

# PERMIT SET

12-20-2024



# CLACKAMAS FIRE TRAINING WAREHOUSE

16170 SE 130th AVE  
CLACKAMAS, OR. 97015

 Scott  
Edwards  
Architecture

2525 E Burnside St.  
Portland, OR 97214

503.226.3617  
sealp.com



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# CLACKAMAS FIRE TRAINING WAREHOUSE

Job Number: 24083

16170 SE 130th AVE  
CLACKAMAS, OR. 97015



FILE PATH: C:\Revit\_Local\24083 CFD Training Warehouse\_v24\_ijorgensenZEPNR.rvt

GENERAL PROJECT NOTES	PROJECT TEAM	PROJECT SUMMARY	SHEET INDEX																																														
<p>REFER TO OWNER-CONTRACTOR AGREEMENT FOR GENERAL CONDITIONS. WHERE THERE IS A CONFLICT BETWEEN THE CONTRACT AND NOTES HEREIN, THE CONTRACT TAKES PRECEDENCE.</p> <ol style="list-style-type: none"> <li>GENERAL CONTRACTOR IS RESPONSIBLE FOR THE FULL SET OF CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO DRAWINGS, SPECIFICATIONS, AND ADDENDA.</li> <li>THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK AND SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUBCONTRACTORS.</li> <li>DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS; DO NOT SCALE DRAWINGS TO DETERMINE ANY LOCATIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO CONTINUING WITH WORK.</li> <li>GENERAL CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE IN A BROOM CLEAN CONDITION AT ALL TIMES DURING THE PROJECT.</li> <li>THE CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY ERRORS, INCONSISTENCIES OR OMISSIONS HE OR SHE MAY DISCOVER. BRING UNFORSEEN CONDITIONS TO ATTENTION OF ARCHITECT UPON DISCOVERY AT ANY POINT. THE MEANS OF CORRECTING ANY ERROR OR UNFORSEEN CONDITION SHALL FIRST BE APPROVED BY THE ARCHITECT.</li> <li>ALL REQUIRED CITY AND/OR COUNTY LICENSE SHALL BE ACQUIRED AND PAID FOR BY THE INDIVIDUAL TRADE.</li> <li>THE ARCHITECT WILL REVIEW SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT. THE ARCHITECT'S REVIEW OF A SEPARATE ITEM SHALL NOT INDICATE APPROVAL OF AN ASSEMBLY IN WHICH THE ITEM FUNCTIONS.</li> <li>IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.</li> <li>CITY APPROVED PLANS SHALL BE KEPT IN A SECURE PLACE AND SHALL NOT BE USED BY WORKERS. THE CONTRACTOR SHALL BE RESPONSIBLE THAT ALL SUBCONTRACTORS' CONSTRUCTION SETS REFLECT THE SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN, IN GOOD CONDITION, ONE COMPLETE SET OF STAMPED CITY APPROVED PLANS WITH ALL REVISIONS, ADDENDUMS, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT AND MUST BE MADE AVAILABLE TO BUILDING AND FIRE INSPECTIONS FOR REFERENCE DURING CONSTRUCTION.</li> <li>THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL JOB COMPLETION.</li> <li>THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES.</li> <li>THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS AND SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF ANY CONSTRUCTION.</li> <li>THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE OR REMEDY ANY FAULTY, IMPROPER, OR INFERIOR MATERIALS OR WORKMANSHIP WHICH SHALL APPEAR WITHIN ONE (1) YEAR AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT.</li> <li>CONTRACTOR TO PROVIDE BACKING OR BLOCKING AS REQUIRED FOR MOUNTING ALL WALL MOUNTED SHELVES, EQUIPMENT, ACCESSORIES, CABINETS, ETC.</li> <li>CONTRACTOR TO PROTECT ALL TREES AND ROOTS NOT SLATED FOR REMOVAL DURING CONSTRUCTION.</li> <li>GENERAL CONTRACTOR RESPONSIBLE FOR MAINTENANCE OF STAGING AREA AND TO ENSURE THAT MATERIALS DELIVERY AND STORAGE DOES NOT INTERFERE WITH DAILY OPERATION OF ADJACENT PROPERTIES OR PUBLIC RIGHT OF WAY.</li> <li>GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION STAKING.</li> </ol>	<p><b>OWNER</b> CLACKAMAS FIRE DISTRICT #1 15800 SE 130th AVE CLACKAMAS, OR. 97015 TEL: 503-793-6158 CONTACT: Denise Toyooka EMAIL: denise.toyooka@clackamasfire.com</p> <p><b>ARCHITECT</b> SCOTT EDWARDS ARCHITECTURE, LLP 2525 E. BURNSIDE STREET PORTLAND, OREGON 97214 TEL: 503.226.3617 CONTACT: BRANDON DOLE EMAIL: BDOLE@SEALLP.COM</p> <p><b>STRUCTURAL ENGINEER</b> WDY STRUCTURAL ENGINEERS 6443 SW BEAVERTON-HILLDALE HWY, SUITE 210 PORTLAND, OR. 97221 TEL: 503-203-8111 CONTACT: DALE DILORETO, PE EMAIL: DALE@WDYI.COM</p> <p><b>M/E/P ENGINEER</b> INTERFACE ENGINEERING, INC 100 SW MAIN ST, SUITE 1600 PORTLAND, OR. 97204 TEL: 503-382-2266 CONTACT: MARK O'LEARY EMAIL: MARKO@INTERFACEENG.COM</p>	<p><b>PROJECT DESCRIPTION:</b> RENOVATION AND ADDITION TO THE 1-STORY PORTION OF THE CLACKAMAS FIRE DISTRICT TRAINING WAREHOUSE 10,400 S.F. EXISTING (FOOTPRINT) BUILDING 995 S.F. 1-STORY ADDITION</p> <p><b>PROJECT ADDRESS:</b> 16170 SE 130th AVE, CLACKAMAS, OR. 97015</p> <p><b>TAX LOT:</b> #22E11D02325</p> <p><b>ZONING:</b> CITY OF HAPPY VALLEY INSTITUTIONAL AND PUBLIC USE DISTRICT (IPU) CHAPTER 16.24.010 - SERVICE DISTRICT FUNCTIONS AND OPERATIONS, INCLUDING BUT NOT LIMITED TO FIRE DISTRICT FACILITIES - PERMITTED</p> <p><b>SEPARATE PERMITS AND DEFERRED SUBMITTAL BIDDER DESIGN ITEMS</b></p> <p>CONTRACTOR SHALL PROVIDE DESIGN, ENGINEERING, FURNISHING AND INSTALLATION OF A COMPLETE, FUNCTIONING SYSTEM(S) BASED ON THE SCHEMATIC LAYOUT SHOWN ON THE ARCHITECTURAL DRAWINGS, DESCRIBED HEREIN AND IN COMPLIANCE WITH PREVAILING CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL ORDERING OF ALL DEVICES AND FIXTURES TO ENSURE PROPER OPTIONS, ACCESSORIES AND CONFIGURATIONS. CONTRACTOR SHALL PROVIDE COMPLETE DESIGN AND DOCUMENTATION AS REQUIRED FOR SUBMISSION TO, AND APPROVAL OF ARCHITECT, OWNER, AND GOVERNING BUILDING DEPARTMENT.</p> <p>UPON COMPLETION OF REVIEW BY THE ARCHITECT OR ENGINEER OF RECORD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING DOCUMENTS TO PERMIT AGENCY FOR PLANS REVIEW AND PAYING ANY PLANS CHECK AND PERMIT FEES.</p> <p><b>DELEGATED / BIDDER DESIGN ITEMS:</b></p> <ol style="list-style-type: none"> <li>MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS</li> <li>PRE-ENGINEERED METAL BUILDING, INSULATION, METAL PANEL SIDING, STANDING SEAM METAL ROOFING</li> <li>LIGHTING AND EMERGENCY LIGHTING</li> <li>FIRE SPRINKLER SYSTEM</li> <li>FIRE DETECTION AND ALARM SYSTEM</li> <li>STEEL LADDER AND MOUNTING TO WALL</li> <li>STORM WATER CONNECTION FOR BUILDING ADDITION</li> </ol> <p>THE FOLLOWING DELEGATED ITEMS REQUIRE A DEFERRED SUBMITTAL TO JURISDICTION:</p> <ol style="list-style-type: none"> <li>FIRE SPRINKLER SYSTEM</li> <li>FIRE DETECTION AND ALARM SYSTEM</li> <li>FIRE DEPARTMENT ACCESS KEY BOX</li> <li>HANGERS AND SUPPORT FOR HVAC</li> <li>VIBRATION AND SEISMIC CONTROLS FOR HVAC</li> <li>LATERAL BRACING AND ANCHORAGE OF MECHANICAL AND ELECTRICAL EQUIPMENT WEIGHING MORE THAN 75 LBS (EXCEPTIONS PER ASCE 7, SECTION 13.1.4)</li> <li>ENGINEERING FOR PRE-FABRICATED METAL BUILDING STRUCTURE AND LATERAL RESISTANCE DESIGN</li> </ol> <p>SEE SPECIFICATIONS AND/OR DESIGN NARRATIVES FOR ADDITIONAL REQUIREMENTS NOT LISTED HERE AND ADDITIONAL BIDDER DESIGN ITEMS.</p>	<table border="1"> <thead> <tr> <th>SHEET #</th> <th>SHEET NAME</th> </tr> </thead> <tbody> <tr> <td colspan="2"><b>GENERAL</b></td> </tr> <tr> <td>G0.01</td> <td>GENERAL PROJECT INFORMATION</td> </tr> <tr> <td>G1.01</td> <td>CODE SUMMARY</td> </tr> <tr> <td>G1.02</td> <td>FIRE LIFE SAFETY PLAN</td> </tr> <tr> <td colspan="2"><b>ARCHITECTURAL</b></td> </tr> <tr> <td>A0.01</td> <td>ARCHITECTURAL GENERAL NOTES AND DIAGRAMS</td> </tr> <tr> <td>A0.10</td> <td>WALL TYPES &amp; GENERAL DIAGRAMS</td> </tr> <tr> <td>A1.01</td> <td>SITE PLAN</td> </tr> <tr> <td>A2.11</td> <td>DEMO FLOOR PLANS</td> </tr> <tr> <td>A2.12</td> <td>FLOOR PLANS</td> </tr> <tr> <td>A2.13</td> <td>ENLARGED TOILET ROOMS</td> </tr> <tr> <td>A2.14</td> <td>ROOF &amp; RCP</td> </tr> <tr> <td>A3.01</td> <td>EXTERIOR ELEVATIONS &amp; SECTIONS</td> </tr> <tr> <td>A7.01</td> <td>DETAILS</td> </tr> <tr> <td>A8.01</td> <td>INTERIOR ELEVATIONS</td> </tr> <tr> <td>A10.01</td> <td>DOOR SCHEDULE AND DOOR TYPES</td> </tr> <tr> <td>A10.21</td> <td>FINISH SCHEDULE AND LEGEND</td> </tr> <tr> <td colspan="2"><b>STRUCTURAL</b></td> </tr> <tr> <td>S0.01</td> <td>STRUCTURAL NOTES &amp; ABBREVIATIONS</td> </tr> <tr> <td>S0.02</td> <td>SPECIAL INSPECTIONS &amp; SCHEDULES</td> </tr> <tr> <td>S2.12</td> <td>FOUNDATION &amp; MEZZANINE FRAMING PLANS</td> </tr> <tr> <td>S4.01</td> <td>DETAILS</td> </tr> </tbody> </table>	SHEET #	SHEET NAME	<b>GENERAL</b>		G0.01	GENERAL PROJECT INFORMATION	G1.01	CODE SUMMARY	G1.02	FIRE LIFE SAFETY PLAN	<b>ARCHITECTURAL</b>		A0.01	ARCHITECTURAL GENERAL NOTES AND DIAGRAMS	A0.10	WALL TYPES & GENERAL DIAGRAMS	A1.01	SITE PLAN	A2.11	DEMO FLOOR PLANS	A2.12	FLOOR PLANS	A2.13	ENLARGED TOILET ROOMS	A2.14	ROOF & RCP	A3.01	EXTERIOR ELEVATIONS & SECTIONS	A7.01	DETAILS	A8.01	INTERIOR ELEVATIONS	A10.01	DOOR SCHEDULE AND DOOR TYPES	A10.21	FINISH SCHEDULE AND LEGEND	<b>STRUCTURAL</b>		S0.01	STRUCTURAL NOTES & ABBREVIATIONS	S0.02	SPECIAL INSPECTIONS & SCHEDULES	S2.12	FOUNDATION & MEZZANINE FRAMING PLANS	S4.01	DETAILS
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Drawing:

## GENERAL PROJECT INFORMATION

Sheet No:

# G0.01

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**BUILDING CODE SUMMARY** 2022 OREGON STRUCTURAL SPECIALTY CODE

**OCCUPANCY** B, U, SEPARATED MIXED USE  
**CONSTRUCTION TYPE** TYPE V-B, SPRINKLERED

**CHAPTER 4: SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE : PRIVATE GARAGES**

SECTION 406.3.1 PRIVATE GARAGES AND CARPORTS SHALL BE CLASSIFIED AS GROUP U OCCUPANCIES. EACH PRIVATE GARAGE SHALL BE NOT GREATER THAN 1,000 S.F. IN AREA.

**CHAPTER 5: GENERAL BUILDING HEIGHTS AND AREAS**

TABLE 504.3 ALLOWABLE HEIGHT / STORIES / U: 60 FT / 2 STORY / 22000 SF  
 TABLE 504.4 AREA FACTOR B: 60 FT / 3 STORY / 27000 SF  
 TABLE 506.2

MODIFICATIONS

SECTION 506.2.2 Mixed Occupancy	BUILDING AREA	U Aa = At + (NS x If) = 22000 SF + (0 SF x 0) = 22000 SF PER STORY	B = 27000 SF + (0 SF x 0) 27000 SF PER STORY
SECTION 506.3	FRONTAGE INCREASE	1 LF / 1 LF = 100 % FRONTAGE > 20' Width = 20 FT	
TABLE 506.3.3		If = 0	FRONTAGE INCREASE NOT USED
	ACTUAL HEIGHT / STORIES	21' - 21' / 2 STORY	
	ACTUAL BUILDING AREA	11395 SF	
MIXED OCCUPANCY SECTION 508.2	ACCESSORY	: N/A	
SECTION 508.3	NON-SEPARATED	N/A	
SECTION 508.4	SEPARATED	B, U 1-HOUR First Floor = .44 Second Floor = .05	
SECTION 509	INCIDENTAL USE	PER TABLE 509.1	

**CHAPTER 6: TYPES OF CONSTRUCTION**

TABLE 601 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS

BUILDING ELEMENT	FIRE RATING *
PRIMARY STRUCTURAL FRAME	0 HOUR
BEARING WALLS	
EXTERIOR	0 HOUR
INTERIOR	0 HOUR
NON BEARING WALLS AND PARTITIONS - EXTERIOR	PER TABLE 705.5
NON BEARING WALLS AND PARTITIONS - INTERIOR	0 HOUR
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0 HOUR
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0 HOUR
* NOT LESS THAN FIRE-RESISTANCE RATING REQUIRED BY OTHER SECTIONS OF THIS CODE	

**CHAPTER 7: FIRE AND SMOKE PROTECTION FEATURES**

TABLE 705.2 MINIMUM DISTANCE OF PROJECTION PER TABLE 705.2

TABLE 705.5 FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE

FIRE SEPARATION DISTANCE	FIRE RATING
X < 5'	1 HOUR
5' <= X < 10'	1 HOUR
10' <= X < 30'	0 HOUR
X >= 30'	0 HOUR

TABLE 705.8 MAXIMUM AREA OF WALL OPENINGS BASED ON FSD AND OPENING PROTECTION

UNPROTECTED, SPRINKLERED (NFPA 13)	PROTECTED
0 TO LESS THAN 3'	NOT ALLOWED
3 TO LESS THAN 5'	15%
5 TO LESS THAN 10'	25%
10 TO LESS THAN 15'	45%
15 TO LESS THAN 20'	75%
20 TO LESS THAN 25'	NO LIMIT
25 TO LESS THAN 30'	NO LIMIT
30' OR GREATER	NOT REQUIRED

SECTION 705.11 PARAPETS

TABLE 706.4 FIRE WALL FIRE RESISTANCE

SECTION 707 FIRE BARRIERS

707.3.1 SHAFT ENCLOSURES	PER 713.4
707.3.2 INTERIOR EXIT STAIR / RAMP	PER 1023.1
707.3.3 EXIT ACCESS STAIR	PER 713.4
707.3.4 EXIT PASSAGEWAY	PER 1024.3
707.3.5 HORIZONTAL EXIT	PER 1026.1
707.3.7 INCIDENTAL USES	PER TABLE 509.1
707.3.9 SEPARATED OCCUPANCIES	PER TABLE 508.4 = 1-HOUR
707.3.10 FIRE BARRIER ASSEMBLIES AND HORIZONTAL ASSEMBLIES BTWN FIRE AREAS	PER TABLE 707.3.10 HOUR

SECTION 708 FIRE PARTITIONS N/A

SECTION 709 SMOKE BARRIERS NOT REQUIRED

SECTION 711 FLOOR AND ROOF ASSEMBLIES (SUPPORTING CONSTRUCTION PER 711.2.3)

711.2.4.1 SEPARATING MIXED OCCUPANCIES	PER SECTION 508.4
711.2.4.2 SEPARATING FIRE AREAS	
711.2.4.3 DWELLING / SLEEPING UNITS	
711.2.4.4 SEPARATING SMOKE COMPARTMENTS	
711.2.4.5 SEPARATING INCIDENTAL USES	
711.2.4.6 OTHER SEPARATIONS	

SECTION 713 SHAFT ENCLOSURES NOT LESS THAN 1 HOUR CONNECTING LESS THAN 4 STORIES NOT LESS THAN 2 HOUR CONNECTING 4 STORIES OR MORE

**CHAPTER 8: INTERIOR FINISHES**

TABLE 803.13 INTERIOR WALL AND CEILING FINISH REQUIREMENTS (FLAME SPREAD RATING)

	U	B
INTERIOR EXIT STAIRWAYS AND RAMPS AND EXIT PASSAGEWAYS	N/A	B
CORRIDORS AND ENCLOSURES FOR EXIT ACCESS STAIRWAYS AND RAMPS	N/A	C
ROOMS AND ENCLOSED SPACES	N/A	C

**CHAPTER 9: FIRE PROTECTION SYSTEMS**

SECTION 903.3.1.1 NFPA 13

**CHAPTER 10: MEANS OF EGRESS**

SECTION 1004 OCCUPANT LOAD (OL) 110

SECTION 1005.3.1 STAIRWAY EGRESS CAPACITY FACTOR N/A  
 SECTION 1005.3.2 OTHER EGRESS CAPACITY FACTOR .2

TABLE 1006.2.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

MAX OCCUPANT LOAD	B 49 Occupants	U 49 Occupants
MAX COMMON PATH OF EGRESS TRAVEL	100 FT	75 FT

TABLE 1006.3.3 MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY

OCCUPANT LOAD PER STORY	1-500
MIN NUMBER OF EXITS FOR STORY	2

TABLE 1006.3.4(1) STORIES WITH ONE EXIT FOR R-2 NOT APPLICABLE

TABLE 1006.3.4(2) STORIES WITH ONE EXIT FOR OTHER OCCUPANCIES

FIRST STORY ABOVE/BELOW GRADE PLANE	B 49 / 75 FT	U 49 / 75 FT
SECOND STORY ABOVE GRADE PLANE	29 / 75 FT	49 / 75 FT
THIRD STORY AND HIGHER	NOT PERMITTED	NOT PERMITTED

SECTION 1009.1 NUMBER OF ACCESSIBLE MEANS OF EGRESS REQUIRED 0  
 SECTION 1009.2.1 ELEVATOR AS ACCESSIBLE MEANS OF EGRESS NOT REQUIRED  
 SECTION 1009.3.2 ACCESSIBLE STAIRWAY WIDTH 36" PER 1011.2  
 SECTION 1009.3.3 AREA OF REFUGE NOT REQUIRED

SECTION 1011.2 MINIMUM STAIR WIDTH

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE B  
117 FT U

TABLE 1020.2 CORRIDOR FIRE-RESISTANCE RATING 0 HR 0 HR

TABLE 1020.3 MINIMUM CORRIDOR WIDTH 44 INCHES  
 \*36" MIN WHERE OCCUPANT LOAD < 50]

SECTION 1020.5 DEAD ENDS 50 FEET  
 \*LENGTH IS NOT LIMITED WHERE LENGTH < 2.5x WIDTH

**CHAPTER 11: ACCESSIBILITY**

APPLICABLE CODES  
ANSI ICC A117.1 - 2017

**CHAPTER 13: ENERGY EFFICIENCY** 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC)  
 CLIMATE ZONE 4C

OPAQUE ELEMENTS	REQUIRED		PROVIDED			
	ASSEMBLY MAX.	MIN. R-VALUE				
<b>ROOFS</b>						
INSULATION ENTIRELY ABOVE DECK	U-0.032	R-30 CI				
METAL BUILDINGS	U-0.037	R-19 + R-11 Ls	R-19 + R-11 Ls			
ATTIC AND OTHER	U-0.021	R-49				
<b>WALLS (ABOVE GRADE)</b>						
MASS	U-0.104	R-9.5 CI				
METAL BUILDINGS	U-0.060	R-0 +R-15.8 CI	R-25			
STEEL-FRAMED	U-0.064	R-13 +R-7.5 CI				
WOOD-FRAMED / OTHER	U-0.064	R-13 + R-3.8 CI or R-20				
WALLS (BELOW GRADE)	C-0.119	R-7.5 CI				
<b>FLOORS</b>						
MASS	U-0.057	R-14.6 CI				
STEEL JOIST	U-0.038	U-0.038				
WOOD FRAMED / OTHER	U-0.064	R-30				
<b>SLAB-ON-GRADE FLOORS</b>						
HEATED	F-0.843	R-20				
UNHEATED	F-0.520	R-15	R-15			
<b>OPAQUE DOORS</b>						
SWINGING	U-0.370		.37			
NON-SWINGING	U-0.310		.31			
<b>FENESTRATION</b>						
	MAX U	REQUIRED MAX SHGC	MIN VTI/SHGC	MAX U	PROVIDED MAX SHGC	MIN VTI/SHGC
<b>VERTICAL (0% - 40% OF WALL ALLOWED)</b>						
FIXED	U-0.36	0.36	1.10			
OPERABLE	U-0.45	0.33	1.10			
ENTRANCE DR	U-0.63	0.33	1.10			
<b>SKYLIGHT (0% - 3% OF ROOF ALLOWED)</b>						
	U-0.50	0.40	NR			
CI = CONTINUOUS INSULATION FC = FILLED CAVITY NR = NO REQUIREMENT NA = NOT APPLICABLE						

**CHAPTER 29: PLUMBING FIXTURES**

PLUMBING FIXTURE SUMMARY

FUNCTION (CH. 10)	TOTAL	OCCUPANTS		WATER CLOSETS		LAVATORIES		DRINKING FOUNTAINS
		MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	
BUSINESS	151	76	76	2.520	2.520	1.8	1.8	
UTILITY	7	4	4	.040	.040	.040	.040	
REQUIRED				3	3	3	3	0
GENDER NEUTRAL FIXTURES PROVIDED				11		8		1

**CHAPTER 34: EXISTING BUILDINGS**

SECTION 3403.1.3 ALTERATION, ADDITION OR CHANGE OF OCCUPANCY COMPLIANCE METHOD = PRESCRIPTIVE  
 SECTION 3403.1.3.1 PRESCRIPTIVE METHOD, REFER TO SECTION 3405  
 SECTION 3405.6 NO CHANGE OF OCCUPANCY IS PROPOSED  
 SCOPE OF WORK NARRATIVE  
 THE PROPOSED PROJECT IS A RENOVATION AND ADDITION TO AN EXISTING 10,400 S.F. BUILDING. A PORTION OF THE EXISTING BUILDING IS A 1-STORY PRE-ENGINEERED STEEL FRAMED BUILDING. THE OTHER PORTION OF THE BUILDING IS A 2-STORY WOOD FRAMED BUILDING. THE STRUCTURE FOR THE ADDITION WILL MEET OR EXCEED ALL GRAVITY, WIND AND LATERAL RESISTANCE REQUIREMENTS AND BE SEISMICALLY ISOLATED FROM THE EXISTING BUILDING. NO STRUCTURAL UPGRADES ARE PROPOSED FOR THE EXISTING BUILDING. THE BUILDING ADDITION WILL MEET OR EXCEED THE 2021 OEESC MINIMUM STANDARDS. NO ENERGY EFFICIENCY UPGRADES ARE PROPOSED FOR THE EXISTING BUILDING. FIRE DETECTION SYSTEMS WILL ALL MEET OR EXCEED CODE MINIMUMS.



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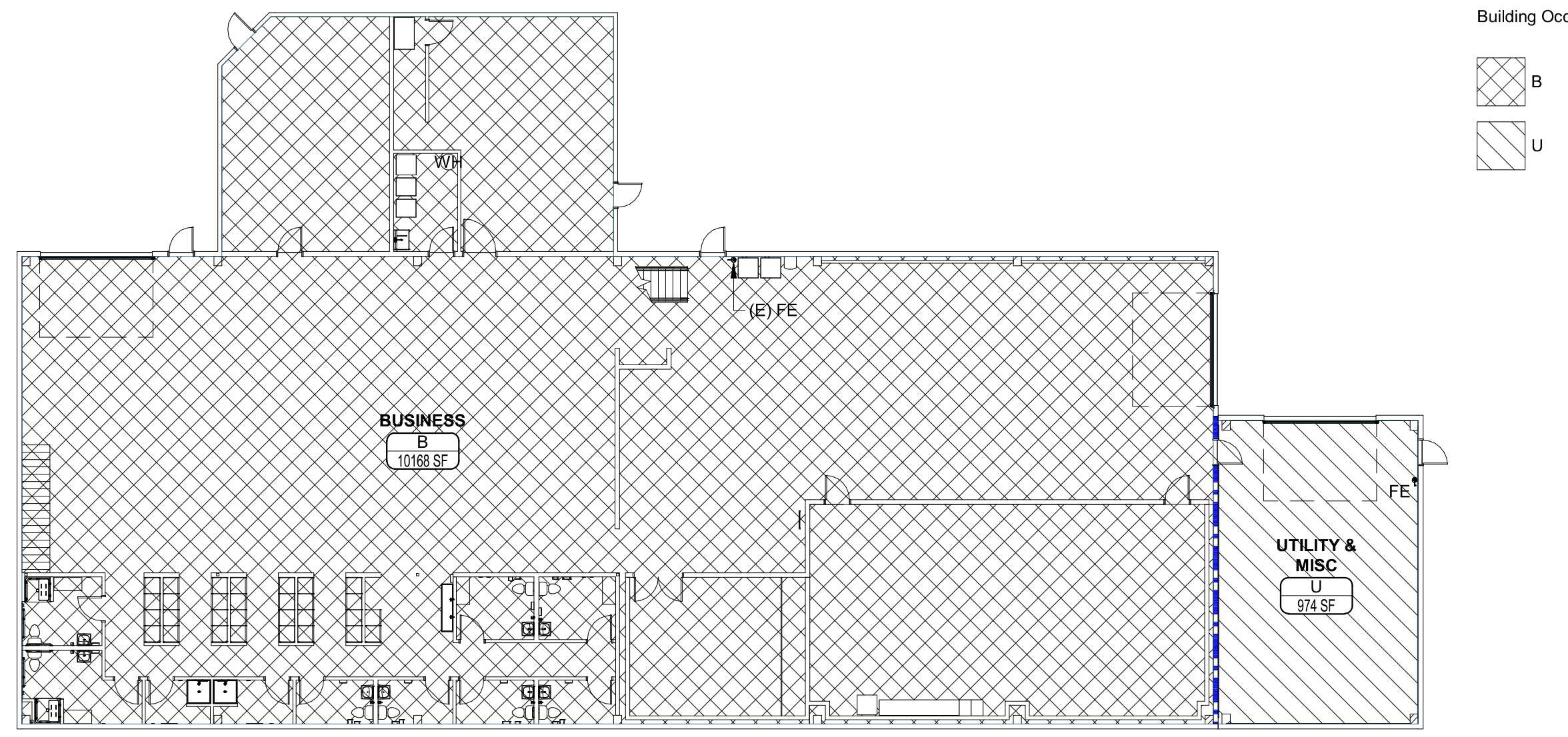
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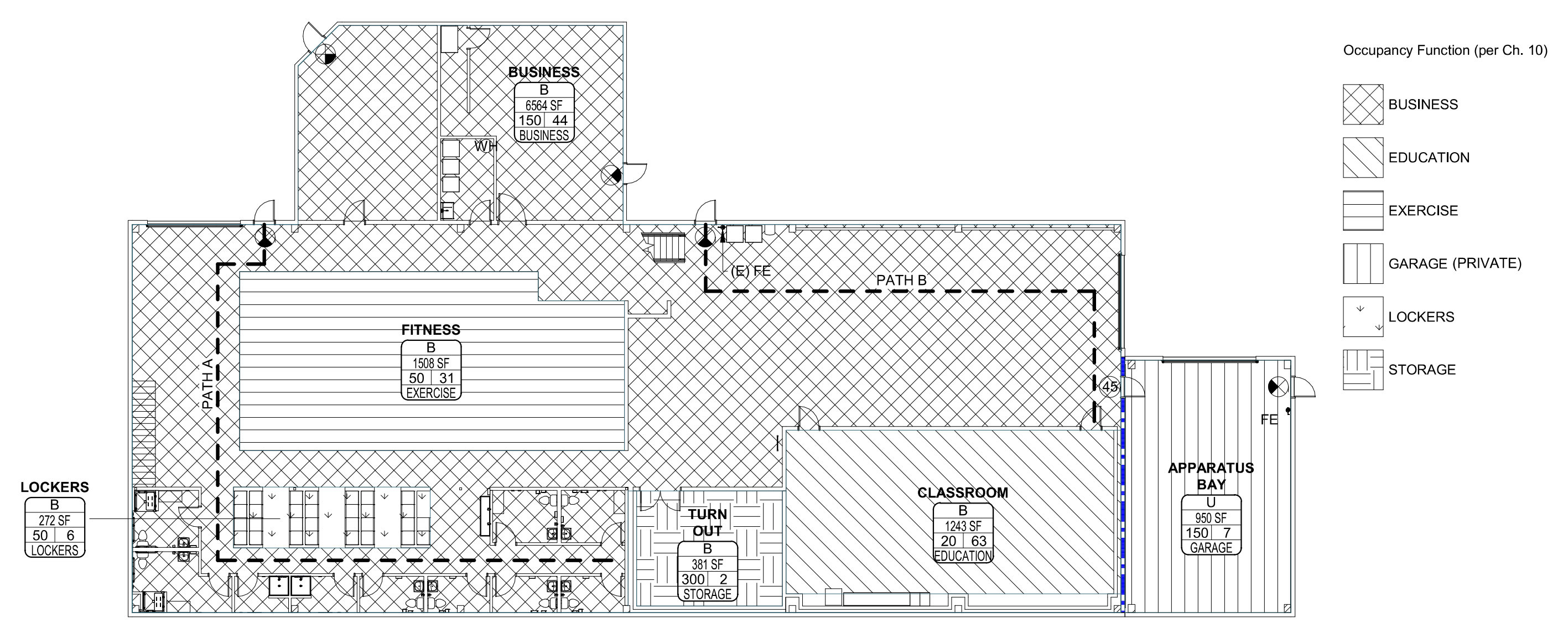
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**1 BUILDING OCCUPANCY PLAN (CHAPTER 3)**  
1/16" = 1'-0"



**2 LIFE SAFETY PLAN (CHAPTER 10)**  
1/16" = 1'-0"

EXIT ACCESS TRAVEL DISTANCE	
EGRESS PATH NAME	EGRESS PATH LENGTH
PATH A	117' - 0"
PATH B	88' - 3"

LIFE SAFETY OCCUPANT LOAD SCHEDULE				
TABLE 1004.5				
AREA NAME	AREA (SF)	FUNCTION OF SPACE	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
FIRST FLOOR				
APPARATUS BAY	950 SF	GARAGE	150	7
BUSINESS	6564 SF	BUSINESS	150	44
CLASSROOM	1243 SF	EDUCATION	20	63
FITNESS	1508 SF	EXERCISE	50	31
LOCKERS	272 SF	LOCKERS	50	6
TURN OUT	381 SF	STORAGE	300	2

\*THE BUILDING IS PRIMARILY UTILIZED FOR THE TRAINING OF FIRE FIGHTER CADETS AND THE TOOLS, EQUIPMENT AND GEAR NEEDED FOR TRAINING. THE TRAINING PROGRAM IS LIMITED TO A MAXIMUM OF 24 CADETS AT AT TIME WITH 4 TRAINING STAFF. ADDITIONALLY, THE BUILDING IS ALSO USED FOR ADMINISTRATIVE DUTIES WITH 6 STAFF. THOUGH THE LOAD SCHEDULE CITES 153 OCCUPANTS, THE ACTUAL NUMBER OF OCCUPANTS IS 34 MAXIMUM.

**CODE SUMMARY LEGEND**

1 HOUR RATED FIRE BARRIER

WALL RATINGS TO CONTINUE ABOVE / BELOW ALL DOORS, RELITES, ETC.

AREA NAME

NAME  
Occ Grp  
# SF  
OLF# #  
Function

OCCUPANCY (CH. 3)  
AREA (SF)  
OCCUPANT LOAD FACTOR / NUMBER OF OCCUPANTS  
FUNCTION (CH. 10)

EXIT SIGN  
SHADE INDICATES ILLUMINATE FACE. CHEVRON INDICATES DIRECTION TO EXIT

PATH A  
100' - 0"

DOOR RATING (IN MINUTES)

FE  
MULTI-PURPOSE FIRE EXTINGUISHER (FE) ON BRACKET. VERIFY EXACT LOCATIONS AND QUANTITY WITH FIRE DEPARTMENT.



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Date: 2025.01.07 13:03:12-08'00'

**CLACKAMAS FIRE TRAINING WAREHOUSE**

Job Number: 24083  
16170 SE 130th AVE  
CLACKAMAS, OR. 97015



PERMIT SET 12-20-2024  
Issue Date

Drawing:  
**FIRE LIFE SAFETY PLAN**

Sheet No:  
**G1.02**

FILE PATH: C:\Revit\_Local\24083 CFD Training Warehouse\_v24\_ijorgensenZEPNR.rvt

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ABBREVIATIONS							
#	POUND OR NUMBER	EXT	EXTERIOR	MTL	METAL	SYM	SYMMETRICAL
@	AT			MULL	MULLION		
CL	CENTERLINE	FA	FIRE ALARM			T	TREAD OR TILE
L	ANGLE	FC	FIBER CEMENT	(N)	NEW	T&G	TONGUE AND GROOVE
ø	DIAMETER OR ROUND	FD	FLOOR DRAIN	N	NORTH	T/M	TO MATCH
		FDN	FOUNDATION	NIC	NOT IN CONCRCT	TC	TOP OF CURB
AB	ANCHOR BOLT	FE	FIRE EXTINGUISHER	NO	NUMBER	TEL	TELEPHONE
AC	ASPHALTIC CONCRETE	FEC	FIRE EXTINGUISHER CABINET	NOM	NOMINAL	TEMP	TEMPERATURE
ACT	ACOUSTIC CEILING TILE	FG	FIBERGLASS	NTS	NOT TO SCALE	TER	TERRAZZO
AD	AREA DRAIN	FIN	FINISH			THK	THICK / THICKNESS
ADJ	ADJUSTABLE	FLASH	FLASHING	OBS	OBSURE	TJ	TOOL JOINT
AFF	ABOVE FINISH FLOOR	FLR	FLOOR	OC	ON CENTER	TLT	TOILET
AFG	ABOVE FINISH GRADE	FLUOR	FLUORESCENT	OD	OUTSIDE DIAMETER	TO	TOP OF
ALT	ALTERNATE	FOC	FACE OF CONCRETE	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	TOC	TOP OF CONCRETE
ALUM	ALUMINUM	FOF	FACE OF FINISH	OFOI	OWNER FURNISHED CONTRACTOR INSTALLED	TOP	TOP OF PARAPET
ANOD	ANODIZED	FOS	FACE OF STUD	OFOI	OWNER FURNISHED CONTRACTOR INSTALLED	TOS	TOP OF STEEL
APPROX	APPROXIMATE / APPROXIMATELY	FRP	FIBERGLASS REINFORCED PLASTIC	OPNG	OPENING	TOSF	TOP OF SUB-FLOOR
ARCH	ARCHITECTURAL / ARCHITECT	FRT	FIRE RETARDANT TREATED	OPP	OPPOSITE	TOW	TOP OF WALL
ASPH	ASPHALT	FRZ	FREEZER	OTS	OPEN TO STRUCTURE	TP	TOP
		FT	FOOT / FEET			TS	TUBE STEEL
		FTG	FOOTING	P	PANTRY	TV	TELEVISION
BC	BOTTOM OF CURB	FURR	FURRING	PC	PRECAST	TYP	TYPICAL
BD	BOARD	FUT	FUTURE	PIP	POURED IN PLACE		
BITUM	BITUMINOUS			PL	PLATE OR PROPERTY LINE	UL	UNDERWRITER'S LABORATORY
BLDG	BUILDING	GA	GAUGE	PLAM	PLASTIC LAMINATE	UNF	UNFINISHED
BLK	BLOCK	GALV	GALVANIZED	PLAS	PLASTIC	UNO	UNLESS NOTED OTHERWISE
BLKG	BLOCKING	GC	GENERAL CONTRACTOR	PLYWD	PLYWOOD	UR	URINAL
BLW	BELOW	GI	GALVANIZED IRON	PNT	PAINT		
BO	BOTTOM OF	GL	GLULAM	PSF	POUNDS PER SQUARE FOOT	VB	VAPOR BARRIER
BOT	BOTTOM	GND	GROUND	PSI	POUNDS PER SQUARE INCH	VCT	VINYL COMPOSITION TILE
BRG	BEARING	GR	GRADE	PT	PRESSURE TREATED	VERT	VERTICAL
BTWN	BETWEEN	GWB	GYP SUM BOARD	PTD	PAINTED	VFY	VERIFY
BUR	BUILT UP ROOF	GYP	GYP SUM BOARD	PVC	POLYVINYL CHLORIDE	VG	VERTICAL GRAIN
		GYP BD	GYP SUM BOARD	QT	QUARRY TILE	VIF	VERIFY IN FIELD
						VP	VENT PIPE
						VR	VAPOR RETARDER
CAB	CABINET			R	RADIUS OR RISER	W	WEST
CB	CATCH BASIN	HB	HOSE BIB	RA	RETURN AIR	W	WATT
CFM	CUBIC FEET PER MINUTE	HC	HOLLOW CORE	RB	RESILIENT BASE	W	WITH
CI	CAST IRON	HDR	HEADER	RD	ROOF DRAIN	W/O	WITHOUT
CIP	CAST IN PLACE	HDWD	HARDWOOD	REC	RECOMMENDATION	WC	WATER CLOSET
CJ	CONTROL JOINT	HDWR	HARDWARE	REF	REFERENCE	WD	WOOD
CL	CENTERLINE	HM	HOLLOW METAL	REFR	REFRIGERATOR	WDO	WINDOW
CLG	CEILING	HNDCP	HANDICAP	REIN	REINFORCEMENT	WF	WIDE FLANGE
CLR	CLEAR	HORIZ	HORIZONTAL	REQ'D	REQUIRED	WI	WROUGHT IRON
CMU	CONCRETE MASONRY UNIT	HPP	HORSE POWER	RESIL	RESILIENT	WO	WHERE OCCURS
CO	CLEAN OUT	HPL	HIGH PRESSURE LAMINATE	REV	REVISIONS	WP	WATERPROOF
CO	CLEAN OUT	HR	HOUR	RF	RESILIENT FLOOR	WR	WATER RESISTANT
COL	COLUMN	HSS	HOLLOW STRUCTURAL STEEL	RH	RIGHT HAND	WRB	WATER RESISTANT BARRIER
CONC	CONCRETE	HT	HEIGHT	RM	ROOM	WSCT	WAINSCOT
CONN	CONNECTION	HVAC	HEATING VENTILATING AIR CONDITIONING	RO	ROUGH OPENING	WT	WEIGHT
CONT	CONTINUOUS			ROW	RIGHT OF WAY	WWF	WELDED WIRE FABRIC
CPT	CARPET	HW	HOT WATER	RWL	RAIN WATER LEADER		
CSMT	CASEMENT			S	SOUTH		
CT	CERAMIC TILE	ID	INSIDE DIAMETER	SA	SUPPLY AIR		
CTSK	COUNTERSUNK	IE	INVERT ELEVATION	SAM	SELF ADHERED MEMBRANE		
CW	COLD WATER	IN	INCHES	SC	SOLID CORE		
CWD	CLAD WOOD	INSUL	INSULATION	SCHED	SCHEDULE		
		INT	INTERIOR	SEC	SECTION		
				SF	SQUARE FOOT		
DBL	DOUBLE			SHT	SHEET		
DEC	DEGREE			SHTG	SHEATHING		
DEMO	DEMOLISH / DEMOLITION	JB	JUNCTION BOX	SHWR	SHOWER		
DEPT	DEPARTMENT	JH	JOIST HANGER	SIM	SIMILAR		
DEPT	DEPARTMENT	JST	JOIST	SM	SHEET METAL		
DET	DETAIL	JT	JOINT	SP	SOLID PIPE		
DF	DOUGLAS FIR			SPEC	SPECIFICATIONS		
DH	DOUBLE HUNG	KD	KILN DRIED	SPK	SPEAKER		
DIA	DIAMETER	KIT	KITCHEN	SQ	SQUARE		
DIAG	DIAGONAL	KW	KILOWATT	SS	STAINLESS STEEL		
DIM	DIMENSION			SKK	SERVICE SINK		
DISP	GARBAGE DISPOSAL	LAM	LAMINATED	SSM	SOLID SURFACE MATERIAL		
DN	DOWN	LAV	LAVATORY	STA	STATION		
DO	DOOR OPENING	LB	LEADER BOX	STD	STANDARD		
DP	DAMP PROOF	LH	LEFT HAND	STL	STEEL		
DR	DOOR	LKR	LOCKER	STN	STAIN		
DS	DOWNSPOUT	LT	LIGHT	STR	STRUCTURAL		
DSP	DRY STANDPIPE	LTWT	LIGHTWEIGHT	STRUCT	STRUCTURAL		
DTL	DETAIL			SUSP	SUSPENDED		
DW	DISHWASHER	MAT	MATERIAL				
DWG	DRAWING	MAX	MAXIMUM				
DWR	DRAWER	MB	MACHINE BOLT				
		MC	MEDICINE CABINET				
(E)	EXISTING	MECH	MECHANICAL				
E	EAST	MFR	MANUFACTURER				
EA	EACH	MH	MANHOLE				
EJ	EXPANSION JOINT	MIN	MINIMUM				
ELEC	ELECTRICAL	MIR	MIRROR				
ELEV	ELEVATION	MISC	MISCELLANEOUS				
EMER	EMERGENCY	MO	MASONRY OPENING				
ENCL	ENCLOSURE	MRGWB	MOISTURE RESISTANT GWB				
EQ	EQUAL	MTD	MOUNTED				
EQUIP	EQUIPMENT						
EXIST	EXISTING						
EXP	EXPOSED						

### DIMENSIONS

A. DIMENSIONS ARE INDICATED IN THE DOCUMENTS. THE DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. NOTIFY ARCHITECT IF ADDITIONAL DIMENSIONS ARE NECESSARY.

B. IN MANY INSTANCES THE ACTUAL DIMENSIONS MAY BE LESS IMPORTANT THAN IF ELEMENTS ARE TO BE EQUALLY SPACED OR ALIGNED. IN THESE CASES, THE NOTATION "EQ" OR "ALIGN" IS USED IN LIEU OF A DIMENSION.

C. DETAILS WILL GOVERN ALL DIMENSIONS NOT SHOWN ON PLANS. REFERENCE INDICATED DIMENSION POINTS.

D. DIMENSIONS SHOWN ARE TO GRIDLINE, CENTERLINE OF COLUMN, OR FACE OF STUD / MASONRY, UNLESS NOTED OTHERWISE.

E. INTERIOR WALLS WHICH ARE EQUALLY SPACED ARE DIMENSIONED TO CENTERLINE OF WALL.

F. DOORS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALLS AS SHOWN ON PLANS OR LOCATED 4" FROM FACE OF STUD TO OPENING.

### GRAPHIC SYMBOLS

**NORTH ARROW**  
NORTH

**GRID LINE**  
#

**VERTICAL DATUM**  
NAME ELEVATION

**ROOM NAME AND NUMBER**  
NAME 101

**EXTERIOR ELEVATION**  
DRAWING NUMBER SHEET NUMBER

**BUILDING SECTION / WALL SECTION**  
DRAWING NUMBER SHEET NUMBER

**INTERIOR ELEVATION**  
DRAWING NUMBER SHEET NUMBER

**DETAIL CALLOUT**  
DRAWING NUMBER SHEET NUMBER

**DOOR NUMBER**  
ROOM NUMBER DOOR

**CEILING HEIGHT**  
CEILING HEIGHT ABOVE LEVEL  
ACCENT PAINT COLOR WHERE OCCURS

**WALL / ASSEMBLY TYPE**  
CONFIGURATION  
WALL TYPE MODIFIERS

**FLOOR / FLOOR-CEILING ASSEMBLY [F-#]  
CEILING ASSEMBLY [C-#]  
ROOF / ROOF-CEILING ASSEMBLY [R-#]**  
ASSEMBLY CATEGORY  
ASSEMBLY NUMBER

**ACCESSORY / EQUIPMENT TYPE**  
MATERIAL TYPE  
MATERIAL NUMBER

**SPOT ELEVATION**  
HEIGHT ABOVE LEVEL  
TOP OF CURB HEIGHT  
BOTTOM OF CURB HEIGHT

**KEYNOTE**  
SPECIFICATION DIVISION NUMBER  
NOTE NUMBER

**REVISION**  
REVISION NUMBER  
REVISION DOCUMENT

**Scott Edwards Architecture**  
2525 E Burnside St. Portland, OR 97214 503.226.3617 seallp.com

REGISTERED ARCHITECT  
SIDNEY L. SCOTT  
PORTLAND, OREGON  
8227  
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Date: 2025.01.07 13:03:16 -08'00'

## CLACKAMAS FIRE TRAINING WAREHOUSE

Job Number: 24083  
16170 SE 130th AVE  
CLACKAMAS, OR. 97015

CLACKAMAS FIRE DISTRICT

PERMIT SET 12-20-2024  
Issue Date  
Drawing:  
**ARCHITECTURAL GENERAL NOTES AND DIAGRAMS**

Sheet No: **A0.01**



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**CLACKAMAS  
FIRE TRAINING  
WAREHOUSE**

Job Number: 24083

16170 SE 130th AVE  
CLACKAMAS, OR. 97015



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**REQUIRED CLEAR FLOOR AREAS**  
PER ICC A117.1-2017

**FIG. 304.3.1.1 TURNING SPACE: CIRCULAR**  
67" MIN\*  
10" OVERLAP\*\*  
\* 60" MIN EXISTING BUILDINGS  
\*\* 25" MAX EXISTING BUILDINGS

**FIGURE 604.3 SIZE OF CLEARANCE FOR WATER CLOSET**  
56"  
60"  
OTHER FIXTURES NOT ALLOWED WITHIN THIS AREA

**FIGURE 604.3 SIZE OF CLEARANCE FOR URINAL**  
30" x 52" CENTERED ON URINAL  
\* 48" MIN EXISTING BUILDINGS

**FIGURE 604.3 SIZE OF CLEARANCE FOR URINAL**  
17" - 25" TOE CLEARANCE  
30" x 52" CENTERED ON LAVATORY  
25" MAX KNEE CLEARANCE  
\* 48" MIN EXISTING BUILDINGS

**FIGURE 304.3.2.1 TURNING SPACE: T-SHAPED**  
68" MIN  
64" MIN  
60" MIN  
36" MIN  
8" MIN  
16" MIN  
36" MIN  
OPTION 1  
60" MIN  
39" MIN  
60" MIN  
11" MIN  
42" MIN  
OPTION 2  
64" MIN\*  
60" MIN  
40" MIN\*\*  
12" MIN  
40" MIN\*\*  
OPTION 3  
OVERLAP ARM OR BASE

**FIGURE 305.3.1 REQUIRED FLOOR AREA**  
\* 48" MIN EXISTING BUILDINGS

**FIGURE 305.7.2 ALCOVE: FORWARD APPROACH**

**FIGURE 305.7.1 ALCOVE: PARALLEL APPROACH**

**MANEUVERING CLEARANCES AT MANUAL SWING DOORS**  
PER ICC A117.1-2017, FIG. 404.2.3.2

(A) FRONT APPROACH PULL SIDE  
60" MIN  
18" MIN

(B/C) FRONT APPROACH PUSH SIDE  
52" MIN\*\*  
12" MIN  
\* IF BOTH CLOSER AND LATCH ARE PROVIDED  
\*\* 48" MIN EXISTING BUILDINGS

(D) HINGE APPROACH PULL SIDE  
60" MIN  
36" MIN

(E) HINGE APPROACH PUSH SIDE  
54" MIN  
42" MIN

(F) HINGE APPROACH PUSH SIDE  
42" MIN\*\*  
22" MIN  
\* IF BOTH CLOSER AND LATCH ARE PROVIDED  
\*\* 48" MIN IF BOTH CLOSER AND LATCH ARE PROVIDED

(G) LATCH APPROACH PULL SIDE  
48" MIN\*  
24" MIN  
\* 54" MIN IF CLOSER IS PROVIDED

(H) LATCH APPROACH PUSH SIDE  
24" MIN  
42" MIN  
\* 48" MIN IF CLOSER IS PROVIDED

**ACCESSIBILITY NOTES**

A. VERIFY ALL ACCESSIBILITY REQUIREMENTS WITH CURRENT CODE AND LOCAL JURISDICTION.

B. DIAGRAMS ARE INCLUDED AS A CONVENIENCE ONLY AND ARE NOT ALL INCLUSIVE. REFERENCE CURRENT CODE AND PROJECT DOCUMENTS FOR ADDITIONAL REQUIREMENTS.

C. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN DIMENSIONS SHOWN HERE AND PROPOSED WORK.

**INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA)**

INTERNATIONAL SYMBOL (WHITE)  
BACKGROUND (BLUE)  
GRID SHOWN FOR REFERENCE ONLY

**PROTRUDING OBJECTS**  
PER ICC A117.1-2017 FIG. 307.2

4" MAX.  
80" >=

**WALL TYPES**

**IW5** 1 HR RATED  
UL # U305  
STC  
IIC  
2x STUDS @ 16" O.C. INFILL BETWEEN EXISTING WALL GIRTS  
5/8" GWB TYPE 'X' EACH SIDE

**IW1**  
2x4 STUDS @ 16" O.C.  
5/8" GWB EACH SIDE

**IW6**  
2x6 STUDS @ 16" O.C.  
5/8" GWB EACH SIDE

**IW2**  
3/4" PLYWOOD  
2x4 STUDS @ 16" O.C.

**IW7**  
5/8" GWB  
2x6 STUDS @ 16" O.C.

**IW3**  
3/4" PLYWOOD  
2x6 STUDS @ 16" O.C.  
5/8" GWB

**IW8**  
3/4" PLYWOOD  
2x6 STUDS @ 16" O.C.

**IW4**  
PLYWOOD SHEATHING PER STRUCT  
2x6 STUDS @ 16" O.C.  
5/8" GWB

**STANDARD MOUNTING HEIGHTS AND CLEARANCE REQUIREMENTS**  
PER ICC A117.1-2017

DIMENSIONS ARE FROM FACE OF FINISH AND/OR CENTERLINE OF FIXTURE OR ACCESSORY

**STANDARD TOILET**  
24"-36"  
18" MIN  
16"-18"  
17"-19"

**ACCESSIBLE TOILET AND GRAB BARS**  
39"-41"  
33"-36"  
24"-36"  
16"-18"  
17"-19"

**ACCESSIBLE URINAL**  
12"  
42"  
40"  
8" MIN  
16"-18"  
17"-19"

**LAVATORY**  
36"  
6"  
44" MAX  
17" MAX  
6" MIN  
8" MIN KNEE CLEARANCE  
40" MAX TO BO REFLECTIVE SURFACE  
INSULATED PIPE WRAP

**TOILET ROOM ACCESSORIES**  
SD PTD  
48" MAX HIGHEST OPERABLE PART  
44" MIN  
48" MAX

**COAT HOOK**  
CH  
44" MIN  
48" MAX

**ACCESSIBLE SHOWER**  
48"  
38"  
33"-36"

**DRINKING FOUNTAIN SPOUT**  
WHEEL CHAIR ACCESSIBLE  
36" MAX  
38"-43"  
15" MIN  
5" MAX

**FIRE EXTINGUISHER CABINET**  
FEC  
48" MAX  
TO OPERABLE PARTS

**ELECTRICAL DEVICES AND CONTROLS**  
8" TYP @ DOORS  
FIRE STROBE  
48" MAX  
15" MIN

**SIGNAGE**  
48" MIN / 60" MAX  
BO TACTILE CHARACTERS  
SIGNAGE

PERMIT SET 12-20-2024

Issue Date

Drawing:

**WALL TYPES &  
GENERAL DIAGRAMS**

Sheet No:

**A0.10**

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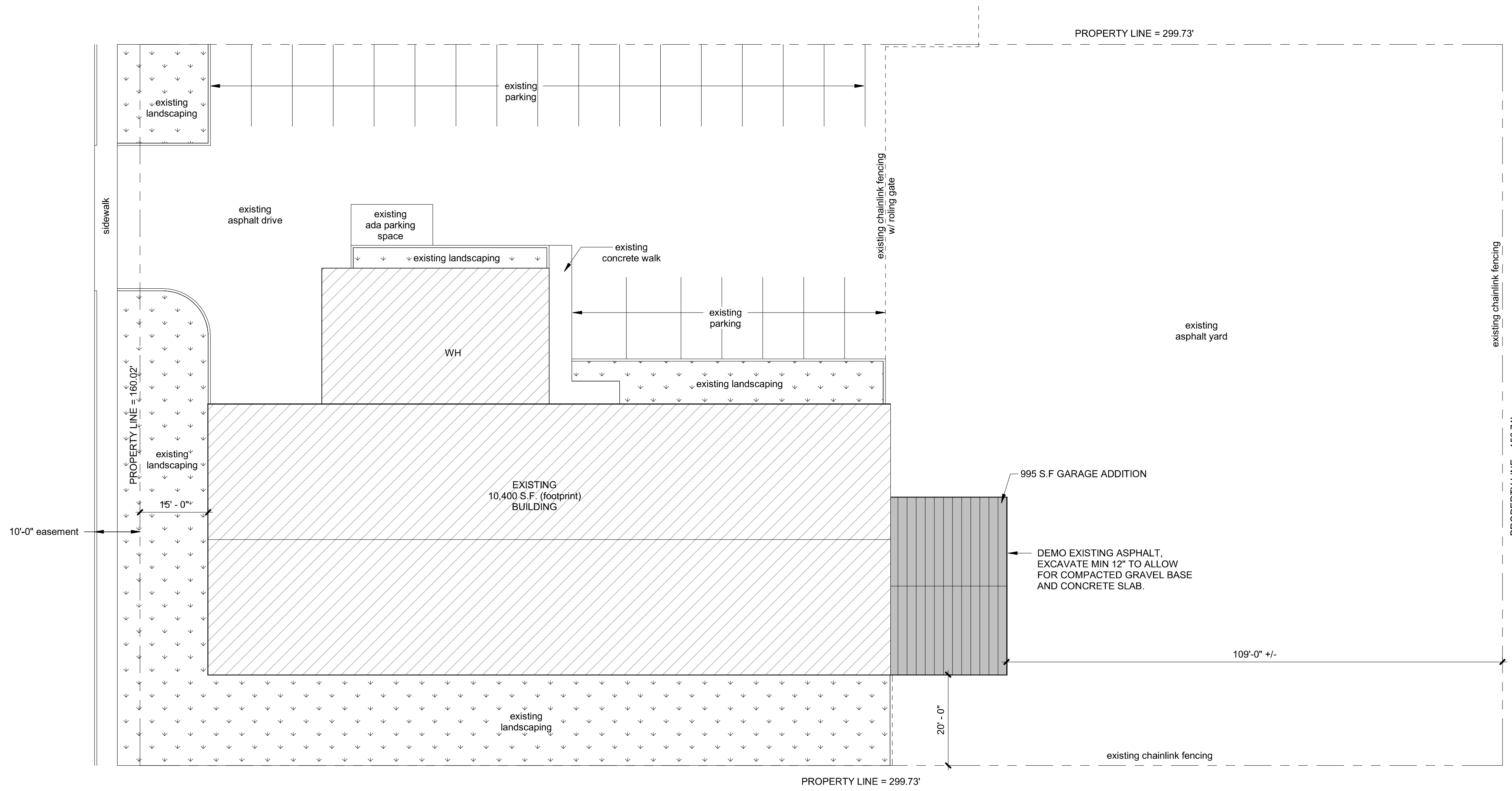


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# CLACKAMAS FIRE TRAINING WAREHOUSE

Job Number: 24083

16170 SE 130th AVE  
CLACKAMAS, OR. 97015



**1 SITE PLAN**  
1/16" = 1'-0"

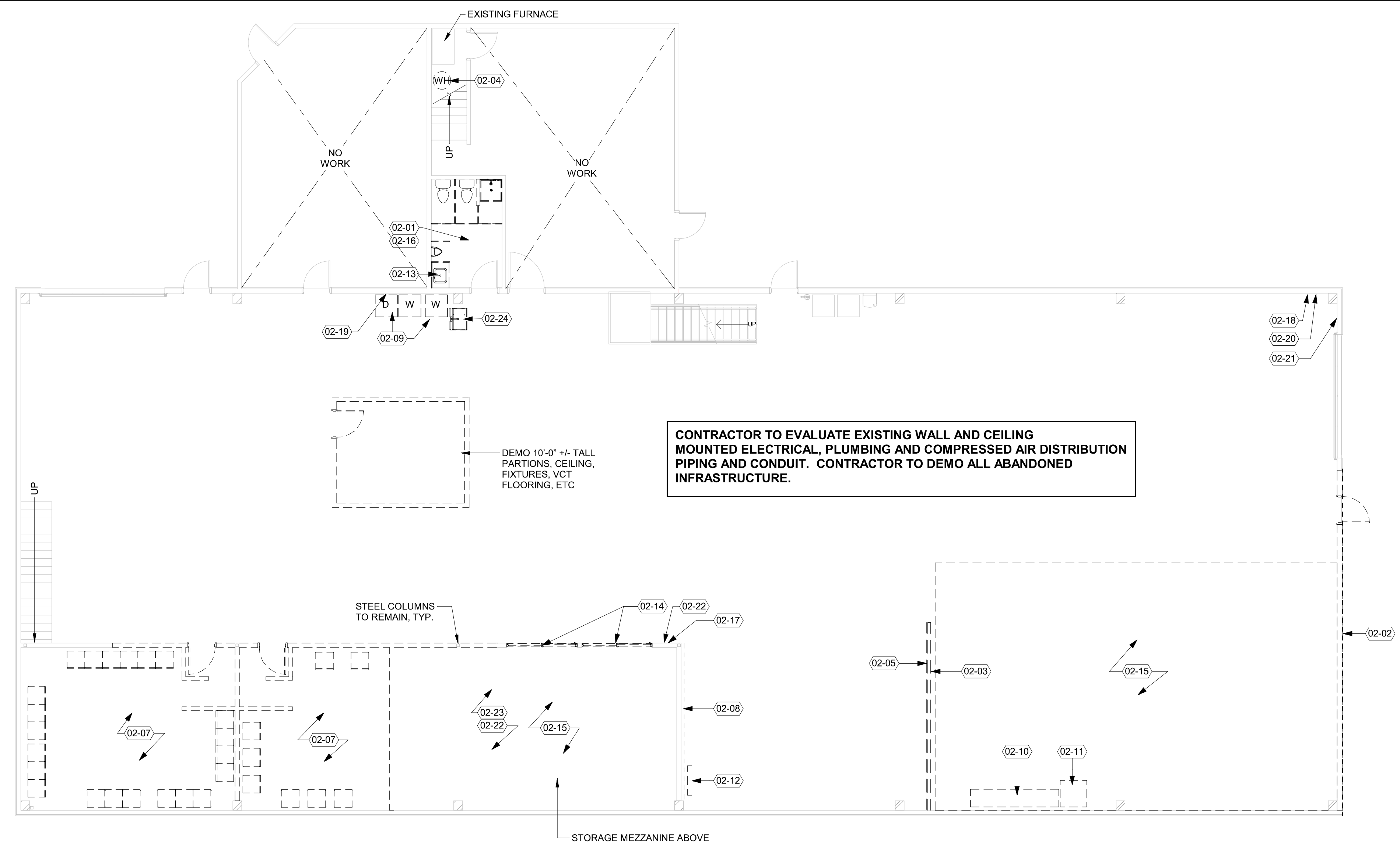
PERMIT SET	12-20-2024
Issue	Date
Drawing:	
<b>SITE PLAN</b>	

Sheet No:  
**A1.01**

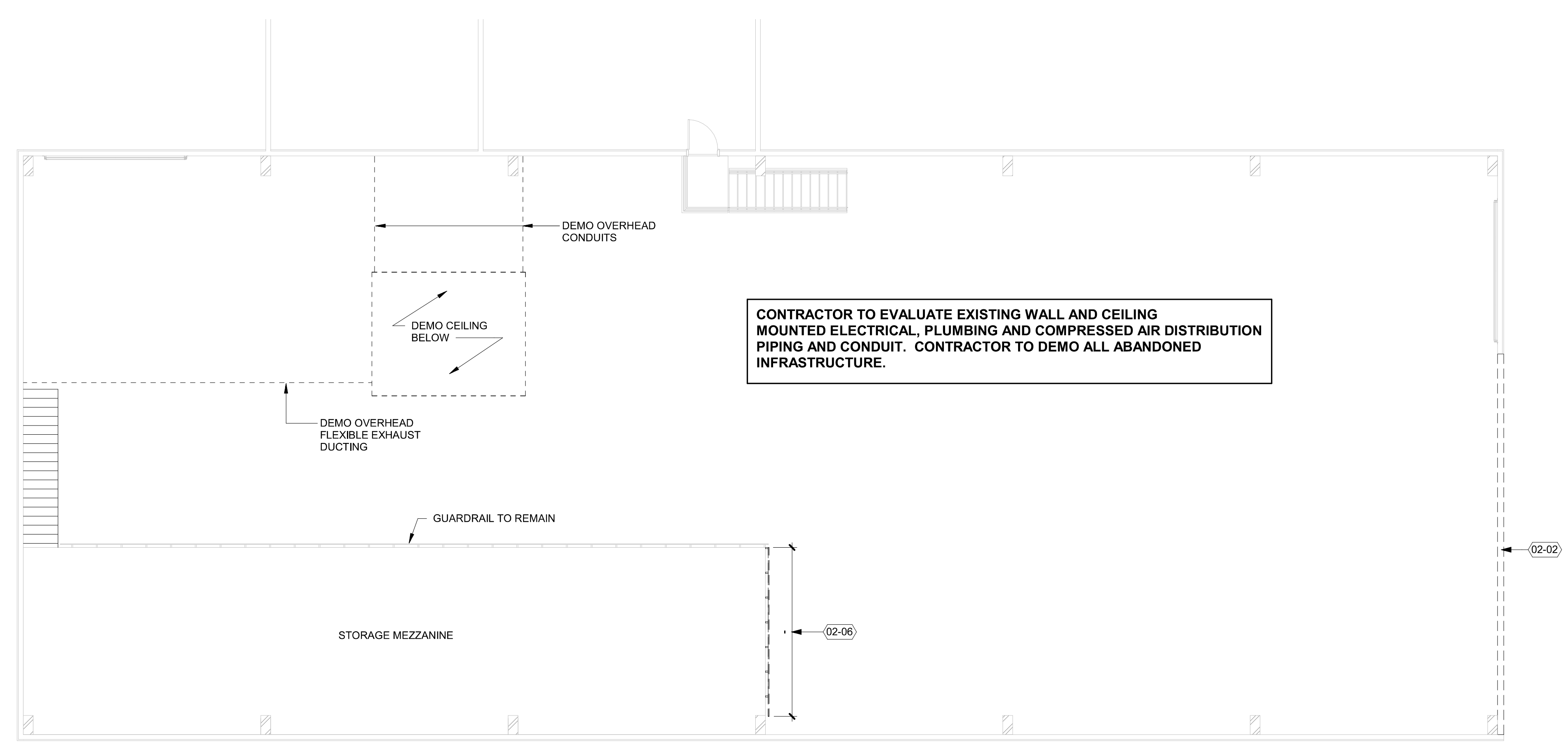
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**1 DEMO FLOOR PLAN**  
1/8" = 1'-0"



**2 DEMO MEZZANINE FLOOR PLAN**  
1/8" = 1'-0"

**KEYNOTES**

- 02-01 DEMO PLUMBING FIXTURES, TOILET PARTITIONS, ACCESSORIES, ETC
- 02-02 PARTIALLY REMOVE METAL SIDING TO ALLOW FOR NEW ADDITION
- 02-03 DEMO 8'-0" +/- TALL WOOD FRAMED PARTITION
- 02-04 DEMO ELECTRIC WATER HEATER
- 02-05 DEMO 8'-0" +/- TALL CHAIN LINK FENCING
- 02-06 DEMO GUARDRAIL
- 02-07 SALVAGE LOCKERS
- 02-08 SALVAGE HOOKS AND TURN OVER TO OWNER, DEMO WOOD RAILS
- 02-09 SALVAGE WASHER, DRYER, EXTRACTOR
- 02-10 SALVAGE COUNTERTOP AND CASEWORK
- 02-11 SALVAGE REFRIGERATOR
- 02-12 SALVAGE AXE DISPLAY, TURN OVER TO OWNER
- 02-13 DEMO SINK AND CASEWORK
- 02-14 DEMO VINYL SLIDING GLASS DOORS
- 02-15 SALVAGE RUBBER FLOORING, TURN OVER TO OWNER
- 02-16 DEMO VCT FLOORING AND RUBBER BASE
- 02-17 DEMO RUBBER BASE
- 02-18 SALVAGE MOP RACK, TURN OVER TO OWNER
- 02-19 SALVAGE LIQUID DETERGENT DISPENSERS
- 02-20 SALVAGE LIQUID CLEANING DISPENSERS, TURN OVER TO OWNER
- 02-21 DEMO WALL MOUNTED WOOD RAILS
- 02-22 SALVAGE WHITE BOARD(S), TURN OVER TO OWNER
- 02-23 SALVGE (2) TVS AND WALL MOUNTS, WALL MOUNTED ROPE HOLDER, (2) MIRRORS, TURN OVER TO OWNER
- 02-24 SALVAGE UTILITY SINK AND CABINET

**LEGEND - DEMO FLOOR PLAN**

- EXISTING TO REMAIN
- - - - - DEMO ITEMS

**GENERAL DEMO NOTES**

- A. COMPLY WITH ALL APPLICABLE LOCAL CODES AND ORDINANCES CONCERNING DEMOLITION OPERATIONS, RECYCLING, AND RESTRICTIVE REMOVAL.
- B. LIMITS OF DEMOLITION SHOWN IS FOR GENERAL GUIDANCE ONLY. CONTRACTOR SHALL ASCERTAIN THE FULL EXTENT OF DEMOLITION REQUIRED TO ACCOMMODATE THE NEW WORK AND PRODUCE A CONSISTENT APPEARANCE.
- C. PROVIDE TEMPORARY EXITING AS REQUIRED AND APPROVED BY LOCAL FIRE MARSHALL.
- D. COORDINATE ALL DEMOLITION AND SALVAGE WITH OWNER. OWNER TO COORDINATE REMOVAL OF EXISTING FURNISHINGS, FIXTURES AND EQUIPMENT UNLESS NOTED OTHERWISE.
- E. CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING OF EXISTING STRUCTURE AS REQUIRED.
- F. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT IMMEDIATELY OF DISCREPANCIES.
- G. IF EXISTING BUILDING IS TO REMAIN OCCUPIED DURING CONSTRUCTION, CARE IS TO BE TAKEN TO MINIMIZE NOISE, DUST, ODOR AND DISRUPTION OF OCCUPANTS AND UTILITIES. ALL BUILDING OUTAGES REQUIRED FOR COMPLETION OF WORK TO BE SCHEDULED WITH OWNER WITH 48 HOUR ADVANCE NOTIFICATION.
- H. REFER TO M/E/P DESIGN NARRATIVE FOR ADDITIONAL DEMO INFORMATION.
- I. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL DEMO INFORMATION.

**DEMO FLOOR FINISH NOTES**

- A. REFER TO KEYNOTES 02-06, 02-15, 02-16; REMOVE FLOORING, BACKING, ADHESIVE, ETC DOWN TO CONCRETE IN PREPARATION FOR NEW FLOORING OR CONCRETE SEAL.



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**CLACKAMAS FIRE TRAINING WAREHOUSE**

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16170 SE 130th AVE  
CLACKAMAS, OR. 97015



PERMIT SET 12-20-2024

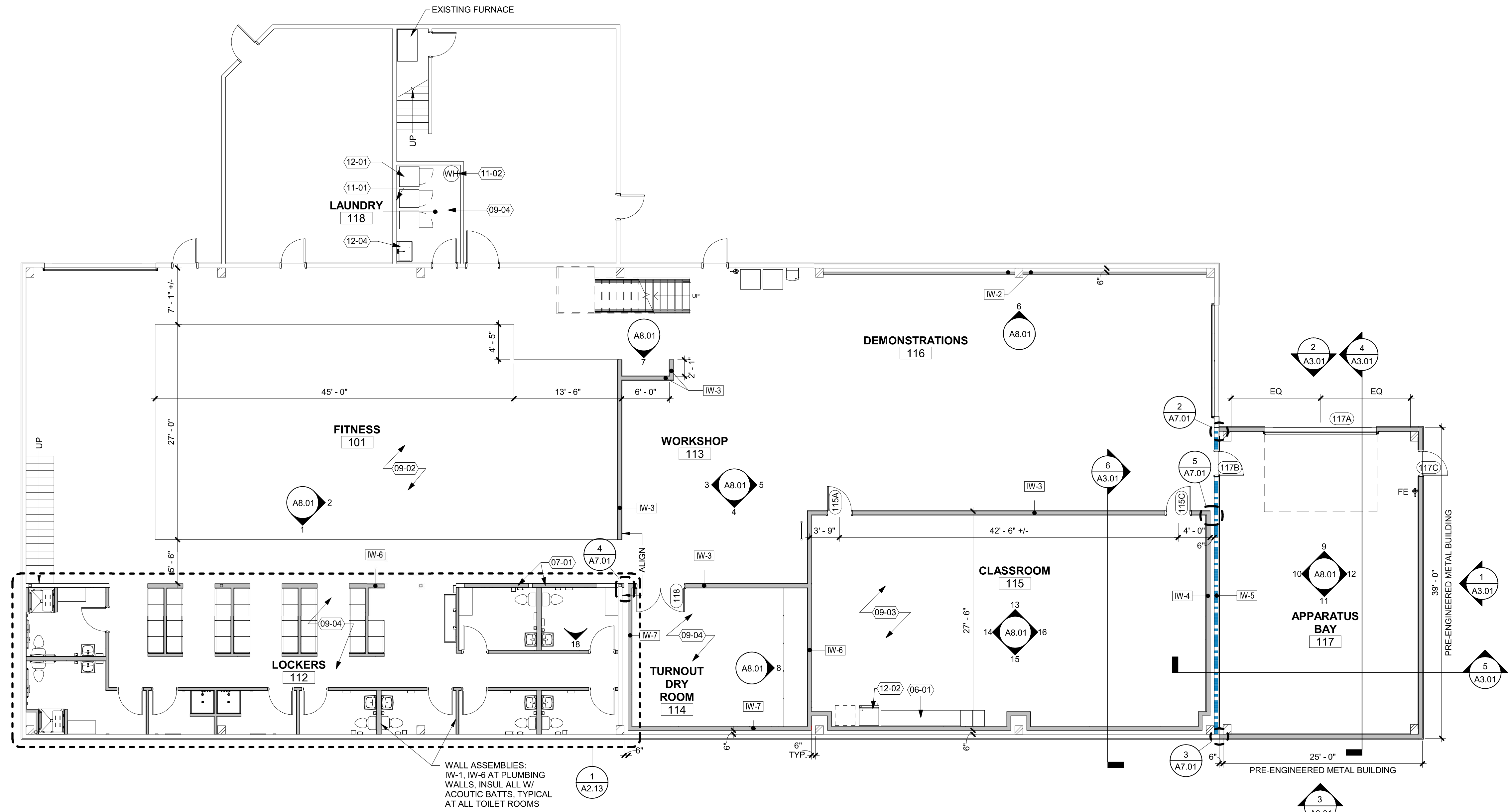
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Drawing:  
**DEMO FLOOR PLANS**

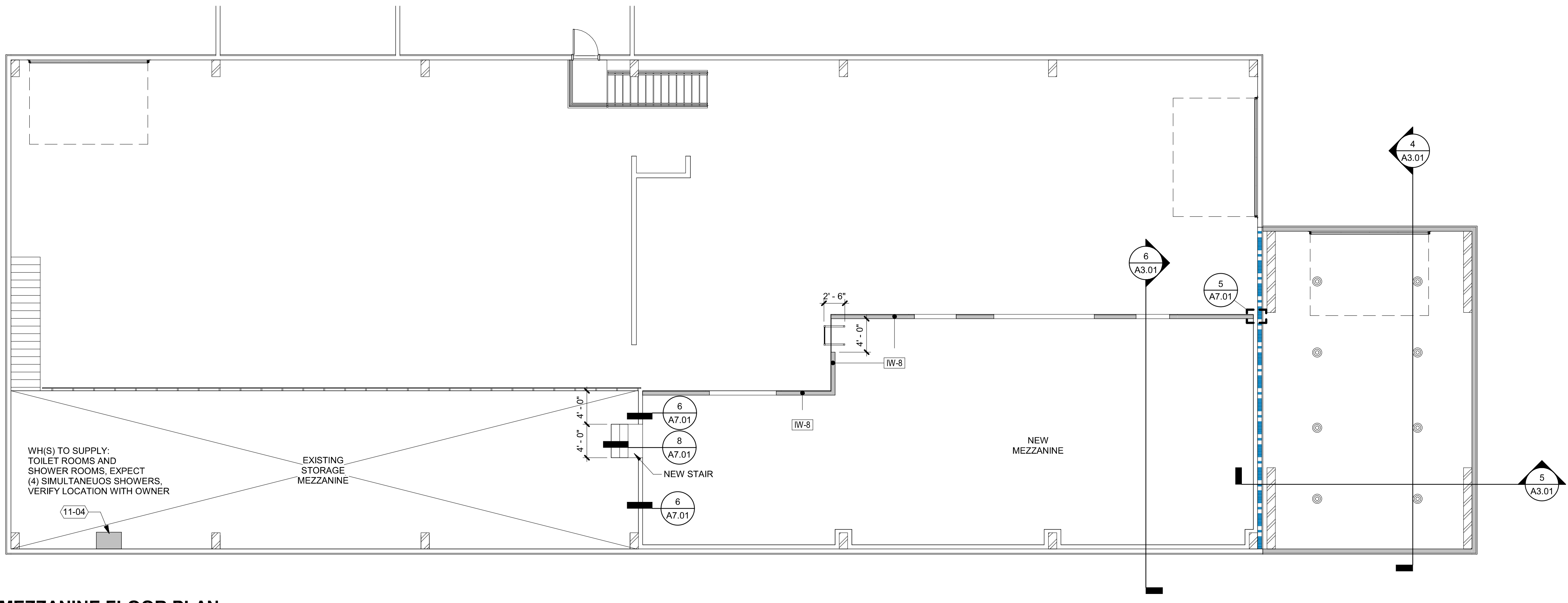
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**1 FIRST FLOOR PLAN**  
1/8" = 1'-0"



**2 MEZZANINE FLOOR PLAN**  
1/8" = 1'-0"

**KEYNOTES**

- 06-01 SALVAGED COUNTERTOP AND CASEWORK
- 07-01 INFILL WALL OPENING WITH 2X STUDS AND GWB EACH SIDE TO MATCH EXISTING
- 09-02 RUBBER FLOORING
- 09-03 CARPET
- 09-04 GRIND AND SEAL CONCRETE SLAB AT LOCKERS 112, ALL TOILET AND SHOWER ROOMS, TURNOUT 114, APPARATUS BAY 117
- 11-01 SALVAGED LIQUID DETERGENT DISPENSER
- 11-02 ELECTRIC WATER HEATER, PROVIDE POWER, CONNECT TO DOMESTIC SYSTEM
- 11-04 GAS FIRED TANKLESS WATER HEATER(S)
- 12-01 SALVAGED WASHER, DRYER, EXTRACTOR, PROVIDE WATER, DRYER VENTING, POWER, DRAIN
- 12-02 SALVAGED REFRIGERATOR, PROVIDE POWER AND WATER
- 12-04 SALVAGED UTILITY SINK AND CABINET

**FLOOR PLAN LEGEND**

- EXISTING
- NEW 1 HOUR RATED FIRE BARRIER
- NEW CONSTRUCTION

**FLOOR PLAN NOTES**

- A. REFER TO M/E/P DESIGN NARRATIVE FOR DESIGN BUILD INFORMATION AND ADDITIONAL INFORMATION
- B. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION



Digitally signed by Sid Scott  
Date: 2025.01.07 13:03:34-08'00'

**CLACKAMAS FIRE TRAINING WAREHOUSE**

Job Number: 24083  
16170 SE 130th AVE  
CLACKAMAS, OR. 97015



PERMIT SET 12-20-2024

Issue Date

Drawing:

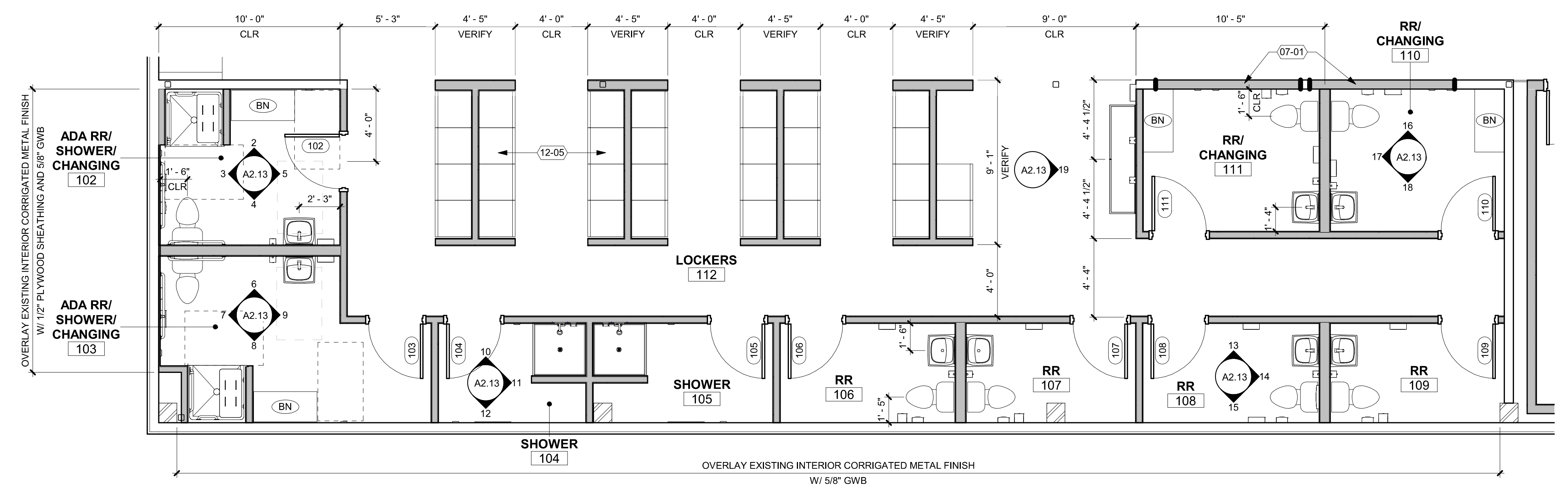
**FLOOR PLANS**

Sheet No:

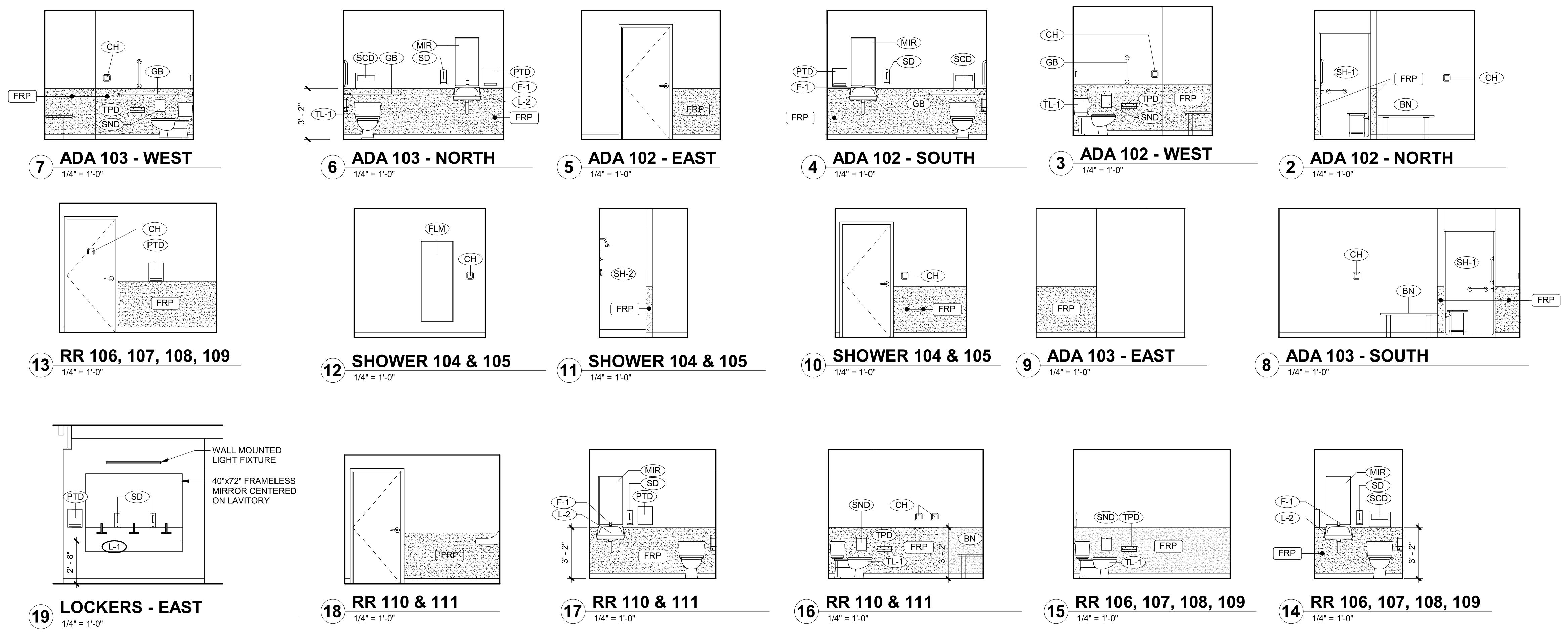
**A2.12**

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**1 FLOOR PLAN - ENLARGED TOILET ROOMS**  
1/4" = 1'-0"



**KEYNOTES**

07-01 INFILL WALL OPENING WITH 2X STUDS AND GWB EACH SIDE TO MATCH EXISTING

12-05 SALVAGED LOCKERS

---

PERMIT SET 12-20-2024

Issue Date

Drawing: ENLARGED TOILET ROOMS

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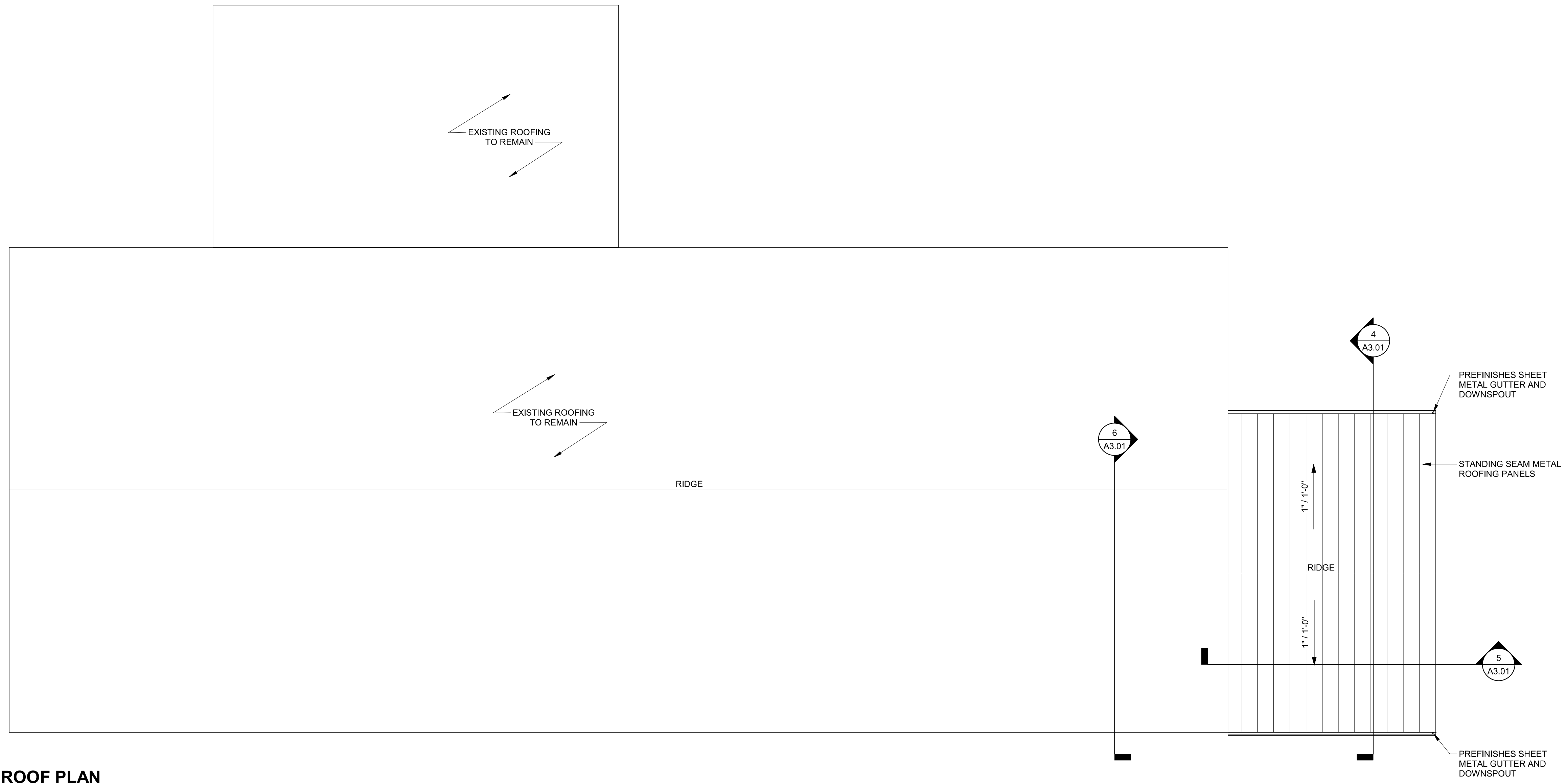
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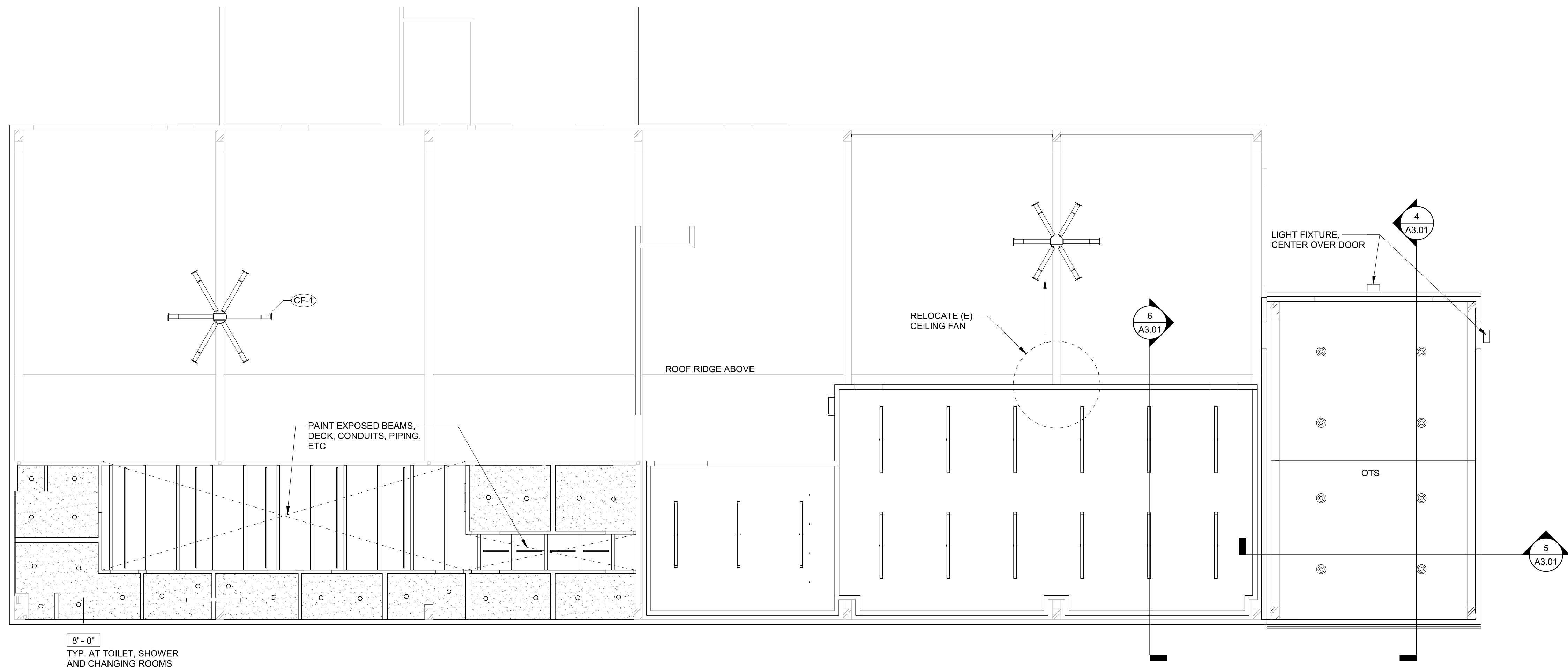
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**1 ROOF PLAN**  
1/8" = 1'-0"



**2 REFLECTED CEILING PLAN**  
1/8" = 1'-0"

- RCP NOTES**
- A. ALL FINISHED CEILING HEIGHTS ARE FROM TOP OF CONCRETE.
  - B. CEILING GRIDS ARE TO BE CENTERED IN ROOMS AS SHOWN OR LOCATED PER INDICATED DIMENSIONS. AVOID LAYOUTS THAT RESULT IN CEILING TILES LESS THAN ONE HALF OF FULL TILE WIDTH.
  - C. CEILING MOUNTED DEVICES TO BE CENTERED IN CEILING GRIDS AND ALIGNED WITH OTHER DEVICES.
  - D. CENTER LIGHTS IN ROOMS OR SPACES UNLESS DIMENSIONED OTHERWISE.
  - E. THE FIRE SPRINKLER SYSTEM, HEADS AND CEILING MOUNTED DEVICES ARE DESIGN BUILD. DEVICES ARE NOT SHOWN. CONTRACTOR TO SATISFY THE REQUIREMENTS OF THE LOCAL JURISDICTION FOR QUANTITY AND LOCATION OF DEVICES.
  - F. MECHANICAL SYSTEMS, ELECTRICAL SYSTEMS AND LIGHTING FIXTURES ARE DESIGN BUILD.

- RCP LEGEND**
- GYPSUM BOARD PAINT P-1 UNLESS NOTED OTHERWISE
  - LINEAR RECESSED
  - ROUND PENDANT
  - 6" RECESSED
  - LINEAR STRIP PENDANT



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Date: 2025.01.07 13:03:43 -08'00'

**CLACKAMAS FIRE TRAINING WAREHOUSE**

Job Number: 24083  
16170 SE 130th AVE  
CLACKAMAS, OR. 97015



PERMIT SET 12-20-2024

Issue Date

Drawing:

**ROOF & RCP**

Sheet No:

**A2.14**

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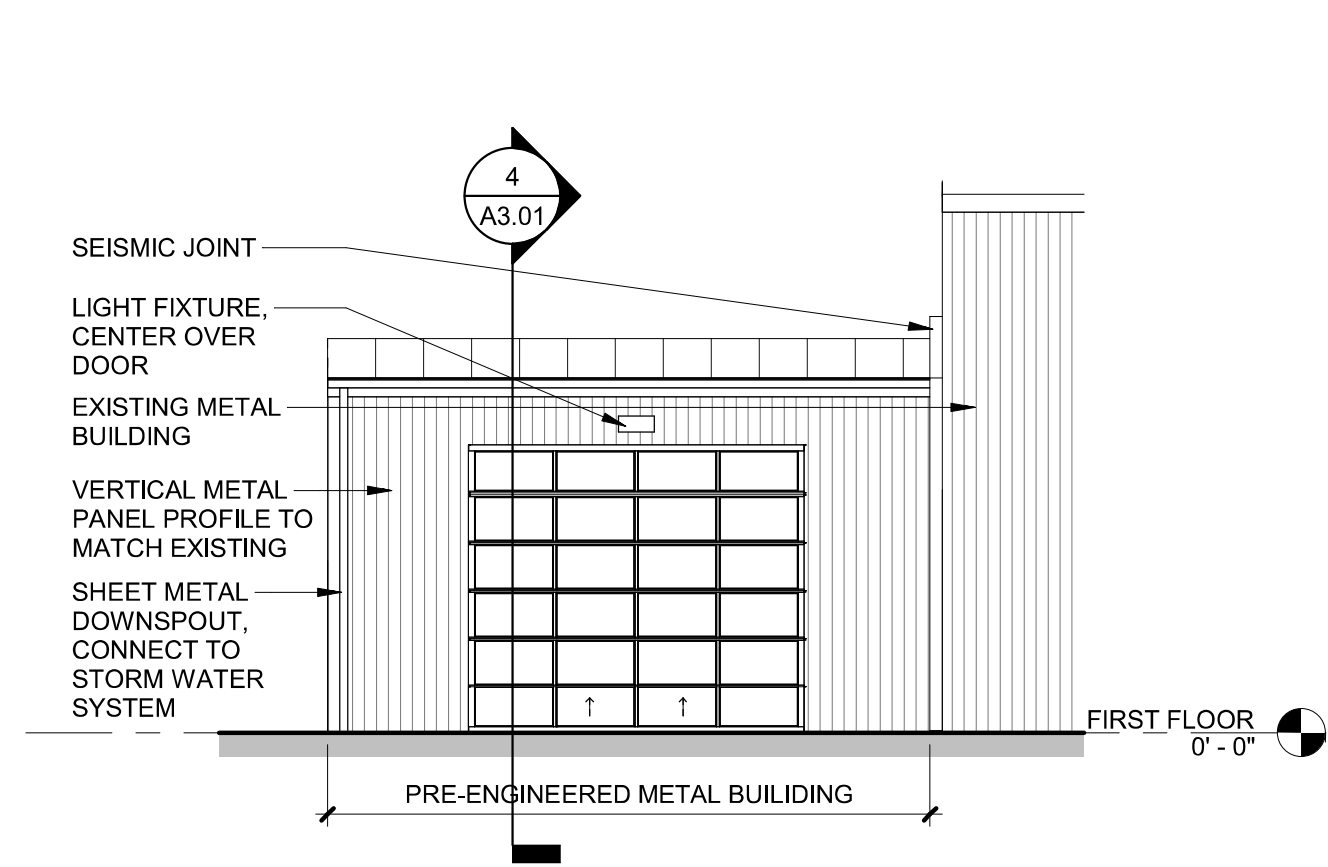


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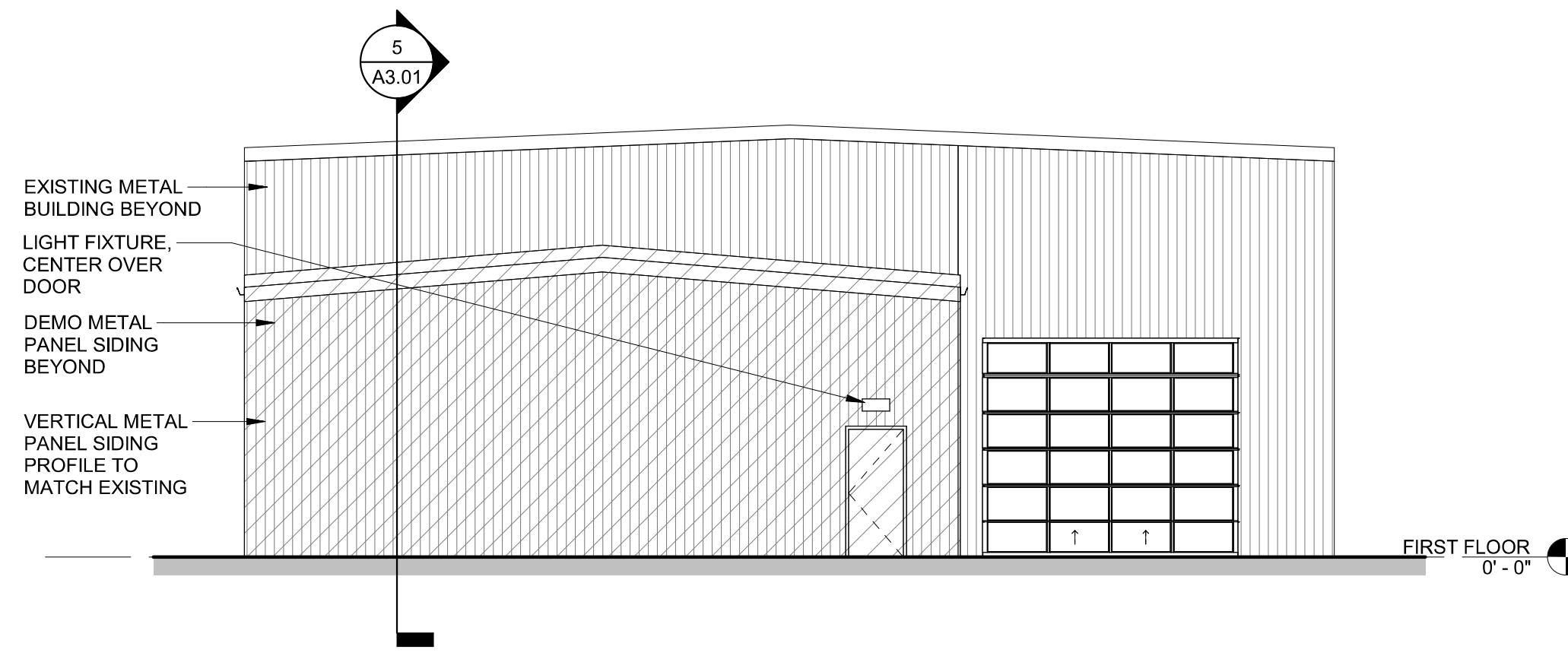
**CLACKAMAS  
FIRE TRAINING  
WAREHOUSE**

Job Number: 24083

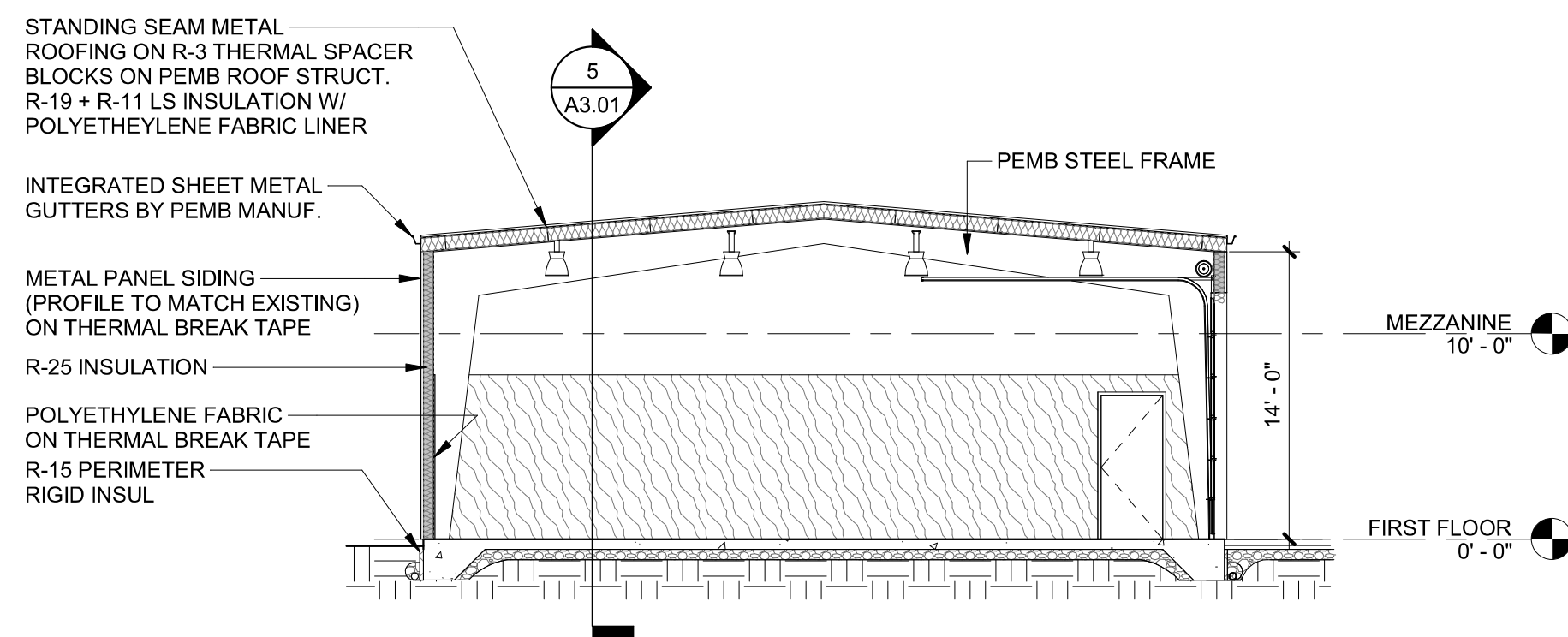
16170 SE 130th AVE  
CLACKAMAS, OR. 97015



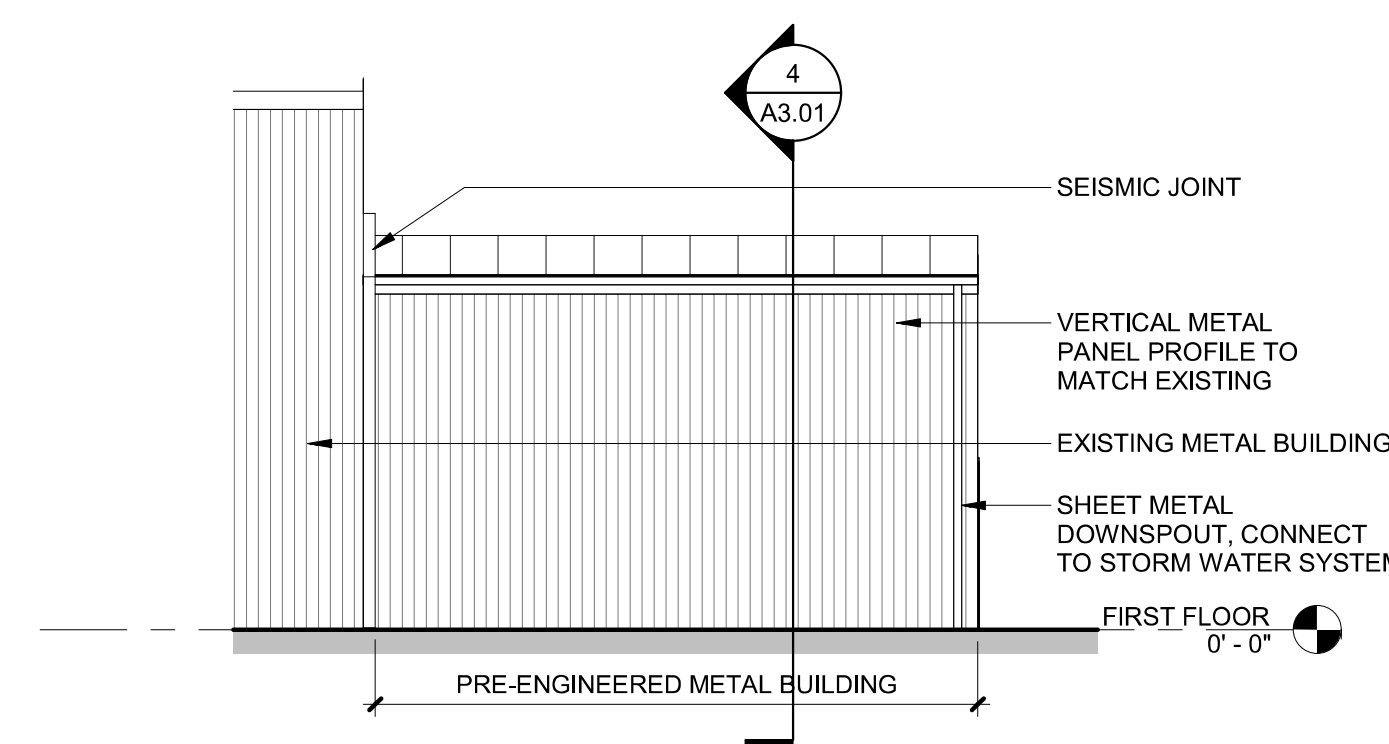
**2 NORTH ELEVATION**  
1/8" = 1'-0"



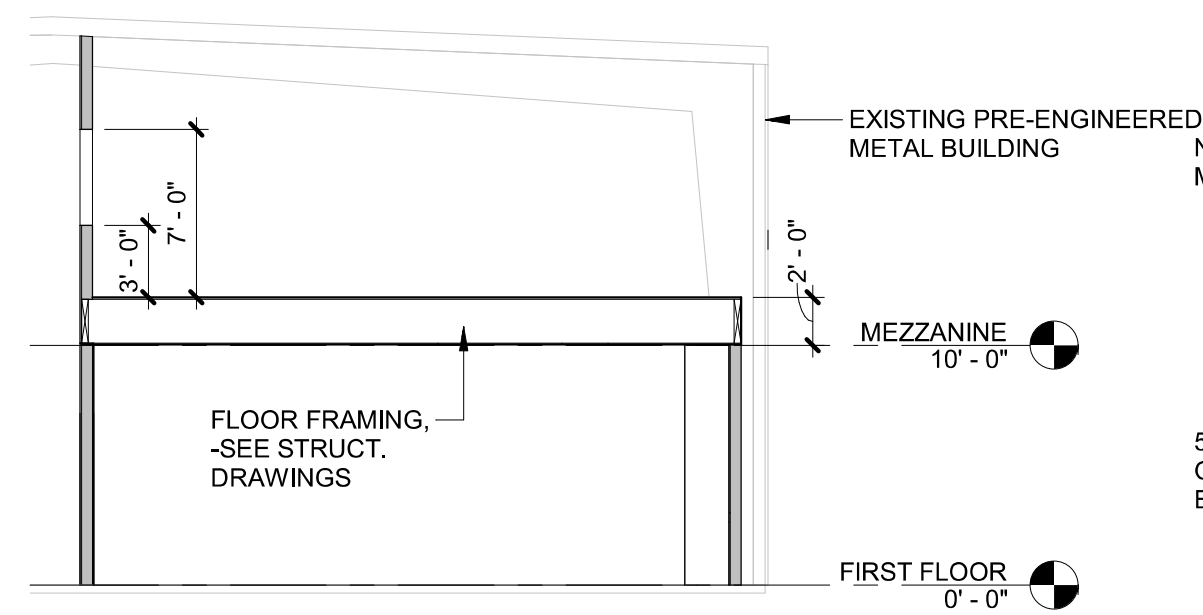
**1 EAST ELEVATION**  
1/8" = 1'-0"



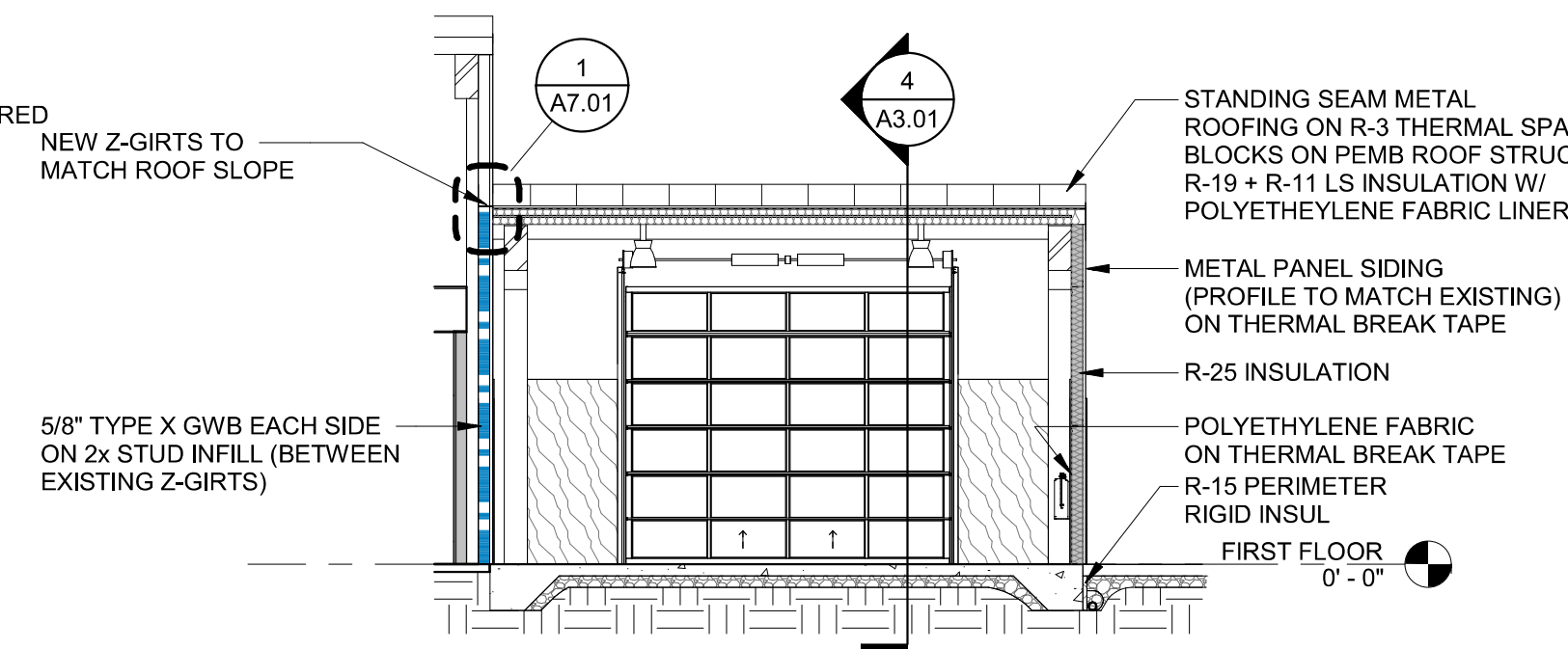
**4 BUILDING SECTION**  
1/8" = 1'-0"



**3 SOUTH ELEVATION**  
1/8" = 1'-0"



**6 NEW MEZZANINE SECTION**  
1/8" = 1'-0"



**5 BUILDING SECTION**  
1/8" = 1'-0"

PERMIT SET 12-20-2024

Issue Date

Drawing:

**EXTERIOR  
ELEVATIONS &  
SECTIONS**

Sheet No:

**A3.01**

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**CLACKAMAS  
FIRE TRAINING  
WAREHOUSE**

Job Number: 24083

16170 SE 130th AVE  
CLACKAMAS, OR. 97015



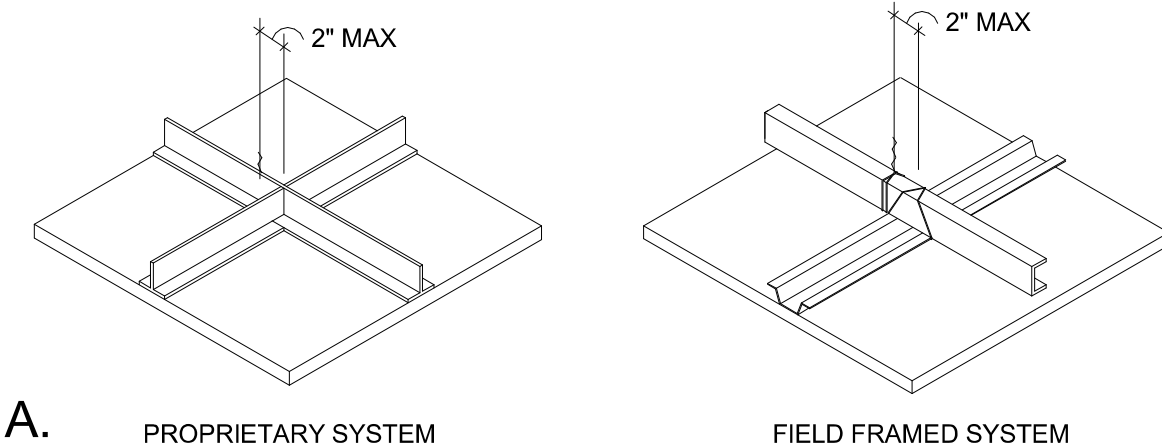
- CEILING TYPE:** LAY-IN ACOUSTIC PANELS OR DIRECT (SCREW) ATTACHED 5/8" GYPSUM WALL BOARD.
- LOAD CRITERIA:** 4 PSF
- VERTICAL: OSSC SEISMIC ZONE D
  - LATERAL: HEAVY-DUTY PER ASTM C-635-00
  - DUTY CLASSIFICATION: L/360 MAX
  - CROSS RUNNER DEFLECTION: II
  - OSSC T1604.5 RISK CATEGORY: II
- GRID LIMITATIONS:**
- MAXIMUM GRID SPACING: 4'x4'
  - INTERSTITIAL SPACE HEIGHT: 15' MAXIMUM
  - INTERIOR NON-BEARING PARTITIONS: INDEPENDENTLY SUPPORTED AND BRACED - SEE DETAILS

- REFERENCE SOURCES (PER STATEWIDE INTERPRETATION NO. 10-01, ii., e.):**
- 2022 OREGON STRUCTURAL SPECIALTY CODE (OSSC), 808.1, 1613.1 AND 1613.4.11
  - NWCB FIELD TECHNICAL INFORMATION BULLETIN 401 - REVISED 3/22
  - ASCE 7-10, SECTION 13.5.6
  - ASTM C635, ASTM C636, ASTM E580
  - CEILING AND INTERIOR SYSTEMS CONSTRUCTION (CISCA)

MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED WHERE APPLICABLE

**A. SYSTEM COMPONENTS:**

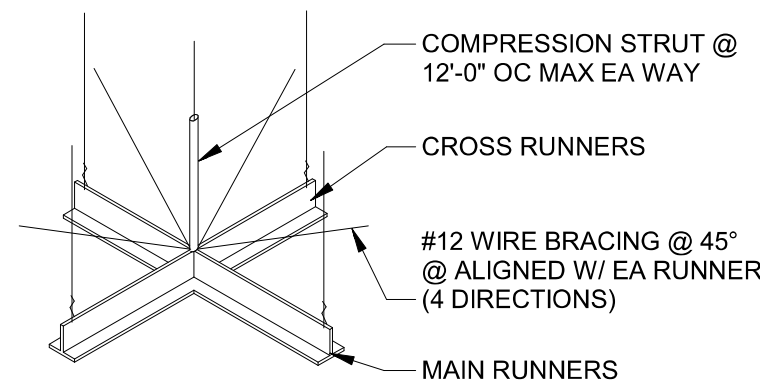
- MAIN RUNNERS:** 1-1/2" COLD FORMED STEEL 'C' CHANNEL, OR PROPRIETARY 'T' SECTION MEETING DUTY RATING SPECIFIED ABOVE; AT 48" OC
- CROSS RUNNERS:** 7/8" X 2-5/8" X 25GA CARBON SHEET STEEL HAT CHANNELS, OR PROPRIETARY 'T' SECTION MEETING DUTY RATING SPECIFIED ABOVE; AT 2' OC
- SUSPENSION WIRE:** #12 SWG GALVANIZED WIRE
- TIE WIRE:** #18 SWG GALVANIZED WIRE - DOUBLE STRAND
- ANCHORS:** 200# MIN EA
- WOOD: 1/4"x3" SCREW EYES  
STEEL DECK: CMI DC1 OR DC 2-1/4" METAL DECK SCREW EYES  
CONCRETE: EMBEDS OR HILTI X-U FASTENERS AT HANGER WIRES AND KWIK-HUS EZ AT SPLAY WIRES



**B. LATERAL BRACING - CEILINGS OVER 144 SF:**

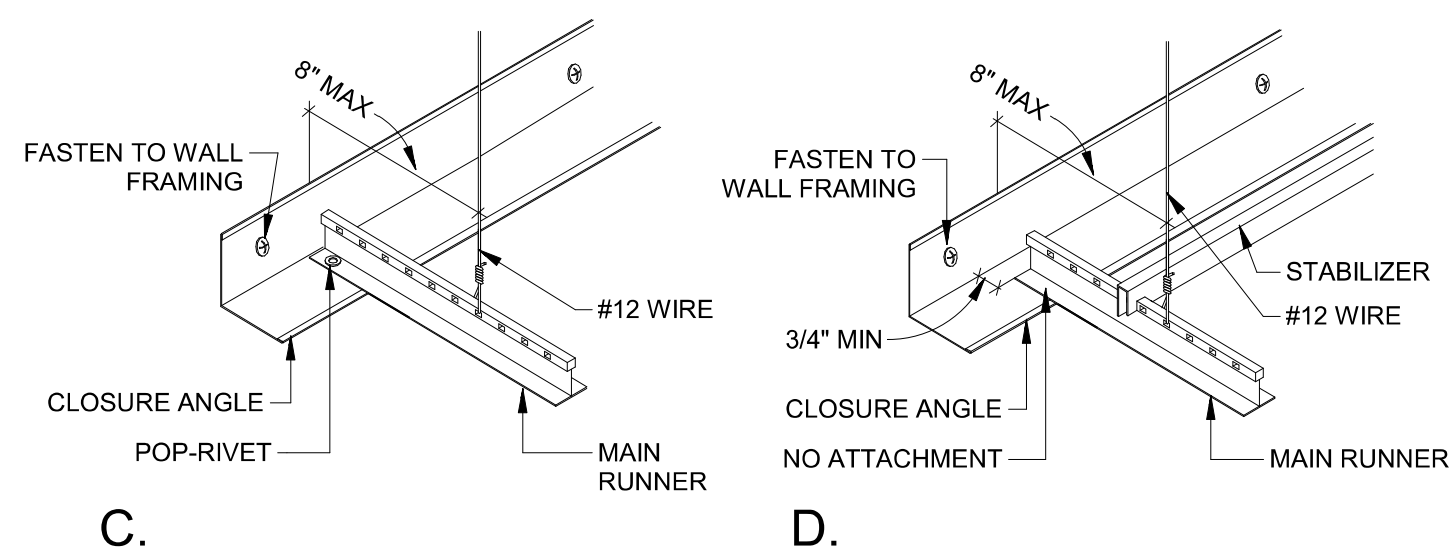
- LATERAL SUPPORT POINTS SHALL BE PLACED 12' OC IN EACH DIRECTION WITH THE FIRST POINT WITHIN 4' FROM EACH WALL.
- PROVIDE 4 WIRES OF MINIMUM NO. 12 GAUGE IN 4 DIRECTIONS 90° APART AND CONNECTED TO THE MAIN RUNNER WITHIN 2" OF THE CROSS RUNNER AND TO THE STRUCTURE ABOVE AT AN ANGLE NOT TO EXCEED 45° FROM THE PLANE OF THE CEILING.
- LOCATE COMPRESSION STRUT AT, AND CENTERED ON, ALL LATERAL SPLAY WIRE LOCATIONS NOTED ABOVE. ATTACH RIGIDLY FROM MAIN RUNNER TO STRUCTURE ABOVE.

STRUT	MAX LENGTH
1/2" Ø EMT CONDUIT	5'-10"
3/4" Ø EMT CONDUIT	7'-8"
1" Ø EMT CONDUIT	9'-9"
(1) 1 5/8" X 20 GA METAL STUD	12'-0"
(2) BACK TO BACK 1 5/8" X 20 GA METAL STUDS	15'-0"



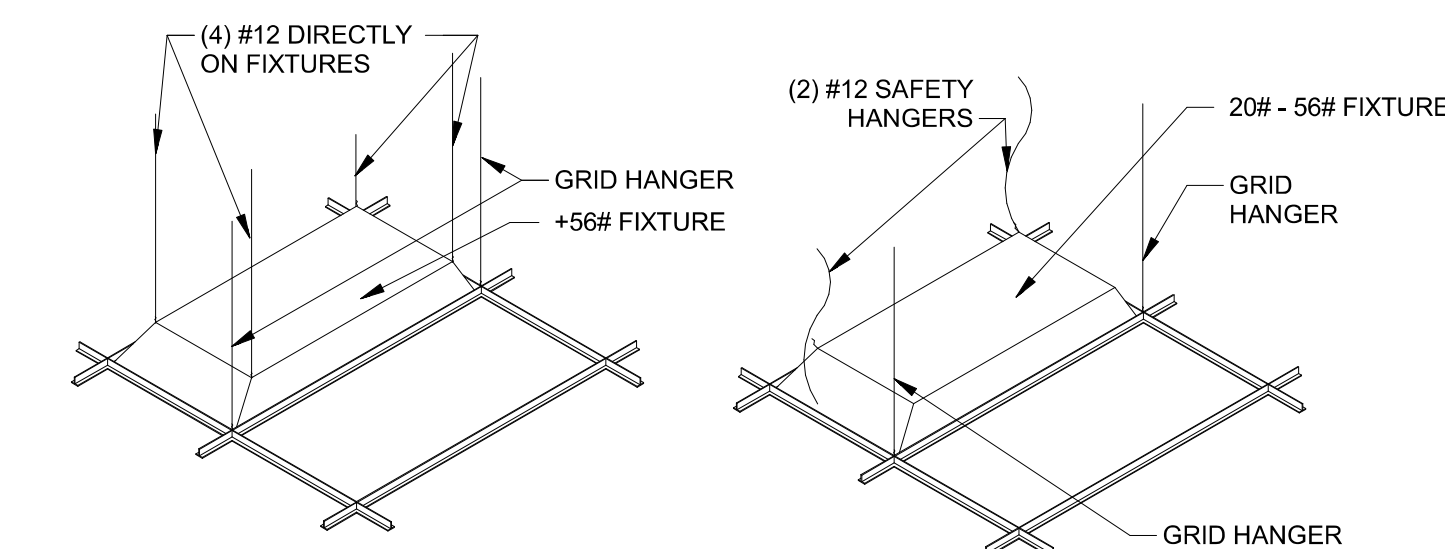
**C. PERIMETER ANGLE - LAY-IN ACOUSTIC PANEL CEILINGS OVER 144 SF:**

- PERIMETER SUPPORT ANGLE SHALL BE ATTACHED TO WALL FRAMING WITH MINIMUM #6 SCREW @ 24" OC MAX, AND ANGLE SHALL HAVE A MINIMUM 2" HORIZONTAL LEG. MFR PERIMETER CLIPS MAY BE USED IN LIEU OF 2" CLOSURE ANGLE WHEN SUBSTANTIATING DOCUMENTATION IS AVAILABLE. REF SPECIFICATIONS.
- ONE END OF GRID SHALL BE ATTACHED TO THE PERIMETER ANGLE AT EACH OF TWO ADJACENT WALLS W/ RIVETS. THE OPPOSITE END OF THE GRID IN EACH HORIZONTAL DIRECTION WILL REST FREE UPON THE SUPPORT ANGLE W/ 3/4" CLEARANCE BETWEEN GRID END AND WALL.



**E. VERTICAL SUPPORT:**

- MAIN RUNNERS SHALL BE HUNG USING SPECIFIED WIRE AT MINIMUM 4" O.C. CROSS RUNNERS AND MAIN RUNNERS SHALL BE SUPPORTED WITH ADDITIONAL HANGER WIRES WITHIN 8" OF ANY DISCONTINUOUS END, INCLUDING PERIMETER SUPPORT ANGLES.
- HANGERS SHALL NOT PRESS AGAINST PIPER OR DUCTS. HANGERS MORE THAN 1:6 OUT OF PLUMB SHALL HAVE COUNTERSLOPING WIRES ADDED. COUNTERSLOPING HANGERS SHALL BE INSTALLED WITH A MINIMUM 45 DEGREE ANGLE FROM HORIZONTAL.
- PROVIDE A TRAPEZE MADE OF MAIN RUNNER STOCK WHERE OBSTRUCTIONS TO STRUCTURE REQUIRE DIRECT ATTACHMENT.
- HANGER WIRES SHALL ATTACH TO RUNNERS AND SUPPORT ABOVE WITH A MINIMUM OF THREE FULL TURNS WITHIN A 3 INCH LENGTH.



**F. FIXTURE SUPPORT**

- LIGHTING FIXTURES AND AIR DIFFUSERS SHALL BE SUPPORTED DIRECTLY BY 12GA WIRES TO THE STRUCTURE ABOVE BY A MINIMUM OF 4 HANGERS, ONE AT EACH CORNER.
- EXCEPTION: FIXTURES NOT OVER 56 LBS IN WEIGHT BUT MORE THAN 20 LBS IN WEIGHT MAY BE SUPPORTED AND ATTACHED DIRECTLY TO THE CEILING SYSTEM RUNNERS WITHIN 3" OF GRID INTERSECTIONS BY A POSITIVE ATTACHMENT SUCH AS SCREWS OR BOLTS, AND SHALL HAVE (2) #12GA HANGERS DIRECTLY FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE. THESE MAY BE SLACK.
- FIXTURES WHICH WEIGH NOT MORE THAN 20 LBS AND WHICH RECEIVE NO TRIBUTARY LOADING FROM DUCT WORK MAY BE POSITIVELY ATTACHED TO AND SUPPORTED BY THE CEILING RUNNERS ALONE.

**G. PENETRATIONS:**

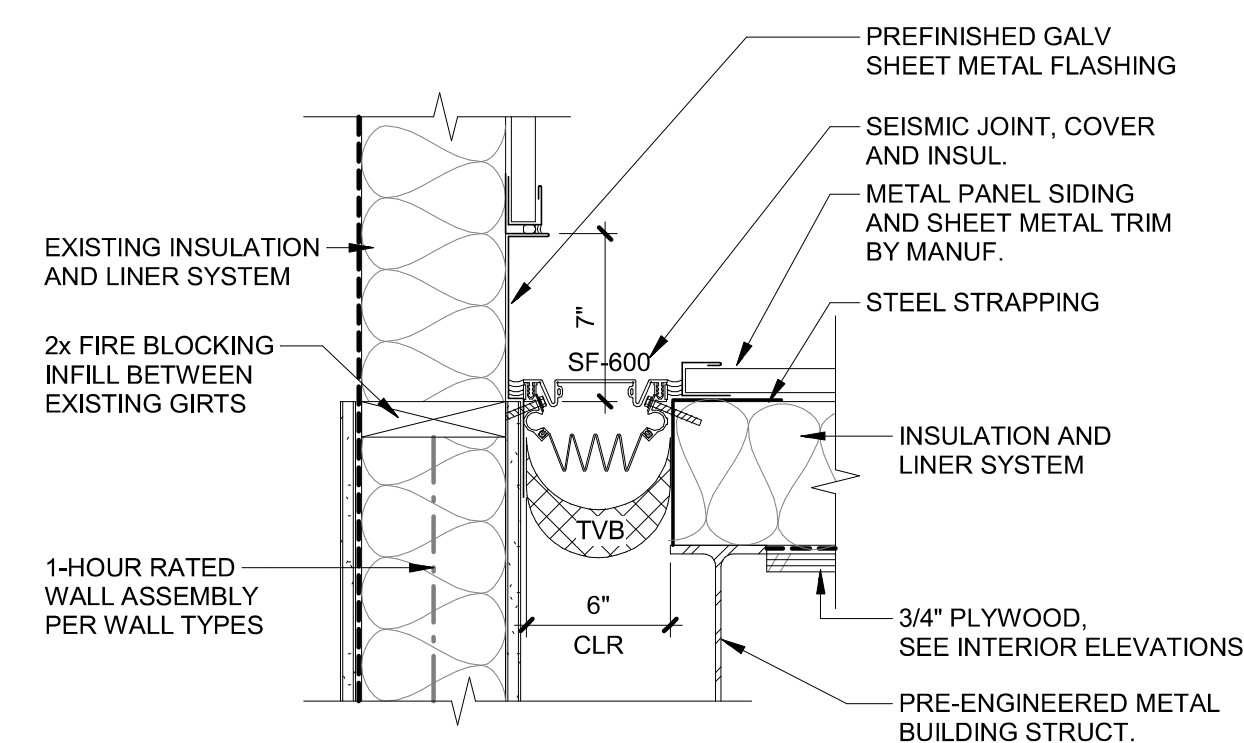
- PROVIDE 1" CLEAR ON ALL SIDES OF PENETRATIONS.

**H. SEISMIC JOINTS:**

- PROVIDE MANUFACTURER'S STANDARD SEISMIC JOINT CLIP AT CEILING AREAS GREATER THAN 2500 SF

**7 SUSPENDED CEILING REQUIREMENTS**

1 1/2" = 1'-0"

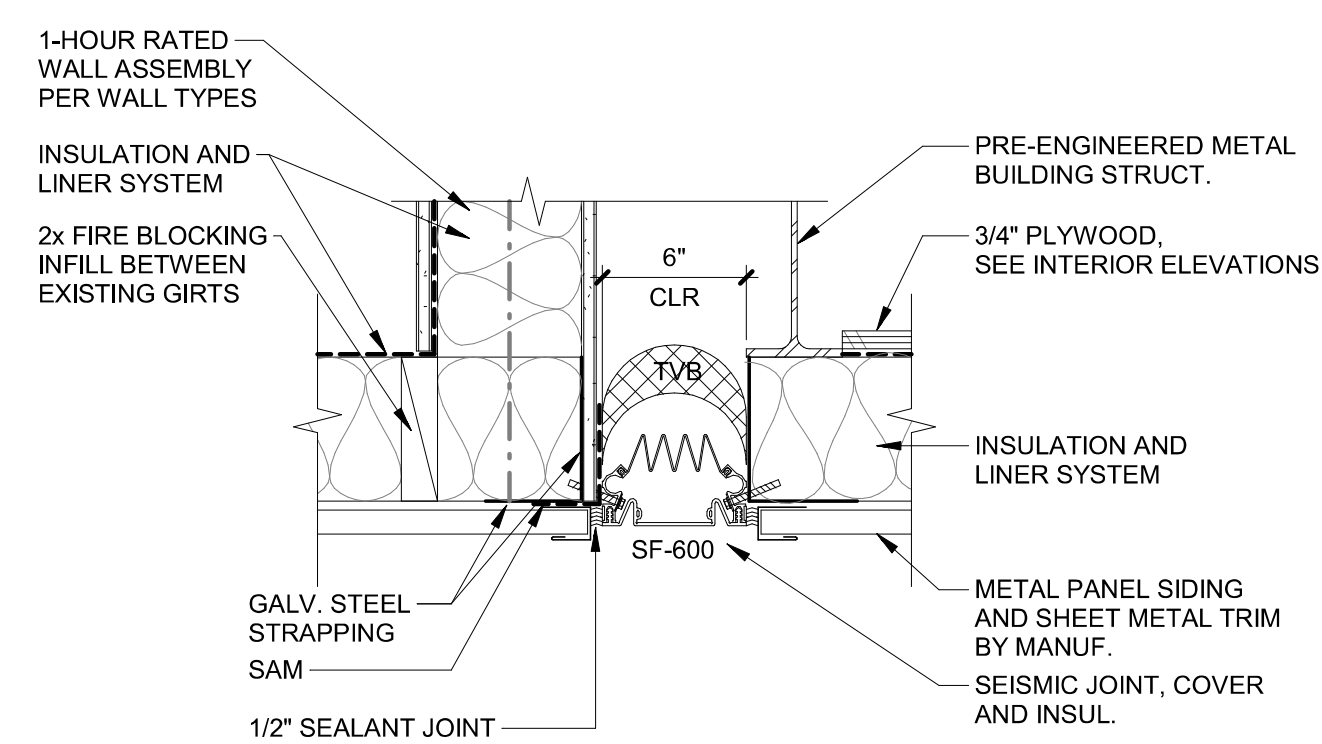


**2 SEISMIC JOINT - WALL**

1 1/2" = 1'-0"

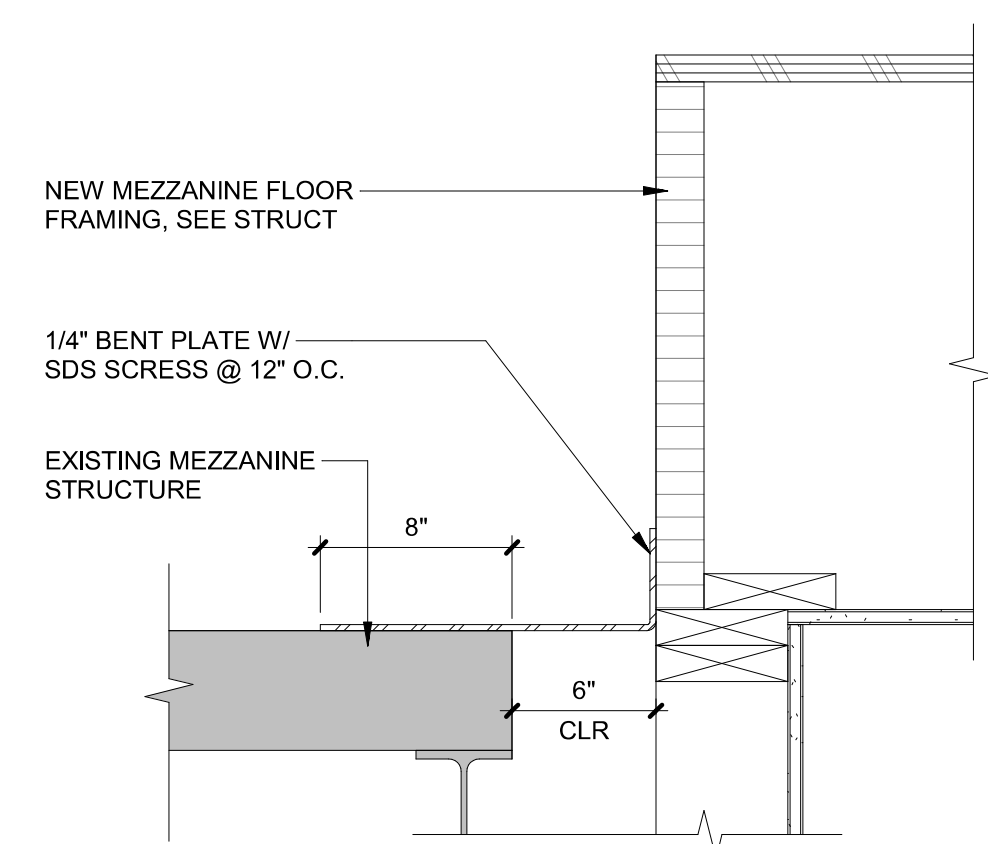
**1 SEISMIC JOINT - ROOF TO WALL**

1 1/2" = 1'-0"



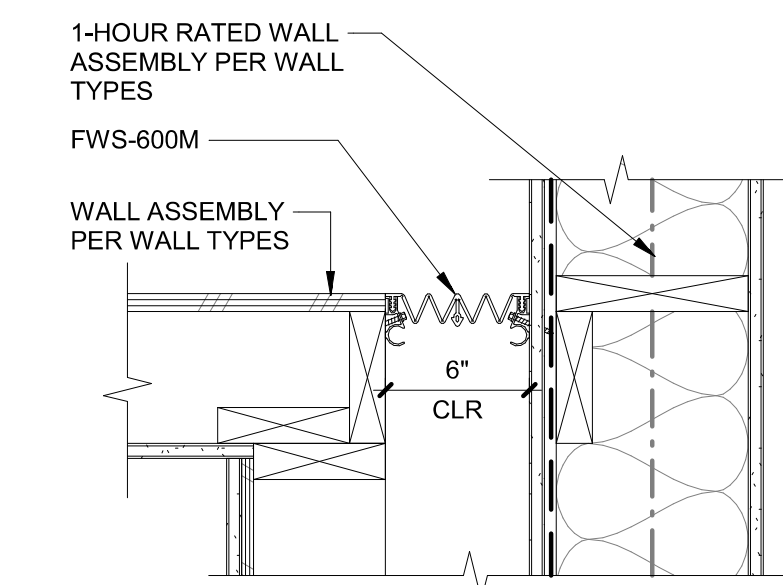
**4 SEISMIC JOINT - INTERIOR WALL**

1 1/2" = 1'-0"



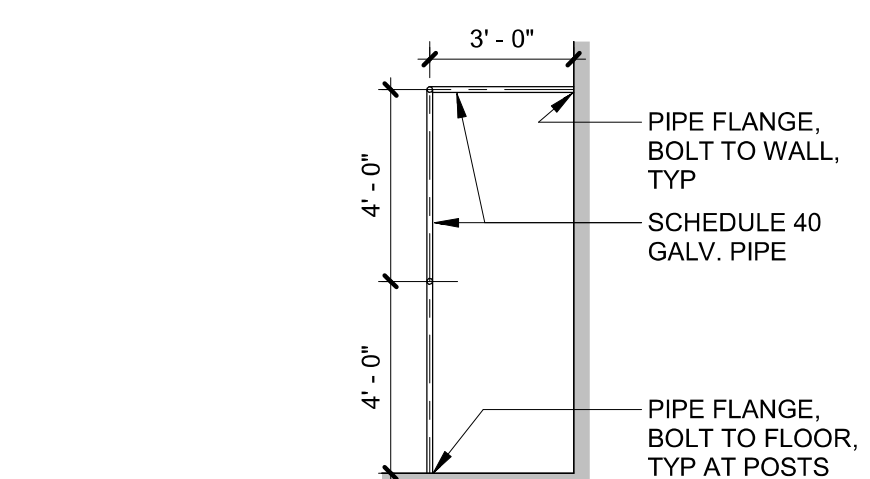
**3 SEISMIC JOINT - WALL**

1 1/2" = 1'-0"



**6 MEZZANINE JOINT DETAIL**

1 1/2" = 1'-0"

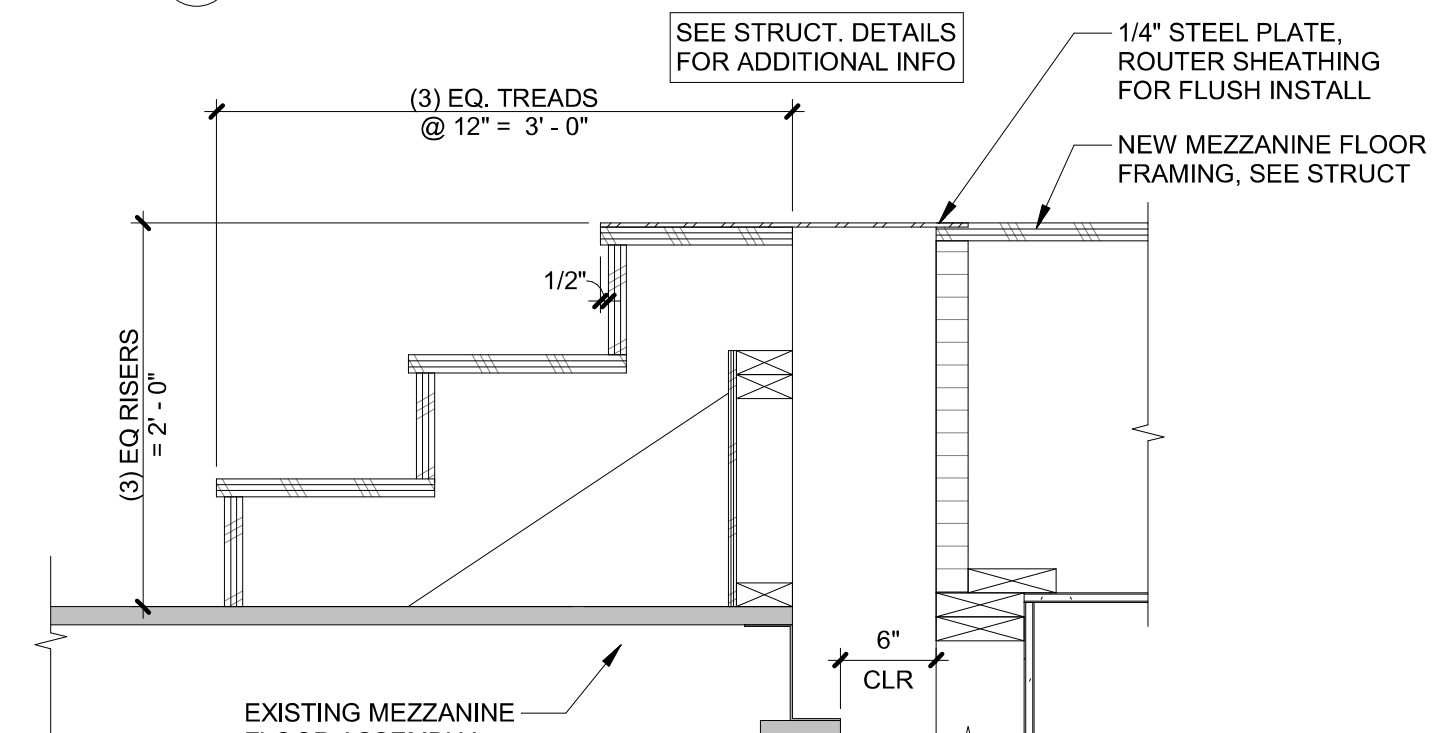


**9 DRYING RACK SECTION**

1/4" = 1'-0"

**5 SEISMIC JOINT - INTERIOR WALL**

1 1/2" = 1'-0"



**8 STAIR SECTION**

1" = 1'-0"

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Issue Date

Drawing:

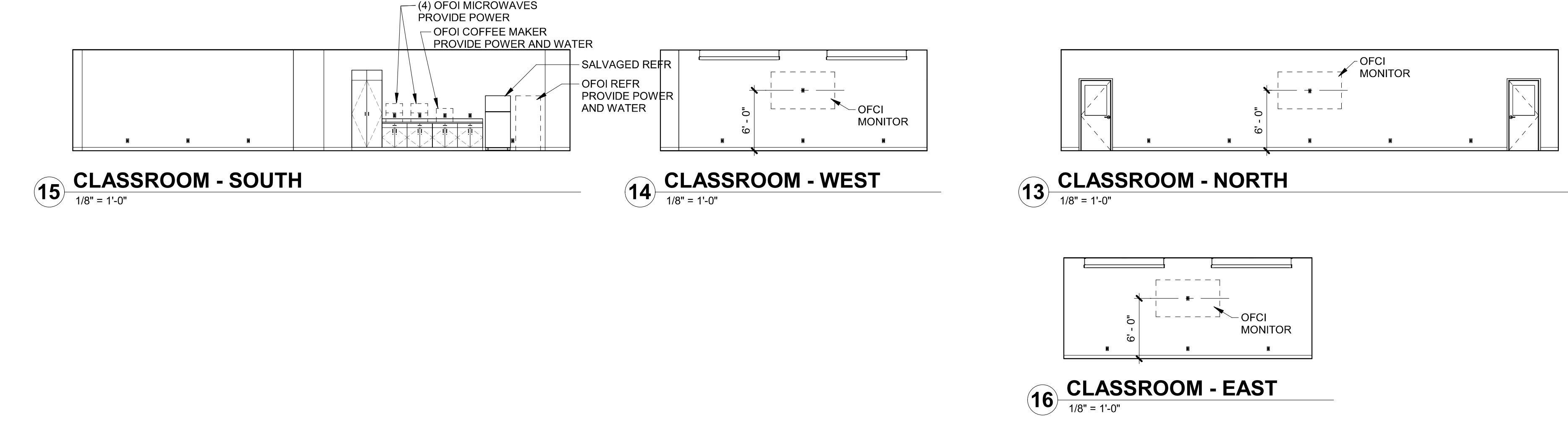
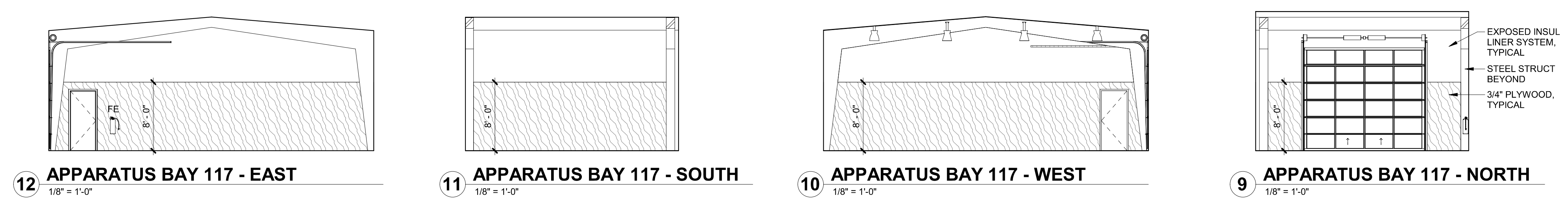
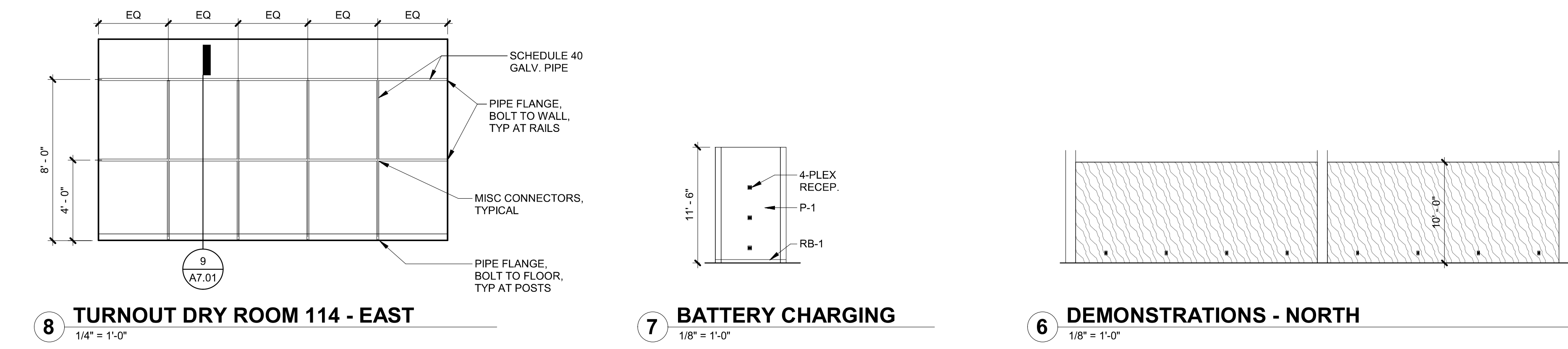
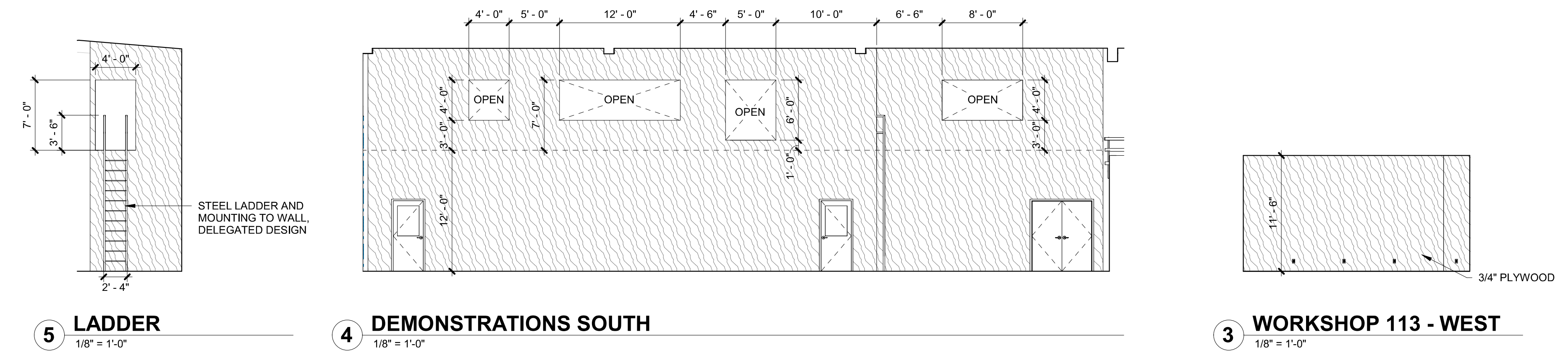
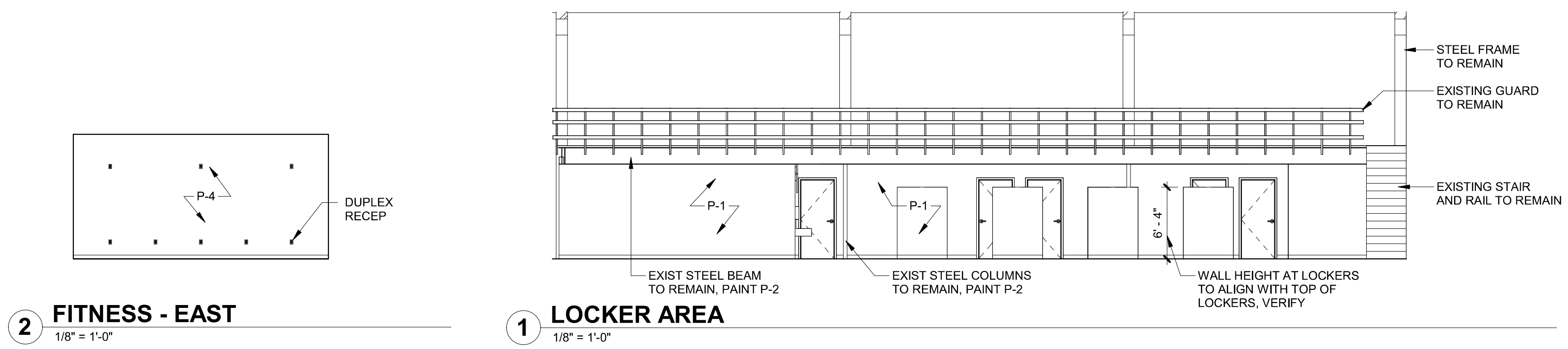
**DETAILS**

Sheet No:

**A7.01**

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- GENERAL SHEET NOTES**
- A. ALL GYPSUM BOARD WALLS TO BE PAINTED P-1, UNLESS NOTED OTHERWISE.
  - B. VERIFY ALL EQUIPMENT AND FURNISHINGS DIMENSIONS AND MOUNTING / BACKINGS REQUIREMENTS PER MANUFACTURER'S SPECIFICATIONS. COORDINATE WORK TO ENSURE PROPER AND ADEQUATE PROVISIONS OF ALL REQUIRED UTILITY SIZING AND LOCATION, AND FOR INSTALLATION AND ANCHORAGE OF EQUIPMENT.
  - C. PROVIDE BACKING AT UPPER CABINETS, FULL HEIGHT CABINETS, ACCESSORIES, VISUAL DISPLAY BOARDS, WALL MOUNTED SHELVING AND ANY WALL-MOUNTED EQUIPMENT INCLUDING THOSE PROVIDED BY OWNER.
  - D. FIELD VERIFY ALL DIMENSIONS AND REQUIRED EQUIPMENT CLEARANCES PRIOR TO FABRICATION OF CABINETRY.



**CLACKAMAS FIRE TRAINING WAREHOUSE**  
Job Number: 24083  
16170 SE 130th AVE  
CLACKAMAS, OR. 97015



PERMIT SET 12-20-2024  
Issue Date  
Drawing:  
**INTERIOR ELEVATIONS**

Sheet No:  
**A8.01**

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**CLACKAMAS  
FIRE TRAINING  
WAREHOUSE**

Job Number: 24083

16170 SE 130th AVE  
CLACKAMAS, OR. 97015

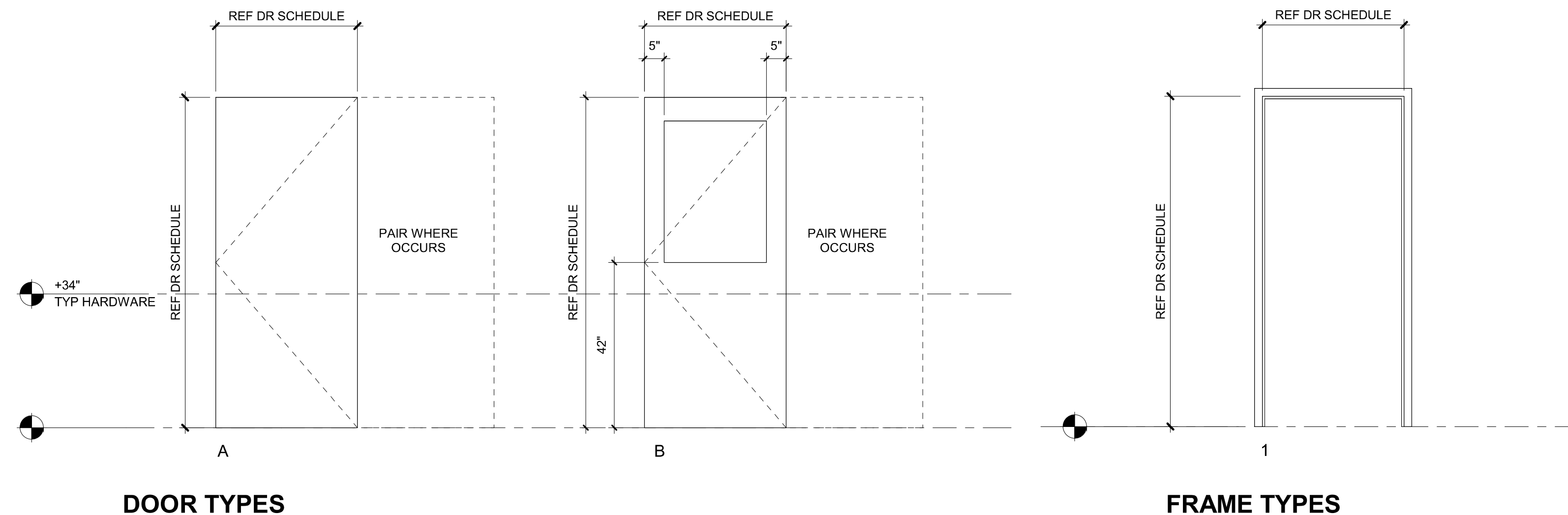


DOOR NUMBER	DOOR						FRAME			DETAILS						
	TYPE	WIDTH	HEIGHT	THICKNESS	PAIR	CONSTRUCTION FINISH	TYPE	CONSTRUCTION FINISH	SILL	JAMB	HEAD	GLAZING	FIRE RATING	HARDWARE	NOTES	
FIRST FLOOR																
102	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							1	
103	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							1	
104	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							2	
105	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							2	
106	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							1	
107	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							1	
108	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							1	
109	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							1	
110	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							1	
111	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							1	
115A	B	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							3	
115C	B	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							3	
117A		14'-0"	12'-0"	2 1/8"											4	
117B	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P					45		5	
117C	A	3'-0"	7'-0"	1 3/4"		HM P	1	HM P							6	
118	A	6'-0"	7'-0"	1 3/4"	PR	HM P	1	HM P							7	

**SCHEDULE NOTES**

- A. PROVIDE SAFETY GLAZING PER CODE.
- B. SWINGING DOOR DIMENSIONS ARE OPENING SIZE. CONTRACTOR TO COORDINATE PANEL SIZE AND ROUGH OPENING DIMENSIONS.
- C. SECTIONAL DOOR HEIGHT AND WIDTH ARE THE ROUGH OPENING SIZE. APPROPRIATE DOOR SIZE TO BE COORDINATED BY CONTRACTOR.

HM = HOLLOW METAL  
P = PAINT



**DOOR TYPES**

**FRAME TYPES**

PERMIT SET 12-20-2024

Issue Date

Drawing:

**DOOR SCHEDULE  
AND DOOR TYPES**

Sheet No:

**A10.01**

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ROOM FINISH SCHEDULE										
No.	ROOM NAME	FLOOR	BASE	WALLS				CEILING		COMMENTS
				NORTH FINISH	EAST FINISH	SOUTH FINISH	WEST FINISH	MATERIAL	FINISH	
FIRST FLOOR										
101	FITNESS	RF-1	RB-1	--	P-4	--	--	--	--	
102	ADA RR/ SHOWER/ CHANGING	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	EPOXY PAINT, FRP
103	ADA RR/ SHOWER/ CHANGING	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	EPOXY PAINT, FRP
104	SHOWER	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	EPOXY PAINT, FRP
105	SHOWER	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	EPOXY PAINT, FRP
106	RR	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	FRP, SEE INTERIOR ELEVATIONS
107	RR	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	FRP, SEE INTERIOR ELEVATIONS
108	RR	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	FRP, SEE INTERIOR ELEVATIONS
109	RR	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	FRP, SEE INTERIOR ELEVATIONS
110	RR/ CHANGING	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	FRP, SEE INTERIOR ELEVATIONS
111	RR/ CHANGING	CONC-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	FRP, SEE INTERIOR ELEVATIONS
112	LOCKERS	CONC-1	RB-1	P-1	P-1	P-1	P-1	--	P-1	
113	WORKSHOP	CONC-1	RB-1	--	--	--	--	--	--	
114	TURNOUT DRY ROOM	CONC-1	RB-1	P-1	P-3	P-1	P-1	GYP	P-1	EPOXY PAINT
115	CLASSROOM	CPT-1	RB-1	P-1	P-1	P-1	P-1	GYP	P-1	
116	DEMONSTRATIONS	CONC-1	RB-1	--	--	--	--	--	--	
117	APPARATUS BAY	CONC-1								
118	LAUNDRY		RB-1	P-1	P-1	P-1	P-1	(E)		

**TOILET ACCESSORY, EQUIPMENT & PLUMBING FIXTURE SCHEDULE**

DESCRIPTION	MANUFACTURER	MODEL	FINISH	COMMENTS
(PTD) PAPER TOWEL DISPENSER	GEORGIA-PACIFIC	ENMOTION 59488A	BLACK	
(MIR) 18"x36" MIRROR	BOBRICK	B-290	STAINLESS	
(TPD) TOILET PAPER DISPENSER	BOBRICK	B-540	STAINLESS	
(SND) SANITARY NAPKIN DISPOSAL	BOBRICK	B-35139	STAINLESS	
(SD) SOAP DISPENSER	GEORGIA-PACIFIC	ENMOTION 52057	BLACK	
(SCD) SEAT COVER DISPENSER	BRADLEY	583	STAINLESS	
(FLM) FULL LENGTH MIRROR	BOBRICK	B-165 2460	STAINLESS	
(CH) COAT HOOK	BOBRICK	B-9541	STAINLESS	
(GB) GRAB BARS	BOBRICK	B-5806	STAINLESS	1 1/4"dia; 18", 36", 42"
(BN) BENCH	SALSBURY	77771-ADA	ALUMINUM	
(L-1) LAV	REGENCY	600HMSF1872	STAINLESS	3
(L-2) LAV	AMERICAN STANDARD	9024.001EC	WHITE	
(F-1) FAUCET	MOEN	9419	CHROME	
(F-2) FAUCET	MOEN	T8346EP15, 8371HD Valve (verify)	BRUSHED NICKLE	@ EACH SHOWER
(TL-1) TOILET	KOHLER	K-31620-0	WHITE	SOFT CLOSE SEAT
(SH-1) ADA SHOWER	EVERFAB	S3838RFA1LP	WHITE	1
(SH-2) SHOWER	EVERFAB	S3838RFA1LP	WHITE	2
(CF-1) CEILING FAN	BIGASSFANS	12" dia HIGH VOLUME, LOW SPEED	BLACK	OR EQUAL

**COMMENTS**

- SLIDE-BAR KIT, ADA FOLDING SEAT, SHOWER DRAIN.
- SLIDE-BAR KIT, SHOWER DRAIN
- 3 STATION SINK W/ GOOSE NECK AND PADDLE HANDLE FAUCETS

**NOTES**

- CONTRACTOR TO PROVIDE BLOCKING AS REQUIRED FOR ALL ACCESSORIES.
- CONTRACTOR TO ROUTE UTILITIES IN WALL TO AVOID ALL RECESSED ACCESSORIES.
- SEE TYPICAL MOUNTING HEIGHT DIAGRAMS AND INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.

**FINISH LEGEND**

BASE		RUBBER FLOORING	
(RB-1) RUBBER WALL BASE	MFR PRODUCT TARKETT VINYL BASE W/ TOE COLOR TBD SIZE 4"	(RF-1) RUBBER FLOORING	MFR PRODUCT ZANDUR TECHNE RUBBER TN3902 MALLETT INTERLOCK 24"x24" 9 MM
CARPET		WALL PROTECTION	
(CPT-1) CARPET TILE	MFR INTERFACE NIGHT LIGHTS COLLECTION PATTERN AGLOW POPPY COLOR 25CM X 1M INSTALL ASHLAR	(FRP) FIBER REINFORCED PLASTIC	MFR MARLITE SMOOTH 100% WHITE TRIM ALUM CAP AND BASE TRIM, PVC TRIM ALL OTHERS
PAINT		SOLID SURFACE	
PAINT SHEENS: WALLS - EGGSHELL, UNLESS NOTED OTHERWISE CEILINGS - FLAT		(SSM-1) COUNTER/ BACKSPLASH	MFR CORIAN SOLID SURFACE WILLOW THICKNESS .5"
(P-1) TYPICAL PAINT	MFR SHERWIN WILLIAMS LINEN WHITE	(SSM-2) SLOAN SINK/ COUNTER	MFR CORIAN SOLID SURFACE CARBON AGGREGATE THICKNESS .5"
(P-2) ACCENT PAINT	MFR SHERWIN WILLIAMS GRAY SCREEN, SW 7071	TILE	
(P-3) ACCENT PAINT	MFR SHERWIN WILLIAMS TEMPE STAR, SW 6229	(T-1) WALL TILE	MFR DAL TILE COLOR WHEEL LINEAR ARTIC WHITE 0190 3X6 RUNNING BOND
(P-4) ACCENT PAINT	MFR SHERWIN WILLIAMS PEPPERCORN, SW 7674	(T-2) COVE BASE	MFR DAL TILE COLOR WHEEL CLASSIS ARTIC WHITE 0190 6X6 S3619TN
PLASTIC LAMINATE		FLOORING TRANSITIONS	
(PL-1) PLASTIC LAMINATE	MFR WILSONART BEIGEWOOD 7850 COLOR GRAIN DIRECTION TO RUN VERTICALLY	INSTALLER TO INSTALL PROFILES APPROPRIATE FOR FLOORING TYPE AND APPLICATION	
		FLOOR TRANSITIONS TO BE LOCATED AT CENTERLINE OF DOOR UNLESS OTHERWISE NOTED.	



Digitally signed by Sid Scott Date: 2025.01.07 13:04:04-0800'

**CLACKAMAS FIRE TRAINING WAREHOUSE**

Job Number: 24083

16170 SE 130th AVE CLACKAMAS, OR. 97015



PERMIT SET 12-20-2024

Issue Date

Drawing:

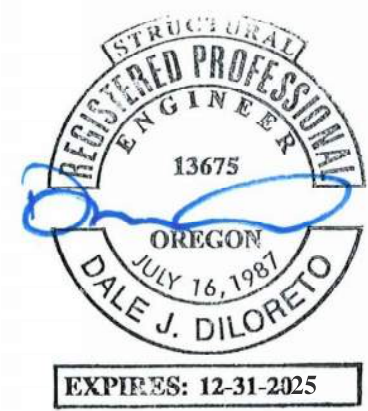
**FINISH SCHEDULE AND LEGEND**

Sheet No:

**A10.21**

THESE DRAWINGS ARE THE ORIGINAL UNPUBLISHED WORK OF THE ARCHITECT AND MAY NOT BE DUPLICATED OR USED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT.





# CLACKAMAS FIRE TRAINING WAREHOUSE

Job Number: 24083

16170 SE 130th AVE  
CLACKAMAS, OR 97015



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## ABBREVIATIONS

A.B.	ANCHOR BOLT
A.F.F.	ABOVE FINISH FLOOR
ALT	ALTERNATE
ARCH	ARCHITECTURAL
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
B.N.	BOUNDARY NAILING
B.O.F.	BOTTOM OF FOOTING
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
C	CAMBER
C.F.D.	CEMENT FIBER DECK
C.J.	COLD JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR	CENTER
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
COORD	COORDINATE
C.P.	COMPLETE PENETRATION
CTS/K	COUNTERSINK
DBL	DOUBLE
DET	DETAIL
D.F.	DOUGLAS FIR
DIA	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DL	DEAD LOAD
DO	DITTO
DP	DEEP
DRWG	DRAWING
EA	EACH
E.J.	EXPANSION JOINT
EL or ELEV	ELEVATION
EMBED	EMBEDMENT
E.N.	EDGE NAILING
EQ	EQUAL
E.W.	EACH WAY
EXIST or (E)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FC	FACE
FDN	FOUNDATION
F.F.	FINISH FLOOR
FIN	FINISH
FLR	FLOOR
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.SH.	FACE OF SHEATHING
F.SIDE	FAR SIDE
FTG	FOOTING
GA	GAGE OR GAUGE
GALV	GALVANIZED
GEN	GENERAL
GL	GLUE LAMINATED
GLB	GLUE LAMINATED BEAM
GYP WALL BD	GYP SUM WALLBOARD
H.C.A	HEADED CONCRETE ANCHOR
HDR	HEADER
HGR	HANGER
HORIZ	HORIZONTAL
HT	HEIGHT
ICF	INSULATED CONCRETE FORM
INT	INTERIOR
INFO	INFORMATION
JOIST	JOIST
JT	JOINT
LBS or #	POUNDS
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENER LUMBER
MANUF	MANUFACTURER
MATL	MATERIAL
MAX	MAXIMUM
M.B.	MACHINE BOLT
MBR	MEMBER
MECH	MECHANICAL
MIN	MINIMUM
(N)	NEW
N.A.	NEUTRAL AXIS
N.S.	NON-SHRINK
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.H. or OPP	OPPOSITE HAND
P.A.F.	POWDER ACTUATED FASTENER
PEMB	PRE-ENGINEERED METAL BUILDING
PERF	PERFORATED
PL	PLATE
PLCS	PLACES
PLYWD	PLYWOOD
P.P.	PARTIAL PENETRATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
P.T.	PRESSURE TREATED
REINF	REINFORCEMENT/REINFORCING
REQD	REQUIRED
SCHED	SCHEDULE
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
S.O.G.	SLAB ON GRADE
SPECS	SPECIFICATIONS
SQ	SQUARE
S.S.	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
SW	SHEAR WALL
THRD	THREADED
T.O.C.	TOP OF CONCRETE
T.O.F.	TOP OF FOOTING
T.O.J.	TOP OF JOIST
T.O.S.	TOP OF SLAB OR STEEL
T.O.P.	TOP OF PILE
T.O.P.C.	TOP OF PILE CAP
T.O.W.	TOP OF WALL
T&G	TONGUE AND GROOVE
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
V.I.F.	VERIFY IN FIELD
VERT	VERTICAL
W.J.	WET JOINT
W.W.F.	WELDED WIRE FABRIC
W	WITH
W/O	WITHOUT
#	POUNDS or NUMBER
+/-	PLUS or MINUS

## STRUCTURAL NOTES

### 01.0 GENERAL NOTES

- These notes set minimum standards for construction. The drawings govern over the Structural Notes to the extent shown.
- Contractor shall verify all dimensions and conditions on drawings and in field. Coordinate locations of openings through floors, roofs and walls with architectural, mechanical and electrical plans. Notify owners representative of any discrepancies.
- Construction means, methods and all necessary temporary support prior to completion of vertical and lateral load systems is the sole responsibility of the contractor.
- Compliance with all safety and OSHA requirements is the sole responsibility of the contractor.
- All work shall be in compliance with 2022 edition of the "Oregon Structural Specialty Code- (OSSC) 2018 edition of the "International Building Code" (IBC) as amended by all other state and local codes, permits, and building department requirements that apply.
- Where reference is made to ASTM, AISC, ACI or other standards, Code referenced issue shall apply.
- Special inspection shall be provided as required by the OSSC and outlined in the special inspection section of the structural drawings.
- Design Criteria:

Design Criteria		
Table 1604.5	Risk Category	II (Mezzanine), IV (PEMB)
Roofs (PEMB)	Snow load (minimum)	20 psf x $I_s + 5$ psf rain on snow per OSSC 1608.2.3
	Ground snow load, $P_g$ (for drift calculations)	9 psf
	Flat-roof snow load, $P_f$	9.07 psf
	Snow exposure factor, $C_e$	1.0
	Snow importance factor, $I_s$	1.2
	Thermal factor, $C_t$	1.0
Floors (Mezzanine)	Dead load	15 psf
	Live load	100 psf
Wind (PEMB)	Ultimate wind speed	109 mph, 3-sec gust
	Wind exposure	B, N-S; B, E-W
	Internal pressure coeff, $GC_{pi}$	+/- 0.18
	Components and cladding	Per ASCE 7, Chpt 30
	Mapped spectral response, $S_s$ and $S_1$	0.829 and 0.366
Seismic	Site class	D
	Seismic importance factor, $I_e$	1.0 (Mezzanine), 1.5 (PEMB)
	Spectral response coeff., $S_{DS}$	0.663
	Seismic design category	D

- Details shown on the drawings are intended to apply at all similar conditions and locations.
- Do not scale information from drawings.

### 02.0 FOUNDATIONS

- Design soil bearing pressure is 1500 psf for Dead Load + Live Load, per the presumptive values of OSSC 2022 Table 1806.2.
- All footings shall bear on firm, undisturbed soil or approved compacted fill. Footings shall bear at a minimum of 18 inches below final grade. Remove all organic material or soft areas in footing excavations. Provide and install structural fill as necessary. Notify owner's representative before proceeding if any unusual conditions are encountered in the footing excavations.
- Use smooth edged backhoe bucket without teeth to excavate footing trenches, and clean all footing excavations of loose material by hand.
- Excavations may be made under continuous footings for pipes. Back fill with 3/4-inch minus crushed rock compacted in 8 inch lifts to 95 percent modified Proctor maximum dry density per ASTM D1557 or AASHTO T-180.
- Base material immediately under slab shall be a 6-inch layer of clean 3/4-inch minus crushed rock compacted to at least 92 percent modified Proctor maximum dry density in accordance with ASTM D1557 or AASHTO T-180.

### 03.0 CONCRETE

- Strength: Average concrete strength as determined by job cast, lab cured cylinder shall be per the table below plus increase depending upon the plant's standard deviation as specified in ACI 318. Four (4) test cylinders meeting ACI 318 Section 26.12 shall be taken at each pour. One (1) cylinder shall be tested at 7 days and three (3) cylinders shall be tested at 28 days. Test reports are to include minimum and maximum cure box temperatures.

Use <sup>1</sup>	Strength, $f_c$ psi		Max W/C ratio	Max Aggregate	EXP CLASS <sup>2</sup>
	At 28 Days	Non AE			
PEMB Foundations	3,500		0.46	1"	F1

- Uses indicated are for concrete elements identified on the structural drawings.

Total Air Content for Concrete Exposed to Cycles of Freezing and Thawing		Minimum Cementitious Material Content for Floors	
Nominal Maximum Aggregate Size, in	Target Air Content	Nominal Maximum Aggregate Size, in	Minimum Cementitious material content, lb/cy <sup>3</sup>
1	4.5%	1	520

#### MINIMUM Mix Requirements:

- Slabs-on-grade and beams poured integral with floor slabs shall have a minimum cementitious material content as noted in the table based on nominal maximum size of aggregate used.
- Add supplementary cementitious material to slab on grade and exposed wall concrete mixes.
- Supplementary cementitious material to be slag or fly ash. Do not add fly ash to air entrained mixes without making adjustments for potential loss of air. Limits on maximum percentage of total cementitious material by mass to be 20% for fly ash conforming to ASTM C618 with loss on ignition of 3% or less and 50% for slag conforming to ASTM C989 and added per ASTM C595. Include supplementary cementitious material in the water cement ratio. Supplementary cementitious material may be added to other concrete mixes and included in the water cement ratio but is not to be used as part of the minimum cement content. Contractor to consider late strength development and finishing for mixes with supplementary cementitious material.
- Design slump: Minimum 3", maximum 9". Field variation from design slump +1/2 inch to -1 inch. When concrete is to be pumped add plasticizers and provide a new mix design to increase slump to a pumpable mix. Do not add water at the jobsite unless authorized by the concrete supplier.
- Air Entrainment: For mix designs subject to freezing-and-thawing exposure classes F1, F2 and F3 shall be air entrained per the table. Where  $f_c \geq 5000$  psi, reduction of air content per the table by 1.0 percentage point is permitted.
- Admix: Water reducing admix (Pozzolith/Polyheed/Rheobuild or equal).
- All admixtures are to be from the same manufacturer unless evidence is submitted verifying compatibility of multiple source admixtures.
- Place and cure all concrete per ACI codes and standards.
- Sieves, pipes or conduits of aluminum shall not be embedded in structural concrete unless effectively coated.
- Provide control joints in all slabs on grade. Joints are to be installed at 14 to 16 feet on center each way maximum unless shown otherwise on the drawings. All saw-cut joints in concrete slabs to be made with an early cut saw as soon as possible after placing but no later than one hour after finishing.
- Provide 1/4-inch preformed expansion joint material between slabs and walls that are not doweled together, and around columns that do not have slab blockouts.

### 03.1 REINFORCING (CONCRETE)

- All reinforcing steel shall be ASTM A615, Grade 60.
- Fabricate reinforcing steel according to ACI 315, Details and Detailing of Concrete Reinforcement. Install reinforcing per CRSI MSP-1, ACI 301 and ACI 318.
- Lap all bars in intersecting footings 2'-0" or 45 diameters, whichever is greater.

### 03.2 CONCRETE ANCHORS

- Epoxy Anchors: Simpson SET-3G.
  - Unless noted, install threaded rods into clean, dry holes to embed depth as shown on drawings. Comply with manufacturer's ICC-ES report for hole diameter and rod material. If embed depths are not shown, use manufacturer's minimum depths. Fill hole with enough epoxy to fill all void spaces and insert rod with clockwise twisting motion.
  - Do not place when epoxy or concrete is less the 50 degrees Fahrenheit, unless special products for cold weather are used: Simpson AT-3G, Hilti HIT HY 200 or DeWalt AC208+.
  - Do not cut main reinforcing or break out back surface when drilling holes.
- Screw Anchors: Simpson Titen HD.
  - Install to clean, dry holes to embed depth +1/2" as shown on drawings. Comply with manufacturer's ICC ES report for hole diameter. If embed depths are not shown, use manufacturer's minimum depths.
  - Do not cut main reinforcing or break out back surface when drilling holes.
  - Tighten the anchor into the base material until the head contacts the fixture.
  - Provide standard washer under heads in contact with wood.
  - Special inspection of holes is required prior to installing screw anchors. See the Special Inspection section of these notes.

### 05.0 STRUCTURAL AND MISCELLANEOUS STEEL

- Detailing, fabrication and erection shall conform to the Steel Construction Manual of AISC.
  - The contractor shall be solely responsible for all OSHA requirements for safety and erection including, but not limited to, erection bolts, bracing, fall protection, guard rails, etc.
  - All threaded rods shall be ASTM A36, unless otherwise noted.

### 05.4 LIGHT GAUGE METAL FRAMING

- All light gauge steel shapes shall be 33 ksi material per ASTM A1003, Grade 33 Type H for 18 gage and lighter, and 50 ksi per ASTM A1003 Grade 50 Type H for 16 gage and heavier, unless noted otherwise. Shapes shown are per Steel Stud Manufacturers' Association. Manufacturer's shapes with equal or greater A, I, S, and R factors may be substituted provided they have ICC-ES research reports. Studs and blocking shall be punched 'C' studs of 20 gage (minimum) material with 1-3/8 inch wide (minimum) stiffened flanges, unless otherwise noted.
- Design of framing members shall comply with AISI Cold Formed Steel Design Manual.
  - Screws for connecting steel framing members shall be self-drilling, self-tapping screws with minimum  $f_y = 33$  ksi.

### 05.6 MANUFACTURED METAL BUILDINGS

- All metal building components shall be designed and fabricated per AISC and AWS specifications for the following design loads:
  - Roof Snow Load Per Section 01.0 Design Criteria
  - Roof Dead Load As calculated by manufacturer plus 5 psf collateral load
  - Wind Per Section 01.0 Design Criteria
  - Seismic Per Section 01.0 Design Criteria and loads noted in details
  - Calculated horizontal drift for seismic ( $\Delta_s$ ) and wind loading shall be limited to h/100. 'h' shall be defined as the eave height above finish grade.
- The building system shall include all the structural framing, secondary framing, roofing, siding, bracing, fasteners, sealants, and any other component parts of the metal building above the concrete slab and foundation. This includes fasteners to the concrete slab and foundation.
- The connection of the building columns to the foundation shall be modeled and designed as a pinned connection.
- The building width and length shall be measured from the outside face and shown as such on the metal building shop drawings.
- Metal building manufacturer shall submit the following to the architect for review by the structural engineer of record and the local jurisdiction.
  - Shop drawings, stamped by a professional engineer registered in the State of Oregon, of the proposed structure showing plan view layouts of all members and anchor bolts including connection details for all framing members. List design loads used in design of the building and any special components.
  - Structural calculations, stamped by a professional engineer registered in the State of Oregon, showing design loads and calculations for all components of the building including a summary of column reactions for all load combinations.
  - Special inspection of all shop and field welding is to be performed by an approved independent testing laboratory (a list of independent testing laboratories registered with the Oregon Building Officials Association is available on the OBOA website). The tests shall include visual inspection of all welds, ultra-sound inspection of full penetration welds and during the installation of high strength bolts.
  - Foundations for manufactured metal buildings shall not be formed until column reactions from the building manufacturer's engineer have been submitted to, reviewed and returned by WDY.
  - The metal building manufacturer is to inspect the building after all building components have been installed and submit a certificate to owner, architect, structural engineer, contractor, and building official that the inspection was made and that all components are in acceptable condition and meet with the design and installation requirements of the project and the manufacturer.

### 06.0 WOOD FRAMING

- All lumber species and grade to be as follows:

Joists, beams and stringers (2x & 4x)	DF #2-19 percent M.C.
Bucks, blocking, bridging and misc.	DF #3 or better
Structural 2x studs	DF #2-19 percent M.C.
Plates, sills and headers for wall framing	DF #2 K.D. - 15 percent M.C.
Posts	DF #1 - 19 percent M.C.
Sills, ledgers, plates, etc embedded in or in contact with concrete, not exposed to weather	Pressure treated Hem Fir #2 AWPA UC2 (ACZA Not Allowed)

Where moisture content is provided, do not install framing if members exceed noted moisture content

- All engineered wood to meet the following criteria:

Material	Grade	Fb	Fv	E
Laminated Veneer Lumber (LVL)	2.0E	2,800 psi	285 psi	2.0 x 10 <sup>6</sup> psi
Laminated Strand Lumber (LSL)	1.5SE	2,325 psi	310 psi	1.55 x 10 <sup>6</sup> psi

Approved manufacturers: RedBuilt LLC, LP Building Products or iLevel, a Weyerhaeuser business.

- Sheathing shall be APA Rated plywood sheathing or Sturo-I-Floor, C-D grade, Exposure 1 with Performance Category and Span Rating as noted below. Each sheet shall bear an APA stamp. Install roof and floor sheathing with face grain perpendicular to supports and stagger end joints. Install wall sheathing either horizontal or vertical, and block all edges of sheathing with 2x4 or thicker blocking. Block roof and floor sheathing where noted on drawings and where plywood widths are less than 12 inches wide. Glue floor sheathing to all supports. Protect all sheathing from weather damage and moisture. Replace all buckled or soft sheets. Do not cover sheathing with permanent roofing or finishes until sheathing has a moisture content of less than 19%.

Location	Performance Category	Span Rating
Walls	15/32	32/16
Floors	23/32 T&G	24 oc

- Framing anchors, joist hangers, post caps, etc., shall be 'Simpson Strong-Tie'. Install per manufacturer's recommendations for tabulated maximum capacities with fasteners installed in all holes. Framing anchors attaching to pressure treated lumber shall be Z Max coated or hot dipped galvanized and attached with hot dipped galvanized (2.0 oz per square foot) or stainless steel nails or screws. Framing anchors installed at exterior locations exposed to weather are to be stainless steel with stainless steel fasteners.
- All nailing shall be per IBC Table 2304.10.2. Nails called for on the drawings shall be common for plywood nailing; box nails for framing; and type recommended by manufacturer for maximum capacity of hangers and connectors. Nail heads shall not penetrate the face veneer of plywood panels.
- Nails, bolts or lags in pressure treated lumber shall be hot dipped galvanized or stainless steel.
- Cutting and notching of joists not allowed. A one-inch (1") diameter hole may be drilled in the center 1/3 of width of member depth. All other holes shall be approved.
- Studs may be notched in the lower 1/5 of the height of stud for electrical and plumbing pipes, but no part of the notch is to be deeper than 25 percent of width of stud. Holes of diameters up to 1/3 of width of stud may be drilled in stud but not in center 1/3 of height. The edges of drilled holes are to be at least 5/8 inch from the face of the stud.
- Provide deflection space over all non-bearing walls located under open-web and plate connected wood trusses.
- Lag bolts shall be installed in lead holes as follows:
  - The lead hole for the shank shall have the same diameter as the shank and the same depth as the length of the unthreaded shank.
  - The lead hole for the threaded portion shall have a diameter equal to 70 percent of the shank diameter and a length equal to at least the length of the threaded portion.
  - The threaded portion of the screw shall be inserted in its lead hole by turning with a wrench, not by driving with a hammer. Soap or other lubricants may be used on the screws or in the lead hole to facilitate insertion and prevent damage to the screw.

### 06.12 WOOD I-JOISTS

- All wood I-joists shall be manufactured and designed by Red Built, LLC or a prior approved joist manufacturer. Manufacture joists to the load requirements noted in Section 01.0 of these structural notes and the following:
  - Allowable increase in wood roof member stresses due to duration of loading per NDS for wood construction.
  - I-joist chords shall be LVL material meeting the requirements noted in Section 06.0 of these notes.
  - Substitute joist manufacturers shall meet or exceed strength and stiffness of Red Built products shown and/or noted. Do not change spacing, layout or depth without written approval.
  - Location and number of joists shown are diagrammatic only. Additional joists or multiple joists may be required depending upon design or bearing requirements.
  - Provide additional joists as necessary to support mechanical units and sprinkler lines. Coordinate all loads and locations with mechanical drawings.
  - All bridging, bearing hardware, blocking, hangers, etc., that connects to the joists shall be designed and provided by the joist manufacturer to fit the condition. Use sloped seat hangers and beveled plates as required. Provide load transfer blocks at multiple members.
  - Holes through joist webs shall follow the written recommendations of the joist manufacturer. Do not cut or drill joist chords.
  - Design and installation of temporary erection bracing is the sole responsibility of the contractor. If temporary loads are to be imposed on permanent walls, floors or structural elements, redesign permanent structure to support temporary loads.
  - Joist erector shall erect and brace joists per the requirements of the joist manufacturer, contractors bracing design, and all applicable codes and government agencies.
  - Shop drawings shall be submitted and stamped by a professional engineer registered in the State of Oregon. Submit an ICC-ES report, and comply with all the requirements of the report.
  - Joist manufacturer shall inspect all joists after they have been erected and sheathing, bridging, blocking, etc., has been installed. Manufacturer shall submit a certificate to architect, engineer, contractor, owner and building official that the inspection was made and that the joists are in acceptable condition and meet with the manufacturer's design and installation requirements.

### STRUCTURAL DEFERRED SUBMITTALS

Deferred submittal items per OSSC 107.3.4.1 shall be submitted to the Engineer of Record. All deferred submittals shall include calculations and erection drawings and details and be stamped by a professional engineer registered in the State of Oregon (Specialty Engineer) and shall be the sole responsibility of the Specialty Engineer including, but not limited to, design, coordination, dimensions and intended purpose. Deferred submittal items shall include a quality assurance plan as required by Chapter 17 of the OSSC. Review by the Engineer of Record shall be for general conformance to the design loading criteria set forth on the drawings and specifications. The deferred submittal items shall not be fabricated or installed until the design and submittal documents have been reviewed by the Engineer of Record and approved by the building official. Deferred submittal components designed by others shall not induce torsional forces in engineering of record designed structural members. Torsional bracing shall designed by the deferred submittal specialty engineer and included in the deferred submittal. Transfer of lateral forces into the structural diaphragm for elements that are fastened to floor/roof framing shall be included in the deferred submittal.

#### Deferred Submittal List:

- Pre-engineered metal buildings (PEMB)
- Wood I-Joists
- Fall restraint apparatus & connection to structure
- Guardrails
- Ship ladders

PERMIT SET 2024.12.20

Issue Date

Drawing:

## STRUCTURAL NOTES & ABBREVIATIONS

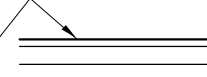
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# S0.01

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SHEAR WALL SCHEDULE					
MARK	SHEATHING <sup>1,2,3,7</sup> <sub>12</sub>	PANEL EDGE NAILING <sup>4,5,6,8,9</sup>	SILL <sup>10</sup>	SILL PLATE ANCHOR <sup>11,12</sup> <sub>13</sub>	RIM JOIST TO TOP PLATE ANCHOR
SW6	15/32" RATED SHEATH. ONE FACE	10d AT 6" O.C.	2x (U.O.N.)	5/8" DIA A.B.'s AT 32" O.C. OR 16d SINKERS AT 6" O.C. AT WOOD	SIMPSON A35 OR LTP4 AT 24" O.C.

SHEAR WALL NOTES:

- SHEAR WALL SHEATHING SHOWN BY DARK LINE ON PLANS 
- BLOCK AND NAIL ALL PLYWOOD PANEL EDGES WITH 2x MIN. THICK BLOCKING
- WHERE SHEATHING IS CALLED OUT EACH FACE, OR NAILING IS 4" O.C. OR LESS, OFFSET PANEL JOINT TO FALL ON DIFFERENT STUDS OR PROVIDE 3x OR THICKER STUDS WITH NAILS ON EACH SIDE STAGGERED. USE 3x BLOCKING.
- FOR PLYWOOD, SHEATHING, USE COMMON NAILS, OF THE FOLLOWING SIZES:  
8d: .131" DIA x 2 1/2" MIN.
- NAIL HEADS ARE NOT TO PENETRATE FACE PLY OF SHEATHING.
- EXTEND ALL SHEAR WALL SHEATHING TO THE TOP PLATE OF THE FLOOR FRAMING OR ROOF FRAMING LEVEL ABOVE AND TO END POSTS WITH HOLDOWNS.
- FASTENER SPACING AT INTERMEDIATE FRAMING MEMBERS SHALL BE 12" O.C. FOR PLYWOOD.
- EDGE NAIL PLYWOOD TO ALL POSTS WITH HOLDOWNS, TO TOP WALL PLATE AND SILL PLATE
- WHERE SHEAR WALL SHEATHING OCCURS EACH FACE OR WHEN SHEATHING IS INSTALLED ONLY ON PART OF A WALL, ADD FURRING TO ENTIRE FACE OF WALL AS REQUIRED TO PROVIDE EVEN FINISHES.
- USE PRESSURE TREATED (P.T.) SILL PLATES WHEN IN CONTACT WITH CONCRETE
- SILL ANCHOR BOLTS TO BE HOT DIPPED GALVANIZED 5/8" DIA x 6" TITEN HD SCREW ANCHORS WITH 4" MINIMUM EMBEDMENT INTO CONCRETE. INSTALL A MINIMUM OF (2) ANCHOR BOLTS PER PIECE OF SILL PLATE, WITH (1) ANCHOR BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4" FROM EACH END.
- USE HOT DIPPED GALVANIZED 3" SQ x 1/4" PLATE WASHERS UNDER NUTS. INSTALL SQUARE TO WALL W/ WASHER PLACED 1/2" FROM FACE OF PLATE ON SHEATHING SIDE.

HOLDOWN SCHEDULE				
MARK	HOLDOWN AND POST <sup>2,3,5</sup>	POST ANCHORS <sup>1</sup>	ANCHOR BOLT <sup>4</sup>	STRAP END LENGTH
2	SIMPSON HDU2-SDS2.5 W/ (2) 2x STUDS	(6) SDS 1/4 x 2 1/2	5/8" DIA F1554 GR. 36 THREADED ROD DRILLED AND EPXIED W/ ST-3G - 4" MIN EMBED	NA

HOLDOWN NOTES:

- "SDS" DESIGNATES "STRONG DRIVE SCREW" BY SIMPSON.
- FIRST DIMENSION LISTED IS MINIMUM WIDTH REQUIRED. UNLESS SHOWN OTHERWISE ON PLAN.
- NAIL SHEATHING TO ALL HOLDOWN POSTS W/ EDGE NAIL SPACING PER SHEAR WALL SCHEDULE.
- WHEN HOLDOWN POSTS CONSIST OF MULTIPLE 2x STUDS, NAIL ALL STUDS TOGETHER WITH PAIRS 16d AT 4" O.C. STAGGERED FOR FULL HEIGHT OF EACH STUD.

CONSTRUCTION OBSERVATION, INSPECTION AND TESTING

A. GENERAL

- Independent testing lab to be retained by owner to provide inspections and special inspections as described herein.
- Contractor is responsible to coordinate and provide on-site access to all required inspections and notify testing lab in time to make such inspections.
- Do not cover work required to be inspected prior to inspection being made. If work is covered, uncover as necessary.
- The contractor shall correct all deficiencies noted in the special inspection reports and/or the engineers field observations reports to bring the construction into compliance with the contract documents, addendum, RFI's and/or written instructions. The contractor is responsible to request summary reports from the special inspector and engineer of record at the time of the project substantial completion. Prior to requesting the Summary Structural Observation Report from the engineer of record the contractor shall submit to the architect and engineer of record a letter stating that all outstanding items noted on previous Structural Observation Reports have been completed in accordance with the contract documents, addendum, RFI's, and/or written instructions.

B. STRUCTURAL OBSERVATIONS

- Structural observations by the engineer of record or his representative shall be required at the following times during construction:
  - As soon as the mezzanine ground level shear walls and mezzanine floor framing and sheathing are in place, prior to covering with any architectural finishes.
- The contractor shall notify the engineer of record four (4) calendar days in advance of above times requiring site observation.

C. SPECIAL INSPECTIONS

- Required special inspections shall be performed by an independent special inspector per Section 1703.1 of the Oregon Structural Specialty Code (OSSC) for the items listed in the following tables.
- Items checked with X shall be inspected in accordance with OSSC Chapter 17 by certified special inspectors from a testing agency approved by the building official.
  - Special inspection is not required for work performed by an approved fabricator meeting the requirements of OSSC Section 1704.2.5.1.
  - The special inspector shall provide a copy of their report to the owner, architect, structural engineer, contractor and building official.
  - Continuous special inspection means full-time observation of the work requiring special inspection by an approved special inspector present in the area where the work is being performed. Periodic special inspection means part time or intermittent observation of the work at intervals necessary to confirm that work requiring special inspection is in compliance.
  - All bidder designed components where special inspections or tests are required by OSSC Section 1705 shall prepare a statement of special inspections in accordance with OSSC Section 1704.2.3.

Special Inspections and Tests of Concrete Construction (OSSC Table 1705.3)				
Type	Continuous	Periodic	Reference Standard	Code Ref
1. Inspect reinforcement, including prestressing tendons, and verify placement		X	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	
2. Inspect anchors cast in concrete		X	ACI 318: 17.2.5	
3. Inspect anchors post installed in hardened concrete members				
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads	X		ACI 318: 17.2.5	
b. Mechanical anchors and adhesive anchors not defined in 4.a.		X		
4. Verify use of required mix design		X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2
5. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine temperature of concrete	X		ASTM C31 ASTM C172 ACI 318: 26.5, 26.12	
6. Inspect concrete and shotcrete placement for proper application techniques	X		ACI 318: 26.5	
7. Verify maintenance of specified curing temperature and technique		X	ACI 318: 26.5.3-26.5.5	
8. Inspect formwork for shape, location and dimensions of the concrete member being formed		X	ACI 318: 26.11.1.2.(b)	

- Where 4x8-in cylinders are used for compressive strength testing, a multiplier of 0.94 shall be applied to the results to obtain average strength data.



CLACKAMAS FIRE TRAINING WAREHOUSE

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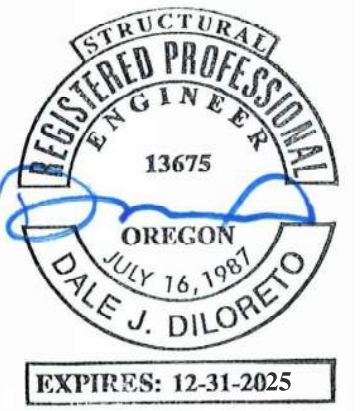
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SPECIAL INSPECTIONS & SCHEDULES

Sheet No:

S0.02



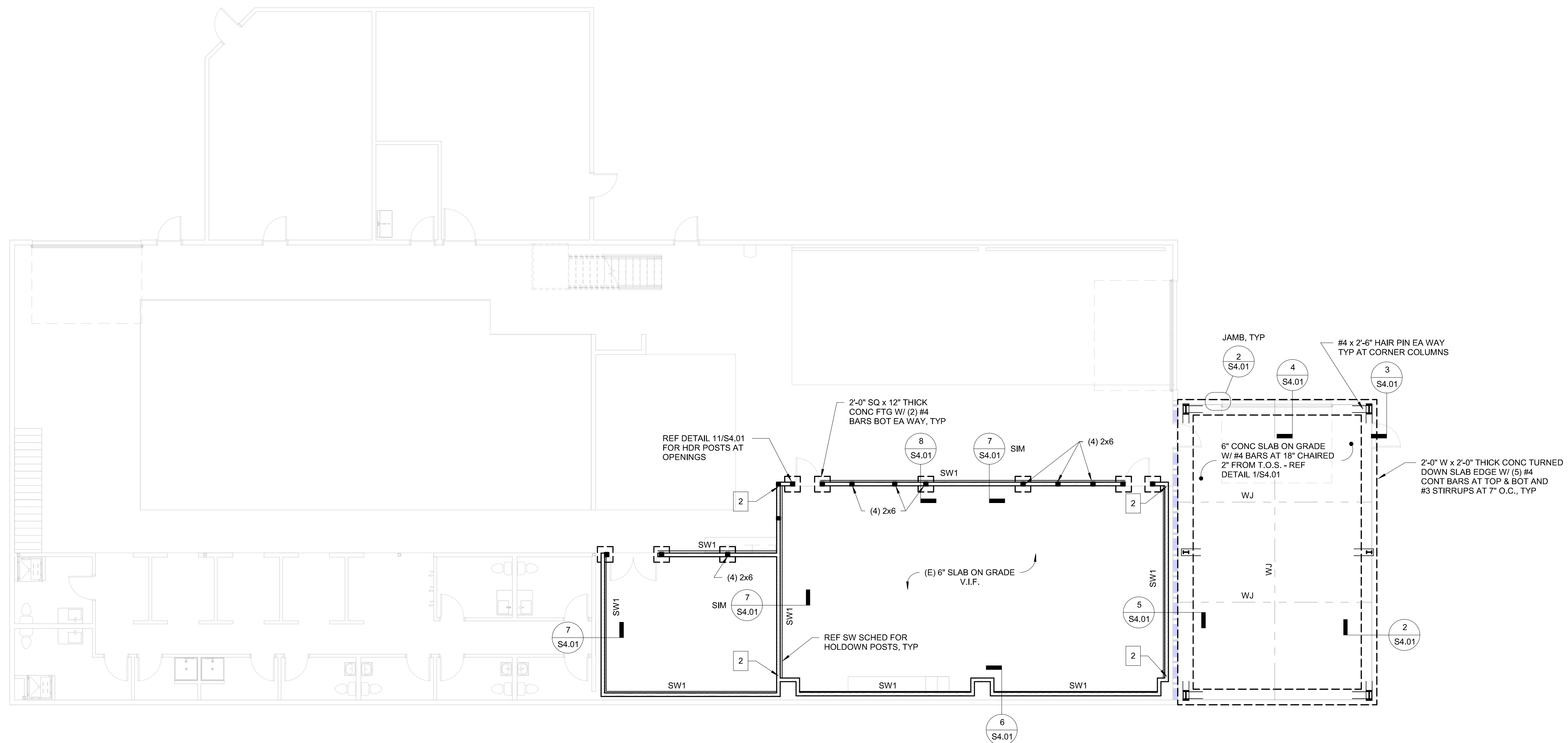
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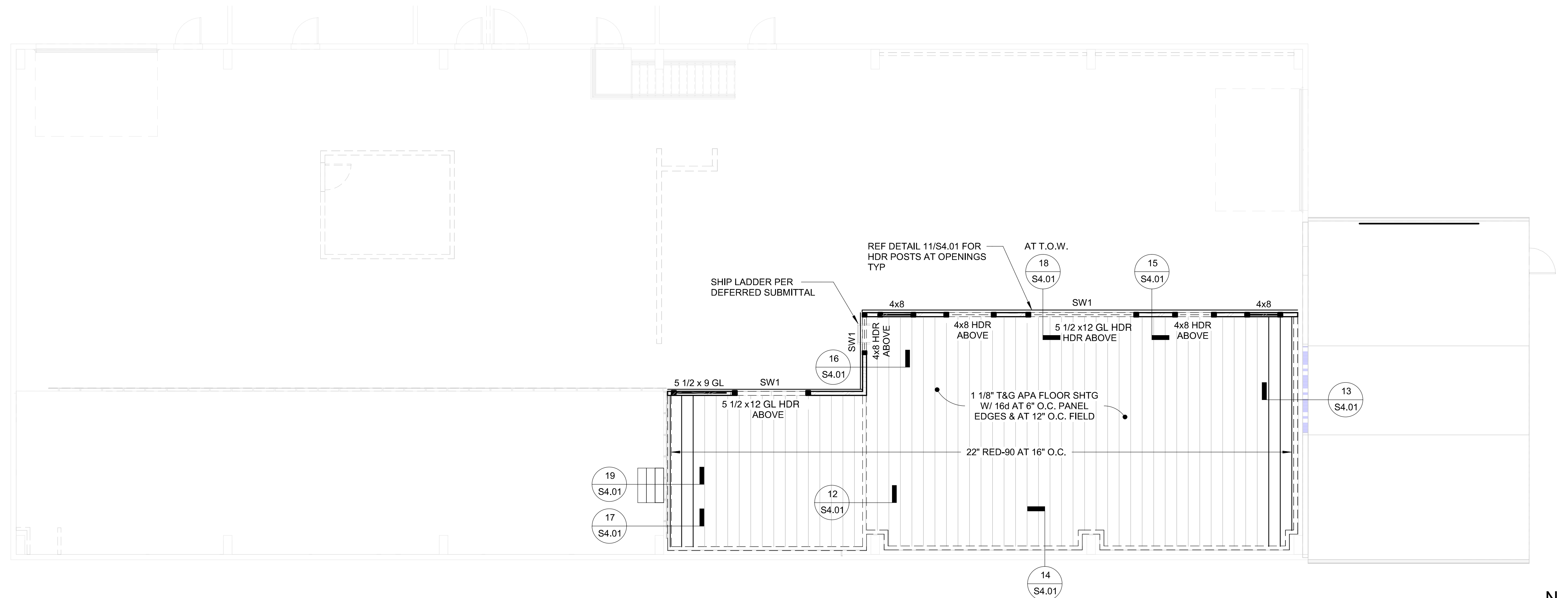
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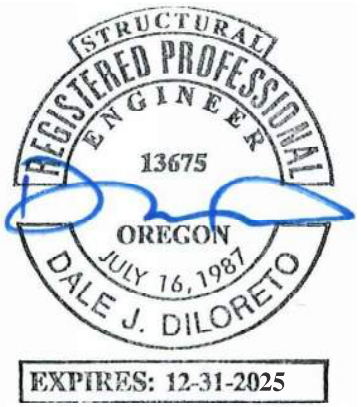
1 FOUNDATION PLAN  
1/8" = 1'-0"



2 MEZZANINE FLOOR PLAN  
1/8" = 1'-0"

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**FOUNDATION &  
MEZZANINE FRAMING  
PLANS**

Sheet No:  
**S2.12**



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**DETAILS**

Sheet No:

**S4.01**

