

## BUILDING CODE ANALYSIS

**SUMMARY OF THE PROJECT:**  
1-STORY ADDITION TOWARDS THE REAR OF AN EXISTING SFR. CONSTRUCT A ROOF OVER THE EXISTING REAR PATIO. INTERIOR ALTERATION OF AFFECTED AREAS.

**BUILDING DEPARTMENT CONTACT:**  
COMMUNITY PLANNING AND DEVELOPMENT  
9611 SE 36TH ST.  
MERCER ISLAND, WA 98040  
206.275.7605  
epermit.tech@mercerisland.gov

**APPLICABLE BUILDING CODES:**  
2021 INTERNATIONAL BUILDING CODE (IBC)  
2021 INTERNATIONAL RESIDENTIAL CODE (IRC)  
2021 NATIONAL ELECTRICAL CODE (NEC)  
2021 INTERNATIONAL MECHANICAL CODE (IMC)  
2021 UNIFORM PLUMBING CODE (UPC)  
2021 INTERNATIONAL PLUMBING CODE (IPC)  
2021 INTERNATIONAL FIRE CODE (IFC)  
2021 ACCESSIBILITY STANDARDS  
2021 WASHINGTON STATE ENERGY CODE - RESIDENTIAL

**ENERGY CODE DATA:**  
2021 WASHINGTON STATE ENERGY CODE - RESIDENTIAL  
PRESCRIPTIVE ENERGY CODE COMPLIANCE FOR ALL CLIMATE ZONES IN WASHINGTON  
SINGLE FAMILY - NEW & ADDITIONS (EFFECTIVE MARCH 15, 2024)

**PROJECT CLASSIFICATION:** 1. SMALL DWELLING UNIT: 5.0 CREDITS REQUIRED

**HEATING OPTION:** 4 HEAT PUMP 2.0 CREDITS  
**ENERGY OPTION:** 3.7 HIGH EFFICIENCY HVAC 3.0 CREDITS

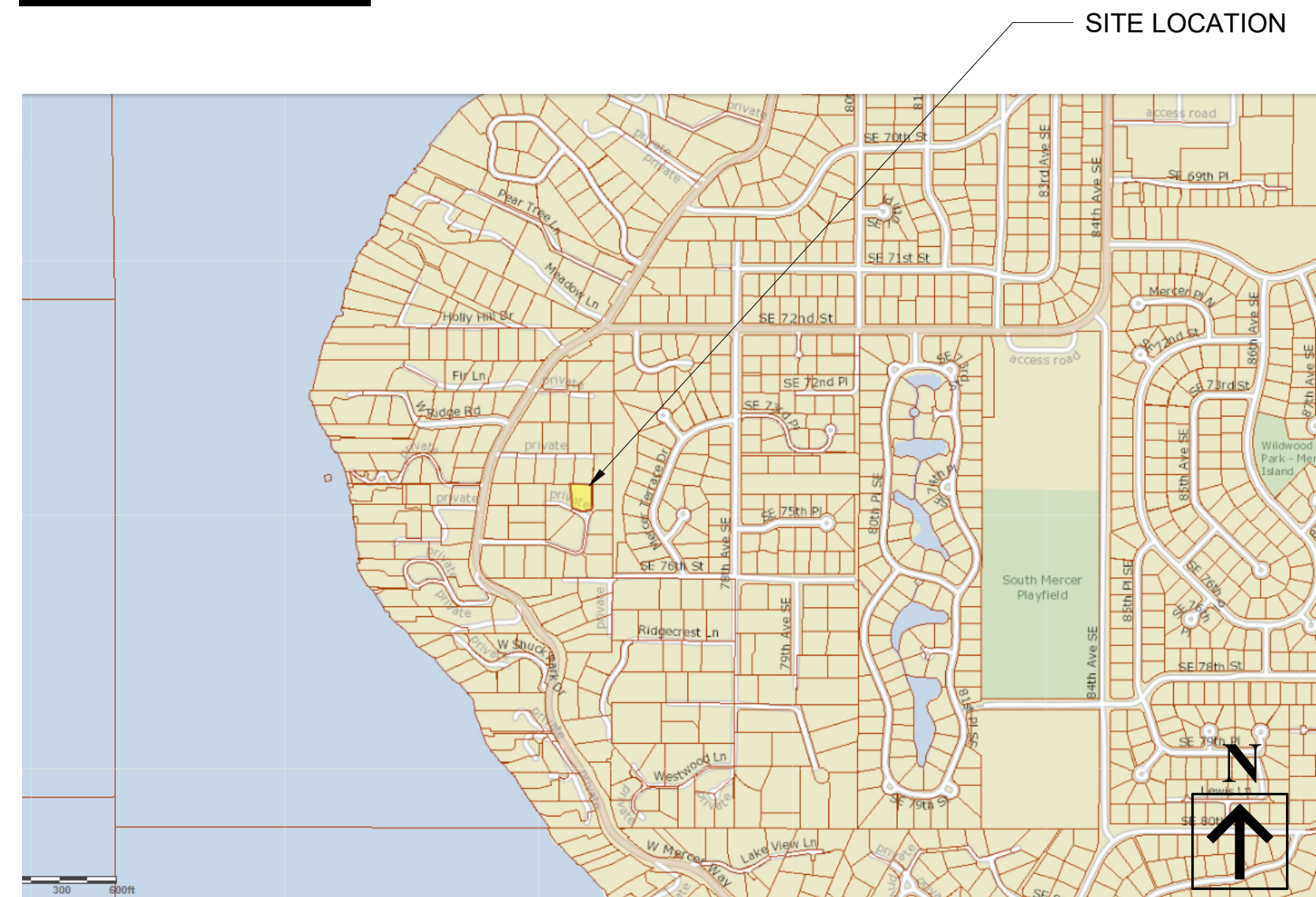
TOTAL CREDITS CLAIMED 5.0 CREDITS

3.7 DATA: LG 9K LA090HYV3 SINGLE ZONE HSPF 13.5

### MONITORED HOUSEHOLD FIRE ALARM PER NFPA 72:

NFPA 72 (CHAPTER 29) - MONITORED HOUSEHOLD FIRE ALARM SYSTEM IN COMPLIANCE WITH NFPA 72 AND CoMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED.

## VICINITY MAP



# ALDRICH RESIDENCE

## ADDITION AND INTERIOR ALTERATION

7448 W MERCER WAY  
MERCER ISLAND, WA 98040

Revision 1 - September 10, 2025

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## PROJECT DIRECTORY

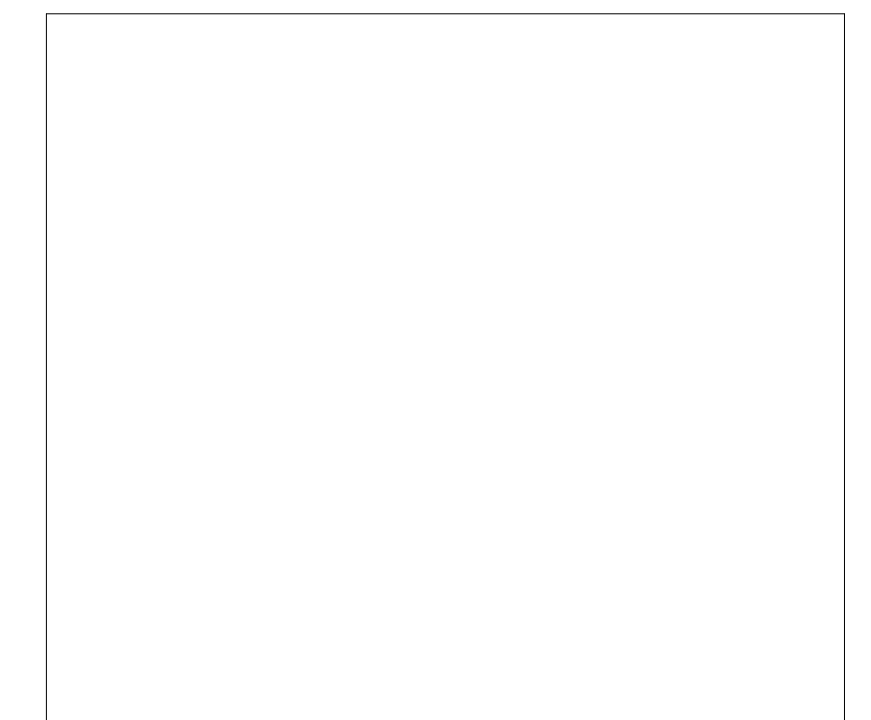
<b>OWNER:</b> JAMES & BROOKE ALDRICH 7448 W MERCER WAY MERCER ISLAND, WA 98040	<b>DESIGNER:</b> DAN V. GARVIDA GARVIDA DESIGN GROUP, LLC 12613 SE 237TH PLACE KENT, WA 98031 206.590.1232 DAN.GARVIDADESIGN@OUTLOOK.COM	<b>STRUCTURAL ENGINEER:</b> ROLAND HEIMISCH TECINSTRUCT, LLC 4111 164TH ST. SW, UNIT 51 LYNNWOOD, WA 98087 206.553.9076 RHEIMISCH@YAHOO.COM	<b>GENERAL CONTRACTOR:</b> TO BE DETERMINED
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## PROPERTY INFORMATION

<b>PARCEL #:</b> 926640-0040	<b>ZONING:</b> R-15	<b>LOT SIZE #:</b> 15,195 SF (0.35 ACRES)	<b>LEGAL DESCRIPTION:</b> WEST FIRS ADD TGW UND INT PRIVATE ROAD PLAT BLOCK: PLAT LOT: 4
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## DEFERRED SUBMITTAL:

APPROVAL INFORMATION SECTION



G-100

# GENERAL NOTES:

## 2021 IRC M1504.3 Exhaust Openings

Air exhaust openings shall terminate as follows:

- Not less than 3 feet from property lines.
- Not less than 3 feet from gravity air intake openings, operable windows and doors.
- Not less than 10 feet from mechanical air intake openings except where the exhaust opening is located not less than 3 feet above the air intake opening. Openings shall comply with Sections R303.5.2 and R303.6.

## 2021 UPC 507.2 Seismic Provisions.

- Water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion.
- Strappings shall be at points within the upper one-third and lower one-third of its vertical dimensions. At the lower point, a distance of not less than four (4) inches (102 mm) shall be maintained from the controls to the strapping.

## 2021 WSEC R404.1 Lighting Equipment

- All permanently installed lighting fixtures, excluding kitchen appliance lighting fixtures, shall contain only high-efficacy lighting sources.

## 2021 WSEC R403.5.3 Hot Water Pipe Insulation

- Insulation for service hot water pipe, both within and outside the conditioned space, shall have a minimum thermal resistance (R-value) of R-3.

Exception: Pipe insulation is permitted to be discontinuous where it passes through studs, joists or other structural members and where the insulated pipes pass other piping, conduit or vents, provided the insulation is installed tight to each obstruction.

## 2021 IRC M1502.3 Clothes Dryer Exhaust Duct Termination

- Exhaust ducts shall terminate on the outside of the building.
- Exhaust duct terminations shall be in accordance with the dryer manufacturer's installation instructions. If the manufacturer's instructions do not specify a termination location, the exhaust duct shall terminate not less than 3 feet (914 mm) in any direction from openings into buildings, including openings in ventilated soffits.
- Exhaust duct terminations shall be equipped with a backdraft damper. Screens shall not be installed at the duct termination.

## 2021 UPC 504.6 Temperature, Pressure, and Vacuum Relief Devices

- Temperature, pressure, and vacuum relief devices or combinations thereof, and automatic gas shutoff devices shall be installed in accordance with the terms of their listings and the manufacturer's installation instructions.
- A shutoff valve shall not be placed between the relief valve and the water heater or on discharge pipes between such valves and the atmosphere. The hourly British thermal units (Btu) (kW·h) discharge capacity or the rated steam relief capacity of the device shall be not less than the input rating of the water heater.
- Discharge piping shall be installed in accordance with Section 608.5.

## 2021 IRC R317.3.1 Fasteners for Preservative-Treated Wood

- Fasteners, including nuts and washers, for preservative-treated wood shall be of hot-dipped, zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Staples shall be of stainless steel. Coating types and weights for connectors in contact with preservative-treated wood shall be in accordance with the connector manufacturer's recommendations. In the absence of manufacturer's recommendations, not less than ASTM A653 type G185 zinc-coated galvanized steel, or equivalent, shall be used.

Exceptions:

- 1/2-inch-diameter (12.7 mm) or greater steel bolts.
- Fasteners other than nails, staples and timber rivets shall be permitted to be of mechanically deposited zinc-coated steel with coating weights in accordance with ASTM B695, Class 55 minimum.
- Plain carbon steel fasteners in SBX/DOT and zinc borate preservative-treated wood in an interior, dry environment shall be permitted.

## 2021 UPC 909.0 Special Venting for Island Fixtures.

- 909.1 General. Traps for island sinks and similar equipment shall be roughed in above the floor and shall be permitted to be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wyebranch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye branch immediately below the floor and extending to the nearest partition and then through the roof to the open air, or shall be permitted to be connected to other vents at a point not less than 6 inches (152 mm) above the flood-level rim of the fixtures served. Drainage fittings shall be used on the vent below the floor level, and a slope of not less than 1/4 inch per foot (20.8 mm/m) back to the drain shall be maintained. The return bend used under the drainboard shall be a one-piece fitting or an assembly of a 45 degree (0.79 rad), a 90 degree (1.57 rad), and a 45 degree (0.79 rad) elbow in the order named. Pipe sizing shall be as elsewhere required in this code. The island sink drain, upstream of the returned vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

## 2021 UPC 807.3 Domestic Dishwashing Machine.

- No domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher air gap fitting on the discharge side of the dishwashing machine. Listed air gaps shall be installed with the flood-level (FL) marking at or above the flood level of the sink or drainboard, whichever is higher.

## Ventilation:

**M1505.4.2 System controls.** The whole-house mechanical ventilation system shall be provided with controls that comply with the following:

- The whole house ventilation system shall be controlled with manual switches, timers or other means that provide for automatic operation of the ventilation system that are readily accessible by the occupant;

- Whole-house mechanical ventilation system shall be provided with controls that enable manual override off of the system by the occupant during periods of poor outdoor air quality. Controls shall include permanent text or a symbol indicating their function. Recommended control permanent labeling to include text similar to the following: "Leave on unless outdoor air quality is very poor." Manual controls shall be readily accessible by the occupant;

- Whole house ventilation systems shall be configured to operate continuously except where intermittent off controls and sizing are provided per Section M1505.4.3.2.

**M1505.4.3 Mechanical ventilation rate.** The whole-house mechanical ventilation system shall provide outdoor air at a continuous rate as determined in accordance with Table M1505.4.3(1) or Equation 15-1.

### Equation 15-1

Ventilation rate in cubic feet per minute = (0.01 × total square foot area of house) + [7.5 × (number of bedrooms + 1)] but not less than 30 cfm for each dwelling unit

**Table M1505.4.3(1)  
Whole-House Mechanical Ventilation Airflow Rate**

Dwelling Unit Floor Area (square feet)	Number of Bedrooms				
	0 - 1	2	3	4	5 or more
	Airflow in cfm				
< 500	30	30	35	45	50
501 - 1,000	30	35	40	50	55
1,001 - 1,500	30	40	45	55	60
1,501 - 2,000	35	45	50	60	65
2,001 - 2,500	40	50	55	65	70
2,501 - 3,000	45	55	60	70	75
3,001 - 3,500	50	60	65	75	80
3,501 - 4,000	55	65	70	80	85
4,001 - 4,500	60	70	75	85	90
4,501 - 5,000	65	75	80	90	95

**M1505.4.3.1 Ventilation quality adjustment.** The minimum whole house ventilation rate from Section 1505.4.3 shall be adjusted by the system coefficient in Table M1505.4.3(2) based on the system type not meeting the definition of a *balanced whole house ventilation* system and/or not meeting the definition of a *distributed whole house ventilation* system.

$$Q_v = Q_r * C_{system}$$

**(Equation 15-2)**

Where:

$Q_v$  = Quality-adjusted ventilation airflow rate in cubic feet per minute (cfm).

$Q_r$  = Ventilation airflow rate, cubic feet per minute (cfm) from 15-1 or Table M1505.4.3(1).

$C_{system}$  = System coefficient from Table 1505.4.3(2).

**Table M1505.4.3(2)  
System Coefficient ( $C_{system}$ )**

System Type	Distributed	Not Distributed
Balanced	1.0	1.25
Not balanced	1.25	1.5

**M1505.4.3.2 Intermittent off operation.** Whole-house mechanical ventilation systems shall be provided with advanced controls that are configured to operate the system with intermittent off operation shall operate for a least two hours in each four-hour segment. The whole house ventilation airflow rate determined in accordance with Section M1505.4.3 as corrected by Section M1505.4.3.1 is multiplied by the factor determined in accordance with Table M1505.4.3(3).

**Table M1505.4.3(3)  
Intermittent Off Whole House-Mechanical Ventilation Rate Factors<sup>a, b</sup>**

Run-time % in Each 4-hour Segment	50%	66%	75%	100%
Factor <sup>a</sup>	2	1.5	1.3	1.0

- For ventilation system run-time values between those given, the factors are permitted to be determined by interpolation.
- Extrapolation beyond the table is prohibited.

## MONITORED HOUSEHOLD FIRE ALARM PER NFPA 72:

NFPA 72 (CHAPTER 29) - MONITORED HOUSEHOLD FIRE ALARM SYSTEM IN COMPLIANCE WITH NFPA 72 AND CoMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED.

## GARVIDA DESIGN GROUP, LLC

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## ALDRICH RESIDENCE

ADDITION AND INTERIOR ALTERATION

JAMES & BROOKE ALDRICH  
7446 WYMER WAY  
MERCER ISLAND, WA 98040  
PARCEL #: 926640-0040

## GENERAL NOTES

## REVISIONS:

SEP 10 2025 

## APPROVAL INFORMATION SECTION

Project #: 2025-006

Date: 08/21/2025

Drawn by: Dan Garvida

Checked by: Aldrich

G-200

Scale: AS NOTED



Permit# To Be Assigned  
Address or Lot & Block  
ALDRICH RESIDENCE  
JAMES & BROOKE ALDRICH  
7448 W MERCER WAY  
City MERCER ISLAND Zip 98040

These requirements apply to all the IRC building types, including detached one- and two-family dwellings and multiple single-family dwellings (townhouses).

Instructions: This single-family project uses the requirements of the Prescriptive Path below to incorporate the minimum values listed. Based on the conditioned floor area of the structure, the number of required additional credits must be selected by the permit applicant.

Provide all information from the following tables in building permit drawings: Table R402.1.2 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and R406.3 Energy Credits.

Authorized Representative Signature [Signature] Date 05/19/2025

Table 402.1.3 All Climate Zones. Columns: Fenestration U-Factor, Skylight U-Factor, Ceiling, Wood Frame Wall, Floor, Below Grade Wall, Slab. Includes detailed footnotes for R-values and insulation requirements.

Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

- 1. Small Dwelling Unit: 5.0 credits
2. Medium Dwelling Unit: 8.0 credits
3. Large Dwelling Unit: 9.0 credits
4. Dwelling units serving Group R-2 occupancies: 6.5 credits
5. Additions 150 square feet to 500 square feet: 2.0 credits

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

Table R406.2 ENERGY EQUALIZATION CREDITS. Table with columns: System Type, Description of Primary Heating Source, Credits - select ONE system type. Includes options for combustion heating equipment, electric resistance, and heat pumps.

a. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
b. The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that "changeover" temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).
c. Additional points for the HVAC system are included in Table R406.3.

Summary of Table R406.3 Credits - limited to one energy option from each category. Table with columns: Options, Energy Credit Option Descriptions, Credits, Comments. Includes options for building envelope, HVAC, water heating, and appliance packages.

a. An alternative heating source sized at a maximum of 0.5 Watts/ft2 (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.
b. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
c. Option 3.11 can only be taken with Options 3.1 and 3.3. To qualify to claim Option 3.11 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.
d. This option may only be claimed if serving System Type 4 or 5 from Table R406.2.
e. Primary living areas include living, dining, kitchen, family rooms, and similar areas.
f. Option 3.11 may only be taken with Efficient Water Heating Options 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance. Supplementary heat for water heating system shall be in accordance with Section R403.5.7.

Table 406.3 - Energy Credits (Single Family). Table with columns: Option, Description, Credits: SF. Lists options for efficient building envelope, air leakage control, and high efficiency HVAC equipment.

Table 406.3 - Energy Credits (Single Family). Table with columns: Option, Description, Credits: SF. Lists options for air leakage control and high efficiency HVAC equipment.

Table 406.3 - Energy Credits (Single Family). Table with columns: Option, Description, Credits: SF. Lists options for high efficiency HVAC equipment options and ductless heat pumps.

ENERGY CODE DATA SUMMARY:
PROJECT CLASSIFICATION: 1. SMALL DWELLING UNIT: 5.0 CREDITS REQUIRED
HEATING OPTION: 4 HEAT PUMP 2.0 CREDITS
ENERGY OPTION: 3.7 HIGH EFFICIENCY HVAC 3.0 CREDITS
TOTAL CREDITS CLAIMED 5.0 CREDITS

3.7 DATA: LG 9K LA090HVY3 SINGLE ZONE HSPF 13.5

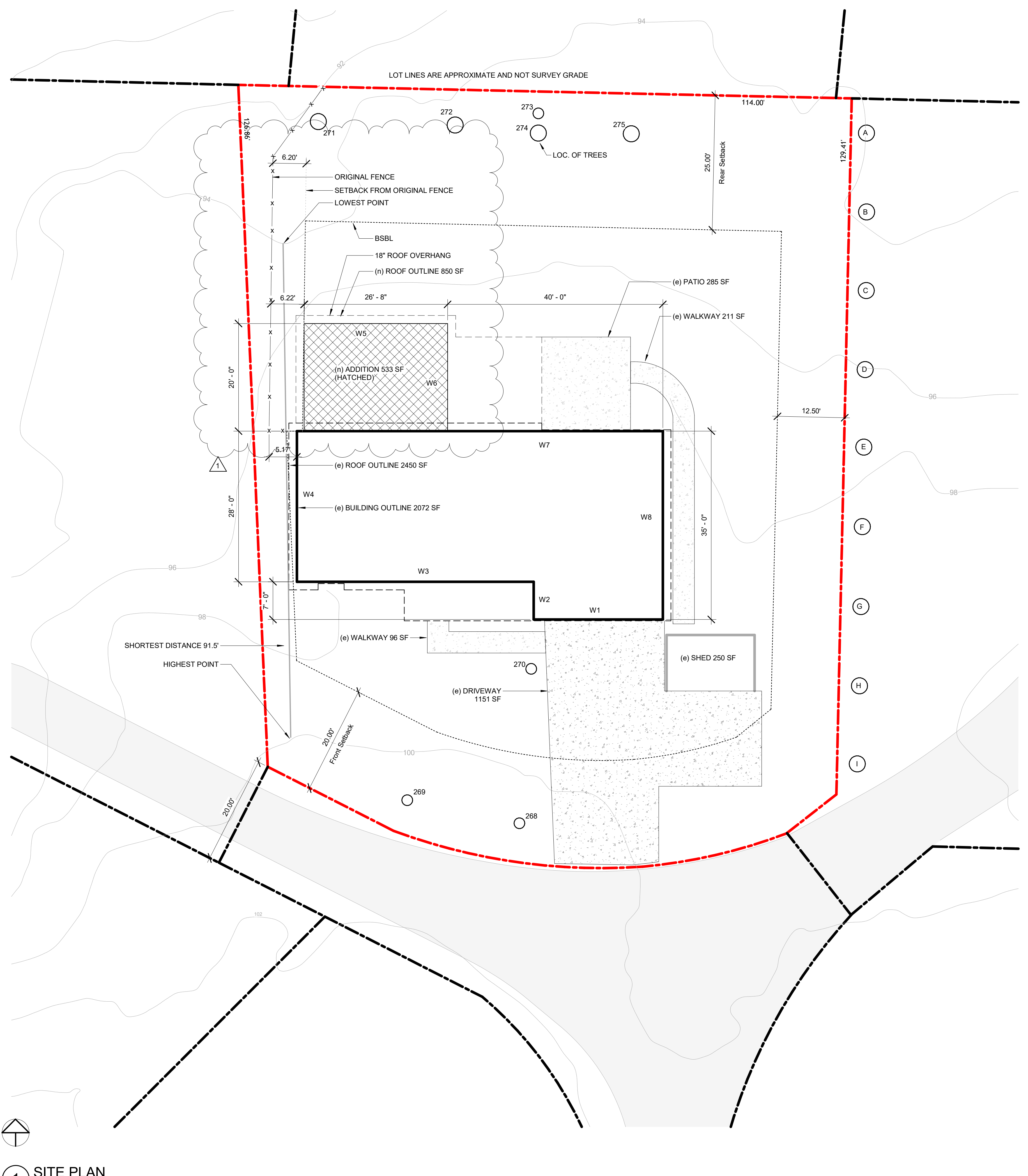
REVISIONS:
SEP 10 2025

APPROVAL INFORMATION SECTION

Project #: 2025-006
Date: 08/21/2025
Drawn by: Dan Garvida
Checked by: Aldrich

G-300





**PROJECT INFORMATION:**

DESCRIPTION OF PROJECT:  
1-STORY ADDITION TOWARDS THE REAR OF AN EXISTING SFR. CONSTRUCT A ROOF OVER THE EXISTING REAR PATIO. INTERIOR ALTERATION OF AFFECTED AREAS.

OWNER:  
JAMES & BROOKE ALDRICH  
7448 W MERCER WAY  
MERCER ISLAND, WA 98040

LOT DESCRIPTION:  
WEST FIRS ADD TGW UND INT PRIVATE ROAD  
PLAT BLOCK:  
PLAT LOT: 4

ZONING:  
R-15

PARCEL ID:  
926640-0040

AREA OF COVERAGE:  
LOT AREA: = 15,195 SF (0.35 ACRES)

GROSS FLOOR AREAS:  
MAIN FLOOR, EXISTING = 1,530 SF  
SECOND FLOOR, EXISTING = 1,230 SF  
GARAGE, ATTACHED, EXISTING = 500 SF  
ADDITION, NEW = 533 SF  
TOTAL FLOOR AREA = 3,793 SF (24.96%)

LOT COVERAGE:  
BUILDING, PRIMARY DWELLING, EXISTING = 2,450 SF  
ADDITION, NEW WITH ROOF OVERHANG = 850 SF  
DRIVEWAY, EXISTING = 1,151 SF  
STORAGE SHED, EXISTING = 250 SF  
TOTAL LOT COVERAGE = 4,701 SF (30.93%)

HARDSCAPE AREA:  
UNCOVERED PATIO, EXISTING = 285 SF  
WALKWAY, EXISTING = 307 SF  
TOTAL HARDSCAPE = 592 SF (3.90%)

IMPERVIOUS SURFACE:  
BUILDING WITH ROOF OVERHANG, EXISTING = 2,450 SF  
DRIVEWAY, EXISTING = 1,151 SF  
WALKWAY, EXISTING = 307 SF  
PATIO, BACK, EXISTING = 285 SF  
STORAGE SHED, EXISTING = 250 SF  
ADDITION, NEW WITH ROOF OVERHANG = 850 SF  
TOTAL IMPERVIOUS SURFACE = 5,293 SF (34.83%)

**LOT SLOPE CALCULATIONS**

Highest Elevation Point of Lot:	100	Feet
Lowest Elevation Point of Lot:	94	Feet
Elevation Difference:	6	Feet
Horizontal Distance Between High and Low Points:	91.5	Feet
Lot Slope*	6.6	%

\*Lot slope is the elevation difference divided by horizontal distance multiplied by 100.

PARCEL DATA	
Parcel	926640-0040
Name	ALDRICH JAMES III+BROOKE
Site Address	7448 W MERCER WAY 98040
Residential Area	034-007 (SE Appraisal District)
Property Name	
Jurisdiction	MERCER ISLAND
Levy Code	1031
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	4
Quarter-Section-Township-Range	SW-25-24-4

Legal Description  
WEST FIRS ADD TGW UND INT PRIVATE ROAD  
PLat Block:  
Plat Lot: 4

LAND DATA	
Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	PRESENT USE
Present Use	Single Family(Res Use/Zone)
Land SqFt	15,195
Acres	0.35
Percentage Unusable	
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	R-15
Water	WATER DISTRICT
Sewer/Septic	PUBLIC
Road Access	PRIVATE
Parking	ADEQUATE
Street Surface	PAVED
Views	
Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	
Designations	
Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO
Waterfront	
Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO
Nuisances	
Topography	
Traffic Noise	
Airport Noise	
Power Lines	NO
Other Nuisances	NO
Problems	
Water Problems	NO
Transportation Concurrence	NO
Other Problems	NO
Environmental	
Environmental	NO

AVERAGE BUILDING ELEVATION CALCULATION (ABE):			
SEGMENT	LENGTH	ELEVATION	PRODUCT
W1	24.00 @	99.5	2,388
W2	7.25 @	99.5	721
W3	44.00 @	99.5	4,378
W4	48.00 @	99.3	4,766
W5	26.67 @	99.0	2,640
W6	20.00 @	99.5	1,990
W7	40.00 @	99.5	3,980
W8	35.00 @	99.0	3,465
TOTAL ABE	246.25	98.8 OR 98'-9"	24,328

REQUIRED SIDE YARD CALCULATION:	
FRONT WIDTH	106'
REAR WIDTH	114'
AVERAGE	110' @ 17%
18.7' @ 33%	18.7'
18.7' - 6.2'	12.5'
TOTAL REQUIRED MINIMUM ONE SIDE OTHER SIDE	12.5'

**GARVIDA DESIGN GROUP, LLC**  
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**ALDRICH RESIDENCE**  
ADDITION AND INTERIOR ALTERATION  
JAMES & BROOKE ALDRICH  
7448 W MERCER WAY  
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PARCEL #: 926640-0040

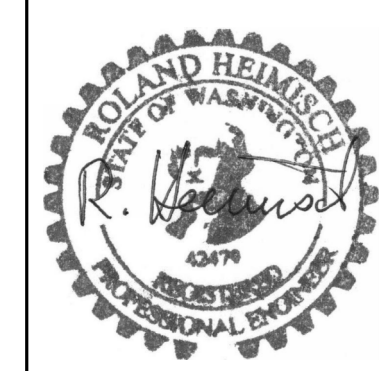
**SITE PLAN & PROJECT INFORMATION**

REVISIONS:  
SEP 10 2025

APPROVAL INFORMATION SECTION

Project #: 2025-006  
Date: 08/21/2025  
Drawn by: Dan Garvida  
Checked by: Aldrich

**C-100**  
Scale: AS NOTED



**ALDRICH RESIDENCE**  
 ADDITION AND INTERIOR ALTERATION  
 JAMES & BROOKE ALDRICH  
 7446 W MERCER WAY  
 MERCER ISLAND, WA 98040  
 PARCEL #: 926640-0040

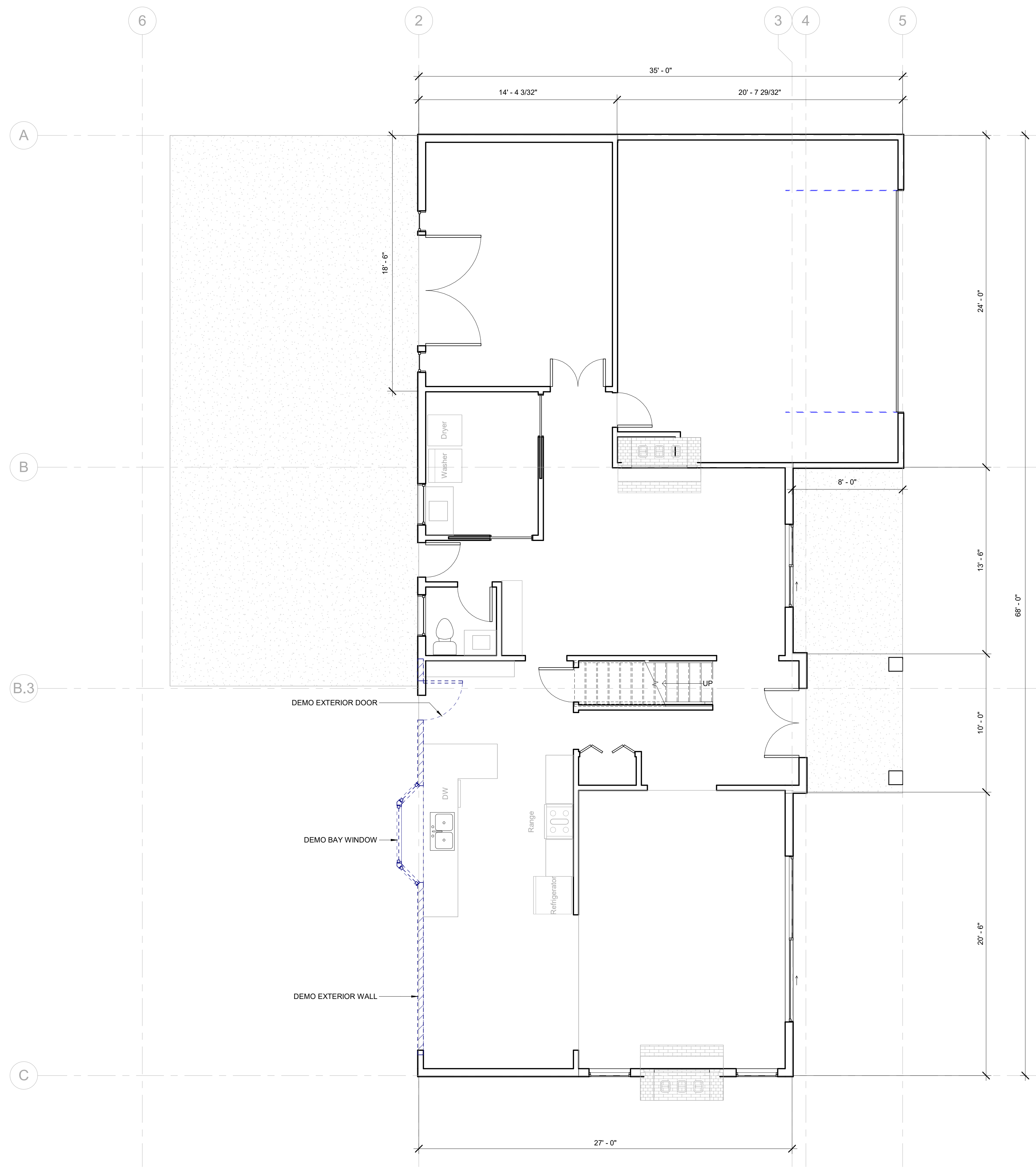
**MAIN FLOOR PLAN - EXISTING AND DEMO**

REVISIONS:

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Project #:	2025-006
Date:	08/21/2025
Drawn by:	Dan Garvida
Checked by:	Aldrich

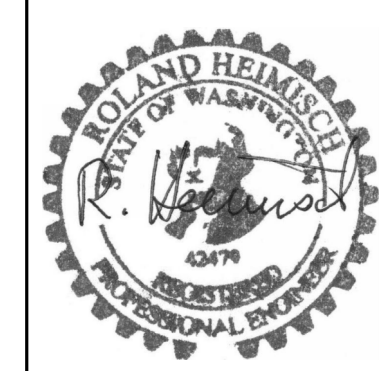
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 Scale: AS NOTED



**1 1ST FLOOR PLAN - EXISTING AND DEMO PLANS**  
 SCALE: 1/4" = 1'-0"

APPROVAL INFORMATION SECTION





**ALDRICH RESIDENCE**  
 ADDITION AND INTERIOR ALTERATION  
 JAMES & BROOKE ALDRICH  
 7446 W. MERCER WAY  
 MERCER ISLAND, WA 98040  
 PARCEL #: 926640-0040

**2ND FLOOR PLAN - EXISTING TO REMAIN**

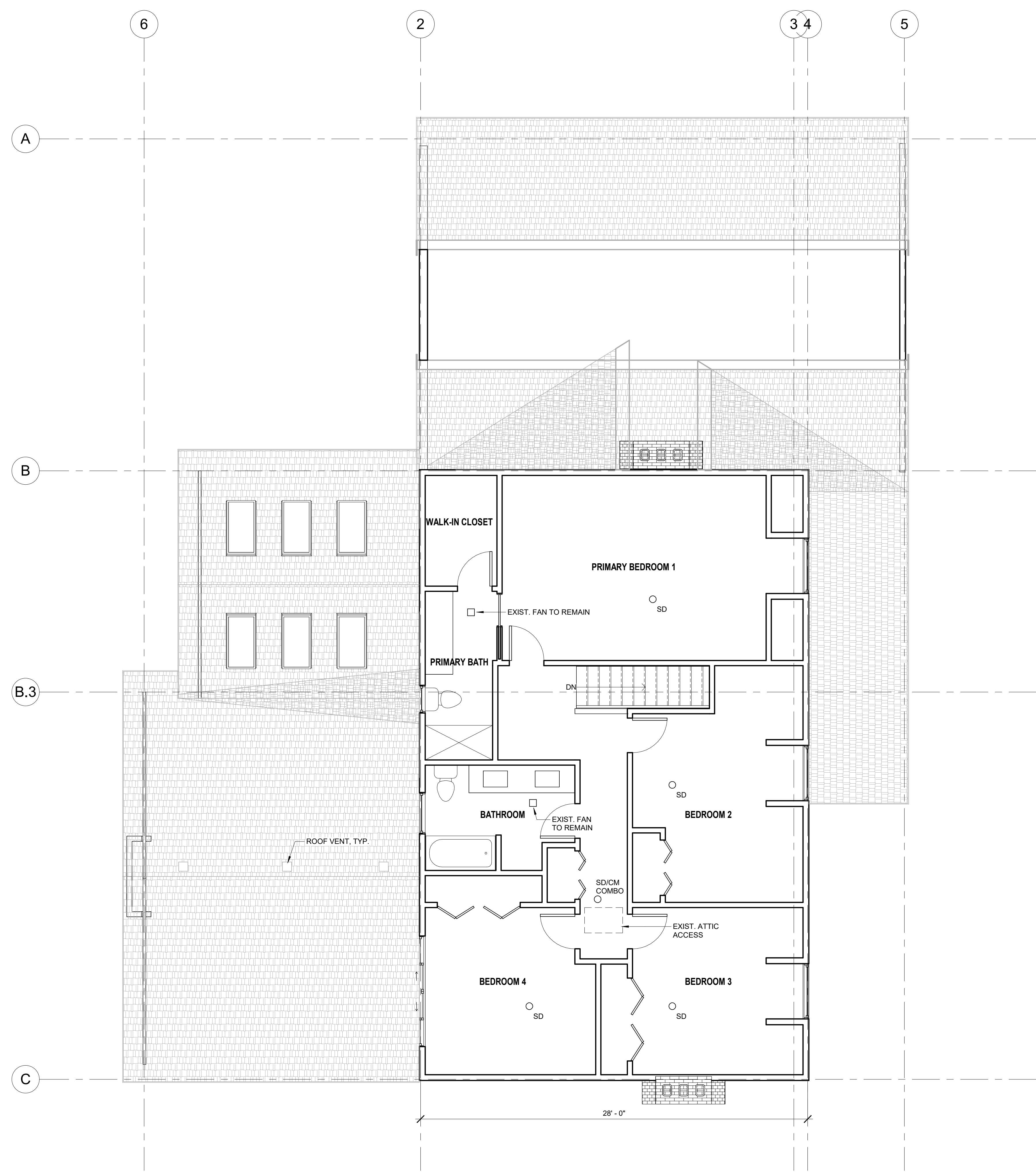
REVISIONS:

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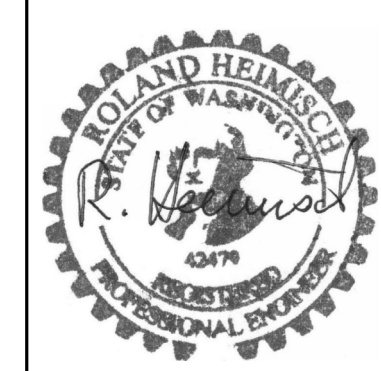
**A-102**

Scale: AS NOTED



**1 2ND FLOOR PLAN - EXISTING TO REMAIN**  
 SCALE: 1/4" = 1'-0"

APPROVAL INFORMATION SECTION



**ALDRICH RESIDENCE**  
 ADDITION AND INTERIOR ALTERATION  
 JAMES & BROOKE ALDRICH  
 7446 W MERCER WAY  
 MERCER ISLAND, WA 98040  
 PARCEL #: 928640-0040

**ROOF PLAN**

REVISIONS:

SEP 10 2025	1
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Project #: 2025-006  
 Date: 08/21/2025  
 Drawn by: Dan Garvida  
 Checked by: Aldrich

**A-103**

Scale: AS NOTED

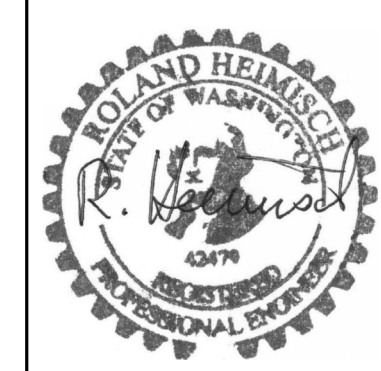
**ROOF VENT CALCULATION**      Addition Only

AREA OF ROOF					560
TOTAL VENT REQUIRED (SF)					1.87
49% OF	1.87	=	0.91	/	0.3400 (ROOF VENT NET FREE AREA)
51% OF	1.87	=	0.95	/	0.0218 (2" DIAMETER @ EVE)
# OF ROOF VENTS PROVIDED	2.6902	OR			3 PROVIDED
# OF EVE VENTS PROVIDED	43.6697	OR			44 PROVIDED



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

APPROVAL INFORMATION SECTION



**ALDRICH RESIDENCE**  
 ADDITION AND INTERIOR ALTERATION  
 JAMES & BROOKE ALDRICH  
 7446 W MERCER WAY  
 MERCER ISLAND, WA 98040  
 PARCEL #: 926640-0040

**FOUNDATION 1ST FLOOR FRAMING PLAN**

REVISIONS:

SEP 10 2025	1
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Project #: 2025-006  
 Date: 08/21/2025  
 Drawn by: Dan Garvida  
 Checked by: Aldrich

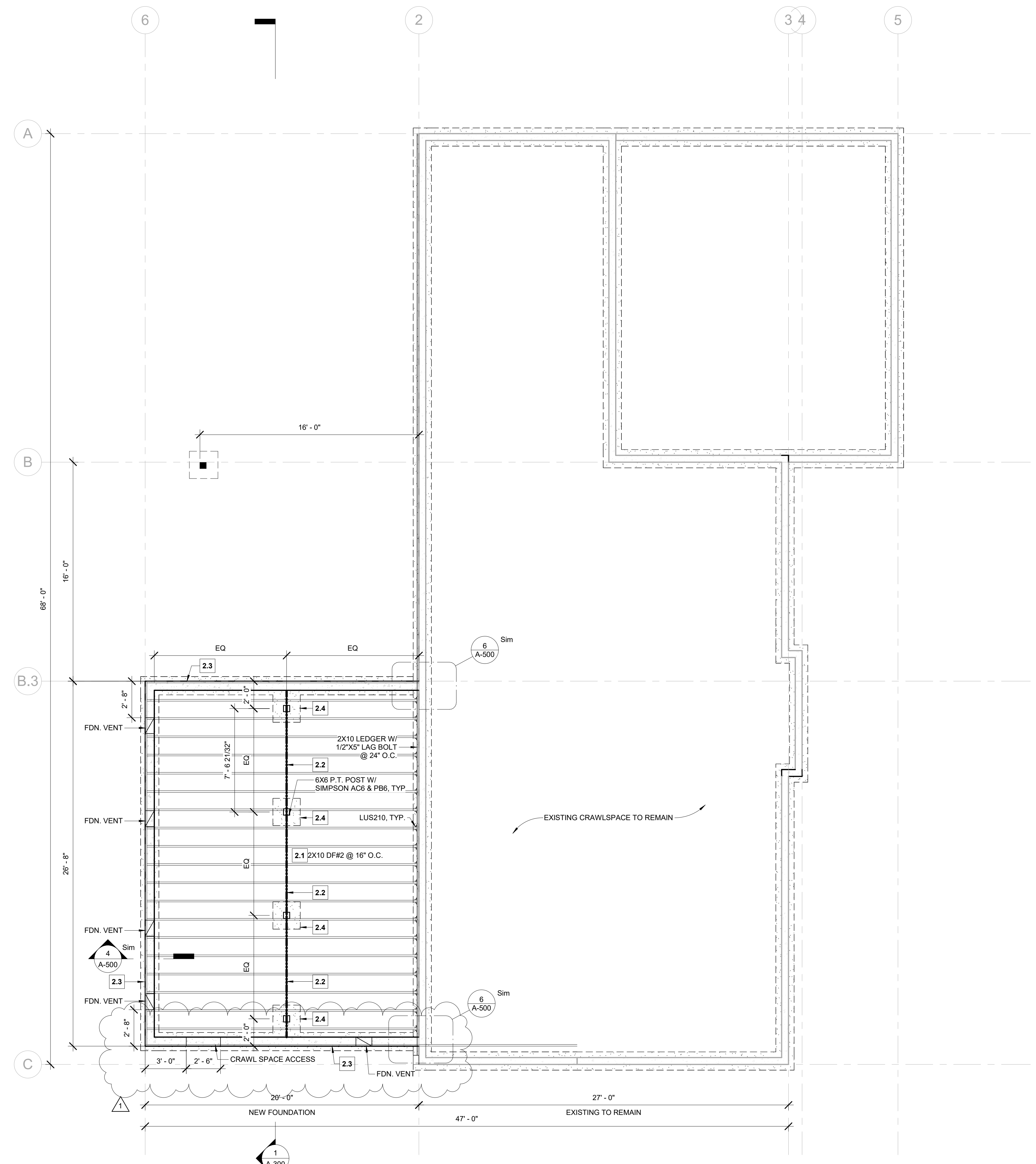
**A-200**  
 Scale: AS NOTED

**FOUNDATION VENTS CALCULATION:** Addition  
 (FOR EVERY 150 SF OF SPACE IN THE CRAWLSPACE)

AREA OF FOUNDATION: 533 SF  
 REQUIRED VENTS: 3.55 SF  
 FOUNDATION VENT NET FREE AREA: 0.910 SF  
 REQUIRED VENTS: 3.90  
 NUMBER OF VENTS PROVIDED: 4

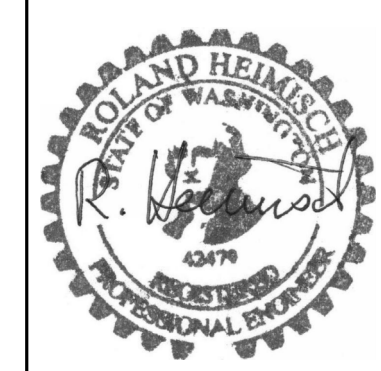
**STRUCTURAL MEMBERS:**

- KEY LIST:**  
 Floor Level
- Key No. 2.1 Floor Joist, F No. 2, 2x10", @ 16" o.c.
  - Key No. 2.2 Beam, DF No. 2, 6x10"
  - Key No. 2.3 Continuous Footing, fc = 2,500 psi, 16x8" With 2 - #4 Horizontal, Min Overlap = 18"
  - Key No. 2.4 Spread Footing, fc = 2,500 psi, 24x24x8" With 3-#4 Ea. Way



**1 FOUNDATION & 1ST FLOOR FRAMING PLAN**  
 SCALE: 1/4" = 1'-0"

APPROVAL INFORMATION SECTION



**ROOF FRAMING PLANS**

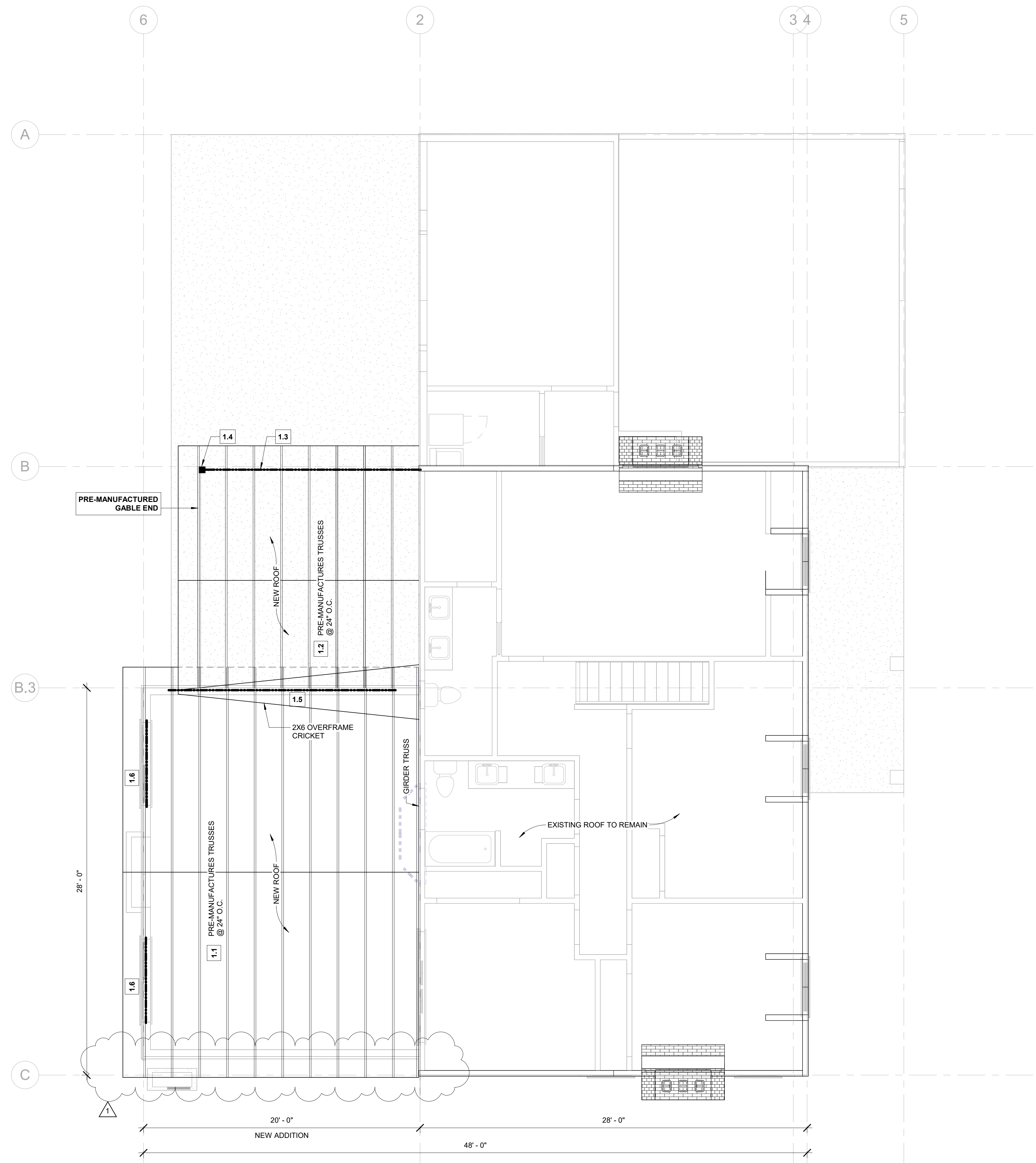
REVISIONS:

SEP 10 2025	1
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Project #: 2025-006  
 Date: 08/21/2025  
 Drawn by: Dan Garvida  
 Checked by: Aldrich

**A-201**

Scale: AS NOTED



**ROOF VENT CALCULATION** Addition Only

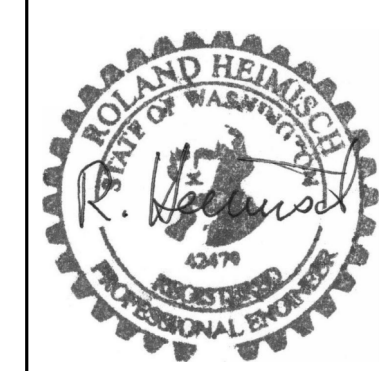
AREA OF ROOF	533		
TOTAL VENT REQUIRED (SF)	1.78		
49% OF	1.78	=	0.87 / 0.3400 (ROOF VENT NET FREE AREA)
51% OF	1.78	=	0.91 / 0.0218 (2" DIAMETER @ EVE)
# OF ROOF VENTS PROVIDED	2.56049	OR	3 PROVIDED
# OF EVE VENTS PROVIDED	41.5642	OR	42 PROVIDED

**STRUCTURAL MEMBERS:**

- Roof Level
- Key No. 1.1 Manufactured Scissored Trusses, @ 24" o.c.
  - Key No. 1.2 Manufactured Common Trusses, @ 24" o.c.
  - Key No. 1.3 Glulam WS, 24F-1.8E, 5-1/2x9-1/2"
  - Key No. 1.4 Post, HF No. 2, 6x8", P.T.
  - Key No. 1.5 Glulam WS, 24F-1.8E, 5-1/2x13-1/2"
  - Key No. 1.6 Header, DF No. 2, 4x6"

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

APPROVAL INFORMATION SECTION

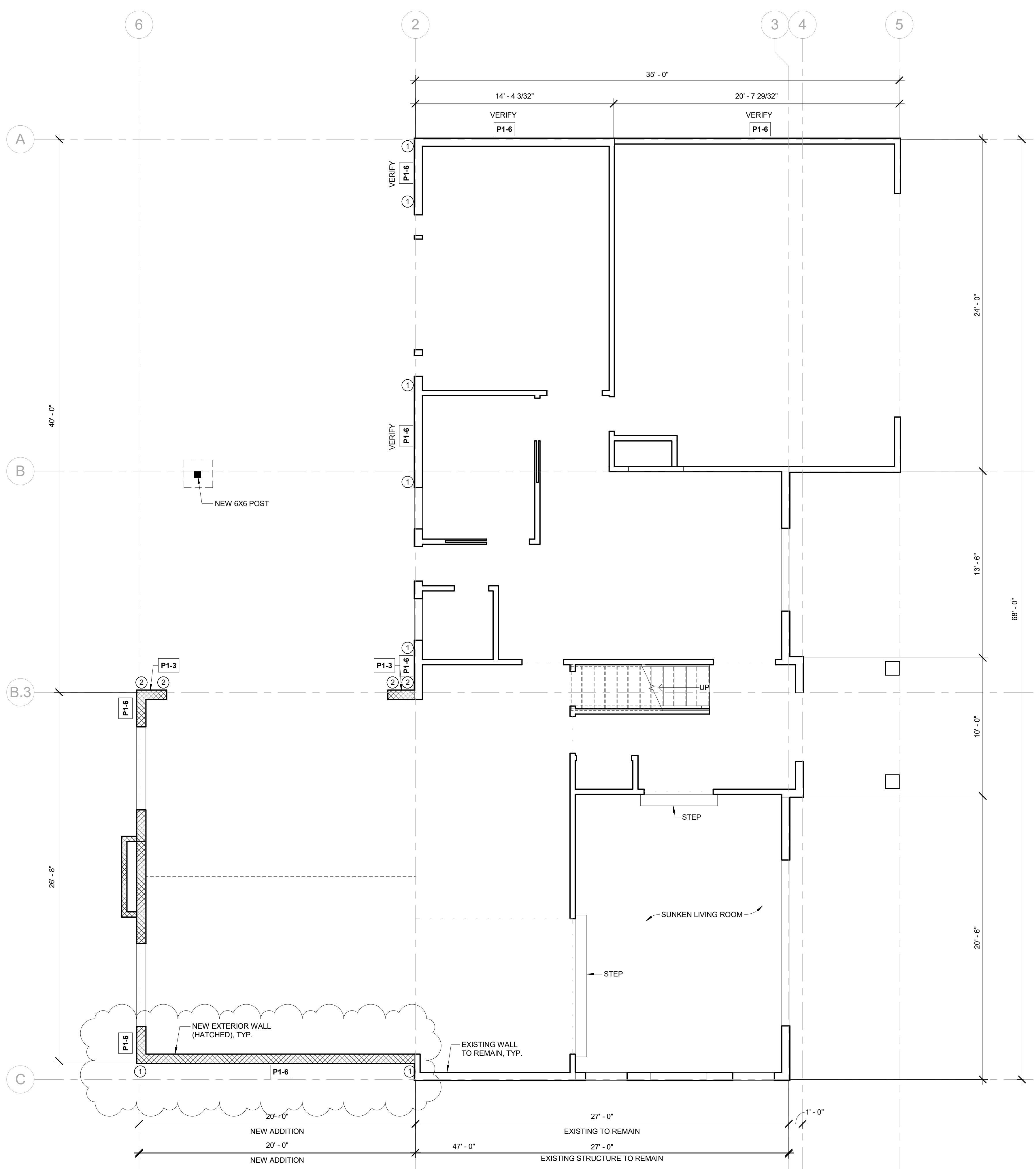


Project: 7448 W Mercer Way, Mercer Island, WA 98040

Shear Wall Types								
SW type	OSB	Nails	Nails edge @ (in o.c.)	Nails field @ (in o.c.)	Boundary Member	Seismic list x .94 (to adjust for HF)	Wind x 1.4 pif	Anchor Bolt 5/8" @ (in o.c.)
P1-6	7/16"	8d	6"	12"	2x	225	315	48"
P1-3	7/16"	8d	3"	12"	3x	425	590	30"
Roof	7/16"	8d	6"	12"	2x	226	316	
Floor	3/4" CDX	10d	6"	12"	2x	300	420	

Holdowns						
Callout	HD	All T (lbs)	Wood Member	Bolt dia	Embedment w/ Epoxy SET-G3	
1	HDU2	2215	(2) 2x	5/8"	7"	
2	HDU4	3285	(2) 2x	5/8"	9"	



**1 1ST FLOOR PLAN - SHEAR WALL PLAN**  
 SCALE: 1/4" = 1'-0"

**ALDRICH RESIDENCE**  
 ADDITION AND INTERIOR ALTERATION

JAMES & BROOKE ALDRICH  
 7448 W MERCER WAY  
 MERCER ISLAND, WA 98040  
 PARCEL #: 926640-0040

**SHEAR WALL, SCHEDULE, AND HOLDDOWN**

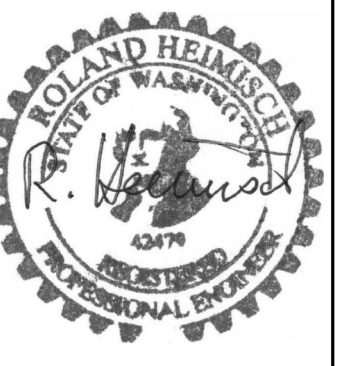
REVISIONS:

SEP 10 2025	1
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Project #: 2025-006  
 Date: 08/21/2025  
 Drawn by: Dan Garvida  
 Checked by: Aldrich

**A-202**

Scale: AS NOTED



**ALDRICH RESIDENCE**  
 ADDITION AND INTERIOR ALTERATION

JAMES & BROOKE ALDRICH  
 7446 W. MERCER WAY  
 MERCER ISLAND, WA 98040  
 PARCEL #: 926640-0040

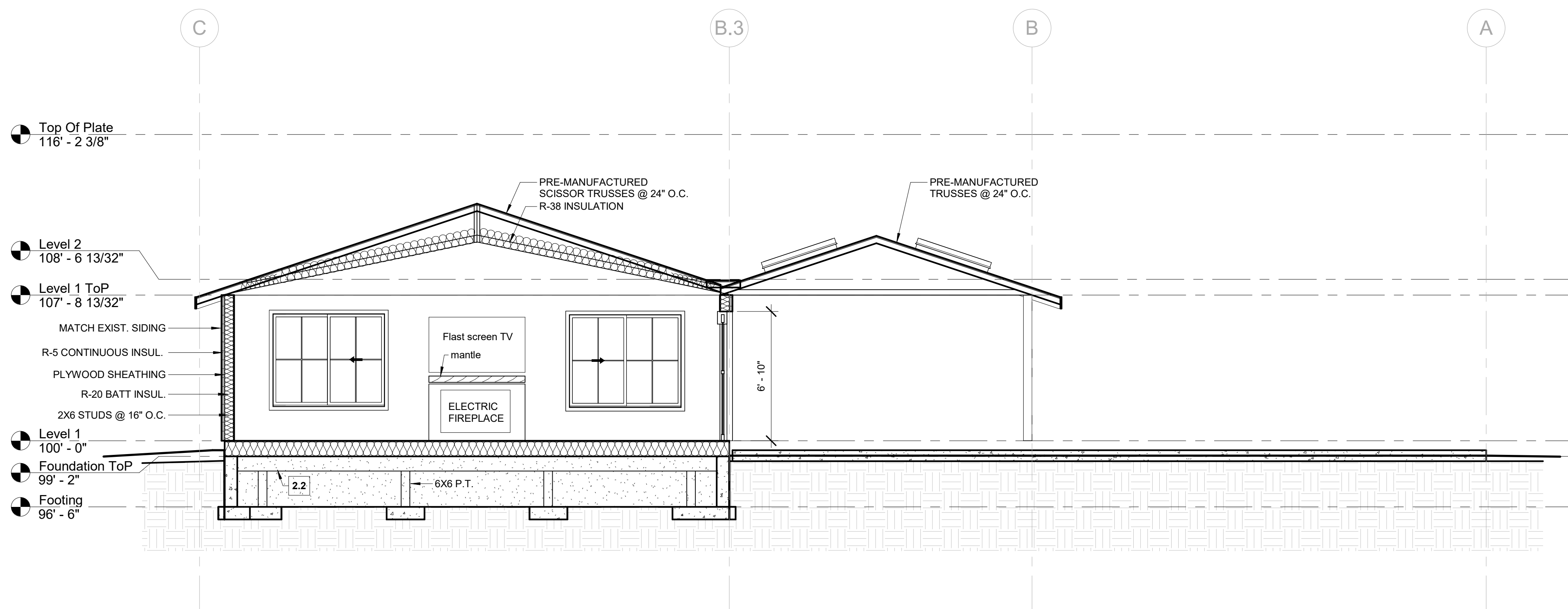
**SECTION VIEWS**

**REVISIONS:**

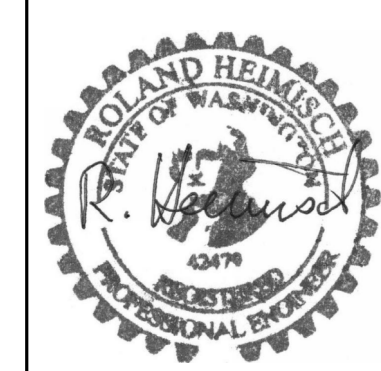
SEP 10 2025 1

APPROVAL INFORMATION SECTION

Project #:	2025-006
Date:	08/21/2025
Drawn by:	Dan Garvida
Checked by:	Aldrich
<b>A-300</b>	
Scale:	AS NOTED



**1 SECTION THRU NEW ADDITION**  
 SCALE: 1/4" = 1'-0"



**ALDRICH RESIDENCE**  
 ADDITION AND INTERIOR ALTERATION

JAMES & BROOKE ALDRICH  
 7446 W MERCER WAY  
 MERCER ISLAND, WA 98040  
 PARCEL #: 9286640-0040

**ELEVATIONS - NORTH AND EAST**

REVISIONS:

SEP 10 2025	1
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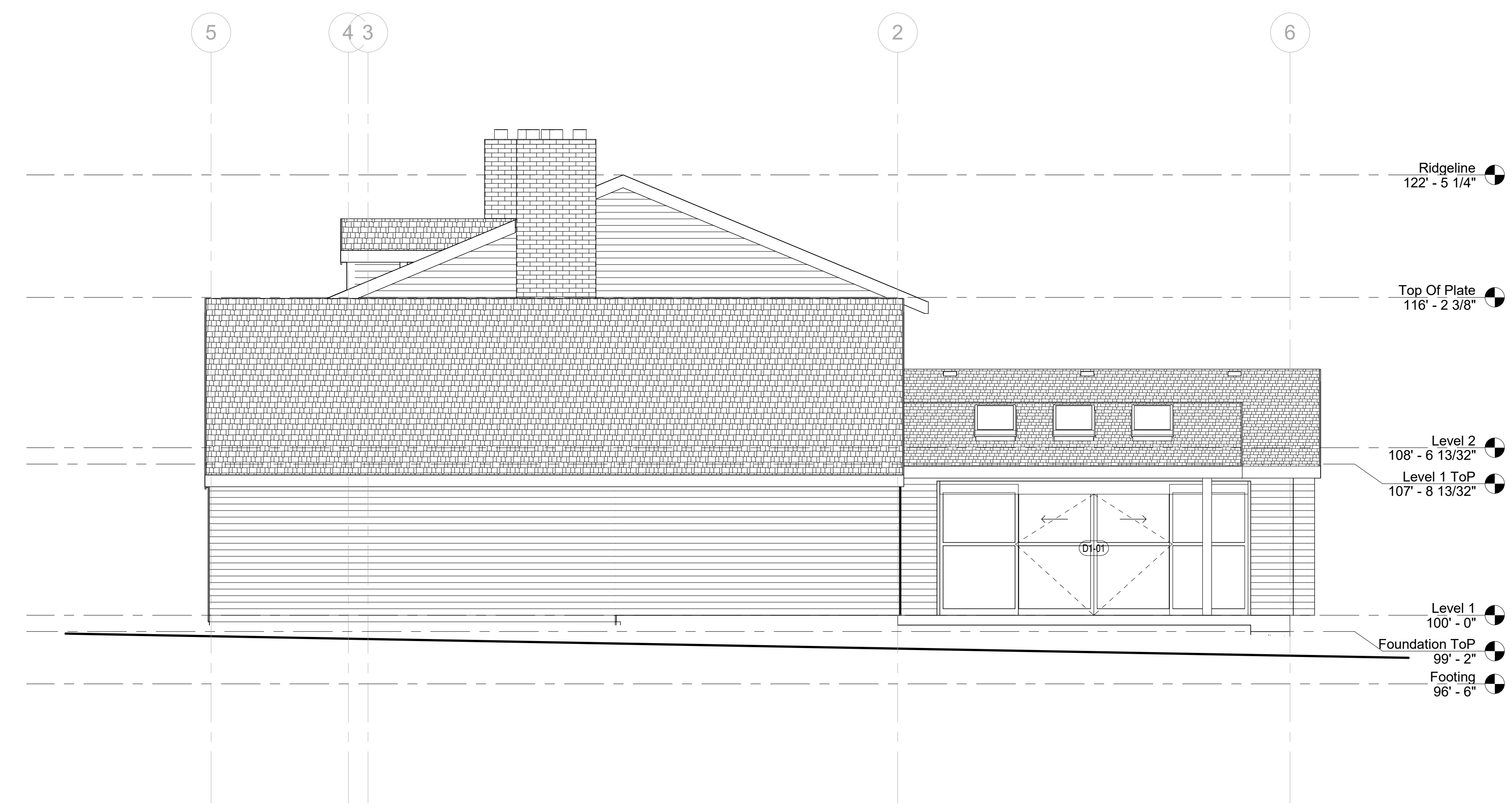
Project #: 2025-006  
 Date: 08/21/2025  
 Drawn by: Dan Garvida  
 Checked by: Aldrich

**A-400**

Scale: AS NOTED

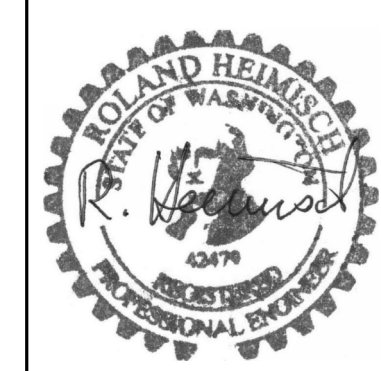


**1 NORTH (REAR) ELEVATION**  
 SCALE: 1/4" = 1'-0"



**2 EAST (RIGHT) ELEVATION**  
 SCALE: 1/4" = 1'-0"

APPROVAL INFORMATION SECTION



**ALDRICH RESIDENCE**  
 ADDITION AND INTERIOR ALTERATION  
 JAMES & BROOKE ALDRICH  
 7446 W MERCER WAY  
 MERCER ISLAND, WA 98040  
 PARCEL #: 926640-0040

**ELEVATIONS - SOUTH AND WEST**

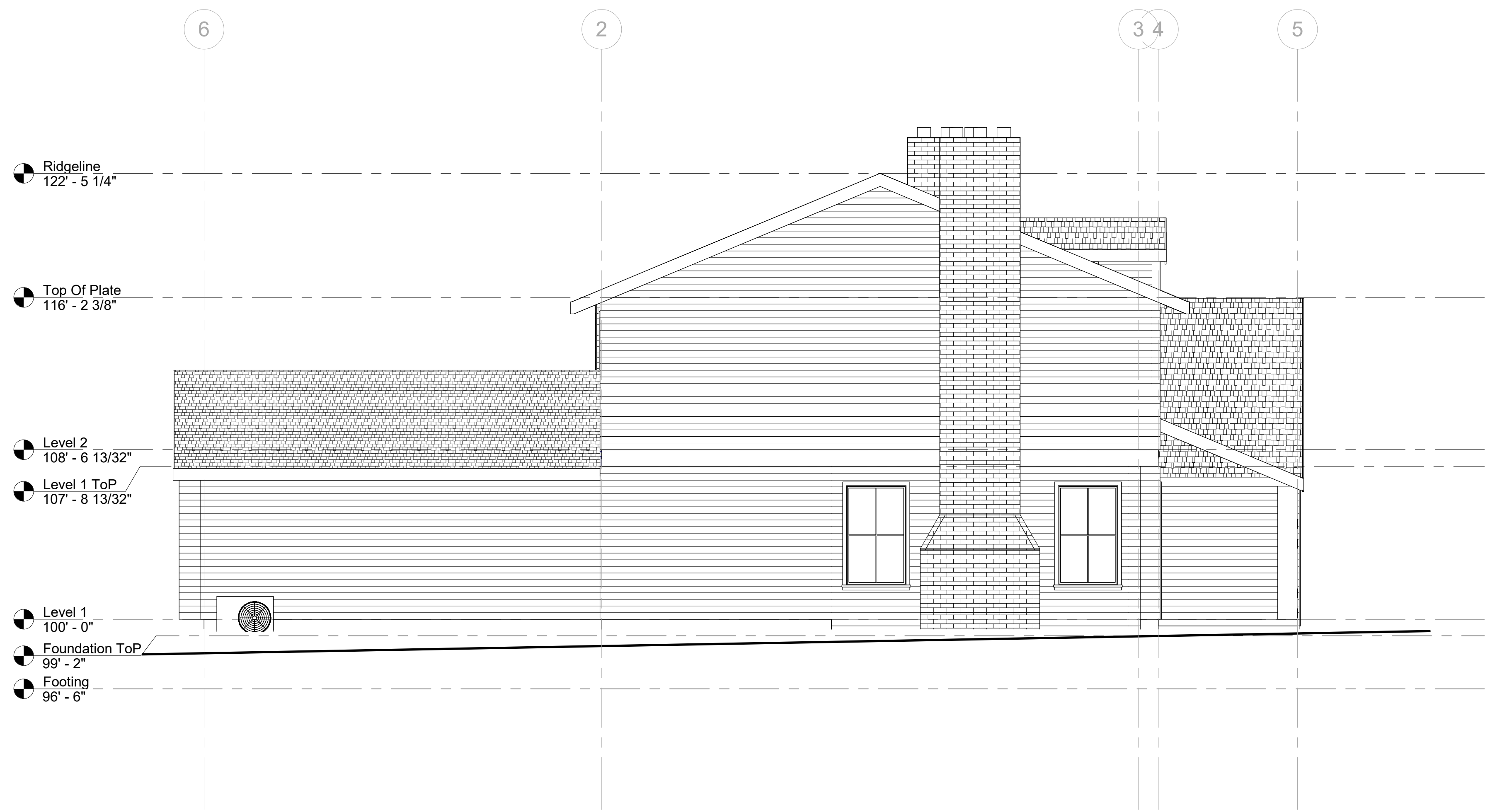
REVISIONS:

SEP 10 2025	1
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Project #: 2025-006  
 Date: 08/21/2025  
 Drawn by: Dan Garvida  
 Checked by: Aldrich

**A-401**

Scale: AS NOTED

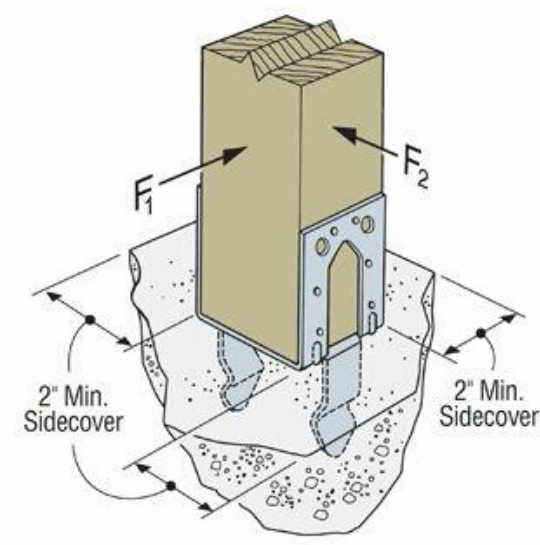


**1 WEST (LEFT) ELEVATION**  
 SCALE: 1/4" = 1'-0"

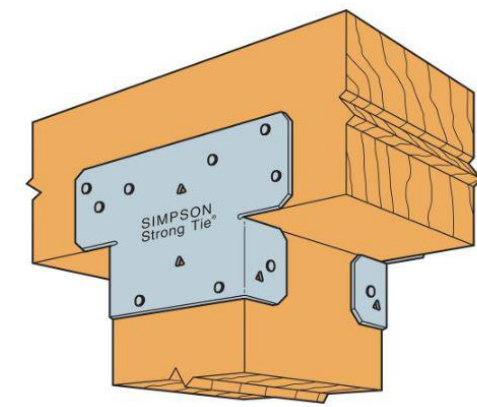


**2 SOUTH (FRONT) ELEVATION**  
 SCALE: 1/4" = 1'-0"

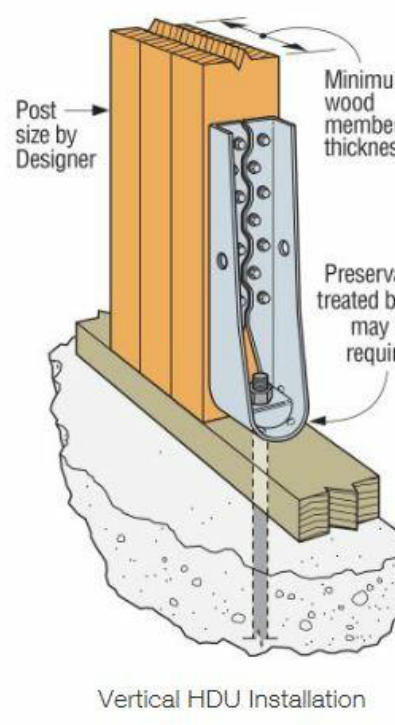
APPROVAL INFORMATION SECTION



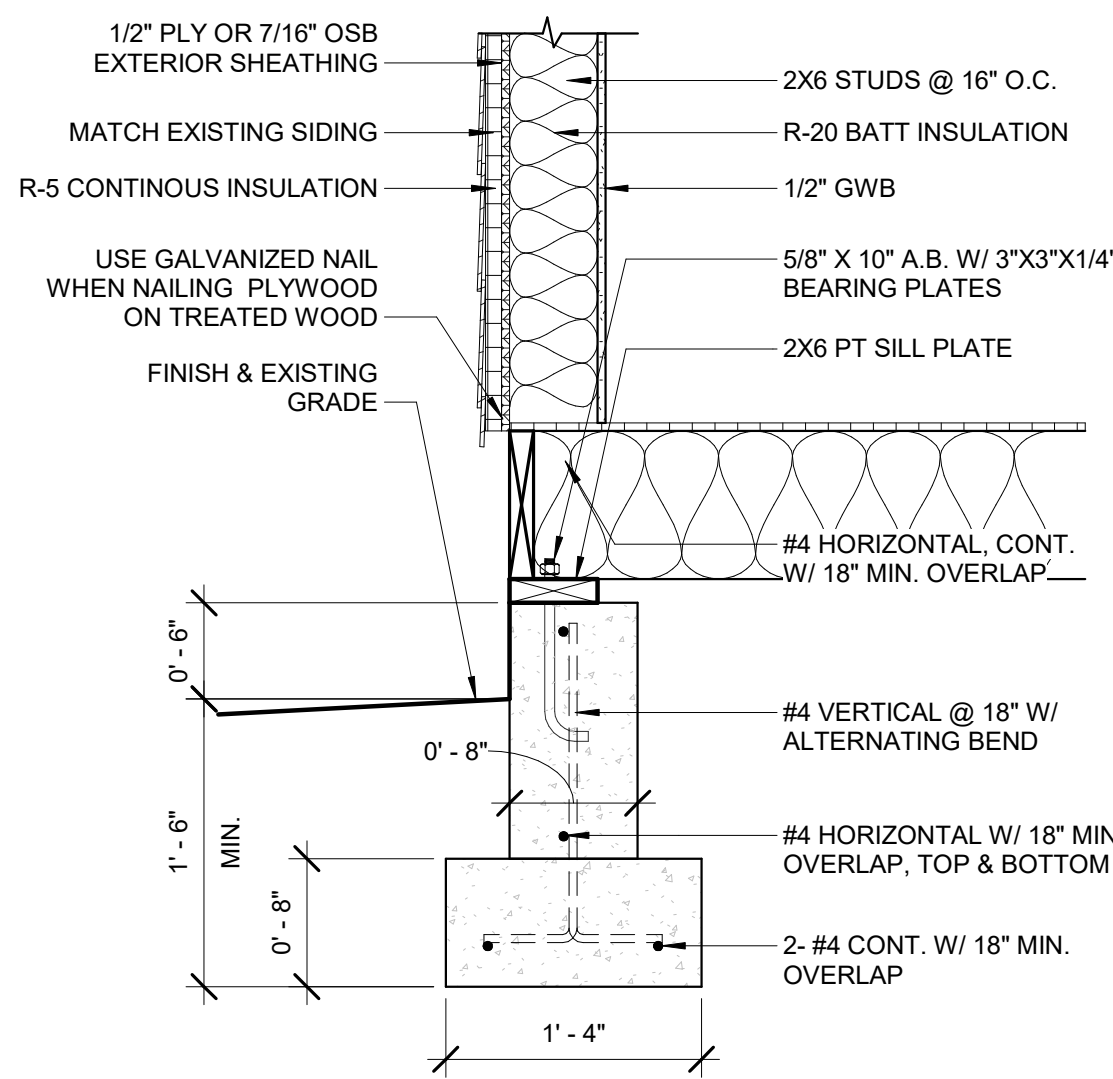
1 SIMPSON PB6  
SCALE: 1 1/2" = 1'-0"



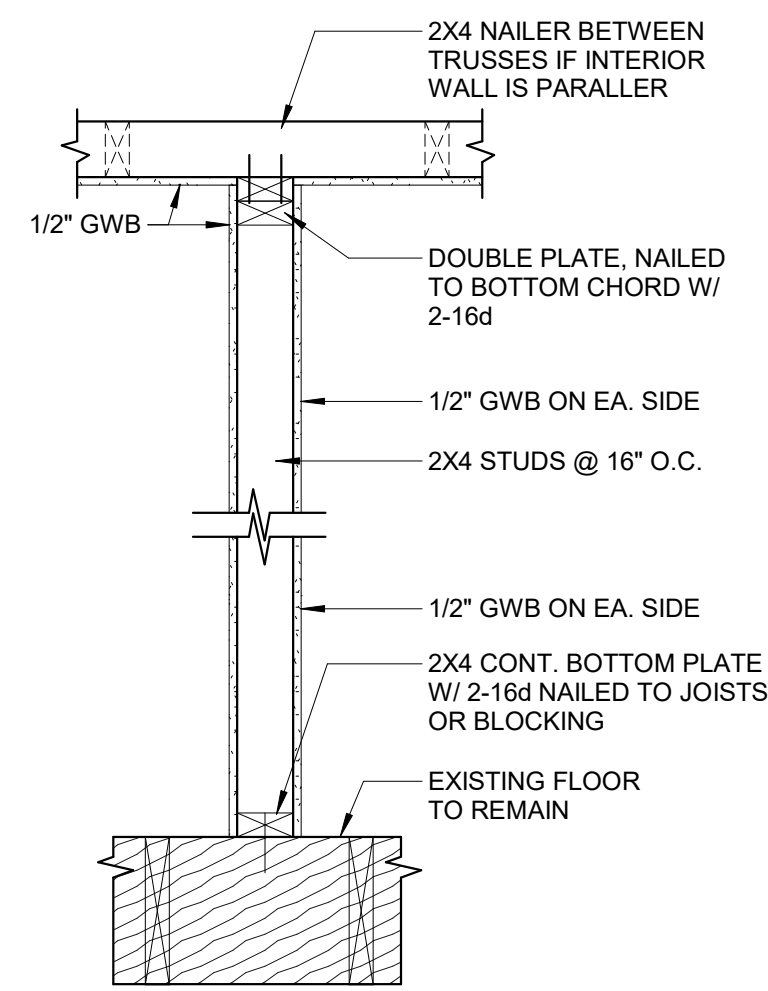
2 SIMPSON AC6  
SCALE: 1 1/2" = 1'-0"



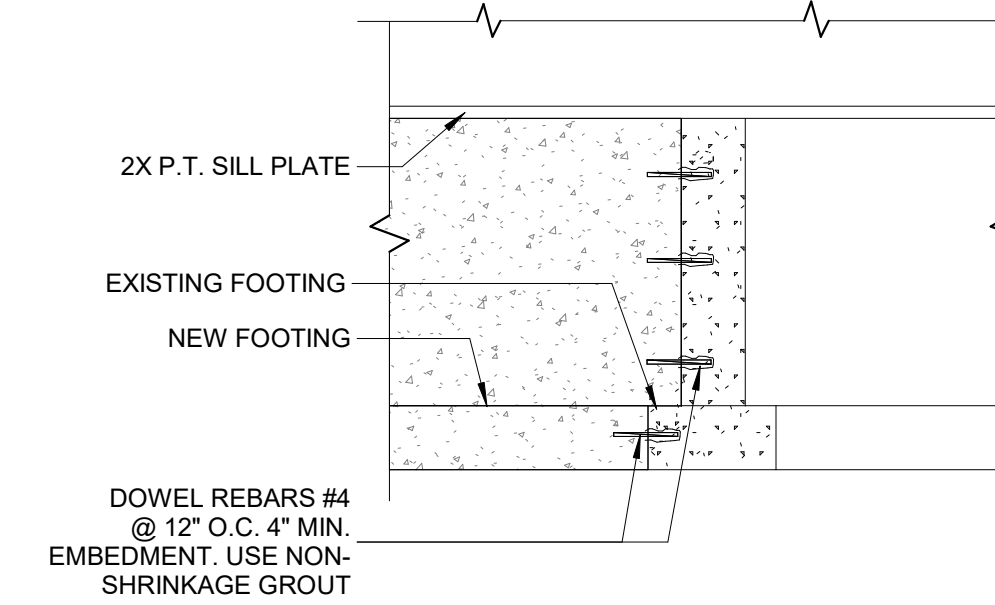
3 SIMPSON HDU INSTALLATION  
SCALE: 3/4" = 1'-0"



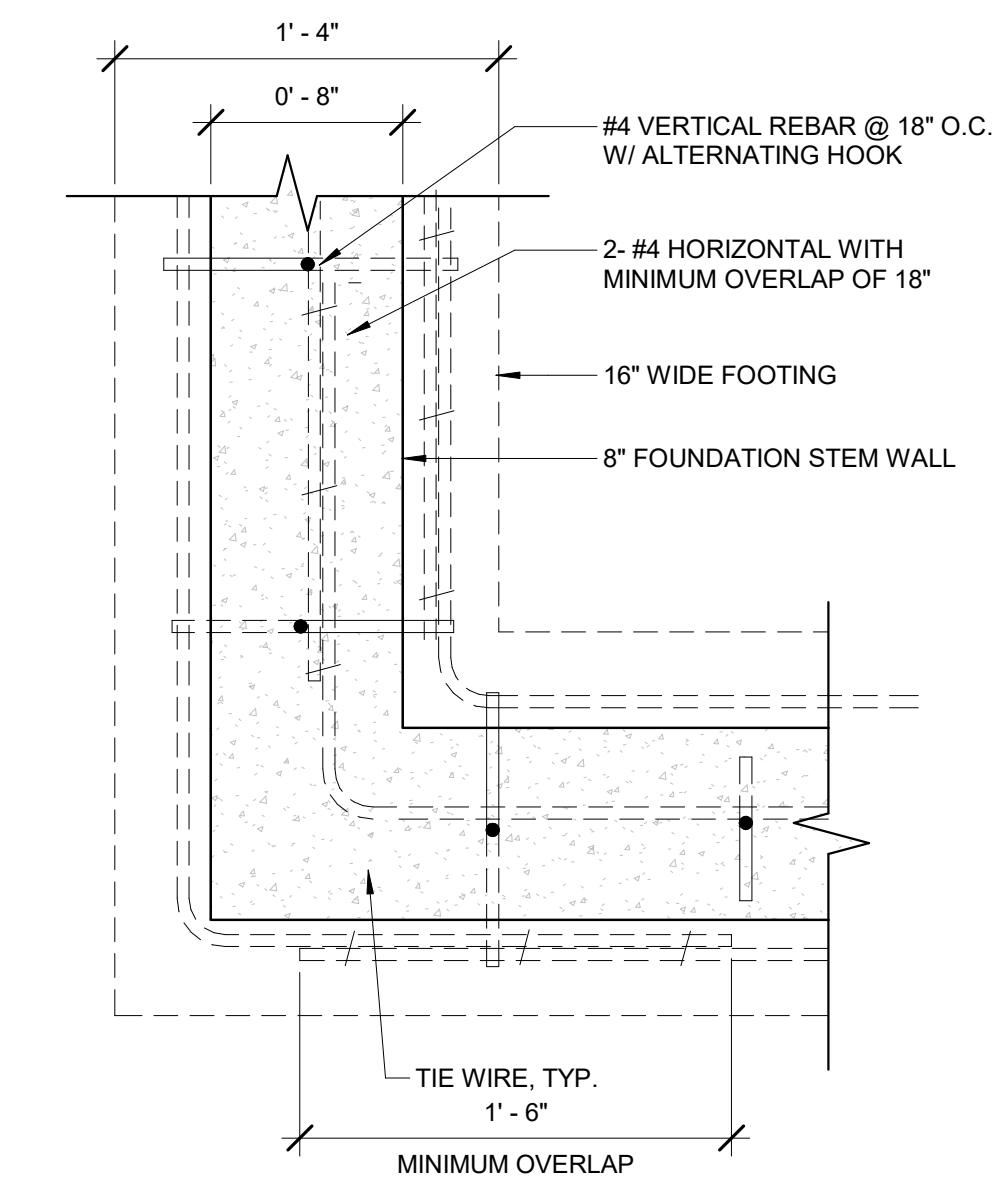
4 8" FOUNDATION WITH FLOOR JOISTS, TYP.  
SCALE: 1" = 1'-0"



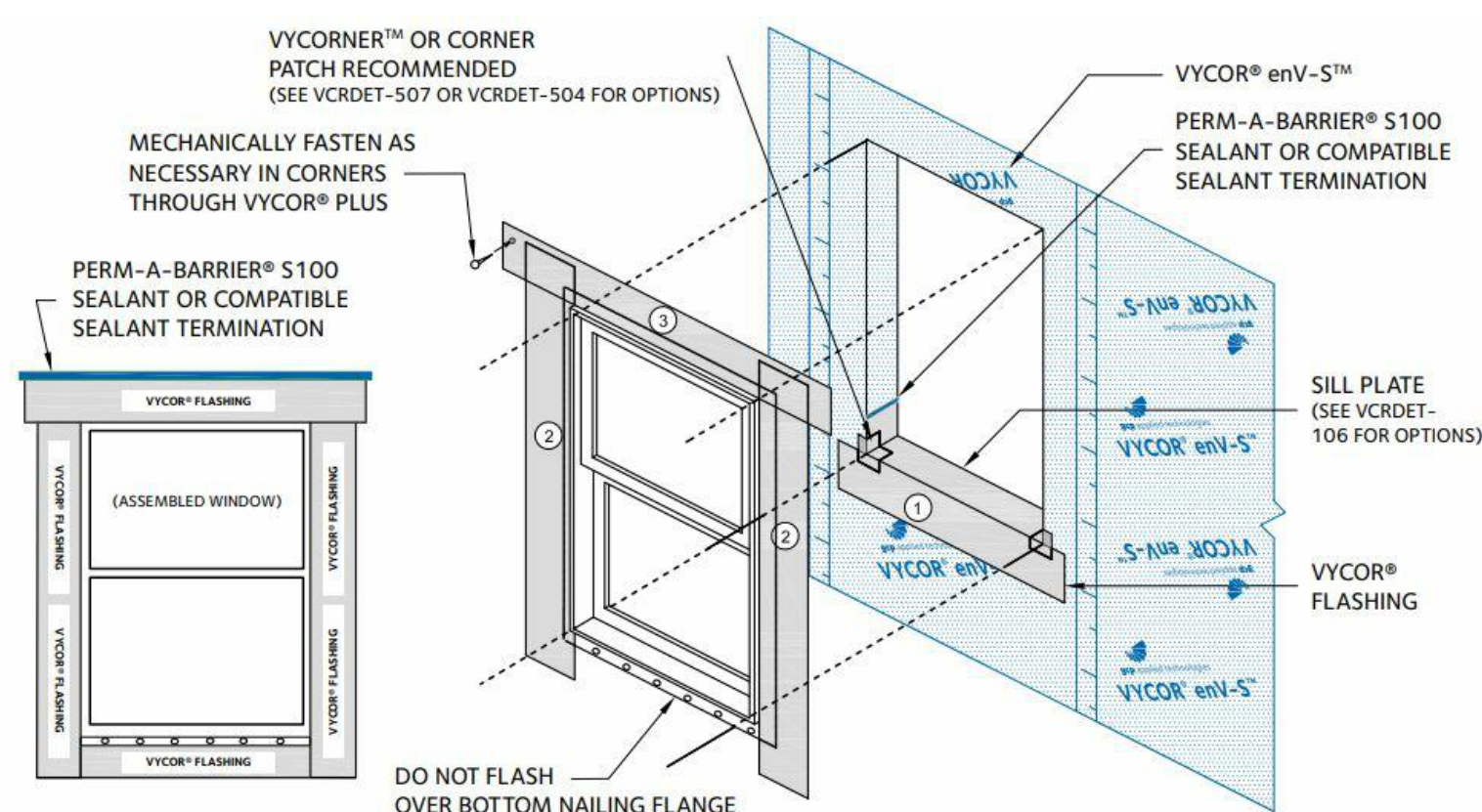
5 INTERIOR WALL DETAIL, TYP. - WOOD FLOOR  
SCALE: 1" = 1'-0"



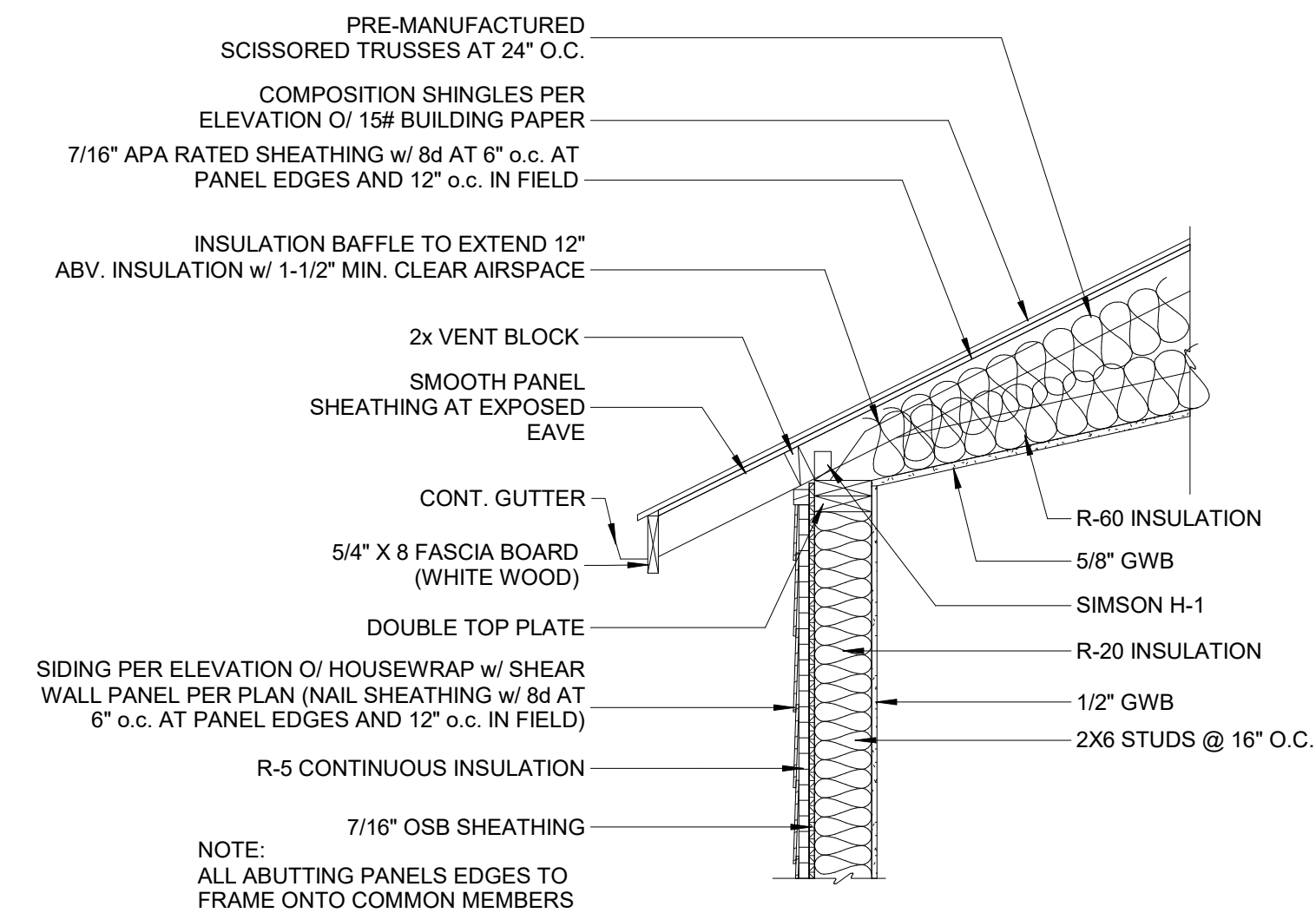
6 DOWEL CONNECTION DETAIL  
SCALE: 1/2" = 1'-0"



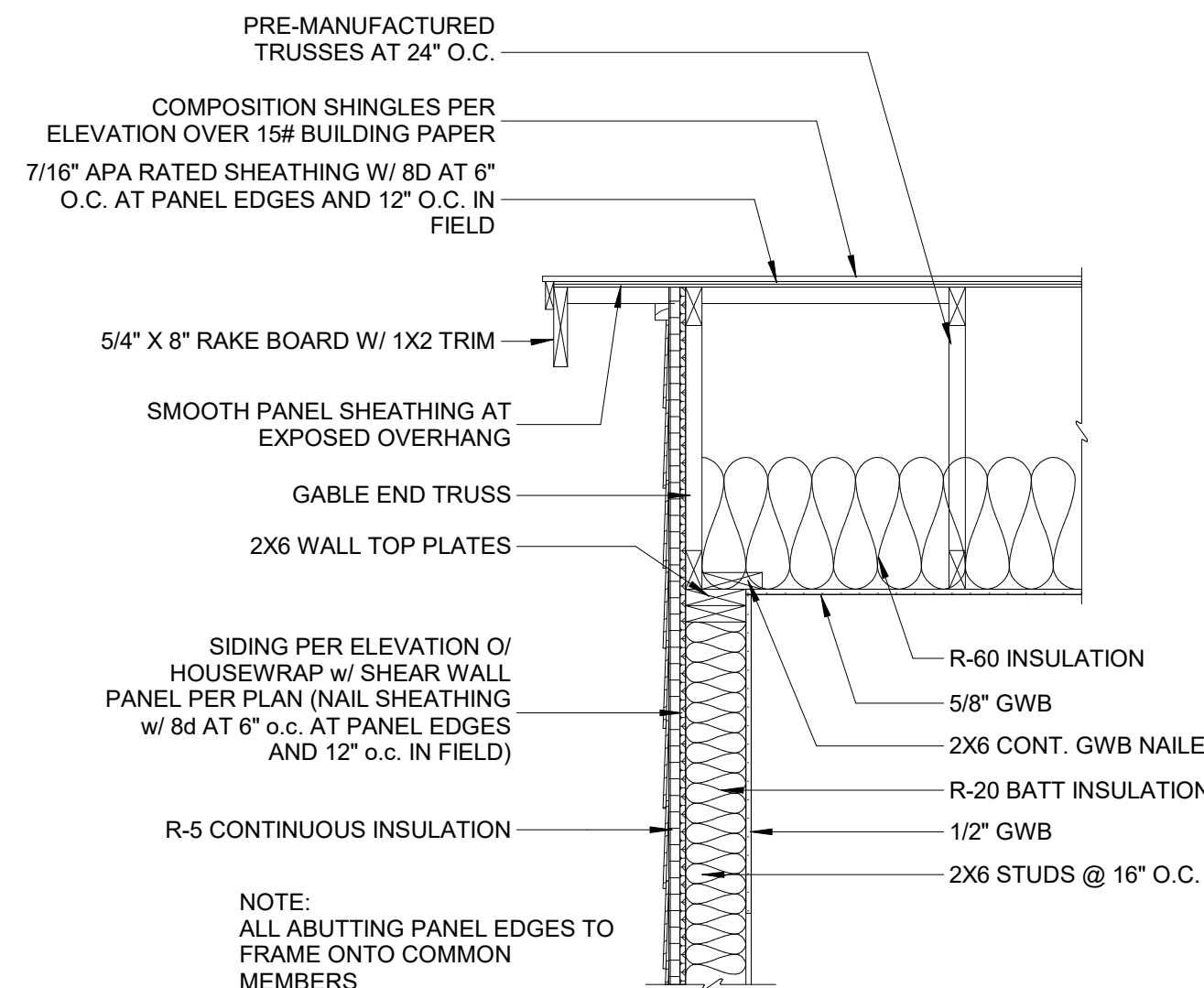
10 CONCRETE REINFORCEMENT @ CORNERS  
SCALE: 1 1/2" = 1'-0"



7 WINDOW FLASHING DETAIL  
SCALE: 1 1/2" = 1'-0"

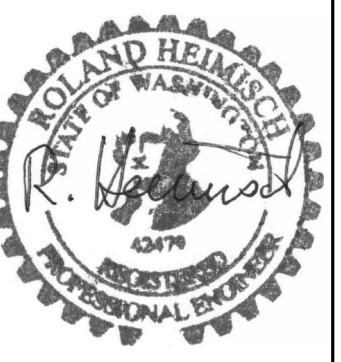


8 TRUSS DETAIL @ EAVE - SCISSORED TRUSS  
SCALE: 3/4" = 1'-0"



9 TRUSS DETAIL @ GABLE  
SCALE: 3/4" = 1'-0"

APPROVAL INFORMATION SECTION



REVISIONS:

SEP 10 2025 1

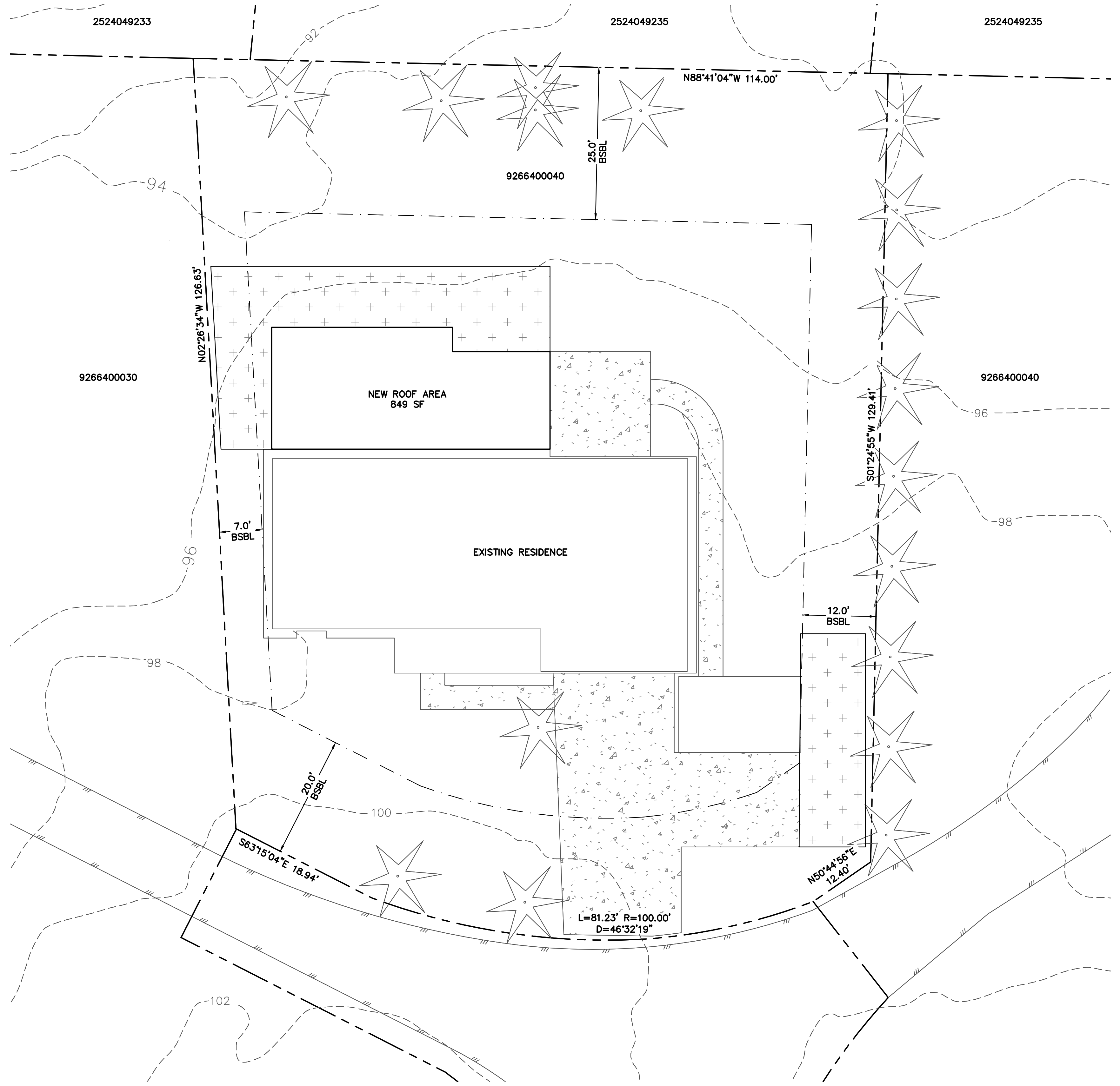
Project #: 2025-006  
Date: 08/21/2025  
Drawn by: Dan Garvida  
Checked by: Aldrich

A-500

Scale: AS NOTED



# ALDRICH RESIDENCE



## VICINITY MAP NTS SITE INFORMATION

ADDRESS - 7448 W MERCER WAY, MERCER ISLAND WA, 98040  
 TAX PARCEL - 9266400040  
 ZONING - R15  
 PARCEL AREA - 15,195 SF (0.35 ACRES)  
 OWNER - JAMES AND BROOKE ALDRICH

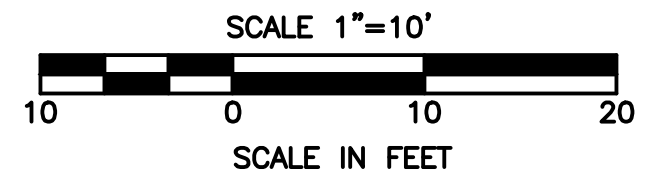
SHEET INDEX	
SHEET	DESCRIPTION
1	COVER SHEET
2	TESC PLAN
3	GRADING AND DRAINAGE PLAN

## IMPERVIOUS SURFACES

- BUILDING WITH ROOF OVERHANG, EXISTING = 2,450 SF
- DRIVEWAY, EXISTING = 1,151 SF
- WALKWAY, EXISTING = 307 SF
- PATIO, BACK, EXISTING = 285 SF
- STORAGE SHED, EXISTING = 250 SF
- ADDITION, NEW WITH ROOF OVERHANG = 849 SF
- TOTAL IMPERVIOUS SURFACE = 5,292 SF

## LEGEND

- EDGE OF PAVEMENT
- RIGHT-OF-WAY/PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING CONTOUR
- EXISTING TREE
- EXISTING CONCRETE
- SOIL AMENDMENT
- STORM DRAIN CLEAN OUT
- STORM DRAIN SPLASH BLOCK
- STORM DRAIN FLOW PATH



CALL 2 DAYS BEFORE YOU DIG  
1-800-424-5555

REVISIONS	
NO.	DESCRIPTION
1	
2	
3	
4	
5	
6	

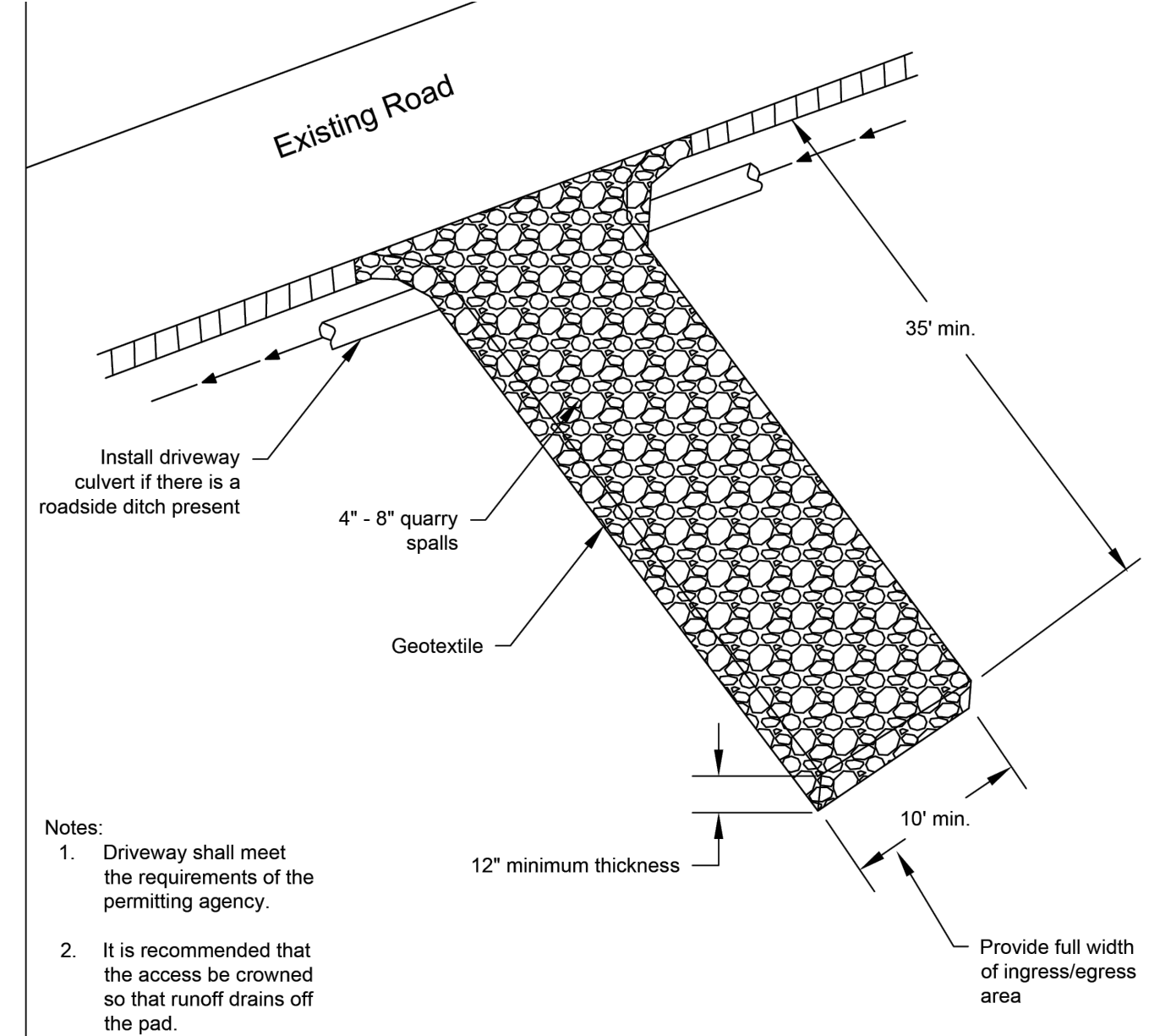
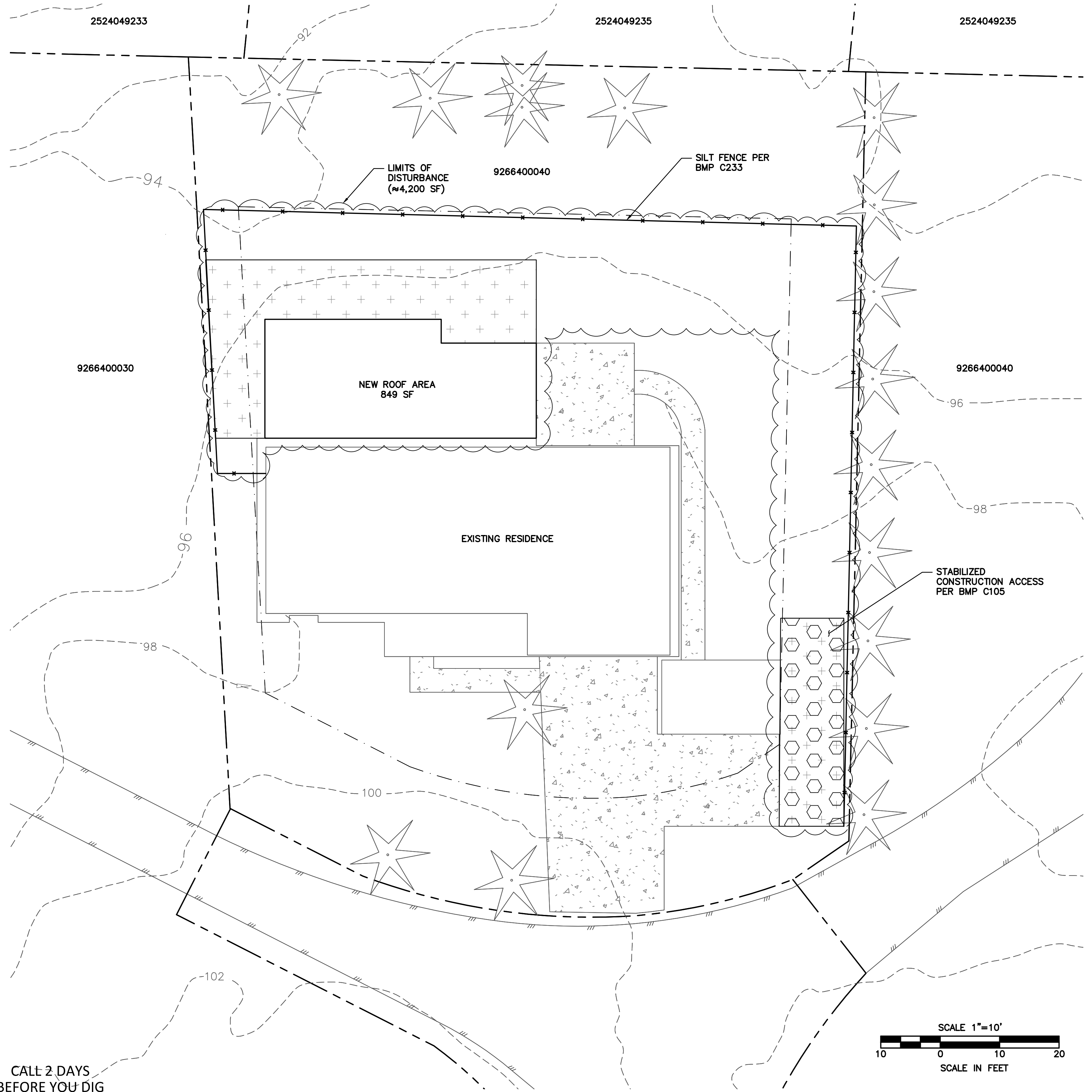
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SURVEYED BY:	GIS
DESIGNED BY:	DAW
DRAWN BY:	DAW
CHECKED BY:	DS
DATE:	20SEP2025

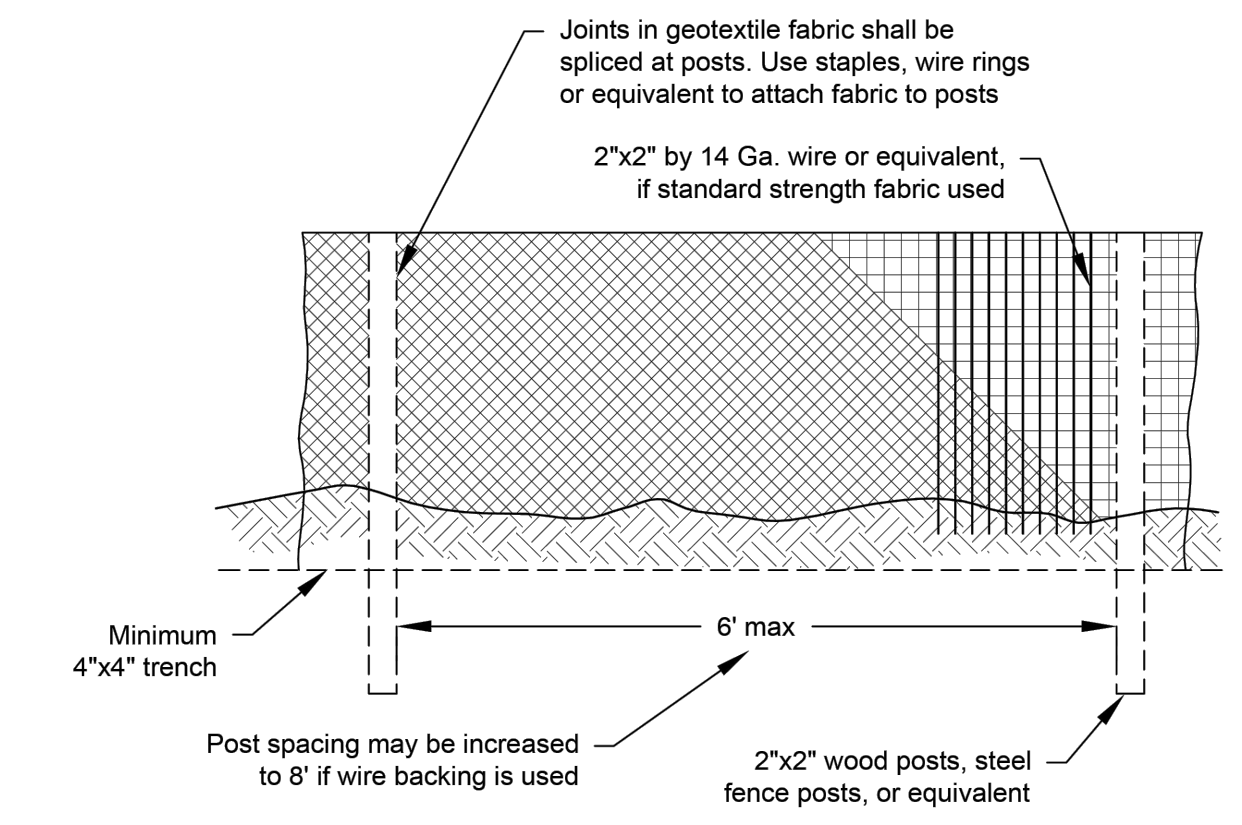
**ALDRICH RESIDENCE**  
**COVER SHEET**

**1 OF 3**

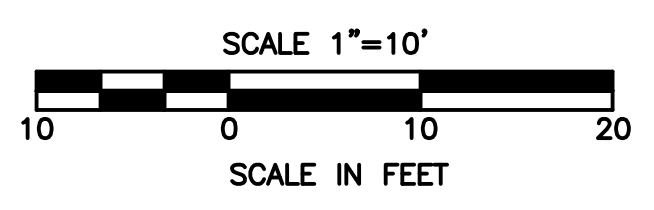
# ALDRICH RESIDENCE



**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE



**SILT FENCE**  
NOT TO SCALE



CALL 2 DAYS  
BEFORE YOU DIG  
1-800-424-5555

REVISIONS		NO.	DESCRIPTION	BY	DATE
1		1			
2		2			
3		3			
4		4			
5		5			
6		6			

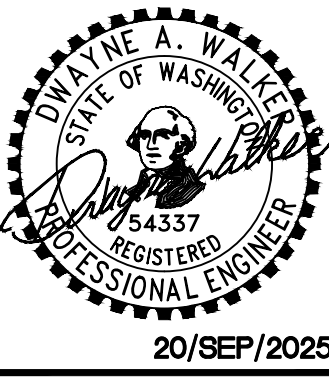
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DESIGNED BY:	DAW	
DRAWN BY:	DAW	
CHECKED BY:	DG	
DATE:		20SEP2025

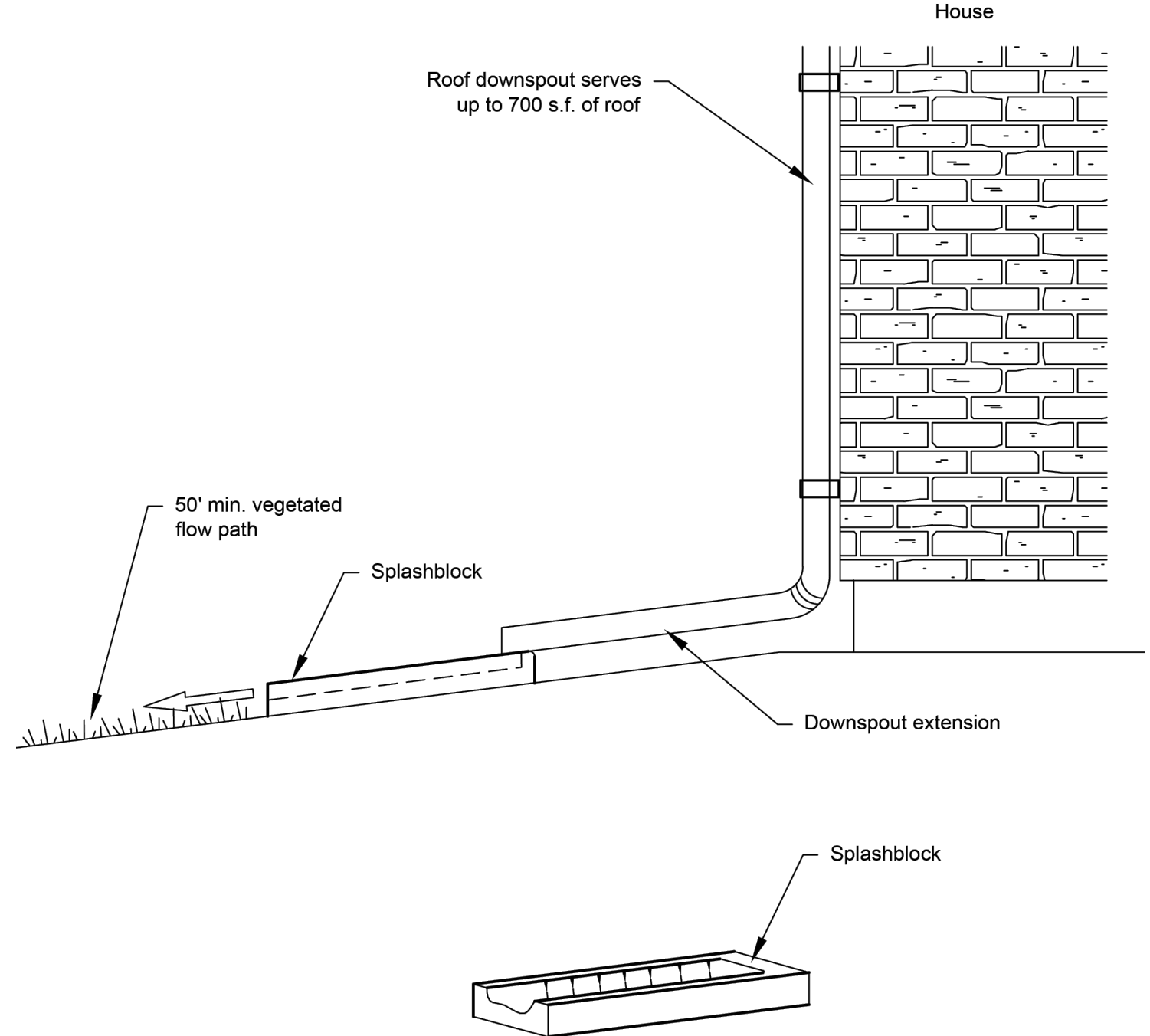
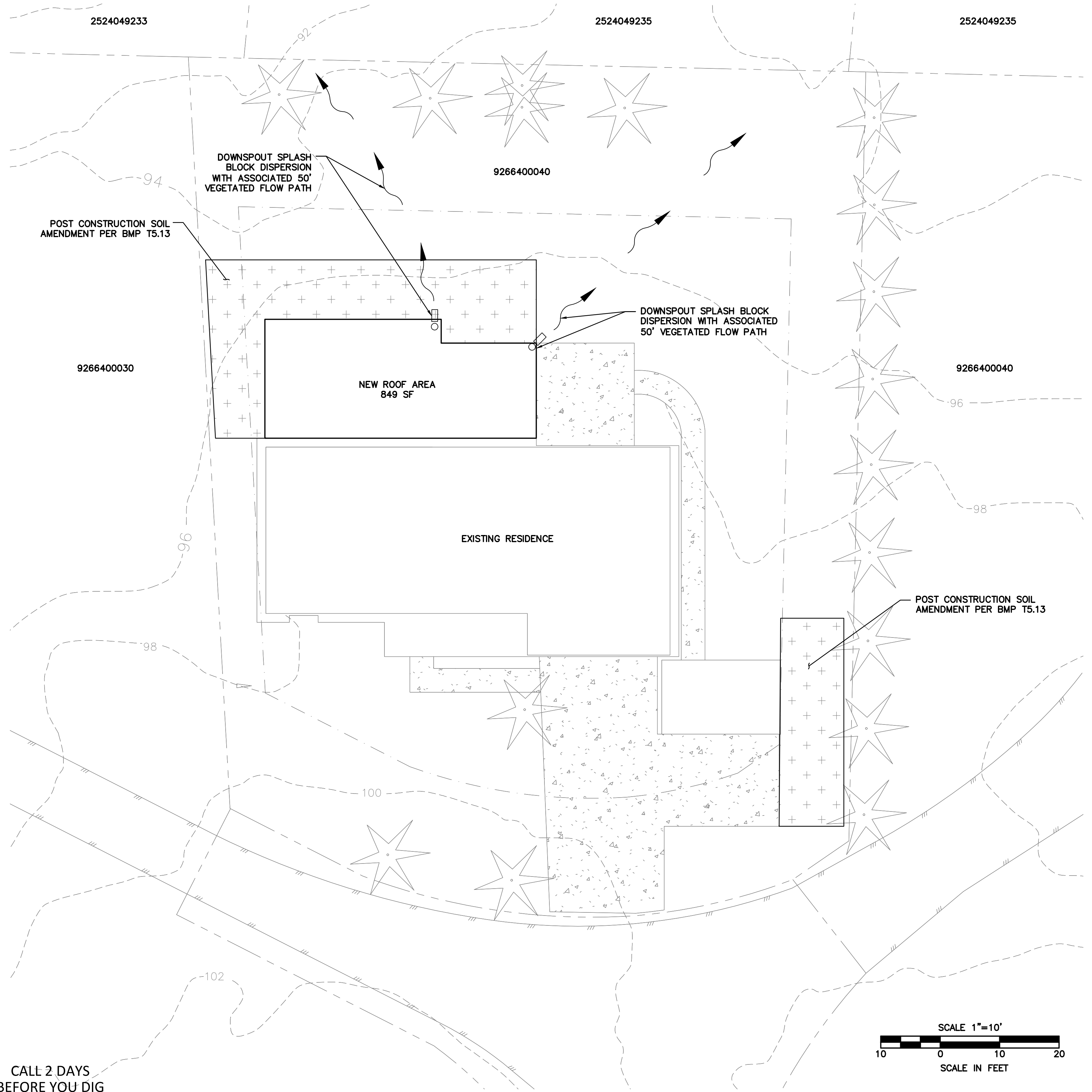
**ALDRICH RESIDENCE**

**TESC PLAN**

**2 OF 3**

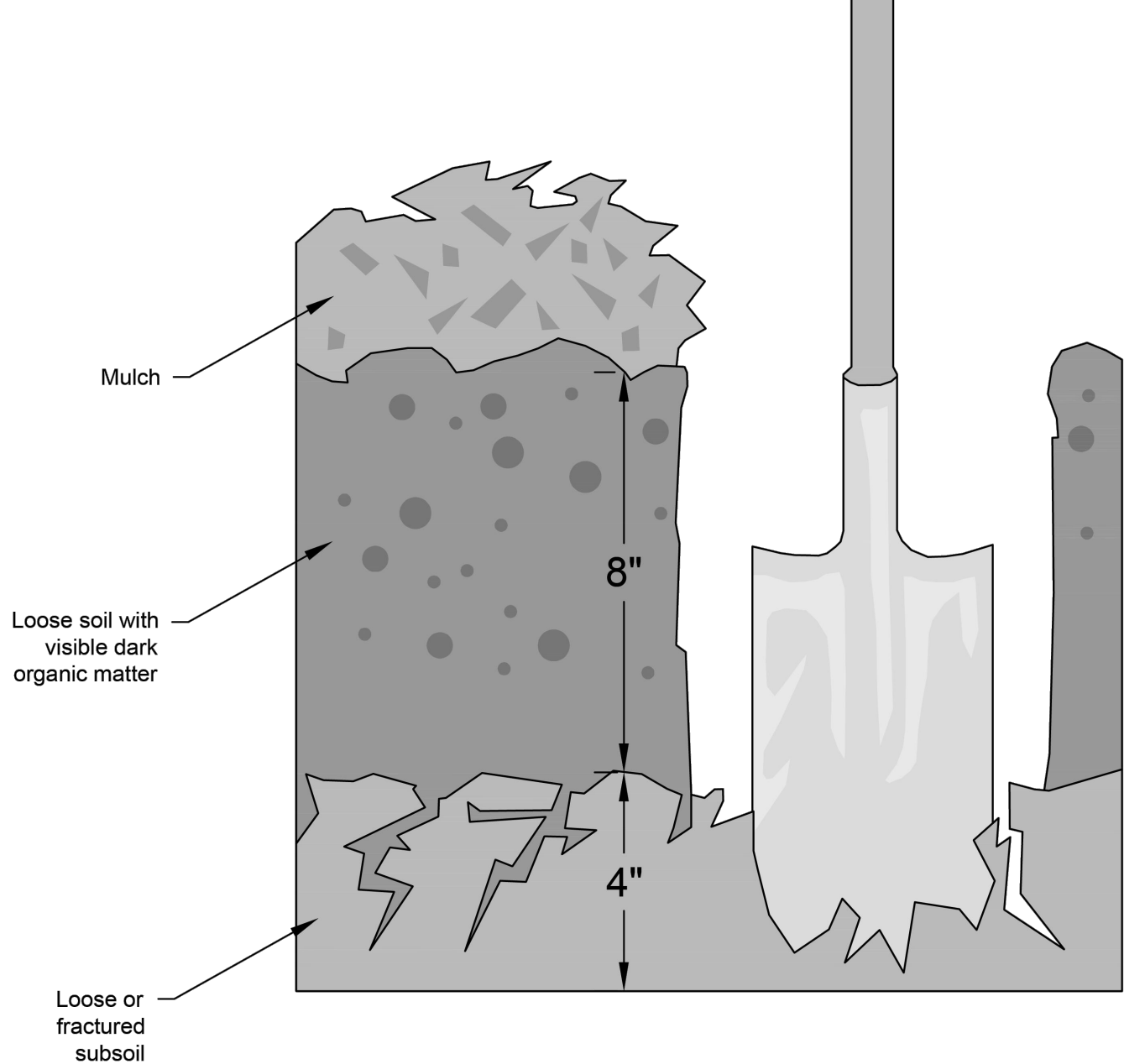


# ALDRICH RESIDENCE



## DOWNSPOUT SPLASH BLOCK DISPERSION

NOT TO SCALE



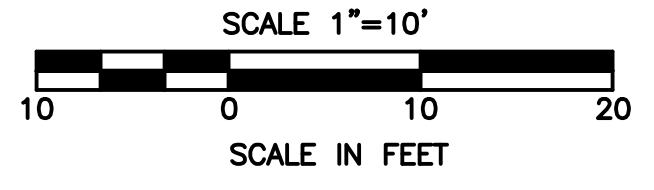
## SOIL AMENDMENT NOTES

IMPORT TOPSOIL MIX WITH 5 PERCENT (TURF) OR 10 PERCENT (PLANTING BEDS) SOIL ORGANIC MATTER CONTENT. WHERE SUBSOIL IS TOO ROCKY, COMPACTED OR POORLY DRAINED TO AMEND EFFECTIVELY, A TOPSOIL MIX WITH 5 PERCENT (TURF) OR 10 PERCENT (PLANTING BEDS) SOIL ORGANIC MATTER CAN BE IMPORTED AND PLACED ON THE SURFACE. •IMPORT AND APPLY A TOPSOIL MIX:— FOR TURF AREAS: A SOIL MIX INCLUDING 20–25 PERCENT COMPOST BY VOLUME, OR A MIX WITH A LAB TEST DOCUMENTING 5 PERCENT SOIL ORGANIC MATTER.— FOR PLANTING BEDS: A SOIL MIX INCLUDING 35–40 PERCENT COMPOST BY VOLUME, OR A MIX WITH A LAB TEST DOCUMENTING 10 PERCENT ORGANIC MATTER. •THE SOIL DEPTH SHOULD BE 8 INCHES AND THE PH SUITABLE FOR PROPOSED PLANTS. ASK TOPSOIL SUPPLIERS FOR TEST RESULTS OF THEIR PRODUCT TO VERIFY THE MATERIAL CONTAINS THE DESIRED ORGANIC MATTER CONTENT AND PH. RETAIN TEST RESULT REPORTS AND RECEIPTS FOR MATERIAL DELIVERED TO THE SITE, AS THEY WILL BE USED DURING INSPECTION TO VERIFY THAT THE SOIL REQUIREMENTS HAVE BEEN MET. •FOR BEST RESULTS, PLOW OR TILL COMPACTED SUBSOIL AT LEAST 2 INCHES DEEP BEFORE APPLYING TOPSOIL MIX, AND/OR ROTOTILL SOME OF THE NEWLY APPLIED TOPSOIL INTO THE SUBSOIL.

## POST CONSTRUCTION SOIL AMENDMENT

NOT TO SCALE

CALL 2 DAYS BEFORE YOU DIG  
1-800-424-5555



REVISIONS		NO.	DESCRIPTION	BY	DATE
1					
2					
3					
4					
5					
6					

20/SEP/2025

### ALDRICH RESIDENCE

### DRAINAGE PLAN

PROJECT NO:	N/A
SURVEYED BY:	GIS
DESIGNED BY:	DAW
DRAWN BY:	DAW
CHECKED BY:	DG
DATE:	20SEP2025

**3 OF 3**