEL AND PULL BOXES EXPOSED TO PUBLIC VIEW ARE NOT ACCEPTABLE. PROVIDE NEW CONDUIT/CONDUCTORS TO MATCH SIZES AND QUANTITIES TO NEAREST DEVICE OR PULL BOX TO REMAIN.
9. PRIOR TO COMMENCEMENT OF DEMOLITION WORK, TRACE EXISTING BRANCH CIRCUITS SERVING OFFICE AREA AND DOCUMENT QUANTITY AND SIZES OF BRANCH CIRCUITS TO VERIFY AVAILABILITY FOR RE-USE WITH NEW OFFICE FURNITURE POWER POLES.



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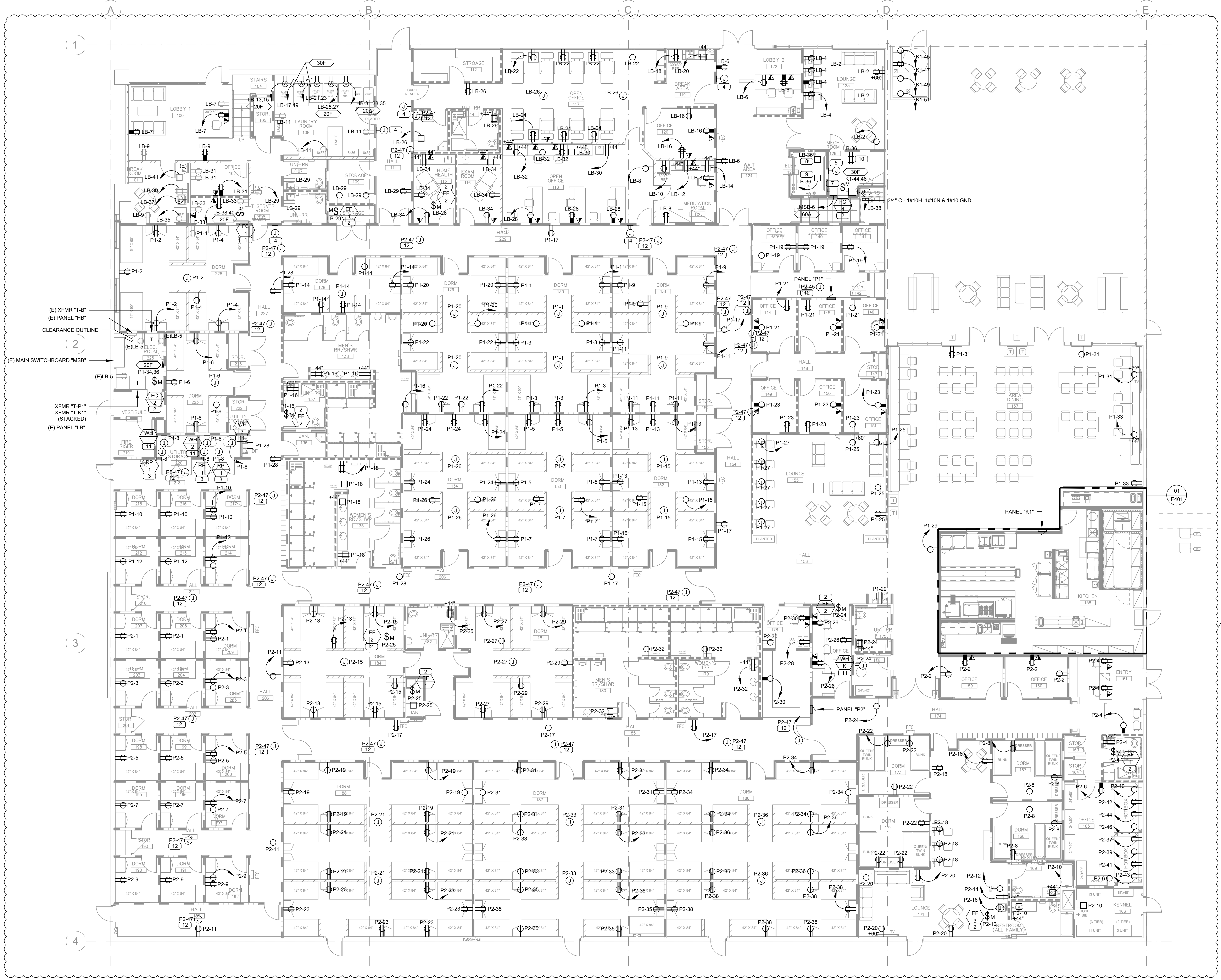
2ND FLOOR DEMO
ELECTRICAL PLAN

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
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Scale	AS NOTED

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GENERAL NOTES

1. WIRING SHOWN TO REPRESENT 1Ø/2Ø, 1Ø/12Ø & 1Ø/12Ø/ND UNLESS NOTED OTHERWISE BY PLAN NOTE. TICK MARKS OR FEEDER CALLOUT. PROVIDE SEPARATE NEUTRALS FOR ALL SINGLE-PHASE LOADS. MULTI-WIRE CIRCUITS SHARING NEUTRALS SHALL NOT BE UTILIZED.
2. ROUTE EXPOSED CONDUIT PARALLEL AND ORTHOGONAL TO THE STRUCTURAL MEMBERS, AND TIGHT TO STRUCTURE ABOVE TO MAXIMIZED CLEARANCE BELOW.
3. APPROXIMATE LOCATIONS TO INTERCEPT EXISTING CIRCUITS ARE SHOWN FROM RECORD DRAWINGS FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF DEVICE OR JUNCTION BOX AND VERIFY BRANCH CIRCUITS.
4. DEVICE/RECEPTACLE LOCATIONS AND ELEVATIONS SHOWN FOR CIRCUITING AND GENERAL ARRANGEMENT. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF DEVICES, AND ADDITIONAL DETAILS PRIOR TO ROUGH-IN.
5. PROVIDE GFCI TYPE RECEPTABLES WHERE RECEPTABLES ARE LOCATED ABOVE COUNTER OR BENCH TOP AND WITHIN 6' OF SINKS. RECEPTABLES SHALL BE MOUNTED MINIMUM OF 4" ABOVE COUNTER OR SINK.
6. NEW DEVICES SHALL BE FLUSH MOUNTED IN EXISTING WALLS. PROVIDE WALL CUTTING, PATCHING, AND PAINTING TO MATCH EXISTING. COORDINATE LOCATIONS AND WORK WITH ARCHITECTURAL PLANS.

PLAN CHECK PERFORMANCE NOTES

1. ALL RECEPTABLES IN WET AREAS SHALL BE OF THE GFCI TYPE. PER NEC ARTICLE 210.886 AND ARTICLE 406.9.
2. IN ALL AREAS SPECIFIED ALL NON-LOOKING TYPE 125VAC 15/20 AMP RECEPTABLES SHALL BE LISTED AS "TAMPER RESISTANT" RECEPTABLE. AS PER NEC ARTICLE 406.12.
3. IN ALL AREAS SPECIFIED IN NEC ARTICLE 210.12 ALL RECEPTABLES SHALL BE LISTED AS AFCI.
4. ALL EQUIPMENT, WIRING, LIGHTING, ETC. INSTALLED IN DUCTS AND PLENUMS SHALL BE RATED ACCORDINGLY. AS PER CMC SECTION 602.2 AND CEC ARTICLE 300.22.

KEY NOTES

1. PROVIDE MOTOR RATED TOGGLE TYPE DISCONNECT SWITCH AND POWER CONNECTION TO BRANCH CIRCUIT AS SHOWN FOR INDOOR FAN COIL UNIT. UNIT TO RECEIVE POWER FROM CONDENSING UNIT LOCATED ON ROOF. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
2. PROVIDE MOTOR RATED TOGGLE TYPE DISCONNECT SWITCH AND POWER CONNECTION TO BRANCH CIRCUIT AS SHOWN FOR EXHAUST FAN. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
3. PROVIDE MOTOR RATED TOGGLE TYPE DISCONNECT SWITCH AND POWER CONNECTION TO BRANCH CIRCUIT AS SHOWN FOR RECIRCULATION PUMP. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH PLUMBING INSTALLER PRIOR TO ROUGH-IN.
4. PROVIDE 1/2" CONDUIT STUB FOR CARD READER DEVICE. COORDINATE FINAL LOCATION, BACKBOX REQUIREMENTS, AND CABLING WITH SECURITY VENDOR PRIOR TO ROUGH-IN.
5. PROVIDE JUNCTION BOX FOR ELEVATOR CAB TELEPHONE CONNECTION. COORDINATE ROUTING WITH MANUFACTURER.
6. PROVIDE LOCKABLE 3ØA, 1-POLE NEMA 1 NON-FUSED DISCONNECT SWITCH CAPABLE OF BEING LOCKED "OFF" FOR ELEVATOR CAB LIGHT/POWER. VERIFY REQUIREMENTS WITH MANUFACTURER. PROVIDE ENGRAVED COVERPLATE STATING "ELEVATOR CAB LIGHTS".
7. PROVIDE 8ØA, 3-POLE, NEMA 1 DISCONNECT SWITCH WITH FUSES PER MANUFACTURER'S RECOMMENDATIONS FOR ELEVATOR MOTOR. COORDINATE LOCATION WITH MANUFACTURER AND CODE REQUIREMENTS. PROVIDE AUXILIARY CONTACTS (1 Ø/1Ø) AND INTERCONNECT TO ELEVATOR LOWERING SYSTEM. REFER TO SINGLE LINE DIAGRAM ON SHEET E501 FOR ADDITIONAL INFORMATION.
8. PROVIDE DUPLEX GFCI RECEPTACLE MOUNTED HALF WAY UP ELEVATOR SHAFT WHERE REQUIRED BY MANUFACTURER AND CODE.
9. PROVIDE DUPLEX GFCI RECEPTACLE MOUNTED AT TOP OF ELEVATOR SHAFT WHERE REQUIRED BY MANUFACTURER AND CODE.
10. PROVIDE DUPLEX GFCI RECEPTACLE IN ELEVATOR MACHINE ROOM. LOCATE PER MANUFACTURER AND CODE REQUIREMENTS.
11. PROVIDE HARD WIRE CONNECTION TO WATER HEATER IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. COORDINATE WITH PLUMBING INSTALLER FOR EXACT LOCATION AND ADDITIONAL REQUIREMENTS PRIOR TO ROUGH-IN.
12. PROVIDE CONNECTION TO FIRE SMOKE DAMPER IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. COORDINATE WITH MECHANICAL DRAWINGS AND INSTALLER THE EXACT LOCATION. QUANTITY AND ADDITIONAL REQUIREMENTS PRIOR TO ROUGH-IN.

STAMP

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REGISTERED PROFESSIONAL ENGINEER

ELECTRICAL

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EXP. 09/30/27

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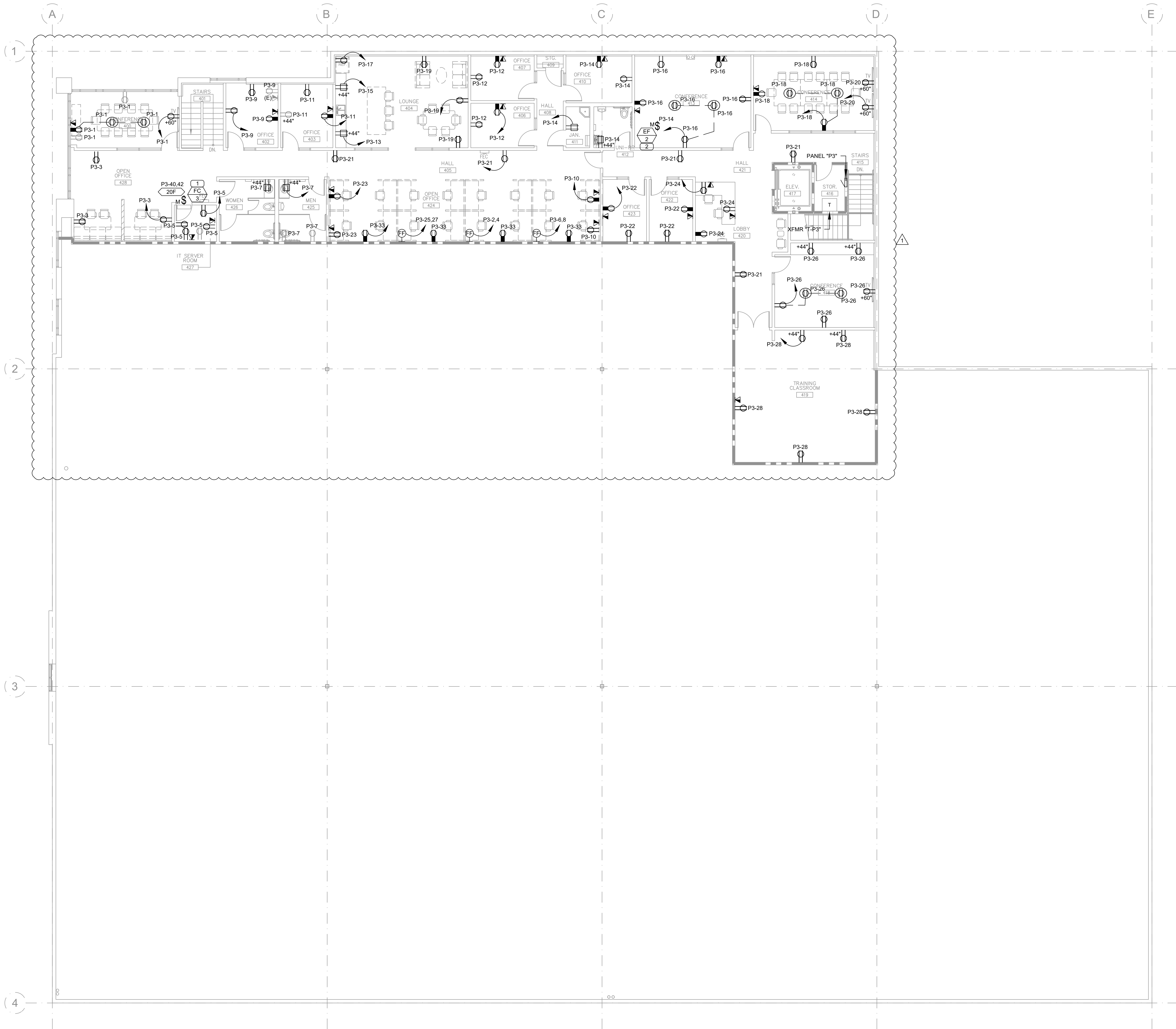
1ST FLOOR POWER
PLAN

Revisions By Date
△ PC CORR1/BID ISSUE 1 LEI 4/29/26

Drawn LEI
Date 04/29/2026
Project No. LEI # 25039
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GENERAL NOTES

- 1. WIRING SHOWN TO REPRESENT 1Ø12Ø, 1Ø12Ø & 1Ø12ØND UNLESS NOTED OTHERWISE BY PLAN NOTE, TICK MARKS OR FEEDER CALLOUT. PROVIDE SEPARATE NEUTRALS FOR ALL SINGLE-PHASE LOADS. MULTI-WIRE CIRCUITS SHARING NEUTRALS SHALL NOT BE UTILIZED.
- 2. ROUTE EXPOSED CONDUIT PARALLEL AND ORTHOGONAL TO THE STRUCTURAL MEMBERS, AND TIGHT TO STRUCTURE ABOVE TO MAXIMIZED CLEARANCE BELOW.
- 3. APPROXIMATE LOCATIONS TO INTERCEPT EXISTING CIRCUITS ARE SHOWN FROM RECORD DRAWINGS FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF DEVICE OR JUNCTION BOX AND VERIFY BRANCH CIRCUITS.
- 4. DEVICE/RECEPTACLE LOCATIONS AND ELEVATIONS SHOWN FOR CIRCUITING AND GENERAL ARRANGEMENT. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF DEVICES, AND ADDITIONAL DETAILS PRIOR TO ROUGH-IN.
- 5. PROVIDE GFCI TYPE RECEPTACLES WHERE RECEPTACLES ARE LOCATED ABOVE COUNTER OR BENCH TOP AND WITHIN 6' OF SINKS. RECEPTACLES SHALL BE MOUNTED MINIMUM OF 4" ABOVE COUNTER OR SINK.
- 6. NEW DEVICES SHALL BE FLUSH MOUNTED IN EXISTING WALLS. PROVIDE WALL CUTTING, PATCHING, AND PAINTING TO MATCH EXISTING. COORDINATE LOCATIONS AND WORK WITH ARCHITECTURAL PLANS.

PLAN CHECK PERFORMANCE NOTES

- 1. ALL RECEPTACLES IN WET AREAS SHALL BE OF THE GFCI TYPE, PER NEC ARTICLE 210.8B6 AND ARTICLE 406.9.
- 2. IN ALL AREAS SPECIFIED ALL NON-LOCKING TYPE 125VAC 15/20 AMPS RECEPTACLES SHALL BE LISTED AS "TAMPER RESISTANT" RECEPTACLE, AS PER NEC ARTICLE 406.12.
- 3. IN ALL AREAS SPECIFIED IN NEC ARTICLE 210.12 ALL RECEPTACLES SHALL BE LISTED AS AFCI.
- 4. ALL EQUIPMENT, WIRING, LIGHTING, ETC. INSTALLED IN DUCTS AND PLENUMS SHALL BE RATED ACCORDINGLY, AS PER CMC SECTION 602.2 AND CEC ARTICLE 300.22.

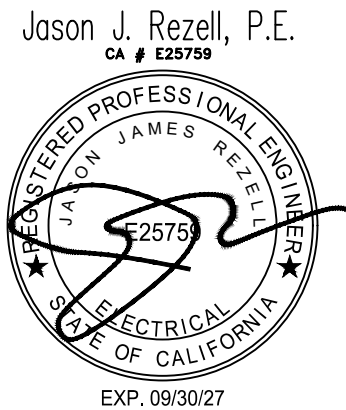
KEY NOTES

- 1. PROVIDE MOTOR RATED TOGGLE TYPE DISCONNECT SWITCH AND POWER CONNECTION TO BRANCH CIRCUIT AS SHOWN FOR INDOOR FAN COIL UNIT. UNIT TO RECEIVE POWER FROM CONDENSING UNIT LOCATED ON ROOF. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- 2. PROVIDE MOTOR RATED TOGGLE TYPE DISCONNECT SWITCH AND POWER CONNECTION TO BRANCH CIRCUIT AS SHOWN FOR EXHAUST FAN. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.



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PROJECT

WESTEND NAVIGATION CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



TITLE

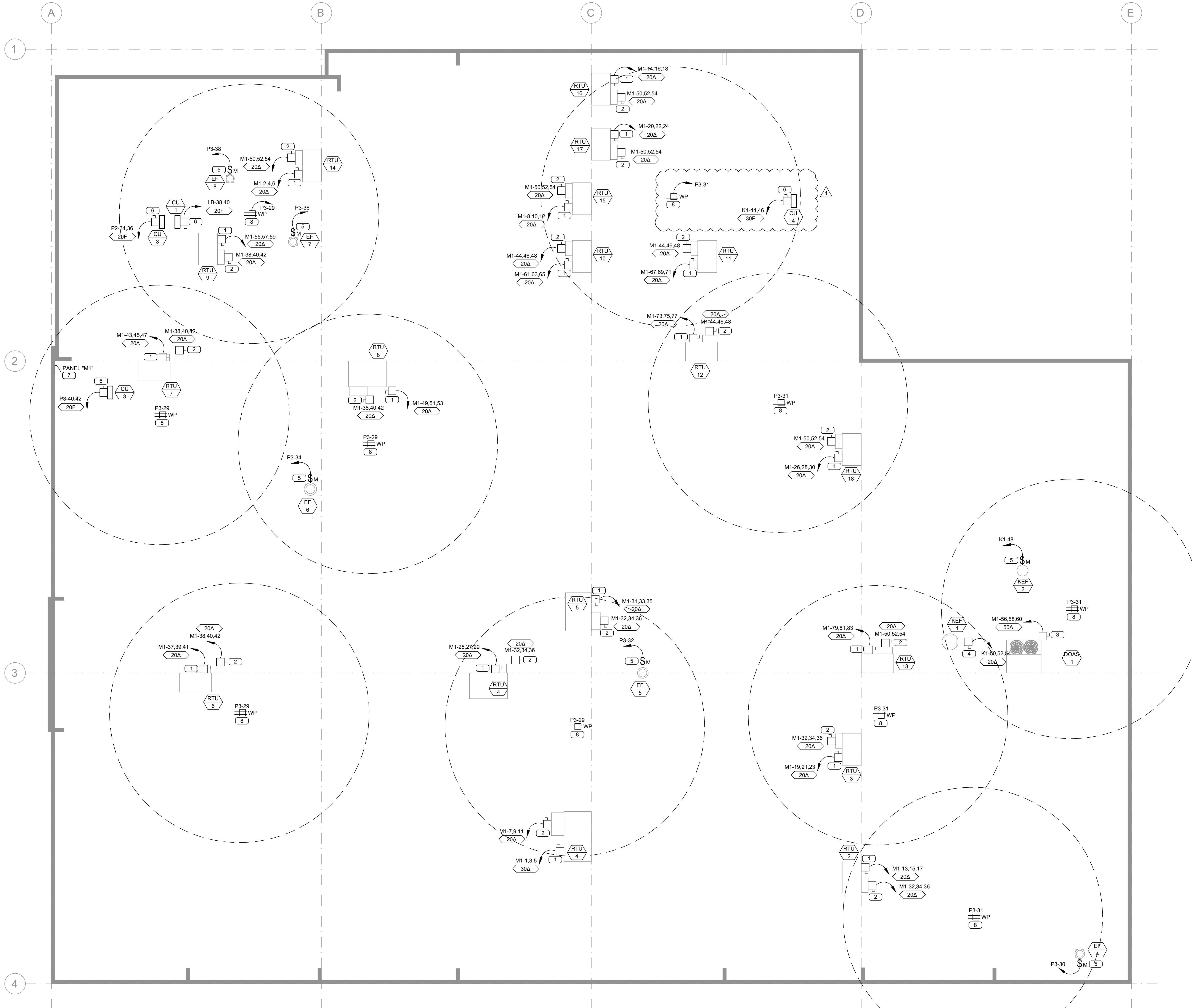
2ND FLOOR POWER PLAN

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

E202



GENERAL NOTES

1. WIRING SHOWN TO REPRESENT 1Ø12H, 1Ø12N & 1Ø12ND UNLESS NOTED OTHERWISE BY PLAN NOTE. TICK MARKS OR FEEDER CALLOUT. PROVIDE SEPARATE NEUTRALS FOR ALL SINGLE-PHASE LOADS. MULTI-WIRE CIRCUITS SHARING NEUTRALS SHALL NOT BE UTILIZED.
2. ROUTE EXPOSED CONDUIT PARALLEL AND ORTHOGONAL TO THE STRUCTURAL MEMBERS, AND TIGHT TO STRUCTURE ABOVE TO MAXIMIZED CLEARANCE BELOW.
3. APPROXIMATE LOCATIONS TO INTERCEPT EXISTING CIRCUITS ARE SHOWN FROM RECORD DRAWINGS FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF DEVICE OR JUNCTION BOX AND VERIFY BRANCH CIRCUITS.
4. DEVICE/RECEPTACLE LOCATIONS AND ELEVATIONS SHOWN FOR CIRCUITING AND GENERAL ARRANGEMENT. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF DEVICES, AND ADDITIONAL DETAILS PRIOR TO ROUGH-IN.
5. PROVIDE GFCI TYPE RECEPTACLES WHERE RECEPTACLES ARE LOCATED ABOVE COUNTER OR BENCH TOP AND WITHIN 6' OF SINKS. RECEPTACLES SHALL BE MOUNTED MINIMUM OF 4" ABOVE COUNTER OR SINK.
6. NEW DEVICES SHALL BE FLUSH MOUNTED IN EXISTING WALLS. PROVIDE WALL CUTTING, PATCHING, AND PAINTING TO MATCH EXISTING. COORDINATE LOCATIONS AND WORK WITH ARCHITECTURAL PLANS.

KEY NOTES

1. PROVIDE 30A, 480V, 3-POLE FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT. PROVIDE FUSES AS REQUIRED PER MANUFACTURER'S NAMEPLATE RATING. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE PHENOLIC LABELING TO INCLUDE DEVICE NAME, UPSTREAM EQUIPMENT, VOLTAGE, PHASE AND AMPERAGE.
2. PROVIDE 30A, 480V, 3-POLE FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT POWER EXHAUST. PROVIDE FUSES AS REQUIRED PER MANUFACTURER'S NAMEPLATE RATING. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE PHENOLIC LABELING TO INCLUDE DEVICE NAME, UPSTREAM EQUIPMENT, VOLTAGE, PHASE AND AMPERAGE.
3. PROVIDE 100A, 480V, 3-POLE FUSED DISCONNECT SWITCH FOR MECHANICAL DOAS UNIT. PROVIDE FUSES AS REQUIRED PER MANUFACTURER'S NAMEPLATE RATING. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE PHENOLIC LABELING TO INCLUDE DEVICE NAME, UPSTREAM EQUIPMENT, VOLTAGE, PHASE AND AMPERAGE.
4. PROVIDE 30A, 208V, 3-POLE FUSED DISCONNECT SWITCH FOR EXHAUST FAN. PROVIDE FUSES AS REQUIRED PER MANUFACTURER'S NAMEPLATE RATING. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE PHENOLIC LABELING TO INCLUDE DEVICE NAME, UPSTREAM EQUIPMENT, VOLTAGE, PHASE AND AMPERAGE.
5. PROVIDE MOTOR RATED TOGGLE TYPE DISCONNECT SWITCH AND POWER CONNECTION TO BRANCH CIRCUIT AS SHOWN FOR EXHAUST FAN. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE PHENOLIC LABELING TO INCLUDE DEVICE NAME, UPSTREAM EQUIPMENT, VOLTAGE, PHASE AND AMPERAGE.
6. PROVIDE 30A, 208V, 2-POLE, NEMA 3R FUSED DISCONNECT SWITCH FOR MECHANICAL UNIT. PROVIDE FUSES AS REQUIRED PER MANUFACTURER'S NAMEPLATE RATING. PROVIDE MINIMUM 3/4" CONDUIT ROUTED TO INDOOR UNIT FOR CONTROL WIRING. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE NEMA 3R, 84-CIRCUIT PANELBOARD FOR ROOFTOP INSTALLATION. MOUNT ON UNISTRUT FRAME OR STRUCTURAL SUPPORT STAND, ELEVATED ABOVE ROOF SURFACE TO MAINTAIN ROOF WARRANTY AND DRAINAGE. PROVIDE SEISMIC ANCHORAGE PER CBC REQUIREMENTS. MAINTAIN NEC REQUIRED WORKING CLEARANCES. USE WEATHERPROOF FITTINGS AND RAIN-TIGHT HUBS FOR ALL ROOFTOP PENETRATIONS. COORDINATE FINAL LOCATION AND SUPPORT DETAILS WITH STRUCTURAL AND ROOFING CONTRACTOR PRIOR TO INSTALLATION.
8. PROVIDE ROOFTOP MAINTENANCE RECEPTACLE PER CEC 210.63. RECEPTACLE SHALL BE GFCI-PROTECTED PER CEC 210.8(B) AND WEATHER-RESISTANT WITH IN-USE COVER (NEMA 3R). MOUNT ADJACENT TO ROOFTOP EQUIPMENT OR, IF LOCATED MID-ROOF, INSTALL ON UNISTRUT SUPPORT FRAME ELEVATED ABOVE ROOF SURFACE. COORDINATE FINAL LOCATION AND SUPPORT METHOD WITH MECHANICAL AND ROOFING CONTRACTOR PRIOR TO INSTALLATION.

ELECTRICAL ROOF PLAN

1/8" = 1'-0"

01

STAMP

Jason J. Rezell, P.E.

CA # 025758

PROFESSIONAL ENGINEER

ELECTRICAL

STATE OF CALIFORNIA

EXP. 09/30/27

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PROJECT

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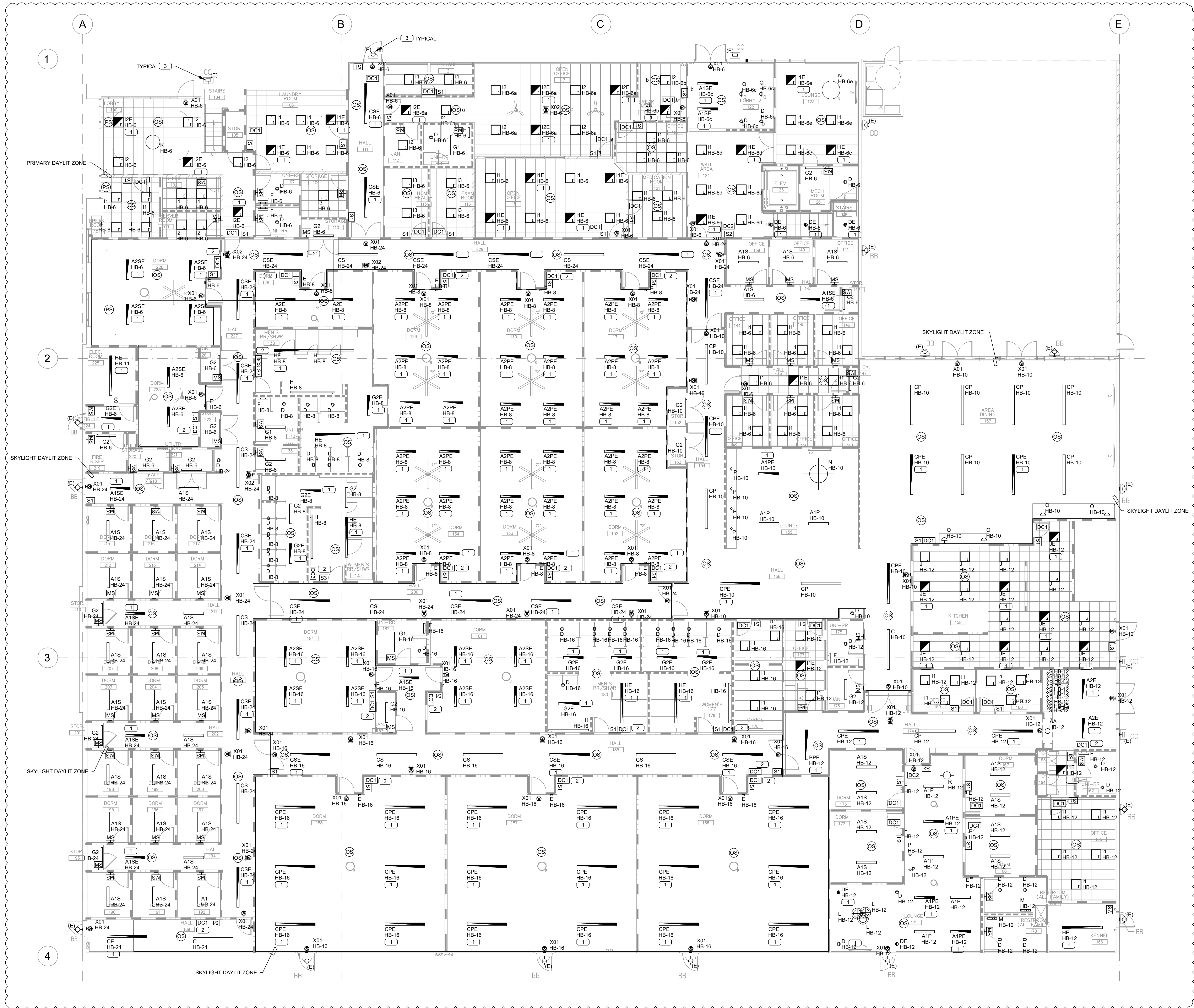
**ELECTRICAL ROOF
PLAN**

Revisions	By	Date
Δ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

E211



GENERAL NOTES

1. WIRING SHOWN TO REPRESENT 1/12", 1/12" & 1/12" UNLESS NOTED OTHERWISE BY PLAN NOTE. TICK MARKS OR FEEDER CALLOUT. PROVIDE SEPARATE NEUTRALS FOR ALL SINGLE-PHASE LOADS. MULTI-WIRE CIRCUITS SHARING NEUTRALS SHALL NOT BE UTILIZED.
2. ROUTE EXPOSED CONDUIT PARALLEL AND ORTHOGONAL TO THE STRUCTURAL MEMBERS, AND TIGHT TO STRUCTURE ABOVE TO MAXIMIZED CLEARANCE BELOW.
3. REFER TO THE LIGHTING SEQUENCE OF OPERATIONS FOR MANUAL AND AUTOMATIC CONTROL OF LIGHTING FIXTURES BY AREA.
4. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, FLOOR PLANS, AND ELEVATIONS FOR EXACT LIGHTING FIXTURE & CONTROL DEVICE LOCATIONS, CEILING TYPES AND MOUNTING HEIGHTS.

PLAN CHECK PERFORMANCE NOTES

1. ALL EQUIPMENT, WIRING, LIGHTING, ETC. INSTALLED IN DUCTS AND PLENUMS SHALL BE RATED ACCORDINGLY. AS PER CMC SECTION 602.2 AND CEC ARTICLE 300.22.

KEY NOTES

1. LIGHTING FIXTURES SHOWN HATCHED ARE EQUIPPED WITH AN INTEGRAL BATTERY PACK CAPABLE OF PROVIDING MINIMUM 90 MINUTES OF EMERGENCY POWER. FIXTURE SHALL REMAIN SWITCHABLE UNDER NORMAL OPERATION AND SHALL SWITCH TO FULL BRIGHT UPON LOSS OF POWER.
2. MOUNT ROOM CONTROLLER HIGH ON WALL OR IN NEAREST ACCESSIBLE CEILING SPACE.
3. EXISTING LIGHT FIXTURES TO REMAIN IN PLACE. CONTRACTOR SHALL INSPECT THE FIXTURE AND TEST THE BATTERY PACKS, HAVE REFLECTORS AND LENSES CLEANED, REPAIR OR REPLACE BROKEN OR PARTS, RECHARGE BATTERIES AND REPLACE AS NEEDED TO ENSURE A COMPLETE AND OPERABLE LIGHTING SYSTEM.

STAMP

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CA # 123758

REGISTERED PROFESSIONAL ENGINEER

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EXP. 09/30/27

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PROJECT

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TITLE

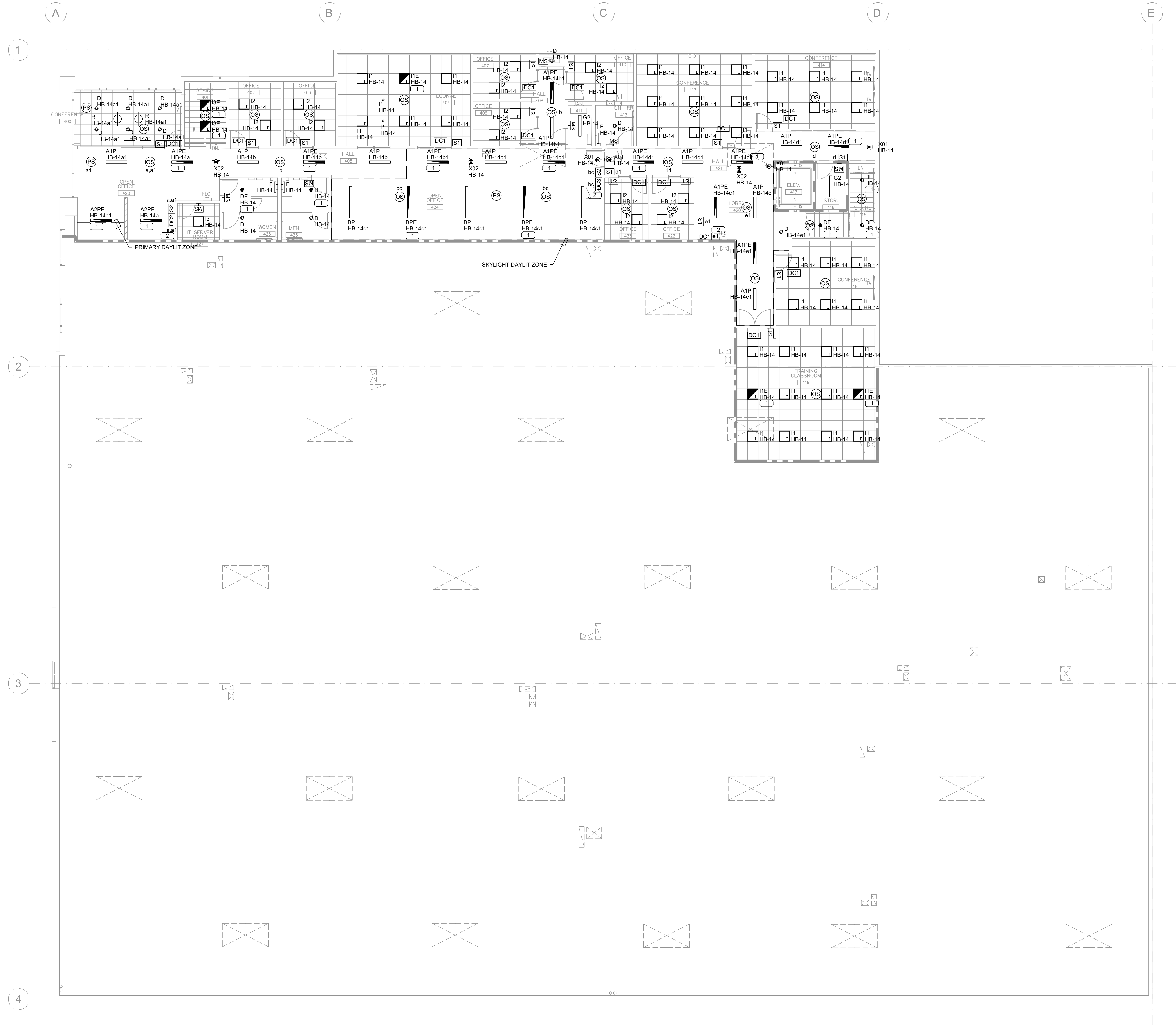
1ST FLOOR LIGHTING PLAN

Revisions	By	Date
1	PC CORR1/BID ISSUE 1	LEI 4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

E301



GENERAL NOTES

1. WIRING SHOWN TO REPRESENT 14/2, 14/3 & 14/30 UNLESS NOTED OTHERWISE BY PLAN NOTE, TICK MARKS OR FEEDER CALLOUT. PROVIDE SEPARATE NEUTRALS FOR ALL SINGLE-PHASE LOADS. MULTI-WIRE CIRCUITS SHARING NEUTRALS SHALL NOT BE UTILIZED.
2. ROUTE EXPOSED CONDUIT PARALLEL AND ORTHOGONAL TO THE STRUCTURAL MEMBERS, AND TIGHT TO STRUCTURE ABOVE TO MAXIMIZED CLEARANCE BELOW.
3. REFER TO THE LIGHTING SEQUENCE OF OPERATIONS FOR MANUAL AND AUTOMATIC CONTROL OF LIGHTING FIXTURES BY AREA.
4. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, FLOOR PLANS, AND ELEVATIONS FOR EXACT LIGHTING FIXTURE & CONTROL DEVICE LOCATIONS, CEILING TYPES AND MOUNTING HEIGHTS.

PLAN CHECK PERFORMANCE NOTES

1. ALL EQUIPMENT, WIRING, LIGHTING, ETC. INSTALLED IN DUCTS AND PLENUMS SHALL BE RATED ACCORDINGLY, AS PER CMC SECTION 602.2 AND CEC ARTICLE 300.22

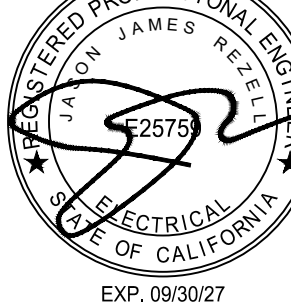
KEY NOTES

1. LIGHTING FIXTURES SHOWN HATCHED ARE EQUIPPED WITH AN INTEGRAL BATTERY PACK CAPABLE OF PROVIDING MINIMUM 90 MINUTES OF EMERGENCY POWER. FIXTURE SHALL REMAIN SWITCHABLE UNDER NORMAL OPERATION AND SHALL SWITCH TO FULL BRIGHT UPON LOSS OF POWER.
2. MOUNT ROOM CONTROLLER HIGH ON WALL OR IN NEAREST ACCESSIBLE CEILING SPACE.

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2ND FLOOR LIGHTING PLAN

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

E302

STAMP

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PROJECT

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11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

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TITLE

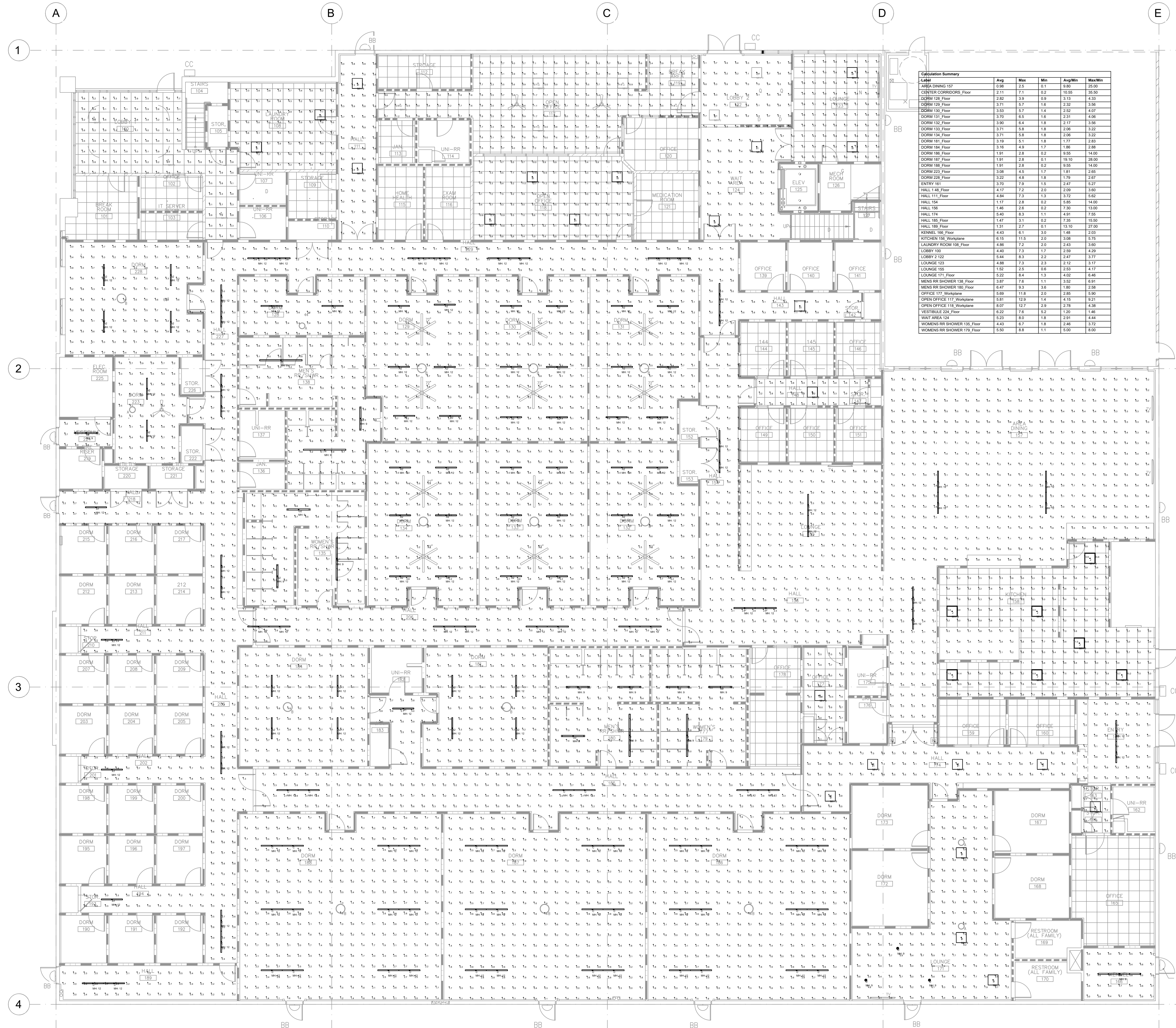
**1ST FLOOR EGRESS
PLAN**

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

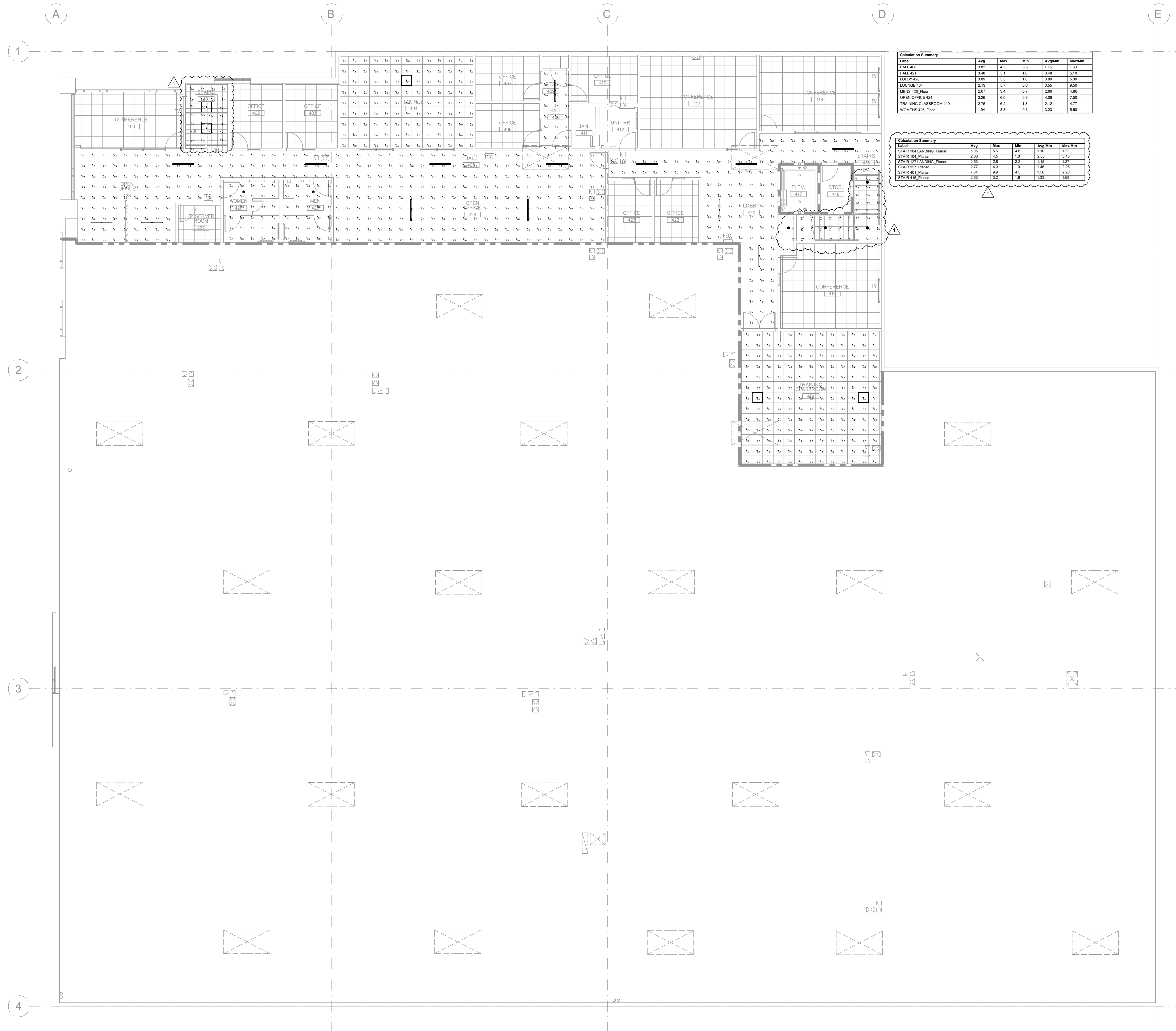
Drawn LEI
Date 04/29/2026
Project No. LEI # 25039
Scale AS NOTED

Sheet

E303



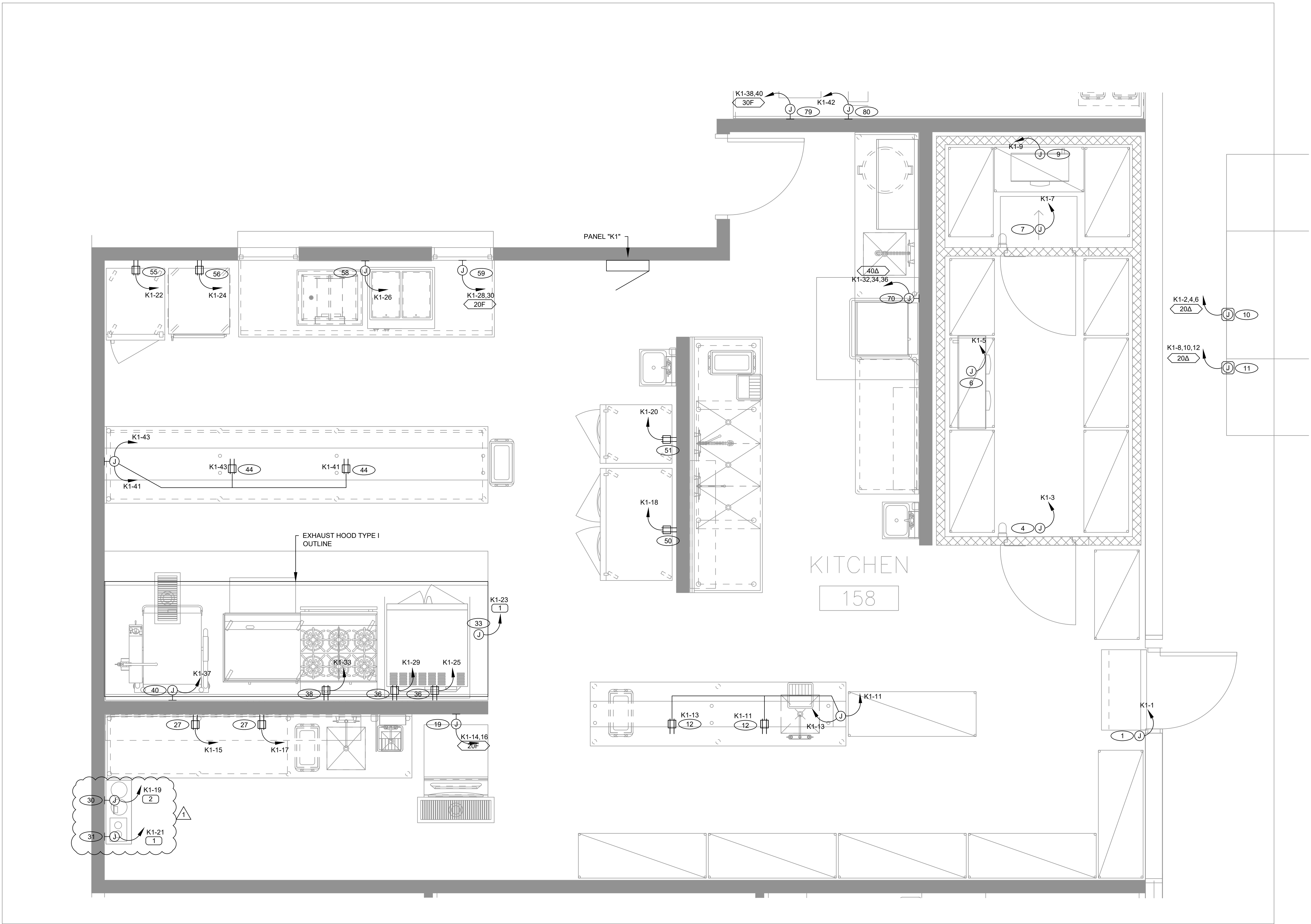
Label	Avg	Max	Min	AvghMin	MaxMin
AREA DRIVING SP	0.98	2.5	0.1	0.80	25.00
CENTER CORRIDORS Floor	2.11	7.1	0.2	10.50	35.00
DORM 128 Floor	2.80	3.9	0.9	3.13	4.33
DORM 129 Floor	3.71	5.7	1.8	2.32	3.58
DORM 130 Floor	3.83	5.7	1.4	2.82	4.07
DORM 131 Floor	3.70	6.5	1.6	2.31	4.08
DORM 132 Floor	3.90	5.4	1.9	2.17	3.56
DORM 133 Floor	3.71	5.8	1.8	2.06	3.32
DORM 134 Floor	3.71	5.8	1.8	2.06	3.32
DORM 135 Floor	3.19	5.1	1.9	1.77	2.83
DORM 136 Floor	3.16	4.9	1.7	1.86	2.88
DORM 137 Floor	1.91	2.8	0.2	0.98	14.00
DORM 138 Floor	1.91	2.8	0.1	19.10	26.00
DORM 139 Floor	1.91	2.8	0.2	0.55	14.00
DORM 228 Floor	3.08	4.5	1.7	1.81	2.55
DORM 229 Floor	3.22	4.8	1.8	1.79	2.87
ENTRY 161	3.70	7.9	1.5	2.47	5.27
HALL 148 Floor	4.17	7.2	2.0	0.99	3.00
HALL 111 Floor	4.84	7.3	1.3	3.72	5.52
HALL 154	1.17	2.8	0.2	0.85	14.00
HALL 155	1.46	2.8	0.2	7.20	15.00
HALL 174	6.40	8.3	1.1	4.91	7.55
HALL 185 Floor	1.47	3.1	0.2	7.38	15.00
HALL 186 Floor	1.31	2.7	0.1	13.10	25.00
KENNEL 168 Floor	4.43	6.1	3.0	1.48	2.03
KITCHEN 116 Workplane	6.19	11.0	2.0	3.08	5.75
LAUNDRY ROOM 108 Floor	4.86	7.2	2.0	2.43	3.90
LOBBY 100	4.40	7.3	1.7	2.39	4.28
LOBBY 112	5.44	8.3	2.2	2.47	3.77
LOBBY 123	4.88	7.3	2.3	2.12	3.17
LOBBY 151 Floor	1.92	2.5	0.8	2.83	4.17
LOBBY 171 Floor	5.22	8.4	1.3	4.02	6.46
MENS RR SHOWER 138 Floor	3.87	7.6	1.1	3.52	6.91
MENS RR SHOWER 182 Floor	6.47	8.5	3.8	1.88	2.58
OFFICE 117 Workplane	5.89	11.8	2.0	2.85	5.30
OPEN OFFICE 117 Workplane	5.81	12.9	1.4	4.15	8.21
OPEN OFFICE 118 Workplane	6.07	12.7	2.9	2.75	4.38
VESTIBULE 228 Floor	6.22	7.8	5.2	1.20	1.48
WAIT AREA 174	6.23	8.0	1.8	2.91	4.44
WOMENS RR SHOWER 135 Floor	4.43	8.7	1.9	2.46	3.72
WOMENS RR SHOWER 171 Floor	5.50	8.8	1.1	5.00	8.00



Calculation Summary					
Label	Avg	Max	Min	AvgMin	MaxMin
HALL 400	3.82	4.3	3.3	1.16	1.30
HALL 421	3.45	5.1	1.0	3.45	5.10
LOBBY 420	3.89	5.9	1.0	3.89	5.90
COUNSEL 404	2.13	5.7	0.6	3.55	5.60
MEN 425 Floor	2.07	3.4	0.7	2.95	4.86
OPEN OFFICE 424	3.26	6.0	0.8	4.08	7.50
TRAINING CLASSROOM 419	2.75	6.5	1.3	2.72	4.77
WOMENS 425 Floor	1.94	3.3	0.8	3.23	5.50

Calculation Summary					
Label	Avg	Max	Min	AvgMin	MaxMin
STAIR 104 LANDING, Planar	2.55	3.8	1.6	1.55	1.75
STAIR 104 Planar	2.86	4.5	1.3	2.05	3.46
STAIR 127 LANDING, Planar	2.75	2.8	2.2	1.15	1.27
STAIR 127 Planar	2.77	4.3	1.9	1.46	2.36
STAIR 407, Planar	7.00	9.0	4.5	1.50	2.30
STAIR 415, Planar	2.53	3.2	1.9	1.33	1.88

KITCHEN EQUIPMENT SCHEDULE											
ITEM NO.	QTY	DESCRIPTION	MANUFACTURER	MODEL NUMBER	ROUGH-IN	VOLTS	PHASE	AMPS	KVA	GFCI PROTECTION	ELECTRICAL REMARKS
1	1	AIR CURTAIN	MARS AIR SYSTEMS	STD236-1UA-OB	J-BOX	120	1	5.1	0.6	J-BOX	WIRE THRU DOOR ACTIVATED MRCO-SWITCH
4	1	WALK-IN COOLER	KOLPAK	CUSTOM	J-BOX	120	1	5.0	0.6	J-BOX	WIRE THRU V.P. LIGHTS AND SWITCH
6	1	EVAPORATOR COIL (COOLER)	CUSTOM	REF	J-BOX	120	1	10.0	1.2	J-BOX	
7	1	WALK-IN FREEZER	KOLPAK	CUSTOM	J-BOX	120	1	10.0	1.2	J-BOX	WIRE THRU V.P. LIGHTS AND HEAT STRIPS
9	1	EVAPORATOR COIL (FREEZER)	CUSTOM	REF	J-BOX	120	1	10.0	1.2	J-BOX	
10	1	REMOTE CONDENSING UNIT	VERIFY	CUSTOM	J-BOX	208	3	12.5	4.5	J-BOX	
11	1	REMOTE CONDENSING UNIT	VERIFY	CUSTOM	J-BOX	208	3	12.5	4.5	J-BOX	
12	1	PREP TABLE W/ PREP SINK	CUSTOM	S/S FAB	DUPLEX	120	1	20.0	2.4	PLUG	(2) DEDICATED RECEPTACLES
19	1	ICE MAKER	MANTOWOC	ITY0900A	J-BOX	208	1	9.5	2.0	J-BOX	
27	1	PREP TABLE W/ PREP SINK	CUSTOM	S/S FAB	DUPLEX	120	1	20.0	2.4	PLUG	(2) DEDICATED RECEPTACLES
30	1	FIRE SUPPRESSION SYSTEM	CAPTIVE AIRE	CUSTOM	J-BOX	120	1	8.0	1.0	J-BOX	
31	1	EXHAUST HOOD CONTROL PANEL	CAPTIVE AIRE	CUSTOM	J-BOX	120	1	10.0	1.2	J-BOX	REFER TO EXHAUST HOOD SHOP DRAWINGS
33	1	EXHAUST HOOD (TYPE 1)	CAPTIVE AIRE	S/S FAB	J-BOX	120	1	5.0	0.6	J-BOX	WIRE THRU V.P. LIGHTS AND SWITCH
36	1	DOUBLE CONVECTION OVEN	GARLAND	MCO-GS-20M	DUPLEX	120	1	19.6	2.4	PLUG	REQ'S PER EACH DECK
38	1	REFRIGERATED BASE	TRUE	TRCB-72-HC	DUPLEX	120	1	9.9	1.2	PLUG	
40	1	TILT SKILLER	CLEVELAND RANGE	SGL-30-T1	J-BOX	120	1	6.0	0.7	J-BOX	
44	1	CHEF'S TABLE	CUSTOM	S/S FAB	DUPLEX	120	1	20.0	2.4	PLUG	(2) DEDICATED RECEPTACLES
50	1	REACH-IN REFRIGERATOR	TRUE	STA2R-2S-HC	DUPLEX	120	1	9.4	1.1	PLUG	
51	1	REACH-IN FREEZER	TRUE	STA1F-1S-HC	DUPLEX	120	1	6.0	0.7	PLUG	
55	1	REACH-IN REFRIGERATOR	TRUE	STA1R-1G-HC	DUPLEX	120	1	3.8	0.5	PLUG	
56	1	HOT HOLDING CABINET	METRO	C569-SDS-U	DUPLEX	120	1	16.7	2.0	PLUG	
58	1	DROP-IN COLD PAN	DELFIELD	N8130BP	J-BOX	120	1	2.0	0.2	J-BOX	
59	1	FOOD WELL	WELLS	MOD-200TDM	J-BOX	208	1	8.7	1.8	J-BOX	
70	1	HIGHT TEMP DISHWASHER	HOBART	CH-1	J-BOX	208	3	35.0	12.6	J-BOX	
79	1	AIR POT BREWER	FETCO	C53016	J-BOX	208	1	22.2	4.6	J-BOX	
80	1	I.T. BREWER	FETCO	M1221US-1A117-FW001	J-BOX	120	1	14.7	1.8	J-BOX	



GENERAL NOTES

1. WIRING SHOWN TO REPRESENT 1Ø12Ø, 1Ø12Ø & 1Ø12ØND UNLESS NOTED OTHERWISE BY PLAN NOTE, TICK MARKS OR FEEDER CALLOUT. PROVIDE SEPARATE NEUTRALS FOR ALL SINGLE-PHASE LOADS. MULTI-WIRE CIRCUITS SHARING NEUTRALS SHALL NOT BE UTILIZED.
2. ROUTE EXPOSED CONDUIT PARALLEL AND ORTHOGONAL TO THE STRUCTURAL MEMBERS, AND TIGHT TO STRUCTURE ABOVE TO MAXIMIZED CLEARANCE BELOW.
3. APPROXIMATE LOCATIONS TO INTERCEPT EXISTING CIRCUITS ARE SHOWN FROM RECORD DRAWINGS FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF DEVICE OR JUNCTION BOX AND VERIFY BRANCH CIRCUITS.
4. DEVICE/RECEPTACLE LOCATIONS AND ELEVATIONS SHOWN FOR CIRCUITING AND GENERAL ARRANGEMENT. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF DEVICES, AND ADDITIONAL DETAILS PRIOR TO ROUGH-IN.
5. LOCATED GFCI TYPE RECEPTACLES WHERE RECEPTACLES ARE LOCATED ABOVE COUNTER OR BENCH TOP AND WITHIN 6' OF SINKS. RECEPTACLES SHALL BE MOUNTED MINIMUM OF 4" ABOVE COUNTER OR SINK.
6. NEW DEVICES SHALL BE FLUSH MOUNTED IN EXISTING WALLS. PROVIDE WALL CUTTING, PATCHING, AND PAINTING TO MATCH EXISTING. COORDINATE LOCATIONS AND WORK WITH ARCHITECTURAL PLANS.
7. COMPLY WITH CEC 2025 ARTICLE 210.8.B: "ALL 125 VOLT THROUGH 250 VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS, INSTALLED IN THE LOCATIONS LISTED IN 210.8.B.1 TO B12 SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL."

KEY NOTES

1. PROVIDE POWER CONNECTION TO TYPE 1 HOOD CONTROL PANEL AS SHOWN. CONTROL PANEL SHALL SERVE EXHAUST FAN, MAKE-UP AIR UNIT, AND ASSOCIATED EQUIPMENT. COORDINATE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENTS WITH HOOD MANUFACTURER, MECHANICAL CONTRACTOR, AND ARCHITECT PRIOR TO ROUGH-IN. PROVIDE REQUIRED CONTROL WIRING AND INTERLOCKS BETWEEN HOOD CONTROL PANEL AND FIRE SUPPRESSION SYSTEM. INSTALL COMPLETE AND OPERATIONAL SYSTEM PER MANUFACTURER'S INSTRUCTIONS AND APPLICABLE CODES.
2. PROVIDE JUNCTION BOX AND REQUIRED CONNECTIONS FOR TYPE 1 HOOD FIRE SUPPRESSION SYSTEM LOCATED ABOVE HOOD. COORDINATE EXACT CONNECTION REQUIREMENTS AND INTERFACE WITH HOOD CONTROL PANEL AND FIRE SUPPRESSION SYSTEM VENDOR. UPON ACTIVATION OF FIRE SUPPRESSION SYSTEM, AUTOMATICALLY SHUT DOWN ASSOCIATED COOKING EQUIPMENT AND MAKE-UP AIR, AND MAINTAIN OR ACTIVATE EXHAUST FAN AS REQUIRED BY CODE. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED PATHWAYS AND CONNECTIONS FOR COMPLETE SYSTEM.

STAMP

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EXP. 09/30/27

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PROJECT

WESTEND NAVIGATION CENTER

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

FOR



FONTANA CALIFORNIA

TITLE

ENLARGED ELECTRICAL KITCHEN PLAN

Revisions	By	Date
Δ PC CORR1/BID ISSUE 1	LEI	4/29/26

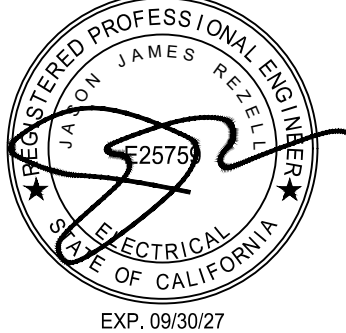
Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

Sheet

E401

STAMP

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PROJECT

**WESTEND
NAVIGATION
CENTER**

11109 JASMINE STREET
FONTANA, CALIFORNIA 92337

GENERAL NOTES

1. THE EXISTING ELECTRICAL SYSTEM REPRESENTED BY THE ONE LINE DIAGRAM IS INTENDED TO INDICATE THE GENERAL ARRANGEMENT OF A PORTION OF THE EXISTING ELECTRICAL DISTRIBUTION SYSTEM. THIS INFORMATION IS SHOWN FOR REFERENCE ONLY. FIELD VERIFY EXISTING BUILDING ELECTRICAL DISTRIBUTION SYSTEM INFORMATION.
2. COORDINATE ANY/ALL NECESSARY POWER OUTAGES AFFECTING THE CONSTRUCTION TO THE FACILITY WITH THE ELECTRICAL UTILITY COMPANY, GENERAL CONTRACTOR AND OWNER. COORDINATE OUTAGES A MINIMUM OF 2 WEEKS PRIOR TO WHEN THE OUTAGE IS EXPECTED TO OCCUR.
3. FIELD VERIFY MCP AND VENDOR PROVIDED PANEL REQUIREMENTS PRIOR TO ORDERING ASSOCIATED CIRCUIT BREAKERS AND INSTALLING ASSOCIATED FEEDERS INCLUDING CONDUIT. CIRCUIT BREAKERS AND FEEDER SIZES SERVING MCP AND VENDOR PANELS ARE BASED ON INFORMATION PROVIDED AT THE TIME OF ISSUANCE OF THESE DOCUMENTS.
4. PROVIDE LABELING OF EXISTING PANELBOARDS ALTERED AS PART OF THE WORK OF THIS CONTRACT, PER THE REQUIREMENTS OF SPECIFICATIONS.
5. MATCH MAKE, MODEL, TYPE AND MAXIMUM AIC RATING OF CIRCUIT BREAKERS INSTALLED WITHIN THE EXISTING DISTRIBUTION AND BRANCH PANELBOARDS.
6. PROVIDE A COMPLETE TYPED PANELBOARD DIRECTORY IN EACH PANELBOARD TO INCLUDE EXISTING LOADS TO REMAIN AS WELL AS NEW LOADS. DIRECTORY TO INDICATE EQUIPMENT NAME AND/OR ROOM NUMBER OF EQUIPMENT OR DEVICES.
7. FIELD VERIFY SIZES AND QUANTITIES OF EXISTING FEEDERS TO BE INTERCEPTED AND EXTENDED. PROVIDE FEEDERS AS INDICATED IN THE FEEDER SCHEDULE. NOTIFY ENGINEER OF RECORD IF SIZES AND QUANTITIES DIFFER.

DEMO SINGLE LINE DIAGRAM

01

KEY NOTES

1. REMOVE EXISTING 600A MAIN DISCONNECT BREAKER WITHIN SWITCHGEAR SECTION. PREPARE SWITCHGEAR FOR INSTALLATION OF LARGER RATED MAIN BREAKER. COORDINATE EQUIPMENT COMPATIBILITY, BUS RATING, AND CLEARANCES WITH MANUFACTURER PRIOR TO MODIFICATION.
2. PROVIDE AND INSTALL 800A MAIN BREAKER WITHIN EXISTING SWITCHGEAR FRAME. VERIFY SWITCHGEAR BUS RATING, SHORT-CIRCUIT CAPACITY, AND MECHANICAL FIT PRIOR TO INSTALLATION. COORDINATE WITH SWITCHGEAR MANUFACTURER FOR RETROFIT REQUIREMENTS.
3. PROVIDE SHUNT TRIP DEVICE FOR ELEVATOR FEEDER BREAKER IN ACCORDANCE WITH CEC 620.51(B), CBC REQUIREMENTS, AND ASME A17.1. SHUNT TRIP SHALL BE ACTIVATED BY FIRE ALARM SYSTEM PER NFPA 72. COORDINATE CONTROL VOLTAGE AND INTERFACE WITH FIRE ALARM CONTRACTOR PRIOR TO INSTALLATION.

FOR



TITLE

SINGLE LINE
DIAGRAM

Revisions	By	Date
△ PC CORR1/BID ISSUE 1	LEI	4/29/26

Drawn	LEI
Date	04/29/2026
Project No.	LEI # 25039
Scale	AS NOTED

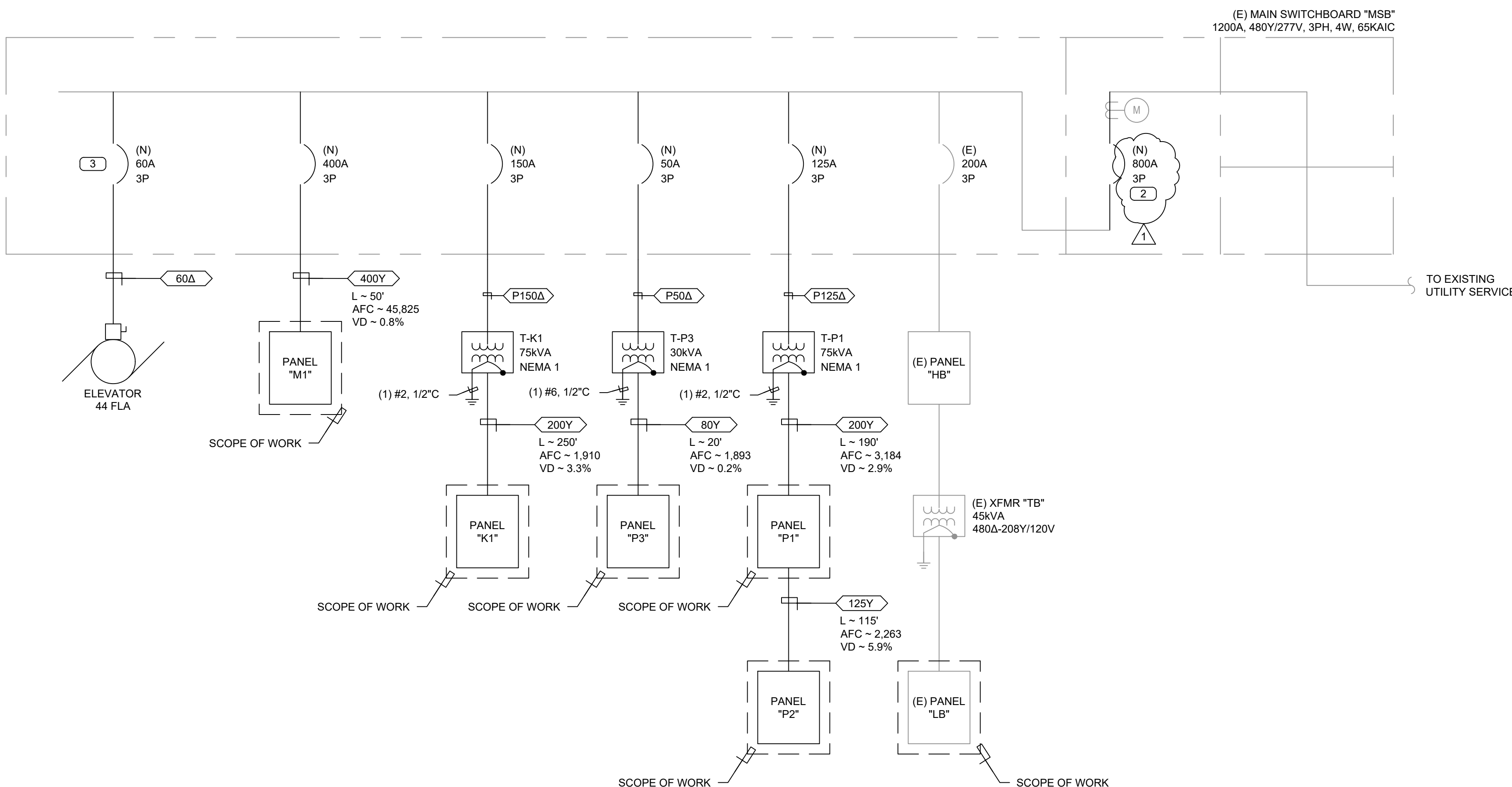
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NEW SINGLE LINE DIAGRAM

02

MAIN SWITCHBOARD BOARD "MSB" LOAD SUMMARY		
ELECTICAL DISTRIBUTION DESCRIPTIONS	TOTAL LOAD (kVA)	TOTAL AMPERAGE (A)
(E) PANEL "HB"	72.88	87.70
TRANSFORMER "T-P1"	69.44	192.70
TRANSFORMER "T-P3"	28.35	78.70
TRANSFORMER "T-K1"	60.02	166.60
PANEL "M1"	285.94	343.90
ELEVATOR	36.70	44.00
MAIN SWITCHBOARD "MSB" NET LOAD	553.32	665.85



Branch Panel: K1																
Manufacturer:					Volts: 208/120 Wye					A.I.C Rating: 10K						
Model:					Phases: 3					Mains Type: 200A MCB						
Dimensions: STD					Wires: 4 & Ground					Mains Rating: 200A						
Supply From: XFMR "T-K1"					Panel Feed: Top					Location: KITCHEN						
Enclosure NEMA 1					Mounting: Surface					Note: Single Lug						
Note	CKT	Circuit Description	Trip	Pole(s)	A	B	C	A	B	C	Pole(s)	Trip	Circuit Description	CKT	Note	
	1	AIR CURTAIN #1	20A	1	612			1500						2		
	3	WALK IN COOLER #4	20A	1		575			1500		3	20A	REMOTE CONDENSING UNIT #10	4		
	5	EVAPORATOR COIL (COOLER) #6	20A	1			1200			1500				6		
	7	WALK IN FREEZER #7	20A	1	1150			1500						8		
	9	EVAPORATOR COIL (FREEZER) #9	20A	1			1200			1500		3	20A	REMOTE CONDENSING UNIT #11	10	
	11	PREP TABLE DED RECEPTACLE #12	20A	1				1000			1500			12		
	13	PREP TABLE DED RECEPTACLE #12	20A	1	1000				988					14		
	15	PREP TABLE DED RECEPTACLE #27	20A	1		1000				988		2	20A	ICE MAKER #19	16	
	17	PREP TABLE DED RECEPTACLE #27	20A	1			1000				680	1	20A	REACH IN REFRIGERATOR #50	18	
	19	FIRE SUPPRESSION SYSTEM #30	20A	1	960				690			1	20A	REACH IN FREEZER #51	20	
	21	EXHAUST HOOD CONTROL PANEL #31	20A	1		1200				437		1	20A	REACH IN REFRIGERATOR #55	22	
	23	EXHAUST HOOD #33	20A	1			600				1920	1	20A	HOT HOLDING CABINET #56	24	
	25	DBL CONV OVEN #36	20A	1	1176				240			1	20A	DROP IN COLD PAN #58	26	
	27	SHUNT TRIP (FOR ABOVE)			0					1240				28		
	29	DBL CONV OVEN #36	20A	1			1176				1240	2	20A	FOOD WELL #59	30	
	31	SHUNT TRIP (FOR ABOVE)			0				4200					32		
	33	REFRIGERATED BASE #38	20A	1		1188				4200		3	40A	DISHWASHER HIGH TEMP #70	34	
	35	SHUNT TRIP (FOR ABOVE)				0					4200			36		
	37	TILT SKILLET #40	20A	1	200				3050			2	30A	AIR POT BREWER #79	38	
	39	SHUNT TRIP (FOR ABOVE)			0					3050				40		
	41	CHEFS TABLE #44	20A	1			500			1740		1	20A	IT BREWER #80	42	
	43	CHEFS TABLE #44	20A	1	500				2560			2	30A	MECH ROOM 126 - FC-4/CU-4	44	2
	45	HOT BOX RECEIPT	20A	1		1500				2560				46		
	47	HOT BOX RECEIPT	20A	1			1500				516	1	20A	ROOFTOP - KEF-2	48	
	49	HOT BOX RECEIPT	20A	1	1500					1800				50		
	51	HOT BOX RECEIPT	20A	1		1500				1800		3	20A	ROOFTOP - KEF-1	52	
	53	SPACE	20A	1			0				1800			54		
Total Load:					23626VA			25438VA		22072VA						
Total Amps:					106.9A			212A		183.9A						
Load Classification		Connected Load	Demand Factor		Est. Demand		Panel Totals									
Receptacle		6000	> 10000 @50%		6000											
Largest Motor		5120	125%		6400		Total Conn. Load:		71136VA							
Long Continuous		0	125%		0		Total Est. Demand:		53481VA							
Kitchen/Break Room		54100	65%		35165		Total Conn.:		197.5A							
HVAC		5916	100%		5916		Total Est. Demand:		148.4A							
Misc.		0	100%		0											
Non Coincidental		0	0%		0											
NOTES:																
1. PROVIDE HANDLE-TIES										6.						
2. NEW LOAD ON EXISTING CIRCUIT BREAKER										7.						
3. NEW CIRCUIT BREAKER, MATCH MAKE, MODEL, AND AIC RATING										8.						
4. RETURN EXISTING CIRCUIT BREAKER TO "SPARE"										9.						
5.										10.						

Branch Panel: (E)LB																	
Manufacturer:				Volts: 208/120 Wye				A.I.C Rating: 65K									
Model:				Phases: 3				Mains Type: 125A MCB									
Dimensions: STD				Wires: 4 & Ground				Mains Rating: 225A									
Supply From: (E) XFMR "TB"				Panel Feed: Top				Location: ELECTRIC ROOM 225									
Enclosure NEMA 1				Mounting: Surface				Note: Single Lug									
Note	CKT	Circuit Description	Trip	Pole(s)	A	B	C	A	B	C	Pole(s)	Trip	Circuit Description	CKT	Note		
	1	(E) SPRINKLER CONTROL	20A	1	500			1050			1	20A	LOUNGE 123 - TV & RECEPTS.	2	1		
	3	(E) FIRE ALARM	20A	1		500				720	1	20A	LOUNGE 123 - RECEPTACLES	4	1		
	5	(E) TELEPHONE BACKBOARD	20A	1			1080				720	1	20A	LOBBY 122 & WAIT 124 - RECEPTS.	6	1	
1	7	LOBBY 100 - RECEPTACLES	20A	1	540			540			1	20A	MED ROOM 121 - RECEPTACLES	8	1		
1	9	HALL & BREAKROOM 101 - RECEPTS.	20A	1		540			1000		1	20A	MED ROOM 121 - FRIDGE	10	1		
1	11	LAUNDRY 108 - RECEPTACLES	20A	1			540				180	1	20A	MED ROOM 121 - DED. RECEPT.	12	1	
2	13	LAUNDRY 108 - 50LB W/D STACK	20A	2	1560				180		1	20A	MED ROOM 121 - DED. RECEPT.	14	1		
2	15	LAUNDRY 108 - 50LB W/D STACK	20A	2		1560				720	1	20A	OFFICE 120 - RECEPTACLES	16	1		
1	17	LAUNDRY 108 - 50LB W/D STACK	20A	2			1560				1000	1	20A	BREAK AREA 119 - FRIDGE	18	1	
1	19	LAUNDRY 108 - 50LB W/D STACK	20A	2	1560				1000		1	20A	BREAK AREA 119 - DED. RECEPT.	20	1		
1	21	LAUNDRY 108 - 30LB W/D STACK	20A	2			1560				720	1	20A	OPEN OFFICE 117 - RECEPTACLES	22	1	
1	23	LAUNDRY 108 - 30LB W/D STACK	20A	2				1560			540	1	20A	OPEN OFFICE 117 - RECEPTACLES	24	1	
2	25	LAUNDRY 108 - 30LB WASHER	20A	2	750				590		1	20A	RM 113,114,117 - EF-2 & RECEPTS.	26	1		
2	27	LAUNDRY 108 - 30LB WASHER	20A	2		750				1080	1	20A	OPEN OFFICE 118 - RECEPTACLES	28	1		
1	29	RM 106,107,109,111 - EF-1 & RECEPTS.	20A	1			1050				360	1	20A	OPEN OFFICE 118 - RECEPTACLES	30	1	
1	31	OFFICE 102 - RECEPTACLES	20A	1	540				540		1	20A	OPEN OFFICE 118 - RECEPTACLES	32	1		
1	33	IT SERVER ROOM 103 - RECEPTS.	20A	1		540				1080	1	20A	ROOMS 115 & 115 - RECEPTACLES	34	1		
2	35	BREAK ROOM 101 - FRIDGE	20A	1			1000		1000			540	1	20A	ELEVATOR - GFCI RECEPTACLES	36	1
1	37	BREAK ROOM 101 - GARBAGE DISP.	20A	1	1000					1200		1	30A	ELEVATOR - CAB POWER	38	2	
1	39	BREAK ROOM 101 - DED. RECEPT.	20A	1			1000				1248						
1	41	BREAK ROOM 101 - DED. RECEPT.	20A	1				1000			1248	2	20A	IT SERVER ROOM 103 - FC-1/CU-1	42	2	
Total Load:					11550VA		13018VA		12378VA								
Total Amps:					96.3A		108.5A		103.2A								
Load Classification		Connected Load		Demand Factor		Est. Demand		Panel Totals									
Receptacle		0		>10000 @50%		0											
Largest Motor		2496		125%		3120		Total Conn. Load: 36940VA									
Long Continuous		0		125%		0		Total Est. Demand: 35120VA									
Kitchen/Break Room		7000		65%		4550		Total Conn.: 102.6A									
HVAC		0		100%		0		Total Est. Demand: 97.5A									
Misc.		27450		100%		27450											
Non Coincidental		0		0%		0											
NOTES																	
1. NEW LOAD ON EXISTING CIRCUIT BREAKER																	
2. NEW CIRCUIT BREAKER, MATCH MAKE, MODEL, AND AIC RATING																	
3. RETURN EXISTING CIRCUIT BREAKER TO "SPARE"																	
4.																	
5.																	
10.																	

Branch Panel: P3																
Manufacturer:				Volts: 208/120 Wye				A.I.C Rating: 10K								
Model:				Phases: 3				Mains Type: 80A MCB								
Dimensions: STD				Wires: 4 & Ground				Mains Rating: 100A								
Supply From: XFMR "T-P3"				Panel Feed: Top				Location: STORAGE 416								
Enclosure NEMA 1				Mounting: Flush				Note: Single Lug								
Note	CKT	Circuit Description	Trip	Pole(s)	A	B	C	A	B	C	Pole(s)	Trip	Circuit Description	CKT	Note	
	1	CONFERENCE 400 - TV & RECEPTS	20A	1	1080			860			1	20A	OPEN OFFICE 424 - WORK STATIONS	2	1	
	3	OPEN OFFICE 428 - RECEPTACLES	20A	1		540			860		1	20A	OPEN OFFICE 424 - WORK STATIONS	4	1	
	5	IT SERVER ROOM 427 - RECEPTACLES	20A	1			900			860	1	20A	OPEN OFFICE 424 - WORK STATIONS	6	1	
	7	MEN 425 & WOMEN 426 - RECEPTS	20A	1	360			860			1	20A	OPEN OFFICE 424 - WORK STATIONS	8	1	
	9	OFFICE 402 - RECEPTACLES	20A	1		720			860		1	20A	OPEN OFFICE 424 - WORK STATIONS	10		
	11	OFFICE 403 - RECEPTACLES	20A	1			540			720	1	20A	OFFICES 406 & 407 - RECEPTACLES	12		
	13	LOUNGE 404 - DEDICATED RECEPT	20A	1	1000			590			1	20A	ROOMS 410-412 - EF-2 & RECEPTACLES	14		
	15	LOUNGE 404 - DEDICATED RECEPT	20A	1		1000			1260		1	20A	CONFERENCE 413 - RECEPTACLES	16		
	17	LOUNGE 404 - FRIDGE	20A	1			1000			900	1	20A	CONFERENCE 414 - RECEPTACLES	18		
	19	LOUNGE 404 - RECEPTACLES	20A	1	540			1000			1	20A	CONFERENCE 414 - TVs	20		
	21	HALL 405 & 421 - RECEPTACLES	20A	1		900			720		1	20A	OFFICES 422 & 423 - RECEPTACLES	22		
	23	OPEN OFFICE 424 - WORK STATIONS	20A	1			860			540	1	20A	LOBBY 420 - RECEPTACLES	24		
	1	25	OPEN OFFICE 424 - WORK STATIONS	20A	1	860			1260		1	20A	CONFERENCE 418 - TV & RECEPTS	26		
	1	27	OPEN OFFICE 424 - WORK STATIONS	20A	1		860			900	1	20A	TRAINING CLASSROOM 419 - RECEPTS	28		
	29	ROOFTOP - MAINTENANCE GFCIs	20A	1			900			180	1	20A	ROOFTOP - EF-4	30		
	31	ROOFTOP - MAINTENANCE GFCIs	20A	1	900			342			1	20A	ROOFTOP - EF-5	32		
	33	OPEN OFFICE 424 CONTR RECEPTACLES	20A	1		720			342		1	20A	ROOFTOP - EF-6	34		
	35	SPARE	20A	1			0			180	1	20A	ROOFTOP - EF-7	36		
	37	SPACE			0			156			1	20A	ROOFTOP - EF-8	38		
	39	SPACE				0			1248			2	20A	IT SERVER ROOM 427 - FC-3/CU-3	40	
	41	SPACE					0			1248					42	
Total Load:					A		B		C							
Total Amps:					9808VA		10930VA		8828VA							
					81.7A		91.1A		73.6A							
Load Classification		Connected Load	Demand Factor		Est. Demand		Panel Totals									
Receptacle		15270	>10000 @50%		12635											
Largest Motor		2496	125%		3120		Total Conn. Load: 29560VA									
Long Continuous		0	125%		0		Total Est. Demand: 26505VA									
Kitchen/Break Room		3000	65%		1950		Total Conn.: 82.1A									
HVAC		1200	100%		1200		Total Est. Demand: 73.6A									
Misc.		7600	100%		7600											
Non Coincidental		0	0%		0											
NOTES:																
1. PROVIDE HANDLE-TIES					6.											
2. NEW LOAD ON EXISTING CIRCUIT BREAKER					7.											
3. NEW CIRCUIT BREAKER, MATCH MAKE, MODEL, AND AIC RATING					8.											
4. RETURN EXISTING CIRCUIT BREAKER TO "SPARE"					9.											
5.					10.											

Branch Panel: P2																
Manufacturer:				Volts: 208/120 Wye				A.I.C Rating: 10K								
Model:				Phases: 3				Mains Type: 125A MCB								
Dimensions: STD				Wires: 4 & Ground				Mains Rating: 125A								
Supply From: PANEL "P1"				Panel Feed: Top				Location: Hall 174								
Enclosure NEMA 1				Mounting: Flush				Note: Single Lug								
Note	CKT	Circuit Description	Trip	Pole(s)	A	B	C	A	B	C	Pole(s)	Trip	Circuit Description	CKT	Note	
	1	DORMS 207-209 - RECEPTACLES	20A	1	720			720				1	20A	OFFICES 159 & 160 - RECEPTACLES	2	
	3	DORMS 203-205 - RECEPTACLES	20A	1		720			755			1	20A	ENTRY 161 & RR 162 - EF-1 & RECEPTS	4	
	5	DORMS 198-200 - RECEPTACLES	20A	1			720			360	1	20A	OFFICE 165 - RECEPTACLES	6		
	7	DORMS 195-197 - RECEPTACLES	20A	1	720			1080				1	20A	DORMS 167 & 168 - RECEPTACLES	8	
	9	DORMS 190-192 - RECEPTACLES	20A	1		720			770		1	20A	RM 166,169,170 - EF3 & RECEPTS	10		
	11	HALLS 189 & 206 - RECEPTACLES	20A	1			540			1000	1	20A	LOUNGE 171 - FRIDGE	12		
	13	DORM 184 - RECEPTACLES	20A	1	720			1000			1	20A	LOUNGE 171 - DEDICATED RECEPT	14		
	15	DORM 184 - RECEPTACLES	20A	1		600			1000		1	20A	LOUNGE 171 - GARBAGE DISPOSAL	16		
	17	HALL 185 - RECEPTACLES	20A	1			540			900	1	20A	LOUNGE 171 - RECEPTACLES	18		
	19	DORM 188 - RECEPTACLES	20A	1	1080			1040			1	20A	LOUNGE 171 - TV & RECEPTS	20		
	21	DORM 189 - RECEPTACLES	20A	1		840			1080		1	20A	DORMS 172 & 173 - RECEPTACLES	22		
	23	DORM 188 - RECEPTACLES	20A	1			1080			430	1	20A	RR 175 & JAN 176 - EF2 & RECEPTS	24		
	25	RR 182 & JAN 183 - EF-2 & RECEPTS	20A	1	400			540			1	20A	OFFICE 177 - RECEPTACLES	26		
	27	DORM 181 - RECEPTACLES	20A	1		600			1000		1	20A	OFFICE 178 - FRIDGE	28		
	29	DORM 181 - RECEPTACLES	20A	1			720			540	1	20A	OFFICE 178 - RECEPTACLES	30		
	31	DORM 187 - RECEPTACLES	20A	1	1080			720			1	20A	RESTROOMS 179 & 180 - RECEPTS	32		
	33	DORM 187 - RECEPTACLES	20A	1		840			1080		1	20A	DORM 186 - RECEPTACLES	34		
	35	DORM 187 - RECEPTACLES	20A	1			1080			840	1	20A	DORM 186 - RECEPTACLES	36		
	37	OFFICE 165 - HOTBOX DED. RECEPT	20A	1	1500			1080			1	20A	DORM 186 - RECEPTACLES	38		
	39	OFFICE 165 - HOTBOX DED. RECEPT	20A	1		1500			1500		1	20A	OFFICE 165 - HOTBOX DED. RECEPT	40		
	41	OFFICE 165 - HOTBOX DED. RECEPT	20A	1	1500			1500			1	20A	OFFICE 165 - HOTBOX DED. RECEPT	42		
	43	OFFICE 165 - HOTBOX DED. RECEPT	20A	1				1500			1	20A	OFFICE 165 - HOTBOX DED. RECEPT	44		
	45	SPARE	20A	1						1	20A	OFFICE 165 - HOTBOX DED. RECEPT	46			
	47	FIRE SMOKE DAMPERS	20A	1			1350			0	1	20A	SPARE	48		
	49	SPACE						0					SPACE	50		
	51	SPACE							0				SPACE	52		
	53	SPACE					0			0			SPACE	54		
Total Load:					15400VA		14505VA		13100VA							
Total Amps:					128.3A		120.9A		109.2A							
Load Classification		Connected Load	Demand Factor		Est. Demand		Panel Totals									
Largest Motor		0	>10000 @50%		0		Total Conn. Load: 43005VA									
Long Continuous		0	125%		0		Total Est. Demand: 41955VA									
Kitchen/Break Room		3000	65%		1950		Total Conn.: 119.4A									
HVAC		0	100%		0		Total Est. Demand: 116.5A									
Misc.		40005	100%		40005											
Non Coincidental		0	0%		0											
NOTES:																
1. NEW LOAD ON EXISTING CIRCUIT BREAKER																
2. NEW CIRCUIT BREAKER, MATCH MAKE, MODEL, AND AIC RATING																
3. RETURN EXISTING CIRCUIT BREAKER TO "SPARE"																
4.																
5.																
10.																

GENERAL REQUIREMENTS FOR ELEVATORS

THE FOLLOWING ITEMS MUST BE PERFORMED OR PROVIDED AT NO COST TO ELEVATOR CONTRACTOR BY THE OWNER OR GENERAL CONTRACTOR OR THEIR AGENTS IN ACCORDANCE WITH GOVERNING CODES. THE PRICE AND INSTALLATION SCHEDULE OF ELEVATOR CONTRACTOR IS BASED ON THESE JOB-SITE CONDITIONS EXISTING AT THE BEGINNING AND DURING THE INSTALLATION OF THE ELEVATOR EQUIPMENT. ALL WORK MUST BE PERFORMED PER THE APPLICABLE NATIONAL AND OR LOCAL CODES.

ARCHITECTURAL REQUIREMENTS

- A. HOISTWAY: PROVIDE CLEAR PLUMB HOISTWAYS WITH VARIATIONS NOT EXCEEDING ONE 1" FOR FULL HEIGHT. FIRE RATED CONSTRUCTION PER GOVERNING CODES. RECOMMEND THAT INSIDE HOISTWAY WALLS BE FLUSH, WITHOUT PROJECTIONS, AT SIDE AND REAR WALLS AND AT FRONT WALLS WHERE ENTRANCES DO NOT OCCUR.
1. PROJECTIONS: BEAMS, FLOOR SLABS OR OTHER BUILDING CONSTRUCTION SHALL NOT PROJECT MORE THAN TWO INCHES INSIDE THE GENERAL LINE OF THE HOISTWAY UNLESS THE TOP SURFACE OF THE PROJECTION IS BEVELED AT AN ANGLE OF NOT LESS THAN 75° WITH THE HORIZONTAL.
2. SMOKE DETECTORS IN HOISTWAYS: (CALIFORNIA ONLY) SMOKE DETECTORS INSTALLED IN ELEVATOR HOISTWAYS SHALL BE ACCESSIBLE FOR SERVICING FROM OUTSIDE OF HOISTWAY.
3. SCREENS BETWEEN HOISTWAYS: (CALIFORNIA ONLY SIDE CWT): WHEN TWO OR MORE ELEVATORS ARE INSTALLED WITHIN THE SAME HOISTWAY AND ONE OF THE ELEVATORS HAS A SIDE COUNTERWEIGHT ADJACENT TO THE OTHER ELEVATOR THEY SHALL BE FULLY SEPARATED BY A MATERIAL COMPLYING WITH THE FOLLOWING:
- a. WHERE UNPERFORATED STEEL IS USED, IT SHALL BE EQUAL TO OR STRONGER THAN 0.0437" THICK STEEL.
- b. WHERE WIRE SCREEN OR PERFORATED STEEL IS USED IT SHALL BE EQUAL TO OR STRONGER THAN 0.015 INCH DIAMETER METAL GRILL.
- c. THE MATERIAL SHALL REJECT A BALL 1" IN DIAMETER.
- d. BE SO SUPPORTED AND BRACED THAT WHEN SUBJECTED TO A PRESSURE OF 100 LB/SF APPLIED HORIZONTALLY AT ANY POINT, THE DEFLECTION SHALL NOT EXCEED 1".
4. EXPRESS ZONES: WHERE EXPRESS ZONES OCCUR WITH LOW AND HIGH RISE GROUPS OR WITH ELEVATORS HAVING REAR OPENINGS, THE HOISTWAY WALL WITHIN THE EXPRESS ZONE (WHERE ENTRANCES ARE NOT INSTALLED) SHOULD BE MOVED INTO THE HOISTWAY APPROXIMATELY FOUR INCHES TO ELIMINATE THE NEED FOR FURRING OUT THE WALL OR HAVING THE ELEVATOR CONTRACTOR PROVIDE METAL FASCIA THE FULL HEIGHT OF EXPRESS ZONE. THE BEAM POCKET BELOW THE FLOOR SLAB MUST ALSO BE FLUSH WITH THE INSIDE LINE OF THE HOISTWAY WALL WHEN MOVED IN THE REQUIRED 4".
5. HOISTWAY EMERGENCY ACCESS DOORS IN BLIND HOISTWAYS: (NOT IN CALIFORNIA): WHERE A SINGLE ELEVATOR IS INSTALLED IN A SINGLE HOISTWAY WITH EXPRESS ZONES, PROVIDE A HOISTWAY EMERGENCY ACCESS DOOR IN THE BLIND PORTION OF THE HOISTWAY EVERY THIRD FLOOR BUT NOT MORE THAN 38" FROM SILL TO SILL. THE DOOR SHALL BE FIRE RATED TO MEET THE HOISTWAY RATING, BE A MINIMUM OF 2'-4" WIDE X 6'-6" HIGH AND HAVE SELF-CLOSING AND SELF-LOCKING HARDWARE. THE DOOR SHALL BE UNLOCKED FROM THE LANDING SIDE ONLY THROUGH THE USE OF A CYLINDER TYPE LOCK HAVING NOT LESS THAN 5-PIN OR FIVE-DISC COMBINATION, KEY REMOVABLE WHEN IN LOCKED POSITION UNTIL AND THE KEY USED SHALL NOT BE USED FOR ANY OTHER PURPOSE IN THE BUILDING. PROVIDE A SIGN ON THE DOOR IN 2" HIGH LETTERS "DANGER, ELEVATOR HOISTWAY", A HINGED BARRIER INDEPENDENT OF THE DOOR SHALL BE INSTALLED HORIZONTALLY ACROSS THE ENTRANCE ON THE HOISTWAY SIDE AT A HEIGHT OF 42". THE BARRIER SHALL NOT OPEN INTO THE HOISTWAY.
6. FLUSH CONSTRUCTION: IF A SINGLE ELEVATOR IN A HOISTWAY OVER SIZE HOISTWAY FOR AIR MOVEMENT, NO SINGLE CAR IN HW 700 FPM OR OVER UNLESS YOU CAN GET GENEROUS HOISTWAY SPACE OF 1'-6" ON EACH SIDE AND REAR OF CAR FROM STANDARD DIMENSIONS, THE FASTER THE MORE SPACE) FOR HIGH-SPEED ELEVATOR INSTALLATION (OVER 700 FPM) IT IS STRONGLY RECOMMENDED THAT THE HOISTWAYS BE CONSTRUCTED WITH FLUSH SURFACES ELIMINATING ANY PROJECTIONS, RECESSES OR POCKETS TO ENHANCE THE QUALITY OF THE ELEVATOR RIDE.
7. GLASS ENCLOSED HOISTWAYS: GLASS IN HOISTWAYS MUST BE LAMINATED SAFETY GLASS MEETING ANSI Z97.1 REQUIREMENTS. EACH PREDESECTION OF GLAZING REQUIRES THE ETCHED LOGO INDICATING THAT IT COMPLIES WITH THE ANSI Z97.1 REQUIREMENT FOR LAMINATED SAFETY GLASS AND THAT THE LOGO BE VISIBLE FROM INSIDE THE ELEVATOR HOISTWAY. GLASS MULLIONS SHALL NOT PROJECT INTO HOISTWAY MORE THAN 2" FROM INSIDE FACE OF GLASS. SHOULD MULLIONS OR LEDGES PROJECT MORE THAN 2" FROM FACE OF GLASS, THE TOP SURFACE OF THE LEDGE MUST BE BEVELED BACK TO THE GLASS AT AN ANGLE OF NOT LESS THAN 75° WITH THE HORIZONTAL.
8. EXTERIOR ENVIRONMENTS: WHERE ELEVATOR ENTRANCES OCCUR ON EXTERIOR SPACES, PROVIDE AN ENCLOSED ELEVATOR LOBBY WITH CONTROLLED AIR OR AN EXTENDED CANOPY OVER THE ENTRANCE TO ENSURE PROTECTION FROM DIRECT AND IN-DIRECT SUN EXPOSURE, BLOWING RAIN AND SLOPE EACH LANDING AWAY FROM ENTRANCE TO PREVENT OCCASIONAL WATER FLOW FROM ENTERING THE ELEVATOR HOISTWAY. PROVIDE NEMA 4 FIXTURES WHERE NO ENCLOSED LOBBY OR PROTECTION IS PROVIDED TO EXPOSE SIGNALS AND FIXTURES.
- B. MACHINE ROOM / CONTROLLER ROOM: PROVIDE 2 HOUR FIRE RATED CONSTRUCTION PER GOVERNING CODE WITH A MINIMUM 7'-0" TO 9'-0" CLEAR HEADROOM. RECOMMEND THAT EXPOSED FIREPROOFING BE TREATED TO PREVENT FLAKING AND CONTAMINATION OF ELEVATOR ELECTRICAL COMPONENTS.
1. ARRANGEMENT: THE MACHINE ROOM FOR THE ELEVATOR EQUIPMENT SHALL BE ARRANGED SO THAT PASSAGE THROUGH THE MACHINE ROOM IS NOT NECESSARY TO GAIN ACCESS TO OTHER EQUIPMENT OR OTHER PARTS OF THE BUILDING, OR FOR THE REMOVAL OF NON-ELEVATOR RELATED EQUIPMENT THROUGH THE ELEVATOR / MACHINE ROOM.
2. SOUND CONTROL: OBTAIN RECOMMENDATIONS FROM ACOUSTIC CONSULTANT. WHERE EQUIPMENT ROOMS ARE ADJACENT TO TENANT OR PUBLIC SPACES SPECIAL ATTENTION SHOULD BE GIVEN TO SOUND ISOLATION OF THE ROOM. AS A MINIMUM, WITH DRYWALL CONSTRUCTION INCLUDE ACOUSTIC INSULATION IN WALLS. FOR HYDRAULIC ELEVATOR EQUIPMENT ROOMS, IN ADDITION TO ACOUSTIC WALL CONSTRUCTION, IT IS RECOMMENDED SOUND BARRIERS BE INSTALLED ON ALL WALLS.
3. ACCESS TO MACHINE ROOMS / CONTROLLER ROOMS: A SAFE AND CONVENIENT MEANS OF ACCESS SHALL BE PROVIDED TO MACHINE ROOMS. WHERE MACHINE ROOMS ARE LOCATED ON THE ROOF, A CLEAR PATH 24" WIDE X 6'-6" HIGH AND ADEQUATELY ILLUMINATED SHALL BE PROVIDED FROM THE STAIR ACCESS TO ROOF TO THE MACHINE ROOM. IF THE MACHINE ROOM IS ELEVATED ABOVE THE ROOF, A STAIR OR 60" SHIP-LADDER ACCESS TO THE DOOR OF THE MACHINE ROOM SHOULD BE INSTALLED ON ALL WALLS.
4. MACHINE ROOM / CONTROLLER ROOM ACCESS DOOR: PROVIDE ACCESS DOOR 3'-6" WIDE X 7'-0" HIGH, SELF-CLOSING, SELF-LOCKING AND OPENABLE FROM INSIDE WITHOUT A KEY.
5. FOREIGN EQUIPMENT: DO NOT LOCATE ANY PIPES, CONDUIT, DUCTS OR OTHER EQUIPMENT IN MACHINE ROOM THAT IS NOT NECESSARY FOR THE PROPER OPERATION OF ELEVATOR EQUIPMENT.
6. FIRE EXTINGUISHER: PROVIDE ABC TYPE FIRE EXTINGUISHER IN EACH ELEVATOR MACHINE ROOM.
7. HOISTWAY BEAM: PROVIDE HOISTWAY BEAM AT TOP OF HOISTWAY OR AT CEILING OF MACHINE ROOM OVER ELEVATOR HOISTWAY. COORDINATE WITH THE ELEVATOR MANUFACTURER FOR THE STRENGTH & CONNECTION REQUIREMENTS OF THE BEAM. THIS BEAM CAN BE TEMPORARY AND REMOVED AT THE END OF CONSTRUCTION IF ADDITIONAL SPACE IS REQUIRED TO MEET CODE REQUIRED OVERHEAD CLEARANCES WITHIN HOISTWAY.
8. MACHINE ROOM/CONTROLLER ROOM: PROVIDE NATURAL OR MECHANICAL MEANS TO KEEP THE AMBIENT TEMPERATURE MAINTAINED BETWEEN 55°F AND 90°F WITH AN ACCEPTABLE LEVEL OF HUMIDITY OF 35% OR LESS.
- C. BLOCK-OUTS AND CHASES: PROVIDE, AS REQUIRED BY ELEVATOR CONTRACTOR, FOR SIGNAL, FIXTURES, CONDUITS, PIPE RUNS AND OTHER ELEVATOR EQUIPMENT.
- D. PITS:
1. PIT ACCESS LADDERS FROM LOWEST ELEVATOR LANDING LOBBY DOOR: PROVIDE A STEEL LADDER FROM PIT FLOOR TO 4" - 17" ABOVE LOWEST LANDING. MINIMUM SIXTEEN INCHES WIDE WITH RUNGS 12" OC AND A MINIMUM (ASME) 4 1/2" TOE SPACE (CALIFORNIA) 7" TOE SPACE. WHERE PITS ARE DEEPER THAN 13'-9" AND NO ACCESS IS PROVIDED FROM A FLOOR BELOW THE LOWEST LANDING OF PIT ACCESS, INTERMEDIATE FLOORING SHALL BE PROVIDED CONSISTING OF GRATING OR STEEL PLATE WITH AN ACCESS DOOR AND ADDITIONAL LADDER TO GAIN ACCESS TO THE LOWEST LEVEL OF THE PIT.
2. GUARDS BETWEEN ADJACENT PITS: CALIFORNIA ONLY: SCREEN ENCLOSURE, MINIMUM 6'-0" HIGH FROM PIT FLOOR WITH OPENINGS SIZED TO REJECT A 2" DIAMETER BALL.
3. LADDER GUARDS BETWEEN ADJACENT PITS: CALIFORNIA ONLY: WHERE ACCESS LADDERS ARE LOCATED AT SCREEN ENCLOSURE BETWEEN ADJACENT PITS, EXTEND ENCLOSURE 6'-0" ABOVE TOP RUNG OF LADDER AND 12" EACH SIDE OF SIDE RAILS OF LADDER.
4. DEEP WALK-IN PITS: PIT ACCESS LADDERS ARE PERMITTED WHEN THE PIT FLOOR IS MORE THAN 10'-0" IN DEPTH FROM THE SILL OF THE ACCESS DOOR, EXCEPT WHERE THERE IS NO BUILDING FLOOR BELOW THE BOTTOM TERMINAL LANDING. THIS HEIGHT SHALL BE PERMITTED TO BE GREATER BUT NOT MORE THAN 13'-9". FOR WALK-IN PITS AT THE PIT LEVEL PROVIDE FIRE RATED ACCESS DOOR WITH VISION PANEL, SIZED TO REJECT A BALL 6" IN DIAMETER THE DOOR SHALL PROVIDE AN OPENING THAT IS A MINIMUM 30" WIDE X 72" HIGH, BE OF SELF-CLOSING, SELF-LOCKING AND OPENABLE FROM INSIDE PIT WITHOUT A KEY. WHERE THE PIT FLOOR IS 12" OR MORE BELOW THE SILL OF THE ACCESS DOOR, A HINGED BARRIER INDEPENDENT OF THE DOOR SHALL BE INSTALLED HORIZONTALLY ACROSS THE ENTRANCE ON THE HOISTWAY SIDE AT A HEIGHT OF 42". THE BARRIER SHALL NOT OPEN INTO THE HOISTWAY.

PASSENGER ELEVATOR HOISTWAY ENTRANCES:

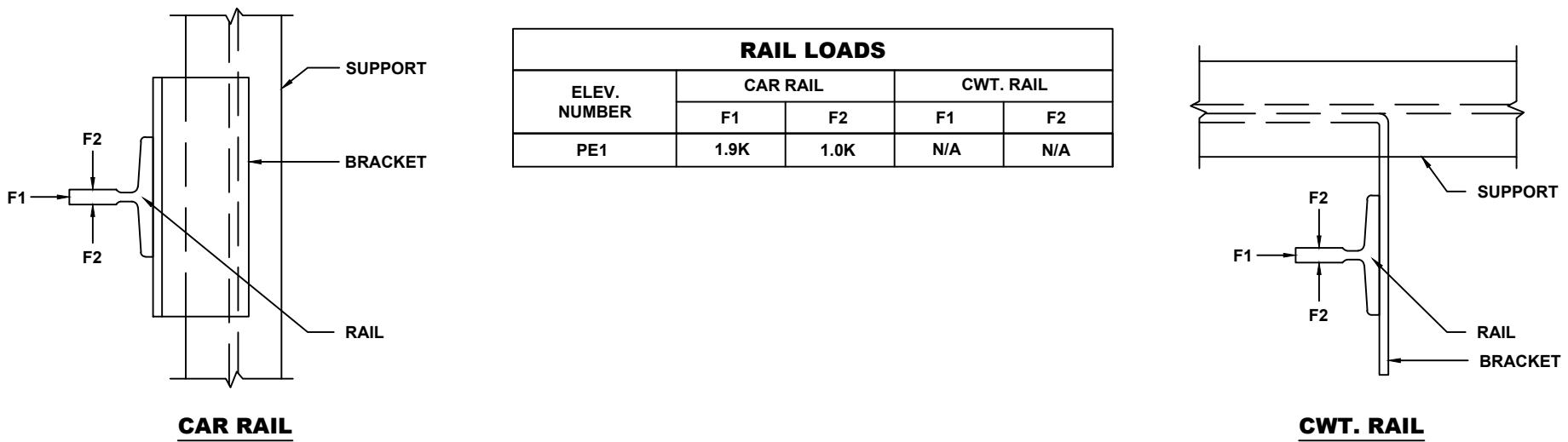
1. SILL SUPPORTS: SUPPORT FULL WIDTH OF HOISTWAY AT EDGE OF SLAB FOR ATTACHMENT OF SILL SUPPORT ANGLES BY ELEVATOR CONTRACTOR. FOR COMPOSITE SLAB, PROVIDE ANGLE FLASHING AT EDGE OF CLEAR HOISTWAY.
2. GROUTING: GROUTING UNDER SILL ANGLES AND BEHIND ELEVATOR ENTRANCE FRAMES WHEN INSTALLED IN CONCRETE OR MASONRY WALLS.
3. ROUGH OPENINGS: FOR CONCRETE WALLS, 6" ON EACH SIDE AND AT TOP OF CLEAR OPENING.
- F. OVERHEAD GOVERNOR SHEAVE SPACE: PROVIDE FIRE-RATED 24" SQUARE ACCESS DOOR IF REQUIRED BY ELEVATOR CONTRACTOR WITH SELF-CLOSING AND SELF-LOCKING HARDWARE SIMILAR TO MACHINE ROOM DOOR. IF ACCESS DOOR IS ACCESSIBLE FROM A PUBLIC SPACE, THE LOCK MUST BE OF THE 5 PIN TYPE. PROVIDE ACCESS LADDERS AND PLATFORMS AS DETAILED.
- G. VENTILATION: COORDINATE HOISTWAY AND MACHINE ROOM VENTILATION REQUIREMENTS WITH MECHANICAL ENGINEER.
- H. HYDRAULIC ELEVATORS WITH IN GROUND CYLINDERS: PROVIDE 30" SQUARE BLOCK-OUT IN PIT FLOOR FOR ACCESS TO EXCAVATE HYDRAULIC CYLINDER WELL. REMOVE SPOILS AFTER DRILLING IS COMPLETE. PROVIDE CONCRETE FILL AT PIT FLOOR BLOCK-OUT AFTER ELEVATOR CYLINDER IS INSTALLED. MAINTAIN WATERPROOFING INTEGRITY.
- I. ELEVATOR LOBBY SILL ILLUMINATION: LOBBY LIGHTING SHALL PRODUCE A MINIMUM OF 10 FOOT-CANDELES OF ILLUMINATION AT THE ELEVATOR SILL WHEN THE ELEVATOR IS IN OPERATION.
- J. ELEVATOR CAR SILL ILLUMINATION: THE ELEVATOR CAR MUST BE PROVIDED WITH NO LESS THAN TWO LIGHT FIXTURES TO PRODUCE A MINIMUM OF 5 FOOT-CANDELES (PASSENGER CARS) & 2.5 FOOT-CANDELES (FREIGHT CARS) OF ILLUMINATION AT THE ELEVATOR SILL / FLOOR LEVEL WITH THE ELEVATOR DOORS CLOSED.
- K. ACOUSTICAL CONSIDERATIONS: ELEVATOR EQUIPMENT SOUND CONTROL MEASURES ARE LIMITED TO APPROXIMATELY 85 DB IN MACHINE ROOMS, 55 DB IN ELEVATOR CARS AND 50 DB IN ELEVATOR LOBBIES. DESIGN TEAM MUST TAKE PRECAUTIONARY MEASURES WHEN CONSIDERING LOCATION OF ELEVATOR HOISTWAYS AND MACHINE ROOMS IN RELATION TO SENSITIVE OCCUPIED SPACES. BUFFER ZONES SUCH AS STORAGE ROOMS, TOILET BUILDINGS AND ELEVATOR SPACES AS WELL AS SOUND DEADENING OF ENCLOSURES SHOULD BE CONSIDERED. SPECIAL ATTENTION TO THESE CONDITIONS FOR RESIDENTIAL OCCUPANCIES, MUSEUMS, CLASSROOMS AND LIBRARIES IS MANDATORY.
- L. FIRE SERVICE ACCESS ELEVATOR: (FOR BUILDINGS WITH 120' RISE TO TOP OCCUPIED FLOOR; LIFE SAFETY): PROVIDE LOBBY ENCLOSURES IN ACCORDANCE WITH SECTION 3007 OF THE BUILDING CODE.

STRUCTURAL REQUIREMENTS

- A. PITS:
1. SIZE: PROVIDE A DRY PIT OF SIZE AND DEPTH SHOWN.
2. REINFORCEMENT: REINFORCE PIT FLOOR TO TAKE ALL LOADS INDICATED.
3. SUMP PIT: COORDINATE WITH MECHANICAL ENGINEER AND PROVIDE SUMP PIT 2'-0" SQUARE EXTENDING 2'-0" DEEP BELOW PIT FLOOR AS SHOWN. PROVIDE REMOVABLE GRATING OR COVER FLUSH WITH PIT FLOOR.
4. COMPENSATION TIE-DOWN BEAMS: PROVIDE TIE-DOWN BEAMS IN PIT FLOOR AS SHOWN. BEAMS SHALL HAVE A MINIMUM TOP FLANGE WIDTH OF 6" AND PROJECT A MINIMUM OF FOUR INCHES ABOVE PIT FLOOR. SIZE BEAMS AND REINFORCEMENT INTO SLAB TO TAKE UP-PULL FORCES INDICATED. FINAL LOCATION OF BEAMS TO BE DETERMINED BY AND COORDINATED WITH ELEVATOR CONTRACTOR.
5. HYDRAULIC ELEVATORS WITH IN GROUND CYLINDERS: PROVIDE 30" SQUARE BLOCK-OUT IN PIT FLOOR FOR ACCESS TO EXCAVATE HYDRAULIC CYLINDER WELL. REMOVE SPOILS AFTER DRILLING IS COMPLETE. PROVIDE CONCRETE FILL AT PIT FLOOR BLOCK-OUT AFTER ELEVATOR CYLINDER IS INSTALLED. MAINTAIN WATERPROOFING INTEGRITY.
- B. HOISTWAY FRAMING:
1. CLEARANCES: STEEL BEAMS WITH FIREPROOFING AND FLOOR SLABS SHALL NOT PROJECT INTO CLEAR HOISTWAY DIMENSION AS SHOWN. CLEAR HOISTWAY DIMENSION MUST BE MAINTAINED THE FULL HEIGHT OF THE HOISTWAY.
2. GUIDE RAIL SUPPORTS: PROVIDE STRUCTURAL SUPPORTS AT SIDES AND REAR OF ELEVATORS AND DIVIDER SUPPORTS BETWEEN ELEVATORS AT A MAXIMUM VERTICAL SPACING NOT TO EXCEED (FOR PASSENGER & SERVICE) 14'-0" (FOR FREIGHT) 6'-0". ALTERNATIVELY, CONTINUOUS VERTICAL SUPPORTS BEHIND EACH GUIDE RAIL MAY BE PROVIDED. FOR RAIL FORCES ACTING ON THESE SUPPORTS, REFER TO "RAIL FORCES AND LOADING".
3. SILL SUPPORTS: SUPPORT FULL WIDTH OF HOISTWAY AT EDGE OF SLAB FOR ATTACHMENT OF SILL SUPPORT ANGLES BY ELEVATOR CONTRACTOR. FOR COMPOSITE SLAB, PROVIDE ANGLE FLASHING AT EDGE OF CLEAR HOISTWAY.
4. ROUGH OPENINGS: FOR ENTRANCES INSTALLED IN CONCRETE WALLS, PROVIDE A 6" ROUGH OPENING ON EACH SIDE AND AT TOP OF CLEAR OPENING. COORDINATE WITH ELEVATOR MANUFACTURER FOR ANY SPECIAL ROUGH OPENING REQUIREMENTS.
- C. MACHINE ROOM:
1. OVERHEAD MACHINE SUPPORT FOR OVERHEAD MACHINE OR MACHINE SPACE: PROVIDE STRUCTURAL SUPPORTS TO TAKE MACHINE REACTIONS, IMPACT AND STATIC LOADS AS INDICATED. SUPPORTS ARE NOT TO DEFLECT MORE THAN 1/1666 OF THE SUPPORT SPAN BASED ON STATIC LOADS.
2. FLOOR: PROVIDE CONCRETE FLOOR SLABS, REINFORCED TO TAKE DEAD LOADS OF EQUIPMENT SHOWN, A CONCENTRATED LOAD OF 300 LBS ON ANY FOUR SQUARE INCHES AND A LIVE LOAD OF NOT LESS THAN 125 LBS PER SQUARE FOOT. MACHINE ROOM FLOOR SHALL BE ABOVE OR FLUSH WITH THE TOP OF ELEVATOR MACHINE BEAMS. CONFIRM WITH ELEVATOR CONTRACTOR.
3. MACHINE-BELOW OR ADJACENT ARRANGEMENT: PROVIDE A CONCRETE FOUNDATION OR STRUCTURAL BEAMS AS SHOWN ON SKETCHES TO RESIST UP-PULL LOAD INDICATED. FOUNDATION TO BE MONOLITHICALLY POURED AND TIED WITH REINFORCING RODS. POURING TO BE DONE AFTER MACHINE FOUNDATION BOLTS ARE IN PLACE BY ELEVATOR CONTRACTOR.
4. OVERHEAD SUPPORTS: PROVIDE STRUCTURAL SUPPORTS TO TAKE OVERHEAD SHEAVE/DEAD END HITCH BEAM REACTIONS, IMPACT AND STATIC LOADS AS INDICATED. SUPPORTS ARE NOT TO DEFLECT MORE THAN 1/1666 OF THE SUPPORT SPAN BASED ON STATIC LOADS. TOP OF SUPPORTS SHALL BE AS INDICATED. CONFIRM WITH ELEVATOR CONTRACTOR.
5. HYDRAULIC ELEVATOR PIPE TRENCH: PROVIDE 2'-0" WIDE X 2'-0" DEEP TRENCH BETWEEN MACHINE ROOM TO ELEVATOR HOISTWAY FOR HYDRAULIC PIPING. BACK-FILL TRENCH AFTER PIPING HAS BEEN INSTALLED. PIPING SHALL NOT CROSSOVER A SEISMIC JOINT.

RAIL FORCES AND LOADING

THE FOLLOWING RAIL FORCES ARE BASED ON:
SEISMIC LOADING: MAXIMUM RAIL BRACKET DEFLECTION CANNOT EXCEED 1/4" UNDER SEISMIC LOAD AND INDICATED IN KIPS
NORMAL LOADING: MAXIMUM RAIL BRACKET SUPPORT DEFLECTION CANNOT EXCEED 1/16" UNDER NORMAL LOAD AND INDICATED IN POUNDS



ELEV. NUMBER	CAR RAIL		CWT. RAIL	
	F1	F2	F1	F2
PE1	1.9K	1.0K	N/A	N/A

This information is for coordination purposes only and is provided to assist the Architect, Structural, Electrical and Mechanical Engineers with the design of related facilities required to accommodate the vertical transportation systems for this project.

This data is generally found in the "Work By Others" sections of the elevator specifications and is NOT provided by the Elevator Contractor.

It is extremely important that each discipline, coordinate and incorporate this information into their design in order to properly accommodate the vertical transportation systems and avoid any potential change orders during the construction period of the project.

The information provided herein is based on a wide selection of equipment supplied by major elevator contractors with the intent to accommodate "a worse case condition". There may be some differences between this information and the actual requirements of the successful elevator contractor for this project. This information should be verified during the shop drawing submittal stage.

Should there be any questions or additional information needed to assist any member of the design team, we are available to assist in any way we can.

ELECTRICAL REQUIREMENTS

- A. MACHINE ROOM / CONTROLLER ROOM:
1. POWER CIRCUITS: DEDICATED THREE-PHASE POWER FEEDERS THROUGH INDIVIDUALLY LOCKABLE FUSED MAINLINE DISCONNECT SWITCH OR CIRCUIT BREAKER FOR EACH ELEVATOR WITH FEEDERS EXTENDED TO CONTROLLERS. SIZE FEEDERS TO LIMIT VOLTAGE DROP TO LESS THAN 5%. USE COPPER CONDUCTORS ONLY. PROVIDE CONTINUOUS SYSTEM GROUND CONDUCTOR.
2. HYDRAULIC ELEVATOR BATTERY LOWERING UNIT PROVISIONS: PROVIDE (2) "FORM C" AUXILIARY CONTACTS INTEGRAL DESIGNED WITH THE THREE-PHASE DISCONNECT SWITCH TO SIGNAL THE BATTERY-LOWERING UNIT. PROVIDE TWO NO. 14 WIRES FROM DISCONNECT TO THE CONTROLLER.
3. TRACTION ELEVATOR BATTERY RESCUE UNIT PROVISIONS: PROVIDE (2) "FORM C" AUXILIARY CONTACTS INTEGRAL DESIGNED WITH THE THREE-PHASE DISCONNECT SWITCH TO SIGNAL THE BATTERY-LOWERING UNIT. PROVIDE TWO NO. 14 WIRES FROM DISCONNECT TO THE CONTROLLER.
4. POWER DISCONNECTING MEANS: WHERE SPRINKLERS ARE PROVIDED IN ELEVATOR MACHINE ROOMS AND IN HOISTWAYS LOCATED HIGHER THAN 1'-0" ABOVE THE PIT FLOOR, MEANS SHALL BE PROVIDED TO AUTOMATICALLY DISCONNECT THE THREE-PHASE MAIN LINE POWER SUPPLY TO THE AFFECTED ELEVATOR PRIOR TO THE APPLICATION OF WATER. THIS MEANS SHALL NOT BE SELF-RESETTING (CALIFORNIA ADD) AND SHALL BE LOCATED OUTSIDE OF THE MACHINE ROOM. THE ACTIVATION OF SPRINKLERS OUTSIDE OF THE HOISTWAY OR MACHINE ROOM SHALL NOT DISCONNECT THE MAIN LINE POWER SUPPLY. TO ALLOW MONITORING OF THE STATUS OF THE VOLTAGE TO THE SHUNT TRIP DEVICE, WIRING WILL BE REQUIRED FROM CONTACTS ON THE THREE-PHASE DISCONNECT TO THE BUILDING MONITORING LOCATION.
5. CAR LIGHTING AND ACCESSORIES CIRCUITS: 120 V.A.C., 20 AMP SINGLE-PHASE POWER WITH LOCKABLE S.P.S.T. DISCONNECT SWITCH WITH WIRE EXTENDED TO STUDS ON EACH ELEVATOR CONTROLLER. PROVIDE EMERGENCY POWER BACK-UP.
6. TELEPHONE COMMUNICATION LINES: CONNECT TO STUDS ON EACH ELEVATOR CONTROLLER FOR PASSENGER EMERGENCY COMMUNICATION.
7. FIREMAN'S COMMUNICATION CIRCUIT: FOR LIFE SAFETY BUILDINGS. CONNECT TO STUDS ON EACH ELEVATOR CONTROLLER.
8. PUBLIC ADDRESS OR LIFE SAFETY SPEAKERS: FOR LIFE SAFETY BUILDINGS. CONNECT TO STUDS ON EACH ELEVATOR CONTROLLER.
9. SMOKE DETECTOR CIRCUIT: FROM DETECTOR IN ELEVATOR LOBBIES, HOISTWAYS AND MACHINE ROOMS TO CONTROLLER DESIGNATED BY ELEVATOR CONTRACTOR FOR FIRE EMERGENCY SERVICE. ANY SMOKE DETECTORS INSTALLED IN ELEVATOR HOISTWAYS SHALL BE ACCESSIBLE FOR SERVICING FROM OUTSIDE OF HOISTWAY.
10. LIGHTING AND OUTLETS: MINIMUM 19 FOOT-CANDELES AT MACHINE ROOM FLOOR. LOCATE LIGHT SWITCH WITHIN 18" OF LOCK JAMB SIDE OF ACCESS DOOR. PROVIDE GFI CONVENIENCE OUTLETS ON ALL WALLS.
11. ROOF ACCESS LIGHTING: PROVIDE A LIGHTED PATHWAY FROM ROOF ACCESS DOOR TO MACHINE ROOM DOOR.
12. FIRE EXTINGUISHER: PROVIDE AN ABC TYPE FIRE EXTINGUISHER IN EACH ELEVATOR MACHINE ROOM.
13. EMERGENCY STANDBY POWER: PROVIDE EMERGENCY STANDBY POWER SOURCE SIZED TO RUN LARGEST ELEVATOR IN EACH OF THE FOLLOWING GROUPS:
- GROUP I ELEVATOR NO.
- GROUP II ELEVATOR NO.
- GROUP III ELEVATOR NO.
- GROUP IV ELEVATOR NO.
- GROUP V ELEVATOR NO.
- a. POWER SOURCE SHALL BE SIZED TO ABSORB REGENERATIVE POWER FROM ELEVATOR SYSTEMS THAT EQUAL APPROXIMATELY 25% TO 45% OF FULL LOAD RUNNING. IN GENERAL, THE TOTAL STANDBY POWER LOAD SHOULD BE NO LESS THAN TWICE THE STANDBY LOAD IMPOSED BY THE ELEVATORS ALONE.
- b. PROVIDE TIME DELAY AUTOMATIC TRANSFER SWITCH TO DISTRIBUTE STANDBY POWER THROUGH NORMAL FEEDERS OF POWER CIRCUITS. PROVIDE TWO PAIRS OF NO. 14 GAUGE WIRES FROM FORM "C" AUXILIARY CONTACTS ON TRANSFER SWITCH TO MACHINE ROOM TO OPERATE AS FOLLOWS:
- 1) ONE DRY CONTACT TO OPEN WHEN NORMAL POWER FAILS AND EMERGENCY STANDBY POWER BECOMES AVAILABLE AND TO CLOSE WHEN NORMAL POWER RETURNS TO SIGNAL ELEVATOR CONTROLLERS.
- 2) ONE DRY CONTACT TO OPEN ON EMERGENCY POWER AND TO CLOSE 30 TO 40 SECONDS PRIOR TO TRANSFER BACK TO NORMAL POWER TO ALLOW ELEVATORS TO COME TO REST PRIOR TO NORMAL POWER RESUMPTION.
- c. CONNECT CAR LIGHTING, FAN AND INTERCOM SYSTEM CIRCUITS ON EMERGENCY POWER SOURCE.
14. REGENERATIVE POWER: VERIFY WITH MANUFACTURER IF ELEVATOR SYSTEM IS PROVIDED WITH A REGENERATIVE DRIVE SYSTEM. REGENERATIVE POWER WILL BE TRANSFERRED TO BOTH NORMAL AND EMERGENCY POWER SOURCES. THIS MUST BE CONSIDERED IN ELECTRICAL SYSTEM DESIGN.
15. COMMON CIRCUIT FOR ELEVATOR GROUPS OF 2 OR MORE ELEVATORS: DEDICATED 20 AMP 120 VOLT 1-PHASE CIRCUIT THROUGH LOCKABLE S.P.S.T. FUSED DISCONNECT SWITCH WITH FEEDERS EXTENDED TO GROUP CONTROLLER PANEL DESIGNATED BY ELEVATOR CONTRACTOR FOR EACH BANK OF TWO CARS OR MORE. PROVIDE EMERGENCY POWER BACK-UP.
16. AIR CONDITIONING SYSTEM CIRCUIT: FOR EXTERIOR OBSERVATION ELEVATORS. 220 VAC, 30 AMP SINGLE-PHASE POWER WITH FUSED LOCKABLE SPST DISCONNECT SWITCH WITH WIRE EXTENDED TO CONTROLLER. PROVIDE EMERGENCY POWER BACK-UP.
17. HYDRAULIC OIL COOLER SYSTEM CIRCUIT: PROVIDE DEDICATED 110 VAC, 30 AMP SINGLE PHASE POWER WITH FUSED LOCKABLE SPST DISCONNECT SWITCH WITH WIRE EXTENDED TO OIL COOLER UNIT.
18. PIT LIGHT AND OUTLETS: LOCATE LIGHT SWITCH WITHIN 18 INCHES OF LOCK JAMB SIDE OF WALK-IN ACCESS DOOR OR ADJACENT TO ACCESS LADDER BETWEEN 18" AND 36" ABOVE LOWEST LANDING. PROVIDE NEMA 4 PIT LIGHT FIXTURES, CONDUIT AND ELECTRICAL RECEPTACLES TO INCLUDE PROTECTIVE LENSES TO COVER BARE LIGHT BULBS OR FLOURESCENT TUBES. MINIMUM LIGHT LEVEL OF 10 FOOT CANDLES ANYWHERE IN PIT. PROVIDE A MINIMUM OF ONE GFCI CONVENIENCE OUTLET PER ELEVATOR. COORDINATE LOCATION OF ALL DEVICES WITH ELEVATOR CONTRACTOR.
19. FIRE SERVICE ACCESS ELEVATOR HOISTWAY LIGHTING: FOR BUILDINGS WITH 120'-0" RISE TO TOP OCCUPIED FLOOR. WHEN FIREFIGHTERS' EMERGENCY OPERATION IS ACTIVE, THE ENTIRE HOISTWAY SHALL BE ILLUMINATED AT NOT LESS THAN 1 FOOT-CANDLE AS MEASURED FROM THE TOP OF THE CAR OF EACH FIRE SERVICE ACCESS ELEVATOR.
20. OVERHEAD MACHINE OR SHEAVE SPACE ILLUMINATION: PROVIDE MINIMUM 20 FOOT-CANDELES OF ILLUMINATION IN OVERHEAD MACHINE SPACES. PROVIDE LIGHT SWITCH AND GFI CONVENIENCE OUTLET AS DIRECTED BY ELEVATOR CONTRACTOR.
21. ELEVATOR LOBBY SILL ILLUMINATION: LOBBY LIGHTING SHALL PRODUCE A MINIMUM OF 10 FOOT-CANDELES OF ILLUMINATION AT THE ELEVATOR SILL WHEN THE ELEVATOR IS IN OPERATION.
22. ELEVATOR CAR ILLUMINATION: THE ELEVATOR CAR MUST BE PROVIDED WITH NO LESS THAN TWO LIGHT FIXTURES TO PRODUCE A MINIMUM OF 5 FOOT-CANDELES (PASSENGER) 2.5 FOOT CANDLES (FREIGHT) OF ILLUMINATION AT THE ELEVATOR SILL / FLOOR LEVEL WITH THE ELEVATOR DOORS CLOSED.
23. CONDUIT: PROVIDE THE FOLLOWING QUANTITIES AND SIZE OF CONDUIT WITH FULL WIRE BETWEEN HOISTWAYS AND EACH LOCATION OF REMOTE LIFE SAFETY ROOM AND GUARD'S PANEL.

NUMBER OF ELEVATORS IN BANK	NUMBER OF CONDUITS	CONDUIT SIZE
SINGLE CAR	1	2"
TWO CARS	1	2 1/2"
THREE CARS	2	2 1/2"
FOUR CARS	2	2 1/2"

24. REFER TO "ELECTRICAL / MECHANICAL LOADS" FOR HORSEPOWER, ACCELERATION AND RUNNING AMPS.

MECHANICAL REQUIREMENTS

- A. VENTILATION OF MACHINE ROOM OR CONTROLLER ROOM: PROVIDE MECHANICAL VENTILATION, HEATING OR AIR CONDITIONING IN MACHINE ROOMS OF SUFFICIENT CAPACITY TO MAINTAIN A TEMPERATURE BETWEEN 50° F. AND 90° F. CONTROLLED BY THERMOSTATS IN THE MACHINE ROOM. MAXIMUM RELATIVE HUMIDITY (NON-CONDENSING) 85%. LOCATE MECHANICAL VENTILATION EQUIPMENT OUTSIDE OF ELEVATOR MACHINE ROOM.
- B. HOISTWAY VENTILATION/PRESSURIZATION: PROVIDE HOISTWAY VENTILATION OR HOISTWAY PRESSURIZATION FOR ELEVATORS SERVING MORE THAN 2 LEVELS PER GOVERNING BUILDING CODE. IF HOISTWAY VENTILATION IS TO BE PROVIDED, DO NOT VENTILATE INTO MACHINE ROOM. VENTILATE DIRECTLY TO OUTSIDE AIR OR THROUGH MECHANICAL DUCTS TO OUTSIDE AIR FROM TOP OF HOISTWAY BELOW MACHINE ROOM FLOOR. TYPICALLY HOISTWAY VENTILATION IS 3 SQUARE FEET PER ELEVATOR OF FREE AIR VENTILATION SPACE OR 3.5% OF THE HOISTWAY AREA, WHICHEVER IS GREATER. CHECK LOCAL CODES FOR SPECIAL REQUIREMENTS AND CAPACITY OF VENTILATION. WHERE HOISTWAY PRESSURIZATION IF EMPLOYED, MACHINE ROOMS SHALL ALSO BE PRESSURIZED WHERE THE MACHINE ROOM CONNECTS DIRECTLY TO THE HOISTWAY. HOISTWAY PRESSURIZATION SHALL NOT INTERFERE WITH THE OPERATION OF THE ELEVATOR SYSTEM AND IT IS RECOMMENDED THAT THE MINIMUM AMOUNT OF AIR PRESSURE BE UTILIZED TO ACCOMMODATE THE INTENDED TASK.
- C. FOREIGN EQUIPMENT: DO NOT LOCATE ANY PIPES, CONDUITS OR OTHER NON-ELEVATOR EQUIPMENT IN ELEVATOR MACHINE ROOM OR HOISTWAYS.
- D. FIRE EXTINGUISHER: PROVIDE AN ABC TYPE FIRE EXTINGUISHER IN EACH ELEVATOR MACHINE ROOM.
- E. PIT DRAINAGE: SUMP PITS (ASME ONLY, NOT CALIFORNIA) PROVIDE A PIT DRAINAGE SYSTEM IN EACH ELEVATOR PIT CAPABLE OF DISCHARGING 3000 GALLONS PER HOUR PER ELEVATOR. DRAINAGE SYSTEM CANNOT BE DIRECTLY CONNECTED TO A SEWER. DRAINAGE SYSTEM MAY BE A DRAIN OR PERMANENT AUTOMATIC ACTUATED SUMP PUMPS INSTALLED IN THE SUMP PIT. WHERE SUMP PUMPS ARE INSTALLED IT SHALL BE PROVIDED WITH A COVER FLUSH WITH THE PIT FLOOR. AS AN ALTERNATE TO CONNECTING TO THE OIL INTERCEPTOR, FLOOR DRAINS AND SUMP PUMPS MAY DISCHARGE TO A HOLDING TANK HAVING A MINIMUM CAPACITY AS REQUIRED BY LOCAL AUTHORITIES AND EQUIPPED WITH A HIGH WATER ALARM.
- F. MECHANICAL LOADS: REFER TO "ELECTRICAL / MECHANICAL LOADS" FOR AVERAGE ELEVATOR EQUIPMENT HEAT RELEASE IN MACHINE ROOMS.

ELECTRICAL / MECHANICAL LOADS

DUE TO THE EVER CHANGING STATE-OF-THE-ART OF ELEVATOR EQUIPMENT PROVIDED BY THE VARIOUS ELEVATOR COMPANIES, IT IS DIFFICULT TO DETERMINE EXACTLY WHAT TYPE OF EQUIPMENT WILL BE USED ON EACH PROJECT.

ADDITIONALLY, EACH MANUFACTURER, BECAUSE OF THEIR EQUIPMENT WEIGHTS AND DESIGN EFFICIENCIES, WILL HAVE DIFFERENT HORSEPOWER RATINGS AND CURRENT CHARACTERISTICS. THE FOLLOWING LOADS ARE BASED ON AN AVERAGE AND MAY VARY FROM THE SUCCESSFUL MANUFACTURER'S ACTUAL NEEDS. THIS INFORMATION MUST BE CONFIRMED AFTER THE ELEVATOR CONTRACT IS AWARDED.

BASED ON 480 VAC, 3 PH, 60 HZ POWER SUPPLY						
ELEVATOR NUMBER	CAPACITY (POUNDS)	SPEED (FPM)	MOTOR HP RATING (AC)	STARTING AMPS FULL LOAD UP (AMPS)	RUNNING AMPS FULL LOAD UP (AMPS)	HEAT RELEASE (BTU/HR) PER MACHINE
PE1	3500	125	40	110	44	15,000 TOTAL

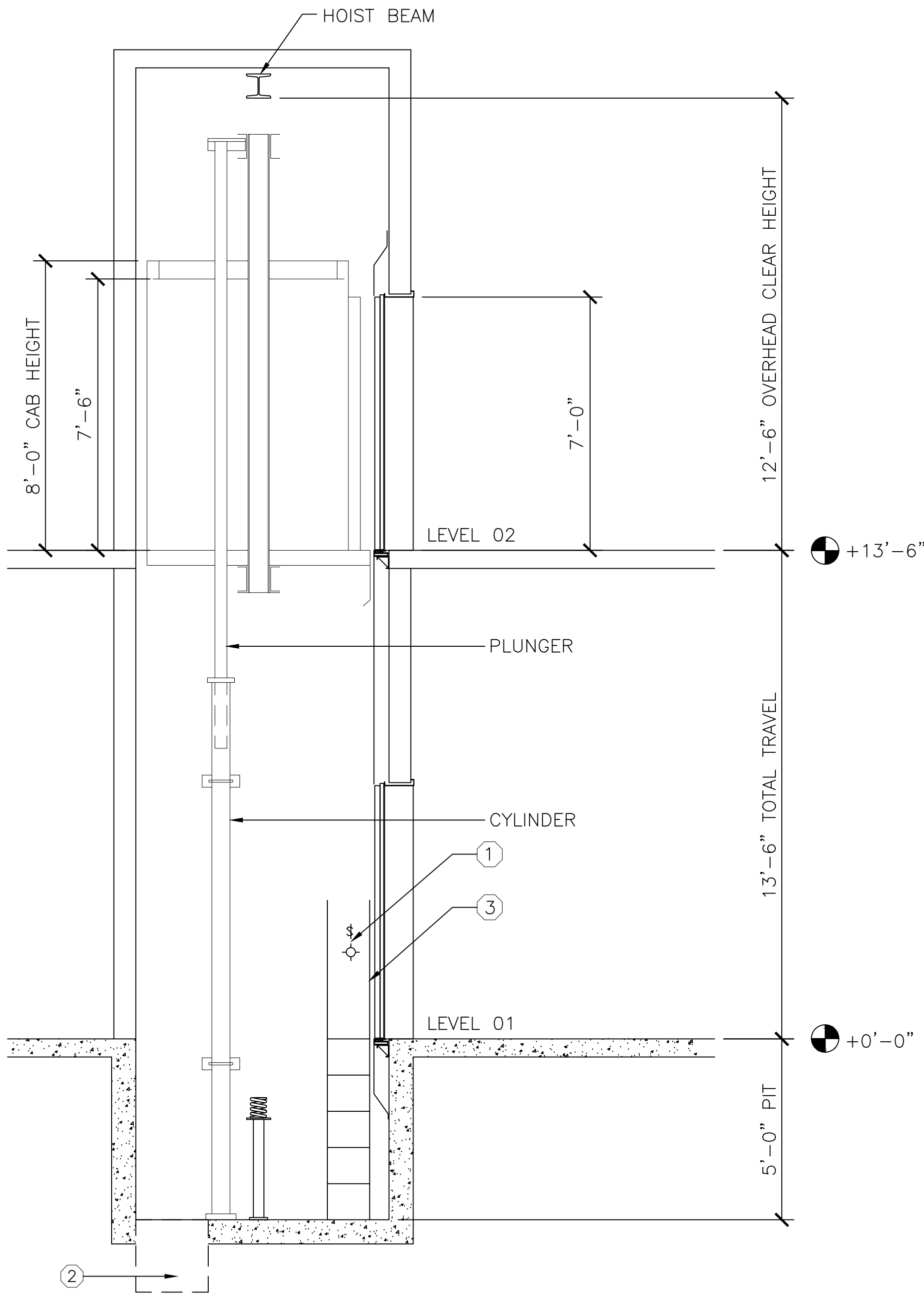
*PLEASE NOTE POWER VOLTAGE



23211 South Pointe Drive
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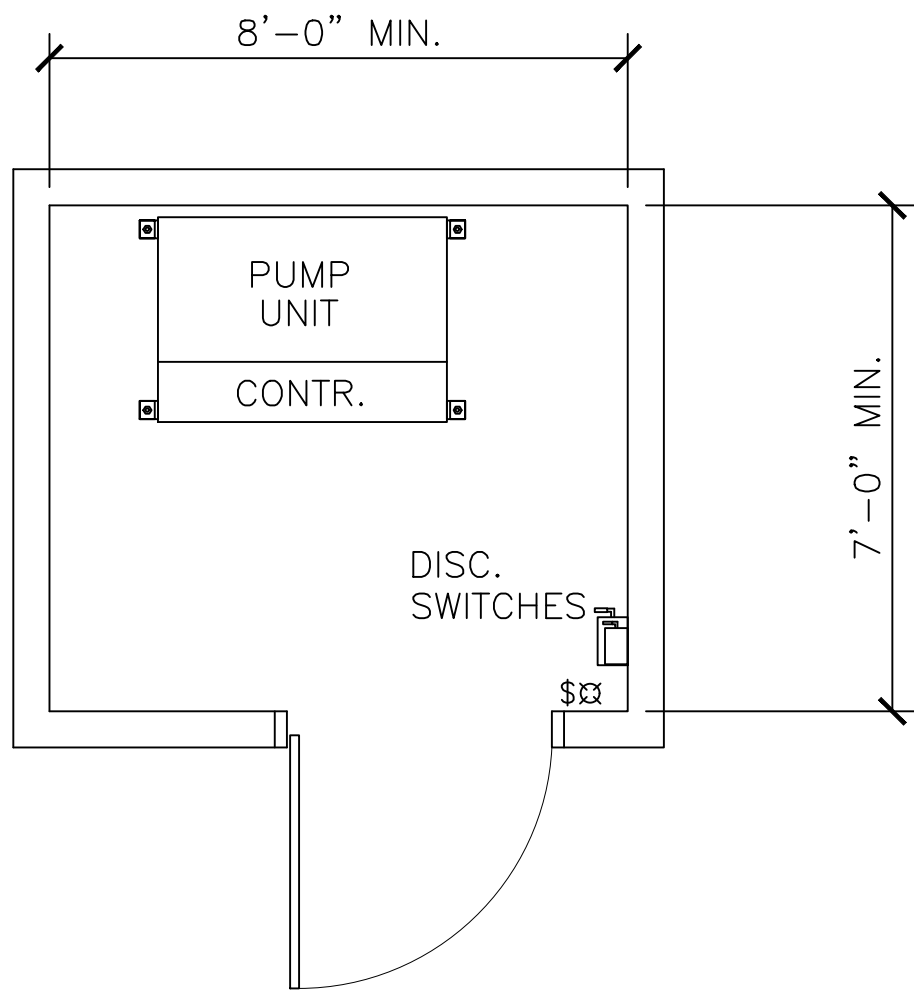
3765 E. Sunset Road
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DRAWING TITLE:	GENERAL REQUIREMENTS FOR ELEVATORS		
JOB NAME:	FONTANA NAVIGATION CENTER		
ADDRESS:	11109 JASMINE ST		
LOCATION:	FONTANA, CA 92337		
DATE:	03.27.2026		
DRAWING NO:	VT-100	FILE NO.	REV.
			-



4 SECTIONAL ELEVATION

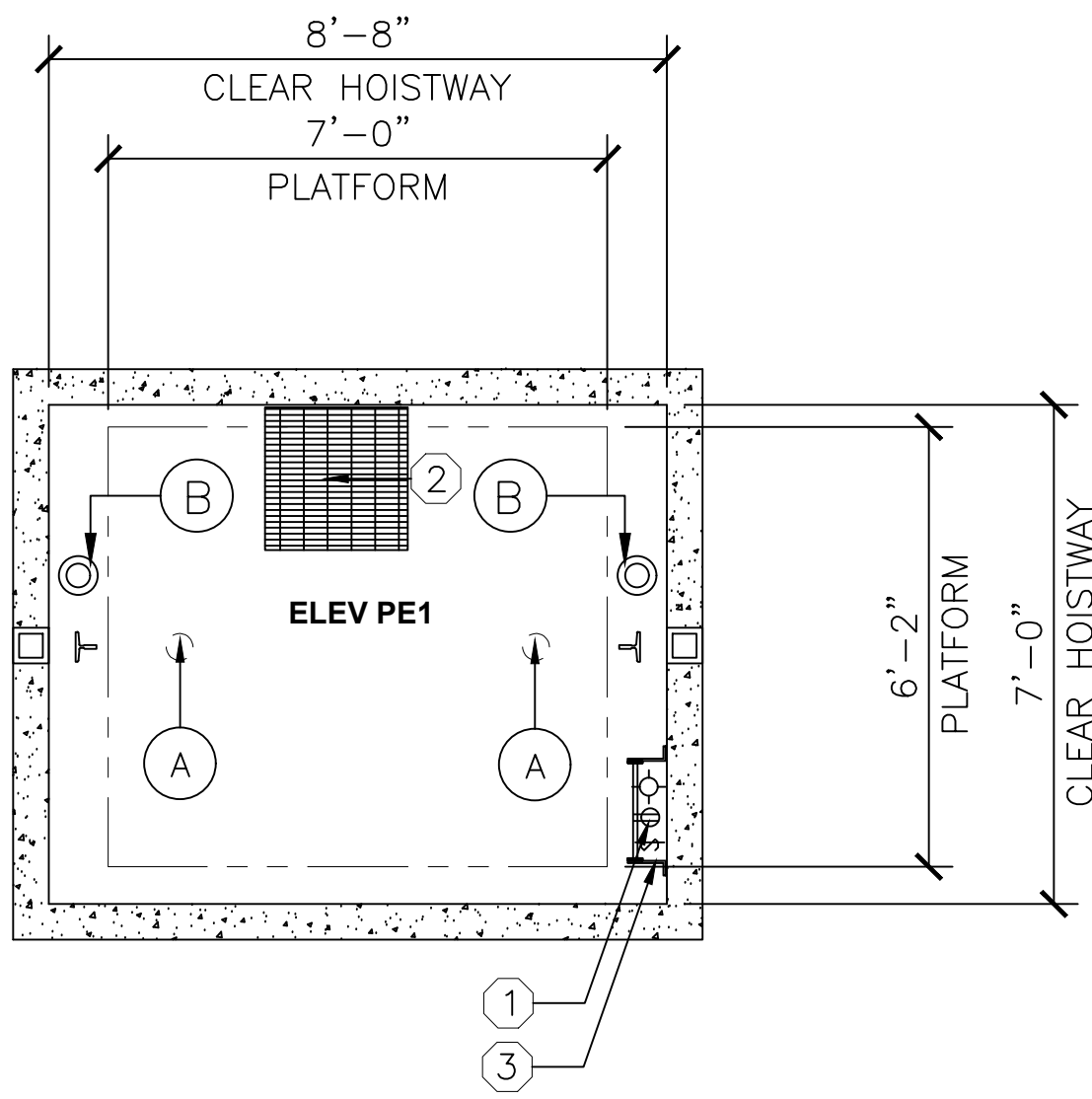
SCALE: 3/8" = 1'-0"



3 MACHINE ROOM PLAN

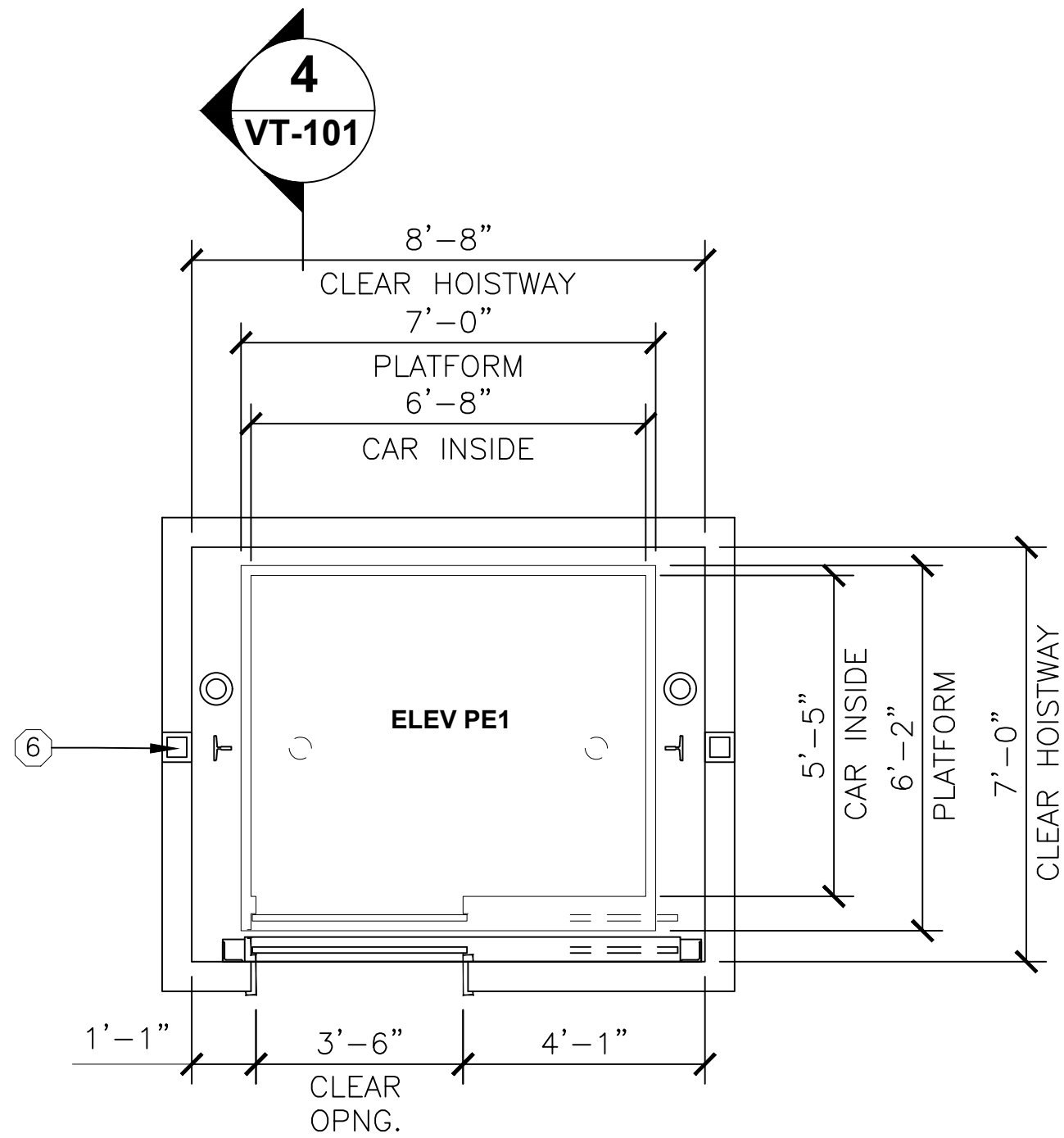
MACHINE ROOM CAN BE ADJACENT OR REMOTE FROM THE ELEVATOR HOISTWAY BUT CANNOT CROSS A SEISMIC OR EXPANSION JOINT.

3'-6" MIN. CLEAR REQUIRED IN FRONT OF CONTROLLER & DISCONNECT SWITCHES.



2 PIT PLAN

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



1 HATCH PLAN

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

WORK BY OTHERS:

- 1 PIT LIGHT AND ELEVATOR STOP SWITCH TO BE PROVIDED ADJACENT TO PIT LADDER, AT A HEIGHT PER LOCAL AHJ.
- 2 PROVIDE PER LOCAL AHJ, SUMP PUMP HOLE 24"x24"x24", WITH DRAIN OR PUMP PER ASME AND GRATE BY OTHERS.
- 3 PROVIDE PIT LADDER PER ASME AND LOCAL AHJ.
- 4 PROVIDE LIGHT SWITCH AND GFCI RECEPTACLE PER ASME AND LOCAL AHJ.
- 5 PROVIDE LIGHTING PER ASME (19fc) AND LOCAL AHJ.
- 6 STRUCTURE TO SUPPORT GUIDE RAIL BRACKETS, GUIDE RAIL BRACKETS TO BE SUPPORTED WITHIN 14'-0" MAXIMUM VERTICAL SPACING, TO BE VERIFIED BY THE ELEVATOR MANUFACTURER.

PIT VERTICAL LOADS:

- A — 9.6K CAR BUFFER LOAD
- B — 21.8K CYLINDER LOAD

CAR BUFFER AND CAR RAIL LOADS DO NOT OCCUR AT THE SAME TIME

ELEVATOR NUMBER	CAPACITY	SPEED
ELEV PE1	3500 Lbs.	125 fpm

REV	DESCRIPTION	DATE
REVISIONS		

HKA
Elevator Consulting, Inc.

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DRAWING TITLE: **SECTIONAL, HOISTWAY & MACHINE ROOM PLANS ELEV PE1**

JOB NAME: **FONTANA NAVIGATION CENTER**

ADDRESS: **11109 JASMINE ST**

LOCATION: **FONTANA, CA 92337**

DATE: **03.27.2026**

DRAWING NO: **VT-101**

FILE NO.

REV.

This information is for coordination purposes only and is provided to assist the Architect, Structural, Electrical and Mechanical Engineers with the design of related facilities required to accommodate the vertical transportation systems for this project. This data is generally found in the "Work By Others" sections of the elevator specifications and is NOT provided by the Elevator Contractor. It is extremely important that each discipline, coordinate and incorporate this information into their design in order to properly accommodate the vertical transportation systems and avoid any potential change orders during the construction period of the project. The information provided herein is based on a wide selection of equipment supplied by major elevator contractors with the intent to accommodate "a worse case condition". There may be some differences between this information and the actual requirements of the successful elevator contractor for this project. This information should be verified during the shop drawing submittal stage. Should there be any questions or additional information needed to assist any member of the design team, we are available to assist in any way we can.