



U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON 2017
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TEAM LAS VEGAS
www.unlvsd.com
sd2017@gmail.com

UNIVERSITY OF NEVADA, LAS VEGAS
4505 S. MARYLAND PKWY
LAS VEGAS, NV 89145

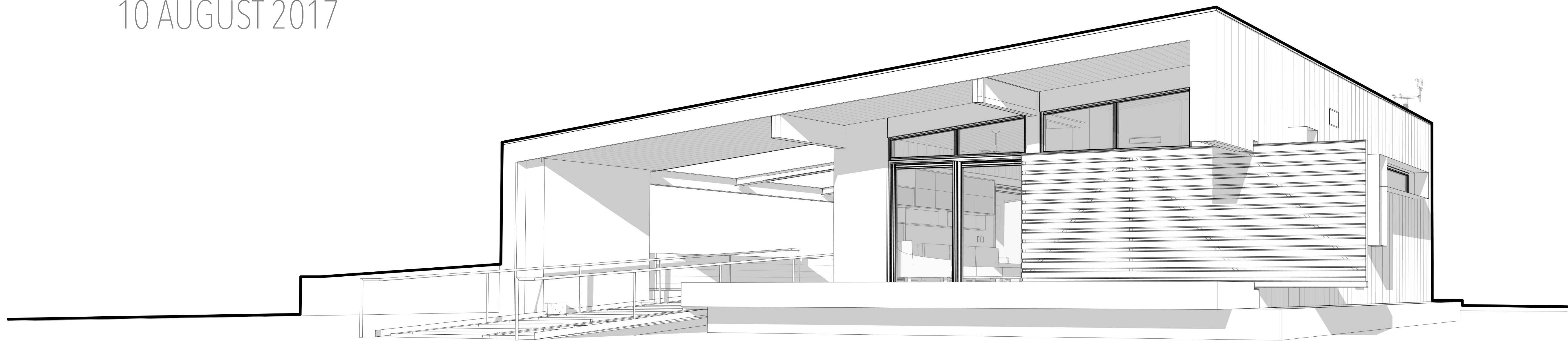
CONSULTANTS
RIM ROCK ENGINEERING
9030 W. CHEYENNE AVE, SUITE 210
LAS VEGAS, NV 89129
(702) 838-5311

100% CONSTRUCTION DOCUMENTS

23 FEBRUARY 2017

REVISION 1: AS-BUILT DOCUMENTS

10 AUGUST 2017



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SYMBOLS

SYMBOL	DEFINITION
	Room name 150 SF
	AREA TAG
	CALL OUT TAG
	EXTERIOR ELEVATION TAG
	CENTER LINE
	DETAIL
	DOOR TAG
	INTERIOR ELEVATION TAG
	NORTH ARROW
	REVISION TAG
	ROOM TAG
	SECTION TAG
	SPOT ELEVATION TAG
	STRUCTURAL GRID TAG
	VIEW TITLE
	WALL TAG
	WINDOW TAG

MATERIAL HATCHES

	CONCRETE		PLYWOOD
	STEEL		SOLID WOOD
	ALUMINUM		HIGH DENSITY FOAM
	SOIL		SPRAY FOAM
	ZIP SHEATHING RIGID INSULATION		INSULATION
	DRYWALL (G.W.B.)		CELLULOSE INSULATION

ABBREVIATIONS

ABBREV.	DEFINITION	ABBREV.	DEFINITION
A/C	AIR CONDITIONING	MAT	MATERIAL
ADA	AMERICANS WITH DISABILITIES ACT	MAX	MAXIMUM
AH	AIR HANDLER (INDOOR UNIT)	MEP	MECHANICAL, ELECTRICAL, PLUMBING
ALUM	ALUMINUM	MI	MICROINVERTER
B.O.	BOTTOM OF	NO	NUMBER
BRD	BOARD	OPP	OPPOSITE
BS	BUTTON STATION	PE	PLUMBING EQUIPMENT
CAB	CABINET	PFAS	PERSONAL FALL ARREST SYSTEM
CL	CENTER LINE	PLBG	PLUMBING
CSWK	CASEWORK	PLWD	PLYWOOD
CW	COLD WATER	PM	PEX MANIFOLD
DR	DOOR	PSF	POUNDS PER SQUARE FOOT
DS	DOWNSPOUT	PV	PHOTOVOLTAIC
DT	DESICCANT TANK	R/A	RETURN AIR
DW	DISHWASHER	RCP	REFLECTED CEILING PLAN
EQ	EQUAL	RD	ROOF DRAIN
ERV	ENERGY RECOVERY VENTILATOR	REF	REFRIGERATOR
EXT	EXTERIOR	RET	RETURN ROOM
FIN	FINISH	RM	ROOM
FL	FLOOR	S/A	SUPPLY AIR
FRZ	FREEZER	SF	SQUARE FEET
FSW	FLOW SWITCH	SH	HUMIDITY SENSOR
FTG	FOOTING	SHAC	SMART HOUSE ADAPTIVE CONTROL
GALV	GALVANIZED	SHT	SHEET
GEN	GENERAL	SHWR	SHOWER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SIM	SIMILAR
GWB	GYPSUM WALL BOARD	SYS	SYSTEM
GYP	GYPSUM	THK	THICK
H	HEIGHT	T.O.	TOP OF
HP	HEAT PUMP	TPO	THERMOPLASTIC POLYOLEFIN
HVAC	HEATING, VENTILATION, AIR CONDITIONING	TV	TELEVISION
HX	HEAT EXCHANGER	UM	UTILITY METER
HHXEST	HEAT EXCHANGER FOR EXCESS SOLAR THERMAL	V	VALVE
HW	HOW WATER	VSF	VARIABLE SPEED FAN CONTROL INPUT
IN	INCHES	VIF	VERIFY IN FIELD
INSUL	INSULATION	W	WIDTH
INT	INTERIOR	W/	WITH
JB	JUNCTION BOX	WC	TOILET
L	LENGTH	WDW	WINDOW
		WH	WATER HEAT
		WT	WATER TANK



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G-002
TOC, ABBREVIATIONS &
SYMBOLS

SCALE:
As indicated

G 602.5.3.1 MINIMUM ROOM AREA
 HABITABLE ROOMS SHALL HAVE A FLOOR AREA OF NOT LESS THAN 70 SQUARE FEET.

IRC 2015 R304.2 MINIMUM DIMENSIONS
 HABITABLE ROOMS SHALL BE NOT LESS THAN 7 FEET IN ANY HORIZONTAL DIRECTION.

R304.3 HEIGHT EFFECT ON ROOM AREA.
 PORTIONS OF A ROOM WITH A SLOPING CEILING MEASURING LESS THAN 5 FEET OR A FURRED CEILING MEASURING LESS THAN 7 FEET FROM THE FINISHED FLOOR TO THE FINISHED CEILING SHALL NOT BE CONSIDERED AS CONTRIBUTING TO THE MINIMUM REQUIRED HABITABLE AREA FOR THAT ROOM.

ALL AREA CALCULATIONS ARE MEASURED IN ACCORDANCE WITH ANSI STANDARD Z765-2003
 CALCULATION OF SQUARE FOOTAGE DEVELOPED BY USING THE PLANS OF THE HOUSE.
 FINISHED AREA MEASURED TO THE EXTERIOR FINISHED SURFACE OF OUTSIDE WALLS.
 THE FINISHED SQUARE FOOTAGE OF THE HOUSE IS REPORTED TO THE NEAREST WHOLE SQUARE FOOT FOR ABOVE-GRADE FINISHED SQUARE FOOTAGE AND FOR BELOW-GRADE FINISHED SQUARE FOOTAGE FOR ALL ROOMS INCLUDED IN THE SQUARE FOOTAGE CALCULATION.



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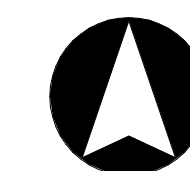
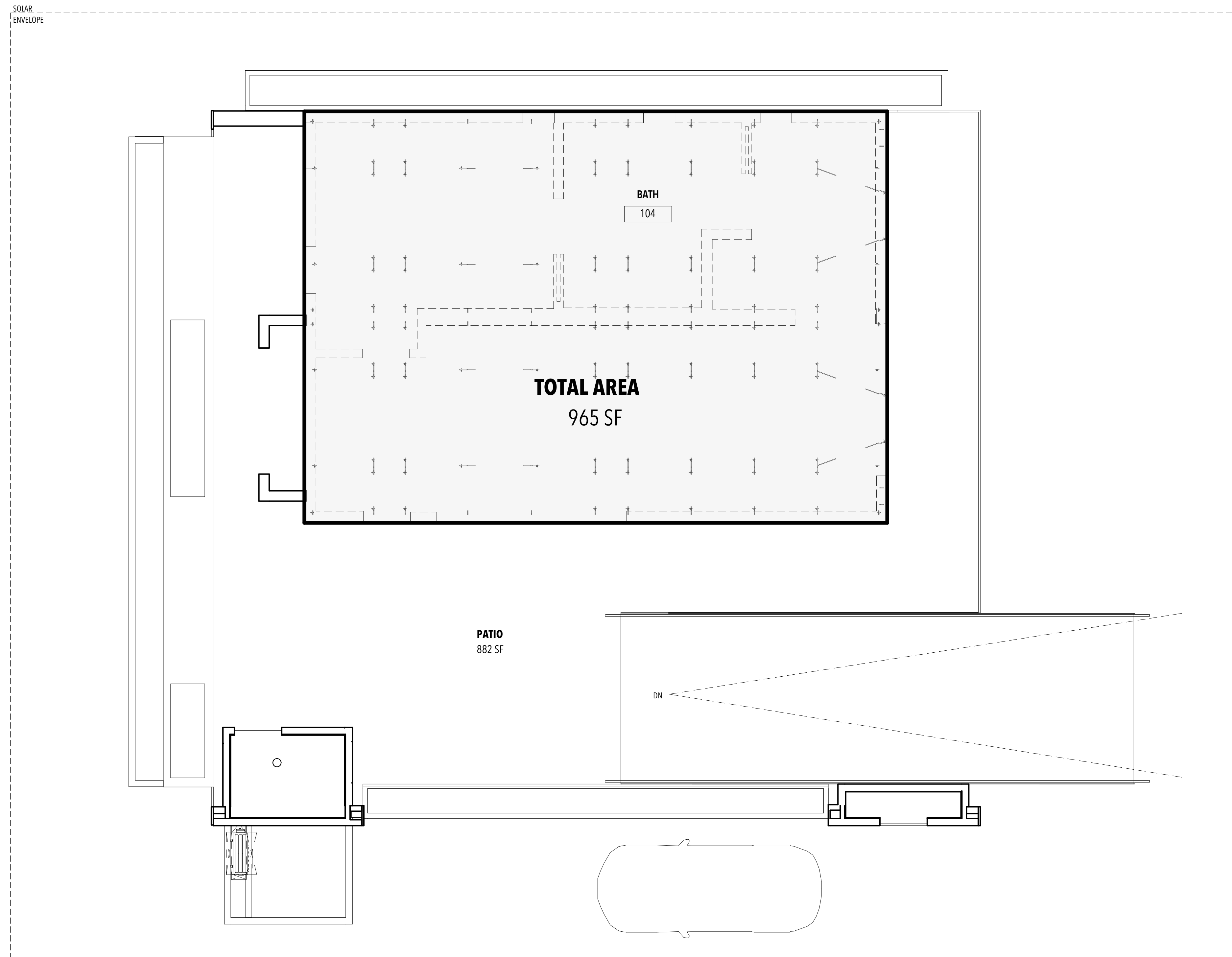
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G-102
EMERGENCY EGRESS PLAN

GENERAL NOTES

DWELLINGS SHALL BE PROVIDED WITH A MEANS OF EGRESS IN ACCORDANCE WITH THIS SECTION. THE MEANS OF EGRESS SHALL PROVIDE A CONTINUOUS AND UNOBSTRUCTED PATH OF VERTICAL AND HORIZONTAL EGRESS TRAVEL FROM ALL PORTIONS OF THE DWELLING TO THE REQUIRED EGRESS DOOR WITHOUT REQUIRING TRAVEL THROUGH A GARAGE. THE REQUIRED EGRESS DOOR SHALL OPEN DIRECTLY INTO A PUBLIC WAY OR TO A YARD OR COURT THAT OPENS TO A PUBLIC WAY.

IRC 2015 R311.2 EGRESS DOOR

NOT LESS THAN ONE EGRESS DOOR SHALL BE PROVIDED FOR EACH DWELLING UNIT. THE EGRESS DOOR SHALL BE SIDE-HINGED, AND SHALL PROVIDE A CLEAR WIDTH OF NOT LESS THAN 32 INCHES WHERE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. THE CLEAR HEIGHT OF THE DOOR OPENING SHALL BE NOT LESS THAN 78 INCHES IN HEIGHT MEASURED FROM THE TOP OF THE THRESHOLD TO THE BOTTOM OF THE STOP. OTHER DOORS SHALL NOT BE REQUIRED TO COMPLY WITH THESE MINIMUM DIMENSIONS. EGRESS DOORS SHALL BE READILY OPENABLE FROM INSIDE THE DWELLING WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

IRC 2015 R311.3 FLOORS AND LANDINGS AT EXTERIOR DOORS

THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL BE NOT LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A DIMENSION OF NOT LESS THAN 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL. THE SLOPE AT EXTERIOR LANDINGS SHALL NOT EXCEED A QUARTER UNIT VERTICAL IN 12 UNITS HORIZONTAL.

IRC 2015 R906.1 PORTABLE FIRE EXTINGUISHER WHERE REQUIRED
IRC 2015 R1010.1.A.3 SPECIAL PURPOSE HORIZONTAL SLIDING, ACCORDION OR FOLDING DOORS

IN OTHER THAN GROUP H OCCUPANCIES, SPECIAL PURPOSE HORIZONTAL SLIDING, ACCORDION OR FOLDING DOOR ASSEMBLIES PERMITTED TO BE A COMPONENT OF A MEANS OF EGRESS IN ACCORDANCE WITH EXCEPTION 6 TO SECTION 1010.1.2 SHALL COMPLY WITH ALL OF THE FOLLOWING CRITERIA:

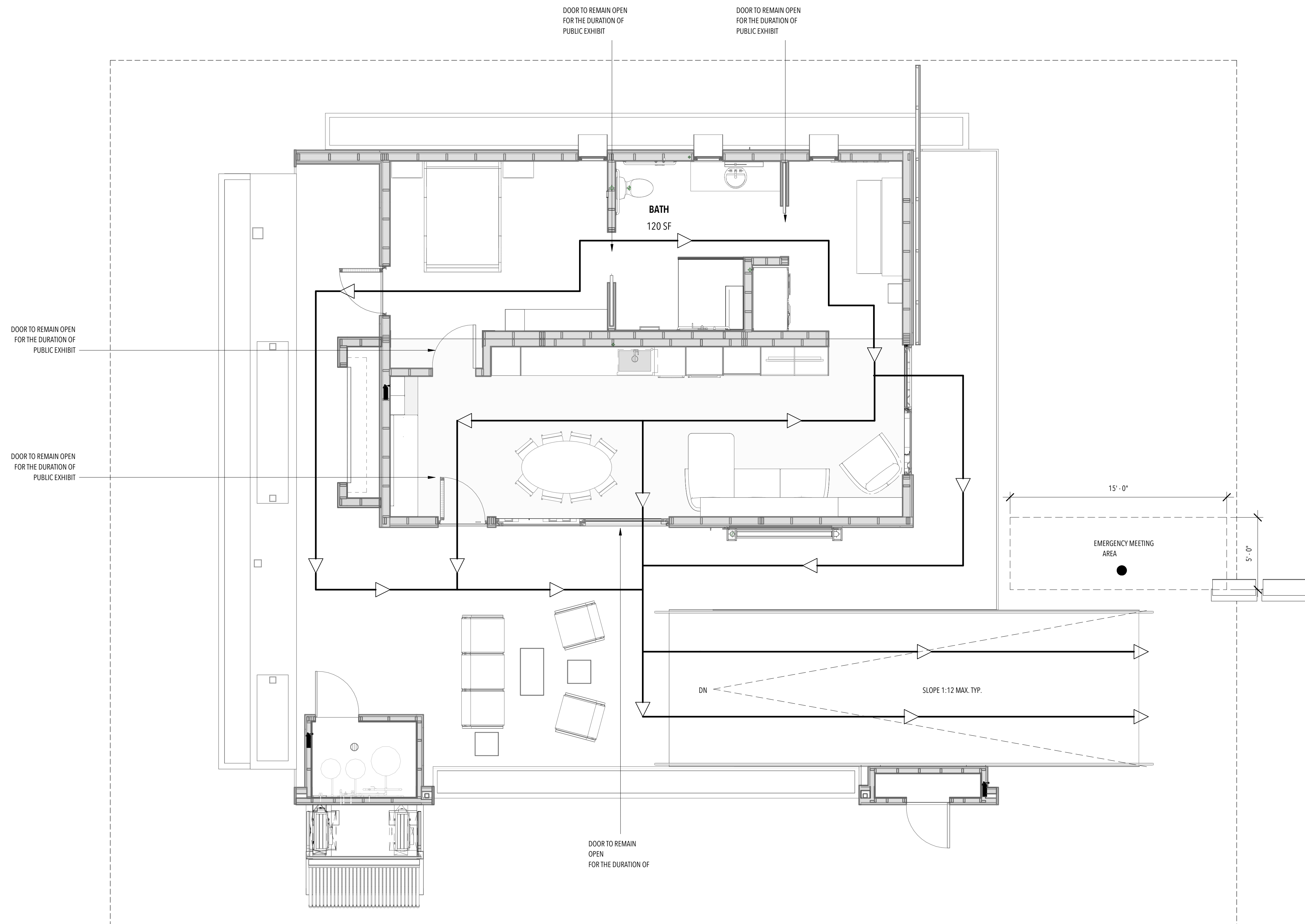
1. THE DOORS SHALL BE POWER OPERATED AND SHALL BE CAPABLE OF BEING OPERATED MANUALLY IN THE EVENT OF POWER FAILURE.
2. THE DOORS SHALL BE OPENABLE BY A SIMPLE METHOD FROM BOTH SIDES WITHOUT SPECIAL KNOWLEDGE OR EFFORT.

ADA 2010 207.1 GENERAL

MEANS OF EGRESS SHALL COMPLY WITH SECTION 1003.2.13 OF THE INTERNATIONAL BUILDING CODE (2000 EDITION AND 2001 SUPPLEMENT) OR SECTION 1007 OF THE INTERNATIONAL BUILDING CODE (2003 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1).

SD BUILDING CODE 3-1 FIRE PROTECTION AND PREVENTION

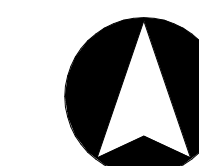
A. EACH TEAM SHALL PROVIDE A FIRE PROTECTION PLAN. THIS PLAN SHOULD INDICATE THE LOCATION OF FIRE EXTINGUISHERS, HOW EGRESS WILL BE MADE FROM THE UNIT, AND WHO WILL BE RESPONSIBLE (I.E., THE TEAM'S HEALTH AND SAFETY OFFICER) FOR PUBLIC TOUR LIFE SAFETY DURING THE EVENT. INCLUDE A WRITTEN OPERATIONS PLAN FOR TEAM-FACILITATED ORDERLY AND QUICK EVACUATION AND FIRE MITIGATION. SUCCESSFUL DEMONSTRATION OF THE PLAN WILL BE REQUIRED BEFORE ANY PUBLIC TOUR OF THE BUILDING WILL BE PERMITTED.



DRAWING KEY:

● EMERGENCY MEETING AREA

☼ FIRE EXTINGUISHER



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GENERAL NOTES

A. FIRE PROTECTION PLAN EACH TEAM SHALL PROVIDE A FIRE PROTECTION PLAN. THIS PLAN SHOULD INDICATE THE LOCATION OF FIRE EXTINGUISHERS, HOW EGRESS WILL BE MADE FROM THE UNIT, AND WHO WILL BE RESPONSIBLE (I.E., THE TEAM'S HEALTH AND SAFETY OFFICER) FOR PUBLIC TOUR LIFE SAFETY DURING THE EVENT. INCLUDE A WRITTEN OPERATIONS PLAN FOR TEAM-FACILITATED ORDERLY AND QUICK EVACUATION AND FIRE MITIGATION. SUCCESSFUL DEMONSTRATION OF THE PLAN WILL BE REQUIRED BEFORE ANY PUBLIC TOUR OF THE BUILDING WILL BE PERMITTED.

TOUR ROUTE IN COMPLIANCE WITH SD BUILDING CODE 4-1.

SD BUILDING CODE 4-5

A. DOORS THAT CAN BE FIXED IN AN OPEN POSITION MAY BE ACCEPTED AS PART OF THE ACCESSIBLE ROUTE IF 32 IN. (81.3 CM) MINIMUM CLEARANCE IS PROVIDED THROUGH THE DOOR OPENING WITH THE DOOR SECURED IN THE FULLY OPEN POSITION.

B. DOORS WITHOUT REQUIRED MANEUVERING CLEARANCES THAT ARE INTENDED TO REMAIN OPEN DURING THE PUBLIC TOUR MUST BE CLEARLY IDENTIFIED ON THE PLANS AND APPROVED BY THE SOLAR DECATHLON BUILDING OFFICIAL.

ADA 2010 303.4 RAMPS

CHANGES IN LEVEL GREATER THAN 1/2 INCH (13 MM) HIGH SHALL BE RAMPED, AND SHALL COMPLY WITH 405 OR 406.

ADA 2010 304.1 GENERAL

TURNING SPACE SHALL COMPLY WITH 304.

ADA 2010 304.2 FLOOR OR GROUND SURFACES

FLOOR OR GROUND SURFACES OF A TURNING SPACE SHALL COMPLY WITH 302. CHANGES IN LEVEL ARE NOT PERMITTED.

ADA 2010 305.1 GENERAL

CLEAR FLOOR OR GROUND SPACE SHALL COMPLY WITH 305.

ADA 2010 402.2 COMPONENTS

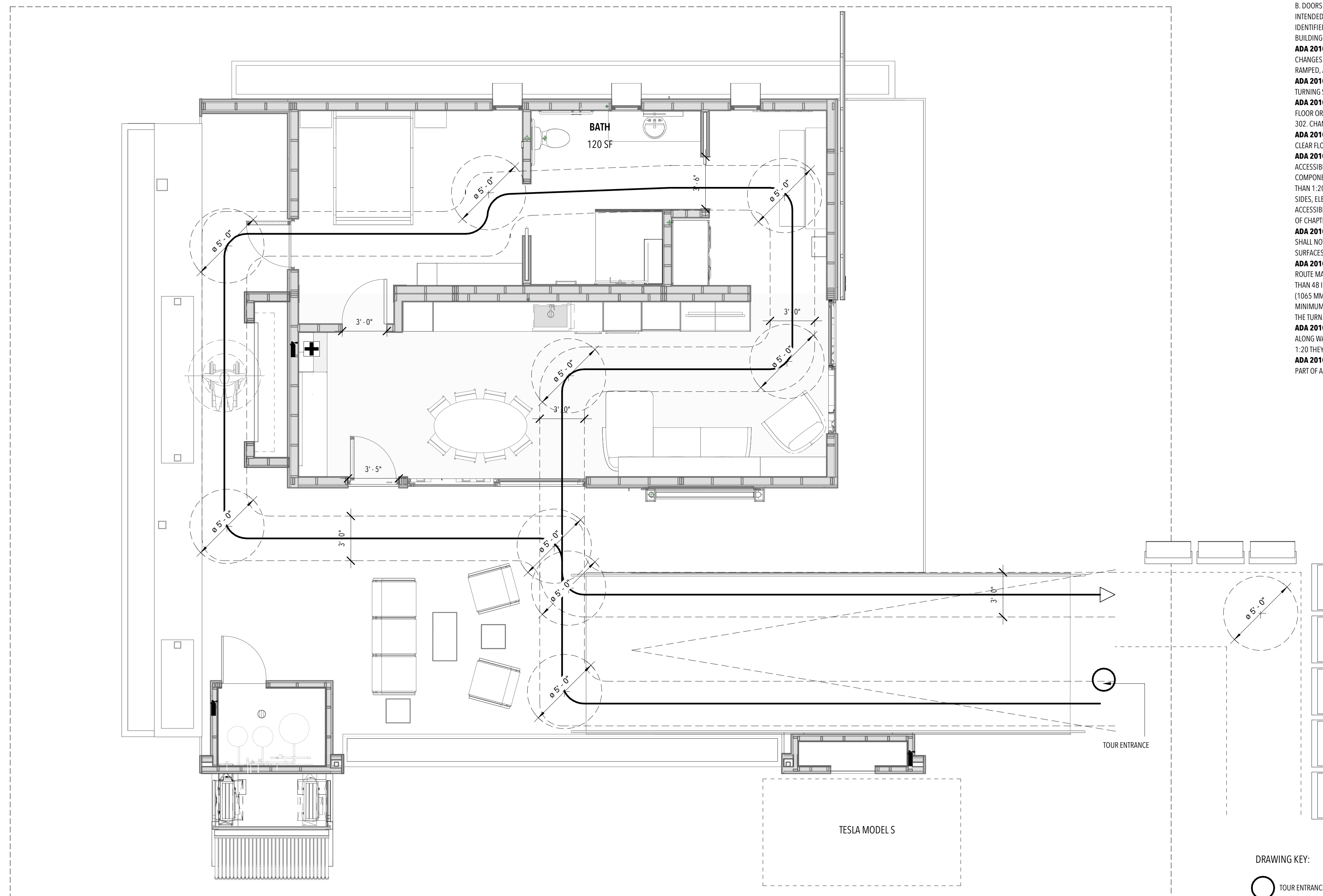
ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOPE NOT STEEPER THAN 1:20, DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS, AND PLATFORM LIFTS. ALL COMPONENTS OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 4.

ADA 2010 403.3 SLOPE THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48.

ADA 2010 403.5.2 CLEAR WIDTH AT TURN WHERE THE ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN ELEMENT WHICH IS LESS THAN 48 INCHES (1220 MM) WIDE, CLEAR WIDTH SHALL BE 42 INCHES (1065 MM) MINIMUM APPROACHING THE TURN, 48 INCHES (1220 MM) MINIMUM AT THE TURN AND 42 INCHES (1065 MM) MINIMUM LEAVING THE TURN.

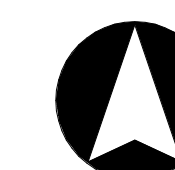
ADA 2010 403.6 HANDRAILS WHERE HANDRAILS ARE PROVIDED ALONG WALKING SURFACES WITH RUNNING SLOPES NOT STEEPER THAN 1:20 THEY SHALL COMPLY WITH 505.

ADA 2010 404.1 GENERAL DOORS, DOORWAYS, AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH 404.



DRAWING KEY:

- TOUR ENTRANCE
- FIRE EXTINGUISHER
- FIRST AID KIT



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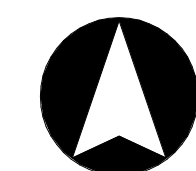
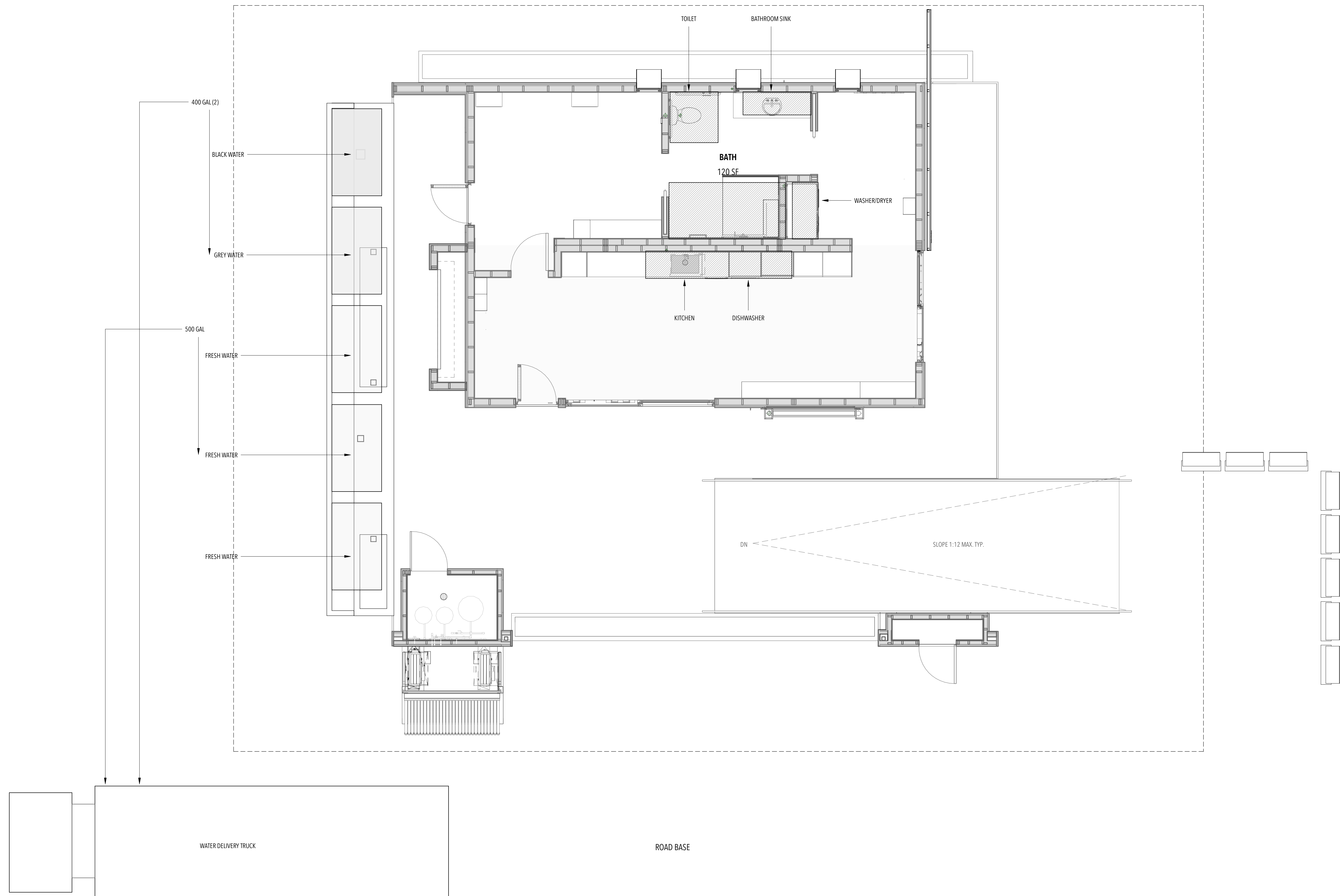
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G-104

**WATER
DELIVERY/REMOVAL PLAN**

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

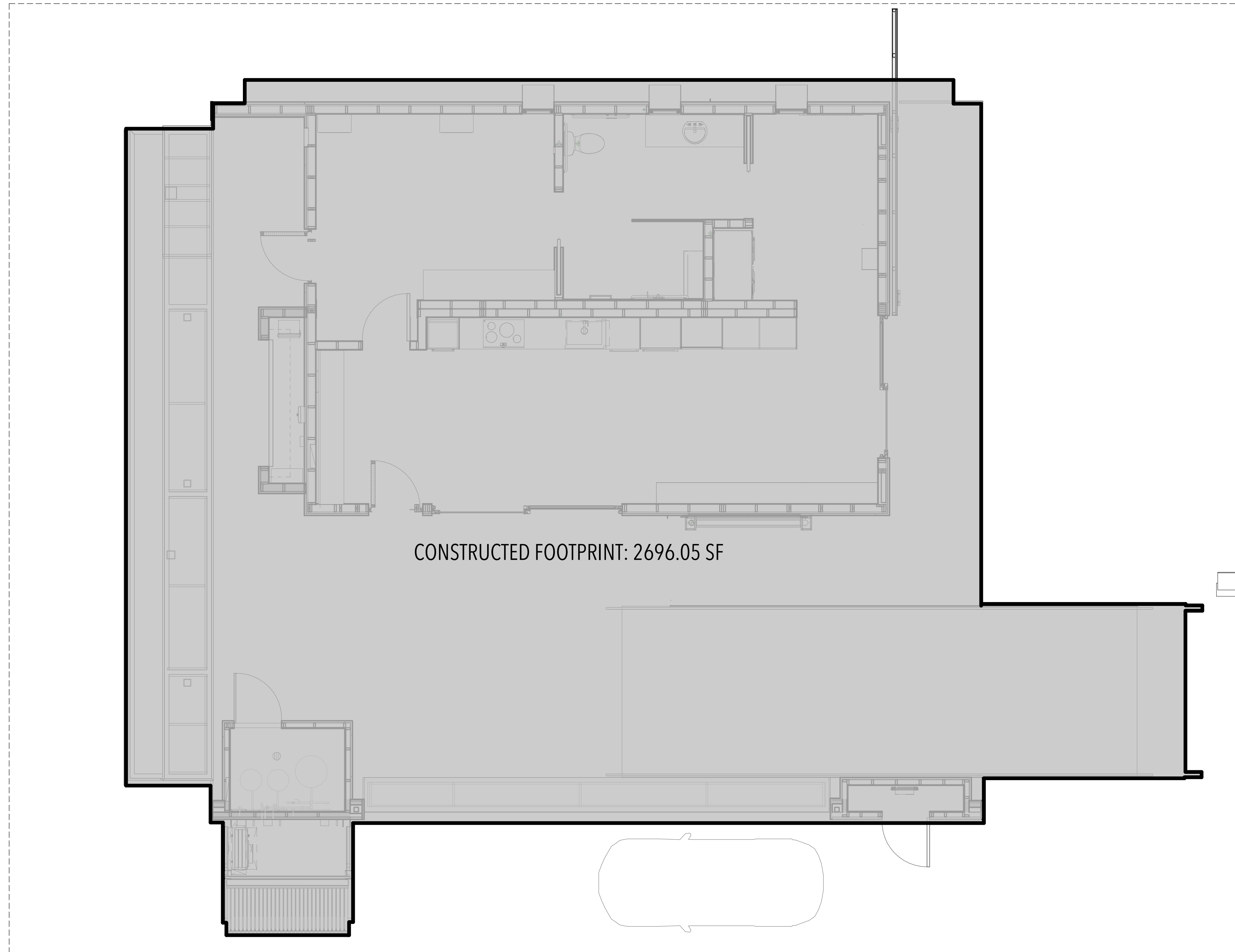


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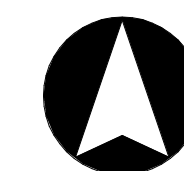
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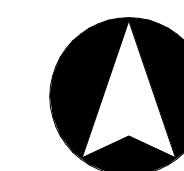
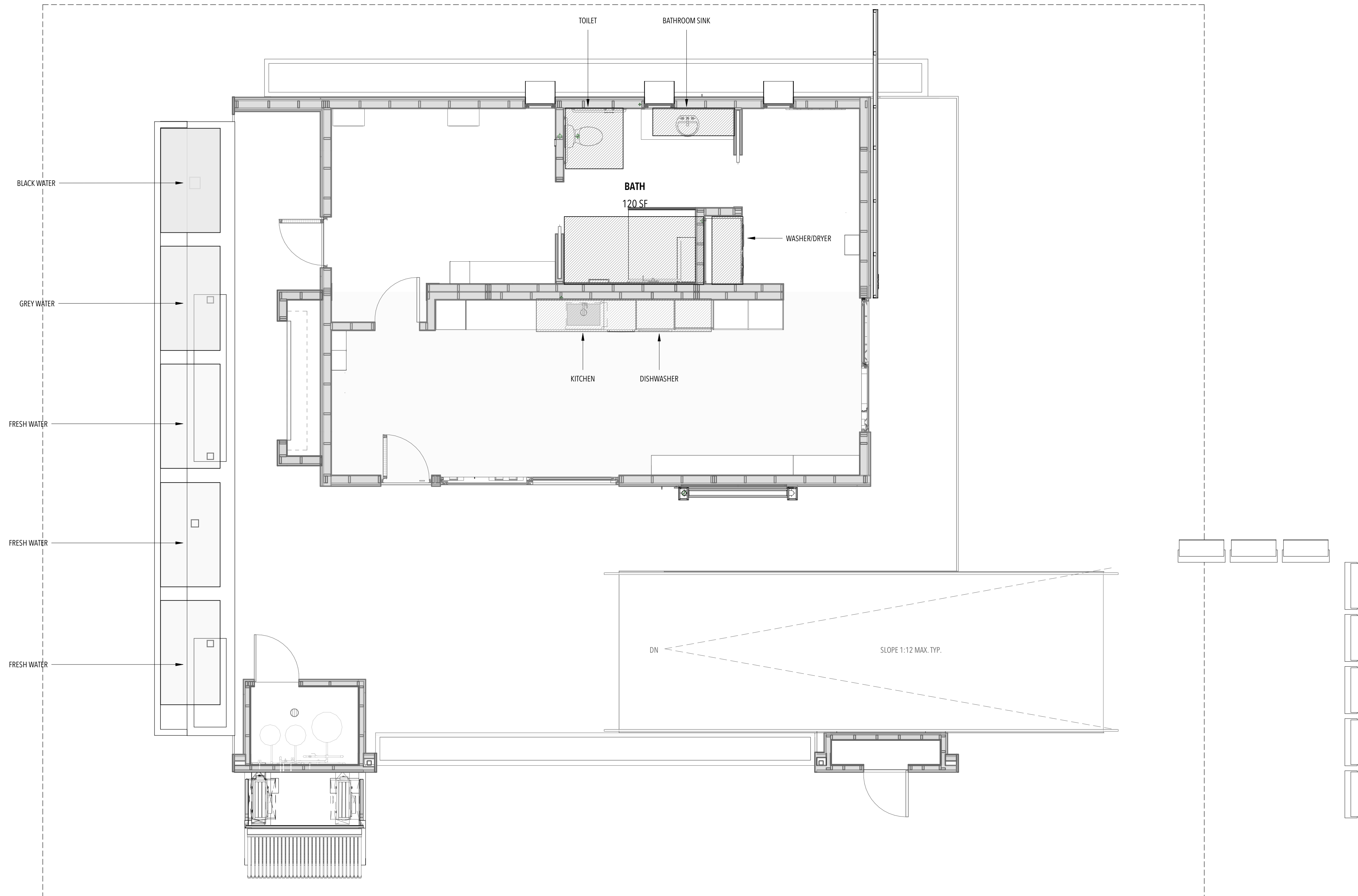


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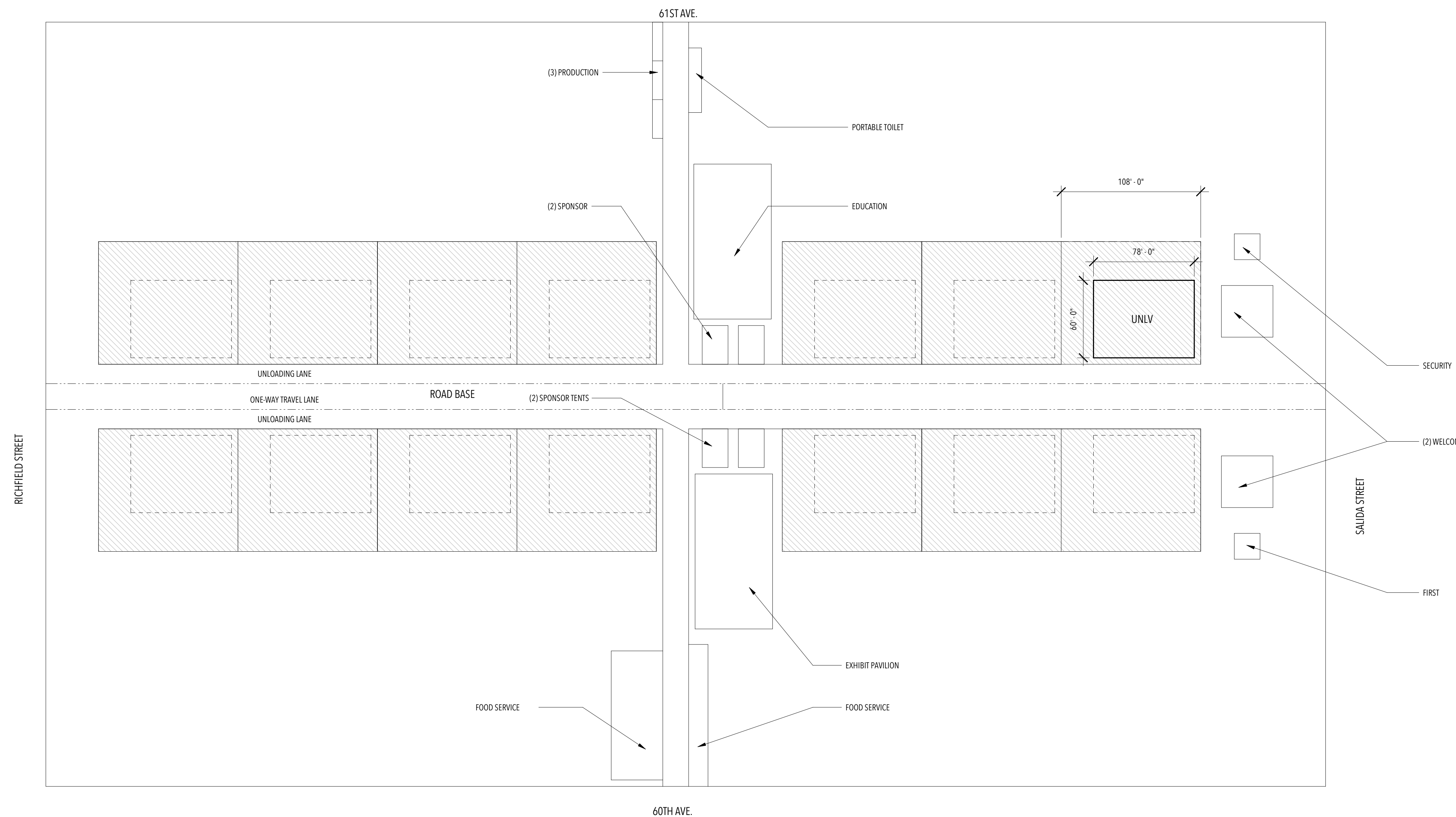
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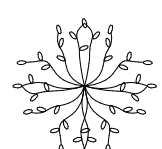
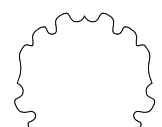
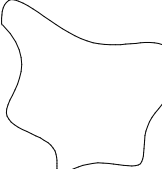
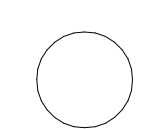
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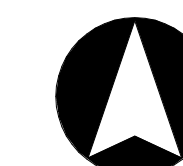
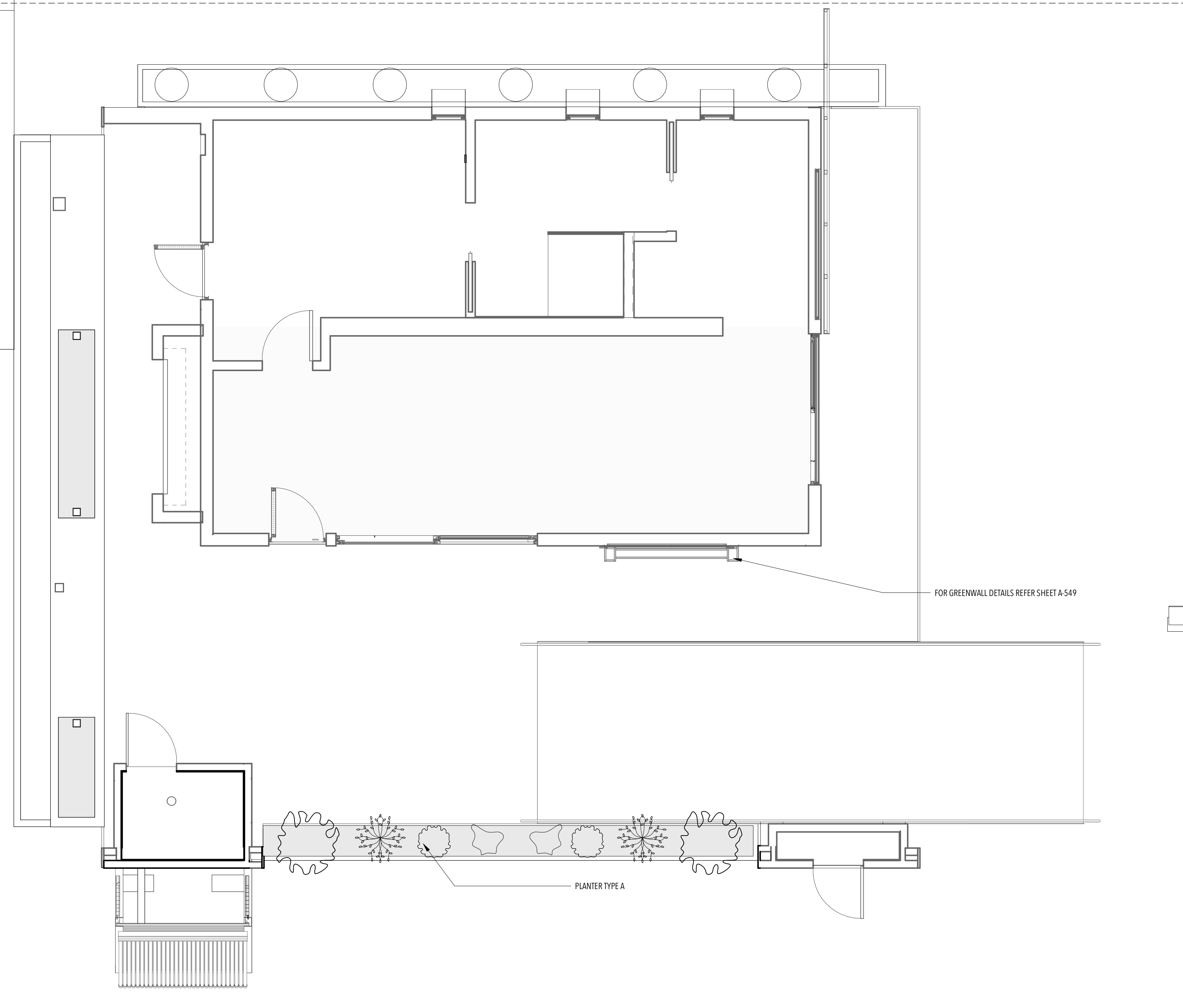
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PLANT SCHEDULE

IMAGE	COMMON NAME	LATIN NAME	GENERAL PLANT DIAMETER	GENERAL PLANT HEIGHT	QUANTITY
	MEXICAN HONEYSUCKLE	JUSTICIA SPICIGERA	Ø48"	36"	2
	CLIFF GOLDENBUSH	ERICAMERIA CUNEATA	Ø36"	24"	2
	MEXICAN BLUE SAGE	SALVIA CHAMAEDRYOIDES	Ø24"	24"	2
	ROSEMARY	ROSMARINUS OFFICINALIS	Ø72"	48"	2
	BUNNY EAR CACTI	OPUNTIA MICRODASYS	Ø60"	36"	6

GREENWALL PLANT SCHEDULE

COMMON NAME	LATIN NAME	GENERAL PLANT DIAMETER	GENERAL PLANT HEIGHT	QUANTITY
CORIANDER	CORIANDRUM SATIVUM	Ø48"	36"	5
THYME	THYMUS VULGARIS	Ø36"	24"	5
TARRAGON	ARTEMISIA DRACUNCULUS	Ø24"	24"	2
PAPRIKA	CAPSIUM	Ø24"	24"	6

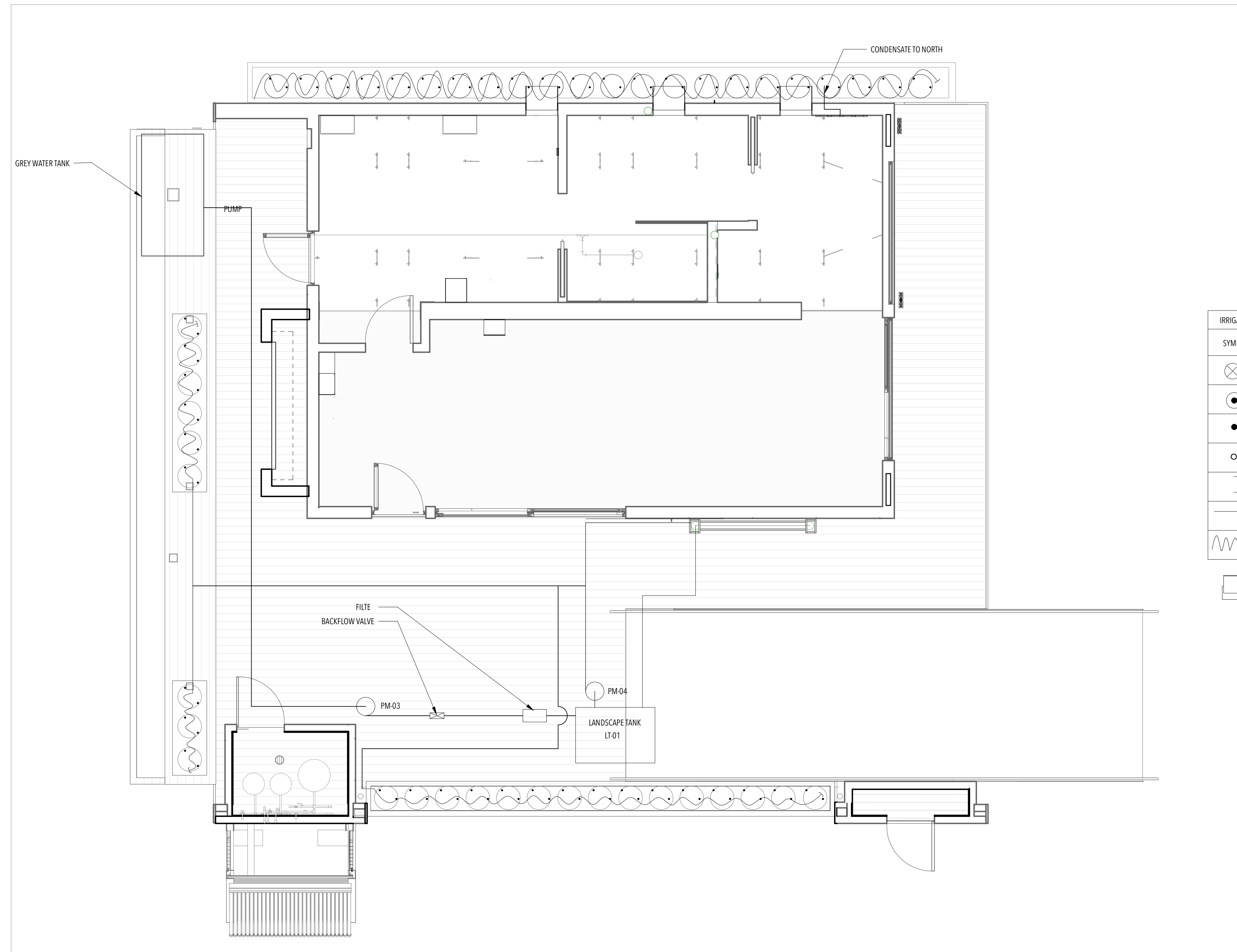


ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

NO.	DESCRIPTION	DATE
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IRRIGATION LEGEND				
SYMBOL	MODEL	QUANTITY	FLOW RATE	PRESSUR
⊗	1" LOW FLOW VALVE	2	GPM AS PER REQUIREMENT	15 PSI
⊙	RAIN BIRD PRF-100-RBY 1" PR RBY	1	15 GPM MAX	40
●	RAIN BIRD XB-10 PC XERI-BUG EMITTER	70	1 GPH	15 PSI
○	RAIN BIRD XB-20 PC XERI-BUG EMITTER	7	2 GPH	15 PSI
]	EASY FIT FLUSH			
—	3/4" PVC			
~~~~~	1/2"			



CONSULTANTS

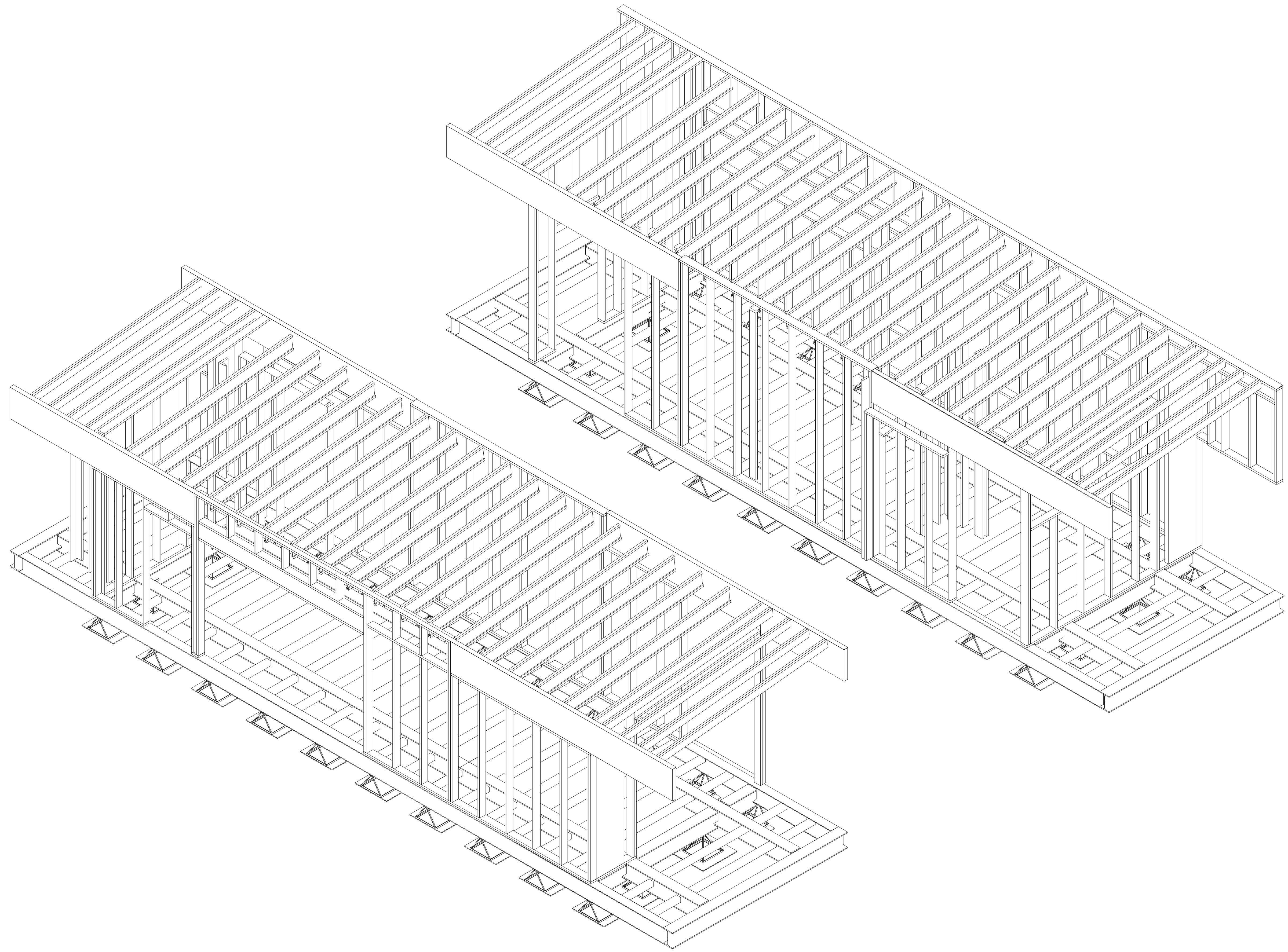
STRUCTURAL

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17





# GENERAL STRUCTURAL NOTES

## GENERAL REQUIREMENTS

- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS PRESENTED HEREIN HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY PROFESSIONAL ENGINEERS PRACTICING IN THE SAME FIELD AT THE SAME TIME IN THE SAME OR SIMILAR LOCALITY. IF NECESSITY, THEY ASSUME THAT ALL WORK DEPICTED IS PERFORMED BY A COMPETENT AND EXPERIENCED CONTRACTOR, OR WORKMEN, HAVING A WORKING KNOWLEDGE OF STANDARDS AND REQUIREMENTS OF THE APPLICABLE BUILDING CODES AND INDUSTRY-ACCEPTED STANDARD GOOD PRACTICE. AS NOTED ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MEANS, METHODS, TECHNIQUES, AND SEQUENCING, AND TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING, LAGGING, FORMWORK, ETC. FOR THE PROTECTION OF LIFE, SAFETY AND PROPERTY DURING CONSTRUCTION. CONSTRUCTION MATERIALS AND LIVE LOADS SHALL BE APPROPRIATELY DISTRIBUTED SO AS TO NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT, AS NOTED HEREIN.
- CALCULATION AND DESIGN OF ITEMS THAT ARE NOT PART OF THE PRIMARY STRUCTURAL SYSTEM SHALL BE PROVIDED BY OTHERS, UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS. SUCH ITEMS MAY INCLUDE STAIRS, HANDRAILS, RAILINGS, AWNINGS, CANOPIES, MECHANICAL EQUIPMENT ANCHORAGE, NON-STRUCTURAL WALLS, AND PREFABRICATED STRUCTURAL ITEMS SUCH AS ROOF AND FLOOR TRUSSES, ETC. AS DEEMED ACCEPTABLE BY THE BUILDING DEPARTMENT, SUCH ITEMS MAY BE SUBMITTED FOR APPROVAL AS A DEFERRED SUBMITTAL.
- SHOP DRAWINGS ARE REVIEWED ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT STRUCTURAL DOCUMENTS. REVIEW NECESSARILY ASSUMES THAT ALL WORK IS PERFORMED BY COMPETENT INDIVIDUALS, AND IN ACCORDANCE WITH ALL APPLICABLE AND INDUSTRY-ACCEPTED BUILDING CODES, STANDARDS, PRACTICES, REQUIREMENTS, ETC. REVIEW DOES NOT INCLUDE DIMENSIONS, FABRICATION PROCESSES, METHODOLOGY, SEQUENCING, COORDINATION OF WORK WITH OTHER TRADES, ETC. RESPONSIBILITY OF CORRECTNESS SHALL LIE WITH THE CONTRACTOR. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM THE CONTRACT DRAWINGS SHALL BE CLOUDED AND SHALL NOT BE CONSIDERED APPROVED AFTER THE ENGINEER'S REVIEW UNLESS SPECIFICALLY NOTED ACCORDINGLY. SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE CONTRACT DRAWINGS. ONE COPY OF EACH SUBMITTAL WILL BE RETAINED FOR THE ENGINEER'S RECORDS.
- WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH REFERENCE SHALL BE THE LATEST EDITION OR ADDENDA.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS WITH THE ARCHITECTURAL DRAWINGS, AND/OR GRADING PLANS AND RESOLVE ANY DISCREPANCIES, OMISSIONS, OR VARIATIONS WITH THE ARCHITECT AND/OR CIVIL ENGINEER PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, ETC. IN COORDINATION WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
- OPTIONS AND/OR ALTERNATES NOTED IN THE CONTRACT STRUCTURAL DRAWINGS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR AND, IF USED, SHALL BE PER THE LATEST EDITION AND/OR ADDENDA.
- ALTHOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON THE DRAWINGS, TYPICAL DETAILS AND NOTES SHALL APPLY. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY SHOW ONLY ONE SIDE OF CONNECTION, OR MAY OMIT INFORMATION FOR CLARITY. WHERE DISCREPANCIES OCCUR WITHIN THESE DRAWINGS, THE NOTES AND DETAILS ON THESE DRAWINGS SHALL TAKE PRECEDENCE OVER THE GENERAL NOTES AND TYPICAL DETAILS.
- ALL INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT, APPLICABLE BUILDING CODES, OR BY THESE DRAWINGS SHALL BE PROVIDED BY AN AUTHORIZED OFFICIAL OF THE BUILDING DEPARTMENT, OR BY AN INDEPENDENT INSPECTION AGENCY. SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN INSPECTION, UNLESS SPECIFICALLY SET FORTH AND ESTABLISHED AS SUCH IN A WRITTEN INSPECTION SERVICES AGREEMENT.

## BASIS FOR DESIGN

- GOVERNING BUILDING CODE .....2012 IBC*
  - * INCLUDING SOUTHERN NEVADA AMENDMENTS TO THE 2012 IBC
- GRAVITY DESIGN:
  - ROOF DEAD ..... 19 PSF
  - LIVE (SNOW LOAD) ..... 30 PSF
  - FLOOR DEAD ..... 21 PSF
  - LIVE ..... 50 PSF
- SEISMIC DESIGN:
  - SEISMIC IMPORTANCE FACTOR, I ..... 1.0
  - RISK CATEGORY ..... II
  - Ss (0.2 SECOND) ..... 0.474
  - S1 (1.0 SECOND) ..... 0.159
  - SITE CLASS ..... C
  - Sps (SHORT PERIOD) ..... 0.452
  - Sd1 (1-SECOND PERIOD) ..... 0.190
  - SEISMIC DESIGN CATEGORY ..... C
  - SEISMIC FORCE-RESISTING SYSTEM ..... WOOD SHEAR WALL
  - DESIGN BASE SHEAR ..... V = 0.075W
  - SEISMIC RESPONSE COEFFICIENT, Cs ..... 0.075
  - RESPONSE MODIFICATION FACTOR, R ..... 6.5
  - ANALYSIS PROCEDURE ..... EQUIVALENT LATERAL-FORCE
- WIND DESIGN:
  - ANALYSIS PROCEDURE ..... ASCE 7-10
  - BASIC WIND SPEED ..... 115 MPH
  - EXPOSURE ..... C
  - RISK CATEGORY ..... 1.0
  - INTERNAL PRESSURE ..... ±0.18
  - COMPONENTS AND CLADDING BASE PRESSURE (q_c) ..... 26.40 PSF
- SOILS:
  - ALLOWABLE SOIL BEARING PRESSURE ..... 2500 PSF
  - MINIMUM FOOTING EMBEDMENT ..... 12"

## MASONRY

- CONCRETE BLOCK SHALL BE HOLLOW, MEDIUM WT, LOAD BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C55, 73, 90 AND 744 W/ A MINIMUM COMPRESSIVE STRENGTH (f_m) OF 1500 PSI. ALL BLOCKS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION (UNO) WITH ALL VERTICAL CELLS IN ALIGNMENT.
- MORTAR MIX SHALL CONFORM TO ASTM C270, AND IBC SECTION 2103 TYPE M OR S. MORTAR SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI AT 28 DAYS. TYPE M MORTAR SHALL BE USED WHERE MASONRY IS IN CONTACT WITH SOIL.
- GROUT SHALL CONFORM TO ASTM C476. SUFFICIENT WATER SHALL BE USED TO ALLOW GROUT TO FLOW INTO ALL JOINTS OF THE MASONRY WITHOUT SEGREGATION. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS. ALL CELLS IN CONCRETE BLOCKS CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT. HOLD GROUT DOWN 1-1/2" BELOW TOP OF BLOCK AT GROUT LIFT JOINTS. PROVIDE GROUT CAP W/ MIN 1:1 SLOPE AT CHANGE IN BLOCK THICKNESS BELOW GRADE, TYP AS OCCURS.
- PROVIDE VERTICAL REINFORCING BARS, WITH HOOKS INTO FOOTING PER APPLICABLE DETAIL SECTION. IN GROUTED CELLS AT ALL WALL INTERSECTIONS, CORNERS, WALL ENDS, AND EACH SIDE OF CONTROL JOINTS. EXTEND ALL VERTICAL REINFORCING TO FOUNDATION EITHER CONTINUOUS OR WITH SUFFICIENT LAP REQUIREMENTS, AS INDICATED PER APPLICABLE DETAIL SECTIONS.
- LAP REINFORCING BARS PER THE FOLLOWING TABLE, UNO ON THE PLANS OR DETAIL SECTIONS. STAGGER LAP SPLICES A MINIMUM OF 48 BAR DIAMETERS. BARS SPLICED BY NONCONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN ONE-FIFTH THE REQUIRED LENGTH OF LAP, NOR MORE THAN 8 IN., TYP.
 

MASONRY REBAR LAP SCHEDULE	
BAR	LAP
#4	26"
#5	40"
- VERTICAL EXPANSION JOINTS IN FENCE WALLS SHALL BE LOCATED AT 20' TO 30' INTERVALS, AND SHALL BE INSTALLED PER TYPICAL FENCE WALL EXPANSION JOINT DETAIL, UNO ON PLANS OR DETAILS. EXPANSION JOINTS ARE NOT REQUIRED AT RETAINING WALLS.
- MINIMUM HORIZONTAL REINFORCING AT MASONRY WALLS SHALL BE AS FOLLOWS, UNO ON PLANS OR DETAILS:
  - ROOF LINES.....CONT 24" DEEP BOND BEAM W/ (2) #4 T&B
  - MIN HORIZONTAL REINFORCING:-(1) #4 HORIZ SPACED AT 4'-0" MAX
- PROVIDE BENT BARS PER TYP DETAILS TO MATCH AND LAP HORIZ BOND BEAM REINFORCING AT CORNERS AND WALL INTERSECTIONS TO MAINTAIN BOND BEAM CONTINUITY. USE BOND BEAM U-BLOCK UNITS AT HORIZ REINFORCING.
- MINIMUM MASONRY LINTEL, WHERE NOT NOTED ON PLAN, SHALL HAVE A MIN OF (2) #4 CONT HORIZ BARS IN BOTTOM OF BOND BEAM OR LINTEL BLOCK AND SHALL BE GROUTED SOLID TO A MIN DEPTH OF 16 INCHES. ALL LINTEL REINFORCING SHALL EXTEND 24 INCHES MIN PAST JAMBS, UNO ON PLANS OR DETAILS.

## WOOD

- SAWN FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. LUMBER SHALL BE IN DRY CONDITION AND THE MOISTURE CONTENT SHALL NOT EXCEED 19%. SAWN LUMBER SHALL HAVE THE FOLLOWING MINIMUM GRADE (UNLESS NOTED OTHERWISE).
 

FRAMING LUMBER	
SIZE	SPECIES AND GRADE
2x4 & 2x6 STUDS, BLOCKING & OTHER SAWN LUMBER, UNO	DFL, STUD GRADE
2x4 & 2x6 TOP PLATES	DFL, STANDARD GRADE
JOISTS & RAFTERS	DOUGLAS FIR LARCH, NO. 2
4x POSTS & BEAMS	DOUGLAS FIR LARCH, NO. 2
6x AND LARGER POSTS & BEAMS	DOUGLAS FIR LARCH, NO. 1
- ALL PLYWOOD SHALL BE C-D OR C-C SHEATHING CONFORMING TO IBC 2303.1.4. PLYWOOD SHALL BE FIVE-PLY SHEATHING CONFORMING TO A3C SPECIFICATIONS. INSTALL PLYWOOD WITH GRAIN PERPENDICULAR TO SUPPORTS, UNO ON PLAN. PLYWOOD AT SHEAR WALLS SHALL BE ORIENTED PER SHEAR WALL SCHEDULE ON PLAN. PROVIDE BLOCKING AT PANEL EDGES WHERE INDICATED ON PLANS. APA PERFORMANCE RATED SHEATHING (OSB) MAY BE USED AS AN ALTERNATE TO PLYWOOD. RATED SHEATHING SHALL COMPLY WITH ICC NER-108, EXPOSURE 1. ALL SHEATHING SHALL CONFORM TO THE FOLLOWING NOMINAL THICKNESS, SPAN RATING AND NAILING PATTERN UNO:
 

SHEATHING SCHEDULE			
THICKNESS	SPAN RATING	EDGE NAILING	FIELD NAILING
3/8"	24/0	8d AT 6" O.C.	8d AT 12" O.C.
15/32"	32/16	8d AT 6" O.C.	8d AT 12" O.C.
19/32"	40/20	10d AT 6" O.C.	10d AT 12" O.C.
5/8"	40/20	10d AT 6" O.C.	10d AT 12" O.C.
23/32" T&G	48/24	10d AT 6" O.C.	10d AT 12" O.C.
3/4" T&G	48/24	10d AT 6" O.C.	10d AT 12" O.C.
- BOTTOM PLATES RESTING ON CONCRETE OR MASONRY SHALL BE TREATED DOUGLAS FIR SOLE PLATES AND SHALL BE ANCHORED TO THE FOUNDATION AS NOTED IN THE ANCHOR BOLT SECTION OF THIS SHEET.
- ALL NAILS, EXCEPT 16d, SHALL BE COMMON WIRE NAILS, UNO. 16d NAILS MAY BE BOX, UNO ON PLANS OR SCHEDULES. NAILS SHALL BE DRIVEN SO THAT HEADS ARE FLUSH WITH WOOD SURFACE. OVER- OR UNDER-DRIVEN NAILS ARE NOT ACCEPTABLE. MISCELLANEOUS NAILING SHALL BE PER FASTENING SCHEDULE IN IBC TABLE 2304.9.1.
- DO NOT NOTCH OR DRILL JOISTS, BEAMS, OR LOAD-BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT, UNO. PROVIDE 2" (NOMINAL) SOLID BLOCKING BETWEEN JOISTS AT SUPPORTS.
- A HOLE NOT GREATER IN DIAMETER THAN 30% OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8" TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.
- ALL BOLTS SHALL BE INSTALLED IN HOLES BORED WITH A BIT 1/16 INCH LARGER THAN THE DIAMETER OF THE BOLT. BOLTS AND NUTS SEATING ON WOOD SHALL HAVE CUT STEEL WASHERS UNDER HEADS AND NUTS. SPOIL THREADS TO PREVENT LOOSENING OF NUT. LAG BOLTS SHALL BE INSTALLED IN PRE-DRILLED HOLES BY TURNING WITH A WRENCH.
- FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL. FASTENERS OTHER THAN NAILS, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B 695, CLASS 55 MIN. CONNECTORS THAT ARE USED IN EXTERIOR APPLICATIONS AND IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL HAVE COATING TYPES AND WEIGHTS IN ACCORDANCE WITH THE TREATED WOOD OR CONNECTOR MFR'S RECOMMENDATIONS. IN THE ABSENCE OF MFR'S RECOMMENDATIONS, A MIN OF ASTM A 653, TYPE G185 ZINC-COATED GALVANIZED STEEL OR EQUIVALENT, SHALL BE USED. EXCEPTION: PLAIN CARBON STEEL FASTENERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED.
- LAMINATED STRAND LUMBER (LSL) SHALL BE WEYERHAEUSER TIMBERSTRAND LSL (ICC ESR-1387) GRADE 1.55E OR HIGHER, FOR BEAMS 8 5/8" DEEP AND LESS GRADE 1.3E MAY BE USED. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR MULTIPLE-MEMBER CONNECTIONS.
- LAMINATED VENEER LUMBER (LVL) SHALL BE WEYERHAEUSER MICROLAM LVL (ICC ESR-1387) GRADE 1.9E OR HIGHER. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR MULTIPLE-MEMBER CONNECTIONS.
- FRAMING ANCHORS, HANGERS AND OTHER MISG HARDWARE SPECIFIED ON PLANS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE, INC. AS AN ALTERNATE, SPECIFIED HARDWARE MAY BE REPLACED WITH USP STRUCTURAL CONNECTORS ACCORDING TO THE FOLLOWING TABLE. ALL OTHER SUBSTITUTIONS SHALL BE APPROVED THROUGH OUR OFFICE PRIOR TO INSTALLATION.

## ANCHOR BOLTS AT STUD WALLS

- THE FOLLOWING TABLE PROVIDES MINIMUM SPECIFICATIONS FOR BOTTOM PLATE ANCHORAGE OF WOOD-FRAMED STUD WALLS TO THE FOUNDATION, UNO ON PLANS. THE FOLLOWING DEFINITIONS ARE PROVIDED FOR USE IN CONJUNCTION WITH THE TABLE BELOW:
  - ANCHOR BOLTS AT INTERIOR WALLS ARE DEFINED AS ANCHOR BOLTS THAT ARE LOCATED A MINIMUM OF 6" AWAY FROM SLAB EDGES, STEPS, TURNDOWNS, OPENINGS, OR SIMILAR DISCONTINUITIES.
  - ANCHOR BOLTS AT EXTERIOR WALLS ARE DEFINED AS ALL ANCHOR BOLTS LOCATED WITHIN 6" OF SLAB EDGES, STEPS, TURNDOWNS, OPENINGS, OR SIMILAR DISCONTINUITIES.
  - ANCHOR BOLTS AT SHEAR WALLS ARE DEFINED AS ALL ANCHOR BOLTS LOCATED IN ANY WALL (INTERIOR OR EXTERIOR) THAT IS DESIGNATED AS A SHEAR WALL ACCORDING TO THE SPECIFICATIONS OF THE STRUCTURAL DOCUMENTS (SEE PLAN).
  - HOLD-DOWN ANCHOR BOLTS ARE NOT ADDRESSED IN THIS SECTION, NEITHER MAY THEY BE CONSIDERED AS REQUIRED ANCHOR BOLTS.

BOTTOM PLATE ANCHORAGE	
CONDITION	ANCHORAGE SPECIFICATION
INTERIOR & EXTERIOR BEARING WALLS (NON-BEARING WALLS)	1/2" DIA x 6" WELDED STUDS AT 48" O.C. MAX AT STEEL BEAM
INTERIOR NON-STRUCT'L PARTITION WALLS	SDS25300 SCREWS AT 36" O.C. MAX TO FLOOR SHEATHING
SHEAR WALLS	PER SHEAR WALL SCHEDULE (SEE PLAN)
* INTERIOR NON-LOAD BEARING PARTITION WALLS MAY BE ANCHORED TO THE FLOOR SHEATHING W/ SIMPSON PDF (ESR-2138) OR HILTI X-CF P8 (ESR 1663) SHOT PINS, W/ 0.145" MIN SHANK DIA. AT 32" O.C. MAX. ** TITEN HD THREADED CONCRETE SCREW ANCHORS (ESR-2713) OF SAME DIA AND SPACING, INSTALLED PER MFR W/ 3-1/2" MIN EMBEDMENT, MAY BE USED AS AN ALTERNATE TO AB INDICATED ABOVE. MIN DIST FROM CONCRETE EDGE SHALL BE 1-3/4". SPECIAL INSPECTION REQ'D PER MFR FOR ANCHOR INSTALLATION. *** MASA MUDSILL ANCHORS (ESR-2555) MAY BE USED AS AN ALTERNATE TO AB AT NON-SHEAR WALLS WITH (1) MASA ANCHOR USED TO REPLACE (1) AB INSTALL PER ALL MFR RECOMMENDATIONS	

- IN ADDITION TO THE ABOVE SPECIFICATIONS, PROVIDE A MINIMUM OF (2) ANCHOR BOLTS OR ANCHOR STRAPS PER BOTTOM PLATE PIECE, AND PROVIDE A MINIMUM OF (1) ANCHOR BOLT, LOCATED NOT LESS THAN 4" AND NO MORE THAN 12" FROM EACH END OF EACH BOTTOM PLATE PIECE. A PROPERLY SIZED NUT AND WASHER SHALL BE TIGHTENED ON EACH BOLT TO THE PLATE. FOR WOOD SHEAR WALLS ONLY, THE FOLLOWING ADDITIONAL REQUIREMENTS SHALL ALSO APPLY: 0.229"x3"x3" STEEL SQUARE PLATE WASHERS SHALL BE USED AT EACH NUT. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4". PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING

## STATEMENT OF SPECIAL INSPECTIONS

- SPECIAL INSPECTION INDEPENDENT OF THE CONTRACTOR, ARCHITECT OR ENGINEER OF RECORD SHALL BE PROVIDED BY THE OWNER ACCORDING TO IBC CHAPTER 17, AS OUTLINED IN THE TABLE BELOW. DESIGNS PROVIDED BY OTHERS THAT ARE NOT PART OF THE PRIMARY STRUCTURAL SYSTEM, ALTHOUGH NOT INCLUDED IN THE TABLE BELOW, MAY BE SUBJECT TO SPECIAL INSPECTION REQUIREMENTS AS SPECIFIED BY THE IBC OR THE BUILDING OFFICIAL.
- THE SPECIAL INSPECTIONS SHALL TAKE PLACE AS FREQUENTLY AS THE JOB SCHEDULE DEMANDS, SO THAT WORK IS NOT PERFORMED WITHOUT THE REQUIRED INSPECTIONS AS INDICATED, OR AS REQUIRED BY THE BUILDING OFFICIAL.
- THE SPECIAL INSPECTION REPORTS SHALL BE DISTRIBUTED TO THE APPROPRIATE PARTIES AS THEY BECOME AVAILABLE, IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE OR THE BUILDING OFFICIAL.
- IN ACCORDANCE W/ IBC SECTION 1704.4, THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY FOR THE ITEMS OF THE STATEMENT OF SPECIAL INSPECTIONS TO THE OWNER AND BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF WORK.
- THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS; NOT THE SHOP DRAWINGS. THE SPECIAL INSPECTOR SHALL SEND REPORTS TO THE OWNER, BUILDING OFFICIAL, ARCHITECT, ENGINEER, AND CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF HIS/HER KNOWLEDGE, IN CONFORMANCE WITH THE PLANS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE. CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

## REINFORCING STEEL

- REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR ASTM A706. REINFORCING SHALL BE GRADE 60 (FY = 60 KSI) DEFORMED BARS FOR ALL BARS #5 AND LARGER AND AL BARS USED FOR CONCRETE WALLS, BEAMS, ELEVATED SLABS, AND COLUMN PRIMARY REINFORCING. REINFORCING MAY BE GRADE 40 (FY = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER, UNO ON PLANS, DETAILS, OR AS PROHIBITED ABOVE. ALL REINFORCING STEEL TO BE WELDED SHALL BE ASTM A706, GRADE 60 LOW ALLOY, WELDABLE STEEL.
- LAP SPLICES OF REINFORCING STEEL IN CONCRETE BEAMS, SLABS AND FOOTINGS SHALL BE ACCORDING TO ACI 318 CHAPTER 12 OR LAP SCHEDULE THIS SHEET (WHERE PRESENT), UNO. STAGGER SPLICES A MIN OF (1) LAP LENGTH. NO TACK WELDING OF REINFORCING BARS IS ALLOWED. LATEST ACI CODE AND DETAILING MANUAL APPLIES. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS AND INTERSECTIONS PER TYPICAL DETAILS. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE TOP BARS AT CENTERLINE OF SPAN AND BOTTOM BARS AT THE SUPPORT IN SPANDRELS, BEAMS, GRADE BEAMS, ETC., UNO.
- ALL REINFORCING SHALL BE BENT COLD. BARS SHALL NOT BE UN-BENT AND RE-BENT. FIELD BENDING OF REBAR IS NOT ALLOWED, UNLESS SPECIFICALLY NOTED.
- WELDING OF REINFORCING BARS, METAL INSERTS, AND CONNECTIONS SHALL CONFORM TO WITH AWS W1.4 AND SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS.
- REINFORCING BAR SPACING SHOWN ON PLANS IS MAXIMUM ON-CENTER SPACING. ALL BARS SHALL BE DETAILED AND PLACED PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN PLACE PRIOR TO PLACING CONCRETE.

REBAR LAP SCHEDULE	
BAR	LAP
#3	18"
#4	28"
#5	36"
#6	43"

## STRUCTURAL STEEL

- STRUCTURAL STEEL MEMBERS SHALL CONFORM WITH THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES, UNO:
 

STEEL STANDARDS AND MATERIAL PROPERTIES		
SHAPE	STANDARD	fy (KSI)
W	ASTM A992	50
HP	ASTM A572 (GRADE 50)	50
HSS (ROUND) HSS (RECTANGLE)	ASTM A500 (GRADE B)	42 46
M, S, C, MC, L, BARS & PLATES UP TO 8" THICK, & THREADED ROD	ASTM A36	36
ANCHOR BOLTS (ANCHOR RODS)	ASTM F1554 (APPLICABLE W/ WELDABILITY SUPPLEMENT S1)	55
BOLTS	ASTM A325	---
NUTS	ASTM A563	---
- ALL BOLTS SHALL BE INSTALLED AS BEARING-TYPE CONNECTIONS W/ THREADS INCLUDED IN SHEAR PLANE (TYPE "N" CONNECTION) UNO. ALL HIGH STRENGTH BOLTS SHALL BE FULLY PRE-TENSIONED USING LOAD-INDICATOR WASHERS. DO NOT PRE-TENSION FOUNDATION ANCHOR BOLTS.
- ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE W/ THE LATEST EDITION OF AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING APPROPRIATE EXPERIENCE IN PERFORMING THE TYPE OF WELDS SPECIFIED ON THE DRAWINGS. ALL WELDING SHALL USE E70XX LOW HYDROGEN ELECTRODES, UNO. HSOP WELDS MAY USE 70 KSI WELDABLE WIRE. ALL WELDS INVOLVING REINFORCING BARS SHALL USE E7018 ELECTRODES. ALL WELDING SHALL CONFORM W/ THE LATEST STANDARDS OF THE AWS. TACK WELDING IS NOT ALLOWED FOR ASTM A325 OR ASTM A490 BOLTS.
- ALL ANCHOR BOLTS AT STEEL COLUMN BASE PLATES SHALL BE EITHER "J" BOLTS, BOLTS WITH HEADS EMBEDDED INTO CONCRETE, OR RODS WITH THREADS AT BOTH ENDS (OR ALL THREAD ROD) WITH NUT FULLY THREADED ONTO EMBEDDED END. TACK WELD NUT TO ROD OR SPOIL THREADS TO PREVENT NUT FROM BACKING OFF.
- GROUT BENEATH COLUMN BASES OR BEARING PLATES SHALL BE MIN 5,000 PSI NON-SHRINK FLOWABLE GROUT OR DRYPACK (DESIGN BASED ON 2500 PSI). INSTALL GROUT UNDER BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED. AT COLUMNS, INSTALL GROUT UNDER BASE PLATES AFTER COLUMN HAS BEEN PLUMBED, BUT PRIOR TO FLOOR OR ROOF INSTALLATION. GROUT DEPTH SHALL BE SUFFICIENT TO ALLOW GROUT (OR DRYPACK) TO BE PLACED BENEATH PLATE WITHOUT VOIDS (1-1/2" TYPICAL).

## STANDARD ABBREVIATIONS

STANDARD ABBREVIATIONS	
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECT/ARCHITECTURAL PLANS
ALT	ALTERNATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL
AWS	AMERICAN WELDING SOCIETY
BOT	BOTTOM
BLDG	BUILDING
BRG	BEARING
C	CHANNEL
CANT	CANTILEVER
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
DFL	DOUGLAS FIR LARCH
DN OR Ø	DIAMETER
DWG	DRAWING
EF	EACH FACE
ELEV	ELEVATION
EQ	EQUAL
EW	EACH WAY
(E)	EXISTING
FF	FINISH FLOOR
FLR	FLOOR
FT	FOOT
FTG	FOOTING
GLB	GLUE-LAMINATED BEAM
GT	GERBER TRUSS
GSN	GENERAL STRUCTURAL NOTES
HI	HIGH
HORIZ	HORIZONTAL
IBC	INTERNATIONAL BUILDING CODE
ICBO	INTERNATIONAL COUNCIL OF BUILDING OFFICIALS
INFO	INFORMATION
K	KIP (1000 LBS)
KSI	KIPS PER SQUARE INCH
L	ANGLE
LL	DOUBLE ANGLE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOW	LOW
MFR	MANUFACTURER
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
MISC	MISCELLANEOUS
NFS	NOT TO SCALE
O.C.	ON-CENTER
OPP	OPPOSITE
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REQ'D	REQUIRED
SM	SIMILAR
SPEC	SPECIFICATION
SPF	SPRUCE PINE FIR
SQ	SQUARE
STD	STANDARD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T.C.	TOP OF CONCRETE
T.D.	TOP OF DECK
T.F.	TOP OF FOOTING
T.L	TOP OF LEDGER
T.P.	TOP OF PANEL (OR TOP OF PLATE)
T.S.	TOP OF STEEL
T.W.	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WIDE FLANGE
W/	WITH
W/O	WITHOUT
W.P.	WORK POINT
WT	WEIGHT

## SHEET INDEX

S-001	GSN, SHEET INDEX, STD. ABBREVIATIONS
S-101	JACK PLACEMENT PLAN
S-102	CHASSIS PLAN SOUTH MODULE
S-103	CHASSIS PLAN NORTH MODULE
S-201	DECK FRAMING PLAN
S-202	ROOF FRAMING PLAN
S-501	TYPICAL DETAILS
S-502	SUPPORT DETAILS
S-503	FRAMING DETAILS
S-504	FRAMING DETAILS

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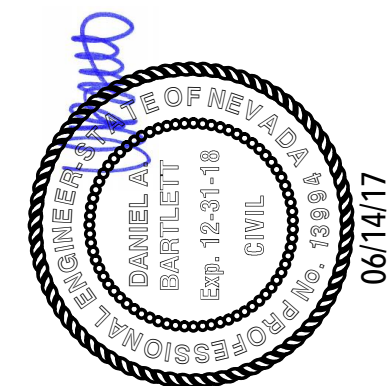
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WWW.UNLVSD.COM  
SD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311



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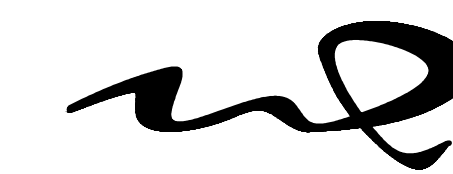
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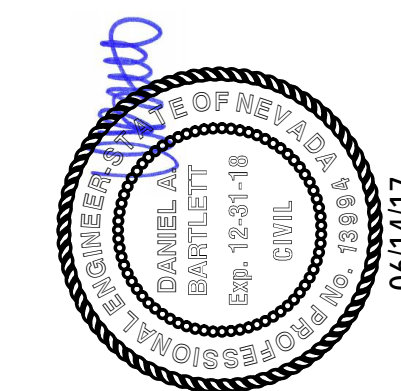
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GSN, SHEET INDEX, STD.  
ABBREVIATIONS





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**NOTES**

**GENERAL**

1. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES W/ ARCHITECT.
2. ①, ②, ③...INDICATES KEYNOTES PER LIST BELOW. NOT ALL KEYNOTES ARE NECESSARILY SPECIFIED ON PLAN, ONLY THOSE SPECIFIED APPLY.
3. REFER TO TYPICAL DETAILS FOR FRAMING PLAN SYMBOL LEGEND.

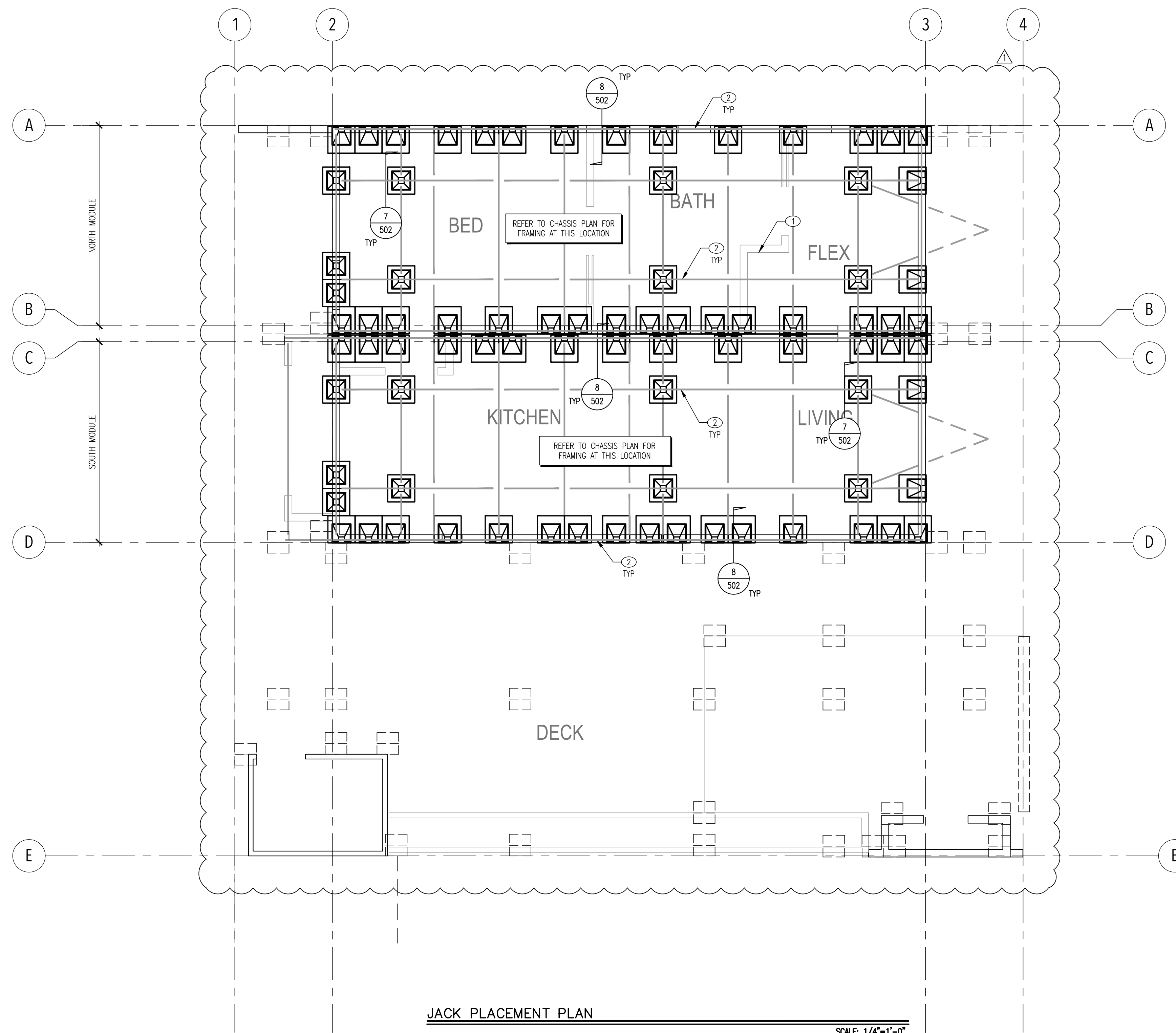
**SOIL ANCHORS**

4. TIE DOWN ANCHORS SHALL BE AT 36" O.C. ALONG OUTSIDE W12x30 STEEL BEAMS
5. (2) TIE DOWNS 30 DEGREES PER DETAIL. ALL DIMENSIONS ON PLAN SHALL BE TO CENTERLINE OF BOLT THROUGH CHASSIS

**KEYNOTES**

- ① NON-BEARING WALL LOCATION, REFER TO GSN FOR CONNECTION TO FLOOR SHEATHING
- ② STEEL BEAM PER CHASSIS PLAN. ALIGN SUPPORT JACKS AT POSITIONS INDICATED ON PLAN

FOUNDATION SUPPORT LEGEND	
	STEEL PIER LOCATION, CENTERED CONFIGURATION REFER TO DETAIL 7/502
	STEEL PIER LOCATION, EDGE (OFFSET) CONFIGURATION REFER TO DETAIL 8/502
	MASONRY (CMU) PIER LOCATION REFER TO DETAILS 1-5 & 13 ON SHEET 502

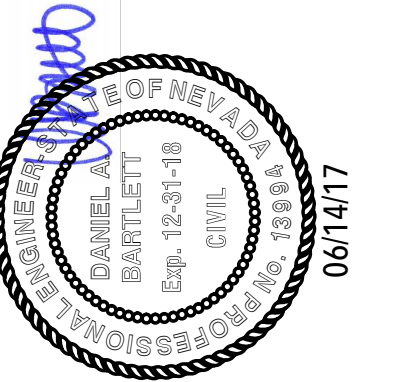


JACK PLACEMENT PLAN

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



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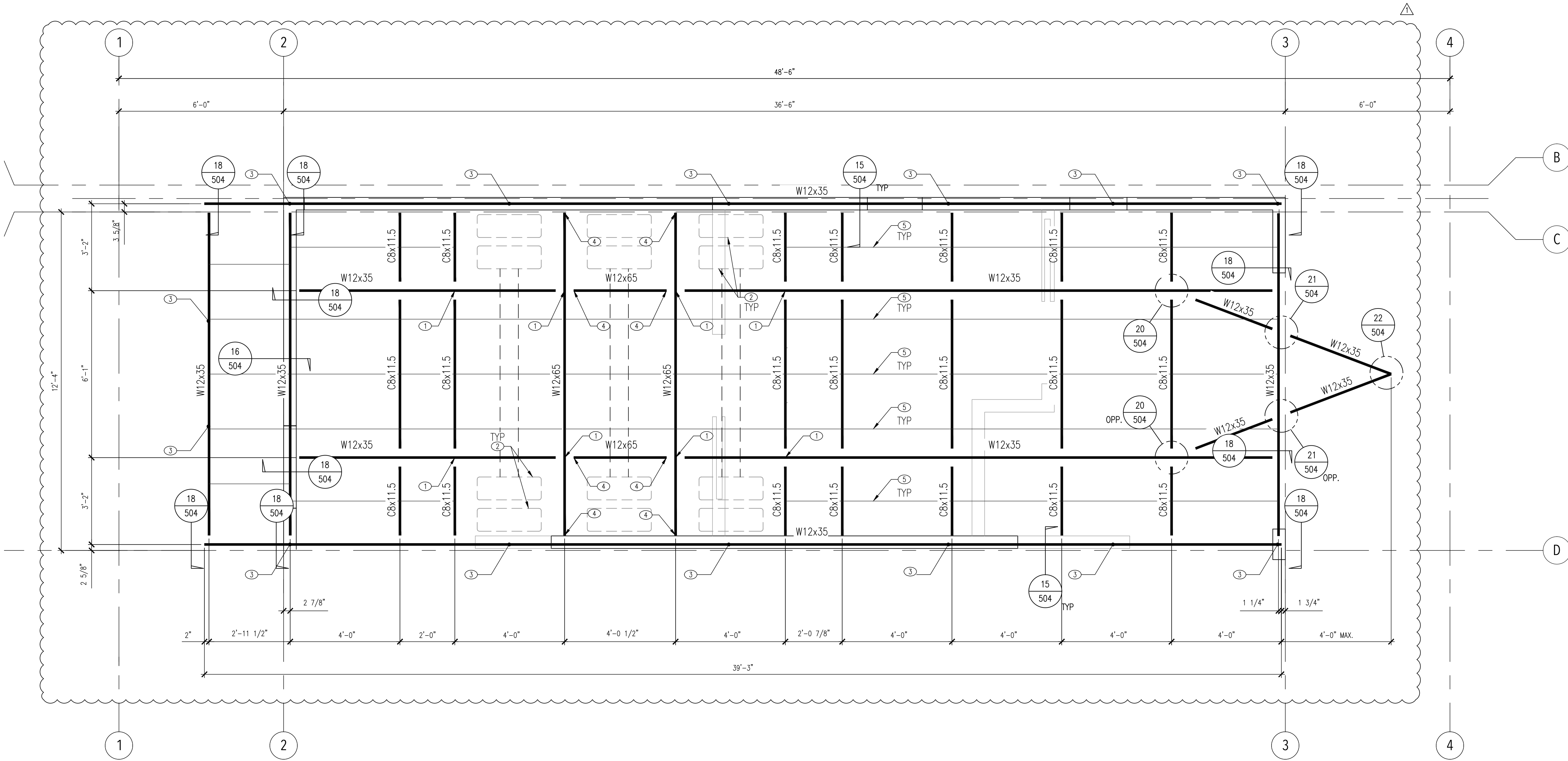
**KEYNOTES**

- ① LOCATION OF LEAF SPRING HANGER CONNECTION BELOW. ATTACH LEAF SPRING HANGER PER DETAIL 27/504.
- ② APPROXIMATE DUAL WHEEL LOCATION
- ③ APPROXIMATE ANCHOR TIE LOCATION, MAX 8' ON CENTER AT SIDE BEAMS AND 48" O.C. AT END BEAMS. REFER TO DETAIL 9/502 FOR ADDITIONAL INFORMATION
- ④ WELDED BEAM TO BEAM CONNECTION PER DETAIL 19/504
- ⑤ 2x6 JOISTS AT 24" O.C. MAX. ATTACH TO STEEL CHANNEL OR BEAM PER DETAIL 28/504. NO JOISTS ABOVE WHEELS

**CHASSIS NOTES**

**GENERAL**

1. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES W/ ARCHITECT.
2. ①, ②, ③ ...INDICATES KEYNOTES PER LIST BELOW. NOT ALL KEYNOTES ARE NECESSARILY SPECIFIED ON PLAN, ONLY THOSE SPECIFIED APPLY.
3. REFER TO TYPICAL DETAILS FOR FRAMING PLAN SYMBOL LEGEND.
4. LEAF SPRING AND AXLE CONNECTION BY OTHERS.

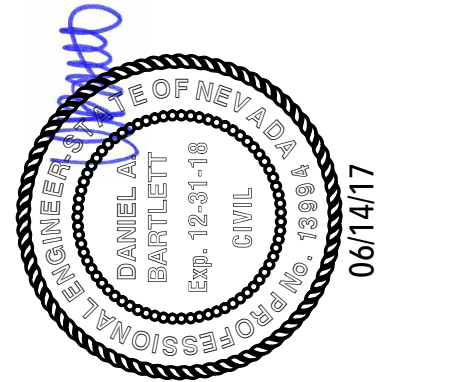


**CHASSIS PLAN -- SOUTH MODULE**

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



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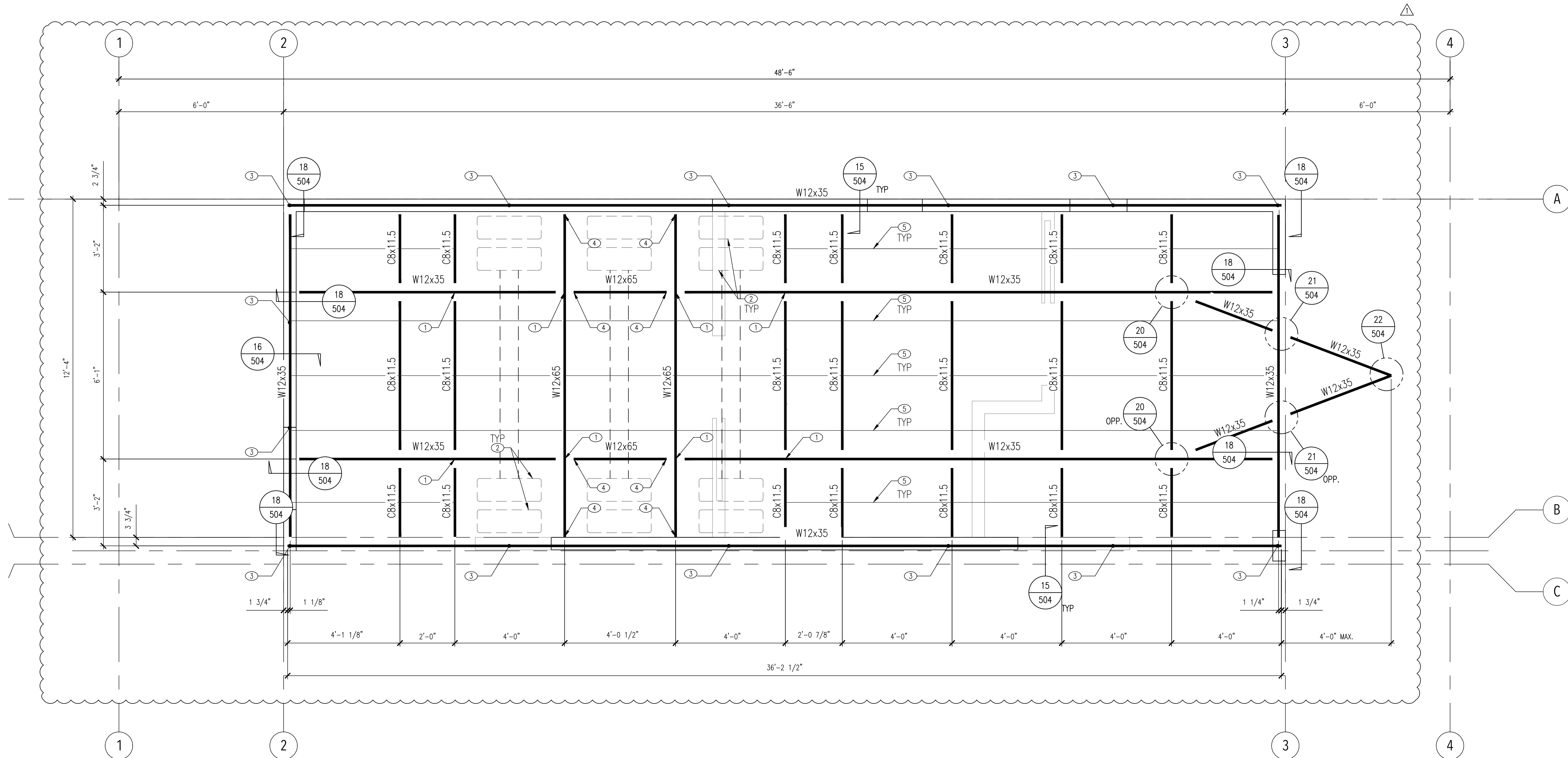
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**KEYNOTES**

- ① LOCATION OF LEAF SPRING HANGER CONNECTION BELOW. ATTACH LEAF SPRING HANGER PER DETAIL 27/504.
- ② APPROXIMATE DUAL WHEEL LOCATION
- ③ APPROXIMATE ANCHOR TIE LOCATION, MAX 8' ON CENTER AT SIDE BEAMS AND 48" O.C. AT END BEAMS. REFER TO DETAIL 9/502 FOR ADDITIONAL INFORMATION
- ④ WELDED BEAM TO BEAM CONNECTION PER DETAIL 19/504
- ⑤ 2x6 JOISTS AT 24" O.C. MAX. ATTACH TO STEEL CHANNEL OR BEAM PER DETAIL 28/504. NO JOISTS AT WHEEL WELLS

**CHASSIS NOTES**

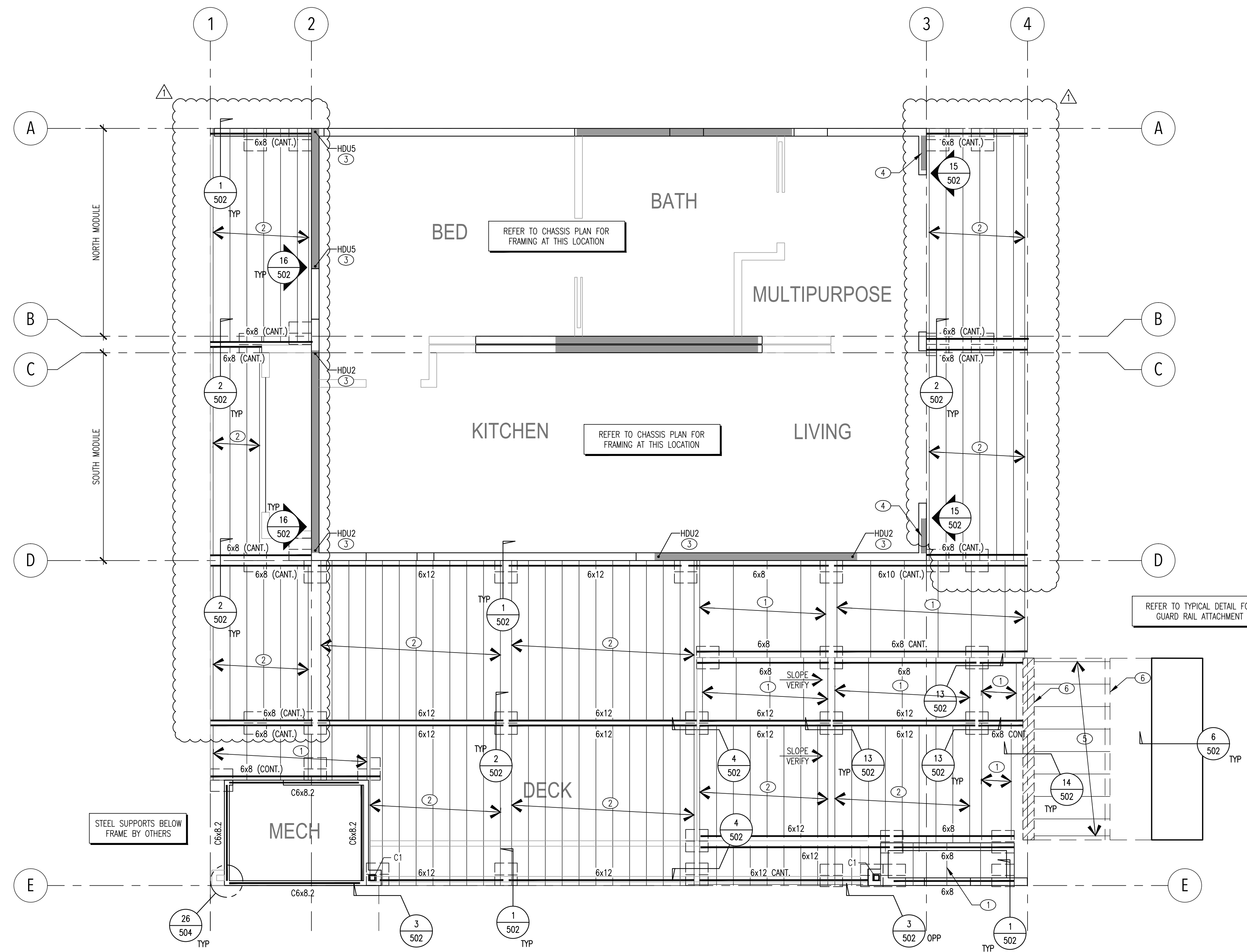
- GENERAL**
1. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES W/ ARCHITECT.
  2. ①, ②, ③, INDICATES KEYNOTES PER LIST BELOW. NOT ALL KEYNOTES ARE NECESSARILY SPECIFIED ON PLAN, ONLY THOSE SPECIFIED APPLY.
  3. REFER TO TYPICAL DETAILS FOR FRAMING PLAN SYMBOL LEGEND.
  4. LEAF SPRING AND AXLE CONNECTION BY OTHERS.



**CHASSIS PLAN - NORTH MODULE**  
SCALE: 1/2"=1'-0"



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SHEAR WALLS AT PREFABRICATED CHASSIS  
FLOOR FRAMING PLAN – DECK

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

**FRAMING PLAN NOTES**

**GENERAL**

1. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES W/ ARCHITECT.
2. ①, ②, ③... INDICATES KEYNOTES PER LIST BELOW. NOT ALL KEYNOTES ARE NECESSARILY SPECIFIED ON PLAN, ONLY THOSE SPECIFIED APPLY.
3. REFER TO TYPICAL DETAILS FOR FRAMING PLAN SYMBOL LEGEND.
3. FRAMING SPECIFICATION ARROWS ALSO INDICATE THE INDIVIDUAL DECK MODULES

**KEYNOTES**

- ① 2x8 DECK JOIST 24" O.C.
- ② 2x8 DECK JOIST 12" O.C.
- ③ HOLDOWN BOLT SHALL BE INSTALLED AT STEEL BEAM BELOW PER DETAIL 16/502
- ④ INSTALL AB, TEMPLATE, SPACERS, ETC. AT SIMPSON STRONG-WALL PER MFR, TYP. AT STEEL BEAM. REFER TO FRAMING PLAN FOR SPECIFICATION
- ⑤ 2x4 DECK JOIST 16" O.C. AT RAMP, 4'-6" MAX SPAN.
- ⑥ CMU WALL BELOW PER DETAIL

**COLUMN SCHEDULE**

1. FOR BASE PLATE CONFIGURATION, ANCHOR BOLT PATTERN, AND COLUMN TO BASE PLATE CONNECTION, SEE TYP STEEL COLUMN BASE PLATE DETAIL.
2. STANDARD ANCHOR BOLT EMBEDMENT = 9" (U.N.O.) EXCEPT AT COLUMN BASE MOMENT CONNECTIONS.
3. C1, C2, C3,... INDICATE COLUMN SIZE, SEE PLAN AND SCHEDULE.

MARK	SIZE	BASE PLATE
C1	HSS3-1/2x3-1/2x3/16	3/4"x8"x16" W/ (2) 1/2" ANCHOR BOLTS W/ 6" MIN EMBEDMENT TYPE B



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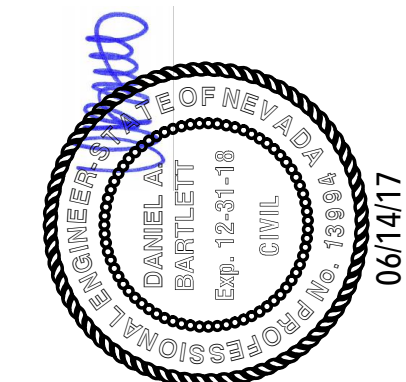
TEAM LAS VEGAS  
WWW.UNLVSD.COM  
SD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
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**S-201**  
Deck Framing  
Plan



**KEYNOTES (CONT.)**

- 9 HUC0412-SDS CONCEALED FLANGE HANGER, INSTALL PER MFR SPECIFICATIONS
- 10 HUC66 CONCEALED FLANGE HANGER, INSTALL PER MFR SPECIFICATIONS
- 11 SHEAR WALL SHEATHING SHALL BE APPLIED W/ LONG DIMENSION ACROSS STUDS. REFER TO SHEAR WALL SCHEDULE FOR ADDITIONAL INFORMATION.
- 12 PROVIDE (2) STUDS MIN. AT END OF BEAM FOR HANGER NAILING
- 13 2x6 LEDGER W/ (3) 16d AT 24" O.C. W/ U26 OR LUS26-2 HANGERS AS OCCURS
- 14 ALIGN BEAM W/ PREFABRICATED SHEAR WALL BELOW
- 15 HUC48 CONCEALED FLANGE HANGER, INSTALL PER MFR SPECIFICATIONS
- 16 (2) 4x4 POSTS TO RECEIVE WOOD SCREWS AT STEEL BEAM ABOVE, REFER TO DETAIL 22/504 FOR ADDITIONAL INFORMATION
- 17 (2) 4x4 CRIPPLE POSTS TO BEAM BELOW TO RECEIVE WOOD SCREWS AT STEEL BEAM ABOVE, REFER TO DETAIL 22/504 FOR ADDITIONAL INFORMATION
- 18 2x6 RAFTERS AT 16" O.C., HANGER PER DETAIL

**KEYNOTES**

- 1 REFER TO PLAN NOTE FOR TYP CONNECTION OF TOP PLATES AT 2x4 TO 2x6 WALL TRANSITION
- 2 INSTALL SHEAR WALL SHEATHING PRIOR TO FRAMING POPUP (OR PERPENDICULAR WALL, AS OCCURS)
- 3 STRAP JOIST (OR BEAM AS OCCURS) TO TOP PLATE (OR TO JOIST AS OCCURS) W/ STRAP PER PLAN. INSTALL STRAP W/ END LENGTH AND FASTENERS PER MFR. AS REQ'D FOR STRAP INSTALLATION (I.E., DUE TO JOIST OFFSET), INSTALL 2x4x4-0" LONG SCAB ALONG BOT OF JOIST (OR BEAM AS OCCURS) AND FASTEN W/ (2) 16d FACE NAILS AT 6" O.C. MAX. INSTALL STRAP TO LAP SCAB AND TOP PLATE (OR JOIST, BEAM, ETC.) W/ END LENGTH AND FASTENERS PER MFR
- 4 DOUBLE 2x6 RAFTERS AT 16" O.C., HANGER PER DETAIL
- 5 10' MIN. BACK SPAN AT CANTILEVERED BEAM, MEASURED FROM OUTSIDE OF EXTERIOR WALL
- 6 NON-BEARING WALL BELOW CANTILEVERED BEAM
- 7 PREFABRICATED SHEAR WALL PER PLAN. INSTALL ON STEEL FRAME PER DETAILS/NOTES AND MFR. SPECIFICATIONS. INSTALL 2x6 FLAT STUD FURRING ON BACK SIDE TO SUPPORT WALL ABOVE AS OCCURS.
- 8 HUC24-2 CONCEALED FLANGE HANGER, INSTALL PER MFR SPECIFICATIONS

**FRAMING PLAN NOTES**

**GENERAL**

- 1. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES W/ ARCHITECT.
- 2. ①, ②, ③ ... INDICATES KEYNOTES PER LIST BELOW. NOT ALL KEYNOTES ARE NECESSARILY SPECIFIED ON PLAN, ONLY THOSE SPECIFIED APPLY.
- 3. REFER TO TYPICAL DETAILS FOR FRAMING PLAN SYMBOL LEGEND.
- WALL STUDS**
- 4. TYPICAL BEARING WALLS SHALL BE FRAMED W/ 2x6 LVL STUDS AT 24" O.C., UNO ON PLANS. ONE STUD (MIN.) SHALL BE ALIGNED W/ EA. ROOF JOIST ABOVE. BEARING WALLS ARE DEFINED AS EXTERIOR WALLS, SHEAR WALLS AND INTERIOR WALLS AS SHOWN. NON-STRUCTURAL INTERIOR PARTITION WALLS ARE SHOWN WITH A LIGHTER PEN SETTING, AND ARE SHOWN FOR REFERENCE ONLY (REFER TO APPROVED ARCHITECTURAL DRAWINGS FOR ACTUAL LAYOUT AND CONFIGURATION).
- 5. "KS" DENOTES KING STUD. "T" DENOTES TRIMMER STUD. MIN (1) KS AND (1) T REQ'D AT ALL OPENINGS. (2) KS REQ'D AT ALL EXTERIOR DOOR AND WINDOW OPENINGS 5'-0" AND WIDER, UNO. WHERE HANGERS ARE SPECIFIED ON PLAN, NO TRIMMER STUDS ARE REQ'D
- 6. PROVIDE SOLID 2x BLOCKING AT 4'-0" O.C. MAX BETWEEN STUDS, TYP. AS AN ALTERNATE, WALLS MAY BE SHEATHED W/ 3/8" PLYWOOD W/ 8d AT 6" O.C. EDGES AND 12" O.C. FIELD.

**SHEAR WALLS**

- 7. (A), (B), (C), ... DENOTES SHEAR WALL TYPE PER SCHEDULE THIS SHEET. ALL SHEAR WALLS SHALL BE CONSIDERED LOAD BEARING, UNO.

**SHEATHING REQUIREMENTS**

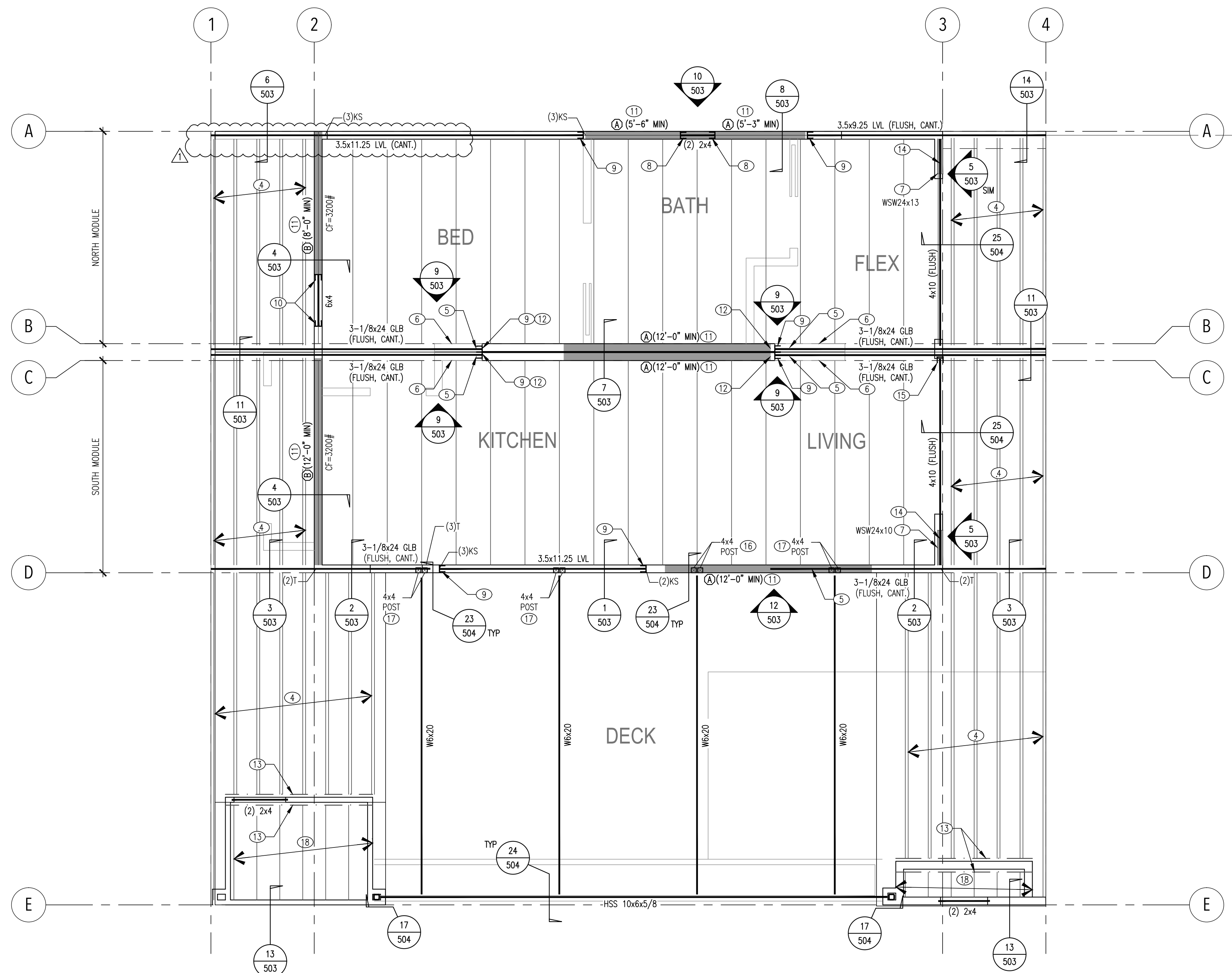
- 8. ROOF SHEATHING AND FASTENERS SHALL BE AS FOLLOWS, UNO ON PLAN:
  - 15/32" PLYWOOD PER GSN.
  - 8d AT 6" O.C. BOUNDARY NAILING (DIAPHRAGM BOUNDARIES, SHEAR PANEL BLOCKING, SOLID BLOCKING AND DRAG MEMBERS AS NOTED ON FRAMING DETAILS).
  - 8d AT 6" O.C. EDGE NAILING (AT SUPPORTED PANEL EDGES).
  - 8d AT 12" O.C. FIELD NAILING (ALONG INTERMEDIATE FRAMING MEMBERS).
  - DO NOT USE STAPLES (EXCEPTION: STAPLES MAY BE USED TO FASTEN SHEATHING TO TRUSS TAILS AND FASCIA AT EXPOSED EAVE OVERHANGS).
- 9. FLOOR SHEATHING AND FASTENERS SHALL BE AS FOLLOWS, UNO ON PLAN:
  - 1 1/8" T&G PLYWOOD PER GSN.
  - 10d AT 6" O.C. BOUNDARY NAILING (ALONG DIAPHRAGM BOUNDARIES, SHEAR PANEL BLOCKING, SOLID BLOCKING AND DRAG MEMBERS AS NOTED ON FRAMING DETAILS).
  - 10d AT 6" O.C. EDGE NAILING (AT SUPPORTED PANEL EDGES).
  - 10d AT 12" O.C. FIELD NAILING (ALONG INTERMEDIATE FRAMING MEMBERS).
  - ALTERNATE FASTENERS: #8 QUICK DRIVE WOOD SCREWS (ICC ER-5053) W/ MIN 1-1/4" PENETRATION INTO SUPPORTING MEMBER. SPACING SHALL REMAIN AS NOTED ABOVE.
- 10. FASTENERS SHALL NOT BE PLACED LESS THAN 3/8" FROM PANEL EDGE AND SHALL BE FIRMLY DRIVEN INTO FRAMING MEMBERS. PANEL JOINT SHALL BE CENTERED ON FRAMING MEMBER. NO UNBLOCKED PANELS LESS THAN 12" WIDE SHALL BE USED. PROVIDE 1/8" GAP BETWEEN ROOF SHEATHING PANELS.

**FRAMING**

- 11. ROOF FRAMING MEMBERS SHOWN ON PLANS ARE TJI 210 (BY OTHERS) SPACED AT 24" O.C. MAX. ALL JOISTS MAY NOT BE SHOWN FOR CLARITY.
- 12. "CF=" DENOTES AXIAL FORCE DUE TO WIND OR SEISMIC FORCES TO BE INCLUDED IN APPROPRIATE LOAD COMBINATION BY JOIST DESIGNER. FASTEN SHEATHING FULL LENGTH OF DRAG MEMBER W/ (1) ROW OF BOUNDARY FASTENERS AS NOTED BELOW. PROVIDE (2) ROWS (OR REDUCE THE FASTENER SPACING BY 1/2, I.E., 6" O.C. TO 3" O.C.) AT ALL INTERIOR DRAG MEMBERS, UNO ON PLAN. CLIP ALL DRAG JOIST TO TOP PLATE (OR BEAM) W/ H2.5A (FOR D=2,000# OR LESS) AND (2) H2.5A (FOR D=2,001# TO 5,000#) AT EACH BEARING, UNO ON PLAN.
- 13. JOIST UPLIFT REACTIONS HAVE BEEN ACCOUNTED FOR ON THESE DRAWINGS. DO NOT REFER TO JOIST MANUFACTURER'S CALCULATIONS FOR JOIST-TO-STRUCTURE UPLIFT REACTIONS

**TOP PLATE BREAK**

- 14. AT SINGLE TOP PLATE BREAK PROVIDE (2) CS16 STRAPS W/ END LENGTH AND FASTENERS PER MFR. STRAPS NOT REQ'D AT INTERIOR NON-SHEAR WALLS.



**ROOF FRAMING PLAN**

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

SHEAR WALL SCHEDULE				
MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	BOT PLATE AB AT STEEL BOT PLATE CONN AT WOOD
(A)	3/8" OSB BLOCKED, ONE SIDE OF WALL	8d AT 6" O.C.	8d AT 12" O.C.	1/2" DIA WELDED STUDS AT 34" O.C. 16d AT 5" O.C.
(B)	3/8" OSB BLOCKED, ONE SIDE OF WALL	8d AT 4" O.C.	8d AT 12" O.C.	1/2" DIA WELDED STUDS AT 23" O.C. 16d STAGGERED AT 3" O.C.

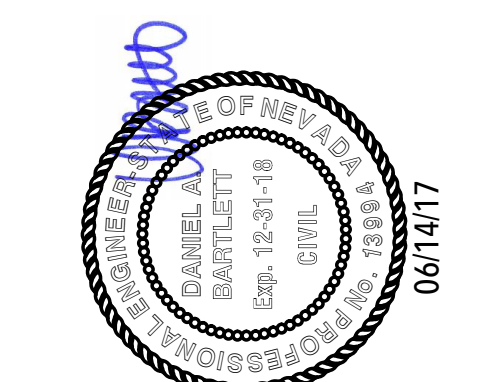


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TEAM LAS VEGAS  
WWW.UNLVSD.COM  
SD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
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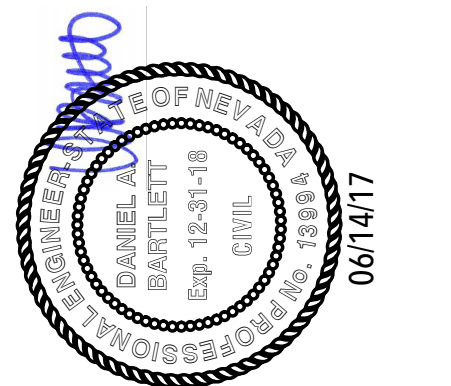
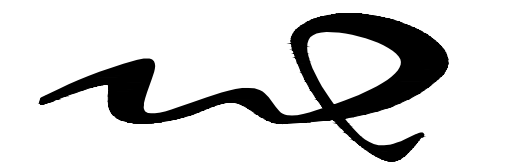
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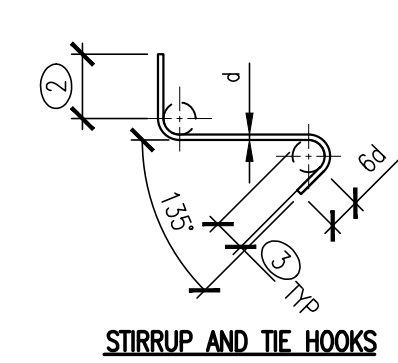
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CONNECTION	NAILING
RAFTER, JOIST, OR TRUSS TO TOP PLATE	(3) 16d, OR (3) 3"x0.131", TOENAILS
BLOCKING TO JOIST	(2) 8d COMMON, OR (2) 3"x0.131", TOENAIL
BOTTOM PLATE THROUGH SHEATHING TO JOIST, TRUSS, OR BLOCKING	16d AT 16" O.C., OR 3"x0.131" AT 8" O.C., MAX
TOP PLATE TO STUD (& POST)	(2) 16d COMMON, OR (3) 3"x0.131", END NAILS
STUD TO BOT PL (& CRIPPLE TO BEAM)	(2) 16d COMMON, OR (3) 3"x0.131", END NAILS OR (3) 16d, OR (4) 3"x0.131", TOENAILS
DOUBLE TOP PLATES	16d AT 16" O.C., MAX FACE NAILS OR 3"x0.131" AT 12" O.C. MAX FACE NAILS
KING STUD TO TRIMMER STUDS/HEADER	16d FACE NAILS AT 24" O.C./ (4) 16d END NAILS OR 3"x0.131" AT 18" O.C. MAX FACE NAILS
DRAG TRUSS TO TOP PLATE	(3) 16d, OR (4) 3"x0.131", TOENAILS & (1)H2.5A
DOUBLE STUDS	16d AT 16" O.C. MAX FACE NAILS OR 3"x0.131" AT 8" O.C. MAX FACE NAILS
BUILT-UP CORNER STUDS, UNO	16d (OR 3"x0.131") AT 16" O.C., MAX

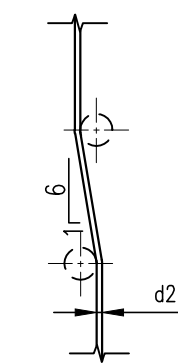
### KEYNOTES

- MIN NAILING SPECIFIED IN THIS TABLE SHALL BE PROVIDED, UNO ON PLANS, DETAILS OR GSN. REFER TO GSN FOR NAIL SPECIFICATION
- NAILING SHALL BE PER IBC TABLE 2304.9.1, UNO ON ABOVE SCHEDULE OR PLANS

### 1 MINIMUM NAILING SCHEDULE NO SCALE



STIRRUP AND TIE HOOKS



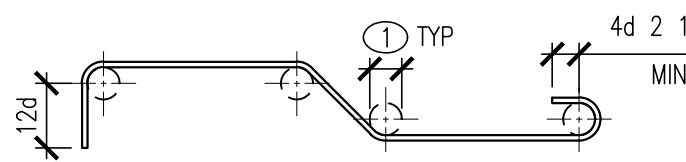
OFFSET BAR

### KEYNOTES

- MIN FINISHED BEND DIA FOR ALL REINFORCING EXCEPT STIRRUPS AND TIES PER THE FOLLOWING:  
6"d FOR #6 AND SMALLER  
8"d FOR #9 THROUGH #11  
12"d FOR #14 AND #18
- 6"d FOR #5 AND SMALLER  
12"d FOR #6 THROUGH #8
- MIN FINISHED BEND DIA FOR STIRRUPS AND TIES ONLY  
4"d FOR #5 AND SMALLER  
6"d FOR #6 THROUGH #8

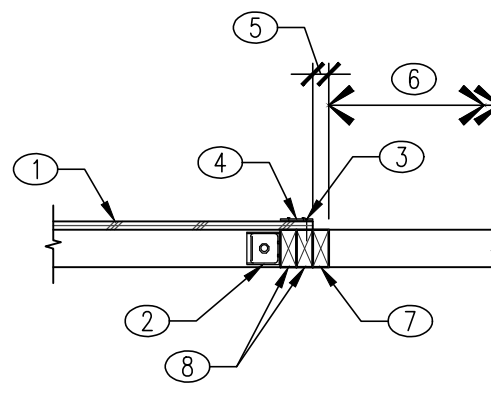
### NOTES

- "d" = BAR DIA
- ALL REINFORCEMENT SHALL BE BENT COLD, UNO ON PLANS OR DETAILS



ALL OTHER REINFORCING

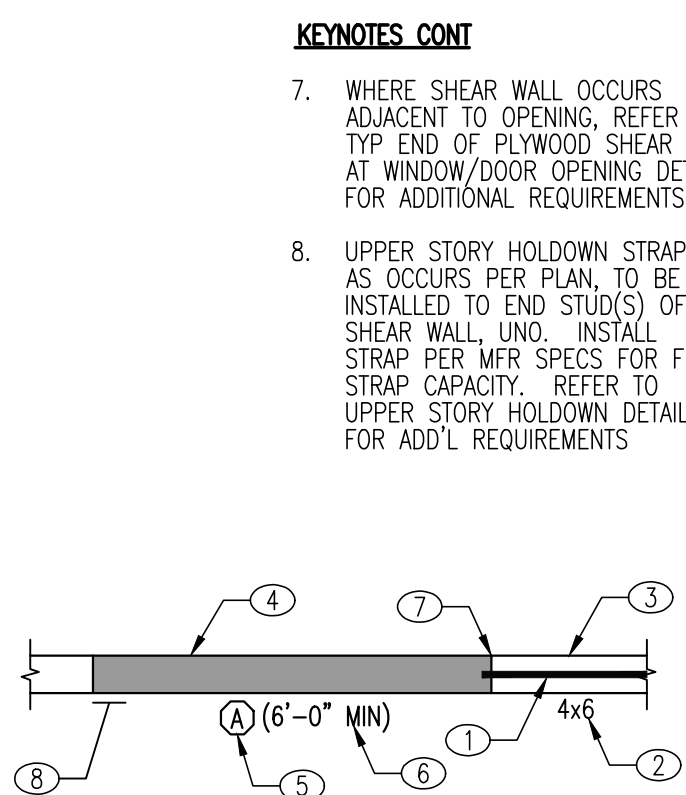
### 2 STANDARD REBAR BENDING DETAIL NO SCALE



### KEYNOTES

- SHEAR WALL SHEATHING PER PLAN
- LOCATION OF BOLTED HOLDOWN PER PLAN
- BOUNDARY FASTENERS
- LOCATION OF STRAP HOLDOWN WHERE NOTED ON PLAN. HOLDOWN NAILS MAY COUNT AS SHEAR WALL EDGE FASTENERS
- 1-1/2" MIN FROM ROUGH OPENING TO PLYWOOD SHEAR WALL SHEATHING (1-1/2" AT (1) 3" AT (2) 1, ETC.)
- WINDOW/DOOR OPENING
- TRIMMER STUD(S)
- SHEAR WALL DOUBLE END STUDS (OR POST) PER SCHEDULE (OR PLAN) MAY COUNT AS KING STUDS AS REQ'D PER PLAN

### 3 TYPICAL END OF PLYWOOD SHEAR WALL AT WINDOW/DOOR OPENING NO SCALE



### KEYNOTES CONT

- WHERE SHEAR WALL OCCURS ADJACENT TO OPENING, REFER TO TYP END OF PLYWOOD SHEAR WALL AT WINDOW/DOOR OPENING DETAIL FOR ADDITIONAL REQUIREMENTS
- UPPER STORY HOLDOWN STRAP(S), AS OCCURS PER PLAN, TO BE INSTALLED TO END STUD(S) OF SHEAR WALL, UNO. INSTALL STRAP PER MFR SPECS FOR FULL STRAP CAPACITY. REFER TO UPPER STORY HOLDOWN DETAILS FOR ADD'L REQUIREMENTS

### KEYNOTES

- LINE INDICATES BEAM OR HEADER PER PLAN AT WINDOW/DOOR OPENING PER ARCH
- BEAM OR HEADER SIZE AS INDICATED PER PLAN
- LINE INDICATES CONT DOUBLE TOP PLATE ABOVE HEADER/BREAM. REFER TO TYPICAL TOP PLATE SPLICE DETAIL FOR SPLICE REQUIREMENTS
- SHADE INDICATES APPROXIMATE LOCATION OF SHEAR WALL. ALL SHEAR WALLS SHALL BE CONSIDERED LOAD BEARING, UNO
- PLYWOOD SHEAR WALL SPECIFICATIONS AS NOTED ON PLAN, TO BE INSTALLED PER THE SHEAR WALL SCHEDULE
- MIN LENGTH OF PLYWOOD SHEAR WALL. VERIFY MIN DIM W/ ARCH PRIOR TO CONSTRUCTION

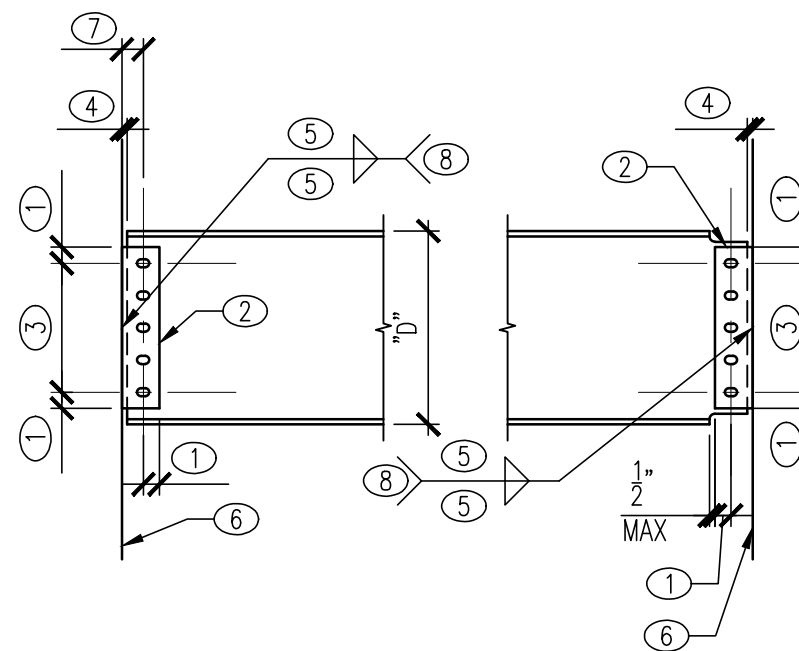
### 4 FRAMING PLAN SYMBOL LEGEND NO SCALE

### KEYNOTES

- AISC MIN EDGE DISTANCE
- SHEAR PLATE PER SCHEDULE
- HORIZ SHORT SLOTTED HOLES AT 3" O.C. MIN IN EITHER BEAM OR SHEAR PLATE PER AISC SPEC
- 1/2" CLEAR TO FACE OF SUPPORTING MEMBER (TYP)
- WELD PER SCHEDULE
- LINE OF SUPPORTING MEMBER (BEAM WEB OR EMBED PLATE)
- 3" MAX
- FILLET WELDS SHALL NOT RETURN AT T&B EDGES OF SHEAR PLATE

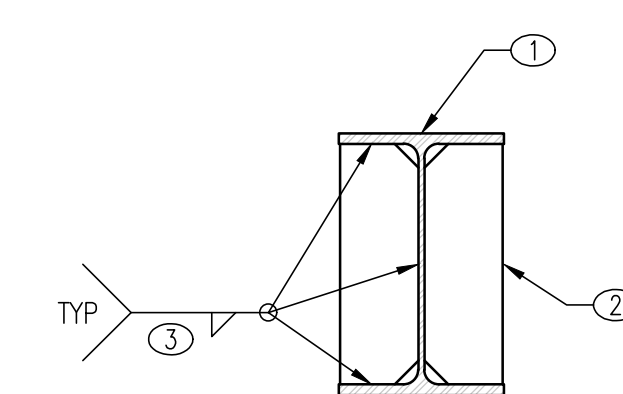
### NOTES

- ALL CONNECTIONS SHALL BE TYPE "X" (THREADS EXCLUDED FROM SHEAR PLANE)
- MAINTAIN MINIMUM BOLT SPACING, HOLE SIZES, AND EDGE DISTANCES PER AISC SPEC



NOMINAL BEAM DEPTH "D"	NUMBER OF BOLTS IN ROW	PLATE THICKNESS	WELD
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"	(6) 3/4"	1/2"	1/4"
24"	(6) 1"	1/2"	5/16"
27"	(7) 1"	9/16"	5/16"
30"	(8) 1"	9/16"	3/8"
33"	(9) 1"	9/16"	3/8"
36"	(10) 1"	9/16"	3/8"
40"	(11) 1"	9/16"	3/8"

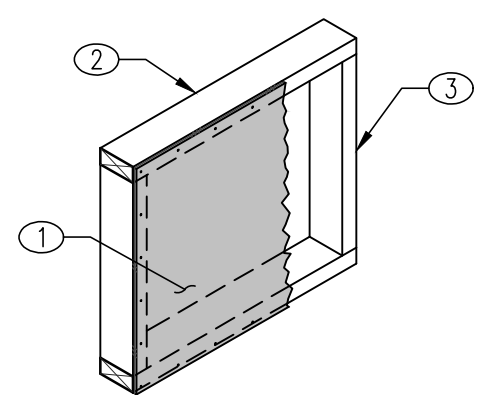
### 5 TYPICAL SHEAR PLATE CONNECTION DETAIL NO SCALE



### KEYNOTES

- BEAM PER PLAN
- WEB STIFFENER EACH SIDE OF BEAM. SIZE PER TYPICAL SHEAR PLATE CONNECTION DETAIL, UNO
- SIZE PER TYPICAL SHEAR PLATE CONNECTION DETAIL, UNO

### 6 TYPICAL WEB STIFFENER DETAIL NO SCALE



### KEYNOTES

- 3/8" OR GREATER SOLID PLYWOOD PANEL W/ 8d AT 6" O.C. AT EDGES. WHERE SHEAR WALL OCCURS BELOW, INCREASE SHEATHING AND NAILING TO MATCH, UNO
- NAIL T&B CHORD TO FRAMING PER DETAILS OR NAILING SCHEDULE
- SOLID 2x BLOCKING AT EACH EDGE OF PLYWOOD PANEL. ANCHOR TO ADJACENT TRUSS/JOIST W/ (2) 16d AT 6" O.C. WHERE POSSIBLE, STAGGERED, TYP

### NOTES

- INSTALL SHEAR PANEL BLOCKING PER NOTES AND/OR DETAILS

### ALTERNATES

- PREFAB TRUSS BLOCKING MAY BE USED AS AN ALTERNATE, PROVIDED THAT TRUSS MFR DESIGNS BLOCKING FOR LATERAL FORCE OF 260 PLF

### 7 TYP SHEAR PANEL BLOCKING NO SCALE

### KEYNOTES

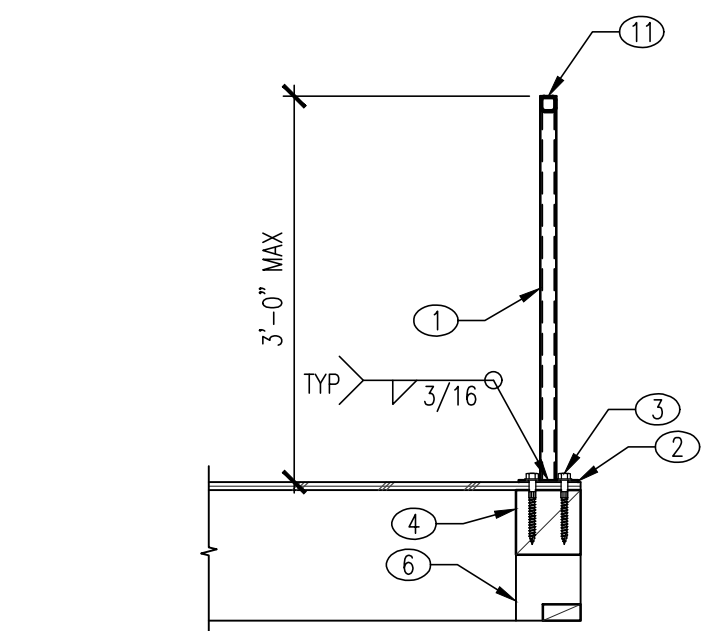
- AISC MIN. EDGE DISTANCE OR EDGE DISTANCE TO ACCOMMODATE PLATE WASHER AND WELDS, WHICHEVER IS GREATER
- 1/4" OR MIN. WELD SIZE PER AISC MANUAL TABLE J2.4, WHICHEVER IS GREATER, FOR BASE PLATES UP TO 3/4" THICK. 5/16" FOR BASE PLATES OVER 3/4" THICK
- DO NOT WELD THE ENDS OF THE COLUMN FLANGES OR THE FILLETS (K REGIONS) OF THE COLUMN
- OPTIONAL GROUT ACCESS HOLE FOR BASE PLATES EXCEEDING 1'-6" x 1'-6". ACCESS HOLE DIA. SHALL NOT EXCEED ANCHOR BOLT HOLE DIA.
- CLEAR DISTANCE SHALL EQUAL ACCESS HOLE DIA. OR 1 1/2", WHICHEVER IS GREATER

### NOTES

- SEE PLAN OR SCHEDULE FOR BASE PLATE DIMENSIONS
- BASE CONNECTIONS MAY REQUIRE MORE THAN (4) ANCHOR BOLTS SHOWN. SEE PLAN OR SCHEDULE FOR SIZE, TYPE, AND NUMBER OF BOLTS

BOLT DIA. (db)	MAX. HOLE DIA.
3/4" TO 1"	db + 5/16"
1" TO 2"	db + 1/2"
OVER 2"	db + 1"

### 8 TYPICAL STEEL COLUMN BASE PLATE (PLAN VIEW) NO SCALE



### KEYNOTES

- HSS 1-1/2x1-1/2x3/16" POST AT 12'-0" O.C. MAX
- 3/16"x5-1/2" SQ BASE PLATE
- (4) 5/8"x6" LAG SCREWS
- 6x6 BLOCK BETWEEN TRUSSES W/ (4) 16d TOENAILS TO ADJACENT TRUSSES
- 2x JOIST PER PLAN
- 6x6 POST ALIGNED BENEATH BASE PLATE W/ (4) 16d TOENAIL EACH END
- 6x6 BLOCK ALIGNED BENEATH BASE PLATE TO EXTEND AND FIT TIGHT BETWEEN VERT WEB MEMBERS IN TRUSS. NOTCH AS REQ'D AT TRUSS TOP CHORD AND FASTEN TO WEB MEMBER W/ (4) 16d TOENAILS, TYP EACH END
- 6x6 POST BENEATH BASE PLATE FIT SNUG BETWEEN BLOCK AND TOP PLATE BELOW. NOTCH AS REQ'D AT TRUSS BOTTOM CHORD
- SHEAR PANEL BLOCK PER GSN ALIGNED W/ POST PER KEYNOTE 8
- MIN (6) 16d NAILS TO POST, STAGGERED
- HSS 1-1/2x1-1/2x3/16" TOP RAIL TO SPAN BETWEEN POSTS

- 6x6 POST BENEATH BASE PLATE FIT SNUG BETWEEN BLOCK AND TOP PLATE BELOW. NOTCH AS REQ'D AT TRUSS BOTTOM CHORD
- SHEAR PANEL BLOCK PER GSN ALIGNED W/ POST PER KEYNOTE 8
- MIN (6) 16d NAILS TO POST, STAGGERED
- HSS 1-1/2x1-1/2x3/16" TOP RAIL TO SPAN BETWEEN POSTS

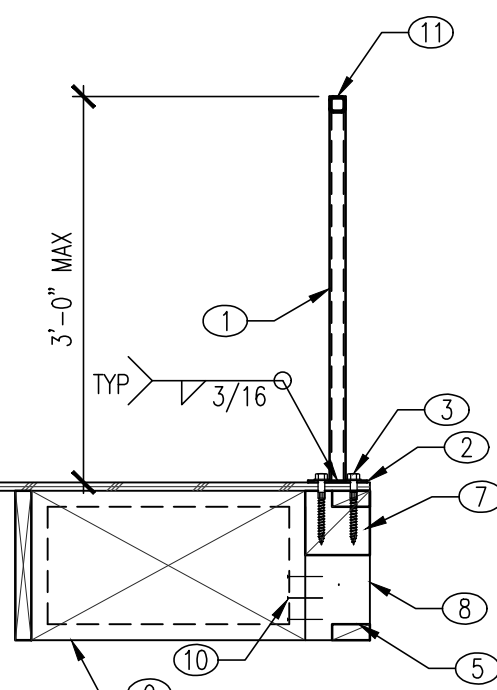
### NOTES

- REFER TO FOUNDATION SUPPORT DETAILS FOR ITEMS NOT SHOWN

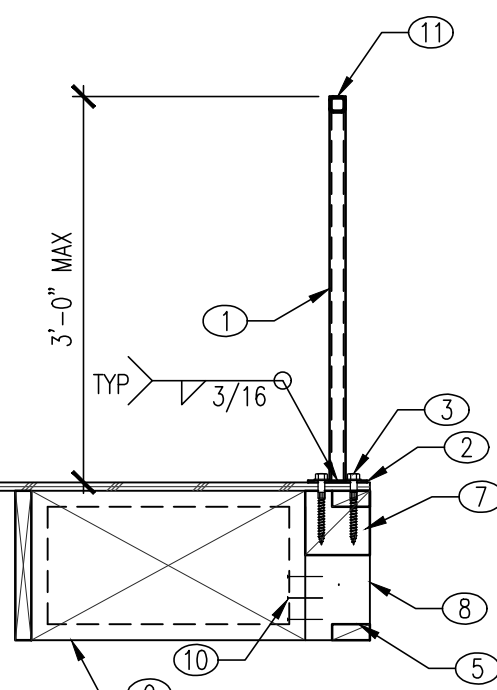
### 9 TYPICAL HAND RAIL POST AT FLOOR FRAMING NO SCALE



### 1A PERPENDICULAR CONDITION



### 1B PARALLEL CONDITION

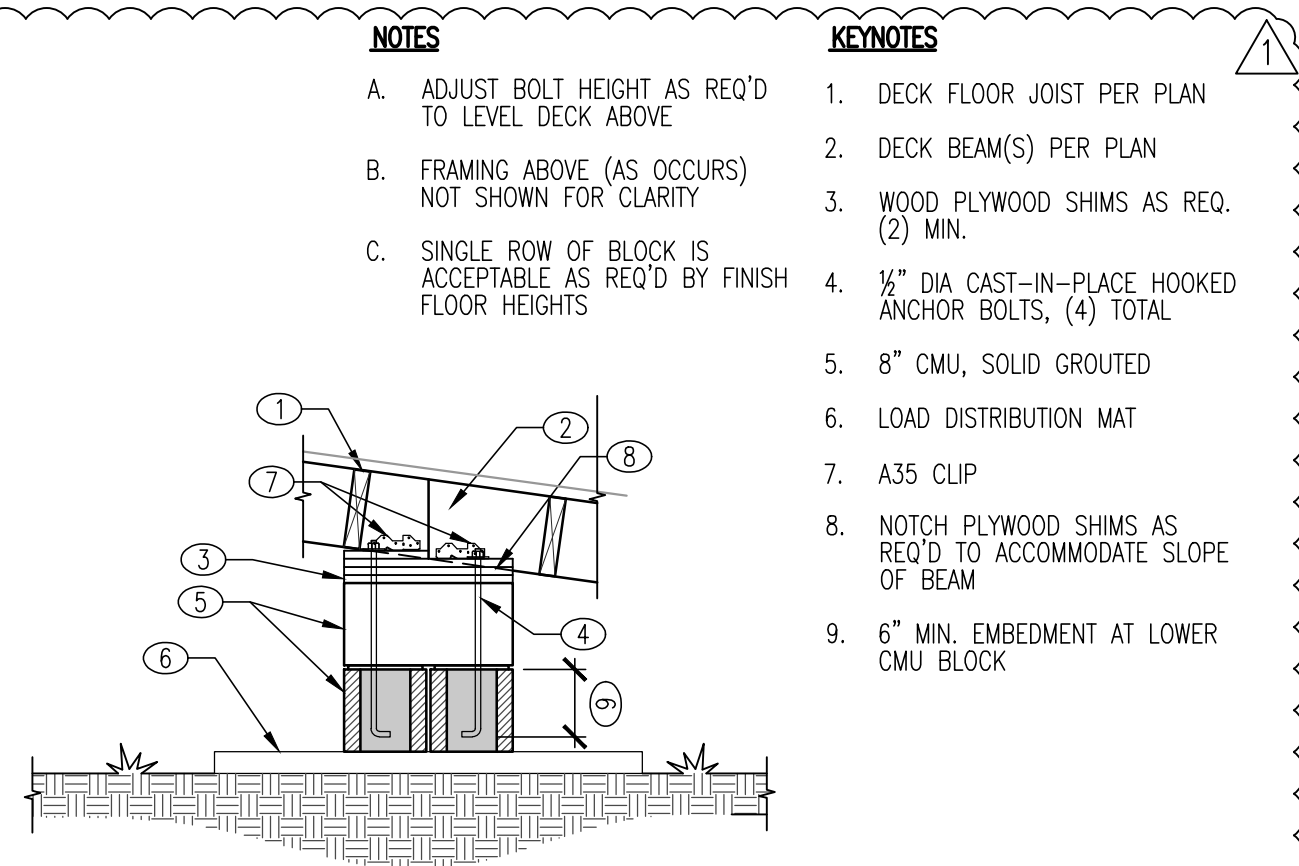




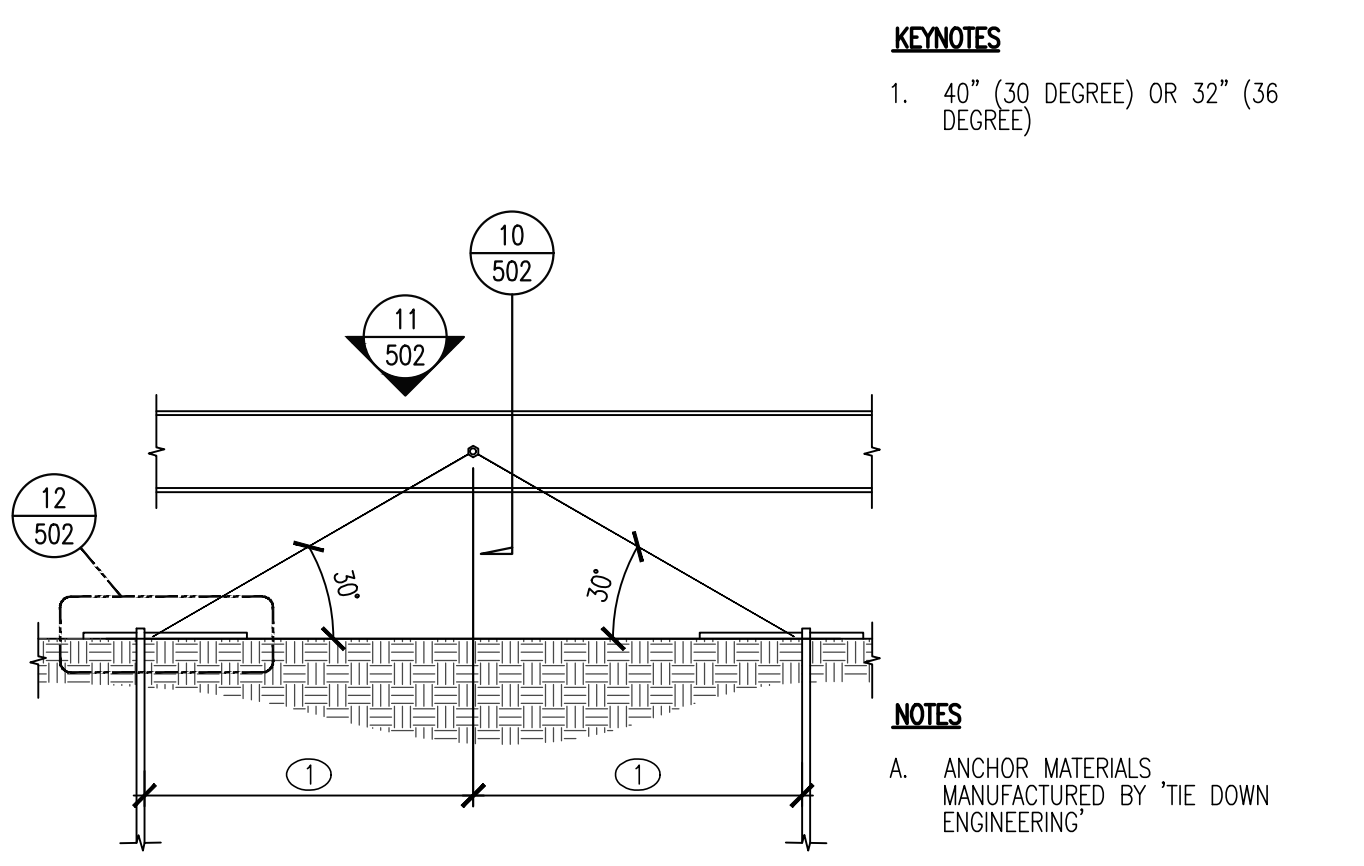
## ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

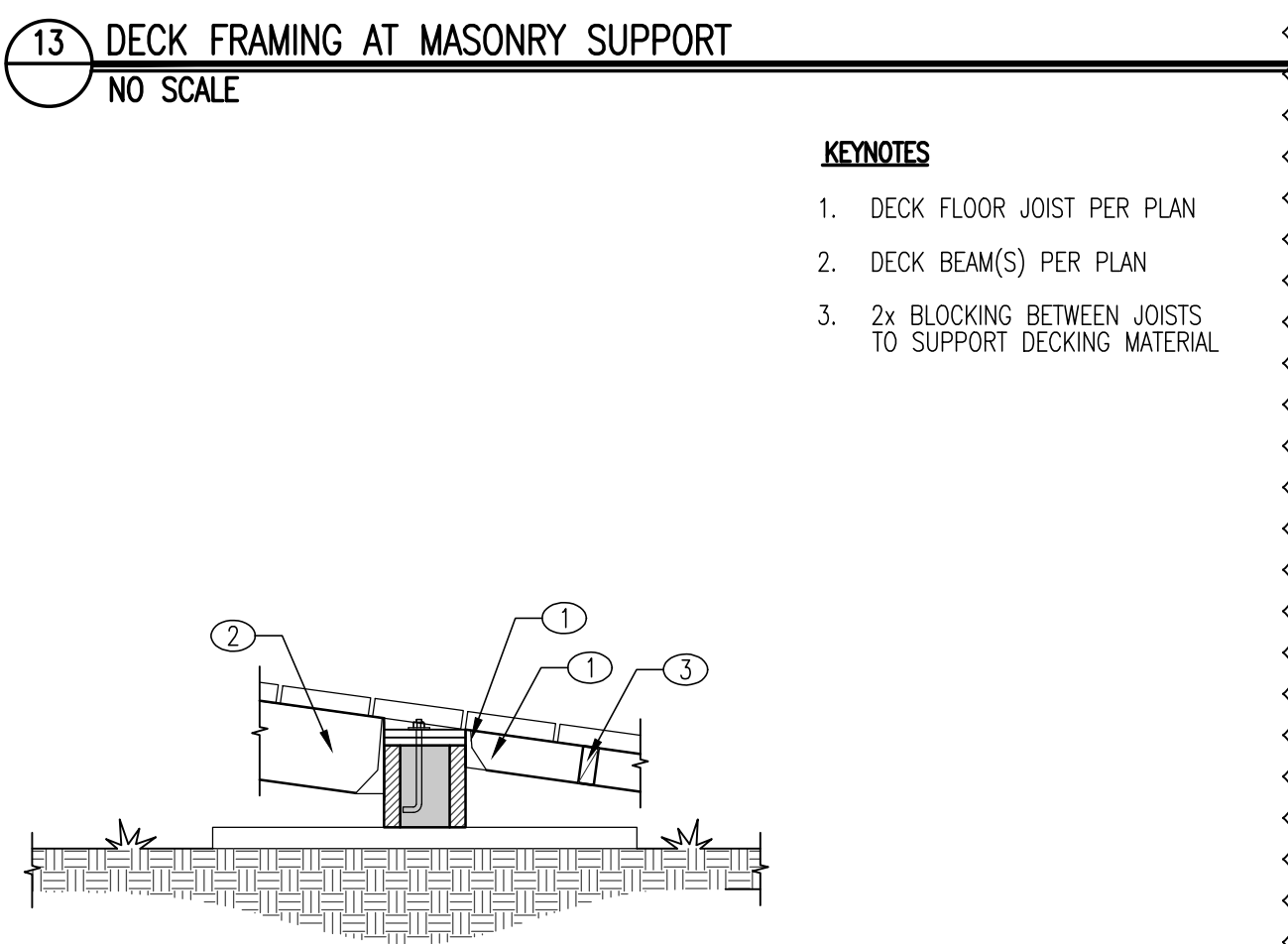
REVISIONS	ARCH'L REVISIONS	DATE
△		06/14/17



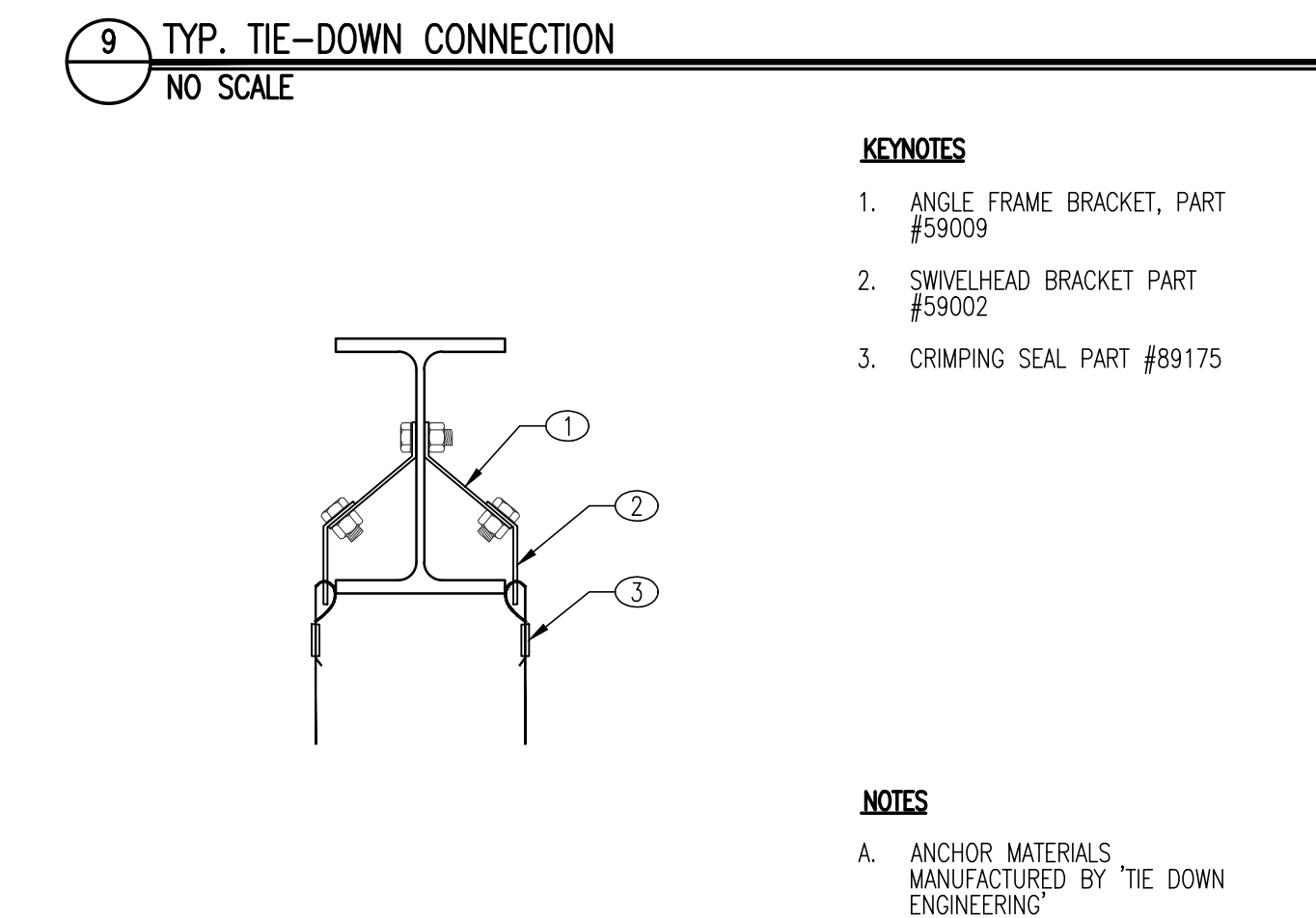
- NOTES**
- ADJUST BOLT HEIGHT AS REQ'D TO LEVEL DECK ABOVE
  - FRAMING ABOVE (AS OCCURS) NOT SHOWN FOR CLARITY
  - SINGLE ROW OF BLOCK IS ACCEPTABLE AS REQ'D BY FINISH FLOOR HEIGHTS
- KEYNOTES**
- DECK FLOOR JOIST PER PLAN
  - DECK BEAM(S) PER PLAN
  - WOOD PLYWOOD SHIMS AS REQ. (2) MIN.
  - 1/2" DIA CAST-IN-PLACE HOOKED ANCHOR BOLTS, (4) TOTAL
  - 8" CMU, SOLID GROUTED
  - LOAD DISTRIBUTION MAT
  - A35 CLIP
  - NOTCH PLYWOOD SHIMS AS REQ'D TO ACCOMMODATE SLOPE OF BEAM
  - 6" MIN. EMBEDMENT AT LOWER CMU BLOCK



- KEYNOTES**
- 40" (30 DEGREE) OR 32" (36 DEGREE)
- NOTES**
- ANCHOR MATERIALS MANUFACTURED BY "TIE DOWN ENGINEERING"

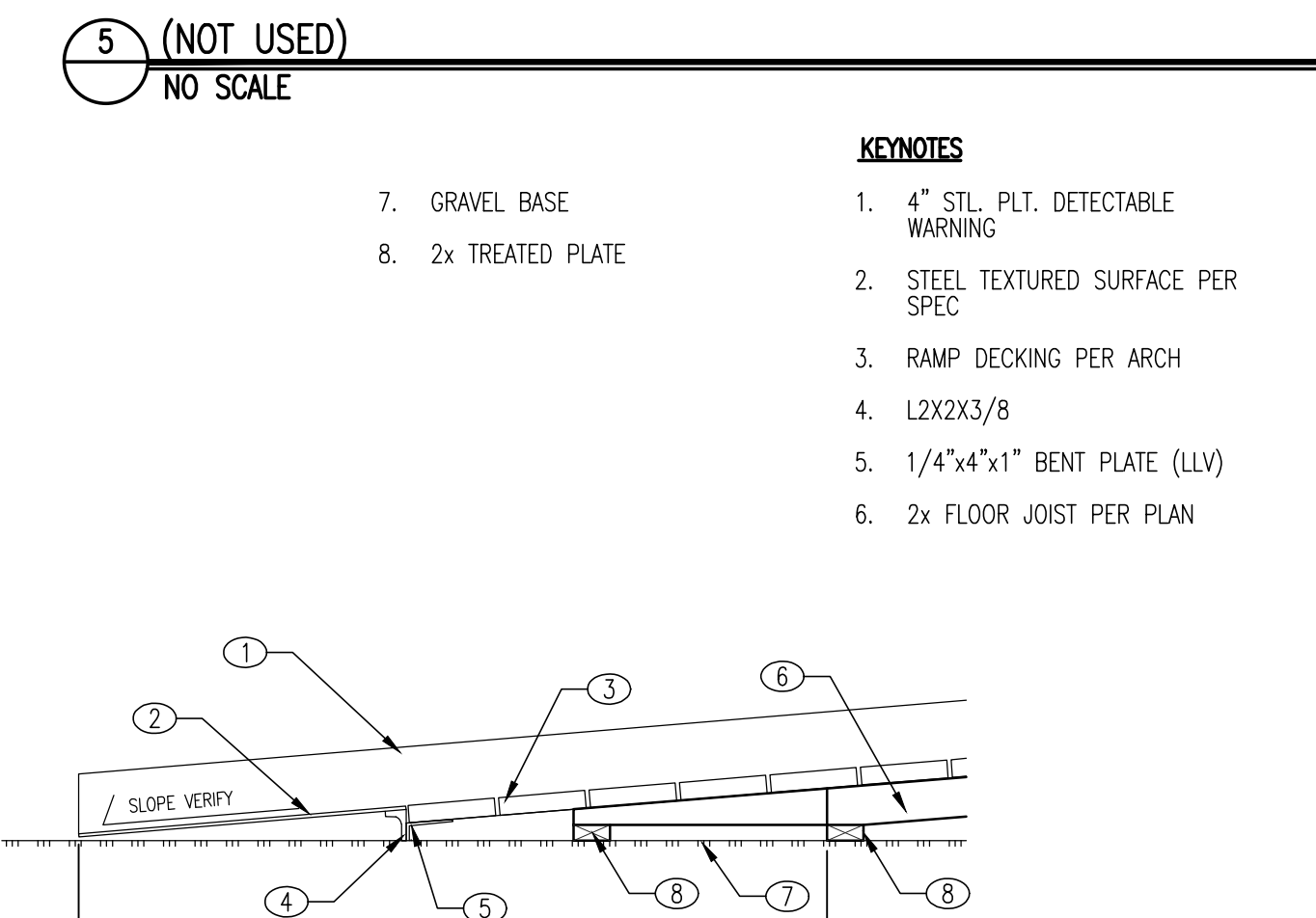


- KEYNOTES**
- DECK FLOOR JOIST PER PLAN
  - DECK BEAM(S) PER PLAN
  - 2x BLOCKING BETWEEN JOISTS TO SUPPORT DECKING MATERIAL

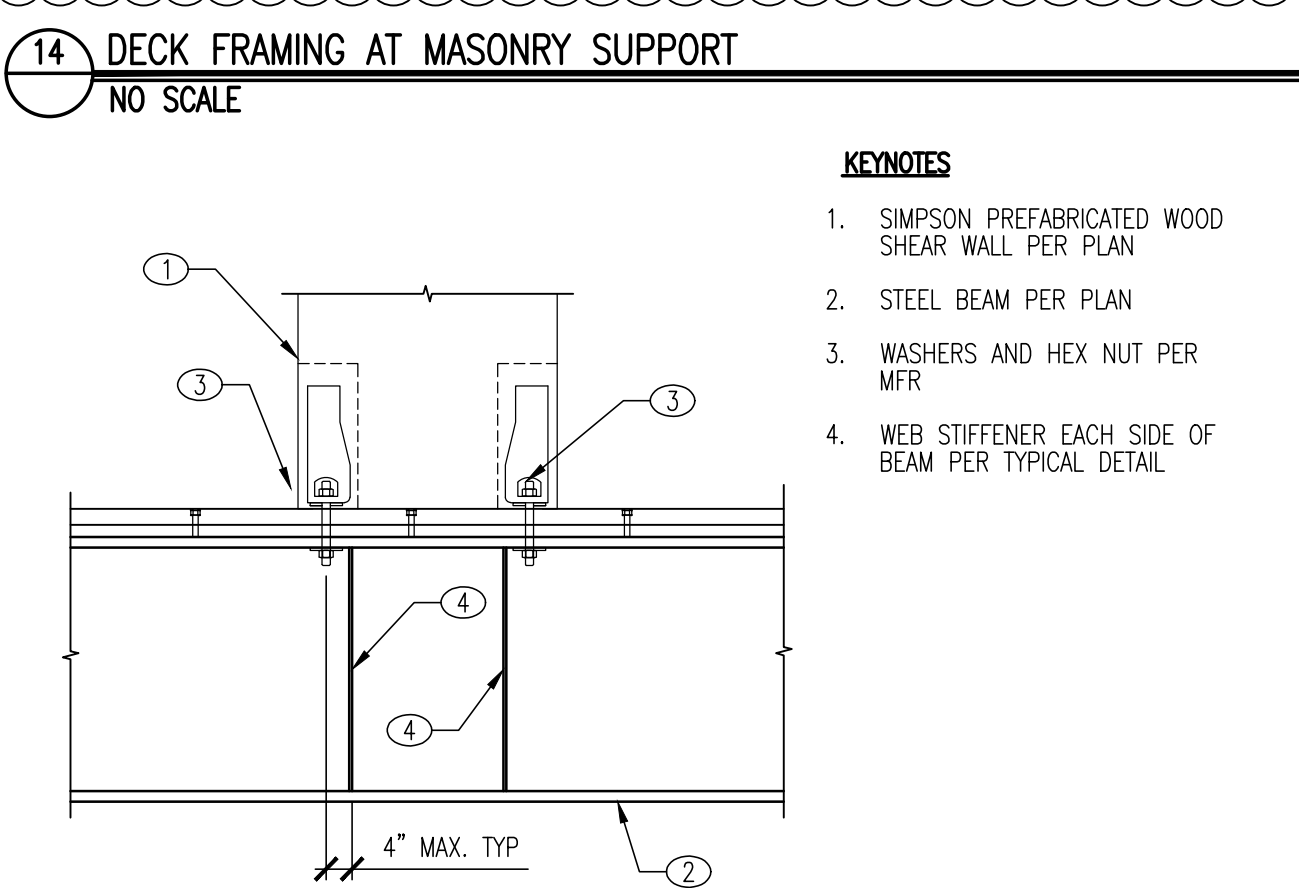


- KEYNOTES**
- ANGLE FRAME BRACKET, PART #59009
  - SWIVELHEAD BRACKET PART #59002
  - CRIMPING SEAL PART #89175

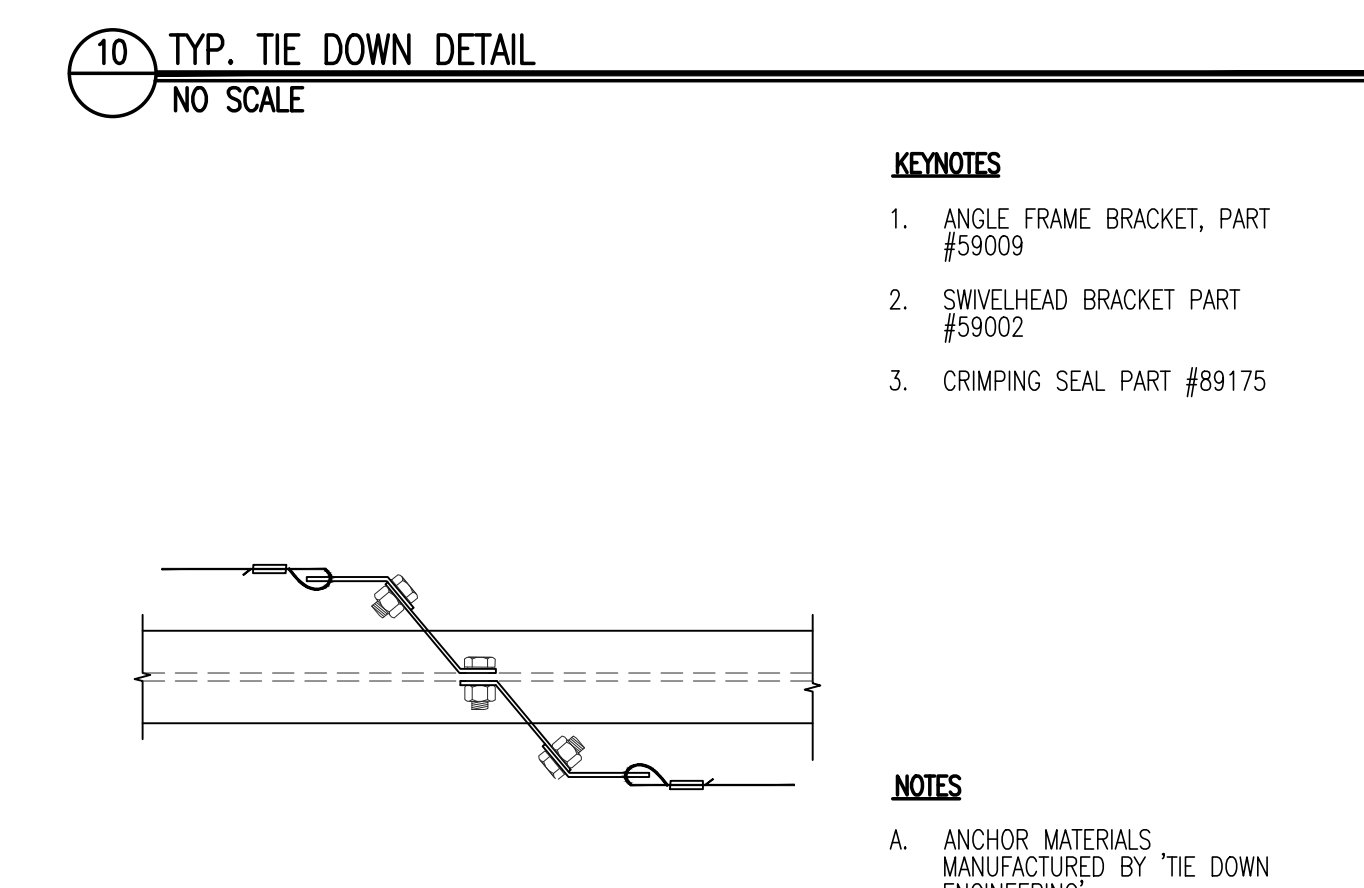
- NOTES**
- ANCHOR MATERIALS MANUFACTURED BY "TIE DOWN ENGINEERING"



- KEYNOTES**
- 4" STL. PLT. DETECTABLE WARNING
  - STEEL TEXTURED SURFACE PER SPEC
  - RAMP DECKING PER ARCH
  - L2X2X3/8
  - 1/4"x4"x1" BENT PLATE (LLV)
  - 2x FLOOR JOIST PER PLAN
  - GRAVEL BASE
  - 2x TREATED PLATE

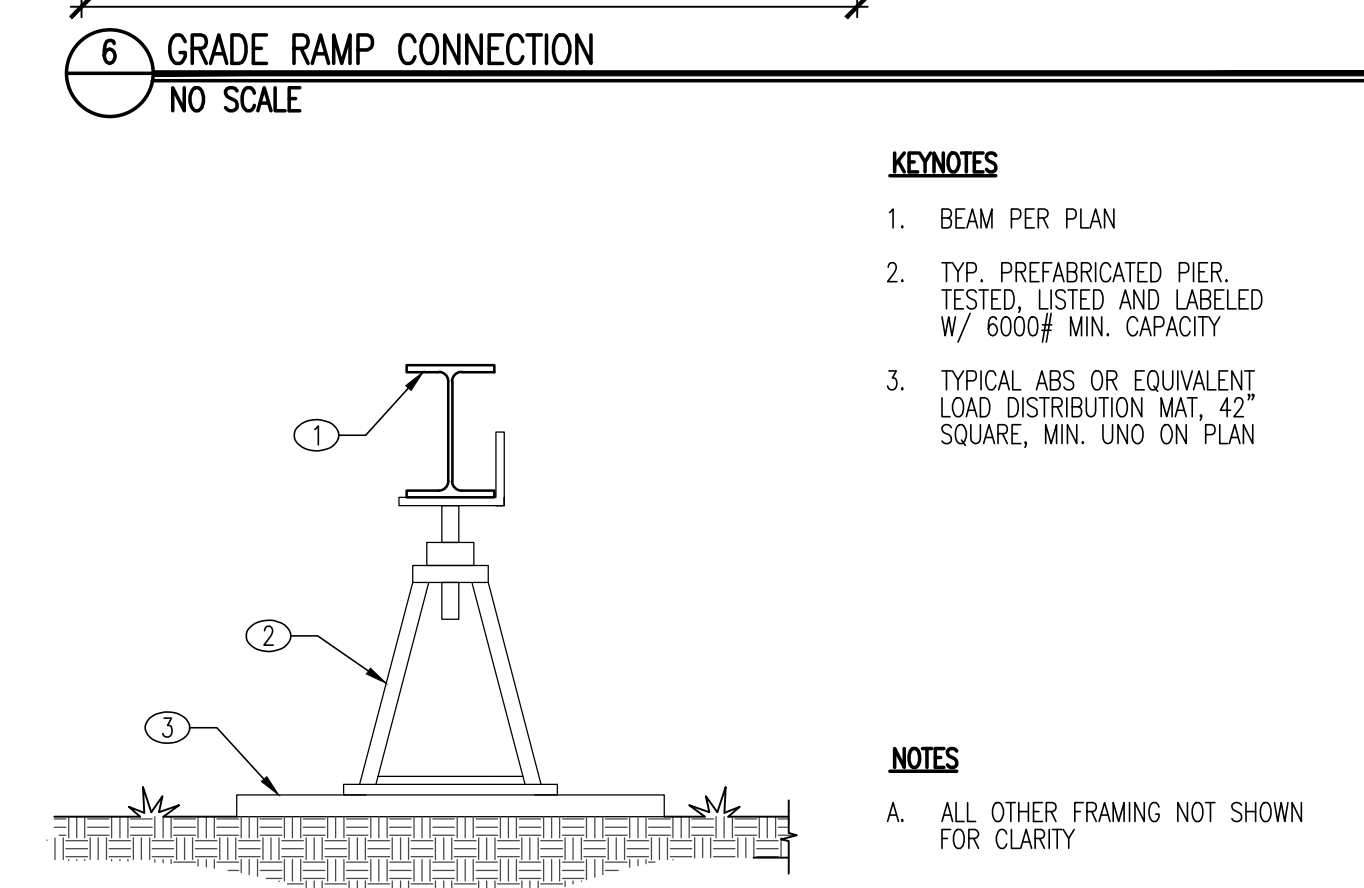


- KEYNOTES**
- SIMPSON PREFABRICATED WOOD SHEAR WALL PER PLAN
  - STEEL BEAM PER PLAN
  - WASHERS AND HEX NUT PER MFR
  - WEB STIFFENER EACH SIDE OF BEAM PER TYPICAL DETAIL



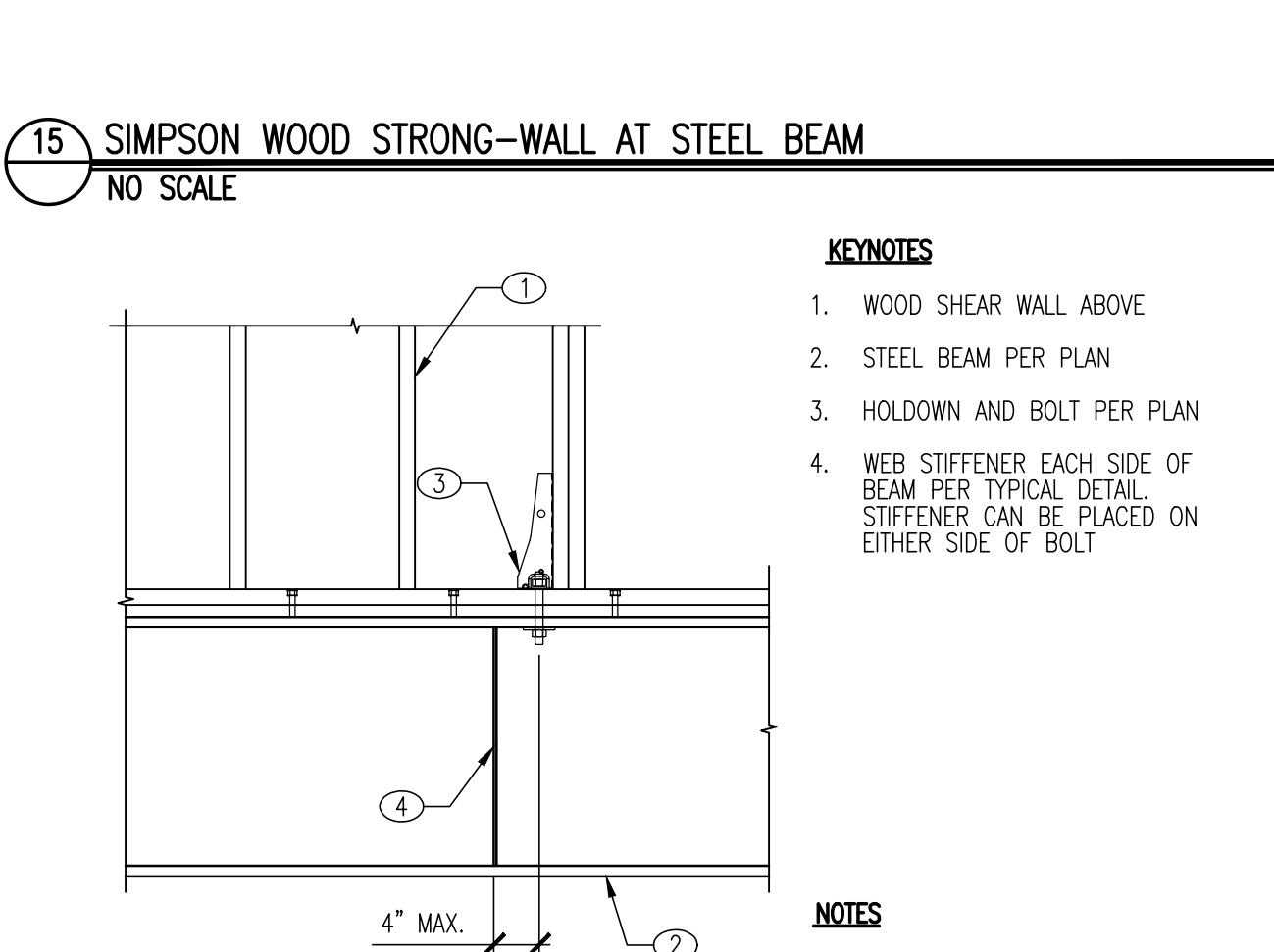
- KEYNOTES**
- ANGLE FRAME BRACKET, PART #59009
  - SWIVELHEAD BRACKET PART #59002
  - CRIMPING SEAL PART #89175

- NOTES**
- ANCHOR MATERIALS MANUFACTURED BY "TIE DOWN ENGINEERING"



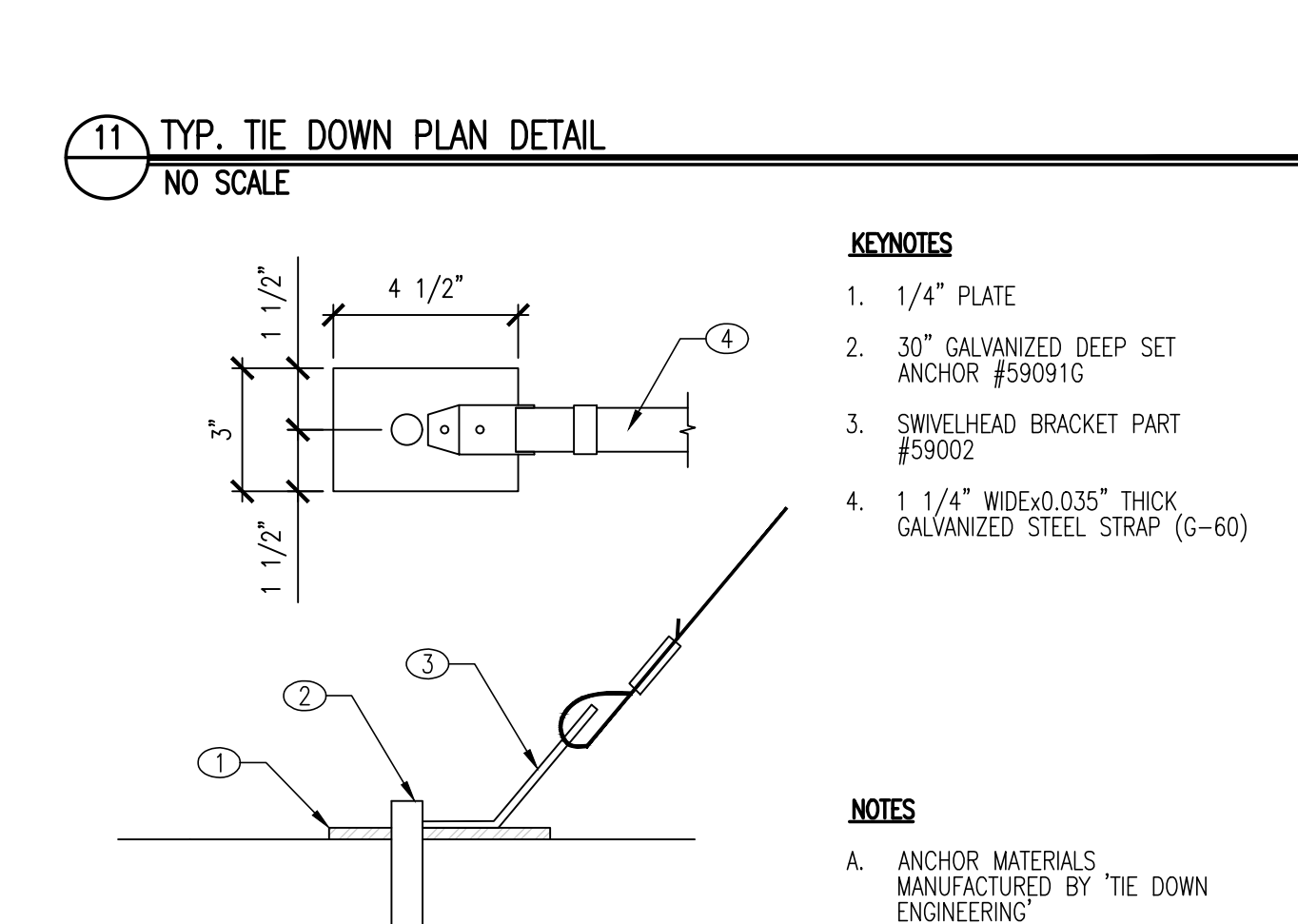
- KEYNOTES**
- BEAM PER PLAN
  - TYP. PREFABRICATED PIER, TESTED, LISTED AND LABELED W/ 6000# MIN. CAPACITY
  - TYPICAL ABS OR EQUIVALENT LOAD DISTRIBUTION MAT, 42" SQUARE, MIN. UNO ON PLAN

- NOTES**
- ALL OTHER FRAMING NOT SHOWN FOR CLARITY



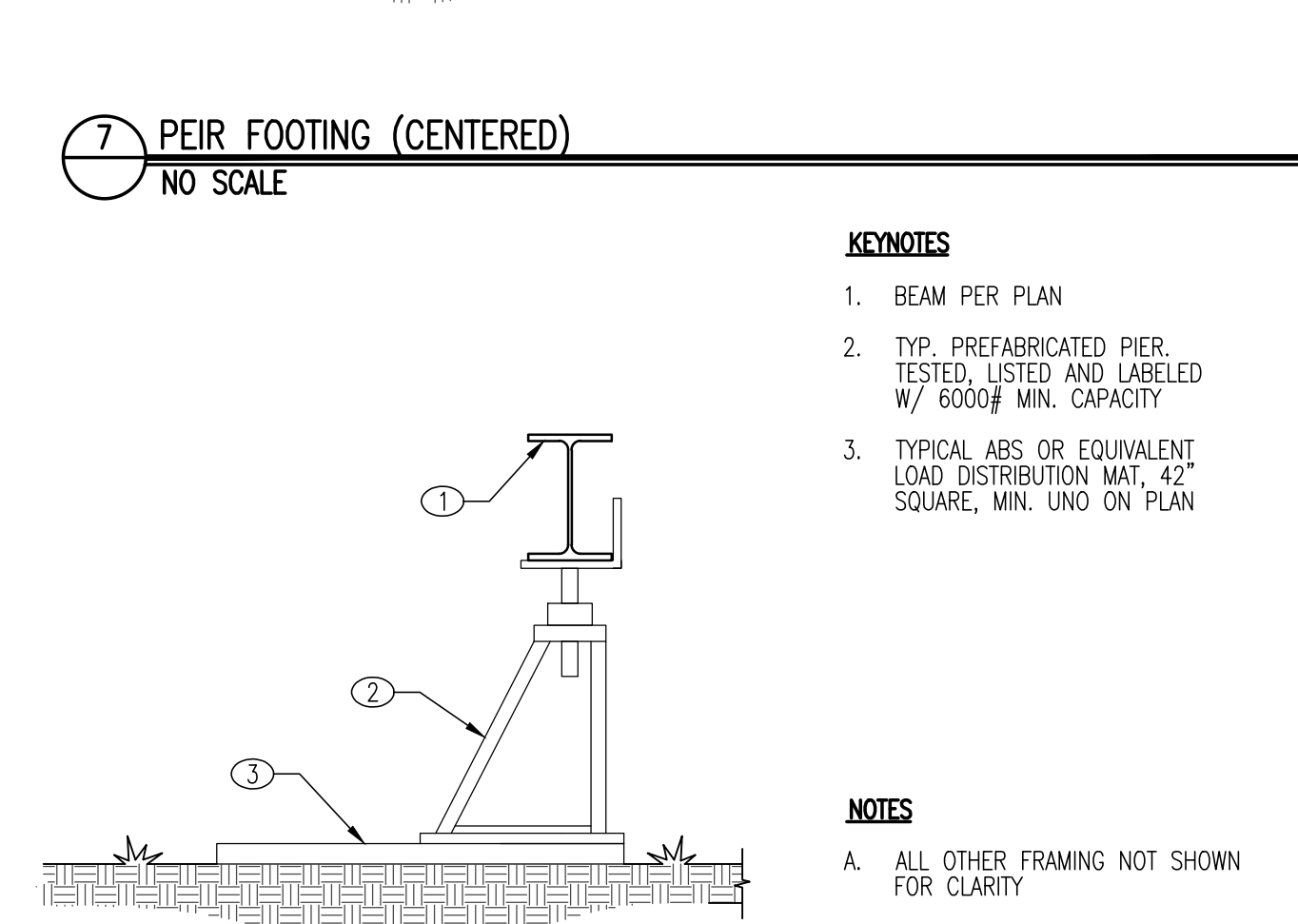
- KEYNOTES**
- WOOD SHEAR WALL ABOVE
  - STEEL BEAM PER PLAN
  - HOLDOWN AND BOLT PER PLAN
  - WEB STIFFENER EACH SIDE OF BEAM PER TYPICAL DETAIL. STIFFENER CAN BE PLACED ON EITHER SIDE OF BOLT

- NOTES**
- SHEAR WALL SHEATHING NOT SHOWN FOR CLARITY



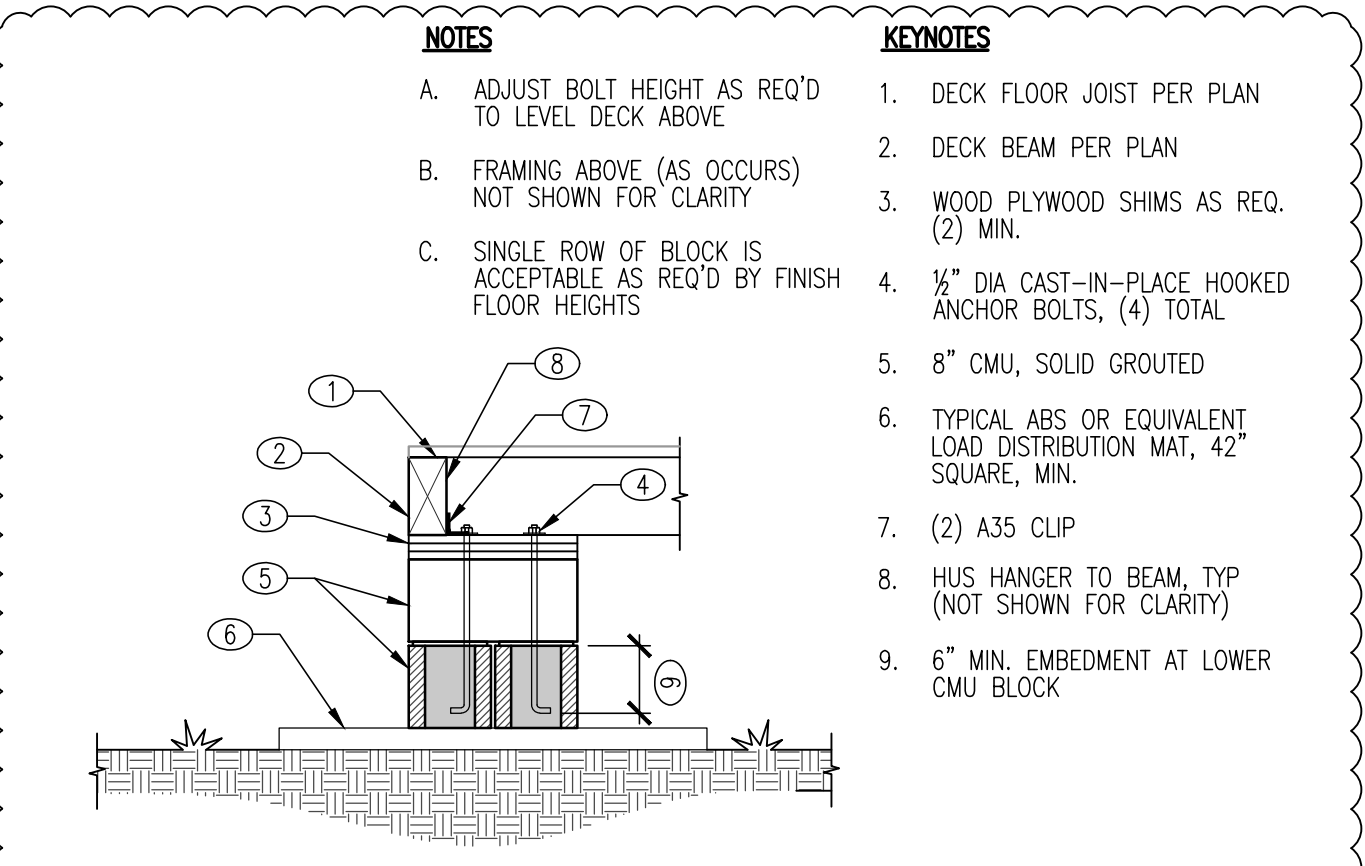
- KEYNOTES**
- 1/4" PLATE
  - 30" GALVANIZED DEEP SET ANCHOR #59091G
  - SWIVELHEAD BRACKET PART #59002
  - 1 1/4" WIDEx0.035" THICK GALVANIZED STEEL STRAP (G-60)

- NOTES**
- ANCHOR MATERIALS MANUFACTURED BY "TIE DOWN ENGINEERING"

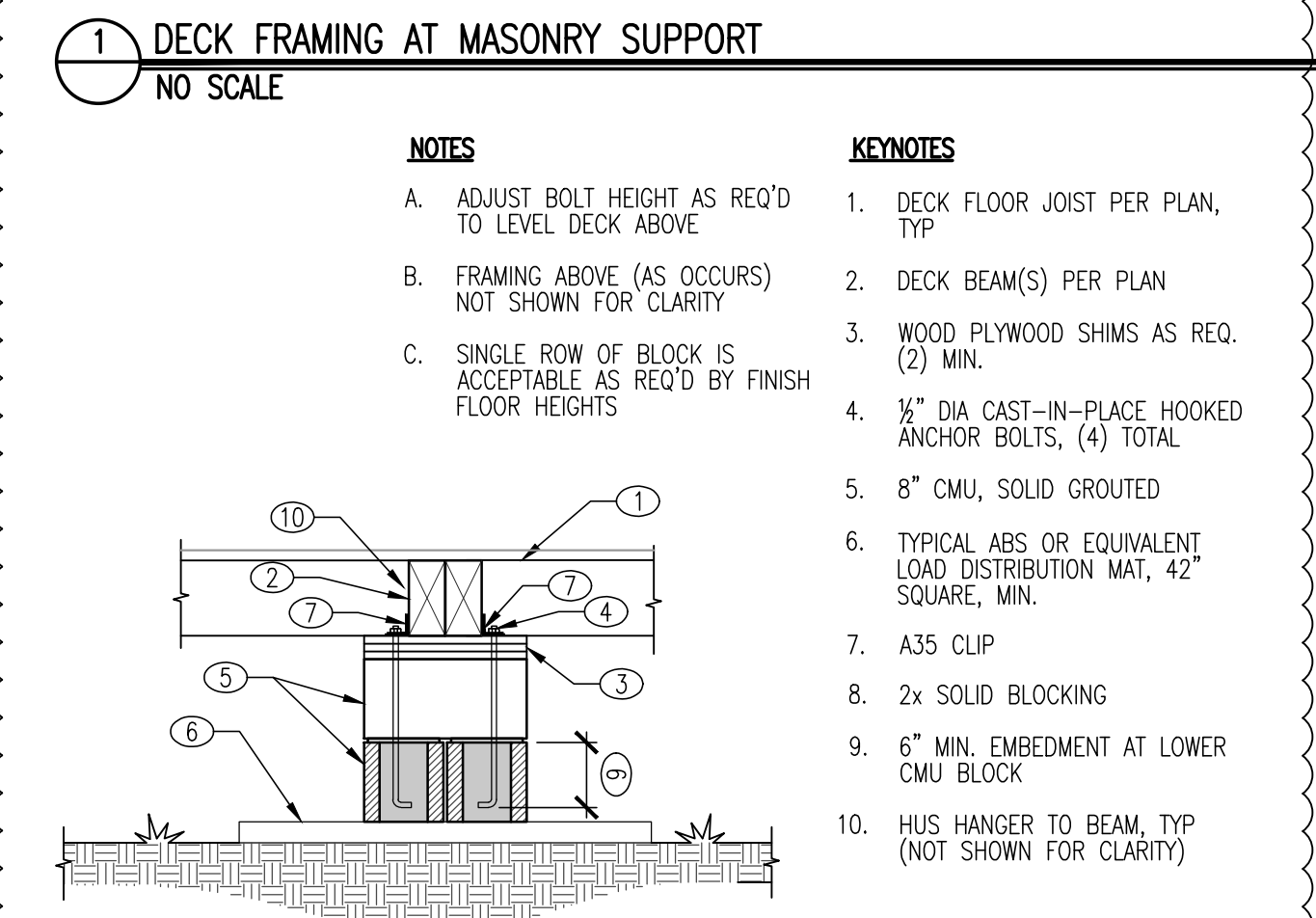


- KEYNOTES**
- BEAM PER PLAN
  - TYP. PREFABRICATED PIER, TESTED, LISTED AND LABELED W/ 6000# MIN. CAPACITY
  - TYPICAL ABS OR EQUIVALENT LOAD DISTRIBUTION MAT, 42" SQUARE, MIN. UNO ON PLAN

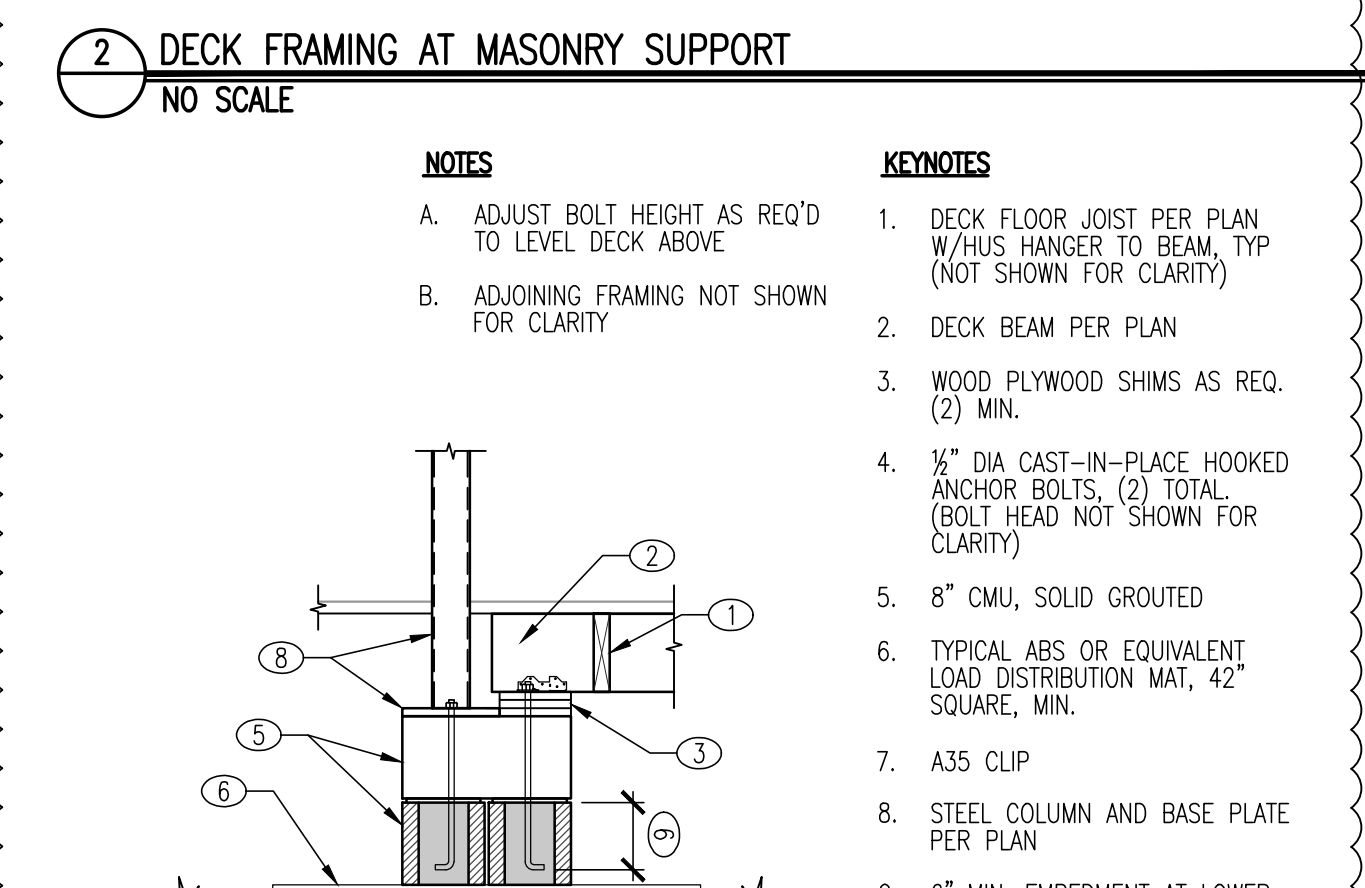
- NOTES**
- ALL OTHER FRAMING NOT SHOWN FOR CLARITY



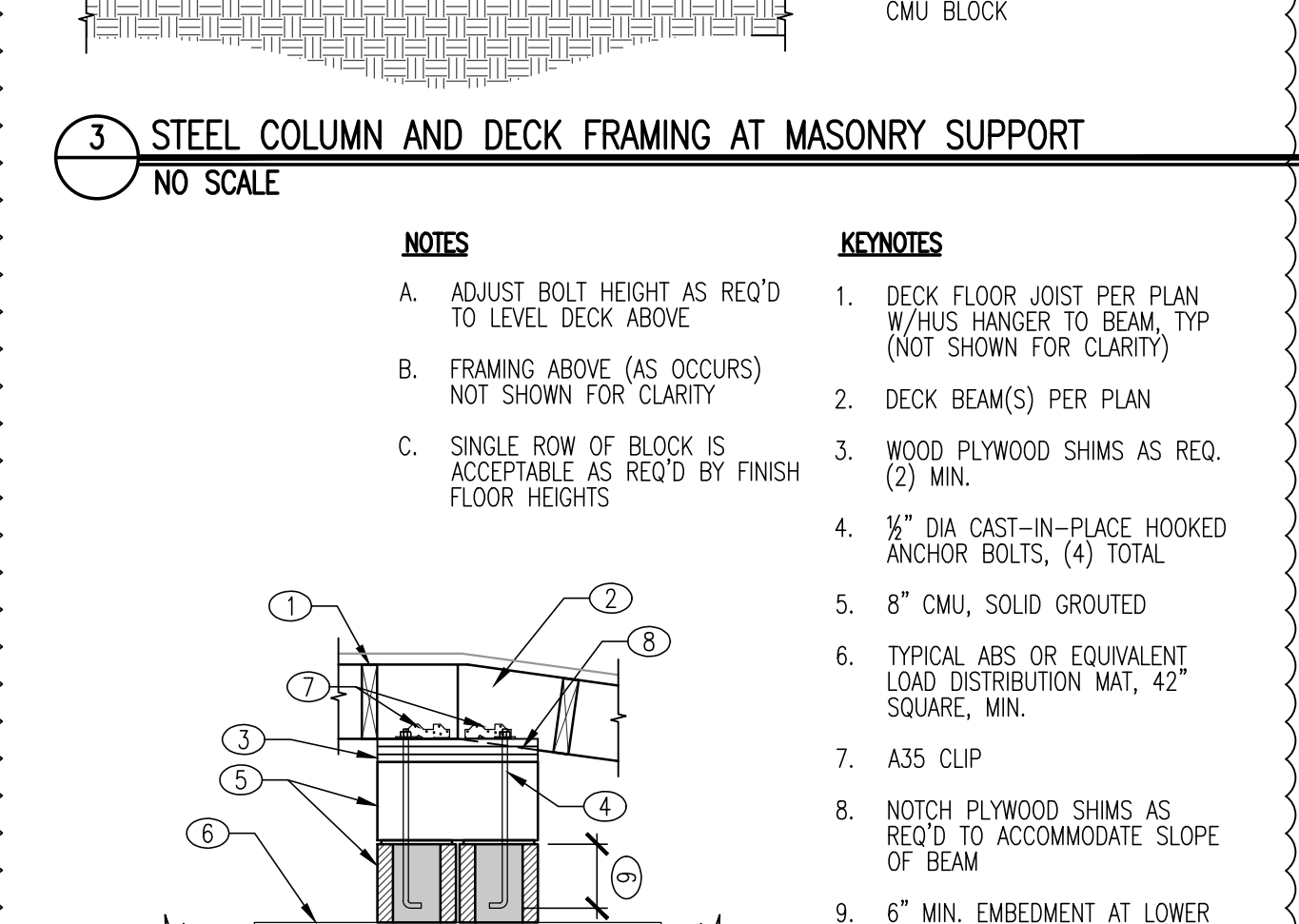
- NOTES**
- ADJUST BOLT HEIGHT AS REQ'D TO LEVEL DECK ABOVE
  - FRAMING ABOVE (AS OCCURS) NOT SHOWN FOR CLARITY
  - SINGLE ROW OF BLOCK IS ACCEPTABLE AS REQ'D BY FINISH FLOOR HEIGHTS
- KEYNOTES**
- DECK FLOOR JOIST PER PLAN
  - DECK BEAM PER PLAN
  - WOOD PLYWOOD SHIMS AS REQ. (2) MIN.
  - 1/2" DIA CAST-IN-PLACE HOOKED ANCHOR BOLTS, (4) TOTAL
  - 8" CMU, SOLID GROUTED
  - TYPICAL ABS OR EQUIVALENT LOAD DISTRIBUTION MAT, 42" SQUARE, MIN.
  - (2) A35 CLIP
  - HUS HANGER TO BEAM, TYP (NOT SHOWN FOR CLARITY)
  - 6" MIN. EMBEDMENT AT LOWER CMU BLOCK



- NOTES**
- ADJUST BOLT HEIGHT AS REQ'D TO LEVEL DECK ABOVE
  - FRAMING ABOVE (AS OCCURS) NOT SHOWN FOR CLARITY
  - SINGLE ROW OF BLOCK IS ACCEPTABLE AS REQ'D BY FINISH FLOOR HEIGHTS
- KEYNOTES**
- DECK FLOOR JOIST PER PLAN, TYP
  - DECK BEAM(S) PER PLAN
  - WOOD PLYWOOD SHIMS AS REQ. (2) MIN.
  - 1/2" DIA CAST-IN-PLACE HOOKED ANCHOR BOLTS, (4) TOTAL
  - 8" CMU, SOLID GROUTED
  - TYPICAL ABS OR EQUIVALENT LOAD DISTRIBUTION MAT, 42" SQUARE, MIN.
  - A35 CLIP
  - 2x SOLID BLOCKING
  - 6" MIN. EMBEDMENT AT LOWER CMU BLOCK
  - HUS HANGER TO BEAM, TYP (NOT SHOWN FOR CLARITY)



- NOTES**
- ADJUST BOLT HEIGHT AS REQ'D TO LEVEL DECK ABOVE
  - ADJOINING FRAMING NOT SHOWN FOR CLARITY
- KEYNOTES**
- DECK FLOOR JOIST PER PLAN W/HUS HANGER TO BEAM, TYP (NOT SHOWN FOR CLARITY)
  - DECK BEAM PER PLAN
  - WOOD PLYWOOD SHIMS AS REQ. (2) MIN.
  - 1/2" DIA CAST-IN-PLACE HOOKED ANCHOR BOLTS, (2) TOTAL (BOLT HEAD NOT SHOWN FOR CLARITY)
  - 8" CMU, SOLID GROUTED
  - TYPICAL ABS OR EQUIVALENT LOAD DISTRIBUTION MAT, 42" SQUARE, MIN.
  - A35 CLIP
  - STEEL COLUMN AND BASE PLATE PER PLAN
  - 6" MIN. EMBEDMENT AT LOWER CMU BLOCK

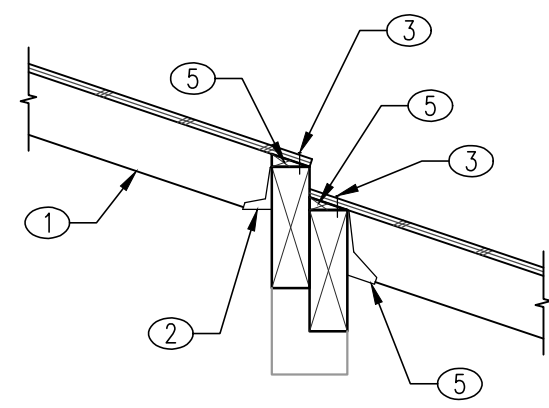


- NOTES**
- ADJUST BOLT HEIGHT AS REQ'D TO LEVEL DECK ABOVE
  - FRAMING ABOVE (AS OCCURS) NOT SHOWN FOR CLARITY
  - SINGLE ROW OF BLOCK IS ACCEPTABLE AS REQ'D BY FINISH FLOOR HEIGHTS
- KEYNOTES**
- DECK FLOOR JOIST PER PLAN W/HUS HANGER TO BEAM, TYP (NOT SHOWN FOR CLARITY)
  - DECK BEAM(S) PER PLAN
  - WOOD PLYWOOD SHIMS AS REQ. (2) MIN.
  - 1/2" DIA CAST-IN-PLACE HOOKED ANCHOR BOLTS, (4) TOTAL
  - 8" CMU, SOLID GROUTED
  - TYPICAL ABS OR EQUIVALENT LOAD DISTRIBUTION MAT, 42" SQUARE, MIN.
  - A35 CLIP
  - NOTCH PLYWOOD SHIMS AS REQ'D TO ACCOMMODATE SLOPE OF BEAM
  - 6" MIN. EMBEDMENT AT LOWER CMU BLOCK



**KEYNOTES**

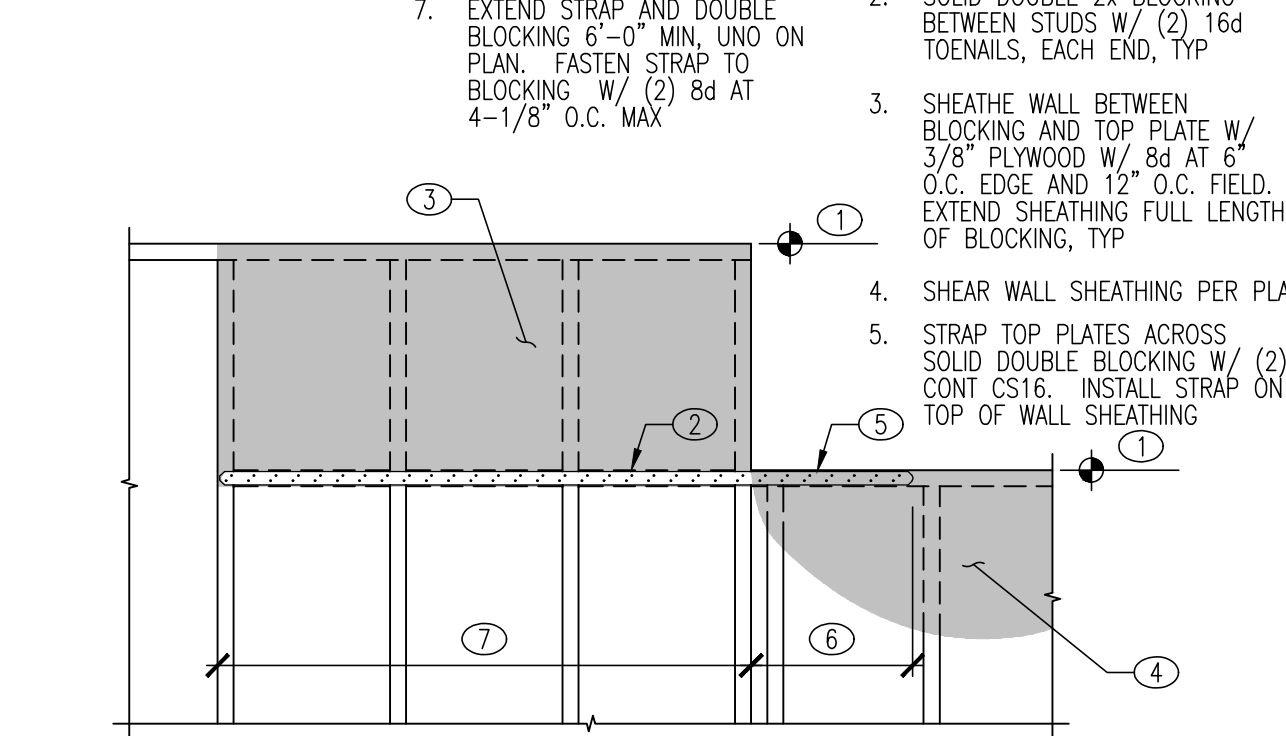
1. WOOD RAFTER PER PLAN
2. LUS26-2 HANGER, PROVIDE LEVEL SEAT CUT AT RAFTER
3. BOUNDARY FASTENERS
4. U26-2 SLOPING HANGER
5. CONT. SOLID 2x PLATE TO SUPPORT SHEATHING, CUT TO FIT



**11 WOOD RAFTERS AT CANTILEVERED BEAMS**  
NO SCALE

- NOTES**
- A. ADJACENT FRAMING MEMBERS NOT SHOWN FOR CLARITY

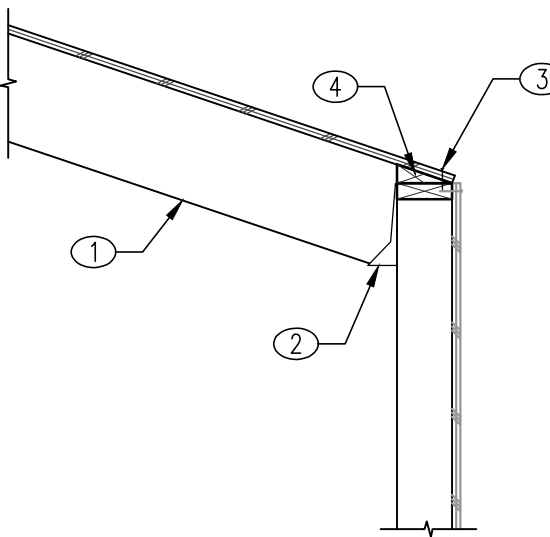
- KEYNOTES (CONT)**
6. PROVIDE STRAP END LENGTH AND FASTENERS PER MFR
  7. EXTEND STRAP AND DOUBLE BLOCKING 6"-0" MIN. UNO ON PLAN. FASTEN STRAP TO BLOCKING W/ (2) 8d AT 4-1/8" O.C. MAX



**12 LATERAL CONNECTION AT STEP IN TOP PLATES**  
NO SCALE

**KEYNOTES**

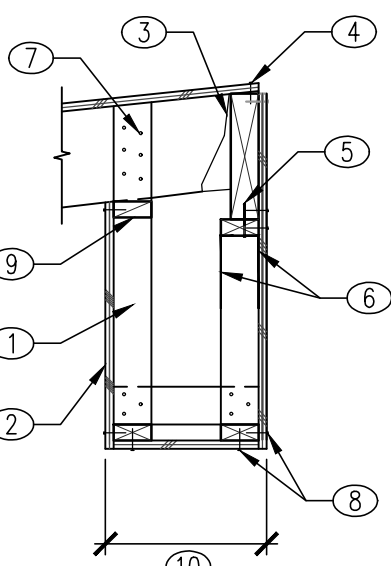
1. WOOD RAFTER PER PLAN
2. LUS26-2 HANGER, PROVIDE LEVEL SEAT CUT AT RAFTER
3. BOUNDARY FASTENERS
4. CONT. SOLID 2x PLATE TO SUPPORT SHEATHING, CUT TO FIT



**13 WOOD RAFTER AT STUD WALL**  
NO SCALE

**KEYNOTES**

1. 2x4 STUDS AT 16" O.C.
2. SHEATH ALL FACES W/ 3/8" PLYWOOD W/8d AT 6" O.C. EDGES AND 12" O.C. FIELD, TYP
3. U26-2 SLOPING HANGER
4. BOUNDARY FASTENERS
5. (2) SDW22438 SCREWS TO BEAM ABOVE
6. FASTEN STUD TO CONT. 2x W/ SSP AT EA. EDGE OF STUD
7. FASTEN 2x TO RAFTER ABOVE W/ (6) 16d
8. EDGE NAILING, TYP
9. 2x BLOCKING W/ (3) 16d AT EA. END
10. VERIFY DIM. W/ ARCH



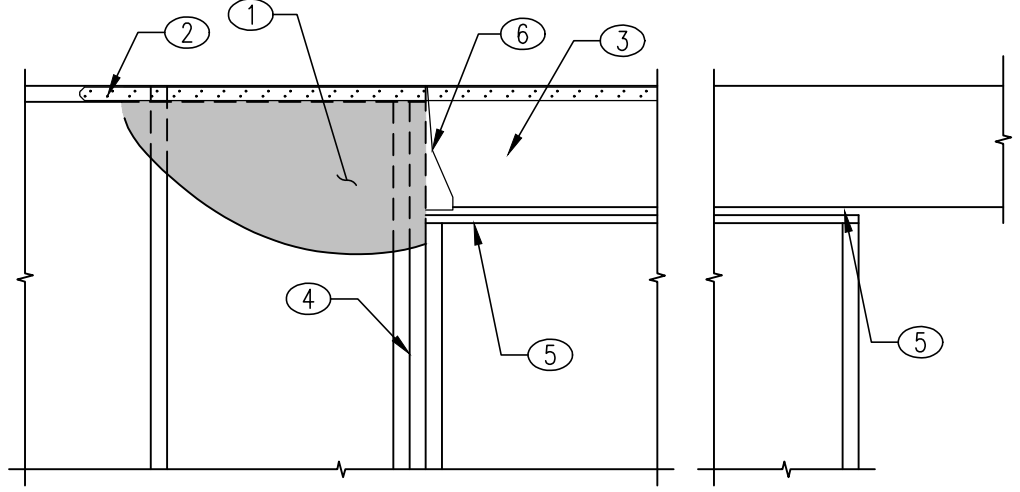
**14 WOOD RAFTERS AT CANTILEVERED BEAM**  
NO SCALE

**NOTES**

- A. WHERE NO STRAP IS INDICATED ON PLAN, USE CONT. CS16 W/ (2) 8d AT 4-1/8" O.C. MAX (OR EVERY-OTHER NAIL HOLE IN STRAP)

**KEYNOTES**

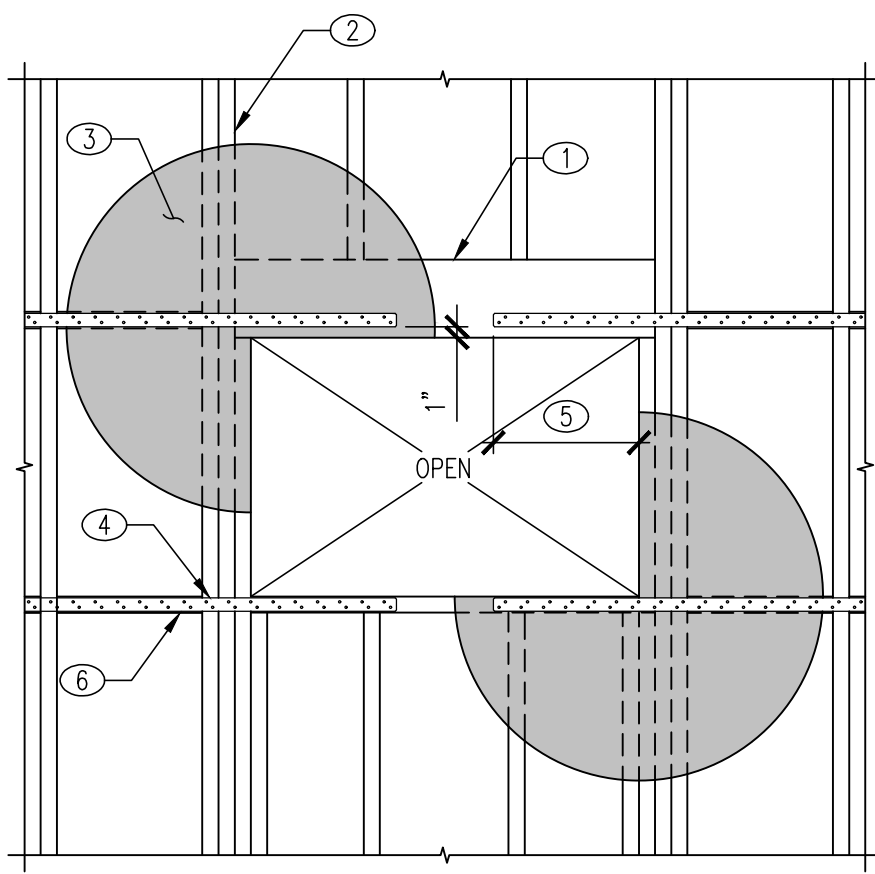
1. SHEAR WALL SHEATHING PER PLAN. SHEATH ABOVE, BELOW, BOTH SIDES OF OPENING, AND ENTIRE LENGTH OF WALL AS INDICATED PER PLAN
2. CONT. STRAP PER PLAN, OR NOTE "A" BELOW. PROVIDE FASTENERS PER MFR TO ACHIEVE FULL LOAD CAPACITY. STRAP SHALL EXTEND TO END OF SHEAR WALL, TYP
3. LVL FLUSH CANT.
4. (2) KING STUDS MIN. AT END OF CANTILEVER LVL, UNO ON PLAN. BOUNDARY FASTEN SHEAR WALL SHEATHING ALONG ENTIRE LENGTH OF STUD
5. 1X6 TOP PLATE WITH 1/4" SPACING BETWEEN PLATE AND LVL
6. HANGER PER PLAN



**9 STEP IN WALL AT FLUSH BEAM**  
NO SCALE

**KEYNOTES**

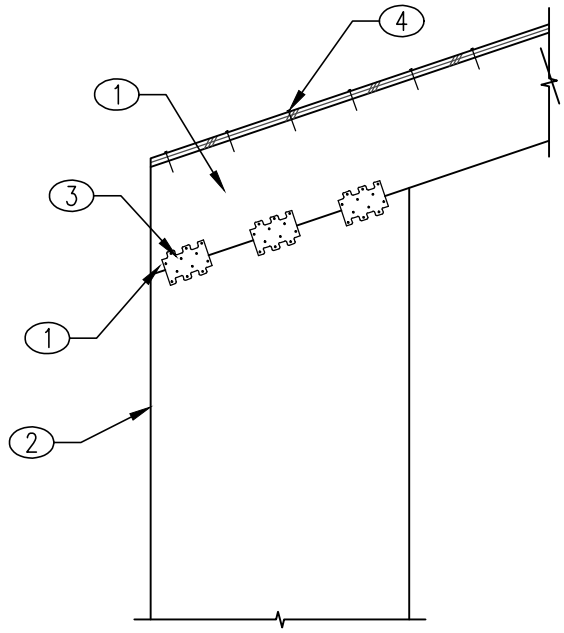
1. WINDOW HEADER PER PLAN
2. (2) KING STUDS MIN. EACH SIDE OF HEADER, UNO ON PLAN. BOUNDARY FASTEN SHEAR WALL SHEATHING ALONG ENTIRE LENGTH OF STUD
3. SHEAR WALL SHEATHING PER PLAN. SHEATH ABOVE, BELOW, BOTH SIDES OF OPENING, AND ENTIRE LENGTH OF WALL AS INDICATED PER PLAN
4. CONT. STRAP PER PLAN, OR NOTE "A" BELOW. PROVIDE FASTENERS PER MFR TO ACHIEVE FULL LOAD CAPACITY. STRAP SHALL EXTEND TO END OF SHEAR WALL, TYP
5. WHERE STRAP DOES NOT RUN CONT. ACROSS HEADER, PROVIDE LAP LENGTH AND FASTENERS PER MFR TO DEVELOP FULL STRAP CAPACITY
6. PROVIDE SOLID 2x BLOCKING BETWEEN STUDS TO RECEIVE STRAP NAILING, TYP



**10 WINDOW OPENING AT SHEAR WALL**  
NO SCALE

**KEYNOTES**

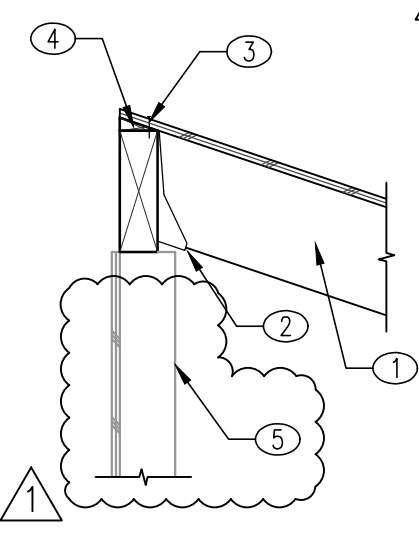
1. FULL DEPTH BEAM PER PLAN
2. SIMPSON WSW PREFABRICATED SHEARWALL PER PLAN
3. (3) LTP4 CLIPS EA. FACE OF WALL. (6 TOTAL)
4. BOUNDARY FASTENERS



**5 WOOD I-JOIST AT PREFABRICATED SHEAR WALL**  
NO SCALE

**NOTES**

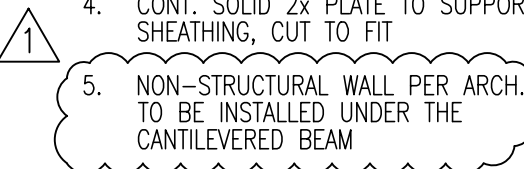
- A. BEAM WIDTH TO MATCH WIDTH OF WSW WALL
- B. SIM CONDITION INDICATES WSW SHEAR WALL AT HIGH SIDE OF BEAM
- C. SIMPSON 'WSW-TOW' CONNECTOR MAY BE USED IN LIEU OF LTP4 CLIPS



**6 WOOD RAFTER AT BALLOON FRAMED WALL**  
NO SCALE

**KEYNOTES**

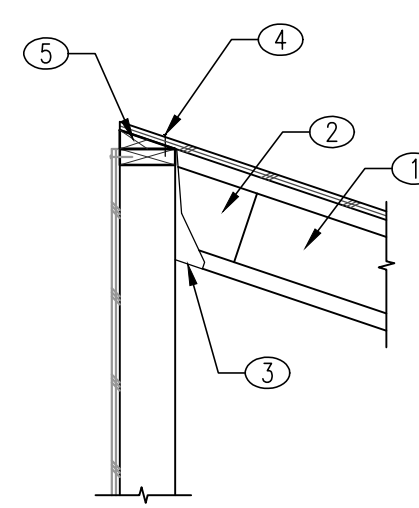
1. WOOD RAFTER PER PLAN
2. U26-2 SLOPING HANGER
3. BOUNDARY FASTENERS
4. CONT. SOLID 2x PLATE TO SUPPORT SHEATHING, CUT TO FIT
5. NON-STRUCTURAL WALL PER ARCH. TO BE INSTALLED UNDER THE CANTILEVERED BEAM



**7 WOOD I-JOIST AT BALLOON FRAMED WALLS**  
NO SCALE

**KEYNOTES**

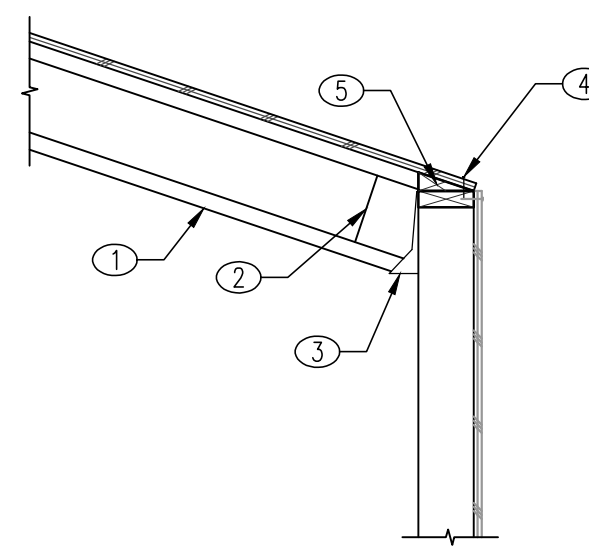
1. WOOD JOIST PER PLAN
2. WEB FILLER BLOCK, INSTALL PER JOIST MFR
3. U26-2 SLOPING HANGER
4. BOUNDARY FASTENERS
5. CONT. SOLID 2x PLATE TO SUPPORT SHEATHING, CUT TO FIT



**8 WOOD I-JOIST AT BALLOON FRAMED WALL**  
NO SCALE

**KEYNOTES**

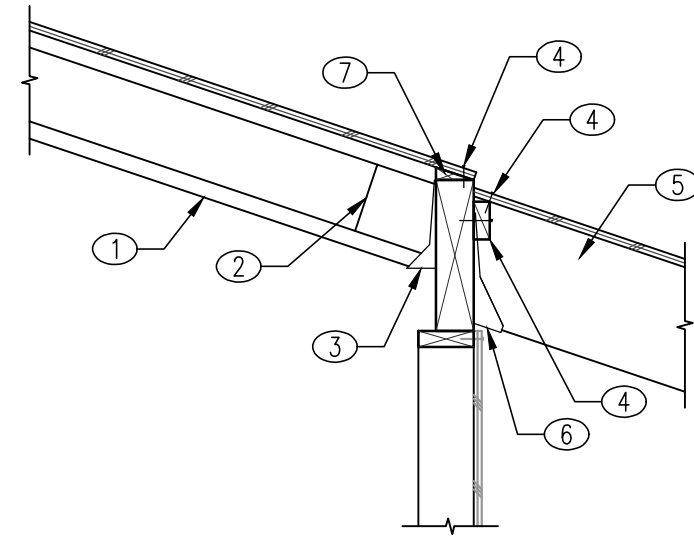
1. WOOD I-JOIST AND HANGER PER JOIST MFR
2. WEB FILLER BLOCK, INSTALL PER JOIST MFR
3. THAI TOP FLANGE HANGER, PROVIDE LEVEL SEAT CUT AT JOIST
4. BOUNDARY FASTENERS
5. CONT. SOLID 2x PLATE TO SUPPORT SHEATHING, CUT TO FIT



**1 WOOD I-JOIST AT BALLOON FRAMED WALL**  
NO SCALE

**KEYNOTES**

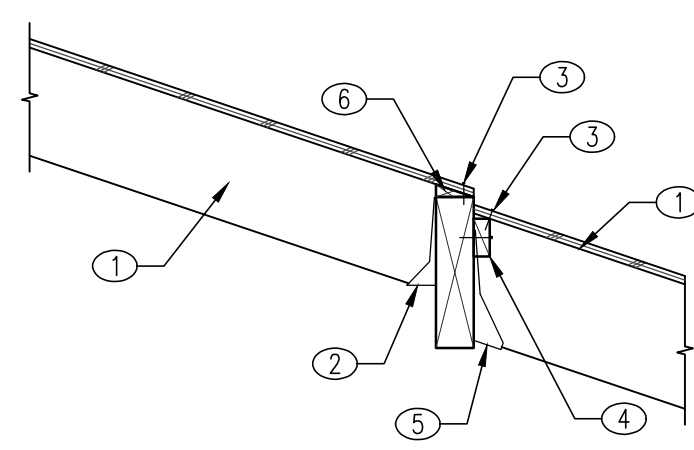
1. WOOD I-JOIST PER JOIST MFR
2. WEB FILLER BLOCK PER JOIST MFR
3. THAI TOP FLANGE HANGER, PROVIDE LEVEL SEAT CUT AT JOIST
4. BOUNDARY FASTENERS
5. RAFTER PER PLAN
6. U26-2 SLOPING HANGER
7. CONT. SOLID 2x PLATE TO SUPPORT SHEATHING, CUT TO FIT



**2 WOOD I-JOIST AT FLUSH BEAM**  
NO SCALE

**KEYNOTES**

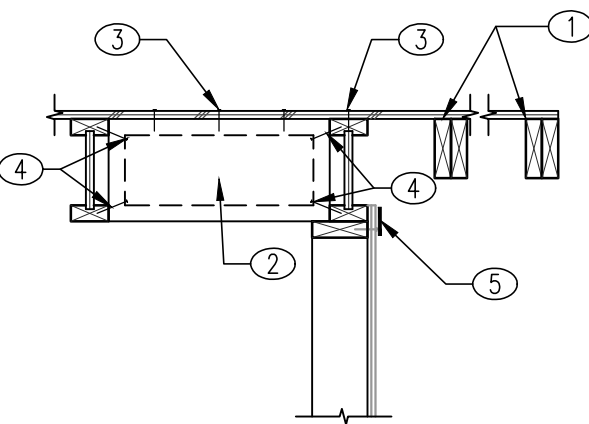
1. WOOD RAFTER PER PLAN
2. LUS26-2 HANGER, PROVIDE LEVEL SEAT CUT AT RAFTER
3. BOUNDARY FASTENERS
4. 2x BLOCKING W/ (3) 16d AT EA. BLOCK
5. U26-2 SLOPING HANGER
6. CONT. SOLID 2x PLATE TO SUPPORT SHEATHING, CUT TO FIT



**3 WOOD RAFTERS AT FLUSH CANT. BEAM**  
NO SCALE

**KEYNOTES**

1. 2x WOOD RAFTERS PER PLAN
2. FULL DEPTH SHEAR PANEL BLOCKING AT 36" O.C.
3. BOUNDARY FASTENERS
4. (2) 16d TO JOIST CHORD
5. LTP4 CLIPS AT 24" O.C.



**4 WOOD I-JOIST AT RAKE WALL**  
NO SCALE

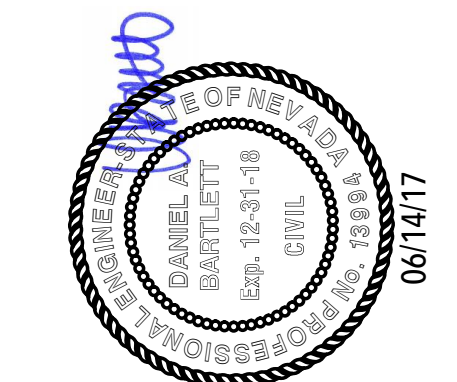


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WWW.SOLARDECATHLON.GOV

TEAM LAS VEGAS  
WWW.UNLVSD.COM  
SD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311



**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
1	ARCH'L REVISIONS	06/14/17

**S-503**  
Framing  
Details

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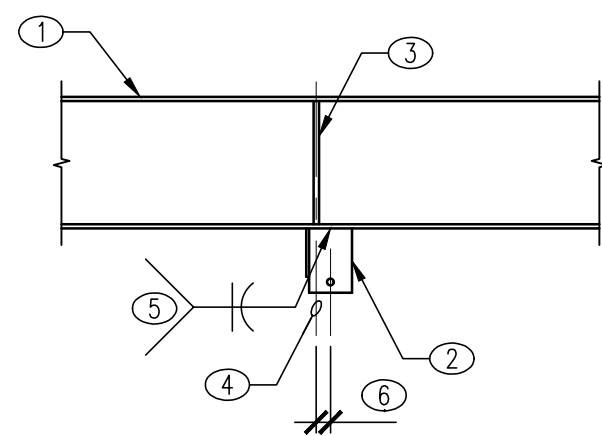


**KEYNOTES**

1. STEEL BEAM PER PLAN
2. LEAF SPRING SUPPORT HANGER
3. WEB STIFFENER PLATE EACH SIDE OF BEAM PER TYPICAL DETAIL
4. CENTERLINE OF STIFFENER PLATES
5. 1/2" TO 3/4" RETURNS ON EACH END OF HANGER. DO NOT START OR STOP WELDS AT CORNERS OF HANGER
6. 4" MAX. EITHER SIDE OF HANGER CENTERLINE

**NOTES**

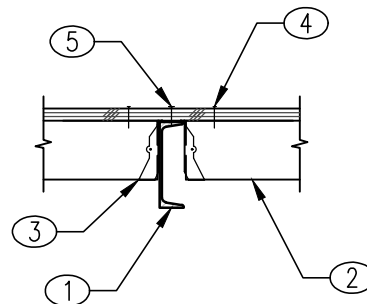
- A. ALL OTHER FRAMING NOT SHOWN FOR CLARITY



**27 LEAF SPRING SUPPORT HANGER CONNECTION**  
NO SCALE

**KEYNOTES**

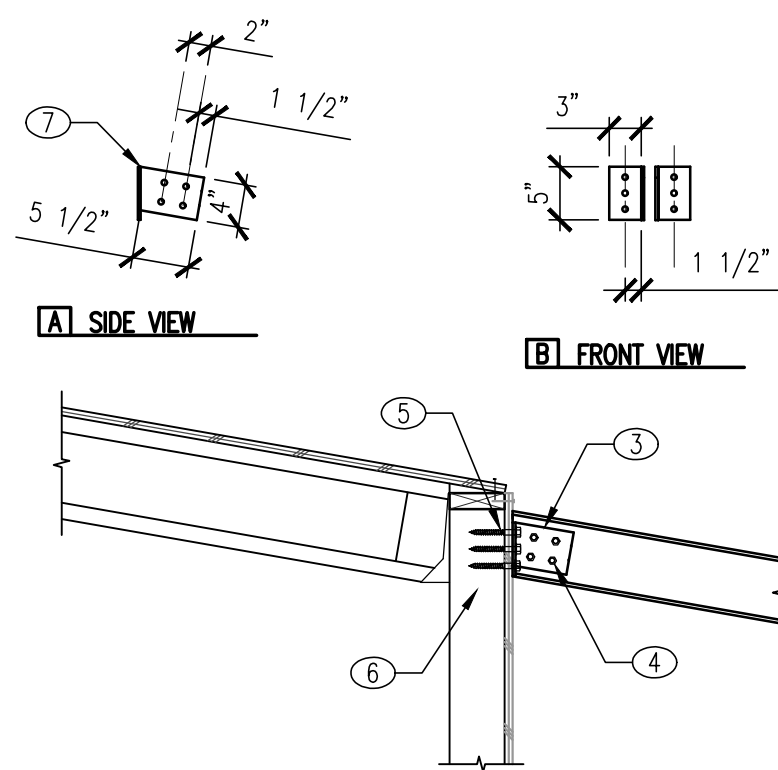
1. STEEL CHANNEL PER PLAN
2. WOOD PURLIN PER PLAN
3. LB HANGER WELDED TO TOP FLANGE OF STEEL CHANNEL
4. BOUNDARY FASTENERS
5. FASTEN SHEATHING TO BEAM W/ SIMPSON F12C200 AT 24" O.C.



**28 WOOD PURLIN TO CHANNEL CONNECTION**  
NO SCALE

**KEYNOTES**

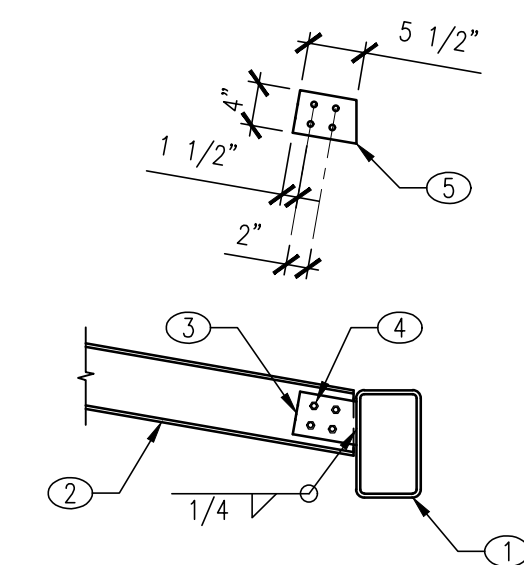
1. HSS STEEL BEAM PER PLAN
2. STEEL BEAM PER PLAN (W SECTION)
3. 1/4" BENT PLATE AT EA. SIDE OF STEEL BEAM
4. 1/2" DIA. THRU BOLTS, (4) TOTAL
5. 1/2" DIA. x 3" LAG BOLTS, (3) AT EA. BENT PLATE
6. PROVIDE SOLID 4x BACKING TO HEADER BELOW AS OCCURS OR POST PER PLAN
7. VERIFY ANGLE W/ ARCH PLANS



**23 STEEL RAFTER AT STUD WALL**  
NO SCALE

**KEYNOTES**

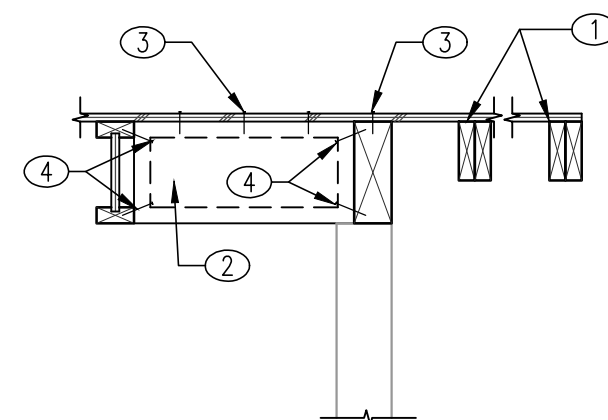
1. HSS STEEL BEAM PER PLAN
2. STEEL BEAM PER PLAN (W SECTION)
3. 1/4" STEEL TAB AT HSS BEAM, BOTH SIDES OF W SECTION
4. 1/2" DIA. THRU BOLTS, (4) TOTAL
5. VERIFY ANGLE W/ ARCH PLANS



**24 STEEL RAFTER AT STEEL BEAM**  
NO SCALE

**KEYNOTES**

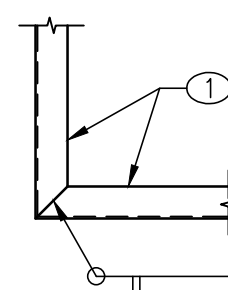
1. 2x WOOD RAFTERS PER PLAN
2. FULL DEPTH SHEAR PANEL BLOCKING AT 36" O.C.
3. BOUNDARY FASTENERS
4. (2) 16d TO JOIST CHORD/BEAM



**25 WOOD BEAM AT RAKE WALL**  
NO SCALE

**KEYNOTES**

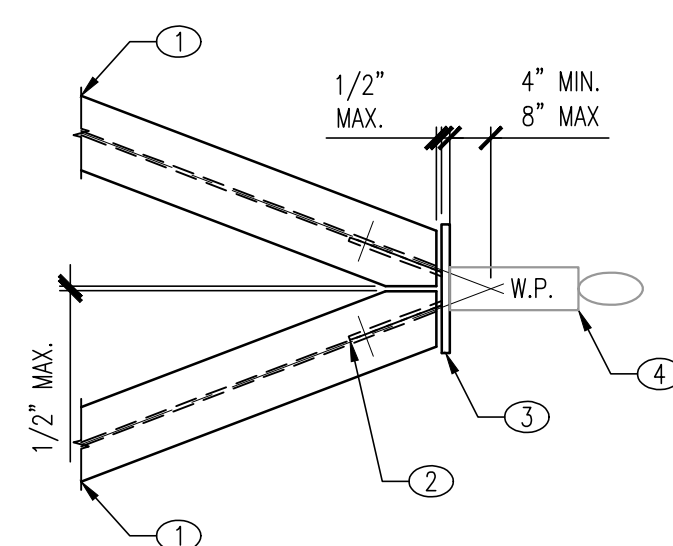
1. STEEL CHANNEL PER PLAN



**26 STEEL CHANNEL AT STEEL CHANNEL**  
NO SCALE

**KEYNOTES**

1. STEEL BEAM PER PLAN. CUT END OF BEAM AS SHOWN
2. TYPICAL SHEAR PLATE CONNECTION PER DETAIL. BOLTED OR WELDED CONNECTION AT FABRICATOR'S OPTION.
3. 3/4"x12"x1'-0" CAP PLATE
4. HITCH COUPLER ATTACHMENT BY OTHERS



**21 STEEL BEAMS AT TONGUE**  
NO SCALE

**KEYNOTES**

- A. REFER TO DETAIL 1/503 FOR ITEMS SHOWN BUT NOT NOTED

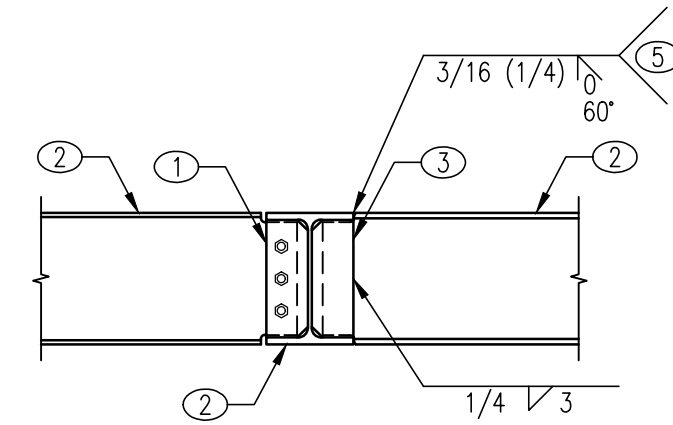
**22 STEEL BEAMS AT HITCH**  
NO SCALE

**KEYNOTES**

1. SHEAR PLATE REFER TO TYP. SHEAR PLATE CONNECTION DETAIL FOR CONNECTION INFORMATION
2. STEEL BEAM PER PLAN. COPE FLANGES AS REQUIRED
3. WEB STIFFENER PER TYPICAL WEB STIFFENER DETAIL
4. 2x4 WOOD NAHER, FASTEN TO BEAM W/ SIMPSON F12C250 AT 24" O.C.
5. P.J.P., TYPICAL TOP AND BOTTOM FLANGE

**NOTES**

- A. ALL OTHER FRAMING NOT SHOWN FOR CLARITY  
B. AT "SIM", BEAM ON ONE SIDE OF SUPPORT BEAM IN LIEU OF BOTH SIDES



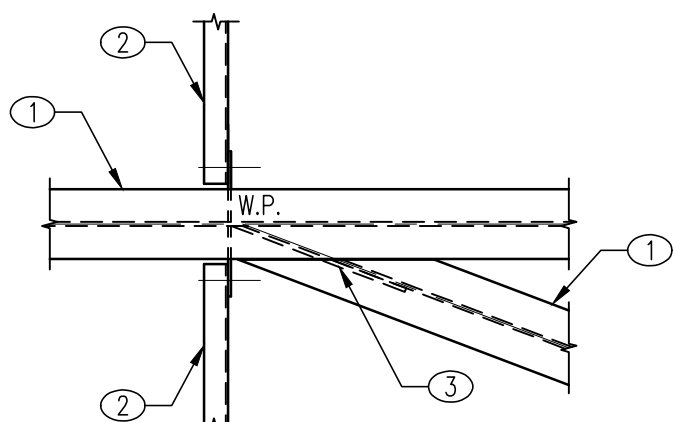
**19 STEEL BEAM AT STEEL BEAM**  
NO SCALE

**KEYNOTES**

1. STEEL BEAM PER PLAN
2. STEEL CHANNEL PER PLAN. CONNECTION PER DETAIL 15
3. WELDED CONNECTION PER DETAIL 19. EXTEND SHEAR PLATE AS REQUIRED

**NOTES**

- A. ALL OTHER FRAMING NOT SHOWN FOR CLARITY



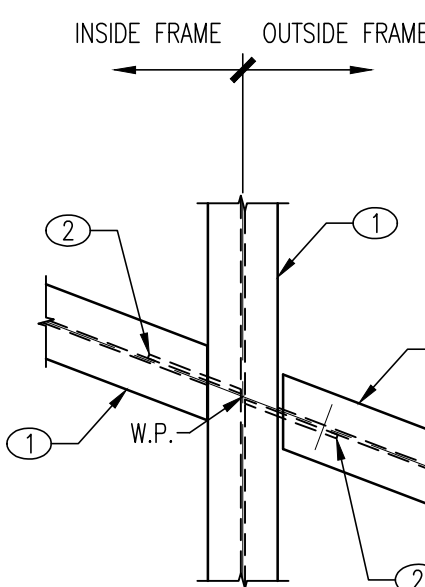
**20 STEEL BEAM CONNECTION AT TONGUE**  
NO SCALE

**KEYNOTES**

1. STEEL BEAM PER PLAN
2. CONNECTION PER DETAIL 19. WELD CONNECTION ON INSIDE OF FRAME AND BOLT OUTSIDE CONNECTION. EXTEND SHEAR PLATES AS REQUIRED

**NOTES**

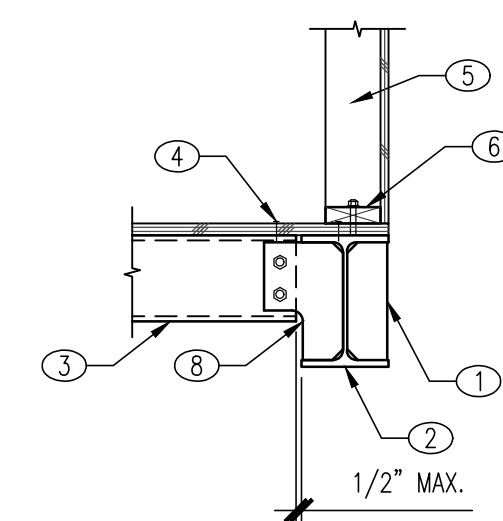
- A. ALL OTHER FRAMING NOT SHOWN FOR CLARITY



**16 STUD WALL AT STEEL BEAM**  
NO SCALE

**KEYNOTES**

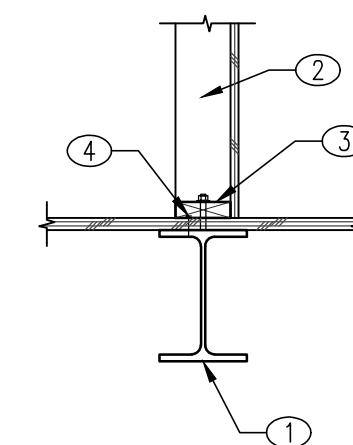
1. WEB STIFFENER PER TYPICAL WEB STIFFENER DETAIL
2. STEEL BEAM, SEE PLAN
3. STEEL CHANNEL, SEE PLAN
4. FASTEN SHEATHING TO BEAM W/ SIMPSON F12C200 AT 24" O.C., TYP.
5. FRAMING ABOVE PER PLAN
6. 2x CONT WOOD NAHER ATTACHED TO TOP OF BEAM W/ BOLTS PER PLAN OR SCHEDULE
7. FASTEN SHEATHING TO BEAM W/ SIMPSON F12C200 AT 24" O.C.
8. MODIFY WEB STIFFENER TO ACCOMMODATE BOLTED CONNECTION PER TYPICAL SHEAR PLATE CONNECTION DETAIL



**15 STUD WALL AT STEEL BEAM**  
NO SCALE

**KEYNOTES**

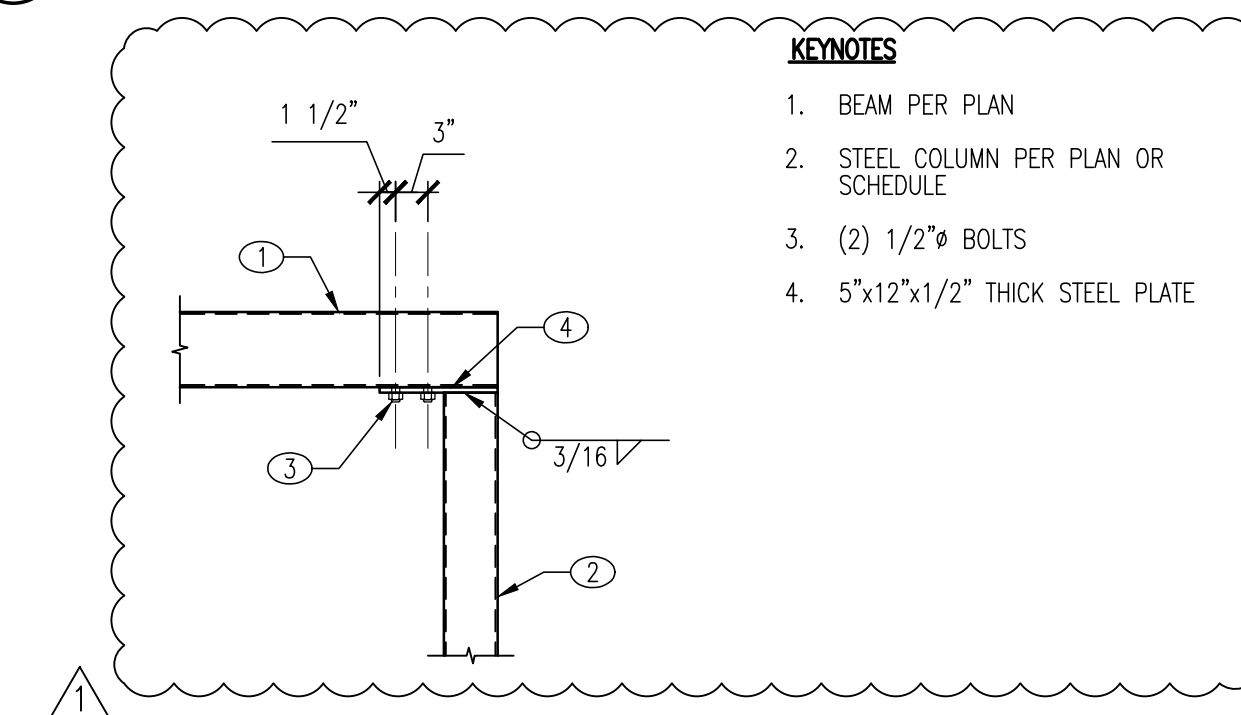
1. STEEL BEAM, SEE PLAN
2. FRAMING ABOVE PER PLAN
3. 2x CONT WOOD NAHER ATTACHED TO TOP OF BEAM W/ BOLTS PER PLAN OR SCHEDULE
4. FASTEN SHEATHING TO BEAM W/ SIMPSON F12C200 AT 24" O.C.



**17 TUBE STEEL BEAM AT STEEL COLUMN**  
NO SCALE

**KEYNOTES**

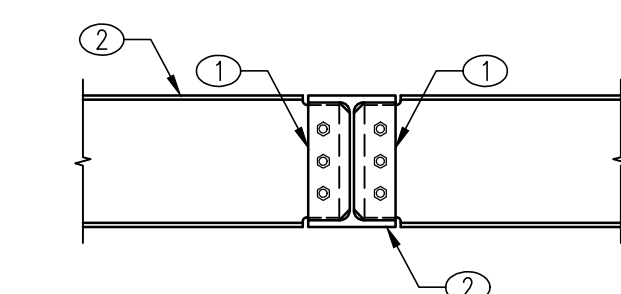
1. BEAM PER PLAN
2. STEEL COLUMN PER PLAN OR SCHEDULE
3. (2) 1/2" B BOLTS
4. 5"x12"x1/2" THICK STEEL PLATE



**22 STEEL BEAM AT STEEL BEAM**  
NO SCALE

**KEYNOTES**

1. SHEAR PLATE REFER TO TYP. SHEAR PLATE CONNECTION DETAIL FOR CONNECTION INFORMATION
  2. STEEL BEAM, SEE PLAN
- NOTES**
- A. ALL OTHER FRAMING NOT SHOWN FOR CLARITY  
B. SKEW AS OCCURS NOT SHOWN FOR CLARITY  
C. AT "SIM", BEAM ON ONLY ONE SIDE OF SUPPORT BEAM IN LIEU OF BOTH SIDES



**18 STEEL BEAM AT STEEL BEAM**  
NO SCALE

**TEAM Vegas**

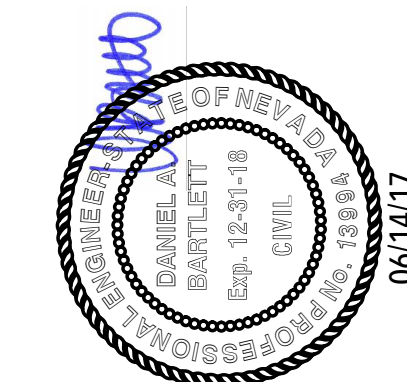
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TEAM LAS VEGAS  
WWW.UNLVSD.COM  
SD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

**RIMROCKENGINEERING**



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1	90% - DD SET	11/17/17
2	100% - CD SET	2/23/17

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NO.	DESCRIPTION	DATE
1	ARCH'L REVISIONS	06/14/17

**S-504**  
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Details



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1	90% - DD SET	11/17/16
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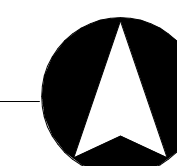
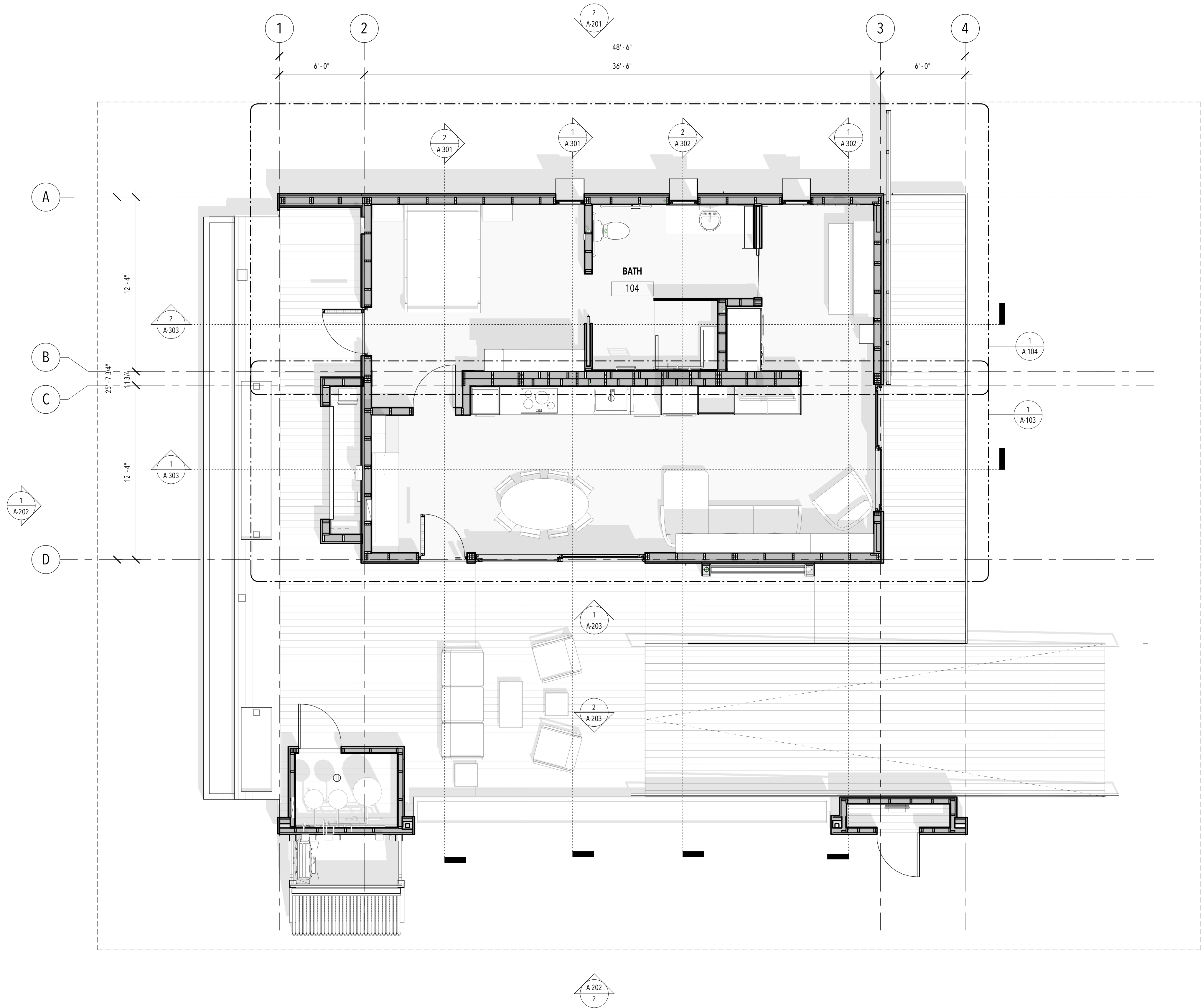
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1. ALL DIMENSIONS TO FACE OF STUDS OR CENTER OF COLUMNS, UNLESS OTHERWISE NOTED.
2. F.F. AT 2'-6" ABOVE FINISHED GRADE.
3. PROPERTY LINE PER SD ORGANIZER.
4. REFER TO P-101 FOR FIXTURE SCHEDULE.
5. REFER TO E-601 FOR APPLIANCES SCHEDULE.
6. GRIDLINE DIMENSIONS ARE FACE OF STUD.
7. PROVIDE NECESSARY IN-WALL BACKING FOR WALL MOUNTED MILLWORK AND FURNISHINGS. SEE INTERIOR FLOOR PLAN AND ELEVATIONS FOR LOCATION AND HEIGHT.

ROOM LEGEND

- 101 KITCHEN AREA  
267 SQ.FT - IRC R303.1, R304.1  
GLAZING - 35% OF FLOOR AREA  
VENTILATION 14% OF FLOOR AREA
- 102 LIVING / DINING  
139 SQ.FT - IRC R303.1, R304.1-3  
GLAZING - 38% OF FLOOR AREA  
VENTILATION 42% OF FLOOR AREA
- 103 BEDROOM  
194 SQ.FT - IRC R303.1, R304.1-3  
GLAZING - 30% OF FLOOR AREA  
VENTILATION 36% OF FLOOR AREA
- 104 BATH  
120 SQ.FT - IRC R303.1, R304.1-3
- 105 FLEX ROOM  
106 SQ.FT - IRC R303.1, R304.1-3  
GLAZING - 38% OF FLOOR AREA  
VENTILATION 42% OF FLOOR AREA



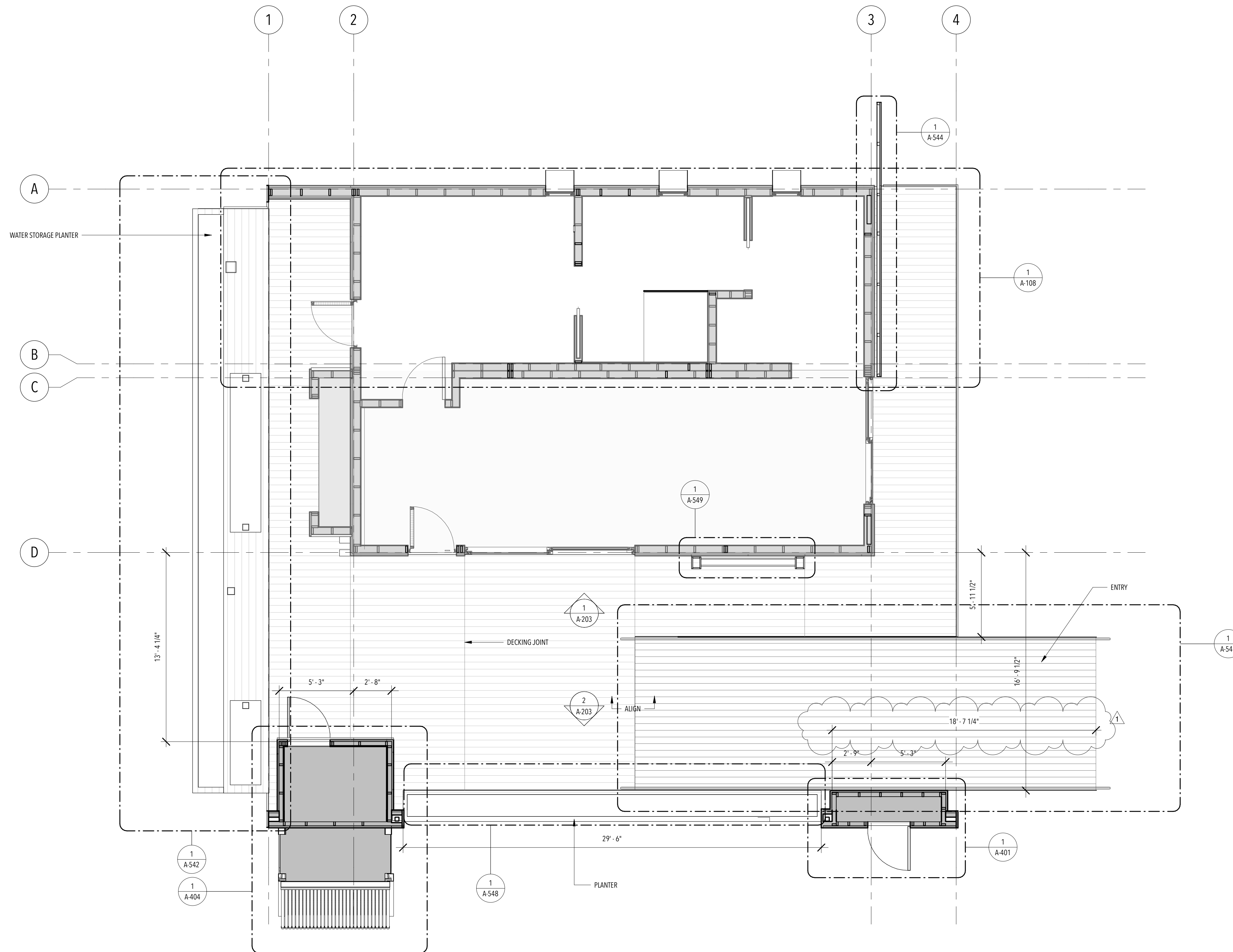
**ISSUANCES**

NO.	DESCRIPTION	DATE
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2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**GENERAL NOTES**  
1. ALL DIMENSIONS TO FACE OF STUDS, UNLESS OTHERWISE NOTED.  
2. F.F. AT 2'-6" ABOVE FINISHED GRADE.  
3. PROPERTY LINE PER SD ORGANIZER.  
4. REFER TO P-101 FOR FIXTURES.



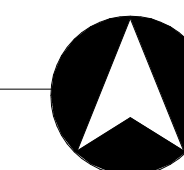
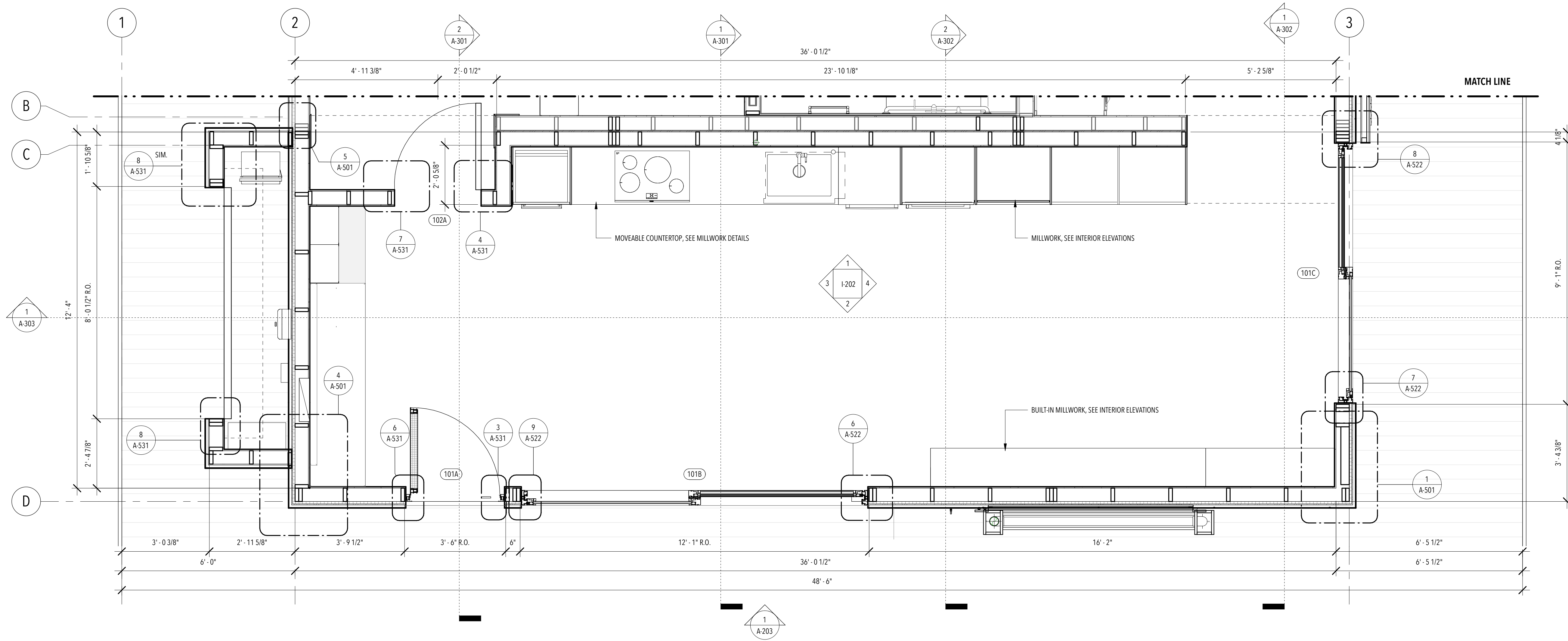
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NO.	DESCRIPTION	DATE
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2	100% - CD SET	2/23/17

REVISIONS

NO.	DESCRIPTION	DATE
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- GENERAL NOTES**
1. ALL DIMENSIONS TO FACE OF STUDS OR CENTER OF COLUMNS, UNLESS OTHERWISE NOTED.
  2. F.F. AT 2'-6" ABOVE FINISHED GRADE.
  3. PROPERTY LINE PER SD ORGANIZER.
  4. REFER TO P-101 FOR FIXTURES SCHEDULE.
  5. REFER TO E-601 FOR APPLIANCES SCHEDULES.
  6. SEE ENLARGED INTERIOR PLANS FOR ADDITIONAL DIMENSIONS.





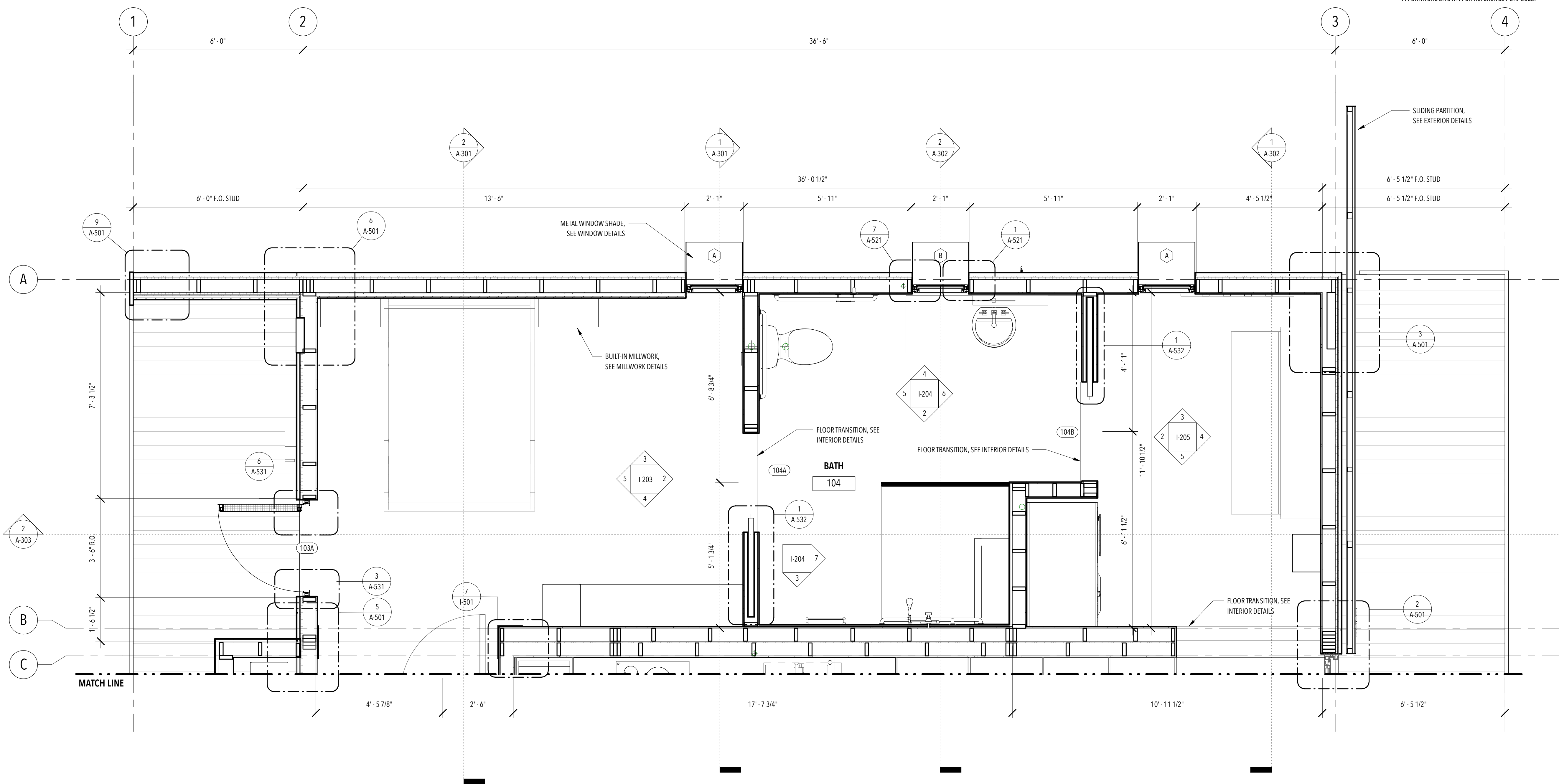
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**GENERAL NOTES**  
1. ALL DIMENSIONS TO FACE OF STUDS OR CENTER OF COLUMNS, UNLESS OTHERWISE NOTED.  
2. F.F. AT 2'-6" ABOVE FINISHED GRADE.  
3. PROPERTY LINE PER SD ORGANIZER.  
4. REFER TO P-101 FOR FIXTURES SCHEDULE.  
5. REFER TO E-601 FOR APPLIANCES SCHEDULES.  
6. SEE INTERIOR ENLARGED PLANS FOR ADDITIONAL DIMENSIONS.  
7. FURNITURE SHOWN FOR REFERENCE PURPOSES.

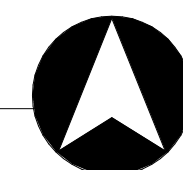
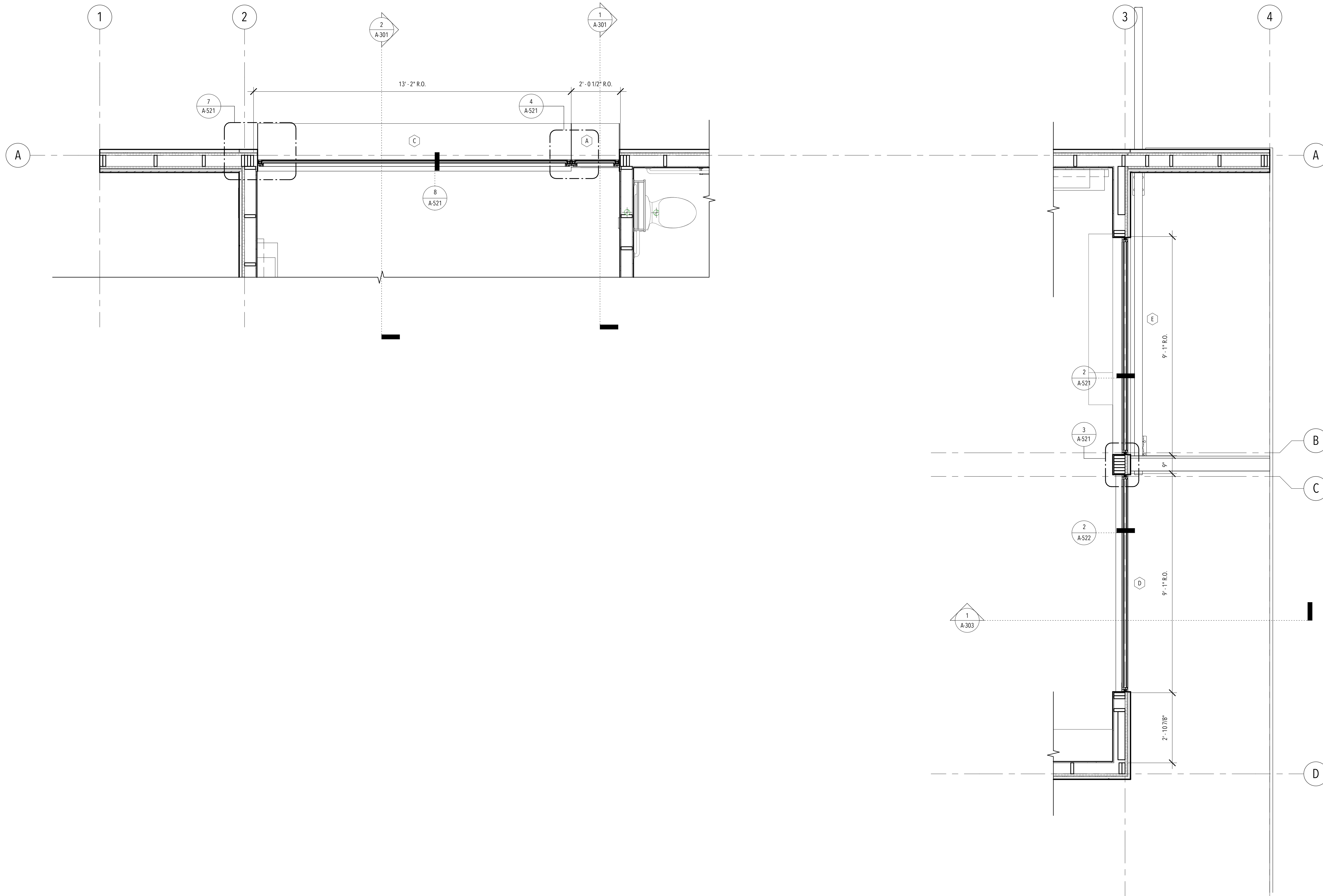


**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**A-105**  
CLERESTORY PLAN



ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

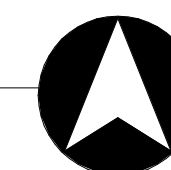
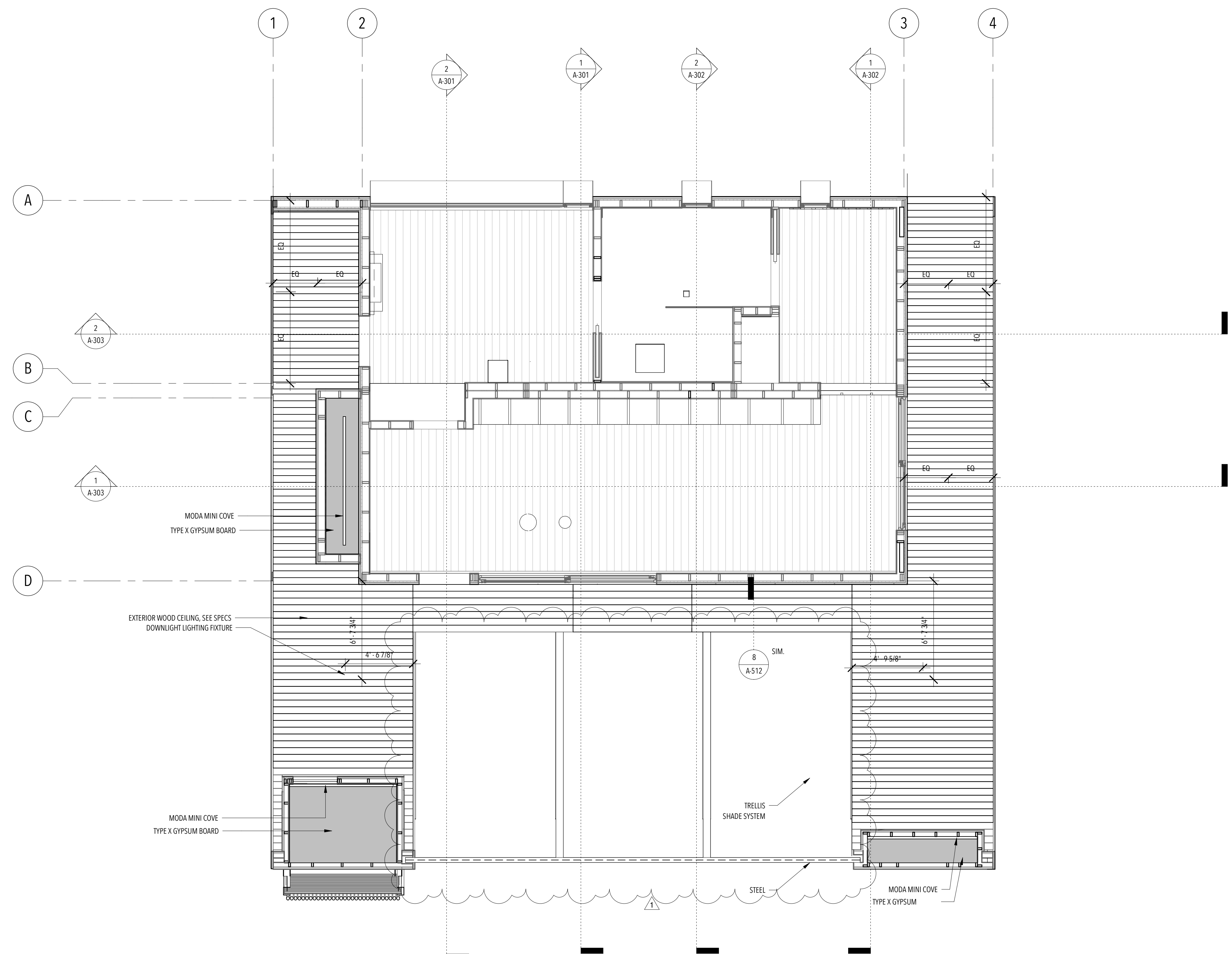
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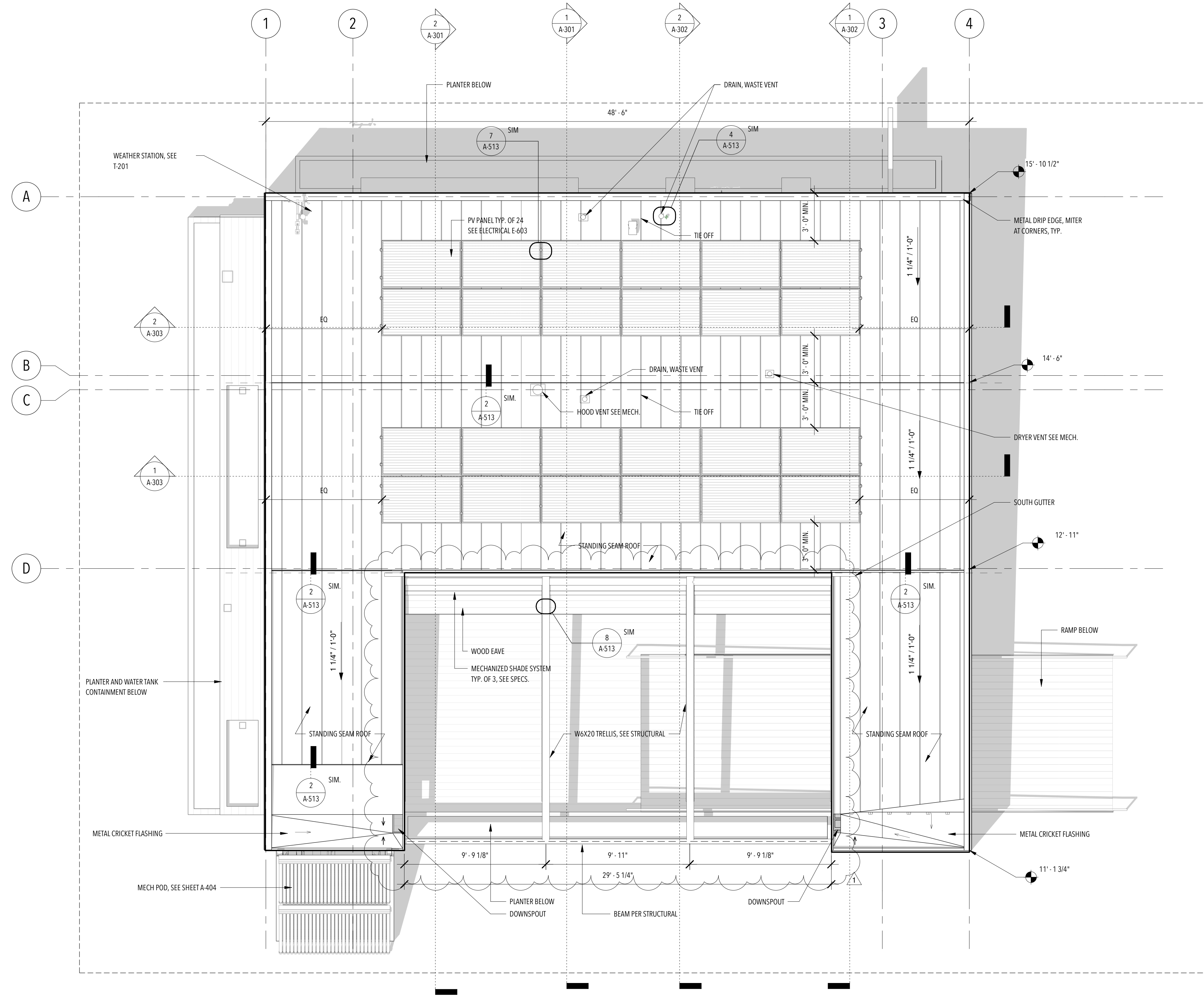
GENERAL NOTES

- REFER TO I-103 FOR REFLECTED CEILING PLAN OF INTERIOR SPACE.
- VERIFY QUANTITIES AND SIZES OF ALL MECH, ELEC, AND FIRE PROTECTION EQPT ON THE RCP WITH THEIR RESPECTIVE MECH, ELEC DWGS AND SPECS. NOT ALL MECHANICAL EQUIPMENT SHOWN ON RCP.
- VERIFY ALL FINISHES WITH THE FINISH SCHEDULE. REPORT ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
- REFER TO ELEC FOR LIGHT FIXTURE SPECIFICATIONS AND EMERGENCY LIGHTING.
- ALL MECH, ELEC AND SKYLIGHT FIXTURES ARE TO BE LOCATED AS CLOSE AS POSSIBLE TO THE CONFIGURATIONS AND DIMS SHOWN.
- ALL DIMENSIONS ARE TAKEN FROM THE FACE OF MASONRY, STUD FRAMING, OR CENTER OF COLUMN UNO. VERIFY ALL DIMS IN THE FIELD PRIOR TO COMMENCING WORK. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
- PROVIDE MOISTURE RESISTANT GYP BD FOR WALLS AND CEILINGS AT ALL LOCATIONS.
- REFER TO MECHANICAL, ELECTRICAL, AND ELECTRICAL LIGHTING FOR INFORMATION ON CEILING AND WALL EQUIP.
- REFER TO THE CORRESPONDING SECTION OF THE SPECIFICATIONS PACKET FOR A DETAILED DESCRIPTION OF ALL SPECIFIED COMPONENTS

RCP LEGEND

- GYPSUM BOARD CEILING
- PERFORATED METAL
- FINISHED WOOD PANEL
- IN CEILING SPRINKLER HEAD
- RECESSED LED LIGHT
- SMOKE DETECTOR
- CEILING FAN
- SMOKE DETECTOR WALL MOUNTED
- SCONCE
- LED RGB
- DECK DOWN LIGHT





**GENERAL NOTES**

1. SOUTH GUTTER WILL DIRECT RUNOFF TO EAST AND WEST ROOFS AND THEN EAST AND WEST ROOFS WILL DIRECT RUNOFF TO SOUTH PLANTER RESERVOIR DOWNSPOUTS VIA METAL CRICKETS.
2. PHOTOVOLTAIC ARRAY SHALL FOLLOW THE SLOPE OF THE ROOF.
3. REFER TO A-513 FOR ROOF DETAILS.



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WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
**STRUCTURAL**  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

**ISSUANCES**

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1	90% - DD SET	11/17/16
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**A-107**  
ROOF PLAN



ISSUANCES

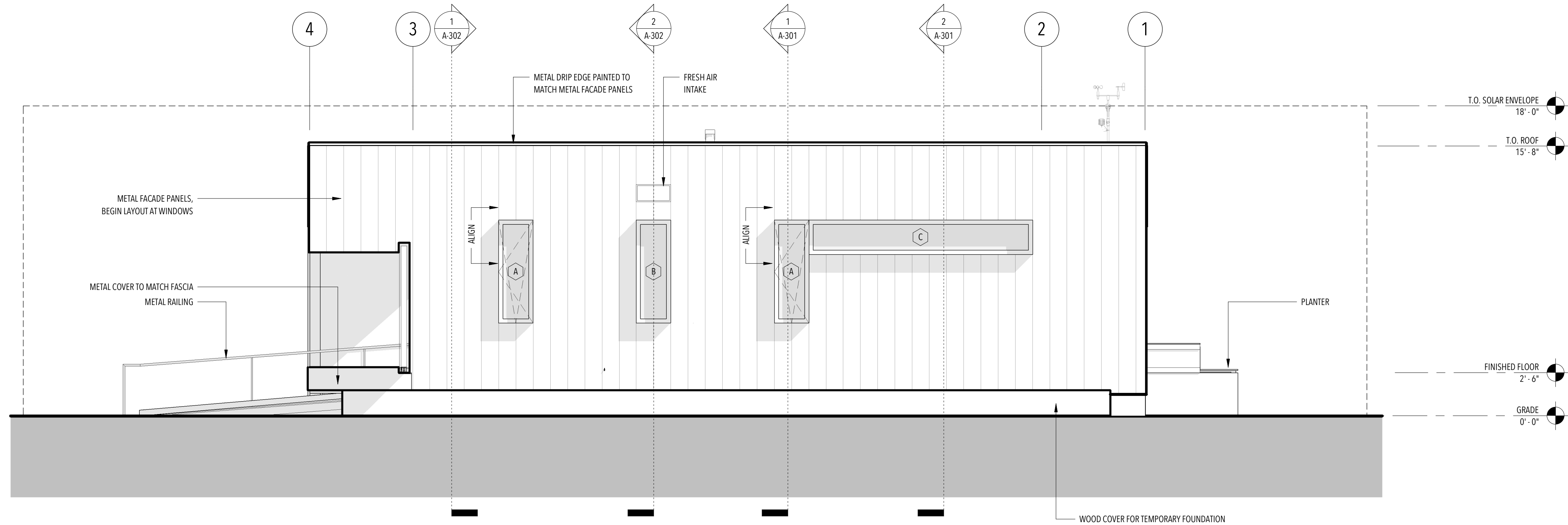
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1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

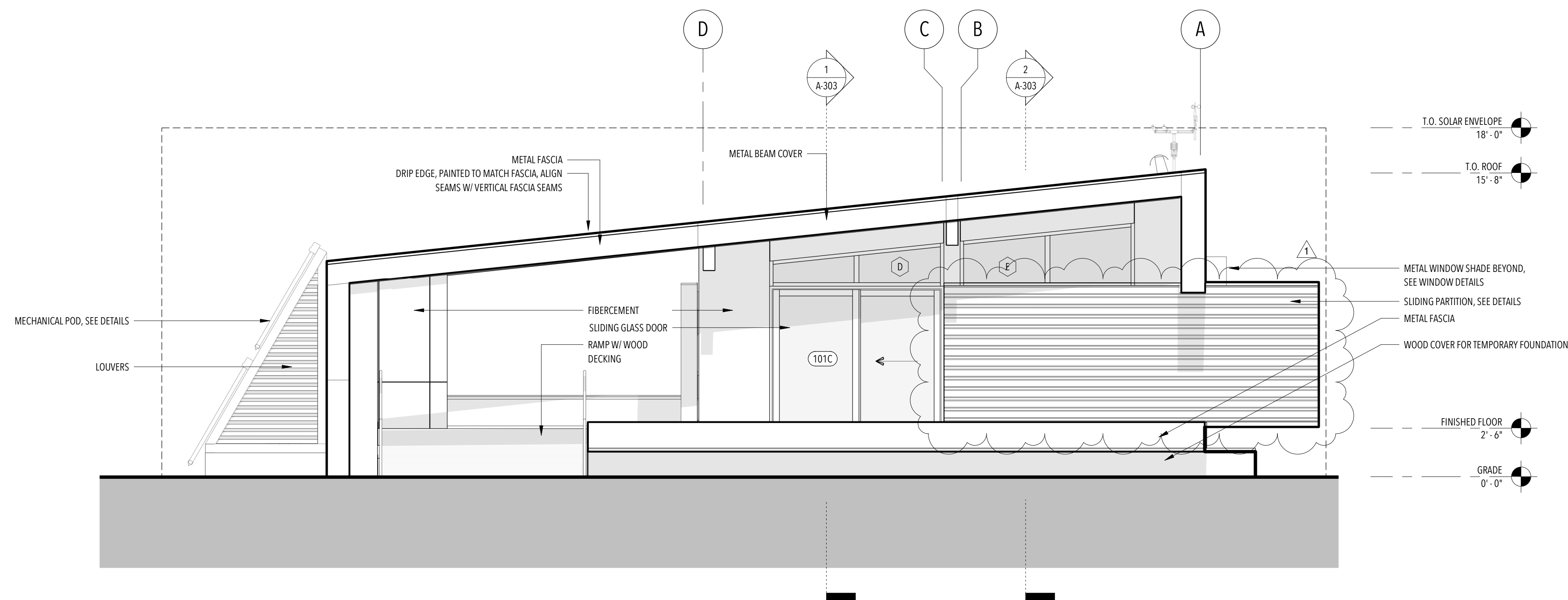
NO.	DESCRIPTION	DATE
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GENERAL NOTES

1. REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
2. SLOPE OF ROOF IS SHOWN AS APPROXIMATE.
3. FINISHED FLOOR SHALL BE EQUAL TO OR UNDER 2'-6" ABOVE FINISHED GRADE.
4. FIELD VERIFY SITE CONDITIONS AND GRADING AT COMPETITION SITE.



2 ELEVATION - NORTH  
1/4" = 1'-0"

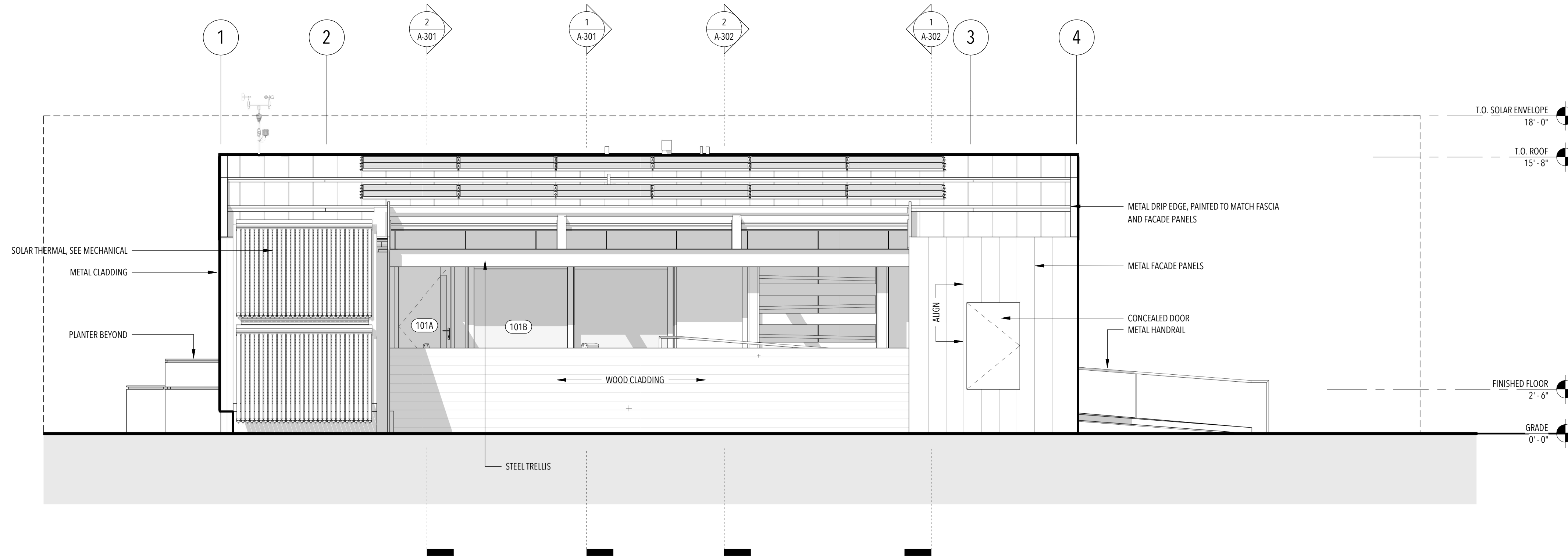


1 ELEVATION - EAST  
1/4" = 1'-0"

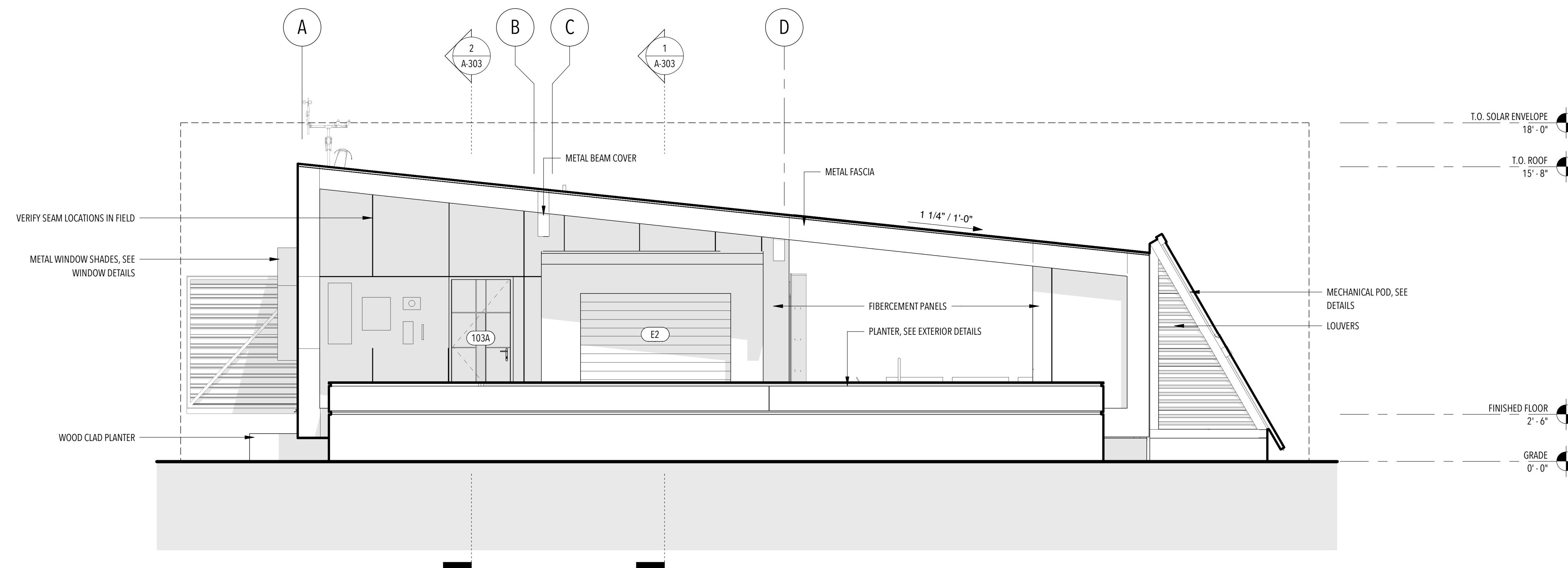
**A-201**  
ELEVATIONS

GENERAL NOTES

1. REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
2. SLOPE OF ROOF IS SHOWN AS APPROXIMATE.
3. FINISHED FLOOR SHALL BE EQUAL TO OR UNDER 2'-6" ABOVE FINISHED GRADE.
4. FIELD VERIFY SITE CONDITIONS AND GRADING AT COMPETITION SITE.



2 ELEVATION - SOUTH  
1/4" = 1'-0"



1 ELEVATION - WEST  
1/4" = 1'-0"

160719

ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

NO.	DESCRIPTION	DATE
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**A-202**  
ELEVATIONS

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



**GENERAL NOTES**

1. REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
2. SLOPE OF ROOF IS SHOWN AS APPROXIMATE.
3. FINISHED FLOOR SHALL BE EQUAL TO OR UNDER 2'-6" ABOVE FINISHED GRADE.



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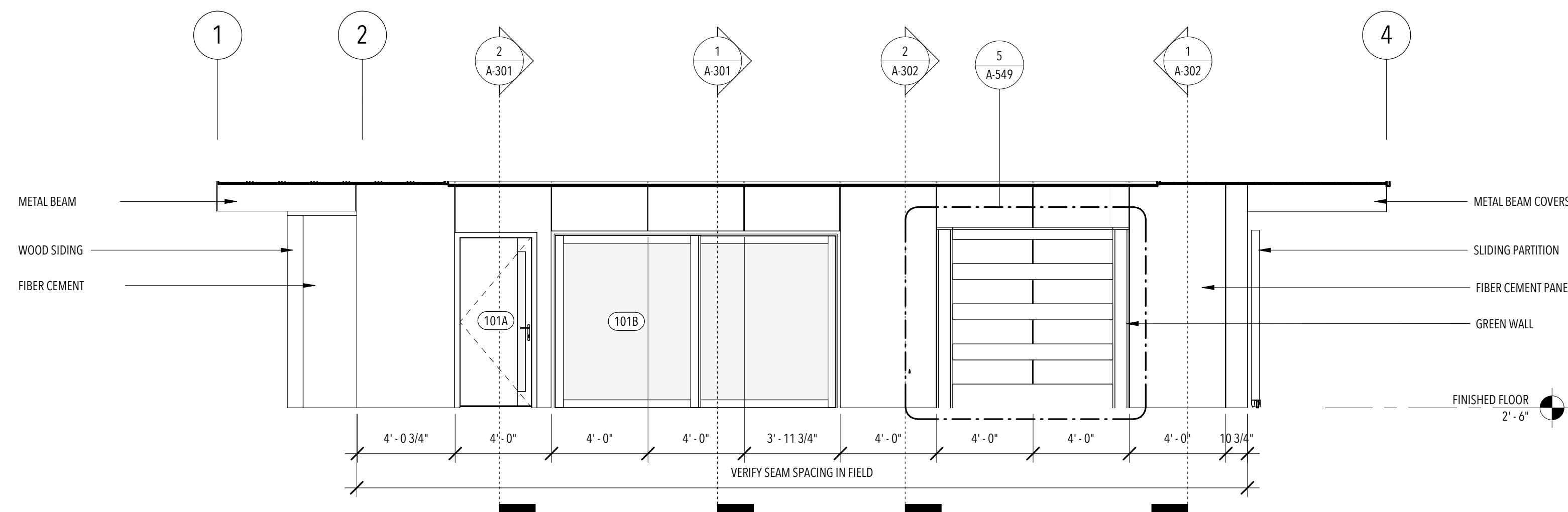
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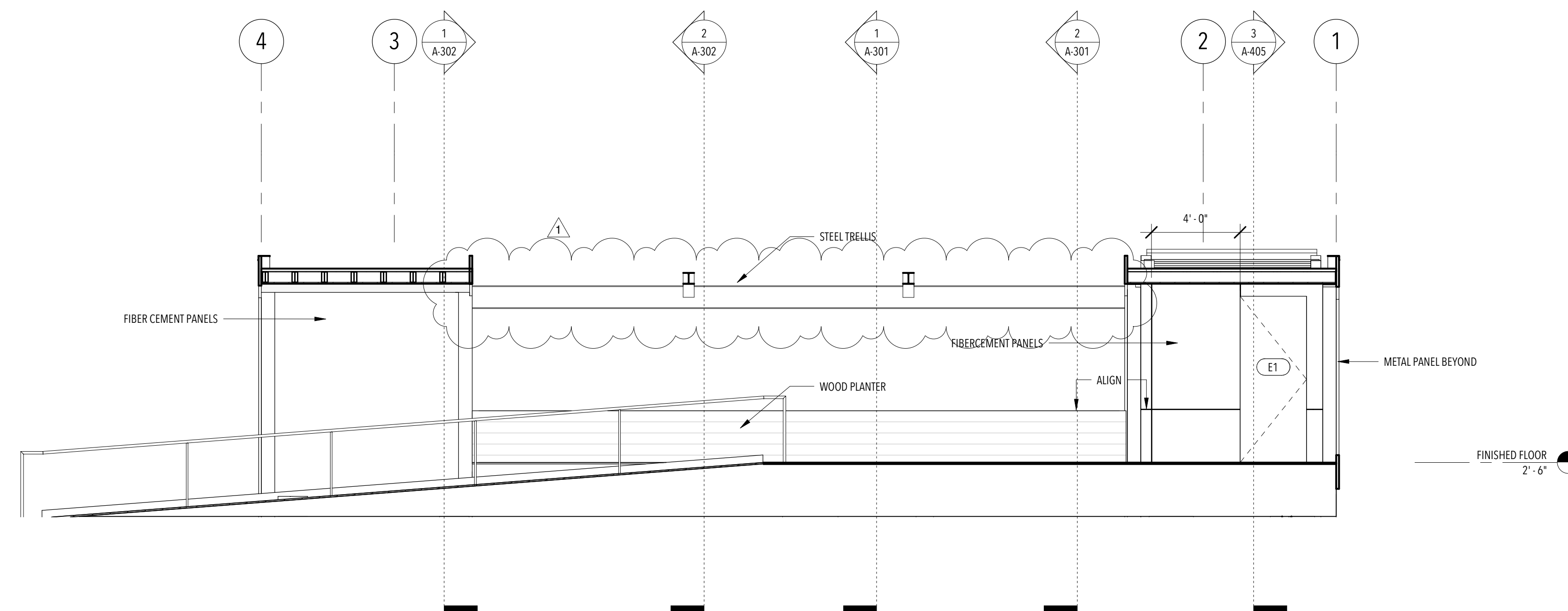
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**1** ELEVATION @ SOUTH FACE  
1/4" = 1'-0"



**2** NORTH ELEVATION @ DECK  
1/4" = 1'-0"

160719

**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**A-203**  
ELEVATIONS

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

**GENERAL NOTES**

- ELEVATIONS ARE SHOWN AS ORTHOGONAL TO PLAN FOR CLARITY.
- FRAMING ELEVATIONS ARE ONLY FOR REFERENCE. SEE STRUCTURAL PLANS FOR MEMBER SIZES, HANGERS, ETC. VERIFY ALL DIMENSIONS IN FIELD.



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UNIVERSITY OF NEVADA LAS VEGAS  
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LAS VEGAS, NV 89154

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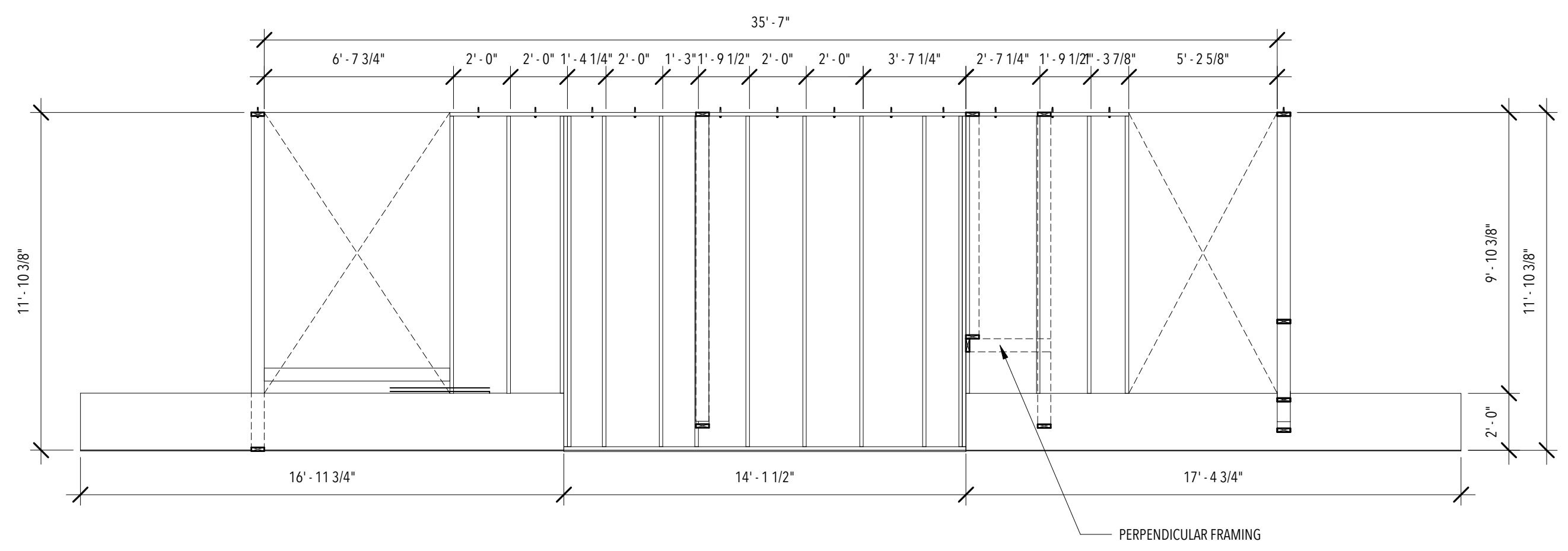
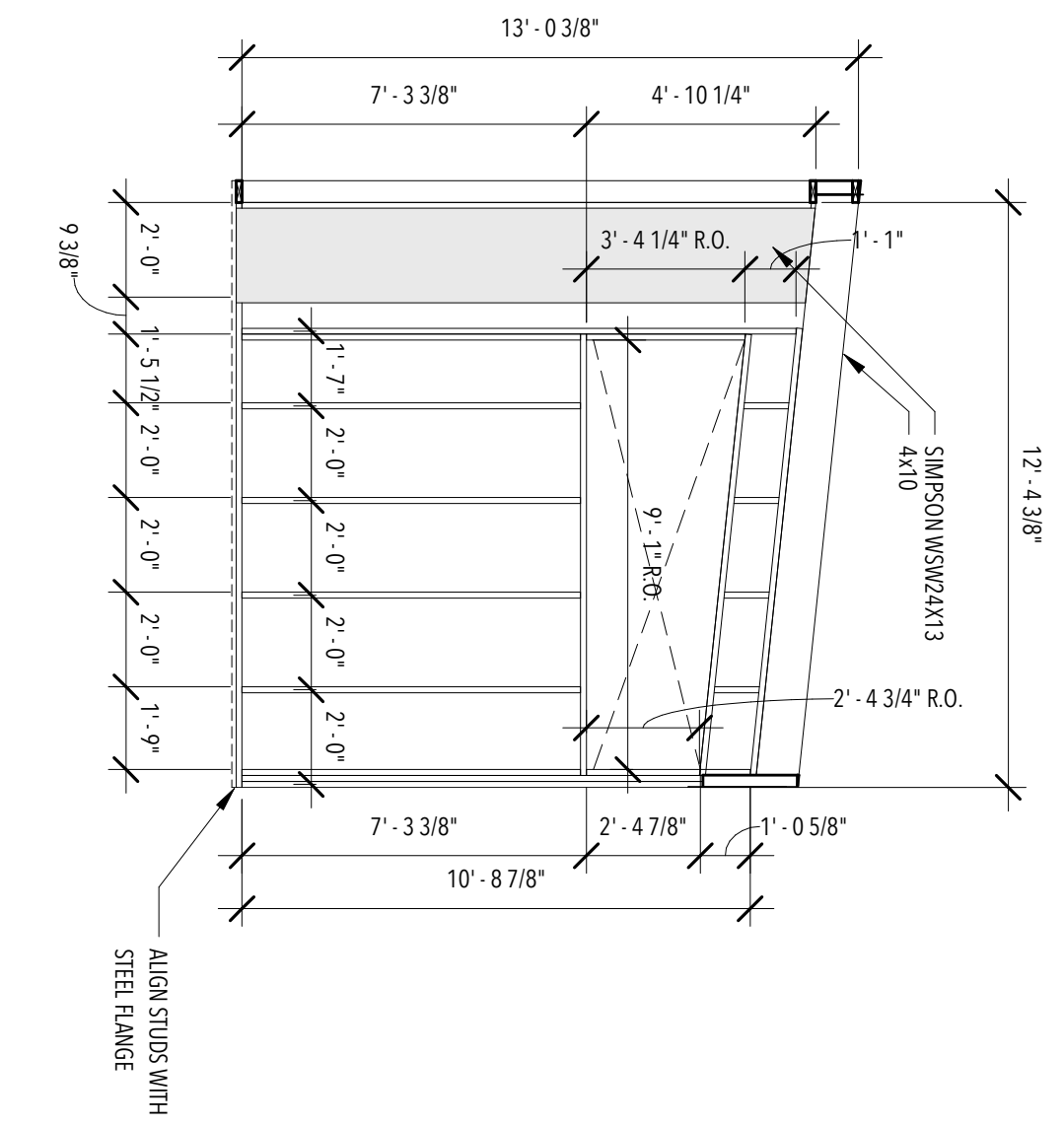
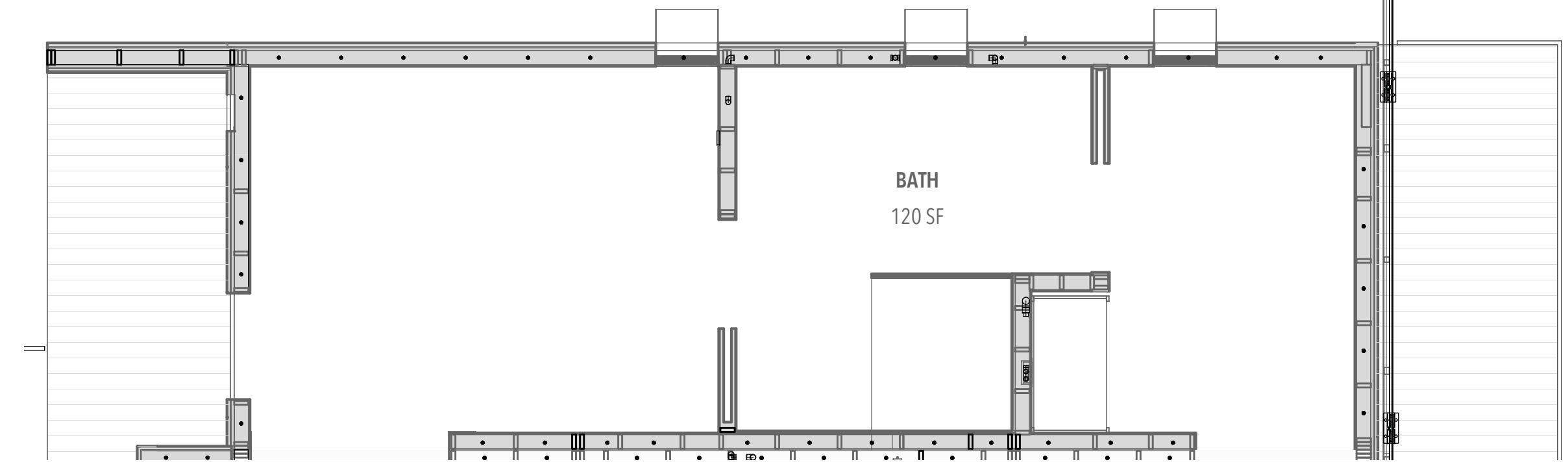
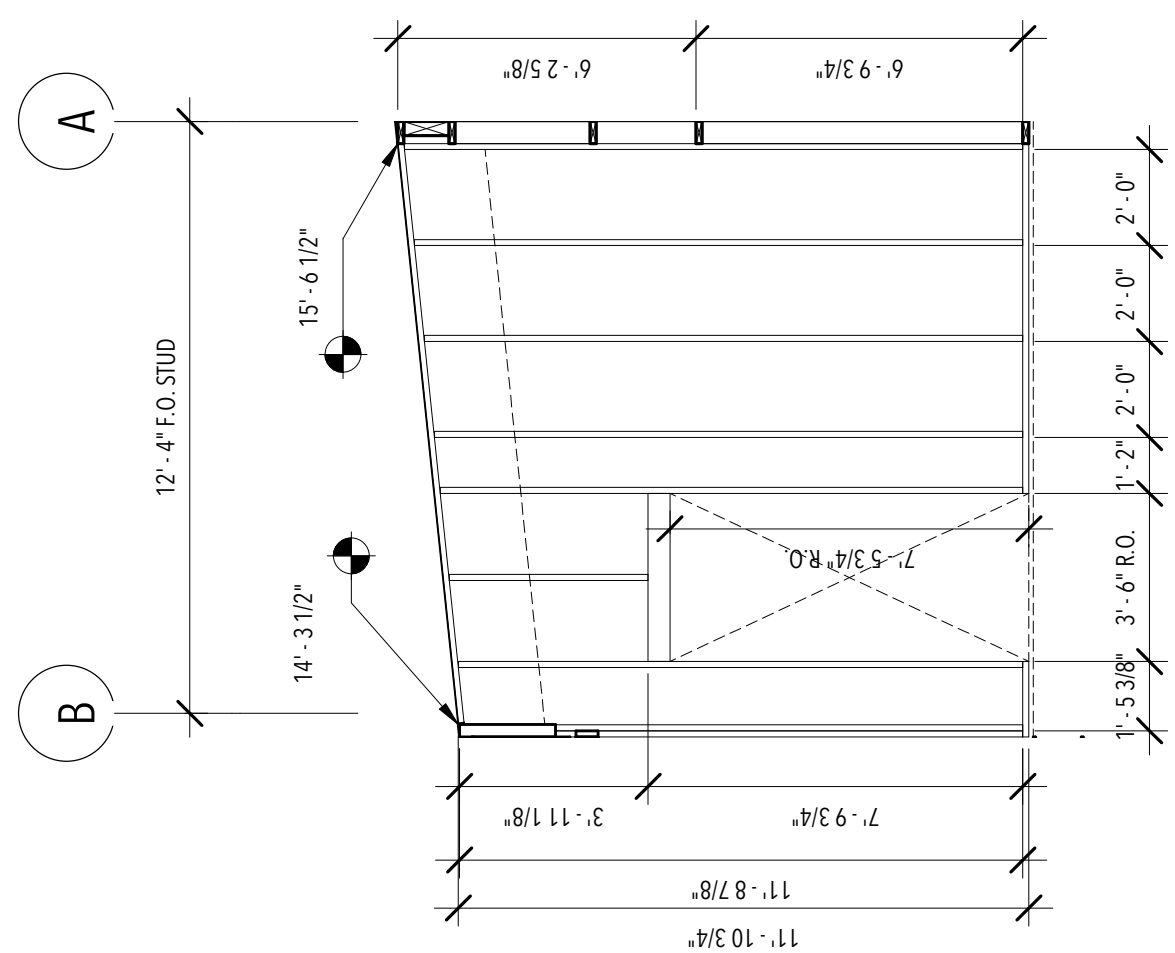
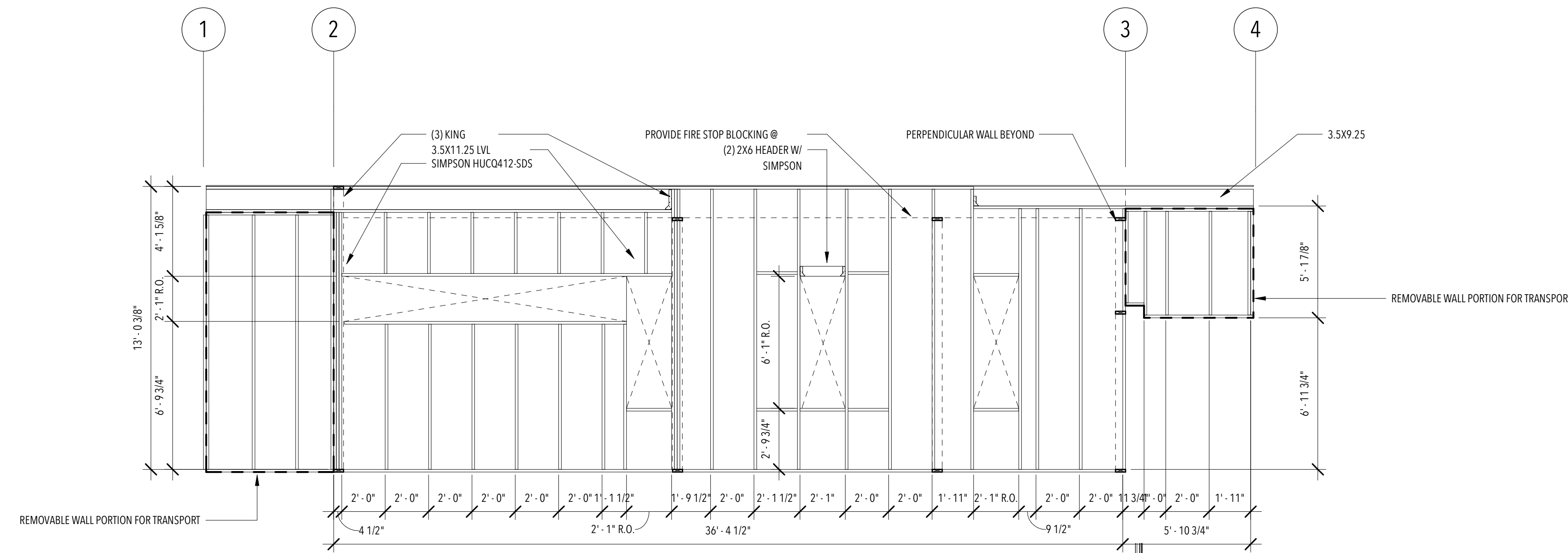
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**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**GENERAL NOTES**

1. ELEVATIONS ARE SHOWN ORTHOGONAL TO PLAN FOR CLARITY.
2. FRAMING ELEVATIONS ARE ONLY FOR REFERENCE. SEE STRUCTURAL PLANS FOR BEAM SIZES, HANGERS, ET.



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LAS VEGAS, NV 89154

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LAS VEGAS, NV 89129  
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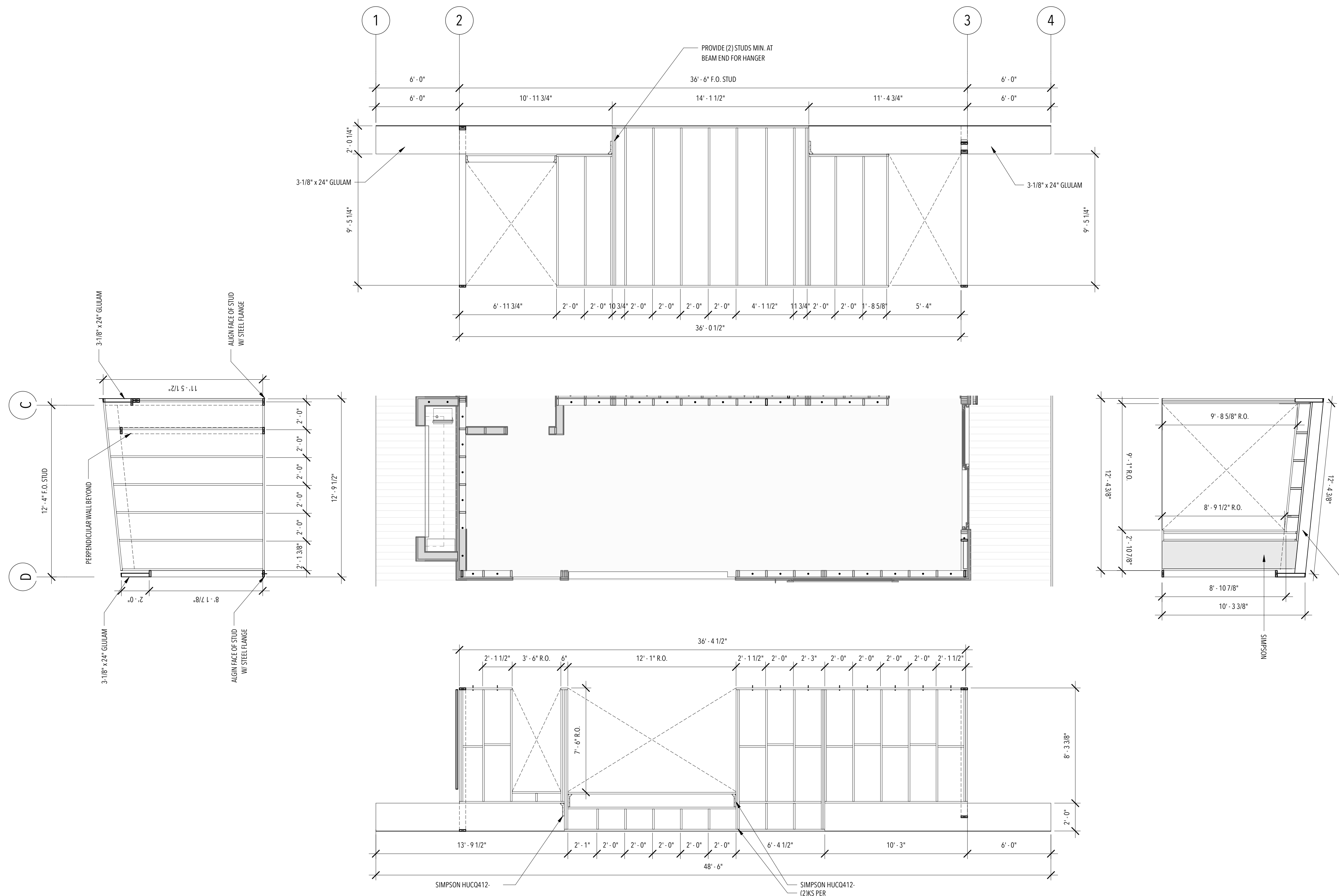
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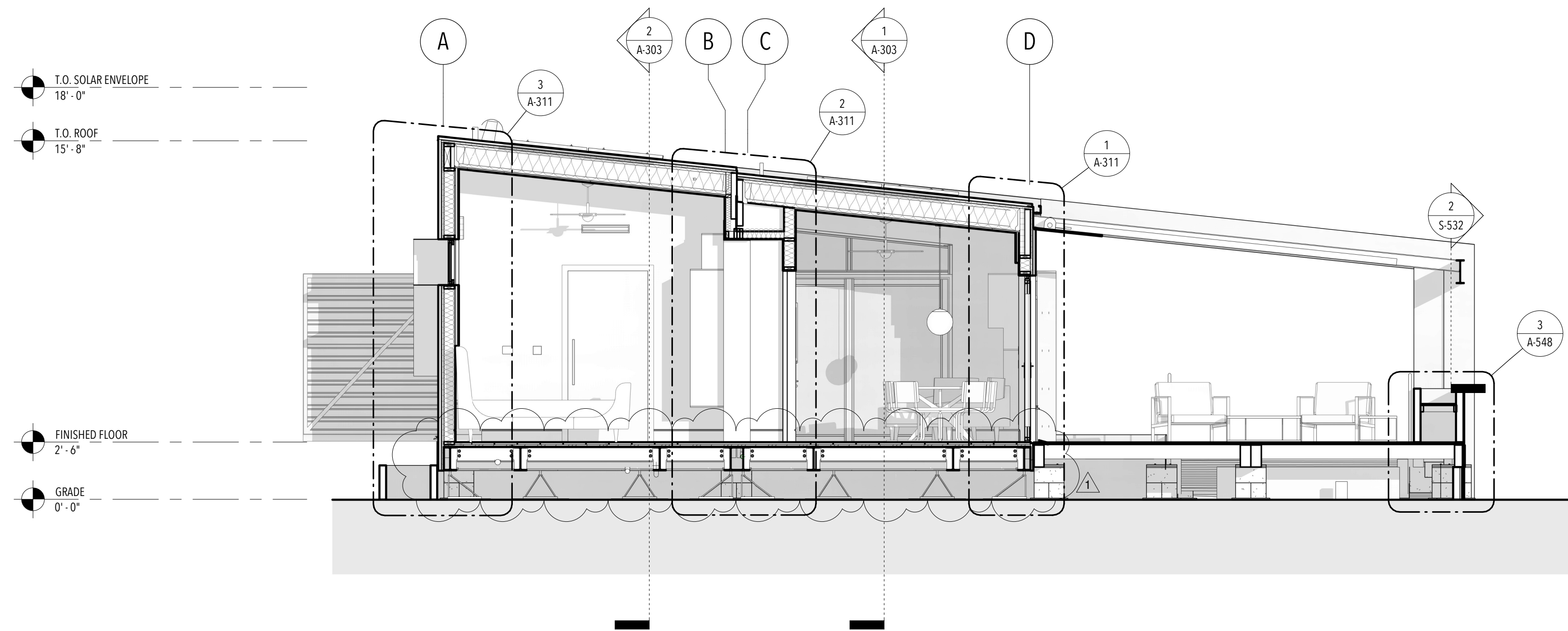
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NO.	DESCRIPTION	DATE
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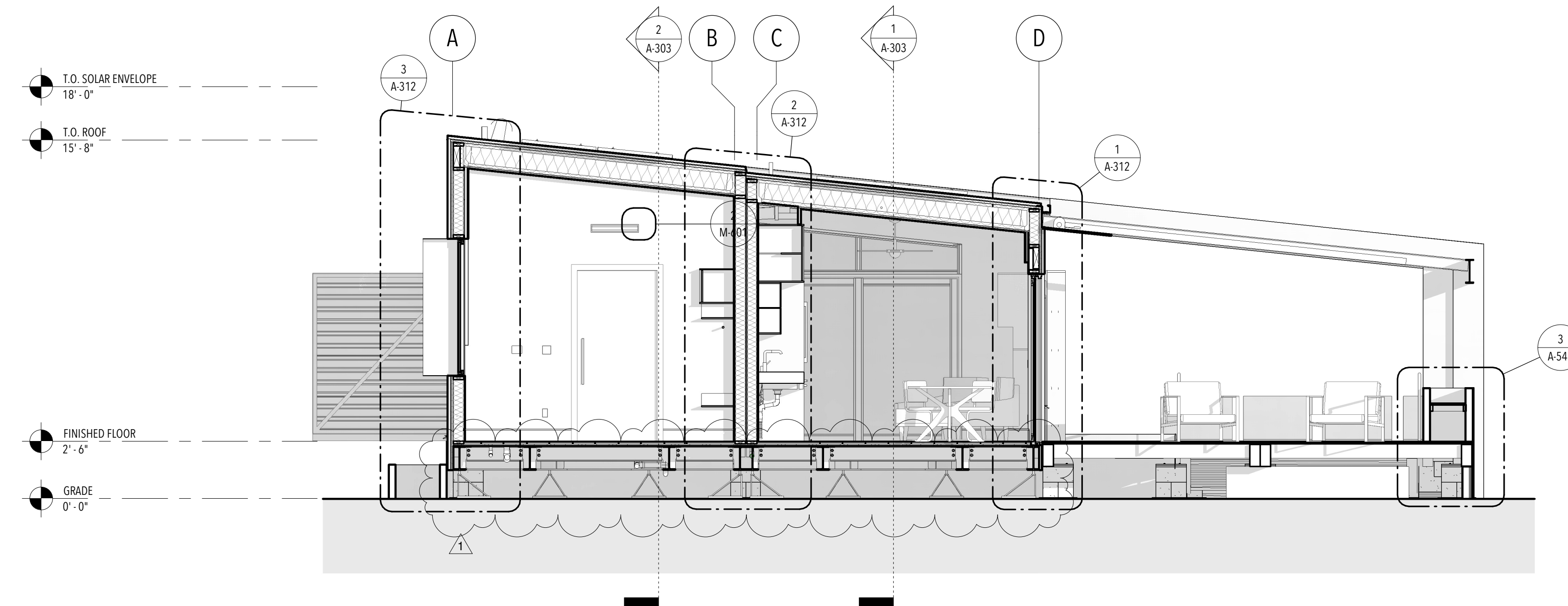
REVISIONS

NO.	DESCRIPTION	DATE
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**GENERAL NOTES**  
1. REFER TO PROJECT MANUAL FOR MATERIAL SELECTION.  
2. SLOPE OF ROOF IS SHOWN AS APPROXIMATE.  
3. FURNITURE IS SHOWN FOR SCALE.



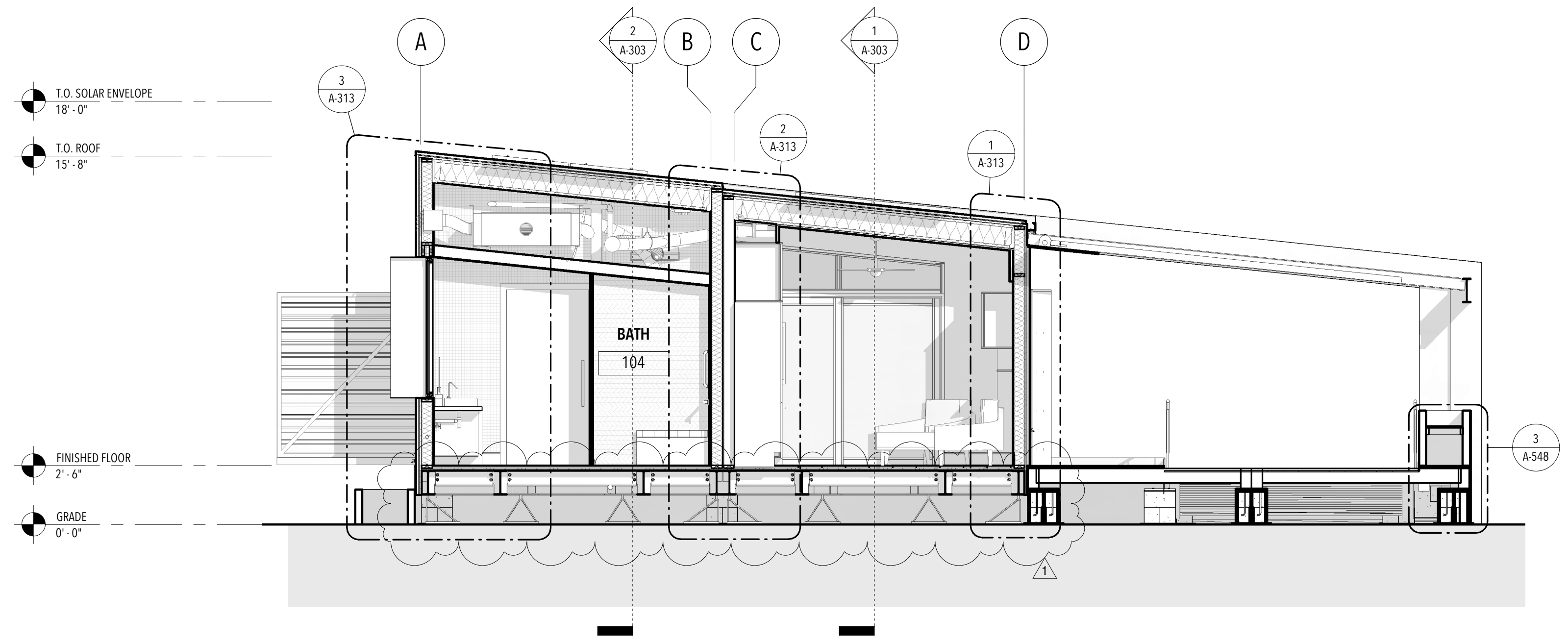
**2** LONGITUDINAL SECTION 1  
1/4" = 1'-0"



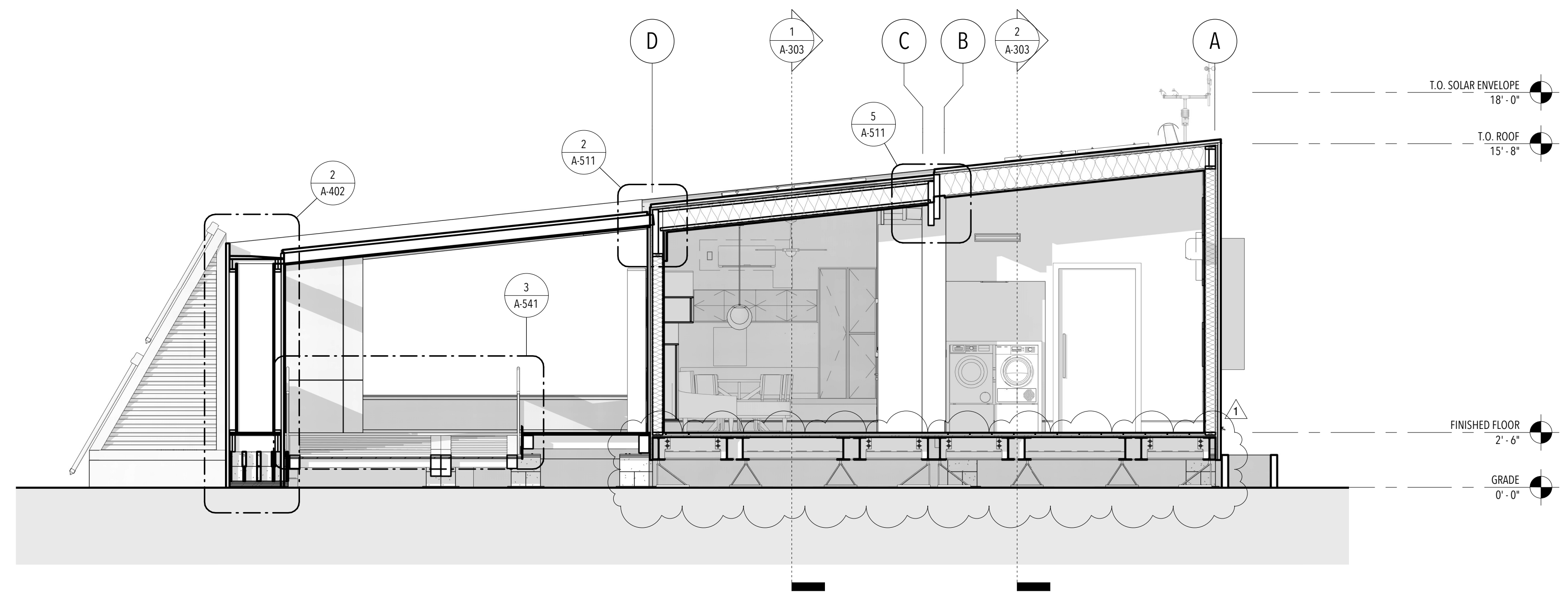
**1** LONGITUDINAL SECTION 2  
1/4" = 1'-0"

**A-301**  
SECTIONS

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



2 LONGITUDINAL SECTION 3  
1/4" = 1'-0"



1 LONGITUDINAL SECTION 4  
1/4" = 1'-0"

**GENERAL NOTES**  
 1. REFER TO PROJECT MANUAL FOR MATERIAL SELECTION.  
 2. SLOPE OF ROOF IS SHOWN AS APPROXIMATE.  
 3. FURNITURE SHOWN FOR SCALE.

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UNIVERSITY OF NEVADA LAS VEGAS  
 4505 MARYLAND PARKWAY  
 LAS VEGAS, NV 89154

CONSULTANTS  
**STRUCTURAL**  
 RIM ROCK ENGINEERING  
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 LAS VEGAS, NV 89129  
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1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**A-302**  
 SECTIONS

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



**GENERAL NOTES**  
 1. REFER TO PROJECT MANUAL FOR MATERIAL SELECTION.  
 2. FURNITURE SHOWN FOR SCALE.

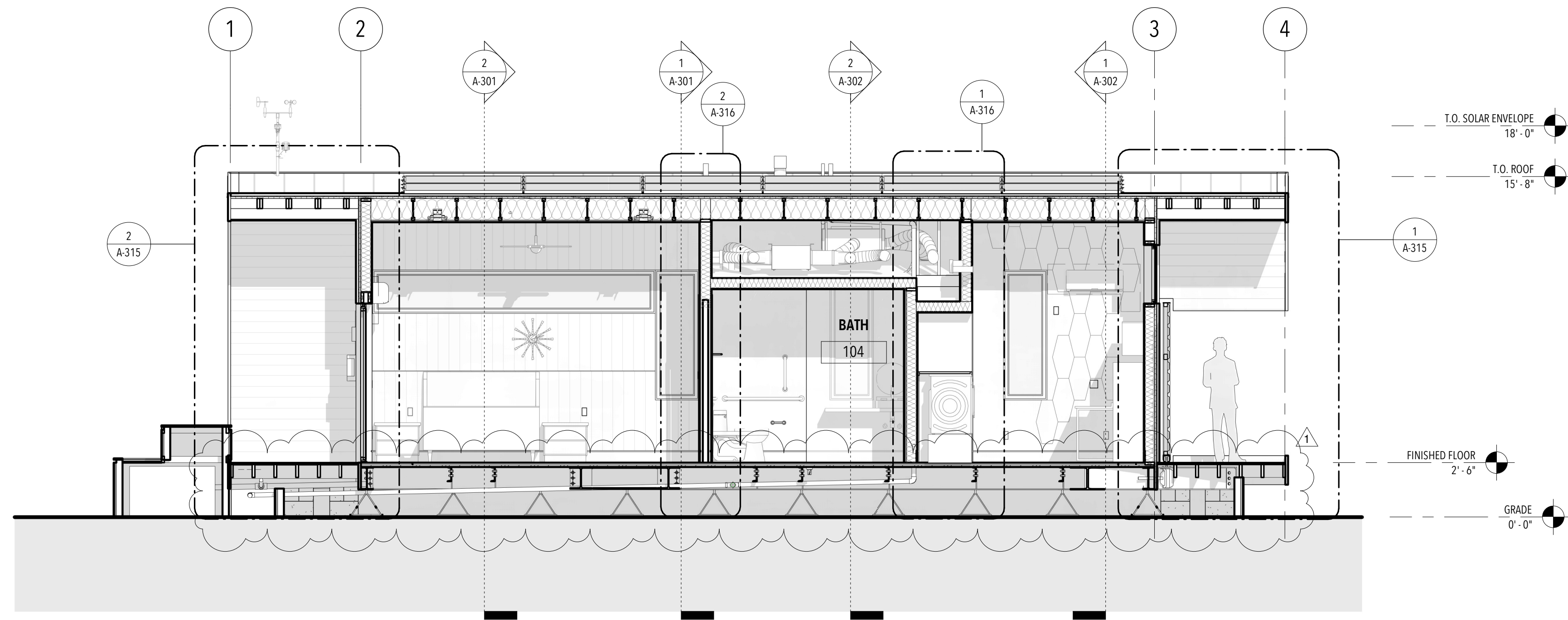
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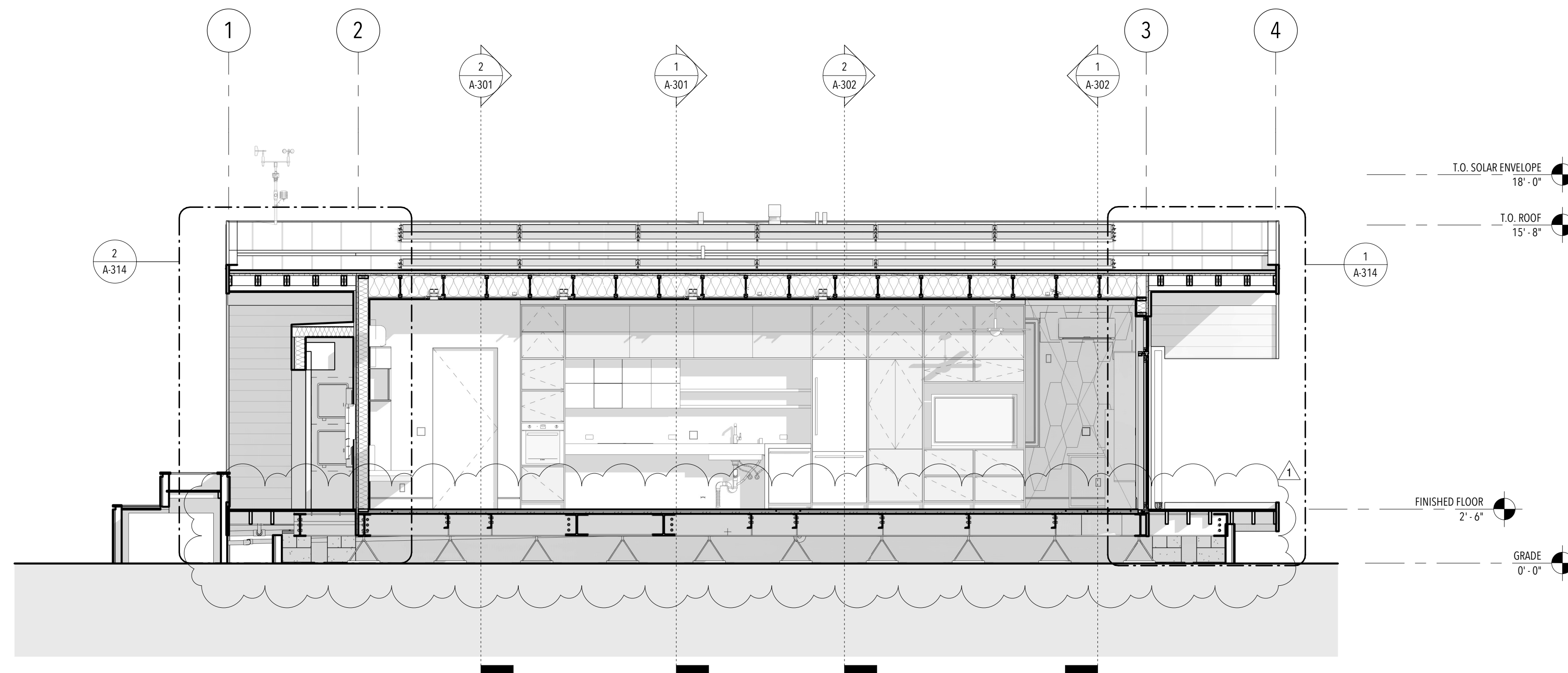
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**STRUCTURAL**  
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 9030 W. CHEYENNE AVE, SUITE 210  
 LAS VEGAS, NV 89129  
 (702) 838-5311



**2** LATITUDINAL SECTION 2  
 1/4" = 1'-0"



**1** LATITUDINAL SECTION 1  
 1/4" = 1'-0"

160719

**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**A-303**  
 SECTIONS

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

ISSUANCES

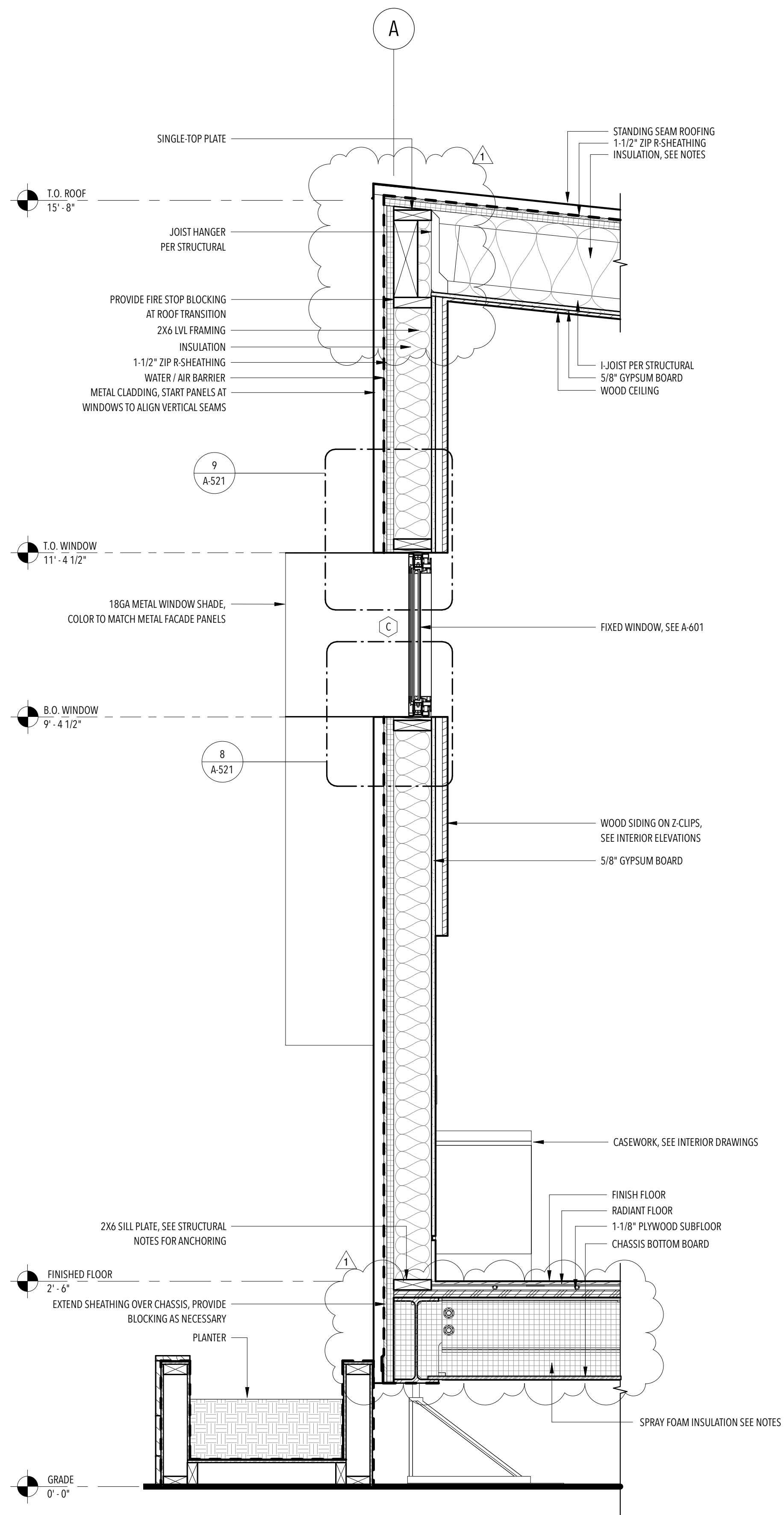
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1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

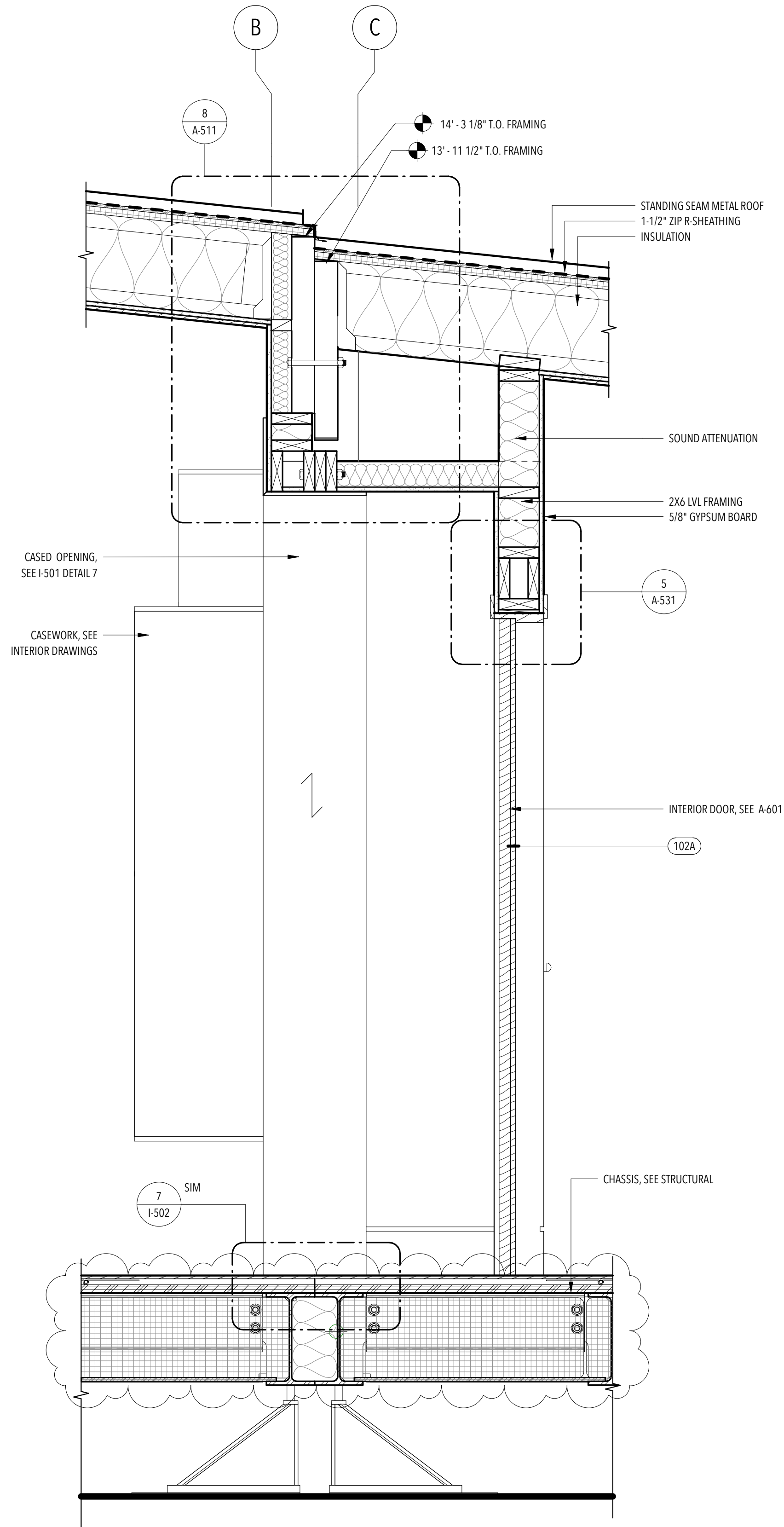
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GENERAL NOTES

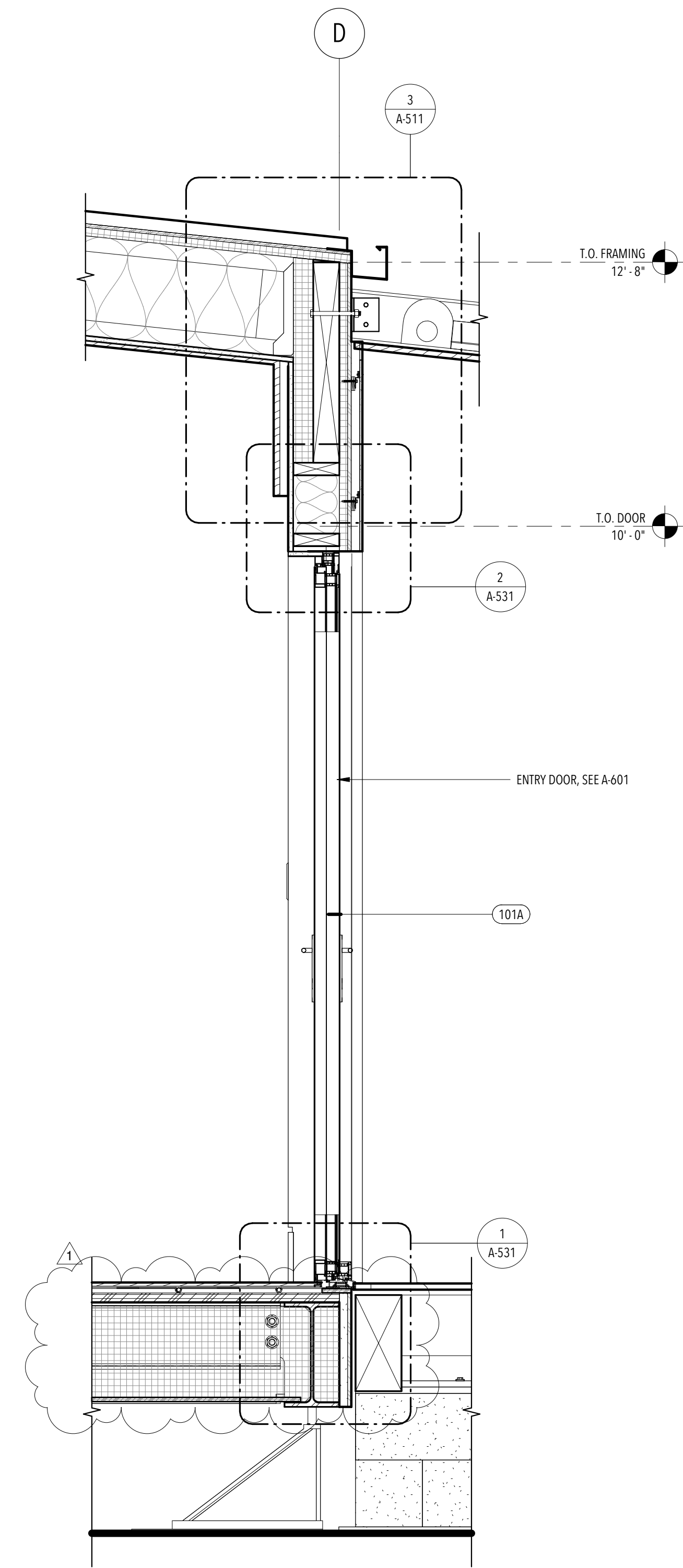
- REFER TO PROJECT MANUAL FOR MATERIAL SELECTION.
- SPRAY FOAM INSULATION TO BE INSTALLED IN CEILINGS, AND WALLS, AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY ON STRUCTURAL SHEATHING. FILL THE REST OF THE FRAMING CAVITY WITH OPEN CELL SPRAY FOAM.
- SPRAY FOAM INSULATION TO BE INSTALLED IN FLOORS AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY UNDER SUBFLOOR. APPLY SPRAY ON IGNITION BARRIER AT THE BOTTOM OF CHASSIS/FLOOR CAVITY SPRAY FOAM INSULATION. FILL THE REST OF THE CHASSIS CAVITY WITH OPEN CELL SPRAY FOAM.



3 NORTH WALL 1  
1" = 1'-0"



2 SPLIT WALL 1  
1" = 1'-0"



1 SOUTH WALL 1  
1" = 1'-0"

**A-311**  
WALL SECTIONS



ISSUANCES

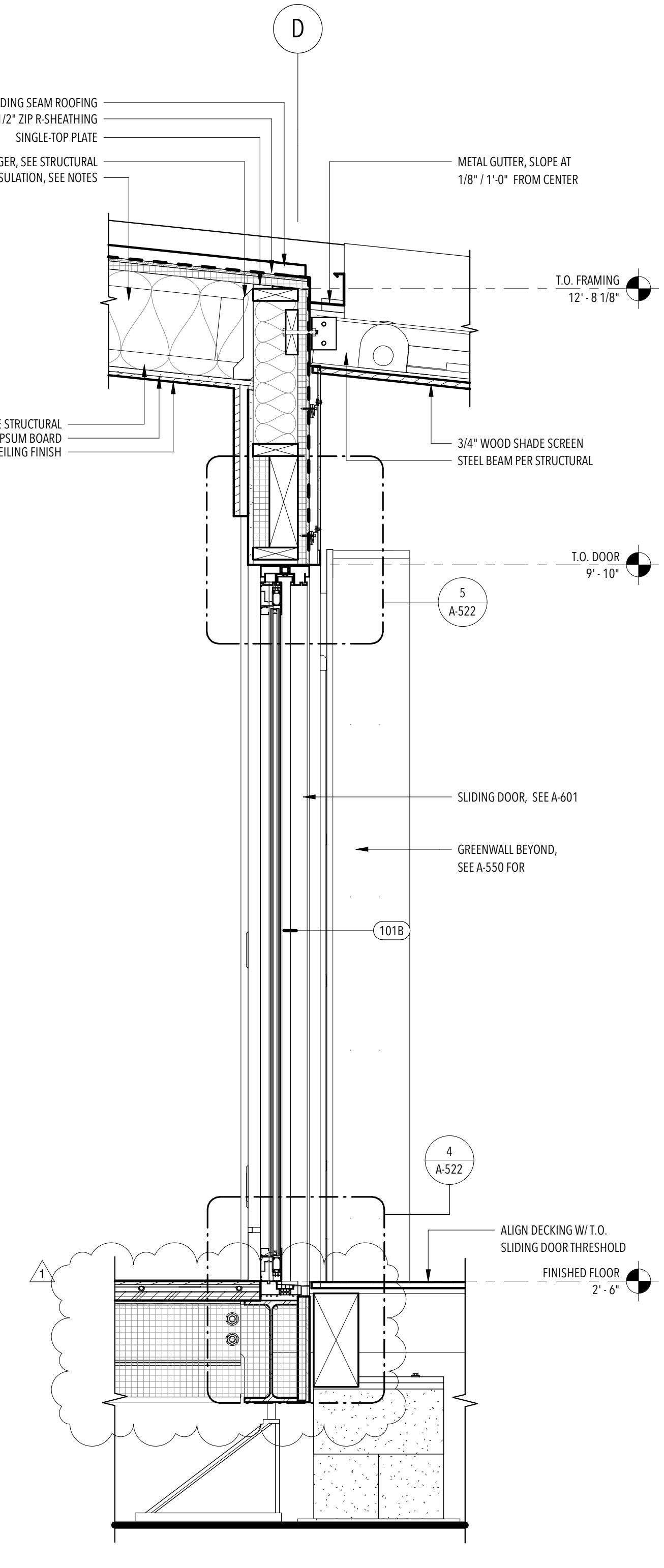
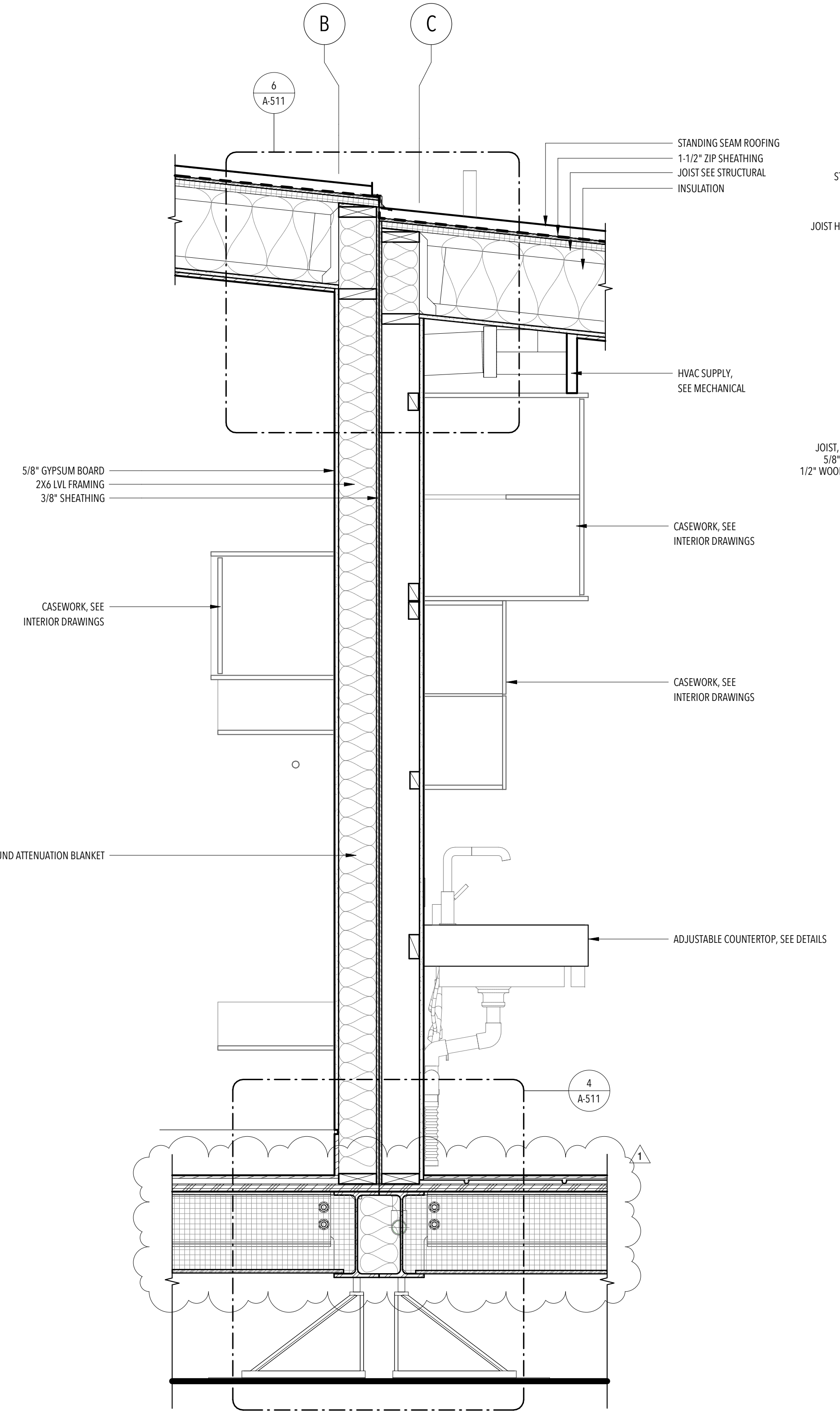
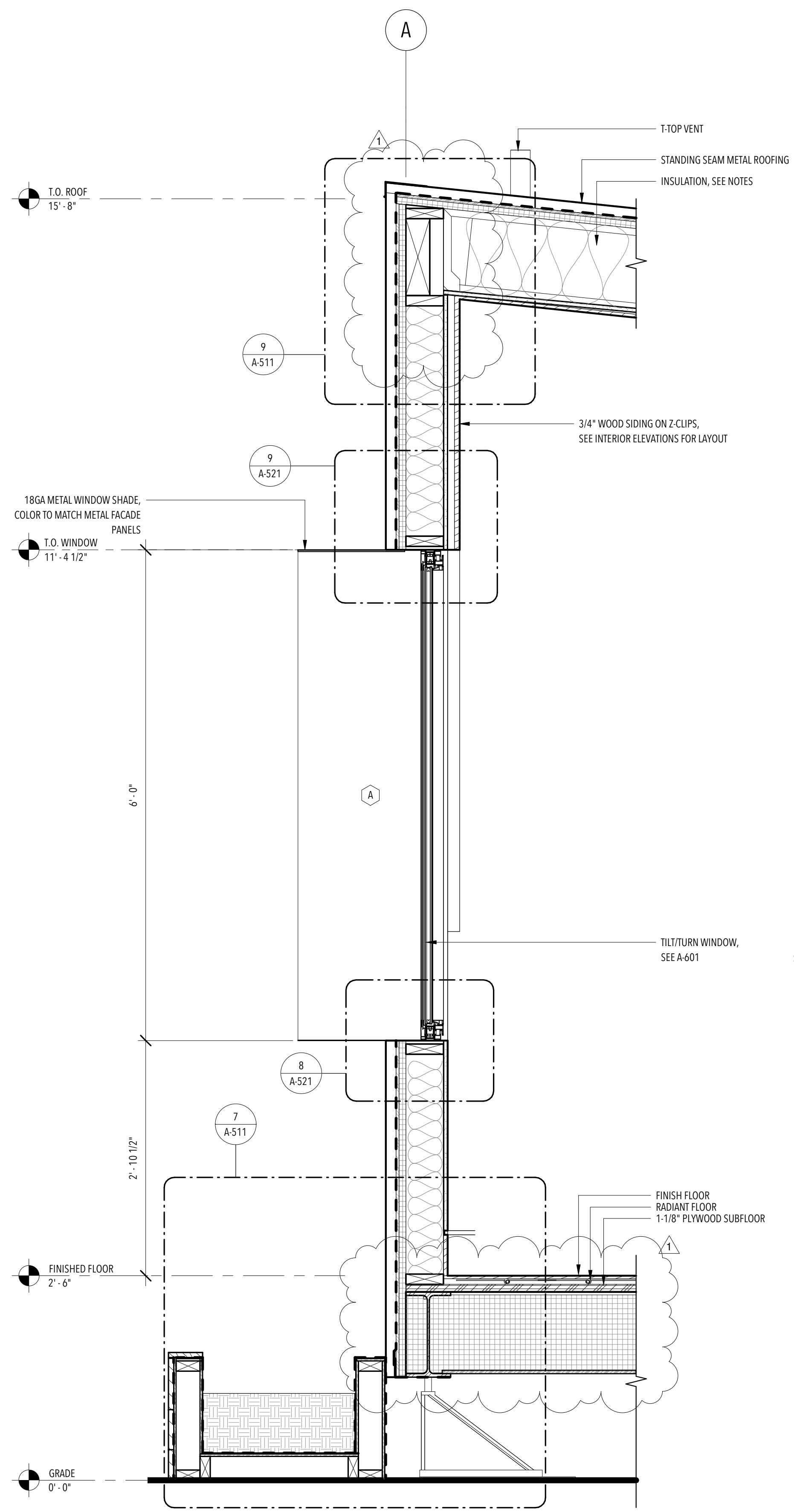
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

NO.	DESCRIPTION	DATE
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GENERAL NOTES

- REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
- SPRAY FOAM INSULATION TO BE INSTALLED IN CEILINGS, AND WALLS, AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY ON STRUCTURAL SHEATHING. FILL THE REST OF THE FRAMING CAVITY WITH OPEN CELL SPRAY FOAM.
- SPRAY FOAM INSULATION TO BE INSTALLED IN FLOORS AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY UNDER SUBFLOOR. APPLY SPRAY ON IGNITION BARRIER AT THE BOTTOM OF CHASSIS/FLOOR CAVITY SPRAY FOAM INSULATION. FILL THE REST OF THE CHASSIS CAVITY WITH OPEN CELL SPRAY FOAM.



**A-312**  
WALL SECTIONS



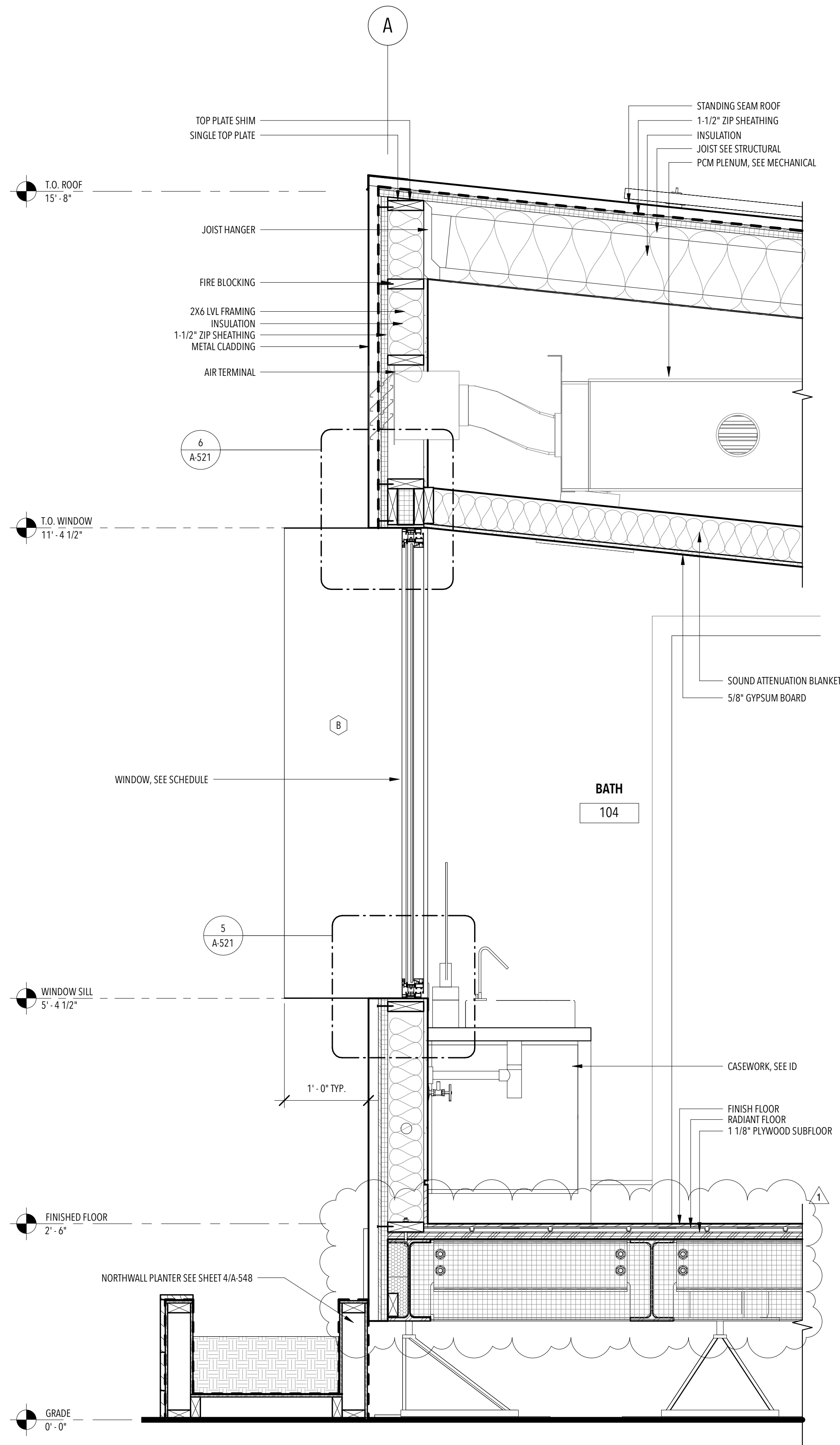
ISSUANCES

NO.	DESCRIPTION	DATE
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2	100% - CD SET	2/23/17

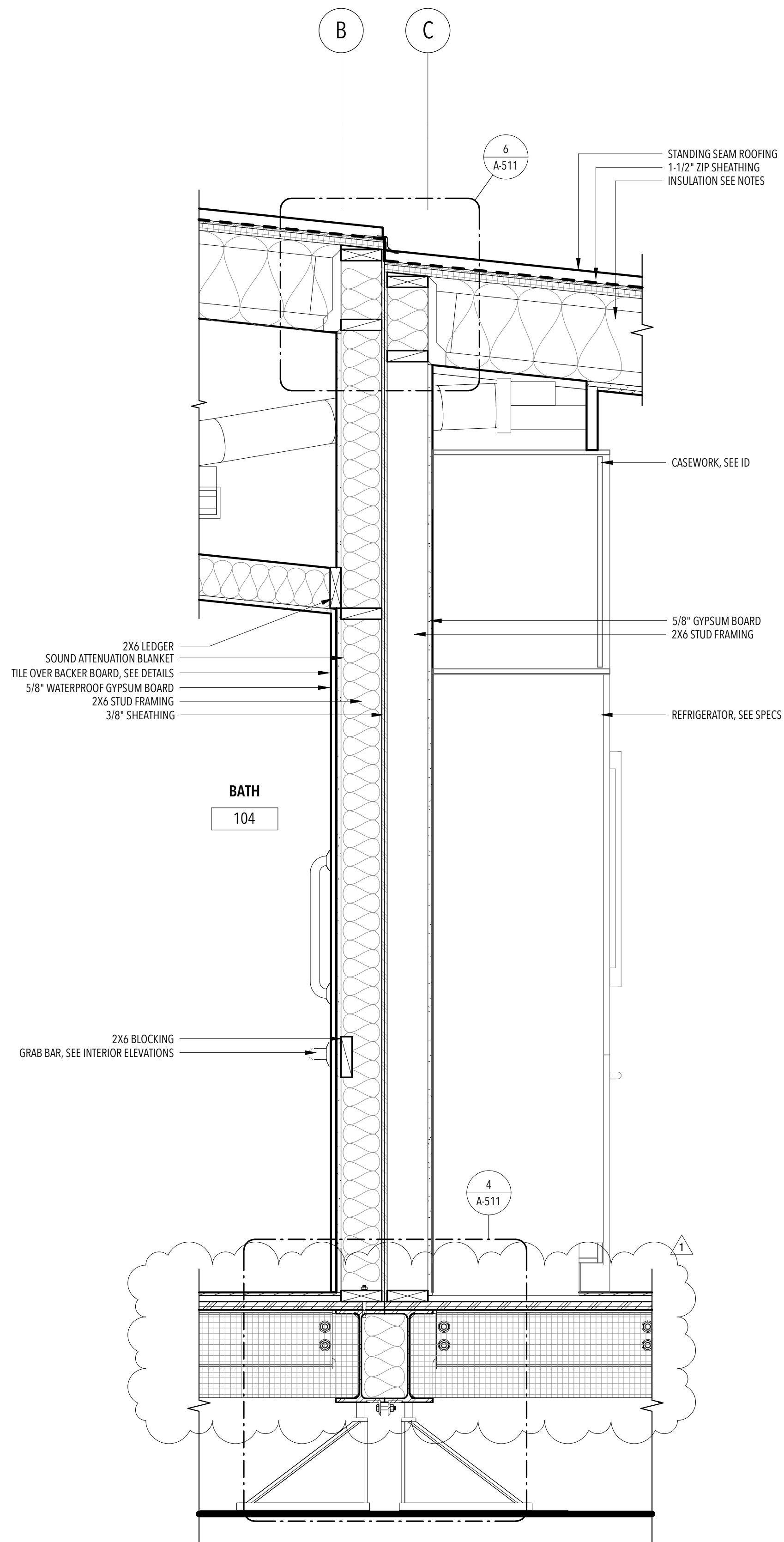
REVISIONS

NO.	DESCRIPTION	DATE
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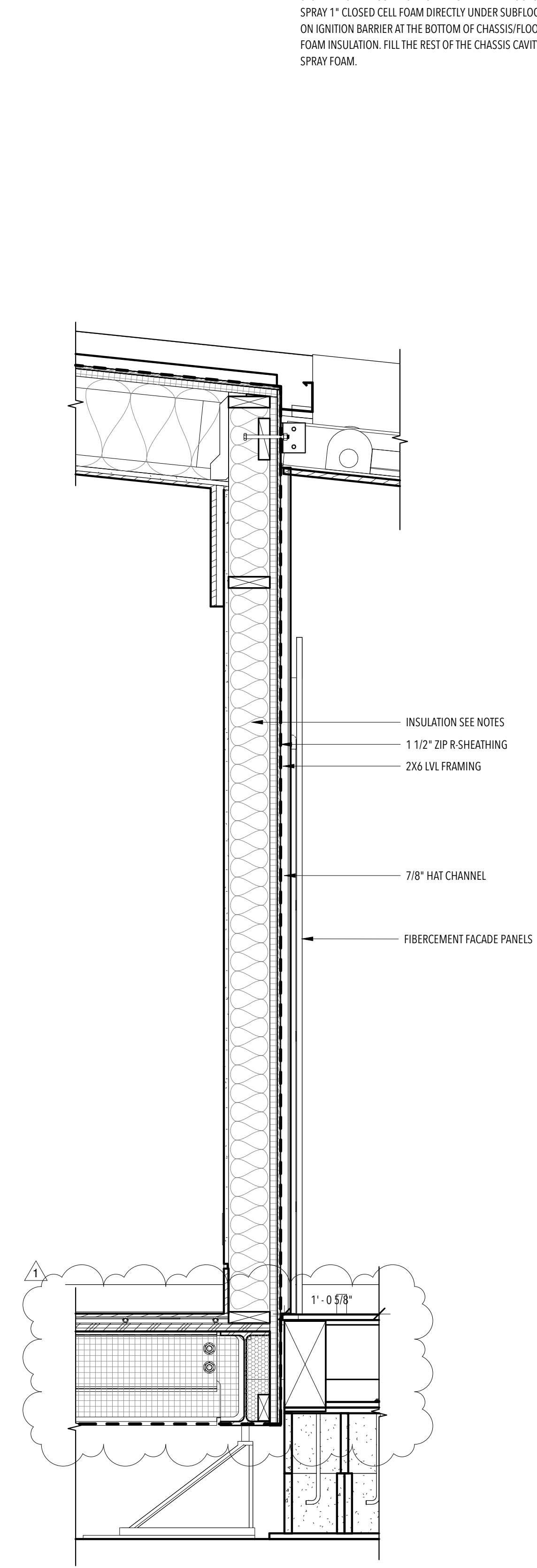
1. REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
2. SPRAY FOAM INSULATION TO BE INSTALLED IN CEILINGS, AND WALLS, AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY ON STRUCTURAL SHEATHING. FILL THE REST OF THE FRAMING CAVITY WITH OPEN CELL FRPAP FOAM.
3. SPRAY FOAM INSULATION TO BE INSTALLED IN FLOORS AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY UNDER SUBFLOOR. APPLY SPRAY ON IGNITION BARRIER AT THE BOTTOM OF CHASSIS/FLOOR CAVITY SPRAY FOAM INSULATION. FILL THE REST OF THE CHASSIS CAVITY WITH OPEN CELL SPRAY FOAM.



3 NORTH WALL 3  
1" = 1'-0"



2 SPLIT WALL 3  
1" = 1'-0"



1 SOUTH WALL 3  
1" = 1'-0"

**A-313**  
WALL SECTIONS

ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

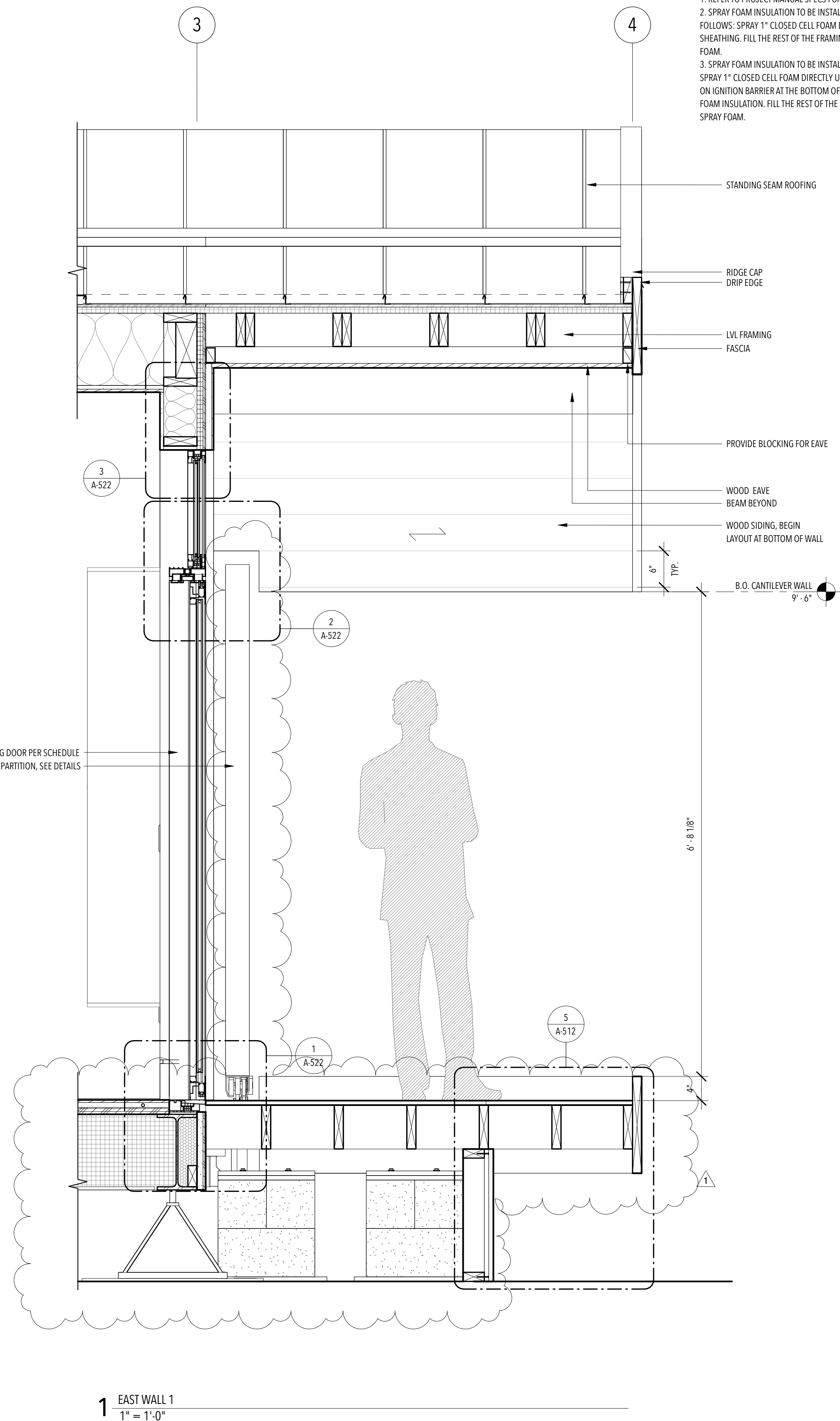
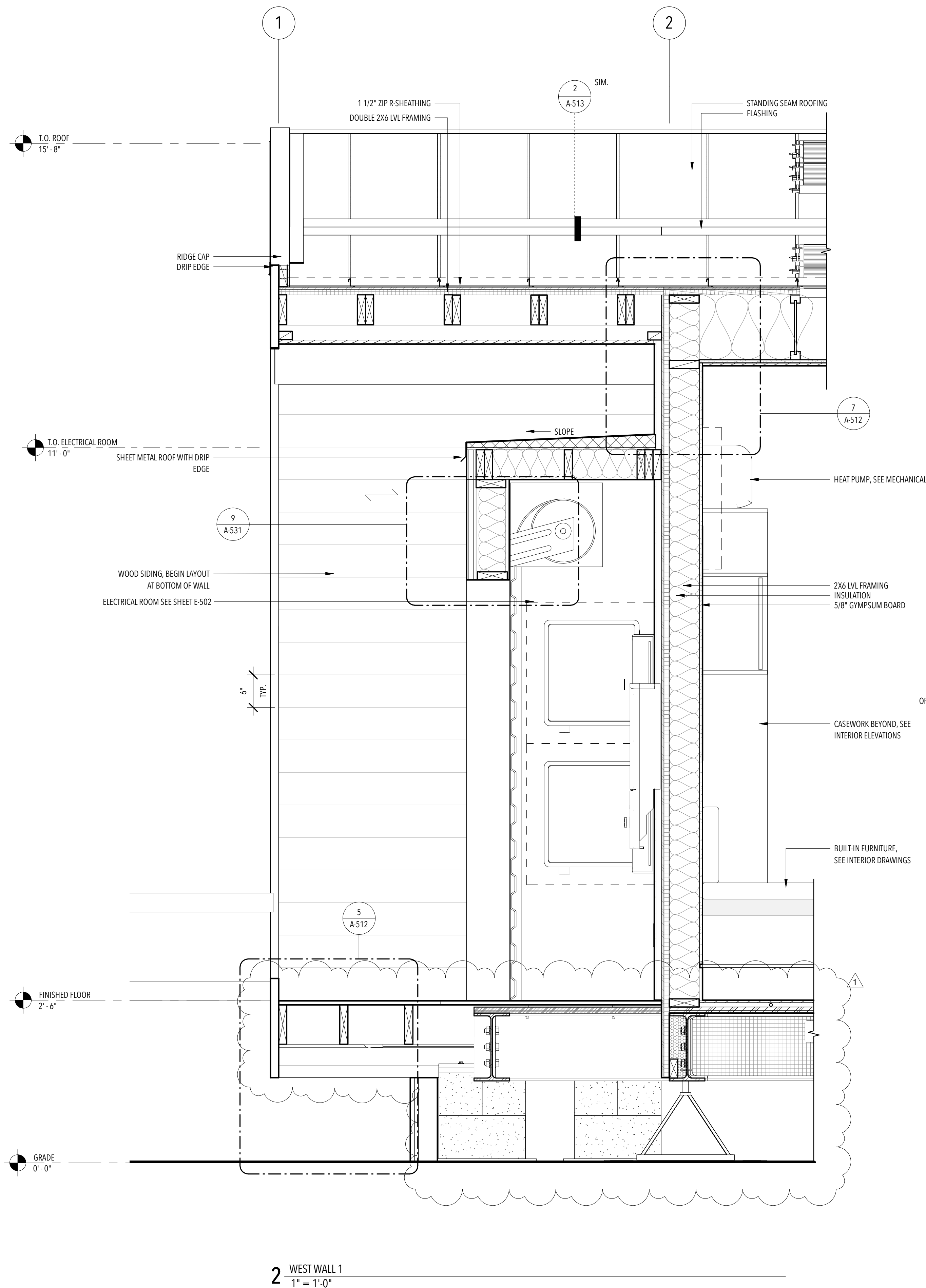
REVISIONS

NO.	DESCRIPTION	DATE
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**A-314**  
WALL SECTIONS

GENERAL NOTES

- REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
- SPRAY FOAM INSULATION TO BE INSTALLED IN CEILINGS, AND WALLS, AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY ON STRUCTURAL SHEATHING. FILL THE REST OF THE FRAMING CAVITY WITH OPEN CELL SPRAY FOAM.
- SPRAY FOAM INSULATION TO BE INSTALLED IN FLOORS AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY UNDER SUBFLOOR. APPLY SPRAY ON IGNITION BARRIER AT THE BOTTOM OF CHASSIS/FLOOR CAVITY SPRAY FOAM INSULATION. FILL THE REST OF THE CHASSIS CAVITY WITH OPEN CELL SPRAY FOAM.



2 WEST WALL 1  
1" = 1'-0"

1 EAST WALL 1  
1" = 1'-0"



ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

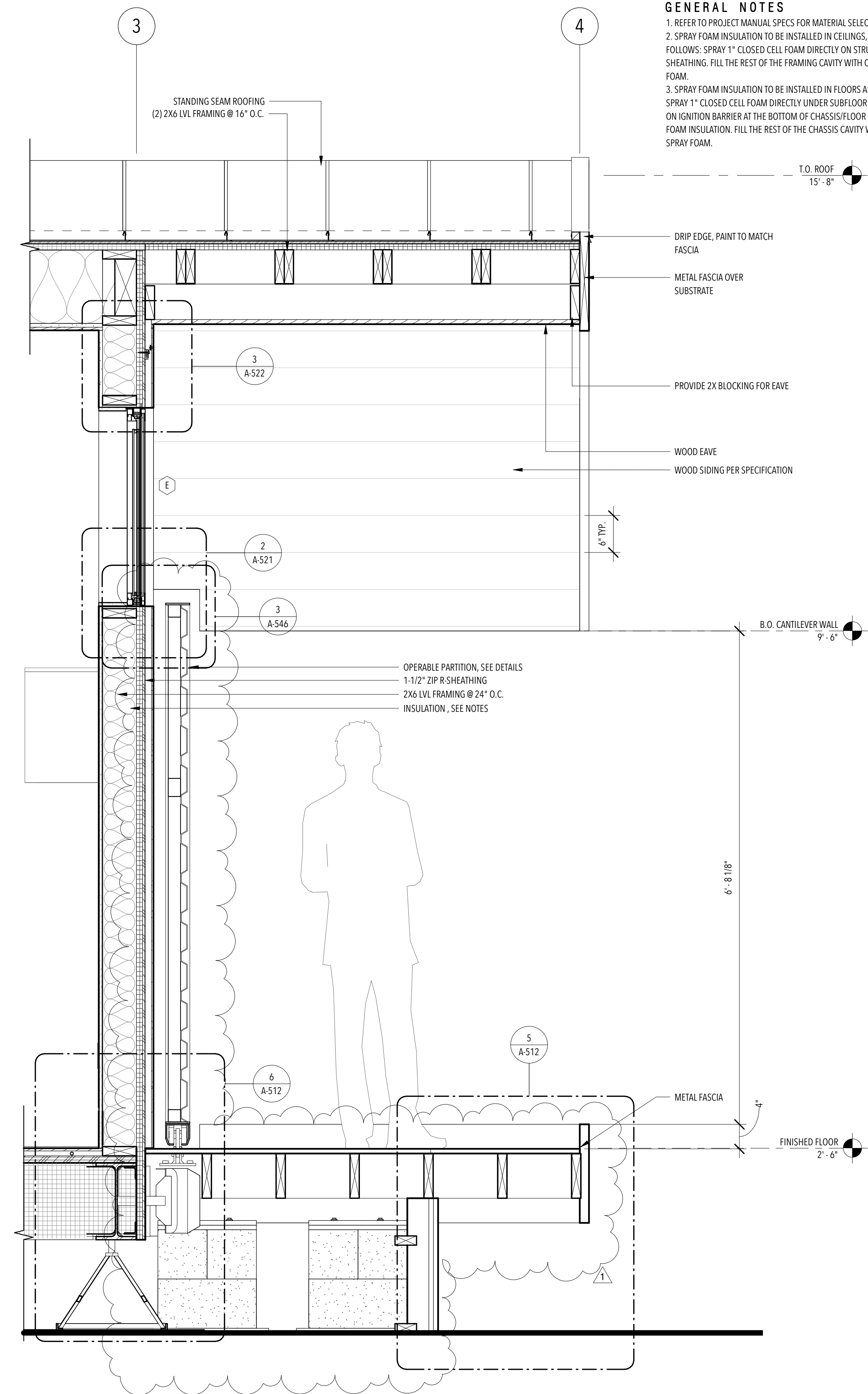
REVISIONS

NO.	DESCRIPTION	DATE
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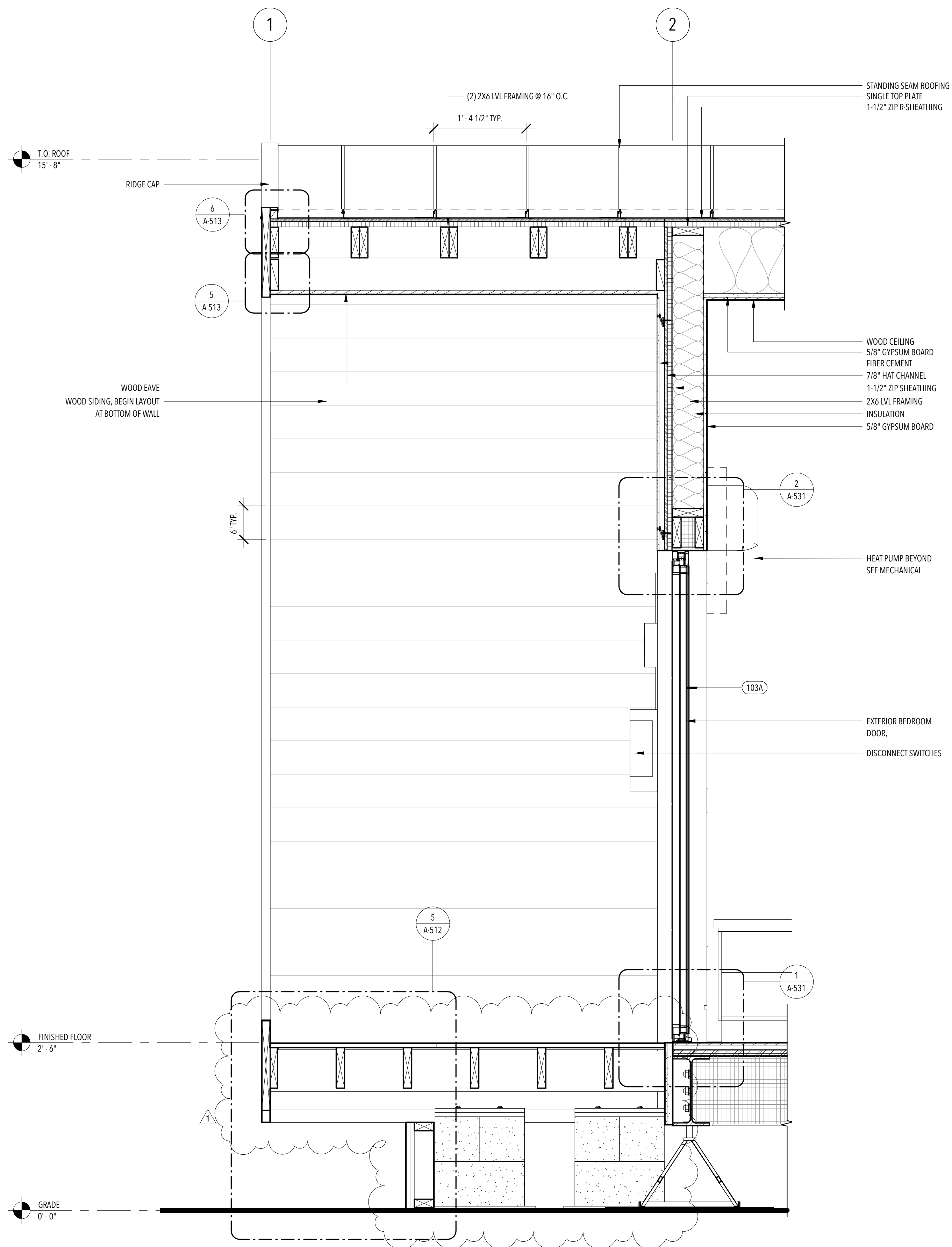
**A-315**  
WALL SECTIONS

GENERAL NOTES

1. REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
2. SPRAY FOAM INSULATION TO BE INSTALLED IN CEILINGS, AND WALLS, AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY ON STRUCTURAL SHEATHING. FILL THE REST OF THE FRAMING CAVITY WITH OPEN CELL SPRAY FOAM.
3. SPRAY FOAM INSULATION TO BE INSTALLED IN FLOORS AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY UNDER SUBFLOOR. APPLY SPRAY ON IGNITION BARRIER AT THE BOTTOM OF CHASSIS/FLOOR CAVITY SPRAY FOAM INSULATION. FILL THE REST OF THE CHASSIS CAVITY WITH OPEN CELL SPRAY FOAM.



1 EAST WALL - NORTH MODULE  
1" = 1'-0"



2 WEST WALL - NORTH MODULE  
1" = 1'-0"



ISSUANCES

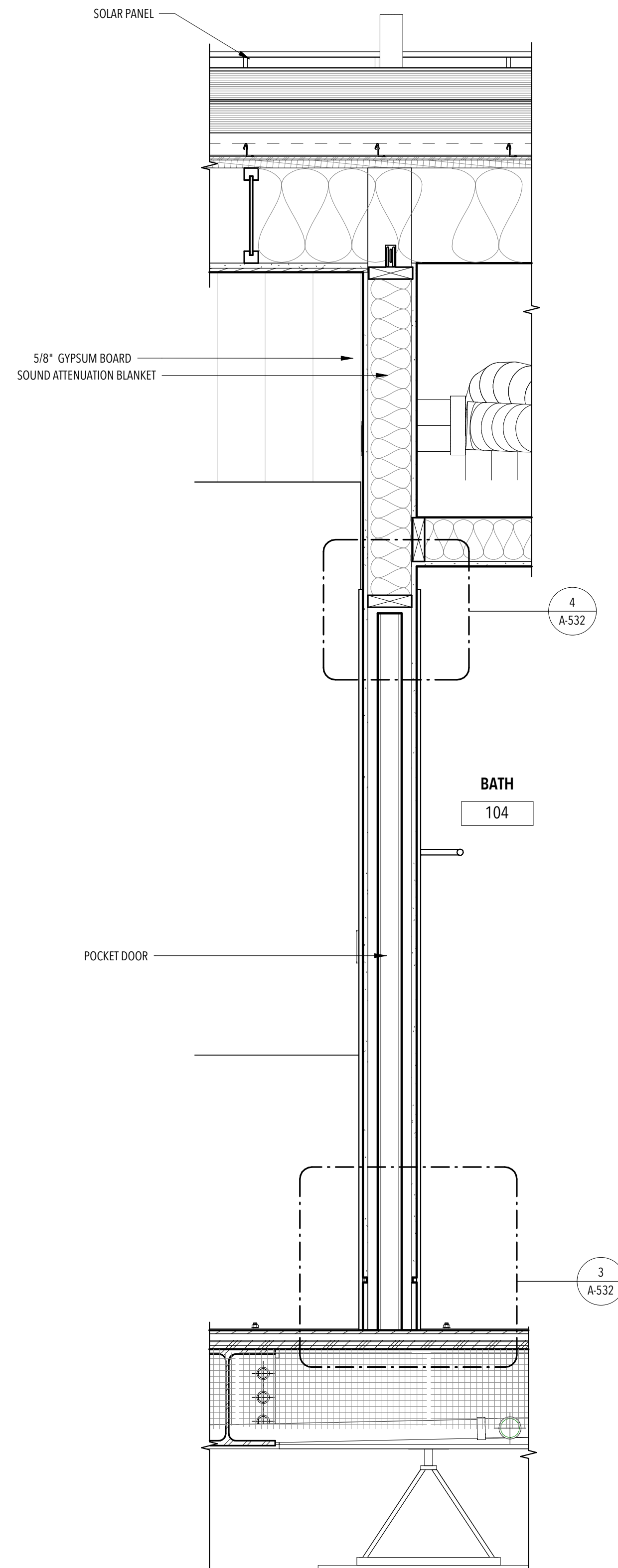
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

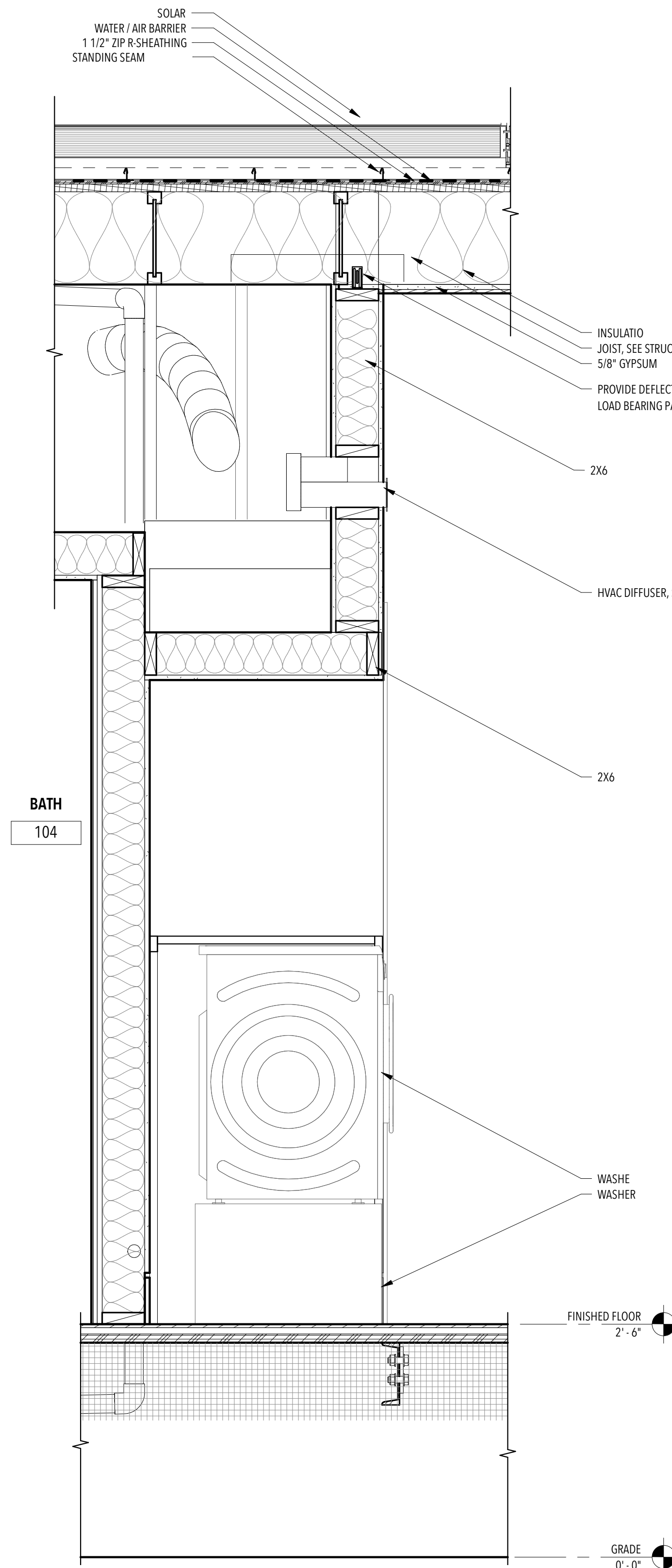
NO.	DESCRIPTION	DATE
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GENERAL NOTES

- REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
- SPRAY FOAM INSULATION TO BE INSTALLED IN CEILINGS, AND WALLS, AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY ON STRUCTURAL SHEATHING. FILL THE REST OF THE FRAMING CAVITY WITH OPEN CELL SPRAY FOAM.
- SPRAY FOAM INSULATION TO BE INSTALLED IN FLOORS AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY UNDER SUBFLOOR. APPLY SPRAY ON IGNITION BARRIER AT THE BOTTOM OF CHASSIS/FLOOR CAVITY SPRAY FOAM INSULATION. FILL THE REST OF THE CHASSIS CAVITY WITH OPEN CELL SPRAY FOAM.



2 INTERIOR PARTITION WALL SECTION 2  
1" = 1'-0"



1 INTERIOR PARTITION WALL SECTION 1  
1" = 1'-0"

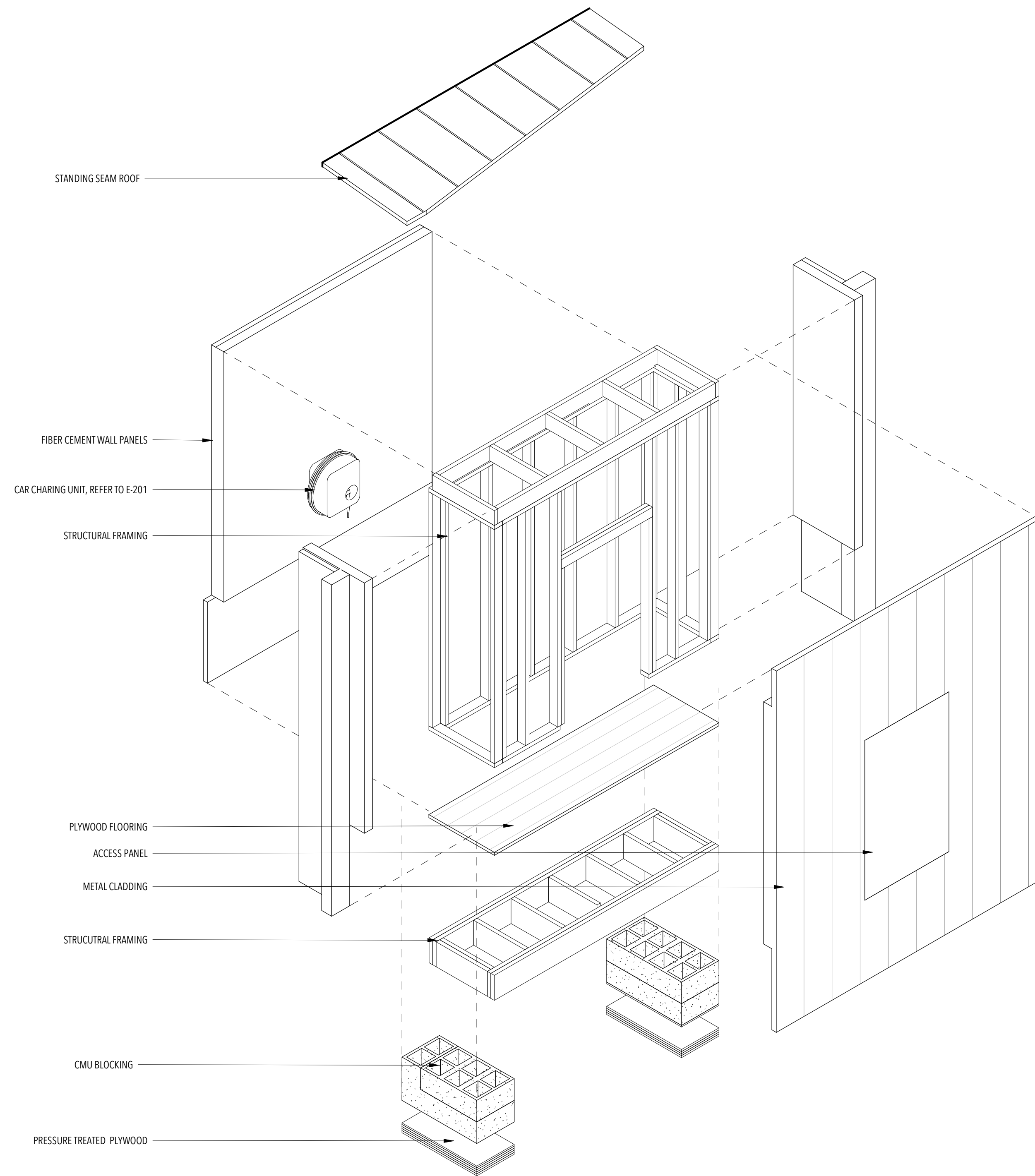
**A-316**  
WALL SECTIONS

ISSUANCES

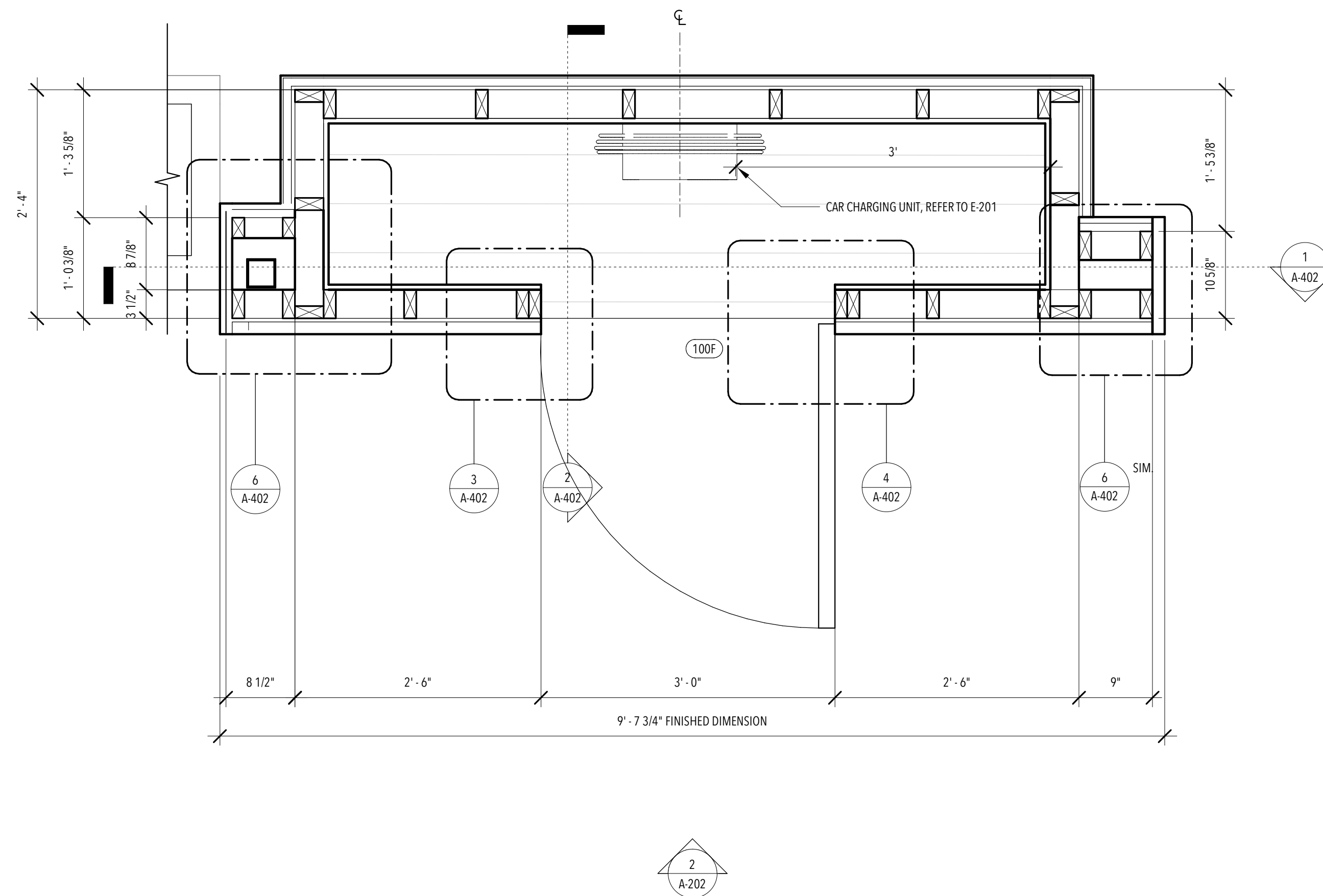
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

NO.	DESCRIPTION	DATE
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2 EXPLODED AXONOMETRIC



1 ENLARGED CHARGING WALL PLAN  
1" = 1'-0"

**A-401**  
ENLARGED CAR CHARGING  
STATION

SCALE:  
1" = 1'-0"





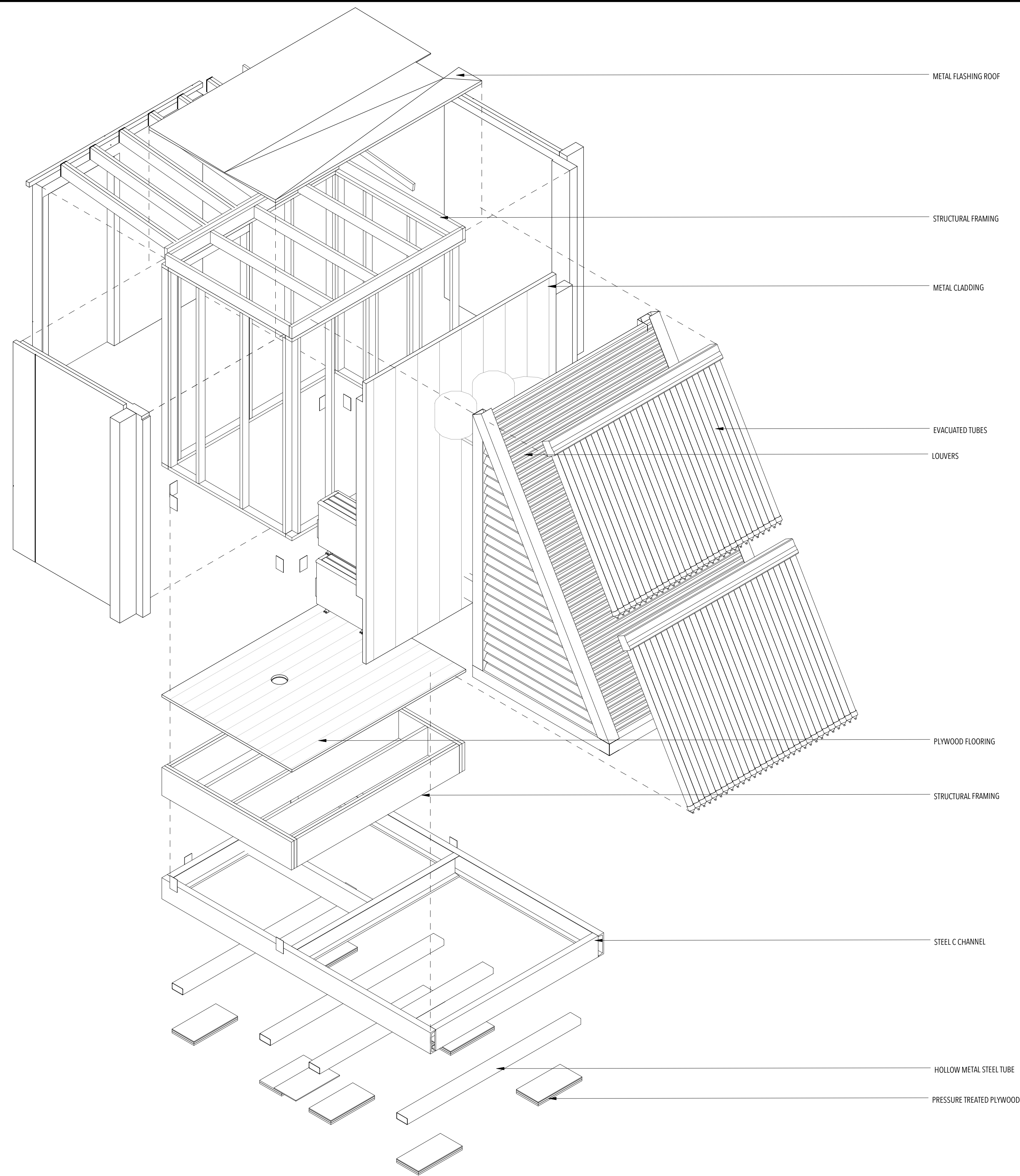
ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

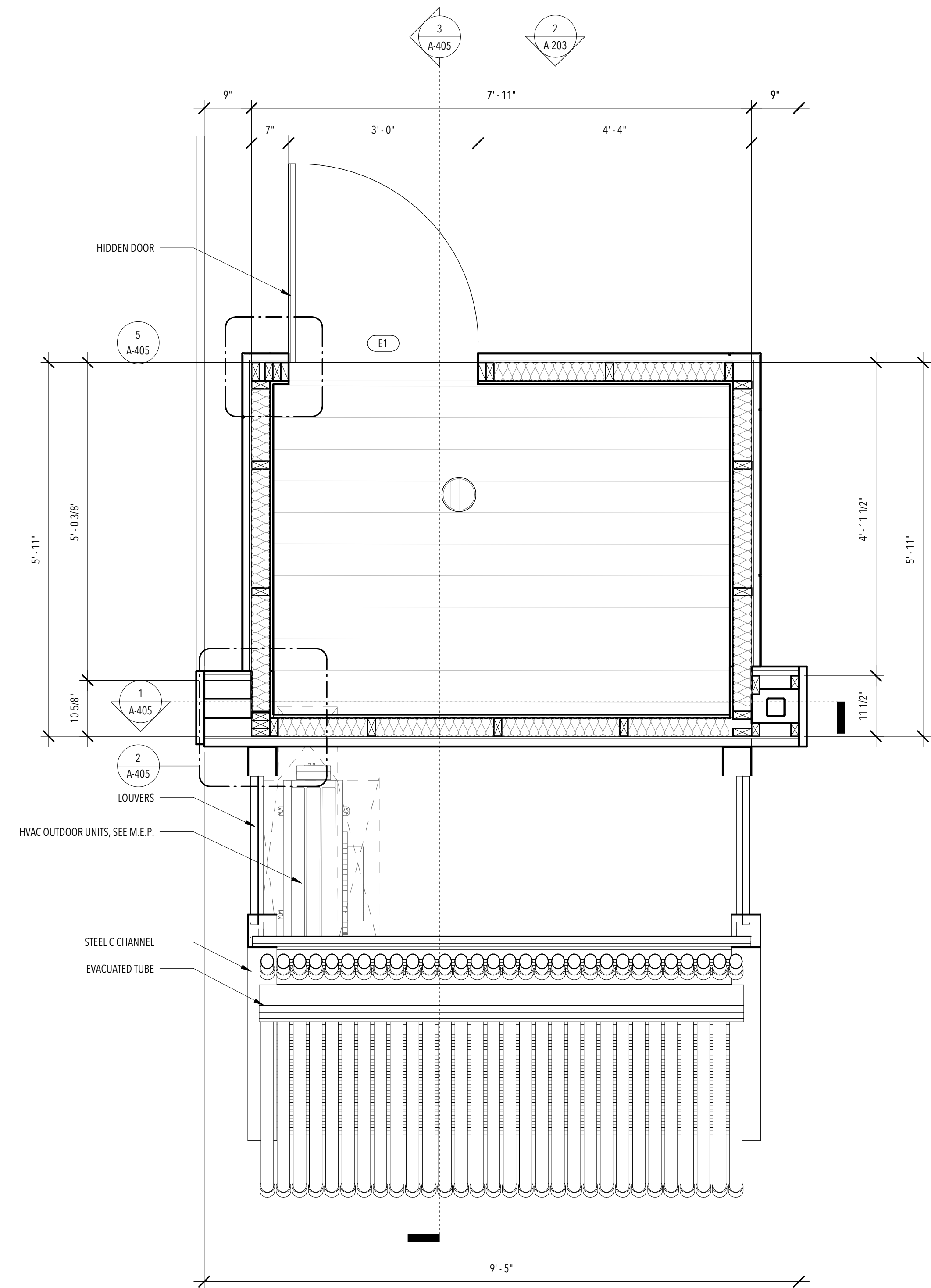
REVISIONS

NO.	DESCRIPTION	DATE
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**A-404**  
ENLARGED MECH POD



2 EXPLODED AXONOMETRIC MECHANICAL POD



1 ENLARGED MECHANICAL POD  
3/4" = 1'-0"

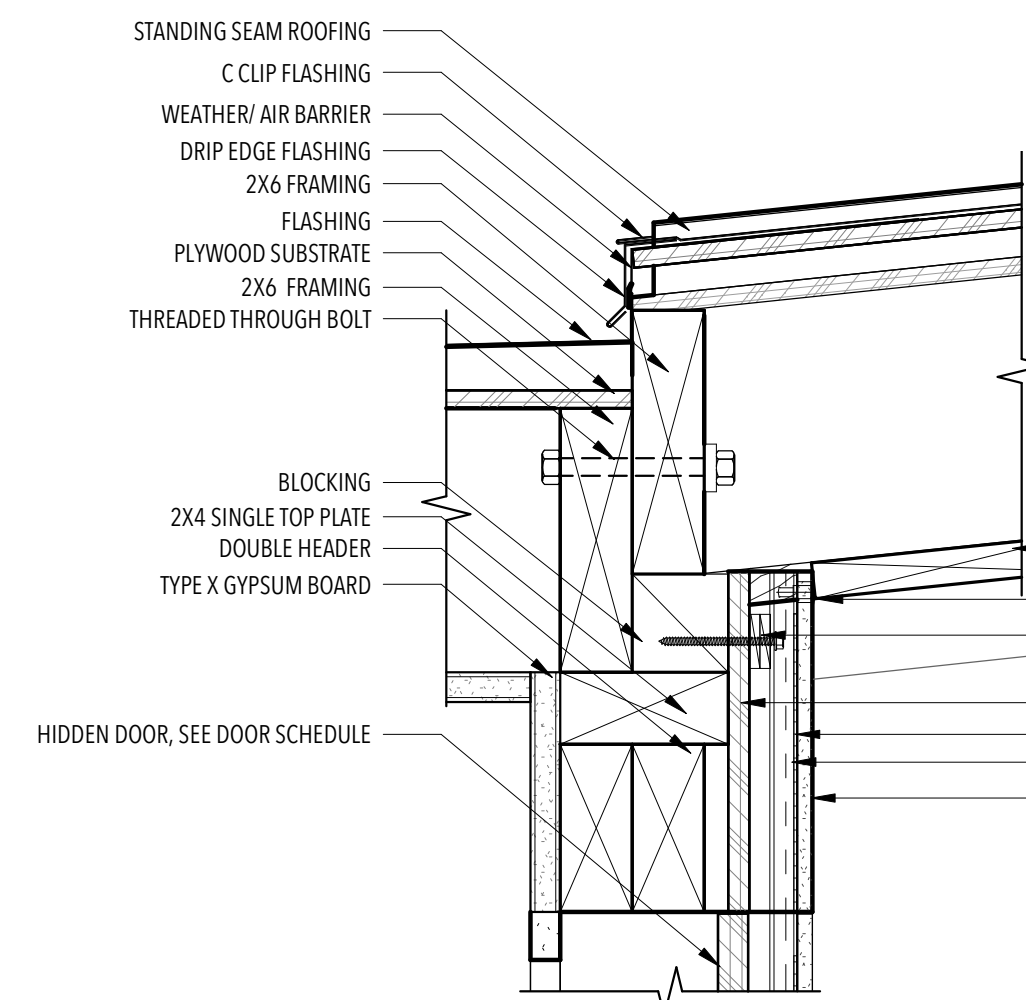
ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

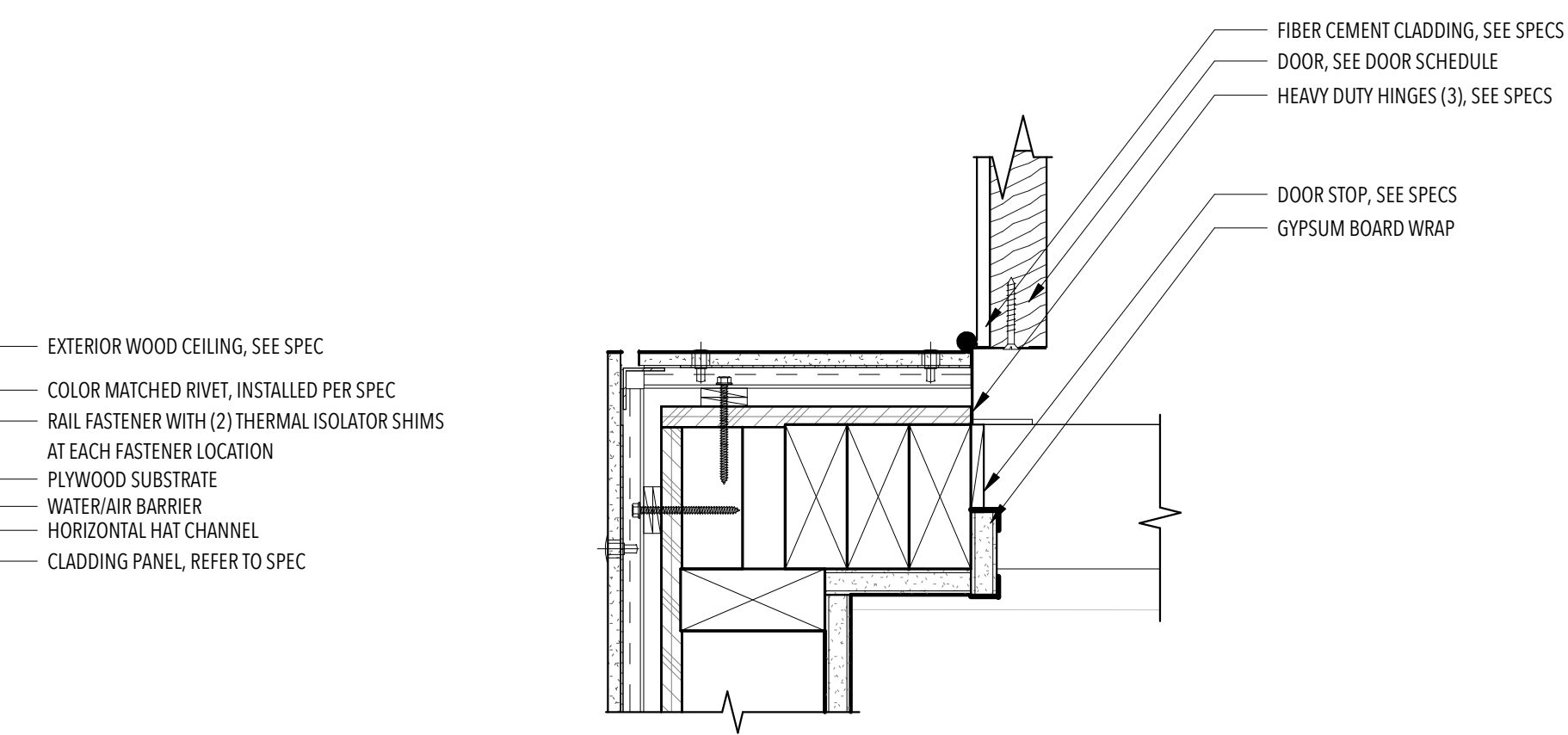
REVISIONS

NO.	DESCRIPTION	DATE
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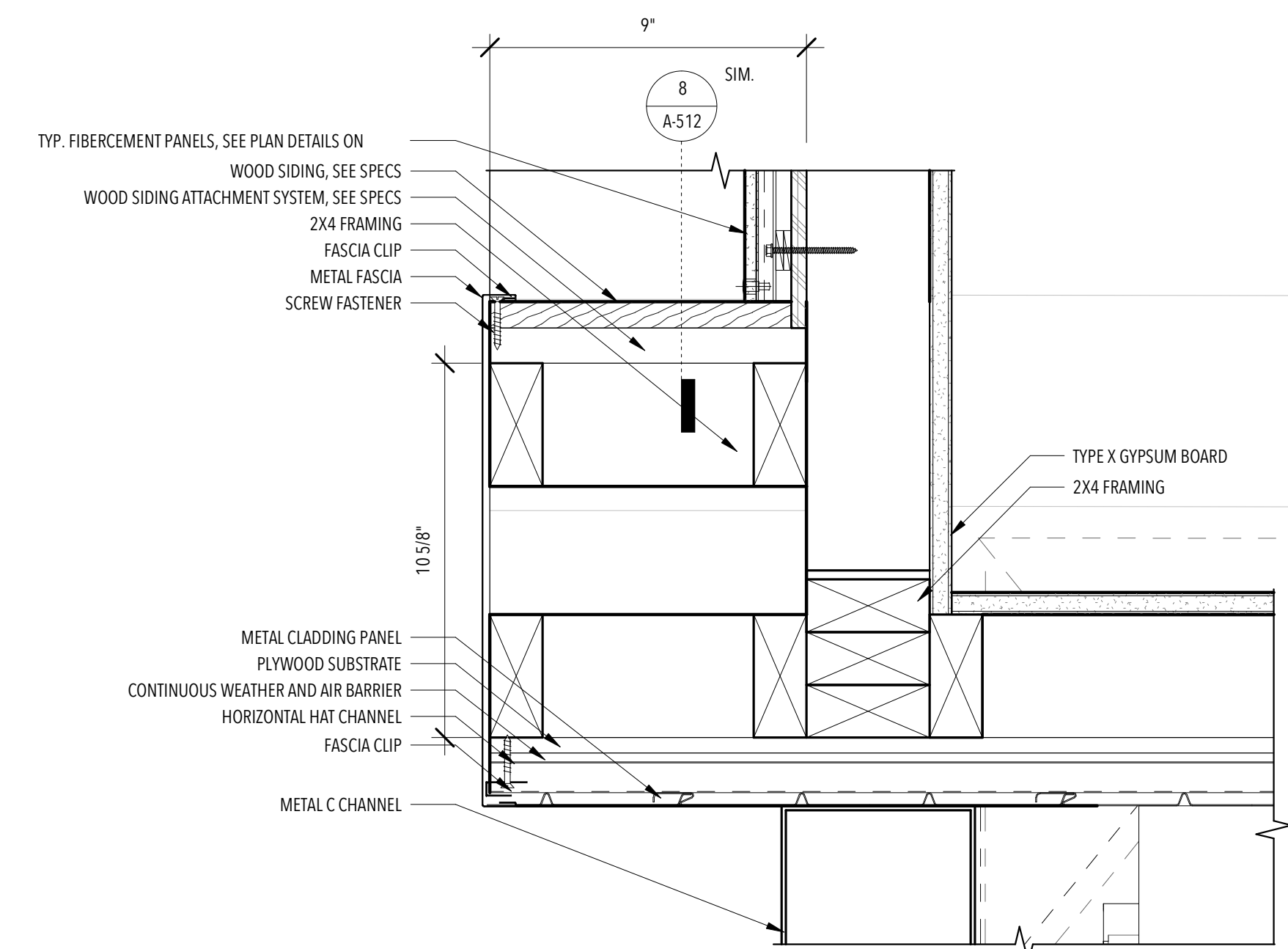
**A-405**  
MECH POD SECTIONS



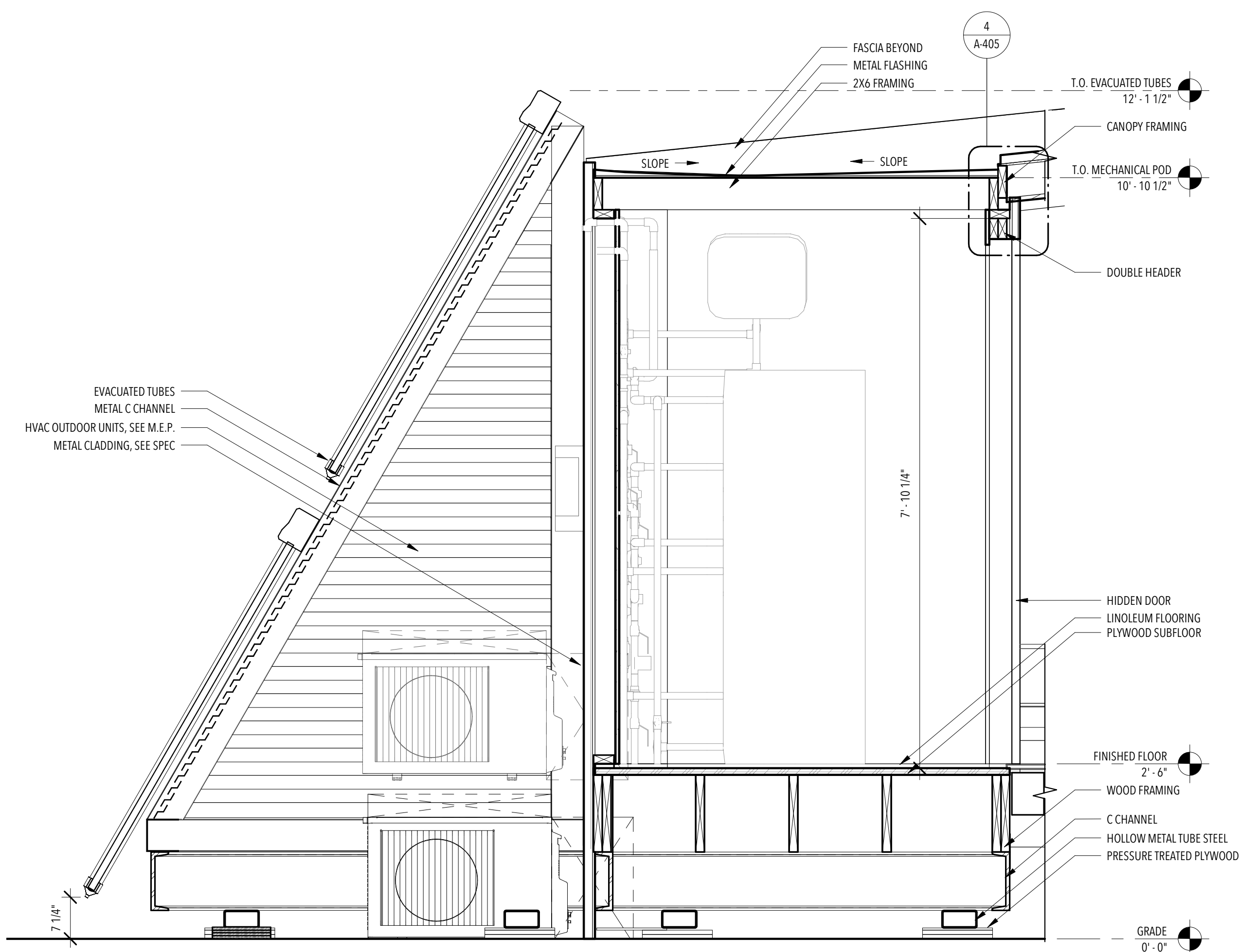
4 CANOPY CONNECTION @ MECHANICAL POD  
3" = 1'-0"



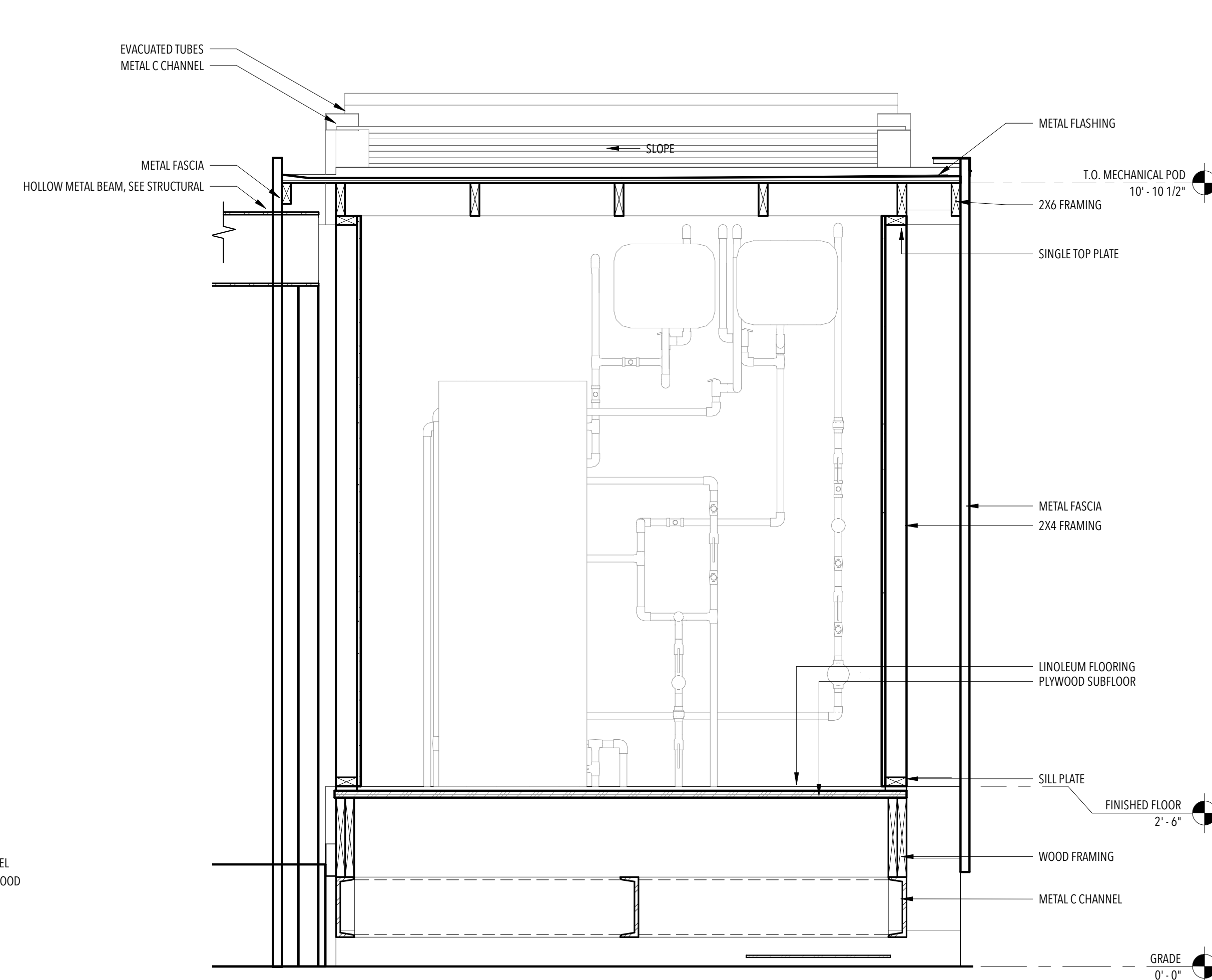
5 JAMB @ MECHANICAL POD DOOR - HINGED  
3" = 1'-0"



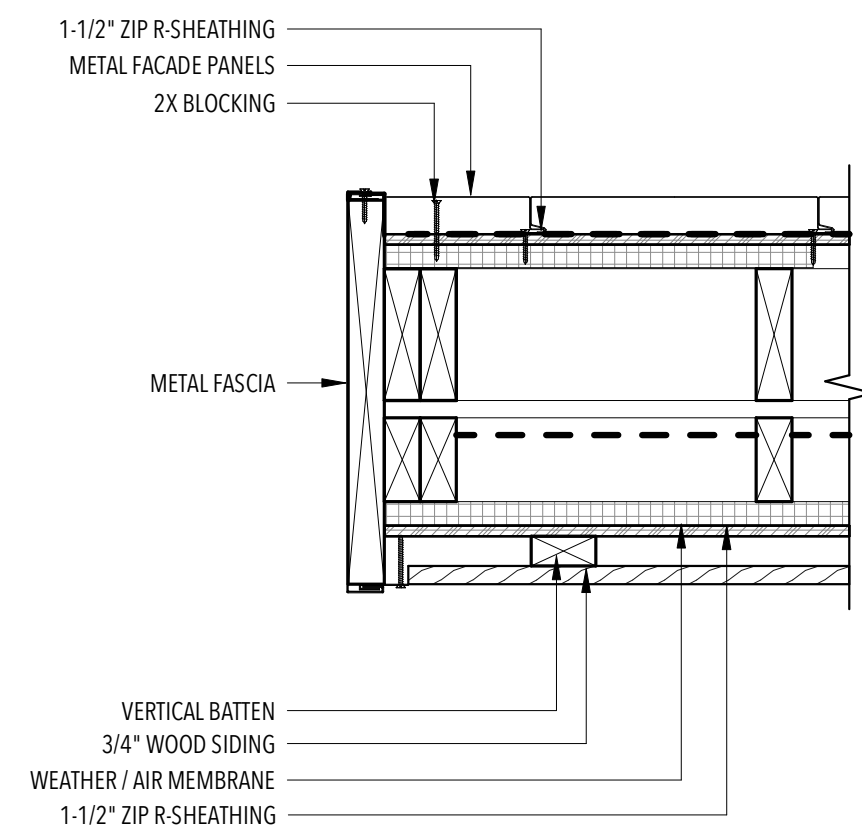
2 CORNER @ MECHANICAL POD  
3" = 1'-0"



3 LATITUDINAL SECTION @ MECHANICAL POD  
3/4" = 1'-0"

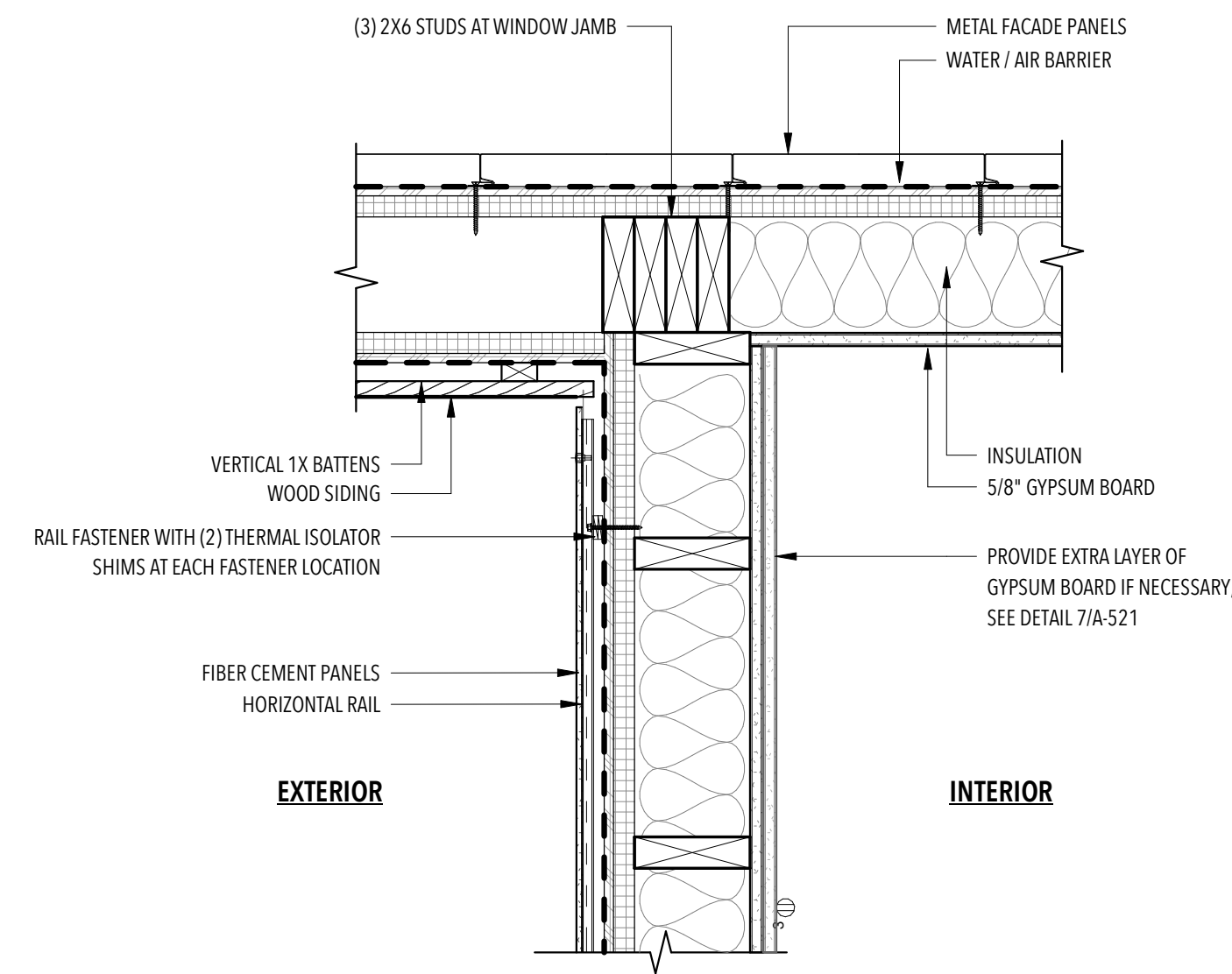


1 LONGITUDINAL SECTION @ MECHANICAL POD 1  
3/4" = 1'-0"

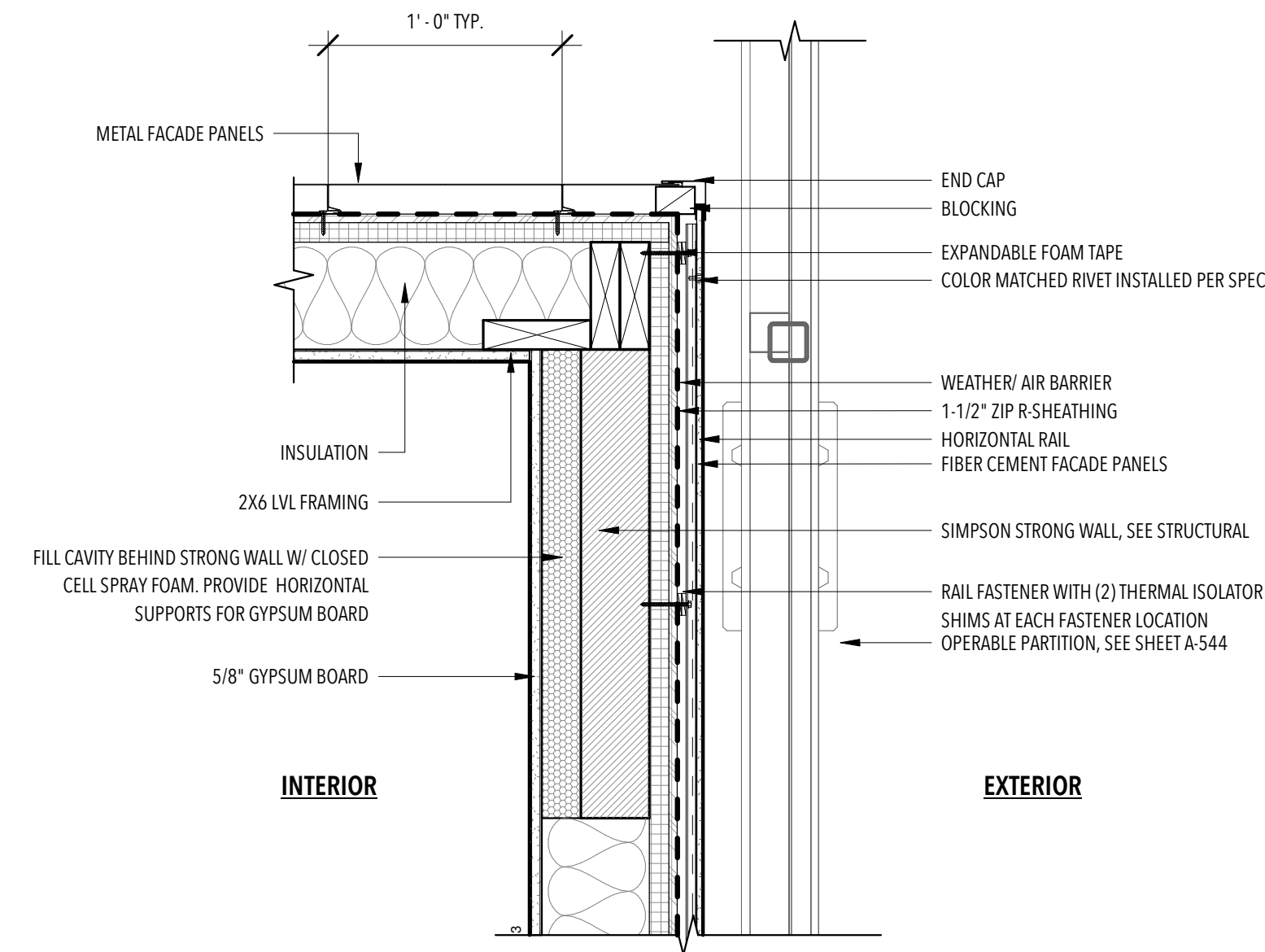


NOTE: SEE ELEVATIONS FOR SEAM LOCATIONS.

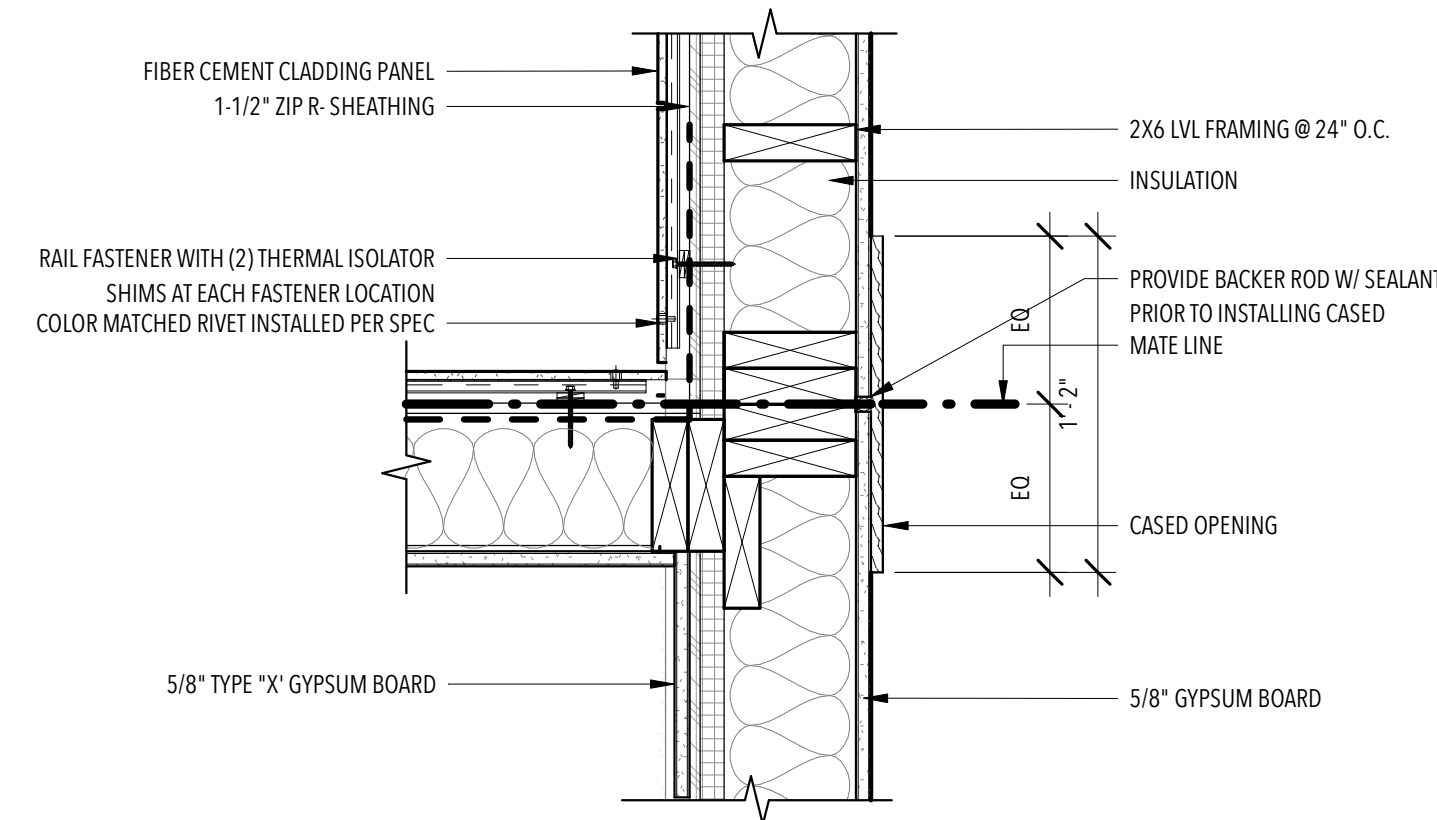
9 NW WALL EDGE AT WEST DECK  
1 1/2" = 1'-0"



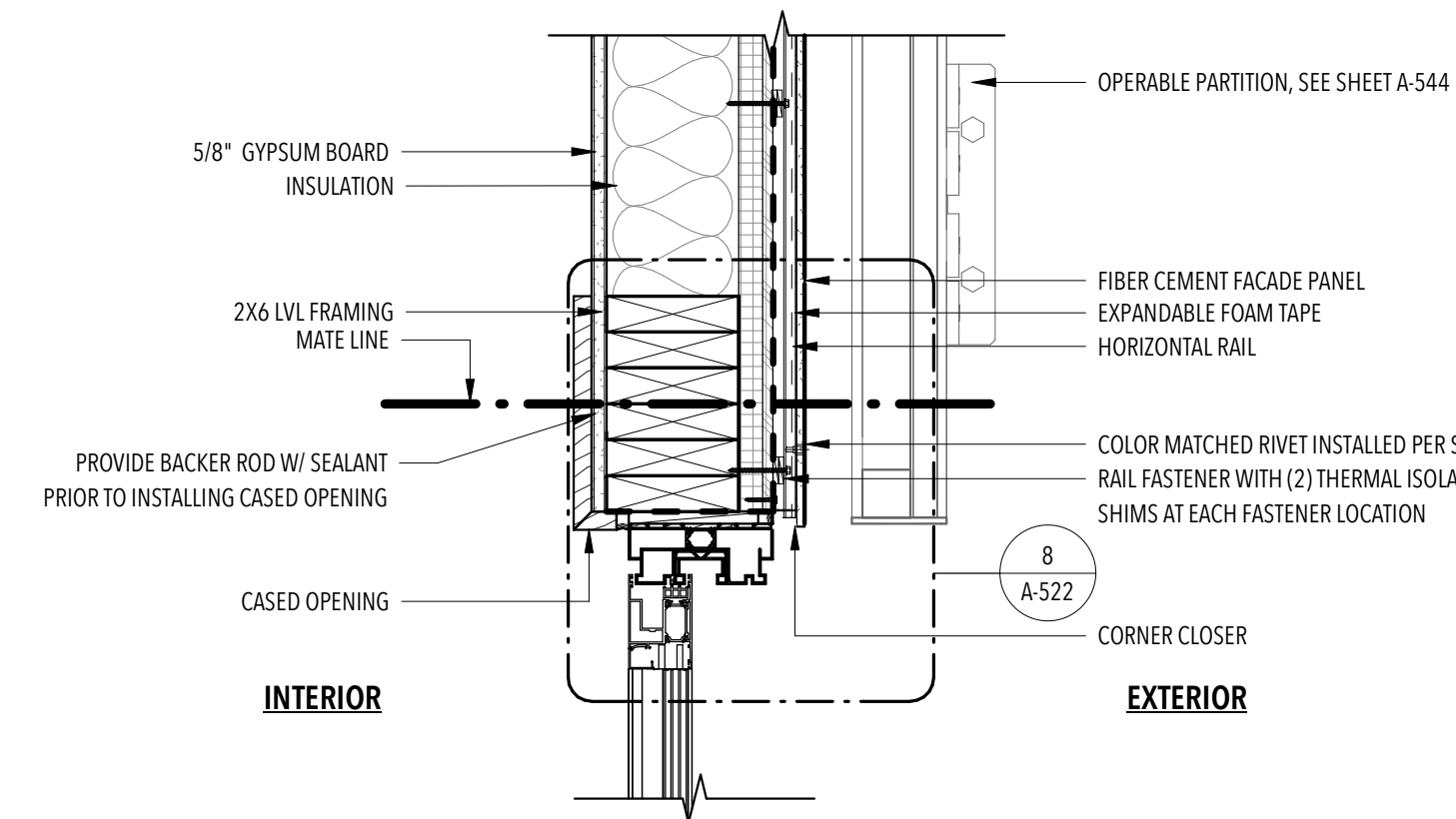
6 CORNER OF NW BEDROOM TO EXT.  
1 1/2" = 1'-0"



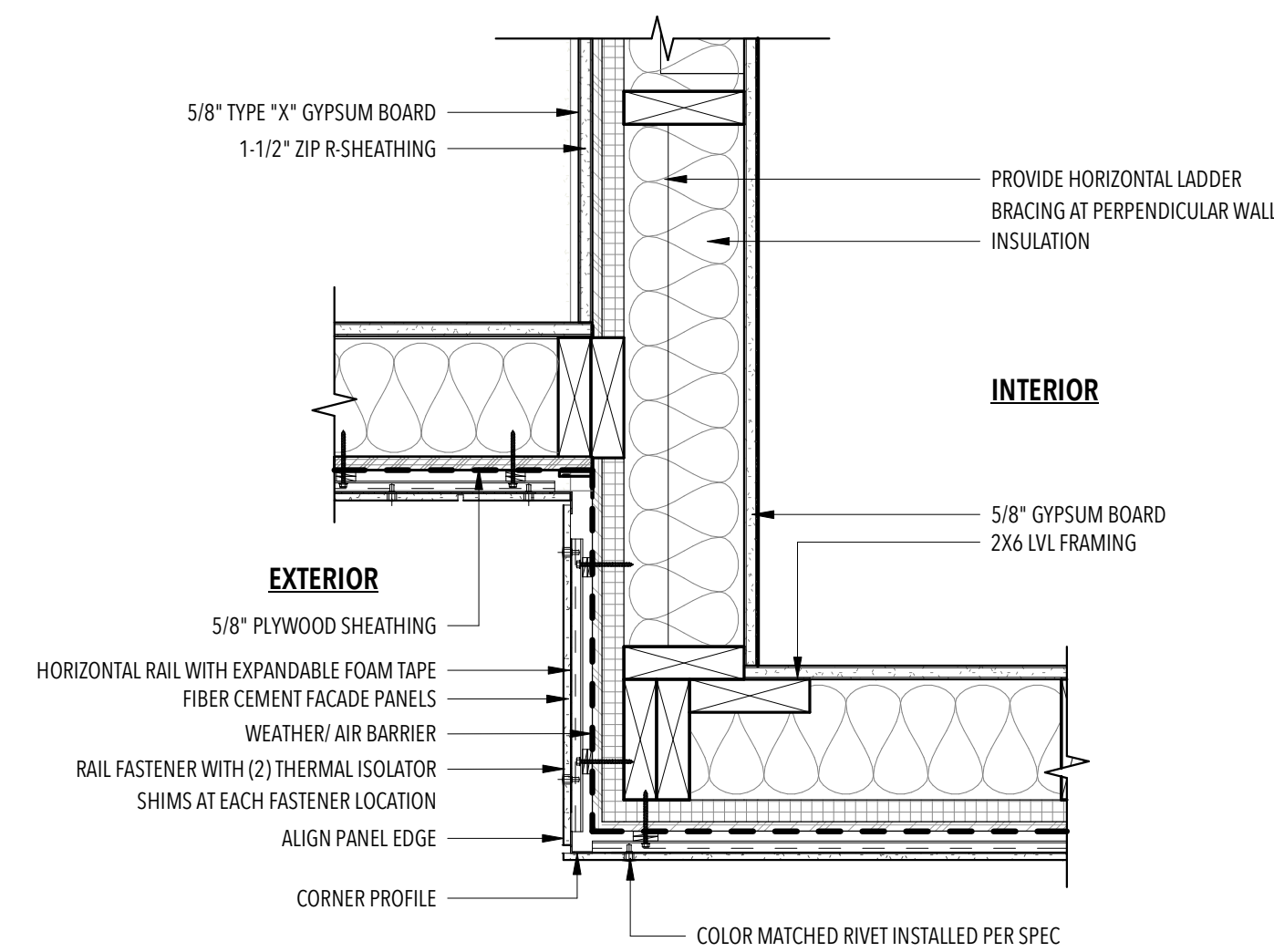
3 NE CORNER OF OFFICE TO EXT.  
1 1/2" = 1'-0"



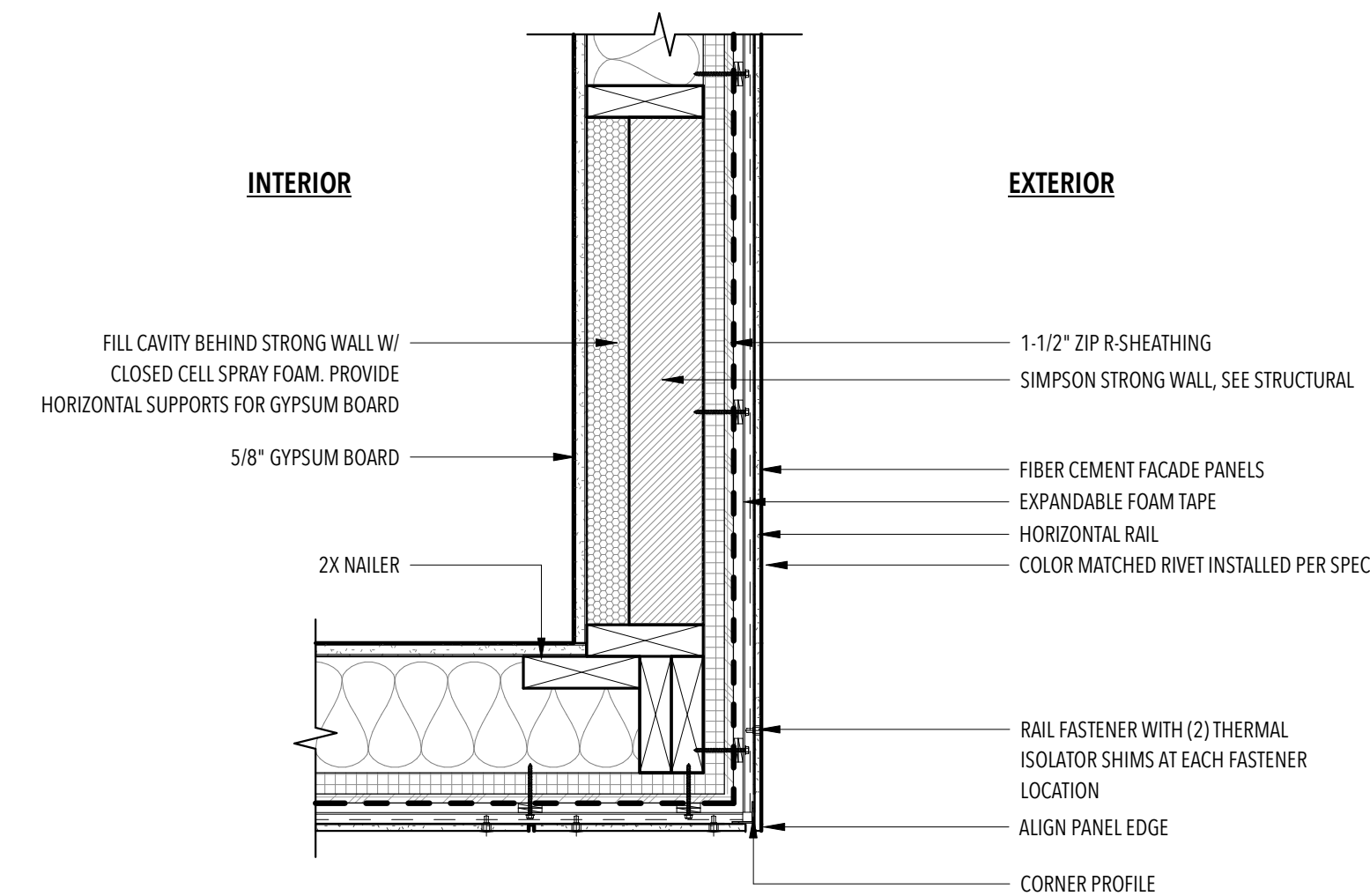
5 MATE LINE WEST  
1 1/2" = 1'-0"



2 MATE LINE EAST  
1 1/2" = 1'-0"



4 CORNER AND DOOR JAM @ SW SOCIAL  
1 1/2" = 1'-0"



1 CORNER @ SE SOCIAL  
1 1/2" = 1'-0"

GENERAL NOTES



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SOLAR DECATHLON 2017  
WWW.SOLARDECATHLON.GOV

TEAM LAS VEGAS  
WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS

STRUCTURAL

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

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NO.	DESCRIPTION	DATE
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A-501  
PLAN DETAILS

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



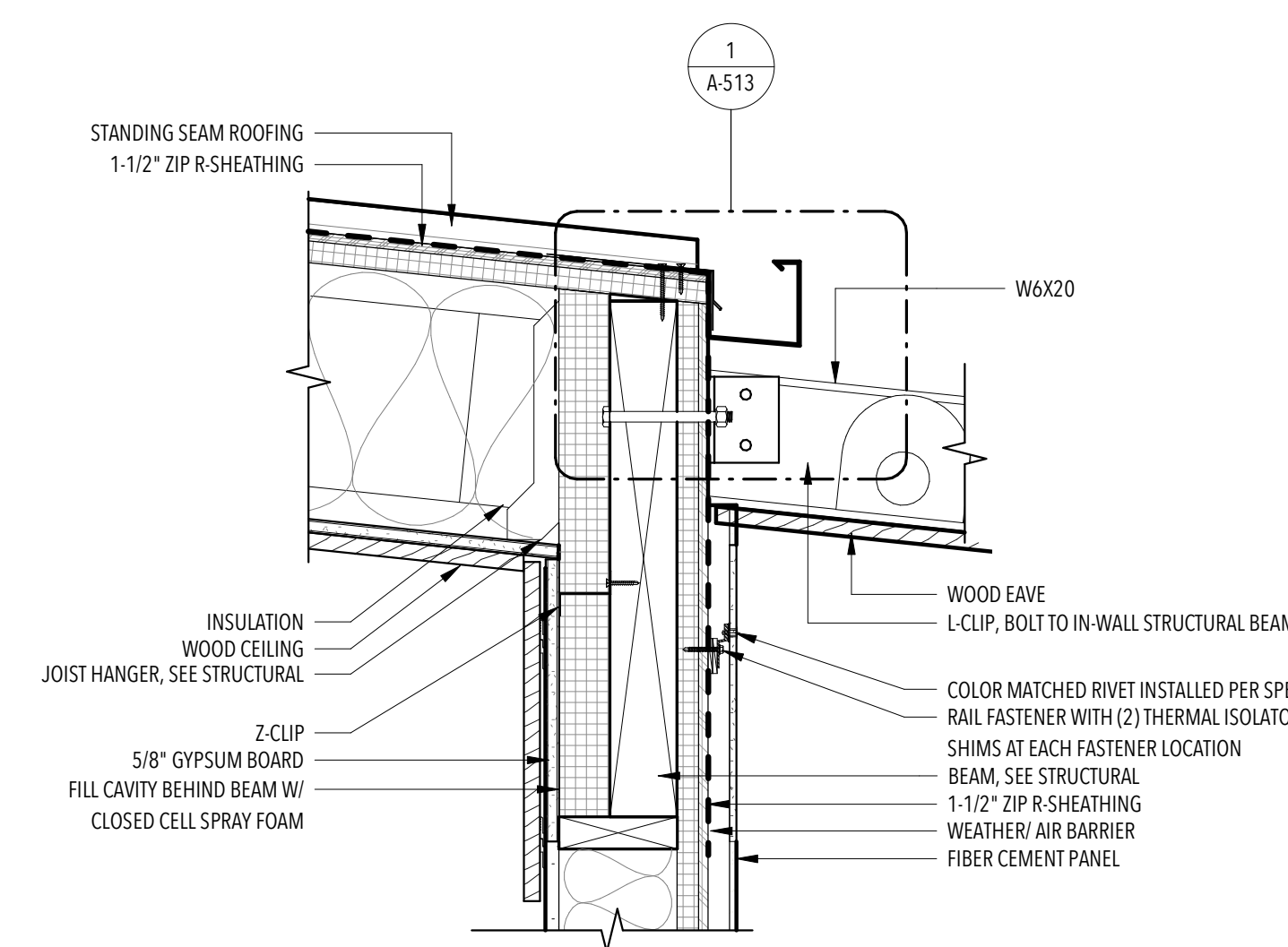
**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

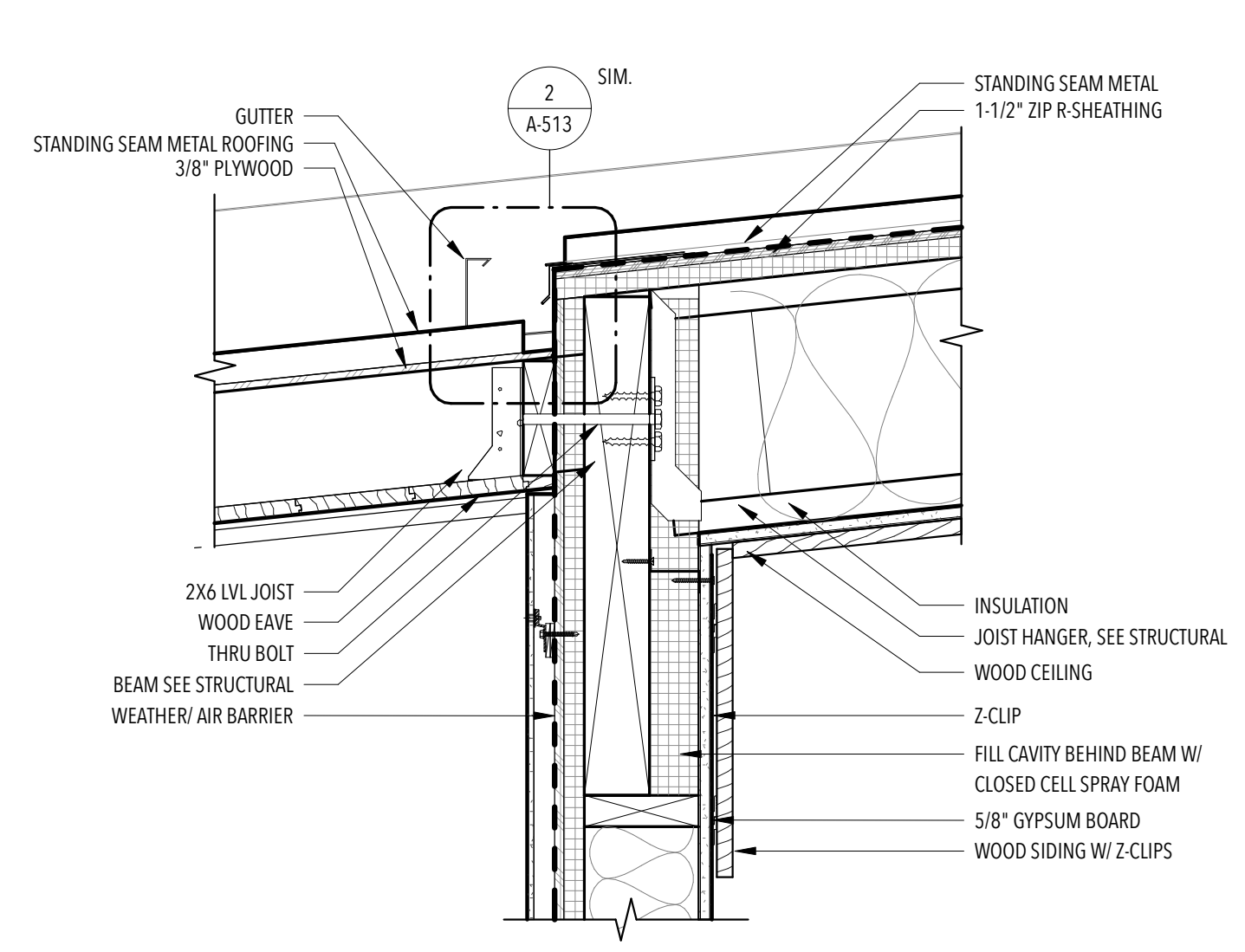
**REVISIONS**

NO.	DESCRIPTION	DATE
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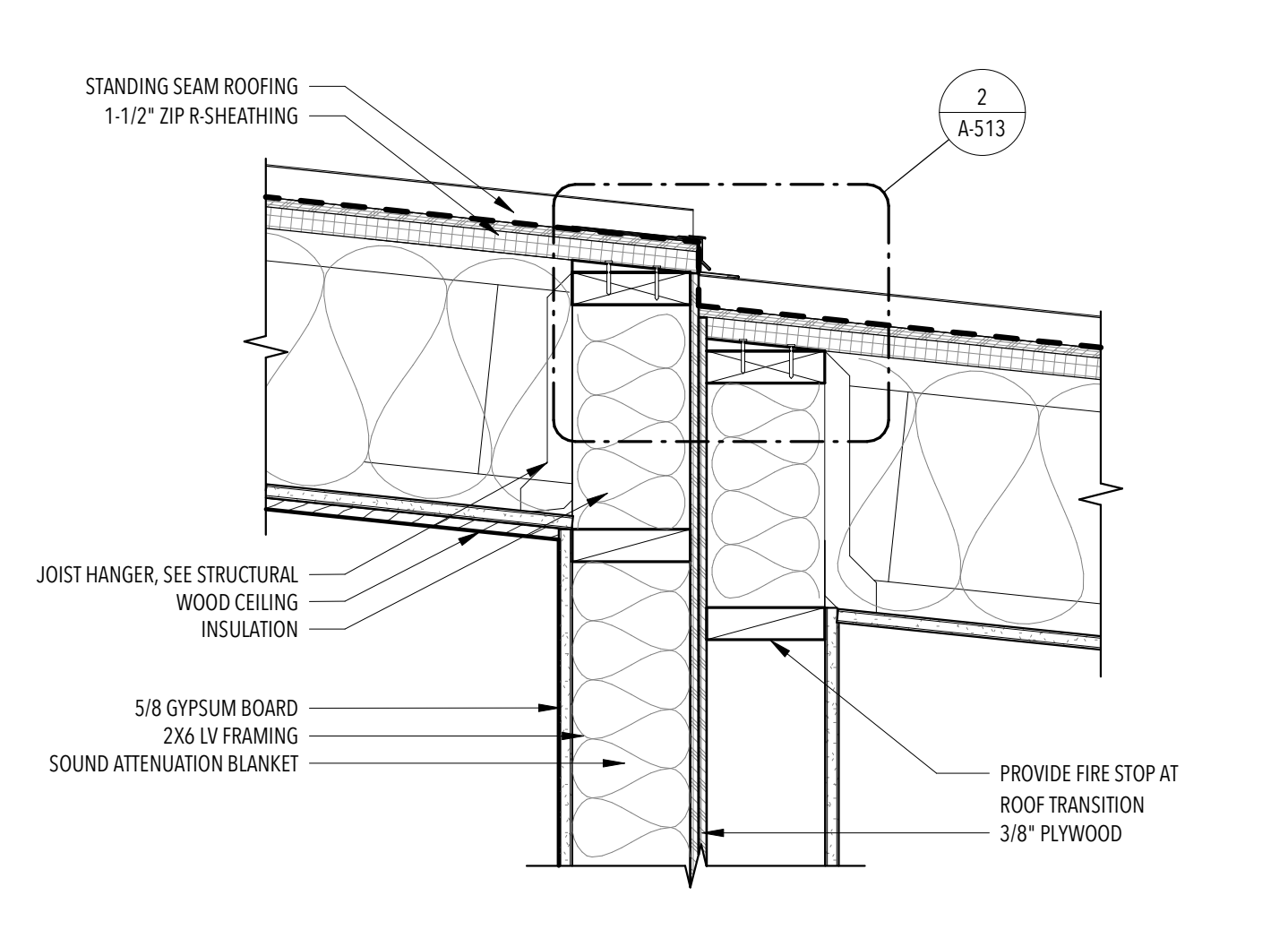
**A-511**  
SECTION DETAILS



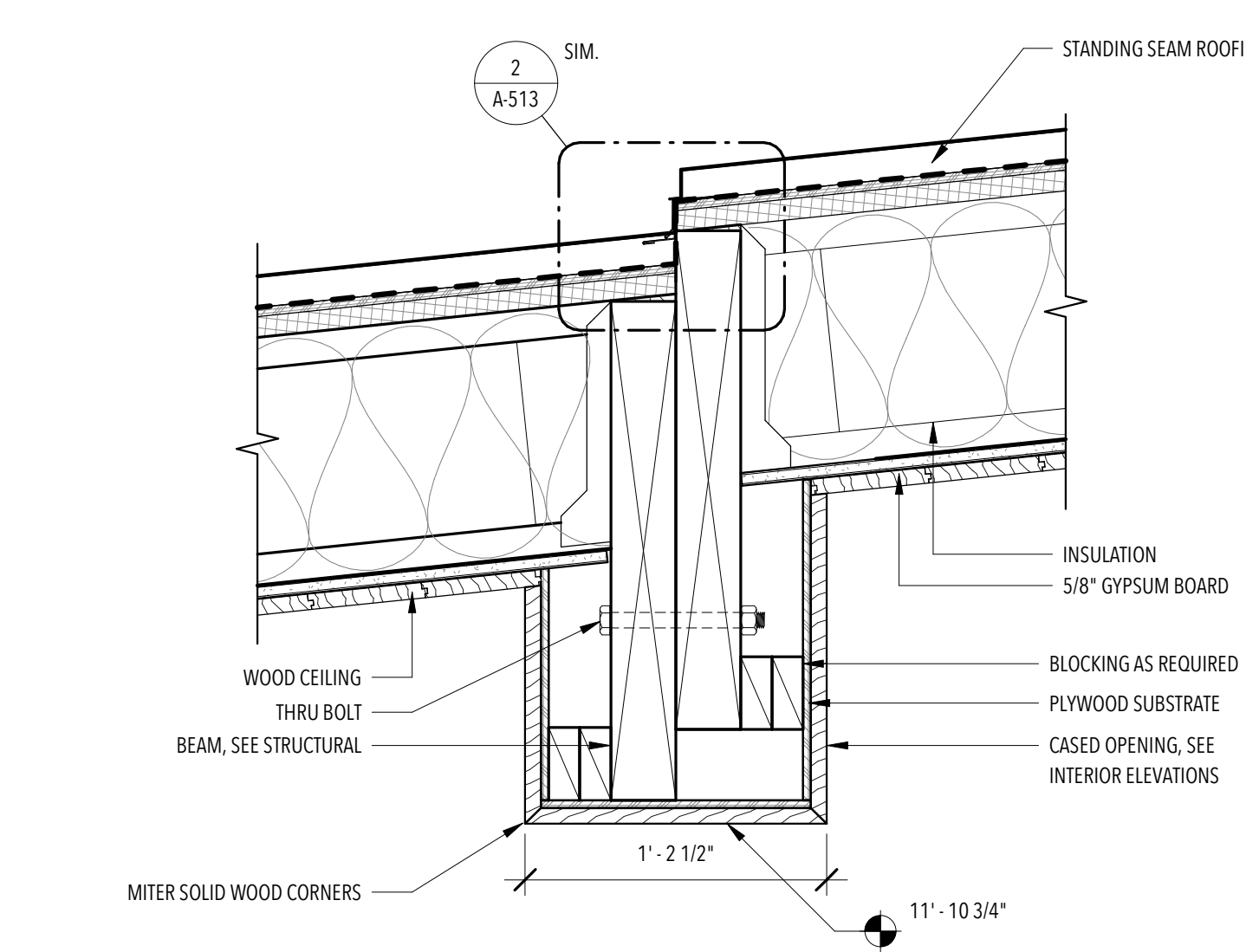
**1** SILL @ SOUTH WALL  
1 1/2" = 1'-0"



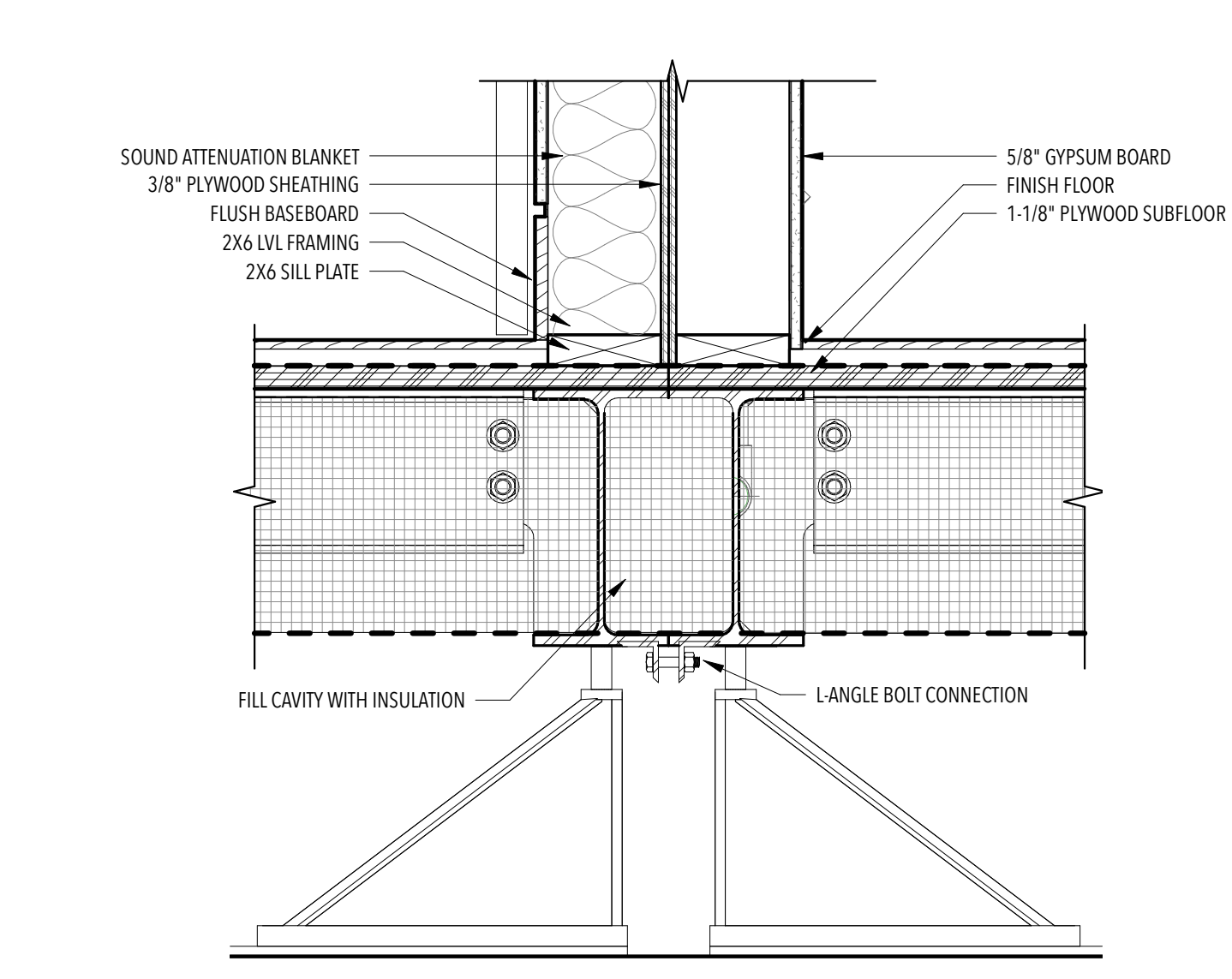
**2** SOUTH EAVE WITH ROOF TO ROOF CONNECTION  
1 1/2" = 1'-0"



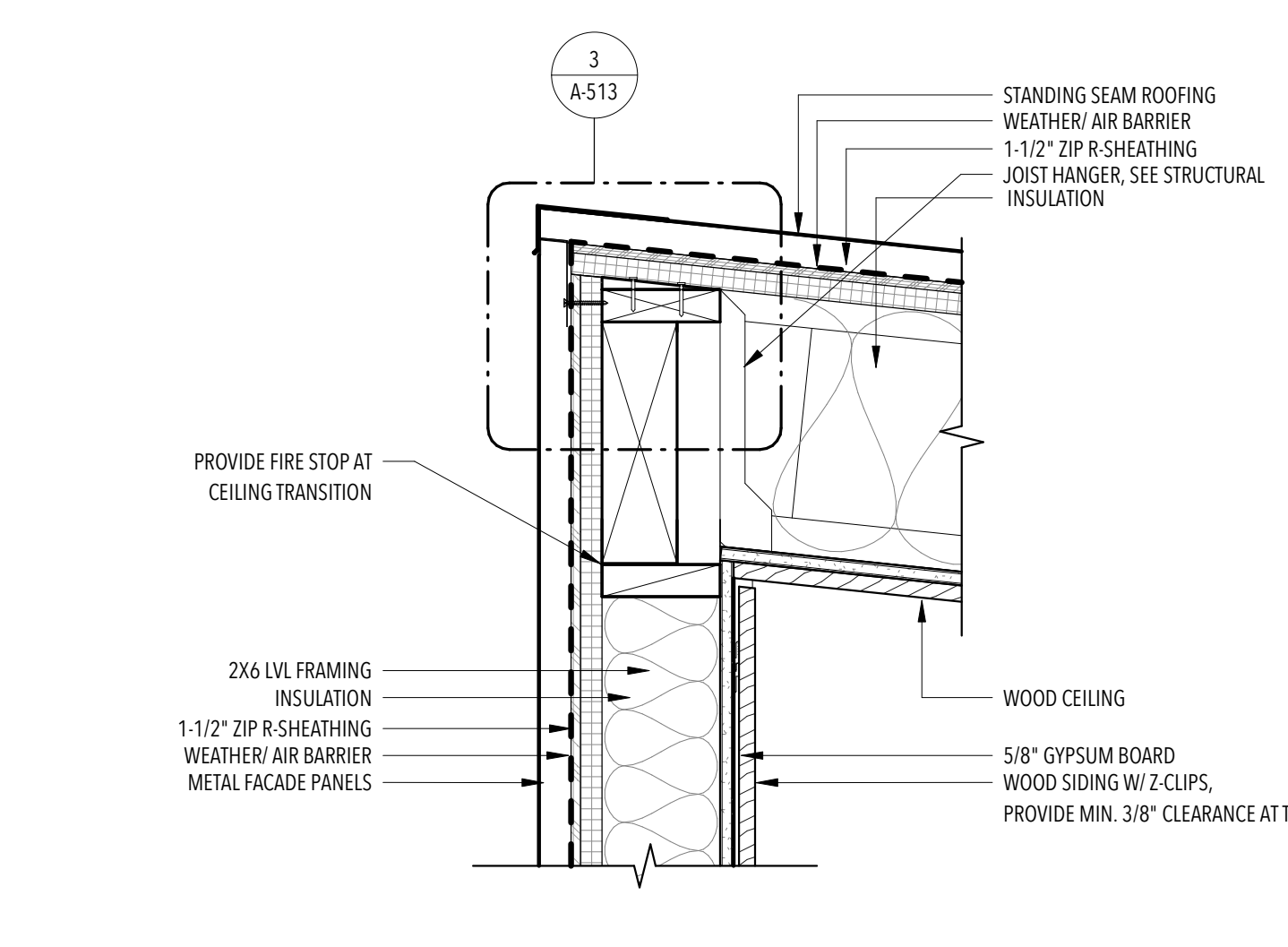
**3** SOUTH EAVE TO ROOF CONNECTION  
1 1/2" = 1'-0"



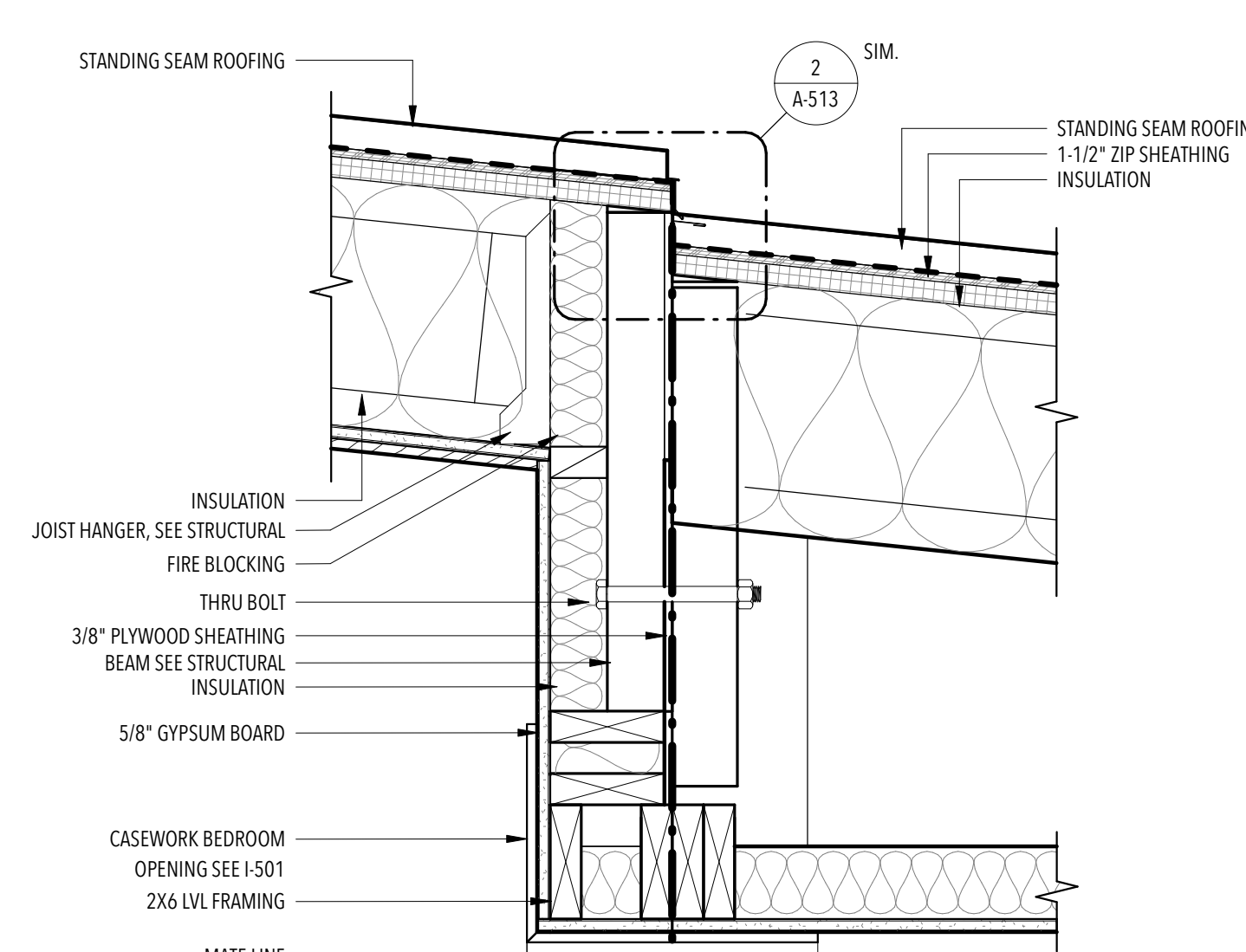
**5** SEAM @ ROOF  
1 1/2" = 1'-0"



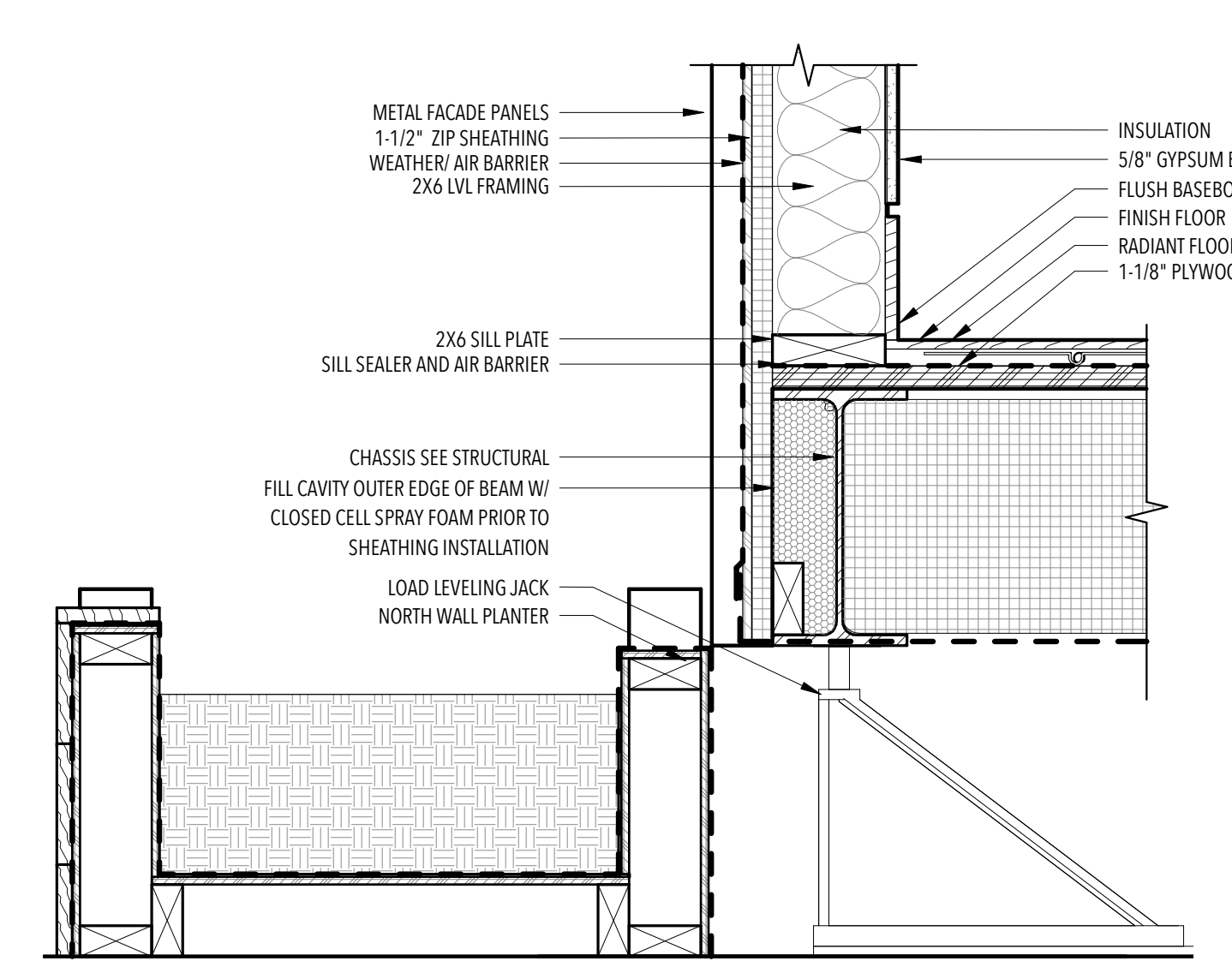
**4** SEAM @ SPLIT WALLS  
1 1/2" = 1'-0"



**6** SEAM @ ROOF  
1 1/2" = 1'-0"



**8** SINGLE WALL @ SPLIT WALL  
1 1/2" = 1'-0"



**7** SILL @ NORTH WALL  
1 1/2" = 1'-0"

GENERAL NOTES



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SOLAR DECATHLON 2017  
WWW.SOLARDECATHLON.GOV

TEAM LAS VEGAS  
WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
STRUCTURAL  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

ISSUANCES

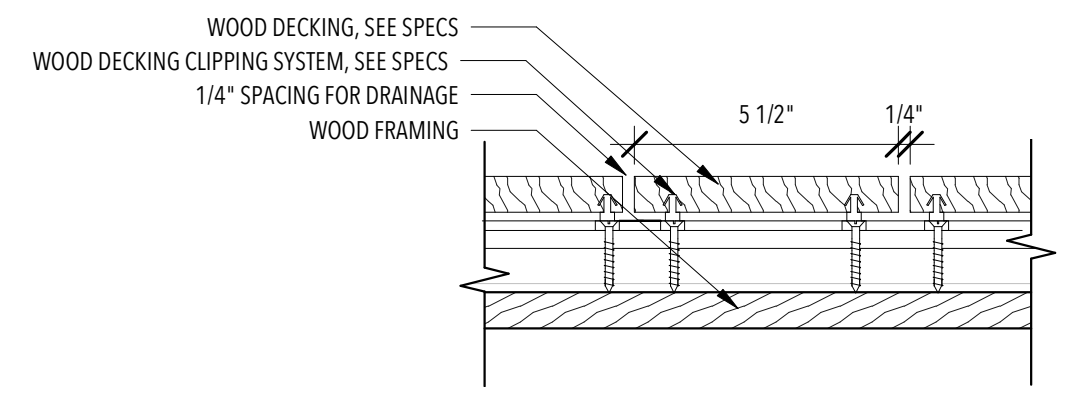
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

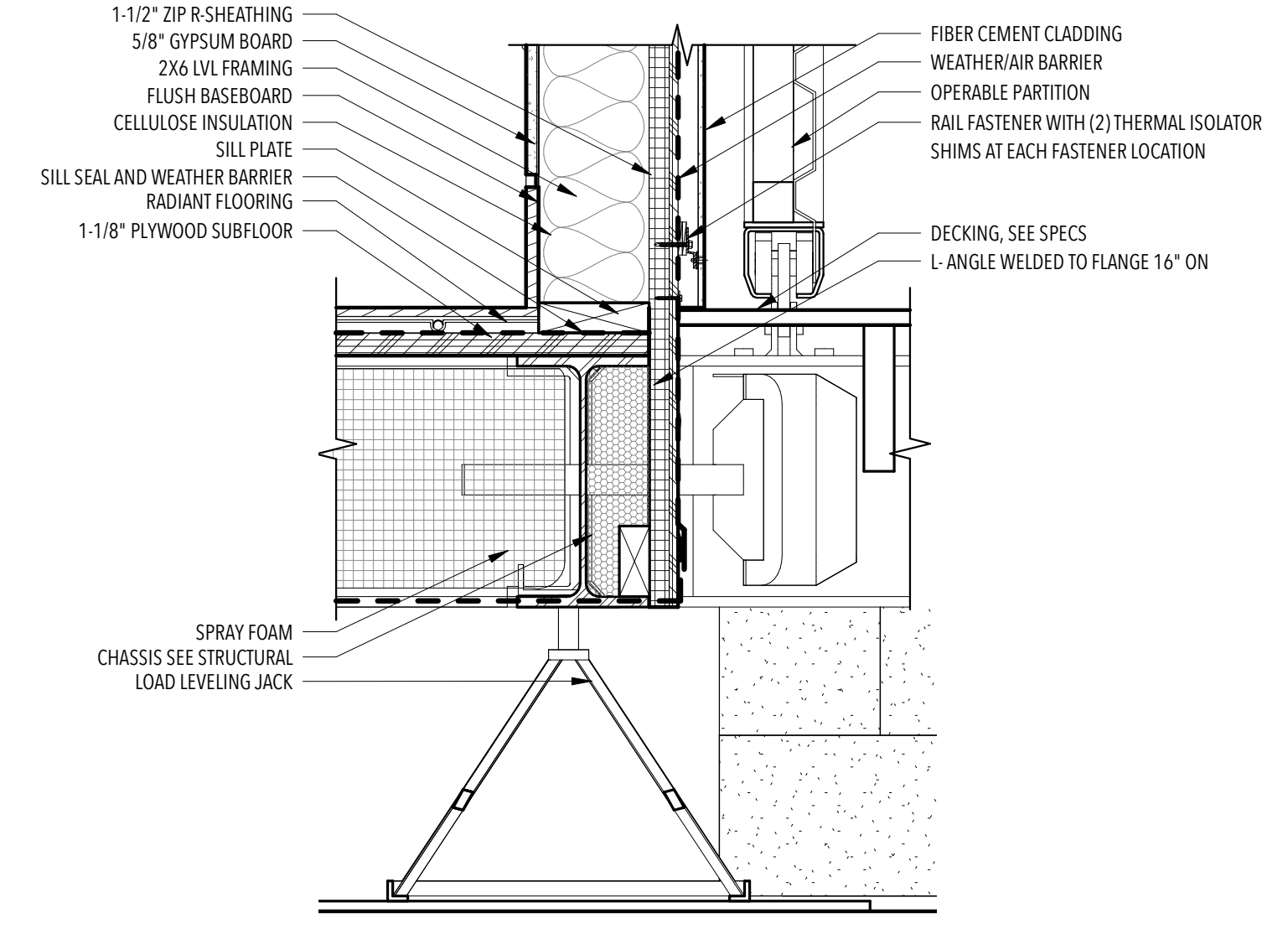
NO.	DESCRIPTION	DATE
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A-512  
SECTION DETAILS

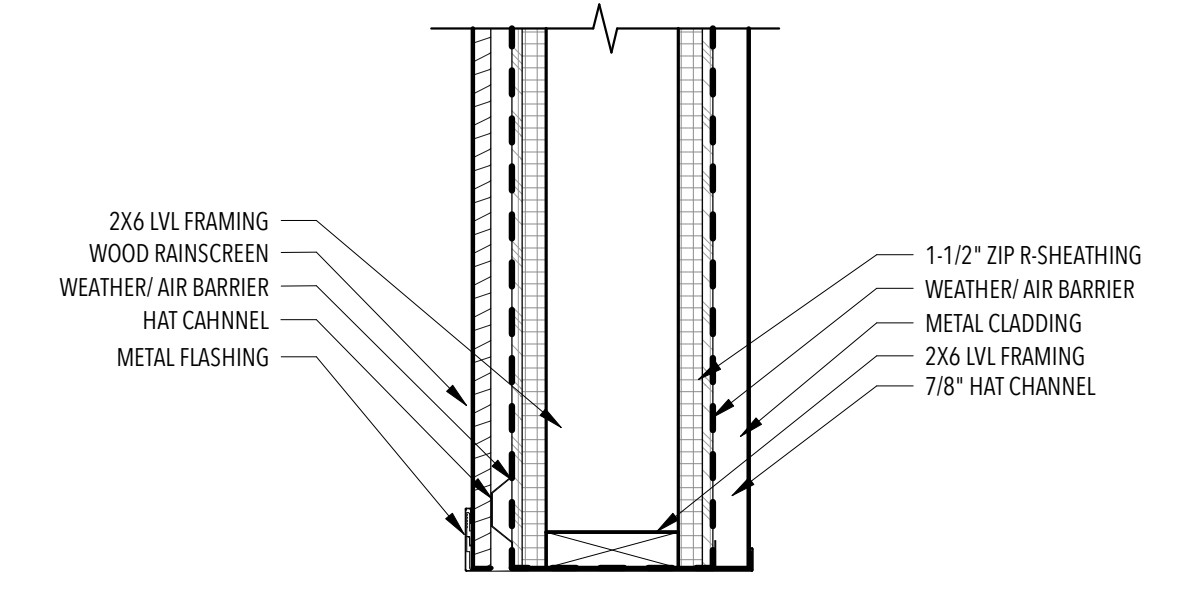
SCALE:  
As indicated



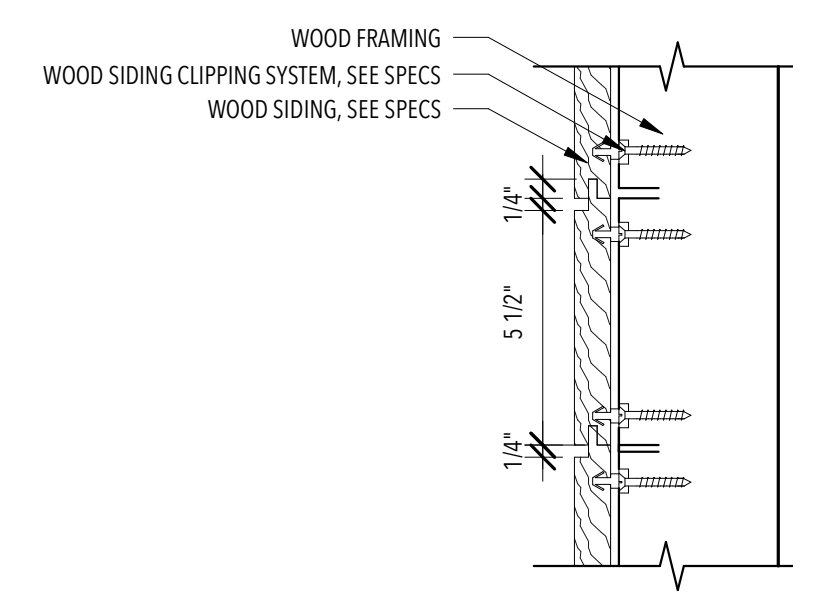
9 TYP. WOOD DECKING DETAIL  
3" = 1'-0"



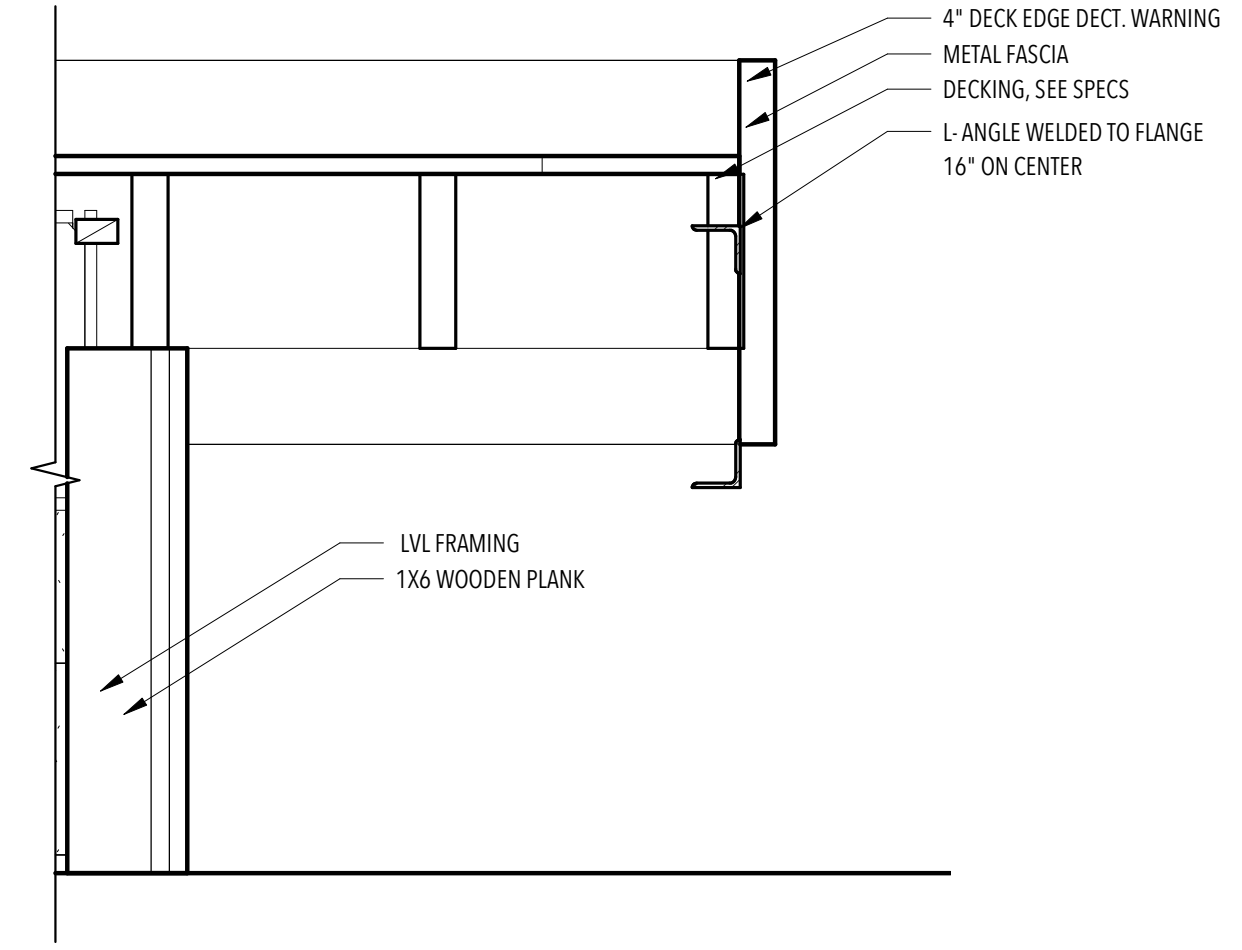
6 SILL @ EAST WALL  
1 1/2" = 1'-0"



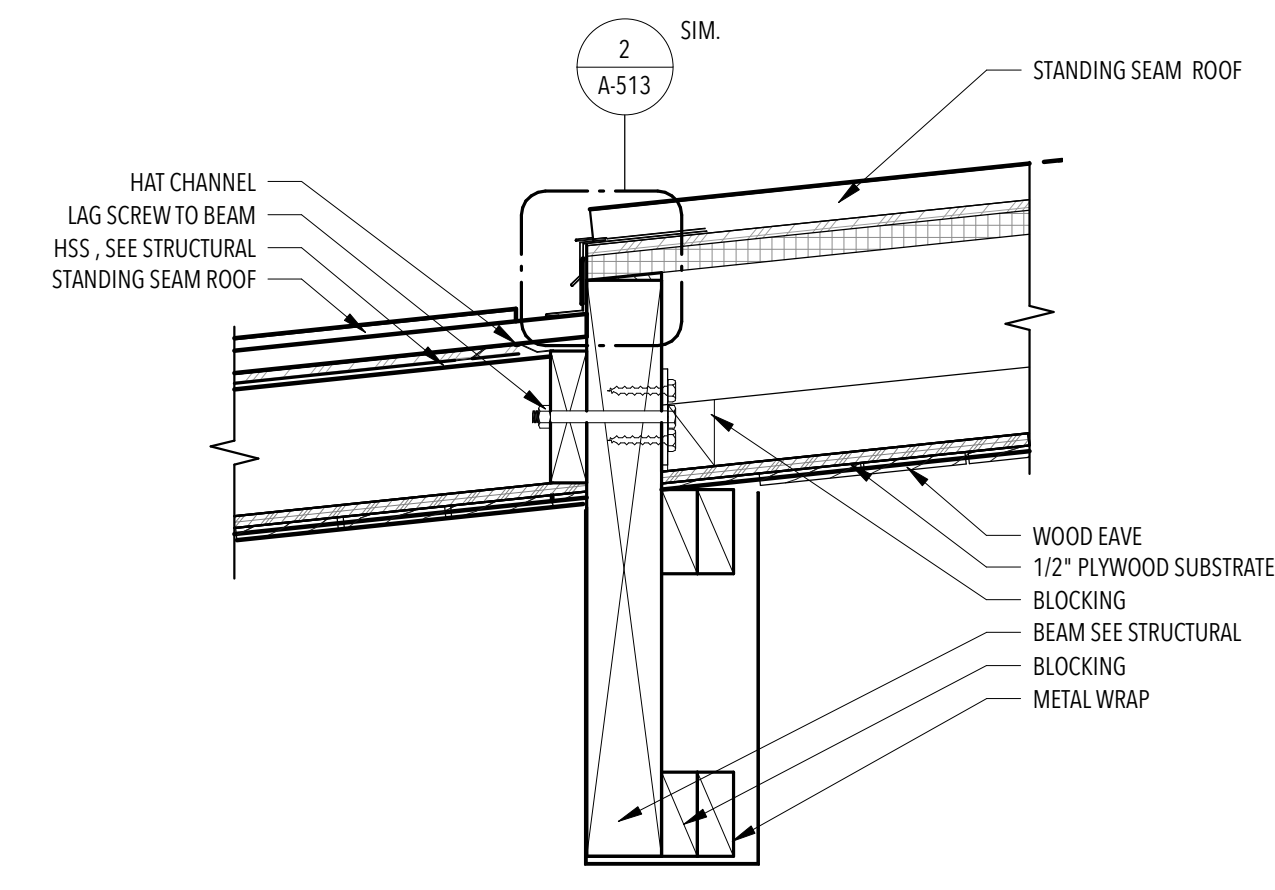
3 CANTILEVER WALL  
1 1/2" = 1'-0"



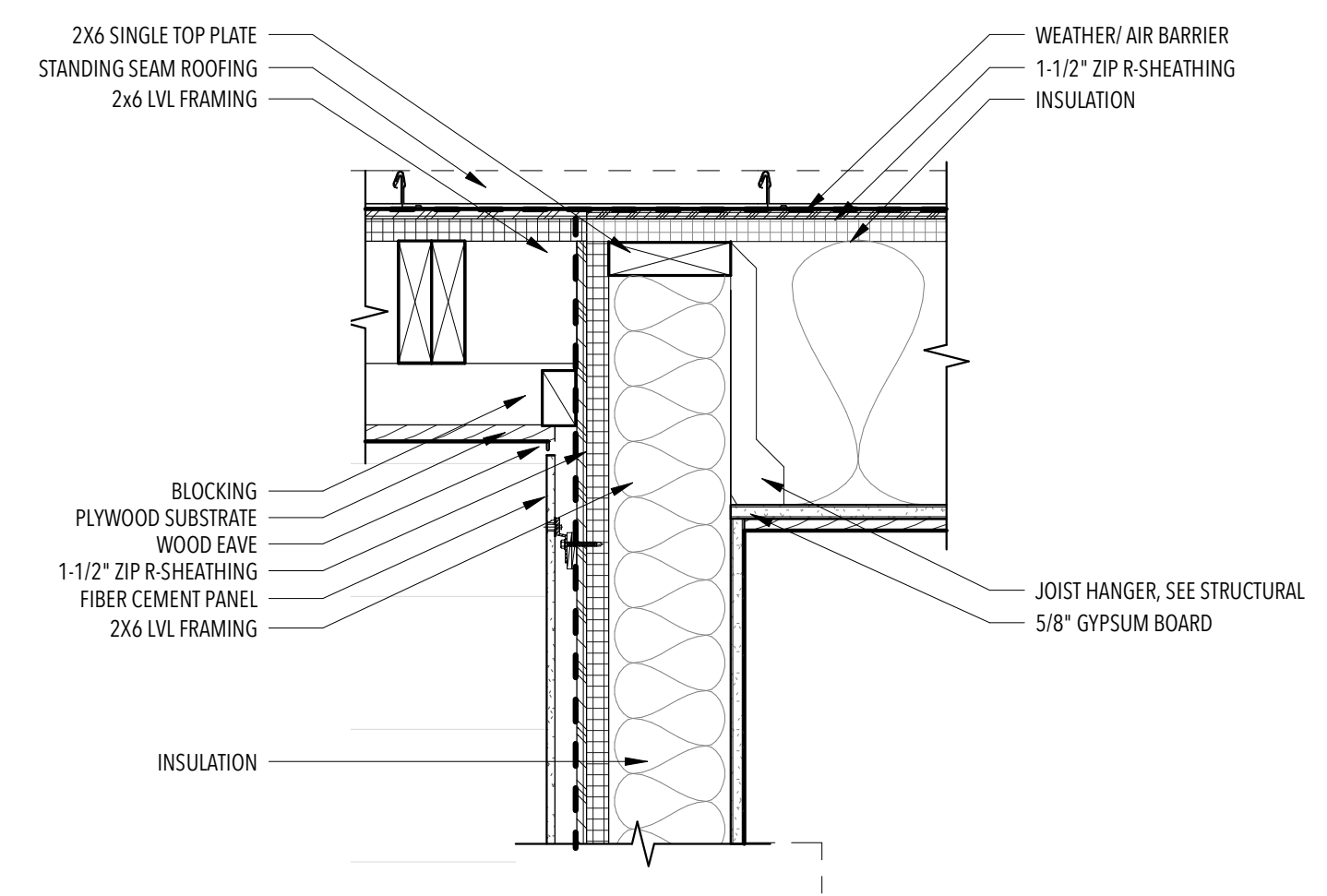
8 TYP. WOOD SIDING DETAIL  
3" = 1'-0"



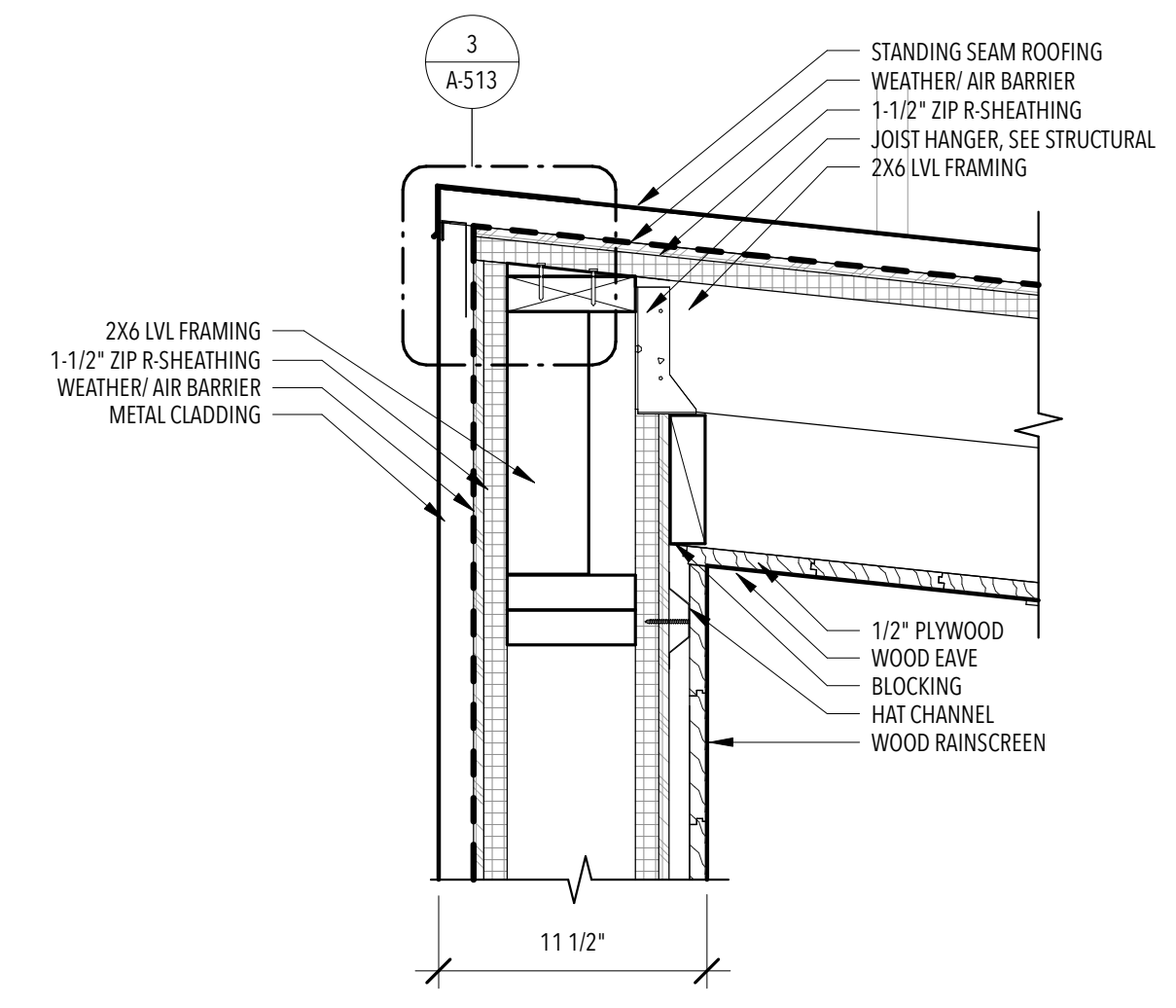
5 DECK COVER @EAST END  
1 1/2" = 1'-0"



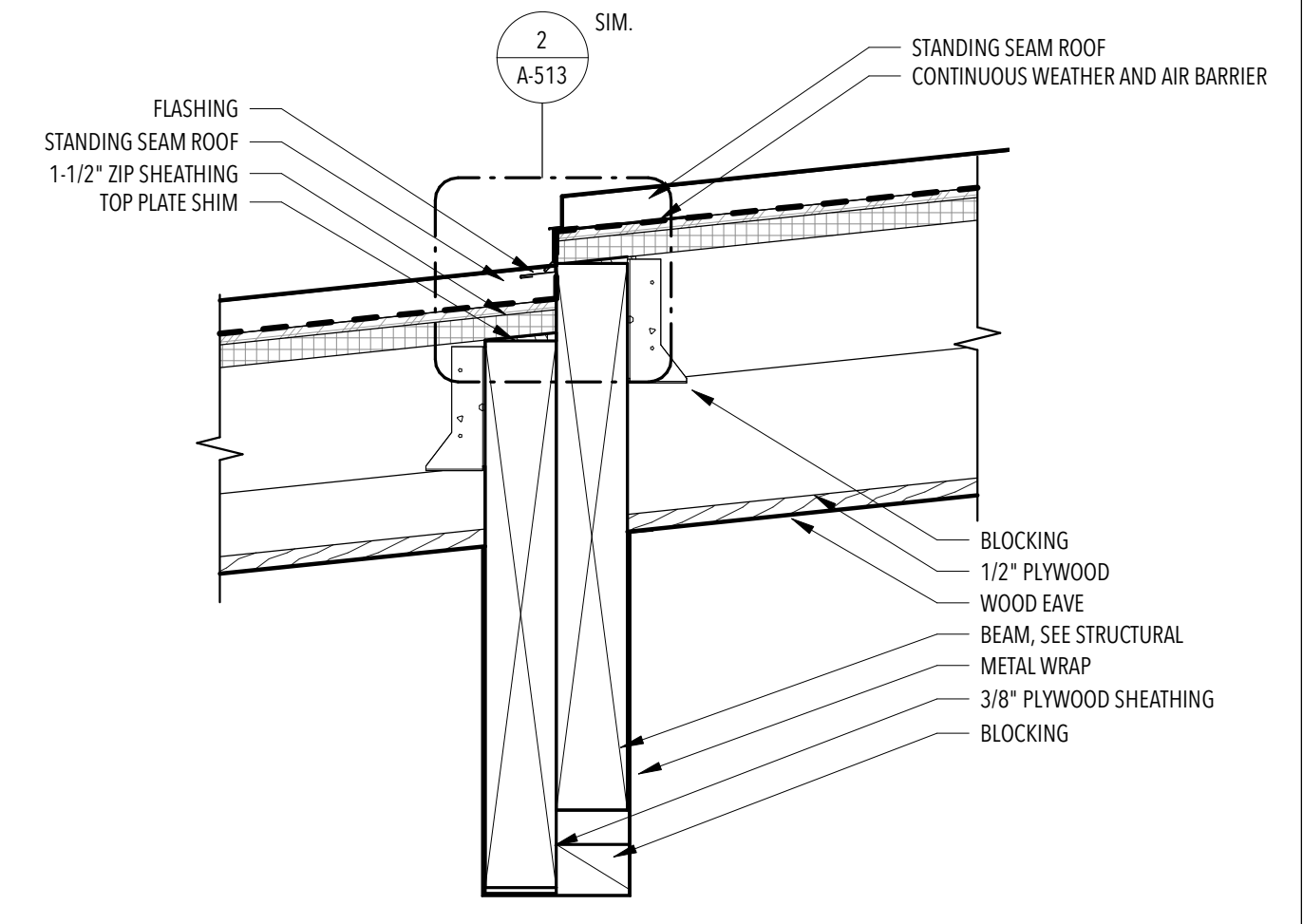
2 ROOF CONNECTION @ SINGLE BEAM  
1 1/2" = 1'-0"



7 WEST WALL TO CANTILEVER CONNECTION  
1 1/2" = 1'-0"



4 NORTH WALL AT CANTILEVER TO WEST DECK  
1 1/2" = 1'-0"



1 ROOF CONNECTION @ DOUBLE BEAM  
1 1/2" = 1'-0"



ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
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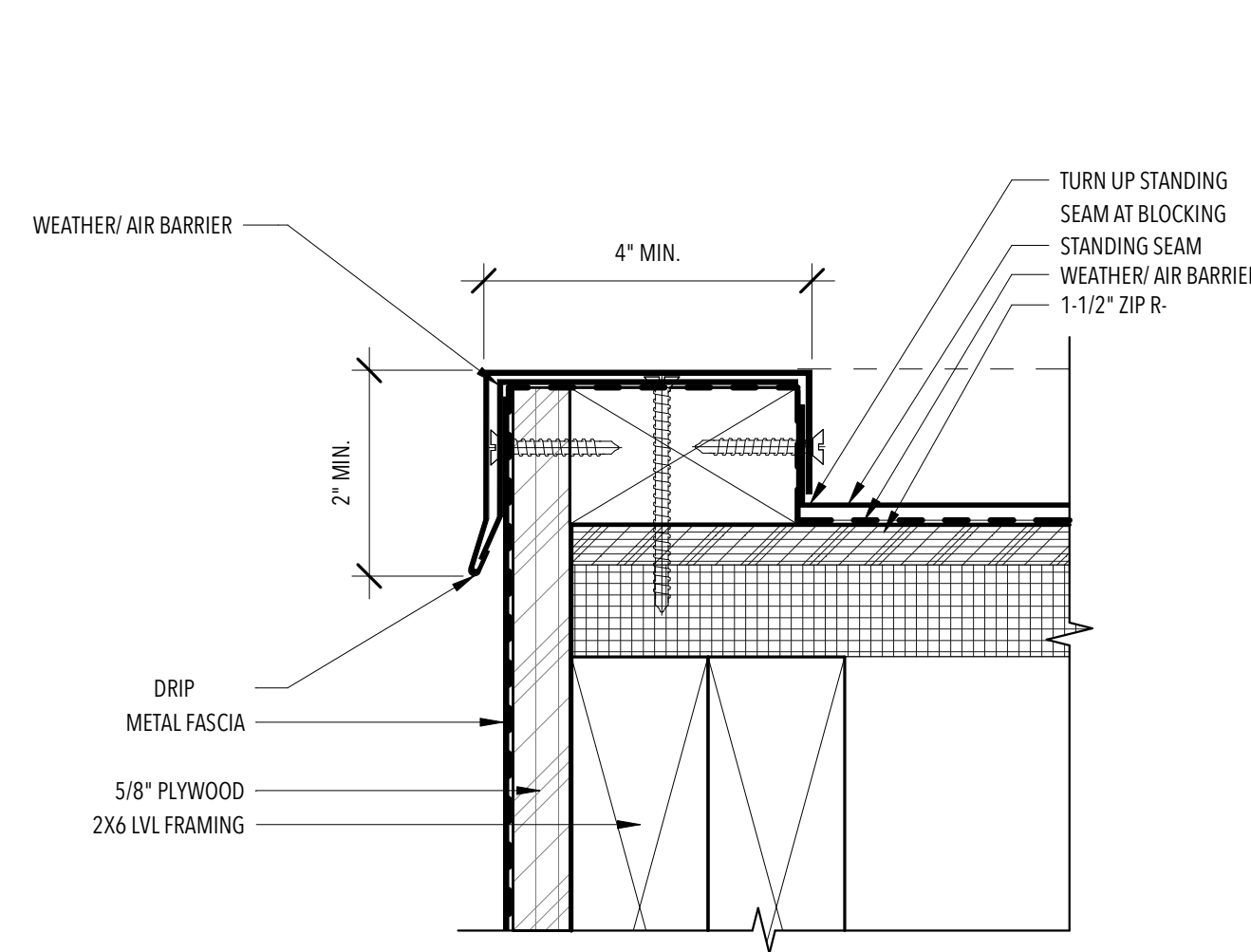
REVISIONS

NO.	DESCRIPTION	DATE
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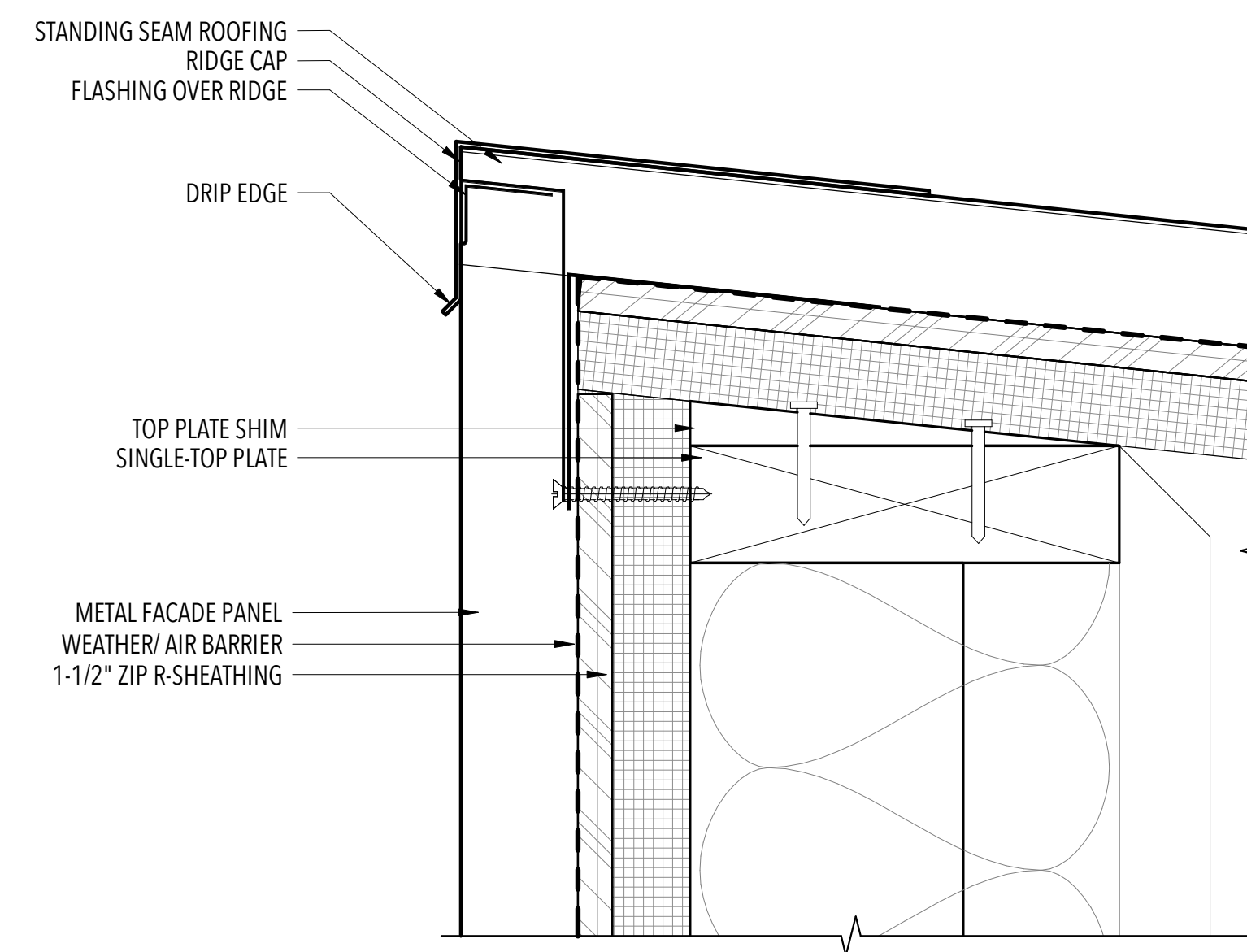
**A-513**  
ROOF DETAILS

GENERAL NOTES

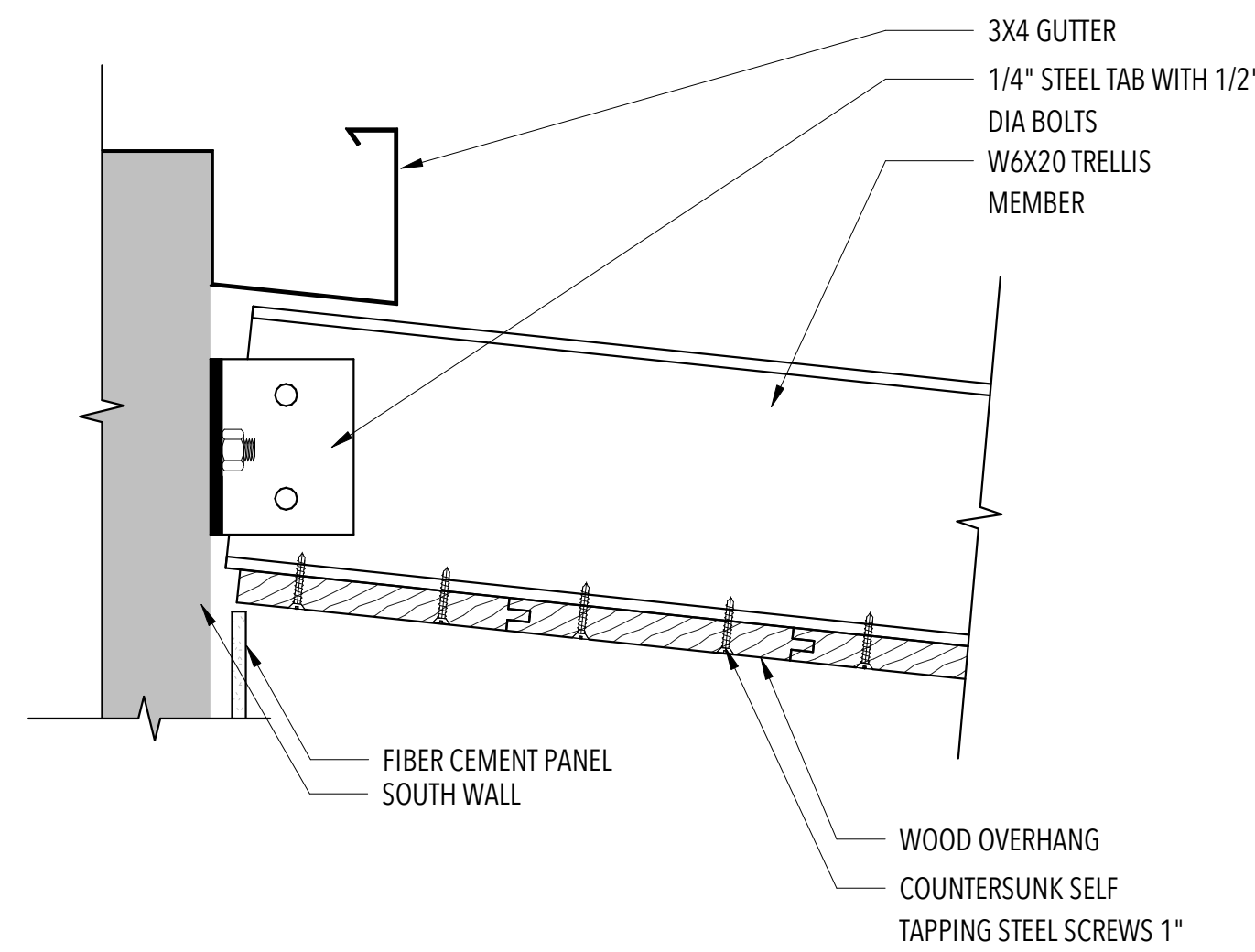
1. REFER TO PROJECT MANUAL SPECS FOR MATERIAL SELECTION.
2. SPRAY FOAM INSULATION TO BE SPRAYED IN CEILINGS, AND WALLS, AS FOLLOWS: SPRAY 1" CLOSED CELL FOAM DIRECTLY ON STRUCTURAL SHEATHING. FILL THE REST OF THE FRAMING CAVITY WITH OPEN CELL SPRAY FOAM.



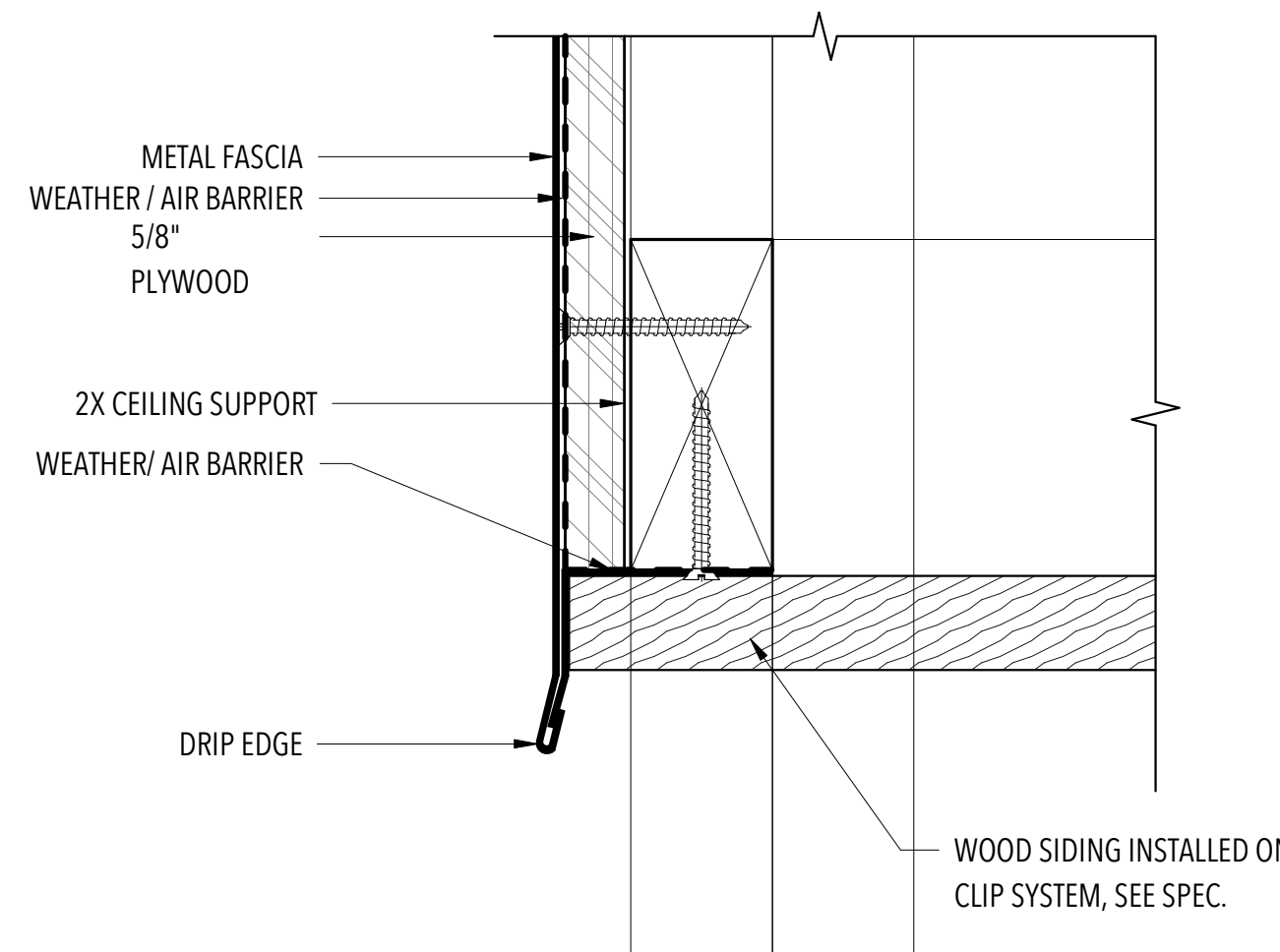
6 TYP. FASCIA DRIP EDGE @ RAKE  
6" = 1'-0"



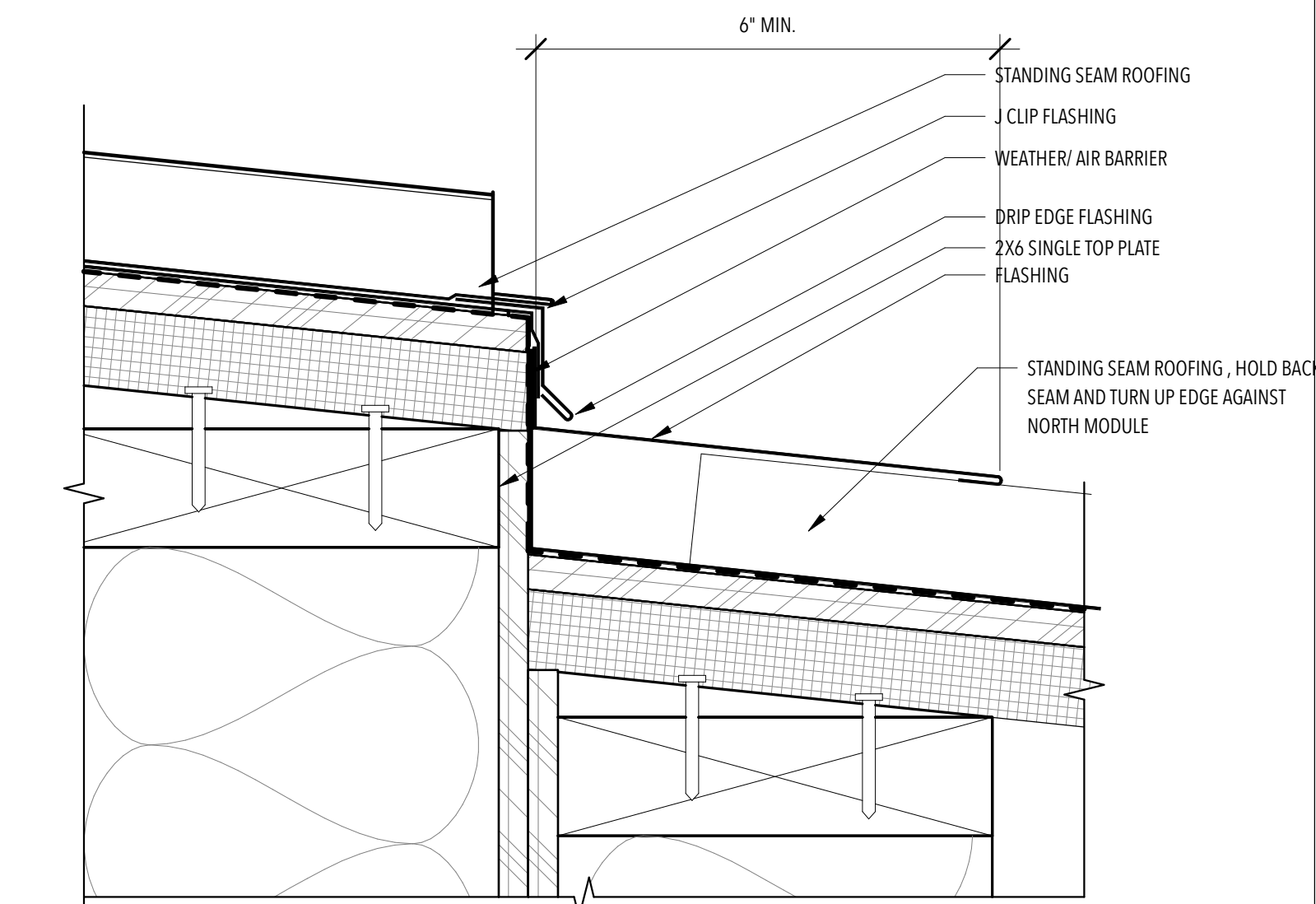
3 TYP. FLASHING @ NORTH ROOF RIDGE  
6" = 1'-0"



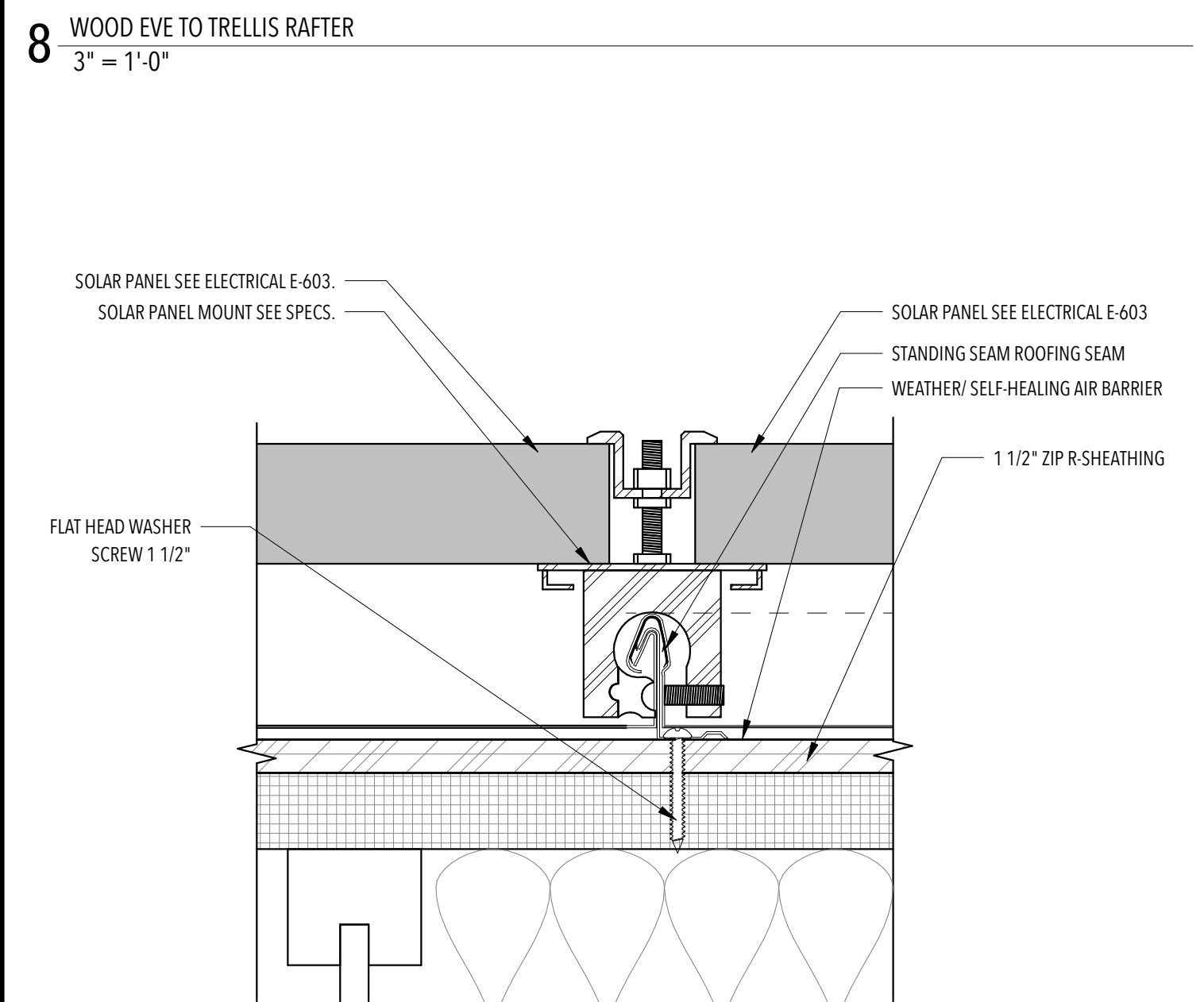
8 WOOD EVE TO TRELLIS RAFTER  
3" = 1'-0"



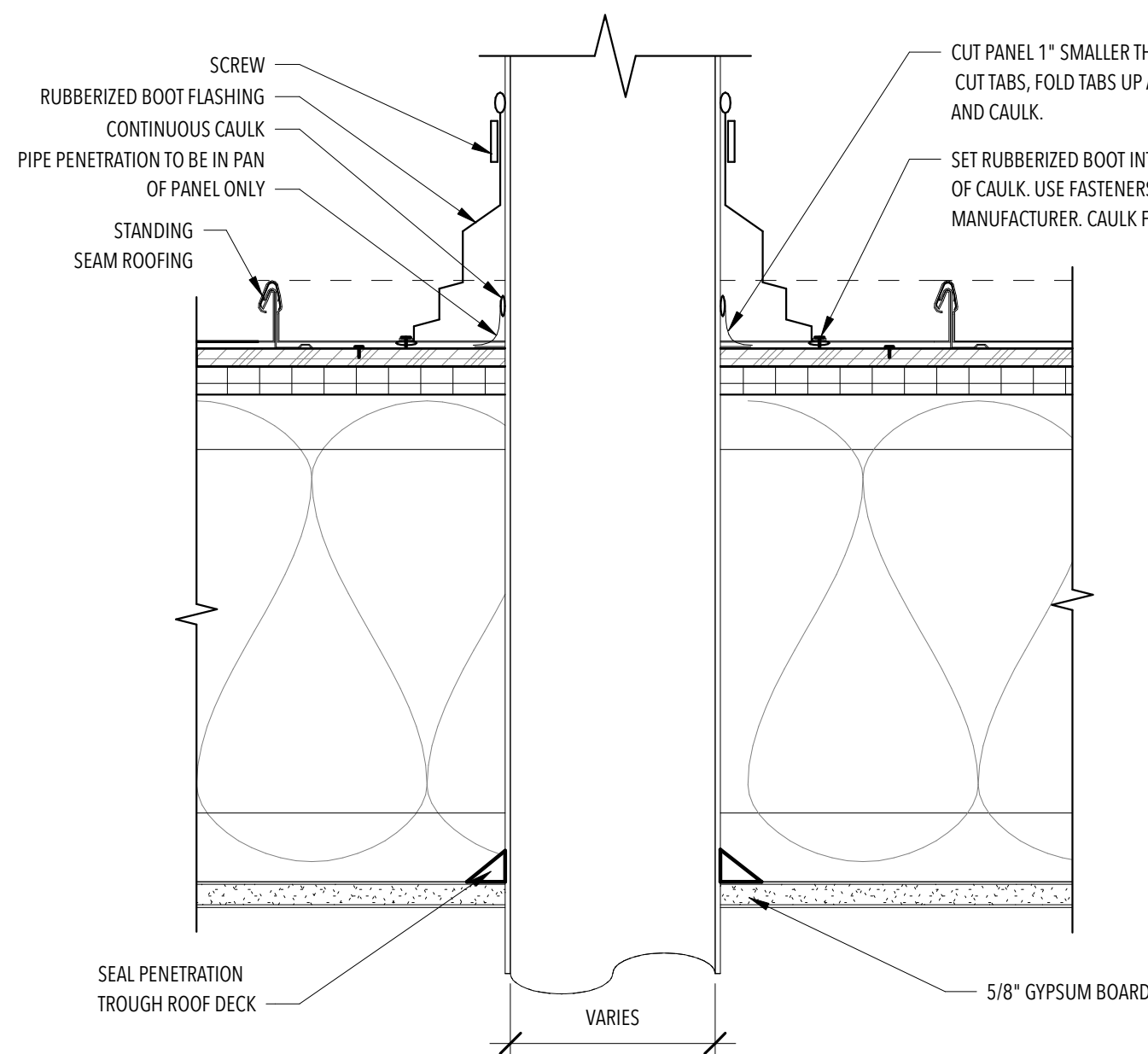
5 TYP. FASCIA BOTTOM @ RAKE  
6" = 1'-0"



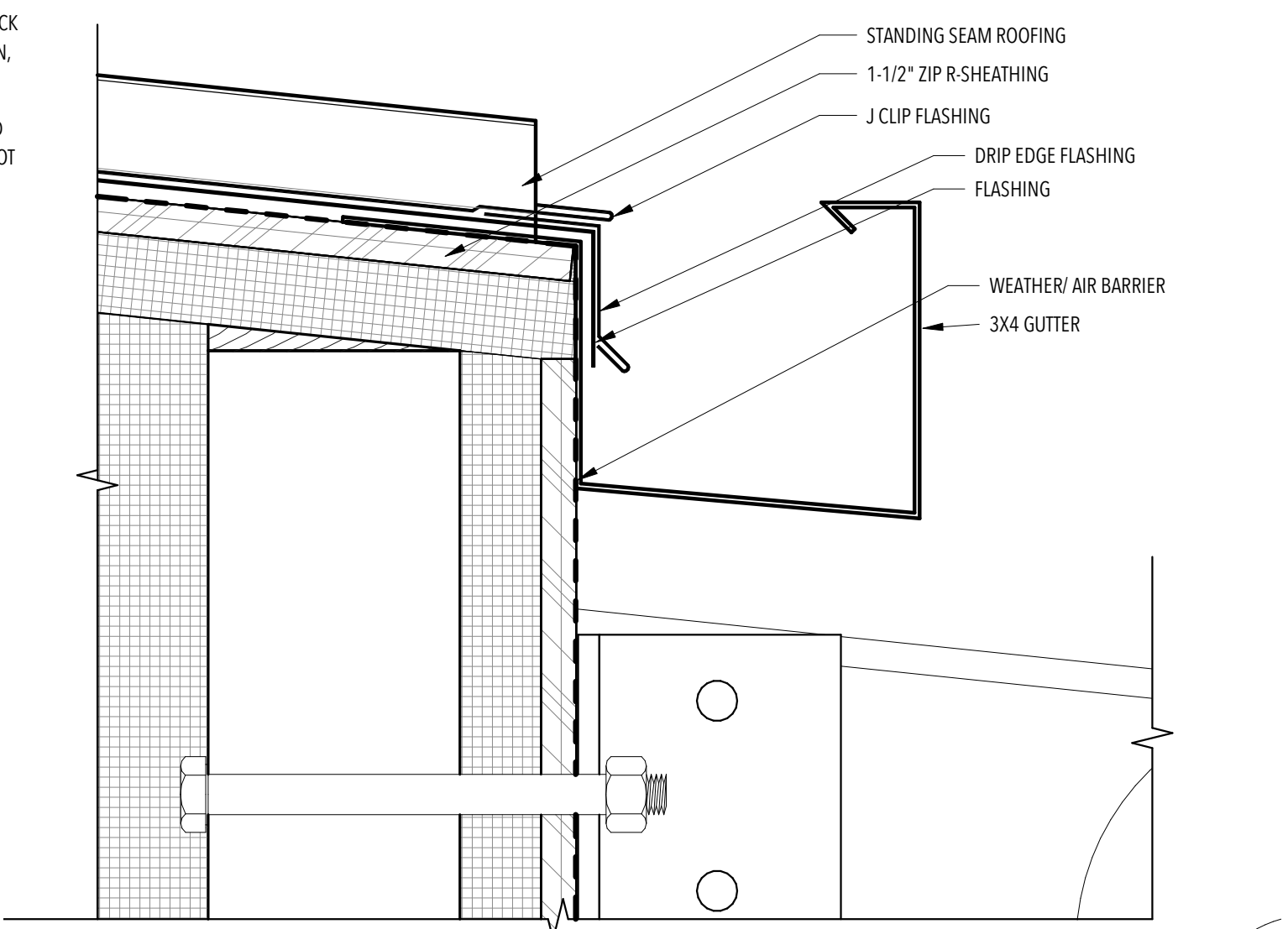
2 TYP. ROOF STEP @ MODULE SEAM  
6" = 1'-0"



7 SOLAR PANEL MOUNT DETAIL  
6" = 1'-0"

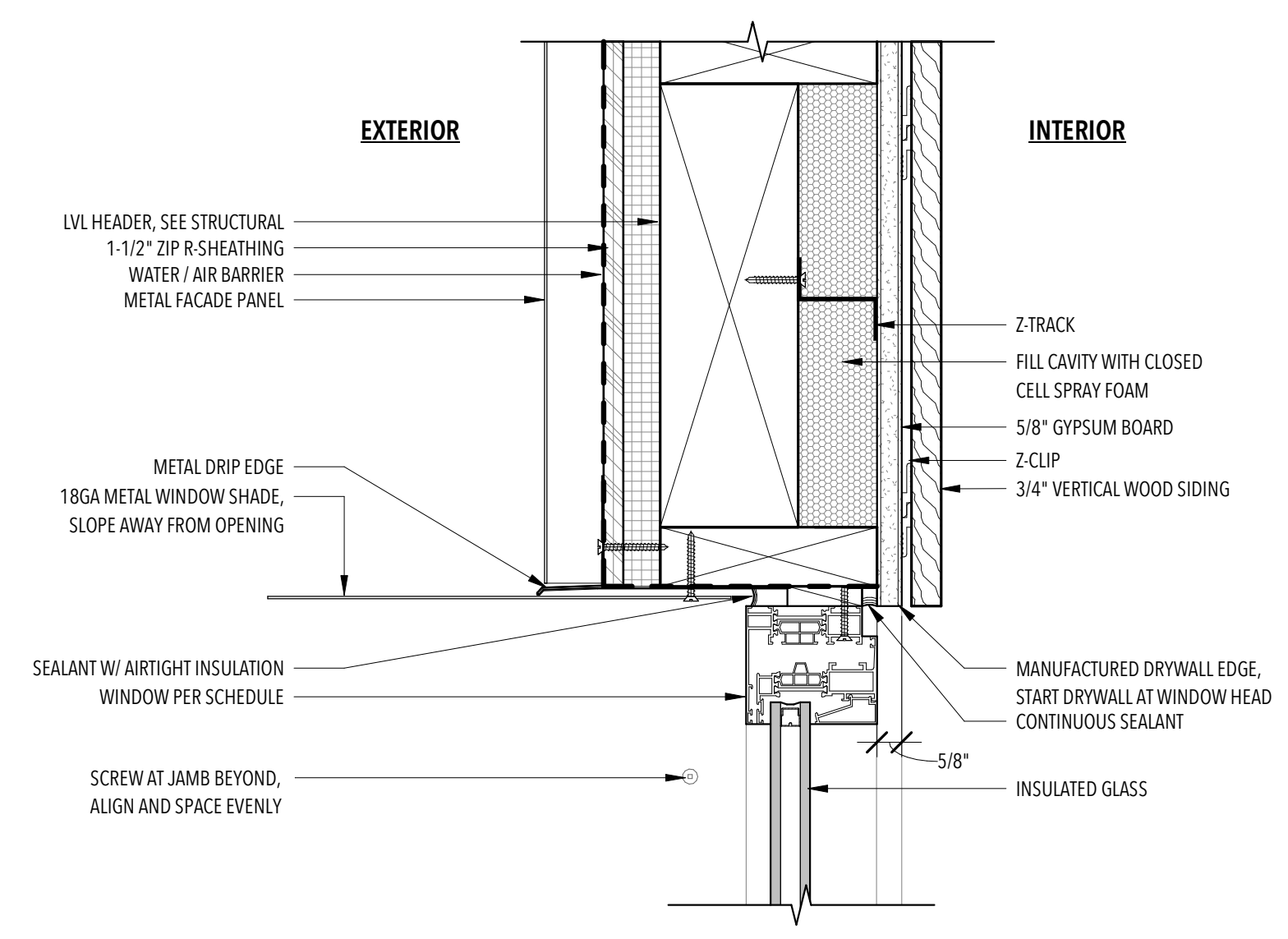


4 PIPE PENETRATION AT ROOF  
3" = 1'-0"

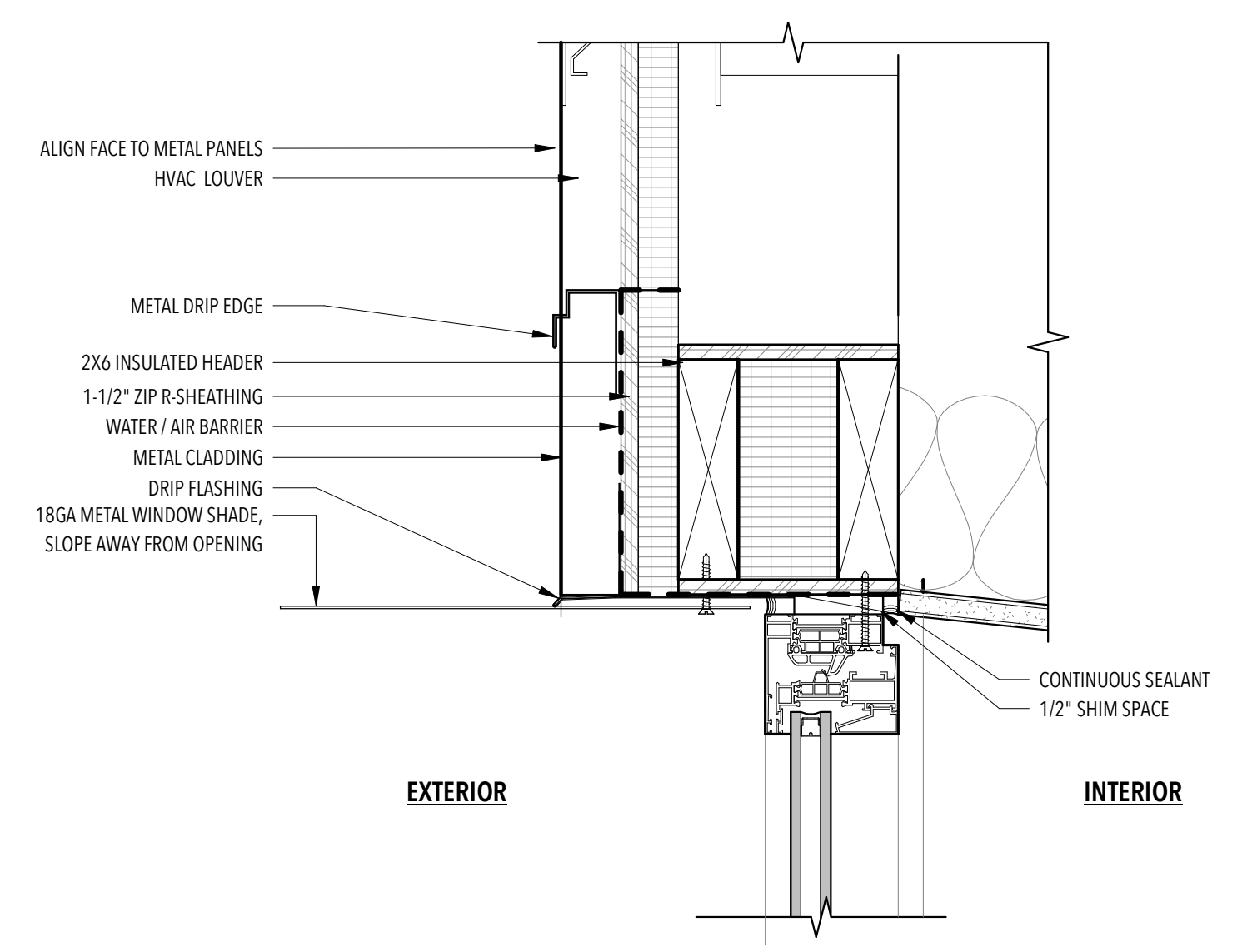


1 RAIN GUTTER @ SOUTH WALL  
6" = 1'-0"

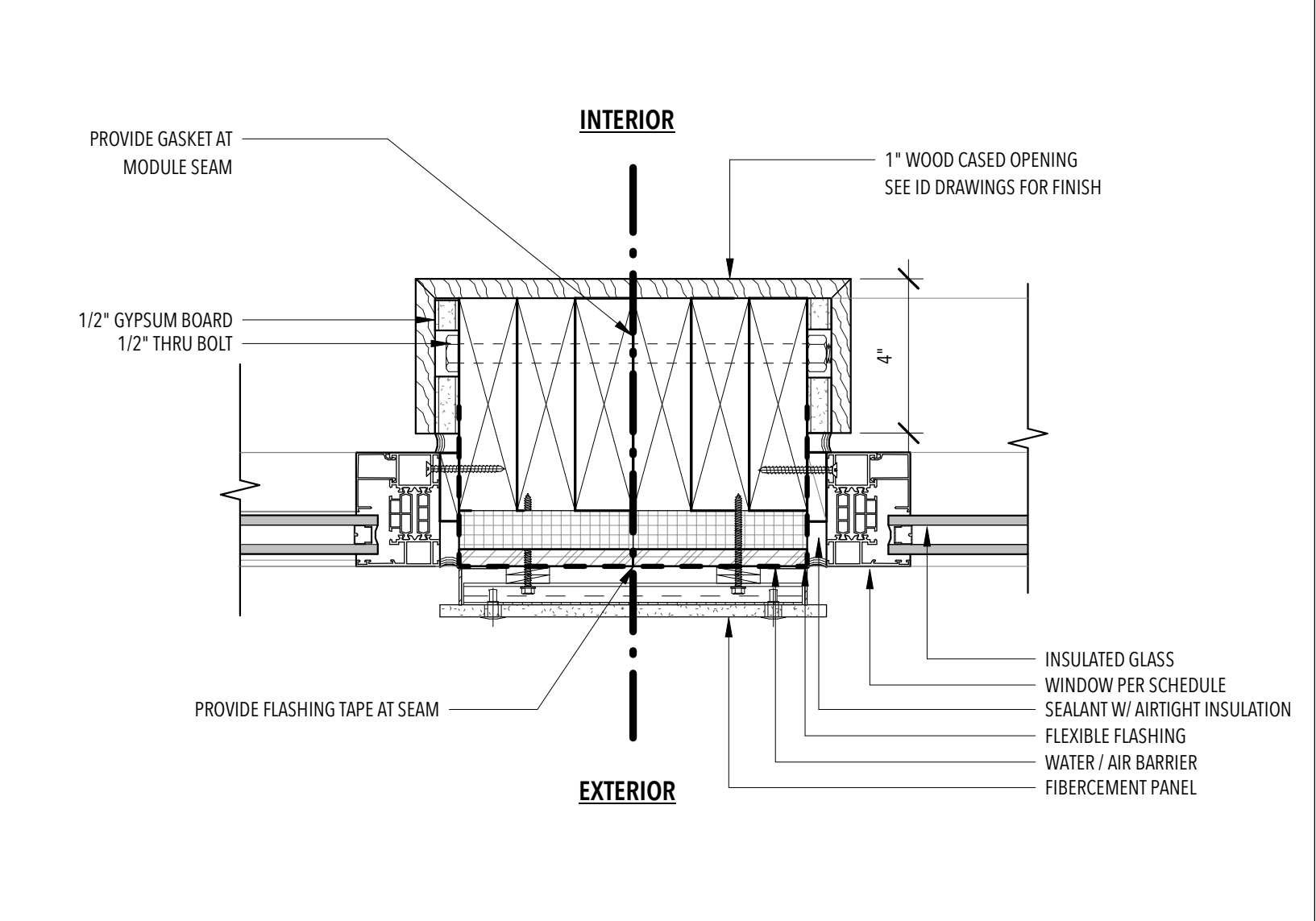




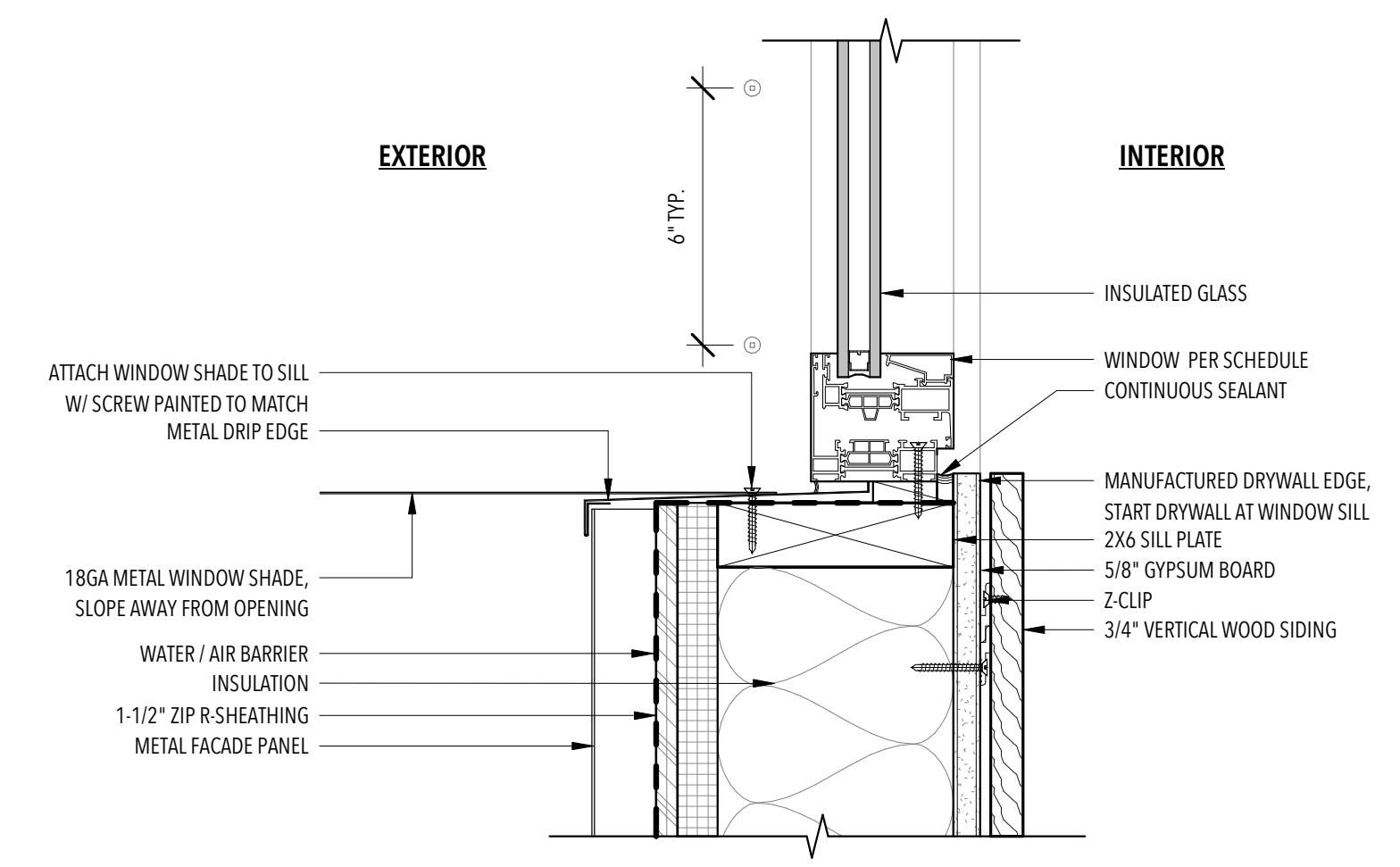
9 TYP. HEAD @ CLERESTORY OR TILT/TURN  
3" = 1'-0"



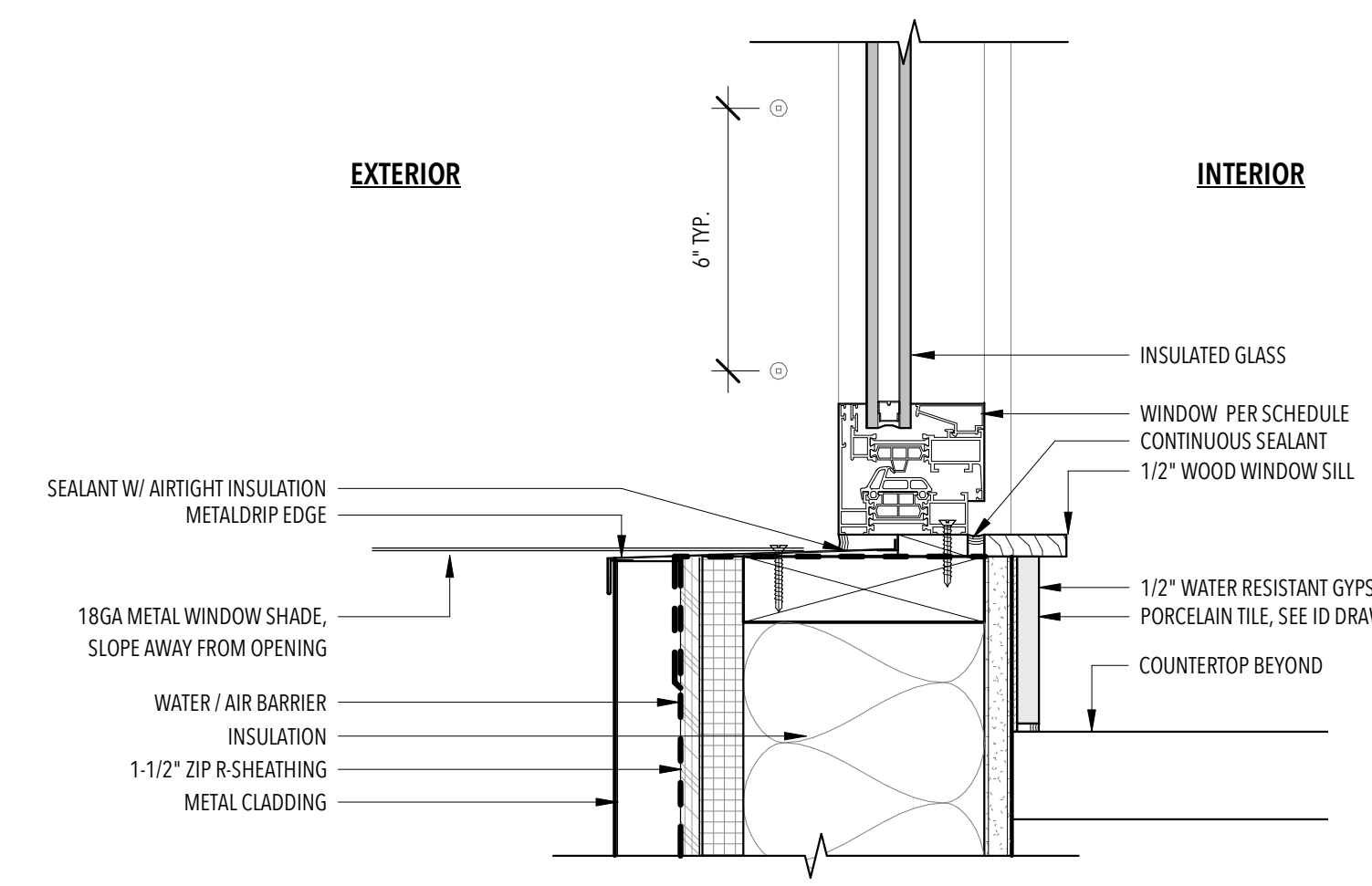
6 HEAD @ BATHROOM TILT/TURN  
3" = 1'-0"



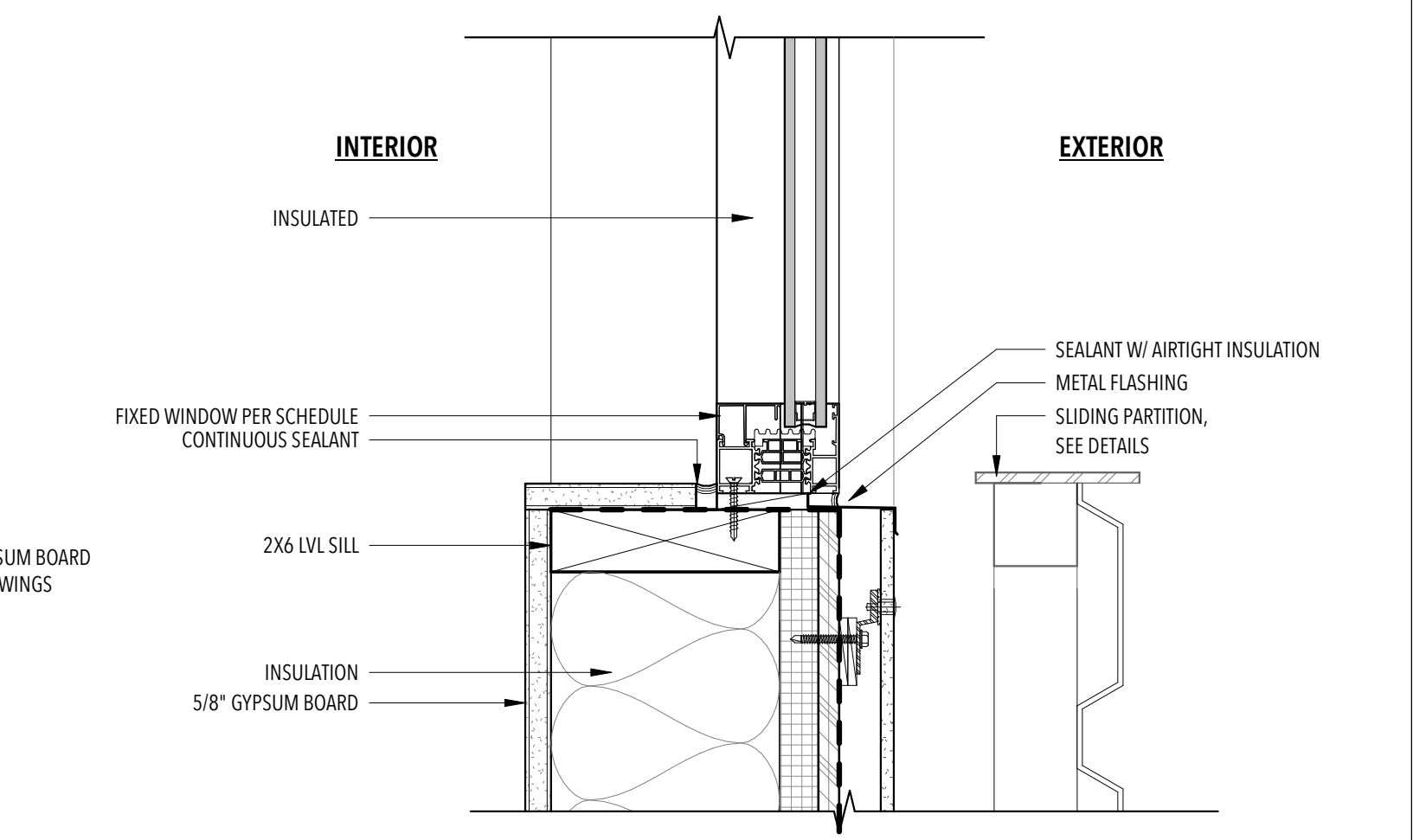
3 JAMB @ SPLIT WALL  
3" = 1'-0"



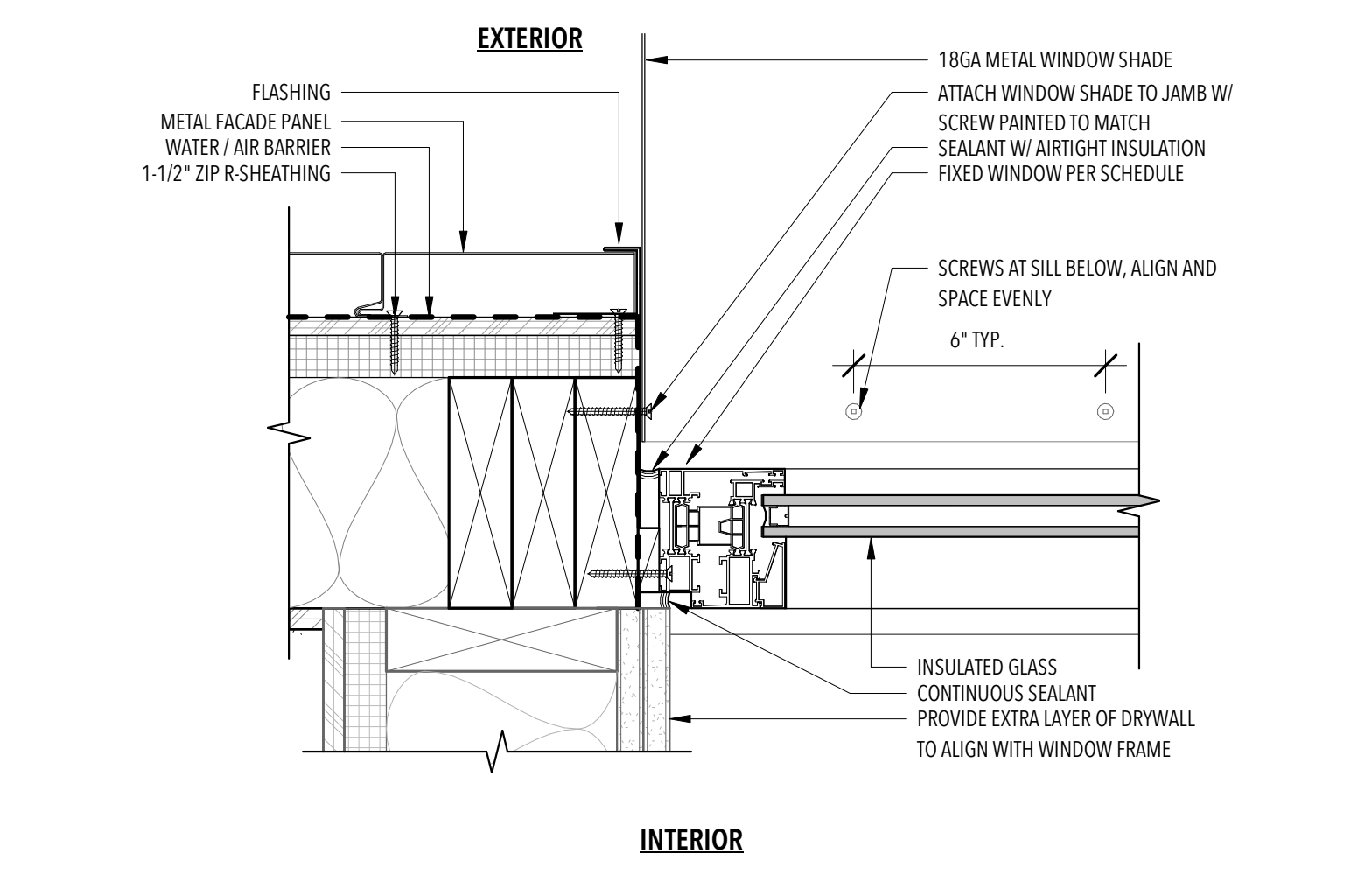
8 TYP. SILL @ CLERESTORY OR TILT/TURN  
3" = 1'-0"



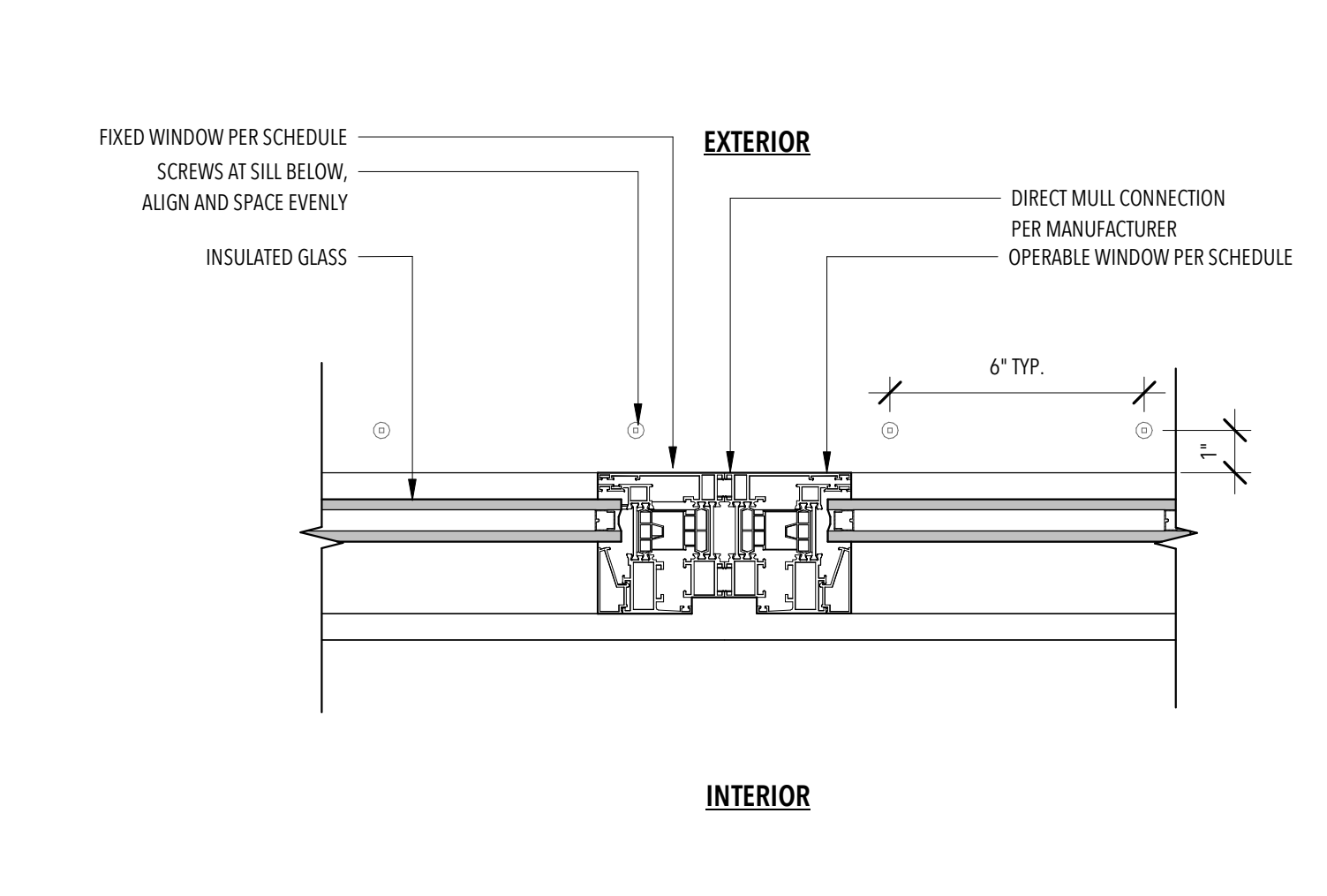
5 SILL @ BATHROOM TILT/TURN  
3" = 1'-0"



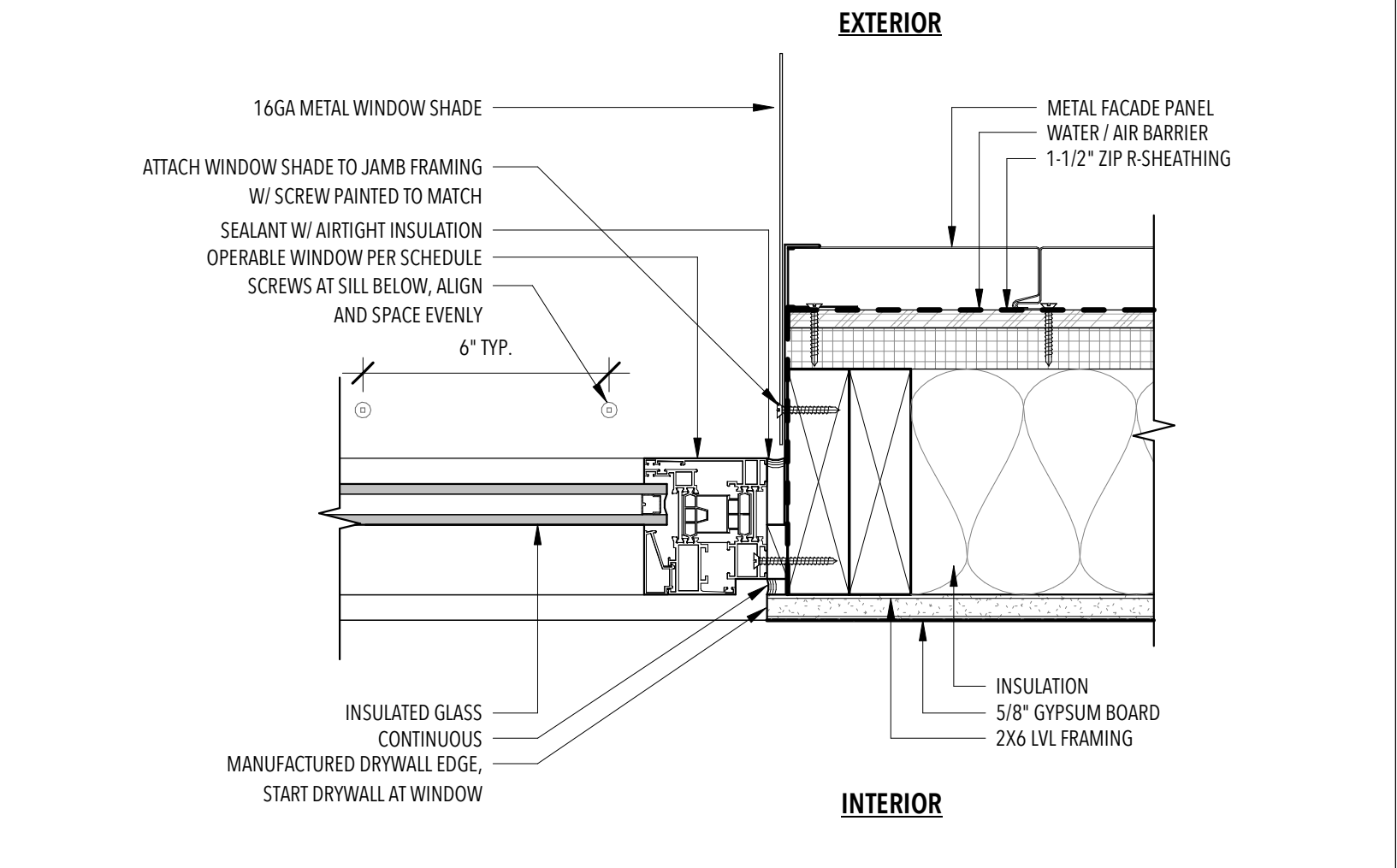
2 SILL @ TRANSOM  
3" = 1'-0"



7 JAMB @ NORTH CLERESTORY  
3" = 1'-0"



4 DIRECT MULL @ CLERESTORY & TILT/TURN  
3" = 1'-0"



1 OPERABLE JAMB @ TILT/TURN  
3" = 1'-0"

**GENERAL NOTES**  
1. FIELD VERIFY ALL GLAZING CONDITIONS  
2. REFER TO A-601 FOR DOOR AND WINDOW SCHEDULES



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SOLAR DECATHLON 2017  
WWW.SOLARDECATHLON.GOV

TEAM LAS VEGAS  
WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS

STRUCTURAL  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**A-521**  
GLAZING DETAILS

SCALE:  
3" = 1'-0"

## ISSUANCES

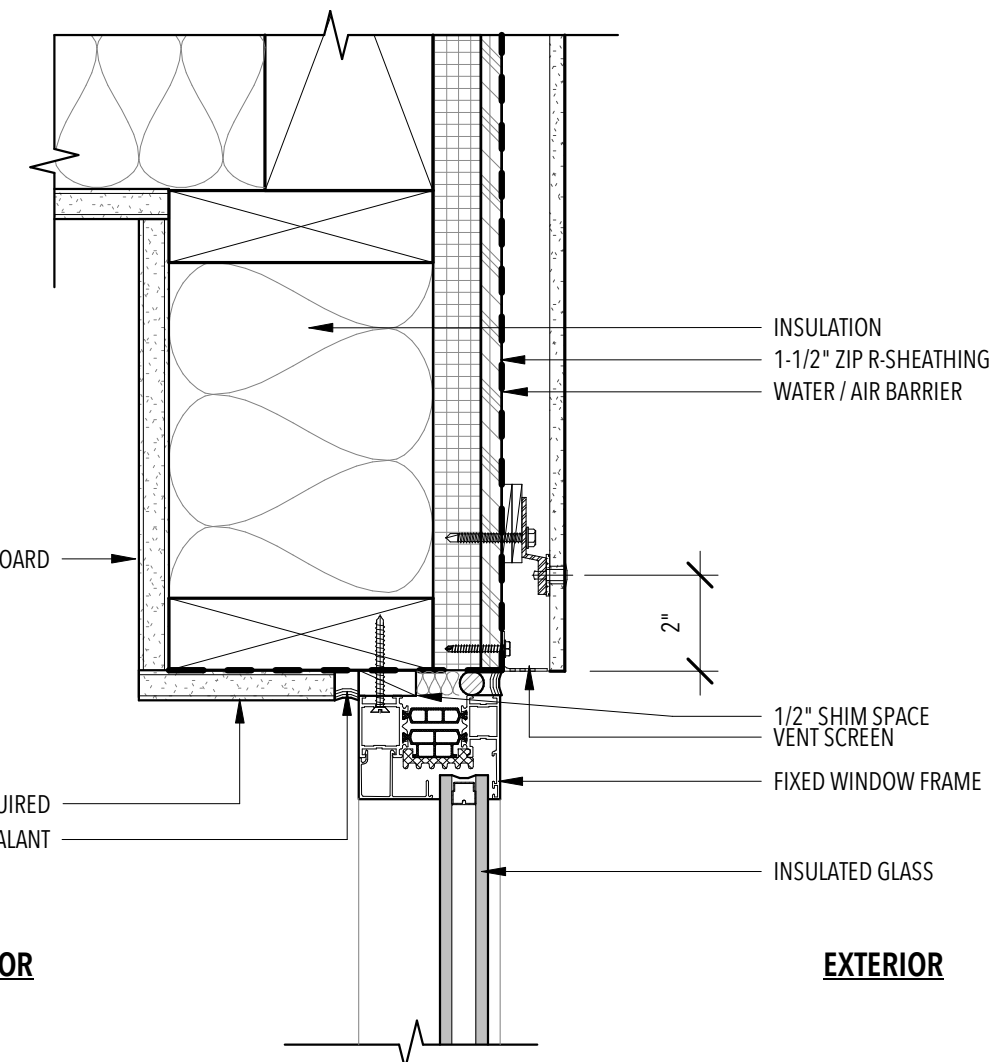
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

## REVISIONS

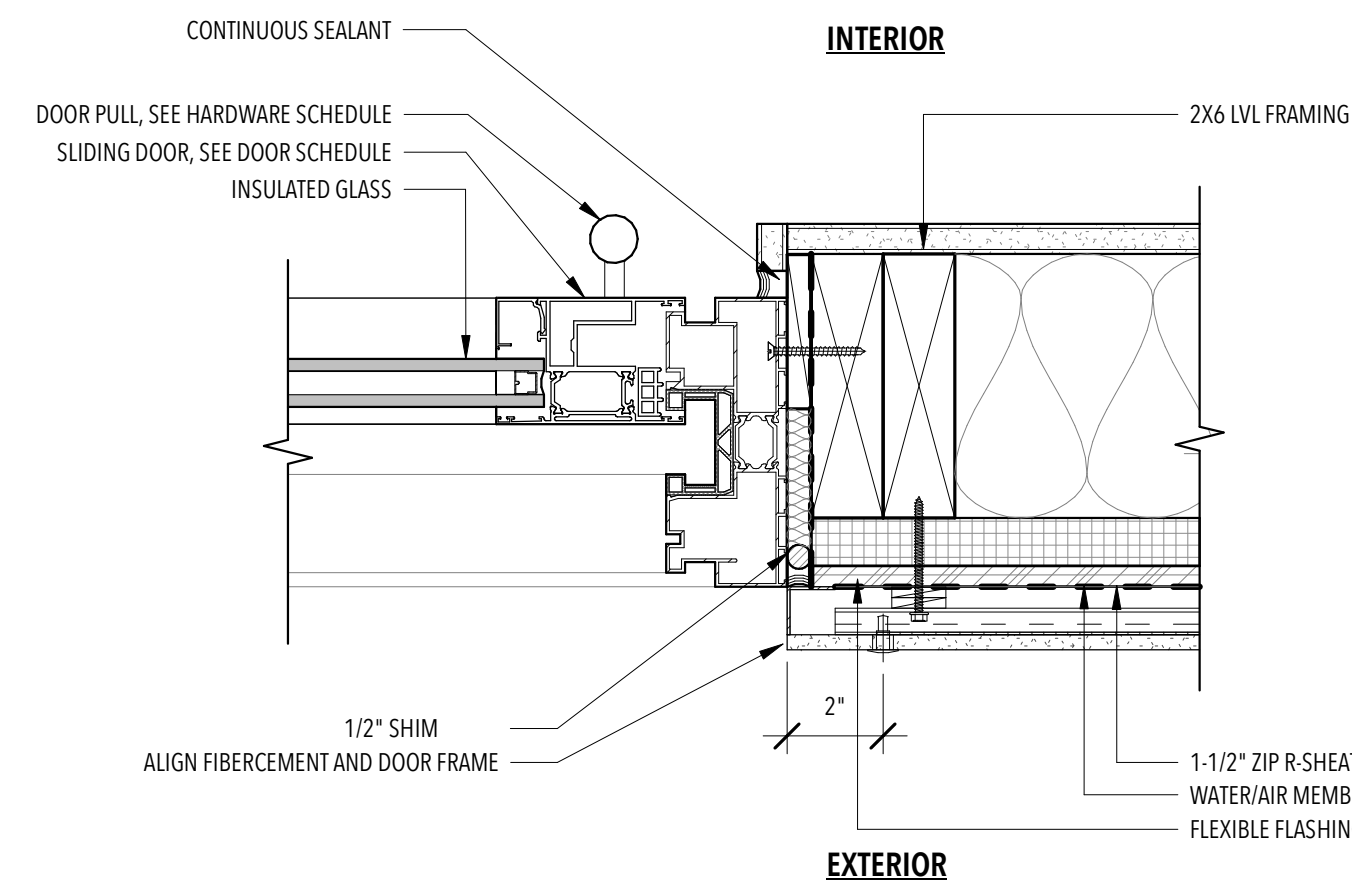
NO.	DESCRIPTION	DATE
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### GENERAL NOTES

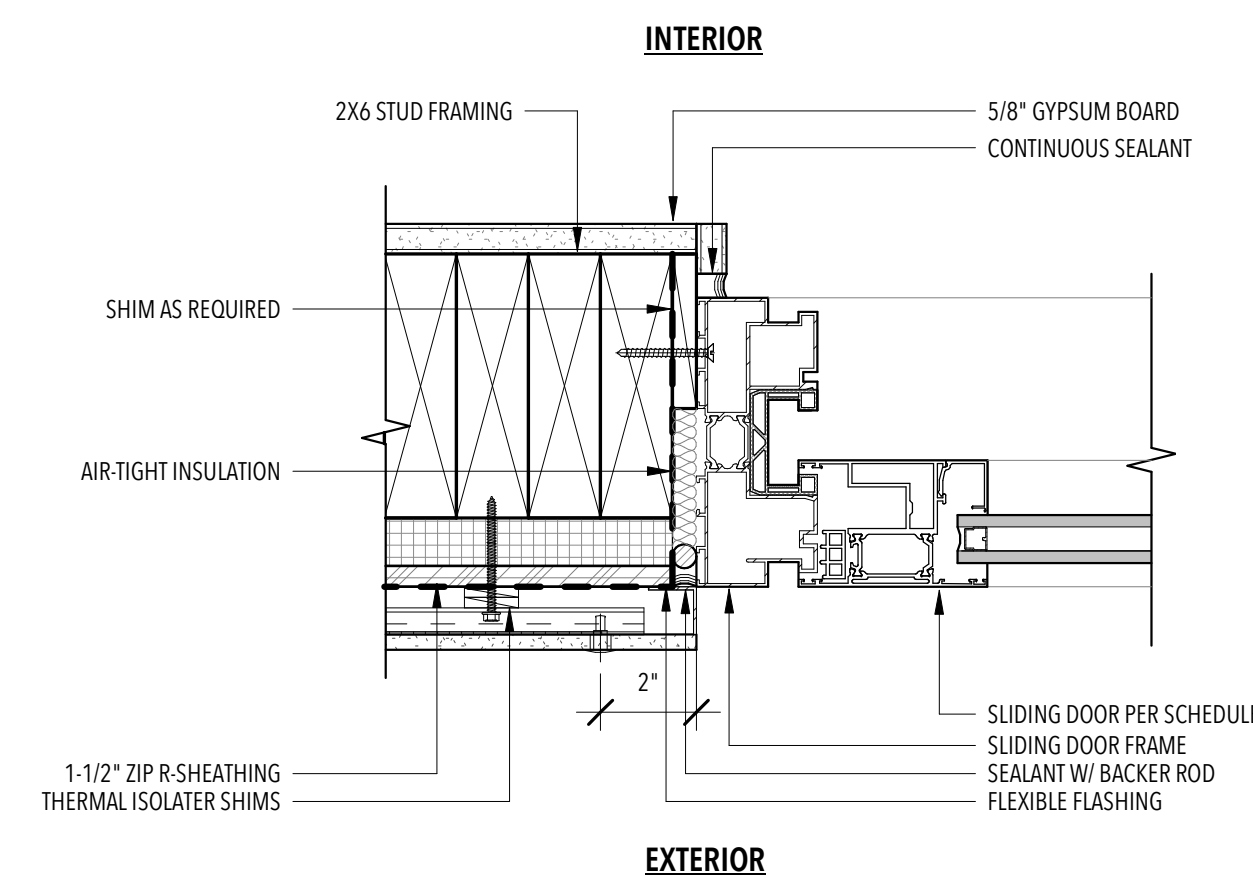
- FIELD VERIFY ALL GLAZING CONDITIONS
- REFER TO A-601 FOR DOOR AND WINDOW SCHEDULES



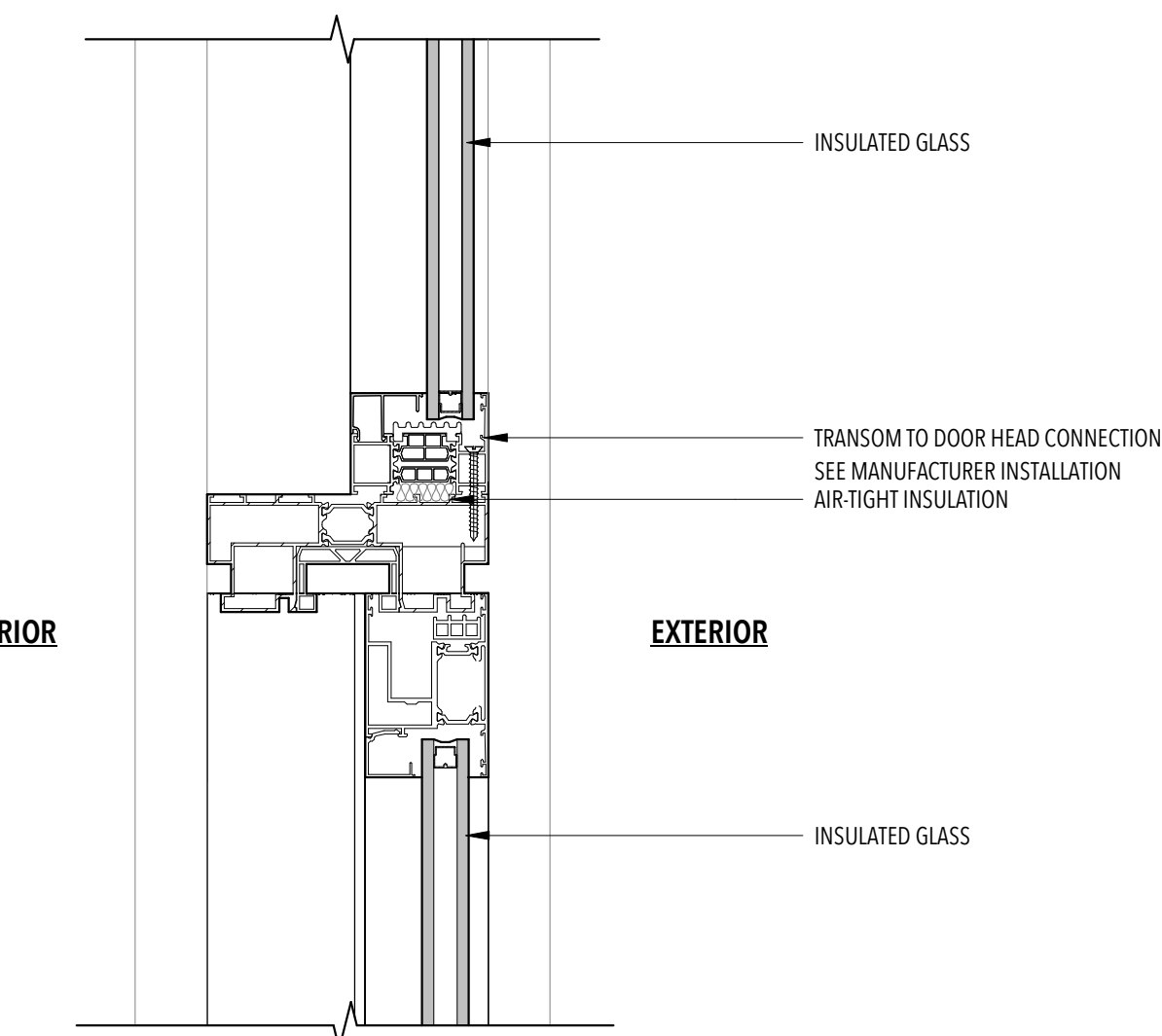
3 HEAD @ TRANSOM  
3" = 1'-0"



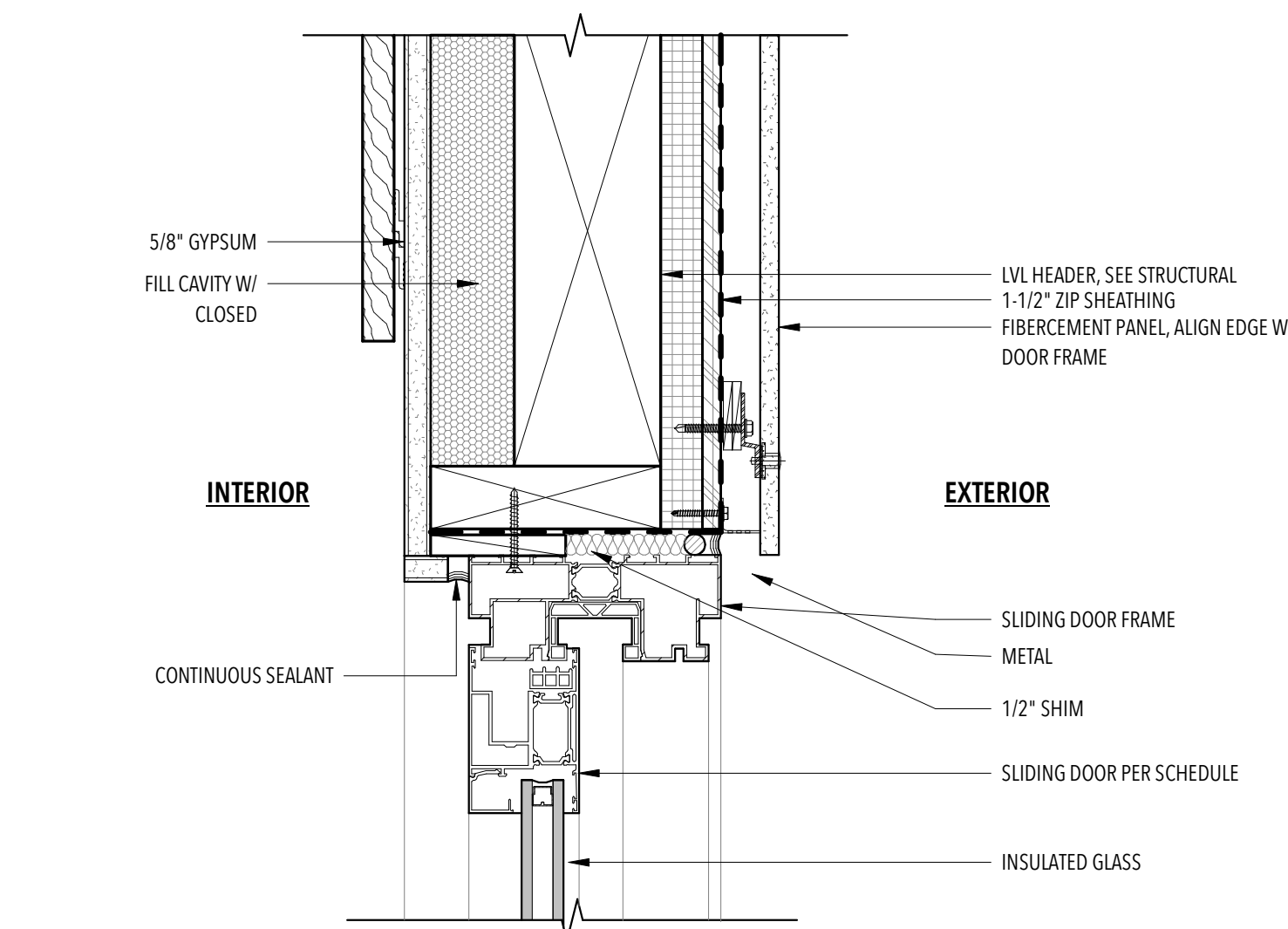
6 JAMB @ SOUTH SLIDING DOOR - OPERABLE  
3" = 1'-0"



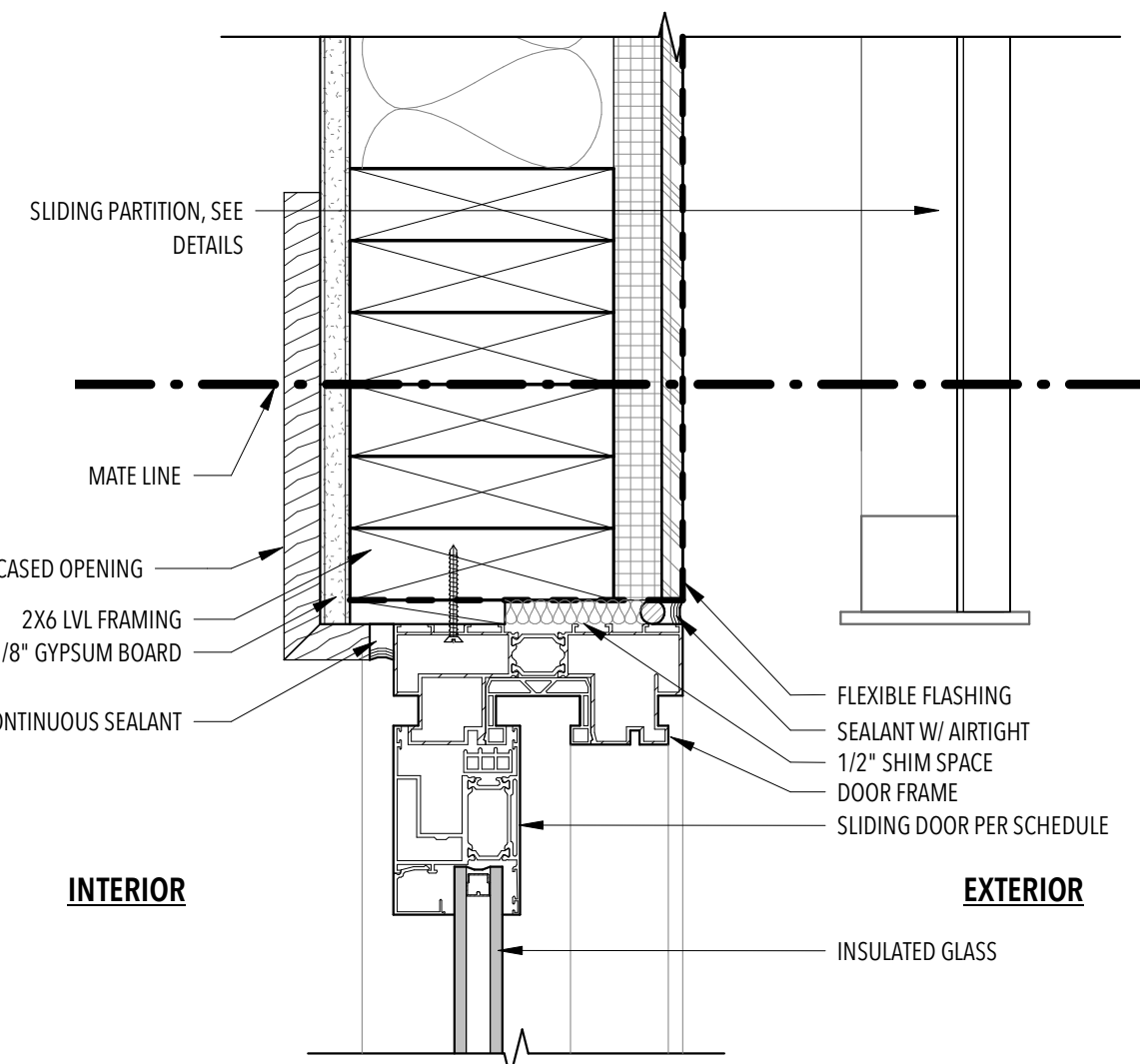
9 JAMB @ SOUTH SLIDING DOOR - FIXED  
3" = 1'-0"



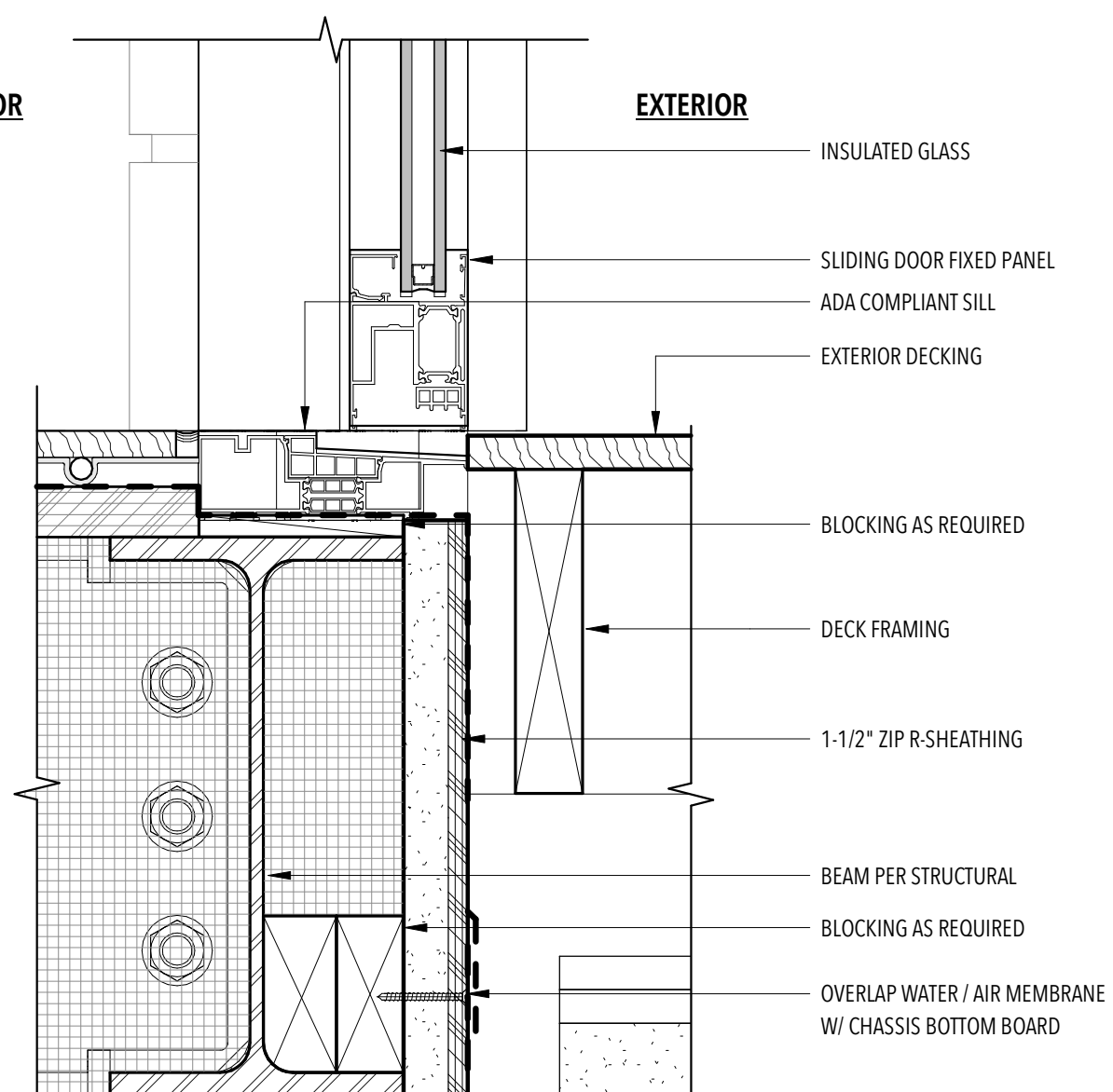
2 HEAD @ EAST SLIDING DOOR  
3" = 1'-0"



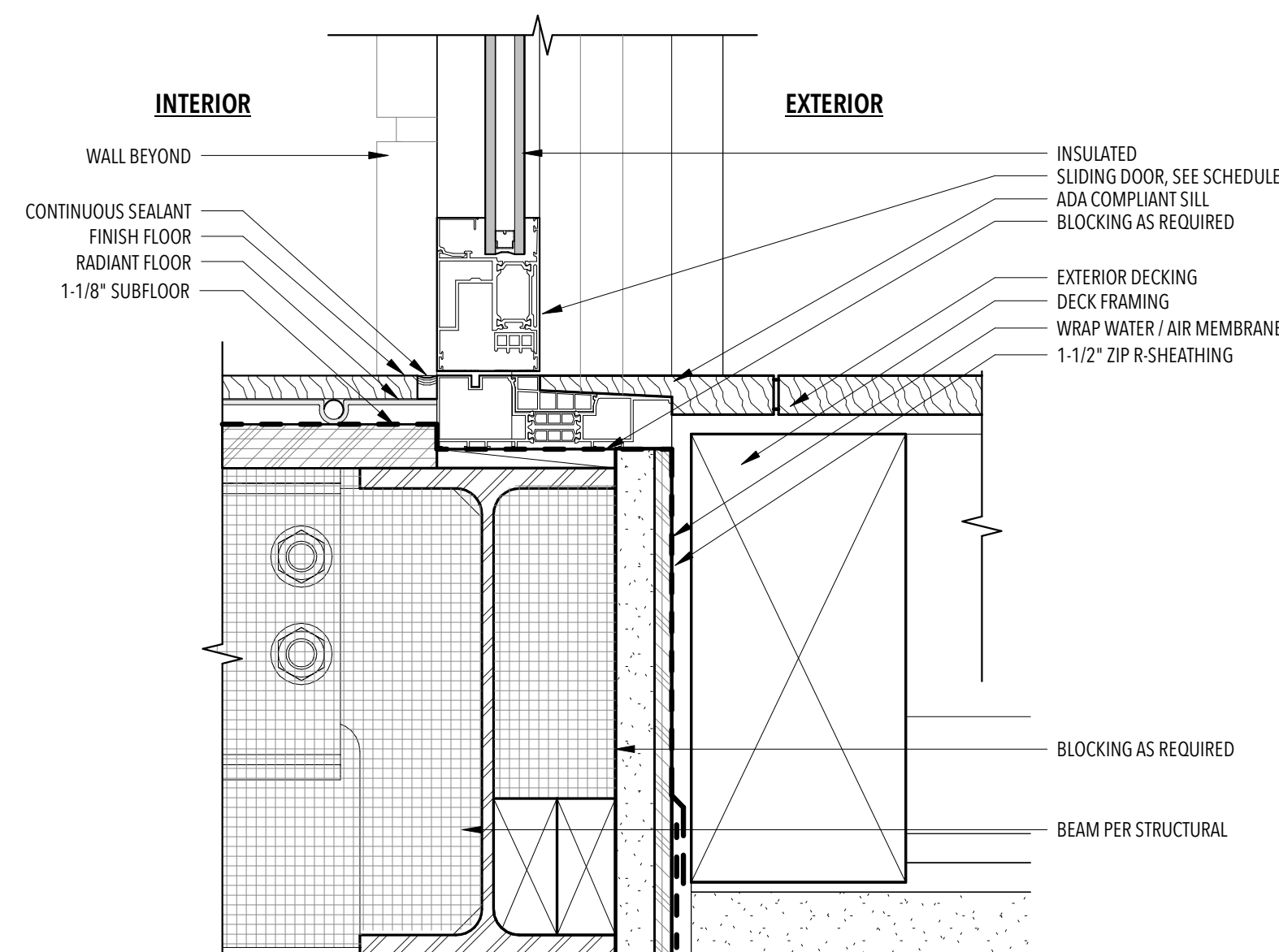
5 HEAD @ SOUTH SLIDING DOOR  
3" = 1'-0"



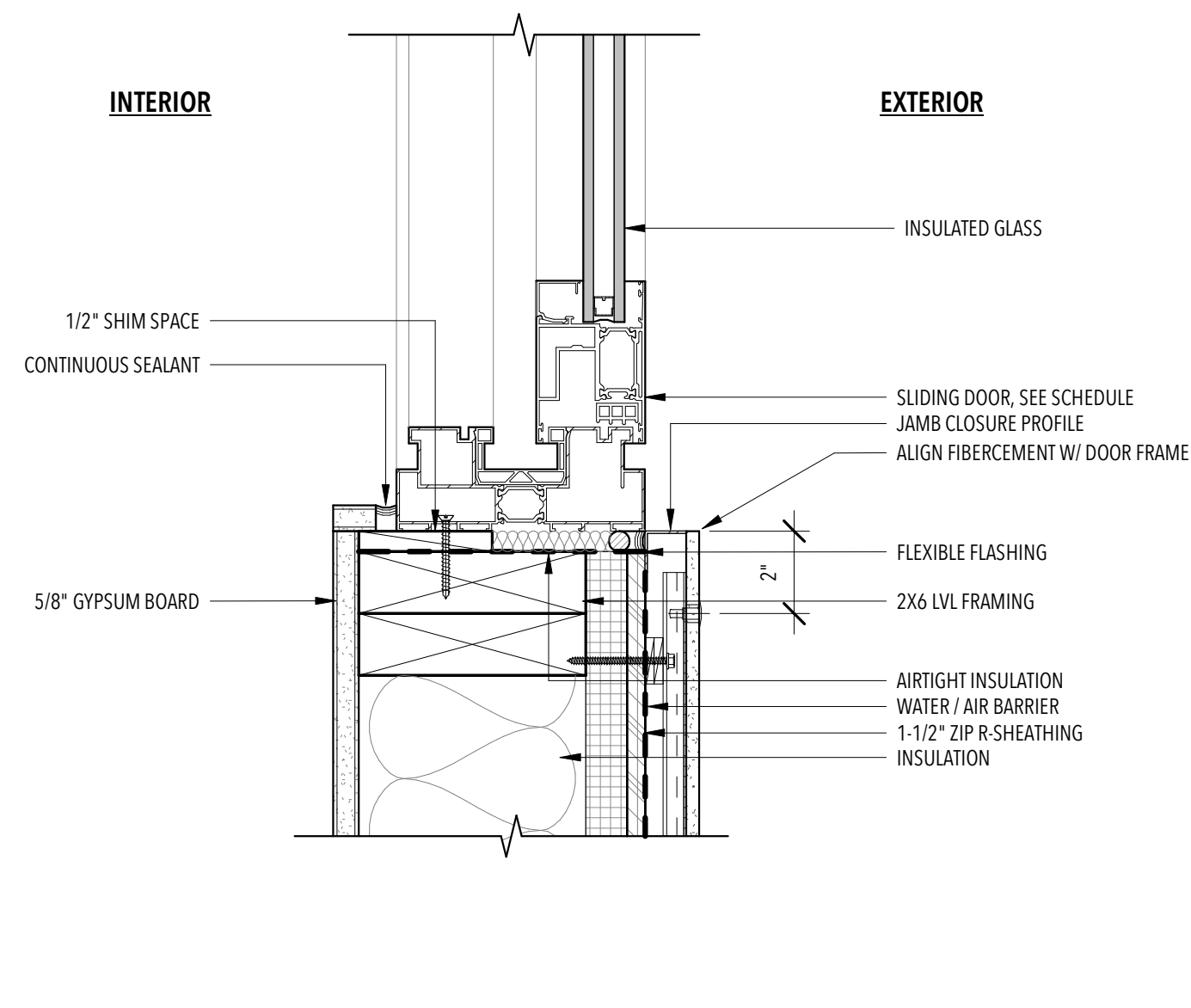
8 JAMB @ EAST SLIDING DOOR  
3" = 1'-0"



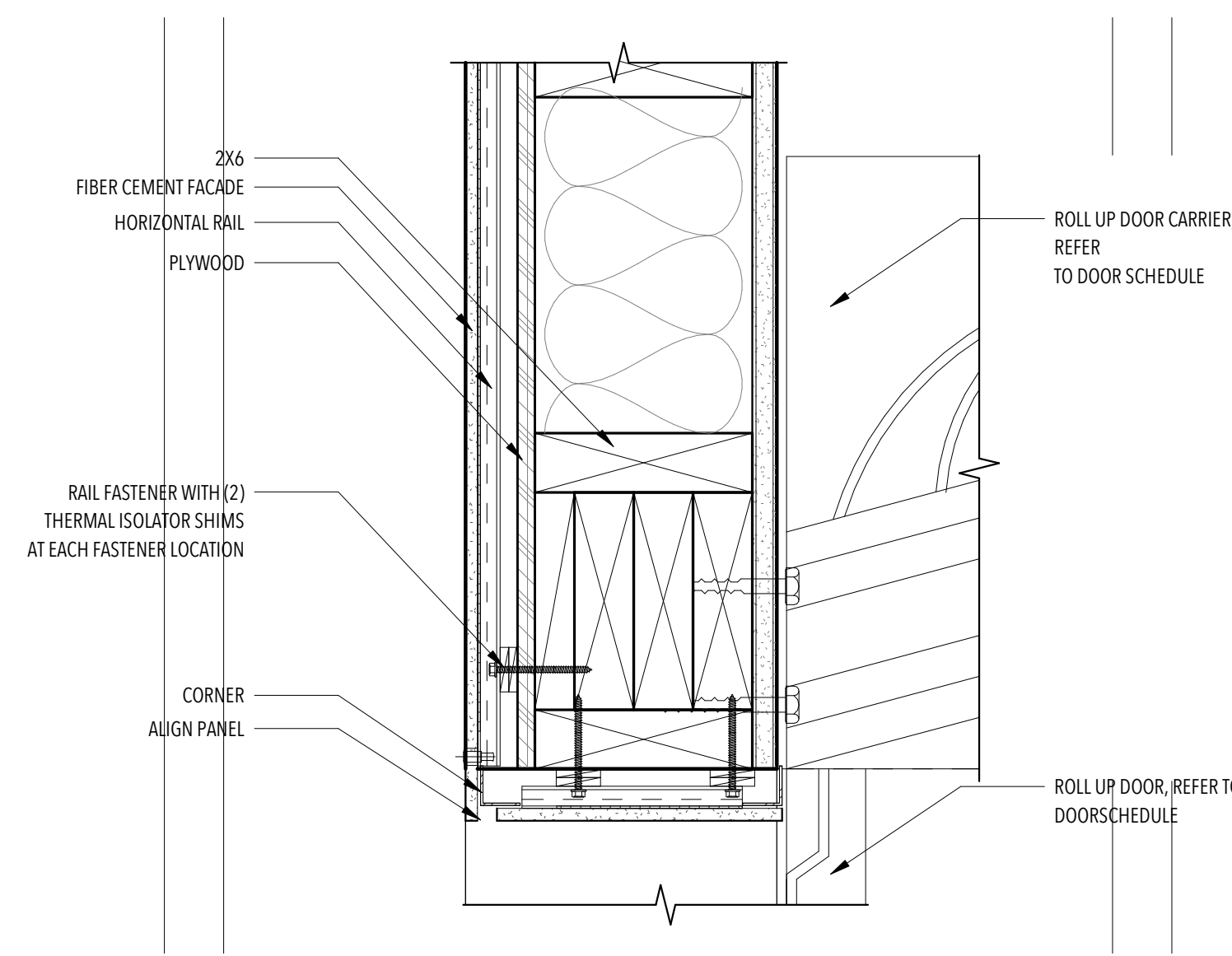
1 SILL @ EAST SLIDING DOOR  
3" = 1'-0"



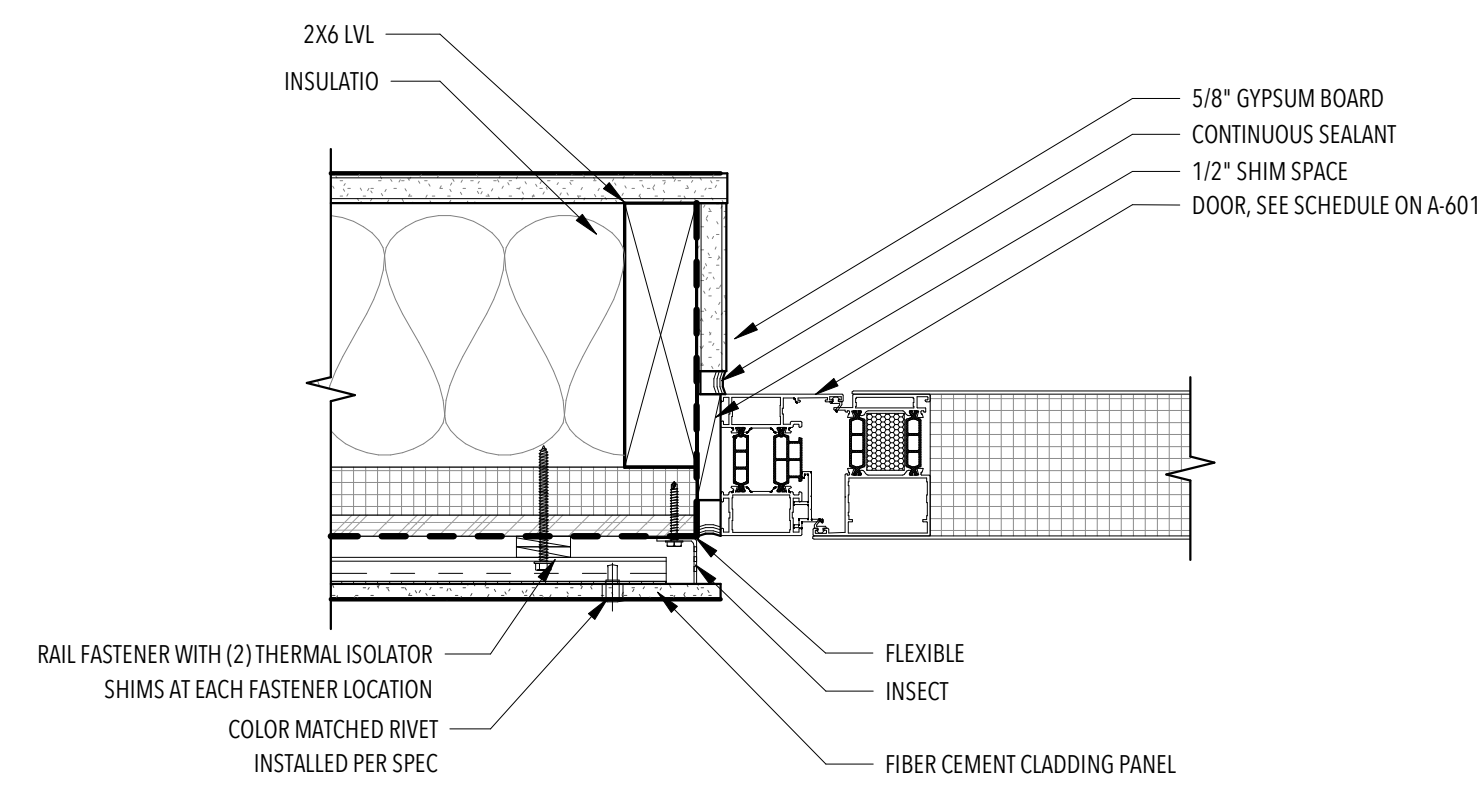
4 SILL @ SOUTH SLIDING DOOR  
3" = 1'-0"



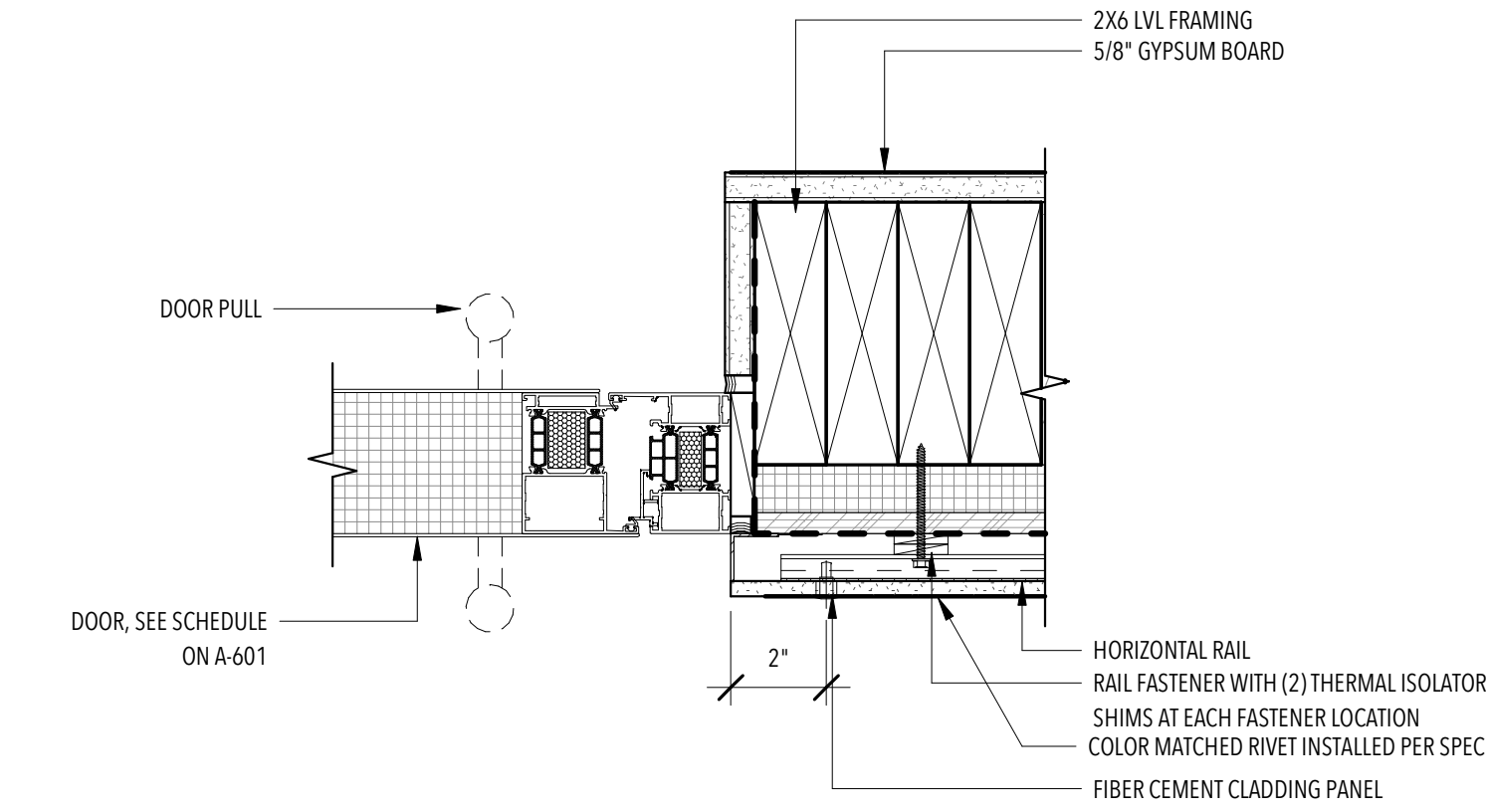
7 JAMB @ EAST SLIDING DOOR - FIXED  
3" = 1'-0"



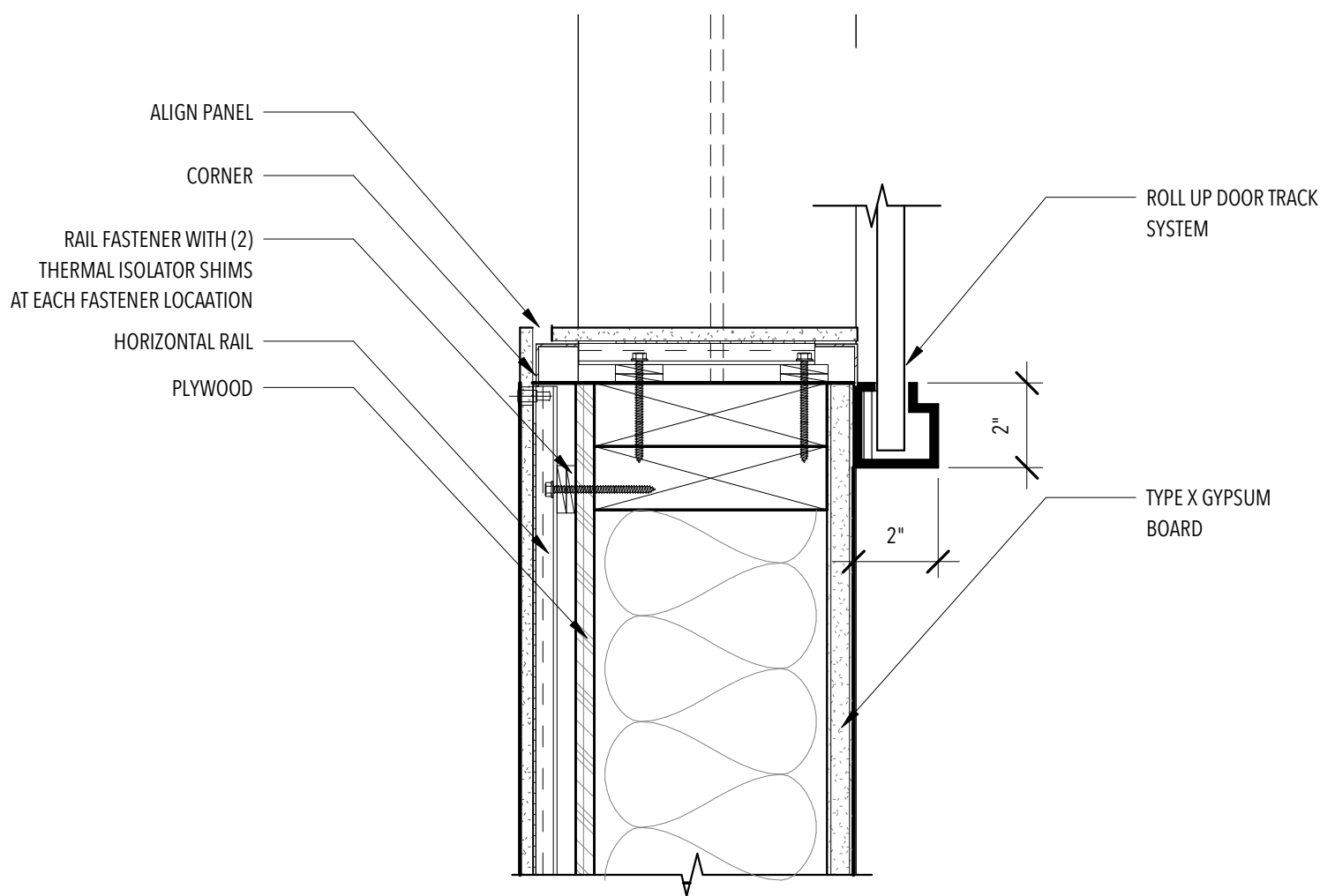
9 HEAD @ OVERHEAD ROLLING DOOR Copy 1  
3" = 1'-0"



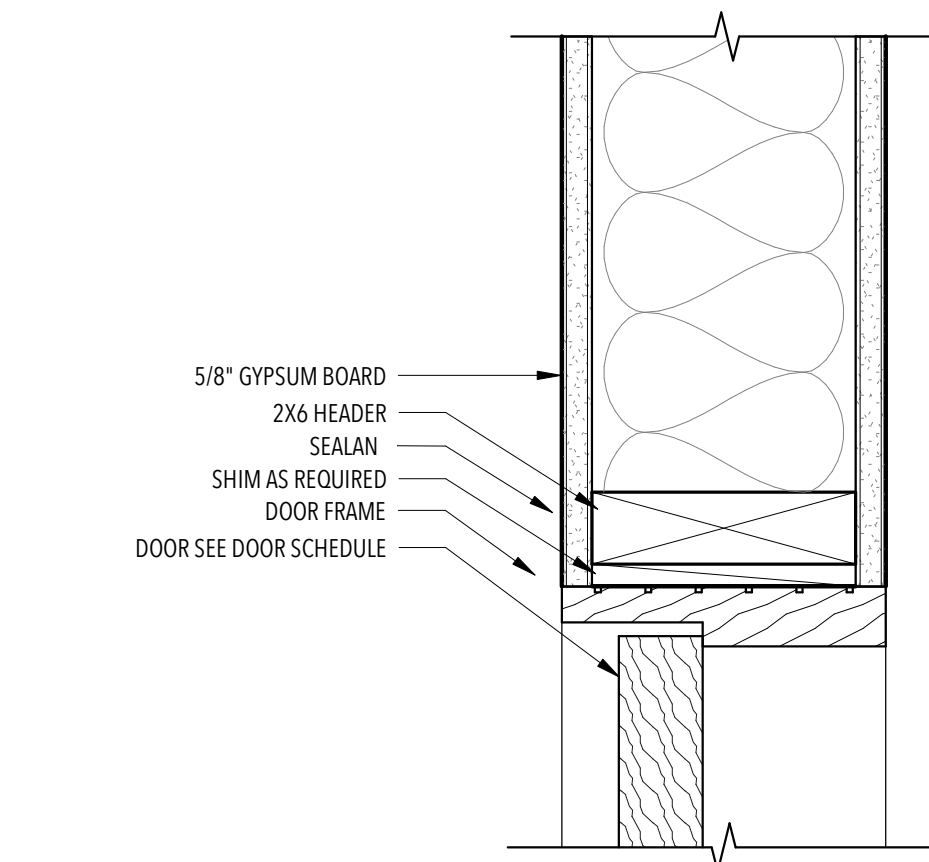
6 JAMB @ ENTRY DOOR - HINGED  
3" = 1'-0"



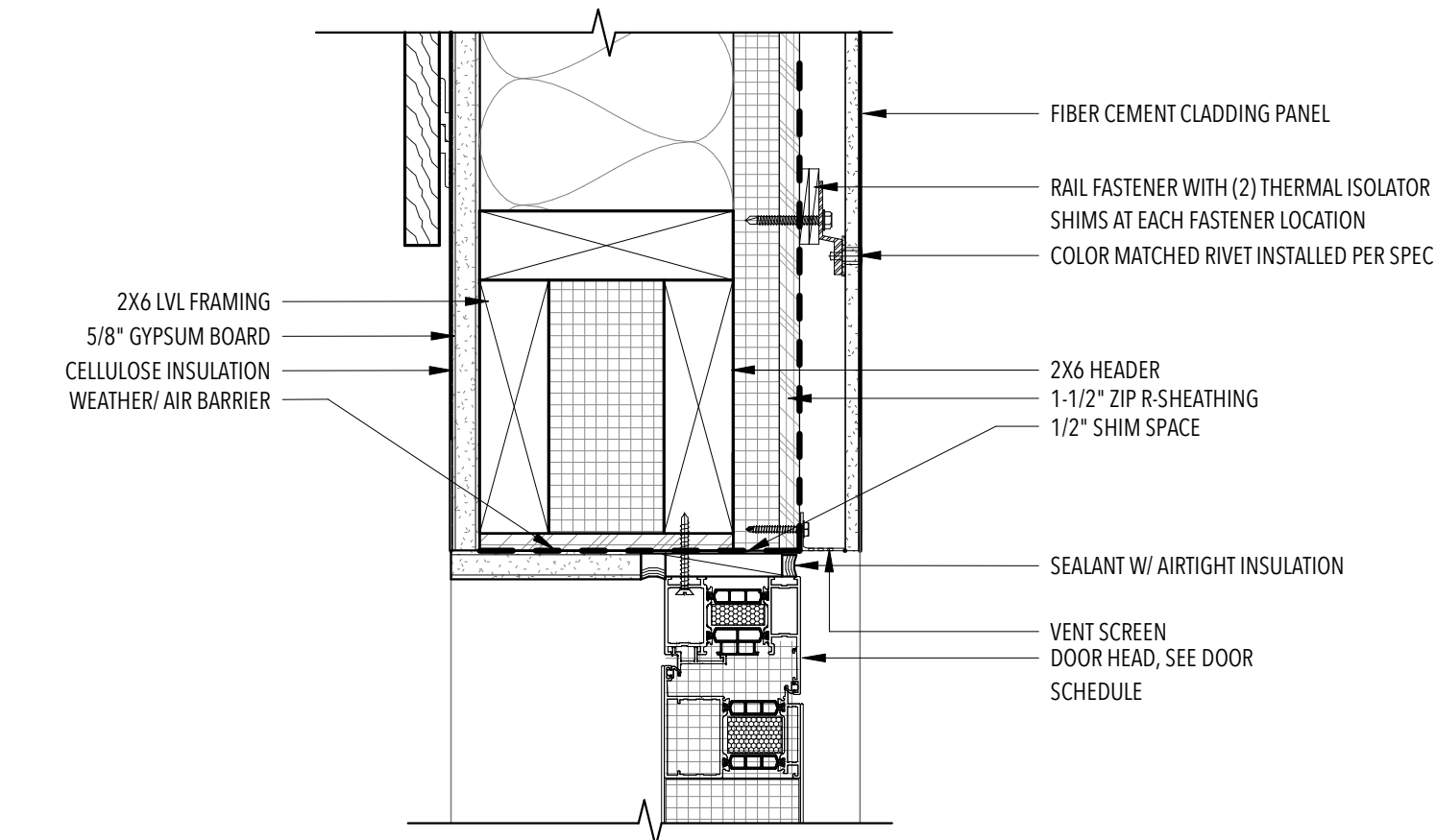
3 JAMB @ ENTRY DOOR - PUSH SIDE  
3" = 1'-0"



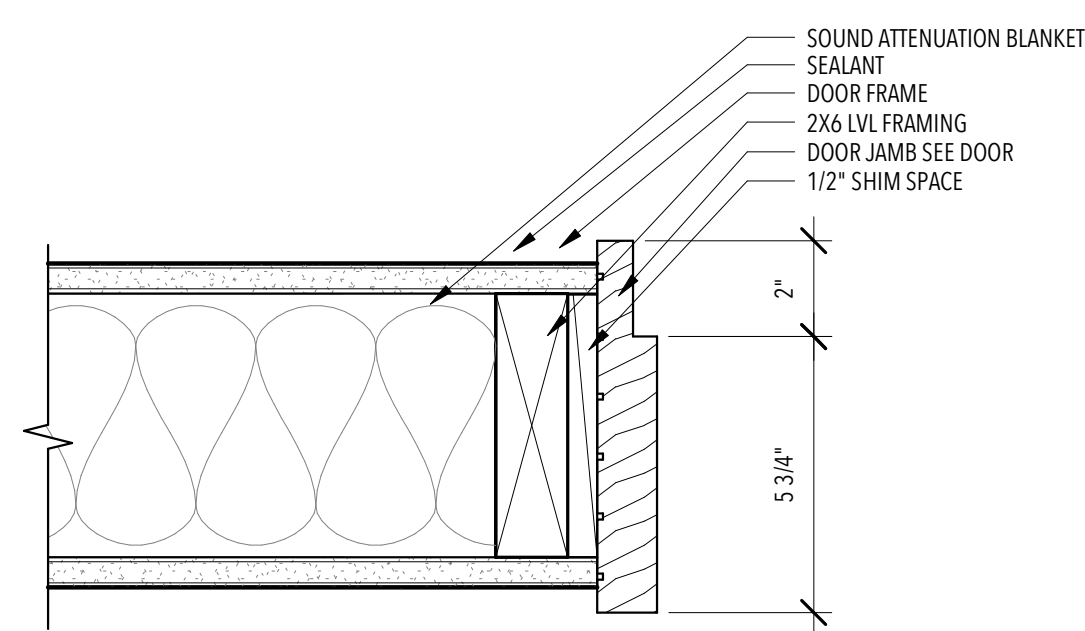
8 JAMB @ OVERHEAD ROLLING DOOR  
3" = 1'-0"



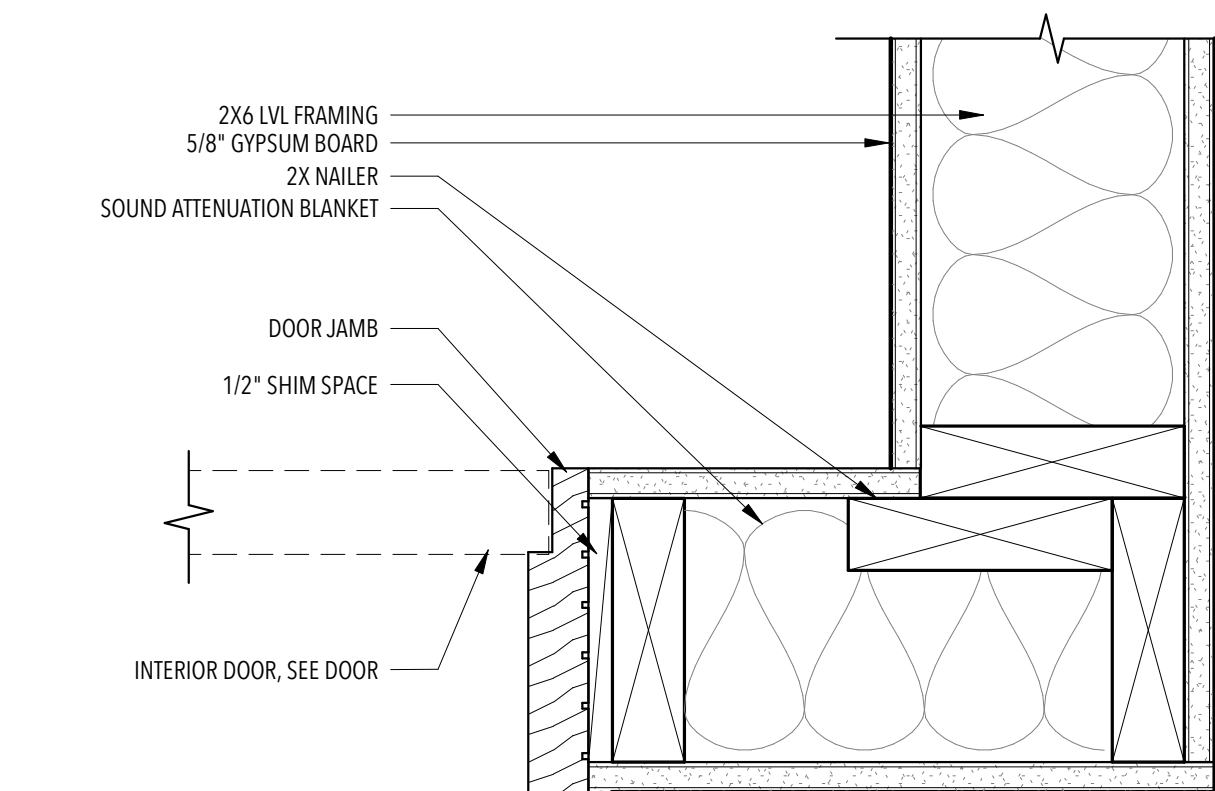
5 HEAD @ INTERIOR BEDROOM DOOR  
3" = 1'-0"



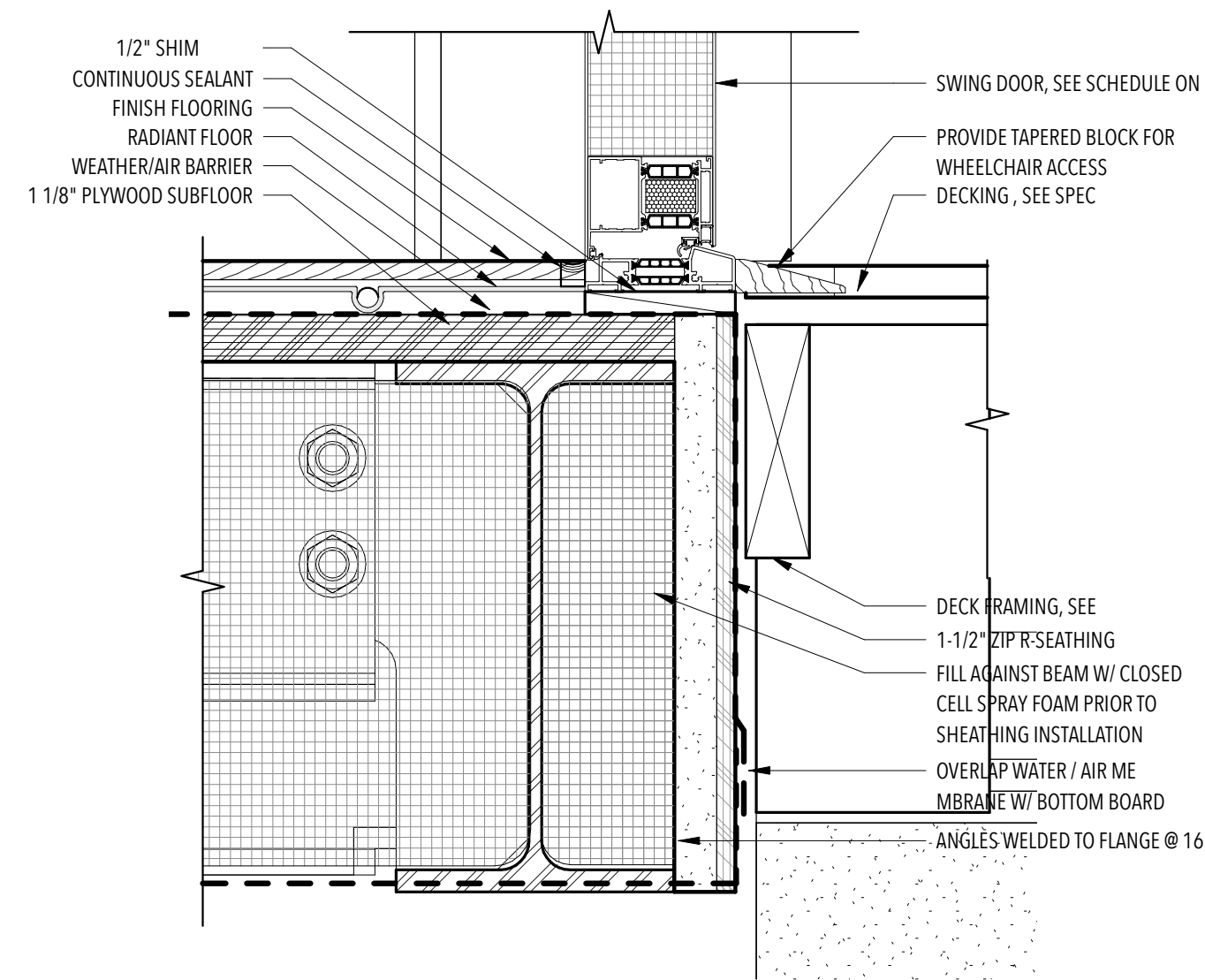
2 HEAD @ TYP. EXTERIOR DOOR  
3" = 1'-0"



7 JAMB @ INTERIOR BEDROOM DOOR - PULL SIDE  
3" = 1'-0"



4 JAMB @ BEDROOM DOOR - HINGED  
3" = 1'-0"



1 SILL @ TYP. EXTERIOR DOOR  
3" = 1'-0"

**GENERAL NOTES**  
1. ALL DIMENSIONS UNLESS OTHERWISE NOTED ARE MEASURED FROM OUTSIDE FACE OF STUDS.  
2. ALL VERTICAL DIMENSIONS ARE MEASURED FROM GRADE ELEVATION 0'-0"



U.S. DEPARTMENT OF ENERGY  
SOLAR DECATHLON 2017  
WWW.SOLARDECATHLON.GOV

TEAM LAS VEGAS  
WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS

STRUCTURAL

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**A-531**  
DOOR DETAILS

SCALE:  
3" = 1'-0"



## ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

## REVISIONS

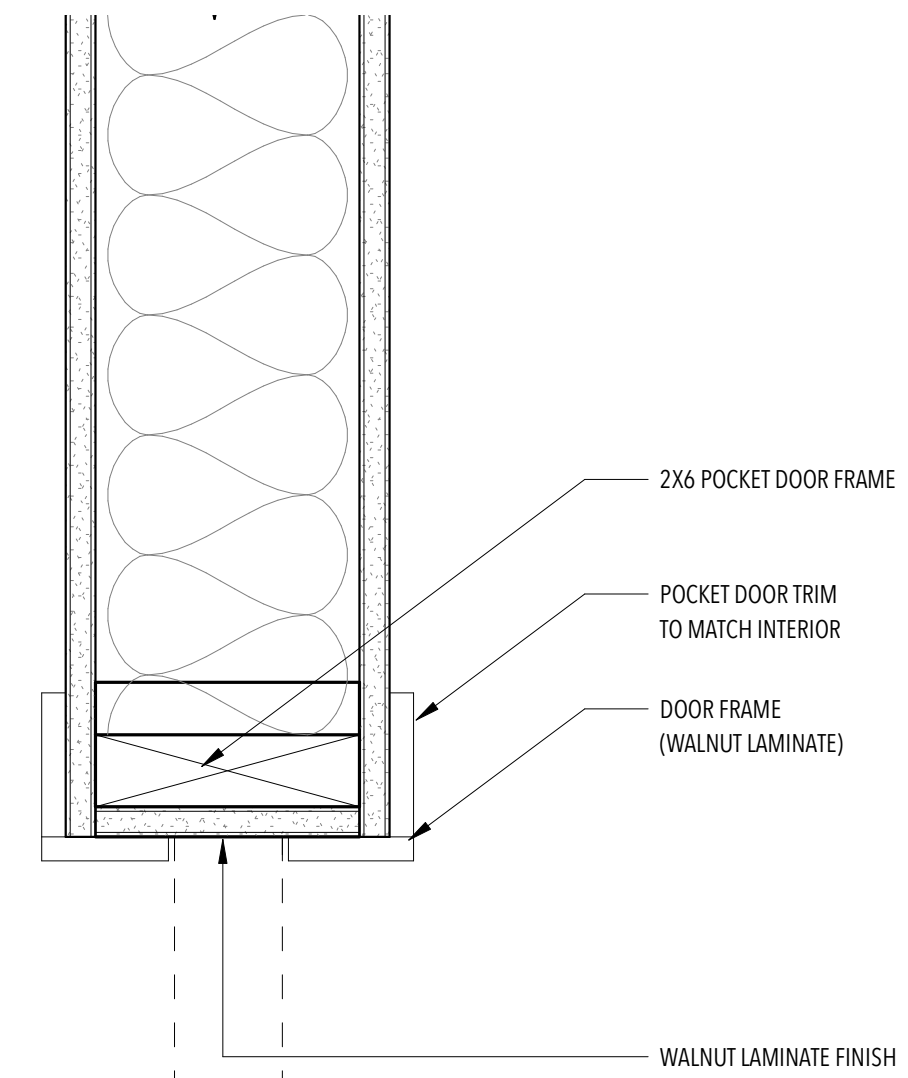
NO.	DESCRIPTION	DATE
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# A-532

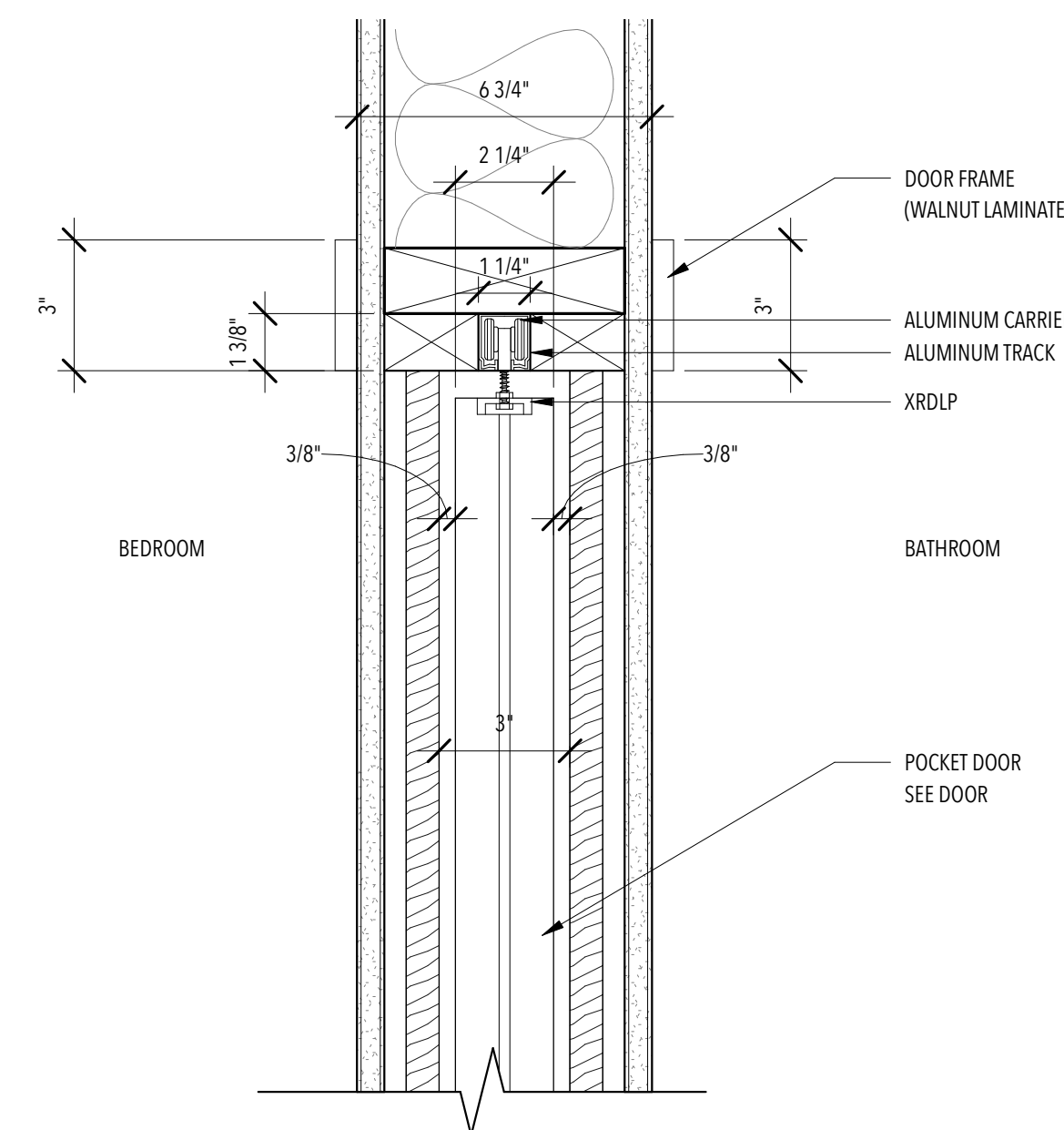
## DOOR DETAILS

SCALE:  
3" = 1'-0"

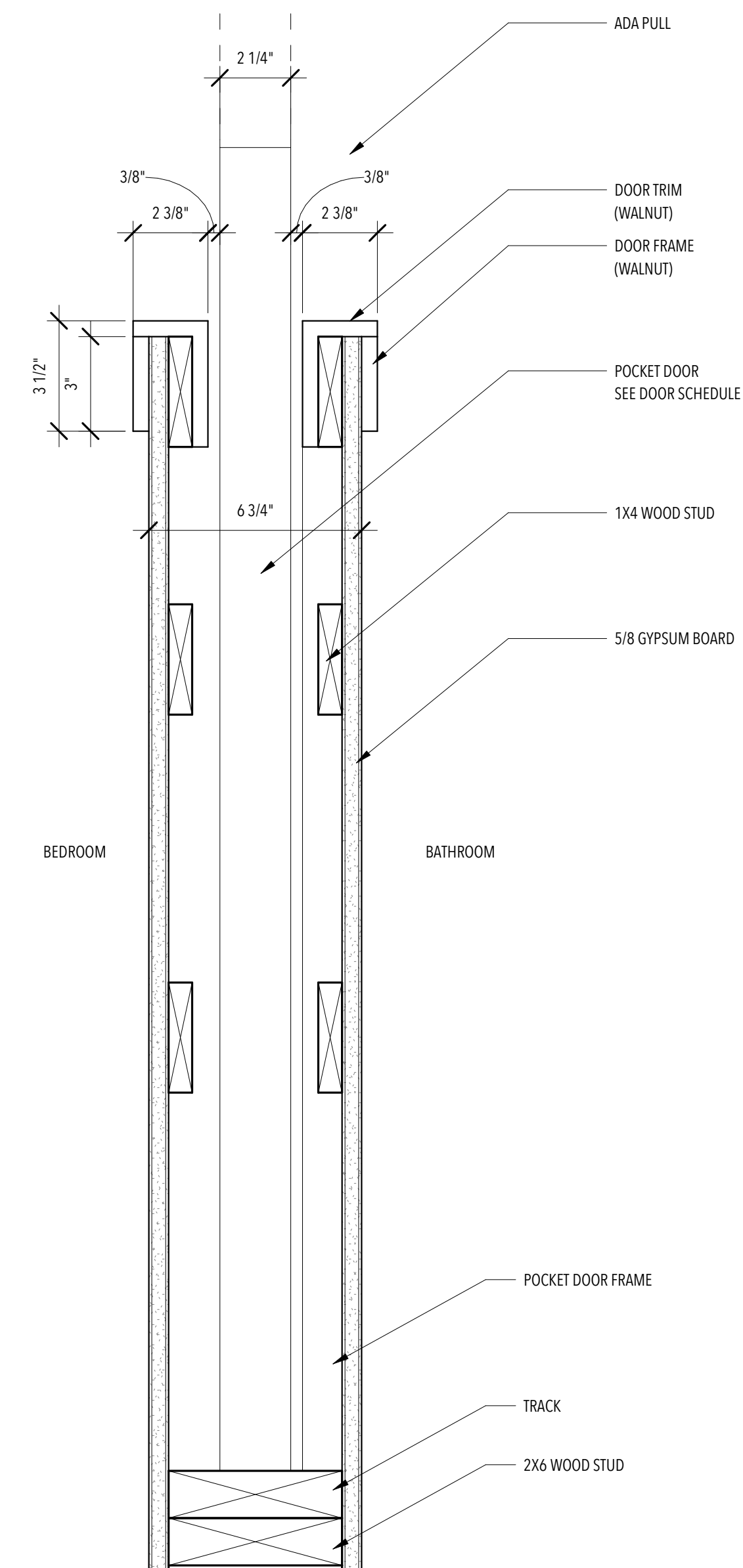
1. ALL DIMENSIONS UNLESS OTHERWISE NOTED ARE MEASURED FROM OUTSIDE FACE OF STUDS.
2. ALL VERTICAL DIMENSIONS ARE MEASURED FROM GRADE ELEVATION 0'-0"



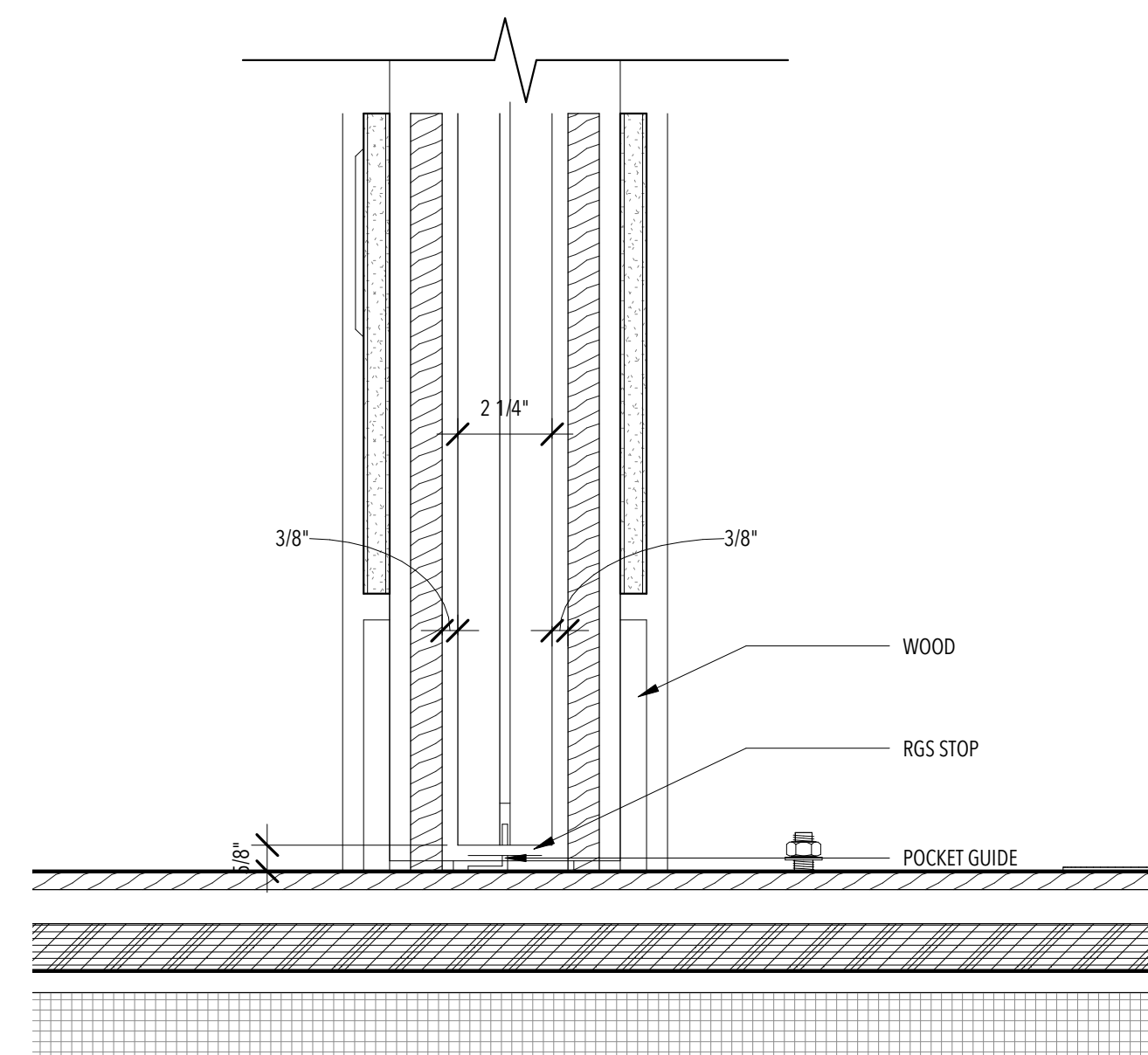
2 TYPICAL JAMB DETAIL @ POCKET DOOR  
3" = 1'-0"



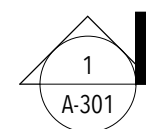
4 HEAD @ POCKET DOOR  
3" = 1'-0"



1 TYPICAL JAMB DETAIL @ POCKET DOOR  
3" = 1'-0"



3 SILL @ POCKET DOOR  
3" = 1'-0"



### ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

### REVISIONS

NO.	DESCRIPTION	DATE
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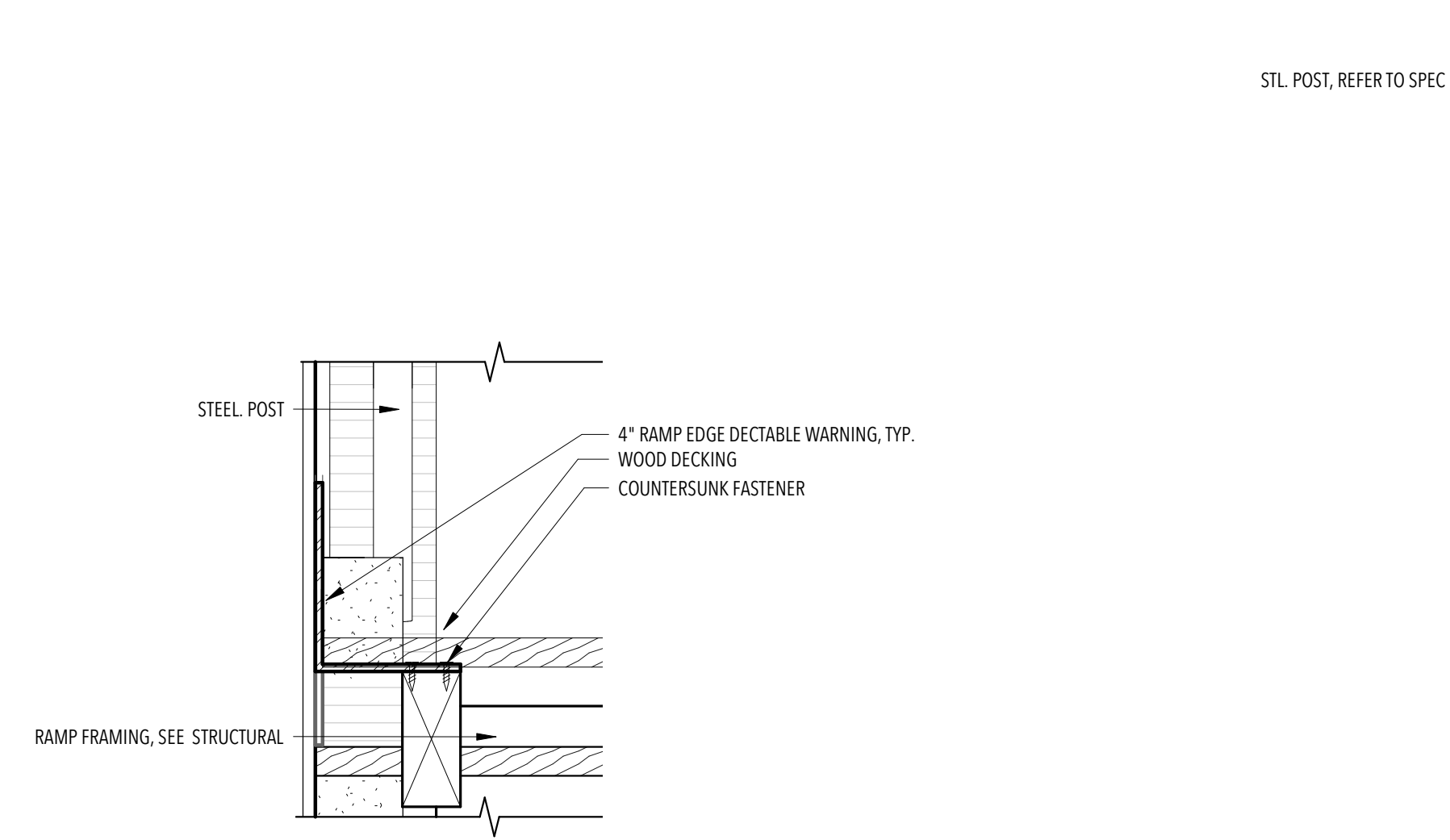
# A-541

## RAMP DETAILS

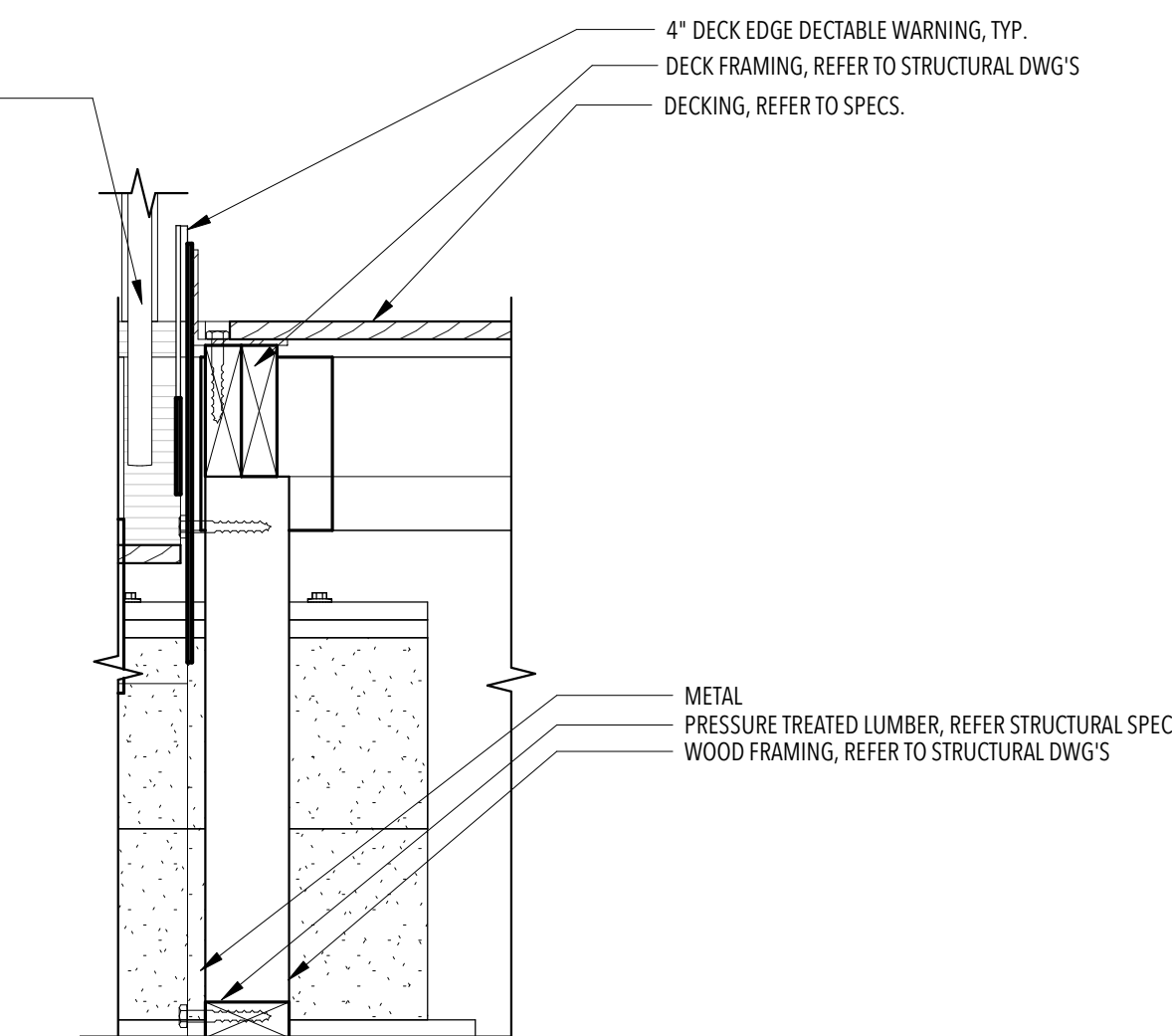
SCALE:  
As indicated

### GENERAL NOTES

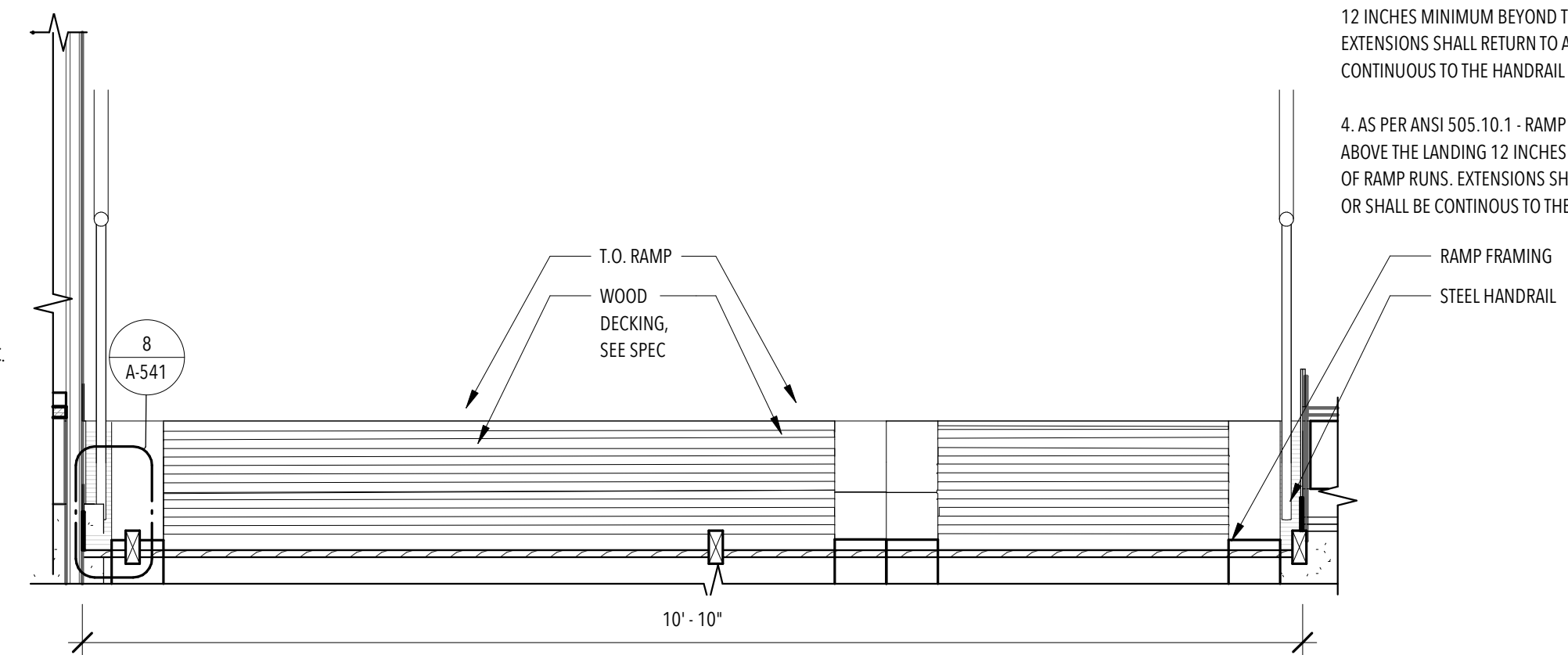
1. ALL DIMENSIONS UNLESS OTHERWISE NOTED ARE MEASURED FROM OUTSIDE FACE OF STUDS.
2. ALL VERTICAL DIMENSIONS ARE MEASURED FROM GRADE ELEVATION 0'-0".
3. RAMP HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING 12 INCHES MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR FLOOR, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP RUN.
4. AS PER ANSI 505.10.1 - RAMP HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING 12 INCHES MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS. EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR FLOOR, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RAMP RUN.



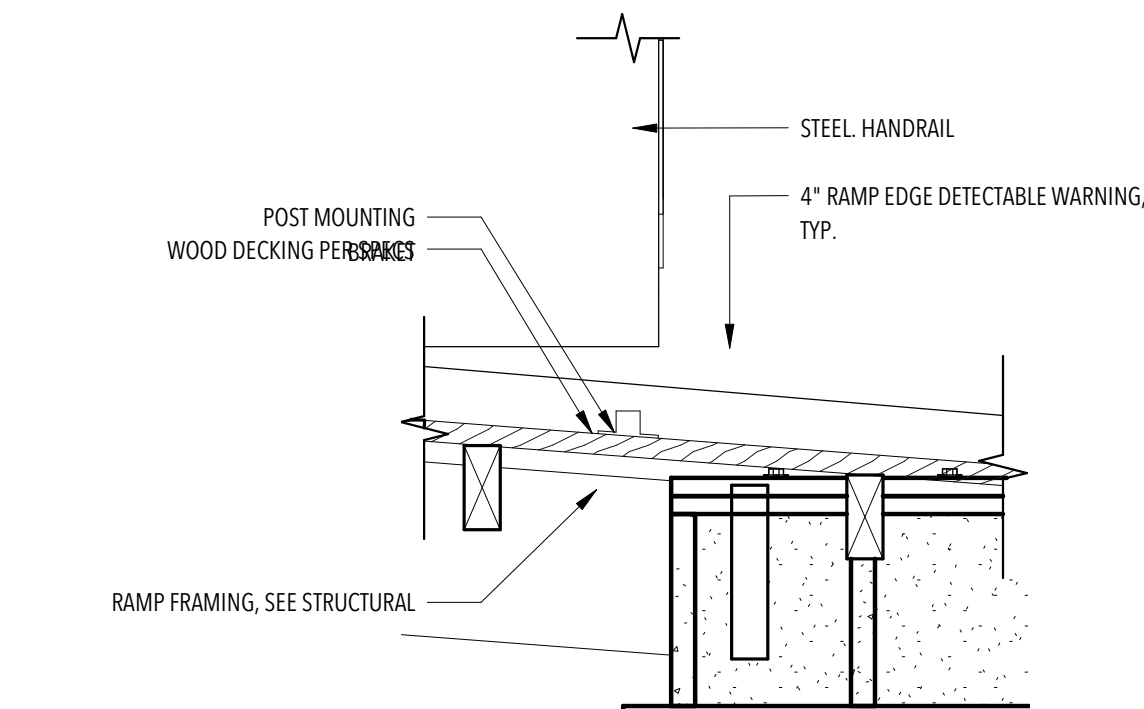
8 RAMP EDGE  
3\"/>



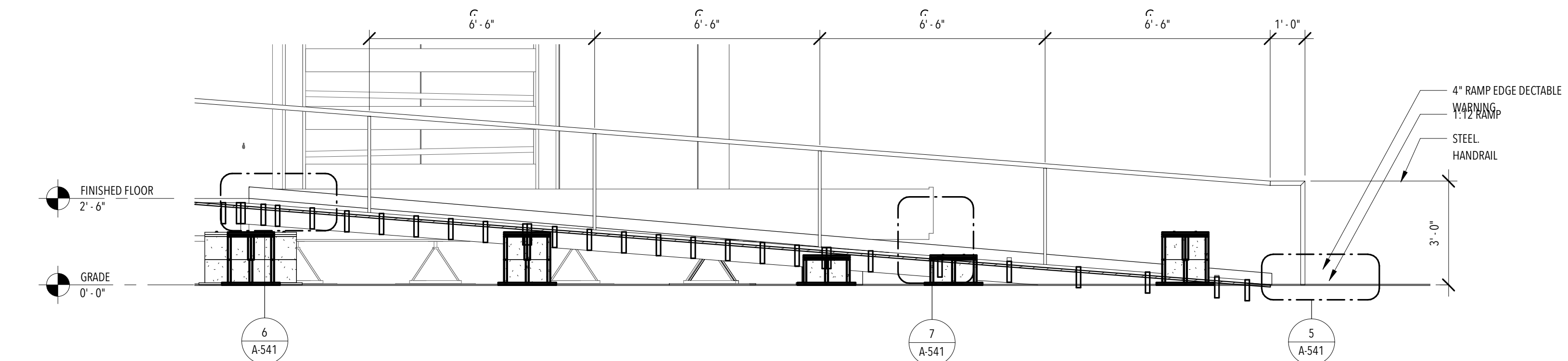
4 DETAIL @ RAMP EDGE  
1 1/2\"/>



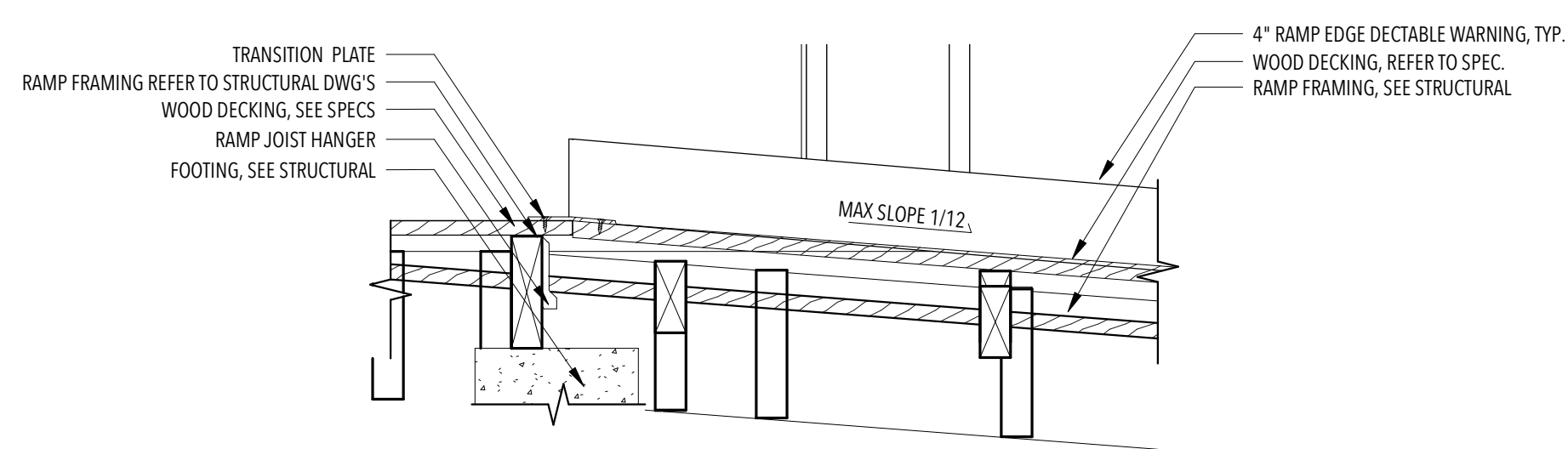
3 LONGITUDINAL RAMP SECTION  
3/4\"/>



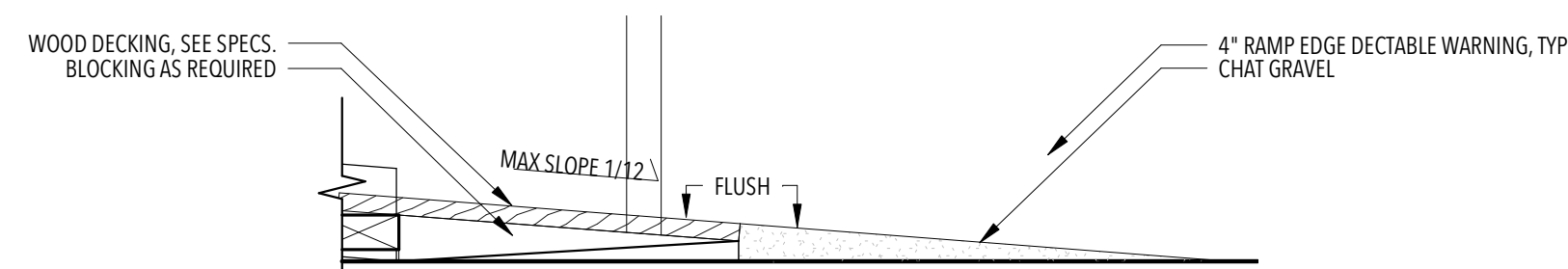
7 POST CONNECTION @ RAMP  
1 1/2\"/>



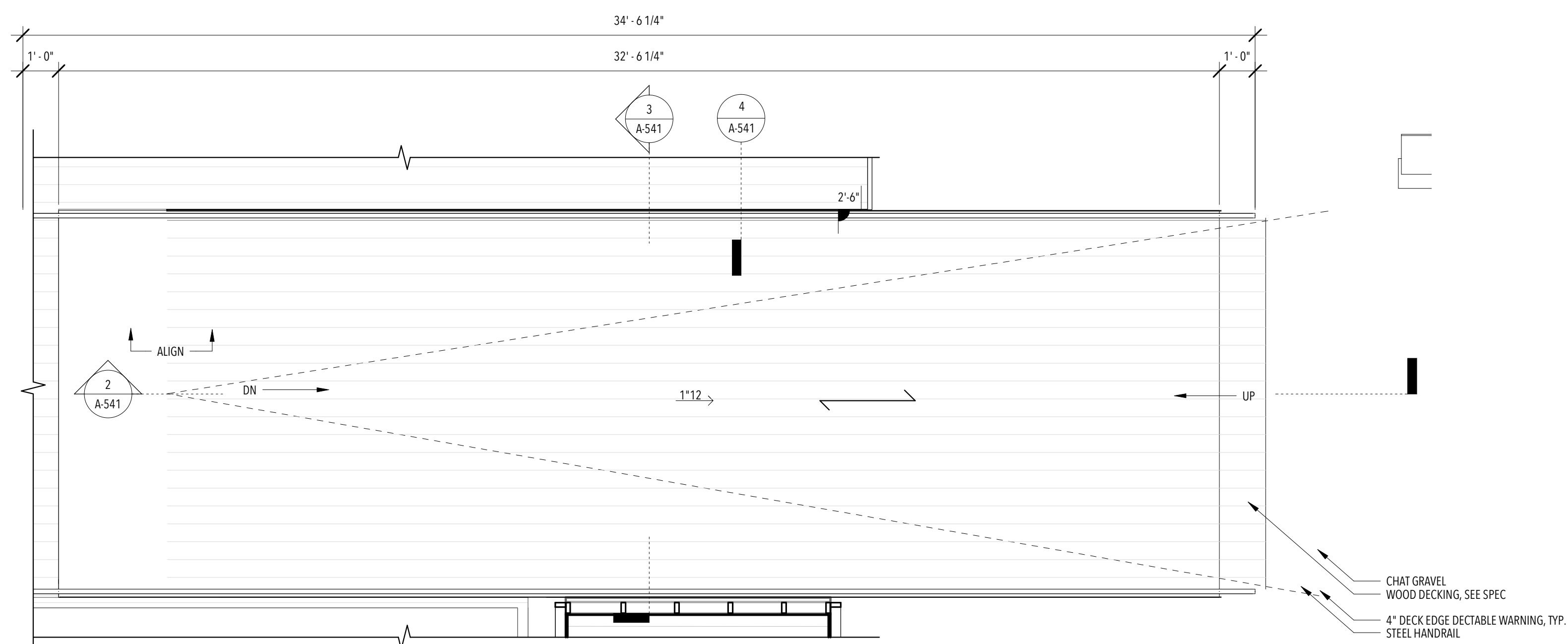
2 LATITUDINAL RAMP SECTION  
3/8\"/>



6 CONNECTION @ RAMP  
1 1/2\"/>



5 THRESHOLD @ RAMP  
1 1/2\"/>



1 ENLARGED RAMP FLOORPLAN  
3/8\"/>

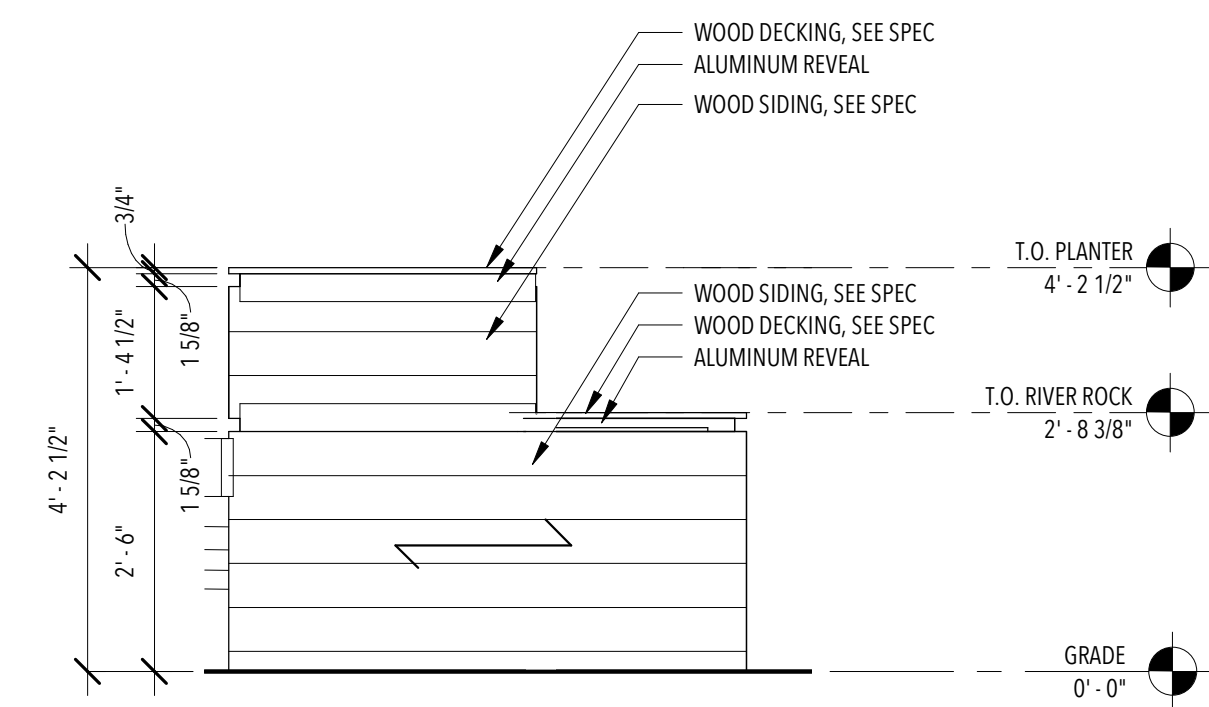
ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

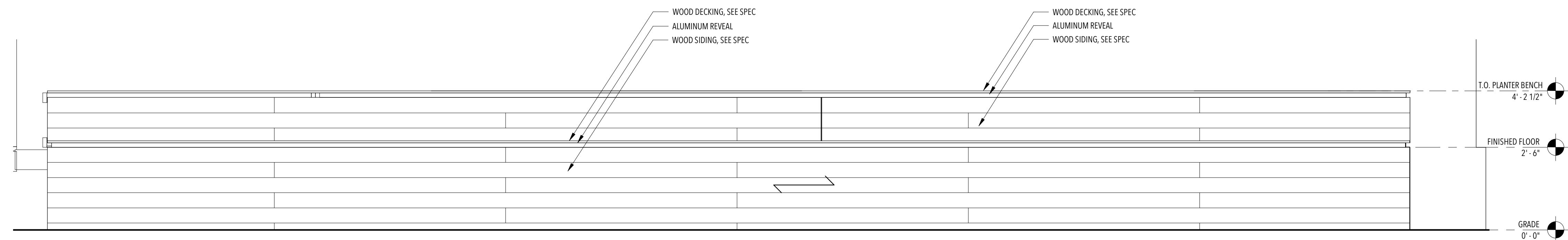
REVISIONS

NO.	DESCRIPTION	DATE
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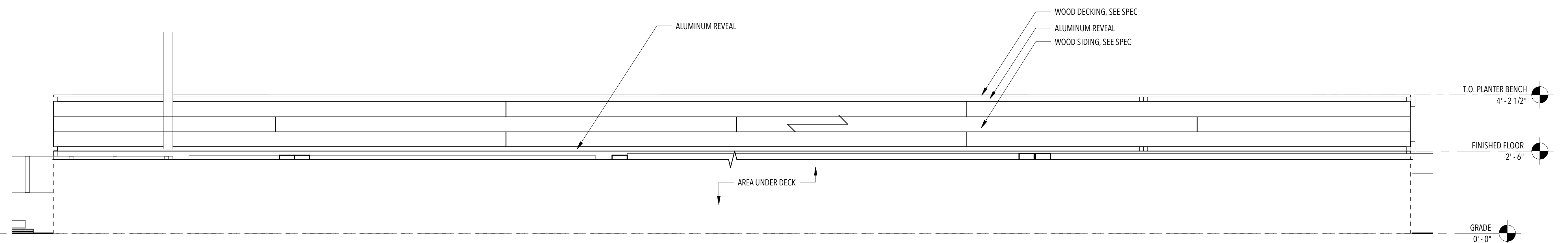
**A-542**  
EXTERIOR DETAILS



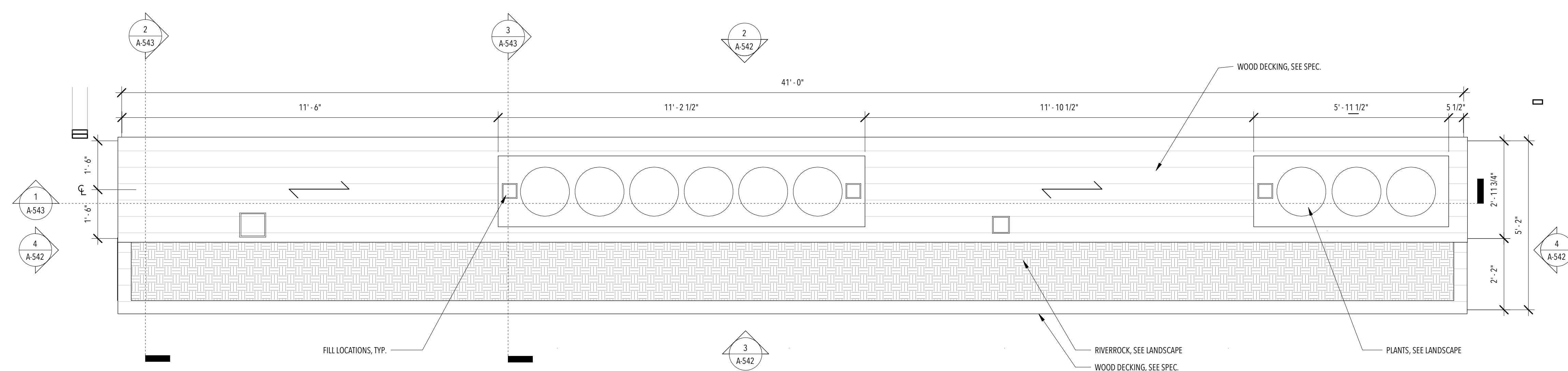
**4** PLANTER WATER BOX - NORTH  
1/2" = 1'-0"



**3** PLANTER WATER BOX - WEST  
1/2" = 1'-0"



**2** PLANTER WATER BOX - EAST  
1/2" = 1'-0"



**1** ENLARGER PLANTER WATER BOX  
1/2" = 1'-0"



### ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

### REVISIONS

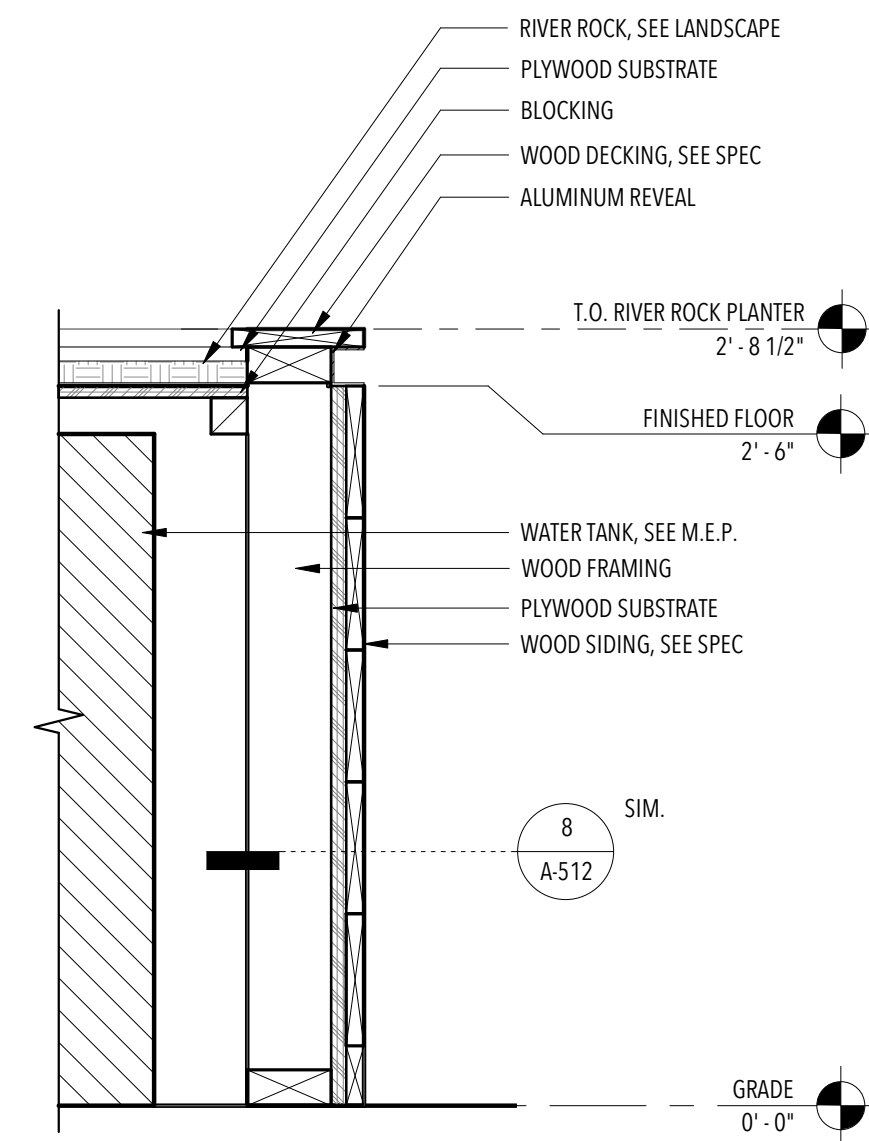
NO.	DESCRIPTION	DATE
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# A-543

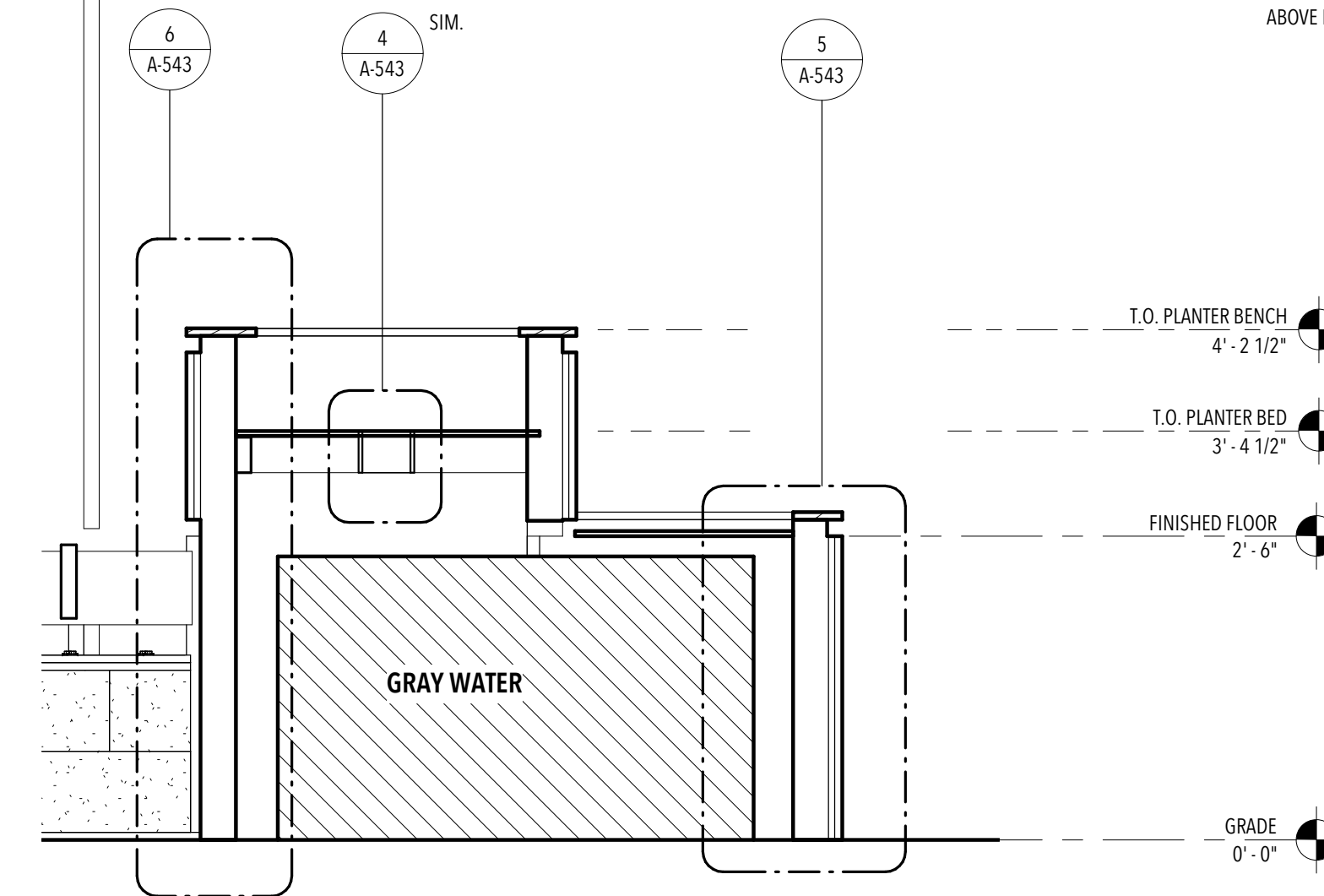
## EXTERIOR DETAILS

### GENERAL NOTES

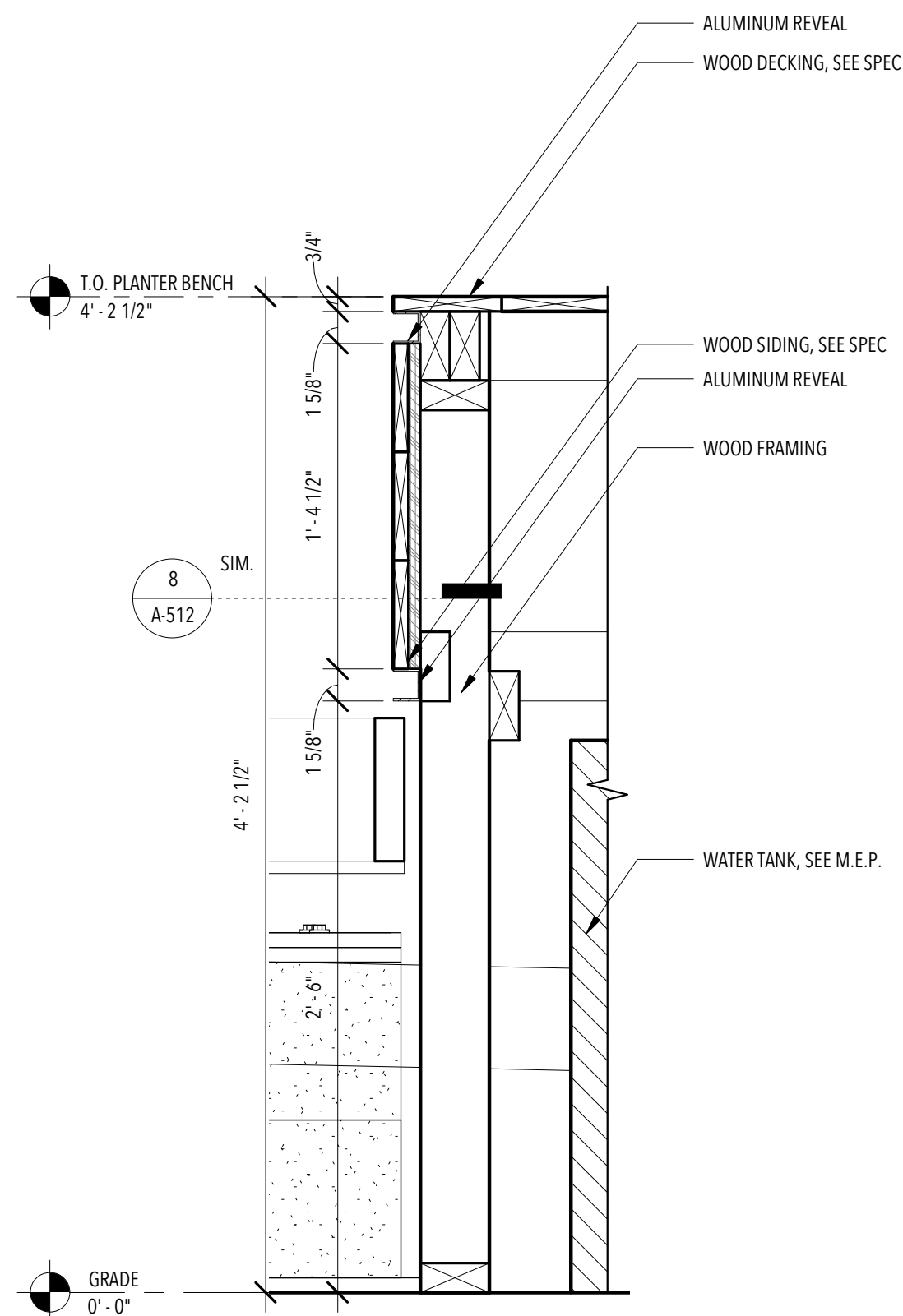
- PER SOLAR DECATHLON RULE 9-8 & 9-9: MINIMUM CLEARANCE OF 12" ABOVE FILL LOCATIONS.



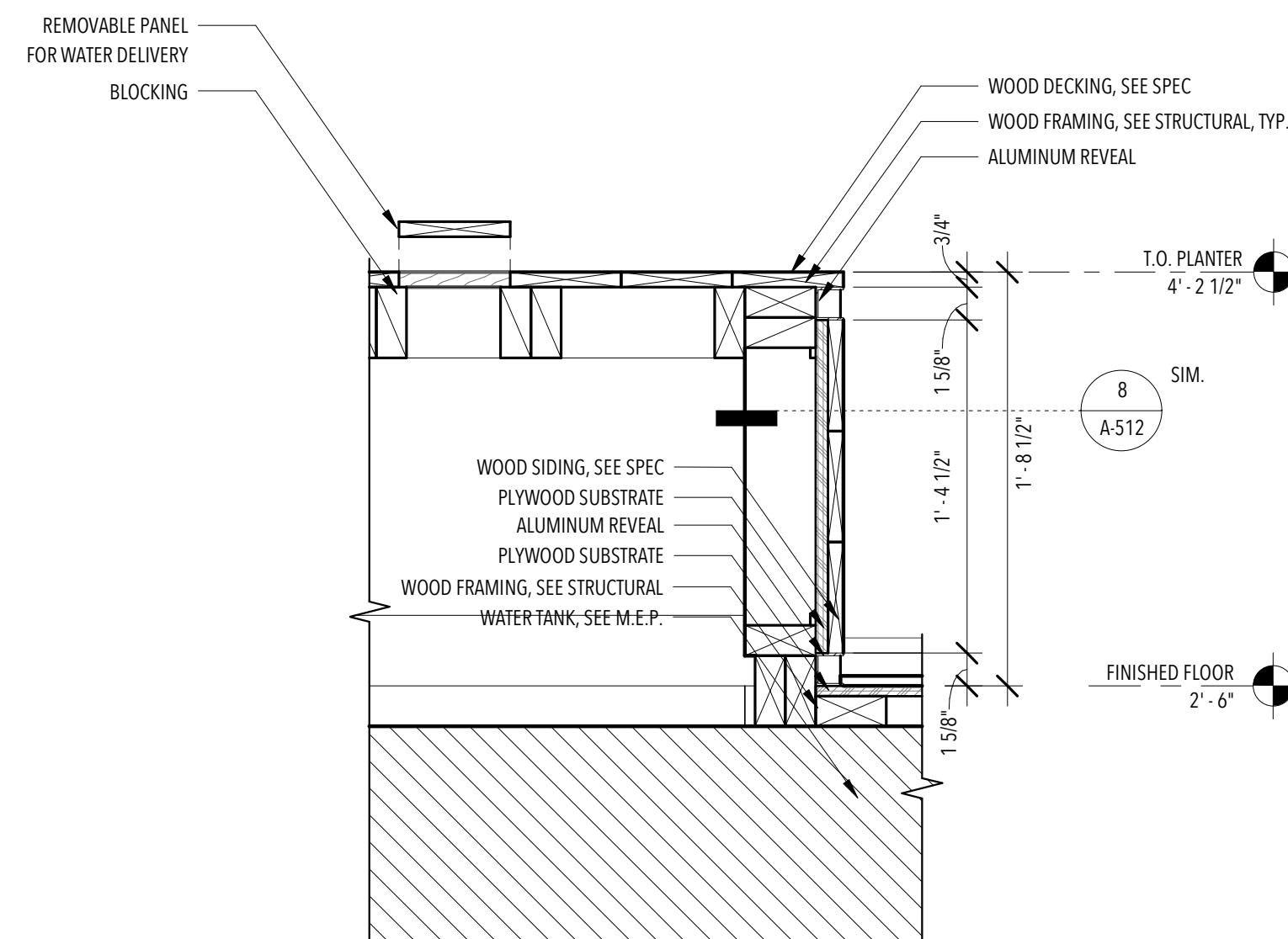
5 RIVERROCK WALL @ PLANTER  
1 1/2" = 1'-0"



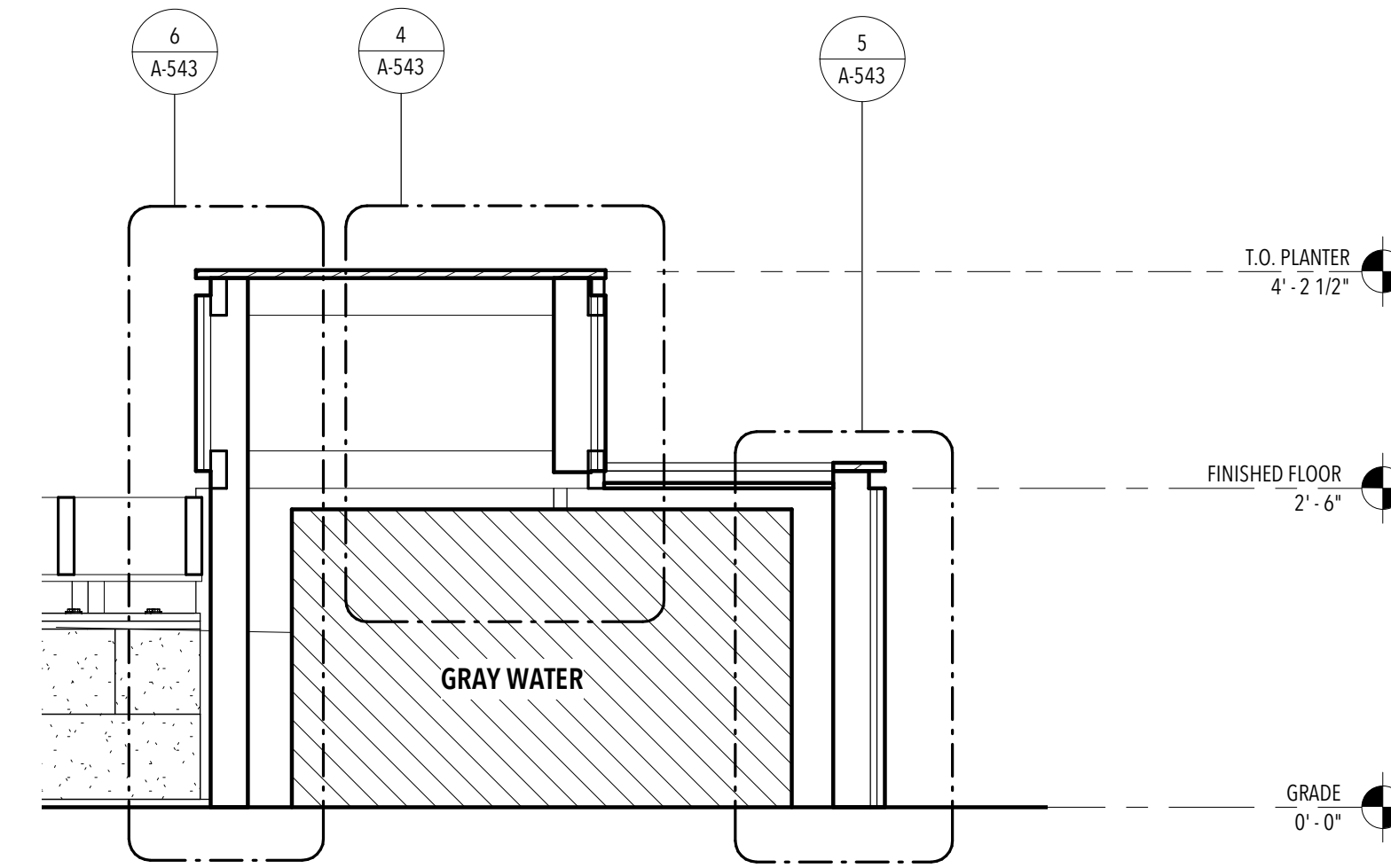
3 LONGITUDINAL SECTION @ PLANTER 2  
3/4" = 1'-0"



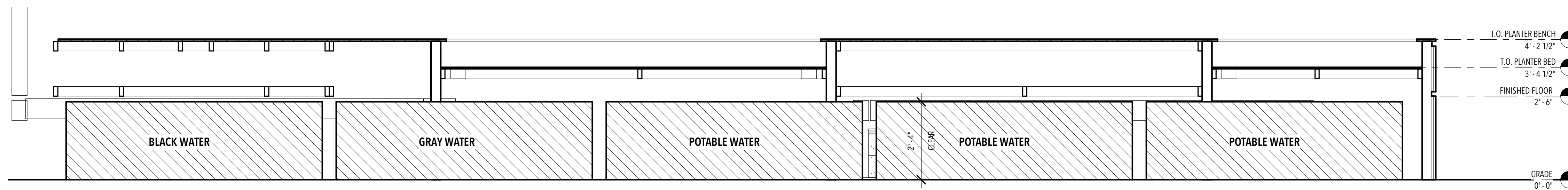
6 BENCH WALL @ PLANTER  
1 1/2" = 1'-0"



4 FILL LOCATION @ PLANTER  
1 1/2" = 1'-0"



2 LONGITUDINAL SECTION @ PLANTER 1  
3/4" = 1'-0"



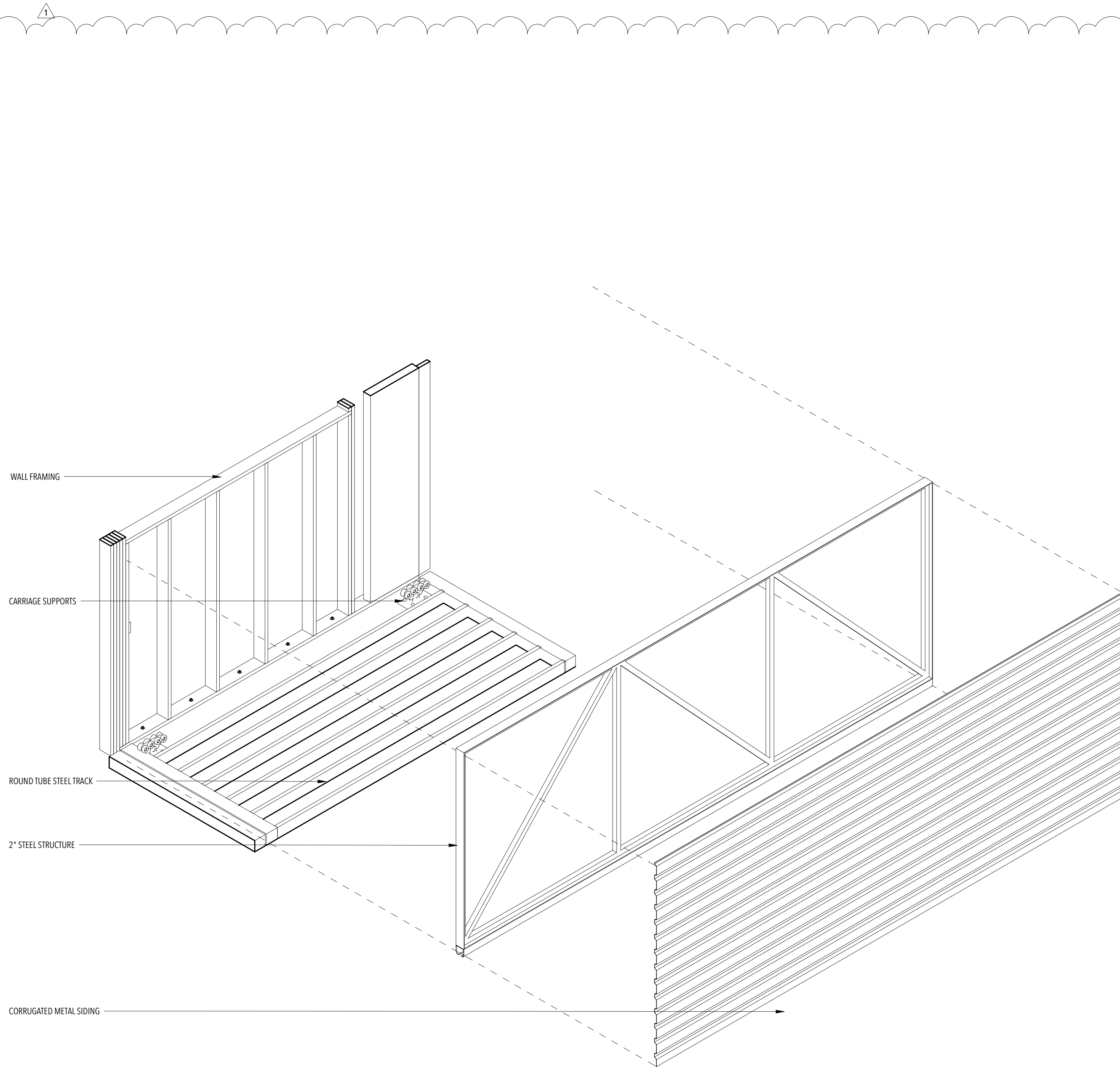
1 LATITUDINAL SECTION @ PLANTER  
1/2" = 1'-0"

ISSUANCES

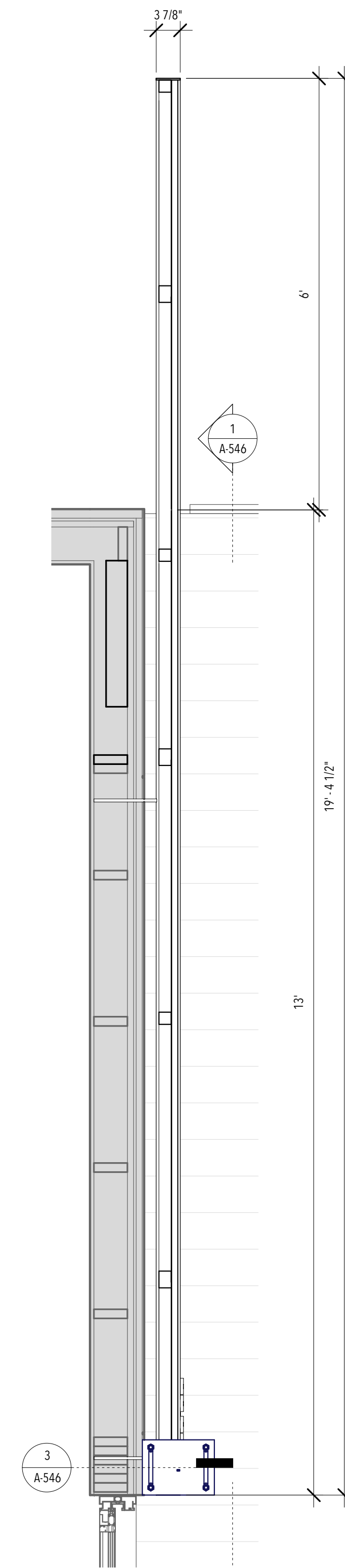
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

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NO.	DESCRIPTION	DATE
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2 EXPLODED AXON SLIDING PARTITION



1 SLIDING PARTITION  
3/4" = 1'-0"

**A-544**  
EXTERIOR DETAILS

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

ISSUANCES

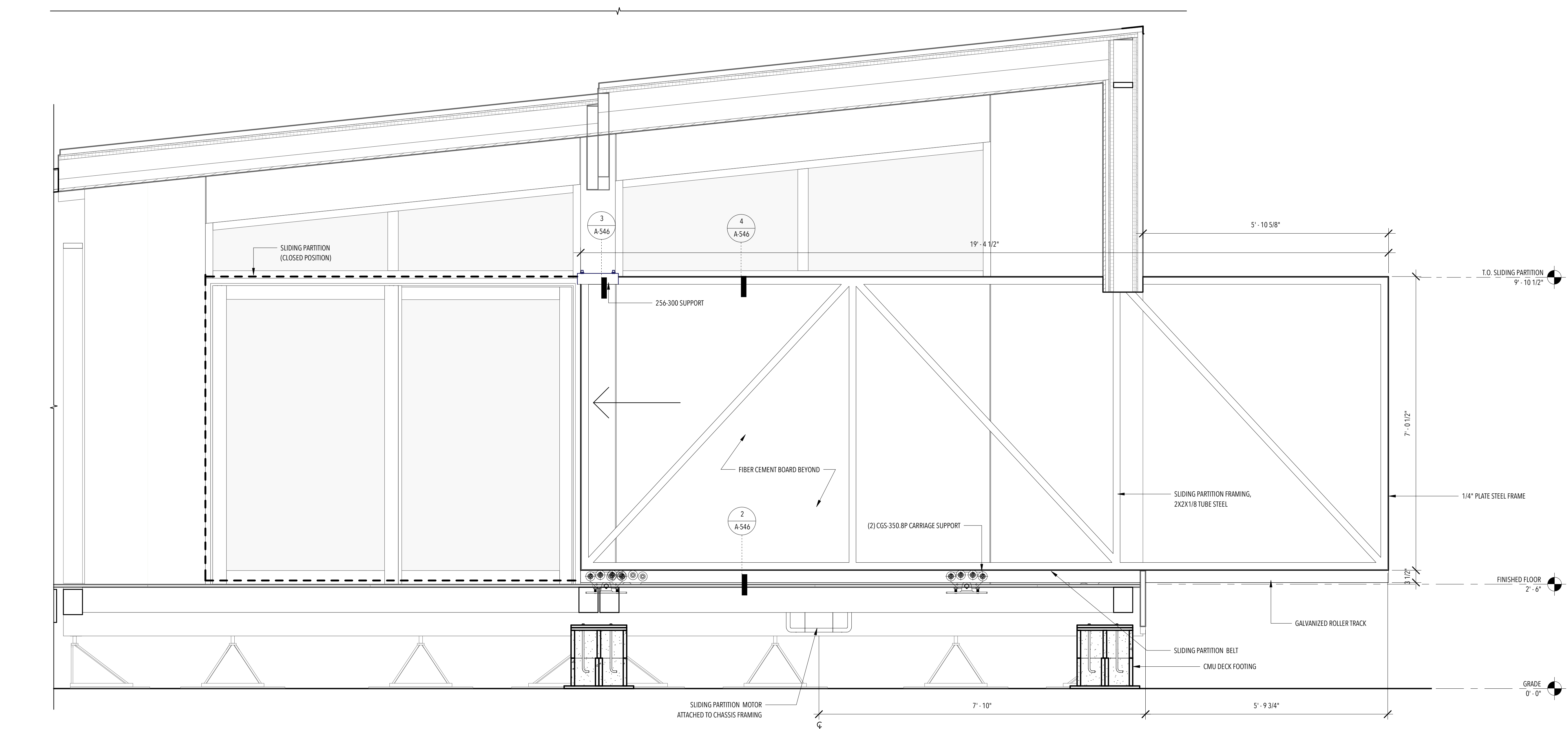
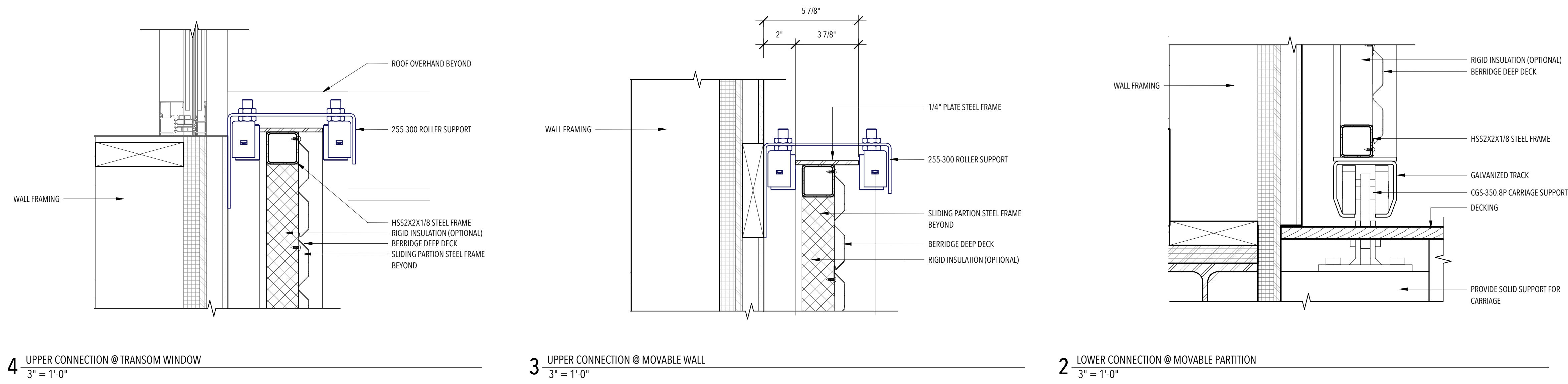
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

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NO.	DESCRIPTION	DATE
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**A-546**  
EXTERIOR DETAILS

SCALE:  
As indicated



SECTION @ SLIDING PARTITION MOTOR  
3/4" = 1'-0"



**CONSULTANTS**

**STRUCTURAL**

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

**ISSUANCES**

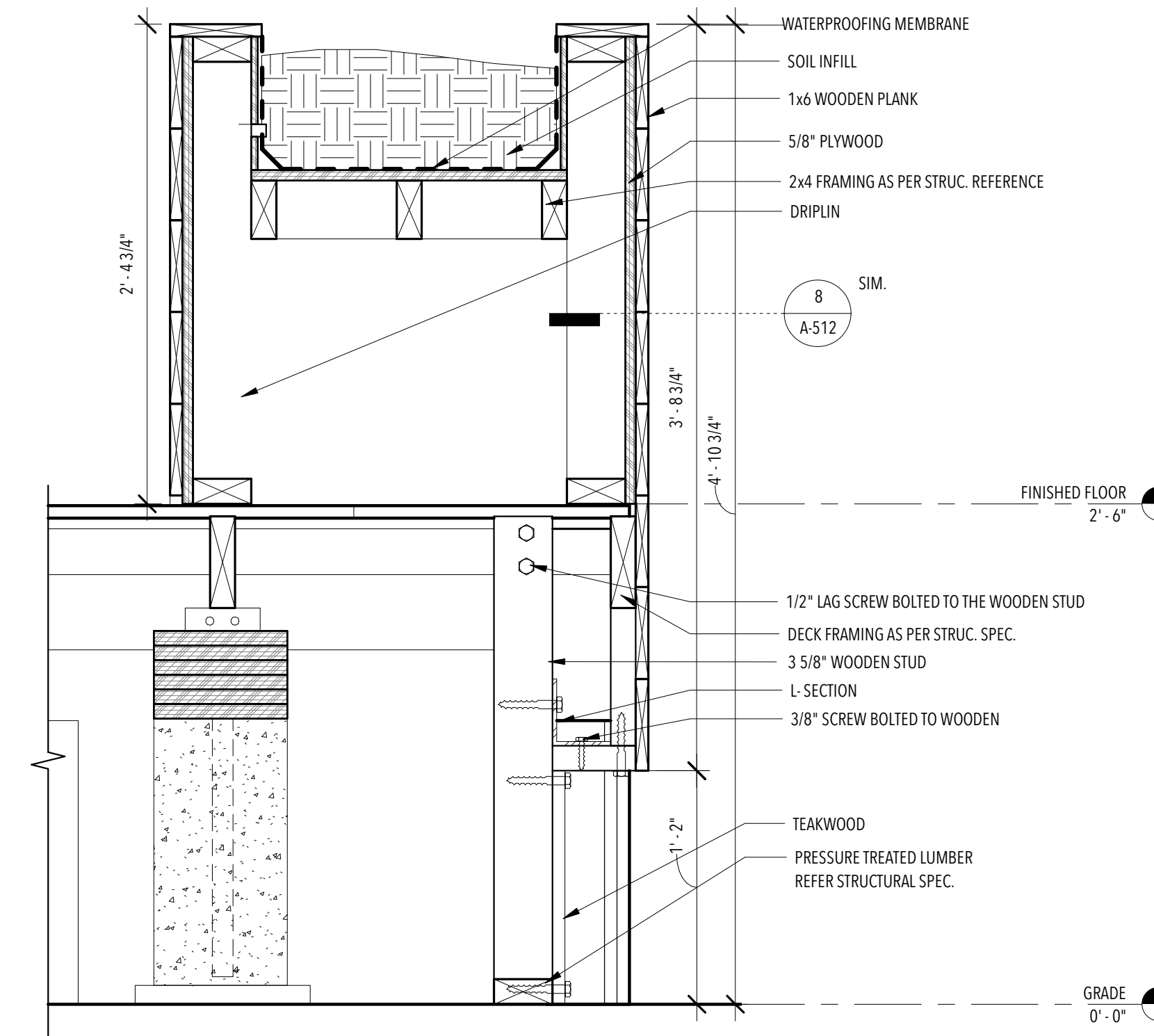
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

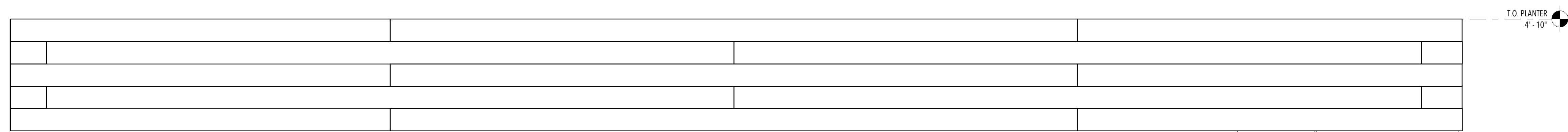
NO.	DESCRIPTION	DATE
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**A-548**  
EXTERIOR DETAILS

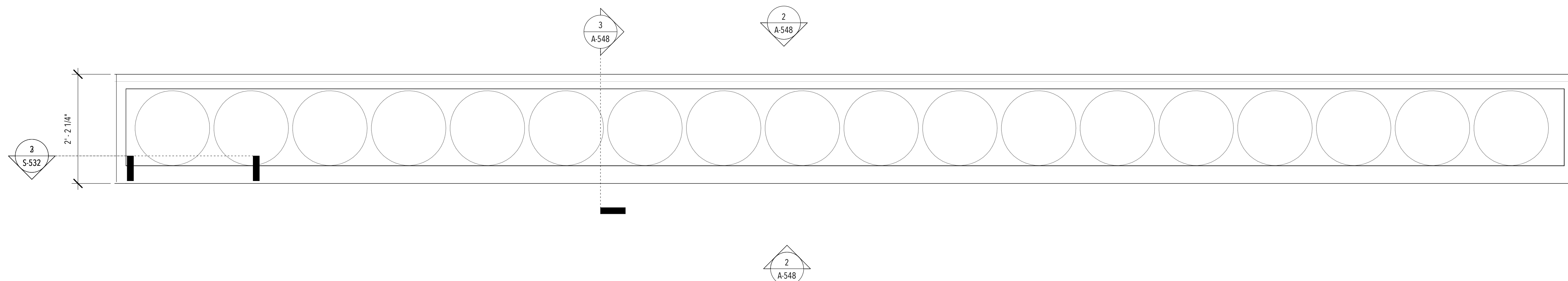
SCALE:  
As indicated



**3** LONGITUDINAL SECTION @ DECK PLANTER  
1 1/2" = 1'-0"



**2** PLANTER 2 - NORTH  
3/4" = 1'-0"



**1** ENLARGED DECK PLANTER  
3/4" = 1'-0"

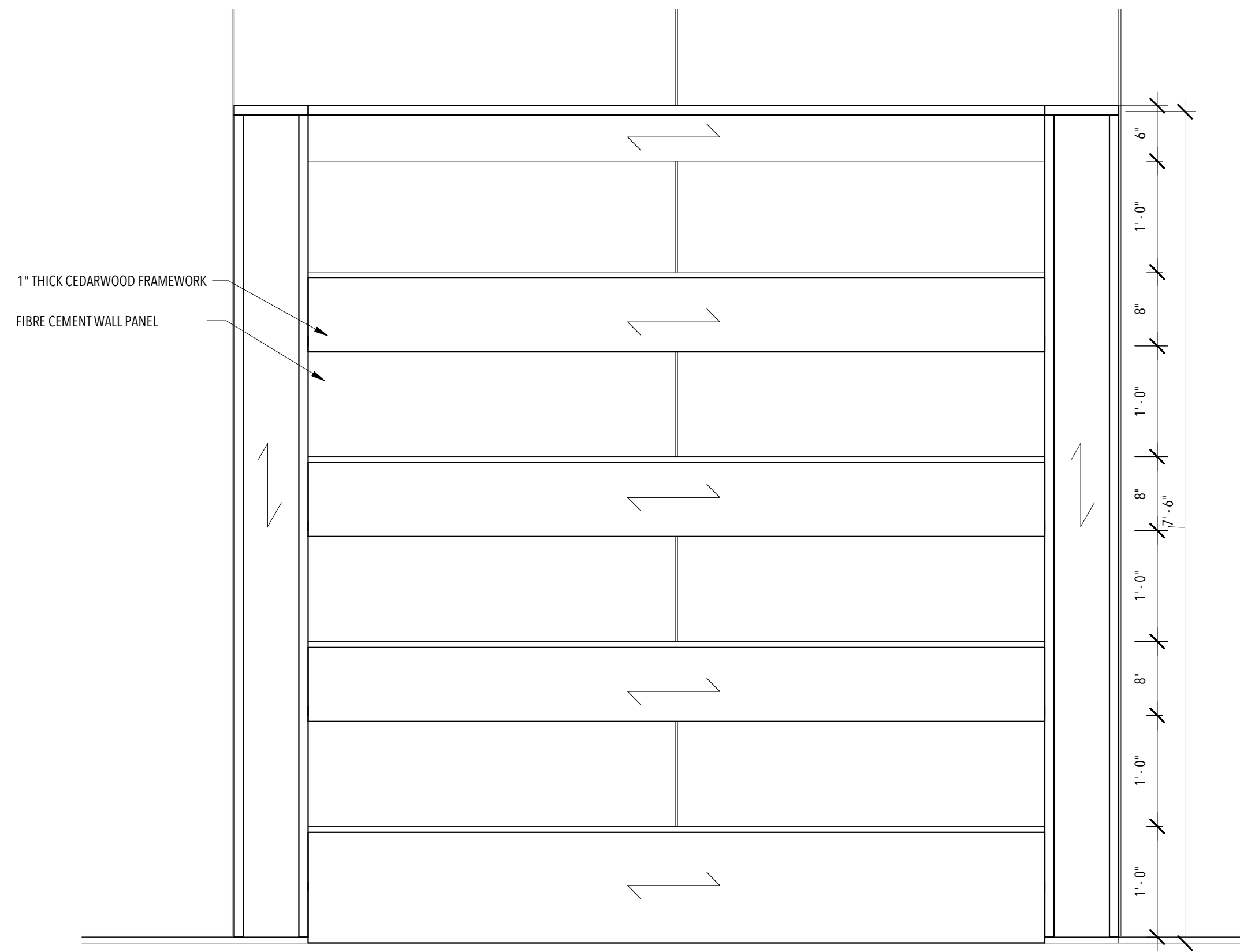
ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

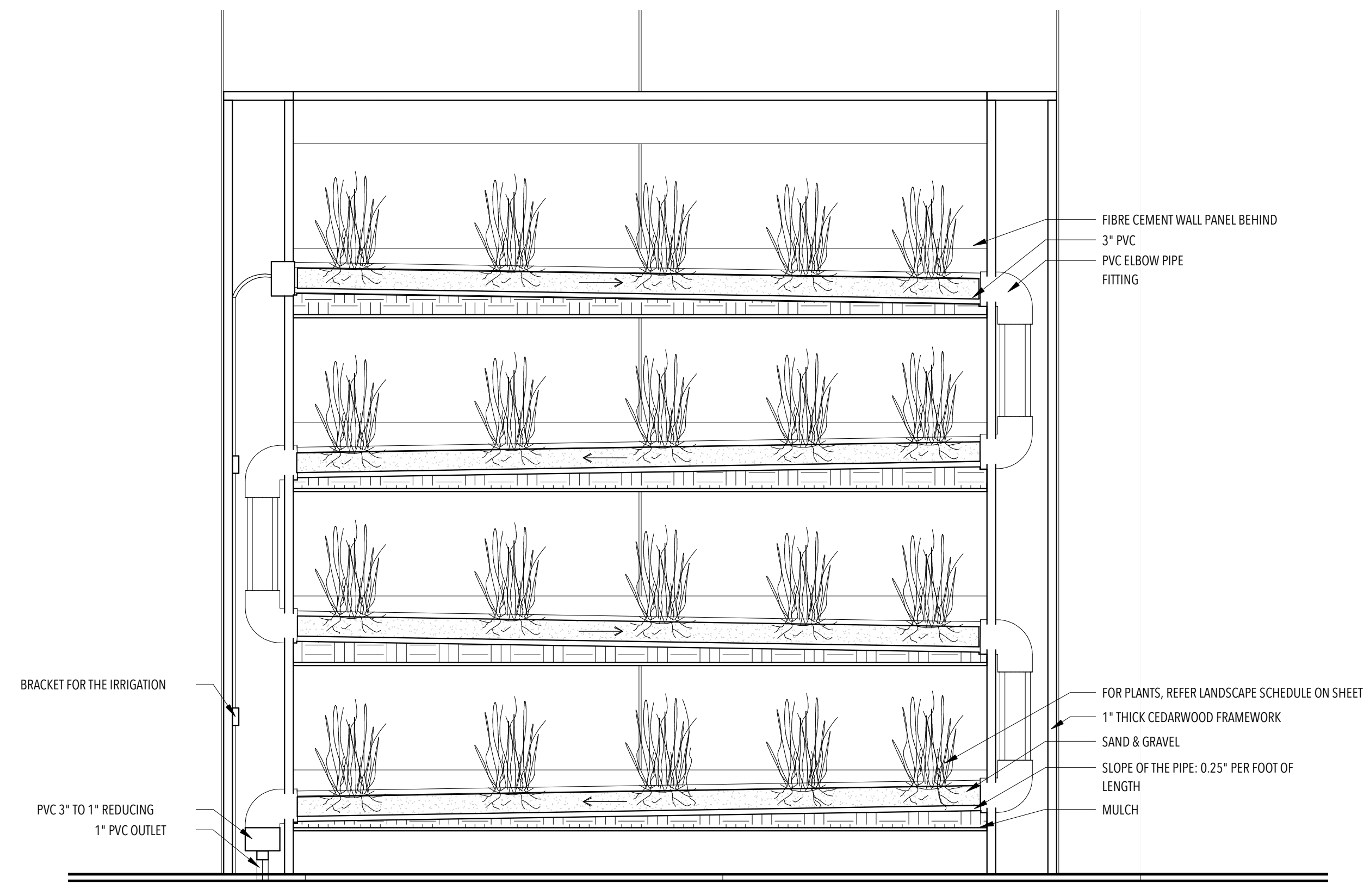
REVISIONS

NO.	DESCRIPTION	DATE
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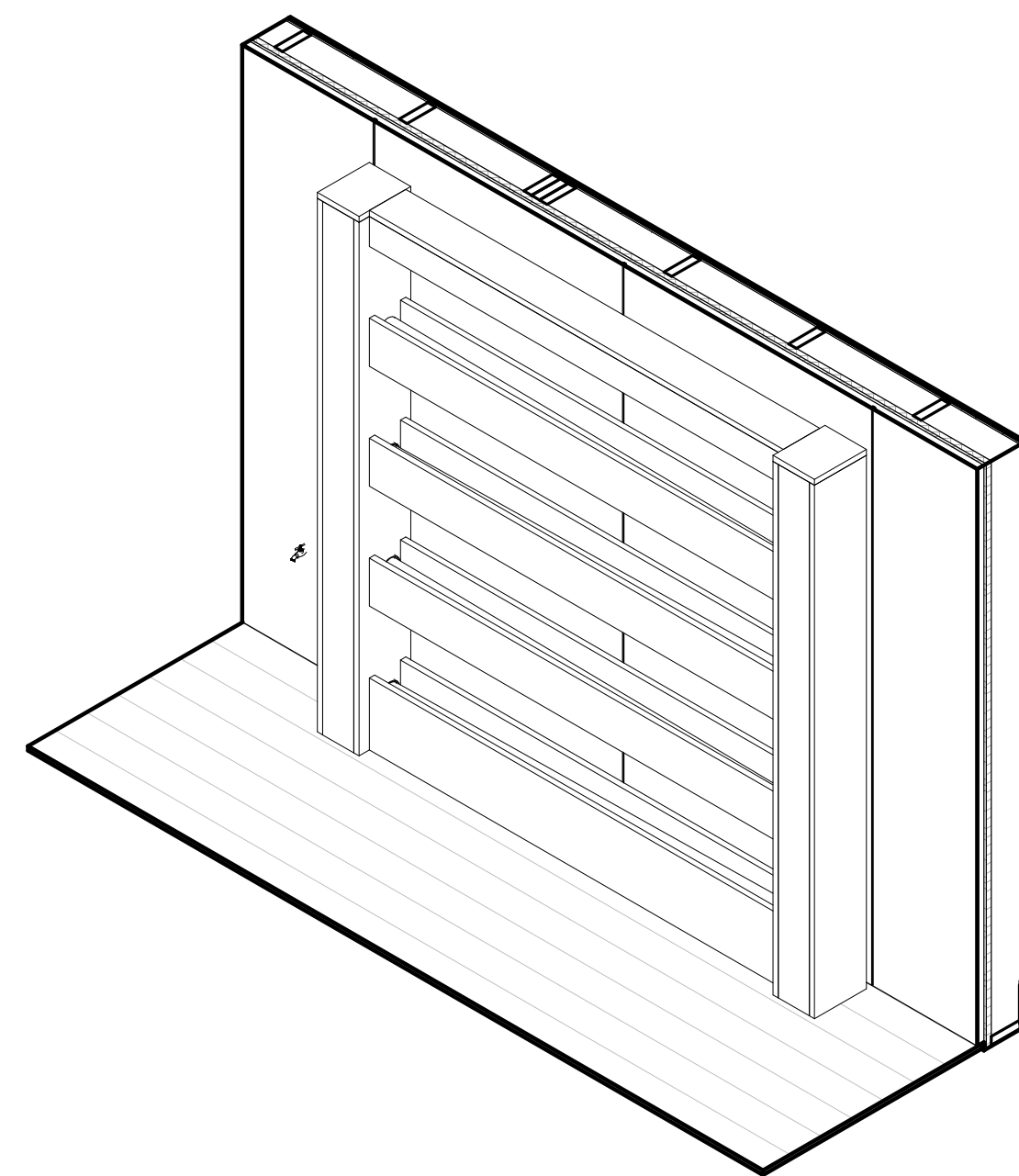
**A-549**  
EXTERIOR DETAILS



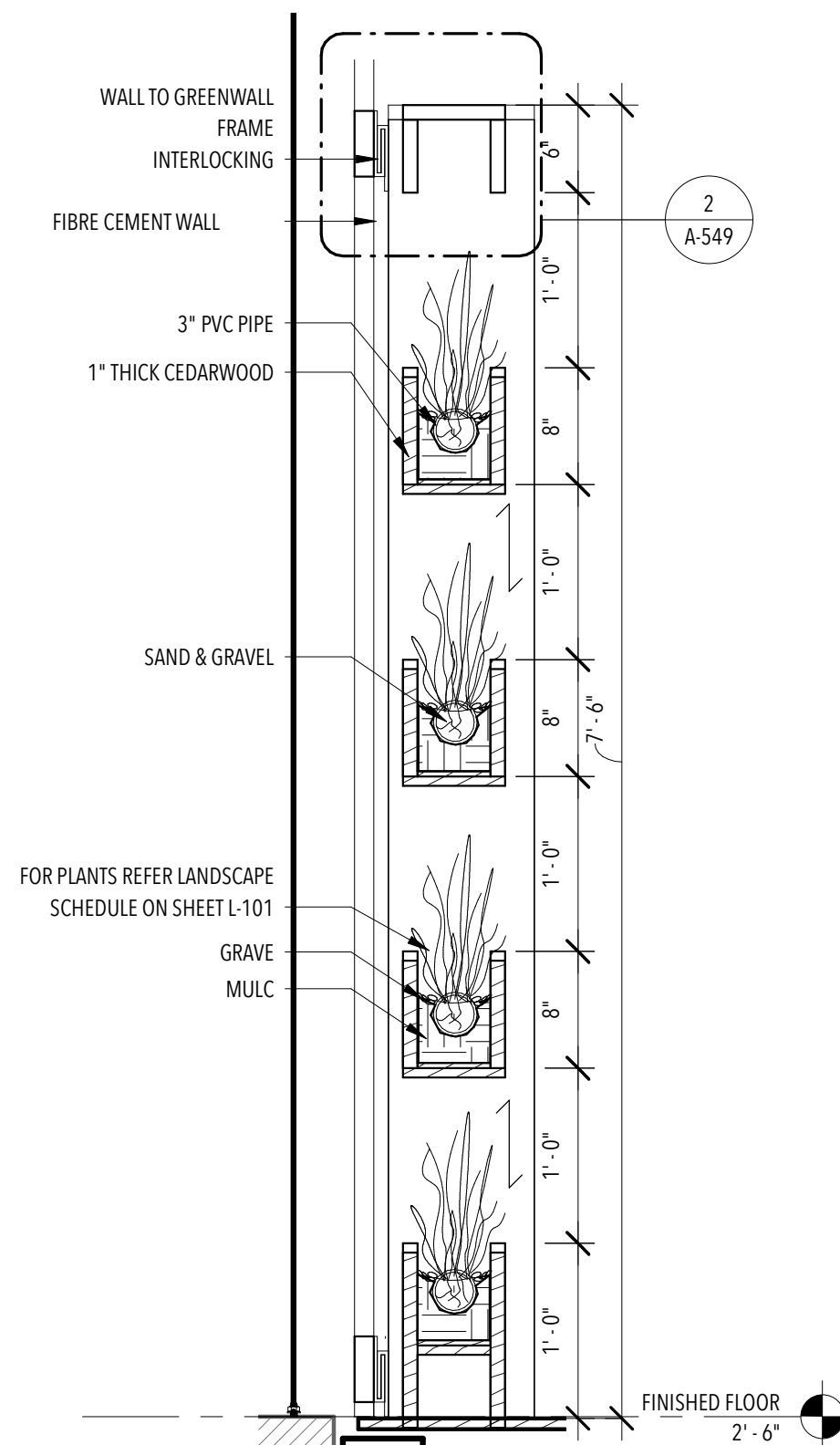
5 GREENWALL ELEVATION  
1" = 1'-0"



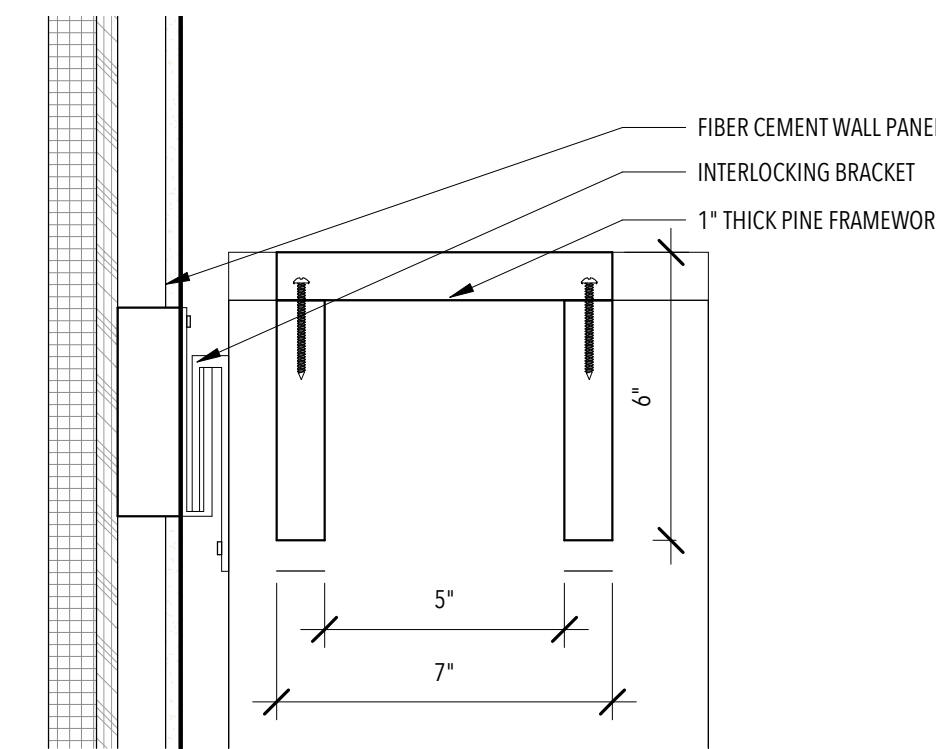
4 GREENWALL SECTION-1  
1" = 1'-0"



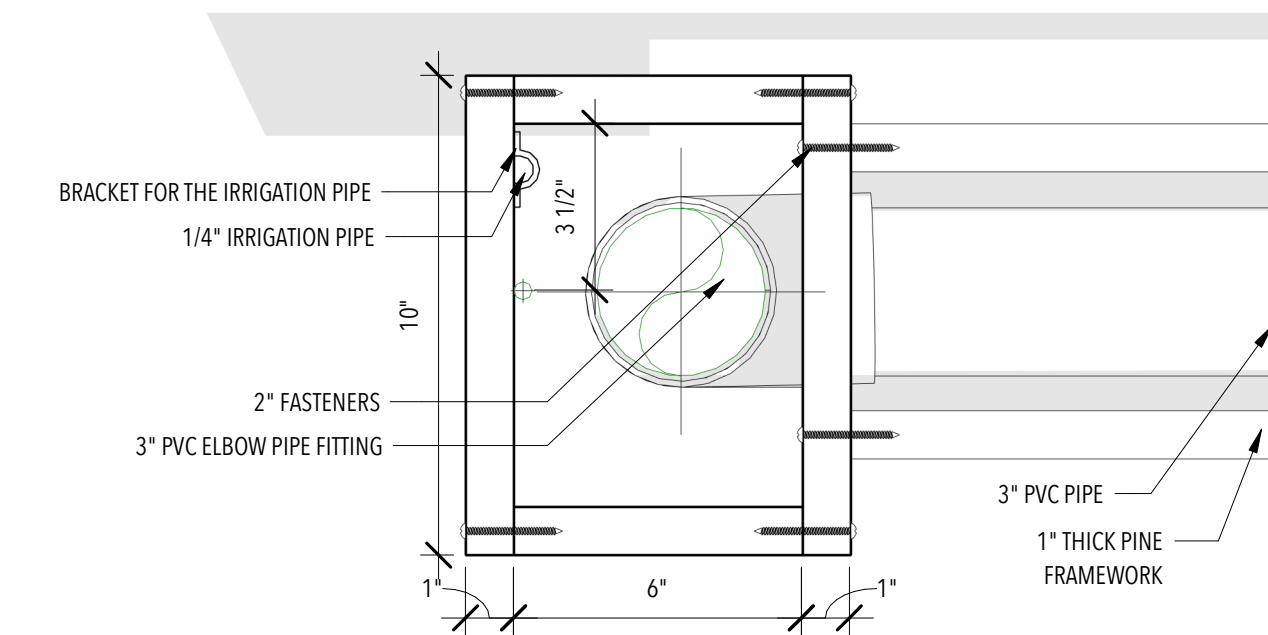
7 GREENWALL ISOMETRIC



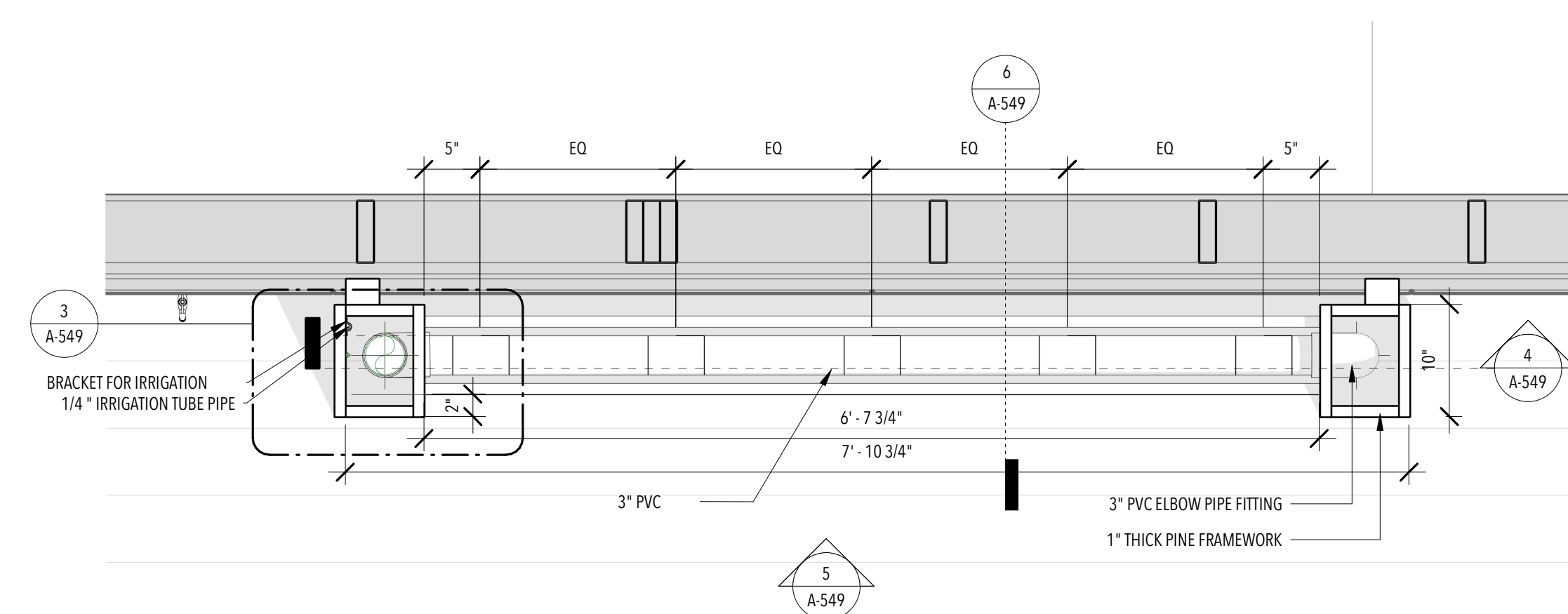
6 GREENWALL SECTION-2  
1" = 1'-0"



2 GREENWALL ENLARGED SECTION-2 DETAIL - Callout 1  
3" = 1'-0"

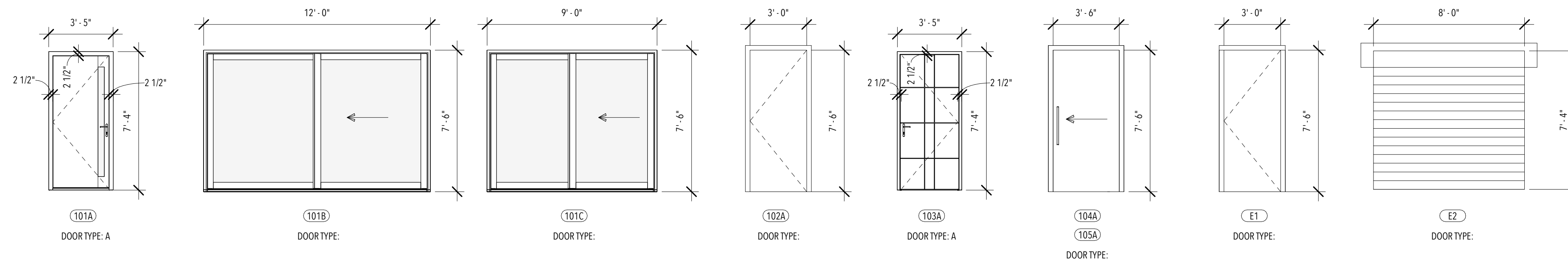


3 GREENWALL ENLARGED PLAN DETAIL - Callout 1  
3" = 1'-0"



1 GREENWALL PLAN  
1" = 1'-0"

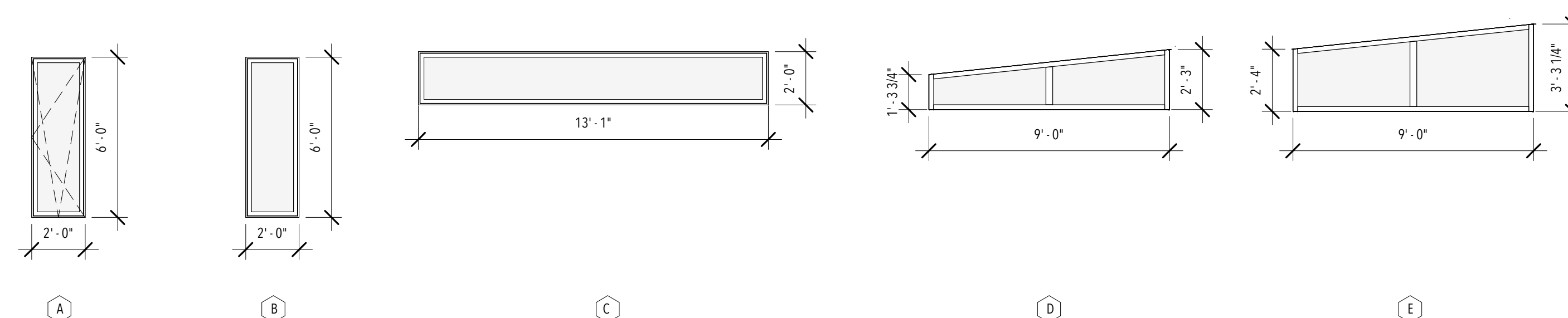
DOOR AND FRAME SCHEDULE																			
DOOR ASSEMBLY			DOOR MATERIAL						FRAME MATERIAL				DOOR PERFORMANCE						
NUMBER	LOCATION	DESCRIPTION	DIMENSIONS			MATERIAL	FINISH	MATERIAL	FINISH	DOOR TYPE	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	DOOR HARDWARE	FIRE RATING	GLAZING	MANUFACTURER	MODEL	COMMENTS
			WIDTH	HEIGHT	THICKNESS														
101A	ENTRY	SWING	3'-5"	7'-4 1/2"	0'-3 1/8"	ALUM	RAL 3028	ALUM	RAL 7042	A	2/A-531	3,6/A-531	1/A-531	1	N/A	GL-2	ENERGETECHS / GLO	D1 DECORATIVE ALUM. DOOR (5030)	
101B	KITCHEN	SLIDING	12'-0"	7'-6"	0'-3 1/8"	ALUM	RAL 7042	ALUM	RAL 7042	B	5/A-522	6,9/A-522	4/A-522	2	N/A	GL-1	ENERGETECHS / GLO	LIFT & SLIDE ULTRA (ADA FRAME)	
101C	LIVING	SLIDING	9'-0"	7'-6"	0'-3 1/8"	ALUM	RAL 7042	ALUM	RAL 7042	B	2/A-522	7,8/A-522	1/A-522	2	N/A	GL-1	ENERGETECHS / GLO	LIFT & SLIDE ULTRA (ADA FRAME)	
102A	BED	SWING	3'-0"	7'-6"	0'-2 1/4"	WD	--	WD	--	C	5/A-531	4,7/A-531	N/A	3	N/A	GL-2	RAYDOOR	PV1-CP	
103A	BED	SWING	3'-5"	7'-4 1/2"	0'-3 1/8"	ALUM	RAL 3028	ALUM	RAL 7042	A	2/A-531	3,6/A-531	1/A-531	1	N/A	DECORMAT	ENERGETECHS / GLO	D1 DECORATIVE ALUM. DOOR (5030)	
104A	BATH	POCKET	3'-6"	7'-6"	0'-2 1/4"	WD	--	WD	--	D	4/A-532	1,2/A-532	3/A-532	4	N/A	N/A	RAYDOOR	SP1-3-RD	
104B	BATH	POCKET	3'-6"	7'-6"	0'-2 1/4"	WD	--	WD	--	D	4/A-532	1,2/A-532	3/A-532	4	N/A	N/A	RAYDOOR	SP1-3-RD	
E1	MECH POD	SWING	3'-0"	7'-6"	0'-1 3/8"	WD	PT	METAL	PT	E	2/A-532	1/A-532	3/A-532	5	N/A	N/A	JELD-WEN	#121114	
E2	ELECTRICAL ROOM	ROLLING	8'-0"	6'-8"	0'-2"	ALUM	SILHOUTTE GRAY	ALUM	ALUM	F	9/A-531	8/A-531	N/A	6	N/A	N/A	STEEL DOOR DEPOT	JANUS 650	



WINDOW SCHEDULE															
MARK	LOCATION	COUNT	DESCRIPTION	DIMENSIONS		FRAME FINISH	GLAZING	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	MANUFACTURER	MODEL	HEAT TRANSFER COEFFICIENT (U)	SOLAR HEAT GAIN COEFFICIENT	COMMENTS
				HEIGHT	WIDTH										
A	BED / FLEX	2	TILT/TURN	6'-0"	2'-0"	RAL 7042	GL-1	6/A-521	1/A-521	8/A-521	ENERGETECHS / GLO	A5H	.20	.26	
B	BATH	1	FIXED	6'-0"	2'-0"	RAL 7042	GL-1	6/A-521	7/A-521	5/A-521	ENERGETECHS / GLO	A5H	.20	.26	
C	BED	1	FIXED CLERESTORY	2'-0"	13'-0"	RAL 7042	GL-1	9/A-521	7/A-521	5/A-521	ENERGETECHS / GLO	A5H	.20	.26	
D	LIVING	1	FIXED TRANSOM	SEE ELEVATION BELOW	9'-0"	RAL 7042	GL-1	9/A-521	3/A-521	2/A-521	ENERGETECHS / GLO	A5S	.20	.26	
E	FLEX	1	FIXED TRANSOM	SEE ELEVATION BELOW	9'-0"	RAL 7042	GL-1	9/A-521	3/A-521	2/A-521	ENERGETECHS / GLO	A5S	.20	.26	

GLASS TYPES

- GL-1 TRIPLE PANE PER MANUFACTURER SPECIFICATION
- GL-2 QUAD PANE PER MANUFACTURER SPECIFICATION



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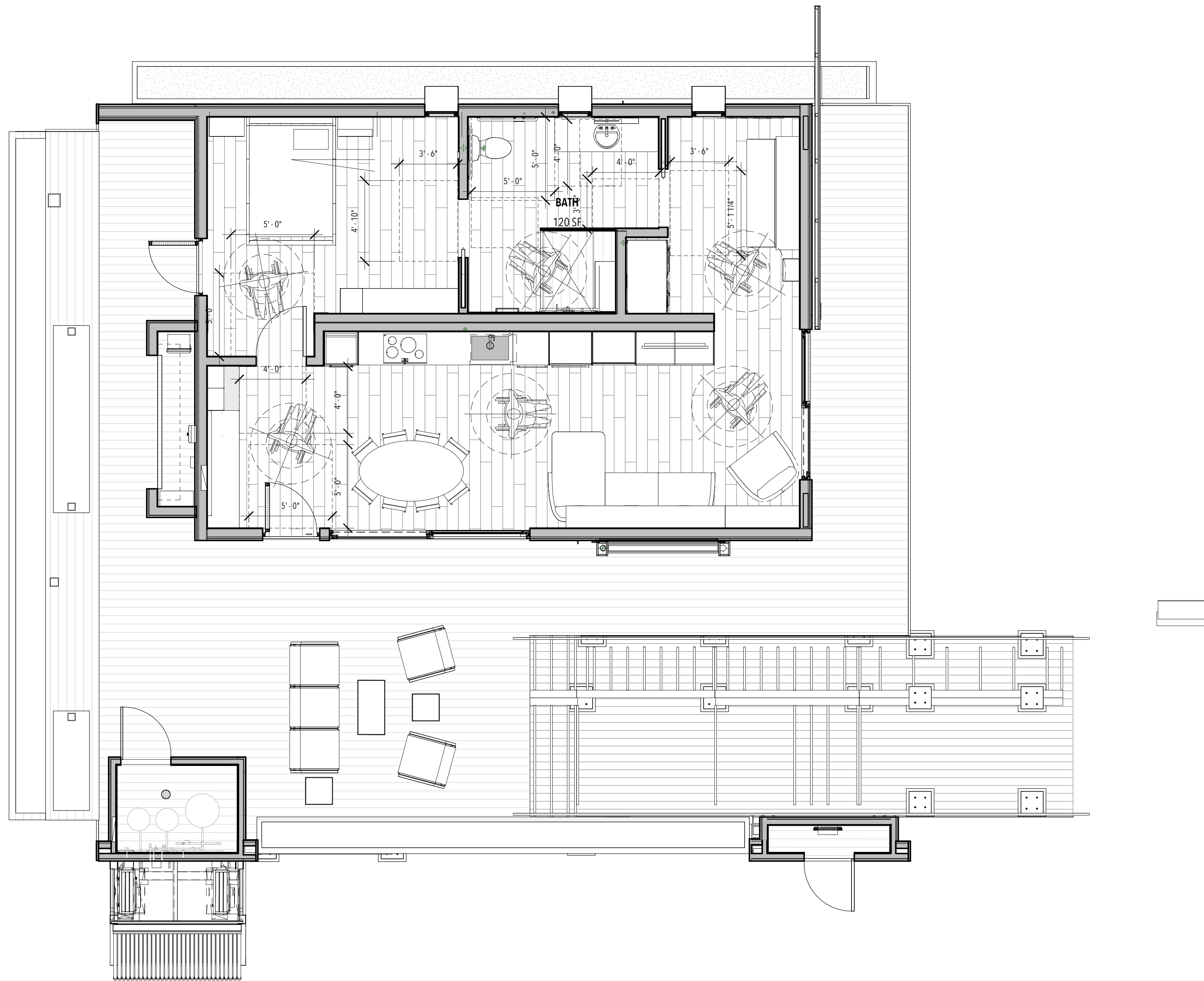
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REVISIONS

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**GENERAL NOTES**

1. REFER TO THE CORRESPONDING SECTION OF THE SPECIFICATIONS PACKET FOR A DETAILED DESCRIPTION OF ALL SPECIFIED COMPONENTS.
2. CENTER ELECTRICAL RECEPTABLE OUTLETS NOT LESS THAN 15" ABOVE FINISHED FLOOR.
3. MAXIMUM PULL OR PUSH EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS.
4. THE BOTTOM 10" OF ALL DOORS (EXCEPT SLIDING OR POCKET) SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
5. EVERY ENTRANCE DOORWAY SHALL NOT BE LESS THAN 3' IN WIDTH AND NOT LESS THAN 6'-8" IN HEIGHT.



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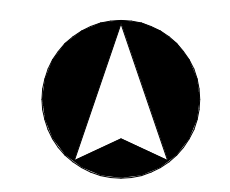
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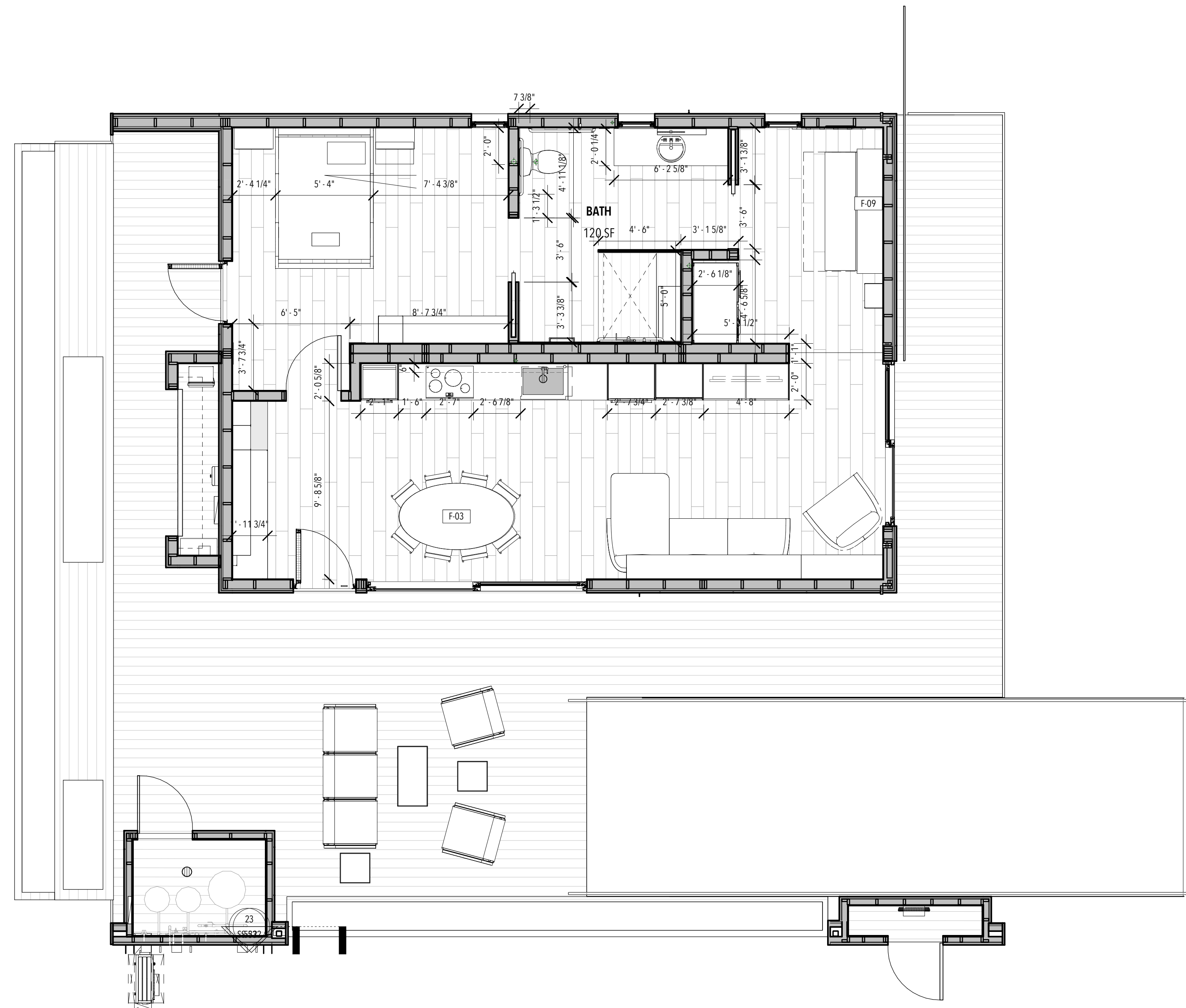
NO.	DESCRIPTION	DATE
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1 ADA COMPLIANCE PLAN  
1/4" = 1'-0"



**I-101**  
ADA COMPLIANCE

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



**GENERAL NOTES**

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2. ALL WD-00 FINISHES WILL RUN WOOD GRAIN FROM LEFT TO RIGHT.
3. THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITION AND DIMENSIONS PRIOR TO COMMENCING ANY WORK.
4. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE DESIGNER.
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8. ALLOW 1' OF CLEARANCE FROM B.O. HEAT PUMP
9. RECEPTACLES TO BE INSTALLED 15" O.C. FROM FINISH FLOOR.
10. ALL FURNITURE MUST REMAIN SEALED IN PRE-PACKAGING, OR PLASTIC WRAPPING PRIOR TO COMMISSIONING
11. ALL WALLCOVERING MUST BE FREE FROM AIR BUBBLES AND OR WRINKLING FROM ADHESIVE.
12. ALL WALLCOVERING WILL RUN VERTICAL ALIGNING W/ PATTERN REPEAT PER SPECIFICATION.
13. ALL WALLCOVERING SHALL BE SPECIFIED AND INSTALLED AS TYPE II OR TYPE III.
14. WALLCOVERING CONTRACTOR SHALL CHECK THE MATERIAL AFTER 3 DROPS. IF FLAWS IN THE MATERIAL ARE DETECTED, WORK SHALL STOP AND THE WALLCOVERING SUPPLIER WILL BE NOTIFIED SOS THAT APPROPRIATE REPLACEMENT MATERIAL MAY BE OBTAINED WITHOUT DELAY.
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16. PRODUCTS SENSITIVE TO ADVERSE WEATHER SHALL NOT BE INSTALLED UNTIL ADEQUATE WEATHER PROTECTION FOR THE INSTALLATION IS PROVIDED.
17. INTERIOR FINISHES AND MATERIALS SHALL CONFORM TO THE FLAME SPREAD AND SMOKE DENSITY IRC REQUIREMENTS.
18. ALL WALL FINISHES SHALL BE INSTALLED BY SKILLED WORKERS.
19. ALL FLOOR FINISHES SHALL BE INSTALLED BY SKILLED WORKERS.
20. FURRING STRIPS, OR Z-CLIPS, SHALL BE 1"X2" OR 1"X3" SPACED O.C. EQUAL TO THE DESIRED EXPOSURE.
21. ALL PAINTED WALLS SHALL BE LEVEL 5 FINISH.
22. ALIGN TRANSITION OF FLOOR MATERIAL WITH CENTER OF HINGE IN DOORWAY.
23. INSTALL DIRECTIONAL FLOORING ORIENTED AS SPECIFIED IN THE FURN/FINISH FLOOR PLAN.



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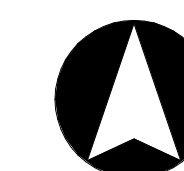
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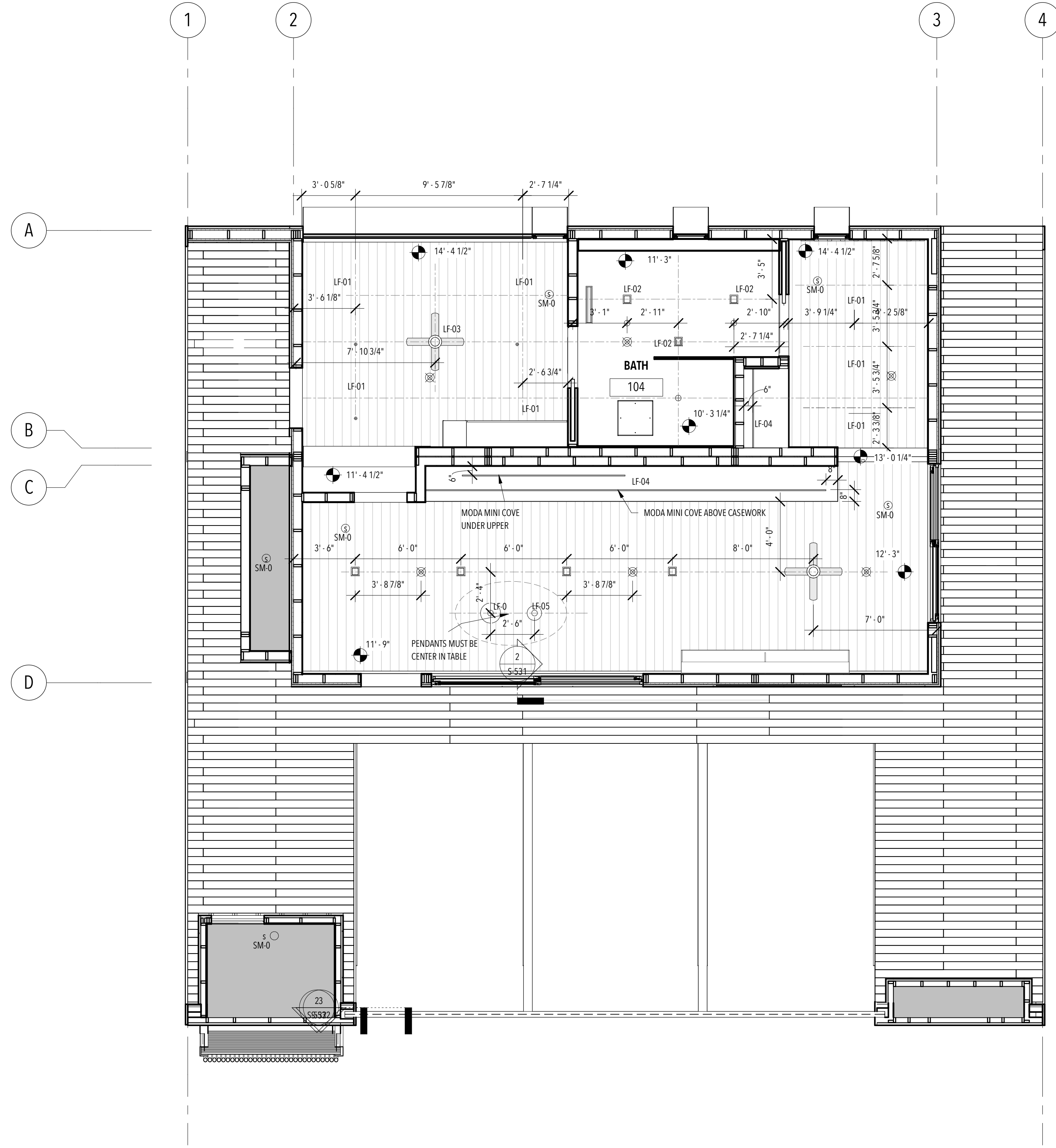
NO.	DESCRIPTION	DATE
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1 INTERIOR FLOOR PLAN  
1/4" = 1'-0"



**I-102**  
INTERIOR FINISH/FURN  
FLOOR PLAN

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



**GENERAL NOTES**

1. REFER TO THE CORRESPONDING SECTION OF THE SPECIFICATIONS PACKET FOR A DETAILED DESCRIPTION OF ALL SPECIFIED COMPONENTS.
2. DISCREPANCIES BETWEEN THE DRAWINGS AND SITE SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION BEFORE STARTING WORK.
3. LIGHTING PLANS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO GIVE APPROXIMATE LOCATIONS OF WIRES, FIXTURES, AND OTHER COMPONENTS WHICH MAY BE ALTERED WITHOUT THE PERMISSION OF THE DESIGNER.
4. ALL WORK TO BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR.
5. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CIRCUITRY, WIRE SIZING, AND ELECTRICAL CONNECTIONS.
6. CONTRACTOR TO VERIFY ALL QUANTITIES.
7. ALL RECESSED DOWNLIGHTS INSTALLED SHALL BE INSULATED AS REQUIRED BY PROJECT ENGINEER.
8. ALL FIXTURES, SPRINKLER HEADS, FIRE DETECTORS, ETC. SHALL BE MOUNTED ON CENTER OF WOOD PLANK MODULES, UNLESS OTHERWISE NOTED.
9. ADJUSTMENT OF SPRINKLERS MUST BE COORDINATED WITH DESIGNER AS NEEDED ON SITE.
10. THIS PLAN SHOWN FOR LOCATION ONLY. SEE ELECTRICAL DRAWINGS FOR CIRCUITING AND SWITCHING INFORMATION.
11. ALL FIXTURES, SPRINKLER HEADS, FIRE DETECTORS, ETC. SHALL BE PLACED IN BETWEEN JOISTS AS INDICATED.

**REFLECTED CEILING LEGEN**

- LF-01 3110 BEVELED 2.1 DL SO
- LF-02 3110 BEVELED 2.1 DL SO WET
- LF-03 HAIKU CEILING FAN
- LF-04 MODA MINI COVE LED
- LF-05 NIVEOUS PD-S1310
- LF-06 NIVEOUS PD-S2313
- SM-0 ZIGBEE SMOKE DETECTOR

**REFLECTED CEILING MATERIAL**

- SF-01 THERMORY WOOD PLANK
- PF-01 SW7757 HIGH REFLECTIVE WHITE.



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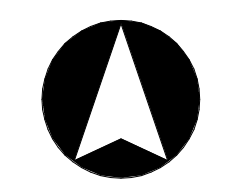
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1 REFLECTED CEILING PLAN  
1/4" = 1'-0"



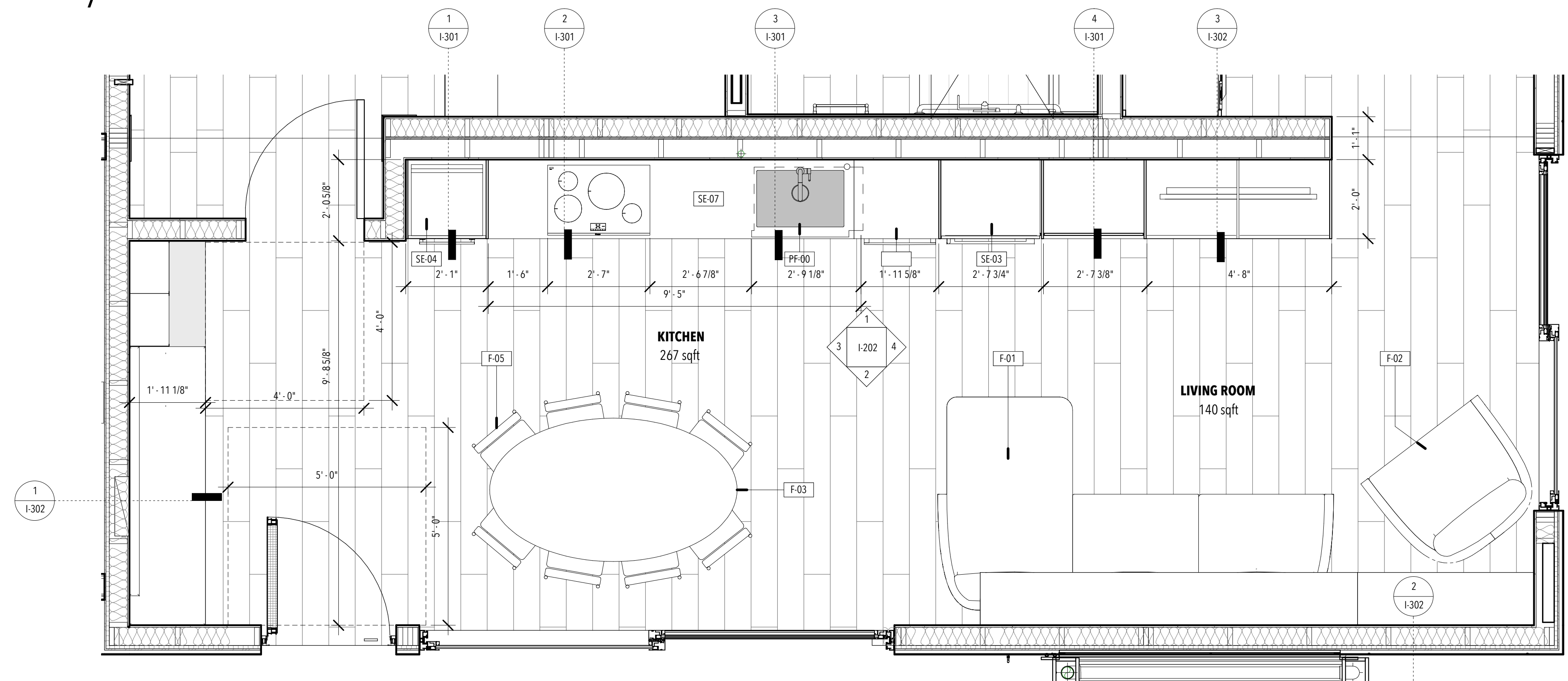
**I-103**  
REFLECTED CEILING PLAN

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

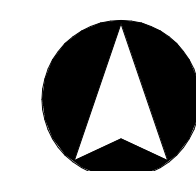




7 SOCIAL MODULE 2



5 ENLARGED SOCIAL MODULE  
1/2" = 1'-0"



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STRUCTURAL

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LAS VEGAS, NV 89129  
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I-201  
INTERIOR  
ELEVATIONS-SOCIAL

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

ISSUANCES

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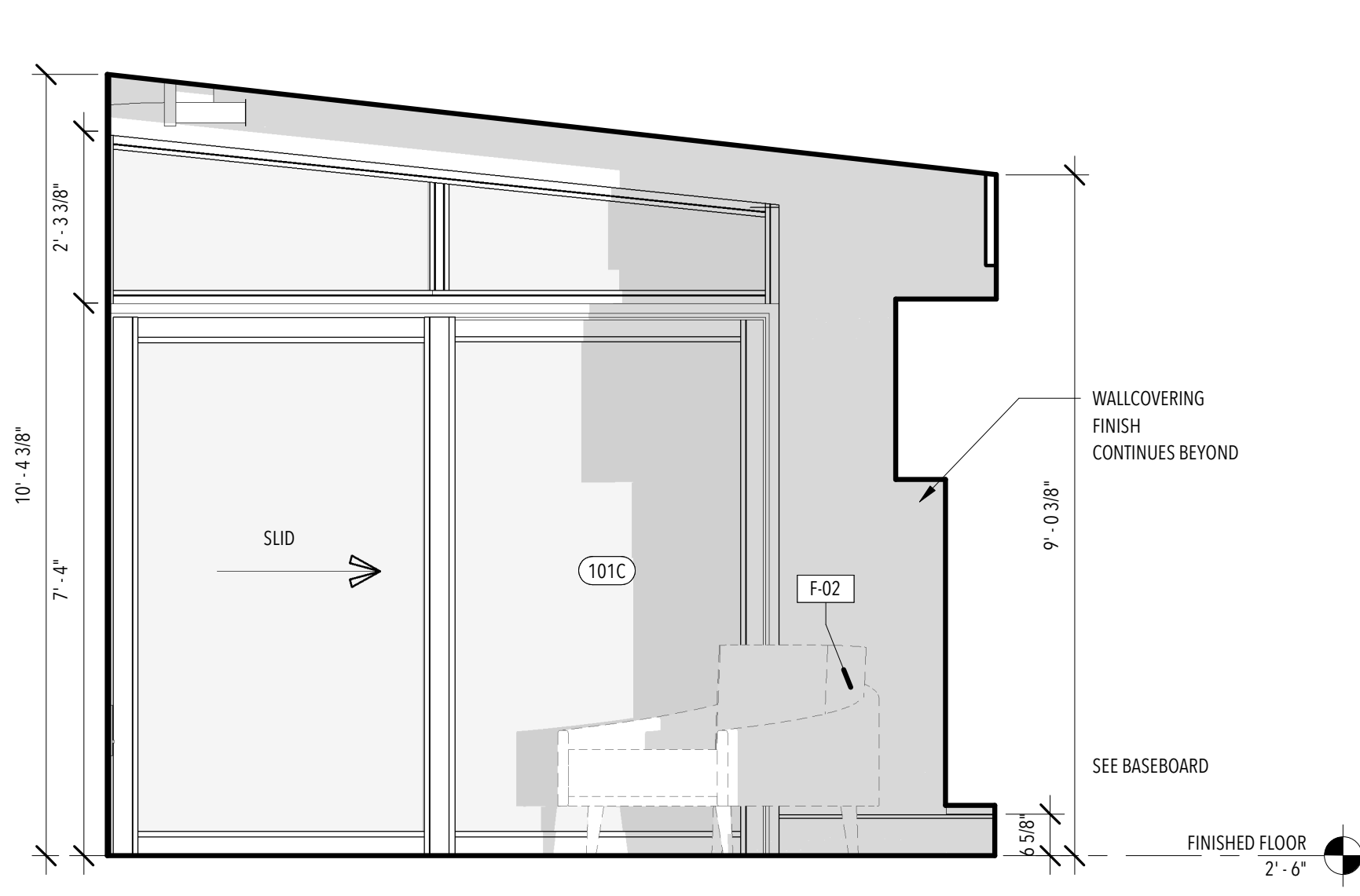
NO.	DESCRIPTION	DATE
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**I-202**  
INTERIOR  
ELEVATIONS-SOCIAL

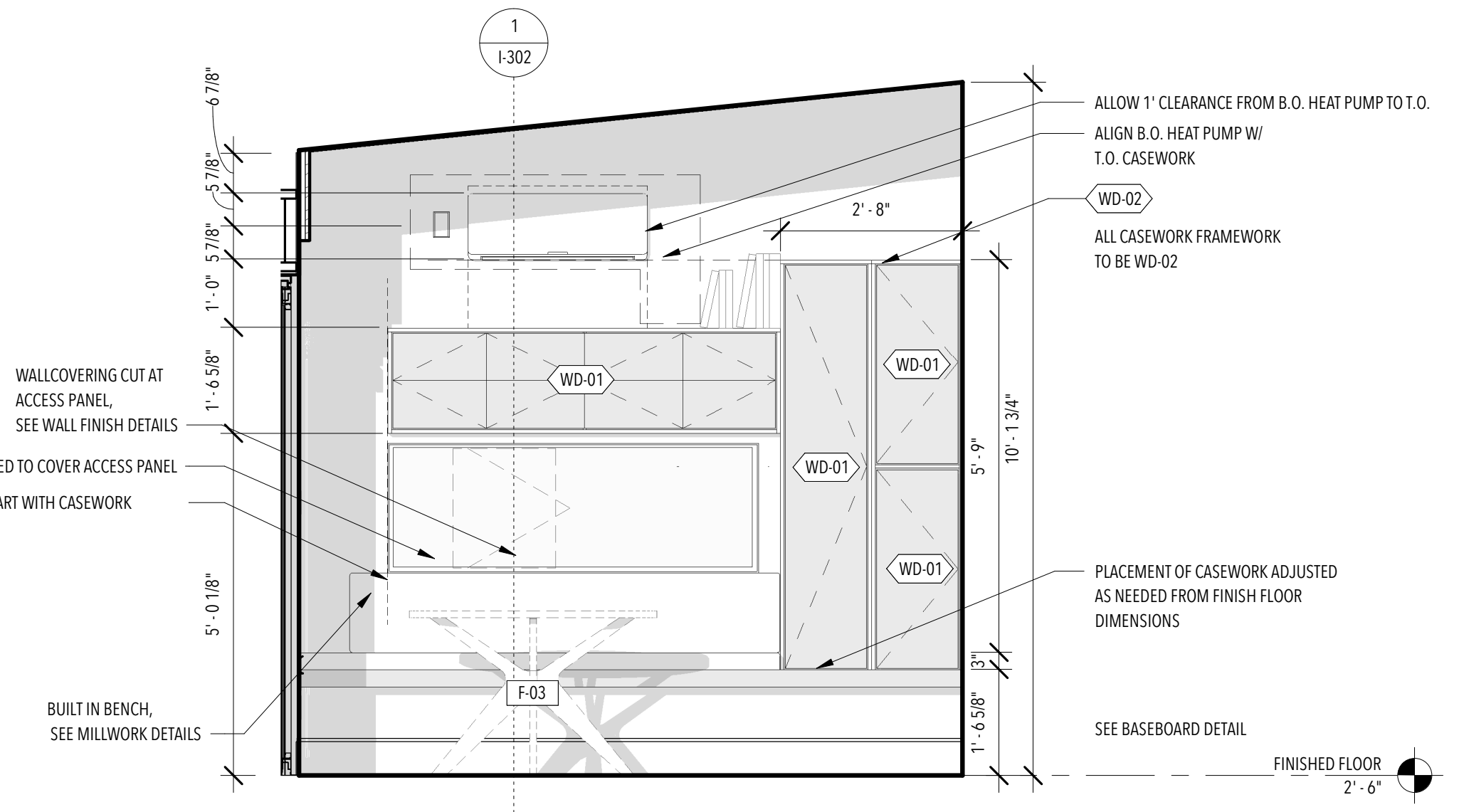
SCALE:  
1/2" = 1'-0"

GENERAL NOTES

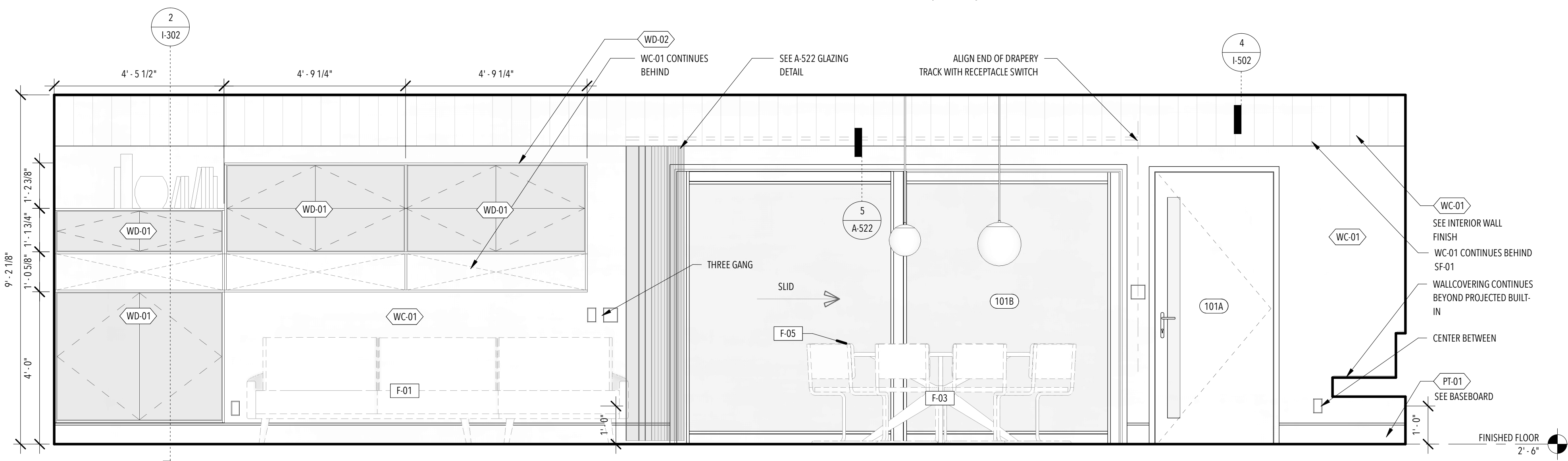
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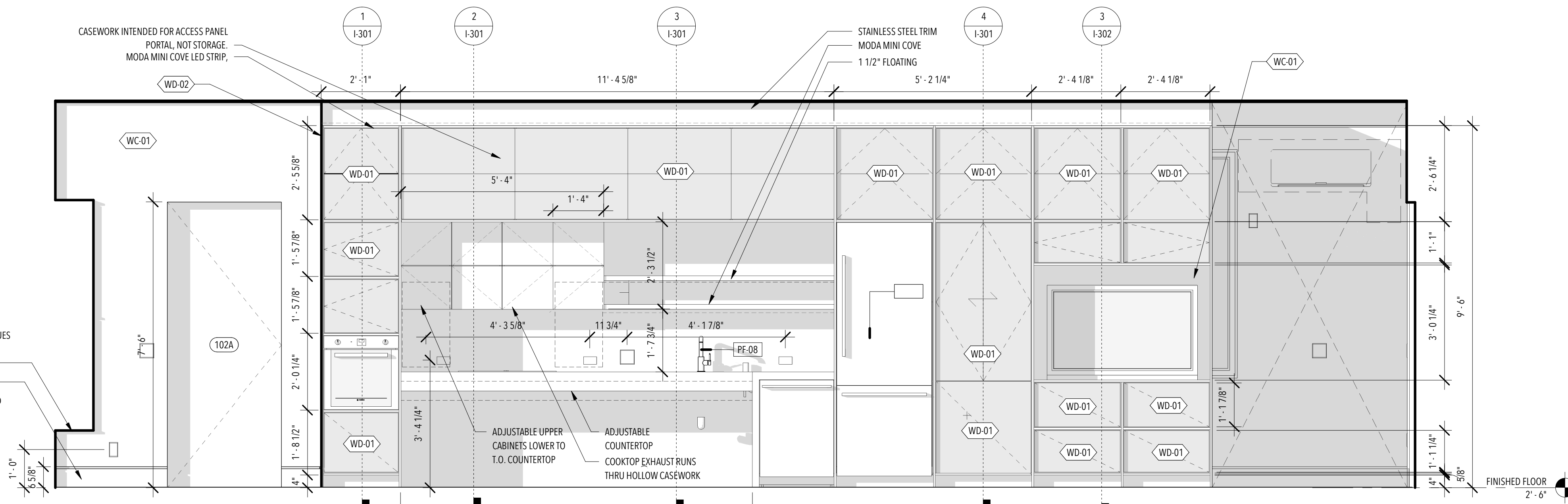
4 SOCIAL - EAST  
1/2" = 1'-0"



3 SOCIAL - WEST  
1/2" = 1'-0"

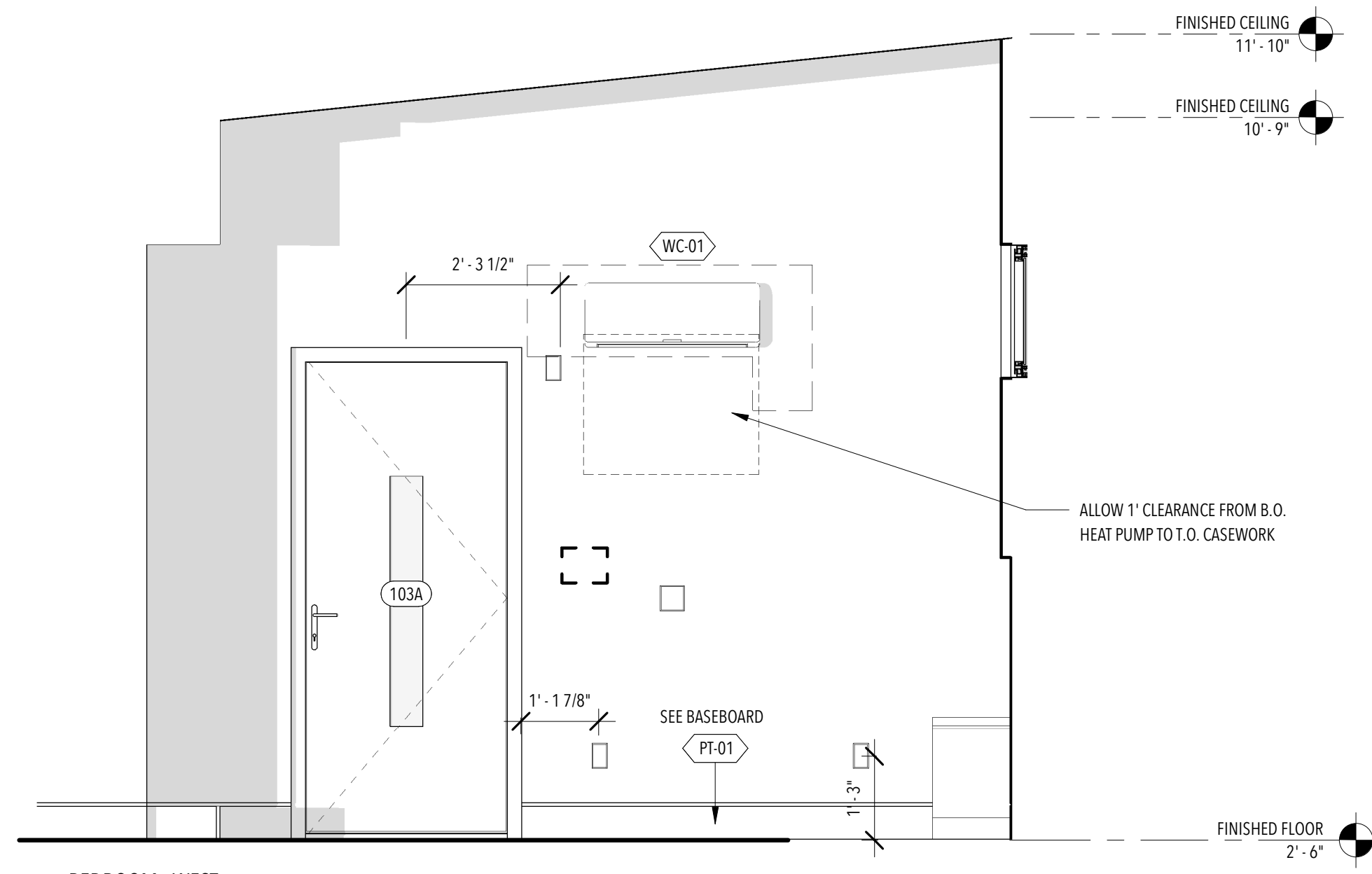


2 SOCIAL - SOUTH  
1/2" = 1'-0"

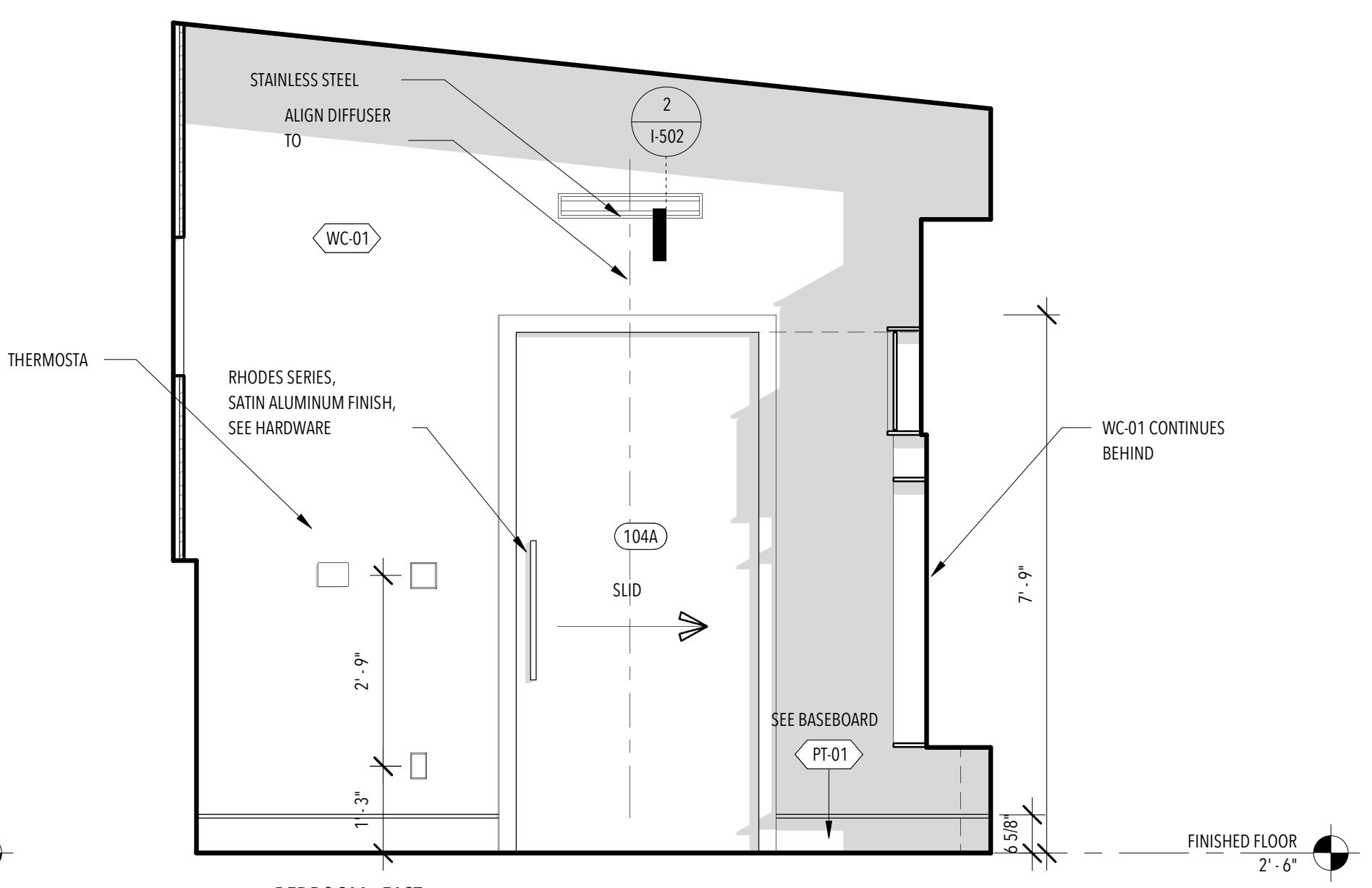


1 SOCIAL - NORTH  
1/2" = 1'-0"

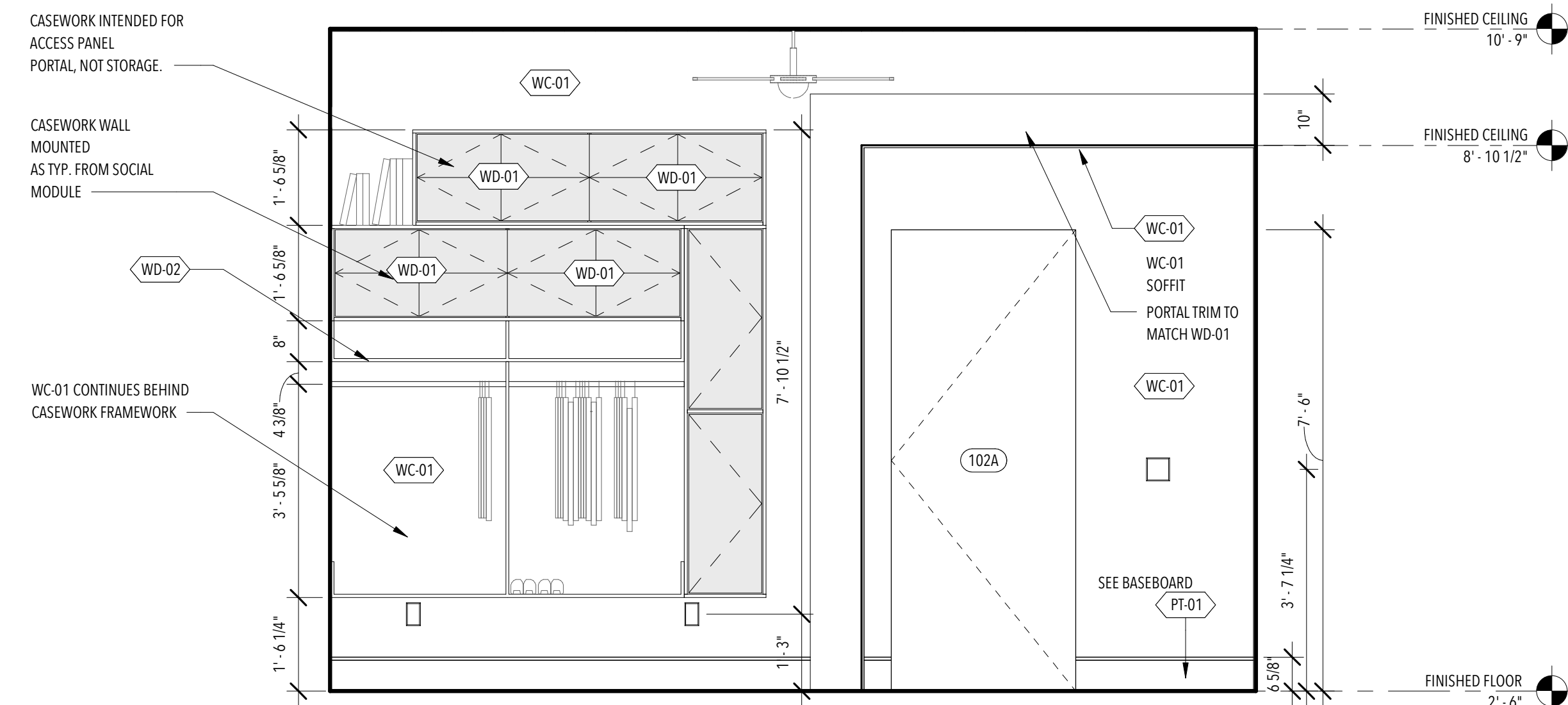




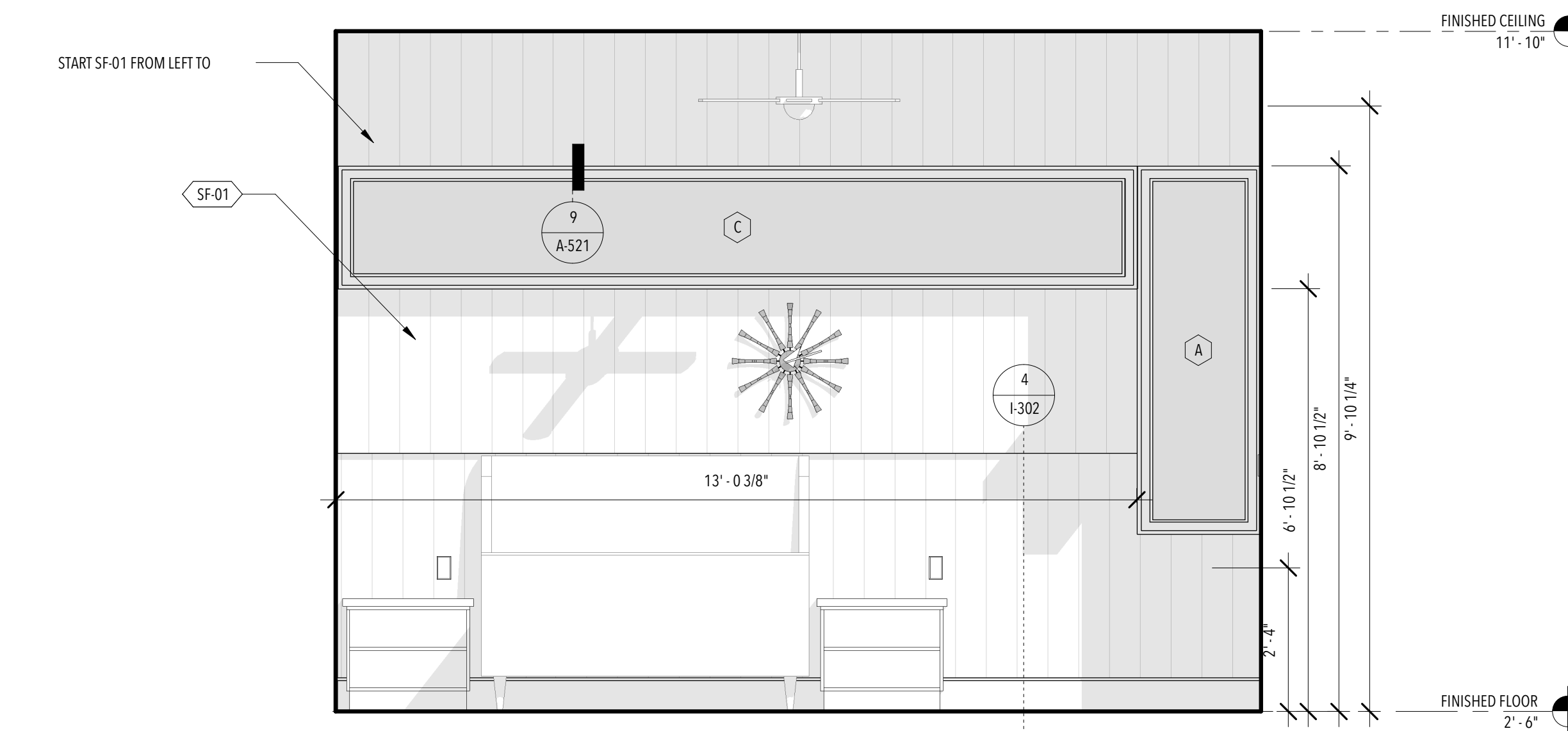
5 BEDROOM - WEST  
1/2" = 1'-0"



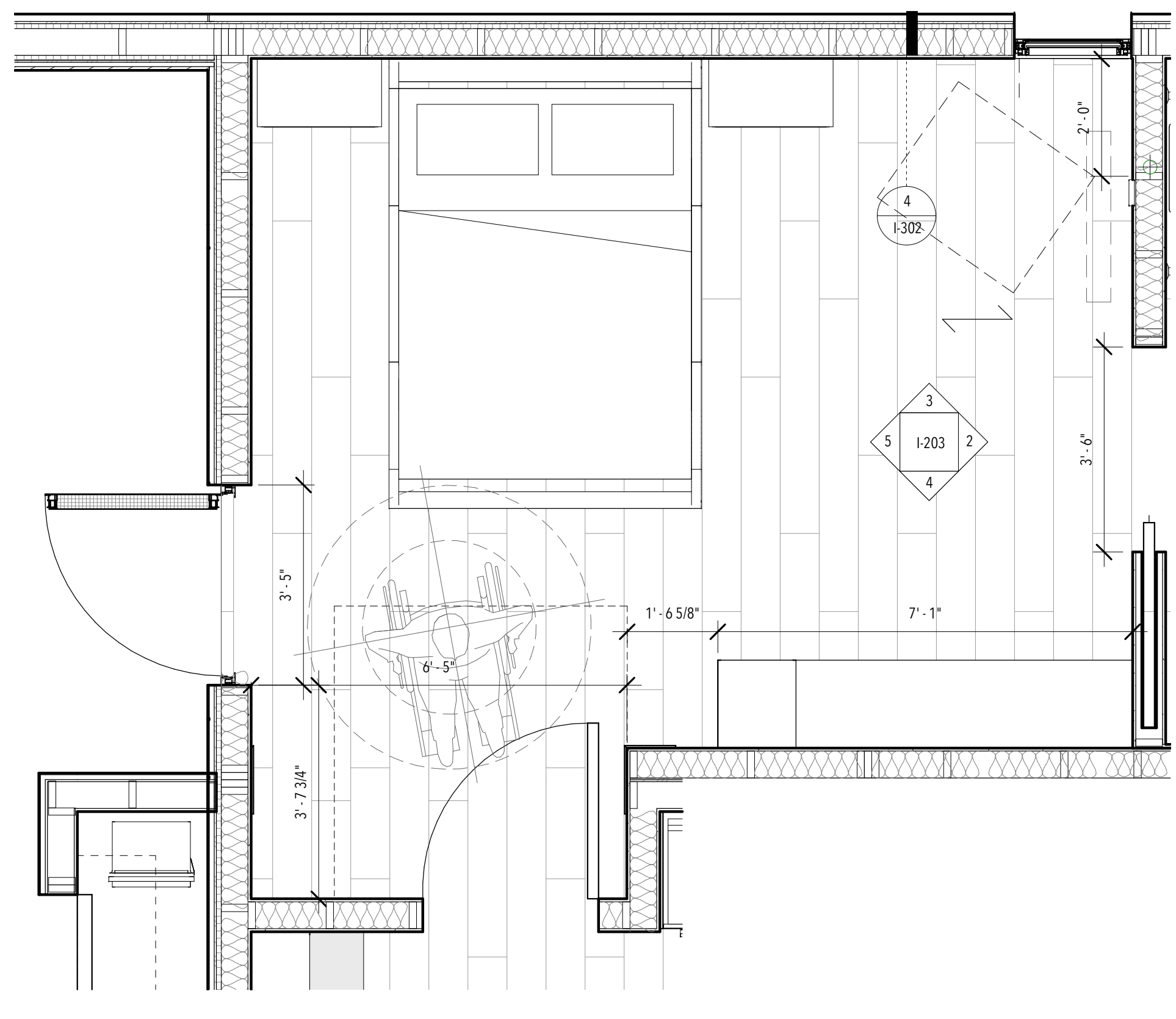
2 BEDROOM - EAST  
1/2" = 1'-0"



4 BEDROOM - SOUTH  
1/2" = 1'-0"



3 BEDROOM - NORTH  
1/2" = 1'-0"



1 ENLARGED BEDROOM  
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I-203  
INTERIOR  
ELEVATIONS-BEDROOM

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



GENERAL NOTES



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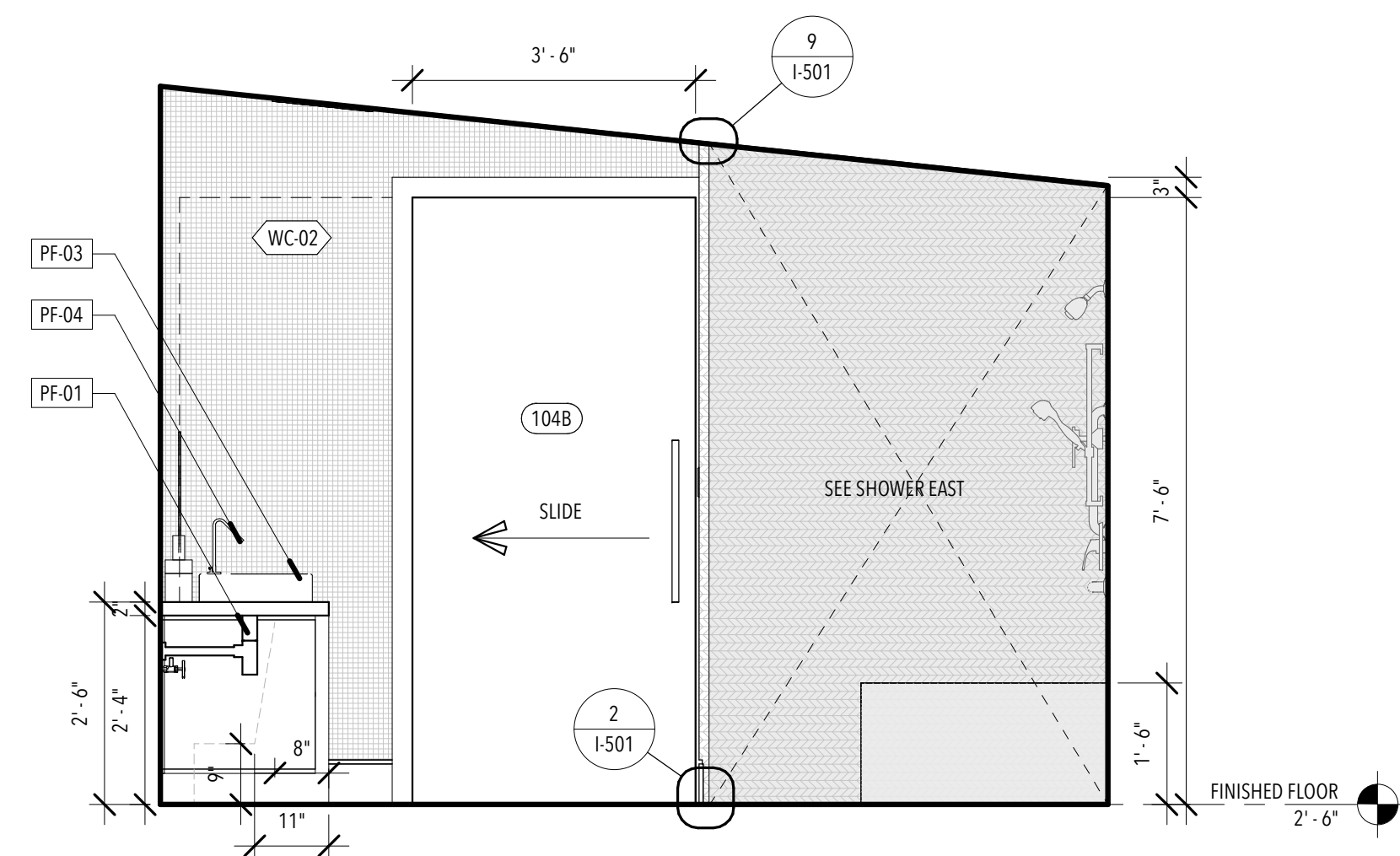
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ISSUANCES

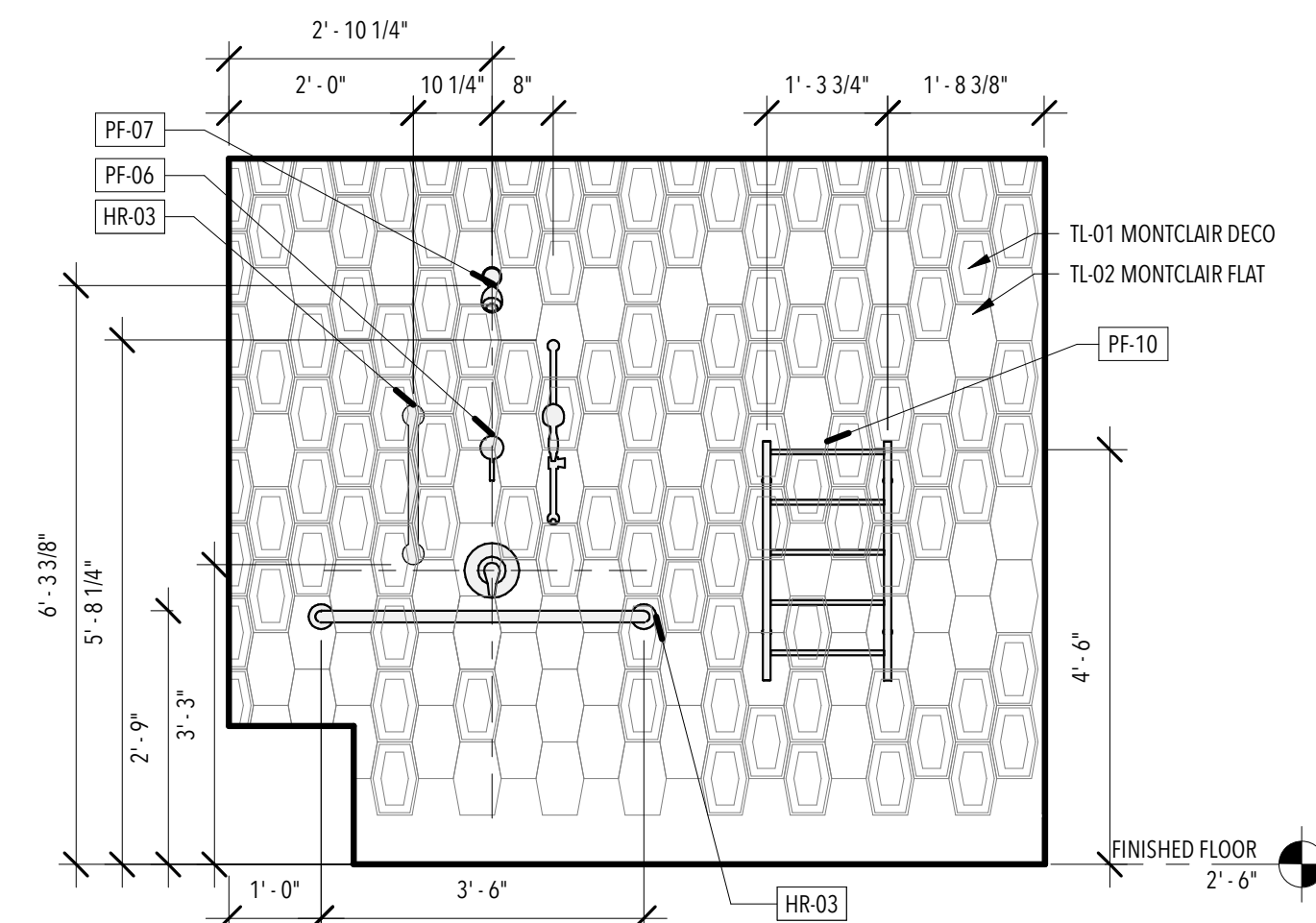
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2	100% - CD SET	2/23/17

REVISIONS

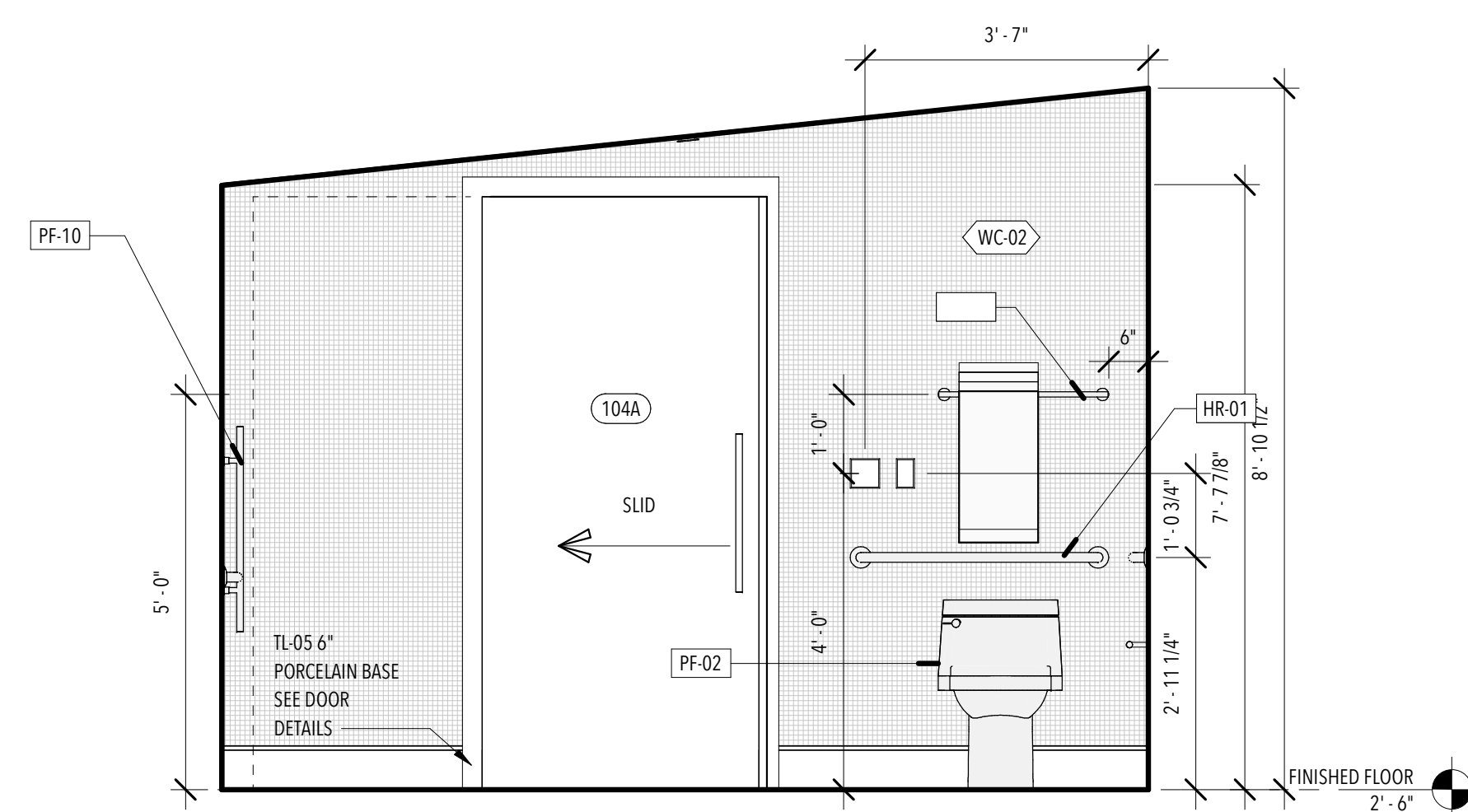
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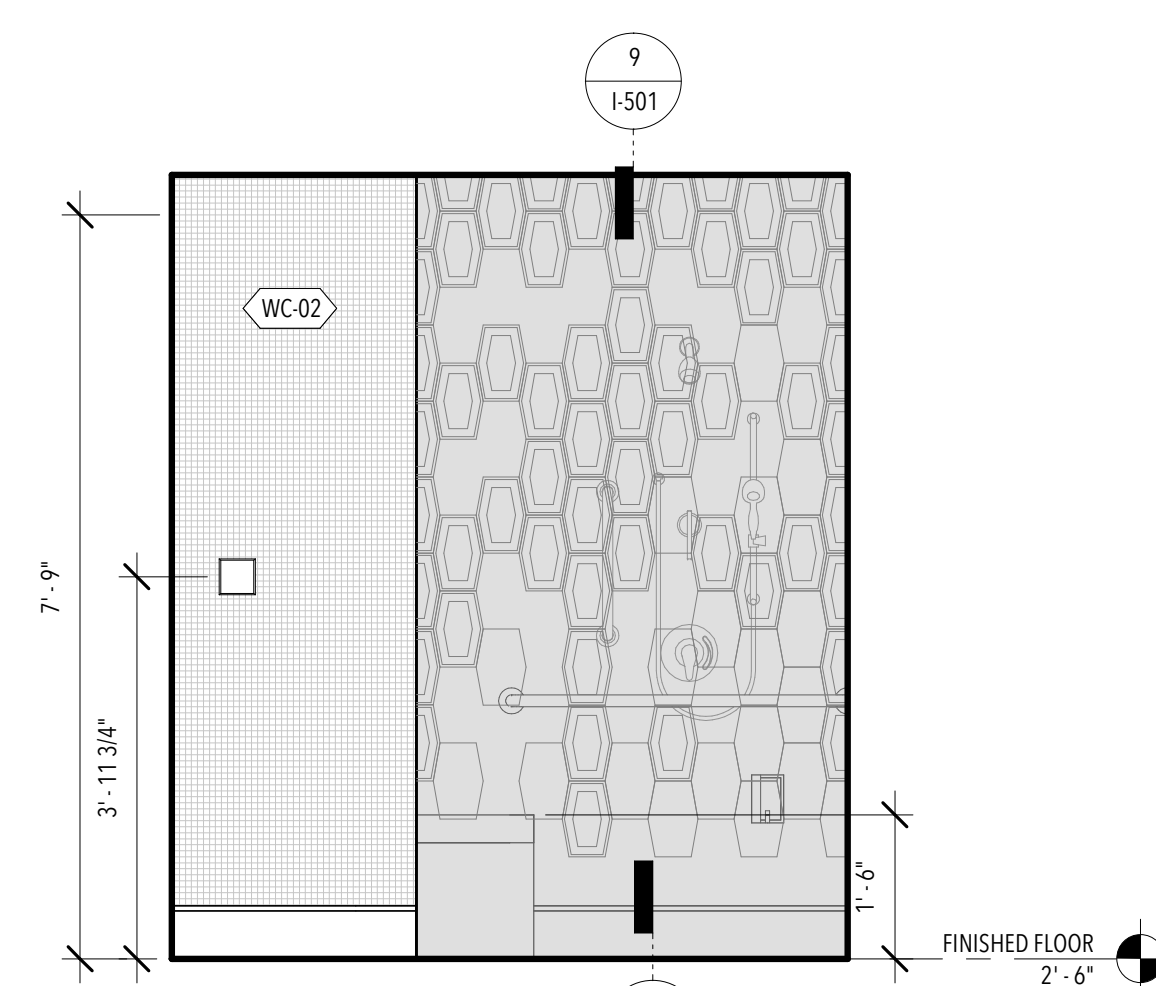
6 BATHROOM - EAST  
1/2" = 1'-0"



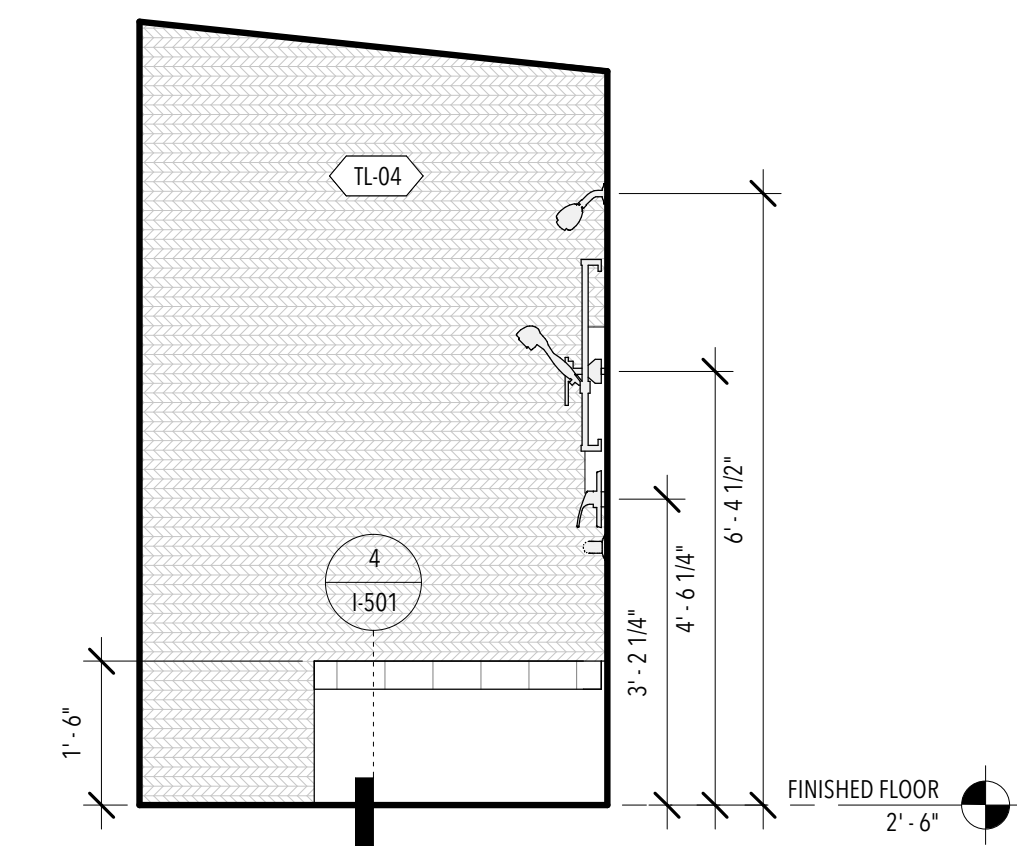
3 SHOWER SOUTH  
1/2" = 1'-0"



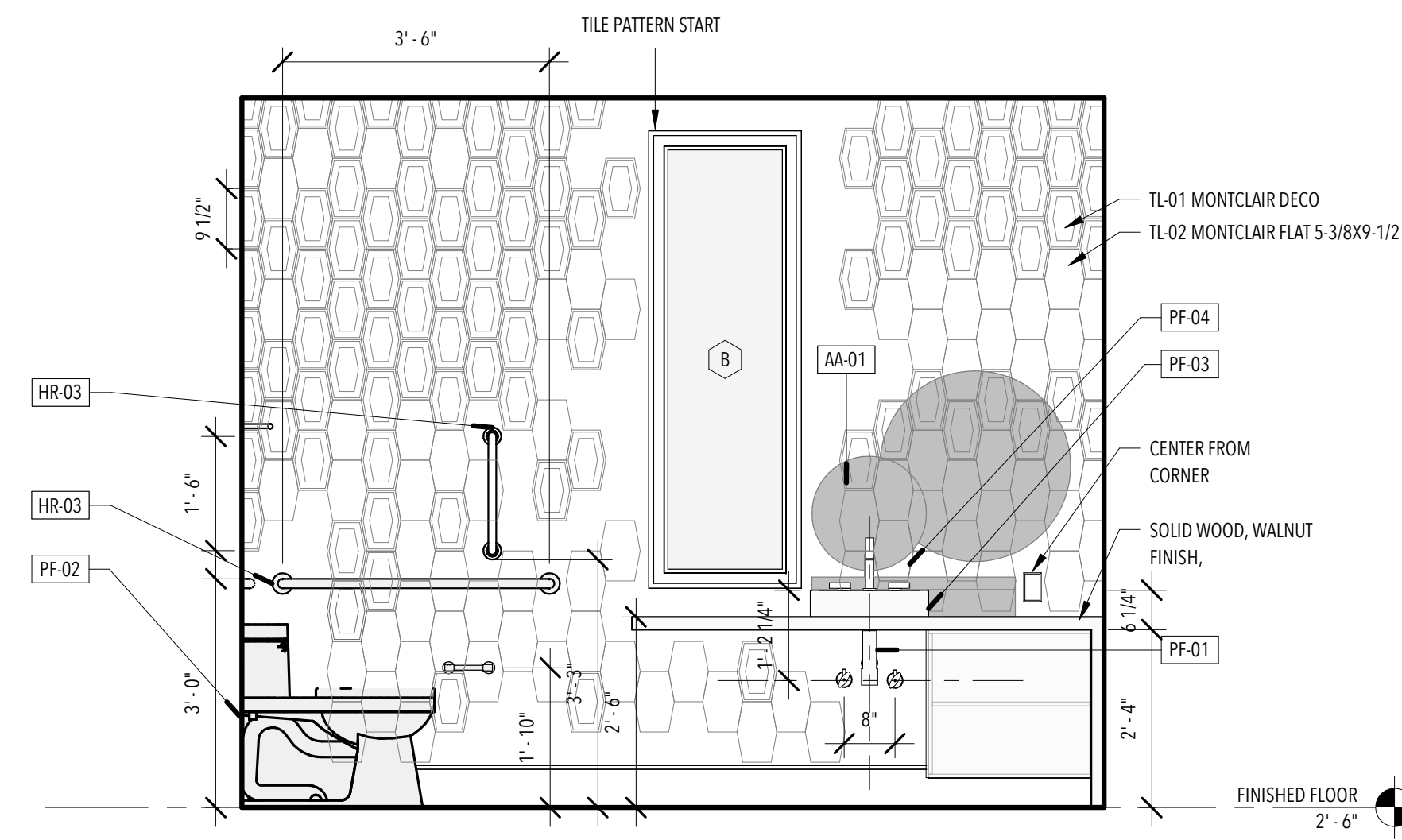
5 BATHROOM - WEST  
1/2" = 1'-0"



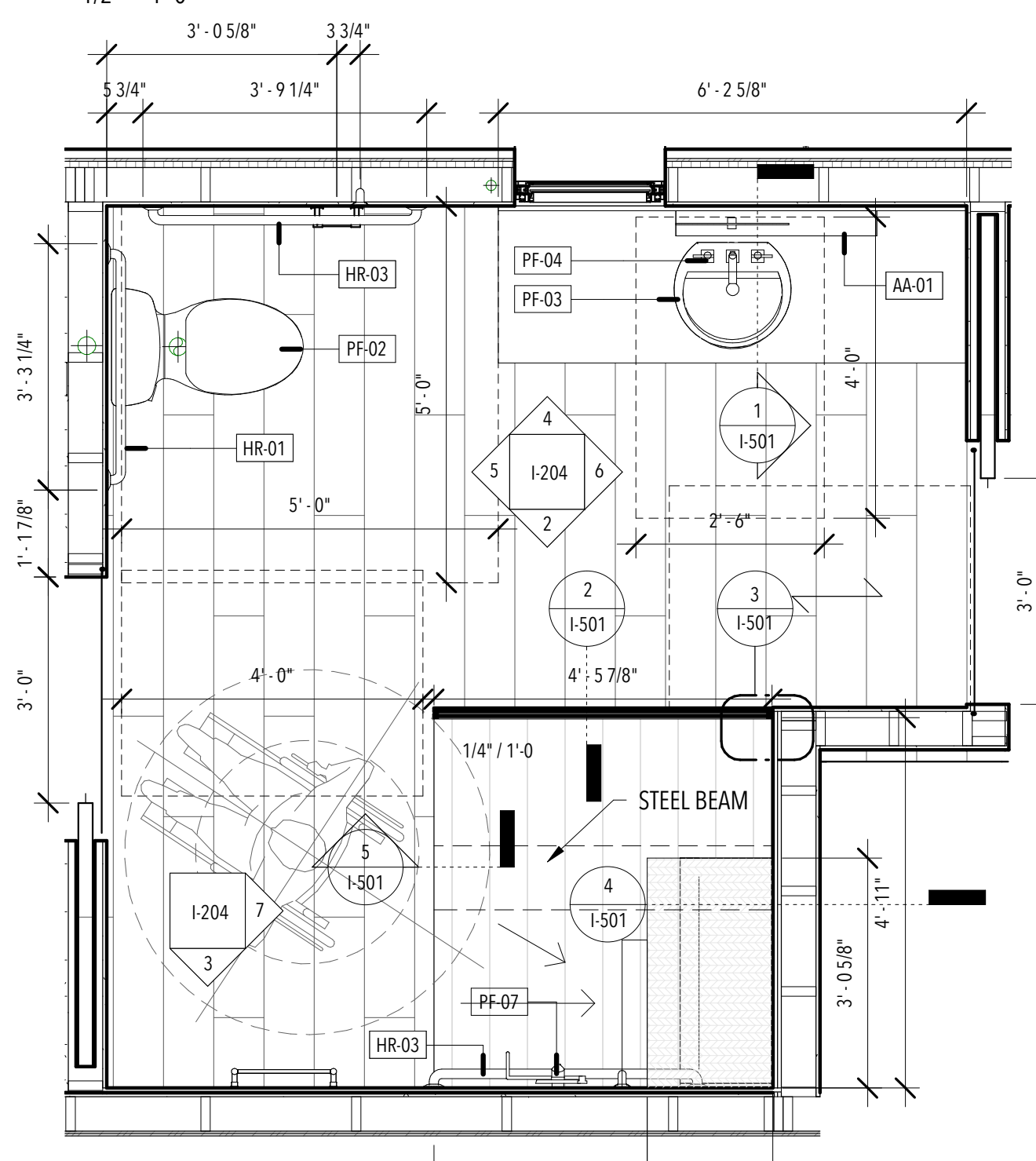
2 BATHROOM - SOUTH  
1/2" = 1'-0"



7 SHOWER EAST  
1/2" = 1'-0"



4 BATHROOM - NORTH  
1/2" = 1'-0"



1 ENLARGED BATH  
1/2" = 1'-0"

I-204  
INTERIOR  
ELEVATIONS-BATH

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

ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

REVISIONS

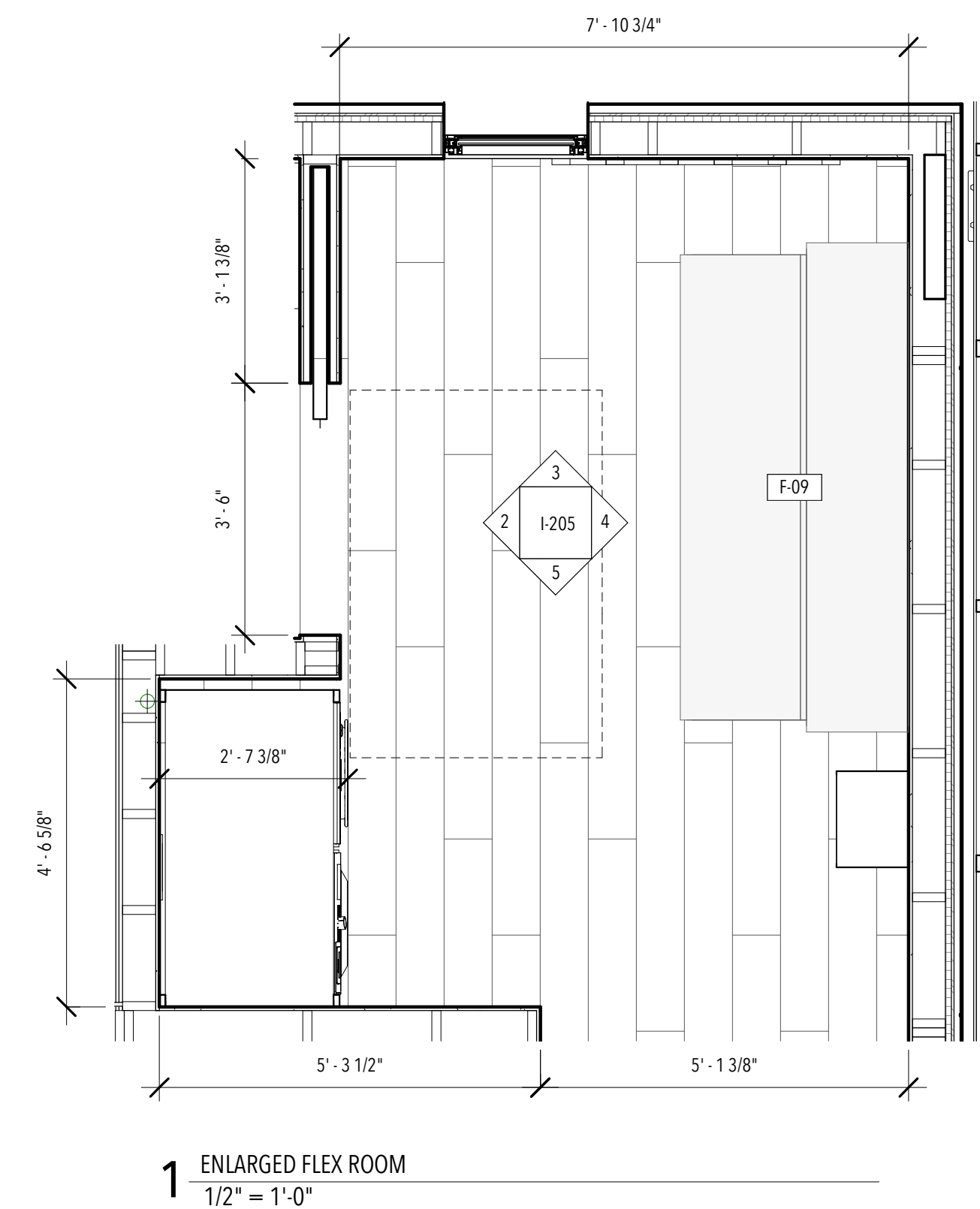
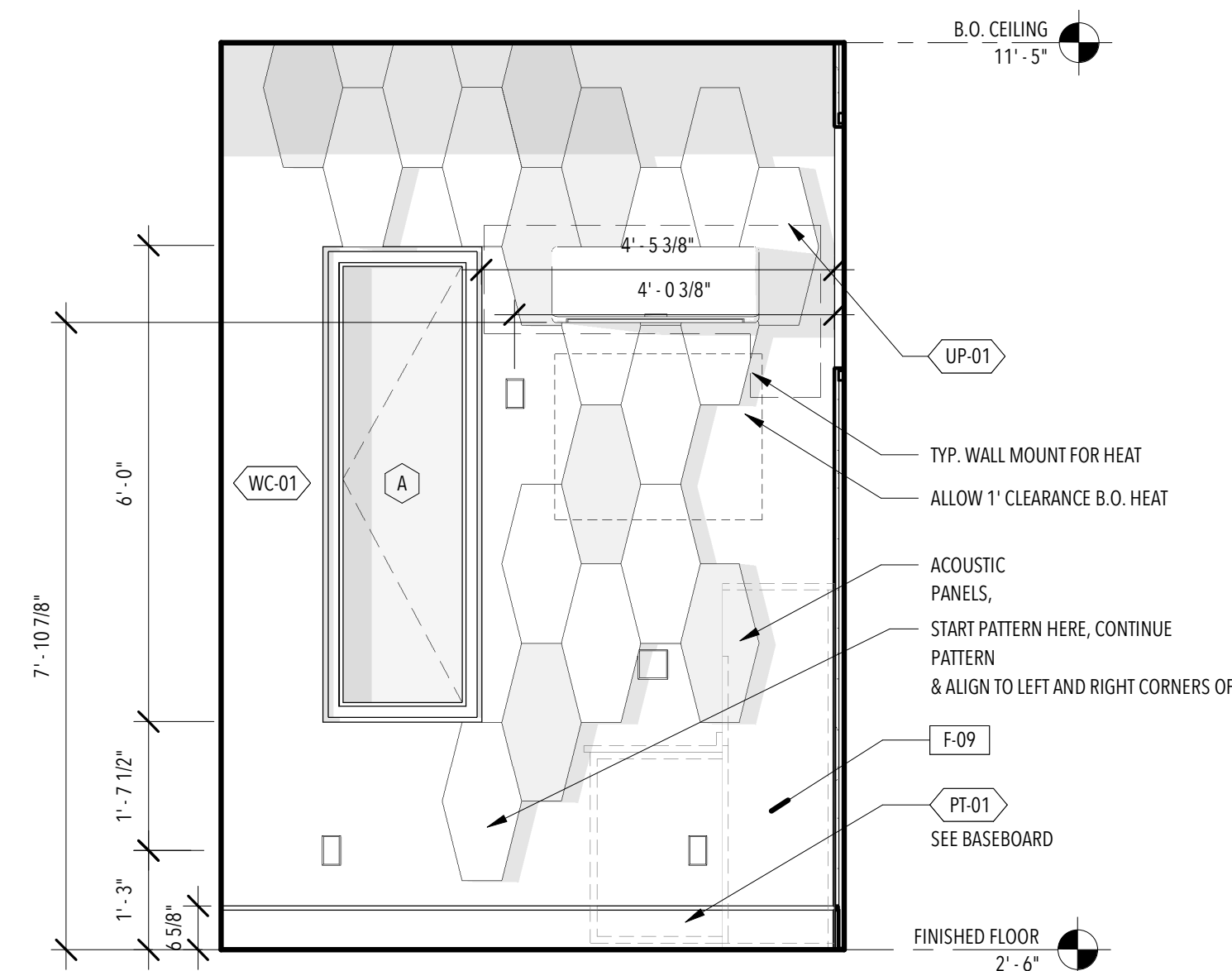
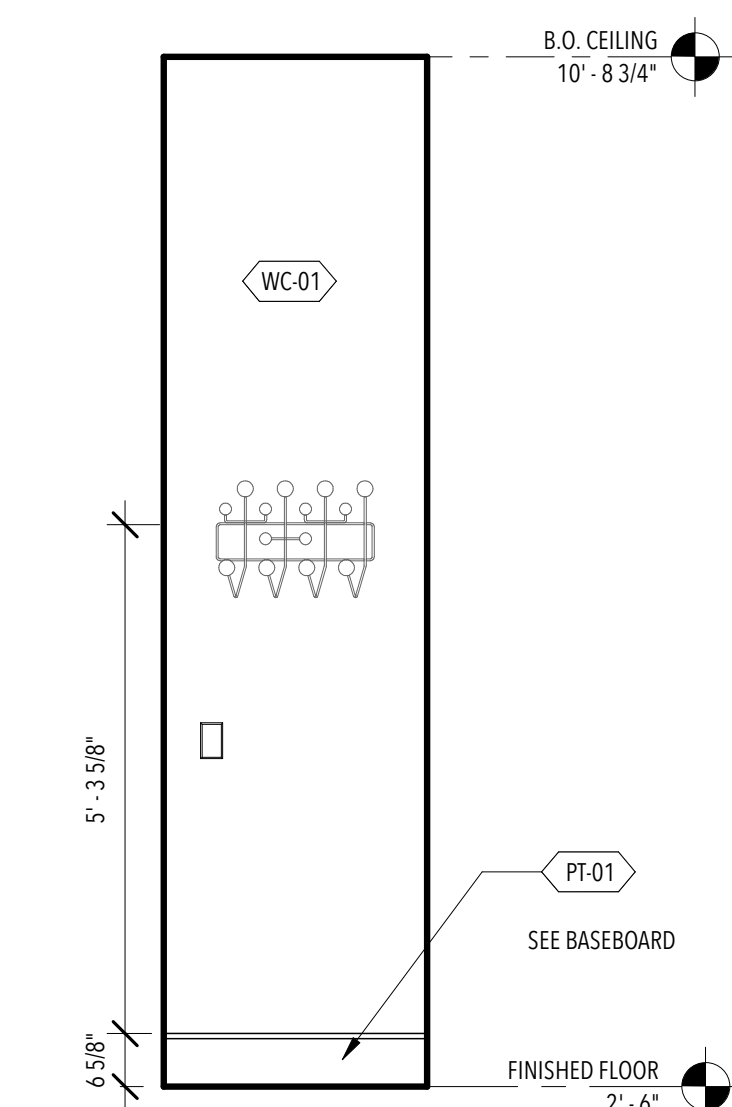
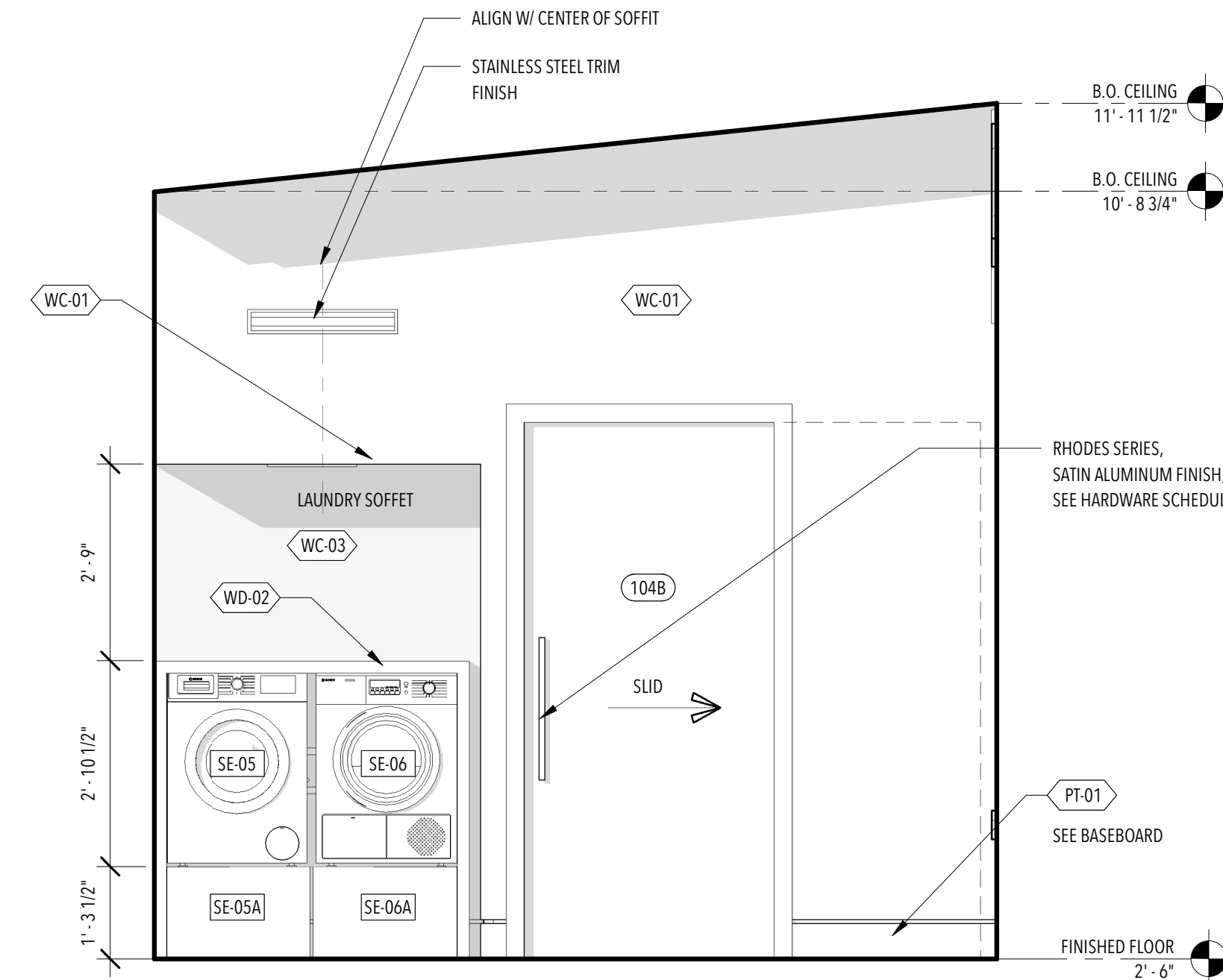
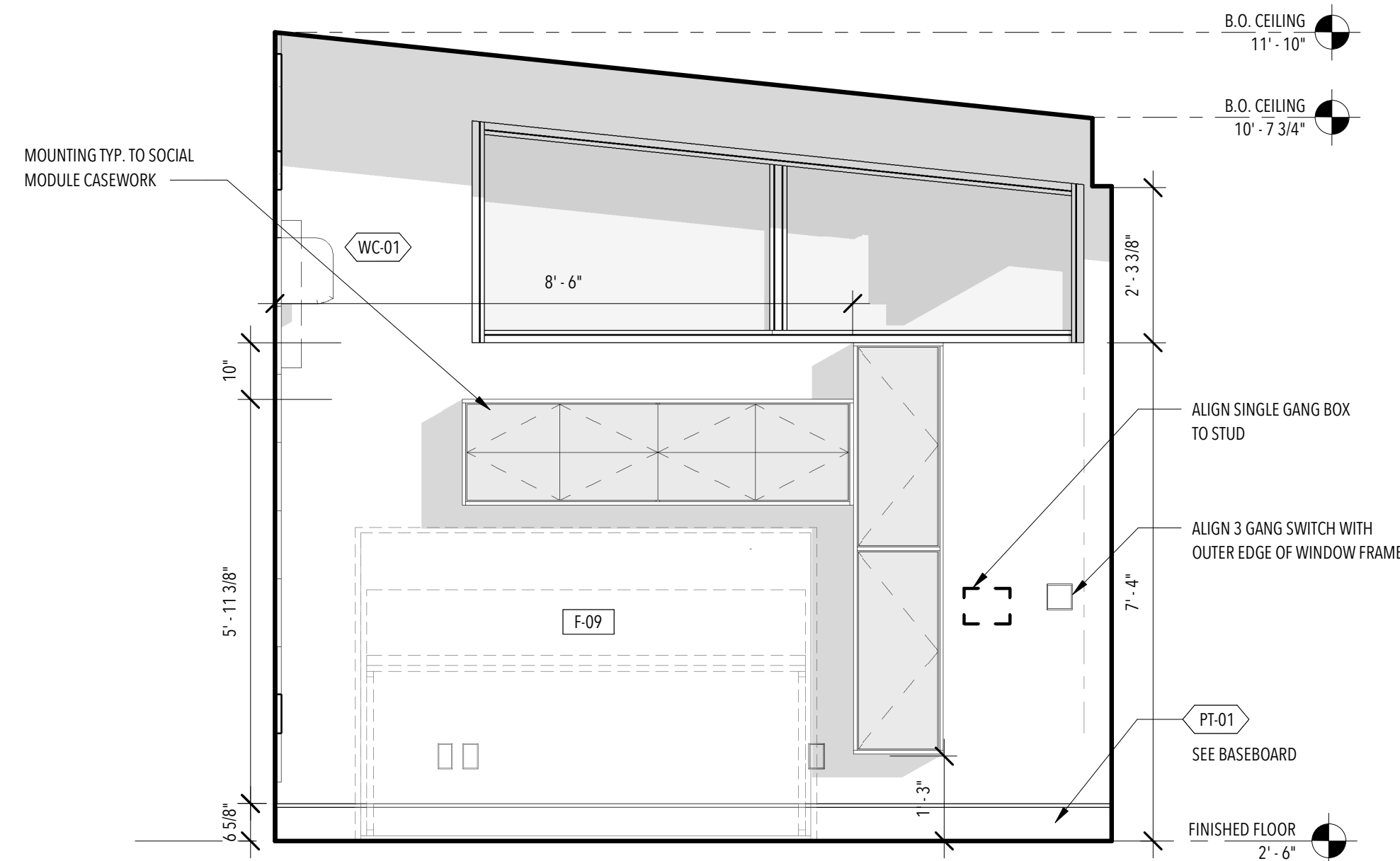
NO.	DESCRIPTION	DATE
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**I-205**  
INTERIOR  
ELEVATIONS-FLEX ROOM

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

GENERAL NOTES

- REFER TO THE CORRESPONDING SECTION OF THE SPECIFICATIONS PACKET FOR A DETAILED DESCRIPTION OF ALL SPECIFIED COMPONENTS.
- ALL WD-00 FINISHES WILL RUN WOOD GRAIN FROM LEFT TO RIGHT.
- THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITION AND DIMENSIONS PRIOR TO COMMENCING ANY WORK.
- ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE DESIGNER.
- MATERIALS TO BE USED SHALL BE OF THE FIRST QUALITY AND ALL WORK SHALL BE PERFORMED BY SKILLED INSTALLERS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING AND SUPERVISING ALL SAFETY PRECAUTIONS AND REGULATIONS AS RELATED TO THE WORK, AND FOR PROVIDING SAFE ACCESS TO AND FROM ALL EXISTING CONDITIONS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH AND FOR THE REMOVAL OF ALL DEBRIS FROM THE BUILDING PREMISES.
- ALLOW 1" OF CLEARANCE FROM B.O. HEAT PUMP
- RECEPTACLES TO BE INSTALLED 15" O.C. FROM FINISH FLOOR.
- ALL FURNITURE MUST REMAIN SEALED IN PRE-PACKAGING, OR PLASTIC WRAPPING PRIOR TO COMMISSIONING
- ALL WALLCOVERING MUST BE FREE FROM AIR BUBBLES AND OR WRINKLING FROM ADHESIVE.
- ALL WALLCOVERING WILL RUN VERTICAL ALIGNING W/ PATTERN REPEAT PER SPECIFICATION.
- ALL WALLCOVERING SHALL BE SPECIFIED AND INSTALLED AS TYPE II OR TYPE III.
- WALLCOVERING CONTRACTOR SHALL CHECK THE MATERIAL AFTER 3 DROPS. IF FLAWS IN THE MATERIAL ARE DETECTED, WORK SHALL STOP AND THE WALLCOVERING SUPPLIER WILL BE NOTIFIED SOS THAT APPROPRIATE REPLACEMENT MATERIAL MAY BE OBTAINED WITHOUT DELAY.
- CONTRACTOR SHALL BE CLEANED PRIOR TO COMMISSIONING WITH MANUFACTURER'S RECOMMENDATIONS.
- PRODUCTS SENSITIVE TO ADVERSE WEATHER SHALL NOT BE INSTALLED UNTIL ADEQUATE WEATHER PROTECTION FOR THE INSTALLATION IS PROVIDED.
- INTERIOR FINISHES AND MATERIALS SHALL CONFORM TO THE FLAME SPREAD AND SMOKE DENSITY IRC REQUIREMENTS.
- ALL WALL FINISHES SHALL BE INSTALLED BY SKILLED WORKERS.
- ALL FLOOR FINISHES SHALL BE INSTALLED BY SKILLED WORKERS.
- FURRING STRIPS, OR Z-CLIPS, SHALL BE 1"X2" OR 1"X3" SPACED O.C. EQUAL TO THE DESIRED EXPOSURE.
- ALL PAINTED WALLS SHALL BE LEVEL 5 FINISH.
- ALIGN TRANSITION OF FLOOR MATERIAL WITH CENTER OF HINGE IN DOORWAY.
- INSTALL DIRECTIONAL FLOORING ORIENTED AS SPECIFIED IN THE FURN/FINISH FLOOR PLAN.



**GENERAL NOTES**

1. COORDINATE DESIGN W/ MILLWORK SUBCONTRACTOR.
2. COVER AND PROTECT FINISHES DURING



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TEAM LAS VEGAS  
WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

**CONSULTANTS**

**STRUCTURAL**  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

**ISSUANCES**

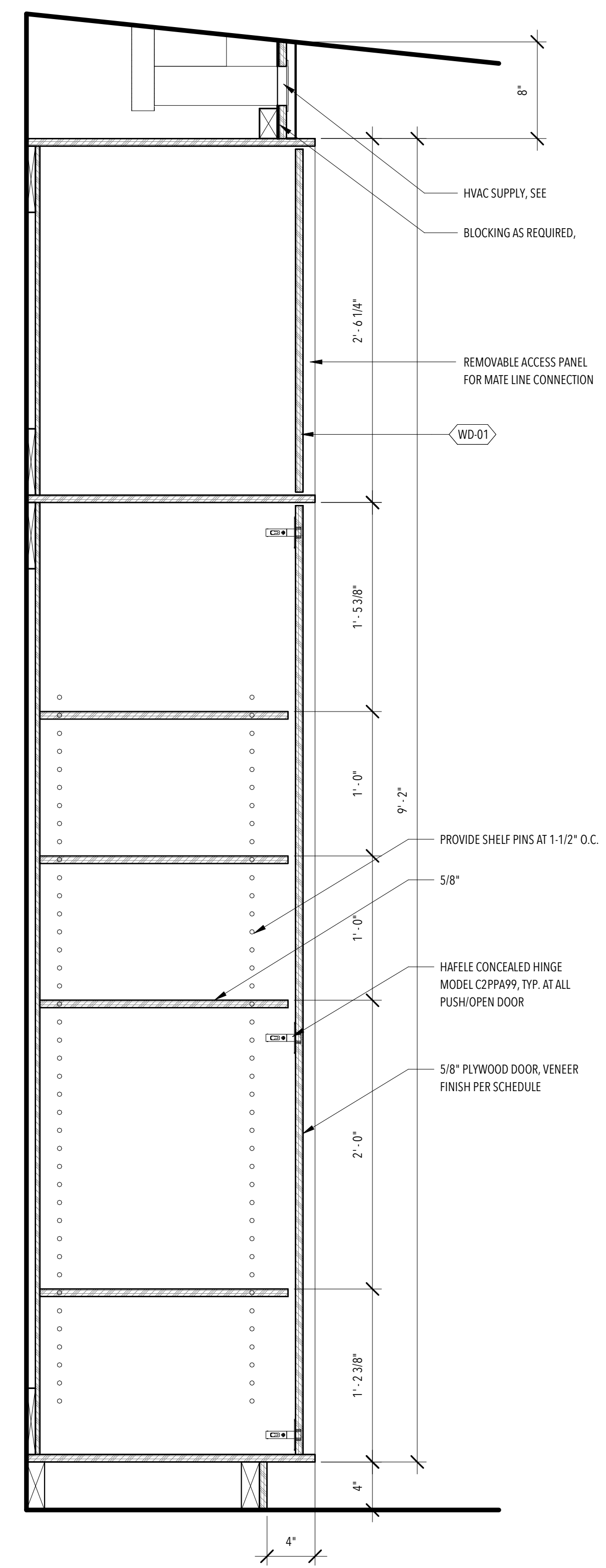
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2	100% - CD SET	2/23/17

**REVISIONS**

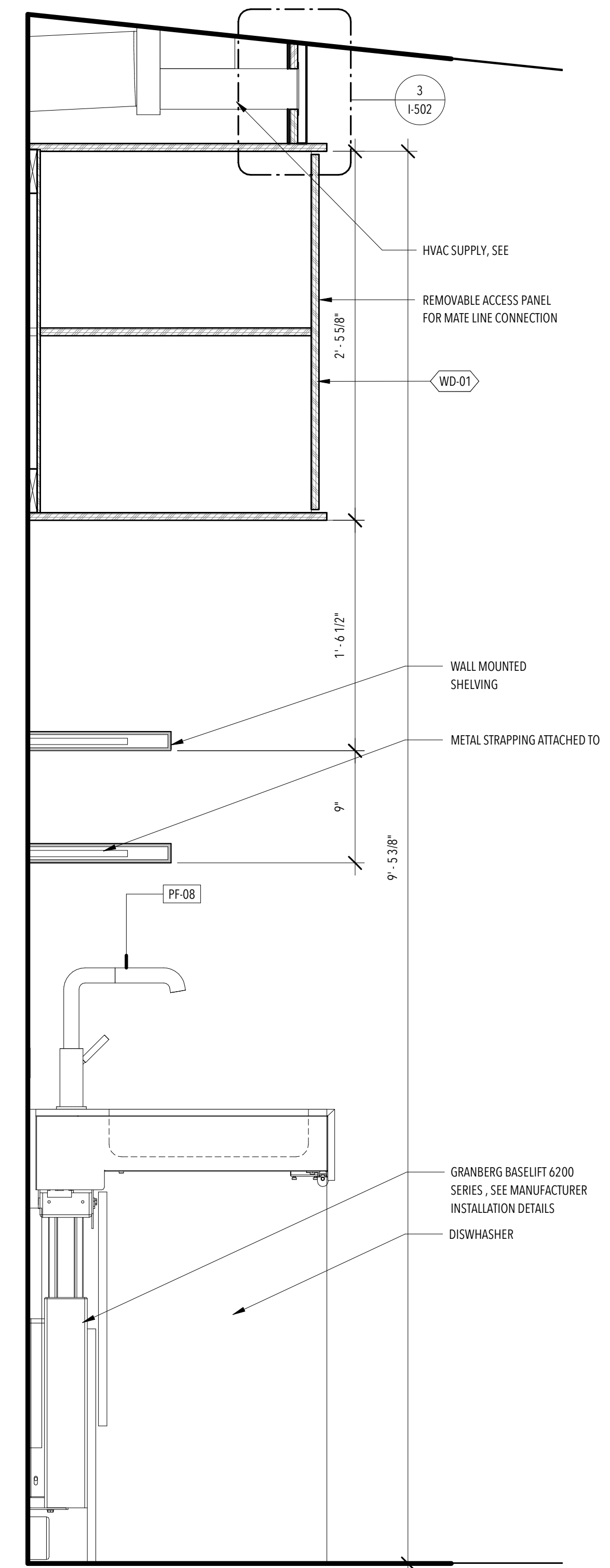
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**I-301  
MILLWORK**

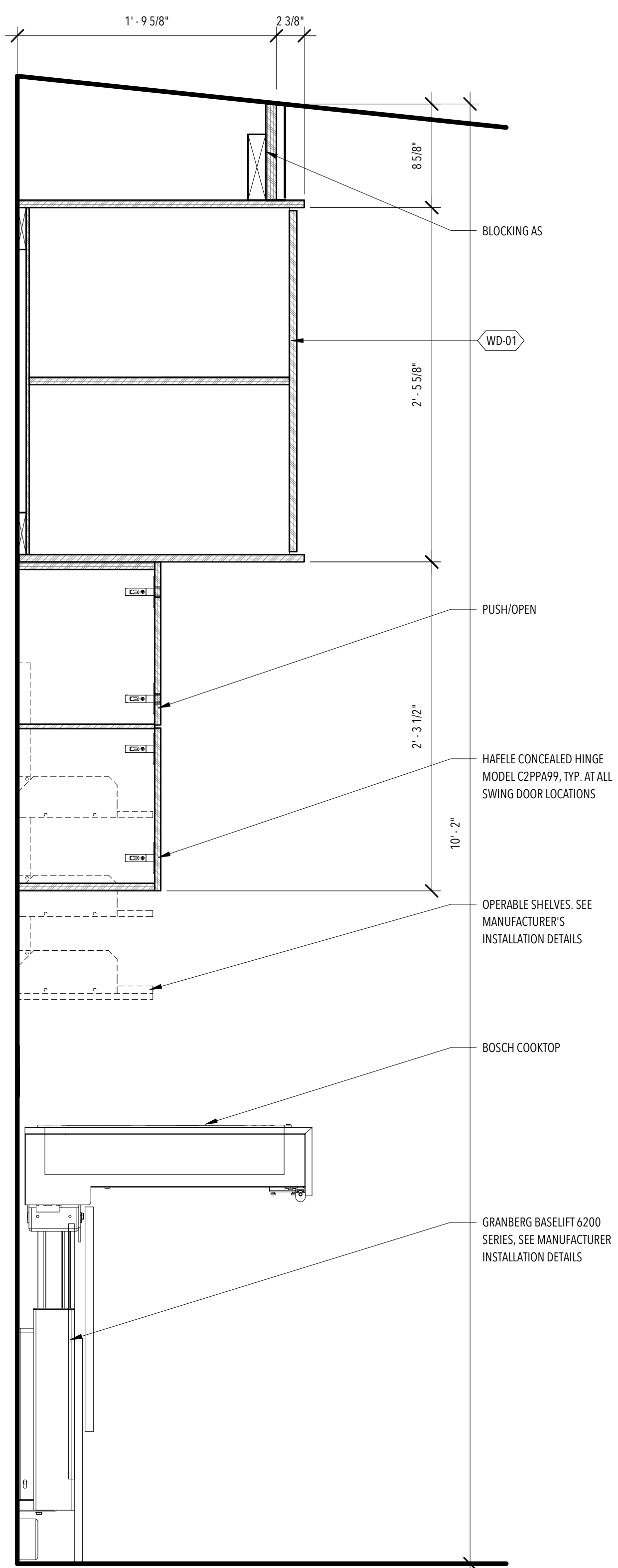
SCALE:  
1 1/2" = 1'-0"



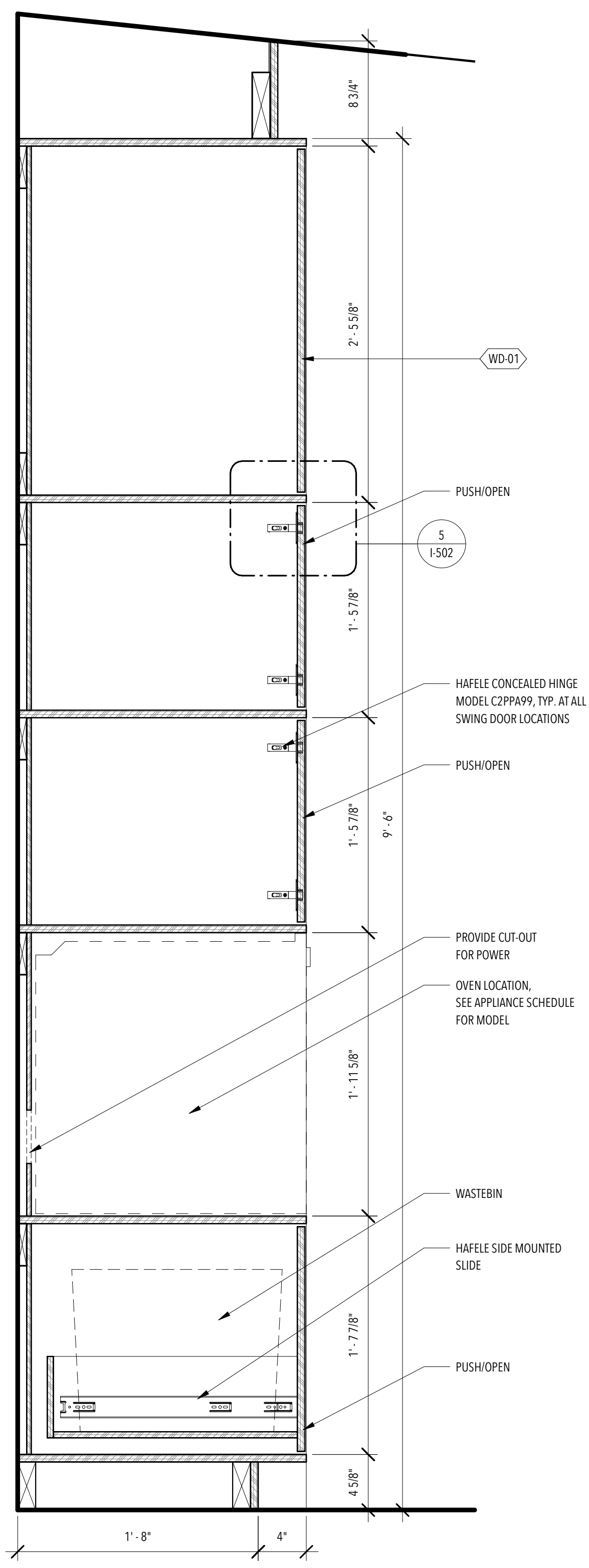
**4** KITCHEN MILLWORK 4  
1 1/2" = 1'-0"



**3** KITCHEN MILLWORK SECTION @ MOVEABLE COUNTERTOP  
1 1/2" = 1'-0"



**2** KITCHEN MILLWORK SECTION @ UPPER CABINETS  
1 1/2" = 1'-0"



**1** KITCHEN MILLWORK SECTION @ OVEN  
1 1/2" = 1'-0"



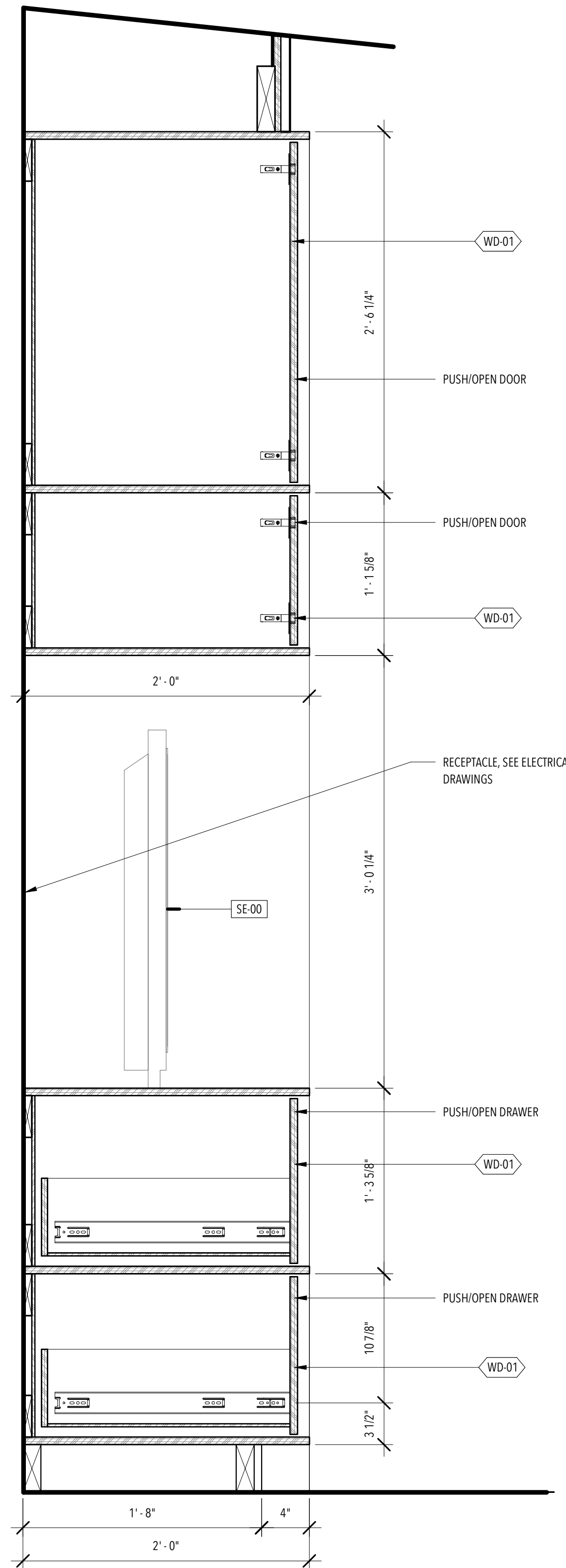
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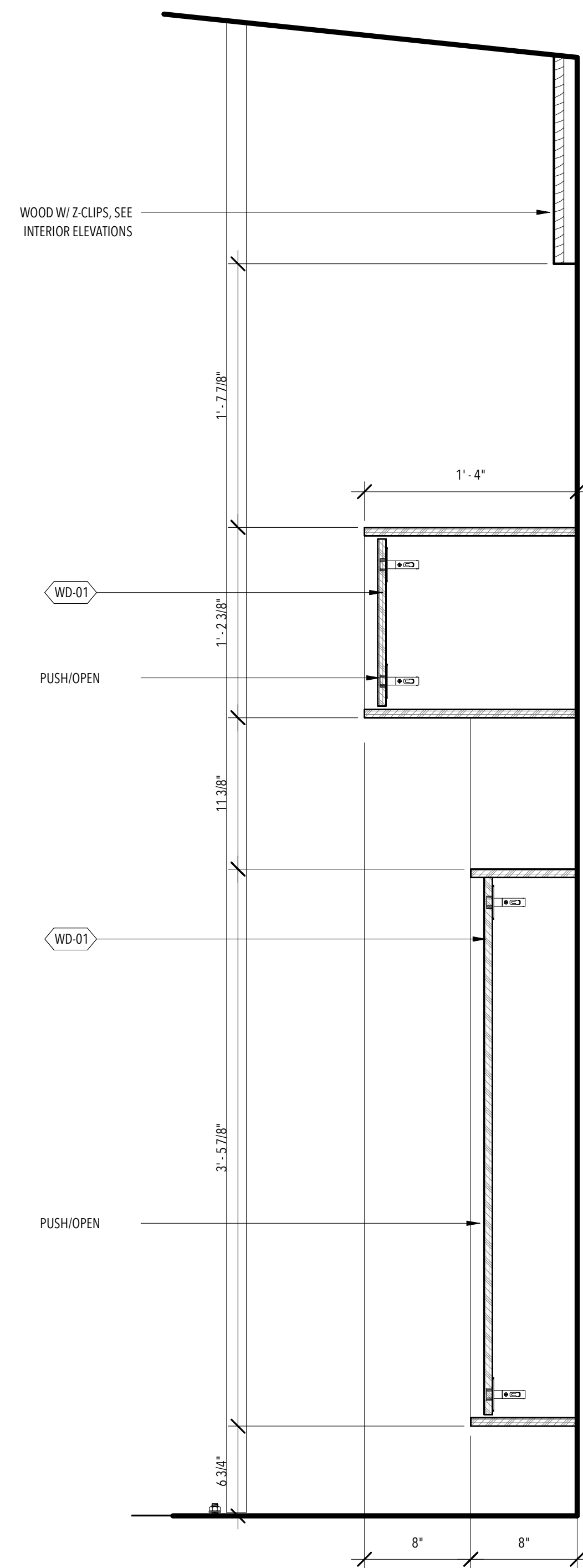
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NO.	DESCRIPTION	DATE
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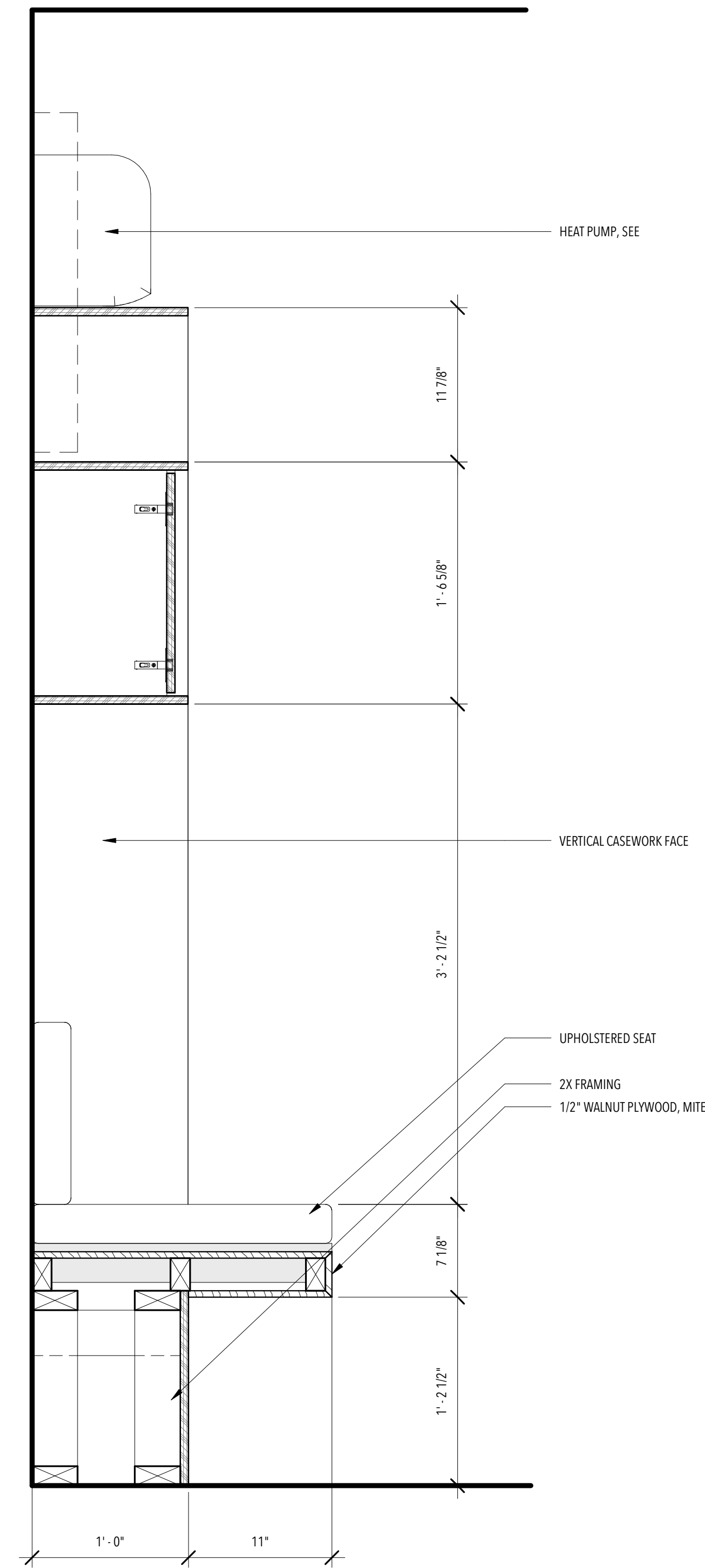
**I-302**  
MILLWORK



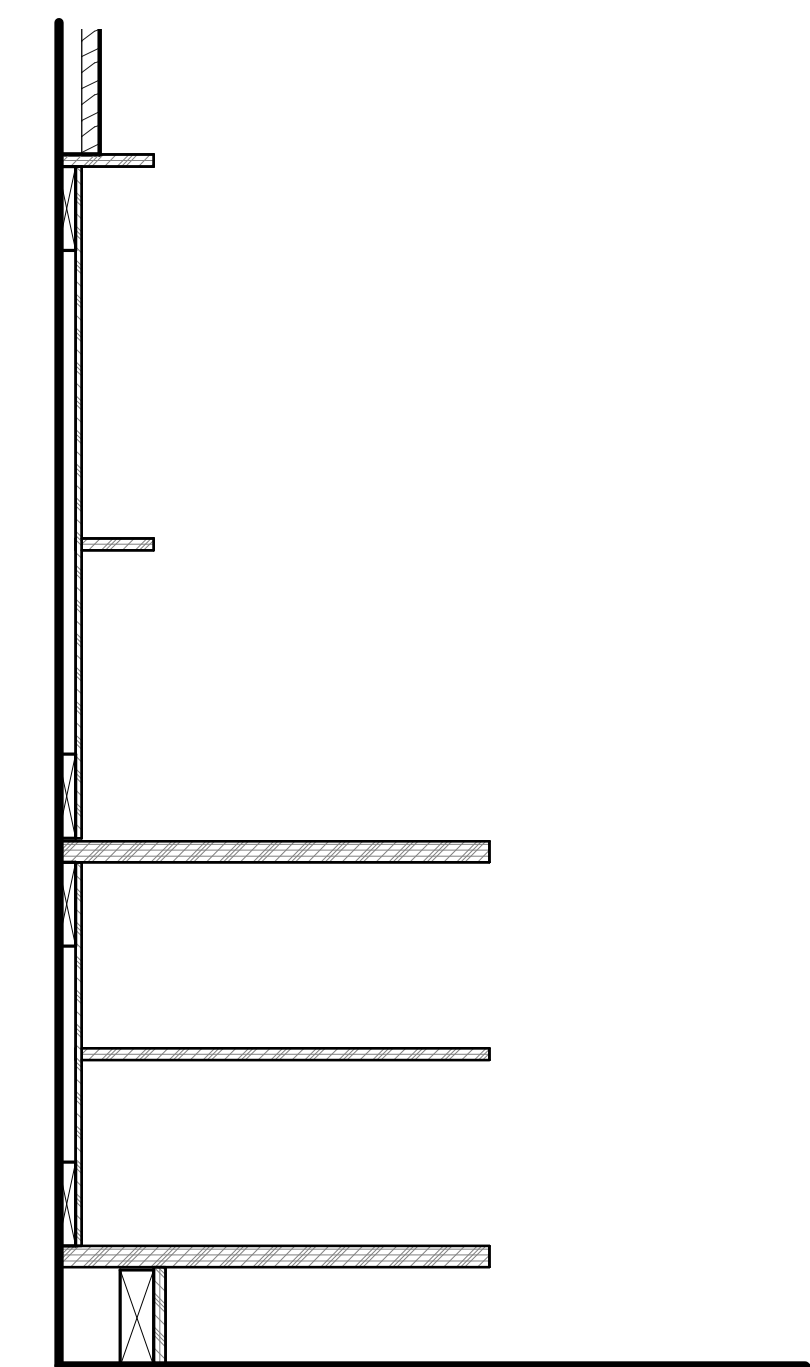
**3** LIVING MILLWORK - NORTH WALL  
1 1/2" = 1'-0"



**2** LIVING MILLWORK - WEST WALL  
1 1/2" = 1'-0"



**1** LIVING MILLWORK 5  
1 1/2" = 1'-0"



**4** BEDROOM MILLWORK  
1 1/2" = 1'-0"

ISSUANCES

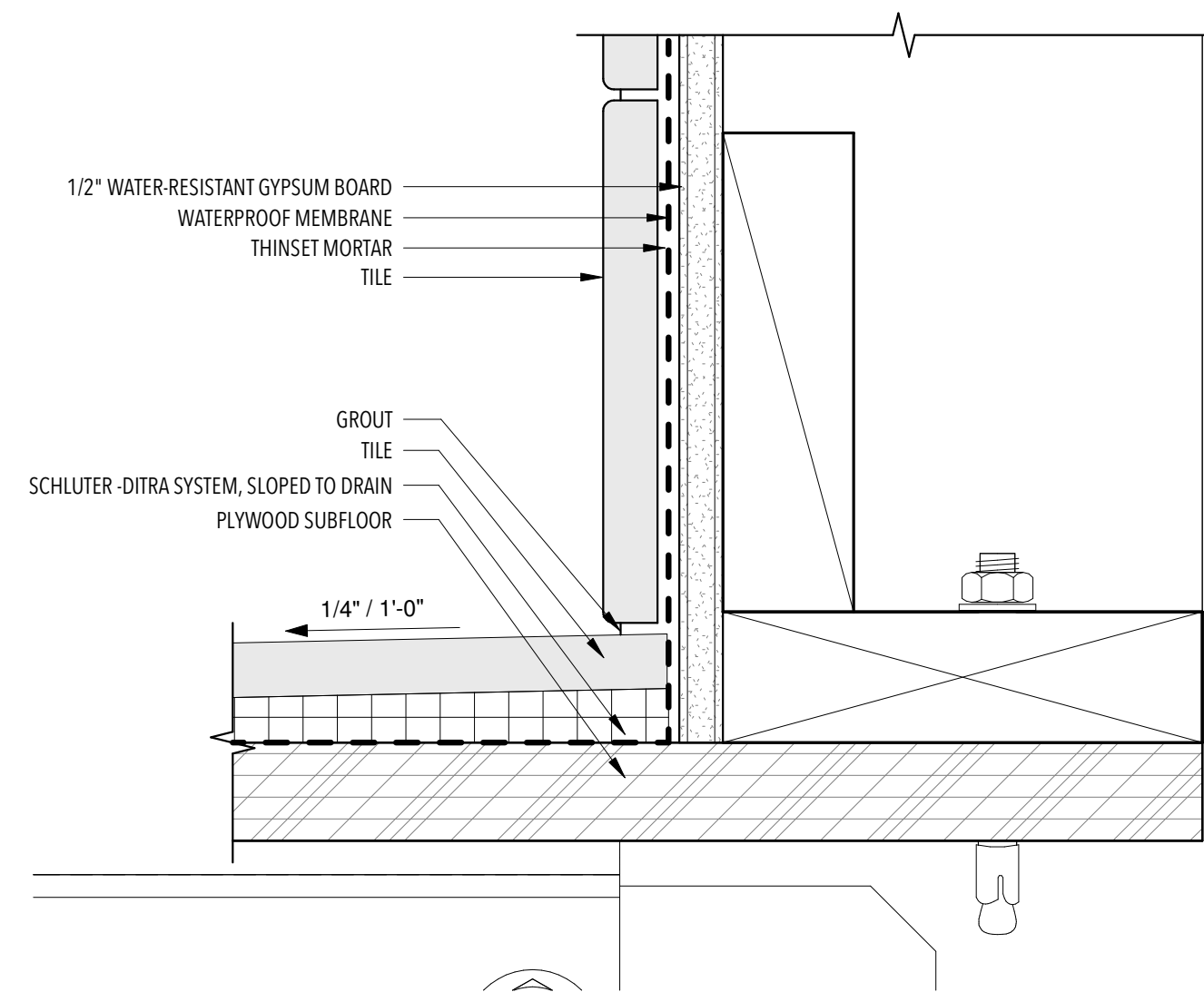
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REVISIONS

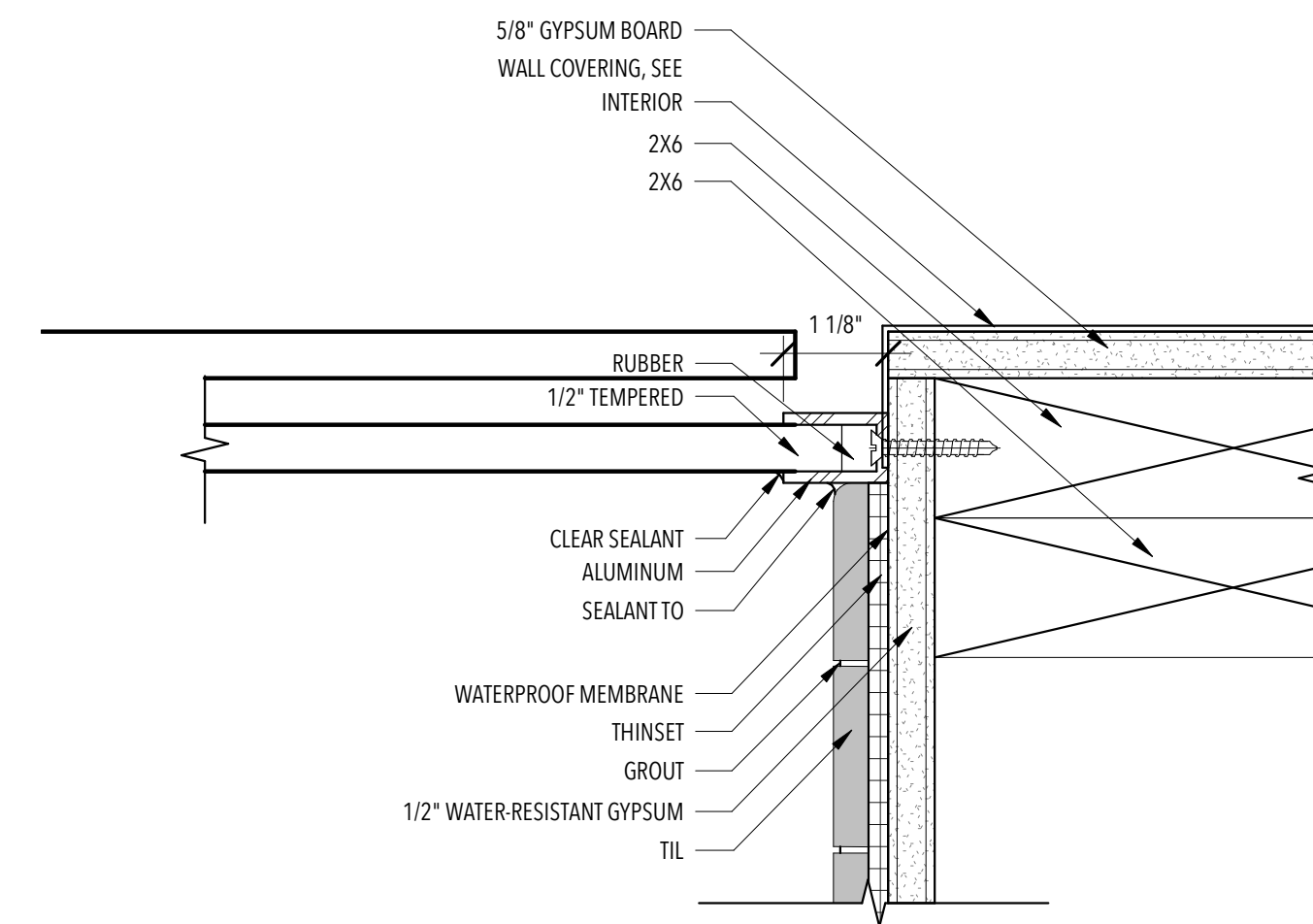
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**I-501**  
DETAILS

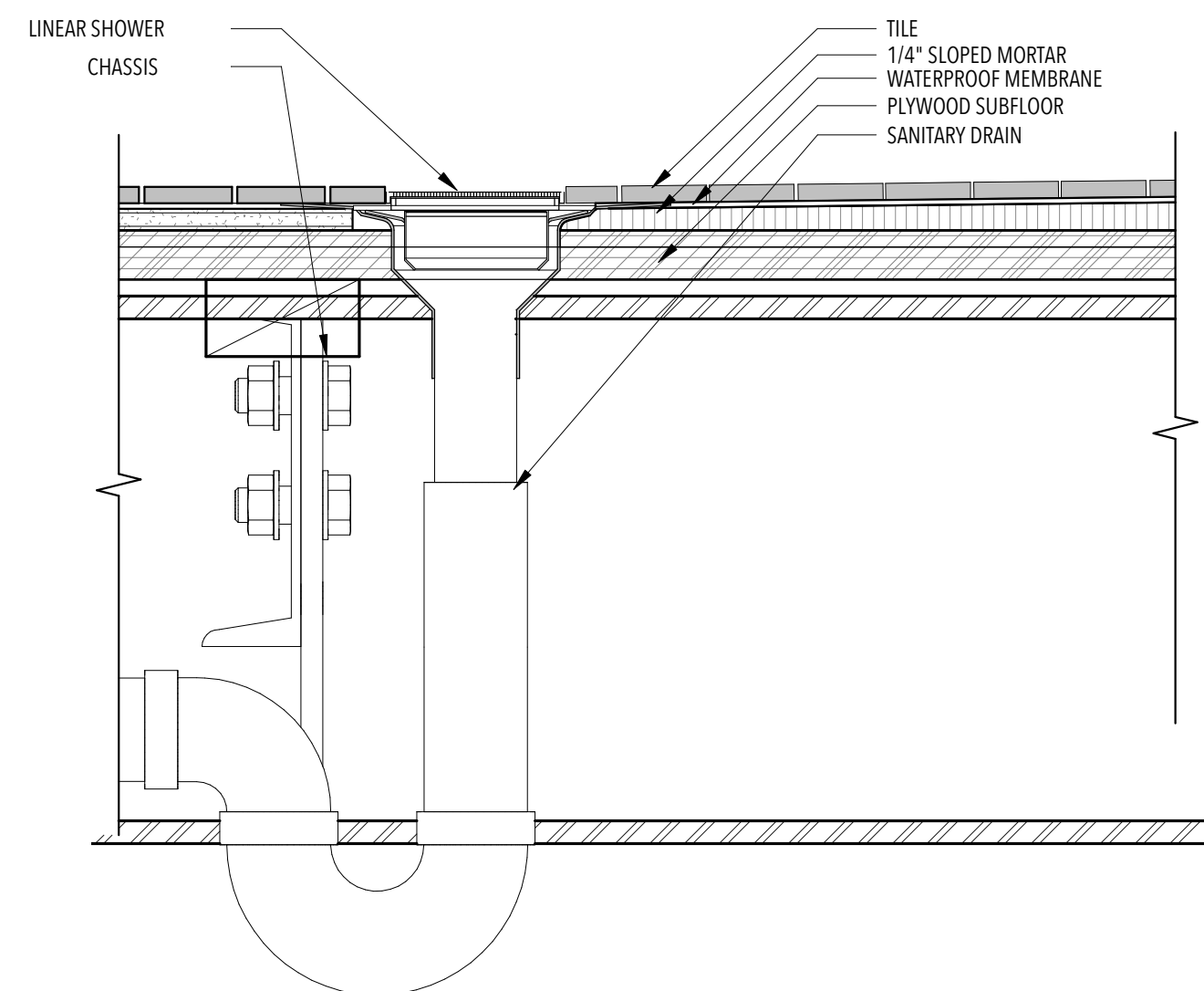
SCALE:  
As indicated



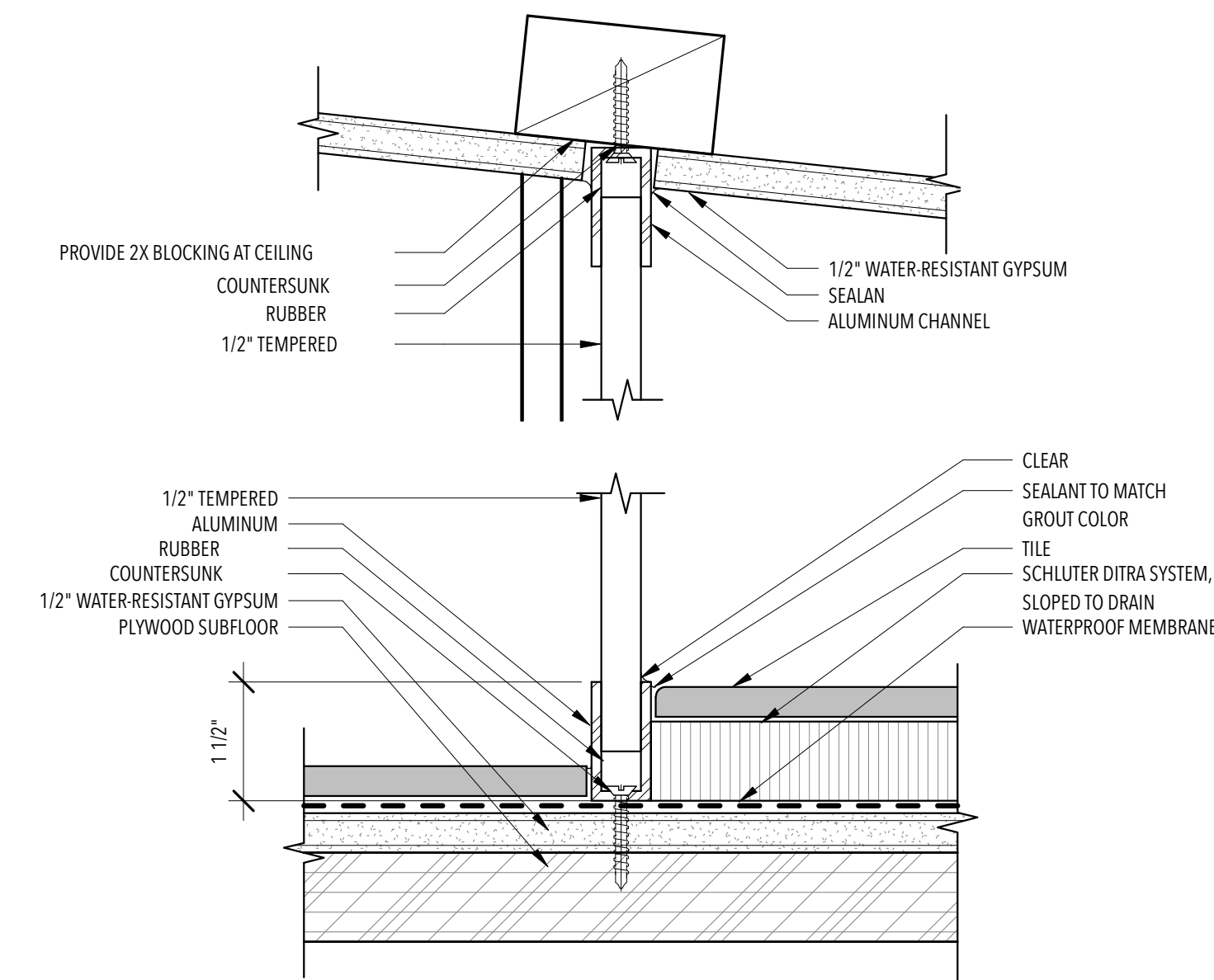
6 BASEBOARD DETAIL @ BATHROOM  
6" = 1'-0"



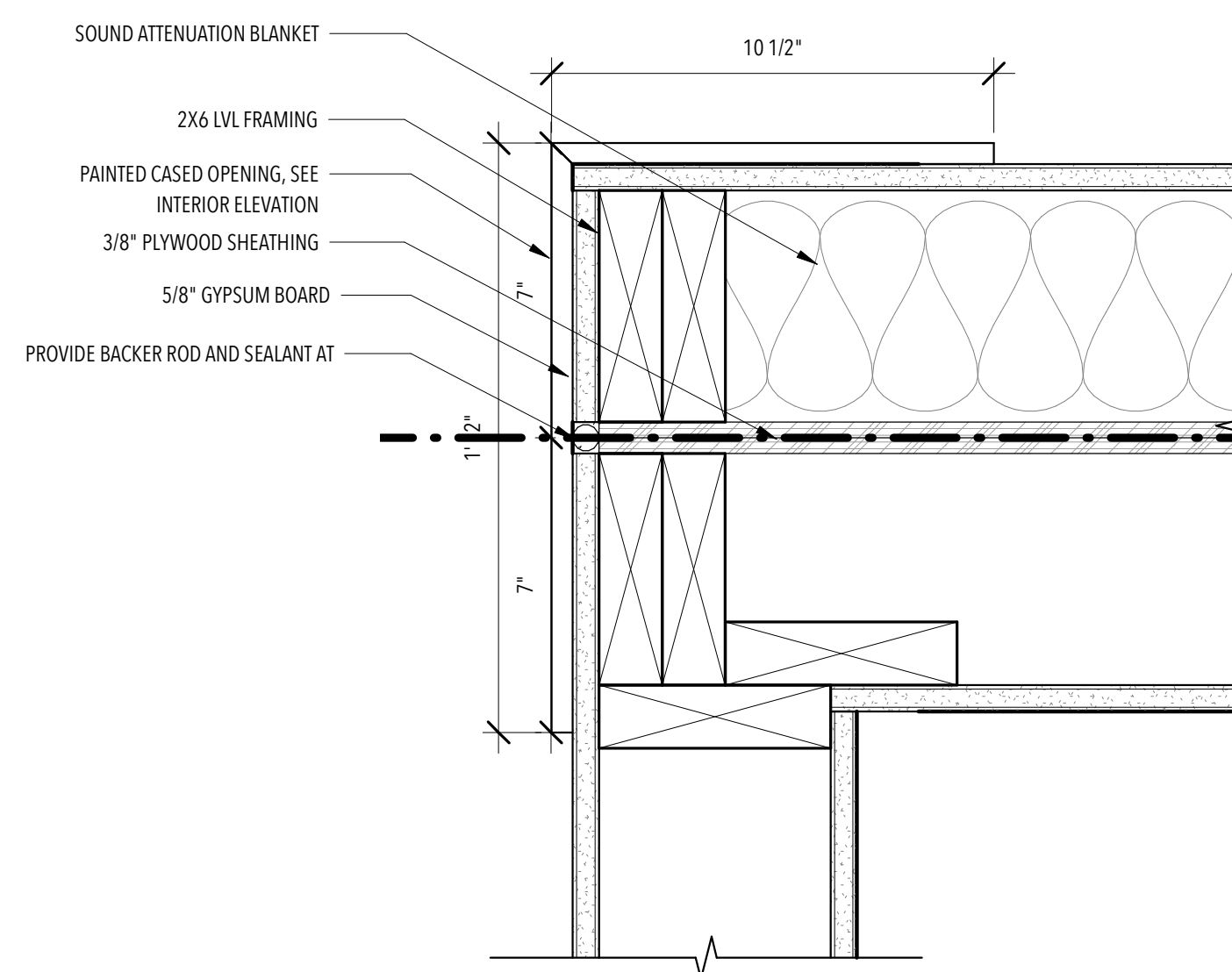
3 SHOWER GLASSWALL DETAIL  
6" = 1'-0"



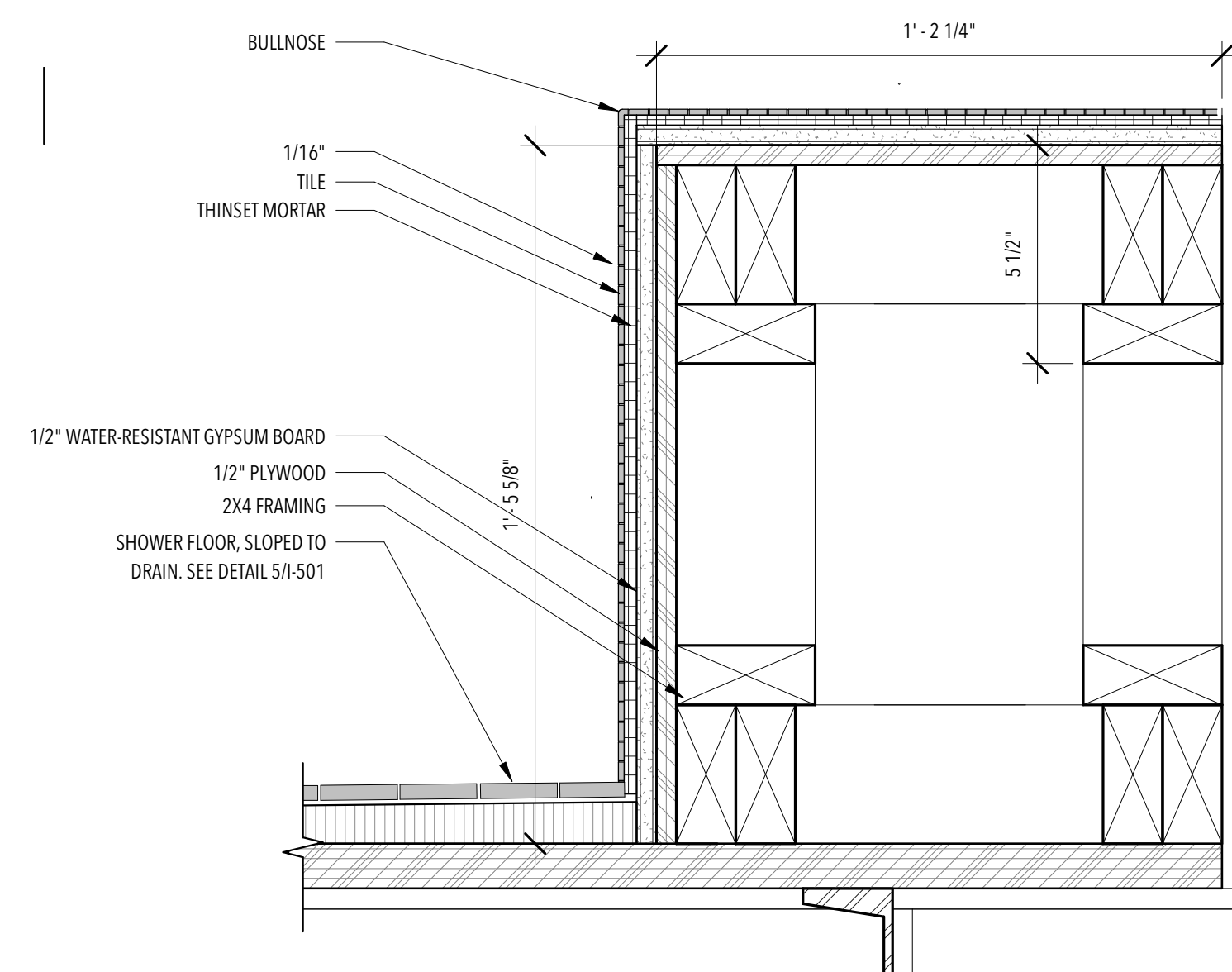
5 SHOWER DRAIN DETAIL  
3" = 1'-0"



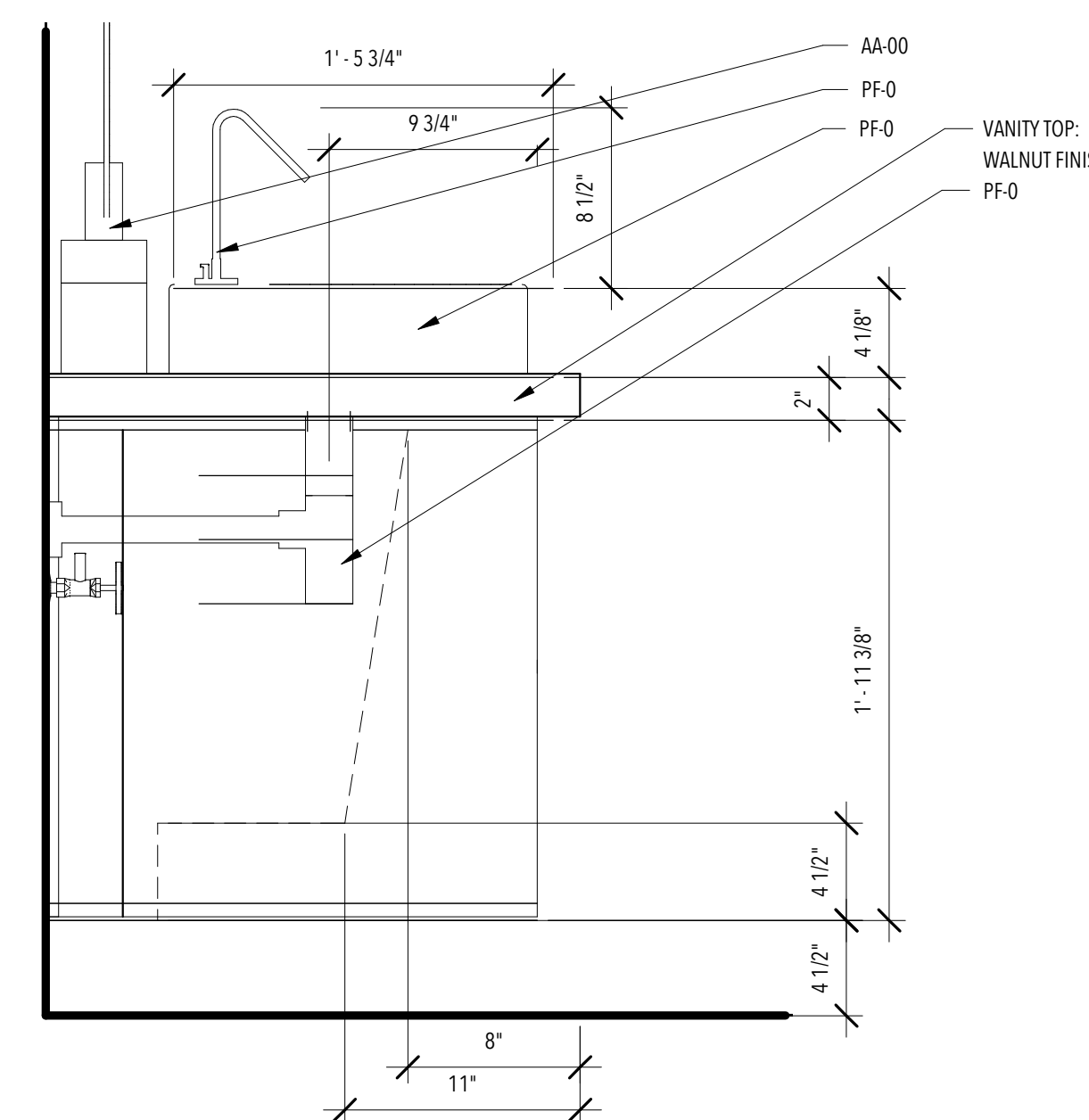
2 GLASS CHANNEL BASE / HEAD  
6" = 1'-0"



7 MATE @ BEDROOM SEAM  
3" = 1'-0"



4 BENCH DETAIL  
3" = 1'-0"



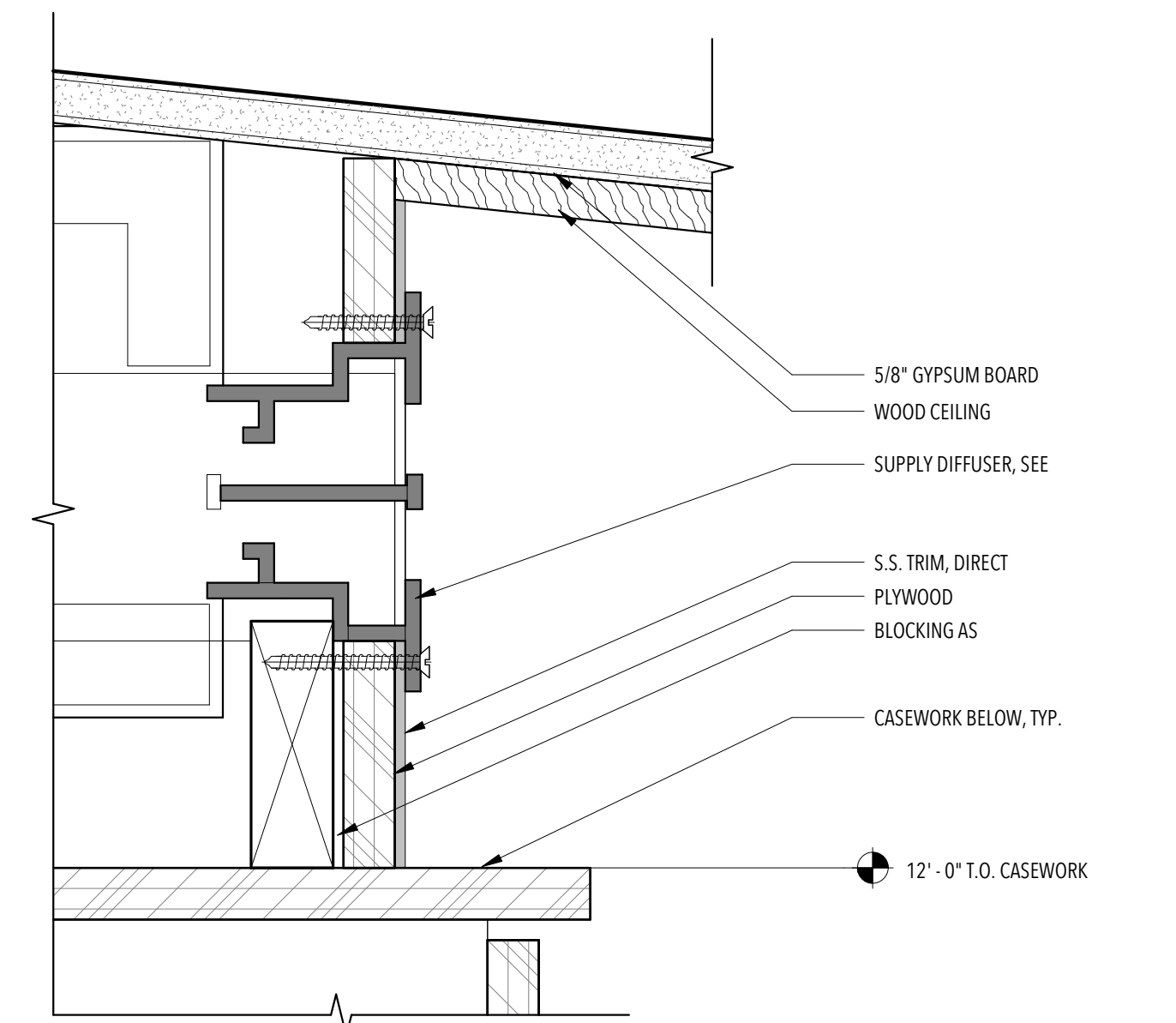
1 VANITY  
1 1/2" = 1'-0"

## ISSUANCES

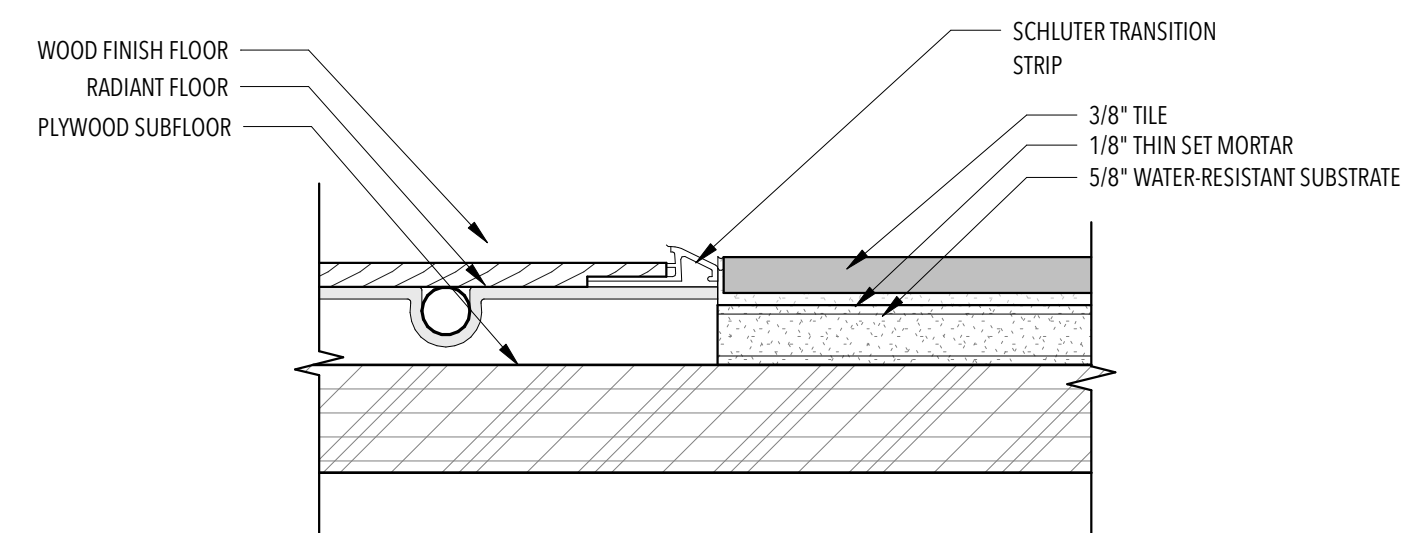
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## REVISIONS

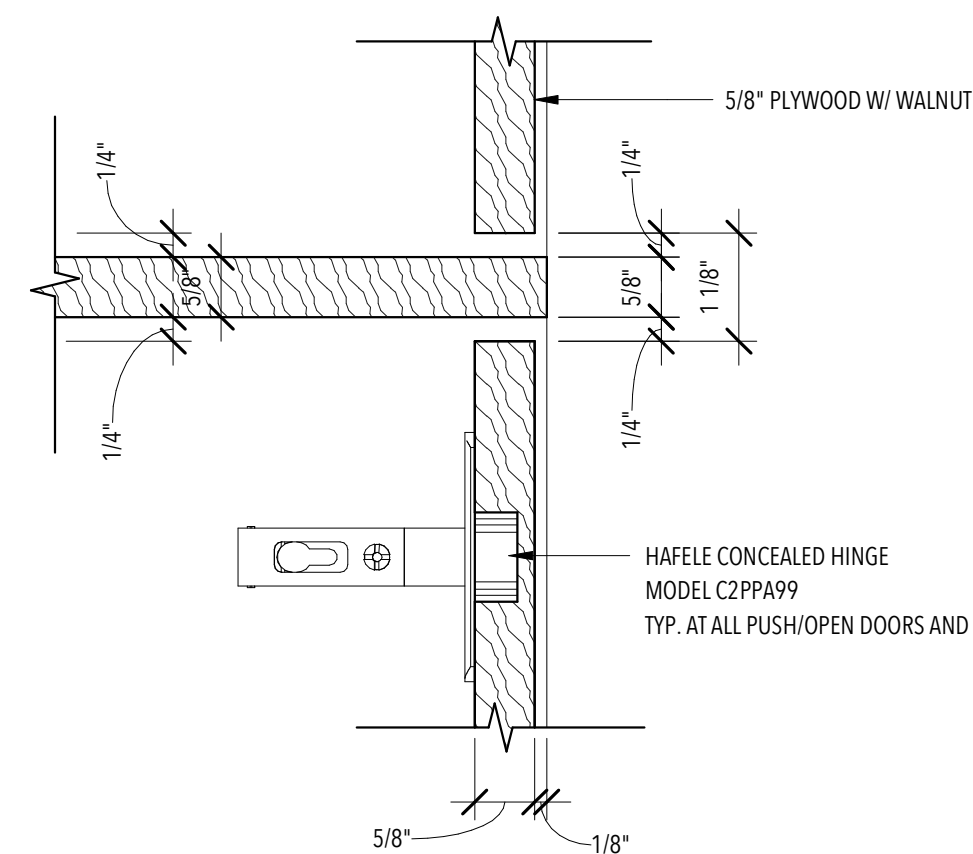
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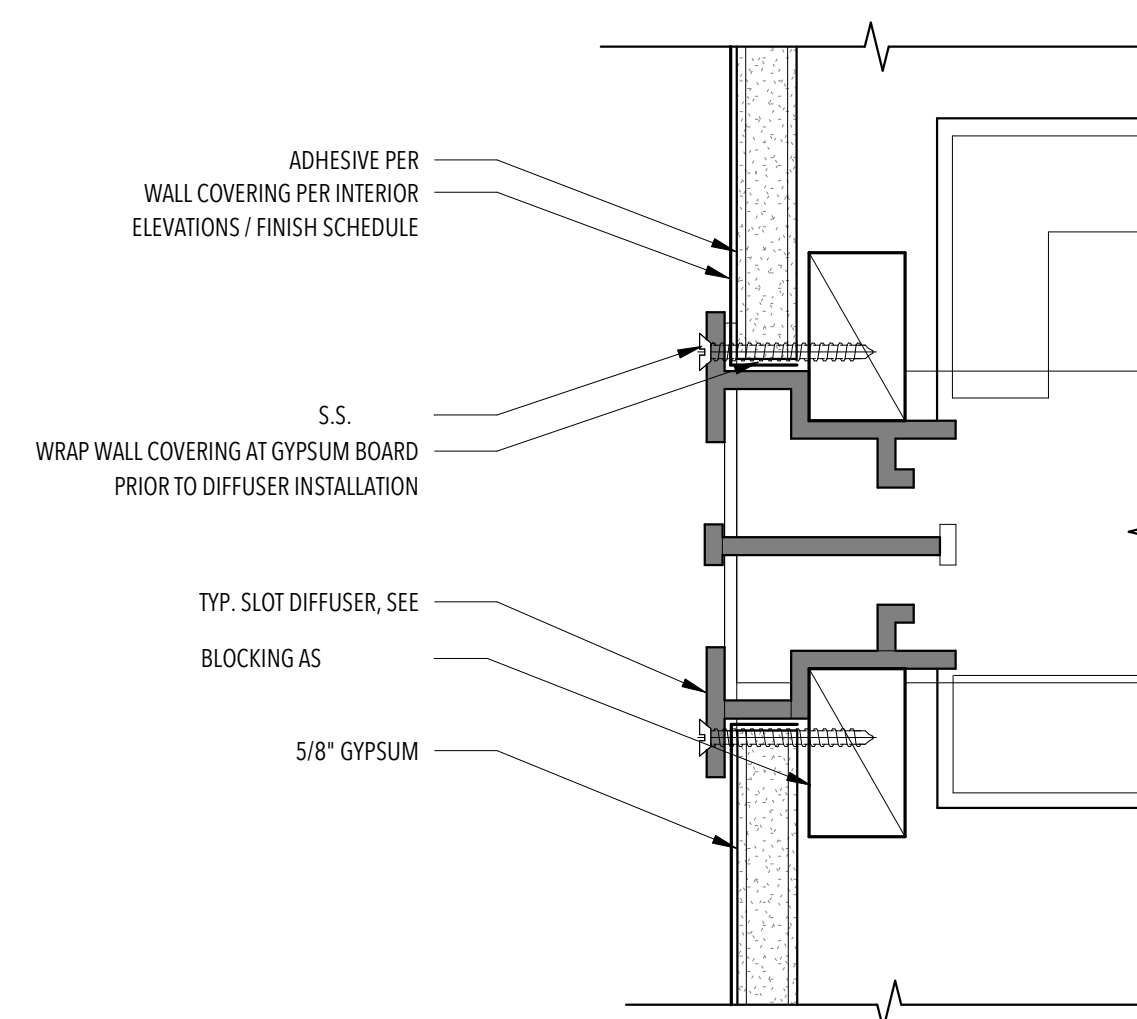
3 DIFFUSER @ MILLWORK  
6" = 1'-0"



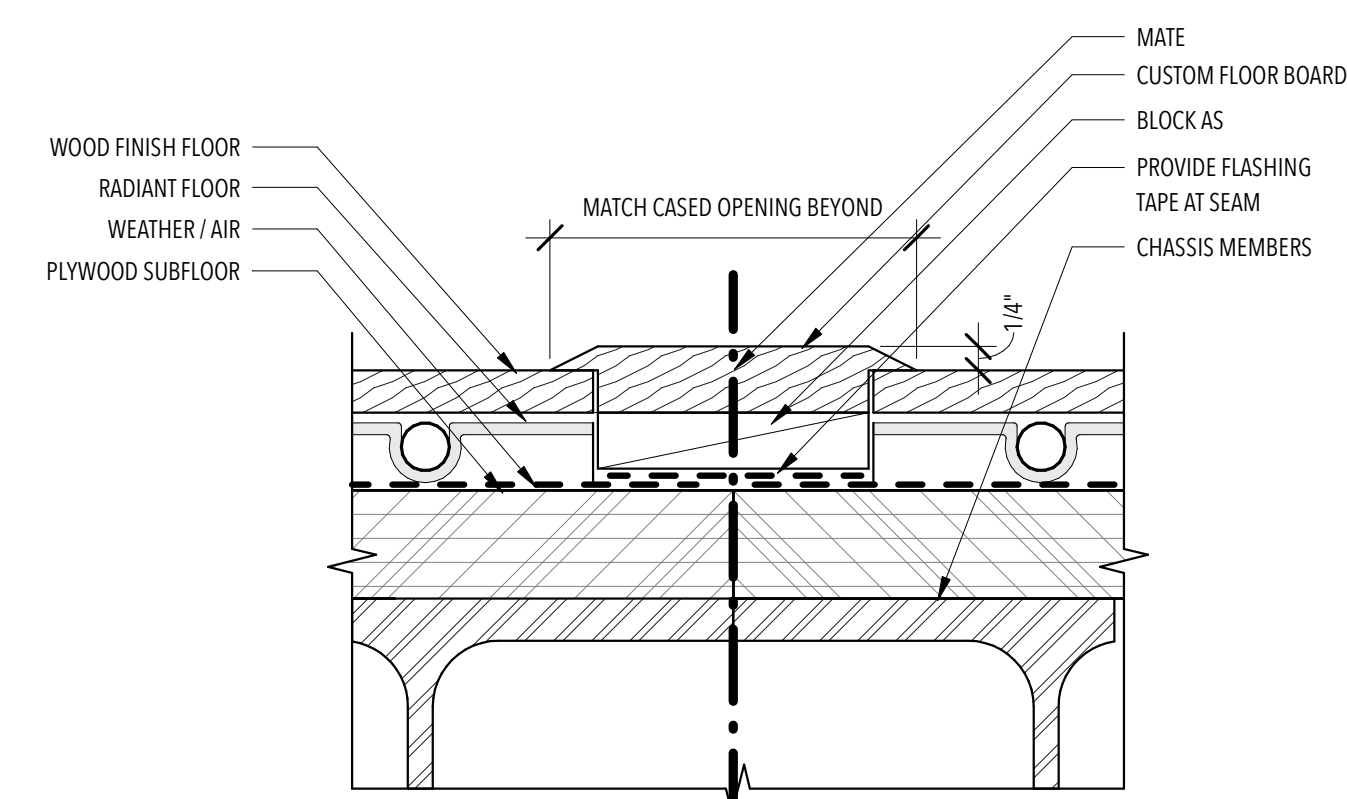
8 FLOOR TRANSITION - WOOD TO TILE  
6" = 1'-0"



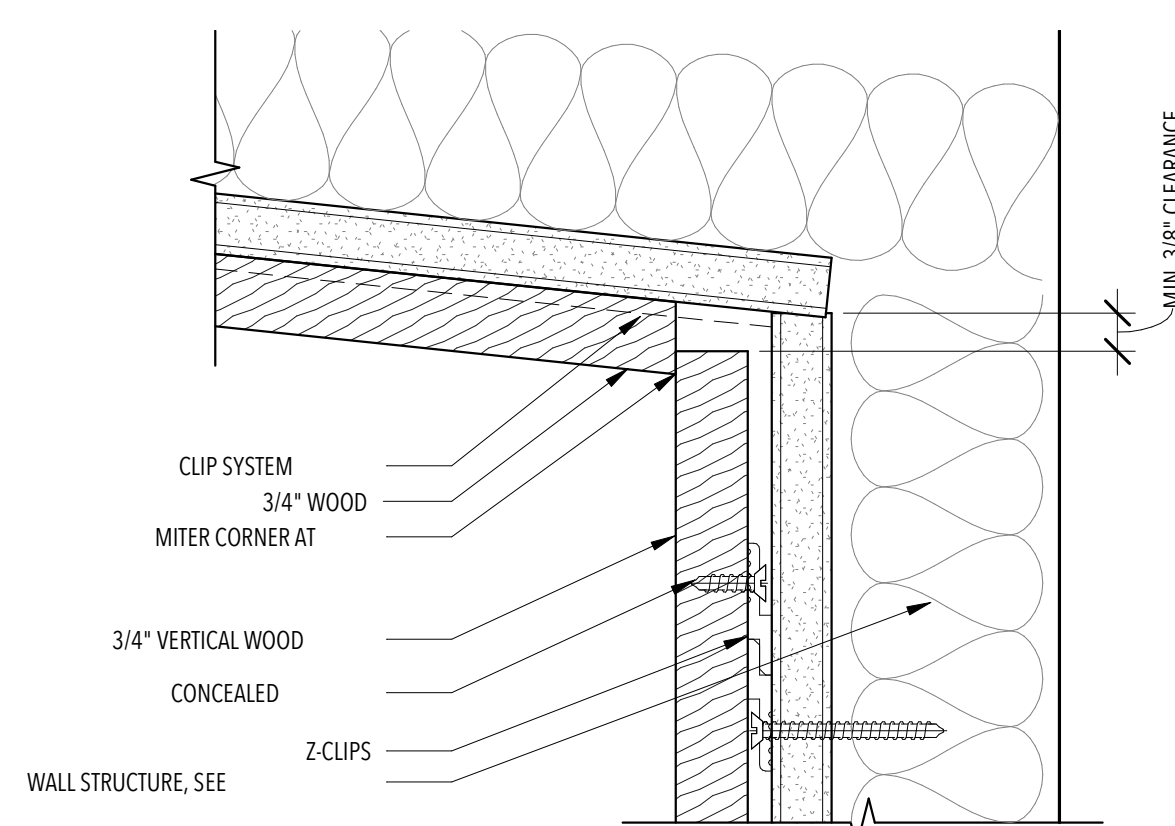
5 TYP. MILLWORK REVEAL  
6" = 1'-0"



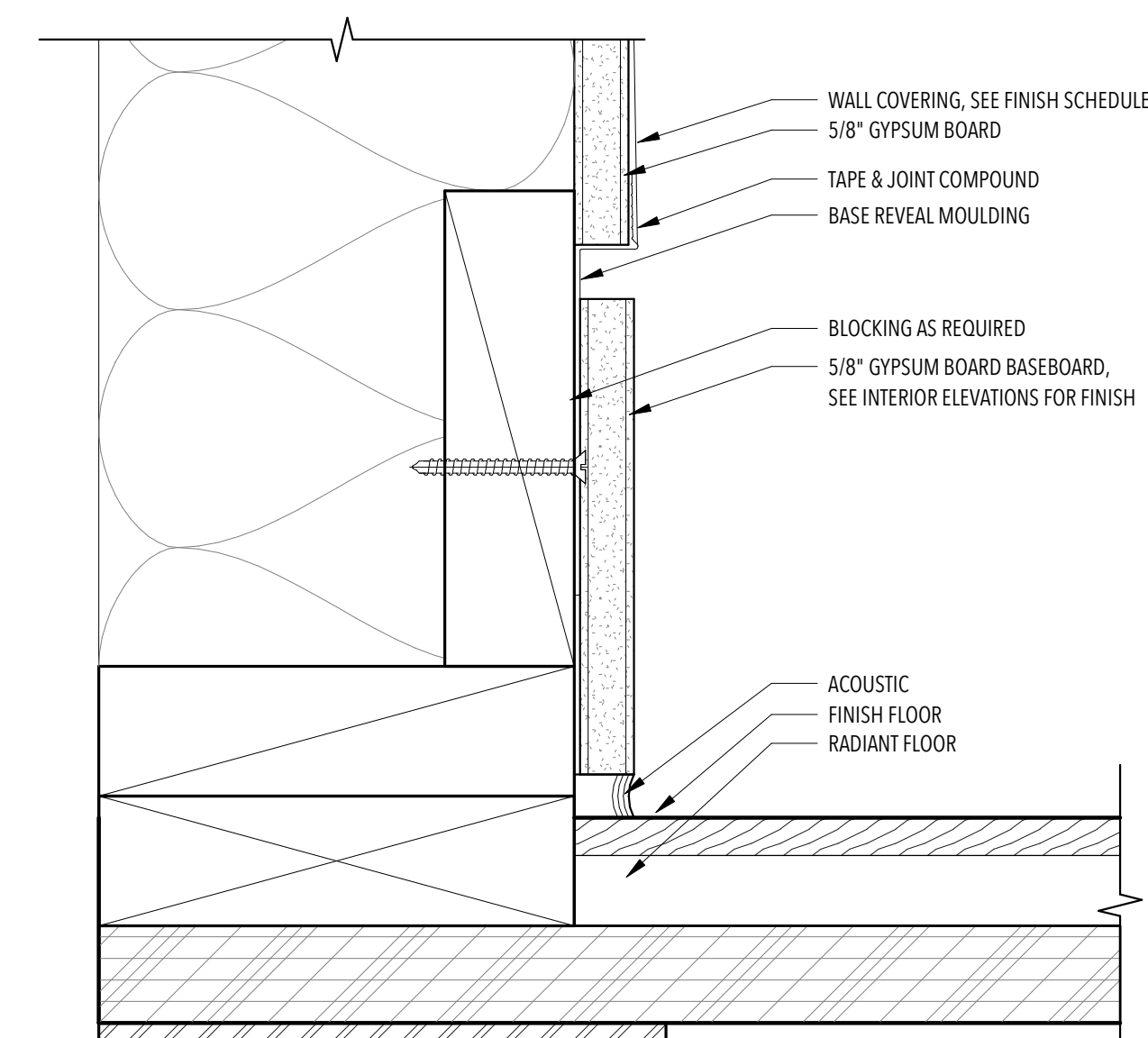
2 TYP. WALL COVERING @ DIFFUSER  
6" = 1'-0"



7 FLOOR TRANSITION - SEAM  
6" = 1'-0"



4 TYP. WOOD CEILING TO WALL TRANSITION  
6" = 1'-0"



1 TYP. BASEBOARD  
6" = 1'-0"

*NOTE: REMOVE WALL PANELS BEFORE TRANSPORT, STORE AND PROTECT.





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TEAM LAS VEGAS  
WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS

STRUCTURAL

RIM ROCK ENGINEERING  
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LAS VEGAS, NV 89129  
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# I-601

## SCHEDULES

SCALE:

ROOM FINISH SCHEDULE									
ROOM NUMBER	ROOM NAME	AREA	WALL FINISH				BASE	CEILING	FLOOR
			NORTH	EAST	SOUTH	WEST			
53	Room	Not Placed							
54	Room	Not Placed							
55	Room	Not Placed							
56	Room	Not Placed							
57	Room	Not Placed							
58	Room	Not Placed							
59	Room	Not Placed							
60	Room	Not Placed							
61	Room	Not Placed							
62	Room	Not Placed							
63	Room	Not Placed							
64	Type Mark	Room	Not Placed	Description		Manufacturer		Comments	
65	Room	Not Placed							
66	Room	Not Placed							
6A-01	Room	Not Placed							
601	Room	Not Placed				DESIGN WITHIN REACH			
602	Room	Not Placed				DESIGN WITHIN REACH			
603	Room	Not Placed				ARTICLE			
605	Room	Not Placed				ARTICLE			
609	Room	Not Placed				MULTIMO			
603	Room	Not Placed				Kohler			
600	Room	Not Placed				SAMSUNG			
605A	BATH W/ WASHER PEDESTAL	120 SF	TL-02/03	WC-03	BOSCH	WC-03		P-01	TL-01
SE-06A	DRYER PLATFORM				BOSCH				

GENERAL NOTES

**SD BUILDING CODE 3-11**

2015 IRC SECTION R313 REQUIRES FIRE-SUPPRESSION SPRINKLER SYSTEMS IN ALL SINGLE-FAMILY DWELLINGS. ALL BUILDINGS SHALL BE PROVIDED WITH FIRE SPRINKLERS DESIGNED IN ACCORDANCE WITH IRC SECTION P2904 OR NFPA 13D. SUCH SYSTEMS SHALL BE FULLY OPERATIONAL DURING THE PUBLIC EXHIBIT AND COMPETITION. EACH

**R313.2 ONE- AND TWO-FAMILY DWELLINGS AUTOMATIC FIRE SYSTEMS.**

AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN ONE- AND TWO-FAMILY DWELLINGS.

**IRC 2015 R314.1 GENERAL**

SMOKE ALARMS SHALL COMPLY WITH NFPA 72 AND SECTION R314.

**IRC 2015 314.1.1 LISTINGS.**

SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND UL 2034.

**IRC 2015 R314.2.1 NEW CONSTRUCTION.**

SMOKE ALARMS SHALL BE PROVIDED IN DWELLING UNITS.

**IRC 2015 R314.2.2 ALTERATIONS, REPAIRS AND ADDITIONS.**

WHERE ALTERATIONS, REPAIRS OR ADDITIONS REQUIRING A PERMIT OCCUR, OR WHERE ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED IN EXISTING DWELLINGS, THE INDIVIDUAL DWELLING UNIT SHALL BE EQUIPPED WITH SMOKE ALARMS LOCATED AS REQUIRED FOR NEW DWELLINGS.

**IRC 2015 R314.3 LOCATION.**

1. IN EACH SLEEPING ROOM.
2. OUTSIDE EACH SEPERATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
4. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY SECTION R314.3.

**IRC 2015 R314.3.1 INSTALLATION NEAR COOKING APPLIANCES.**

SMOKE ALARMS SHALL NOT BE INSTALLED IN THE FOLLOWING LOCATIONS UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM IN A LOCATION REQUIRED BY SECTION R314.3.

3. PHOTOELECTRIC SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 6 FEET HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

**IRC 2015 R314.4 INTERCONNECTION.**

WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT IN ACCORDANCE WITH SECTION R314.3, THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF SMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM.

**IRC 2015 R314.5 COMBINATION ALARMS.**

COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED.

**IRC 2015 R314.6 POWER SOURCE.**

SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

**IRC 2015 R314.7.1 GENERAL.**

FIRE ALARM SYSTEMS SHALL COMPLY WITH THE PROVISIONS OF THIS CODE AND THE HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72. SMOKE DETECTORS SHALL BE LISTED IN ACCORDANCE WITH UL 268.

**IRC 2015 R314.7.2 LOCATION.**

SMOKE DETECTORS SHALL BE INSTALLED IN THE LOCATIONS SPECIFIED IN SECTION R314.3.

**IRC 2015 R314.7.3 PERMANENT FIXTURE.**

WHERE A HOUSEHOLD FIRE ALARM SYSTEM IS INSTALLED, IT SHALL BECOME A PERMANENT FIXTURE OF THE OCCUPANCY, OWNED BY THE HOMEOWNER.

**IRC 2015 R314.7.4 COMBINATION DETECTORS.**

COMBINATION SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMITTED TO BE INSTALLED IN FIRE ALARM SYSTEMS IN LIEU OF SMOKE DETECTORS, PROVIDED THAT THEY ARE LISTED IN ACCORDANCE WITH UL 268 AND UL 2075.

**IRC 2015 R315.1 CARBON MONOXIDE ALARMS/DETECTORS**

CARBON MONOXIDE ALARMS/DETECTORS SHALL COMPLY WITH SECTION R315.

**IRC 2015 R315.6.4 COMBINATION DETECTORS.**

COMBINATION CARBON MONOXIDE AND SMOKE DETECTORS SHALL BE PERMITTED TO BE INSTALLED IN CARBON MONOXIDE DETECTION SYSTEMS IN LIEU OF CARBON MONOXIDE DETECTORS, PROVIDED THAT THEY ARE LISTED IN ACCORDANCE WITH UL 2075 AND UL 268.

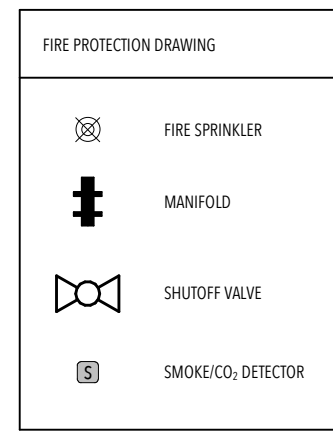
**NFPA 13D 2016**

ALL FIRE SPRINKLER SYSTEM PIPING, COMPONENTS, HANGERS, AND SPRINKLERS SHALL COMPLY WITH NFPA 13D STANDARDS AND REGULATIONS AND SHALL COMPLY WITH MANUFACTURERS SPECIFICATIONS.

**NFPA 13D 2016 7.1.2 VALVES**

OTHER THAN MAIN WATER SHUT OFF VALVES, THE SPRINKLER SYSTEM SHALL NOT HAVE SEPERATE CONTROL VALVES INSTALLED UNLESS SUPERVISED BY ONE OF THE FOLLOWING METHODS:

- (3) VALVES SHALL BE LOCKED OPEN.



NOTE: VALVES DENOTED AS "SHUTOFF VALVE" SHALL BE EASILY ACCESSIBLE AND SHALL BE CAPABLE OF BEING SECURELY LOCKED OPEN AS PER NFPA 13D 2016 7.1.2

FIRE SUPPRESSION			
MARK	DESCRIPTION	PRODUCT NUMBER	QTY
SM	SMOKE DETECTOR/ALARM	SMCSM10-	6
CO	CO DETECTOR/ALARM	SMCC002-	2
MN-01	SPRINKLER SYSTEM MANIFOLD (UPONOR)	LF470101	1
MN-02	SPRINKLER SYSTEM MANIFOLD (UPONOR)	O226105	1
MN-03	SPRINKLER SYSTEM MANIFOLD (UPONOR)	O226105	1
MN-04	SPRINKLER SYSTEM MANIFOLD (UPONOR)	LF470115	2
HB	HOSE BIB (AMERICAN)	M71HD 1/2	8
F	FIRE SPRINKLER (UPONOR)	RF49	6
PM-01	MAIN SUPPLY PUMP	BMOE 22	1

GENERAL NOTES



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TEAM LAS VEGAS

WWW.UNLVSD.COM  
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NO.	DESCRIPTION	DATE
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F-001

FIRE PROTECTION NOTES &  
SYMBOLS

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

**CONSULTANTS**

**STRUCTURAL**

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**ISSUANCES**

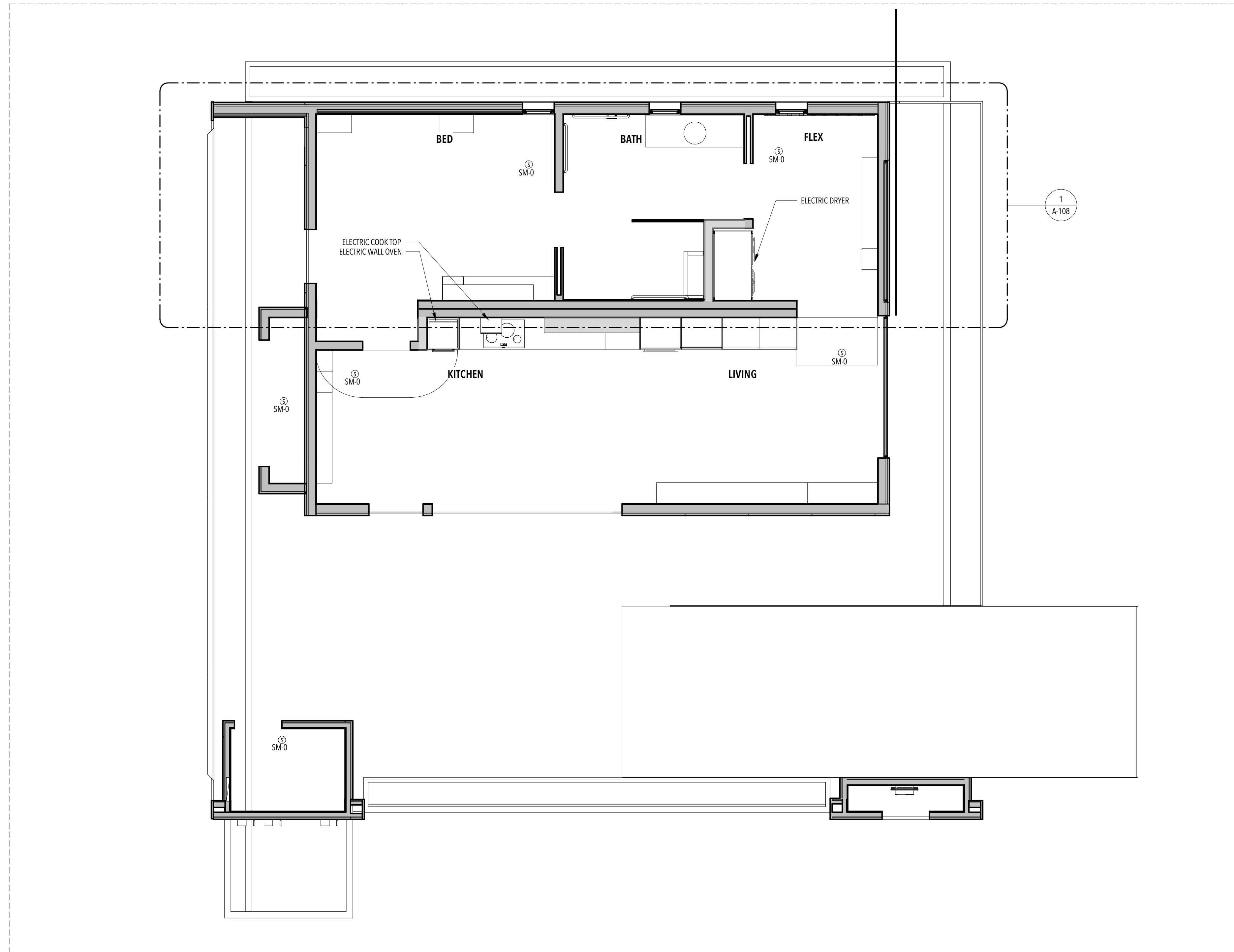
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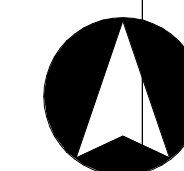
**GENERAL NOTES**

1. SEE SHEET F-001 FOR PRODUCT INFORMATION ON NEST SMOKE AND CO2 DETECTORS
- 2.



SHEET NOTES:

DRAWING KEY:





ISSUANCES

NO.	DESCRIPTION	DATE
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**F-102**  
FIRE SUPPRESSION  
COVERAGE PLAN

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

GENERAL NOTES

**SCOPE:** MULTIPURPOSE RESIDENTIAL FIRE SUPPRESSION SYSTEM INTEGRATED WITH PORTABLE COLD WATER DISTRIBUTION SYSTEM, USING CROSSLINKED POLYETHYLENE (PEX) TUBING AND ASTM F 1960 COLD EXPANSION FITTINGS.

ALL WORK SHALL COMPLY WITH NFPA 13D 2016, AND SOLAR DECATHLON BUILDING CODE.

**SPECIFICATIONS:**

- INSTALL UPONOR PEX TUBING AS INDICATED ON THE DRAWINGS.
- A SPRINKLER SHALL NOT BE WITHIN 3' RADIUS OF A MOUNTED CEILING FAN (2016 NFPA 13D).
- MAXIMUM SPACING SHALL BE 16'X16' FOR TWO SPRINKLER HEADS PER COMPARTMENT, AND MINIMUM DISTANCE MUST BE 8' PER NFPA 13D (2016 NFPA 13D 8.1.1.2)
- ENSURE SPRINKLER HEADS MAINTAIN MINIMUM DISTANCES FROM HEAT SOURCES AS SPECIFIED IN THE PEX TUBING MANUFACTURER'S INSTALLATIONS MANUAL AND NFPA 13D.
- THE FOLLOWING LATERAL DISTANCES MUST BE MAINTAINED BETWEEN ANY SPRINKLER AND THE EDGE OF A HEAT SOURCE: 6" FROM HOT WATER HEATER AND LIGHT FIXTURES (0-250 W), 1" FROM LIGHT FIXTURES (250-499 W) AND UN-INSULATED HOT WATER PIPES, 1'-6" FROM KITCHEN RANGES AND WALL OVENS, 2" FROM SIDE OF CEILING OR WALL MOUNTED HOT AIR DIFFUSERS, AND 3" FROM FRONT OF CEILING OR WALL MOUNTED HOT AIR DIFFUSERS.
- DO NOT PAINT SPRINKLER HEADS OR COVER PLATES.
- ENSURE PROTECTIVE CAP ASSEMBLY REMAINS IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
- INSTALL SPRINKLER HEADS IN ACCORDANCE WITH PEX TUBING MANUFACTURER'S SPECIFICATIONS AND NFPA 13D.
- ENSURE SPRINKLERS ARE POSITIONED SO THAT DISCHARGE WILL NOT BE AFFECTED BY OBSTRUCTIONS SUCH AS BEAMS OR LIGHT FIXTURES.
- SUPPORT TUBING TO STRUCTURAL MEMBERS USING SUPPORT METHODS REQUIRED BY IRC AND THE PEX MANUFACTURER'S INSTALLATION HANDBOOK.
- MAINTAIN MINIMUM BEND RADIUS LIMITATIONS AS SPECIFIED IN MANUFACTURER'S INSTALLATION AND SPECIFICATION MANUALS
- ENSURE SYSTEM MEETS OR EXCEEDS FLOW REQUIREMENTS SPECIFIED IN HYDRAULIC CALCULATIONS BY COMPLETING A FLOW VERIFICATION TEST ON ANY SINGLE SPRINKLER.

HYDRAULIC CALCULATION NOTES:

**SPRINKLER** RES49 SIN R3516  
**SUPPLIER** UPONOR  
**TEMP RATING** 155-175 ° F  
**K FACTOR** 4.9  
**FLOW RATE** 13 GAL/MIN (PER HEAD)  
**MIN PRESSURE** 7 PSI (PER HEAD)  
**MAX SPACING** 16'X16'

**WATER RESERVE REQUIRED** 260 GAL

**NFPA 13D: 8.2.5.6 SHADOW AREAS**

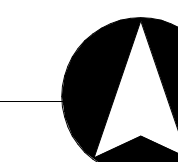
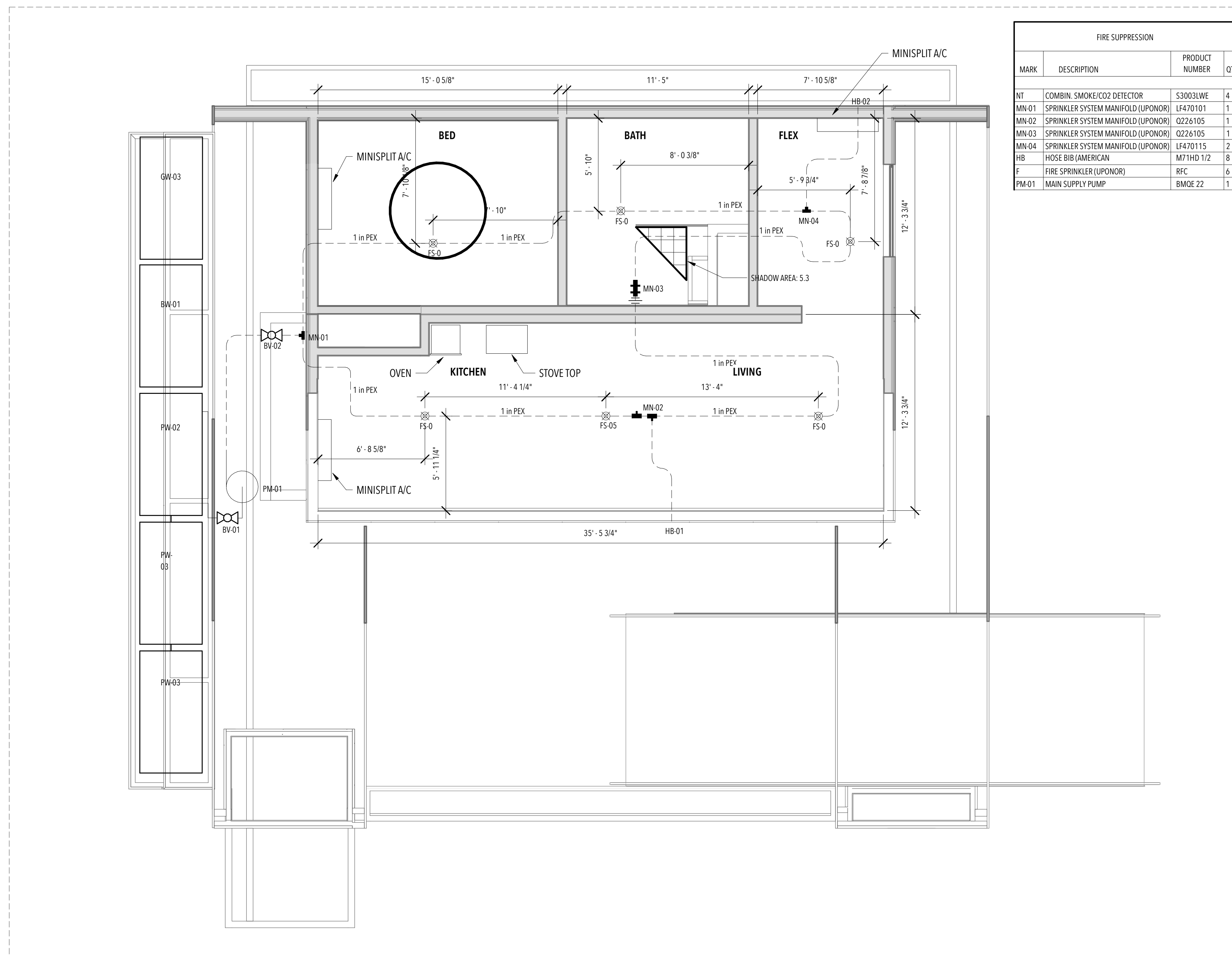
SHADOW AREAS SHALL BE PERMITTED IN THE PROTECTION AREA OF A SPRINKLER AS LONG AS THE CUMULATIVE DRY AREAS DO NOT EXCEED 15 FT² (1.4 M²) PER SPRINKLER.

SHEET NOTES:

- Tanks, supply pump, and supply side ball valve (BV-01) to be located under decking.
- Shut off ball valve (BV-02) and main manifold (MN-01) to be located in electrical room on West side decking.
- All sprinklers, remaining manifolds, and union to be located in roof structure.

DRAWING KEY:

FIRE SUPPRESSION			
MARK	DESCRIPTION	PRODUCT NUMBER	QTY
NT	COMBIN. SMOKE/CO2 DETECTOR	S3003LWE	4
MN-01	SPRINKLER SYSTEM MANIFOLD (UPONOR)	LF470101	1
MN-02	SPRINKLER SYSTEM MANIFOLD (UPONOR)	Q226105	1
MN-03	SPRINKLER SYSTEM MANIFOLD (UPONOR)	Q226105	1
MN-04	SPRINKLER SYSTEM MANIFOLD (UPONOR)	LF470115	2
HB	HOSE BIB (AMERICAN)	M71HD 1/2	8
F	FIRE SPRINKLER (UPONOR)	RFC	6
PM-01	MAIN SUPPLY PUMP	BMQE 22	1

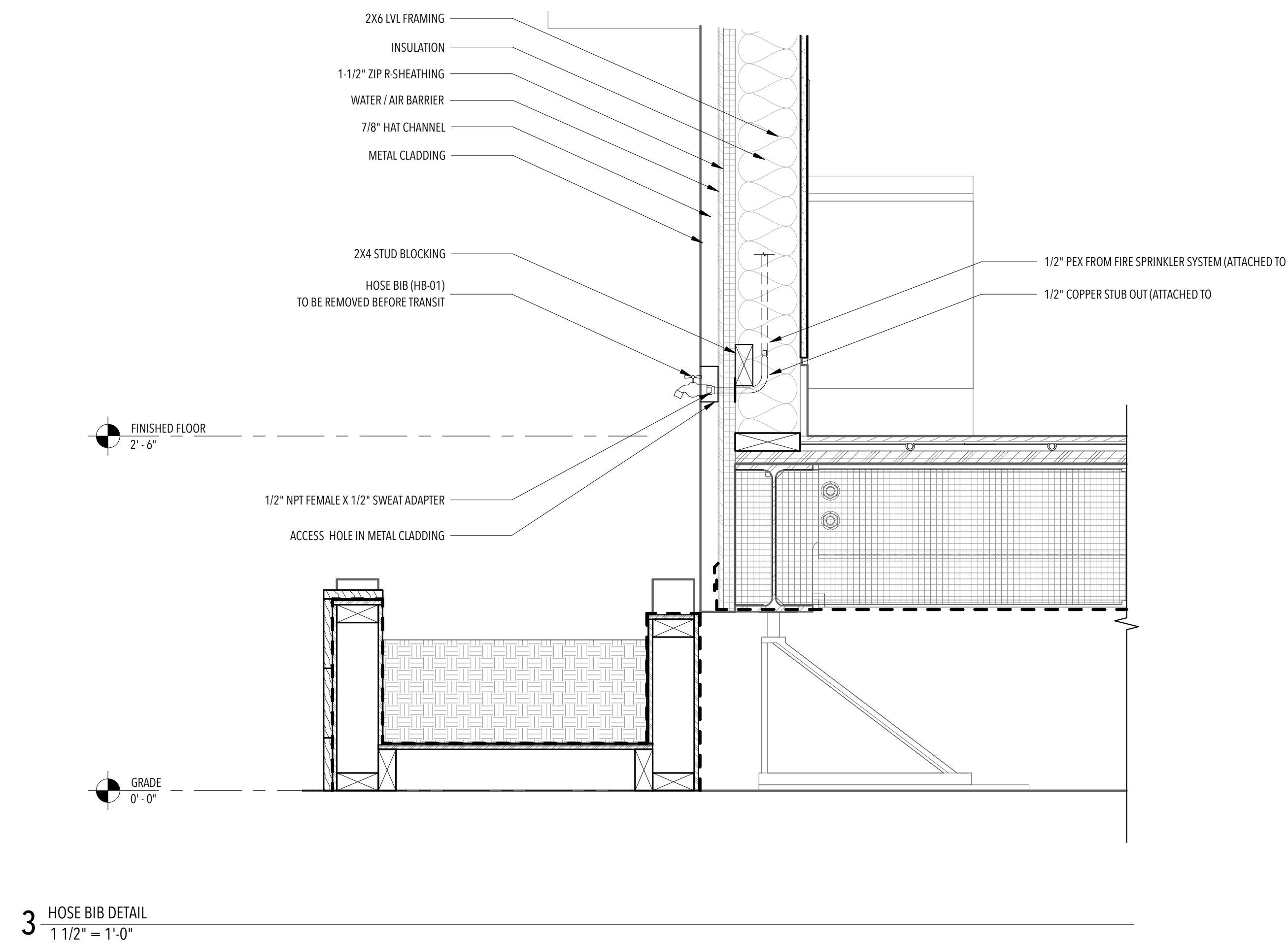
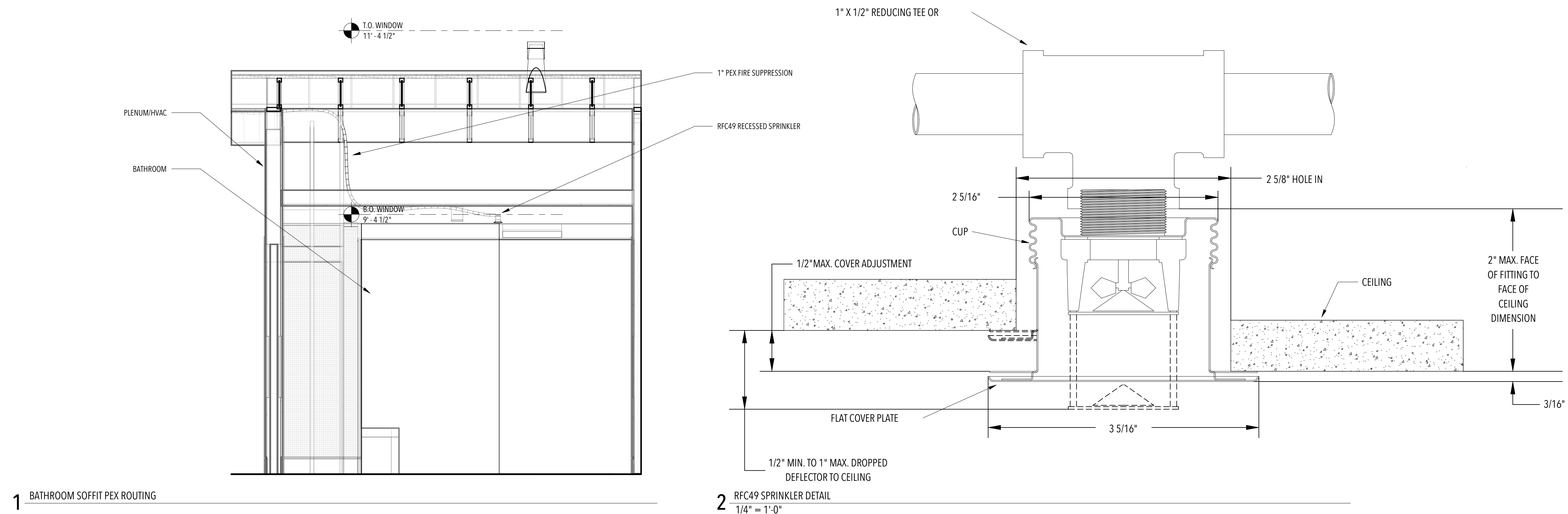


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**F-501**  
FIRE PROTECTION  
SECTION/DETAIL

PLUMBING FIXTURE SCHEDULE										
MARK	DESCRIPTION (MANUFACTURER)	PRODUCT NUMBER	QTY	MAX GPM	WSFU	DFU	FIXTURE COMMENTS	SUPPLY CONNECTION	DRAIN CONNECTION	CONNECTION COMMENTS
30										
BCW-01	WATER CLOSET (KOHLER)	K-3887	1	1.28		3		3/8" COMP.	3" PVC	IN FLOOR
BT-01	BOTTLE TRAP (KOHLER)	K-9033	1	N/A	N/A	N/A		1-1/4"	1-1/4"	
DAG	DISHWASHER AIR GAP (KOHLER)	K-9110-SN	1	N/A	N/A	N/A	CHROME FINISH	7/8" (HOSE)	5/8" (HOSE)	
FD-01	TROUGH FLOOR DRAIN (TBD)	TBD	1	N/A	N/A	2		N/A	2" PVC	
FD-02	FLOOR DRAIN (KOHLER)	K-9135-CP	2	N/A	N/A	2	TRAP SEAL	N/A	3" PVC	
FD-03										
FD-04										
HB	HOSE BIB VALVE (AMERICAN VALVE)	M71HD 1/2	8		2.5	N/A		1/2" NPT	1/2" THREAD	
KF	KITCH FAUCET (KOHLER)	K-7505	1	1.8	1.4	2	1-5/16" STEM @ 2-1/2"	3/8" COMP. (x2)	N/A	SUPPLY FROM WATER SUPPLY VALVES
KS	KITCHEN SINK (KOHLER)	K-3894-4	1	N/A	N/A	2	1-1/2" FAUCET HOLE	N/A	3-7/8" OD	
LF-01	LAVATORY FAUCET (KOHLER)	K-14661-4	1	1.2		1		3/8" COMP.	1-1/4"	
LS-01	LAVATORY SINK (KOHLER)	K-2331-8	1	N/A	N/A	N/A		N/A	1-1/4"	
MV	SHOWER MIXER VALVE (KOHLER)	K-11748	1	5.0	N/A	N/A	WITH DIVERTER	1/2" NPT	1/2"	USED WITH K-T14501-4
RT-01	RADIANT TOWEL RACK (KUDOX)	NAHB0010A	1	N/A	N/A	N/A	PART OF RADIANT	1/2" NPT	3/2" NPT	COMES WITH SHUT OFF VALVES
SHC	SHOWER COLUMN (KOHLER)	K-45210	1	N/A	N/A	N/A		1/2" NPT	1/2" NPT	
SHD	SHOWER DIVERTER (KOHLER)		1							
SHH	SHOWER HEAD (KOHLER)	K-978	1	1.75		2	N/A	1/2" NPT	N/A	
SHK	HAND SHOWER KIT (KOHLER)	K-99899	1	2.0	N/A	N/A		1/2" NPT	N/A	
SV	WATER SUPPLY VALVE (TBD)	TBD	5	N/A	N/A	N/A		1/2" COMP.	3/8" COMP.	USE COPPER STUB OUT
WP-01	WASHER CONNECTION (UPONOR)	LF5930500	1	N/A	N/A	N/A	IN-WALL UNIT	1/2" (HOSE) x2	3/4" PVC	
WP-02	PRO-PEX ICE MAKER BOX (UPONOR)	LF5955025	1	N/A	N/A	N/A	IN-WALL UNIT	1/2" (HOSE)	N/A	

**GENERAL NOTES:**

**PLUMBING NOTES**

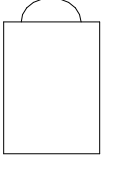

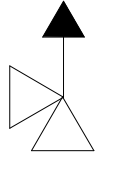
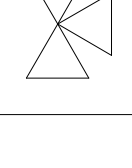
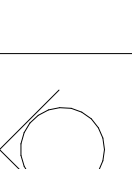
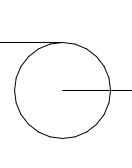
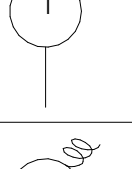
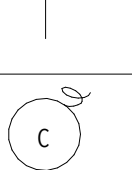
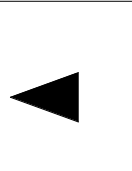
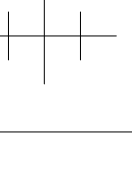



1. ALL PORTABLE TANKS, PUMPS, AND VALVES INTENDED TO MIMIC PUBLIC UTILITY WATER SUPPLY AND SEWAGE ARE TEMPORARY AND FOR COMPETITION PURPOSES ONLY.
2. SUPPLY TANKS MUST ALLOW FOR WATER DELIVERY ACCESS DURING COMPETITION, AND MUST ALLOW FOR A MINIMUM 12" SPACE ABOVE WATER INLET.
3. SUPPLY AND WASTE LINES FROM TANKS TO HOUSE ARE TEMPORARY AND FOR COMPETITION USE ONLY.
4. FOR WATER DELIVERY, ORGANIZER'S TRUCK IS TO PARK AT SOUTHWEST CORNER OF STRUCTURE AND FILL INTERCONNECTED TANKS LOCATED IN THE PLANTER ON THE WEST SIDE OF THE BUILDING [SEE P-101 FOR TANKS AND G-104 FOR TRUCK ACCESS].
5. FOR WATER REMOVAL, ORGANIZER'S TRUCK IS TO PARK AT SOUTHWEST CORNER OF STRUCTURE AND REMOVE WATER FROM ALL 5 TANKS LOCATED IN THE PLANTER ON THE WEST SIDE OF BUILDING AS WELL AS REMOVE WATER FROM LANDSCAPING TANK LOCATED UNDER SOUTH DECKING VIA ACCESS PANEL ON DECKING [SEE P-101 FOR TANK PLACEMENT].
6. THE MAIN WATER SUPPLY AND FIRE SUPPRESSION PUMP SHALL BE MOUNTED ON A STAND AND PROVIDED HOUSING UNDERNEATH THE FINISHED FLOOR OF THE MECHANICAL ROOM.
7. DURING INSTALLATION, ALL PIPING PENETRATION THROUGH WALL AND OR DECK SHALL BE SEALED WITH SPRAY FOAM.
8. THE DRAWINGS AND DETAILS SHALL BE TAKEN AS A DIAGRAMMATIC REPRESENTATION OF THE MEANS FOR WHICH TO INSTALL THE PIPING. PROVIDED DRAWING DO NOT SHOW ALL FITTINGS AND OFFSETS, NOR STRUCTURAL, ELECTRICAL, PLUMBING AND MECHANICAL OBSTRUCTIONS THAT MAY BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PROVIDE ANY MODIFICATION TO WORK; INCLUDING BUT NOT LIMITED TO DUCTWORK, PIPING, ELECTRICAL, PLUMBING, FIRE PROTECTION, STRUCTURAL, FINISHED WORK, ETC.

**DRAINAGE, WASTE, AND VENT PIPING NOTES**

1. WATER CLOSET SHALL NOT BE USED AT COMPETITION AND DRAINAGE PIPE SHALL BE CAPPED PRIOR TO INSTALLATION.
2. ALL GRAVITY DRAINAGE PIPES AND VENT STACKS SHALL BE SLOPED A MINIMUM OF 1/4" PER 1'.
3. ALL VENT PIPE ROOF PENETRATIONS SHALL BE MADE TO TERMINATE AT A LOCATION THAT WILL MINIMIZE VISIBILITY FROM THE GROUND.
4. ALL VENT PIPE ROOF EXTENSION SHALL EXTEND A MINIMUM OF 6" ABOVE ROOF.
5. ALL PIPING AND PLUMBING FITTINGS AND ACCESSORIES SHALL ADHERE TO ALL APPLICABLE CODES AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.

WATER TANK SCHEDULE			
MARK	DESCRIPTION (MANUFACTURER)	PRODUCT NUMBER	QTY
PW	500 GAL WATER TANK	43843	3
GW	500 GAL WATER TANK	43843	1
BW	500 GAL WATER TANK	43843	1
LT	200 GAL WATER TANK	TBD	1
WH	100 GAL HEAT EXCHANGER		1

PUMP SCHEDULE				
MARK	DESCRIPTION (MANUFACTURER)	PRODUCT NUMBER	QTY	LOCATION/ COMMENTS
PM-01	MAIN SUPPLY PUMP	BMQE 22	1	UNDER WEST
PM-02	HOT WATER RETURN PUMP	003-B4	1	MECH. POD
PM-03	SOLAR THERMAL PUMP	003-B4	1	MECH. POD
PM-04	RADIANT FLOOR PUMP (TACO)	003-B4	1	MECH. POD
LP	LANDSCAPING PUMP	003-B4	2	MECH. POD
FT	LANDSCAPING FILTER PUMP	B0072JQYP2	1	UNDER SOUTH DECK

	AUTOMATIC AIR VENT
	PEX PIPING
	P&T VALVE
	3-WAY MIXING VALVE
	SHUTOFF VALVE
	CHECK VALVE
	PUM
	TEMPERATURE GAUGE
	PRESSURE
	CONTROLLER
	DIRECTION ARROW
	UNIONS/ADAPTERS
	FLOW METER

? PLUMBING NOTES LEGEND  
3" = 1'-0"

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WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

**CONSULTANTS**

**STRUCTURAL**

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

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**P-001**  
**PLUMBING NOTES**

SCALE:  
3" = 1'-0"



GENERAL NOTES



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UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS

STRUCTURAL

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LAS VEGAS, NV 89129  
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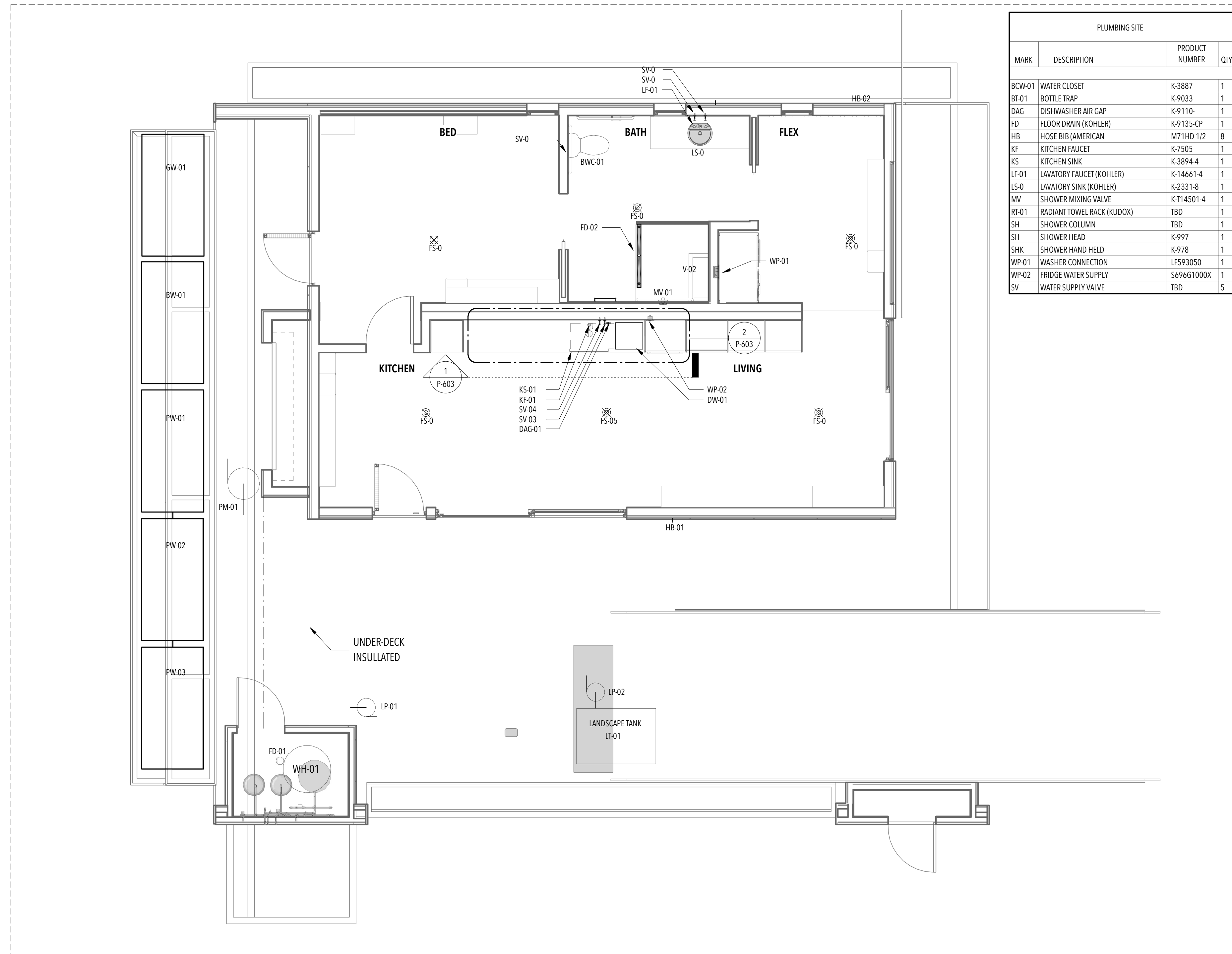
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SHEET NOTES:

DRAWING KEY:



PLUMBING SITE			
MARK	DESCRIPTION	PRODUCT NUMBER	QTY
BCW-01	WATER CLOSET	K-3887	1
BT-01	BOTTLE TRAP	K-9033	1
DAG	DISHWASHER AIR GAP	K-9110-	1
FD	FLOOR DRAIN (KOHLER)	K-9135-CP	1
HB	HOSE BIB (AMERICAN)	M71HD 1/2	8
KF	KITCHEN FAUCET	K-7505	1
KS	KITCHEN SINK	K-3894-4	1
LF-01	LAVATORY FAUCET (KOHLER)	K-14661-4	1
LS-0	LAVATORY SINK (KOHLER)	K-2331-8	1
MV	SHOWER MIXING VALVE	K-114501-4	1
RT-01	RADIANT TOWEL RACK (KUDOX)	TBD	1
SH	SHOWER COLUMN	TBD	1
SH	SHOWER HEAD	K-997	1
SHK	SHOWER HAND HELD	K-978	1
WP-01	WASHER CONNECTION	LFS93050	1
WP-02	FRIDGE WATER SUPPLY	S696G1000X	1
SV	WATER SUPPLY VALVE	TBD	5



P-101  
PLUMBING SITE PLAN

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

**GENERAL NOTES:**  
 1. Refer to applicable codes, and equipment manufacturer's instructions for handling and installation.  
 2. Contractors are responsible and shall coordinate all necessary modifications to ductwork, piping, electrical, plumbing, fire protection, structural, finished work, etc.  
 3. All PEX lines shall be run through TJI floor and roof joists, per manufacturer's listings, prior to final sealing of floor and roof systems.  
 4. Redundant installation of ball valves shall be done and accommodations shall be made to adhere to 2016 NFPA 13D 7.1.2.  
 5. Water hammer arrestors shall be installed per manufacturer specifications at washer/dryer and dishwasher plumbing connections.  
 6. Shower mixing valve shall be a pressure balance, thermostatic mixing or combination pressure balancing/thermostatic mixing valve type per 2015 IRC P2708.



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 UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
 4505 MARYLAND PARKWAY  
 LAS VEGAS, NV 89154

CONSULTANTS

STRUCTURAL

RIM ROCK ENGINEERING  
 9030 W. CHEYENNE AVE, SUITE 210  
 LAS VEGAS, NV 89129  
 (702) 838-5311

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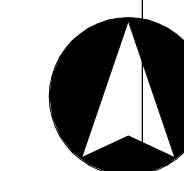
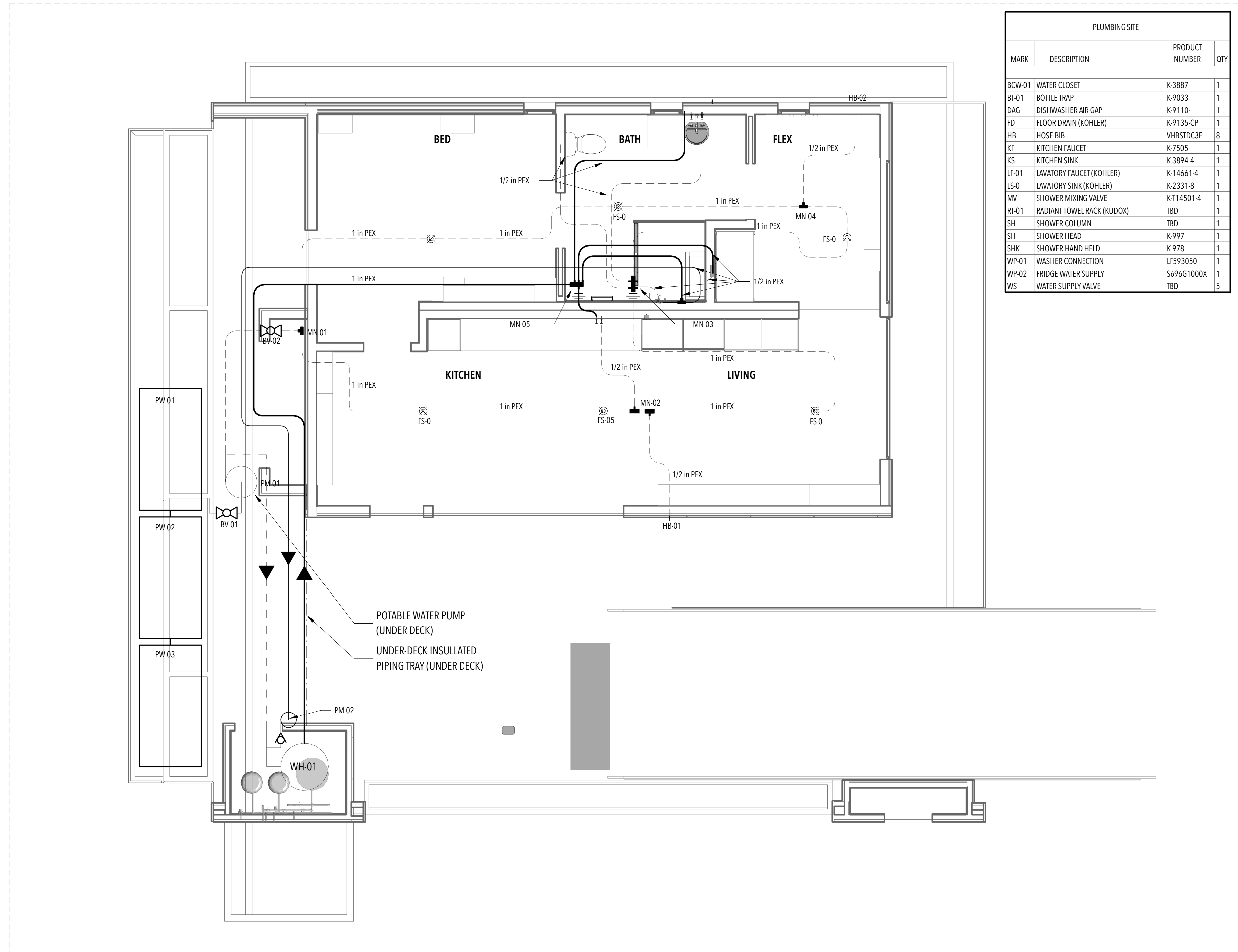
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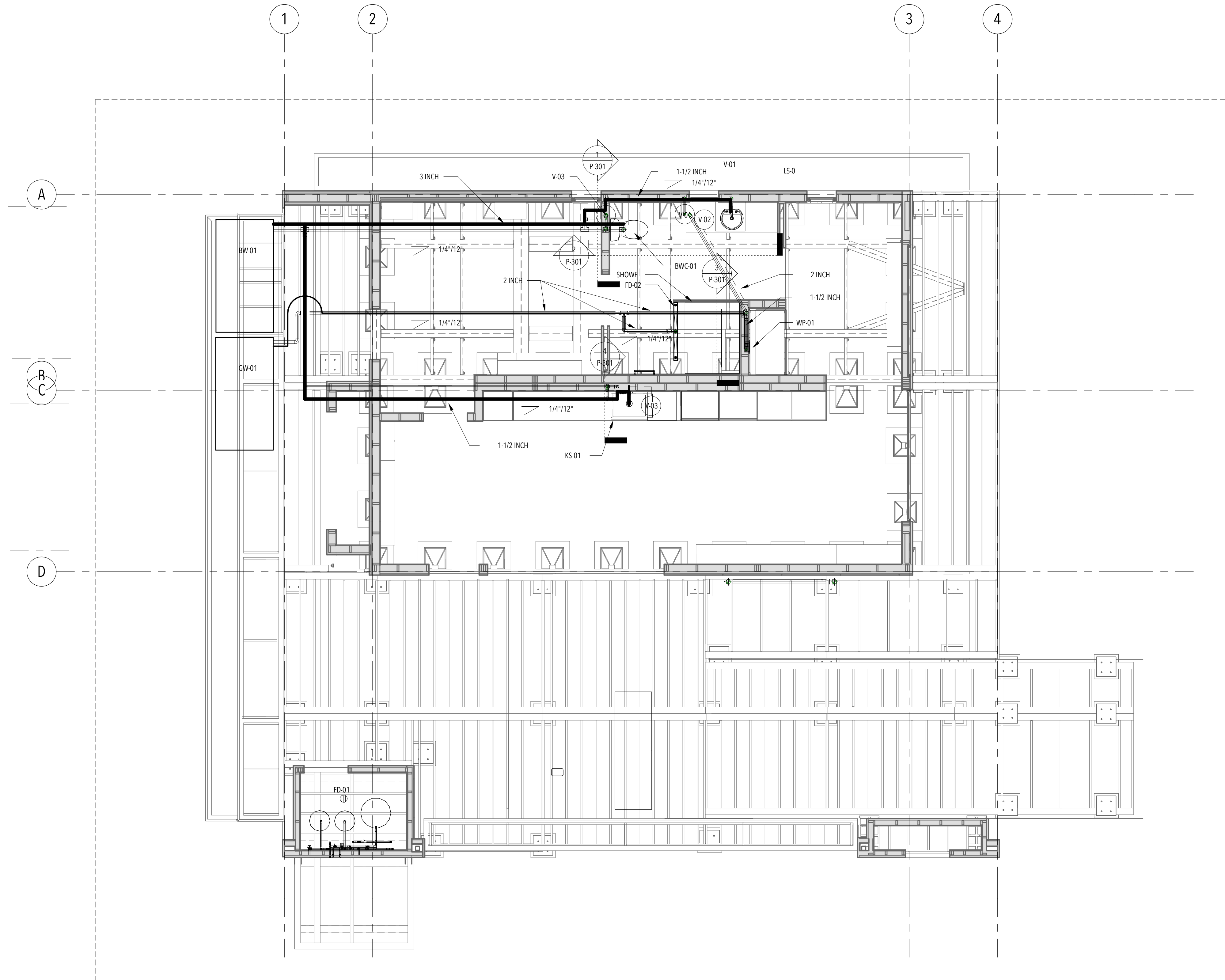
- HOT WATER LINE
- HOT WATER RETURN LINE - PEX PIPING
- COLD WATER LINE - PEX PIPING
- UNDER-DECK INSULATED PIPING TRAY OUTLINE

PLUMBING SITE			
MARK	DESCRIPTION	PRODUCT NUMBER	QTY
BCW-01	WATER CLOSET	K-3887	1
BT-01	BOTTLE TRAP	K-9033	1
DAG	DISHWASHER AIR GAP	K-9110	1
FD	FLOOR DRAIN (KOHLER)	K-9135-CP	1
HB	HOSE BIB	VHBSTD3CE	8
KF	KITCHEN FAUCET	K-7505	1
KS	KITCHEN SINK	K-3894-4	1
LF-01	LAVATORY FAUCET (KOHLER)	K-14661-4	1
LS-0	LAVATORY SINK (KOHLER)	K-2331-8	1
MV	SHOWER MIXING VALVE	K-T14501-4	1
RT-01	RADIANT TOWEL RACK (KUDOX)	TBD	1
SH	SHOWER COLUMN	TBD	1
SH	SHOWER HEAD	K-997	1
SHK	SHOWER HAND HELD	K-978	1
WP-01	WASHER CONNECTION	LFS93050	1
WP-02	FRIDGE WATER SUPPLY	S696G1000X	1
WS	WATER SUPPLY VALVE	TBD	5



**P-102**  
 DOMESTIC WATER SUPPLY  
 PLAN

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



GENERAL NOTES

- sA
- sB
- sC
- sD

SHEET NOTES:

DRAWING KEY:

- BLACK WATER DRAINAGE - PVC
- GREY WATER DRAINAGE - PVC
- VENT STACK PIPING - PVC



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4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS

**STRUCTURAL**  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

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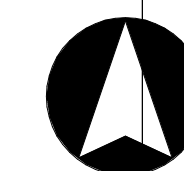
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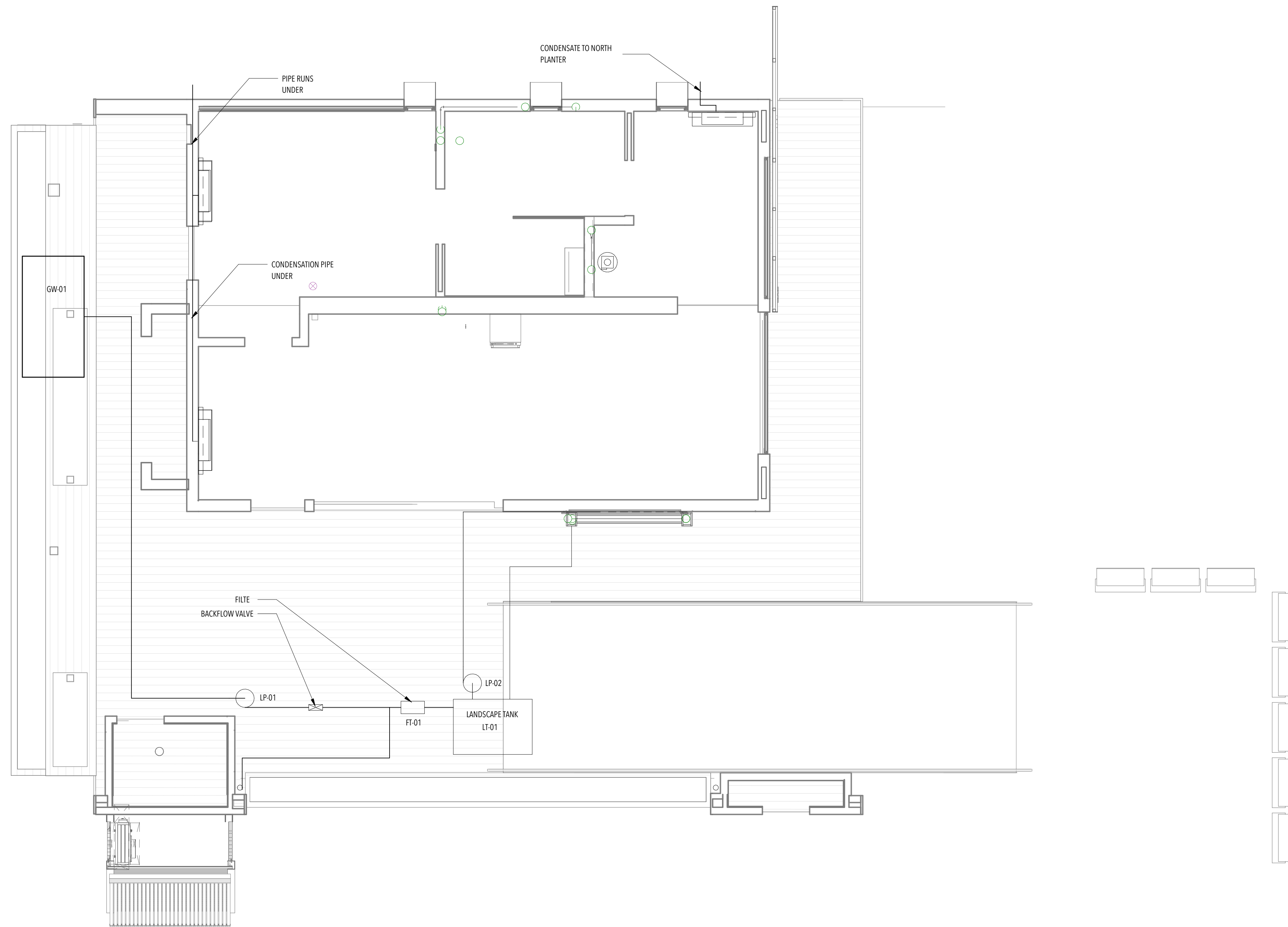
WASTE AND VENT PLAN

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





GENERAL NOTES



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UNLVSD2017@GMAIL.COM

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1 WATER RECLAMATION PLAN  
1/4" = 1'-0"

**P-104**  
WATER RECLAMATION

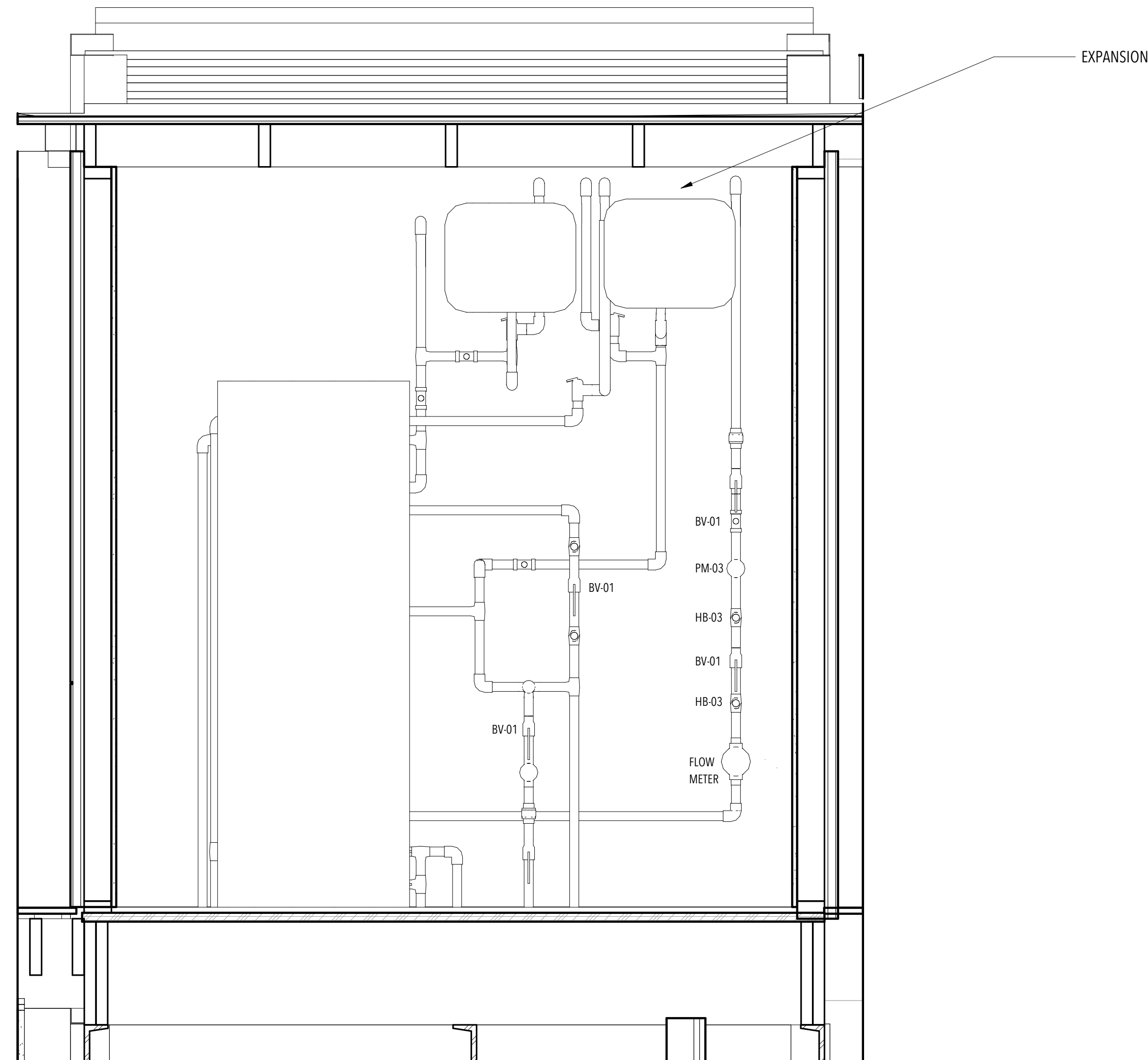
SCALE:  
1/4" = 1'-0"

**ISSUANCES**

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1 PLUMBING SECTION 1

**P-201**  
**MECHANICAL ROOM**  
**PLAN/ELEVATIONS**

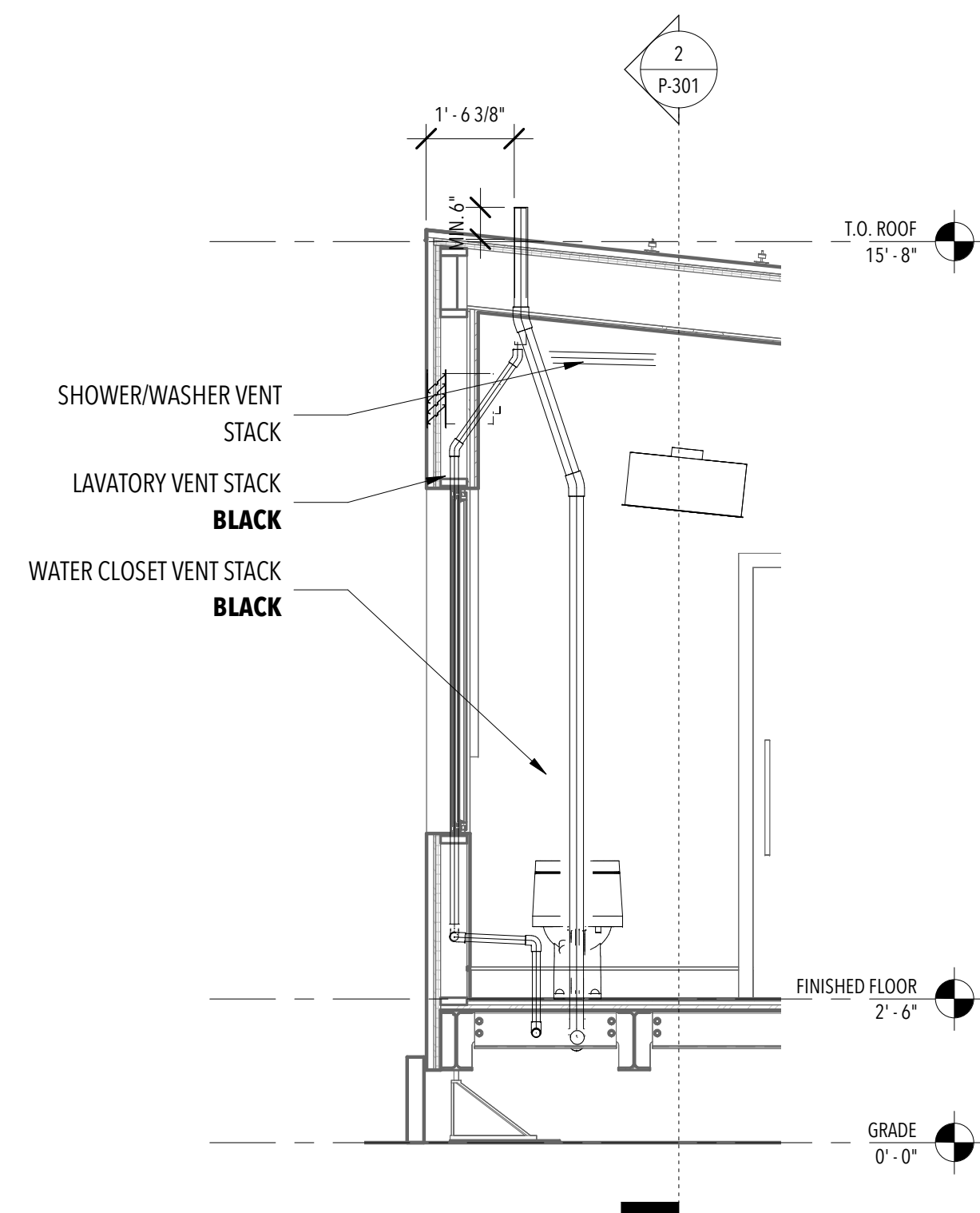
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ISSUANCES

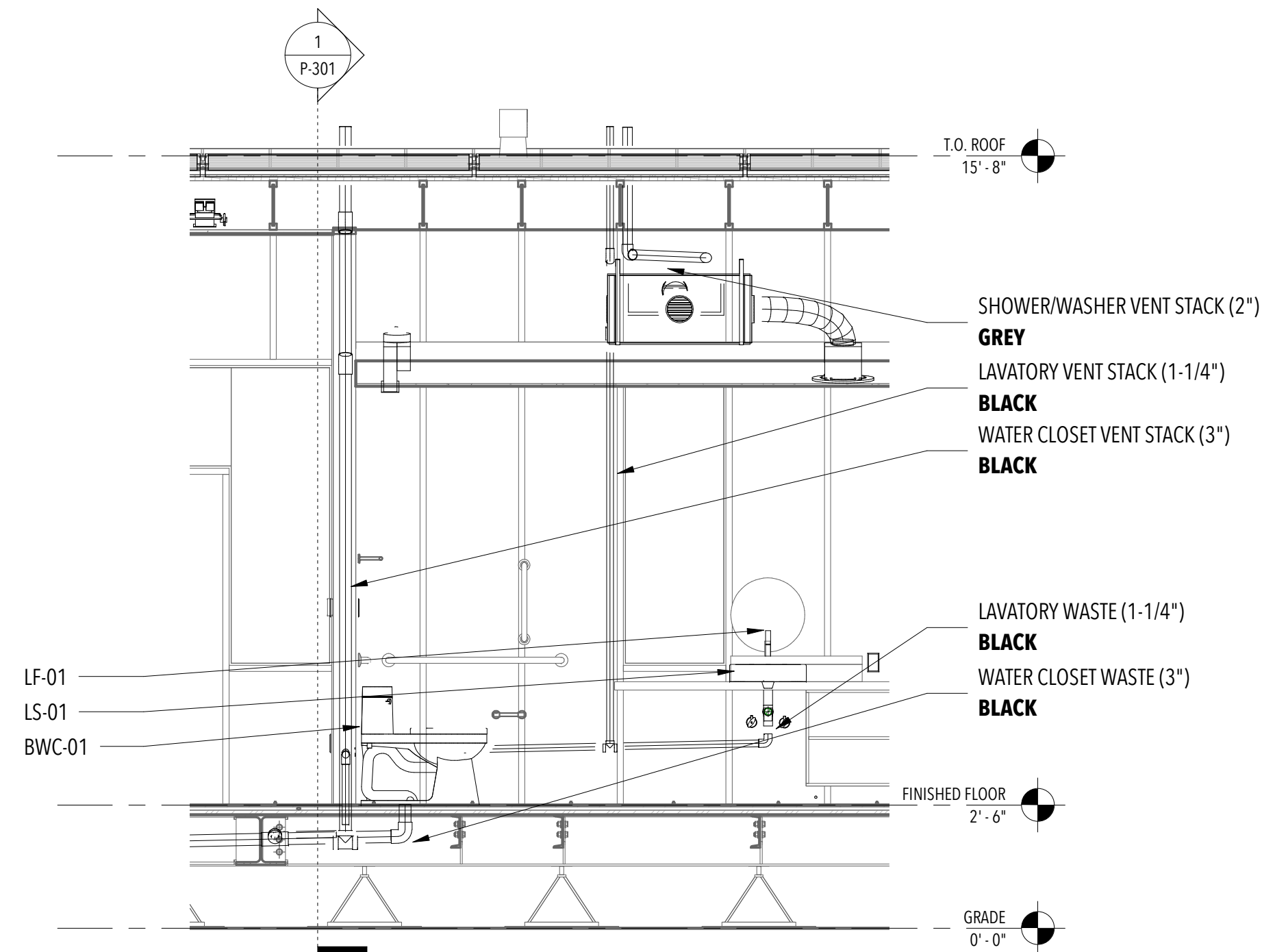
NO.	DESCRIPTION	DATE
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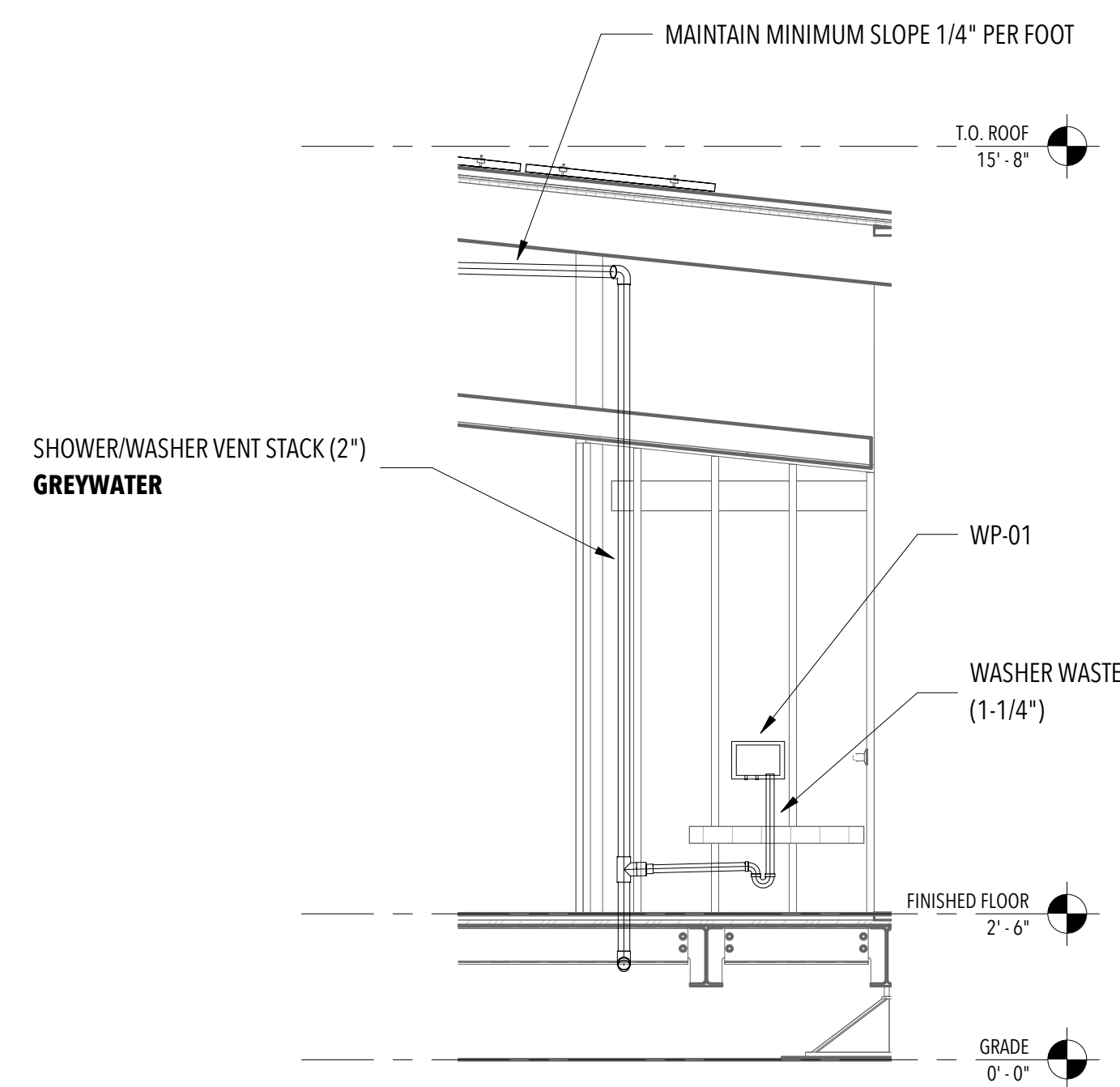
NO.	DESCRIPTION	DATE
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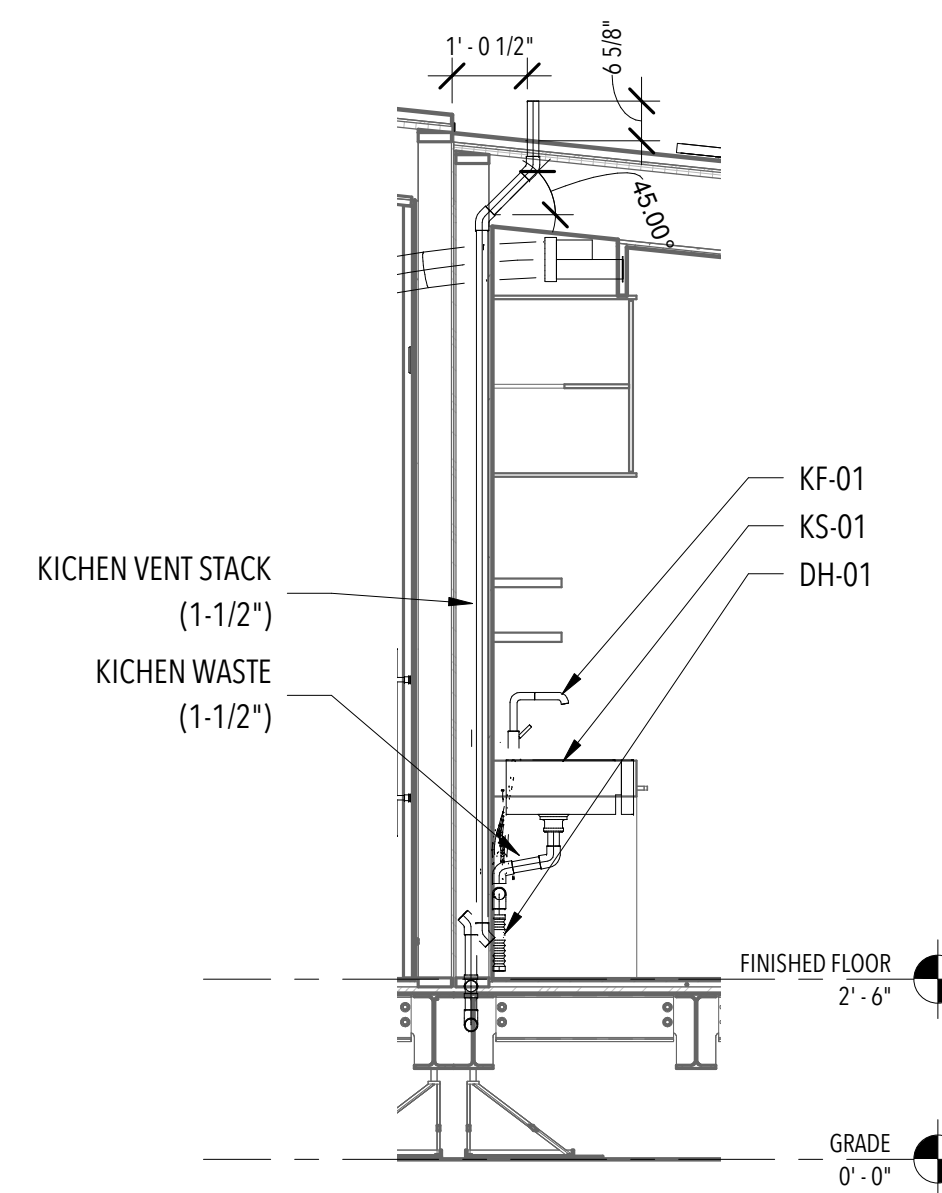
1 BATHROOM WASTE VENT EAST  
3/8" = 1'-0"



2 BATHROOM WASTE VENT NORTH  
3/8" = 1'-0"



3 GREYWATER WASTE VENT EAST  
3/8" = 1'-0"

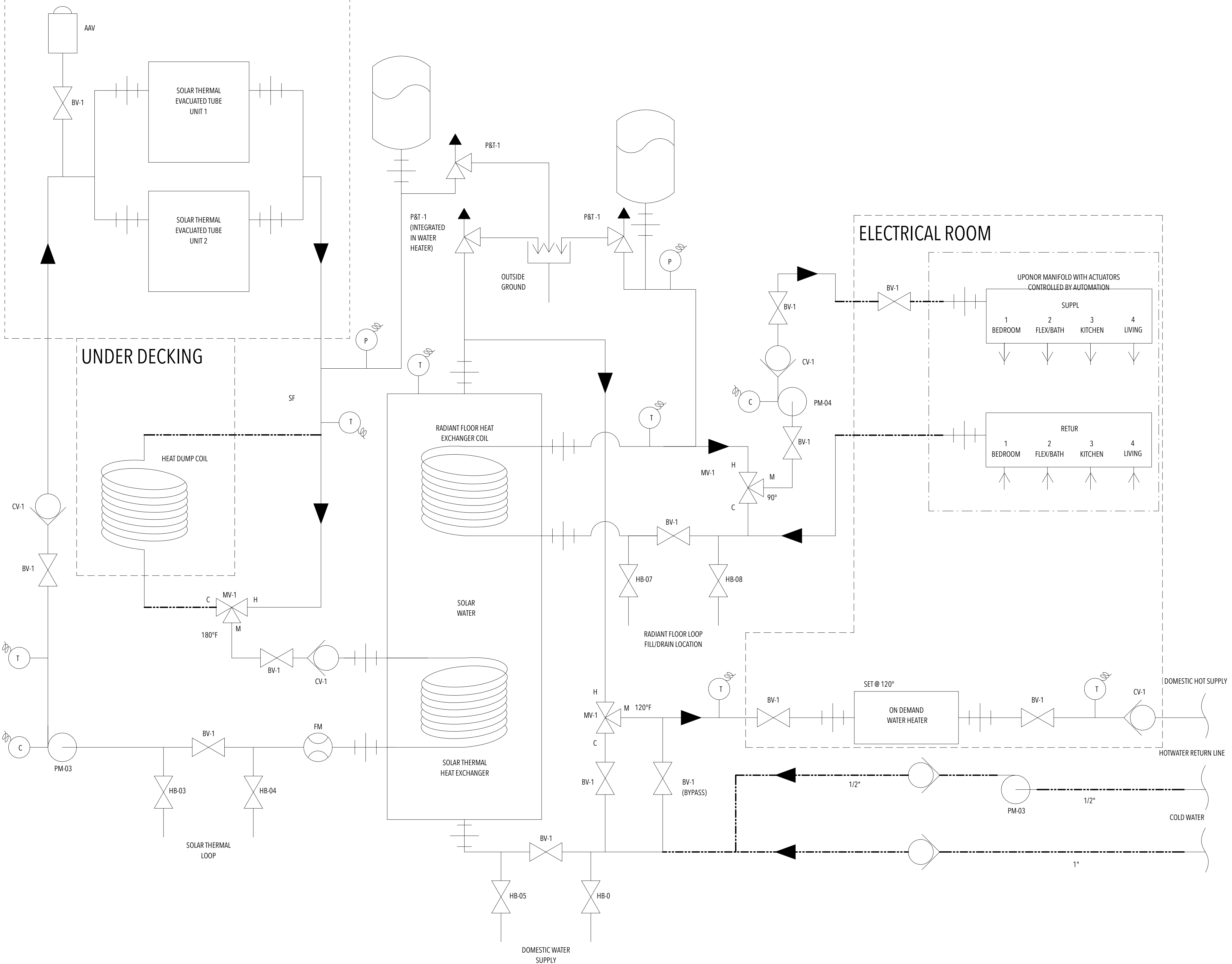


4 Vent Pipe S  
3/8" = 1'-0"

**P-301**  
WASTE VENT SECTION  
DETAILS



MECH. ROOM EXTERIOR



GENERAL NOTES

	AUTOMATIC AIR VENT
	PEX PIPING
	P&T VALVE
	3-WAY MIXING VALVE
	BALL VALVE
	CHECK VALVE
	PUM
	TEMPERATURE GAUGE
	PRESSURE
	CONTROLLER
	DIRECTION ARROW
	UNIONS/ADAPTERS
	FLOW METER



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UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
**STRUCTURAL**  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

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1 SOLAR THERMAL & HOT WATER  
3" = 1'-0"

**P-602**  
SOLAR THERMAL & HOT  
WATER DETAIL

SCALE:  
3" = 1'-0"

**GENERAL NOTES** VIA MOTORIZED WALL CONNECTIONS AND SHALL HAVE A TOTAL TRAVEL CAPACITY OF 1'.  
 2. COUNTER SHALL BE CENTERED IN RELATION TO TRAVEL CAPACITY AND SHALL HAVE PROGRAMMABLE MOTOR GAURDS TO LIMIT TRAVE TO +/- 3" PER ADA COMPLIANCE.



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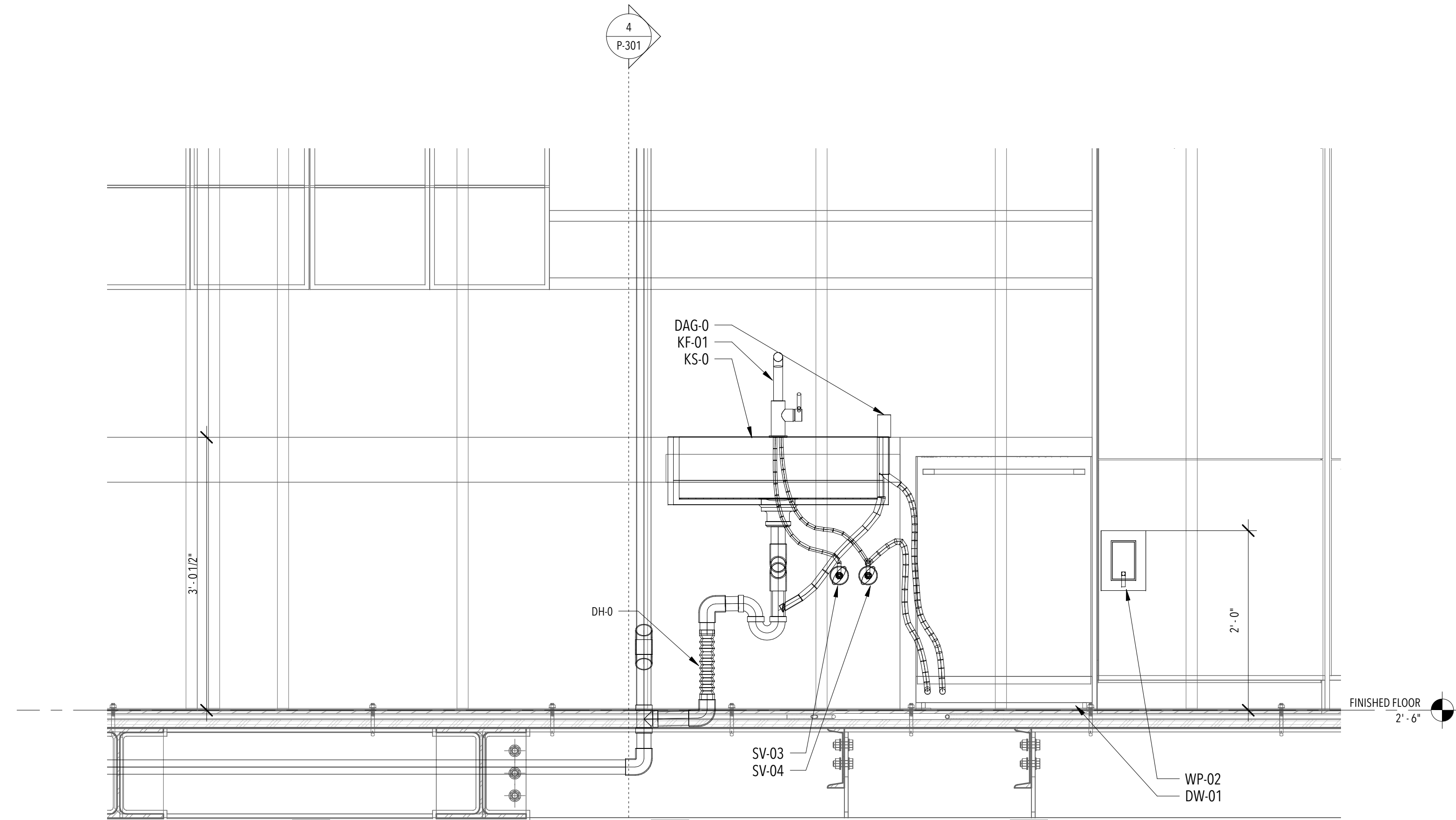
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**ISSUANCES**

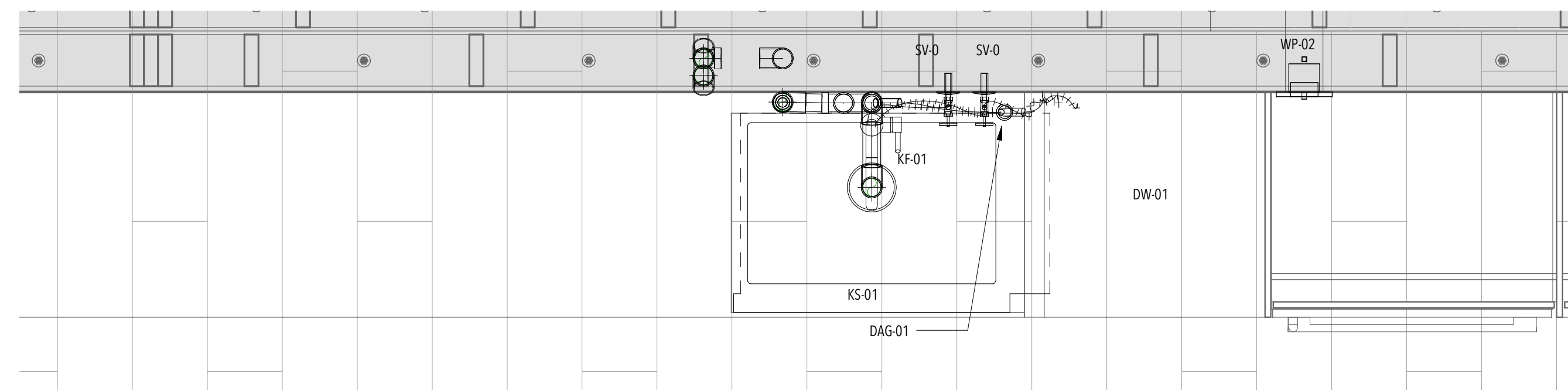
NO.	DESCRIPTION	DATE
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1 SECTION KITCH. SINK  
 1" = 1'-0"



2 KITCHEN SINK - Callout  
 1" = 1'-0"

**P-603**  
 KITCHEN SINK DETAIL

SCALE:  
 1" = 1'-0"

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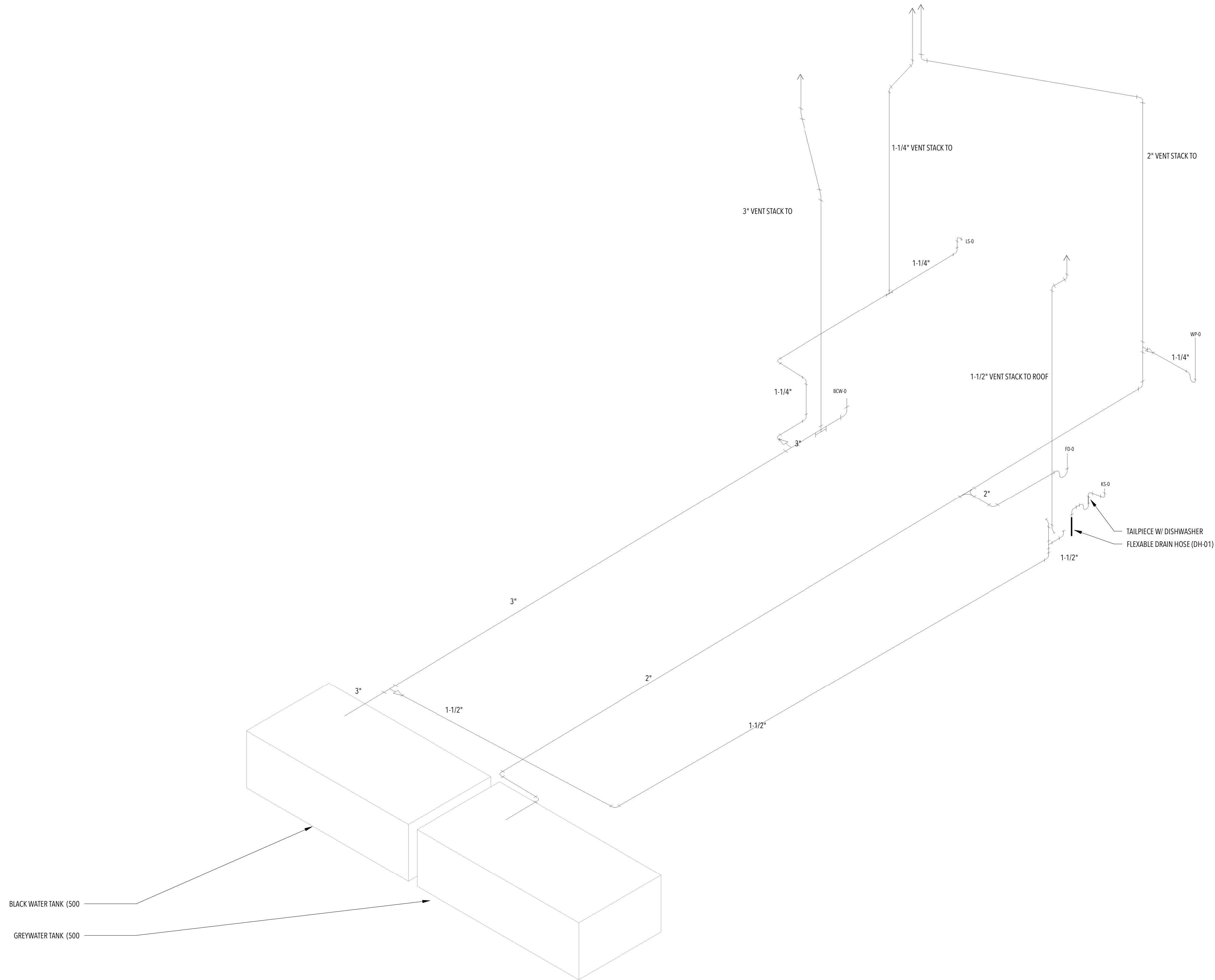
NO.	DESCRIPTION	DATE
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**P-901**  
**PLUMBING ISOMETRIC**

SCALE:



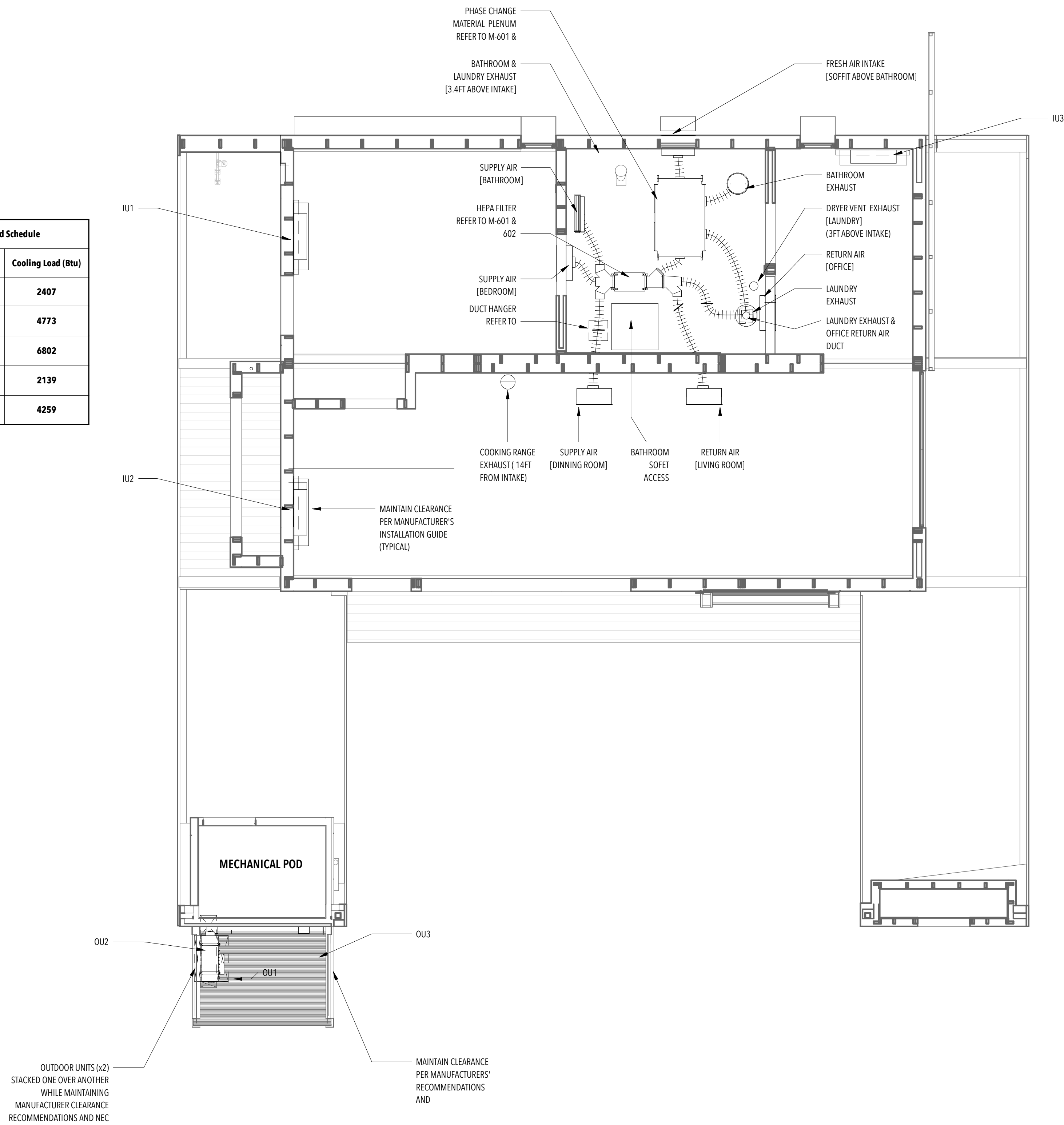


HVAC Plan - Mechanical Equipment Schedule			
MAR	COUNT	MANUFACTURER	MODEL
IU	1	mitsubishi	MSZ-FH09NA
IU	2	mitsubishi	MSZ-FH09NA
OU	1	mitsubishi	MSZ-FH09NA
OU	2	mitsubishi	MSZ-FH09NA
HP	1	PURE AIR SYSTEMS	HPS350
EF	2	BROAN	744 RECESSED FAN

HVAC Plan - CFM Schedule	
Name	CFM
BATH	50
BED	30
KITCHEN	100
FLEX	30
LIVING	30
KITCHEN	100

HVAC Plan - HVAC Load Schedule		
Room	Heat Load (Btu)	Cooling Load (Btu)
BATH	1487	2407
BED	3233	4773
KITCHEN	4451	6802
FLEX	1761	2139
LIVING	3235	4259

HVAC Plan - Air Terminal Schedule			
Mark	Count	Size	Description
DF-12	1	12"x12"	Jet Slot Diffuser w/ Plenum
DF-13	1	12"x12"	Jet Slot Diffuser w/ Plenum
DF-14	1	12"x12"	Jet Slot Diffuser w/ Plenum
DF-15	1	12"x12"	Jet Slot Diffuser w/ Plenum
DF-16	1	12"x12"	Jet Slot Diffuser w/ Plenum
DF-17	1	12"x12"	Jet Slot Diffuser w/ Plenum



GENERAL NOTES

- GENERAL NOTES SHALL APPLY TO ALL WORK SHOWN
- VERIFY ALL MEASUREMENTS TO PROPERLY LOCATE COMPONENTS
- ALL NOTES COINCIDE WITH SIMILAR DRAWINGS
- COORDINATE ALL WORK AND PLACEMENT OF COMPONENTS WITH OTHER TRADES
- CONTRACTOR SHALL FOLLOW EQUIPMENT MANUFACTURERS INSTRUCTIONS FOR HANDLING AND INSTALLATION
- CONTRACTOR SHALL COORDINATE AND PERFORM NECESSARY MODIFICATIONS TO PROVIDE A COMPLETE INSTALLATION. MODIFICATIONS INCLUDE BUT ARE NOT LIMITED TO STRUCTURAL
- ACCESS PANELS SHALL BE FABRICATED TO ALLOW FOR EASY ACCESS AT SECTIONED CONNECTIONS
- MOUNT UNITS TO STRUCTURALLY SUITABLE SURFACE
- PROVIDE SERVICE CLEARANCES AS INDICATED ON THE PLANES
- SEAL REFRIGERANT LINES WITH APPROVED SPRAY POLYURETHANE FOAM
- UTILIZE FACTORY SUPPLIED VIBRATION ISOLATION KIT FOLLOWING INSTRUCTIONS
- ALL DUCTWORK SHALL BE DESIGNED, CONSTRUCTED, SUPPORTED AND SEALED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS AND PRESSURE CLASSIFICATIONS
- AT A MINIMUM ALL DUCT RUNS TO THE OUTDOORS SHALL BE THERMALLY INSULATED AT LEVELS APPROPRIATE TO THE LOCAL CLIMATE
- WALL INTAKES SHALL BE NO LESS THAN 10FT FROM ANY EXHAUST FAN DISCHARGE OUTLET UNLESS THAT OUTLET IS 3 FEET OR MORE ABOVE THE INTAKE LOCATION (IRC 2015, SECTION M1602.2)
- FRESH AIR INTAKE WILL HAVE AN ELECTRICALLY SWITCHED DAMPER INSTALLED ON THE FACE OF THE INTAKE PLENUM
- RETURN AIR WILL FORM THE SOUTH MODULE WILL BE DRAWN FROM THE LIVING ROOM SIDE OF THE MODULE
- PHASE CHANGE MATERIAL (PCM) MATERIAL WILL BE INSTALLED ON TRAYS (3X5), INSIDE OF A MINIMUM (4' X 2') PLENUM. SINGLE 6" DUCT FITTINGS WILL BE INSTALLED ON THE 3" FACES AND 2 6" DUCTS INSTALLED THE EAST FACE OF THE PLENUM.
- ERV COMPONENTS; HEPA FILTER, PCM PLENUM, FRESH AIR AND SUPPLY AIR PLENUMS WILL BE INSTALLED ABOVE THE BATHROOM CEILING
- REFER TO M-601, 901 FOR HEPA FILTER AND PHASE CHANGE MATERIAL DETAILS AND ISOMETRICS
- REFER TO PROJECT MANUAL FOR
  - DEVICE SPECIFICATIONS
  - PHASE CHANGE MATERIAL SDS (SAFETY DATA SHEET) FORMALLY MSDS (MATERIAL SAFETY DATA SHEET)
  - HEATING, COOLING LOAD CALCULATIONS



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UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
STRUCTURAL  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
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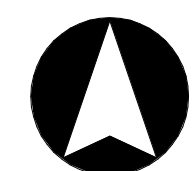
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M-101  
HVAC PLAN

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



**GENERAL NOTES**

1. ALL PEX PIPING, HANGERS, AND TRACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION, AND IN COMPLIANCE WITH ALL APPLICABLE CODE.
2. RADIANT PIPING LOCATED IN FLOORING SHALL BE SPACED 6 INCHES FROM EXTERIOR WALLS, WITH SPACING OF 12 INCHES.
3. RADIANT PIPING IN WALLS WILL BE SUPPORTED BY ALUMINUM JOIST TRACK.
4. REFER TO P-603 FOR PIPING DIAGRAM.
5. PEX PIPING LOCATED OUTSIDE BUILDING ENVELOPE SHALL BE INSULATED.



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UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

**CONSULTANTS**

**STRUCTURAL**

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
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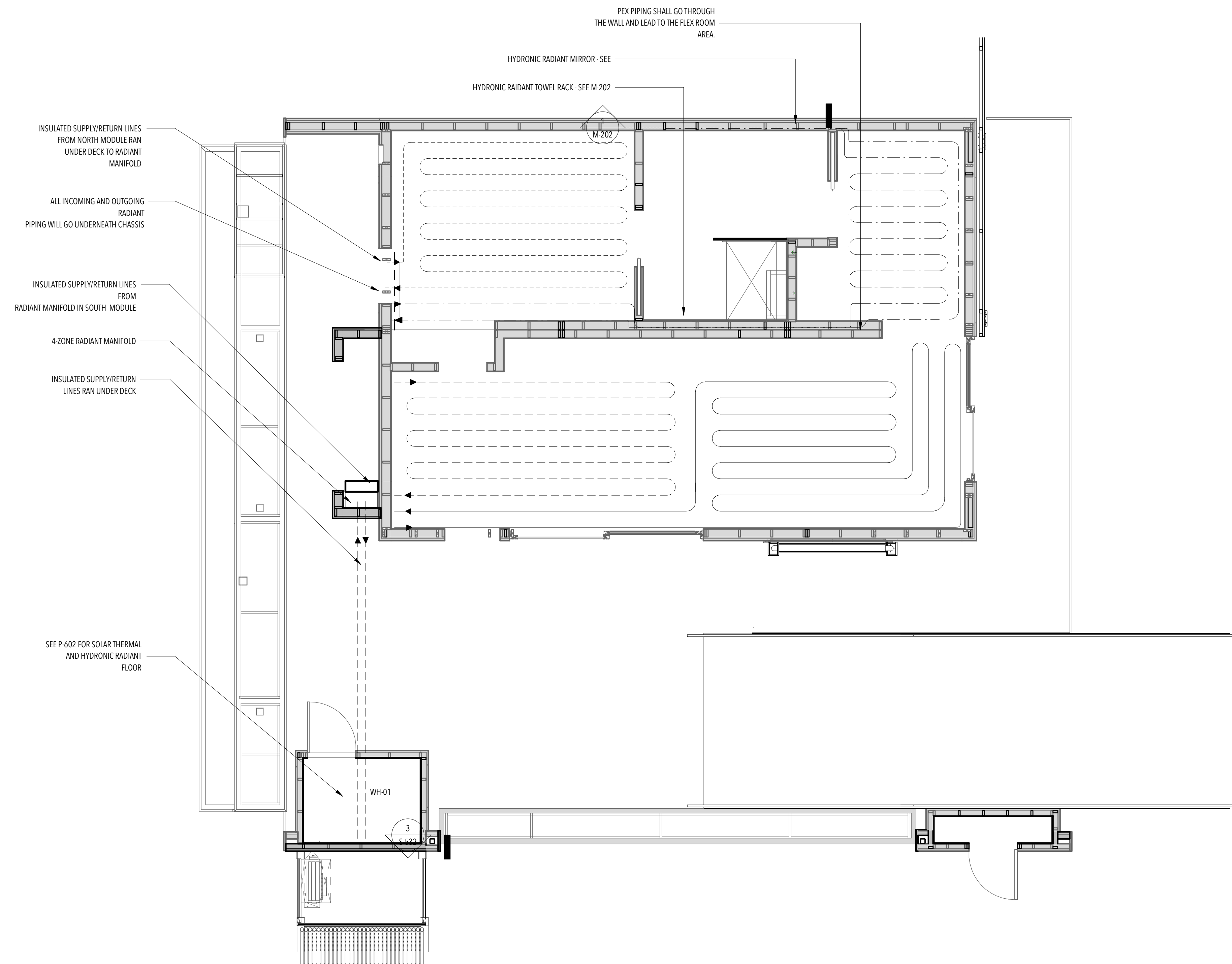
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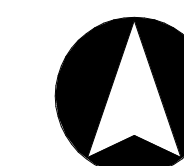
ZONE	TOTAL FLOW RATE	MAXIMUM HEAD	AREA	TOTAL RADIANT LOAD
1	0.9	0.8 FT	BEDROOM	2694
2	0.9 GPM	0.8 FT	FLEX ROOM	1628
3	0.4	0.8 FT	LIVING ROOM	3164
4	0.4	0.8 FT	KITCHEN	4464

LOOP	ROOM	MODULE	LINE TYPE	LENGTH
1	BEDROOM	NORTH	-----	214 FT
2	FLEX ROOM	NORTH	-----	126
3	LIVING ROOM	SOUTH	-----	159
4	KITCHEN	SOUTH	-----	154 FT

# M-102

RADIANT HEATING PLAN

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



ISSUANCES

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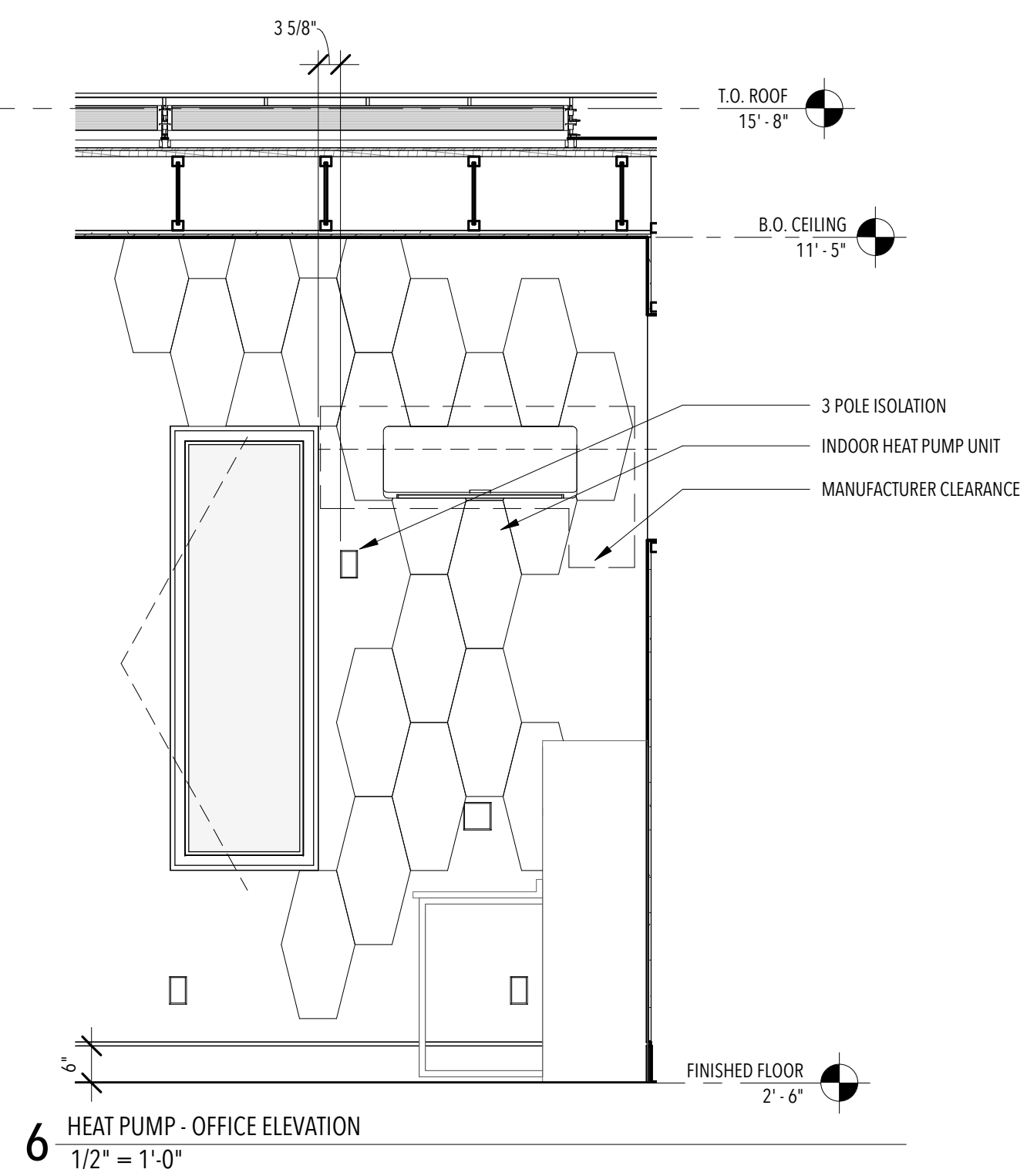
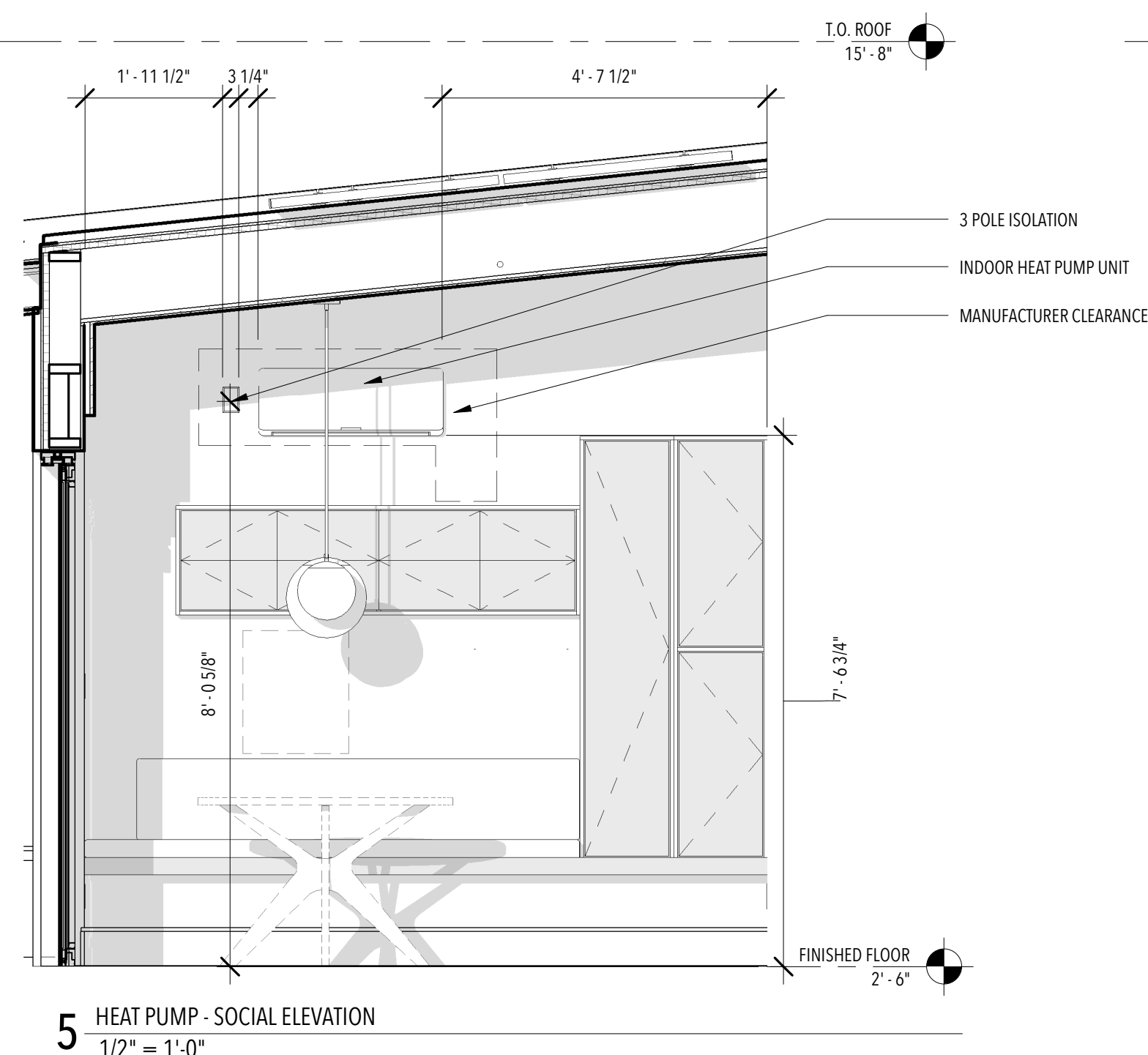
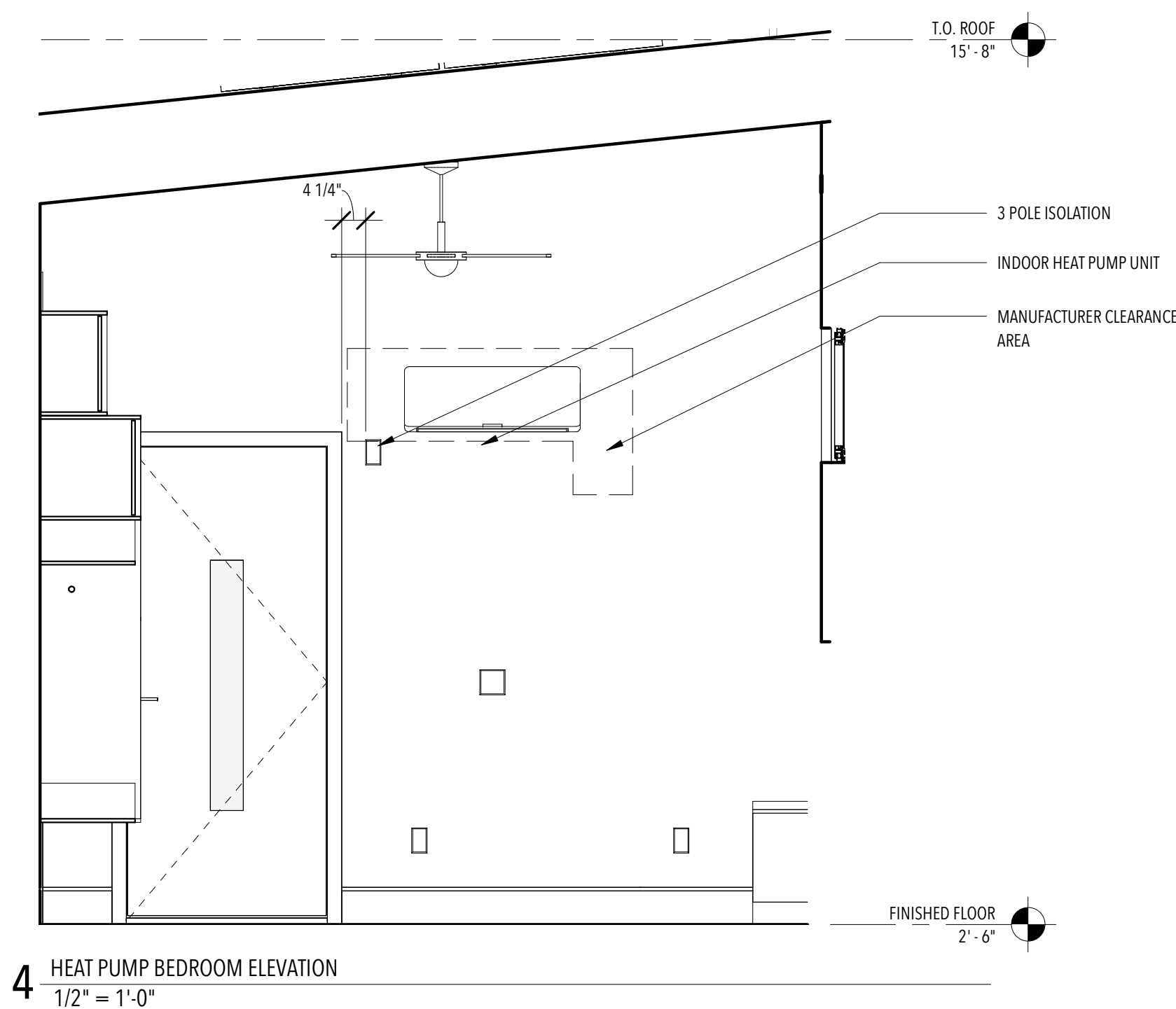
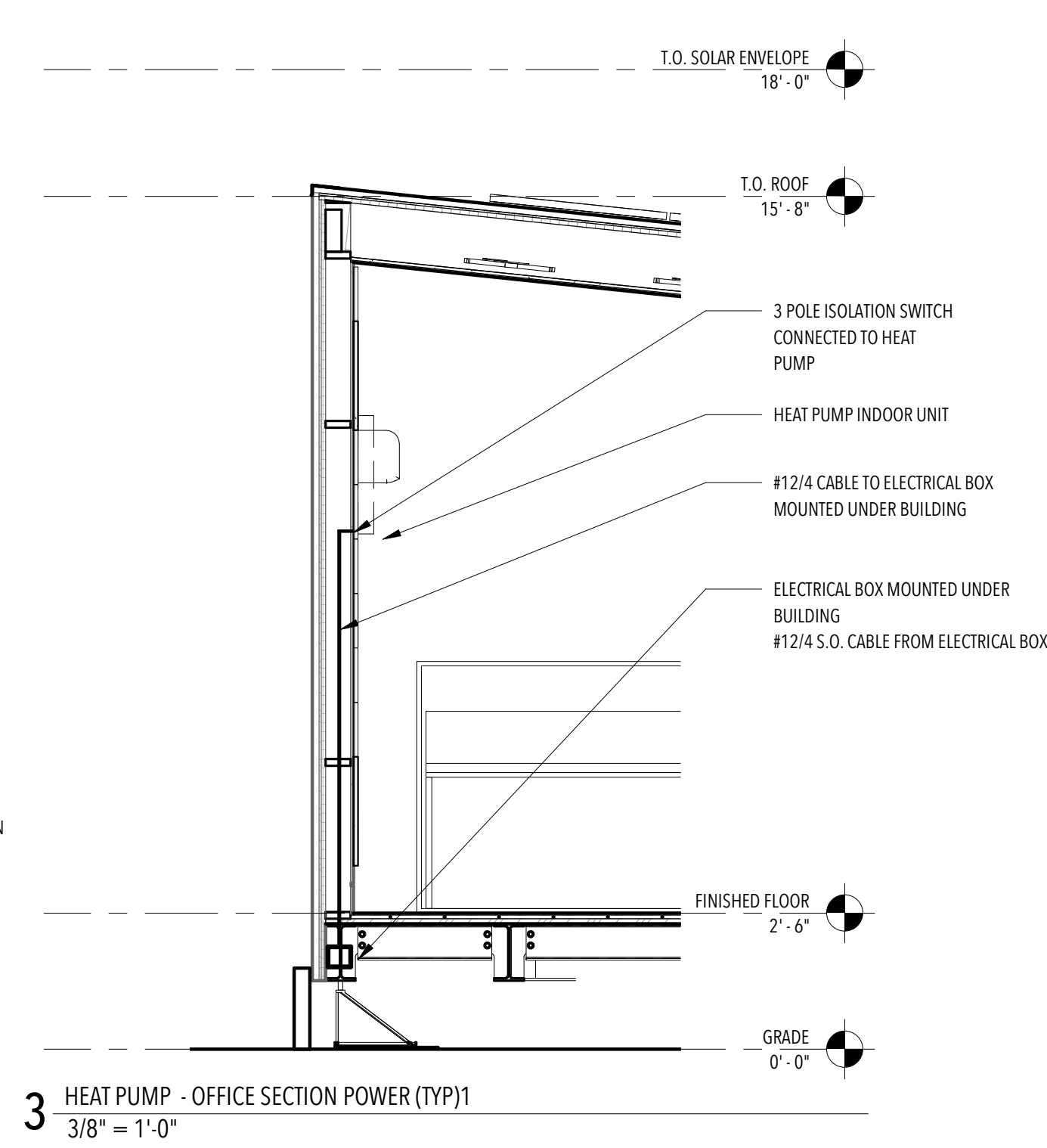
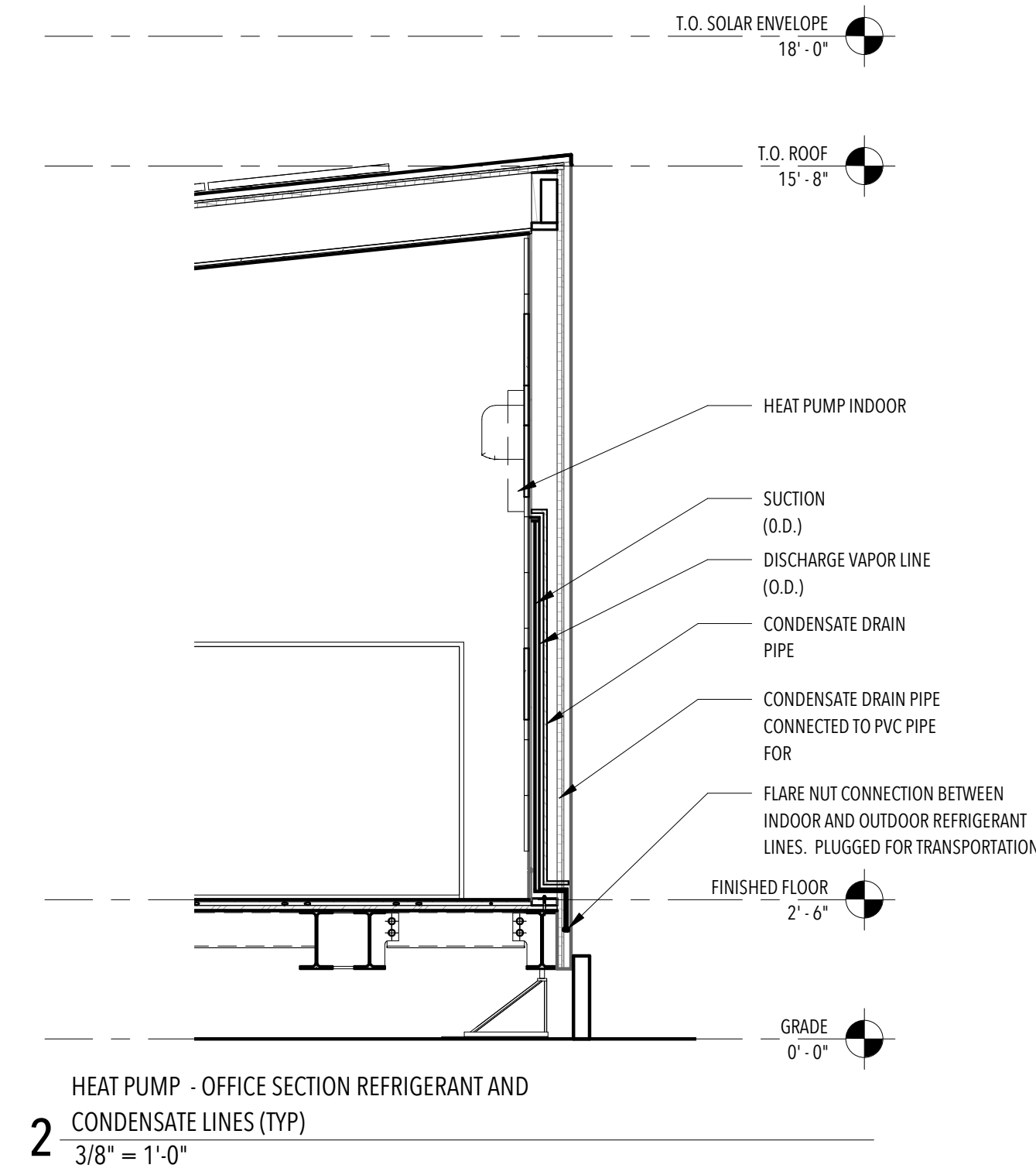
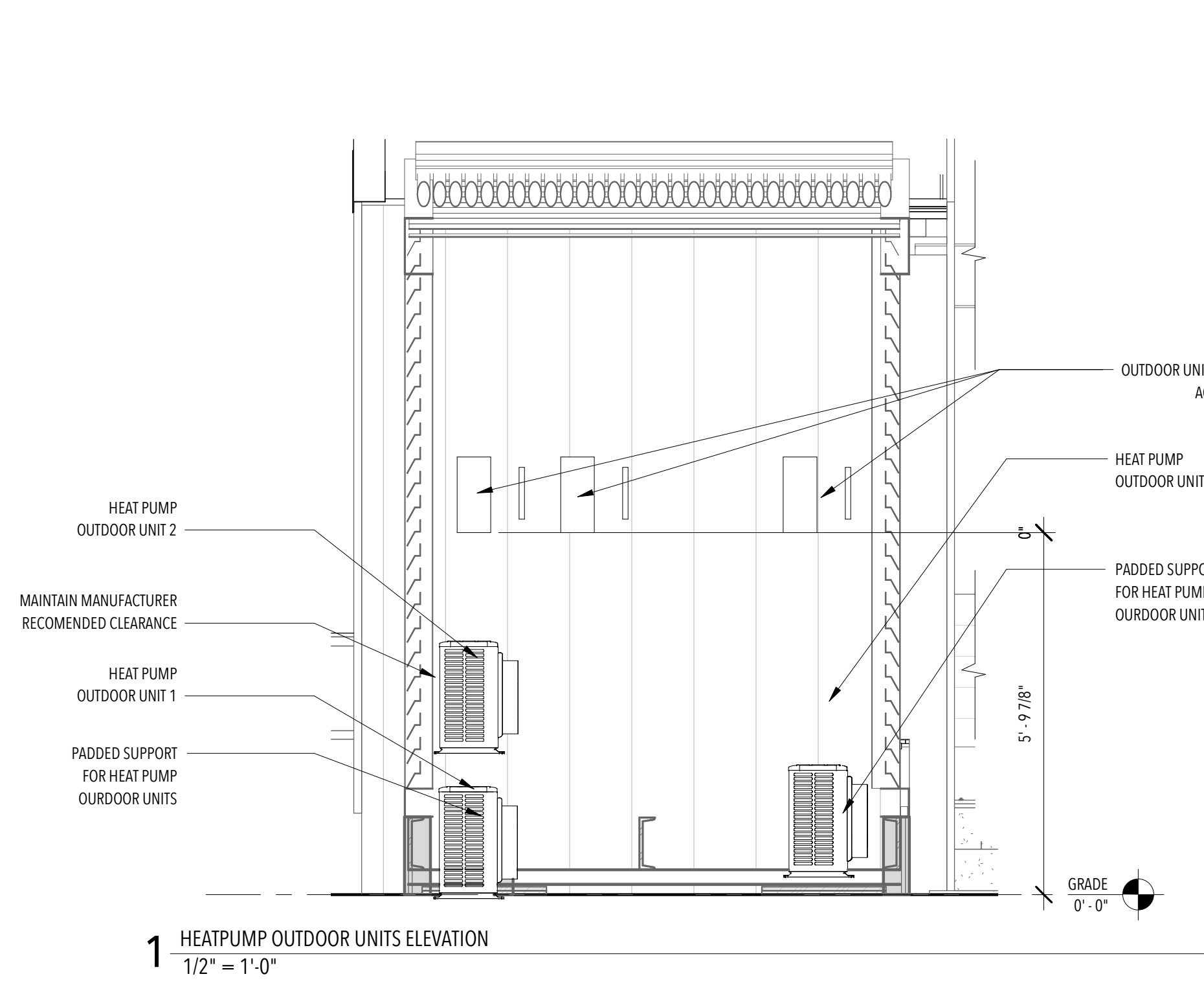
REVISIONS

NO.	DESCRIPTION	DATE
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**M-201**  
HEAT PUMP ELEVATIONS

GENERAL NOTES

1. VERIFY ALL MEASUREMENTS TO PROPERLY LOCATE COMPONENTS
2. ALL NOTES COINCIDE WITH SIMILAR DRAWINGS COORDINATE ALL WORK AND PLACEMENT OF COMPONENTS WITH OTHER TRADES
3. CONTRACTOR SHALL FOLLOW EQUIPMENT MANUFACTURER'S INSTRUCTIONS FOR HANDLING AND INSTALLATION. SEE M101 FOR UNIT MODEL AND PROJECT MANUAL FOR SPECS.
4. CONTRACTOR SHALL COORDINATE AND PERFORM NECESSARY MODIFICATIONS TO PROVIDE A COMPLETE INSTALLATION
5. ELECTRICAL (NEC 110.26), SERVICE, AND MANUFACTURER INSTRUCTED OPERATIONAL CLEARANCES FOR INDOOR AND OUTDOOR MINI-SPLIT UNITS





**CONSULTANTS**

**STRUCTURAL**

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

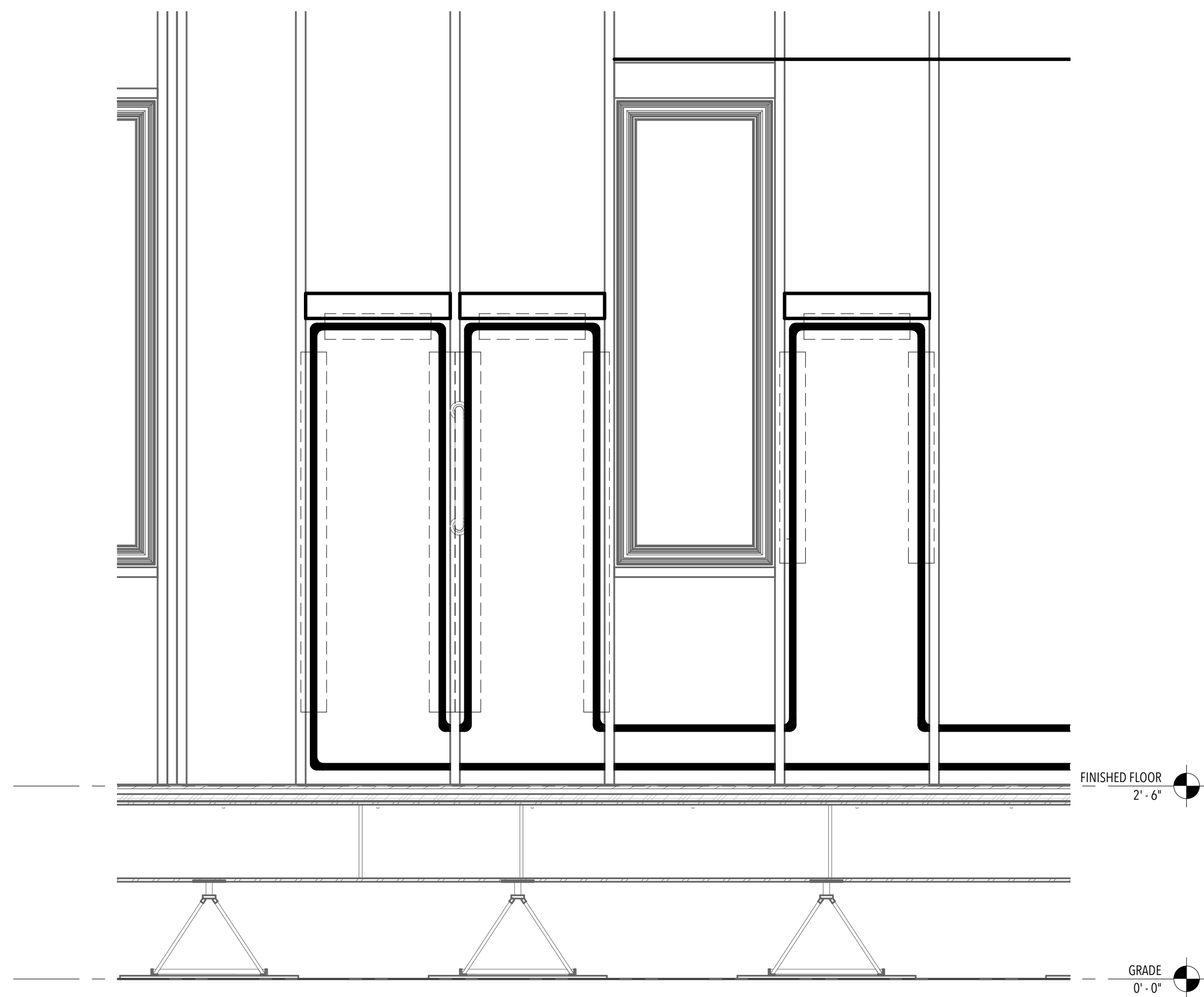
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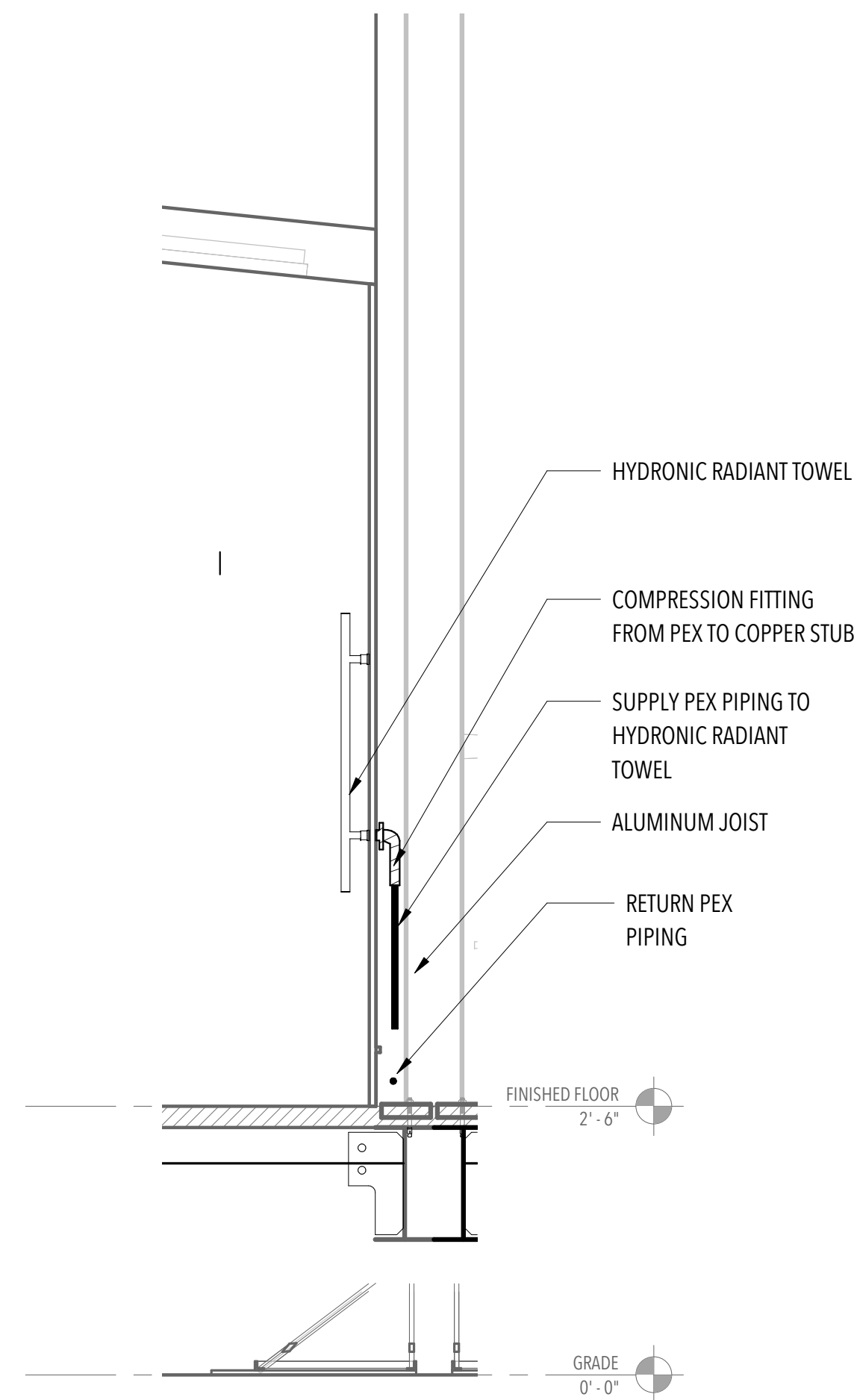
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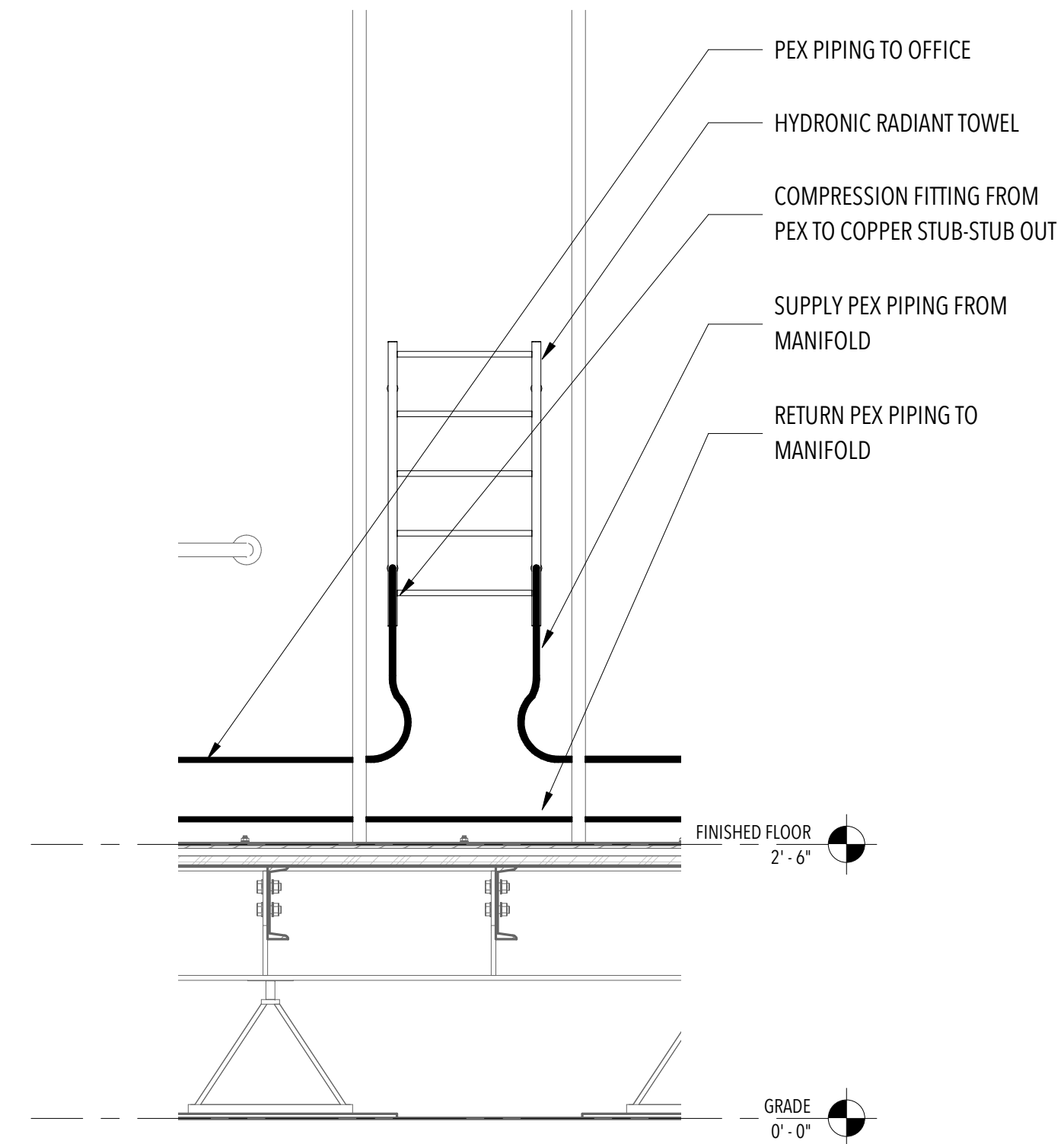
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**1** HYDRONIC RADIANT MIRROR NORTH WALL  
3/4" = 1'-0"



**2** HYDRONIC RADIANT TOWEL RACK SECTION  
3/4" = 1'-0"



**3** HYDRONIC RADIANT TOWEL RACK  
3/4" = 1'-0"

**M-202**  
HYDRONIC RADIANT  
HEATING ELEVATIONS

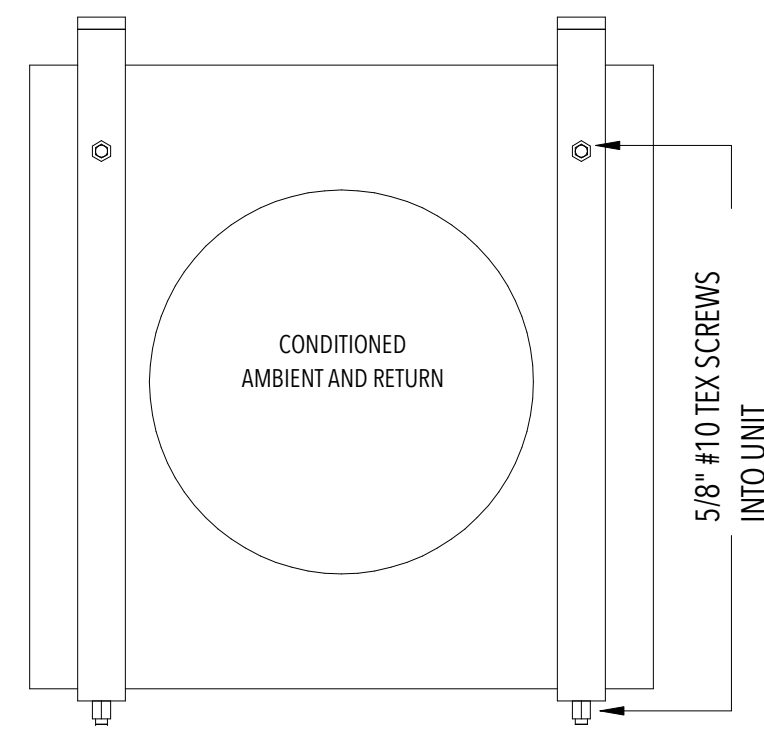
SCALE:  
3/4" = 1'-0"

ISSUANCES

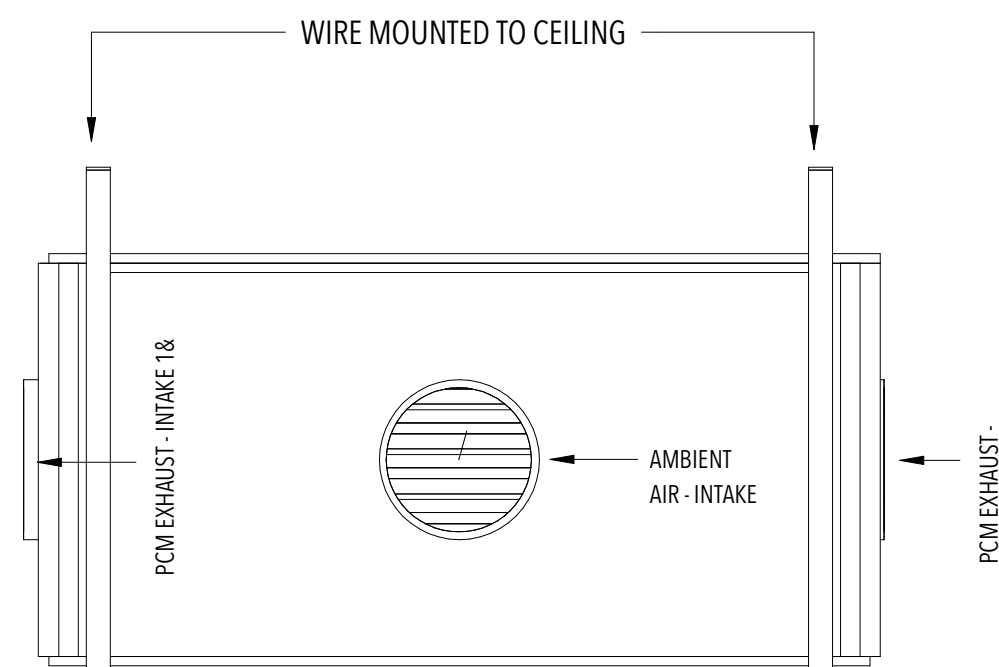
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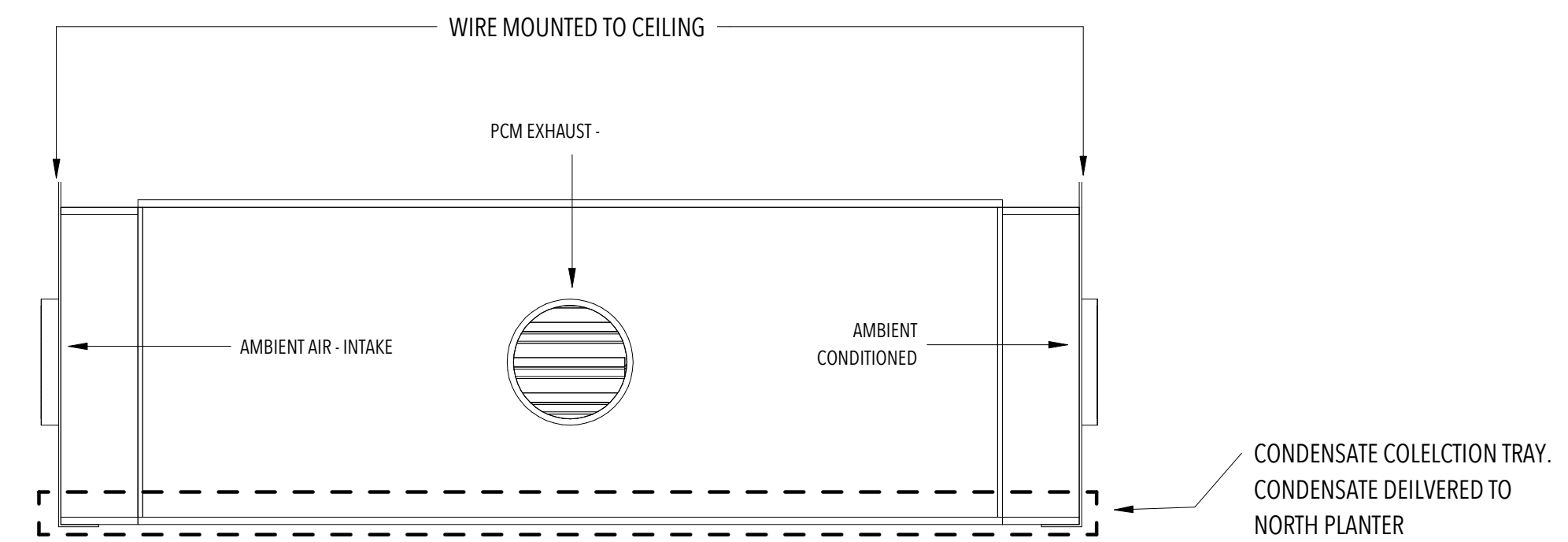
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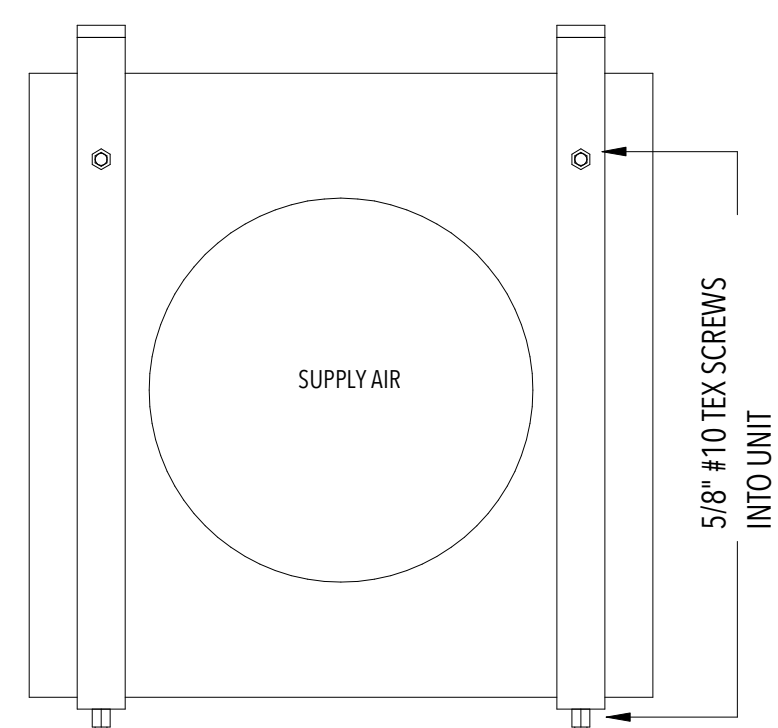
**1** HEPA FILTER ELEVATION EAST  
3" = 1'-0"



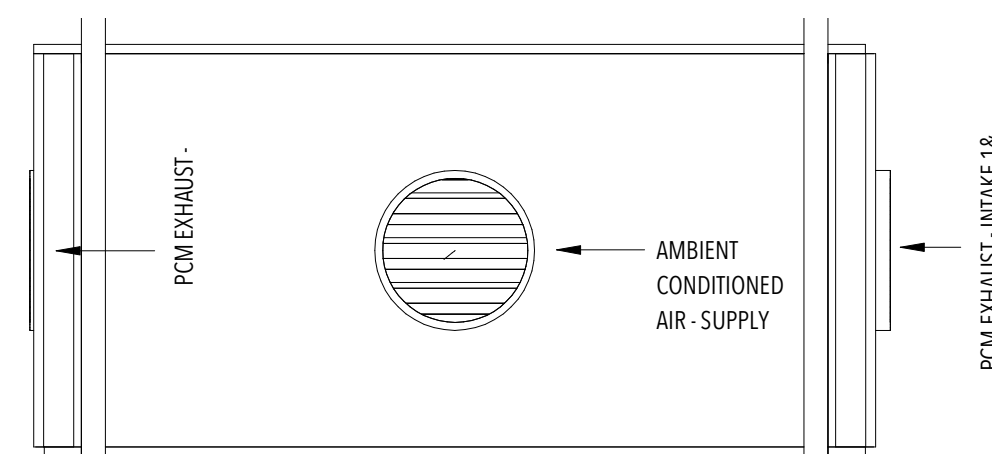
**4** PHASE CHANGE MATERIAL PLENUM ELEVATION - NORTH  
1 1/2" = 1'-0"



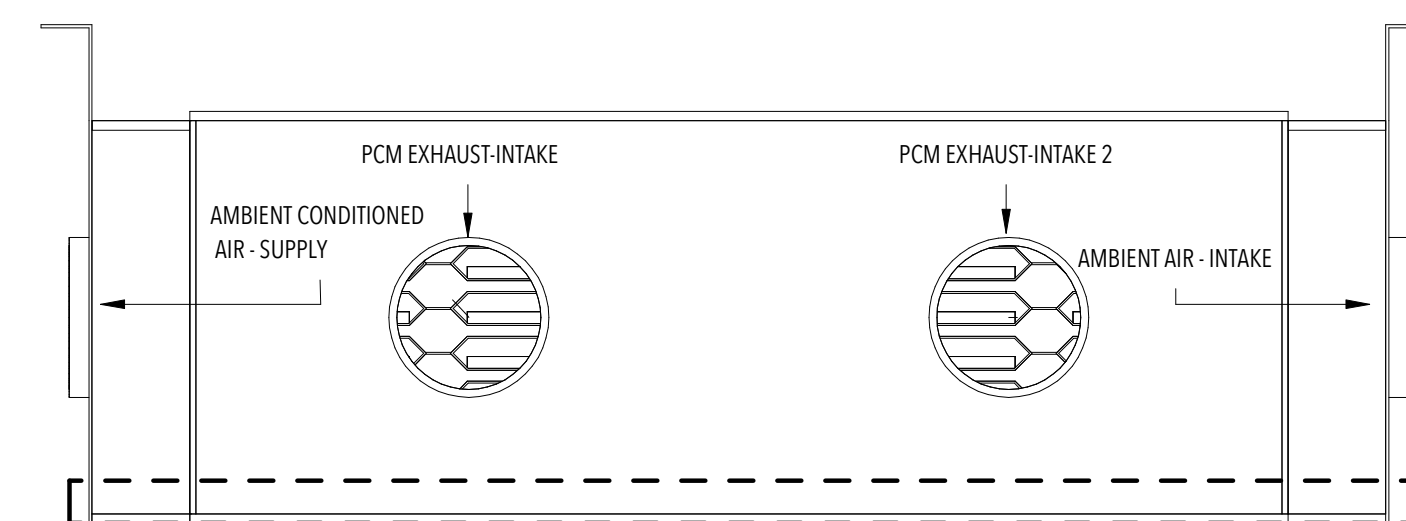
**6** PHACE CHANGE MATERIAL PLENUM ELEVATION - WEST  
1 1/2" = 1'-0"



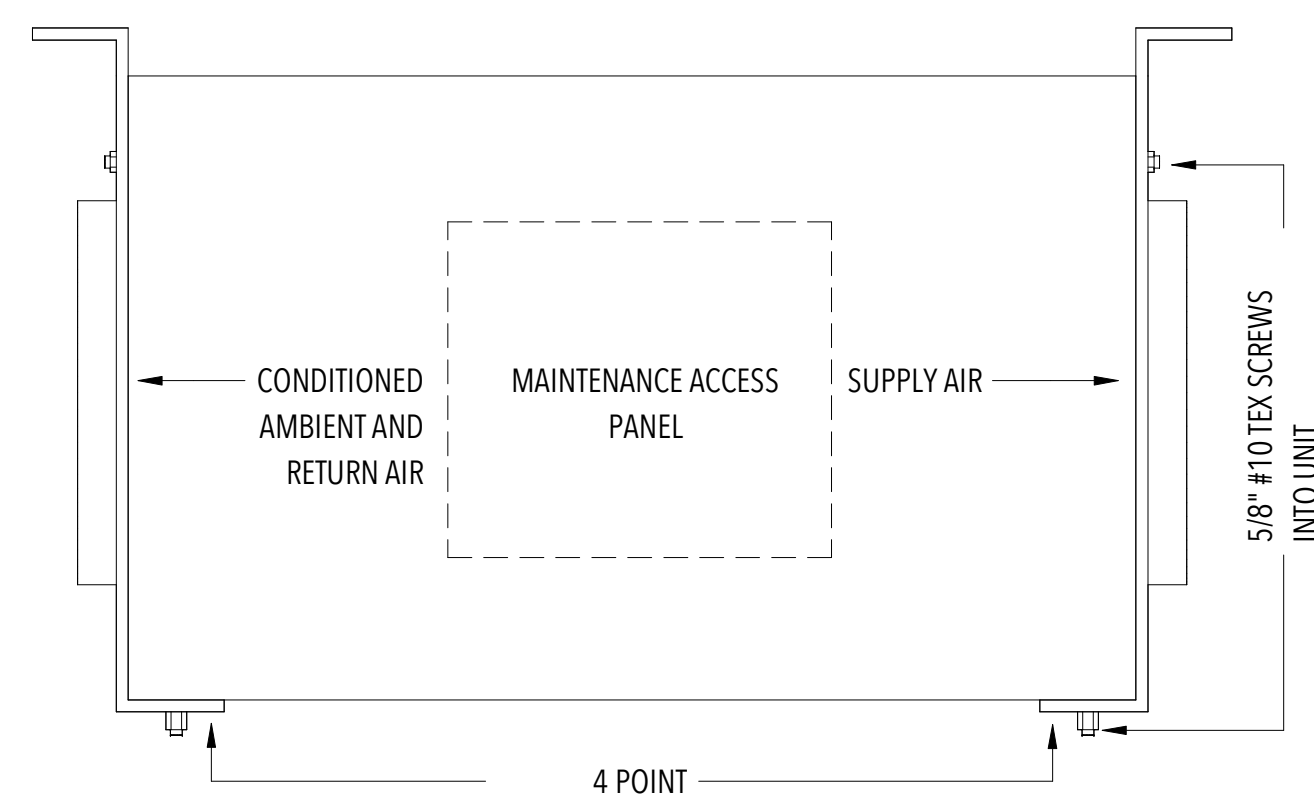
**2** HEPA FILTER ELEVATION WEST  
3" = 1'-0"



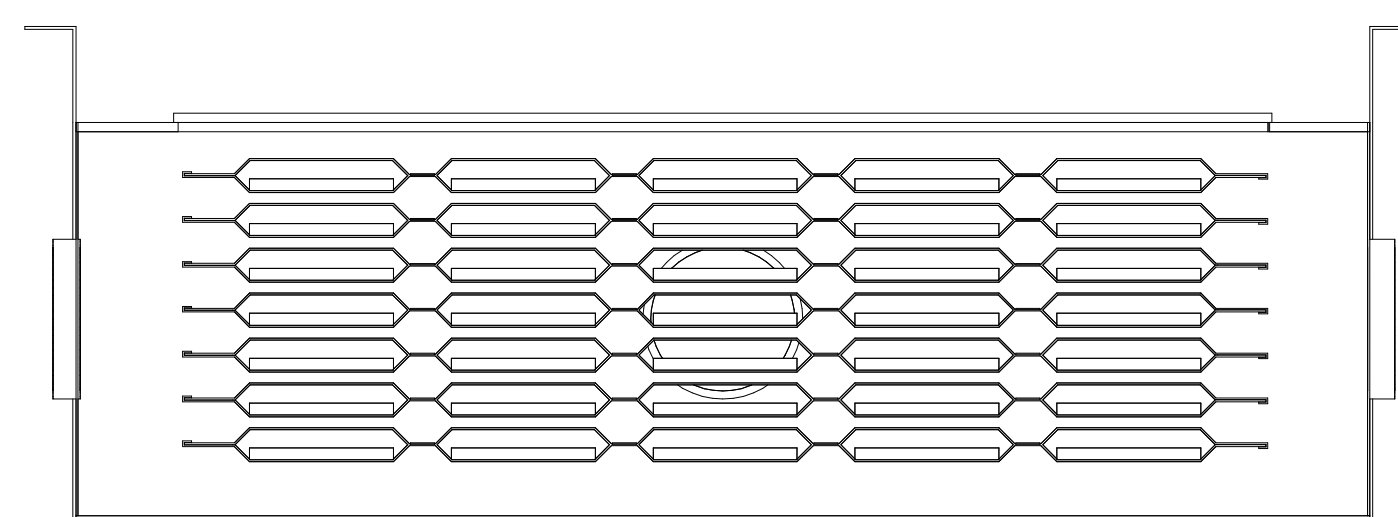
**5** PHACE CHANGE MATERIAL PLENUM ELEVATION - SOUTH  
1 1/2" = 1'-0"



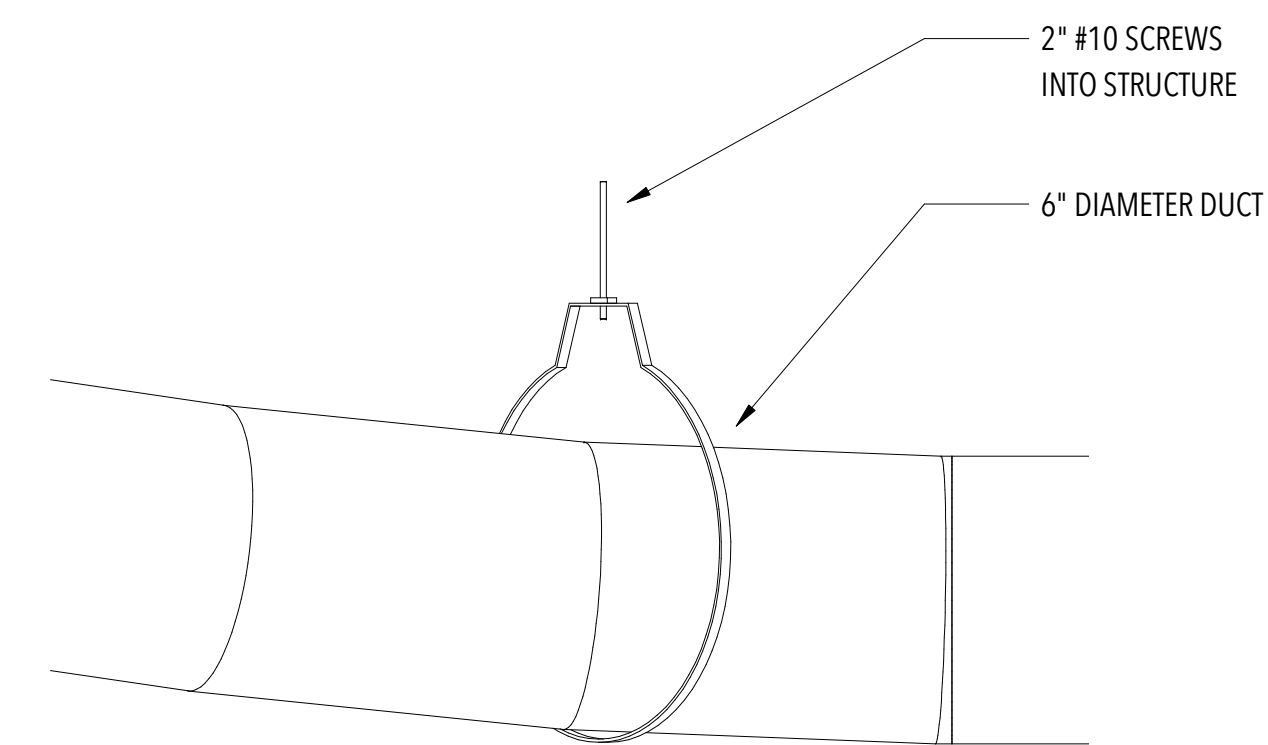
**7** PHACE CHANGE MATERIAL PLENUM ELEVATION - EAST  
1 1/2" = 1'-0"



**3** HEPA FILTER ELEVATION SOUTH  
3" = 1'-0"



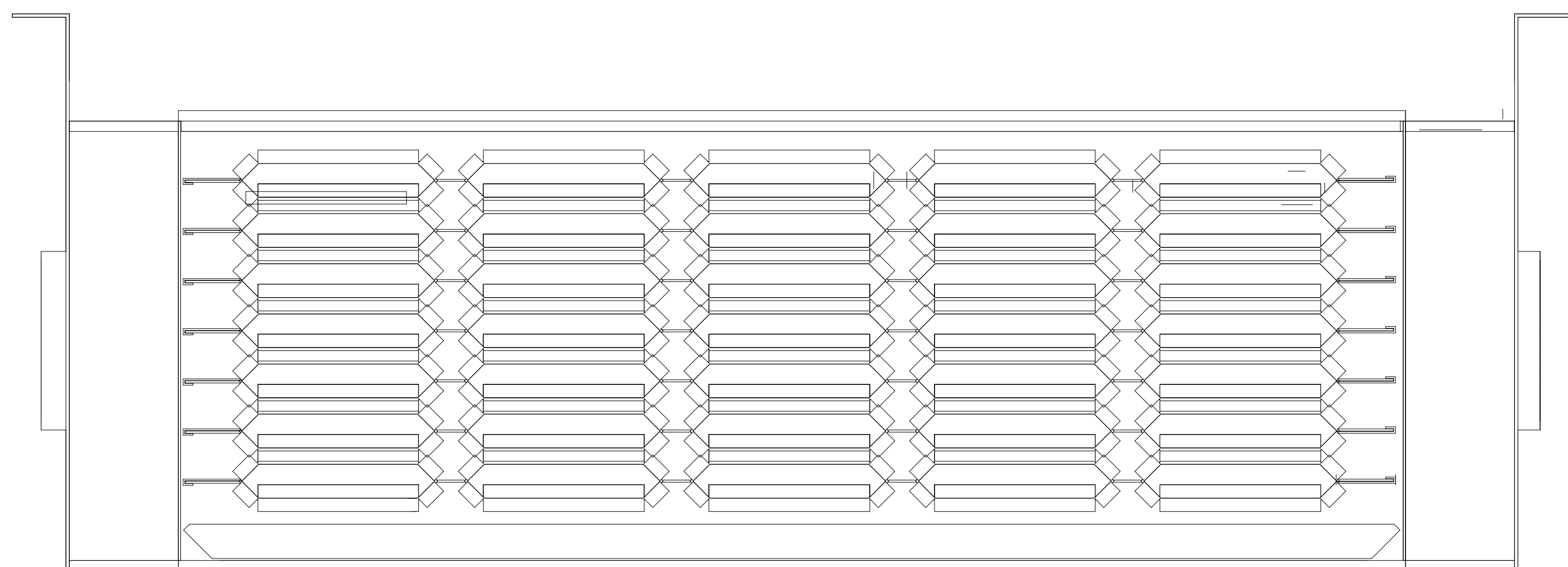
**9** overall diagram



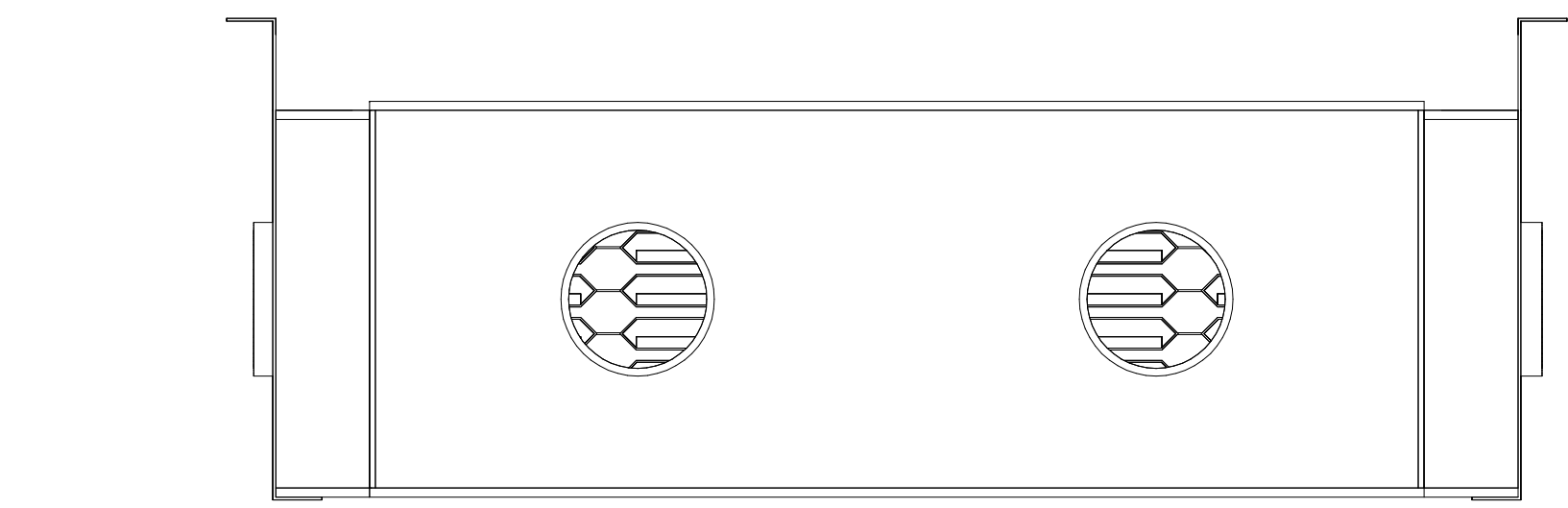
**10** DUCT HANGER DETAIL

**M-601**  
PHASE CHANGE MATERIAL  
AND HEPA FILTER DETAIL

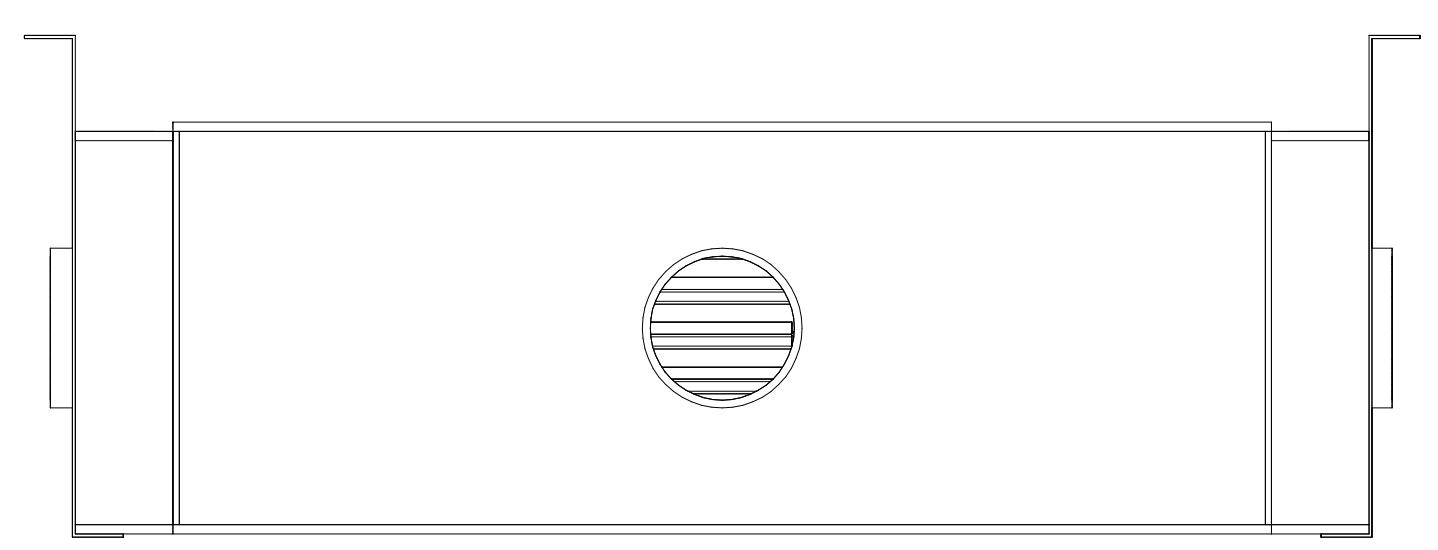
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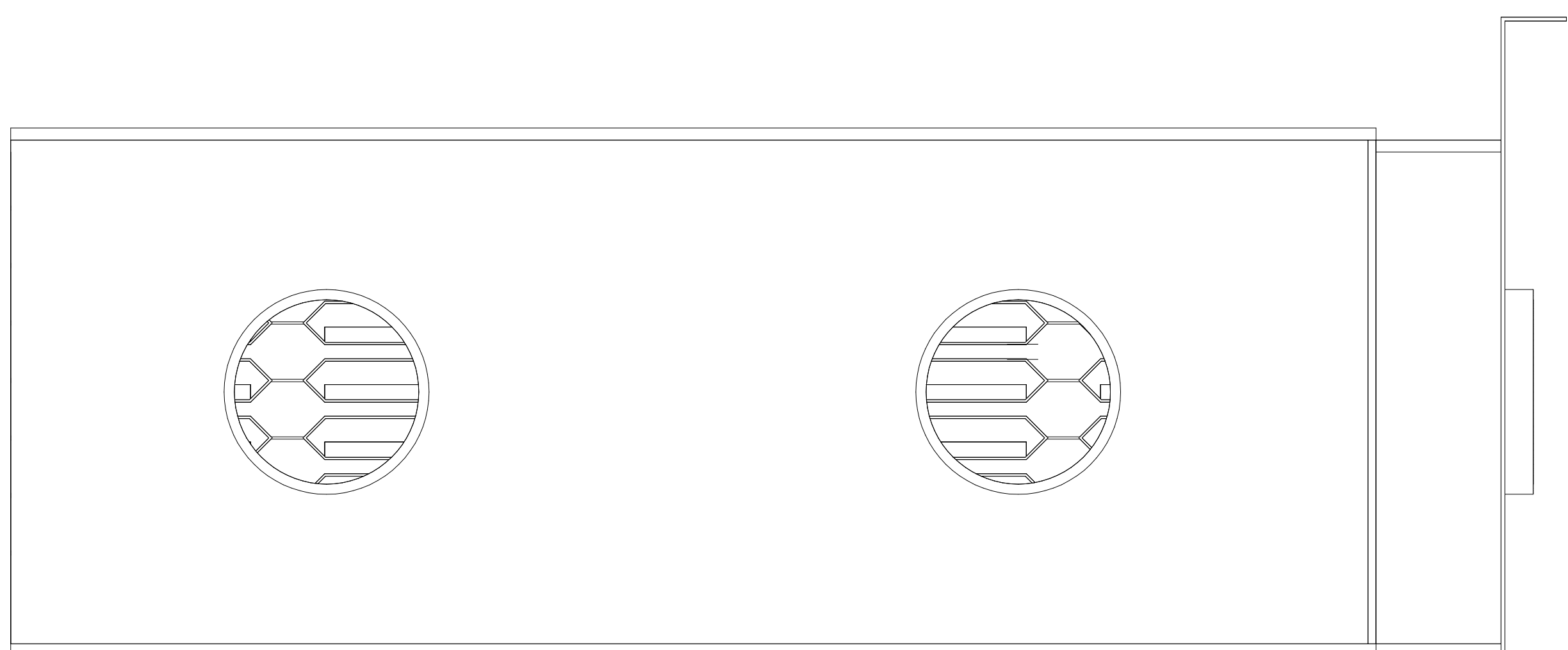
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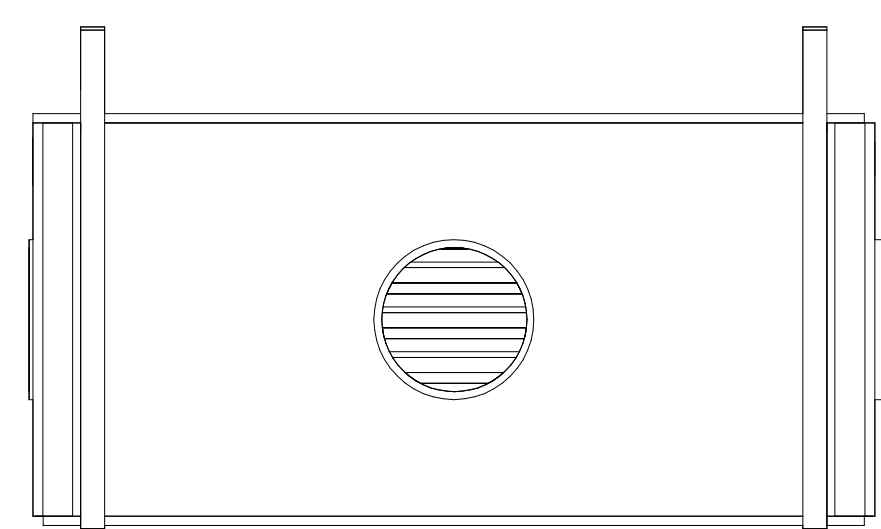
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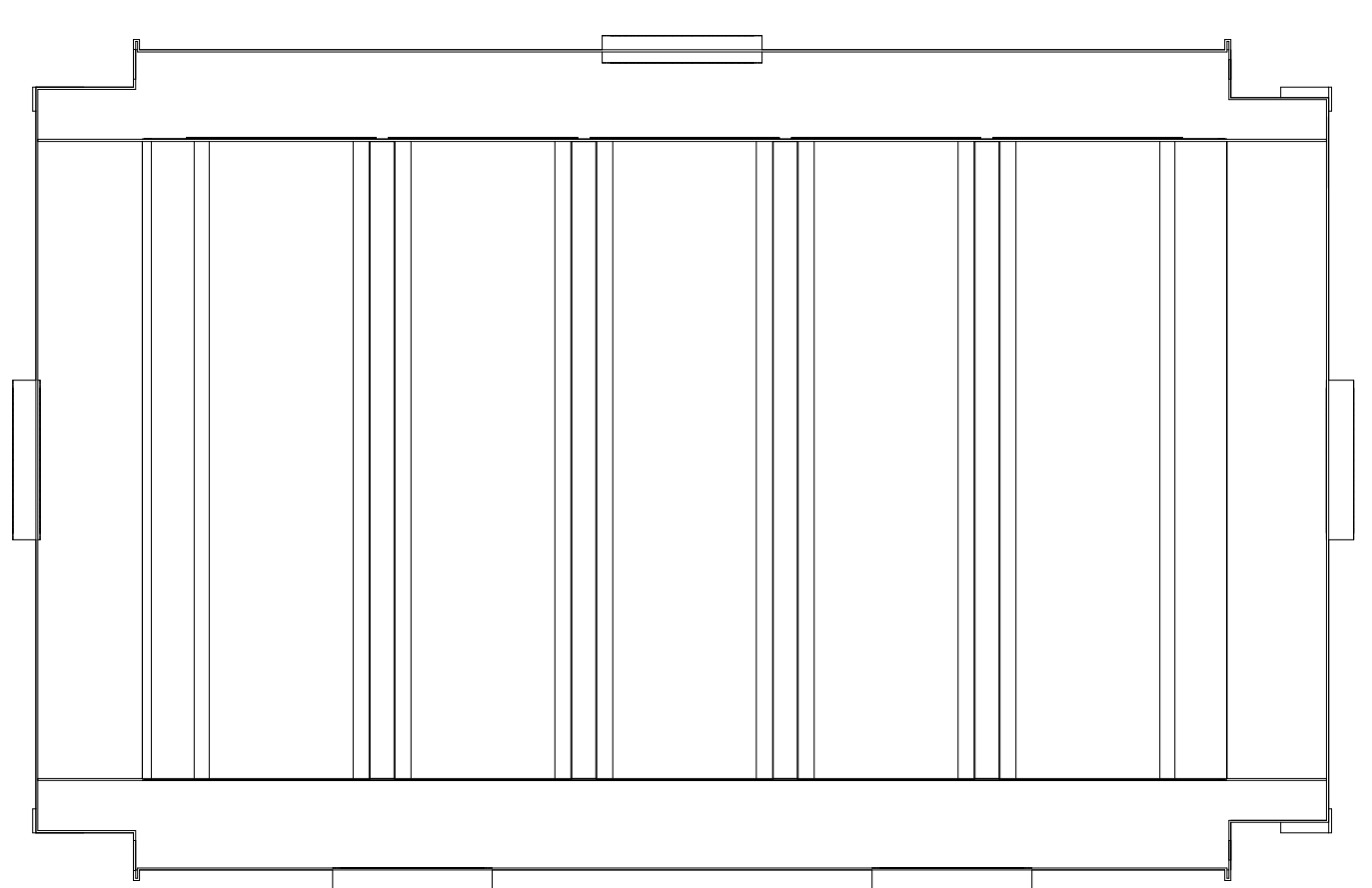
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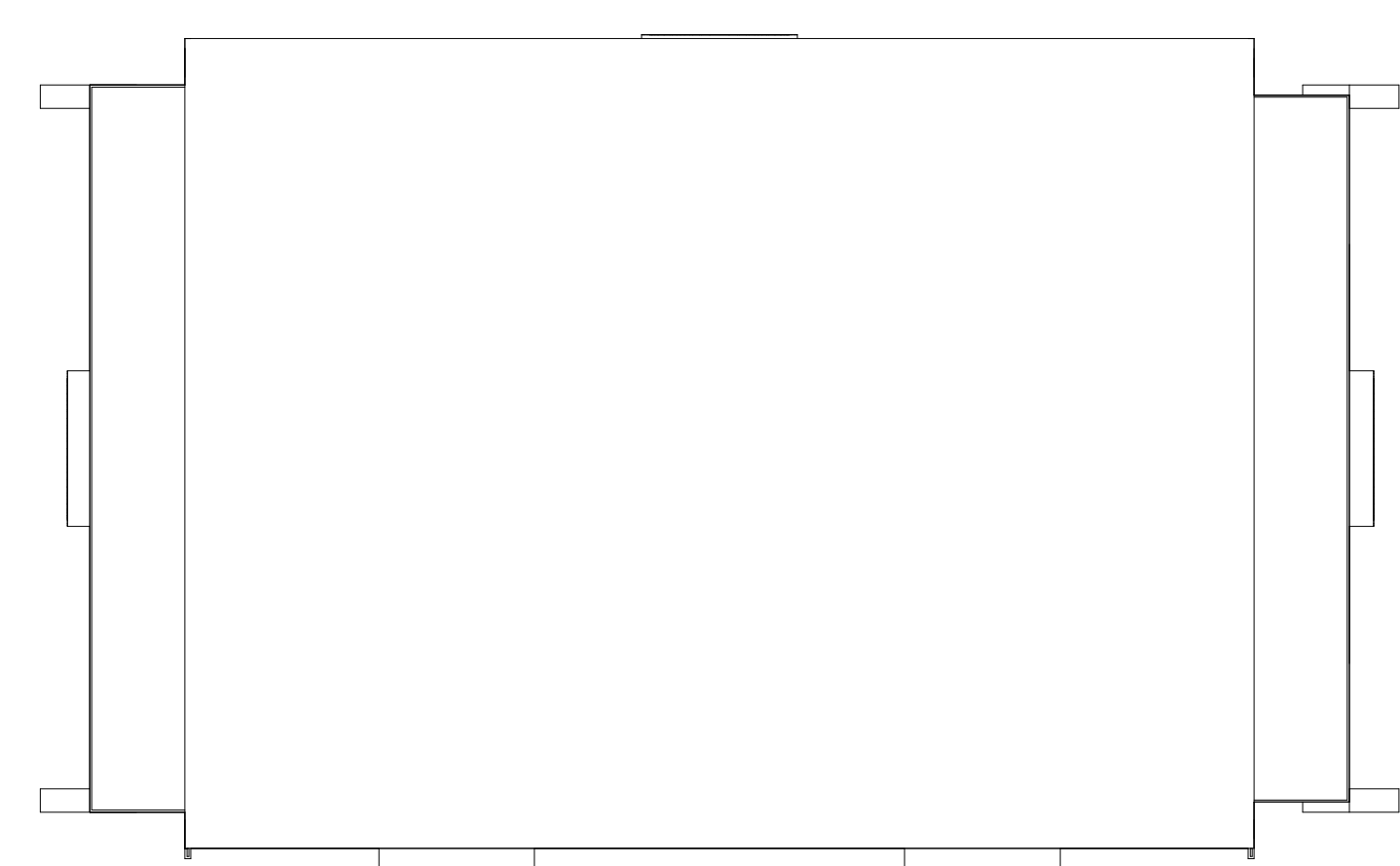
3 Section Cut 2



4 Section Cut Copy 1



2 Section Cut 3



7 Section Cut 3 Copy 1

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WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

**CONSULTANTS**

**STRUCTURAL**

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

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**M-602**  
PCM PLENUM

SCALE:



GENERAL NOTES

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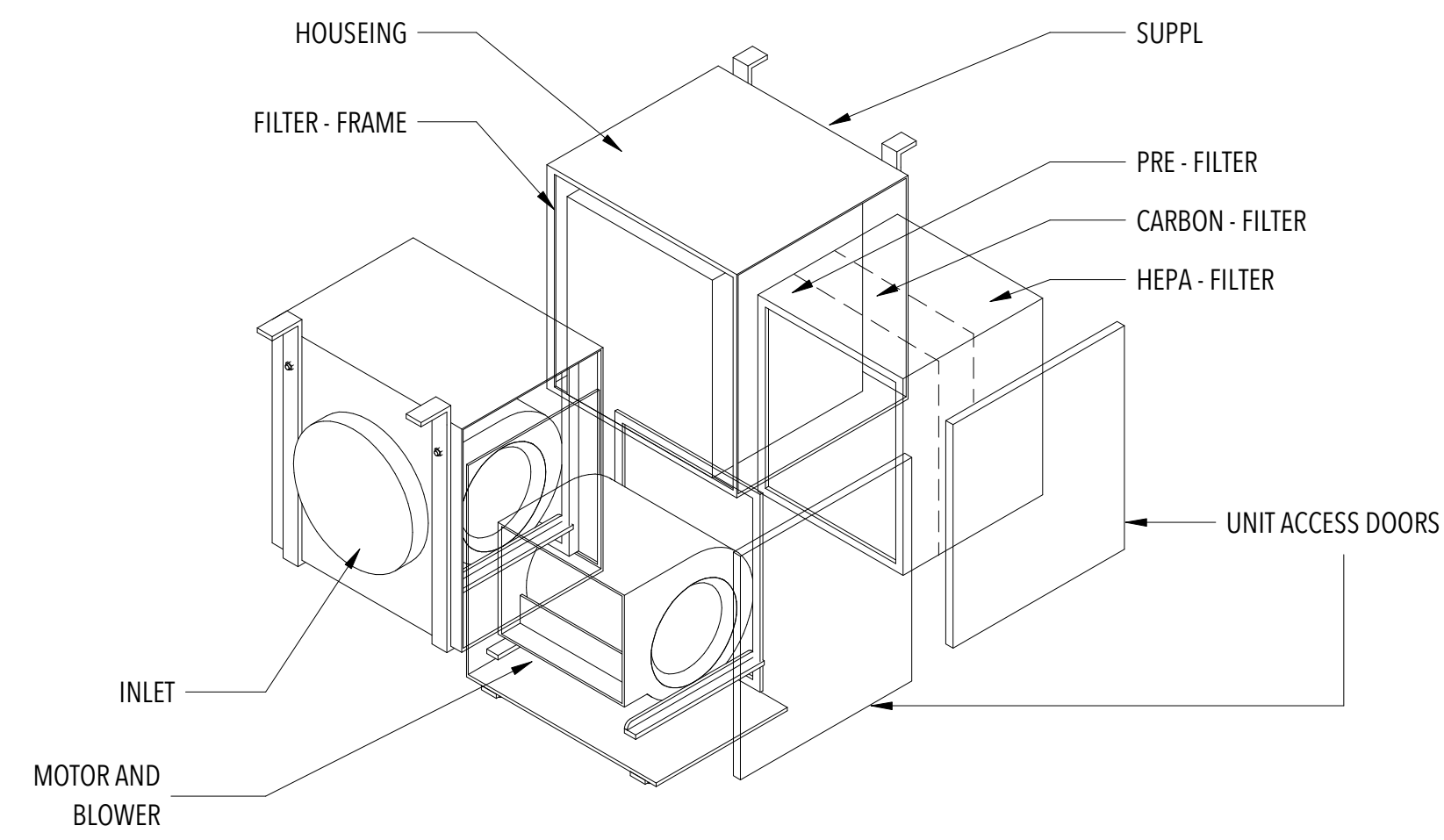
ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

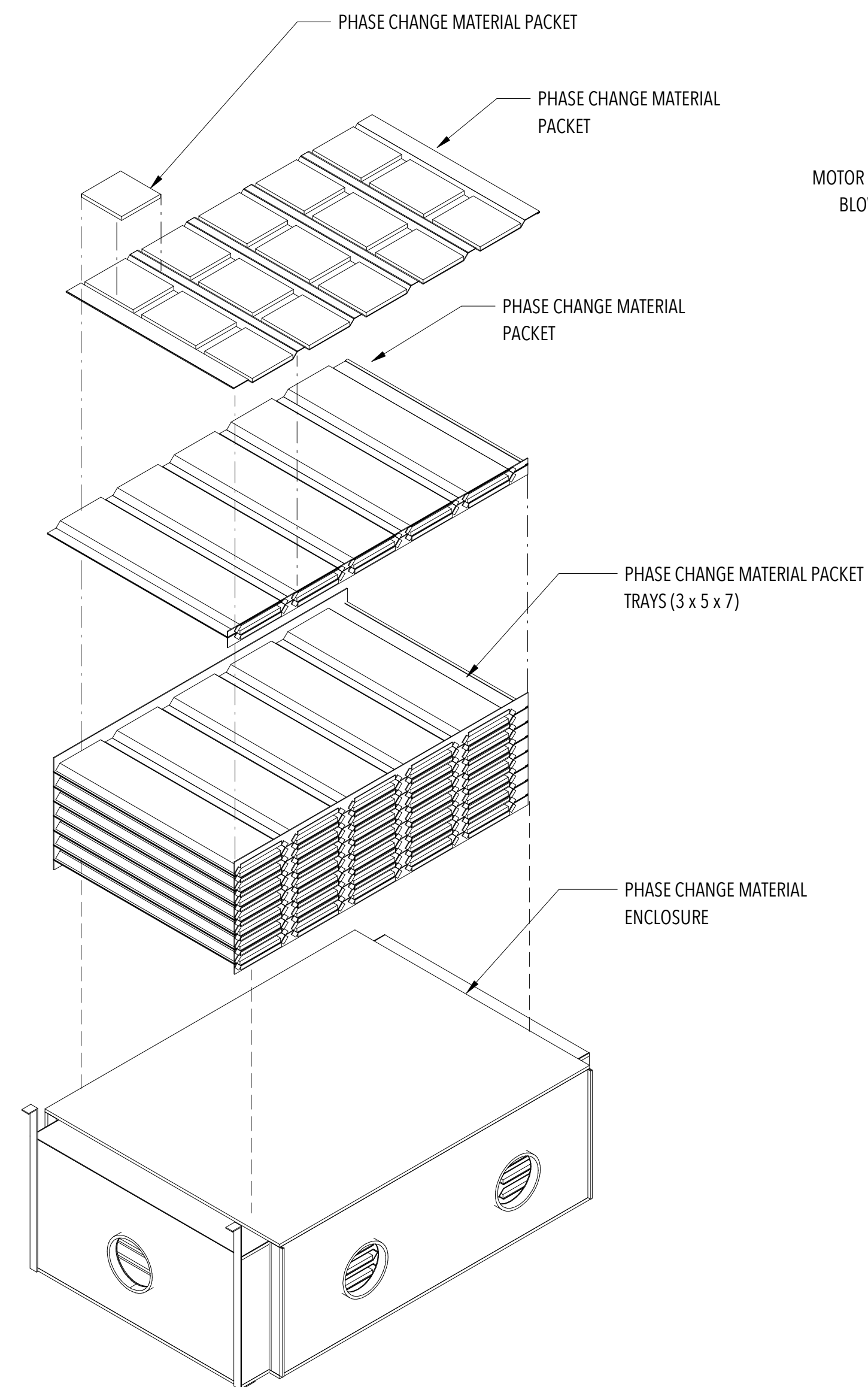
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NO.	DESCRIPTION	DATE
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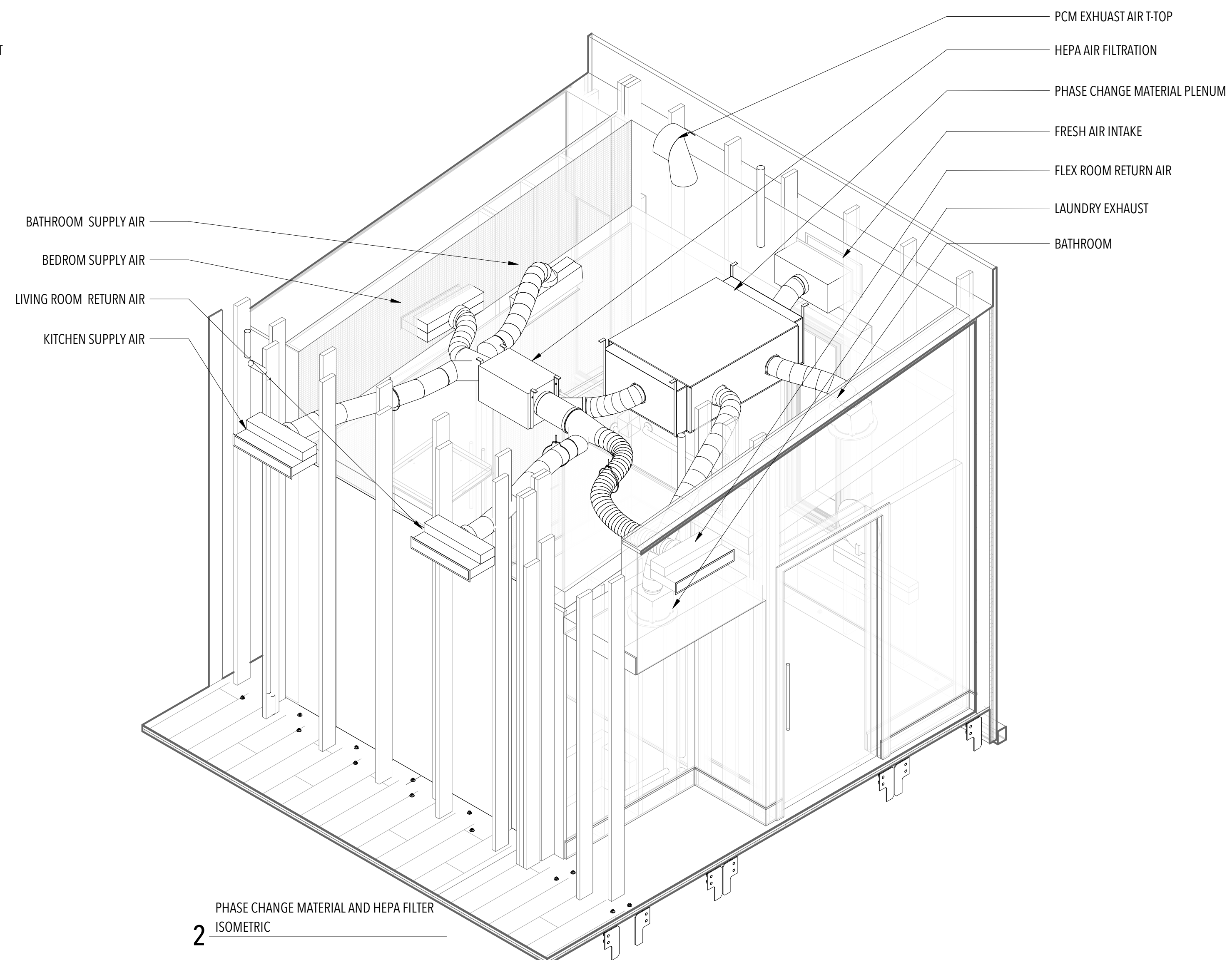
**M-901**  
PHASE CHANGE MATERIAL  
AND HEPA FILTER  
ISOMETRIC  
SCALE:



**3** HEPA AIR FILTRATION SYSTEM



**1** PLENUM ISO EXPLODED - EXTERIOR BOX



**2** PHASE CHANGE MATERIAL AND HEPA FILTER ISOMETRIC

ELECTRICAL NOTES & SPECIFICATIONS

1. INSTALL ALL ELECTRICAL WORK COVERED BY THE BELOW SPECIFICATIONS AND APPROVED DRAWINGS. PROVIDE ALL MATERIAL, LABOR, TRANSPORTATION, TOOLS, SUPERVISION, ETC., NECESSARY TO COMPLETE THE TOTAL ELECTRICAL JOB. ALL ITEMS NOT SPECIFICALLY MENTIONED HEREIN WHICH ARE OBVIOUSLY NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION SHALL BE PROVIDED.
  2. ELECTRICAL COMPONENTS INCLUDING, BUT NOT LIMITED TO CONDUCTOR SIZE, OVERCURRENT PROTECTIVE DEVICE AND DISCONNECT SWITCHES ARE BASED ON POWER REQUIREMENTS AS SHOWN ON SPECIFICATIONS.
  3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENFORCED EDITION OF THE NATIONAL ELECTRICAL CODE [2014], N.F.P.A. 70, AND ALL LOCAL AND STATE CODES AND REGULATIONS.
  4. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF ELECTRICAL EQUIPMENT. COORDINATE DEVICE LOCATIONS WITH DOOR SWINGS, CABINETS, COUNTERS, ETC., AS INDICATED ON THE ARCHITECTURAL DRAWINGS. DO NOT SCALE ELECTRICAL PLANS. OBTAIN DIMENSIONS FOR LAYOUT OF EQUIPMENT FROM ARCHITECTURAL PLANS UNLESS INDICATED ON ELECTRICAL PLANS.
  5. COORDINATE WITH ALL OTHER TRADES AND SUBCONTRACTORS PERFORMING WORK ON THIS PROJECT. MINOR OFFSETS IN LOCATIONS OF FIXTURES, DEVICES, ETC. SHALL BE MADE TO AVOID CONFLICTS WITH OTHER TRADES. SUCH MODIFICATIONS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO THE WORK BEING PERFORMED.
  6. MOUNTING HEIGHTS, UNLESS OTHERWISE NOTED, ARE TO THE CENTER LINE OF THE EQUIPMENT AND/OR DEVICE EXCEPT THE MOUNTING HEIGHT OF SUSPENDED LIGHT FIXTURES WHICH IS TO THE BOTTOM OF FIXTURE.
  7. ALL ELECTRICAL ITEMS SHALL BE U.L. LABELED AND LISTED FOR THEIR SPECIFIC USE.
8. SPECIFICATIONS
- A. GROUNDING
1. THE BUILDING ELECTRICAL SYSTEMS SHALL BE SOLIDLY GROUNDED. ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL SYSTEM, I.E., RACEWAYS, EQUIPMENT ENCLOSURES, FRAMES, JUNCTION AND OUTLET BOXES AND OTHER CONDUCTIVE ITEMS IN CLOSE PROXIMITY WITH ELECTRICAL CIRCUITS, SHALL BE GROUNDED TO PROVIDE A LOW IMPEDANCE PATH FOR POTENTIAL GROUND FAULTS.
  2. BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL RACEWAYS AND CABLES.
  3. THE NEUTRAL AND GROUND BUS SHALL BE CONNECTED INSIDE THE SERVICE EQUIPMENT.
- B. RACEWAYS AND CONDUITS
1. CONDUITS SHALL BE RUN PARALLEL OR AT RIGHT ANGLES TO WALLS, CEILINGS, AND STRUCTURAL MEMBERS.
  2. LIQUID TIGHT FLEXIBLE PVC COATED METAL CONDUIT SHALL BE USED FROM OUTDOOR EXPOSED CONNECTIONS TO GROUND OR ROOF MOUNTED EQUIPMENT.
  3. ALL RACEWAYS SHALL BE INSTALLED CONCEALED EXCEPT IN UNFINISHED SPACES OR WHERE INDICATED ON THE DRAWINGS.
  4. FASTENERS AND SUPPORTS SHALL BE AS MANUFACTURED BY GEDNEY, EFCOR OR EQUAL. SUPPORTING DEVICES SHALL BE THOSE AS MANUFACTURED FOR A SPECIFIC PURPOSE. NAILS, WIRE OR PIPE STRAP SHALL NOT BE USED.
  5. PROVIDE FLEXIBLE EXPANSION CONDUIT FITTINGS ON ALL CONDUIT CROSSING MODULE JOINTS. SEE ARCHITECTURAL PLANS FOR EXPANSION JOINT LOCATIONS.
- C. CONDUCTORS
1. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER, 60°C, ROMEX UNLESS OTHERWISE NOTED.
  2. ALL FEEDER CONDUCTORS SHALL BE COPPER, THHN/THWN-2 INSULATION. 60°C.
  3. WIRE NO. 8 AWG AND LARGER SHALL BE STRANDED, NO. 10 AND SMALLER SHALL BE SOLID.
- D. OUTLET/JUNCTION BOXES
1. ALL OUTLET/JUNCTION BOXES SHALL BE GALVANIZED STEEL.
- E. WALL AND CEILING OUTLET BOXES SHALL BE 3/0, WITH A DEPTH OF 2 1/2". CEILING BOXES SHALL BE 4" OCTAGONAL WHERE REQUIRED DUE TO NUMBER OF WIRES.
- F. PANELBOARDS
1. OVERCURRENT PROTECTIVE DEVICES SHALL BE AUTOMATIC TRIP THERMAL MAGNETIC TYPE WITH QUICK-MAKE QUICK-BREAK FOR BOTH MANUAL AND AUTOMATIC OPERATION. ALL MULTIPOLE BREAKERS SHALL BE COMMON TRIP; HANDLE TIES WILL NOT BE ACCEPTED.
  2. TYPEWRITTEN DIRECTORIES AND PANELBOARD DESIGNATION PLATES SHALL BE PROVIDED BY THE CONTRACTOR FOR ALL PANELBOARDS. PANELBOARD DESIGNATIONS SHALL BE PHENOLIC-ENGRAVED.
  3. COLOR OF DEVICES AND DEVICE PLATES SHALL BE AS DETERMINED BY ARCHITECT.
- G. BATTERY
1. REFER TO PROJECT MANUAL -- INTERCONNECTED BATTERY SYSTEM, FOR BATTERY SYSTEM COMPOSITION (SAFETY DATA SHEET)
  2. AT LEAST ONE INTERCONNECTED SMOKE ALARM SHALL BE PLACED WITHIN THE SAME ROOM OR COMPARTMENT AS THE BATTERY SYSTEM(S).
  3. BATTERY ENCLOSURE SHALL INCLUDE A LOWER GRAVITY AND UPPER GRAVITY VENT IN THE ELECTRICAL ROOM

ELECTRICAL SYMBOLS & ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
BE	BATHROOM EXHAUST
CF	CEILING FAN
ERV	ENERGY RECOVERY VENTILATOR
EWH	ELECTRIC TANKLESS WATER HEATER
FCU	FAN COILED UNIT
KE	KITCHEN EXHAUST
MP	MAIN PANEL
OU	OUTDOOR UNIT
SP	SUB PANEL
UC	UNDER CABINET
UD	UNDER DECK

MAIN SERVICE PANEL									
	COMMENT	RATING		VOLTAGE	AMPACITY		DEMAND FACTOR		
<b>GENERAL LIGHTING AND RECEPTACLES (NEC 2210.11C)</b>									
GENERAL LIGHTING AND RECEPTACLES (NEC 220.10)	3VA*1000 SQ. FT.	3000	VA	120 V	4.38	A	35%	1050	VA
SMALL APPLIANCE CIRCUITS (NEC 220.52)	2 * 1500 VA	3000	VA	120 V	12.50	A	100%	3000	VA
LAUNDRY (NEC 220.52)	1 * 1500 VA	1500	VA	120 V	2.19	A	35%	525	VA
<b>SUBTOTAL</b>					19.06	A		4575	VA
<b>COOKING</b>									
STOVE (NEC 220.55)		7100	VA	240 V	22.19	A	75%	5325	VA
OVEN/MICROWAVE (NEC 220.55)		6325	VA	240 V	19.77	A	75%	4743.75	VA
<b>SUBTOTAL</b>					41.95	A		10068.75	VA
<b>FIXED APPLIANCES</b>									
WATER HEATER (NEC 220.53)		13000	VA	240 V	40.63	A	75%	9750	VA
DISHWASHER (NEC 220.53)		2160	VA	120 V	6.75	A	75%	1620	VA
WASHING MACHINE (NEC 220.53)		2400	VA	240 V	7.50	A	75%	1800	vA
RANGEHOOD / EXHAUST FAN (NEC 220.53)		348	VA	120 V	1.09	A	75%	261	VA
ENERGY RECOVERY VENTILATOR (NEC 220.53)		25	VA	120 V	15.00	A	75%	18.75	vA
SPRINKLER PUMP (NEC 220.53)		680	VA	240 V	2.13	A	75%	510	
REFRIGERATOR (NEC 220.53)		450	VA	120 V	4.90	A	75%	441	VA
<b>SUBTOTAL</b>					77.99	A		14400.75	VA
<b>DRYER (W=VA FROM NEC 220.54)</b>		7200	VA	240 V	30.00	A	100%	7200	VA
<b>HVAC COMPRESSOR AND UNITS (NEC 220.82C)</b>		1500	VA	240 V	6.25	A	100%	1500	VA
<b>MOTORS (NEC 430.24)</b>		2016	VA	240 V	2.10	A	25%	504	VA
<b>SUBTOTAL</b>					38.35	A		9204	VA
<b>NEUTRAL CONDUCTOR</b>									
	COMMENT	RATING		VOLTAGE	AMPACITY		DEMAND FACTOR		
GENERAL LIGHTING AND RECEPTACLES (NEC 220.61(A))		4233.75	VA	120 V	17.64	A	100%	4233.75	VA
COOKING (NEC 220.61(B))		6400	VA	240 V	18.67	A	70%	4480	VA
FIXED APPLIANCES (NEC 220.61(A))		13757.3	VA	240 V	57.32	A	100%	13757.3	VA
DRYER (NEC 220.61(B))		7200	VA	240 V	21.00	A	70%	5040	VA
<b>TOTAL</b>					<b>114.63</b>	<b>A</b>		<b>27511</b>	<b>VA</b>



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WWW.SOLARDECATHLON.GOV

TEAM LAS VEGAS

WWW.UNLVSD.COM  
SD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEG

4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS

STRUCTURAL

RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

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E-001  
ELECTRICAL NOTES

DRAWN BY: Author  
As indicated

**ISSUANCES**

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**REVISIONS**

NO.	DESCRIPTION	DATE
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**E-002**  
PANEL LOAD SCHEDULE

Electrical Panel - North Main														
PANEL SPECIFICATIONS					PHASE TOTAL				TOTALS					
Bus Size (AMPS)	200				A	22,730.00			TOTAL CONNECTED VA:	47,922.20				
Voltage	120/240				B	25,192.20			PANEL CONNECTED KVA	47.9222				
Phase	1Ø								PANEL DEMAND KVA	57.50664				
									PANEL DEMAND AMPS	239.611				
CONNECTED VA														
CKT	CODE	TRIP	POLE	LOAD DESIGNATION	A	B	A	B	LOAD DESIGNATION	POLE	TRIP	CODE	CKT	
1		30	-	DRYER	1400								2	
3		-	2	-----		1400		42.2	BATHROOM/LAUNDRY EXHAUST	1	20		4	
5		20	1	BATHROOM RECEPTACLES	540		8130		SOUTH MODULE SUBPANEL	-	175		6	
7							8190		-----	2	-		8	
9		20	1	SHADE STRUCTURE MOTOR	180			1500	NORTH MODULE LIGHTING	1	20		10	
11		20	1	OFFICE RECEPTACLES 1	720			6000	ELECTRIC WATER HEATER	-	50		12	
13		20	1	WASHER		2300	6000		-----	2	-		14	
15		60	-	EV CHARGER	5760									
17		-	2	-----		5760								

Electrical Panel - Critical Loads Subpanel														
PANEL SPECIFICATIONS					PHASE TOTAL				TOTALS					
Bus Size (AMPS)	150				A	13,186.42			TOTAL CONNECTED VA:	21,740.84				
Voltage	120/240				B	8,554.42			PANEL CONNECTED KVA	21.74084				
Phase	1Ø								PANEL DEMAND KVA	26.089008				
									PANEL DEMAND AMPS	108.7042				
CONNECTED VA														
CKT	CODE	TRIP	POLE	LOAD DESIGNATION	A	B	A	B	LOAD DESIGNATION	POLE	TRIP	CODE	CKT	
1		20	1	KITCHEN RECEPTACLES	540			90	REFRIDGERATOR	1	20		2	
3		20	1	LIVING ROOM RECEPTACLES 2	540		1920		BATHROOM RECEPTACLES	1	20		4	
5		20	1	LIVING ROOM RECEPTACLES 3	360			38	BEDROOM CEILING FAN	1	20		6	
7		20	1	BEDROOM RECEPTACLES	540		2500		TESLA POWER WALL	-	30		8	
9		40	-	PV BACKFEED	3800			2500		2			10	
11		-	2			3800	7800		MECHANICAL ROOM SUBPANEL	-	100		12	
13		20	-	MAIN BOOSTER PUMP	186			6940	-----	2	-		14	
15		-	2	-----		186							16	

Electrical Panel - South Main														
PANEL SPECIFICATIONS					PHASE TOTAL				TOTALS					
Bus Size (AMPS)	100				A	8,130.00			TOTAL CONNECTED VA:	16,320.00				
Voltage	120/240				B	8,190.00			PANEL CONNECTED KVA	16.32				
Phase	1Ø								PANEL DEMAND KVA	19.584				
									PANEL DEMAND AMPS	81.6				
CONNECTED VA														
CKT	CODE	TRIP	POLE	LOAD DESIGNATION	A	B	A	B	LOAD DESIGNATION	POLE	TRIP	CODE	CKT	
1		20	1	KITCHEN RECEPTACLES	720			1440	DISHWASHER	1	20		2	
3		20	1	DINING ROOM RECEPTACLES	720			1650	INDUCTION OVEN	-	30		4	
5		20	1	LIVING ROOM RECEPTACLES	540		1650		-----	2	-		6	
7		20	1	ELECTRICAL ROOM RECEPTACLES	180		540		OUTDOOR RECEPTACLES	1	20		8	
9		20	1	ELECTRICAL ROOM RECEPTACLES	180			1500	SOUTH MODULE LIGHTING	1	20		10	
11		40	-	INDUCTION RANGE	3600									
13		-	2	-----		3600								

Electrical Panel - Mechanical Room Subpanel														
PANEL SPECIFICATIONS					PHASE TOTAL				TOTALS					
Bus Size (AMPS)	100				A	7,800.00			TOTAL CONNECTED VA:	14,740.00				
Voltage	120/240				B	6,940.00			PANEL CONNECTED KVA	14.74				
Phase	1Ø								PANEL DEMAND KVA	17.688				
									PANEL DEMAND AMPS	73.7				
CONNECTED VA														
CKT	CODE	TRIP	POLE	LOAD DESIGNATION	A	B	A	B	LOAD DESIGNATION	POLE	TRIP	CODE	CKT	
1		20	1	MECHANICAL ROOM RECEPTACLES	540		2300		HEATPUMP 2	-	20		2	
3		20	1	MECHANICAL ROOM RECEPTACLES	360			2300	-----	2	-		4	
5		20	1	MECHANICAL ROOM LIGHTING		40	2300		HEATPUMP 2	-	20		6	
7								2300	-----	2	-		8	
9							2300		HEATPUMP 2	-	20		10	
11								2300	-----	2	-		12	



GENERAL NOTES

1. ALL BRANCH CIRCUITS THAT SUPPLY 125-VOLT, SINGLE PHASE, 15 & 20 AMP OUTLETS INSTALLED IN BEDROOM, LIVING ROOM, HALLWAY, DINING ROOM, AND CLOSETS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER LISTED TO PROVIDE PROTECTION OF ENTIRE BRANCHCIRCUIT.

2. IN EVERY AREA OF DWELLING UNITS, RECEPTACLE OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH THE GENERAL PROVISIONS SPECIFIED IN THE FOLLOWING

- ARTICLES:**
- SPACING 2014 NEC 210.52(A)(1)
  - WALL SPACE 2014 NEC 210.42(A)(2)
  - FLOOR RECEPTACLES 2014 NEC 210.52(A)(3)

3. AT COUNTERTOPS IN THE KITCHEN AND DINING ROOM, RECEPTACLE OUTLETS FOR COUNTER SPACES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING ARTICLES:  
 WALL COUNTER SPACE - 2014 NEC 210.52(C)(1)  
 RECEPTACLE OUTLET LOCATIONS - 2014 NEC 210.52(A)(3)

4. NO MORE THAN 5 DUPLEX RECEPTACLE OUTLETS SERVING THE REQUIRED COUNTERTOP RECEPTACLES SHALL BE INSTALLED ON ANY SMALL APPLIANCE BRANCH CIRCUIT - 2014 NEC 210.23

5. RECEPTACLE OUTLETS SHALL NOT BE INSTALLED IN A FACE-UP POSITION IN THE WORK SURFACES OR COUNTERTOPS

6. AS INDICATED ON THE PLANS, 120VAC WEATHERPROOF GFCI RECEPTACLES SHALL BE INSTALLED SO THAT NO HVAC EQUIPMENT IS MORE THAN 25 FEET FROM A RECEPTACLE

7. PER 2014 NEC 406.12 ALL RECEPTACLES MUST BE TAMPER RESISTANT

8. ALL EXTERIOR RECEPTACLES MUST BE WEATHER RESISTANT

9. SEE SPECS FOR CONTROLLABLE RECEPTACLE AND SWITCH SPECIFICATIONS.

10. REFER TO ARCHITECT FOR RECEPTACLE AND SWITCH INSTALLATION HEIGHTS

11. ALL RECEPTACLES WILL BE 120V DUPLEX RECEPTACLES UNLESS SPECIFIED OTHERWISE

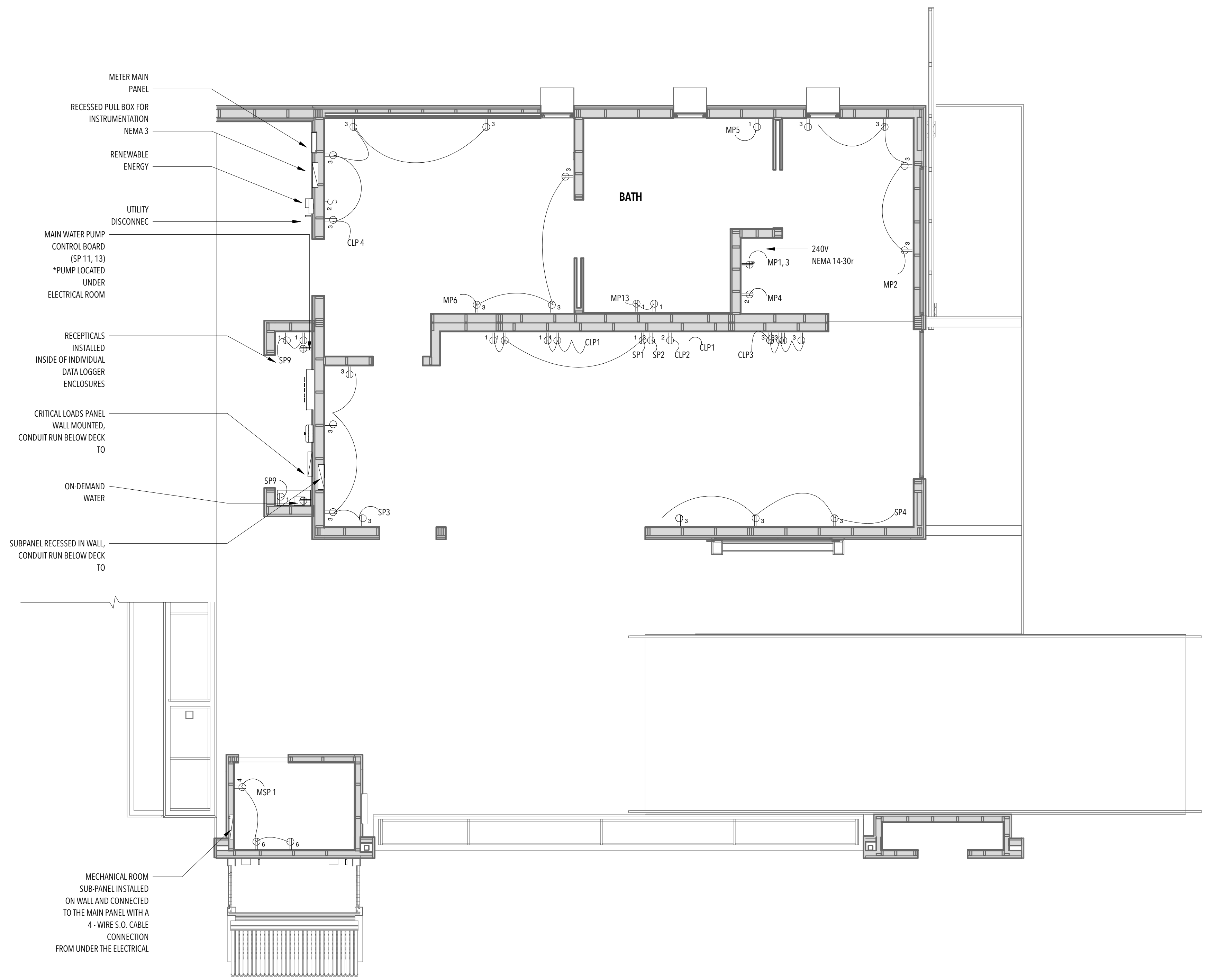
12. ALL RECEPTACLES ON CRITICAL LOAD PANEL (CLP) CIRCUITS SHALL BE INSTALLED ON SUBPANEL REFERRED TO AS CRITICAL LOAD PANEL REFER TO SHEET E-601

13. FOR PV RELATED EQUIPMENT REFER TO SHEET E-104 AND E-105

14. FOR PANEL SCHEDULE WITH INDICATED BRANCH CIRCUIT NUMBERS, ALL BREAKER SIZES, AND ALL WIRING SIZES, SEE E-601

RECEPTACLE SCHEDULE

MARK	DESCRIPTION
1	15A 120V GFCI TAMPER RESISTANT OUTLET
2	20A 120V GFCI TAMPER RESISTANT OUTLET
3	15A 120V AFCI PROTECTED TAMPER RESISTANT OUTLET
4	15A 120V GFCI PROTECTED TAMPER RESISTANT OUTLET
5	15A 120V AFCI PROTECTED TAMPER RESISTANT CONTROLLABLE OUTLET
6	15A 120V GFCI PROTECTED TAMPER RESISTANT CONTROLLABLE OUTLET
7	15A 120V GFCI PROTECTED TAMPER RESISTANT WEATHER RESISTANT COVERED OUTLET



METER MAIN PANEL

RECESSED PULL BOX FOR INSTRUMENTATION NEMA 3

RENEWABLE ENERGY

UTILITY DISCONNECT

MAIN WATER PUMP CONTROL BOARD (SP 11, 13)  
*PUMP LOCATED UNDER ELECTRICAL ROOM

RECEPTACLES INSTALLED INSIDE OF INDIVIDUAL DATA LOGGER ENCLOSURES

CRITICAL LOADS PANEL WALL MOUNTED, CONDUIT RUN BELOW DECK TO

ON-DEMAND WATER

SUBPANEL RECESSED IN WALL, CONDUIT RUN BELOW DECK TO

MECHANICAL ROOM SUB-PANEL INSTALLED ON WALL AND CONNECTED TO THE MAIN PANEL WITH A 4-WIRE S.O. CABLE CONNECTION FROM UNDER THE ELECTRICAL



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TEAM LAS VEGAS  
 WWW.UNLVSD.COM  
 UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
 4505 MARYLAND PARKWAY  
 LAS VEGAS, NV 89154

CONSULTANTS  
**STRUCTURAL**  
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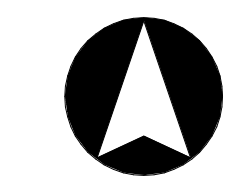
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**E-101**  
 INTERIOR POWER  
 DISTRIBUTION PLAN

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



ISSUANCES

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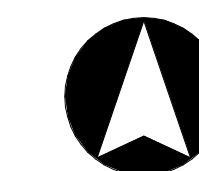
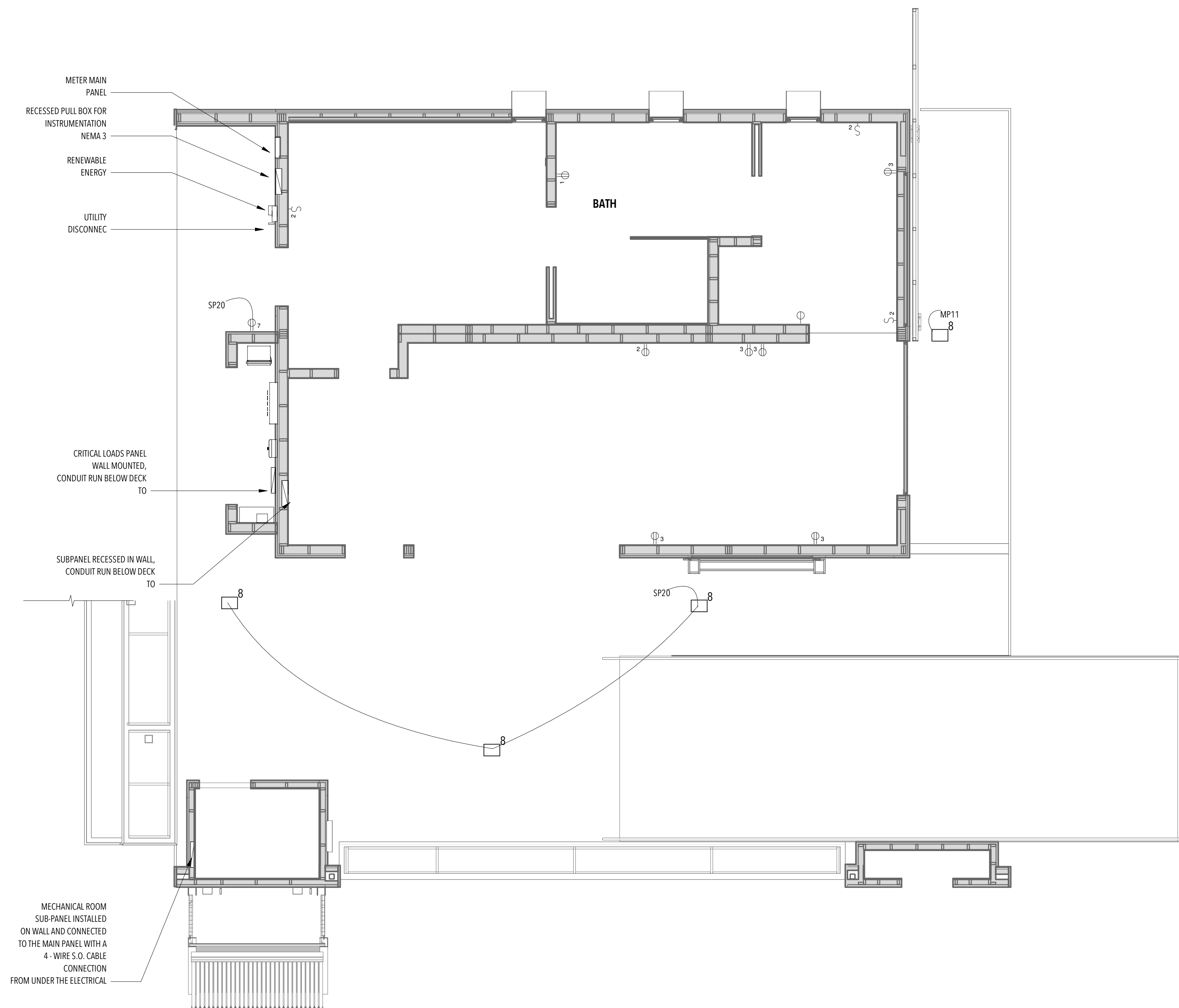
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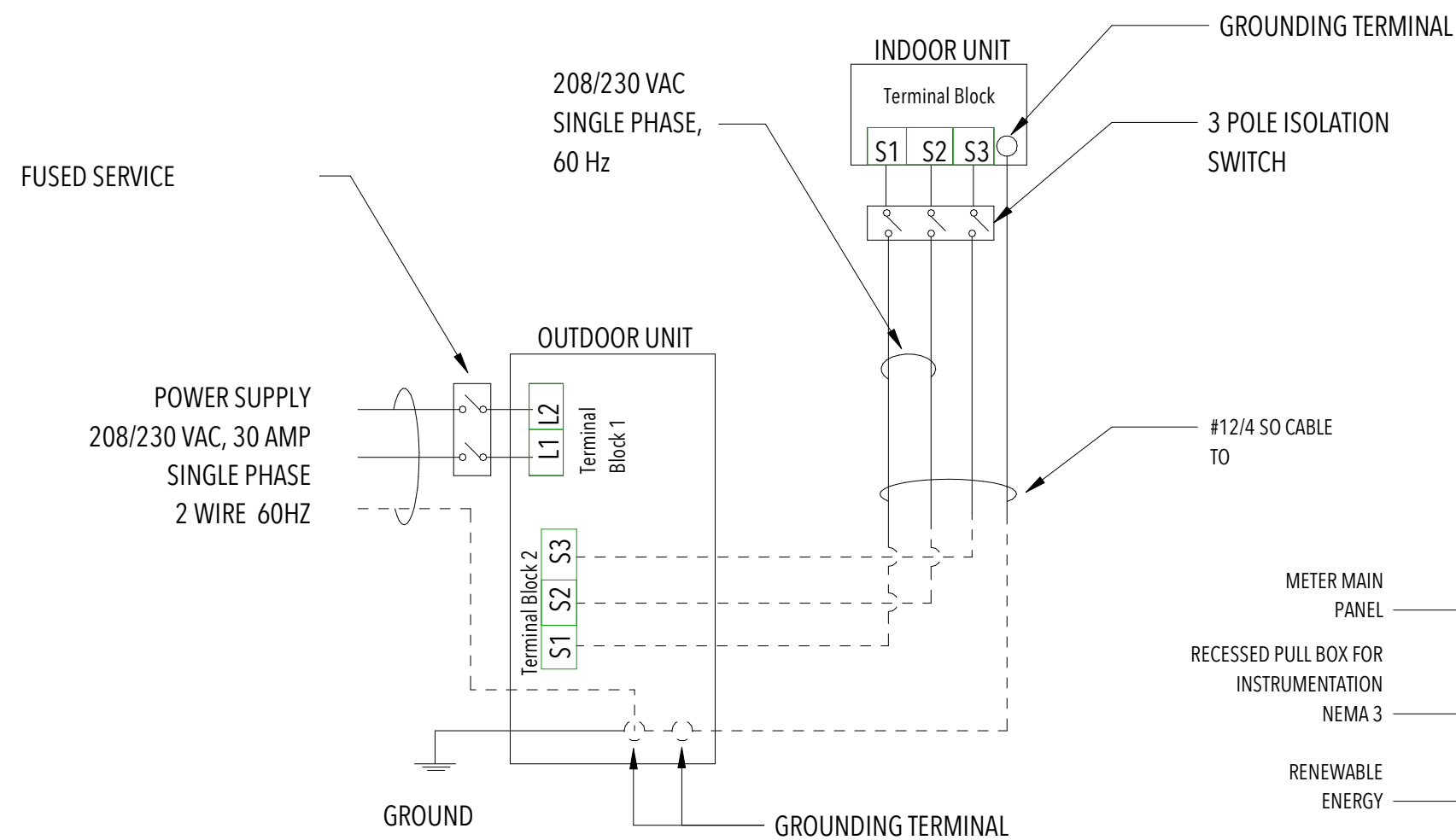
GENERAL NOTES

- IN EVERY AREA OF DWELLING UNITS, RECEPTABLE OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH THE GENERAL PROVISIONS SPECIFIED IN THE FOLLOWING ARTICLES:  
SPACING  
-2014 NEC 210.52(A)(1)  
WALL SPACE  
-2014 NEC 210.42(A)(2)  
FLOOR RECEPTABLES  
-2014 NEC 210.52(A)(3)
- AS INDICATED ON THE PLANS, 120VAC WEATHERPROOF GFCI RECEPTABLES SHALL BE INSTALLED SO THAT NO HVAC EQUIPMENT IS MORE THAN 25 FEET FROM A RECEPTACLE
- FOR PV RELATED EQUIPMENT REFER TO SHEET E-104 AND E-105
- ALL RECEPTABLES MUST BE TAMPER RESISTANT PER 2014 NEC 406.12
- ALL EXTERIOR RECEPTABLES MUST BE WEATHER RESISTANT
- ALL RECEPTABLES WILL BE 120V DUPLEX RECEPTABLES UNLESS SPECIFIED OTHERWISE
- FOR PANEL SCHEDULE WITH INDICATED BRANCH CIRCUIT NUMBERS, ALL BREAKER SIZES, AND ALL WIRING SIZES, SEE E-601

RECEPTACLE SCHEDULE

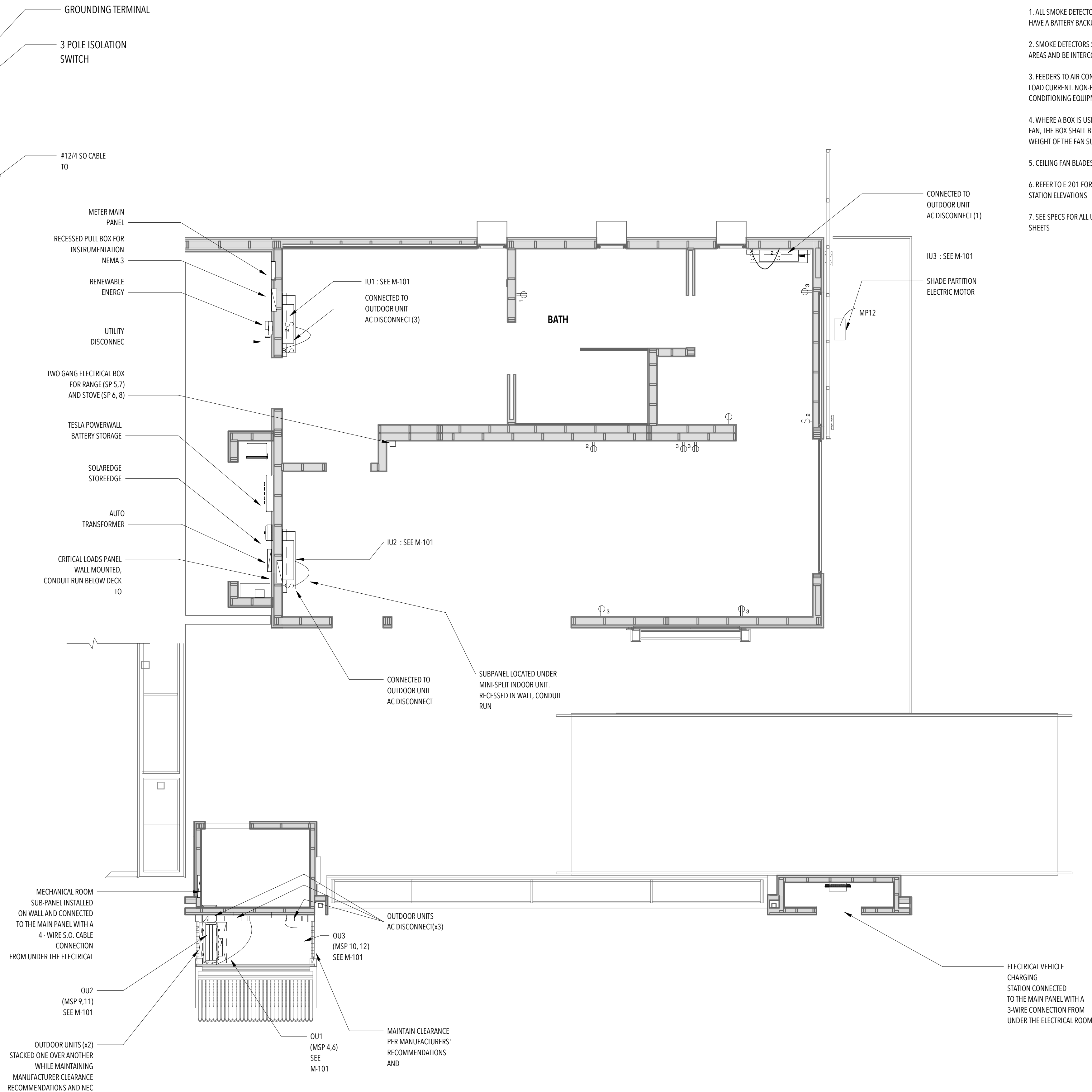
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2	20A 120V GFCI TAMPER RESISTANT OUTLET
3	15A 120V AFCI PROTECTED TAMPER RESISTANT OUTLET
4	15A 120V GFCI PROTECTED TAMPER RESISTANT OUTLET
5	15A 120V AFCI PROTECTED TAMPER RESISTANT CONTROLLABLE OUTLET
6	15A 120V GFCI PROTECTED TAMPER RESISTANT CONTROLLABLE OUTLET
7	15A 120V GFCI PROTECTED TAMPER RESISTANT WEATHER RESISTANT COVERED OUTLET
8	15A 120V GFCI PROTECTED TAMPER RESISTANT WEATHER RESISTANT OUTLET, MOUNTED UNDER DECK





2 HEAT PUMP WIRING DIAGRAM (TYP)  
1/4" = 1'-0"

Electrical Equipment Schedule		
Count	Manufacturer	Model
1	BOSCH	EL-51245
4	Schneider Electric	H323N
3	Schneider Electric	HOM1224M100PC
1	Schneider Electric	ION8650
1	Schneider Electric	SC2636M200FPV
1	SOLAREEDGE	SE7600A-USS SE7600A-USS SE7600A-USS SE7600
1	SOLAREEDGE	TX-5000



GENERAL NOTES

1. ALL SMOKE DETECTORS SHALL BE HARDWIRED ON SAME CIRCUIT AND HAVE A BATTERY BACKUP SYSTEM.
2. SMOKE DETECTORS SHALL SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS AND BE INTERCONNECTED PER IRC 2012.
3. FEEDERS TO AIR CONDITIONING EQUIPMENT SHALL BE RATED FOR FULL LOAD CURRENT. NON-FUSE DISCONNECTS SHALL BE INSTALLED AT AIR CONDITIONING EQUIPMENT LOCATIONS.
4. WHERE A BOX IS USED AS THE SOLE SUPPORT OF A CEILING-SUSPENDED FAN, THE BOX SHALL BE LISTED FOR THE APPLICATION AND FOR THE WEIGHT OF THE FAN SUPPORTED.
5. CEILING FAN BLADES SHALL NOT OBSTRUCT FIRE SPRINKLER PENDANT.
6. REFER TO E-201 FOR ELECTRICAL ROOM, UTILITY, AND CHARGING STATION ELEVATIONS
7. SEE SPECS FOR ALL UL APPROVED PLUG IN APPLIANCE SPECIFICATION SHEETS



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UNLVSD2017@GMAIL.COM

UNIVERSITY OF NEVADA LAS VEGAS  
4505 MARYLAND PARKWAY  
LAS VEGAS, NV 89154

CONSULTANTS  
STRUCTURAL  
RIM ROCK ENGINEERING  
9030 W. CHEYENNE AVE, SUITE 210  
LAS VEGAS, NV 89129  
(702) 838-5311

160719

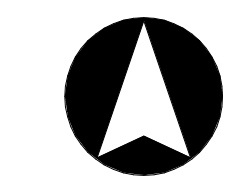
ISSUANCES

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
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1 HARDWIRED EQUIPMENT PLAN  
1/4" = 1'-0"



E-103  
HARDWIRE EQUIPMENT  
PLAN

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

ISSUANCES

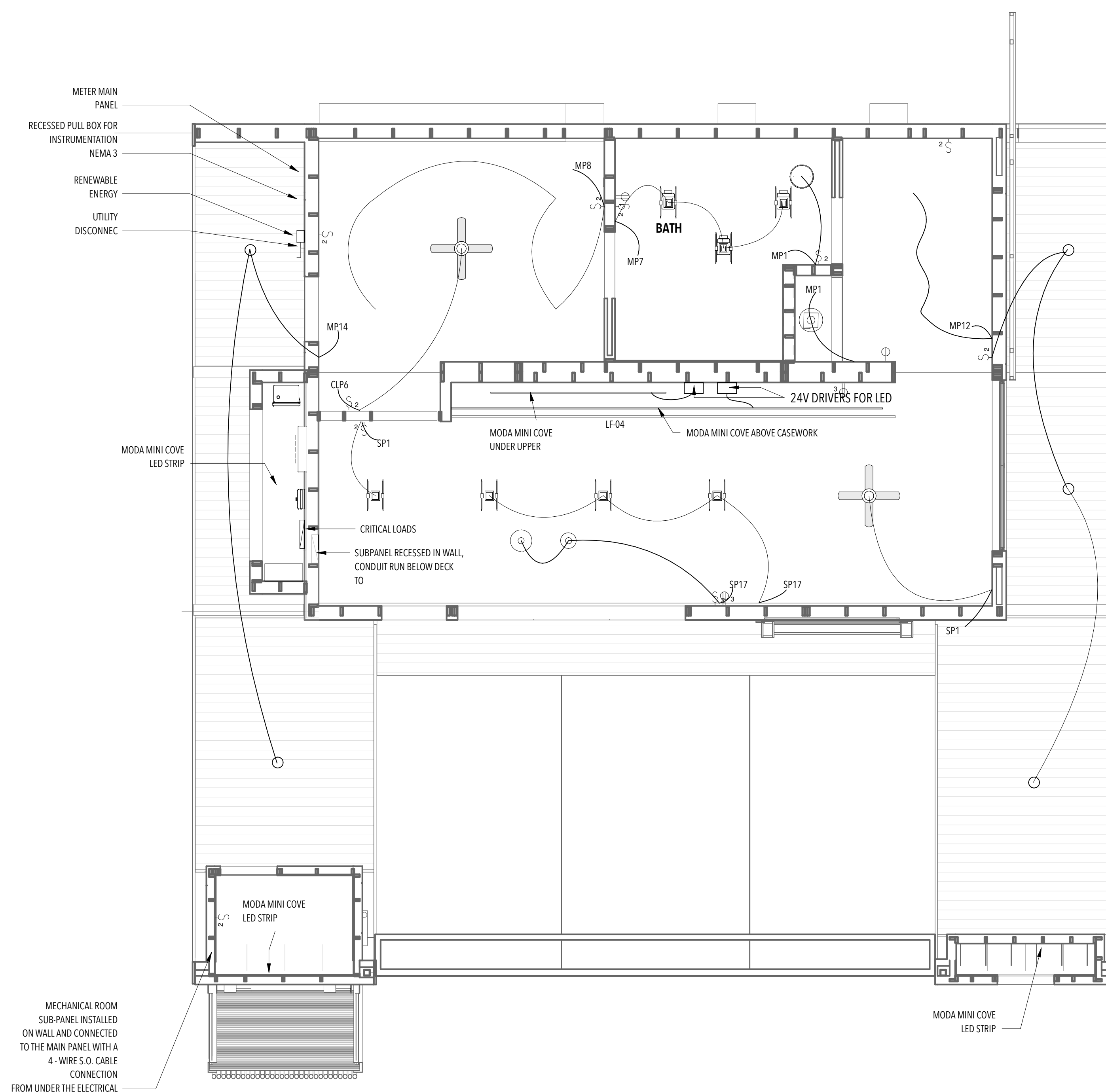
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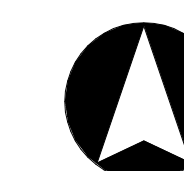
GENERAL NOTES

1. CEILING FAN BLADES SHALL NOT OBSTRUCT FIRE SPRINKLER PENDANT.
2. ALL 24V DC LED DRIVERS WILL BE CONNECTED TO 120 VAC RECEPTICALS
3. REFER TO INTERIOR RCP FOR EXACT LOCATIONS OF LIGHTING FIXTURES, FANS AND EXHAUSTS.
4. TWO GANG LIGHT SWITCHES WILL HAVE ONE HARD WIRE AND ONE WIRELESS CONNECTION TO ANOTHER SWITCH.
5. SWITCHES THAT DO NOT HAVE CONDUCTORS WILL BE WIRELESS WALL MOUNT SWITCHES



REFLECTED CEILING LEGEN

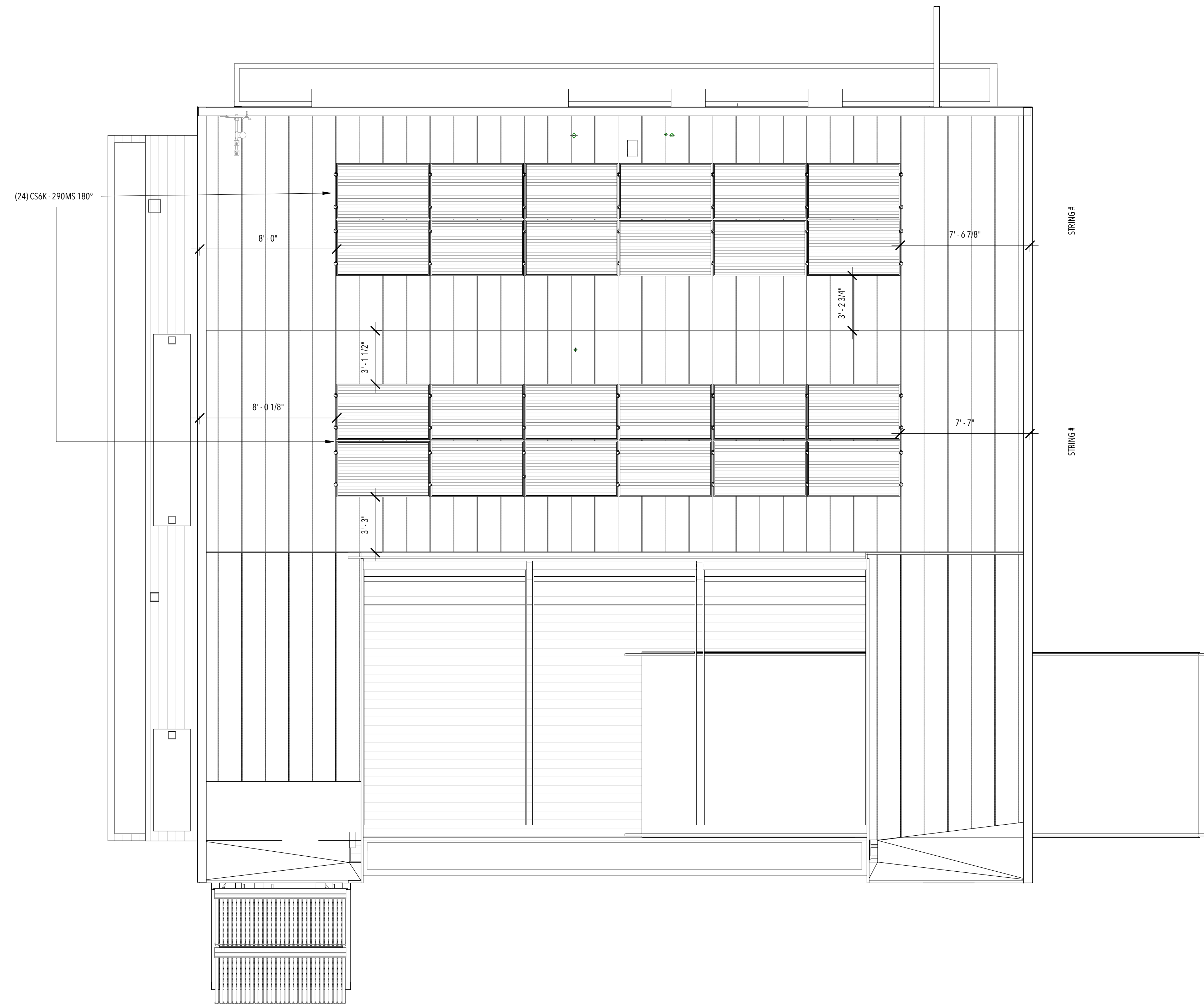
- LF-01 3110 BEVELED 2.1 DL SQ
- LF-02 3110 BEVELED 2.1 DL SQ WET
- LF-03 HAIKU CEILING FAN
- LF-04 MODA MINI COVE LED
- LF-05 NIVEOUS PD-51310
- LF-06 NIVEOUS PD-52313
- ZIGBEE SMOKE DETECTOR





GENERAL NOTES

1. PER NEC 2014
2. PER IFC 2012
3. A DICTIONARY OR PLAQUE SHALL BE INSTALLED AT THE SERVICE EQUIPMENT LOCATION IN ACCORDANCE WITH NEC 2014 ARTICLE 705.10.
4. GROUND FAULT PROTECTION SHALL BE PROVIDED FOR ROOF MOUNTED P.V SYSTEM LOCATED ON DWELLING ROOF IN ACCORDANCE WITH NEC 2014 ARTICLE 690.5
5. ALL SOLAR LOCATIONS ARE PROPOSED AND ARE VARIABLE PER FIELD CONDITIONS.
6. INVERTER ACCESSIBLE IN ACCORDANCE WITH NEC 2014 ARTICLE 690.14 (C) & (D)
7. PANEL RAILS AND ATTACHMENT SPAN POINTS ARE NOT MORE THAN 48 INCHES IN EITHER DIRECTION. 1. PER NEC 2014. PER IFC 2012
8. A DICTIONARY OR PLAQUE SHALL BE INSTALLED AT THE SERVICE EQUIPMENT LOCATION IN ACCORDANCE WITH NEC 2014 ARTICLE 705.10.
9. GROUND FAULT PROTECTION SHALL BE PROVIDED FOR ROOF MOUNTED P.V SYSTEM LOCATED ON DWELLING ROOF IN ACCORDANCE WITH NEC 2014 ARTICLE 690.5
10. ALL SOLAR LOCATIONS ARE PROPOSED AND ARE VARIABLE PER FIELD CONDITIONS.
11. INVERTER ACCESSIBLE IN ACCORDANCE WITH NEC 2014 ARTICLE 690.14 (C) & (D)
12. PANEL RAILS AND ATTACHMENT SPAN POINTS ARE NOT MORE THAN 48 INCHES IN EITHER DIRECTION.



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WWW.UNLVSD.COM  
UNLVSD2017@GMAIL.COM

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LAS VEGAS, NV 89129  
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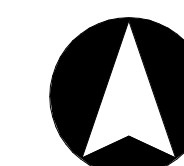
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E-105  
PHOTOVOLTAIC ARRAY  
PLAN

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

GENERAL NOTES

1. REFER TO E-503 FOR ELECTRICAL ROOM, UTILITY, AND CHARGING STATION ELEVATIONS.
2. REFER TO E-601 FOR ELECTRICAL PANEL SCHEDULE
3. REFER TO E-603 FOR ELECTRICAL SINGLE-LINE DIAGRAM
4. REFER TO E-604 FOR ELECTRICAL THREE-LINE DIAGRAM



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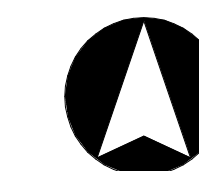
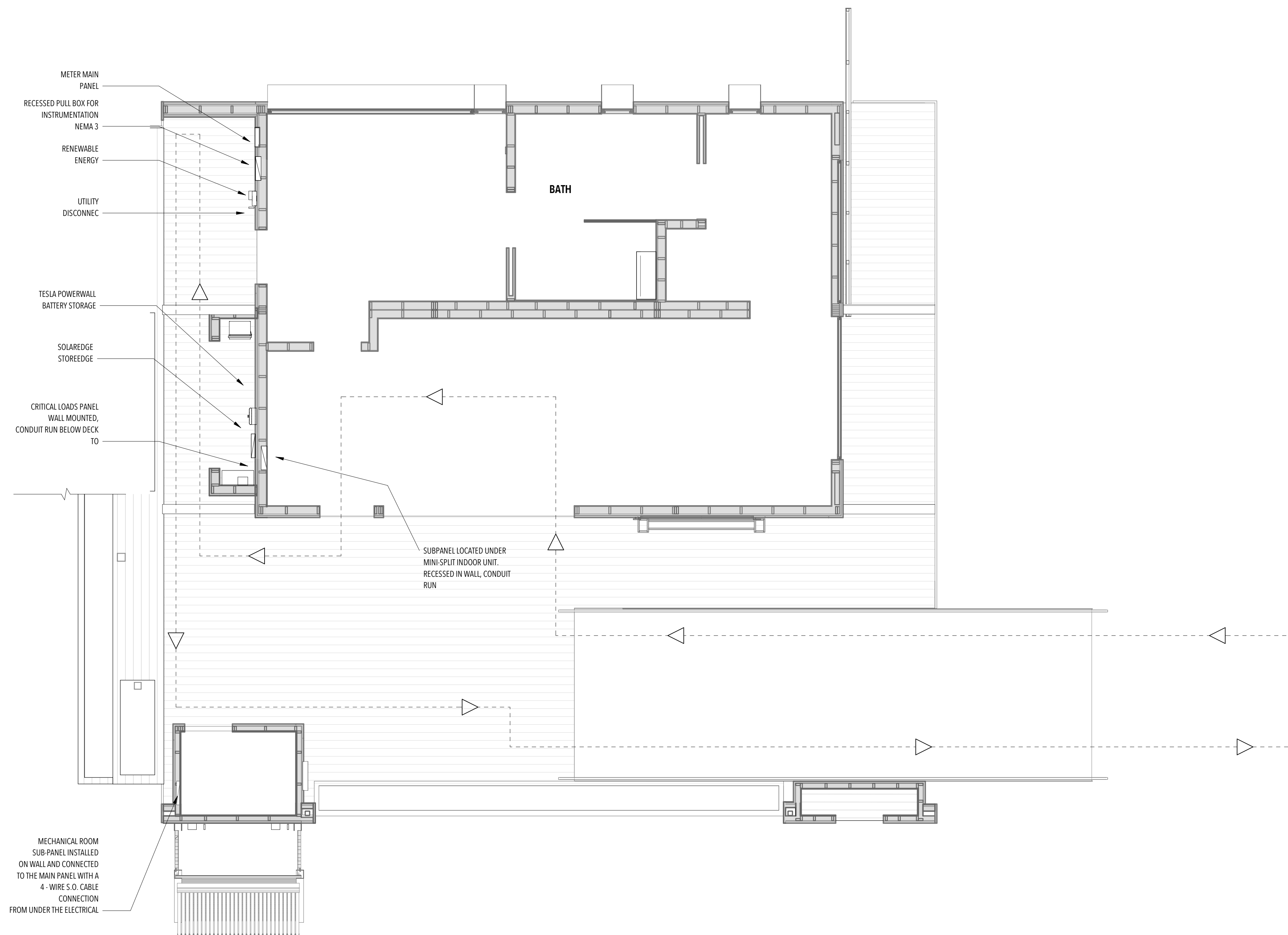
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**E-106**  
ELECTRICAL SERVICE PLAN

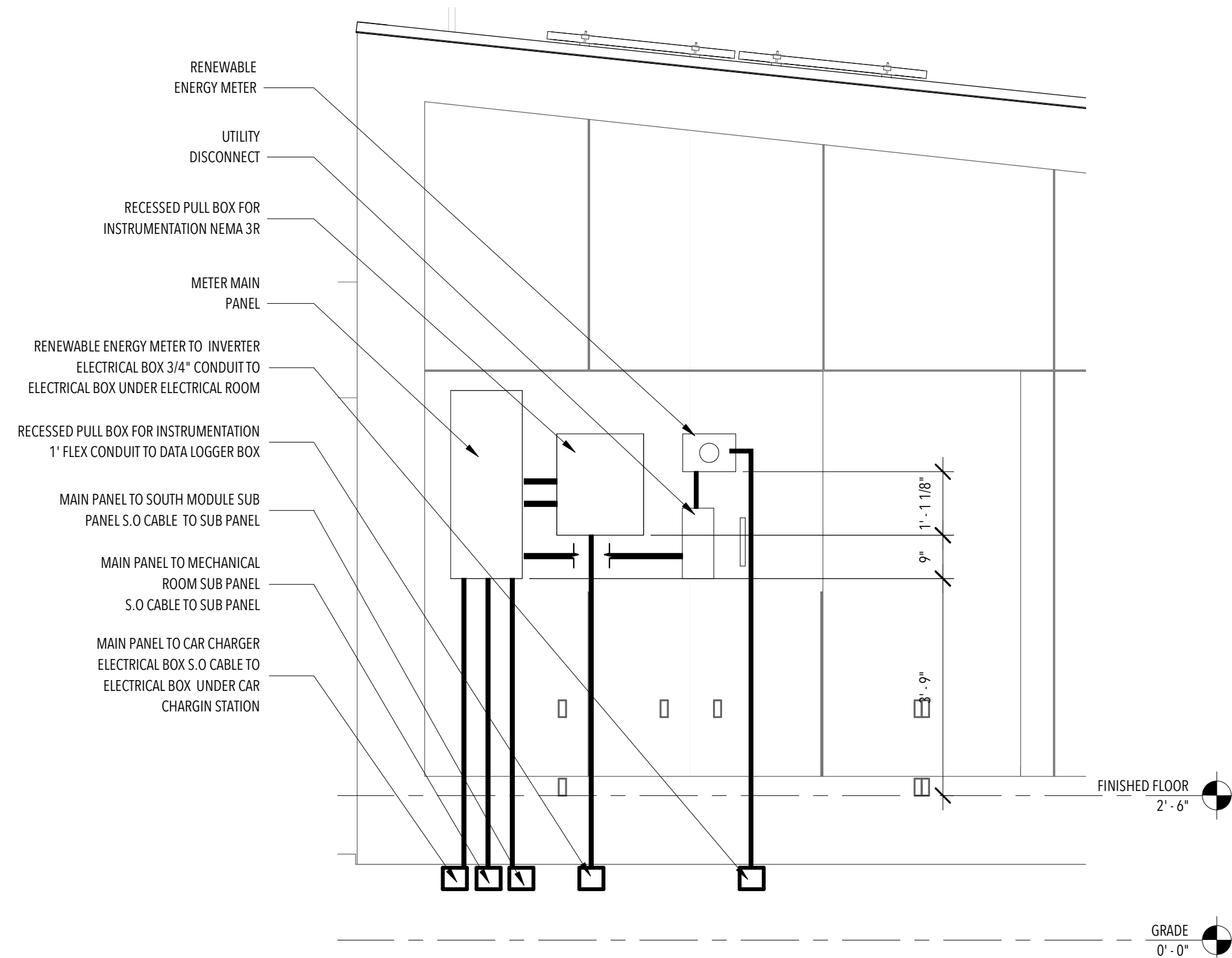
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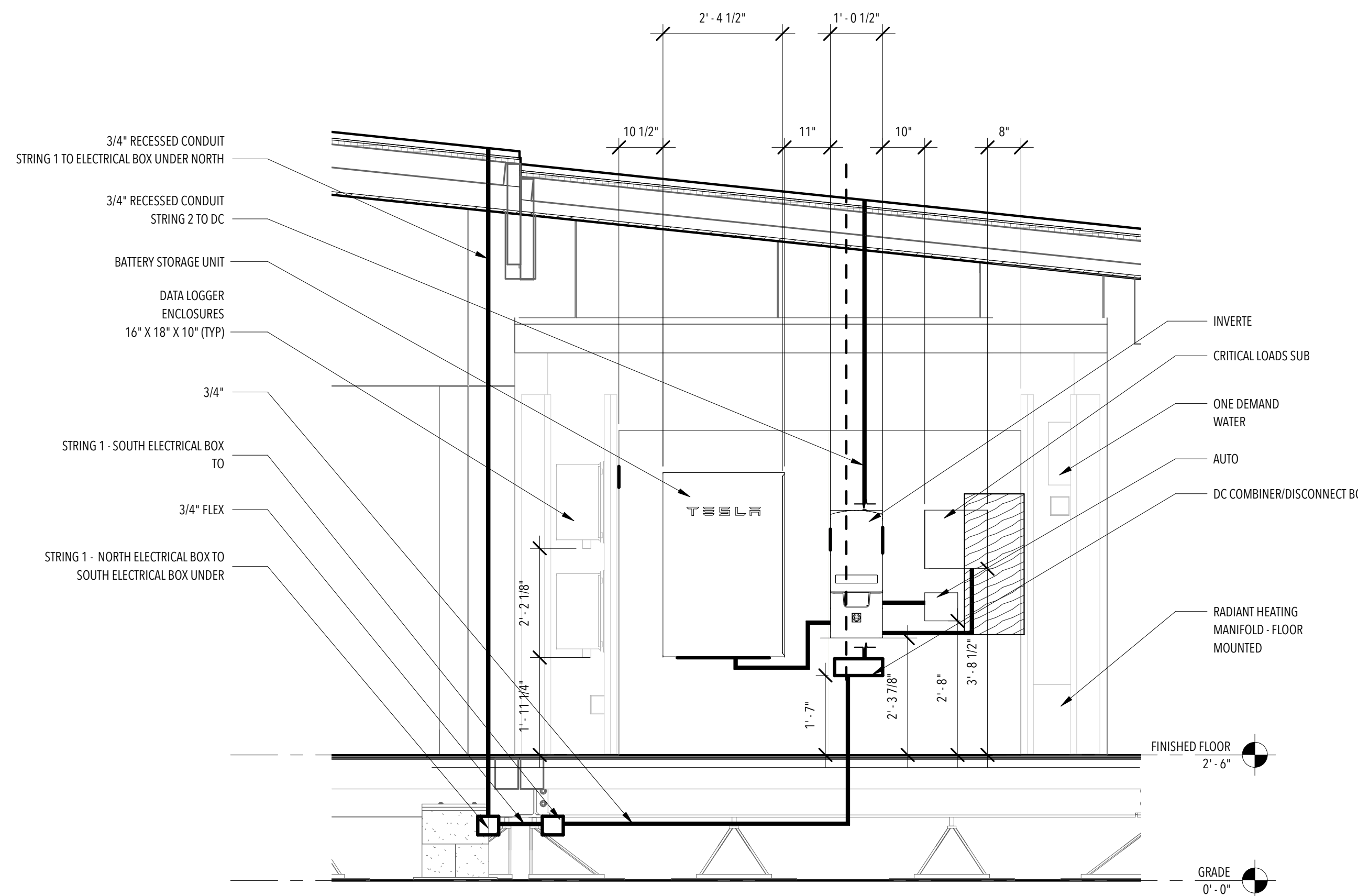
REVISIONS

NO.	DESCRIPTION	DATE
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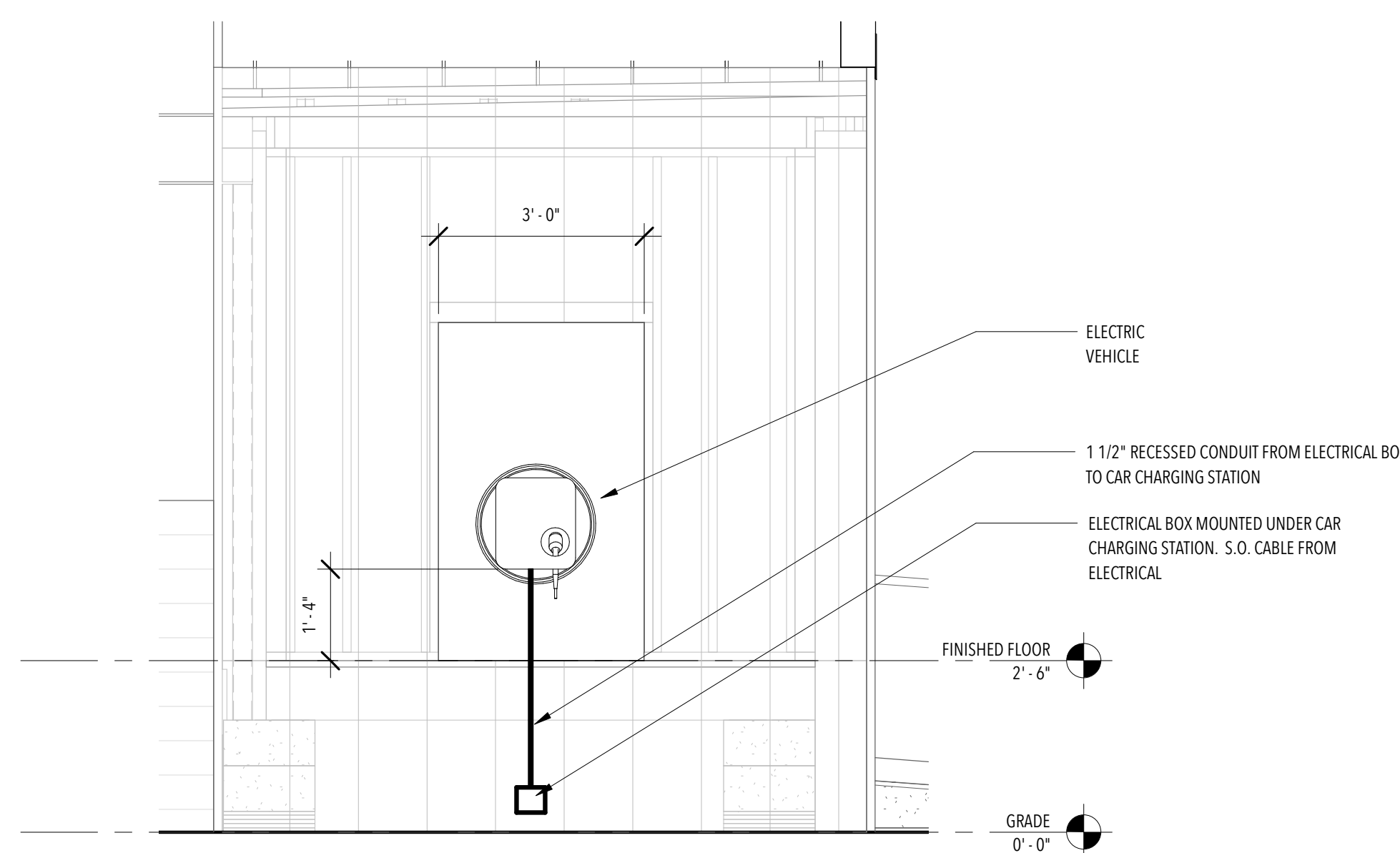
**E-201**  
ELECTRICAL ELEVATIONS



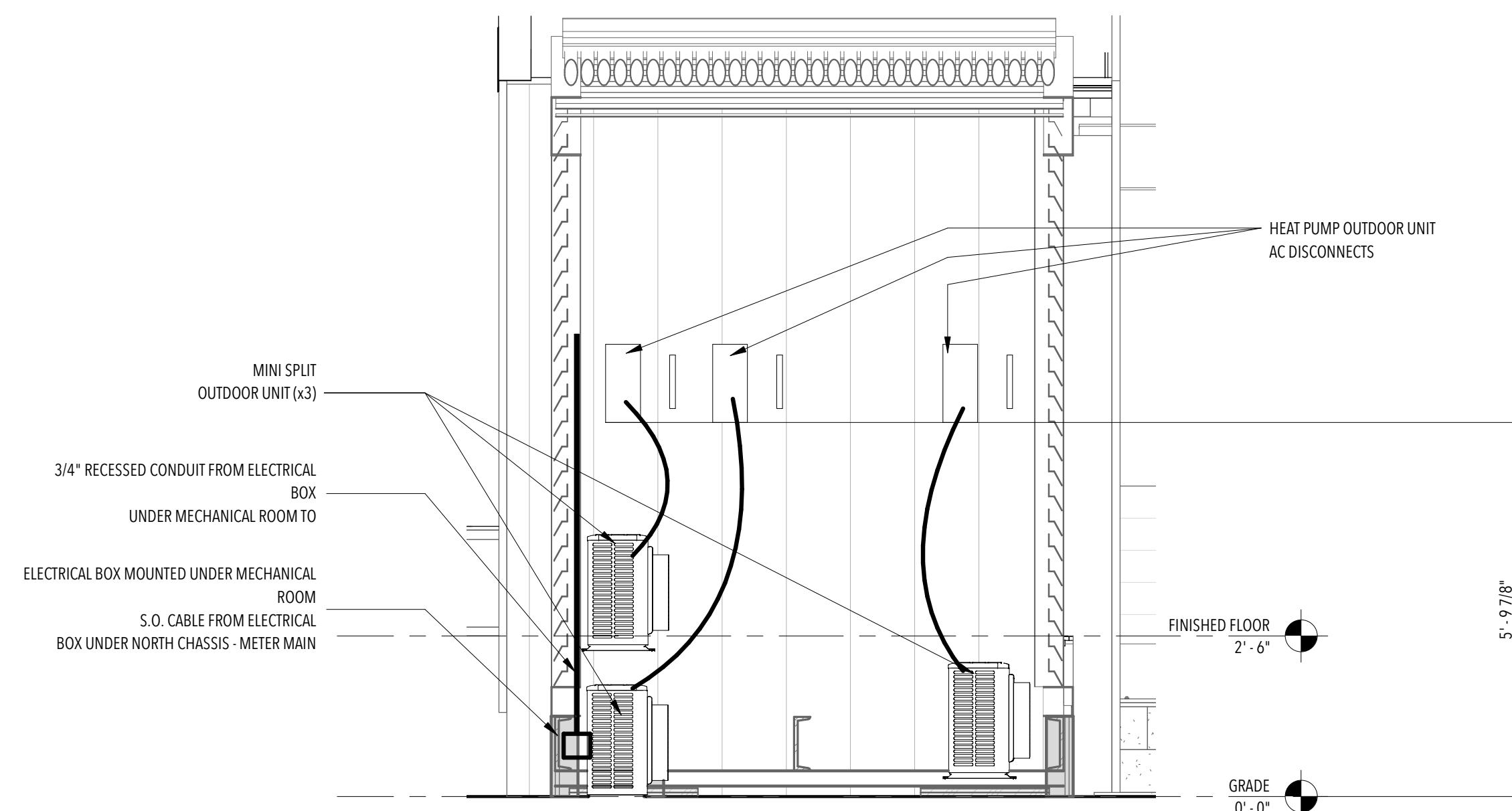
1 UTILITY ACCESS  
1/2" = 1'-0"



2 ELECTRICAL ROOM  
1/2" = 1'-0"



3 ELECTRIC VEHICLE CHARGER  
1/2" = 1'-0"



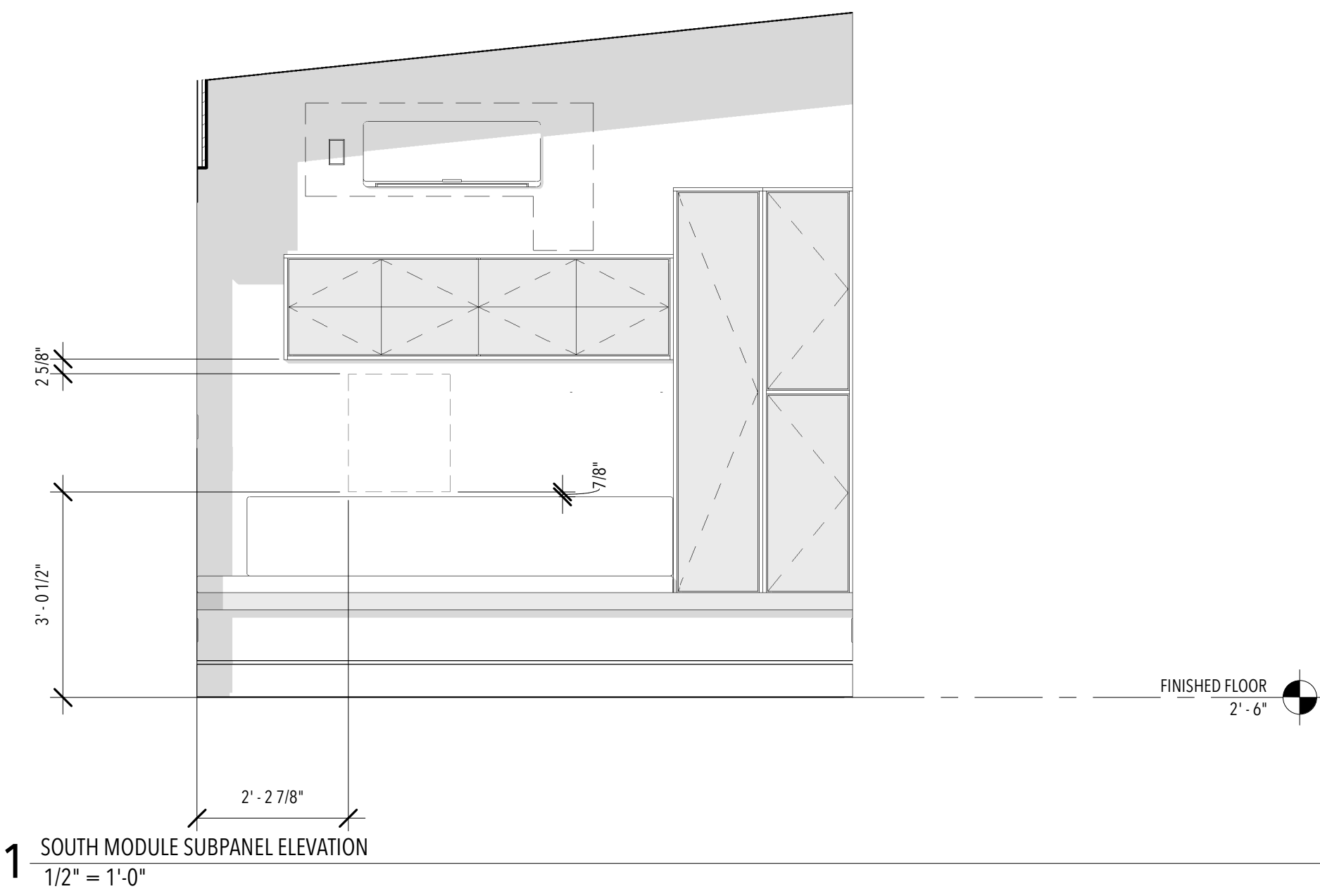
4 HEATPUMP OUTDOOR UNIT DISCONNECTS  
1/2" = 1'-0"

**ISSUANCES**

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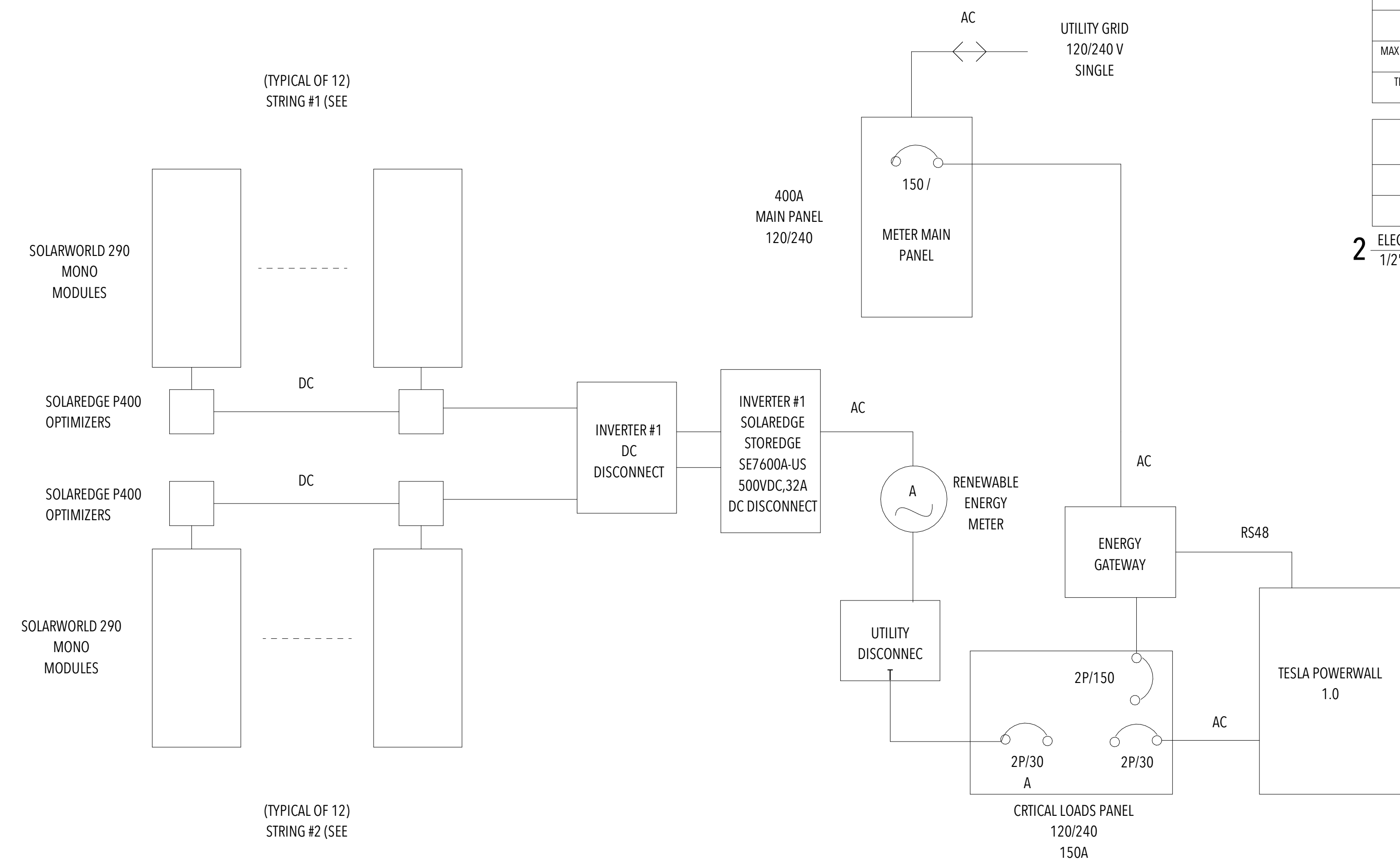
**E-603**  
SINGLE LINE DIAGRAM

CALCULATIONS

MODULE SPECIFICATION			OPTIMIZER SPECIFICATION			INVERTER SPECIFICATION		
MODEL	SW 290 MONO		MODEL	SE P400		MODEL	SE7600A-US	
P _{MAX}	290	W	P _{MAX}	400	W	NOMINAL AC VOLTAGE	240V	
OPEN CIRCUIT VOLTAGE (V _{OC} )	39.3	V	OPEN CIRCUIT VOLTAGE (V _{OC} )	80	V	MAX DC VOLTAGE	500V	
MAXIMUM POWER POINT VOLTAGE (V _{MPP} )	32.1	V	MAXIMUM POWER POINT VOLTAGE (V _{MPP} )	8-80	V	MAX AC OUTPUT CURRENT	32A	
SHORT CIRCUIT CURRENT (I _{SC} )	9.67	A	SHORT CIRCUIT CURRENT (I _{SC} )	N/A	A			
MAXIMUM POWER POINT CURRENT (I _{MPP} )	9.05	A	MAXIMUM POWER POINT CURRENT (I _{MPP} )	15	A			
TEMPERATURE COEFFICIENT OF V _{OC}	-0.30%	%/°C	TEMPERATURE COEFFICIENT OF V _{OC}	N/A	%/°C			

STRING	MODULE COUNT	OPEN CIRCUIT VOLTAGE AT ASHRAE LOW TEMPERATURE (4°C LAS VEGAS)	OPEN CIRCUIT VOLTAGE	MAX POWER VOLTAGE	SHORT CIRCUIT CURRENT	MAX POWER CURRENT
STRING #1	12	12.76	12	350	N/A	9.94
STRING #2	12	12.76	12	350	N/A	9.94

2 ELECTRICAL CALCULATIONS Copy 1  
1/2" = 1'-0"



1 SINGLE LINE DIAGRAM  
1/16" = 1'-0"

GENERAL NOTES

1. IN ACCORDANCE WITH NEC ARTICLE 705.12 (D)(2)  
200A MAIN BUSS X 120%  
=240A 22A MAIN BREAKER  
=40A AVAILABLE FOR SOLAR
2. IN ACCORDANCE WITH NEC ARTICLE 690.8;  
AC MAX OUTPUT CURRENT OF  
25A X 125% = 31.25A
3. ONE OPTIMIZER PER MODULE
4. IN ACCORDANCE WITH NEC ARTICLE 690.5
5. IN ACCORDANCE WITH NEC ARTICLE 690.31 (E)



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REVISIONS

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# E-604

THREE-LINE DIAGRAM

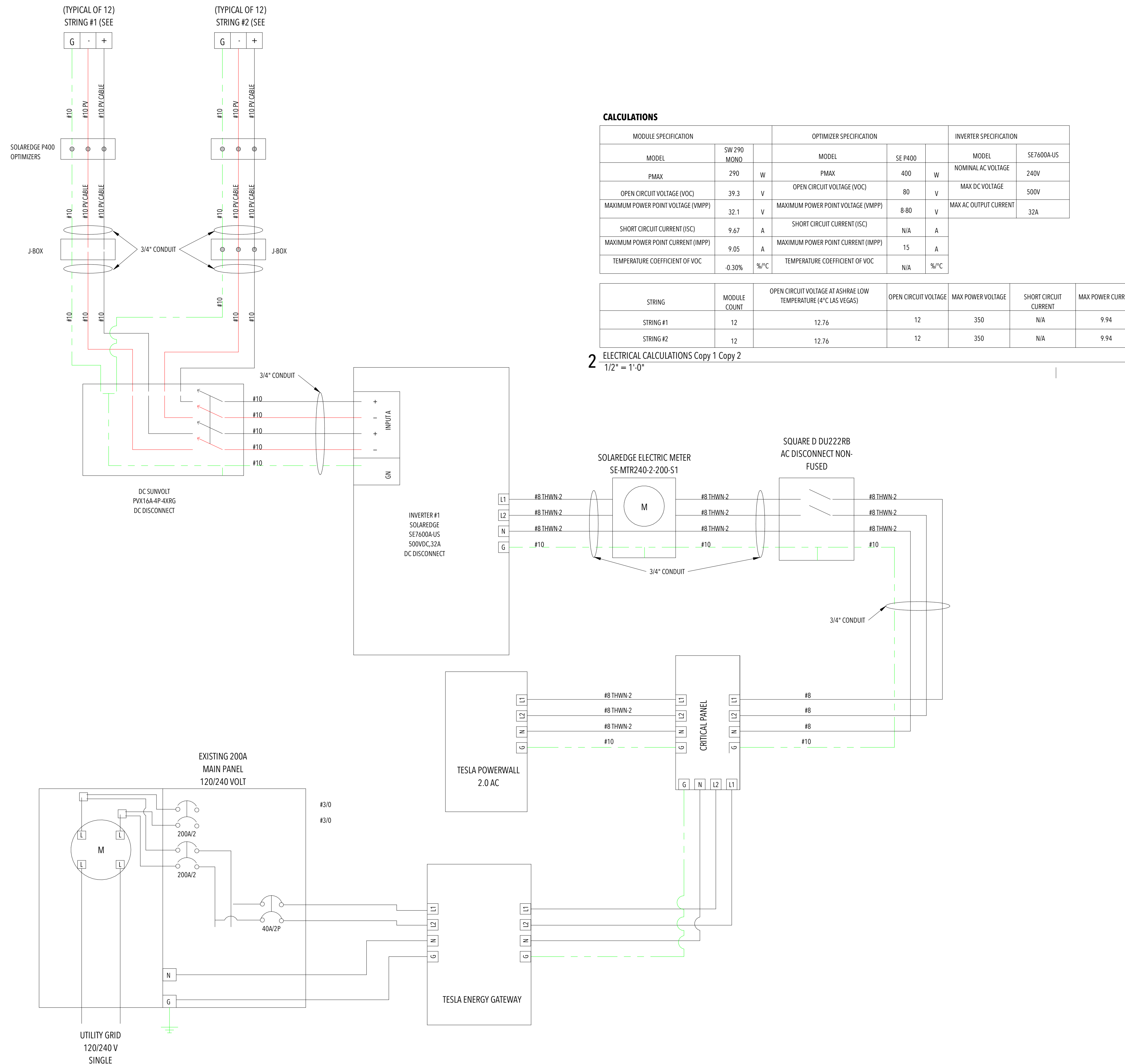
SCALE:  
As indicated

CALCULATIONS

MODULE SPECIFICATION			OPTIMIZER SPECIFICATION			INVERTER SPECIFICATION		
MODEL	SW 290 MONO		MODEL	SE P400		MODEL	SE7600A-US	
P _{MAX}	290	W	P _{MAX}	400	W	NOMINAL AC VOLTAGE	240V	
OPEN CIRCUIT VOLTAGE (V _{OC} )	39.3	V	OPEN CIRCUIT VOLTAGE (V _{OC} )	80	V	MAX DC VOLTAGE	500V	
MAXIMUM POWER POINT VOLTAGE (V _{MPP} )	32.1	V	MAXIMUM POWER POINT VOLTAGE (V _{MPP} )	8-80	V	MAX AC OUTPUT CURRENT	32A	
SHORT CIRCUIT CURRENT (I _{SC} )	9.67	A	SHORT CIRCUIT CURRENT (I _{SC} )	N/A	A			
MAXIMUM POWER POINT CURRENT (I _{MPP} )	9.05	A	MAXIMUM POWER POINT CURRENT (I _{MPP} )	15	A			
TEMPERATURE COEFFICIENT OF V _{OC}	-0.30%	%/°C	TEMPERATURE COEFFICIENT OF V _{OC}	N/A	%/°C			

STRING	MODULE COUNT	OPEN CIRCUIT VOLTAGE AT ASHRAE LOW TEMPERATURE (4°C LAS VEGAS)	OPEN CIRCUIT VOLTAGE	MAX POWER VOLTAGE	SHORT CIRCUIT CURRENT	MAX POWER CURRENT
STRING #1	12	12.76	12	350	N/A	9.94
STRING #2	12	12.76	12	350	N/A	9.94

2 ELECTRICAL CALCULATIONS Copy 1 Copy 2  
1/2" = 1'-0"

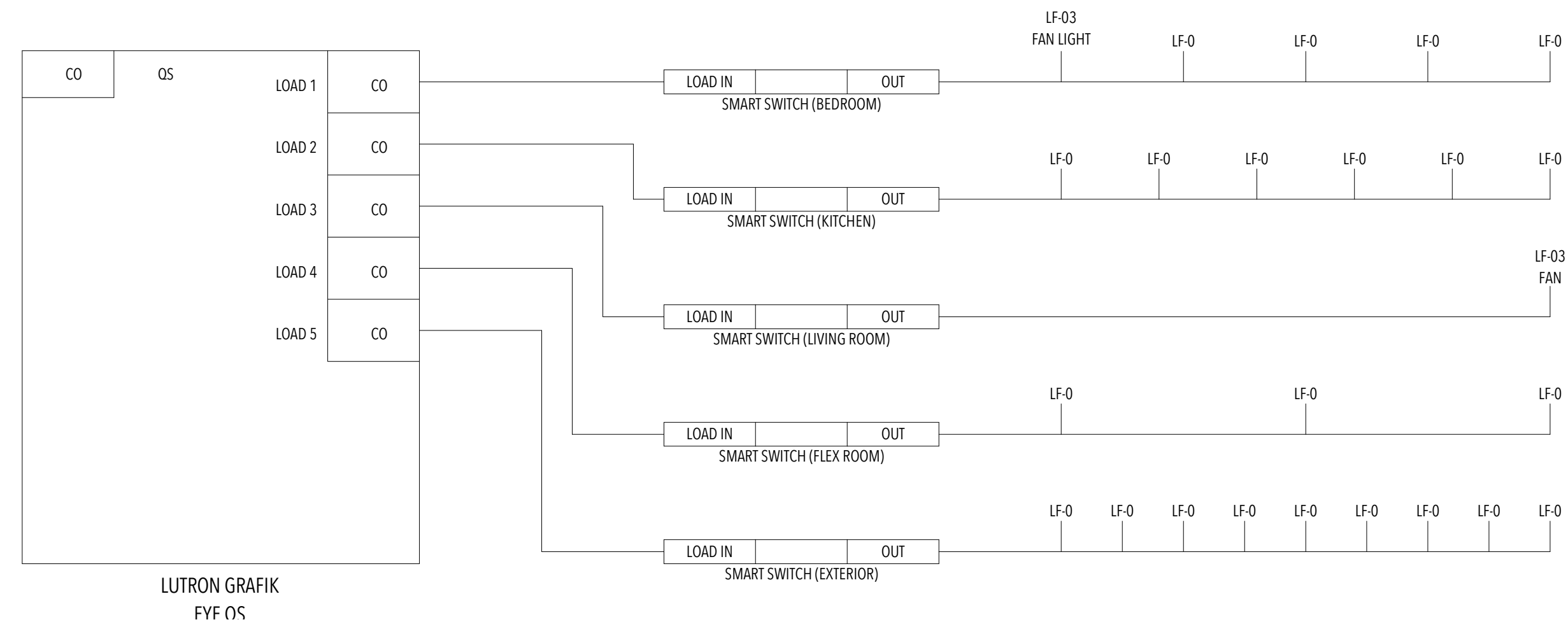
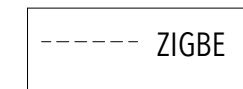
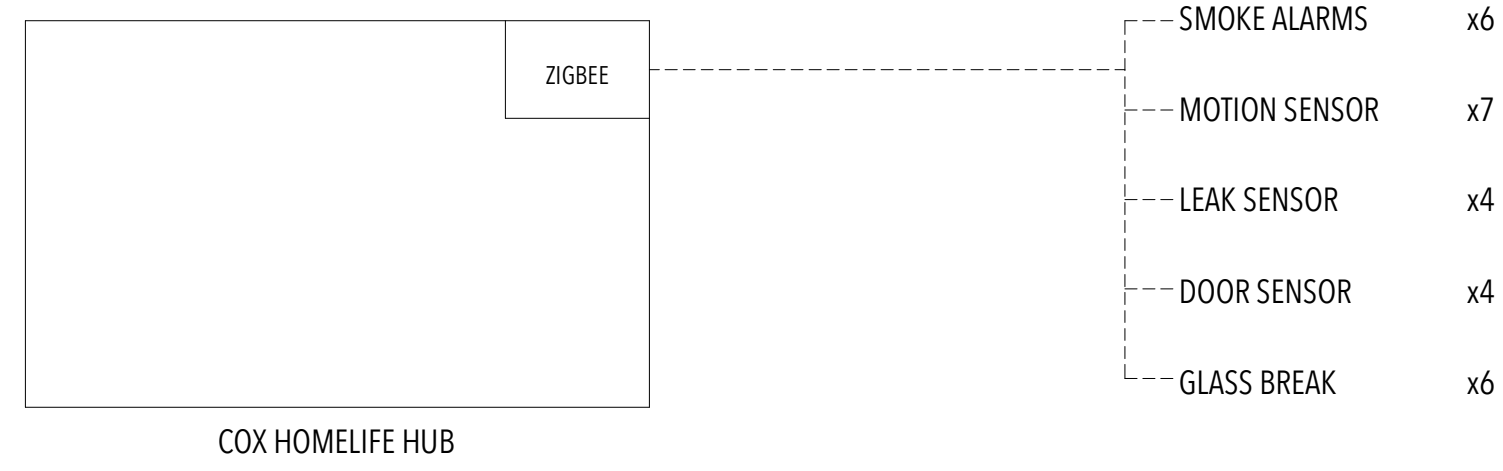


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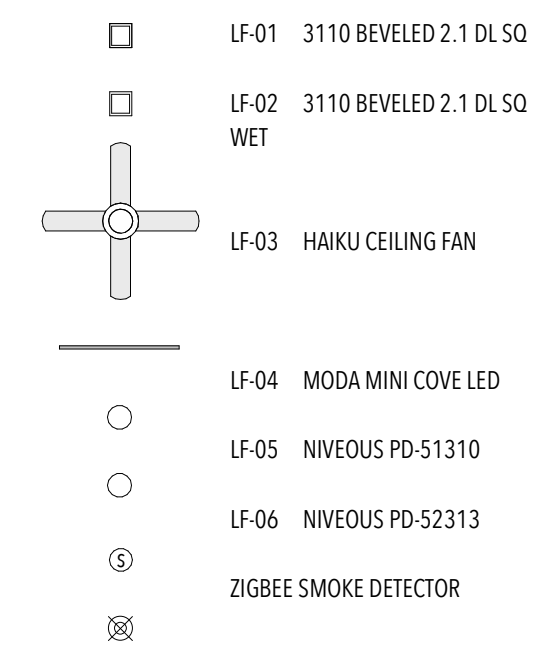
NO.	DESCRIPTION	DATE
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1 COX HOMELIFE DIAGRAM  
3" = 1'-0"

2 LIGHT/FAN CONTROL DIAGRAM  
3" = 1'-0"

REFLECTED CEILING LEGEN



? RCP LEGEND  
1/4" = 1'-0"

**T-602**  
LIGHT/FAN CONTROL/COX  
HOMELIFE DIAGRAMS

SCALE:  
As indicated



**ISSUANCES**

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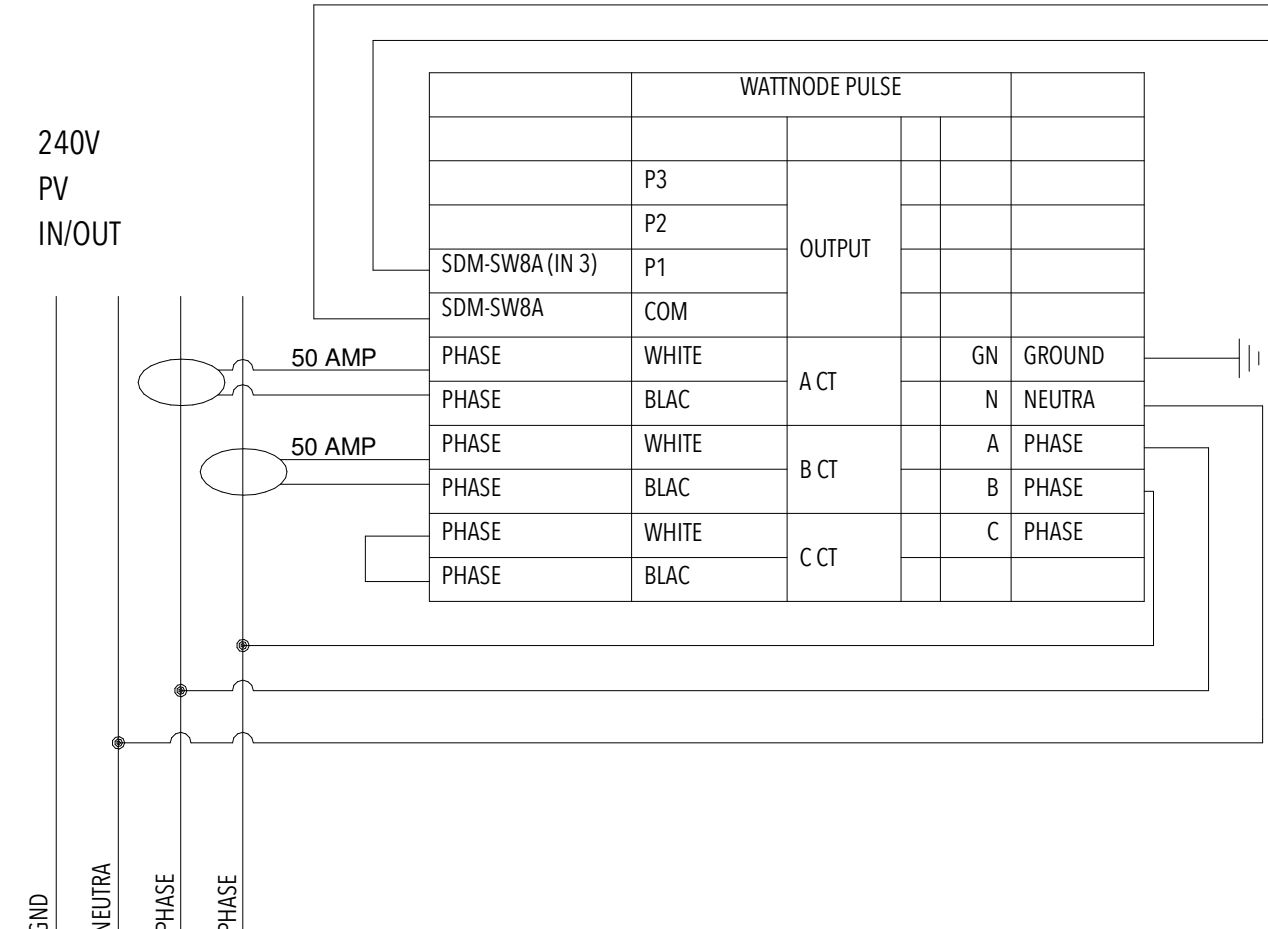
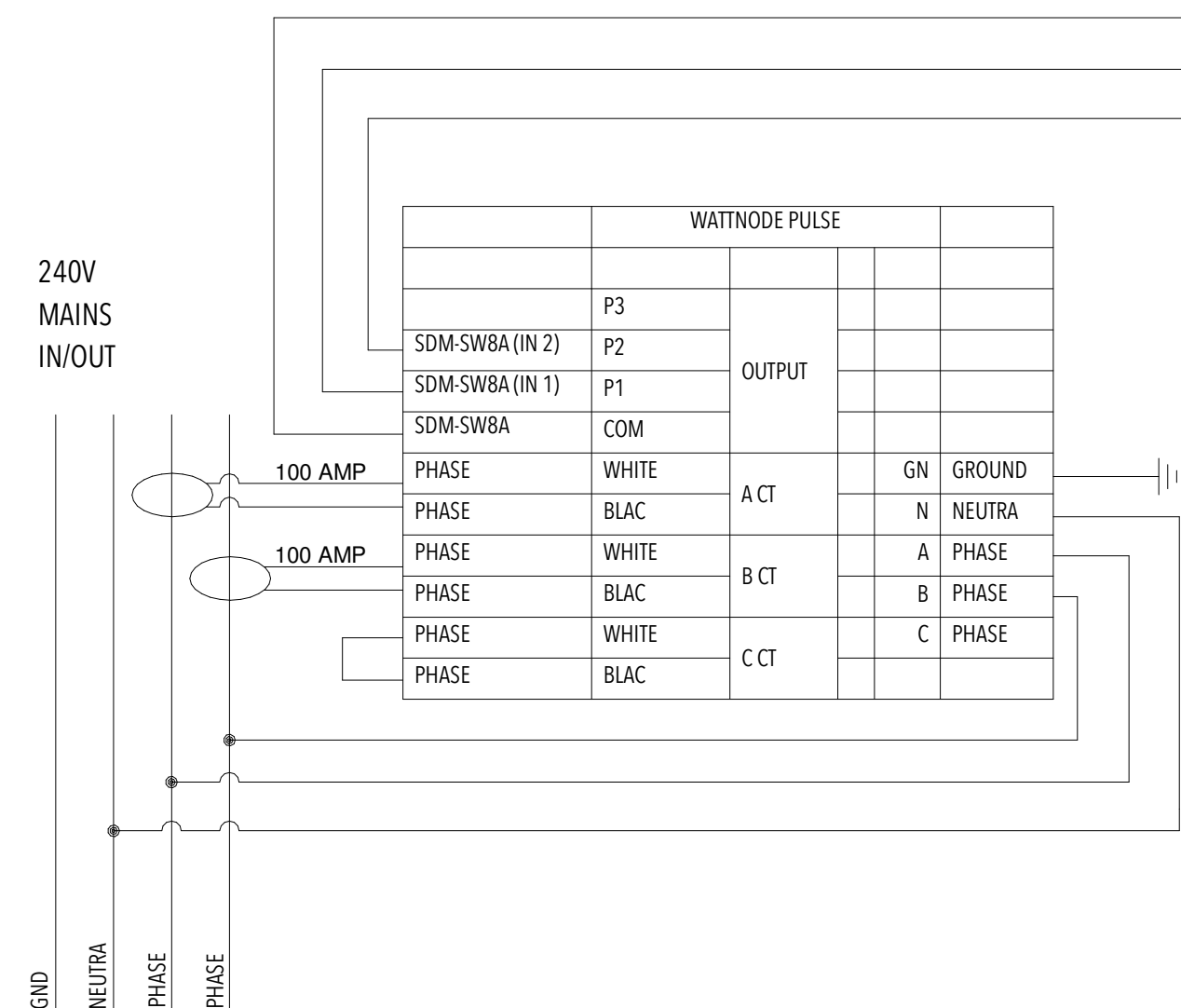
NO.	DESCRIPTION	DATE
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AM16/32 ANALOG (TYPE T)			
16			32
16	SET	SET1	32
15L			31
15H			31
SHIEL			SHIEL
14L			30
14H	SET	SET1	30
13L			29
13H			29
12L			28
12H	SET	SET1	28
11L			27
11H			27
SHIEL			SHIEL
10			26
10	SET	SET1	26
TYPE T THERMOCOUPLE			25
TYPE T THERMOCOUPLE			25
TYPE T THERMOCOUPLE			
TYPE T THERMOCOUPLE	8L		24
TYPE T THERMOCOUPLE	8H	SET	24
TYPE T THERMOCOUPLE	7L	SET	23
TYPE T THERMOCOUPLE	7H		23
SHIEL			SHIEL
TYPE T THERMOCOUPLE	6		22
TYPE T THERMOCOUPLE	6	SET	22
TYPE T THERMOCOUPLE	5L	SET	21
TYPE T THERMOCOUPLE	5H		21
COM:EVEN			COM:ODD CR1000X
SHIEL			SHIEL CR1000X
COM:EVEN			COM:ODD CR1000X
TYPE T THERMOCOUPLE	4L		20
TYPE T THERMOCOUPLE	4H	SET	20
TYPE T THERMOCOUPLE	3L	SET	19
TYPE T THERMOCOUPLE	3H		19
SHIEL			SHIEL
TYPE T THERMOCOUPLE	2L		18
TYPE T THERMOCOUPLE	2H	SET	18
TYPE T THERMOCOUPLE	1L	SET	17
TYPE T THERMOCOUPLE	1H		17
			12 POWER SUPPLY
			GN POWER SUPPLY
			RE CR1000X
			CL CR1000X

AM16/32 MODE = "2 x

CR1000X			
	VX3		
	AG		
	VX2		
	AG		
	8L		
	8H		
HMP60 TEMP AND RH	AG		
HMP60 TEMP AND RH	7L		
HMP60 TEMP AND RH	7H		
HMP60 TEMP AND RH	AG		
HMP60 TEMP AND RH	6		
HMP60 TEMP AND RH	6		
HMP60 TEMP AND RH	AG		
HMP60 TEMP AND RH	5L		
HMP60 TEMP AND RH	5H		
	AG	G	
	P2	C8	
	AG	C7	
	P1	C	
034A/034B WIND S&D	AG	C5	AM16/32
034A/034B WIND S&D	VX1	G	AM16/32
034A/034B WIND S&D (BLK, WHT,	AG	C4	AM16/32
	4L	C3	SDM-SW8A
034A/034B WIND S&D	4H	C2	SDM-SW8A
AM16/32 (COM	AG	C1	SDM-SW8A (C1
AM16/32 (COM:ODD	3L	G	SDM-SW8A
AM16/32 (COM:ODD	3H	12	
L1200X PYRANOMETER-	AG	12	
L1200X PYRANOMETER-	2L	G	
L1200X PYRANOMETER-	2H	SW12	
L1200X PYRANOMETER-	AG	G	
L1200X PYRANOMETER-	1L	5V	
L1200X PYRANOMETER-	1H	G	

SDM-	
PULSE INPUT	
POWER	12V
CR1000X	GND
CR1000X	C3
CR1000X	C2
CR1000X	C1 IN
SDM-SW8A (C1 IN)	C1 OUT
#26 KWH METER MAINS IN	GND
	5V SPST
#26 KWH METER MAINS IN	IN 1
#26 KWH METER MAINS OUT	GND
	5V SPST
#26 KWH METER MAINS OUT	IN 2
#27 KWH METER PV GENERATION	GND
	5V SPST
#27 KWH METER PV GENERATION	IN 3
#28 FLOW METER SOLAR THERMAL	GND
	5V SPST
#28 FLOW METER SOLAR THERMAL	IN 4
#29 FLOW METER WHOLE-HOUSE	GND
	5V SPST
#29 FLOW METER WHOLE-HOUSE	IN 5
	GND
	5V SPST
	IN 6
	GND
	5V SPST
	IN 7
	GND
	5V SPST
	IN 8



# T-603

DATA LOGGING SCHEMATIC



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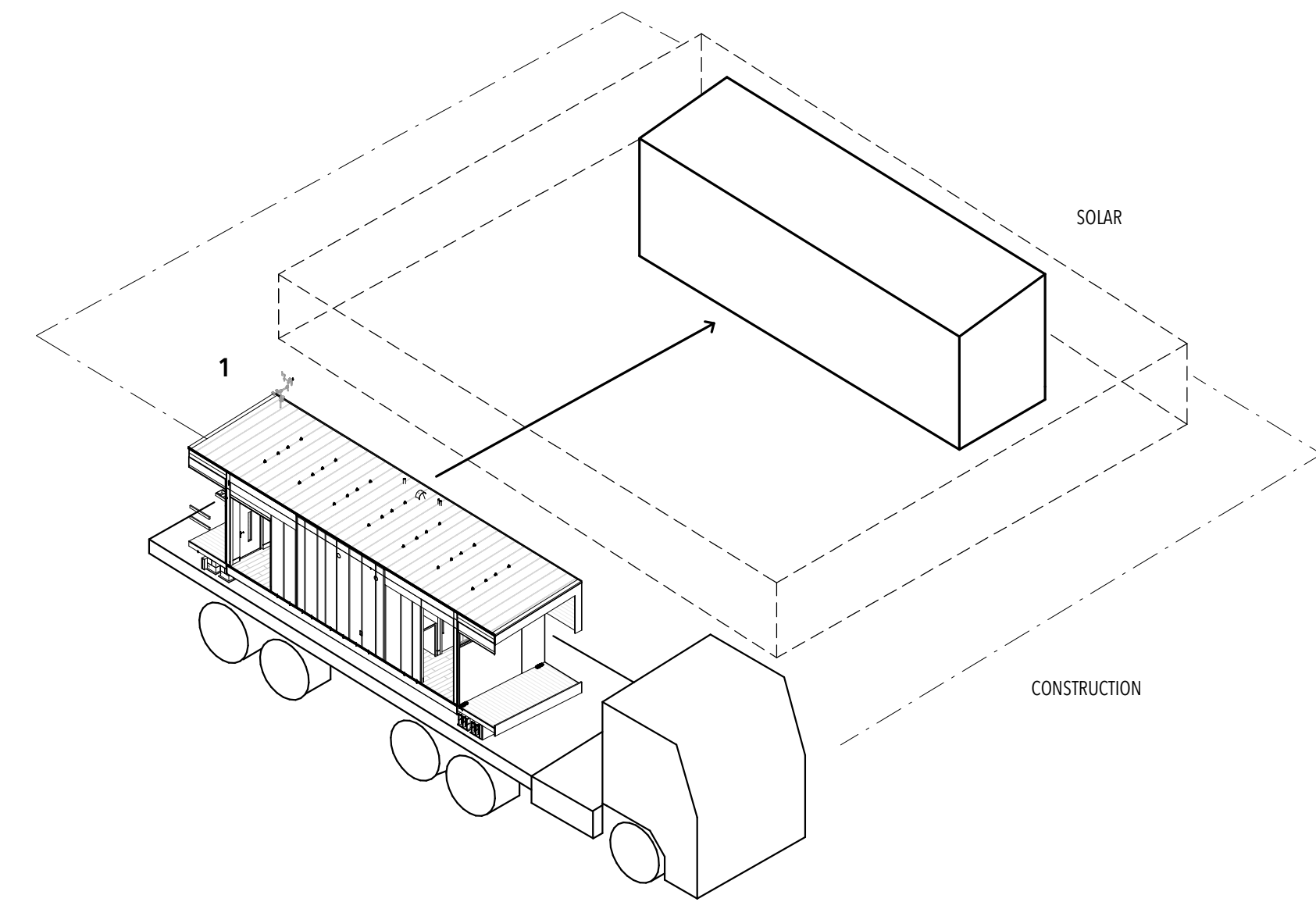
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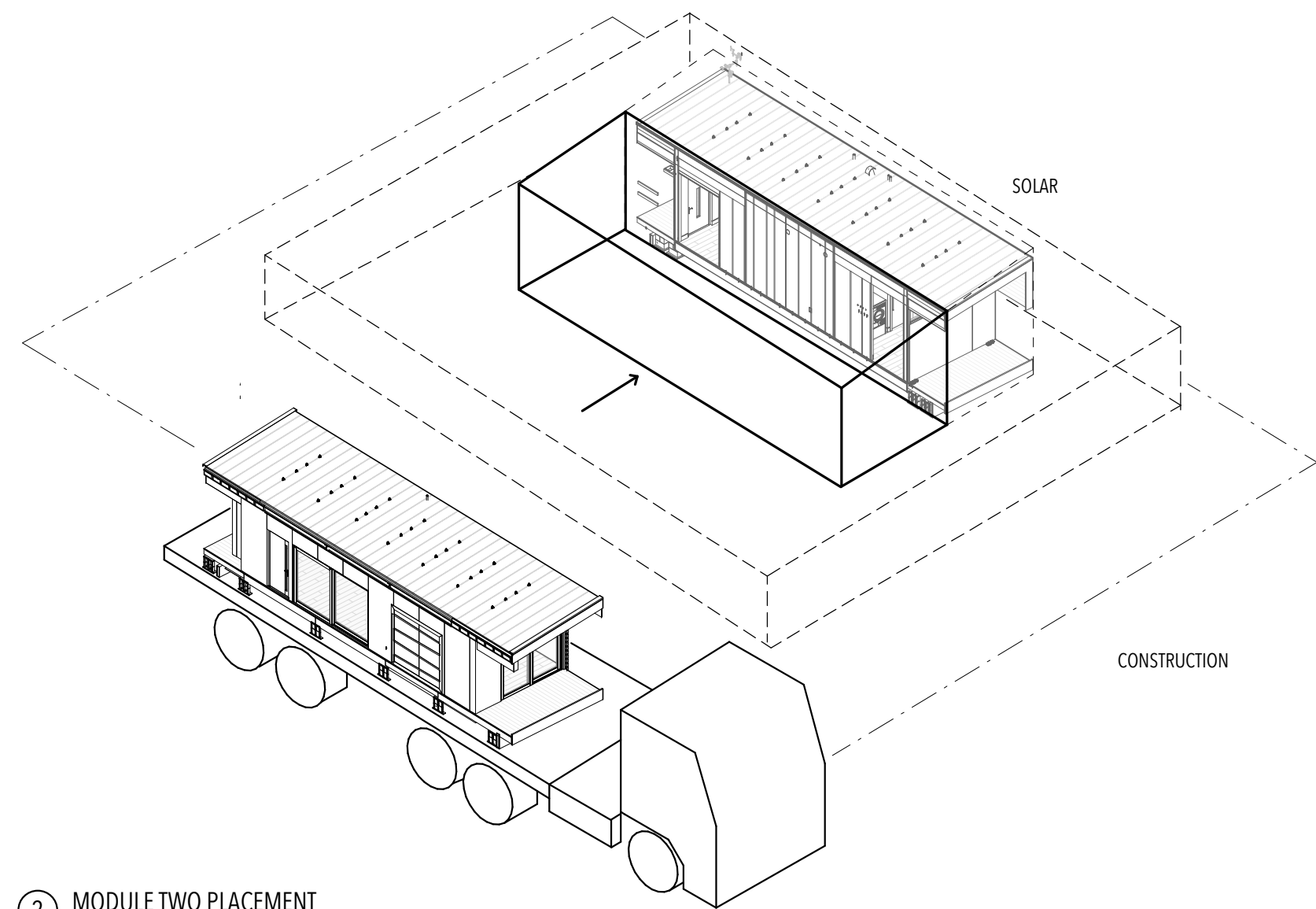
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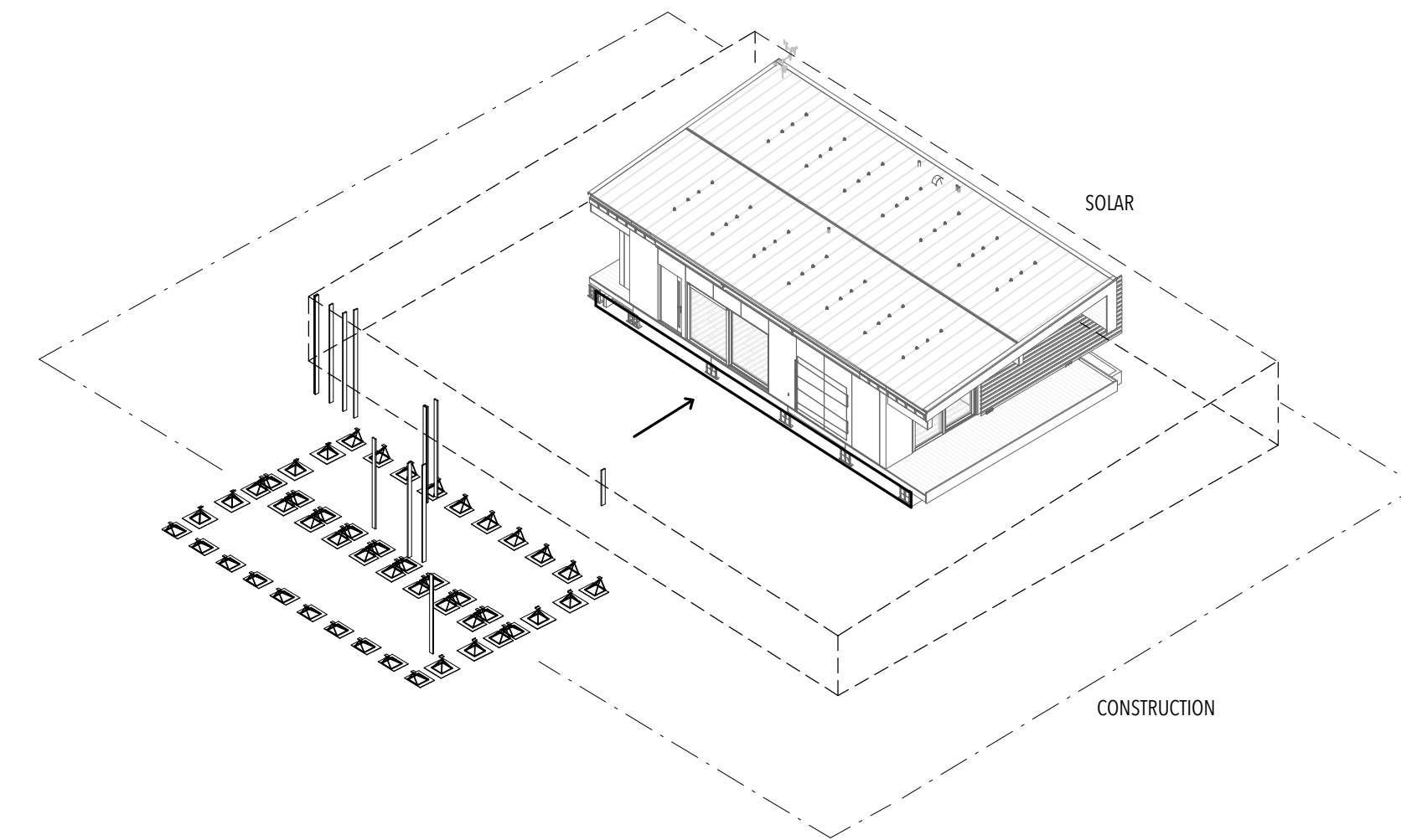
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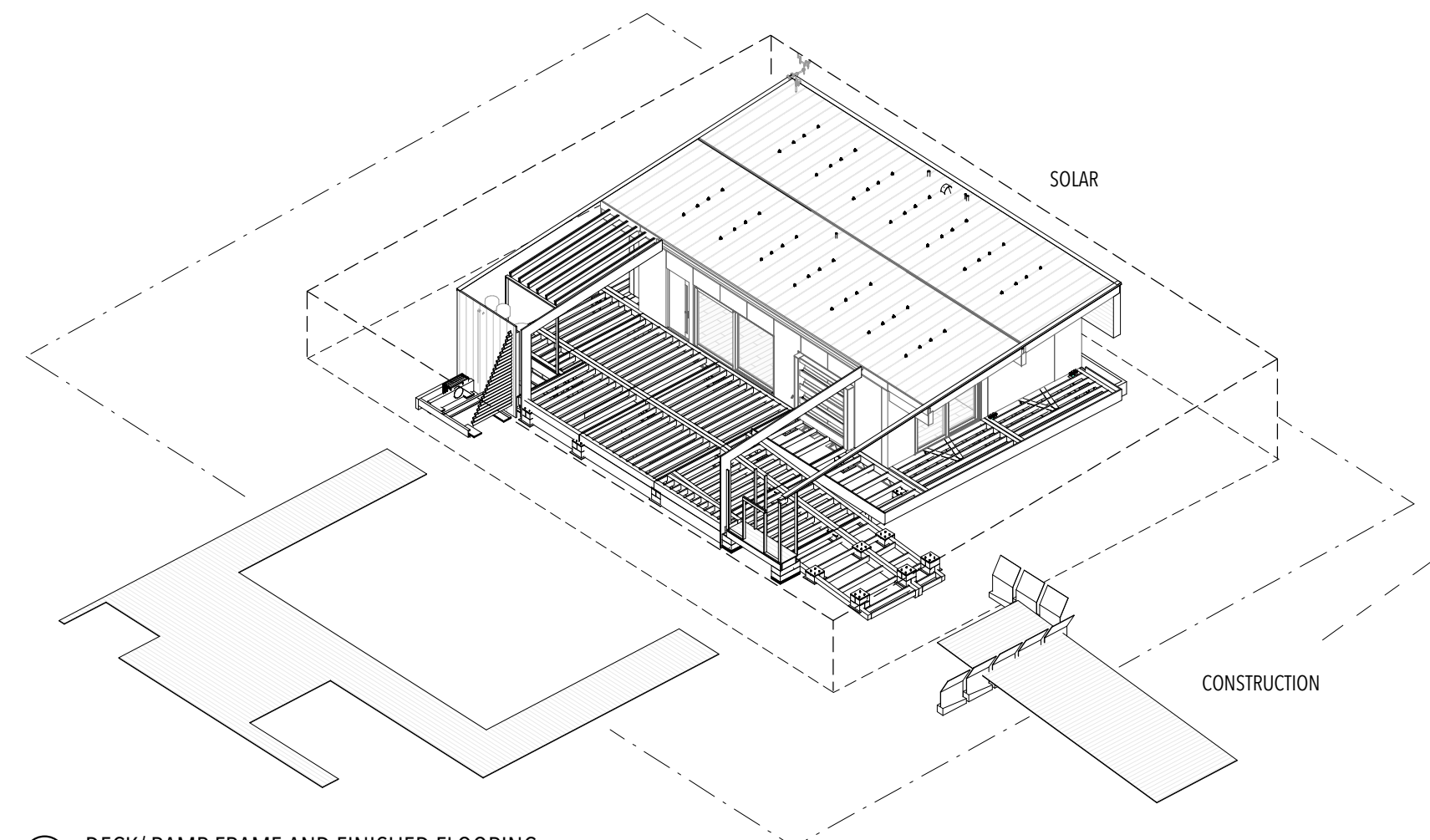
1 SITE LAY-OUT & MODULE ONE PLACEMENT



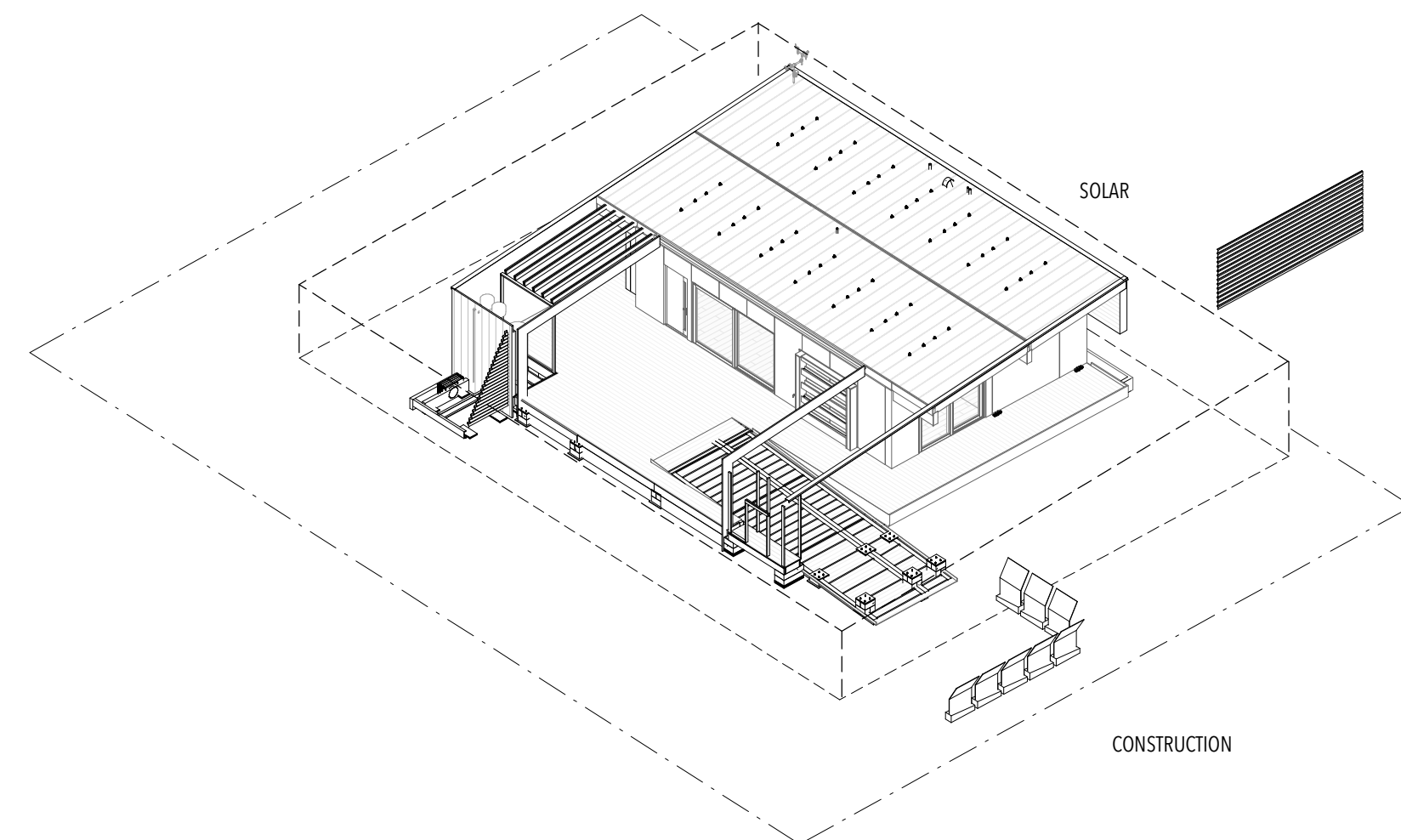
2 MODULE TWO PLACEMENT



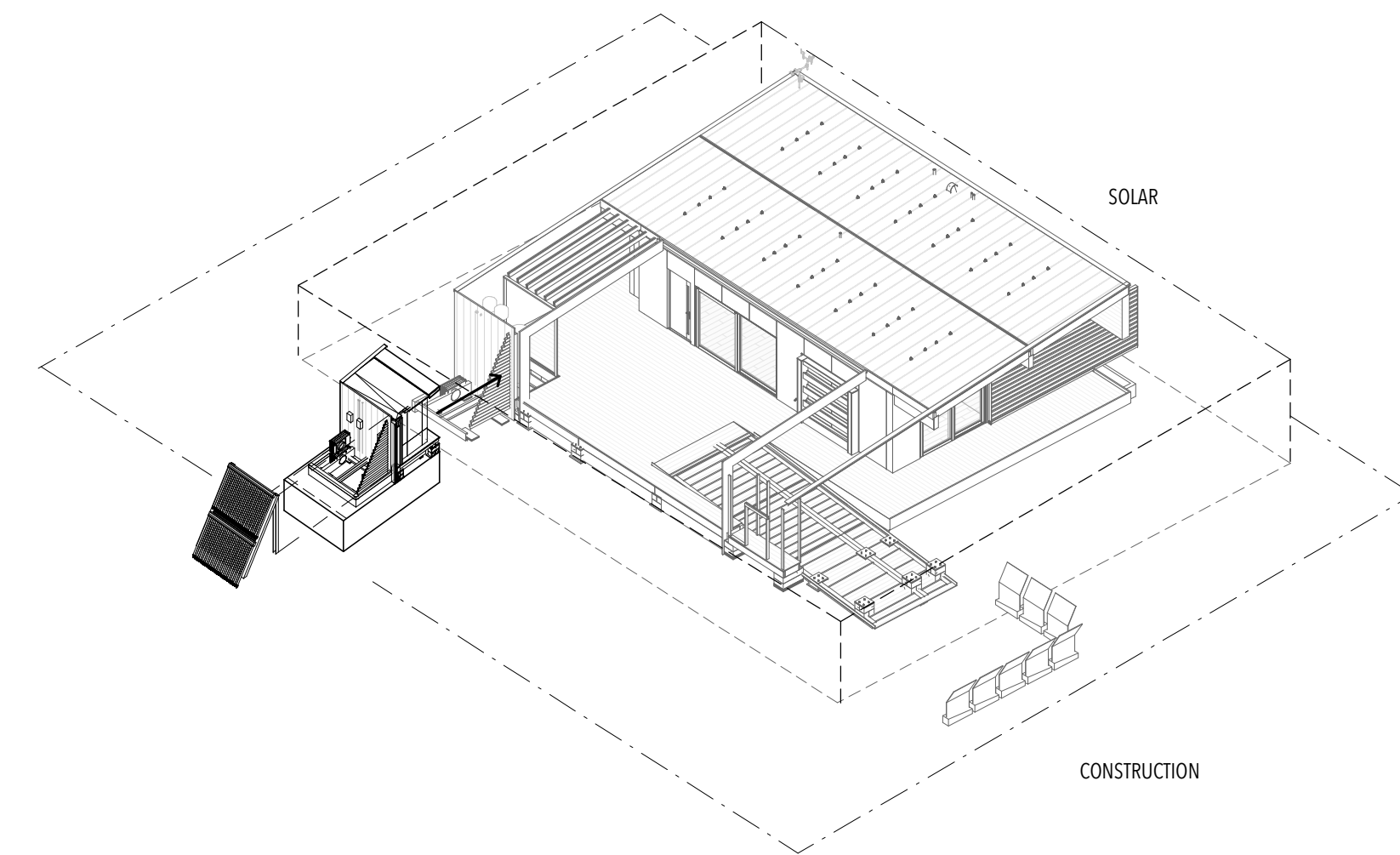
3 ANCHOR PLACEMENT



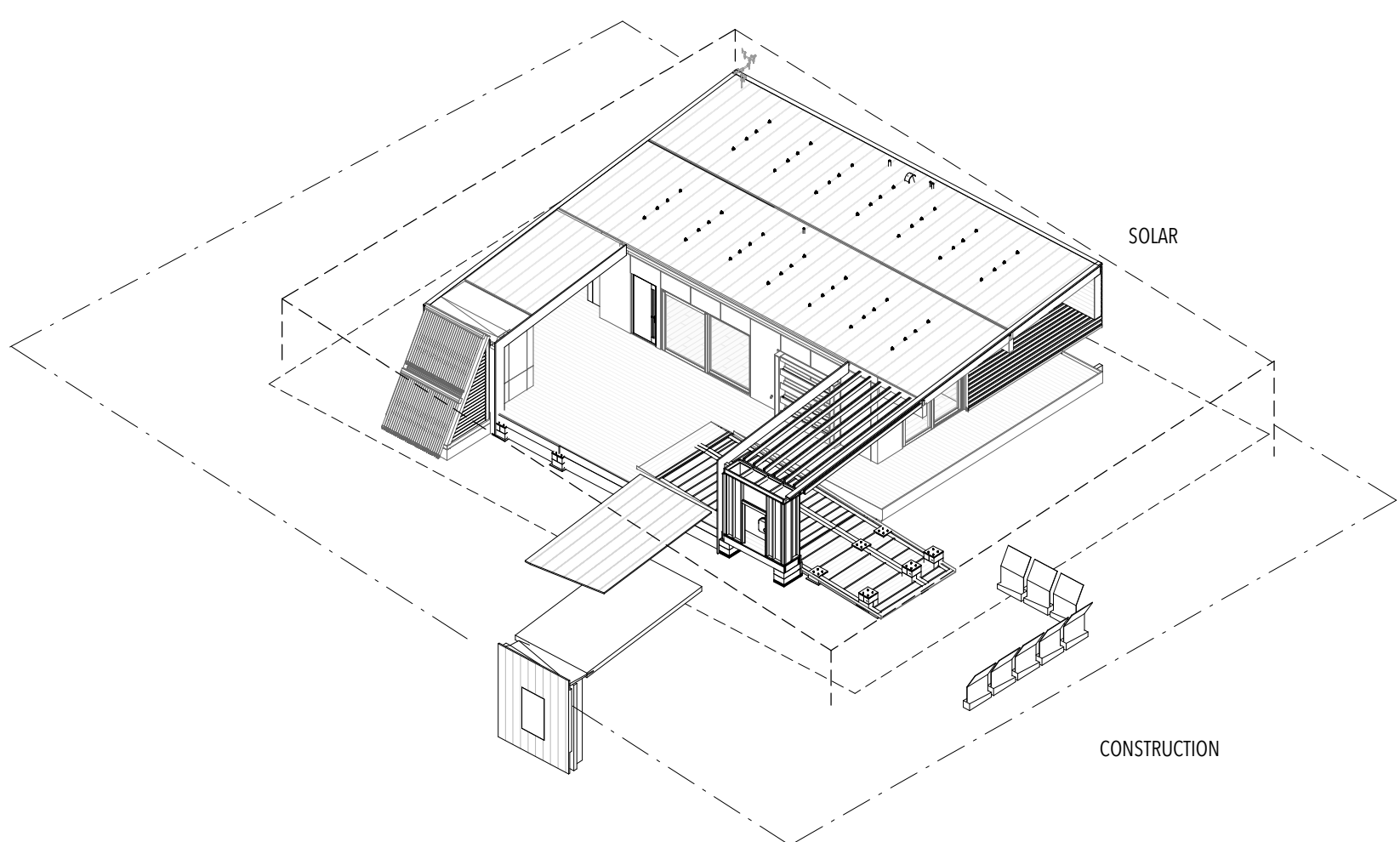
4 DECK/RAMP FRAME AND FINISHED FLOORING



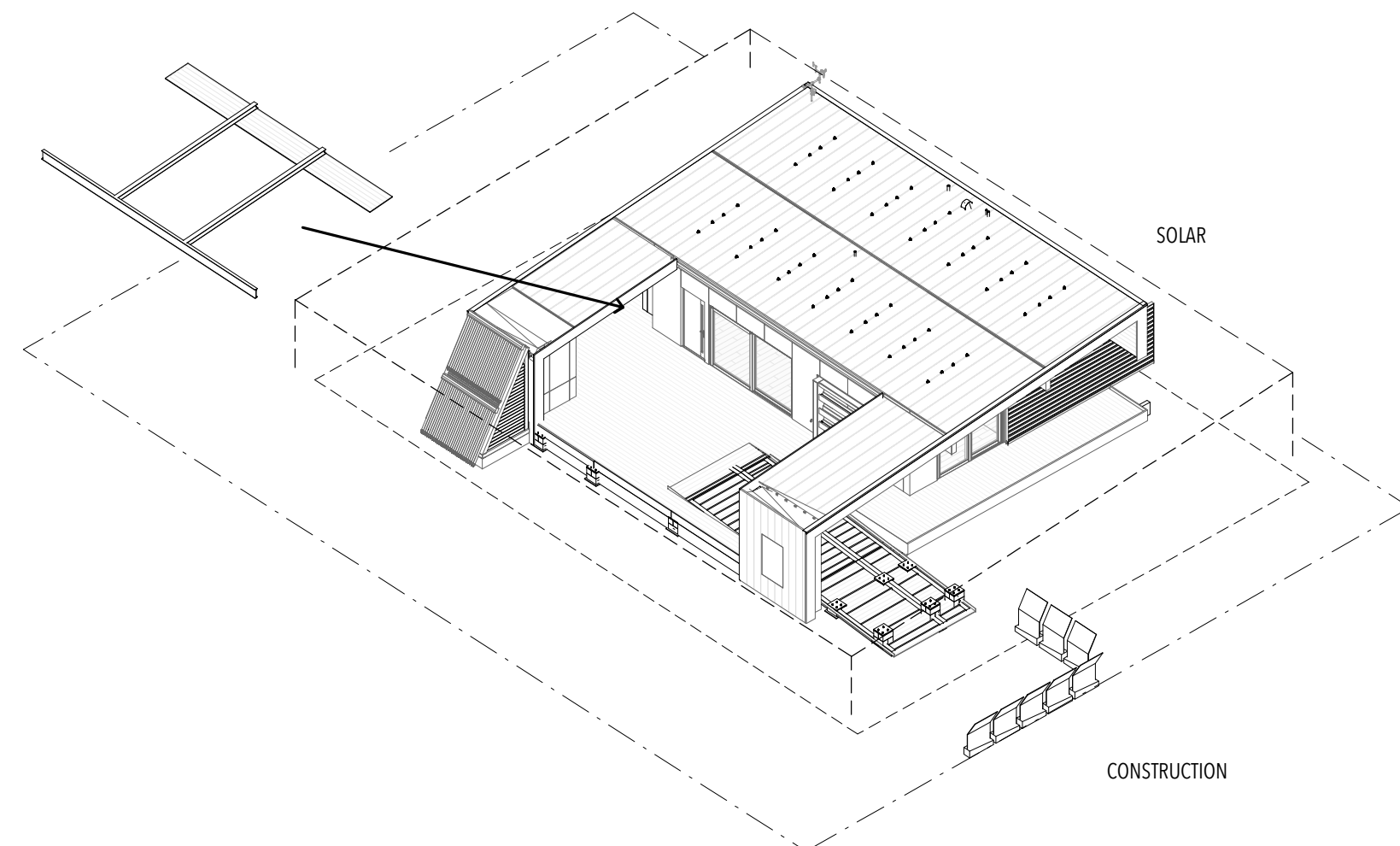
5 SLIDING PARTITION



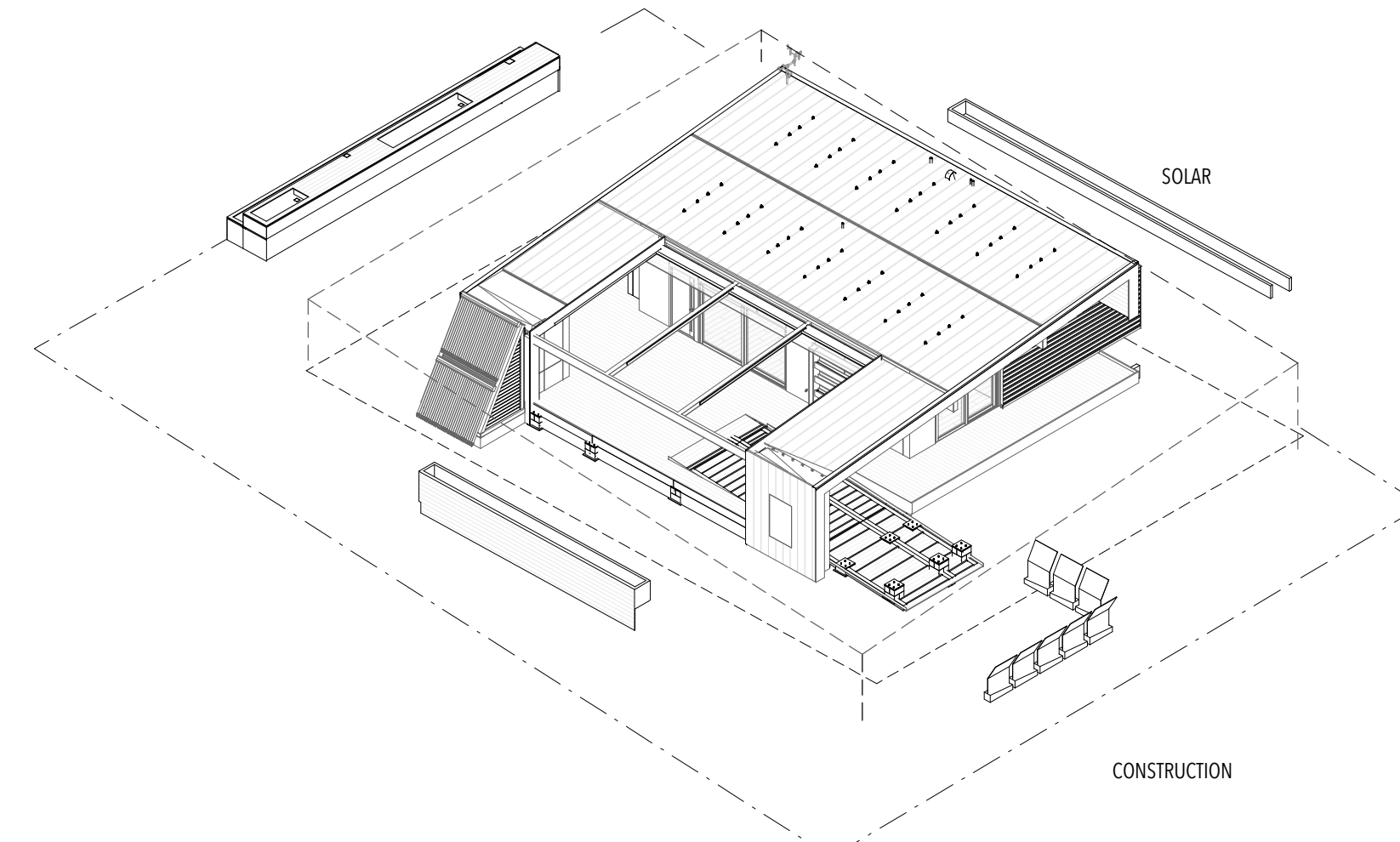
6 MECHANICAL UNIT INSTALLATION



7 BATTERY ROOM INSTALLATION



8 SOUTH ROOF INSTALLATION



9 PLANTERS INSTALLATION

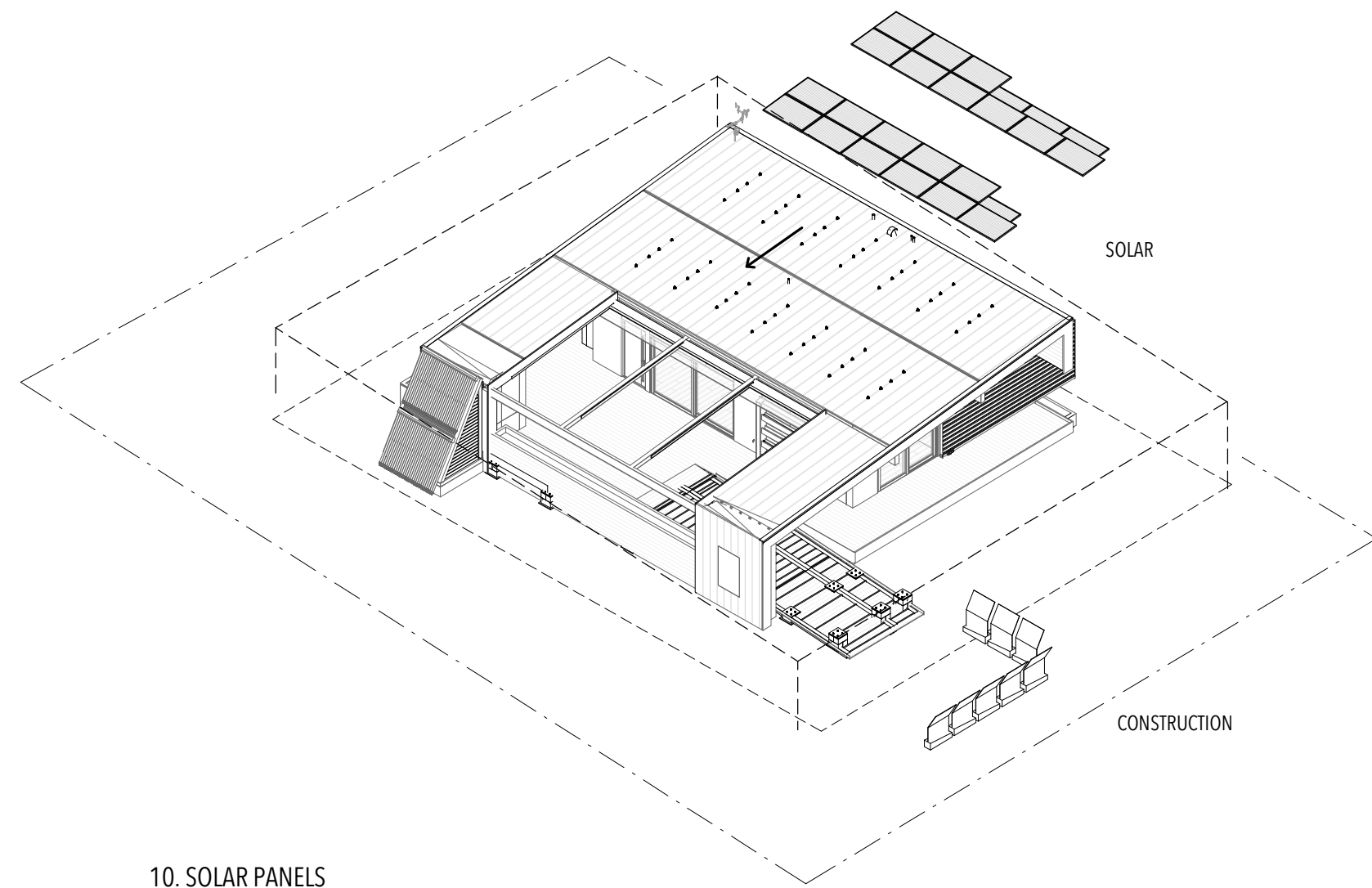


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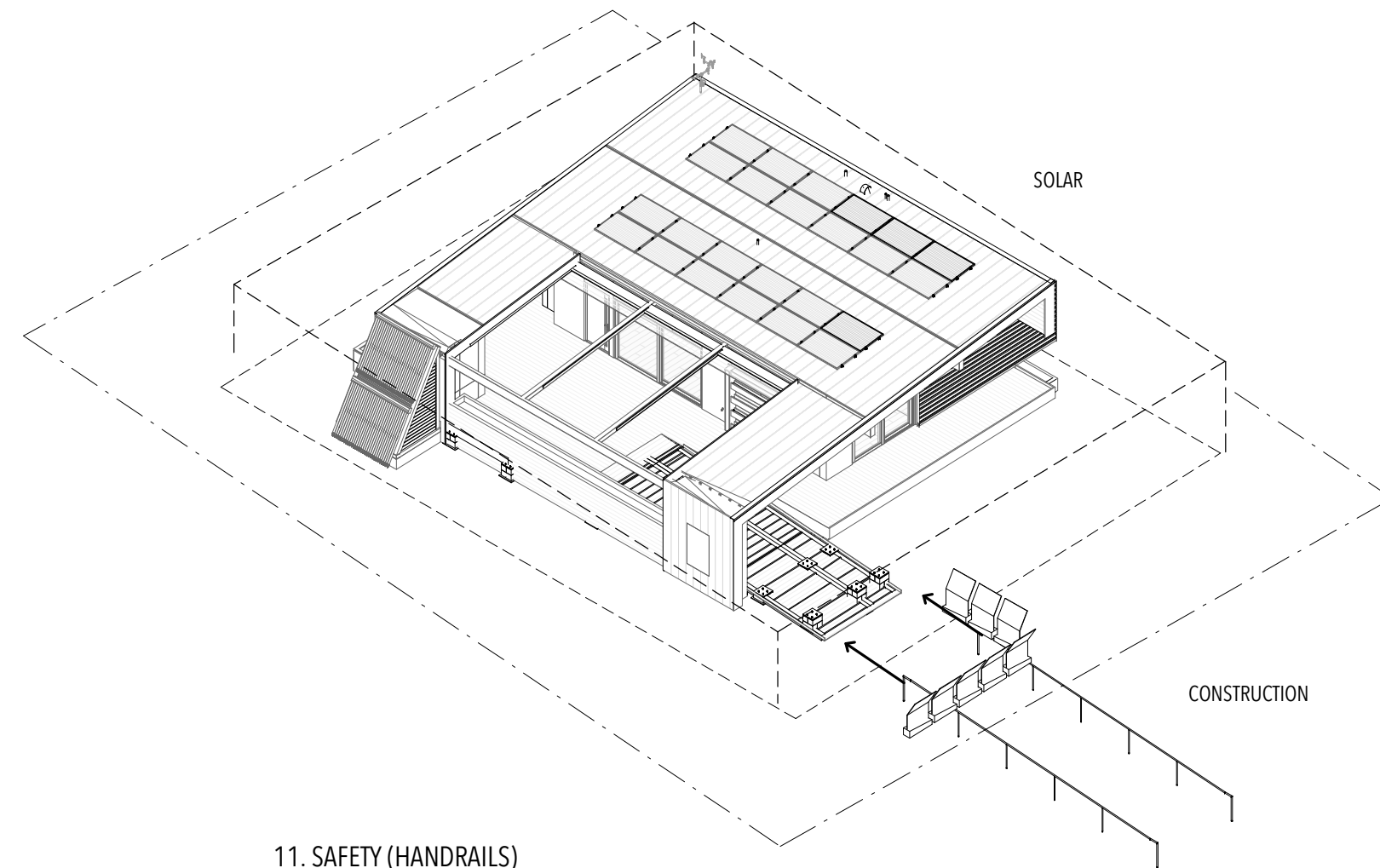
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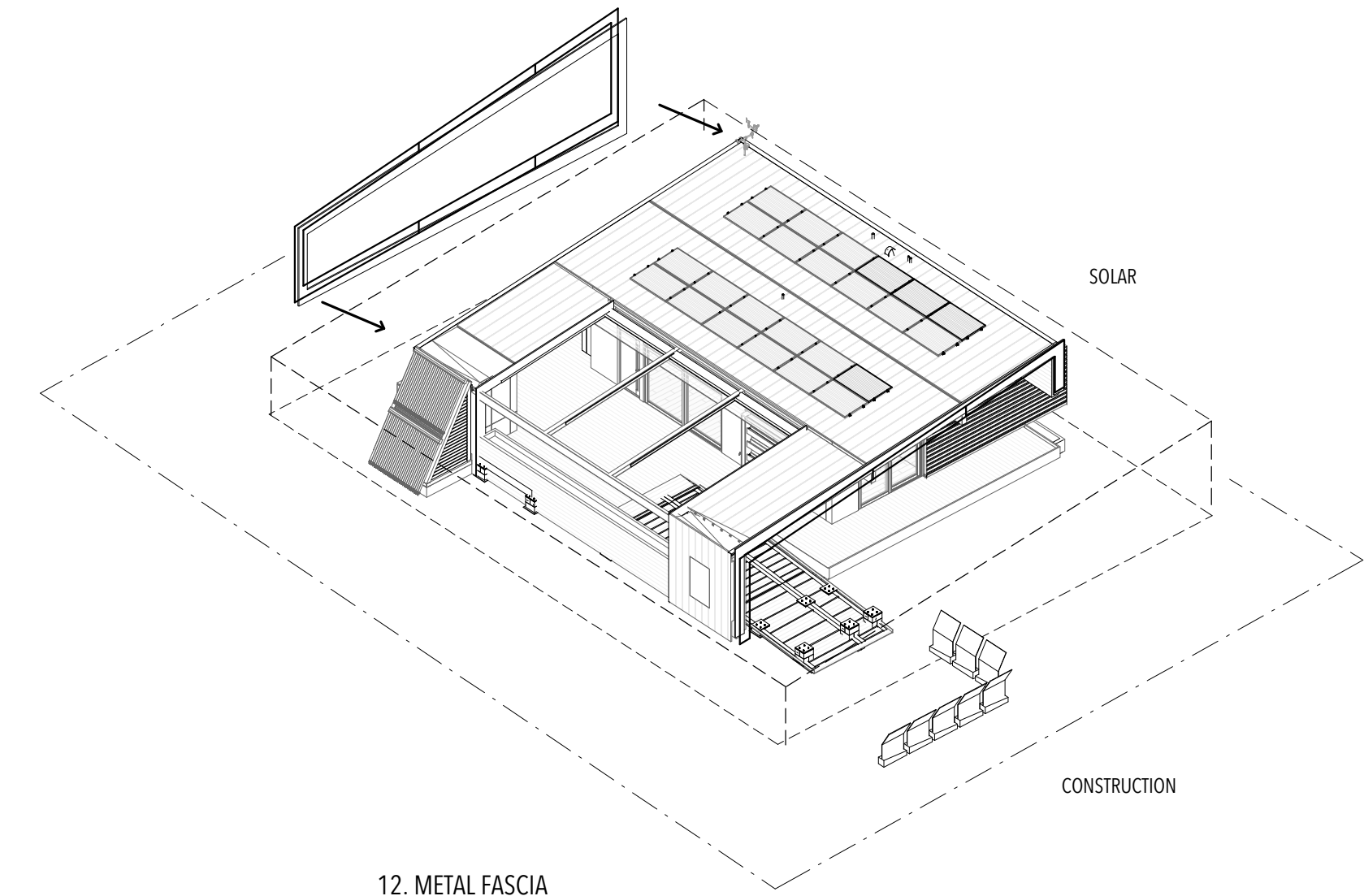
NO.	DESCRIPTION	DATE
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10. SOLAR PANELS



11. SAFETY (HANDRAILS)



12. METAL FASCIA

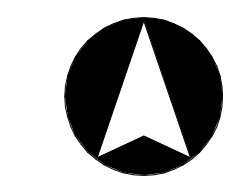
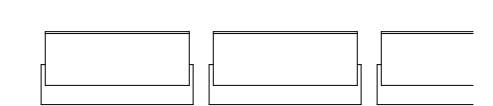
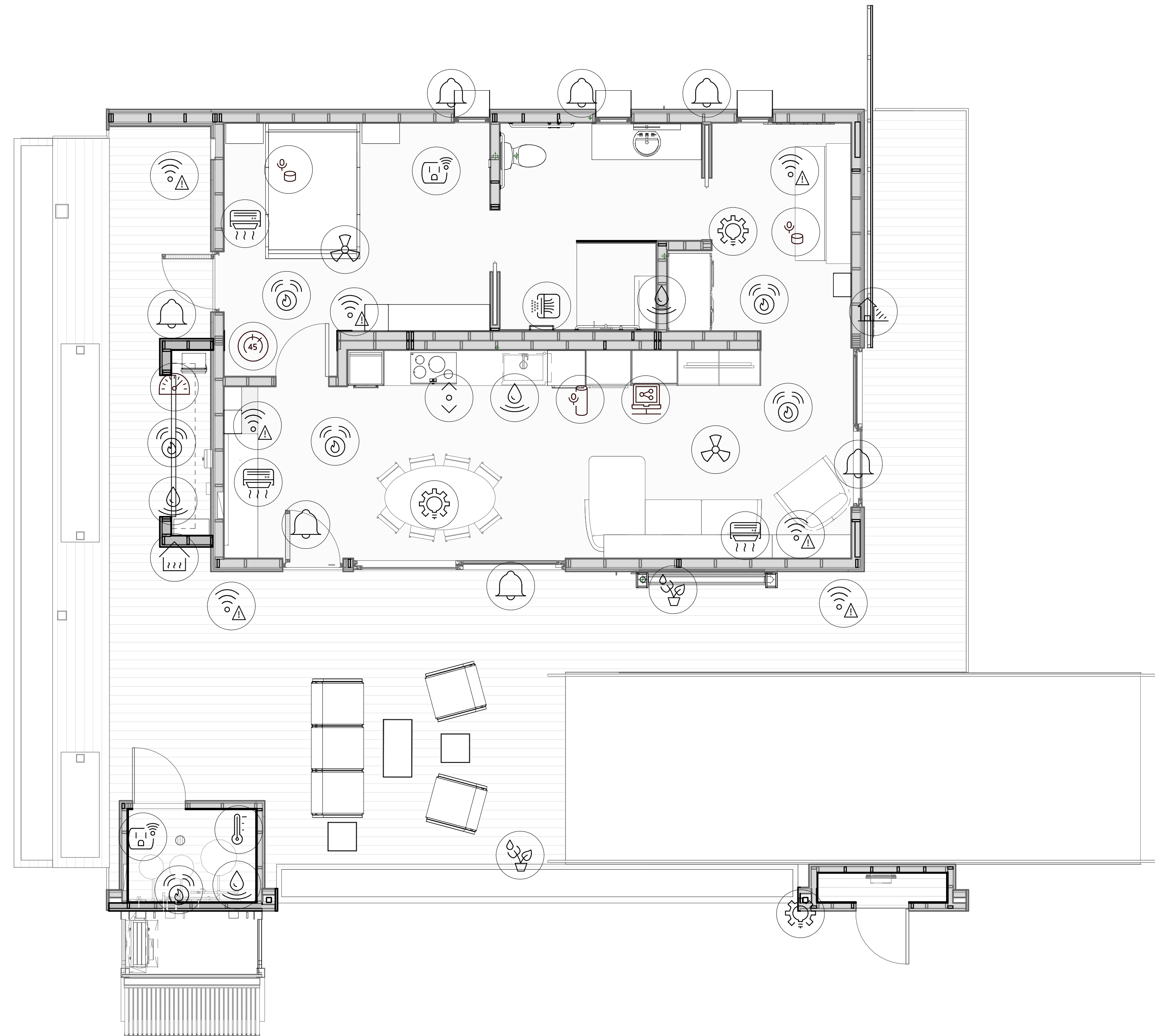
**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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- Amazon Echo Dot
- Intruder Alarm
- Adjustable Cabinetry
- HEPA Filter
- Amazon Echo
- Motion Sensor
- Fan Controller
- Irrigation Control
- Instrumentation
- Smoke Alarm
- Mini Split Heat Pump
- Radiant Floor Heating
- Nest Thermostat
- Temp. Sensor
- Shade Controller
- Light Controller
- Device Control Hub
- Water Sensor
- Controlled Plug/Switch



**T-101**  
AUTOMATION LAYOUT  
PLAN

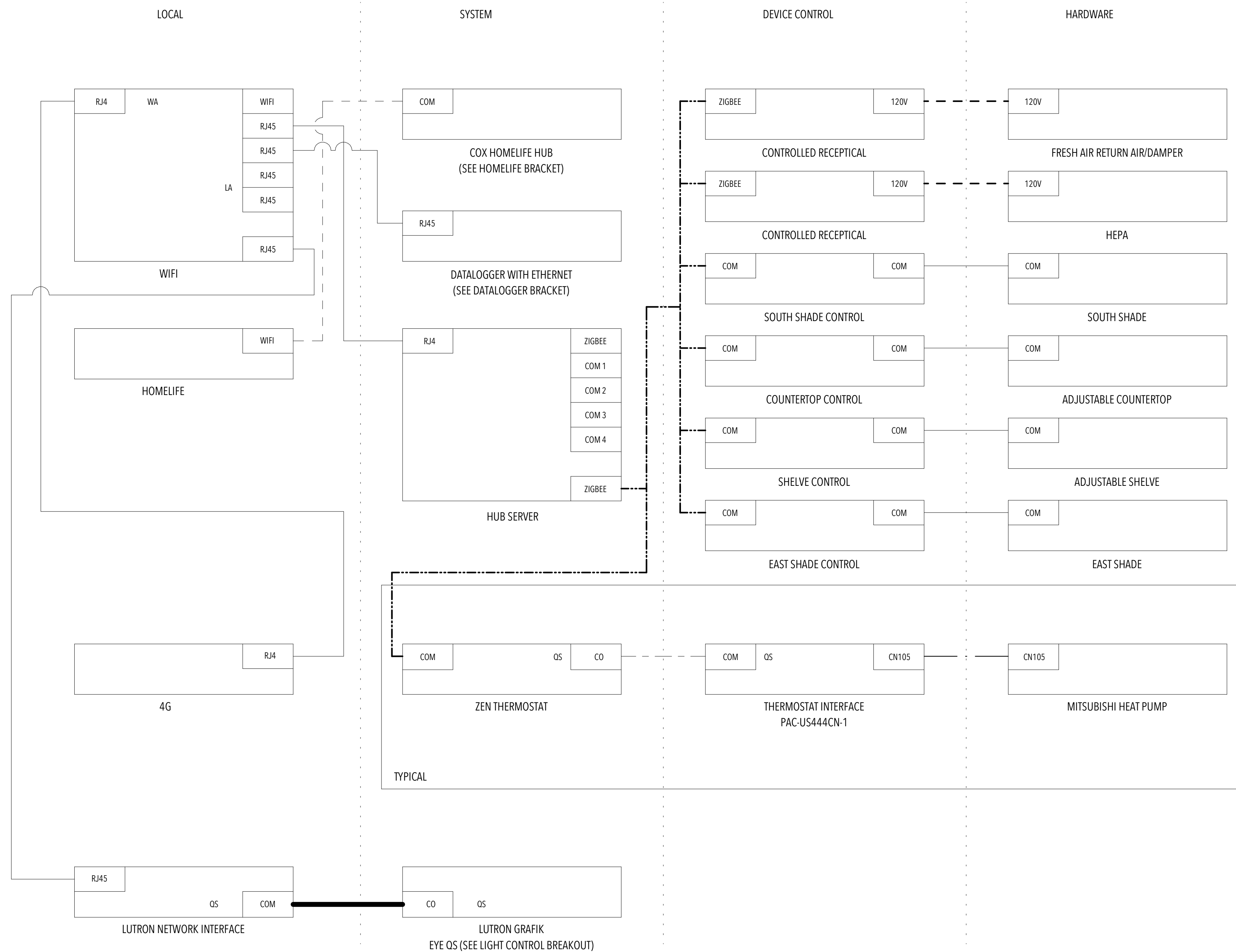


## ISSUANCES

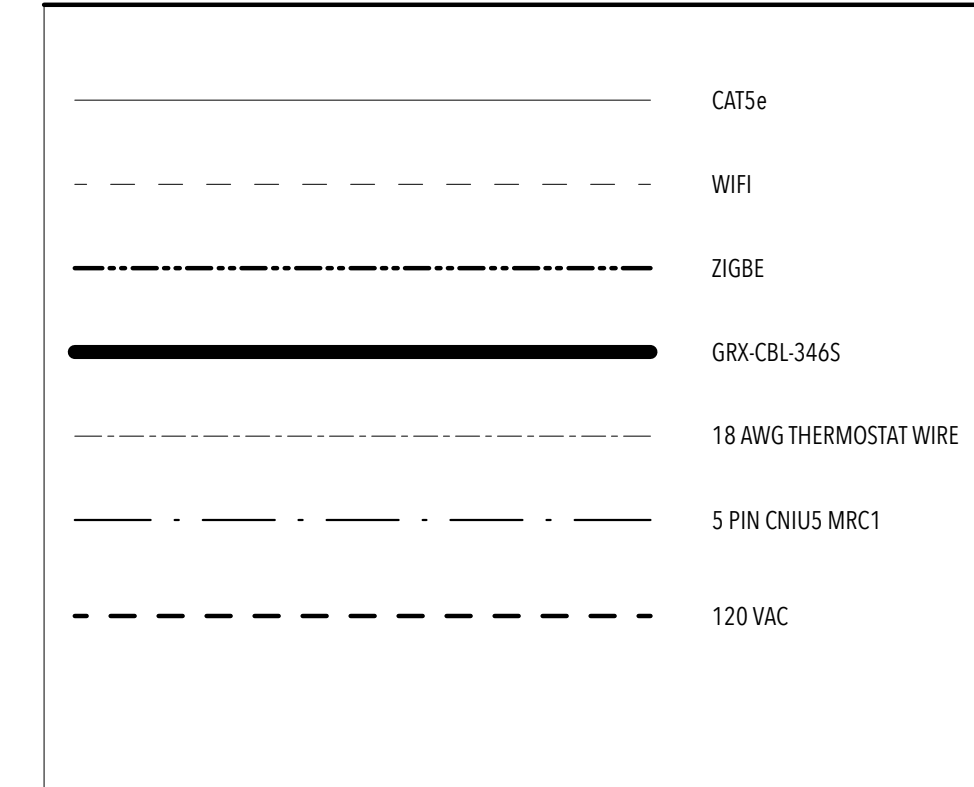
NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

## REVISIONS

NO.	DESCRIPTION	DATE
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### LEGEND



SEE MANUFACTURER SPECIFICATIONS FOR DEVICE POWER REQUIREMENTS.

Automation Device Schedule			
Description	Manufacturer	Model	Quantity
Tablet	Apple	9.7" Pro 2	1
Automation Hub	Cox	Homelife Hub	1
Automation Hub	Intel	Nuk	1
Lutron Network Interface	Lutron	QSE-CI-NWK-E	1
Control Unit	Lutron	GRAFIK Eye QS OSGRJ-6P-1WH	1
Thermostat Interface	Mitsubishi	PAC-US444CN-1	3
Thermostat	Zen	Zen	3
Smart Speaker	Amazon	Echo	1
Smart Speaker	Amazon	Dot	2
Fan Controller	Haiku	Wall Control	1
Fan Wifi Module	Haiku	Wifi Module	2

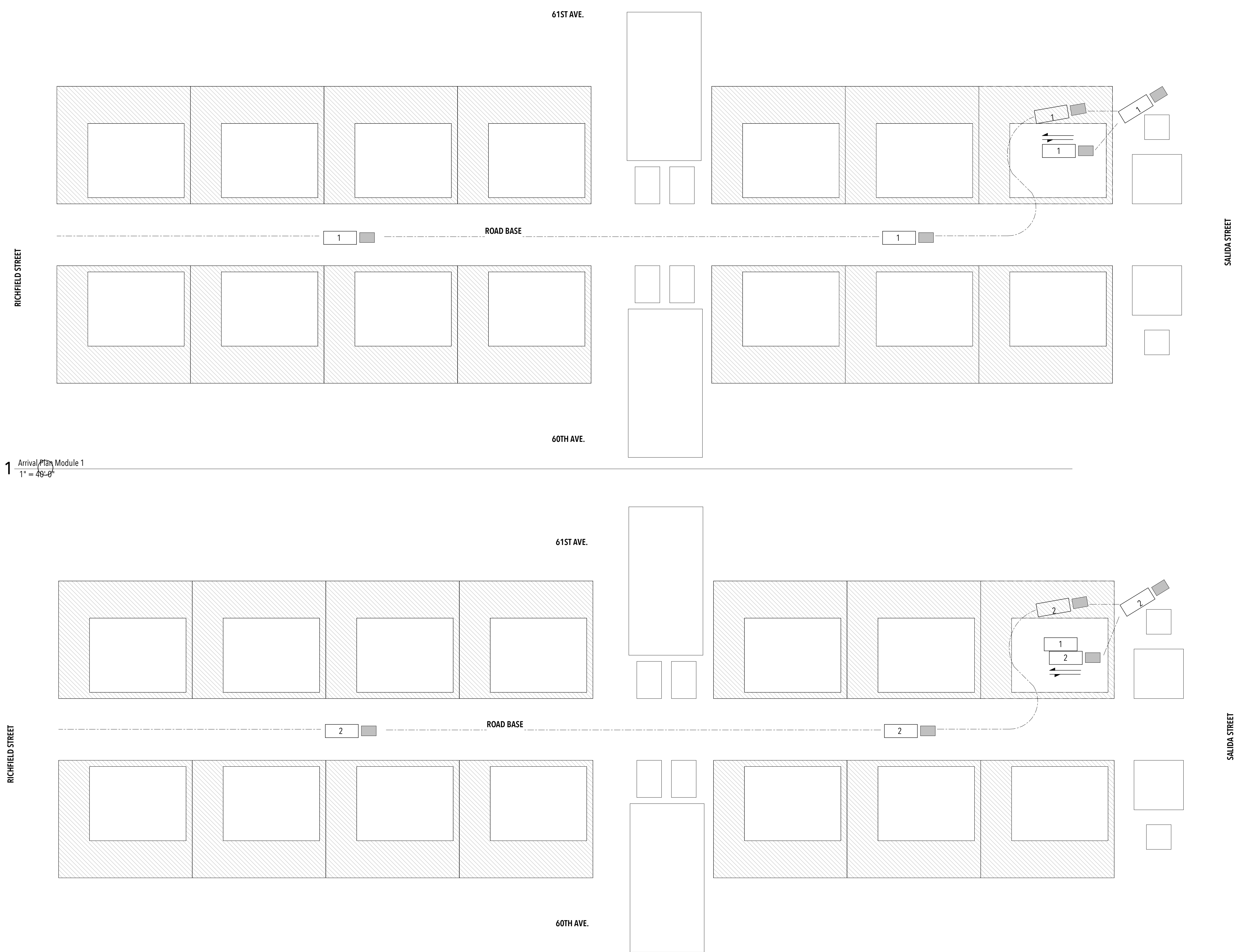
**ISSUANCES**

NO.	DESCRIPTION	DATE
1	90% - DD SET	11/17/16
2	100% - CD SET	2/23/17

**REVISIONS**

NO.	DESCRIPTION	DATE
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**0-903**  
ARRIVAL SEQUENCE



1 Arrival/Plan Module 1  
1" = 40'-0"

2 Arrival/Plan Module 2  
1" = 40'-0"

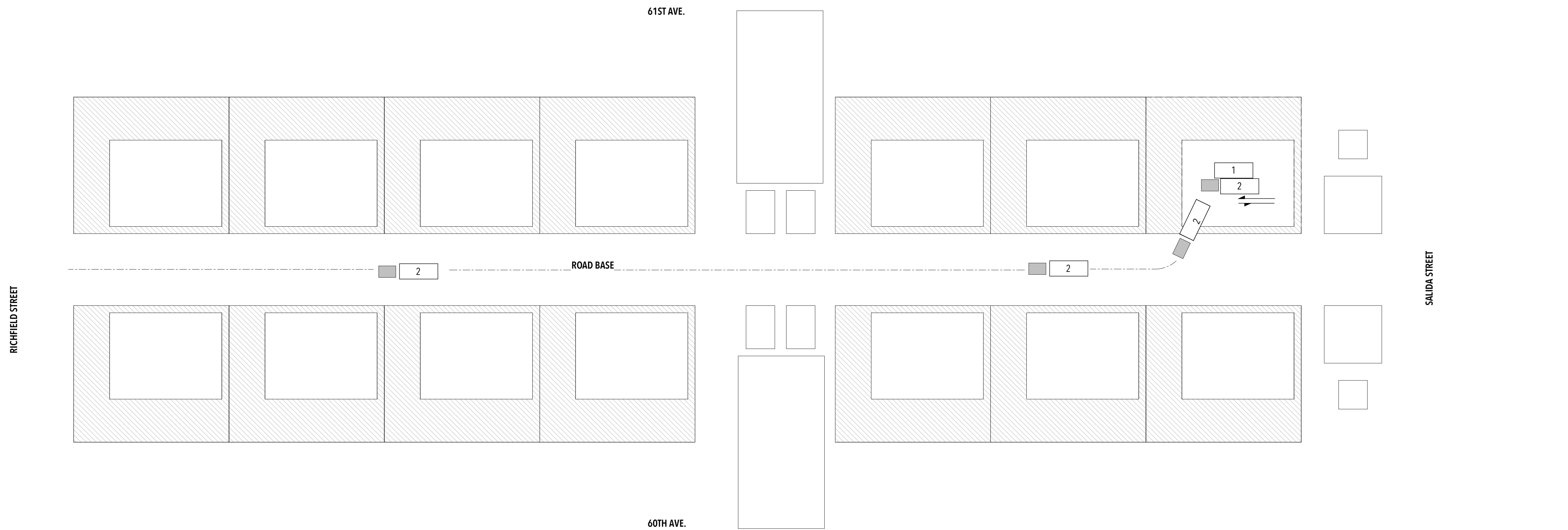
**ISSUANCES**

NO.	DESCRIPTION	DATE
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2	100% - CD SET	2/23/17

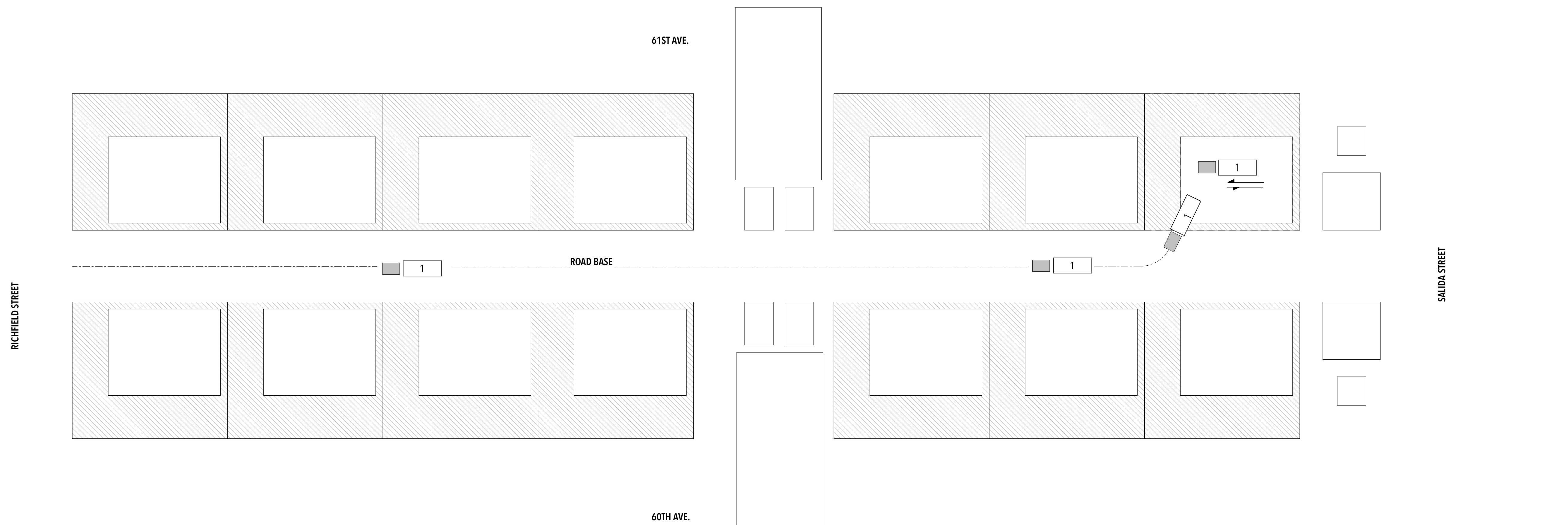
**REVISIONS**

NO.	DESCRIPTION	DATE
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**0-904**  
DEPARTURE SEQUENCE



**1** Departure Plan Module 1  
1" = 40'-0"



**2** Departure Plan Module 2  
1" = 40'-0"