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- WSEC C407 ENERGY REPORT
- PRE-MANUFACTURED ROOF TRUSS LAYOUT
- PRE-MANUFACTURED ROOF TRUSS CALCULATIONS

FIRE SPRINKLER
FIRE ALARM SYSTEM

THE OVERALL ARCHITECTURAL SCOPE OF THIS PROJECT IS
CONSTRUCT ONE COMMERCIAL SHELL BUILDING WITH 3 FUTURE
TENANTS AND RELATED SITE DEVELOPMENT.

REFER TO THE FOLLOWING APPLICATION NUMBER:
SITE DEVELOPMENT: **PRCCP20230970**

1 ———— DETAIL NO. OR LETTER
A2.0 ———— SHEET

1
A2.0

DETAIL NO. OR LETTER
SHEET

2 — DRAWING NUMBER

A4.0

3 — SHEET

4

100A — DOOR NUMBER
REFER TO SHEET A4.0.

ROOM — ROOM NAME
100 — ROOM NUMBER

1A ——— WALL TYPE NO.
REFER TO SHEET A1.0

 — WINDOW TYPE NUMBER

[illegible]

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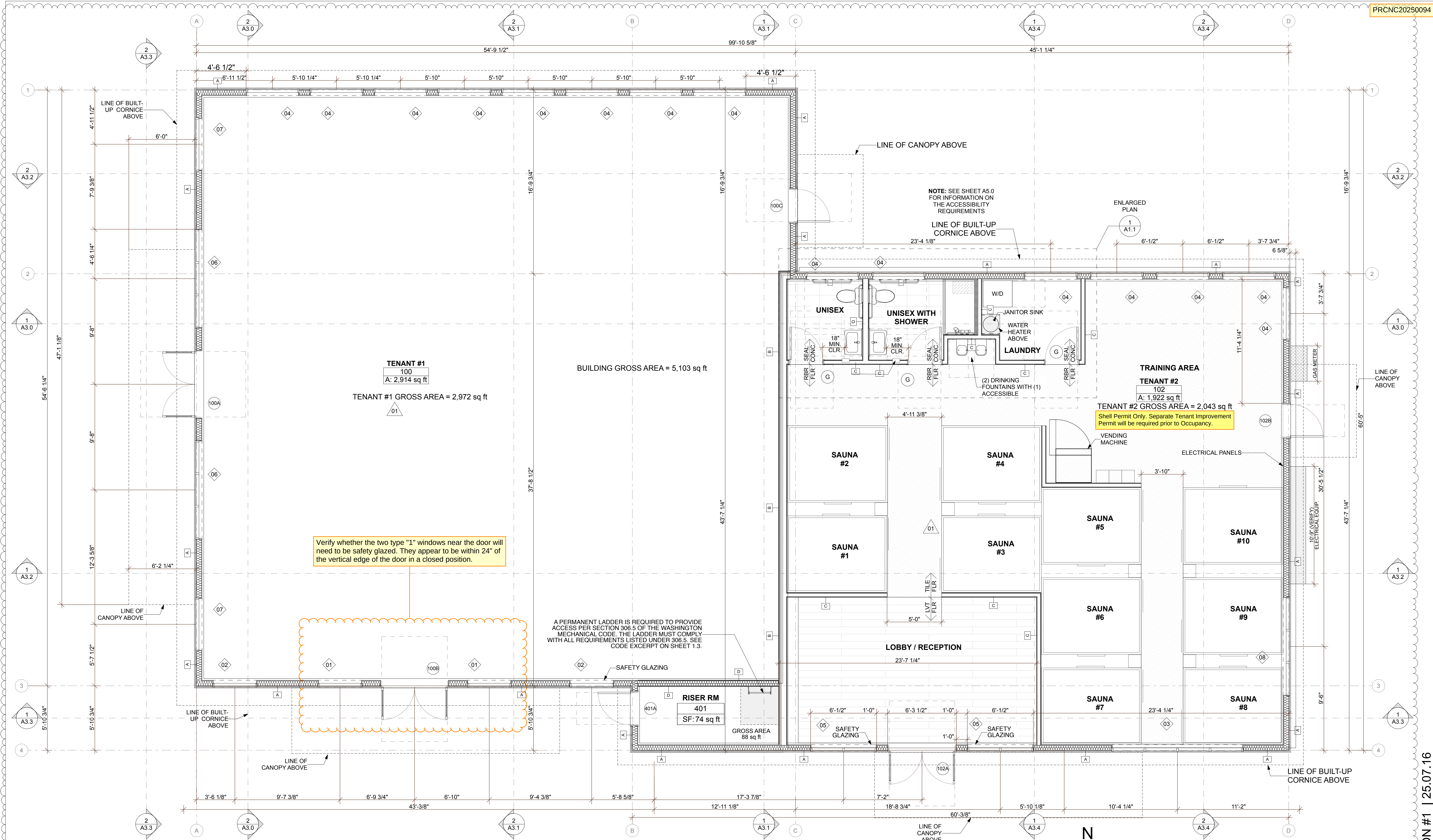
SIERRA TANGO 1, LLC
HOTWORX AUBURN WA
AUBURN WA
01
WIL JOHNSTON
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1. THE CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH THE CONTENT OF THESE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK. DO NOT SCALE THE DRAWINGS.
2. IN THE EVENT THE CONTRACTOR FINDS A CONFLICT OR DISCREPANCY WITH THESE DRAWINGS, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY IN WRITING. SHOULD THE CONTRACTOR PROCEED WITHOUT NOTIFYING THE ARCHITECT OF SUCH CONFLICT, THE CONTRACTOR SHALL BE PROCEEDING AT HIS OWN RISK & ASSOCIATED LIABILITY.
3. THESE DRAWINGS SERVE TO REPRESENT DESIGN INTENT AS DIRECTED BY THE OWNER & COMPLIANT WITH GOVERNING JURISDICTIONAL LAW. IN NO WAY SHALL THESE DRAWINGS SERVE TO DICTATE METHODS OF CONSTRUCTION RELATIVE TO ADHERENCE TO EITHER. IT IS THE CONTRACTOR'S & OWNER'S RESPONSIBILITY TO WORK WITHIN THE PARAMETERS OF THE AGENCY APPROVED DOCUMENTS TO MAINTAIN THE INTEGRITY OF THE DESIGN INTENT AND AGENCY COMPLIANCE. ANY ERRORS, OMISSIONS OR NONCOMPLIANCE WITH GOVERNING CODES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY. CHANGES, OMISSIONS OR SUBSTITUTIONS ARE NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
5. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE COMPLETION OF ALL SHEAR WALLS, ROOF AND FLOOR DIAPHRAGMS AND FINISHED MATERIALS. THE CONTRACTOR SHALL PROVIDE THE NECESSARY BRACING TO PROVIDE STABILITY PRIOR TO THE APPLICATION OF THE ABOVE MENTIONED COMPONENTS.
6. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
7. SPECIAL INSPECTION SHALL BE PROVIDED BY AN INDEPENDENT TESTING LABORATORY PER THE REQUIREMENTS OF IBC CHAPTER 17 AND THE LOCAL BUILDING OFFICIAL OR APPLICABLE JURISDICTION AND CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SUBMIT INSPECTION REPORTS AND A FINAL SIGNED REPORT TO THE BUILDING OFFICIAL FOR THE ITEMS LISTED IN THE QUALITY ASSURANCE/SPECIAL INSPECTION SECTION:
8. THE CONTRACTOR SHALL VERIFY THE DIMENSIONS REQUIRED FOR ALL EQUIPMENT, APPLIANCES, FIXTURES, CABINETS, DUCTWORK AND OPENINGS BEFORE FRAMING BEGINS. THE CONTRACTOR SHALL COORDINATE WITH THE SUBCONTRACTORS OF ALL TRADES TO VERIFY THE SIZES AND LOCATIONS OF OPENINGS THROUGH THE FLOORS, WALLS, CEILINGS AND ROOFS FOR DUCTS, PIPES, CONDUITS AND EQUIPMENT. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND INSTALLATION OF WOOD BACKING, BLOCKING, FURRING AND STRIPPING AS REQUIRED FOR THE INSTALLATION AND ATTACHMENT OF WORK OF ALL TRADES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SYSTEMS, INCLUDING, BUT NOT LIMITED TO, MECHANICAL, PLUMBING, ELECTRICAL WORK. WORK SHOWN IN THE DRAWINGS IS INTENDED TO ILLUSTRATE THE GENERAL DESIGN INTENT, SCOPE AND LOCATION OF WORK. ALL WORK NOT SPECIFICALLY DRAWN, BUT REQUIRED FOR A COMPLETE, LEGAL AND FUNCTIONING SYSTEM, SHALL BE PROVIDED AS PART OF THE WORK.
10. SAFEGUARDS DURING CONSTRUCTION SHALL COMPLY WITH CHAPTER 33 OF THE INTERNATIONAL BUILDING CODE.

EAST TOWN CROSSING
COMMERCIAL LOT 1
727 SHAW ROAD PUYALLUP WA

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AG1.1



WALL TYPES			
A		CLADDING WATER RESISTANT BARRIER 1/2" SHEATHING, PER STRUCTURAL 2 X 6 WOOD STUDS @ 16" O.C. WITH R-21 BATT INSULATION 5/8" TYPE "X" GWB (W.R. IN WET AREAS) VAPOR BARRIER PAINT	
		WALL EXTENDS FROM TOP OF CONCRETE SLAB TO BOTTOM OF ROOF DECK ABOVE 5/8" TYPE "X" GWB (W.R. @ WET AREAS) 2 X 6 WOOD STUDS @ 16" O.C. PER STRUCTURAL SOUND BATTS RESILIENT ISOLATION CLIPS (PC-INTL RSIC-1 or equivalent) FURRING CHANNEL (2) LAYERS 5/8" TYPE "X" GWB (W.R. @ WET AREAS)	
C		WALL EXTENDS FROM TOP OF CONCRETE SLAB TO BOTTOM OF ROOF DECK ABOVE 5/8" TYPE "X" GWB (W.R. @ WET AREAS) 2 X 4 WOOD STUDS @ 16" O.C. PER STRUCTURAL 3-1/2" SOUND BATTS 5/8" TYPE "X" GWB (W.R. @ WET AREAS)	
		WALL EXTENDS FROM TOP OF CONCRETE SLAB TO BOTTOM OF ROOF DECK ABOVE 5/8" TYPE "X" GWB (W.R. @ WET AREAS) 2 X 6 WOOD STUDS @ 16" O.C. PER STRUCTURAL 3-1/2" SOUND BATTS 5/8" TYPE "X" GWB (W.R. @ WET AREAS)	

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

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PRCNC20250094

S9

SYNTHESIS 9, LLC
523 N. D ST.
TACOMA, WA 98403

REGISTERED ARCHITECT
BRITNEY K. LINSEY
STATE OF WASHINGTON

9251

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EAST TOWN CROSSING
COMMERCIAL LOT 1
727 SHAW ROAD PUYALLUP WA

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DATE: 25.07.16
TITLE: LEVEL 1 PLAN
PROJECT #: 2016-L1
SHEET:

A1.0

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Product Description

- Durable construction of cold rolled steel
- Includes hanger rods and hardware for easy installation
- Compatible with standard one-inch PVC drain fittings

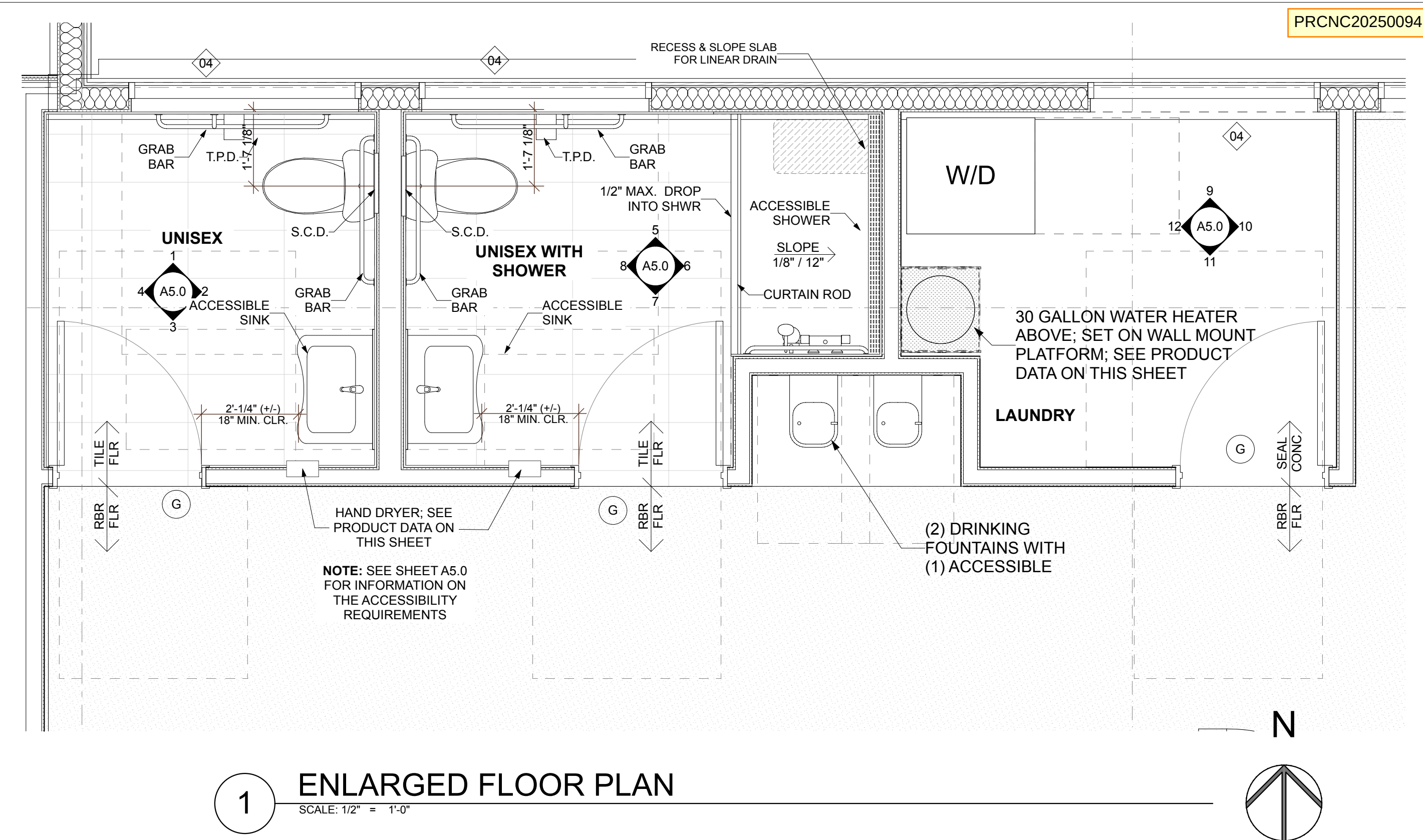
This platform is suitable for both residential and commercial applications, providing stable support for water heaters while ensuring safety and ease of maintenance.

Standard Information

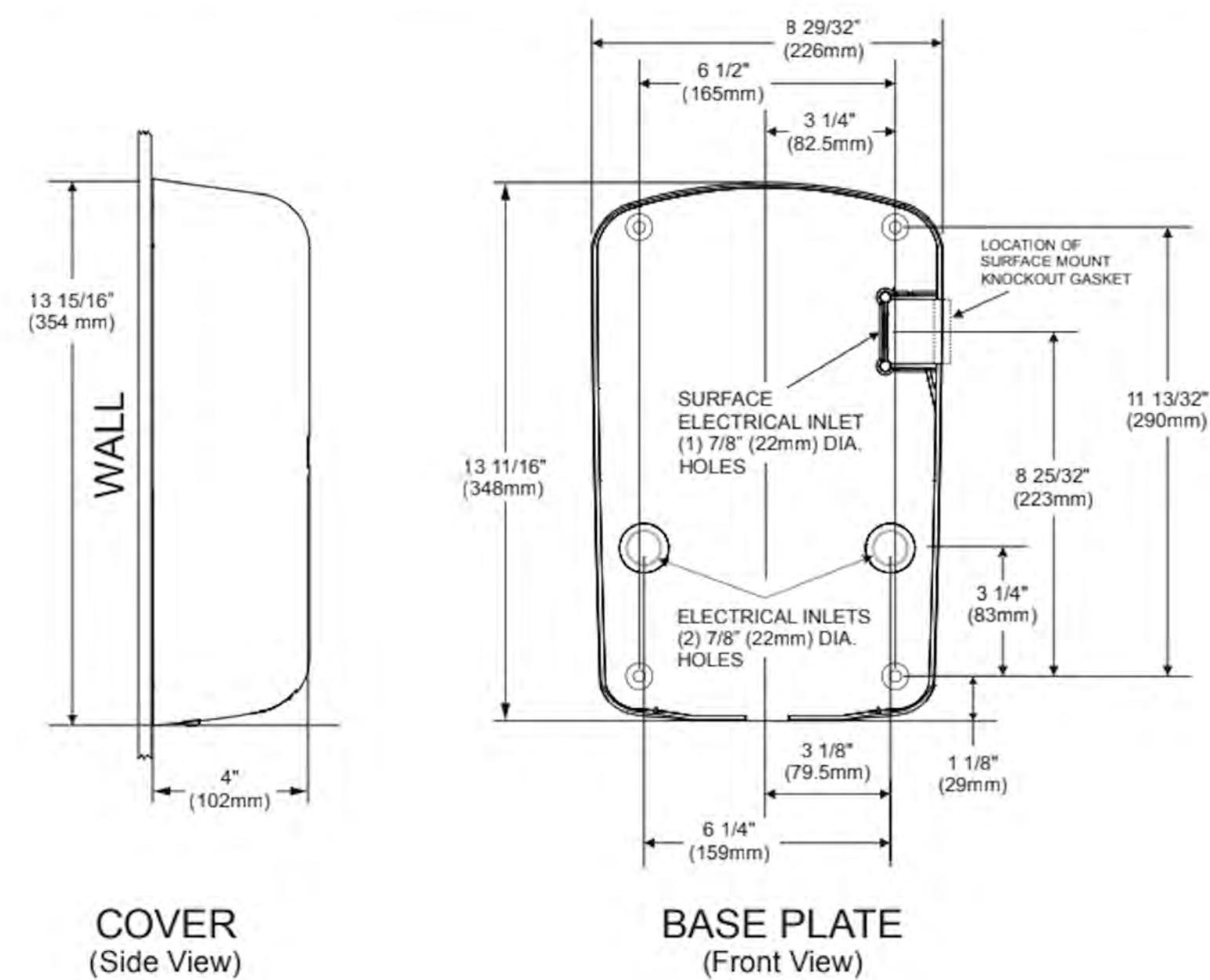
- **Brand:** HoldRite
- **MPN:** 50-SWHP-W

- **Material:** Cold Rolled Steel

- **Finish:** Galvanized
- **Size:** 26.5 inches width x 26.5 inches depth x 2.5 inches height
- **Load Capacity:** 50 gallons or 600 pounds
- **Applicable Standard:** BAA
- **Type:** Wall Mount, Suspended, Pre-Assembled, Square
- **Used On Item:** Water Heater

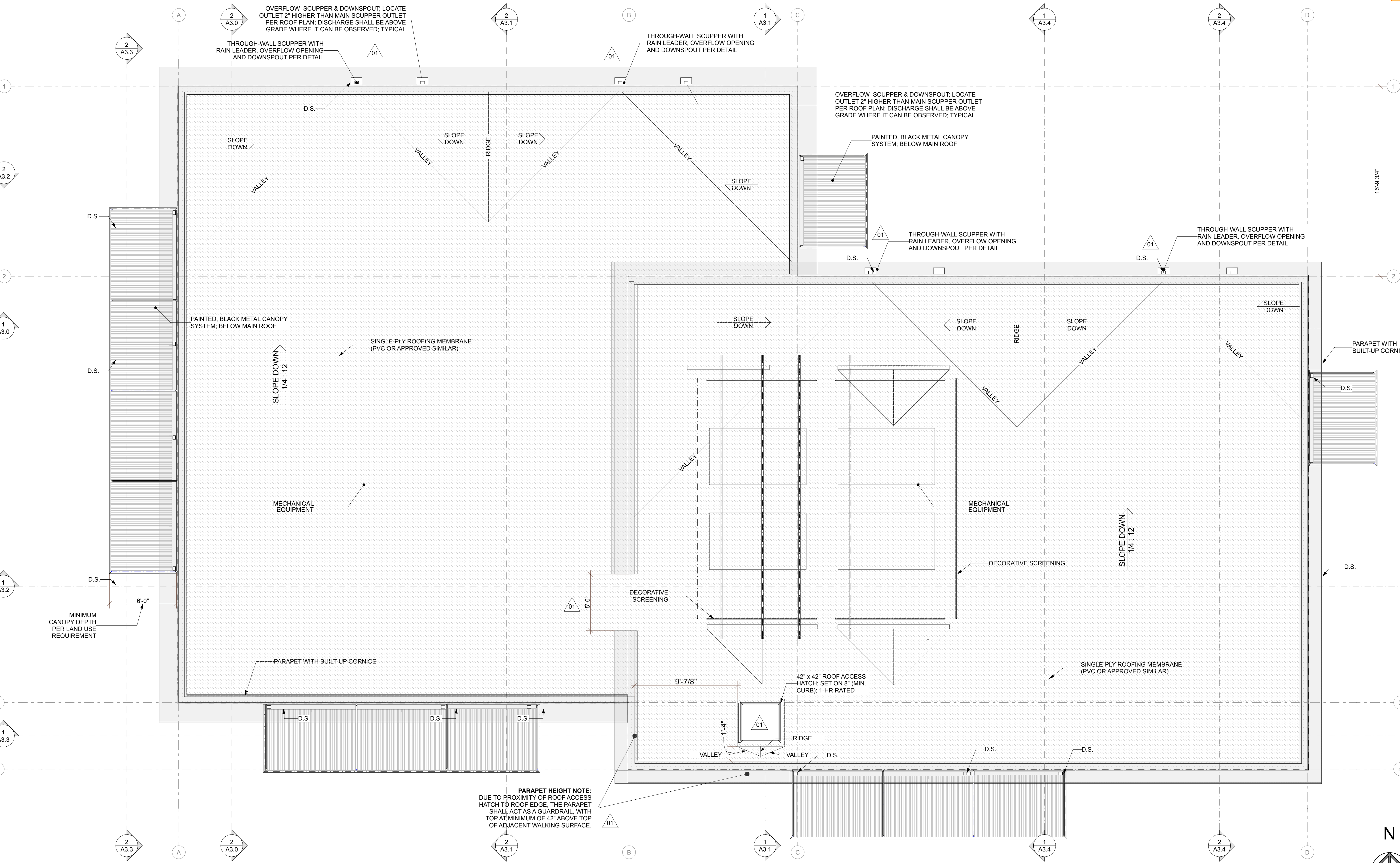


MODELS: TA - ABS SB -VOLTAGE (See Chart)



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9251 REGISTERED ARCHITECT <i>Anthony</i> STATE OF WASHINGTON	
EAST TOWN CROSSING COMMERCIAL LOT 1 727 SHAW ROAD PUYALLUP WA	
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TITLE:	ENLARGED FLOOR PLAN
PROJECT #:	2016-L-1
SHEET:	
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TITLE:	ROOF PLAN
PROJECT #:	2016-L1
SHEET:	



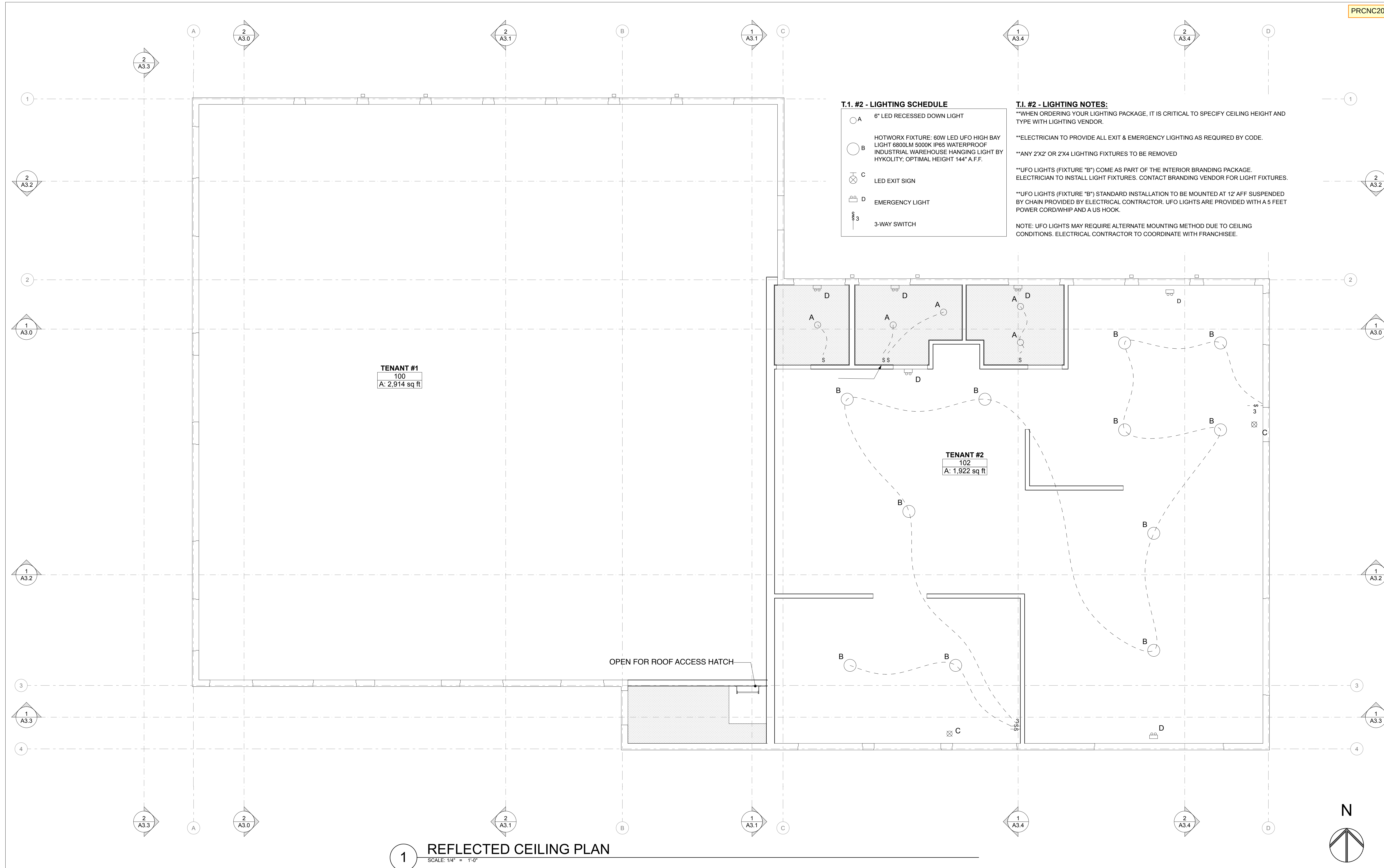
1 ROOF PLAN
SCALE: 1/4" = 1'-0"

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PROJECT #:	2016-L

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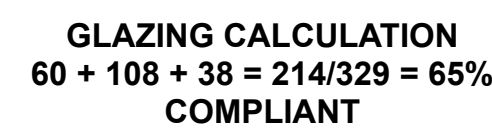
1 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

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E:	ELEVATIONS
SUBJECT #:	2016-L1
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SCALE: 1/4" = 1'-0"



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



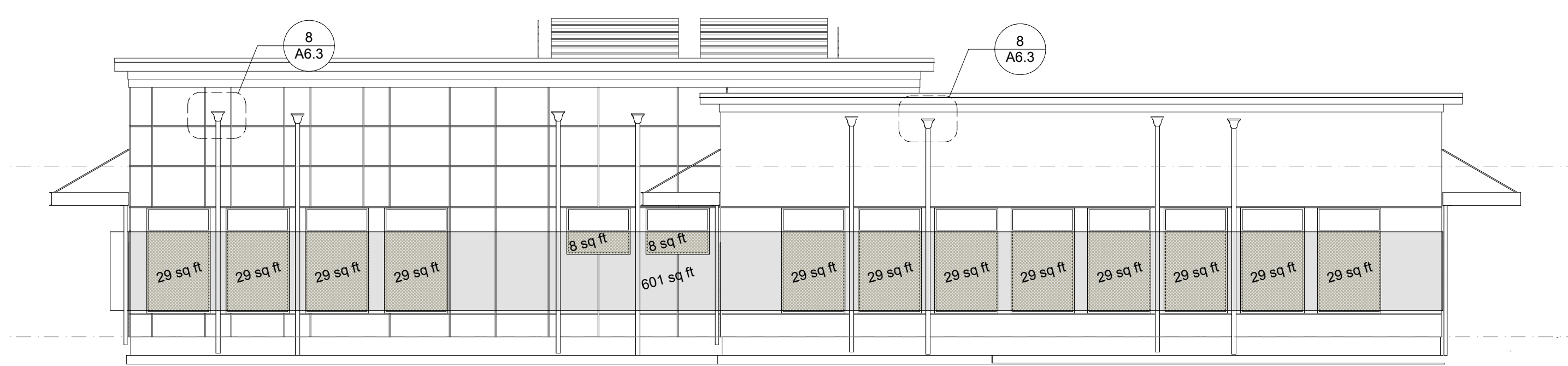
SCALE: 1/4" = 1'-0"

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TITLE:	ELEVATIONS
PROJECT #:	2016-L1
SHEET:	

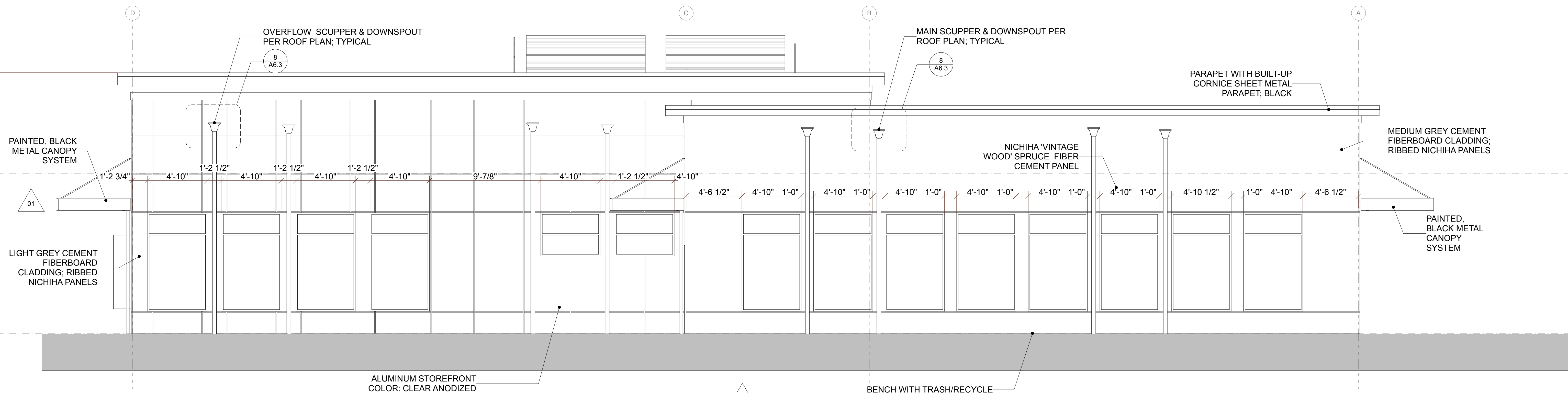


2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



GLAZING CALCULATION
(29 x 12 = 348) + 16 = 364/601 = 61%
COMPLIANT

3 NORTH ELEVATION - GLAZING ANALYSIS
SCALE: 1/8" = 1'-0"

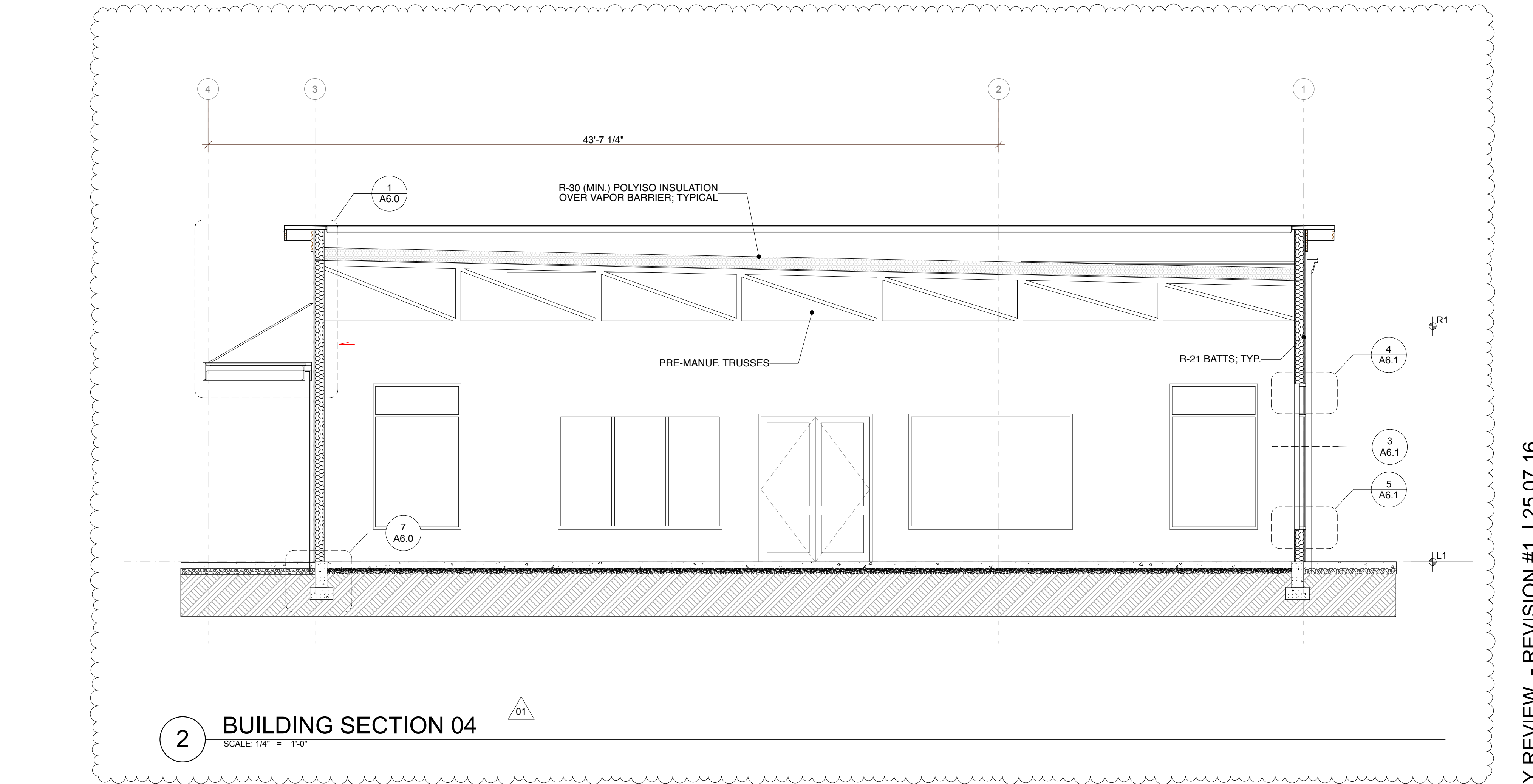


1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

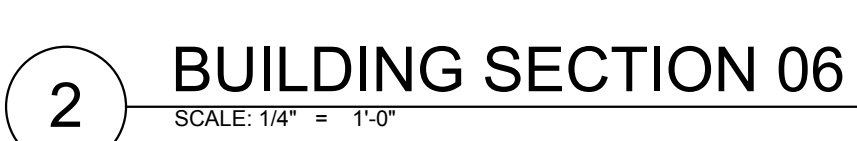
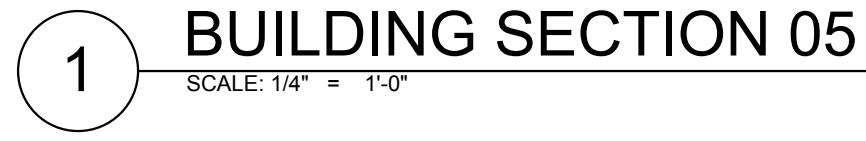
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TITLE:	BUILDING SECTIONS
PROJECT #:	2016-L1
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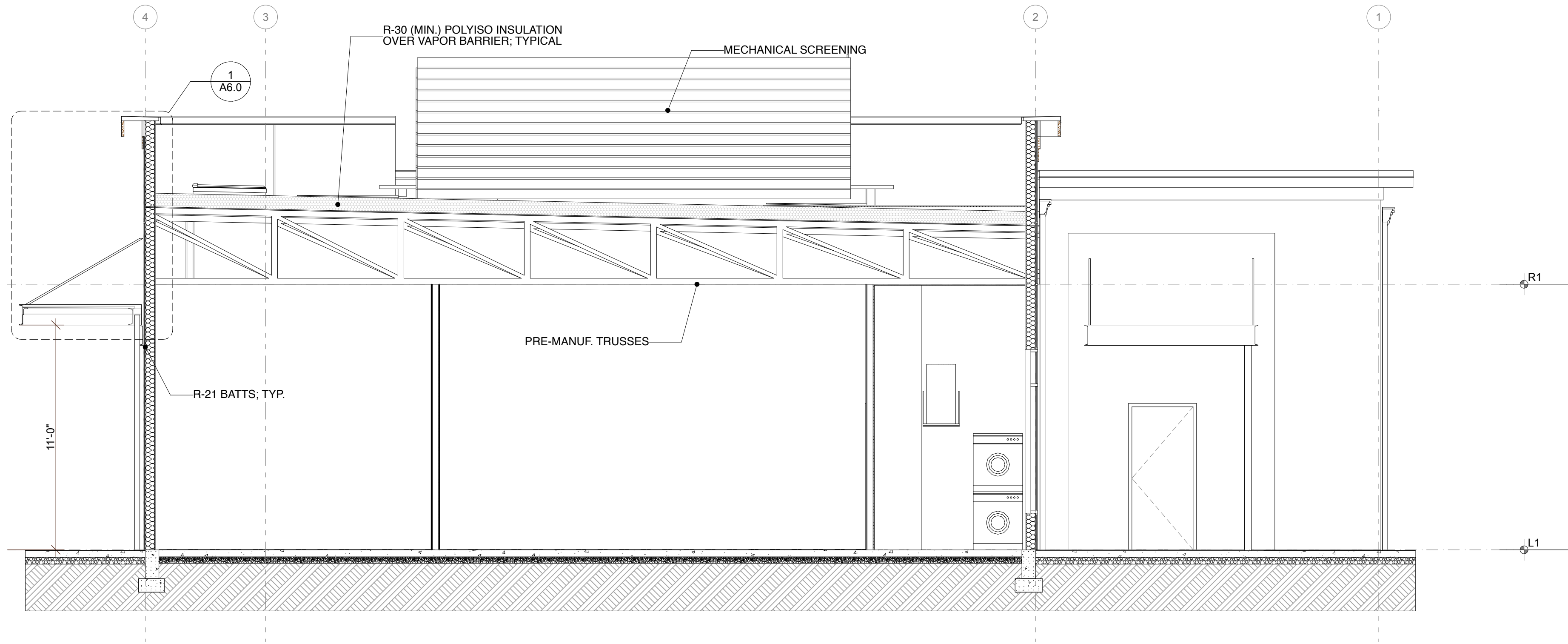
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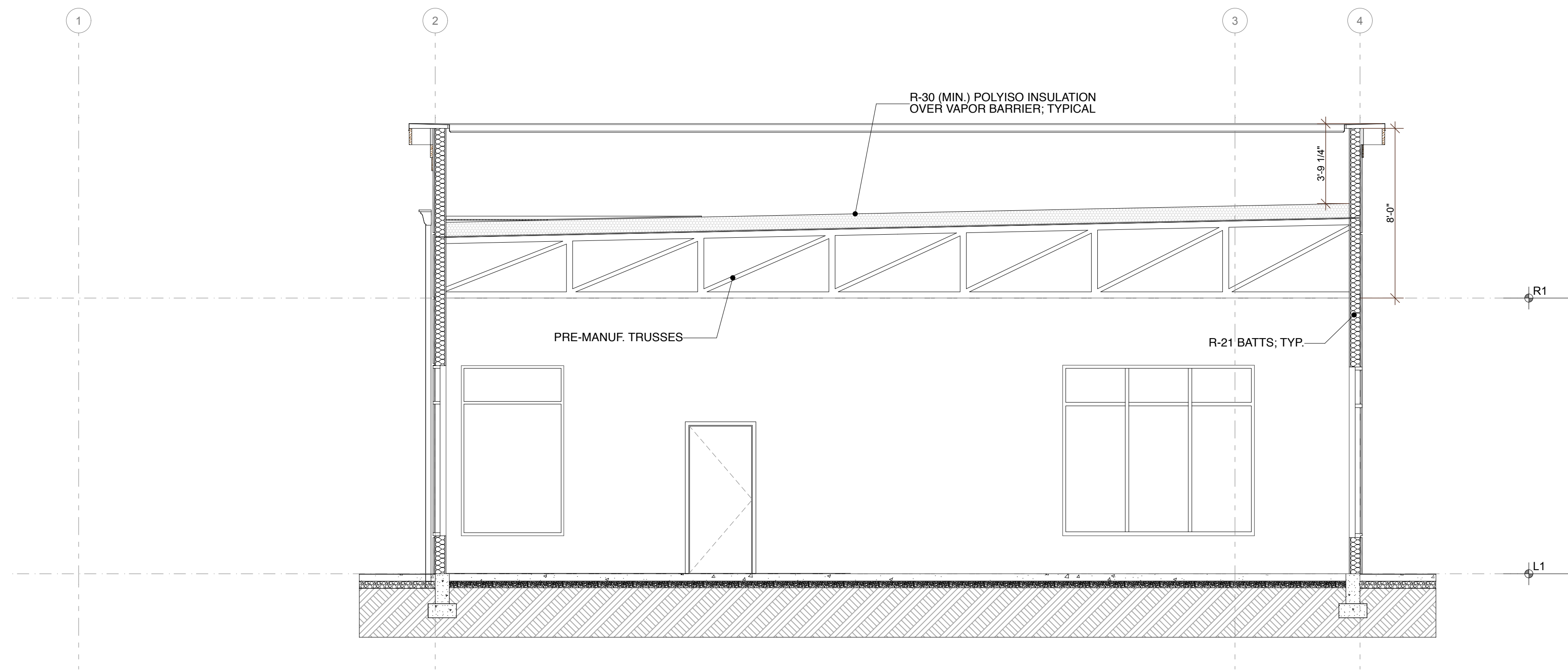
EAST TOWN CROSSING
COMMERCIAL LOT 1
727 SHAW ROAD PUYALLUP WA

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DATE:	25.07.16
TITLE:	BUILDING SECTIONS
PROJECT #:	2016-L1
SHEET:	

A3.4



1 BUILDING SECTION 09
SCALE: 1/4" = 1'-0"



2 BUILDING SECTION 10
SCALE: 1/4" = 1'-0"

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AGENCY REVIEW - REVISION #1 | 25.07.16

ELEVATION										
	TYPE	01	02	03	04	04	05	06	07	08
	SIZE (W x H)	4'-0"×6'-2"	4'-0"×8'-0"	12'-0"×8'-0"	4'-10"×3'-6"	4'-10"×8'-0"	6'-0"×6'-2"	9'-0"×6'-3 3/4"	4'-10"×8'-0"	9'-0"×8'-0"
	QUANTITY	2	2	1	2	13	2	2	2	1
	U-VALUE	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	SHGC	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
	NOTES						SAFETY GLAZING			

ELEVATION			
	TYPE	A	B
	QUANTITY	3	3
	FRAME	BLACK ANODIZED ALUM. STOREFRONT	HM
	PANEL	SAFETY GLAZED	INSULATED METAL
U-VALUE		0.60	0.37
SHGC		0.38	N/A
NOTES		PRIVACY LOCKS; PANIC HARDWARE	

DOOR NUMBER	TYPE	ROOM	DOOR W x HT	NOTES
100A	A	SUITE 100	6'-0"x8'-0"	PANIC HARDWARE
100B	A	SUITE 100	6'-0"x8'-0"	PANIC HARDWARE
100C	B	SUITE 100	3'-0"x7'-0"	PANIC HARDWARE
102A	A	SUITE 102	6'-0"x8'-0"	PANIC HARDWARE
102B	B	SUITE 102	3'-0"x7'-0"	PANIC HARDWARE
401A	B	RISER ROOM	3'-0"x7'-0"	PANIC HARDWARE
G	C	BATHROOMS	3'-0"x7'-0"	PRIVACY LOCK; PANIC HARDWARE

3. GLAZING IN INDIVIDUAL FIXED OR OPERABLE PANEL OF A WINDOW THAT MEETS ALL OF THE FOLLOWING FOUR CONDITIONS SHALL BE CONSIDERED A HAZARDOUS LOCATION: 1. THE EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQUARE FEET; 2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FLOOR; 3. THE TOP EDGE OF THE GLAZING IS GREATER THAN 36 INCHES ABOVE THE FLOOR; AND 4. ONE OR MORE WALKING SURFACE(S) ARE WITHIN 36 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE PLANE OF THE GLAZING

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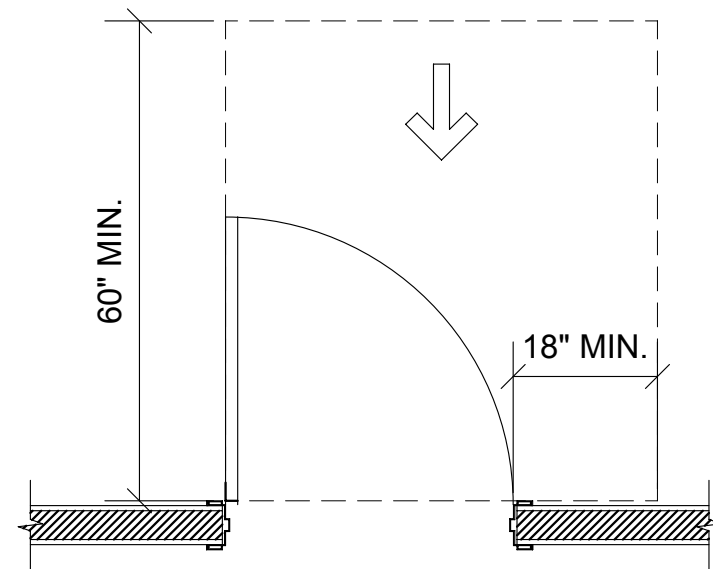
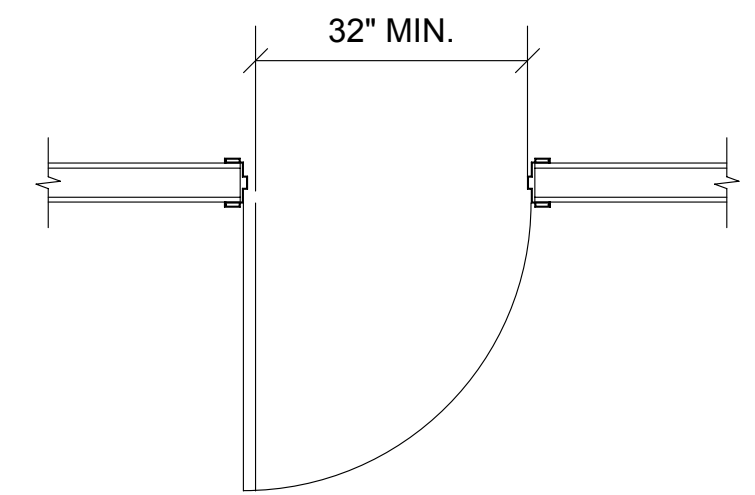


Diagram illustrating a corner cabinet layout. The diagram shows a corner cabinet with a 48" MIN. height and a 12" MIN. clearance from the wall. A downward arrow indicates the direction of the wall or ceiling.

402.2.2 CLEAR WIDTH
DOORWAYS SHALL HAVE A CLEAR OPENING WIDTH OF 32 INCHES MINIMUM. CLEAR OPENING WIDTH OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND STOP, WITH THE DOOR OPEN 90 DEGREES. OPENINGS MORE THAN 14 INCHES DEPTH AT DOORS AND DOORWAYS WITHOUT DOORS SHALL PROVIDE A CLEAR OPENING WIDTH OF 36 INCHES MINIMUM. THERE SHALL BE NO PROJECTIONS INTO THE CLEAR OPENING WIDTH LOWER THAN 34 INCHES ABOVE THE FLOOR. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES AND 80 INCHES ABOVE THE FLOOR SHALL NOT EXCEED 4 INCHES.

1. DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78 INCHES MINIMUM ABOVE THE FLOOR.
2. IN ALTERATIONS, A PROJECTION OF 5/8" MAXIMUM INTO THE REQUIRED CLEAR OPENING WIDTH SHALL BE PERMITTED FROM THE LATCH SIDE STOP.



A diagram illustrating the required clearances for a door swing. It shows a door opening into a room. The height of the clear opening is labeled as 60" MIN. The width of the clear opening is labeled as 36" MIN. A dashed line indicates the path of the door swing, and an arrow points to the right, indicating the direction of travel.

A diagram illustrating the required clearances for a door swing. It shows a door opening into a room. The height of the clear opening is labeled as 52" MIN. and the width is labeled as 42" MIN. The door is shown in an open position, with a curved arrow indicating its swing path. The floor is indicated by a hatched area.

42" MIN.

22" MIN.

ADDITIONAL ELEMENTS WHEN BOTH

A diagram illustrating the required clearances for a door swing. A dashed line represents the door's path. A vertical dimension line on the left indicates a minimum clearance of 48 inches. A horizontal dimension line at the bottom indicates a minimum clearance of 24 inches. A large arrow points to the left, indicating the direction of door swing.

Diagram illustrating the minimum clearances for a door swing:

- Minimum clearance from the wall to the door edge: 24" MIN.
- Minimum clearance from the wall to the door handle: 42" MIN.

Diagram illustrating the minimum clear width and height for a single door swing. The diagram shows a door swinging inward, with a minimum clear width of 12" and a minimum clear height of 48".

TABLE 404.2.3.2—MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS

TYPE OF USE		MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS	
Approach Direction	Door Side	Perpendicular to Doorway	Parallel to Doorway (beyond latch unless noted)
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	48 inches (1220 mm)	0 inches (0 mm) ³
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm) ¹	22 inches (560 mm) ^{3 & 4}
From latch side	Pull	48 inches (1220 mm) ²	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm) ²	24 inches (610 mm)

⁴Beyond hinge side.

Technical drawings of shower stall dimensions and fixtures. The drawings include a plan view of the shower stall, a side wall detail, and a control wall detail. The plan view shows a rectangular shower stall with a vertical glass barrier (V.G.B.) on the left side. The side wall detail shows a wall with a grab bar and a shower seat. The control wall detail shows a wall with a grab bar and a shower seat. The drawings include various dimensions and callouts for fixtures and clearances.

Plan View Dimensions:

- Vertical G.B. (Glass Barrier)
- 2'-6" CLEAR FLOOR SPACE
- 5'-0" MIN. (Clearance from V.G.B. to shower seat)
- 2'-6" MIN. (Clearance from shower seat to wall)
- 1/2" MAX. THRESHOLD BEVELED NO STEEPER THAN 1:2
- 5'-0" (Overall width of shower stall)
- 5'-0" MIN. (Clearance from shower seat to wall)
- 15"-16" (Width of shower seat)
- 3" MAX. (Clearance from shower seat to wall)
- 2 1/2" MAX. (Clearance from shower seat to wall)
- 14"-15" (Width of shower seat)
- 1 1/2" (Clearance from shower seat to wall)
- 22" - 23" (Overall width of shower stall)

Side Wall Detail:

- 15"-16" (Width of shower seat)
- 3" MAX. (Clearance from shower seat to wall)
- 2 1/2" MAX. (Clearance from shower seat to wall)
- 15"-16" (Width of shower seat)
- 3" MAX. (Clearance from shower seat to wall)
- 2 1/2" MAX. (Clearance from shower seat to wall)
- 14"-15" (Width of shower seat)
- 1 1/2" (Clearance from shower seat to wall)
- 22" - 23" (Overall width of shower stall)

Control Wall Detail:

- ADJUSTABLE, HAND-HELD SHOWER ON A VERTICAL BAR ANSI 608.5
- CONTROL AND HAND SHOWER SHALL BE LOCATED WITH HATCHED AREA
- PROVIDE SHOWER GRAB BARS PER ANSI 608.3.2
- PROVIDE FOLDABLE RECTANGULAR OR L-SHAPED SEAT FOR SHOWER & BLOCKING FOR SHOWER SEAT.
- 27" MAX. (Height of shower head)
- 16" MIN. (Clearance from shower head to wall)
- 17" - 19" (Height of shower seat)
- 38" MIN. - 46" MAX. (Height of shower seat)
- VERTICAL G.B. (Glass Barrier)

UNOBSTRUCTED

UNOBSTRUCTED

UNOBSTRUCTED

The image contains two technical drawings of a toilet stall, labeled (a) and (b).

Drawing (a) - Side Elevation: This drawing shows the side profile of the toilet stall. Key features and dimensions include:

- A door on the left with the note "DOOR SHALL BE SELF-CLOSING".
- A "VERTICAL GRAB BAR" on the left wall, with a dimension of "5'-0" MIN." from the door to its center.
- A horizontal dimension of "39" - 41" between the grab bar and the toilet.
- A vertical dimension of "35" - 37" from the floor to the top of the grab bar.
- A horizontal dimension of "17" - 19" from the grab bar to the toilet.
- A horizontal dimension of "54" MIN." from the grab bar to the right wall.
- A vertical dimension of "12" MAX." from the floor to the top of the right wall.

Drawing (b) - Front Elevation: This drawing shows the front view of the toilet stall. Key features and dimensions include:

- A "VERTICAL G.B." (Grab Bar) on the left wall, with a dimension of "18" MIN." from the floor to its top.
- A horizontal dimension of "39" - 41" from the grab bar to the toilet.
- A vertical dimension of "32" - 41" from the floor to the top of the grab bar.
- A horizontal dimension of "33" - 36" from the grab bar to the toilet.
- A horizontal dimension of "17" - 19" from the grab bar to the toilet.
- A vertical dimension of "1'-6" from the floor to the top of the toilet.
- A horizontal dimension of "24" MIN. T.T.D." (Toilet Toileting Device) from the grab bar to the toilet.
- A hatched area on the right wall, with a note: "PROTRUDING DISPENSERS LOCATED BENEATH THE GRAB BAR SHALL BE LOCATED WITHIN THE HATCHED AREA".
- A dimension of "54" MIN." from the grab bar to the right wall.
- A vertical dimension of "12" MAX." from the floor to the top of the right wall.
- A dimension of "1 1/2'" from the grab bar to the toilet.

General Notes:

- "MEASURED TO TOP OF BARS GRIPPING SURFACE" (pointing to the grab bar in both drawings).
- "MEASURED TO TOP OF SEAT" (pointing to the toilet seat in drawing (b)).

4'-4" MIN.

2'-6" MIN.

WHEEL CHAIR ACCESSIBLE

5" MAX.

15" MIN.

36" MAX. (WHEELCHAIR)
38" - 43" MAX. (STANDING)

FOUNTAIN SPOUT OUTLET

CONTROLS TO BE IN ACCESSIBLE FORWARD APPROACH REACHES

STANDING

BOTTLE FILLING STATION

BOTTLE FILLER

CLEAR FLOOR SPACE

[illegible]

Technical drawing of a lavatory showing dimensions and fixture requirements. The drawing includes a mirror, a faucet, and a knee space. Dimensions are provided in inches.

Dimensions:

- Overall width: 40" MAX.
- Overall depth: 34" MAX.
- Overall height: 34" MIN.
- Clearance from wall to mirror: 30" MIN.
- Clearance from wall to faucet: 8" MIN.
- Clearance from wall to knee space: 27" MIN.
- Clearance from wall to floor: 11"
- Clearance from wall to top of vanity: 9"

Fixture Requirements:

- FAUCET SHALL COMPLY WITH SECTION 309

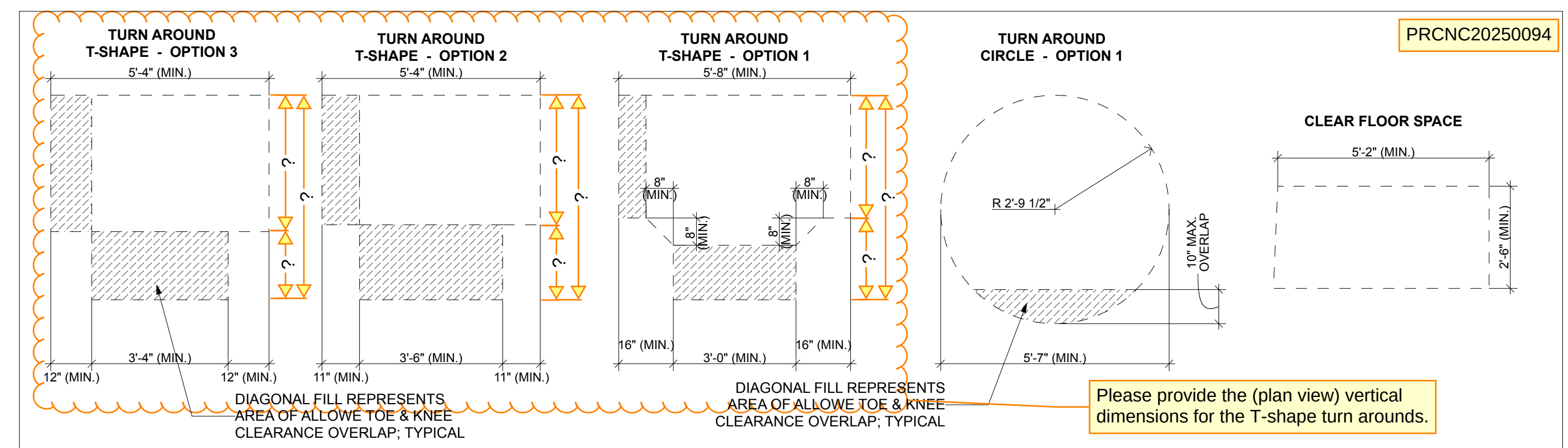
SCALE: 3/8" = 1'-0"

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

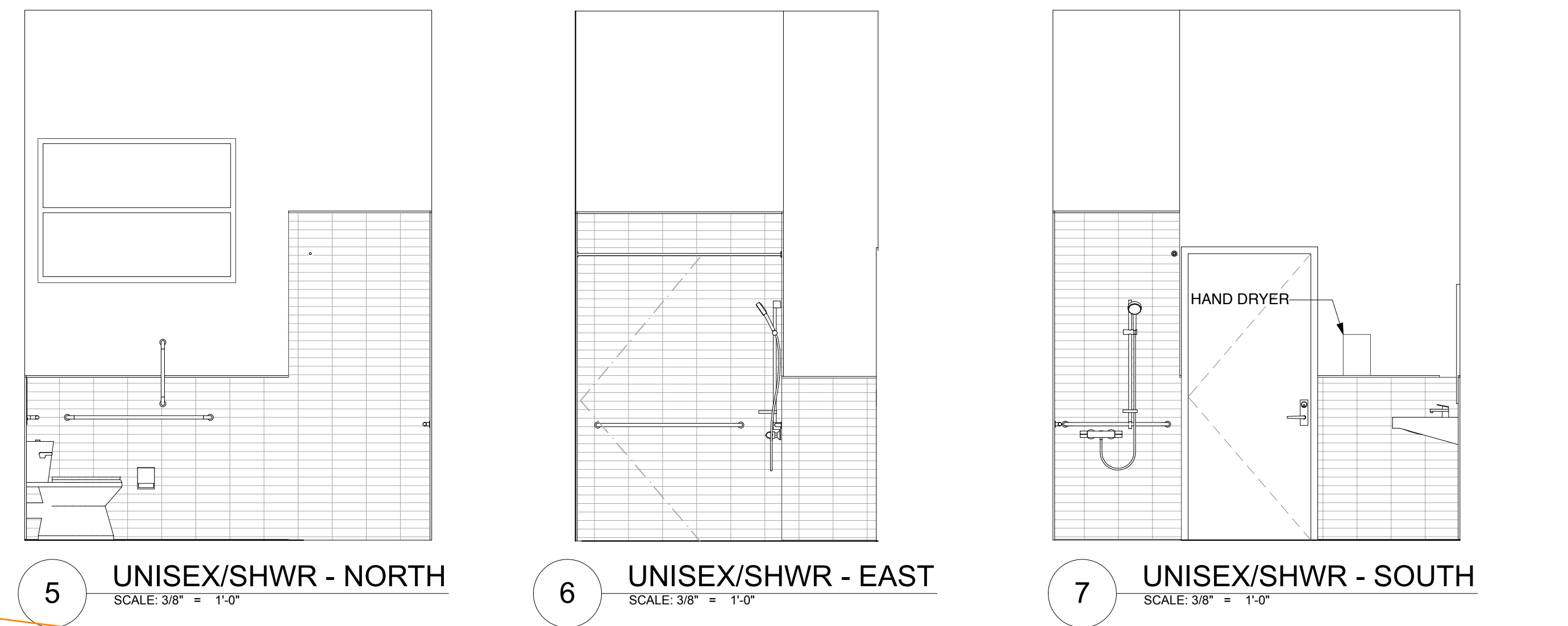
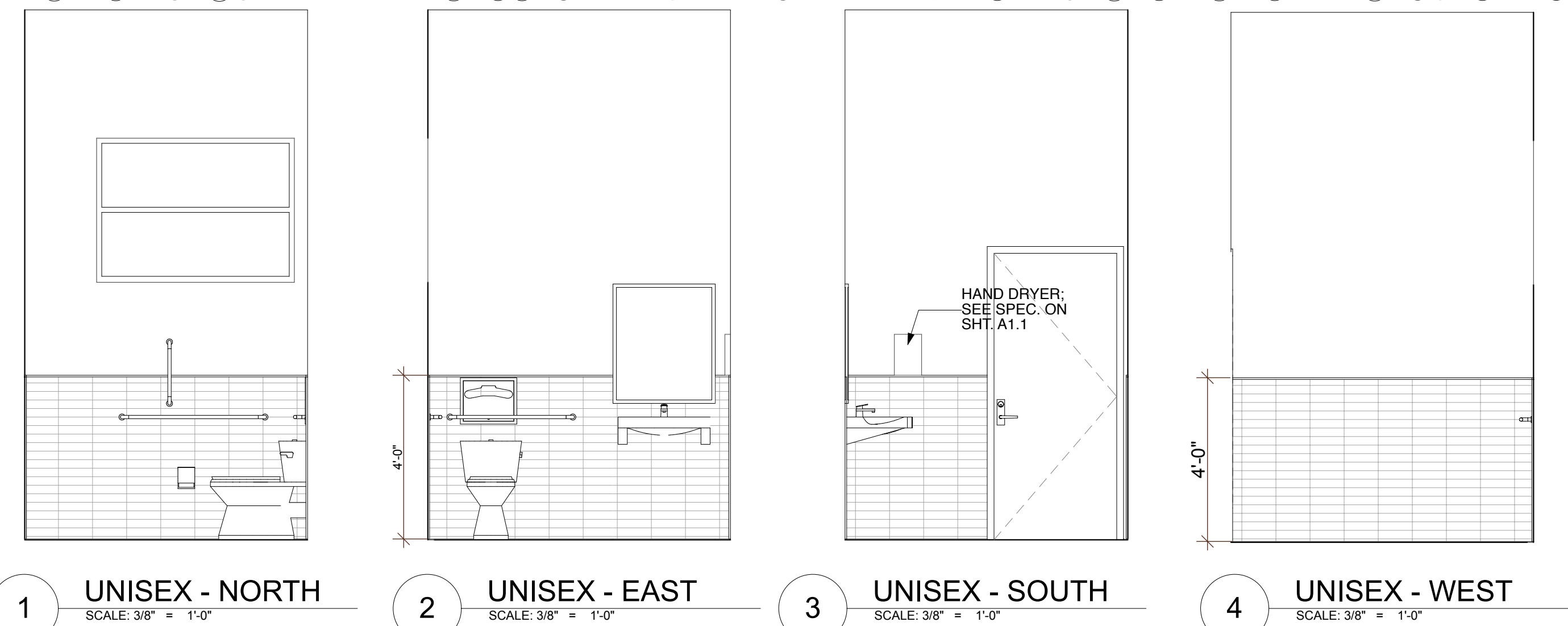
SCALE: 3/8" = 1'-0"

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

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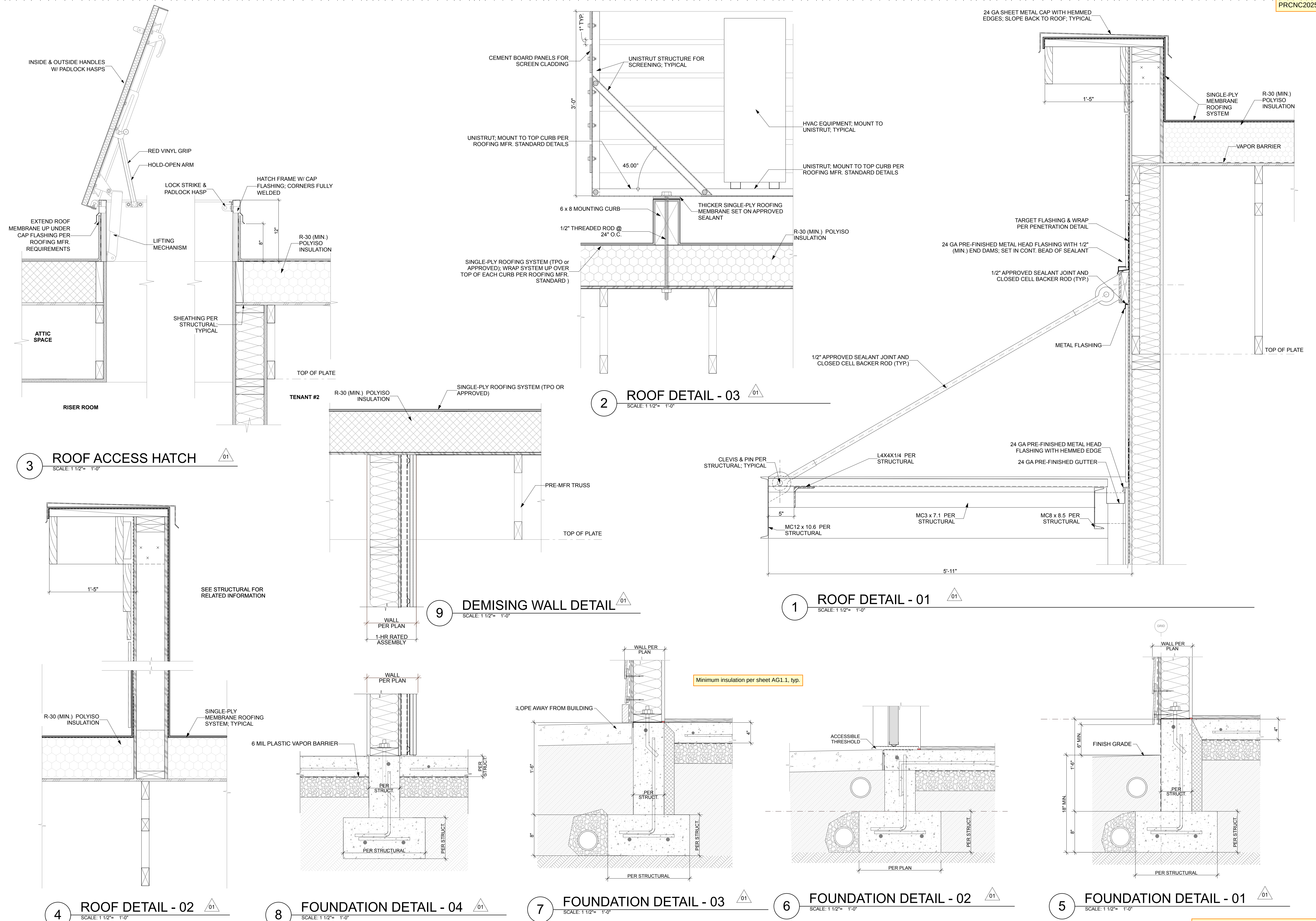


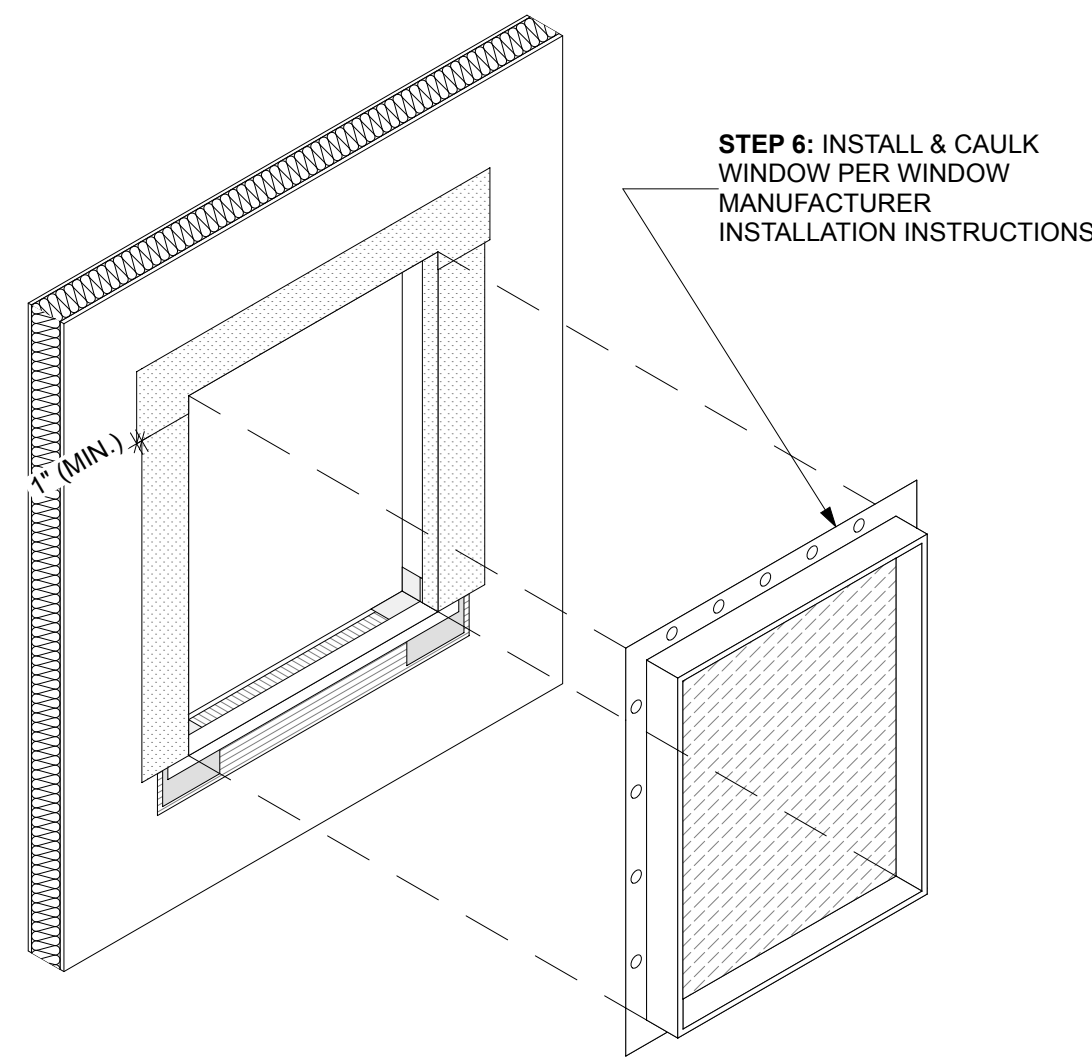
14 ACCESSIBLE CLEAR FLOOR SPACE & TURNING SPACE DIMENSIONS



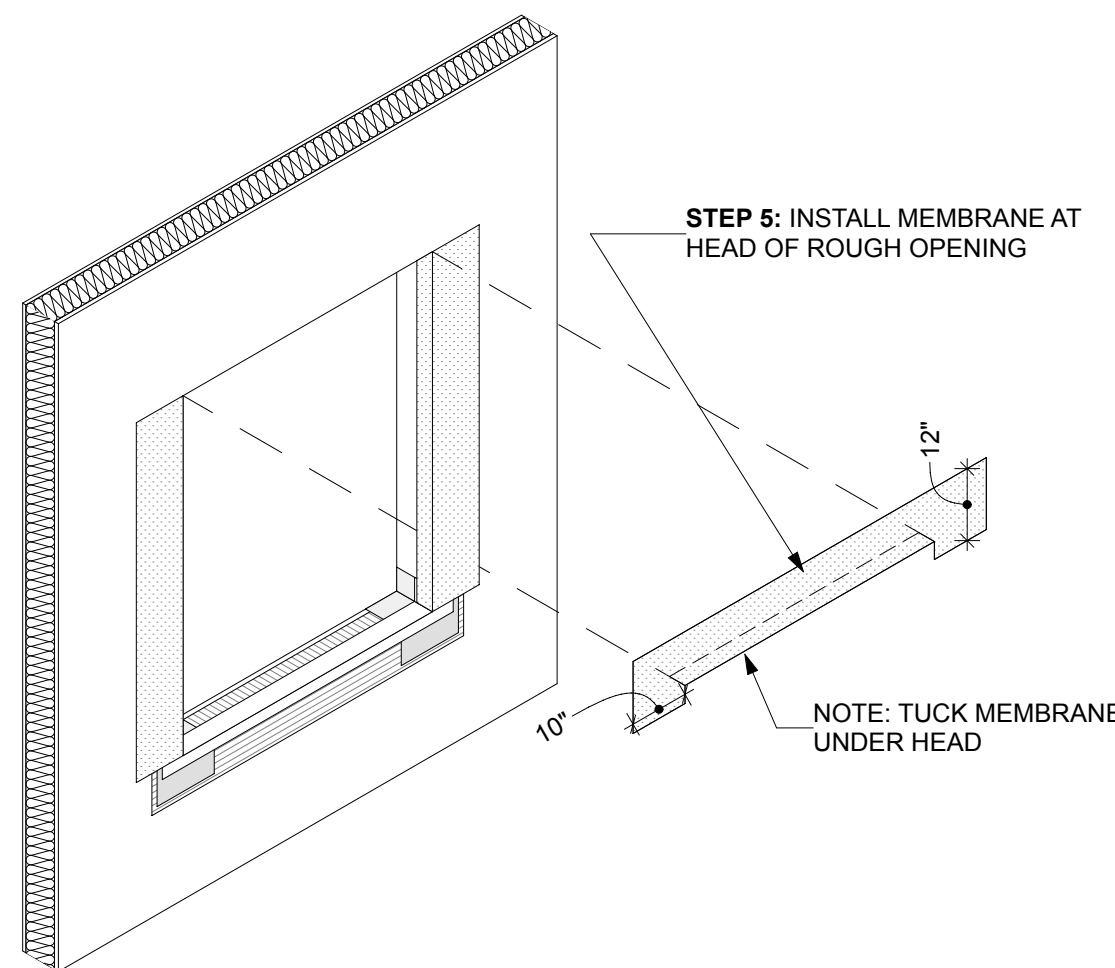
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TITLE:	DETAILS
PROJECT # :	2016-L1
SHEET:	

Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.



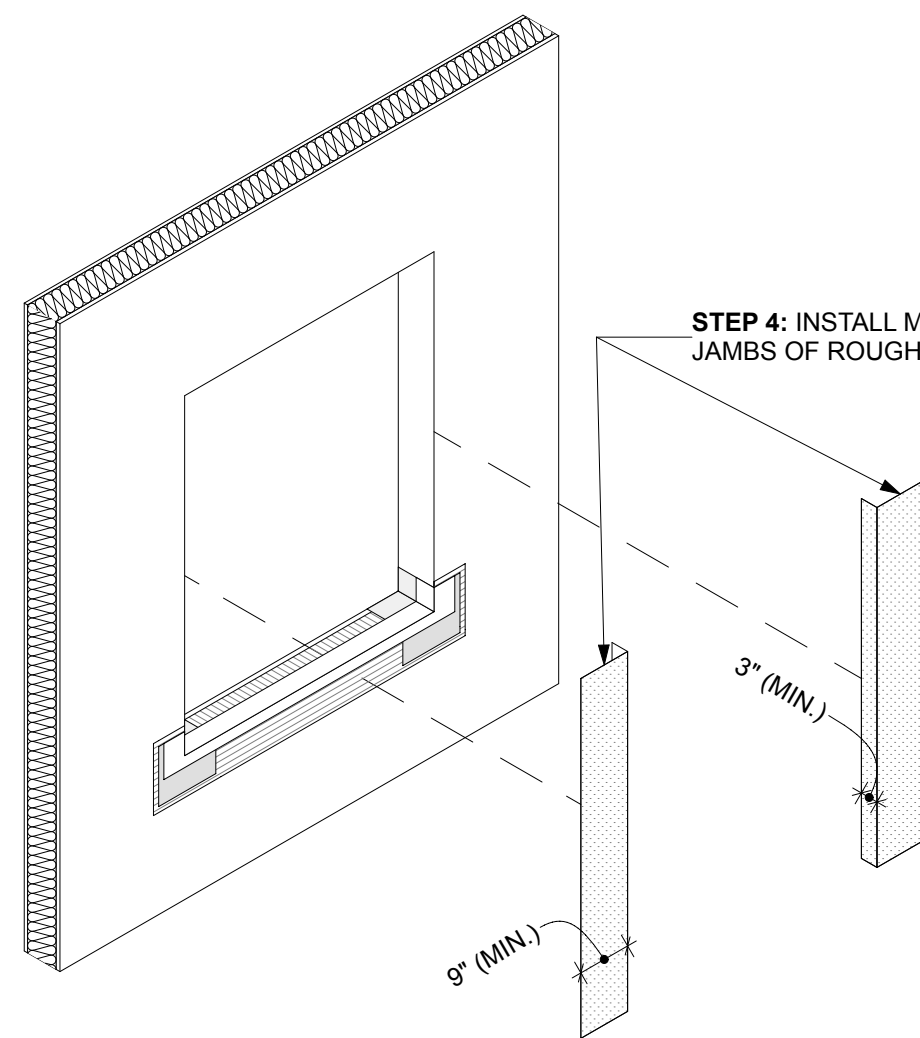


STEP 6: INSTALL & CAULK WINDOW PER WINDOW MANUFACTURER INSTALLATION INSTRUCTIONS

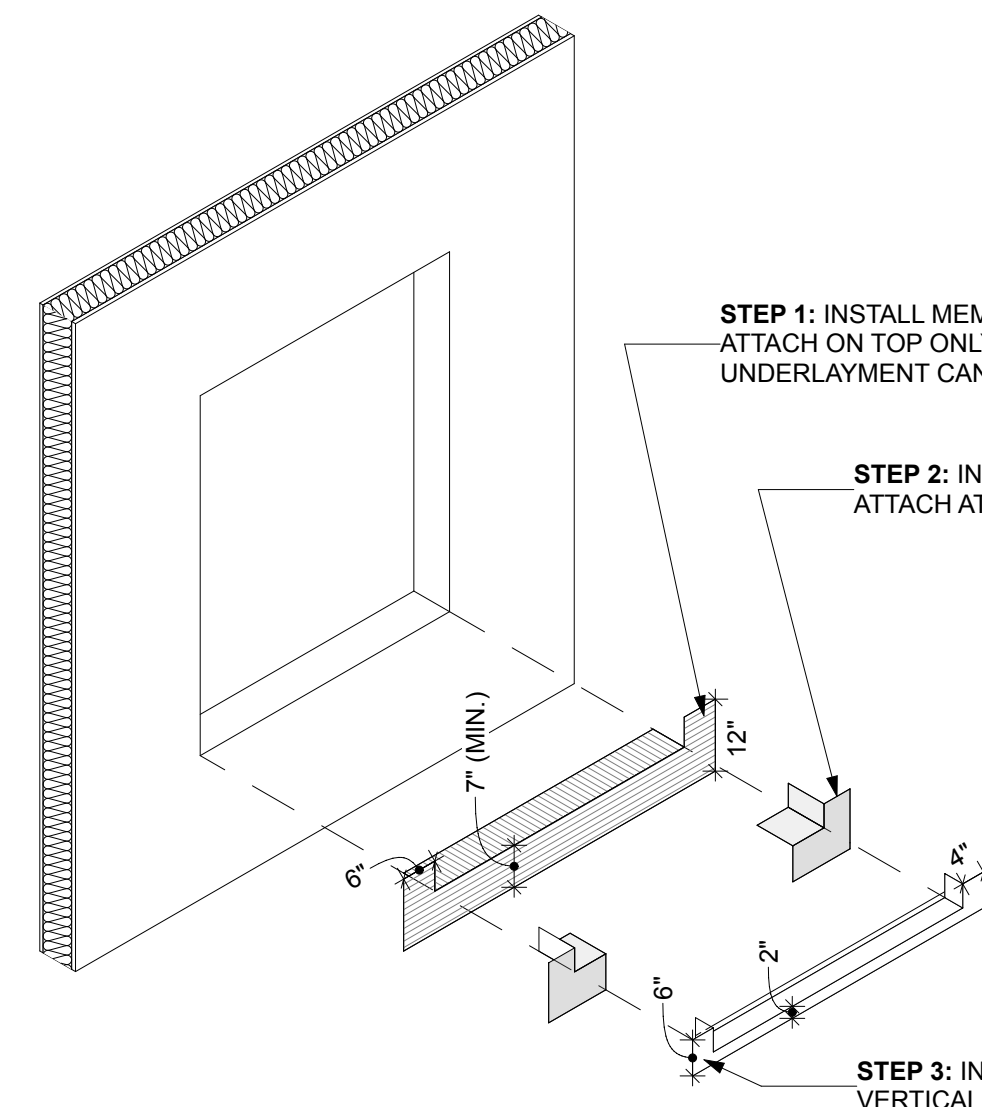


STEP 5: INSTALL MEMBRANE AT HEAD OF ROUGH OPENING

NOTE: TUCK MEMBRANE UNDER HEAD

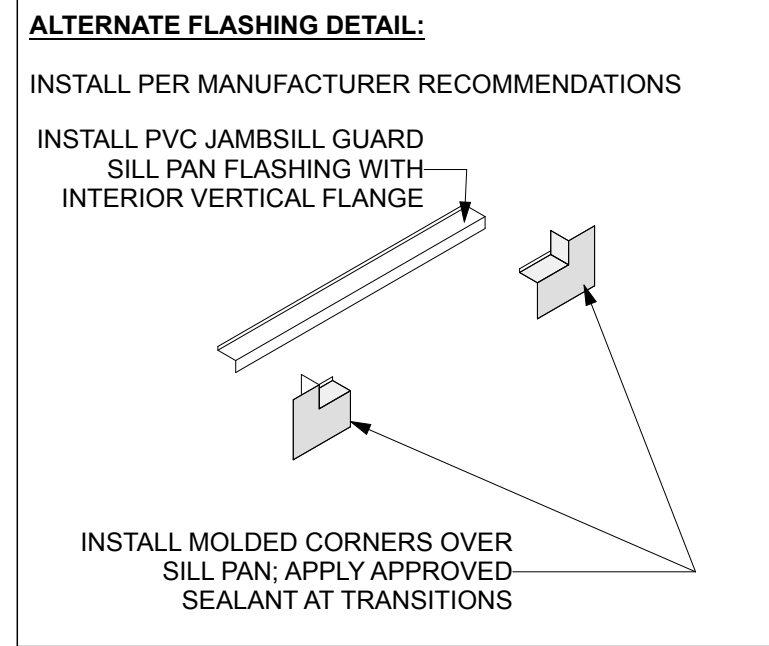


STEP 4: INSTALL MEMBRANE AT JAMBS OF ROUGH OPENING



STEP 1: INSTALL MEMBRANE AT SILL; ATTACH ON TOP ONLY SO WALL UNDERLAYMENT CAN CLIP UP AND UNDER

STEP 2: INSTALL PRE-FORMED CORNERS; ATTACH AT BOTTOM JAMB & FACE



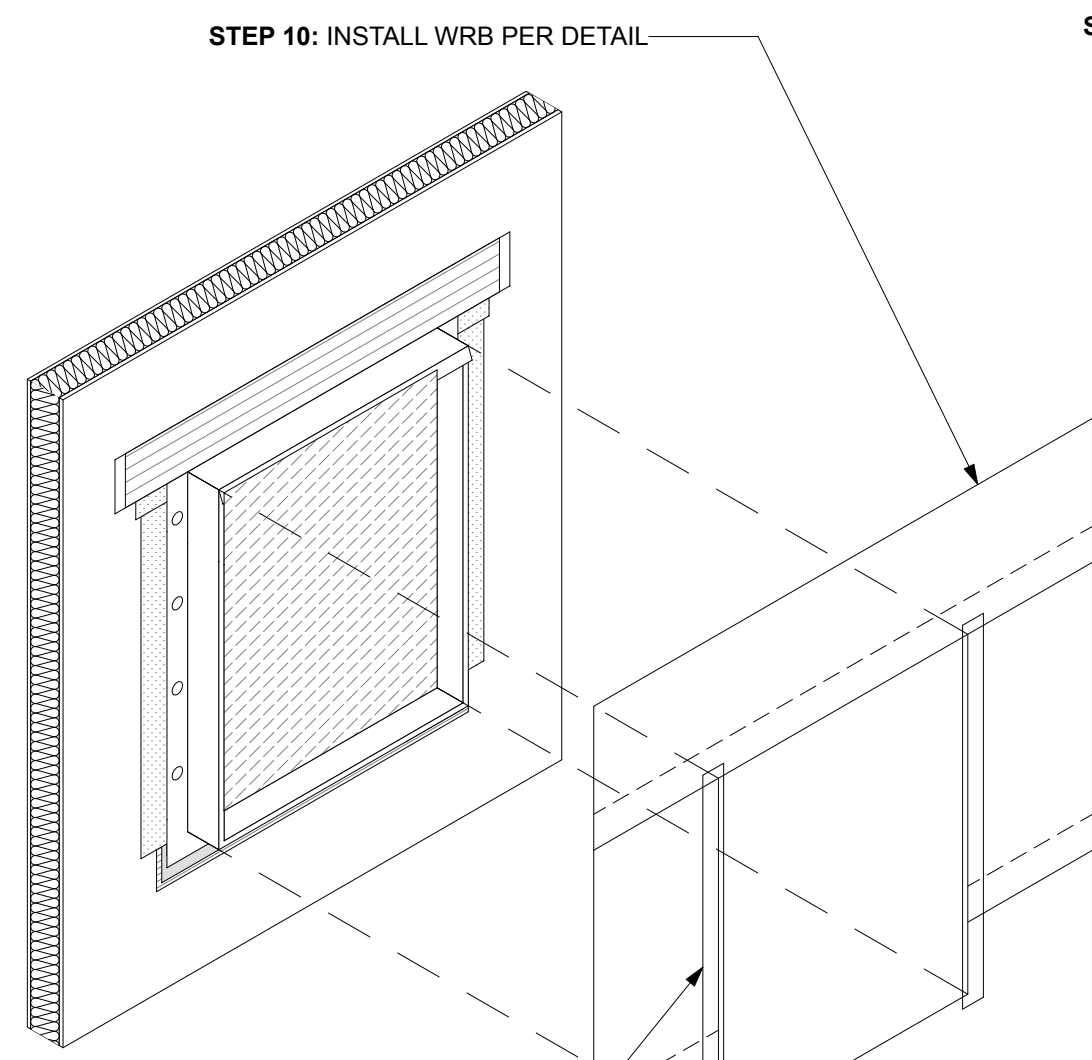
ALTERNATE FLASHING DETAIL:
INSTALL PER MANUFACTURER RECOMMENDATIONS

INSTALL PVC JAMBSILL GUARD SILL PAN FLASHING WITH INTERIOR VERTICAL FLANGE

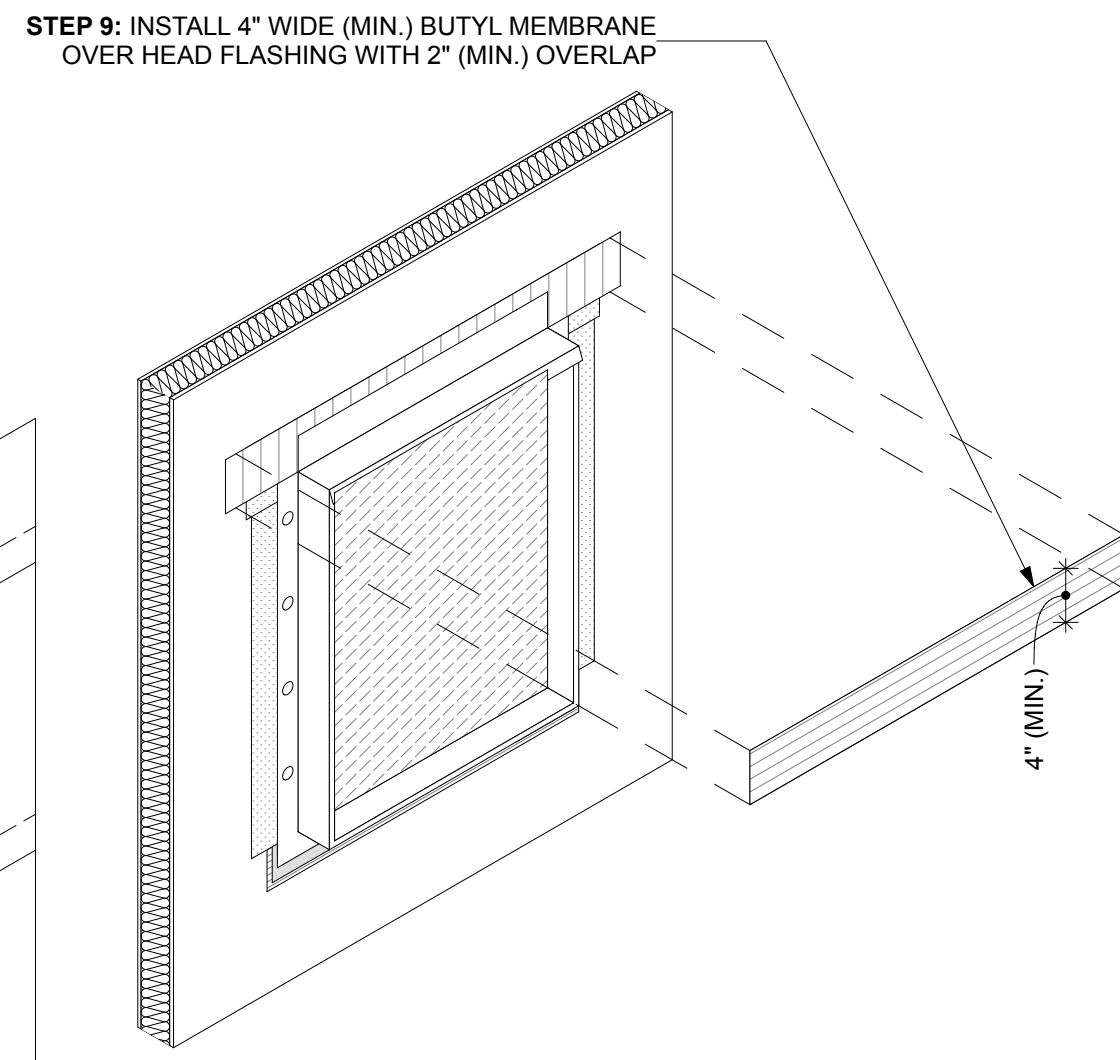
INSTALL MOLDED CORNERS OVER SILL PAN; APPLY APPROVED SEALANT AT TRANSITIONS

- SILL PLAN NOTES:**
1. ALL PANS AT MASONRY TO BE STAINLESS STEEL OR 24 GA GALV. PRE-FINISHED.
 2. RESIDENTIAL WINDOW WALL SYSTEMS TO HAVE ALUMINUM PANS & FLASHINGS PER DETAILS TO MATCH WINDOW FRAME COLORS.
 3. SEAL OR SOLDER JOINTS AT END- & BACK DAMS TO FORM A WATERTIGHT PAN ASSEMBLY; SEAL BACK TO END DAM TRANSITIONS.
 4. COORDINATE BACK DAM HEIGHT WITH THRESHOLD AND/OR INTERIOR FINISHES PER ARCH. PLANS.
 5. PROVIDE HEMMED EDGE AT ALL EXPOSED EDGES.

- WRAP & WRB NOTE:**
1. FASTEN WINDOW / DOOR WRAP & WRB PER WATERPROOFING DETAILS PROVIDED HEREIN WITH STAINLESS STEEL STAPLES WITH 7/16" CROWNS.
 2. WHERE STEEL STUD FRAMING OCCURS, USE APPROVED ADHESIVE TO PROPERLY ATTACHED WINDOW / DOOR WRAP THERETO.
 3. WHERE CONCRETE SURFACES OCCUR, USE VAPROSHIELD SELF-ADHERING MEMBRANE FOR WINDOW / DOOR WRAPS AND WRB.

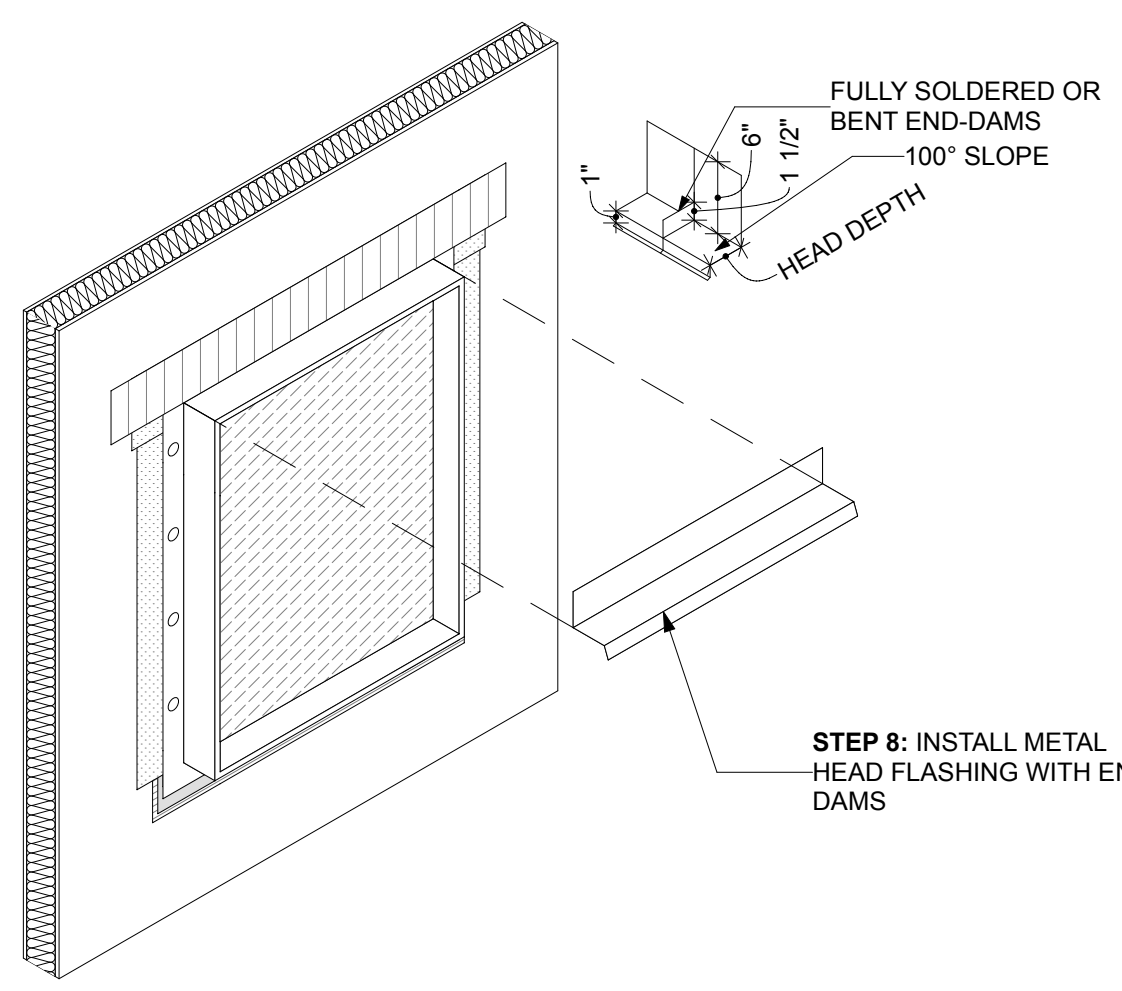


STEP 10: INSTALL WRB PER DETAIL



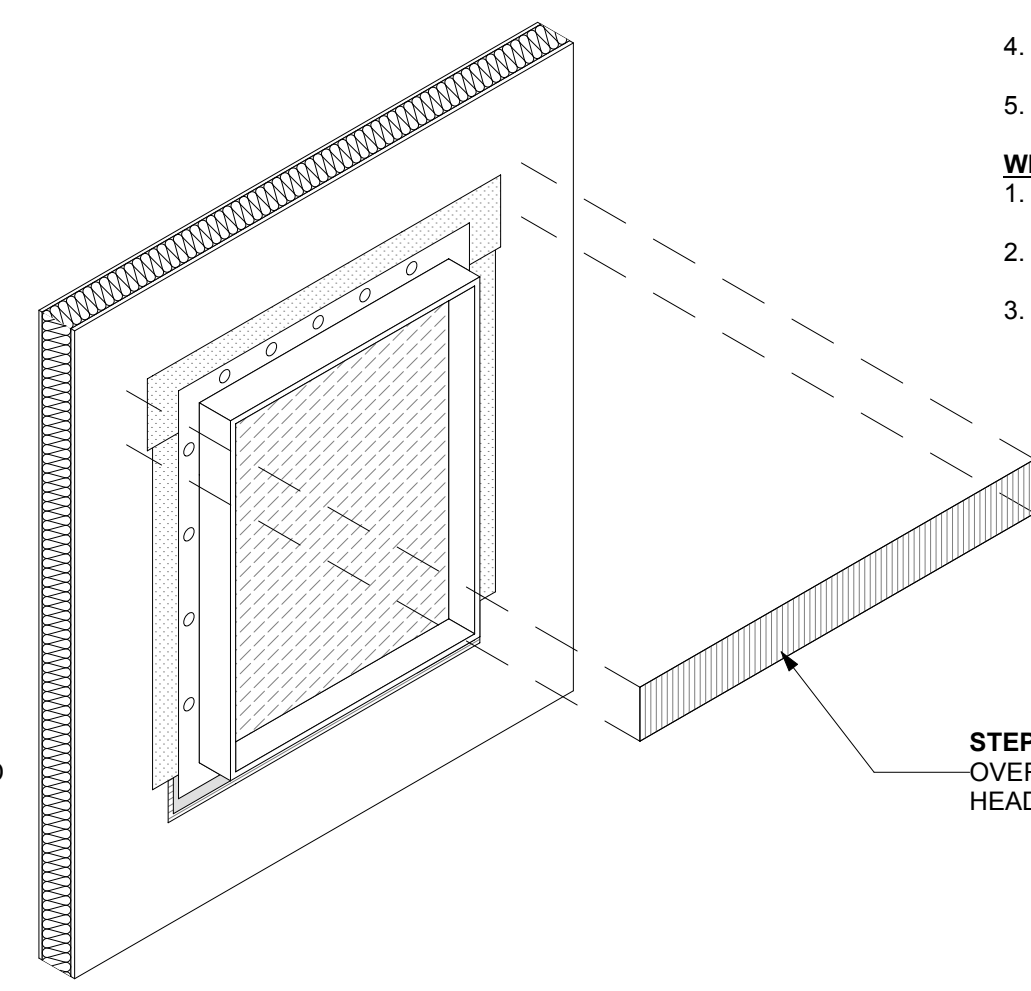
STEP 9: INSTALL 4" WIDE (MIN.) BUTYL MEMBRANE OVER HEAD FLASHING WITH 2" (MIN.) OVERLAP

4" (MIN.)

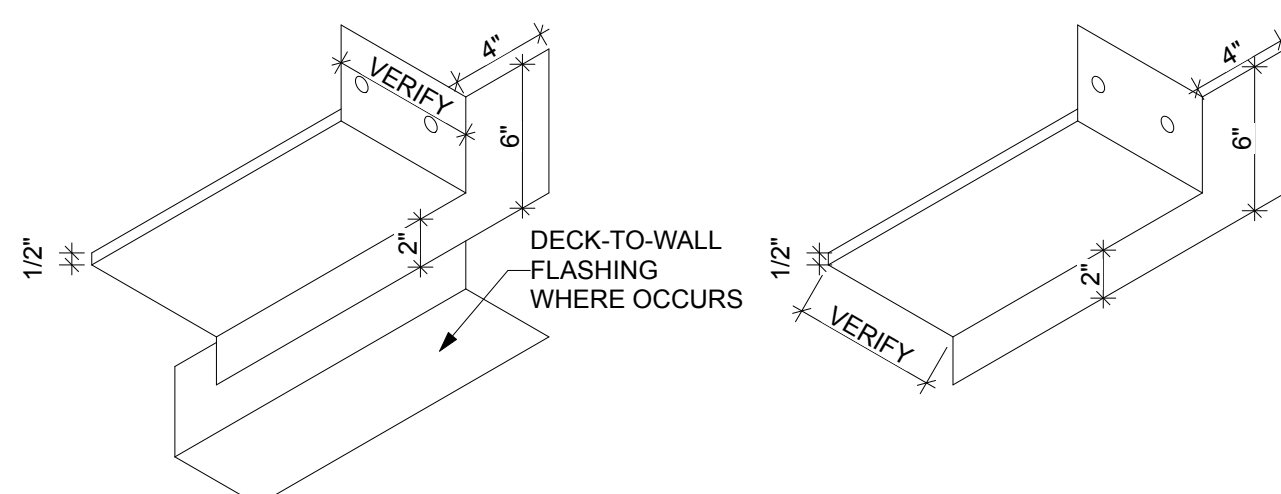


FULLY SOLDERED OR BENT END-DAMS 100° SLOPE 1 1/2" HEAD DEPTH

STEP 8: INSTALL METAL HEAD FLASHING WITH END DAMS



STEP 7: APPLY MEMBRANE OVER NAIL FLANGE AT HEAD ONLY



AT SLIDING GLASS DOOR

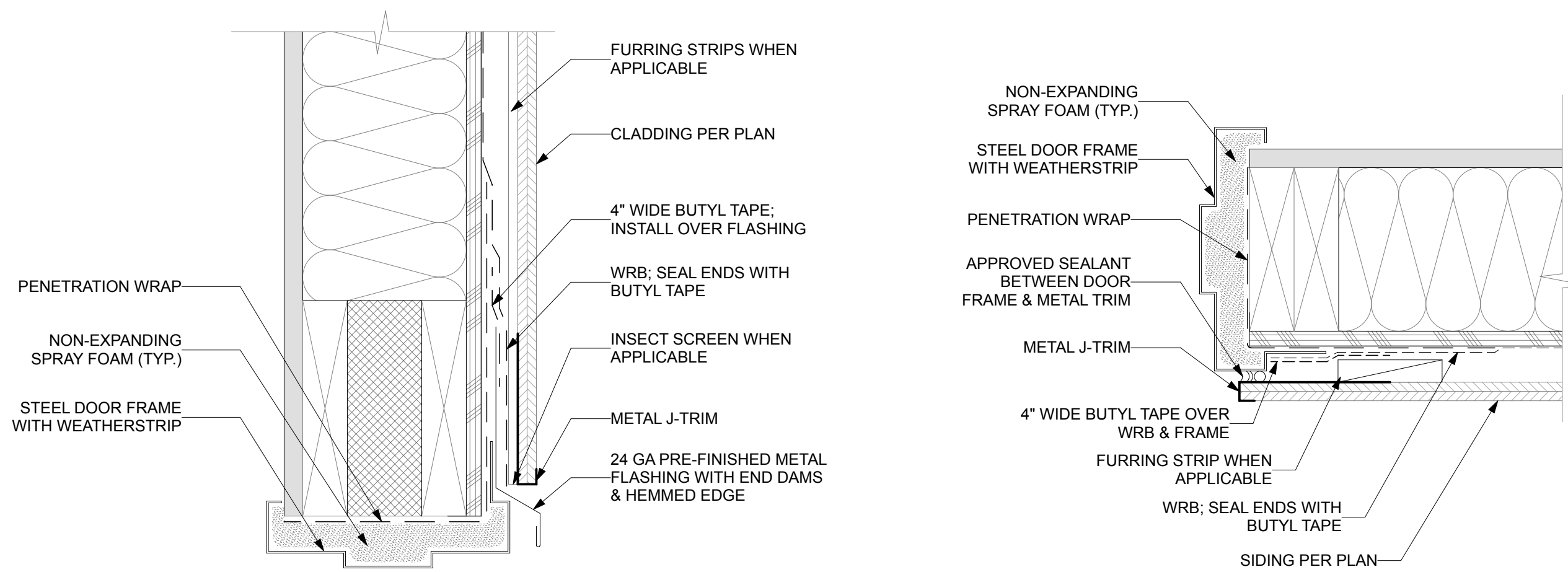
AT WINDOW

1 FLANGED WINDOW WRAP

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

2 SILL PAN DETAIL

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

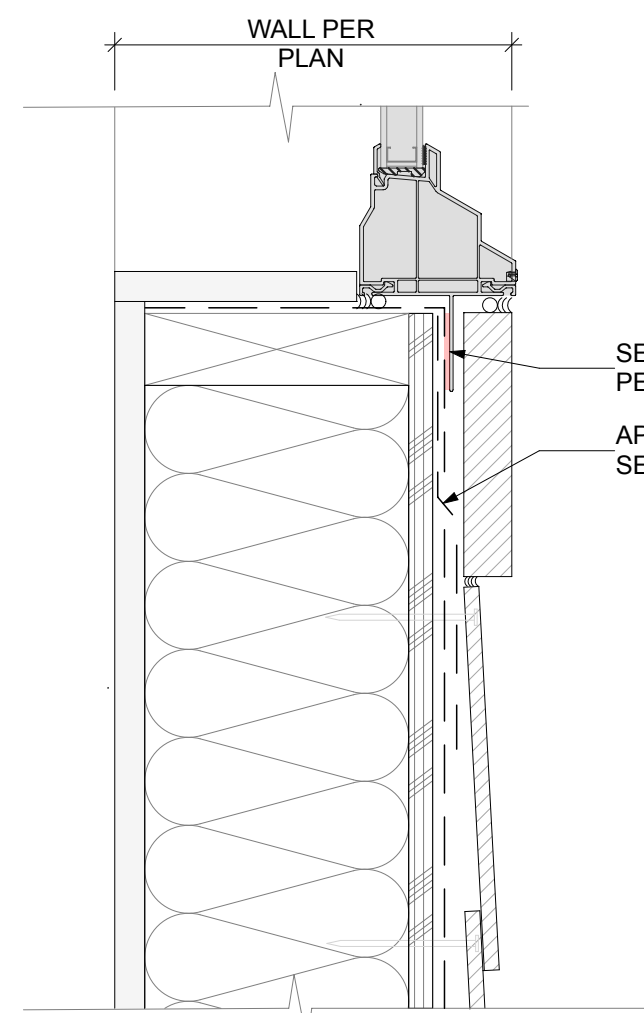


PENETRATION WRAP
NON-EXPANDING SPRAY FOAM (TYP.)
STEEL DOOR FRAME WITH WEATHERSTRIP

FURRING STRIPS WHEN APPLICABLE
CLADDING PER PLAN
4" WIDE BUTYL TAPE: INSTALL OVER FLASHING
WRB; SEAL ENDS WITH BUTYL TAPE
INSECT SCREEN WHEN APPLICABLE
METAL J-TRIM

24 GA PRE-FINISHED METAL FLASHING WITH END DAMS & HEMMED EDGE

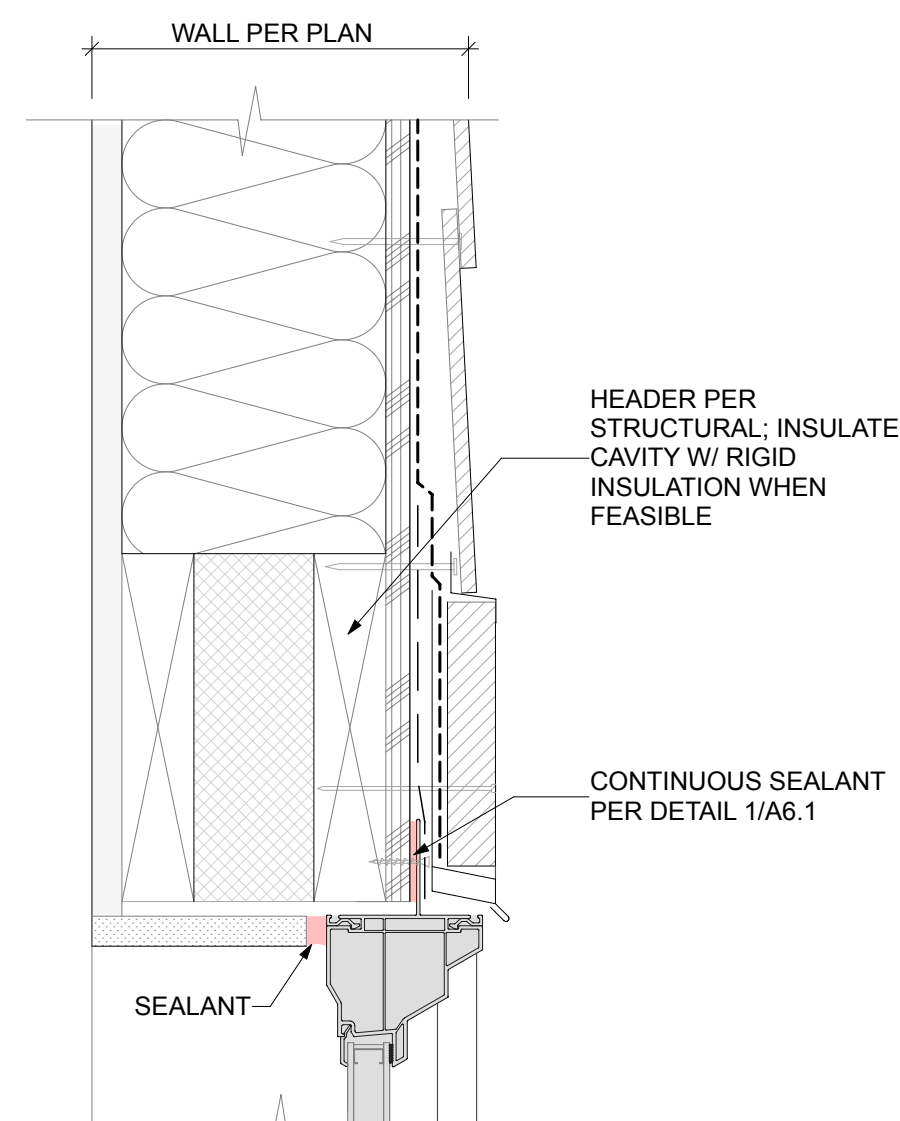
NON-EXPANDING SPRAY FOAM (TYP.)
STEEL DOOR FRAME WITH WEATHERSTRIP
PENETRATION WRAP
APPROVED SEALANT BETWEEN DOOR FRAME & METAL TRIM
METAL J-TRIM
4" WIDE BUTYL TAPE OVER WRB & FRAME
FURRING STRIP WHEN APPLICABLE
WRB; SEAL ENDS WITH BUTYL TAPE
SIDING PER PLAN



SEALANT W/ 2" WIDE GAF PER STEP 2, SEE SHEET 1, APRON PER STEP 1; SEE SHEET A6.1

5 WINDOW SILL DETAIL

SCALE: 3" = 1'-0"

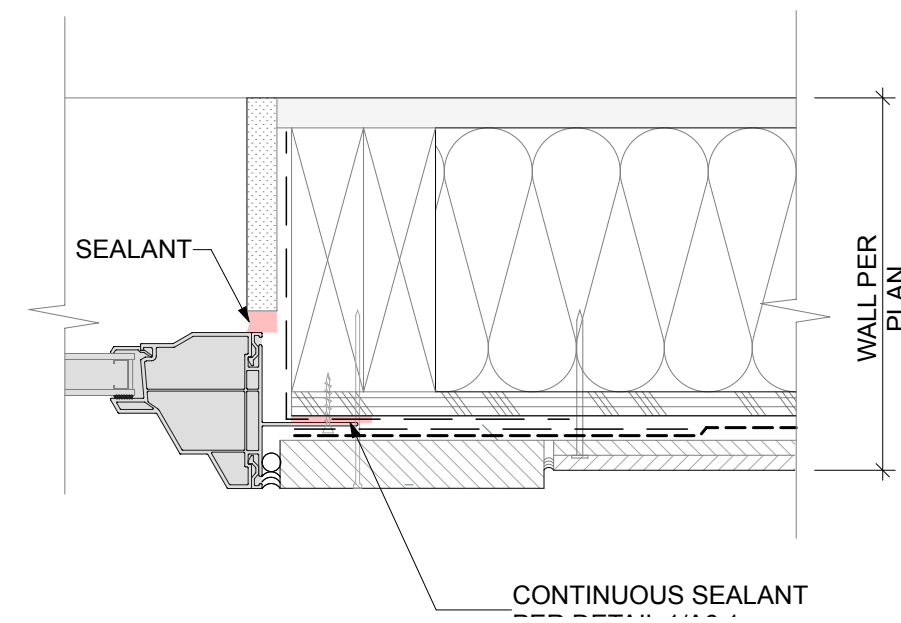


HEADER PER STRUCTURAL; INSULATE CAVITY W/ RIGID INSULATION WHEN FEASIBLE

CONTINUOUS SEALANT PER DETAIL 1/A6.1

4 WINDOW HEAD DETAIL

SCALE: 3" = 1'-0"



SEALANT

CONTINUOUS SEALANT

3 WINDOW JAMB DETAIL

SCALE: 3" = 1'-0"

7 DOOR HEAD AT EXTERIOR WALL

SCALE: 3" = 1'-0"

6 DOOR JAMB AT EXTERIOR WALL

SCALE: 3" = 1'-0"

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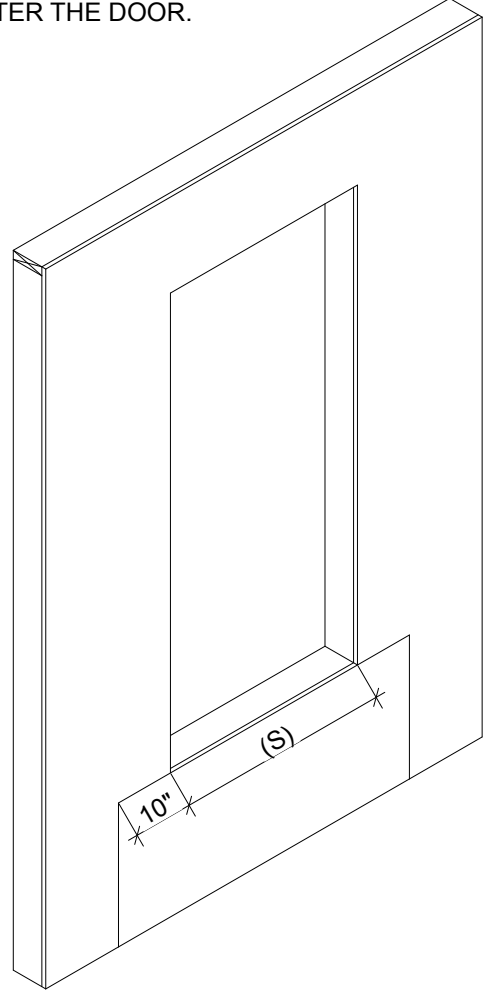
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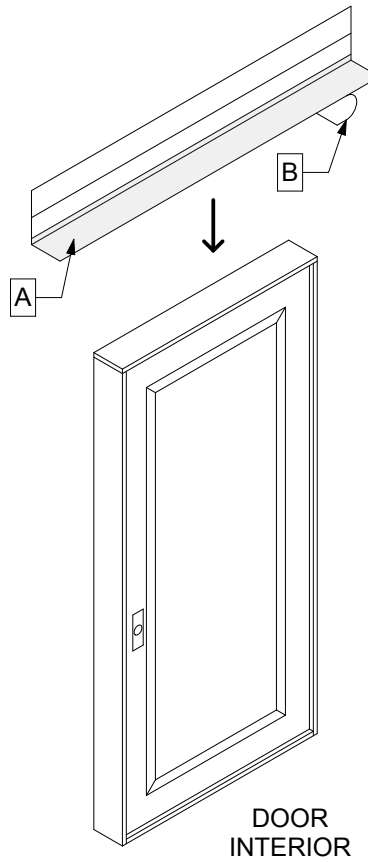
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PROJECT #:	2016-L1
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NON-FLANGED DOOR BEFORE WATER-RESISTIVE BARRIER (WRB) IS INSTALLED

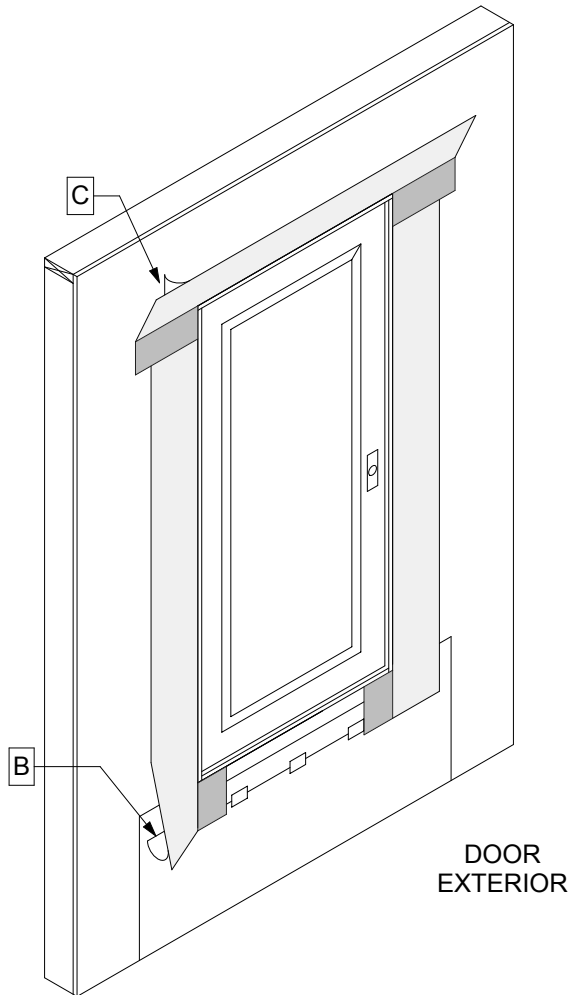
STEP 1
ATTACH APRON WRB UNDER SILL (S). APRON SHOULD EXTEND AT LEAST 10" BEYOND SIDES OF ROUGH OPENING JAMBS (OR TO FIRST STUD IN OPEN STUD CONSTRUCTION), AND FAR ENOUGH BELOW THE ROUGH OPENING TO OVERLAP THE SILL PLAN OR THE WRB BELOW. THE TOP OF THE APRON SHOULD BE SECURELY ATTACHED TO THE WALL AND THE BOTTOM OF THE APRON SHOULD BE LEFT UNSECURED SO IT CAN OVERLAP THE WRB WHICH WILL BE INSTALLED AFTER THE DOOR.



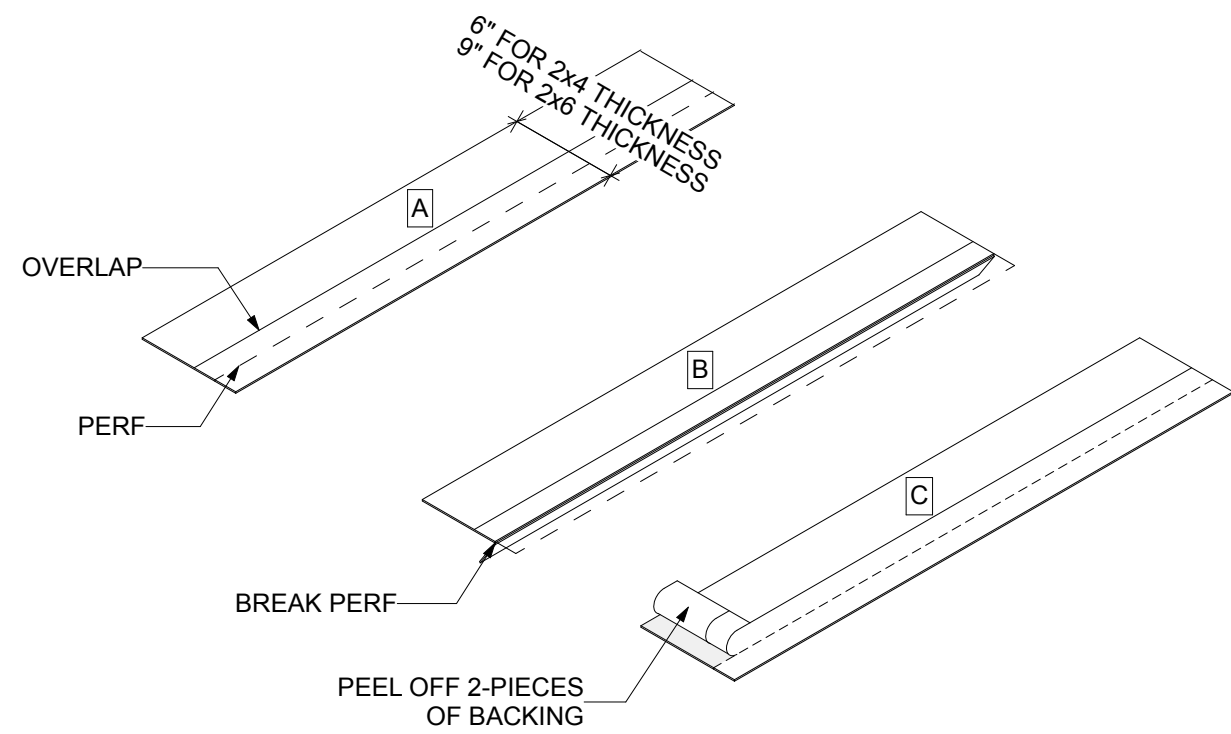
STEP 5 FOR NON-FLANGED DOORS
A. PREPARE HEAD FLASHING BY CUTTING A PIECE OF STRAIGHT FLASH VF AT LEAST 12" LONGER THAN THE HEAD LENGTH.
B. REMOVE THE RELEASE PAPER FROM ONE SIDE OF STRAIGHT FLASH VF.
C. CENTER THE STRAIGHT FLASH VF ALONG THE LENGTH OF THE DOOR AND POSITION SO THAT IT CONTACTS THE DOOR FRAME.
D. BEGINNING AT THE JUNCTION OF THE JAMB AND HEAD AND AWAY FROM THE CORNERS CUT THE STRAIGHT FLASH VF ALONG THE CORNER AT A 45 DEGREE ANGLE.
E. FOLD THE NEWLY CREATED FLASHING FLAPS DOWN PARALLEL TO THE DOOR FRAME.
F. FOLD REMAINING HEAD FLASHING ONTO THE JAMB.



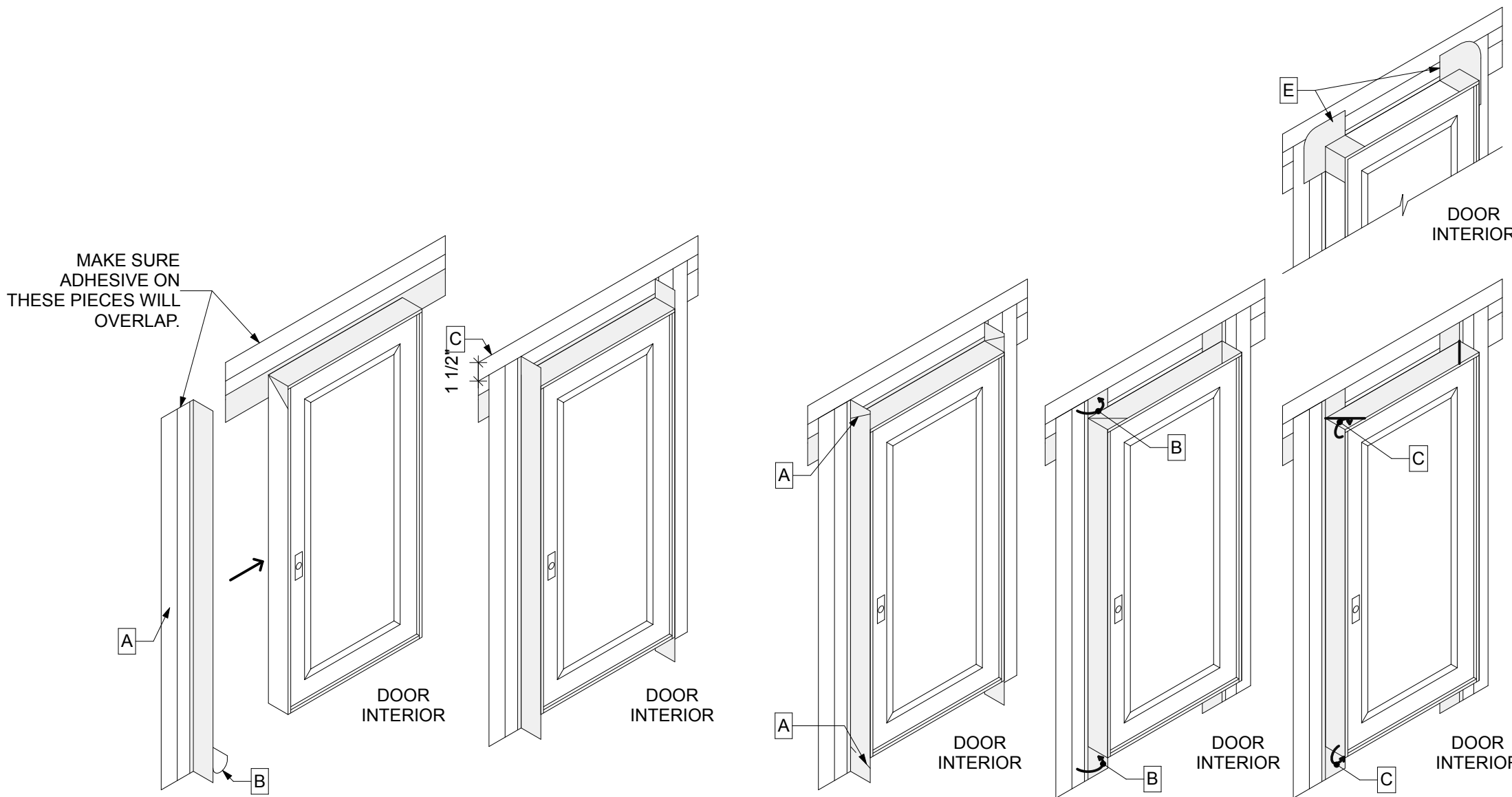
STEP 9
A. INSTALL DOOR ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
B. REMOVE THE REMAINING RELEASE PAPER FROM THE STRAIGHT FLASH VF JAMB FLASHING AND PRESS FIRMLY TO ADHERE TO THE WRB.
C. REMOVE THE RELEASE PAPER AT THE HEAD AND ADHERE IT TO THE EXTERIOR SHEATHING OR FRAMING MEMBERS.
OPTIONAL: COVER EXPOSED BUTYL WITH STRAIGHT FLASH, FLASHING TAPE, OR TYVEK TAPE.



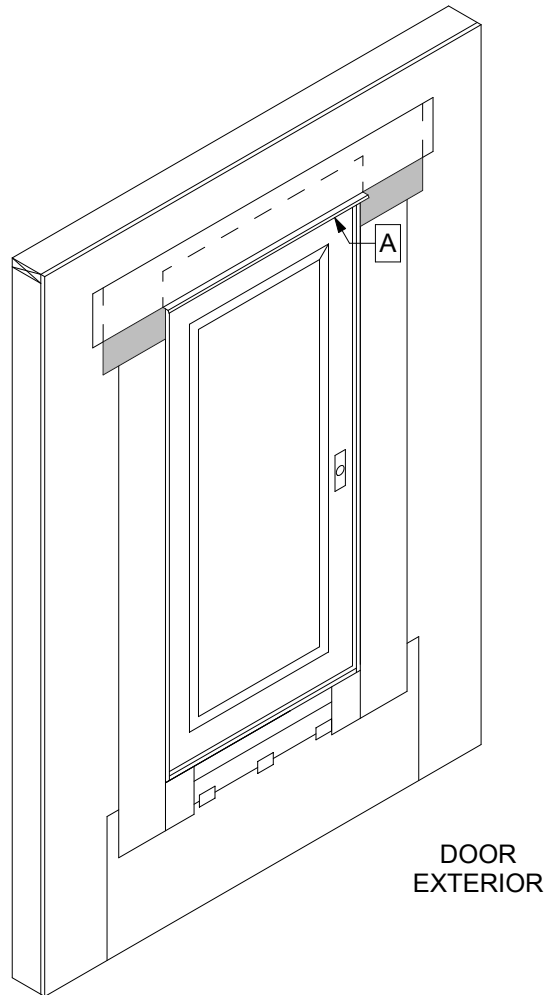
STEP 2
A. CUT PIECE OF FLEX WRAP NF AT LEAST 12" LONGER THAN THE WIDTH OF THE SILL (S).
B. FLEX WRAP NF HAS PERFORATED RELEASE PAPER TO HELP WITH THE FORMATION OF THE BACK DAM. TO ENSURE THAT THE PERFORATION TEARS CLEANLY, FOLD THE PERFORATION 180 DEGREES AND CREASE THE FLASHING.
C. REMOVE THE TWO WIDEST PIECES OF RELEASE PAPER LEAVING THE NARROWEST RELEASE PAPER ON THE FLASHING. WHEN THE FINISHED FLOOR IS APPLIED, THE RELEASE PAPER CAN BE REMOVED AND THE BACK DAM CAN BE COMPLETED.



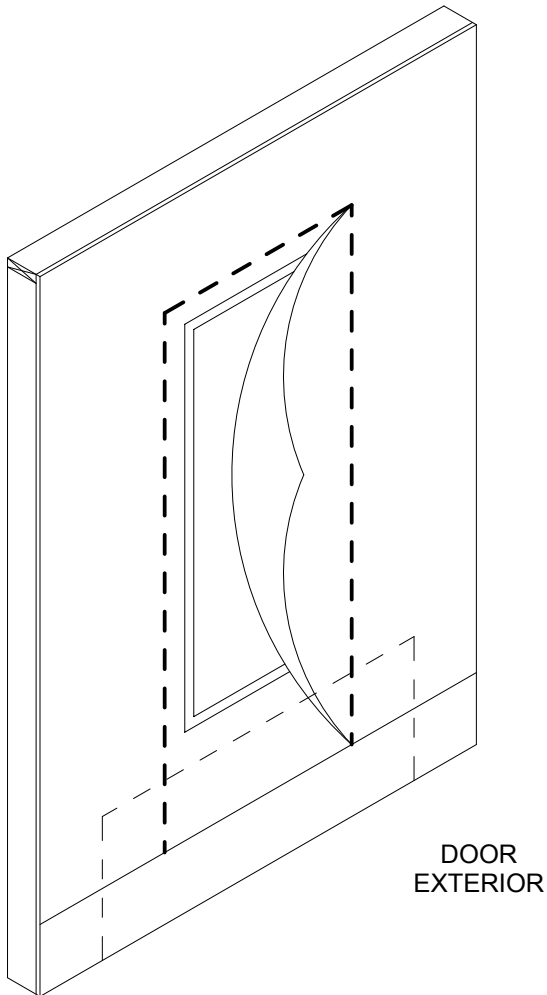
STEP 7
A. BEGINNING AT THE JUNCTION OF THE JAMB AND HEAD AND AT THE SILL AND JAMB AND AWAY FROM THE CORNERS, CUT THE STRAIGHT FLASH VF ALONG THE CORNERS AT A 45 DEGREE ANGLE AND FOLD IT OVER FLAT TO ADHERE IT AGAINST THE HEAD FLASHING.
B. FOLD NEWLY CREATED FLAP DOWN PARALLEL TO THE DOOR FRAME.
C. FOLD FLASHING FLAPS TO THE DOOR FRAME AND ADHERE.
D. REPEAT ON OPPOSITE JAMB.
E. CUT TWO 3" x 3 FLEX WRAP NF SQUARES AND ADD PATCHES TO CORNER OF THE DOOR. STAPLE PATCHES IN CORNERS TO SECURE THE WOODEN HEAD AND JAMBS.



STEP 10 (OPTIONAL - RECOMMENDED BEST PRACTICE)
A. CUT A PIECE OF METAL OR VINYL DRIP CAP SLIGHTLY LONGER THAN THE WIDTH OF THE DOOR AND PLACE A BEAD OF RECOMMENDED SEALANT ON THE REAR SIDE. INSTALL THE DRIP CAP TIGHT AGAINST THE DOOR SIDE AND COVER THE TOP EDGE WITH FLASHING TAPE.

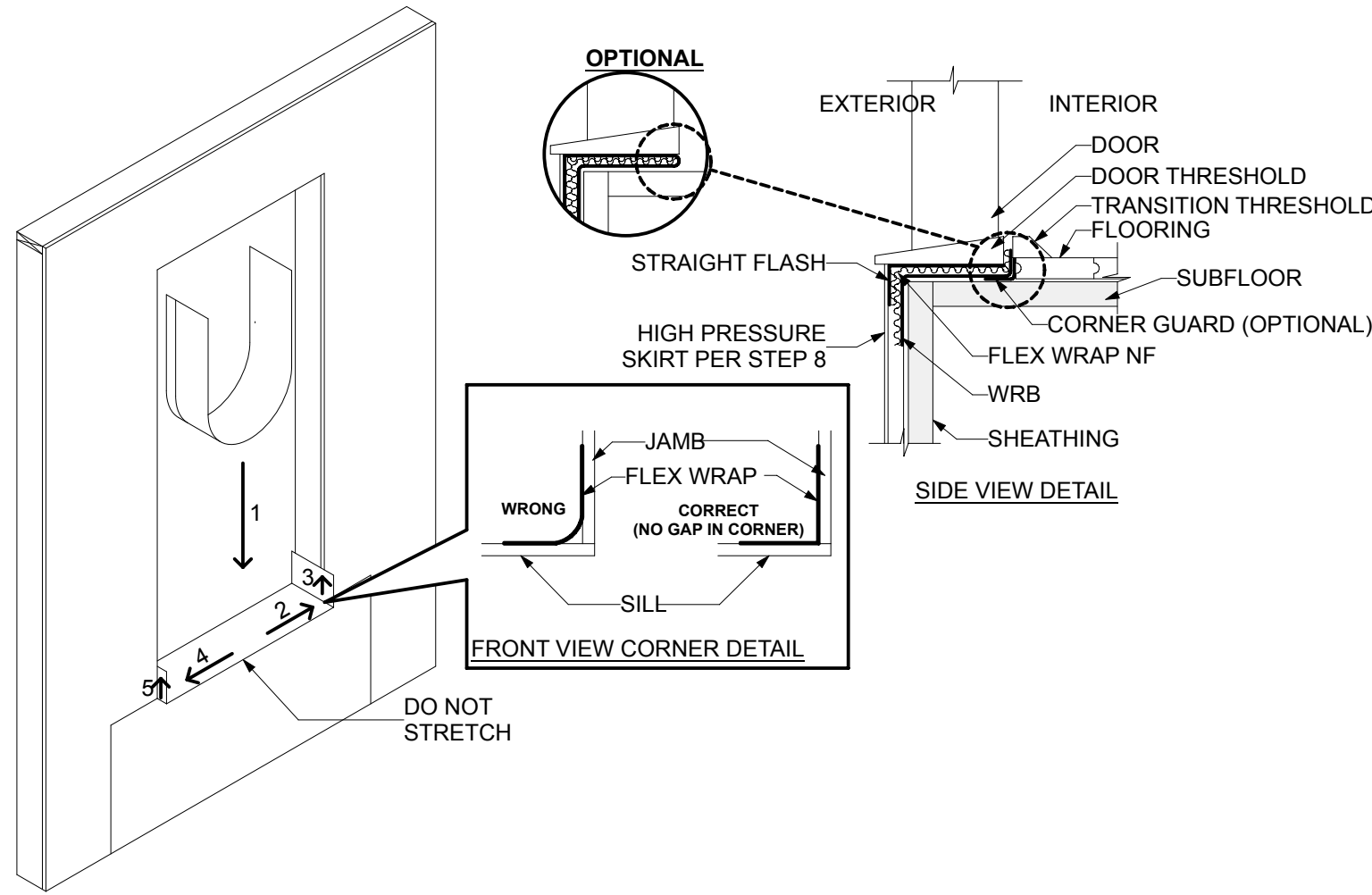


STEP 11
AFTER INSTALLING WRB, CUT AS SHOWN TO EXPOSE DOOR AND APRON. **DO NOT CUT THROUGH THE FLASHING SYSTEMS PRODUCTS OR APRON.**

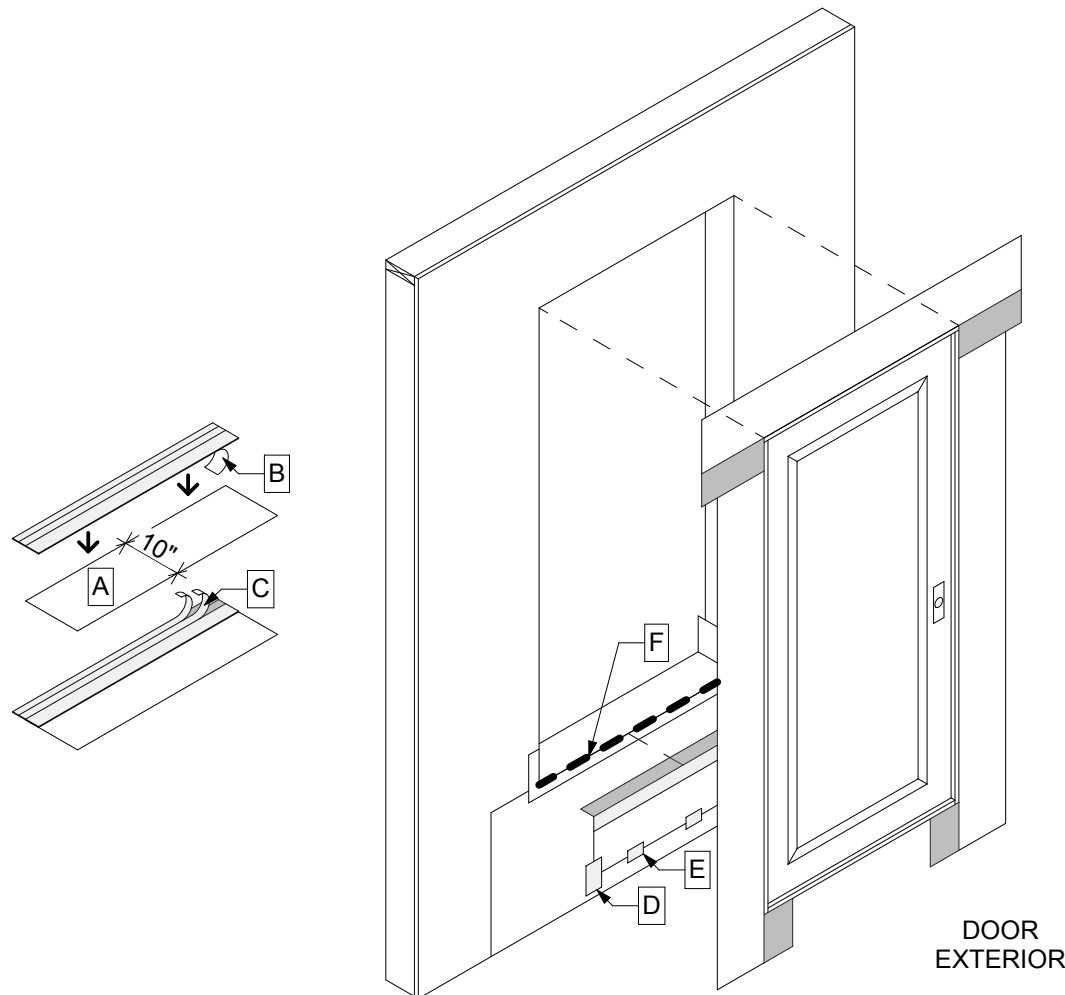


STEP 3 (OPTIONAL BACK DAM)
INSTALL THE SILL FLASHING AS INDICATED LEAVING 1" OF FLEX WRAP NF WITH RELEASE PAPER EXTENDING IT PAS THE DOOR THRESHOLD ON THE INSIDE. WHEN THE 1" OF RELEASE PAPER IS REMOVED, THERE SHOULD BE 3/4" OF FLASHING TO FORM THE BACK DAM.

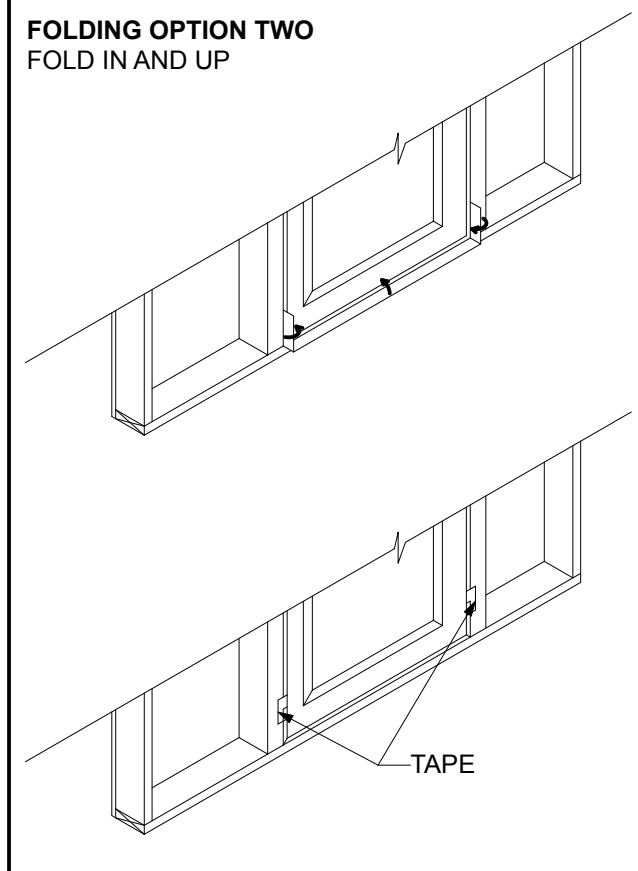
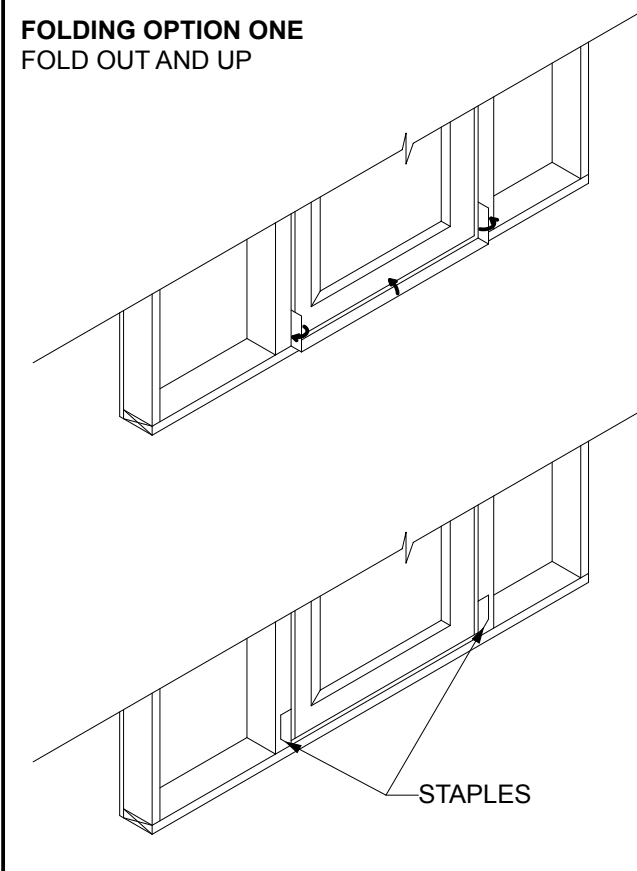
OPTION 2: SOME FLOORING CANNOT ACCOMMODATE A BACK DAM. IN THAT CASE FOLD THE 1" BACK DAM ON TOP OF FLEX WRAP NF IN THE SILL. DOOR WILL BE INSTALLED ON TOP OF THE 1" FOLD TO CREATE A BACK DAM.



STEP 8 (OPTIONAL - HIGH PRESSURE SKIRT)
A. CREATE THE HIGH PRESSURE SKIRT BY CUTTING A PIECE OF WRB 1" WIDER THAN THE WIDTH OF THE DOOR OPENING AND APPROXIMATELY 10" IN HEIGHT.
B. CUT A PIECE OF STRAIGHT FLASH VF TO THE SAME WIDTH OF SKIRT. REMOVE RELEASE PAPER FROM ONE SIDE OF STRAIGHT FLASH VF AND ADHERE TO WRB. THE SKIRT MAY BE MADE WITH STRAIGHT FLASH VF OR FLASHING TAPE.
C. REMOVE THE RELEASE PAPER FROM THE OTHER SIDE OF STRAIGHT FLASH VF AND ADHERE TO BUTYL ADHESIVE AT THE SILL SKIRT TO THE UNDERSIDE OF THE DOOR THRESHOLD BEHIND THE JAMB FLASHING.
D. SECURE EDGES OF THE OPTIONAL SKIRT WITH TWO 4" PIECES OF STRAIGHT FLASH OR FLASHING TAPE.
E. TAPE THE BOTTOM OF THE OPTIONAL SKIRT TO ALLOW FOR DRAINAGE AND TO MINIMIZE WIND DAMAGE DURING CONSTRUCTION.
F. IF SEALANT IS APPLIED TO THE SILL, INSURE (2) 2" GAPS TO ALLOW FOR DRAINAGE FOR EVERY 4' OF DOOR USING RECOMMENDED SEALANT.



STEP 13
A. WHEN THE INTERIOR FLORING IS READY TO INSTALL, REMOVE RELEASE PAPER AND USE FOLDING OPTION ONE OR TWO TO FORM THE BACK DAM.
B. INSTALL RECOMMENDED SEALANT (AND BACKER ROD AS NECESSARY) AROUND THE OPENING AT THE INTERIOR. IT IS ALSO ACCEPTABLE TO USE RECOMMENDED FOAM. THE SEAL CREATED BY THE SEALANT (AND BACKER ROD AS NECESSARY) OR FOAM WILL ALSO SERVE AS A BACK DAM. SEALANT SHOULD BE TOOLED FLAT TO ALLOW THE NATURAL CURING PROCESS TO CREATE A CONCAVE SHAPE. BE SURE THAT HTE SEALANT PENETRATES THE GROVES OF THE FLEX WRAP NF AROUND THE SILL.



8 THROUGH WALL SCUPPER

4 VENT PENETRATIONS

1 TARGET FLASHING INSTALLATION FOR PENETRATIONS > 6"

- NOTES:**
1. INSIDE & OUTSIDE CORNERS; APPLY ONE LAYER OF 36"-WIDE BREATHABLE MEMBRANE FROM THE SAME MANUFACTURER AS THE WRB PER NOTE 15 PRIOR TO INSTALLATION OF FIELD WRB.
 2. INSTALL WEATHER RESISTIVE BARRIER PER NOTE 15 IN WEATHERBOARD FASHION STARTING FROM THE BOTTOM OF THE WALL. ENSURE THAT THE EDGES OF THE LAYERS OF WRB ARE STAGGERED AT LEAST 6".
 3. WHERE CONCRETE SURFACES OCCUR, INSTALL VAPROSHIELD S.A.M. THROUGHOUT.

2 WRB INSTALLATION

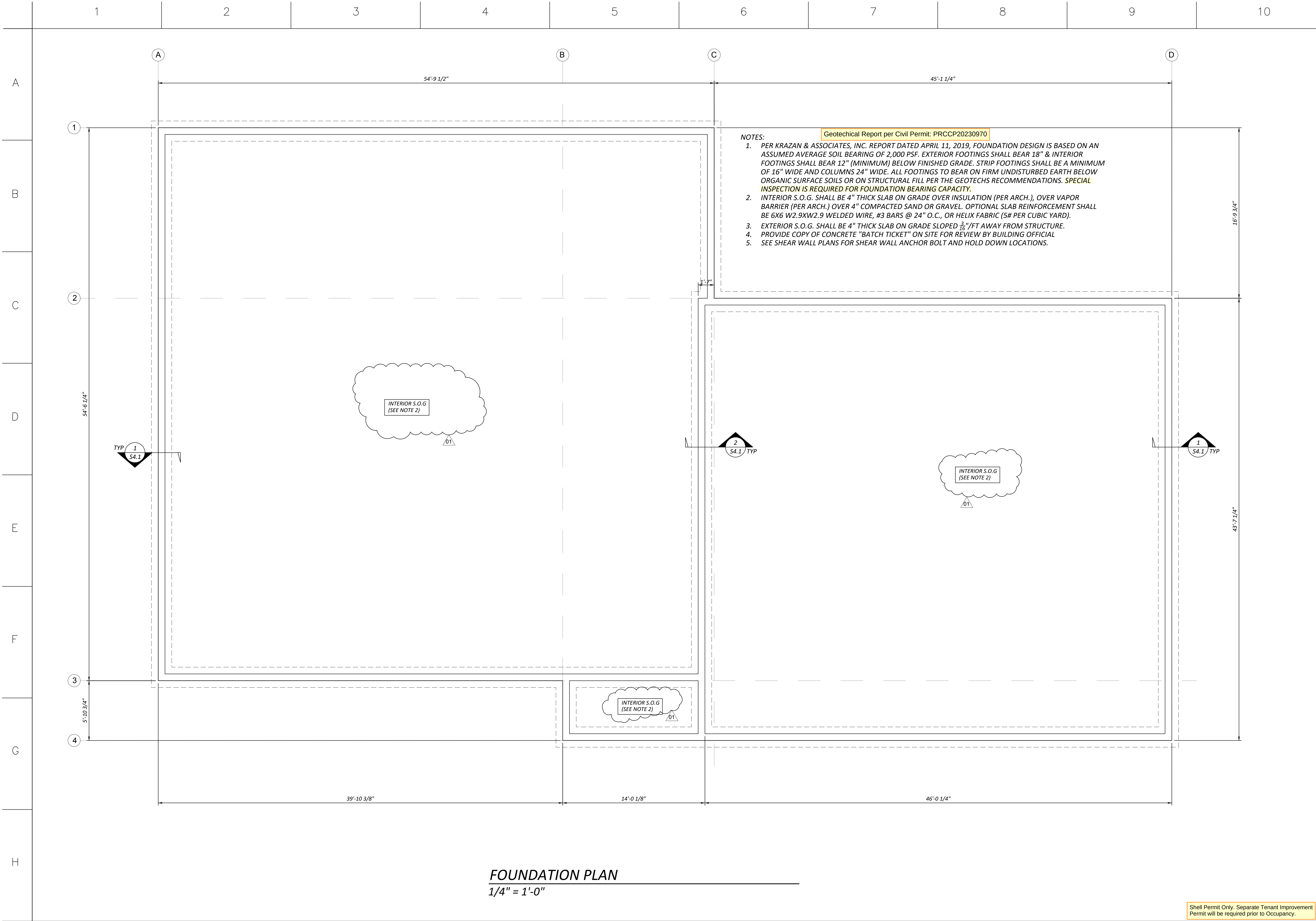
3 VENT SHROUDS

7 FLASHING @ LIGHT FIXTURE

6 FLASHING AT HOSE BIB
SCALE: 3" = 1'-0"

5 JUNCTION BOX PENETRATION

3 VENT SHROUDS





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EAST TOWN CROSSING
LOT 1 COMMERCIAL
PIONEER & SHAW PUYALLUP

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01	CITY REVIEW	

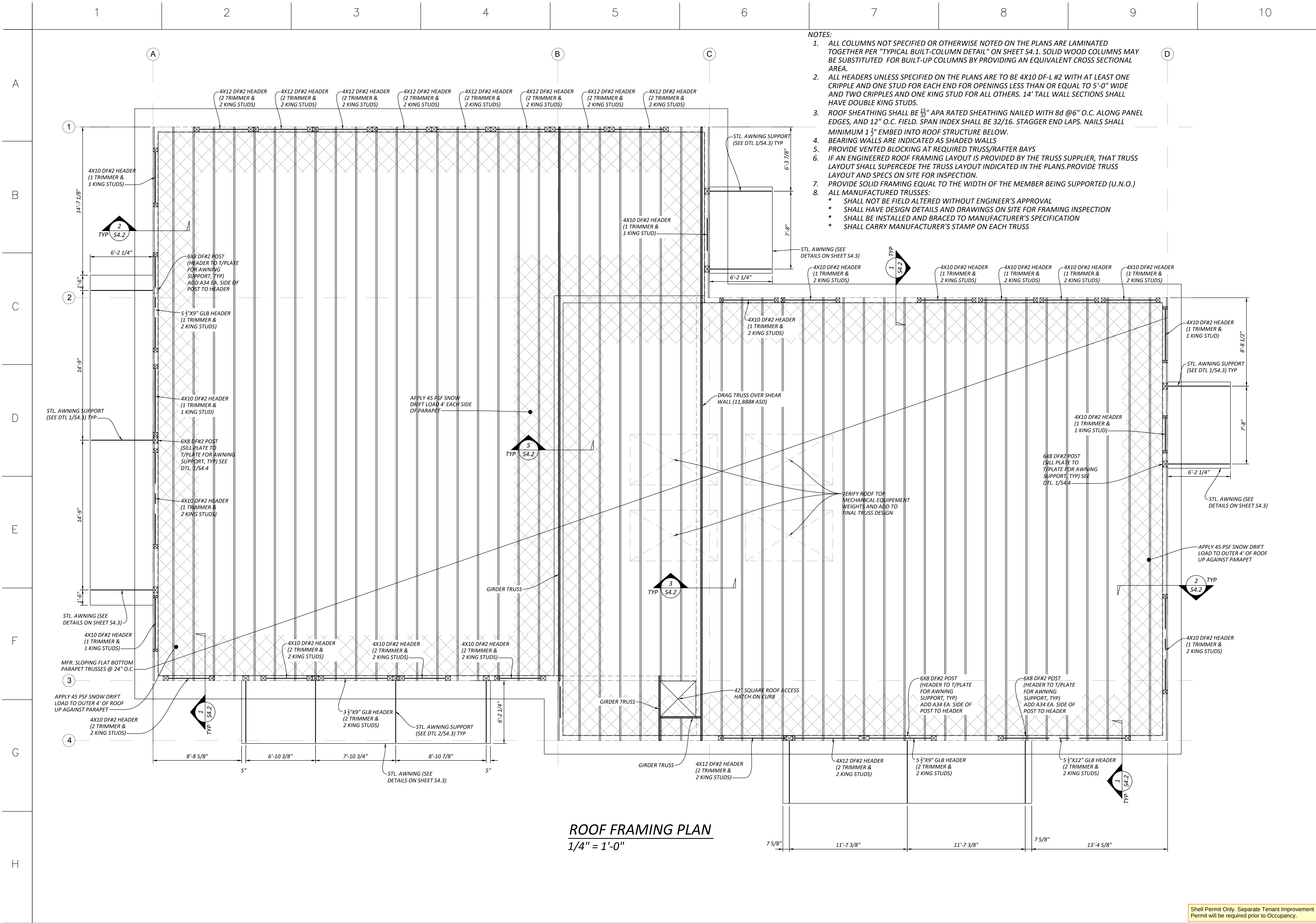
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01	CITY REVIEW	

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CHECKED BY: CP
DATE: 2025.04.28
TITLE: FOUNDATION PLAN
PROJECT #: ----
SHEET:

S3.1

Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.

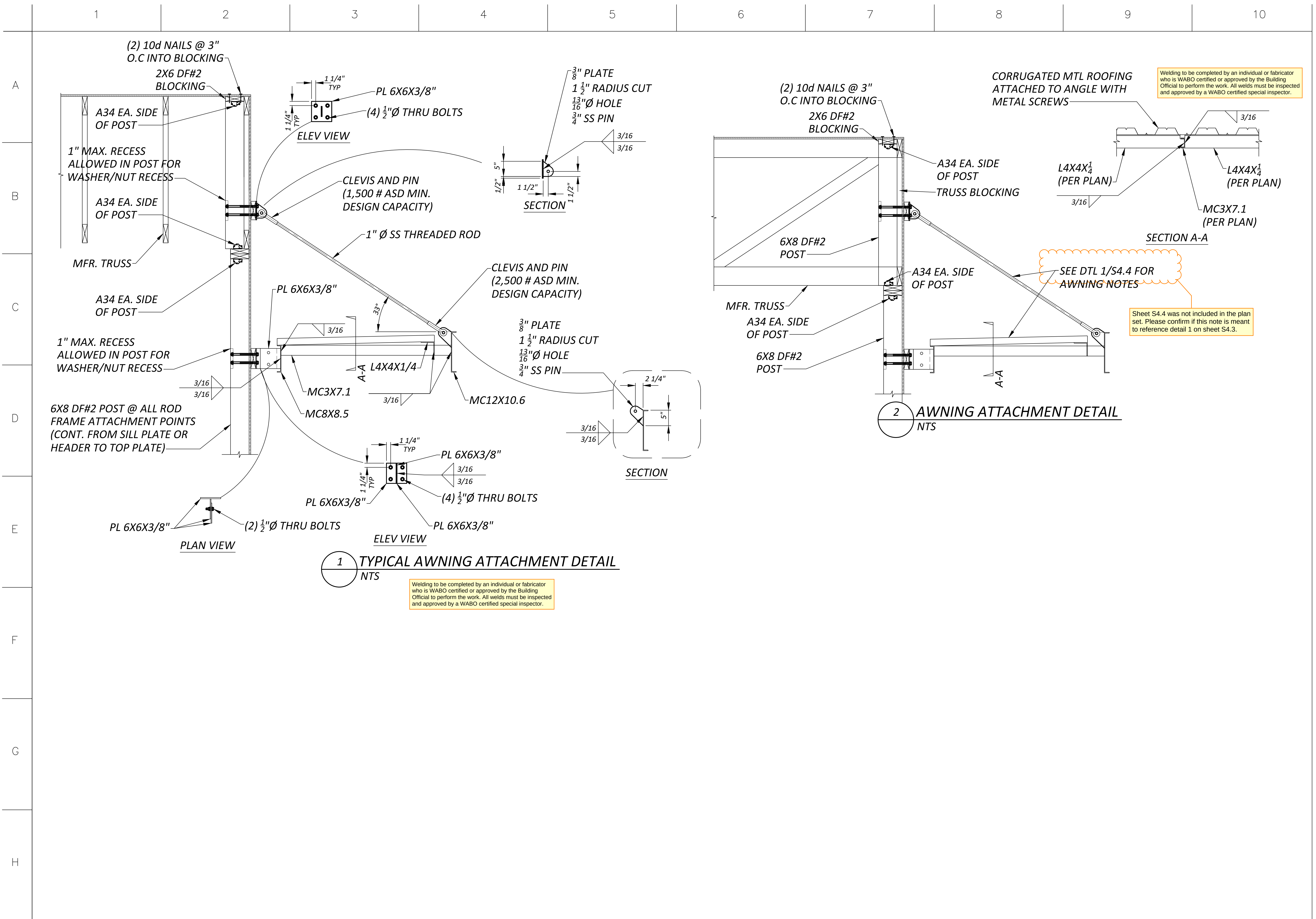


- NOTES:
- ALL COLUMNS NOT SPECIFIED OR OTHERWISE NOTED ON THE PLANS ARE LAMINATED TOGETHER PER "TYPICAL BUILT-COLUMN DETAIL" ON SHEET S4.1. SOLID WOOD COLUMNS MAY BE SUBSTITUTED FOR BUILT-UP COLUMNS BY PROVIDING AN EQUIVALENT CROSS SECTIONAL AREA.
 - ALL HEADERS UNLESS SPECIFIED ON THE PLANS ARE TO BE 4X10 DF-L #2 WITH AT LEAST ONE CRIPPLE AND ONE STUD FOR EACH END FOR OPENINGS LESS THAN OR EQUAL TO 5'-0" WIDE AND TWO CRIPPLES AND ONE KING STUD FOR ALL OTHERS. 14' TALL WALL SECTIONS SHALL HAVE DOUBLE KING STUDS.
 - ROOF SHEATHING SHALL BE $\frac{1}{2}$ " APA RATED SHEATHING NAILED WITH 8d @ 6" O.C. ALONG PANEL EDGES, AND 12" O.C. FIELD. SPAN INDEX SHALL BE 32/16. STAGGER END LAPS. NAILS SHALL MINIMUM 1 $\frac{1}{2}$ " EMBED INTO ROOF STRUCTURE BELOW.
 - BEARING WALLS ARE INDICATED AS SHADED WALLS
 - PROVIDE VENTED BLOCKING AT REQUIRED TRUSS/RAFTER BAYS
 - IF AN ENGINEERED ROOF FRAMING LAYOUT IS PROVIDED BY THE TRUSS SUPPLIER, THAT TRUSS LAYOUT SHALL SUPERCEDE THE TRUSS LAYOUT INDICATED IN THE PLANS. PROVIDE TRUSS LAYOUT AND SPECS ON SITE FOR INSPECTION.
 - PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
 - ALL MANUFACTURED TRUSSES:
 - * SHALL NOT BE FIELD ALTERED WITHOUT ENGINEER'S APPROVAL
 - * SHALL HAVE DESIGN DETAILS AND DRAWINGS ON SITE FOR FRAMING INSPECTION
 - * SHALL BE INSTALLED AND BRACED TO MANUFACTURER'S SPECIFICATION
 - * SHALL CARRY MANUFACTURER'S STAMP ON EACH TRUSS

REVISIONS	
01	CITY REVIEW
REVISIONS	
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CHECKED BY:	CP
DATE:	2025.04.28
TITLE:	FRAMING PLAN
PROJECT #:	----
SHEET:	







GENERAL NOTES

GENERAL NOTES – MECHANICAL

1. REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, LANDSCAPE, OR KITCHEN), OR ITEM BASED ON A SPECIFIC MANUFACTURER'S DIMENSIONS (VERIFY).
2. ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS (VOLTAGES, ETC. OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
3. CODES: COMPLETE INSTALLATION OF THE MECHANICAL SYSTEM SHALL BE PER THE APPLICABLE BUILDING, MECHANICAL, ENERGY, PLUMBING, FIRE, AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL AHJ.
4. PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED ON FINAL STRUCTURAL SHOP DRAWINGS FOR LOCATING AND ROUTING ALL DUCTWORK, DAMPERS, EQUIPMENT, PIPING, ETC.

A. COORDINATE FLOOR AND BEAM PENETRATIONS WITH STRUCTURAL.

B. COORDINATE FINAL LOCATION AND ROUTING WITH CEILING, LIGHTS, WALLS, FIRE SPRINKLER PIPING, AND OTHER TRADES WORK.

C. INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING, EQUIVALENT DUCT SIZING EXCHANGE, RELOCATING, ETC. AS REQUIRED FOR A COMPLETE OPERATING MECHANICAL SYSTEM.

D. PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.
5. MECHANICAL CONTRACTOR SHALL LOCATE AND COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITHIN THE STRUCTURE.
6. ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE ALL ACCESS DOORS ON SHOP DRAWINGS PRIOR TO BEGINNING OF CONSTRUCTION. ACCESS DOORS IN FIRE RATED STRUCTURE SHALL BE FIRE RATED. VERIFY ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO BIDDING.
7. RATED PENETRATION: DUCT PENETRATIONS THROUGH RATED ENCLOSURES SHALL BE FIRE/SMOKE DAMPERED PER THE LATEST EDITION OF THE UNDERWRITERS LABORATORIES(UL) FIRE RESISTANCE WITH HOURLY RATINGS FOR THROUGH-PENETRATION FIRE STOPS SYSTEM VOLUME #2, OR SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S UL LISTINGS (3M OR EQUIVALENT). DETERMINE REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO BID.
8. EXHAUST OUTLETS: SOURCE-SPECIFIC FANS SHALL BE VENTED TO OUTDOORS WITH A MINIMUM 3' CLEARANCE BETWEEN VENT OUTLETS AND BUILDING OPENINGS, AND 10' MINIMUM BETWEEN VENT OUTLETS AND MECHANICAL AIR INTAKES.
9. ROOF PENETRATIONS: SEE ARCHITECTURAL DRAWINGS FOR ROOF CAP, ROOF CURB, ROOF DRAIN, AND VTR DETAILS.
10. EXPOSED PIPING: PROVIDE CHROME PLATING FOR EXPOSED PIPING IN FINISHED ROOMS.
11. PENETRATIONS: PROVIDE ESCUTCHEON PLATES FOR EXPOSED PIPING PENETRATIONS AND SHEET METAL FLASHING FOR EXPOSED DUCTWORK PENETRATIONS.
12. SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS TO AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR PLENUMS.
13. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT.
14. MOTORS: COMPLY WITH ENERGY CODE ENFORCED BY AHJ FOR MINIMUM EFFICIENCIES UNDER FULL LOAD.
15. ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR SERVICE AND MAINTENANCE.

COORDINATION REQUIREMENTS

1. PIPING: COORDINATE WITH STRUCTURAL FOR EXACT LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT THE SITE PRIOR AND DURING THE CONSTRUCTION.
2. DUCTWORK: LOCATE AND COORDINATE THE EXACT LOCATION OF DUCTWORK WITH STRUCTURAL PLANS AND WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION OF ANY STRUCTURE OR EQUIPMENT. COORDINATE WITH FRAMING CONTRACTOR TO ASSURE JOIST SPACES LINE UP WHEN DUCTWORK MUST PASS THROUGH DIFFERENT JOIST SPACES.
3. ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS GAS BURNERS, IGNITION DEVICES, ETC. SHALL BE ADJUSTED AND BALANCED TO OPERATE AT SPECIFIED RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL.
4. APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL BE APPROVED FOR INSTALLATION IN THE PROJECT LOCATION AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC, ETC. CODES AND REGULATIONS. THE CONTRACTOR SHALL COORDINATE WITH HIS MANUFACTURE SUPPLIERS AND SHALL INCLUDE ALL COSTS REQUIRED TO MEET THESE REQUIREMENTS IN HIS BID.
5. FIRE PROTECTION: CONTRACTOR SHALL PROVIDE A FULLY DESIGNED FIRE PROTECTION SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA AND LOCAL CODES. PROVIDE DESIGN, PERMITS, MATERIALS, INSTALLATION, TESTING AND ALL OTHER FOR A FULLY OPERATIONAL SYSTEM. LOCATION OF ALL PIPING TO BE COORDINATED WITH OTHER TRADES.

PIPING NOTES

1. DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS, CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.
2. REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.
3. OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.
4. DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.
5. REFRIGERANT PIPING: PROVIDE SIZING & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
6. CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING. CONDENSATE DRAINS SHALL BE DISCHARGED TO AN INDIRECT WASTE OR OUTSIDE.

INSULATION/LINING NOTES

1. ENERGY CODE: AS A MINIMUM, COMPLY WITH THICKNESSES AND TYPES LISTED IN ENERGY CODE ENFORCED BY AHJ.
2. EXTENT OF INTERNAL DUCT LINING:

A. GRILLE AND DIFFUSER BOXES AND BOOTS.

B. TRANSFER DUCTS.

C. THE FIRST 10 FEET OF SUPPLY AND RETURN DUCTWORK FROM THE AIR HANDLER.
3. EXTENT OF EXTERNAL DUCT INSULATION:

A. SUPPLY AND RETURN AIR IN UNCONDITIONED SPACES, MECHANICAL ROOMS, ELECTRICAL ROOMS, AND EQUIPMENT ROOMS NOT SPECIFIED TO BE INTERNALLY LINED.

B. SUPPLY AIR ABOVE CEILINGS OR EXPOSED NOT SPECIFIED TO BE INTERNALLY LINED.

C. OUTDOOR AIR INTAKE.
4. MISCELLANEOUS DUCT FITTINGS (CONICAL TAKEOFFS, ETC.): WRAP WITH INSULATION FOR CONDENSATION CONTROL.

PLAN NOTES

1. DUCTWORK SHALL BE METALLIC DUCTWORK
2. TEST AND BALANCE WORK SHALL BE PERFORMED BY AN INDEPENDENT TEST AND BALANCE AGENCY. PROVIDE (3) COPIES OF TEST AND BALANCE REPORT TO OWNER.
3. COORDINATE DUCTWORK WITH MISCELLANEOUS OBSTRUCTIONS IN CEILING SPACE.
4. RESTROOM EXHAUST SHALL BE A MINIMUM OF 10' FROM ANY MECHANICAL OUTSIDE AIR INTAKES.
5. ROUTE DUCTWORK UNDERNEATH JOISTS UON.
6. TRANSITION DUCT UNDER BEAMS AND DUCTS. FIELD VERIFY AVAILABLE CEILING CAVITY DIMENSIONS.
7. COORDINATE MOUNTING HEIGHT OF DIFFUSERS WITH ARCHITECTURAL PLANS.

SHEET METAL NOTES

1. REFERENCE: SMACNA HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE, CURRENT EDITION.
2. CLEARANCE: COORDINATE DUCTWORK WITH MISCELLANEOUS OBSTRUCTIONS IN CEILING SPACE.
3. ROUND ELBOWS AND OFFSETS: FULL RADIUS (R/D = 1.5), 5-PIECE SEGMENTED OR STAMPED. REFER TO SMACNA HVAC FIG 2-7, 3-3. DO NOT USE ANGLED OFFSET (TYPE 1). MITERED OFFSET (TYPE 2) MAY BE USED UP TO 30 DEGREE OFFSET ANGLE.
4. ROUND TEES AND LATERALS: CONICAL TEE PER SMACNA HVAC FIG 3-5; DO NOT USE STRAIGHT TEE; DO NOT USE CONICAL SADDLE TAP FOR EXPOSED DUCTWORK IN FINISHED SPACES. 90-DEGREE TEE WITH OVAL TO ROUND TAP, LATERAL, AND 45-DEGREE RECTANGULAR LEAD-IN PER SMACNA HVAC FIG 3-4.
5. RECTANGULAR ELBOWS AND OFFSETS: FULL RADIUS WHERE SPACE PERMITS, R/W = 1.5; OTHERWISE USE SQUARE CORNER ELBOW WITH TURNING VANES.
6. RECTANGULAR DIVIDED FLOW FITTINGS: USE GENERALLY, EXCEPT BRANCHES TO TERMINALS; SMACNA HVAC FIG 2-5, TYPES 1, 2, 4A, AND 4B. DO NOT USE TYPE 3.
7. TURNING VANES: H.E.P. MANUFACTURER OR APPROVED HIGH EFFICIENCY PROFILE AIRFOIL TYPE FOR RECTANGULAR SQUARE THROAT ELBOWS. ACOUSTICAL TYPE FOR RETURN AIR MITERED ELBOWS.
8. TAKEOFFS TO OPENINGS: CONICAL TYPE WITH VOLUME DAMPER FOR ROUND DUCT BRANCHES PER SMACNA HVAC FIG 2-6, MINIMUM INLET DIAMETER 2 INCHES LARGER THAN DUCT SIZE. 45 DEGREE ENTRY FITTING FOR RECTANGULAR DUCT BRANCHES PER SMACNA HVAC FIG 2-6.
9. FLEXIBLE CONNECTIONS: PROVIDE AT EACH DUCT CONNECTION TO FANS, PACKAGED HVAC EQUIPMENT, EXTERNALLY ISOLATED AIR HANDLING UNITS, FAN COIL UNITS, AND SIMILAR EQUIPMENT. EXCEPTION: EQUIPMENT IN CORRIDOR CEILING SPACES WHERE FIRE RATING IS REQUIRED.
10. ALL DUCT WORK SHALL BE CLASSIFIED FOR LOW PRESSURE SYSTEMS PER IMC SECTION 603.
11. ALL DUCTS AND JOINTS SHALL BE SEALED PER IMC SECTION 603.

HVAC NOTES

1. ATTACHMENTS: AIR DISTRIBUTION OUTLETS AND LOUVERS

- SHALL HAVE ALL REQUIRED ACCESSORIES AND ATTACHMENTS FOR A COMPLETE CONNECTION TO THE SPECIFIC TYPE OF STRUCTURE THAT THEY ARE BEING ATTACHED TO. THIS INCLUDES, BUT IS NOT LIMITED TO, EXTERIOR BRICKS, GWB WALLS, GWB CEILING, ETC.
2. DUCTWORK: DUCTWORK SHALL BE SMOOTH SHEET METAL (CLASS-1). DUCTWORK THROUGH FIRE RATED STRUCTURE AND FLOOR SHALL BE MIN. 26 GA. STEEL. MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE 5'-0", UNLESS OTHERWISE NOTED ON DRAWINGS. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
3. SEISMIC: PROVIDE SEISMIC RESTRAINTS FOR MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK PER SMACNA AND LOCAL REGULATIONS.
4. FILTER CLEARANCE: PROVIDE ADEQUATE CLEARANCE FOR CHANGING AIR FILTERS.
5. DUCTWORK AND PIPING OUTSIDE OF MECHANICAL ROOMS SHALL BE CONCEALED, COORDINATE WITH THE GENERAL CONTRACTOR TO FUR-OUT AS REQUIRED.
6. FIRE RATINGS: RATED FLOOR/CEILING JOINT SPACES HAVING DUCTWORK INSIDE THEM SHALL BE FIRE/SMOKE PROTECTED TO MAINTAIN THE 1-HOUR FLOOR/CEILING RATING PER LOCAL JURISDICTIONS. EXHAUST DUCTWORK PENETRATING THE 1-HOUR ROOF/CEILING OR FLOOR/CEILING ASSEMBLY SHALL HAVE ACCESSIBLE CEILING FIRE DAMPERS. ALTERNATIVELY, THE EXHAUST DUCTWORK SHALL BE ROUTED INSIDE A RATED SHAFT TO PROTECT THE CEILING/ROOF RATING PER THE LOCAL JURISDICTIONS.
7. FIRESTOP: PIPE, DUCT AND CONDUIT PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRE AND SMOKE STOPPED PER CODE.
8. DUCTWORK: DUCTWORK SHALL BE SMOOTH SHEET METAL (CLASS-1). DUCTWORK THROUGH FIRE RATED STRUCTURE AND FLOOR SHALL BE MIN. 26 GA. STEEL. MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE 5'-0" UNLESS OTHERWISE NOTED ON DRAWINGS. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
9. VOLUME DAMPERS: PROVIDE AN ACCESSIBLE MANUAL VOLUME DAMPER FOR EACH SUPPLY, RETURN, OSA AND EXHAUST OPENING, LOCATED AS FAR UPSTREAM AS POSSIBLE FROM THE OPENING. PROVIDE A MANUAL VOLUME DAMPER FOR BRANCH MAINS SERVING MORE THAN ONE OPENING. VOLUME DAMPERS IN NON-ACCESSIBLE CEILING SHALL HAVE A CONTROL ARM EXTENDED TO AN ACCESSIBLE LOCATION. PROVIDE "YOUNG" REGULATOR OR EQUAL. EXACT LOCATION OF CONTROL DEVICES VISIBLE IN FINISHED SPACES SHALL BE COORDINATED WITH THE ARCHITECT.
10. CORRIDOR THERMOSTAT: PROVIDE TAMPERPROOF THERMOSTATS IN CORRIDORS. DO NOT PROVIDE PLASTIC GUARDS TO MAKE THE THERMOSTATS TAMPERPROOF. PROVIDE BLANK SECURABLE THERMOSTAT COVERS.

APPLICABLE CODE

BUILDING CODE:

2021 WASHINGTON STATE ENERGY CODE-COMMERCIAL PROVISIONS

2021 WASHINGTON STATE MECHANICAL CODE

DRAWINGS ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

PRE-CON MEETING NOTES

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS,AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS.

THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE MINIMUM TIME INDICATED:

MECHANICAL SHEET METAL	4 HOURS
PLUMBING/PIPING	4 HOURS
ELECTRICAL	4 HOURS
SPRINKLER	2 HOURS
GENERAL CONTRACTOR	ALL SESSIONS

ANNOTATIONS

ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
BD	AIR HANDLING UNIT
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNIT PER HOUR
C	COMMON
CAP	CAPACITY
CC	COOLING COIL
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CLG	CEILING, COOLING
CO	CLEANOUT
COMB	COMBUSTION
CONT	CONTINUE, CONTROL
CONTR	CONTRACTOR
COP	COEFFICIENT OF PERFORMANCE
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
D	DIAMETER
DB	DRY BULB, DECIBEL
DEGREE	DEGREE
DIM	DIMENSION
DISCH	DISCHARGE
DN	DOWN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EFF	EXHAUST FAN
EG	EXHAUST GRILLE, ENGINE GENERATOR
ELEC	ELECTRIC
EQUIV	EQUIVALENT
ESP	EXTERNAL STATIC PRESSURE
EXH	EXHAUST
EXT	EXTERIOR, EXTERNAL
F	FAHRENHEIT
FD	FIRE DAMPER
FCU	FAN COIL UNIT
FLR	FLOOR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FSD	FIRE/SMOKE DAMPER
G	GAS
GRD	GRILLES, REGISTERS, AND DIFFUSERS
GWB	GYPSUM WALLBOARD
HORIZ	HORIZONTAL
HP	HORSEPOWER, HEAT PUMP
HEAT	HEAT RECOVERY UNIT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HVU	HEATING AND VENTILATION UNIT
HWR	HIGH WALL RETURN, HOT WATER RETURN
HWS	HIGH WALL SUPPLY, HOT WATER SUPPLY
HX	HEAT EXCHANGER
ID	INDIRECT DRAIN, INSIDE DIAMETER
INCH	INCH
KW	KILOWATT
L	LONG, LENGTH
LB	POUND
LWR	LOW WALL RETURN
LWS	LOW WALL SUPPLY
MBH	THOUSAND BTU PER HOUR
MECH	MECHANICAL
MCA	MINIMUM CIRCUIT AMPACITY
MOCP	MAXIMUM OVER CURRENT PROTECTION
MTD	MOUNTED
OSA	OUTDOOR AIR
OBD	OPPOSED BLADE DAMPER
OPNG	OUTSIDE DIMENSION OR DIAMETER
P	OPENING
P	PUMP
PD	PRESSURE DROP
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
REF	REFERENCE
RF	RELIEF FAN
RG	RETURN GRILLE
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SCH	SCHEDULE
SF	SUPPLY FAN, SQUARE FOOT
SENS	SENSIBLE
SG	SUPPLY GRILLE
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
SO	SCREENED OPENING
SP	STATIC PRESSURE
SS	STAINLESS STEEL, SANITARY
SQ	SQUARE
TG	TRANSFER GRILLE
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VENT
VENT	VENTILATION, VENTILATOR
VTR	VENT THRU ROOF
W	WASTE, WATT, WIDE
WB	WET BULB (TEMPERATURE)

SYMBOLS

DUCTWORK

DUCT (1ST FIGURE = SIDE SHOWN, 2ND FIGURE = SIDE NOT SHOWN)

DUCT SECTION, POSITIVE PRESSURE

DUCT SECTION, NEGATIVE PRESSURE

ROUND DUCT SECTION

DUCT PENETRATION THRU FLOOR OR ROOF

VOLUME DAMPER

FIRE/SMOKE DAMPER (---◄ = HORIZ DUCT, ---◄ = VERT DUCT), 2-HR RATED, UON

FIRE DAMPER (---◄ = HORIZ DUCT, ---◄ = VERT DUCT), 2-HR RATED, UON

90° ELBOW, R/D OR R/W=1.5

SQUARE CORNER ELBOW WITH TURNING VANES

90° TAKE-OFF OR TEE

90° CONICAL TAKE-OFF

45° LATERAL TAKE-OFF

TRANSITION OR REDUCER (FOT = FLAT ON TOP, FOB = FLAT ON BOTTOM)

WYE FITTING

90° RECTANGULAR TAKE-OFF WITH 45° TAPER

90° DIVERGING RECTANGULAR TEE, EITHER RADIUS OR TURNING VANES

PARALLEL FLOW BRANCH CONNECTION, EITHER RADIUS OR TURNING VANES

FLEXIBLE DUCT

ROUND DUCT INDICATOR

EF-1

DSO

①

Ⓜ

Ⓢ

CD-12x12 400 OR CD-1 400

50

18x12

UP DOWN

UP DOWN

UP DOWN

FSD

FD

90°

90°

90°

45°

90°

90°

90°

Ø

EQUIPMENT

TYPICAL EQUIPMENT DESIGNATION (EXHAUST FAN SHOWN)

DUCT SMOKE DETECTOR

ROOM THERMOSTAT OR TEMPERATURE TRANSMITTER

ROOM HUMIDISTAT OR HUMIDITY TRANSMITTER

CARBON MONOXIDE SENSOR

SMOKE DETECTOR

TERMINALS

DIFFUSER/GRILLE TYPE, AND NUMBER OR SIZE

DESIGN CFM (WHERE APPLICABLE) CEILING DIFFUSER (FLOW ARROWS SHOWN FOR NON SYMMETRICAL AIRFLOW)

CEILING RETURN/EXHAUST GRILLE

LINEAR DIFFUSER, CEILING OR WALL MOUNTED (FLOW ARROWS SHOWN FOR NON SYMMETRICAL AIRFLOW)

WALL SUPPLY GRILLE (SG)

WALL RETURN/EXHAUST GRILLE (RG, EG)

TRANSFER GRILLE (TG), DUCT CONNECTED, WALL MOUNTED W/ OPTIONAL CFM SHOWN

TRANSFER GRILLE, CEILING MOUNTED WITH FULL-SIZED LINED DUCT CONNECTION

DRAWING INDEX

Sheet Number	Sheet Title	PERMIT SET 06/27/2025				
M0.1	LEGEND, GENERAL NOTES, & DRAWING INDEX	X				
M0.1	MECHANICAL SCHEDULES & WSEC FORMS	X				
M2.0	HVAC PLAN FLOOR PLAN	X				
M2.1	HVAC PLAN ROOF PLAN	X				

ROOFTOP HVAC UNIT SCHEDULE																
EQUIP NO.	SERVICE	DISCHARGE	SUPPLY FAN			PROVIDE 100% OSA ECONOMIZER?	COOLING		HEATING			ELECTRICAL			WEIGHT, LBS	BASIS OF DESIGN (1)
			AIRFLOW, CFM	ESP, IN WG	MOTOR HP		CAPACITY, MBH	IEER/ EER	CAPACITY @ 47F MBH	CAPACITY @ 17F MBH	COP	VOLTAGE	MCA	MOCp		
RTU-1	TENANT 1	VERTICAL	3477	0.6	3.5	YES	101.6	14.1/11.0	100	61	3.4	208V/3P	129	150	1237	DAIKIN DFH1023W000043C
RTU-2	TENANT 1	VERTICAL	3477	0.6	3.5	YES	101.6	14.1/11.0	100	61	3.4	208V/3P	129	150	1237	DAIKIN DFH1023W000043C
RTU-3	TENANT 2	VERTICAL	2464	0.6	2.3	YES	69.78	17.0/11.5	62	33	3.4	208V/3P	70.7	80	708	DAIKIN DRH0723W000114C
RTU-4	TENANT 2	VERTICAL	2464	0.6	2.3	YES	69.78	17.0/11.5	62	33	3.4	208V/3P	70.7	80	708	DAIKIN DRH0723W000114C

FAN SCHEDULE									
EQUIP NO.	SERVICE	TYPE	AIRFLOW, CFM	ESP. IN WG	ELECTRICAL		OPERATION	WEIGHT, LBS	BASIS OF DESIGN (1)
					VOLTAGE	HP			
EF-1	BATHROOM	ROOFTOP	350	0.5	115V/1P	1/10	CONTINUOUS	30	GREENHECK CUE-090-VG

PUBLIC SPACES OUTSIDE AIR VENTILATION CALCULATIONS (1)								
ROOM	ROOM SQUARE FOOTAGE	ROOM OCCUPANTS	MINIMUM CFM PER SQUARE FOOT	MINIMUM CFM PER PERSON	MINIMUM REQUIRED CFM BY AREA	MINIMUM REQUIRED CFM BY PERSON	TOTAL REQUIRED OSA CFM (AREA + PEOPLE)	TOTAL OSA CFM PROVIDED
LOBBY/ RECEPTION	308	10	0.06	5	18	50	68	100
TRAINING AREA	378	10	0.06	20	23	200	223	250

ELECTRIC HEATERS					
EQUIP NO.	SERVICE	MOUNTING/ DISCHARGE	HEATING	ELECTRICAL	BASIS OF DESIGN (3)
			KW	VOLTAGE	
EWH-1.0	RISER ROOM	WALL	1.0	208V/1P	(1)(2)

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MINELSON F:\810-010 EAST TOWN CROSSING\DWG\M000 COVER SHEET.DWG 01-02-2021 13:58



TENANT #1
100
A: 2,914 sq ft

DUCTWORK, RETURN, SUPPLY,
DAMPERS, AND VENTILATION TO BE
INSTALLED UNDER FUTURE PERMIT.

TRAINING AREA
TENANT #2
102
A: 1,922 sq ft

RISER RM
401
SF74 sq ft

EWH-1.0

LOBBY / RECEPTION

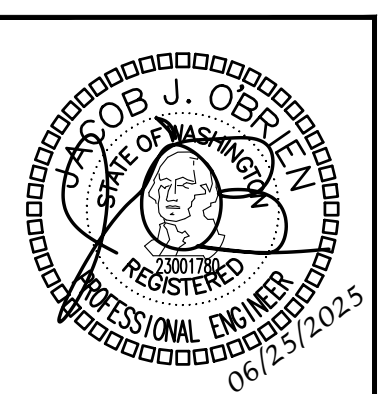
EW-1.0

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



**ROBISON
ENGINEERING, INC**

19401 40TH AVE W., SUITE 302
LYNNWOOD, WA 98036
206-364-3343 TEL.



DRAWN:	OP
DESIGNED:	ABE
CHECKED:	PR
APPROVED:	JMR

PROJECT: EAST TOWN CROSSING COMMERCIAL LOT 1
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

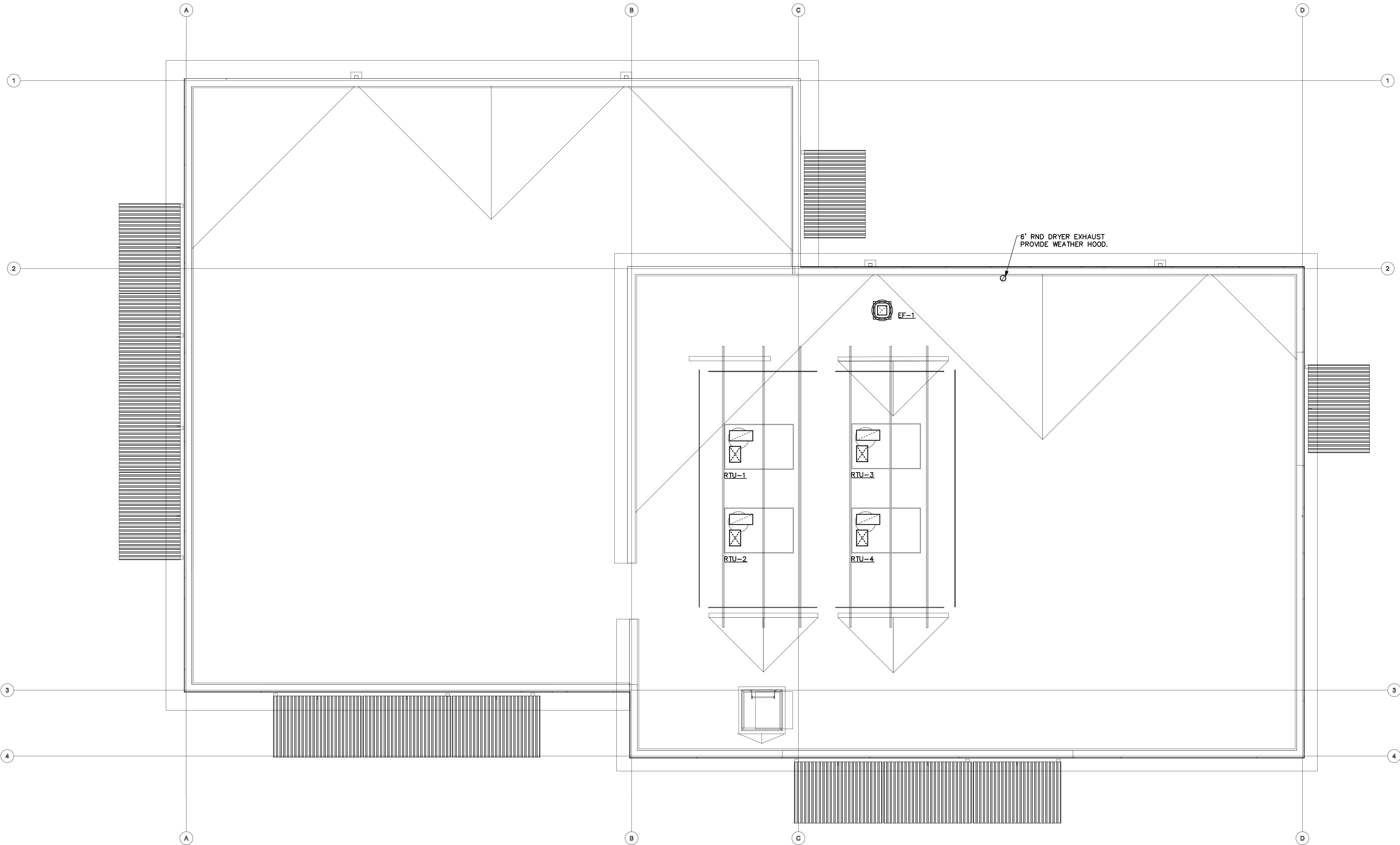
19401 40TH AVE W. SUITE 302
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PHONE: (206) 364-3343
FAX: (206) 364-3343
E-MAIL: ARIK@ARIKESPINELI.COM
PROJECT NO.: 810010
CONTACT: ARIK ESPINELI



ROBISON
ENGINEERING, INC.

SHEET TITLE:
HVAC PLAN FLOOR PLAN

M2.0

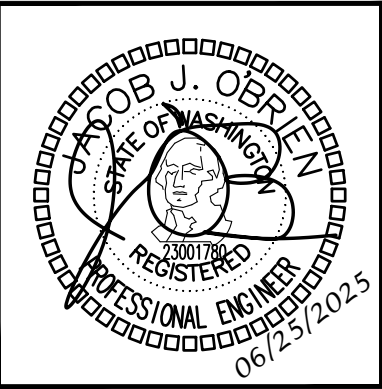
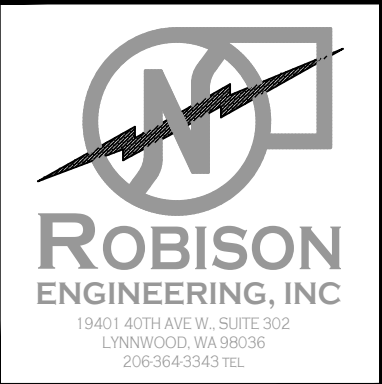


HVAC ROOF PLAN

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

Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.

REVISIONS	
NO.	DESCRIPTION



OP	DRAWN:
ABE	DESIGNED:
PR	CHECKED:
JMR	APPROVED:

PROJECT: EAST TOWN CROSSING COMMERCIAL LOT 1
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: 206-364-3343
RE: PROJECT NO. 810010
CONTACT: ARK ESPINELLI

DATE:
06/25/2025

SHEET TITLE:
HVAC PLAN ROOF PLAN

SHEET NO.
M2.1

PLUMBING TABLES

PIPE MATERIALS			
PIPE TYPE	MATERIAL	JOINT	NOTES
UNDERGROUND WATER SERVICE ENTRANCE PIPING	STAINLESS	THREADED, WELDED OR PROPPRESS	2
WATER DISTRIBUTION PIPING - MAIN DISTRIBUTION PIPING	SCHEDULE 80 CPVC	SOLVENT CEMENT	4
UNDERGROUND WASTE AND VENT PIPING	SCHEDULE 40 SOLID WALL PVC	SOLVENT CEMENT	
ABOVE GROUND WASTE AND VENT PIPING	SCHEDULE 40 ABS OR PVC	SOLVENT CEMENT	
CONDENSATE DRAIN PIPING	COPPER, TYPE M	SOLDERED	3

NOTES:

- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- PLASTIC WRAP UNDERGROUND WATER SUPPLY PIPING TO PREVENT CORROSION.
- CPVC IS ACCEPTABLE FOR CONDENSATE PIPING IN LIEU OF COPPER IF APPROVED BY AHJ.
- PROVIDE THERMAL EXPANSION LOOPS FOR ALL WATER PIPING PER MANUFACTURER REQUIREMENTS.

SERVICE	INSULATION		VAPOR RETARDER REQUIRED	NOTES
	CONDUCTIVITY (Btu" in./ (h"ft ² "F)	THICKNESS		
DOMESTIC COLD WATER, IRRIGATION WATER, CONDENSATE DRAINS, STORM DRAIN (IN CONDITIONED SPACE)	0.21-0.27	<1" PIPE: 0.5" ALL OTHER SIZES: 1"	YES	12,13
DOMESTIC COLD WATER, IRRIGATION WATER, CONDENSATE DRAINS, WASTE (OUTSIDE THE CONDITIONED SPACE)	0.21-0.27	<1½" PIPE: 1" ALL OTHER SIZES: 1.5"	YES	1,7,8,10
DOMESTIC HOT WATER AND RECIRCULATED HOT WATER (OUTSIDE THE CONDITIONED SPACE)	0.21-0.28	<1½" PIPE: 1" ALL OTHER SIZES: 1.5"	NO	1,2
EXPOSED SANITARY DRAINS AND DOMESTIC WATER SUPPLIES AND STOPS FOR ADA FIXTURES	TRUEBRO LAV-GUARD	N/A	NO	11

Note #2 references the residential edition of the 2021 WSEC, which does not apply to this project. Please revise this note to conform to the commercial edition of the 2021 Washington State Energy Code.

NOTES:

- PIPING INSULATION EXPOSED TO THE WEATHER SHALL BE PROTECTED FROM DAMAGE. CONTRACTOR SHALL PROVIDE ALUMINUM JACKET SHIELDING FROM SOLAR RADIATION THAT CAN CAUSE DEGRADATION OF THE MATERIAL. ADHESIVE TAPE SHALL NOT BE PERMITTED.
- PER 2021 WSEC SECTION R403.5.3 (RESIDENTIAL) INSULATION FOR HOT WATER PIPE SHALL HAVE A MINIMUM R-VALUE OF R-3.
- PIPING FROM WATER HEATER TO THE TERMINATION OF HEATED WATER SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.2.9.
- ON BOTH THE INLET AND OUTLET PIPING OF A STORAGE HOT WATER HEATER, THE FIRST 8 FEET OF PIPING OR PIPING FROM WATER HEATER TO HEAT TRAP SHALL BE INSULATED.
- HEAT TRACED PIPING SHALL BE INSULATED IN THE SAME MANNER AS NON HEAT TRACED PIPING OR PER THE HEAT TRACE MANUFACTURER'S INSTRUCTIONS.
- TUBULAR PIPING INSULATION SHALL NOT BE REQUIRED FOR THE FOLLOWING:
 - THE TUBING FROM THE CONNECTION AT THE TERMINATION OF THE FIXTURE SUPPLY PIPING TO A PLUMBING FIXTURE OR PLUMBING APPLIANCE.
 - VALVES, PUMPS, STRAINERS, AND THREADED UNIONS IN PIPING THAT IS 1 INCH OR LESS IN NOMINAL DIAMETER.
 - PIPING FROM USER-CONTROLLED SHOWER AND BATH MIXING VALVES TO THE WATER OUTLETS.
 - COLD WATER PIPING OF A DEMAND RECIRCULATION WATER SYSTEM.
 - TUBING FROM A HOT DRINKING-WATER HEATING UNIT TO THE WATER OUTLET.
 - PIPING AT LOCATIONS WHERE A VERTICAL SUPPORT OF THE PIPING IS INSTALLED.
 - PIPING SURROUNDED BY BUILDING INSULATION WITH A THERMAL RESISTANCE (R-VALUE) OF NOT LESS THAN R-3.
 - HOT WATER PIPING THAT IS PART OF THE FINAL PIPE RUN TO THE PLUMBING FIXTURE AND IS NOT PART OF THE HEATED-WATER CIRCULATION SYSTEM CIRCULATION PATH IS NOT REQUIRED TO MEET THE MINIMUM INSULATION REQUIREMENTS OF C404.6.
- PER 2021 UPC SECTION 312.6 NO WATER, SOIL, OR WASTE PIPE SHALL BE INSTALLED OR PERMITTED OUTSIDE OF A BUILDING, IN ATTICS OR CRAWL SPACES, OR IN AN EXTERIOR WALL UNLESS, WHERE NECESSARY, ADEQUATE PROVISION IS MADE TO PROTECT SUCH PIPE FROM FREEZING. ALL HOT AND COLD WATER PIPES OUTSIDE THE CONDITIONED SPACE SHALL BE PROVIDED WITH INSULATION WITH A MINIMUM R-VALUE OF R-3.
- HEAT TRACING SHALL BE PROVIDED FOR COLD WATER AND IRRIGATION WATER IN UNCONDITIONED SPACES. CONTACT ENGINEERING IF NECESSARY. PER 2021 WSEC SECTION C403.12.3 FREEZE PROTECTION SYSTEMS, SUCH AS HEAT TRACING OF OUTDOOR PIPING, SHALL INCLUDE AUTOMATIC CONTROLS CONFIGURED TO SHUT OFF THE SYSTEMS WHEN OUTDOOR AIR TEMPERATURES ARE ABOVE 40°F.
- PER 2021 WSEC TABLE C403.2.9 INSULATION FOR HOT WATER AND HOT WATER RECIRCULATION SHALL HAVE A THERMAL CONDUCTIVITY OF 0.21-0.28 (BTU/INH.FT.².F) AT OPERATING TEMPERATURE.
- INSULATION R-VALUE SHALL MEET THE MINIMUM REQUIREMENT. THICKNESS IS BASED ON GRAINGER SAMPLE DATA FOR K-FLEX(PVC/NBR) AND OWENS CORNING(FIBER GLASS).
- ALL ADA P-TRAPS, HOT WATER SUPPLY TUBING, AND SHUT-OFF COCKS SHALL BE PROTECTED WITH APPROVED COVERS TO PREVENT SCALDING.
- REQUIRED BY ENGINEERING BASED ON BEST PRACTICE.
- INSULATION IS NOT REQUIRED ON PLASTIC COLD WATER PIPING.

HANGER SPACING FOR WATER PIPING		
ALL SUSPENDED WATER SUPPLY PIPE SHALL BE SUPPORTED AS FOLLOWS PER 2021 UPC TABLE 313.3:		
	MAX. HORIZONTAL SPACING	MAX. VERTICAL SPACING
CPVC PIPE <1"	3 FT.	10 FT.
CPVC PIPE >1½"	4 FT.	10 FT.
STEEL GAS ½"	6 FT.	6 FT.
STEEL GAS ¾"-1"	8 FT.	8 FT.
STEEL GAS > 1½"	10 FT.	10 FT.
PEX < 1"	32 IN.	10 FT.
PEX > 1½"	4 FT.	10 FT.

HANGER SPACING FOR WASTE AND VENT PIPING		
ALL SUSPENDED SANITARY AND VENT PIPE SHALL BE SUPPORTED AS FOLLOWS PER 2021 UPC TABLE 313.3:		
	MAX. HORIZ. SPACING	MAX. VERT. SPACING
ABS	4 FT.	10 FT.
PVC (TYPE DWV)	4 FT.	10 FT.
CAST-IRON HUBLESS*	EVERY OTHER JOINT	15 FT.
*CAST-IRON OVER 4" SHALL BE SUPPORTED AT EVERY JOINT		

PLUMBING FIXTURE FLOW RATES PER 2021 UPC CH. 4		
FIXTURE TYPE	FLOW RATE	NOTES
SHOWERHEADS	1.8 GPM @ 80 PSI	
LAVATORY FAUCETS, RESIDENTIAL	1.2 GPM @ 60 PSI	1
LAVATORY FAUCETS, NON-RESIDENTIAL	0.5 GPM @ 60 PSI	2
KITCHEN FAUCETS	1.8 GPM @ 60 PSI	3
GRAVITY TANK-TYPE WATER CLOSETS	1.28 GALLONS/FLUSH	4
FLUSHOMETER TANK WATER CLOSETS	1.28 GALLONS/FLUSH	4
FLUSHOMETER VALVE WATER CLOSETS	1.28 GALLONS/FLUSH	4
ELECTROMECHANICAL HYDRAULIC WATER CLOSETS	1.28 GALLONS/FLUSH	4
URINALS	0.125 GALLONS/FLUSH	

NOTES:

- LAVATORY FAUCETS SHALL NOT HAVE A FLOW RATE LESS THAN 0.8 GPM AT 20 PSI.
- WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS RATED AT 0.35 GPM OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION.
- KITCHEN FAUCETS MAY TEMPORARILY INCREASE FLOW ABOVE THE MAXIMUM RATE, BUT NOT ABOVE 2.2 GPM @ 60 PSI AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GPM @ 60 PSI.
- INCLUDES SINGLE AND DUAL FLUSH WATER CLOSETS WITH AN EFFECTIVE FLUSH OF 1.6 GALLONS OR LESS. SINGLE FLUSH TOILETS – THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.6 GALLONS. THE EFFECTIVE FLUSH VOLUME IS THE AVERAGE FLUSH VOLUME WHEN TESTED IN ACCORDANCE WITH ASME A112.19.2 DUAL FLUSH TOILETS – THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.6 GALLONS. THE EFFECTIVE FLUSH VOLUME IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. FLUSH VOLUMES WILL BE TESTED IN ACCORDANCE WITH ASME A112.19.2 AND ASME A112.19.14.

PLUMBING NOTES

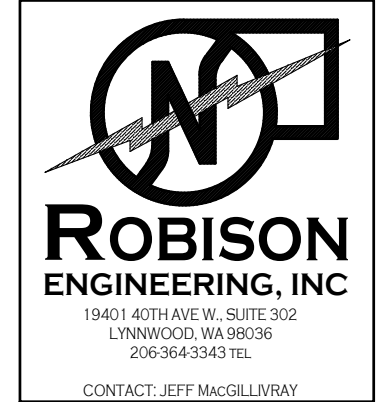
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- CONNECTIONS: PROVIDE PLUMBING FIXTURE CONNECTIONS TO BUILDING WASTE, VENT, COLD WATER, AND HOT WATER SYSTEM IN ACCORDANCE WITH DRAWINGS, MANUFACTURER'S RECOMMENDATIONS, AND LOCAL CODES. CONNECT TO EACH FIXTURE, EQUIPMENT, ETC. WITH ALL ACCESSORIES, VALVES, VACUUM BREAKERS, REGULATORS, UNIONS, ETC. AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURERS. REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON PLANS.
- HOT AND COLD: WATER PIPING CONNECTION TO EACH FIXTURE SHALL BE COLD WATER ON THE RIGHT HAND SIDE AND HOT WATER ON THE LEFT HAND SIDE.
- HOT WATER: NON-CIRCULATING HOT WATER PIPE SHALL NOT EXCEED 10' UNLESS OTHERWISE SHOWN ON DRAWINGS.
- VENT STACKS: COORDINATE VENT STACK WITH HVAC EQUIPMENT TO MAINTAIN MINIMUM 10' CLEARANCE FROM OUTSIDE AIR INTAKES.
- CLEANOUTS: PROVIDE CLEANOUTS PER CURRENT UPC AND AS REQUIRED BY LOCAL JURISDICTIONS. CLEANOUTS SHALL BE LOCATED IN WALLS/FLOORS WHERE THEY ARE NOT HIGHLY VISIBLE. FLOOR CLEANOUTS IN CARPETED AREAS TO BE FITTED WITH CARPET INSERTS. LOCATIONS SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL. NOTE: NOT ALL CLEANOUTS ARE SHOWN ON THE PLUMBING DRAWINGS.
- SUDS RELIEF: PROVIDE SUDS RELIEF IN ACCORDANCE WITH 2021 UPC SECTION 711.0, STATE AND LOCAL CODES.
- SHUT-OFFS: PROVIDE 1/4 TURN BALL VALVE ANGLE STOP SHUT-OFF VALVES AND BRAIDED STAINLESS STEEL FLEX CONNECTORS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE. EXCEPTION: PROVIDE SCREWDRIVER STOPS AT BATHSHOWERS.
- TUB SPOUTS SHALL BE THREADED (NO PUSH-ON FITTINGS).
- TRAP ARMS: PROVIDE TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED CODE REQUIREMENTS.
- ADA INSULATION: AT PLUMBING PIPING EXPOSED UNDER LAVATORIES, INSULATE THE EXPOSED PIPING AND TRAPS WITH PRODUCT SPECIFICALLY DESIGNED FOR THIS APPLICATION MEETING ADA REQUIREMENTS. PROVIDE HANDI-LAV GUARD OR EQUIVALENT. OFFSET P-TRAPS TO CLEAR WHEELCHAIR ACCESS.
- GAS EQUIPMENT: GAS EQUIPMENT SHALL BE INSTALLED PER EQUIPMENT LISTINGS, APPLICABLE SFGC, SPC, LOCAL CODES & NFPA STANDARDS.
- GAS CONNECTIONS: INSTALL FLEXIBLE QUICK DISCONNECT ASSEMBLIES FOR ALL GAS FIRED KITCHEN EQUIPMENT PER APPLICABLE SFGC, SPC, LOCAL CODES & NFPA STANDARDS. PROVIDE LOCKABLE GAS SHUT-OFF VALVES FOR FIREPLACES & BBQS IN UNATTENDED PUBLIC LOCATIONS IN THE BUILDING.
- GAS PIPING CONNECTIONS TO WATER HEATERS, BOILERS AND FURNACES SHALL HAVE DIRT LEGS AND UNIONS PROVIDED ON APPLIANCE SIDE OF SHUTOFF VALVE.
- GAS PIPING INSTALLATION: STEEL OR MALLEABLE IRON FUEL LINES 2" OR SMALLER SHALL BE ASSEMBLED USING THREAD SEALANT SUITABLE FOR NATURAL GAS. GAS PIPING LARGER THAN 2" SHALL HAVE WELDED FITTINGS.
- GAS PIPING UNDERGROUND: WHERE INSTALLED BELOW GRADE THROUGH THE OUTER FOUNDATION OR BASEMENT WALL OF A BUILDING, SHALL BE ENCASED IN A PROTECTIVE PIPE SLEEVE. THE ANNULAR SPACE BETWEEN THE GAS PIPING AND THE SLEEVE SHALL BE SEALED.
- GAS PIPING ABOVE GROUND: WHERE PASSING THROUGH AN OUTSIDE WALL, GAS PIPING SHALL BE PROTECTED AGAINST CORROSION BY COATING OR WRAPPING WITH AN INERT MATERIAL. WHERE PIPING IS ENCASED IN A PROTECTIVE PIPE SLEEVE, THE ANNULAR SPACE BETWEEN THE PIPING AND THE SLEEVE SHALL BE SEALED.
- GAS PIPE SUPPORT: FUEL LINES SHALL BE SUPPORTED OR STRAPPED, AND SHALL BE PLUMB AND SQUARE.
- GAS PIPING ON ROOFTOPS SHALL BE SUPPORTED AND ANCHORED TO THE ROOF.
- GAS PIPING SHALL NOT BE BURIED UNDER A BUILDING, SLAB OR OTHER STRUCTURE.
- GAS PIPING PROTECTIVE COATING: PAINT ALL EXTERIOR EXPOSED GAS PIPING WITH TWO COATS OF ROOF INHIBITIVE PAINT. COLOR: GRAY.
- WATER HAMMER ARRESTORS: PROVIDE AT THE END OF HOT AND COLD WATER LINES SERVING TWO OR MORE FIXTURES; SIZE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE (PDI) REQUIREMENTS. WATER HAMMER ARRESTORS ARE REQUIRED FOR QUICK CLOSING VALVES, SUCH AS LAUNDRY WASHERS, FLUSH VALVES (PUBLIC TOILETS), ETC.
- TRAP PRIMERS AS SPECIFIED: PROVIDE TRAP PRIMERS AND PIPING FOR FLOOR DRAINS, FLOOR SINKS, AREA DRAINS & HUB DRAINS. ARRANGE PIPING TO ACHIEVE EQUAL FLOW TO EACH DRAIN AND FLOOR SINK FOR TRAP PRIMERS SERVING MULTIPLE DRAINS AND FLOOR SINKS. COORDINATE EXACT LOCATIONS WITH ARCHITECT & ELECTRICAL ENGINEER.
- P-TRAPS: ALL EXPOSED P-TRAPS SHALL BE CHROME-PLATED BRASS. P-TRAPS SERVING HANDICAPPED COUNTER TOP LAVATORIES SHALL BE INSULATED.
- THROUGHOUT THE PROJECT PROVIDE BALL VALVES. GATE VALVES SHALL NOT BE USED. NO EXCEPTIONS.
- HOT WATER RECIRCULATING BALANCING VALVES SHOULD BE BELL & GOSSETT CIRCUIT SETTER (WATTS OR EQUAL) WITH INTEGRAL READOUT PORTS, ADJUSTMENT KNOB, DRAIN CONNECTION, AND POSITIVE SHUTOFF.
- DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS, CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.
- REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.
- VALVE TAGS: PROVIDE VALVE TAGS PER SPECIFICATIONS TO IDENTIFY VALVE AND THE AREA IT SERVES.
- OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.
- ALL TEMPERATURE MIXING VALVES SHALL COMPLY WITH ASSE-1070 SAFETY STANDARDS.
- PROVIDE PIPE MARKER WITH DIRECTION OF FLOW. LABEL "NON-POTABLE WATER DO NOT DRINK" CLEARLY ON NON-POTABLE WATER PIPING.
- PROVIDE EXPANSION LOOPS/EXPANSION JOINTS IN PIPING PER 2021 UPC TABLE 313.3 AND MANUFACTURER INSTALLATION INSTRUCTIONS.
- PROVIDE APPROVED PIPE HANGERS & PIPE SUPPORTS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND 2021 UPC TABLES 313.3 & 313.6. SUBMIT FOR APPROVAL.
- DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.
- REFRIGERANT PIPING: PROVIDE SIZING & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING. CONDENSATE DRAINS SHALL BE DISCHARGED TO AN INDIRECT WASTE OR OUTSIDE.
- PIPING & EQUIPMENT SUPPORTS/HANGERS & SEISMIC RESTRAINTS TO BE DESIGNED BY DESIGN BUILT CONTRACTOR.
- IF NEEDED, PROVIDE VACUUM BREAKERS AT ALL HOSE BIBBS.
- FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS IN ACCORDANCE WITH 2021 UPC 1007.0.
- INSULATION MATERIAL SHALL MEET CITY OF PUYALLUP QUALITY STANDARDS.
- ALL PIPING AND DUCTWORK SHALL BE INSULATED CONSISTENT WITH THE 2021 WASHINGTON STATE ENERGY CODE.
- BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH 2021 UPC 701.0 AND 903.0.
- ALL SANITARY SYSTEM MATERIAL SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- ALL STORAGE WATER HEATING EQUIPMENT SHALL BE PROVIDED WITH AN APPROVED, LISTED EXPANSION TANK OR OTHER DEVICE DESIGNED FOR INTERMITTENT OPERATION FOR THERMAL EXPANSION CONTROL PER 2021 UPC 608.3.
- WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENTS DUE TO SEISMIC MOTION PER 2021 UMC 507.2.
- MATERIAL EXPOSED WITHIN A DUCT OR PLENUM SHALL COMPLY WITH 2021 IMC 602.2.1.
- HVAC EQUIPMENT AND WATER HEATERS SHALL COMPLY WITH 2021 IMC CHAPTER 3.
- BOILERS SHALL COMPLY WITH ALL THE REQUIREMENTS OF 2021 UPC 505.4.
- PROVIDE EXPANSION TANKS FOR BOILERS PER 2021 UPC SECTION 608.3.
- SHOWERS AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER 2021 UPC 408.0.
- PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH CITY OF PUYALLUP WATER CONSERVATION STANDARDS.
- CONTRACTOR SHALL PROVIDE FIRESTOPPING AT PENETRATIONS AS NECESSARY TO RETAIN THE FIRE RATING OF ALL ASSEMBLIES. ALL WORK SHALL BE IN COMPLIANCE WITH CODE REQUIREMENTS FOR THE BUILDING CONSTRUCTION TYPE.
- ALL GARAGE DRAINS, TRASH ROOMS DRAINS & GARAGE TRENCH DRAINS SHALL BE TAKEN TO SAND/OIL INTERCEPTOR(S) BEFORE CONNECTING TO THE SANITARY SEWER SYSTEM.
- PLUMBING CONTRACTOR SHALL PROVIDE REDUCED PRESSURE BACKFLOW PREVENTERS OR OTHER APPROVED BACKFLOW PREVENTION DEVICE WHERE REQUIRED BY HEALTH AUTHORITIES, FOOD SERVICE DRAWINGS, APPLIANCE MANUFACTURER INSTRUCTIONS AND BY CODE.

PROVIDE REQUIRED & PROPER BACK FLOW PREVENTERS AS SPECIFIED FOR THE APPLIANCES INCLUDING, BUT NOT LIMITED TO: THE FOLLOWING:

- ICE MACHINES AND ICE MAKERS
- CARBONATED BEVERAGE DISPENSING SYSTEMS
- COFFEE BREWERS
- ESPRESSO MACHINES
- WATER FILTERS
- STEAM OR HOT WATER BOILERS
- IRRIGATION SYSTEM
- FIRE PROTECTION SYSTEM
- CHEMICAL TREATMENT SYSTEM
- SOAP/CHEMICAL DISPENSER SYSTEM
- COMMERCIAL WASHER

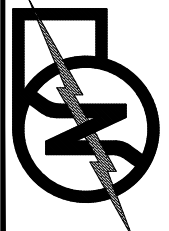
REVIEWS	DESCRIPTION	DATE	NO.						



DRAWN: JM	DESIGNED: JM	CHECKED: RJ	APPROVED: RJ
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PROJECT: EAST TOWN CROSSING
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

19401 40TH AVE W. SUITE 302
LYNNWOOD, WA 98036
PHONE: (206) 864-3343



ROBISON
ENGINEERING, INC

PERMIT PLANS	
06/26/2025	
SHEET TITLE: PLUMBING NOTES AND TABLES	
SHEET NO. P0.01	

Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.

PLUMBING CALCULATIONS

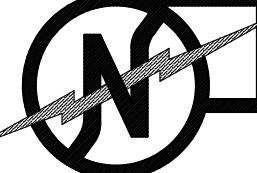
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DOMESTIC WATER PRESSURE CALCULATIONS		PRESSURE CHANGE (PSI)	RESIDUAL PRESSURE (PSI)
BASED ON 2021 UPC APPENDIX A			
(PVC) WATER ENTRY TO BOOSTER PUMP			
STREET PRESSURE, PSI PER CALL WITH PUYALLUP WATER DIVISION. PRESSURE RANGE IS 55-60 PSI.			55
HIGH-FLOW PRESSURE LOSS ALLOWANCE		-4	51
EQUIPMENT LOSSES, PSI			
CIVIL WATER METER		-5	46
CIVIL BACKFLOW PREVENTER		-12	34
SITE SERVICE LINE FRICTION LOSSES(ESTIMATE)			
PIPING SYSTEM LENGTH, FEET	60		
FITTING ALLOWANCE, FEET	20		
AVERAGE FRICTION LOSS FACTOR, PSI/100'	7.0		
TOTAL PIPING FRICTION LOSS		-5.6	28.4
STATIC HEAD, PSI			
TOTAL ELEVATION GAIN, FEET	3	-1.299	27.1
FROM UNDERGROUND WATER SERVICE TO BUILDING WATER ENTRY POINT			
MIN. PRESSURE AT BOOSTER PUMP INLET			27.1
(CPVC) BOOSTER PUMP TO FURTHEST TENANT SUB-METER			
BOOSTER PUMP GAIN			
MINIMUM PRESSURE AT BOOSTER PUMP INLET, PSI			27.1
BOOSTER PUMP PRESSURE GAIN, PSI			52.9
BOOSTER PUMP DISCHARGE PRESSURE, PSI			80.0
STATIC HEAD, PSI			
TOTAL ELEVATION GAIN, FEET	8	-3.464	76.5
PIPING FRICTION LOSSES			
PIPING SYSTEM LENGTH, FEET	110		
FITTING ALLOWANCE, FEET	27.5		
AVERAGE FRICTION LOSS FACTOR, PSI/100'	7.0		
PIPING FRICTION LOSS		-9.625	66.9
MIN. PRESSURE AT FURTHERST UNIT SUB-METER			66.9
(CPVC) FURTHEST ANTICIPATED FIXTURE IN TI			
EQUIPMENT LOSSES PSI			
TENANT SUB-METER		-5	61.9
PEX PIPING FRICTION LOSSES			
PIPING SYSTEM LENGTH, FEET	100		
FITTING ALLOWANCE, FEET	25		
ZONE FRICTION LOSS FACTOR, PSI/100'	7.0		
PIPING FRICTION LOSS		-8.75	53.2
MINIMUM PRESSURE AT FURTHEST FIXTURE, PSI			53.2

FIXTURE UNIT CALCULATIONS - LOT 1											
CALCULATIONS BASED ON 2021 UPC TABLES A103.1 AND 702.1.											
PUBLIC SPACES / MISC.											
FIXTURE	FIXTURE UNITS				FLOOR		TOTAL QTY OF FIXTURES	TOTAL FIXTURE UNITS			
	TOTAL	CW	HW	W/V	1	R		SERVICE	CW ONLY	HW ONLY	W/V ONLY
SUITE 1 COMMERCIAL	30	30	0	40	1	0	1	30	30	0	40
SUITE 2 COMMERCIAL	30	30	0	40	1	0	1	30	30	0	40
HUB DRAIN - 4"	0	0	0	8	1	0	1	0	0	0	8
FLOOR DRAIN - 4"	0	0	0	8	1	0	1	0	0	0	8
HOSE BIB	2.5/1	2.5/1	0	0	2	0	2	3.5	3.5	0	0
								63.5	63.5	0	96
TOTAL		CW	HW	W/V							
TOTAL FIXTURE UNITS:		63.5	63.5	0	96						
DOMESTIC WATER PEAK FLOW:		34.2 GPM									
REQUIRED SERVICE SIZES IN BUILDING:		DOMESTIC WATER				SEWER SIZE					
		SERVICE SIZE:				2"		4"			
						1/4" PER FT					

Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.

REVISED	DESCRIPTION				
	NO.	DATE			



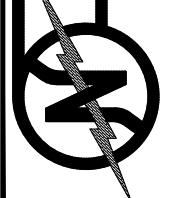
**ROBISON
ENGINEERING, INC**

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LYNNWOOD, WA 98036
206-864-3343 TEL
CONTACT: JEFF MACGILLIVRAY



DRAWN:	JM
DESIGNED:	JM
CHECKED:	RJ
APPROVED:	RJ

PROJECT: **EAST TOWN CROSSING**
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA



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LYNNWOOD, WA 98036
PHONE: 206-864-3343

PERMIT PLANS
06/26/2025

SHEET TITLE:
PLUMBING
CALCULATIONS

SHEET NO.
P0.02

PRCNC20250094

EXPANSION TANK							
EQUIP NO.	SERVICE	CAPACITY (GAL)	TANK SIZE		OPERATING WEIGHT (LBS)	BASIS OF DESIGN	NOTES
			DIAMETER (INCHES)	HEIGHT (INCHES)			
ET-1	BOOSTER PUMP	53	24	45	734	AMTROL WX-447C	1.2

2. ALL DOMESTIC WATER EQUIPMENT SHALL BE NSF-61 LISTED

1. SINGLE POINT CONNECTION.
2. PROVIDE ALL REQUIRED VALVES, PIPING, CONTROLS, ETC. FOR A COMPLETE SYSTEM.
3. PROVIDE VFD'S FOR EACH PUMP.
4. ALL CLEAR WATER PUMPS OVER 2 HORSEPOWER SHALL COMPLY WITH US DEPARTMENT OF ENERGY (DOE) PUMP EFFICIENCY REQUIREMENTS. APPLICABLE PUMPS SHALL BEAR A PUMP EFFICIENCY INDEX (PEI) LABEL.
5. INSTALL PER MANUFACTURER'S RECOMMENDATION AND STATE AND LOCAL AHJ REQUIREMENTS.

The gravity grease interceptor sizing shall comply with UPC Section and Table 1014.3.6. If each tenant has 20 DFUs as labeled on sheet P2.00, a minimum 1,250 gallon grease interceptor is need, so the 1,588 gallon interceptor listed herein would be adequately sized.

1. ELECTRICAL REQUIREMENTS ARE BASED ON NON-SIMULTANEOUS OPERATION
2. FOR WATER HEATER PIPING DIAGRAM SEE DETAIL 1/P4.0.

1. STAINLESS STEEL, SUITABLE FOR POTABLE WATER APPLICATION
2. ALL DOMESTIC WATER EQUIPMENT SHALL BE NSF-61 LISTED.

1. REFER TO ARCH PLANS FOR MOUNTING HEIGHT.
2. CONTRACTOR SHALL CONFIRM MAKE, MODEL, AND FINISH OF ALL FIXTURES WITH OWNER, ARCHITECT, AND INTERIOR DESIGNER PRIOR TO ORDERING.
3. PROVIDE RED/HOT AND BLUE/COLD WATER INDICATORS TO ALL FIXTURES.
4. ALL FIXTURE P-TRAPS SHALL BE CHROME-PLATED BRASS.
5. PROVIDE DAHL 14-TURN BALL VALVE ANGLE STOPS WITH BRAIDED STAINLESS STEEL FLEX CONNECTORS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE EXCEPT SHOWERS AND BATHS.
6. PROVIDE SCREWDRIVER STOPS AT SHOWERS AND BATHS.
7. FLUSH TRIGGER SHALL BE ON WIDE SIDE OF ROOM.
8. SHOWERS AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER UPC SECTION 408.3.
9. PROVIDE LOCKABLE BOX.



**ROBISON
ENGINEERING, INC.**

19401 40TH AVE. W., SUITE 302
LYNNWOOD, WA 98036
206-364-3343 TEL.

CONTACT: JEFF MacGILLIVRAY



DRAWN: JM
DESIGNED: JM
CHECKED: RJ
APPROVED: RJ

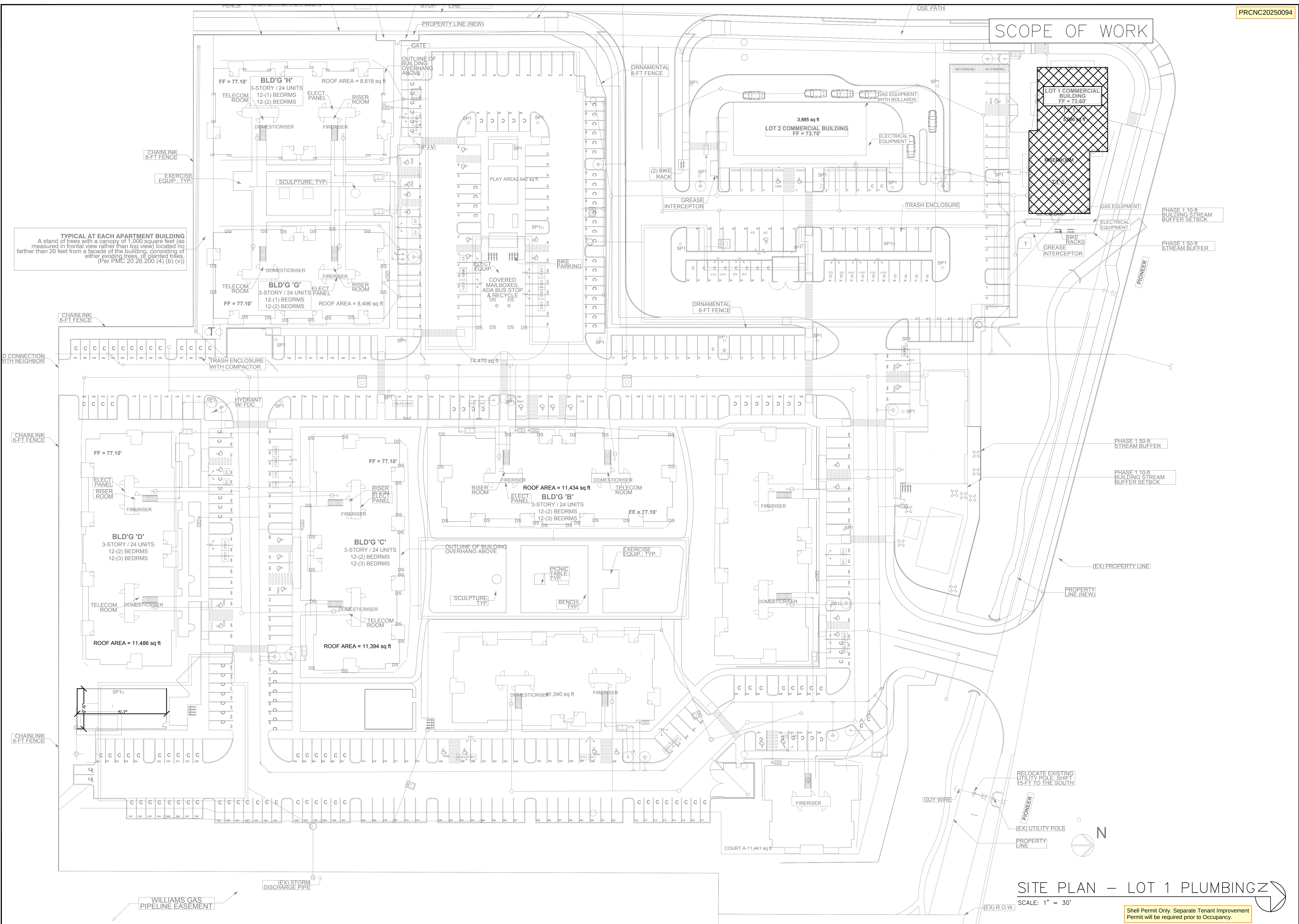
PROJECT: **EAST TOWN CROSSING**
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

ROBISON
 ENGINEERING, INC

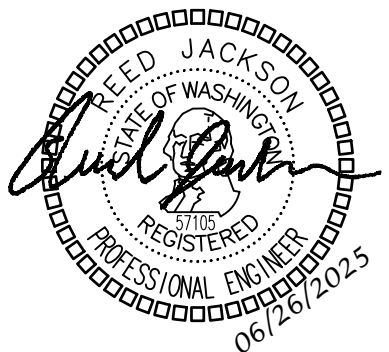
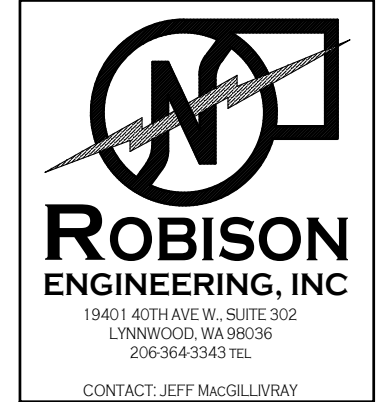
19401 40TH AVE W. SUITE 302
 LYNNWOOD, WA 98036
 PHONE: (206)364.3343

P0.03

Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.



REVISIONS		DESCRIPTION	
NO.	DATE		



DRAWN:	JM
DESIGNED:	JM
CHECKED:	RJ
APPROVED:	RJ

PROJECT: **EAST TOWN CROSSING**
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

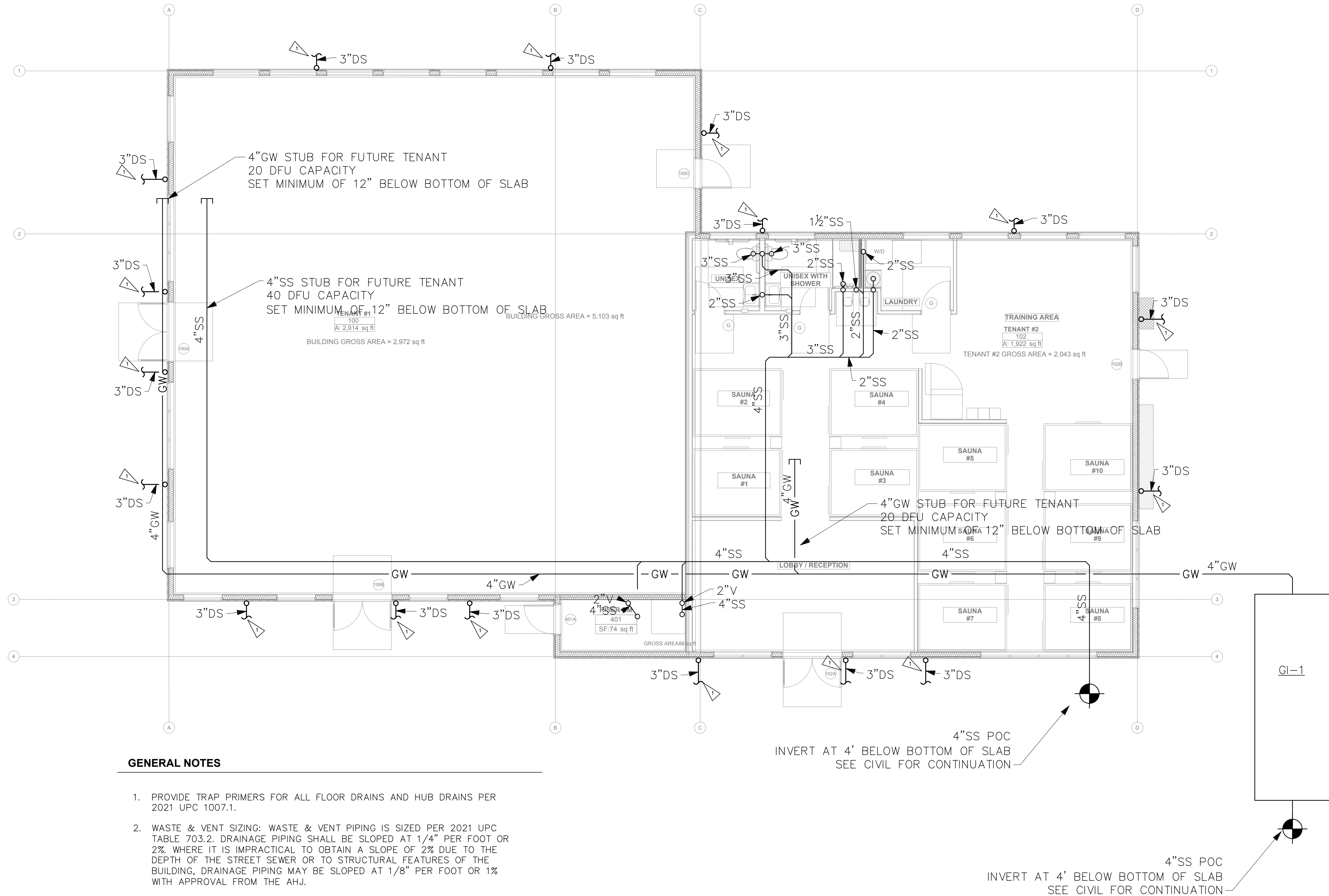
19401 40TH AVE. W. SUITE 302
LYNNWOOD, WA 98036
PHONE: 206-864-3343

ROBISON ENGINEERING, INC.

PERMIT PLANS
06/26/2025

SHEET TITLE:
SITE PLAN - PLUMBING

SHEET NO.
P1.00



GENERAL NOTES

1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS AND HUB DRAINS PER 2021 UPC 1007.1.
2. WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2021 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2% WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

PIPE SIZE	VERTICAL	HORIZONTAL	VENT
1½"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

FLAG NOTES

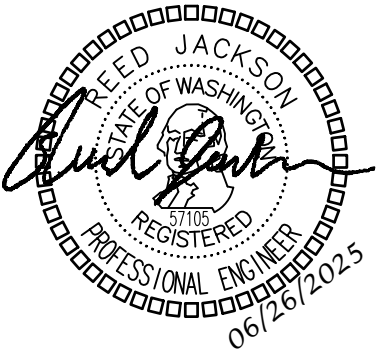
1. 3"DOWNSPOUT - SEE CIVIL FOR CONTINUATION.

UNDERSLAB WASTE & VENT PLAN

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



	REVIEWS	
	NO.	DATE



DRAWN:	JM
DESIGNED:	JM
CHECKED:	RJ
APPROVED:	RJ

PROJECT: **EAST TOWN CROSSING**
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

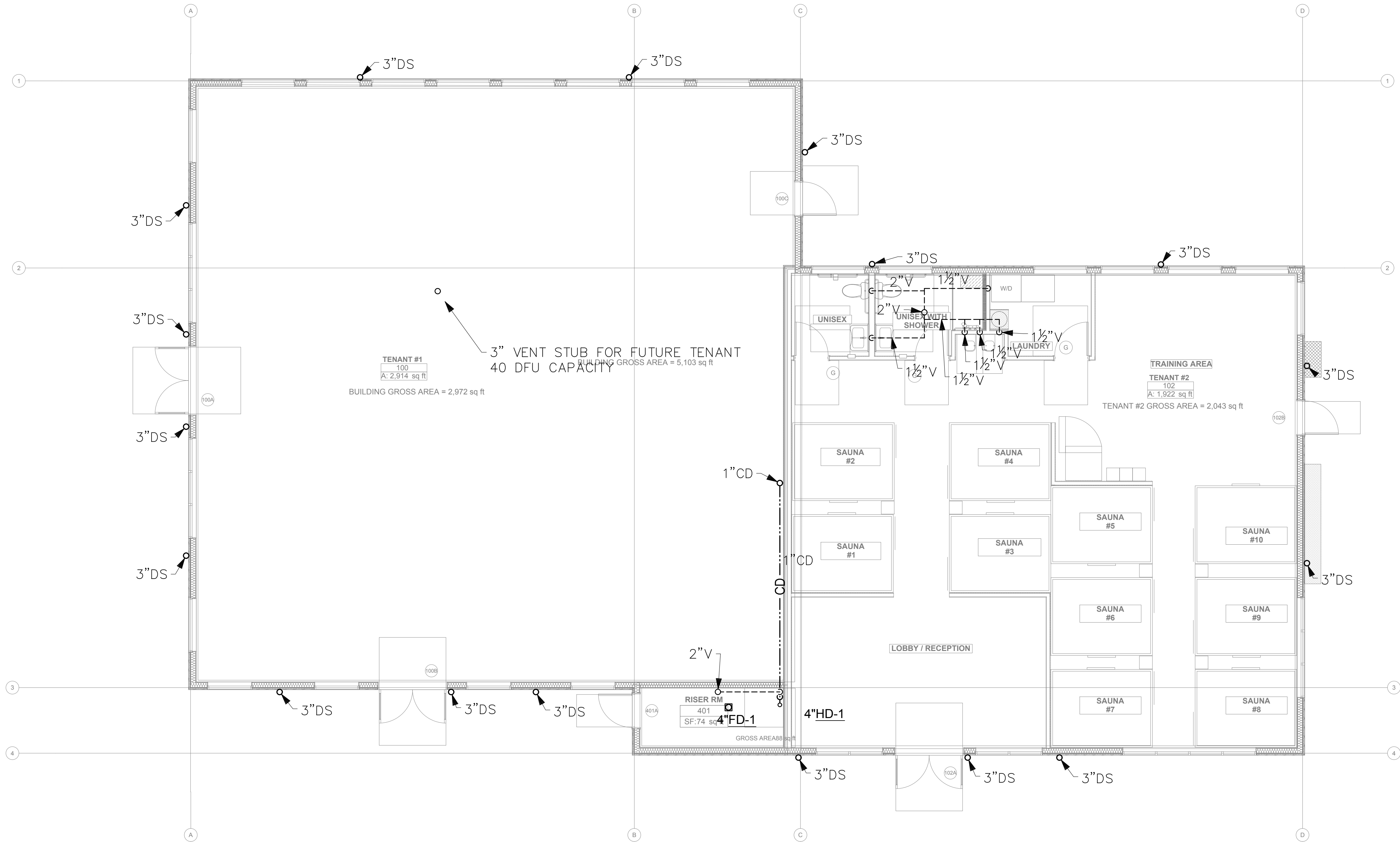
19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: 206-864-3343

ROBISON
ENGINEERING, INC

PERMIT PLANS
06/26/2025

SHEET TITLE:
LOT 1 -
UNDERSLAB
WASTE & VENT
PLAN

SHEET NO.
P2.00



GENERAL NOTES

- PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS AND HUB DRAINS PER 2021 UPC 1007.1.
- WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2021 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

PIPE SIZE	VERTICAL	HORIZONTAL	VENT
1 1/2"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

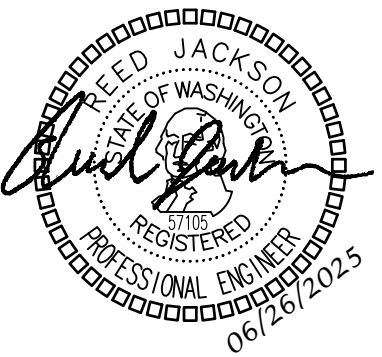
LEVEL 1 WASTE & VENT PLAN

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



Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.

REV	NO.	REVISIONS	
		DATE	DESCRIPTION



DRAWN:	JM
DESIGNED:	JM
CHECKED:	RJ
APPROVED:	RJ

PROJECT: **EAST TOWN CROSSING**
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

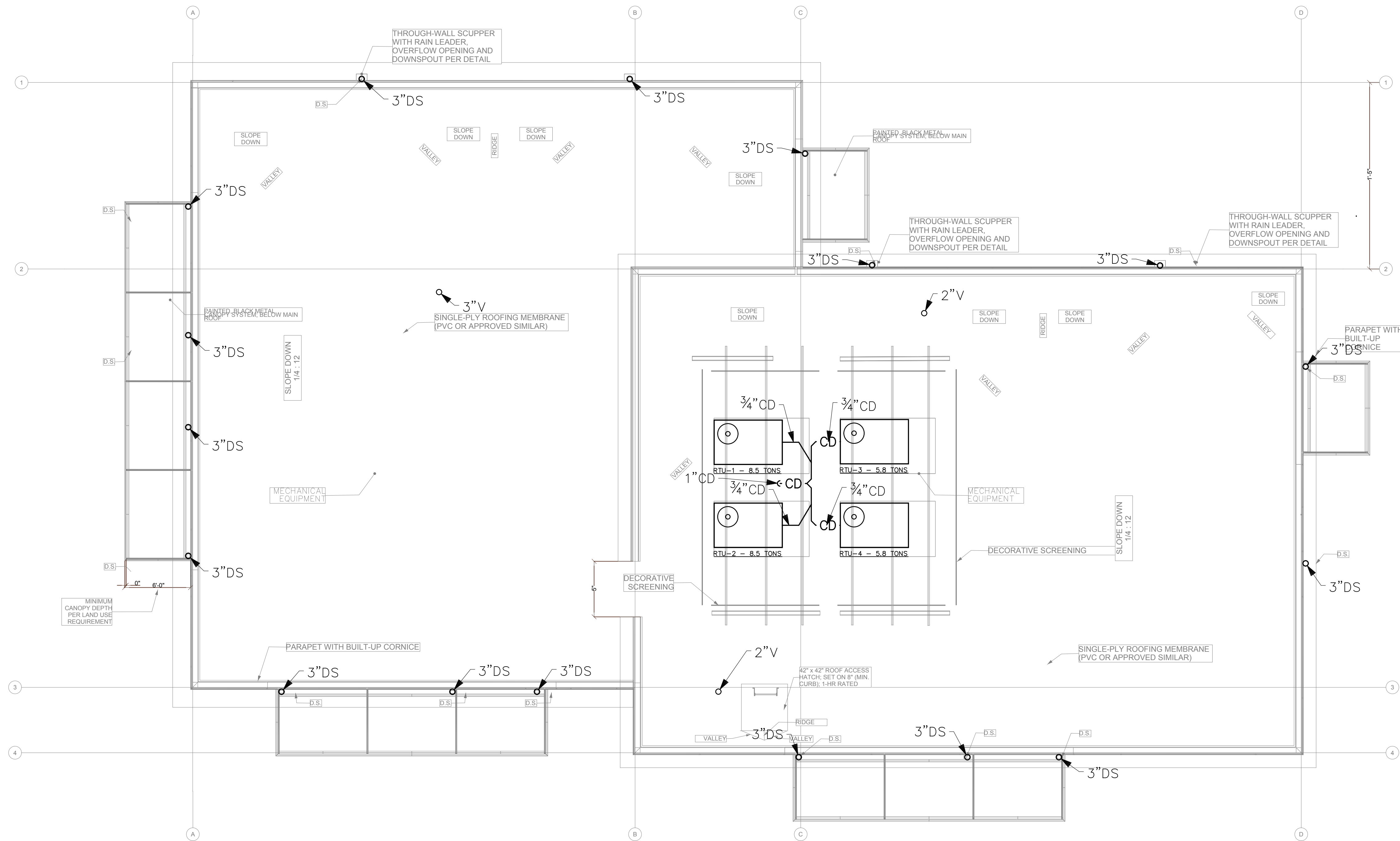
19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: 206-864-3343

ROBISON ENGINEERING, INC.

PERMIT PLANS
06/26/2025

SHEET TITLE:
LOT 1 - LEVEL 1
WASTE & VENT
PLAN

SHEET NO.
P2.01



GENERAL NOTES

- PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS AND HUB DRAINS PER 2021 UPC 1007.1.
- WASTE & VENT SIZING: WASTE & VENT PIPING IS SIZED PER 2021 UPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2%. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL FROM THE AHJ.

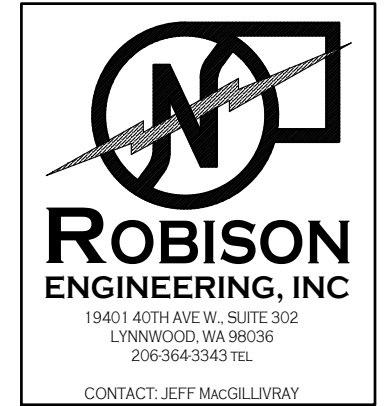
PIPE SIZE	VERTICAL	HORIZONTAL	VENT
1 1/2"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

ROOF WASTE & VENT PLAN

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



REVISIONS		DESCRIPTION	
NO.	DATE		



DRAWN:	JM
DESIGNED:	JM
CHECKED:	RJ
APPROVED:	RJ

PROJECT: **EAST TOWN CROSSING**
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

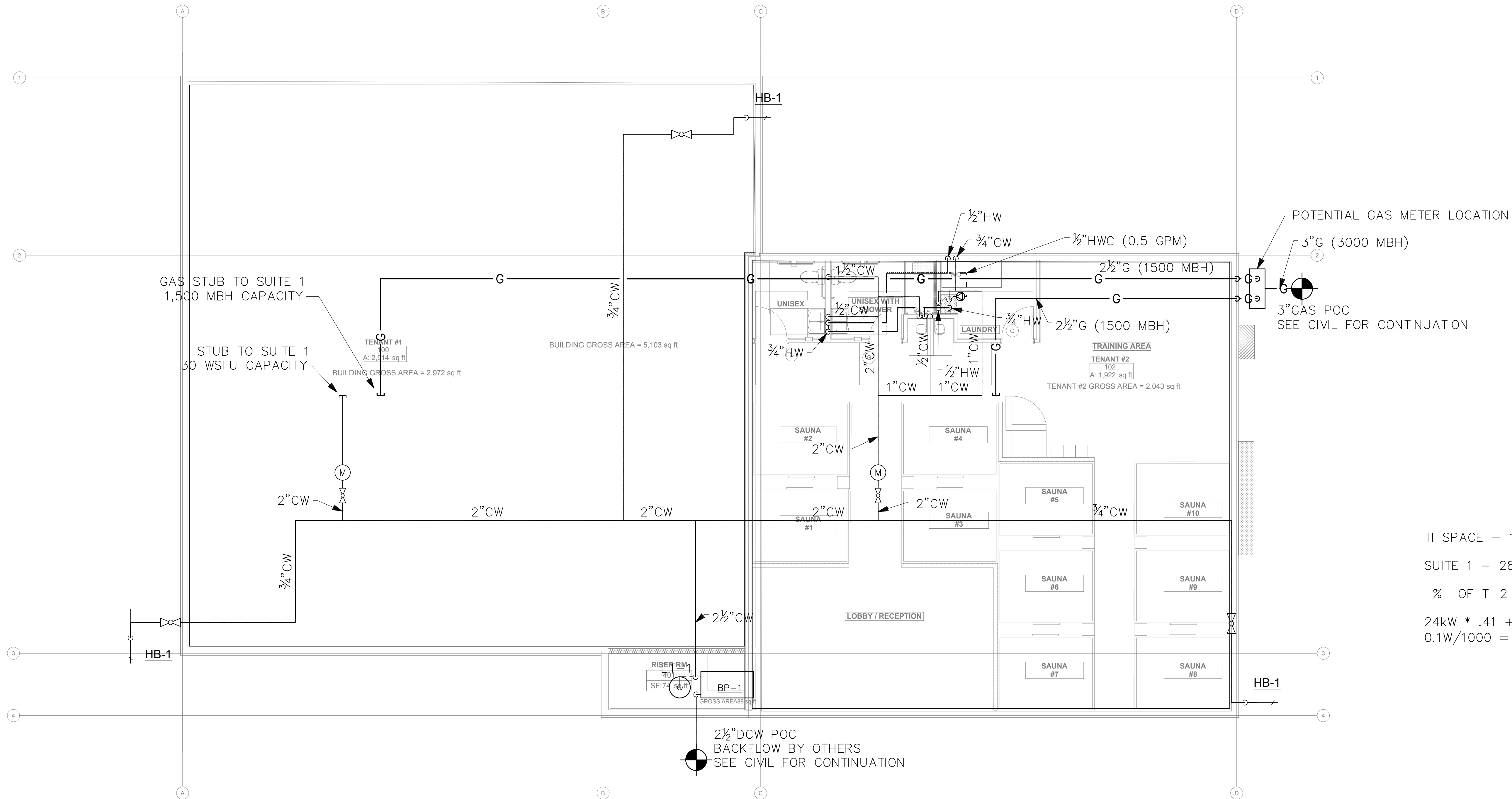
19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: 206.854.5362

ROBISON
ENGINEERING, INC.

PERMIT PLANS
06/26/2025

SHEET TITLE:
LOT 1 - ROOF
WASTE & VENT
PLAN

SHEET NO.
P2.02



GENERAL NOTES

1. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS AND HUB DRAINS PER 2021 UPC 1007.1.
2. PROVIDE EXPANSION LOOPS FOR ALL SUPPLY PIPING AND INSTALL PER MANUFACTURES RECOMMENDATIONS.

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

TI SPACE - 1915 SQ FT
SUITE 1 - 2812 SQ FT
% OF TI 2 - 41%
 $24kW * .41 + 1915 * 0.1W/1000 = 10kW$

REV NO.	DATE	DESCRIPTION



DRAWN: JM	DESIGNED: JM	CHECKED: RJ	APPROVED: RJ
-----------	--------------	-------------	--------------

PROJECT: EAST TOWN CROSSING
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

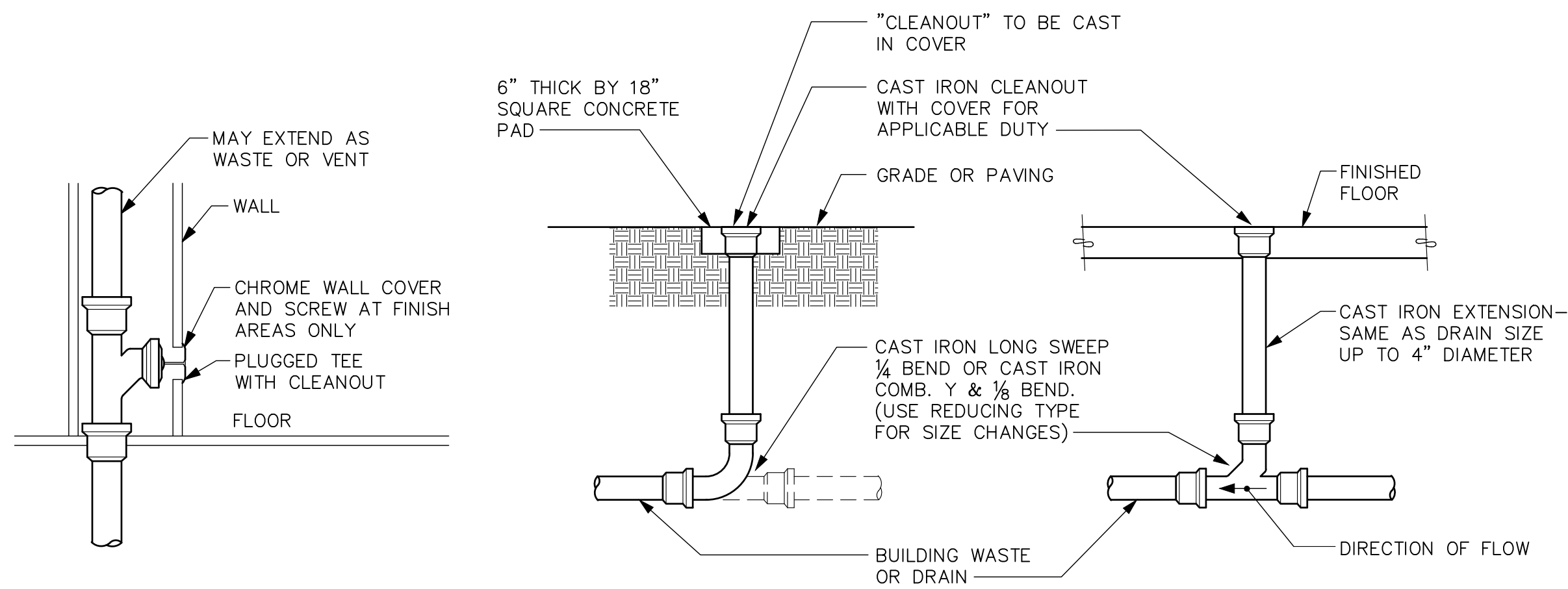
19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: 206-864-3343

ROBISON
ENGINEERING, INC

PERMIT PLANS
06/26/2025

SHEET TITLE:
LOT 1 - FLOOR 1
SUPPLY PLAN

SHEET NO.
P3.01



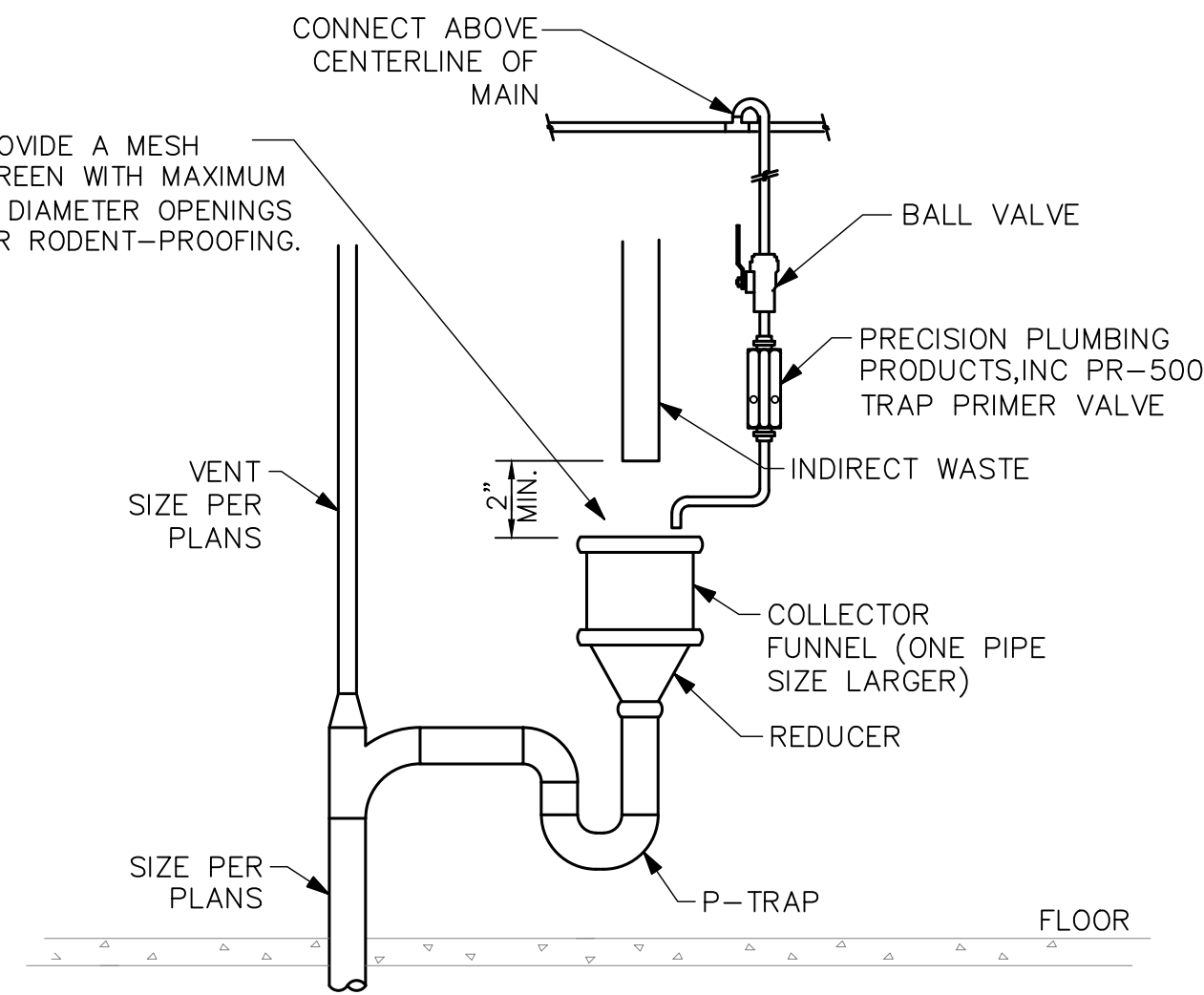
CLEANOUTS

DETAIL

SCALE: NONE

6

P4.00



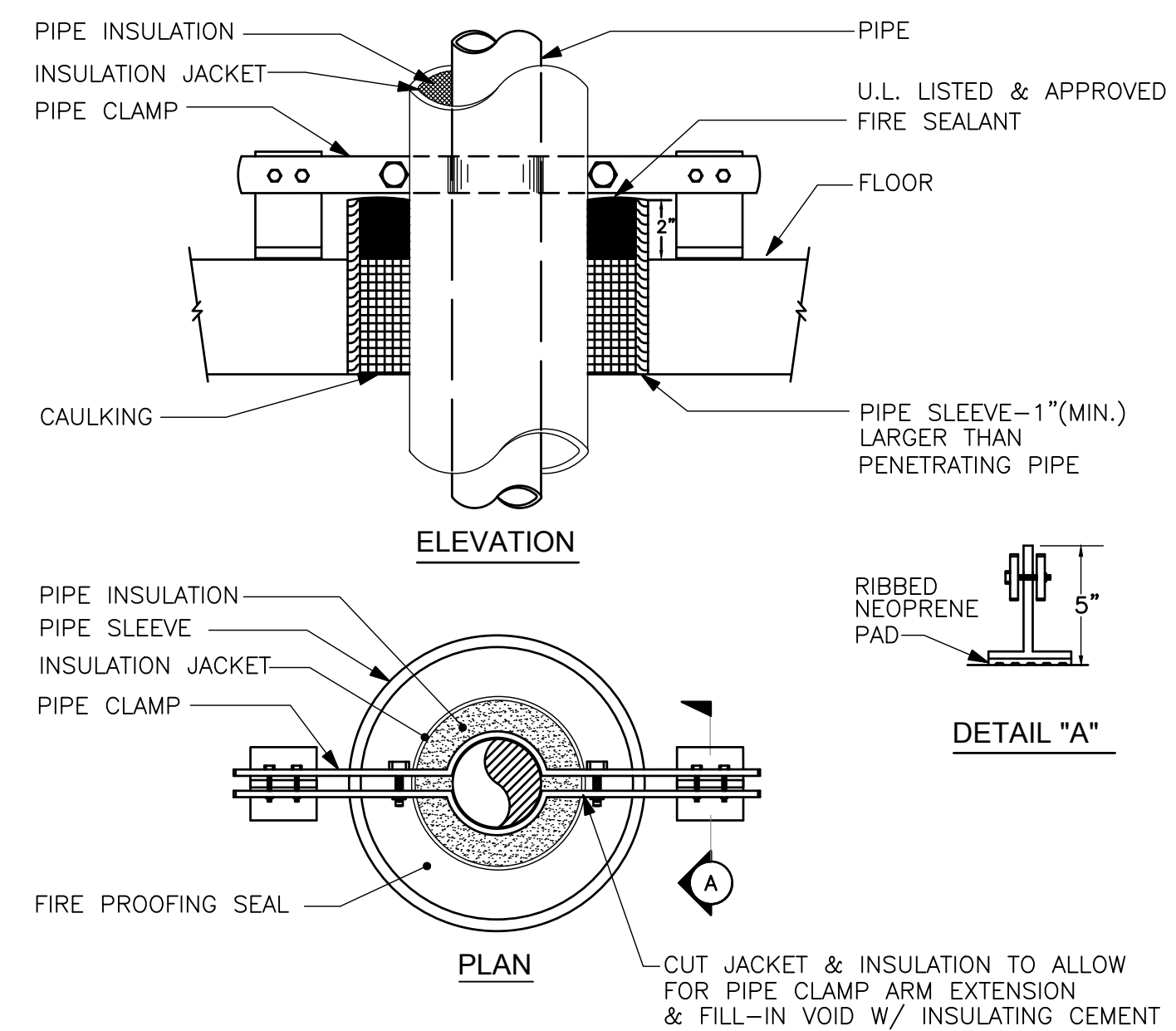
HUB DRAIN

DETAIL

SCALE: NONE

5

P4.00



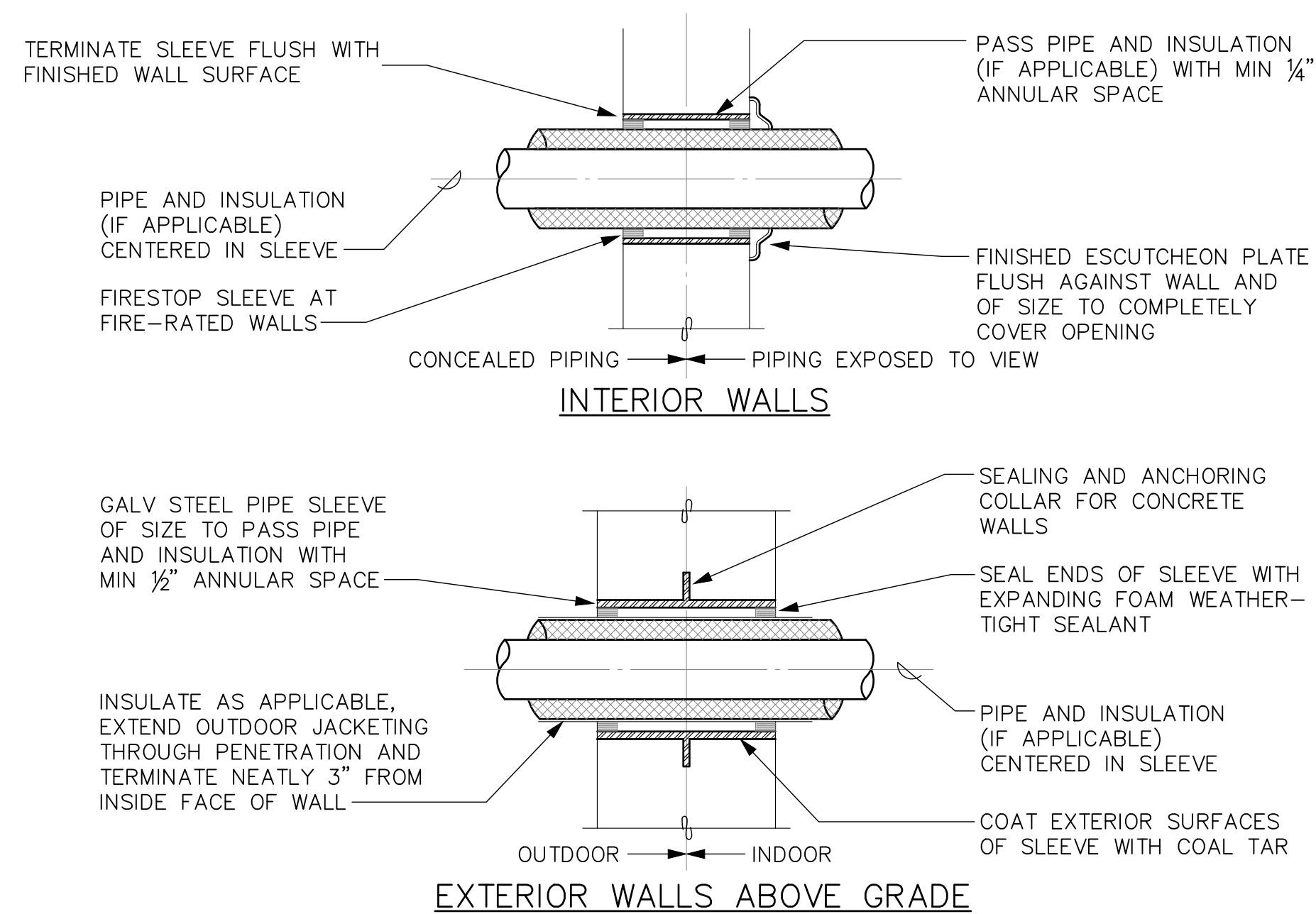
RISER PIPE SUPPORT

DETAIL

SCALE: NONE

4

P4.00



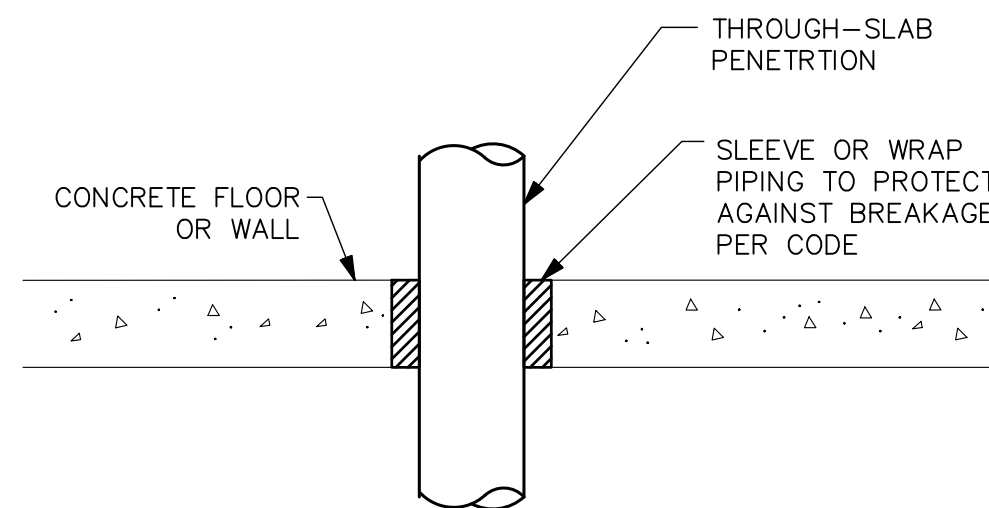
PIPE SLEEVES THROUGH WALLS

DETAIL

SCALE: NONE

3

P4.00



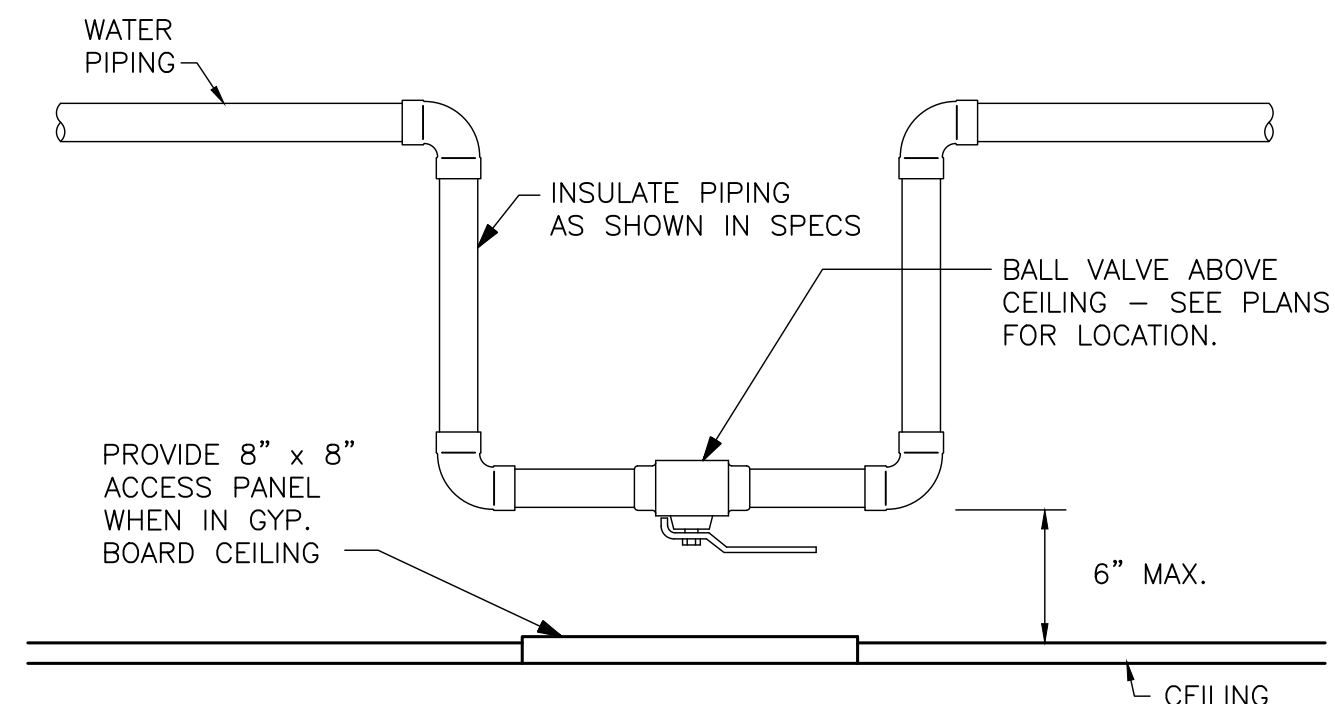
PIPE SLAB PENETRATION

DETAIL

SCALE: NONE

2

P4.00



TYPICAL VALVE PLACEMENT

DETAIL

SCALE: NONE

1

P4.00

REVISES	DESCRIPTION	NO.	DATE



DRAWN: JM	DESIGNED: JM	CHECKED: RJ	APPROVED: RJ
-----------	--------------	-------------	--------------

PROJECT: **EAST TOWN CROSSING**
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

19401 40TH AVE. W. SUITE 302
LYNNWOOD, WA 98036
PHONE: 206-864-3343

ROBISON ENGINEERING, INC.

PERMIT PLANS
06/26/2025
SHEET TITLE: DETAILS
SHEET NO. P4.00

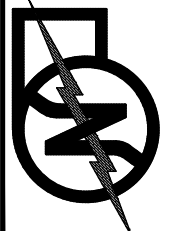
REVISIONS		NO.	DATE	DESCRIPTION



DRAWN:	JM
DESIGNED:	JM
CHECKED:	RJ
APPROVED:	RJ

PROJECT: **EAST TOWN CROSSING**
MULTIFAMILY DEVELOPMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

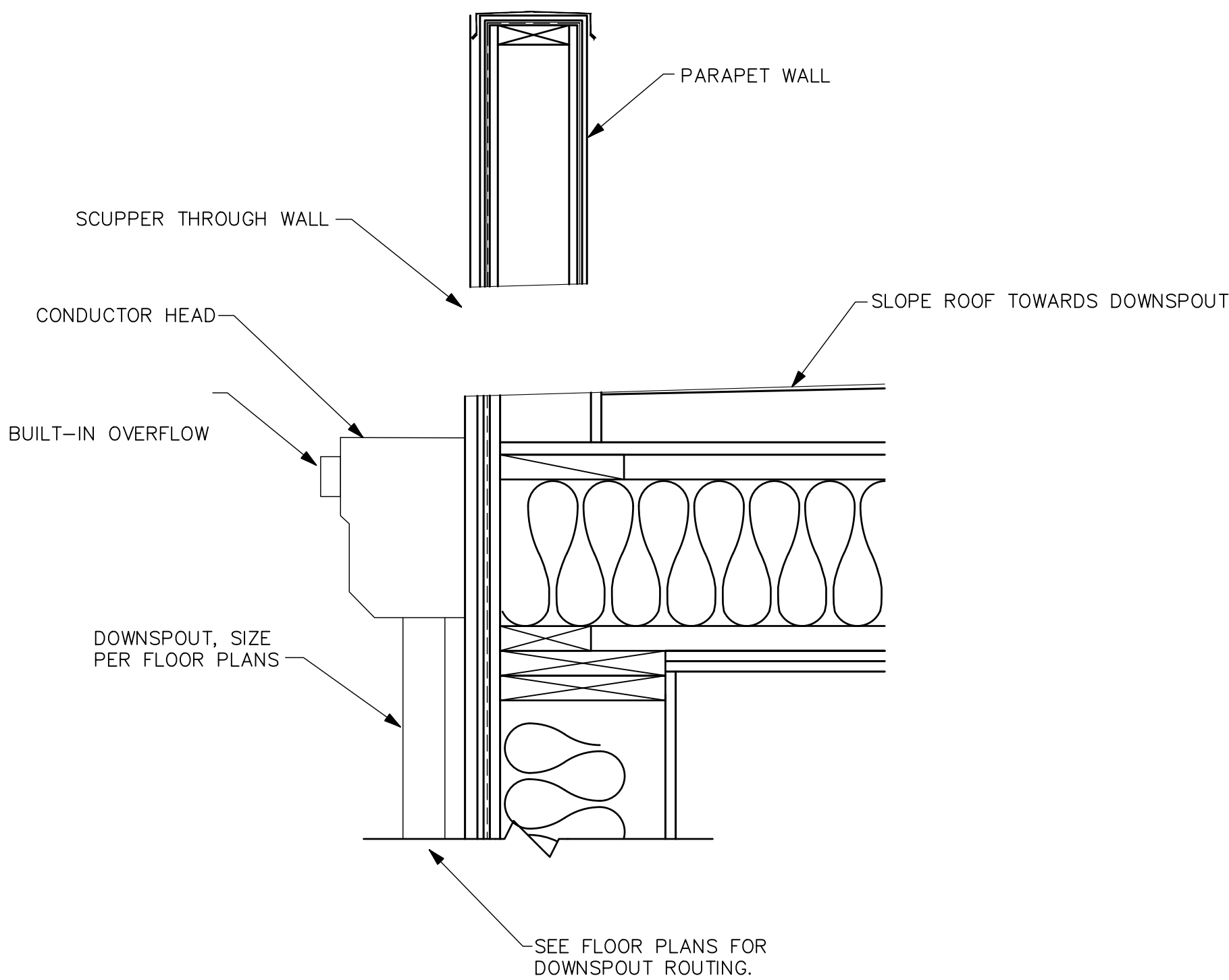
19401 40TH AVE. W. SUITE 302
LYNNWOOD, WA 98036
PHONE: 206-864-5343

 **ROBISON**
ENGINEERING, INC.

PERMIT PLANS
06/26/2025

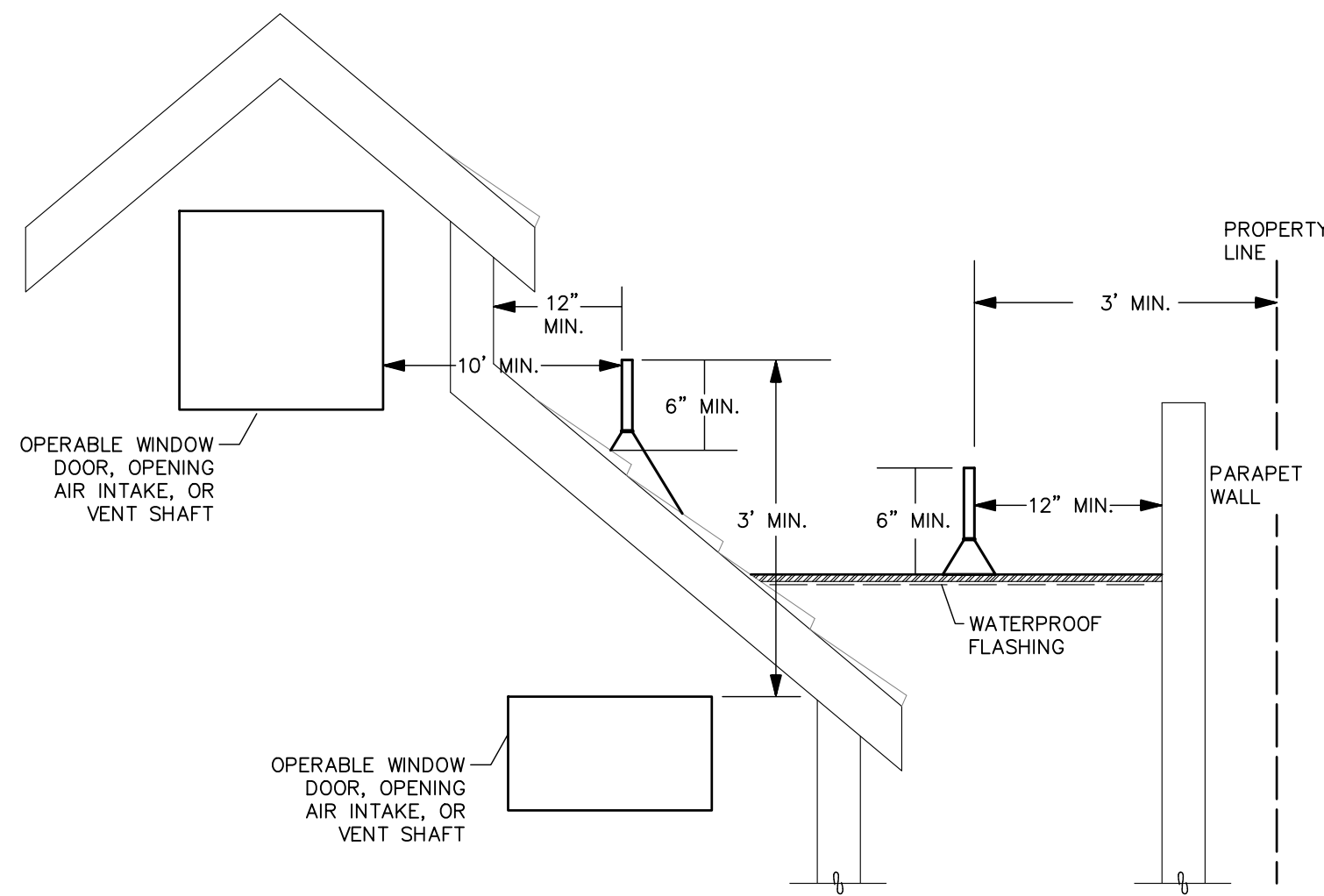
SHEET TITLE:
DETAILS

SHEET NO.
P4.01



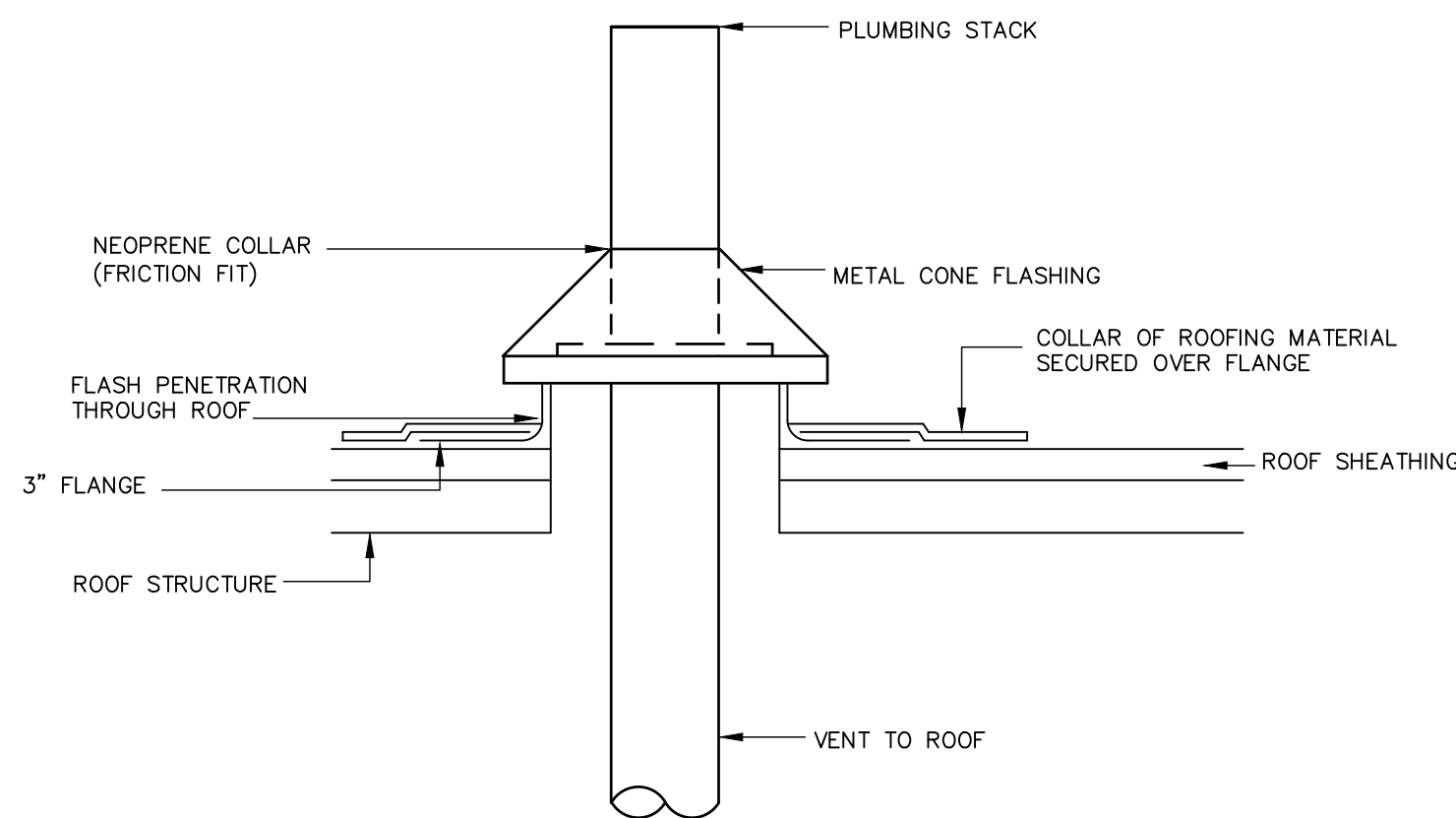
VENT TERMINATION
DETAIL
SCALE: NONE

3
P4.01



VENT TERMINATION
DETAIL
SCALE: NONE

2
P4.01



VENT THROUGH ROOF
DETAIL
SCALE: NONE

1
P4.01

APPLICABLE CODES

THE FOLLOWING PROJECT DESIGN IS BASED ON THE FOLLOWING CODES:

–2021 INTERNATIONAL ENERGY CONSERVATION CODE, COMMERCIAL AND WA AMENDMENT (WSEC)
–2021 INTERNATIONAL ENERGY CONSERVATION CODE, RESIDENTIAL AND WA AMENDMENT (WSEC)
–2021 INTERNATIONAL BUILDING CODE AND WA AMENDMENT (IBC)
–2021 INTERNATIONAL MECHANICAL CODE AND WA AMENDMENT (IMC)
–2021 INTERNATIONAL FIRE CODE AND WA AMENDMENT (IFC)
–2021 UNIFORM PLUMBING CODE AND WA AMENDMENT (UPC)
–2023 NEC (NEC)

VIBRATION AND ACOUSTICAL ISOLATION

PRCNC20250094

THE FOLLOWING MEASURES SHALL BE TAKEN TO MINIMIZE VIBRATION AND NOISE TRANSMISSION FROM MECHANICAL AND ELECTRICAL EQUIPMENT TO THE INTERIOR SPACES:

TRANSFORMERS:

- A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.
B) MOUNT TRANSFORMERS ON NEOPRENE GROMMET ISOLATORS.

SUBDUCT EXHAUST FANS:

- A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

ENCLOSED GARAGE EXHAUST FANS:

- A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

ROOFTOP AIR HANDLERS:

- A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

FAN COIL UNITS:

- A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

ROOF MOUNTED CONDENSERS:

- A) PROVIDE FLEXIBLE CONDUIT OR MC CABLE AT EQUIPMENT CONNECTION.

FLEXIBLE CONDUIT OR MC CABLE CONNECTIONS FOR VIBRATION ISOLATION SHALL BE A MINIMUM OF TWO FEET LONG.

STRUCTURAL PENETRATIONS

THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION OF EDGE OF SLAB DRAWINGS AND OTHER PENETRATIONS OF STRUCTURAL SLABS AND SHEAR WALLS FOR ALL ITEMS RELATED TO THE ELECTRICAL SCOPE OF WORK.

IRRIGATION NOTES

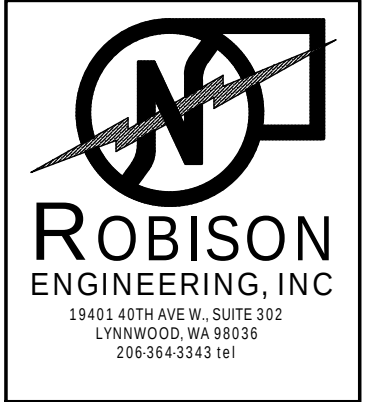
COORDINATE WITH LANDSCAPE CONTRACTOR FOR CONDUIT PATHWAY WITHIN THE BUILDING FOR ANY IRRIGATION CONTROLS FOR UPPER FLOORS.

CONDUIT & CONDUCTOR FIRE RATING

- CONDUIT FOR ELECTRICAL CONDUCTORS BY THE FACP OR FIRE ALARM SYSTEM SHALL BE IN 2 HOUR RATED ENCLOSURES OR ENCASED IN 2-INCH OF CONCRETE AND RATED CABLE ASSEMBLIES, OR BE CONDUCTORS IN 2 HOUR-RATED RACEWAYS PER NFPA 72.
- THE EQUIPMENT AND CONTROL WIRING SHALL BE ENCLOSED BY FIRE BARRIERS CONSTRUCTED IN ACCORDANCE WITH IBC SECTION 707 OR HORIZONTAL ASSEMBLIES CONSTRUCTED IN ACCORDANCE WITH IBC SECTION 711, OR USING A 2 HR RATED CABLE SYSTEM OR ENCLOSED WITHIN 2" OF CONCRETE.
- FIRE ALARM WIRING SHALL COMPLY WITH IBC 907.6.1. WIRING SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 70.
- RACEWAYS FOR THE DEDICATED BRANCH CIRCUIT(S) REQUIRED FOR PRIMARY POWER TO THE FIRE ALARM CONTROL PANEL (FACP) SHALL BE IN 2 HOUR RATED ENCLOSURES OR ENCASED IN 2-INCH OF CONCRETE AND RATED CABLE ASSEMBLIES, OR BE CONDUCTORS IN 2 HOUR-RATED RACEWAYS PER IBC 907 AND NFPA 72 SECTION 10.6.11.3.1.3
- ALL WIRING USED FOR SMOKE CONTROL, REGARDLESS OF THE VOLTAGE SHALL HAVE FIRE-RESISTANCE RATED PROTECTION OF AT LEAST 2 HOURS OR AS REQUIRED IN RULES PROMULGATED BY THE BUILDING OFFICIAL. IFC 909.11.2

Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.

REVISIONS	DESCRIPTION	DATE	PERMIT SET
		12/31/24	PERMIT SET
		02/20/25	STREET LIGHTING REVISIONS
		04/22/25	PERMIT SET 3
		07/03/25	PERMIT SET 4



DRAWN:	KAS
DESIGNED:	KAS
CHECKED:	STEINKE M.
APPROVED:	STEINKE M.

PROJECT: EAST TOWN CROSSING LOT 1
TENANT IMPROVEMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

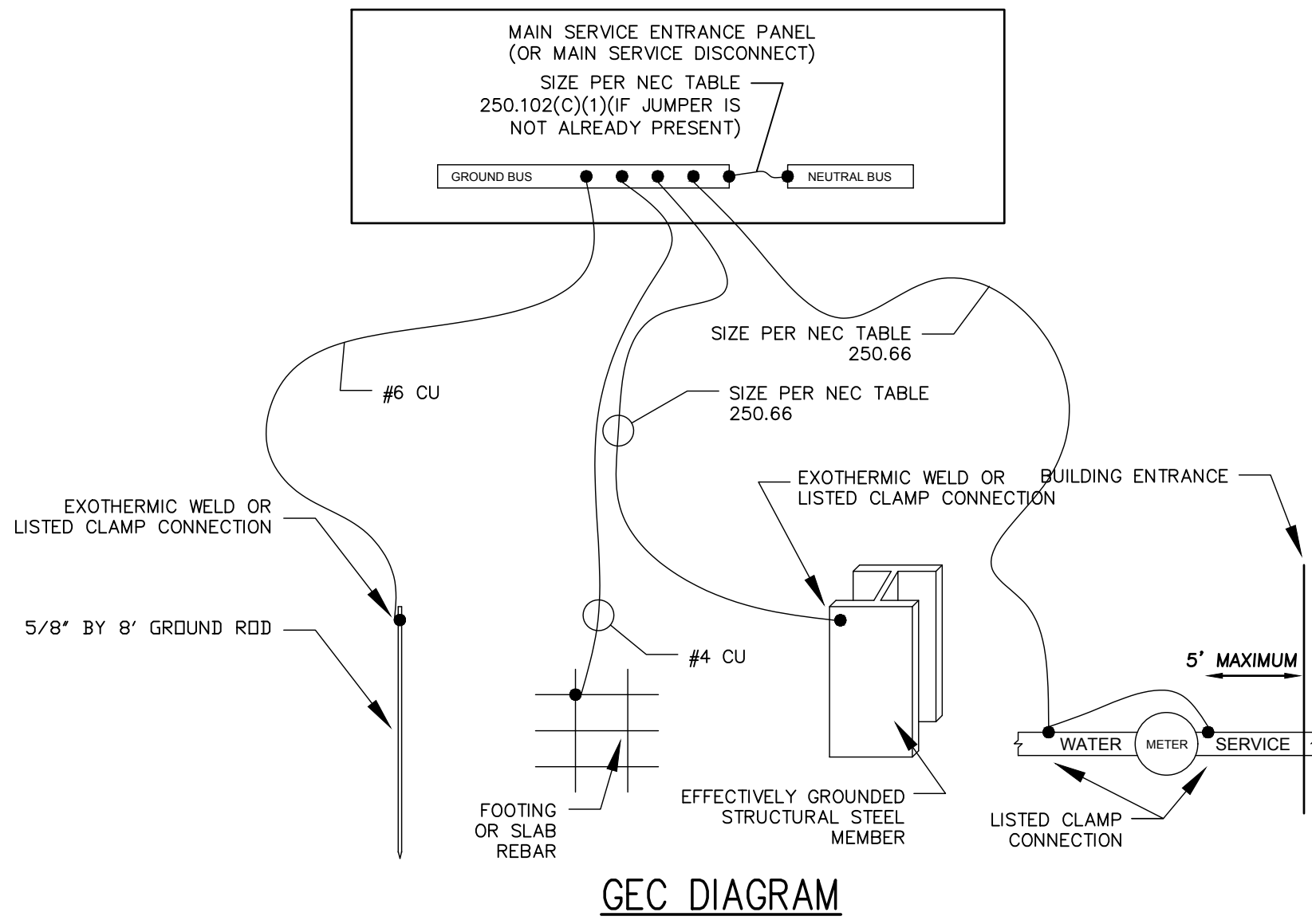
19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: (206) 364-3343

ROBISON
ENGINEERING, INC

DATE: 07-03-2025

SHEET TITLE: PROJECT NOTES

SHEET NO. E0.1



GEC DIAGRAM

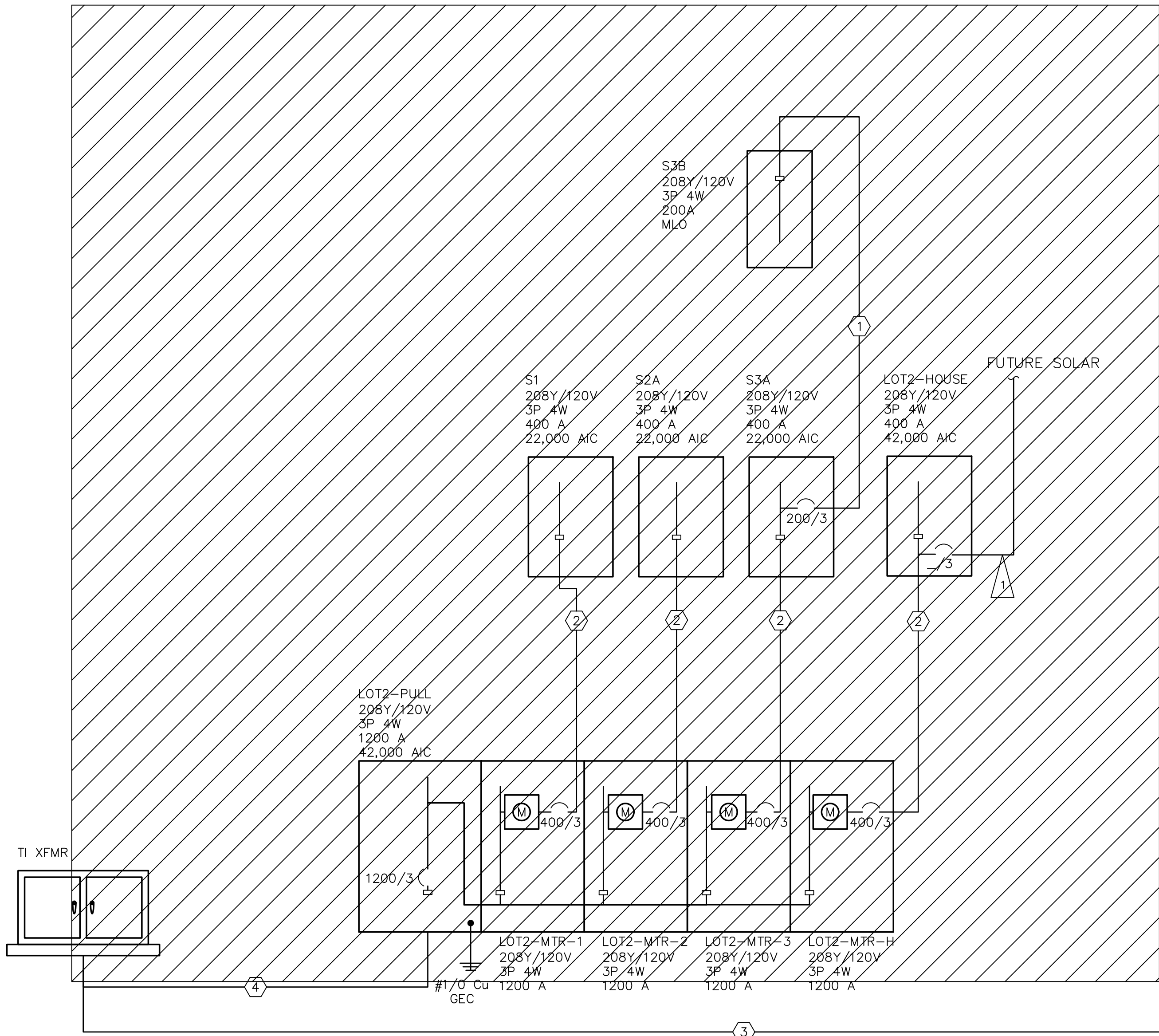
FEEDER SCHEDULE

ID	FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
1	200	2-1/2"C,3#250kcmil AL,#250kcmil AL N,#4 AL G	S3B
2	400	(2)2-1/2"C,3#250kcmil AL,#250kcmil AL N,#1 AL G	A, L1S1, LOT1-HOUSE, LOT2-HOUSE, S1, S2A, S3A
3	1000	(4)3"C,3#350kcmil AL,#350kcmil AL N	LOT1-PULL
4	1200	(4)3"C,3#500kcmil AL,#500kcmil AL N	LOT2-PULL

SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C 1/0 AND ABOVE

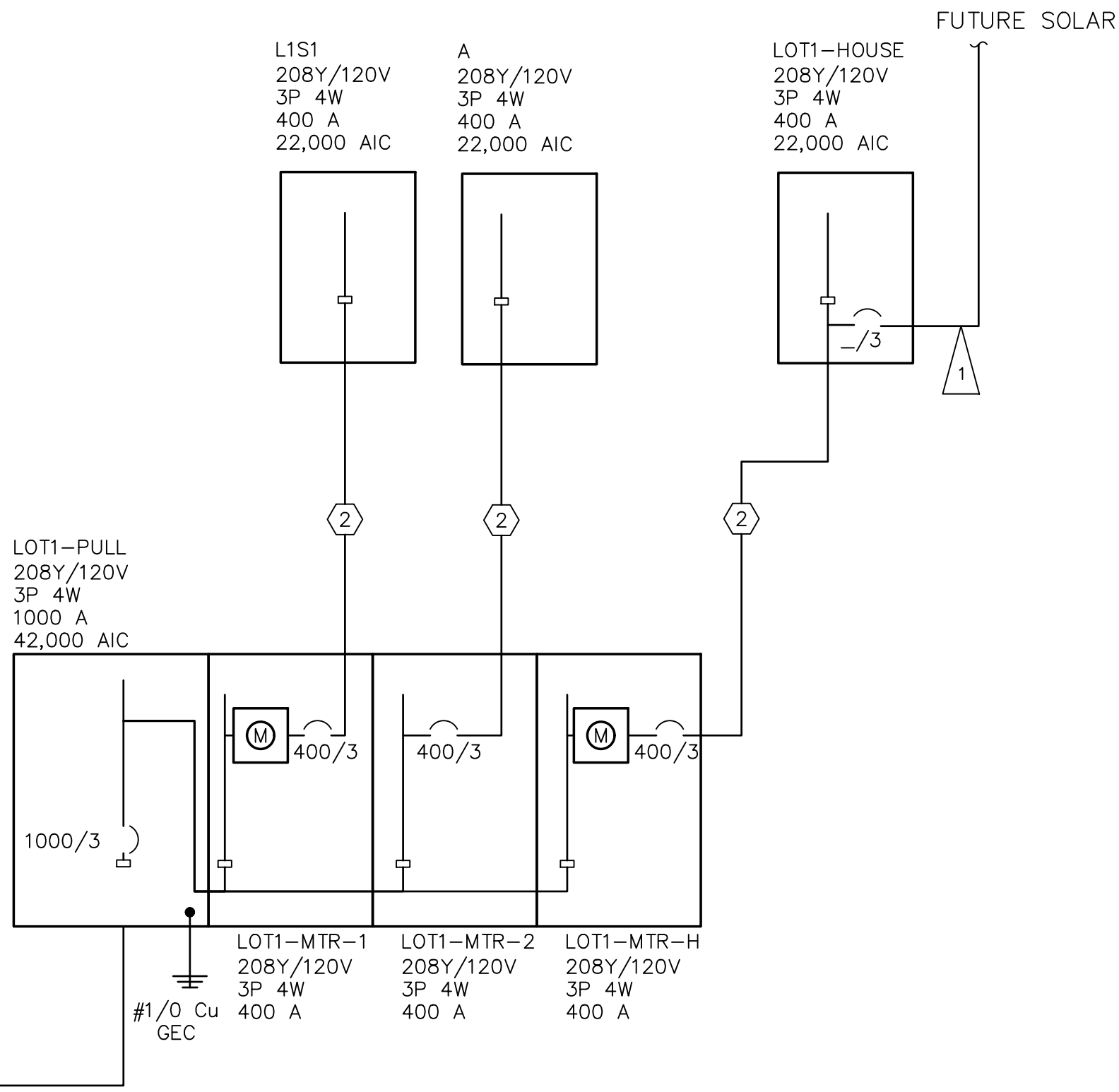
FAULT CURRENT SCHEDULE

DEVICE	FAULT	AIC RATING	L-N VOLTS	UTILITY	FED FROM		FEEDER		TOTAL MOTOR
				FAULT	DEVICE	FAULT	SIZE	LENGTH	FAULT
TI XFMR	40,907	42,000	120V	39,700					1,207
LOT2-PULL	28,472	42,000	120V	27,390	TI XFMR	39,700	(4)#500kcmil AL	108'	1,082
LOT2-MTR-1	28,463	42,000	120V	27,390	LOT2-PULL	27,390		13'	1,073
S1	11,210	22,000	120V	10,840	LOT2-MTR-1	27,390	(2)#250kcmil AL	139'	370
LOT2-MTR-2	28,463	42,000	120V	27,390	LOT2-PULL	27,390		16'	1,073
S2A	11,737	22,000	120V	11,355	LOT2-MTR-2	27,390	(2)#250kcmil AL	129'	382
LOT2-MTR-3	28,462	42,000	120V	27,390	LOT2-PULL	27,390		19'	1,072
S3A	15,431	22,000	120V	14,940	LOT2-MTR-3	27,390	(2)#250kcmil AL	79'	491
S3B	13,470	22,000	120V	13,121	S3A	14,940	#250kcmil AL	12'	349
LOT2-MTR-H	28,462	42,000	120V	27,390	LOT2-PULL	27,390		22'	1,072
LOT2-HOUSE	24,864	42,000	120V	23,993	LOT2-MTR-H	27,390	(2)#250kcmil AL	15'	871



ONE-LINE DIAGRAM

SCALE: NONE



FLAG NOTES

- PROVISIONAL BREAKER SPACE AND CONDUIT FOR FUTURE PV SYSTEM. LOCATE BREAKER SPACE AT OPPOSITE END OF BUS AS MAIN POWER SOURCE.
- CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH PSE SERVICE LETTER PRIOR TO ORDERING EQUIPMENT.
- ALL GEAR SHALL BE REVIEWED AND APPROVED BY PSE PRIOR TO ORDERING

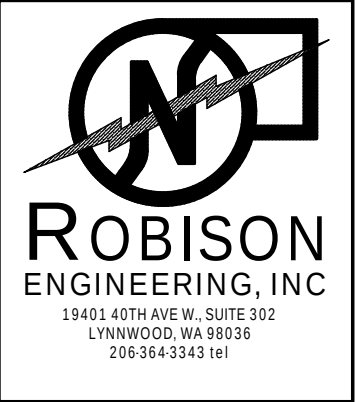
GROUNDING NOTES AND REQUIREMENTS:

THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR, POWER COMPANY, PHONE COMPANY, INTERNET COMPANY, CABLE TV COMPANY, AND THE SATELLITE TV COMPANY TO ENSURE REQUIRED GROUNDING IS INSTALLED FOR EACH SYSTEM.

THIS SHALL BE DONE PRIOR TO AND DURING INSTALLATION OF FOUNDATION RE-BAR AND CONTINUE DURING THE CONSTRUCTION PHASES, TO ENSURE EACH SYSTEM HAS IT'S REQUIRED GROUNDING INSTALLED FOR PROPER OPERATION OF THE SYSTEM.

- THE ELECTRICAL CONTRACTOR SHALL COORDINATE AND PROVIDE WHAT IS REQUIRED TO DO THE FOLLOWING:
- FOOTING GROUND RE-BAR COMES UP IN THE ELECTRICAL ROOM AND THE RE-BAR IS SNUGLY SECURED TO THE FOOTING RE-BAR PER OWNER DETAIL.
- THE MC GROUNDING TIES TO THE FOOTING RE-BAR, COUNTERPOISE, BUILDING STEEL, AND WATER PIPING.
- THE GROUND WIRE FOR THE COUNTERPOISE SHALL BE STRANDED, INSULATED WIRE IN CONDUIT UNTIL IT REACHES THE FIRST BAR OF THE COUNTERPOISE. BETWEEN THE COUNTERPOISE BARS IT SHALL BE A STRANDED BARE COPPER WIRE.

REVISIONS	DESCRIPTION	DATE	PERMIT SET	STREET LIGHTING REVISIONS	PERMIT SET 3	PERMIT SET 4
NO.		12/31/24		02/20/25	04/22/25	07/03/25



DRAWN: KAS	DESIGNED: KAS	CHECKED: STEINKE M.	APPROVED: STEINKE M.
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PROJECT: EAST TOWN CROSSING LOT 1 TENANT IMPROVEMENT PIONEER WAY & SHAW RD. PUYALLUP, WA	19401 40TH AVE W, SUITE 302 LYNNWOOD, WA 98036 PHONE: (206) 364-3343
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DATE: 07-03-2025

SHEET TITLE: ONE-LINE DIAGRAM, FEEDER & FAULT SCHEDULES
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SHEET NO. E0.2

LOT1-PULL

ROOM MOUNTING	FLOOR	VOLTS	208Y/120V 3P 4W	AIC	42,000		
FED FROM	TI XFMR	BUS AMPS	1000	MAIN BKR	1000		
NOTE		NEUTRAL	100%	LUGS	STANDARD		
				ISO GND BUS			
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA			FEEDER RACEWAY AND CONDUCTORS	
			A	B	C		
1	-/3	METER CENTER LOT1-MTR-1	26.4	26.4	25.2	N/A	
2	-/3	METER CENTER LOT1-MTR-2	13.8	14.8	13.8	N/A	
3	-/3	METER CENTER LOT1-MTR-H	31.8	27.3	32.4	N/A	
TOTAL CONNECTED KVA BY PHASE			71.9	68.4	71.3		
LIGHTING LARGEST MOTOR MOTORS RECEPTACLES	CONN KVA	CALC KVA	(125%)	EV	79.2	99	(125%)
	1.44	1.79	(25%)	CONTINUOUS	3.6	4.5	(125%)
	37.5	9.37	(100%)	HEATING	117	117	(100%)
	8.64	8.64	(50%>10)	COOLING	116	0	(0%)
	2.08	2.08		TOTAL LOAD		242	
				BALANCED 3-PHASE LOAD	672 A		

LOT1-HOUSE

ROOM MOUNTING	FLUSH	VOLTS	208Y/120V 3P 4W	AIC	22,000		
FED FROM	LOT1-MTR-H	BUS AMPS	400	MAIN BKR	MLO		
NOTE		NEUTRAL	100%	LUGS	STANDARD		
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	0.5	SITE LIGHTING	a 2	20/1	0.18	RECEPTACLE
3	20/1	0.5	SITE LIGHTING	b 4	20/1	0.5	FACP
5	20/1	0.18	RECEPTACLE	c 6	20/1	0.18	RECEPTACLE
7	20/1	0.5	FACP	a 8	60/2	8.64	BP-1
9	20/1	0.017	LIGHTING	b 10			
11	20/2	1	EWI-1.0	c 12	40/2	6.6	DUAL EV READY
13				a 14			
15	20/1	0.019	LIGHTING	b 16	40/2	6.6	DUAL EV READY
17	40/2	6.6	DUAL EV CHARGER	c 18			
19				a 20	-/2	6.6	DUAL EV CAPABLE
21	40/2	6.6	DUAL EV CHARGER	b 22			
23				c 24	-/2	6.6	DUAL EV CAPABLE
25	40/2	6.6	DUAL EV CHARGER	a 26			
27				b 28	-/2	6.6	DUAL EV CAPABLE
29	40/2	6.6	DUAL EV CHARGER	c 30			
31				a 32	-/2	6.6	DUAL EV CAPABLE
33	40/2	6.6	DUAL EV READY	b 34			
35				c 36	-/2	0	SPACE
37	40/2	6.6	DUAL EV READY	a 38			
39				b 40	-/2	0	SPACE
				c 42			
		CONN KVA	CALC KVA			CONN KVA	CALC KVA
LIGHTING LARGEST MOTOR	1.04	1.3	(125%)	MOTORS	8.64	8.64	(100%)
				RECEPTACLES	1.54	1.54	(50%)>10)
	2.88	0.72	(25%)	EV	79.2	99	(125%)
			HEATING	1	1	(100%)	
				TOTAL LOAD		112	
				BALANCED 3-PHASE		311 A	
				LOAD			
				PHASE A		106%	
				PHASE B		104%	
				PHASE C		89.3%	

L1S1

ROOM				VOLTS	208Y/120V 3P 4W		AIC	22,000		
MOUNTING	FLUSH			BUS AMPS	400		MAIN BKR	MLO		
FED FROM	LOT1-MTR-1			NEUTRAL	100%		LUGS	STANDARD		
NOTE										
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		
1	125/3	37.5	RTU-1		a 2	20/1	1.2	SIGN		
3					b 4	20/1	1.2	SIGN		
5					c 6	20/1	0.18	RECEPTACLE		
7	125/3				a 8	20/1	0.18	RECEPTACLE		
9		37.5	RTU-2		b 10	20/1	0.19	LIGHTING		
11					c 12	-/1	0	SPACE		
13	-/1				0	a 14	-/1	0	SPACE	
15	-/1				0	b 16	-/1	0	SPACE	
17	-/1	0	SPACE		c 18	-/1	0	SPACE		
19	-/1	0	SPACE		a 20	-/1	0	SPACE		
21	-/1	0	SPACE		b 22	-/1	0	SPACE		
23	-/1	0	SPACE		c 24	-/1	0	SPACE		
25	-/1	0	SPACE		a 26	-/1	0	SPACE		
27	-/1	0	SPACE		b 28	-/1	0	SPACE		
29	-/1	0	SPACE		c 30	-/1	0	SPACE		
31	-/1	0	SPACE		a 32	-/1	0	SPACE		
33	-/1	0	SPACE		b 34	-/1	0	SPACE		
35	-/1	0	SPACE		c 36	-/1	0	SPACE		
37	-/1	0	SPACE		a 38	-/1	0	SPACE		
39	-/1	0	SPACE		b 40	-/1	0	SPACE		
41	-/1	0	SPACE		c 42	-/1	0	SPACE		
		CONN KVA	CALC KVA				CONN KVA	CALC KVA		
LIGHTING		0.19	0.238	(125%)	RECEPTACLES		0.36	0.36	(50%>10)	
LARGEST					CONTINUOUS		2.4	3	(125%)	
MOTOR		37.5	9.37	(25%)	HEATING		74.9	74.9	(100%)	
					COOLING		74.9	0	(0%)	
					TOTAL LOAD		87.9			
					BALANCED 3-PHASE LOAD		244 A			
					PHASE A		102%			
					PHASE B		102%			
					PHASE C		96.9%			

A

ROOM	MOUNTING			FLUSH			VOLTS 208Y/120V 3P 4W			AIC 22,000			
	FED FROM			UTILITY			BUS AMPS 400			MAIN BKR MLO			
	NOTE						NEUTRAL 100%			LUGS STANDARD			
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION				CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION			
1	80/3	20.4	RTU-3				a 2	30/1	2.4	SIGN			
3							b 4	20/1	0.18	RECEPTACLE			
5							c 6	20/1	0.18	RECEPTACLE			
7	80/3	20.4	RTU-4				a 8	20/1	0.18	TV			
9							b 10	60/1	5	WATER HEATER			
11							c 12	20/1	0.54	RECEPTACLE			
13	40/2	5.26	SAUNA				a 14	20/1	0.18	RECEPTACLE			
15							b 16	20/1	0.18	RECEPTACLE			
17	40/2	5.26	SAUNA				c 18	20/1	0.36	RECEPTACLE			
19							a 20	20/1	1.85	HAND DRYER			
21	40/2	5.26	SAUNA				b 22	20/1	1	DRINKING FOUNTAIN			
23							c 24	20/1	1.5	WASHER			
25	40/2	5.26	SAUNA				a 26	40/2	5	DRYER			
27							b 28						
29	40/2	5.26	SAUNA				c 30	20/1	0.25	ILLUMINATED SIGN			
31							a 32	20/1	0.72	RECEPTACLE			
33	40/2	5.26	SAUNA				b 34	20/1	0.9	TELECOM BOARD			
35							c 36	40/2	5.26	SAUNA			
37	40/2	5.26	SAUNA				a 38						
39							b 40	40/2	5.26	SAUNA			
41	40/2	5.26	SAUNA				c 42						
43							a 44	20/1	0.18	TV			
45	20/1	0.5	RECEPTACLE				b 46	-/1	0	SPACE			
47	-/1	0	SPACE				c 48	-/1	0	SPACE			
49	-/1	0	SPACE				a 50	-/1	0	SPACE			
51	-/1	0	SPACE				b 52	-/1	0	SPACE			
53	-/1	0	SPACE				c 54	-/1	0	SPACE			
55	-/1	0	SPACE				a 56	-/1	0	SPACE			
57	-/1	0	SPACE				b 58	-/1	0	SPACE			
59	-/1	0	SPACE				c 60	-/1	0	SPACE			
61	-/1	0	SPACE				a 62	-/1	0	SPACE			
63	-/1	0	SPACE				b 64	-/1	0	SPACE			
			CONN KVA	CALC KVA						CONN KVA	CALC KVA		
LIGHTING			0.25	0.313	(125%)		CONTINUOUS			2.4	3	(125%)	
LARGEST MOTOR			20.4	5.09	(25%)		NONCONTINUOUS			12.5	12.5	(100%)	
RECEPTACLES			4.1	4.1	(50%>10)		HEATING			95.2	95.2	(100%)	
							COOLING			40.8	0	(0%)	
			TOTAL LOAD								120		
			BALANCED 3-PHASE LOAD								334 A		
			PHASE A								105%		
			PHASE B								104%		
			PHASE C								91.3%		

FLAG NOTES

HOTWORX TO PROVIDE BUCKBOOSTER FOR SAUNAS MOUNTED TO THE WALL.

LOT1-MTR-1

ROOM MOUNTING		SURFACE		VOLTS	208Y/120V 3P 4W	AIC	42,000	
FED FROM		LOT1-PULL		BUS AMPS	400	MAIN BKR	MLO	
NOTE				NEUTRAL	100%	LUGS	STANDARD	
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA			FEEDER RACEWAY AND CONDUCTORS		
			A	B	C			
1	400/3	PANEL L1S1	26.4	26.4	25.2	(2)2-1/2"C,3#250kcmil AL,N,#1 AL G		
TOTAL CONNECTED KVA BY PHASE			26.4	26.4	25.2			
LIGHTING LARGEST MOTOR RECEPTACLES	CONN KVA	CALC KVA	(125%)	CONTINUOUS		2.4	3	(125%)
	0.19	0.238	(25%)	HEATING		74.9	74.9	(100%)
	37.5	9.37	(50%>10)	COOLING		74.9	0	(0%)
	0.36	0.36		TOTAL LOAD		87.9		
				BALANCED 3-PHASE LOAD		244 A		

LOT1-MTR-2

ROOM MOUNTING	SURFACE	VOLTS	208Y/120V 3P 4W			AIC	42,000		
FED FROM	LOT1-PULL	BUS AMPS	400			MAIN BKR	MLO		
NOTE		NEUTRAL	100%			LUGS	STANDARD		
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA			FEEDER RACEWAY AND CONDUCTORS			
			A	B	C				
1	400/3	PANEL L1S2	14.8	13.8	13.8	(2)2-1/2"C,3#250kcmil AL,#250kcmil AL N,#1 AL G			
TOTAL CONNECTED KVA BY PHASE			14.8	13.8	13.8				
LIGHTING LARGEST MOTOR RECEPTACLES	CONN KVA	CALC KVA				CONN KVA	CALC KVA		
	0.209	0.261	(125%)	CONTINUOUS		1.2	1.5	(125%)	
	20.4	5.09	(25%)	HEATING		40.8	40.8	(100%)	
	0.18	0.18	(50%>10)	COOLING		40.8	0	(0%)	
				TOTAL LOAD		47.8			
			BALANCED 3-PHASE LOAD		133 A				

LOT1-MTR-H

ROOM MOUNTING	SURFACE	VOLTS	208Y/120V 3P 4W			AIC	42,000		
FED FROM	LOT1-PULL	BUS AMPS	400			MAIN BKR	MLO		
NOTE		NEUTRAL	100%			LUGS	STANDARD		
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA			FEEDER RACEWAY AND CONDUCTORS			
			A	B	C				
1	400/3	PANEL LOT1-HOUSE	32.4	31.8	27.3	(2)2-1/2"C,3#250kcmil AL,#250kcmil AL N,#1 AL G			
TOTAL CONNECTED KVA BY PHASE			32.4	31.8	27.3				

EV CHARGING INFRASTRUCTURE CALCS (2021):

TOTAL PARKING SPACES PROVIDED: 37

PER WAC 51-50-0429 TABLE 429.2, 10% OF TOTAL PARKING SPACES SHALL BE PROVIDED WITH EV CHARGING STATIONS:

$$37 \times 10\% = 4 \text{ EV CHARGING SPACES}$$

PER WAC 51-50-0429 TABLE 429.2, 25% OF TOTAL PARKING SPACES SHALL BE EV CAPABLE PARKING SPACES:

$$4 \times 10\% = 4 \text{ EV READY PARKING SPACES}$$

PER WAC 51-50-0429 TABLE 429.2, 10% OF TOTAL PARKING SPACES SHALL BE EV CAPABLE PARKING SPACES:

$$4 \times 10\% = 4 \text{ EV CAPABLE PARKING SPACES}$$

TOTAL EV SPACES:
12

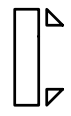
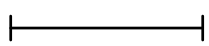
AUTOMATIC LOAD MANAGEMENT SYSTEM (ALMS) WILL BE UTILIZED TO ADJUST THE MAXIMUM ELECTRICAL CAPACITY REQUIRED FOR EV-READY AND EV-CAPABLE SPACES. THE ALMS SHALL BE DESIGNED TO ALLOCATE CHARGING CAPCITY AMONG MULTIPLE FUTURE EV CHARGING STATIONS AT MINIMUM OF 16 AMPERES PER EV CHARGER, PER WAC 51-50-0429.3 EXCEPTION.

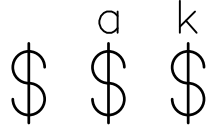
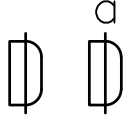
ALL EV CHARGING STATIONS, EV READY, EV CAPABLE WILL BE PROVIDED WITH A DEDICATED 40AMP BRANCH CIRCUIT.

EV LOAD CALCS WITH ALMS:

$$\begin{aligned} & 4 \text{ EV CHARGING STATIONS} \times 40\text{A EACH} \\ & + 4 \text{ EV READY} \times 20\text{A EACH} \\ & + 4 \text{ EV CAPABLE} \times 20\text{A EACH} \\ & = 320\text{A} @208\text{V}/2\text{P} \\ & = 67\text{KVA} \end{aligned}$$

MIN

RETAIL INTERIOR LUMINAIRE SCHEDULE								
CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT VA	VOLTS
A		(1) 12W LED	6" DOWNLIGHT	0–10V DIMMING	RECESSED	LITELINE: SLMB6 12 C [FINISH]	12	120V 1P 2W
B		(1) 60W LED	UFO HIGH BAY LIGHT	0–10V DIMMING	CEILING	HYKOLITY: HBB–0072 ELITE PLUS SERIES	60	120V 1P 2W
C		(1) 5W EM	EXIT SIGN – EMERGENCY BATTERY BACKUP – HATCH INDICATES LIT FACE	EM	SURFACE	LSI: EMS WB SERIES (OR EQUAL)	5	120V 1P 2W
CE1		(1) 17W LED	8" SURFACE DOWNLIGHT – CORRIDORS – EMERGENCY DRIVER BACKUP	0–10V DIMMING	SURFACE	DMF: DRDHNJO150SEMS / DRD5S8R159300A	17	MULTIPLE
D		(1) 5W EM	EMERGENCY LIGHT – WET LISTED – EMERGENCY BATTERY BACKUP	EM	SURFACE	LSI: CWL SERIES (OR EQUAL)	5	120V 1P 2W
S1		(1) 19W LED	4' LED LINEAR STRIP	0–10V DIMMING	SURFACE	LITHONIA: CLX L48 3000LM HEF RDL 120 GZ10 35K 80CRI WH	19	120V 1P 2W
X1		(1) 5W EM	EXIT SIGN – EMERGENCY BATTERY BACKUP – HATCH INDICATES LIT FACE	EM	SURFACE	LSI: EMS WB SERIES (OR EQUAL)	5	MULTIPLE

LIGHTING CONTROLS LEGEND		
SYMBOL	CONTROL TYPE	CONTROL FUNCTION
	TOGGLE SWITCH	MANUAL ON/OFF LIGHTING CONTROL. SUBSCRIPT INDICATES WHICH FIXTURES ARE TO BE CONTROLLED BY WHICH SWITCH (WSEC C405.2.3). SUBSCRIPT 'k' INDICATES TAMPER RESISTANT KEYED SWITCH FOR USE BY AUTHORIZED PERSONNEL ONLY.
	DIMMER SWITCH	MANUAL LIGHT REDUCTION CONTROLS. CONTROL SHALL ALSO HAVE MANUAL ON/OFF FUNCTIONALITY. SUBSCRIPT INDICATES WHICH FIXTURES ARE TO BE CONTROLLED BY WHICH DIMMER. (C405.2.3, C405.2.4)
	TOGGLE/DIMMER SWITCH WITH OCCUPANCY SENSOR	SWITCHES LABELED 'os' OR 'vs' SHALL TURN OFF ALL CONNECTED LUMINAIRES WITHIN 20 MINUTES OF SPACE BEING VACANT. (C405.2.1, C405.2.3)
	SURFACE MOUNTED OCCUPANCY SENSOR	AUTOMATIC LIGHTING CONTROL SHALL TURN OFF ALL CONNECTED LUMINAIRES WITHIN 20 MINUTES OF SPACE BEING VACANT. (C404.2.1)
	MULTIZONE PHOTOSENSOR	AUTOMATIC LIGHTING CONTROL SHALL AUTOMATICALLY ADJUST THE LIGHT OUTPUT OF ALL CONNECTED LUMINAIRES BASED ON AVAILABLE DAYLIGHT (C405.2.5).

EXIT SIGN NOTES
DURING CONSTRUCTION UPON COMPLETION OF A TYPICAL FLOOR FRAMING AND BEFORE WALL COVER, ELECTRICAL CONTRACTOR SHALL WALK THE EGRESS PATHS WITH THE LOCAL INSPECTOR (AHJ) TO CONFIRM THAT ALL THE EXIT SIGNS ARE LOCATED PER THE AHJ'S SATISFACTION AND IDENTIFY ANY ADDITIONAL EXIT SIGNS THAT THE AHJ WISHES TO BE INSTALLED (IBC 1013.1). CONTRACTOR SHALL PROVIDE UP TO 10% ADDITIONAL EXIT SIGNS AT NO ADDITIONAL COST.

GENERAL LIGHTING NOTES

- LIGHTING CONTROLS SHALL BE INSTALLED WHICH MEET ALL REQUIREMENTS OF LOCAL ENERGY CODES.
- EMERGENCY LIGHT FIXTURES: PROVIDE UNSWITCHED HOT.
- LOCATIONS OF OCCUPANCY SENSORS, PHOTO SENSORS, DIMMERS (FOR COMMON AREA INTERIOR LUMINAIRES ONLY), AND SWITCHES ARE DIAGRAMMATIC. CONTRACTOR TO FIELD–IDENTIFY OPTIMAL LOCATIONS AND QUANTITIES.
- ASSURE COMPATIBILITY OF DIMMERS WITH CONTROLLED LUMINAIRES PRIOR TO PURCHASING.
- AUTOMATIC LIGHTING SHUT–OFF CONTROLS SHALL BE PROVIDED BY LOCAL OCCUPANCY SENSORS UNLESS OTHERWISE NOTED. PUBLIC SPACES ARE ACTIVE 24/7 AND THEREFORE EXEMPT FROM AUTOMATIC LIGHTING SHUT–OFF REQUIREMENTS.
- DAYLIGHT ZONES ARE REFERRED TO AS 'PRIMARY' AND 'SECONDARY' ON PLANS AND DENOTED BY DASHED LINES.
- FOR CUSTOM FF&E FIXTURES, IT IS THE MANUFACTURER'S RESPONSIBILITY TO FURNISH PRODUCTS WHICH ARE COMPLIANT WITH ALL REQUIREMENTS OF LOCAL ENERGY CODES, AS WELL AS MATCH THE ELECTRICAL SPECIFICATIONS PROVIDED IN THE LUMINAIRE SCHEDULES. PROVIDE SUBMITTAL SHOP DRAWINGS WITHIN 30 DAYS OF RECEIVING FIXTURE ORDER. SUBMITTALS SHALL CLEARLY INDICATE LAMPING AND MAXIMUM WATTAGE RATING OF LAMP SOCKETS. NON–COMPLIANT FIXTURES REJECTED BY ELECTRICAL INSPECTOR SHALL BE RETURNED TO THE MANUFACTURER FOR REWORKING AND/OR RE–LABELING.
- ALL FIXTURES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
- CONTRACTOR SHALL BE RESPONSIBLE TO ORDER ALL NECESSARY HARDWARE, ELECTRICAL CABLE, TIMERS, TRANSFORMERS, ETC., AS REQUIRED FOR COMPLETION OF INSTALLATION OF A FULLY FUNCTIONING SYSTEM.
- CONTRACTOR SHALL BE RESPONSIBLE FOR EQUIPPING ALL FIXTURES WITH THE EXACT LAMPS SPECIFIED IN THE FIXTURE SCHEDULE.
- WHERE FIXTURES REQUIRE REMOTE TRANSFORMERS OR BALLASTS, THE CONTRACTOR SHALL DETERMINE LOCATIONS AS REQUIRED FOR EVEN LOAD DISTRIBUTION, SERVICE ACCESS, AND VENTILATION.
- THE CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL ENGINEER FOR EXACT LOCATIONS OF TIMERS AND/OR PHOTO CELLS, IF ANY.
- (FOR COMMON AREA INTERIOR LUMINAIRES ONLY) THE CONTRACTOR SHALL VERIFY THE COMPATIBILITY OF DIMMING AND CONTROL MODULES WITH THE FIXTURE TYPES PRIOR TO INSTALLATION.
- WHERE APPLICABLE, THE CONTRACTOR SHALL AIM AND ADJUST LIGHTING FIXTURES AS DIRECTED BY THE LIGHTING DESIGNER UPON COMPLETION OF THE INSTALLATION.

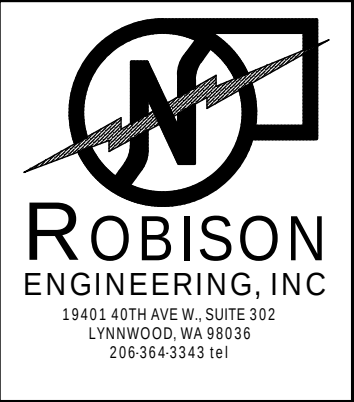
SPECIAL NOTE TO THE CONTRACTOR:

- FIXTURE SUBMITTALS THAT DO NOT INCLUDE LAMP SPECIFICATIONS WILL BE CONSIDERED INCOMPLETE AND WILL NOT BE REVIEWED.

EXTERIOR & SITE LIGHTING CONTROL SYSTEM REQUIREMENTS

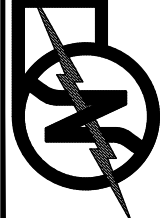
- CONTRACTOR TO PROVIDE A FULLY OPERATIONAL LIGHTING CONTROL SYSTEM.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH A LIGHTING CONTROLS VENDOR TO OBTAIN LIGHTING CONTROL SYSTEM PACKAGE COMPLETE WITH DEVICES, WIRING DIAGRAMS, ANNOTATED PLANS INDICATING WHICH DEVICE TO BE USED IN EACH LOCATION, CONNECTION REQUIREMENTS, SET UP INSTRUCTIONS, COMMISSIONING AND CHECK–OUT FOLLOWING COMPLETION. PROVIDE ALL LOW VOLTAGE WIRING AS REQUIRED FOR CONTROL DEVICE INTERCONNECTIONS.
- INSTALLER QUALIFICATIONS: TECHNICIAN INSTALLING AND WIRING THE LIGHTING CONTROL SYSTEM SHALL HAVE INSTALLED THIS SAME SYSTEM AT LEAST ONCE PREVIOUSLY. TECHNICIAN SHALL HAVE RECEIVED TRAINING BY FACTORY REPRESENTATIVE ON THE SYSTEM BEING INSTALLED.
- PROVIDE LIGHTING CONTROL SYSTEM TO PERFORM THE FUNCTIONS DESCRIBED BELOW:
 - CONTROL EXTERIOR LIGHTING BASED ON ASTRONOMIC TIME–CLOCK SCHEDULING OR PHOTOCELL DETECTION.
- DURING EMERGENCY CONDITIONS EMERGENCY LIGHTING CIRCUITS SHALL BYPASS ALL LIGHTING CONTROLS IN ORDER TO ENERGIZE ALL CONNECTED LUMINAIRES AT FULL CAPACITY. PROVIDE UL924 RELAYS AS REQUIRED TO BYPASS AREA CONTROLS.
- CONTRACTOR SHALL VERIFY THE COMPATIBILITY OF CONTROL MODULES WITH FIXTURE TYPES PRIOR TO INSTALLATION.

NO.	DATE	REVISIONS	
		DESCRIPTION	
	12/31/24	PERMIT SET	
	02/20/25	STREET LIGHTING REVISIONS	
	04/22/25	PERMIT SET 3	
	07/03/25	PERMIT SET 4	



DRAWN: KAS	DESIGNED: KAS	CHECKED: STEINKE M.	APPROVED: STEINKE M.
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PROJECT: EAST TOWN CROSSING LOT 1
TENANT IMPROVEMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA



ROBISON
ENGINEERING, INC

19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: (206) 364-3343

DATE: 07-03-2025

SHEET TITLE: LIGHTING NOTES & SCHEDULE
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SHEET NO. E0.4

LIGHTING CONTROL SYSTEM REQUIREMENTS

1. CONTRACTOR TO PROVIDE FULLY OPERATIONAL LIGHTING CONTROL SYSTEM(S).
2. LIGHTING CONTROLS SHALL BE INSTALLED WHICH MEET ALL REQUIREMENTS OF LOCAL ENERGY CODES.
3. CONTRACTOR SHALL VERIFY THE COMPATIBILITY OF DIMMING AND CONTROL MODULES WITH FIXTURE TYPES PRIOR TO INSTALLATION.
4. LOCATIONS OF OCCUPANCY SENSORS, PHOTO SENSORS, AND MANUAL LIGHTING CONTROLS ARE DIAGRAMMATIC. CONTRACTOR TO COORDINATE QUANTITIES AND OPTIMAL LOCATIONS WITH LIGHTING CONTROL MANUFACTURER AND ARCH/OWNER.
5. THE CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL ENGINEER FOR EXACT LOCATIONS OF EXTERIOR PHOTO CELLS, IF ANY.
- AUTOMATIC LIGHTING CONTROLS
6. OCCUPANCY SENSORS (WSEC C405.2.1) SHALL BE CONFIGURED PER THE FOLLOWING (UON):

6.1. AUTOMATICALLY TURN OFF LIGHT WITHIN 20 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.

6.2. AUTOMATICALLY TURN ON LIGHTING TO NOT MORE THAN 50 PERCENT POWER WHEN OCCUPANT ENTERS THE SPACE

6.3. SHALL INCORPORATE A MANUAL CONTROL TO ALLOW OCCUPANTS TO TURN LIGHTS ON/OFF.
7. DAYLIGHT ZONES ARE SHOWN ON PLANS AS DEFINED BY C405.2.5.2–C405.2.5.4. DAYLIGHT ZONES ARE REFERRED TO AS 'PRIMARY', 'SECONDARY', AND 'TOPLIT' ON PLANS AND DENOTED BY DASHED 'DZ' LINES.

7.1. DAYLIGHT RESPONSIVE CONTROLS SHALL PROVIDE CONTINUOUS AUTOMATIC DIMMING BASED ON DAYLIGHT CONTRIBUTION OF THE GENERAL LIGHTING WITHIN DAYLIGHT ZONES. CONTROLS SHALL BE CONFIGURED PER THE FOLLOWING (UON):

7.1.1. LIGHTS IN PRIMARY, SECONDARY, AND TOPLIGHT DAYLIGHT ZONES SHALL EACH BE CONTROLLED INDEPENDENTLY OF EACH OTHER.

7.1.2. CALIBRATION MECHANISMS SHALL BE IN A LOCATION WITH READY ACCESS AND SHALL BE CALIBRATED BY AUTHORIZED PERSONNEL ONLY.

7.1.3. DAYLIGHT RESPONSIVE CONTROLS SHALL DIM LIGHTS CONTINUOUSLY FROM FULL LIGHT OUTPUT TO 15 PERCENT OF FULL LIGHT OR LOWER; TIME DELAY CIRCUITS SHALL BE INCORPORATED TO PREVENT CYCLING OF LIGHT LEVEL CHANGES LESS THAN THREE MINUTES.
8. EXTERIOR LIGHTING SHALL BE CONFIGURED PER THE FOLLOWING (UON):

8.1. LIGHTS SHALL BE CONFIGURED TO AUTOMATICALLY TURN OFF WHEN DAYLIGHT IS PRESENT AND SATISFIES THE LIGHTING NEEDS. (C405.2.9.1)

8.2. BUILDING FACADE AND LANDSCAPE LIGHTING SHALL BE CONFIGURED TO AUTOMATICALLY SHUT OFF FOR A MINIMUM OF 6 HOURS OR FROM ONE HOUR AFTER BUSINESS CLOSING TO NOT EARLIER THAN ONE HOUR BEFORE BUSINESS OPENING PER NIGHT EXCEPT WHERE AUTOMATIC SHUTOFF WOULD ENDANGER SAFETY OR SECURITY. (C405.2.9.2)

8.3. LIGHTING SETBACK (C405.2.9.3) SHALL COMPLY WITH THE FOLLOWING:

8.3.1. LUMINAIRES SERVING OUTDOOR PARKING AREAS WITH A WATTAGE GREATER THAN 40 WATTS AND A MOUNTING HEIGHT OF LESS THAN 24 FEET ABOVE GROUND SHALL BE CONTROLLED SO THE TOTAL WATTAGE IS REDUCED BY NOT LESS THAN 50 PERCENT DURING ANY TIME WHERE ACTIVITY HAS NOT BE DETECTED FOR 15 MINUTES OR MORE.

8.3.2. ALL OTHER LIGHTING SHALL BE CONTROLLED SO THAT THE TOTAL WATTAGE IS AUTOMATICALLY REDUCED BY NOT LESS THAN 50 PERCENT FROM NOT LATER THAN 12 MIDNIGHT TO 6AM, FROM NOT LATER THAN ONE HOUR AFTER BUSINESS CLOSING TO NOT EARLIER THAN ON HOUR BEFORE BUSINESS OPEN, OR DURING ANY PERIOD WHEN NO ACTIVITY HAS BEEN DETECTED FOR 15 MINUTES OR MORE.
- NETWORKED LIGHTING CONTROLS
9. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH A LIGHTING CONTROLS VENDOR TO OBTAIN LIGHTING CONTROL SYSTEM PACKAGE COMPLETE WITH DEVICES, WIRING DIAGRAMS, ANNOTATED PLANS INDICATING WHICH DEVICE TO BE USED IN EACH LOCATION, CONNECTION REQUIREMENTS, AND SET UP INSTRUCTIONS.

9.1. PROVIDE ALL LOW VOLTAGE WIRING AS REQUIRED FOR CONTROL DEVICE INTERCONNECTIONS.
10. INSTALLER QUALIFICATIONS: TECHNICIAN INSTALLING AND WRING THE LIGHTING CONTROL SYSTEM SHALL HAVE INSTALLED THIS SAME SYSTEM AT LEAST ONCE PREVIOUSLY. TECHNICIAN SHALL HAVE RECEIVED TRAINING BY FACTORY REPRESENTATIVE ON THE SYSTEM BEING INSTALLED.
11. SEQUENCE OF OPERATIONS SHALL BE CODE MINIMUM UON ON PLANS.

GENERAL LIGHTING NOTES

- LUMINAIRES:
1. ALL FIXTURES SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
2. CONTRACTOR SHALL BE RESPONSIBLE TO ORDER ALL NECESSARY HARDWARE, ELECTRICAL CABLE, TIMERS, TRANSFORMERS, ETC., AS REQUIRED FOR COMPLETION OF INSTALLATION OF A FULLY FUNCTIONING SYSTEM.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR EQUIPPING ALL FIXTURES WITH THE EXACT LAMPS SPECIFIED IN THE FIXTURE SCHEDULE OR AN EQUIVALENT APPROVED BY ELECTRICAL DESIGNER.
4. WHERE FIXTURES REQUIRE REMOTE TRANSFORMERS OR BALLASTS, THE CONTRACTOR SHALL DETERMINE LOCATIONS AS REQUIRED FOR EVEN LOAD DISTRIBUTION, SERVICE ACCESS, AND VENTILATION.
5. WHERE APPLICABLE, THE CONTRACTOR SHALL AIM AND ADJUST LIGHTING FIXTURES AS DIRECTED BY THE LIGHTING DESIGNER UPON COMPLETION OF THE INSTALLATION.
6. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. REFERENCE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF FIXTURES AND DEVICES. QUESTIONS CONCERNING THE LOCATION OF FIXTURES AND DEVICES SHALL BE DIRECTED TO THE ARCHITECT.
- DECORATIVE LIGHTING:
7. FOR CUSTOM FF&E FIXTURES, IT IS THE MANUFACTURER'S RESPONSIBILITY TO FURNISH PRODUCTS WHICH ARE COMPLIANT WITH ALL REQUIREMENTS OF LOCAL ENERGY CODES, AS WELL AS MATCH THE ELECTRICAL SPECIFICATIONS PROVIDED IN THE LUMINAIRE SCHEDULES. PROVIDE SUBMITTAL SHOP DRAWINGS WITHIN 30 DAYS OF RECEIVING FIXTURE ORDER. SUBMITTALS SHALL CLEARLY INDICATE LAMPING AND MAXIMUM WATTAGE RATING OF LAMP SOCKETS. NON-COMPLIANT FIXTURES REJECTED BY ELECTRICAL INSPECTOR SHALL BE RETURNED TO THE MANUFACTURER FOR REWORKING AND/OR RE-LABELING.
- EXIT SIGNS, EGRESS, AND EMERGENCY LIGHTING:
8. EXIT SIGNS: PROVIDE UNSWITCHED HOT. EXIT SIGN LETTERS SHALL NOT BE DIMMED OR RESPOND TO AUTOMATIC LIGHTING CONTROLS.
9. EMERGENCY LIGHTING FIXTURES: IN ADDITION TO SWITCH--LEG, PROVIDE UNSWITCHED HOT TO SERVE INTERNAL BATTERY AND CHARGER.
10. MEANS OF EGRESS ILLUMINATION DURING NORMAL OPERATION SHALL COMPLY WITH IBC 1008.2.1:

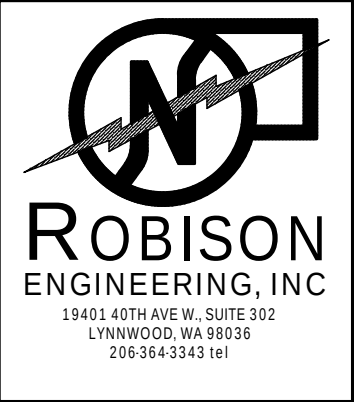
10.1. AT ANY TIME THE BUILDING IS OCCUPIED, THE MEANS OF EGRESS SHALL BE ILLUMINATED AT AN INTENSITY OF NOT LESS THAN 1 FOOTCANDLE AT THE WALKING SURFACE.

10.2. ALONG EXIT ACCESS STAIRWAYS, EXIT STAIRWAYS AND AT THEIR REQUIRED LANDINGS, THE ILLUMINATION SHALL NOT BE LESS THAN 10 FOOTCANDLES AT THE WALKING SURFACE WHEN THE STAIRWAY IS IN USE.
11. MEANS OF EGRESS ILLUMINATION DURING EMERGENCY OPERATION SHALL COMPLY WITH IBC 1008.3:

11.1. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS NOT LESS THAN AN AVERAGE OF 1 FOOTCANDLE AND A MINIMUM AT ANY POINT OF 0.1 FOOTCANDLE.

11.2. THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES.
12. DURING EMERGENCY CONDITIONS EMERGENCY LIGHTING CIRCUITS/UNIT EQUIPMENT SHALL BYPASS ALL LIGHTING CONTROLS AND ENERGIZE ALL CONNECTED LUMINAIRES TO PROVIDE ILLUMINATION AT FULL POWER OR TO A PRESET LOAD SHEDDING DIMMED OUTPUT. PROVIDE UL924 RELAYS/DEVICES AS REQUIRED TO BYPASS AREA CONTROLS. WHEN NORMAL POWER IS RESTORED, CONTROLS SHALL AUTOMATICALLY RESUME NORMAL OPERATION.
13. EMERGENCY LIGHTING POWER SHALL BE PROVIDED BY CONTRACTOR.
- SPECIAL NOTE TO THE CONTRACTOR
- FIXTURE SUBMITTALS THAT DO NOT INCLUDE LAMP SPECIFICATIONS WILL BE CONSIDERED INCOMPLETE AND WILL NOT BE REVIEWED

NO.	DATE	REVISIONS	
		DESCRIPTION	
	12/31/24	PERMIT SET	
	02/20/25	STREET LIGHTING REVISIONS	
	04/22/25	PERMIT SET 3	
	07/03/25	PERMIT SET 4	



DRAWN: KAS	DESIGNED: KAS	CHECKED: STEINKE M.	APPROVED: STEINKE M.
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PROJECT: EAST TOWN CROSSING LOT 1
TENANT IMPROVEMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

ROBISON
ENGINEERING, INC

19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: (206) 364-3343

DATE: 07-03-2025

SHEET TITLE: LIGHTING NOTES

SHEET NO. E0.5

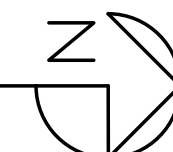
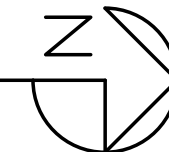
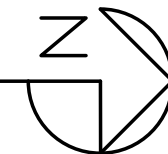


PROJECT: **EAST TOWN CROSSING LOT 1**
TENANT IMPROVEMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

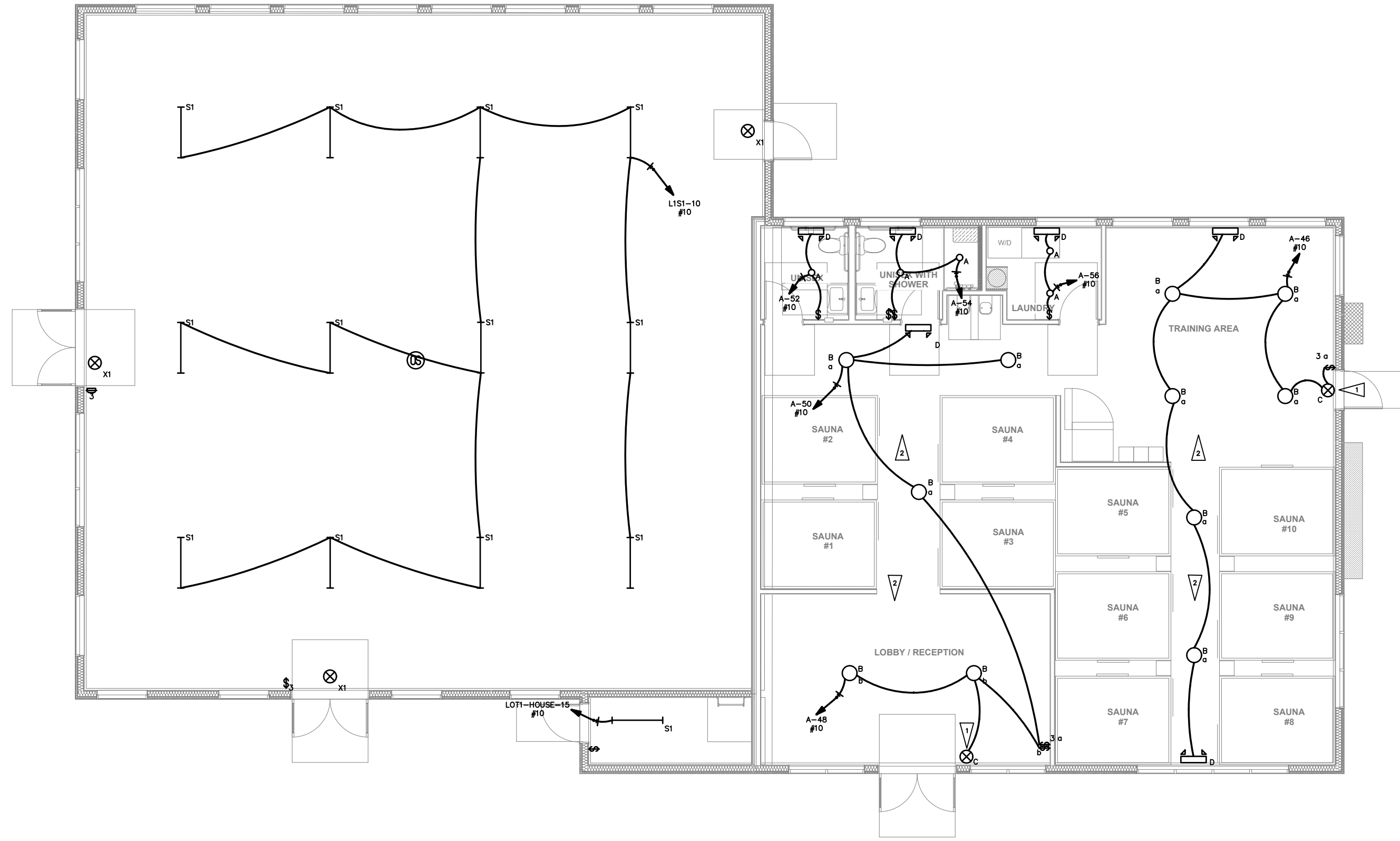
NO ROBISON
 ENGINEERING, INC

19401 40TH AVE W. SUITE 302
 LYNNWOOD, WA 98036
 PHONE (206)364.3343

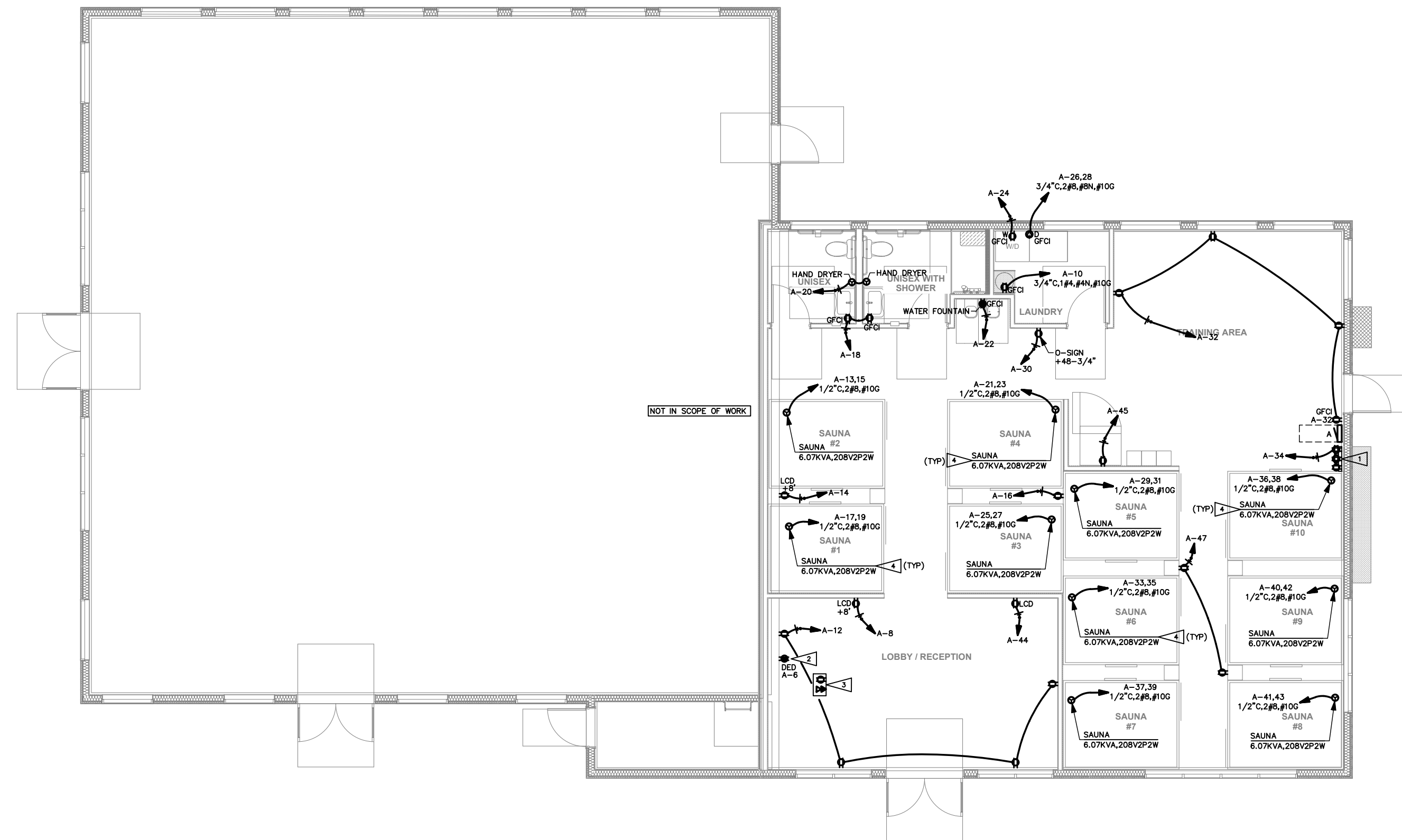
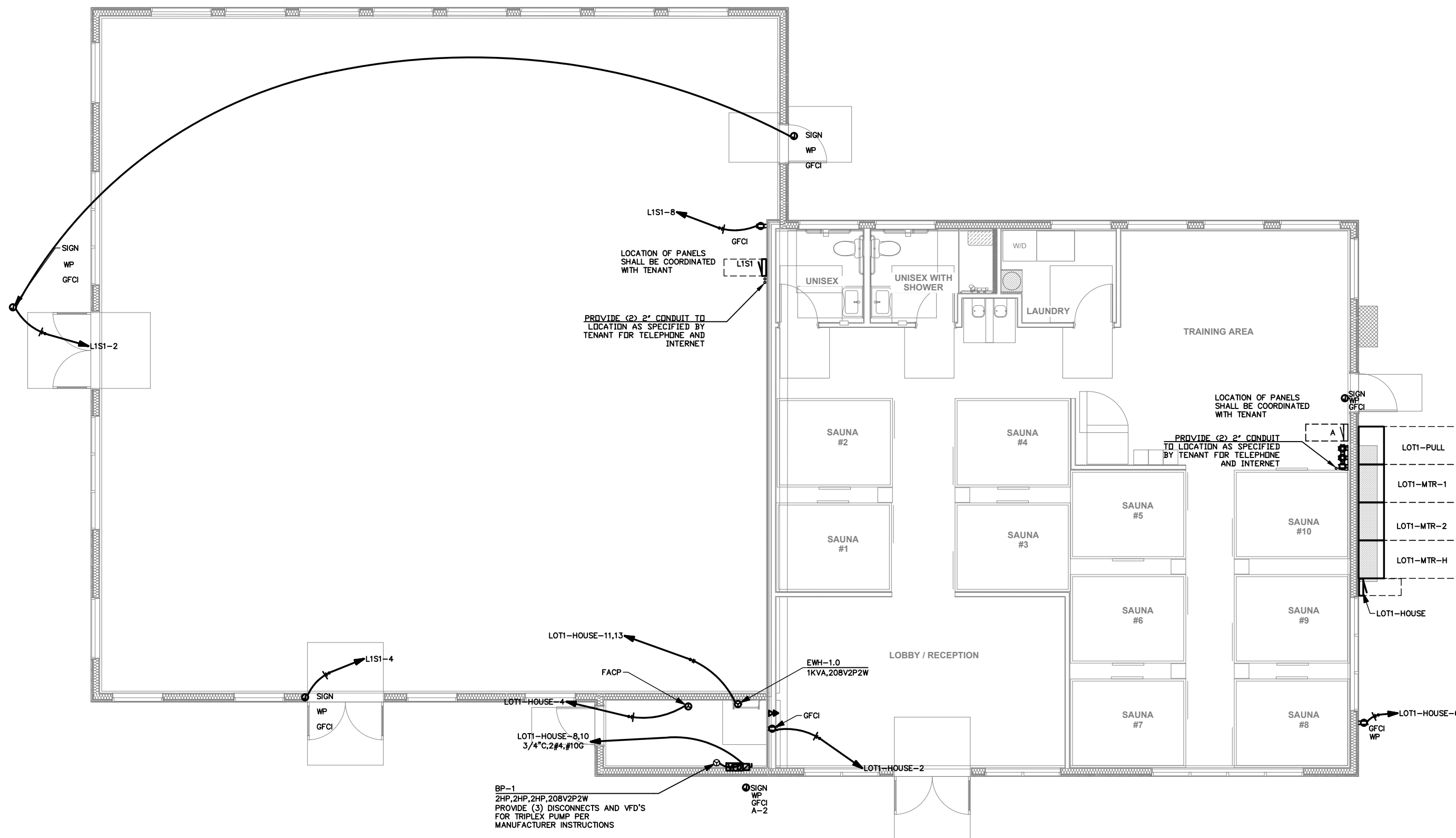
DATE: 07-03-2025
SHEET TITLE: TI SITE LIGHTING AND POWER PLAN
SHEET NO. E1.0



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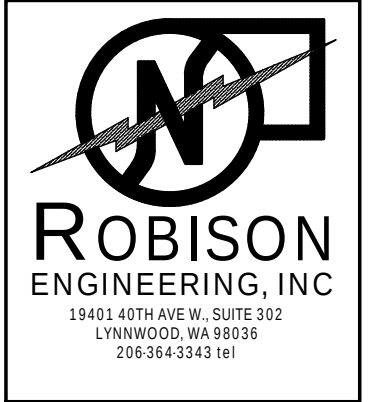


LEVEL 1 POWER & LIGHTING PLAN
SCALE: 1/8" = 1'-0"



Shell Permit Only. Separate Tenant Improvement Permit will be required prior to Occupancy.

NO.	DATE	DESCRIPTION
1	12/31/24	PERMIT SET
2	02/20/25	STREET LIGHTING REVISIONS
3	04/22/25	PERMIT SET 3
4	07/03/25	PERMIT SET 4



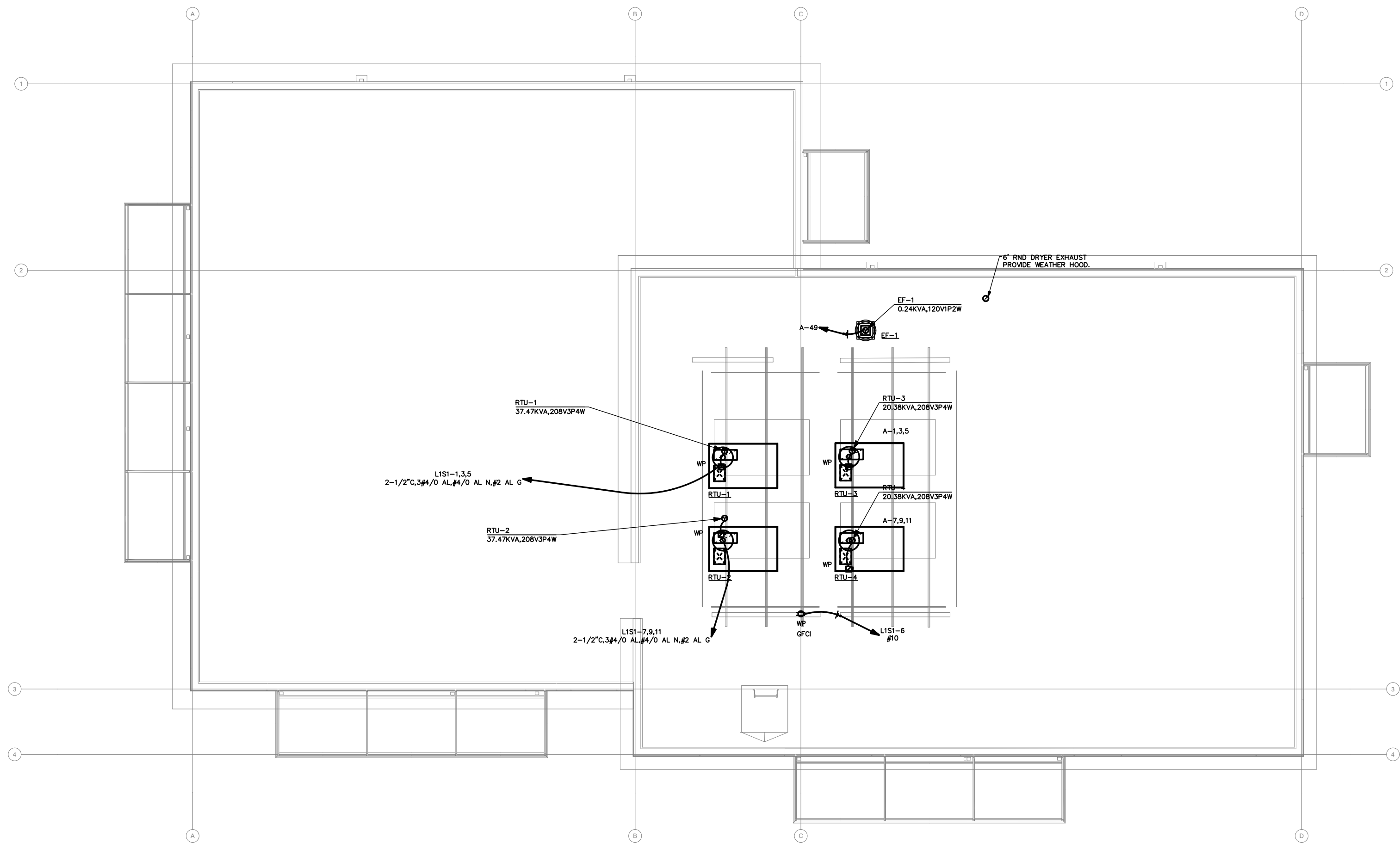
DRAWN: KAS	DESIGNED: KAS	CHECKED: STEINKE M.	APPROVED: STEINKE M.
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PROJECT: EAST TOWN CROSSING LOT 1 TENANT IMPROVEMENT PIONEER WAY & SHAW RD. PUYALLUP, WA	19401 40TH AVE. W. SUITE 302 LYNNWOOD, WA 98036 PHONE: (206) 364-3343
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DATE: 07-03-2025

SHEET TITLE: LEVEL 1 LIGHTING AND POWER

SHEET NO. E3.0



ROOF POWER PLAN

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

NO.	DATE	DESCRIPTION
	12/31/24	PERMIT SET
	02/20/25	STREET LIGHTING REVISIONS
	04/22/25	PERMIT SET 3
	07/03/25	PERMIT SET 4



DRAWN:	KAS
DESIGNED:	KAS
CHECKED:	STEINKE M.
APPROVED:	STEINKE M.

PROJECT: **EAST TOWN CROSSING LOT 1**
TENANT IMPROVEMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

ROBISON
ENGINEERING, INC

19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: (206) 364-3343

DATE:
07-03-2025

SHEET TITLE:
LEVEL 2/ ROOF
LIGHTING AND
POWER

SHEET NO.
E3.1

LIGHTING COMPLIANCE SUMMARY

2021 WSEC Compliance Forms for Commercial Buildings including Group R2, R3 & R4 over 3 stories and all R1 Administered by: ©2024 NEEA, All rights reserved

Project & Applicant Information	Project Title	East Town Crossing - TI Lot 1 - 2021 WSEC	For Building Department Use:	Date: May 31, 2024
	Project Address	Pioneer Way & Shaw Rd. Puyallup, WA 98372		
	Applicant Name	Nick Nagy		
	Applicant Phone	206-364-3343		
	Applicant Email	nnagy@robisonengineering.com		
For questions about this report, contact WSEC Commercial Technical Support at 360-539-5300 or via email at com.techsupport@waenergycodes.com				

General Occupancy	All Commercial	General Building Use Type	Retail, General Sales	Building Cond. Floor Area	4,715	
General Project Types	Shell & Core	New Building or Addition Lighting Scope	Interior Lighting	Alteration Lighting Scope	Project Cond. Floor Area	4,715
		Floors Above Grade			1	
Lighting Project Description				Compliance Method	General Prescriptive	

Lighting Compliance Scope and Method	Project Type	Interior / Exterior (Interior includes both interior & parking)	Luminaire Replacement Scope	Compliance Method	LPA Calculation Adjustment	Compliance Verification
	Shell & Core	Interior Lighting				
Additional Energy Efficiency (AEC) Measures Included	Reduced lighting power density - 10% lower than LPA Reduced lighting power density - 20% lower than LPA		Load Management (LDM) Measures Included	No lighting or electrical load management measures included in project		

Project Title	East Town Crossing - TI Lot 1 - 2021 WSEC	Date	May 31, 2024
Lighting Power Calculation	SHELL & CORE - INTERIOR LIGHTING	Compliance Verification	COMPLIES
Compliance Method	Space by space	LPA Calculation Adjustment	LPA x 0.8

Interior Lighting Power Allowance - Space by Space						
General Space Type	Specific Space Type	Gross Interior Area (SF)	LPA (Watts/SF)	Total Watts Allowed (SF x LPA x 0.8)	Total Proposed Watts (LPD + Display LPD)	Compliance Status
Electrical/mechanical		51	0.43	22		
Retail	General sales	4,664	1.05	4,897		
Proposed Total LPD				399		
Totals				Calculation Adjustment Applied - LPA x 0.8	3,935	COMPLIES

Proposed Lighting Power Density						
Fixture Type	Fixture ID	Quantity of Fixtures (#F)	Watts or Wattage Limit per Fixture (WpF)	Total Linear Feet (LF)	Watts per Linear Foot (WpLF)	Total Watts Proposed (#F x WpF) or (LF x WpLF)
Individual Fixtures						
Horizontal surface-mount	S1	21	19			399
Proposed Total LPD						399

Project Title	East Town Crossing - TI Lot 1 - 2021 WSEC	Date	May 31, 2024
Proposed Fixtures Details	SHELL & CORE - INTERIOR LIGHTING		
Fixture Type/Application	Fixture ID	Location in Documents	Lamp Type
Individual Fixtures			New or Existing-to-Remain

Horizontal surface-mount	S1	E3.0	LED	New
Fixture Description: 4' LED LINEAR STRIP				Are these fixtures located within a daylight zone?: Yes, controls provided
Daylight zone location(s): Sidelit daylight zones (primary and/or secondary)				Do these fixtures require specific application lighting controls?: None required

LIGHTING COMPLIANCE SUMMARY

2021 WSEC Compliance Forms for Commercial Buildings including Group R2, R3 & R4 over 3 stories and all R1 Administered by: ©2025 NEEA, All rights reserved

Project & Applicant Information	Project Title	Hotworx - 2021 WSEC	For Building Department Use:	Date: Jun 26, 2025
	Project Address	PIONEER WAY AND SHAW RD. Puyallup, WA 98372		
	Applicant Name	Kaneez Sheikh		
	Applicant Phone	206-364-3343		
	Applicant Email	ksheikh@robisonengineering.com		
For questions about this report, contact WSEC Commercial Technical Support at 360-539-5300 or via email at com.techsupport@waenergycodes.com				

General Occupancy	All Commercial	General Building Use Type	Retail, Lifestyle Center	Building Cond. Floor Area	2,046	
General Project Types	New Building	New Building or Addition Lighting Scope	Interior Lighting	Alteration Lighting Scope	Project Cond. Floor Area	2,046
		Floors Above Grade			1	
Lighting Project Description				Compliance Method	General Prescriptive	

Lighting Compliance Scope and Method	Project Type	Interior / Exterior (Interior includes both interior & parking)	Luminaire Replacement Scope	Compliance Method	LPA Calculation Adjustment	Compliance Verification
	New Building	Interior Lighting				
Additional Energy Efficiency (AEC) Measures Included	No lighting or electrical additional energy efficiency measures included in project		Load Management (LDM) Measures Included	No lighting or electrical load management measures included in project		

Project Title	Hotworx - 2021 WSEC	Date	Jun 26, 2025
Lighting Power Calculation	NEW BUILDING - INTERIOR LIGHTING	Compliance Verification	COMPLIES
Compliance Method	Building area	LPA Calculation Adjustment	none

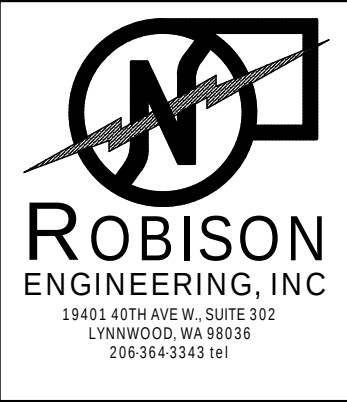
Interior Lighting Power Allowance - Building Area					
Building Areas	Gross Interior Area (SF)	LPA (Watts/SF)	Total Watts Allowed (SF x LPA x 1)	Total Proposed Watts By Building Area	Compliance Status by Building Area
Exercise center	2,046	0.67	1,371	720	COMPLIES

Proposed Lighting Power Density							
Fixture Type/Application	Fixture ID	Building Area	New or Existing-to-Remain	Quantity of Fixtures, CLDs or Luminaires (#F)	Watts per Fixture, CLD or Luminaire (WpF)	Total Linear Feet (LF)	Total Watts Proposed (#F x WpF) or (LF x WpLF)
Individual Fixtures							
Recessed downlight	A	Exercise center	New	5	12		60
Suspended	B	Exercise center	New	11	60		660

Project Title	Hotworx - 2021 WSEC	Date	Jun 26, 2025
Proposed Fixtures Details	NEW BUILDING - INTERIOR LIGHTING		
Fixture Type/Application	Fixture ID	Location in Documents	Lamp Type
Individual Fixtures			Building Area
Recessed downlight	A	E1.00	LED
	Fixture Description: 6" DOWNLIGHT		Exercise center
	Do these fixtures require specific application lighting controls?: None required		New
		Are these fixtures located within a daylight zone?: No	
		Do these fixtures require specific application lighting controls?: None required	

Suspended	B	E1.00	LED	Exercise center	New
Fixture Description: UFO HIGH BAY LIGHT				Are these fixtures located within a daylight zone?: No	
Do these fixtures require specific application lighting controls?: None required					

REVISIONS	DESCRIPTION	PERMIT SET	STREET LIGHTING REVISIONS	PERMIT SET 3	PERMIT SET 4
NO.	DATE	12/31/24	02/20/25	04/22/25	07/03/25



DRAWN: KAS	DESIGNED: KAS	CHECKED: STEINKE M.	APPROVED: STEINKE M.
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PROJECT: EAST TOWN CROSSING LOT 1
TENANT IMPROVEMENT
PIONEER WAY & SHAW RD. PUYALLUP, WA

19401 40TH AVE W, SUITE 302
LYNNWOOD, WA 98036
PHONE: (206) 364-3343

ROBISON ENGINEERING, INC.

DATE:
07-03-2025

SHEET TITLE:
ENERGY FORMS

SHEET NO.
E4.0