

MAIN STREET COMMONS - RESTROOMS

2117 MCCULLOCH BLVD. NORTH
LAKE HAVASU, AZ 86403



ARTISTIC RENDITION

DRAWING INDEX

SHEET #	SHEET NAME	View/Sheet Discipline	#	DATE	View/Sheet Discipline
GENERAL					
G000	COVERSHEET	0			GENERAL
G001	GENERAL NOTES	0			GENERAL
G002	ACCESSIBILITY REQUIREMENTS	0			GENERAL
G101	RESTROOM - CODE COMPLIANCE PLAN	0			GENERAL
ARCHITECTURAL					
A100	RESTROOM - SLAB / FLOOR PLAN	3			ARCHITECTURAL
A101	RESTROOM - RCP / ROOF PLAN	3			ARCHITECTURAL
A111	CONCESSIONS - FLOOR PLAN, RCP & ROOF PLAN	3			ARCHITECTURAL
A201	RESTROOM - EXTERIOR ELEVATIONS	3			ARCHITECTURAL
A211	CONCESSIONS - ELEVATIONS & SECTIONS	3			ARCHITECTURAL
A401	RESTROOM - INTERIOR ELEVATIONS	3			ARCHITECTURAL
A411	CONCESSIONS - INTERIOR ELEVATIONS	3			ARCHITECTURAL
A501	DETAILS	3			ARCHITECTURAL
A202	RESTROOM - SECTIONS	3			

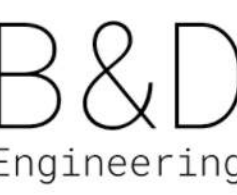
PROJECT TEAM



ARCHITECT:
THINK ARCHITECTURE:
7927 SOUTH HIGHPOINT WAY, SUITE 300
SANDY, UT 84094
801.269.0055



STRUCTURAL ENGINEER:
WRIGHT STRUCTURAL ENGINEERS
7140 SOUTH 700 WEST, SUITE 200
SANDY, UT 84070
801.352.2001



MECHANICAL ENGINEER:
B & D ENGINEERING
9710 SOUTH 700 EAST, SUITE 200
SANDY, UT 84070
(801) 685.8081



ELECTRICAL ENGINEER:
ROCKY MOUNTAIN CONSULTING ENG.
2330 WEST 12600 SOUTH, SUITE F
RIVERTON, UT 84065
(801) 566.0503

GENERAL CONTRACTOR:
--- TO BE DETERMINED ---



OWNER:
LAKE HAVASU CITY
2330 MCCULLOCH BLVD. NORTH
LAKE HAVASU CITY, AZ 86403
928.855.2116



FIRE DEPARTMENT
LAKE HAVASU
2330 MCCULLOCH BLVD. NORTH
LAKE HAVASU CITY, AZ 86403
928.855.1141

GOVERNING BUILDING CODES & INFORMATION

BUILDING CODE:	2018 INTERNATIONAL BUILDING CODE (I.B.C.) WITH ARIZONA STATE AMENDMENTS	MECHANICAL CODE:	2018 INTERNATIONAL MECHANICAL CODE (I.M.C.)
PLUMBING CODE:	2018 INTERNATIONAL PLUMBING CODE (I.P.C.)	FIRE CODE:	2018 INTERNATIONAL FIRE CODE (I.F.C.)
ELECTRICAL CODE:	2017 NATIONAL ELECTRICAL CODE (N.E.C.)	ENERGY CONSERVATION:	2018 INTERNATIONAL ENERGY CONSERVATION CODE (I.E.C.C.)
ACCESSIBILITY:	2009 ANSI 117.1 & 2018 I.B.C.		
OCCUPANCY GROUP:	B	BUILDING TYPE:	TYPE V-B
FIRE SPRINKLER:	NO		
RISK CATEGORY (TABLE 1604.5)(1)		SITE EXPOSURE:	C
		BASIC WIND SPEED:	90 - MPH
		ULTIMATE WIND SPEED:	115 - MPH
MATERIALS: CONCRETE FOOTINGS, CMU FOUNDATIONS, CMU STRUCTURAL WALLS WITH METAL STUD FURRED WALLS, TPO OR PVC ROOFING MEMBRANE OVER RIGID INSULATION OVER METAL DECKING ON STEEL ROOF FRAMING.			

DEFERRED SUBMITTAL REQUIREMENTS

DEFERRED SUBMITTALS ARE THOSE PORTIONS OF DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF THE PERMIT APPLICATION AND HAVE RECEIVED PRIOR APPROVAL FROM THE BUILDING OFFICIAL TO BE DEFERRED.

THE DEFERRED SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT AND GENERAL CONTRACTOR WITHIN SIX WEEKS TO COMMENCEMENT OF CONSTRUCTION TO THIS PORTION OF WORK.

DEFERRED SUBMITTAL PROCESS:

1. THE DEFERRED SUBMITTAL SHALL FIRST BE REVIEWED BY THE GENERAL CONTRACTOR FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE SUBMITTAL MUST BE REVIEWED, APPROVED, STAMPED AND SIGNED BY THE GENERAL CONTRACTOR BEFORE BEING SUBMITTED TO THE ARCHITECT.

SPECIAL INSPECTIONS REQUIREMENTS

SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH IBC 2018 CHAPTER 17, SECTION 1704 AND THE SPECIAL INSPECTION TABLES SHOWN ON THE STRUCTURAL DRAWINGS.

SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONALS IN RESPONSIBLE CHARGE. (IBC 2018, SECTION 1704.2.4).

SPECIAL INSPECTOR QUALIFICATIONS PRIOR TO THE START OF THE CONSTRUCTION, THE APPROVED AGENCIES SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING THE COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING OF THE SPECIAL INSPECTORS WHO WILL PERFORM THE SPECIAL INSPECTIONS AND TESTING DURING CONSTRUCTION. (IBC 2018, SECTION 1704.2.1).

ABBREVIATIONS

#	NUMBER	HDW.	HARDWARE
H.A.	HOLLOW METAL	H.A.	HOLLOW METAL
HORIZ.	HORIZONTAL	HORIZ.	HORIZONTAL
HT.	HEIGHT	HT.	HEIGHT
HVAC	HEATING/VENTILATION/AIR CONDITIONING	HVAC	HEATING/VENTILATION/AIR CONDITIONING
HYD.	HYDRANT	HYD.	HYDRANT
I.D.	INSIDE DIAMETER	I.D.	INSIDE DIAMETER
INFO.	INFORMATION	INFO.	INFORMATION
INSUL.	INSULATION	INSUL.	INSULATION
LAV.	LAVATORY	LAV.	LAVATORY
LT.	LIGHT	LT.	LIGHT
LT WT.	LIGHT WEIGHT	LT WT.	LIGHT WEIGHT
MAINT.	MAINTENANCE	MAINT.	MAINTENANCE
MANUF.	MANUFACTURER	MANUF.	MANUFACTURER
MAX.	MAXIMUM	MAX.	MAXIMUM
MAT.	MATERIAL	MAT.	MATERIAL
M.C.J.	MASONRY CONTROL JOINT	M.C.J.	MASONRY CONTROL JOINT
MECH.	MECHANICAL	MECH.	MECHANICAL
MIN.	MINIMUM	MIN.	MINIMUM
MISC.	MISCELLANEOUS	MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING	M.O.	MASONRY OPENING
MTL.	METAL	MTL.	METAL
N.I.C.	NOT IN CONTRACT	N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE	N.T.S.	NOT TO SCALE
O.C.	ON CENTER	O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER	O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE	O.F.	OUTSIDE FACE
PERP.	PERPENDICULAR	PERP.	PERPENDICULAR
PL.	PLATE	PL.	PLATE
PTD.	PAINTED	PTD.	PAINTED
QTY.	QUANTITY	QTY.	QUANTITY
R.D.	ROOF DRAIN	R.D.	ROOF DRAIN
RAD.	RADIUS	RAD.	RADIUS
REIN.	REINFORCED	REIN.	REINFORCED
REQD.	REQUIRED	REQD.	REQUIRED
RM.	ROOM	RM.	ROOM
R.O.	ROUGH OPENING	R.O.	ROUGH OPENING
SCHED.	SCHEDULE	SCHED.	SCHEDULE
SHT.	SHEET	SHT.	SHEET
SH.	SIMILAR	SH.	SIMILAR
SPEC.	SPECIFICATION	SPEC.	SPECIFICATION
STC	SOUND TRANSMISSION COEFFICIENT	STC	SOUND TRANSMISSION COEFFICIENT
STRUCT.	STRUCTURAL	STRUCT.	STRUCTURAL
SUSP.	SUSPENDED	SUSP.	SUSPENDED
T.O.	TOP OF	T.O.	TOP OF
T.O.C.	TOP OF CURB	T.O.C.	TOP OF CURB
T.O.F.	TOP OF FOOTING	T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF SLAB OR SIDEWALK	T.O.S.	TOP OF SLAB OR SIDEWALK
T.O.W.	TOP OF WALL	T.O.W.	TOP OF WALL
TYP.	TYPICAL	TYP.	TYPICAL
UN.O.	UNLESS NOTED OTHERWISE	UN.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICLE	VERT.	VERTICLE
W.	WITH	W.	WITH
WD.	WOOD	WD.	WOOD
W.W.F.	WELDED WIRE FABRIC	W.W.F.	WELDED WIRE FABRIC

GRAPHIC SYMBOLS/ MATERIAL LEGENDS

	FLOOR OR POINT ELEVATION		MASTER GRID LINES
	KEY NOTE		PARKING GRID LINES
	SPECIFICATION KEY NOTE		BUILDING GRID LINES
	WALL TYPE		EIFS
	DOOR NUMBER		CONCRETE MASONRY UNIT
	WINDOW NUMBER		BRICK VENEER
	FIXTURE TAG		STONE VENEER
	REVISION TAG		CONCRETE
	DETAIL		GYPSUM BOARD OR GROUT
	INTERIOR ELEVATION		MORTAR
	BUILDING ELEVATION		BATT INSULATION
	ROOM NAME & NUMBER		RIGID INSULATION
	BUILDING SECTION		PLYWOOD
	WALL SECTION		ROUGH WOOD-CONTINUOUS
	CENTER LINE		ROUGH WOOD-BLOCKING
			WOOD TRIM
			STEEL
			GRAVEL
			EARTH

VICINITY MAP



CITY APPROVAL STAMP

MAIN STREET COMMONS - RESTROOMS

2117 MCCULLOCH BLVD. NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134

DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:

COVERSHEET

SHEET NUMBER:

G000

© 2022 THINK ARCHITECTURE, INC.

BID SET

6/24/2025 8:45:52 AM

DEFERRED SUBMITTAL REQUIREMENTS

DEFERRED SUBMITTALS ARE THOSE PORTIONS OF DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF THE PERMIT APPLICATION AND HAVE RECEIVED PRIOR APPROVAL FROM THE BUILDING OFFICIAL TO BE DEFERRED. THE DEFERRED SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT AND GENERAL CONTRACTOR WITHIN SIX WEEKS TO COMMENCEMENT OF CONSTRUCTION TO THIS PORTION OF WORK.

DEFERRED SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT AND GENERAL CONTRACTOR WITHIN FOUR WEEKS OF THE AWARD OF THE CONTRACT TO THE GENERAL CONTRACTOR. THIS PROCESS MAY VARY, BUT SHOULD ALLOW FOR POSSIBLE 4-6 WEEK REVIEW PROCESS. CONTRACTOR IS RESPONSIBLE TO COORDINATE FOR REVIEW TIMES IN CRITICAL PATH OF CONSTRUCTION.

DEFERRED SUBMITTAL PROCESS:

1. THE DEFERRED SUBMITTAL SHALL FIRST BE REVIEWED BY THE GENERAL CONTRACTOR FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE SUBMITTAL MUST BE REVIEWED, APPROVED, STAMPED AND SIGNED BY THE GENERAL CONTRACTOR BEFORE BEING SUBMITTED TO THE ARCHITECT.

2. THE GENERAL CONTRACTOR SHALL SUBMIT FIVE SETS OF THE DEFERRED SUBMITTAL TO THE ARCHITECT.

3. THE DEFERRED SUBMITTAL ITEMS WILL BE REVIEWED BY THE ENGINEER OR ARCHITECT IN RESPONSIBLE CHARGE. THE ENGINEER OR ARCHITECT WILL ATTACH A LETTER TO THE SUBMITTAL STATING THAT THE DEFERRED ITEM IS IN CONFORMANCE WITH THE DESIGN OF THE STRUCTURE.

4. THE APPROVED SUBMITTALS WILL BE RETURNED TO THE GENERAL CONTRACTOR. TWO SETS OF THE DEFERRED SUBMITTAL ARE THEN SUBMITTED TO THE CITY FOR REVIEW.

5. THE GENERAL CONTRACTOR SHALL MAINTAIN ONE SET OF THE APPROVED SUBMITTAL ON SITE FOR REFERENCE BY THE CITY INSPECTOR.

6. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY BUILDING OFFICIAL. ALL WORK COMPLETED PRIOR TO APPROVAL AND REQUIRES CHANGE OR MODIFICATION DUE TO APPROVALS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

7. SEE STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS FOR STRUCTURAL DEFERRED SUBMITTALS.

8. COORDINATE WITH GENERAL NOTES OF STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INSTRUCTIONS.

9. ALL DEFERRED SUBMITTAL SHALL BE SUBMITTED VIA HARD COPY, AND WILL NOT BE ALLOWED AS A DIGITAL SUBMITTAL. ALL DEFERRED SUBMITTALS SHALL HAVE 5 COPIES SUBMITTED AS A MINIMUM WITH 1 SET BEING RETAINED BY THE DESIGN TEAM, 1 SET BY THE GENERAL CONTRACTOR, AND 2 SETS BEING SUBMITTED TO THE COUNTY FOR FINAL APPROVAL. THE FINAL SET SHALL BE RETURNED TO THE APPROPRIATE SUB CONTRACTOR.

DEFERRED SUBMITTAL ITEMS

1. SECURITY CAMERAS/ LOW-VOLTAGE SYSTEMS: WHERE AS THE LOW VOLTAGE DESIGN IS BEING PROVIDED BY AN OWNER PROVIDED SUB CONTRACTOR, ALL REQUIREMENTS FOR SECURITY CAMERAS SHALL BE NOTED ON THE SHOP DRAWINGS, AND SHALL BE PROVIDED PRIOR TO THE COMMENCEMENT OF ELECTRICAL WORK WITHIN THE PROJECT. CHANGES REQUIRED TO THE ELECTRICAL SERVICE DUE TO LOW VOLTAGE REQUIREMENTS SHALL PROPOSED TO THE OWNER FOR APPROVAL PRIOR TO BEGINNING WORK. IF CONTRACTOR BEGINS WORK WITHOUT OWNER APPROVAL THE CONTRACTOR SHALL ASSUME ALL COST ASSOCIATED TO THE COST OF THE WORK, WITH NO CHANGE TO THE OWNER. SHALL BE SUBMITTED AS A DEFERRED SUBMITTAL.

PROJECT GENERAL NOTES

1. INTENT OF THE DOCUMENTS: DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PROVIDE THE BASIS FOR THE PROPER COMPLETION OF THE PROJECT, SUITABLE FOR THE INTENDED USE OF THE OWNER. ITEMS NOT EXPRESSLY SET FORTH, BUT WHICH ARE REASONABLY IMPLIED, OR NECESSARY, FOR THE PROPER PERFORMANCE OF THE WORK SHALL BE INCLUDED.

2. DRAWINGS AND SPECIFICATIONS: SPECIFICATIONS ARE INTENDED TO BE COMPLEMENTARY AND SUPPLEMENTAL TO THE DRAWINGS. NO RELATIVE IMPORTANCE OF DRAWINGS VERSUS SPECIFICATIONS HAS BEEN ESTABLISHED AND NONE SHOULD BE ASSUMED. IN THE EVENT OF DISCREPANCIES OR CONFLICTS, THE ARCHITECT SHALL BE CONSULTED IN ORDER TO RENDER AN INTERPRETATION.

3. WORK NOT INCLUDED: ANY ITEM INDICATED ON THE DRAWINGS AS "N.C." (NOT IN CONTRACT), OR OTHERWISE DESIGNATED TO BE DONE BY OTHERS IS NOT A PART OF THE CONTRACT. INSTALLATION AND /OR BACKING MAY BE REQUIRED FOR SOME EQUIPMENT FURNISHED BY OWNER OR OWNER'S SUBCONTRACTOR. REFER TO DRAWINGS FOR SPECIFIC REQUIREMENTS.

4. INSTALLATION STANDARDS: ALL MANUFACTURED MATERIALS AND PRODUCTS SHALL BE APPLIED, INSTALLED, CONNECTED, CLEANED, AND CONDITIONED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. ALL REFERENCES TO STANDARDS OR TO MANUFACTURER'S SPECIFICATIONS SHALL BE TO THE LATEST EDITIONS OR LATEST AMENDMENTS.

5. PIPES, CONDUITS, OR DUCTS EXCEEDING ONE THIRD OF THE SLAB OR MEMBER THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE, UNLESS SPECIFICALLY DETAILED. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR LOCATION OF SLEEVES AND OTHER ACCESSORIES.

6. ROOFING WORK SHALL BE PERFORMED AND ALL PENETRATIONS THROUGH THE ROOFING MEMBRANE SHALL BE PATCHED OR FLASHED BY THE LANDLORD'S ROOFER. COORDINATE WITH LANDLORD'S ROOFER AND NOTIFY 48 HOURS IN ADVANCE OF WORK.

7. SOURCE QUALITY CONTROL: PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS, WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS, UNLESS MORE STRINGENT CRITERIA ARE SPECIFIED IN INDIVIDUAL SECTIONS. USE OF ANY SUPPLIER IS SUBJECT TO OWNER'S APPROVAL.

8. PRODUCT HANDLING: TRANSPORT AND HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DELIVER PRODUCTS IN UNDAMAGED CONDITION, IN MANUFACTURER'S ORIGINAL UNOPENED CONTAINERS OR PACKAGING, WITH IDENTIFYING LABELS INTACT AND LEGIBLE. PROMPTLY INSPECT SHIPMENTS TO INSURE THAT PRODUCTS COMPLY WITH REQUIREMENTS OF CONTRACT DOCUMENTS, QUANTITIES ARE CORRECT, AND PRODUCTS ARE UNDAMAGED.

9. STORAGE AND PROTECTION: STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS WITH LABELS INTACT AND LEGIBLE. STORE SENSITIVE PRODUCTS IN WEATHERIGHT, CLIMATE CONTROLLED ENCLOSURES. PROVIDE OFF SITE STORAGE AND PROTECTION WHEN SITE DOES NOT PERMIT ON SITE STORAGE.

10. COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS: HANDLE, INSTALL, ERECT, CONNECT, CONDITION, USE, ADJUST, AND CLEAN PRODUCTS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND IN CONFORMITY WITH SPECIFIED REQUIREMENTS, INCLUDING EACH STEP IN SEQUENCE. DO NOT OMIT PREPARATORY STEPS OR INSTALLATION PROCEDURES UNLESS SPECIFICALLY MODIFIED OR EXEMPTED BY CONTRACT DOCUMENTS. SHOULD JOB CONDITIONS OR SPECIFIED REQUIREMENTS CONFLICT WITH MANUFACTURER'S INSTRUCTIONS, REQUEST CLARIFICATION IN WRITING FROM ARCHITECT BEFORE PROCEEDING. INSTALL MATERIALS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH PROPER APPEARANCE.

11. CONTRACTOR SHALL PROVIDE BACKING FOR SUPPORT OF ALL WALL, CEILING, AND PARTITION MOUNTED ITEMS SUCH AS TABLE BRACKETS, LIGHT FIXTURES, ARTIFACTS, SHELVING, EQUIPMENT, AND TELEVISIONS. COORDINATE LOCATIONS AND REQUIREMENTS WITH THE PLUMBING, MECHANICAL, ELECTRICAL, DRAWINGS.

12. FIELD QUALITY CONTROL: EMPLOY ONLY EXPERIENCED INSTALLERS AND FURNISH EVIDENCE OF EXPERIENCE IF REQUESTED. USE OF ANY SUBCONTRACTOR OR INSTALLER IS SUBJECT TO OWNER'S APPROVAL. EMPLOY A FULL-TIME, COMPETENT SUPERINTENDENT AS WELL AS NECESSARY ASSISTANTS. SUPERINTENDENT SHALL REPRESENT THE CONTRACTOR AND ALL COMMUNICATIONS GIVEN TO THE SUPERINTENDENT SHALL BE AS BINDING AS IF GIVEN TO THE CONTRACTOR.

13. TESTING AGENCIES: PROVIDE AND PAY FOR INSPECTIONS, TESTS, AND OTHER SERVICES SPECIFIED. REFER TO INDIVIDUAL SECTIONS FOR ADDITIONAL REQUIREMENTS. EMPLOYMENT OF TESTING LABORATORY SHALL IN NO WAY RELIEVE CONTRACTOR OF OBLIGATION TO PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS.

14. REFERENCE STANDARDS: COMPLY WITH ASSOCIATION, TRADE, FEDERAL, COMMERCIAL, ASTM, AND OTHER SIMILAR STANDARDS REFERENCED WITHIN INDIVIDUAL SECTIONS, EXCEPT WHERE MORE EXPLICIT OR STRINGENT REQUIREMENTS ARE INDICATED, OR REQUIRED BY APPLICABLE CODES. REFERENCE STANDARDS INCLUDE THEIR ASSOCIATED AMENDMENTS AND SUPPLEMENTS AND DATE OF STANDARD IS LATEST EDITION IN EFFECT AT DATE OF EXECUTION OF CONTRACT. REFERENCE STANDARDS HAVE SAME FORCE AND EFFECT AS IF BOUND INTO CONTRACT DOCUMENTS. SHOULD SPECIFIED REFERENCE STANDARDS CONFLICT WITH CONTRACT DOCUMENTS, REQUEST CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING.

15. ALL WORK SHALL CONFORM TO THE LATEST ADOPTED EDITIONS OF ALL APPLICABLE BUILDING CODES, THE AMERICANS WITH DISABILITIES ACT, AS WELL AS ALL OTHER LOCAL GOVERNING CODES AND ORDINANCES.

16. INTERIOR WALL AND CEILING FINISHES SHALL NOT EXCEED FLAME SPREAD CLASSIFICATIONS DICTATED BY ALL APPLICABLE BUILDING CODES.

17. GYPSUM BOARD AND SUSPENDED CEILING SYSTEMS SHALL CONFORM TO ALL LOCAL GOVERNING BUILDING CODES AND ORDINANCES.

18. GLASS AND GLAZING SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES AS WELL AS THE U.S. CONSUMER PRODUCT SAFETY COMMISSION, SAFETY STANDARDS FOR ARCHITECTURAL GLAZING MATERIALS (47 FR, 12616 TITLE NO. 16, CHAPTER 11, PART 1201).

19. DEFINITIONS:

a. PROVIDE: MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR OPERATIONS AND USE FOR PURPOSE INTENDED.

b. FURNISH: MEANS TO SUPPLY, PURCHASE, PROCURE AND DELIVER COMPLETE WITH RELATED ACCESSORIES, READY FOR ASSEMBLY, APPLICATION, INSTALLATION, AND SIMILAR OPERATIONS, AS APPLICABLE IN EACH INSTANCE.

c. INSTALL: MEANS TO CONSTRUCT, ASSEMBLE, ERECT, MOUNT, ANCHOR, PLACE, CONNECT, APPLY AND SIMILAR OPERATIONS, COMPLETE WITH RELATED ACCESSORIES, AS APPLICABLE IN EACH INSTANCE.

d. EQUIVALENT: MEANS EQUIVALENT AS ACCEPTED BY THE ARCHITECT, WITH RESPECT TO PRODUCTS, EQUIVALENT MEANS A LIKE DEGREE OF FEATURES, ATTRIBUTES, PERFORMANCES, OR QUALITIES DEEMED ESSENTIAL TO THE DESIGN INDICATED; INSTEAD, THE TERM IS INTENDED TO MEAN ARCHITECT WILL CONSIDER SUBSTITUTION PROPOSALS FOR THE PRODUCT. DO NOT ASSUME THAT SUBSTITUTE PRODUCTS ARE ACCEPTABLE.

20. MANUFACTURER'S FIELD SERVICES: WHEN SPECIFIED IN INDIVIDUAL SECTIONS, REQUIRE MATERIAL OR PRODUCT SUPPLIERS OR MANUFACTURERS TO PROVIDE QUALIFIED STAFF PERSONNEL TO OBSERVE SITE CONDITIONS, CONDITIONS OF SURFACES, QUALITY OF WORKMANSHIP, AND CONDITIONS OF INSTALLATION AS APPLICABLE AND TO INITIATE ADDITIONAL INSTRUCTIONS WHEN NECESSARY.

21. CONTRACT DOCUMENTS AT SITE: CURRENT PERMIT DRAWINGS; SHOP DRAWINGS; REVISED DRAWINGS; AND CLARIFICATION DRAWINGS, ADDENDA, CHANGE ORDERS, BULLETINS, INSPECTIONS; TEST CERTIFICATIONS AND RECORDS; PRODUCT SUBMITTAL DATA AND SAMPLES. FIELD OFFICE SHALL CONTAIN A CURRENT COPY OF ALL GOVERNING BUILDING CODE(S), MAKE DOCUMENTS AVAILABLE AT ALL TIMES FOR ARCHITECTS REVIEW.

22. THE GENERAL BUILDING PERMITS SHALL BE PAID FOR BY THE OWNER AND SECURED BY THE GENERAL CONTRACTOR. ALL OTHER REQUIRED PERMITS SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR OR SUBCONTRACTOR DIRECTLY RESPONSIBLE.

23. REQUIRED CITY AND COUNTY LICENSES SHALL BE ACQUIRED AND PAID FOR BY THE INDIVIDUAL TRADES.

24. ALL CONTRACTORS SHALL HAVE VALID CERTIFICATES OF WORKMANS COMPENSATION ON FILE WITH THE APPROPRIATE AGENCIES.

25. PROJECT LOG: MAINTAIN DAILY LOG CONTAINING ALL INFORMATION REGARDING CONSTRUCTION OPERATIONS AND OTHER OCCURRENCES PERTAINING TO THE PROJECT. MAKE LOG AVAILABLE FOR ARCHITECTS REVIEW.

26. WORK PROGRESS SCHEDULE: MAINTAIN AN UPDATED WORK PROGRESS SCHEDULE POSTED IN A VISIBLE LOCATION IN FIELD OFFICE. UPDATE SCHEDULE DAILY TO REFLECT WORK PROGRESS.

27. PROTECTION OF ADJACENT WORK: PROVIDE TEMPORARY PROTECTION FOR ADJACENT AREAS TO PREVENT DAMAGE BY INSTALLATION OF NEW WORK OR DEMOLITION OF EXISTING CONSTRUCTION. PROMPTLY REPAIR ANY DAMAGE AT NO ADDITIONAL COST TO THE OWNER. PROTECT ADJACENT AREAS FROM CONTAMINATION BY CONSTRUCTION DUST AND DEBRIS. PROVIDE TEMPORARY BARRICADES AS NECESSARY TO ENSURE PROTECTION OF THE PUBLIC. MAINTAIN EGRESS WITHIN AND AROUND CONSTRUCTION AREAS.

28. CONTRACTOR SHALL PROVIDE PEDESTRIAN PROTECTION IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES.

29. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES.

30. RECORD DRAWINGS: MAINTAIN ACCURATELY DIMENSIONED RECORDS OF ALL UNDERGROUND LINES, SERVICES, AND UTILITIES, AS WELL AS ANY DISCREPANCIES OR REQUIRED CHANGES IN THE CONTRACT DOCUMENTS. AT THE END OF THE PROJECT, FORWARD TO ARCHITECT FOR FUTURE RECORDS. ONE (1) CD OF COMPLETE RECORD DRAWINGS TO OWNER IN PDF FORMAT AFTER COMPLETING FINAL PUNCH LIST.

31. PRODUCTS AND MATERIALS: PROVIDE PRODUCTS AND MATERIALS SPECIFIED. REQUEST ARCHITECT'S SELECTION OF COLORS AND ACCESSORIES IN SUFFICIENT TIME TO AVOID DELAYING PROGRESS OF THE WORK.

32. AVAILABILITY OF PRODUCTS: VERIFY PRIOR TO CONSTRUCTION START THAT ALL SPECIFIED ITEMS WILL BE AVAILABLE IN TIME FOR INSTALLATION DURING ORDERLY AND TIMELY PROGRESS OF THE WORK. IN THE EVENT SPECIFIED ITEM OR ITEMS WILL NOT BE SO AVAILABLE, NOTIFY THE ARCHITECT PRIOR TO START OF CONSTRUCTION, COST OF DELAYS BECAUSE OF NON-AVAILABILITY OF SPECIFIED OR SUBSTITUTED ITEMS, WHEN THE CONTRACTOR COULD HAVE AVOIDED SUCH DELAYS, WILL BE BORNE BY THE CONTRACTOR.

33. CONTRACTOR SHALL PRIOR TO COMMENCEMENT OF WORK, FIELD VERIFY ALL EXISTING PROJECT CONDITIONS, INCLUDING DIMENSIONS, UTILITY LOCATIONS, AND UTILITY SIZES.

34. FIELD CONFIRMATION OF DISCREPANCIES SHALL BE RECORDED ON A REPRODUCIBLE DOCUMENT AND IMMEDIATELY TRANSMITTED TO ARCHITECT FOR PROJECT RECORD, COORDINATION, AND NECESSARY RESOLUTION PRIOR TO CONTINUING WITH WORK.

35. CONTRACTOR SHALL VERIFY, AND BE RESPONSIBLE FOR, ALL WORK AND MATERIALS - INCLUDING THOSE FURNISHED BY SUBCONTRACTORS.

36. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED SIZES; DO NOT SCALE DRAWINGS TO DETERMINE ANY LOCATIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES, PRIOR TO CONTINUING WITH WORK.

37. DIMENSIONS ON PLANS ARE TO CENTERLINE OF COLUMNS, AND FACE OF WALL OR FACE OF MASONRY (F.O.M.), UNLESS NOTED OTHERWISE.

38. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREIN OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE FOR THE REPAIR OR REPLACEMENT OF UTILITIES AND ALL OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH EXECUTION OF WORK.

39. FIELD MEASUREMENTS: VERIFY FIELD MEASUREMENTS BEFORE ORDERING MATERIALS AND PREFABRICATED ITEMS. ANY NECESSARY ADJUSTMENTS BETWEEN FIELD MEASUREMENTS AND DRAWINGS SHALL BE MADE IN CONSULTATION WITH THE ARCHITECT.

40. DAMAGED PRODUCTS: DO NOT USE PRODUCTS IN WORK, WHICH HAVE DETERIORATED, BECOME DAMAGED, OR ARE OTHERWISE UNFIT FOR USE. RESTORE UNITS DAMAGED DURING INSTALLATION, REPLACE UNITS WHICH CANNOT BE RESTORED AT NO ADDITIONAL EXPENSE TO THE OWNER.

41. SUBSTITUTIONS: PROPOSALS FOR SUBSTITUTION OF MATERIALS, EQUIPMENT, AND METHODS WILL ONLY BE CONSIDERED WHEN ACCOMPANIED BY FULL AND COMPLETE TECHNICAL DATA AS WELL AS ANY OTHER INFORMATION REQUIRED TO EVALUATE THE PROPOSED SUBSTITUTION. SUBSTITUTIONS ARE UNACCEPTABLE UNLESS SPECIFICALLY APPROVED BY THE ARCHITECT. IN THE EVENT OF SUBSTITUTION PROPOSALS AFTER THE CONTRACT HAS BEEN AWARDED, ALL SUCH PROPOSALS SHALL BE ACCOMPANIED BY SUBSTANTIAL COST SAVINGS FOR THE OWNER.

42. PRODUCT IDENTIFICATIONS: MANIFESTOS, TRADEMARKS, LOGOS, AND OTHER IDENTIFYING MARKS ON PRODUCTS ARE NOT PERMITTED ON SURFACES EXPOSED TO VIEW IN PUBLIC AREAS, INTERIOR OR EXTERIOR. PLUMBING, MECHANICAL, AND ELECTRICAL EQUIPMENT NOT EXPOSED TO PUBLIC VIEW ARE EXCLUDED FROM FOREGOING LIMITATION. REQUIRED UL OR FM LABELS ARE ALSO EXCLUDED.

43. NON-CONFORMING WORK: REMOVE AND REPLACE WORK THAT DOES NOT CONFORM TO THE CONTRACT DOCUMENTS AT NO ADDITIONAL EXPENSE TO THE OWNER.

44. EXAMINATION OF CONDITIONS: EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. DO NOT COMMENCE WORK OVER UNSATISFACTORY CONDITIONS DETERMINED TO PROPER AND TIMELY EXECUTION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. COMMENCEMENT OF INSTALLATION CONSTITUTES ACCEPTANCE OF CONDITIONS AND COSTS OF ANY CORRECTIVE MEASURES ARE RESPONSIBILITY OF CONTRACTOR.

45. COORDINATION AND CLEARANCES: VERIFY AND COORDINATE CLEARANCES, DIMENSIONS, AND INSTALLATION OF ADJOINING CONSTRUCTION, EQUIPMENT, PIPING, DUCTS, CONDUITS, OR OTHER MECHANICAL OR ELECTRICAL ITEMS OR APPARATUS. VERIFY DIMENSIONS FOR PRODUCTS TO BE FITTED INTO WORK.

a. ATTACHMENTS AND CONNECTIONS: PROVIDE ATTACHMENT AND CONNECTION DEVICES AND METHODS FOR SECURING AND ANCHORING WORK. SECURE IN PLACE WITH DEVICES DESIGNED AND SIZED TO WITHSTAND STRESSES, VIBRATION, PHYSICAL DISTORTION, OR DISPLACEMENT.

b. EXPANSION AND MOVEMENT: ALLOW FOR EXPANSION OF MATERIALS AND BUILDING MOVEMENT.

c. ISOLATION OF DISSIMILAR ITEMS: ISOLATE EACH UNIT OF WORK FROM INCOMPATIBLE WORK AS NECESSARY TO PREVENT DETERIORATION AND ELECTROLYTIC ACTION.

d. MAINTENANCE: CLEAN AND PERFORM MAINTENANCE ON INSTALLED WORK AS FREQUENTLY AS NECESSARY THROUGH REMAINDER OF CONSTRUCTION PERIOD. LUBRICATE OPERABLE COMPONENTS TO ENSURE OPERABILITY WITHOUT DAMAGING EFFECTS.

e. ADJUSTMENTS: ADJUST OPERATING PRODUCTS AND EQUIPMENT TO ENSURE SMOOTH AND UNHINDERED OPERATION.

46. SECURITY: PROVIDE FACILITIES TO PROTECT WORK FROM UNAUTHORIZED ENTRY, VANDALISM, AND THEFT. CONDUCT OPERATIONS IN MANNER TO AVOID RISK OF LOSS, THEFT, OR DAMAGE BY VANDALISM.

47. EXTERIOR OPENINGS SHALL COMPLY WITH ALL SECURITY REQUIREMENTS AS OUTLINED IN ALL LOCAL BUILDING CODES AND ORDINANCES.

48. TEMPORARY FACILITIES: PROVIDE TEMPORARY FACILITIES AND CONNECTIONS AS REQUIRED FOR THE PROPER COMPLETION OF THE PROJECT. PROVIDE AND MAINTAIN TEMPORARY UTILITY SERVICES. PROVIDE SUITABLE WASTE DISPOSAL UNITS AND EMPTY REGULARLY. DO NOT PERMIT ACCUMULATION OF TRASH AND WASTE MATERIALS. PROVIDE TEMPORARY SANITARY FACILITIES AS REQUIRED.

49. CONTRACTOR'S FIELD OFFICE: PROVIDE AND MAINTAIN A FIELD OFFICE ON THE PREMISES WHERE DIRECTED. OFFICE SHALL BE OF NEAR SUBSTANTIAL CONSTRUCTION. PROVIDE HANGING PLAN FILES AND MAINTAIN WITH ALL CURRENT DRAWINGS.

g. STORAGE STRUCTURE: PROVIDE AND MAINTAIN, WHERE DIRECTED, A WATER-TIGHT STORAGE STRUCTURE FOR ALL MATERIALS WHICH MIGHT BE DAMAGED BY WEATHER, INCLUDING STORAGE FACILITIES FOR CONCRETE TEST SAMPLES, OR OTHER MATERIAL SAMPLES REQUIRED FOR WORK.

d. COSTS: PAY COSTS FOR A LOCAL BUSINESS TELEPHONE FOR USE BY CONTRACTOR, OWNER AND ARCHITECT THROUGHOUT THE CONTRACT PERIOD.

c. COMMUNICATION EQUIPMENT: PROVIDE A TELEPHONE ON SITE. ASSIGN A RESPONSIBLE PERSON TO ANSWER ALL TELEPHONE CALLS IN EVENT THE SUPERINTENDENT IS ABSENT FROM THE PREMISES. PROVIDE APPROVED MEANS TO ESTABLISH URGENT COMMUNICATIONS (CELLULAR TELEPHONE OR PAGER). PROVIDE FACSIMILE MACHINE THAT CAN BE OPERATED 24 HOURS A DAY. CONTRACTOR SHALL PROVIDE A PAY TELEPHONE FOR THE USE OF SUBCONTRACTORS.

50. TEMPORARY CONTROLS:

g. HEAT: PRIOR TO ENCLOSURE, PROVIDE HEATING AS NECESSARY TO PROTECT MATERIALS, PRODUCTS, AND FINISHES FROM DAMAGE DUE TO TEMPERATURE OR HUMIDITY. ENCLOSURE IS DEFINED AS STATE OF CONSTRUCTION WHEN EXTERIOR WALLS ARE ERECTED, DOORS AND WINDOWS ARE INSTALLED AND GLAZED, ROOF DECK AND ROOFING ARE COMPLETE, AND WHEN OTHER OPENINGS IN EXTERIOR ENVELOPE ARE EQUIPPED WITH TEMPORARY CLOSURES. EXCEPT WHERE INDICATED OTHERWISE IN INDIVIDUAL SPECIFICATION SECTIONS, MAINTAIN MINIMUM AMBIENT TEMPERATURE OF 50 DEGREES F. IN AREA WHERE CONSTRUCTION IS IN PROGRESS.

b. VENTILATION: VENTILATE ENCLOSED AREAS TO ASSIST CURE OF MATERIALS, TO DISSIPATE HUMIDITY, AND TO PREVENT ACCUMULATION OF DUST, FUMES, VAPORS, OR GASES.

c. BARRIERS AND CLOSURES: PROVIDE BARRIERS TO PREVENT UNAUTHORIZED ENTRY TO CONSTRUCTION AREAS AND TO PROTECT EXISTING FACILITIES AND ADJACENT PROPERTIES FROM DAMAGE FROM CONSTRUCTION OPERATIONS.

d. FIRE PROTECTION: COMPLY WITH LOCAL FIRE PROTECTION CODE AND GOVERNING AUTHORITIES. PROVIDE AND MAINTAIN ADEQUATE FIRE PROTECTION INCLUDING, WITHOUT LIMITATION, FIRE EXTINGUISHERS AND OTHER APPROPRIATE EQUIPMENT FOR FIRE EXTINGUISHING READY FOR IMMEDIATE USE. MAINTAIN ANY REQUIRED FIRE ALARM SYSTEMS IN OPERATION DURING CONSTRUCTION. DISTRIBUTE EQUIPMENT AROUND SITE AND PARTICULARLY IN IMMEDIATE VICINITY OF PERFORMANCE OF WELDING OR SIMILAR HAZARDOUS WORK.

51. ROOF OBSTRUCTIONS SUCH AS TELEVISION ANTENNAE, SOLAR PANELS, AND GUY WIRES SHALL NOT BE LOCATED OR INSTALLED IN SUCH A WAY AS TO PREVENT FIRE DEPARTMENT ACCESS OR EGRESS IN THE EVENT OF A FIRE.

52. VERIFY FIRE EXTINGUISHER REQUIREMENTS AND LOCATIONS WITH FIRE MARSHAL AND OWNER'S REPRESENTATIVE.

53. FIELD MEASUREMENTS: TAKE FIELD MEASUREMENTS PRIOR TO FABRICATION WHERE PRACTICAL. PROVIDE INSERTS AND TEMPLATES AS NEEDED.

54. LAYOUT: SURVEY AND LAYOUT IMPROVEMENTS, UTILITIES, STRUCTURES, AND COMPONENTS, CONFORM TO LOCATIONS INDICATED ON THE DRAWINGS. ESTABLISH AUXILIARY BENCHMARKS AND ANY OTHER MARKERS AS REQUIRED. GRADE ELEVATIONS SHOWN ARE TAKEN FROM BENCH MARK(S) INDICATED ON THE DRAWINGS. IN CASE OF CONFLICTS, NOTIFY THE ARCHITECT IN WRITING BEFORE STARTING WORK.

55. HOURS OF WORK: ALL DEMOLITION, GRADING AND CONSTRUCTION WORK SHALL BE LIMITED TO THE FOLLOWING HOURS: MONDAY THROUGH FRIDAY 7:00 AM TO 7:00 PM, SATURDAYS, AND HOLIDAYS 8:00 AM TO 4:00 PM, NO ACTIVITIES ON SUNDAY. AFTER-HOURS WORK WILL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER, CITY, AND ANY OTHER PERSONS / AGENCIES THAT HAVE JURISDICTION.

56. INTERRUPTION OF SERVICES: INTERRUPTIONS TO ANY SERVICE FOR THE PURPOSE OF MAKING OR BREAKING A CONNECTION SHALL BE MADE ONLY AFTER CONSULTATION WITH THE OWNER AND SHALL BE AT SUCH TIME AND OF SUCH DURATION AS MAY BE DIRECTED.

57. EXCAVATIONS OR TRENCHING: KEEP TIME INTERVALS BETWEEN EXCAVATION OR TRENCHING, INSTALLATION OF CONDUIT OR PIPING, AND BACK FILLING OPERATIONS TO AN ABSOLUTE MINIMUM. PROVIDE SUITABLE TEMPORARY COVERS FOR EXCAVATIONS OR TRENCHING CROSSING ROADWAYS, WALKS, OR OTHER TRAFFIC WAYS AS REQUIRED BY GOVERNING AGENCIES.

58. CUTTING AND PATCHING: DO NOT CUT AND PATCH IN A MANNER THAT WOULD RESULT IN A FAILURE OF THE WORK TO PERFORM AS INTENDED. DECREASE FIRE PERFORMANCE, DECREASE ACOUSTICAL PERFORMANCE, DECREASE ENERGY PERFORMANCE, DECREASE OPERATIONAL LIFE, OR DECREASE SAFETY FACTORS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT. CUT WITH TOOLS APPROPRIATE FOR MATERIALS TO BE CUT. PATCH WITH MATERIALS AND METHODS TO PRODUCE PATCH THAT IS NOT VISIBLE FROM A DISTANCE OF THREE FEET.

59. TOLERANCES: INSTALL WORK TRUE TO LINE, PLUMB, AND LEVEL, EXCEPT WHERE SPECIFIED OTHERWISE. WORK EXECUTED WITHIN FOLLOWING TOLERANCE WILL BE ACCEPTABLE:

a. TRUE TO LINE: ALLOWED DEVIATION FROM AN ABSOLUTELY STRAIGHT LINE OF SIGHT WITHIN PLUS OR MINUS 1/8 INCH IN 10 FEET, AND WITHIN PLUS OR MINUS 1/4 INCH FOR ENTIRE LENGTH OF A PARTICULAR ELEMENT OF CONSTRUCTION OVER 20'-0" IN LENGTH.

b. PLUMB: ALLOWED DEVIATIONS FROM AN ABSOLUTELY VERTICAL PLANE OF PLUS OR MINUS 1/2 DEGREE OF ANGLE.

c. LEVEL: ALLOWED DEVIATIONS FROM AN ABSOLUTELY HORIZONTAL PLANE OF PLUS OR MINUS 1/2 DEGREE OF ANGLE.

d. FLAT: ALLOW DEVIATIONS FROM AN ABSOLUTELY FLAT 1/8" WITHIN PLUS OR MINUS 1/16 INCH IN ONE SQUARE FOOT, WITHIN PLUS OR MINUS 1/8 INCH IN AN AREA 10 FEET BY 10 FEET, AND WITHIN PLUS OR MINUS 1/4 INCH FOR ENTIRE AREA OF A PARTICULAR ELEMENT OF CONSTRUCTION OVER 20'-0" IN LENGTH.

60. ELECTRICAL, MECHANICAL, & PLUMBING SYSTEMS ARE SCHEMATIC ONLY. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL WORK TO AVOID CONFLICTS BETWEEN TRADES. THE CONTRACTOR SHALL PERFORM ALL WORK TO PROVIDE COMPLETE FUNCTIONING SYSTEMS IN ACCORDANCE WITH THE INTENT INDICATED & CODES & REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION.

61. CLEANING MATERIALS AND EQUIPMENT: PROVIDE ALL REQUIRED PERSONNEL, EQUIPMENT, AND MATERIALS NEEDED TO MAINTAIN THE SPECIFIED STANDARD OF CLEANLINESS. USE ONLY THE CLEANING MATERIALS AND EQUIPMENT WHICH ARE COMPATIBLE WITH THE SURFACE BEING CLEANED, AS RECOMMENDED BY THE MANUFACTURER OF THE MATERIAL.

62. CONTRACTOR SHALL SEAL ALL GAPS, HOLES, AND CRACKS IN BUILDING CONSTRUCTION AS REQUIRED TO CONTROL INFILTRATION OF INSECTS.

63. DISPOSAL OF TRASH AND EXCESS EXCAVATION: DISPOSE OF TRASH, AND DEBRIS AT DESIGNATED DISPOSAL AREAS OFF THE PREMISES AT NO ADDITIONAL COST TO THE OWNER. BURNING OF TRASH AND DEBRIS ON THE PREMISES IS PROHIBITED. COORDINATE TRASH REMOVAL WITH LANDLORD WHERE APPLICABLE.

64. CONTRACTOR SHALL ASSIST OWNER IN OBTAINING FINAL APPROVAL OF LOCAL HEALTH DEPARTMENT AND THE TEMPORARY AND FINAL CERTIFICATES OF OCCUPANCY.

65. CONTRACT CLOSEOUT:

a. SUBSTANTIAL COMPLETION: AT SUBSTANTIAL COMPLETION OF THE PROJECT, ATTEND A PUNCHLIST WALK THROUGH OF REMAINING WORK FOR REVIEW WITH THE ARCHITECT AND OWNER. COMPLETE ALL DEFECTS AND OMISSIONS NOTED IN THE FINAL PUNCHLIST PROMPTLY, IN THE TIME PERIOD AGREED UPON WITH THE OWNER, AT NO ADDITIONAL EXPENSE TO THE OWNER.

b. CERTIFICATE OF OCCUPANCY: PROVIDE A FINAL CERTIFICATE OF OCCUPANCY FROM THE BUILDING DEPARTMENT.

c. PERMITS / INSPECTION CARDS: FURNISH COPIES OF PERMITS AND SIGNED INSPECTION CARDS FOR EACH OF THE FOLLOWING AGENCIES: BUILDING DEPARTMENT; PLUMBING / MECHANICAL DEPARTMENT; ELECTRICAL DEPARTMENT; FIRE DEPARTMENT; HEALTH DEPARTMENT; OTHERS AS REQUIRED.

d. MAINTENANCE MANUALS AND WARRANTIES: FURNISH (2) COPIES OF ALL MANUALS, MAINTENANCE INSTRUCTIONS, CONTRACTORS AND MANUFACTURER'S PRINTED WARRANTIES, AND INSTRUCTIONS FOR OPERATION OF ALL EQUIPMENT SPECIFIED HEREIN OR SHOWN ON DRAWINGS. TRAIN OWNER'S PERSONNEL IN USE OF BUILDING SYSTEMS.

e. TOUCH-UP MATERIAL: FURNISH OWNER WITH ONE GALLON OF EACH PAINT AND STAIN USED. PROVIDE AN ADDITIONAL 2 PERCENT OF QUANTITY INSTALLED OF ALL FINISH MATERIAL INCLUDING CEILING PANELS, TILE AND SHEET GOODS.

f. SUBCONTRACTORS: PROVIDE THE OWNER THE NAMES, ADDRESSES, AND PHONE NUMBERS OF ALL SUBCONTRACTORS, FINAL UNCONDITIONAL LIEN RELEASES, AND WARRANTIES FROM EACH.

g. FINAL CLEANING AND REPAIRS: REMOVE TEMPORARY FACILITIES AND PROVIDE FINAL CLEANING AND TOUCH-UP. RESTORE PORTIONS OF BUILDING, SITE IMPROVEMENTS, LANDSCAPING AND OTHER ITEMS DAMAGED BY CONSTRUCTION OPERATIONS TO THE SATISFACTION OF THE ARCHITECT, AT NO ADDITIONAL EXPENSE TO THE OWNER.

h. CLOSEOUT DOCUMENTS: PROVIDE THE OWNER WITH A COMPACT DISK OF ALL RECORD DRAWINGS IN PDF FORMAT, COPY OF ALL SHOP DRAWINGS AND PRODUCT SUBMITTALS, SERVICE CONTRACTS, HVAC AIR BALANCE REPORT, AND WASTELINE VIDEO INSPECTION REPORT.



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, Utah 84094
ph. 801.269.0054
fax 801.269.1425
www.thinkarc.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - RESTROOMS
2117 MCCULLOCH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

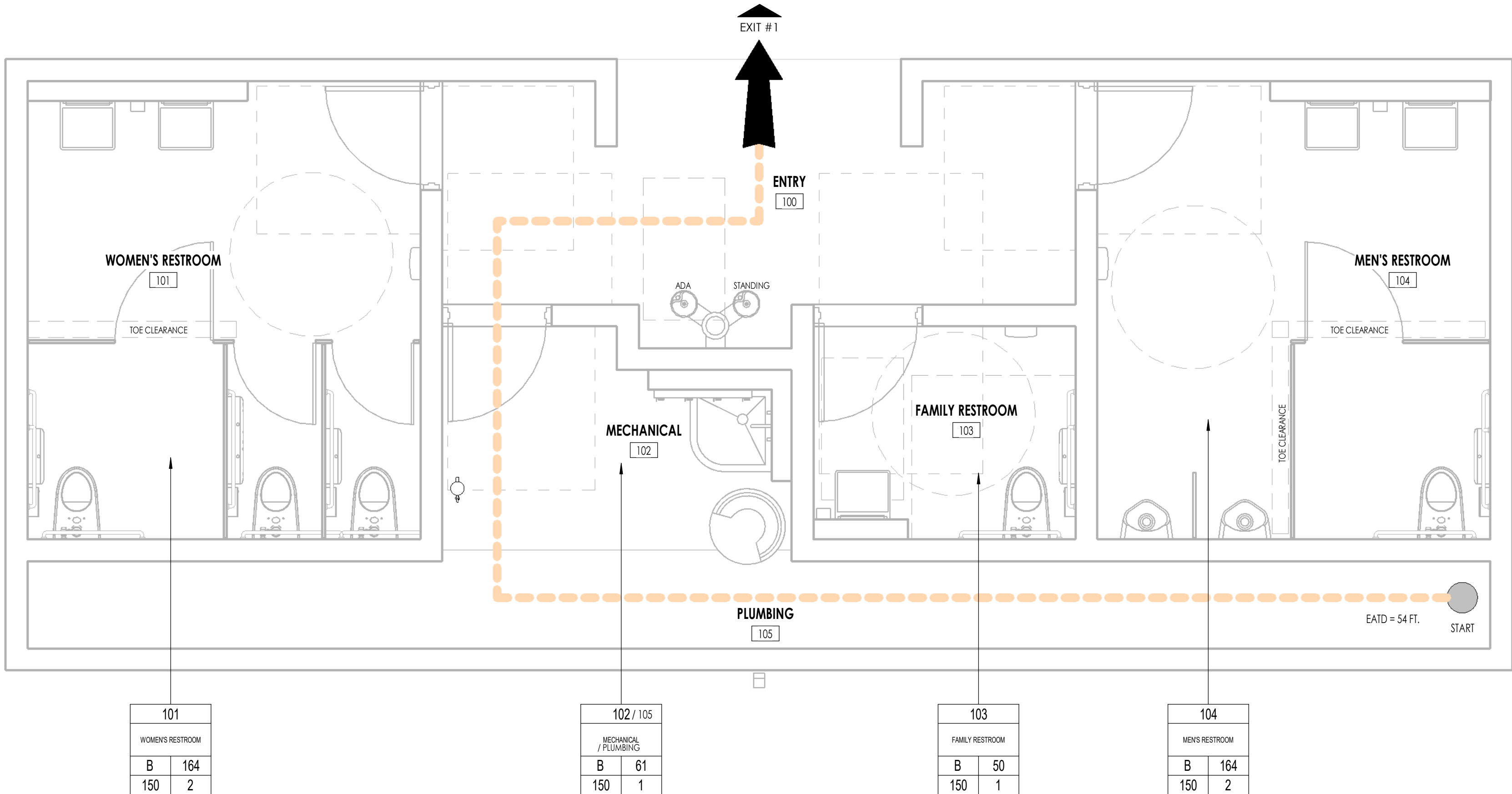
SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:

G001

© 2022 THINK ARCHITECTURE INC.

BID SET



LEVEL 1 CODE COMPLIANCE PLAN

3/8" = 1'-0"

1
G101

NUMBER	NAME	OCCUPANCY	AREA	OLF	OCCUPANT LOAD
MAIN LEVEL					
100	ENTRY		141 SF		
101	WOMEN'S RESTROOM	8	164 SF	150	2
102	MECHANICAL	8	61 SF	150	1
103	FAMILY RESTROOM	8	50 SF	150	1
104	MEN'S RESTROOM	8	164 SF	150	2
105	PLUMBING		123 SF		
			704 SF		6

STAIR

164 OCC.

4'-6" R

6'-0" P

EXIT

166 OCC.

3'-0" R

4'-0" P

1 HOUR FIRE BARRIER OR PARTITION. SEE WALL TYPES

NEW WALL. SEE WALL TYPES

EXISTING WALL

TRAVEL DISTANCE TO FEC

ROOM NAME

OCCUPANCY GROUP

ROOM/AREA SQUARE FOOTAGE

OCCUPANT LOAD

OCCUPANCY LOAD FACTOR

ROOM/AREA REQUIRED EXIT

BUILDING REQUIRED EXIT

NON-RATED SEMI-RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER - 2A-10BC

NON-RATED FULLY RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER - 2A-10BC

FIRE EXTINGUISHER NO CABINET

FIRE EXTINGUISHER - 2A-10BC

ROOMS WITH AN OCCUPANT LOAD OF 50 OR MORE IN GROUP A OCCUPANCY SHALL HAVE TWO EXITS AND ARE REQUIRED TO HAVE PANIC HARDWARE (SEE A601)

ACCESSIBLE ELEMENT

EMERGENCY EXIT SIGN - SEE ELECTRICAL

GENERAL NOTES

1. SEE G000 FOR PROJECT INFORMATION.

2. SEE E201 FOR EXIT SIGNS.

3. P.H. INDICATES REQUIRED PANIC HARDWARE

EXIT NOTES

1. Exit signs shall be internally or externally illuminated

2. Exit signs illuminated by an external source shall have an intensity of not less than 5 foot-candles (54 lux).

3. Internally illuminated signs shall be listed and labeled and shall be installed in accordance with the manufacturer's instructions and Section 2702.

4. Exit signs shall be illuminated at all times. (1013.3)

5. Exit signs shall be connected to an emergency power system that will provide an illumination of not less than 90 min. in case of primary power loss (1013.6.3)

6. Egress doors shall be readily operable from the egress side without the use of a key or special knowledge or effort. See (1010.1.9 for exceptions.

7. Door handles, lock and other operating devices shall be installed at a min. 34" and a max. 48" above the finished floor

8. THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED.

9. All egress door operation shall also comply with Section (1010.1.9 - (1010.1.9.12)

10. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

11. The means of egress illumination level shall not be less than 1 foot-candle at the walking surface

12. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply. In the event of power supply failure, an emergency electrical system shall automatically illuminate the following areas:
Aisles and unenclosed egress stairways in rooms and spaces that require two or more means of egress.
A. Corridors, exit enclosures and exit passageways in buildings required to have two or more exits.
B. Exterior egress components at other than the level of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.
C. Interior exit discharge elements, as permitted in Section 1028.1, in buildings required to have two or more exits.
D. Exterior landings, as required by Section 1010.1.4, for exit discharge doorways in buildings required to have two or more exits.

13. The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

14. Emergency lighting facilities shall be arranged to provide initial illumination that is at least an average of 1 foot-candle (11 lux) and a minimum at any point of 0.1 foot-candle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 foot-candle (6 lux) average and a minimum at any point of 0.06 foot-candle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

PROJECT NOTES

1. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings in accordance with Section 1205.2 or shall be provided with artificial light that is adequate to provide an average illumination of 10 foot-candles over the area of the room at a height of 30 inches above the floor level. (1205.1 and 1205.3)

CODE ANALYSIS LEGEND

1 HOUR FIRE BARRIER OR PARTITION. SEE WALL TYPES

NEW WALL. SEE WALL TYPES

EXISTING WALL

TRAVEL DISTANCE TO FEC

ROOM NAME

OCCUPANCY GROUP

ROOM/AREA SQUARE FOOTAGE

OCCUPANT LOAD

OCCUPANCY LOAD FACTOR

ROOM/AREA REQUIRED EXIT

BUILDING REQUIRED EXIT

NON-RATED SEMI-RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER - 2A-10BC

NON-RATED FULLY RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER - 2A-10BC

FIRE EXTINGUISHER NO CABINET

FIRE EXTINGUISHER - 2A-10BC

ROOMS WITH AN OCCUPANT LOAD OF 50 OR MORE IN GROUP A OCCUPANCY SHALL HAVE TWO EXITS AND ARE REQUIRED TO HAVE PANIC HARDWARE (SEE A601)

ACCESSIBLE ELEMENT

EMERGENCY EXIT SIGN - SEE ELECTRICAL

GENERAL NOTES

1. SEE G000 FOR PROJECT INFORMATION.

2. SEE E201 FOR EXIT SIGNS.

3. P.H. INDICATES REQUIRED PANIC HARDWARE

EXIT NOTES

1. Exit signs shall be internally or externally illuminated

2. Exit signs illuminated by an external source shall have an intensity of not less than 5 foot-candles (54 lux).

3. Internally illuminated signs shall be listed and labeled and shall be installed in accordance with the manufacturer's instructions and Section 2702.

4. Exit signs shall be illuminated at all times. (1013.3)

5. Exit signs shall be connected to an emergency power system that will provide an illumination of not less than 90 min. in case of primary power loss (1013.6.3)

6. Egress doors shall be readily operable from the egress side without the use of a key or special knowledge or effort. See (1010.1.9 for exceptions.

7. Door handles, lock and other operating devices shall be installed at a min. 34" and a max. 48" above the finished floor

8. THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED.

9. All egress door operation shall also comply with Section (1010.1.9 - (1010.1.9.12)

10. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

11. The means of egress illumination level shall not be less than 1 foot-candle at the walking surface

12. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply. In the event of power supply failure, an emergency electrical system shall automatically illuminate the following areas:
Aisles and unenclosed egress stairways in rooms and spaces that require two or more means of egress.
A. Corridors, exit enclosures and exit passageways in buildings required to have two or more exits.
B. Exterior egress components at other than the level of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.
C. Interior exit discharge elements, as permitted in Section 1028.1, in buildings required to have two or more exits.
D. Exterior landings, as required by Section 1010.1.4, for exit discharge doorways in buildings required to have two or more exits.

13. The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

14. Emergency lighting facilities shall be arranged to provide initial illumination that is at least an average of 1 foot-candle (11 lux) and a minimum at any point of 0.1 foot-candle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 foot-candle (6 lux) average and a minimum at any point of 0.06 foot-candle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

PROJECT NOTES

1. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings in accordance with Section 1205.2 or shall be provided with artificial light that is adequate to provide an average illumination of 10 foot-candles over the area of the room at a height of 30 inches above the floor level. (1205.1 and 1205.3)

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7727 So. Highpoint Parkway, Suite 300
Sandys, Utah 84094
ph. 801.269.0555
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

MAIN STREET COMMONS - RESTROOMS

2117 MCCULLOUGH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

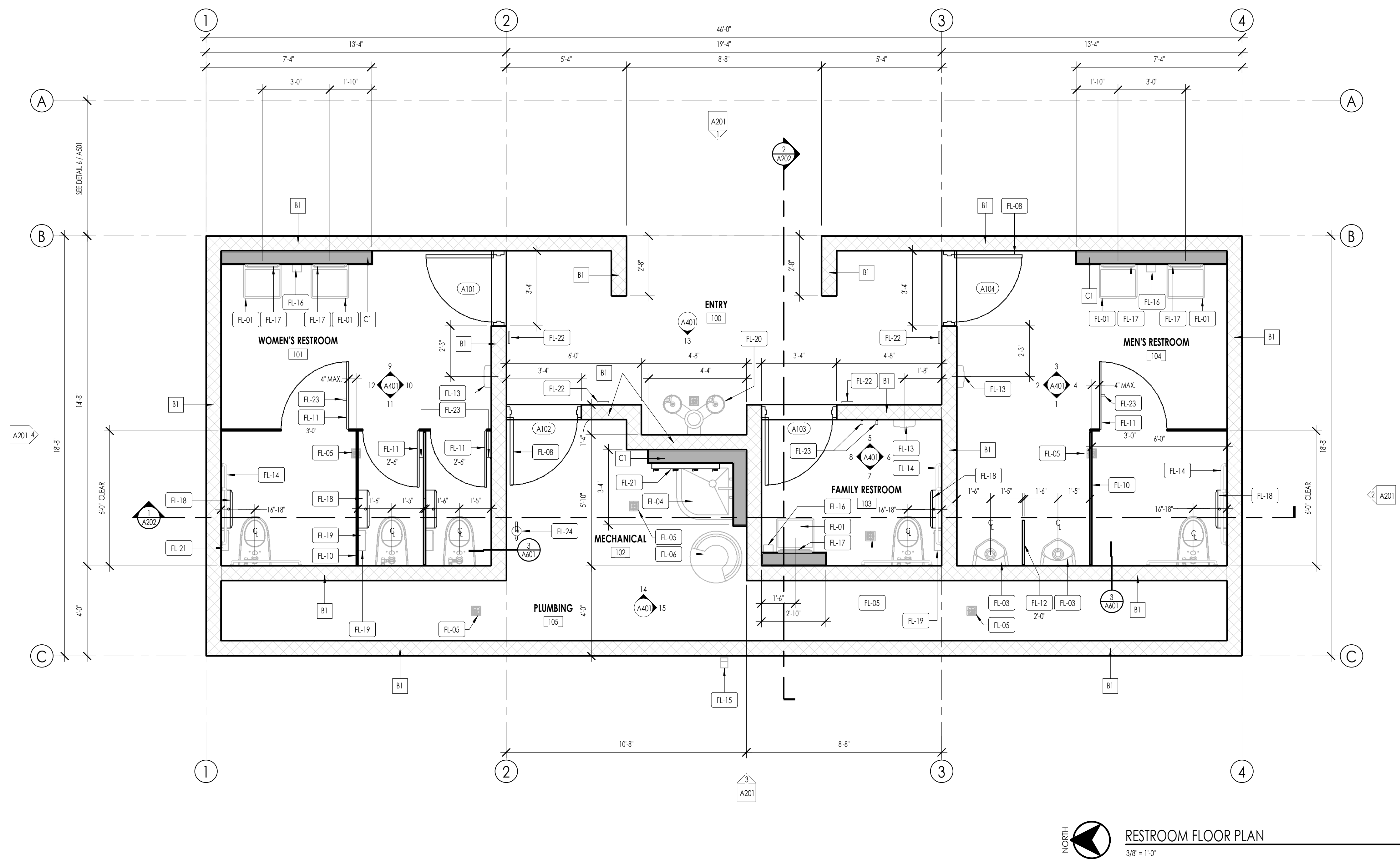
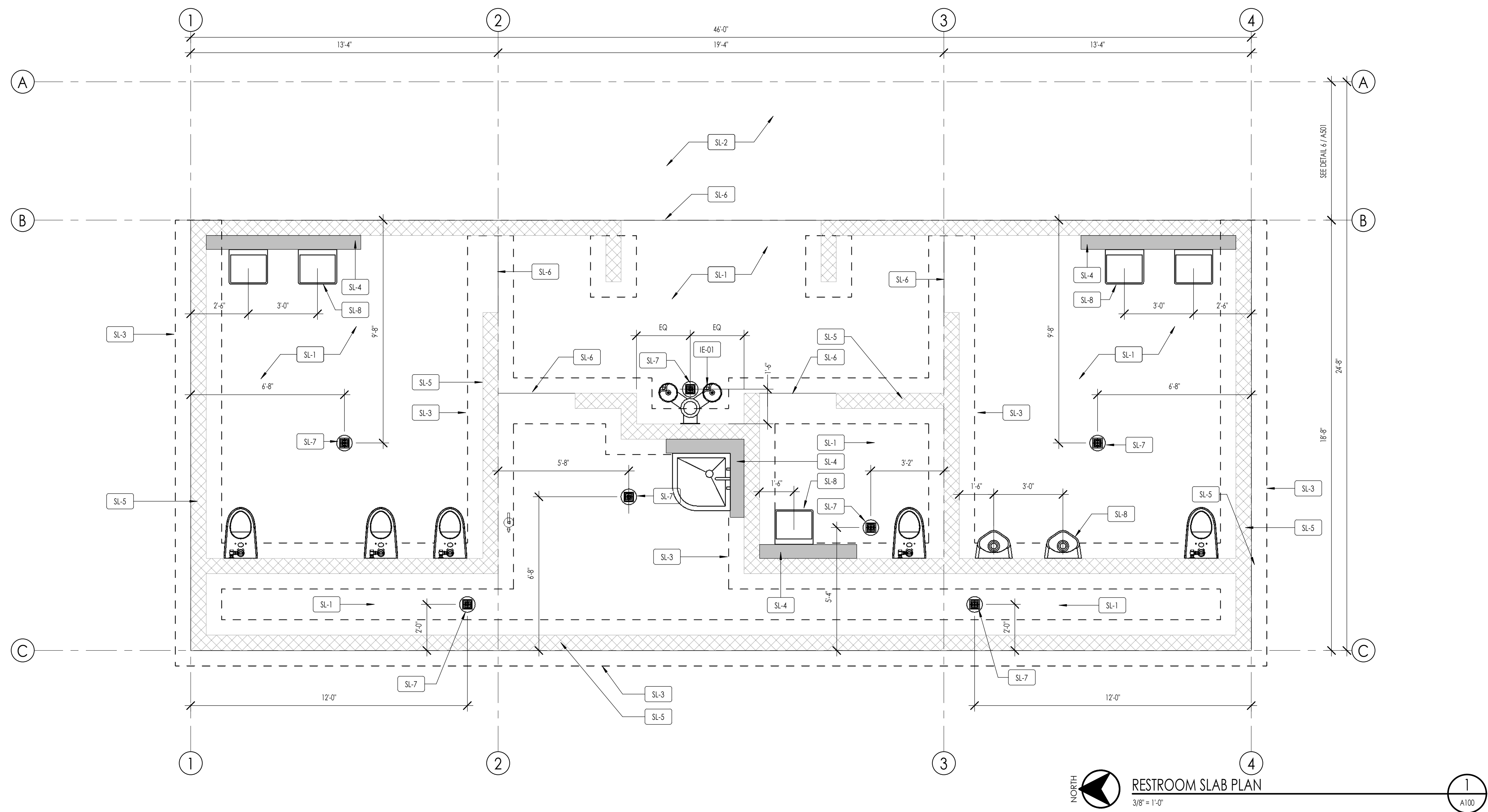
SHEET TITLE:
RESTROOM - CODE
COMPLIANCE PLAN

SHEET NUMBER:

G101

© 2022 THINK ARCHITECTURE INC.

BID SET



FLOOR/CEILING PLAN LEGEND			
HATCH PATTERN	DESCRIPTION	HATCH PATTERN	DESCRIPTION
	CMU WALL TYPE - WALL TYPE B1, DET. 9(A501)		C101 - 3/4-INCH EXTERIOR GRADE PLYWOOD SHEATHING - 1x3 WOOD TRIM - PAINTED
	FURRED WALL - WALL TYPE C1, DET. 10(A501)		- SUSPENDED -
	F1 LIGHT FIXTURE - RECESSED CAN FIXTURE		C102 - 5/8-INCH WATER RESISTANT GYPSUM BOARD - PAINTED
	F2 LIGHT FIXTURE - TYPE - WALL MOUNTED SCONCE - WET RATED MANUFACTURER - 4PK MODEL - WINW5536 COLOR - BLACK		- SUSPENDED -

- ### PLAN GENERAL NOTES
- ALL DIMENSIONS ARE TO GRID, FACE OF CMU OR INTERIOR FACE-OF-FRAMING UNLESS NOTED OTHERWISE.
 - CEILING HEIGHTS MEASURED FROM FINISH FLOOR TO EXPOSED CEILING FACE.
 - COORDINATE WITH STRUCTURAL FOOTING/FOUNDATION PLAN AND FRAMING PLAN.
 - COORDINATE WITH OWNER FOR ALL INTERIOR FINISH COLORS.
 - COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING, POWER AND DATA REQUIREMENTS.
 - COORDINATE WITH PLUMBING DRAWINGS FOR ALL PLUMBING FIXTURES.
 - COORDINATE WITH MECHANICAL DRAWINGS FOR HVAC AND VENTILATION.
 - FOR WALL TYPES, REFERENCE WALL TYPE DETAILS 9(A501) AND 10(A501).
 - REFERENCE DETAILS 2, 3, 4 AND 5 / A501 FOR SUSPENDED CEILING DETAILS.
 - REFERENCE DETAIL 11(A501) FOR ROOF TYPE.

PLANK GRATING - INTERLOCKING PLANK

BASES-OF-DESIGN: MCNICHOLS PLANK GRATING - CANOPY FRAME IN-LAY SYSTEM. SEE SPECIFICATIONS FOR MORE INFORMATION.

INTERLOCKING PLANK, GRATE-LOCK, GALVANIZED STEEL ASTM A-658 18 GAUGE (0.0516-INCH THICK), ROUND-END SLAOT (1/2-INCH WIDTH), 2 1/2-INCH CHANNEL DEPTH, TWO MALE CHANNEL FLANGES, SUP-RESISTANT SURFACE, 45% OPEN AREA.

ITEM: G412258M24 - 12-INCH (WIDTH) x 288-INCH (LONG).

ACCESSORIES: MCNICHOLS ACCESSORIES - FASTENER, GALVANIZED STEEL, HOT DIPPED, TYPE MHC-25 HOLD-DOWN CLAMP (HARDWARE AVAILABLE SEPARATELY), FITS ALL GRATE-LOCK INTERLOCKING PLANK GRATING WITH A 2 1/2-INCH CHANNEL DEPTH.

ITEM: GOMHC25099

- ATTACH INTERLOCKING PLANK TO BEARING ANGLE WITH HOLD-DOWN CLAMP. USE GALVANIZED NUT, BOLT AND WASHER TO SECURE HOLD-DOWN CLAMP TO BEARING ANGLE IN LOCATIONS SHOWN OF DRAWINGS.

KEYNOTES

KEYNOTES - SLAB PLAN	
SL-1	STRUCTURAL CONCRETE FLOOR SLAB - SEE STRUCTURAL DRAWINGS
SL-2	EXTERIOR CONCRETE SLAB - SEE CIVIL DRAWINGS
SL-3	STRUCTURAL CONCRETE FOOTING - SEE STRUCTURAL DRAWINGS
SL-4	FURRED WALL - SEE ARCHITECTURAL DRAWINGS FOR WALL TYPE
SL-5	STRUCTURAL FOUNDATION WALL - SEE STRUCTURAL DRAWINGS
SL-6	TURNDOWN SLAB
SL-7	FLOOR DRAIN - SEE PLUMBING DRAWINGS
SL-8	PLUMBING FIXTURE - SEE PLUMBING PLANS

KEYNOTES - FLOOR PLAN	
FL-01	WALL HUNG LAVATORY - SEE DETAIL
FL-03	WALL HUNG URINAL
FL-04	FLOOR MOUNTED MOP SINK
FL-05	FLOOR DRAIN - SEE PLUMBING DRAWINGS
FL-06	WATER HEATER - SEE PLUMBING DRAWINGS
FL-08	SCHEDULED DOOR AND FRAME - SEE DETAIL
FL-10	1-INCH CEILING HUNG TOILET STALL PARTITION PANEL
FL-11	1-INCH TOILET STALL PARTITION DOOR
FL-12	1-INCH URINAL PARTITION PANEL
FL-13	WALL MOUNTED ELECTRICAL HAND DRYER
FL-14	ADA GRAB BARS
FL-15	PRE-FINISHED METAL DOWNSPOUT WITH CONDUCTOR HEAD
FL-16	WALL MOUNTED SOAP DISPENSER
FL-17	WALL MOUNTED 24x3 MIRROR
FL-18	WALL MOUNTED DUAL-ROLL TOILET PAPER DISPENSER
FL-19	WALL MOUNTED SANITARY WIPER RECEPTACLE - EACH FEMALE STALL
FL-20	ADA/STANDING WALL MOUNTED TRI-LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER
FL-21	36" LONG WALL MOUNTED MOP HOLDER
FL-22	ROOM NAME SIGNAGE
FL-23	ROB HOOK
FL-24	WALL MOUNTED FIRE EXTINGUISHER WITHOUT CABINET



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85260
ph. 801.269.0555
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & model thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - RESTROOMS

2117 MCCULLOUGH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

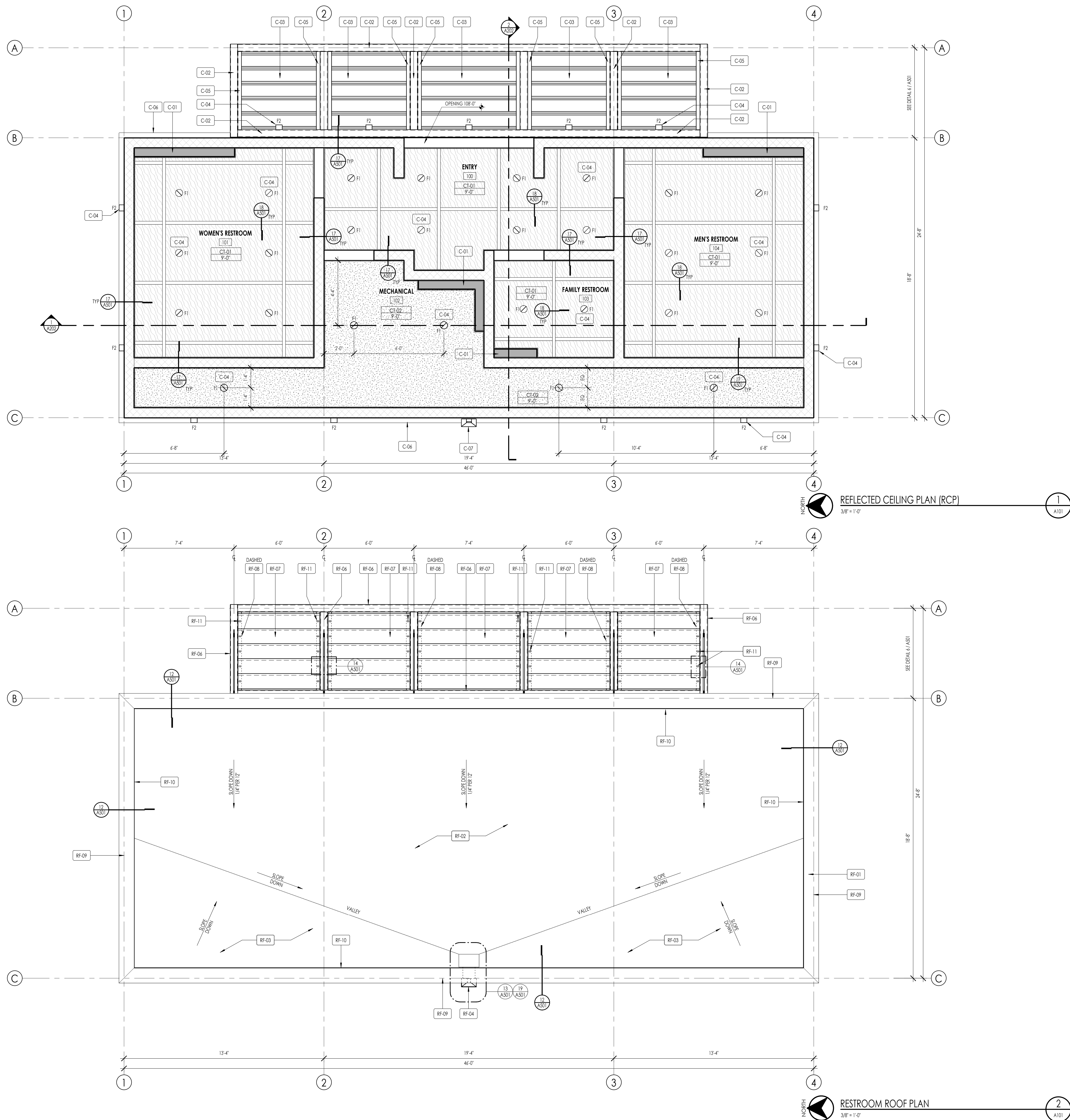
REVISIONS:

SHEET TITLE:
RESTROOM - SLAB / FLOOR PLAN

SHEET NUMBER:
A100

BID SET

© 2022 THINK ARCHITECTURE, INC.



FLOOR/CEILING PLAN LEGEND			
HATCH PATTERN	DESCRIPTION	HATCH PATTERN	DESCRIPTION
	CMU WALL TYPE - WALL TYPE B1, DET. 9(A501)		CT-01 - 3/4-INCH EXTERIOR GRADE PLYWOOD SHEATHING - 1x3 WOOD TRIM - PAINTED
	FURRED WALL - WALL TYPE C1, DET. 10(A501)		CT-02 - 5/8-INCH WATER RESISTANT GYPSUM BOARD - PAINTED
	F1 LIGHT FIXTURE - RECESSED CAN FIXTURE		F2 LIGHT FIXTURE - TYPE - WALL MOUNTED SCONCE - WET RATED MANUFACTURER - 4PK MODEL - WINW5506 COLOR - BLACK

- PLAN GENERAL NOTES**
- ALL DIMENSIONS ARE TO GRID, FACE OF CMU OR INTERIOR FACE OF FRAMING UNLESS NOTED OTHERWISE.
 - CEILING HEIGHTS MEASURED FROM FINISH FLOOR TO EXPOSED CEILING FACE.
 - COORDINATE WITH STRUCTURAL FOOTING/FOUNDATION PLAN AND FRAMING PLAN.
 - COORDINATE WITH OWNER FOR ALL INTERIOR FINISH COLORS.
 - COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING, POWER AND DATA REQUIREMENTS.
 - COORDINATE WITH PLUMBING DRAWINGS FOR ALL PLUMBING FIXTURES.
 - COORDINATE WITH MECHANICAL DRAWINGS FOR HVAC AND VENTILATION.
 - FOR WALL TYPES, REFERENCE WALL TYPE DETAILS 9(A501) AND 10(A501).
 - REFERENCE DETAILS 2, 3, 4 AND 5 / A501 FOR SUSPENDED CEILING DETAILS.
 - REFERENCE DETAIL 11(A501) FOR ROOF TYPE.

- PLANK GRATING - INTERLOCKING PLANK**
- BASES OF DESIGN: MCNICHOLS PLANK GRATING - CANOPY FRAME IN-LAY SYSTEM. SEE SPECIFICATIONS FOR MORE INFORMATION.
- INTERLOCKING PLANK, GRATE-LOCK, GALVANIZED STEEL ASTM A-658 18 GAUGE (0.0516-INCH THICK), ROUND-END SLAT (12-INCH WIDTH), 2 1/2-INCH CHANNEL DEPTH, TWO MALE CHANNEL FLANGES, SUR-RESISTANT SURFACE, 45% OPEN AREA.
- ITEM: G412258M24 - 12-INCH (WIDTH) x 288-INCH (LONG).
- ACCESSORIES: MCNICHOLS ACCESSORIES - FASTENER, GALVANIZED STEEL, HOT DIPPED, TYPE MHC-25 HOLD-DOWN CLAMP (HARDWARE AVAILABLE SEPARATELY), FITS ALL GRATE-LOCK INTERLOCKING PLANK GRATING WITH A 2 1/2-INCH CHANNEL DEPTH.
- ITEM: GOMHHC25099
- ATTACH INTERLOCKING PLANK TO BEARING ANGLE WITH HOLD-DOWN CLAMP. USE GALVANIZED NUT, BOLT AND WASHER TO SECURE HOLD-DOWN CLAMP TO BEARING ANGLE IN LOCATIONS SHOWN OF DRAWINGS.

KEYNOTES	
KEYNOTES - CEILING PLAN	
C-01	SCHEDULED WALL TYPE
C-02	EXPOSED STRUCTURAL HSS FRAMING - PAINTED
C-03	EXPOSED 12"W x 2.5"D 18ga PLANK GRATING - INTERLOCK PLANK BY MCNICHOLS - GALVANIZED STEEL FINISH
C-04	LIGHT FIXTURE
C-05	EXPOSED STRUCTURAL BEARING ANGLE - PAINTED
C-06	PRE-FINISHED PARAPET METAL WALL CAP - ABOVE
C-07	PRE-FINISHED METAL CONDUCTOR HEAD AND METAL DOWNSPOUT
KEYNOTES - ROOF PLAN	
RF-01	PRE-FINISHED METAL FLASHING CAP WITH DRIP EDGE
RF-02	40mi TPO MEMBRANE ROOFING OVER TAPERED RIGID INSULATION - SLOPE TO DRAIN
RF-03	TPO MEMBRANE ROOFING OVER RIGID INSULATION CRICKET - SLOPED AS SHOWN
RF-04	PRE-FINISHED METAL CONDUCTOR HEAD AND METAL DOWNSPOUT
RF-05	EXPOSED STRUCTURAL HSS FRAMING - PAINTED
RF-06	EXPOSED 12"W x 2.5"D 18ga PLANK GRATING - INTERLOCK PLANK BY MCNICHOLS - GALVANIZED STEEL FINISH
RF-07	EXPOSED 12"W x 2.5"D 18ga PLANK GRATING - INTERLOCK PLANK BY MCNICHOLS - GALVANIZED STEEL FINISH
RF-08	STRUCTURAL BEARING ANGLE - DASHED, PAINTED
RF-09	WALL LINE
RF-10	RETURN TPO ROOFING MEMBRANE UP AND OVER PARAPET WALL
RF-11	PLANK HOLD DOWN CLIP - BY PLANK MANUFACTURER, (2) PER PLANK WITH ONE ON EACH END

FINISH LEGEND - FLOOR				
FLOOR CODE	FLOOR MATERIAL	FLOOR COLOR	FLOOR FINISH	FLOOR MATERIAL SIZE
FL-01	EPOXY SEALED CONCRETE	TBD	SEALED	N/A

FINISH LEGEND - BASE				
BASE CODE	BASE MATERIAL	BASE COLOR	BASE FINISH	BASE MATERIAL SIZE
BF-01	NONE	N/A	N/A	N/A
BF-02	RUBBER	TBD	FACTORY	4" (3/16" THICK, MIN.)

FINISH LEGEND - WALL				
WALL CODE	WALL MATERIAL	WALL COLOR	WALL FINISH	WALL MATERIAL SIZE
WF-01	RFP PANEL	TBD	FACTORY	N/A
WF-02	CMU - EPOXY PAINTED	TBD	EPOXY PAINTED	N/A

FINISH LEGEND - CEILING				
CEILING CODE	CEILING MATERIAL	CEILING COLOR	CEILING FINISH	CEILING MATERIAL SIZE
CT-01	EXTERIOR GRADE PLYWOOD SHEATHING - ACX GRADE	TBD	EPOXY PAINT	3/4" THICK
CT-02	MOISTURE RESISTANT GYPSUM BOARD	TBD	EPOXY PAINT	5/8" THICK

FINISH LEGEND - ROOM					
ROOM NUMBER	ROOM NAME	FINISHES			
		FLOOR	BASE	WALLS	CEILING
100	ENTRY	FL-01	BF-02	WF-02	CT-01
101	WOMEN'S RESTROOM	FL-01	BF-02	WF-01, WF-02	CT-01
102	MECHANICAL	FL-01	BF-02	WF-01, WF-02	CT-02
103	FAMILY RESTROOM	FL-01	BF-02	WF-01, WF-02	CT-01
104	MEN'S RESTROOM	FL-01	BF-02	WF-01, WF-02	CT-01
105	PLUMBING	FL-01	BF-02	WF-02	CT-02



MAIN STREET COMMONS - RESTROOMS

2117 McCULLOCH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
RESTROOM - EXTERIOR
ELEVATIONS

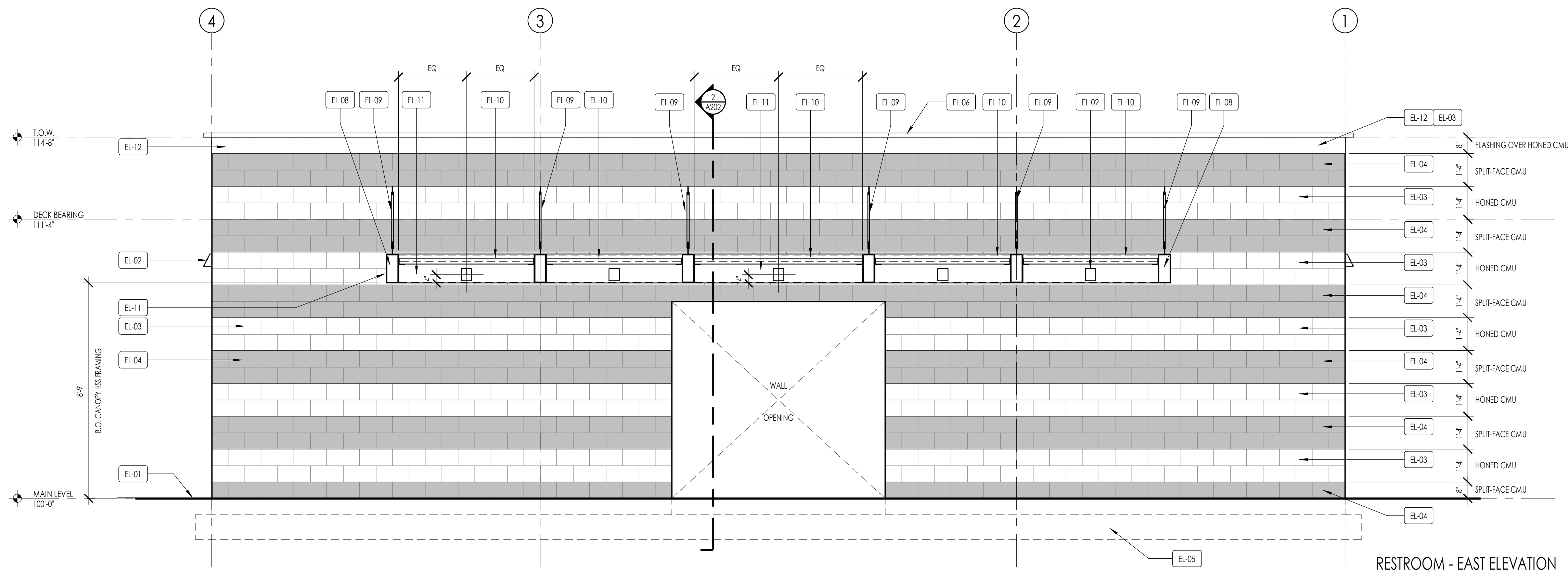
SHEET NUMBER:

A201

© 2022 THINK ARCHITECTURE, INC.

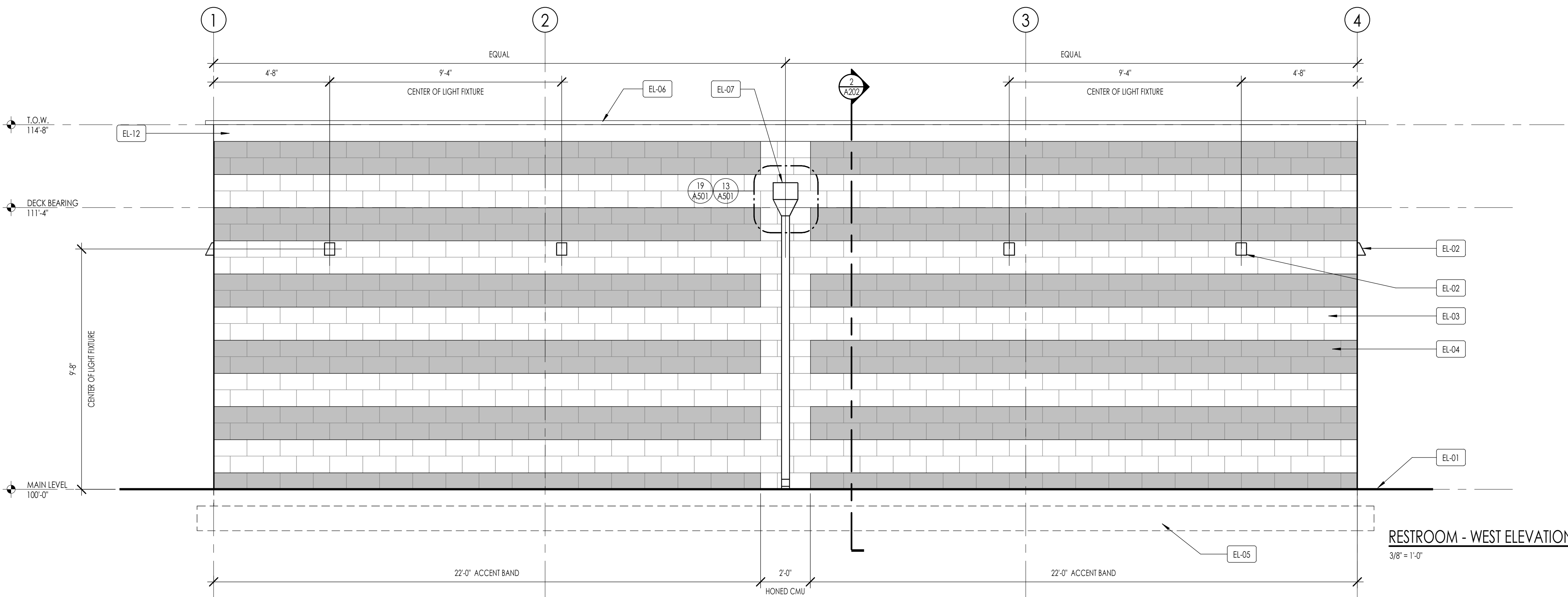
BID SET

ELEVATION/ SECTION MATERIAL LEGEND	
HATCH PATTERN	DESCRIPTION
	HONED CMU WALL - TYPE 1
	SPLIT FACE CMU WALL - TYPE 2
	ALUMINUM FASCIA AND CAP
	COMPACTED SUBGRADE
	COMPACTED GRANULAR FILL
	CONCRETE
	RIGID INSULATION
	SCHEDULED WALL TYPES
NOTE: REFER TO MATERIAL SPECIFICATIONS DOCUMENT FOR DETAILED INFORMATION REGARDING EACH FINISH MATERIAL.	
NOTES	
1. SEE PLUMBING DRAWINGS FOR PLUMBING FIXTURES.	
2. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURES.	
3. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL COMPONENTS, FLOOR SLAB, FOUNDATIONS AND FOOTINGS.	
4. SEE INTERIOR ELEVATIONS FOR TOILET ROOM ACCESSORIES.	
5. SEE CIVIL DRAWINGS FOR EXTERIOR CONCRETE WALKS.	
6. SEE ROOF DRAWINGS FOR ROOF SLOPES TO DRAIN.	
7. SEE G002 TOILET ACCESSORIES MOUNTING HEIGHTS AND CLEARANCES.	
ELEVATION/ SECTION KEYNOTES	
KEYNOTES - ELEVATIONS	
EL-01	FINISH GRADING - SLOPE DOWN AWAY FROM BUILDING - SEE CIVIL
EL-02	SCHEDULED LIGHT FIXTURE
EL-03	8" CMU HONED FACE FINISH
EL-04	8" CMU SPLIT FACE FINISH
EL-05	STRUCTURAL FOOTING
EL-06	PRE-FINISHED METAL FLASHING WITH DRIP EDGE
EL-07	PRE-FINISHED METAL CONDUCTOR HEAD AND METAL DOWNSPOUT
EL-08	STEEL CAP ENDS - PAINTED
EL-09	STRUCTURAL ROD AND ATTACHMENT PLATES - PAINTED
EL-10	EXPOSED 12"W x 2.5"D 18ga. PLANK GRATING - INTERLOCK PLANK BY MCNICHOLS - GALVANIZED STEEL FINISH
EL-11	EXPOSED STRUCTURAL HSS FRAMING - PAINTED
EL-12	PRE-FINISHED METAL FLASHING - OVER TOP COURSE CMU



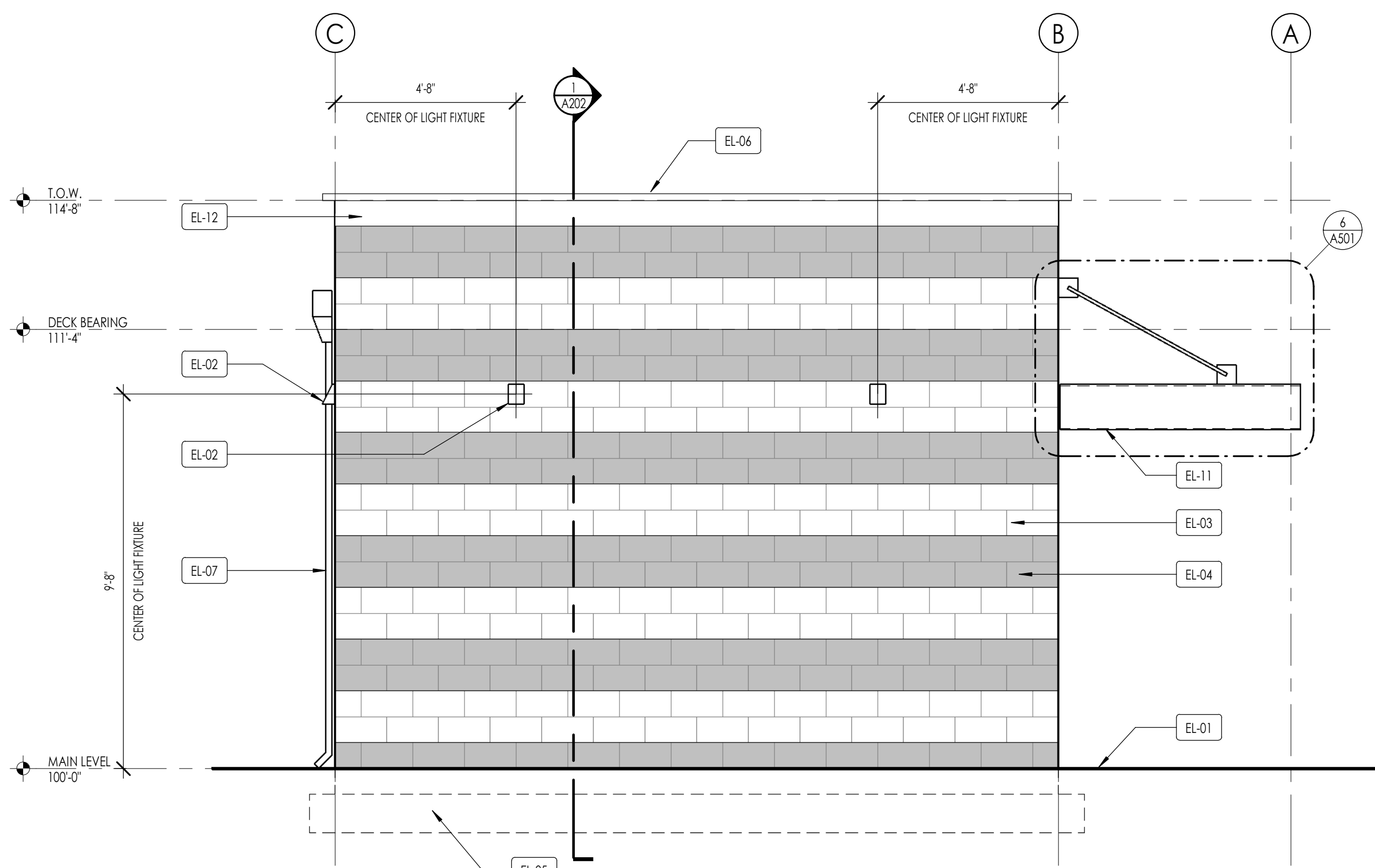
RESTROOM - EAST ELEVATION

3/8" = 1'-0"



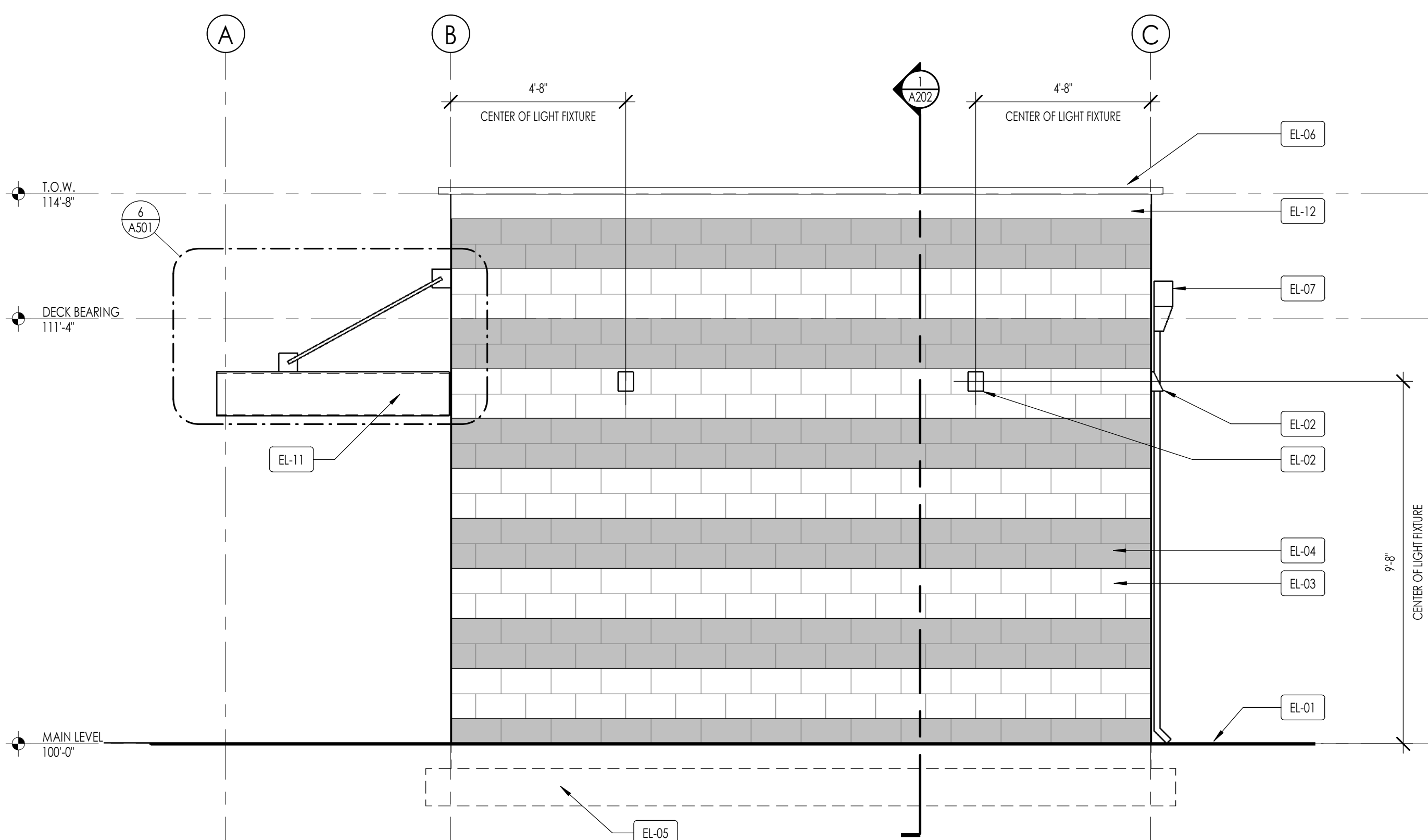
RESTROOM - WEST ELEVATION

3/8" = 1'-0"



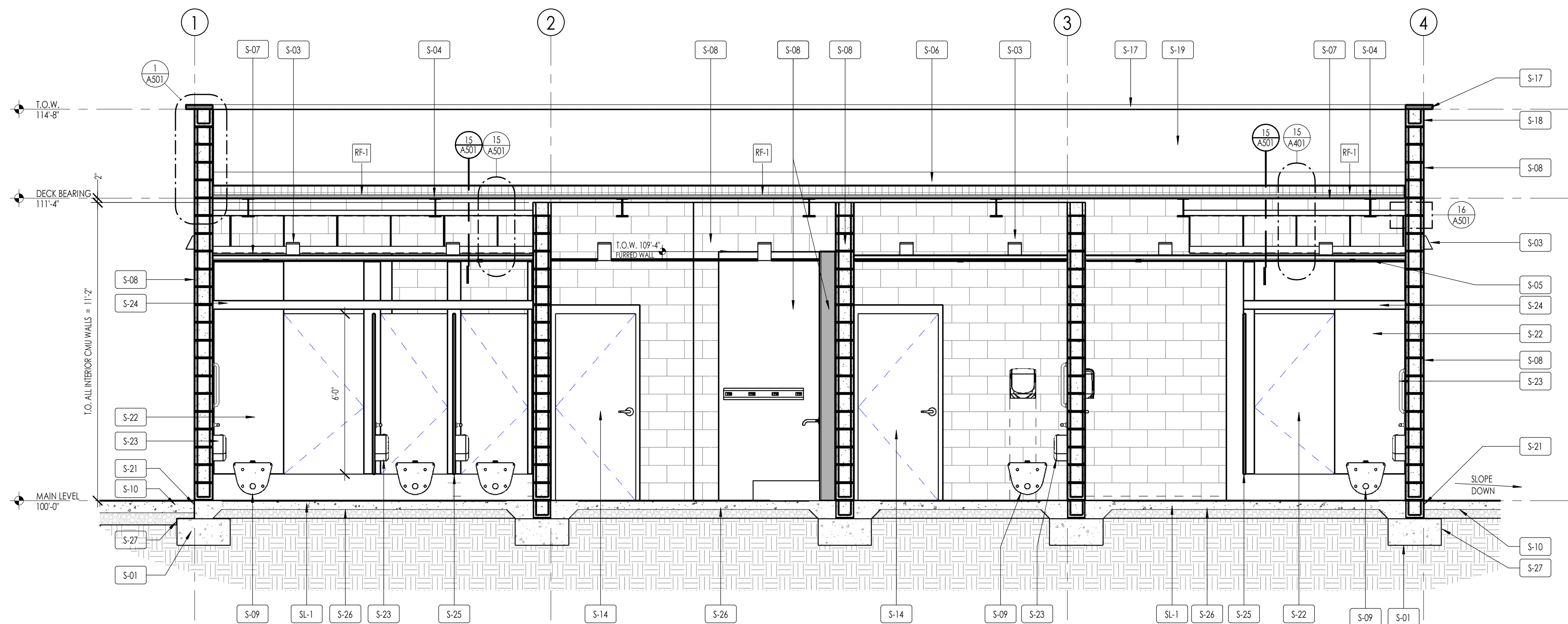
RESTROOM - SOUTH ELEVATION

3/8" = 1'-0"



RESTROOM - NORTH ELEVATION

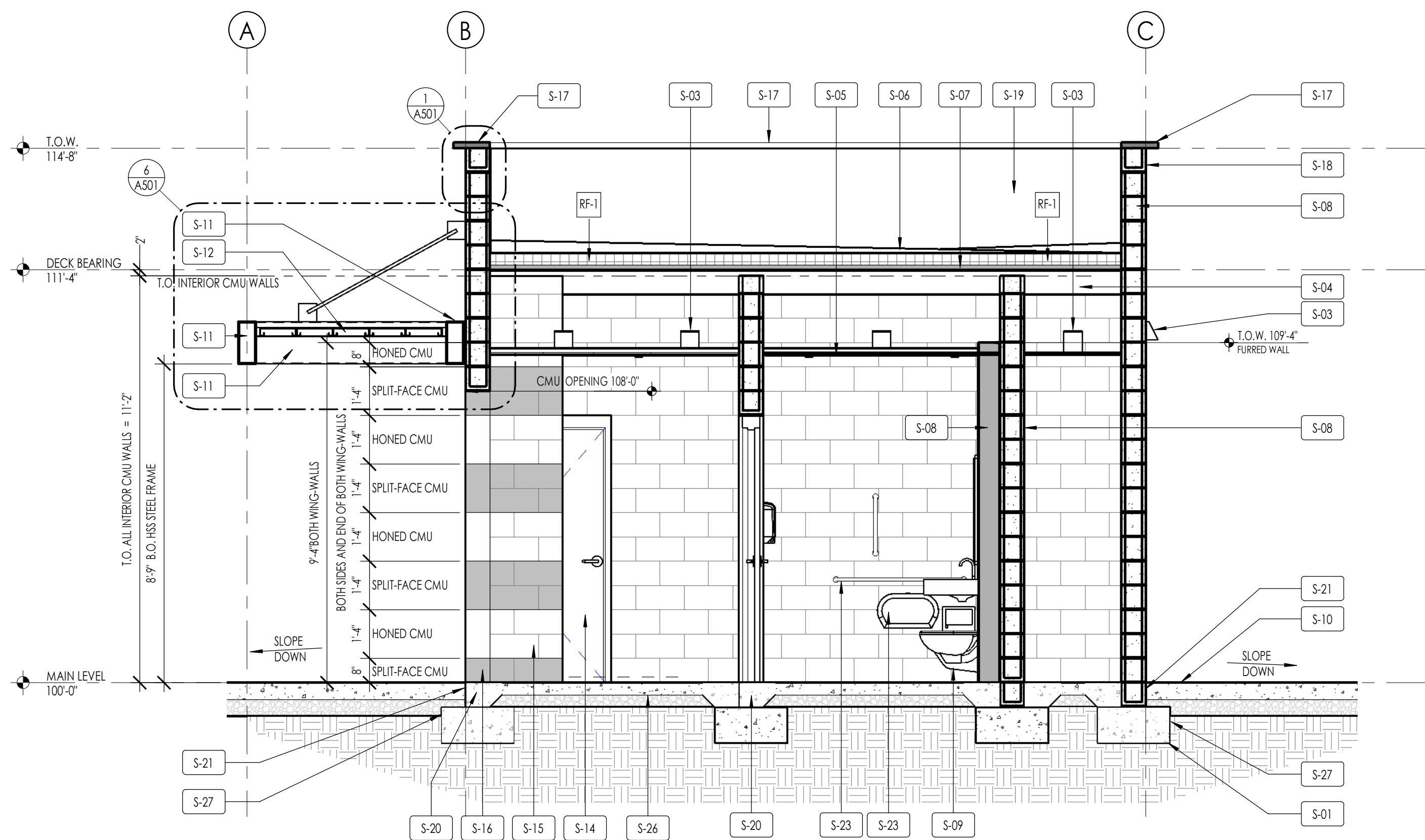
3/8" = 1'-0"



LONGITUDINAL SECTION

3/8" = 1'-0"

1
A202



RESTROOM SECTION

3/8" = 1'-0"

2
A202

ELEVATION/ SECTION MATERIAL LEGEND	
HATCH PATTERN	DESCRIPTION
	HONED CMU WALL - TYPE 1
	SPLIT FACE CMU WALL - TYPE 2
	ALUMINUM FASCIA AND CAP
	COMPACTED SUBGRADE
	COMPACTED GRANULAR FILL
	CONCRETE
	RIGID INSULATION
	SCHEDULED WALL TYPES
NOTE: REFER TO MATERIAL SPECIFICATIONS DOCUMENT FOR DETAILED INFORMATION REGARDING EACH FINISH MATERIAL.	
NOTES	
1. SEE PLUMBING DRAWINGS FOR PLUMBING FIXTURES.	
2. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURES.	
3. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL COMPONENTS, FLOOR SLAB, FOUNDATIONS AND FOOTINGS.	
4. SEE INTERIOR ELEVATIONS FOR TOILET ROOM ACCESSORIES.	
5. SEE CIVIL DRAWINGS FOR EXTERIOR CONCRETE WALKS.	
6. SEE ROOF DRAWINGS FOR ROOF SLOPES TO DRAIN.	
7. SEE G002 TOILET ACCESSORIES MOUNTING HEIGHTS AND CLEARANCES.	
ELEVATION/ SECTION KEYNOTES	
KEYNOTES - SECTIONS	
S-01	STRUCTURAL FOUNDATION
S-03	LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
S-04	STRUCTURAL ROOF BEAM - SEE STRUCTURAL DRAWINGS
S-05	SCHEDULED CEILING SYSTEM
S-06	TPO MEMBRANE ROOFING OVER RIGID INSULATION BOARD
S-07	STRUCTURAL METAL ROOF DECKING - SEE STRUCTURAL DRAWINGS
S-08	SCHEDULED WALL TYPE
S-09	PLUMBING FIXTURE - SEE PLUMBING DRAWINGS
S-10	EXTERIOR CONCRETE WALK - SEE CIVIL DRAWINGS
S-11	EXPOSED STRUCTURAL HES FRAMING - PAINTED
S-12	EXPOSED 12"W x 2.5"D 18ga PLANK GRATING - INTERLOCK PLANK BY MCNICHOLS - GALVANIZED STEEL FINISH - SEE STRUCTURAL DRAWINGS
S-14	SCHEDULED DOOR - PAINTED
S-15	HONED CMU
S-16	SPLIT-FACE CMU
S-17	METAL CAP FLASHING WITH DRIP EDGE
S-18	METAL FLASHING OVER TOP COURSE OF CMU
S-19	RETURN TPO ROOFING MEMBRANE UP AND OVER PARAPET
S-20	STRUCTURAL TURN-DOWN SLAB
S-21	1/2" EXPANSION JOINT MATERIAL WITH SEALANT
S-22	PRE-FINISHED TOILET PARTITIONS
S-23	TOILET ROOM ACCESSORIES
S-24	4" BRACE PANEL ON BACKSIDE OF PARTITION - VERIFY WITH PARTITION MFG
S-25	6'-0" HIGH INTERMEDIATE AND END TOILET PARTITION PANEL
S-26	15mil UNDER SLAB VAPOR BARRIER
S-27	LIQUID APPLIED DAMPPROOFING
SL-1	STRUCTURAL CONCRETE FLOOR SLAB - SEE STRUCTURAL DRAWINGS



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandys, Utah 84094
ph. 801.269.0555
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & model thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - RESTROOMS

2117 McCULLOCH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

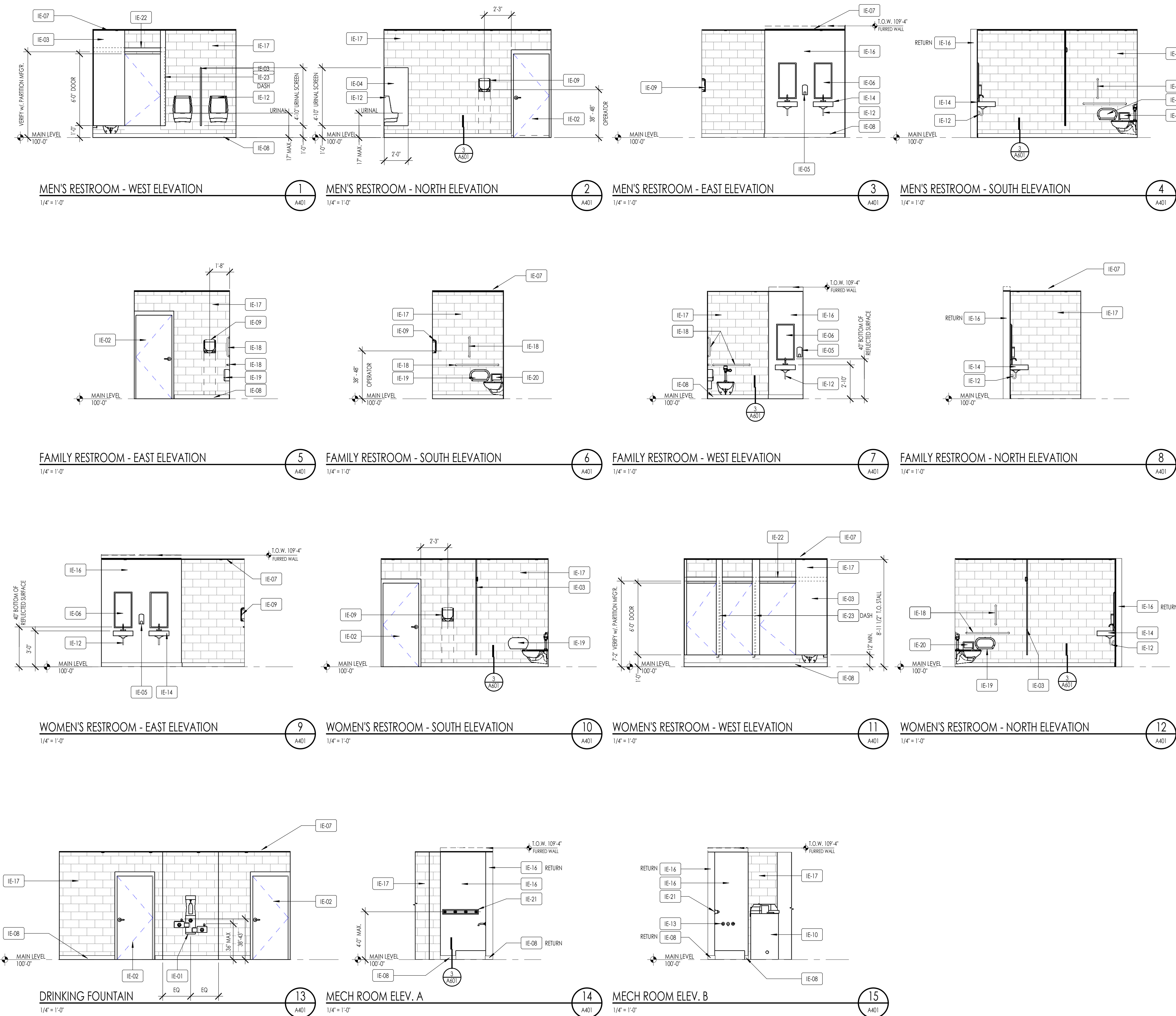
SHEET TITLE:
RESTROOM - SECTIONS

SHEET NUMBER:

A202

© 2022 THINK ARCHITECTURE, INC.

BID SET



ELEVATION/ SECTION MATERIAL LEGEND	
HATCH PATTERN	DESCRIPTION
	HONED CMU WALL - TYPE 1
	SPLIT FACE CMU WALL - TYPE 2
	ALUMINUM FASCIA AND CAP
	COMPACTED SUBGRADE
	COMPACTED GRANULAR FILL
	CONCRETE
	RIGID INSULATION
	SCHEDULED WALL TYPES
NOTE: REFER TO MATERIAL SPECIFICATIONS DOCUMENT FOR DETAILED INFORMATION REGARDING EACH FINISH MATERIAL.	
NOTES	
1. SEE PLUMBING DRAWINGS FOR PLUMBING FIXTURES.	
2. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURES.	
3. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL COMPONENTS, FLOOR SLAB, FOUNDATIONS AND FOOTINGS.	
4. SEE INTERIOR ELEVATIONS FOR TOILET ROOM ACCESSORIES.	
5. SEE CIVIL DRAWINGS FOR EXTERIOR CONCRETE WALKS.	
6. SEE ROOF DRAWINGS FOR ROOF SLOPES TO DRAIN.	
7. SEE G002 TOILET ACCESSORIES MOUNTING HEIGHTS AND CLEARANCES.	
ELEVATION/ SECTION KEYNOTES	
KEYNOTES - INTERIOR ELEVATIONS	
IE-01	ADA COMPLIANT TWO LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER, EXTERIOR GRADE
IE-02	SCHEDULED DOOR
IE-03	CEILING-HUNG PRE-FINISHED METAL TOILET PARTITION
IE-04	PRE-FINISHED URINAL PARTITION
IE-05	WALL MOUNTED SOAP DISPENSER
IE-06	24" x 36" MIRROR
IE-07	SCHEDULED CEILING - SEE ROOM FINISH SCHEDULE
IE-08	SCHEDULED FLOOR BASE - SEE FINISH SCHEDULE
IE-09	WALL MOUNTED ELECTRIC HAND DRYER
IE-10	WATER HEATER - SEE PLUMBING DRAWINGS
IE-12	INSTALL ADA PAD ON PIPING AND VALVES
IE-13	FAUCET
IE-14	WALL MOUNTED SINK WITH FLOOR CARRIER
IE-16	FRP PANEL WALL FINISH - WITH TRIMS
IE-17	BLOCK FILLER WITH EPOXY PAINT ON INTERIOR FACE
IE-18	ADA COMPLIANT GRAB BARS - SEE B/G002
IE-19	WALL MOUNTED DUAL-ROLL TOILET PAPER DISPENSER - EACH STALL
IE-20	WALL MOUNTED SANITARY NAPKIN RECEPTACLE - EACH FEMALE STALL
IE-21	36" LONG WALL MOUNTED MOP HOLDER
IE-22	4" BRACE PANEL ON BACKSIDE OF PARTITION - VERIFY WITH PARTITION MFG
IE-23	6'-0" HIGH INTERMEDIATE AND END TOILET PARTITION PANEL

Think
Architecture

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85254
ph. 801.269.0555
fax 801.269.1425
www.thinkazec.com

The designs shown and described herein including all technical drawings, graphics, representations & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

MAIN STREET COMMONS - RESTROOMS

2117 McCULLOCH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
RESTROOM - INTERIOR
ELEVATIONS

SHEET NUMBER:
A401

© 2022 THINK ARCHITECTURE, INC.

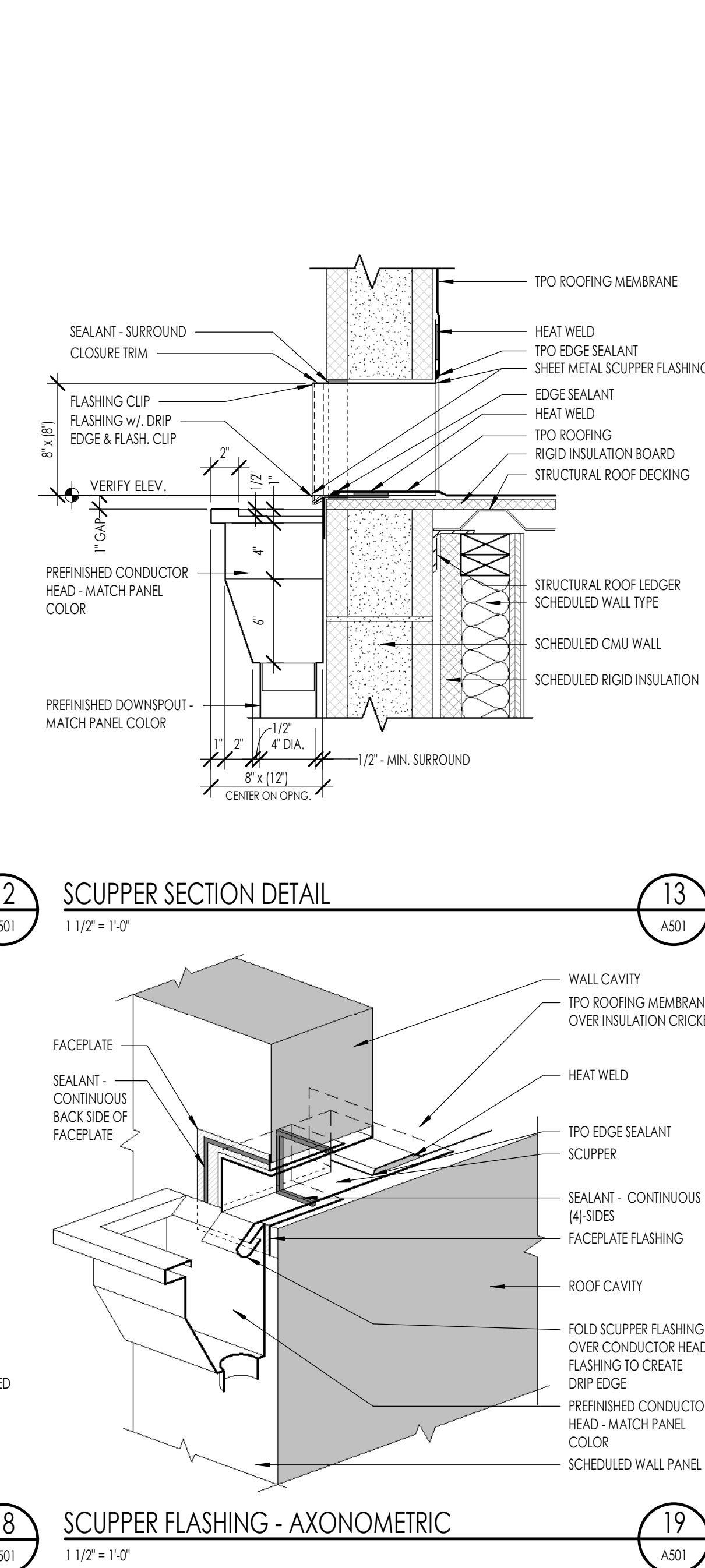
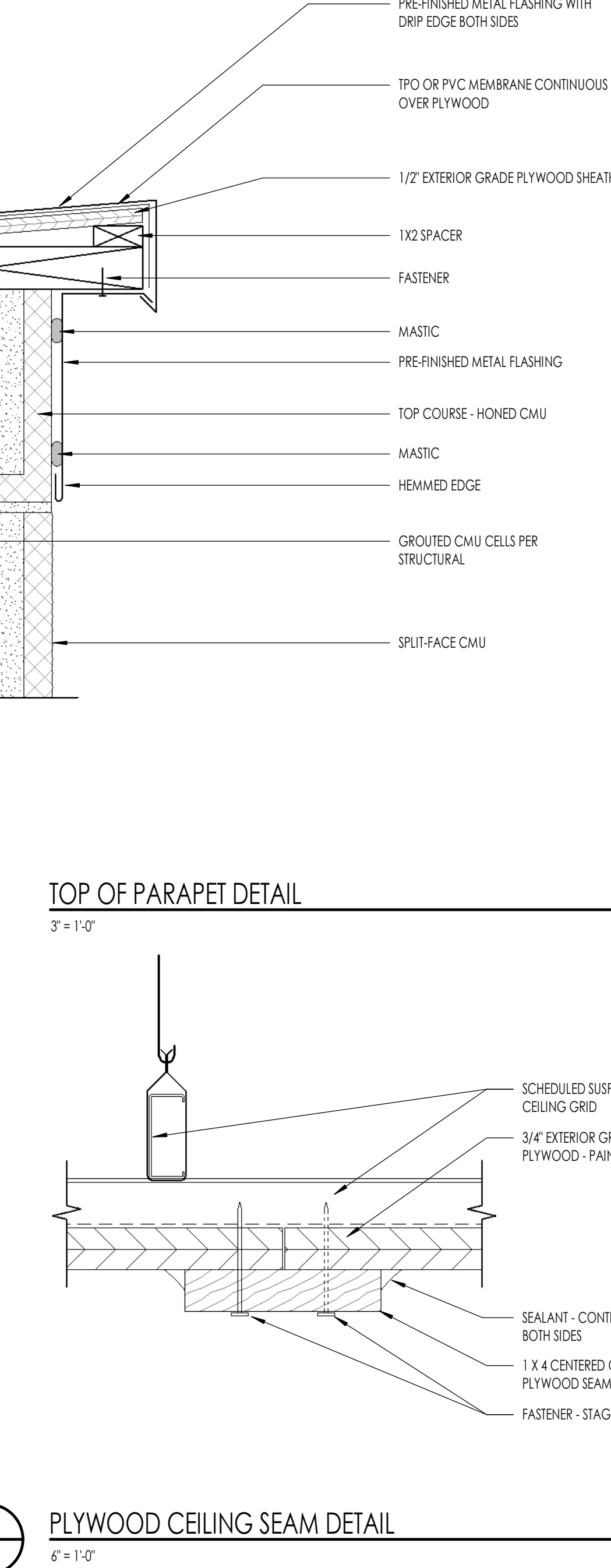
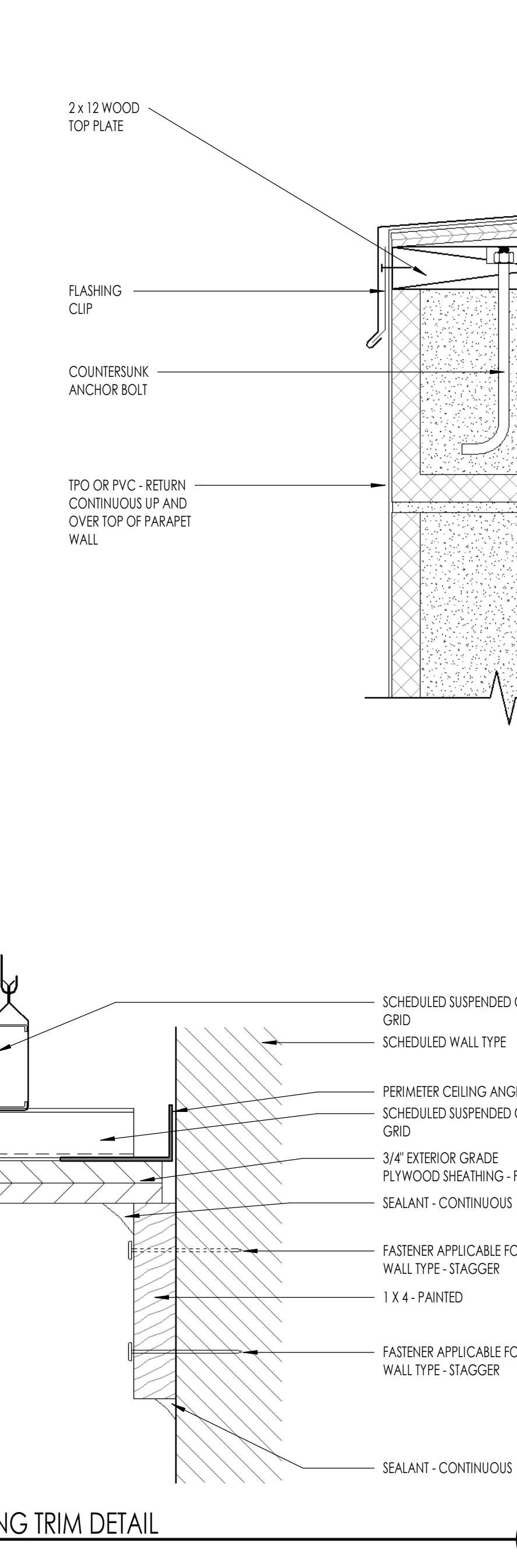
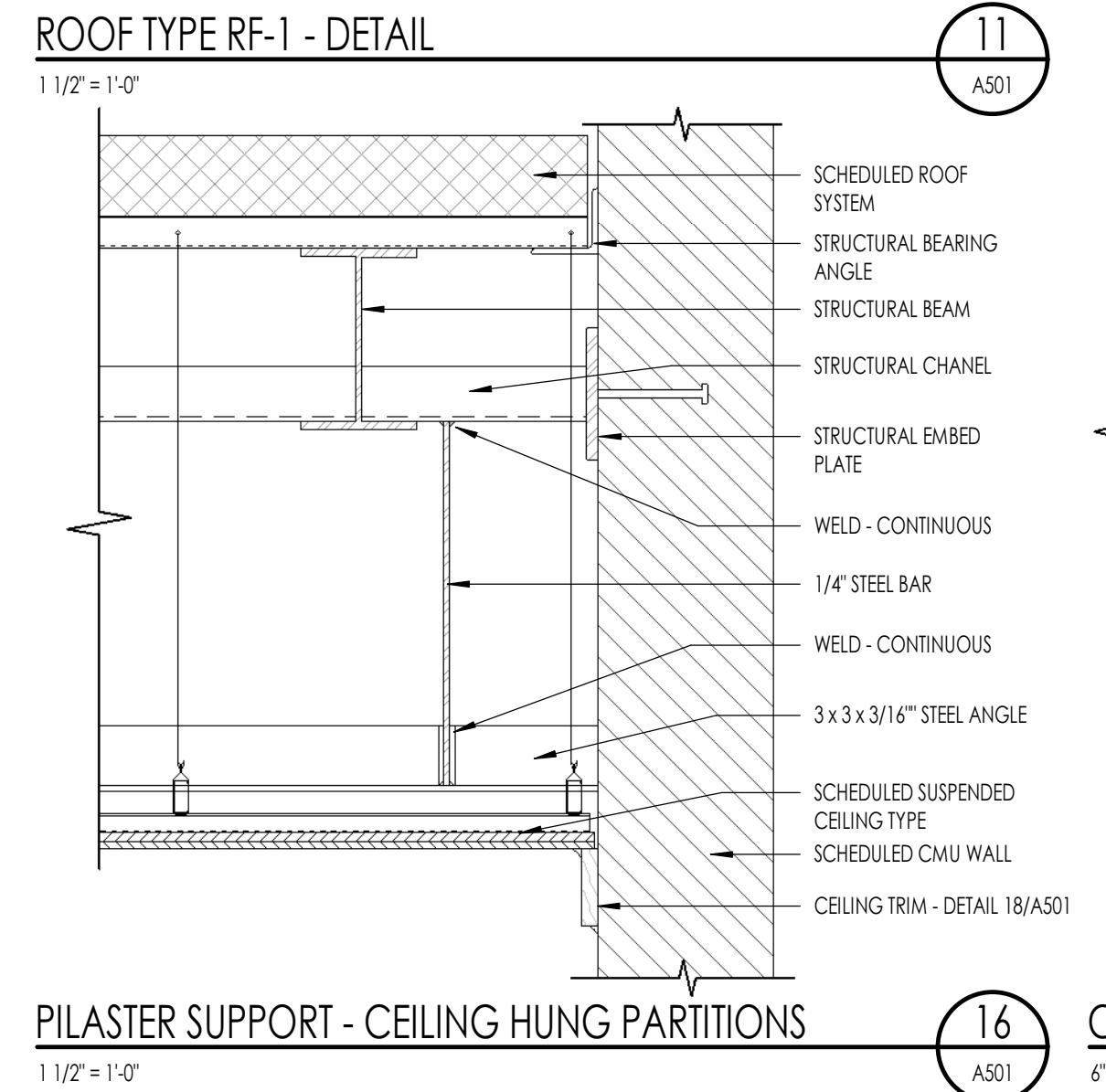
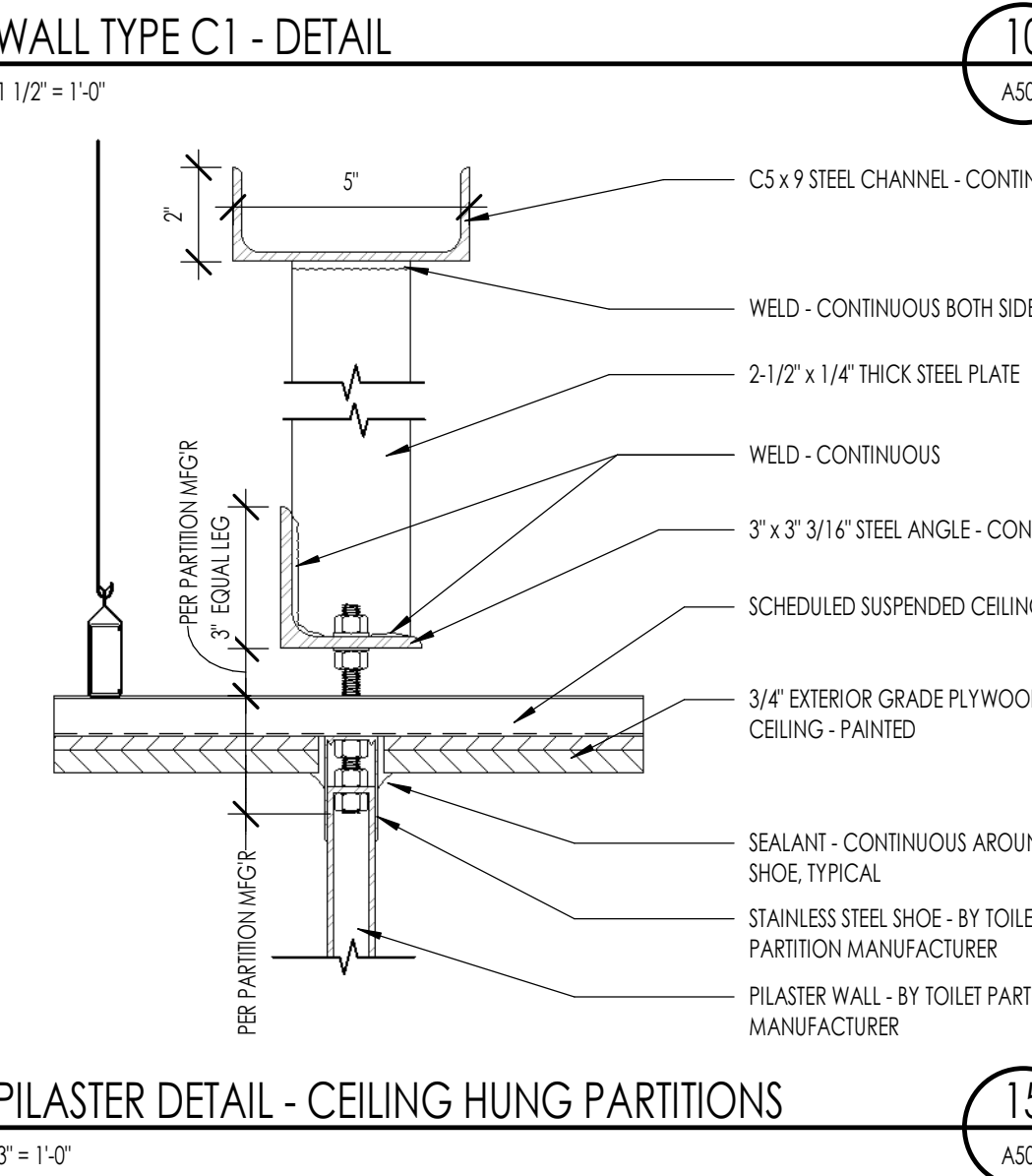
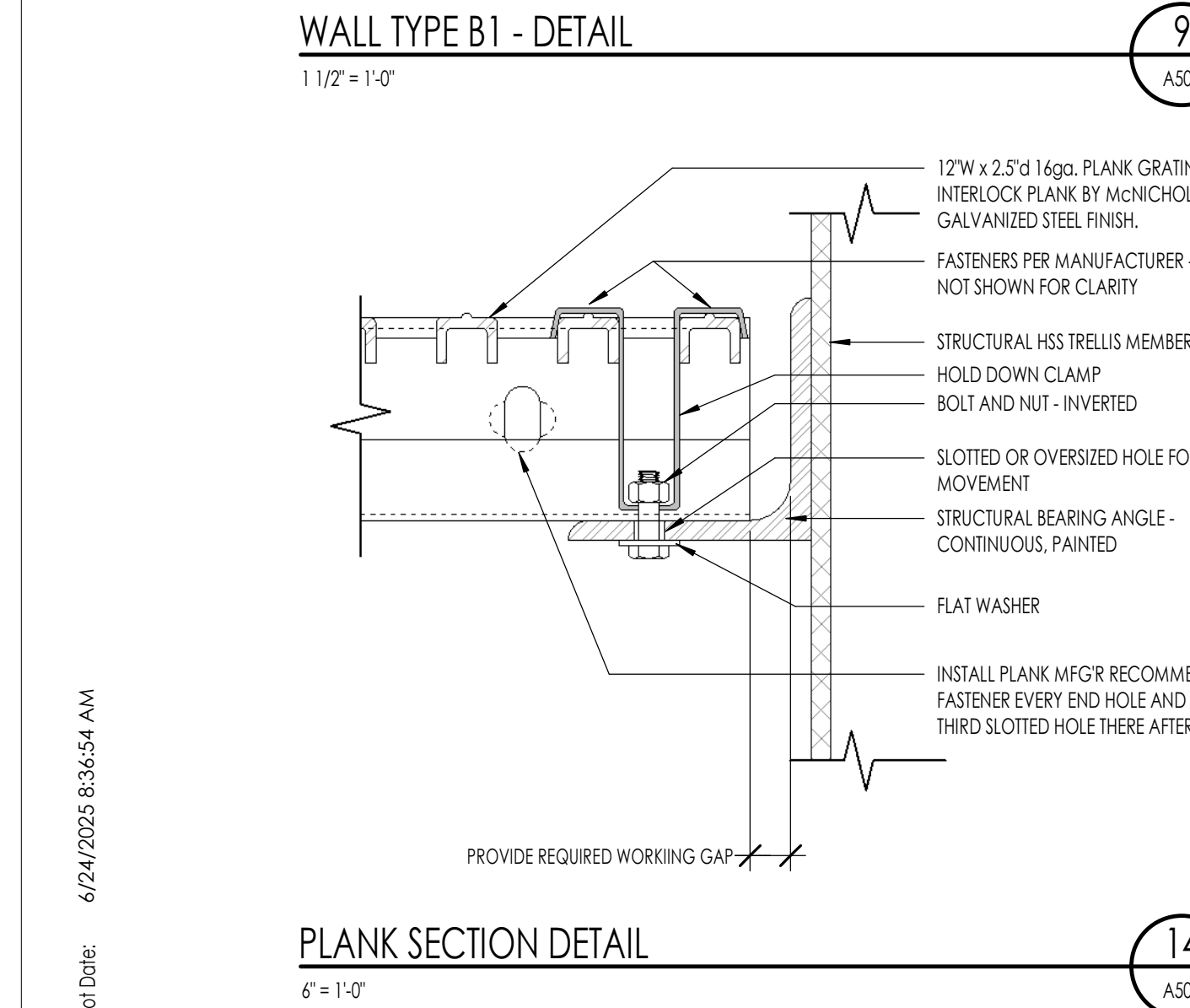


The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



© 2022 THINK ARCHITECTURE INC.





Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0555
fax 801.269.1425
www.thinka62.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - RESTROOMS

2117 McCULLOCH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
RESTROOM - DOOR
SCHEDULE

SHEET NUMBER:

A601

© 2022 THINK ARCHITECTURE INC.

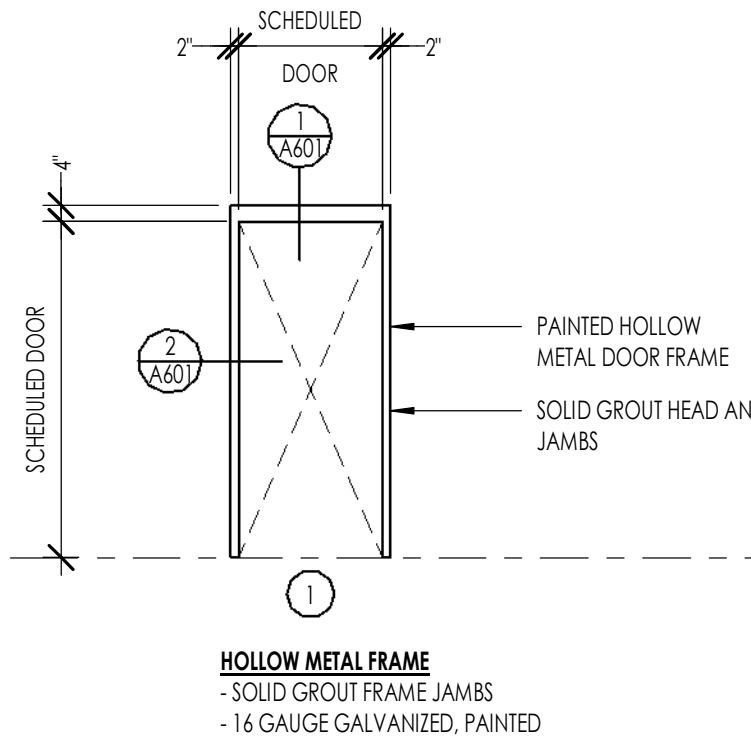
DOOR SCHEDULE GENERAL NOTES

- CONTRACTOR SHALL FIELD VERIFY ALL DOOR OPENINGS PRIOR TO ORDERING ALL DOORS.
- ALL DOORS SHALL BE WEATHER-STRIPPED ON HEAD AND JAMBS.
- MAXIMUM EFFORT REQUIRED TO OPERATE DOORS SHALL NOT EXCEED 5 LBS
- DOOR OPENING HARDWARE SHALL BE LEVER TYPE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITH A SINGLE EFFORT AND SHALL NOT REQUIRE TIGHT GRASPING OR TWISTING OF THE WRIST.
- PROJECTIONS, INCLUDING PANIC HARDWARE, SHALL NOT REDUCE THE OPENING TO LESS THAN 32" CLEAR WIDTH.
- SOLID GROUT ALL JAMBS AND HEAD FULL HEIGHT.
- PROVIDE 16 GAUGE GALVANIZED COATED HOLLOW METAL DOOR FRAMES.
- PROVIDE 16 GAUGE GALVANIZED COATED HOLLOW METAL DOORS.
- INSTALL MASONRY FRAME ANCHORS 4" FROM TOP AND BOTTOM OF HOLLOW METAL DOOR FRAME AND A MAXIMUM OF 24" ON CENTER. INSTALL EITHER MASONRY WIRE ANCHOR OR MASONRY F-ANCHORS.
- INSTALL BETWEEN OPENING OR "BUTT WALL" HOLLOW METAL DOOR FRAMES - WELDED FRAME TYPE.

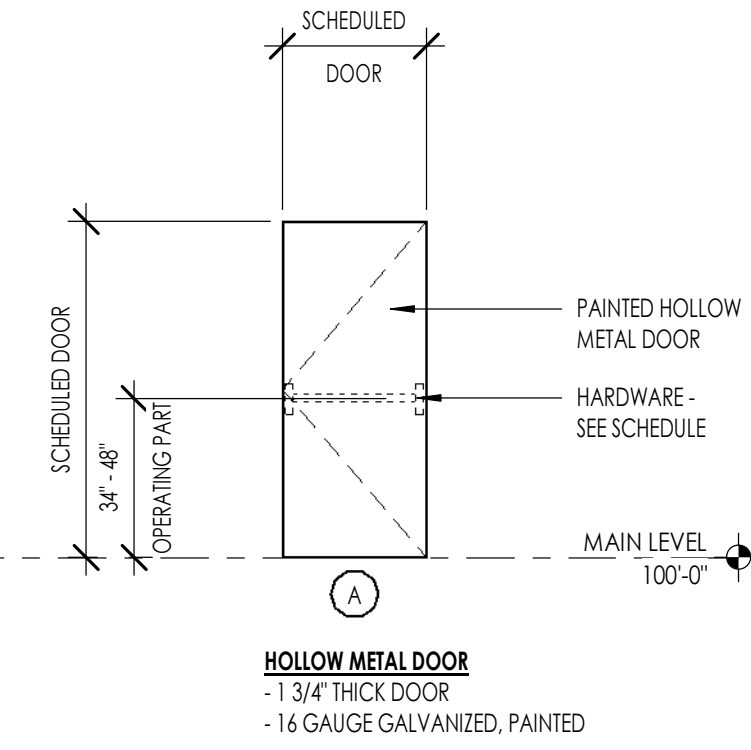
HARDWARE TYPES

HARDWARE TYPE 1: EXTERIOR: HOLLOW METAL DOOR + HOLLOW METAL FRAME			
1 CONTINUOUS HINGE	CFM-HIGHT OF DOOR-HD	CLEAR ALUMINUM	PEMKO
1 PUSH/PULL	8701	CLEAR ALUMINUM	ADAMS RITE
1 DEADLATCH	44C1	ALUMINUM	INTERNATIONAL
1 STRIKE	KICK 10" X DOOR WIDTH -1	ALUMINUM	SPECIALIZED BUILDERS HARDWARE
1 CLOSER WITH HOLD OPEN	44C1-HO	ALUMINUM	INTERNATIONAL
1 KICKPLATE	34C-WIDTH OF DOOR	CLEAR ALUMINUM	PEMKO
1 SWEEP STRIP	BY DOOR MANUFACTURER		
1 WEATHER STRIP	BY DOOR MANUFACTURER		
HARDWARE TYPE 2:			
1 CONTINUOUS HINGE	CFM-HIGHT OF DOOR-HD	CLEAR ALUMINUM	PEMKO
1 SMALL FORMAT STOREROOM LEVERSET	SF-1738B-7 PIN	626	MARKS USA GRADE 2
1 DEADLATCH	44C1	ALUMINUM	INTERNATIONAL
1 CLOSER WITH HOLD OPEN	44C1-HO	ALUMINUM	INTERNATIONAL
1 KICKPLATE	KICK 10" X 35"	ALUMINUM	SPECIALIZED BUILDERS HARDWARE
1 DOOR STOP	DS1F4	US26D	CAL-ROYAL
1 SWEEP STRIP	BY DOOR MANUFACTURER		
1 WEATHER STRIP	BY DOOR MANUFACTURER		
HARDWARE TYPE 3:			
1 CONTINUOUS HINGE	CFM-HIGHT OF DOOR-HD	CLEAR ALUMINUM	PEMKO
1 PRIVACY LEVERSET	SF-1738S-7 PIN	626	MARKS USA
1 DEADLATCH	44C1	ALUMINUM	INTERNATIONAL
1 CLOSER WITH HOLD OPEN	44C1-HO	ALUMINUM	INTERNATIONAL
1 KICKPLATE	44C1	ALUMINUM	INTERNATIONAL
1 DOOR STOP	DS1F4	US26D	CAL-ROYAL
1 SWEEP STRIP	BY DOOR MANUFACTURER		
1 WEATHER STRIP	BY DOOR MANUFACTURER		

FRAME TYPES

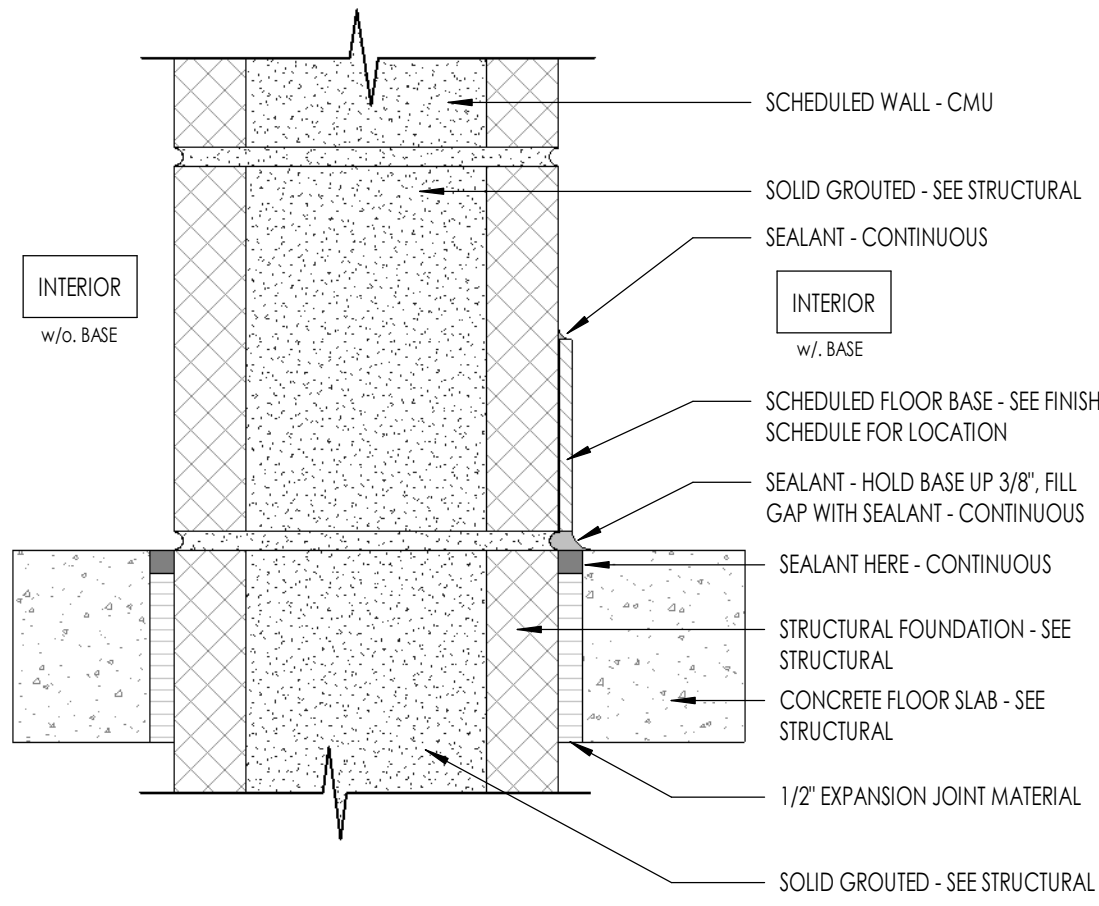


DOOR TYPES



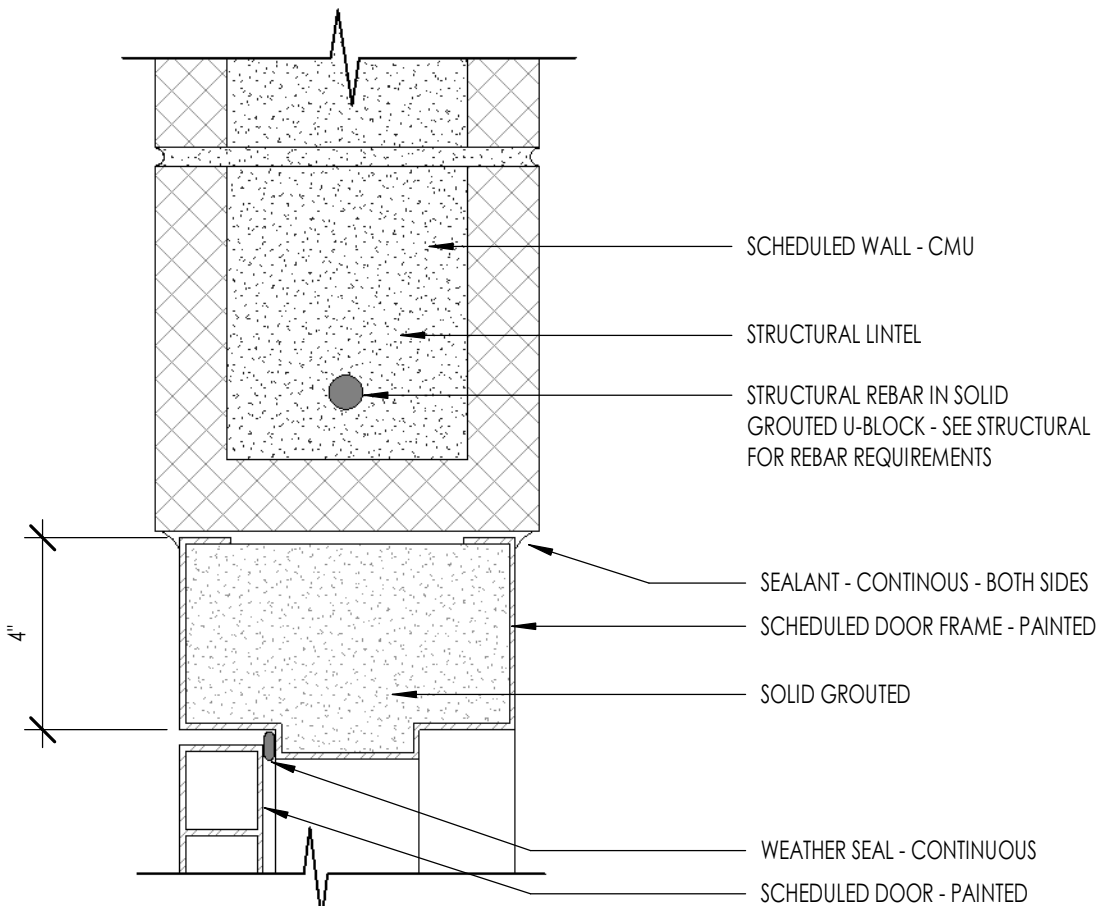
DOOR SCHEDULE

MARK	DOOR PROPERTIES						FRAME		HARDWARE	COMMENTS
	TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	MATERIAL	FINISH		
A101	A	3'-0"	7'-0"	1 3/4"	HM	PAINT	HM	PAINT	1	16 GAUGE FRAME, 16 GAUGE DOOR
A102	A	3'-0"	7'-0"	1 3/4"	HM	PAINT	HM	PAINT	2	16 GAUGE FRAME, 16 GAUGE DOOR
A103	A	3'-0"	7'-0"	1 3/4"	HM	PAINT	HM	PAINT	3	16 GAUGE FRAME, 16 GAUGE DOOR
A104	A	3'-0"	7'-0"	1 3/4"	HM	PAINT	HM	PAINT	1	16 GAUGE FRAME, 16 GAUGE DOOR



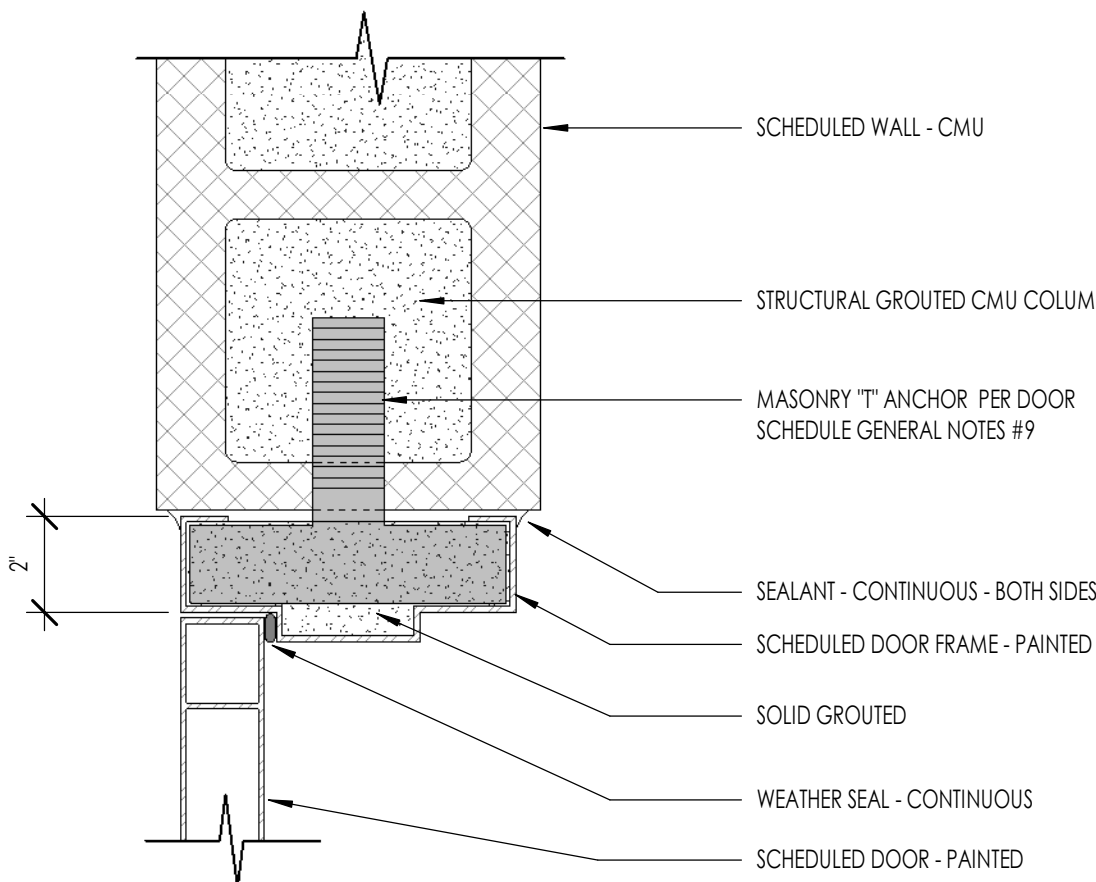
WALL BASE - DETAIL

3" = 1'-0"



DOOR HEAD AT CMU

3" = 1'-0"



DOOR JAMB AT CMU

3" = 1'-0"

BID SET

GENERAL STRUCTURAL NOTES (CONT'D.)

K. SPECIAL INSPECTION

- IN ADDITION TO STANDARD INSPECTIONS BY THE BUILDING OFFICIAL REQUIRED PER IBC SECTION 10. THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION FOR THE TYPES OF WORK LISTED IN THIS SECTION.
- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE SPECIAL INSPECTOR AT LEAST 24 HOURS NOTICE PRIOR TO PERFORMING ANY WORK REQUIRING SPECIAL INSPECTION.
- THE SPECIAL INSPECTOR SHALL INSPECT THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED CONTRACT DRAWINGS AND SPECS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE ENGINEER AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECS AND THE APPLICABLE CODE PROVISIONS.
- INSPECTORS SHALL INSPECT FROM AN APPROVED SET OF CONTRACT DRAWINGS. SHOP DRAWINGS SHALL NOT BE USED IN LIEU OF THE APPROVED CONTRACT DRAWINGS FOR INSPECTION PURPOSES.
- TYPES OF WORK TO BE INSPECTED BY THE SPECIAL INSPECTOR ARE AS FOLLOWS:
- EPOXY ANCHORS IN CONCRETE - INSPECTION OF EPOXY ANCHORS IN CONCRETE SHALL BE PERIODIC UNO. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL ADHESIVE ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). AT THE TIME OF INSTALLATION, THE CONCRETE SHALL HAVE ACHIEVED A MINIMUM AGE OF 28 DAYS, BE DRY, AND BE BETWEEN 50 DEGREES F AND 104 DEGREES F. THE HOLES SHALL BE DRILLED WITH A HAMMER DRILL TO THE DIMENSIONS LISTED IN THE MPII AND SHALL BE CLEANED USING THE BLOW-BRUSH-BLOW TECHNIQUE REQUIRED IN THE MPII. WHERE ANCHORS ARE INSTALLED INTO LIGHTWEIGHT CONCRETE, IT IS ASSUMED THAT THE CONCRETE IS CLASSIFIED AS ALL-LIGHTWEIGHT CONCRETE AS DEFINED IN ACI 318. ANY ADHESIVE ANCHORS INSTALLED HORIZONTALLY (EXCEPT FOR ANCHORS IN A SLAB-ON-GRADE) OR UPWARDLY INCLINED SHALL BE INSTALLED BY PERSONNEL WITH THE ANCHORS ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR EQUIVALENT AND SHALL BE INSTALLED WITH CONTINUOUS SPECIAL INSPECTION.
- EPOXY ANCHORS IN MASONRY - EPOXY ANCHORS IN MASONRY SHALL BE INSTALLED WITH PERIODIC SPECIAL INSPECTION. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL ADHESIVE ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).
- SCREW ANCHORS AND EXPANSION ANCHORS IN CONCRETE OR MASONRY - SCREW ANCHORS AND EXPANSION ANCHORS SHALL BE INSTALLED WITH PERIODIC SPECIAL INSPECTION. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL SCREW/EXPANSION ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

6.4. CONCRETE CONSTRUCTION PER IBC SECTION 1705.3 AND TABLE 1705.3

CONCRETE CONSTRUCTION SPECIAL INSPECTIONS			
VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT.	-	-	X
2. REINFORCING BAR WELDING:	-	-	-
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A108	-	-	X
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	-	X	-
C. INSPECT ALL OTHER WELDS	X	-	-
3. INSPECT ANCHORS CAST IN CONCRETE	-	-	X
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	-	-	-
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	-	-
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A	-	-	X
5. VERIFYING USE OF REQUIRED DESIGN MIX	-	-	X
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	-	-
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	-	-	X
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	-	-	X
9. INSPECTION OF PRESTRESSED CONCRETE:	-	-	-
A. APPLICATION OF PRESTRESSING FORCES	X	-	-
B. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM	X	-	-
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	-	-	X
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	-	-	X
12. INSPECTION OF FORM WORK FOR SHAPE, LOCATION, AND DIMENSION OF THE CONCRETE MEMBER BEING FORMED	-	-	X

6.5. STEEL CONSTRUCTION AND WELDING PER IBC SECTION 1705.2

STEEL CONSTRUCTION SPECIAL INSPECTIONS			
INSPECTION OF HIGH-STRENGTH BOLTING			
INSPECTION TASKS PRIOR TO BOLTING		CONTINUOUS	PERIODIC
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	X	-	-
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	-	-	X
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	-	-	X
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	-	-	X
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	-	-	X
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	-	-	X
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	-	-	X
INSPECTION TASKS DURING BOLTING		CONTINUOUS	PERIODIC
FASTENERS ASSEMBLIES OF SUITABLE CONDITION PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	-	-	X
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	-	-	X
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	-	-	X
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	-	-	X
INSPECTION TASKS AFTER BOLTING		CONTINUOUS	PERIODIC
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	X	-	-

K. SPECIAL INSPECTION (CONT'D.)

6.6.

STEEL CONSTRUCTION SPECIAL INSPECTIONS			
INSPECTION OF WELDING			
INSPECTION TASKS PRIOR TO WELDING		CONTINUOUS	PERIODIC
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	X	-	-
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X	-	-
MATERIAL IDENTIFICATION (TYPE/GRADE)	-	-	X
WELDER IDENTIFICATION SYSTEM*	-	-	X
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) JOINT PREPARATION	-	-	X
DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)	-	-	-
CLEANLINESS (CONDITION OF STEEL SURFACES) TACKING (TACK WELD QUALITY AND LOCATION) BACKING TYPE AND FIT (IF APPLICABLE)	-	-	-
CONFIGURATION AND FINISH OF ACCESS HOLES	-	-	X
FIT-UP OF FILLET WELDS	-	-	X
DIMENSIONS (ALIGNMENT, GAPS AT ROOT) CLEANLINESS (CONDITION OF STEEL SURFACES) TACKING (TACK WELD QUALITY AND LOCATION)	-	-	-
CHECKING WELD EQUIPMENT	-	-	X
* THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.	-	-	-
INSPECTION TASKS DURING WELDING		CONTINUOUS	PERIODIC
USE OF QUALIFIED WELDERS	-	-	X
CONTROL AND HANDLING OF WELDING CONSUMABLES PACKAGING	-	-	X
EXPOSURE CONTROL	-	-	-
NO WELDING OVER CRACKED TACK WELDS	-	-	X
ENVIRONMENTAL CONDITIONS	-	-	X
WIND SPEEDS WITHIN LIMITS	-	-	-
PRECIPITATION AND TEMPERATURE	-	-	-
WPS FOLLOWED	-	-	X
SETTINGS ON WELD EQUIPMENT	-	-	-
TRAVEL SPEED	-	-	-
SELECTED WELDING MATERIALS	-	-	-
SHIELDING GAS TYPE/FLOW RATE	-	-	-
PREHEAT APPLIED	-	-	-
INTERPASS TEMPERATURE MAINTAINED (MIN/MAX)	-	-	-
PROPER POSITION (F, V, H, O)	-	-	-
INTERFLEX OF FILLER METALS ALLOWED UNLESS APPROVED	-	-	-
WELDING TECHNIQUES	-	-	X
INTERPASS AND FINAL CLEANING	-	-	-
EACH PASS WITHIN PROFILE LIMITATIONS	-	-	-
EACH PASS MEETS QUALITY REQUIREMENTS	-	-	-
SINGLE-PASS FILLET WELDS GREATER THAN 5/16"	X	-	-
MULTI-PASS FILLET WELDS	X	-	-
COMPLETE AND PARTIAL PENETRATION WELDS	X	-	-
PLUG AND SLOT WELDS	X	-	-
SINGLE-PASS FILLET WELDS EQUAL TO OR LESS THAN 5/16"	-	-	X
FLOOR AND ROOF DECK WELDS	-	-	X
INSPECTION TASKS AFTER WELDING		CONTINUOUS	PERIODIC
WELDS CLEANED	-	-	X
SIZE, LENGTH AND LOCATION OF WELDS	-	-	X
WELDS MUST MEET VISUAL ACCEPTANCE CRITERIA	X	-	-
CRACK PROHIBITION	-	-	-
WELD/BASE-METAL FUSION	-	-	-
CRATER OR CRACK SECTION	-	-	-
WELD PROFILES	-	-	-
WELD SIZE	-	-	-
UNDERCUT	-	-	-
POROSITY	-	-	-
ARC STRIKES	X	-	-
K-AREA**	X	-	-
PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS (IF REQUIRED)	X	-	-
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	-	-
REPAIR ACTIVITIES	X	-	-
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X	-	-
** WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WELD K-AREA FOR CRACKS WITHIN 3 IN. OF THE WELD.	-	-	-

- MASONRY CONSTRUCTION PER IBC SECTION 1705.4 AND TMS 602 TABLES 3 AND 4.
- PRIOR TO CONSTRUCTION, VERIFICATION OF COMPLIANCE OF SUBMITTALS.
- PRIOR TO CONSTRUCTION, VERIFICATION OF 10 AND 10AC EXCEPT WHERE SPECIFICALLY EXEMPTED BY CODE.
- DURING CONSTRUCTION, VERIFICATION OF SLUMP, FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF-CONSOLIDATING GROUT IS DELIVERED TO PROJECT SITE.

TMS 602 TABLE 4 - LEVEL 2			
VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC
1. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:	-	-	-
A. PROPORTIONS OF SITE-PREPARED MORTAR	-	-	X
B. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	-	-	X
C. GRADE, TYPE AND SIZE OF REINFORCEMENT CONNECTORS, ANCHOR BOLTS AND PRESTRESSING TENDONS AND ANCHORAGES	-	-	X
D. PRESTRESSING TECHNIQUE	-	-	X
E. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	X	-	-
F. SAMPLE PANEL CONSTRUCTION	-	-	X
2. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:	-	-	-
A. GROUT SPACE	-	-	X
B. PLACEMENT OF PRESTRESSING TENDONS AND ANCHORAGES	-	-	X
C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND ANCHOR BOLTS	-	-	X
D. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	-	-	X
3. VERIFY COMPLIANCE OF THE FOLLOWING DURING CONSTRUCTION:	-	-	-
A. MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS	-	-	X
B. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION	-	-	X
C. SIZE AND LOCATION OF STRUCTURAL MEMBERS	-	-	X
D. TYPE, SIZE AND LOCATION OF ANCHORS	-	-	X
E. INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	-	-	-
F. WELDING OF REINFORCEMENT	X	-	-
G. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)	-	-	-
H. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	X	-	-
I. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	X	-	-
J. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	X	-	-
4. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS AND/OR FRISHS	-	-	X

- CERTIFICATE OF APPROVAL REGARDING MATERIALS AND INSPECTION OF PREFABRICATED ITEMS SHALL BE PROVIDED IN ACCORDANCE WITH IBC SECTION 1704.

L. SUBMITTALS

- SHOP DRAWINGS OR REPORTS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION (AS APPLICABLE) UNO:
LAYOUT PLANS FOR PENETRATIONS, EMBEDDED CONDUITS AT WALLS/ELEVATED SLABS
MASONRY BLOCK TEST DATA
MASONRY FRISM TESTS
REINFORCING STEEL
STEEL DECK
STRUCTURAL STEEL
- CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMITTING. CONTRACTOR'S REVIEW SHALL CHECK FOR COMPLETENESS/COMPLIANCE WITH CONTRACT DOCUMENTS.
- SHOP DRAWINGS ARE REVIEWED BY ENGINEER ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE CONTRACT DRAWINGS OR SPECIFICATIONS. CHANGES, SUBSTITUTIONS OR DEVIATIONS FROM CONTRACT DRAWINGS AND/OR SPECIFICATIONS WILL NOT BE ACCEPTED VIA SHOP DRAWING REVIEW. ALL SUCH MODIFICATIONS SHALL BE SUBMITTED SEPARATELY FOR ENGINEER'S REVIEW.
- PREFABRICATED COMPONENTS, SPECIALTY ITEMS OR DESIGN-BUILD ELEMENTS NOTED ON THE STRUCTURAL DRAWINGS BUT WHICH REQUIRE THE FIRM OR SUPPLIER TO PROVIDE THE DESIGN SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW AS A DEFERRED SUBMITTAL. DEFERRED SUBMITTALS REQ'D BY THE STRUCTURAL ENGINEER OF RECORD SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
CONCRETE MIX DESIGNS
MASONRY GROUT AND MORTAR MIX DESIGNS
ROOF ACCESS LADDER/PLATFORM DESIGN AND SUPPORT
SUPPORT/ANCHORAGE OF MECH. ELECT. AND PLUMBING EQUIPMENT AND COMPONENTS
- DEFERRED SUBMITTALS SHALL INCLUDE CALCULATIONS AND DRAWINGS PREPARED AND STAMPED BY AN APPROPRIATELY LICENSED ENGINEER (SPECIALTY ENGINEER) SHOWING LOCATION AND MAGNITUDE OF LOADS, CONFIGURATION AND SIZE OF MEMBERS, AND COMPATIBILITY OF SUBMITTAL ITEM WITH THE PRIMARY STRUCTURAL SYSTEM.
- THE PURPOSE OF THE STRUCTURAL ENGINEER'S REVIEW OF DEFERRED SUBMITTALS SHALL BE LIMITED TO DETERMINING THAT THE DRAWINGS AND CALCULATIONS HAVE BEEN PROPERLY SEALED, THAT THE LOAD CRITERIA IS IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE REFERENCED BUILDING CODE, THAT CONNECTIONS TO THE PRIMARY STRUCTURE ARE COMPATIBLE WITH THE PRIMARY DESIGN AND THAT THE PRIMARY STRUCTURE IS CAPABLE OF SUPPORTING THE PROPOSED LOADS.
- THE STRUCTURAL ENGINEER WILL RELY UPON THE SPECIALTY ENGINEER'S SEAL AS CERTIFICATION THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER COMPLY WITH THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF DESIGNS PROVIDED BY OTHERS.
- FOR ALL SUBMITTALS, ANY CORRECTIONS NOTED WILL BE MARKED ON ONE (1) COPY SET ONLY AND RETURNED. ADDITIONAL COPIES OF ANY SUBMITTAL WILL BE RETURNED UNMARKED. CONTRACTOR SHALL BE RESPONSIBLE FOR REPRODUCING ENGINEER'S CORRECTIONS ON ADDITIONAL COPIES REQ'D. ONE COPY SET MAY BE RETAINED FOR THE ENGINEER'S RECORDS. ALLOW FIVE (5) TO TEN (10) WORKING DAYS FOR THE ENGINEER'S REVIEW.
- REFER TO APPLICABLE GEN. SECTIONS FOR FURTHER REQUIREMENTS SPECIFIC TO INDIVIDUAL SUBMITTALS.

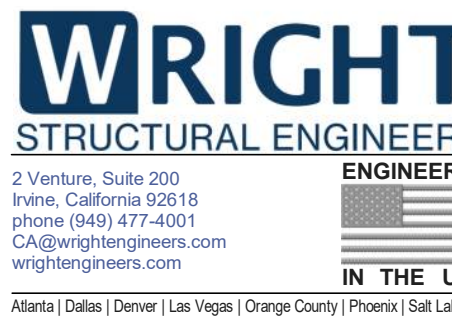


Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85254
ph: 801.269.0055
fax: 801.269.1425
www.thinkae.com

The designs shown and described herein including all technical drawings, graphic representations & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THM Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



Atlanta | Dallas | Denver | Las Vegas | Orange County | Phoenix | Salt Lake City

LAKE HAVASU CATALYST

PROJECT NO. 24134
DATE: 19 JUNE 2025

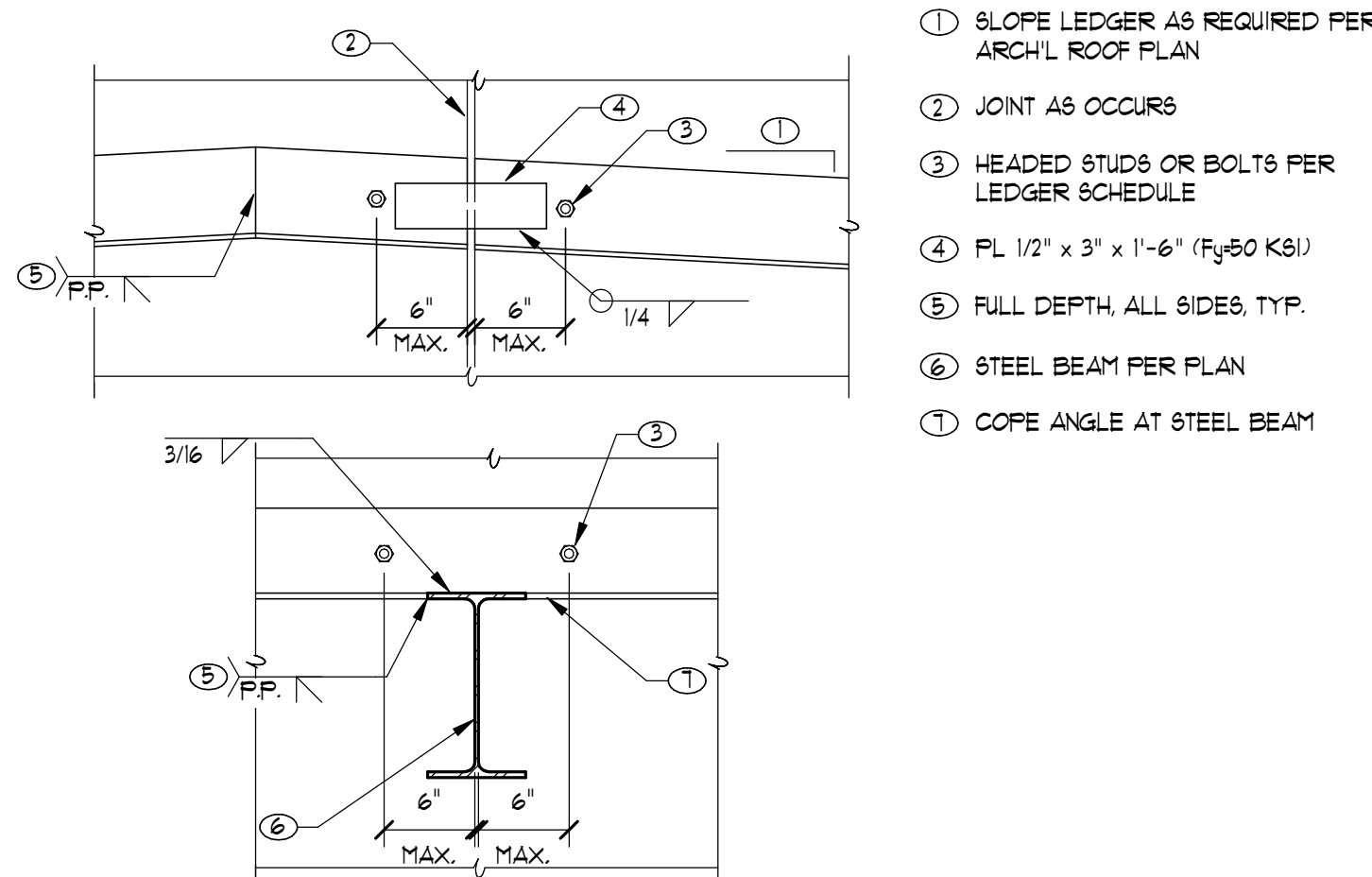
REVISIONS:

SHEET TITLE:
GENERAL STRUCTURAL
NOTES (CONT'D.)

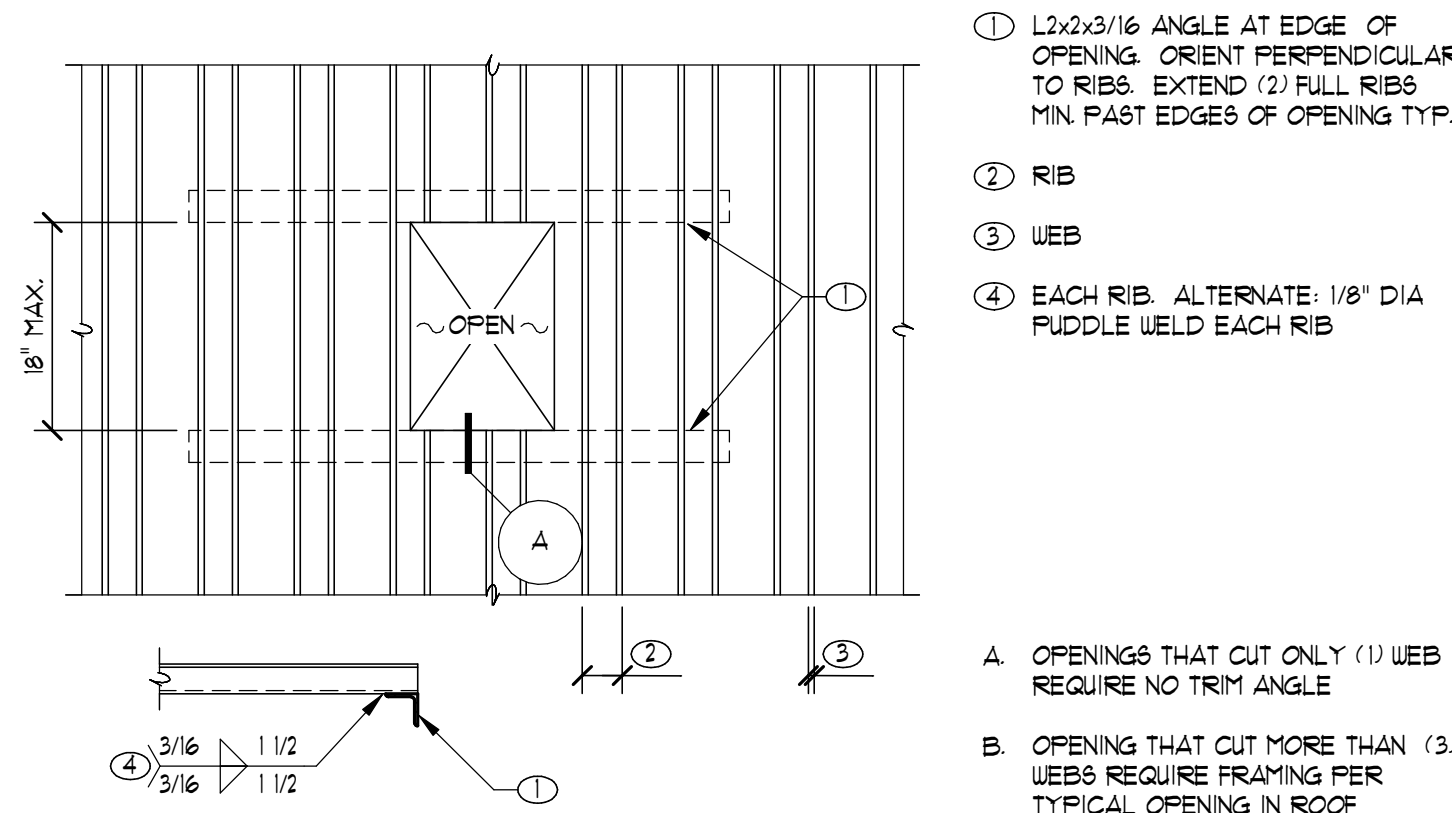
SHEET NUMBER:

S0.2

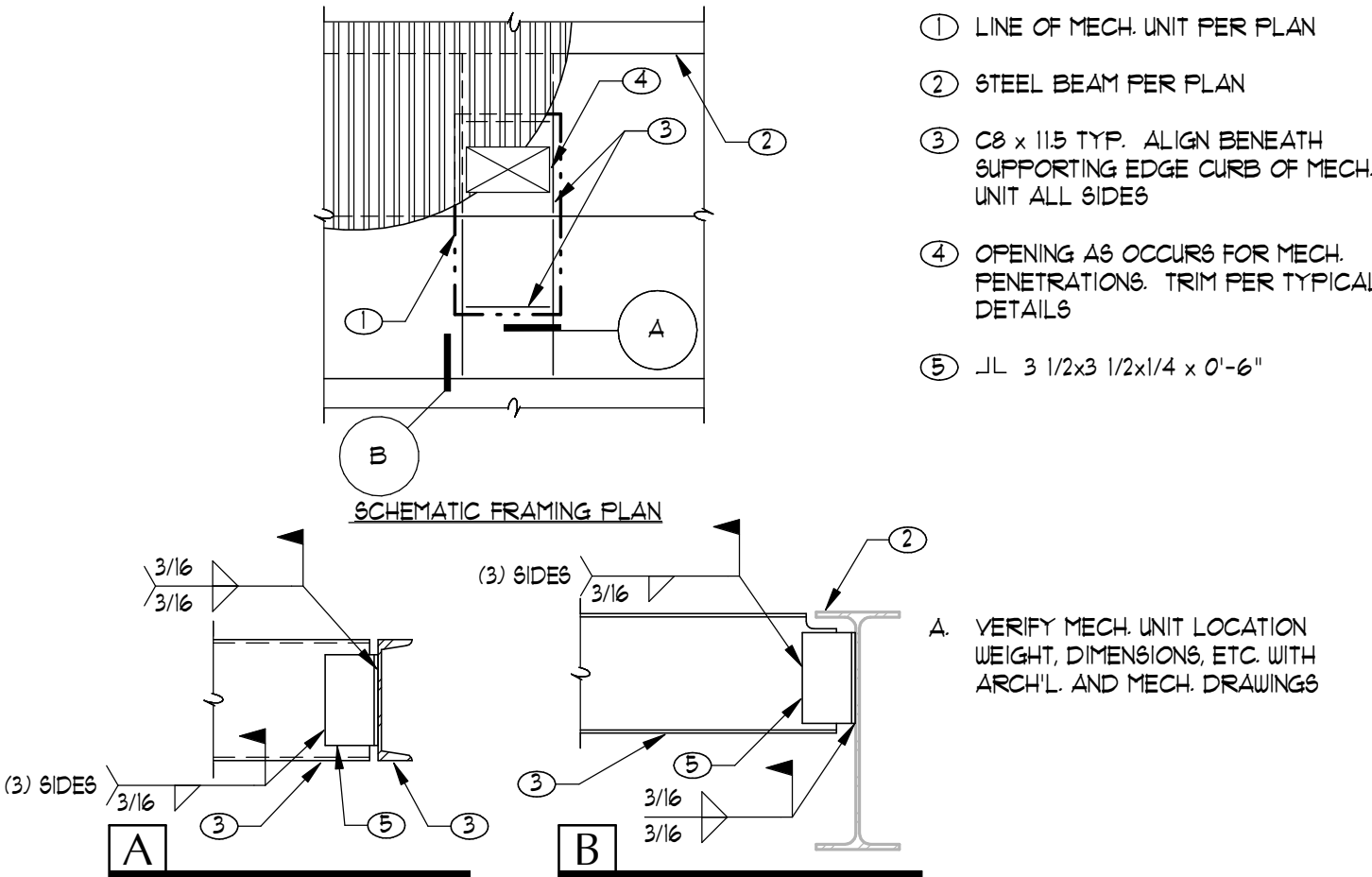
© 2022 THINK ARCHITECTURE, INC.



13 TYPICAL LEDGER SPLICE AT MASONRY WALL AND STEEL BEAM
13-220201 - R02 NO SCALE



14 TYPICAL SMALL OPENING IN ROOF DECK
001-04 220203-25024 NO SCALE



15 TYPICAL FRAMING BENEATH MECHANICAL UNIT AT STEEL BEAM
001-02A 160206-25024 NO SCALE



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkarc.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



2 Venture, Suite 200
Irvine, California 92618
phone (949) 477-4001
CA@wrightengineers.com
wrightengineers.com
IN THE USA
Atlanta | Dallas | Denver | Las Vegas | Orange County | Phoenix | Salt Lake City

LAKE HAVASU CATALYST

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
TYPICAL DETAILS

SHEET NUMBER:

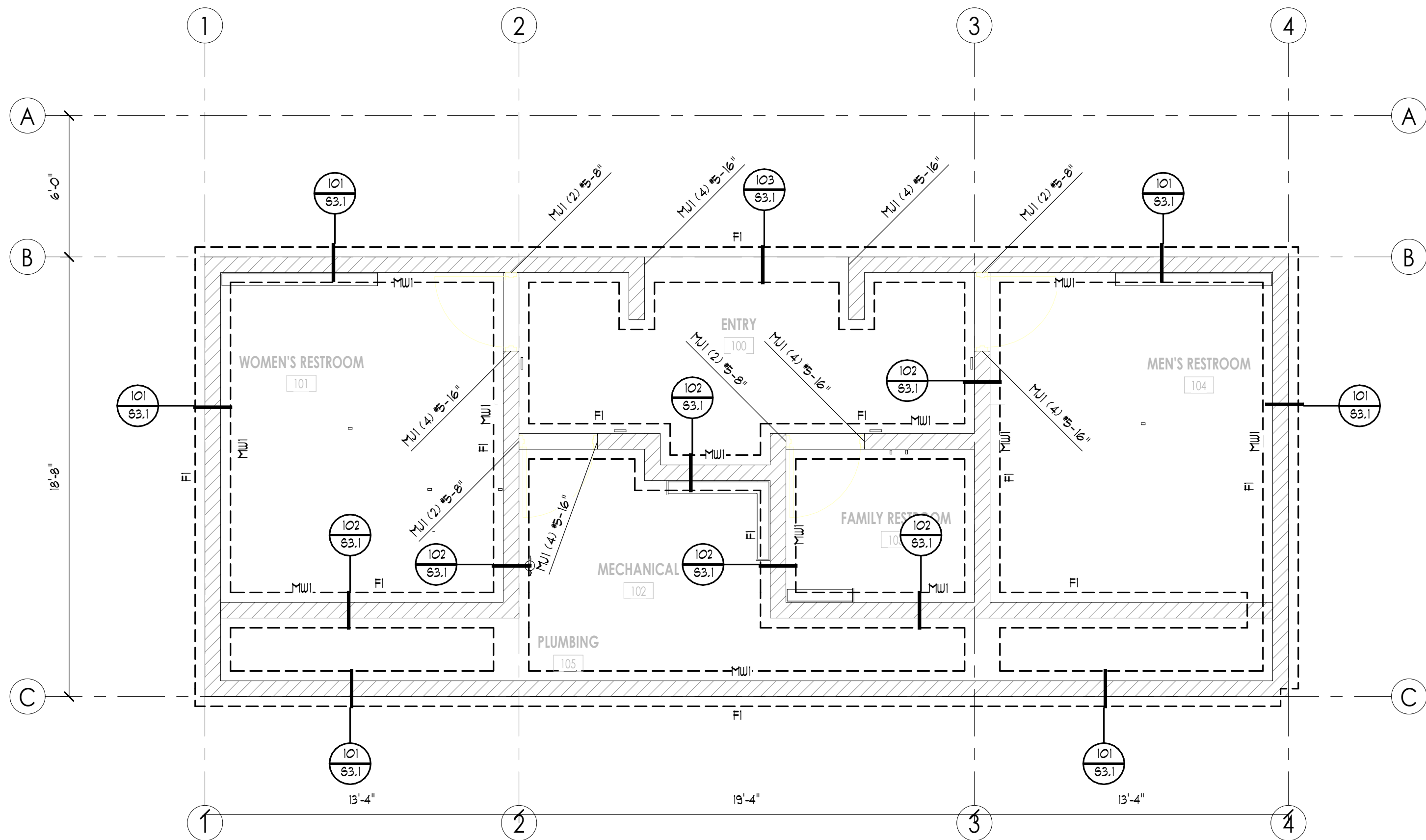
S0.4

© 2022 THINK ARCHITECTURE INC.

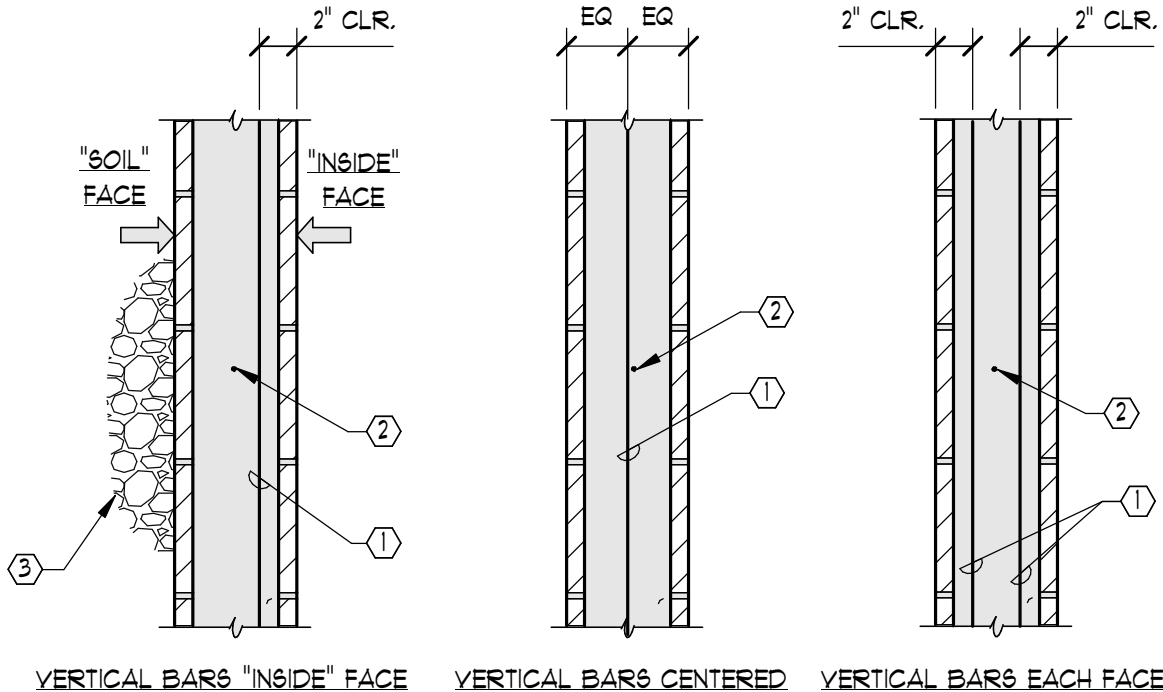
BID SET

FOUNDATION PLAN

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



MASONRY WALL (MW) SCHEDULE

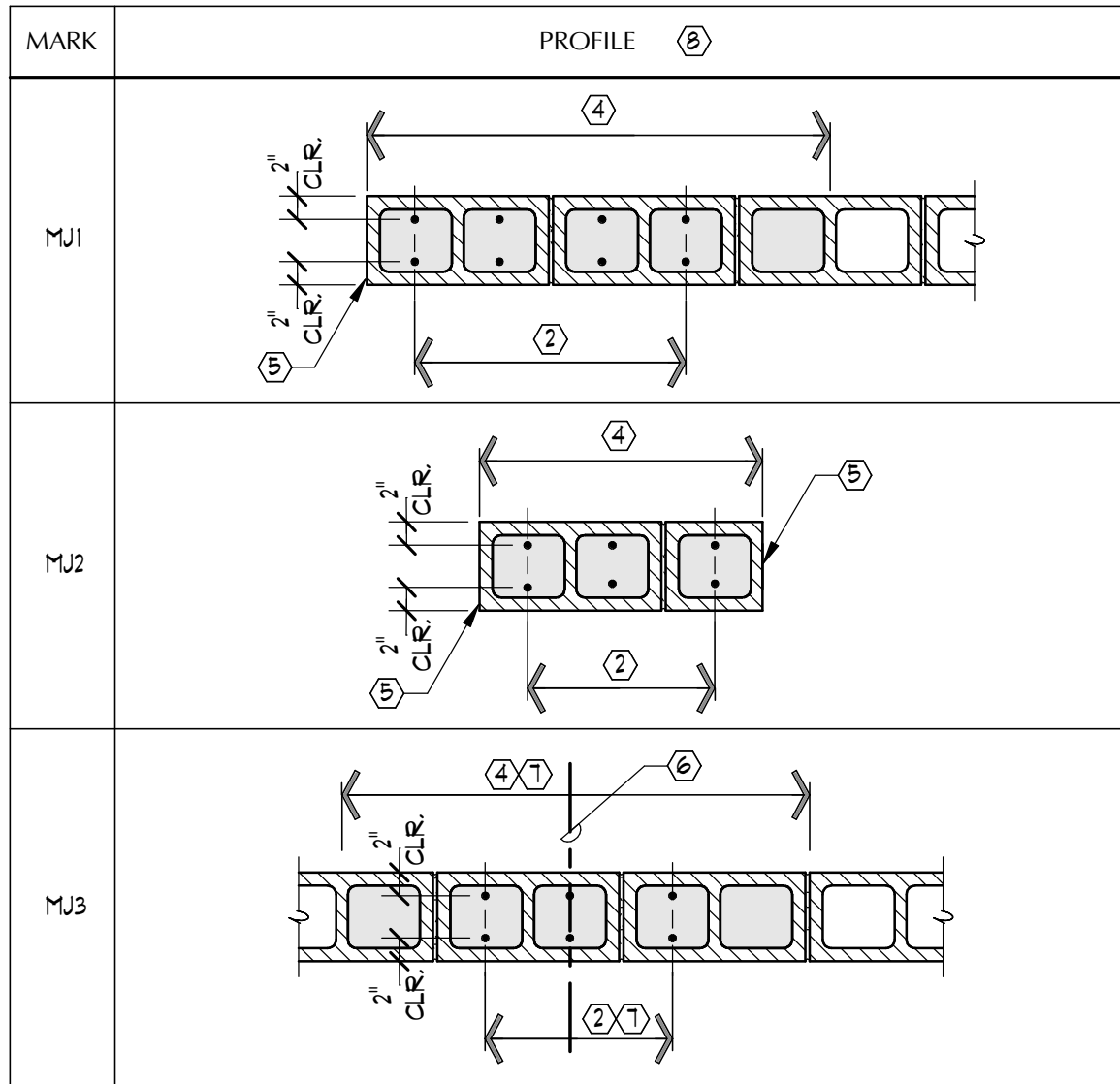


- VERTICAL BARS "INSIDE" FACE VERTICAL BARS CENTERED VERTICAL BARS EACH FACE
- ① VERT. REINFORCING ③ BACKFILL AT "SOIL" FACE AS OCCURS
- ② HORIZ. REINFORCING

MARK	NOMINAL THICKNESS	VERT. REINFORCING FULL WALL HEIGHT	HORIZ. REINFORCING	NOTES
MW1	8"	#5 AT 32" O.C., CENTERED	#5 AT 32" O.C.	SPECIAL INSPECTION GROUT SOLID

MASONRY JAMB (MJ) SCHEDULE

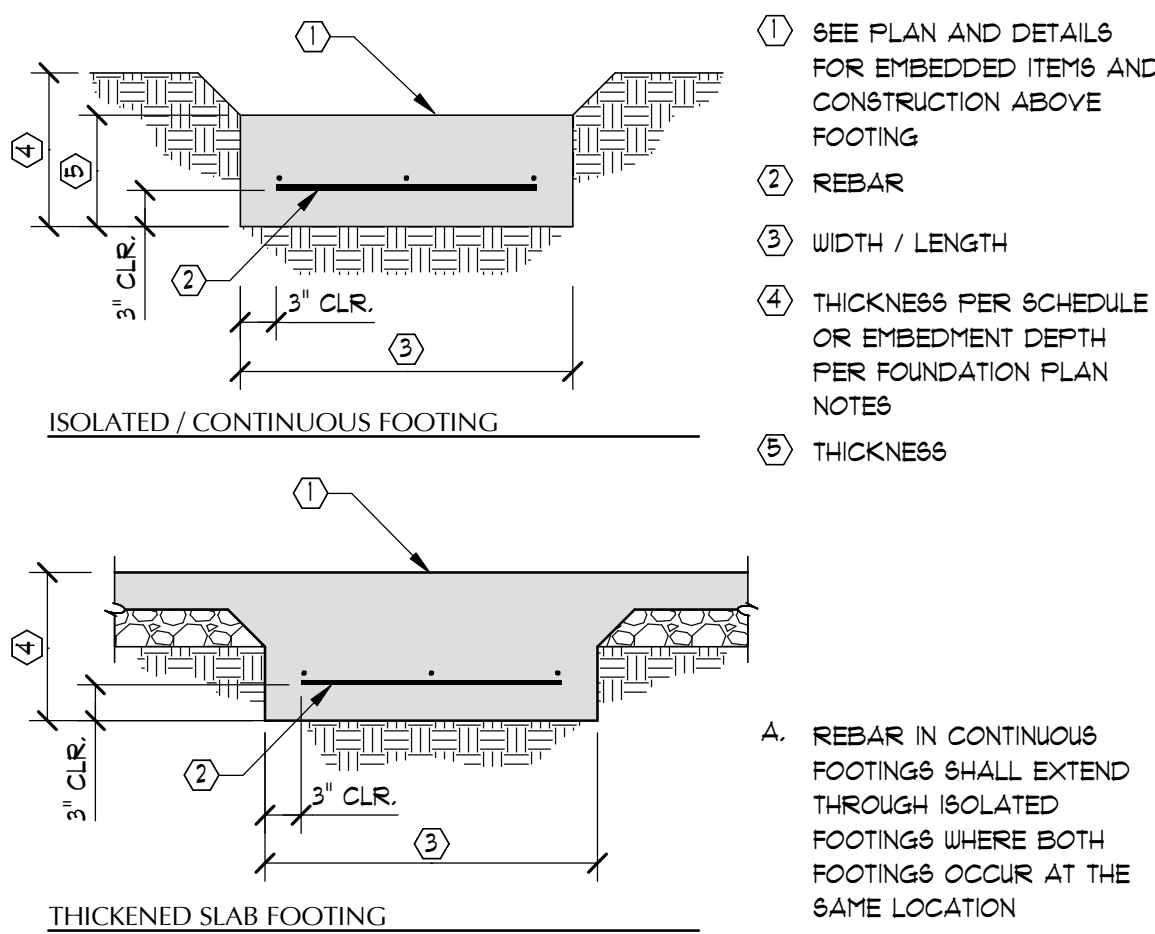
- EXAMPLE DESIGNATION: MJ1 (6) #5 @ 32" (1) (2) (3) (4)
- ① MASONRY JAMB TYPE PER SCHEDULE BELOW
- ② TOTAL NUMBER OF JAMB BARS AS NOTED ON PLAN. ACTUAL NUMBER OF BARS SPECIFIED ON PLAN MAY BE MORE OR LESS THAN SHOWN IN EXAMPLE PROFILES BELOW
- ③ JAMB BAR SIZE AS NOTED ON PLAN (EX: #4, #5, #6, ETC.)
- ④ SOLID GROUT DISTANCE AS NOTED ON PLAN. MASONRY JAMB TYPE "MJ2" SHALL BE SOLID GROUTED BETWEEN OPENINGS
- ⑤ EDGE OF WALL OPENING
- ⑥ CENTER OF BEAM OR GIRDER BEARING LOCATION
- ⑦ CENTER JAMB REINFORCING AND SOLID GROUT ON BEAM OR GIRDER BEARING LOCATION
- ⑧ PROFILES SHOWN IN SCHEDULE BELOW ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL BAR QUANTITY, SIZE, AND GROUT DISTANCE SHALL CONFORM TO ACTUAL PLAN DESIGNATIONS.



FOUNDATION PLAN NOTES

- A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L. AND/OR CIVIL PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.
- B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L, MECH, PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.
- C. ALL EXTERIOR FOOTINGS SHALL BE EMBEDDED 18 INCHES MIN. BELOW EXTERIOR PAD GRADE AND ALL INTERIOR FOOTINGS (AS OCCUR) SHALL BE EMBEDDED 18 INCHES MIN. BELOW THE TOP OF SLAB. EXTERIOR PAD GRADE IS DEFINED AS LOWEST ADJACENT COMPACTED SUBGRADE (PAD GRADE BEFORE LANDSCAPING) OR NATURAL GRADE WITHIN 5 FEET OF BUILDING FOR PERIMETER FOOTINGS. CONTRACTOR SHALL COORDINATE FOOTING EMBEDMENT WITH CIVIL GRADING PLANS TO ENSURE THAT MINIMUM EMBEDMENT SPECIFIED ABOVE IS MAINTAINED.
- D. FINISH FLOOR ELEVATION VARIES. SEE CIVIL DUGS.
- E. F1, F2, F3, ... AND F01, F02, F03, ... DENOTES FOOTING PER SCHEDULE THIS SHEET. TYPICAL FOOTING SHALL BE MARK "F1" UNO ON PLAN.
- F. MJ1, MJ2, MJ3, ... DENOTES MASONRY WALL PER SCHEDULE ON THIS SHEET. ALL MASONRY WALLS SHALL BE MARK "MW1" UNO ON PLAN.
- G. MUX (X) "X"-X"X" INDICATES MASONRY JAMB PER MASONRY JAMB SCHEDULE ON THIS SHEET. TYPICAL JAMB SHALL BE MJ1 (2) #5-24" UNO.
- H. MASONRY CONTROL JOINTS (MCJ) PER TYPICAL DETAIL SHALL BE PLACED WHERE SPECIFICALLY SHOWN ON PLANS AND AS A MINIMUM AT INTERVALS NOT TO EXCEED 24'-0" o.c. COORDINATE EXACT LOCATION OF CONTROL JOINTS WITH ARCH'L.
- I. SEE GEN. PLANS AND DETAILS FOR SPECIAL REINF. REQUIRED AT MASONRY CORNERS, JAMBS, WALL OPENINGS, TOP OF WALL, AND FOR REQUIRED LOCATION OF VERT BARS WITHIN THE CELL. SEE FRAMING PLAN NOTES FOR HORIZ. REINF. PLACED IN CONT. GROUTED BOND BEAMS AT ELEVATED FLOOR AND ROOF LEVELS.
- J. PLACE SLAB(S) ON GRADE OVER SUBGRADE AND VAPOR RETARDER (AS REQ'D.) PER THE IBC REFERENCED ON GEN.
- K. INTERIOR CONCRETE SLAB ON GRADE SHALL BE AS FOLLOWS, UNO:
- | SLAB THICKNESS | SLAB REINF. | REINF. CLR. COVER FROM TOP OF SLAB |
|----------------|-------------------|------------------------------------|
| 4" | #5 AT 24" o.c. EW | 1 1/2" |
- L. CRANES SHALL NOT BE ALLOWED ON THE SLAB ON GRADE.
- M. INSTALL SLAB CONTROL JOINTS PER DETAIL 04/803. MATCH CLOSURE POUR (WHERE PRESENT) CONTROL JOINTS WITH SLAB CONTROL JOINTS.
- N. SEE ARCH'L. AND/OR CIVIL DUGS FOR EXTERIOR SLABS, WALLS, ETC.
- O. SEE DETAIL 02/803 FOR PIPES/CONDUIT AT FTS. PIPES/CONDUIT SHALL NOT PASS THRU NOR BE LOCATED BENEATH ISOLATED PAD FOOTINGS.

FOOTING (F) SCHEDULE



MARK	WIDTH	LENGTH	THICKNESS	FOOTING REBAR	NOTES
F1	1'-6"	CONT.	1'-6"	(2) #5 TOP AND BOTTOM BARS	-

LAKE HAVASU CATALYST

PROJECT NO. 24134
DATE: 19 JUNE 2025
REVISIONS:

SHEET TITLE:
FOUNDATION PLAN

SHEET NUMBER:

S1.1

© 2022 THINK ARCHITECTURE INC.

BID SET



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

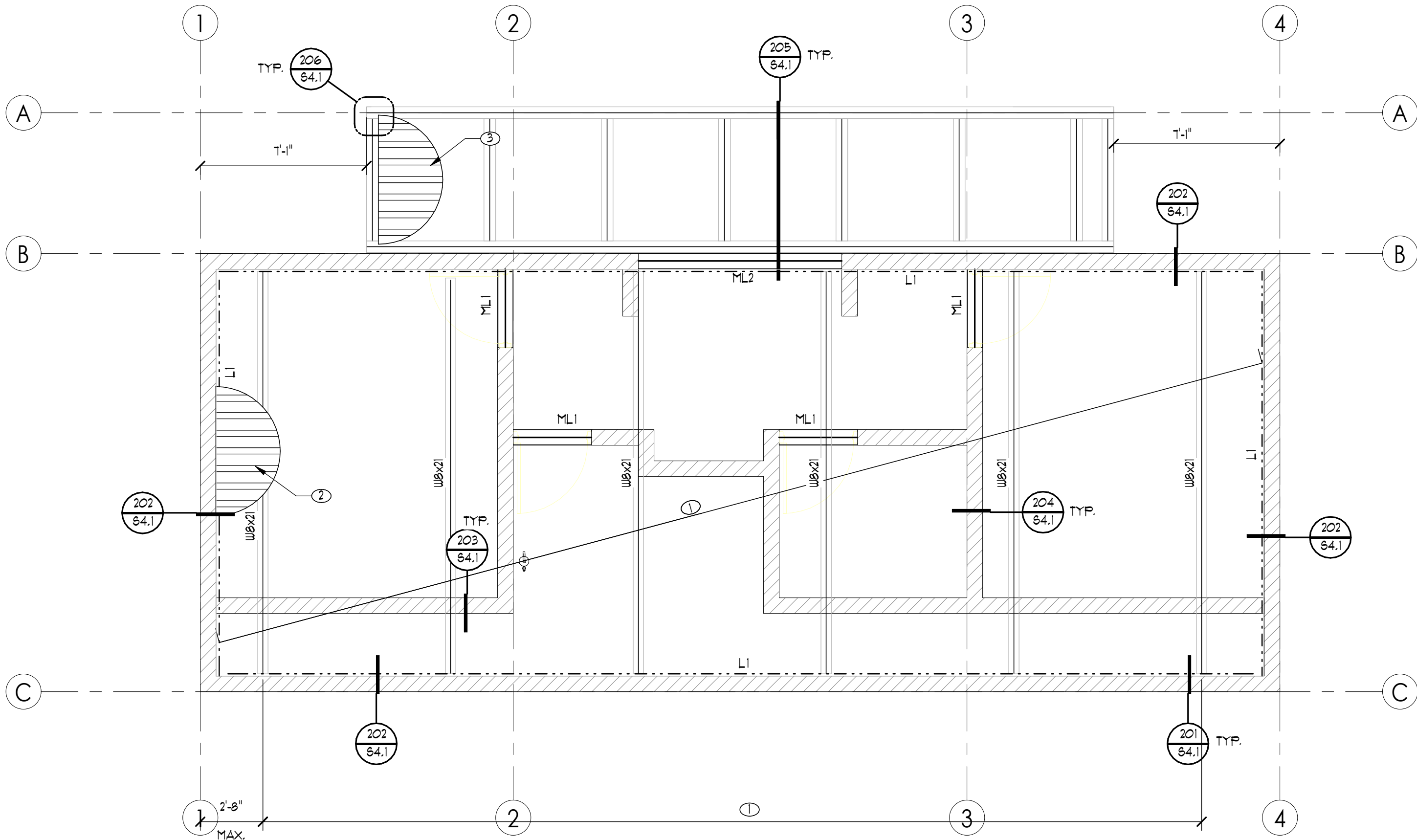
7927 So. Highpoint Parkway, Suite 300
Sandys, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaez.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



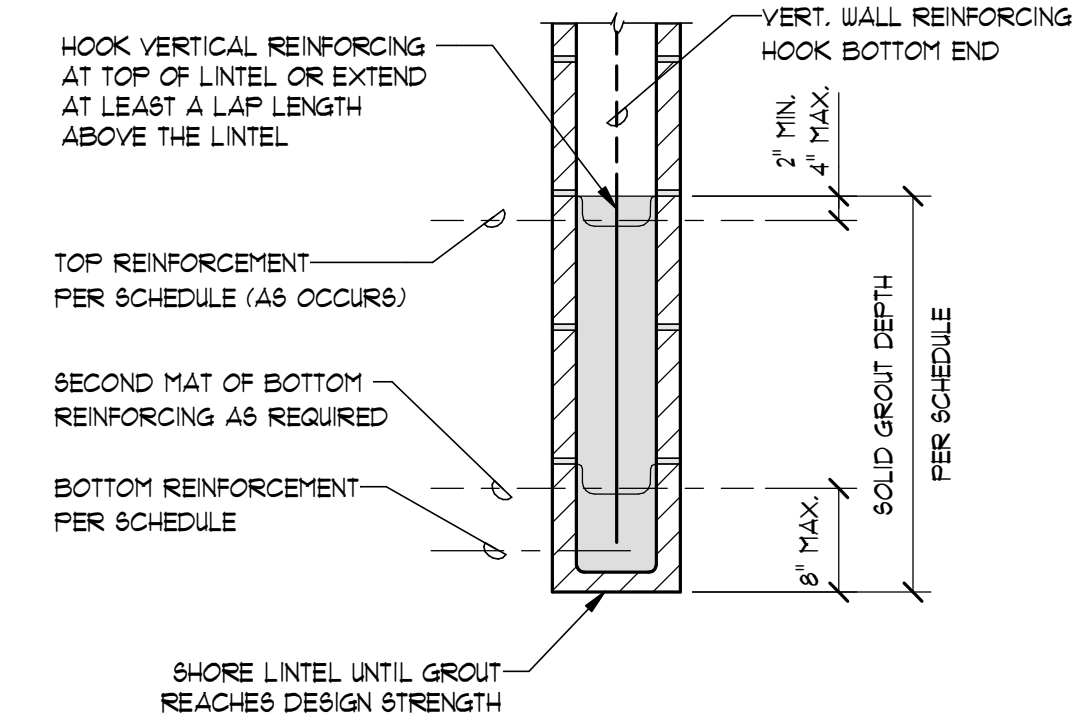
ROOF FRAMING PLAN



FRAMING PLAN NOTES

- A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.
- B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L, MECH, PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.
- C. SEE TYPICAL DETAILS FOR FRAMING REQUIREMENTS AT OPENINGS IN FLOOR OR ROOF. ALL OPENINGS MAY NOT NECESSARILY BE SHOWN ON PLANS.
- D. MISG ITEMS SUCH AS STAIRS, LANDINGS, RAILINGS, MECH. EQUIPMENT ATTACHMENT TO PRIMARY STRUCTURAL FRAMING, ETC., SHALL BE DESIGNED BY OTHERS AND SUBMITTED FOR REVIEW AS DEFERRED SUBMITTALS PRIOR TO CONSTRUCTION. SEE G&N FOR DEFERRED SUBMITTAL REQUIREMENTS.
- E. ML1, ML2, ML3, ... DENOTES MASONRY LINTEL PER SCHEDULE ON SHEET THIS SHEET.
- F. MASONRY CONTROL JOINTS (MCJ) SHALL BE PLACED IN MASONRY WALLS. SEE FOUNDATION PLAN NOTES FOR ADDITIONAL INFO.
- G. PLACE (2) #5 CONT. IN 16" DEEP (MIN) GROUTED BOND BEAM AT ROOF LEVEL AND (2) #5 CONT. IN 16" DEEP (MIN) GROUTED BOND BEAM AT PARAPET LEVEL.
- H. ALL STEEL BEAMS AND JOISTS ARE TO BE EQUALLY SPACED BETWEEN COLUMNS AND/OR GRIDS UNO.
- I. TYPICAL ROOF DECK SHALL BE 1 1/2" x 18 GA. B-36 DECK PER G&N UNO. DECK ATTACHMENT TO ROOF FRAMING, INCLUDING EDGES OF OPENINGS AND DRAG/COLLECTOR ELEMENTS NOTED ON PLAN, SHALL BE AS FOLLOWS UNO:
(5) PUDDLE WELDS PER SHEET
SUPPORTS PERPEND. TO DECK SPAN.
SUPPORTS PARALLEL TO DECK SPAN.
SIDE BEAM CONNECTIONS:
BUTTON PUNCHES AT 12" o.c.
PUNCHLOCK II (VERCO DECK ONLY) AT 24" o.c.
OR DELTAGRIP (ASG DECK ONLY) AT 24" o.c.
- J. L1, L2, L3, ... DENOTES STEEL LEDGER PER SCHEDULE ON SHEET THIS SHEET.

MASONRY LINTEL (ML) SCHEDULE



- A. EXTEND GROUT, OPEN END MASONRY UNITS AND REINFORCING 2'-0" MIN. PAST EACH EDGE OF OPENING WHERE POSSIBLE. AT WALL CORNERS OR OTHER INTERFERENCE, EXTEND REINFORCEMENT AS FAR AS POSSIBLE INTO ADJACENT MASONRY AND HOOK ENDS WITH STANDARD 90 DEGREE HOOK.
- B. ENDS OF LINTEL TO BE BUILT INTO ADJACENT WALL OR PILASTER WITH RUNNING BOND JOINT.
- C. VERTICAL REINFORCING SPACING IN LINTEL SHALL NOT BE GREATER THAN VERTICAL REINFORCING SPACING IN ADJACENT WALL.

MARK	GROUT DEPTH	REINFORCING	VERTICAL REINFORCING	NOTES
ML1	18"	(2) #5 AT BOTTOM	#5 AT 8' o.c.	-
ML2	24"	(2) #5 AT BOTTOM	#5 AT 8' o.c.	-

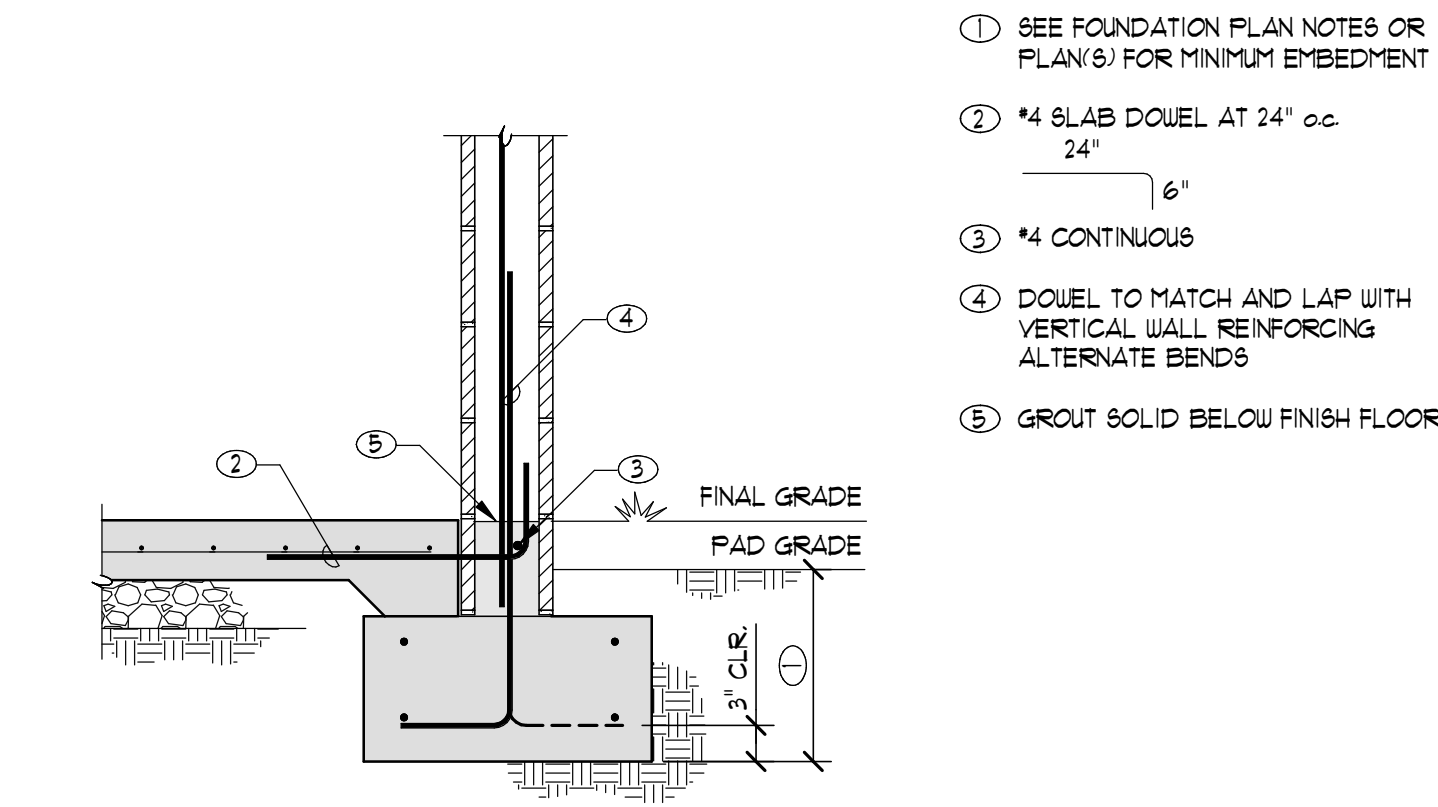
LEDGER (L) SCHEDULE

- STEEL:
- A. ALL LEDGERS SHALL HAVE MINIMUM OF (2) EMBED PLATES OR ANCHOR BOLTS AS NOTED BELOW.
- B. EMBED PLATES OR ANCHOR BOLTS AT CHANNEL LEDGERS SHALL BE LOCATED NOT LESS THAN 6" NOR MORE THAN 1'-4" FROM END OF LEDGER OR LEDGER SPLICE.
- C. EMBED PLATES OR ANCHOR BOLTS AT ANGLE LEDGERS SHALL BE LOCATED NOT LESS THAN 6" NOR MORE THAN 1'-4" FROM END OF LEDGER OR LEDGER SPLICE.
- D. ANGLE LEDGER SHALL BE CONTINUOUS OVER BEAMS AND JOISTS/GIRDERS.
- E. LEDGER YIELD STRENGTH SHALL NOT EXCEED 65 KSI FOR SHOTPIN ATTACHMENT.

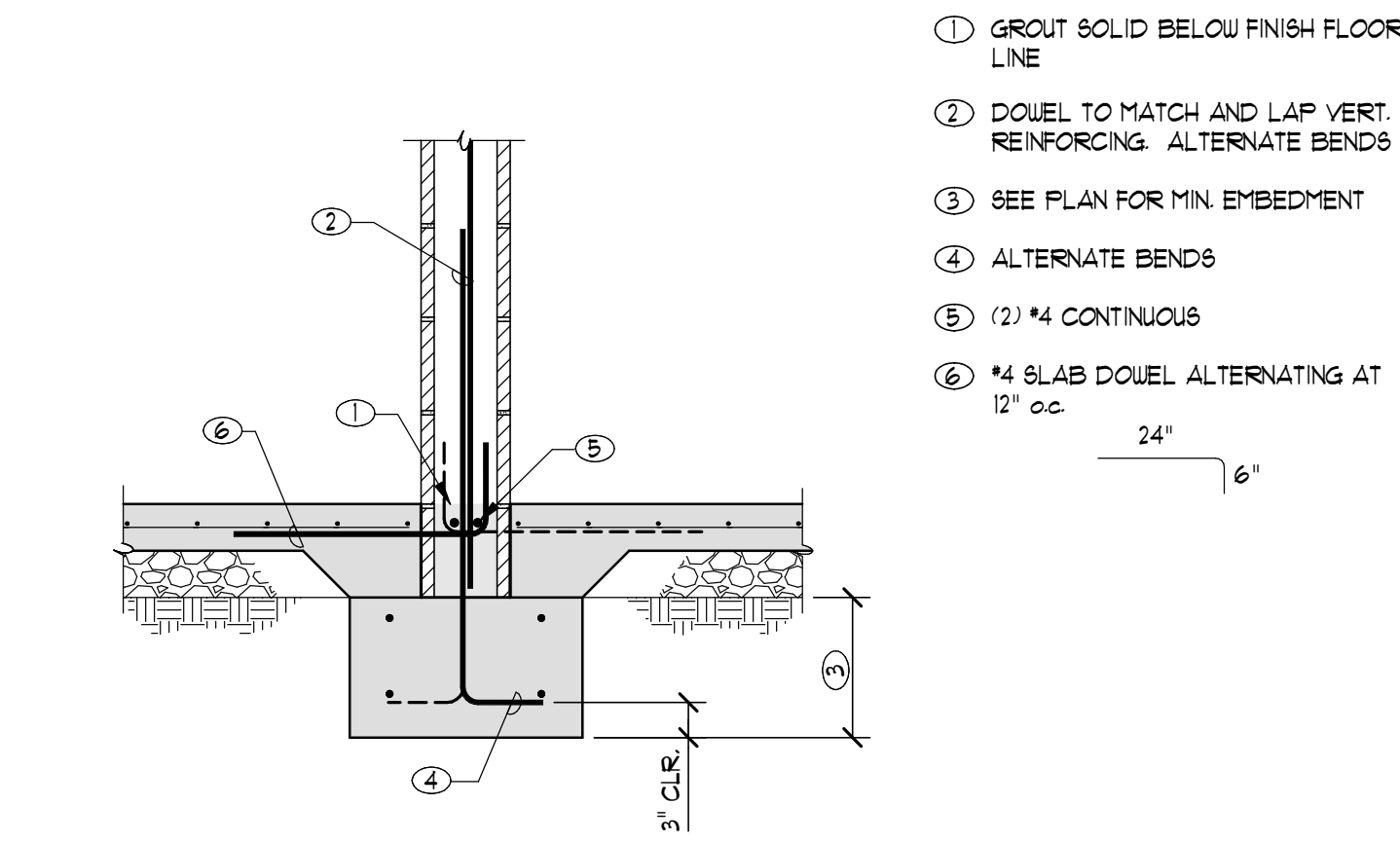
MARK	LEDGER	CONNECTION	LEDGER SPLICE
LI	L4x4x3/8	REFER TO DETAIL 202	REFER TO DETAIL 13

ROOF FRAMING PLAN KEYNOTES

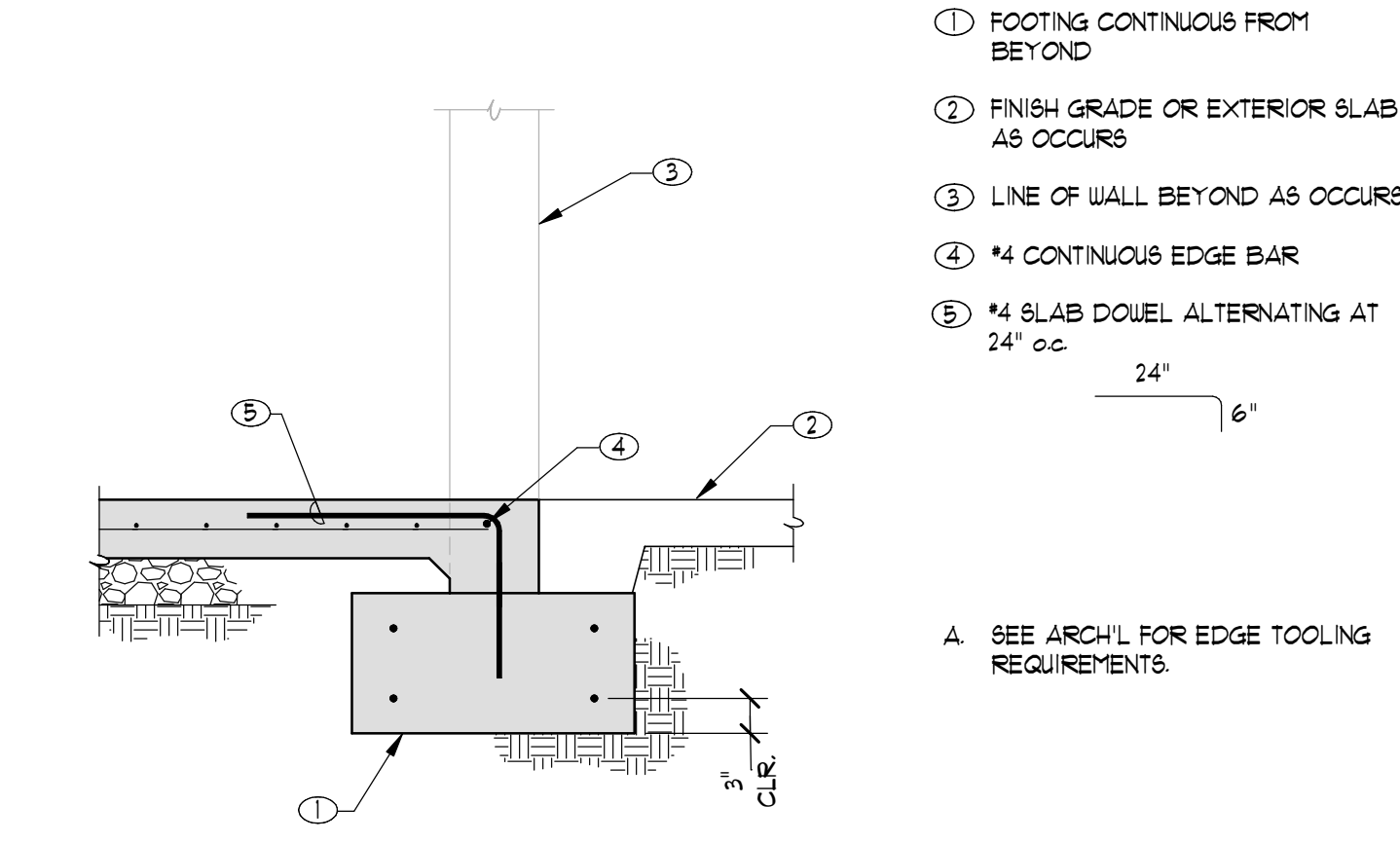
- ① ROOF STEEL BEAMS AT 8'-0" o.c. MAX.
- ② STEEL ROOF DECK PER FRAMING PLAN NOTES
- ③ MONICHOLES 18 GA. ROUND-END SLOT 12" SURFACE WIDTH x 2 1/2" CHANNEL DEPTH. GRATELOCK INTERLOCKING PLANK PER ARCH'L ATTACHMENT OF SYSTEM PER MFR.



101 MASONRY WALL AT FOOTING
101-250204 NO SCALE



102 INTERIOR MASONRY WALL AT FOOTING
102-250204 NO SCALE



103 TYPICAL SLAB AT WALL OPENING
103-250204 NO SCALE



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



LAKE HAVASU CATALYST

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

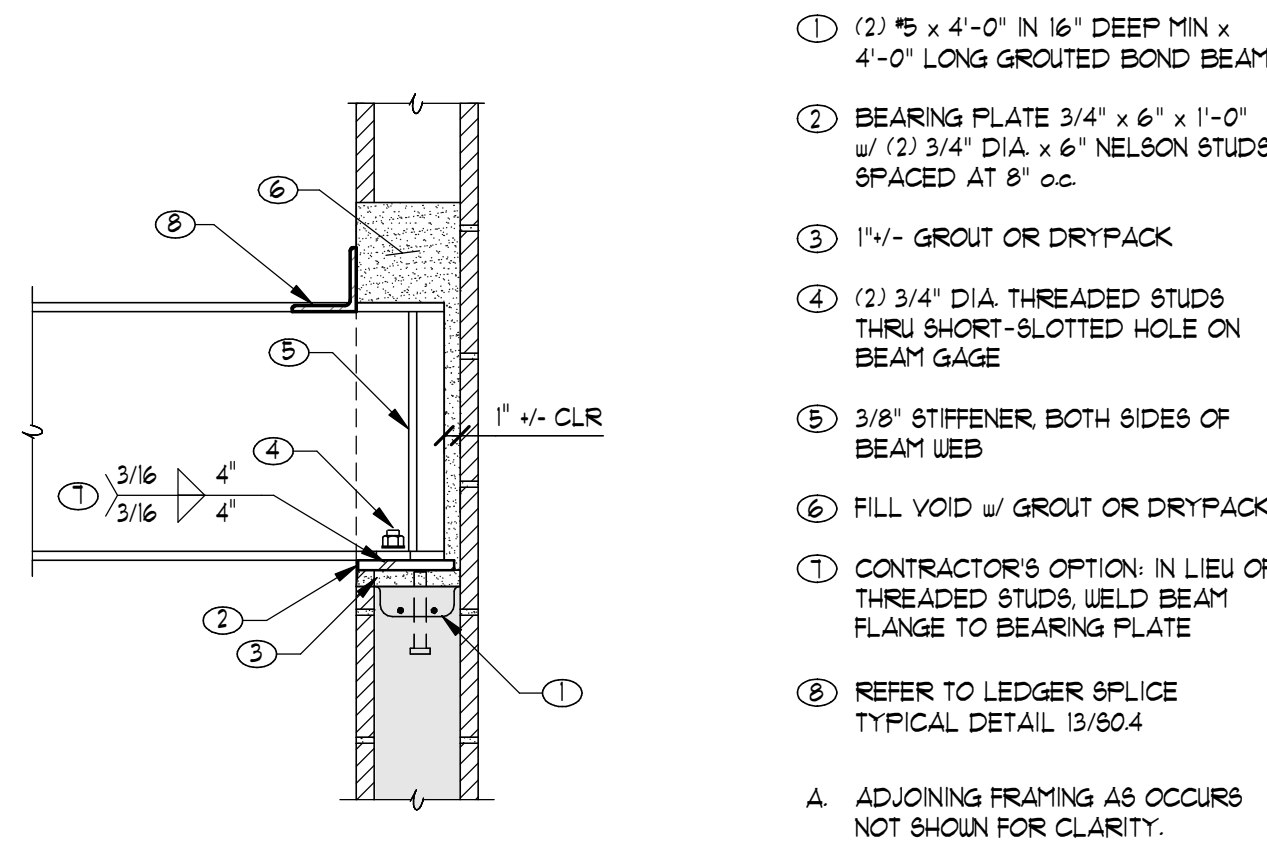
SHEET TITLE:
FOUNDATION DETAILS

SHEET NUMBER:

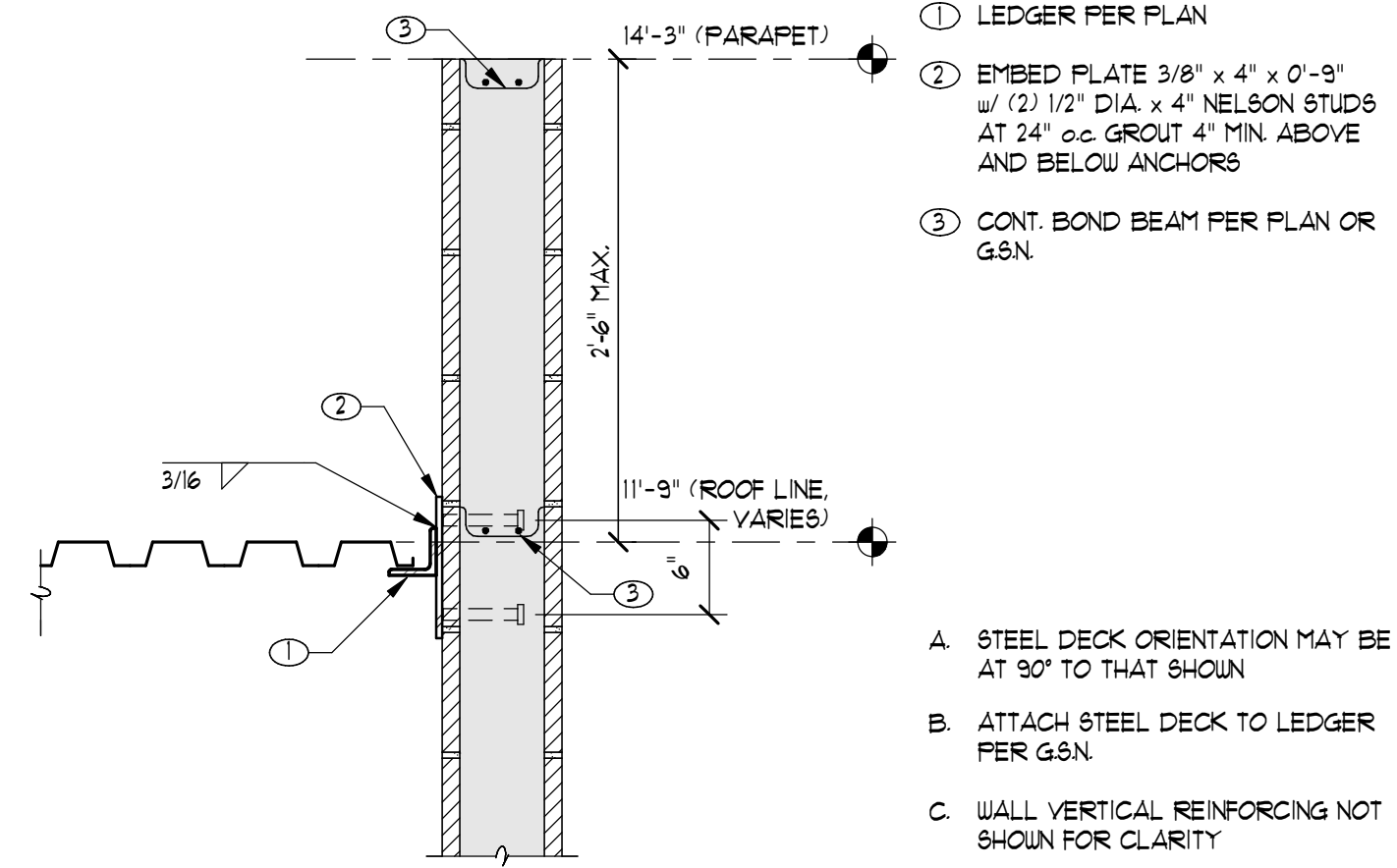
S3.1

© 2022 THINK ARCHITECTURE INC.

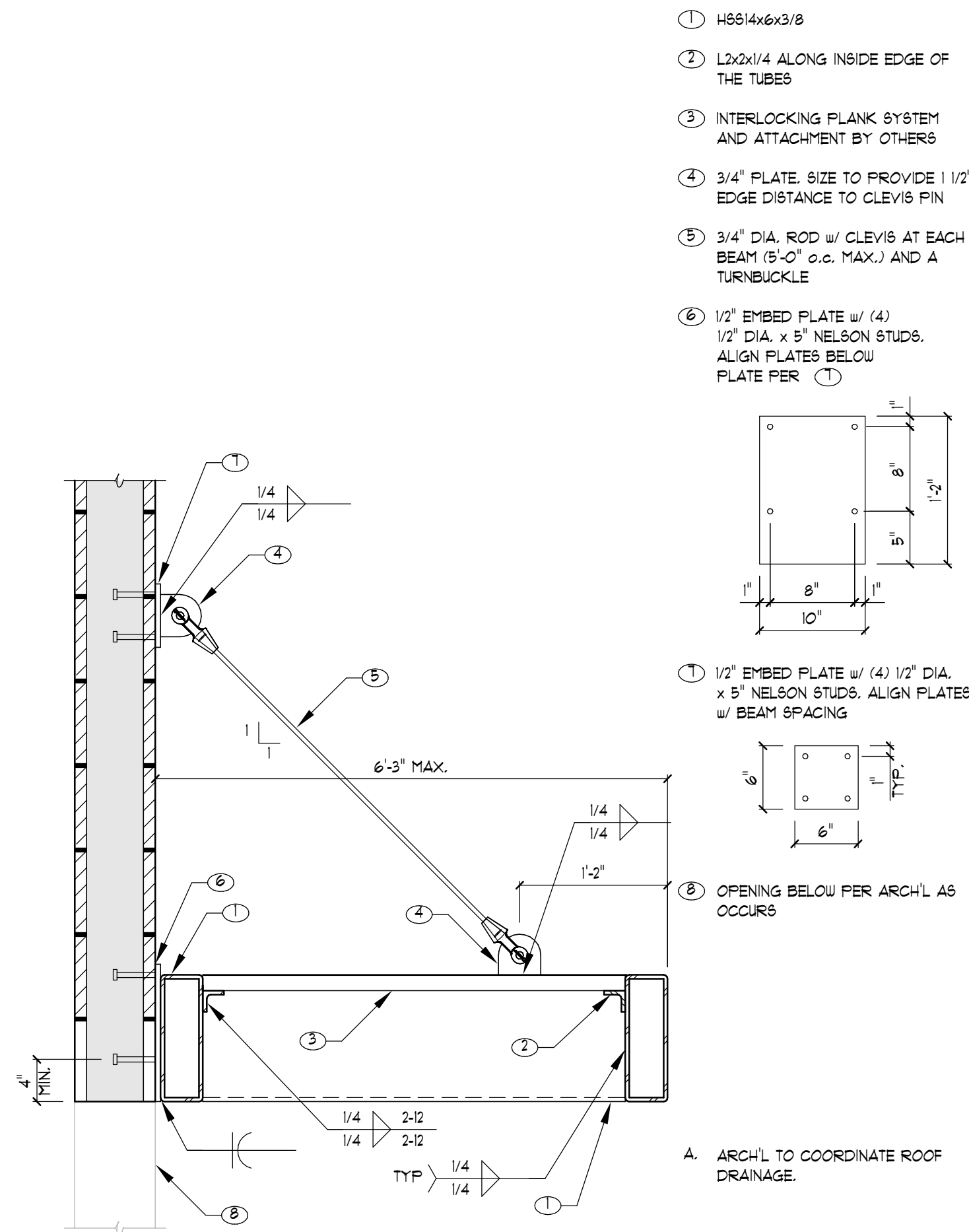
BID SET



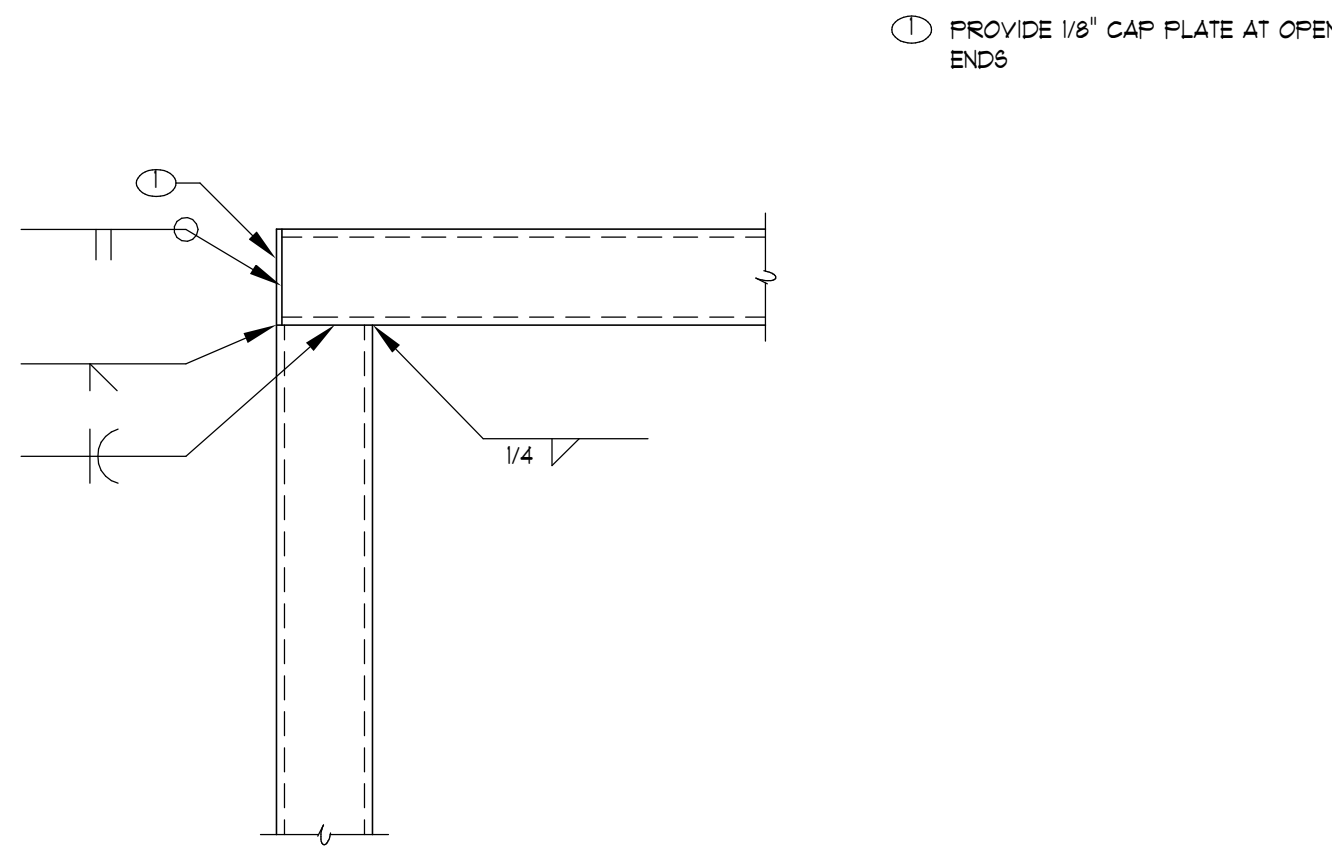
201 STEEL BEAM AT MASONRY WALL
200-202024 NO SCALE



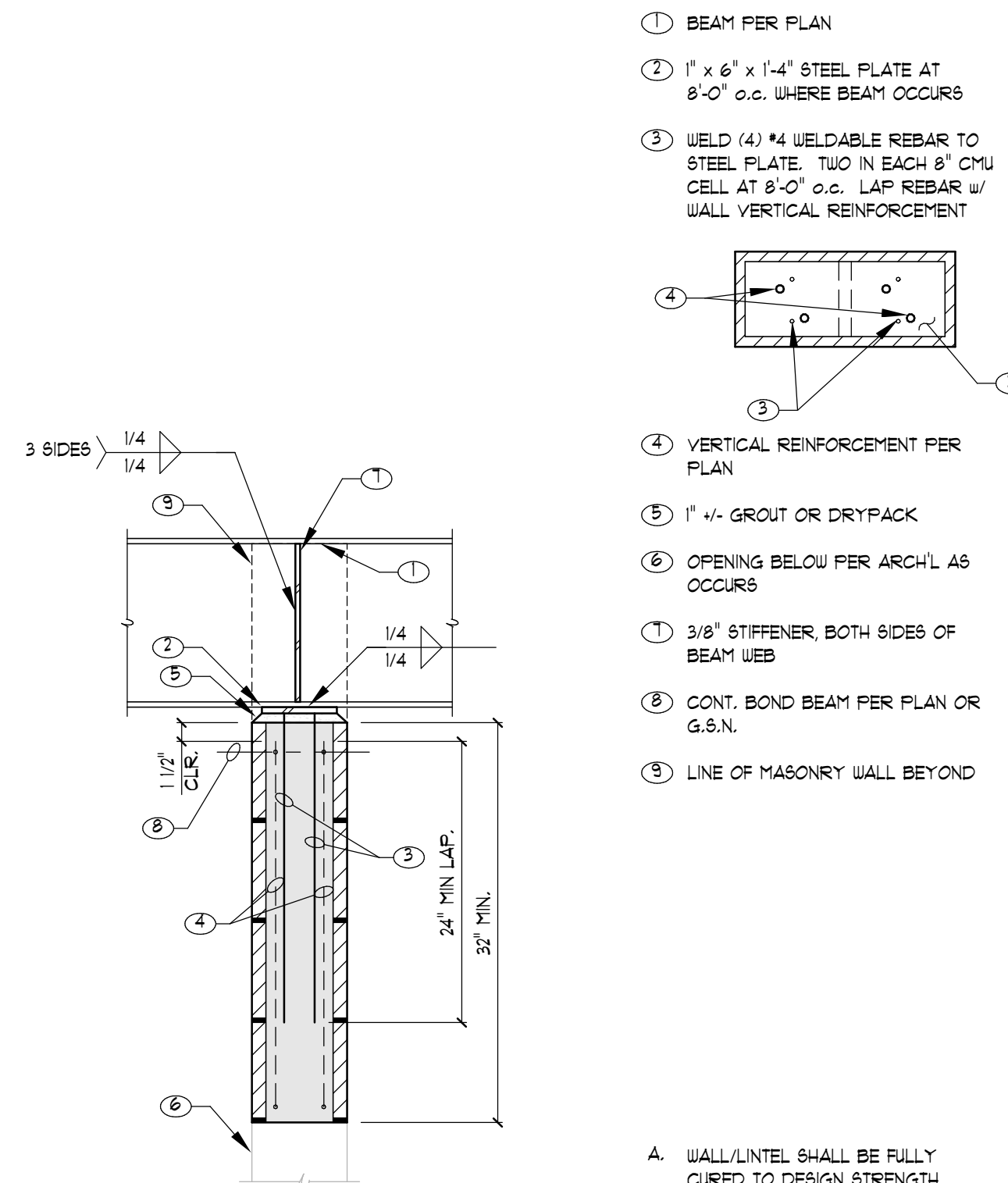
202 STEEL DECK AT MASONRY WALL
0703-04 080304-102024 NO SCALE



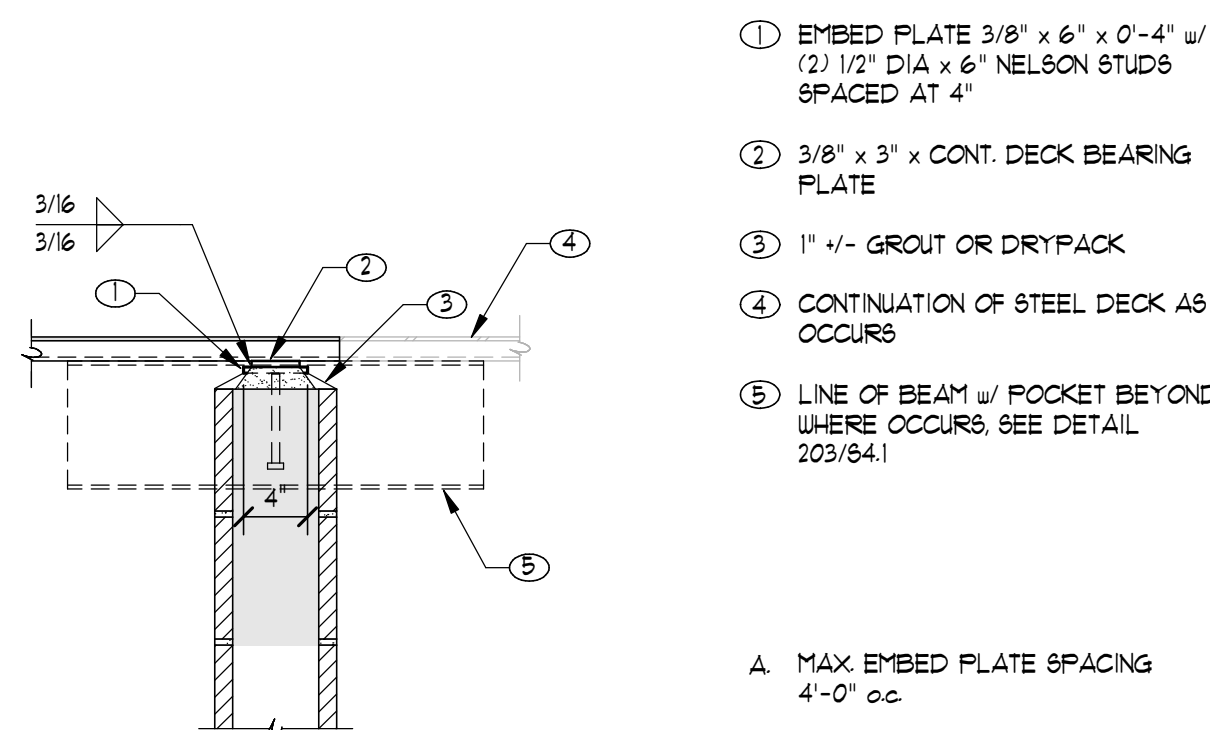
205 ATTACHMENT OF CANOPY TO MASONRY WALL
206-202024 - Rev NO SCALE



206 TUBE BEAM AT TUBE BEAM (CORNER CONDITION)
206-202024 - Rev NO SCALE



203 BEAM BEARING ON WALL
107-22201 - RCAD NO SCALE



204 STEEL DECK AT MASONRY WALL
104-20204 NO SCALE



7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



2117 McCULLOCH BLVD N
LAKHAVASII CITY, AZ 86403

REVISIONS:

M0.1

© 2022 THINK ARCHITECTURE INC

1. ALL WORK SHALL BE PROVIDED IN ACCORDANCE WITH 2016 INTERNATIONAL BUILDING CODES AND ALL APPLICABLE NATIONAL AND STATE CODES, AND SAFETY STANDARDS, INCLUDING ANY LOCAL AMENDMENTS ADOPTED BY THE STATE OF ARIZONA.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS PRIOR TO EXECUTION OF ANY WORK ON THE PROJECT.
3. ALL MECHANICAL EQUIPMENT SCHEDULED/SHOWN ON PLANS HAS BEEN SIZED IN ACCORDANCE WITH ASHRAE STANDARD 18: THERMAL ENVIRONMENT AND HEATING LOAD CALCULATIONS IN BUILDINGS EQUIPPED LOW-RISE RESIDENTIAL BUILDINGS, "USING INDUSTRIAL STANDARD SOFTWARE I.E. ELITE SOFTWARE CHVAC, TRANS TRACE, ETC."
4. PROJECT/BUILDING(S) MINIMUM VENTILATION RATES HAVE BEEN CALCULATED IN ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE (IMC) TABLE 403.3.1.1.

DUCTWORK AND AIR DISTRIBUTION (APPLIES TO ALL SHEETS)

A. ASHRAE "HANDBOOK 2017 FUNDAMENTALS" CHAPTER 21- DUCT DESIGN
B. ASHRAE "HANDBOOK 2017 FUNDAMENTALS" CHAPTER 22- DUCTWORK
C. ASHRAE "HANDBOOK 2017 FUNDAMENTALS" CHAPTER 23- DUCTWORK
D. OTHERS NOTED ON THE PLANS. ALL DUCTWORK IS DESIGNED IN ACCORDANCE WITH LOW STATIC PRESSURE REQUIREMENTS. STANDARD DUCTWORK DESIGN PRESSURE DROP CRITERIA AS FOLLOWS:
F. 1. SUPPLY AIR DUCTWORK: 0.08 "W.G. PER 100'
F. 2. RETURN AIR DUCTWORK: 0.06 "W.G. PER 100'
F. 3. EXHAUST AIR DUCTWORK: 0.06 "W.G. PER 100'
E. ASHRAE "HANDBOOK 2020 HVAC SYSTEMS AND EQUIPMENT" CHAPTER 19- DUCT CONSTRUCTION
F. ASHRAE "HANDBOOK 2020 HVAC SYSTEMS AND EQUIPMENT" CHAPTER 20- ROOM AIR DISTRIBUTION EQUIPMENT
F. ASHRAE "HANDBOOK 2020 HVAC SYSTEMS AND EQUIPMENT" CHAPTER 21- DUCT CONSTRUCTION
F. UL 330 "FIRE RESISTANT LINKS FOR FIRE PROTECTION SERVICE"
F. UL 552 "FIRE DAMPERS AND CEILING DAMPERS"
F. UL 555 "FACTORY MADE AIR DUCTS AND CONNECTORS"

7. **ALL FIBERGLASS DUCTBOARD IS PROHIBITED.**

8. **ALL ROUND AND ROLL OVAL DUCTS SHALL HAVE SPIRAL SEAMS OR CONTINUOUSLY WELDED LONGITUDINAL SEAMS.**

9. **ALL SUPPLY DUCTWORK, UNLESS SPECIFIED OTHERWISE, SHALL BE CONSTRUCTED OF GAUGES AND REINFORCEMENT 702 W.C. STATIC PRESSURE IN SNAUCH DUCT CONSTRUCTION STANDARD - LATEST EDITION.**

10. **ALL EXHAUST DUCTWORK DOWNSTREAM OF TERMINAL UNITS SHALL BE CONSTRUCTED OF GAUGES AND REINFORCEMENT TO 72 W.C. STATIC PRESSURE IN SNAUCH DUCT CONSTRUCTION STANDARD - LATEST EDITION. PANELS IN ALL DUCTS 12" AND LARGER SHALL BE CROSS-BROKEN OR BEADED ON 12" CENTERS.**

11. **WHERE LOCAL CODE REQUIRES GAUGES HEAVIER THAN REQUIRED BY SNAUCH THEN THE LOCAL CODE SHALL GOVERN.**

1. PREVENT PERCEPTIBLE VIBRATION OR BUCKLING. ALL DUCTS, HOUSINGS, ETC., SHALL BE FABRICATED AS DETAILED ON THE DRAWINGS AND IN THE SMCMAA DUCT CONSTRUCTION MANUAL - LATEST EDITION.

2. DUCTS SHALL BE SECURELY SUPPORTED IN ACCORDANCE WITH SMCMAA DUCT CONSTRUCTION MANUAL - LATEST EDITION AND NO CASE LESS THAN DOUBLE THICKNESS $\frac{1}{4}$ " #24 GAUGE GALVANIZED METAL. CABLE HANGERS ARE NOT ALLOWED.

3. DUCTS THAT ARE TO BE EXTERNALLY INSULATED SHALL NOT BE SUPPORTED ON UNSTRUCT CHANNEL UNLESS IT REQUIRED BASED UPON LOADING. HANGER RODS FOR TRAPEZE BARS SHALL BE SPACED TO ALLOW FOR INSULATION INSTALLATION.

4. SIZE OF DUCTWORK IDENTIFIED ON THE DRAWINGS SHALL BE THE FREE AREA DIMENSION OF THE DUCTWORK SHEET MATERIAL (I.E. PRESSURE SHELL) DIMENSIONS MAY VARY BASED UPON INSULATION REQUIREMENTS.

A. ALL ROUGH COURSEWORK ELEMENTS WITHIN UNCONDITIONED SPACE SHALL BE PROVIDED WITH A MINIMUM R-6 INSULATION.

B. EXCEPTION: ALL DUCTWORK LOCATED IN ATTICS (ABOVE BUILDING INSULATION) WITHIN AN UNCONDITIONED SPACE SHALL BE PROVIDED A MINIMUM R-8 INSULATION.

C. ALL SQUARE RECTANGULAR DUCTWORK ABOVE CEILINGS SHALL BE PROVIDED WITH EITHER 1-1/2" THICK R-6 INTERIOR LIVING OR MINIMUM 2" THICK R-6 EXTERNAL GLASS FIBER, FOIL BACKED INSULATION WITH A VAPOR BARRIER.

D. ALL DUCT LINERS USED SHALL BE TESTED IN ACCORDANCE WITH TEST METHOD ASTM C423.

E. ALL ROUND DUCTWORK ABOVE CEILINGS SHALL BE WRAPPED WITH A MINIMUM 2" THICK R-6 GLASS FIBER, FOIL BACKED INSULATION WITH A VAPOR BARRIER.

ACCESS DOOR
 ABOVE FINISHED FLOOR
 AIR HANDLING UNIT
 ACCESS PANEL
 APPROXIMATE
 AIR VENT
 AMERICAN WIRE GAUGE
 BARF
 BUILDING ACCESS PANEL
 BOTTOM OF STEEL
 BOTTOM
 BUTT
 BALANCE VALVE
 CONDENSATE DRAIN
 CDB
 CONDENSATE DRAIN BOX
 CFS PER MINUTE
 CHECK VALVE
 CENTER LINE
 COMMON
 CONDENSER WATER SUPPLY
 CONDENSER WATER RETURN
 CHS
 CHILLED WATER SUPPLY
 CHILLED WATER RETURN
 CWL
 CHILLED WATER LOOP
 COOLING TOWER
 CU
 CONDENSING UNIT
 CU
 CONTROL VALVE
 DAMPER
 D
 DUST COLLECTION UNIT
 DISCH
 DISCHARGE
 DN
 DOWN
 DIFFERENTIAL PRESSURE
 DR
 DRAIN
 DV
 DRAIN VALVE
 EA
 EXHAUST AIR
 EF
 EXHAUST FAN
 EMT
 ELECTRICAL METALLIC TUBING
 EQ
 EXPANSION TANK
 EQ
 EQUAL / EQUALS
 EQ APPRX
 EQUAL APPROXIMATE
 EXH
 EXISTING
 EXH
 EXHAUST
 F
 FLANGE CONNECTION
 FCU
 FLEXIBLE CONNECTION
 FOL
 FAN COIL UNIT
 FOU
 FUEL OIL SUPPLY
 FOS
 FUEL OIL RETURN
 FRT
 FAN EXHAUST TERMINAL UNIT
 FRD
 FIRE RATED DAMPER
 FT
 FEET
 T
 TIME RADIATION
 G
 GAS
 GAUGE
 GC
 GAUGE COCK
 GYS
 GLYCOL WATER SUPPLY
 GYL
 GLYCOL RETURN WATER
 HYAC
 HEATING, VENTILATION, AND AIR CONDITIONING
 HWS
 HEATING WATER SUPPLY
 HWIR
 HEATING WATER RETURN
 HK
 HEAT EXCHANGER
 LBS
 POUNDS
 MA
 MAKE-UP AIR
 MC
 MECHANICAL COUPLING
 MDU
 MOTOR DRIVEN UNIT
 MXA
 MIXED AIR
 NO
 NORMALLY CLOSED
 NO
 NORMALLY OPEN
 NP
 NON-PORTABLE COLD WATER
 NTS
 NOT TO SCALE
 OA
 OUTSIDE AIR
 PC
 PETE'S PLUG
 PD
 PUMPED CONDENSATE
 PR
 PRESSURE DISCHARGE
 PRV
 PRESSURE REGULATOR
 PWS
 POUNDS PER SQUARE INCH
 PWS
 POUNDS PER SQUARE INCH
 PWS
 POOL WATER SUPPLY
 PWR
 POOL WATER RETURN
 RA
 RETURN AIR
 RF
 RETURN FAN
 RLA
 RELIEF AIR
 RL
 RELIEF FAN
 RTU
 ROOF TOP UNIT
 RV
 RELIEF VALVE
 SA
 SUPPLY AIR
 SD
 SMOKE DAMPER
 SF
 SUPPLY FAN
 STR
 STRAINER
 SUC
 SUCTION
 SV
 SERVICE VALVE
 TH
 THERMISTOR
 TRA
 TRANSFER AIR
 T
 THERMOMETER WELL
 TYP
 TYPICAL
 U
 UNION
 UH
 UNIT HEATER
 UHJ
 CABINET UNIT HEATER
 U.N.O.
 UNLESS NOTED OTHERWISE
 U.N.O.
 UNLESS OTHERWISE NOTED
 UV
 ULTRAVIOLET
 VAC
 VACUUM

SYMBOL	ABBREVIATION
	EQUIPMENT DESIGNATION NUMBER
	AIR DEVICE DESIGNATION CFM
	SECTION DESIGNATION SHEET NUMBER
	CALLOUT DESIGNATION SHEET NUMBER
	CONNECT TO EXISTING
	POINT OF DEMOLITION
	KEYED NOTE DESIGNATION
	REVISION DELTA
	ROUND DUCT WORK
	OVAL DUCT WORK
	DUCT ELEVATION TAG
	THERMOSTAT WITH EQUIPMENT NUMBER
	THERMOSTAT & HUMIDISTAT WITH EQUIPMENT NUMBER
	TEMPERATURE SENSOR
	HUMIDITY SENSOR
	TEMPERATURE & HUMIDITY SENSOR
	PRESSURE SENSOR
	CO SENSOR

M0.1	MECHANICAL NOTES SYMBOLS & ABBREVIATIONS
M2.1	MECHANICAL MAIN LEVEL FLOOR PLAN, SCHEDULES & DETAILS

ENGINEER JOEL WILLIAMS
DESIGNER JEREMY CARTER

SYMBOL	EXPLANATION
	ACCESS DOOR/PANEL
	BACK DRAFT DAMPER
	MANUAL BALANCE DAMPER
	MOTORIZED DAMPER
	FIRE RATED DAMPER
	FIRE SMOKE DAMPER
	DIRECTION OF FLOW
	DROP IN DIRECTION OF ARROW
	DUCT 45° TAKE-OFF CONNECTION WITH DAMPER
	INTERNALLY INSULATED DUCT WORK. (EXTERIOR DIMENSION.)
	RECTANGULAR SHEET METAL DUCT. (EXTERIOR DIMENSION.)
	K-27 DOUBLE WALL ROUND DUCT WORK. (EXTERIOR DIMENSION.)
	FLEXIBLE DUCT WORK
	TURNING VANES (RECTANGULAR)
	TURNING VANES (RECTANGULAR SMOOTH RADIUS)
	SUPPLY AIR DUCT, DOWN
	SUPPLY AIR DUCT, UP
	SUPPLY AIR DUCT ROUND, DOWN
	SUPPLY AIR DUCT ROUND, UP
	RETURN AIR DUCT, DOWN
	RETURN AIR DUCT, UP
	RETURN AIR DUCT ROUND, DOWN
	RETURN AIR DUCT ROUND, UP
	EXHAUST AIR DUCT, DOWN
	EXHAUST AIR DUCT, UP
	EXHAUST AIR DUCT ROUND, DOWN
	EXHAUST AIR DUCT ROUND, UP
	DEMO DUCTWORK
	EXISTING DUCTWORK
	SQUARE SUPPLY DIFFUSER ROUND CONNECTION
	SQUARE RETURN GRILLE ROUND CONNECTION
	SQUARE EXHAUST GRILLE ROUND CONNECTION
	PLENUM RETURN WITH SOUND BOOT
	PLENUM RETURN
	SQUARE SUPPLY DIFFUSER SQUARE CONNECTION
	SQUARE RETURN GRILLE SQUARE CONNECTION
	SQUARE EXHAUST GRILLE SQUARE CONNECTION
	ROUND DIFFUSER
	LINEAR SLOT DIFFUSER
	LOUVER GRILLE
	DUCT MOUNTED DIFFUSER (SEE PLANS FOR DIFFUSER INSTALLATION ANGLE.)

GENERAL NOTES (SHEET M2.1)

1. REFER TO ALL NOTES, SYMBOLS & ABBREVIATIONS ON SHEET M0.1.
REFER TO ALL SCHEDULES & DETAILS WITHIN M5 SERIES SHEETS.

KEYED NOTES (SHEET M2.1)

- 1 EXHAUST DUCT SHALL EXTEND 1'-6" MINIMUM ABOVE ROOF AND TERMINATE WITH RAIN CAP.



Architecture

Interior Design
Landscape Architecture
Land Planning
Construction Management

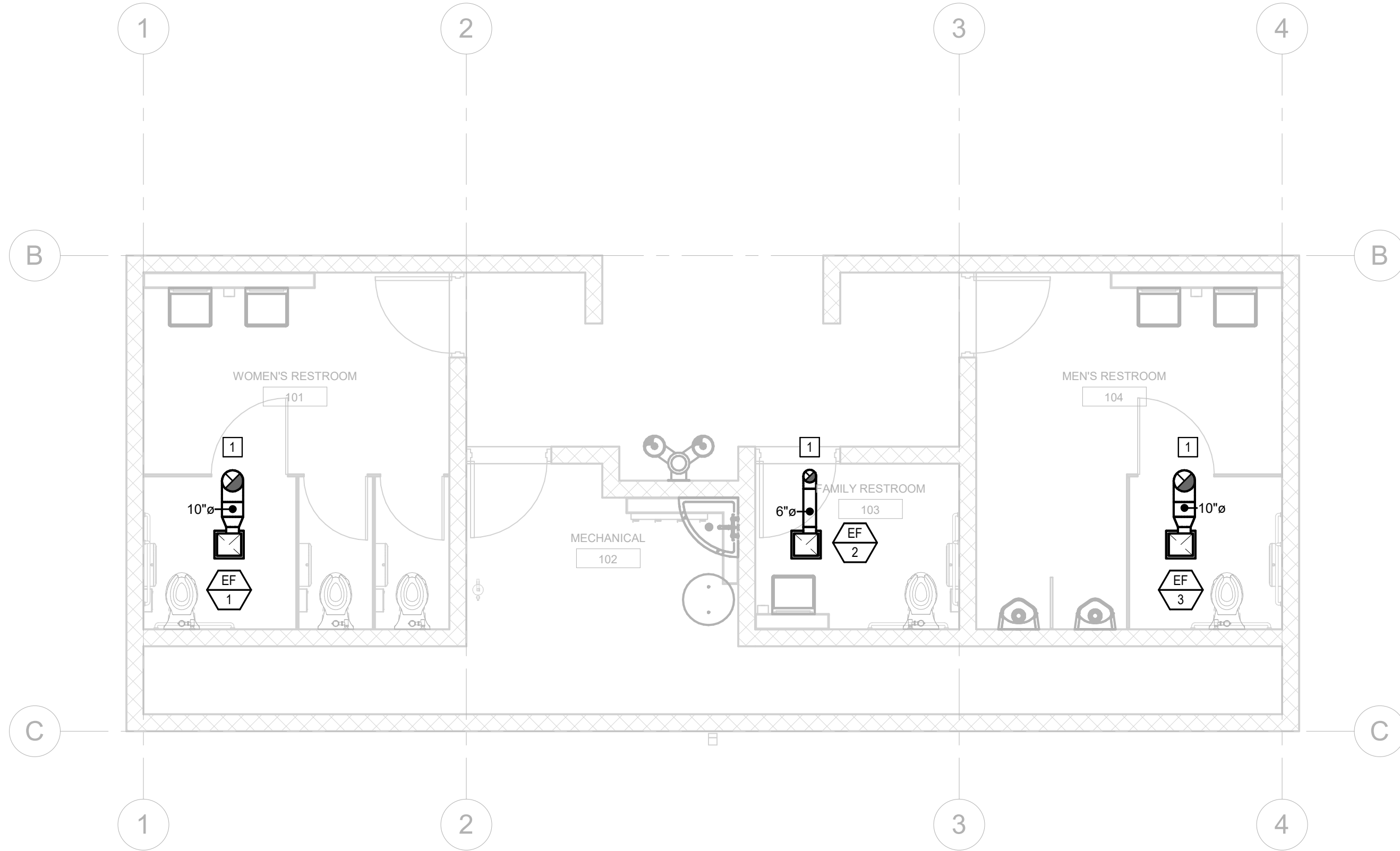
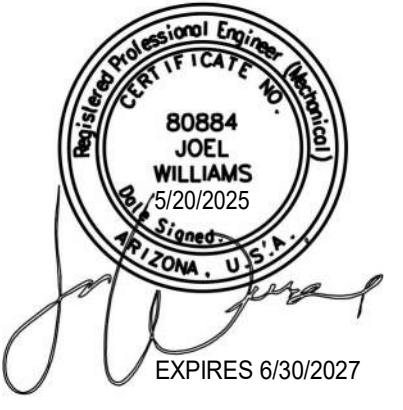
7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & model rendered, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

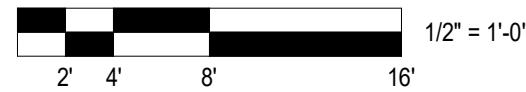
B&D ENGINEERING
BRUNNER AND DALLON
MECHANICAL | PLUMBING | CONTROLS

8710 S 700 E, SUITE 201
SANDY, UT 84070
801-685-8081
25.015.00



MECHANICAL MAIN LEVEL FLOOR PLAN

1/4" = 1'-0"

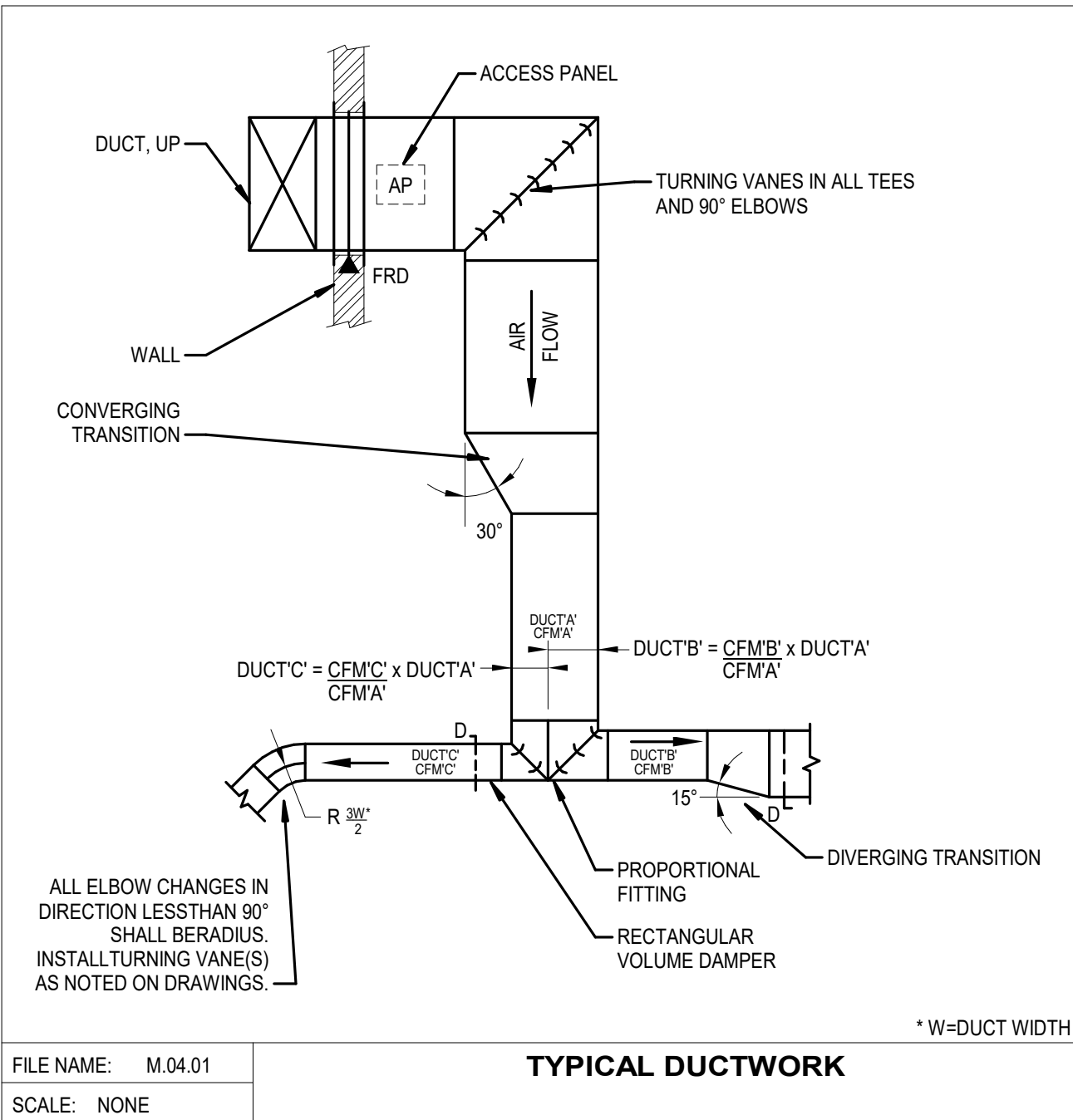


FAN SCHEDULE

UNIT DESIG.	LOCATION	TYPE	MANUFACTURER & MODEL NO.	AIRFLOW (CFM)	FSP (IN. W.C.)	SONES	MOTOR				CONTROL	DIMENSIONS LxWxH	OPERATING WEIGHT (LBS.)	NOTES
							WATTS	AMPS	RPM	VOLTS/PH				
EF-1	WOMEN'S RESTROOM 101	CEILING	COOK GEMINI GC-188	225	0.25	6.0	105	1.00	1,450	115 / 1	LIGHTS / OCC. SENSOR	16"x14"x7"	13	1,2,3
EF-2	RESTROOM 103	CEILING	COOK GEMINI GC-146	75	0.25	1.5	33	0.31	900	115 / 1	LIGHTS / OCC. SENSOR	16"x14"x7"	12	1,2,3
EF-3	MEN'S RESTROOM 104	CEILING	COOK GEMINI GC-188	225	0.25	6.0	105	1.00	1,450	115 / 1	LIGHTS / OCC. SENSOR	16"x14"x7"	13	1,2,3

NOTES:

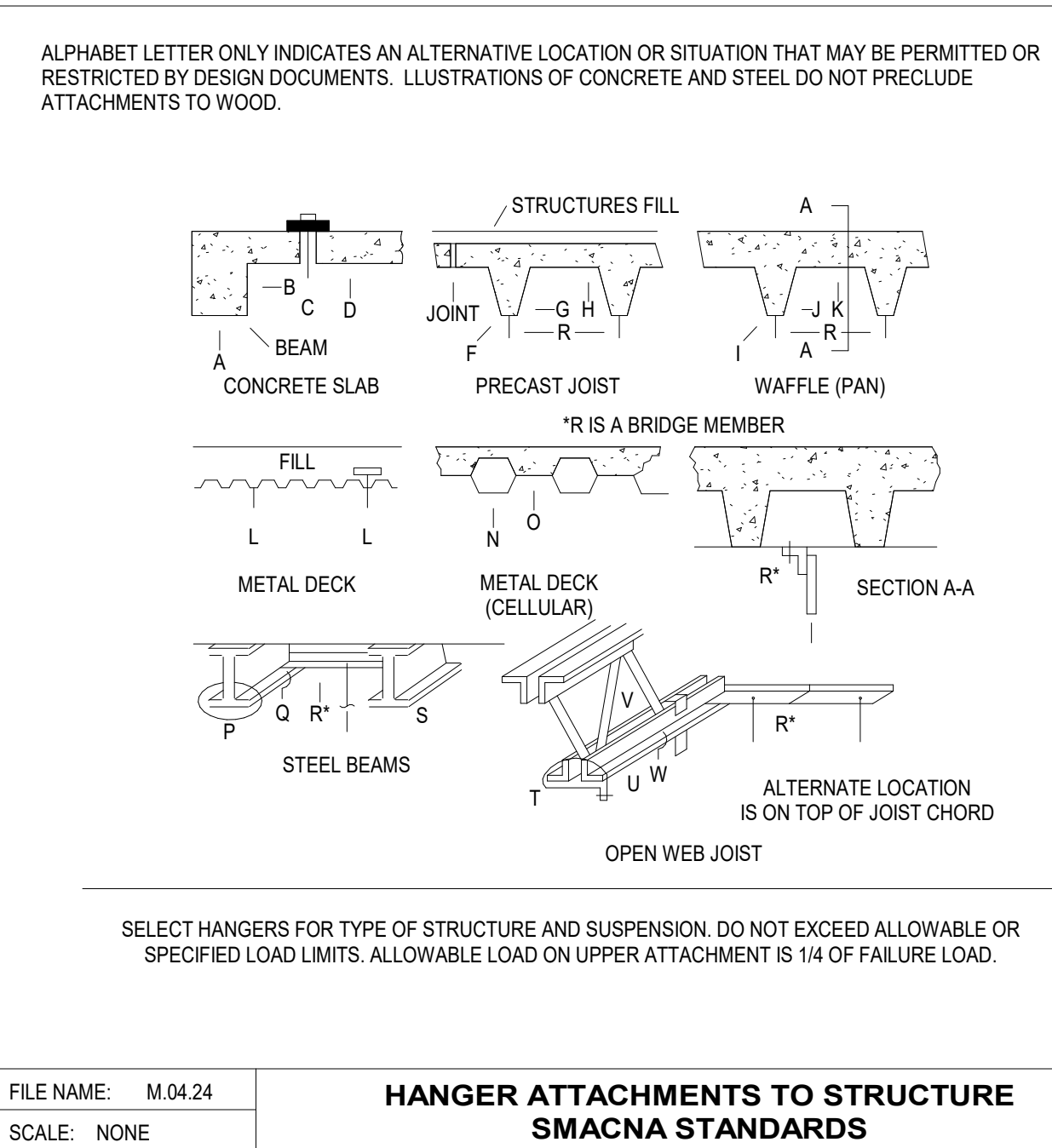
1. MINIMUM 26 GAUGE METAL DUCT WITH R-8 INSULATION WITH VAPOR BARRIER FROM PENETRATION OF RATED CEILING TO EXTERIOR WALL.
2. APPROVED MANUFACTURERS: PENN-BARRY, COOK, GREENHECK, DOMEX, TWIN CITY. (SUBJECT TO PROJECT DOCUMENT CONFORMANCE)
3. UNIT DISCHARGE SHALL BE CONFIGURED TO MATCH DUCTWORK SHOWN ON PLANS



DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAUGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS &/OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1)				
			AT JOINTS				
							
			DRIVE SLIP	PLAIN S SLIP	HEMMED S SLIP	ALTERNATE BAR SLIP	REINFORCED BAR SLIP
MIN. H. IN.			RECOMMENDED GAUGE	RECOMMENDED GAUGE	RECOMMENDED GAUGE	RECOMMENDED GAUGE	
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13 - 18	24	NONE REQUIRED	1	24	24	24	24
19 - 30	24	1"x1"x1/8" @ 60 IN	1	24	24	24	24
31 - 36	22	1"x1"x1/8" @ 60 IN	1	-	-	22	22

- (1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.
(2) LONGITUDINAL JOINTS TO BE PITTSBURG OR SNAP LOCK TYPE.
(3) ALL DUCTING TO BE CONSTRUCTED TO SMACNA INSTALLATION STANDARDS AND SPECIFICATIONS.

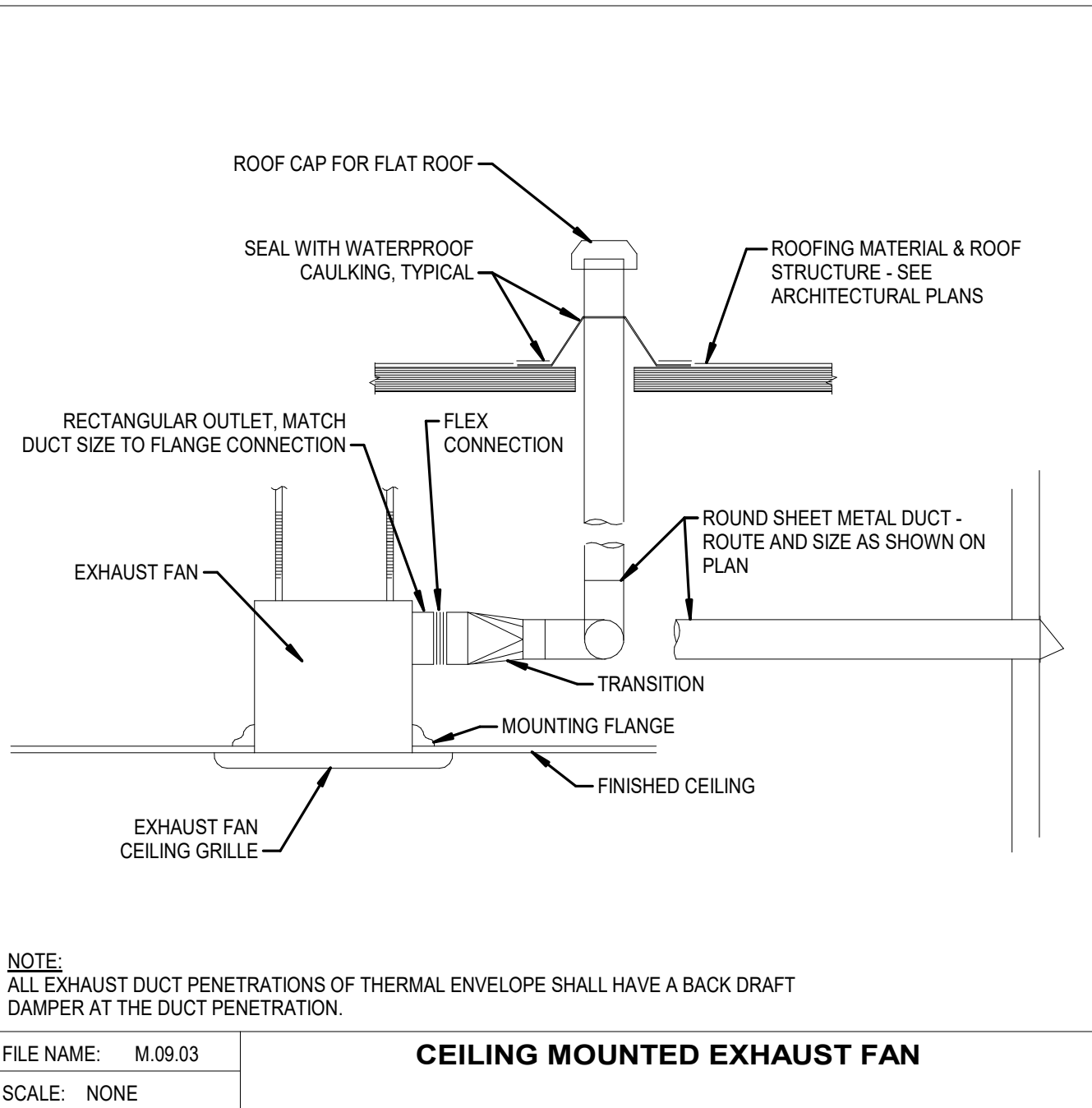
FILE NAME: M.04.01
SCALE: NONE



FILE NAME: M.04.24
SCALE: NONE

Maximum Half of Duct Perimeter	Pair at 10 ft Spacing		Pair at 8 ft Spacing		Pair at 5 ft Spacing		Pair at 14 ft Spacing	
	Strap	Wire/ Rod	Strap	Wire/ Rod	Strap	Wire/ Rod	Strap	Wire/ Rod
P/2 = 30"	1" x 22 ga	10 ga (0.135)	1" x 22 ga	10 ga (0.135)	1" x 22 ga	12 ga (0.106)	1" x 22 ga	12 ga (0.106)
P/2 = 72"	1" x 16 ga	3/8"	1" x 20 ga	1/4"	1" x 22 ga	1/4"	1" x 22 ga	1/4"
P/2 = 96"	1" x 16 ga	3/8"	1" x 18 ga	3/8"	1" x 20 ga	3/8"	1" x 22 ga	1/4"
P/2 = 120"	1-1/2" x 16 ga	1/2"	1" x 18 ga	3/8"	1" x 18 ga	3/8"	1" x 20 ga	1/4"
P/2 = 168"	1-1/2" x 16 ga	1/2"	1-1/2" x 16 ga	1/2"	1" x 16 ga	3/8"	1" x 16 ga	3/8"
P/2 = 192"	Not Given	1/2"	1-1/2" x 16 ga	1/2"	1" x 16 ga	3/8"	1" x 16 ga	3/8"
P/2 = 193" UP	Special Analysis Required							
When Straps are Lap Joined Use These Minimum Fasteners:								Single Hanger Maximum Allowable Load
								Strap
								Wire or Rod (Dia.)
1" x 18.20.22 ga - two #10 or one 1/4" dia.								0.105" - 80lbs.
1" x 16 ga - two 1/4" dia.								0.135" - 120lbs.
1-1/2" x 16 ga - two 3/8" dia.								0.162" - 160lbs.
Place fasteners in series, not side by side.								1/4" - 270lbs.
								3/8" - 680lbs.
								1/2" - 1250lbs.
								5/8" - 2000lbs.
								3/4" - 3000lbs.

FILE NAME: M.04.25
SCALE: NONE



NOTE:
ALL EXHAUST DUCT PENETRATIONS OF THERMAL ENVELOPE SHALL HAVE A BACK DRAFT DAMPER AT THE DUCT PENETRATION.

FILE NAME: M.09.03
SCALE: NONE

LAKE HAVASU CATALYST - TOILET ROOMS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO. 25.019
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
MECHANICAL MAIN
LEVEL FLOOR PLAN,
SCHEDULES & DETAILS
SHEET NUMBER:

M2.1

© 2022 THINK ARCHITECTURE, INC.

GENERAL NOTES (APPLIES TO ALL SHEETS):

1. ALL WORK SHALL BE PROVIDED IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODES AND ALL APPLICABLE NATIONAL AND STATE CODES, AND SAFETY STANDARDS, INCLUDING ANY LOCAL AMENDMENTS ADOPTED BY THE STATE OF ARIZONA.
2. PLUMBING CONTRACTOR (PC) SHALL BE RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS PRIOR TO EXECUTION OF ANY WORK ON THE PROJECT.
3. ALL PLUMBING SYSTEMS WITHIN THESE CONTRACT DOCUMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2018 INTERNATIONAL PLUMBING CODE. ANY FIELD ADJUSTMENT MADE BY THE PC IN THE FIELD SHALL COMPLY WITH THE 2018 INTERNATIONAL PLUMBING CODE REQUIREMENTS.
4. WORK INCLUDED: FURNISH MATERIAL, LABOR AND SERVICES NECESSARY FOR AND INCIDENTAL TO PROVIDING THE FOLLOWING PLUMBING WORK WHERE SHOWN ON THE PLANS AND AS HEREINAFTER SPECIFIED. INCLUDE ALL NECESSARY WORK, MATERIALS, AND EQUIPMENT TO PERFORM WORK COMPLETELY.

A. SANITARY WASTE SYSTEM, INCLUDING BUT NOT LIMITED TO, SANITARY PIPING, VENT PIPING, PIPING, PLUMBING FIXTURES, FLOOR DRAINS, AND CLEANOUTS.

B. [STORM WATER DRAINAGE SYSTEM, INCLUDING BUT NOT LIMITED TO, STORM WATER PIPING, ROOF DRAINS, OVERFLOW DRAINS, AREA DRAINS, DECK DRAINS, SUBSOIL DRAIN, SUMP PUMP, AND CLEANOUTS.]

a. PC SHALL CAMERA/SCOPE AND DOCUMENT THE ACTUAL LOCATION AND DEPTH OF THE EXISTING STORM SYSTEM. INFORMATION OBTAINED FROM CAMERA PROCESS SHALL BE USED TO ADJUST SYSTEM INSTALLATION IN FIELD. COORDINATE WITH ENGINEER AS REQUIRED.]

C. POTABLE DOMESTIC WATER SYSTEM, INCLUDING BUT NOT LIMITED TO, BACKFLOW PREVENTERS, PRESSURE REGULATORS, WATER METER, COLD WATER PIPING, HOT WATER PIPING, HOT WATER RETURN PIPING, AND CONNECTION TO ALL PLUMBING FIXTURES, EQUIPMENT OR SPECIALTIES.

D. [DOMESTIC HOT WATER SYSTEM, INCLUDING BUT NOT LIMITED TO, ELECTRIC TANKED WATER HEATER, CIRCULATOR PUMP, THERMOSTATIC MIXING VALVES, AND EXPANSION TANK.

E. VALVED BRANCHES IN THE POTABLE DOMESTIC WATER SYSTEM WITH BACKFLOW PREVENTERS FOR EXTENSION UNDER OTHER SECTIONS OF THE SPECIFICATION FOR MAKE-UP WATER USAGE.

F. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER TRADES, AND WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

G. DRAINING, FILLING, AND VENTING OF ALL MODIFIED SYSTEMS AS REQUIRED FOR THE ABOVE WORK. THIS INCLUDES SCHEDULING SHUTDOWNS WITH THE OWNER.

H. PLUMBING CONTRACTOR (PC) SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR (MC) REGARDING EQUIPMENT SUPPLIED BY MC TO BE INSTALLED BY THE PC.

I. PROVIDE SUFFICIENT LABOR AND RESOURCES REQUIRED FOR THE TESTING AND BALANCING OF THE DOMESTIC WATER, EMERGENCY SHOWER AND EYEWASH STATIONS, ETC.

J. CLEANING AND PRESSURE TESTING EQUIPMENT, PIPING, AND ACCESSORIES INSTALLED IN ACCORDANCE WITH CODE AND INDUSTRY BEST PRACTICES.

K. ALL SEISMIC RESTRAINTS FOR THE ABOVE WORK.

L. INSTALLING ACCESSORIES SPECIFIED UNDER OTHER SECTIONS CONTAINED WITHIN THE CONTRACT DOCUMENTS.
5. PC RESPONSIBILITY FOR PLUMBING PIPING INSTALLATION, SANITARY, STORM, DOMESTIC, ETC., SHALL END AT 5'-0" OUTSIDE THE BUILDING. PC SHALL BE RESPONSIBLE FOR CAPPING AND TESTING PIPING AT 5'-0" OUTSIDE THE BUILDING IN ACCORDANCE WITH CODE.

A. IT SHALL BE THE RESPONSIBILITY OF THE CIVIL CONTRACTOR TO MAKE THE FINAL CONNECTION OF ALL PLUMBING PIPING FROM 5'-0" OUTSIDE THE BUILDING TO SITE UTILITIES. THIS INCLUDES ALL REQUIRED FITTINGS AND ACCESSORIES.

B. IT SHALL BE THE RESPONSIBILITY OF BOTH THE PC AND THE CIVIL CONTRACTOR TO COORDINATE THE REQUIRED INVERT ELEVATIONS (I.E.) OF THE PLUMBING PIPING PRIOR TO INSTALLATION.
6. PC SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR TO ENSURE ALL PLUMBING EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS IS PROVIDED SERVICE. PC AND E.C. SHALL REFER TO THE PLUMBING FIXTURE SCHEDULE FOR ALL EQUIPMENT REQUIRING ELECTRICAL SERVICE.
7. EACH PLUMBING FIXTURE, ACCESSORY, EQUIPMENT ITEM AND SPECIALTY SHALL BE INSTALLED IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S RECOMMENDATIONS.
8. PLUMBING FIXTURES, EQUIPMENT AND SPECIALTIES SHALL BE PROTECTED AGAINST DAMAGE IN THE PERIOD BETWEEN INSTALLATION AND ACCEPTANCE. ANY ITEM DAMAGED SHALL BE REMOVED, REPAIRED AND/OR REPLACED AT NO ADDITIONAL COMPENSATION.
9. ALL OPERABLE DEVICES AND FEATURES OF PLUMBING FIXTURES, ACCESSORIES, EQUIPMENT AND SPECIALTIES PROVIDED FOR IN THE SCOPE OF WORK OUTLINED IN THE FOLLOWING DOCUMENTS SHALL BE OPERATED AND PROVED TO FUNCTION SATISFACTORILY FOR A PERIOD OF EIGHT (8) HOURS. ADJUST, BALANCE, LUBRICATE AS REQUIRED. CONTRACTOR SHALL INSTRUCT THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF EACH DEVICE.
10. THE PLUMBING SYSTEM SHALL COMPLY WITH THE 2011 REDUCTION OF LEAD IN DRINKING WATER ACT. COMPONENTS SHALL BE LEAD FREE EQUIVALENT OF MODEL NUMBER SPECIFIED REGARDLESS IF MANUFACTURER'S PREFIX AND SUFFIX HAVE BEEN INCLUDED.

PLUMBING PIPING SYSTEM (APPLIES TO ALL SHEETS):

1. FURNISH AND INSTALL THE PIPING SYSTEMS SHOWN ON THE PLANS AND AS HEREINAFTER SPECIFIED IN THE RESPECTIVE SCHEDULES. INCLUDE ALL NECESSARY CONSIDERATIONS FOR THE RELATED SYSTEMS TO PROVIDE FOR COMPLETE SYSTEMS.
2. REFER TO PS SERIES SHEETS FOR ALL SCHEDULES AND DETAILS.
3. ALL DRAINAGE PIPES SHALL BE FLUSHED CLEAN AT THE COMPLETION OF THE WORK. ROD OUT ANY OBSTRUCTIONS ENCOUNTERED.
4. ALL DOMESTIC WATER PIPES SHALL BE FLUSHED CLEAN AT THE COMPLETION OF THE WORK. REFER TO 'CLEANING OF PIPING SYSTEMS' NOTES ON SAME SHEET.
5. PRESSURE TEST EACH RESPECTIVE PIPING SYSTEM FOR TIGHTNESS TO THE TEST PRESSURE INDICATED WITHOUT LOSS. REPAIR ANY LEAKS AND RETEST, AS REQUIRED. IF TEST PRESSURE IS NOT INDICATED, HYDROSTATICALLY TEST TO 1.5 TIMES THE SYSTEM OPERATING PRESSURE. REFER TO 'PRESSURE TESTING' NOTES ON SAME SHEET.
6. THE PLANS INDICATE THE APPROXIMATE LOCATION AND ARRANGEMENT OF ROUGHING-IN FOR WASTE, VENT AND DOMESTIC WATER PIPING TO SERVE THE RESPECTIVE PLUMBING FIXTURE, EQUIPMENT AND SPECIALTIES. FINAL LOCATIONS AND ARRANGEMENTS SHALL BE DETERMINED FROM APPROVED SHOP DRAWINGS OF THE RESPECTIVE ITEM.
7. PROVIDE APPROVED BACKFLOW PREVENTERS IN ALL BRANCH PIPES IN THE DOMESTIC WATER SYSTEM FOR CONNECTIONS TO NON-DOMESTIC APPLICATIONS.
8. MAIN WASTE VENT THRU ROOF (VTR) PIPES SHALL EXTEND 12" MINIMUM ABOVE THE ROOF, AND MINIMUM VTR SHALL BE 2" SIZE.
9. INSTALL ALL PIPING WITH PITCH TO VENT OR DRAIN. PROVIDE DRAIN VALVES AT LOW POINTS AND AIR VENTS AT HIGH POINTS. DRAIN VALVES AND AIR VENTS SHALL BE 3/4" BRONZE, 2 PIECE BODY BALL VALVES WITH 3/4" HOSE END ADAPTER, CAP, AND CHAIN. IN 1/2" THROUGH 2" PIPE, CONTRACTOR MAY USE WEBSTONE MODEL T-DRAIN.
10. THE PLUMBING SYSTEM SHALL COMPLY WITH THE 2011 REDUCTION OF LEAD IN DRINKING WATER ACT.
11. WATER HAMMER ARRESTORS SHALL BE PROVIDED ON ALL DOMESTIC WATER QUICK OPENING/CLOSING DEVICES. FOR MULTI-FIXTURE APPLICATIONS, WATER HAMMER ARRESTORS SHALL BE EQUAL TO JAY R. SMITH 5201-5250. FOR SINGLE FIXTURE APPLICATIONS, WATER HAMMER ARRESTORS SHALL BE EQUAL TO JAY R. SMITH 5201-5250.
12. DRAINAGE PIPING REQUIREMENTS ARE AS FOLLOWS (2021 IPC):

A. SANITARY DRAIN:

a. 2-1/2" OR LESS = 1/4" PER 1'-0" (2% SLOPE)

b. 3" TO 6" = 1/8" PER 1'-0" (1% SLOPE)

B. STORM DRAIN: SEE TABLE 1106.2 WITHIN 2018 IPC.

a. NOTE 1: THE STORM DRAIN PIPING FOR THE PROJECT HAS BEEN DESIGNED USING 1/8" PER 1'-0" (1% SLOPE) TO MINIMIZE TOTAL PIPING FALL. PC SHALL BE RESPONSIBLE FOR PROVIDING CODE COMPLIANT CALCULATIONS IF STORM DRAINAGE SYSTEM IS MODIFIED FROM CONTRACT DOCUMENTS - I.E. CHANGE IN PIPE SIZES, CHANGE IN PIPE SLOPE, ETC.

b. NOTE 2: FOR INVERT ELEVATION (I.E.) CALCULATION PURPOSES, THE FINISHED FLOOR (F.F.) ELEVATION SHALL BE ASSUMED AS 100.00' - SEE PLANS FOR F.F. LOCATION. ACTUAL ELEVATIONS ARE CONTAINED WITH THE ARCHITECTURAL AND CIVIL PLANS IF REQUIRED.

CLEANING AND PRESSURE TESTING OF PIPING SYSTEMS (APPLIES TO ALL SHEETS):

1. CLEANING OF PIPING SYSTEMS

A. THE CONTRACTOR SHALL CLEAN THE RESPECTIVE PIPING SYSTEM(S) THAT ARE INCLUDED IN THEIR SCOPE OF WORK. ALL SYSTEMS SHALL BE FLUSHED WITH WATER OR AIR (DEPENDING ON ULTIMATE USE) TO RELIEVE ANY CONGESTION AND INTERNALLY CLEANSE THE RESPECTIVE PIPING SYSTEM. THE CONTRACTOR SHALL PROVIDE ALL FLUSHING MEDIA IN SUFFICIENT QUANTITY, INLET CONNECTIONS, DISCHARGE OR DRAINAGE OUTLETS AND ANY TEMPORARY PROVISIONS TO PROTECT COMPONENTS, OR REMOVE IT, TO FACILITATE THE FLUSHING. CLEAN AND REPLACE ALL STRAINER SCREENS AND FILTERS. FLUSH CLEAN AND DRAIN ALL LOW POINTS IN THE PIPING.

B. AN INDEPENDENT WITNESS AND/OR REPRESENTATIVE OF THE OWNER SHALL BE PRESENT ALL FOR FLUSHING, CLEANING, AND RINSING. WATER TREATMENT REPRESENTATIVE MUST CHECK WATER AFTER RINSING TO INSURE ALL CHEMICAL CLEANER HAS BEEN REMOVED AND THE ALKALINITY OF THE RINSE WATER IS EQUAL TO THAT OF THE MAKE-UP WATER.

C. NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. THE METHOD FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY HAVING JURISDICTION OR, IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE DESCRIBED IN EITHER AWWA C651 OR AWWA C652, OR AS DESCRIBED IN THIS SECTION. THIS REQUIREMENT SHALL APPLY TO "ON-SITE" OR "IN-PLANT" FABRICATION OF A SYSTEM OR TO A MODULAR PORTION OF A SYSTEM.

a. THE PIPE SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT THE POINTS OF OUTLET.

b. THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION (50 MG/L) OF CHLORINE, AND THE SYSTEM OR PART THEREOF SHALL BE VALVED OFF AND ALLOWED TO STAND FOR 24 HOURS. OR THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 200 PARTS PER MILLION (200 MG/L) OF CHLORINE AND ALLOWED TO STAND FOR 3 HOURS.

c. FOLLOWING THE REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.

d. THE PROCEDURE SHALL BE REPEATED WHERE SHOWN BY A BACTERIOLOGICAL EXAMINATION THAT CONTAMINATION REMAINS PRESENT IN THE SYSTEM.
2. PRESSURE TESTING

A. THE CONTRACTOR SHALL SUBMIT A SCHEDULE AT THE BEGINNING OF THE WORK OF THE PIPING SYSTEMS THAT ARE TO BE PRESSURE TESTED, AND INDICATE WHETHER TESTS WILL BE FOR AN ENTIRE OR PARTIAL SYSTEM. ENTIRE PIPING SYSTEMS SHALL BE PRESSURE TESTED AT ONE TIME UNLESS IT IS NOT POSSIBLE OR PRACTICAL.

B. ALL PIPING TO BE INSULATED OR CONCEALED SHALL BE PRESSURE TESTED PRIOR TO THE APPLICATION OF THE INSULATION OR CONCEALMENT.

C. AN INDEPENDENT WITNESS AND/OR REPRESENTATIVE OF THE OWNER SHALL WITNESS ALL PRESSURE TESTING. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER AT LEAST THREE (3) DAYS PRIOR TO THE TEST DATE.

D. EACH PIPING SYSTEM SHALL BE TESTED PER THE METHOD, TEST PRESSURE, AND TEST DURATION AS SPECIFIED IN THE PIPING MATERIAL SCHEDULES.

E. THE CONTRACTOR SHALL PROVIDE ALL TEST MEDIA, MEASURING DEVICES, INLET CONNECTIONS, TEST MEASUREMENT CONNECTIONS, AND DISPOSAL OF TEST MEDIA. THE CONTRACTOR SHALL PROTECT, ISOLATE AND/OR REMOVE PIPING SYSTEM COMPONENTS THAT CAN NOT BE SUBJECTED TO TEST PRESSURES.

F. HAMMER EACH JOINT IN WELDED OR SOLDED PIPING WHILE UNDER TEST. LEAKS SHALL BE REPAIRED AND THE TEST(S) REPEATED UNTIL THE RESPECTIVE PIPING SYSTEM IS TIGHT.

PLUMBING ABBREVIATIONS INDEX

NOTE: ALL ABBREVIATIONS MAY NOT BE USED ON THIS PROJECT.

AD	AREA DRAIN
AP	ACCESS PANEL
AW	ACID WASTE
AV	ACID VENT
BV	BALANCE VALVE
CB	CATCH BASIN
CFS	CUBIC FEET PER SECOND
CO	CLEANOUT
CCWV	COMBINATION WASTE & VENT
CGRWV	COMBINATION GREASE WASTE & VENT
CUSP	CUSPIDOR
CHV	CHECK VALVE
CW	COLD WATER
DD	DECK DRAIN
ODD	OVERFLOW DECK DRAIN
DF	DRINKING FOUNTAIN
DOWN	DOWN
DS	DOWNSPOUT
DV	DRAIN VALVE
DWH	DOMESTIC WATER HEATER
ET	EXPANSION TANK
EW	ELECTRIC WATER COOLER
EX	EXISTING PIPING OR EQUIPMENT
F	FLANGE CONNECTION
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
GA	GAUGE
GC	GAUGE COCK
GW	GREASE WASTE
HB	HOSE BIB
HW	HOT WATER
HWR	HOT WATER REDIRCULATION
ICW	ICE COLD WATER
ICW	INDIRECT WASTE
IE	INVERT ELEVATION
L	LAVATORY
LV	LOOP VENT
MH	MANHOLE
MS	MOP SINK
N/C	NOT IN CONTRACT
NPC	NON-POTABLE COLD WATER
NPH	NON-POTABLE HOT WATER
OD	OVERFLOW DRAIN / OVERFLOW DRAIN PIPING
PR	PRESSURE REGULATOR
RD	ROOF DRAIN / ROOF DRAIN PIPING
RI	ROUGH-IN (ON V)
R&C	ROUGH-IN AND CONNECT
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
S	SANITARY WASTE
SBD	SHOWER BASINS AND DRAIN
SCW	SOFT COLD WATER
SH	SHOWER HEAD
SHW	SOFT HOT WATER
SS	SERVICE SINK
SSD	SUBSOIL DRAIN
STW	SOFT TEMPERED WATER
SV	SERVICE VALVE
TD	TRENCH DRAIN
TH	THERMOMETER
TT	TEST TEE
TWC	TEMPERED WATER CIRCULATING UNION
UR	UNION
V	VENT
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WALL HYDRANT
WM	WATER MAIN
YCO	YARD CLEANOUT
YD	YARD DRAIN

PLUMBING ABBREVIATIONS INDEX

NOTE: ALL ABBREVIATIONS MAY NOT BE USED ON THIS PROJECT.

SYMBOL	ABBREVIATION
XX#	FIXTURE DESIGNATION
X#	SECTION DESIGNATION
X#	SHEET NUMBER
KEYNOTE	KEYNOTE DESIGNATION
REVISION	REVISION
DELTA	REVISION DELTA
ENLARGED	ENLARGED PLAN
CALL OUT	CALL OUT

PLUMBING PIPE FITTING SYMBOLS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED ON THIS PROJECT.

SYMBOL	ABBREVIATION	EXPLANATION
UP	UP	PIPE LINE, TURNED UP
DN	DN	PIPE LINE, TURNED DOWN
TDN	TDN	PIPE LINE, TEE DOWN
SV	SV	SERVICE VALVE
BV	BV	BALANCE VALVE
CV	CV	2 WAY CONTROL VALVE
3CV	3CV	3 WAY CONTROL VALVE
CHV	CHV	CHECK VALVE
DV	DV	DRAIN VALVE
AAV	AAV	AUTOMATIC AIR VALVE
MAV	MAV	MANUAL AIR VALVE
FCO	FCO	FLOOR CLEANOUT
WCO	WCO	WALL CLEANOUT
RO/D	RO/D	ROOF DRAIN
OFN	OFN	OVERFLOW NOZZLE
FS	FS	FLOOR SINK
FD	FD	SQUARE FLOOR DRAIN
FD	FD	ROUND FLOOR DRAIN
F	F	FLANGE CONNECTION
GA	GA	GAUGE
GC	GC	GAUGE COCK
MC	MC	MECHANICAL COUPLING
P	P	PETE'S PLUG
RPBP	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
PR	PR	PRESSURE REGULATOR
PRV	PRV	PRESSURE REDUCING VALVE
S	S	SOLENOID VALVE
RV	RV	RELIEF VALVE
STR	STR	STRAINER
TH	TH	THERMOMETER
TW	TW	THERMOMETER WELL
U	U	UNION
METER	METER	METER
CAP	CAP	CONCENTRIC REDUCER (BOTTOM & TOP LEVEL)
PA	PA	PIPE ANCHOR
PG	PG	PIPE GUIDE
ARR	ARR	WATER HAMMER ARRESTOR

PLUMBING PIPE SYMBOLS

NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT.

SYMBOL	EXPLANATION
CA	COMPRESSED AIR
CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER REDIRCULATION
S	SANITARY WASTE (ABOVE GRADE)
S	SANITARY WASTE (BELOW GRADE)
V	VENT
RD	ROOF DRAIN PIPING (ABOVE GRADE)
RD	ROOF DRAIN PIPING (BELOW GRADE)
OD	OVERFLOW DRAIN PIPING (ABOVE GRADE)
OD	OVERFLOW DRAIN PIPING (BELOW GRADE)

DESIGN CONTACTS

ENGINEER: JOEL WILLIAMS
DESIGNER: JEREMY CARTER

PLUMBING SHEET LIST

P0.1 PLUMBING NOTES SYMBOLS & ABBREVIATIONS
P2.1 PLUMBING FLOOR PLANS
P5.1 PLUMBING SCHEDULES & DETAILS
P5.2 PLUMBING DETAILS



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85260
ph: 801.269.0055
fax: 801.269.1425
www.thinkae.com

The designs shown and described herein including all technical drawings, graphic representation & model thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

B&D ENGINEERING
BRUNNER AND DALLON
MECHANICAL | PLUMBING | CONTROLS

8715 S 700 E, SUITE 201
SANDY, UT 84070
801-685-8061
25-015-00



LAKE HAVASU CATALYST - TOILET ROOMS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO. 25.019
DATE: 19 JUNE 2025

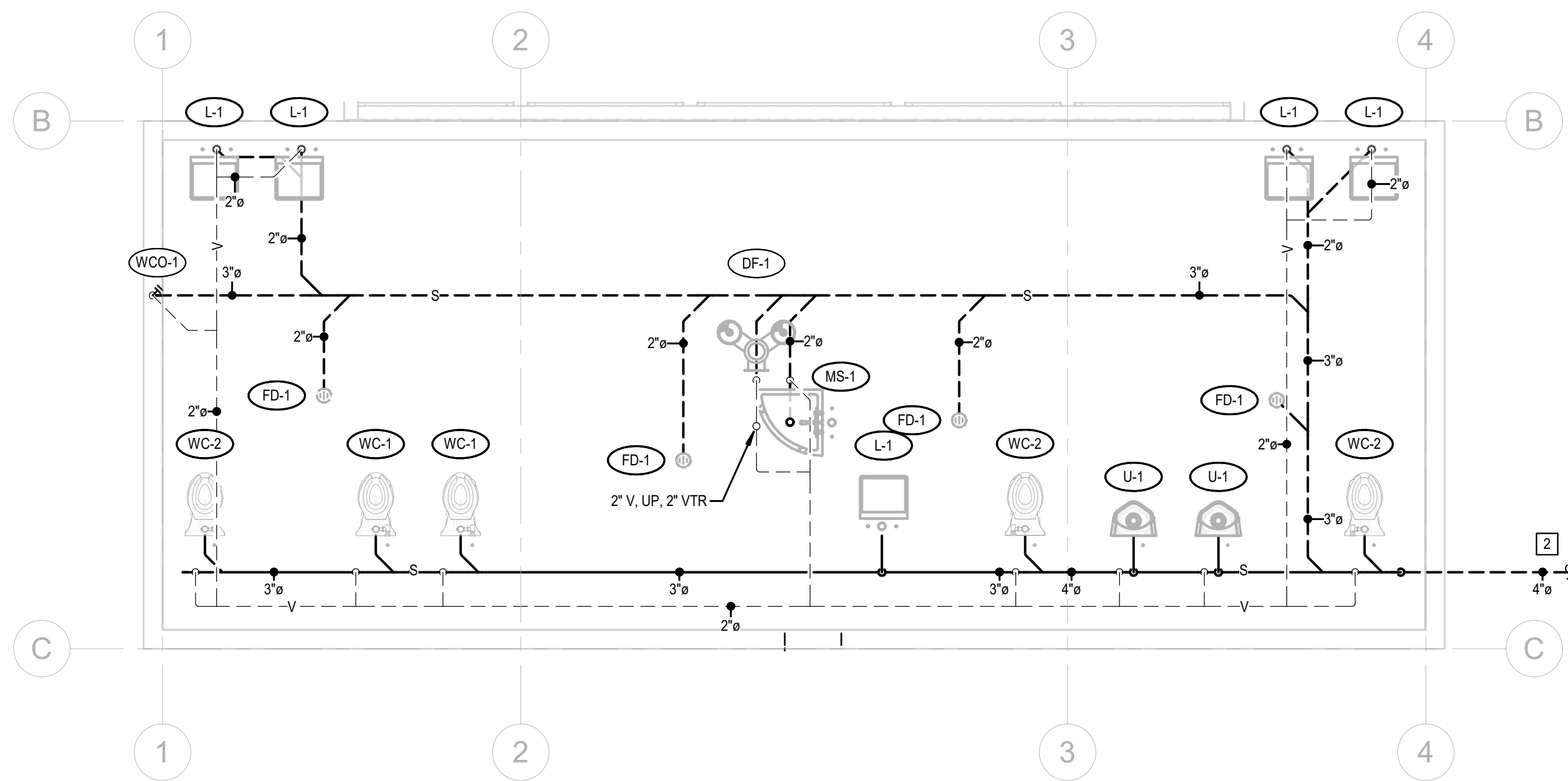
REVISIONS:

SHEET TITLE:
PLUMBING NOTES
SYMBOLS &
ABBREVIATIONS
SHEET NUMBER:

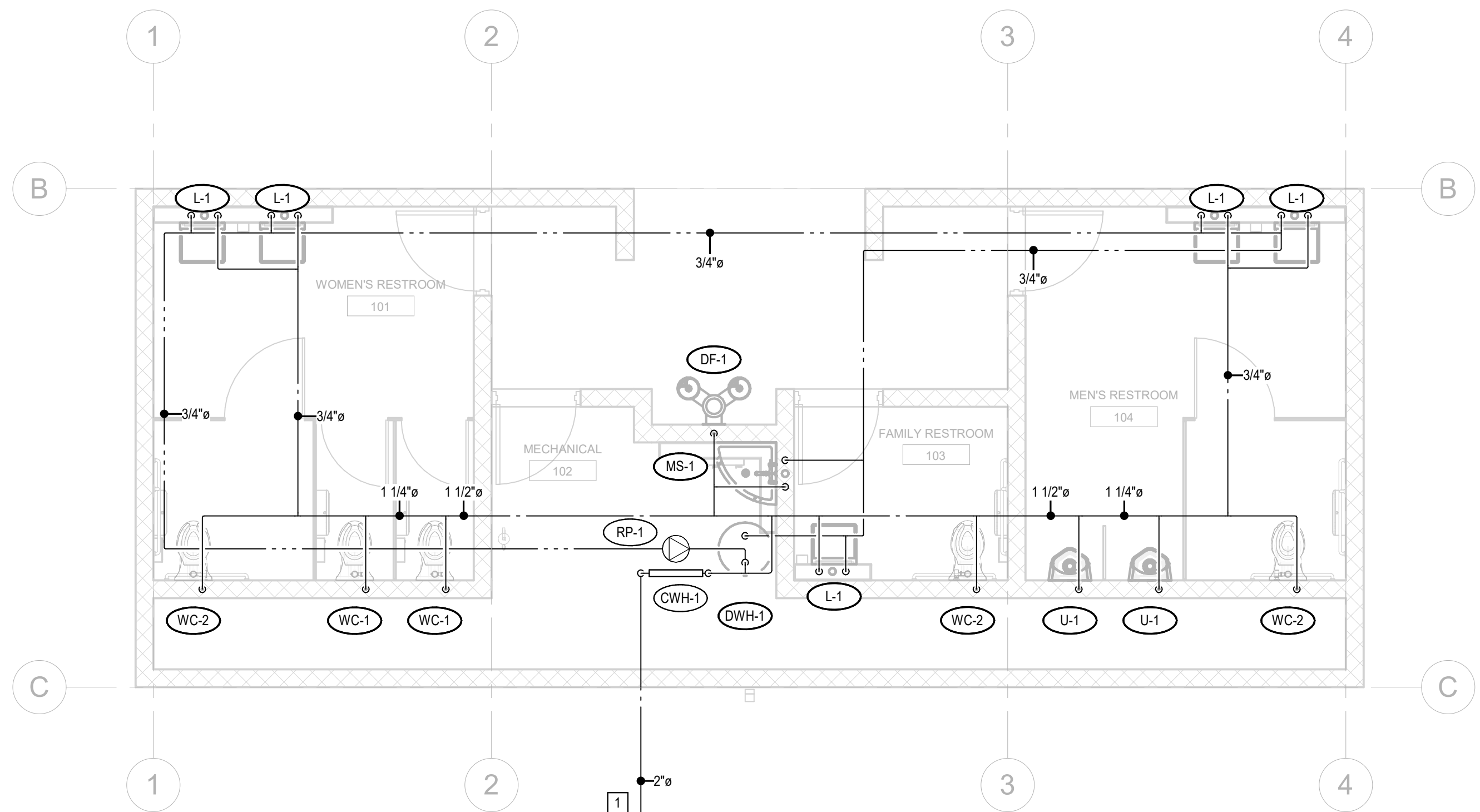
P0.1

© 2022 THINK ARCHITECTURE INC.

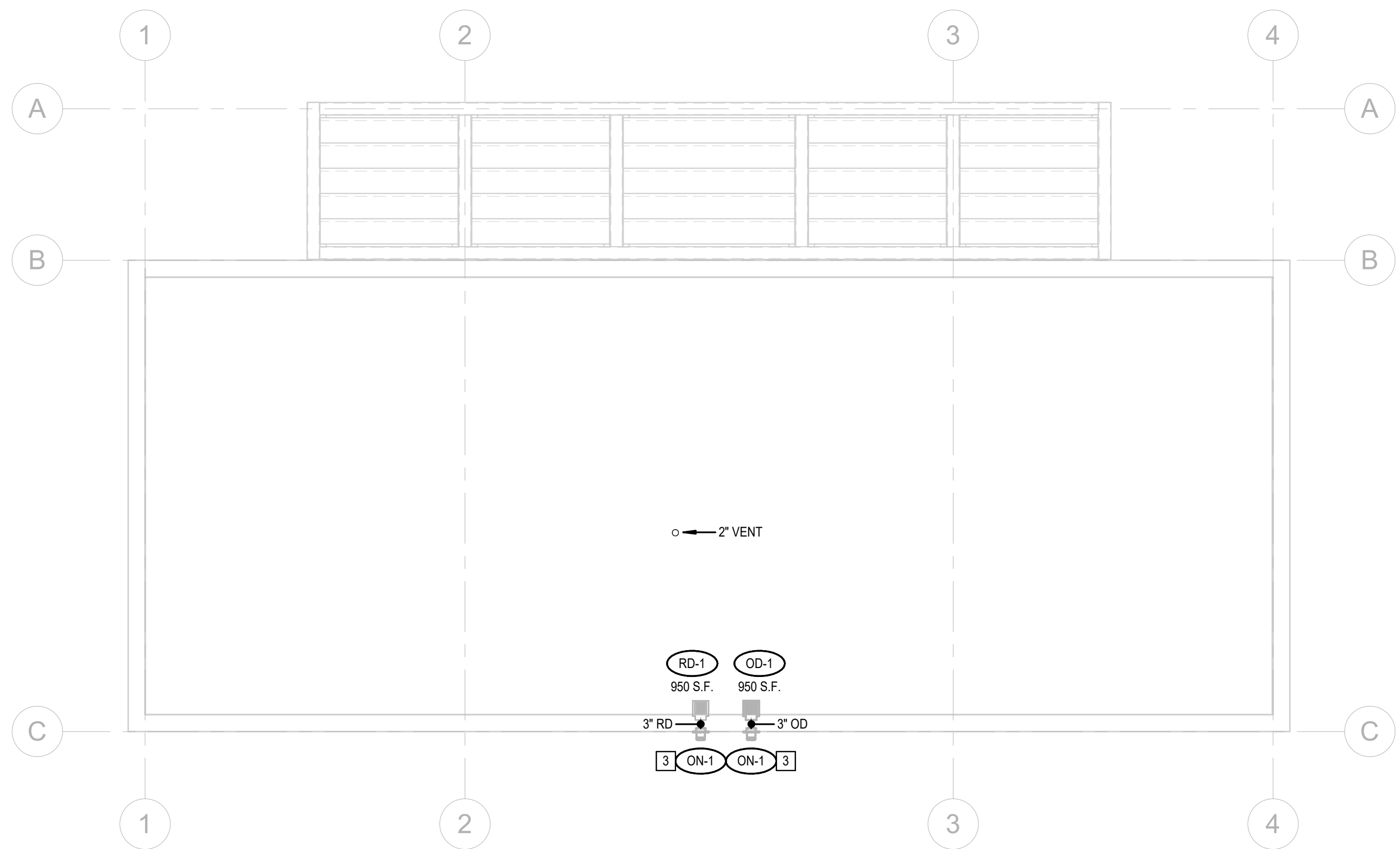
Proj Date: 6/24/2025 2:31:15 PM



1 PLUMBING MAIN LEVEL FLOOR PLAN - W&V
1/4" = 1'-0"



2 PLUMBING MAIN LEVEL FLOOR PLAN - SUPPLY
1/4" = 1'-0"



3 PLUMBING ROOF PLAN
1/4" = 1'-0"

GENERAL NOTES (SHEET P2.1)

1. REFER TO ALL NOTES, SYMBOLS & ABBREVIATIONS ON SHEET P0.1.
2. REFER TO ALL SCHEDULES & DETAILS WITHIN P5 SERIES SHEETS.

KEYED NOTES (SHEET P2.1)

1. SEE CIVIL SHEETS FOR CONTINUATION.
2. SEE CIVIL SHEETS FOR CONTINUATION AND INVERT ELEVATION.
3. SEE ARCHITECTURAL SHEETS FOR TERMINATION ELEVATION.



Architecture

Interior Design
Landscape Architecture
Land Planning
Construction Management

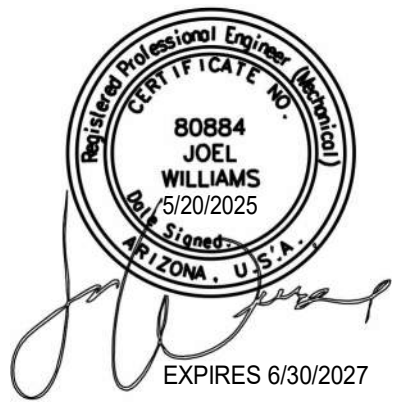
7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

B&D ENGINEERING
BRUNNER AND DALLON
MECHANICAL | PLUMBING | CONTROLS

8710 S 700 E, SUITE 201
SANDY, UT 84070
801-685-8081
25.015.00



LAKE HAVASU CATALYST - TOILET ROOMS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO. 25.019
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
PLUMBING FLOOR
PLANS

SHEET NUMBER:

P2.1

© 2022 THINK ARCHITECTURE INC.

BID SET

PLUMBING FIXTURE SCHEDULE																	
SYMBOL	FIXTURE	SUPPLY PIPE SIZE						FIXTURE UNITS		ELECTRICAL CONNECTION	FIXTURE SPECS / REMARKS	FIXTURE SELECTION	TRIM				NOTES
		TRAP	WASTE	VENT	COLD	HOT	GAS	DFU	SFU				VALVE	DRAIN	STOP	MISCELLANEOUS	
CWH-1	COLD WATER HEADER	-	-	-	2"	-	-	-	-	NO	COLD WATER HEADER SHALL BE INSTALLED IN THE FOLLOWING ARRANGEMENT: STRAINER, BACKFLOW PREVENTER, PRV. SET PRV 60 PSI. CWH IS DESIGNED BASED ON A 1-1/2" WATER METER W/ 2" DISTRIBUTION PIPE TO THE BUILDING.	2" WATTS 009M2QT-LF, 2" WATTS U5B-Z3-GG, 2" WATTS LF777S.	INCL.	-	BALL VALVE	BACKFLOW PREVENTER SHALL BE PROVIDED WITH AIR GAP. CONTRACTOR SHALL REFER TO PLANS FOR CLARIFICATION.	
DWH-1	DOMESTIC WATER HEATER ELECTRIC	-	-	-	3/4"	3/4"	-	-	-	YES	20 GA CAPACITY, 208V/1PH 4500W ELEMENT(S) - 23GPH @ 80°F RISE.	STATE PATRIOT MODEL PCE 20 10MSA & AMTROL ST-5 EXPANSION TANK OR APPROVED EQUAL BY TENANT.	-	-	BALL VALVE	INSTALL ST-5 ON COLD WATER INLET.	2
DF-1	DRINKING FOUNTAIN	1-1/2"	1-1/2"	1-1/2"	1/2"	-	-	0.5	0.25	NO	WALL HUNG, HEAVY DUTY VANDAL RESISTANT 300 SERIES STAINLESS STEEL, NON-REFRIGERATED, NON-FILTERED. INSTALL IN ACCORDANCE WITH ADA GUIDELINES.	ELKAY MODEL NO. LK4409BF	INCL.	INCL.	YES	COLOR SELECTED BY OWNER.	
FD-1	FLOOR DRAIN FINISHED FLOOR	3"	3"	2"	-	-	-	2	-	NO	CAST IRON BODY W/FLASHING FLANGE, INT. REVERSIBLE. CLAMPING COLLAR, SEEPAGE OPENINGS, 6"x6" SQ. ADJ. SATIN NICKEL BRONZE STRAINER W/VR FASTENERS	J.R. SMITH 2005Y-B-U-NB, OR EQUAL BY WADE, ZURN, MIFAB	-	-	-	PROVIDE SURE SEAL TRAP GUARD.	
L-1	LAVATORY-ADA WALL HUNG	1-1/4"	1-1/2"	1-1/2"	1/2"	1/2"	-	1	2	NO	FRONT OVERFLOW W/FAUCET LEDGE, CONCEALED CARRIER ARMS, SELF-DRAINING DECK W/CONTOURED BACK AND SPLASH SHIELDS. MOUNT FIXTURE AT ADA HEIGHT.	AMERICAN STANDARD "LUCERNE" MOEL 0356.421, 0.5 GPM, 4" CENTERS, W/WALL HANGER.	CHICAGO 420 T45E2805 OR APPROVED EQUAL	GRID	YES	PROVIDE CARRIER, WATTS TC-411 OR APPROVED EQUAL. PROVIDE INSULATION KIT, TRUEBRO LAV GUARD 2 103 E-Z.	
MS-1	MOP SINK BASIN	3"	3"	2"	1/2"	1/2"	-	2	3	NO	28"x28"x12" PRECAST TERRAZZO NEO-CORNER BASIN, GROUND SMOOTH, GROUTED AND SEALED. CURVED FRONT EDGE CAPPED W/ SS CAST INTEGRALLY.	FIAT MODEL TSBOR11 00 OR APPROVED EQUAL.	FIAT 830 AA	INCL.	INCL.	FIAT 832 AA HOSE, MSG 2828 SS WALL GUARDS.	
RD-1	ROOF DRAIN	-	3"	-	-	-	-	-	-	NO	INSULATE WITH VAPOR BARRIER ON UNDERSIDE.	MIFAB R1300T OR APPROVED EQUAL.	-	-	-		
OD-1	OVERFLOW ROOF DRAIN	-	3"	-	-	-	-	-	-	NO	INSULATE WITH VAPOR BARRIER ON UNDERSIDE.	MIFAB R1300T OR APPROVED EQUAL.	-	-	-		
ON-1	OVERFLOW NOZZLE - BRASS	-	3"	-	-	-	-	-	-	NO	DAYLIGHT AS DIRECTED BY ARCHITECTURAL DRAWINGS.	J.R. SMITH 1770 OR APPROVED EQUAL.	-	-	-		
RP-1	DOMESTIC HOT WATER RECIRCULATION PUMP	-	-	-	-	1/2"	-	-	-	YES	PUMP BODY SHALL BE LEAD FREE BRASS, CERAMIC SHAFT & BEARINGS, CERTIFIED NSF-61 AND NSF-372 STANDARDS. ELEC. REQ. 115V/208-230/60HZ.	GRUNDFOS ALPHA1 15-55SF UP 10-16 PM OR APPROVED EQUAL BY BELL AND GOSSETT, TACO, ARMSTRONG.	-	-	BALL VALVE	PUMP SHALL DELIVER 3 GPM @ 15 FT.HD. PUMP SHALL BE PROVIDED W/2 BALL VALVES, CHECK VALVE, STRAINER AND STRAP ON THERMOSTAT (SEE PLANS).	
U-1	URINAL-ADA WALL HUNG	2"	2"	2"	3/4"	-	-	5	2	NO	3/4" TOP INLET SPUD, 2"IPS FEMALE THREADED OUTLET, SS DRAIN COVER. MOUNT FIXTURE AT ADA HEIGHT.	AMERICAN STANDARD "WASHBROOK" MODEL 6590.001, 0.5 GPF.	SLOAN OPTIMA MODEL G2-8186-0.5	-	INC. W/ VALVE	PROVIDE CARRIER FOR EACH URNIAL FURNISHED. WATTS CA-321 OR APPROVED EQUAL.	
WC-1	WATER CLOSET WALL HUNG	INT	3"	2"	1"	-	-	10	4	NO	ELONGATED BOWL, 1-1/2" TOP SPUD, EVERCLEAN SURFACE	AMERICAN STANDARD "AFWALL" MODEL 2257.101 1.6 GPF.	SLOAN OPTIMA MODEL G2-8111-1.6	-	INC. W/ VALVE	PROVIDE SEAT, BEMIS #1655C OR CHURCH #9500C. PROVIDE CARRIER, WATTS ISCA-101-L/R-M1 (SINGLE FEATURES).	1
WC-2	WATER CLOSET-ADA WALL HUNG	INT	3"	2"	1"	-	-	10	4	NO	ELONGATED BOWL, 1-1/2" TOP SPUD, EVERCLEAN SURFACE. MOUNT FIXTURE AT ADA HEIGHT.	AMERICAN STANDARD "AFWALL" MODEL 2257.101 1.6 GPF.	SLOAN OPTIMA MODEL G2-8111-1.6	-	INC. W/ VALVE	PROVIDE SEAT, BEMIS #1655C OR CHURCH #9500C. PROVIDE CARRIER, WATTS ISCA-101-L/R-M1 (SINGLE FEATURES).	1
WCO-1	WALL CLEANOUT FINISHED SPACES	-	-	-	-	-	-	-	-	NO	CAST IRON BODY WITH ROUND CHROME PLATE COVER.	J.R. SMITH 4420 SERIES	-	-	-		2
NOTES: 1. CONTRACTOR HAS THE OPTION TO SUMBIT AN APPROVED EQUAL FOR THE CARRIER. 2. CONTRACTOR SHALL PROVIDE A MIN. OF TWO (2) SEISMIC RESTRAINTS/STRAPS AT THE TOP AND BOTTOM 1/3 POINTS OF DOMESTIC WATER HEATER.																	

PLUMBING PIPING SCHEDULE						
SERVICE DESIG.	SERVICE	MATERIAL	LOCATION	INSULATION	FITTINGS	NOTES
CW	DOMESTIC COLD WATER	COPPER TYPE "L" - HARD	INTERIOR - ABOVE & BELOW CEILING	SEE NOTES	WROUGHT COPPER - SOLDER ENDS	1,4,5,6,10
HW	DOMESTIC HOT WATER	COPPER TYPE "L" - HARD	INTERIOR - ABOVE & BELOW CEILING	SEE NOTES	WROUGHT COPPER - SOLDER ENDS	2,4,5,6,10
HWR	DOMESTIC HOT WATER RECIRC	COPPER TYPE "L" - HARD	INTERIOR - ABOVE & BELOW CEILING	SEE NOTES	WROUGHT COPPER - SOLDER ENDS	2,4,5,6,10
S	SANITARY WASTE	SCH 40 PVC - DWV	INTERIOR - BELOW GRADE	NONE	SCH 40 PVC - DWV	7,8,9
V	PLUMBING VENT	SCH 40 PVC - DWV	INTERIOR - ABOVE GRADE	NONE	SCH 40 PVC - DWV	7,8
NOTES: 1. INSULATION SIZING PER 2021 IECC TABLE C403.11.3 (40°F - 60°F) – PIPE < 1" = 0.5" INSUL., PIPE 1" TO < 1.5" = 0.5" INSUL., PIPE 1.5" TO < 4" = 1.0" INSUL. 2. INSULATION SIZING PER 2021 IECC TABLE C403.11.3 (105°F - 140°F) – PIPE < 1" = 1" INSUL., PIPE 1" TO < 1.5" = 1" INSUL., PIPE 1.5" TO < 4" = 1.5" INSUL. 3. INSULATION SIZING PER 2021 IECC TABLE C403.11.3 (141°F - 200°F) – PIPE < 1" = 1.5" INSUL., PIPE 1" TO < 1.5" = 1.5" INSUL., PIPE 1.5" TO < 4" = 2" INSUL. 4. GLASS FIBER, NON-COMBUSTIBLE, PREFORMED FOR TUBE INSTALLATION, ANSI/ASTM C547, CLASS 1, K VALUE OF 0.23 AT 75°F. 5. ALL VALVES SHALL BE LEAD FREE. 6. PRIOR ENGINEER APPROVED COPPER PRESS FITTINGS CAN BE USED AT CONTRACTORS OPTION. 7. SANITARY DRAINAGE SLOPE: 2" AND SMALLER = 1/4" PER 1'-0" (2%), 3" AND LARGER 1/8" PER 1'-0" (1%). 8. SOLVENT WELD ON ALL INTERIOR PVC PIPING. 9. IF SCHEDULE 40 PVC DWV IS NOT ALLOWED BY LOCAL AUTHORITIES, CONTRACTOR SHALL USE CAST IRON PIPE BELOW GRADE. 10. HANGING AND BRACING OF PIPING SHALL BE INSTALLED IN ACCORDNACE WITH THE CURRENT CODE REQUIREMENTS AND INDUSTRY BEST PRACTICES.						

TO BUILDING HOT WATER SYSTEM

TPV

TO DRAIN

TO BUILDING HOT WATER SYSTEM

DOMESTIC HOT WATER SYSTEM EXPANSION TANK

DOMESTIC WATER HEATER

FROM BUILDING HOT WATER CIRCULATING SYSTEM

DOMESTIC HOT WATER CIRCULATING PUMP

COLD WATER SERVICE TO HOT WATER SYSTEM

FOR CONTINUATION SEE PLANS (PROVIDE INSULATION ON THE HW PIPING. SEE NOTES)

CONTRACTOR SHALL ENSURE THAT HEAT TRAPS ARE INSTALLED ON WATER HEATER.

CW PIPING

SHUT-OFF VALVE (TYP.)

DIELECTRIC UNION (TYP.)

SEISMIC STRAPS (TYP.)

NOTE: WATER HEATER SHALL BE ANCHORED OR STRAPPED IN THE UPPER THIRD TO RESIST A HORIZONTAL FORCE EQUAL TO ONE-THIRD OF THE OPERATING WIGHT.

DESIGN STANDARDS: WATTS TSE-75 (FOR UP TO 75 GALLON) WATTS TSE-120 (FOR UP TO 120 GALLON) HOLIDRITE HR-85-360 (FOR UP TO 90 GALLON)

TANK DRAIN WITH HOSE END

1-1/2" DRAIN TO SERVICE SINK (PROJECTS LOCATED IN UTAH) (3/4" FOR OTHER LOCATIONS)

16 GA. GALV. SHEET METAL PAN WITH WELDED SEAMS, 4" DEEP

WATER HEATER

PRESSURE RELIEF VALVE WITH FULL SIZE DRAIN TO INDIRECT DRAIN

NOTES:

1. PROVIDE AND INSTALL 2 SEISMIC STRAPS WITH TENSIONING BUCKLES ANCHORED TO STRUCTURE. INSTALL PER MANUFACTURERS REQUIREMENTS.

2. PROVIDE AND INSTALL PAN W/DRAIN WHERE REQUIRED, OR WHERE LEAK DAMAGE MAY OCCUR. DRAIN LINE SHALL BE 1 1/2" DIAMETER FOR PROJECTS LOCATED IN UTAH, 3/4" DIAMETER FOR OTHER PROJECT LOCATIONS.

3. PROVIDE HEAT TRAPS ON SUPPLY AND DISCHARGE PIPES.

FILE NAME: P.01.01

SCALE: NONE

DOMESTIC HOT WATER PIPING DETAIL

PIPE INSULATION VAPOR BARRIER JACKET, CONTINUOUS

OVERSIZE HANGER

360° FOAM GLASS OR POLY ISO INSULATION

PIPE INSULATION

PIPE

VAPOR BARRIER TAPE

GALVANIZED STEEL PIPE SHIELD

12" MIN

NOTE: SEE SPECIFICATION FOR APPLICABLE PIPE SIZED AND SERVICES

FILE NAME: P.02.03

SCALE: NONE

HANGER SUPPORT WITH INSERT

GROUND SURFACE (CONCRETE ASPHALT ETC.)

12" MINIMUM (WIDTH AS REQUIRED)

METALLIC MARKER

8" MINIMUM SAND BED ABOVE AND BELOW BURIED PIPE

TRENCH

ELEVATIONS WITH ALL OTHER TRADES. VERIFY ACTUAL INVERT.

FILE NAME: P.02.09

SCALE: NONE

BURIED PIPE

FASTEN TO DECKING OR STRUCTURE

FLOOR DECK AND FRAMING

OPTION A

TYPICAL TEE TO UNITS

RISER FROM FLOOR TO FLOOR

FLOOR FRAMING

34" WIDE GALVANIZED STEEL STRAPPING, 0.025" MINIMUM THICKNESS

FASTEN TO DECKING OR STRUCTURE

OPTION B

34" WIDE GALVANIZED STEEL STRAPPING, 0.025" MINIMUM THICKNESS

FLOOR DECK AND FRAMING

FILE NAME: P.02.10

SCALE: NONE

TYPICAL PLUMBING SUPPORT



Architecture

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

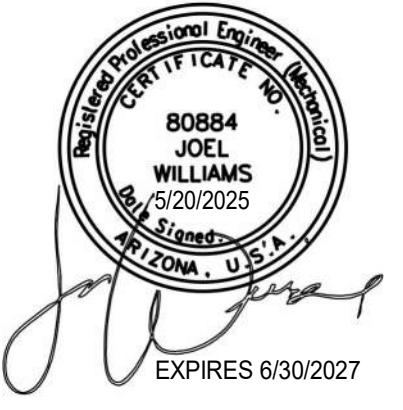
7927 So. Highpoint Parkway, Suite 300
Sandys, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkae.com

The designs shown and described herein including all technical drawings, graphic representation & model thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

B&D ENGINEERING
BRUNNER AND DALLON
MECHANICAL | PLUMBING | CONTROLS

8715 S 700 E, SUITE 201
SANDY, UT 84071
801-685-8081
25-075-00



LAKE HAVASU CATALYST - TOILET ROOMS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO. 25.019
DATE: 19 JUNE 2025

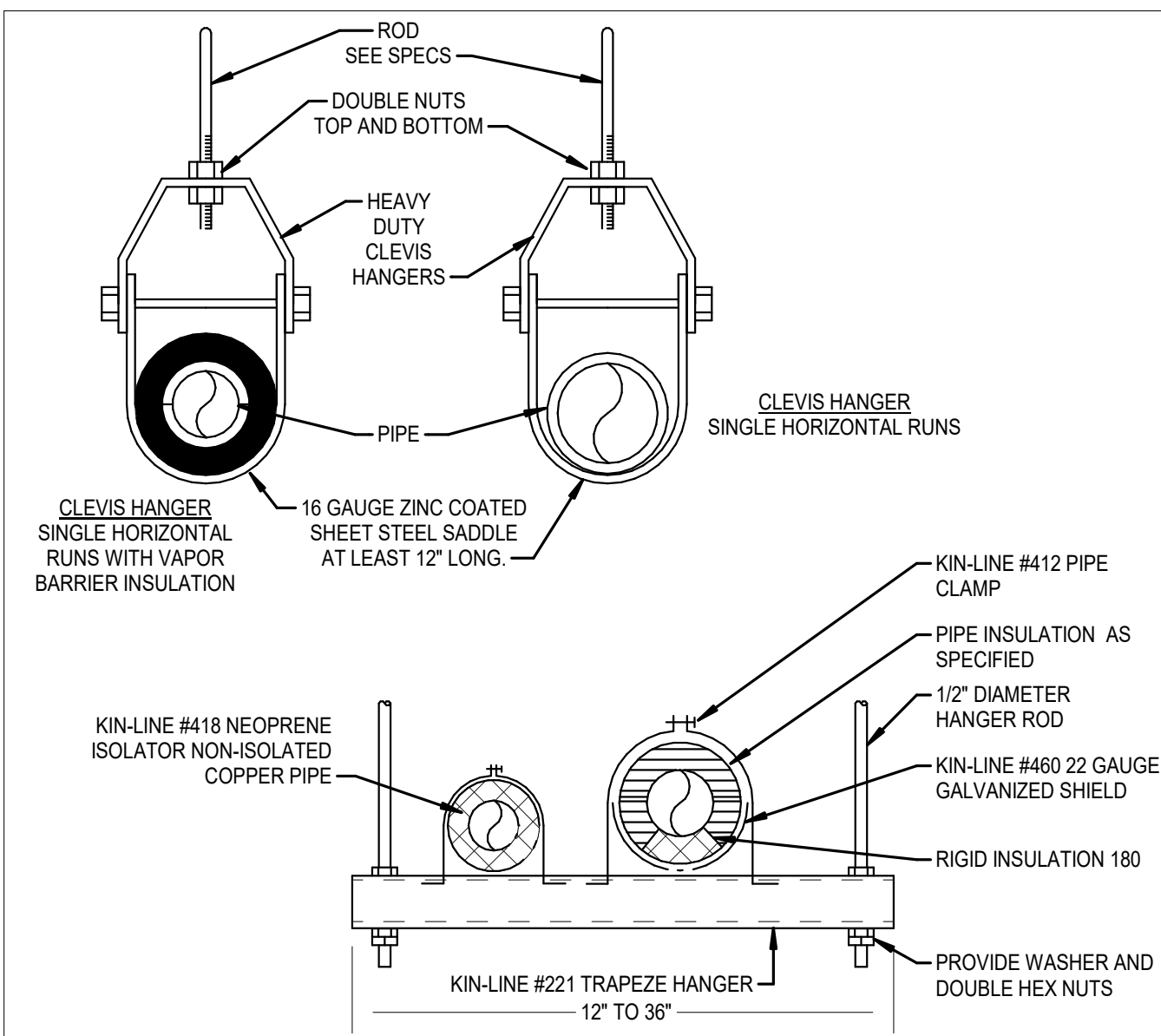
REVISIONS:

SHEET TITLE:
PLUMBING SCHEDULES
& DETAILS

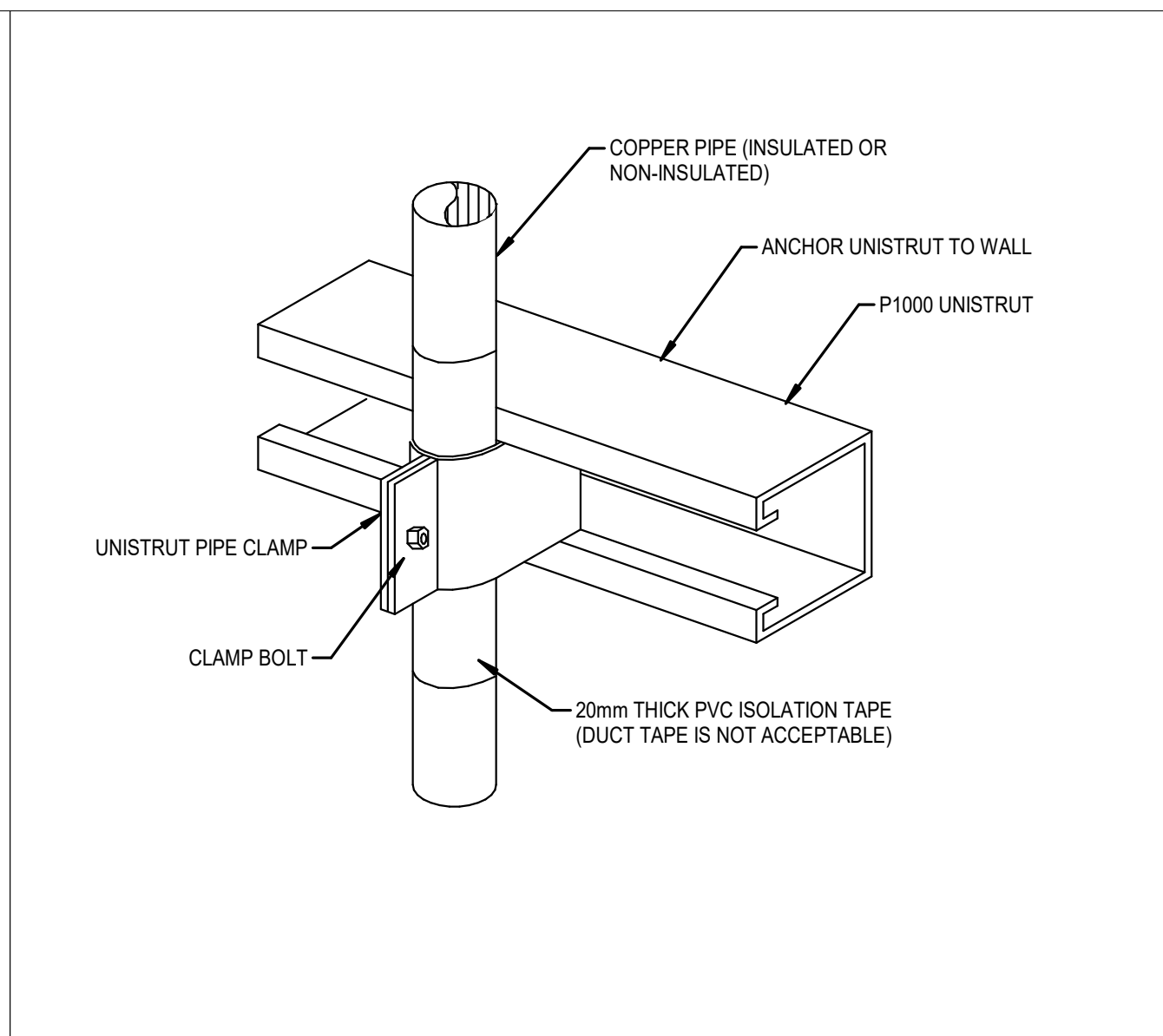
SHEET NUMBER:

P5.1

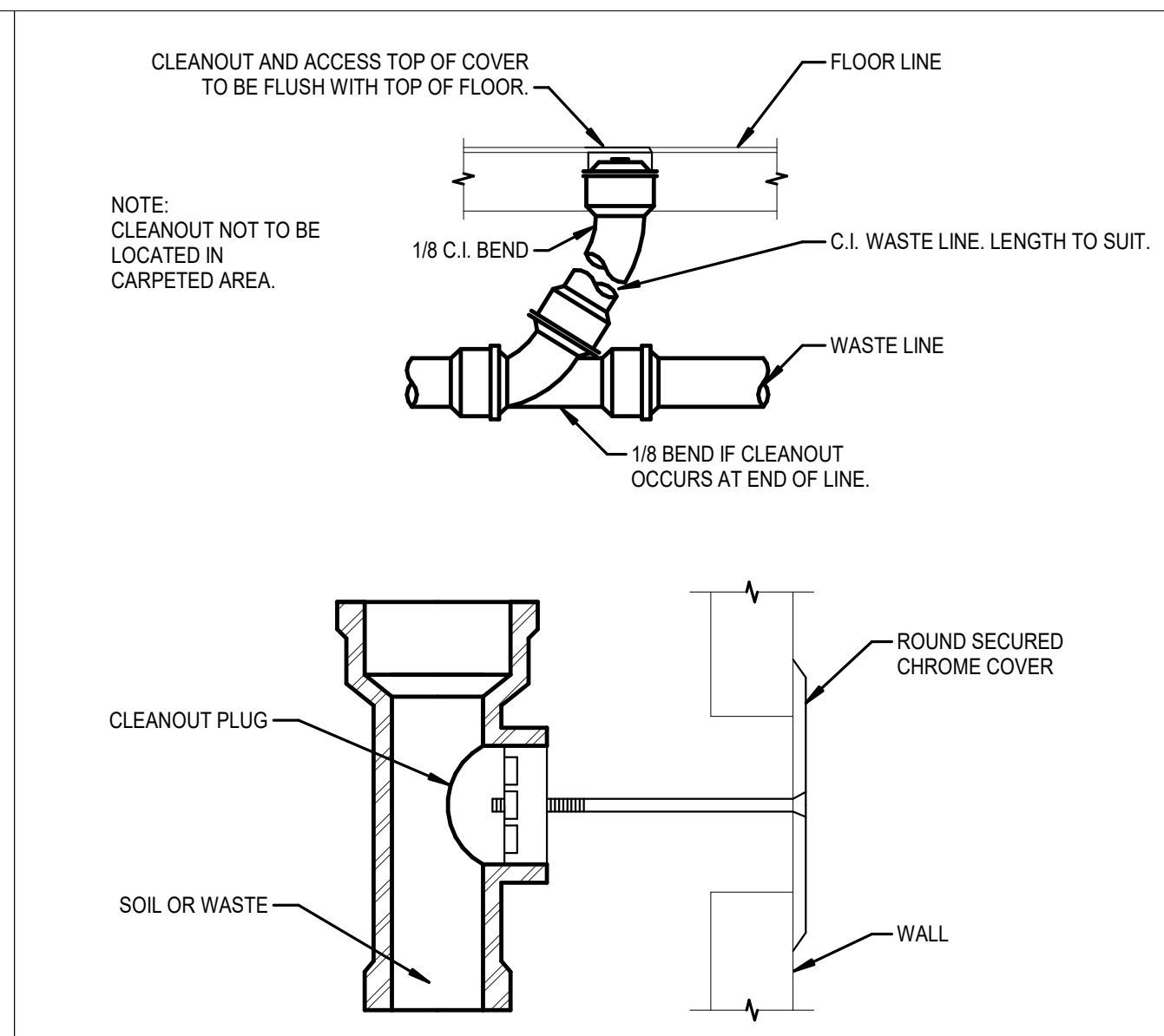
© 2022 THINK ARCHITECTURE INC.



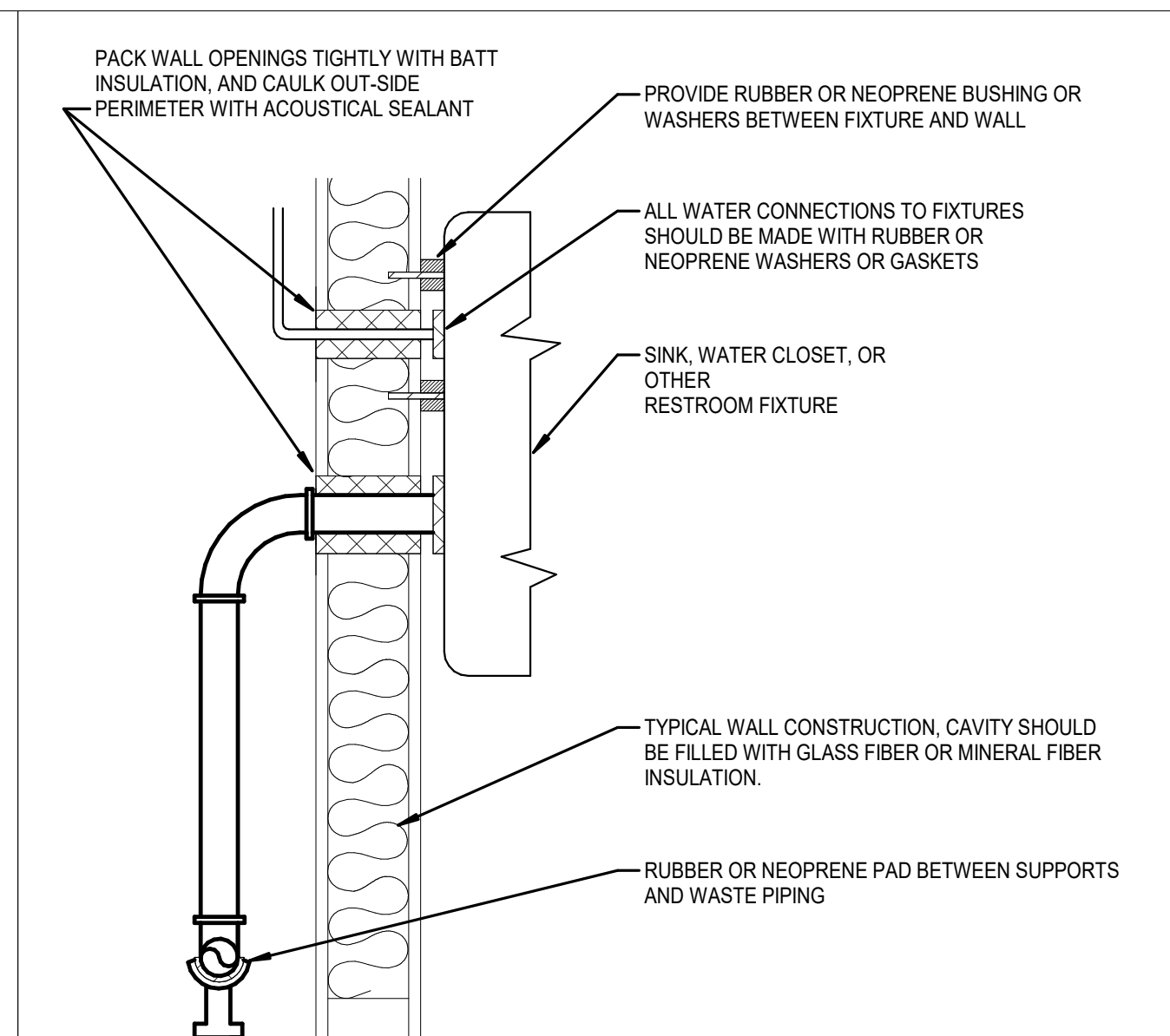
FILE NAME: P.02.11
SCALE: NONE
PIPE HANGERS



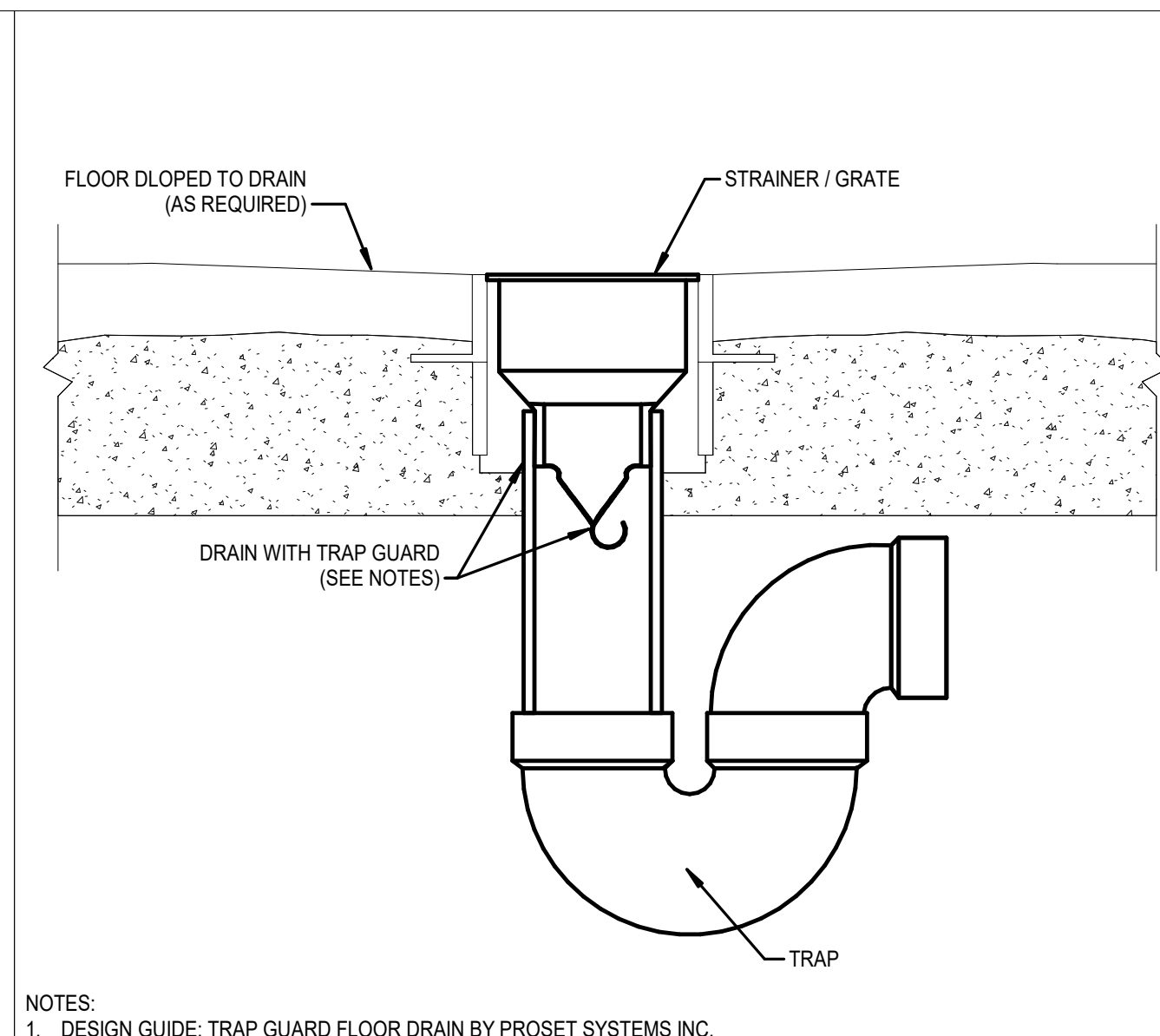
FILE NAME: P.02.12
SCALE: NONE
PIPE HANGERS



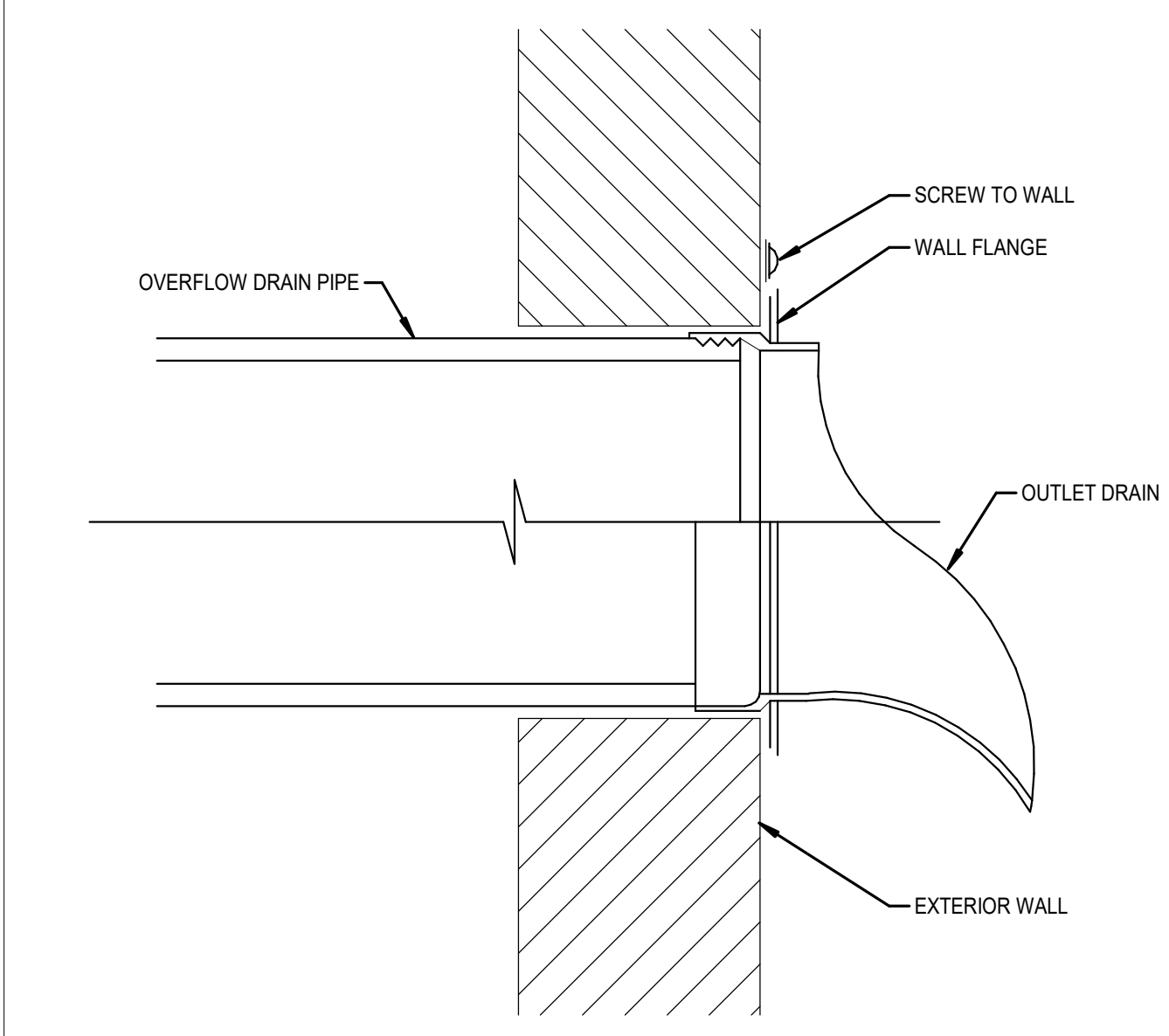
FILE NAME: P.03.03
SCALE: NONE
TYPICAL FLOOR AND WALL CLEANOUTS



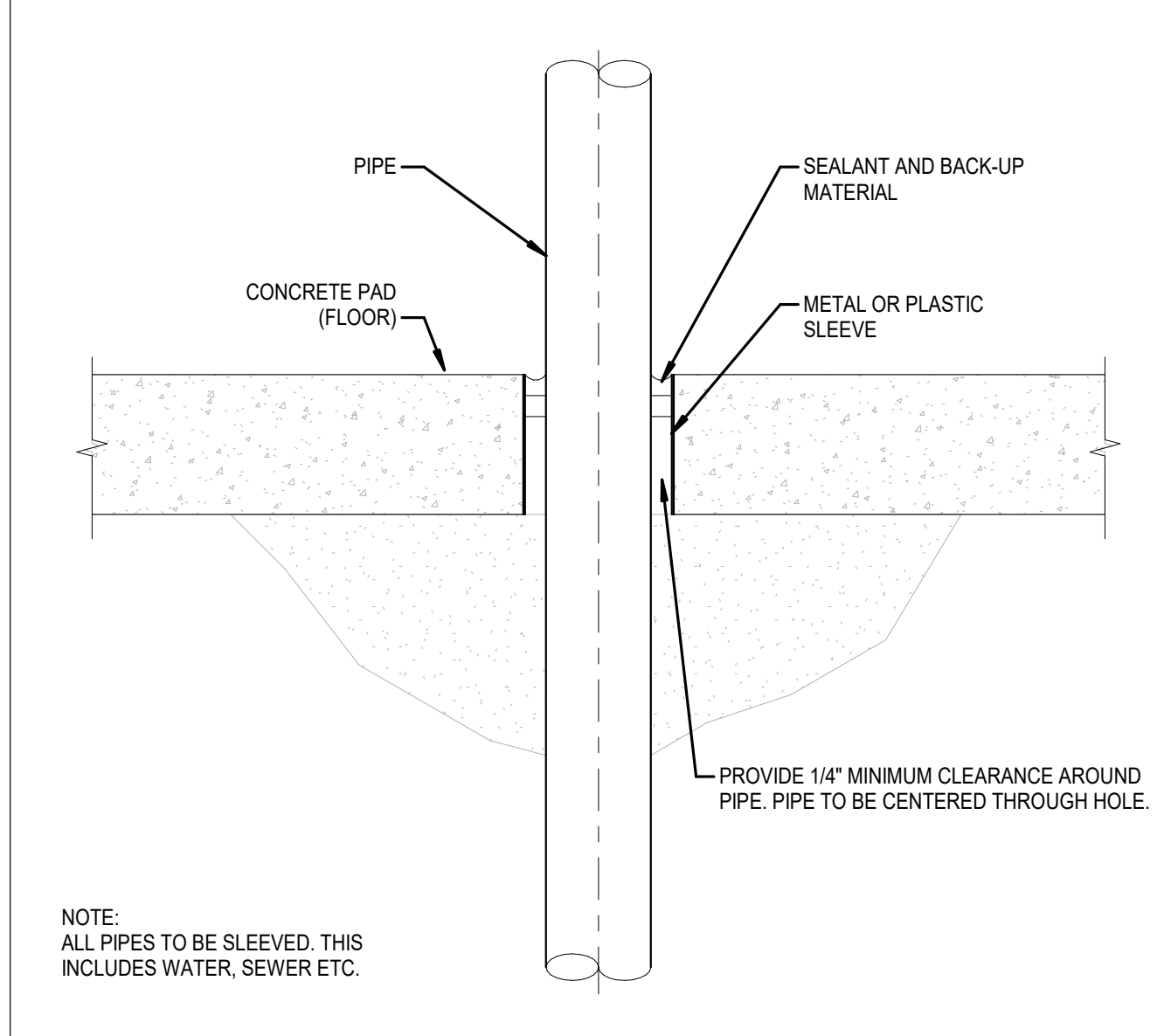
FILE NAME: P.03.04
SCALE: NONE
ISOLATION OF RESTROOM FIXTURES



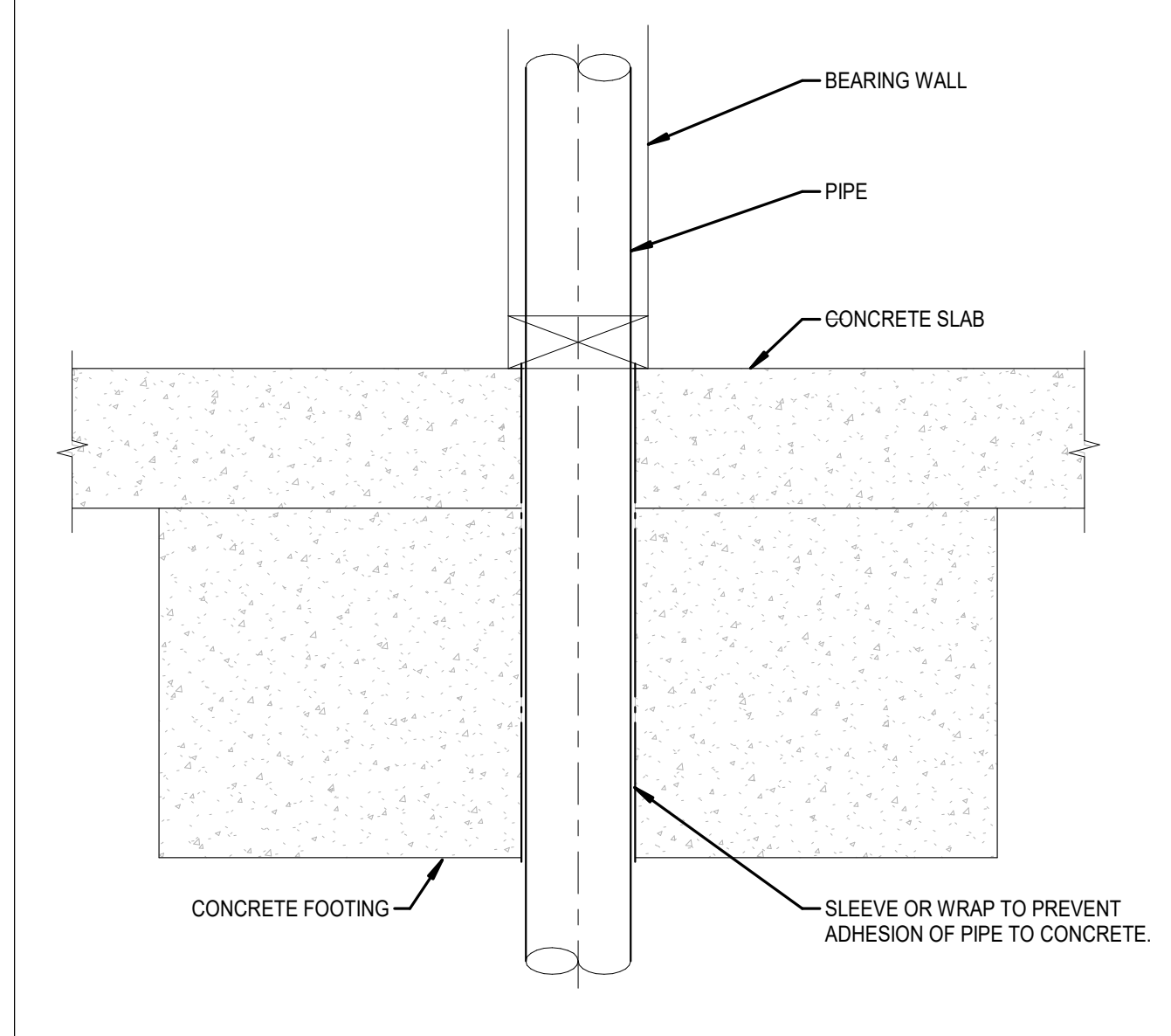
FILE NAME: P.04.03
SCALE: NONE
FLOOR DRAIN WITH TRAP GUARD IN CONCRETE FLOOR



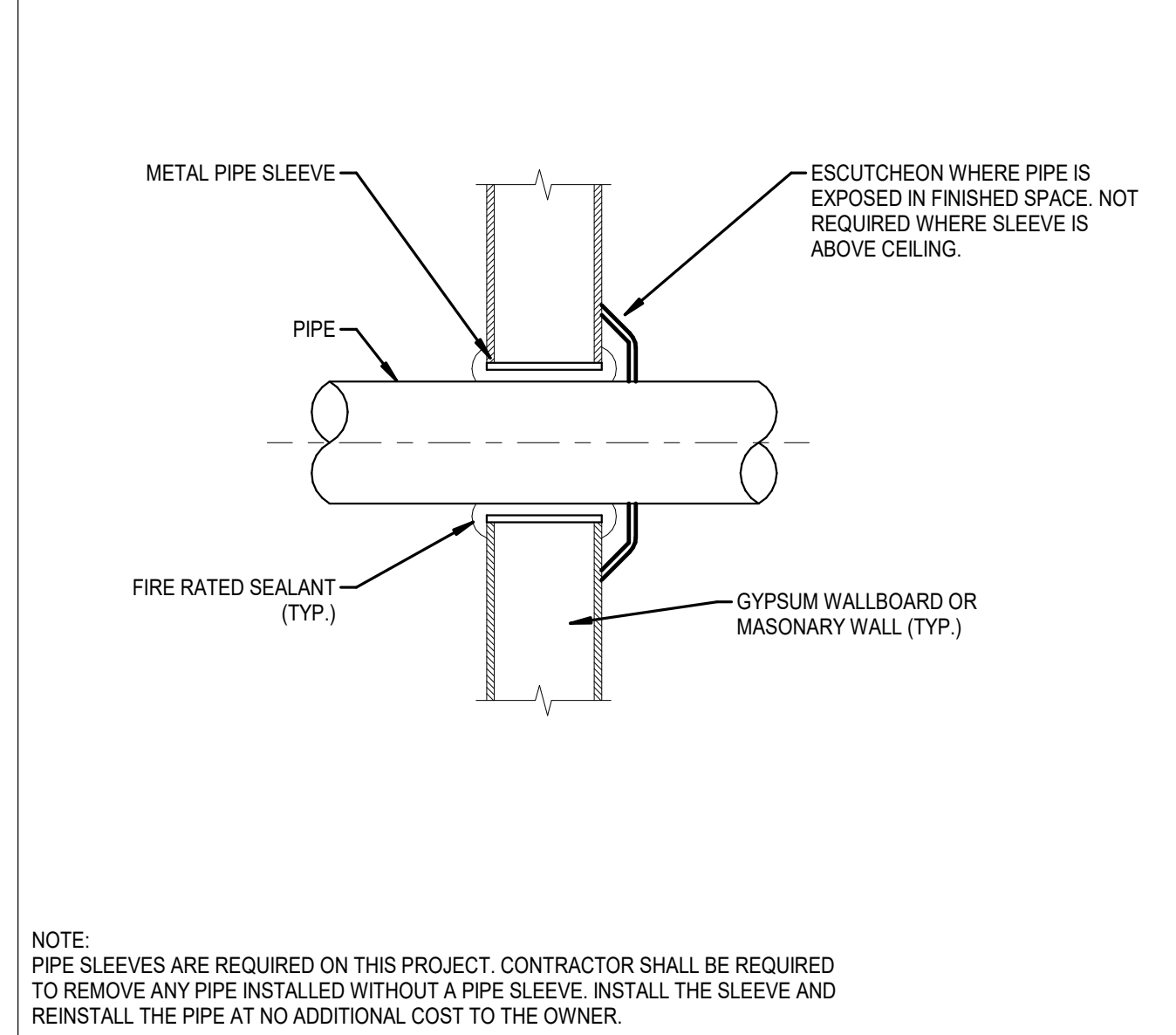
FILE NAME: P.04.15
SCALE: NONE
DOWNSPOUT NOZZLE DETAIL



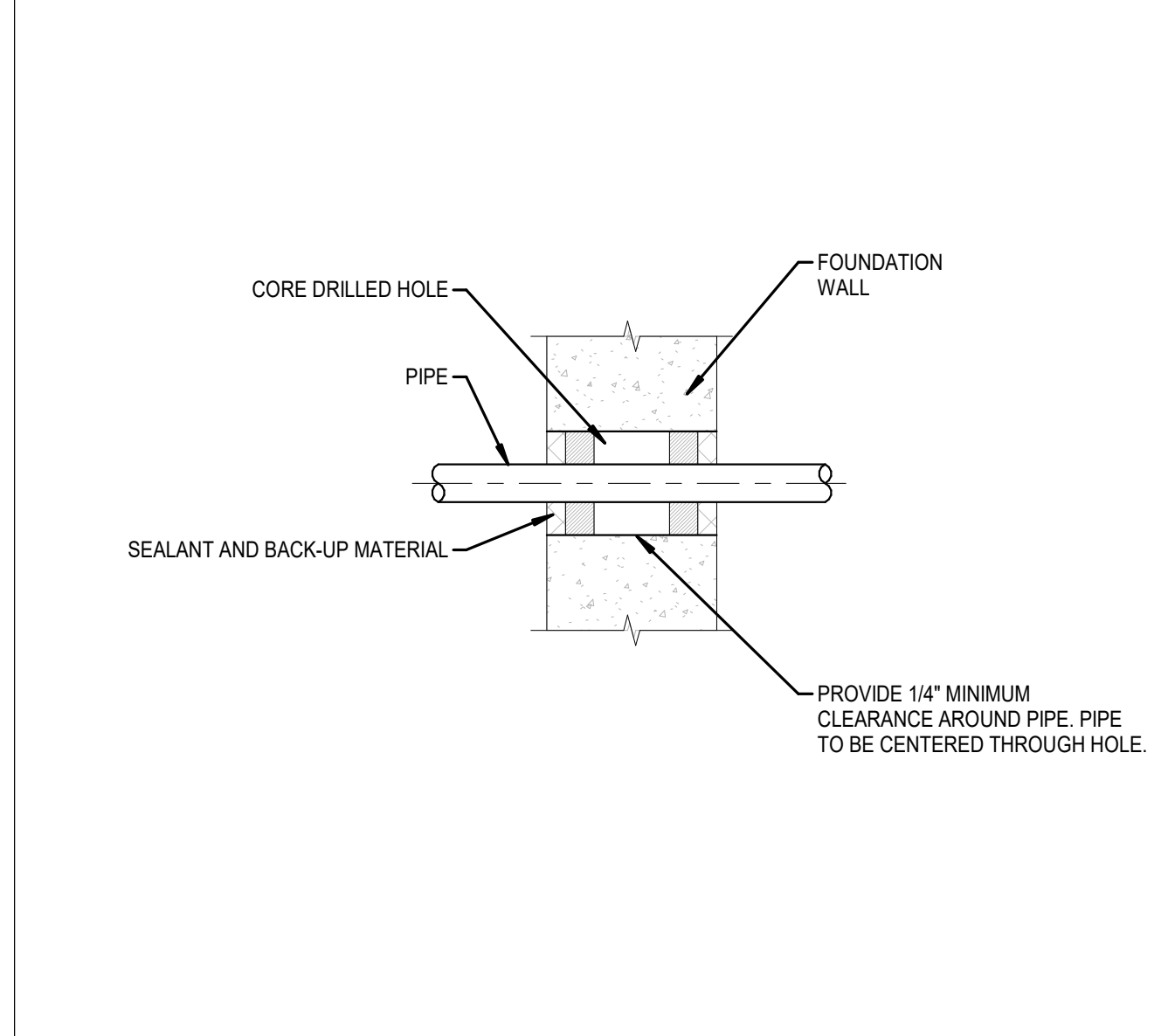
FILE NAME: P.05.01
SCALE: NONE
PIPE THROUGH GRADE ON FLOOR



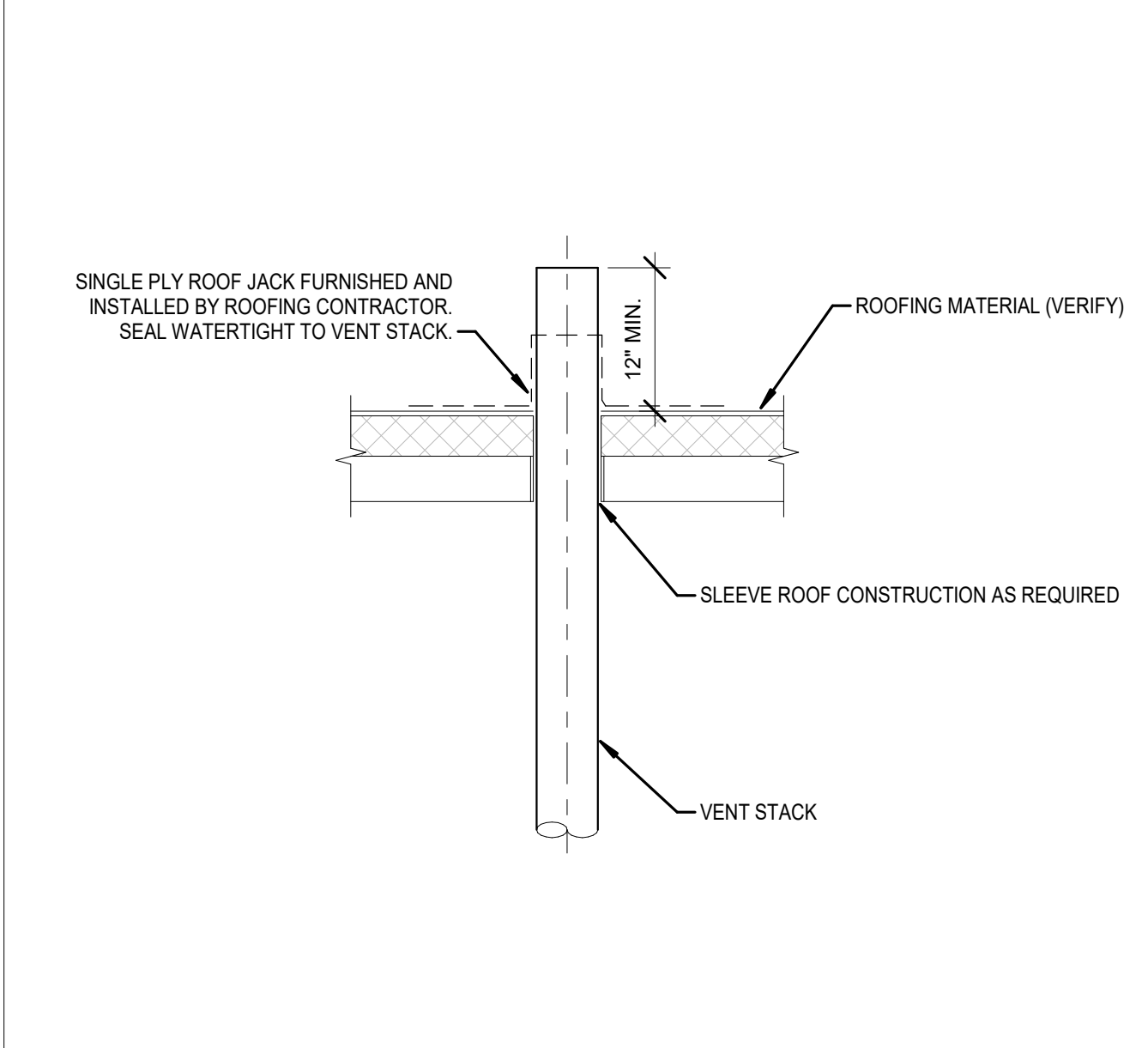
FILE NAME: P.05.02
SCALE: NONE
PIPE THROUGH FOOTING / SLAB



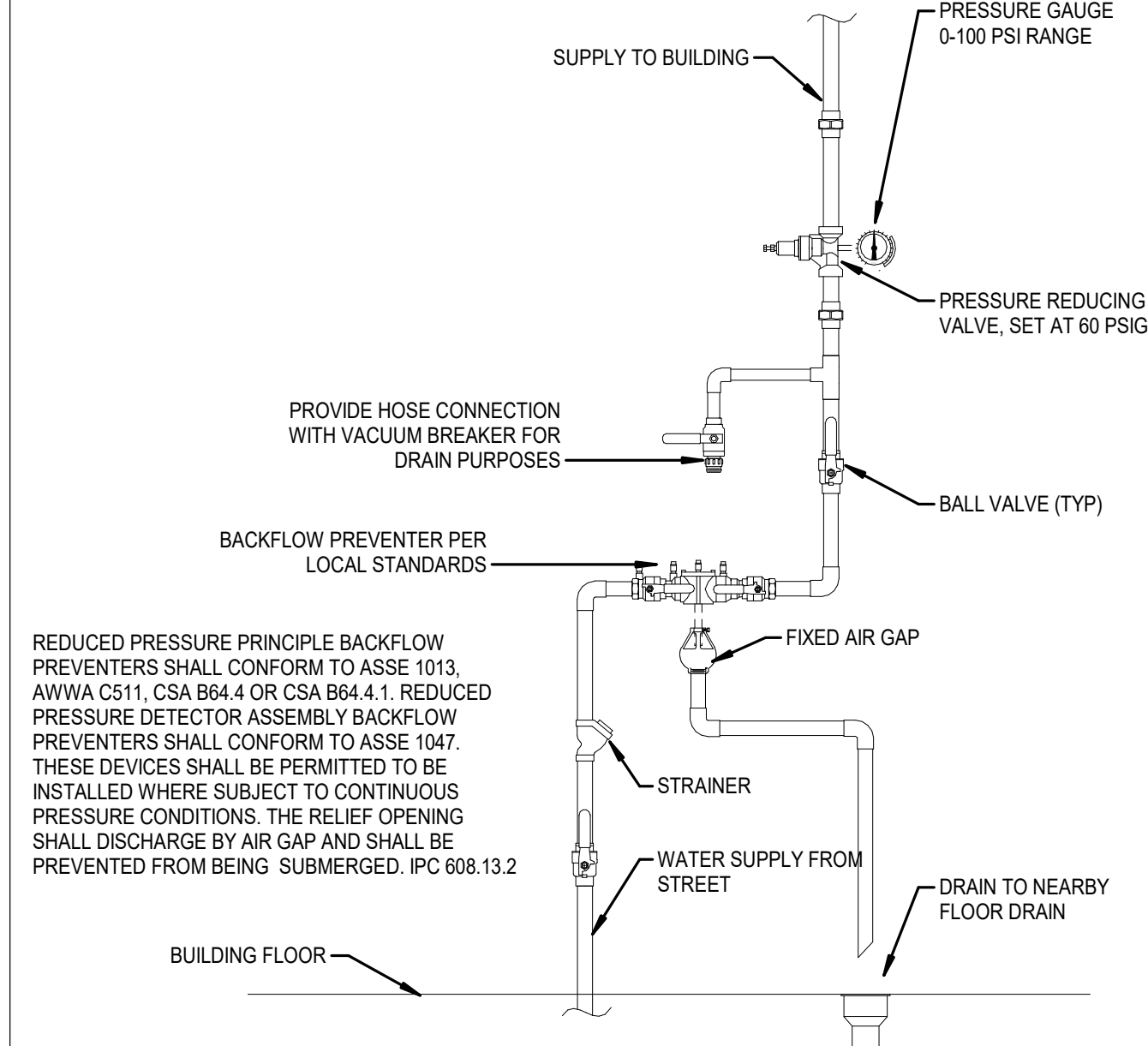
FILE NAME: P.05.03
SCALE: NONE
PIPING THROUGH GYPSUM WALL



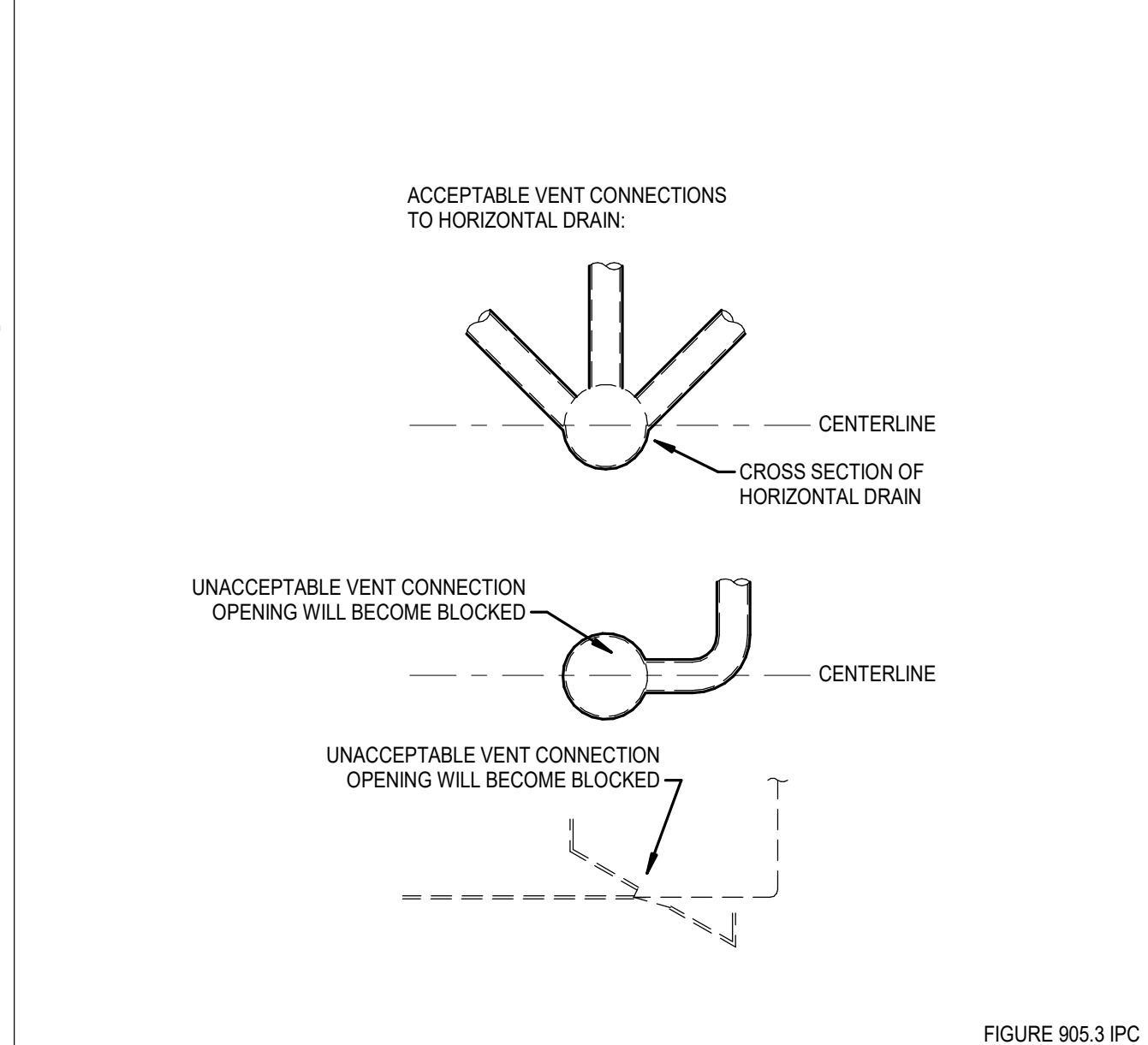
FILE NAME: P.05.04
SCALE: NONE
PIPE THROUGH WALL - BELOW GRADE



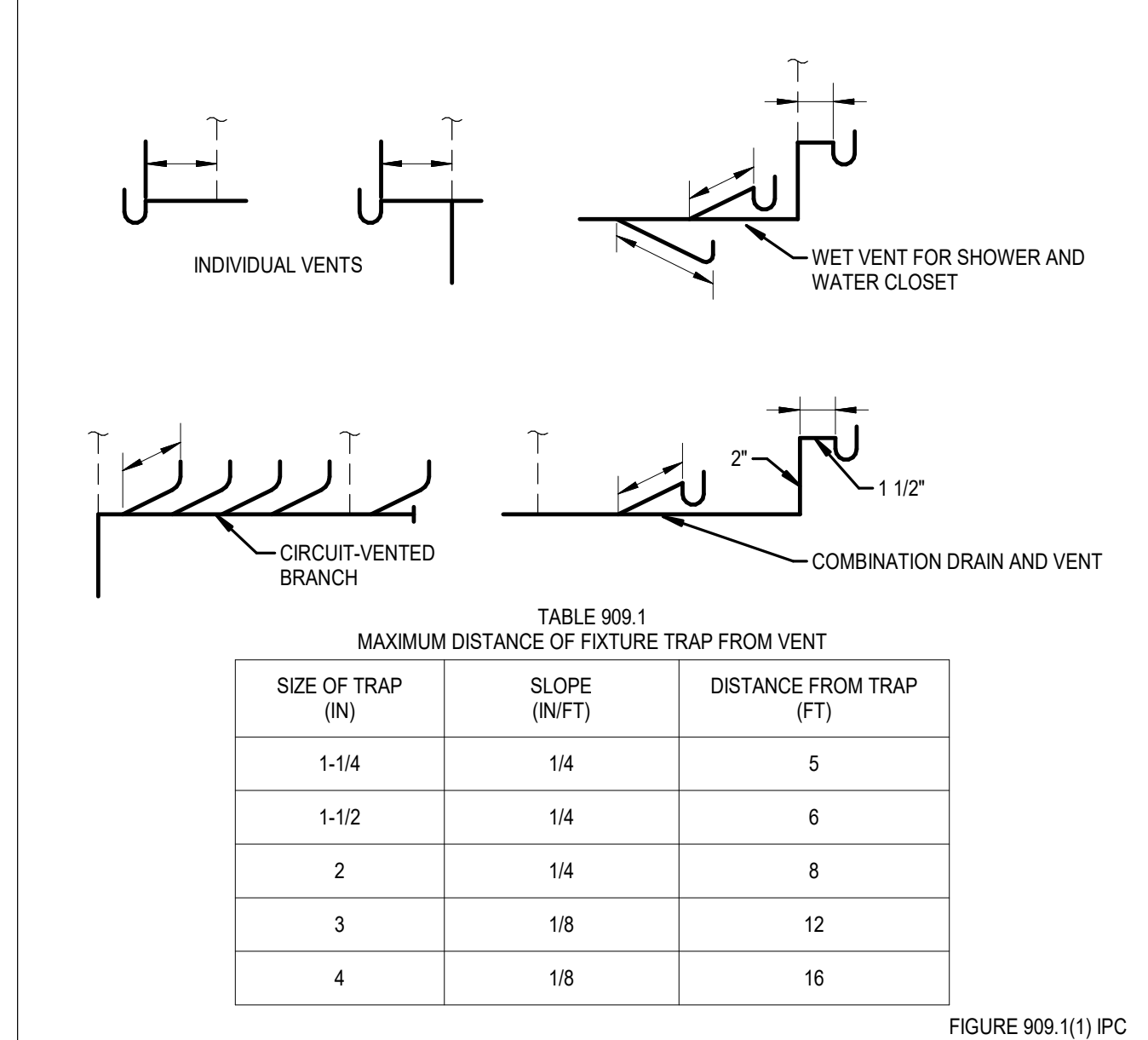
FILE NAME: P.05.06
SCALE: NONE
TYPICAL VENT THROUGH FLAT ROOF



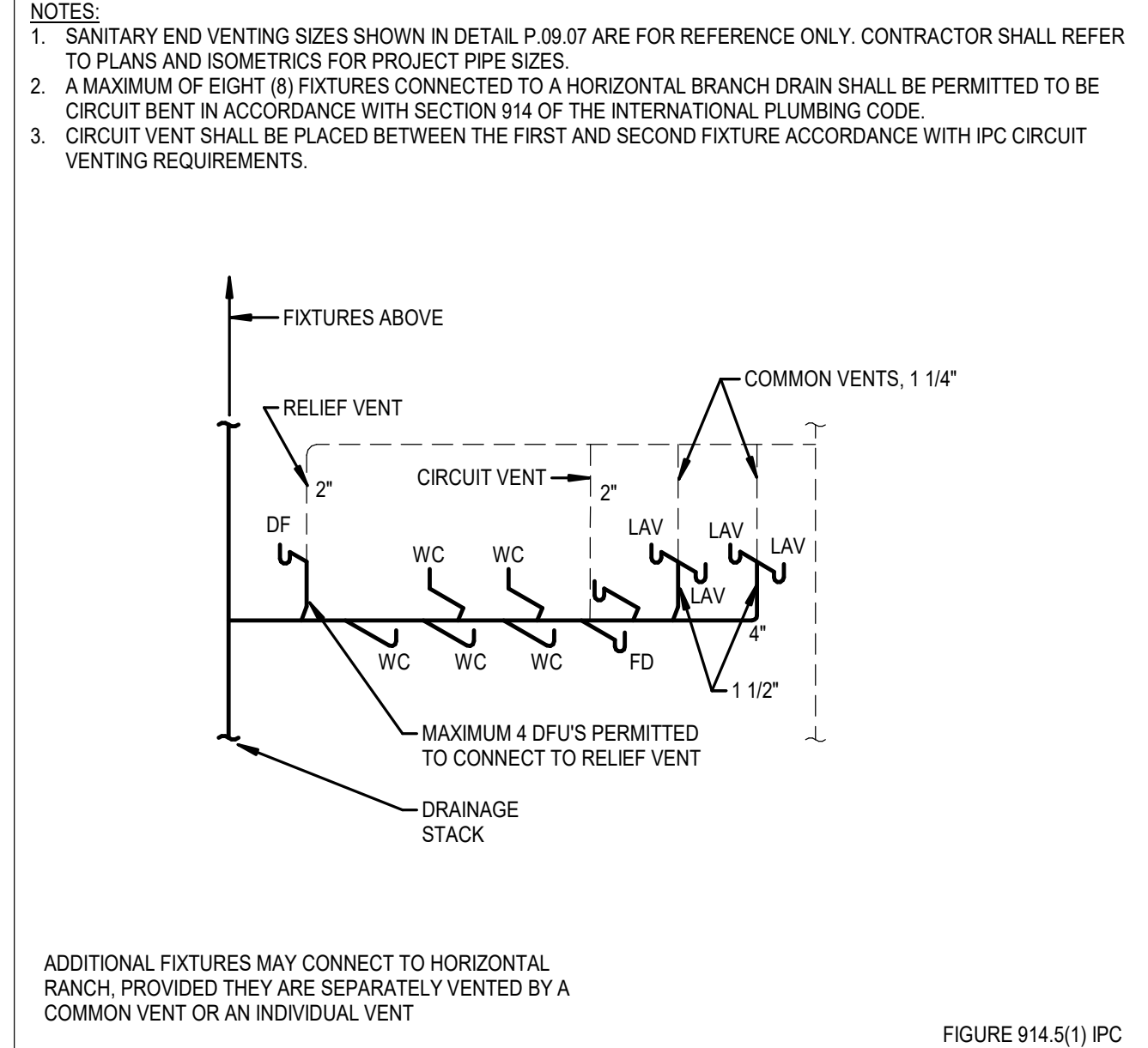
FILE NAME: P.06.06
SCALE: NONE
WATER PRESSURE REDUCING STATION



FILE NAME: P.09.02
SCALE: NONE
IPC VENT CONNECTIONS ACCEPTED / UNACCEPTED



FILE NAME: P.09.04
SCALE: NONE
DISTANCE FROM TRAP TO VENT



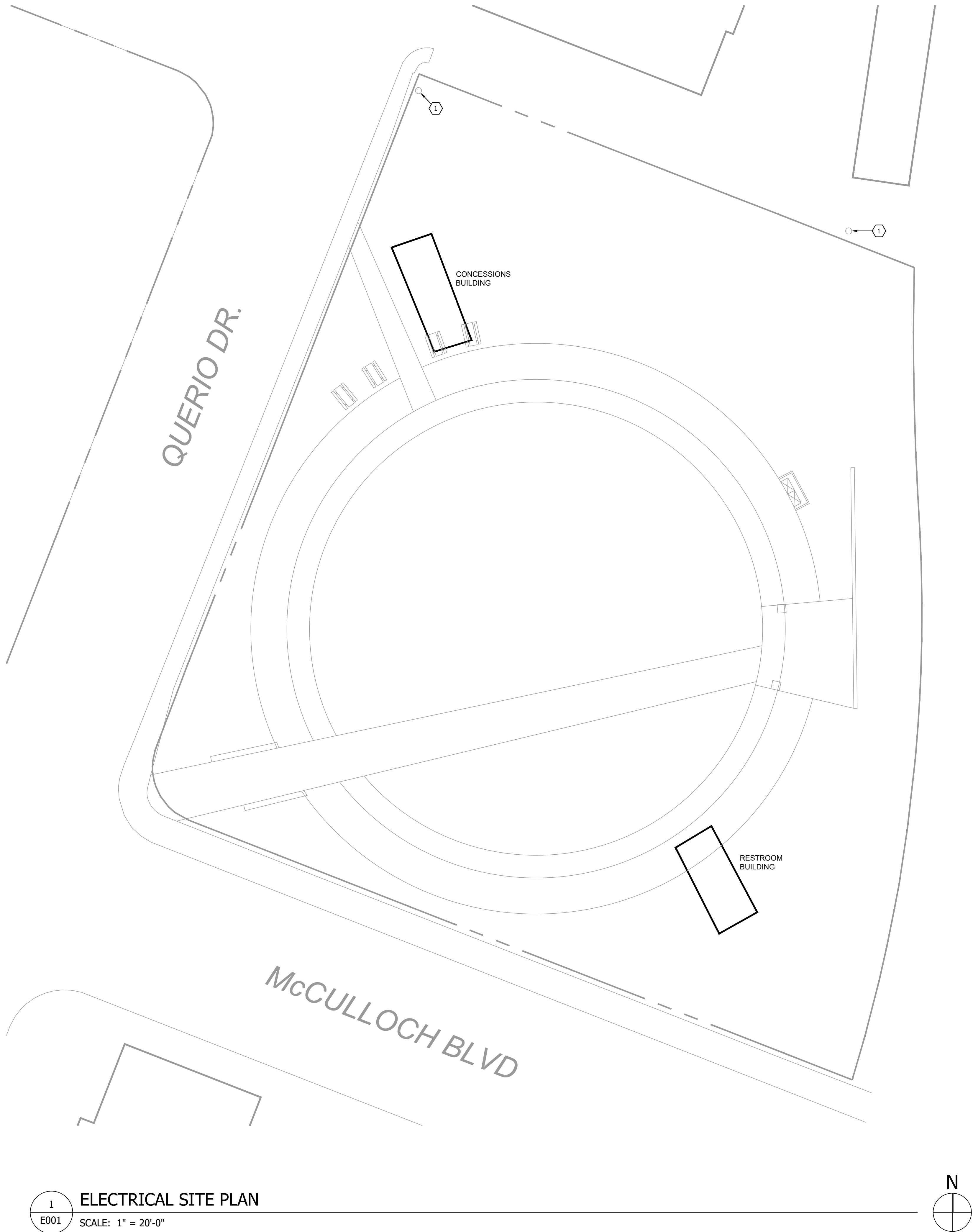
FILE NAME: P.09.08
SCALE: NONE
CIRCUIT-VENTED BRANCH WITH ADDITIONAL FIXTURE CONNECTIONS

ELECTRICAL GENERAL NOTES	
GENERAL NOTES:	
1. THE ELECTRICAL SYSTEMS DEFINED BY THESE PLANS AND THE SPECIFICATIONS ARE TO BE CONSTRUCTED AS COMPLETE AND OPERABLE SYSTEMS AND SHALL BE BID WITH THIS INTENT. THE CONTRACTOR SHALL VISIT THE SITE, READ ALL THE RELEVANT DOCUMENTS, AND BECOME FAMILIAR WITH THE TYPE OF CONSTRUCTION AND WORK TO BE ACCOMPLISHED. SHOULD ANY ERROR, OMISSION, OR CONFLICT EXIST IN EITHER THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING BEFORE SUBMITTING THEIR BID PRICE SO A CHANGE CAN BE ISSUED IN A PRE-BID ADDENDUM. OTHERWISE, THE CONTRACTOR AND/OR EQUIPMENT SUPPLIERS SHALL SUPPLY THE PROPER MATERIALS AND LABOR TO INSTALL COMPLETE AND OPERABLE SYSTEMS INCLUSIVE OF THE ORIGINAL BID. WHEN EACH ELECTRICAL SYSTEM IS COMPLETE, THE CONTRACTOR SHALL TEST AND CONFIRM ITS PROPER OPERATION. ANY INCOMPLETE SYSTEM SHALL BE MADE COMPLETE AND OPERABLE PRIOR TO PROJECT CLOSEOUT.	25. WHERE THE PREMISES WIRING SYSTEM HAS BRANCH CIRCUITS SUPPLIED FROM MORE THAN ONE NOMINAL VOLTAGE, EACH UNGROUNDED CONDUCTOR OF A BRANCH CIRCUIT SHALL BE IDENTIFIED BY PHASE OR LINE AND BY SYSTEM VOLTAGE CLASS AT ALL TERMINATION, CONNECTION, AND SPICE POINTS. IDENTIFICATION MEANS SHALL BE POSTED AT EACH BRANCH CIRCUIT PANELBOARD.
ALL CONDUCTORS SHALL BE COLOR-CODED AS FOLLOWS:	
	PHASE 208/120 480/277 PHASE A BLACK BROWN PHASE B RED ORANGE PHASE C BLUE YELLOW NEUTRAL WHITE WHITE GROUND GREEN GREEN
REMODEL NOTES:	
2. THE ARCHITECTURAL AND MECHANICAL PLANS ARE CONSIDERED A PART OF THE ELECTRICAL DOCUMENTS SO FAR AS ANY ELECTRICAL ITEMS THEY MAY CONTAIN. THE ELECTRICAL CONTRACTOR SHALL REFER TO AND COORDINATE WITH THEM. NO EXTRA COST SHALL BE ALLOWED FOR FAILURE TO COORDINATE THE CONTRACT DOCUMENTS WITH OTHER TRADES AND/OR IF EQUIPMENT DIMENSIONS ARE GREATER THAN SPECIFIED AND/OR DIMENSIONED ON THE PLANS.	26. THE EC SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE EXISTING POWER PANELS FROM WHICH NEW CIRCUITS ARE BEING FED. VERIFY EXISTING BRANCH CIRCUIT BREAKERS AND PROVIDE NEW BRANCH CIRCUIT BREAKERS AS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS, AND LABOR FOR THE CONNECTIONS OF ALL EQUIPMENT SHOWN ON THE PLANS - ARCHITECTURAL, MECHANICAL, ETC.	27. THE EC SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE TELECOM ROOM FROM WHICH NEW TELE/DATA OUTLETS WILL BE FED. VERIFY EXISTING PATCH PANEL SPACES AND PROVIDE NEW PATCH PANELS AS NECESSARY TO LAND/TERMINATE NEW TELECOM CABLING.
4. THIS PROJECT IS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MOST RECENT LOCAL, STATE, AND NATIONAL CODES. IF AT ANY TIME DURING OR AFTER CONSTRUCTION SOMETHING IS FOUND TO BE INSTALLED IN VIOLATION OF THESE CODES LISTED ABOVE, IT SHALL BE CORRECTED BY THE CONTRACTOR.	28. THE EC SHALL MAINTAIN ELECTRICAL CONTINUITY TO REMAINING EQUIPMENT WHEN ANY EXISTING ELECTRICAL EQUIPMENT IS REMOVED.
5. WHERE A RACEWAY ENTERS A BUILDING OR STRUCTURE FROM THE OUTSIDE, IT SHALL BE SEALED AS PER NEC 225.27.	29. ALL DEVICES NOT SHOWN ON PLANS ARE EXISTING TO REMAIN IN PLACE AND FUNCTIONAL. IN THE EVENT THAT WIRING TO AN EXISTING DEVICE IS DAMAGED, WIRING MUST BE REPLACED AND DEVICE BROUGHT BACK TO FULL OPERATION.
6. ALL ELECTRICAL EQUIPMENT THAT IS LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD OR FACTORY LABELED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS PER NEC 110.16. THE LABEL SHALL ALSO CONTAIN THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED AS PER NEC 110.24.	SITE NOTES:
7. EACH DISCONNECTING MEANS SHALL BE LEGIBLY MARKED TO INDICATE ITS PURPOSE AND TO IDENTIFY THE CIRCUIT SOURCE THAT SUPPLIES THE DISCONNECTING MEANS PER NEC 110.22.	
8. ALL EQUIPMENT PROVIDED BY THE EC SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, AND BE PROPERLY INSTALLED FOR THE CONDITIONS AND SPACE THAT EQUIPMENT IS BEING INSTALLED WITHIN.	30. ELECTRICAL CONTRACTOR SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE POWER COMPANY SERVICE TRANSFORMER BEFORE INSTALLING THE PAD, PRIMARY CONDUIT, AND SECONDARY SERVICE LATERAL. PROVIDE LABOR AND CONDUIT, CONDUCTORS, WIRE WAYS, TRANSFORMER LUGS, METER BASES, METER CONDUIT, CONDUCTORS, CONCRETE PAD/VAULT, ETC. AS NEEDED FOR A COMPLETE ELECTRIC SERVICE TO THIS FACILITY.
9. THE EC SHALL INSTALL A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT RUN. CONDUIT SHALL NOT BE USED AS AN EQUIPMENT GROUNDING CONDUCTOR. THE EC SHALL GROUND THE ELECTRICAL SYSTEM IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.	31. THE EC SHALL COORDINATE LOCATION OF TELEPHONE PEDESTAL, ROUTING/SIZE OF TELEPHONE SERVICE CONDUIT, AND THE MAIN TELEPHONE SERVICE BOARD REQUIREMENTS WITH THE TELEPHONE COMPANY PRIOR TO ROUGH-IN. INSTALL A 3/4" CONDUIT WITH (1) #6 BARE COPPER CONDUCTOR FROM TELEPHONE TERMINAL BOARD (TTB) TO THE MAIN BUILDING GROUNDING SYSTEM.
10. CONDUIT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC, NOT INDICATING THE ROUTING REQUIRED. THE EC SHALL ROUTE THE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION AND SHALL COORDINATE WITH DUCTWORK, PIPING, EQUIPMENT, BUILDING STRUCTURE, AND OTHER POTENTIAL OBSTRUCTIONS.	32. UNDERGROUND CONDUIT FOR SITE LIGHTING SHALL BE BURIED 24" B.F.G. AND SHALL HAVE ONE (1) #10 THHN GREEN GROUND CONDUCTOR TO GROUND ALL LUMINAIRES.
11. THE CONTRACTOR SHALL ALLOW THE MOVEMENT, BEFORE ROUGH-IN, OF ANY ELECTRICAL PANEL, DEVICE, LUMINAIRE, ETC. A DISTANCE OF 10 FEET WITHOUT REQUIRING ADDITIONAL COST TO THE PROJECT.	33. PRIOR TO TRENCHING IN ANY AREA, THE CONTRACTOR SHALL COORDINATE WITH COMMUNICATIONS/DATA, CABLE TV, GAS, AND WATER UTILITY PROVIDERS (BLUE STAKES), AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED. IN ADDITION, THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A SUBCONTRACTOR SPECIALIZING IN THE LOCATION OF UNDERGROUND STRUCTURES TO IDENTIFY ANY OBSTACLES IN THE PATH OF TRENCHING PRIOR TO COMMENCING WORK. DAMAGE TO ANY UNDERGROUND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR.
12. THE EC SHALL SECURE ALL CONDUIT TO THE STRUCTURE AS IT IS SET IN PLACE USING INDUSTRY STANDARD METHODS AND PRACTICES. TO ASSURE ALL DEVICES ARE RIGIDLY SET, THE ELECTRICAL CONTRACTOR SHALL SECURE ALL DEVICE BOXES WITH BRACKETS, HANGERS, ETC. DESIGNED FOR THE APPLICATION.	LIGHTING NOTES:
13. MINIMUM SIZE CONDUIT SHALL BE 3/4" UNO. CONDUIT INSTALLED WITHIN THE BUILDING IN DRY LOCATIONS WITHIN WALL, CEILINGS, OR EXPOSED NOT SUBJECT TO PHYSICAL DAMAGE SHALL BE EMT WITH STEEL SET SCREW FITTINGS. IN EXTERIOR LOCATIONS (EXCEPT FOR THE SERVICE ENTRANCE) THE CONDUIT SHALL BE EMT WITH COMPRESSION GLAND TYPE FITTINGS. UNDERGROUND CONDUIT SHALL BE PVC (SCH. 40) WITH GRG ELBOWS AND RISERS WRAPPED IN CORROSION RESISTANT MATERIALS WHERE IN DIRECT CONTACT WITH THE SOIL.	
14. FLEXIBLE CONDUIT SHALL BE LIMITED TO CONNECTIONS TO LIGHT FIXTURES AND FINAL CONNECTIONS TO MOTORS OR OTHER EQUIPMENT SUBJECT TO VIBRATION. LENGTHS OF FLEXIBLE OR SEAL-TITE CONDUIT SHALL NOT BE GREATER THAN 72 INCHES.	34. ALL BATTERY POWERED OR CONTINUOUS BURN LUMINAIRES SHOWN ON THE PLANS, SUCH AS EXIT LIGHTS, NIGHT LIGHTS, OR EMERGENCY LIGHTS, SHALL BE CONNECTED TO THE UN-SWITCHED LEG OF THE LIGHTING CIRCUIT FEEDING THAT AREA.
15. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL EMPTY CONDUITS WITH 200LB RATED NYLON PULL CORD.	35. LUMINAIRES INSTALLED IN THE MECHANICAL ROOM SHALL BE PLACED SO THAT ALL EQUIPMENT IS ADEQUATELY ILLUMINATED AFTER THE MECHANICAL EQUIPMENT IS IN PLACE.
16. BEFORE ANY ELECTRICAL CONDUIT, BOXES, ETC. ARE COVERED (FLOOR, CEILINGS, WALLS, ETC.), THEY SHALL BE APPROVED BY THE INSPECTING OFFICER (INSPECTOR).	36. ALL LUMINAIRES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND NOT THE CEILING GRID OR OTHER NONSTRUCTURAL MEMBERS.
17. WHERE WIRE SIZE IS NOT SHOWN ON THE DRAWINGS FOR 20A, 120VAC BRANCH CIRCUITS, THE CIRCUIT SHALL CONSIST OF 2#12 (CU,THHN) + 1#12 (CU,THHN) GND IN 3/4" EMT CONDUIT. THIS WIRE SIZE SHALL BE INCREASED TO #10 (CU,THHN) FOR BRANCH CIRCUITS WITH OVERALL LENGTHS EXCEEDING 125' TO ACCOMMODATE FOR VOLTAGE DROP. REFER TO EQUIPMENT SCHEDULES, FEEDER SCHEDULES, AND NOTES ON DRAWINGS FOR ALL OTHER BRANCH CIRCUIT AND FEEDER WIRE/CONDUIT SIZING.	37. TO MAINTAIN CONSISTENT LIGHT QUALITY, FOR ANY ONE LAMP TYPE SUPPLIED, LAMPS SHALL BE OF THE SAME MANUFACTURER, SURFACE TEMPERATURE, COLOR RENDERING INDEX, LAMP EFFICACY, LUMEN OUTPUT, AND STARTING CHARACTERISTICS FOR ALL INSTALLED.
18. CONDUCTORS SHALL BE COPPER, 600VAC RATED, TYPE THHN/THWN-2 UNO. CONDUCTORS UP TO #10AWG SHALL BE SOLID AND CONDUCTORS #8AWG OR LARGER SHALL BE STRANDED.	38. LIGHT FIXTURES INSTALLED IN DAMP OR WET LOCATIONS SHALL BE UL LISTED FOR INSTALLATION IN THE PROPER ENVIRONMENT. CARE SHOULD BE TAKEN TO ENSURE THAT DIFFUSERS AND LENSES ARE APPROPRIATE FOR THEIR INSTALLED USE AND PREMATURE DISCOLORATION WILL NOT RESULT DUE TO EXPOSURE TO UV LIGHT, CHEMICALS, OR OTHER CONDITIONS.
19. METAL CLAD CABLING MAY BE USED BETWEEN DEVICES SUCH AS LIGHTING, RECEPTACLES, SWITCHES, ETC. UNLESS OTHERWISE REQUIRED BY THE NEC. HOME RUNS SHALL BE INSTALLED IN CONDUIT. MC CABLE SHALL NOT BE INSTALLED EXPOSED.	39. ELECTRICAL CONTRACTOR SHALL PROVIDE LIGHTING CONTROL SHOP DRAWINGS WITH ELECTRICAL SUBMITTAL FOR REVIEW.
20. EC SHALL CLEAN THE ENTIRE ELECTRICAL SYSTEM AFTER COMPLETION OF THE INSTALLATION. REMOVE ALL FINGER PRINTS, FOREIGN MATTER, PAINT, DIRT, GREASE, AND UNNEEDED LABELS OR STICKERS FROM FIXTURES AND EQUIPMENT. REMOVE ALL RUBBISH AND DEBRIS ACCUMULATED DURING INSTALLATION FROM THE PREMISES.	POWER NOTES:
21. IT IS THE INTENT OF THE CONSTRUCTION DOCUMENTS FOR ALL DEVICES TO BE FLUSH MOUNTED AND CONDUIT/CABLING INSTALLED CONCEALED WITHIN WALLS/CEILINGS. IN AREAS WHERE CONDUIT MUST BE INSTALLED EXPOSED IT SHALL BE COORDINATED WITH THE ARCHITECT AND/OR ENGINEER. ALL EFFORTS SHALL BE MADE TO CONCEAL WIRING METHODS.	
22. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SEALED WITH FIRE STOPPING, IE. 3M BRAND CAULK, PUTTY, STRIP AND SHEET FORMS, DOW CORNING 3-6548 SILICONE RTV FOAM.	40. ALL PANELBOARDS AND SWITCHBOARDS SHALL BE PERMANENTLY MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THEIR POWER ORIGINATES AS PER NEC 408.4B.
23. COORDINATE LOCATION OF WALL MOUNTED DEVICES WITH CABINETRY AND OTHER WALL OBSTRUCTIONS. COORDINATE CEILING MOUNTED DEVICES WITH CEILING OBSTRUCTIONS. ANY DEVICES THAT NEED TO BE RELOCATED MUST BE BROUGHT TO THE ATTENTION OF THE ELECTRICAL ENGINEER PRIOR TO ROUGH-IN FOR NEW LOCATION.	41. ELECTRICAL CONTRACTOR SHALL CONFIRM MINIMUM CODE (NEC) WORKING CLEARANCE BEFORE INSTALLING ANY ELECTRICAL PANELS OR CABINETS AND SHALL MOVE THE PANELS IF REJECTED BY AN INSPECTOR. IF CLEARANCE IS NOT POSSIBLE, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING.
24. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE PLACEMENT OF ALL DEVICES INSTALLED WITHIN THE CEILING SUCH AS LIGHTING, SPEAKERS, FIRE SPRINKLERS, SMOKE/HEAT DETECTORS, ETC. ANY EXISTING DEVICES THAT NEED TO BE RELOCATED IN ORDER TO ACCOMMODATE NEW CONSTRUCTION/REMODEL MUST BE BROUGHT TO THE ATTENTION OF THE ELECTRICAL ENGINEER PRIOR TO ROUGH-IN FOR RESOLUTION AND FURTHER DIRECTION.	42. WIRING DEVICES SHALL HAVE A NYLON COVER PLATE. COLOR SHALL BE COORDINATED WITH ARCHITECT. EXTERIOR OUTLETS SHALL HAVE CAST COVERS WITH FLIP TYPE LIDS UNO.
DATA/TELECOM NOTES:	
ROOF NOTES:	
47. ELECTRICAL CONTRACTOR TO INSTALL A ROOF JACK (BOOT) FOR ALL CONDUIT PENETRATIONS THROUGH THE ROOF. ALL ROOF PENETRATION SEALS SHALL BE IN ACCORDANCE WITH THE ROOF WARRANTY AND BE COMPLETELY SEALED WITH ROOF ADHESIVE. UTILIZE PROPER CLAMPING METHODS TO SEAL BOOT AROUND CONDUIT.	

ELECTRICAL SYMBOL SCHEDULE			
SYMBOL	DESCRIPTION	MOUNTING	NOTES
	LIGHT FIXTURE - SURFACE OR RECESSED	SEE DRAWINGS	1
	EMERGENCY LIGHT FIXTURE - SURFACE OR RECESSED	SEE DRAWINGS	1, 2
	LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1
	EMERGENCY LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1, 2
	LIGHT FIXTURE - WALL MOUNTED	WALL	1
	EMERGENCY LIGHT FIXTURE - WALL MOUNTED	WALL	1, 2
	LIGHT FIXTURE - DOWNLIGHT	CEILING	1
	EMERGENCY LIGHT FIXTURE - DOWNLIGHT	CEILING	1, 2
	LIGHT FIXTURE - WALL WASH DOWNLIGHT	CEILING	1
	LIGHT FIXTURE - CEILING MOUNTED	CEILING	1
	LIGHT FIXTURE - PENDANT / CHANDELIER	CEILING	1
	LIGHT FIXTURE - WALL BRACKET	WALL	1
	EMERGENCY LIGHT FIXTURE - WALL BRACKET	WALL	1, 2
	TRACK LIGHTING	SURFACE	1
	EXIT SIGN - WALL MOUNT	WALL	1, 2, 3
	EXIT SIGN - CEILING MOUNT	CEILING	1, 2, 3
	EXIT SIGN W/ EMERGENCY HEADS - WALL MOUNT	WALL	1, 2, 3
	EXIT SIGN W/ EMERGENCY HEADS - CEILING MOUNT	CEILING	1, 2, 3
	DUAL HEAD EMERGENCY LIGHT FIXTURE	WALL	1, 2
	POLE LIGHT FIXTURE	POLE	1
	STEP LIGHT FIXTURE	WALL	1
	LIGHT BOLLARD	SURFACE	1
	GROUND MOUNTED / IN-GRADE LIGHT FIXTURE	GROUND	1
	OCCUPANCY / VACANCY SENSOR - CEILING MOUNT	CEILING	1
	TIME CLOCK - 7 DAY	60"	
	PHOTO-ELECTRIC CELL WITH RELAY	SURFACE	1
	CURRENT LIMITING DEVICE	SURFACE	1
	WALL OCCUPANCY / VACANCY SENSOR SWITCH	48" TO TOP	
	SINGLE POLE SWITCH	48" TO TOP	
	THREE WAY SWITCH	48" TO TOP	
	FOUR WAY SWITCH	48" TO TOP	
	DIMMER SWITCH	48" TO TOP	
	LOW VOLTAGE SWITCH	48" TO TOP	
	TIMER SWITCH - 30 MINUTE	48" TO TOP	
	PILOT LIGHT SWITCH	48" TO TOP	
	THERMAL OVERLOAD SWITCH	48" TO TOP	
	2-POLE SWITCH	48" TO TOP	
	SINGLE POLE KEYED SWITCH	48" TO TOP	
	DUPLEX OUTLET, 20A, 120VAC	18" UNO	
	DUPLEX OUTLET, 20A, 120VAC - GFCI	18" UNO	
	DUPLEX OUTLET - SPLIT WIRED	18" UNO	
	DUPLEX OUTLET - ISOLATED GROUND	18" UNO	
	DUPLEX OUTLET WITH USB-A & USB-C PORTS	18" UNO	
	DUPLEX OUTLET - OCCUPANCY SENSOR CONTROLLED	18" UNO	
	DUPLEX OUTLET, 20A, 120VAC - CEILING	CEILING	
	DUPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR	
	FOURPLEX OUTLET, 20A, 120VAC	18" UNO	
	FOURPLEX OUTLET, 20A, 120VAC - GFCI	18" UNO	
	FOURPLEX OUTLET - ISOLATED GROUND	18" UNO	
	FOURPLEX OUTLET, 20A, 120VAC - CEILING	CEILING	
	FOURPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR	
	APPLIANCE OUTLET - 208/240V SINGLE PHASE	18" UNO	
	APPLIANCE OUTLET - 208/480V 3-PHASE	18" UNO	
	SINGLE/SIMPLEX OUTLET, 20A, 120VAC	18" UNO	
	MULTI-OUTLET METAL SURFACE RACEWAY	44" UNO	7
	DATA OUTLET	18" UNO	
	TELEPHONE OUTLET	18" UNO	
	DUAL TELEPHONE/DATA OUTLET	18" UNO	
	DATA OUTLET - FLOOR	FLOOR	
	DUAL TELEPHONE/DATA OUTLET - FLOOR	FLOOR	
	CEILING DATA OUTLET/ WIRELESS ACCESS POINT	CEILING	
	CABLE TELEVISION OUTLET	18" UNO	

	JUNCTION BOX	SURFACE	
	WALL JUNCTION BOX	1" - 6" UNO	
	FLOOR JUNCTION BOX	FLOOR	
	DISCONNECT SWITCH - NON-FUSED	5" - 0" UNO	4
	DISCONNECT SWITCH - FUSED	5" - 0" UNO	4
	DISCONNECT SWITCH - SHUNT TRIP	5" - 0" UNO	4
	COMBINATION MAGNETIC STARTER/DISCONNECT	5" - 0" UNO	
	MOTOR STARTER	5" - 0" UNO	
	CONTACTOR	5" - 0" UNO	
	MOTOR	SURFACE	
	METER - PLAN VIEW	WALL	
	PUSH BUTTON SWITCH	4" - 0"	
	EMERGENCY POWER SHUTOFF SWITCH	4" - 0"	
	PANELBOARD - SURFACE MOUNTED	6" - 6" TO TOP	
	PANELBOARD - RECESSED	6" - 6" TO TOP	
	TRANSFORMER - PLAN VIEW	PAD/FLOOR	
	TELEPHONE TERMINAL BOARD	WALL	
	CIRCUIT BREAKER	METER - ONE-LINE	
	MLO PANEL - ONE-LINE	TRANSFORMER - ONE-LINE	
	MCB PANEL - ONE-LINE	PAD MOUNT XFMR - ONE-LINE	
	AUTOMATIC TRANSFER SWITCH	GROUND SLEEVE - ONE-LINE	
	CT ENCLOSURE - ONE-LINE	FUSED DISCONNECT - ONE-LINE	
	CURRENT TRANSFORMER	FUSED SWITCH	
	OH RISER	GROUND	
	KEYED NOTE TAG	CABLE/WIRE SIZE TAG	
	MECH/ELEC. EQUIPMENT TAG	DETAIL/VIEW NUMBER	
	OTHER EQUIPMENT TAG	DETAIL/VIEW REFERENCE TAG	
		SHEET NUMBER	
	WIRING / CONDUIT	UNDERGROUND/FLOOR WIRING	
	CONDUIT TURNED UP	CONDUIT TURNED DOWN	
NOTES			
1. SEE LIGHT FIXTURE SCHEDULE FOR TYPE, MOUNTING, AND OTHER SPECIFICS.			
2. CONNECT EMERGENCY AND/OR EXIT LIGHTS TO THE UNSWITCHED SIDE OF THE AREA LIGHTING BRANCH CIRCUIT.			
3. ARROW DENOTES EXIT DIRECTION.			
4. USE HEAVY DUTY FOR 480 VOLT.			
5. MOUNT SWITCH AT DOOR JAM PER MANUFACTURER'S INSTRUCTIONS.			
6. PROVIDE UL LISTED DEVICE TO BE USED WITH THE FIRE ALARM PANEL/SYSTEM OR PROVIDE A MONITOR MODULE TO CONNECT INTO FIRE ALARM SYSTEM.			
7. PROVIDE RACEWAY WITH OUTLETS 12" ON CENTER UNO.			
ABBREVIATIONS			
AFCI - ARC FAULT CKT INTERRUPTER	MCC - MOTOR CONTROL CENTER	MDP - MAIN DISTRIBUTION PANEL	
AFF - ABOVE FINISHED FLOOR	MLO - MAIN LUGS ONLY	MLOP - MAX. OVERCURRENT PROTECTION (N) - NEW	
AFG - ABOVE FINISHED GRADE	MOCAP - MAX. OVERCURRENT PROTECTION (N) - NEW	NIC - NOT IN CONTRACT	
AIC - AMPS INTERRUPTING CAPACITY	NEC - NATIONAL ELECTRICAL CODE	NFPA - NATIONAL FIRE PROT. ASSN.	
AL - ALUMINUM	NL - NIGHT LIGHT	NR - NOT REQUIRED	
ATS - AUTOMATIC TRANSFER SWITCH	NTS - NOT TO SCALE	PC - PLUMBING CONTRACTOR	
BC - BARE COPPER	PH - PHASE	PH - PHASE	
BFC - BELOW FINISHED CEILING	PNL - PANEL	POC - POINT OF CONNECTION	
BFG - BELOW FINISHED GRADE	POS - POINT OF SALE	POC - POINT OF CONNECTION	
C OR CND - CONDUIT	RELOCATED	POS - POINT OF SALE	
CKT - CIRCUIT	RELOCATED	RELOCATED	
CLG - INSTALLED IN CEILING	REC - RECEPTACLES	REC - RECEPTACLES	
C.R. - CORD REEL	RMC - RIGID METAL CONDUIT	RMC - RIGID METAL CONDUIT	
CT - CURRENT TRANSDUCER	SCA - SHORT CIRCUIT AMPERES	SCA - SHORT CIRCUIT AMPERES	
CJ - COPPER	SCB - SELECT COLOR BY ARCHITECT	SCB - SELECT COLOR BY ARCHITECT	
(E) - EXISTING TO REMAIN	SES - SERVICE ENTRANCE SWITCHGEAR	SES - SERVICE ENTRANCE SWITCHGEAR	
EC - ELECTRICAL CONTRACTOR	SPD - SURGE PROTECTIVE DEVICE	SPD - SURGE PROTECTIVE DEVICE	
EM - EMERGENCY	TL - TWIST LOCK	TL - TWIST LOCK	
(F) - FUTURE	TTB - TELEPHONE TERMINAL BOARD	TTB - TELEPHONE TERMINAL BOARD	
FACP - FIRE ALARM CONTROL PANEL	TR - TAMPER RESISTANT	TR - TAMPER RESISTANT	
FLA - FULL LOAD AMPS	TYP - TYPICAL	TYP - TYPICAL	
FVNR - FULL VOLTAGE NON REVERSING	UNO - UNLESS NOTED OTHERWISE	UNO - UNLESS NOTED OTHERWISE	
GC - GENERAL CONTRACTOR	VA - VOLT/AMPS	VA - VOLT/AMPS	
GFCI - GROUND FAULT CKT INTERRUPTER	VIF - VERIFY IN FIELD	VIF - VERIFY IN FIELD	
GND - GROUND	VR - VANDAL RESISTANT	VR - VANDAL RESISTANT	
HP - HORSEPOWER	WP - WEATHERPROOF/NEMA 3R	WP - WEATHERPROOF/NEMA 3R	
IG - ISOLATED GROUND	WU - FURNISHED WITH UNIT	WU - FURNISHED WITH UNIT	
KW - KILOWATTS	XFMR - TRANSFORMER	XFMR - TRANSFORMER	
LCP - LIGHTING CONTROL PANEL			
LIG - LIGHTING			
LV - LOW VOLTAGE			
MC - MECHANICAL CONTRACTOR			
MCA - MINIMUM CIRCUIT AMPS			
MCB - MAIN CIRCUIT BREAKER			

ELECTRICAL SHEET INDEX	
E000	ELECTRICAL GENERAL SHEET
E001	ELECTRICAL SITE PLAN
E101	RESTROOMS ELECTRICAL PLAN
E102	CONCESSIONS ELECTRICAL PLAN
E501	ELECTRICAL DETAILS
E601	ELECTRICAL SCHEDULES



KEYED NOTES
1. EXISTING POWER POLE.
GENERAL NOTES
A. -



Think
Architecture

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

LAKE HAVASU CATALYST - CONCESSIONS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO.
DATE:

REVISIONS:

SHEET TITLE:
ELECTRICAL SITE
PLAN

SHEET NUMBER:

E000

© 2022 THINK ARCHITECTURE, INC.



ROCKY MOUNTAIN
CONSULTING ENGINEERS, INC.

2117 South 3600 West, Salt Lake City, UT 84119
(801) 566-0503 www.rmceut.com Project # 25096

75% REVIEW SET

KEYED NOTES
1. COORDINATE DRINKING FOUNTAIN RECEPTACLE LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH IN. GFCI RECEPTACLE TO BE MOUNTED IN AN ACCESSIBLE LOCATION.
2. COORDINATE LOCATION AND HEIGHT OF HAND DRYERS WITH OWNER. VERIFY POWER REQUIREMENTS WITH MANUFACTURER'S DOCUMENTATION.
3. PROVIDE A WALL MOUNT DUAL TECH TWO POLE OCC. SENSOR FOR RESTROOM LIGHT AND FAN CONTROL.

GENERAL NOTES
A. COORDINATE MOUNTING HEIGHTS OF ALL EQUIPMENT WITH ARCHITECTURAL DRAWINGS AND MILLWORK CONTRACTOR PRIOR TO ROUGH-IN.
B. VERIFY EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT.



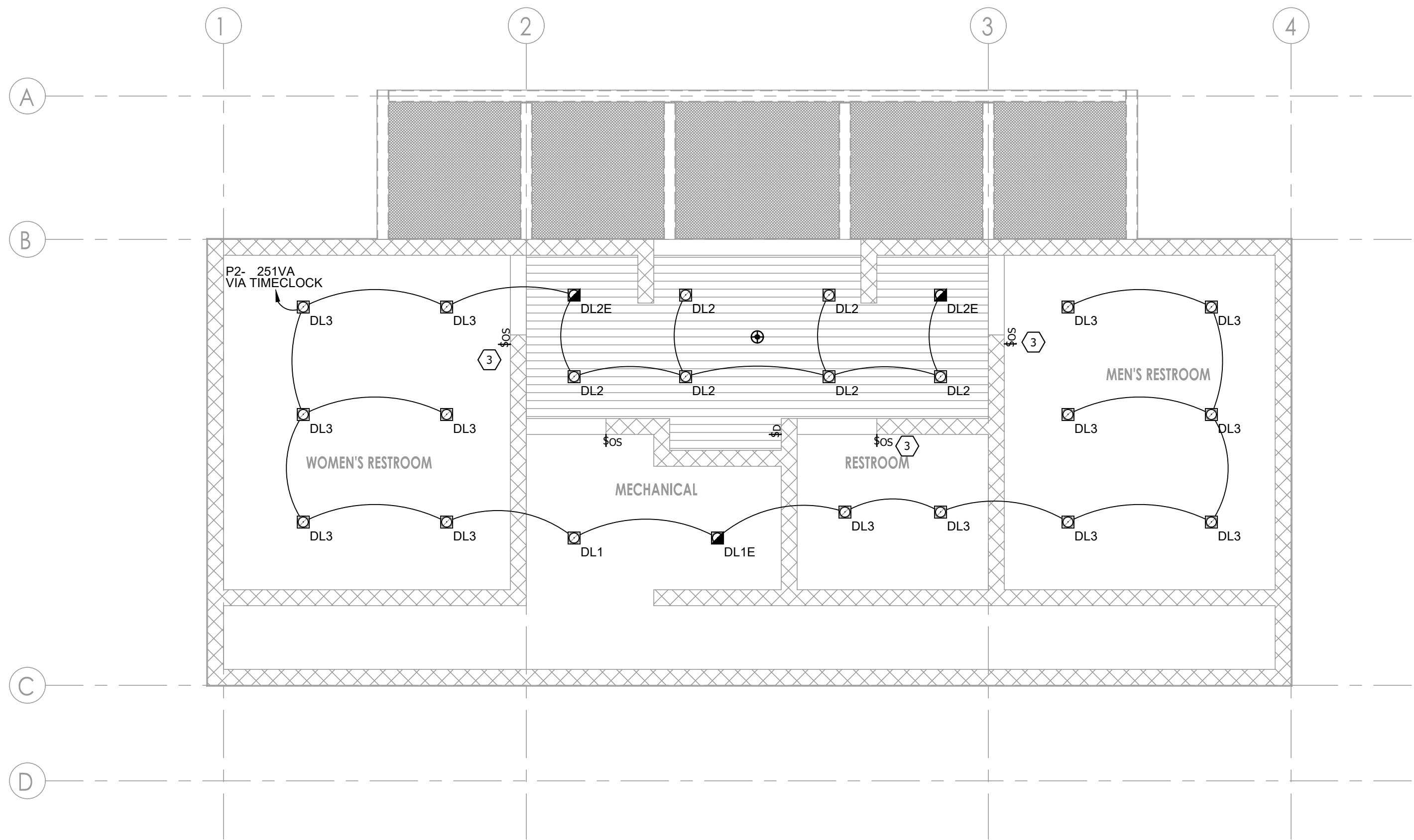
Think
Architecture

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

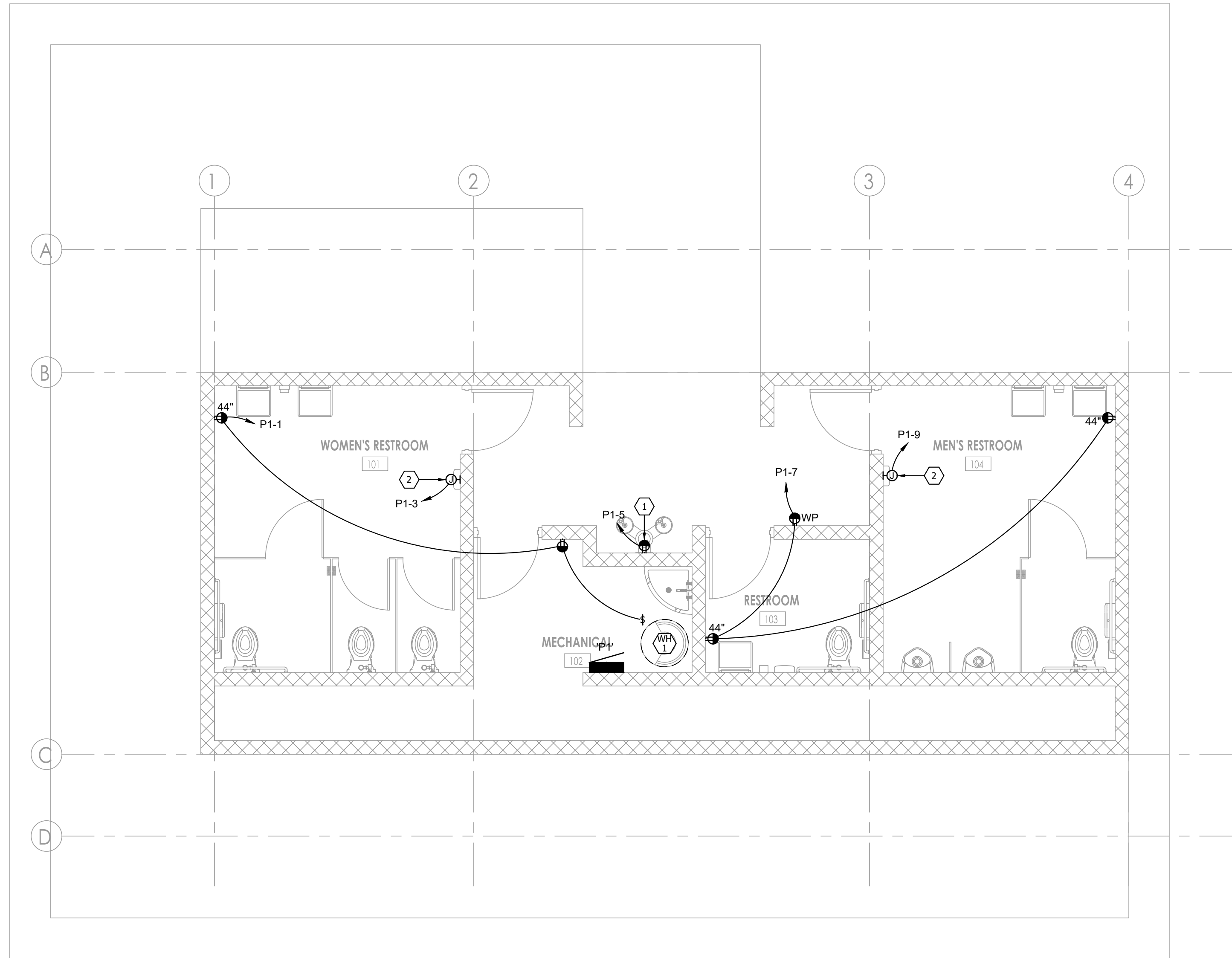
7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax. 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

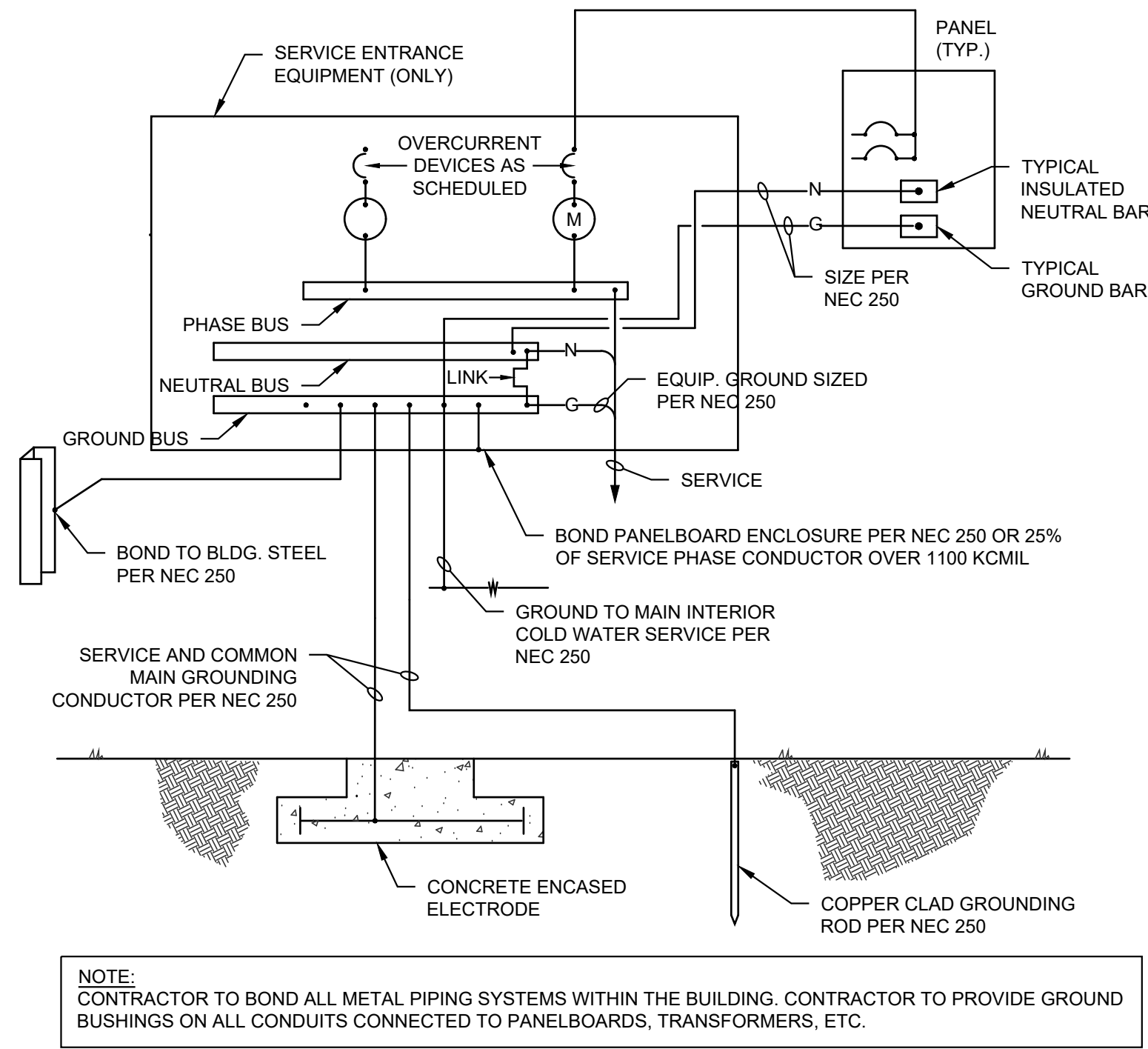
These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



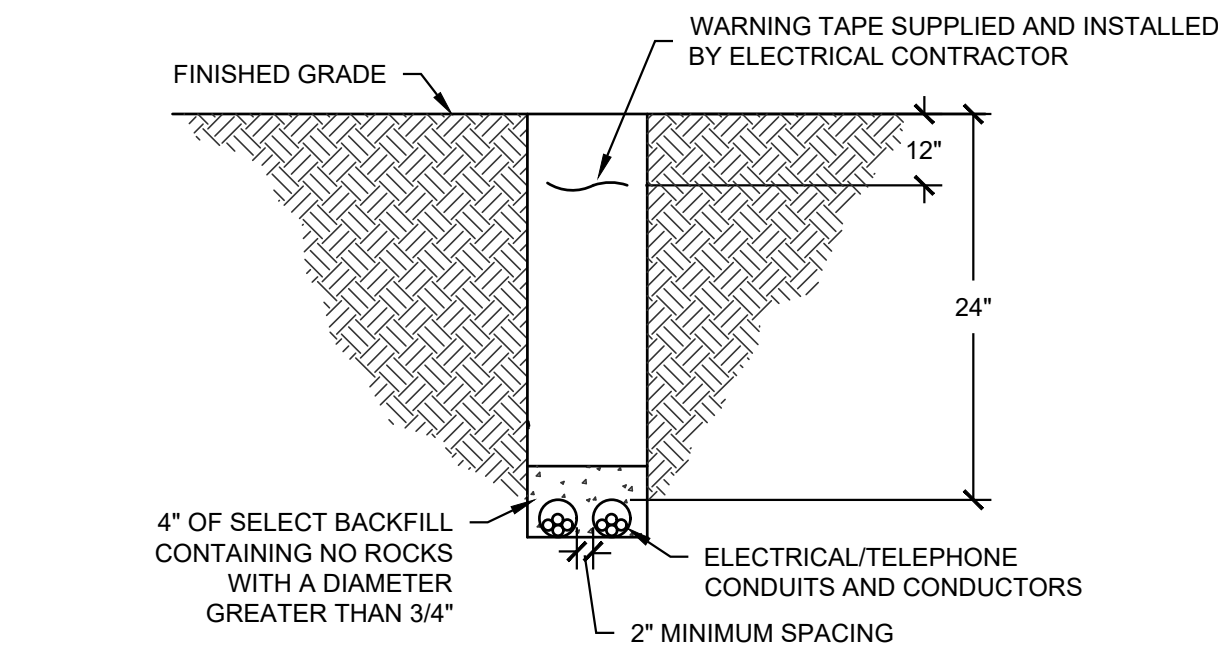
1
E101
RESTROOMS LIGHTING PLAN
SCALE: 1/4" = 1'-0"



2
E101
RESTROOMS POWER PLAN
SCALE: 1/4" = 1'-0"

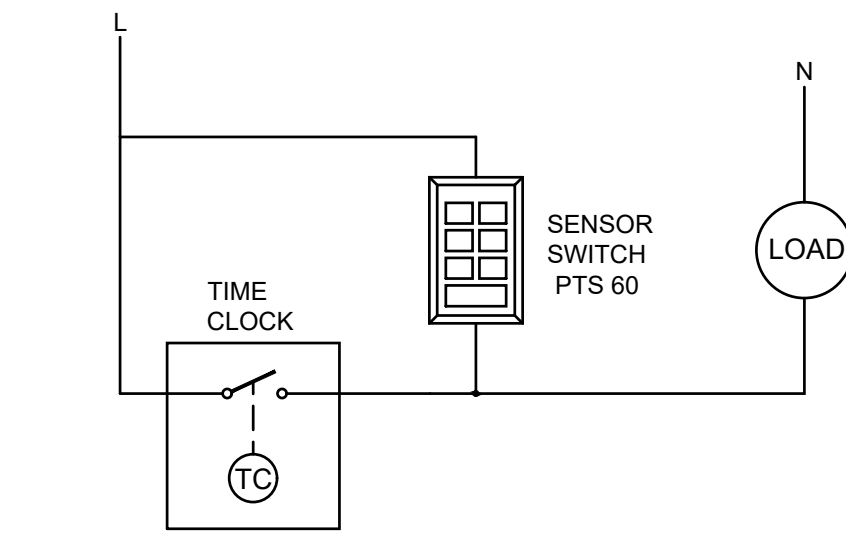


2 TYPICAL GROUNDING/BONDING DETAIL
E501 NO SCALE



- NOTES:
- ELECTRICAL SERVICE CONDUIT AND CONDUCTORS ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. BURIAL DEPTH SHALL BE PER NEC TABLE 300.5
 - TELEPHONE SERVICE CONDUIT SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. TELEPHONE SERVICE CABLEING SHALL BE PROVIDED BY THE LOCAL TELEPHONE COMPANY. COORDINATE WITH LOCAL TELEPHONE COMPANY FOR ANY SPECIFIC REQUIREMENTS
 - THE QUANTITY/SIZE OF CONDUITS AND/OR CONDUCTORS SHALL BE AS CALLED OUT ON THE ELECTRICAL DRAWINGS. COORDINATE WITH THE ELECTRICAL ENGINEER.

3 UNDERGROUND CONDUIT DETAIL
E501 NO SCALE



4 TIME CLOCK OVERRIDE
E501 SCALE: NONE

#	KEYED NOTES
1.	PROVIDE A NAMEPLATE ON EACH ELECTRICAL PANEL AND SERVICE DISCONNECT WITH AVAILABLE FAULT CURRENT AND THE DATE WHICH THE CALCULATIONS WERE PERFORMED (XXXXXX) PER NEC 110.24. ON THE NAMEPLATE STATE WHERE POWER ORIGINATES FROM IN ACCORDANCE WITH NEC 408.4(B).

1 ONE-LINE DIAGRAM
E501 NO SCALE

CONCESSION LIGHT FIXTURE SCHEDULE									
TYPE	MANUFACTURER	CATALOG NO.	VOLTAGE	DELIVERED LUMENS / CCT	CONTROL	MOUNTING	LOAD(VA)	DESCRIPTION	NOTES:
DL1	LITHONIA	LDN6 35/15 L06 AR LSS MVOLT G210	UNV	1500 LUMENS / 3500K	0-10V	RECESSED	17.5	6" LED DOWNLIGHT	4
	HALO								
	LIGHTOLIER								
	LITON								
DL2	LITHONIA	LDN6 35/07 L06 AR LSS MVOLT G210	UNV	750 LUMENS / 3500K	0-10V	RECESSED	8.9	6" LED DOWNLIGHT	4
	HALO								
	LIGHTOLIER								
	LITON								
SL1	LITHONIA	ZL1D L48 3000LMFST MVOLT 35K 80 CRI	UNV	3000 LUMENS / 3500K	0-10V	SURFACE	30	4" LED STRIP LIGHT	4
	METALUX								
	DAYBRITE								
	INDUSTRIAL LIGHTING PRODUCT								
SL1E	SAME AS 'SL1' WITH EMERGENCY BATTERY BACKUP								
SL2	LITHONIA	ZL1D L48 7000LMFST MVOLT 35K 80 CRI	UNV	7000 LUMENS / 3500K	0-10V	SURFACE	59	4" LED STRIP LIGHT	4
	METALUX								
	DAYBRITE								
	INDUSTRIAL LIGHTING PRODUCT								
SL2E	SAME AS 'SL2' WITH EMERGENCY BATTERY BACKUP								
OWE	LITHONIA	AFB PEL SCBA UVOLT N WT CW	UNV	225 LUMENS / 4000K	-	WALL	7	ARCHITECTURAL EMERGENCY WITH NICAD BATTERY COLD WEATHER RATED. SPECIFY COLOR BY ARCHITECT.	4
	EVENLITE								
	CHLORIDE								
	DUAL LITE								
EX	LITHONIA	EXRG EL M6	UNV	-	-	WALL / CEILING	1	THERMOPLASTIC EXIT SIGN WITH NI-MH BATTERY GREEN LETTERING	4
	EVENLITE								
	CHLORIDE								
	COMPASS PRODUCTS								
NOTES: 1. ALL LIGHT FIXTURES SHOWN HALF SHADED SHALL BE PROVIDED WITH A MEANS OF EMERGENCY POWER SUCH AS A BATTERY PACK, INVERTER OR GENERATOR CAPABLE OF PROVIDING 90 MIN OF EGRESS ILLUMINATION. WHERE A GENERATOR PROVIDES EMERGENCY POWER, A GENERATOR TRANSFER DEVICE OR SIMILAR DEVICE SHALL BE PROVIDED TO ENSURE LIGHT IS TURNED ON DURING AN EMERGENCY OCCURRENCE. 2. ALL LIGHTING VALUE ENGINEERING PROVIDED FOR THIS PROJECT SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER FOR REVIEW AND APPROVAL AFTER THE PROJECT HAS BEEN BID AND AWARDED. ANY CREDITS FOR VE SHALL INCLUDE TIME TO COMPENSATE OUR OFFICE FOR ENGINEERING REVIEW AND VERIFICATION OF BRANCH CIRCUIT LOADING AND/OR ENERGY CODE COMPLIANCE. NO VE SUBMITTALS WILL BE APPROVED WITHOUT THIS PROCESS IN PLACE. VE SUBMITTALS SHALL INCLUDE PHOTOMETRIC ANALYSIS TO ENSURE NEW LIGHT FIXTURES PROVIDE COMPARABLE LIGHT LEVELS TO THOSE ORIGINALLY DESIGNED. 3. MANUFACTURER SHALL PROVIDE SEISMIC SUPPORT WITH FIXTURES OVER 20 LBS. 4. FIXTURES LISTED IN THE FIXTURE SCHEDULE HAVE BEEN PROVIDED AS THE BASIS OF DESIGN. FIXTURES ARE TO BE PROVIDED THAT MEET OR EXCEED SPECIFICATIONS. FIXTURES THAT DO NOT COMPLY WILL BE REJECTED AT SUBMITTAL. 5. FIXTURE SHALL BE PROVIDED AS SPECIFIED. CONTACT MANUFACTURER'S REP FOR CONTRACTOR ALLOWANCE PRICING 6. FIXTURES TO BE PURCHASED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE ALL CONNECTORS, FASTENERS, AND WIRE TERMINATIONS FOR A COMPLETE SYSTEM PER MANUFACTURER'S INSTALLATION REQUIREMENTS.									

RESTROOM LIGHT FIXTURE SCHEDULE									
TYPE	MANUFACTURER	CATALOG NO.	VOLTAGE	DELIVERED LUMENS / CCT	CONTROL	MOUNTING	LOAD(VA)	DESCRIPTION	NOTES:
DL1	LITHONIA	LDN6 35/15 L06 AR LSS MVOLT G210	UNV	1500 LUMENS / 3500K	0-10V	RECESSED	17.5	6" LED DOWNLIGHT	4
	HALO								
	LIGHTOLIER								
	LITON								
DL2	LITHONIA	LDN6 35/07 L06 AR LSS MVOLT G210	UNV	750 LUMENS / 3500K	0-10V	RECESSED	8.9	6" LED DOWNLIGHT	4
	HALO								
	LIGHTOLIER								
	LITON								
DL3	LUMINAIRE LED	VFDL6 GB MINT 2T 1000LM MD 35K 80CRI MVOLT CPL SCBA	UNV	1000 LUMENS / 3500K	0-10V	RECESSED	12	6" LED DOWNLIGHT VANDAL RESISTANT. SPECIFY COLOR BY ARCHITECT.	4
	HALO								
	LIGHTOLIER								
	LITON								
NOTES									
1. ALL LIGHT FIXTURES SHOWN HALF SHADED SHALL BE PROVIDED WITH A MEANS OF EMERGENCY POWER SUCH AS A BATTERY PACK, INVERTER OR GENERATOR CAPABLE OF PROVIDING 90 MIN OF EGRESS ILLUMINATION. WHERE A GENERATOR PROVIDES EMERGENCY POWER, A GENERATOR TRANSFER DEVICE OR SIMILAR DEVICE SHALL BE PROVIDED TO ENSURE LIGHT IS TURNED ON DURING AN EMERGENCY OCCURRENCE.									
2. ALL LIGHTING VALUE ENGINEERING PROVIDED FOR THIS PROJECT SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER FOR REVIEW AND APPROVAL AFTER THE PROJECT HAS BEEN BID AND AWARDED. ANY CREDITS FOR VE SHALL INCLUDE TIME TO COMPENSATE OUR OFFICE FOR ENGINEERING REVIEW AND VERIFICATION OF BRANCH CIRCUIT LOADING AND/OR ENERGY CODE COMPLIANCE. NO VE SUBMITTALS WILL BE APPROVED WITHOUT THIS PROCESS IN PLACE. VE SUBMITTALS SHALL INCLUDE PHOTOMETRIC ANALYSIS TO ENSURE NEW LIGHT FIXTURES PROVIDE COMPARABLE LIGHT LEVELS TO THOSE ORIGINALLY DESIGNED.									
3. MANUFACTURER SHALL PROVIDE SEISMIC SUPPORT WITH FIXTURES OVER 20 LBS.									
4. FIXTURES LISTED IN THE FIXTURE SCHEDULE HAVE BEEN PROVIDED AS THE BASIS OF DESIGN. FIXTURES ARE TO BE PROVIDED THAT MEET OR EXCEED SPECIFICATIONS. FIXTURES THAT DO NOT COMPLY WILL BE REJECTED AT SUBMITTAL.									
5. FIXTURE SHALL BE PROVIDED AS SPECIFIED. CONTACT MANUFACTURER'S REP FOR CONTRACTOR ALLOWANCE PRICING									
6. FIXTURES TO BE PURCHASED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE ALL CONNECTORS, FASTENERS, AND WIRE TERMINATIONS FOR A COMPLETE SYSTEM PER MANUFACTURER'S INSTALLATION REQUIREMENTS.									

EQUIPMENT SCHEDULE															
MARK	DESCRIPTION	ELECTRICAL										STARTER / OVERCURRENT PROTECTION			
		V	PH	KW	HP	MCA	FLA	MOCF	CONDUIT SIZE	WIRE QTY.	WIRE SIZE	GND. SIZE	NEMA SIZE	DISCONNECT SIZE/POLE	FUSE SIZE
IE-02	KEGERATOR	120	1				6.2	20	3/4"	2	12	12	-	-	- 12A
IE-10	3 DOOR REFRIGERATOR	120	1				6.1	20	3/4"	2	12	12	-	-	- 12A
DWH-1	WATER HEATER	120	1				20.8	30	3/4"	2	10	10	-	-	- 5A
EU-1	EVAPORATOR UNIT	240	1												- 1A
CU-1	CONDENSING UNIT	240	1												- 1A
RTU-1	ROOF TOP UNIT	240	1			20		30	3/4"	3	10	10	-	30/3	30 1A
WH-1	GAS WATER HEATER	120	1				5	20	3/4"	2	12	12	-	-	- 5A
NOTE: COORDINATE FINAL EQUIPMENT CONNECTIONS WITH EQUIPMENT PROVIDER PRIOR TO ROUGH-IN. VERIFY ALL MOUNTING HEIGHTS.															
REMARKS: 1. FUSED DISCONNECT SWITCH 2. NON-FUSED DISCONNECT SWITCH 3. BREAKER IN ENCLOSURE 4. THERMAL OVERLOAD SWITCH 5. TOGGLE SWITCH 6. MAGNETIC STARTER 7. MAGNETIC STARTER/NON-FUSED DISCONNECT SWITCH 8. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION 9. MAGNETIC STARTER/BREAKER COMBINATION 10. REDUCED VOLTAGE STARTER 11. VARIABLE FREQUENCY DRIVE 12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC. 13. DIRECT CONNECTION 14. DUCT DETECTOR IN RETURN DUCT 15. SWITCH WITH LIGHTS A. FURNISHED, INSTALLED AND CONNECTED UNDER DIVISION 26 B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION REQUIRING CONNECTION UNDER DIVISION 26 C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 26 D. FURNISHED, INSTALLED, AND CONNECTED UNDER ANOTHER DIVISION E. FURNISHED AND INSTALLED UNDER DIVISION 26 REQUIRING CONNECTION UNDER ANOTHER DIVISION															

2117 MCCULLOCH BLVD. NORTH
LAKE HAVASU, AZ 86403



SHEET #	SHEET NAME
GENERAL	
G010	COVERSHEET
G011	GENERAL NOTES
G012	ACCESSIBILITY REQUIREMENTS
G111	CONCESSIONS - CODE COMPLIANCE PLAN
ARCHITECTURAL	
A111	CONCESSIONS FLOOR PLAN, RCP PLAN
A211	CONCESSIONS ELEVATIONS & SECTIONS
A411	CONCESSIONS - INTERIOR ELEVATIONS
A511	DETAILS
A611	DOOR SCHEDULE & STOREFRONT DETAIL
A110	SLAB PLAN
A112	CONCESSIONS ROOF PLAN
A612	STOREFRONT ELEVATION



7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

designs shown and described herein including technical drawings, graphic representation & details thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review
for evaluation by clients, consultants, contractors,
government agencies, vendors, and office
personnel only in accordance with this notice.



17 McCULLOCH BLVD. NORTH
LAKE HAVASU, AZ. 86403

VISIONS:

SHEET NUMBER:

© 2022 THINK ARCHITECTURE INC.

DEFERRED SUBMITTAL REQUIREMENTS

DEFERRED SUBMITTALS ARE THOSE PORTIONS OF DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF THE PERMIT APPLICATION AND HAVE RECEIVED PRIOR APPROVAL FROM THE BUILDING OFFICIAL TO BE DEFERRED. THE DEFERRED SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT AND GENERAL CONTRACTOR WITHIN SIX WEEKS TO COMMENCEMENT OF CONSTRUCTION TO THIS PORTION OF WORK.

DEFERRED SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT AND GENERAL CONTRACTOR WITHIN FOUR WEEKS OF THE AWARD OF THE CONTRACT TO THE GENERAL CONTRACTOR. THIS PROCESS MAY VARY, BUT SHOULD ALLOW FOR POSSIBLE 4-6 WEEK REVIEW PROCESS. CONTRACTOR IS RESPONSIBLE TO COORDINATE FOR REVIEW TIMES IN CRITICAL PATH OF CONSTRUCTION.

DEFERRED SUBMITTAL PROCESS:

1. THE DEFERRED SUBMITTAL SHALL FIRST BE REVIEWED BY THE GENERAL CONTRACTOR FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE SUBMITTAL MUST BE REVIEWED, APPROVED, STAMPED AND SIGNED BY THE GENERAL CONTRACTOR BEFORE BEING SUBMITTED TO THE ARCHITECT.

2. THE GENERAL CONTRACTOR SHALL SUBMIT FIVE SETS OF THE DEFERRED SUBMITTAL TO THE ARCHITECT.

3. THE DEFERRED SUBMITTAL ITEMS WILL BE REVIEWED BY THE ENGINEER OR ARCHITECT IN RESPONSIBLE CHARGE. THE ENGINEER OR ARCHITECT WILL ATTACH A LETTER TO THE SUBMITTAL STATING THAT THE DEFERRED ITEM IS IN CONFORMANCE WITH THE DESIGN OF THE STRUCTURE.

4. THE APPROVED SUBMITTALS WILL BE RETURNED TO THE GENERAL CONTRACTOR. TWO SETS OF THE DEFERRED SUBMITTAL ARE THEN SUBMITTED TO THE CITY FOR REVIEW.

5. THE GENERAL CONTRACTOR SHALL MAINTAIN ONE SET OF THE APPROVED SUBMITTAL ON SITE FOR REFERENCE BY THE CITY INSPECTOR.

6. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY BUILDING OFFICIAL. ALL WORK COMPLETED PRIOR TO APPROVAL AND REQUIRES CHANGE OR MODIFICATION DUE TO APPROVALS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

7. SEE STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS FOR STRUCTURAL DEFERRED SUBMITTALS.

8. COORDINATE WITH GENERAL NOTES OF STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INSTRUCTIONS.

9. ALL DEFERRED SUBMITTAL SHALL BE SUBMITTED VIA HARD COPY, AND WILL NOT BE ALLOWED AS A DIGITAL SUBMITTAL. ALL DEFERRED SUBMITTALS SHALL HAVE 5 COPIES SUBMITTED AS A MINIMUM WITH 1 SET BEING RETAINED BY THE DESIGN TEAM, 1 SET BY THE GENERAL CONTRACTOR, AND 2 SETS BEING SUBMITTED TO THE COUNTY FOR FINAL APPROVAL. THE FINAL SET SHALL BE RETURNED TO THE APPROPRIATE SUB CONTRACTOR.

DEFERRED SUBMITTAL ITEMS

1. SECURITY CAMERAS/ LOW-VOLTAGE SYSTEMS: WHERE AS THE LOW VOLTAGE DESIGN IS BEING PROVIDED BY AN OWNER PROVIDED SUB CONTRACTOR. ALL REQUIREMENTS FOR SECURITY CAMERAS SHALL BE NOTED ON THE SHOP DRAWINGS, AND SHALL BE PROVIDED PRIOR TO THE COMMENCEMENT OF ELECTRICAL WORK WITHIN THE PROJECT. CHANGES REQUIRED TO THE ELECTRICAL SERVICE DUE TO LOW VOLTAGE REQUIREMENTS SHALL PROPOSED TO THE OWNER FOR APPROVAL PRIOR TO BEGINNING WORK. IF CONTRACTOR BEGINS WORK WITHOUT OWNER APPROVAL THE CONTRACTOR SHALL ASSUME ALL COST ASSOCIATED TO THE COST OF THE WORK, WITH NO CHANGE TO THE OWNER. SHALL BE SUBMITTED AS A DEFERRED SUBMITTAL.

PROJECT GENERAL NOTES

1. INTENT OF THE DOCUMENTS: DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PROVIDE THE BASIS FOR THE PROPER COMPLETION OF THE PROJECT, SUITABLE FOR THE INTENDED USE OF THE OWNER. ITEMS NOT EXPRESSLY SET FORTH, BUT WHICH ARE REASONABLY IMPLIED, OR NECESSARY, FOR THE PROPER PERFORMANCE OF THE WORK SHALL BE INCLUDED.

2. DRAWINGS AND SPECIFICATIONS: SPECIFICATIONS ARE INTENDED TO BE COMPLEMENTARY AND SUPPLEMENTAL TO THE DRAWINGS. NO RELATIVE IMPORTANCE OF DRAWINGS VERSUS SPECIFICATIONS HAS BEEN ESTABLISHED AND NONE SHOULD BE ASSUMED. IN THE EVENT OF DISCREPANCIES OR CONFLICTS, THE ARCHITECT SHALL BE CONSULTED IN ORDER TO RENDER AN INTERPRETATION.

3. WORK NOT INCLUDED: ANY ITEM INDICATED ON THE DRAWINGS AS "N.I.C." (NOT IN CONTRACT), OR OTHERWISE DESIGNATED TO BE DONE BY OTHERS IS NOT A PART OF THE CONTRACT. INSTALLATION AND /OR BACKING MAY BE REQUIRED FOR SOME EQUIPMENT FURNISHED BY OWNER OR OWNER'S SUBCONTRACTOR. REFER TO DRAWINGS FOR SPECIFIC REQUIREMENTS.

4. INSTALLATION STANDARDS: ALL MANUFACTURED MATERIALS AND PRODUCTS SHALL BE APPLIED, INSTALLED, CONNECTED, CLEANED, AND CONDITIONED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. ALL REFERENCES TO STANDARDS OR TO MANUFACTURER'S SPECIFICATIONS SHALL BE TO THE LATEST EDITIONS OR LATEST AMENDMENTS.

5. PIPES, CONDUITS, OR DUCTS EXCEEDING ONE THIRD OF THE SLAB OR MEMBER THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE, UNLESS SPECIFICALLY DETAILED. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR LOCATION OF SLEEVES AND OTHER ACCESSORIES.

6. ROOFING WORK SHALL BE PERFORMED AND ALL PENETRATIONS THROUGH THE ROOFING MEMBRANE SHALL BE PATCHED OR FLASHED BY THE LANDLORD'S ROOFER. COORDINATE WITH LANDLORD'S ROOFER AND NOTIFY 48 HOURS IN ADVANCE OF WORK.

7. SOURCE QUALITY CONTROL: PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS, WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS, UNLESS MORE STRINGENT CRITERIA ARE SPECIFIED IN INDIVIDUAL SECTIONS. USE OF ANY SUPPLIER IS SUBJECT TO OWNER'S APPROVAL.

8. PRODUCT HANDLING: TRANSPORT AND HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DELIVER PRODUCTS IN UNDAMAGED CONDITION, IN MANUFACTURER'S ORIGINAL UNOPENED CONTAINERS OR PACKAGING, WITH IDENTIFYING LABELS INTACT AND LEGIBLE. PROMPTLY INSPECT SHIPMENTS TO ENSURE THAT PRODUCTS COMPLY WITH REQUIREMENTS OF CONTRACT DOCUMENTS, QUANTITIES ARE CORRECT, AND PRODUCTS ARE UNDAMAGED.

9. STORAGE AND PROTECTION: STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS WITH LABELS INTACT AND LEGIBLE. STORE SENSITIVE PRODUCTS IN WEATHERIGHT, CLIMATE CONTROLLED ENCLOSURES. PROVIDE OFF SITE STORAGE AND PROTECTION WHEN SITE DOES NOT PERMIT ON SITE STORAGE.

10. COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS: HANDLE, INSTALL, ERECT, CONNECT, CONDITION, USE, ADJUST, AND CLEAN PRODUCTS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND IN CONFORMITY WITH SPECIFIED REQUIREMENTS, INCLUDING EACH STEP IN SEQUENCE. DO NOT OMIT PREPARATORY STEPS OR INSTALLATION PROCEDURES UNLESS SPECIFICALLY MODIFIED OR EXEMPTED BY CONTRACT DOCUMENTS. SHOULD JOB CONDITIONS OR SPECIFIED REQUIREMENTS CONFLICT WITH MANUFACTURER'S INSTRUCTIONS, REQUEST CLARIFICATION IN WRITING FROM ARCHITECT BEFORE PROCEEDING. INSTALL MATERIALS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH PROPER APPEARANCE.

11. CONTRACTOR SHALL PROVIDE BACKING FOR SUPPORT OF ALL WALL, CEILING, AND PARTITION MOUNTED ITEMS SUCH AS TABLE BRACKETS, LIGHT FIXTURES, ARTIFACTS, SHELVING, EQUIPMENT, AND TELEVISIONS. COORDINATE LOCATIONS AND REQUIREMENTS WITH THE PLUMBING, MECHANICAL, ELECTRICAL, DRAWINGS.

12. FIELD QUALITY CONTROL: EMPLOY ONLY EXPERIENCED INSTALLERS AND FURNISH EVIDENCE OF EXPERIENCE IF REQUESTED. USE OF ANY SUBCONTRACTOR OR INSTALLER IS SUBJECT TO OWNER'S APPROVAL. EMPLOY A FULL-TIME, COMPETENT SUPERINTENDENT AS WELL AS NECESSARY ASSISTANTS. SUPERINTENDENT SHALL REPRESENT THE CONTRACTOR AND ALL COMMUNICATIONS GIVEN TO THE SUPERINTENDENT SHALL BE AS BINDING AS IF GIVEN TO THE CONTRACTOR.

13. TESTING AGENCIES: PROVIDE AND PAY FOR INSPECTIONS, TESTS, AND OTHER SERVICES SPECIED. REFER TO INDIVIDUAL SECTIONS FOR ADDITIONAL REQUIREMENTS. EMPLOYMENT OF TESTING LABORATORY SHALL IN NO WAY RELIEVE CONTRACTOR OF OBLIGATION TO PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS.

14. REFERENCE STANDARDS: COMPLY WITH ASSOCIATION, TRADE, FEDERAL, COMMERCIAL, ASTM, AND OTHER SIMILAR STANDARDS REFERENCED WITHIN INDIVIDUAL SECTIONS, EXCEPT WHERE MORE EXPLICIT OR STRINGENT REQUIREMENTS ARE INDICATED, OR REQUIRED BY APPLICABLE CODES. REFERENCE STANDARDS INCLUDE THEIR ASSOCIATED AMENDMENTS AND SUPPLEMENTS AND DATE OF STANDARD IS LATEST EDITION IN EFFECT AT DATE OF EXECUTION OF CONTRACT. REFERENCE STANDARDS HAVE SAME FORCE AND EFFECT AS IF BOUND INTO CONTRACT DOCUMENTS. SHOULD SPECIFIED REFERENCE STANDARDS CONFLICT WITH CONTRACT DOCUMENTS, REQUEST CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING.

15. ALL WORK SHALL CONFORM TO THE LATEST ADOPTED EDITIONS OF ALL APPLICABLE BUILDING CODES, THE AMERICANS WITH DISABILITIES ACT, AS WELL AS ALL OTHER LOCAL GOVERNING CODES AND ORDINANCES.

16. INTERIOR WALL AND CEILING FINISHES SHALL NOT EXCEED FLAME SPREAD CLASSIFICATIONS DICTATED BY ALL APPLICABLE BUILDING CODES.

17. GYPSUM BOARD AND SUSPENDED CEILING SYSTEMS SHALL CONFORM TO ALL LOCAL GOVERNING BUILDING CODES AND ORDINANCES.

18. GLASS AND GLAZING SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES AS WELL AS THE U.S. CONSUMER PRODUCT SAFETY COMMISSION, SAFETY STANDARDS FOR ARCHITECTURAL GLAZING MATERIALS (47 FR, 12616 TITLE NO. 16, CHAPTER 11, PART 1201).

19. DEFINITIONS:

a. PROVIDE: MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR OPERATIONS AND USE FOR PURPOSE INTENDED.

b. FURNISH: MEANS TO SUPPLY, PURCHASE, PROCURE AND DELIVER COMPLETE WITH RELATED ACCESSORIES, READY FOR ASSEMBLY, APPLICATION, INSTALLATION, AND SIMILAR OPERATIONS, AS APPLICABLE IN EACH INSTANCE.

c. INSTALL: MEANS TO CONSTRUCT, ASSEMBLE, ERECT, MOUNT, ANCHOR, PLACE, CONNECT, APPLY AND SIMILAR OPERATIONS, COMPLETE WITH RELATED ACCESSORIES, AS APPLICABLE IN EACH INSTANCE.

d. EQUIVALENT: MEANS EQUIVALENT AS ACCEPTED BY THE ARCHITECT, WITH RESPECT TO PRODUCTS, EQUIVALENT MEANS A LIKE DEGREE OF FEATURES, ATTRIBUTES, PERFORMANCES, OR QUALITIES DEEMED ESSENTIAL TO THE DESIGN INDICATED; INSTEAD, THE TERM IS INTENDED TO MEAN ARCHITECT WILL CONSIDER SUBSTITUTION PROPOSALS FOR THE PRODUCT. DO NOT ASSUME THAT SUBSTITUTE PRODUCTS ARE ACCEPTABLE.

20. MANUFACTURER'S FIELD SERVICES: WHEN SPECIFIED IN INDIVIDUAL SECTIONS, REQUIRE MATERIAL OR PRODUCT SUPPLIERS OR MANUFACTURERS TO PROVIDE QUALIFIED STAFF PERSONNEL TO OBSERVE SITE CONDITIONS, CONDITIONS OF SURFACES, QUALITY OF WORKMANSHIP, AND CONDITIONS OF INSTALLATION AS APPLICABLE AND TO INITIATE ADDITIONAL INSTRUCTIONS WHEN NECESSARY.

21. CONTRACT DOCUMENTS AT SITE: CURRENT PERMIT DRAWINGS; SHOP DRAWINGS; REVISED DRAWINGS; AND CLARIFICATION DRAWINGS, ADDENDA, CHANGE ORDERS, BULLETINS, INSPECTIONS; TEST CERTIFICATIONS AND RECORDS; PRODUCT SUBMITTAL DATA AND SAMPLES. FIELD OFFICE SHALL CONTAIN A CURRENT COPY OF ALL GOVERNING BUILDING CODE(S), MAKE DOCUMENTS AVAILABLE AT ALL TIMES FOR ARCHITECTS REVIEW.

22. THE GENERAL BUILDING PERMITS SHALL BE PAID FOR BY THE OWNER AND SECURED BY THE GENERAL CONTRACTOR. ALL OTHER REQUIRED PERMITS SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR OR SUBCONTRACTOR DIRECTLY RESPONSIBLE.

23. REQUIRED CITY AND COUNTY LICENSES SHALL BE ACQUIRED AND PAID FOR BY THE INDIVIDUAL TRADES.

24. ALL CONTRACTORS SHALL HAVE VALID CERTIFICATES OF WORKMANS COMPENSATION ON FILE WITH THE APPROPRIATE AGENCIES.

25. PROJECT LOG: MAINTAIN DAILY LOG CONTAINING ALL INFORMATION REGARDING CONSTRUCTION OPERATIONS AND OTHER OCCURRENCES PERTAINING TO THE PROJECT. MAKE LOG AVAILABLE FOR ARCHITECTS REVIEW.

26. WORK PROGRESS SCHEDULE: MAINTAIN AN UPDATED WORK PROGRESS SCHEDULE POSTED IN A VISIBLE LOCATION IN FIELD OFFICE. UPDATE SCHEDULE DAILY TO REFLECT WORK PROGRESS.

27. PROTECTION OF ADJACENT WORK: PROVIDE TEMPORARY PROTECTION FOR ADJACENT AREAS TO PREVENT DAMAGE BY INSTALLATION OF NEW WORK OR DEMOLITION OF EXISTING CONSTRUCTION. PROMPTLY REPAIR ANY DAMAGE AT NO ADDITIONAL COST TO THE OWNER. PROTECT ADJACENT AREAS FROM CONTAMINATION BY CONSTRUCTION DUST AND DEBRIS. PROVIDE TEMPORARY BARRICADES AS NECESSARY TO ENSURE PROTECTION OF THE PUBLIC. MAINTAIN EGRESS WITHIN AND AROUND CONSTRUCTION AREAS.

28. CONTRACTOR SHALL PROVIDE PEDESTRIAN PROTECTION IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES.

29. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES.

30. RECORD DRAWINGS: MAINTAIN ACCURATELY DIMENSIONED RECORDS OF ALL UNDERGROUND LINES, SERVICES, AND UTILITIES, AS WELL AS ANY DISCREPANCIES OR REQUIRED CHANGES IN THE CONTRACT DOCUMENTS. AT THE END OF THE PROJECT, FORWARD TO ARCHITECT FOR FUTURE RECORDS. ONE (1) CD OF COMPLETE RECORD DRAWINGS TO OWNER IN PDF FORMAT AFTER COMPLETING FINAL PUNCH LIST.

31. PRODUCTS AND MATERIALS: PROVIDE PRODUCTS AND MATERIALS SPECIED. REQUEST ARCHITECT'S SELECTION OF COLORS AND ACCESSORIES IN SUFFICIENT TIME TO AVOID DELAYING PROGRESS OF THE WORK.

32. AVAILABILITY OF PRODUCTS: VERIFY PRIOR TO CONSTRUCTION START THAT ALL SPECIFIED ITEMS WILL BE AVAILABLE IN TIME FOR INSTALLATION DURING ORDERLY AND TIMELY PROGRESS OF THE WORK. IN THE EVENT SPECIFIED ITEM OR ITEMS WILL NOT BE SO AVAILABLE, NOTIFY THE ARCHITECT PRIOR TO START OF CONSTRUCTION, COST OF DELAYS BECAUSE OF NON-AVAILABILITY OF SPECIFIED OR SUBSTITUTED ITEMS, WHEN THE CONTRACTOR COULD HAVE AVOIDED SUCH DELAYS, WILL BE BORNE BY THE CONTRACTOR.

33. CONTRACTOR SHALL PRIOR TO COMMENCEMENT OF WORK, FIELD VERIFY ALL EXISTING PROJECT CONDITIONS, INCLUDING DIMENSIONS, UTILITY LOCATIONS, AND UTILITY SIZES.

34. FIELD CONFIRMATION OF DISCREPANCIES SHALL BE RECORDED ON A REPRODUCIBLE DOCUMENT AND IMMEDIATELY TRANSMITTED TO ARCHITECT FOR PROJECT RECORD, COORDINATION, AND NECESSARY RESOLUTION PRIOR TO CONTINUING WITH WORK.

35. CONTRACTOR SHALL VERIFY, AND BE RESPONSIBLE FOR, ALL WORK AND MATERIALS - INCLUDING THOSE FURNISHED BY SUBCONTRACTORS.

36. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED SIZES; **DO NOT SCALE DRAWINGS TO DETERMINE ANY LOCATIONS**. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES, PRIOR TO CONTINUING WITH WORK.

37. DIMENSIONS ON PLANS ARE TO CENTERLINE OF COLUMNS, AND FACE OF WALL OR FACE OF MASONRY (F.O.M.), UNLESS NOTED OTHERWISE.

38. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREIN OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE FOR THE REPAIR OR REPLACEMENT OF UTILITIES AND ALL OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH EXECUTION OF WORK.

39. FIELD MEASUREMENTS: VERIFY FIELD MEASUREMENTS BEFORE ORDERING MATERIALS AND PREFABRICATED ITEMS. ANY NECESSARY ADJUSTMENTS BETWEEN FIELD MEASUREMENTS AND DRAWINGS SHALL BE MADE IN CONSULTATION WITH THE ARCHITECT.

40. DAMAGED PRODUCTS: DO NOT USE PRODUCTS IN WORK, WHICH HAVE DETERIORATED, BECOME DAMAGED, OR ARE OTHERWISE UNFIT FOR USE. RESTORE UNITS DAMAGED DURING INSTALLATION, REPLACE UNITS WHICH CANNOT BE RESTORED AT NO ADDITIONAL EXPENSE TO THE OWNER.

41. SUBSTITUTIONS: PROPOSALS FOR SUBSTITUTION OF MATERIALS, EQUIPMENT, AND METHODS WILL ONLY BE CONSIDERED WHEN ACCOMPANIED BY FULL AND COMPLETE TECHNICAL DATA AS WELL AS ANY OTHER INFORMATION REQUIRED TO EVALUATE THE PROPOSED SUBSTITUTION. SUBSTITUTIONS ARE UNACCEPTABLE UNLESS SPECIFICALLY APPROVED BY THE ARCHITECT. IN THE EVENT OF SUBSTITUTION PROPOSALS AFTER THE CONTRACT HAS BEEN AWARDED, ALL SUCH PROPOSALS SHALL BE ACCOMPANIED BY SUBSTANTIAL COST SAVINGS FOR THE OWNER.

42. PRODUCT IDENTIFICATIONS: MANIFESTOS, TRADEMARKS, LOGOS, AND OTHER IDENTIFYING MARKS ON PRODUCTS ARE NOT PERMITTED ON SURFACES EXPOSED TO VIEW IN PUBLIC AREAS, INTERIOR OR EXTERIOR. PLUMBING, MECHANICAL, AND ELECTRICAL EQUIPMENT NOT EXPOSED TO PUBLIC VIEW ARE EXCLUDED FROM FOREGOING LIMITATION. REQUIRED UL OR FM LABELS ARE ALSO EXCLUDED.

43. NON-CONFORMING WORK: REMOVE AND REPLACE WORK THAT DOES NOT CONFORM TO THE CONTRACT DOCUMENTS AT NO ADDITIONAL EXPENSE TO THE OWNER.

44. EXAMINATION OF CONDITIONS: EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. DO NOT COMMENCE WORK OVER UNSATISFACTORY CONDITIONS DETERMINED TO PROPER AND TIMELY EXECUTION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. COMMENCEMENT OF INSTALLATION CONSTITUTES ACCEPTANCE OF CONDITIONS AND COSTS OF ANY CORRECTIVE MEASURES ARE RESPONSIBILITY OF CONTRACTOR.

45. COORDINATION AND CLEARANCES: VERIFY AND COORDINATE CLEARANCES, DIMENSIONS, AND INSTALLATION OF ADJOINING CONSTRUCTION, EQUIPMENT, PIPING, DUCTS, CONDUITS, OR OTHER MECHANICAL OR ELECTRICAL ITEMS OR APPARATUS. VERIFY DIMENSIONS FOR PRODUCTS TO BE FITTED INTO WORK.

a. ATTACHMENTS AND CONNECTIONS: PROVIDE ATTACHMENT AND CONNECTION DEVICES AND METHODS FOR SECURING AND ANCHORING WORK. SECURE IN PLACE WITH DEVICES DESIGNED AND SIZED TO WITHSTAND STRESSES, VIBRATION, PHYSICAL DISTORTION, OR DISPLACEMENT.

b. EXPANSION AND MOVEMENT: ALLOW FOR EXPANSION OF MATERIALS AND BUILDING MOVEMENT.

c. ISOLATION OF DISSIMILAR ITEMS: ISOLATE EACH UNIT OF WORK FROM INCOMPATIBLE WORK AS NECESSARY TO PREVENT DETERIORATION AND ELECTROLYTIC ACTION.

d. MAINTENANCE: CLEAN AND PERFORM MAINTENANCE ON INSTALLED WORK AS FREQUENTLY AS NECESSARY THROUGH REMAINDER OF CONSTRUCTION PERIOD. LUBRICATE OPERABLE COMPONENTS TO ENSURE OPERABILITY WITHOUT DAMAGING EFFECTS.

e. ADJUSTMENTS: ADJUST OPERATING PRODUCTS AND EQUIPMENT TO ENSURE SMOOTH AND UNHINDERED OPERATION.

46. SECURITY: PROVIDE FACILITIES TO PROTECT WORK FROM UNAUTHORIZED ENTRY, VANDALISM, AND THEFT. CONDUCT OPERATIONS IN MANNER TO AVOID RISK OF LOSS, THEFT, OR DAMAGE BY VANDALISM.

47. EXTERIOR OPENINGS SHALL COMPLY WITH ALL SECURITY REQUIREMENTS AS OUTLINED IN ALL LOCAL BUILDING CODES AND ORDINANCES.

48. TEMPORARY FACILITIES: PROVIDE TEMPORARY FACILITIES AND CONNECTIONS AS REQUIRED FOR THE PROPER COMPLETION OF THE PROJECT. PROVIDE AND MAINTAIN TEMPORARY UTILITY SERVICES. PROVIDE SUITABLE WASTE DISPOSAL UNITS AND EMPTY REGULARLY. DO NOT PERMIT ACCUMULATION OF TRASH AND WASTE MATERIALS. PROVIDE TEMPORARY SANITARY FACILITIES AS REQUIRED.

49. CONTRACTOR'S FIELD OFFICE: PROVIDE AND MAINTAIN A FIELD OFFICE ON THE PREMISES WHERE DIRECTED. OFFICE SHALL BE OF NEAT, SUBSTANTIAL CONSTRUCTION. PROVIDE HANGING PLAN FILES AND MAINTAIN WITH ALL CURRENT DRAWINGS.

g. STORAGE STRUCTURE: PROVIDE AND MAINTAIN, WHERE DIRECTED, A WATER-TIGHT STORAGE STRUCTURE FOR ALL MATERIALS WHICH MIGHT BE DAMAGED BY WEATHER, INCLUDING STORAGE FACILITIES FOR CONCRETE TEST SAMPLES, OR OTHER MATERIAL SAMPLES REQUIRED FOR WORK.

d. COSTS: PAY COSTS FOR A LOCAL BUSINESS TELEPHONE FOR USE BY CONTRACTOR, OWNER AND ARCHITECT THROUGHOUT THE CONTRACT PERIOD.

c. COMMUNICATION EQUIPMENT: PROVIDE A TELEPHONE ON SITE. ASSIGN A RESPONSIBLE PERSON TO ANSWER ALL TELEPHONE CALLS IN EVENT THE SUPERINTENDENT IS ABSENT FROM THE PREMISES. PROVIDE APPROVED MEANS TO ESTABLISH URGENT COMMUNICATIONS (CELLULAR TELEPHONE OR PAGER). PROVIDE FACSIMILE MACHINE THAT CAN BE OPERATED 24 HOURS A DAY. CONTRACTOR SHALL PROVIDE A PAY TELEPHONE FOR THE USE OF SUBCONTRACTORS.

50. TEMPORARY CONTROLS:

g. HEAT: PRIOR TO ENCLOSURE, PROVIDE HEATING AS NECESSARY TO PROTECT MATERIALS, PRODUCTS, AND FINISHES FROM DAMAGE DUE TO TEMPERATURE OR HUMIDITY. ENCLOSURE IS DEFINED AS STATE OF CONSTRUCTION WHEN EXTERIOR WALLS ARE ERECTED, DOORS AND WINDOWS ARE INSTALLED AND GLAZED, ROOF DECK AND ROOFING ARE COMPLETE, AND WHEN OTHER OPENINGS IN EXTERIOR ENVELOPE ARE EQUIPPED WITH TEMPORARY CLOSURES. EXCEPT WHERE INDICATED OTHERWISE IN INDIVIDUAL SPECIFICATION SECTIONS, MAINTAIN MINIMUM AMBIENT TEMPERATURE OF 50 DEGREES F. IN AREA WHERE CONSTRUCTION IS IN PROGRESS.

b. VENTILATION: VENTILATE ENCLOSED AREAS TO ASSIST CURE OF MATERIALS, TO DISSIPATE HUMIDITY, AND TO PREVENT ACCUMULATION OF DUST, FUMES, VAPORS, OR GASES.

c. BARRIERS AND CLOSURES: PROVIDE BARRIERS TO PREVENT UNAUTHORIZED ENTRY TO CONSTRUCTION AREAS AND TO PROTECT EXISTING FACILITIES AND ADJACENT PROPERTIES FROM DAMAGE FROM CONSTRUCTION OPERATIONS.

d. FIRE PROTECTION: COMPLY WITH LOCAL FIRE PROTECTION CODE AND GOVERNING AUTHORITIES. PROVIDE AND MAINTAIN ADEQUATE FIRE PROTECTION INCLUDING, WITHOUT LIMITATION, FIRE EXTINGUISHERS AND OTHER APPROPRIATE EQUIPMENT FOR FIRE EXTINGUISHING READY FOR IMMEDIATE USE. MAINTAIN ANY REQUIRED FIRE ALARM SYSTEMS IN OPERATION DURING CONSTRUCTION. DISTRIBUTE EQUIPMENT AROUND SITE AND PARTICULARLY IN IMMEDIATE VICINITY OF PERFORMANCE OF WELDING OR SIMILAR HAZARDOUS WORK.

51. ROOF OBSTRUCTIONS SUCH AS TELEVISION ANTENNAE, SOLAR PANELS, AND GUY WIRES SHALL NOT BE LOCATED OR INSTALLED IN SUCH A WAY AS TO PREVENT FIRE DEPARTMENT ACCESS OR EGRESS IN EVENT OF A FIRE.

52. VERIFY FIRE EXTINGUISHER REQUIREMENTS AND LOCATIONS WITH FIRE MARSHAL AND OWNER'S REPRESENTATIVE.

53. FIELD MEASUREMENTS: TAKE FIELD MEASUREMENTS PRIOR TO FABRICATION WHERE PRACTICAL. PROVIDE INSERTS AND TEMPLATES AS NEEDED.

54. LAYOUT: SURVEY AND LAYOUT IMPROVEMENTS, UTILITIES, STRUCTURES, AND COMPONENTS, CONFORM TO LOCATIONS INDICATED ON THE DRAWINGS. ESTABLISH AUXILIARY BENCHMARKS AND ANY OTHER MARKERS AS REQUIRED. GRADE ELEVATIONS SHOWN ARE TAKEN FROM BENCH MARK(S) INDICATED ON THE DRAWINGS. IN CASE OF CONFLICTS, NOTIFY THE ARCHITECT IN WRITING BEFORE STARTING WORK.

55. HOURS OF WORK: ALL DEMOLITION, GRADING AND CONSTRUCTION WORK SHALL BE LIMITED TO THE FOLLOWING HOURS: MONDAY THROUGH FRIDAY 7:00 AM TO 7:00 PM, SATURDAYS, AND HOLIDAYS 8:00 AM TO 4:00 PM, NO ACTIVITIES ON SUNDAY. AFTER-HOURS WORK WILL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER, CITY, AND ANY OTHER PERSONS / AGENCIES THAT HAVE JURISDICTION.

56. INTERRUPTION OF SERVICES: INTERRUPTIONS TO ANY SERVICE FOR THE PURPOSE OF MAKING OR BREAKING A CONNECTION SHALL BE MADE ONLY AFTER CONSULTATION WITH THE OWNER AND SHALL BE AT SUCH TIME AND OF SUCH DURATION AS MAY BE DIRECTED.

57. EXCAVATIONS OR TRENCHING: KEEP TIME INTERVALS BETWEEN EXCAVATION OR TRENCHING, INSTALLATION OF CONDUIT OR PIPING, AND BACK FILLING OPERATIONS TO AN ABSOLUTE MINIMUM. PROVIDE SUITABLE TEMPORARY COVERS FOR EXCAVATIONS OR TRENCHING CROSSING ROADWAYS, WALKS, OR OTHER TRAFFIC WAYS AS REQUIRED BY GOVERNING AGENCIES.

58. CUTTING AND PATCHING: DO NOT CUT AND PATCH IN A MANNER THAT WOULD RESULT IN A FAILURE OF THE WORK TO PERFORM AS INTENDED. DECREASE FIRE PERFORMANCE, DECREASE ACOUSTICAL PERFORMANCE, DECREASE ENERGY PERFORMANCE, DECREASE OPERATIONAL LIFE, OR DECREASE SAFETY FACTORS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT. CUT WITH TOOLS APPROPRIATE FOR MATERIALS TO BE CUT. PATCH WITH MATERIALS AND METHODS TO PRODUCE PATCH THAT IS NOT VISIBLE FROM A DISTANCE OF THREE FEET.

59. TOLERANCES: INSTALL WORK TRUE TO LINE, PLUMB, AND LEVEL, EXCEPT WHERE SPECIFIED OTHERWISE. WORK EXECUTED WITHIN FOLLOWING TOLERANCE WILL BE ACCEPTABLE:

g. TRUE TO LINE: ALLOWED DEVIATION FROM AN ABSOLUTELY STRAIGHT LINE OF SIGHT WITHIN PLUS OR MINUS 1/8 INCH IN 10 FEET, AND WITHIN PLUS OR MINUS 1/4 INCH FOR ENTIRE LENGTH OF A PARTICULAR ELEMENT OF CONSTRUCTION OVER 20'-0" IN LENGTH.

d. PLUMB: ALLOWED DEVIATIONS FROM AN ABSOLUTELY VERTICAL PLANE OF PLUS OR MINUS 1/2 DEGREE OF ANGLE.

c. LEVEL: ALLOWED DEVIATIONS FROM AN ABSOLUTELY HORIZONTAL PLANE OF PLUS OR MINUS 1/2 DEGREE OF ANGLE.

e. FLAT: ALLOW DEVIATIONS FROM AN ABSOLUTELY FLAT 1" IF WITHIN PLUS OR MINUS 1/4 INCH IN ONE SQUARE FOOT, WITHIN PLUS OR MINUS 1/8 INCH IN AN AREA 10 FEET BY 10 FEET, AND WITHIN PLUS OR MINUS 1/4 INCH FOR ENTIRE AREA OF A PARTICULAR ELEMENT OF CONSTRUCTION OVER 20'-0" IN LENGTH.

60. ELECTRICAL, MECHANICAL, & PLUMBING SYSTEM ARE SCHEMATIC ONLY. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL WORK TO AVOID CONFLICTS BETWEEN TRADES. THE CONTRACTOR SHALL PERFORM ALL WORK TO PROVIDE COMPLETE FUNCTIONING SYSTEMS IN ACCORDANCE WITH THE INTENT INDICATED & CODES & REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION.

61. CLEANING MATERIALS AND EQUIPMENT: PROVIDE ALL REQUIRED PERSONNEL, EQUIPMENT, AND MATERIALS NEEDED TO MAINTAIN THE SPECIFIED STANDARD OF CLEANLINESS. USE ONLY THE CLEANING MATERIALS AND EQUIPMENT WHICH ARE COMPATIBLE WITH THE SURFACE BEING CLEANED, AS RECOMMENDED BY THE MANUFACTURER OF THE MATERIAL.

62. CONTRACTOR SHALL SEAL ALL GAPS, HOLES, AND CRACKS IN BUILDING CONSTRUCTION AS REQUIRED TO CONTROL INFILTRATION OF INSECTS.

63. DISPOSAL OF TRASH AND EXCESS EXCAVATION: DISPOSE OF TRASH, AND DEBRIS AT DESIGNATED DISPOSAL AREAS OFF THE PREMISES AT NO ADDITIONAL COST TO THE OWNER. BURNING OF TRASH AND DEBRIS ON THE PREMISES IS PROHIBITED. COORDINATE TRASH REMOVAL WITH LANDLORD WHERE APPLICABLE.

64. CONTRACTOR SHALL ASSIST OWNER IN OBTAINING FINAL APPROVAL OF LOCAL HEALTH DEPARTMENT AND THE TEMPORARY AND FINAL CERTIFICATES OF OCCUPANCY.

65. CONTRACT CLOSEOUT:

g. SUBSTANTIAL COMPLETION: AT SUBSTANTIAL COMPLETION OF THE PROJECT, ATTEND A PUNCHLIST WALK-THROUGH OF REMAINING WORK FOR REVIEW WITH THE ARCHITECT AND OWNER. COMPLETE ALL DEFECTS AND OMISSIONS NOTED IN THE FINAL PUNCHLIST PROMPTLY, IN THE TIME PERIOD AGREED UPON WITH THE OWNER, AT NO ADDITIONAL EXPENSE TO THE OWNER.

b. CERTIFICATE OF OCCUPANCY: PROVIDE A FINAL CERTIFICATE OF OCCUPANCY FROM THE BUILDING DEPARTMENT.

c. PERMITS / INSPECTION CARDS: FURNISH COPIES OF PERMITS AND SIGNED INSPECTION CARDS FOR EACH OF THE FOLLOWING AGENCIES: BUILDING DEPARTMENT; PLUMBING / MECHANICAL DEPARTMENT; ELECTRICAL DEPARTMENT; FIRE DEPARTMENT; HEALTH DEPARTMENT; OTHERS AS REQUIRED.

d. MAINTENANCE MANUALS AND WARRANTIES: FURNISH (2) COPIES OF ALL MANUALS, MAINTENANCE INSTRUCTIONS, CONTRACTORS AND MANUFACTURER'S PRINTED WARRANTIES, AND INSTRUCTIONS FOR OPERATION OF ALL EQUIPMENT SPECIED HEREIN OR SHOWN ON DRAWINGS. TRAIN OWNER'S PERSONNEL IN USE OF BUILDING SYSTEMS.

g. TOUCH-UP MATERIAL: FURNISH OWNER WITH ONE GALLON OF EACH PAINT AND STAIN USED. PROVIDE AN ADDITIONAL 2 PERCENT OF QUANTITY INSTALLED OF ALL FINISH MATERIAL INCLUDING CEILING PANELS, TILE AND SHEET GOODS.

f. SUBCONTRACTORS: PROVIDE THE OWNER THE NAMES, ADDRESSES, AND PHONE NUMBERS OF ALL SUBCONTRACTORS, FINAL UNCONDITIONAL LIEN RELEASES, AND WARRANTIES FROM EACH.

g. FINAL CLEANING AND REPAIRS: REMOVE TEMPORARY FACILITIES AND PROVIDE FINAL CLEANING AND TOUCH-UP. RESTORE PORTIONS OF BUILDING, SITE IMPROVEMENTS, LANDSCAPING AND OTHER ITEMS DAMAGED BY CONSTRUCTION OPERATIONS TO THE SATISFACTION OF THE ARCHITECT, AT NO ADDITIONAL EXPENSE TO THE OWNER.

h. CLOSEOUT DOCUMENTS: PROVIDE THE OWNER WITH A COMPACT DISK OF ALL RECORD DRAWINGS IN PDF FORMAT, COPY OF ALL SHOP DRAWINGS AND PRODUCT SUBMITTALS, SERVICE CONTRACTS, HVAC AIR BALANCE REPORT, AND WASTELINE VIDEO INSPECTION REPORT.



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, Utah 84094
ph. 801.269.0054
fax 801.269.1425
www.thinkaia.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - CONCESSIONS
2117 MCCULLOUGH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

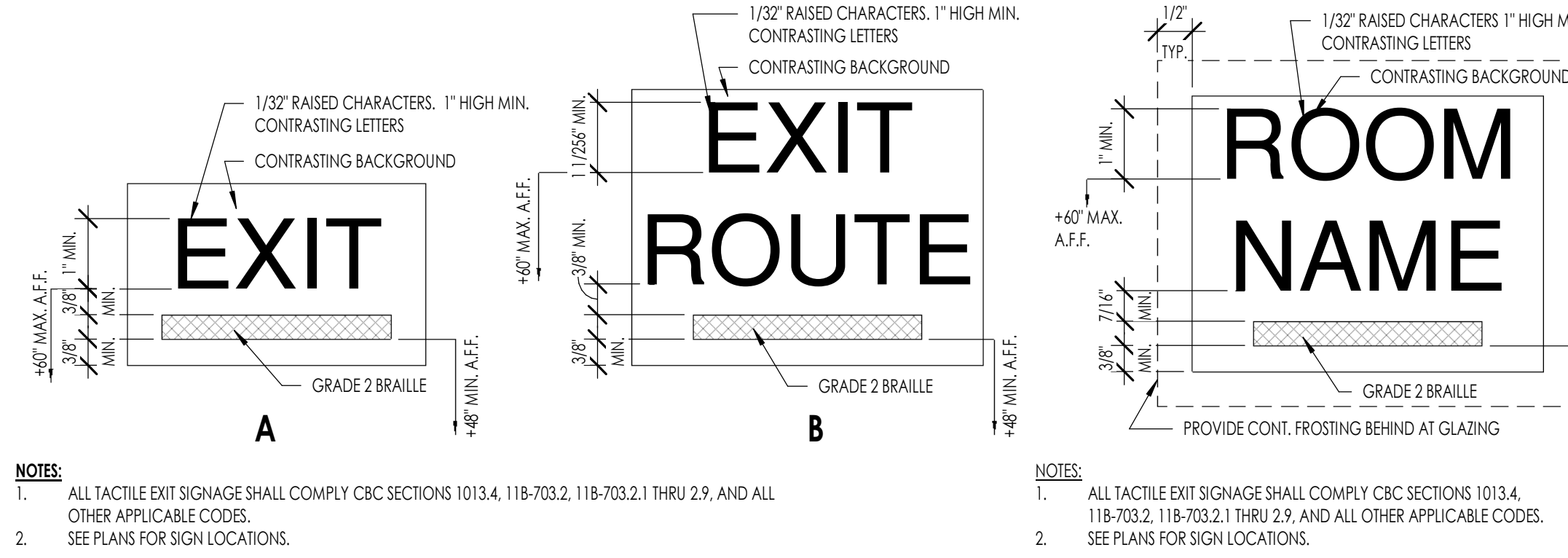
REVISIONS:

SHEET TITLE:
GENERAL NOTES

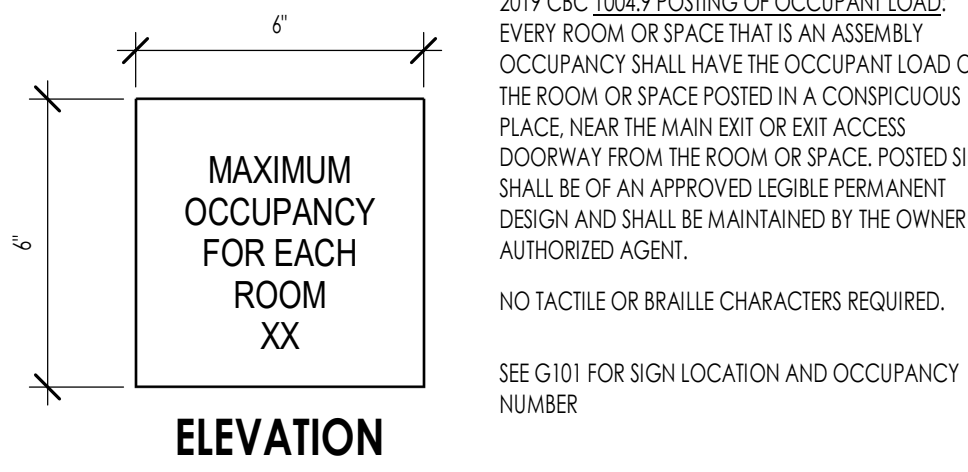
SHEET NUMBER:

G011

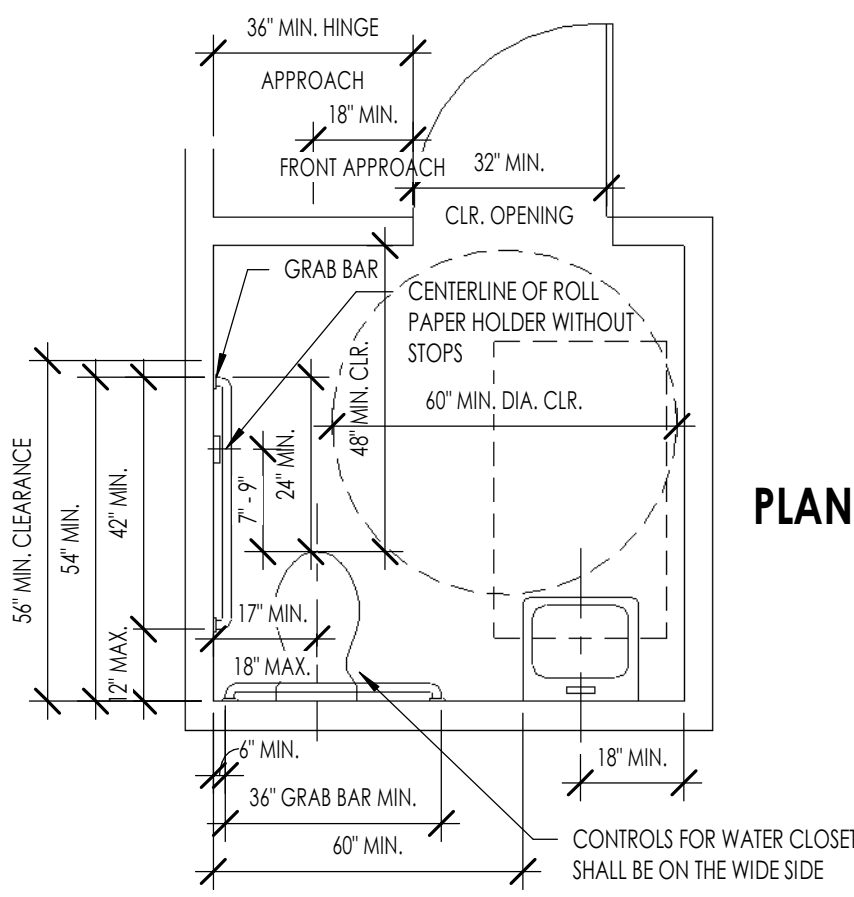
© 2022 THINK ARCHITECTURE INC.



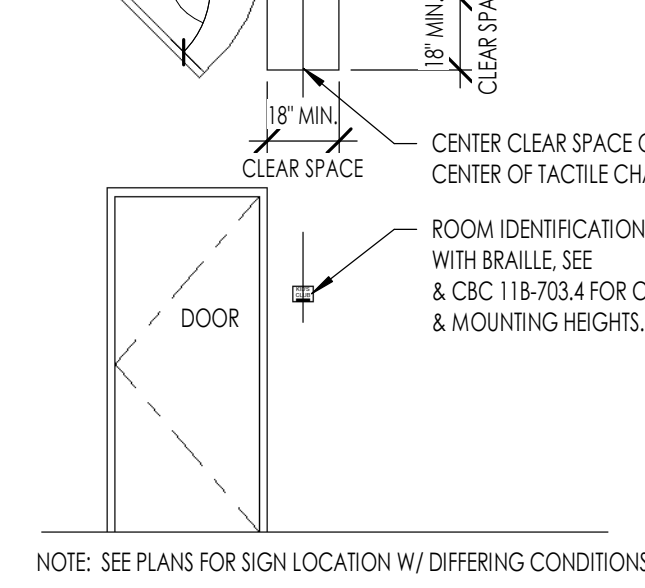
EXIT SIGNAGE 01
6" = 1'-0"



OCCUPANCY SIGNAGE
3" = 1'-0"

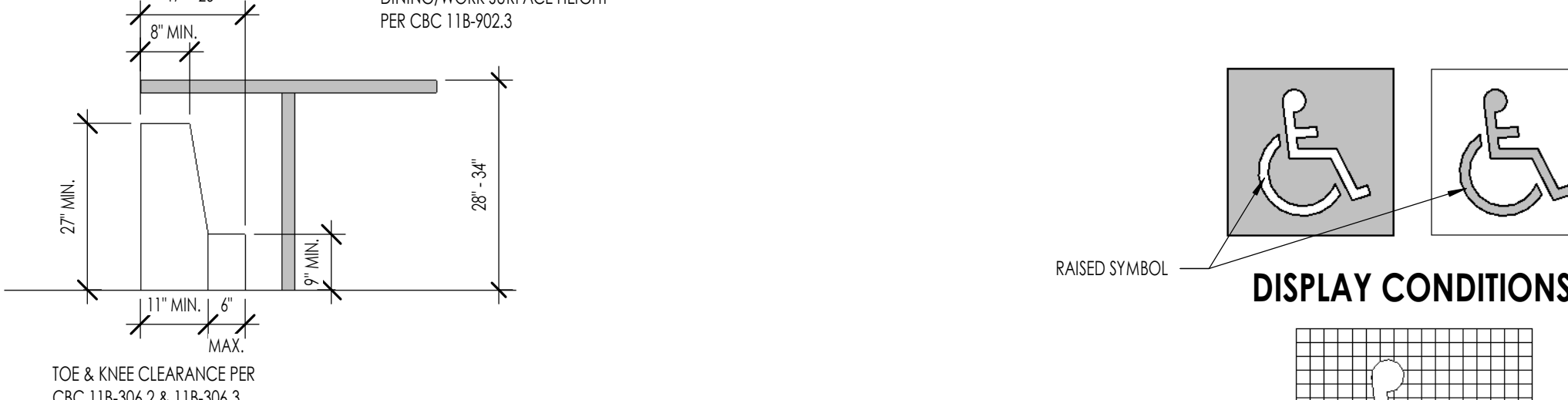


SINGLE ACCOMMODATION TOILET CLR.
31/16" = 1'-0"



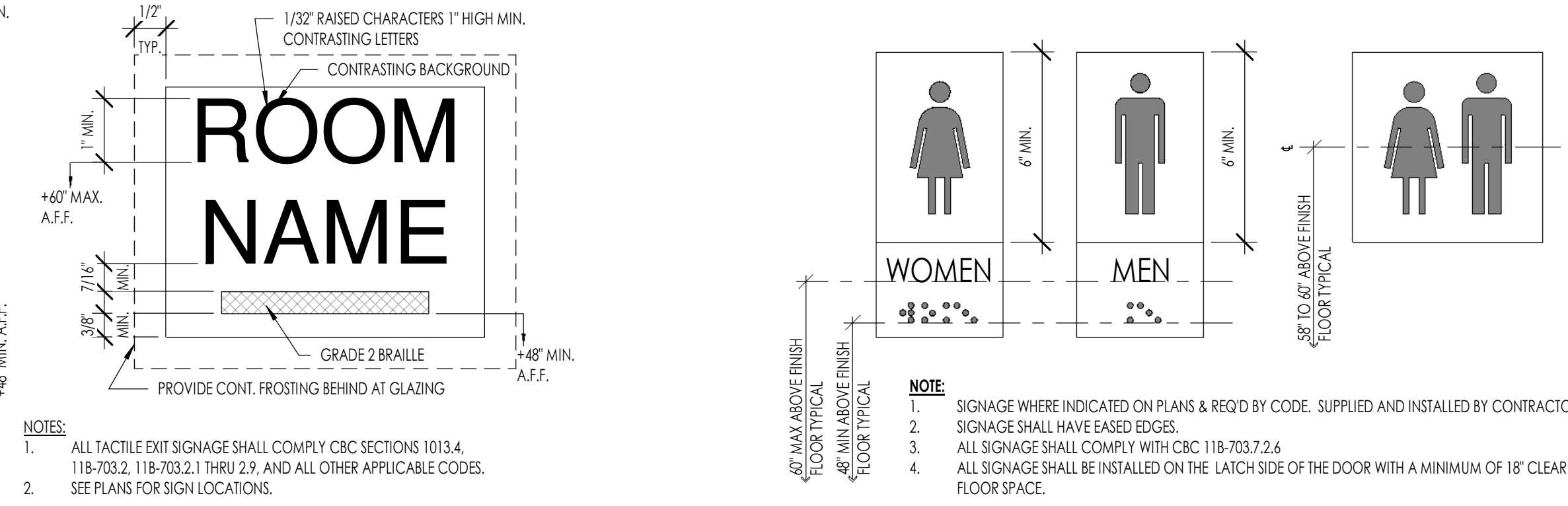
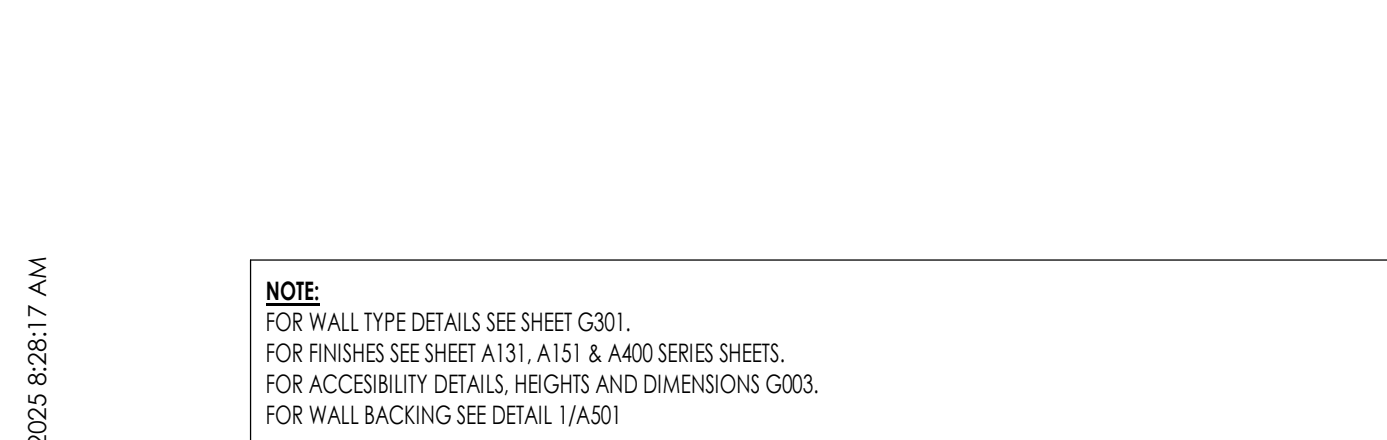
ROOM IDENTIFICATION SIGN
1/4" = 1'-0"

AMBULATORY TOILET STALL CLEARANCES
31/16" = 1'-0"

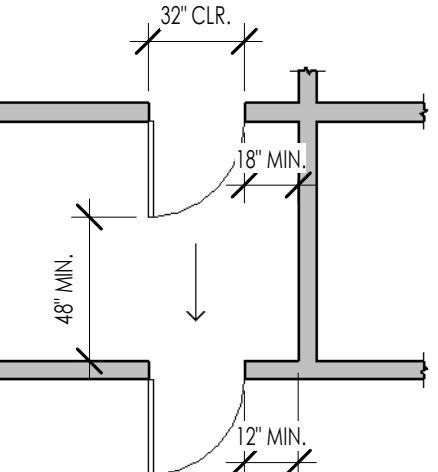


ACCESSIBLE SEATING
1/2" = 1'-0"

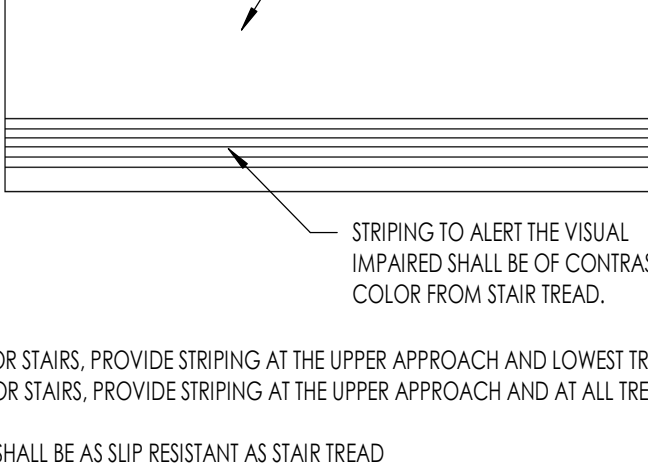
INTERNATIONAL SYMBOL OF ACCESSIBILITY
3/16" = 1'-0"



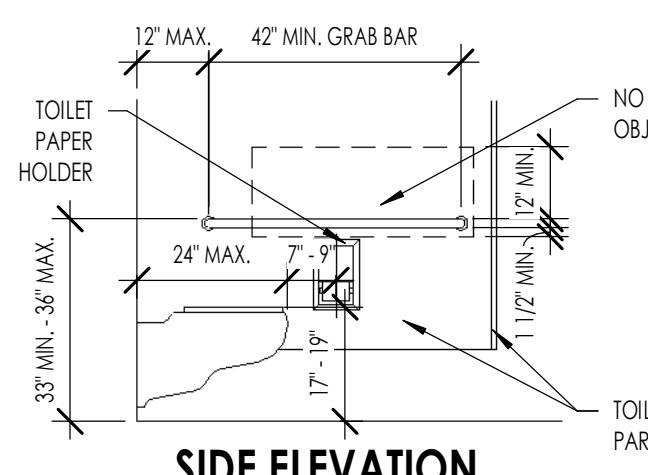
TACTILE EXIT SIGNAGE
6" = 1'-0"



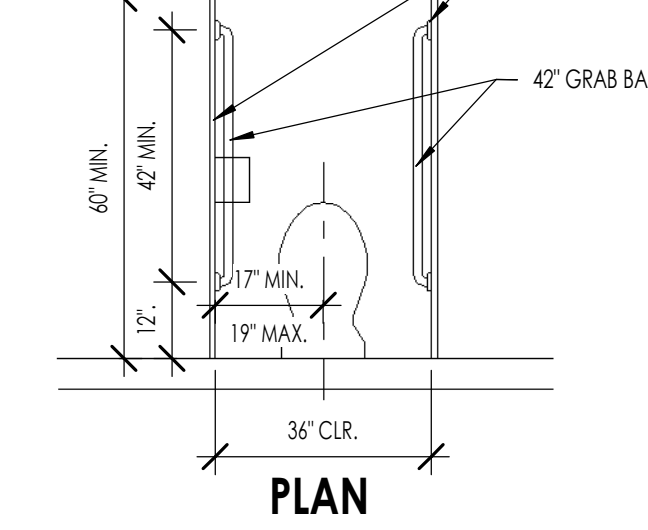
DOORS IN SERIES
31/16" = 1'-0"



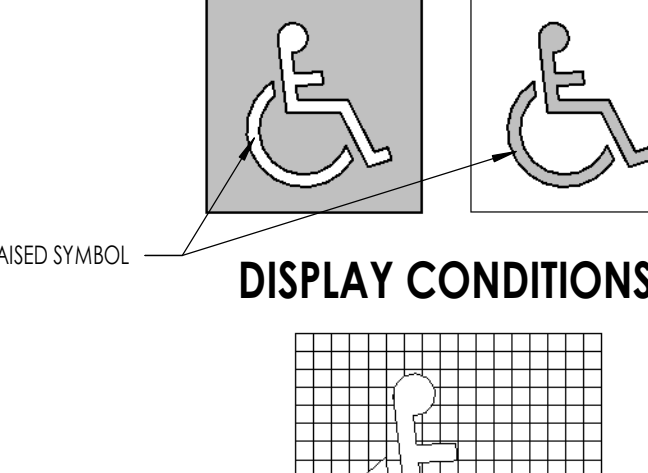
STRIPING AT STEPS
31/16" = 1'-0"



SIDE ELEVATION

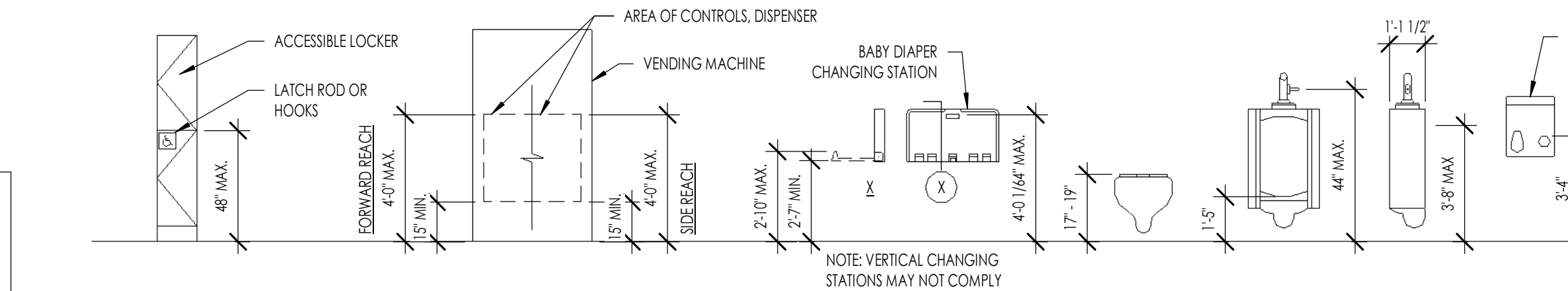


PLAN



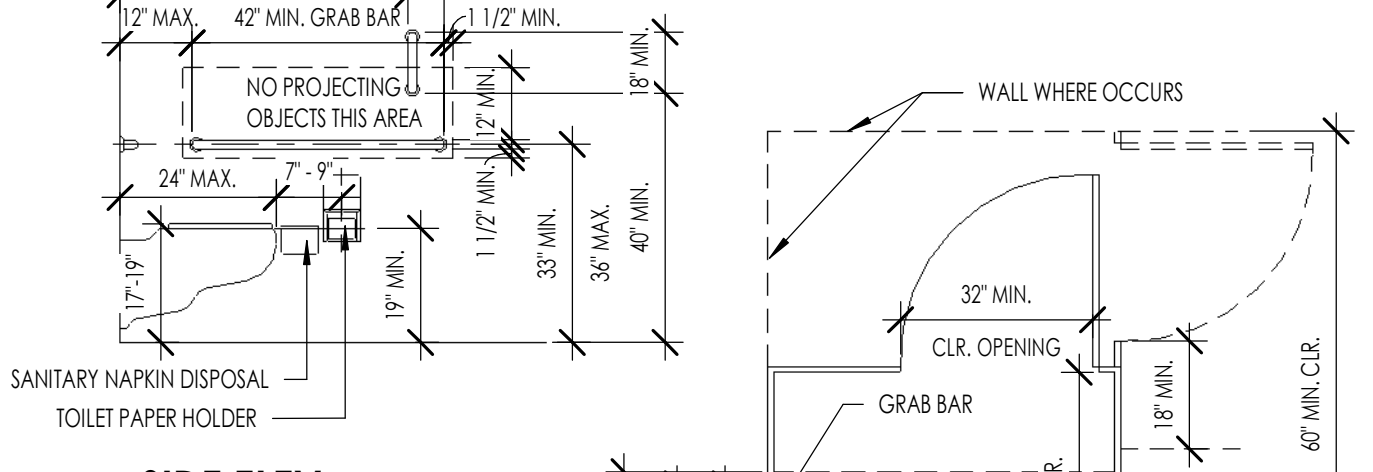
DISPLAY CONDITIONS

INTERNATIONAL SYMBOL OF ACCESSIBILITY
3/16" = 1'-0"

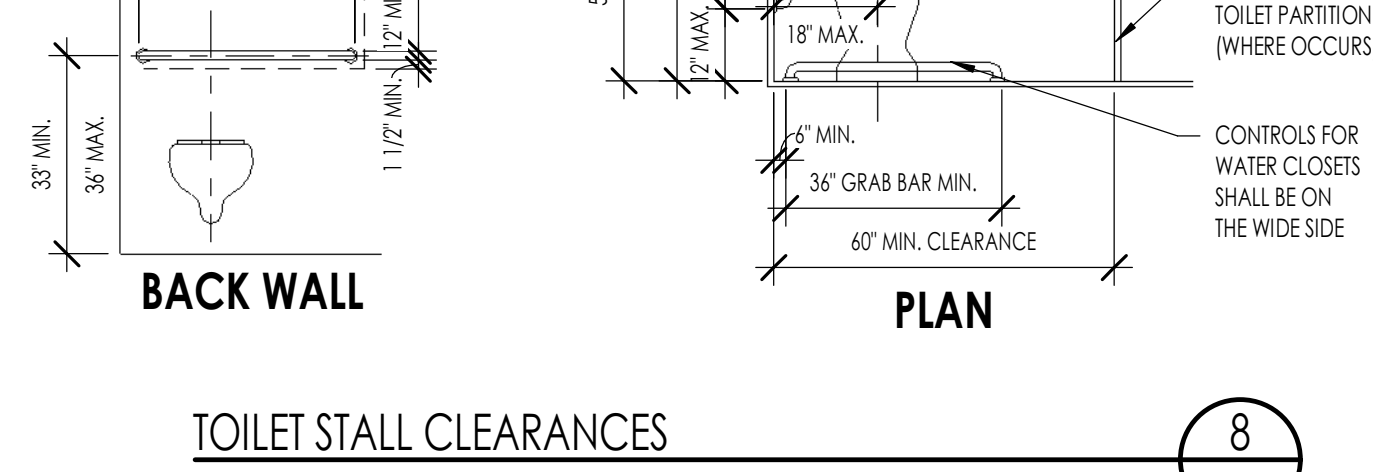


ACCESSIBLE SEATING
1/2" = 1'-0"

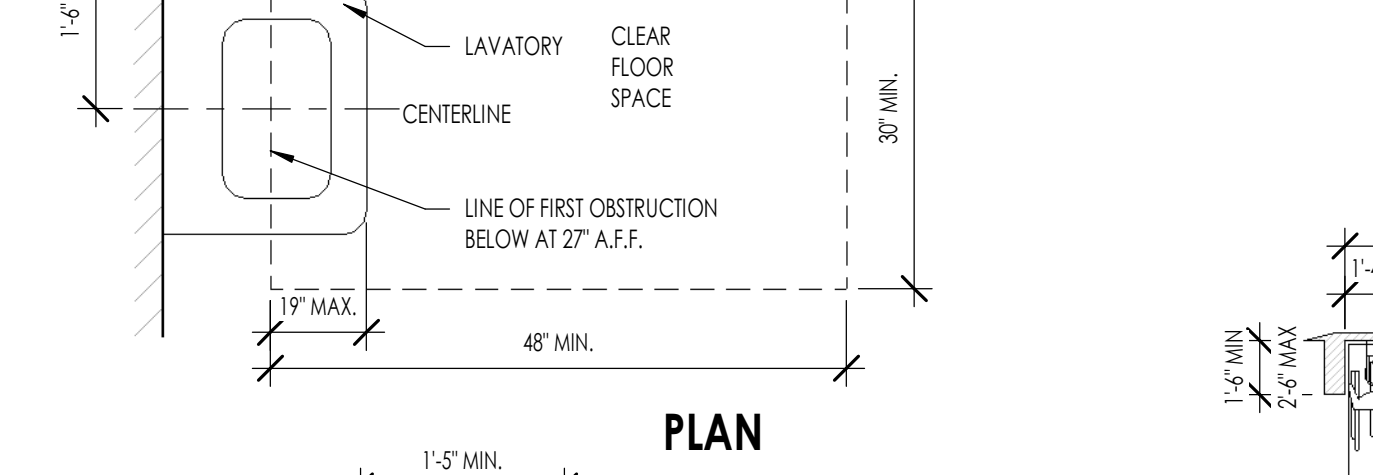
ACCESSIBILITY SIGNS
3" = 1'-0"



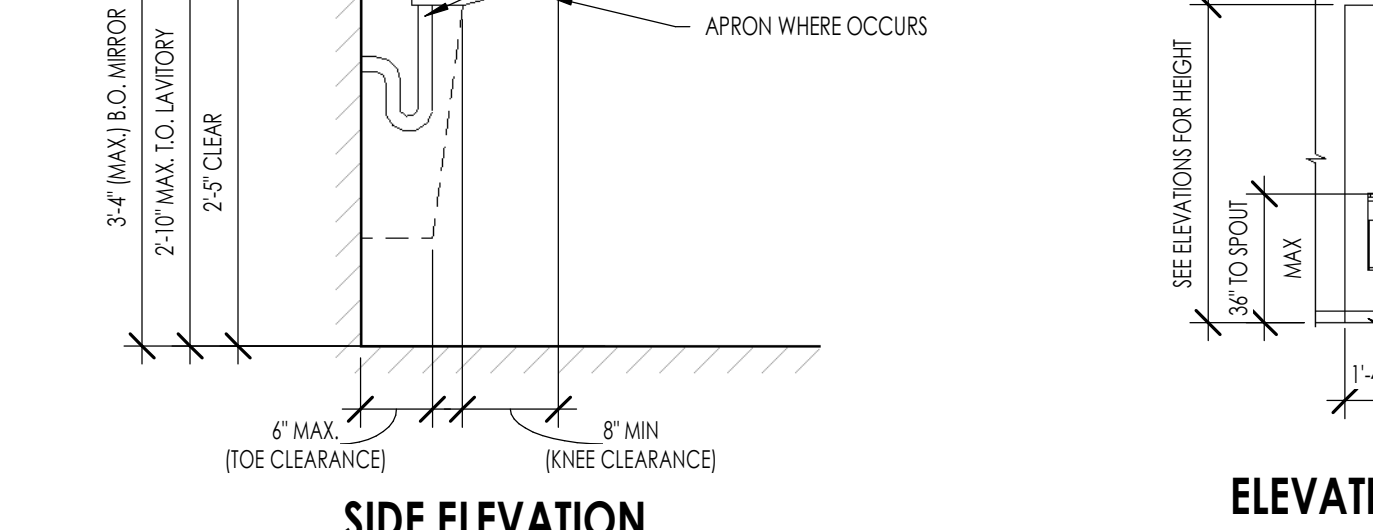
SIDE ELEV.



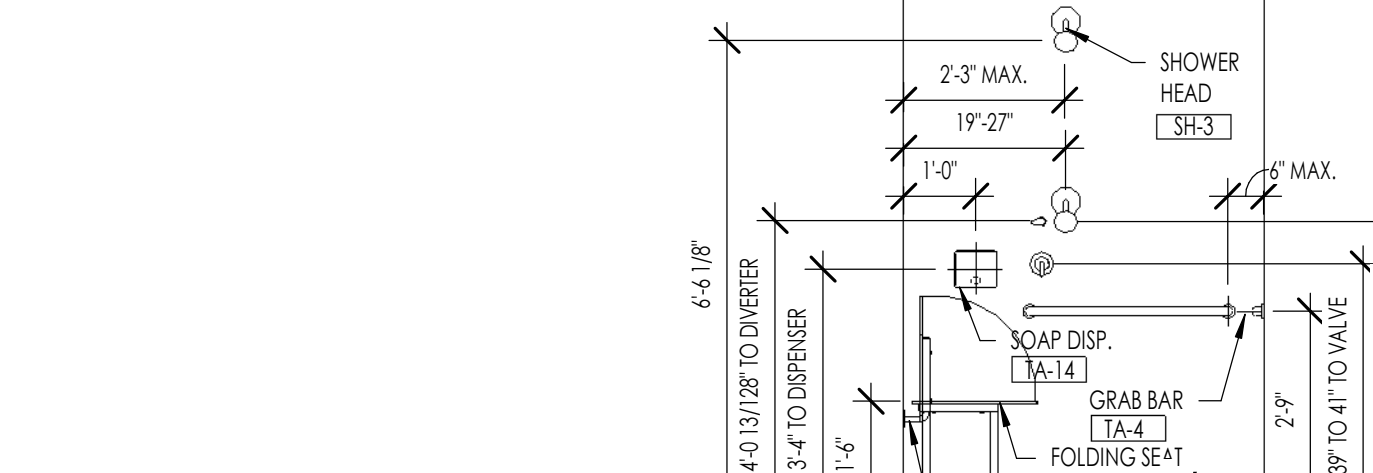
TOILET STALL CLEARANCES
31/16" = 1'-0"



LEG CLEARANCE

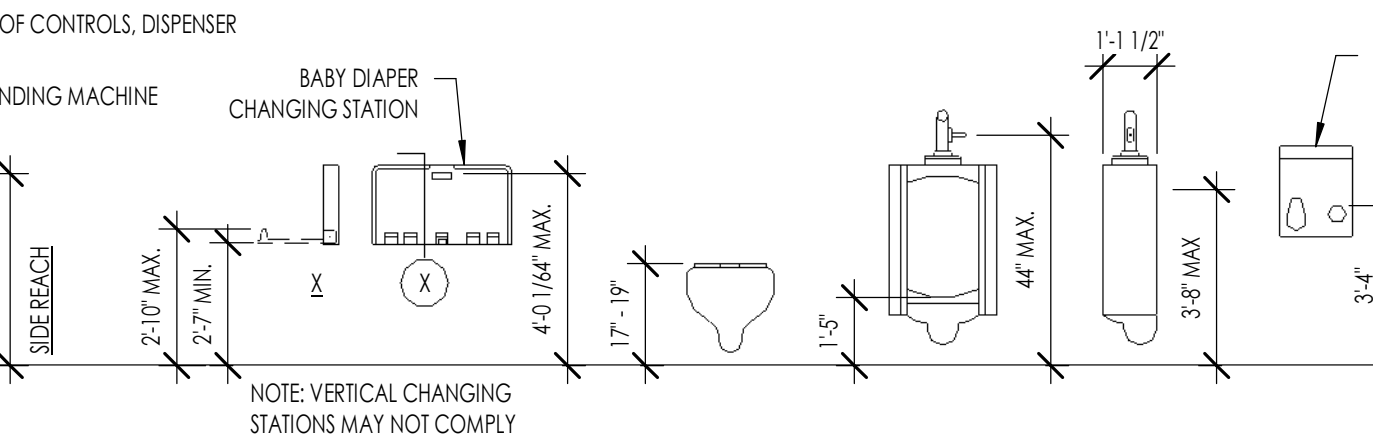


PLAN



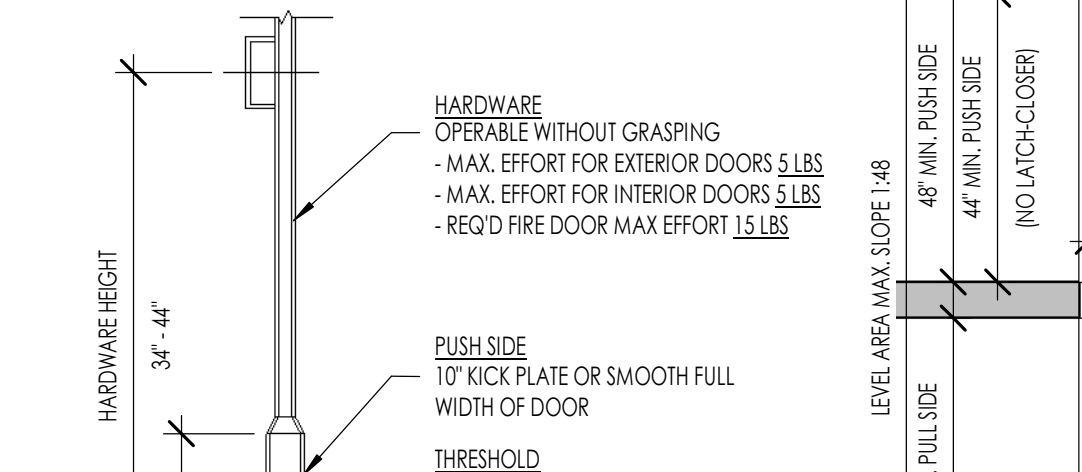
SIDE ELEVATION

ELEVATION



ELEVATION

ACCESSIBLE LOCKER
1/2" = 1'-0"

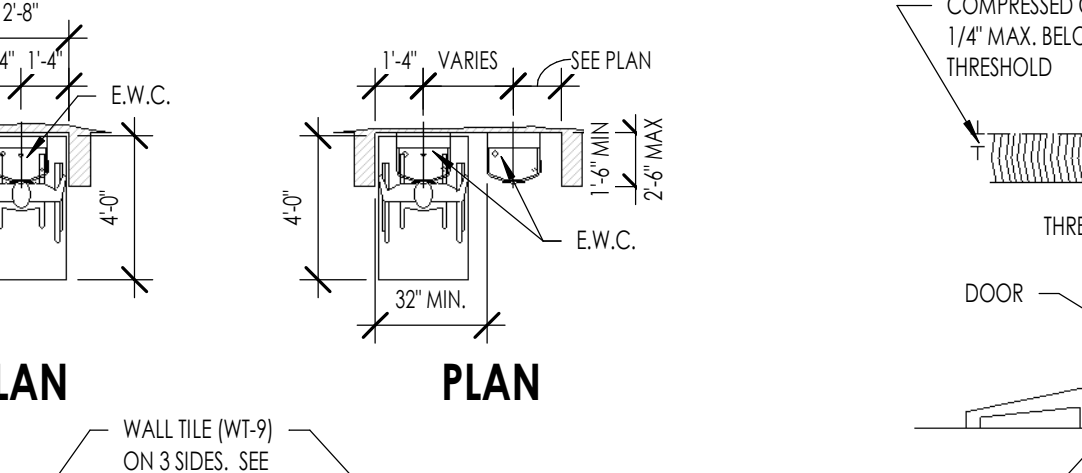


SECTION @ DOOR / THRESHOLD



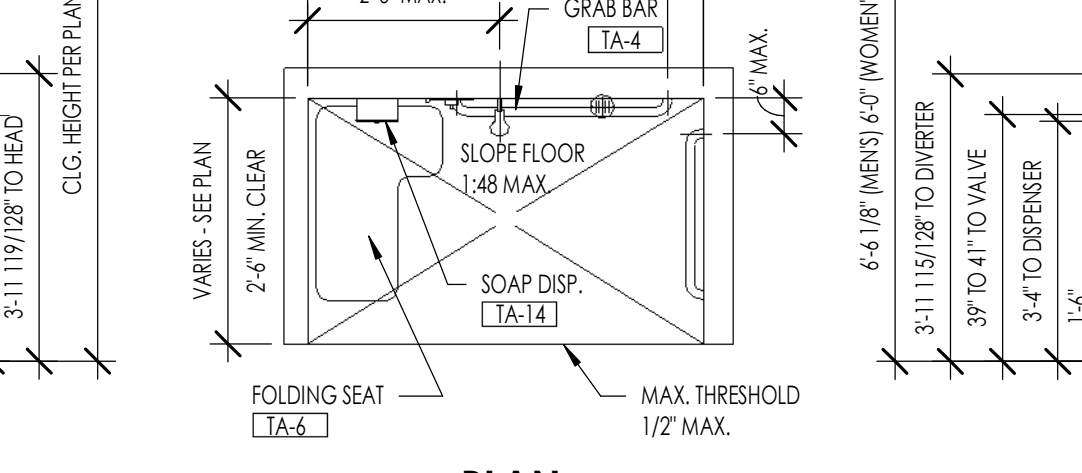
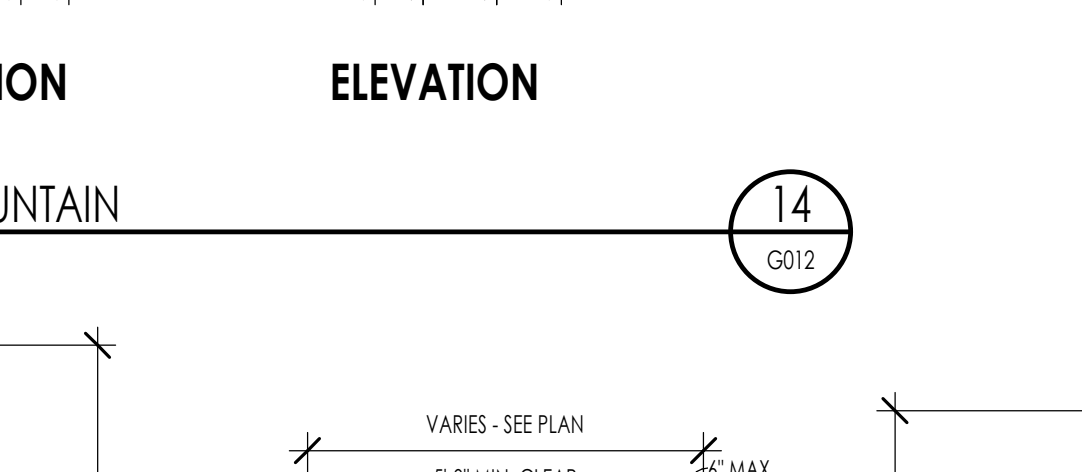
DOOR CLEARANCES

DOOR ACCESS CLEARANCES
31/16" = 1'-0"

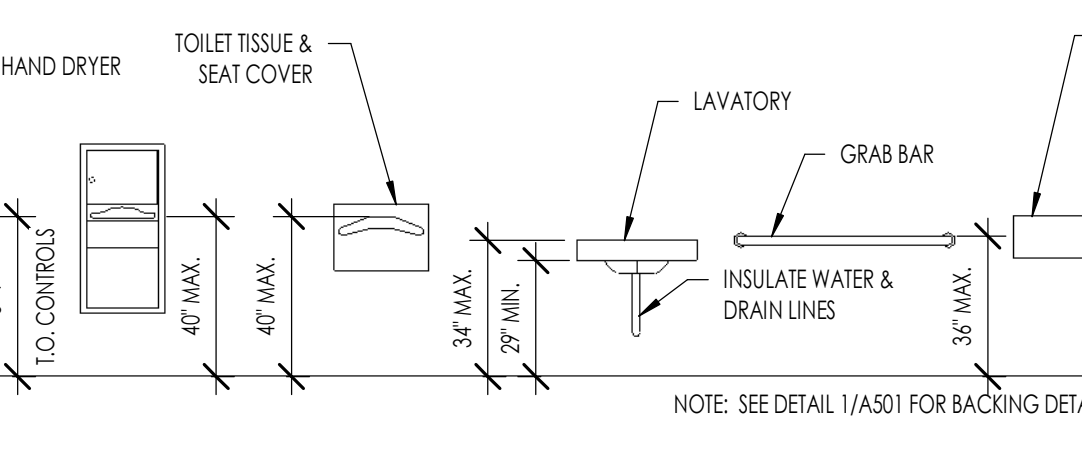


RECEPTACLES/SWITCHES
31/16" = 1'-0"

THRESHOLD/TRANSITION
1/8" = 1'-0"

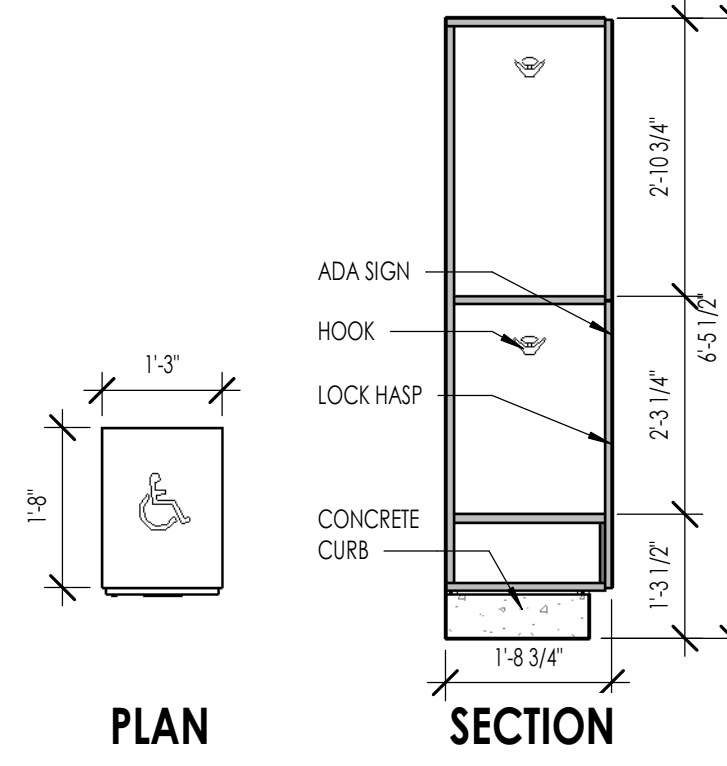


PLAN

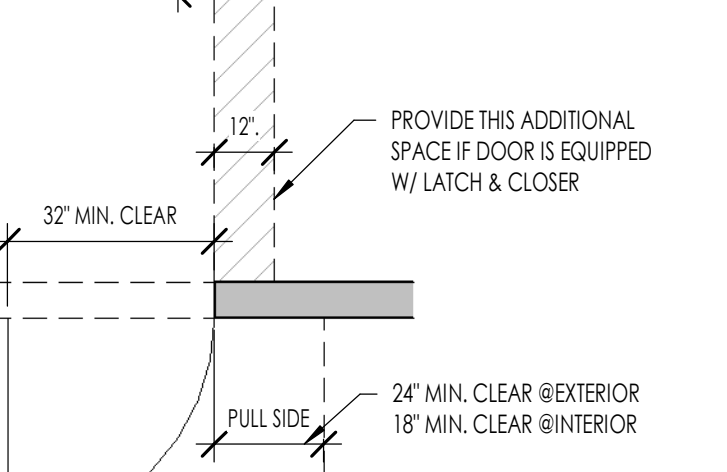


ELEVATION

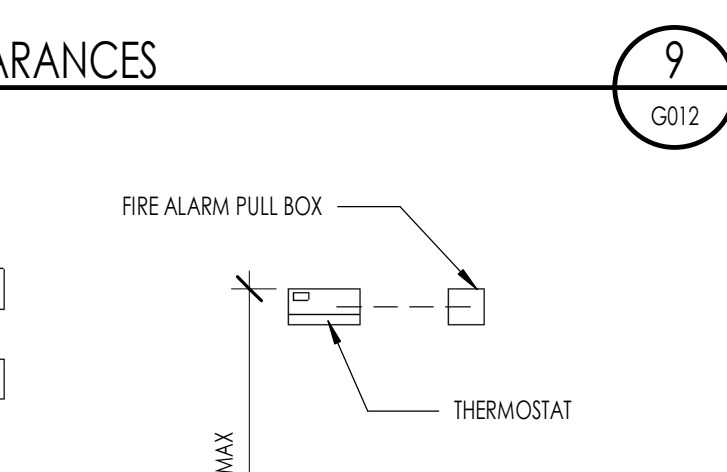
FIXTURE & ACCESSORY MOUNTING HEIGHTS
1/4" = 1'-0"



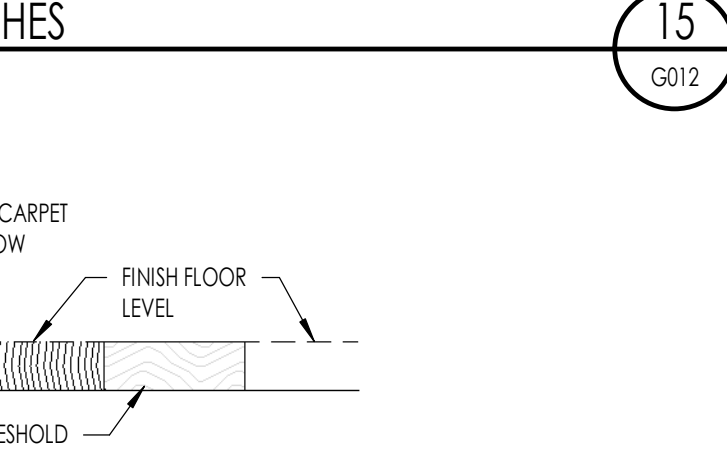
ACCESSIBLE LOCKER
1/2" = 1'-0"



DOOR CLEARANCES



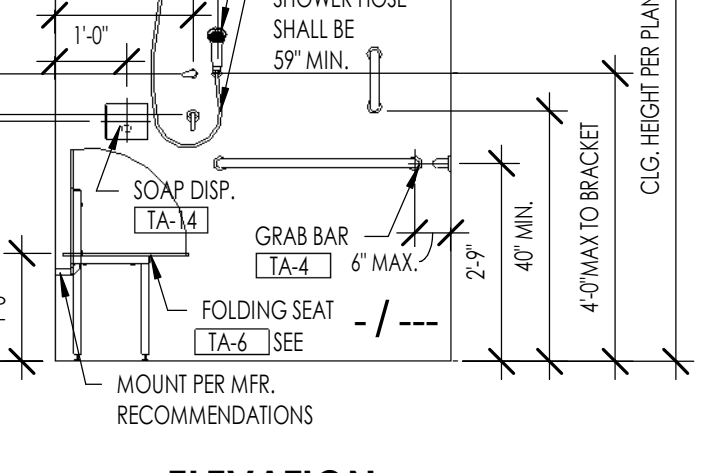
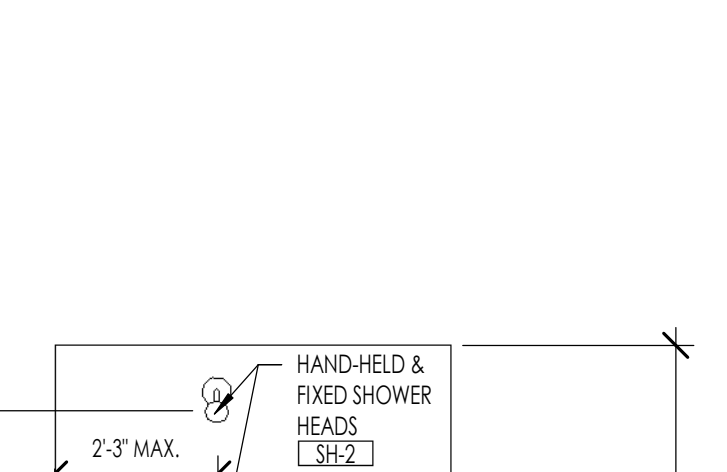
DOOR ACCESS CLEARANCES
31/16" = 1'-0"



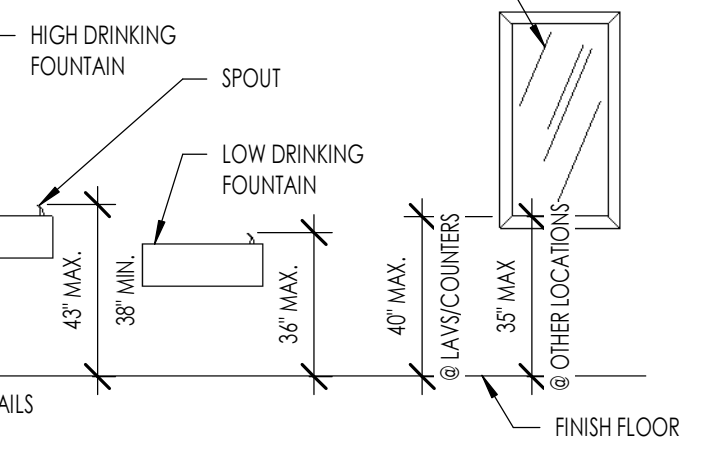
RECEPTACLES/SWITCHES
31/16" = 1'-0"

THRESHOLD/TRANSITION
1/8" = 1'-0"

THRESHOLD/TRANSITION
1/8" = 1'-0"



PLAN



ELEVATION

FIXTURE & ACCESSORY MOUNTING HEIGHTS
1/4" = 1'-0"

DISABLED ACCESS REQUIREMENTS

CLEAR FLOOR SPACE FOR WHEELCHAIRS

- MINIMUM CLEAR FLOOR OR GROUND SPACE REQUIRED TO ACCOMMODATE A SINGLE STANDARD WHEELCHAIR AND OCCUPANT IS 30 INCHES X 48 INCHES. MINIMUM CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE POSITIONED FOR FORWARD OR PARALLEL APPROACH TO A TOILET, FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE PART OF THE KNEE SPACE REQUIRED UNDER SOME OBJECTS.
- PROVIDE AN ADDITIONAL 12 INCHES WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 15 INCHES DEEP AND DESIGNED FOR SIDE APPROACH. PROVIDE AN ADDITIONAL 12 INCHES WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 24 INCHES DEEP AND DESIGNED FOR FRONT APPROACH.

HAZARDS & PROTRUDING OBJECTS

- OBJECTS PROJECTING FROM WALLS WITH THEIR LEADING EDGES BETWEEN 27 INCHES AND 80 INCHES ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4 INCHES INTO WALLS, HALLS, CORRIDORS, PASSAGEWAYS, OR AISLES.
- OBJECTS MOUNTED WITH THEIR LEADING EDGES AT OR BELOW 27 INCHES ABOVE THE FINISHED FLOOR MAY PROTRUDE ANY MOUNT.
- FREE-STANDING OBJECTS MOUNTED ON POSTS/PYLONS MAY OVERHANG 12 INCHES MAXIMUM FROM 27 INCHES TO 80 INCHES ABOVE THE GROUND OR FINISHED FLOOR.
- PROTRUDING OBJECTS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE.
- ANY OBSTRUCTION OVERHANGING A PEDESTRIAN WALK SHALL BE A MINIMUM OF 80 INCHES ABOVE THE WALKING SURFACE AS MEASURED TO THE BOTTOM OF THE OBSTRUCTION.

PARKING

- SURFACE SLOPES OF PARKING SPACES FOR THE PHYSICALLY DISABLED SHALL NOT EXCEED 1/4 INCH PER FOOT (2% GRADE) IN ANY DIRECTION.
- DISABLED PARKING SPACES SHALL BE LOCATED SO AS NOT TO REQUIRE USERS TO WHEEL OR WALK BEHIND ANY OTHER NON-DISABLED OR DISABLED PARKING SPACE. (CALIFORNIA ONLY)
- IN EACH PARKING AREA, A BIUMPER OR CURB SHALL BE PROVIDED AND LOCATED TO PREVENT ENCRoACHMENT OF CARS OVER THE REQUIRED WIDTH OF WALKWAYS.
- PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH SECTION 118-703.2.1 IN WHITE ON A BLUE BACKGROUND. SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN ADDITIONAL LANGUAGE OR AN ADDITIONAL SIGN WITH THE DESIGNATION "VAN ACCESSIBLE". SIGNS SHALL BE 60 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE AS MEASURED TO THE BOTTOM OF THE SIGN. EXCEPTION: SIGNS LOCATED WITHIN A CIRCULATION PATH SHALL BE A MINIMUM OF 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN. 2019 CBC SECTION 118-304.1

WALKS AND SIDEWALKS

- WALKS AND SIDEWALKS SHALL HAVE A CONTINUOUS COMMON SURFACE NOT INTERRUPTED BY STEPS OR ABRUPT CHANGES IN LEVEL WHICH EXCEED 1/2 INCH, AND SHALL BE A MINIMUM OF 48 INCHES IN WIDTH.
- SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4 INCH PER FOOT.
- WALKS, SIDEWALKS, AND PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. GRID OPENINGS WITHIN GRATING LOCATED IN THE SURFACE OF ANY OF THESE AREAS SHALL BE LIMITED TO 1/2 INCH IN THE DIRECTION OF THE TRAFFIC FLOW.
- WHEN THE SLOPE OR THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1 VERTICAL TO 20 HORIZONTAL, IT SHALL COMPLY WITH THE PROVISIONS OF PEDESTRIAN RAMP.

ENTRANCES AND DOORS

- AT LEAST 50% OF PRIMARY ENTRANCES AND EXTERIOR GROUND FLOOR EXIT DOORS TO BUILDINGS AND FACILITIES SHALL BE MADE ACCESSIBLE TO THE PHYSICALLY DISABLED. 100% OF GROUND FLOOR ENTRANCES AND EXITS IN CALIFORNIA.
- ALL ACCESSIBLE ENTRANCES SHALL BE IDENTIFIED WITH AT LEAST ONE STANDARD SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRIAN WAYS.
- EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 36 INCHES IN WIDTH, AND NOT LESS THAN 80 INCHES IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE MOUNTED TO THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32 INCHES.
- LATCHING AND LOCKING DEVICES THAT ARE HAND ACTIVATED AN WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-BUTTON, ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.
- DOOR AND GATE HARDWARE, HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY WITH SECTION 118-309.4. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE. WHERE SLIDING LOCKS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES. 2019 CBC SECTION 118-404.2.7
- THE FLOOR OR LANDING LENGTH ON EACH SIDE OF AN ENTRANCE OR A PASSAGE DOOR SHALL BE LEVEL AND CLEAR AT LEAST 60 INCHES IN THE DIRECTION OF THE DOOR SWING AND AT LEAST 48 INCHES OPPOSITE THE DIRECTION OF THE DOOR SWING AS MEASURED AT RIGHT ANGLES TO THE FACE OF THE DOOR IN THE CLOSED POSITION. THE WIDTH OF THE LEVEL AND CLEAR AREA ON THE SIDE WHICH THE DOOR SWINGS SHALL EXTEND A MINIMUM OF 24 INCHES PAST THE STRIKE EDGE OF THE DOOR FOR DOORS WITH LATCH SIDE APPROACH AND 36 INCHES FOR DOORS REQUIRING DOOR SIDE APPROACH. REFER TO DETAIL NO. 2 ON THIS DRAWING FOR ADDITIONAL CLEARANCE REQUIREMENTS.
- THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2 INCH LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGES IN LEVEL BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE LEVEL WITH A SLOPE NO GREATER THAN 1:2.
- THE BOTTOM 10 INCHES OF ALL DOORS (EXCEPT AUTOMATIC AND SLIDING) SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION WHERE NARROW FRAME DOORS ARE USED. A 10 INCH HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR, WHICH WILL ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST.
- THE MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS. FOR ALL EXTERIOR AND INTERIOR DOORS, WITH SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS, WHEN FIRE DOORS ARE REQUIRED. THE MAXIMUM EFFORT TO OPERATED THE DOOR MAY NOT EXCEED 15 LBS.
- CLOSERS SHALL BE ADJUSTED TO ALLOW AT LEAST 3 SECONDS TO CLOSE FROM AN OPEN POSITION OF 70 DEGREES TO WITHIN 2" OF LATCH, MEASURED AT THE LEADING EDGE OF THE DOOR.

STAIRS AND STAIRWAYS

- STAIRWAYS SHALL HAVE HANDRAILS ON EACH SIDE. EVERY STAIRWAY REQUIRED TO BE MORE THAN 88 INCHES IN WIDTH SHALL BE PROVIDED WITH NO LESS THAN ONE INTERMEDIATE HANDRAIL FOR EACH 88 INCHES OF REQUIRED WIDTH. INTERMEDIATE HANDRAILS SHALL BE SPACED APPROXIMATELY EQUALLY WITHIN THE ENTIRE WIDTH OF THE STAIRWAY. THE UPPER APPROACH AND THE LOWER TREAD OF EACH INTERIOR STAIR SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2 INCHES WIDE AND PLACED PARALLEL TO, AND NOT MORE THAN 1 INCH FROM THE NOSE OF THE STEP OR LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIP SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP-RESISTANT AS THE TREADS OF THE STAIR. A PAINTED STRIP SHALL BE ACCEPTABLE.
- ALL STAIR TREAD SURFACES SHALL BE SLIP-RESISTANT.

TELEPHONES

- PROVIDE A 30 INCH X 48 INCH CLEAR SPACE AT TELEPHONE. THE CLEAR SPACE MAY MAXI UDE KNEE SPACE UNDER THE TELEPHONE.
- OPERABLE PART FOR A TELEPHONE SHALL COMPLY WITH 2019 CBC 118-309.4. OPERABLE PARTS HEIGHT PER § 118-308.
- THE CORD FROM THE TELEPHONE TO THE HANDSET SHALL BE AT LEAST 29 INCHES LONG.
- IF BANKS OF PUBLIC TELEPHONES ARE PROVIDED, THEN A REASONABLE NUMBER, BUT ALWAYS AT LEAST ONE, IN A BUILDING OR FACILITY SHALL BE EQUIPPED WITH A VOICEMAIL CONTROL.
- TELEPHONES SHALL HAVE PUSH-BUTTON CONTROLS WHERE SERVICE FOR SUCH EQUIPMENT IS AVAILABLE.

ADDITIONAL REQUIREMENTS

- THE BOTTOM OF RECEPTACLE OUTLETS SHALL BE NOT LESS THAN 15 INCHES ABOVE THE FLOOR OR WORKING PLATFORM.
- THE MAXIMUM HEIGHT FOR CONTROLS, SWITCHES, RECEPTACLE OUTLETS AND THERMOSTATS IS 48" MEASURED TO THE TOP OF THE BOX TO THE LEVEL OF FINISH FLOOR OR WORKING PLATFORM. THE MINIMUM HEIGHT FOR RECEPTACLES OUTLETS OR BRANCH CIRCUITS OF 30-AMP OR LESS AND COMMUNICATION SYSTEM RECEPTACLES ARE MEASURED 15" AFF TO THE BOTTOM OF THE BOX TO THE LEVEL OF FINISH FLOOR OR WORKING PLATFORM. 2019 CBC SECTION 118-308.1 & 118-308.1.2
- THE TOP OF FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED 48 INCHES ABOVE THE LEVEL OF THE ADJACENT FLOOR, WORKING PLATFORM, GROUND SURFACE, OR SIDEWALK.
- INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PHYSICALLY DISABLED PERSONS. THE SYMBOL SPECIFIED ABOVE SHALL CONSIST OF A WHITE FIGURE ON BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 13090 IN FEDERAL STANDARD 595A.
- FLOOR SLOPES TO DRAIN SHALL NOT EXCEED 1/50 (2%) IN ANY DIRECTION. FLOOR DRAIN COVERS AND GRATES IN THE ACCESSIBLE PATH SHALL HAVE OPENINGS LESS THAN 1/4 INCH AND SHALL BE SET FLUSH WITH THE SURROUNDING FLOOR FINISHES.
- 2019 CBC SECTION 118-252.1, WHERE LOCKERS ARE PROVIDED, AT LEAST 5 PERCENT, BUT NO FEWER THAN ONE OF EACH TYPE, SHALL COMPLY WITH SECTION 2019 CBC SECTION 118-811.
- TOILET & SHOWER ROOM FLOOR FINISH MATERIALS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE. THE INTERSECTIONS OF SUCH FLOORS WITH WALLS SHALL HAVE A SMOOTH, HARD, NONABSORBENT VERTICAL BASE THAT EXTENDS UPWARD ONTO THE WALLS AT LEAST 4 INCHES.
- HANDRAILS ARE REQUIRED ON RAMPS WHEN THE SLOPE EXCEEDS 1:20 (5%). HANDRAILS AT RAMPS SHALL RUN ALONG BOTH THE RAMP AND THE CONTINUOUS THE FULL LENGTH, AND EXTENSIONS AT THE TOP AND BOTTOM OF THE RAMP SHALL COMPLY WITH ITEM NUMBER 2, ABOVE.
- THE HANDRAIL GRIP SURFACE AT RAMPS SHALL BE MOUNTED BETWEEN 34 INCHES AND 38 INCHES ABOVE THE RAMP SURFACE.
- ALL HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN HVEL POSTS OR SAFETY TERMINALS.
- ALL HANDRAILS PROJECTED FROM A WALL SHALL HAVE AN ABSOLUTE CLEARANCE OF 1-1/2 INCHES BETWEEN THE WALL AND THE HANDRAIL. THE HANDGRIP PORTION OF HANDRAILS SHALL BE NOT LESS THAN 1-1/4 INCH OR MORE THAN 1-1/2 INCH IN CROSS SECTIONAL DIMENSION OR SHAPE. SHALL PROVIDE AN EQUIVALENT SMOOTH GRIPPING SURFACE WITH NO SHARP CORNERS.

HANDRAILS

- HANDRAILS AT STAIRWAYS SHALL BE 34 INCHES TO 38 INCHES ABOVE THE NOSE OF THE TREADS.
- HANDRAILS AT THE TOP OF STAIRWAYS SHALL EXTEND A MINIMUM OF 12 INCHES OF LEVEL DISTANCE BEYOND THE TOP NOSING. HANDRAILS AT THE BOTTOM OF STAIRWAYS SHALL EXTEND A MINIMUM OF FLOOR PLUS 12 INCHES BEYOND THE BOTTOM NOSING BEFORE THEY ARE RETURNED. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF THE WIDTH OF ONE TREAD FROM THE BOTTOM RISER. THE REMAINDER OF THE EXTENSION IS HORIZONTAL LEVEL.
- WHERE THE EXTENSION OF THE HANDRAIL IN THE DIRECTION OF THE STAIR RUN WOULD CREATE A HAZARD, THE EXTENSION SHALL BE MADE AT RIGHT ANGLES, ON THE FACE OF A RETURNING WALL, WHERE THE STAIRS ARE CONTINUOUS THE HANDRAIL SHALL BE CONTINUOUS AND SHED NOT EXTEND OUT INTO THE LANDING.
- HANDRAILS ARE REQUIRED ON RAMPS WHEN THE SLOPE EXCEEDS 1:20 (5%). HANDRAILS AT RAMPS SHALL RUN ALONG BOTH THE RAMP AND THE CONTINUOUS THE FULL LENGTH, AND EXTENSIONS AT THE TOP AND BOTTOM OF THE RAMP SHALL COMPLY WITH ITEM NUMBER 2, ABOVE.
- THE HANDRAIL GRIP SURFACE AT RAMPS SHALL BE MOUNTED BETWEEN 34 INCHES AND 38 INCHES ABOVE THE RAMP SURFACE.
- ALL HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN HVEL POSTS OR SAFETY TERMINALS.
- ALL HANDRAILS PROJECTED FROM A WALL SHALL HAVE AN ABSOLUTE CLEARANCE OF 1-1/2 INCHES BETWEEN THE WALL AND THE HANDRAIL. THE HANDGRIP PORTION OF HANDRAILS SHALL BE NOT LESS THAN 1-1/4 INCH OR MORE THAN 1-1/2 INCH IN CROSS SECTIONAL DIMENSION OR SHAPE. SHALL PROVIDE AN EQUIVALENT SMOOTH GRIPPING SURFACE WITH NO SHARP CORNERS.

FIXTURE & ACCESSORY MOUNTING HEIGHTS
1/4" = 1'-0"

RAMPS

- ALL RAMPS USED AS EXITS AND ANY PATH OF TRAVEL HAVING A SLOPE GREATER THAN 1:20 SHALL COMPLY WITH THE REQUIREMENTS OF THIS SECTION. RAMPS SHALL HAVE THE LEAST POSSIBLE SLOPE.
- PEDESTRIAN RAMPS SERVING PRIMARY ENTRANCES TO A BUILDING SHALL HAVE A MINIMUM WIDTH OF 48 INCHES. RAMPS SERVING AN OCCUPANCY LOAD GREATER THAN 300 SHALL HAVE A MINIMUM WIDTH OF 60 INCHES. (CALIFORNIA ONLY)
- ALL RAMPS IN AREAS ACCESSIBLE TO PERSONS WITH DISABILITIES ON A PATH OF TRAVEL OR SERVING EXITS SHALL HAVE A 1:12 MAXIMUM SLOPE WITH CROSS SLOPES NO GREATER THAN 1:50.
- THE LEVEL LANDING WIDTH OF ANY RAMP SHALL EXTEND PAST THE STRIKE EDGE OF ANY DOOR OR GATE AS SHOWN ON DETAILS NO. 2 ON THIS DWG. DOORS STANDING IN ANY POSITION SHALL NOT REDUCE THE MINIMUM DIMENSION OF THE RAMP TO LESS THAN 42 INCHES OR THE REQUIRED WIDTH OF MORE THAN 36 INCHES. (CALIFORNIA ONLY)

SANITARY FACILITIES (GENERAL)

- ALL DOORWAYS LEADING TO SANITARY FACILITIES SHALL HAVE 32 INCH CLEAR, UNOBSTRUCTED OPENINGS.
- ALL SINKS, FAUCET CONTROLS, AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.
- LAVATORIES SHALL BE MOUNTED WITH A MINIMUM DISTANCE OF 15 INCHES (16 INCH IN CALIFORNIA) FROM 30 INCHES ABOVE THE FINISHED FLOOR. ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO HIGHER THAN 34 INCHES ABOVE THE FLOOR.

TOILET RM. FIXTURES &

NUMBER	NAME	OCCUPANCY	AREA	OLF	OCCUPANT LOAD
MAIN LEVEL					
101	STORAGE	B	239 SF	150	2
102	CONCESSION	B	306 SF	150	3
			545 SF		5

STAIR

166 OCC.

4'-6" R

6'-0" P

EXIT

166 OCC.

3'-0" R

4'-0" P

MAXIMUM OCCUPANT LOAD THRU EXIT

MINIMUM REQUIRED STAIR WIDTH

STAIR WIDTH PROVIDED

LOCATION SHOWN BY LARGE ARROW

MAXIMUM OCCUPANT LOAD THRU EXIT

MINIMUM REQUIRED EXIT WIDTH

EXIT WIDTH PROVIDED

1 HOUR FIRE BARRIER OR PARTITION - SEE WALL TYPES

NEW WALL - SEE WALL TYPES

EXISTING WALL

TRAVEL DISTANCE TO FEC

ROOM NAME

OCCUPANCY GROUP

ROOM/AREA SQUARE FOOTAGE

OCCUPANT LOAD

OCCUPANCY LOAD FACTOR

ROOM/AREA REQUIRED EXIT

BUILDING REQUIRED EXIT

NON-RATED SEMI-RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER - 2A: 10BC

NON-RATED FULLY RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER - 2A: 10BC

FIRE EXTINGUISHER NO CABINET

FIRE EXTINGUISHER - 2A: 10BC

ROOMS WITH AN OCCUPANT LOAD OF 50 OR MORE IN GROUP A OCCUPANCY SHALL HAVE TWO EXITS AND ARE REQUIRED TO HAVE PANIC HARDWARE (SEE A601)

ACCESSIBLE ELEMENT

EMERGENCY EXIT SIGN - SEE ELECTRICAL

GENERAL NOTES

1. SEE G000 FOR PROJECT INFORMATION.

2. SEE E201 FOR EXIT SIGNS.

3. P.H. INDICATES REQUIRED PANIC HARDWARE

EXIT NOTES

1. Exit signs shall be internally or externally illuminated

2. Exit signs illuminated by an external source shall have an intensity of not less than 5 foot-candles (54 lux).

3. Internally illuminated signs shall be listed and labeled and shall be installed in accordance with the manufacturer's instructions and Section 2702.

4. Exit signs shall be illuminated at all times. (1013.3)

5. Exit signs shall be connected to an emergency power system that will provide an illumination of not less than 90 min. in case of primary power loss (1013.6.3)

6. Egress doors shall be readily operable from the egress side without the use of a key or special knowledge or effort. See (1010.1.9 for exceptions.

7. Door handles, lock and other operating devices shall be installed at a min. 34" and a max. 48" above the finished floor

8. THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED.

9. All egress door operation shall also comply with Section (1010.1.9 - (1010.1.9.12

10. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

11. The means of egress illumination level shall not be less than 1 foot-candle at the walking surface

12. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply. In the event of power supply failure, an emergency electrical system shall automatically illuminate the following areas:
Aisles and unenclosed egress stairways in rooms and spaces that require two or more means of egress.

A. Corridors, exit enclosures and exit passageways in buildings required to have two or more exits.;

B. Exterior egress components at other than the level of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.

C. Interior exit discharge elements, as permitted in Section (1028.1, in buildings required to have two or more exits.

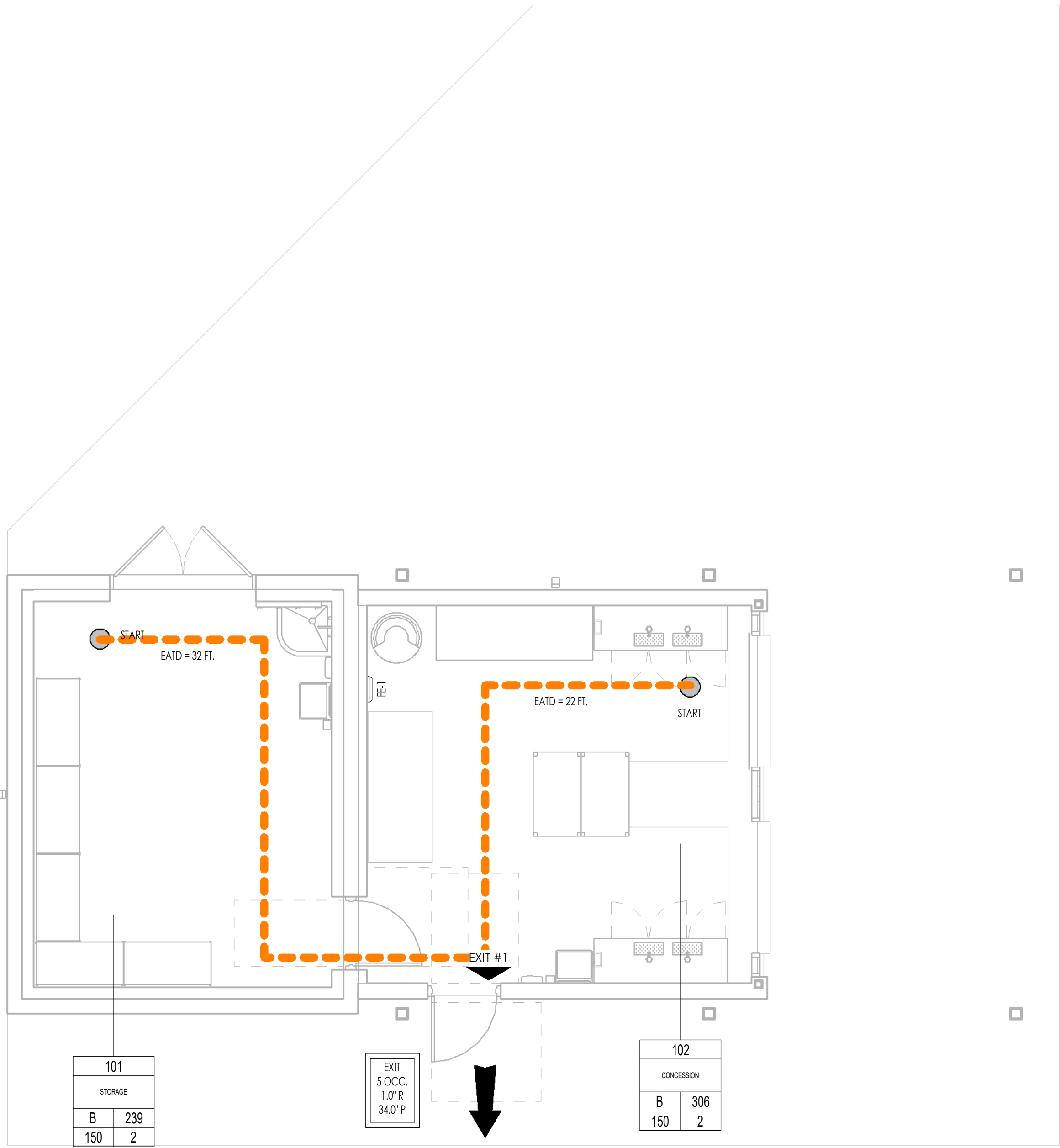
D. Exterior landings, as required by Section 1010.1.4, for exit discharge doorways in buildings required to have two or more exits.

13. The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

14. Emergency lighting facilities shall be arranged to provide initial illumination that is at least an average of 1 foot-candle (11 lux) and a minimum at any point of 0.1 foot-candle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 foot-candle (6 lux) average and a minimum at any point of 0.06 foot-candle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

PROJECT NOTES

1. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings in accordance with Section 1205.2 or shall be provided with artificial light that is adequate to provide an average illumination of 10 foot-candles over the area of the room at a height of 30 inches above the floor level. (1205.1 and 1205.3)



CONCESSIONS CODE COMPLIANCE PLAN

1/4" = 1'-0"



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandys, Utah 84094
ph. 801.269.0555
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - CONCESSIONS

2117 MCCULLOUGH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

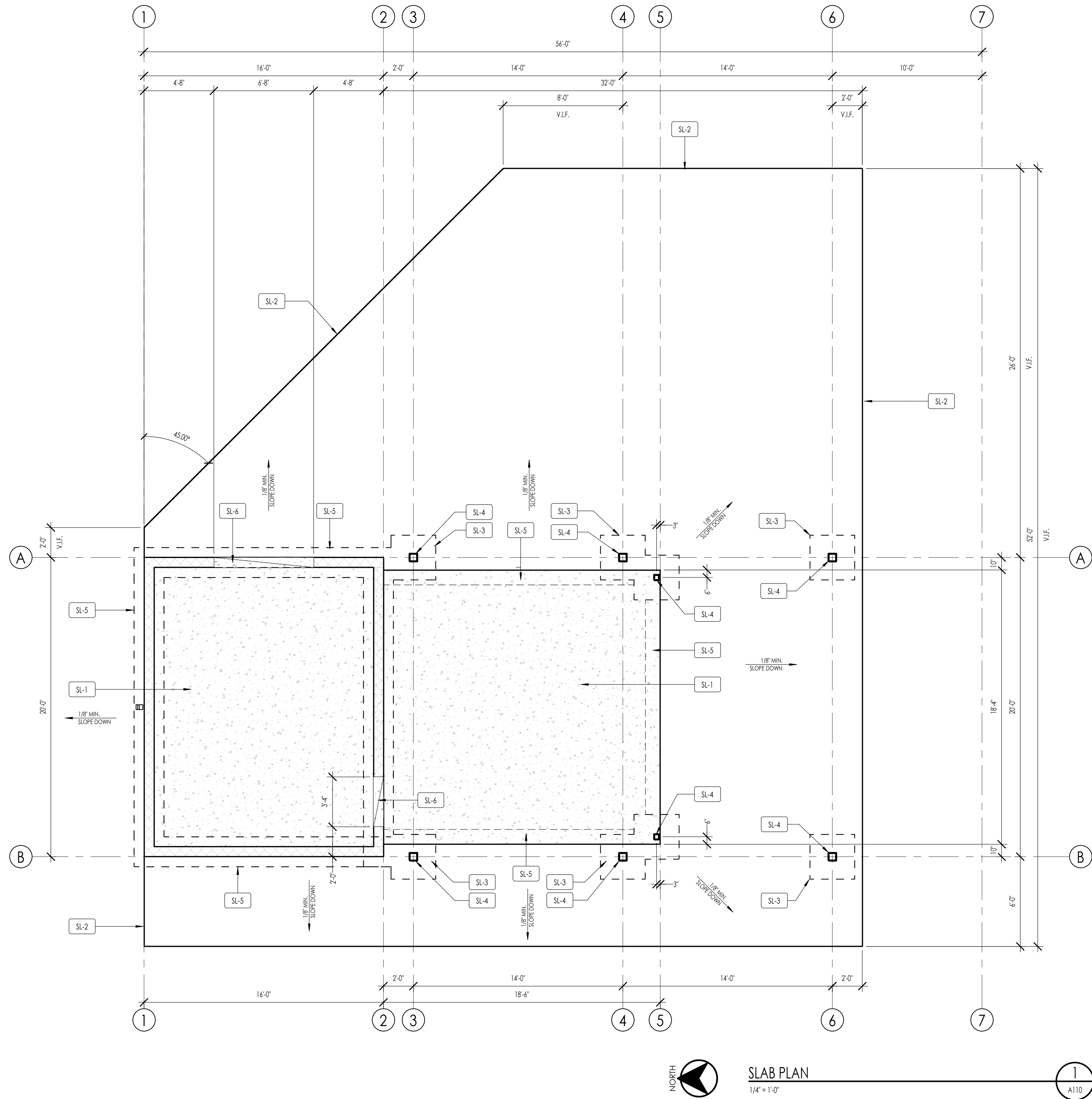
SHEET TITLE:
CONCESSIONS - CODE
COMPLIANCE PLAN

SHEET NUMBER:

G111

© 2022 THINK ARCHITECTURE INC.

BID SET



FLOOR PLAN GENERAL NOTES

1. ALL DIMENSIONS ARE TO GRID OR FACE-OF-STUD (F.O.S.) OR FACE OF CMU - UNLESS NOTED OTHERWISE.
2. CEILING HEIGHTS MEASURED FROM CONCRETE FLOOR SLAB TO FINISH SURFACE.
3. GENERAL CONTRACTOR SHALL COORDINATE WITH STRUCTURAL FRAMING PLANS AND SHEAR WALL PLANS FOR LOCATIONS OF COLUMNS, BEAMS, SHEAR WALLS, ETC.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH BUILDER/OWNER FOR ALL INTERIOR COLOR SELECTIONS.
5. GENERAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING, POWER AND DATA REQUIREMENTS.
6. GENERAL CONTRACTOR SHALL COORDINATE WITH PLUMBING DRAWINGS FOR ALL FIXTURES.
7. GENERAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS FOR HVAC.
8. FOR WALL TYPE, SEE DETAIL 3, 4, 5 AND 6 THIS SHEET.
9. GENERAL CONTRACTOR SHALL COORDINATE EXACT ORIENTATION OF BUILDING WITH THE OWNER.

KEYNOTES SLAB PLAN

SL-1	STRUCTURAL CONCRETE FLOOR SLAB - SEE STRUCTURAL DRAWINGS
SL-2	EXTERIOR CONCRETE SLAB - SEE CIVIL DRAWINGS
SL-3	STRUCTURAL CONCRETE SPOT FOOTING - SEE STRUCTURAL DRAWINGS
SL-4	STRUCTURAL COLUMN - SEE STRUCTURAL DRAWINGS
SL-5	STRUCTURAL CONCRETE CONTINUOUS FOOTING - SEE STRUCTURAL DRAWINGS
SL-6	TURNDOWN SLAB



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85264
ph. 801.269.0555
fax 801.269.1425
www.thinkaaz.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - CONCESSIONS

2117 McCULLOUGH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

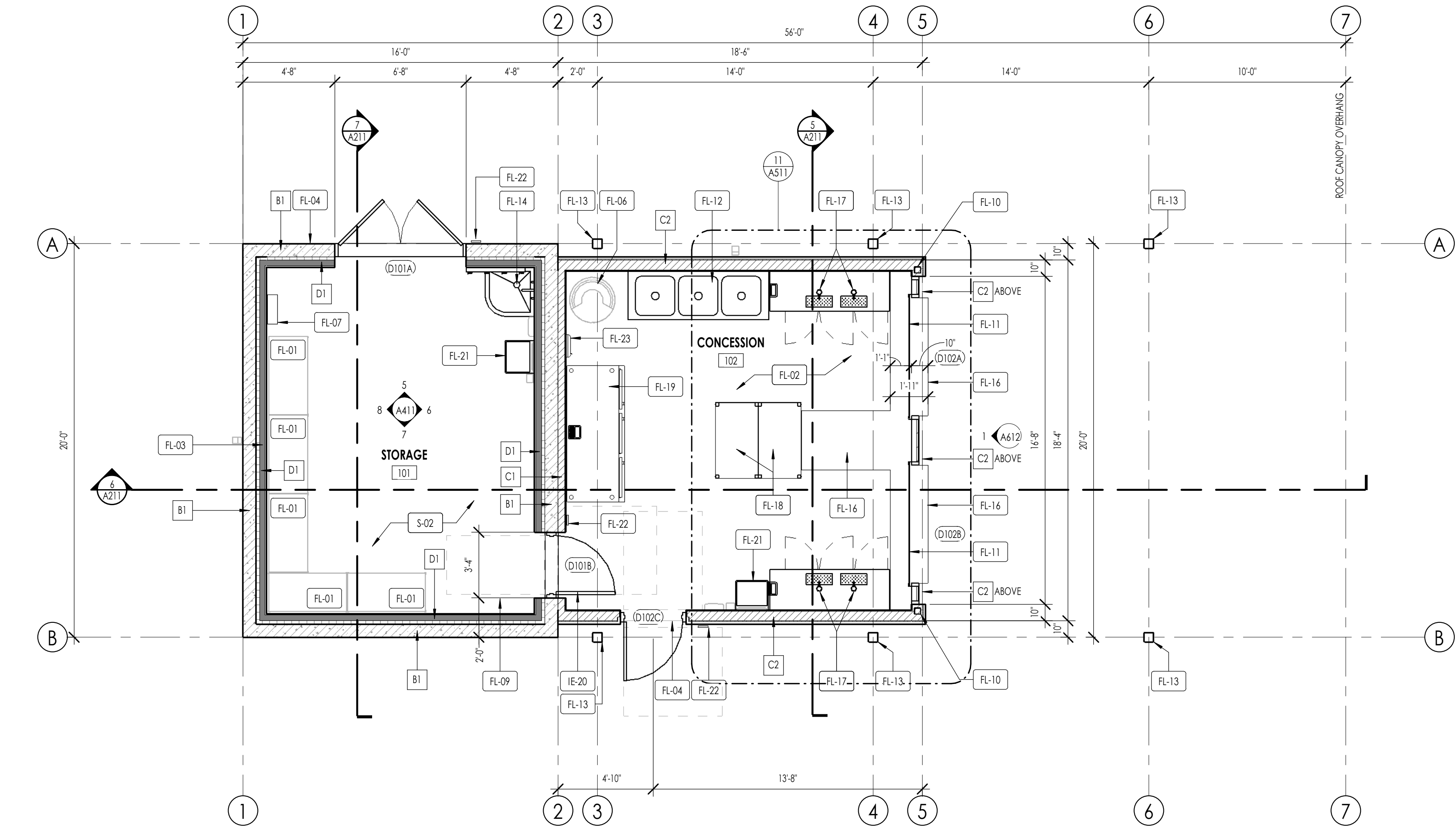
SHEET TITLE:
SLAB PLAN

SHEET NUMBER:

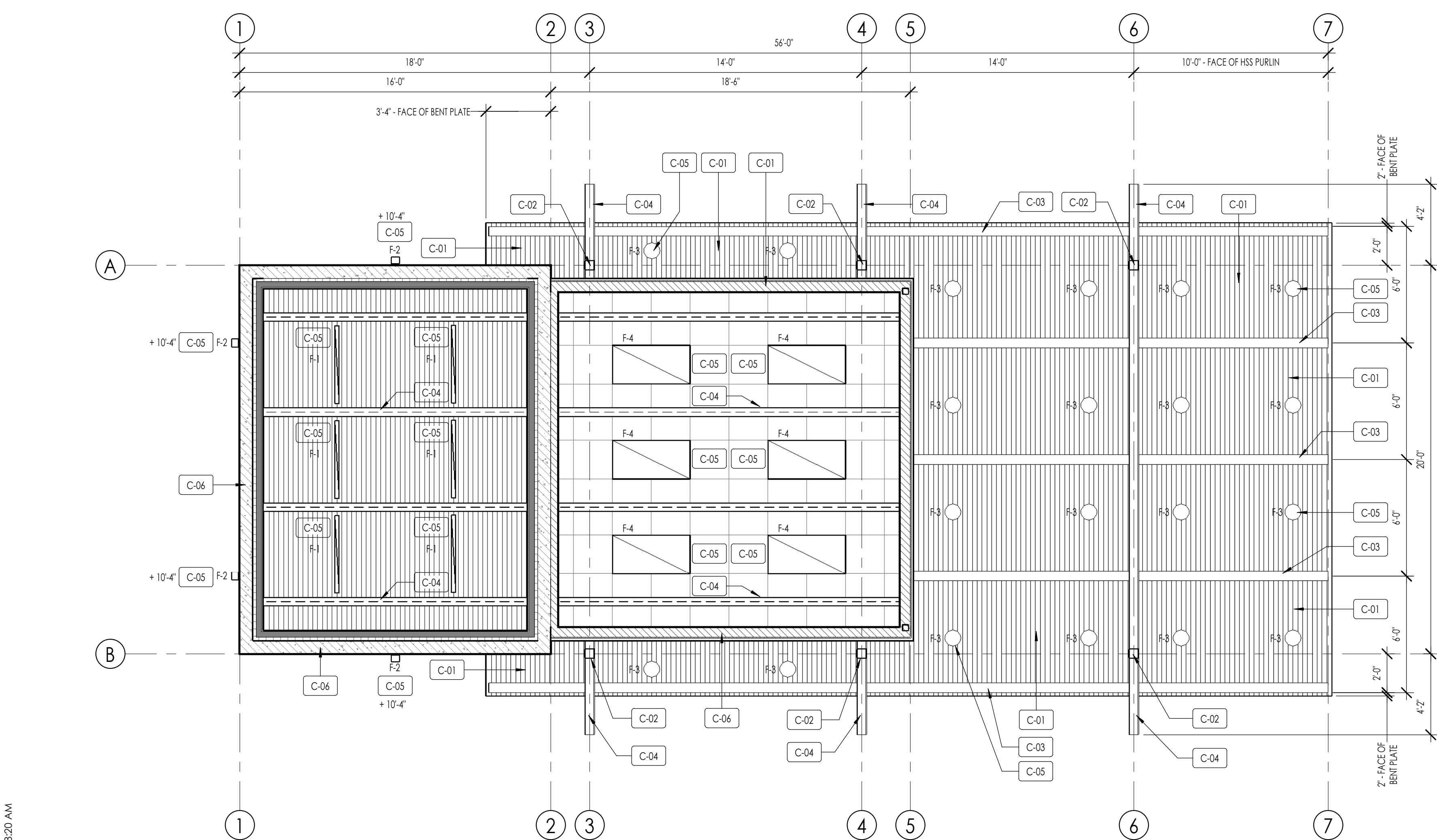
A110

© 2022 THINK ARCHITECTURE INC.

BID SET

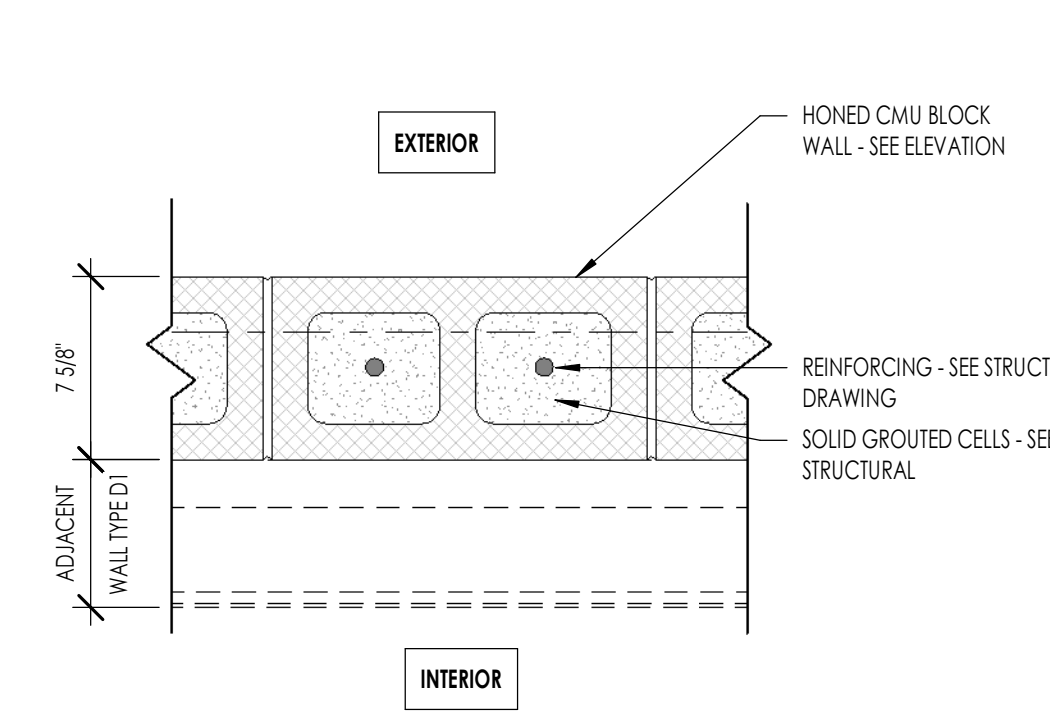


CONCESSIONS FLOOR PLAN
1/4" = 1'-0"



REFLECTED CEILING PLAN
1/4" = 1'-0"

WALL TYPE B1
NON-RATED ASSEMBLY

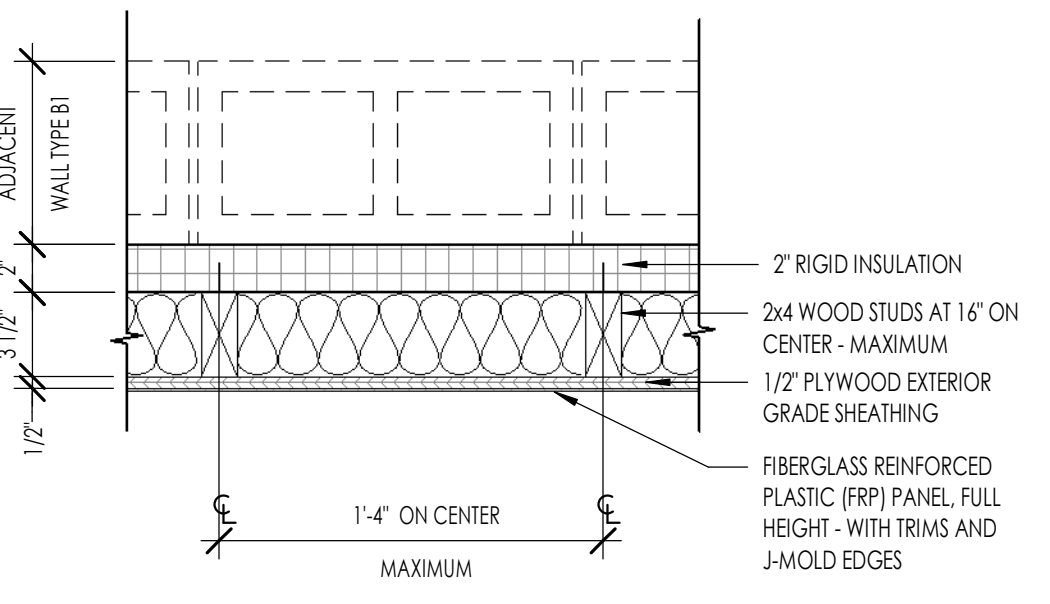


SYSTEM DESCRIPTION:
CONCRETE CMU WALL - 8-INCH CMU BLOCK WALL - SOLID GROUT CELLS PER STRUCTURAL.

CONCRETE MASONRY UNITS:
A. REFER TO STRUCTURAL FOR ALL REINFORCING REQUIREMENTS.
B. PROVIDE U BLOCK AT ALL OPENING BOND BEAMS - ALL OPENINGS SHALL HAVE BULLNOSE CORNERS.
C. HONED CMU BLOCK EXPOSED FACE FINISH AS SHOWN ON ELEVATIONS

WALL TYPE B1
1 1/2" = 1'-0"

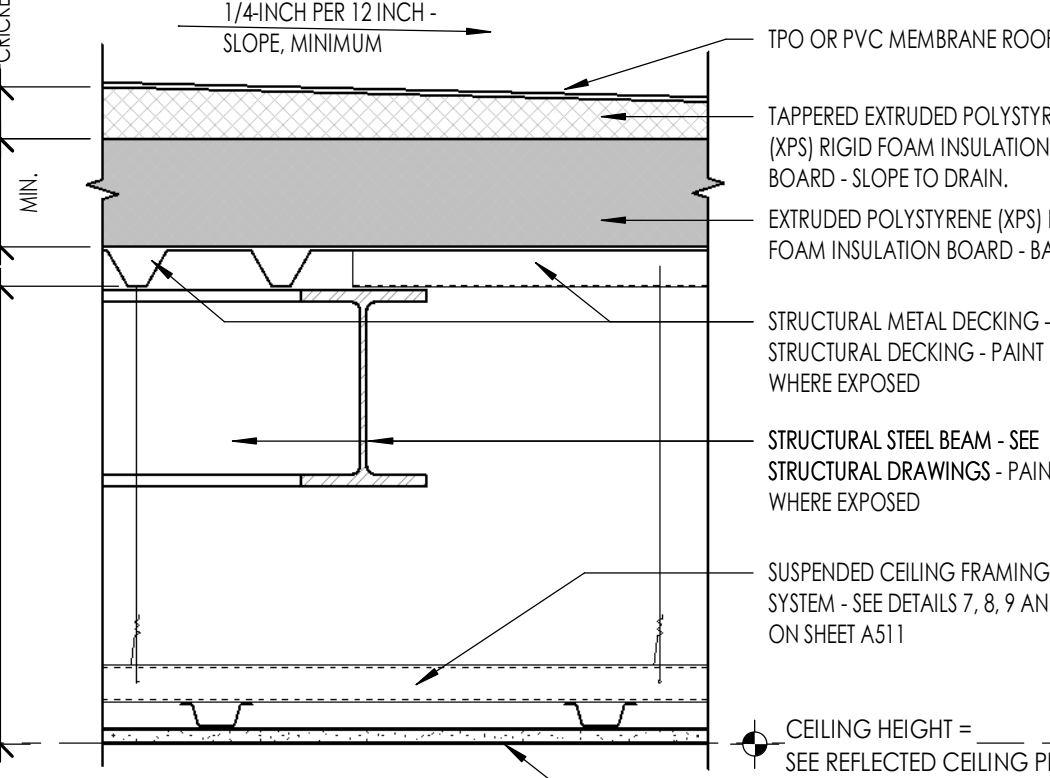
WALL TYPE D1
D1 - 2" RIGID INSULATION
NON-RATED ASSEMBLY



SYSTEM DESCRIPTION:
WOOD STUD FLOORING - 2x4 WOOD STUDS - NOM 2-INCH BY 4-INCH, SPACED 16-INCHES ON CENTER, MAXIMUM.
PLYWOOD - 1/2-INCH EXTERIOR GRADE PLYWOOD SHEATHING.
INSULATION -
A. STUD CAVITY - R-15 UNFACED FIBERGLASS BATTS IN CAVITY.
B. EXTERIOR - 2-INCH RIGID INSULATION BOARD, TAPE ALL SEAMS, EDGES AND PENETRATIONS.
FINISH - 1/2-INCH EXTERIOR GRADE PLYWOOD SHEATHING FIBERGLASS

WALL TYPE D1
1 1/2" = 1'-0"

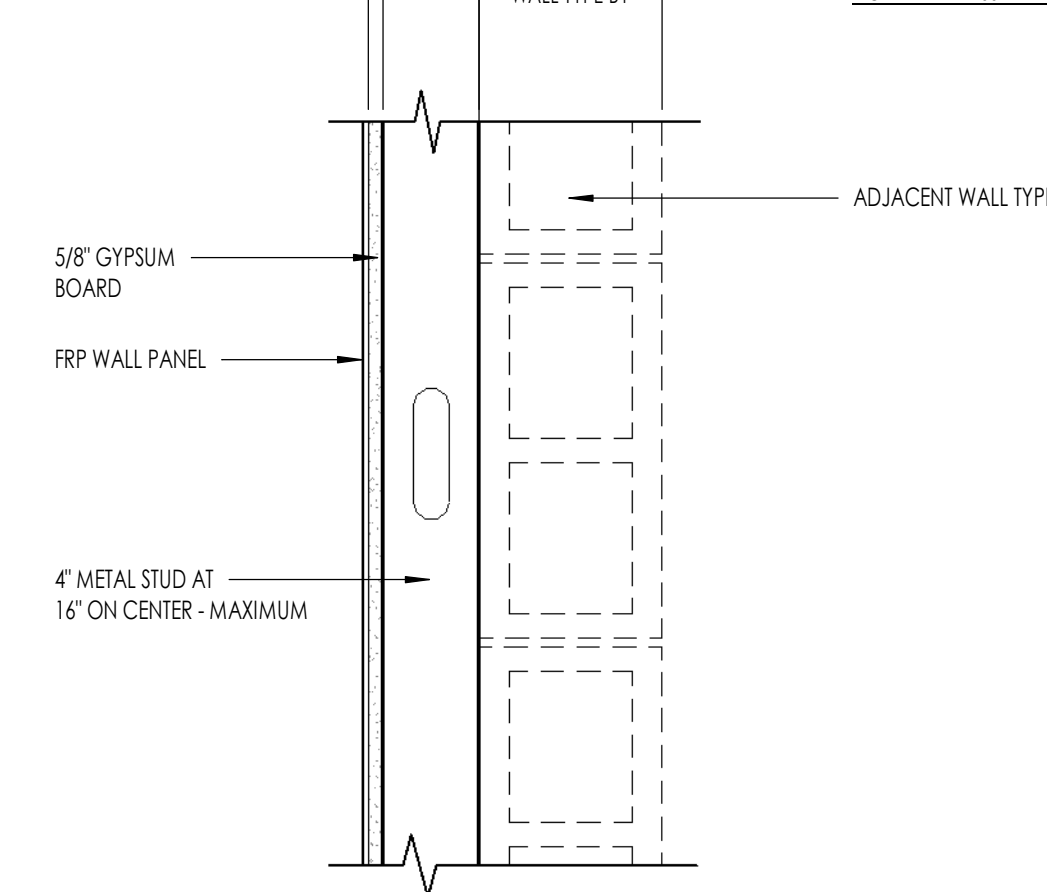
ROOF TYPE - RF-1
NON-RATED ASSEMBLY



SYSTEM DESCRIPTION - ROOF ASSEMBLY
ROOF SYSTEM - ANY UL CLASS A, B, OR C ROOFING SYSTEM.
MEMBRANE - TPO OR PVC MEMBRANE ROOFING SYSTEM.
RIGID INSULATION
1. TAPERED EXTRUDED POLYSTYRENE (XPS) RIGID FOAM INSULATION BOARD - SLOPE DOWN TO DRAIN 1/4-INCH PER 12-INCH - MINIMUM.
2. EXTRUDED POLYSTYRENE (XPS) RIGID FOAM INSULATION BOARD - BASE.
DECKING - STRUCTURAL GALVANIZED METAL B-DECKING - SEE STRUCTURAL DRAWINGS.
FINISH - SUSPENDED CEILING SYSTEM - SEE REFLECTED CEILING PLAN AND FINISH SCHEDULE FOR CEILING TYPES

ROOF TYPE RF-1 - DETAIL
1 1/2" = 1'-0"

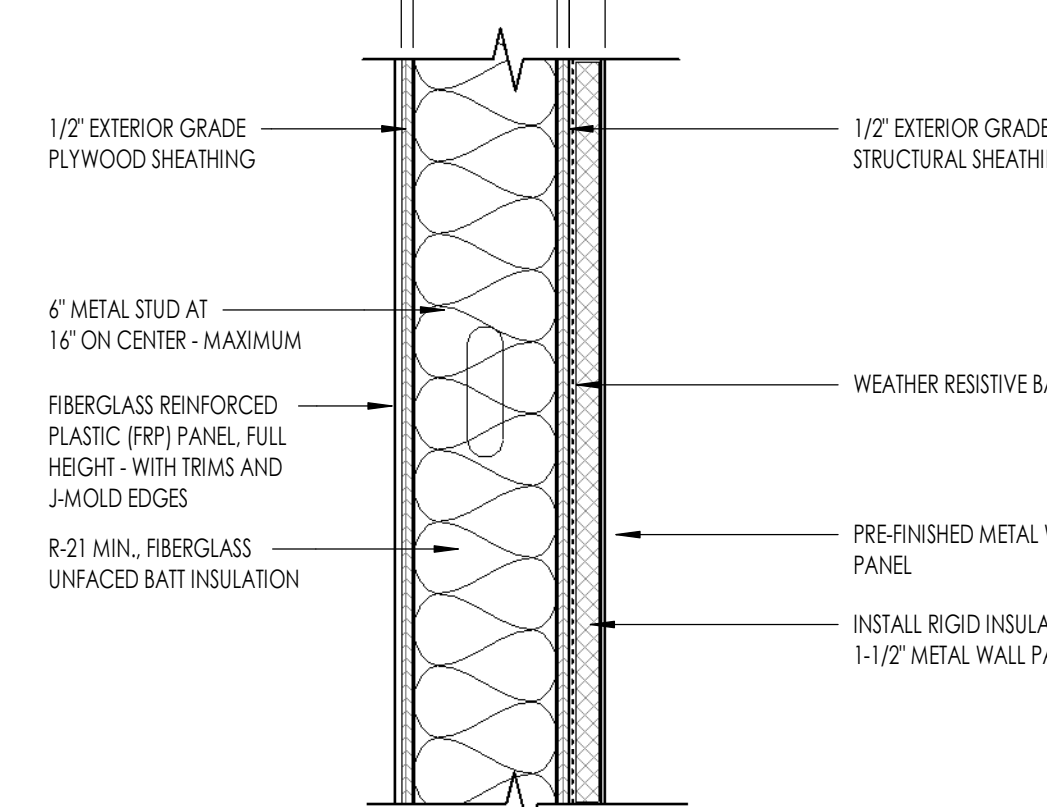
WALL TYPE C1
NON-RATED ASSEMBLY



SYSTEM DESCRIPTION:
METAL STUD WALL - NOM 4-INCH BY 1 1/2-INCH AT 16-INCHES ON CENTER, MAXIMUM.
GYPSUM WALLBOARD - 5/8-INCH GYPSUM WALLBOARD.

4" METAL STUD INTERIOR WALL
1 1/2" = 1'-0"

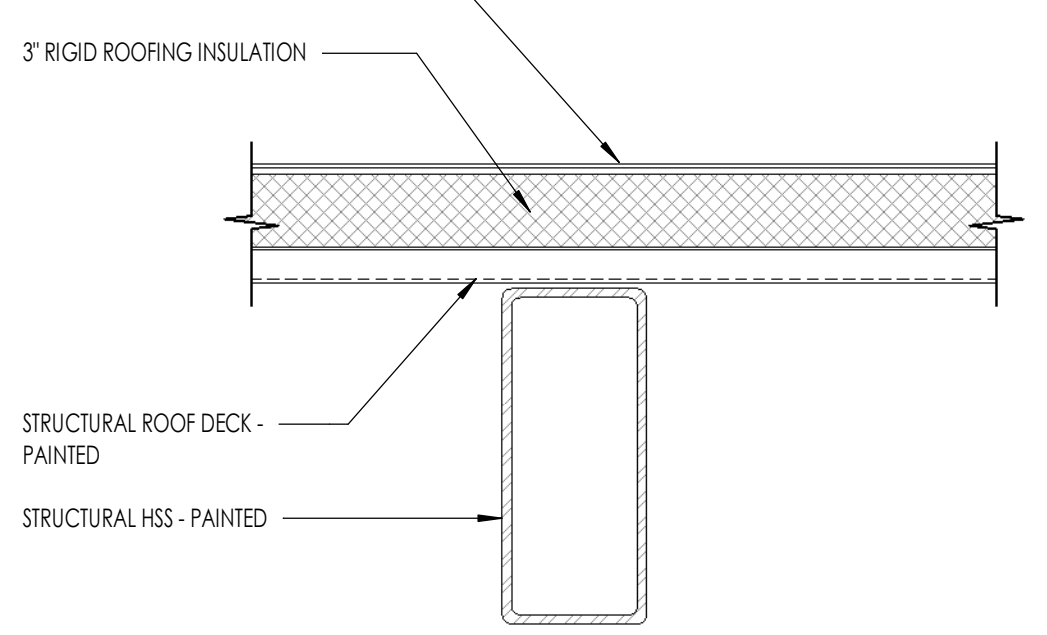
WALL TYPE C2
NON-RATED ASSEMBLY



SYSTEM DESCRIPTION:
METAL STUD WALL - NOM 4-INCH BY 1 1/2-INCH AT 16-INCHES ON CENTER, MAXIMUM.
PLYWOOD - 1/2-INCH EXTERIOR GRADE STRUCTURAL PLYWOOD SHEATHING.
INSULATION -
A. STUD CAVITY - R-21 UNFACED FIBERGLASS BATTS IN CAVITY.
B. EXTERIOR - 1-1/2-INCH RIGID INSULATION BOARD IN METAL PANEL CAVITY.
FINISH - PRE-FINISHED METAL WALL PANEL OVER 1/2-INCH EXTERIOR GRADE PLYWOOD SHEATHING

6" METAL STUD EXTERIOR WALL
1 1/2" = 1'-0"

ROOF TYPE - RF-2
NON-RATED ASSEMBLY



SYSTEM DESCRIPTION - ROOF ASSEMBLY
ROOF SYSTEM - ANY UL CLASS A, B, OR C ROOFING SYSTEM.
MEMBRANE - TPO OR PVC MEMBRANE ROOFING SYSTEM.
RIGID INSULATION - EXTRUDED POLYSTYRENE (XPS) RIGID FOAM INSULATION BOARD - BASE.
DECKING - STRUCTURAL GALVANIZED METAL B-DECKING - SEE STRUCTURAL DRAWINGS.
FINISH - PAINTED EXPOSED STRUCTURAL ELEMENTS

ROOF TYPE RF-2 - DETAIL
1 1/2" = 1'-0"

FLOOR/CEILING PLAN LEGEND			
HATCH PATTERN	DESCRIPTION	HATCH PATTERN	DESCRIPTION
[Hatch]	CMU WALL	[Hatch]	2" x 2" CLEAN ROOM VINYL COVERED MINERAL FIBER SUSPENDED CEILING TILES
[Hatch]	WOOD STUD WALL	[Hatch]	EXPOSED METAL DECKING - EPOXY PAINTED
[Hatch]	METAL FRAME WALL	[Hatch]	
[Hatch]	2" RIGID INSULATION	[Hatch]	
SYMBOL	DESCRIPTION	RATED	MANUFACTURER
[Symbol]	F-1 SURFACE MOUNTED LIGHT FIXTURE		PINNACLE - EDGE EX-DIRECT
[Symbol]	F-2 WALL MOUNTED LIGHT FIXTURE	EXTERIOR WET RATED	AFX - WATSON 06"
[Symbol]	F-3 SURFACE MOUNTED ROUND LIGHT FIXTURE	EXTERIOR WET RATED	AFX - EVERLY 06" (COVER J-BOX WITH METAL SURROUND)
[Symbol]	F-4 2x4 SURFACE MOUNTED LIGHT FIXTURE		PINNACLE - 2x4 LIFT-DIRECT

FLOOR PLAN GENERAL NOTES

- ALL DIMENSIONS ARE TO GRID OR FACE-OF-STUD (F.O.S.) OR FACE OF CMU - UNLESS NOTED OTHERWISE.
- CEILING HEIGHTS MEASURED FROM CONCRETE FLOOR SLAB TO FINISH SURFACE.
- GENERAL CONTRACTOR SHALL COORDINATE WITH STRUCTURAL FRAMING PLANS AND SHEAR WALL PLANS FOR LOCATIONS OF COLUMNS, BEAMS, SHEAR WALLS, ETC.
- GENERAL CONTRACTOR SHALL COORDINATE WITH BUILDER/OWNER FOR ALL INTERIOR COLOR SELECTIONS.
- GENERAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING, POWER AND DATA REQUIREMENTS.
- GENERAL CONTRACTOR SHALL COORDINATE WITH PLUMBING DRAWINGS FOR ALL FIXTURES.
- GENERAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS FOR HVAC.
- FOR WALL TYPE, SEE DETAIL 3, 4, 5 AND 6 THIS SHEET.
- GENERAL CONTRACTOR SHALL COORDINATE EXACT ORIENTATION OF BUILDING WITH THE OWNER.

FLOOR PLAN KEYNOTES	
FL-01	WIRE SHELVING - OWNER PROVIDED, CONTRACTOR INSTALLED
FL-02	4" CONCRETE SLAB OVER 4" COMPACTED GRANULAR BASE
FL-03	SCHEDULED FLAMED WALL TYPE
FL-04	TURNDOWN SLAB AT DOORS, OPENINGS
FL-05	WATER HEATER - SEE PLUMBING DRAWINGS
FL-07	ELECTRICAL PANEL
FL-09	ADA CLEARANCE
FL-10	CONCEALED STRUCTURAL COLUMN
FL-11	SCHEDULED ROLL UP COUNTER SHUTTERS - WAYNE DALTON OR EQUAL, MODEL 300
FL-12	5-COMPARTMENT SINK
FL-13	STRUCTURAL COLUMN - PAINTED
FL-14	FLOOR SINK - SEE PLUMBING
FL-16	BUILT IN SOLID SURFACE COUNTERTOP
FL-17	DUAL TAP REGULATOR OR EQUAL - OWNER PROVIDED, CONTRACTOR INSTALLED
FL-18	UTILITY CABIN - OWNER PROVIDED
FL-19	3 DOOR COMMERCIAL REFRIGERATOR - OWNER PROVIDED, CONTRACTOR INSTALLED
FL-21	HAND SINK
FL-22	ROOM NAME SIGNAGE
FL-23	SEMI-RECESSED FIRE EXTINGUISHER CABINET WITH FIRE EXTINGUISHER

REFLECTED CEILING PLAN KEYNOTES	
C-01	EXPOSED STRUCTURE METAL DECKING - PAINTED
C-02	EXPOSED STRUCTURAL PURLIN - PAINTED
C-03	EXPOSED STRUCTURAL BEAM - PAINTED
C-04	EXPOSED STRUCTURAL BEAM - PAINTED
C-05	LIGHT FIXTURE
C-06	SCHEDULE WALL TYPE - SEE FLOOR PLAN

FINISH LEGEND - FLOOR					
FLOOR CODE	FLOOR MATERIAL	FLOOR MANUFACTURER	FLOOR COLOR	FLOOR FINISH	FLOOR NOTES
FL-01	EPOXY SEALED CONCRETE	N/A	TBD	SEALED	SUP-RESISTANT

FINISH LEGEND - BASE					
BASE CODE	BASE MATERIAL	BASE MANUFACTURER	BASE COLOR	BASE FINISH	BASE MATERIAL SIZE
BF-01	PVC BASE	MARLITE	N/A	FACTORY	4" BASE M612

FINISH LEGEND - WALL				
WALL CODE	WALL MATERIAL	MANUFACTURER	COLOR	WALL FINISH
WF-01	RFP PANEL	MARLITE - STANDARD	TBD	SMOOTH SURFACE WITH PVC TRIMS

FINISH LEGEND - CEILING				
CEILING CODE	CEILING MATERIAL	CEILING COLOR	CEILING FINISH	CEILING MATERIAL SIZE
CF-01	SUSPENDED MINERAL FIBER TILES	WHITE	VINYL COVERED	2' x 2' TILES x 5/8" MINERAL FIBER
CF-02	EXPOSED METAL DECKING	TBD	EPOXY PAINTED	PER STRUCTURAL

FINISH LEGEND - ROOM					
ROOM NUMBER	ROOM NAME	FINISH			
		FLOOR	BASE	WALL	CEILING
101	STORAGE	FL-01	BF-01	WF-01	CF-02
102	CONCESSION	FL-01	BF-01	WF-01	CF-01



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85260
ph. 801.269.0055
fax 801.269.1425
www.thinkarc.com

The designs shown and described herein including all technical drawings, graphic representation & model thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.
These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - CONCESSIONS
2117 MCCULLOUGH BLVD., NORTH
LAKE HAVASU, AZ 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

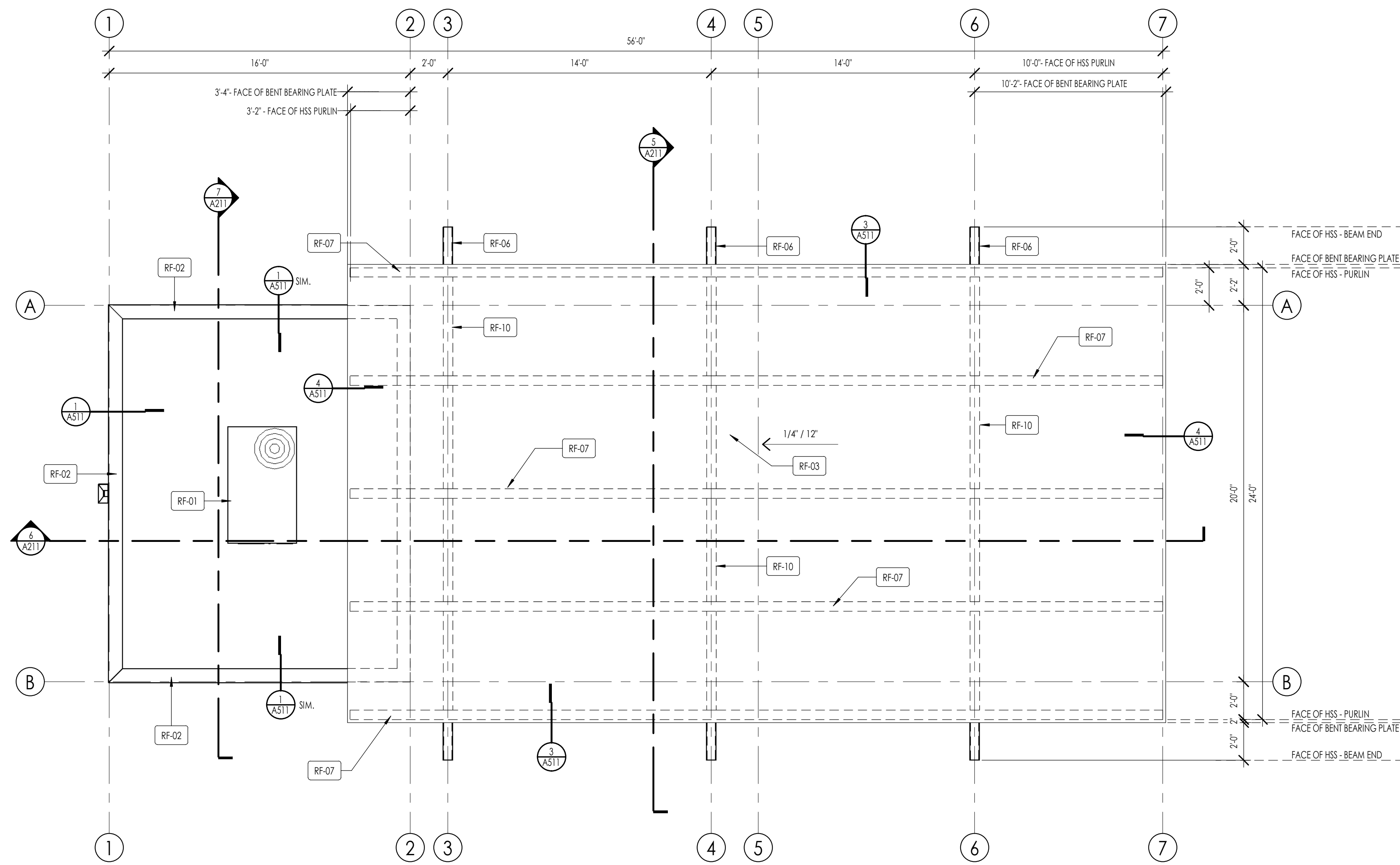
REVISIONS:

SHEET TITLE:
CONCESSIONS FLOOR PLAN, RCP PLAN

SHEET NUMBER:

A111
© 2022 THINK ARCHITECTURE, INC.

PLOT Date: 6/24/2025 8:08:22 AM



ROOF PLAN KEYNOTES	
RF-01	ROOF TOP MECHANICAL EQUIPMENT
RF-02	METAL FLASHING CAP
RF-03	TPO OR PVC MEMBRANE ROOFING OVER RIGID INSULATION BOARD - SLOPED AS SHOWN
RF-04	METAL CONDUCTOR HEAD AND METAL DOWNSPOUT
RF-05	INSULATION CRICKET
RF-06	STRUCTURAL HSS BEAM - PAINTED
RF-07	STRUCTURAL HSS PURLIN - PAINTED
RF-08	STRUCTURAL HSS COLUMN - PAINTED
RF-09	LINE OF ROOF - ABOVE
RF-10	STRUCTURAL FRAMING - DASHED
RF-11	TPO OR PVC WORKING / WALKING SURFACE

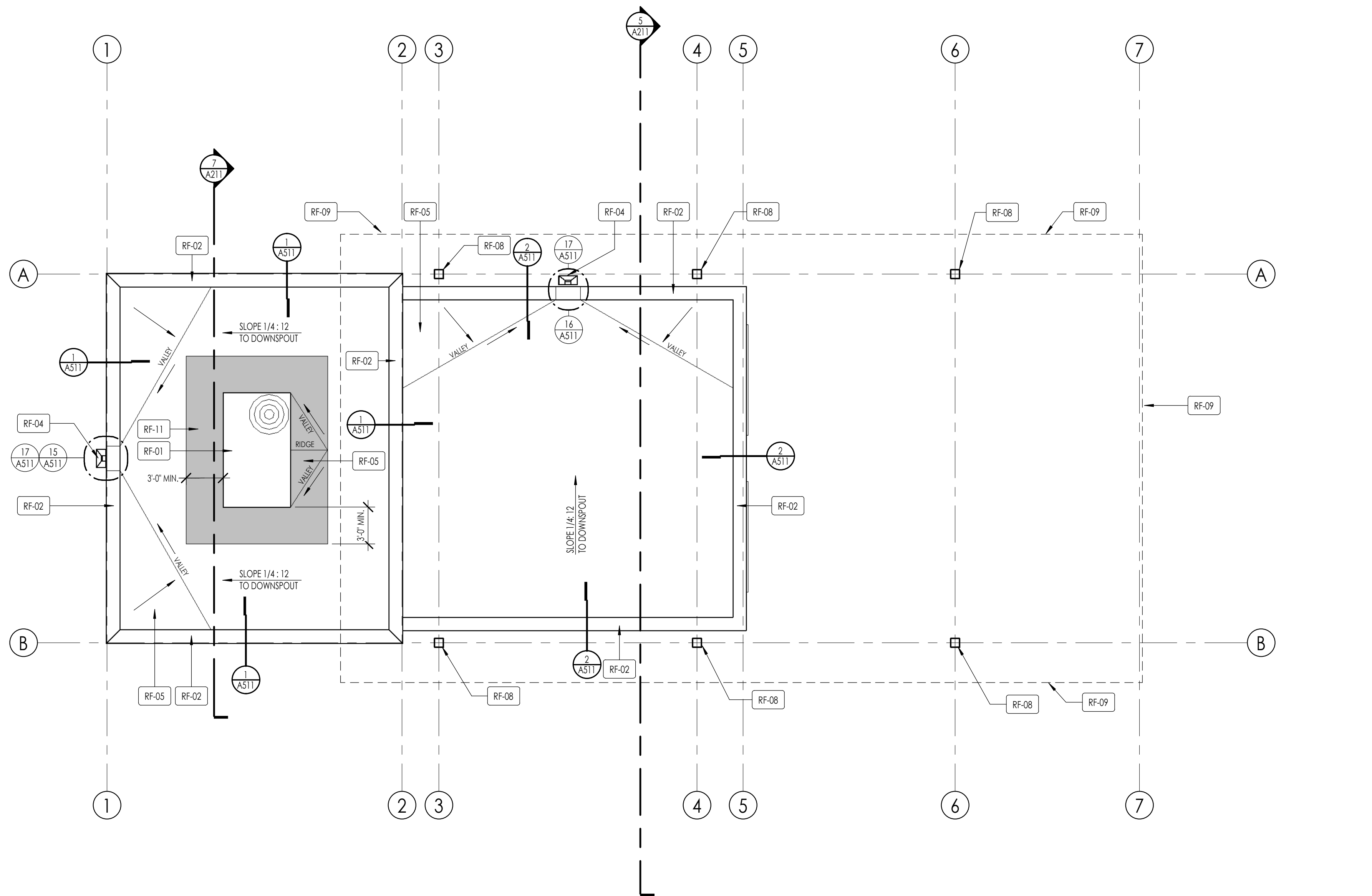


Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandwich, Utah 84094
ph. 801.269.0555
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & model thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



CONCESSIONS ROOF PLAN - LOWER
1/4" = 1'-0"

MAIN STREET COMMONS - CONCESSIONS

2117 McCULLOCH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
CONCESSIONS ROOF
PLAN

SHEET NUMBER:

A112

© 2022 THINK ARCHITECTURE, INC.

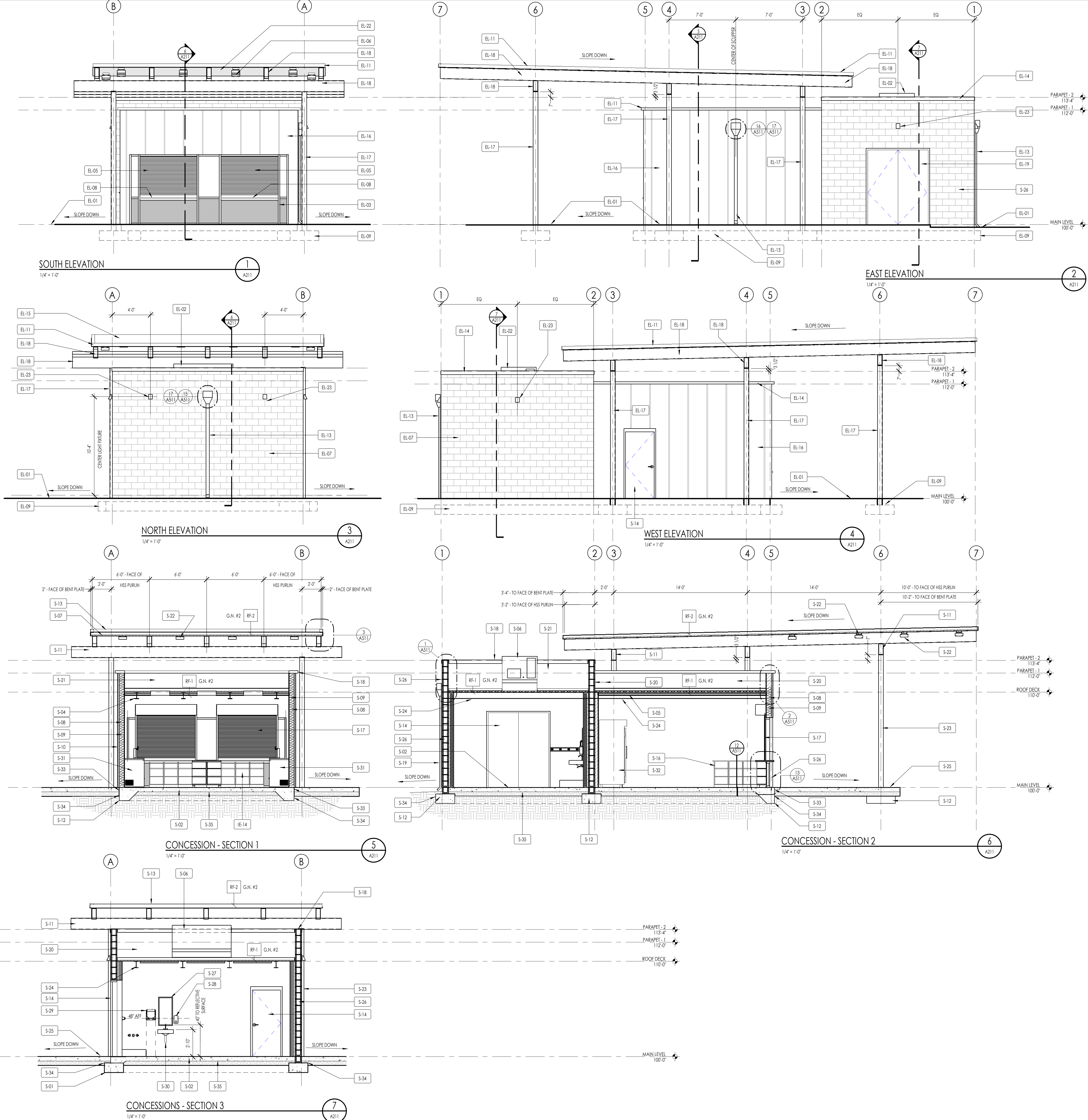
BID SET

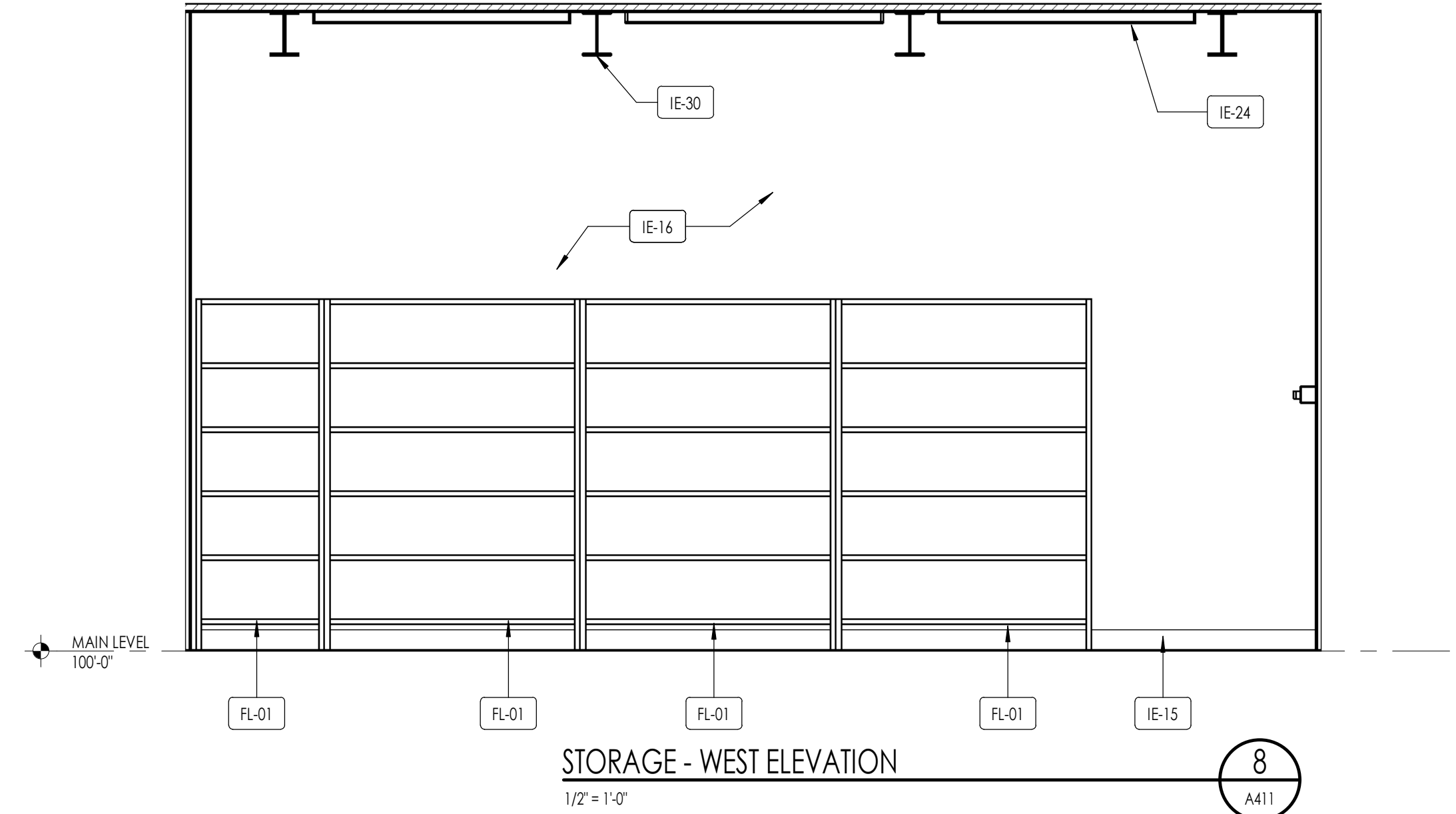
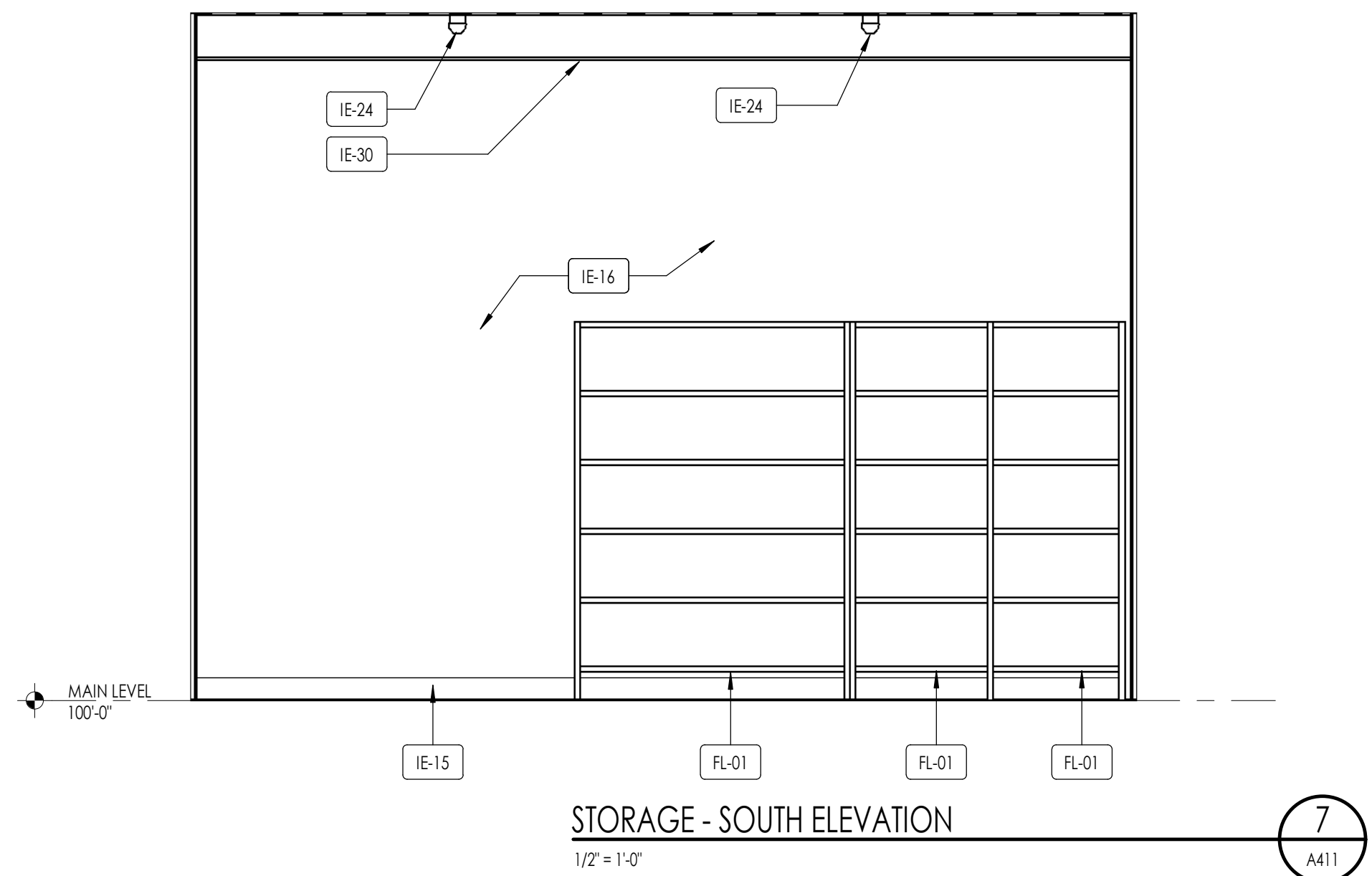
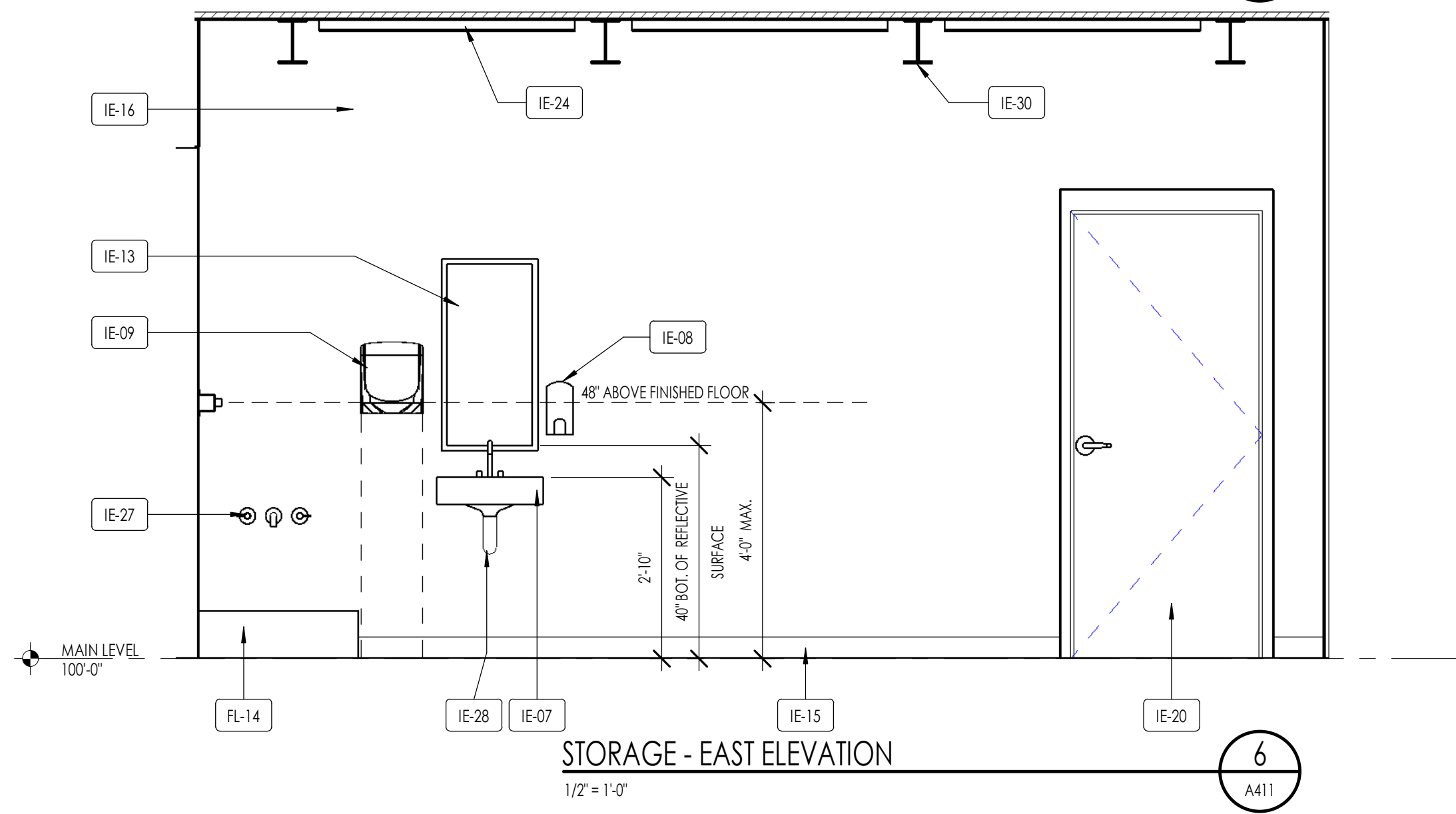
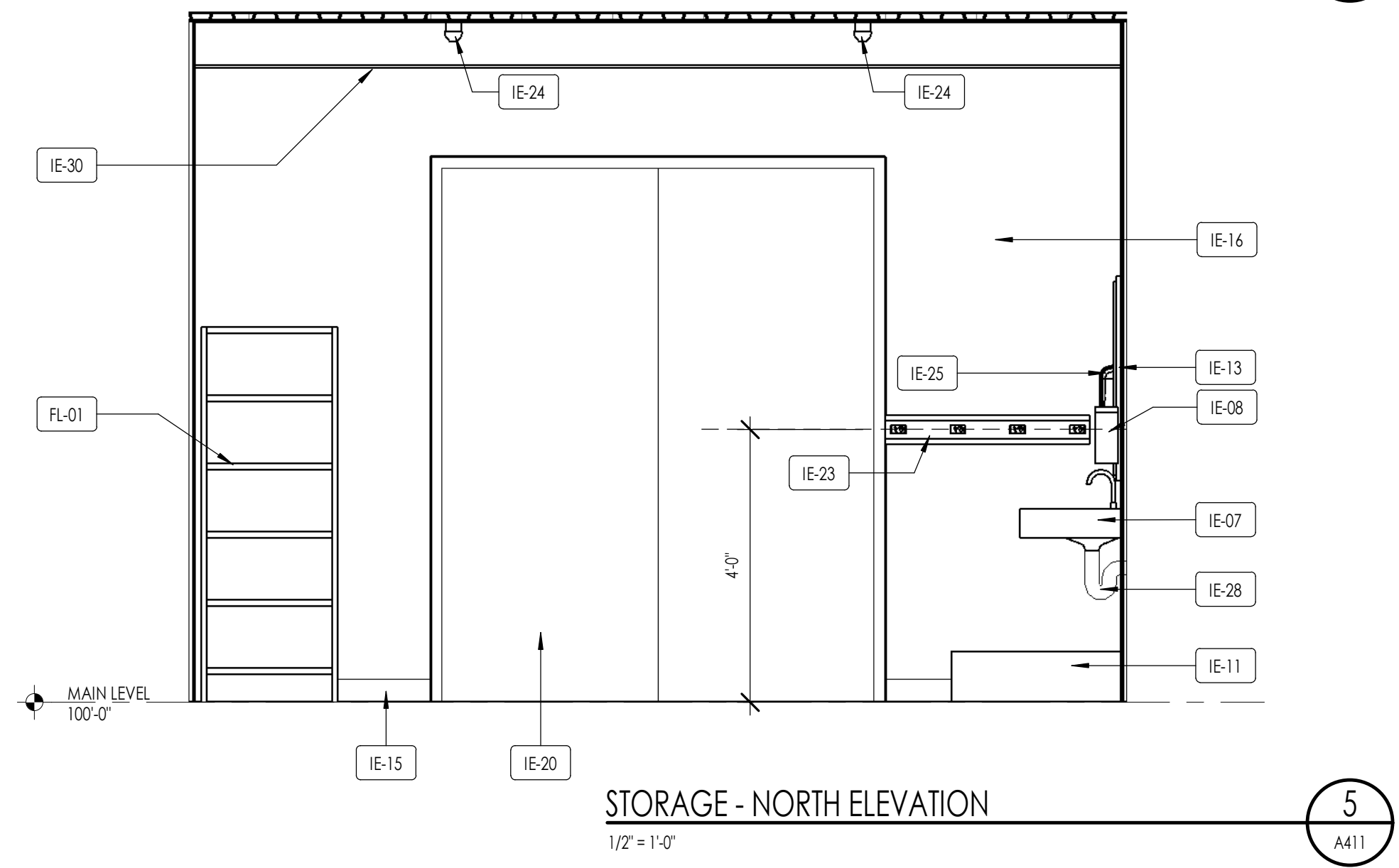
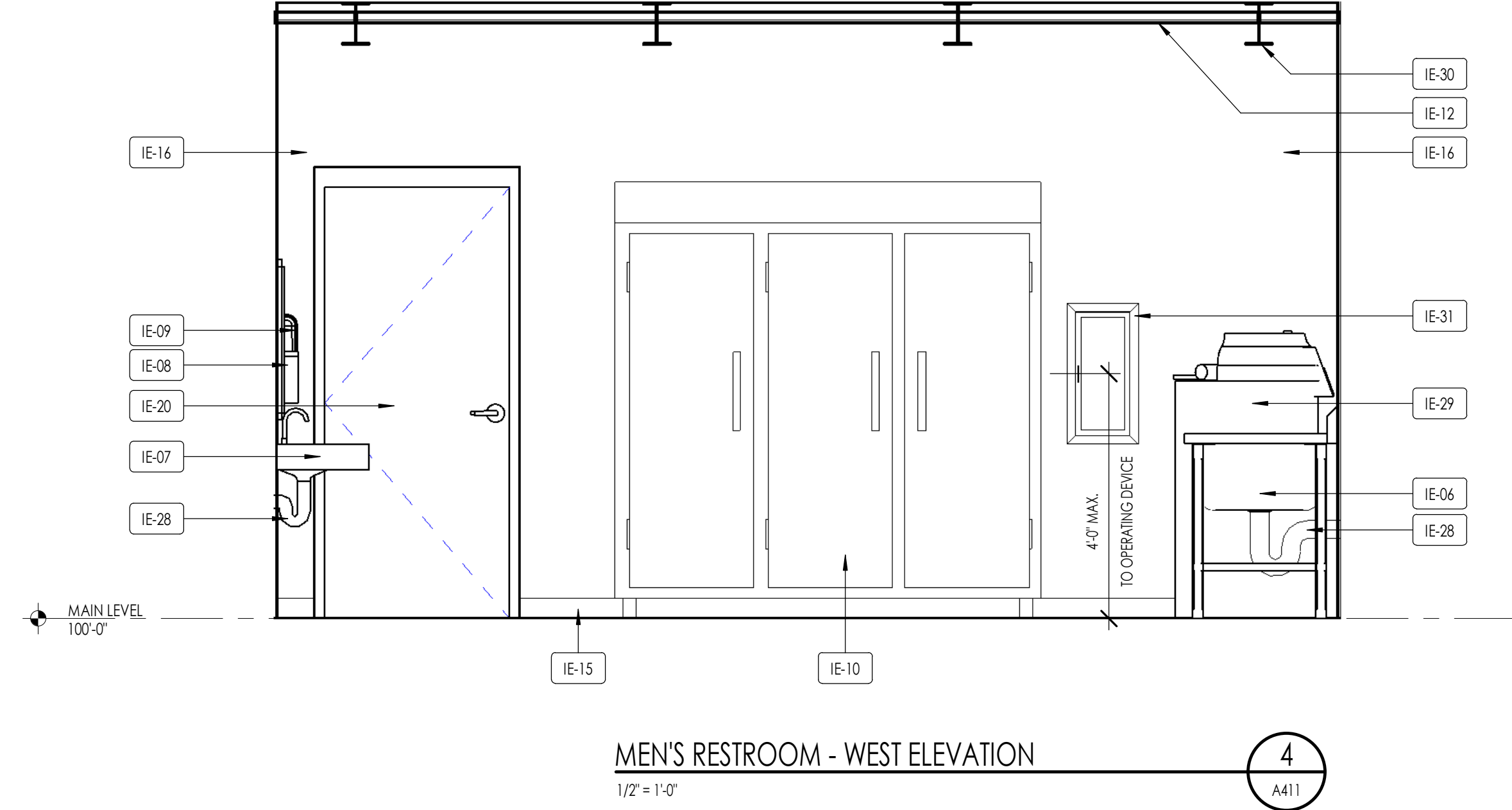
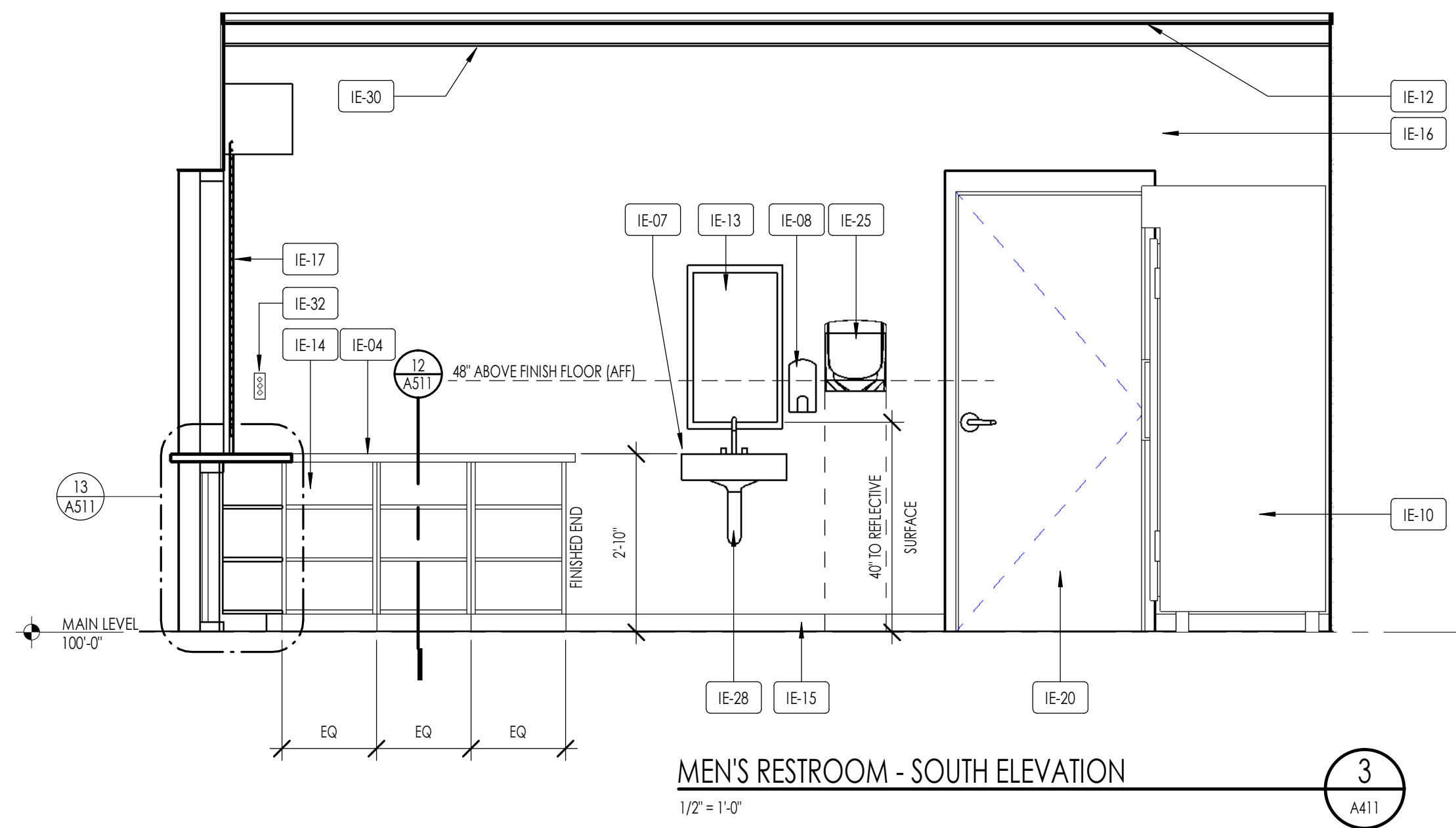
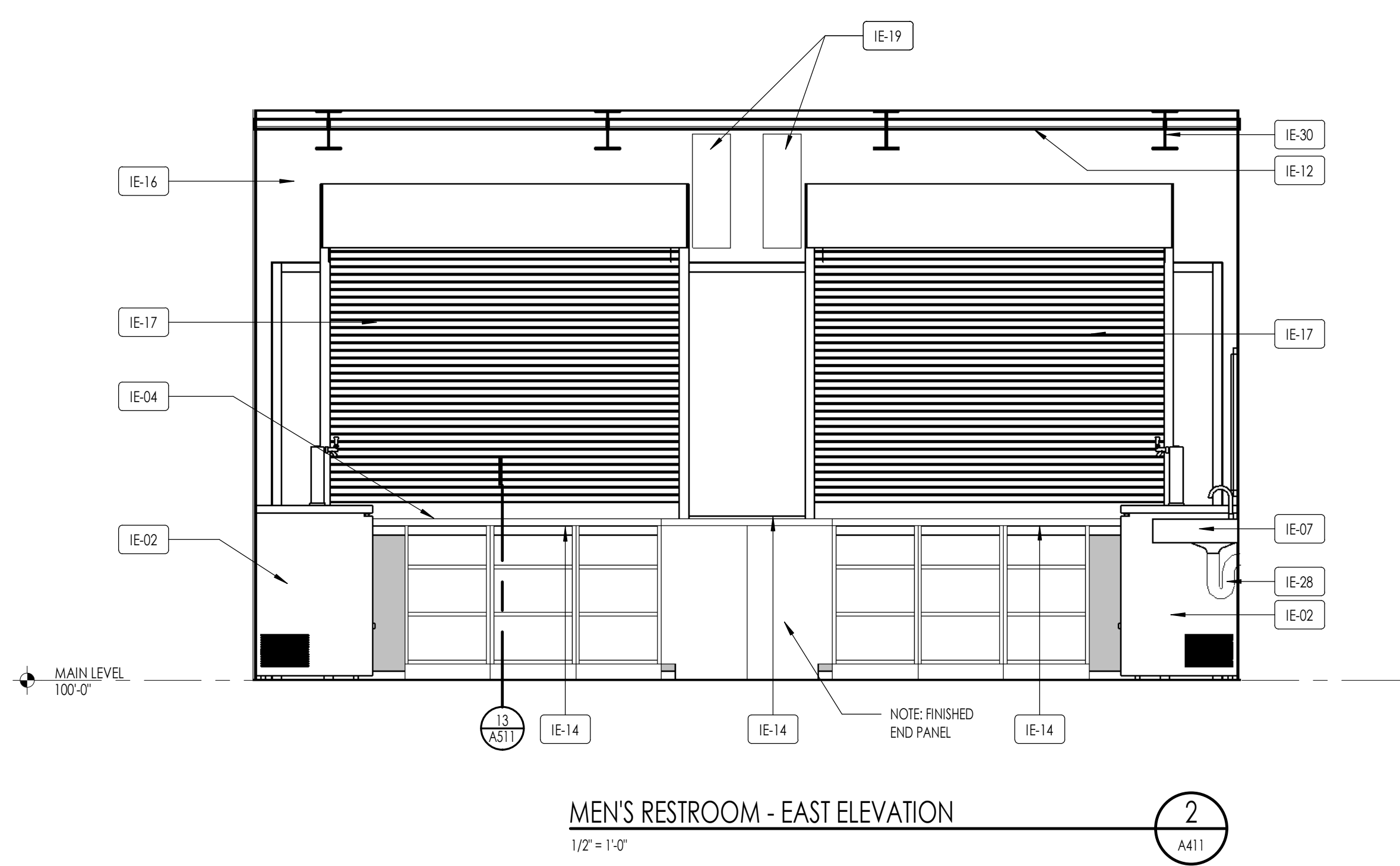
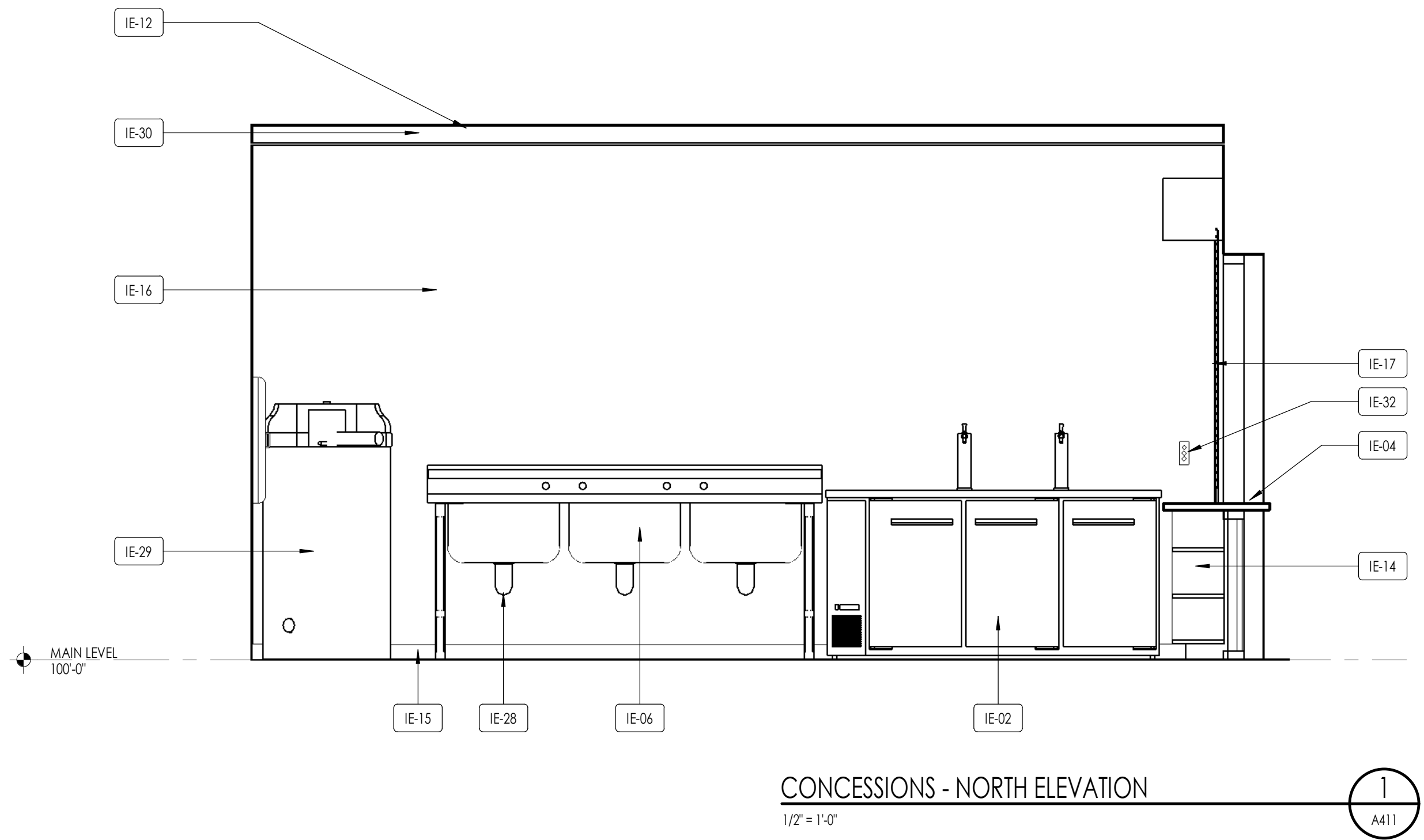
ELEVATION/ SECTION MATERIAL LEGEND	
HATCH PATTERN	DESCRIPTION
	INTEGRAL COLOR HONED CMU WALL-TYPE 1
	PRE-FINISHED METAL WALL PANEL - VERTICAL
	CONCRETE
	GRAVEL
	EARTH

GENERAL NOTES (G.N.)	
1.	SEE SHEET A111 FOR SCHEDULED WALL TYPES AND WALL TYPE DETAILS.
2.	SEE SHEET A111 FOR SCHEDULED ROOF TYPE DETAILS NOTED AS RF-1 AND RF-2 ON THE BUILDING SECTIONS.

ELEVATION PLAN KEYNOTES	
EL-01	FINISH GRADING - SLOPE DOWN AWAY FROM BUILDING - SEE CIVIL
EL-02	MECHANICAL EQUIPMENT ON ROOF
EL-03	SCHEDULED STOREFRONT SYSTEM - SEE ELEVATION 1/A612
EL-05	ALUMATEC OR EQUAL ROLL UP COUNTER SHUTTERS
EL-06	SCHEDULED LIGHT FIXTURE
EL-07	8" CMU HONED FACE FINISH
EL-08	BUILT-IN SOLID SURFACE COUNTERTOP - PAINTED
EL-09	STRUCTURAL FOOTING
EL-11	METAL FLASHING WITH DRIP EDGE - OVER STEEL BENT PLATE
EL-13	DOWNSPOUT WITH CONDUCTOR HEAD
EL-14	METAL WALL CAP
EL-15	TPO OR PVC MEMBRANE ROOFING
EL-16	SCHEDULED METAL WALL PANEL
EL-17	STRUCTURAL COLUMN - PAINTED
EL-18	STRUCTURAL HSS - STEEL CAP ENDS - PAINTED
EL-19	SCHEDULED INSULATED SCHEDULED DOOR
EL-22	EXPOSED STRUCTURAL METAL ROOF DECKING - PAINTED
EL-23	SCHEDULED LIGHT FIXTURE

SECTION KEYNOTES	
S-01	STRUCTURAL FOUNDATION
S-02	4" CONCRETE SLAB OVER 4" COMPACTED GRANULAR BASE
S-04	STRUCTURAL ROOF BEAM
S-05	SCHEDULED CEILING SYSTEM
S-06	MECHANICAL ROOF TOP EQUIPMENT - SEE DETAIL
S-07	STRUCTURAL METAL ROOF DECKING - SEE STRUCTURAL DRAWINGS
S-08	SCHEDULED METAL STUD WALL
S-09	SCHEDULED INSULATION
S-10	METAL WALL PANEL
S-11	STRUCTURAL HSS BEAM - PAINTED
S-12	STRUCTURAL FOOTING - SEE STRUCTURAL DRAWINGS
S-13	SCHEDULED ROOF INSULATION W/ TPO ROOF MEMBRANE
S-14	SCHEDULED DOOR
S-16	ARCHITECTURAL CASEWORK
S-17	ALUMATEC OR EQUAL ROLL UP COUNTER SHUTTERS
S-18	METAL CAP FLASHING WITH DRIP EDGE
S-19	DOWNSPOUT WITH CONDUCTOR HEAD
S-20	TPO OR PVC ROOFING MEMBRANE OVER RIGID INSULATION
S-21	RETURN TPO ROOFING MEMBRANE UP AND OVER PARAPET
S-22	SCHEDULED LIGHT FIXTURE
S-23	STRUCTURAL HSS COLUMN - PAINTED
S-24	SCHEDULED STRUCTURAL BEAM
S-25	EXTERIOR SLAB
S-26	SCHEDULED WALL TYPE
S-27	24x36" MIRROR
S-28	SOAP DISPENSER
S-29	ELECTRIC HAND DRYER
S-30	INSTALL ADA PAD ON PIPING AND VALVES
S-31	EQUAL TAP REGULATOR OR EQUAL - OWNER PROVIDER, CONTRACTOR INSTALLED.
S-32	3 DOOR COMMERCIAL REFRIGERATOR - OWNER PROVIDED, CONTRACTOR INSTALLED
S-33	1/2" EXPANSION JOINT MATERIAL WITH CONTINUOUS SEALANT
S-34	LIQUID APPLIED DAMPROOFING
S-35	15mi UNDER-SLAB VAPOR BARRIER





ELEVATION/ SECTION MATERIAL LEGEND

HATCH PATTERN	DESCRIPTION
	INTEGRAL COLOR HONED CMU WALL- TYPE 1
	PRE-FINISHED METAL WALL PANEL - VERTICAL
	CONCRETE
	GRAVEL
	EARTH

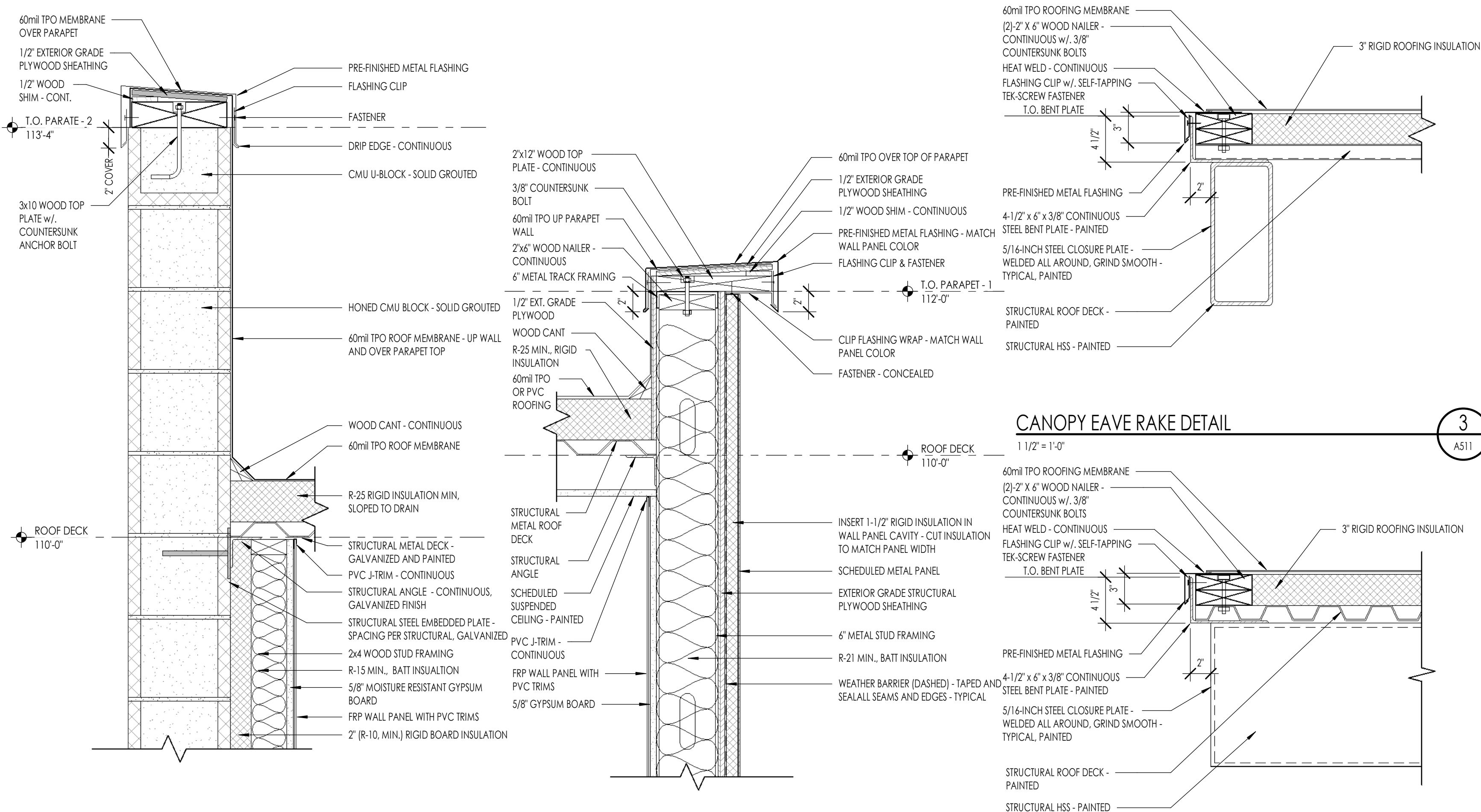
GENERAL NOTES (G.N.)

- SEE SHEET A111 FOR SCHEDULED WALL TYPES AND WALL TYPE DETAILS.
- SEE SHEET A111 FOR SCHEDULED ROOF TYPE DETAILS NOTED AS RF-1 AND RF-2 ON THE BUILDING SECTIONS.

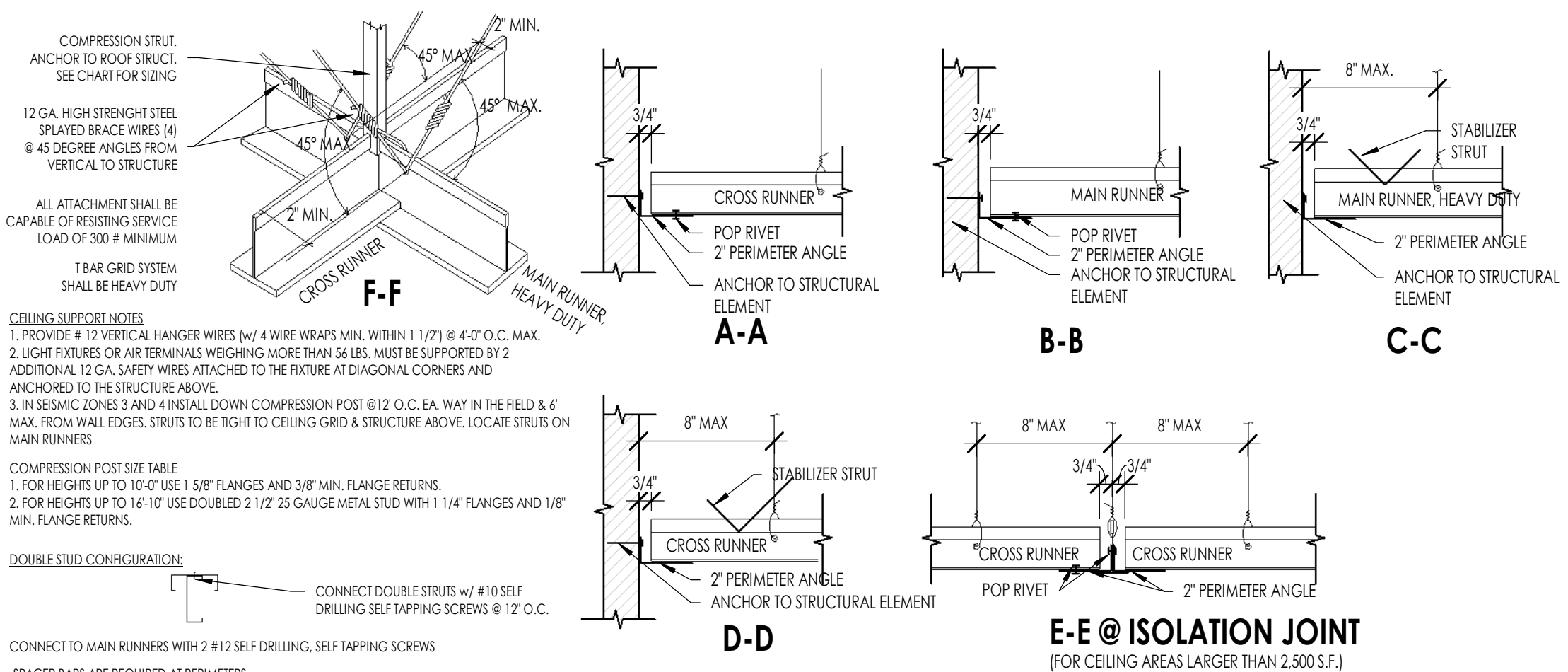
INTERIOR KEYNOTES

IE-02	DUAL TAP VEGEATOR OR EQUAL - OWNER PROVIDED, CONTRACTOR INSTALLED
IE-04	BUILT IN SOLID SURFACE COUNTERTOP AT 34"
IE-06	3 COMPARTMENT SINK
IE-07	HAND LAVATORY
IE-08	WALL MOUNTED SOAP DISPENSER
IE-09	WALL MOUNTED PAPER TOWEL DISPENSER
IE-10	3 DOOR COMMERCIAL REFRIGERATOR - OWNER PROVIDED, CONTRACTOR INSTALLED
IE-11	JANITOR SINK - SEE PLUMBING
IE-12	SCHEDULED CEILING - SEE ROOM FINISH SCHEDULE
IE-13	24" x 36" MIRROR
IE-14	PLASTIC LAMINATE BASE CABINET
IE-15	SCHEDULED WALL BASE
IE-16	FRP PANEL WALL FINISH - WITH TRIMS
IE-17	SCHEDULED ROLL UP COUNTER SHUTTERS - WAYNE DALTON OR EQUAL, MODEL 500
IE-19	COUNTER SHUTTER DOOR OPERATOR
IE-20	SCHEDULED DOOR
IE-23	WOP HOLDER
IE-24	SCHEDULED LIGHT FIXTURE
IE-25	HAND DRYER
IE-27	FAUSET
IE-28	INSTALL ADA PAD ON PIPING AND VALVES
IE-29	WATER HEATER - SEE PLUMBING DRAWINGS
IE-30	STRUCTURAL BEAM - PAINTED
IE-31	FIRE EXTINGUISHER SEMI-RECESSED CABINET AND FIRE EXTINGUISHER
IE-32	COILING COUNTER DOOR CONTROL - FLUSH MOUNTED

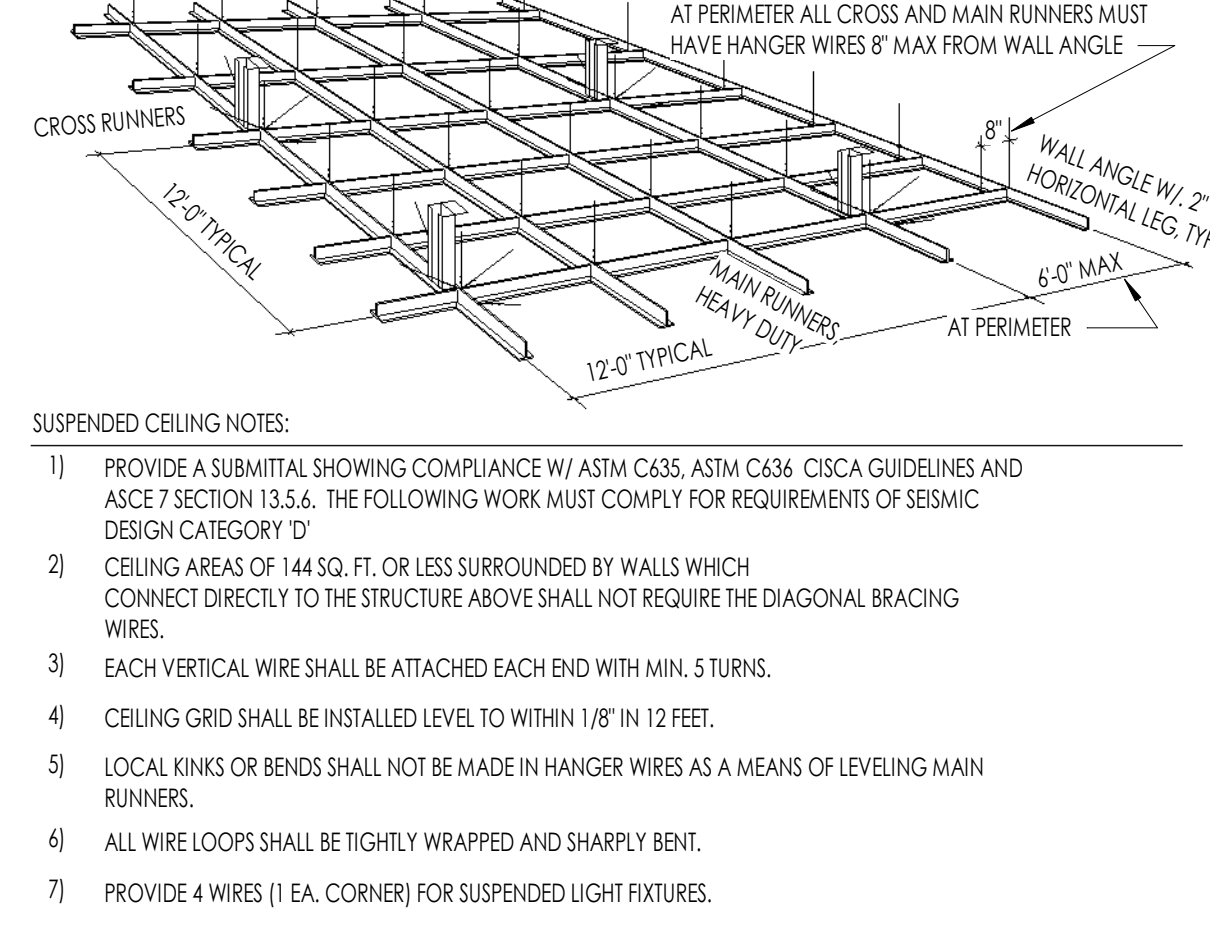




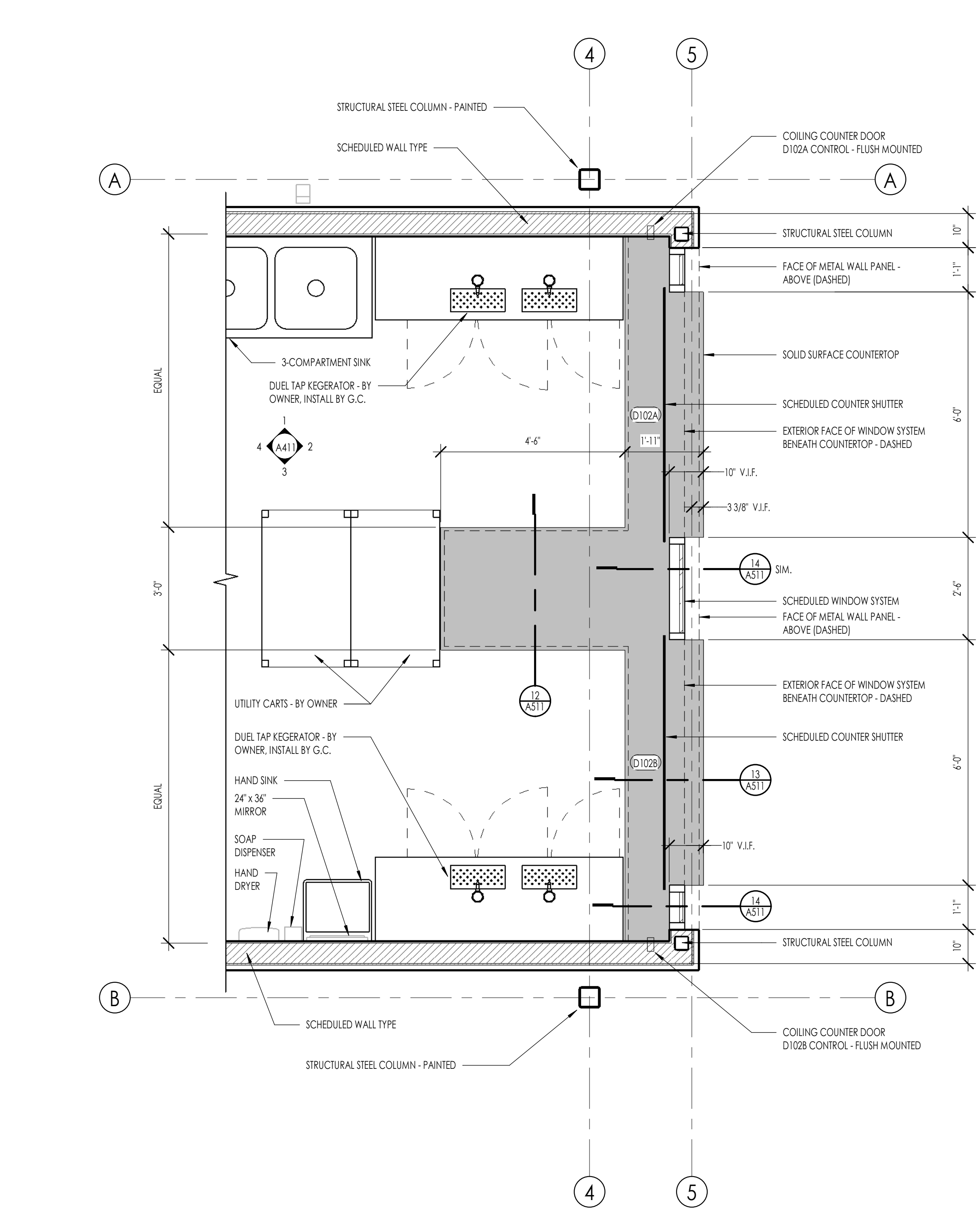
PARAPET DETAIL 1 1 1/2" = 1'-0" **PARAPET AT METAL STUD WALL** 1 1 1/2" = 1'-0" **CANOPY HIGH / LOW EAVE DETAIL** 1 1/2" = 1'-0"



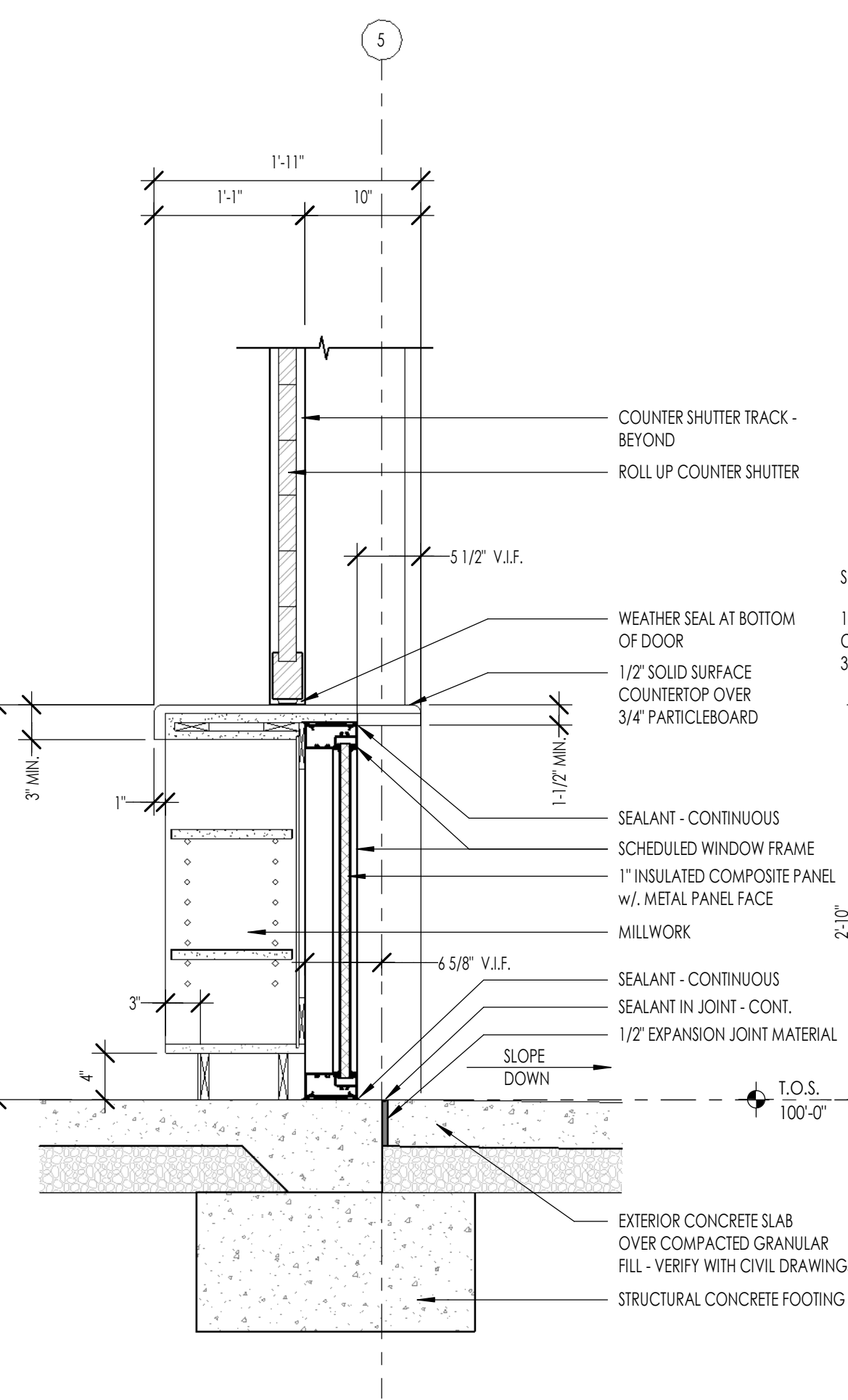
CANOPY EAVE RAKE DETAIL 1 1/2" = 1'-0" **CEILING DETAIL A** 1 1/2" = 1'-0"



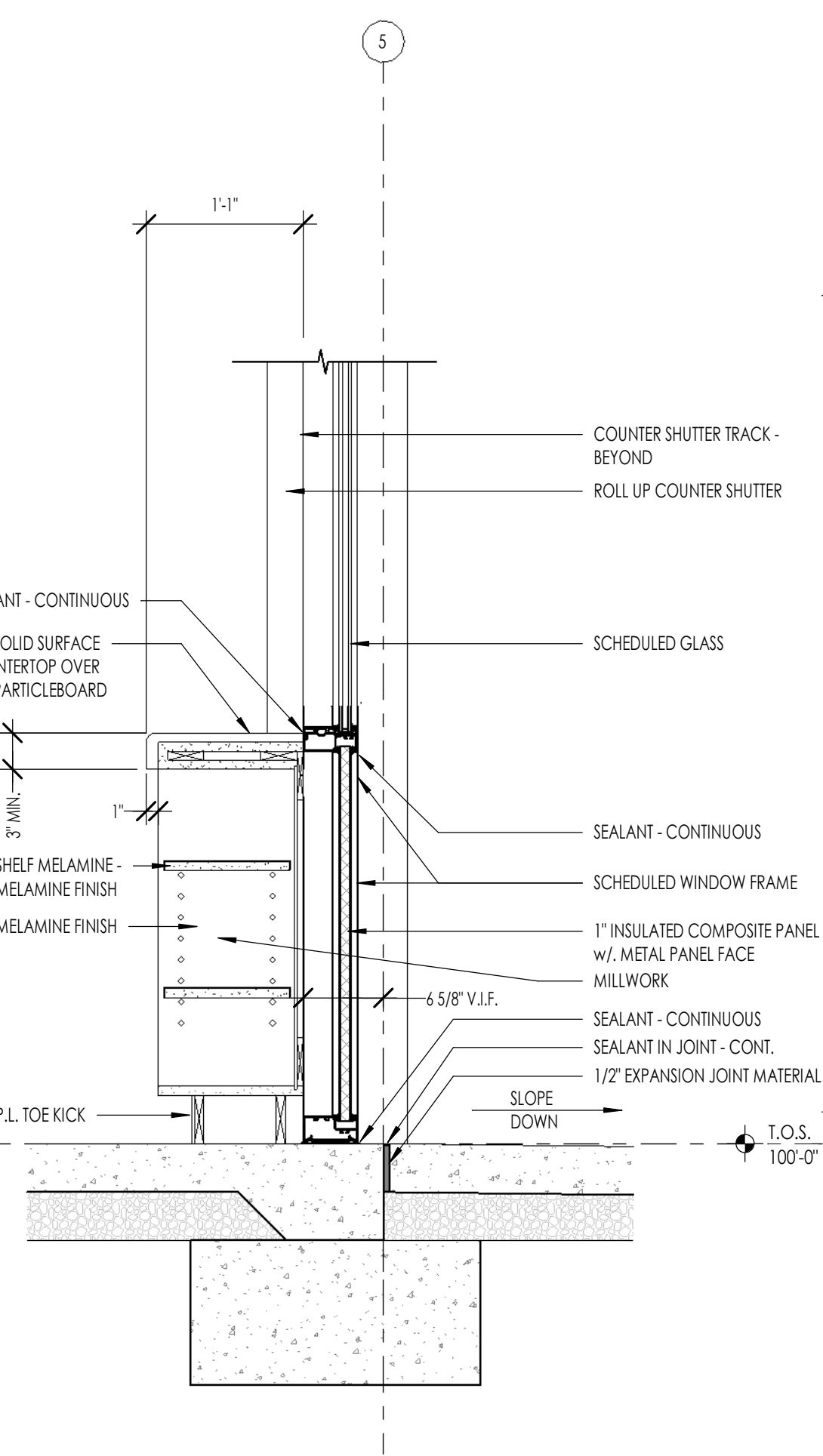
CANOPY EAVE RAKE DETAIL 1 1/2" = 1'-0" **CEILING DETAIL B** 3/4" = 1'-0"



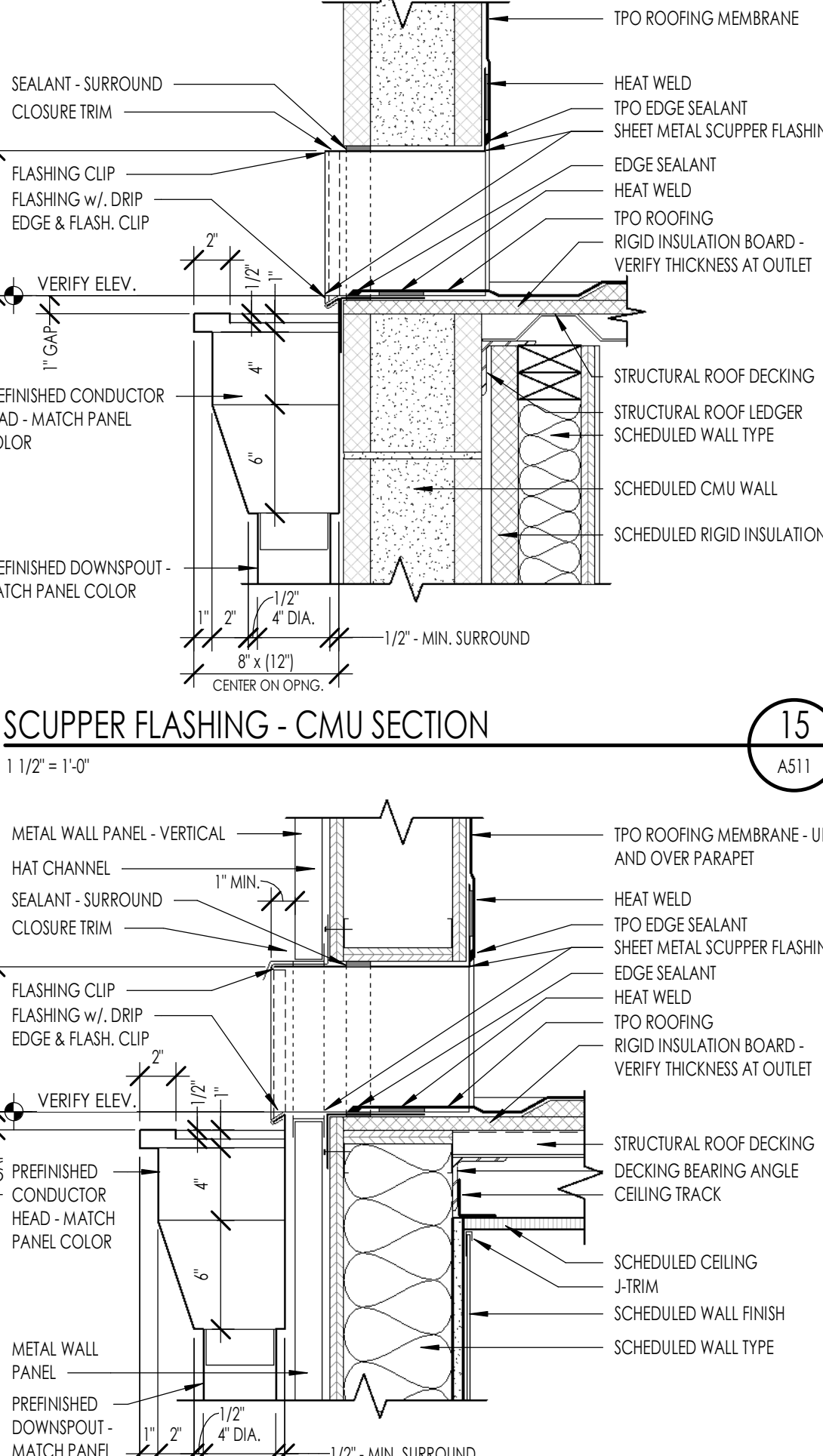
ENLARGED CONCESSION FLOOR PLAN 1 1/2" = 1'-0"



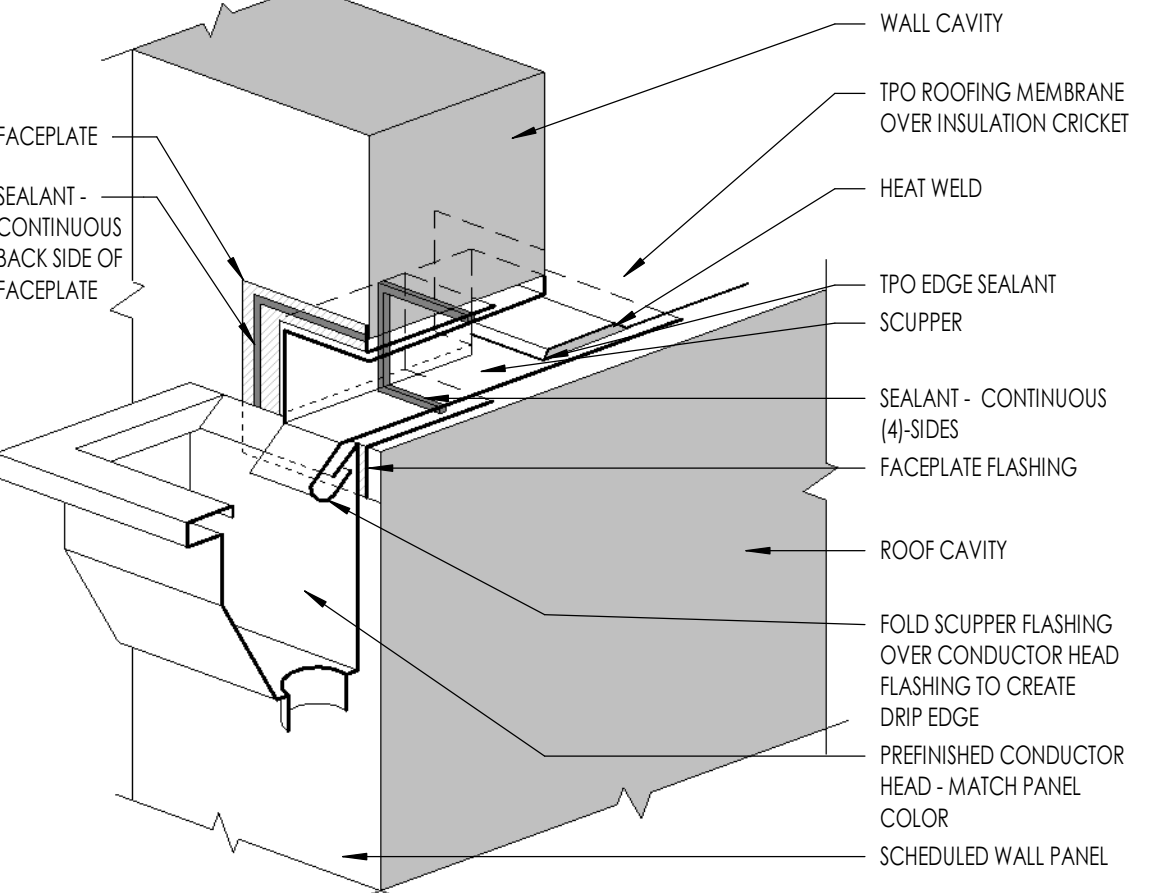
TRANSACTION COUNTERTOP DETAIL 1" = 1'-0" **COUNTERTOP DETAIL** 1" = 1'-0"



SCUPPER FLASHING - CMU SECTION 1 1/2" = 1'-0" **MILLWORK** 3/4" = 1'-0"



SCUPPER FLASHING - METAL FRAMING SECTION 1 1/2" = 1'-0" **MILLWORK** 3/4" = 1'-0"



SCUPPER FLASHING - AXONOMETRIC 1 1/2" = 1'-0"



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85264
ph. 801.269.0055
fax 801.269.1425
www.thinkaz.com

The designs shown and described herein including all technical drawings, graphic representation & model thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - CONCESSIONS

2117 McCulloch BLVD, NORTH
LAKE HAVASU, AZ 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

SHEET TITLE:
DETAILS

SHEET NUMBER:
A511

© 2022 THINK ARCHITECTURE, INC.

DOOR TYPES

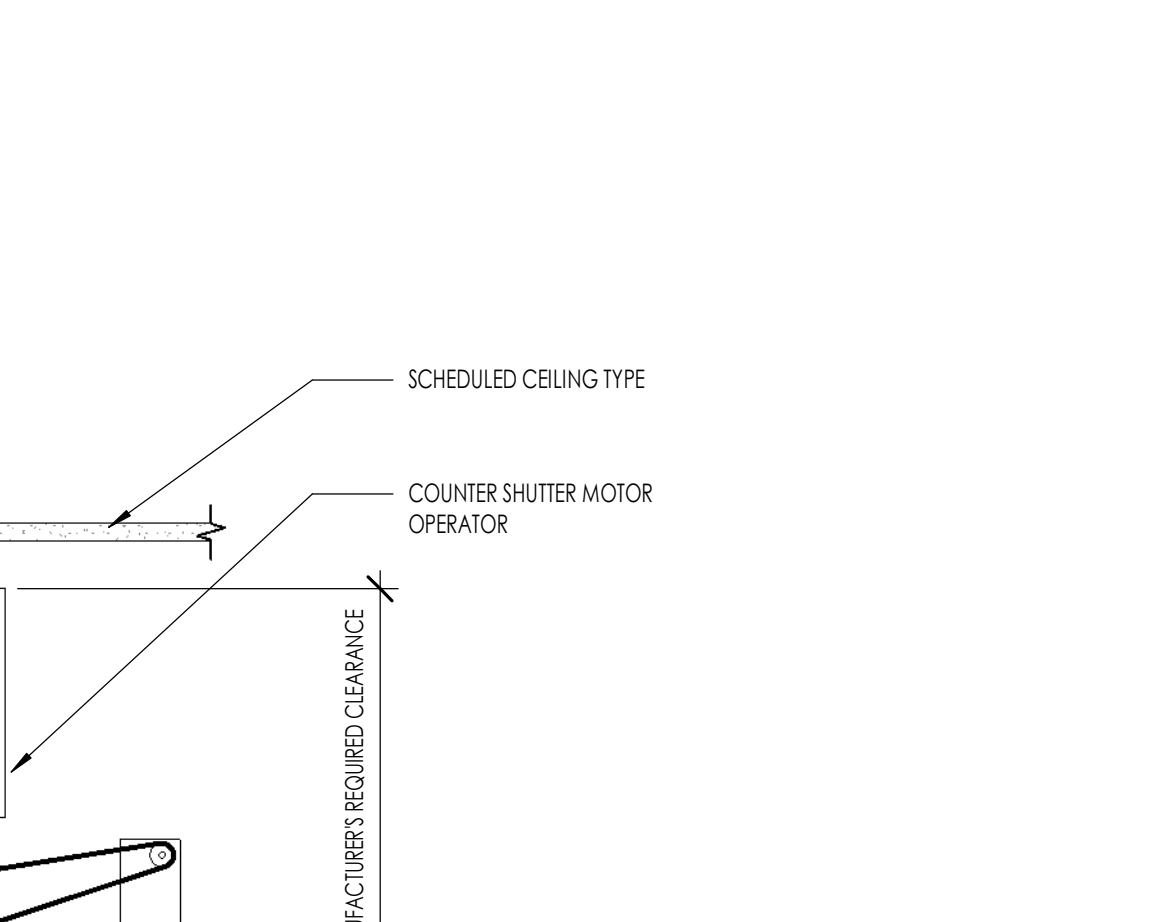
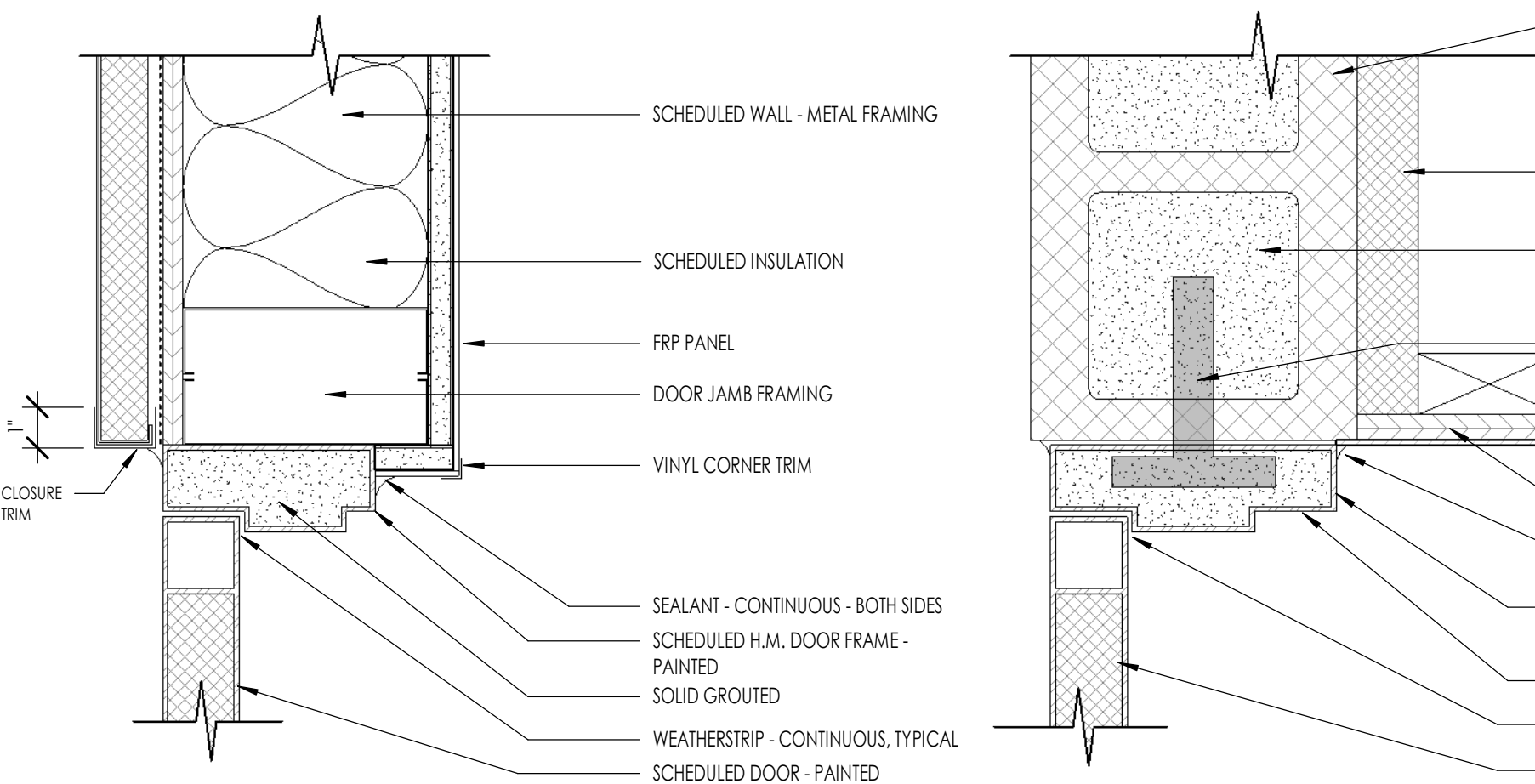
Diagram A shows a single door with a width of 3'-0" and a height of 7'-0". It features a handle (7) and a lock (9) on the left side, and a handle (8) and a lock (10) on the right side. The door is labeled "PAINTED".

Diagram B shows a double door with a total width of 6'-0" (3'-0" per door) and a height of 7'-0". Each door has a handle (8) and a lock (10) on the right side. The doors are labeled "PAINTED".

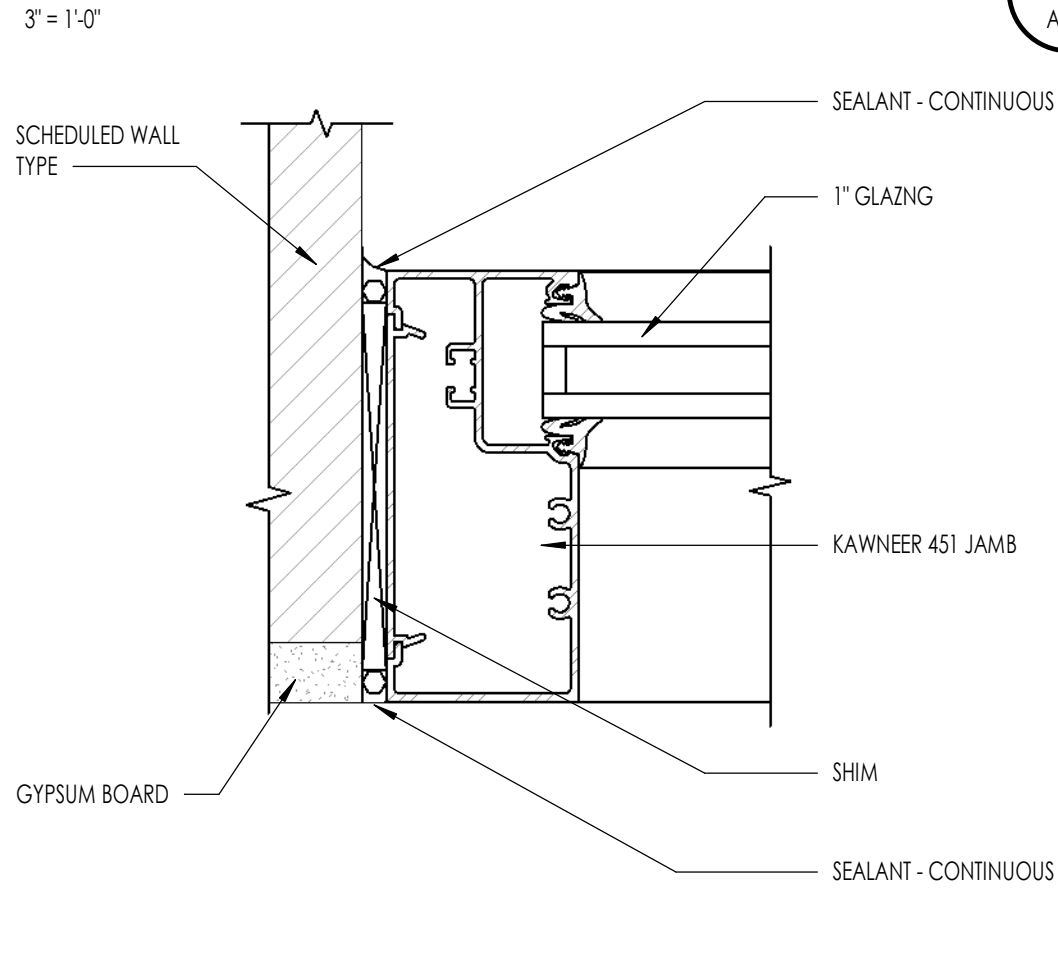
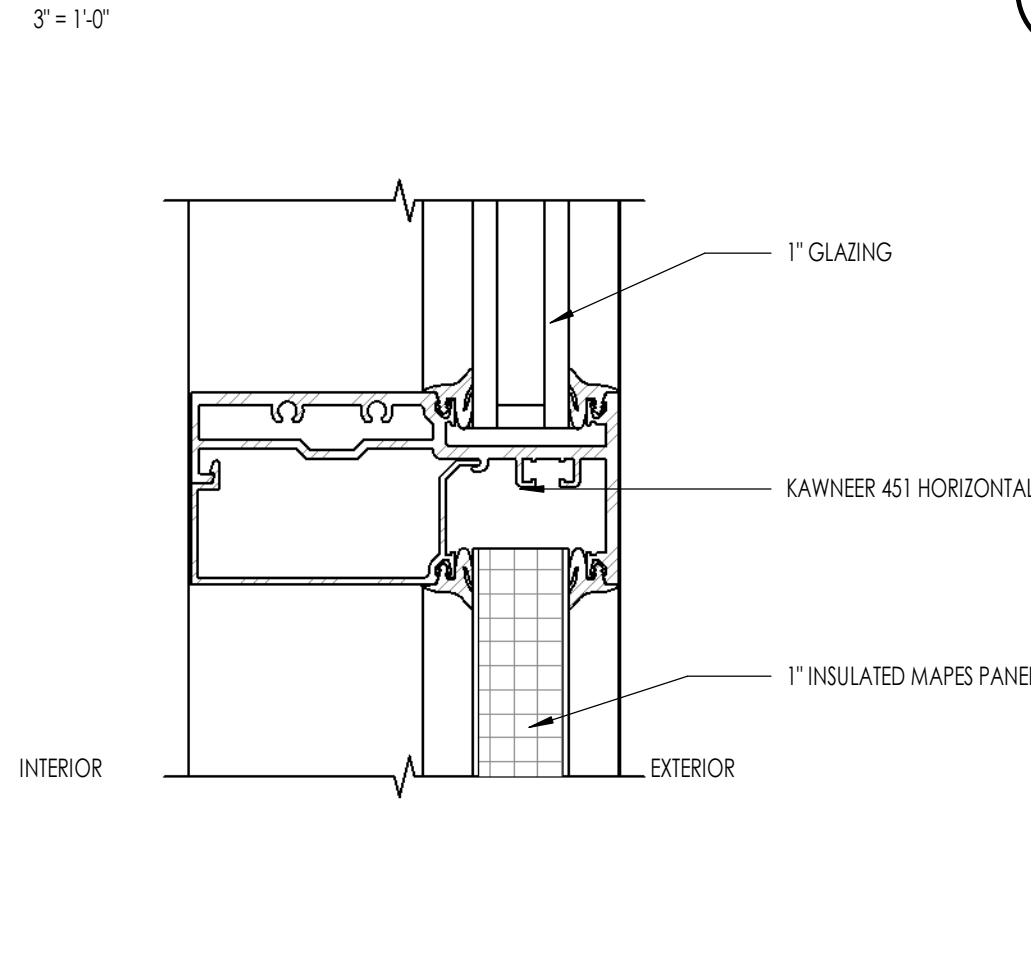
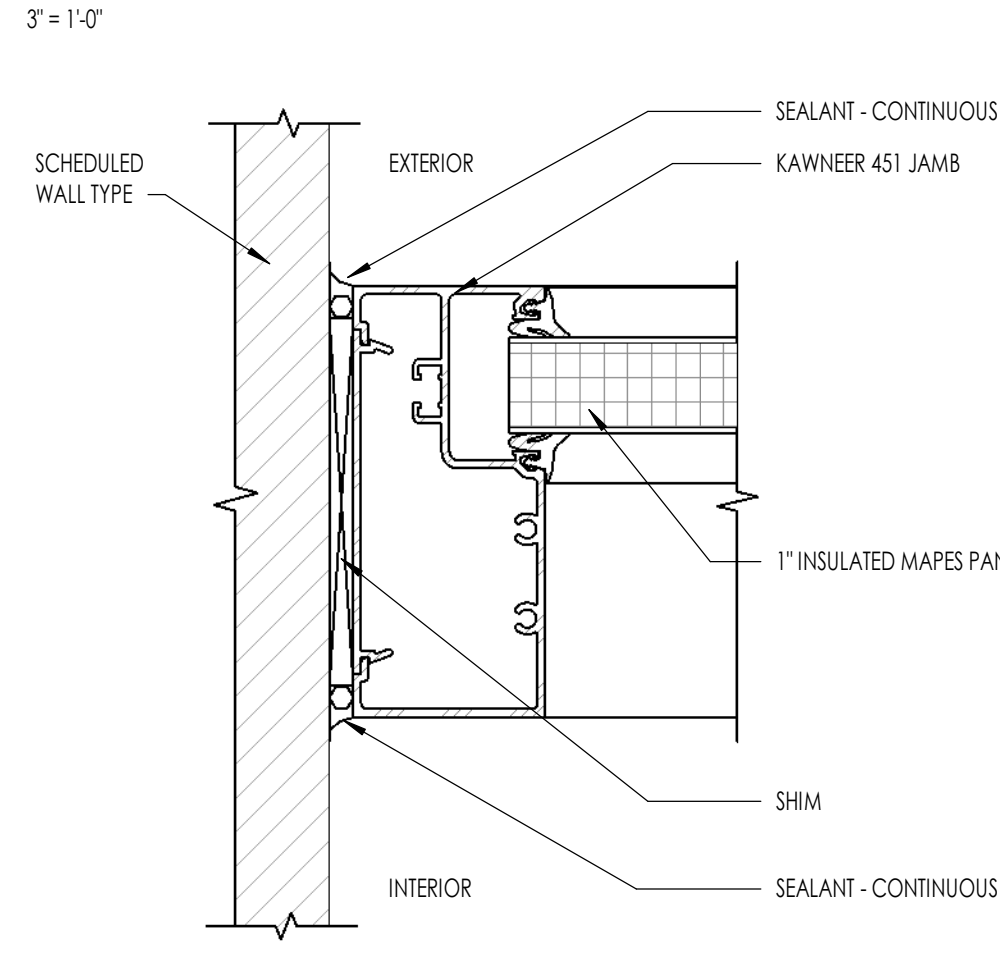
Diagram C shows a single door with a width of 6'-0" and a height of 5'-0". It features a handle (18) and a lock (21) on the right side. The door is labeled "PAINTED".

DOOR SCHEDULE GENERAL NOTES

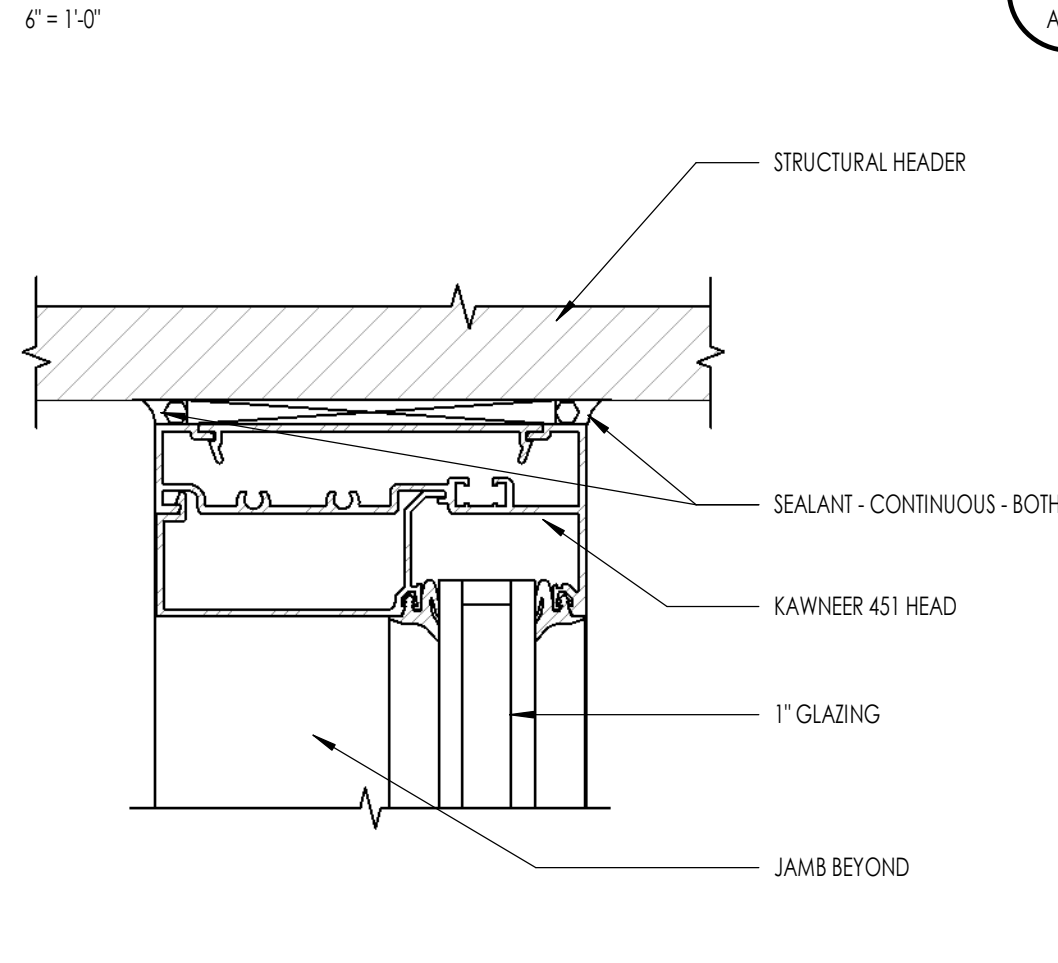
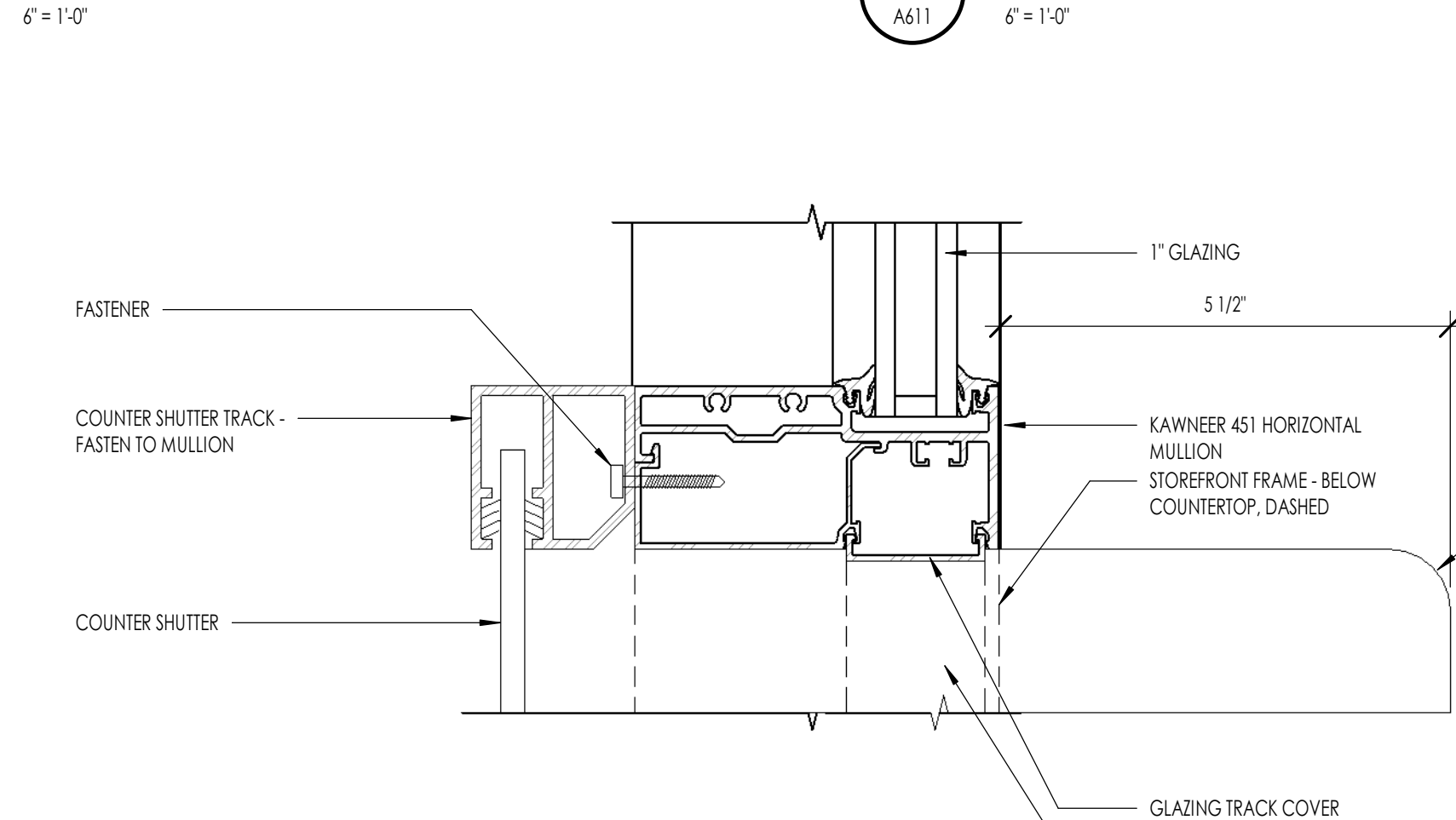
1. CONTRACTOR SHALL FIELD VERIFY ALL DOOR OPENINGS PRIOR TO ORDERING ALL DOORS.
2. ALL DOORS SHALL BE INSTALLED SO AS NOT TO HAVE MORE THAN 1/4" THRESHOLD AT EACH DOOR.
3. ALL EXTERIOR AND INTERIOR DOORS SHALL BE WEATHERSTRIPPED.
4. MAXIMUM EFFORT REQUIRED TO PERATE DOORS SHALL NOT EXCEED 5 LBS
5. EXIT DOORS SHALL BE OPENABLE FROM INSIDE WITHOUT THE USE OF A KEY, SPECIAL EFFORT, OR SPECIAL KNOWLEDGE. NO LATCH OR LOCKING DEVICE EXCEPT PANIC HARDWARE PERMITTED.
6. DOOR OPENING HARDWARE SHALL BE LEVER TYPE, PANIC BARS, PUSH/PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITH A SINGLE EFFORT AND SHALL NOT REQUIRE TIGHT GRASPING OR TWISTING OF THE WRIST.
7. EXIT DOORS SHALL NOT BE LESS THAN 3'-0" IN WIDTH & 6'-8" IN HEIGHT. PROJECTIONS, INCLUDING PANIC HARDWARE, SHALL NOT REDUCE THE OPENING TO LESS THAN 32" CLEAR WIDTH.



DOOR JAMB AT CMU AND FURRED WALL

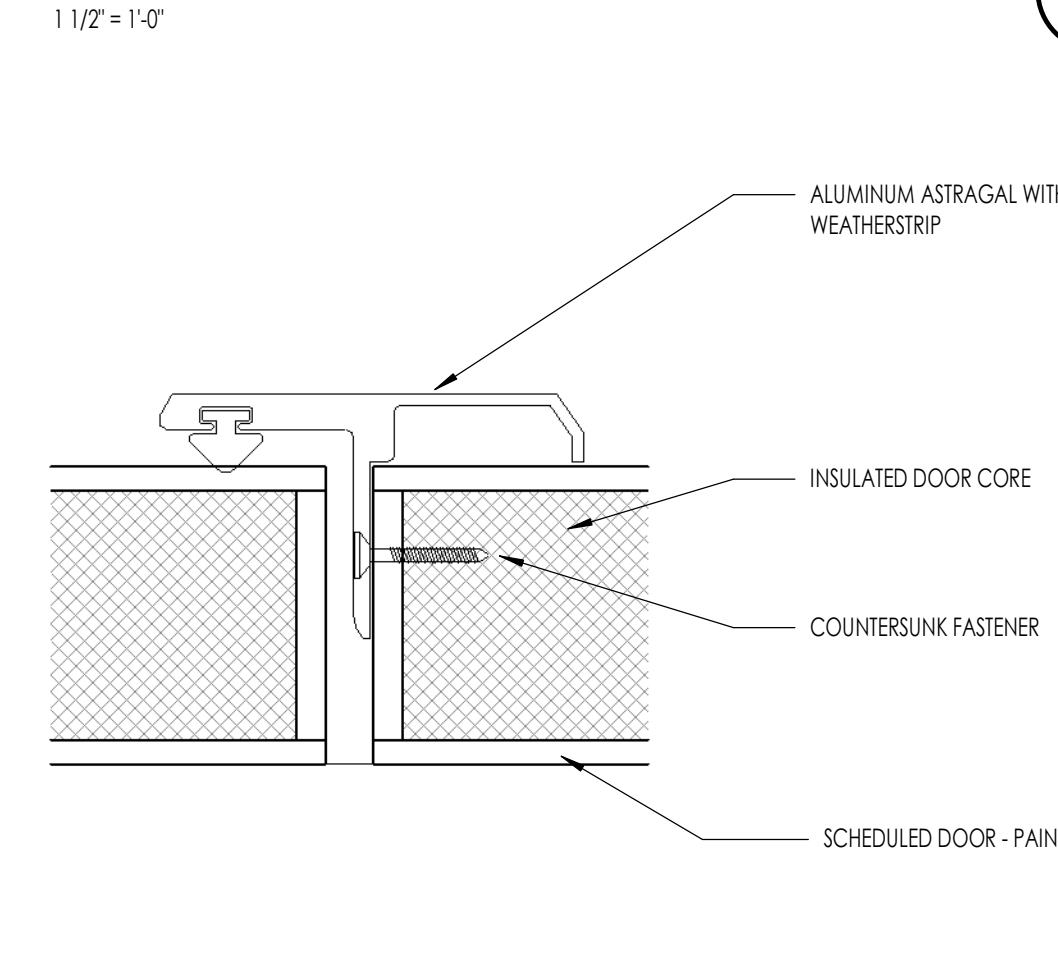


KAWNEER JAMB DETAIL - GLASS PANEL



KAWNEER JAMB - MAPES BOTH SIDES

DOUBLE DOOR ASTRAGAL DETAIL



The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



MAIN STREET COMMONS - CONCESSIONS

2117 McCULLOCH BLVD. NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

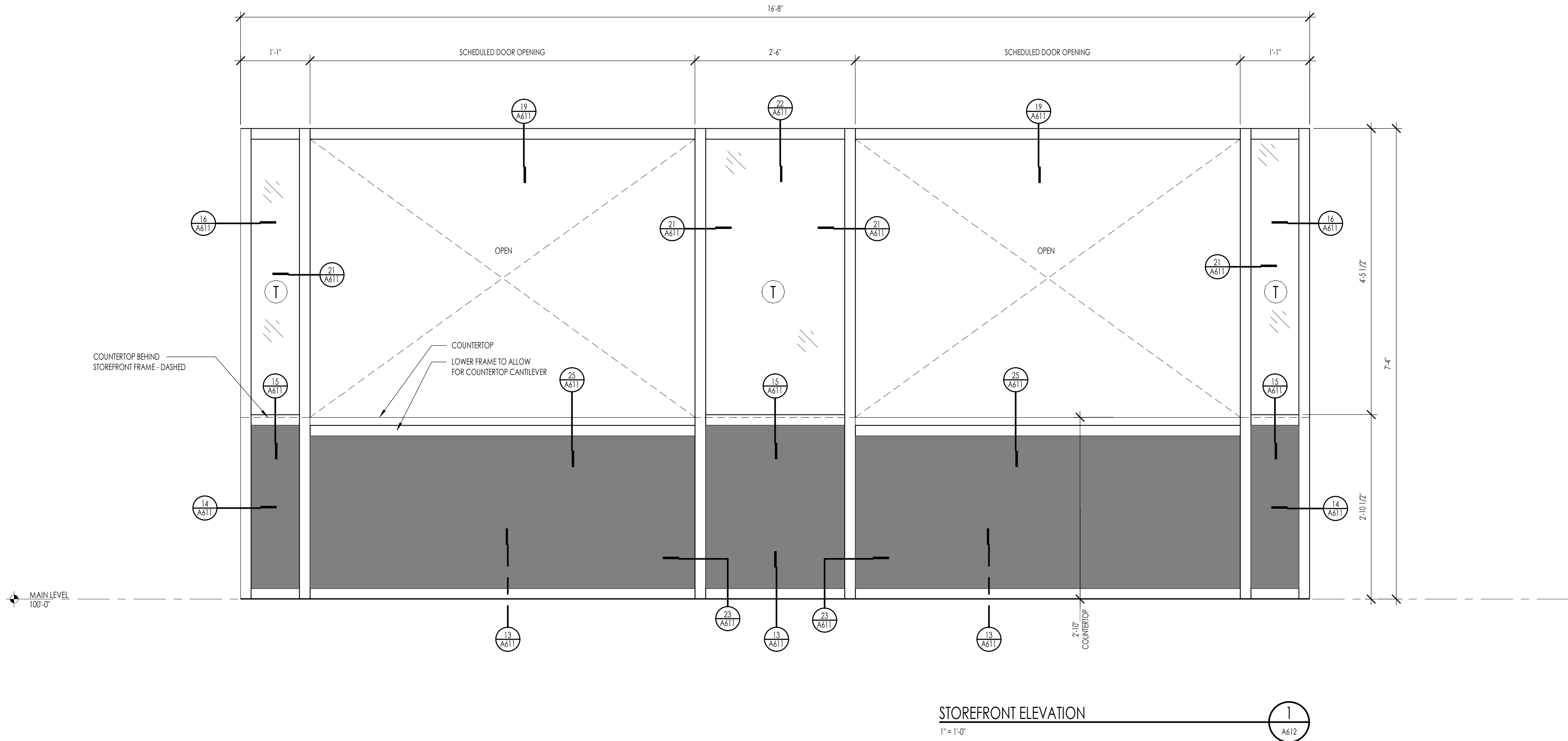
SHEET TITLE:
DOOR SCHEDULE &
STOREFRONT DETAIL

SHEET NUMBER:

A611

© 2022 THINK ARCHITECTURE INC

BID SET



WINDOW NOTES	
1.	ALL EXTERIOR WINDOWS SHALL BE DUAL GLAZED (1-INCH INSULATED) CLEAR GLASS (UNLESS NOTED OTHERWISE) WITH A U VALUE = 0.31 (TYPICAL) SHGC PER ENERGY REPORT.
2.	 = TEMPERED SAFETY GLAZING - BOTH PAGES INTERIOR AND EXTERIOR.
3.	 = 1-INCH THICK INSULATED "MAPEX" PANEL INSERTED IN STOREFRONT FRAME
4.	2-INCH x 4.5-INCH CLEAR ANODIZED ALUMINUM STOREFRONT WINDOW FRAME SYSTEM. KAWNEER, OR EQUAL, TRIFAB VERSAGLAZE 451 FRAMING SYSTEM WITH GLAZING LOCATION TO THE FRONT.

WINDOW NOTES
12" = 1'-0"



MAIN STREET COMMONS - CONCESSIONS

2117 McCULLOCH BLVD., NORTH
LAKE HAVASU, AZ. 86403

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
STOREFRONT
ELEVATION

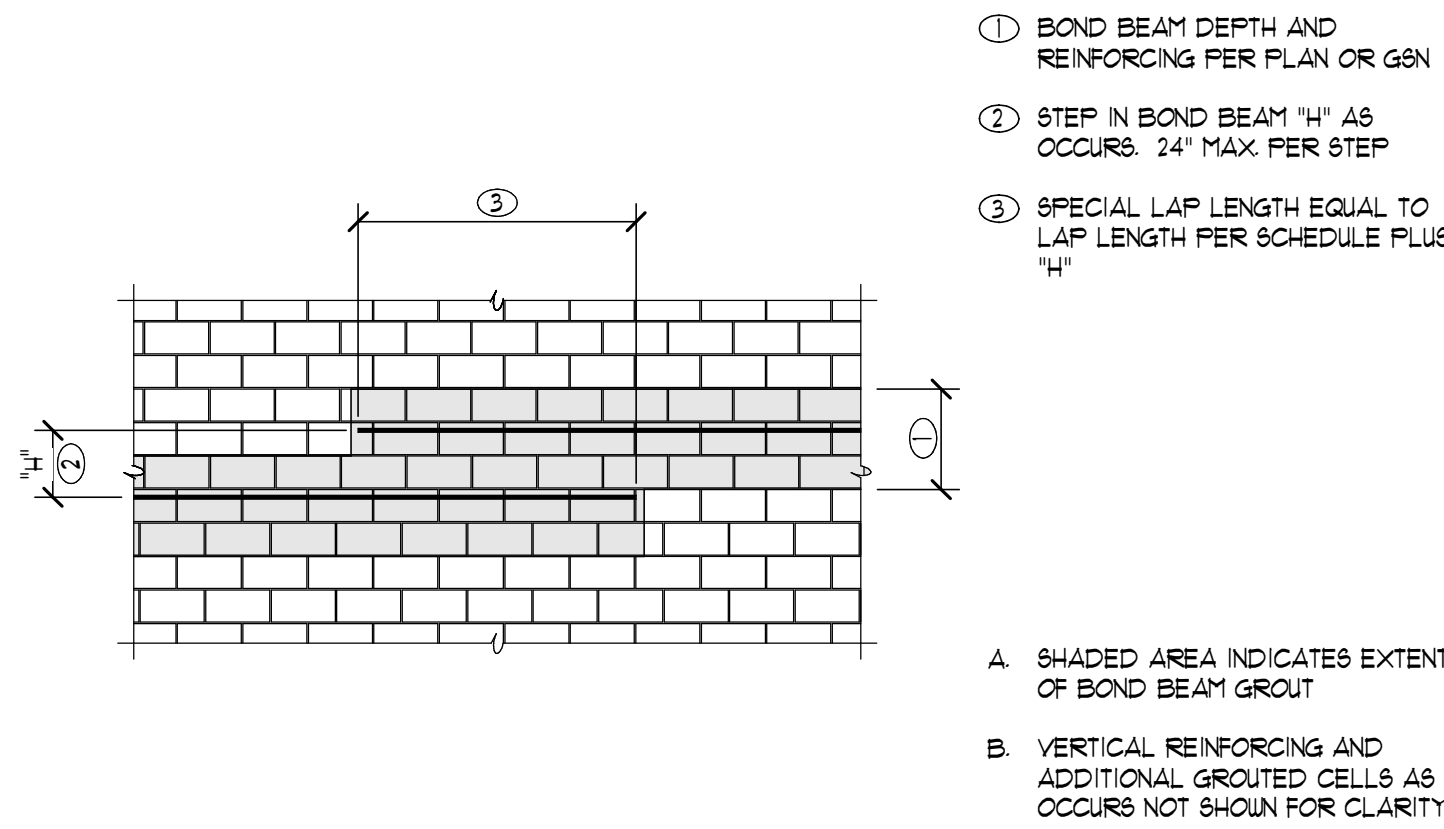
SHEET NUMBER:

A612

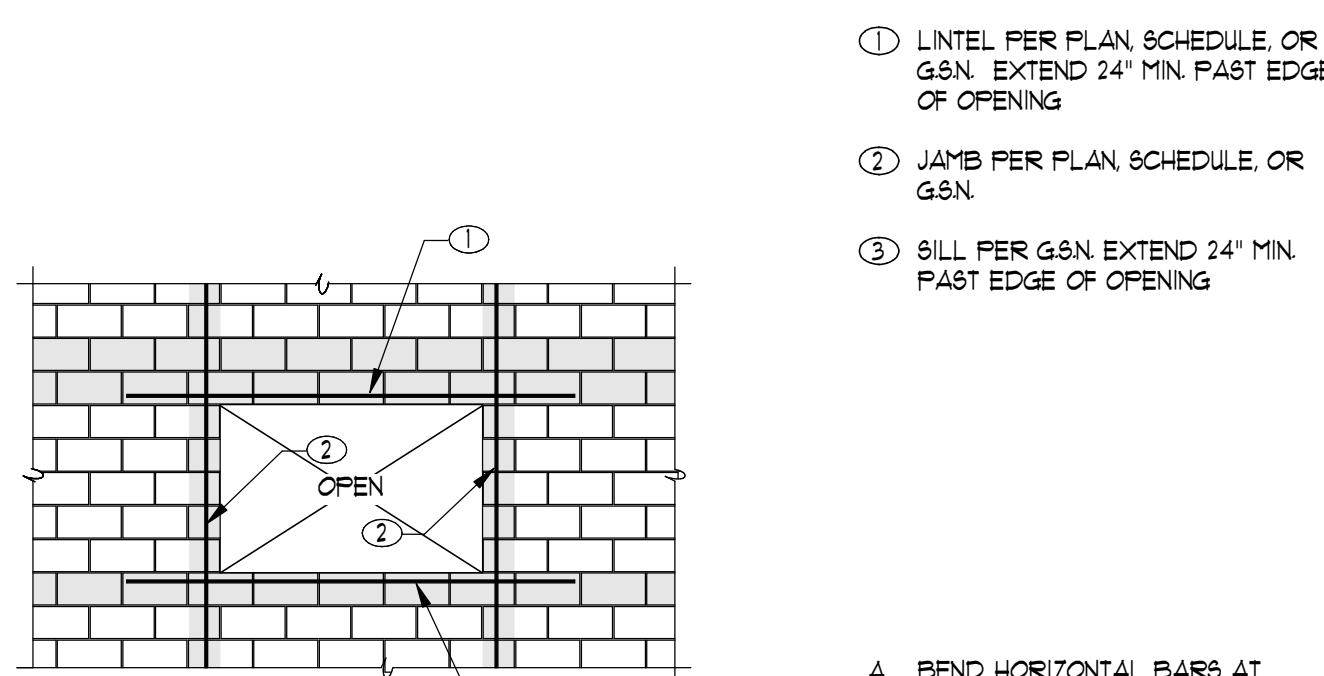
© 2022 THINK ARCHITECTURE INC.

S0.2

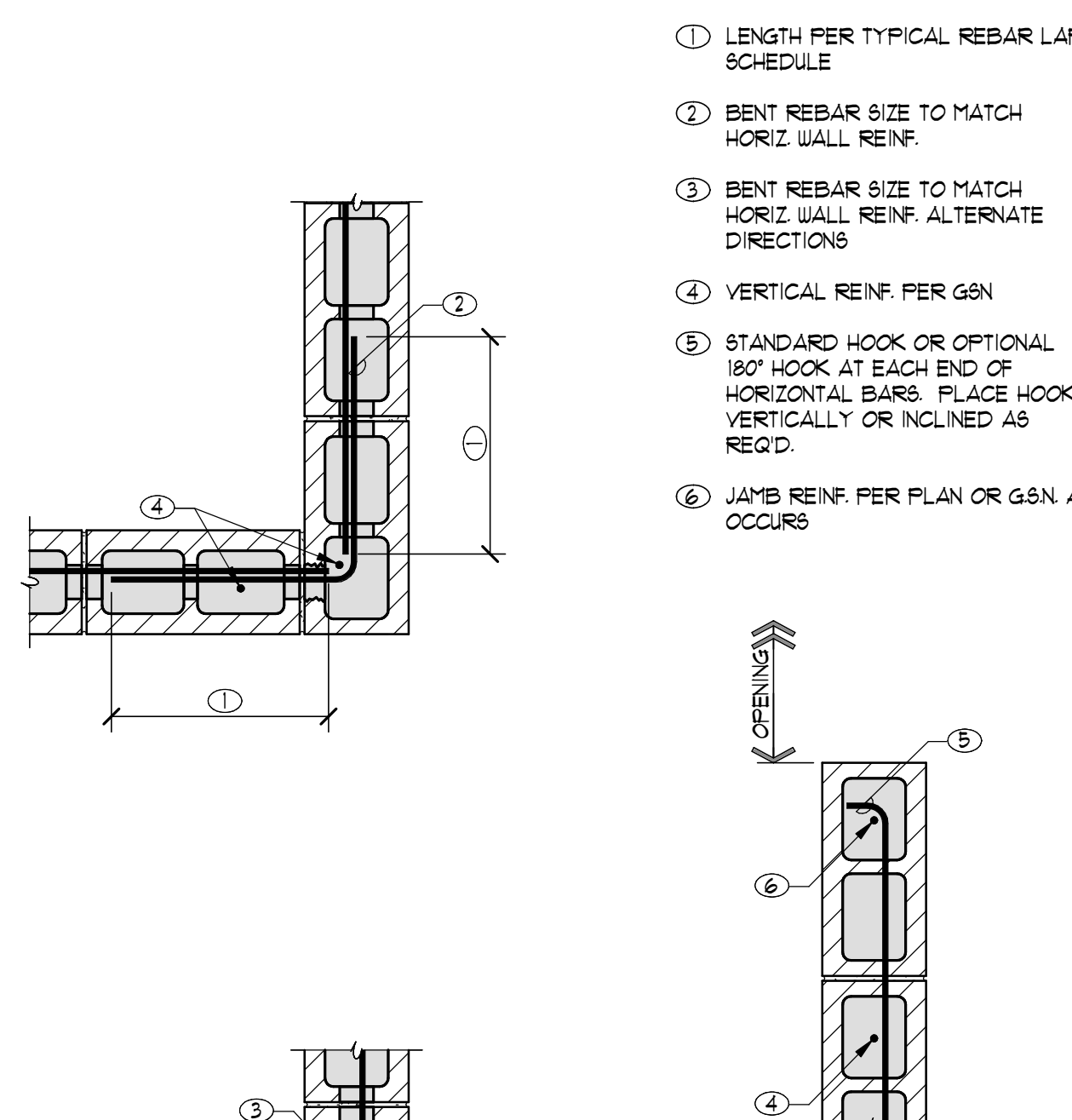
© 2022 THINK ARCHITECTURE INC.



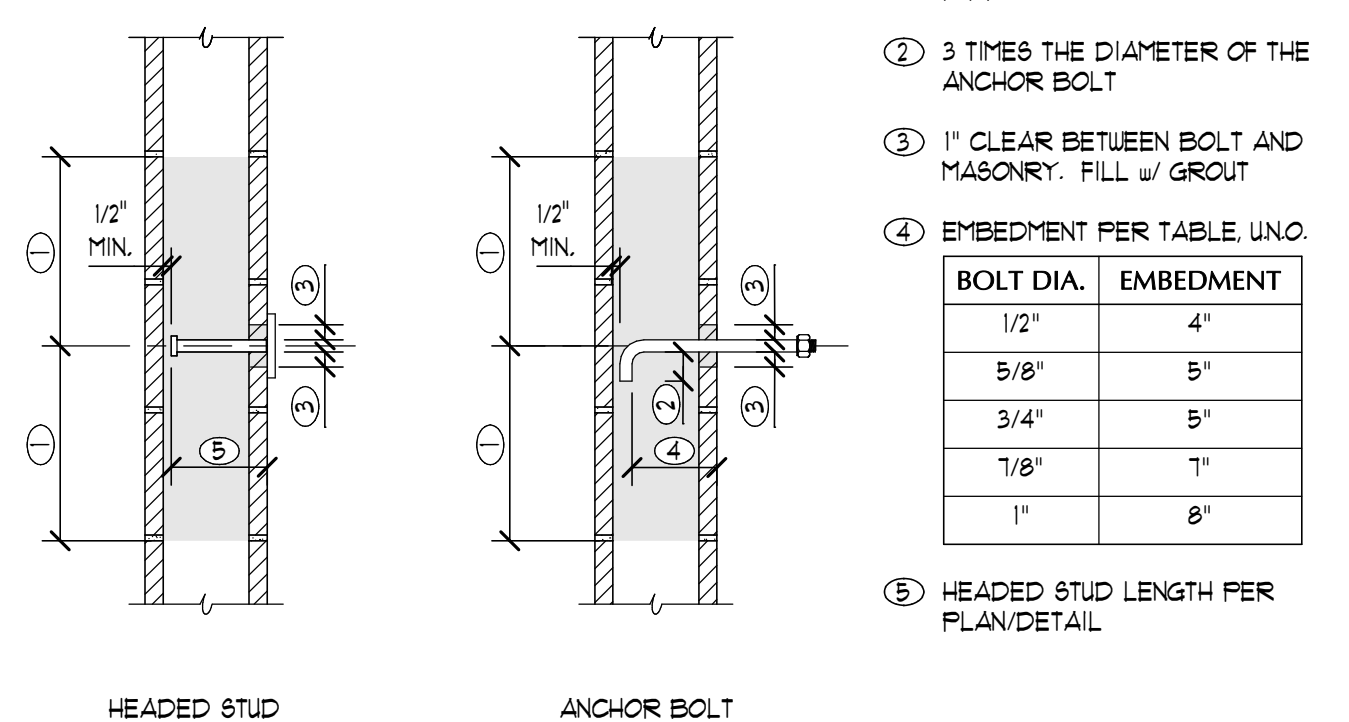
09 TYPICAL STEP IN HORIZONTAL BOND BEAM
T01-03 280204-280204 NO SCALE



10 TYPICAL OPENING IN MASONRY WALL
T01-04 280204-280204 NO SCALE

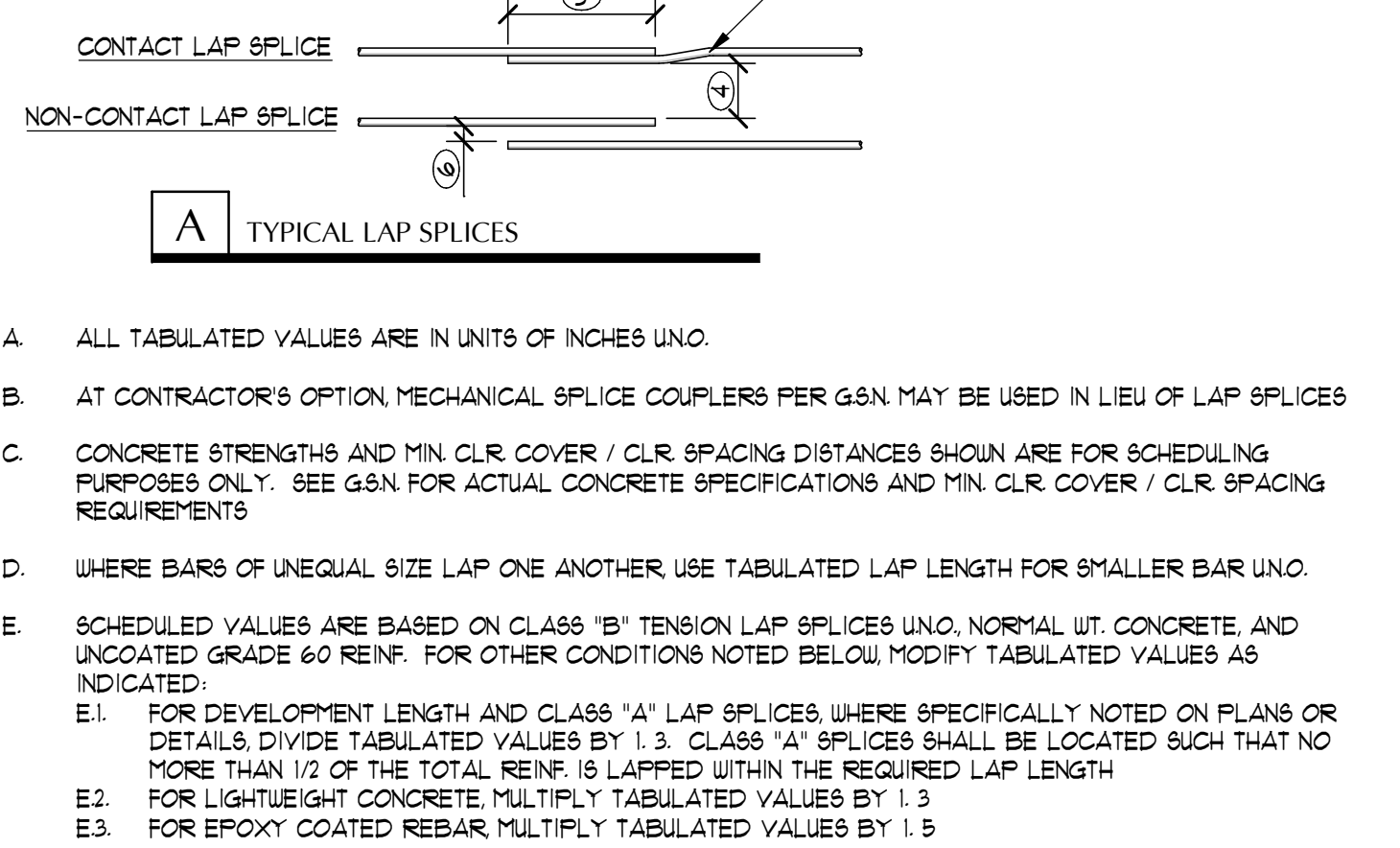


11 TYPICAL MASONRY WALL INTERSECTION AND OPENINGS
T01-11 280221-280204 NO SCALE

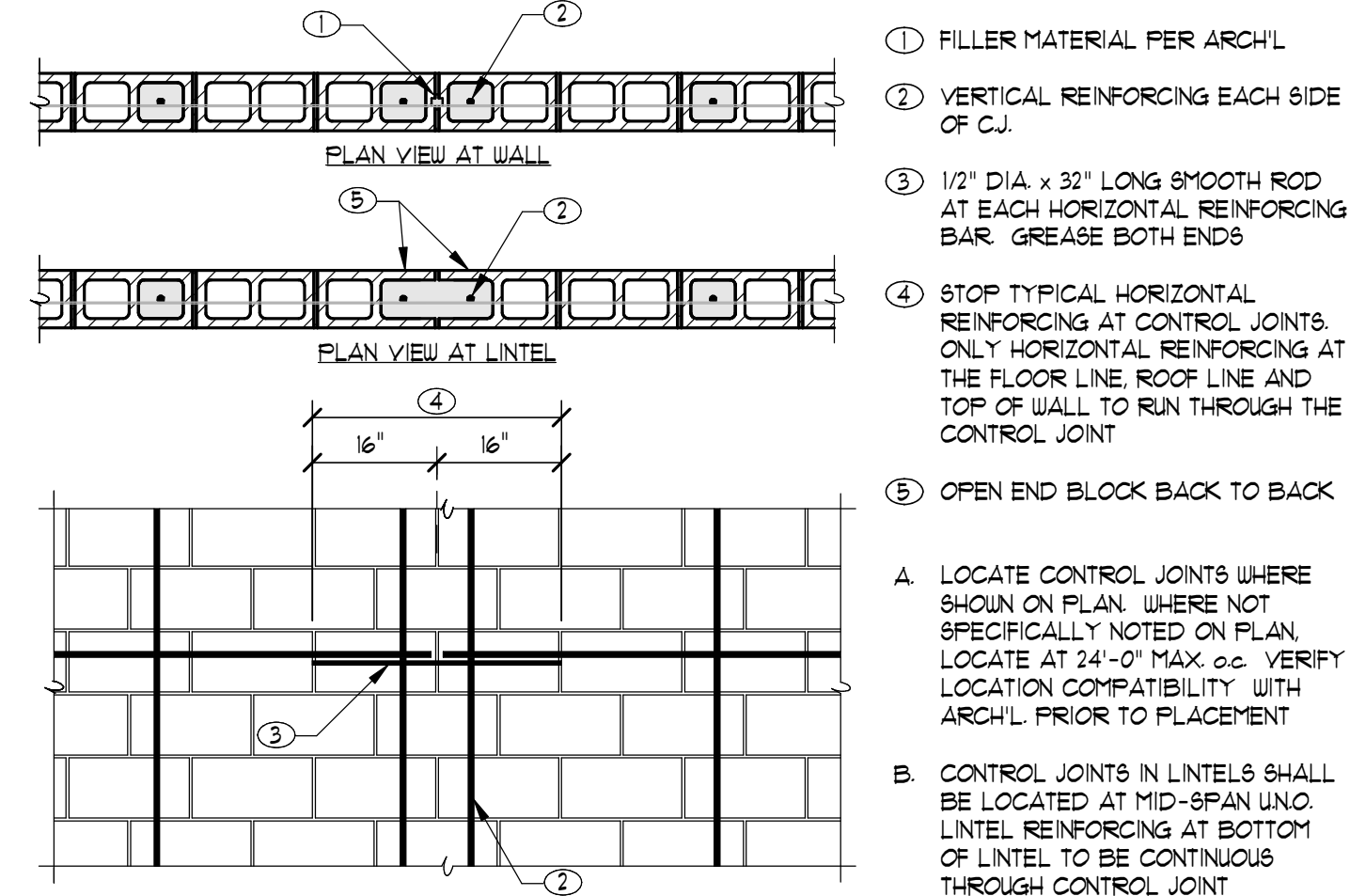


12 TYPICAL EMBEDDED BOLT OR HEADED STUD
T01-12 18118-280204 NO SCALE

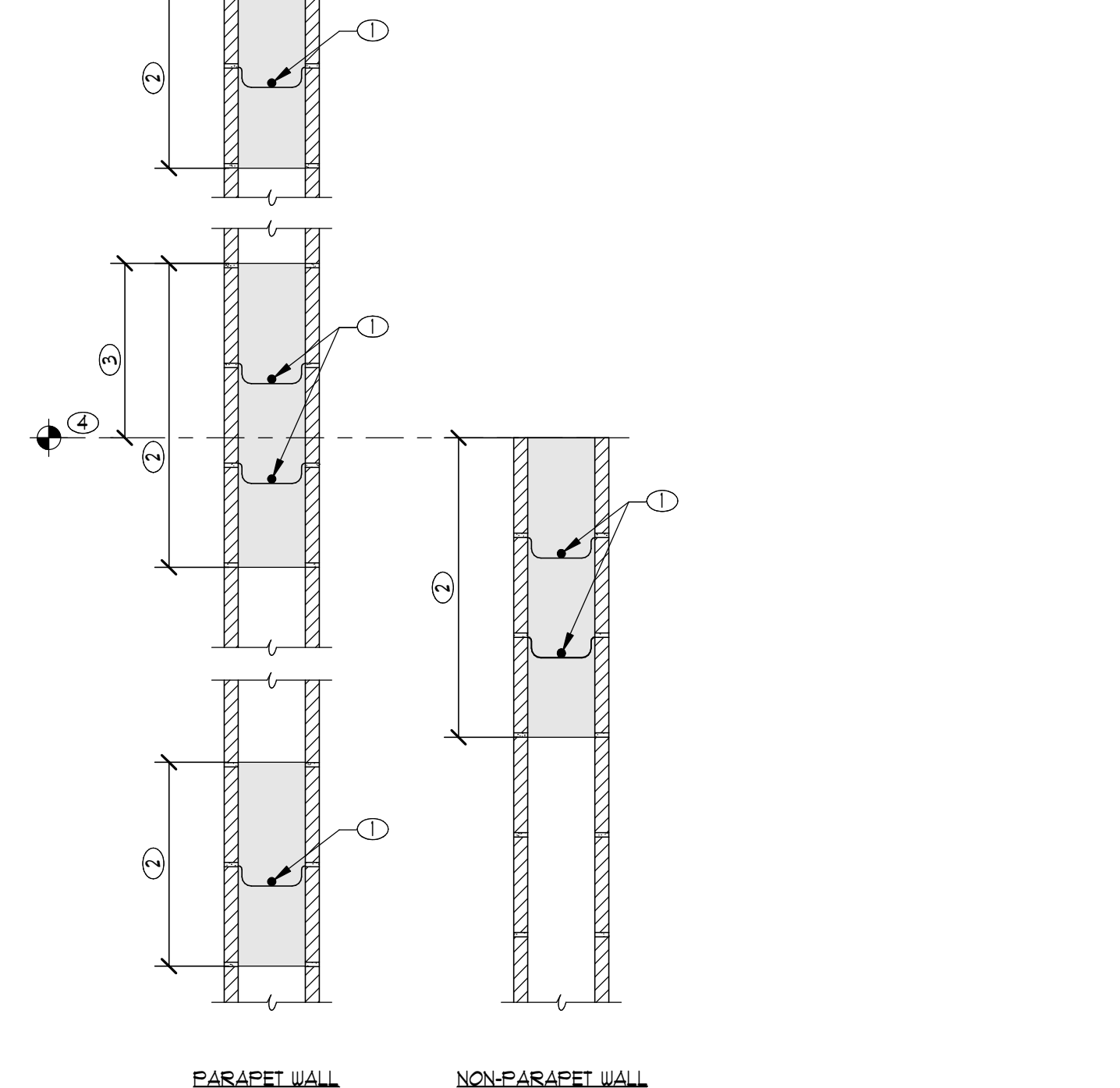
BAR SIZE	CASE	MIN. CLR. COVER	MIN. CLR. SPACING	REBAR LAP LENGTH ①			
				HORIZ. OTHER BARS	HORIZ. OTHER BARS	HORIZ. OTHER BARS	HORIZ. OTHER BARS
#3	1	3/4	1 1/2	19	16	16	16
	2	3/8	3/4	31	24	23	18
	3	-	-	-	-	-	-
#4	1	1	2	29	19	19	16
	2	1/2	1	41	32	31	24
	3	-	-	-	-	-	-
#5	1	1 1/4	2 1/2	31	24	23	19
	2	5/8	1 1/4	51	39	38	30
	3	-	-	-	-	-	-
#6	1	1 1/2	3	31	29	28	21
	2	3/4	1 1/2	61	47	46	39
	3	-	-	92	71	69	53



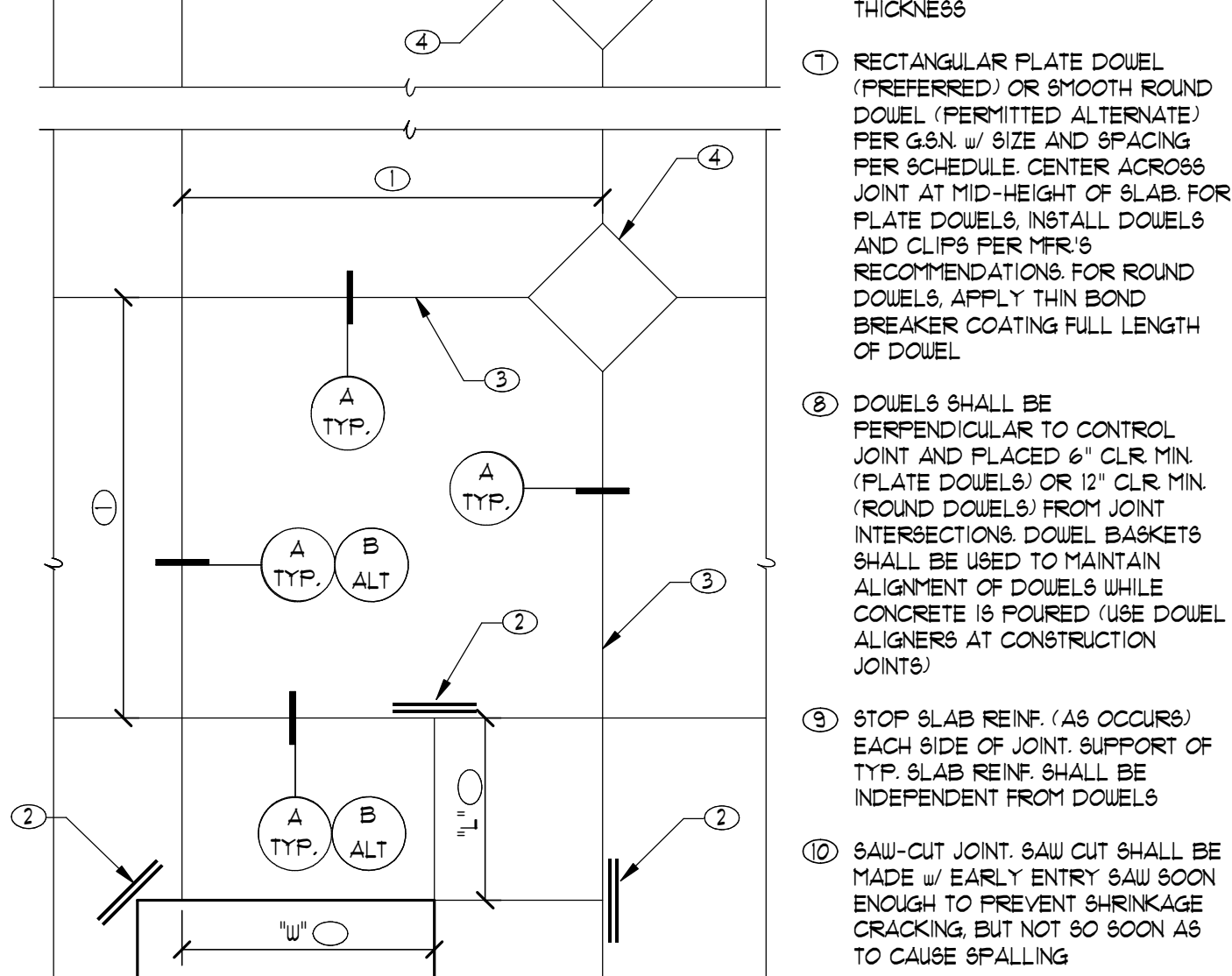
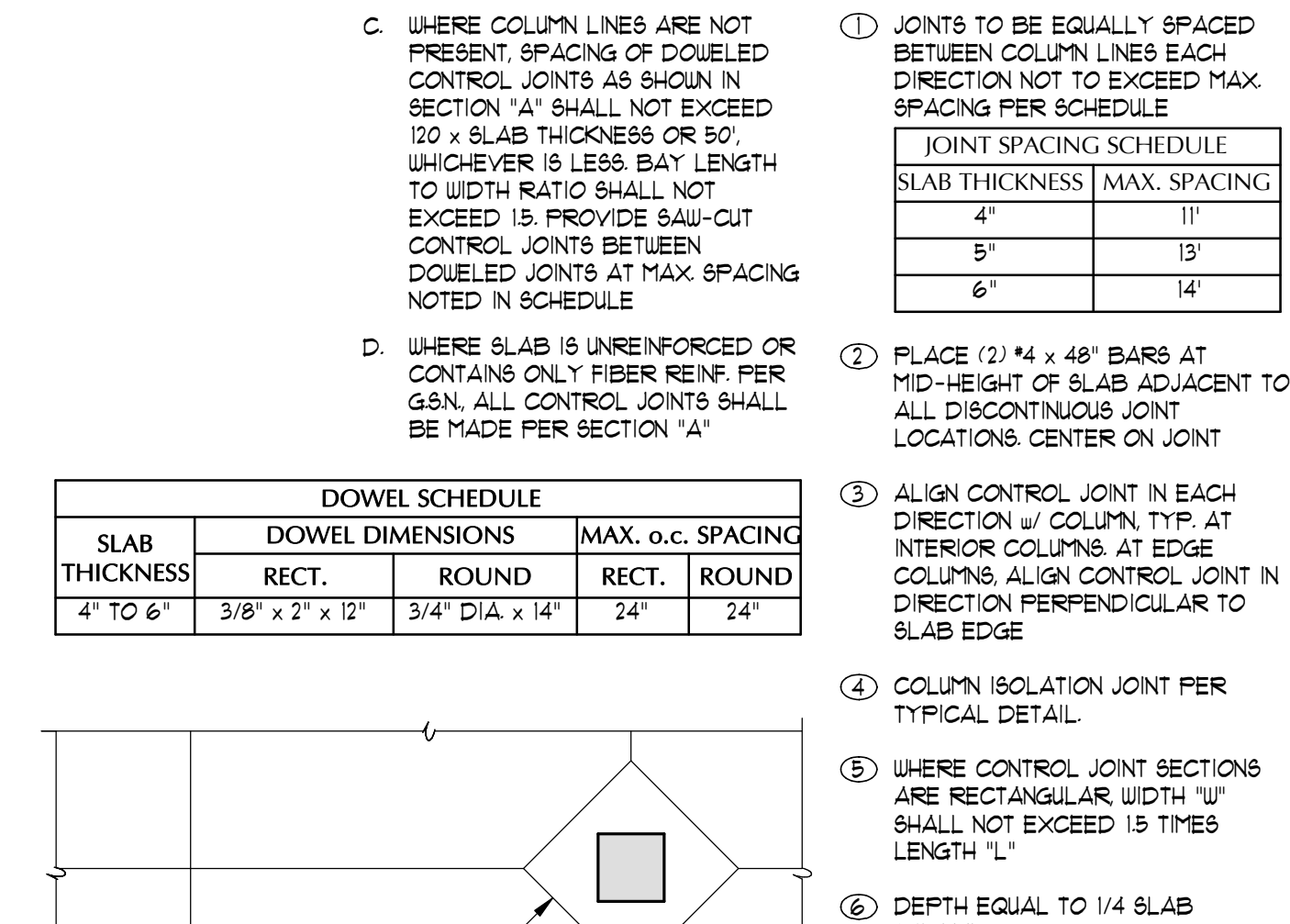
06 TYPICAL REBAR LAP SCHEDULE (CONCRETE)
06-280204 - R02 NO SCALE



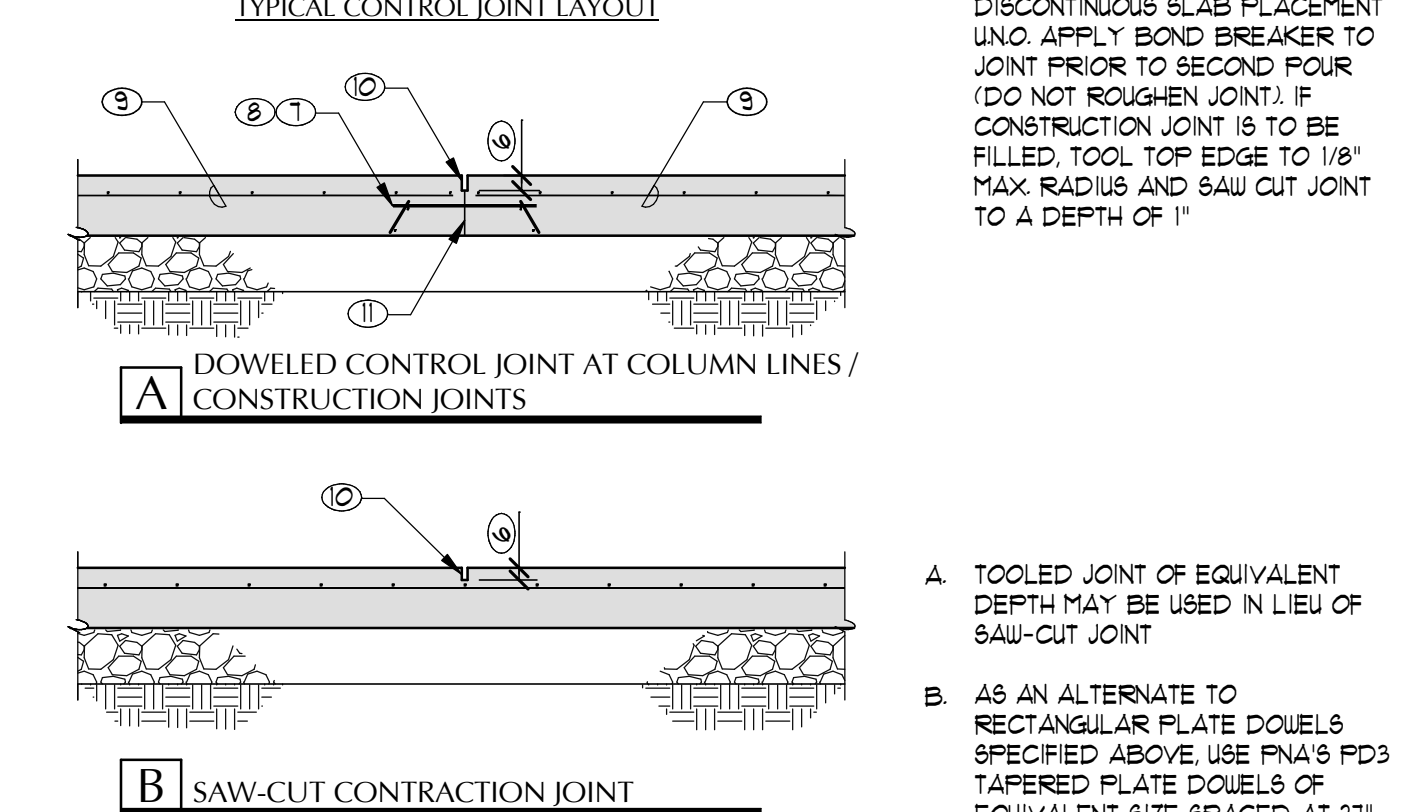
07 TYPICAL MASONRY CONTROL JOINT (MCJ)
T01-01 181004-280204 NO SCALE



08 TYPICAL HORIZONTAL REINFORCING
T01-02 080204-280204 NO SCALE



04 TYPICAL CONTROL JOINTS IN SLAB ON GRADE
04-280204 - R02 NO SCALE

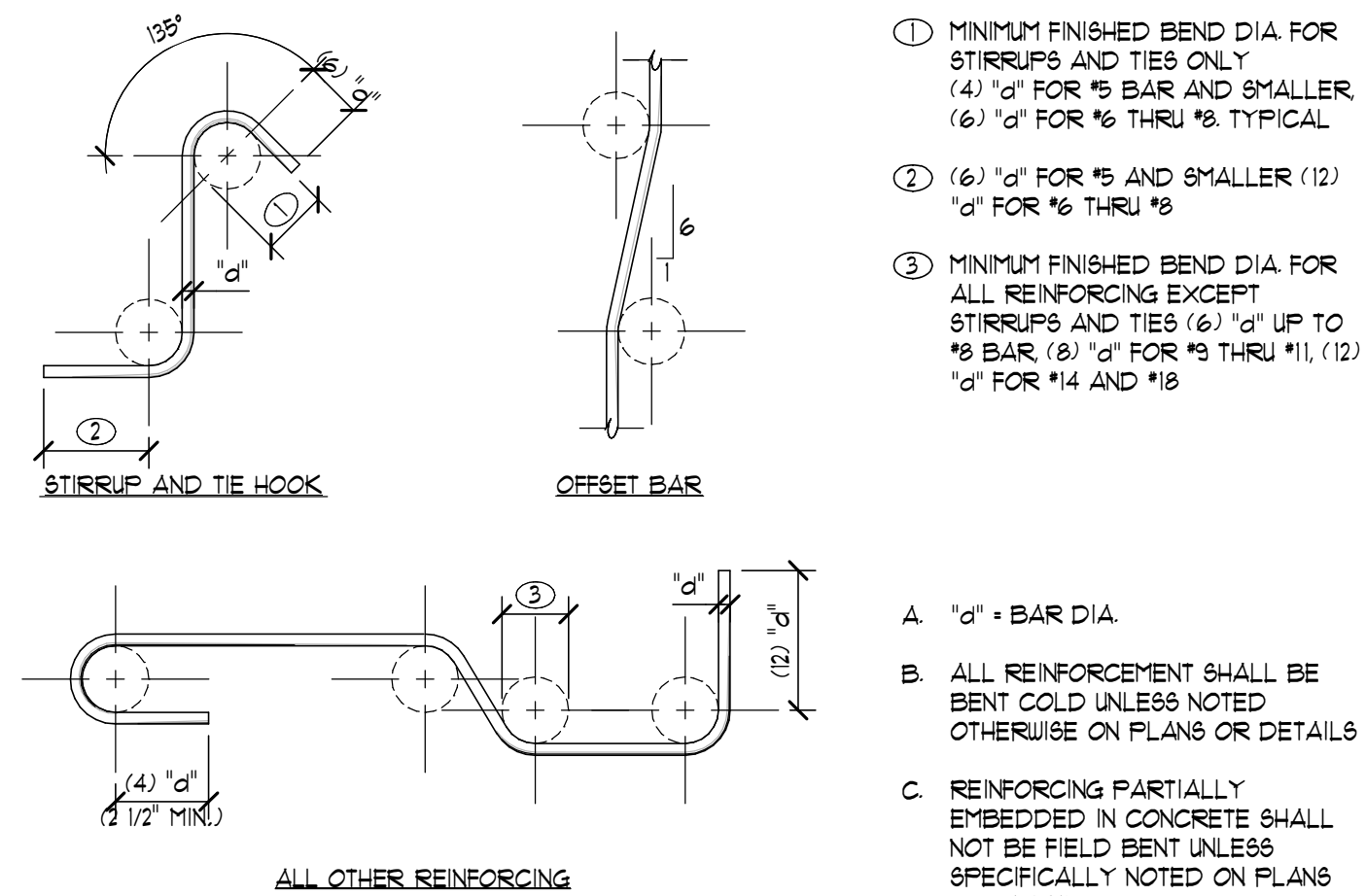


04 TYPICAL CONTROL JOINTS IN SLAB ON GRADE
04-280204 - R02 NO SCALE

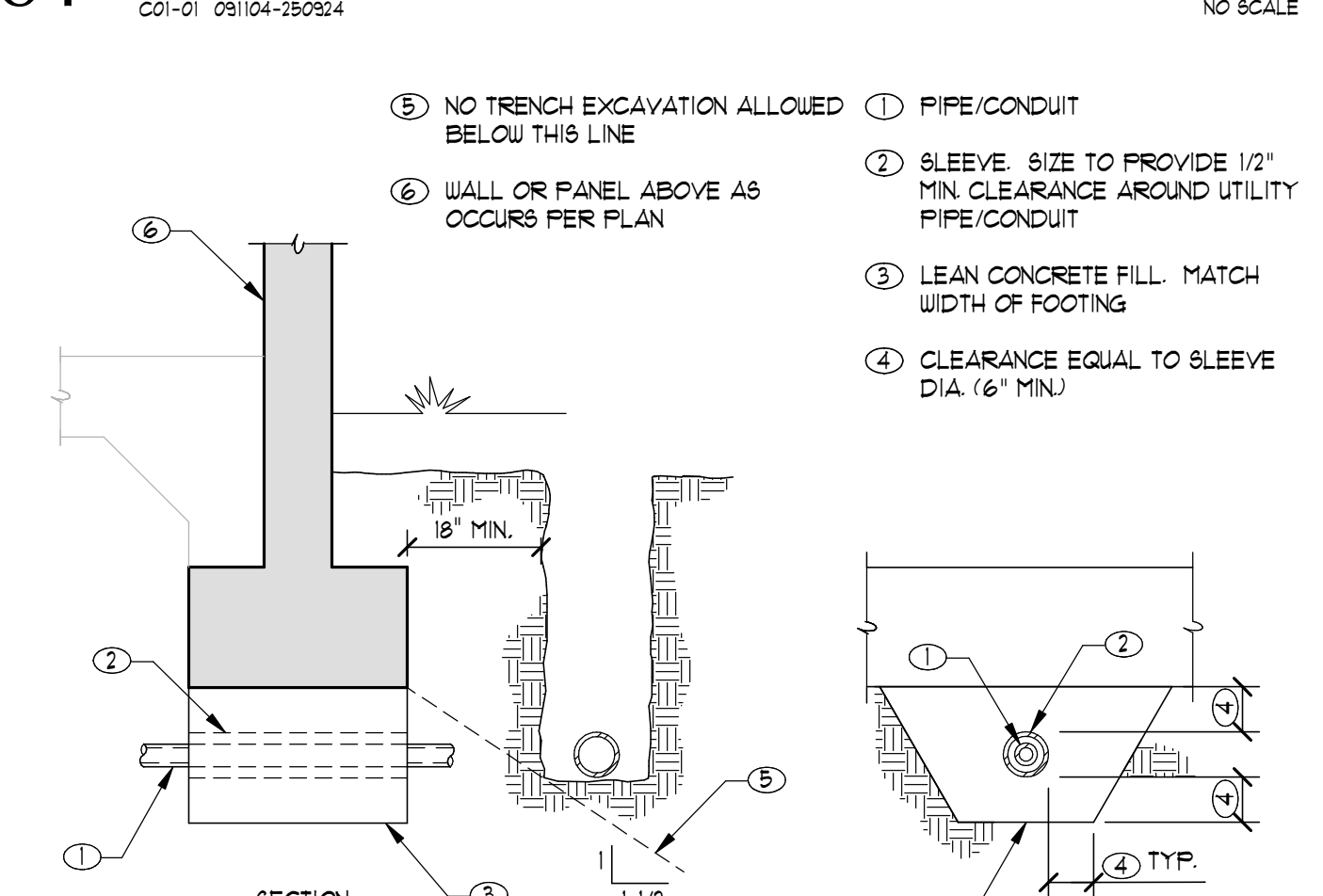
NORMAL CMU THICKNESS	BAR SIZE	REBAR LAP LENGTH ①②③			
		f'm = 2000 PSI CENTER BARS	f'm = 2000 PSI EDGE BARS	f'm = 2500 PSI CENTER BARS	f'm = 2500 PSI EDGE BARS
8"	#3	12	13	12	12
	#4	13	22	12	20
	#5	20	35	18	31
	#6	38	54	34	54
	#7	52	63	47	63
	#8	72	72	71	72



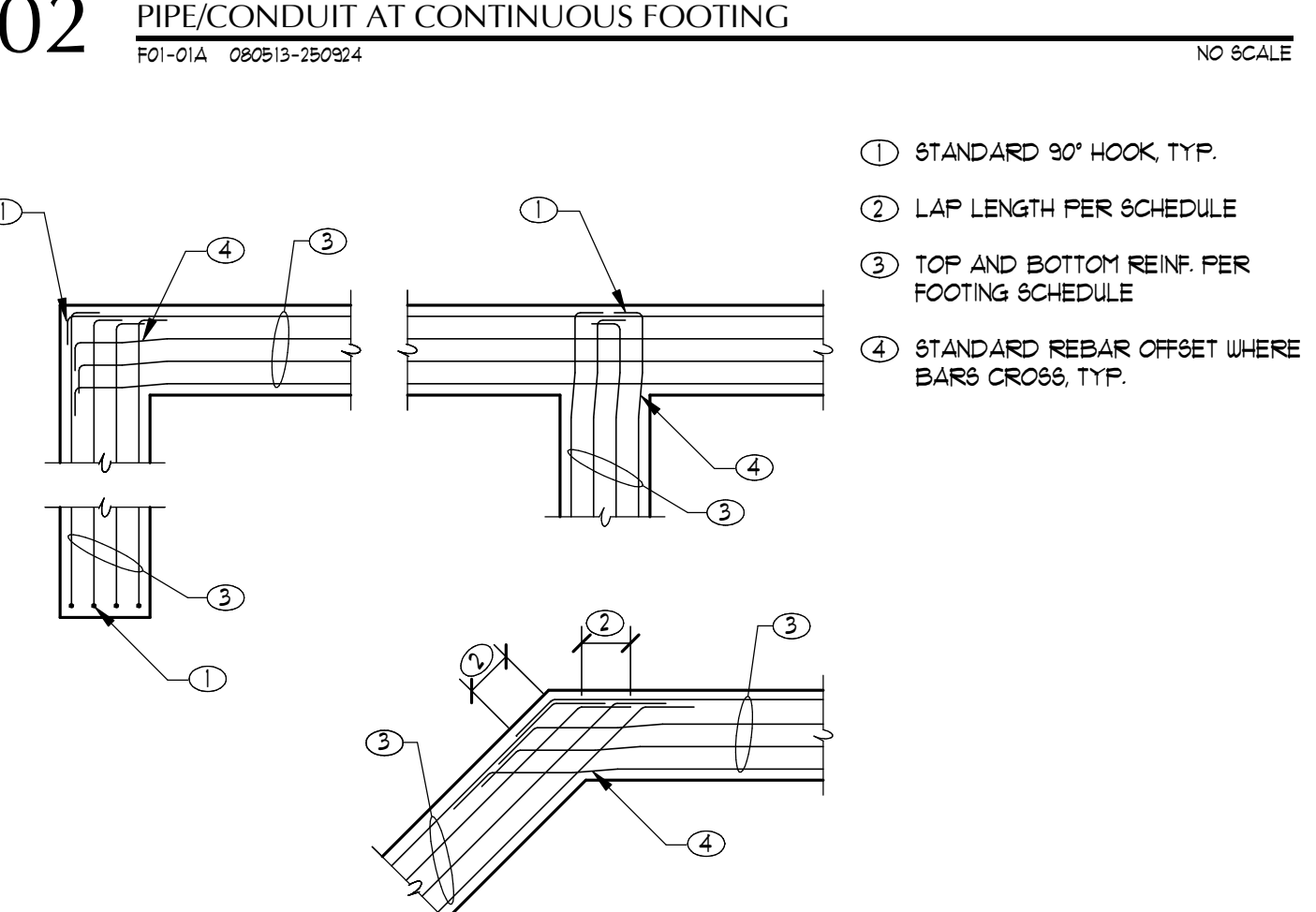
05 TYPICAL REBAR LAP SCHEDULE (MASONRY)
05-280204 - R02 NO SCALE



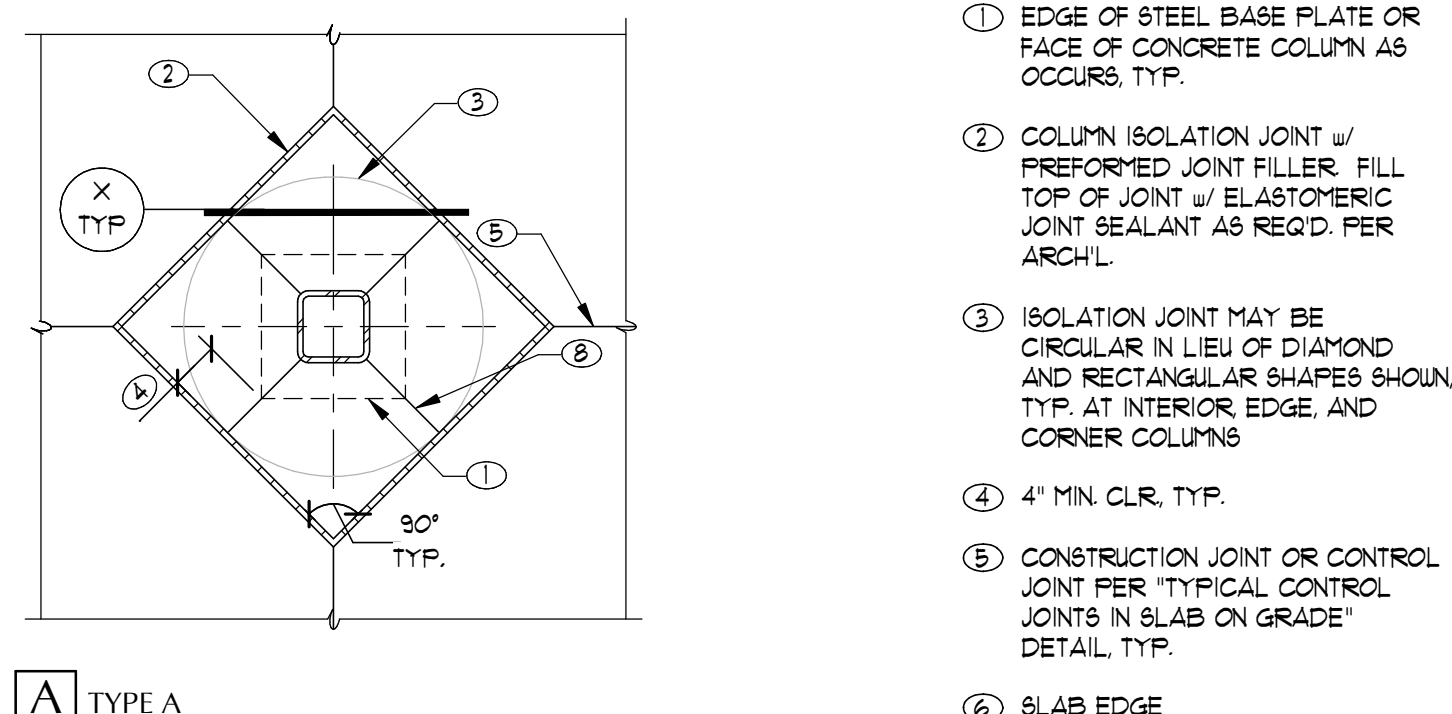
01 STANDARD REBAR BEND DETAILS
T01-01 01104-280204 NO SCALE



02 PIPE/CONDUIT AT CONTINUOUS FOOTING
T01-01A 080213-280204 NO SCALE

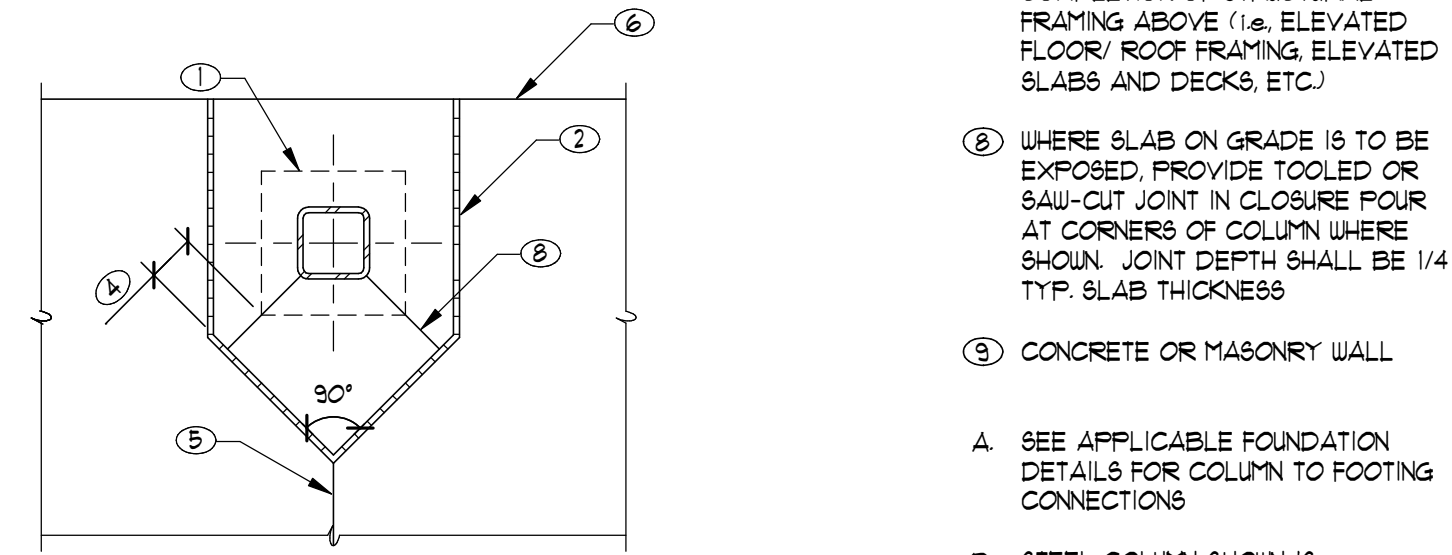


03 FOOTING REINFORCING AT CORNERS AND INTERSECTIONS (PLAN VIEW)
T01-32 220206-280204 NO SCALE



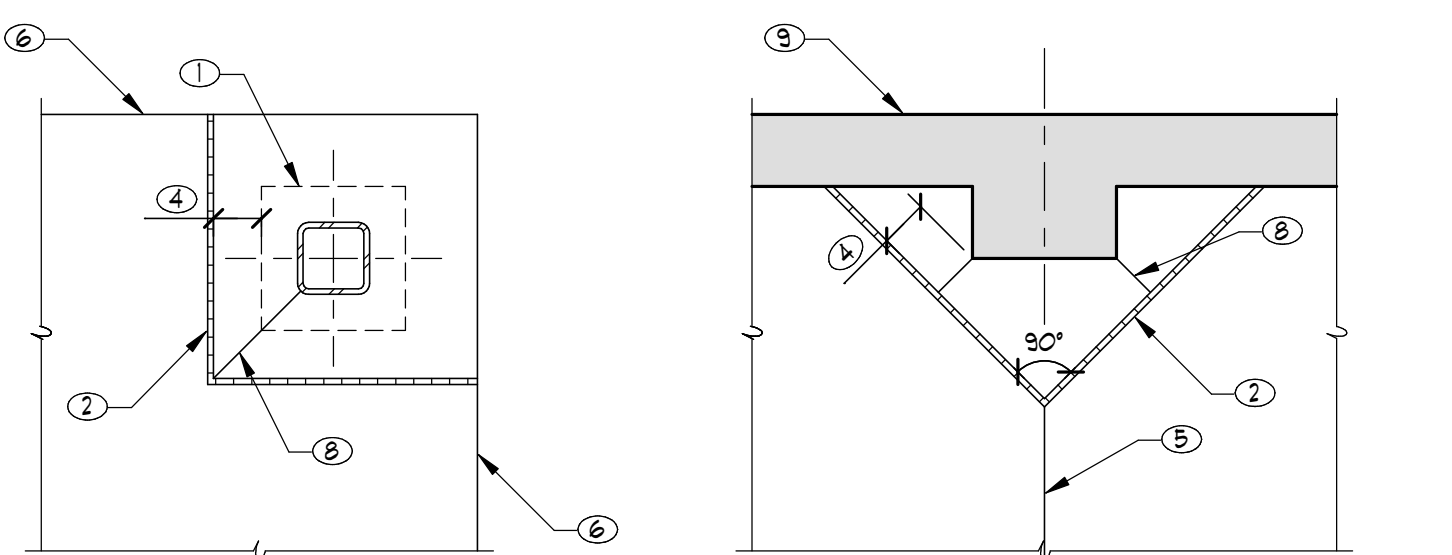
- EDGE OF STEEL BASE PLATE OR FACE OF CONCRETE COLUMN AS OCCURS, TYP.
- COLUMN ISOLATION JOINT w/ PREFORMED JOINT FILLER. FILL TOP OF JOINT w/ ELASTOMERIC JOINT SEALANT AS REQD. PER ARCH.
- ISOLATION JOINT MAY BE CIRCULAR IN LIEU OF DIAMOND AND RECTANGULAR SHAPES SHOWN TYP. AT INTERIOR EDGE, AND CORNER COLUMNS.
- 4" MIN. CLR. TYP.
- CONSTRUCTION JOINT OR CONTROL JOINT PER TYPICAL CONTROL JOINTS IN SLAB ON GRADE DETAIL, TYP.
- SLAB EDGE

A TYPE A

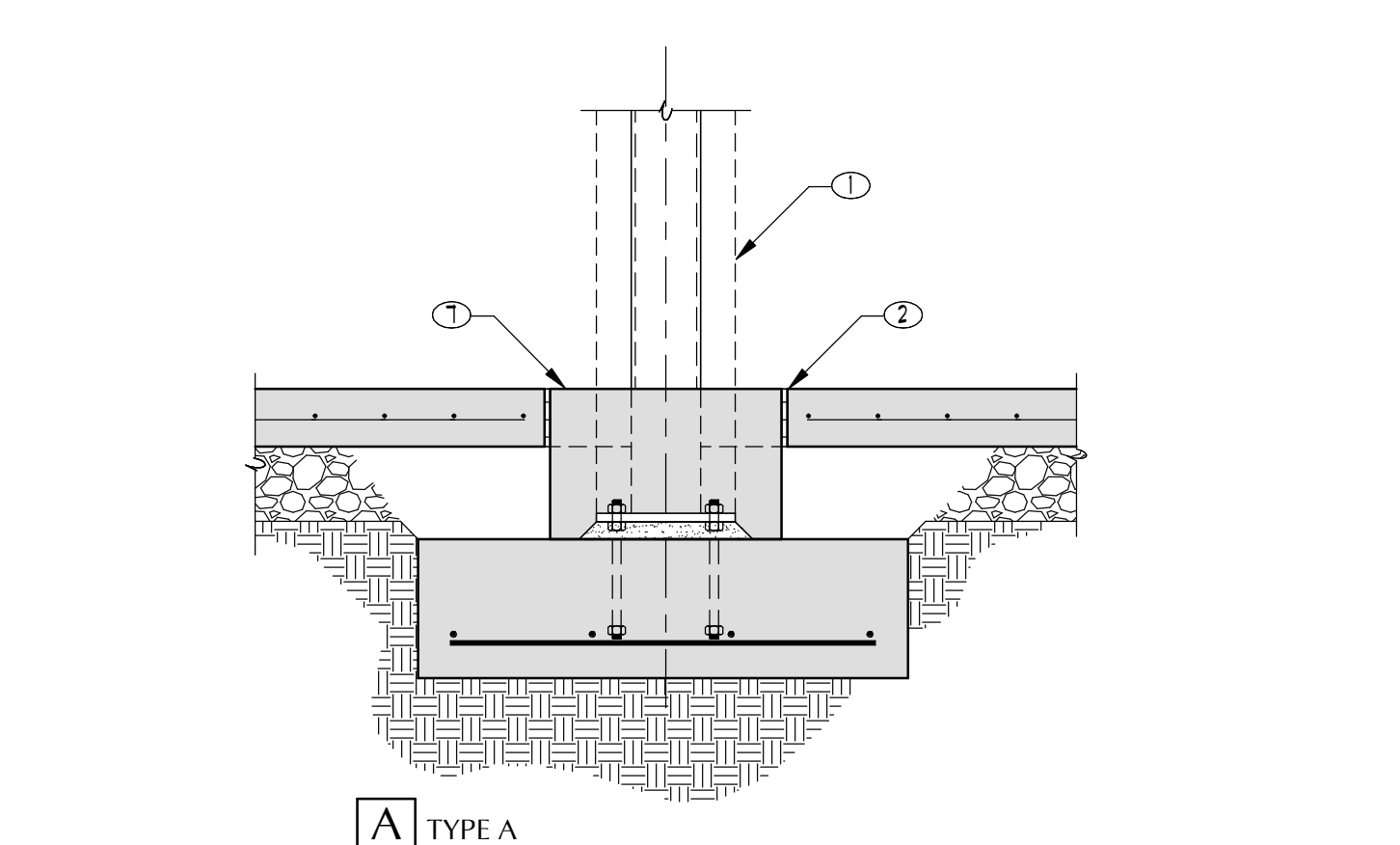


- PLACE CLOSURE FOUR AFTER COMPLETION OF STRUCTURAL FRAMING ABOVE (i.e. ELEVATED FLOOR/ ROOF FRAMING, ELEVATED SLABS AND DECKS, ETC.)
- WHERE SLAB ON GRADE IS TO BE EXPOSED, PROVIDE TOGGLED OR SAW-CUT JOINT IN CLOSURE FOUR AT CORNERS OF COLUMN WHERE SHOWN. JOINT DEPTH SHALL BE 1/4 TYP. SLAB THICKNESS
- CONCRETE OR MASONRY WALL

A TYPE A

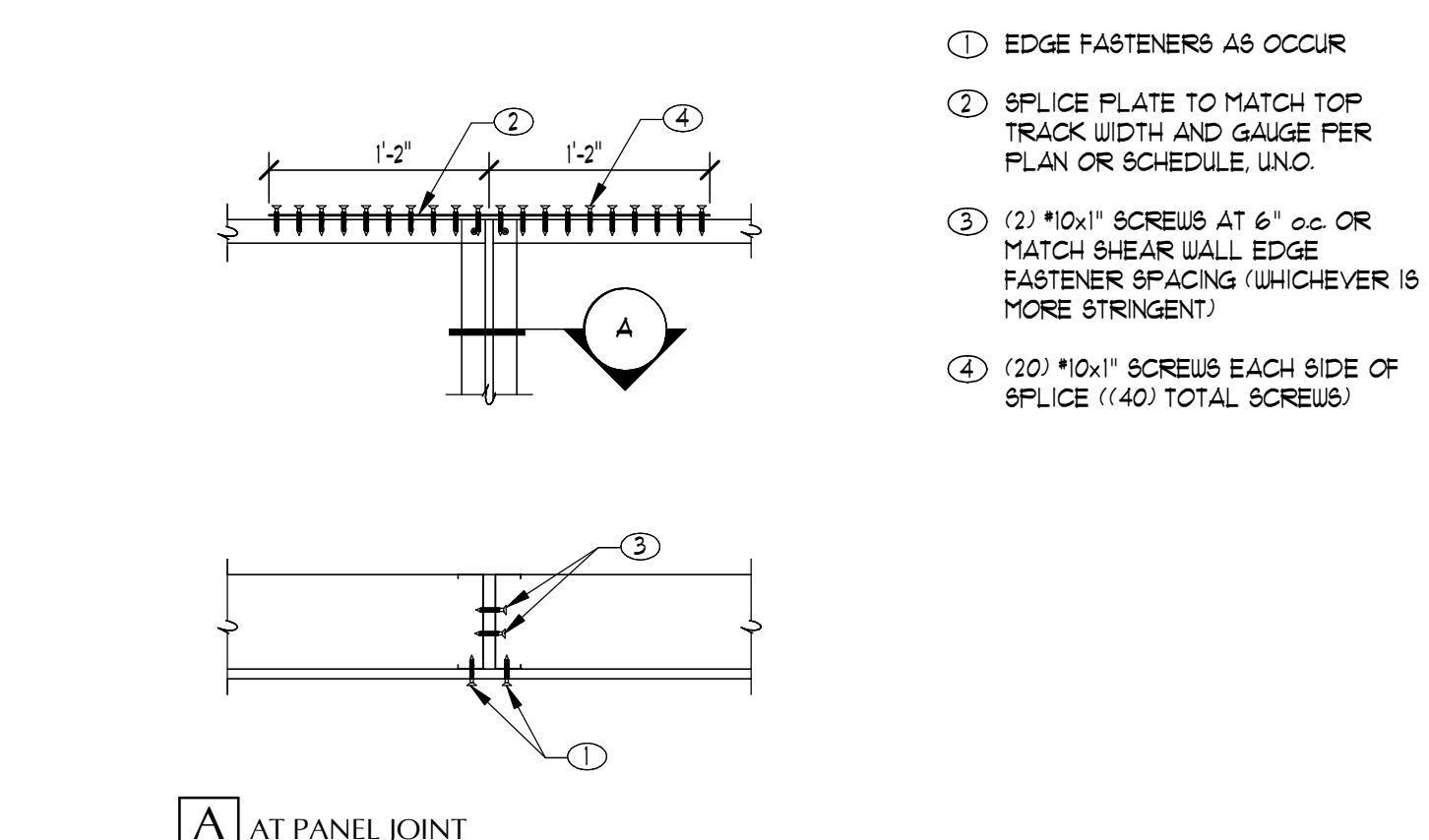


A TYPE A



A TYPE A

24 TYPICAL COLUMN ISOLATION JOINTS - PLAN
P01-23 06/20/24-20/24 NO SCALE



A AT PANEL JOINT

25 TYPICAL CFS TOP TRACK SPLICE AND PANEL JOINT
P02-23 20/24-20/24 NO SCALE

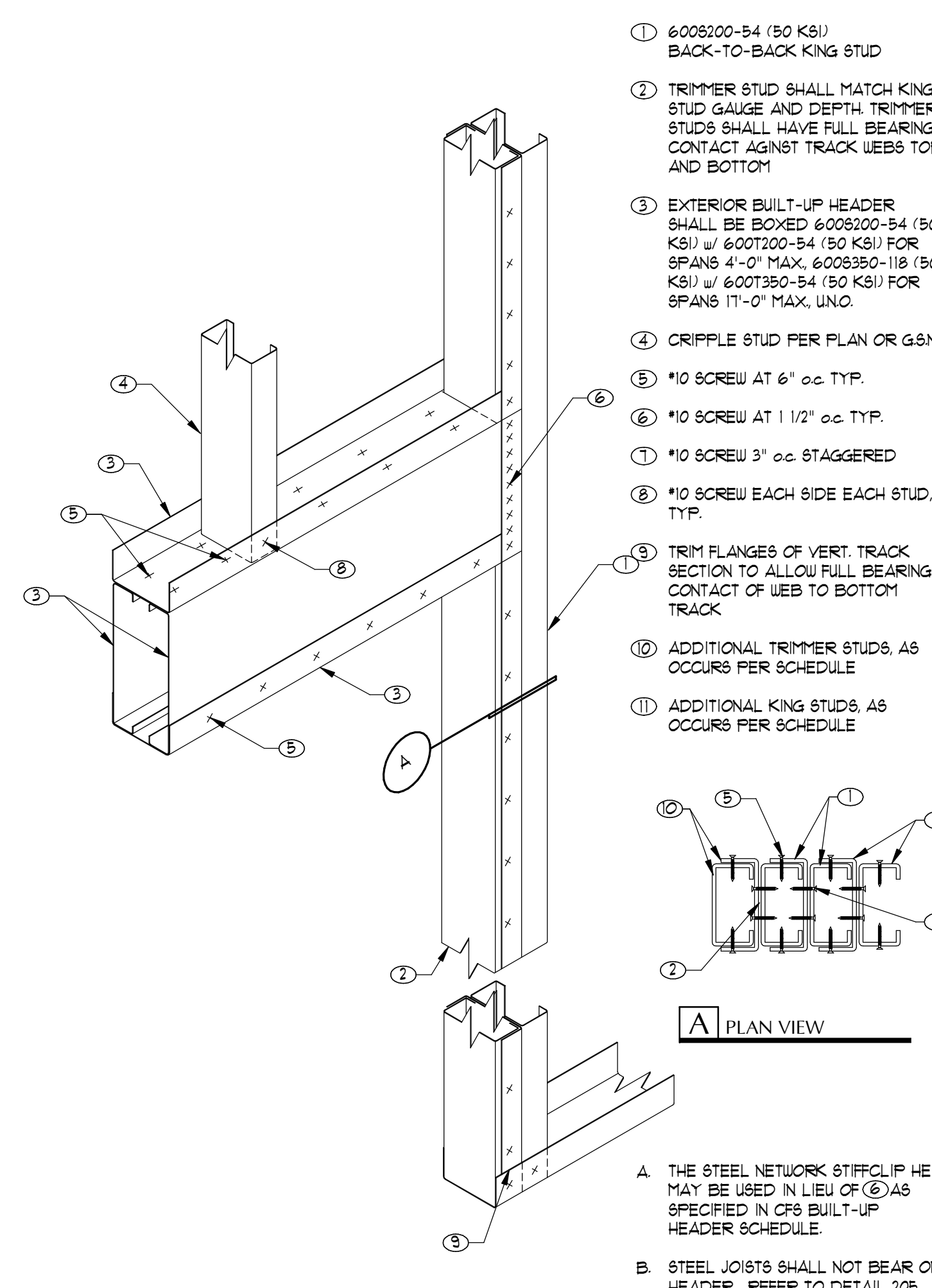
CONNECTION	MINIMUM NAILING, U.N.O. ON PLANS OR DETAILS
JOIST OR TRUSS TO TOP PLATE/ SILL, ETC.	(3) 16d OR (3) 3" x 0.131" TOENAIL, EACH END
BRIDGING TO JOIST	(2) 8d COMMON OR (2) 3" x 0.131" TOENAIL, EACH END
BOTTOM PLATE TO JOIST OR BLOCKING (AT SHEAR WALLS, SEE SHEAR WALL SCHEDULE)	16d AT 16" o.c. OR 3" x 0.131" AT 8" o.c. FACE NAIL
TOP PLATE TO STUD	(2) 16d COMMON (3) 3" x 0.131" END NAIL
TOP AND BOTTOM PLATE TO POST	TOENAILS: (4) 8d COMMON OR (4) 3" x 0.131"
STUD TO BOTTOM PLATE	(4) 16d AT 3x AND LARGER
DOUBLE OR MULTIPLE BUILT-UP STUDS (POST)	16d AT 16" o.c. OR 3" x 0.131" AT 8" o.c. FACE NAIL
DOUBLE OR MULTIPLE TOP PLATES	16d AT 16" o.c. OR 3" x 0.131" AT 12" o.c. FACE NAIL
BLOCKING BETWEEN JOIST OR RAFTERS TO TOP PLATE	(3) 16d OR (3) 3" x 0.131" TOENAIL
RIM JOIST TO TOP PLATE	16d AT 6" o.c. OR 3" x 0.131" AT 6" o.c. TOENAIL
TOP PLATES, LAPS AND INTERSECTIONS	(2) 16d COMMON OR (3) 3" x 0.131" FACE NAIL
CONTINUOUS HEADER, TWO OR MORE LAMINATIONS	16d COMMON AT 16" o.c. ALONG EACH EDGE
CEILING JOISTS TO PLATE	(3) 16d OR (3) 3" x 0.131" TOENAIL
CONTINUOUS HEADER TO INTERMEDIATE SUPPORT(S)	(4) 8d COMMON TOENAIL
CEILING JOISTS, LAPS OVER PARTITIONS	(3) 16d COMMON OR (4) 3" x 0.131" FACE NAIL
CEILING JOISTS TO PARALLEL RAFTERS	(3) 16d COMMON OR (4) 3" x 0.131" FACE NAIL
RAFTER OR TRUSS TO PLATE	(3) 16d OR (3) 3" x 0.131" TOENAIL
CORNER G/ RAFTER TO PLATE	(4) 16d TOENAIL
BUILT-UP CORNER STUDS	16d AT 16" o.c. OR 3" x 0.131" AT 16" o.c.

26 TYPICAL NAILING SCHEDULE
SC-02-03 21/23 NO SCALE

CONNECTION	FASTENERS
BRIDGING TO JOIST	SEE TYPICAL DETAIL XX
BOTTOM TRACK TO RIM OR TOP TRACK (AT SHEAR WALLS, SEE SHEAR WALL SCHEDULE)	*10x1 1/2" AT 16" o.c.
BOTTOM TRACK/TOP TRACK TO STUD	(2) *8x1/2"
TOP AND BOTTOM TRACK TO POST	(2) *8x1/2" SCREWS, EACH MEMBER
DOUBLE OR MULTIPLE BUILT-UP STUDS (POST)	SEE TYPICAL BUILT-UP JAMB STUD DETAIL
TOP TRACK LAPS AND INTERSECTIONS	COPE INTERSECTING TRACK AND FASTEN w/ (2) *8 SCREWS
BUILT-UP CORNER STUDS	SEE TYPICAL DETAIL 18
JAMB STUD TO HEADER	SEE TYPICAL DETAIL 23

- MINIMUM FASTENERS THIS SCHEDULE APPLIES UNO ON PLANS AND DETAILS
- SEE PLAN OR G&N FOR TOP TRACK SPLICE CONNECTION

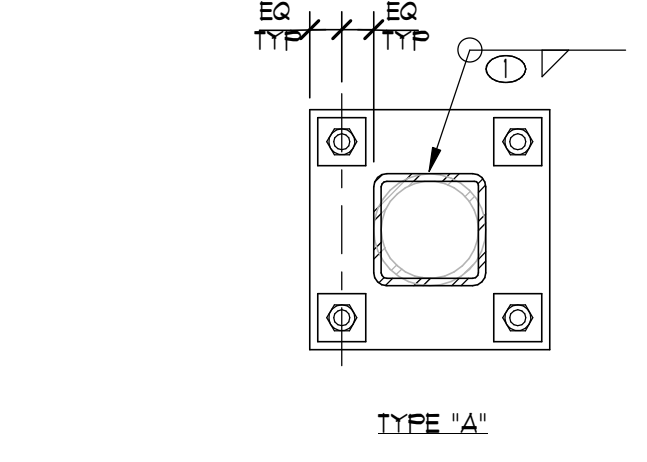
22 TYPICAL CFS FASTENER SCHEDULE
P03-01 20/24-20/24 NO SCALE



A PLAN VIEW

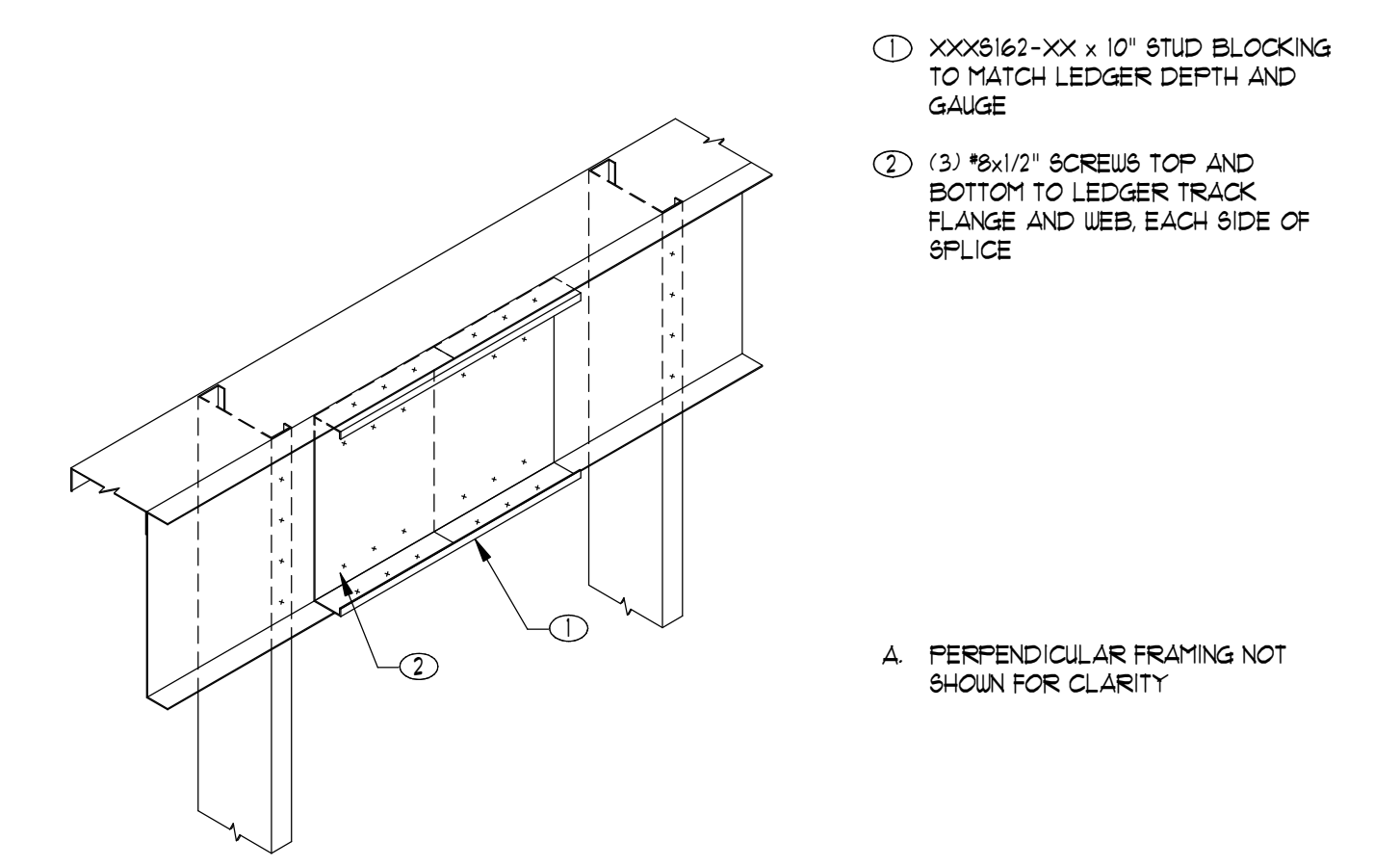
- THE STEEL NETWORK STIFFCLIP HE MAY BE USED IN LIEU OF (6) AS SPECIFIED IN CFS BUILT-UP HEADER SCHEDULE
- STEEL JOISTS SHALL NOT BEAR ON HEADER. REFER TO DETAIL 20.

23 CFS STUD WEB BRACING
33-25/24 NO SCALE

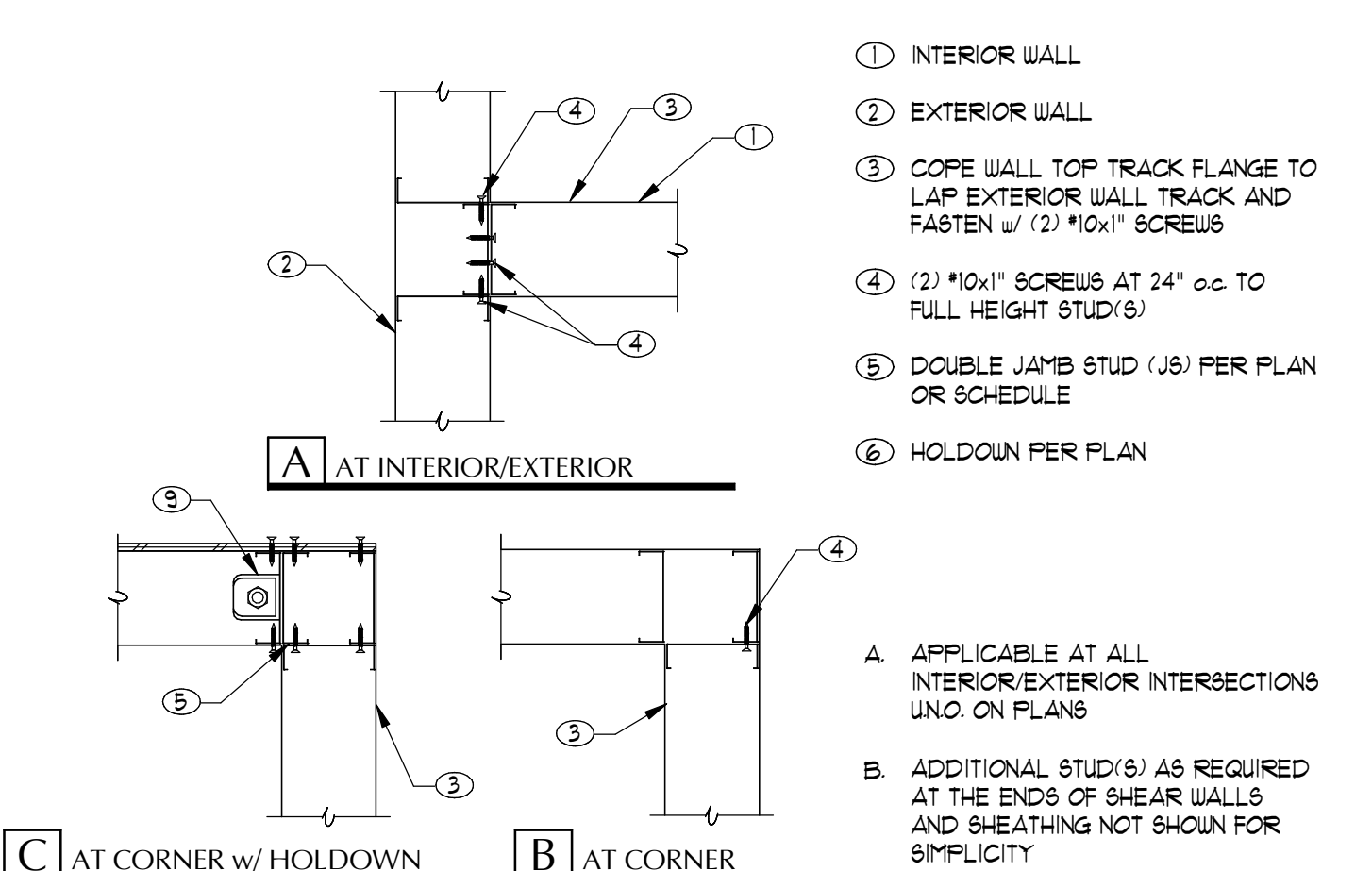


TYPE 'A'

17 TYPICAL COLUMN BASE PLATE
S01-24 06/20/24-20/24 NO SCALE



18 CFS LEDGER TRACK SPLICE
P04-04 20/24-20/24 NO SCALE



A AT INTERIOREXTERIOR

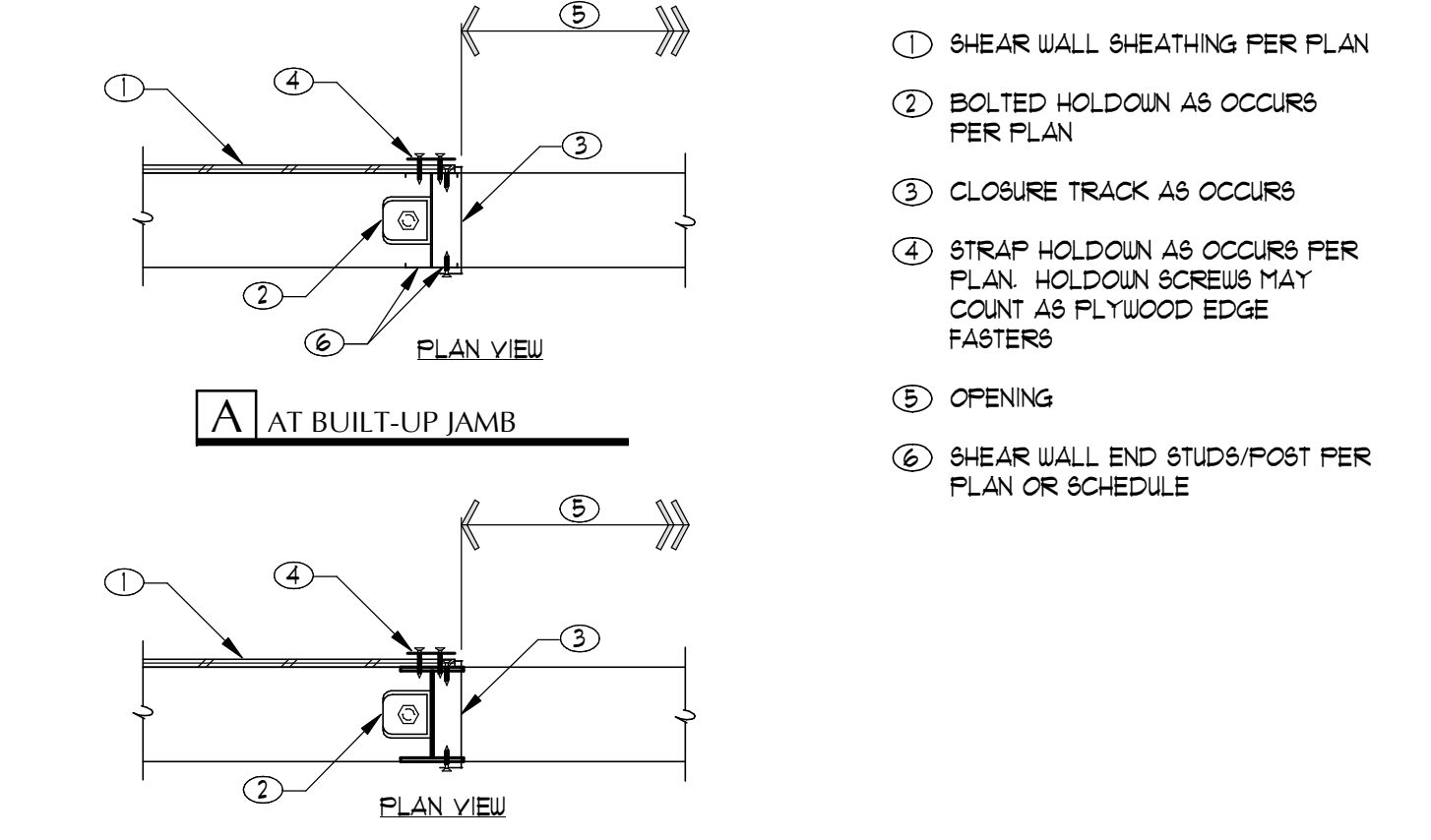
B AT CORNER

C AT CORNER w/ HOLDOWN

- INTERIOR WALL
- EXTERIOR WALL
- COPE WALL TOP TRACK FLANGE TO LAP EXTERIOR WALL TRACK AND FASTEN w/ (2) *10x1" SCREWS
- (2) *10x1" SCREWS AT 24" o.c. TO FULL HEIGHT STUD(S)
- DOUBLE JAMB STUD (J/S) PER PLAN OR SCHEDULE
- HOLDOWN PER PLAN

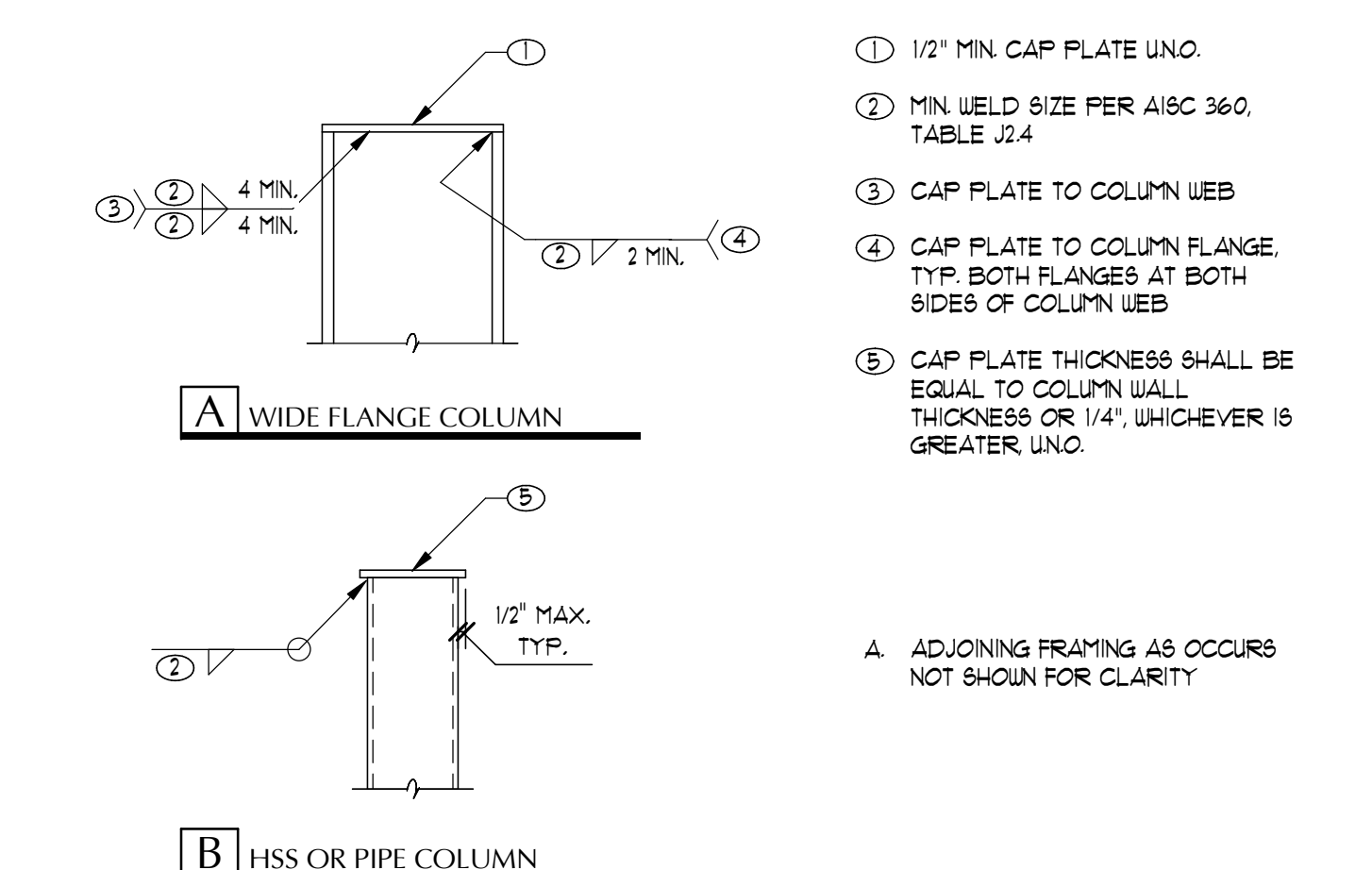
- APPLICABLE AT ALL INTERIOR/EXTERIOR INTERSECTIONS UNO. ON PLANS
- ADDITIONAL STUD(S) AS REQUIRED AT THE ENDS OF SHEAR WALLS AND SHEATHING NOT SHOWN FOR SIMPLICITY

19 TYPICAL CFS WALL INTERSECTION
P05-11 20/24 NO SCALE



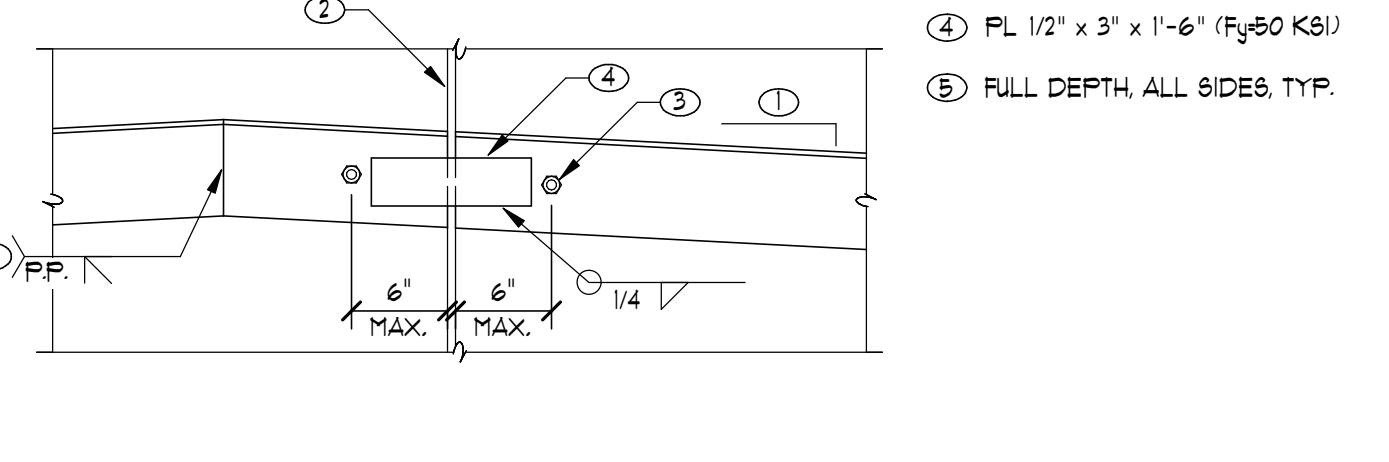
B AT PACO COLUMN

20 TYPICAL END OF CFS SHEAR WALL AT OPENING
P06-03 20/24-20/24 NO SCALE

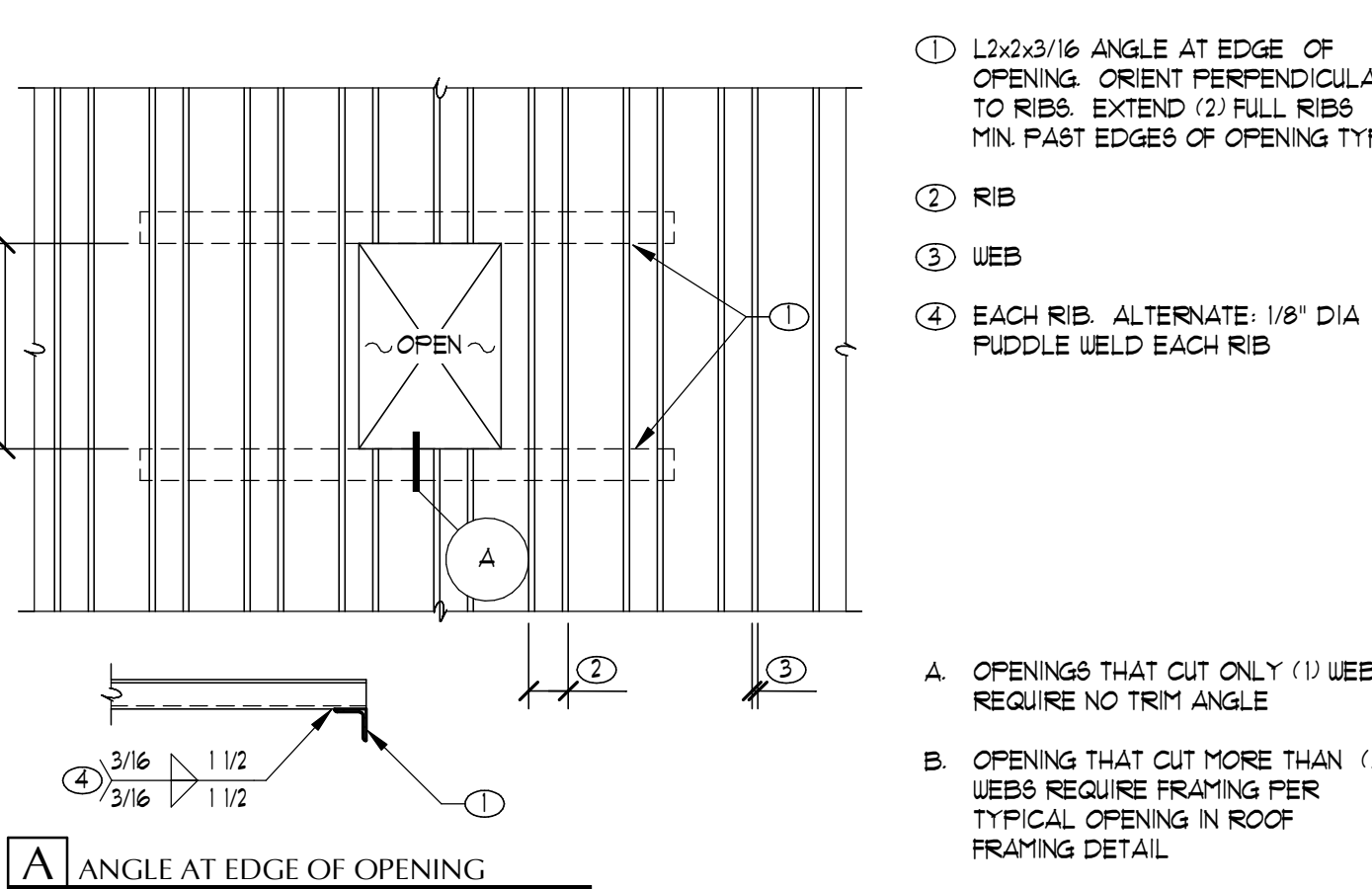


B HSS OR PIPE COLUMN

21 TYPICAL COLUMN CAP PLATE
S01-26 21/24-20/24 NO SCALE

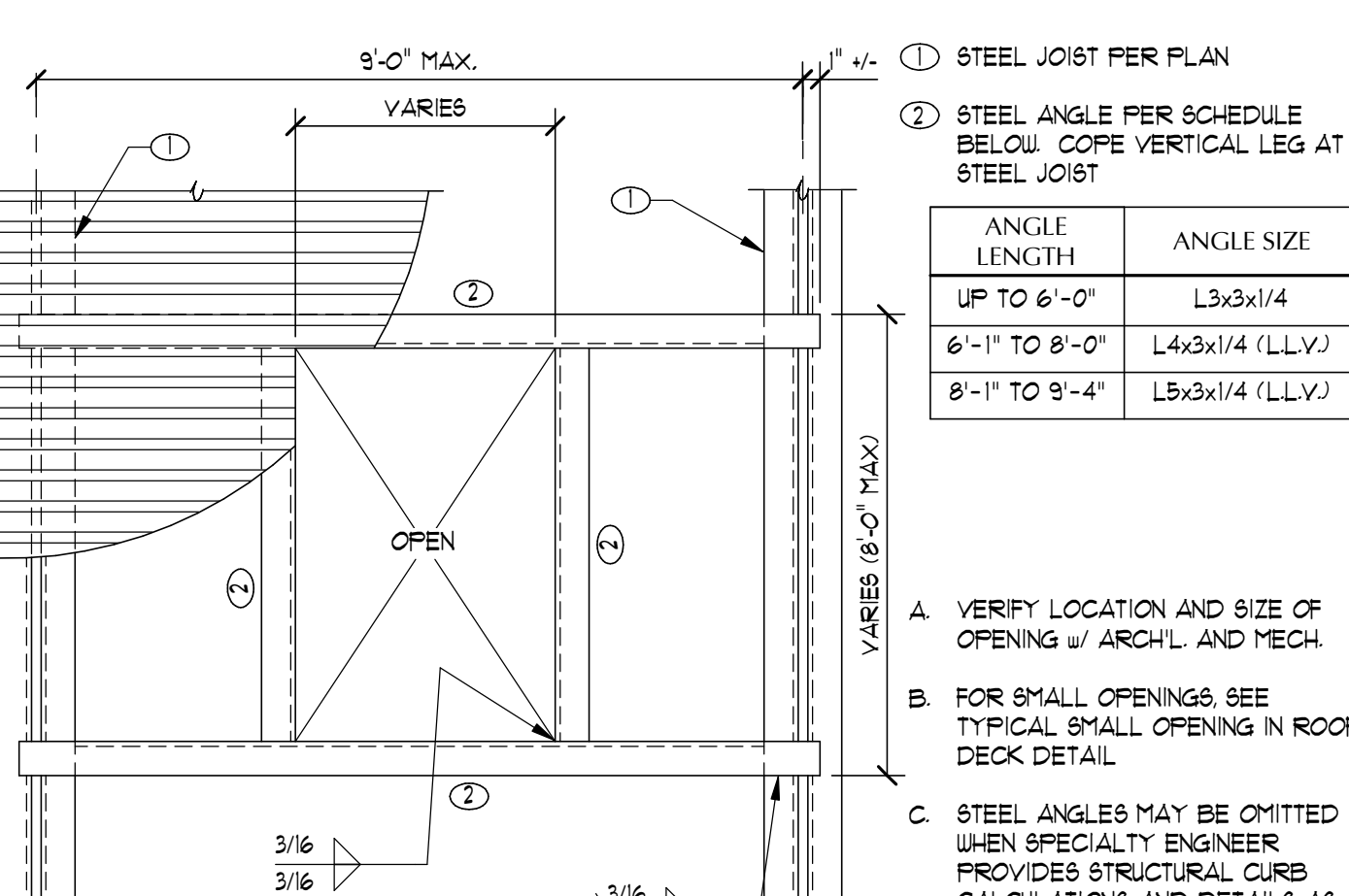


13 TYPICAL LEDGER SPLICE AT MASONRY WALL
13-20/24 - R02 NO SCALE

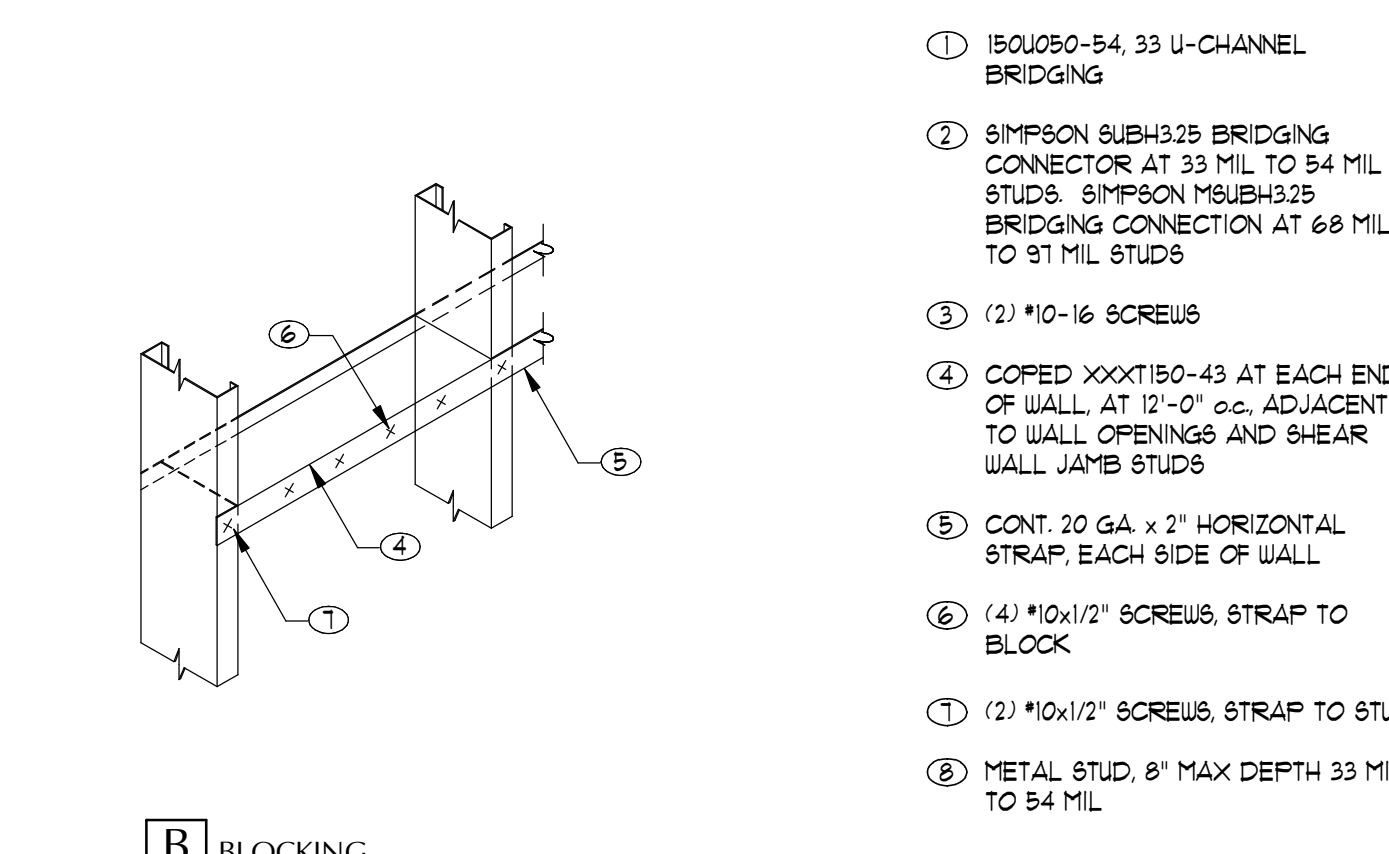


A ANGLE AT EDGE OF OPENING

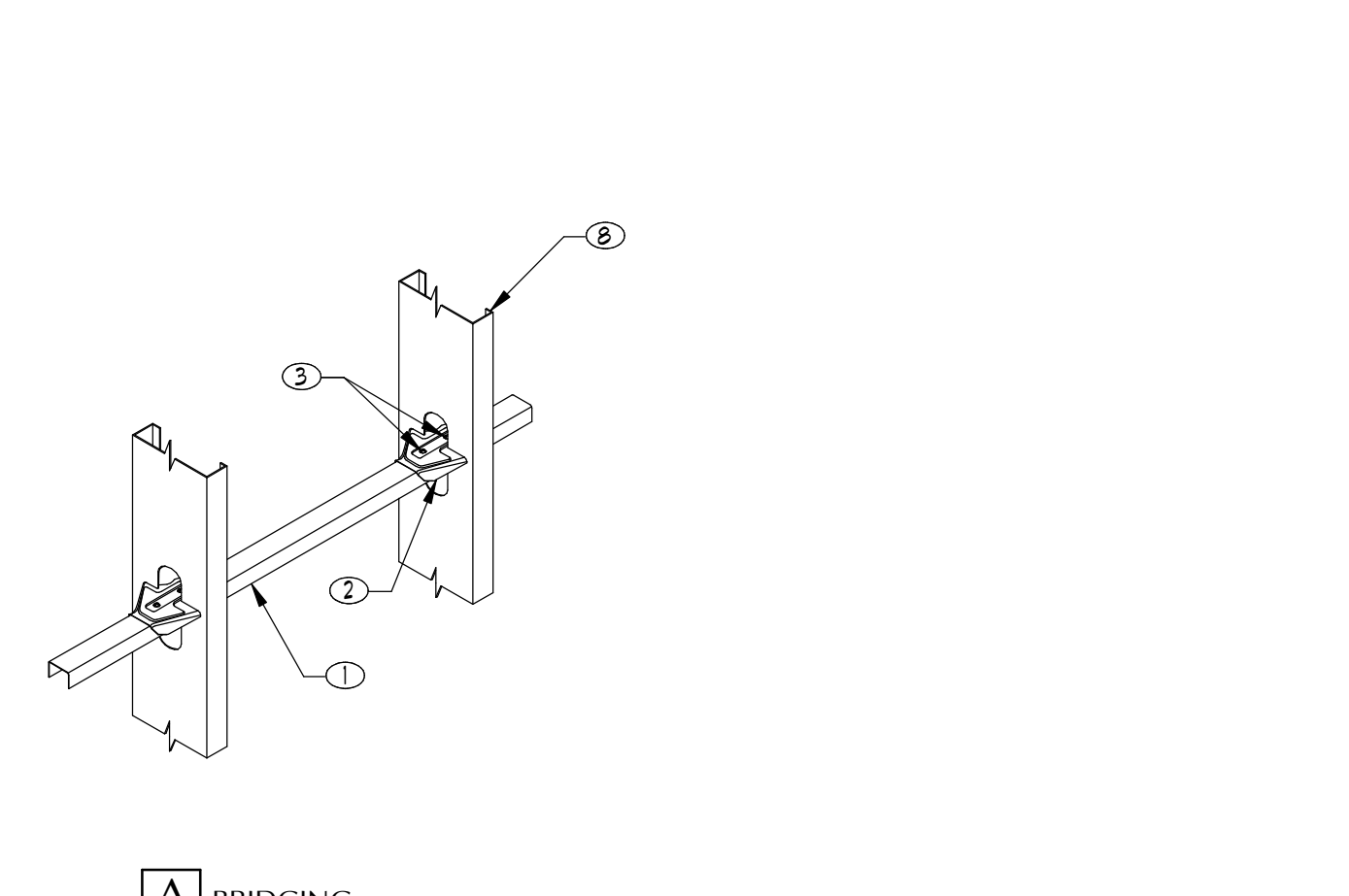
14 TYPICAL SMALL OPENING IN ROOF DECK
S01-04 20/24-20/24 NO SCALE



15 TYPICAL OPENING IN ROOF
S01-03 21/24-20/24 NO SCALE

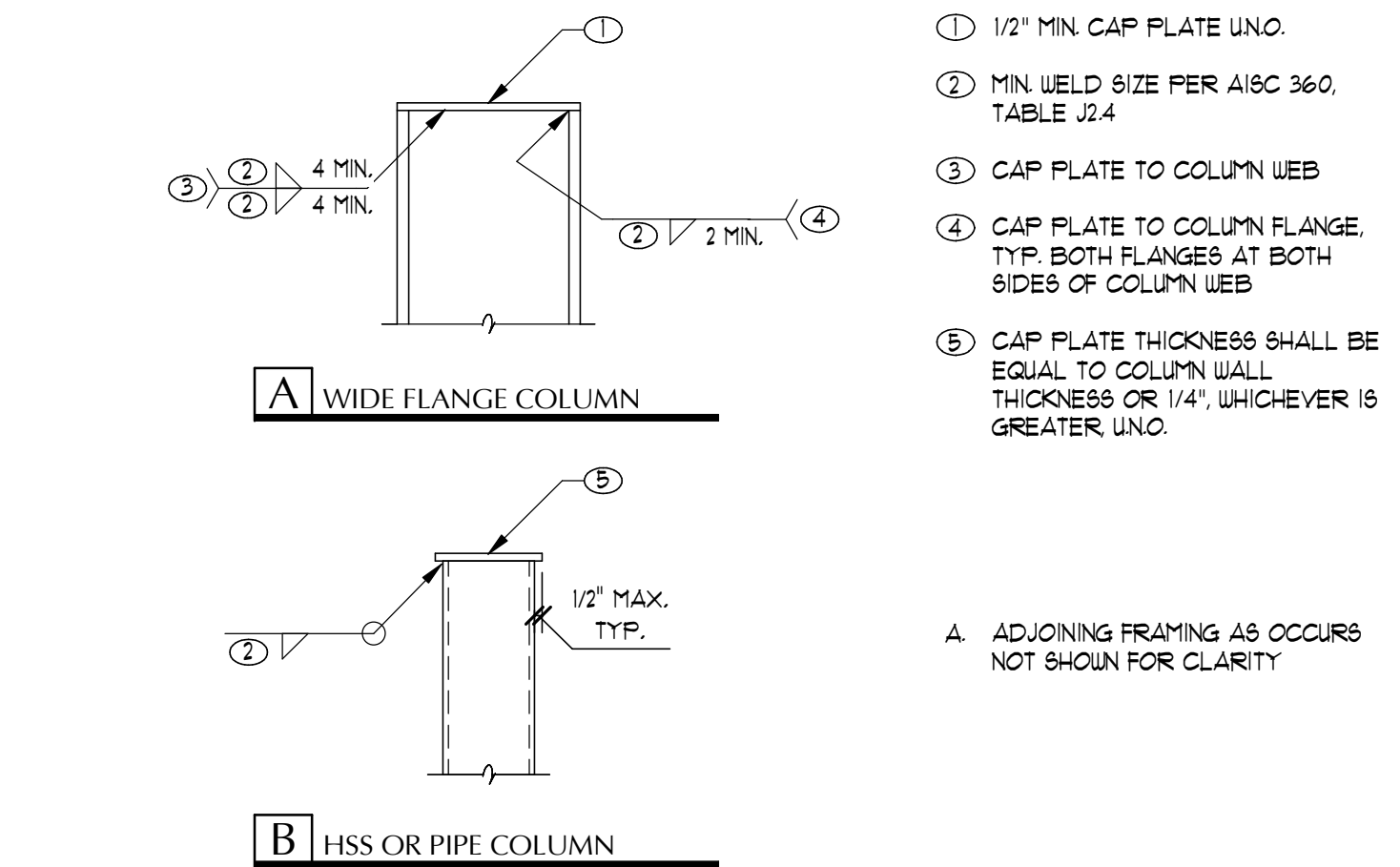
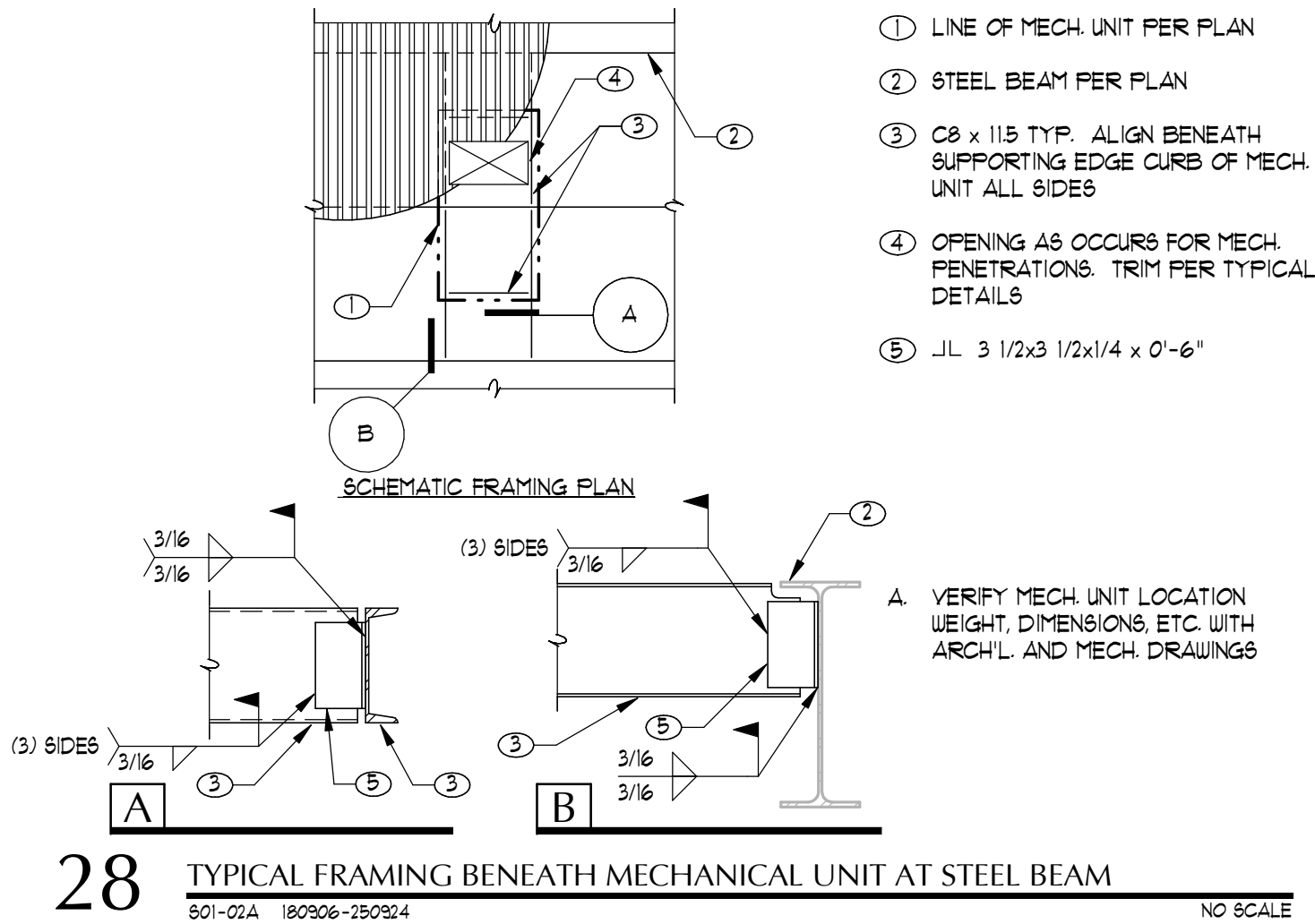
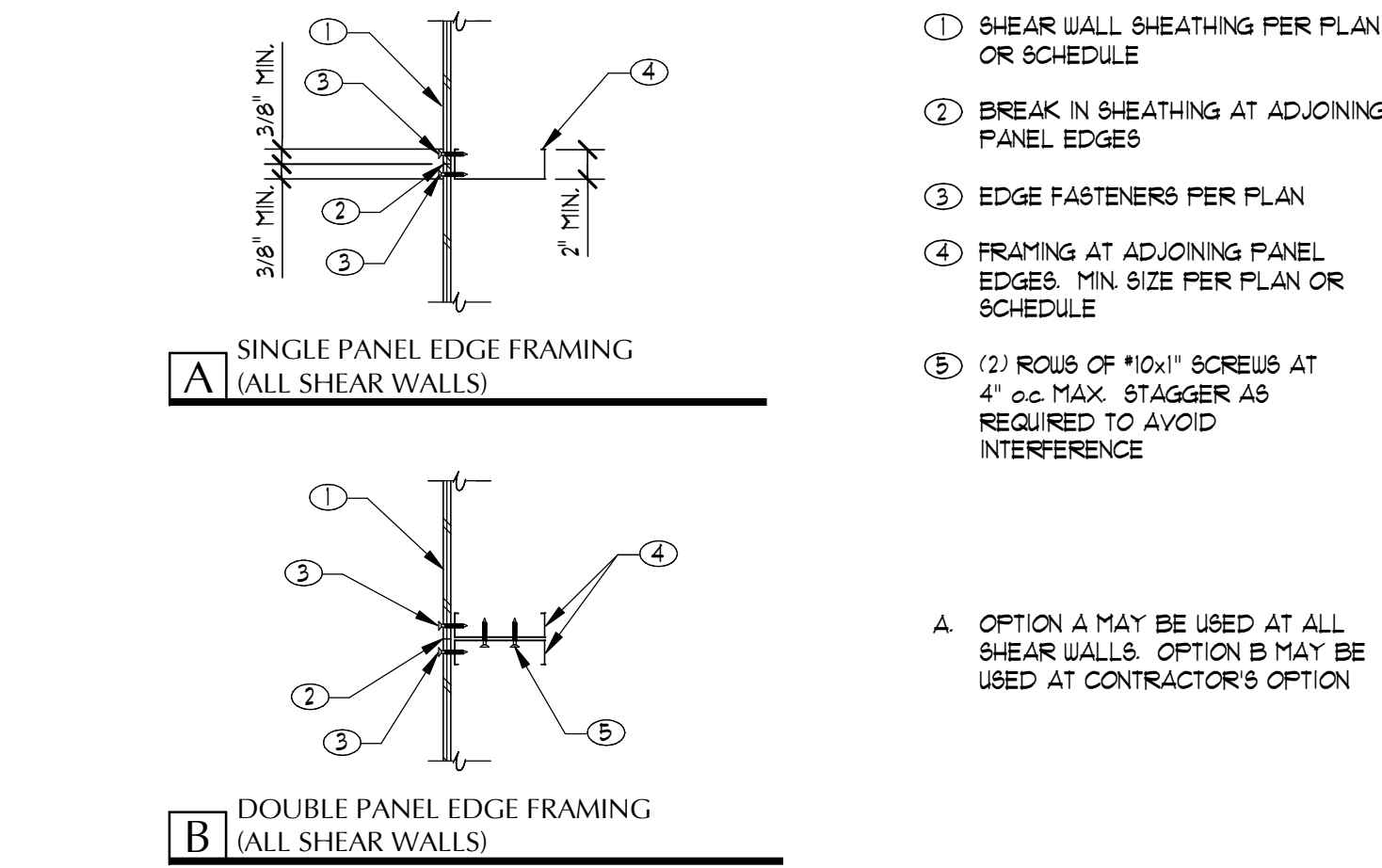


B BLOCKING



A BRIDGING

16 CFS STUD WEB BRACING
P07-01 19-20/24 NO SCALE



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



LAKE HAVASU CONCESSIONS

PROJECT NO. 24134
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
TYPICAL DETAILS

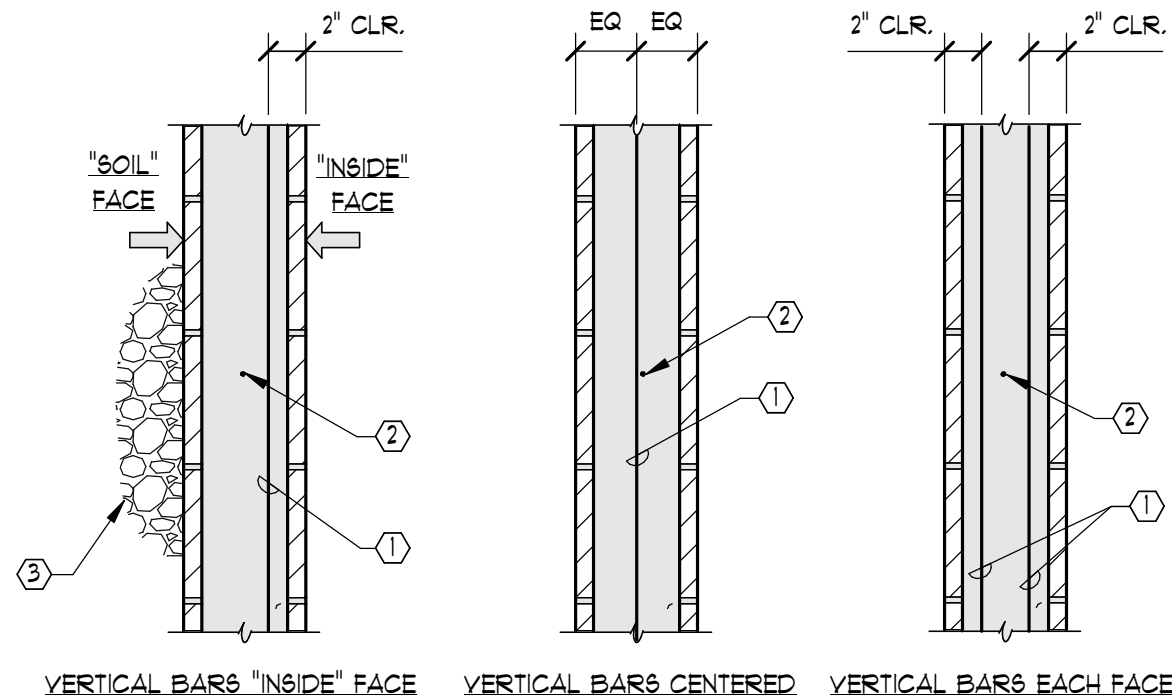
SHEET NUMBER:

S0.5

© 2022 THINK ARCHITECTURE, INC.

BID SET

MASONRY WALL (MW) SCHEDULE

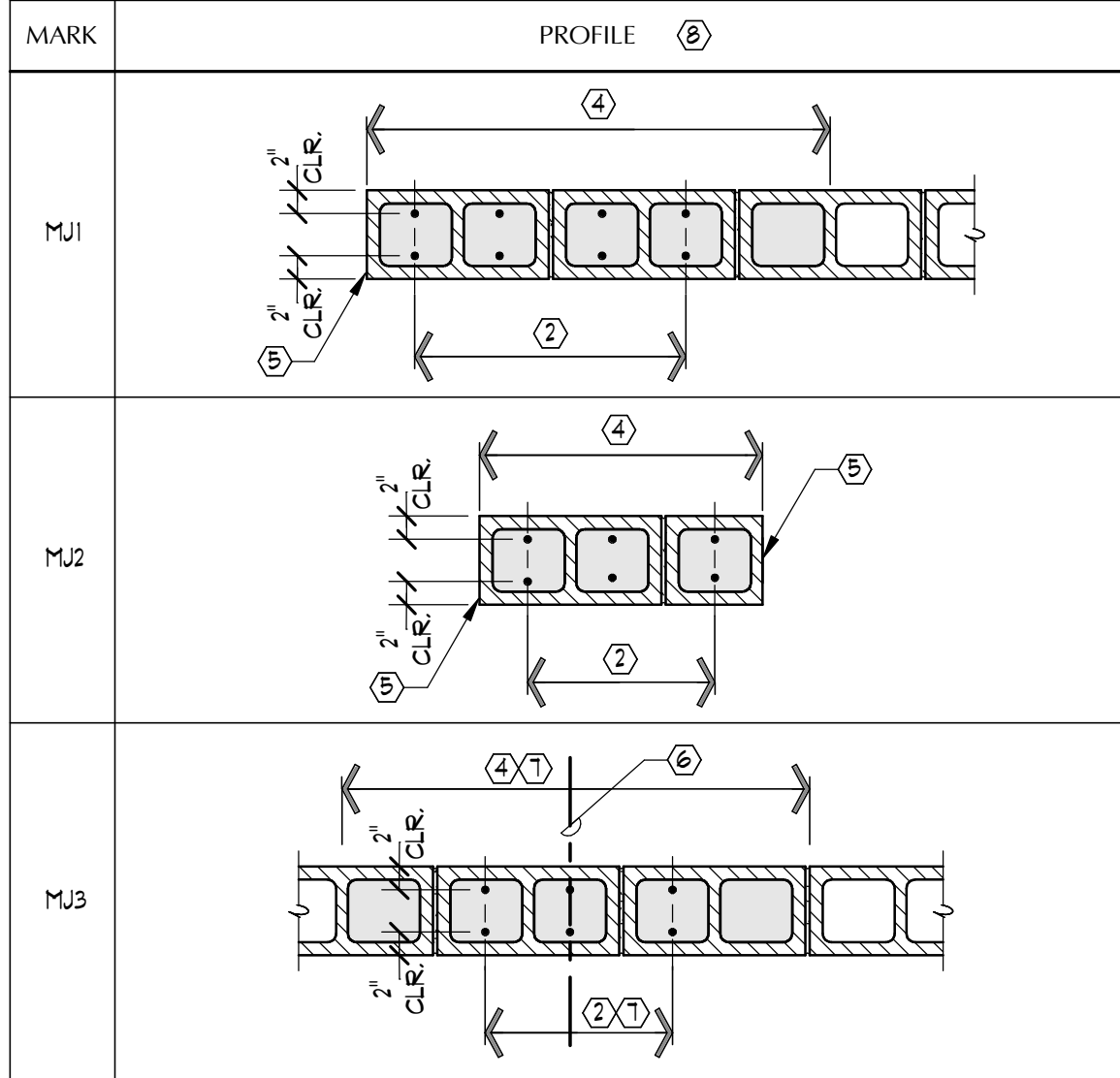


- ① VERT. REINFORCING
② HORIZ. REINFORCING
③ BACKFILL AT "SOIL" FACE AS OCCURS

MARK	NOMINAL THICKNESS	VERT. REINFORCING FULL WALL HEIGHT	HORIZ. REINFORCING	NOTES
MW1	8"	#5 AT 32" o.c. CENTERED	#5 AT 32" o.c.	SPECIAL INSPECTION GROUT SOLID
MW2	8"	#5 AT 16" o.c. CENTERED	#5 AT 16" o.c.	SPECIAL INSPECTION GROUT SOLID
MW3	8"	#5 AT 8" o.c. CENTERED	#5 AT 8" o.c.	SPECIAL INSPECTION GROUT SOLID

MASONRY JAMB (MJ) SCHEDULE

- EXAMPLE DESIGNATION: MJ1 (6) #5 - 32"
① ② ③ ④
- ① MASONRY JAMB TYPE PER SCHEDULE BELOW
② TOTAL NUMBER OF JAMB BARS AS NOTED ON PLAN. ACTUAL NUMBER OF BARS SPECIFIED ON PLAN MAY BE MORE OR LESS THAN SHOWN IN EXAMPLE PROFILES BELOW
③ JAMB BAR SIZE AS NOTED ON PLAN (EX: #4, #5, #6, ETC.)
④ SOLID GROUT DISTANCE AS NOTED ON PLAN. MASONRY JAMB TYPE "MJ2" SHALL BE SOLID GROUTED BETWEEN OPENINGS
⑤ EDGE OF WALL OPENING
⑥ CENTER OF BEAM OR GIRDER BEARING LOCATION
⑦ CENTER JAMB REINFORCING AND SOLID GROUT ON BEAM OR GIRDER BEARING LOCATION
⑧ PROFILES SHOWN IN SCHEDULE BELOW ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL BAR QUANTITY, SIZE, AND GROUT DISTANCE SHALL CONFORM TO ACTUAL PLAN DESIGNATIONS.



FOUNDATION PLAN NOTES

- A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC. w/ ARCH'L AND/OR CIVIL PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.
B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L, MECH, PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.
C. ALL EXTERIOR FOOTINGS SHALL BE EMBEDDED 18 INCHES MIN. BELOW EXTERIOR PAD GRADE AND ALL INTERIOR FOOTINGS (AS OCCUR) SHALL BE EMBEDDED 18 INCHES MIN. BELOW THE TOP OF SLAB. EXTERIOR PAD GRADE IS DEFINED AS LOWEST ADJACENT COMPACTED SUBGRADE (PAD GRADE BEFORE LANDSCAPING) OR NATURAL GRADE WITHIN 5 FEET OF BUILDING FOR PERIMETER FOOTINGS. CONTRACTOR SHALL COORDINATE FOOTING EMBEDMENT WITH CIVIL GRADING PLANS TO ENSURE THAT MINIMUM EMBEDMENT SPECIFIED ABOVE IS MAINTAINED.
D. FINISH FLOOR ELEVATION VARIES. SEE CIVIL DUGS.
E. TOP ELEVATION AT STEEL OR CONCRETE COLUMNS + 0'-4" BELOW FF. UNO.
F. F1, F2, F3, ... AND FC1, FC2, FC3, ... DENOTES FOOTING PER SCHEDULE THIS SHEET. TYPICAL FOOTING SHALL BE MARK "F1" UNO. ON PLAN.
G. MJ1, MJ2, MJ3, ... DENOTES MASONRY WALL PER SCHEDULE ON THIS SHEET. ALL MASONRY WALLS SHALL BE MARK "MW1" UNO. ON PLAN.
H. MJX (X) "X-X" INDICATES MASONRY JAMB PER MASONRY JAMB SCHEDULE ON THIS SHEET. TYPICAL JAMB SHALL BE MJ1 (2) #5-24" UNO.
I. MASONRY CONTROL JOINTS (MCJ) PER TYPICAL DETAIL SHALL BE PLACED WHERE SPECIFICALLY SHOWN ON PLANS AND AS A MINIMUM AT INTERVALS NOT TO EXCEED 24'-0" o.c. COORDINATE EXACT LOCATION OF CONTROL JOINTS WITH ARCH'L.
J. SEE G&N, PLANS, AND DETAILS FOR SPECIAL REINF. REQUIRED AT MASONRY CORNERS, JAMBS, WALL OPENINGS, TOP OF WALL, AND FOR REQUIRED LOCATION OF VERT. BARS WITHIN THE CELL. SEE FRAMING PLAN NOTES FOR HORIZ. REINF. PLACED IN CONT. GROUTED BOND BEAMS AT ELEVATED FLOOR AND ROOF LEVELS.
K. SC1, SC2, SC3, ... DENOTES STEEL COLUMN PER SCHEDULE ON THIS SHEET.
L. PLACE SLAB(S) ON GRADE OVER SUBGRADE AND VAPOR RETARDER (AS REQ'D.) PER THE IBC REPORT REFERENCED ON G&N.
M. INTERIOR CONCRETE SLAB ON GRADE SHALL BE AS FOLLOWS, UNO:
- | SLAB THICKNESS | SLAB REINF. | REINF. CLR. COVER FROM TOP OF SLAB |
|----------------|---------------------|------------------------------------|
| 4" | #5 AT 24" o.c. E.W. | 1 1/2" |
- N. CRANES SHALL NOT BE ALLOWED ON THE SLAB ON GRADE.
O. INSTALL SLAB CONTROL JOINTS PER DETAIL 04/803. MATCH CLOSURE POUR (WHERE PRESENT) CONTROL JOINTS WITH SLAB CONTROL JOINTS.
P. SEE ARCH'L AND/OR CIVIL DUGS FOR EXTERIOR SLABS, WALLS, ETC.
Q. SEE DETAIL 02/803 FOR RIVES/CONDUIT AT FTS6. RIVES/CONDUIT SHALL NOT PASS THRU NOR BE LOCATED BENEATH ISOLATED PAD FOOTINGS.

FOUNDATION PLAN KEYNOTES

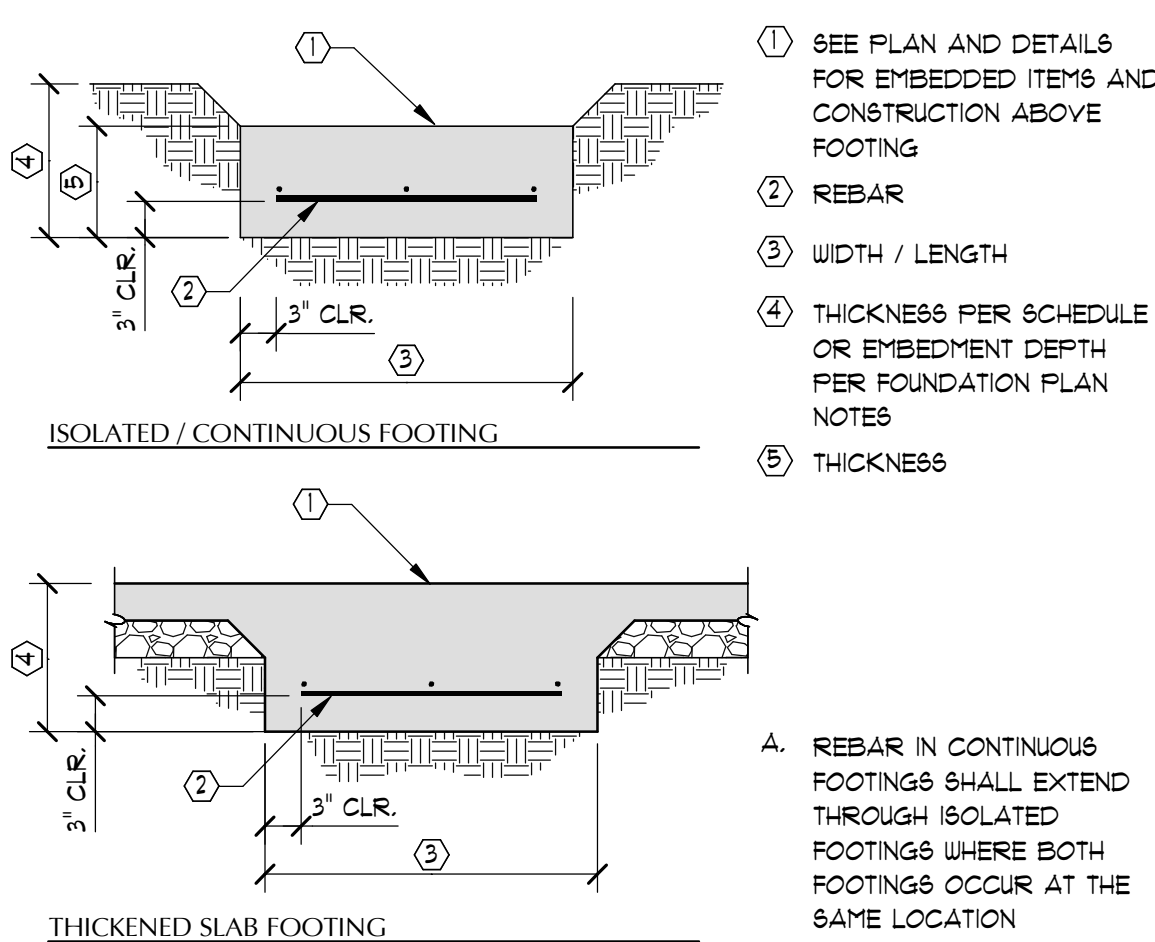
- ① BOTTOM OF SPREAD FOOTING AT SAME EMBEDMENT AS CONTINUOUS FOOTING
② STEEL COLUMN CENTERED ON SPREAD FOOTING

STEEL COLUMN (SC) SCHEDULE

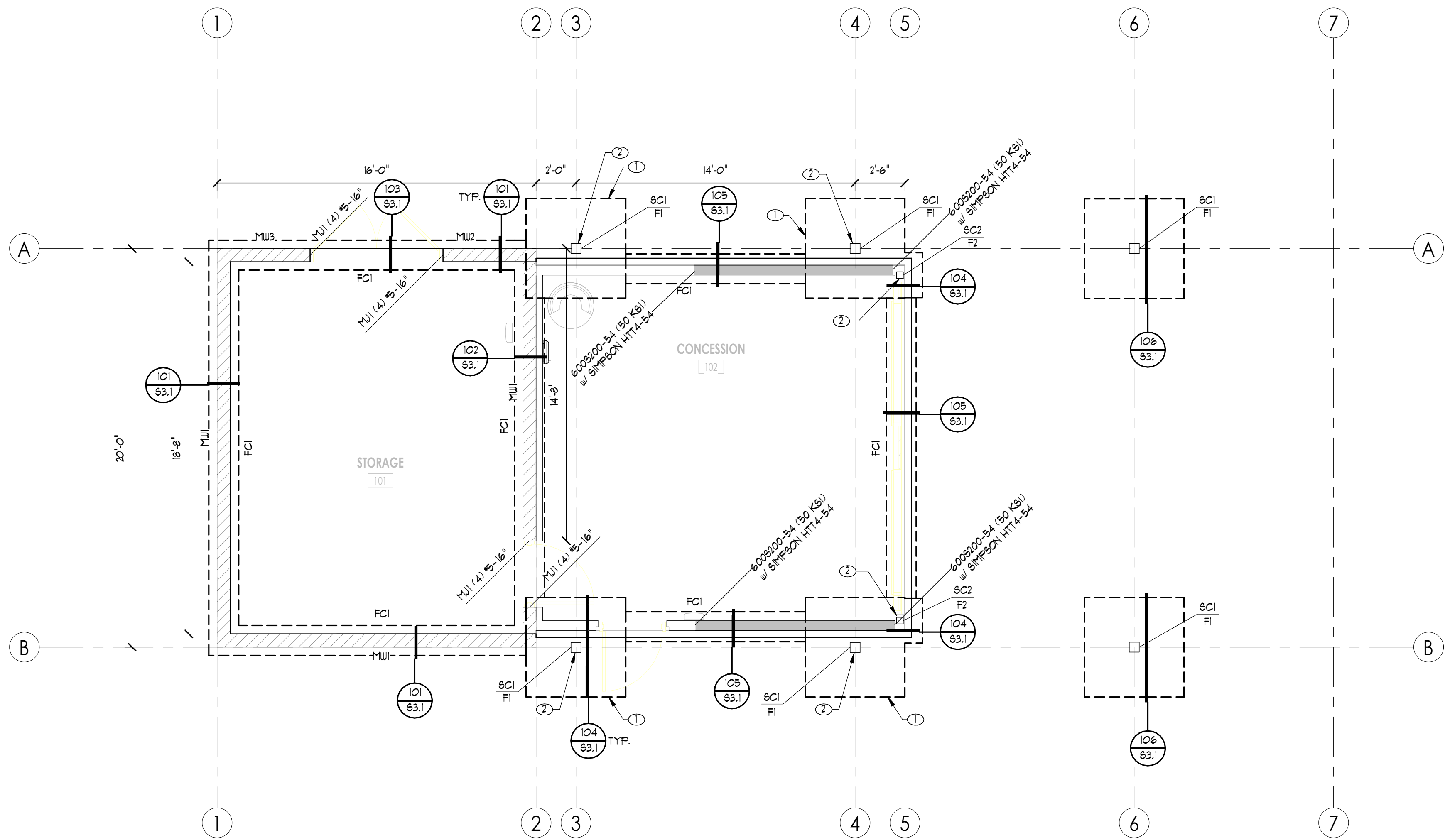
- A. FOR BASE PLATE CONFIGURATION, A.R. PATTERN, AND COLUMN-TO-BASE PLATE CONNECTION, SEE TYPICAL COLUMN BASE PLATE SCHEDULE OR DETAIL.
B. STANDARD EFFECTIVE ANCHOR ROD EMBEDMENT + 1 1/2" UNO. EFFECTIVE EMBEDMENT SPECIFIED DENOTES MIN. DISTANCE REQ'D. BETWEEN T.O. CONCRETE AND T.O. EMBEDDED NUT UNO.
C. ORIENT LONG DIMENSION OF BASE PLATE PARALLEL TO WEB OF WIDE FLANGE COLUMN UNO.

MARK	SIZE	BASE PLATE	NOTE
SC1	H886x6x1/4	1 1/2" x 16" x 16" w/ (4) 1" DIA. A.R. 12" MIN. EFFECTIVE EMBEDMENT	ANCHOR RODS SHALL BE CENTERED 1 1/2" CLR. FROM EDGE OF BASE PLATE
SC2	H884x4x1/4	1/2 x 10" x 10" w/ (4) 3/4" DIA. A.R.	-

FOOTING (F) SCHEDULE



MARK	WIDTH	LENGTH	THICKNESS	FOOTING REBAR	NOTES
F1	5'-0"	5'-0"	1'-6"	(4) #5 TOP BARS AND (1) #5 BOTTOM BARS E.W.	-
F2	2'-3"	2'-3"	1'-6"	(5) #4 BOTTOM BARS E.W.	-
FC1	1'-6"	CONT.	1'-6"	(2) #5 TOP AND BOTTOM BARS	-



FOUNDATION PLAN

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

LAKE HAVASU CONCESSIONS

PROJECT NO. 24134
DATE: 19 JUNE 2025
REVISIONS:

SHEET TITLE:
FOUNDATION PLAN

SHEET NUMBER:

S1.1

© 2022 THINK ARCHITECTURE, INC.



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85254
ph. 801.269.0055
fax 801.269.1425
www.thinkarc.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK ARCHITECTURE, INC.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



21 Veterans Suite 200
Tulsa, Oklahoma 74116
phone (918) 474-4091
CAG@wrightengineers.com
wrightengineers.com
IN THE USA
Atlanta | Dallas | Denver | Las Vegas | Orange County | Phoenix | Salt Lake City

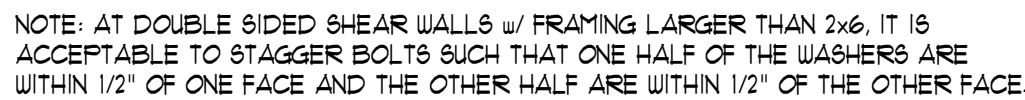
A. ALL SHEAR WALL FRAMING SHALL BE 2x UNO BOTTOM PLATES ON SHEAR WALLS SHALL BE 2x UNO IN THIS SCHEDULE. FRAMING MAY BE WIDER THAN SPECIFIED.

B. PROVIDE (1/2" FLIGHT HEIGHT END STUDS) MIN EACH END OF SHEAR WALL UNO ON PLAN OR DETAILS. FITTCH NAIL STUDS w/ 6d at 4' o.c STAGGERED. SHEAR WALLS SHALL THRU SUB w/ NO HOLDINGS SPECIFIED AT ENDS MAY BE CONSTRUCTED WITH ONE END STUD.

C. PROVIDE (1/2" FLIGHT HEIGHT END STUDS) MIN EACH END OF SHEAR WALL UNO ON PLAN OR DETAILS. FITTCH NAIL STUDS w/ 2" 16d at 6' o.c STAGGERED. AT MULTIPLE END STUDS, FASTEN w/ (2) 16d at 4' o.c STAGGERED. MIN.

D. SHEAR WALL PANELS SHALL NOT BE LESS THAN 4 FT. x 8 FT. EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING AND MAY BE INSTALLED EITHER HORIZ OR VERT UNO ON PLAN OR HORIZ OR VERTING MAY BE PERMITTED BY THE MFR. ALL PANEL EDGES SHALL BE CENTERED ON AND FASTENED DIRECTLY TO STUDS AND SOLID BLOCKING UNO. PANELS SHALL BE PLACED NOT LESS THAN 1/8" FROM PANEL EDGE AND SHALL BE FIRMLY DRIVEN UNO FRAMING MEMBERS. SUBSTITUTION OF ALT. NAILS OR STAPLES NOT PERMITTED w/o PRIOR WRITTEN APPROVAL OF ECR.

F. SHEAR WALL AB SIZE AND SPACING SHALL BE PER THIS SCHEDULE. SEE G&N FOR ALLOWABLE AB SUBSTITUTIONS. ALL SHEAR WALL ANCHOR BOLTS AND BOLT-TYPE SUBSTITUTIONS SHALL HAVE A MIN. 2230 PSI TENSILE STRENGTH. WASHER SIZE IS ACCEPTABLE). FOR PROPER WASHER PLACEMENT, SEE DETAIL BELOW. IF STANDARD OUT WASHER IS PLACED BETWEEN PLATE WASHER AND NUT, THE HOLE IN PLATE WASHER MAY BE DIAGONALLY SLOTTED OUT TO 1-3/4" W/ WIDTH UP TO 3/16" LARGER THAN BOLT DIA.



- | MARK | SHEATHING MATERIAL | EDGE NAILING | FIELD NAILING | BOTTOM PLATE
A.B. AT CONC. | BOTTOM PLATE
NAIL AT WOOD | NOTES |
|------|-----------------------------------|------------------------|-------------------------|-------------------------------|------------------------------|--|
| SU1 | 15/32" PLYWD.
ONE SIDE OF WALL | *10 SCREWS
AT 6" oc | *10 SCREWS
AT 12" oc | 1/2" DIA. A.B. AT
19" oc | --- | FRAMING
THICKNESS
SHALL BE 84
MIL. (80 KS1)
UNO. |

A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCHT. PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.

B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCHT., MECH., PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.

C. SEE TYPICAL DETAILS FOR FRAMING REQUIREMENTS AT OPENINGS IN FLOOR OR ROOF. ALL OPENINGS MAY NOT NECESSARILY BE SHOWN ON PLANS.

D. MISC. ITEMS SUCH AS STAIRS, LANDINGS, RAILINGS, MECH. EQUIPMENT ATTACHMENT TO PRIMARY STRUCTURAL FRAMING, ETC., SHALL BE DESIGNED BY OTHERS AND SUBMITTED FOR REVIEW AS DIRECTED BY ARCHT. PRIOR TO CONSTRUCTION. SEE 68N FOR DETAILED SUBMITTAL REQUIREMENTS.

E. M.1, M.2, M.3... DENOTES MASONRY UNTIL PER SCHEDULE ON SHEET 601.

F. MASONRY CONTROL JOINTS (MCJ) SHALL BE PLACED IN MASONRY WALLS. SEE FOUNDATION PLAN NOTES FOR ADDITIONAL INFO.

G. PLACE (2) 5% CNT IN 16" DEEP (MIN.) GROUDED BENT AT ROOF LEVEL AND (2) 5% CNT IN 16" DEEP (MIN.) GROUDED BENT AT RAISE/SET LEVEL.

H. TYPICAL ROOF DECK SHALL BE 11/2" x 18 GA. B-36 DECK PER 58N UNO. DECK ATTACHMENT TO ROOF FRAMING INCLUDING EDEGS OF OPENINGS AND DRAG/COLLECTOR ELEMENTS NOTED ON PLAN SHALL BE AS FOLLOWS UNO:
1. SUPPORTS PERPEND. TO DECK BRAN:
a. 16" PIVOTED WELDS PER SHEET 601.
b. 2" PIVOTED WELDS PER SHEET 601.
c. 2" BUTT JOINTS AT 12" o.c.
d. PUNCHES (1" VEGED DECK ONLY) AT 24" o.c.
e. OR DELTALGAY (ASC DECK ONLY) AT 24" o.c.

I. TYPICAL EXTERIOR WALL FRAMING SHALL BE 6005020-43 (33 KS) STEEL STUDS AT 16" o.c. UNO.

J. SUI, SUI2, SUI3... DENOTES SHEAR WALL, TYPE PER SCHEDULE ON SHEET 501. ALL SHEAR WALLS SHALL BE CONSIDERED LOAD BEARING UNO.

② MECHANICAL UNIT WEIGHT AND EXACT LOCATION TO BE COORDINATED w/ ARCH'L. REFER TO TYPICAL DETAIL 15/50.4 FOR OPENING IN ROOF

Diagram illustrating the reinforcement detail for a vertical wall. The detail shows a cross-section of the wall with the following components and dimensions:

- HOOK VERTICAL REINFORCING AT TOP OF Lintel OR EXTEND AT LEAST A LAP LENGTH ABOVE THE Lintel:** Indicated by a line pointing to the top reinforcement hook.
- VERT. WALL REINFORCING HOOK BOTTOM END:** Indicated by a line pointing to the bottom reinforcement hook.
- 2" MIN. 4" MAX.:** Dimension indicating the vertical distance between the top and bottom reinforcement hooks.
- TOP REINFORCEMENT PER SCHEDULE (AS OCCURS):** Indicated by a line pointing to the top reinforcement bar.
- SOLID GROUT DEPTH PER SCHEDULE:** Dimension indicating the height of the solid grout section.
- SECOND MAT OF BOTTOM REINFORCING AS REQUIRED:** Indicated by a line pointing to the second layer of bottom reinforcement.
- BOTTOM REINFORCEMENT PER SCHEDULE:** Indicated by a line pointing to the bottom reinforcement bar.
- SHORE Lintel UNTIL GROUT REACHES DESIGN STRENGTH:** Indicated by a line pointing to the bottom reinforcement bar.
- 8" MAX.:** Dimension indicating the maximum height of the bottom reinforcement section.

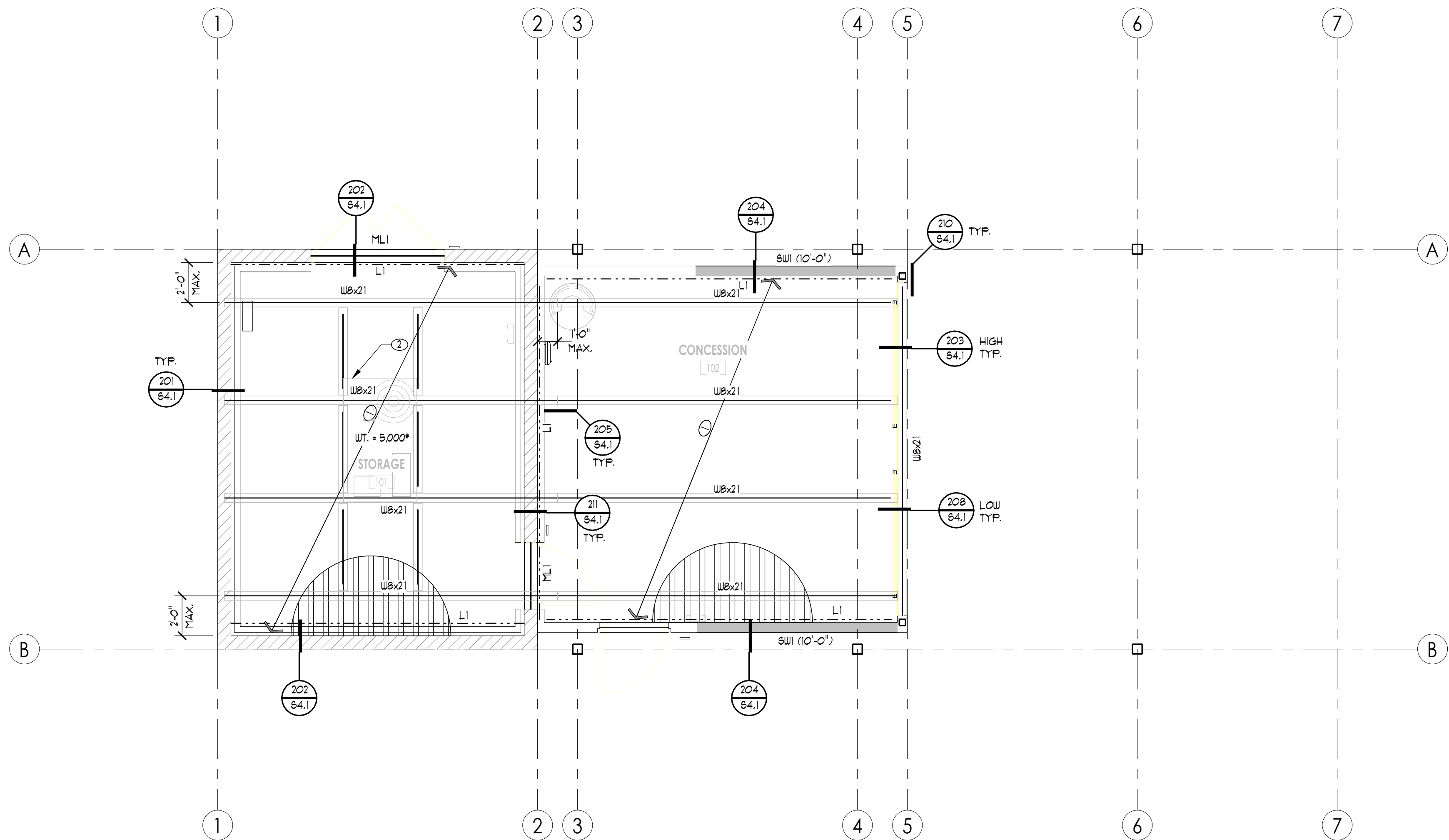
- A. EXTEND GROUT, OPEN END MASONRY UNITS AND REINFORCING 2'-0" MIN PAST EACH EDGE OF OPENING WHERE POSSIBLE. AT WALL CORNERS OR OTHER INTERFERENCE, EXTEND REINFORCEMENT AS FAR AS POSSIBLE INTO ADJACENT MASONRY AND HOOK ENDS WITH STANDARD 90 DEGREE HOOK.
- B. ENDS OF LINTEL TO BE BUILT INTO ADJACENT WALL OR PILASTER WITH RUNNING BOND JOINT.
- C. VERTICAL REINFORCING SPACING IN LINTEL SHALL NOT BE GREATER THAN VERTICAL REINFORCING SPACING IN ADJACENT WALL.

MARK	GROUT DEPTH	REINFORCING	VERTICAL REINFORCING	NOTES
MLI	24"	(2) #5 AT BOTTOM	#5 AT 8' O.C.	-

NOTE:

- A. ALL LEDGERS SHALL HAVE MINIMUM OF (2) EMBED PLATES OR ANCHOR BOLTS AS NOTED BELOW.
- B. EMBED PLATES OR ANCHOR BOLTS AT CHANNEL LEDGERS SHALL BE LOCATED NOT LESS THAN 6" NOR MORE THAN 14" FROM END OF LEDGER OR LEDGER SPlice.
- C. EMBED PLATES OR ANCHOR BOLTS AT ANGLE LEDGERS SHALL BE LOCATED NOT LESS THAN 6" NOR MORE THAN 14" FROM END OF LEDGER OR LEDGER SPlice.
- D. ANGLE LEDGER SHALL BE CONTINUOUS OVER BEAMS AND JOISTS/GIRDERS.
- E. LEDGER YIELD STRENGTH SHALL NOT EXCEED 65 KSI FOR SHOPPIN ATTACHMENT.

MARK	LEDGER	CONNECTION	LEDGER SPLICE
LI	L4x4x3/8	REFER TO DETAIL 202	REFER TO DETAIL 13



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

A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC. w/ ARCHT. PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.

B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCHT., MECH., PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.

C. SEE TYPICAL DETAILS FOR FRAMING REQUIREMENTS AT OPENINGS IN FLOOR OR ROOF. ALL OPENINGS MAY NOT NECESSARILY BE SHOWN ON PLANS.

D. MISC. ITEMS SUCH AS STAIRS, LANDINGS, RAILINGS, ETC. REQUIRE ATTACHMENT TO PRIMARY STRUCTURAL FRAMING. ETC. SHALL BE DESIGNED BY OTHERS AND SUBMITTED FOR REVIEW AS DEFERRED SUBMITTAL REQUIREMENTS. SEE GSA FOR DEFERRED SUBMITTAL REQUIREMENTS.

E. MLI ML2 ML3. DENOTES MASONRY LINTEL PER SCHEDULE ON SHEET 621.

F. MASONRY CONTROL JOINTS (MCJ) SHALL BE PLACED IN MASONRY WALLS. SEE FOUNDATION PLAN NOTES FOR ADDITIONAL INFO.

G. PLACE (2) 5" CONC. IN 6" DEEP (MIN) GROUT BED BEAM AT ROOF LEVEL AND (2) 5" CONC. IN 6" DEEP (MIN) GROUT BED BEAM AT PARAPET LEVEL.

H. TYPICAL ROOF DECK SHALL BE 11/2" @ 18 GA B-36 DECK PER GSA UNO. DECK ATTACHMENT TO ROOF FRAMING INCLUDING EDGES OF OPENINGS AND DRAGA/COLLECTOR ELEMENTS NOTED ON PLAN SHALL BE AS FOLLOWS UNO:

SUPPORTS PERPENDICULAR TO DECK: 1/2" x 1/2" (VERGAS) OR 1/2" x 1/2" x 1/2" (SUPPORTS PARALLEL TO DECK SPAN)

FIDDLE WEILDS AT 12" o.c.

BUTTON PUNCHES AT 12" o.c.

WELDS AT 12" o.c. (VERGAS OR DELTAGRA (DECK ONLY) AT 24" o.c.

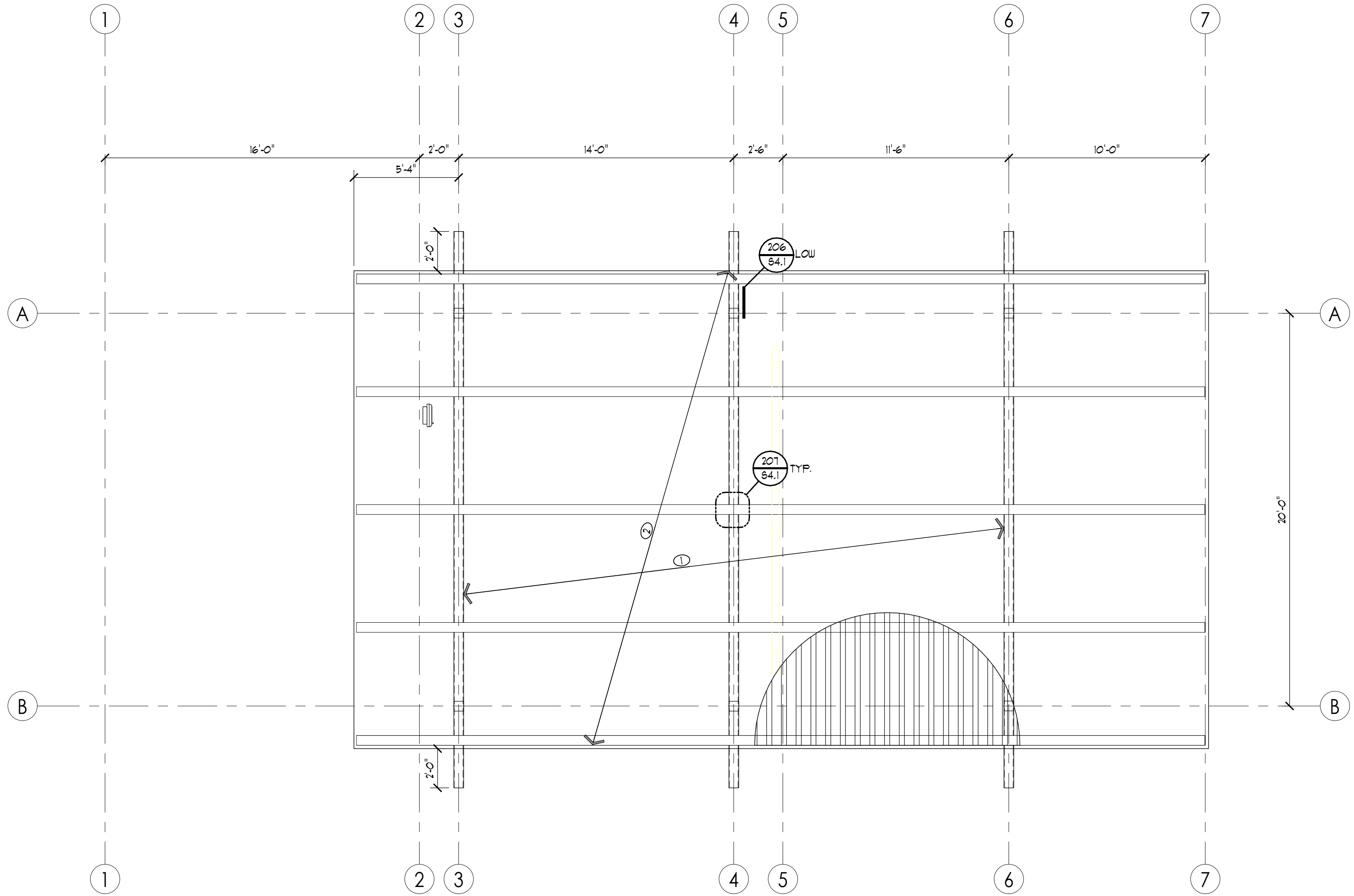
OR DELTAGRA (DECK ONLY) AT 24" o.c.

I. TYPICAL EXTERIOR WALL FRAMING SHALL BE 60020020-43 (33 KSU) STEEL STUDS AT 16" o.c. UNO

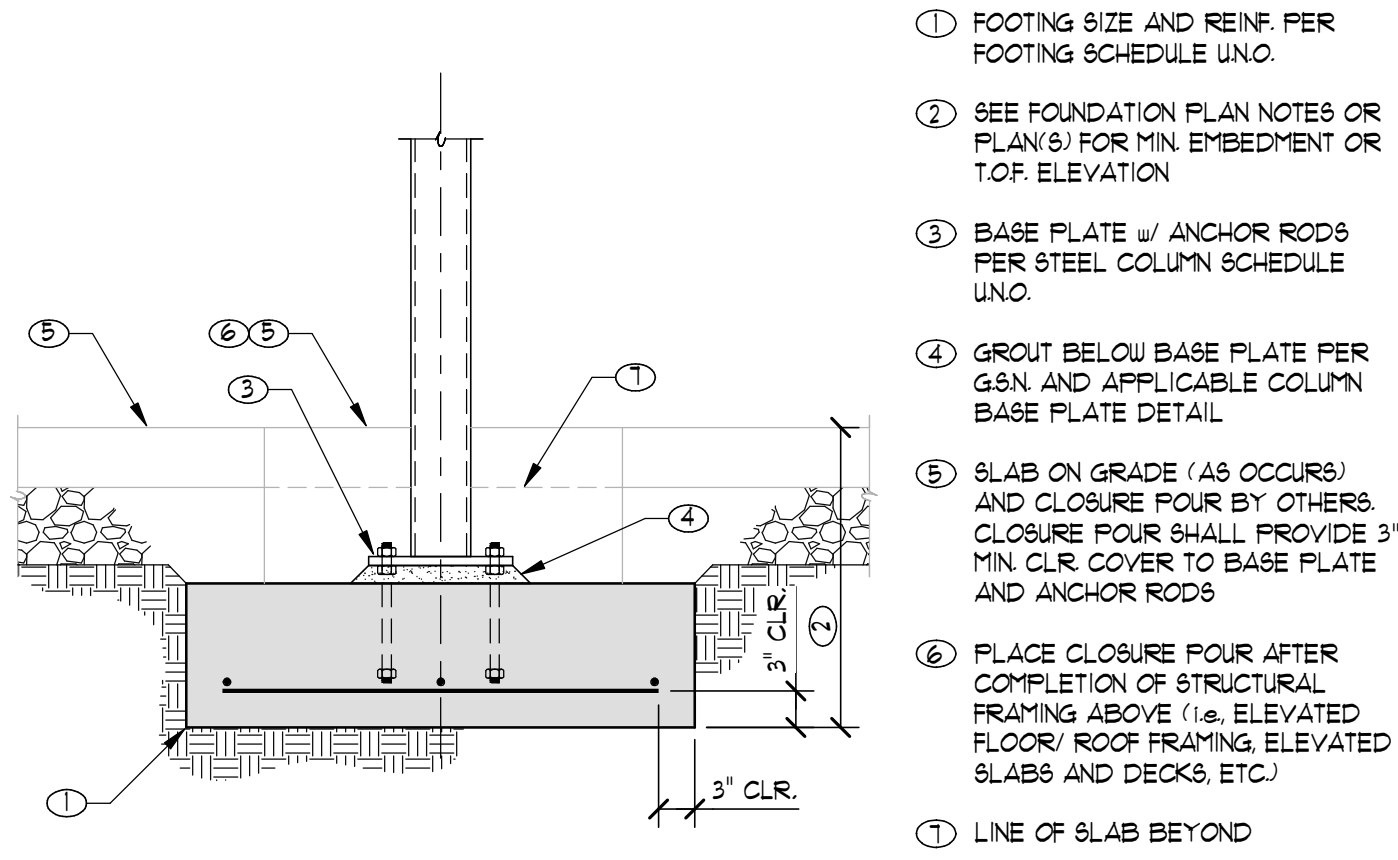
J. GUL. GUL2. GUL3. DENOTES SHEAR WALL BEARING UNO

K. ALL SHEAR WALLS SHALL BE CONSIDERED LOAD TYPE PER GSA

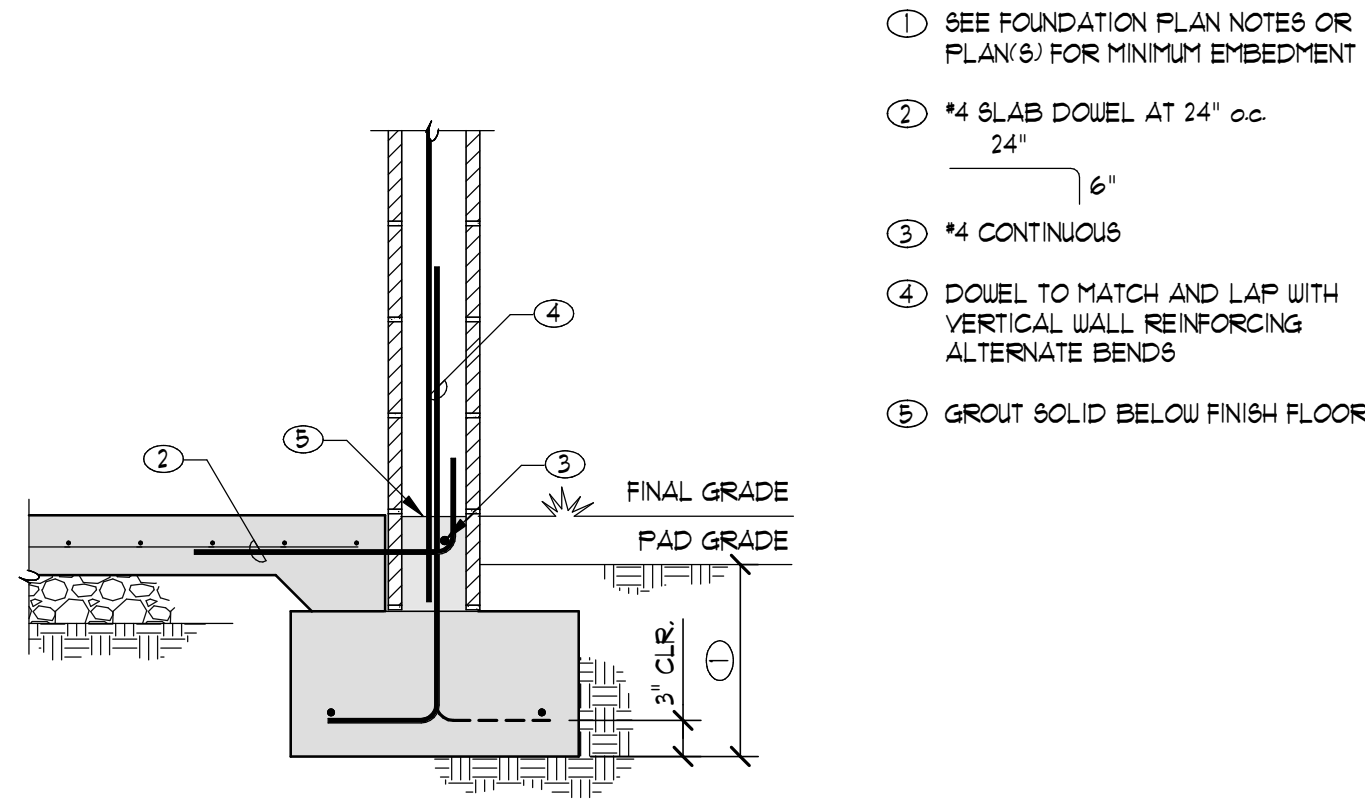
- ① HSS14x6x3/8 BEAMS AT 14'-0" o.c.
- ② HSS14x6x3/8 PURLINS AT 6'-0" o.c.



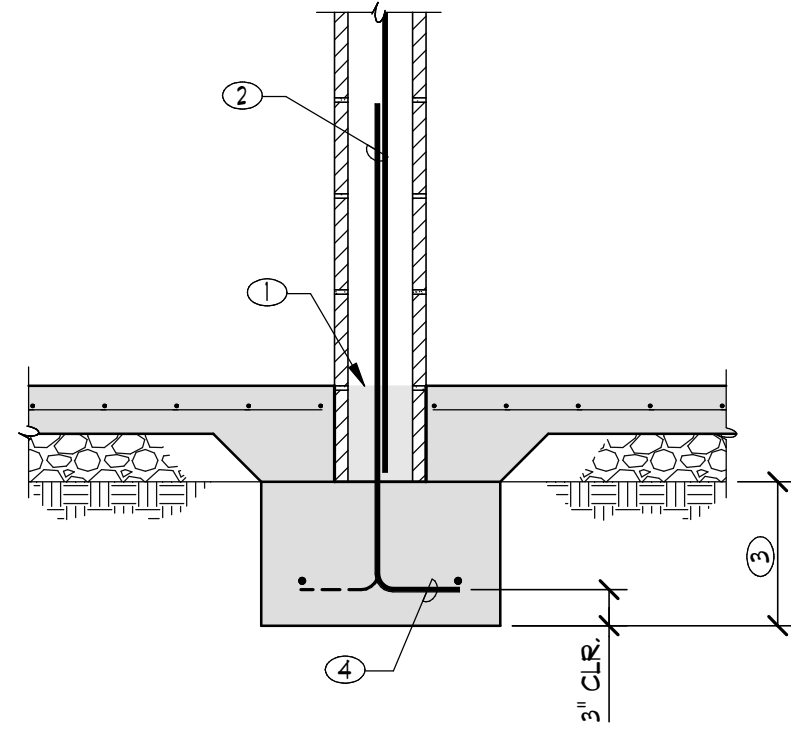
SCALE: 1/4" = 1'-0"



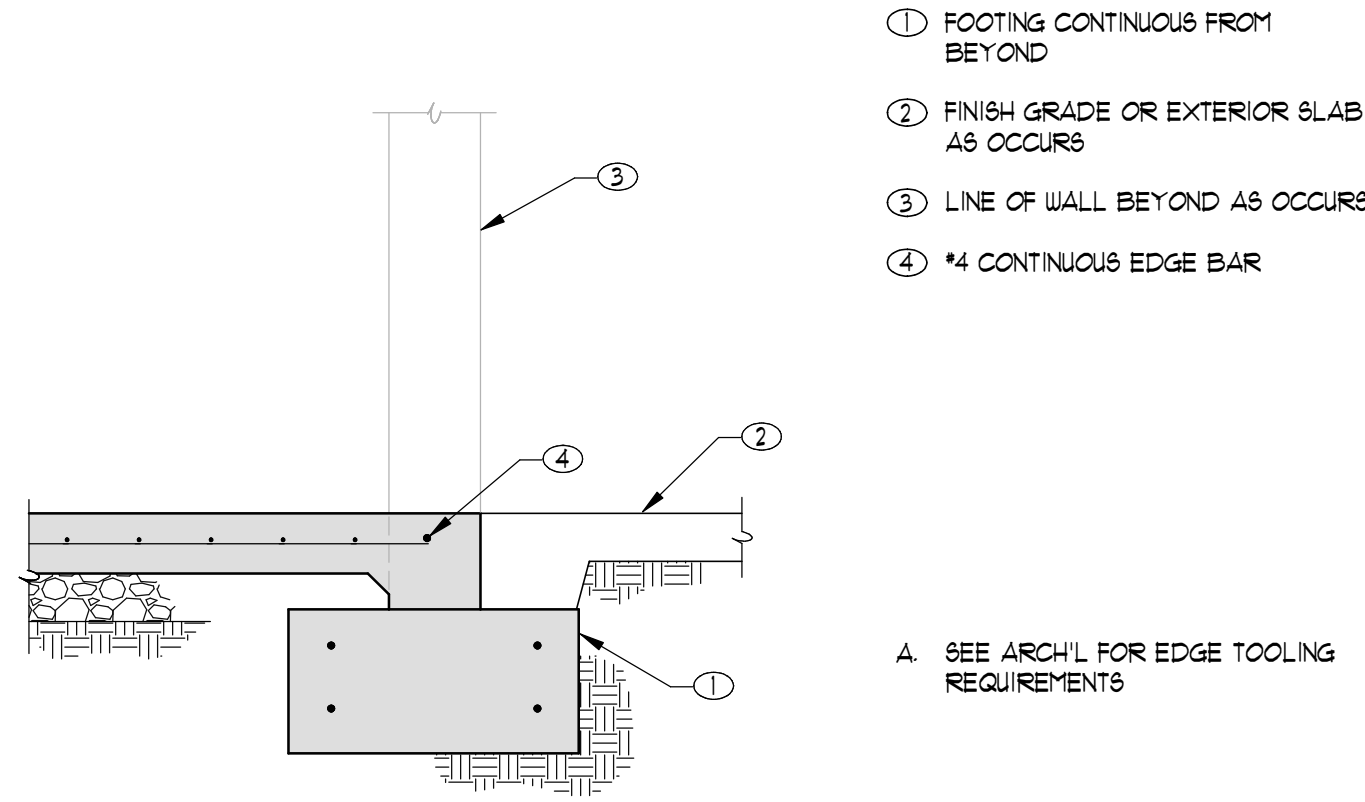
106 STEEL COLUMN AT FOOTING
9F01-14-185 170619-25024 NO SCALE



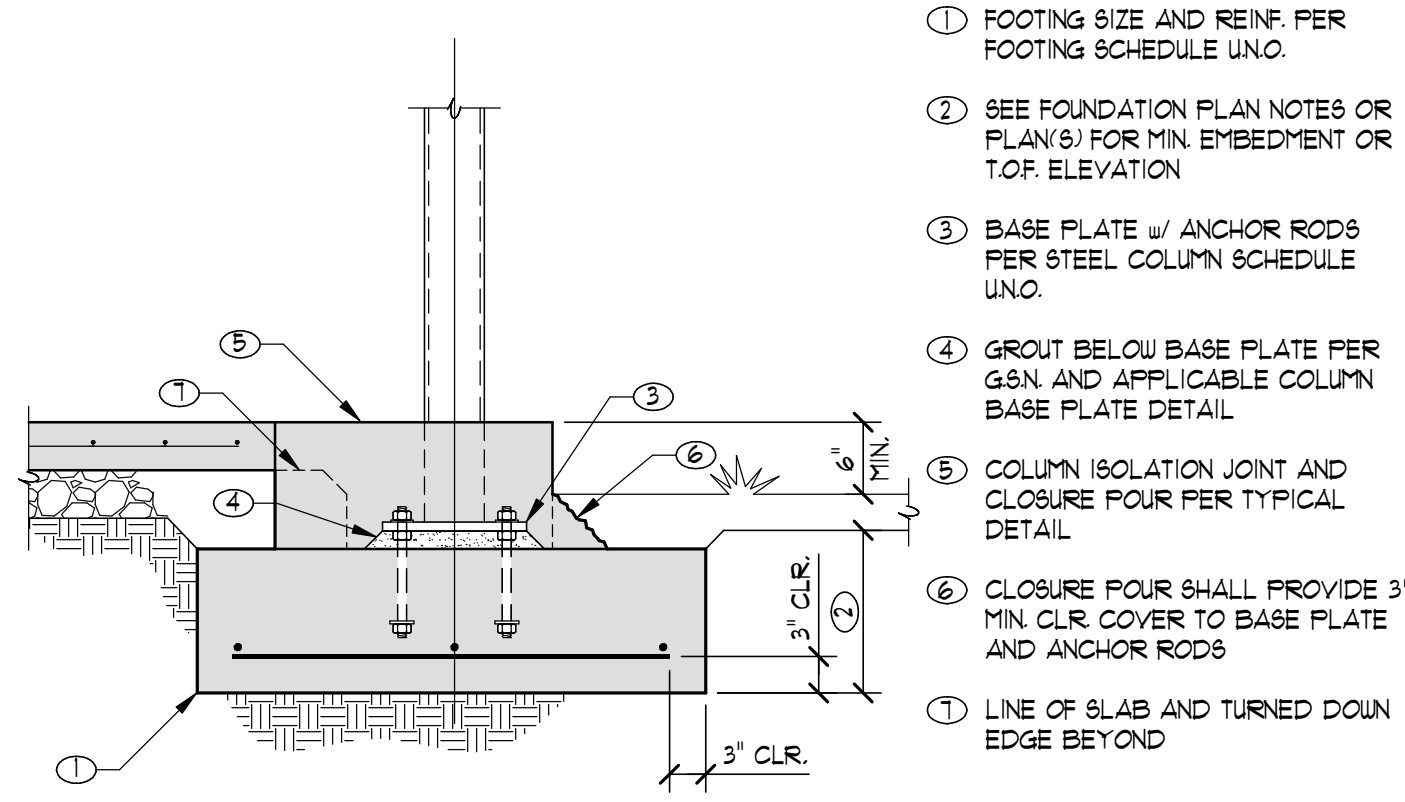
101 MASONRY WALL AT FOOTING
9F01-12 170619-25024 NO SCALE



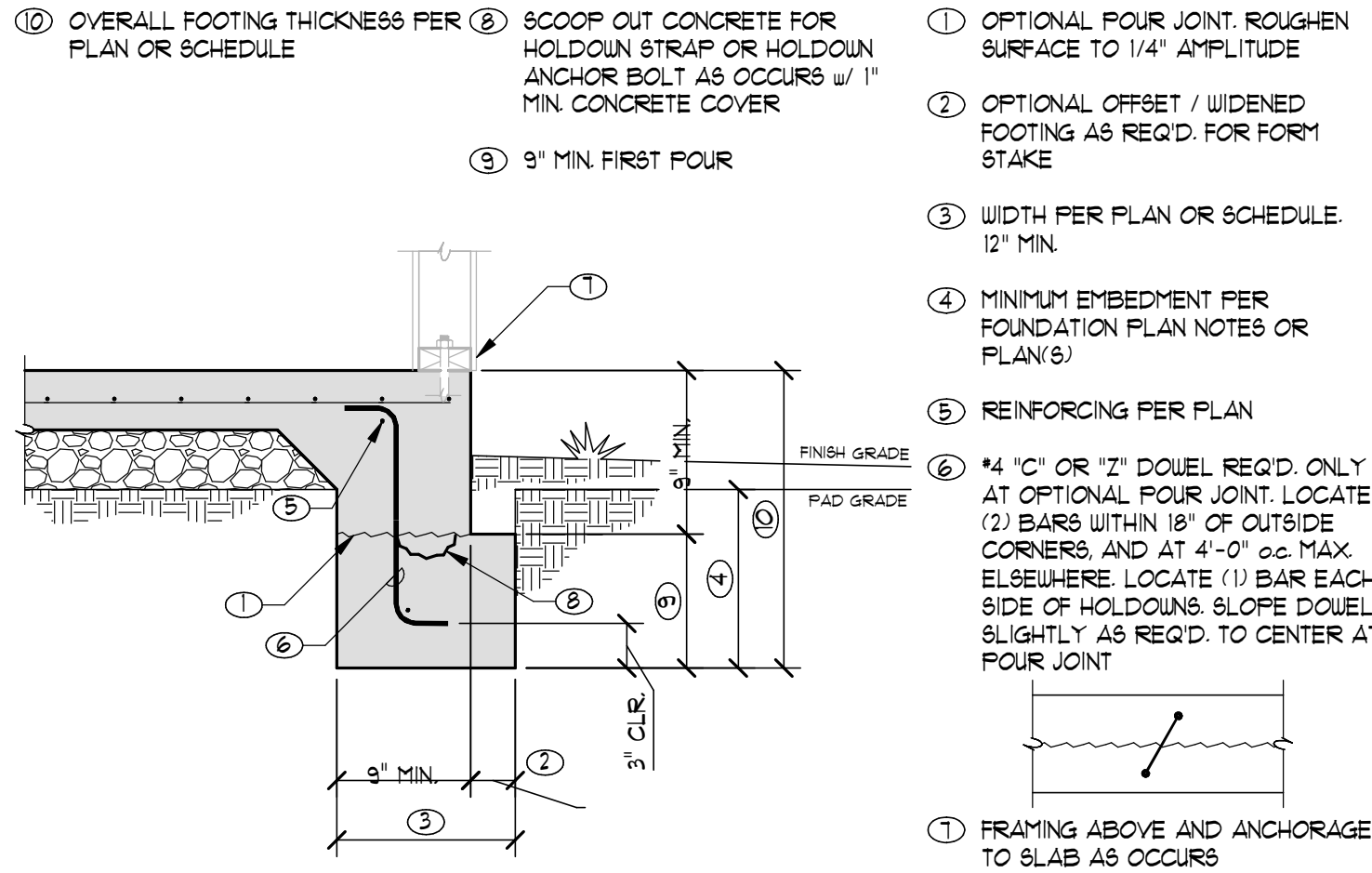
102 INTERIOR MASONRY WALL AT FOOTING
9F01-01 170619-25024 NO SCALE



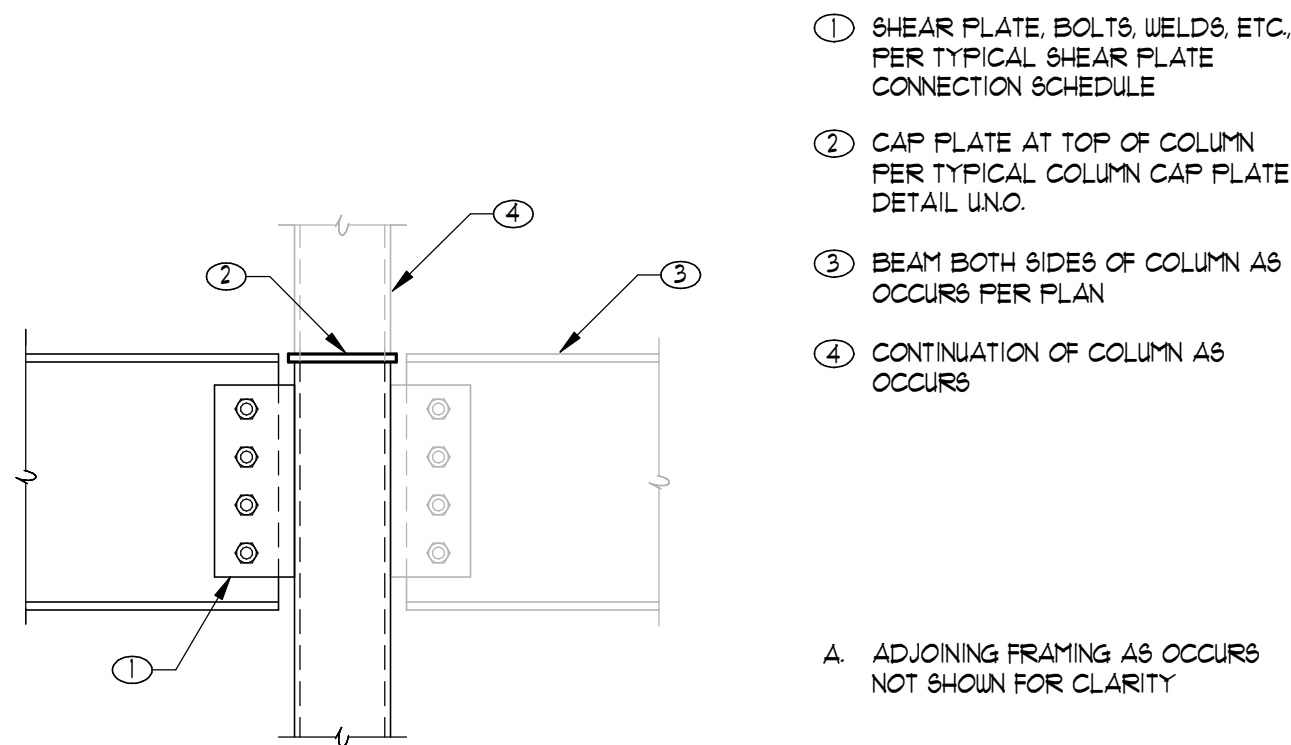
103 TYPICAL SLAB AT WALL OPENING
9F01-11 080204-25024 NO SCALE



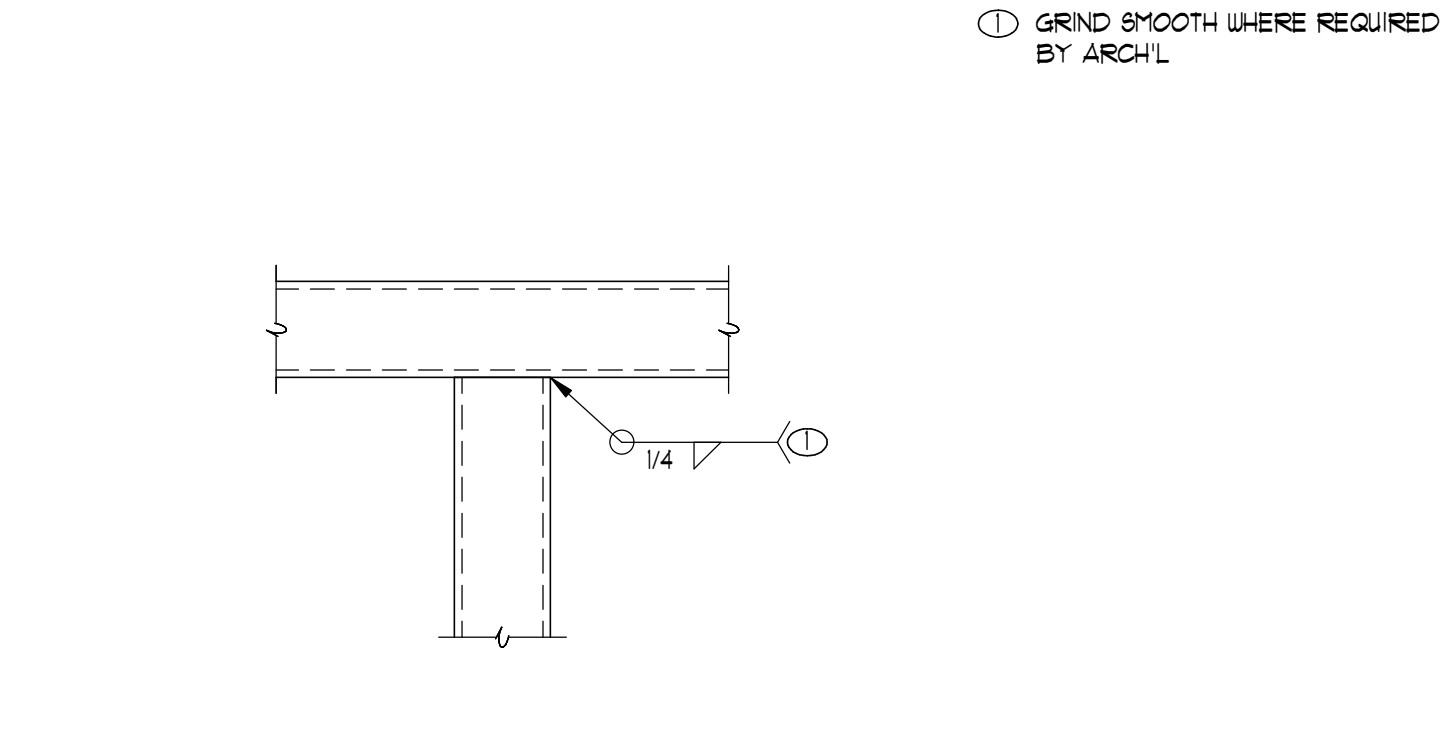
104 STEEL COLUMN AT FOOTING
9F01-17-185 170619-25024 NO SCALE



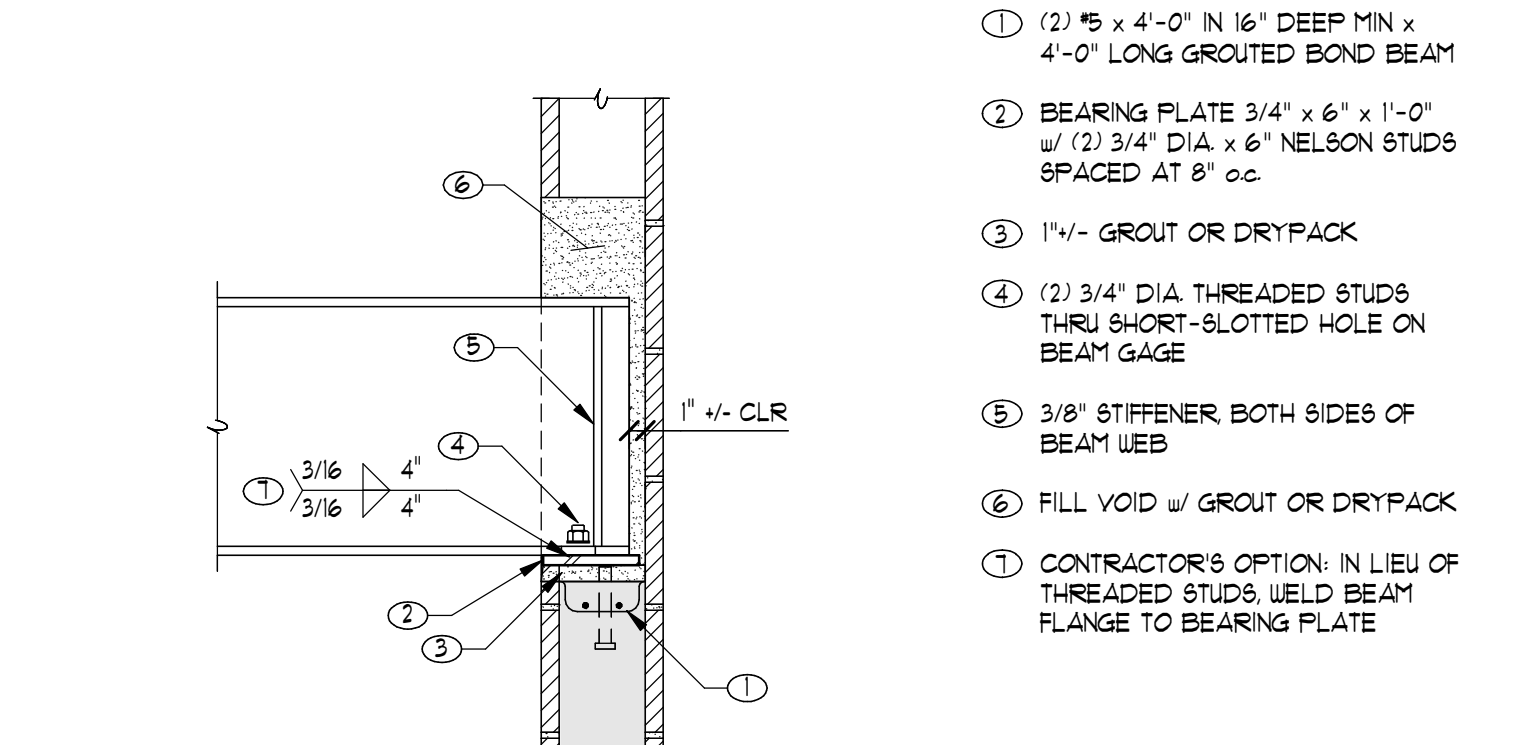
105 TYPICAL EDGE OF SLAB
9F01-01 080202ZD-25024 NO SCALE



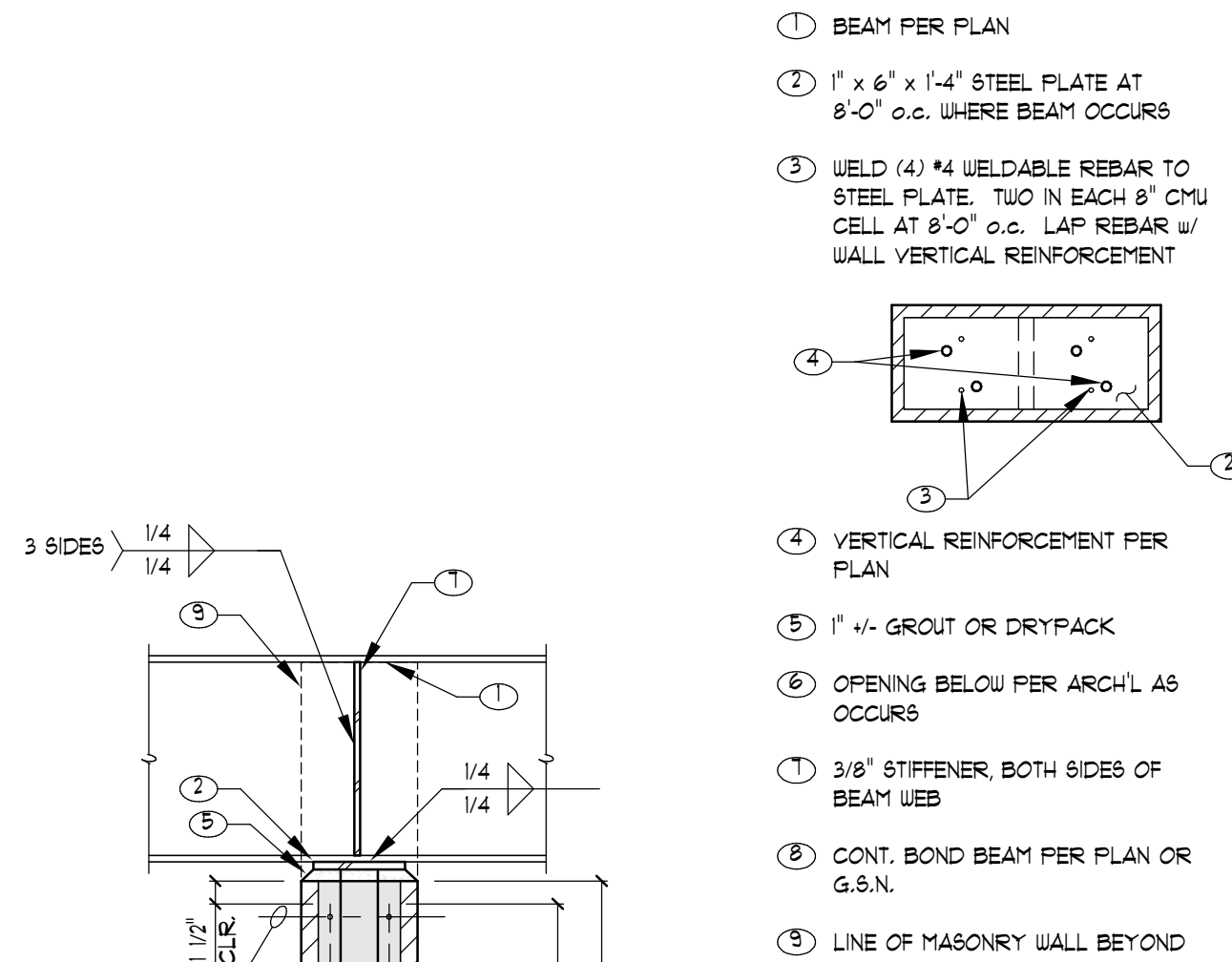
210 STEEL BEAM AT HSS COLUMN
8806-03 060221-250204 NO SCALE



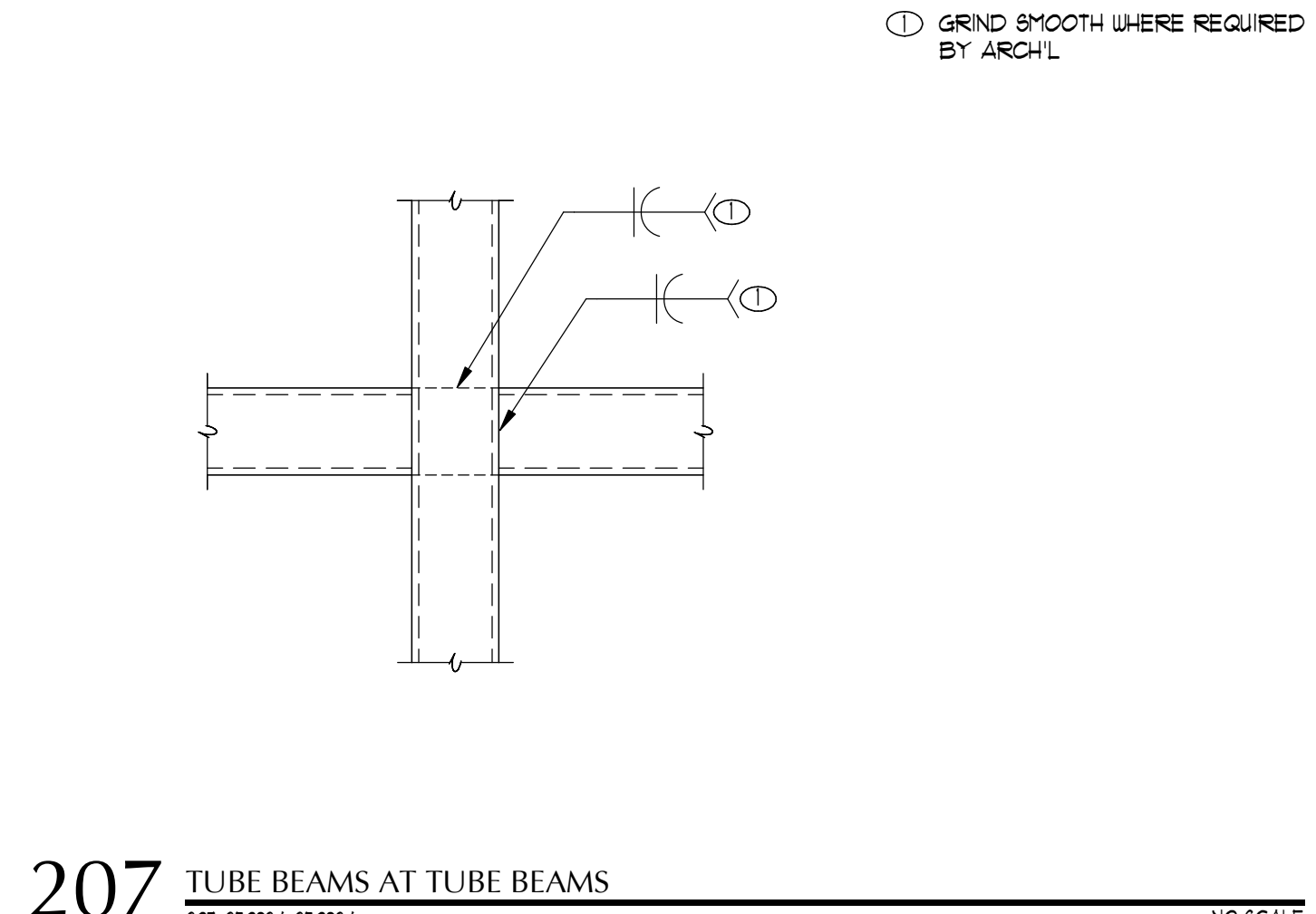
206 TUBE BEAM AT TUBE COLUMN
206-030204 R25-250204 NO SCALE



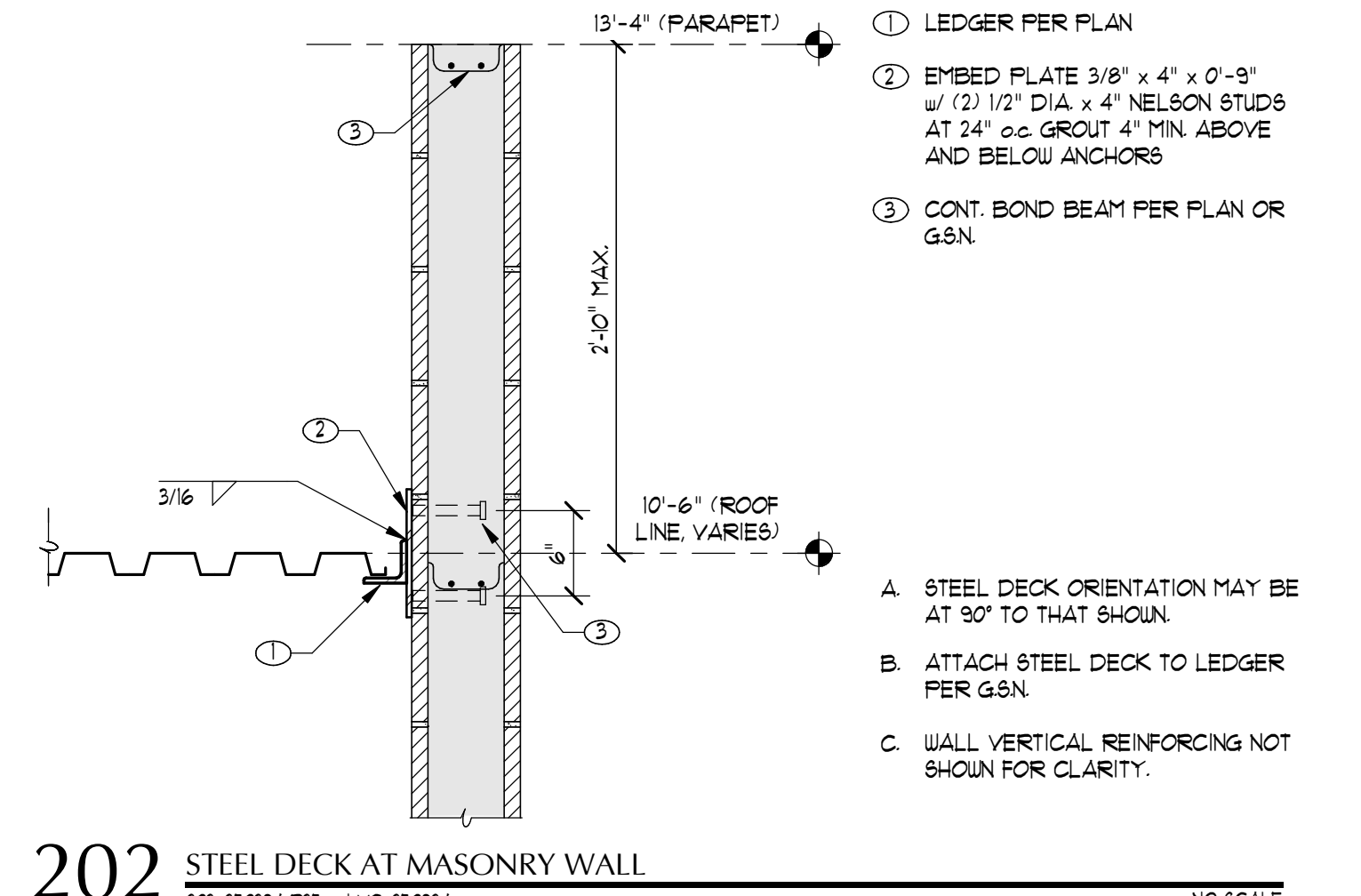
201 STEEL BEAM AT MASONRY WALL
8702-01 170201-250204 NO SCALE



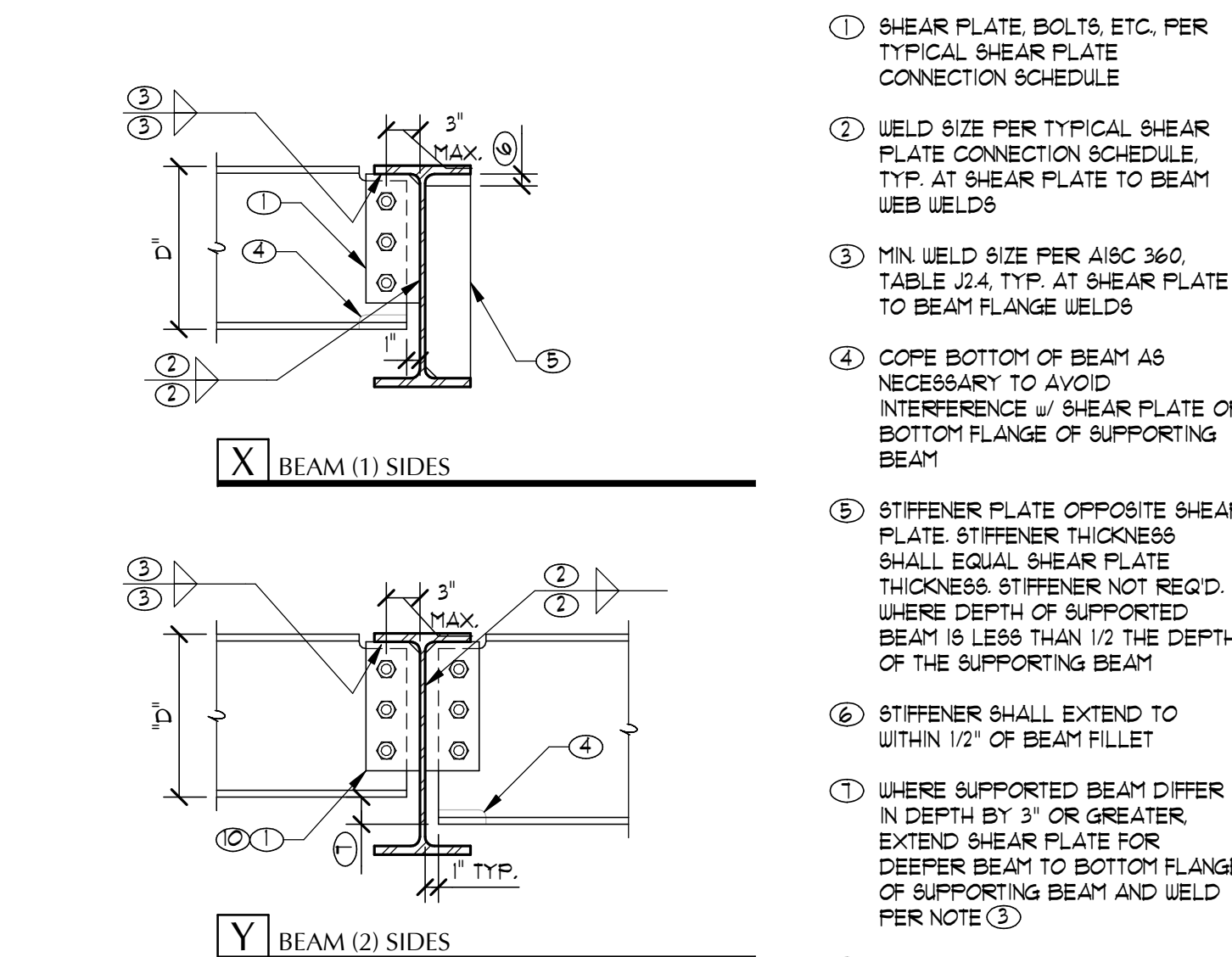
211 BEAM BEARING ON WALL
311-250204CAD-250204 NO SCALE



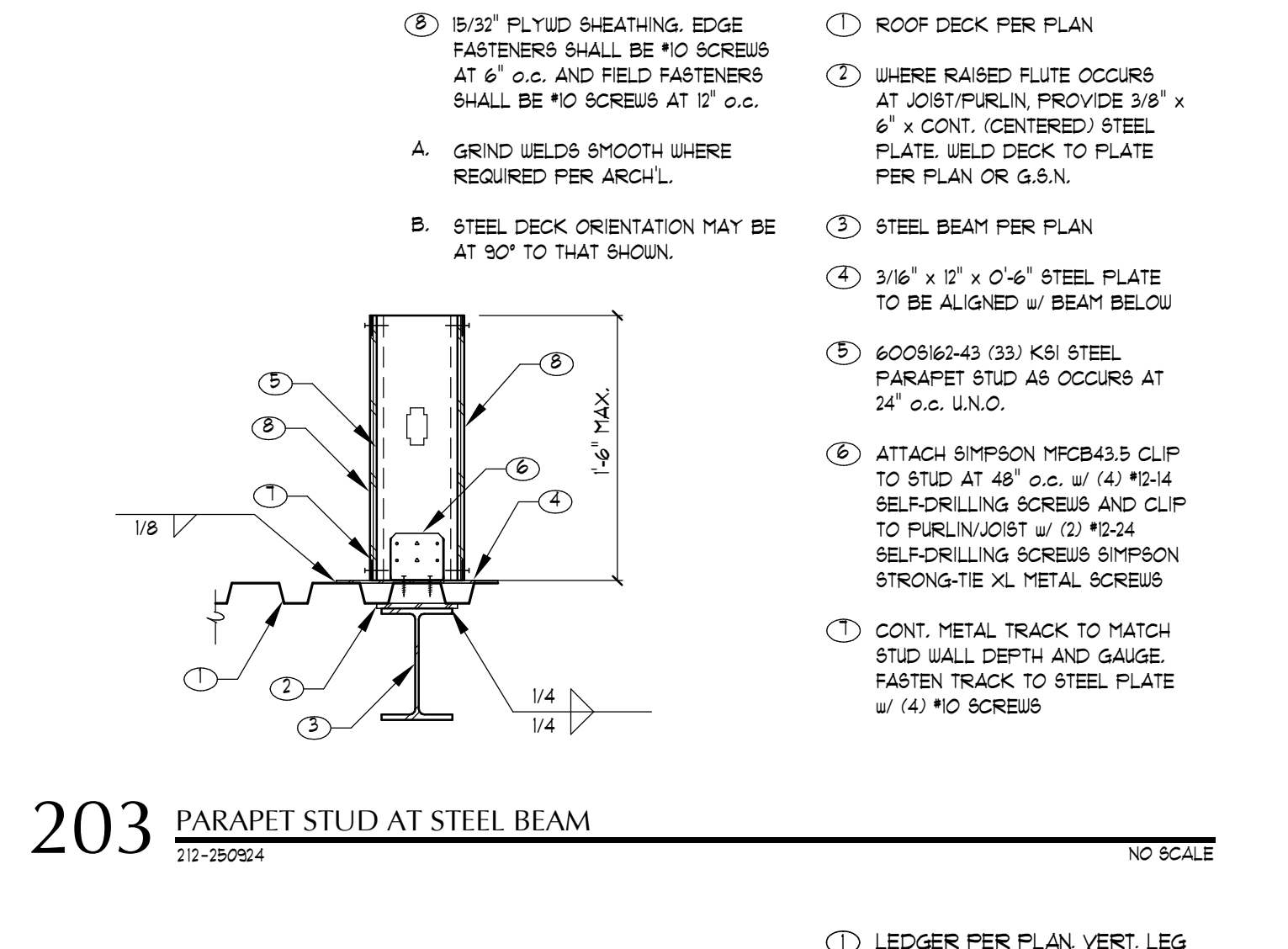
207 TUBE BEAMS AT TUBE BEAMS
207-250204-250204 NO SCALE



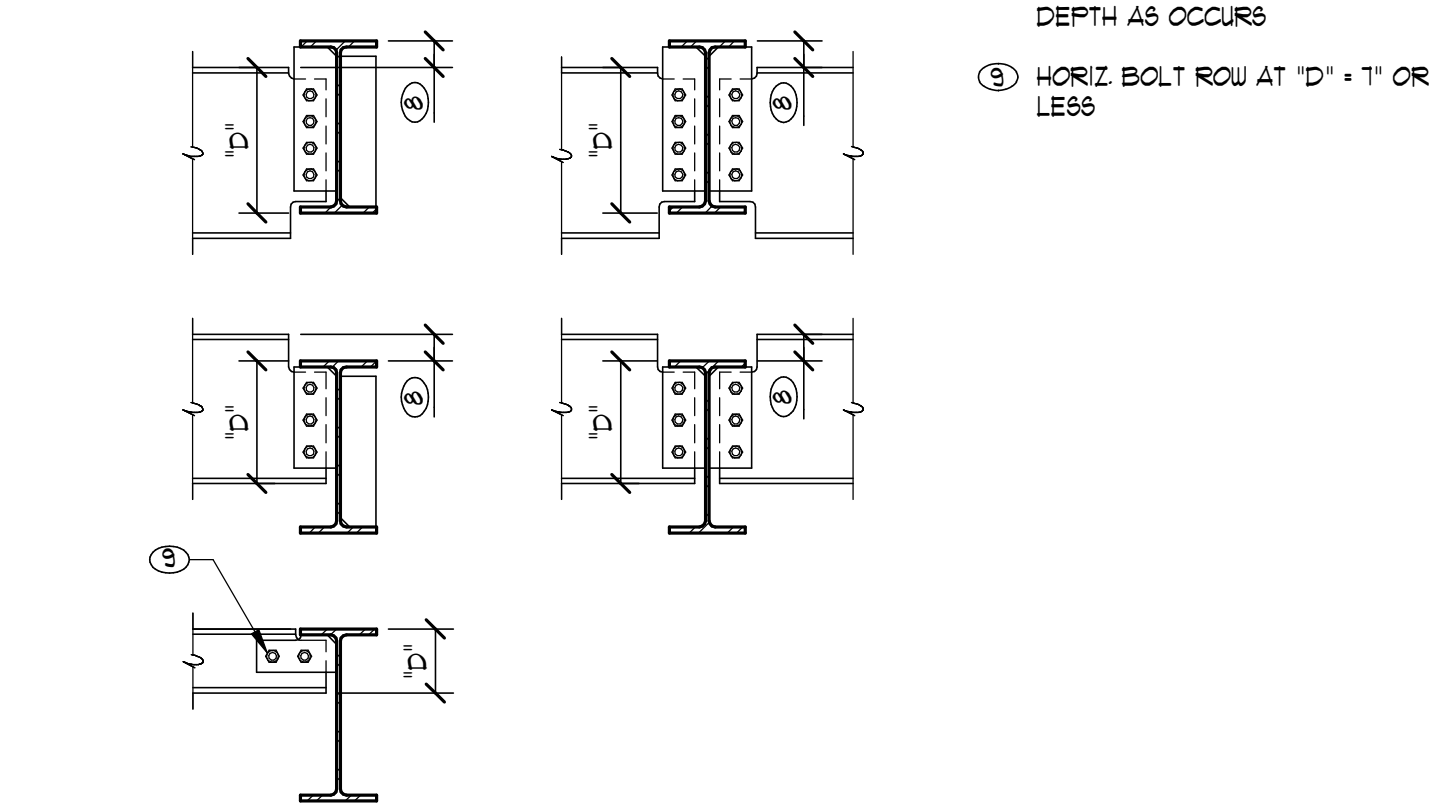
202 STEEL DECK AT MASONRY WALL
202-250204 R25 - LVC-250204 NO SCALE



208 STEEL BEAM TO BEAM SHEAR PLATE CONNECTION
5807-01 10203-250204 NO SCALE



203 PARAPET STUD AT STEEL BEAM
210-250204 NO SCALE

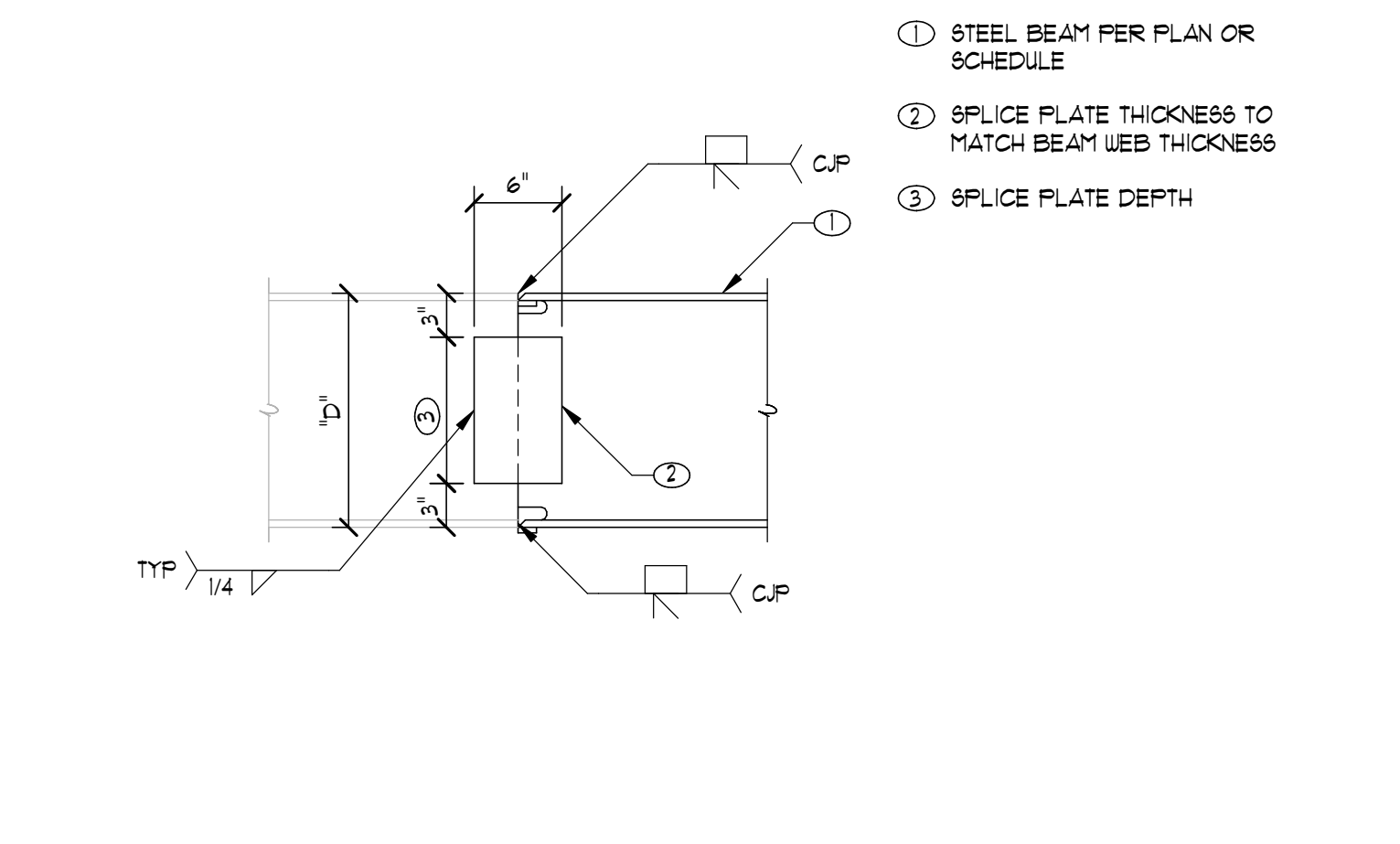


204 204-250924
204-250204 R25-250204 NO SCALE

NOMINAL BEAM DEPTH "D"	NUMBER OF BOLTS	BOLT DIA.	SHEAR PLATE THICKNESS	WELD SIZE
UP TO 12"	2 (6, 8)	3/4"	1/4"	3/16"
8" TO 10"	2	3/4"	1/4"	3/16"
12" TO 14"	3	3/4"	3/8"	1/4"
16"	4	3/4"	3/8"	1/4"
18"	5	3/4"	3/8"	1/4"
21"	5	1"	1/2"	5/16"
24"	6	1"	1/2"	5/16"
27"	7	1"	1/2"	5/16"
30"	8	1"	9/16"	3/8"
33"	9	1"	9/16"	3/8"
36"	10	1"	9/16"	3/8"
40" TO 44"	11	1"	9/16"	3/8"

1. SHEAR PLATE THICKNESS AND BOLTS PER SCHEDULE
2. WELD SIZE PER SCHEDULE
3. DO NOT RETURN FILLET WELDS ACROSS TOP AND BOTTOM EDGES OF SHEAR PLATE
4. 2x BOLT DIA.
5. 3/4" DIA BOLTS: 1 1/2" DIA. BOLTS: 1 3/4"
6. HORIZ. SHORT-SLOTTED HOLES PER AISC 360 AT 3" MIN. IN EITHER BEAM OR SHEAR PLATE UNO. ON DETAILS. STANDARD ROUND HOLES IN WATING PIECE
A. SEE G&N FOR BOLT SPEC.

209 TYPICAL SHEAR PLATE CONNECTION SCHEDULE
8402-01 060206-250204 NO SCALE



205 TYPICAL STEEL BEAM SPLICE
5807-16 18111-250204 NO SCALE

GENERAL NOTES (APPLIES TO ALL SHEETS):

1. ALL WORK SHALL BE PROVIDED IN ACCORDANCE WITH 2021 INTERNATIONAL BUILDING CODES AND ALL APPLICABLE NATIONAL AND STATE CODES, AND SAFETY STANDARDS, INCLUDING ANY LOCAL AMENDMENTS ADOPTED BY THE STATE OF ARIZONA.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS PRIOR TO EXECUTION OF ANY WORK ON THE PROJECT.
3. ALL MECHANICAL EQUIPMENT SCHEDULED/SHOWN ON PLANS HAS BEEN SIZED IN ACCORDANCE WITH ASHRAE STANDARD 183, "PEAK COOLING AND HEATING LOAD CALCULATIONS IN BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS," USING INDUSTRY STANDARD SOFTWARE: I.E. ELITE SOFTWARE CHVAC, TRANE TRACE, ETC.
4. PROJECT/BUILDING(S) MINIMUM VENTILATION RATES HAVE BEEN CALCULATED IN ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE (IMC) TABLE 403.3.1.1.
5. WORK INCLUDED: FURNISH MATERIAL, LABOR AND SERVICES NECESSARY FOR AND INCIDENTAL TO THE INSTALLATION OF THE FOLLOWING SYSTEMS WHERE SHOWN ON THE PLANS AND AS HEREINAFTER SPECIFIED. INCLUDE ALL NECESSARY WORK, MATERIALS, AND EQUIPMENT TO PERFORM WORK COMPLETELY.
- A. AIR HANDLING EQUIPMENT INCLUDING, BUT NOT LIMITED TO, PACKAGED DX ROOFTOP AIR HANDLING UNITS, EXHAUST FANS, COOLER CONDENSING AND EVAPORATIVE UNITS.
- a. ALL HVAC EQUIPMENT SHALL BE LABELED ON THE EXTERIOR (AND INTERIOR) OF BUILDING FOR EASE OF IDENTIFICATION. CONTRACTOR SHALL USE NAMING CONVENTION USED PROVIDED WITHIN THE THESE CONTRACTOR DOCUMENTS UNLESS DIRECTED OTHERWISE BY OWNER/TENANT/BUILDING MANAGEMENT.
- b. EXTERIOR LABELS SHALL BE AN ENGRAVED PLATE MADE OF RUST AND UV FADE RESISTANT MATERIALS PERMANENTLY APPLIED TO EXTERIOR OF EQUIPMENT IN LOCATION EASILY SEEN, AN WHICH DOES NOT IMPACT PERFORMANCE OF EQUIPMENT. SIZE OF LETTERING/NUMBERS ON LABEL SHALL BE A MINIMUM OF 2" TALL, OR OTHERWISE APPROVED BY THE OWNER/TENANT/BUILDING MANAGEMENT.
- c. INTERIOR LABELING IN OPEN TO CEILING AREAS SHALL BE PAINTED STENCIL, OR OTHERWISE APPROVED APPLICATION. PAINT SHALL BE A BRIGHT COLOR (I.E. WHITE, ETC.) DISSIMILAR TO COLOR OF DUCT/EQUIPMENT BEING APPLIED. SIZE OF LABEL SHALL BE VISIBLE/FEIBLE FROM FLOOR. POSITION OF LABEL SHALL BE UNDER/SIDE OF DUCT/DIFFUSER/EQUIPMENT. FINAL COORDINATION OF LABEL POSITION SHALL BE DONE IN THE FIELD IN COORDINATION WITH OWNER/TENANT/BUILDING MANAGEMENT.
- d. LABELING FOR EQUIPMENT LOCATED ABOVE CEILING SHALL BE APPLIED TO THE CEILING. LABELS SHALL BE PRINTED WITH CLEAN EDGES. SIZE AND POSITION OF LABEL SHALL BE DETERMINED IN THE FIELD. LABEL SHALL BE VISIBLE FROM FLOOR, BUT NOT DISTRACTING FROM CEILING AESTHETICS.
- B. SHEET METAL DUCTS, SHEET METAL PLENUMS, DUCT LININGS, FLEXIBLE DUCTWORK, DAMPERS AND ACCESSORIES.
- C. AIR DEVICES INCLUDING ADJUSTING THE PATTERN CONTROLLERS.
- D. INSTALLING ACCESSORIES SPECIFIED IN REFERENCED SECTIONS ABOVE.
- E. SMOKE STOPPING OF ALL PENETRATIONS OF DUCTWORK, AND FIRESTOPPING OF THE SAME THROUGH FIRE RATED PARTITIONS AS SHOWN ON THE ARCHITECTURAL DRAWINGS INCLUDING, BUT NOT LIMITED TO STAIRWAYS, SHAFTS, CORRIDORS, FLOORS, ROOFS, AND REQUIRED EXITS.
- F. INSTALLATION OF ALL REFRIGERANT SYSTEMS INCLUDING, BUT NOT LIMITED TO, PIPING, PIPING SPECIALTIES, REFRIGERANT MONITOR(S), SELF-CONTAINED BREATHING APPARATUS, REFRIGERANT PUMP OUT UNIT, AND STORAGE VESSELS.
- G. CHARGING AND LEAK TESTING OF ALL FIELD PIPED REFRIGERANT SYSTEMS.
- H. CLEANING AND PRESSURE TESTING OF ALL EQUIPMENT, PIPING, AND ACCESSORIES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS AS WELL AS INDUSTRY STANDARDS/PRACTICES.
- I. MECHANICAL CONTRACTOR (MC) SHALL COORDINATE WITH THE PLUMBING CONTRACTOR (PC) REGARDING EQUIPMENT SUPPLIED BY MC TO BE INSTALLED BY THE PC.
- J. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER TRADES, AND WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
6. MECHANICAL CONTRACTOR (MC) SHALL BE RESPONSIBLE FOR PERFORMING A FIELD REVIEW OF ALL WORK IDENTIFIED WITHIN THE CONTRACT DOCUMENTS IN COORDINATION WITH ALL OTHER DISCIPLINES ON THE PROJECT PRIOR TO THE COMMENCEMENT OF ANY WORK. MC SHALL ALSO BE RESPONSIBLE FOR FINAL ROUTING OF ALL EQUIPMENT IN COORDINATION WITH ALL OTHER SYSTEMS PRESENT WITHIN SCOPE OF WORK.
7. ALL PENETRATIONS THROUGH FIRE/SMOKE RATED ASSEMBLIES SHALL BE SEALED AND PROTECTED IN ACCORDANCE WITH ALL NATIONAL, STATE, AND MUNICIPALLY ADOPTED CODES INCLUDING AMENDMENTS. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY LOCATIONS AND RATINGS. FIRE/SMOKE RATED ASSEMBLIES INCLUDE, BUT NOT LIMITED TO STAIRWAYS, SHAFTS, CORRIDORS, FLOORS, ROOFS, AND REQUIRED EXITS. CONTRACTOR SHALL INSTALL PER MANUFACTURERS UL LISTED INSTALLATION INSTRUCTIONS.
8. A FULL TEST AND BALANCE OF THE COMPLETE MECHANICAL SYSTEMS (AIRSIDE, REFRIGERANT, ETC.) SHALL BE REQUIRED FOLLOWING THE COMPLETION OF ALL WORK OUTLINED WITHIN THE CONTRACT DOCUMENTS. THE TEST AND BALANCE CONTRACTOR SHALL BE A THIRD PARTY AND SHALL BE NEBB AND/OR TAB CERTIFIED. A COMPLETE TEST AND BALANCE REPORT SHALL BE SUBMITTED TO OWNER AND ENGINEER FOR REVIEW AND APPROVAL. ENGINEER SHALL PROVIDE FINAL APPROVAL OF THE TEST AND BALANCE WORK.
9. MC SHALL REFER TO THE SCHEDULES ON THE MS SERIES SHEETS FOR ALL SPECIFIED HVAC PIPING, EQUIPMENT, AND ASSOCIATED COMPONENTS/MATERIALS.
10. MC SHALL PROVIDE SEISMIC RESTRAINT FOR ALL EQUIPMENT AS REQUIRED BY CODE. MC SHALL DESIGN ALL SUPPORTS TO WITHSTAND SEISMIC LOADS AS SPECIFIED IN THE BC. PROVIDE REQUIRED SHOP DRAWINGS TO BUILDING AUTHORITY PRIOR TO INSTALLATION.
11. TEMPERATURE CONTROLS (TC) WORK REQUIRED SHALL FALL UNDER THE PURVIEW OF THE MECHANICAL CONTRACTOR PERFORMED BY A CONTROLS CONTRACTOR (CC).
- A. PROVIDE WALL MOUNTED THERMOSTATS WITH DIGITAL DISPLAY. THERMOSTATS SHALL BE 10,000-OHM THERMISTOR WITH AN ACCURACY OF ±0.3°F. ROOM TEMPERATURE SENSOR COVERS SHALL ALL MATCH ON THE PROJECT. THERMOSTATS SHALL BE PROVIDED WITH THE FOLLOWING: LOCAL TEMPERATURE ADJUSTMENT ONLY (TEMPERATURE BAND TO BE DEFINED BY OWNER IN COORDINATION WITH CONTROLS CONTRACTOR) WITH LOCAL DIGITAL TEMPERATURE DISPLAY CONFIGURED TO DISPLAY WHOLE NUMBERS ONLY - NO DECIMAL POINTS OF PRECISION.
- a. THERMOSTAT INSTALLATION HEIGHT SHALL BE IN ACCORDANCE WITH ADA GUIDELINES.
- b. FINAL LOCATION OF THERMOSTATS SHALL DETERMINED IN THE FIELD IN COORDINATION WITH THE OWNER. ENGINEER DOES NOT ADVISE THAT THERMOSTATS BE PLACED ON EXTERIOR WALLS.
- c. IF A THERMOSTAT IS REQUIRED TO BE INSTALLED ON AN EXTERIOR WALL, THE THERMOSTAT SHALL BE PROVIDED WITH AN INSULATED BASE.
- B. PROVIDE 120V TO 240V TRANSFORMERS IN COORDINATION WITH ELECTRICAL CONTRACTOR.

DUCTWORK AND AIR DISTRIBUTION (APPLIES TO ALL SHEETS):

1. WORK FOR THIS SECTION HAS BEEN DESIGNED, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:
- A. ASHRAE, "HANDBOOK 2017 FUNDAMENTALS", CHAPTER 21 - DUCT DESIGN.
- a. ALL DUCTWORK SHOWN SHOWN ON THE PLANS HAS BEEN PERFORMED IN ACCORDANCE WITH ASHRAE'S "EQUAL FRICTION METHOD."
- b. UNLESS OTHERWISE NOTED ON THE PLANS, ALL DUCTWORK IS DESIGNED IN ACCORDANCE WITH LOW STATIC PRESSURE REQUIREMENTS. STANDARD DUCTWORK DESIGN PRESSURE DROP CRITERIA IS AS FOLLOWS:
- SUPPLY AIR DUCTWORK: 0.08 "W.C. PER 100'
 - RETURN AIR DUCTWORK: 0.06 "W.C. PER 100'
 - EXHAUST AIR DUCTWORK: 0.08 "W.C. PER 100'
- B. ASHRAE, "HANDBOOK 2020 HVAC SYSTEMS AND EQUIPMENT", CHAPTER 19 - DUCT CONSTRUCTION.
- C. ASHRAE, "HANDBOOK 2020 HVAC SYSTEMS AND EQUIPMENT", CHAPTER 20 - ROOM AIR DISTRIBUTION EQUIPMENT.
- D. SMACNA "HVAC DUCT CONSTRUCTION STANDARD - METAL AND FLEXIBLE" - LATEST EDITION.
- E. UL 33, "HEAT RESPONSIVE LINKS FOR FIRE PROTECTION SERVICE."
- F. UL 555, "FIRE DAMPERS AND CEILING DAMPERS."
- G. UL 181, "FACTORY MADE AIR DUCTS AND CONNECTORS."
2. MATERIALS:
- A. ALL DUCTS UNLESS SPECIFIED OTHERWISE SHALL BE CONSTRUCTED FROM G-90 OR BETTER GALVANIZED STEEL, LFG, ETC. FIBERGLASS DUCTBOARD IS PROHIBITED.
- a. ALL ROUND AND/OR FLAT OVAL DUCTS SHALL HAVE SPIRAL SEAMS OR CONTINUOUSLY WELDED LONGITUDINAL SEAMS.
- b. [USE OF FIBERGLASS DUCT SHALL BE ALLOWED FOR SOUND BOOTS ON PLENUM DIFFUSERS ONLY].
- C. EXHAUST DUCTS SHALL BE CONSTRUCTED FROM 3003-H14 SERIES ALUMINUM.
- D. ALL SUPPLY DUCTWORK, UNLESS SPECIFIED OTHERWISE, SHALL BE CONSTRUCTED OF GAUGES AND REINFORCEMENT TO 2" W.C. STATIC PRESSURE IN SMACNA DUCT CONSTRUCTION STANDARD - LATEST EDITION.
- D. ALL RETURN, EXHAUST, OUTDOOR AIR, RELIEF, AND SUPPLY DUCTWORK DOWNSTREAM OF TERMINAL UNITS SHALL BE CONSTRUCTED OF GAUGES AND REINFORCEMENT TO 2" W.C. STATIC PRESSURE IN SMACNA DUCT CONSTRUCTION STANDARD - LATEST EDITION. PANELS IN ALL DUCTS 12" AND LARGER SHALL BE CROSS-BROKEN OR BEADED ON 12" CENTERS.
- E. WHERE LOCAL CODE REQUIRES GAUGES HEAVIER THAN REQUIRED BY SMACNA THEN THE LOCAL CODE SHALL GOVERN.
3. DUCT CONSTRUCTION AND INSTALLATION:
- A. ALL DUCTS SHALL BE NEATLY CONSTRUCTED, STIFFENED, ON THE OUTSIDE SURFACES WHERE NECESSARY TO PREVENT PERCEPTIBLE VIBRATION OR BUCKLING, ALL DUCTS, HOUSINGS, ETC., SHALL BE FABRICATED AS DETAILED ON THE DRAWINGS AND IN THE SMACNA DUCT CONSTRUCTION MANUAL - LATEST EDITION.
- B. DUCTS SHALL BE SECURELY SUPPORTED IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION MANUAL - LATEST EDITION AND IN NO CASE LESS THAN DOUBLE THICKNESS 1" X #24 GAUGE GALVANIZED METAL. CABLE HANGERS ARE NOT ALLOWED.
- C. DUCTS THAT ARE TO BE EXTERNALLY INSULATED SHALL NOT BE SUPPORTED ON UNSTRUT CHANNEL UNLESS IT REQUIRED BASED UPON LOADING. HANGER RODS FOR TRAPEZE BARS SHALL BE SPACED TO ALLOW FOR INSULATION INSTALLATION.
- D. SIZE OF DUCT WORK IDENTIFIED ON THE DRAWINGS SHALL BE THE FREE AREA DIMENSION OF THE DUCTWORK. (SHEET METAL DUCTWORK (I.E. PRESSURE SHELL) DIMENSIONS MAY VARY BASED UPON INSULATION REQUIREMENTS) OR (SHEETMETAL DIMENSIONS PROVIDED TAKE INTO ACCOUNT ANY INTERNAL ACOUSTICAL LINING THICKNESS SPECIFIED FOR THE DUCT SYSTEM OR SUB-SYSTEM).
- E. MC SHALL PROVIDE TURNING VANES AT ALL SQUARE/RECTANGULAR SUPPLY AND RETURN AIR DUCTWORK ELBOWS.
- F. MC SHALL PROVIDE HIGH EFFICIENCY TAKEOFFS WITH INTEGRAL LOCKABLE QUADRANT VOLUME DAMPERS AT EVERY SUPPLY, RETURN, AND EXHAUST AIR DUCT BRANCH/TAP UNLESS NOTED OTHERWISE ON THE PLANS.
- G. UNLESS OTHERWISE NOTED (U.N.O.) WITHIN THE DRAWINGS, ALL MANUAL VOLUME DAMPERS SHALL BE LOCKABLE QUADRANT TYPE.
- H. FLEX-DUCT LENGTHS SHALL NOT EXCEED 8'-0" FOR DIFFUSERS, AND 3'-0" AT VAV BOX INLETS.
- a. SUPPORT FLEX-DUCT ON 4'-0" CENTERS MAXIMUM.
- b. FLEX-DUCT SHALL BE FLEXMASTER TYPE 9M, THERMAFLEX MAKE, OR EQUIVALENT.
- I. "IF REQUIRED" ALL EXPOSED ROUND DUCTWORK SHALL BE PAINTED. MC SHALL BE RESPONSIBLE FOR PROVIDING PAINTED DUCTWORK EITHER FROM THE MANUFACTURER, OR FIELD APPLIED. IF DUCTWORK IS FIELD PAINTED, MC SHALL PROVIDE PAINTGRIP TYPE DUCTWORK. MC SHALL COORDINATE WITH THE ARCHITECT FOR THE FINAL PAINT COLOR AND APPLICATION.
- J. ALL SUPPLY DUCTWORK UNLESS SPECIFIED OTHERWISE SHALL BE SMACNA'S SEAL CLASS A.
4. DUCT INSULATION:
- A. ALL DUCTWORK LOCATED ABOVE CEILINGS WITHIN AN UNCONDITIONED SPACE SHALL BE PROVIDED WITH A MINIMUM R-6 INSULATION.
- a. EXCEPTON: ALL DUCTWORK LOCATED IN ATTICS (ABOVE BUILDING INSULATION) WITHIN AN UNCONDITIONED SPACE SHALL BE PROVIDED A MINIMUM R-8 INSULATION.
- b. EXCEPTON: ALL DUCTWORK SERVING FRESH OUTSIDE AIR SHALL BE PROVIDED A MINIMUM R-8 INSULATION WITH VAPOR BARRIER.
- c. ALL SQUARE/RECTANGULAR DUCTWORK ABOVE CEILINGS SHALL BE PROVIDED WITH EITHER 1-1/2" THICK R-6 INTERNAL LINING OR MINIMUM 2" THICK R-6 EXTERNAL GLASS FIBER, FOIL BACKED INSULATION WITH A VAPOR BARRIER.
- ALL DUCT LINERS USED SHALL BE TESTED IN ACCORDANCE WITH TEST METHOD ASTM C423.
- d. ALL ROUND DUCTWORK ABOVE CEILINGS SHALL BE WRAPPED WITH A MINIMUM 2" THICK R-6 GLASS FIBER, FOIL BACKED INSULATION WITH A VAPOR BARRIER.
5. AIR DEVICES:
- A. DEVICES DESCRIBED WITHIN THE DRAWINGS AND ASSOCIATED SCHEDULES ARE BASED ON TITUS. SIMILAR DESIGN CHARACTERISTICS AS MANUFACTURED BY PRICE, KRUEGER, CARNES, METAL AIRE, NALOR, OR TUTTLE & BAILEY WILL ALSO BE ACCEPTABLE. SUCH SUBSTITUTE EQUIPMENT SHALL BE SIZED ON THE BASIS OF ADP PERFORMANCE, AND SHALL BE SELECTED FOR A MAXIMUM OF 0.05 INCHES W.C. STATIC PRESSURE DROP AND A MAXIMUM NOISE CRITERION VALUE OF NOT GREATER THAN NC30. RETURN OR EXHAUST DEVICES SHALL NOT BE SMALLER THAN SIZES SHOWN.
- B. UNLESS NOTED OTHERWISE (U.N.O.) WITH FLOW ARROWS ON THE DRAWINGS, ALL DIFFUSERS SHOWN ON THE DRAWINGS ARE 4-WAY THROW PATTERNS. MC SHALL REFER TO DRAWINGS AND AIR DEVICE SCHEDULE TO DETERMINE WHICH DIFFUSERS REQUIRE A DIFFERENT THROW PATTERN. ALL DIFFUSERS NOT 4-WAY PATTERN ARE IDENTIFIED ON THE DRAWINGS WITH FLOW ARROWS ILLUSTRATING THE THROW NUMBER AND DIRECTION OF FLOW.
- C. UNLESS NOTED OTHERWISE (U.N.O.) ON THE DRAWING, HET FITTING AND FLEX-DUCT SHALL BE THE SAME SIZE AS DIFFUSER CONNECTION.
- D. "IF REQUIRED" MC SHALL PROVIDE PLENUM RETURN SOUND BOOT AIR DEVICES AS SCHEDULED ON SHOWN ON THE PLANS. MC SHALL REFER TO DETAIL M.02.05.

MECHANICAL ABBREVIATIONS INDEX

NOTE: ALL ABBREVIATIONS MAY NOT BE USED ON THIS PROJECT

SYMBOL	ABBREVIATION
AD	ACCESS DOOR
A.F.F.	AIR FIVE FINISHED FLOOR
ARU	AIR HANDLING UNIT
AP	ACCESS PANEL
APRX	APPROXIMATE
AV	AIR VENT
AWG	AMERICAN WIRE GAUGE
BAP	BUILDING ACCESS PANEL
BOS	BOTTOM OF STEEL
BT	BOTTOM
BV	BALANCE VALVE
CD	CONDENSATE DRAIN
CDB	CONDENSATE DRAIN BOX
CFM	CUBIC FEET PER MINUTE
CHV	CHECK VALVE
CL	CENTER LINE
COM	COMMON
COW	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
CWL	CHILLED WATER LOOP
CT	COOLING TOWER
D	DAMPER
CU	CONDENSING UNIT
CV	CONTROL VALVE
DCU	DUST COLLECTION UNIT
DISCH	DISCHARGE
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DR	DRAIN LINE
DV	DRAIN VALVE
EA	EXHAUST AIR
EF	EXHAUST FAN
EMT	ELECTRICAL METALLIC TUBING
ET	EXPANSION TANK
EQ	EQUAL / EQUALS
EQ	EQUAL APPROXIMATE
EXIST	EXISTING
EXH	EXHAUST
FL	FLANGE CONNECTION
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FPT	FAN POWERED TERMINAL UNIT
FRD	FIRE RATED DAMPER
FT	FIN/TUBE RADIATION
GA	GAUGE
GC	GAUGE COCK
GYS	GLYCOL SUPPLY WATER
GVR	GLYCOL RETURN WATER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
H	HUMIDIFIER
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
HX	HEAT EXCHANGER
LES	LEADS
MA	MAKE-UP AIR
MC	MECHANICAL COUPLING
MDU	MOTOR DRIVE UNIT
MXA	MIXED AIR
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NP	NON-POTABLE COLD WATER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
P	PETE'S PLUG
PC	PUMPED CONDENSATE
PD	PUMPED DISCHARGE
PR	PRESSURE REGULATOR
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PWS	POOL WATER SUPPLY
PWR	POOL WATER RETURN
RA	RETURN AIR
RF	RETURN FAN
RLA	RELIEF AIR
RLF	RELIEF FAN
RTU	ROOF TOP UNIT
RV	RELIEF VALVE
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SUPPLY FAN
STR	STRAINER
SUC	SUCTION
SUD	SUCTION DIFFUSER
SV	SERVICE VALVE
TH	THERMOMETER
TRA	TRANSFER AIR
TW	THERMOMETER WELL
TYP	TYPICAL
U	UNION
UH	UNIT HEATER
CUH	CABINET UNIT HEATER
U.N.O.	UNLESS NOTED OTHERWISE
U.N.O.	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
VAC	VACUUM

MECHANICAL PIPE FITTING SYMBOLS

NOTE: ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE USED.

SYMBOL	ABBREVIATION	EXPLANATION
	UP	PIPE, TURNED UP
	DN	PIPE, TURNED DOWN
	TDN	PIPE, TEE DOWN
	SV	SERVICE VALVE
	BV	BALANCE VALVE
	CV	2 WAY CONTROL VALVE
	3CV	3 WAY CONTROL VALVE
	CHV	CHECK VALVE
	DV	DRAIN VALVE
	F	FLANGE CONNECTION
	GA	GAUGE
	GC	GAUGE COCK
	MC	MECHANICAL COUPLING
	P	PETE'S PLUG
	PFC	PIPE FLEXIBLE CONNECTOR
	PR	PRESSURE REGULATOR
	PRV	PRESSURE REDUCING VALVE
	RV	RELIEF VALVE
	STR	STRAINER
	TH	THERMOMETER
	TW	THERMOMETER WELL
	U	UNION
	M	METER
	CAP	CAP
	CR	CONCENTRIC REDUCER
	ER	ECCENTRIC REDUCER (BOTTOM & TOP LEVEL)
	PA	PIPE ANCHOR
	PG	PIPE GUIDE
	MAV	MANUAL AIR VENT
	AAV	AUTOMATIC AIR VENT

MECHANICAL CALLOUTS

NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT.

SYMBOL	ABBREVIATION
	EQUIPMENT DESIGNATION NUMBER
	AIR DEVICE DESIGNATION CFM
	SECTION DESIGNATION SHEET NUMBER
	CALLOUT DESIGNATION SHEET NUMBER
	CONNECT TO EXISTING
	POINT OF DEMOLITION
	KEYED NOTE DESIGNATION
	REVISION DELTA
	ROUND DUCT WORK
	OVAL DUCT WORK
	DUCT ELEVATION TAG
	THERMOSTAT WITH EQUIPMENT NUMBER
	THERMOSTAT & HUMIDISTAT WITH EQUIPMENT NUMBER
	TEMPERATURE SENSOR
	HUMIDITY SENSOR
	TEMPERATURE & HUMIDITY SENSOR
	PRESSURE SENSOR
	CO SENSOR

MECHANICAL PIPE SYMBOLS

NOTE: ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE USED.

SYMBOL	EXPLANATION
	COMPRESSED AIR
	CONDENSATE DRAIN
	PUMPED CONDENSATE
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	HEATING WATER SUPPLY
	HEATING WATER RETURN
	CONDENSER WATER SUPPLY
	CONDENSER WATER RETURN
	GLYCOL WATER SUPPLY
	GLYCOL WATER RETURN
	HIGH PRESSURE STEAM
	LOW PRESSURE STEAM
	DRAIN LINE
	REFRIGERANT PIPE
	REFRIGERANT 2-PIPE
	REFRIGERANT 3-PIPE
	REFRIGERANT SUCTION
	REFRIGERANT LIQUID
	REFRIGERANT HOT GAS
	DEMO
	EXISTING

MECHANICAL DUCT SYMBOLS

NOTE: ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE USED.

SYMBOL	EXPLANATION
	ACCESS DOOR/PANEL
	BACK DRAFT DAMPER
	MANUAL BALANCE DAMPER
	MOTORIZED DAMPER
	FIRE RATED DAMPER
	FIRE SMOKE DAMPER
	DIRECTION OF FLOW
	DROP IN DIRECTION OF ARROW
	DUCT 45° TAKE-OFF CONNECTION WITH DAMPER
	INTERNALLY INSULATED DUCT WORK (EXTERIOR DIMENSION)
	RECTANGULAR SHEET METAL DUCT (EXTERIOR DIMENSION)
	K-27 DOUBLE WALL ROUND DUCT WORK (EXTERIOR DIMENSION)
	FLEXIBLE DUCT WORK
	TURNING VANES (RECTANGULAR)
	TURNING VANES (RECTANGULAR, SMOOTH RADIUS)
	SUPPLY AIR DUCT, DOWN
	SUPPLY AIR DUCT, UP
	SUPPLY AIR DUCT ROUND, DOWN
	SUPPLY AIR DUCT ROUND, UP
	RETURN AIR DUCT, DOWN
	RETURN AIR DUCT, UP
	RETURN AIR DUCT ROUND, DOWN
	RETURN AIR DUCT ROUND, UP
	EXHAUST AIR DUCT, DOWN
	EXHAUST AIR DUCT, UP
	EXHAUST AIR DUCT ROUND, DOWN
	EXHAUST AIR DUCT ROUND, UP
	DEMO DUCTWORK
	EXISTING DUCTWORK
	SQUARE SUPPLY DIFFUSER ROUND CONNECTION
	SQUARE RETURN GRILLE ROUND CONNECTION
	SQUARE EXHAUST GRILLE ROUND CONNECTION
	PLENUM RETURN WITH SOUND BOOT
	PLENUM RETURN
	SQUARE SUPPLY DIFFUSER SQUARE CONNECTION
	SQUARE RETURN GRILLE SQUARE CONNECTION
	SQUARE EXHAUST GRILLE SQUARE CONNECTION
	ROUND DIFFUSER
	LINEAR SLOT DIFFUSER
	LOUVER GRILLE
	DUCT MOUNTED DIFFUSER (SEE PLANS FOR DIFFUSER INSTALLATION ANGLE.)

DESIGN CONTACTS

ENGINEER: JOEL WILLIAMS
DESIGNER: JEREMY CARTER

MECHANICAL SHEET LIST

M0.1 MECHANICAL NOTES SYMBOLS & ABBREVIATIONS
M2.1 MECHANICAL FLOOR PLANS
M5.1 MECHANICAL SCHEDULES & DETAILS
M5.2 MECHANICAL DETAILS

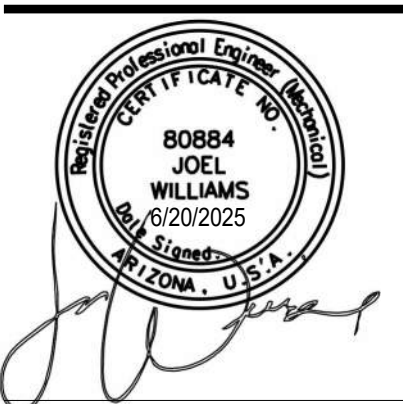


Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Scottsdale, AZ 85260
ph. 801.269.0355
fax 801.269.1425
www.thinkaia.com

The designs shown and described herein including all technical drawings, graphic representations & models thereof, are proprietary & can not be copied, duplicated or transmitted in any form or by any means, electronic or mechanical, without written permission from THAK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



B&D ENGINEERING
BRUNNER AND DALLON
MECHANICAL | PLUMBING | CONTROLS
9710 S 700 E, SUITE 201
SANDY, UT 84070
801-465-8081
25.018.00

LAKE HAVASU CATALYST - CONCESSIONS
2117 MCCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO. 25.018
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
MECHANICAL NOTES
SYMBOLS &
ABBREVIATIONS
SHEET NUMBER:

M0.1

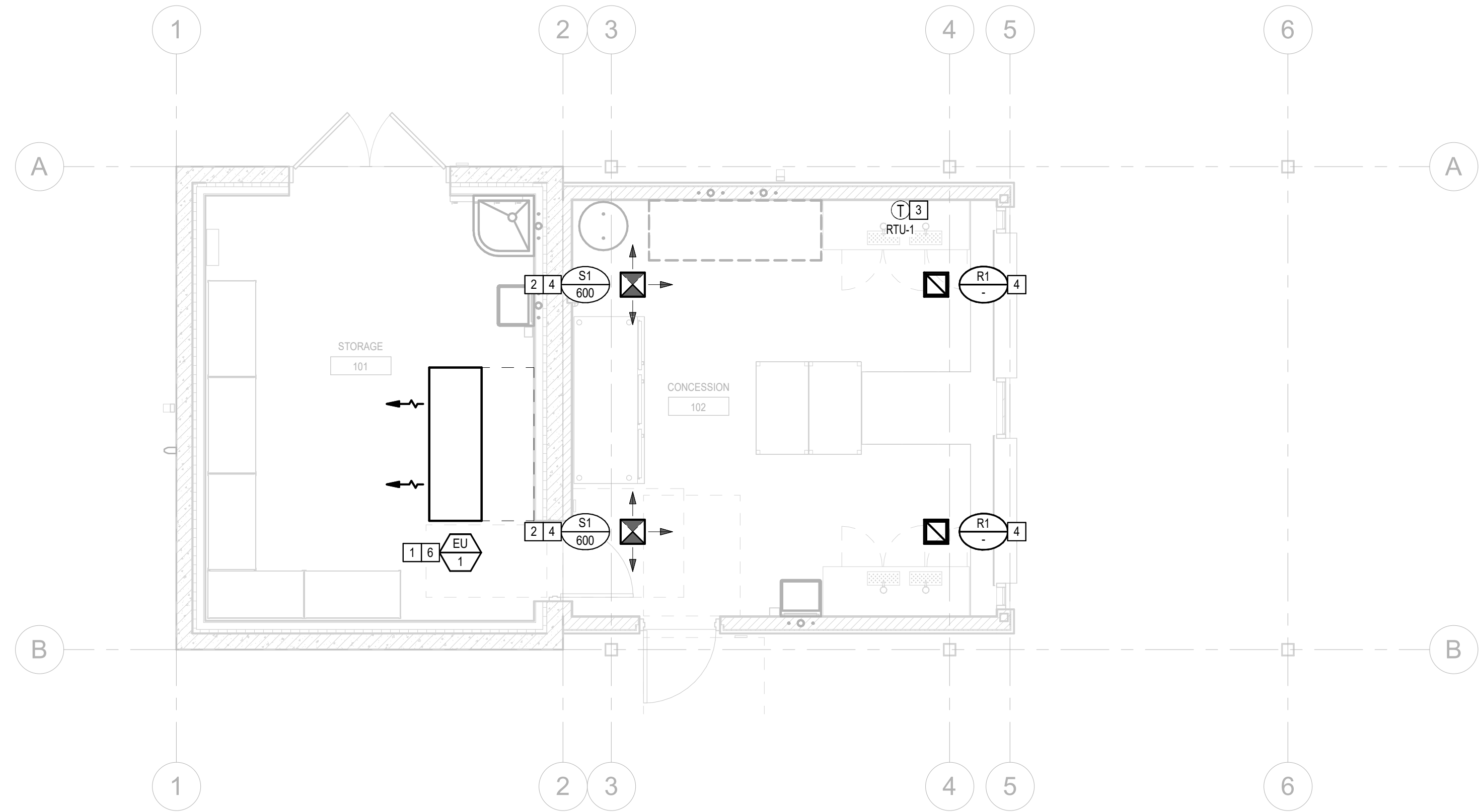
© 2022 THINK ARCHITECTURE INC.

GENERAL NOTES) SHEET M2.1)

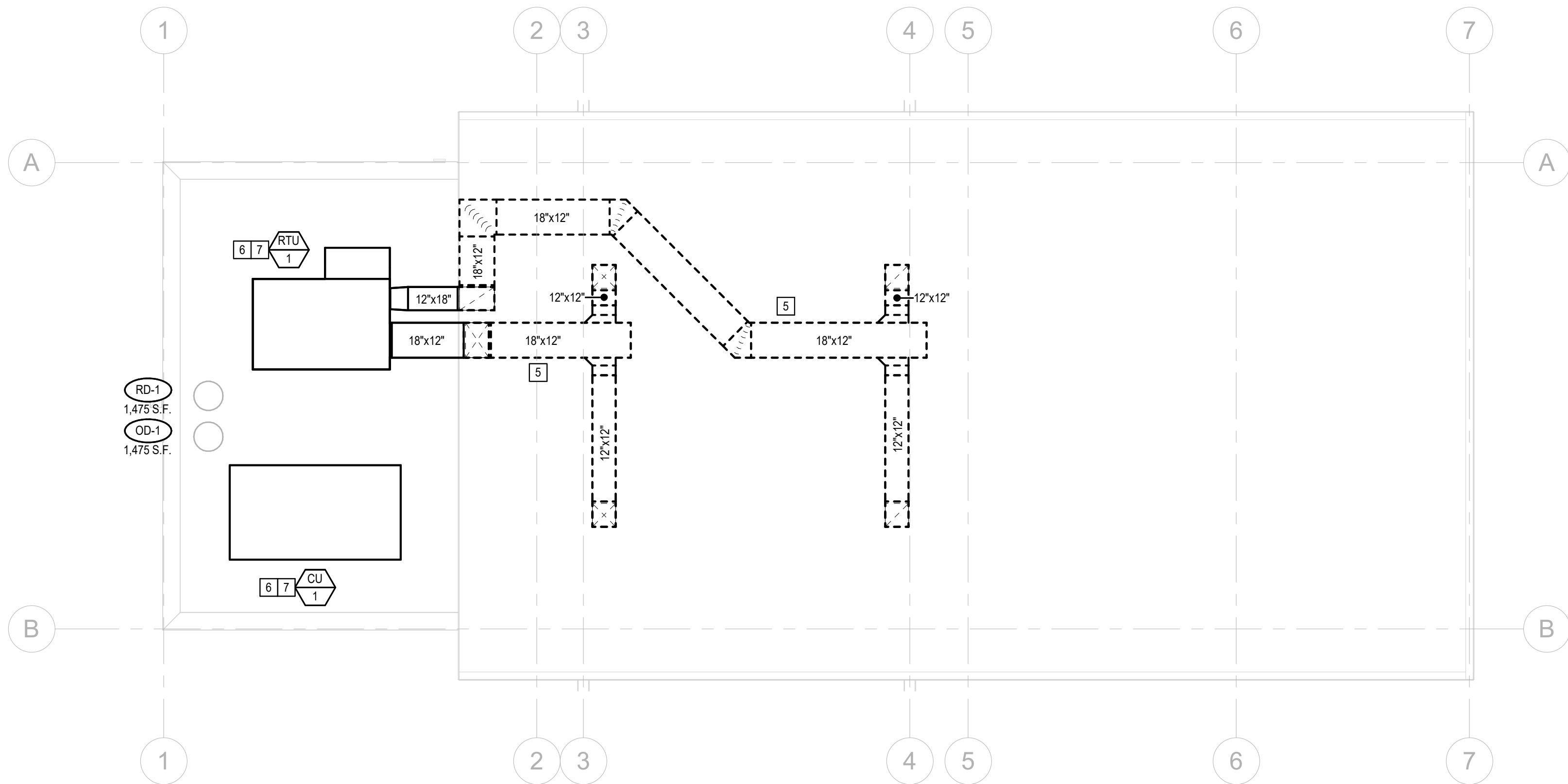
REFER TO ALL NOTES, SYMBOLS & ABBREVIATIONS ON SHEET M0.1.
REFER TO ALL SCHEDULES & DETAILS WITHIN M5 SERIES SHEETS.

KEYED NOTES (SHEET M2.1)

- 1 INSTALL "TIGHT" TO BOTTOM OF STRUCTURE.
- 2 PROVIDE OPPOSED BLADE DAMPER (OBD) AT DIFFUSER.
- 3 PROVIDE THERMOSTAT FOR RTU-1. COORDINATE FINAL LOCATION W/ OWNER. PROVIDE INSULATED BASE FOR USE ON EXTERNAL WALL.
- 4 PROVIDE FLANGE ON DUCT TO ATTACH DAMPER AND DIFFUSER.
- 5 ROOF MOUNTED DUCTWORK SHALL BE MOUNTED, BRACED, AND INSULATED IN ACCORDANCE WITH CODE. PROVIDE A MINIMUM R-8, 3" RIGID EXTERNAL INSULATION WITH A UV PROTECTIVE WRAP. DUCTWORK INSULATION SHALL BE PEAKED FOR WATER SHED. REFER TO DETAIL WITHIN M5 SHEETS.
- 6 EQUIPMENT SHALL BE ISOLATED FROM ROOF STRUCTURE VIA RUBBER PADS TO LIMIT VIBRATION NOISE.
- 7 PROVIDE SAFETY RAIL AROUND EQUIPMENT IN ACCORDANCE WITH CODE.



1 MECHANICAL MAIN LEVEL FLOOR PLAN
M2.1 1/4" = 1'-0"



2 MECHANICAL ROOF PLAN
M2.1 1/4" = 1'-0"



Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



B&D ENGINEERING
BRUNNER AND DALLON
MECHANICAL | PLUMBING | CONTROLS

9710 S 700 E, SUITE 201
SANDY, UT 84070
801-565-8081
25.018.00

LAKE HAVASU CATALYST - CONCESSIONS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO. 25.018
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
MECHANICAL FLOOR
PLANS

SHEET NUMBER:

M2.1

© 2022 THINK ARCHITECTURE INC.

BID SET

ROOF TOP UNIT SCHEDULE (RTU)

UNIT DESIG.	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	AIRFLOW (CFM)	O.A FLOW (CFM)	MINIMUM NOMINAL SIZE (TONS)	ESP (IN. W.C.)	VFD	STAGE	COOLING				HEATING				ELECTRICAL			DIMENSIONS	MAX. OPERATING WEIGHT (LBS)	NOTES		
										TOTAL (MBH)	SENSIBLE (MBH)	EAT DB/WB (°F)	LAT DB/WB (°F)	SEER2	REFRIGERANT	KW INPUT	MBH OUTPUT	EAT DB (°F)	LAT DB (°F)	VOLTS/PH/Hz	UNIT MCA	UNIT MOCP		L"xW"xH"	
RTU-1	ROOF	CONCESSION	CARRIER...	1,200	250	3	1.00	NO	ONE	29.68	28.66	83.1/65.3	60.1/57.3	13.4	R-454B	2.56	33.2	62.9	89.6	230/1/60	28	40	75"x47"x34"	600	1,2,3,4,5,6,7,9
NOTES: 1. SITE CONDITIONS ARE 110°F DB / 69°F WB SUMMER, 59°F DB WINTER AND ELEVATION OF 800 FEET ABOVE SEA LEVEL. 2. ELECTRICAL CONTRACTOR SHALL VERIFY CONNECTION REQUIREMENTS (i.e. VOLTAGE, PHASE, MCA, MOCP, ETC.) WITH MECHANICAL EQUIPMENT SUBMITTALS BEFORE BEGINNING ROUGH IN. 3. FACTORY INSTALLED CONVENIENCE OUTLET (NON POWERED) SEPARATE CIRCUIT SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. 4. APPROVED MANUFACTURERS: YORK, CARRIER, LENNOX, TRANE, AAO, (SUBJECT TO PROJECT DOCUMENT CONFORMANCE) 5. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH. 6. PROVIDE 24" ROOF CURB. 7. PROVIDE 100% OUTSIDE AIR ECONOMIZER AND POWERED EXHAUST. 8. PROVIDE CARRIER THERMOSTAT MODEL NUMBER 33CS420-01. 9. HORIZONTAL SUPPLY AND RETURN.																									

CONDENSING UNIT SCHEDULE

UNIT DESIG.	LOCATION	ASSOCIATED EVAPORATOR	MANUFACTURER & MODEL NO.	COMPRESSOR MODEL NO.	AMBIENT DB (°F)	SUCTION TEMP (°F)	COOLING CAPACITY (MBH)	REFRIGERANT TYPE	ELECTRICAL DATA			DIMENSIONS					NOTES
									VOLTS/PH	MCA	RLA	LENGTH	WIDTH	HEIGHT	SHIP WEIGHT (LBS)	OPER. WEIGHT (LBS.)	
CU-1	ROOF	EU-1	CENTURY - NSC05H4	2DD3R63KE	115	30	48.885	R-404A	460 / 3	16.6	11.0	88	49	69	1,350	1,305	
NOTES: 1. PRELIMINARY SELECTION FOR BIDDING PURPOSES. FINAL EQUIPMENT SELECTION AND REFRIGERANT SHALL BE COORDINATED WITH ENGINEER.																	

EVAPORATOR UNIT SCHEDULE

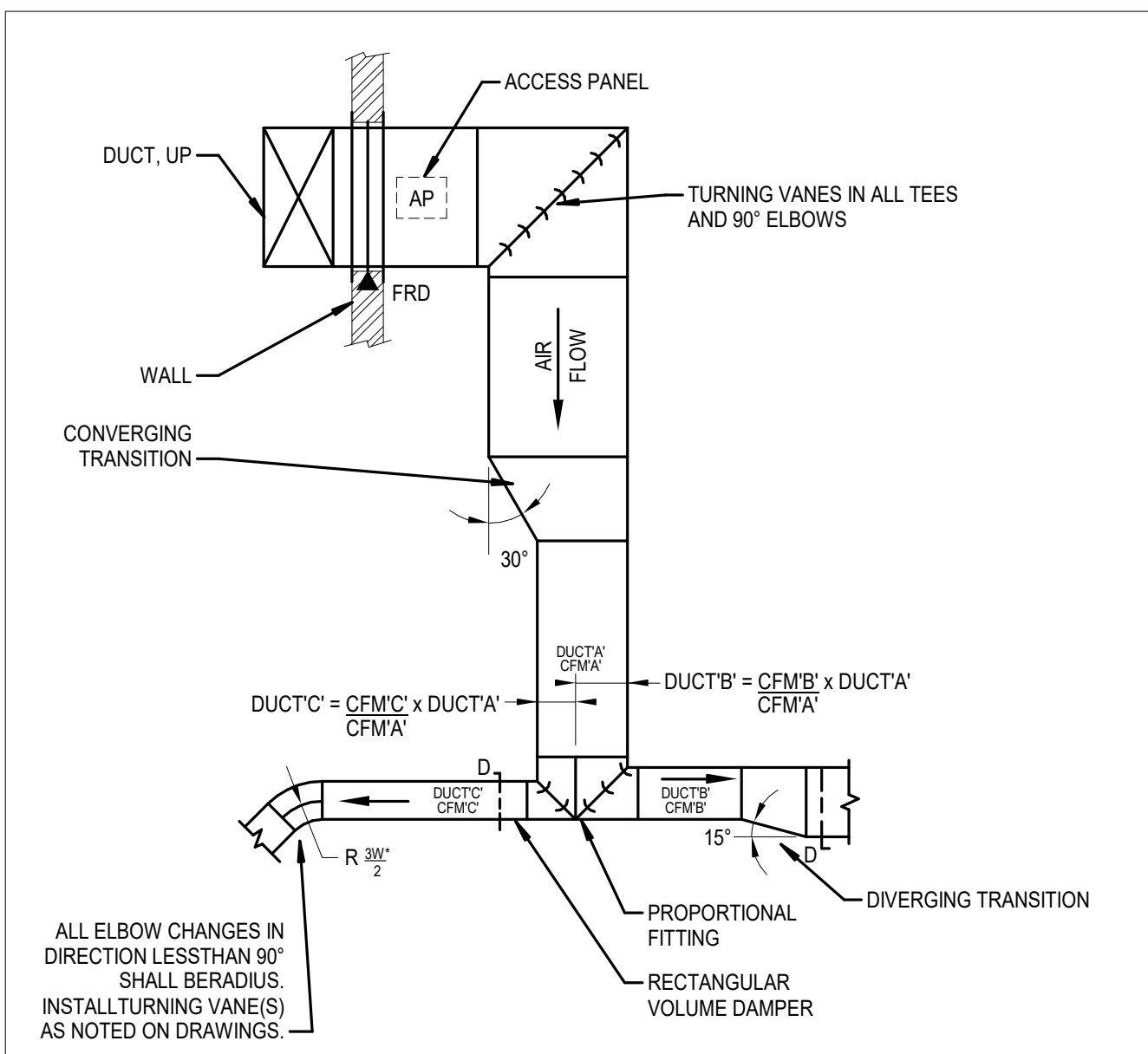
UNIT DESIG.	LOCATION	ASSOCIATED CONDENSING UNIT	MANUFACTURER & MODEL NO.	COOLING CAPACITY (MBH)	REFRIGERANT	FAN DATA				DEFROST HEATER DATA			CONNECTION					APPROX. REFRIG. CHARGE (LBS)	SHIP WEIGHT (LBS)	OPER. WEIGHT (LBS)	NOTES
						QTY.	HP	VOLTS / PH	AMPS	VOLTS / PH	AMPS	WATTS	LIQUID		SUCTION		HOT GAS				
													QTY	SIZE	QTY	SIZE					
EU-1	STORAGE 101	CU-1	CENTURY - PFE 410-53-8	51,397	R-404A	1	2	460 / 3	2.5	460 / 3	20	15,652	1	1 1/8	1	2 1/8	1 1/8	21	894	691	1
NOTES:																					
1. PRELIMINARY SELECTION FOR BIDDING PURPOSES. FINAL EQUIPMENT SELECTION AND REFRIGERANT SHALL BE COORDINATED WITH ENGINEER.																					

AIR DEVICE SCHEDULE

UNIT DESIG.	SERVICE	MANUFACTURER & MODEL NO.	TYPE/ CEILING FINISH	THROW	AIRFLOW	CONNECTION SIZE (IN.)	FACE SIZE (IN.)	FINISH	NOTES
					MAX. AIRFLOW (CFM)				
S1	SUPPLY	TITUS OMNI W/OBD	GYP.	3-WAY	SEE PLANS	12"x12"	12"x12"	VERIFY W/ ARCHITECT	1
R1	RETURN	TITUS OMNI	GYP.	-	SEE PLANS	12"x12"	12"x12"	VERIFY W/ ARCHITECT	1
NOTES: 1. APPROVED MANUFACTURERS: TITUS, CARNES, NAILOR, PRICE, KRUEGER, METALAIRE, HART & COOLEY. (SUBJECT TO PROJECT DOCUMENT CONFORMANCE).									

MECHANICAL PIPING SCHEDULE

SERVICE DESIG.	SERVICE	MATERIAL	LOCATION	INSULATION	FITTINGS	NOTES
RLIQ	REFRIGERANT PIPING LIQUID	COPPER TYPE "L" - HARD	INTERIOR - ABOVE & BELOW CEILING	SEE NOTES	WROUGHT COPPER - SOLDER ENDS	1,3,4,5,9
RSUC	REFRIGERANT PIPING SUCTION	COPPER TYPE "L" - HARD	INTERIOR - ABOVE & BELOW CEILING	SEE NOTES	WROUGHT COPPER - SOLDER ENDS	2,3,4,5,9
NOTES: 1. INSULATION SIZING PER 2021 IECC TABLE C403.12.3 (40°F - 60°F) -- PIPE < 1" = 0.5" INSUL., PIPE 1" TO < 1.5" = 0.5" INSUL., PIPE 1.5" TO < 4" = 1.0" INSUL. 2. INSULATION SIZING PER 2021 IECC TABLE C403.12.3 (105°F - 140°F) -- PIPE < 1" = 1.0" INSUL., PIPE 1" TO < 1.5" = 1.0" INSUL., PIPE 1.5" TO < 4" = 1.5" INSUL. 3. GLASS FIBER, NON-COMBUSTIBLE, PREFORMED FOR TUBE INSTALLATION, ANSI/ASTM C547, CLASS 1, K VALUE OF 0.23 AT 75°F. 4. PRIOR ENGINEER APPROVED COPPER PRESS FITTINGS CAN BE USED AT CONTRACTORS OPTION. 5. HANGING AND BRACING OF PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CODE REQUIREMENTS AND INDUSTRY BEST PRACTICES.						



Maximum Half of Duct Perimeter	Pair at 10 ft Spacing		Pair at 8 ft Spacing		Pair at 5 ft Spacing		Pair at 14 ft Spacing	
	Strap		Strap		Strap		Strap	
	Wire/ Rod		Wire/ Rod		Wire/ Rod		Wire/ Rod	
P/2 = 30"	1" x 22 ga	10 ga (0.1357)	1" x 22 ga	10 ga (0.1357)	1" x 22 ga	12 ga (0.1067)	1" x 22 ga	12 ga (0.1067)
P/2 = 72"	1" x 16 ga	3/8"	1" x 20 ga	1/4"	1" x 22 ga	1/4"	1" x 22 ga	1/4"
P/2 = 96"	1" x 16 ga	3/8"	1" x 18 ga	3/8"	1" x 20 ga	3/8"	1" x 22 ga	1/4"
P/2 = 120"	1-1/2" x 16 ga	1/2"	1" x 16 ga	3/8"	1" x 18 ga	3/8"	1" x 20 ga	1/4"
P/2 = 168"	1-1/2" x 16 ga	1/2"	1-1/2" x 16 ga	1/2"	1" x 16 ga	3/8"	1" x 18 ga	3/8"
P/2 = 192"	Not Given	1/2"	1-1/2" x 16 ga	1/2"	1" x 16 ga	3/8"	1" x 16 ga	3/8"
P/2 = 193" UP			Special Analysis Required					
When Straps are Lap Joined Use These Minimum Fasteners:				Single Hanger Maximum Allowable Load				
				Strap		Wire or Rod (Dia.)		
1" x 18,20,22 ga - two #10 or one 1/4" bolt						0.105" - 80lbs.		
1" x 16 ga - two 1/4" dia.						0.135" - 120lbs.		
1-1/2" x 16 ga - two 3/8" dia.						0.162" - 160lbs.		
Place fasteners in series, not side by side.						1/4" - 270lbs.		
						3/8" - 680lbs.		
						1/2" - 1250lbs.		
						5/8" - 2000lbs.		
						3/4" - 3000lbs.		

FILE NAME: M.04.25	RECTANGULAR DUCT HANGERS MINIMUM SIZE
SCALE: NONE	

Dia.	Maximum Spacing	Wire Dia.	Rod	Strap
10 in. dn	12 ft	One 12 ga	1/4 in.	1 in. x 22 ga
250 mm dn	3.7 m	One 2.75 mm	6.4 mm	25.4 x 0.85 mm
11-18 in.	12 ft	Two 12 ga or One 8 ga	1/4 in.	1 in. x 22 ga
460 mm	3.7 m	One 4.27 mm	6.4 mm	25.4 x 0.85 mm
19-24 in.	12 ft	Two 10 ga	1/4 in.	1 in. x 22 ga
610 mm	3.7 m	Two 3.51 mm	6.4 mm	25.4 x 0.85 mm
25-36 in.	12 ft	Two 8 ga	3/8 in.	1 in. x 20 ga
900 mm	3.7 m	Two 2.7 mm	9.5 mm	25.4 x 1.00 mm
37-50 in.	12 ft		Two 3/8 in.	Two 1 in. x 20 ga
1270 mm	3.7 m		Two 9.5 mm	(2) 25.4 x 1.00 mm
51-60 in.	12 ft		Two 3/8 in.	Two 1 in. x 18 ga
1520 mm	3.7 m		Two 9.5 mm	(2) 25.4 x 1.31 mm
61-84 in.	12 ft		Two 3/8 in.	Two 1 in. x 26 ga
2130 mm	3.7 m		Two 9.5 mm	(2) 25.4 x 1.61 mm
85-96 in.	12 ft		Two 1/2 in.	Two 1-1/2 in. x 16 ga
2400 mm	3.7 m		Two 12 mm	(2) 25.4 x 1.61 mm

FILE NAME: M.04.27	MINIMUM HANGER SIZES FOR ROUND DUCT
SCALE: NONE	

STRAP HANGERS

TRAPEZE HANGERS

FILE NAME: M.04.27

LOWER HANGER ATTACHMENTS
SMACNA STANDARDS

Think

Architecture

Architecture

Interior Design

Landscape Architecture

Land Planning

Construction Management

7927 So. Highpoint Parkway, Suite 300

Sandy, Utah 84094

ph. 801.269.0055

fax 801.269.1425

www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

50884

JOEL WILLIAMS

6/20/2025

Sealed

UTAH, U.S.A.

B&D ENGINEERING

BRUNNER AND DALLON

MECHANICAL | PLUMBING | CONTROLS

9710 S 700 E, SUITE 201

SANDY, UT 84070

801-685-8081

25.018.00

LAKE HAVASU CATALYST - CONCESSIONS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO. 25.018
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
MECHANICAL DETAILS

SHEET NUMBER:

M5.2

© 2022 THINK ARCHITECTURE INC.

GENERAL NOTES (APPLIES TO ALL SHEETS):

1. ALL WORK SHALL BE PROVIDED IN ACCORDANCE WITH 2021 INTERNATIONAL BUILDING CODES AND ALL APPLICABLE NATIONAL AND STATE CODES, AND SAFETY STANDARDS, INCLUDING ANY LOCAL AMENDMENTS ADOPTED BY THE STATE OF UTAH.
2. PLUMBING CONTRACTOR (PC) SHALL BE RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS PRIOR TO EXECUTION OF ANY WORK ON THE PROJECT.
3. ALL PLUMBING SYSTEMS WITHIN THESE CONTRACT DOCUMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2021 INTERNATIONAL PLUMBING CODE. ANY FIELD ADJUSTMENT MADE BY THE PC IN THE FIELD SHALL COMPLY WITH THE 2021 INTERNATIONAL PLUMBING CODE REQUIREMENTS.
4. WORK INCLUDED: FURNISH MATERIAL, LABOR AND SERVICES NECESSARY FOR AND INCIDENTAL TO PROVIDING THE FOLLOWING PLUMBING WORK WHERE SHOWN ON THE PLANS AND AS HEREINAFTER SPECIFIED. INCLUDE ALL NECESSARY WORK, MATERIALS, AND EQUIPMENT TO PERFORM WORK COMPLETELY.

A. SANITARY WASTE SYSTEM, INCLUDING BUT NOT LIMITED TO, SANITARY PIPING, VENT PIPING, PLUMBING FIXTURES, FLOOR DRAINS, AND CLEANOUTS.

B. STORM WATER DRAINAGE SYSTEM, INCLUDING BUT NOT LIMITED TO, STORM WATER PIPING, ROOF DRAINS, OVERFLOW DRAINS, AND CLEANOUTS

C. POTABLE DOMESTIC WATER SYSTEM, INCLUDING BUT NOT LIMITED TO, BACKFLOW PREVENTERS, PRESSURE REGULATORS, WATER METER, COLD WATER PIPING, HOT WATER PIPING, AND CONNECTION TO ALL PLUMBING FIXTURES, EQUIPMENT OR SPECIALTIES.

D. DOMESTIC HOT WATER SYSTEM, INCLUDING BUT NOT LIMITED TO, GAS FIRED TANKED WATER HEATER, THERMOSTATIC MIXING VALVES, AND EXPANSION TANK.

E. NATURAL GAS PIPING, SERVICE VALVES, GAS PRESSURE REGULATORS/REDUCERS, AND ALL OTHER REQUIRED SPECIALTIES.

a. ALL INTERNAL PRESSURE REDUCING VALVES (PRV) SHALL BE EQUIPPED WITH A VENT LIMITING DEVICE. OTHERWISE PRVS SHALL BE VENTED IN ACCORDANCE WITH CODE.

F. CONDENSATE DRAIN PIPING FROM HVAC EQUIPMENT.

G. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER TRADES, AND WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

H. DRAINING, FILING, AND VENTING OF ALL MODIFIED SYSTEMS AS REQUIRED FOR THE ABOVE WORK. THIS INCLUDES SCHEDULING SHUTDOWNS WITH THE OWNER.

I. PLUMBING CONTRACTOR (PC) SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR (MC) REGARDING EQUIPMENT SUPPLIED BY MC TO BE INSTALLED BY THE PC.

J. PROVIDE SUFFICIENT LABOR AND RESOURCES REQUIRED FOR THE TESTING AND BALANCING OF THE DOMESTIC WATER.

K. CLEANING AND PRESSURE TESTING EQUIPMENT, PIPING, AND ACCESSORIES INSTALLED IN ACCORDANCE WITH CODE AND INDUSTRY BEST PRACTICES.

L. ALL SEISMIC RESTRAINTS FOR THE ABOVE WORK.

M. INSTALLING ACCESSORIES SPECIFIED UNDER OTHER SECTIONS CONTAINED WITHIN THE CONTRACT DOCUMENTS.
5. PC RESPONSIBILITY FOR PLUMBING PIPING INSTALLATION, SANITARY, STORM, DOMESTIC, ETC., SHALL END AT 5'-0" OUTSIDE THE BUILDING. PC SHALL BE RESPONSIBLE FOR CAPPING AND TESTING PIPING AT 5'-0" OUTSIDE THE BUILDING IN ACCORDANCE WITH CODE.

A. IT SHALL BE THE RESPONSIBILITY OF THE CIVIL CONTRACTOR TO MAKE THE FINAL CONNECTION OF ALL PLUMBING PIPING FROM 5'-0" OUTSIDE THE BUILDING TO SITE UTILITIES. THIS INCLUDES ALL REQUIRED FITTINGS AND ACCESSORIES.

B. IT SHALL BE THE RESPONSIBILITY OF BOTH THE PC AND THE CIVIL CONTRACTOR TO COORDINATE THE REQUIRED INVERT ELEVATIONS (I.E.) OF THE PLUMBING PIPING PRIOR TO INSTALLATION.
6. ALL PENETRATIONS THROUGH FIRE/SMOKE RATED ASSEMBLIES SHALL BE SEALED AND PROTECTED IN ACCORDANCE WITH ALL NATIONAL, STATE, AND MUNICIPALLY ADOPTED CODES INCLUDING AMENDMENTS. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY LOCATIONS AND RATINGS. FIRE/SMOKE RATED ASSEMBLIES INCLUDE, BUT NOT LIMITED TO STAIRWAYS, SHAFTS, CORRIDORS, FLOORS, ROOFS, AND REQUIRED EXITS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S UL LISTED INSTALLATION INSTRUCTIONS.
7. PC SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR TO ENSURE ALL PLUMBING EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS IS PROVIDED SERVICE. PC AND E.C. SHALL REFER TO THE PLUMBING FIXTURE SCHEDULE FOR ALL EQUIPMENT REQUIRING ELECTRICAL SERVICE.
8. EACH PLUMBING FIXTURE, ACCESSORY, EQUIPMENT ITEM AND SPECIALTY SHALL BE INSTALLED IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S RECOMMENDATIONS.
9. PLUMBING FIXTURES, EQUIPMENT AND SPECIALTIES SHALL BE PROTECTED AGAINST DAMAGE IN THE PERIOD BETWEEN INSTALLATION AND ACCEPTANCE. ANY ITEM DAMAGED SHALL BE REMOVED, REPAIRED AND/OR REPLACED AT NO ADDITIONAL COMPENSATION.
10. ALL OPERABLE DEVICES AND FEATURES OF PLUMBING FIXTURES, ACCESSORIES, EQUIPMENT AND SPECIALTIES PROVIDED FOR IN THE SCOPE OF WORK OUTLINED IN THE FOLLOWING DOCUMENTS SHALL BE OPERATED AND PROVED TO FUNCTION SATISFACTORILY FOR A PERIOD OF EIGHT (8) HOURS. ADJUST, BALANCE, LUBRICATE AS REQUIRED. CONTRACTOR SHALL INSTRUCT THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF EACH DEVICE.

PLUMBING PIPING SYSTEM (APPLIES TO ALL SHEETS):

1. FURNISH AND INSTALL THE PIPING SYSTEMS SHOWN ON THE PLANS AND AS HEREINAFTER SPECIFIED IN THE RESPECTIVE SCHEDULES. INCLUDE ALL NECESSARY CONSIDERATIONS FOR THE RELATED SYSTEMS TO PROVIDE FOR COMPLETE SYSTEMS.
2. REFER TO P5 SERIES SHEETS FOR ALL SCHEDULES AND DETAILS.
3. ALL DRAINAGE PIPES SHALL BE FLUSHED CLEAN AT THE COMPLETION OF THE WORK. ROD OUT ANY OBSTRUCTIONS ENCOUNTERED.
4. ALL DOMESTIC WATER PIPES SHALL BE FLUSHED CLEAN AT THE COMPLETION OF THE WORK. REFER TO 'CLEANING OF PIPING SYSTEMS' NOTES ON SAME SHEET.
5. PRESSURE TEST EACH RESPECTIVE PIPING SYSTEM FOR TIGHTNESS TO THE TEST PRESSURE INDICATED WITHOUT LOSS. REPAIR ANY LEAKS AND RETEST, AS REQUIRED. IF TEST PRESSURE IS NOT INDICATED, HYDROSTATICALLY TEST TO 1.5 TIMES THE SYSTEM OPERATING PRESSURE. REFER TO 'PRESSURE TESTING' NOTES ON SAME SHEET.
6. THE PLANS INDICATE THE APPROXIMATE LOCATION AND ARRANGEMENT OF ROUGH-IN FOR WASTE, VENT AND DOMESTIC WATER PIPING TO SERVE THE RESPECTIVE PLUMBING FIXTURE, EQUIPMENT AND SPECIALTIES. FINAL LOCATIONS AND ARRANGEMENTS SHALL BE DETERMINED FROM APPROVED SHOP DRAWINGS OF THE RESPECTIVE ITEM.
7. PROVIDE APPROVED BACKFLOW PREVENTERS IN ALL BRANCH PIPES IN THE DOMESTIC WATER SYSTEM FOR CONNECTIONS TO NON-DOMESTIC APPLICATIONS.
8. MAIN WASTE VENT THRU ROOF (VTR) PIPES SHALL EXTEND 12" MINIMUM ABOVE THE ROOF, AND MINIMUM VTR SHALL BE 2" SIZE.
9. INSTALL ALL PIPING WITH PITCH TO VENT OR DRAIN. PROVIDE DRAIN VALVES AT LOW POINTS AND AIR VENTS AT HIGH POINTS. DRAIN VALVES AND AIR VENTS SHALL BE 3/4" BRONZE, 2 PIECE BODY BALL VALVES WITH 3/4" HOSE END ADAPTER, CAP, AND CHAIN. IN 1/2" THROUGH 2" PIPE, CONTRACTOR MAY USE WEBSTONE MODEL T-DRAIN.
10. THE PLUMBING SYSTEM SHALL COMPLY WITH THE 2011 REDUCTION OF LEAD IN DRINKING WATER ACT.
11. WATER HAMMER ARRESTORS SHALL BE PROVIDED ON ALL DOMESTIC WATER QUICK OPENING/CLOSING DEVICES. FOR MULTI-FIXTURE APPLICATIONS, WATER HAMMER ARRESTORS SHALL BE EQUAL TO JAY R. SMITH 5005-5050. FOR SINGLE FIXTURE APPLICATIONS, WATER HAMMER ARRESTORS SHALL BE EQUAL TO JAY R. SMITH 5201-5250.
12. DRAINAGE PIPING REQUIREMENTS ARE AS FOLLOWS (2021 IPC):

A. CONDENSATE DRAIN:

a. 1/8" PER 1'-0" (1% SLOPE)

b. PROVIDE AN AIR GAP ON THE PRIMARY CONDENSATE PIPING AT THE APPROVED TERMINATION DRAIN. THE AIR GAP SHALL HAVE A MINIMUM SEPARATION DISTANCE FROM THE DRAIN OF 2 TIMES THE PIPE DIAMETER.

c. THE END OF THE PIPE AT THE TERMINATION POINT SHALL BE CUT AT A 30-45 DEGREE ANGLE TO ALLOW FOR FREE DISCHARGE OF THE LIQUID.

B. SANITARY DRAIN:

a. 2-1/2" OR LESS = 1/4" PER 1'-0" (2% SLOPE)

b. 3" TO 6" = 1/8" PER 1'-0" (1% SLOPE)

NOTE 1: FOR INVERT ELEVATION (I.E.) CALCULATION PURPOSES, THE FINISHED FLOOR (F.F.) ELEVATION SHALL BE ASSUMED AS 100.00'. SEE PLANS FOR F.F. LOCATION. ACTUAL ELEVATIONS ARE CONTAINED WITH THE ARCHITECTURAL AND CIVIL PLANS IF REQUIRED.

C. STORM DRAIN: SEE TABLE 1102.2 WITHIN 2018 IPC.

a. NOTE 1: THE STORM DRAIN PIPING FOR THE PROJECT HAS BEEN DESIGNED USING 1/8" PER 1'-0" (1% SLOPE) TO MINIMIZE TOTAL PIPING FALL. PC SHALL BE RESPONSIBLE FOR PROVIDING CODE COMPLIANT CALCULATIONS IF STORM DRAINAGE SYSTEM IS MODIFIED FROM CONTRACT DOCUMENTS - I.E. CHANGE IN PIPE SIZES, CHANGE IN PIPE SLOPE, ETC.

b. NOTE 2: FOR INVERT ELEVATION (I.E.) CALCULATION PURPOSES, THE FINISHED FLOOR (F.F.) ELEVATION SHALL BE ASSUMED AS 100.00'. SEE PLANS FOR F.F. LOCATION. ACTUAL ELEVATIONS ARE CONTAINED WITH THE ARCHITECTURAL AND CIVIL PLANS IF REQUIRED.

D. GREASE WASTE:

a. PIPING SHALL BE MINIMUM 1/4" PER 1'-0" (2% SLOPE) REGARDLESS OF SIZE.

CLEANING AND PRESSURE TESTING OF PIPING SYSTEMS (APPLIES TO ALL SHEETS):

1. CLEANING OF PIPING SYSTEMS

A. THE CONTRACTOR SHALL CLEAN THE RESPECTIVE PIPING SYSTEM(S) THAT ARE INCLUDED IN THEIR SCOPE OF WORK. ALL SYSTEMS SHALL BE FLUSHED WITH WATER OR AIR (DEPENDING ON ULTIMATE USE) TO RELIEVE ANY CONGESTION AND INTERNALLY CLEANSE THE RESPECTIVE PIPING SYSTEM. THE CONTRACTOR SHALL PROVIDE ALL FLUSHING MEDIA IN SUFFICIENT QUANTITY. INLET CONNECTIONS, DISCHARGE OR DRAINAGE OUTLETS AND ANY TEMPORARY PROVISIONS TO PROTECT COMPONENTS, OR REMOVE IT, TO FACILITATE THE FLUSHING. CLEAN AND REPLACE ALL STRAINER SCREENS AND FILTERS. FLUSH CLEAN AND DRAIN ALL LOW POINTS IN THE PIPING.

B. AN INDEPENDENT WITNESS AND/OR REPRESENTATIVE OF THE OWNER SHALL BE PRESENT ALL FOR FLUSHING, CLEANING, AND RINSING. WATER TREATMENT REPRESENTATIVE MUST CHECK WATER AFTER RINSING TO INSURE ALL CHEMICAL CLEANER HAS BEEN REMOVED AND THE ALKALINITY OF THE RINSE WATER IS EQUAL TO THAT OF THE MAKE-UP WATER.

C. NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. THE METHOD FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY HAVING JURISDICTION OR, IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE DESCRIBED IN EITHER AWWA C651 OR AWWA C652, OR AS DESCRIBED IN THIS SECTION. THIS REQUIREMENT SHALL APPLY TO "ON-SITE" OR "IN-PLANT" FABRICATION OF A SYSTEM OR TO A MODULAR PORTION OF A SYSTEM.

a. THE PIPE SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT THE POINTS OF OUTLET.

b. THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION (50 MGL) OF CHLORINE. AND THE SYSTEM OR PART THEREOF SHALL BE VALVED OFF AND ALLOWED TO STAND FOR 24 HOURS, OR THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 200 PARTS PER MILLION (200 MGL) OF CHLORINE AND ALLOWED TO STAND FOR 3 HOURS.

c. FOLLOWING THE REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.

d. THE PROCEDURE SHALL BE REPEATED WHERE SHOWN BY A BACTERIOLOGICAL EXAMINATION THAT CONTAMINATION REMAINS PRESENT IN THE SYSTEM.
2. PRESSURE TESTING.

A. THE CONTRACTOR SHALL SUBMIT A SCHEDULE AT THE BEGINNING OF THE WORK OF THE PIPING SYSTEMS THAT ARE TO BE PRESSURE TESTED, AND INDICATE WHETHER TESTS WILL BE FOR AN ENTIRE OR PARTIAL SYSTEM. ENTIRE PIPING SYSTEMS SHALL BE PRESSURE TESTED AT ONE TIME UNLESS IT IS NOT POSSIBLE OR PRACTICAL.

B. ALL PIPING TO BE INSULATED OR CONCEALED SHALL BE PRESSURE TESTED PRIOR TO THE APPLICATION OF THE INSULATION OR CONCEALMENT.

C. AN INDEPENDENT WITNESS AND/OR REPRESENTATIVE OF THE OWNER SHALL WITNESS ALL PRESSURE TESTING. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER AT LEAST THREE (3) DAYS PRIOR TO THE TEST DATE.

D. EACH PIPING SYSTEM SHALL BE TESTED PER THE METHOD, TEST PRESSURE, AND TEST DURATION AS SPECIFIED IN THE PIPING MATERIAL SCHEDULES.

E. THE CONTRACTOR SHALL PROVIDE ALL TEST MEDIA, MEASURING DEVICES, INLET CONNECTIONS, TEST MEASUREMENT CONNECTIONS, AND DISPOSAL OF TEST MEDIA. THE CONTRACTOR SHALL PROTECT, ISOLATE AND/OR REMOVE PIPING SYSTEM COMPONENTS THAT CAN NOT BE SUBJECTED TO TEST PRESSURES.

F. HAMMER EACH JOINT IN WELDED OR SOLDERED PIPING WHILE UNDER TEST. LEAKS SHALL BE REPAIRED AND THE TEST(S) REPEATED UNTIL THE RESPECTIVE PIPING SYSTEM IS TIGHT.

PLUMBING ABBREVIATIONS INDEX

NOTE: ALL ABBREVIATIONS MAY NOT BE USED ON THIS PROJECT.

SYMBOL	ABBREVIATION
AD	AREA DRAIN
AP	ACCESS PANEL
AW	ACID WASTE
AV	ACID VENT
BV	BALANCE VALVE
CB	CATCH BASIN
CFS	CUBIC FEET PER SECOND
CO	CLEANOUT
CWV	COMBINATION WASTE & VENT
CORWV	COMBINATION GREASE WASTE & VENT
CUSP	CUSPIDOR
CHV	CHECK VALVE
CW	COLD WATER
DD	DECK DRAIN
ODD	OVERFLOW DECK DRAIN
DF	DRINKING FOUNTAIN
DN	DOWN
DS	DOWNSPOUT
DWH	DRAIN VALVE
DWV	DOMESTIC WATER HEATER
ET	EXPANSION TANK
EWIC	ELECTRIC WATER COOLER
EX	EXISTING PIPING OR EQUIPMENT
F	FLANGE CONNECTION
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
GA	GAUGE
GC	GAUGE COCK
GW	GREASE WASTE
HB	HOSE BIB
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
ICE	ICE COLD WATER
INDW	INDIRECT WASTE
I.E.	INVERT ELEVATION
L	LAVATORY
LV	LOOP VENT
MH	MANHOLE
MS	MOP SINK
N/C	NOT IN CONTRACT
NPC	NON-POTABLE COLD WATER
NPH	NON-POTABLE HOT WATER
OD	OVERFLOW DRAIN / OVERFLOW DRAIN PIPNG
PR	PRESSURE REGULATOR
RI	ROUGH-IN / ROOF DRAIN PIPNG
ROU	ROUGH-IN (ONLY)
R&C	ROUGH-IN AND CONNECT
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
S	SANITARY WASTE
SBD	SHOWER BASINS AND DRAIN
SCW	SOFT COLD WATER
SH	SHOWER HEAD
SHW	SOFT HOT WATER
SS	SERVICE SINK
SSD	SUBSOL DRAIN
STW	SOFT TEMPERED WATER
SV	SERVICE VALVE
TD	TRENCH DRAIN
TT	TEST TEE
TWC	TEMPERED WATER CIRCULATING
U	UNION
UR	URINAL
V	VENT
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WALL HYDRANT
WM	WATER MAIN
YCO	YARD CLEANOUT
YD	YARD DRAIN

PLUMBING PIPE FITTING SYMBOLS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED ON THIS PROJECT.

SYMBOL	ABBREVIATION	EXPLANATION
	UP	PIPE LINE, TURNED UP
	DN	PIPE LINE, TURNED DOWN
	TDN	PIPE LINE, TEE DOWN
	SV	SERVICE VALVE
	BV	BALANCE VALVE
	CV	2 WAY CONTROL VALVE
	SCV	3 WAY CONTROL VALVE
	CHV	CHECK VALVE
	DV	DRAIN VALVE
	AAV	AUTOMATIC AIR VALVE
	MAV	MANUAL AIR VALVE
	FCO	FLOOR CLEANOUT
	WCO	WALL CLEANOUT
	RD/OD	ROOF DRAIN
	OFN	OVERFLOW NOZZLE
	FS	FLOOR SINK
	FD	SQUARE FLOOR DRAIN
	RF	ROUND FLOOR DRAIN
	FLC	FLANGE CONNECTION
	GA	GAUGE
	GC	GAUGE COCK
	MC	MECHANICAL COUPLING
	P	PETE'S PLUG
	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
	PR	PRESSURE REGULATOR
	PRV	PRESSURE REDUCING VALVE
	SOLV	SOLENOID VALVE
	RV	RELIEF VALVE
	STR	STRAINER
	TH	THERMOMETER
	TW	THERMOMETER WELL
	U	UNION
	M	METER
	CAP	CONCENTRIC REDUCER
	ECR	ECCENTRIC REDUCER (BOTTOM & TOP LEVEL)
	PA	PIPE ANCHOR
	PG	PIPE GUIDE
	ARR	WATER HAMMER ARRESTOR

PLUMBING ABBREVIATIONS INDEX

NOTE: ALL ABBREVIATIONS MAY NOT BE USED ON THIS PROJECT.

SYMBOL	ABBREVIATION
	FIXTURE DESIGNATION
	SECTION DESIGNATION
	SHEET NUMBER
	CONNECT TO EXISTING
	POINT OF DEMOLITION
	KEYNOTE DESIGNATION
	REVISION DELTA
	ENLARGED PLAN
	CALL OUT
	PLUMBING RISER DESIGNATION

PLUMBING PIPE SYMBOLS

NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT.

SYMBOL	EXPLANATION
	COLD WATER
	HOT WATER
	CONDENSATE DRAIN
	GREASE WASTE (ABOVE GRADE)
	GREASE WASTE (BELOW GRADE)
	SANITARY WASTE (ABOVE GRADE)
	SANITARY WASTE (BELOW GRADE)
	COMBINATION WASTE AND VENT (BELOW GRADE)
	VENT
	ROOF DRAIN PIPING(ABOVE GRADE)
	ROOF DRAIN PIPING(BELOW GRADE)
	OVERFLOW DRAIN PIPING(ABOVE GRADE)
	OVERFLOW DRAIN PIPING(BELOW GRADE)
	NATURAL GAS 2 POUND
	NATURAL GAS 4 OUNCE

DESIGN CONTACTS

ENGINEER	JOEL WILLIAMS
DESIGNER	JEREMY CARTER

PLUMBING SHEET LIST

P0.1	PLUMBING NOTES SYMBOLS & ABBREVIATIONS
P2.1	PLUMBING FLOOR PLANS
P5.1	PLUMBING SCHEDULES & DETAILS
P5.2	PLUMBING DETAILS



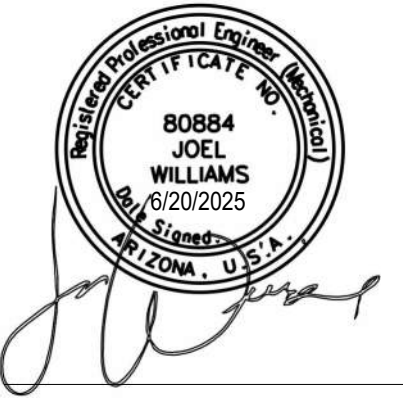
Architecture

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0355
fax 801.269.1425
www.thinkaia.com

The designs shown and described herein including all technical drawings, graphic representation & model(s) thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



B&D ENGINEERING
BRUNNER AND DALLON
MECHANICAL | PLUMBING | CONTROLS
9710 S 700 E, SUITE 201
SANDY, UT 84070
801-685-8081
25.018.00

LAKE HAVASU CATALYST - CONCESSIONS

2117 MCCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

SHEET TITLE:
PLUMBING NOTES
SYMBOLS &
ABBREVIATIONS
SHEET NUMBER:

P0.1

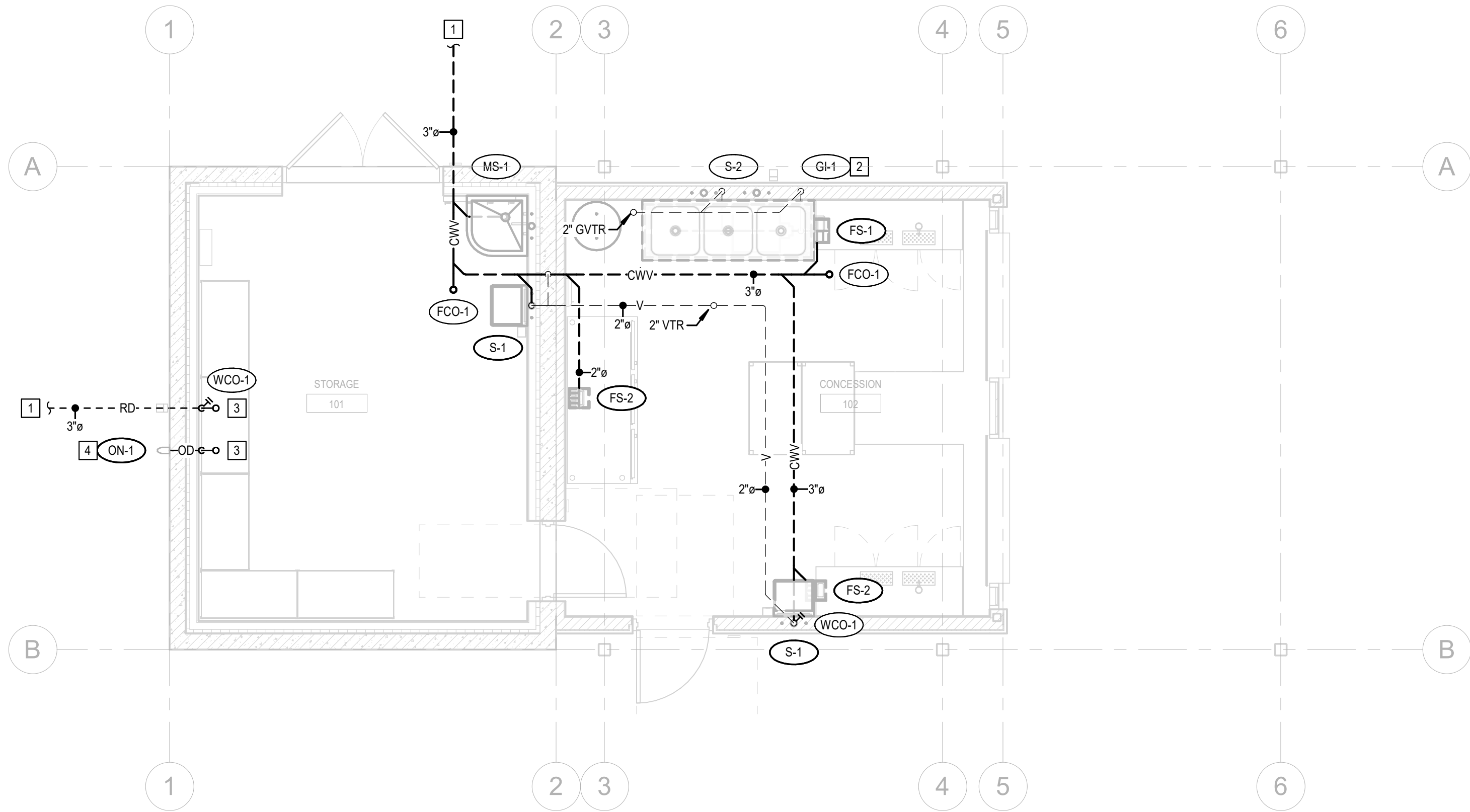
© 2022 THINK ARCHITECTURE INC.

GENERAL NOTES) SHEET P2.1)

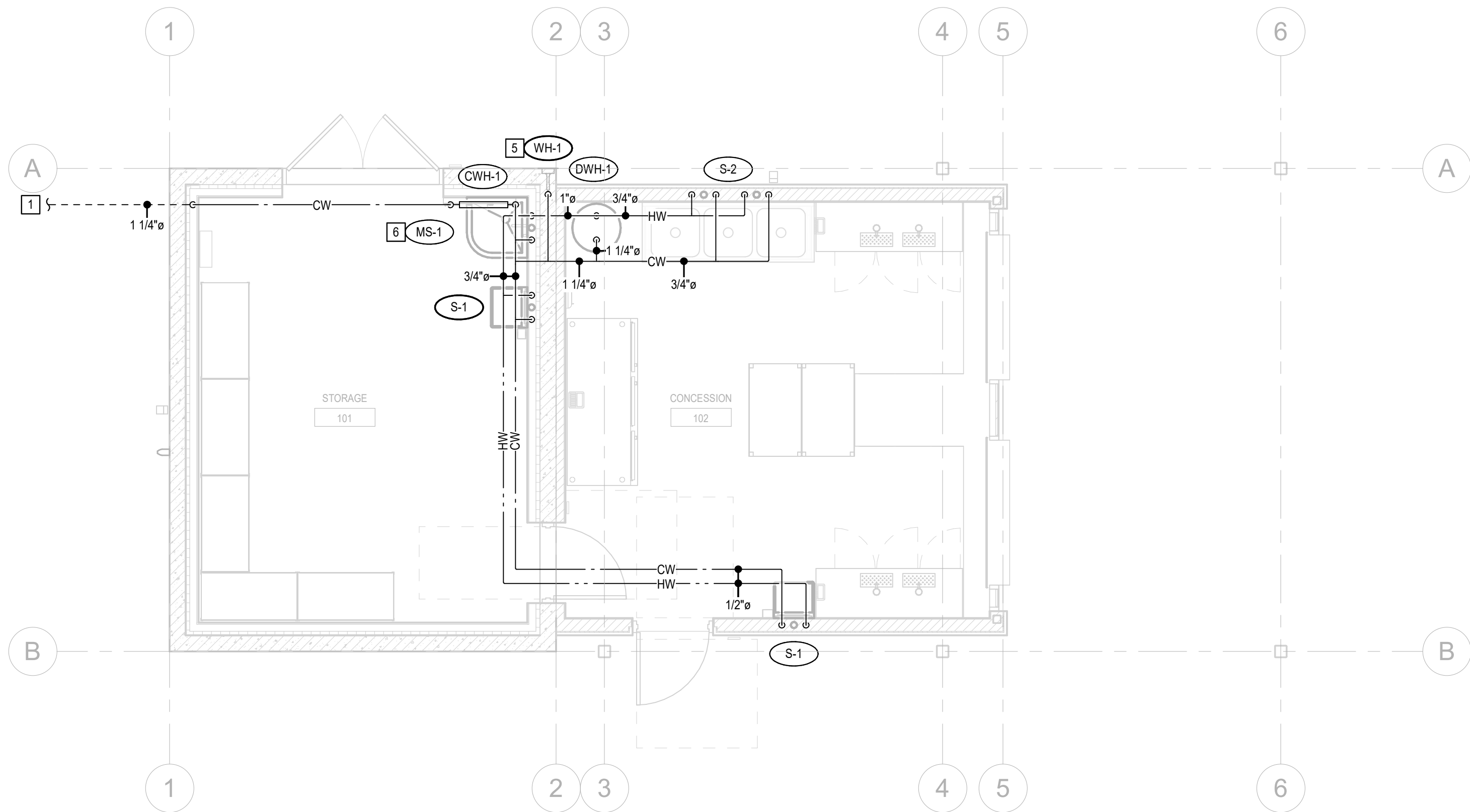
REFER TO ALL NOTES, SYMBOLS & ABBREVIATIONS ON SHEET P0.1.
REFER TO ALL SCHEDULES & DETAILS WITHIN PS SERIES SHEETS.

KEYED NOTES (SHEET P2.1)

- 1 SEE CIVIL SHEETS FOR CONTINUATION.
2 LOCATE GREASE INTERCEPTOR (GI-1) UNDER THREE COMPARTMENT SINK (S-2). GI-1 SHALL INDIRECTLY DRAIN INTO FS-1.
3 SEE SHEET M2.1 FOR CONTINUATION.
4 TERMINATE OVERFLOW NOZZLE 1'-6" ABOVE FINISHED GRADE. PROVIDE SPLASH BLOCK AS NECESSARY.
5 TERMINATE WALL HYDRANT 1'-6" ABOVE FINISHED GRADE.



1 WASTE, DRAIN, & VENT FLOOR PLAN
P2.1 1/4" = 1'-0"



2 SUPPLY PLUMBING FLOOR PLAN
P2.1 1/4" = 1'-0"

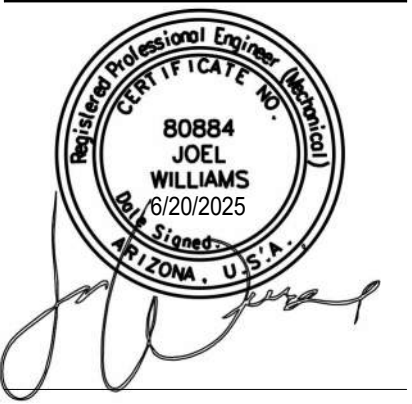


Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



B&D ENGINEERING
BRUNNER AND DALLON
MECHANICAL | PLUMBING | CONTROLS
9710 S 700 E, SUITE 201
SANDY, UT 84070
801-565-8081
25.018.00

LAKE HAVASU CATALYST - CONCESSIONS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO. 25.018
DATE: 19 JUNE 2025

REVISIONS:

SHEET TITLE:
PLUMBING FLOOR
PLANS

SHEET NUMBER:

P2.1

© 2022 THINK ARCHITECTURE INC.

BID SET

PLUMBING FIXTURE SCHEDULE																	
SYMBOL	FIXTURE	SUPPLY PIPE SIZE						FIXTURE UNITS		ELECTRICAL CONNECTION	FIXTURE SPECS / REMARKS	FIXTURE SELECTION	TRIM				NOTES
		TRAP	WASTE	VENT	COLD	HOT	GAS	DFU	SFU				VALVE	DRAIN	STOP	MISCELLANEOUS	
CWH-1	COLD WATER HEADER	-	-	-	1"	-	-	-	-	NO	COLD WATER HEADER SHALL BE INSTALLED IN THE FOLLOWING ARRANGEMENT: STRAINER, BACKFLOW PREVENTER, PRV. SET PRV 60 PSI. CHW IS DESIGNED BASED ON A 3/4" WATER METER W/ 1 1/4" DISTRIBUTION PIPE TO THE BUILDING.	1 1/4" WATTS 009M2QT-LF, 1 1/4" WATTS U5B-Z3-GG, 1 1/4" WATTS LF777S.	INCL.	-	BALL VALVE	PROVIDE BACKFLOW PREVENTER SHALL BE PROVIDED WITH AIR GAP. CONTRACTOR SHALL REFER TO PLANS FOR CLARIFICATION.	
DWH-1	DOMESTIC WATER HEATER ELECTRIC TANK	-	-	-	3/4"	3/4"	-	-	-	YES	20 GA CAPACITY. 120V, 2500W ELEMENT. 11 GPH RECOVERY @ 90°F RISE	A.O. SMITH PROMAX ELECTRIC E/CT-20 & AMTROL ST-5 EXPANSION TANK OR APPROVED EQUAL.	-	-	BALL VALVE	INSTALL ST-5 ON COLD WATER INLET.	1
FCO-1	FLOOR CLEANOUT INTERIOR UNFINISHED FLOOR	-	-	-	-	-	-	-	-	NO	CAST IRON, THREADED ADJ. HOUSING, FLANGED FERRULE W/STRAIGHT THREAD GASKETED PLUG & SQ. SECURED SATIN NICKEL BRONZE SCORIATED TOP, VANDAL PROOF.	WADE W-6000-1-179-118, ZURN Z-14DD-T-BP-VP, J.R. SMITH 4052-U, MIFAB C1100-S-1-6, OR APPROVED EQUAL.	-	-	-		
FS-1	FLOOR SINK	3"	3"	2"	-	-	-	5	-	NO	CAST IRON 12" SQ. FLOOR SINK WITH 8" SUMP A.R.E. INTERIOR, ALUMINUM DOME STRAINER, AND NICKEL BRONZE HINGED TOP. 1/2 GRATE, MEMBRANE CLAMPING FLANGE, VANDEL PROOF SCREWS. SET FLUSH W/ F.F.	J.R. SMITH 3150 OR APPROVED EQUAL FROM ZURN, WADE, OR MIFAB.	-	-	-		
FS-2	FLOOR SINK	2"	2"	2"	-	-	-	5	-	NO	CAST IRON 10" SQ. FLOOR SINK WITH 6" SUMP A.R.E. INTERIOR, ALUMINUM DOME STRAINER, AND NICKEL BRONZE HINGED TOP. 1/2 GRATE, MEMBRANE CLAMPING FLANGE, VANDEL PROOF SCREWS. SET FLUSH W/ F.F.	J.R. SMITH 3100 OR APPROVED EQUAL FROM ZURN, WADE, OR MIFAB.	-	-	-		
GI-1	GREASE INTERCEPTOR ABOVE GRADE HYDRO MECHANICAL	3"	3"	PER MANUF. SPECS	-	-	-	-	-	NO	ACID RESISTANT COATED INT & EXT. GI W/GASKETED NON-SKID COVER. PDI RATED AT 20 GPM & 40 LBS. GREASE CAPACITY. W/ INTERNAL AIR RELIEF BY-PASS. BRONZE CLEANOUT PLUG & VISIBLE DBL WALL TRAP SEAL W/REMOVABLE COMB. PRESS. EQUALIZING/FLOW DIFFUSING BAFFLE. SEDIMENT & GREASE RETENTION TRAYS ADJACENT TO GREASE DRAW-OFF VALVE.	ZURN Z1171-500, OR APPROVED EQUAL. PROVIDE ZURN Z1108 OR Z1108-L (ANGLED) FLOW CONTROL DEVICE (FCD), FCD SIZE SHALL MATCH GI OUTLELT, & ORIFICE SHALL MATCH GI GPM FLOW RATE.	-	-	-	GREASE INTERCEPTOR AND FLOW CONTROL DEVICE SHALL BE VENTED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. GI SHALL BE INSTALLED IN SERVICABLE LOCATION.	
HB-1	HOSE BIBB-INTERIOR COLD ONLY	-	-	-	3/4"	-	-	-	-	NO	AUTOMATIC DRAINING, HIGH FLOW DOUBLE CHECK BFP, 3/4" INLET & OUTLET (CONTRACTOR TO SPECIFY INLET). CHROME PLATED.	WOODFORD 67 OR APPROVED EQUAL.	INCL.	-	BALL VALVE	INSTALL MINIMUM 18" A.F.F., AND VACUUM BREAKER.	
MS-1	MOP SINK BASIN	3"	3"	2"	1/2"	1/2"	-	2	3	NO	24"x24"x12" PRECAST TERRAZZO ONE PIECE BASIN, GROUND SMOOTH, GROUTED AND SEALED. TOP EDGE CAPPED W/20 GA 302SS CAST INTEGRALLY ON 4 SIDES.	WILLIAMS "SERVICEPTOR" MODEL SB-900 OR FIAT MODEL TSB-100.	SEE MISCELLANEOUS	INCL.	INCL.	FAUCET: OVERHEAD SUPPLY. CHICAGO FAUCET NO 835 THRU-THE-WALL. CHICAGO NO. 897 OR ZURN Z841M1.	
RD-1	ROOF DRAIN	-	3"	-	-	-	-	-	-	NO	INSULATE WITH VAPOR BARRIER ON UNDERSIDE.	J.R. SMITH 1015-RC-CID OR APPROVED EQUAL.	-	-	-		
OD-1	OVERFLOW ROOF DRAIN	-	3"	-	-	-	-	-	-	NO	INSULATE WITH VAPOR BARRIER ON UNDERSIDE.	J.R. SMITH 1080E-RC-CID OR APPROVED EQUAL.	-	-	-		
ON-1	OVERFLOW NOZZLE - BRASS	-	3"	-	-	-	-	-	-	NO	DAYLIGHT 18" ABOVE GRADE.	J.R. SMITH 1770 OR APPROVED EQUAL.	-	-	-		
S-1	SINK SINGLE COMPARTMENT COUNTER SIZE 1	1-1/2"	2"	1-1/2"	1/2"	1/2"	-	2	1.4	NO	18-GA. TYPE 304SS, SELF-RIM SINGLE BOWL. INSIDE BOWL DIM: 16"Lx13-1/2"Wx7-1/2"D. FAUCET DECK W/3 HOLES ON 4" CENTERS.	ELKAY LR-1919 OR JUST SL-2019-A-GR	-	GRID	YES		
WH-1	WALL HYDRANT-EXTERIOR COLD ONLY	-	-	-	3/4"	-	-	-	-	NO	AUTOMATIC DRAINING, HIGH FLOW DOUBLE CHECK BFP, 3/4" INLET & OUTLET (CONTRACTOR TO SPECIFY INLET), TAMPER RESISTANT BOX. CHROME PLATED.	WOODFORD B67 OR APPROVED EQUAL.	INCL.	-	BALL VALVE	INSTALL 18" ABOVE GRADE, BOXED W/LOOSE KEY AND VACUUM BREAKER.	
NOTES:																	
1. CONTRACTOR SHALL PROVIDE A MIN. OF TWO (2) SEISMIC RESTRAINTS/STRAPS AT THE TOP AND BOTTOM 1/3 POINTS OF DOMESTIC WATER HEATER.																	

PLUMBING CODE:			IPC 2021	
100 YEAR, 1 HOUR RAINFALL =			1.75 INCHES/HOUR	
HORIZONTAL PIPE SLOPE =			0.125 INCHES/FOOT	
VERTICAL DRAIN			HORIZONTAL DRAIN	
PIPE SIZE IN.	GPM	ROOF AREA SF	GPM	ROOF AREA SF
2	34	1,870	22	1,210
3	87	4,785	55	3,025
4	180	9,900	115	6,325
5	311	17,105	165	9,075
6	538	29,590	344	18,920
8	1,117	61,435	714	39,270
10	2,050	112,750	1,311	72,105
12	3,272	179,960	2,093	115,115
15	5,543	304,865	3,546	195,030
LARGEST AREA SERVED BY SINGLE DRAIN:			1,422 SQFT	

[illegible]

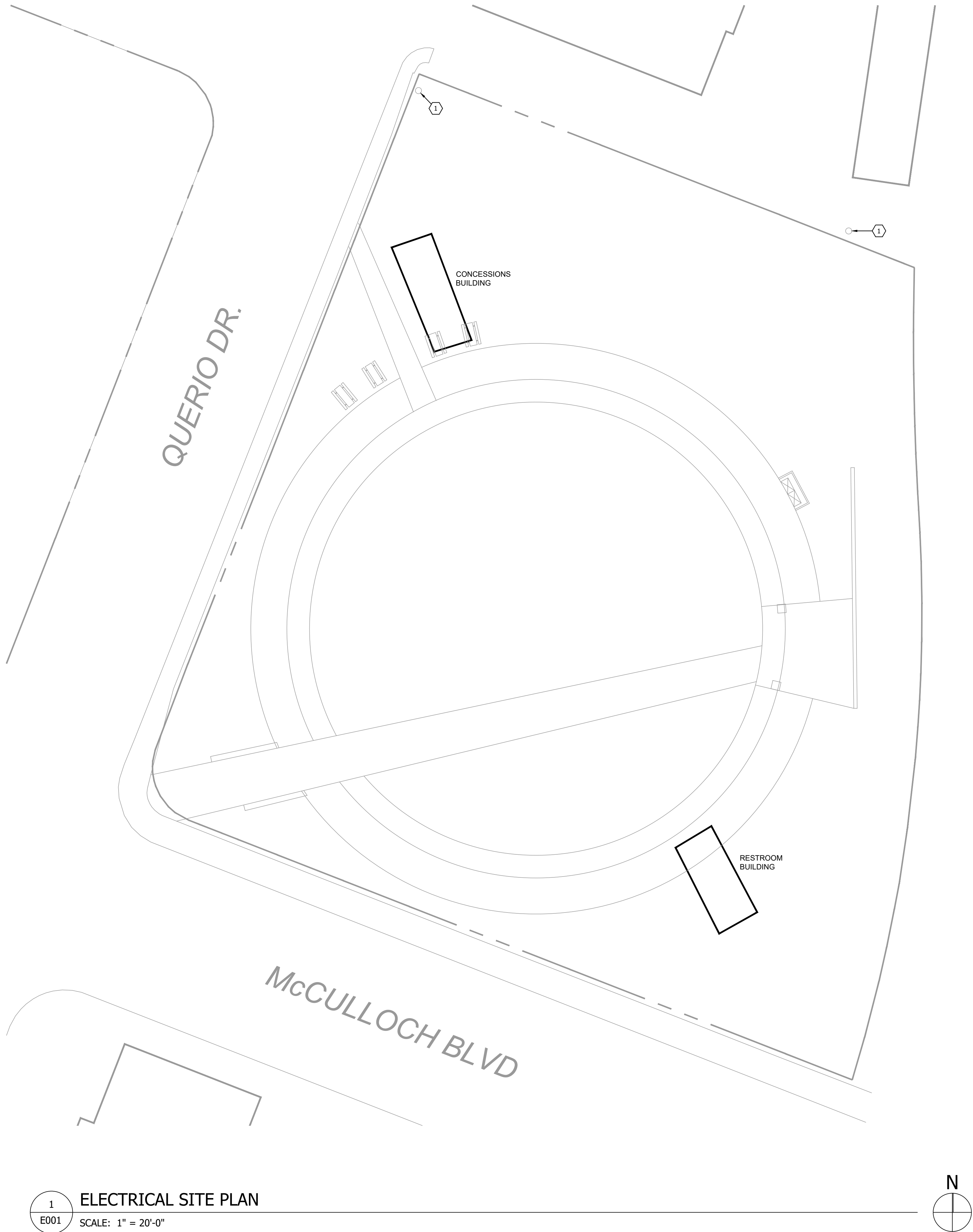
ELECTRICAL GENERAL NOTES	
GENERAL NOTES:	
1. THE ELECTRICAL SYSTEMS DEFINED BY THESE PLANS AND THE SPECIFICATIONS ARE TO BE CONSTRUCTED AS COMPLETE AND OPERABLE SYSTEMS AND SHALL BE BID WITH THIS INTENT. THE CONTRACTOR SHALL VISIT THE SITE, READ ALL THE RELEVANT DOCUMENTS, AND BECOME FAMILIAR WITH THE TYPE OF CONSTRUCTION AND WORK TO BE ACCOMPLISHED. SHOULD ANY ERROR, OMISSION, OR CONFLICT EXIST IN EITHER THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING BEFORE SUBMITTING THEIR BID PRICE SO A CHANGE CAN BE ISSUED IN A PRE-BID ADDENDUM. OTHERWISE, THE CONTRACTOR AND/OR EQUIPMENT SUPPLIERS SHALL SUPPLY THE PROPER MATERIALS AND LABOR TO INSTALL COMPLETE AND OPERABLE SYSTEMS INCLUSIVE OF THE ORIGINAL BID. WHEN EACH ELECTRICAL SYSTEM IS COMPLETE, THE CONTRACTOR SHALL TEST AND CONFIRM ITS PROPER OPERATION. ANY INCOMPLETE SYSTEM SHALL BE MADE COMPLETE AND OPERABLE PRIOR TO PROJECT CLOSEOUT.	25. WHERE THE PREMISES WIRING SYSTEM HAS BRANCH CIRCUITS SUPPLIED FROM MORE THAN ONE NOMINAL VOLTAGE, EACH UNGROUNDED CONDUCTOR OF A BRANCH CIRCUIT SHALL BE IDENTIFIED BY PHASE OR LINE AND BY SYSTEM VOLTAGE CLASS AT ALL TERMINATION, CONNECTION, AND SPLICE POINTS. IDENTIFICATION MEANS SHALL BE POSTED AT EACH BRANCH CIRCUIT PANELBOARD.
ALL CONDUCTORS SHALL BE COLOR-CODED AS FOLLOWS:	
	PHASE 208/120 480/277 PHASE A BLACK BROWN PHASE B RED ORANGE PHASE C BLUE YELLOW NEUTRAL WHITE WHITE GROUND GREEN GREEN
REMODEL NOTES:	
26. THE EC SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE EXISTING POWER PANELS FROM WHICH NEW CIRCUITS ARE BEING FED. VERIFY EXISTING BRANCH CIRCUIT BREAKERS AND PROVIDE NEW BRANCH CIRCUIT BREAKERS AS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.	
27. THE EC SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE TELECOM ROOM FROM WHICH NEW TELE/DATA OUTLETS WILL BE FED. VERIFY EXISTING PATCH PANEL SPACES AND PROVIDE NEW PATCH PANELS AS NECESSARY TO LAND/TERMINATE NEW TELECOM CABLING.	
28. THE EC SHALL MAINTAIN ELECTRICAL CONTINUITY TO REMAINING EQUIPMENT WHEN ANY EXISTING ELECTRICAL EQUIPMENT IS REMOVED.	
29. ALL DEVICES NOT SHOWN ON PLANS ARE EXISTING TO REMAIN IN PLACE AND FUNCTIONAL. IN THE EVENT THAT WIRING TO AN EXISTING DEVICE IS DAMAGED, WIRING MUST BE REPLACED AND DEVICE BROUGHT BACK TO FULL OPERATION.	
SITE NOTES:	
30. ELECTRICAL CONTRACTOR SHALL COORDINATE AND CONFIRM THE EXACT LOCATION OF THE POWER COMPANY SERVICE TRANSFORMER BEFORE INSTALLING THE PAD, PRIMARY CONDUIT, AND SECONDARY SERVICE LATERAL. PROVIDE LABOR AND CONDUIT, CONDUCTORS, WIRE WAYS, TRANSFORMER LUGS, METER BASES, METER CONDUIT, CONDUCTORS, CONCRETE PAD/VAULT, ETC. AS NEEDED FOR A COMPLETE ELECTRIC SERVICE TO THIS FACILITY.	
31. THE EC SHALL COORDINATE LOCATION OF TELEPHONE PEDESTAL, ROUTING/SIZE OF TELEPHONE SERVICE CONDUIT, AND THE MAIN TELEPHONE SERVICE BOARD REQUIREMENTS WITH THE TELEPHONE COMPANY PRIOR TO ROUGH-IN. INSTALL A 3/4" CONDUIT WITH (1) #6 BARE COPPER CONDUCTOR FROM TELEPHONE TERMINAL BOARD (TTB) TO THE MAIN BUILDING GROUNDING SYSTEM.	
32. UNDERGROUND CONDUIT FOR SITE LIGHTING SHALL BE BURIED 24" B.F.G. AND SHALL HAVE ONE (1) #10 THHN GREEN GROUND CONDUCTOR TO GROUND ALL LUMINAIRES.	
33. PRIOR TO TRENCHING IN ANY AREA, THE CONTRACTOR SHALL COORDINATE WITH COMMUNICATIONS/DATA, CABLE TV, GAS, AND WATER UTILITY PROVIDERS (BLUE STAKES), AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED. IN ADDITION, THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A SUBCONTRACTOR SPECIALIZING IN THE LOCATION OF UNDERGROUND STRUCTURES TO IDENTIFY ANY OBSTACLES IN THE PATH OF TRENCHING PRIOR TO COMMENCING WORK. DAMAGE TO ANY UNDERGROUND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR.	
LIGHTING NOTES:	
34. ALL BATTERY POWERED OR CONTINUOUS BURN LUMINAIRES SHOWN ON THE PLANS, SUCH AS EXIT LIGHTS, NIGHT LIGHTS, OR EMERGENCY LIGHTS, SHALL BE CONNECTED TO THE UN-SWITCHED LEG OF THE LIGHTING CIRCUIT FEEDING THAT AREA.	
35. LUMINAIRES INSTALLED IN THE MECHANICAL ROOM SHALL BE PLACED SO THAT ALL EQUIPMENT IS ADEQUATELY ILLUMINATED AFTER THE MECHANICAL EQUIPMENT IS IN PLACE.	
36. ALL LUMINAIRES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND NOT THE CEILING GRID OR OTHER NONSTRUCTURAL MEMBERS.	
37. TO MAINTAIN CONSISTENT LIGHT QUALITY, FOR ANY ONE LAMP TYPE SUPPLIED, LAMPS SHALL BE OF THE SAME MANUFACTURER, SURFACE TEMPERATURE, COLOR RENDERING INDEX, LAMP EFFICACY, LUMEN OUTPUT, AND STARTING CHARACTERISTICS FOR ALL INSTALLED.	
38. LIGHT FIXTURES INSTALLED IN DAMP OR WET LOCATIONS SHALL BE UL LISTED FOR INSTALLATION IN THE PROPER ENVIRONMENT. CARE SHOULD BE TAKEN TO ENSURE THAT DIFFUSERS AND LENSES ARE APPROPRIATE FOR THEIR INSTALLED USE AND PREMATURE DISCOLORATION WILL NOT RESULT DUE TO EXPOSURE TO UV LIGHT, CHEMICALS, OR OTHER CONDITIONS.	
39. ELECTRICAL CONTRACTOR SHALL PROVIDE LIGHTING CONTROL SHOP DRAWINGS WITH ELECTRICAL SUBMITTAL FOR REVIEW.	
POWER NOTES:	
40. ALL PANELBOARDS AND SWITCHBOARDS SHALL BE PERMANENTLY MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THEIR POWER ORIGINATES AS PER NEC 408.4B.	
41. ELECTRICAL CONTRACTOR SHALL CONFIRM MINIMUM CODE (NEC) WORKING CLEARANCE BEFORE INSTALLING ANY ELECTRICAL PANELS OR CABINETS AND SHALL MOVE THE PANELS IF REJECTED BY AN INSPECTOR. IF CLEARANCE IS NOT POSSIBLE, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN WRITING.	
42. WIRING DEVICES SHALL HAVE A NYLON COVER PLATE. COLOR SHALL BE COORDINATED WITH ARCHITECT. EXTERIOR OUTLETS SHALL HAVE CAST COVERS WITH FLIP TYPE LIDS UNO.	
43. EC SHALL COORDINATE WITH EQUIPMENT SUPPLIERS ON THE EXACT LOCATIONS OF ALL EQUIPMENT AND ELECTRICAL CONNECTIONS PRIOR TO ROUGH-IN. THE EC SHALL MAKE THE FINAL CONNECTION TO ALL EQUIPMENT UNLESS OTHERWISE DIRECTED BY THE EQUIPMENT SUPPLIER. OBTAIN FROM SUPPLIERS ALL WIRING DIAGRAMS FOR EQUIPMENT PRIOR TO ANY ROUGH-IN. TO ASSURE THAT PROPER CHARACTERISTICS ARE PROVIDED, ANY INCORRECT WIRING OR DEVICES INSTALLED BY THE EC WITHOUT THE WIRING DIAGRAM SHALL BE CORRECTED AT THE EC'S EXPENSE. PROVIDE COPIES OF WIRING DIAGRAMS WITHIN EACH PIECE OF EQUIPMENT AND ADDITIONAL COPIES WITH THE OPERATION AND MAINTENANCE MANUALS.	
44. EC SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO PROVIDE CONDUIT AND DEVICE MOUNTING BOXES FOR THERMOSTATS AND OTHER MECHANICAL CONTROLS. REFER TO MECHANICAL DRAWINGS FOR THE LOCATION OF THERMOSTATS.	
45. EC SHALL PROVIDE A 20AMP, 120VAC RECEPTACLE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT PER NEC 210.63. RECEPTACLE SHALL BE OF THE GROUND FAULT CIRCUIT INTERRUPTING TYPE, INSTALLED WITHIN A CAST METAL BOX, AND WITHIN 2' OF ALL REQUIRED EQUIPMENT.	
DATA/TELECOM NOTES:	
46. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ROUGH-IN ONLY FOR THE TELECOM/CATS SYSTEMS. THIS SHALL CONSIST OF A FOUR SQUARE DEVICE MOUNTING BOX WITH CONDUIT TO ABOVE ACCESSIBLE CEILING SPACE OR TO THE CEILING SPACE ABOVE IF OPEN. CABLING, JACKS, FACEPLATES, TESTING AND TERMINATIONS SHALL BE PROVIDED AND INSTALLED BY OTHERS.	
ROOF NOTES:	
47. ELECTRICAL CONTRACTOR TO INSTALL A ROOF JACK (BOOT) FOR ALL CONDUIT PENETRATIONS THROUGH THE ROOF. ALL ROOF PENETRATION SEALS SHALL BE IN ACCORDANCE WITH THE ROOF WARRANTY AND BE COMPLETELY SEALED WITH ROOF ADHESIVE. UTILIZE PROPER CLAMPING METHODS TO SEAL BOOT AROUND CONDUIT.	

ELECTRICAL SYMBOL SCHEDULE			
SYMBOL	DESCRIPTION	MOUNTING	NOTES
	LIGHT FIXTURE - SURFACE OR RECESSED	SEE DRAWINGS	1
	EMERGENCY LIGHT FIXTURE - SURFACE OR RECESSED	SEE DRAWINGS	1, 2
	LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1
	EMERGENCY LIGHT FIXTURE - OPEN STRIP	SEE DRAWINGS	1, 2
	LIGHT FIXTURE - WALL MOUNTED	WALL	1
	EMERGENCY LIGHT FIXTURE - WALL MOUNTED	WALL	1, 2
	LIGHT FIXTURE - DOWNLIGHT	CEILING	1
	EMERGENCY LIGHT FIXTURE - DOWNLIGHT	CEILING	1, 2
	LIGHT FIXTURE - WALL WASH DOWNLIGHT	CEILING	1
	LIGHT FIXTURE - CEILING MOUNTED	CEILING	1
	LIGHT FIXTURE - PENDANT / CHANDELIER	CEILING	1
	LIGHT FIXTURE - WALL BRACKET	WALL	1
	EMERGENCY LIGHT FIXTURE - WALL BRACKET	WALL	1, 2
	TRACK LIGHTING	SURFACE	1
	EXIT SIGN - WALL MOUNT	WALL	1, 2, 3
	EXIT SIGN - CEILING MOUNT	CEILING	1, 2, 3
	EXIT SIGN W/ EMERGENCY HEADS - WALL MOUNT	WALL	1, 2, 3
	EXIT SIGN W/ EMERGENCY HEADS - CEILING MOUNT	CEILING	1, 2, 3
	DUAL HEAD EMERGENCY LIGHT FIXTURE	WALL	1, 2
	POLE LIGHT FIXTURE	POLE	1
	STEP LIGHT FIXTURE	WALL	1
	LIGHT BOLLARD	SURFACE	1
	GROUND MOUNTED / IN-GRADE LIGHT FIXTURE	GROUND	1
	OCCUPANCY / VACANCY SENSOR - CEILING MOUNT	CEILING	1
	TIME CLOCK - 7 DAY	60"	
	PHOTO-ELECTRIC CELL WITH RELAY	SURFACE	1
	CURRENT LIMITING DEVICE	SURFACE	1
	WALL OCCUPANCY / VACANCY SENSOR SWITCH	48" TO TOP	
	SINGLE POLE SWITCH	48" TO TOP	
	THREE WAY SWITCH	48" TO TOP	
	FOUR WAY SWITCH	48" TO TOP	
	DIMMER SWITCH	48" TO TOP	
	LOW VOLTAGE SWITCH	48" TO TOP	
	TIMER SWITCH - 30 MINUTE	48" TO TOP	
	PILOT LIGHT SWITCH	48" TO TOP	
	THERMAL OVERLOAD SWITCH	48" TO TOP	
	2-POLE SWITCH	48" TO TOP	
	SINGLE POLE KEYED SWITCH	48" TO TOP	
	DUPLEX OUTLET, 20A, 120VAC	18" UNO	
	DUPLEX OUTLET, 20A, 120VAC - GFCI	18" UNO	
	DUPLEX OUTLET - SPLIT WIRED	18" UNO	
	DUPLEX OUTLET - ISOLATED GROUND	18" UNO	
	DUPLEX OUTLET WITH USB-A & USB-C PORTS	18" UNO	
	DUPLEX OUTLET - OCCUPANCY SENSOR CONTROLLED	18" UNO	
	DUPLEX OUTLET, 20A, 120VAC - CEILING	CEILING	
	DUPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR	
	FOURPLEX OUTLET, 20A, 120VAC	18" UNO	
	FOURPLEX OUTLET, 20A, 120VAC - GFCI	18" UNO	
	FOURPLEX OUTLET - ISOLATED GROUND	18" UNO	
	FOURPLEX OUTLET, 20A, 120VAC - CEILING	CEILING	
	FOURPLEX OUTLET, 20A, 120VAC - FLOOR	FLOOR	
	APPLIANCE OUTLET - 208/240V SINGLE PHASE	18" UNO	
	APPLIANCE OUTLET - 208/480V 3-PHASE	18" UNO	
	SINGLE/SIMPLEX OUTLET, 20A, 120VAC	18" UNO	
	MULTI-OUTLET METAL SURFACE RACEWAY	44" UNO	7
	DATA OUTLET	18" UNO	
	TELEPHONE OUTLET	18" UNO	
	DUAL TELEPHONE/DATA OUTLET	18" UNO	
	DATA OUTLET - FLOOR	FLOOR	
	DUAL TELEPHONE/DATA OUTLET - FLOOR	FLOOR	
	CEILING DATA OUTLET/ WIRELESS ACCESS POINT	CEILING	
	CABLE TELEVISION OUTLET	18" UNO	

	JUNCTION BOX	SURFACE	
	WALL JUNCTION BOX	1" - 6" UNO	
	FLOOR JUNCTION BOX	FLOOR	
	DISCONNECT SWITCH - NON-FUSED	5" - 0" UNO	4
	DISCONNECT SWITCH - FUSED	5" - 0" UNO	4
	DISCONNECT SWITCH - SHUNT TRIP	5" - 0" UNO	4
	COMBINATION MAGNETIC STARTER/DISCONNECT	5" - 0" UNO	
	MOTOR STARTER	5" - 0" UNO	
	CONTACTOR	5" - 0" UNO	
	MOTOR	SURFACE	
	METER - PLAN VIEW	WALL	
	PUSH BUTTON SWITCH	4" - 0"	
	EMERGENCY POWER SHUTOFF SWITCH	4" - 0"	
	PANELBOARD - SURFACE MOUNTED	6" - 6" TO TOP	
	PANELBOARD - RECESSED	6" - 6" TO TOP	
	TRANSFORMER - PLAN VIEW	PAD/FLOOR	
	TELEPHONE TERMINAL BOARD	WALL	
	CIRCUIT BREAKER	METER - ONE-LINE	
	MLO PANEL - ONE-LINE	TRANSFORMER - ONE-LINE	
	MCB PANEL - ONE-LINE	PAD MOUNT XFMR - ONE-LINE	
	AUTOMATIC TRANSFER SWITCH	GROUND SLEEVE - ONE-LINE	
	CT ENCLOSURE - ONE-LINE	FUSED DISCONNECT - ONE-LINE	
	CURRENT TRANSFORMER	FUSED SWITCH	
	OH RISER	GROUND	
	KEYED NOTE TAG	CABLE/WIRE SIZE TAG	
	MECH/ELEC. EQUIPMENT TAG	DETAIL/VIEW NUMBER	
	OTHER EQUIPMENT TAG	SHEET NUMBER	
	WIRING / CONDUIT	UNDERGROUND/FLOOR WIRING	
	CONDUIT TURNED UP	CONDUIT TURNED DOWN	
	CIRCUIT HOME RUN TO PANEL: # OF ARROWHEADS INDICATE # OF CIRCUITS (SEPARATE NEUTRAL PER CIRCUIT). BOTH EX. INCLUDE AN EQUIP. GROUND.		
NOTES			
1. SEE LIGHT FIXTURE SCHEDULE FOR TYPE, MOUNTING, AND OTHER SPECIFICS.			
2. CONNECT EMERGENCY AND/OR EXIT LIGHTS TO THE UNSWITCHED SIDE OF THE AREA LIGHTING BRANCH CIRCUIT.			
3. ARROW DENOTES EXIT DIRECTION.			
4. USE HEAVY DUTY FOR 480 VOLT			
5. MOUNT SWITCH AT DOOR JAM PER MANUFACTURER'S INSTRUCTIONS.			
6. PROVIDE UL LISTED DEVICE TO BE USED WITH THE FIRE ALARM PANEL/SYSTEM OR PROVIDE A MONITOR MODULE TO CONNECT INTO FIRE ALARM SYSTEM.			
7. PROVIDE RACEWAY WITH OUTLETS 12" ON CENTER UNO.			
ABBREVIATIONS			
AFCI - ARC FAULT CKT INTERRUPTER	MCC - MOTOR CONTROL CENTER	MDP - MAIN DISTRIBUTION PANEL	
AFF - ABOVE FINISHED FLOOR	MLO - MAIN LUGS ONLY	MLOP - MAX. OVERCURRENT PROTECTION (N) - NEW	
AFG - ABOVE FINISHED GRADE	MOCAP - MAX. OVERCURRENT PROTECTION (N) - NEW	NIC - NOT IN CONTRACT	
AIC - AMPS INTERRUPTING CAPACITY	NEC - NATIONAL ELECTRICAL CODE	NFPA - NATIONAL FIRE PROT. ASSN.	
AL - ALUMINUM	NL - NIGHT LIGHT	NR - NOT REQUIRED	
ATS - AUTOMATIC TRANSFER SWITCH	NTS - NOT TO SCALE	PC - PLUMBING CONTRACTOR	
BC - BARE COPPER	PH - PHASE	PH - PHASE	
BFC - BELOW FINISHED CEILING	PNL - PANEL	POC - POINT OF CONNECTION	
BFG - BELOW FINISHED GRADE	POS - POINT OF SALE	POC - POINT OF CONNECTION	
C OR CND - CONDUIT	RELOCATED	POS - POINT OF SALE	
CKT - CIRCUIT	RELOCATED	RELOCATED	
CLG - INSTALLED IN CEILING	REC - RECEPTACLES	REC - RECEPTACLES	
C.R. - CORD REEL	RMC - RIGID METAL CONDUIT	RMC - RIGID METAL CONDUIT	
CU - COPPER	SCA - SHORT CIRCUIT AMPERES	SCA - SHORT CIRCUIT AMPERES	
(E) - EXISTING TO REMAIN	SCB - SELECT COLOR BY ARCHITECT	SCB - SELECT COLOR BY ARCHITECT	
EC - ELECTRICAL CONTRACTOR	SES - SERVICE ENTRANCE SWITCHGEAR	SES - SERVICE ENTRANCE SWITCHGEAR	
EM - EMERGENCY	SPD - SURGE PROTECTIVE DEVICE	SPD - SURGE PROTECTIVE DEVICE	
(F) - FUTURE	TL - TWIST LOCK	TL - TWIST LOCK	
FACP - FIRE ALARM CONTROL PANEL	TTB - TELEPHONE TERMINAL BOARD	TTB - TELEPHONE TERMINAL BOARD	
FLA - FULL LOAD AMPS	TR - TAMPER RESISTANT	TR - TAMPER RESISTANT	
FVNR - FULL VOLTAGE NON REVERSING	TYP - TYPICAL	TYP - TYPICAL	
GC - GENERAL CONTRACTOR	UNO - UNLESS NOTED OTHERWISE	UNO - UNLESS NOTED OTHERWISE	
GFCI - GROUND FAULT CKT INTERRUPTER	VA - VOLT/AMPS	VA - VOLT/AMPS	
GND - GROUND	VIF - VERIFY IN FIELD	VIF - VERIFY IN FIELD	
HP - HORSEPOWER	VR - VANDAL RESISTANT	VR - VANDAL RESISTANT	
IG - ISOLATED GROUND	WP - WEATHERPROOF/NEMA 3R	WP - WEATHERPROOF/NEMA 3R	
KW - KILOWATTS	WU - FURNISHED WITH UNIT	WU - FURNISHED WITH UNIT	
LCP - LIGHTING CONTROL PANEL	XFMR - TRANSFORMER	XFMR - TRANSFORMER	
LIG - LIGHTING			
LV - LOW VOLTAGE			
MC - MECHANICAL CONTRACTOR			
MCA - MINIMUM CIRCUIT AMPS			
MCB - MAIN CIRCUIT BREAKER			

ELECTRICAL SHEET INDEX	
E000	ELECTRICAL GENERAL SHEET
E001	ELECTRICAL SITE PLAN
E101	RESTROOMS ELECTRICAL PLAN
E102	CONCESSIONS ELECTRICAL PLAN
E501	ELECTRICAL DETAILS
E601	ELECTRICAL SCHEDULES





1
E001

ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"

KEYED NOTES
1. EXISTING POWER POLE.
GENERAL NOTES
A. -



Think
Architecture

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.

LAKE HAVASU CATALYST - CONCESSIONS

2117 McCULLOCH BLVD N
LAKE HAVASU CITY, AZ 86403

PROJECT NO.

DATE:

REVISIONS:

SHEET TITLE:
ELECTRICAL SITE
PLAN

SHEET NUMBER:

E000

© 2022 THINK ARCHITECTURE, INC.



ROCKY MOUNTAIN
CONSULTING ENGINEERS, INC.
2117 South 3600 West, Salt Lake City, UT 84119
(801) 566-0503 www.rmceut.com Project # 25096

75% REVIEW SET

KEYED NOTES
1. COORDINATE DRINKING FOUNTAIN RECEPTACLE LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ROUGH IN. GFCI RECEPTACLE TO BE MOUNTED IN AN ACCESSIBLE LOCATION.
2. COORDINATE LOCATION AND HEIGHT OF HAND DRYERS WITH OWNER. VERIFY POWER REQUIREMENTS WITH MANUFACTURER'S DOCUMENTATION.
3. PROVIDE A WALL MOUNT DUAL TECH TWO POLE OCC. SENSOR FOR RESTROOM LIGHT AND FAN CONTROL.
GENERAL NOTES
A. COORDINATE MOUNTING HEIGHTS OF ALL EQUIPMENT WITH ARCHITECTURAL DRAWINGS AND MILLWORK CONTRACTOR PRIOR TO ROUGH-IN.
B. VERIFY EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT.



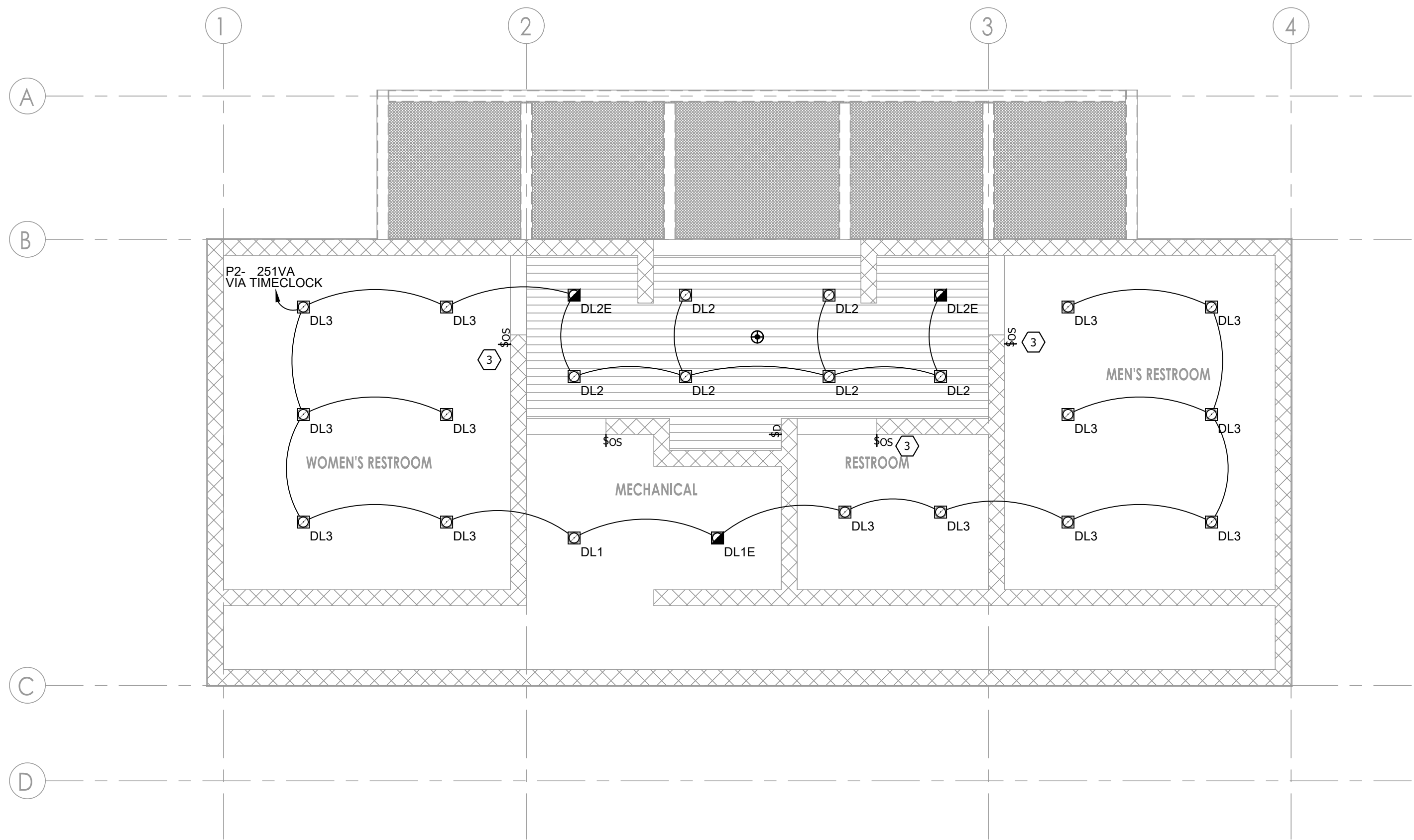
Think
Architecture

Architecture
Interior Design
Landscape Architecture
Land Planning
Construction Management

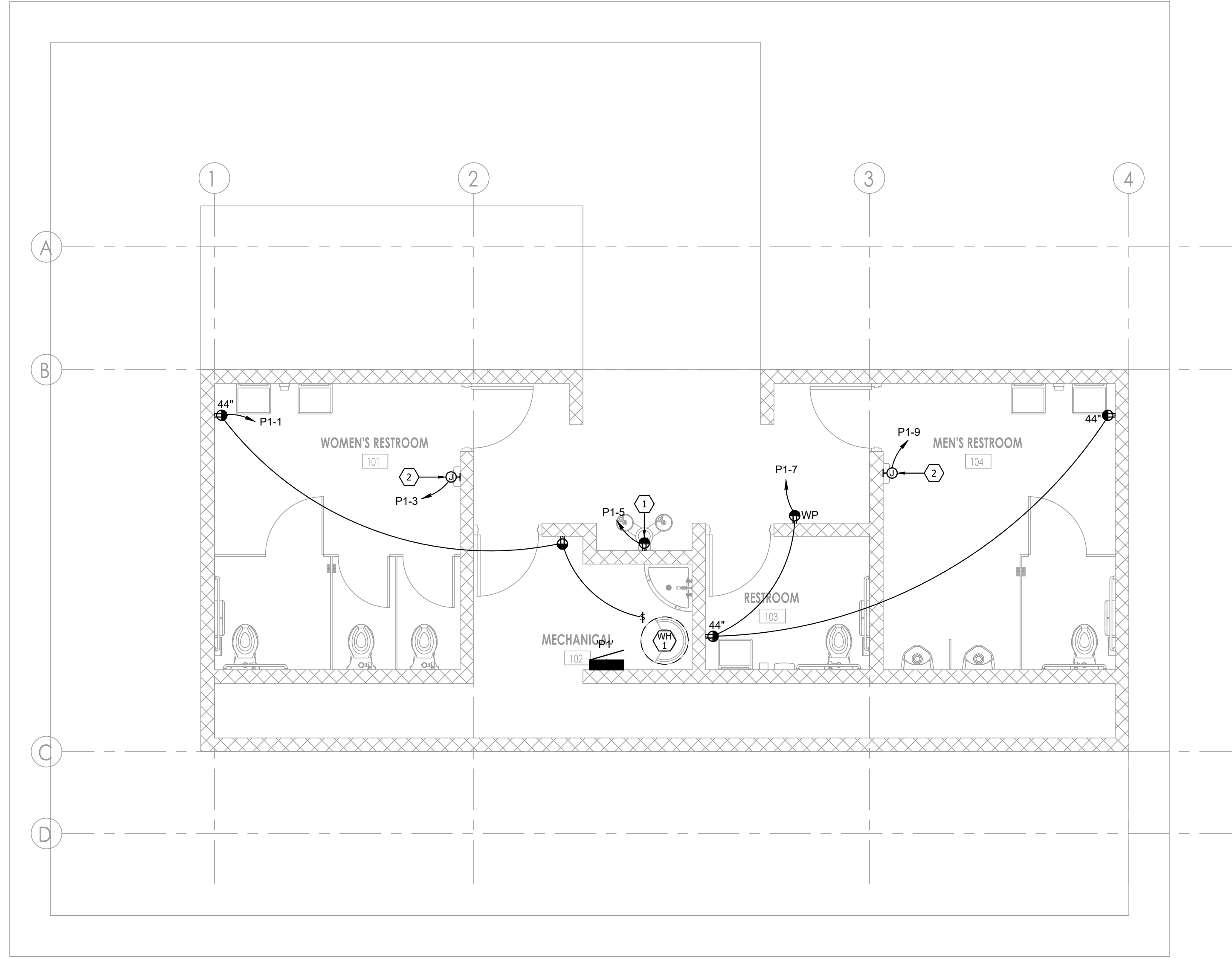
7927 So. Highpoint Parkway, Suite 300
Sandy, Utah 84094
ph. 801.269.0055
fax. 801.269.1425
www.thinkaec.com

The designs shown and described herein including all technical drawings, graphic representation & models thereof, are proprietary & can not be copied, duplicated, or commercially exploited in whole or in part without the sole and express written permission from THINK Architecture, Inc.

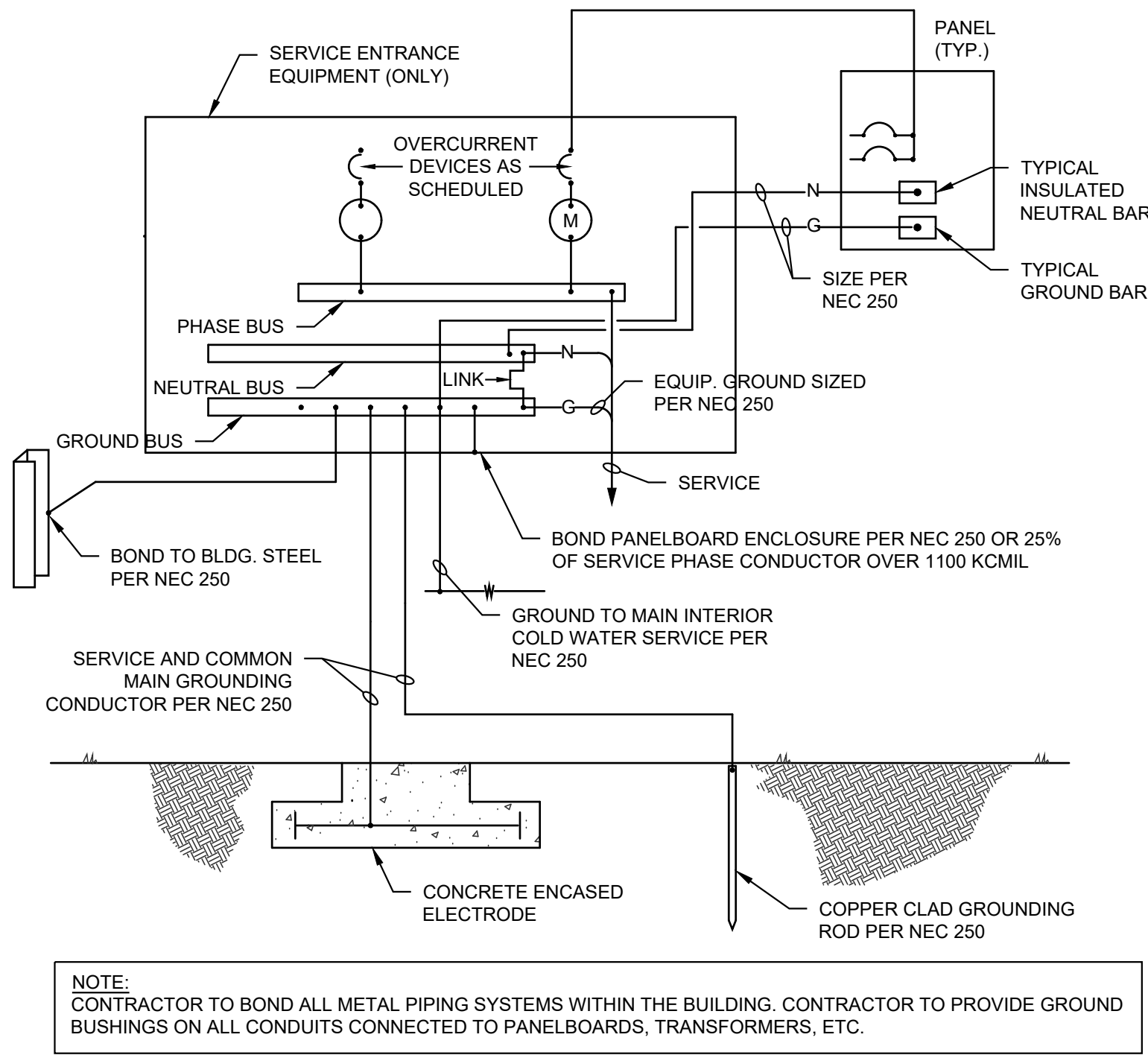
These drawings are available for limited review and evaluation by clients, consultants, contractors, government agencies, vendors, and office personnel only in accordance with this notice.



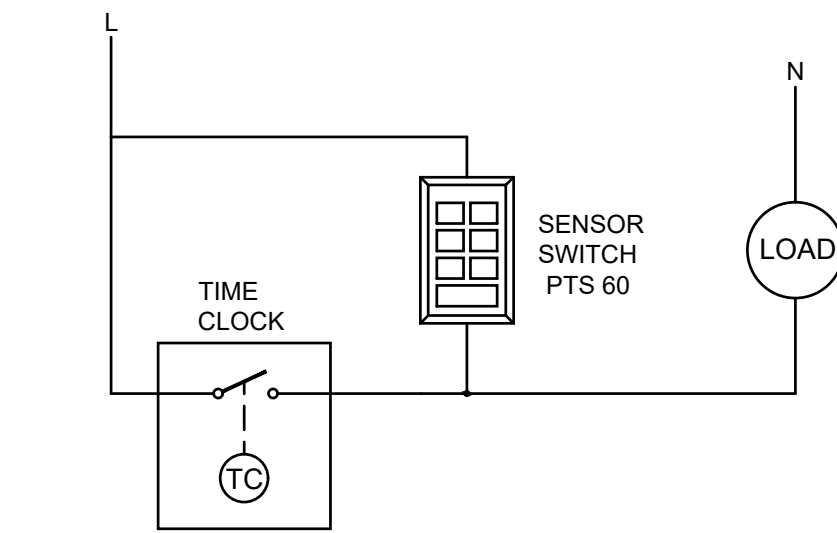
1
E101
RESTROOMS LIGHTING PLAN
SCALE: 1/4" = 1'-0"



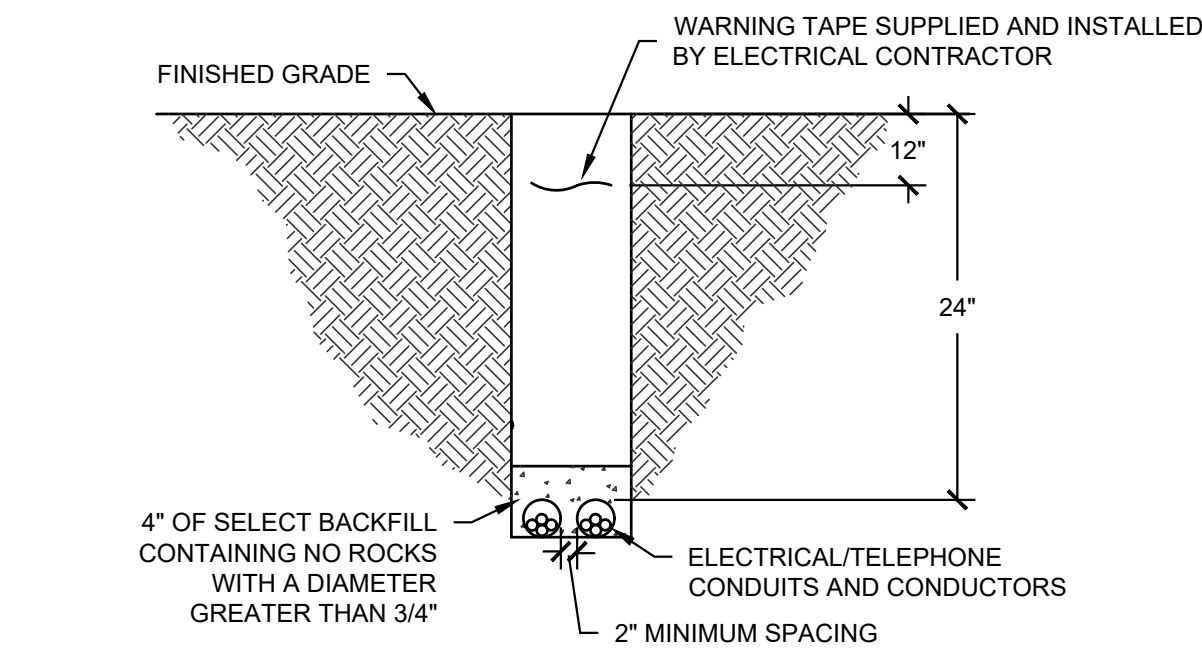
2
E101
RESTROOMS POWER PLAN
SCALE: 1/4" = 1'-0"



2 TYPICAL GROUNDING/BONDING DETAIL
E501 NO SCALE



4 TIME CLOCK OVERRIDE
E501 SCALE: NONE



- NOTES:
- ELECTRICAL SERVICE CONDUIT AND CONDUCTORS ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. BURIAL DEPTH SHALL BE PER NEC TABLE 300.5
 - TELEPHONE SERVICE CONDUIT SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. TELEPHONE SERVICE CABLEING SHALL BE PROVIDED BY THE LOCAL TELEPHONE COMPANY. COORDINATE WITH LOCAL TELEPHONE COMPANY FOR ANY SPECIFIC REQUIREMENTS
 - THE QUANTITY/SIZE OF CONDUITS AND/OR CONDUCTORS SHALL BE AS CALLED OUT ON THE ELECTRICAL DRAWINGS. COORDINATE WITH THE ELECTRICAL ENGINEER.

3 UNDERGROUND CONDUIT DETAIL
E501 NO SCALE

#	KEYED NOTES
1.	PROVIDE A NAMEPLATE ON EACH ELECTRICAL PANEL AND SERVICE DISCONNECT WITH AVAILABLE FAULT CURRENT AND THE DATE WHICH THE CALCULATIONS WERE PERFORMED (XXXXXX) PER NEC 110.24. ON THE NAMEPLATE STATE WHERE POWER ORIGINATES FROM IN ACCORDANCE WITH NEC 408.4(B).

1 ONE-LINE DIAGRAM
E501 NO SCALE

CONCESSION LIGHT FIXTURE SCHEDULE									
TYPE	MANUFACTURER	CATALOG NO.	VOLTAGE	DELIVERED LUMENS / CCT	CONTROL	MOUNTING	LOAD(VA)	DESCRIPTION	NOTES:
DL1	LITHONIA	LDN6 35/15 L06 AR LSS MVOLT G210	UNV	1500 LUMENS / 3500K	0-10V	RECESSED	17.5	6" LED DOWNLIGHT	4
	HALO								
	LIGHTOLIER								
	LITON								
DL2	LITHONIA	LDN6 35/07 L06 AR LSS MVOLT G210	UNV	750 LUMENS / 3500K	0-10V	RECESSED	8.9	6" LED DOWNLIGHT	4
	HALO								
	LIGHTOLIER								
	LITON								
SL1	LITHONIA	ZL1D L48 3000LM FST MVOLT 35K 80 CRI	UNV	3000 LUMENS / 3500K	0-10V	SURFACE	30	4" LED STRIP LIGHT	4
	METALUX								
	DAYBRITE								
	INDUSTRIAL LIGHTING PRODUCT								
SL1E	SAME AS 'SL1' WITH EMERGENCY BATTERY BACKUP								
SL2	LITHONIA	ZL1D L48 7000LM FST MVOLT 35K 80 CRI	UNV	7000 LUMENS / 3500K	0-10V	SURFACE	59	4" LED STRIP LIGHT	4
	METALUX								
	DAYBRITE								
	INDUSTRIAL LIGHTING PRODUCT								
SL2E	SAME AS 'SL2' WITH EMERGENCY BATTERY BACKUP								
OWE	LITHONIA	AFB PEL SCBA UVOLT N WT CW	UNV	225 LUMENS / 4000K	-	WALL	7	ARCHITECTURAL EMERGENCY WITH NICAD BATTERY COLD WEATHER RATED. SPECIFY COLOR BY ARCHITECT.	4
	EVENLITE								
	CHLORIDE								
	DUAL LITE								
EX	LITHONIA	EXRG EL M6	UNV	-	-	WALL / CEILING	1	THERMOPLASTIC EXIT SIGN WITH NI-MH BATTERY GREEN LETTERING	4
	EVENLITE								
	CHLORIDE								
	COMPASS PRODUCTS								
NOTES: 1. ALL LIGHT FIXTURES SHOWN HALF SHADED SHALL BE PROVIDED WITH A MEANS OF EMERGENCY POWER SUCH AS A BATTERY PACK, INVERTER OR GENERATOR CAPABLE OF PROVIDING 90 MIN OF EGRESS ILLUMINATION. WHERE A GENERATOR PROVIDES EMERGENCY POWER, A GENERATOR TRANSFER DEVICE OR SIMILAR DEVICE SHALL BE PROVIDED TO ENSURE LIGHT IS TURNED ON DURING AN EMERGENCY OCCURRENCE. 2. ALL LIGHTING VALUE ENGINEERING PROVIDED FOR THIS PROJECT SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER FOR REVIEW AND APPROVAL AFTER THE PROJECT HAS BEEN BID AND AWARDED. ANY CREDITS FOR VE SHALL INCLUDE TIME TO COMPENSATE OUR OFFICE FOR ENGINEERING REVIEW AND VERIFICATION OF BRANCH CIRCUIT LOADING AND/OR ENERGY CODE COMPLIANCE. NO VE SUBMITTALS WILL BE APPROVED WITHOUT THIS PROCESS IN PLACE. VE SUBMITTALS SHALL INCLUDE PHOTOMETRIC ANALYSIS TO ENSURE NEW LIGHT FIXTURES PROVIDE COMPARABLE LIGHT LEVELS TO THOSE ORIGINALLY DESIGNED. 3. MANUFACTURER SHALL PROVIDE SEISMIC SUPPORT WITH FIXTURES OVER 20 LBS. 4. FIXTURES LISTED IN THE FIXTURE SCHEDULE HAVE BEEN PROVIDED AS THE BASIS OF DESIGN. FIXTURES ARE TO BE PROVIDED THAT MEET OR EXCEED SPECIFICATIONS. FIXTURES THAT DO NOT COMPLY WILL BE REJECTED AT SUBMITTAL. 5. FIXTURE SHALL BE PROVIDED AS SPECIFIED. CONTACT MANUFACTURER'S REP FOR CONTRACTOR ALLOWANCE PRICING 6. FIXTURES TO BE PURCHASED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE ALL CONNECTORS, FASTENERS, AND WIRE TERMINATIONS FOR A COMPLETE SYSTEM PER MANUFACTURER'S INSTALLATION REQUIREMENTS.									

RESTROOM LIGHT FIXTURE SCHEDULE									
TYPE	MANUFACTURER	CATALOG NO.	VOLTAGE	DELIVERED LUMENS / CCT	CONTROL	MOUNTING	LOAD(VA)	DESCRIPTION	NOTES:
DL1	LITHONIA	LDN6 35/15 L06 AR LSS MVOLT G210	UNV	1500 LUMENS / 3500K	0-10V	RECESSED	17.5	6" LED DOWNLIGHT	4
	HALO								
	LIGHTOLIER								
	LITON								
DL2	LITHONIA	LDN6 35/07 L06 AR LSS MVOLT G210	UNV	750 LUMENS / 3500K	0-10V	RECESSED	8.9	6" LED DOWNLIGHT	4
	HALO								
	LIGHTOLIER								
	LITON								
DL3	LUMINAIRE LED	VFDL6 GB MINI 2T 1000LM MD 35K 80CRI MVOLT CPL SCBA	UNV	1000 LUMENS / 3500K	0-10V	RECESSED	12	6" LED DOWNLIGHT VANDAL RESISTANT. SPECIFY COLOR BY ARCHITECT.	4
	HALO								
	LIGHTOLIER								
	LITON								
NOTES: 1. ALL LIGHT FIXTURES SHOWN HALF SHADED SHALL BE PROVIDED WITH A MEANS OF EMERGENCY POWER SUCH AS A BATTERY PACK, INVERTER OR GENERATOR CAPABLE OF PROVIDING 90 MIN OF EGRESS ILLUMINATION. WHERE A GENERATOR PROVIDES EMERGENCY POWER, A GENERATOR TRANSFER DEVICE OR SIMILAR DEVICE SHALL BE PROVIDED TO ENSURE LIGHT IS TURNED ON DURING AN EMERGENCY OCCURRENCE. 2. ALL LIGHTING VALUE ENGINEERING PROVIDED FOR THIS PROJECT SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER FOR REVIEW AND APPROVAL AFTER THE PROJECT HAS BEEN BID AND AWARDED. ANY CREDITS FOR VE SHALL INCLUDE TIME TO COMPENSATE OUR OFFICE FOR ENGINEERING REVIEW AND VERIFICATION OF BRANCH CIRCUIT LOADING AND/OR ENERGY CODE COMPLIANCE. NO VE SUBMITTALS WILL BE APPROVED WITHOUT THIS PROCESS IN PLACE. VE SUBMITTALS SHALL INCLUDE PHOTOMETRIC ANALYSIS TO ENSURE NEW LIGHT FIXTURES PROVIDE COMPARABLE LIGHT LEVELS TO THOSE ORIGINALLY DESIGNED. 3. MANUFACTURER SHALL PROVIDE SEISMIC SUPPORT WITH FIXTURES OVER 20 LBS. 4. FIXTURES LISTED IN THE FIXTURE SCHEDULE HAVE BEEN PROVIDED AS THE BASIS OF DESIGN. FIXTURES ARE TO BE PROVIDED THAT MEET OR EXCEED SPECIFICATIONS. FIXTURES THAT DO NOT COMPLY WILL BE REJECTED AT SUBMITTAL. 5. FIXTURE SHALL BE PROVIDED AS SPECIFIED. CONTACT MANUFACTURER'S REP FOR CONTRACTOR ALLOWANCE PRICING 6. FIXTURES TO BE PURCHASED BY OWNER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE ALL CONNECTORS, FASTENERS, AND WIRE TERMINATIONS FOR A COMPLETE SYSTEM PER MANUFACTURER'S INSTALLATION REQUIREMENTS.									

EQUIPMENT SCHEDULE																
MARK	DESCRIPTION	ELECTRICAL										STARTER			OVERCURRENT PROTECTION	
		V	PH	KW	HP	MCA	FLA	MOCBP	CONDUIT SIZE	WIRE QTY.	WIRE SIZE	GND. SIZE	NEMA SIZE	DISCONNECT SIZE/POLE	FUSE SIZE	REMARKS
IE-02	KEGERATOR	120	1				6.2	20	3/4"	2	12	12	-	-	-	12A
IE-10	3 DOOR REFRIGERATOR	120	1				6.1	20	3/4"	2	12	12	-	-	-	12A
DWH-1	WATER HEATER	120	1				20.8	30	3/4"	2	10	10	-	-	-	5A
EU-1	EVAPORATOR UNIT	240	1													1A
CU-1	CONDENSING UNIT	240	1													1A
RTU-1	ROOF TOP UNIT	240	1			20		30	3/4"	3	10	10	-	30/3	30	1A
WH-1	GAS WATER HEATER	120	1				5	20	3/4"	2	12	12	-	-	-	5A
NOTE: COORDINATE FINAL EQUIPMENT CONNECTIONS WITH EQUIPMENT PROVIDER PRIOR TO ROUGH-IN. VERIFY ALL MOUNTING HEIGHTS.																
REMARKS: 1. FUSED DISCONNECT SWITCH 2. NON-FUSED DISCONNECT SWITCH 3. BREAKER IN ENCLOSURE 4. THERMAL OVERLOAD SWITCH 5. TOGGLE SWITCH 6. MAGNETIC STARTER 7. MAGNETIC STARTER/NON-FUSED DISCONNECT SWITCH 8. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION 9. MAGNETIC STARTER/BREAKER COMBINATION 10. REDUCED VOLTAGE STARTER 11. VARIABLE FREQUENCY DRIVE 12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC. 13. DIRECT CONNECTION 14. DUCT DETECTOR IN RETURN DUCT 15. SWITCH WITH LIGHTS A. FURNISHED, INSTALLED AND CONNECTED UNDER DIVISION 26 B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION REQUIRING CONNECTION UNDER DIVISION 26 C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 26 D. FURNISHED, INSTALLED, AND CONNECTED UNDER ANOTHER DIVISION E. FURNISHED AND INSTALLED UNDER DIVISION 26 REQUIRING CONNECTION UNDER ANOTHER DIVISION																