RUSSELL PALANCHUCK - PRIVATE RESIDENCE - ARCHITECTURAL SET
9734 SE 40TH ST MERCER ISLAND WA. 98040 PARCEL# 265550-0176

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DESIGN CRITERIA

SNOW LOAD ---- 25 LBS
WIND SPEED -- 110 MPH IBC
85 MPH IRC
EXPOSURE ------- B
SEISMIC --------- D

HEATING SYSTEM
GAS FURNACE &
ELECTRIC HEAT PUMP

APPLIANCE FUEL SOURCE

STOVE	GAS
DRYER	ELECTRIC
WATER HEATER	ELECTRIC

SQUARE FOOTAGE TOTALS

1ST FLOOR	2,200 SQ FT
2ND FLOOR	2,264 SQ FT
TOTAL LIVING SPACE	4,464 SQ FT
GARAGE	535 SQ FT
FRONT PORCH COVER	49 SQ FT
REAR DECK	936 SQ FT
UPPER BALCONY	645 SQ FT

HOUSE DESIGNER:
ALDOR LLC.

26809 199TH AVE SE.
COVINGTON WA. 98042
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LIST OF CODES
2021 WSEC
2021 IRC & IBC

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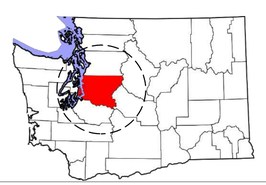

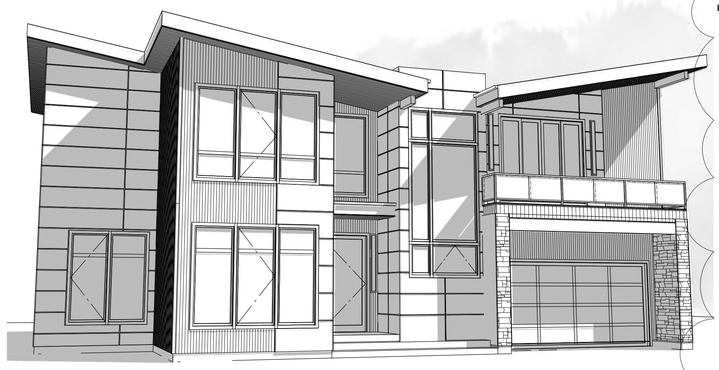

3D - NOT TO SCALE

LIST OF CODES:
2021 WSEC
2021 IBC
2021 IRC

HARDSCAPE CALCULATIONS

A.	Gross Lot Area	12,992 sq. ft.	Square Feet
B.	Net Lot Area	12,992 - no easements present	Square Feet
C.	Area Borrowed from Lot Coverage	5,000 sq ft	Square Feet
D.	Allowed Hardscape Area = 9% of lot area + C	49%	% of Lot
E.	Allowed Hardscape Area	6,366.08 sq ft	Square Feet
F.	Total Existing Hardscape Area:		
1.	Uncovered Decks	N/A	Square Feet
2.	Uncovered Patios	N/A	Square Feet
3.	Walkways	67 sq ft	Square Feet
4.	Stairs	N/A	Square Feet
5.	Rockeries and Retaining Walls	201 sq ft	Square Feet
6.	Other Driveway & Concrete around the property	1,988 sq ft	Square Feet
7.	Total Existing Hardscape Area (F1+F2+F3+F4+F5+F6)	3,837 sq ft	Square Feet
G.	(Total Hardscape Area Removed)	3,837 sq ft	Square Feet
H.	Total New Hardscape Area:		
1.	Uncovered Decks	1,581 sq ft	Square Feet
2.	Uncovered Patios	N/A	Square Feet
3.	Walkways	77 sq ft	Square Feet
4.	Stairs	N/A	Square Feet
5.	Rockeries and Retaining Walls	N/A	Square Feet
6.	Other Proposed Driveway	651 "excluding 77 sq ft sidewalk"	Square Feet
7.	Total New Hardscape Area (H1+H2+H3+H4+H5+H6)	2,309 sq ft	Square Feet
I.	Total Project Hardscape Area = (F7 - G) + H7	2,309 sq ft	Square Feet
J.	Total Project Hardscape Area = (I/B)x100	17.7%	% of Lot

Hardscape calculations shown on Plan Sheet # 1

GROSS FLOOR AREA CALCULATIONS

Building Area	Existing Area	Removed Area	New/Addition Area	Total
Upper Floor	N/A Sq. Ft.	N/A Sq. Ft.	2264 Sq. Ft.	2264 Sq. Ft.
Main Floor	950 Sq. Ft.	950 Sq. Ft.	2200 Sq. Ft.	2200 Sq. Ft.
Gross Basement Area	950 Sq. Ft.	950 Sq. Ft.	N/A Sq. Ft.	N/A Sq. Ft.
Garage/ Carport	288 Sq. Ft.	288 Sq. Ft.	535 Sq. Ft.	535 Sq. Ft.
Total Floor Area	1900 Sq. Ft.	1900 Sq. Ft.	4,999 Sq. Ft.	4,999 Sq. Ft.
Accessory Buildings	N/A Sq. Ft.	N/A Sq. Ft.	N/A Sq. Ft.	N/A Sq. Ft.
Accessory Dwelling Unit	N/A Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
2nd & 3rd Story Roofed Decks	N/A Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
Basement Area	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
Excluded	N/A			
150% GFA Modifier* (main and upper floor x2)	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
	N/A			
200% GFA Modifier* (main and upper floor x2)	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
	N/A			
Staircase GFA Modifier* (x2 for a three story staircase, x3 for a four story staircase)	Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
	N/A			
TOTAL Building Area	N/A Sq. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.

*Enter the actual room area

A.	Lot Area					Square Feet
B.	Zone	R-8.4 ☑	R-9.6 ☐	R-12 ☐	R-15 ☐	
C.	Allowed Gross Floor Area (refer to "allowed GFA")				5,000	Square Feet
D.	Allowed Gross Floor Area				40	% of Lot
E.	Proposed Gross Floor Area				4,999	Square Feet
F.	Proposed Gross Floor Area				38.5%	% of Lot

Gross floor area calculations found on Plan Sheet # 1

Basement exclusion calculations found on Plan Sheet # N/A - Basement exclusion will not be used.

2021 WASHINGTON STATE ENERGY CREDITS

HEATING OPTION	FUEL NORMALIZATION DESCRIPTON	CREDIT(S)
2	FOR AN INITIAL HEATING SYSTEM, USING A HEAT PUMP THAT MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.3(2) AND SUPPLEMENTAL HEATING PROVIDED BY ELECTRIC RESISTANCE	1.5

OPTION	DESCRIPTON	CREDIT(S)
1.2	EFFICIENT BUILDING ENVELOPE: PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.3 WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U=0.25 FLOOR R-38 SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB.	1.0
2.2	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAXIMUM @ 50 PASCAL'S, OR FOR R-2 OCCUPANCIES, OPTIONAL COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 0.20 CFM/FT2 MAXIMUM @ 50 PASCAL'S.	1.5
a,c,d 3.3	HIGH EFFICIENCY HVAC EQUIPMENT OPTION: AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MIN. (HSPF 9.5) HSPF 8.5 IN AREAS WHERE THE WINTER DESIGN TEMPERATURE AS SPECIFIED IN APPENDIX RC IS 23*F OR BELOW, A COLD CLIMATE HEAT PUMP FOUND ON THE NEEP CC ASHP QUALIFIED PRODUCT LIST SHALL BE USED.	0.5
3.11[a]	CONNECTED THERMOSTAT MEETING ENERGY STAR CERTIFIED SMART THERMOSTATS/EPA ENERGY STAR SPECIFICATION. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE THERMOSTAT MODEL.	0.5

OPTION	DESCRIPTON	CREDIT(S)
5.7	EFFICIENCY WATER HEATING OPTION: WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: ELECTRIC HEAT PUMP WATER HEATER WITH A MINIMUM UEF OF 2.9 AND UTILIZING A SPLIT SYSTEM CONFIGURATION WITH THE AIR-TO-REFRIGERANT HEAT EXCHANGER LOCATED OUTDOORS. EQUIPMENT SHALL MEET SECTION 4, REQUIREMENTS FOR ALL UNITS OF THE NEEA STANDARDS ADVANCED WATER HEATING SPECIFICATION WITH THE UEF NOTED ABOVE.	2.5
7.1	APPLIANCE PACKAGE OPTION ALL OF THE FOLLOWING APPLIANCES SHALL BE NEW AND INSTALLED IN THE DWELLING UNIT AND SHALL MEET THE FOLLOWING STANDARDS: 1. DISHWASHER, STANDARD - ENERGY STAR RATED, MOST EFFICIENT 2021 OR DISHWASHER, COMPACT- ENERGY STAR RATED (VERSION 6.0) 2. REFRIGERATOR (IF PROVIDED)- ENERGY STAR RATED (VERSION 5.1) WASHING MACHINE (RESIDENTIAL)- ENERGY STAR RATED (VERSION 8.1) 4. DRYER - ENERGY STAR RATED, MOST EFFICIENT 2022	0.5

MEDIUM DWELLING UNIT ---------- 8.0
CREDITS
DWELLING UNITS UP TO 5,000 SQ. FT. OF CONDITIONED FLOOR AREA

LOT COVERAGE CALCULATIONS

A.	Gross Lot Area	12,992	Square Feet
B.	Net Lot Area	12,992 - no easements present	Square Feet
C.	Allowed Lot Coverage Area	5,000 sq ft	Square Feet
D.	Allowed Lot Coverage	40%	% of Lot
E.	Existing Lot Coverage:		
1.	Main Structure Roof Area	1,747	Square Feet
2.	Accessory Building Roof Area	N/A	Square Feet
3.	Vehicular Use (driveway, paved access easements [portion used by the lot for access], parking	1,900 sq ft	Square Feet
4.	Covered Patios and Covered Decks	N/A	Square Feet
5.	Total Existing Lot Coverage Area (E1+E2+E3+E4)	3,647 sq ft	Square Feet
F.	(Total Lot Coverage Area Removed)	3,647 sq ft	Square Feet
G.	Proposed Adjustment for Single Story (Area)	N/A - Subject to complete removal	Square Feet
H.	Proposed Adjustment for Flag Lot	N/A - Subject to complete removal	Square Feet
I.	Total New Lot Coverage Area:		
1.	Main Structure Roof Area	3,484	Square Feet
2.	Accessory Structure Roof Area	N/A	Square Feet
3.	Vehicular Use (driveway, paved access easement [portion used by the lot for access], parking)	728 sq ft	Square Feet
4.	Covered Patios and Covered Decks	N/A	Square Feet
5.	Total New Lot Coverage Area (I1 + I2 + I3 + I4)	4,212	
J.	Total Project Lot Coverage Area = (E5 - F) + I5	15	Square Feet
K.	Proposed Lot Coverage Area = (J/B) x 100	0.11%	% of Lot

Lot coverage calculations shown on Plan Sheet # 1

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RUSSELL PALANCHUCK
9734 SE 40TH ST
MERCER ISLAND , WA
98040
PARCEL # - 265550-0176

THIS SET OF PLANS IS LICENSED FOR ONE TIME USE

HOME OWNER / GENERAL CONTRACTORS SHALL VERIFY ALL SETBACKS, DIMENSIONS, STRUCTURAL DETAILS, BUILDING CODES AND REQUIREMENTS WITH THE DESIGNER RESERVES THE RIGHT TO MODIFY THESE PLANS AND DIMENSIONS ACCORDING TO SITE CONDITIONS. ALL CONTRACTORS SHALL VISIT THE JOB SITE AND HOMEOWNER PRIOR TO PROCEEDING WITH THE LAYOUT OF THEIR RESPECTIVE CONTRACT AWARD. ARCHITECT SHALL NOT BE HELD RESPONSIBLE FOR ERRORS CAUSED BY A LACK OF COORDINATION BETWEEN SUB-CONTRACTORS AND HOMEOWNER.

THESE PLANS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO IDENTIFY THE MOST SIGNIFICANT ELEMENTS AND FEATURES OF CONSTRUCTION. THEY ARE NOT INTENDED TO PROVIDE ADEQUATE INFORMATION TO THE GOVERNING REGULATORY AGENCY REGARDING RESIDENTIAL & BUILDING CODES. INTERNATIONAL UNDERSTOOD THAT NON-REGULATORY ITEMS WHICH ARE NOT REQUIRED FOR APPROVAL FOR CONSTRUCTION MAY NOT APPEAR WITHIN THESE PLANS.

Sheet Description
PROJECT INFO

Plan Name
9734 SE 40TH ST
MERCER ISLAND WA.
98040

MAIN FLOOR GENERAL NOTES

1. PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO CONSTRUCTION. IF DISCREPANCIES EXIST, PLEASE NOTIFY ALDOR LLC.

2. WRITTEN DIMENSIONS TAKE PRECEDENT OVER SCALED DIMENSIONS.

3. ALL NEW FRAME NAILING TO COMPLY WITH TABLE R602.3(1), 2018 I.R.C. BLOCK ALL APA RATED SHEATHING EDGES AND NAIL WITH 10d AT 6" O.C. TYPICAL, U.N.O. ON SHEARWALL SCHEDULE. NAILING INTO PRESSURE TREATED MATERIAL SHALL BE HOT-DIP GALVANIZED PER ASTM A153.

4. PROVIDE FIRE BLOCKING AT ALL PLUMBING PENETRATIONS AND WALL/ROOF INTERSECTIONS.

5. FINISH ALL CEILINGS WITH 5/8" TYPE "X" G.W.B. WHERE JOISTS ARE SPACED GREATER THAN 16".

6. PROVIDE 26 GA GALVANIZED SHEET METAL FLASHING ABOVE WINDOWS AND DOORS, LAP BUILDING PAPER OVER.

7. INSTALL SIDING 8" ABOVE FINISH GRADE.

8. ALL CONCEALED VOIDS TO BE FIREBLOCKED PER SECTION R302.11, 2021 I.R.C. AND DRAFT STOPPED PER SECTION R302.12. 2021 I.R.C.

9. ALL TUBS AND SHOWER STALLS: A) FIREBLOCK BETWEEN STUDS. B) LIMIT SHOWER FLOW PER COVERSHEET. C) WALLS SHALL BE WATERPROOFED TO A MIN. OF 70" ABOVE DRAIN INLET. D) ALL GLAZING FACING TUBS, SPAS, SHOWERS AND POOLS WITH THE BOTTOM EDGE WITHIN 60" VERTICALLY OF ANY WALKING OR STANDING SURFACE SHALL BE SAFETY GLAZING, UNLESS IT IS MORE THAN 60" AWAY HORIZONTALLY.

10. ENGINEERED LUMBER SPECIFIED SHALL MEET OR EXCEED THE DESIGN STRESS VALUES INDICATED ON THE COVERSHEET. INSTALL PER MFG. RECOMMENDATIONS. THESE DRAWINGS ONLY SHOW SIZE, SPAN, AND SPACING.

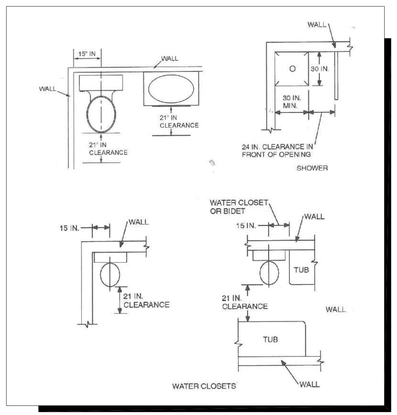
11. METAL FRAMING CONNECTORS SPECIFIED ARE MANUFACTURED BY THE SIMPSON COMPANY. SEE LATEST CATALOG EDITION. INSTALL PER SPECIFICATIONS. USE ONLY EQUIVALENT SUBSTITUTIONS.

12. ALL METAL CONNECTORS SUPPORTED BY PRESSURE TREATED MATERIAL SHALL BE "ZMAX" (G185 HDG PER ASTM A653) OR EQUIVALENT AND FASTENERS PER ASTM A153.

13. PROVIDE ELECTRIC ILLUMINATION AT OUTSIDE DOORS SWITCHED FROM INSIDE.

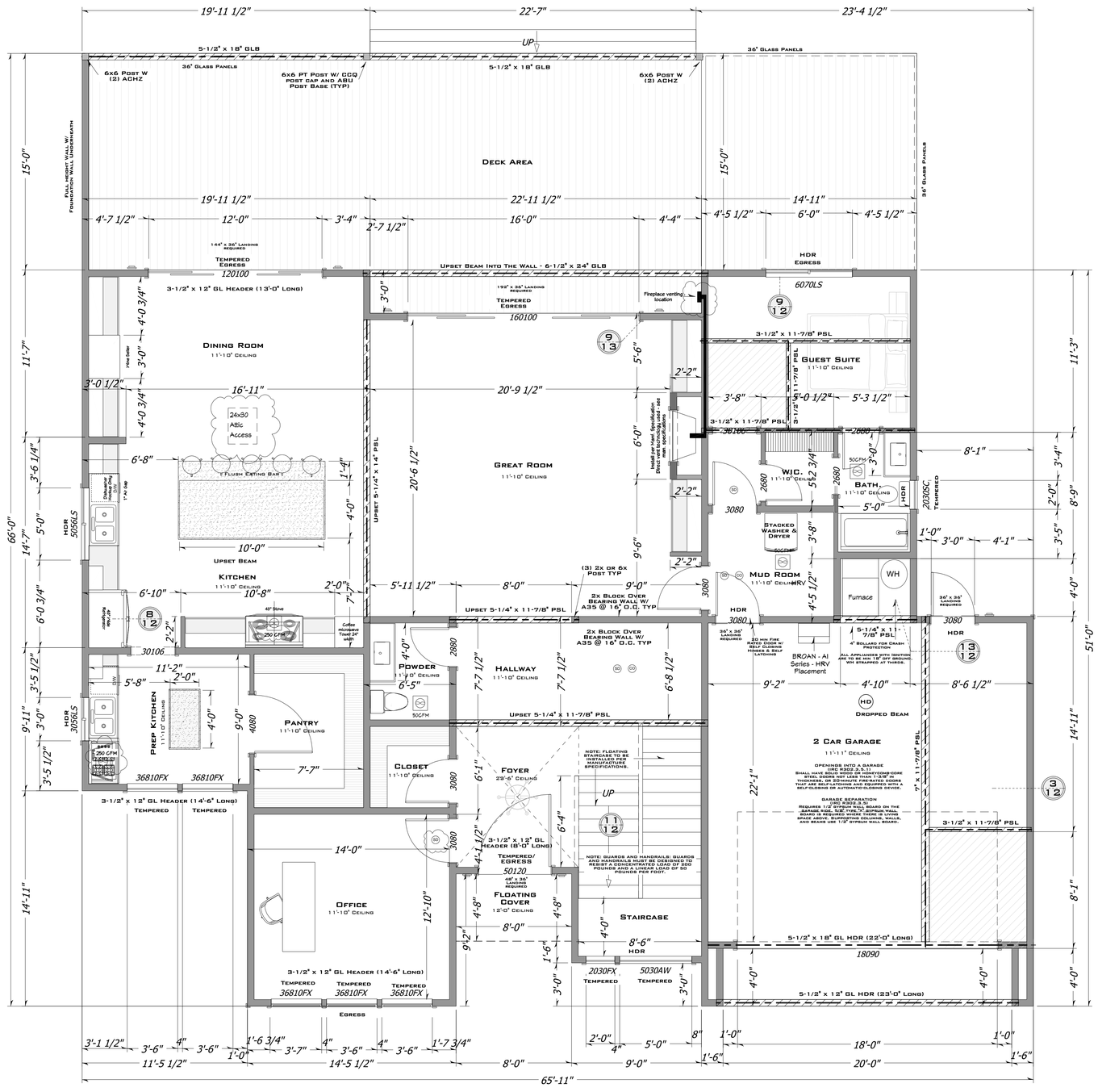
14. HVAC DUCTS MUST NOT DISPLACE REQUIRED INSULATION AT ANY GIVEN LOCATION, PROVIDE REQUIRED FLOOR OR CEILING INSULATION ON UNHEATED SIDE OF DUCTS INSTALLED IN JOIST OR RAFTER CAVITIES WHERE UNHEATED SPACES ARE ABOVE OR BELOW.

15. DOORS FROM GARAGE TO LIVING SPACES TO BE 13/8" MIN. THICK SOLID CORE DR. w/ SELF-CLOSER AND WEATHERSTRIPPING, UVALUE



MINIMUM FIXTURE CLEARANCE PER. R307.1

SHOWER COMPARTMENTS AND WALLS AROUND BATHTUBS WITH SHOWERS SHALL BE FINISHED WITH A SMOOTH NON-ABSORBANT SURFACE TO NOT LESS THAN 72" ABOVE THE FLOOR (IRC R307.2).



MAIN FLOOR PLAN
SCALE 1/4" = 1'

5 — DETAIL NUMBER
12 — PAGE NUMBER

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HOME OWNER / GENERAL CONTRACTORS SHALL VERIFY ALL SETBACKS, DIMENSIONS, STRUCTURAL DETAILS, AND UTILITIES PRIOR TO CONSTRUCTION. THE DESIGNER RESERVES THE RIGHT TO MODIFY THESE PLANS AND DIMENSIONS ACCORDING TO SITE CONDITIONS. ALL HOMEOWNER PRIOR TO PROCEEDING WITH THE LAYOUT OF THEIR RESPECTIVE CONTRACT AWARD ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES FOUND OR LACK OF COORDINATION BETWEEN SUB-CONTRACTORS AND HOMEOWNER.

THESE PLANS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO IDENTIFY THE MOST SIGNIFICANT ELEMENTS OF THE BUILDING. THEY ARE NOT INTENDED TO PROVIDE ADEQUATE INFORMATION FOR THE GOVERNING REGULATORY AGENCY REGARDING RESIDENCE & BUILDING CODE AND INTERNATIONAL RESIDENTIAL CODE. IT IS THE RESPONSIBILITY OF THE UNDERSTOOD THAT NON-REGULATORY ITEMS WHICH ARE NOT REQUIRED FOR APPROVAL OR CONSTRUCTION MAY NOT APPEAR WITHIN THESE PLANS.

Sheet Description

MAIN FLOOR

Plan Name

9734 SE 40TH ST
MERCER ISLAND WA.
98040

NOTES

SMOKE ALARMS AND HEAT DETECTION REQUIRED LOCATIONS R314.3: SMOKE ALARMS SHALL BE INSTALLED IN
1. IN EACH SLEEPING ROOM OR SLEEPING LOFT
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS.
4. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FEET FROM THE DOOR OR OPENING OF A BATHROOM.
5. IN NAPPING AREAS IN A FAMILY HOME CHILD CARE.
HEAT DETECTOR OR HEAT ALARM SHALL BE PROVIDED IN NEW ATTACHED GARAGES (R314.2.3) ALTERATIONS, REPAIRS AND ADDITIONS R314.2.2 WHERE ALTERATIONS, REPAIRS OR ADDITIONS REQUIRING A PERMIT OCCUR, OR WHERE ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED IN EXISTING DWELLINGS, OR WHERE AN ACCESSORY DWELLING UNIT IS CREATED WITHIN AN EXISTING DWELLING UNIT, EACH DWELLING UNIT SHALL BE EQUIPPED WITH SMOKE ALARMS AS REQUIRED FOR NEW DWELLINGS.
HEAT DETECTION INTERCONNECTION R314.4.1 HEAT DETECTORS AND HEAT ALARMS SHALL BE CONNECTED TO AN ALARM OR A SMOKE ALARAM THAT IS INSTALLED IN THE DWELLING. ALARMS THAT ARE INSTALLED FOR THIS PURPOSE SHALL BE LOCATED IN A HALLWAY, ROOM, OR OTHER LOCATION THAT WILL PROVIDE OCCUPANT NOTIFICATION.
COMBINATION ALARMS R314.5 COMBINATION SMOKE AND CARBON MONOXIDE ALARMS MAY BE USED IN PLACE OF SMOKE ALARMS.
POWER SOURCE R314.6 SMOKE ALARMS, HEAT ALARMS, AND HEAT DETECTORS SHALL RECEIVE PRIMARY POWER FROM THE BUILDING WIRING AND, WHEN POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY.
INTERCONNECTIVITY R314.4 WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED, THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OFSMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM.
WHERE AN ACCESSORY DWELLING UNIT IS CREATED WITHIN AN EXISTING DWELLING UNIT ALL REQUIRED SMOKE ALARMS, IN THE ACCESSORY DWELLING UNIT AND THE PRIMARY DWELLING UNIT, SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL ALARMS IN BOTH THE PRIMARY DWELLING UNIT AND THE ACCESSORY DWELLING UNIT.

IN ACCORDANCE WITH MMC TITLE 17: REQUIRED FIRE SYSTEMS:
"NFPA 13D FIRE SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA 13D AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED."

PLEASE SEE HYPERLINK "HTTPS://WWW.MERCERISLAND.GOV/SITES/DEFAULT/FILES/FILEATTACHMENTS/COMMUNITY_PLANNING_AMP_DEVELOPMENT/PAGE/24351/RESIDENTIAL_SPRINKLER_STANDARD_13_D.-_2022PDF.PDF"13D RESIDENTIAL FIRE SPRINKLER STANDARD FOR DETAILED INFORMATION

IFC SECTION 104.8 - DUE TO PLAN FIRE CODE DEFICIENCY (>150' FORM ALL POINTS TO CONFORMING FIRE ACCESS ROAD) A FIRE CODE ALTERNATIVE IS REQUIRED. PLEASE ADD THE FOLLOWING PLAN NOTE:

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

THIS SYSTEM MAY TAKE THE PLACE OF LINE-VOLTAGE INTERCONNECTED SMOKE AND CO DETECTORS REQUIRED IN IRC R314.3 AND IRC R315.3.

PLEASE SEE HYPERLINK: HTTPS://WWW.MERCERISLAND.GOV/SITES/DEFAULT/FILES/FILEATTACHMENTS/COMMUNITY_PLANNING_AMP_DEVELOPMENT/PAGE/24351/HOUSEHOLD_FIRE_ALARM_STANDARD_-_2022_VERSION.PDF FOR DETAILED INFORMATION.

NOTE: WSEC 404.2. INTERIOR LIGHTING FIXTURES SHALL BE CONTROLLED WITH EITHER A DIMMER, AN OCCUPANT SENSOR CONTROL OR OTHER CONTROL THAT IS INSTALLED OR BUILT INTO THE FIXTURE.

WINDOW MFG IS JELDWEN & U FACTOR IS IN AVERAGE OF .25 AND SKYLIGHTS ARE .50
EXTERIOR DOOR MFG IS OREPAC & U FACTOR IS .20

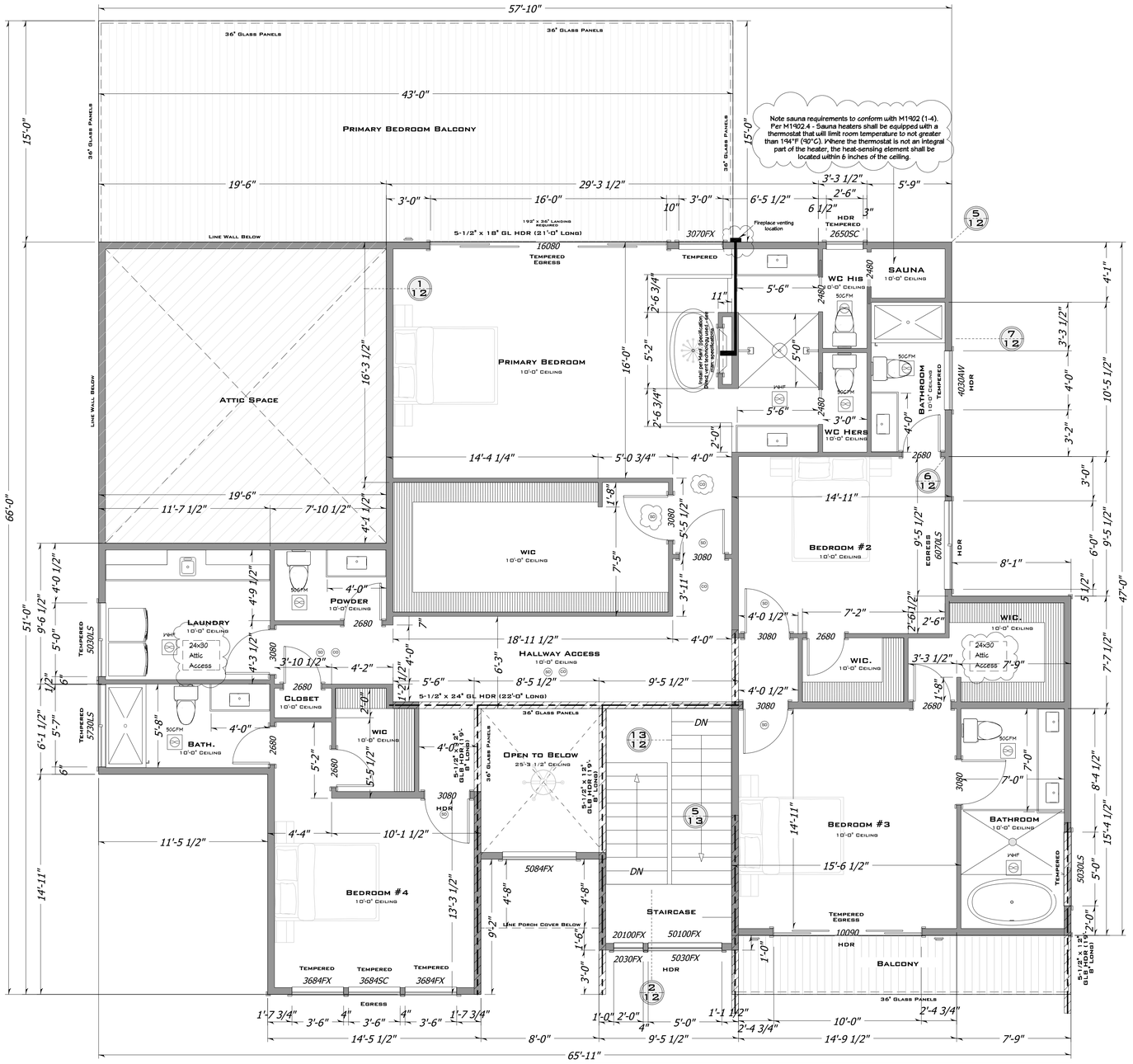
WINDOW SCHEDULE

QTY	FLOOR	SIZE	EGRESS	TEMPERED	DESCRIPTION
1	1	120100 L/R IN	YES	YES	QUAD SLIDER-GLASS PANEL
1	1	160100 L/R IN	YES	YES	QUAD SLIDER-GLASS PANEL
1	1	2030FX		YES	FIXED GLASS
1	1	3056LS			LEFT SLIDING
2	2	5030LS		YES	LEFT SLIDING
1	1	5056LS			LEFT SLIDING
1	1	6070LS	YES		LEFT SLIDING
1	2	10090 L/R IN	YES	YES	QUAD SLIDER-GLASS PANEL
1	2	16080 L/R IN	YES	YES	QUAD SLIDER-GLASS PANEL
1	3	20100FX			FIXED GLASS
1	2	2030FX			FIXED GLASS
1	2	3070FX		YES	FIXED GLASS
2	2	3684FX		YES	FIXED GLASS
1	2	50100FX			FIXED GLASS
1	2	5030FX			FIXED GLASS
1	1	36810FX	YES	YES	FIXED GLASS
1	2	5084FX			FIXED GLASS
1	2	5730LS		YES	LEFT SLIDING
1	2	6070LS	YES		LEFT SLIDING
4	1	36810FX		YES	FIXED GLASS

DOOR SCHEDULE

QTY	FLOOR	SIZE	DESCRIPTION
1	1	18090	GARAGE-GLASS PANEL
2	1	2680 R IN	HINGED-SLAB DOOR
1	1	2880 R IN	HINGED-SLAB DOOR
1	1	3080 L EX	EXT. HINGED-PANEL
1	1	3080 L IN	HINGED-PANEL
1	1	3080 R IN	HINGED-SLAB DOOR
1	1	4080 R IN	HINGED-SLAB DOOR
1	1	50120 R EX	EXT. HINGED-GLASS PANEL
3	2	2680 L IN	HINGED-SLAB DOOR
4	2	2680 R IN	HINGED-SLAB DOOR
4	2	3080 L IN	HINGED-SLAB DOOR
3	2	3080 R IN	HINGED-SLAB DOOR
3	1	3080 L IN	HINGED-SLAB DOOR

1. PANASONIC WHISPER GREEN WHOLE HOUSE FAN
SEE SHEET #9 FOR FAN SIZING



NOTES

CARBON MONOXIDE ALARMS
REQUIRED LOCATIONS PER IRC R315.3: APPROVED CARBON MONOXIDE ALARMS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH LEVEL OF THE DWELLING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
WHERE A BEDROOM OR ITS ATTACHED BATHROOM CONTAINS A FUEL-BURNING APPLIANCE, A CARBON MONOXIDE ALARM MUST BE INSTALLED IN THE BEDROOM.
EXISTING DWELLINGS PER IRC R315.2.2 SHALL BE EQUIPPED WITH CARBON MONOXIDE ALARMS IN ACCORDANCE WITH THE INFORMATION ABOVE (SOME EXCEPTIONS MAY APPLY). AN INSPECTION WILL OCCUR WHERE ALTERATIONS, REPAIRS OR ADDITIONS REQUIRING A PERMIT OCCUR, OR WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED. BATTERY POWERED ALARMS ARE PERMITTED IN EXISTING DWELLINGS.
COMBINATION ALARMS PER IRC R315.4 COMBINATION SMOKE AND CARBON MONOXIDE ALARMS MAY BE USED IN PLACE OF CARBON MONOXIDE ALARMS.
POWER SOURCE PER IRC R315.6 CARBON MONOXIDE ALARMS SHALL RECEIVE PRIMARY POWER FROM THE BUILDING WIRING AND, WHEN POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY.
INTERCONNECTIVITY R315.5 WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED, THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL DWELLING UNIT. PHYSICAL INTERCONNECTION OF CARBON MONOXIDE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM.

UPPER FLOOR PLAN
SCALE 1/4" = 1'

ATTIC SPACE

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Sheet Description
UPPER PLAN

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Foundation Vent Calculations

Under floor ventilation shall be provided in accordance with IRC R408.1 & R408.2. A minimum of 1 square foot of net ventilation shall be provided for each 300 square feet of under floor area. One vent shall be provided within 3 feet of each corner of the building.

Vents shall be 6"x16" Screened Foundation Vents = .67 Sq. Ft.

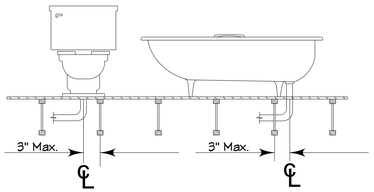
Under Floor Area = 2,200 Sq. Ft.

2,200 Sq. Ft./300 = 7.33 Sq. Ft. / .67sq. ft. of Ventilation Required -OR- 11 Vents

NOTE: To prevent water wicking Mud Sill Plate - Rim Joist & Exterior Wall to Extend over Stem Wall 1/2" Follow Detail 7/11

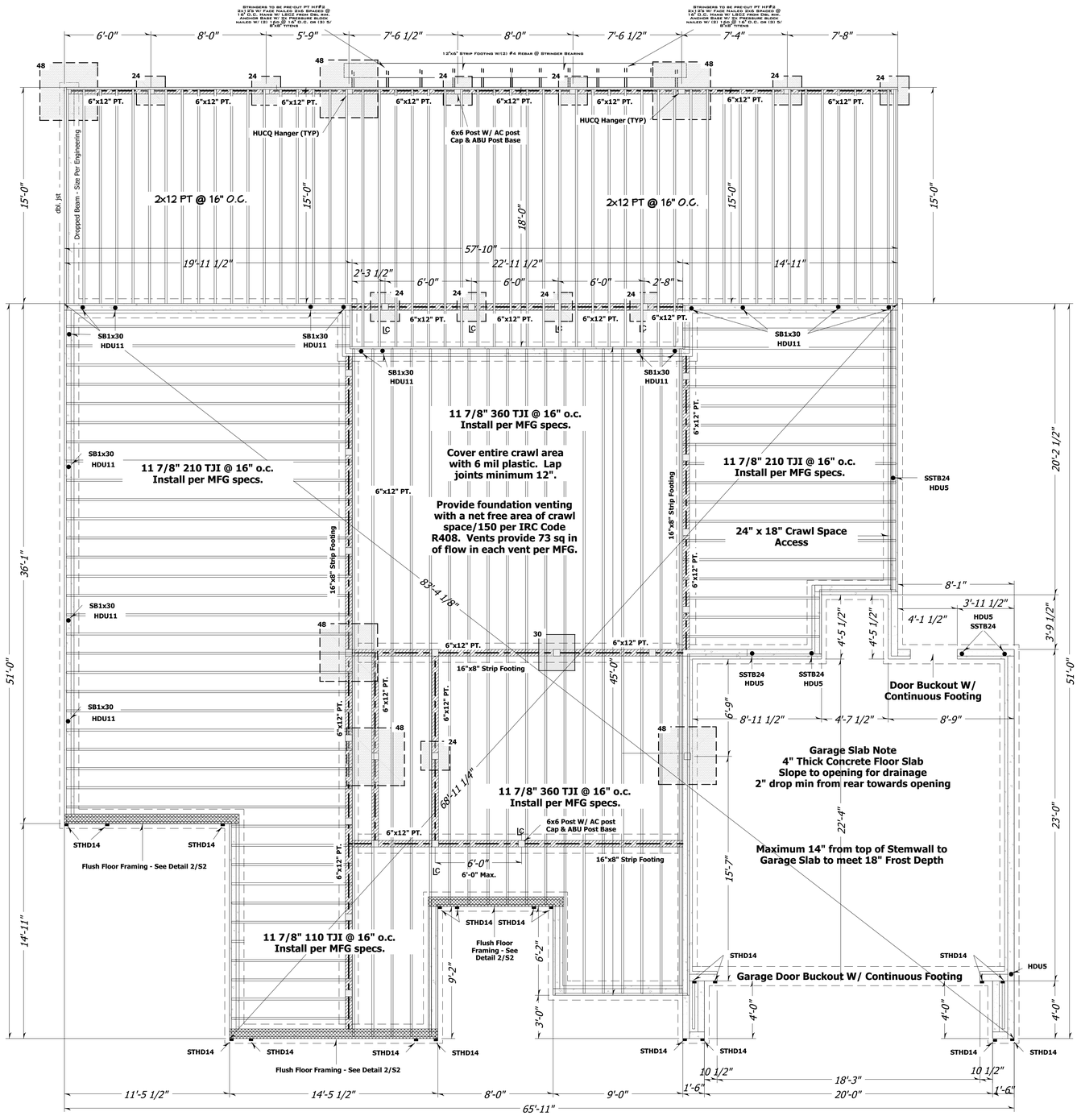
NOTE: Ensure Vents are not at the holdown or point load locations (TYP)

CONTRACTOR TO VERIFY PLUMBING DROPS DO NOT INTERFERE WITH FLOOR FRAMING



LP I-JOISTS CAN BE OFFEST UP TO 3" TO AVOID VERTIAL PLUMBING

HOLDOWNS: STHD14; HDU11; HDU5



FOUNDATION PLAN
SCALE 1/4" = 1'

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Sheet Description

Foundation Plan

Plan Name

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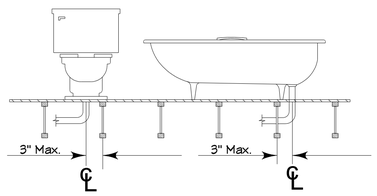
NOTE: To prevent water wicking Mud Sill Plate - Rim Joist & Exterior Wall to Extend over Stem Wall 1/2" Follow Detail 7/11

NOTE: Ensure Vents are not at the holdown or point load locations (TYP)

CONTRACTOR TO VERIFY PLUMBING DROPS DO NOT INTERFERE WITH FLOOR FRAMING



LP I-JOISTS CAN BE OFFEST UP TO 3" TO AVOID VERTIAL PLUMBING

HOLDOWNS: HDU5'S

UPPER FLOOR FRAMING PLAN
SCALE 1/4" = 1'

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Sheet Description

UPPER FRAMING PLAN

Plan Name

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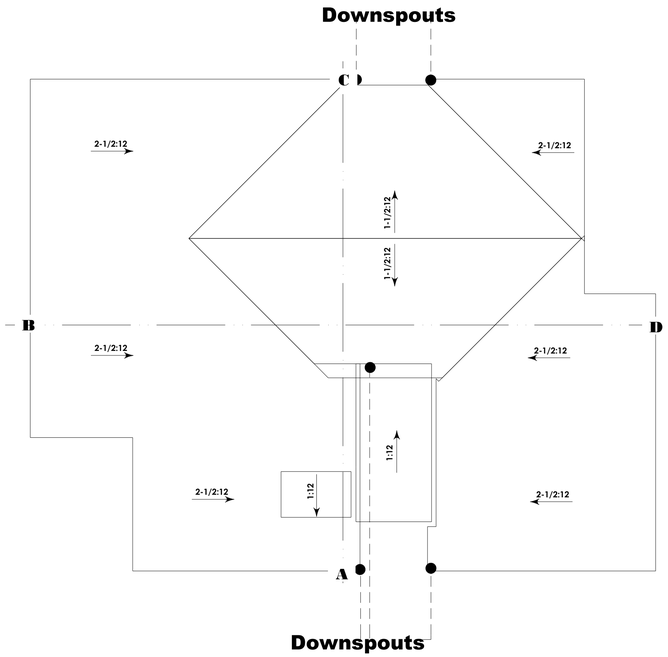


ROOF DRAINAGE PLAN
SCALE 1/8" = 1'

AVERAGE GRADE CALCULATION

Formula: Average Building Elevation (ABE)
(Midpoint Elevations) x (Length of Wall Segments)
ABE= ----------
(Total Length of Wall Segments)

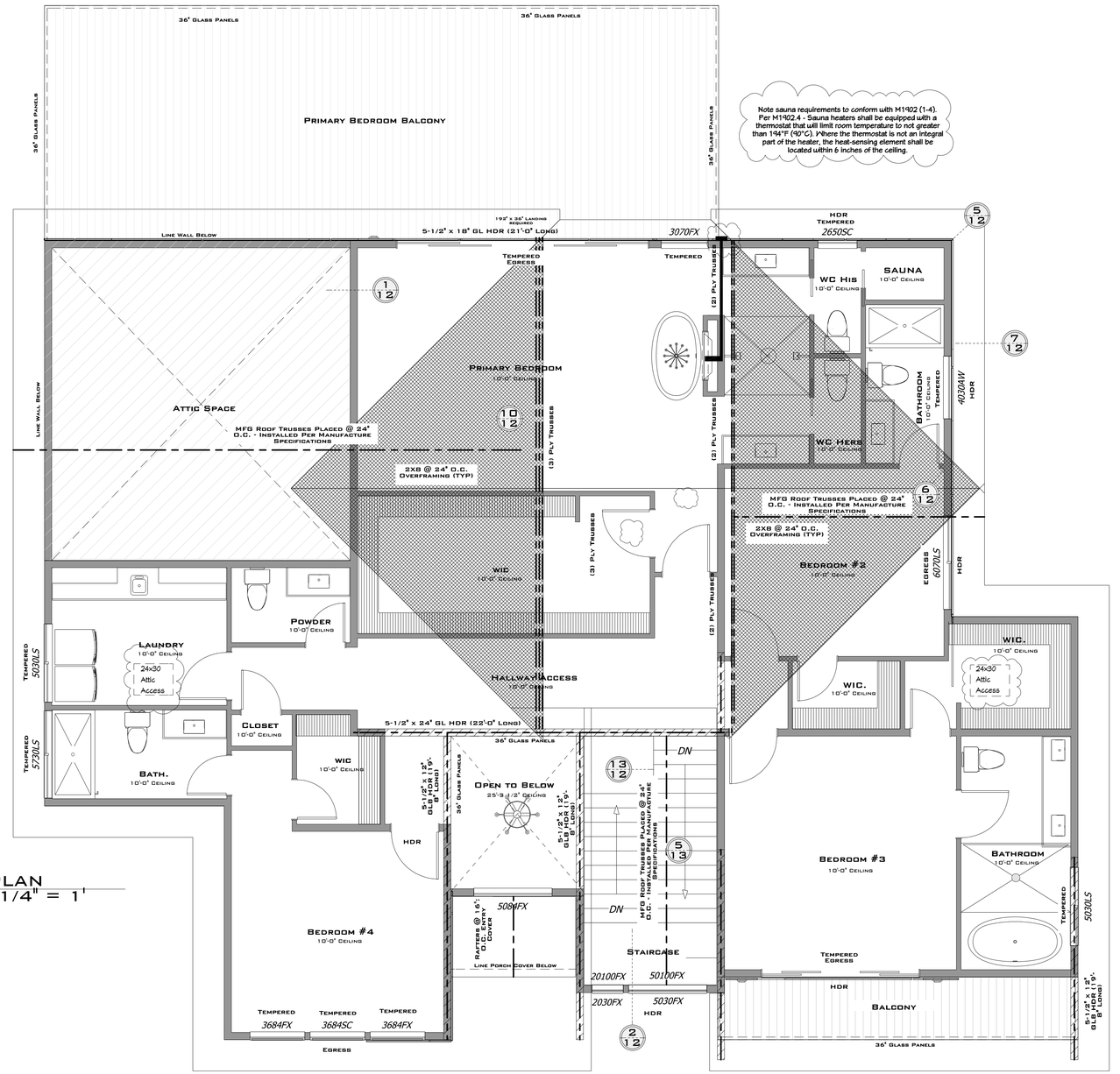
Mid Point Elevation	Rectangle Segment Length
A = 171.0	a= 65.5
B = 170.8	b= 51.0
C = 170.4	c= 65.5
D = 170.8	d= 51.0

Calculation (Height x Length):
(171.0 x 65.5) + (170.8 x 51.0) + (170.4 x 65.5) + (170.8 x 51.0) = 39,865

Total Length of rectangle segment measured on outside wall
(65.5+ 51.0 + 65.5 + 51.0) = 233 ft.

Average Building Elevation (ABE) = 39,783.3/ 233 = 170.8 (ABE)

ABE + 30'-0" = 200.08



ROOF PLAN
SCALE 1/4" = 1'

NOTE: See Drainage Plan for Roof Pitch

NOTE: Use Composition Asphalt Shingles. Maintain a distance of 12" Min. from any Ridge or Valley. Use 2 Layers of Felt on roofs with less than 4/12 roof pitch. Use "Cor-a-Vent" Roof Vent or equal at entire Ridge Area. Use Aluminum Gutters or equivalent.

Roof Venting Calculations - Left Wing

Attic Ventilation shall be in accordance to Section R806. Exception applied due to use of continuous Ridge Vent ("Core-Vent") ventilating upper portion. Exception rate of ventilation per s.f. = 1/300, or 1 s.f. of ventilation per 300 s.f of Attic Space. Lower portion of roof is vented with continuous soffit vent and underside of enclosed soffit.
1857 sq. Ft./300 = 6.19 sq. Ft. Net Free Ventilation Required
6.19 sq .Ft. x144 = 891.36 sq. Ft. In Net Free Ventilation Required
891.36/2 = 445.68 sq. In. of Net Free Ventilation Required in upper 1/3 of roof , & 445.68 sq. In. oof Net Free Ventilation Required in upper 1/3 of roof

Continuous Ridge Vent : Cor -a - Vent V-300 Continuous ridge Vent providing 13.5 sq. In. NVFA per Linear Ft.
Ridge= 55 Lin. Ft. x 13.5 = 742.5 Sq. In. NFVA possible = Therefore OK

Continuous Soffit Vent: Cor- a- Vent PS-400 Continuous soffit Vent Providing 10 sq. In. NFVA per linear ft.

Enclosed Soffitead Eave = 15 Linear Ft. x 10 sq. Ft. In. Per Ft.= 150 sq. in. NVFA possible =Therefore OK

Roof Venting Calculations- Right Wing

Attic Ventilation shall be in accordance to Section R806. Exception applied due to use of continuous Ridge Vent ("Core-Vent") ventilating upper portion. Exception rate of ventilation per s.f. = 1/300, or 1 s.f. of ventilation per 300 s.f of Attic Space. Lower portion of roof is vented with continuous soffit vent and underside of enclosed soffit.
1640 sq. Ft./300 = 5.46 sq. Ft. Net Free Ventilation Required
5.46 sq .Ft. x144 = 787.2 sq. Ft. In Net Free Ventilation Required
787.2/2 = 393.6 sq. In. of Net Free Ventilation Required in upper 1/3 of roof , & 393.6 sq. In. oof Net Free Ventilation Required in upper 1/3 of roof

Continuous Ridge Vent : Cor -a - Vent V-300 Continuous ridge Vent providing 13.5 sq. In. NVFA per Linear Ft.
Ridge= 55 Lin. Ft. x 13.5 = 742.5 Sq. In. NFVA possible = Therefore OK

Continuous Soffit Vent: Cor- a- Vent PS-400 Continuous soffit Vent Providing 10 sq. In. NFVA per linear ft.

Enclosed Soffitead Eave = 8 Linear Ft. x 10 sq. Ft. In. Per Ft.= 80 sq. in. NVFA possible =Therefore OK

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Sheet Description
Roofing & Drainage Plan

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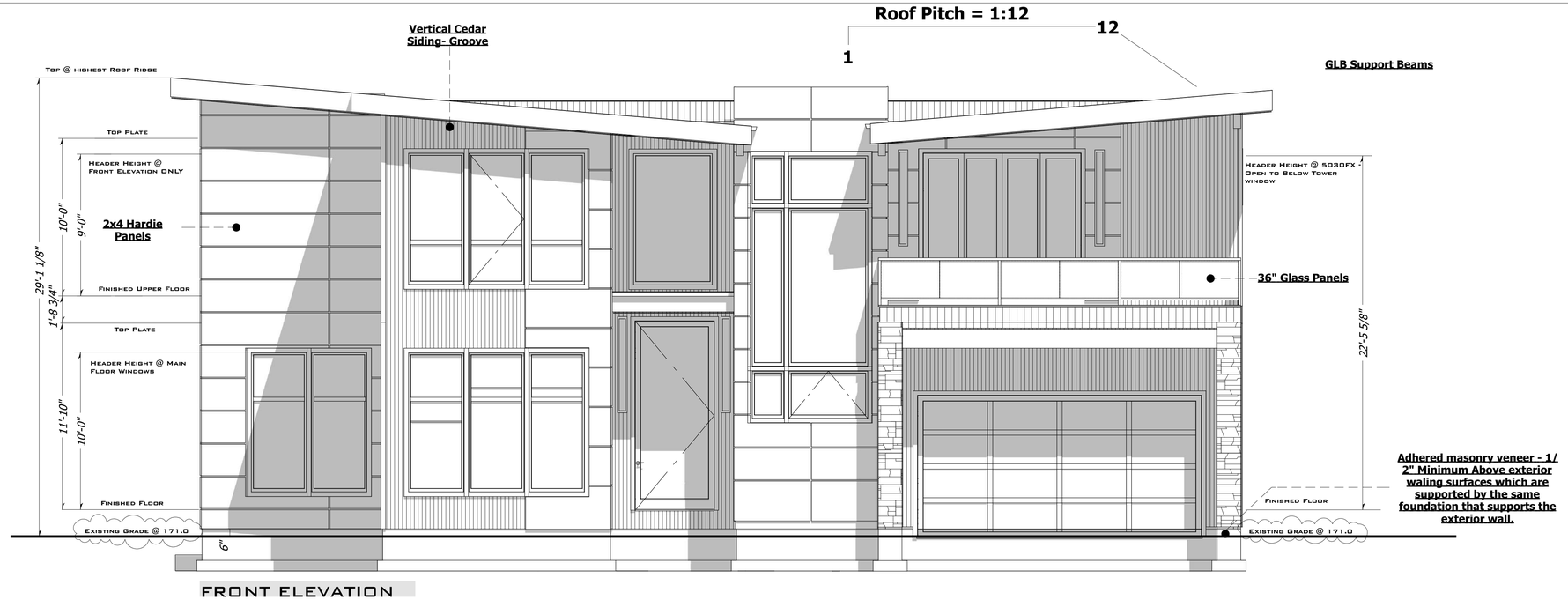
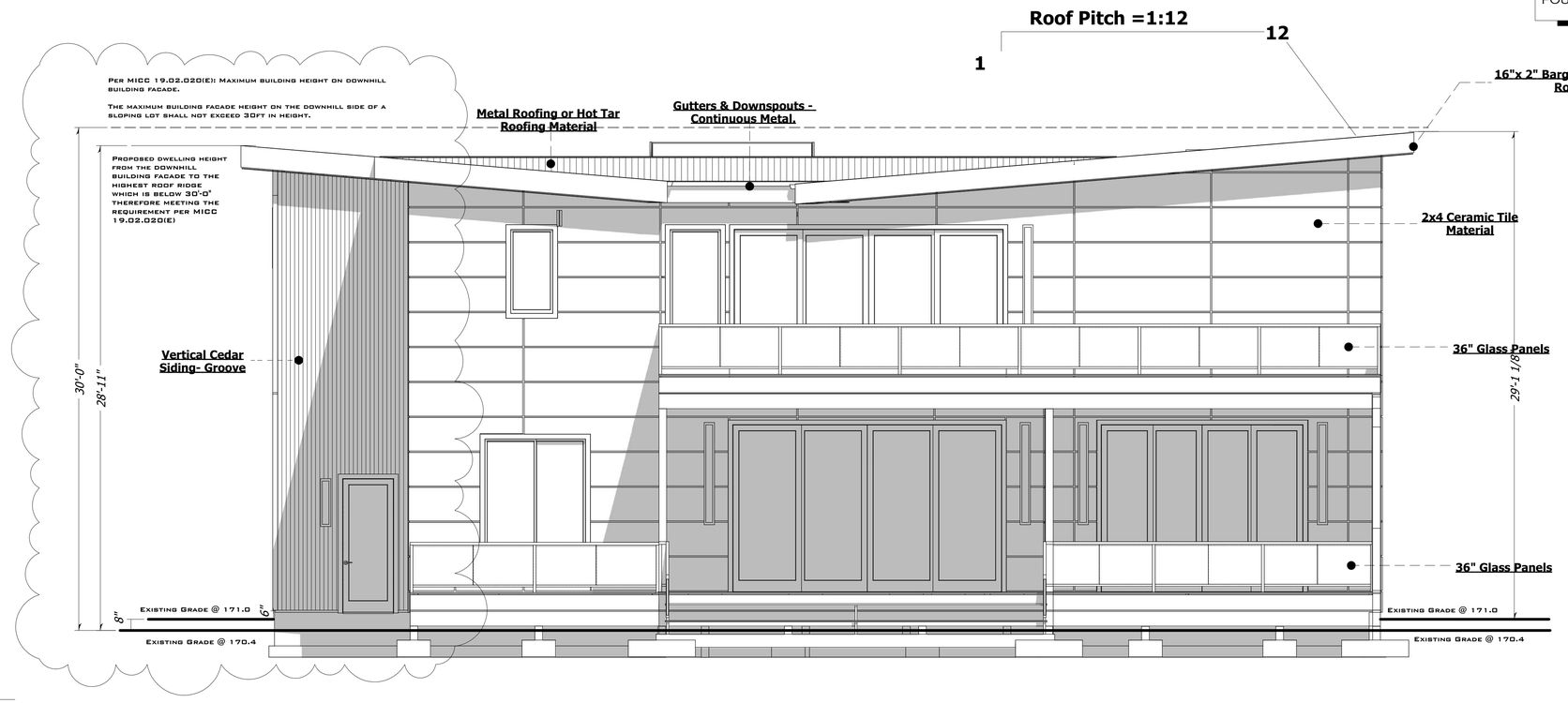


FRONT ELEVATION

NOTE: ADHERED MASONRY VENEER IS REQUIRED TO HAVE THE FOLLOWING CLEARANCES PER IRC R703.12.1: 4" MINIMUM ABOVE THE EARTH, 2" MINIMUM ABOVE PAVED AREAS, AND 1/2" MINIMUM ABOVE EXTERIOR WALKING SURFACES WHICH ARE SUPPORTED BY THE SAME FOUNDATION THAT SUPPORTS THE EXTERIOR WALL.



ELEVATIONS
SCALE 1/4" = 1'

REAR ELEVATION

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Sheet Description

ELEVATIONS

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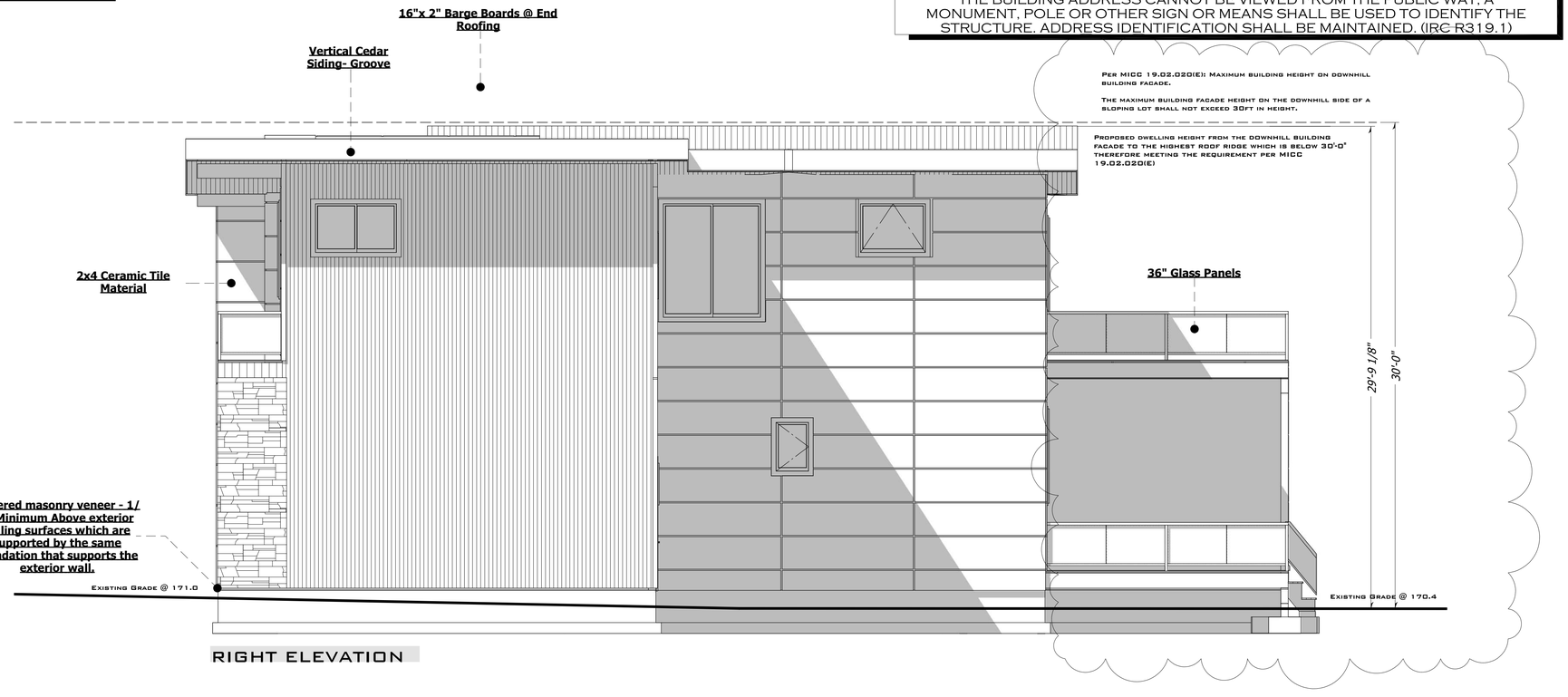
LEFT ELEVATION

SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE OR OTHER APPROVED POINT OF COLLECTION THAT DOES NOT CREATE A HAZARD. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL NOT FEWER THAN 6'' WITHIN THE FIRST 10' (R401.3).

ADDRESS IDENTIFICATION BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL NOT BE SPELLED OUT. EACH CHARACTER SHALL BE NOT LESS THAN 4 INCHES IN HEIGHT WITH A STROKE WIDTH OF NOT LESS THAN 0.5 INCH. WHERE REQUIRED BY THE FIRE CODE OFFICIAL, ADDRESS IDENTIFICATION SHALL BE PROVIDED IN ADDITIONAL APPROVED LOCATIONS TO FACILITATE EMERGENCY RESPONSE. WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. ADDRESS IDENTIFICATION SHALL BE MAINTAINED. (IRC R319.1)



RIGHT ELEVATION

ELEVATIONS
SCALE 1/4" = 1'

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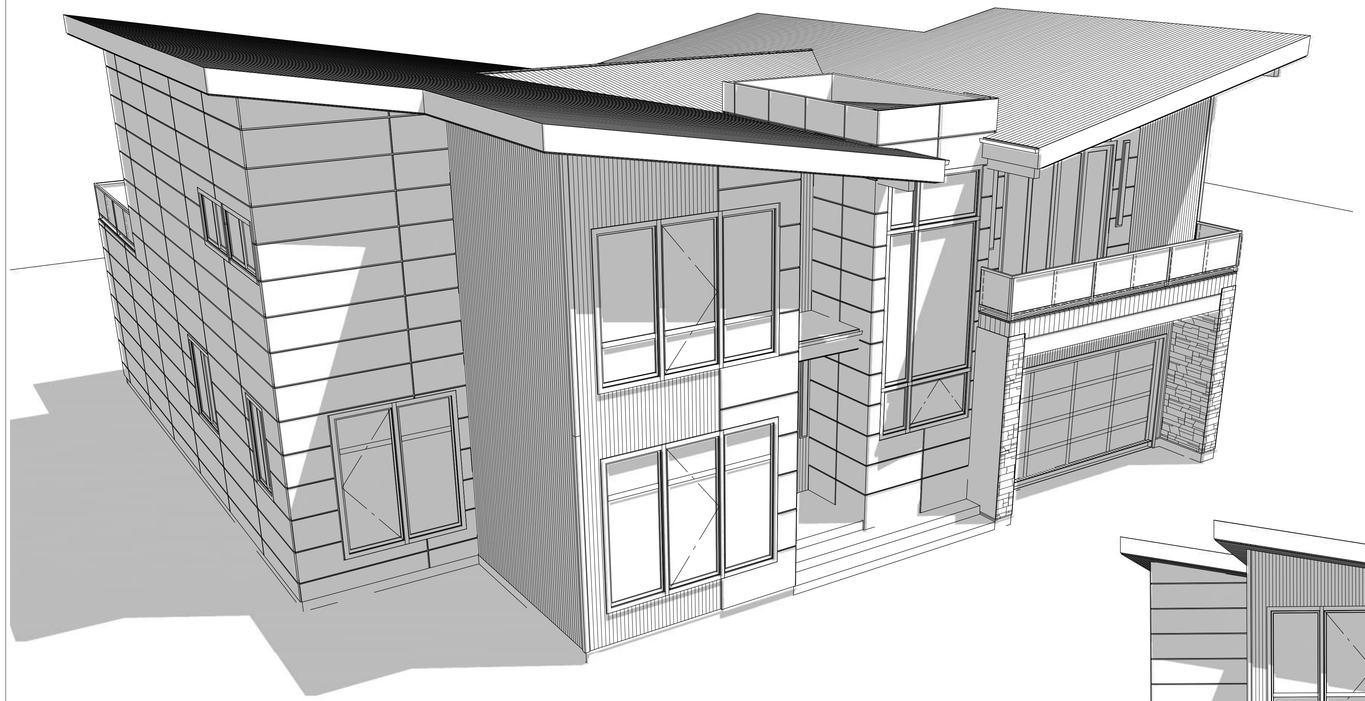

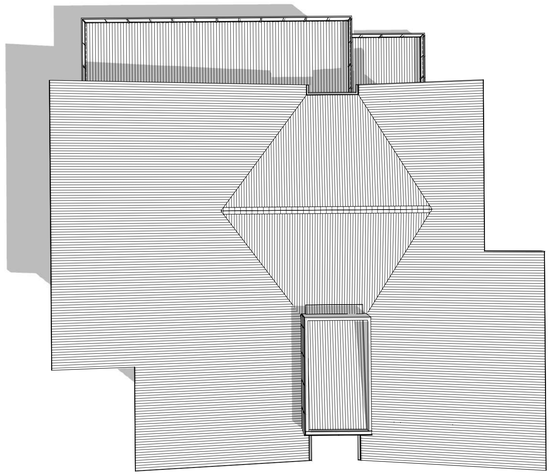

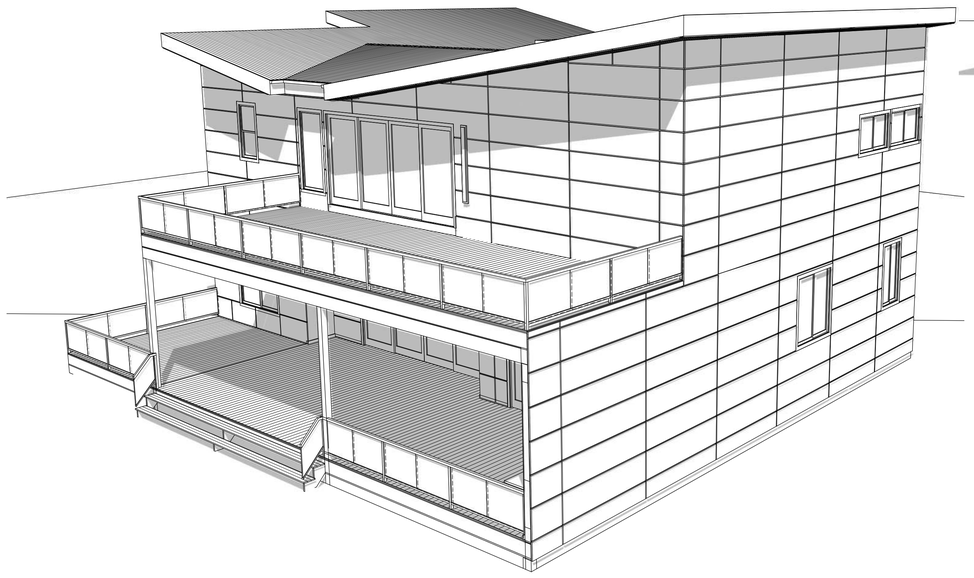

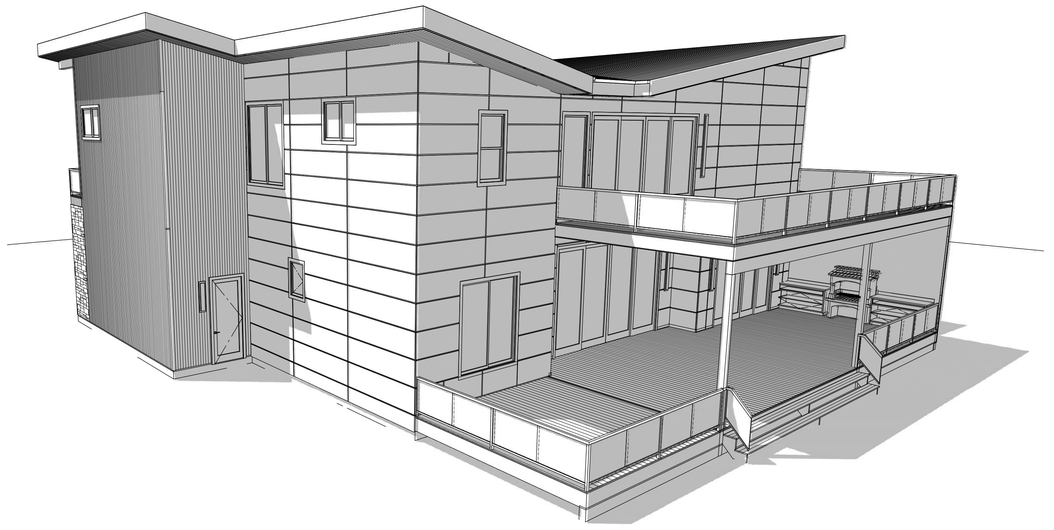

3D'S
NOT TO SCALE

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ALDOR
26809 199th Ave SE Covington WA. 98042
PH - 206-747-8421
Designer - Dorin Cornitel
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PARCEL # - 2655500176

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Sheet Description

3D's

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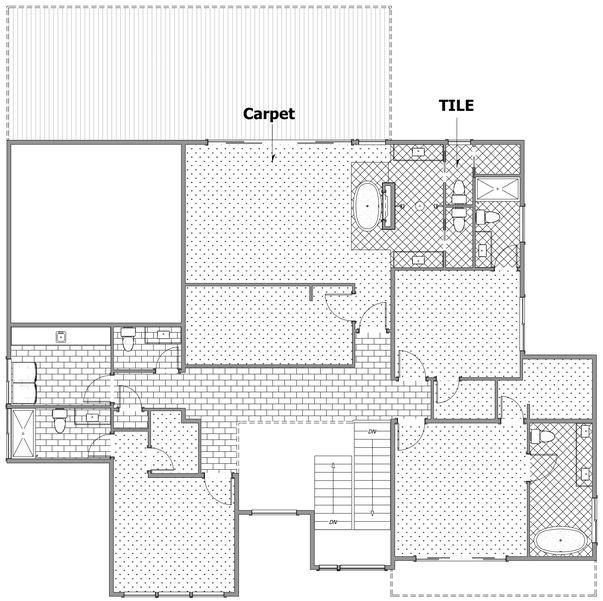

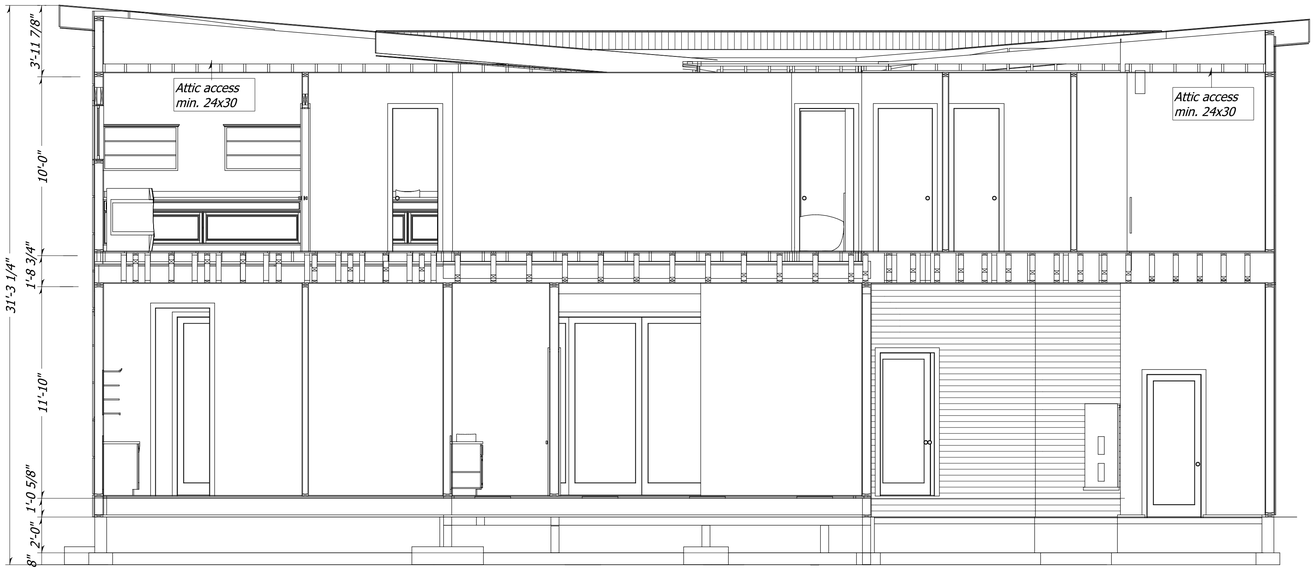

CROSS SECTION A
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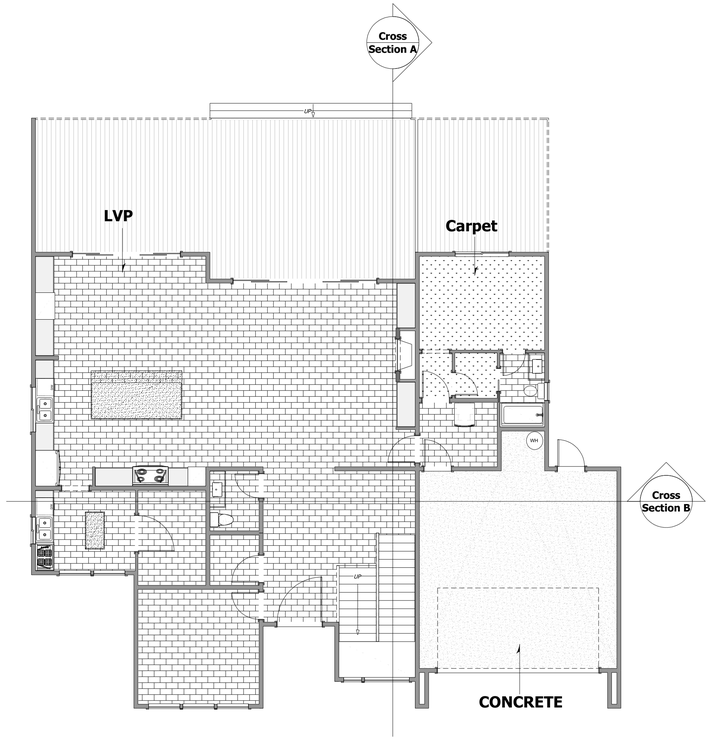

FLOOR COVERING
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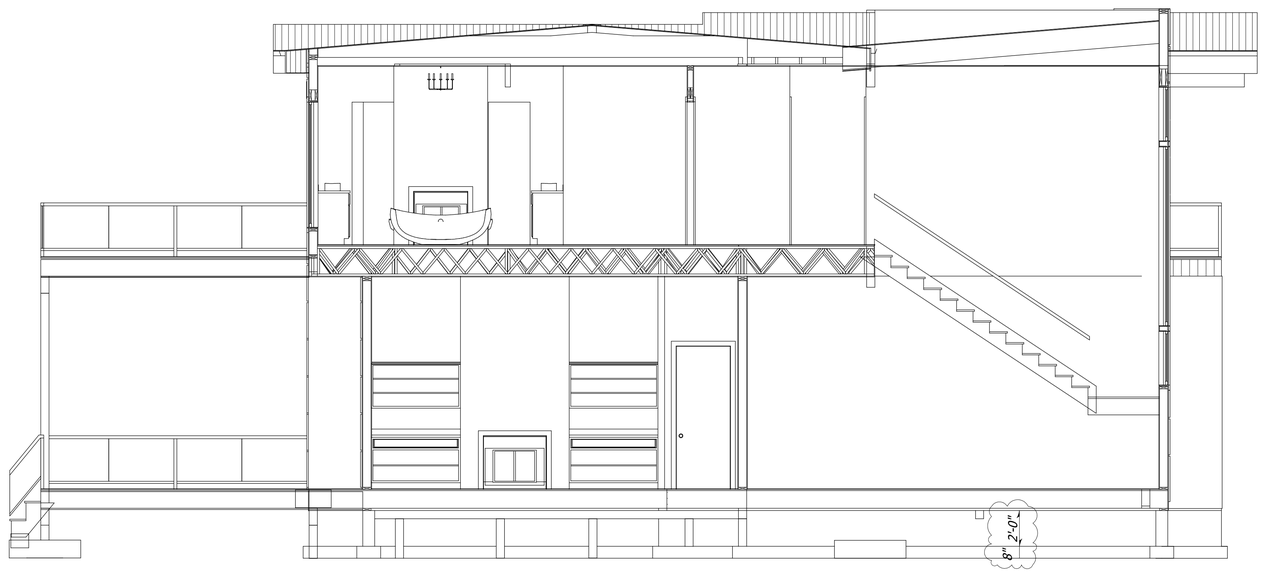

CROSS SECTION B
SCALE 1/4" = 1'

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9734 SE 40TH ST
MERCER ISLAND , WA
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PARCEL # - 265550-0176

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THESE PLANS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO IDENTIFY THE MOST SIGNIFICANT ELEMENTS IN THE CONSTRUCTION. THEY ARE NOT INTENDED TO PROVIDE ADEQUATE INFORMATION TO BE USED FOR GOVERNING REGULATORY AGENCY REGARDING COMPLIANCE WITH LOCAL BUILDING CODES AND RESIDENTIAL & COMMERCIAL CONSTRUCTION. IT IS UNDERSTOOD THAT NON-REGULATORY ITEMS WHICH ARE NOT REQUIRED FOR APPROVAL FOR CONSTRUCTION MAY NOT APPEAR WITHIN THESE PLANS.

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Sheet Description
CROSS SECTIONS & FLOOR COVERING

Plan Name
9734 SE 40TH ST
MERCER ISLAND WA.
98040

2021 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective March 15, 2024)

WASHINGTON STATE UNIVERSITY
Energy Program

Permit#	N/A		
Address or Lot & Block			
Russell Palanchuck			
9734 SE 40TH ST			
Parcel# 265550-0176			
City	Mercer Island WA.	Zip	98040

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

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

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

Authorized Representative Signature	Dorin Cornitel (Digitally signed by Dorin Cornitel Date: 2024.12.04 14:35:23 -08'00')	Date	12/4/2024

All Climate Zones Table 402.1.3	R-Value [a]	U-Factor [a]
Fenestration U-Factor [b, j]	n/a	0.30
Skylight U-Factor [b]	n/a	0.50
Ceiling [e]	60	n/a
Wood Frame Wall [g,i]	20+5 or 13+10	n/a
Floor	30	n/a
Below Grade Wall [c,h]	10/15/21 int + 5TB	n/a
Slab [d,f] R-Value & Depth	10, 4 ft	n/a

a	R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or de thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value s in the table
b	The fenestration *U*-factor column excludes skylights.
c	"10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the w 21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5 be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interio exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
d	R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
e	For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plat exterior wall.
f	R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation wher to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecti plastics.
g	For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 40
h	Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.
i	The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "R13+10" means R-13 cavity insulation plus R-10 continuous insulation
j	A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation a level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residen Code.

2021 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective March 15, 2024)

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**
 Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building greater than 500 square feet of heated floor area but less than 1500 square feet.
2. Medium Dwelling Unit: .... **8.0 credits**
 All dwelling units that are not included in #1, #3 or #4.
3. Large Dwelling Unit: ....**9.0 credits**
 Dwelling units exceeding 5000 square feet of conditioned floor area.
4. Dwelling units serving Group R-2 occupancies: .... **6.5 credits**
 Section R401.1 and residential building Section R202 for Group R-2.
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.

System Type	Table R406.2 ENERGY EQUALIZATION CREDITS — Description of Primary Heating Source	Credits - select ONE system type	
1	For combustion heating equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6)	0	○
2	For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5)b found in the 2021 WSEC- COMMERCIAL ENERGY CODE	1.5	⊙
3	For heating system based on electric resistance only (either forced air or Zonal)	0.5	○
4[c]	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590	3.0	○
5	For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling, or 2. With 2kW or less total installed heating capacity per dwelling	2.0	○

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.

Window, Skylight and Door Schedule

Project Information
Russell Palanchuck
9734 SE 40TH ST
Mercer Island WA. 98040

Contact Information
Russell Palanchuck
(206)-427-7896

	Ref.	U-factor	Qt.	Width Feet	Inch	Height Feet	Inch	Area	UA
Exempt Swinging Door (24 sq. ft. max.)	One P.	0.51	1	3	0	6	8	20.0	10.20
Exempt Glazed Fenestration (15 sq. ft. max.)								0.0	0.00

Vertical Fenestration (Windows and doors)

Component Description	Ref.	U-factor	Qt.	Width Feet	Inch	Height Feet	Inch	Area	UA
All Vinyl Windows								0.0	0.00
Low E Argon Windows								0.0	0.00
36810SC		0.25	2	3	6	8	10	61.8	15.46
36810FX		0.25	3	3	6	8	10	92.8	23.19
2030FX		0.22	1	2	0	3	0	6.0	1.32
5030AW		0.25	1	5	0	3	0	15.0	3.75
2030SC		0.22	1	2	0	3	0	6.0	1.32
6070LS		0.25	1	6	0	7	0	42.0	10.50
160100SGD		0.29	1	16	0	10	0	160.0	46.40
120100SGD		0.29	1	12	0	10	0	120.0	34.80
5056LS		0.20	1	5	0	5	6	27.5	5.50
3056LS		0.22	1	3	0	5	6	16.5	3.63
3684FX		0.25	2	3	6	8	4	58.3	14.58
3684SC		0.20	1	3	6	8	4	29.2	5.83
5084FX		0.25	1	5	0	8	4	41.7	10.42
20100FX		0.20	1	2	0	10	0	20.0	4.00
50100FX		0.20	1	5	0	10	0	50.0	10.00
5030FX		0.25	1	5	0	3	0	15.0	3.75
2030FX		0.19	1	2	0	3	0	6.0	1.14
10090SGD		0.29	1	10	0	9	0	90.0	26.10
5030LS		0.19	1	5	0	3	0	15.0	2.85
6070LS		0.20	1	6	0	7	0	42.0	8.40
4030AW		0.22	1	4	0	3	0	12.0	2.64
2650SC		0.20	1	2	6	5	0	12.5	2.50
3070FX		0.19	1	3	0	7	0	21.0	3.99
16080SGD		0.29	1	16	0	8	0	128.0	37.12
5030LS		0.20	1	5	0	3	0	15.0	3.00
5730LS		0.20	1	5	7	3	0	16.8	3.35
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00

	Area	UA
Sum of Vertical Fenestration Area and UA	1120.0	285.54
Vertical Fenestration Area Weighted U = UA/Area		0.25

Overhead Glazing (Skylights)

Component Description	Ref.	U-factor	Qt.	Width Feet	Inch	Height Feet	Inch	Area	UA
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00

	Area	UA
Sum of Overhead Glazing Area and UA	0.0	0.00
Overhead Glazing Area Weighted U = UA/Area		0.00
***Total Sum of Fenestration Area and UA** (for heating system sizing calculations)*	1140.0	295.74

2021 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective March 15, 2024)

Options	Summary of Table R406.3 — Energy Credit Option Descriptions	Credits – limited to one energy option from each category [d]		Comments:
1.1	Efficient Building Envelope	0.5	○	
1.2	Efficient Building Envelope	1.0	⊙	
1.3	Efficient Building Envelope	1.5	○	
1.4	Efficient Building Envelope	2.5	○	
2.1	Air Leakage Control and Efficient Ventilation	1.0	○	
2.2	Air Leakage Control and Efficient Ventilation	1.5	⊙	
2.3	Air Leakage Control and Efficient Ventilation	2.0	○	
3.1[a]	High Efficiency HVAC	1.0	○	
3.2[a]	High Efficiency HVAC	0.5	○	
3.3[a,c,d]	High Efficiency HVAC	0.5	⊙	
3.4[a,d]	High Efficiency HVAC	1.5	○	
3.5[d]	High Efficiency HVAC	1.5	○	
3.6[a]	High Efficiency HVAC	1.0	○	
3.7[a,d,e]	High Efficiency HVAC	2.0	○	
3.8[a,d]	High Efficiency HVAC	1.0	○	
3.9[c]	High Efficiency HVAC	1.5	○	
3.10	High Efficiency HVAC	2.5	○	
3.11	High Efficiency HVAC	0.5	☑	
4.1	High Efficiency HVAC Distribution System	0.5	☐	
5.1[d]	Efficient Water Heating	0.5	☐	
5.2	Efficient Water Heating	0.5	☐	
5.3	Efficient Water Heating	0.5	○	
5.4	Efficient Water Heating	1.0	○	
5.5	Efficient Water Heating	1.5	○	
5.6	Efficient Water Heating	2.0	○	
5.7	Efficient Water Heating	2.5	⊙	
5.8	Efficient Water Heating	2.5	○	
6.1[e]	Renewable Electric Energy (4.5 credits max)	0.5-4.5	0.0	
7.1	Appliance Package	0.5	☑	
	Total Credits	8.0		Calculate Total

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.

Simple Heating System Size: Washington State

This heating system sizing calculator is based on the Prescriptive Requirements of the 2018 and 2021 Washington State Energy Code (WSEC) . This tool will calculate heating loads only. ACCA procedures for sizing cooling systems should be used to determine cooling loads.

Please complete the green drop-downs and boxes that are applicable to your project. As you make selections in the drop-downs for each section, some values will be calculated for you. If you do not see the selection you need in the drop-down options, please contact the WSU Energy Program at energycode@energy.wsu.edu or (360) 956-2042 for assistance.

This tool is for the permitting purposes only. A Manual J calculation is required to meet the requirement of the Washington State Energy Code.

Project Information
Russell Palanchuck
9734 SE 40TH ST
Mercer Island WA. 98040

Contact Information
Russell Palanchuck
(206)-427-7896

Heating System Type: ○ All Other Systems ● Heat Pump

To see detailed instructions for each section, place your cursor on the word "Instructions"

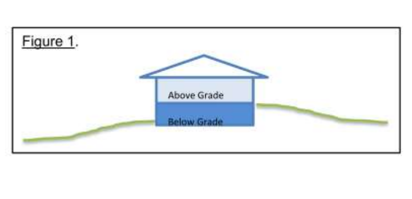
Design Temperature — Instructions — Bellevue
Deisgn Temperature 24
Design Temperature Difference (ΔT) 46
ΔT = Indoor (70 degrees) - Outdoor Design Temp

Area of Building
Conditioned Floor Area — Instructions — Conditioned Floor Area (sq ft) 4,464
Average Ceiling Height — Instructions — Average Ceiling Height (ft) 11.0 — Conditioned Volume 49,104

Item	Selection	U-Factor	X	Area / Length	=	UA
Glazing and Doors	U-0.25	0.250		1,031		257.75
Skylights		0.50				0.00
Insulation – Attic	R-60	0.024		2,264		54.34
Single Rafter or Joist Vaulted Ceilings	No Vaulted Ceilings in this project.	---				--
Above Grade Walls *(see Figure 1)*	R-21 INT plus R-5 ci	0.041		508		20.83
Floors	R-38	0.025		2,200		55.00
Below Grade Walls and Slabs *(see Figure 1)* – Wall & Slab	None	Wall U-Factor --		Area		--
Depth	Select nearest slab depth	Slab F-Factor --		Length		--
Slab on Grade *(see Figure 1)*	No Slab on Grade in this project.	F-Factor ---		Length 776		--
Location of Ducts	Unconditioned Space	Duct Leakage Coefficient 1.100				

Sum of UA	387.91	
Envelope Heat Load *Sum of UA x ΔT*	17,844	Btu / Hour
Air Leakage Heat Load *Volume x 0.6 x ΔT x 0.018*	24,395	Btu / Hour
Building Design Heat Load *Air leakage + envelope heat loss*	42,239	Btu / Hour
Building and Duct Heat Load *Ducts in unconditioned space: sum of building heat loss x 1.10; Ducts in conditioned space: sum of building heat loss x 1*	46,463	Btu / Hour
Maximum Heat Equipment Output *Building and duct heat loss x 1.40 for forced air furnace; Building and duct heat loss x 1.25 for heat pump*	58,079	Btu / Hour

Figure 1.



AO Smith. COMMERCIAL-GRADE RESIDENTIAL ELECTRIC WATER HEATERS

VOLTEX® HYBRID ELECTRIC HEAT PUMP WATER HEATER

The Voltex Hybrid Electric heat pump water heater from A. O. Smith is the most cost effective energy-efficient option available for consumers who want to save money on their utility bills. Voltex can reduce water heating costs up to 73% and provide payback in 2-3 years. With annual savings of $306 or more, there is no better way to go green than Voltex.

HOW DO THEY WORK?
Absorb ambient heat from the surrounding air to heat water using a compressor and "Environmentally-Friendly" R134a refrigerant
- Self-contained heat pump unit is integrated into the top of the tank
- Multiple operating modes to maximize efficiency and performance

QUALIFIES FOR MANY STATE AND LOCAL UTILITY REBATES - CHECK WWW.DSIREUSA.ORG

INCREASED ENERGY EFFICIENCY
- Improved efficiency designed in, to ensure available hot water at the lowest possible cost. Up to a 3.45 Uniform Energy Factor (UEF) Rating conserves energy and meets ENERGY STAR® qualifications

CHOICE OF OPERATING MODES
- Select from Efficiency, Hybrid, or Electric modes to match heating requirements to environmental conditions.
- Hybrid mode automatically adjusts between compressor and element, depending upon heat requirements.
- Vacation mode reduces operating costs and provides freeze protection during extended absence

BACKUP ELECTRIC ELEMENTS
- Long-lasting backup heating elements help heat water according to environmental conditions, demand, and the chosen operating mode

COREGARD™ ANODE ROD
- Our anode rods have a stainless steel core that extends the life of the anode rod allowing superior tank protection far longer than standard anode rods
- 66 and 80 gallon models have dual anodes for added protection.

DRY FIRE PROTECTION
- Control system checks to ensure the tank is full of water during start up to prevent dry firing the heating elements

ELECTRONIC USER INTERFACE
- User-friendly electronic interface allows easy control of temperature setting, operating mode, and communicates diagnostics
- Easy to read temperature display (see back) shows temperature in °F or °C
- Advanced diagnostics convey error messages for service purposes. The last four error messages are saved in the control system memory.

OTHER FEATURES
- Ideal for basements or garage installations; the compressor transfers heat to the water while dehumidifying and cooling the ambient air
- Washable air filter is easily removed for routine cleaning

OPTIONAL AIR DUCT ADAPTER KIT
- Permits installation in confined spaces

TEN YEAR LIMITED WARRANTY
- For complete information, consult written warranty or go to hotwater.com

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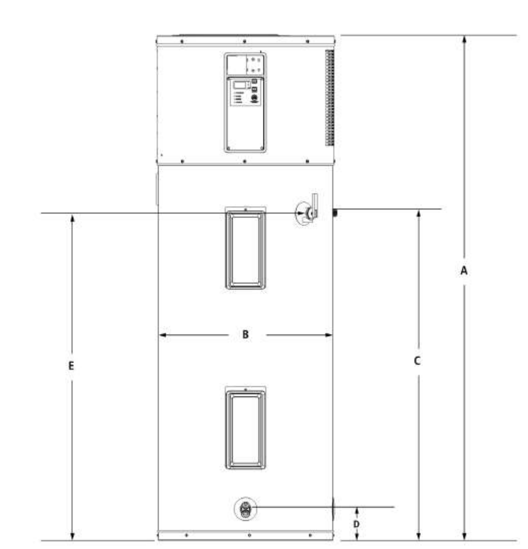
Page 1 of 2
AOSXE50007

AO Smith. COMMERCIAL-GRADE RESIDENTIAL ELECTRIC WATER HEATERS

Model Number	Nominal Capacity	Rated Storage Volume	UEF	First Hour Rating (Gallons)	A	B	C	D	E	Approx. Shipping Weight (lbs)	Warranty Term
HPTU-50N	50	46	3.45	66	63	22	40-5/8	3-3/4	40-1/2	196	10
HPTU-66N	66	67	3.45	79	61	27	38	4	38	289	10
HPTU-80N	80	82	3.45	86	69	27	46	4	46	307	10

(A–E: Dimensions in Inches)

Requires 30 amp breaker.
Top T&P option not available.



ELECTRONIC USER INTERFACE
- User friendly, easy to read display.
- LEDs clearly indicate the current operating mode.
- Easily select operating mode:
  - Efficiency
  - Hybrid
  - Electric
  - Vacation
- Display communicates current status, mode and set point, and displays error messages when applicable.

EFFICIENCY MODE
- Utilizes the heat pump for all water heating.
- Automatically reverts to heating element if ambient air or water temperatures are outside optimal operating range for heat pump.

HYBRID MODE
- Utilizes the heat pump or heating element, depending on demand.

ELECTRIC MODE
- Standard electric water heater operation.

VACATION MODE
- One touch operation maintains tank temperature of 60°F (15.6°C) during vacation or extended absence to reduce operating costs and provide freeze protection.
- Programmable up to 99 days.

OTHER FEATURES:
- Sacrificial anode to protect against tank corrosion.
- Environmentally-friendly non-CFC foam insulation.
- Durable, enhanced-flow brass drain valve.
- CSA certified and ASME rated temperature & pressure relief valve.

OPERATING REQUIREMENTS:
- Requires provision for condensate draining; if a suitable drain is not available, a condensate pump is required.
- 208/240 VAC 60Hz single phase 30 amp power supply.

For Technical Information, call 800-527-1953. A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.

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AOSXE50007

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PARCEL # - 265550-0176

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ENERGY CREDITS

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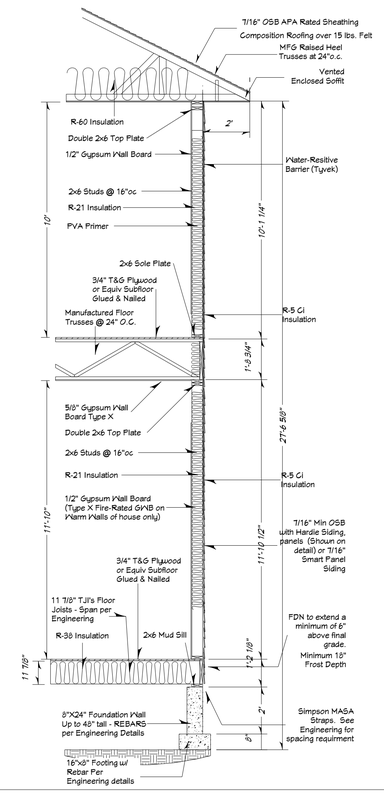
Sheet Description

DETAILS

Plan Name

9734 SE 40TH ST
MERCER ISLAND WA.
98040

1



2- STORY CROSS SECTION

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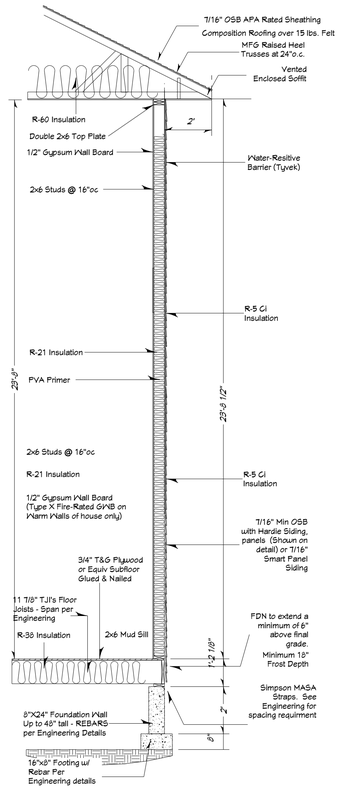

2- STORY OPEN TO BELOW

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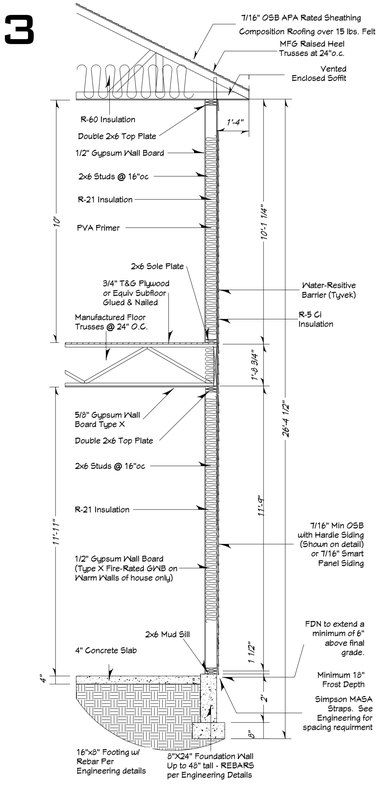
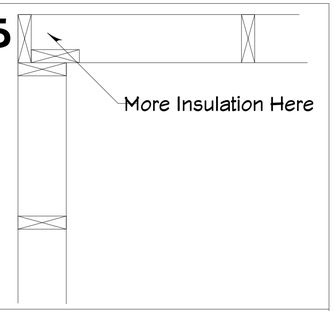


GARAGE SECTION W/ LIVING SPACE ABOVE

4

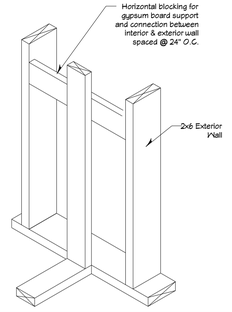
5



CALIFORNIA CORNER WALL FRAMING DETAIL

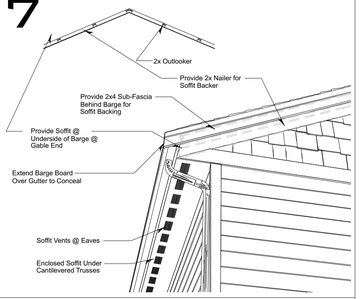
DETAILS

6



LADDER FRAMING WALL DETAIL

7



ROOF OVERHANG SOFFIT STANDARDS

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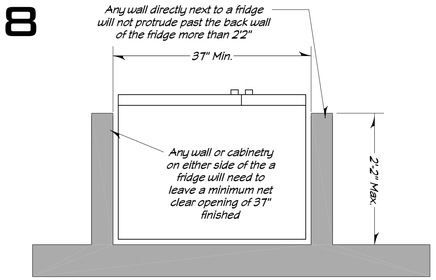
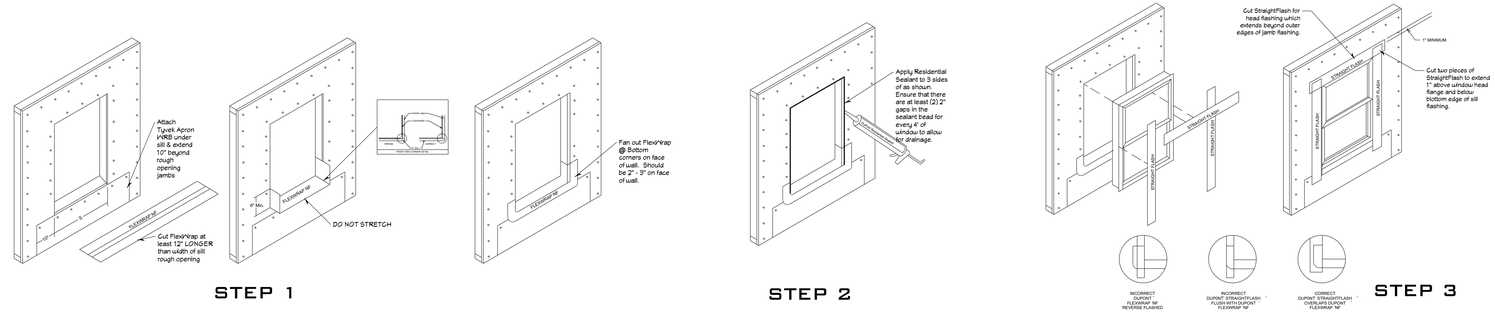


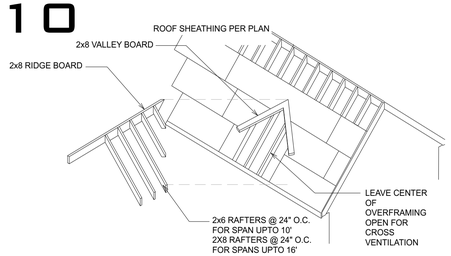
FRIDGE FRAMING DETAIL

9



TYVEK FLASHING STEP 1,2 & 3

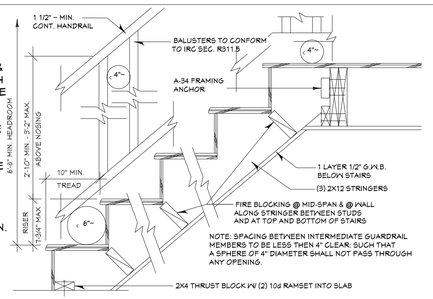
10



ROOF OVER FRAME DETAIL

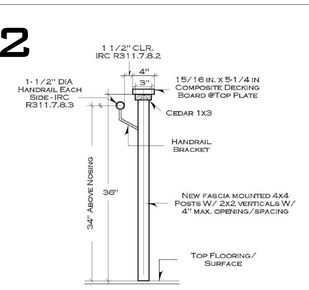
11

NOTES: PER IRC SECTION 303.6, R311.5.7 ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIR INCLUDING LANDINGS & TREADS. INTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE LANDING OF THE STAIRWAY. EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE TOP OF THE LANDING OF THE STAIRWAY. LIGHTING CONTROLS SHALL BE ACCESSIBLE AT THE TOP & BOTTOM OF EACH STAIRWAY WITHOUT TRAVERSING ANY STEPS. 4 OR MORE RISERS TO HAVE AT LEAST ONE HANDRAIL RUNNING CONTINUOUS THROUGH FULL LENGTH OF STAIR 34" MIN. HT., 38" MAX. HEIGHT. END SHALL RETURN TO WALL OR NEWEL POST OR VOLUTE. HANDRAIL MUST BE STRONG ENOUGH TO RESIST A 200 LB. PT. LOAD IN ANY DIRECTION. HANDRAIL TO BE PRESENT ON AT LEAST ONE SIDE OF STAIR. HAND GRIP PORTION OF HANDRAILS SHALL HAVE CIRCULAR CROSS SECTION OF 1-1/4" MIN. & 2-1/4" MAX. EDGES SHALL HAVE A MIN. RADIUS OF 0.01". ALL REQUIRED GUARDRAILS TO BE 36" MIN. IN HEIGHT.



STAIRCASE DETAIL

12



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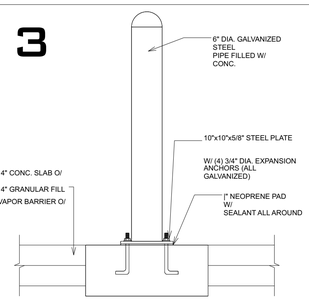

BOLLARD PROTECTION

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1

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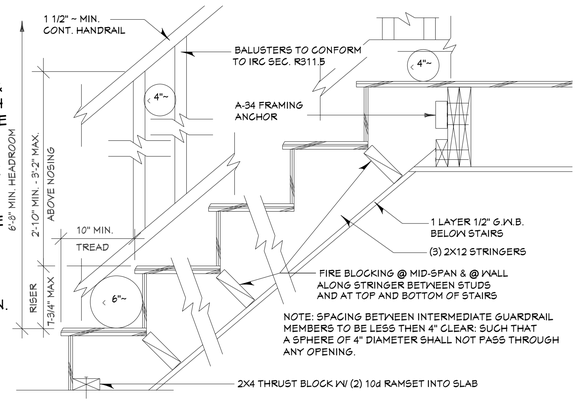
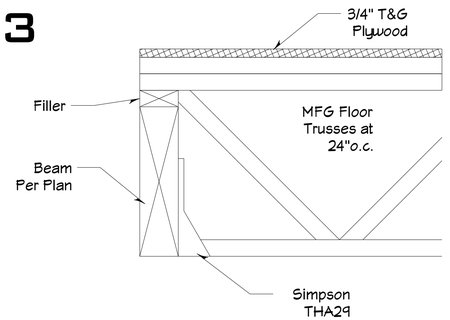


STAIR DETAIL

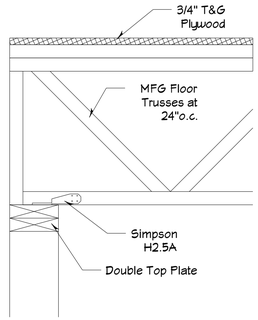
DETAILS

3



FLOOR TRUSS TO UPSET BEAM DETAIL

4



FLOOR TRUSS TO WALL DETAIL

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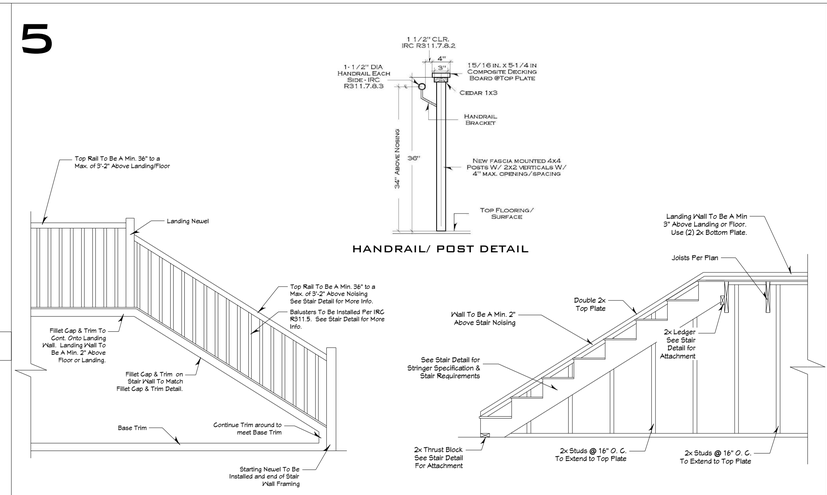
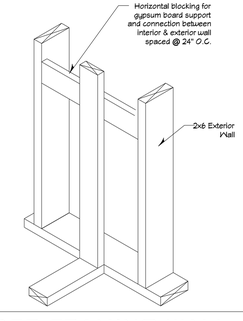


STAIR W/RAILING - FRAMING DETAIL

8



LADDER FRAMING WALL DETAIL

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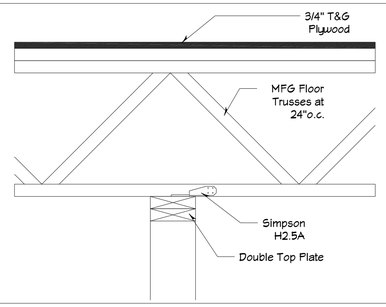
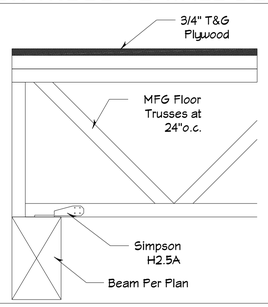


FLOOR TRUSS @ INTERMEDIATE BEARING WALL

7



FLOOR TRUSS TO DROPPED BEAM DETAIL

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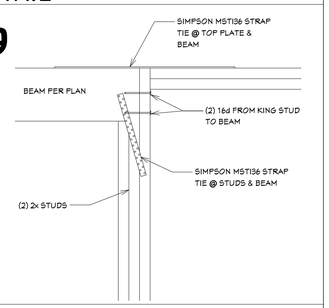

PLATE BREAK @ BEAM DETAIL

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Sheet Description

DETAILS

Plan Name

9734 SE 40TH ST
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Foundation Notes - Two Story

See Building Sections and Details Sheet within this set for Details and Callouts for Foundation and Wall to Foundation connectivity.

Two Story Perimeter Foundation that will support a 2x6 Framed Stud Wall shall consist of a 16"x 8" Min. Continuous Concrete Footing Per Engineering.

Garage Foundations that will support a Two Story 2x6 Framed Stud Wall shall consist of a 16"x 8" Min. Continuous Concrete Footing Per Engineering.

Foundation Stem Walls for a Two Story Bearing Walls shall consist of a 22" - 24" Tall x 8" Wide Stem Wall Per Engineering.

Please See Engineering "L" Pages for Holddown Locations. If Foundation needs to be a Stepped Foundation, See "Step Footing" on Engineering Sheet D1.

Foundation Contractor to verify vent placement is done to IRC code. To ensure plumbing access for fixtures, see drain dimensions on foundation. See Floor Joists MFG Layout for Start Location.

Framing Notes

Roof Trusses shall be Pre-Engineered/Pre-Manufactures Wood Trusses spaced at 24" o.c. Flat ceiling trusses over entire area with the exception of Scissor Truss over Specified areas. Note Line of soffit on Floor Plan.

All Trusses shall be installed and braced according to the Manufacturer's instructions. Design calculations shall be kept with the Building Permit and shall be made readily available to the Building Inspector at the time of inspection. All Permit documents shall be kept in a waterproof enclosure for the duration of the project.

Outlooks shall be 2x4 spaced at 48" o.c. @ each Gable End.

Roof Sheathing Nailing shall be at 8d @ 6" o.c. Panel Edges and 12" o.c. @ Intermediates.

Wall Sheathing Nailing shall be at 8d @ 6" o.c. Panel Edges and 12" o.c. @ Intermediates, U.N.O. (See Panel Details for additional information.)

All Exterior Wall Headers shall be a 4x w/ 2 sheets of R-5 Rigid Insulation install on inside of header. In the case that a 6x header is required, insulation of header is not required.

All Exterior Wall Headers shall be a 4x8 DF#2 U.N.O.

All Blocking @ Roof Trusses exposed to the exterior shall be screened "Bird Block".

Roof Venting Requirements

Attic Ventilation shall be in accordance to Section R806. Exception applied due to use of continuous Ridge Vent ("Core-Vent") ventilating upper portion. Exception rate of ventilation per s.f. = 1/300, or 1 s.f. of ventilation per 300 s.f of Attic Space. Lower portion of roof is vented with bird blocks installed between every truss.

Roofing Notes

Use Composition Asphalt Shingles per Building Package Specification. Maintain a distance of 12" Min. from any Ridge or Valley. Use 2 Layers of Felt on roofs with less than 4/12 roof pitch. Use "Cor-a-Vent" Roof Vent or equal at entire Ridge Area. Use Aluminuml Gutters or equivilant.

Truss Notes

Pre-Engineered / Pre-Manufactured Roof Trusses (Pitch Specified on Page 4 - If vaulted truss, inside vault is half pitch size U.N.O.) @ 24" o.c. Use "Bird Blocks" between each Truss @ Plate Line. Place Outlooks over Gable Ends @ 48" o.c.

Garage Notes

Garage walls, columns, and ceilings adjacent to or under dwelling areas shall have materials approved for One-Hour fire resistive construction.

Air ducts passing through one-hour fire resistive construction shall be a minimum of 26-gauge steel.

All electrical switch plates and box covers in the garage shall be metal and lights with boxes behind them shall not be plastic.

All piping passing through one-hour fire resistive construction shall be metal.

Air ducts and or Piping supported by structural members that are required to be fire protected shall be installed after the sheetrock has been applied. Ducts and or Piping may be enclosed within a soffit that has the same degree of fire protection required for the structural members that it attaches to. Framing members for the soffit shall not exceed 16" on center.

Water heater shall have a relief valve drain line to the outside of the building. Per P2803.6.1 (10) of the 2021 IRC, the discharge not terminate more than 6 in above the flooor or waste receptor.

General Notes

All construction to conform to the 2021 International Residential Code

CONCRETE: Compressive strength for basement and foundation walls exposed to weather as well as porches, carport slabs and steps shall be a min. 3,000 p.s.i. at 28 days. Concrete shall be air entrained at between 5 & 7%.

REINFORCING STEEL: All steel #4 or smaller shall be A-615, grade 40, unless installed in a reinforced concrete foundation, otherwise grade 60.

SMOKE ALARMS: "Shall be installed in each sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. Required alarms shall received their primary power from the building wiring and shall be equipped with battery backup. Alarms shall be interconnected to provide audibility in all areas."

MFG INSTALLATION: R106.1.2 Manufacturer's installation instructions. Manufacturer's installation instructions, as required by this code, shall be available on the job site at the time of inspection.

FASTENER NOTES: As a minimum, any fastner in contact with pressure treated wood must be Hot Dip galvanized (ASTM A123 for connectors and ASTM 153 for fasteners and anchors).

SANITARY SEWER: To Provide Adequate Drainage the Sewer Connection willl exit the home UNDER the Footing. DO NOT EXCAVATE THE SITE TO DEEP!

WHOLE HOUSE VENTALATION: Ventalation shall consist of source specific Intermittently operating fans with a minimum 50 cfm rating in bathrooms and utility and a minimum 100 cmf in the kitchen. Utility room fan to be controlled by a timer. Windows in habitable rooms to include integral fresh air intake vents.

DRYER VENTING: Dryer to be vented to outside. Maximum length not to exceed 25 feet less 5' for each 90 degree bend. Per IRC 1502.

RO Framing on Door Units for 1-3/8" Clearance

Exterior Doors		
Door Type	RO Width	RO Height
Exterior:	Door width +2"	82"-1/2"
Exterior 1S/L:	Door width + S/L + 4"	82"-1/2"
Exterior 2S/L:	S/L + Door width + S/L + 5-1/2"	82"-1/2"
Exterior Double:	2 x door width + 3"	82"-1/2"
Interior Doors		
Door Type	RO Width	RO Height
Interior:	Door width + 2"	Height + 2-1/2"
Interior Double	2x door width + 3"	Height + 2-1/2"
Bifolds:	Door callout size + 1-1/4"	82"
Bipass:	2x door width	83"
Fire Door		
Door Type	RO Width	RO Height
Fire Door:	Door width + 2"	83"

Note: Heights are from subfloor to rough header with all jambs @ 3/4"
Exterior Doors are for fiberglass and metal std height only
Closet openings w/ 1/2" drywall on 3 sides

Whole-House Ventilation Using Exhaust Fans M1507.3.4

This section establishes minimum prescriptive requirements for whole-house ventilation systems using exhaust fans. A system which meets all the requirements of this section shall be deemed to satisfy the requirements for a whole-house ventilation system.

M1507.3.4.1 Whole-house ventilation fans. Exhaust fans providing whole-house ventilation shall have a flow rating at 0.25 inches water gauge as specified in Table M1507.3.3(1) (See Sheet 2). Manufacturers' fan flow ratings shall be determined according to HVI 916 or AMCA 210.

M1507.3.4.2 Fan noise. Whole-house fans located 4 feet or less from the interior grille shall have a sone rating of 1.0 or less measured at 0.1 inches water gauge. Manufacturer's noise ratings shall be determined as per HVI 915 (March 2009). Remotely mounted fans shall be acoustically isolated from the structural elements of the building and from attached duct work using insulated flexible duct or other approved material.

M1507.3.4.3 Fan controls. The whole-house ventilation fan shall meet the requirements of Section M1507.3.2 and M1507.3.2.1.

M1507.3.4.4 Outdoor air inlets. Outdoor air shall be distributed to each habitable space by individual outdoor air inlets. Where outdoor air supplies are separated from exhaust points by doors, provisions shall be made to ensure air flow by installation of distribution ducts, undercutting doors, installation of grilles, transoms, or similar means. Doors shall be undercut to a minimum of 1/2 inch above the surface of the finish floor covering.
Individual room outdoor air inlets shall:
1. Have controllable and secure openings;
2. Be sleeved or otherwise designed so as not to compromise the thermal properties of the wall or window in which they are placed;
3. Provide not less than 4 square inches of net free area of opening for each habitable space. Any inlet or combination of inlets which provide 10 cfm at 10 Pascals are deemed equivalent to 4 square inches net free area.

Inlets shall be screened or otherwise protected from entry by leaves or other material. Outdoor air inlets shall be located so as not to take air from the following areas:
1. Closer than 10 feet from an appliance vent outlet, unless such vent outlet is 3 feet above the outdoor air inlet.
2. Where it will pick up objectionable odors, fumes or flammable vapors.
3. A hazardous or unsanitary location.
4. A room or space having any fuel-burning appliances therein.
5. Closer than 10 feet from a vent opening of a plumbing drainage system unless the vent opening is at least 3 feet above the air inlet.
6. Attic, crawl spaces, or garages.

Whole House Ventilation Controls & Operation M1507.3.2

M1507.3.2 Control and operation.
1. Location of controls. Controls for all ventilation systems shall be readily accessible by the occupant.
2. Instructions. Operating instructions for whole-house ventilation systems shall be provided to the occupant by the installer of the system.
3. Local exhaust systems. Local exhaust systems shall be controlled by manual switches, dehumidistats, timers, or other approved means.
4. Continuous whole-house ventilation systems. Continuous whole-house ventilation systems shall operate continuously. Exhaust fans, forced-air system fans, or supply fans shall be equipped with "fan on" as override controls. Controls shall be capable of operating the ventilation system without energizing other energy-consuming appliances. A label shall be affixed to the controls that reads "Whole House Ventilation (see operating instructions)."
5. Intermittent whole-house ventilation systems. Intermittent whole-house ventilation systems shall comply with the following:
5.1. They shall be capable of operating intermittently and continuously.
5.2. They shall have controls capable of operating the exhaust fans, forced-air system fans, or supply fans without energizing other energy-consuming appliances.
5.3. The ventilation rate shall be adjusted according to the exception in Section 403.8.5.1.
5.4. The system shall be designed so that it can operate automatically based on the type of control timer installed.
5.5. The intermittent mechanical ventilation system shall operate at least one hour out of every four.
5.6. The system shall have a manual control and automatic control, such as a 24-hour clock timer.
5.7. At the time of final inspection, the automatic control shall be set to operate the whole-house fan according to the schedule used to calculate the whole-house fan sizing.

Exterior Finish Notes

All Building Faces - Horizontal "Smart Side" by LP
Barge - 5/4 x 6 Pre-primed "White Wood"
Corner Boards - 1" x 4" Pre-Primed "White Wood".
Window Trim - 1" x 4" Pre-Primed "White Wood".
Windows - White Vinyl Thermopane, sized per plan.
Gutters & Downspouts - Continuous Metal.
Gable Vents - Pre-manufactured 12" x 18" Wood.

Kitchen Base Cabinets are standard 36" tall and 24" deep.
Kitchen Wall Cabinets are standard 30" tall and 12" deep.
Kitchen Wall Cabinets above appliances are 14" tall and 12" deep.
Guest Bath Cabinets are standard 30" tall and 21" deep.
Master Bath Cabinets are standard 36" tall and 21" deep.

*Standard Appliance Openings**
Dishwasher - 24"W x 36"H x 24"D
Washer / Dryer - 30"W x 30"D
Range - 30"W x 36"H x 30"D
Fridge - 36"W x 70"H

**IMPORTANT* - If you have different sized than the standard openings please contact us so we can make a note of it in your file.*

1. Panasonic Whisper Green Whole House Fan Model #FV08VKS3 Shall be set per Table Below

Tabel M1507.3.3(1)
Continuous Whole-House Mechanical Ventilation System AirFlow Rate Requirements

Dwelling Unit Floor Area (Square Feet)	Number of Bedrooms			
	0 - 1	2 - 3	4 - 5	6 - 7
	Airflow in CFM			
< 1500	30	45	60	75
1501 - 3000	45	60	75	90
3001 - 4500	60	75	90	105
4501 - 6000	75	90	105	120
6001 - 7500	90	105	120	135
> 7500	105	120	135	150

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RUSSELL PALANCHUCK

9734 SE 40TH ST
MERCER ISLAND , WA
98040

PARCEL # - 265550-0176

HOME OWNER / GENERAL CONTRACTORS SHALL VERIFY ALL DIMENSIONS & STRUCTURAL DETAILS, SETBACKS, EASEMENTS & REQUIREMENTS WITH DESIGNER RESERVES THE RIGHT TO MODIFY THESE PLANS AND DIMENSIONS ACCORDING TO SITE CONDITIONS. ALL PLANS ARE PROPRIETARY AND COPYRIGHTED WORK UNPUBLISHED PROTECTED WORK UNDER COPYRIGHT LAW. HOMEOWNER PRIOR TO PROCEEDING WITH THE LAYOUT OF THIS PLAN SET MAY BE USED FOR CONSTRUCTION PURPOSES ONLY. THEIR RESPECTIVE CONTRACT AWARD. ARCHITECT SHALL NOT BE RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS A LACK OF COORDINATION BETWEEN SUB-CONTRACTORS AND HOMEOWNER.

THESE PLANS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO IDENTIFY THE MOST SIGNIFICANT ELEMENTS INTENDED TO PROVIDE REQUIRED INFORMATION TO THE GOVERNING REGULATORY AGENCY REGARDING COMPLIANCE WITH LOCAL, STATE, & NATIONAL BUILDING CODES. IT IS ACQUIRED AND UNDERSTOOD THAT NON-REGULATORY ITEMS WHICH ARE NOT REQUIRED FOR APPROVAL FOR CONSTRUCTION MAY NOT APPEAR WITHIN THESE PLANS.

Sheet Description
NOTES

Plan Name
9734 SE 40TH ST
MERCER ISLAND WA.
98040

STRUCTURAL NOTES

DESIGN CRITERIA:

1. BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE
2. VERTICAL LOADS:

	ROOF	FLOOR	DECK
LIVE LOAD	25 psf	40 psf	60 psf
SNOW LOAD	25 psf	0 psf	25 psf
DEAD LOAD	20 psf	12 psf	15 psf

3. LATERAL LOAD FORCES TRANSMITTED BY DIAPHRAGM ACTION TO WOOD SHEARWALLS AND THENCE TO FOUNDATION WHERE DISPLACEMENT IS RESISTED BY PASSIVE PRESSURE AND SLIDING FRICTION OF EARTH.
4. SNOW DESIGN DATA (ASCE 7-16)
   FLAT SNOW LOAD, pf: 21 psf
   SNOW EXPOSURE FACTORY, Ce: 1.0
   SNOW IMPORTANCE FACTOR, is: 1.0
   THERMAL FACTOR, ct: 1.1
5. WIND DESIGN DATA (ASCE 7-16)
   WIND SPEED: Vult=110 mph
   RISK CATEGORY: II
   EXPOSURE CATEGORY: C
6. SEISMIC DESIGN DATA (ASCE 7-16)
   SEISMIC FORCE RESISTING SYSTEM: WOOD SHEARWALLS
   RISK CATEGORY: II
   SEISMIC IMPORTANCE FACTOR, Ie:=1
   MAPPED SPECTRAL RESPONSE ACCELERATION: Ss=1.60, S1=0.60
   DESIGN SPECTRAL RESPONSE ACCELERATION: Sds=1.28, Sd1=0.68
   SITE CLASS: D
   SEISMIC DESIGN CATEGORY: D
   SEISMIC RESPONSE COEFFICIENT, Cs: 0.197
   RESPONSE MODIFICATION COEFFICIENT, R: 6.5
   EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7 12.8.1)
   DESIGN BASE SHEAR: 31.5k
7. SOIL PROPERTIES
   BEARING CAPACITIES: 1500 psf
   LATERAL CAPACITY: 250 psf/ft

GENERAL

THE STRUCTURAL CONSTRUCTION DOCUMENT REPRESENTS THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTORS MEANS, METHODS, TECHNIQUES, SEQUENCES OF PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO.

CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST ADDITION AND/OR ADDENDA.

ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL , MECHANICAL, PLUMBING, AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

OPTIONS FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS CHOSEN, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES AND SHALL COORDINATE ALL DETAILS.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCIES WITH ARCHITECT.

TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE.

WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.

ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF A REGISTERED ENGINEER RECOGNIZED BY THE BUILDING CODE JURISDICTION OF THIS PROJECT.

ALL GRAVITY LOADS RESISTING AND LATERAL LOAD RESISTING STRUCTURAL MEMBERS ARE SHOWN ON THE ENGINEERING S PAGES. THE ENGINEERING CALCULATIONS ARE NOT REQUIRED TO BE REFERENCED FOR CONSTRUCTION, AND DON'T NEED TO BE ONSITE.

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS HAVE BEEN INSTALLED. ENGINEER AND DESIGNER SHALL BE NOTIFIED BY THE CONTRACTOR OF ANY DISCREPANCIES AT THE TIME THEY ARE NOTED.

CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITY LINES. CALL 1-800-424-5555 48 HOURS BEFORE DIGGING.

INFORM ENGINEER OF ALL CHANGES PROPOSED ON THE DRAWINGS OR SPECIFICATIONS BY THE ARCHITECT-NOTES PRIOR TO CONSTRUCTION OF THE CHANGE.

CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION MEANS, METHOD, TECHNIQUES, SEQUENCES, PROCEDURES, SAFETY OF THE WORKERS AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND FOR COORDINATING ALL PORTIONS OF THE WORK.

DRAWINGS SHALL BE USED FOR ONLY ONE CONSTRUCTION AND FOR LOCATIONS INDICATED HEREIN.

PLYWOOD WEB JOISTS

DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH THE LATEST EDITION I.C.C. REPORT ESR-1305. CONNECTIONS AND BEARING MATERIAL TO BE SHOP CONNECTED TO JOISTS AND DESIGNED AND FURNISHED BY JOIST FABRICATOR.

MANUFACTURED I-JOISTS SHALL CONFORM TO ASTM505.

CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. DEFLECTION SHALL BE LIMITED AS FOLLOWS:

FLOOR LIVE LOAD MAXIMUM = L/480. FLOOR TOTAL LOAD MAXIMUM = L/240.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER FOR REVIEW PRIOR TO MANUFACTURE.

ADDITIONAL JOISTS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT.

FOUNDATIONS

ALL FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL OR APPROVED FILL 12" MINIMUM BELOW FINISHED GRADE. FINISHED GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS AND LOWEST ADJACENT GRADE EXTENDING UP TO 5 FEET FROM WALL FOR PERIMETER FOOTINGS. DESIGN SOIL BEARING VALUE = 1500 PSF.

WHERE REQUIRED BY THE BUILDING OFFICIAL, THE CLASSIFICATION AND INVESTIGATION OF THE SOIL SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL (1806.2) UNLESS A SOIL INVESTIGATION IS PROVIDED. FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 1500 PSF. ORGANIC SILT, ORGANIC CLAYS, PEAT OR UNPREPARED FILL SHALL NOT BE ASSUMED TO HAVE BEARING CAPACITY (1806.2)

THIS ENGINEERING IS BASED ON SITE CLASS D SOILS IN ACCORDANCE WITH TABLE 1806.2 OF THE 2021 IBC.

SITE GRADING: THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN 5 PERCENT FOR A MINIMUM OF 10 FEET.

COMPACTED FILL MATERIAL SHALL NOT BE USED UNLESS ALLOWED BY A SOILS ENGINEERING REPORT.

CONCRETE

MINIMUM 28 DAY STRENGTH 2,500 PSI (f'c = 2,500 PSI) U.N.O.

ALL CONCRETE CONSTRUCTION SHALL CONFORM TO A.C.I. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT SLABS ON GRADE NEED ONLY BE VIBRATED AT TRENCHES, FLOOR DUCTS, TURNDOWNS, ETC. MINIMUM SLUMP 4½" FOR CONCRETE WITHOUT PLASTICIZER. IF PLASTICIZER IS USED, A HIGHER FINAL SLUMP MAY BE ALLOWED UPON STRUCTURAL ENGINEER'S APPROVAL. UNLESS APPROVED OTHERWISE IN WRITING BY THE ARCHITEC, ALL CONCRETE SLABS ON GRADE SHALL BE BOUND BY CONTROL JOINTS (KEYED OR SAW CUT), AS SHOWN ON THE FOUNDATION PLAN, SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 225 SQUARE FEET. KEYED CONTROL JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING, ALL OTHER JOINTS MAY BE SAW CUT.

FLY ASH - IF PERMITTED BY ARCHITECTURAL SPECIFICATIONS - SHALL BE LIMITED TO 15% OF CEMENTITIOUS MATERIALS AND SHALL HAVE A REPLACEMENT FACTOR OF 1.2 RELATIVE TO CEMENT REPLACED. NO FLY ASH ADDITIVES SHALL BE USED IN FLATWORK OR ARCHITECTURALLY EXPOSED CONCRETE.

CONCRETE MINIMUM REINFORCEMENT

THE FOLLOWING MINIMUM REINFORCEMENT SHALL BE PROVIDED U.N.O. ON THE DRAWING:

1. PROVIDE HORIZONTAL CORNER BARS AT ALL FOOTINGS AND WALL CORNERS AND HOOK BARS FOR T INTERSECTIONS WITH EQUAL SIZE AND SPACING OF THE HORIZONTAL REINFORCING USING THE INDICATED DETAILS OF SIMILAR SECTIONS AND DETAILS AS TYPICAL.
2. PROVIDE ONE #4 VERTICAL BAR - FULL HEIGHT OF WALL AT THE CORNER OR T INTERSECTION.
3. PROVIDE A MINIMUM OF 0.2% REINFORCEMENT OF GROSS CONCRETE AREA OF WALL IN HORIZONTAL DIRECTION AND 0.12% IN VERTICAL DIRECTION. MAXIMUM REBAR SPACING IS 18" O.C. IN EACH DIRECTION.
4. PROVIDE A MINIMUM #4 BARS AT 12" ON CENTER IN ISOLATED FOOTINGS.
5. PROVIDE REINFORCING CHAIRS IN ACCORDANCE WITH CRSI PLACING MANUAL.
6. PROVIDE WWF 6X6X10X10 FOR 4" SLAB.
7. PROVIDE CONSTRUCTION JOINT AT 20' MAXIMUM UNLESS NOTED OTHERWISE (SAW CUT 25% OF SLAB THICKNESS).

NAILS:

USE COMMON NAIL ONLY. IF BOX OR OTHER TYPE OF NAILS ARE USED, SIZE ADJUSTMENTS ARE REQUIRED. PROVIDE NAIL PER IBC TABLE 2304.10.1 GALVANIZE NAIL WHEN EXPOSED TO WEATHER. SIMPSON ZMAX AND HOT DIPPED ZINC NAILS SHALL BE USED FOR ALL PRESSURE TREATED WOODS OTHER THAN CHROMATED COPPER ARSENATE AND SODUIM BORATE.

PREFABRICATED WOOD TRUSSES

PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS LIVE LOAD AND SUPERIMPOSED DEAD LOADS STATED IN THE GENERAL STRUCTURE NOTES OR AS LOCATED ON PLANS. BRIDGING SIZE AND SPACING SHALL BE BY TRUSS MANUFACTURER/TRUSS DESIGNER UNLESS NOTED OTHERWISE. CONTRACTOR SHALL SUBMIT A TRUSS SUBMITTAL PACKAGE AS DEFINED IN IBC SECTION 2303.4.1.4, INCLUDING, BUT NOT LIMITED TO, INDIVIDUAL TRUSS DESIGN DRAWINGS, TRUSS PLACEMENT DIAGRAM AND TRUSS MEMBER PERMANENT BRACING REQUIREMENTS. TRUSS DOCUMENTS SHALL BE SEALED BY A REGISTERED DESIGN PROFESSIONAL AS REQUIRED BY IBC SECTION 2303.4.1.3. CALCULATIONS AND SHOT DRAWINGS SHALL SHOW ANY SPECIAL DETAILS REQUIRED AT BEARING POINTS. ALL CONTRACTORS SHALL HAVE CURRENT I.C.C. APPROVAL.

CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. DEFLECTION SHALL BE LIMITED AS FOLLOWS:
ROOF TOTAL LOAD MAXIMUM= L/240. ROOF LIVE LOAD MAXIMUM= L/360.

TRUSS TOP CHORD MATERIAL SHALL HAVE A SPECIFIC GRAVITY OF NOT LESS THAN 0.43.

MULTIPLE TRUSS MEMBERS SHALL BE FASTENED TOGETHER TO ALLOW TRANSFER OF SHEAR AND TENSION FORCES (MINIMUM 200 PLF) AT PLYWOOD SHEATHING JOINTS AND TO PREVENT CROSS GRAIN BENDING OF TOP CHORDS. ATTACHMENT SHALL BE A CONTINUOUS 20 GAGE METAL PLATE OR OTHER APPROVED MEANS. METHOD OF ATTACHMENT SHALL BE INDICATED ON SHOP DRAWINGS FOR REVIEW.

TRUSS MANUFACTURER SHALL HAVE I.C.C APPROVAL OR BE AN APPROVED FABRICATOR ACCORDING TO THE BUILDING JURISDICTION. TRUSS MANUFACTURER SHALL PERMANENTLY IDENTIFY EACH TRUSS.

GLUE-LAMINATED BEAMS (GLULAM)

GLUED - LAMINATED BEAMS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb= 2400PSI, Fv= 265PSI, Fc (PERPENDICULAR)= 650 PSI, E= 1,800,000 PSI. CONTINUOUS BEAMS OR BEAMS CANTILEVERING OVER SUPPORTS SHALL HAVE THE SPECIFIED MINIMUM PROPERTIES TOP AND BOTTOM. ALL BEAMS SHALL BE FABRICATED USING WATERPROOF GLUE. FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS. BEAM TO BEAR GRADE STAMP AND AITC STAMP AND CERTIFICATE. CAMBER AS SHOWN ON DRAWINGS. STRUCTURAL GLUED-LAMINATED TIMBER SHALL CONFORM TO AITC A190.1 AND ASTM D 3737.

WOOD:

LUMBER SHALL CONFORM TO DOC PS 20.
MANUFACTURED LUMBER SHALL BE AS SPECIFIED ON THE PLAN SET.
DESIGN OF THE MANUFACTURED LUMBER IS THE RESPONSIBILITY OF THE SUPPLIER.

JOISTS:	WOOD TYPE:
2X4	H.F. #2
2X6 OR LARGER	H.F. #2
BEAMS:	
WIDTH 4" OR LESS	D.F. #2
WIDTH GREATER THAN 4"	D.F. #2
LEDGERS AND TOP PLATES:	H.F. #2
STUDS:	
2X4	H.F. #2
2X6 OR LARGER	H.F. #2
POSTS:	
4X4	H.F. #2
4X6 OR LARGER	D.F. #2
6X6 OR LARGER	D.F. #2

CONNECTORS:

METAL CONNECTORS, ANCHORS, AND FASTENERS WILL CORRODE AND LOSE LOAD CARRYING CAPACITY WHEN INSTALLED IN CORROSIVE ENVIRONMENTS OR EXPOSED TO CORROSIVE MATERIALS.
THERE ARE MANY ENVIRONMENTS AND MATERIALS WHICH MAY CAUSE CORROSION INCLUDING: OCEAN SALT WATER, PRESERVATIVE-TREATED WOOD, FUMES, FIRE-RETARDANTS, DISSIMILAR METALS, FERTILIZERS.

PLYWOOD

ALL PLYWOOD SHALL BE AMERICAN PLYWOOD ASSOCIATION CDX-RATED SHEATHING OR BETTER, AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS (ON ROOFS WHERE PLYWOOD IS LAID UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE MINIMUM OF 5-PLY PLYWOOD). STAGGER JOINTS. ALL NAILING SHALL BE WITH COMMON NAILS. WHERE SCREWS ARE INDICATED FOR WOOD-TO-WOOD ATTACHMENTS, USE WOOD SCREWS MEETING THE REQUIREMENTS OF A.N.S.I/A.S.M.E. B18.6.1 OF GRADE ASTM A584, GRADE 1013 TO 1022 STEEL (FY=193,600PSI). HORIZONTAL DIAPHRAGM AND SHEARWALL CAPACITIES SHALL BE PER THE LATEST EDITION OF I.C.C. REPOST ESR-1539. ALL PLYWOOD SHALL BE OF THE FOLLOWING NORMAL THICKNESS, SHALL HAVE THE FOLLOWING SPAN/INDEX RATIO, AND SHALL BE ATTACHED AS FOLLOWS, UNLESS OTHERWISE NOTED.

USE:	THICKNESS	SPAN/INDEX RATIO	EDGE ATTACHMENT	INTERMEDIATE ATTACHMENT
ROOF	1/2"	32/16	8d NAILS @ 6" O.C.	8d NAILS @ 12" O.C.
FLOOR	3/4" T&G	40/20	SCREWS @ 6" O.C.	SCREWS @ 12" O.C.
SHEAR WALL	1/2"	24/0	8d NAILS @ 6" O.C.	8d NAILS @ 12" O.C.

SCREWS AT FLOOR SHEATHING SHALL BE #8 x 2½" LONG FOR SHEATHING LESS THAN 1" NORMAL THICKNESS, AND SHALL HAVE CURRENT I.C.C. APPROVAL AS A REPLACEMENT FOR 10d NAILS IN WOOD PANEL DIAPHRAGMS. SCREWS PER I.C.C. ER-5280 OR APPROVAL EQUAL. ALL FLOOR SHEATHING SHALL BE GLUED TO SUPPORT MEMBERS WITH AN A.P.A. AFG-01 OR ASTM D3498 QUALIFIED GLUE IN ACCORDANCE WITH A.P.A. FORM E30.

ALTERNATE SHEATHING

AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATED SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER, ARCHITECT AND ROOFING CONTRACTOR. RATED SHEATHING SHALL COMPLY WITH I.C.C. ESR-1301, EXPOSURE 1, AND SHALL HAVE A SPAN RATING AND SHEAR VALUE EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN ¼") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PLYWOOD PER MANUFACTURES RECOMMENDATIONS.

PROTECTION AGAINST DECAY (2304.11):

PRESERVATIVE-TREATED WOOD SHALL CONFORM TO APPLICABLE AWPA STANDARDS. TRUSSES, TRUSS DRAWINGS AND TRUSS ENGINEERING SHALL BE PROVIDED BY THE MANUFACTURER. WOOD JOISTS OR THE BOTTOM OF A WOOD STRUCTURAL FLOOR WITHOUT JOISTS SHALL NOT BE CLOSER THAN 18 INCHES, OR WOOD GIRDERS CLOSER THAN 12 INCHES TO THE EXPOSED GROUND IN CRAWL SPACES. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, WHICH REST ON EXTERIOR FOUNDATION WALLS SHALL NOT BE LESS THAN 8 INCHES FROM EXPOSED EARTH. SILLS IN CONTACT WITH CONCRETE SHALL BE PRESERVATIVE-TREATED WOOD. CLEARANCE BETWEEN WOOD SIDING AND EARTH SHALL NOT BE LESS THAN 6 INCHES. POSTS SHALL BE PRESERVATIVE-TREATED UNLESS SUPPORTED BY A PEDESTAL GREATER THAN 8 INCHES FROM EXPOSED GROUND. AS A MINIMUM CONTRACTORS SHALL USE SIMPSON ZMAX GALVANIZED FASTENERS OR AN APPROVED BARRIER WHEN A CORROSIVE ENVIRONMENT EXISTS.

SHOP DRAWINGS

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS IN ADDITION TO ITEMS REQUIRED BY ARCHITECTURAL SPECIFICATIONS.

THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS ARE NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON CONTRACTOR'S REVIEW.

VERIFY ALL DIMENSIONS WITH ARCHITECT

ANY CHANGES, SUBSTITUTIONS, OR DRAWINGS FROM CONTRACT DOCUMENTS SHALL BE CLOUDED BY MANUFACTURER OR FABRICATOR. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNLESS NOTED ACCORDINGLY.

THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANY TIME BEFORE OR AFTER SHOP DRAWING REVIEW.

THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR SHOWN INCORRECTLY AND NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE ITEMS ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS.

THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY.

REVIEW BY THE E.O.R. IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR.

ABBREVIATIONS

A.B.C .....AGGREGATE BASE COURSE
A.F.F .....ABOVE FINISHED FLOOR
ALT .....ALTERNATE
A.B .....ANCHOR BOLT
BM .....BEAM
B.F.F .....BELOW FINISHED FLOOR
B.O.B .....BOTTOM OF BEAM
B.O.D .....BOTTOM OF DECK
B.O.F .....BOTTOM OF FOOTING
B.O.P .....BOTTOM OF PLATE
B.O.S .....BOTTOM OF STEEL
BRG .....BEARING
C.I.P .....CAST-IN-PLACE
C.L .....CENTERLINE
C.L.B .....CENTERLINE OF BEAM
C.L.C .....CENTERLINE OF COLUMN
C.L.F .....CENTERLINE OF FOOTING
C.L.W .....CENTER LINE OF WALL
CLR .....CLEAR
CONC .....CONCRETE
CONC. C.J .....CONCRETE CONTROL JOINT
CONC. S.J .....CONCRETE SAWCUT JOINT
C.M.U .....CONCRETE MASONRY UNIT
CONN .....CONNECTION
CONT .....CONTINUOUS
D.L .....DEAD LOAD
DIA .....DIAMETER
DN .....DOWN
DWG(S) .....DRAWING(S)
E.O.S .....EDGE OF SLAB
EL .....ELEVATION
EQ .....EQUAL
EQUIP .....EQUIPMENT
EXP .....EXPANSION BOLT
EXP. JT. (E.J.) .....EXPANSION JOINT
E.W .....EACH WAY
F.F .....FINISHED FLOOR
F.O.M .....FACE OF MEMBER
F.O.S .....FACE OF STEEL
F.O.W .....FACE OF WALL
GA .....GAUGE
GALV .....GALVANIZED
GLB (GLULAM) .....GLUE-LAMINATED BEAM
H/C .....HOLLOW CORE
HORIZ .....HORIZONTAL
I.F.W .....INSIDE FACE OF WALL
I.E .....INVERT ELEVATION
K (KIP) .....1000 POUNDS
L.L .....LIVE LOAD
LBS (#) .....POUNDS
L.L.H .....LONG LEG HORIZONTAL
L.L.V .....LONG LEG VERTICAL
MFR('S) .....MANUFACTURE('S)
MAS. C.J .....MASONRY CONTROL JOINT
MECH'L .....MECHANICAL
N/A .....NOT APPLICABLE
N.T.S .....NOT TO SCALE
O.C .....ON CENTER
O.F.W .....OUTSIDE FACE OF WALL
OPP .....OPPOSITE
P.C .....PRE CAST CONCRETE
P.L.F .....POUNDS PER LINEAR FOOT
PREFAB .....PREFABRICATED
P.S.F .....POUNDS PER SQUARE FOOT
P.S.I .....POUNDS PER SQUARE INCH
REINF .....REINFORCING
S.L.H .....SHORT LEG HORIZONTAL
S.L.V .....SHORT LEG VERTICAL
SIM .....SIMILAR
SQ .....SQUARE
STD .....STANDARD
T.L .....TOTAL LENGTH
T.O.B .....TOP OF BEAM
T.O.D .....TOP OF DECK
T.O.F .....TOP OF FOOTING
T.O.G .....TOP OF GRADE
T.O.L .....TOP OF LEDGER
T.O.M .....TOP OF MASONRY
T.O.P .....TOP OF PLATE
T.O.S .....TOP OF STEEL
T.O.W .....TOP OF WALL
TYP .....TYPICAL
U.N.O .....UNLESS NOTED OTHERWISE
VERT .....VERTICAL
WTSP .....WATERSTOP
W.W.R .....WELDED WIRE REINFORCEMENT

SPECIAL INSPECTIONS

THE FOLLOWING SPECIAL INSPECTIONS ARE REQUIRED PER CHAPTER 17 OF THE 2021 INTERNATIONAL BUILDING CODE TO BE PERFORMED BY AN INDEPENDENT THIRD PARTY INSPECTION.

ANCHORAGE
1) PERIODIC INSPECTION OF POST INSTALLED (EPOXY) ANCHORAGE FOR USE WITH HOLDOWNS AND TENSION APPLICATIONS.

CONCRETE
1) VERIFICATION OF HIGH STRENGTH ANCHORAGE (PAB) PRIOR TO POUR.
2) VERIFICATION OF CONCRETE STRENGTH >2500psi

STEEL
1) PERIODIC INSPECTION OF FIELD WELDING

SPLICE LENGTH						
	#3	#4	#5	#6	#7	#8
	24"	32"	40"	48"	72"	80"

HOOK LENGTH						
HOOK TYPE	#3	#4	#5	#6	#7	#8
90°	4½"	6"	7½"	9"	10½"	13"
135°	2½"	3"	4"	5"	6"	7"
180°	2½"	2½"	2½"	3"	3½"	4"

SHEARWALL SCHEDULE

MARK	MINIMUM SHEATHING	EDGE NAILING	FIELD NAILING	SOLE PLATE NAILING	SILL PLATE CONN. @ FND.
1	7/16" CDX ONE FACE	8d @ 6"o.c.	8d @ 12"o.c.	(2)16d @ 16"o/c	5/8"dia. @ 48" o.c. w/ 2x BTM. PLATE
2	7/16" CDX ONE FACE	8d @ 4"o.c.	8d @ 12"o.c.	(2)16d @ 12"o/c	5/8"dia. @ 36" o.c. w/ 2x BTM. PLATE
3	7/16" CDX ONE FACE	8d @ 3"o.c.	8d @ 12"o.c.	(2)16d @ 8"o/c	5/8"dia. @ 30" o.c. w/ 3x BTM. PLATE
4	19/32" CDX ONE FACE	10d @ 3"o.c.	10d @ 12"o.c.	(2)16d @ 6"o/c	5/8"dia. @ 18" o.c. w/ 3x BTM. PLATE
5	19/32" CDX ONE FACE	10d @ 2"o.c.	10d @ 12"o.c.	(2)16d @ 4"o/c	5/8"dia. @ 12" o.c. w/ 3x BTM. PLATE

SHEARWALL NOTES:
1. ALL STUDS AND BLOCKING SHALL BE HF#2 ALL TOP AND BOTTOM PLATES SHALL BE HF#2. ALL SHEATHING EDGES SHALL BE BACKED WITH 2x OR WIDER FRAMING UNLESS OTHERWISE NOTED (SEE NOTE#2). SHEATHING MAY BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY.
2. WHERE SHEATHING NAILING IS A 4, OR GREATER, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER AND SILL PLATES NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER.
3. NAILING CRITERIA IS BASED ON IBC 2306.3 AND AF&PA SPDWS TABLE 4.3A FOR CD PLYWOOD AND HF#2 FRAMING. WIRE STAPLES MAY BE SUBSTITUTED AS OUTLINED IN THE STRUCTURAL NOTES. OTHER SUBSTITUTIONS MUST BE VERIFIED IN WRITING BY THE STRL. ENGINEER.
4. HOLDOWNS AND OTHER CONNECTIONS MAY BE REQUIRED AT THE ENDS OF MANY SHEARWALLS. SIZES AND LOCATIONS OF THESE CONNECTORS ARE INDICATED ON THE PLANS. REFER TO THE APPROPRIATE CONNECTOR DETAILS FOR ADDITIONAL INFORMATION REGARDING ANCHOR BOLTS, EMBEDMENT LENGTH, ETC.
5. ANCHOR BOLTS MUST BE EMBEDDED INTO CONCRETE OR GROUTED CMU A MINIMUM OF 7" AND SHALL BE PLACED TO PROVIDE A MINIMUM OF 2" GROUTED CLEAR TO THE FACE OF FORMED CONCRETE (PROVIDED 3" CLEAR FOR CONCRETE CAST AGAINST SOIL).
6. EDGE OF ANCHOR BOLT WASHER SHALL BE WITHIN 1/2" OF SHEAR WALL SHEATHING

NO	DATE	BY	REVISIONS DESCRIPTION

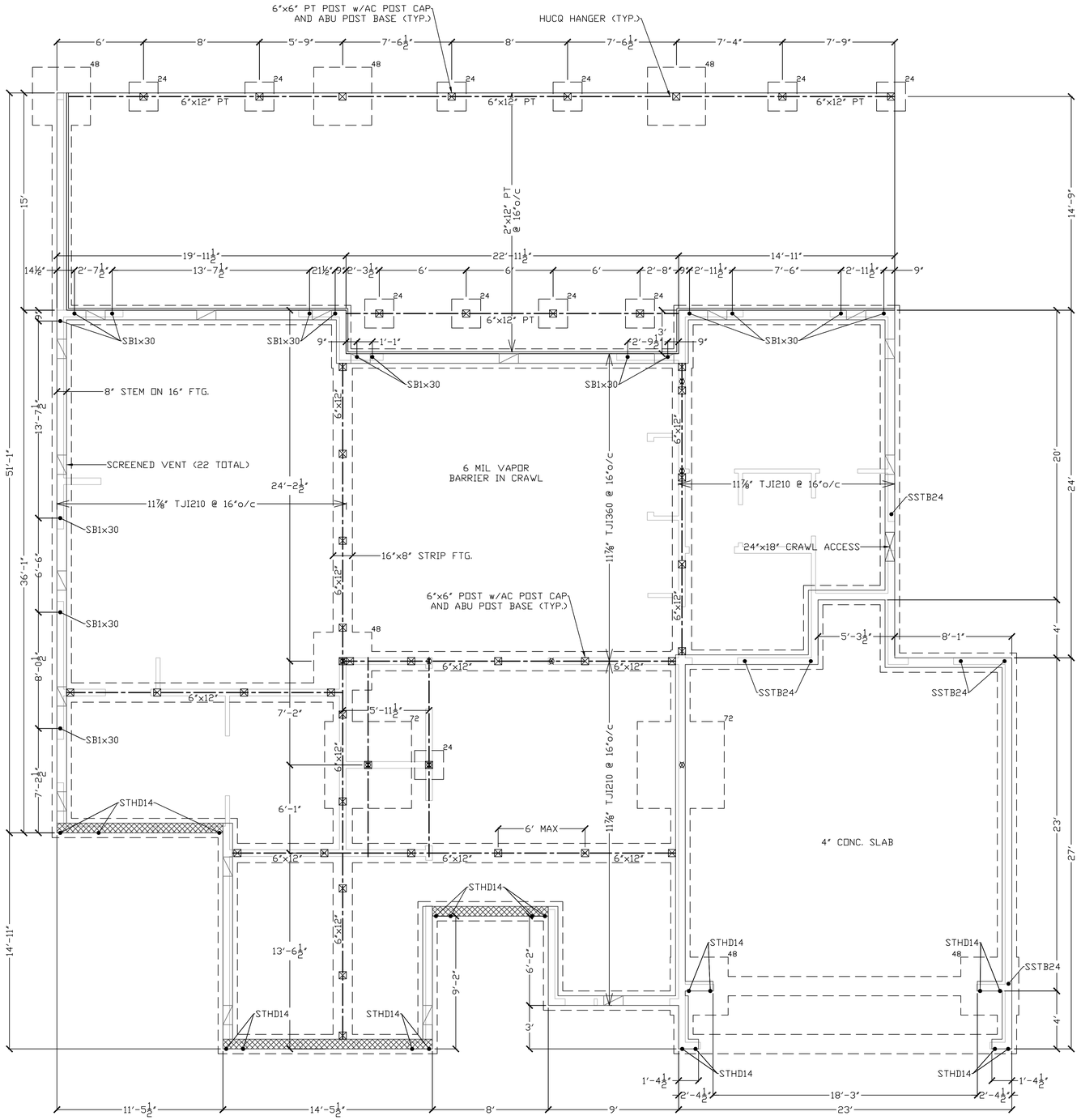
	BY	DATE
DESIGNED	NJL	11/24
DRAWN	NJL	11/24
CHECKED	NJL	11/24
APPROVED		
ACCEPTED		

FOR: **Russell Palanchuk**

Structural Notes
9734 SE 40th Street
Mercer Island, WA 98040

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 895-2350 or (360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

SCALE: AS SHOWN
DATE: Nov. 2024
DRAWING NUMBER
13320
SHEET S1



FOUNDATION PLAN

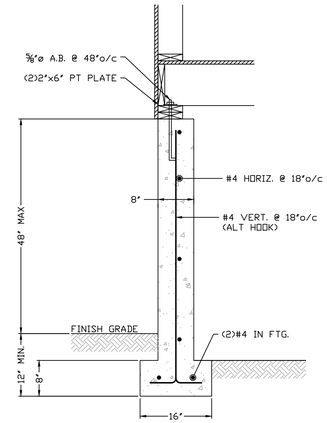
1/4"=1'-0"

FOOTING SCHEDULE		
24	24"x24"x12"	(3)#4 E.W
36	36"x36"x12"	(6)#4 E.W
48	48"x48"x12"	(8)#4 E.W
72	72"x72"x12"	(12)#4 E.W

NOTES:

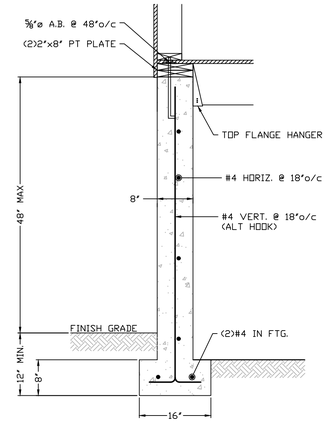
- ⅝" ANCHORS @ 48" o/c U.N.O

FLUSH FLOOR FRAMING (SEE DETAIL 2/S2)



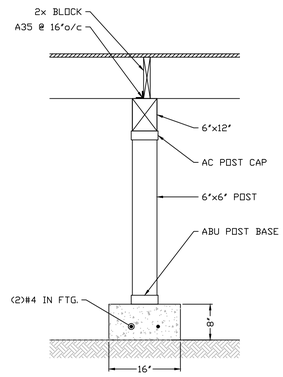
1-TYPICAL FOUNDATION WALL

¾"=1'-0"



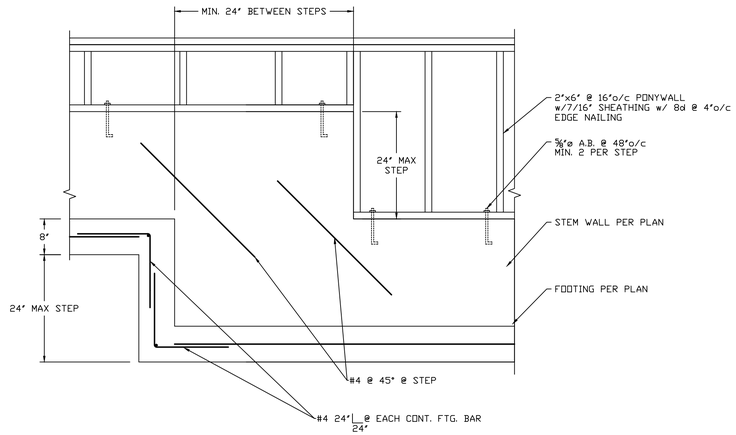
2-FOUNDATION WALL w/FLUSH FLOOR FRAMING

¾"=1'-0"



3-INTERIOR STRIP FTG.

NTS



4-TYP. FOOTING/STEMWALL STEP

¾"=1'-0"

NO	DATE	BY	REVISIONS DESCRIPTION

	BY	DATE
DESIGNED	NJL	11/24
DRAWN	NJL	11/24
CHECKED	NJL	11/24
APPROVED		
ACCEPTED		

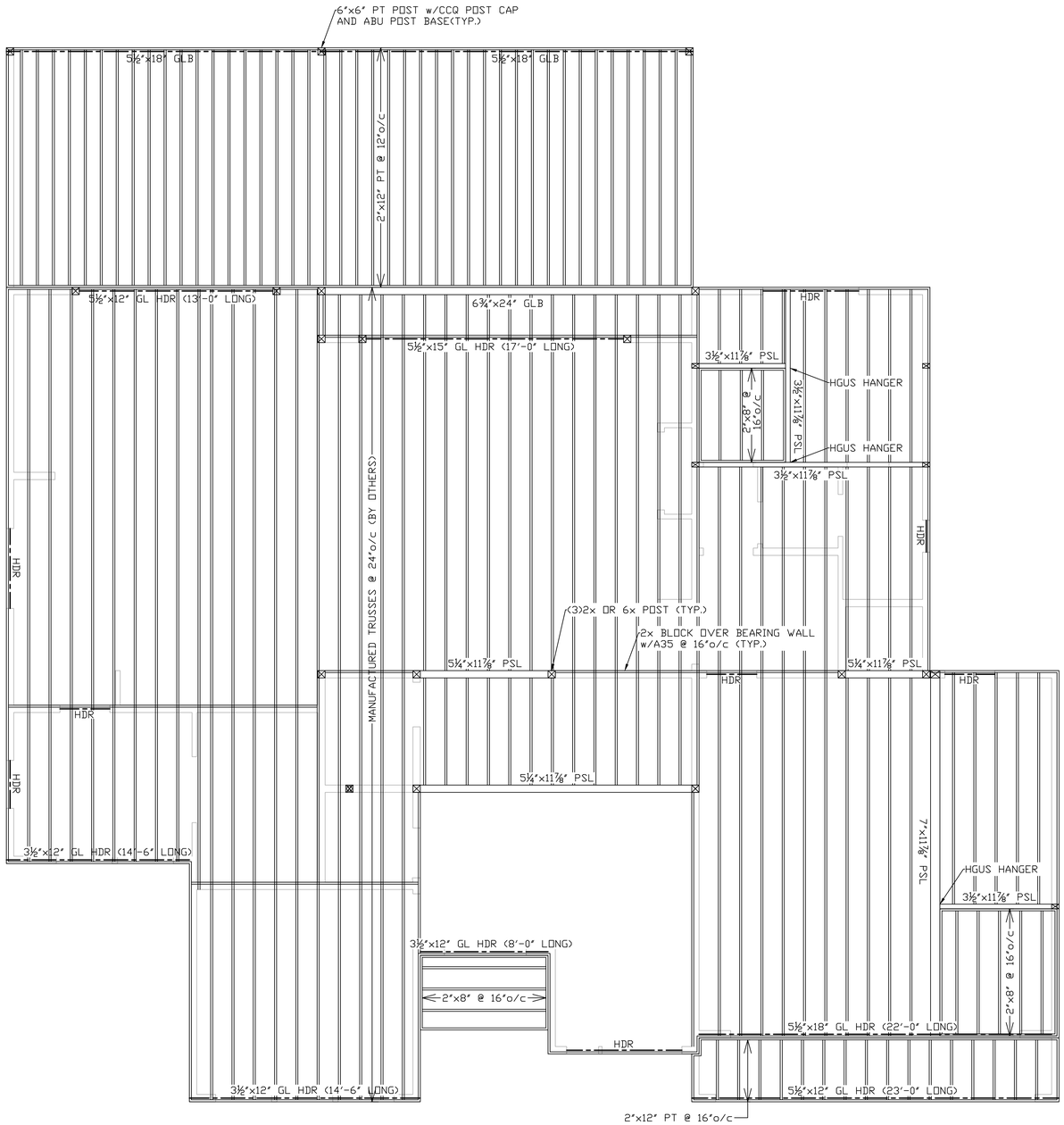
FOR: **Russell Palanchuk**

Foundation Plan
9734 SE 40th Street
Mercer Island, WA 98040

NICHOLAS JAMES LIEBENGOOD — 25608 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 11/22/2024

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 895-2350 or (360) 876-2284
2453 Bethel Avenue; P.O. Box 657; Port Orchard, WA 98366

SCALE:	AS SHOWN
DATE:	Nov. 2024
DRAWING NUMBER	13320
SHEET	S2



SECOND FLOOR FRAMING

1/4"=1'-0"

NOTES:
- ALL WINDOW/DOOR HDR TO BE 4"x12" HF#2 U.N.O
- ALL WINDOW/DOOR HDR JACK STUDS TO BE (1)2x U.N.O
- FLOOR JOISTS TO USE IUS HANGERS
- DECK JOISTS TO USE LUS HANGERS

NO	DATE	BY	REVISIONS DESCRIPTION

	BY	DATE
DESIGNED	NJL	11/24
DRAWN	NJL	11/24
CHECKED	NJL	11/24
APPROVED		
ACCEPTED		

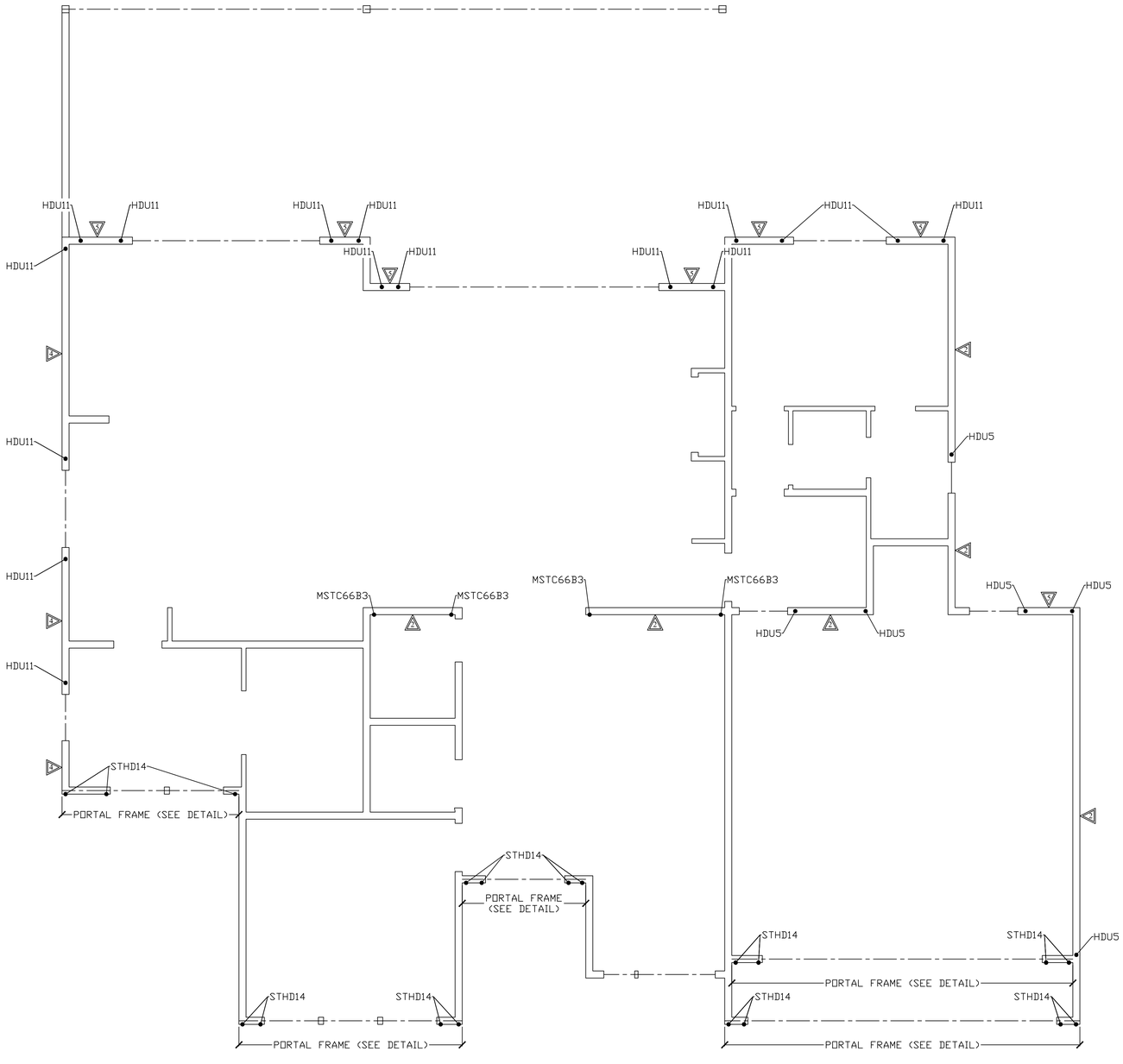
FOR:
Russell Palanchuk

Second Floor Framing Plan
9734 SE 40th Street
Mercer Island,WA 98040

NICHOLAS JAMES LEVENGOOD 32608 REGISTERED PROFESSIONAL ENGINEER STATE OF WASHINGTON
11/22/24

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 895-2350 or (360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

SCALE:	AS SHOWN
DATE:	Nov. 2024
DRAWING NUMBER	
	13320
SHEET	S3



FIRST FLOOR SHEARWALLS

1/4"=1'-0"

NOTES:
- STHD STRAPS TO ATTACH TO MIN. (2)2x POST
- HDU5 TO ATTACH TO MIN. (2)2x POST
- HDU8 TO ATTACH TO MIN. (3)2x POST
- HDU11 TO ATTACH TO MIN. (4)2x POST

SHEARWALL SCHEDULE

MARK	MINIMUM SHEATHING	EDGE NAILING	FIELD NAILING	SOLE PLATE NAILING	SILL PLATE CONN. @ FND.
1	7/16" CDX ONE FACE	8d @ 6"o.c.	8d @ 12"o.c.	(2)16d @ 16"o/c	5/8"dia. @ 48" o.c. w/ 2x BTM. PLATE
2	7/16" CDX ONE FACE	8d @ 4"o.c.	8d @ 12"o.c.	(2)16d @ 12"o/c	5/8"dia. @ 36" o.c. w/ 2x BTM. PLATE
3	7/16" CDX ONE FACE	8d @ 3"o.c.	8d @ 12"o.c.	(2)16d @ 8"o/c	5/8"dia. @ 30" o.c. w/ 3x BTM. PLATE
4	19/32" CDX ONE FACE	10d @ 3"o.c.	10d @ 12"o.c.	(2)16d @ 6"o/c	5/8"dia. @ 18" o.c. w/ 3x BTM. PLATE
5	19/32" CDX ONE FACE	10d @ 2"o.c.	10d @ 12"o.c.	(2)16d @ 4"o/c	5/8"dia. @ 12" o.c. w/ 3x BTM. PLATE

SHEARWALL NOTES:
1. ALL STUDS AND BLOCKING SHALL BE HF#2 ALL TOP AND BOTTOM PLATES SHALL BE HF#2. ALL SHEATHING EDGES SHALL BE BACKED WITH 2x OR WIDER FRAMING UNLESS OTHERWISE NOTED (SEE NOTE#2). SHEATHING MAY BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY.
2. WHERE SHEATHING NAILING IS A 3 OR GREATER, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER AND SILL PLATES NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER.
3. NAILING CRITERIA IS BASED ON IBC 2306.3 AND AF&PA SPDWS TABLE 4.3A FOR CD PLYWOOD AND HF#2 FRAMING. WIRE STAPLES MAY BE SUBSTITUTED AS OUTLINED IN THE STRUCTURAL NOTES. OTHER SUBSTITUTIONS MUST BE VERIFIED IN WRITING BY THE STRL. ENGINEER.
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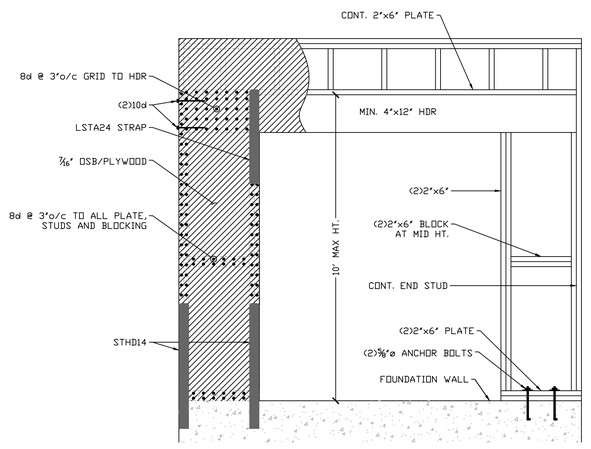
5. ANCHOR BOLTS MUST BE EMBEDDED INTO CONCRETE OR GROUTED CMU A MINIMUM OF 7", AND SHALL BE PLACED TO PROVIDE A MINIMUM OF 2" GROUTED CLEAR TO THE FACE OF FORMED CONCRETE (PROVIDED 3" CLEAR FOR CONCRETE CAST AGAINST SOIL).
6. EDGE OF ANCHOR BOLT WASHER SHALL BE WITHIN 1/2" OF SHEAR WALL SHEATHING



5-PORTAL FRAME ELEVATION (GARAGE)
NTS

NO	DATE	BY	REVISIONS DESCRIPTION

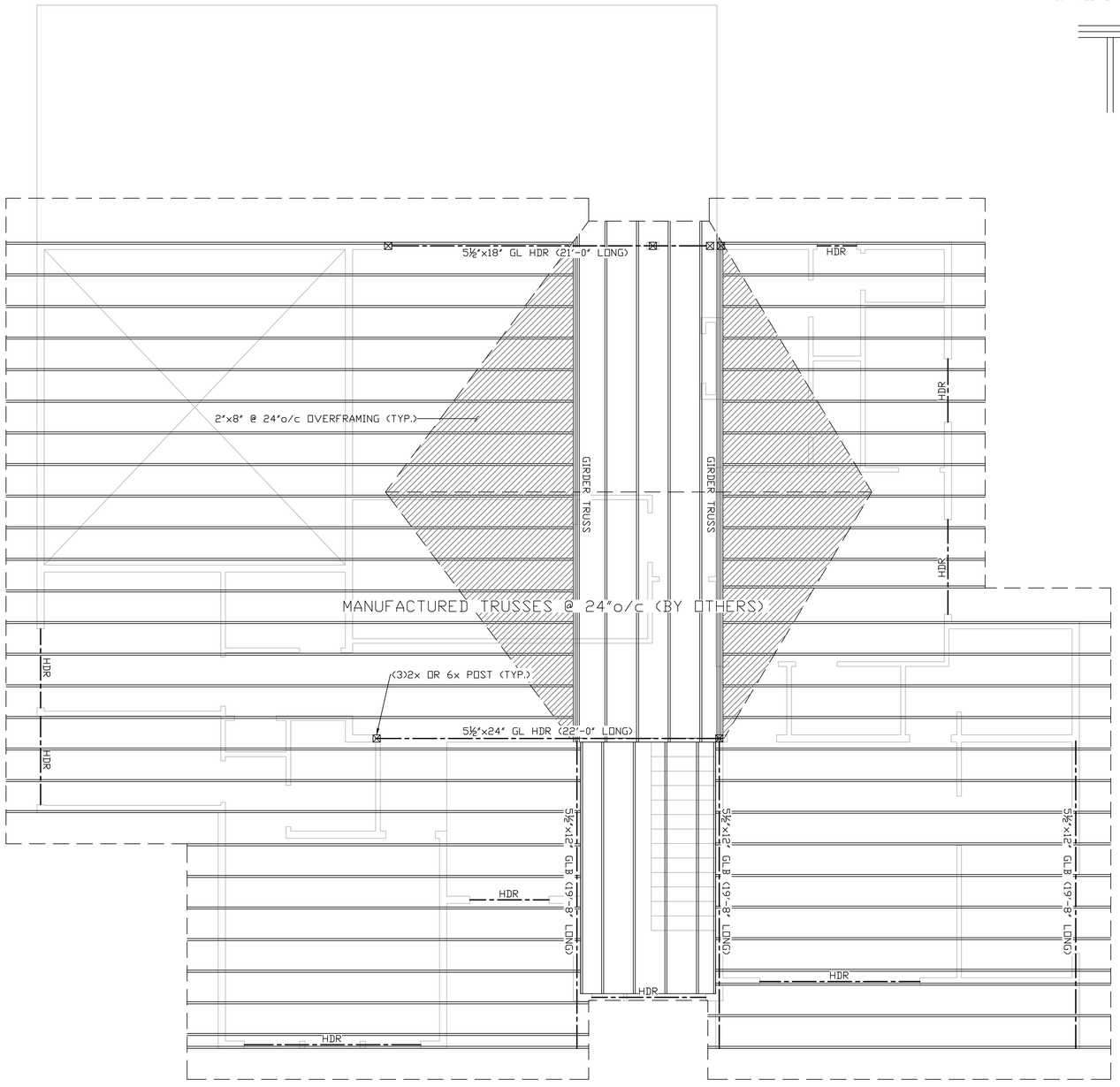
	BY	DATE
DESIGNED	NJL	11/24
DRAWN	NJL	11/24
CHECKED		
APPROVED		
ACCEPTED		

FOR: **Russell Palanchuk**

First Floor Shearwall Plan
9734 SE 40th Street
Mercer Island, WA 98040

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 895-2350 or (360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

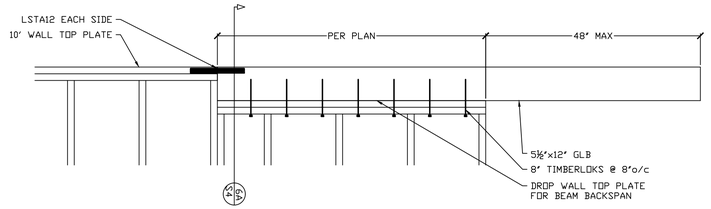
SCALE: AS SHOWN
DATE: Nov. 2024
DRAWING NUMBER
13320
SHEET S3.1



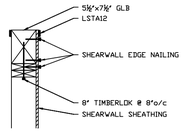
ROOF FRAMING

1/4"=1'-0"

NOTES:
- ALL WINDOW/DOOR HDR TO BE 4"x12" HF#2 U.N.O
- ALL WINDOW/DOOR HDR JACK STUDS TO BE (1)2x U.N.O
- TRUSS HANGERS PER MANUFACTURER



6-CANT. ROOF BEAM CONN.
¾"=1'-0"



SECTION 6A
¾"=1'-0"

REVISIONS			
NO	DATE	BY	DESCRIPTION

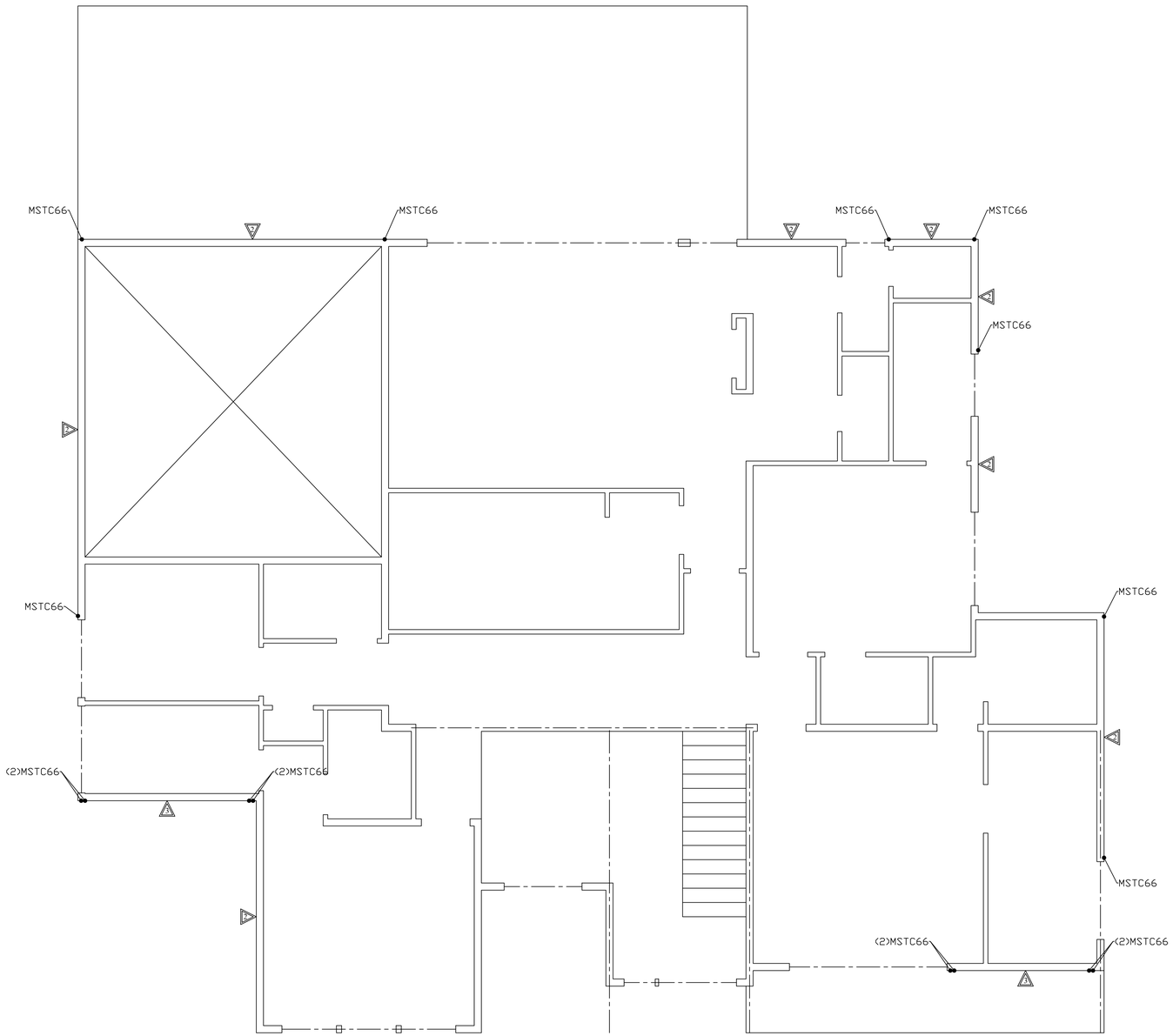
	BY	DATE
DESIGNED	NJL	11/24
DRAWN	NJL	11/24
CHECKED	NJL	11/24
APPROVED		
ACCEPTED		

FOR: **Russell Palanchuk**

Roof Framing Plan
9734 SE 40th Street
Mercer Island, WA 98040

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 895-2350 or (360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

SCALE: AS SHOWN
DATE: Nov. 2024
DRAWING NUMBER
13320
SHEET S4



SECOND FLOOR SHEARWALLS

1/4"=1'-0"

NOTES:
- MSTC STRAPS TO ATTACH TO MIN. (2)2x POST

SHEARWALL SCHEDULE

MARK	MINIMUM SHEATHING	EDGE NAILING	FIELD NAILING	SOLE PLATE NAILING	SILL PLATE CONN. @ FND.
1	7/16" CDX ONE FACE	8d @ 6"o.c.	8d @ 12"o.c.	(2)16d @ 16"o/c	5/8"dia. @ 48" o.c. w/ 2x BTM. PLATE
2	7/16" CDX ONE FACE	8d @ 4"o.c.	8d @ 12"o.c.	(2)16d @ 12"o/c	5/8"dia. @ 36" o.c. w/ 2x BTM. PLATE
3	7/16" CDX ONE FACE	8d @ 3"o.c.	8d @ 12"o.c.	(2)16d @ 8"o/c	5/8"dia. @ 30" o.c. w/ 3x BTM. PLATE
4	19/32" CDX ONE FACE	10d @ 3"o.c.	10d @ 12"o.c.	(2)16d @ 6"o/c	5/8"dia. @ 18" o.c. w/ 3x BTM. PLATE
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SHEARWALL NOTES:
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2. WHERE SHEATHING NAILING IS A 4 OR GREATER, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER AND SILL PLATES NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER.
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5. ANCHOR BOLTS MUST BE EMBEDDED INTO CONCRETE OR GROUTED CMU A MINIMUM OF 7", AND SHALL BE PLACED TO PROVIDE A MINIMUM OF 2" GROUTED CLEAR TO THE FACE OF FORMED CONCRETE (PROVIDED 3" CLEAR FOR CONCRETE CAST AGAINST SOIL).
6. EDGE OF ANCHOR BOLT WASHER SHALL BE WITHIN 1/2" OF SHEAR WALL SHEATHING

REVISIONS NO	DATE	BY	DESCRIPTION

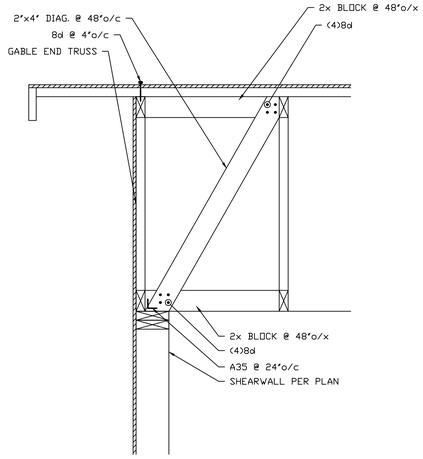
	BY	DATE
DESIGNED	NJL	11/24
DRAWN	NJL	11/24
CHECKED		
APPROVED		
ACCEPTED		

FOR:
Russell Palanchuk

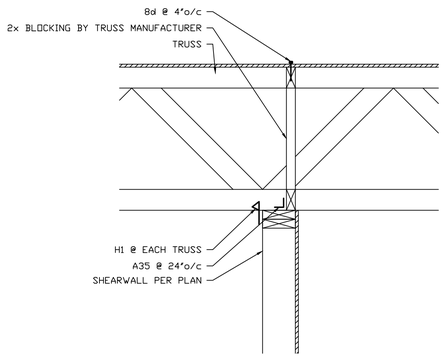
Second Floor Shearwall Plan
9734 SE 40th Street
Mercer Island, WA 98040

N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 895-2350 or (360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

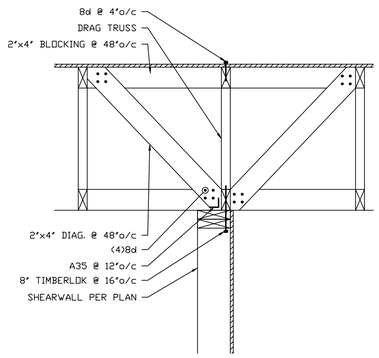
SCALE:	AS SHOWN
DATE:	Nov. 2024
DRAWING NUMBER	
	13320
SHEET	S4.1



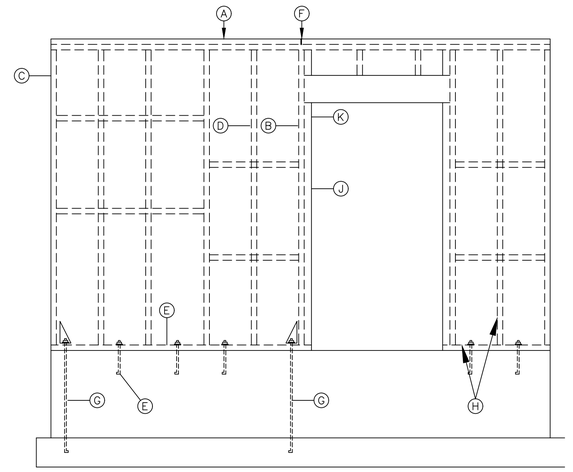
7-GABLE END ROOF SECTION
1"=1'-0"



8-ROOF TO INTERIOR SHEARWALL CONN. (PERP.)
1"=1'-0"

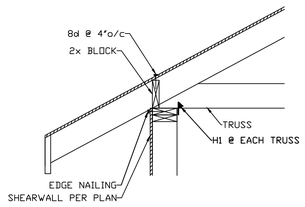


9-ROOF TO INTERIOR SHEARWALL CONN. (PARA.)
1"=1'-0"

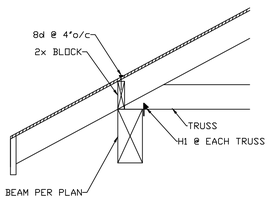


(A) DOUBLE TOP PLATE w/ EDGE NAILING (STAGGER) SEE SHEARWALL SCHEDULE FOR LUMBER GRADE).
(B) EDGE NAILING AT ALL PANEL EDGES. BACK w/ 2x BLOCKING OR BACKING
(C) EDGE NAILING TO HOLDOWN POST (FULL HEIGHT)
(D) STUDS @ 16" o.c.
(E) P.T. SILL PLATE w/ EDGE NAILING & ANCHOR BOLTS PER SHEARWALL SCHEDULE (PROVIDE A MINIMUM OF 5/8"dia. ANCHOR BOLTS @ 48" o.c.)
(F) TOP PLATE SPLICE AND NAILING PER PLANS. LAP 4'-0" MINIMUM. CENTER SPLICE ON STUD.
(G) HOLDOWN PER SCHEDULE AND PLAN
(H) COORDINATE ALL STUD AND PLATE SIZES w/ SHEARWALL SCHEDULE REQUIREMENTS
(J) EDGE NAILING TO POSTS. TRIM STUDS AND KING STUDS
(K) JACK STUD FOR HEADER

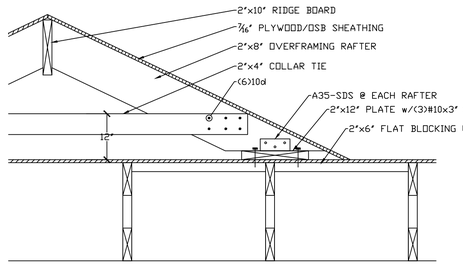
10-TYPICAL WOOD WALL FRAMING
NTS



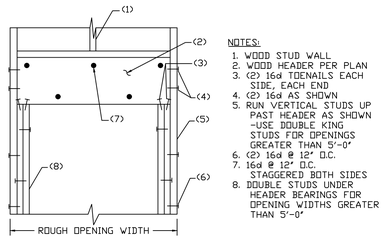
11-TYPICAL TRUSS AT SHEARWALL CONN.
¾"=1'-0"



12-TRUSS AT BEAM CONN.
¾"=1'-0"

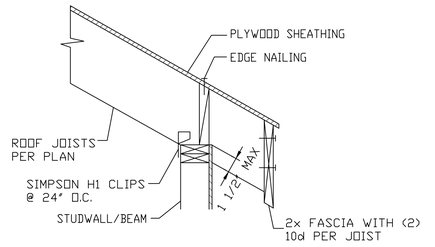


13-TYPICAL OVERFRAMING
NTS

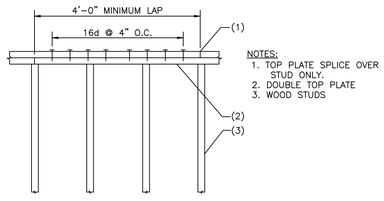


NOTES:
1. WOOD STUD WALL
2. WOOD HEADER PER PLAN
3. (2) 16d TOENAILS EACH SIDE, EACH END
4. (2) 16d AS SHOWN
5. RUN VERTICAL STUDS UP PAST HEADER AS SHOWN -USE DOUBLE KING STUDS FOR OPENINGS GREATER THAN 5'-0"
6. (2) 16d @ 12" O.C.
7. 16d @ 12" O.C. STAGGERED BOTH SIDES
8. DOUBLE STUDS UNDER HEADER BEARINGS FOR OPENING WIDTHS GREATER THAN 5'-0"

14-WOOD HEADER
NTS

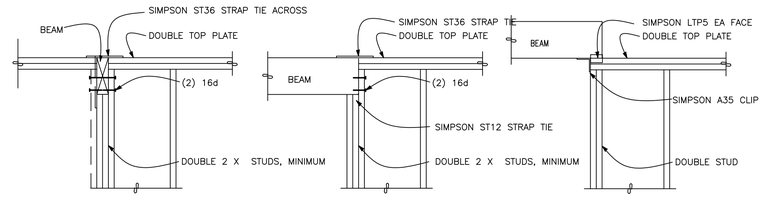


21-WOOD RAFTER AT WOOD STUDWALL/BEAM
NTS

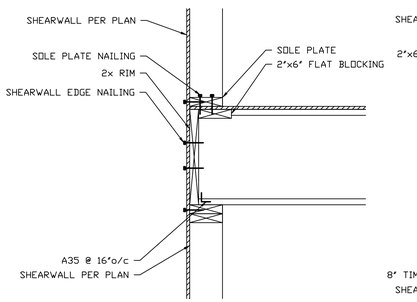


NOTES:
1. TOP PLATE SPLICE OVER STUD ONLY.
2. DOUBLE TOP PLATE
3. WOOD STUDS

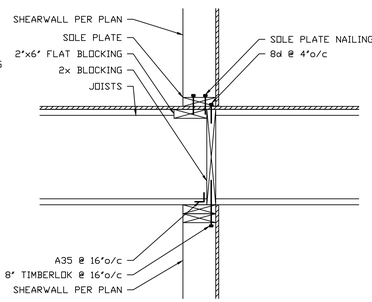
15-TYPICAL SPLICE OF WOOD TOP PLATE
1"=1'-0"



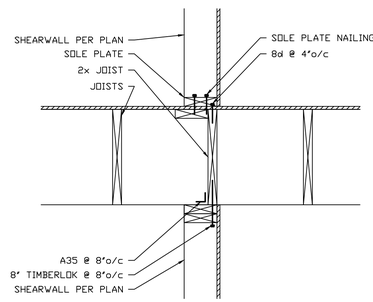
16-TYPICAL WOOD BEAM TO WOOD FRAMING
1"=1'-0"



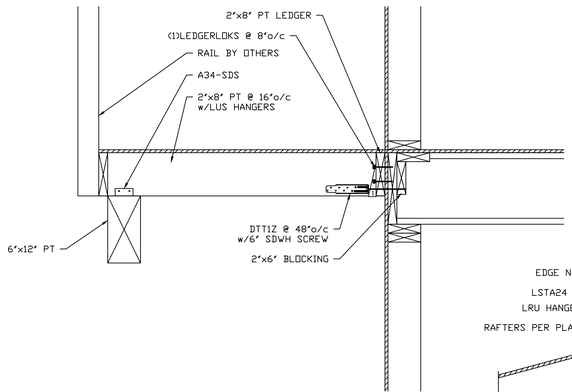
17-FLOOR TO FLOOR CONN.
1"=1'-0"



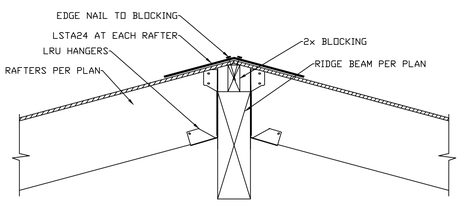
18-FLOOR TO INTERIOR SHEARWALL CONN. (PERP.)
1"=1'-0"



19-FLOOR TO INTERIOR SHEARWALL CONN. (PARA.)
1"=1'-0"



20-TYPICAL DECK SECTION
1"=1'-0"



21-TYPICAL RIDGE BEAM
NTS

NO	DATE	BY	REVISIONS DESCRIPTION

	BY	DATE
DESIGNED	NJL	11/24
DRAWN	NJL	11/24
CHECKED	NJL	11/24
APPROVED		
ACCEPTED		

FOR: **Russell Palanchuk**

Structural Details
9734 SE 40th Street
Mercer Island, WA 98040

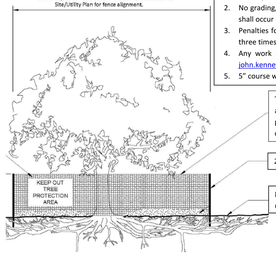
N.L. Olson & Associates, Inc.
Engineering, Planning and Surveying
(360) 895-2350 or (360) 876-2284
2453 Bethel Avenue, P.O. Box 637, Port Orchard, WA 98366

SCALE:	AS SHOWN
DATE:	Nov. 2024
DRAWING NUMBER	13320
SHEET	S5

DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation



Tree protection fence: 6' **chain link** fence, solidly anchored into the ground, or if authorized High-density polyethylene fencing with 3.5" x 1.5" openings; color orange. Steel posts installed at 8' o.c.

2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indication on the plans

Notes

1. No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
4. Any work in approved TPZ must be with the permission of the City Arborist (206) 275-7713, john.kenney@mercergov.org.
5. 5" course woodchips within the tree protection zone, but not against the tree trunk.

Any Work in the protected area must be with the permission of the City Arborist john.kenney@mercergov.org

Tree Assessment

Site: Palanchuk, 9734 40th St, ,Mercer Island, WA — **Tax ID: 502190-0890** — **Date: 2/11/2025** — **Assessor: Tom Hanson PN0426A** — **Project: 2025-19**

Tag #	Tree #	Species: Common	Species: *Scientific*	DBH (inches)	Height (feet)	Crown Ratio (%)	Dripline(ft): N	S	E	W	Protection Zone-Outer Radius (feet)	Inner Zone-Radius (feet)	Vigor	Structure	Viability	Class	Grove	Comments
On Site																		
1	1*	Big leaf maple	*Acer macrophyllum*	28.2	85	60	12	26	12	18	28	14	Fair	Fair	Viable	Regulated	No	Bole decay to 14', dead wood, OK in NGPA
2	2	Big leaf maple	*Acer macrophyllum*	17.8	90	40	14	20	0	18	18	9	Fair	Fair	Viable	Regulated	No	OK in NGPA
3	3	Big leaf maple	*Acer macrophyllum*	20.0	90	50	25	12	12	12	20	10	Fair	Poor	Viable	Regulated	No	Bole decay to 14', OK in NGPA
4	4	Big leaf maple	*Acer macrophyllum*	10.9	75	50	12	14	14	0	11	5	Good	Fair	Viable	Regulated	No	OK in NGPA
5	5	Big leaf maple	*Acer macrophyllum*	14.7	80	50	10	24	12	12	15	7	Good	Poor	Viable	Regulated	No	Bole decay to 14', OK in NGPA
6	6	Big leaf maple	*Acer macrophyllum*	8.1	40	0	0	0	0	0	8	4	0	0	0	Not Regulated	No	Dead, OK in NGPA
7	7	Big leaf maple	*Acer macrophyllum*	11.1	40	20	0	14	14	14	11	6	Good	Fair	Viable	Regulated	No	Crooked
8	8	Alder	*Alnus rubra*	7.8	80	50	22	0	16	0	8	4	Good	Fair	Viable	Not Regulated	No	
9	9	Laurel	*Prunus laurocerasus*	7.5	25	80	18	0	6	6	8	4	Good	Poor	Viable	Not Regulated	No	
10	10*	Laurel	*Prunus laurocerasus*	8.4	30	90	8	12	6	12	8	4	Good	Good	Viable	Not Regulated	No	
11	11	Laurel	*Prunus laurocerasus*	6.5	25	80	8	7	5	7	7	3	Good	Good	Viable	Not Regulated	No	
12	12	Hawthorne	*Crataegus monogyna*	15.1	50	80	16	14	14	14	15	8	Good	Good	Viable	Regulated	No	
13	13	Hawthorne	*Crataegus monogyna*	6.0	30	80	0	14	8	8	6	3	Good	Good	Viable	Not Regulated	No	
14	14	Purple leaf plum	*Prunus cerasifera*	8.6	16	80	6	13	10	10	9	4	Good	Good	Viable	Not Regulated	No	
15	15	Hawthorne	*Crataegus monogyna*	6.1	25	90	6	10	8	8	6	3	Good	Good	Viable	Regulated	No	
16	16	Norway spruce	*Picea abies*	12	50	90	7	7	7	7	12	6	Good	Good	Viable	Regulated	No	
17	17	Birch	*Betula papyrifera*	22.1	60	70	12	16	16	16	22	11	Good	Fair	Viable	Regulated	No	Topped at 30' and recovered from Bronze Birch Borer
18	18	Apple	*Malus sp.*	9.8	16	60	10	10	10	10	10	5	Good	Good	Viable	Not Regulated	No	
19	19	Birch	*Betula papyrifera*	22.4	60	70	19	19	19	19	22	11	Good	Fair	Viable	Exceptional	No	Topped at 30' and recovered from Bronze Birch Borer
Off Site																		
	A	Big leaf maple	*Acer macrophyllum*	23.2	85	70	18	30	16	12	23	12	Good	Fair	Viable	Regulated	No	Two codominants splitting, OK in NGPA
	B	Red alder	*Alnus rubra*	19.2	90	60	18	18	14	16	19	10	Good	Good	Viable	Regulated	No	
	C	Red alder	*Alnus rubra*	16.1	70	40	18	16	16	16	16	8	Fair	Fair	Viable	Regulated	No	
	D*	Laurel	*Prunus laurocerasus*	8.6	30	80	8	12	10	10	9	4	Good	Good	Viable	Not Regulated	No	
	E	Austrian pine	*Pinus nigra*	25.7	70	80	10	20	16	24	26	13	Good	Fair	Viable	Regulated	No	Two codominants at 15'
	F	Austrian pine	*Pinus nigra*	37.1	70	80	18	10	16	74	77	11	Good	Fair	Viable	Regulated	No	Two codominants at 15'
	G	Big leaf maple	*Acer macrophyllum*	12.5	45	60	8	8	16	6	13	6	Good	Good	Viable	Regulated	No	
	H	Mountain Hemlock	*Tsuga mertensiana*	6.0	18	100	4	4	4	4	6	3	Good	Good	Viable	Not Regulated	No	
	*DBH = square root [(dbh stem1)^2+(dbh stem2)^2+(dbh stem3)^2]																	

CONTACTS

ARCHITECT/DESIGNER — ALDOR LLC
26809 199TH AVE SE
COVINGTON WA. 98042

CONTACT: DORIN CORNITEL / DESIGNER
(206)-747-8421
ALDOR.ARCHITECTURE.CONSTRUCTION@OUTLOOK.COM

JURISDICTION — CITY OF MERCER ISLAND - RESIDENTIAL BUILD PERMITS
9611 SE 36TH STREET
MERCER ISLAND, WA 98040

(206)-275-7605

811 Know what's below. Call before you dig.

GENERAL NOTES

1. CALL LOCAL UTILITIES BEFORE YOU DIG

2. CONTRACTOR IS RESPONSIBLE FOR POSTING ALL PERMITS ON SITE.

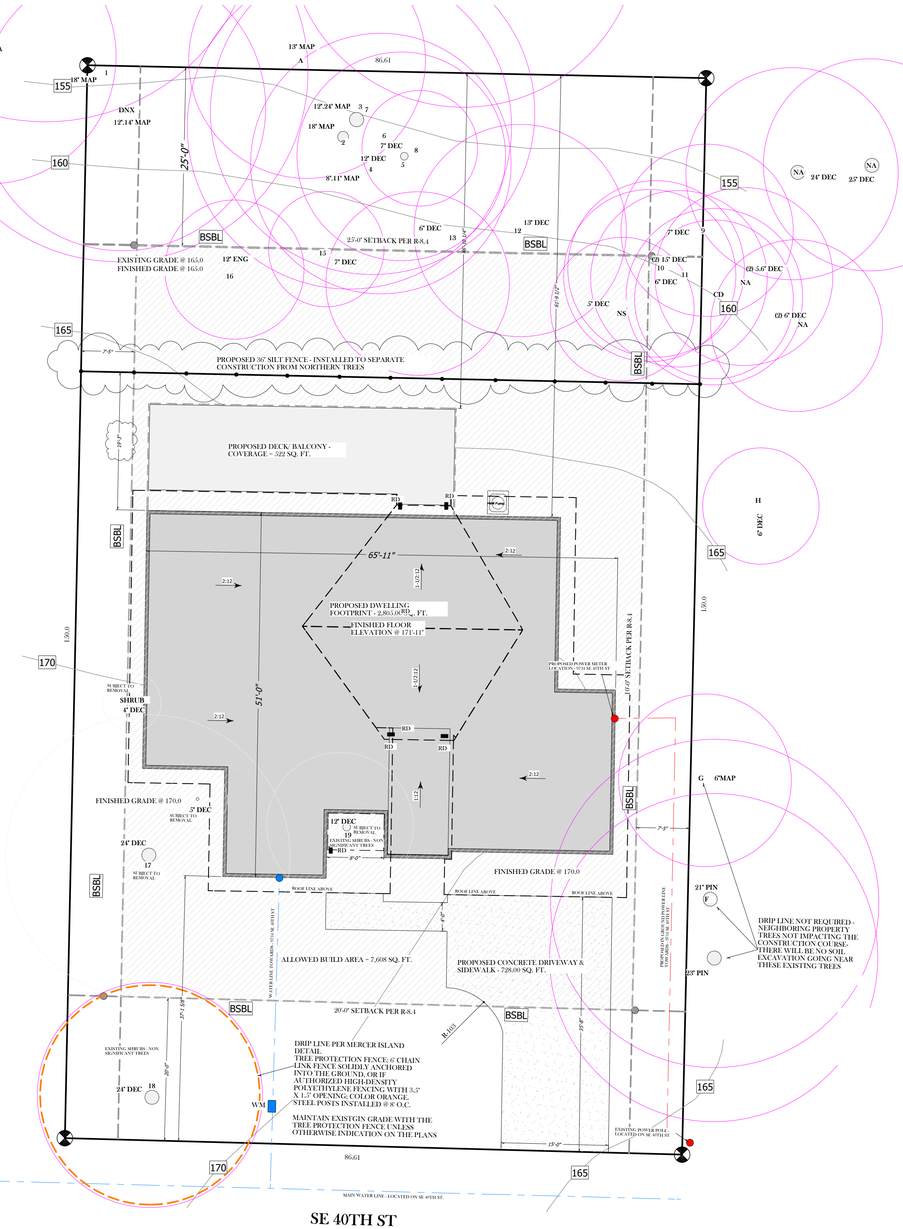
SITE/BUILDING DATA

OWNER: RUSSELL PALANCHUCK
9734 SE 40TH ST 98040
PARCEL: 265550-0176
PROPERTY ZONING: R-8.4

LOT SIZE: 12,992 SQ. FT. OR 0.30 ACRES
PLAT LOT 18
SEWER/SEPTIC: PUBLIC
WATER: PUBLIC
SETBACKS: FRONT: 20'
SIDES: 5' MIN. ON ONE SIDE, WITH THE TWO SIDES TOTALING 15'
REAR: 25'

BUILDING SQ. FT.

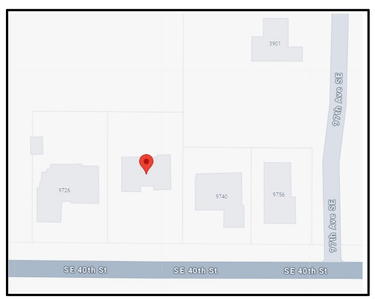
* MAIN FLOOR---------- 2,179 SQ. FT.
* UPPER LOOR---------- 2,264 SQ. FT.
* GARAGE ---------- 556 SQ. FT.



SE 40TH ST
TAX LOT #265550-0176
LOT1 - 12,992 SQ. FT.

PROPOSED SITE PLAN
SCALE 1" =10'

0 2FT 10FT



VICINITY MAP

PROPOSED SFR - DWELLING

PROPOSED CONCRETE DRIVEWAY/ SIDEWALK

BUILD-ABLE AREA

GFA CALCULATIONS

BUILDING AREA

MAIN FLOOR AREA	2,200 SQ. FT.
UPPER FLOOR AREA	2,264 SQ. FT.
ATTACHED 2 CAR GARAGE AREA	535 SQ. FT.
TOTAL GFA	4,999 SQ. FT.

LEGEND

- NORTH ARROW
- BSBL BOUNDARIES
- LOT BOUNDARIES
- RD - ROOF DRAINAGE LINE
- PROPOSED DOWNSPOUTS
- BUILDING ENVELOPE
- EXISTING TREES
- WATER MAIN LINE
- GAS LINE
- POWER MAIN LINE
- BSBL - BUILDING SET BACK LINE
- PROPERTY LINE
- 165 - TOPOGRAPHICAL CONTOUR LINES
- WATER METER BOX

Printed on 10/24/2025 at 11:58:37 AM

ALDOR
26809 199th Ave SE Covington WA. 98042
PH - 206-747-8421
Designer: Dorin Cornitel
Customer Job Number #110
Client Phone # - +1 (206) 427 - 7896

THESE PLANS HAVE BEEN EXCLUSIVELY DESIGNED AND RELEASED BY ALDOR CONSIDERED PUBLISHED WORK. THIS PLAN SET WAS DESIGNED AND ALDOR LLC OR OTHER PROPERTY FORMATED AT THE 9734 SE 40TH ST. 98040 (PARCEL#265550-0176) BE ALTERED, COPIED OR OTHERWISE MANIPULATED OR DISTRIBUTED WITHOUT THE EXPRESS WRITTEN PERMISSION OF ALDOR LLC. VIOLATION SHALL BE STRICTLY ENFORCED.

THESE PLANS WERE EXCLUSIVELY DESIGNED FOR

RUSSELL PALANCHUCK

9734 SE 40TH ST
MERCER ISLAND, WA
98040

PARCEL # - 265550-0176

THIS SET OF PLANS IS LICENSED FOR ONE TIME USE

HOME OWNER / GENERAL CONTRACTORS SHALL VERIFY ALL DIMENSIONS, STRUCTURAL DETAILS, SETBACKS AND GRADING REQUIREMENTS. BUILDING CODES, & ZONING REGULATIONS AND DIMENSIONS ACCORDING TO SITE CONDITIONS. ALL SUBCONTRACTORS SHALL COORDINATE CLOSELY WITH THEIR RESPECTIVE CONTRACTOR AND ARCHITECT. SHALL OF NOT BE HELD RESPONSIBLE FOR ERRORS CAUSED DUE TO A LACK OF COORDINATION BETWEEN SUB-CONTRACTORS AND THE GENERAL CONTRACTOR.

THESE PLANS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO DESCRIBE DESIGN INTENT ONLY. IT IS THE RESPONSIBILITY OF THE BUILDINGS CONSTRUCTION, THESE PLANS ARE INTENDED TO PROVIDE ADEQUATE INFORMATION TO THE GENERAL CONTRACTOR TO OBTAIN BUILDING PERMIT AND CONSTRUCT THE BUILDING IN COMPLIANCE WITH LOCAL AND INTERNATIONAL RESIDENTIAL BUILDING CODES. IT SHALL BE UNDERSTOOD THAT ANY ITEM SHALL BE NOT REQUIRED FOR CONSTRUCTION MAY NOT APPEAR WITHIN THESE PLANS.

LOT COVERAGE CALCULATIONS

A.	Gross Lot Area	12,992	Square Feet
B.	Net Lot Area	12,992 - no easements present	Square Feet
C.	Allowed Lot Coverage Area	5,000 sq ft	Square Feet
D.	Allowed Lot Coverage	40%	% of Lot
E.	Existing Lot Coverage:		
1.	Main Structure Roof Area	1,747	Square Feet
2.	Accessory Building Roof Area	N/A	Square Feet
3.	Vehicular Use (driveway, paved access easements [portion used by the lot for access], parking	1,900 sq ft	Square Feet
4.	Covered Patios and Covered Decks	N/A	Square Feet
5.	Total Existing Lot Coverage Area (E1+E2+E3+E4)	3,647 sq ft	Square Feet
F.	(Total Lot Coverage Area Removed)	3,647 sq ft	Square Feet
G.	Proposed Adjustment for Single Story (Area)	N/A - Subject to complete removal	Square Feet
H.	Proposed Adjustment for Flag Lot	N/A - Subject to complete removal	Square Feet
I.	Total New Lot Coverage Area:		
1.	Main Structure Roof Area	3,484	Square Feet
2.	Accessory Structure Roof Area	N/A	Square Feet
3.	Vehicular Use (driveway, paved access easement [portion used by the lot for access], parking)	728 sq ft	Square Feet
4.	Covered Patios and Covered Decks	N/A	Square Feet
5.	Total New Lot Coverage Area (I1 + I2 + I3 + I4)	4,212	
J.	Total Project Lot Coverage Area = (E5 - F) + I5	15	Square Feet
K.	Proposed Lot Coverage Area = (J/B) x 100	0.11%	% of Lot
	Lot coverage calculations shown on Plan Sheet #	1	

LOT SLOPE CALCULATIONS

Highest Elevation Point of Lot:	171	Feet
Lowest Elevation Point of Lot:	170.4	Feet
Elevation Difference:	0.66	Feet
Horizontal Distance Between High and Low Points:	66	Feet
Lot Slope*	1	%

HARDSCAPE CALCULATIONS

A.	Gross Lot Area	12,992 sq. ft	Square Feet
B.	Net Lot Area	12,992 - no easements present	Square Feet
C.	Area Borrowed from Lot Coverage	5,000 sq ft	Square Feet
D.	Allowed Hardscape Area = 9% of lot area + C	49%	% of Lot
E.	Allowed Hardscape Area	6,366.08 sq ft	Square Feet
F.	Total Existing Hardscape Area:		
1.	Uncovered Decks	N/A	Square Feet
2.	Uncovered Patios	N/A	Square Feet
3.	Walkways	67 sq ft	Square Feet
4.	Stairs	N/A	Square Feet
5.	Rockeries and Retaining Walls	201 sq ft	Square Feet
6.	Other Driveway & Concrete around the property	1,988 sq ft	Square Feet
7.	Total Existing Hardscape Area (F1+F2+F3+F4+F5+F6)	3,837 sq ft	Square Feet
G.	(Total Hardscape Area Removed)	3,837 sq ft	Square Feet
H.	Total New Hardscape Area:		
1.	Uncovered Decks	1,581 sq ft	Square Feet
2.	Uncovered Patios	N/A	Square Feet
3.	Walkways	77 sq ft	Square Feet
4.	Stairs	N/A	Square Feet
5.	Rockeries and Retaining Walls	N/A	Square Feet
6.	Other Proposed Driveway	651 "excluding 77 sq ft sidewalk"	Square Feet
7.	Total New Hardscape Area (H1+H2+H3+H4+H5+H6)	2,309 sq ft	Square Feet
I.	Total Project Hardscape Area = (F7 - G) + H7	2,309 sq ft	Square Feet
J.	Total Project Hardscape Area = (I/B)x100	17.7%	% of Lot
	Hardscape calculations shown on Plan Sheet #	1	

Sheet Description

SITE PLAN

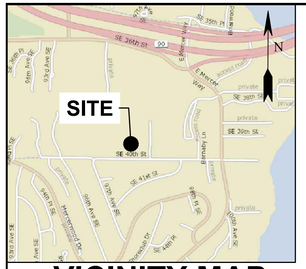
Plan Name

9734 SE 40TH ST 98040

1 OF 1

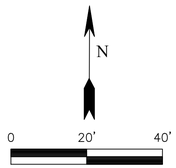
SITE PLAN

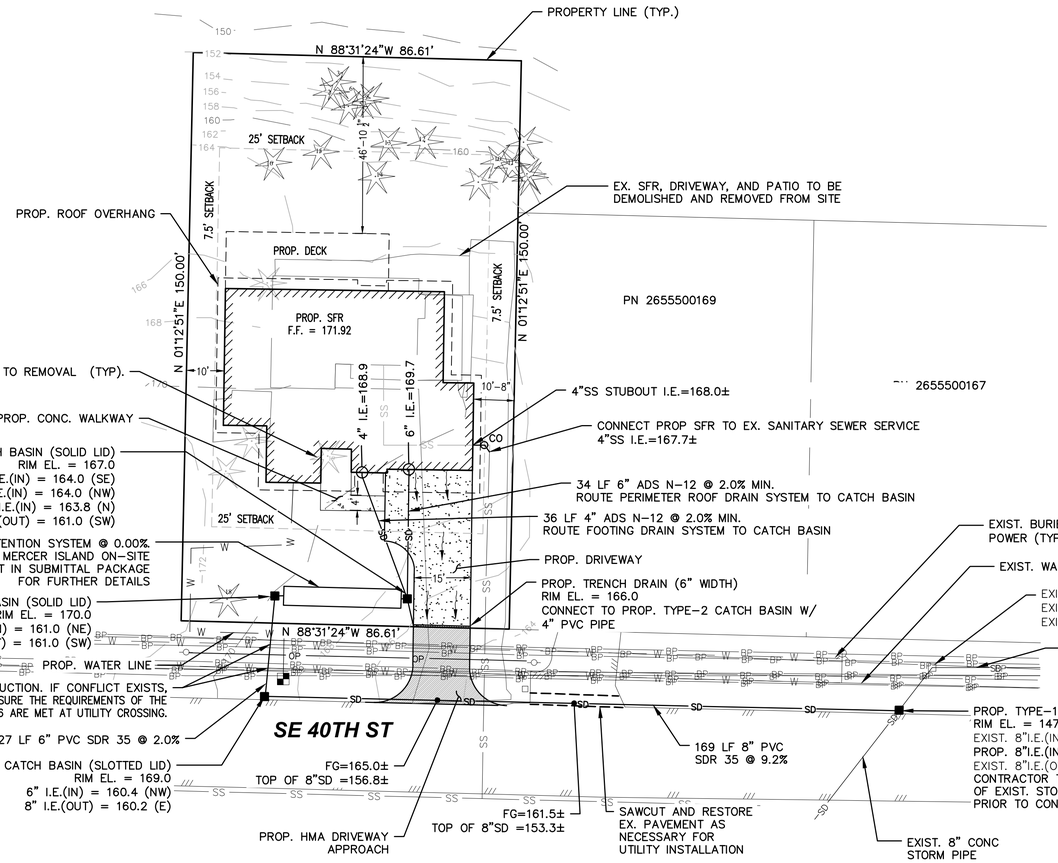
A PORTION OF SECTION 07, TOWNSHIP 24, RANGE 05E, W.M.
MERCER ISLAND, KING COUNTY, WA



VICINITY MAP

NTS





SIDE SEWER NOTE:

1. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED

FOOTING DRAIN NOTES:

1. INSTALL FOOTING DRAINS AND DRAIN TO DAYLIGHT.
2. FOOTING DRAINS SHALL NOT CONNECT TO THE PERIMETER ROOF DRAIN SYSTEM.
3. FOOTING DRAINS SHALL BE 4-INCH PVC SDR 35 UNLESS NOTED OTHERWISE IN THE DESIGN.
4. FOOTING DRAINS NOT SHOWN FOR PLAN CLARITY PURPOSES.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

BOUNDARY AND TOPOGRAPHY ARE BASED ON MAPPING PROVIDED TO GOODMAN ENGINEERING, PLLC AND OBSERVATIONS MADE IN THE FIELD. THE INFORMATION SHOWN DOES NOT CONSTITUTE A FIELD SURVEY BY GOODMAN ENGINEERING, PLLC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE OWNER TO HAVE ALL IMPROVEMENT FIELD VERIFIED PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF DISCREPANCIES ARE FOUND.

GENERAL CIVIL NOTES:

1. BURIED UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION. THE APPLICANT SHALL HAVE THE UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION.
2. THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES, PUBLIC OR PRIVATE, AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR IS REQUIRED TO HAVE A COMPLETE SET OF THE APPROVED PLANS ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS. THE CONTRACTOR SHALL MAINTAIN AND PROVIDE THE PROJECT ENGINEER WITH RED-LINED AS-BUILTS IN SUPPORT OF PROJECT RECORD DRAWINGS AT THE COMPLETION OF THE PROJECT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL APPROPRIATE UTILITY PURVEYORS INVOLVED PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
6. THESE PLANS ARE NOT INTENDED TO DEPICT ALL DETAILS OF THE WORK THAT IS REQUIRED. THE CONTRACTOR SHALL VERIFY THE SITE CONDITIONS AND FACTORS AFFECTING THE WORK TO BE COMPLETED.
7. SAFETY STANDARDS AND REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COMPLIED WITH AS SET FORTH BY OSHA.
8. THE CONTRACTOR SHALL OBTAIN THE APPROPRIATE APPROVALS AND PERMITS FROM THE AUTHORITIES HAVING JURISDICTION PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL COORDINATE WITH THE AUTHORITIES HAVING JURISDICTION TO CONFIRM INSPECTION, TESTING AND CERTIFICATION REQUIREMENTS.
9. PERIMETER ROOF DRAINS SHALL BE 4-INCH PVC SDR 35 UNLESS NOTED OTHERWISE IN THE DESIGN.

UTILITY CROSSING NOTES:

1. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS AND ELEVATIONS OF ALL UTILITIES WITHIN PROJECT AREA PRIOR TO BEGINNING CONSTRUCTION.
2. THE CONTRACTOR SHALL FOLLOW THE DEPARTMENT OF ECOLOGY PIPELINE SEPARATION DESIGN AND INSTALLATION REFERENCE GUIDE DATED MAY 2006 WHEN UTILITY CROSSING OCCUR.
3. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER IMMEDIATELY IF CONFLICTS ARE DISCOVERED.

DETENTION SYSTEM ANTI-BUOYANCY NOTE:

CONTRACTOR TO EVALUATE GROUNDWATER CONDITIONS DURING CONSTRUCTION TO ASSESS IF ANTI-BUOYANCY MEASURES FOR THE PROPOSED DETENTION SYSTEM ARE NECESSARY. IF HIGH GROUNDWATER CONDITIONS ARE ENCOUNTERED, CONTRACTOR TO INSTALL ANTI-BUOYANCY MEASURES PER MANUFACTURER GUIDELINES. GROUNDWATER WAS NOT ENCOUNTERED DURING A GEOTECHNICAL INVESTIGATION TO A DEPTH OF 15-FEET PERFORMED BY MP ENGINEERING ON JANUARY 20TH, 2025.

PROJECT INFORMATION

OWNER/APPLICANT:
RUSSELL PALANCHUK

PROJECT ADDRESS:
9734 SE 40TH ST
MERCER ISLAND, WA 98040

PARCEL #:
2655500176

PARCEL AREA:
0.30 ACRES

ZONING:
R-8.4

PROJECT SUMMARY:

TOTAL SITE AREA = 12,992 SF

EXIST. DRIVEWAY (TO BE REMOVED) = 2,246 SF
EXIST. SFR (TO BE REMOVED) = 1,300 SF
EXIST. CONC. PATIO (TO BE REMOVED) = 420 SF
TOTAL EXISTING IMPERVIOUS SURFACE = 3,966 SF

PROPOSED SFR ROOF AREA = 3,484 SF
PROPOSED DRIVEWAY = 1,127 SF
PROPOSED UNCOVERED CONC. WALKWAY = 78 SF

TOTAL PROPOSED IMPERVIOUS SURFACE= 4,689 SF

VERTICAL DATUM

NAVD 88

LEGAL DESCRIPTION

THE EAST HALF OF THE SOUTH 150 FEET OF LOT 18 IN BLOCK 1 OF FRUITLAND ACRES TO THE CITY OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS ON PAGE 33 IN KING COUNTY, WASHINGTON

SHEET INDEX

C1..... SITE PLAN
C2..... TESC PLAN
C3..... DETAILS

LEGEND

EXISTING		PROPOSED
500	2' CONTOURS MAJOR	500
498	2' CONTOURS MINOR	498
	PROPERTY BOUNDARY	
	BUILDING FOUNDATION	
	BUILDING ROOF	
	DRIVEWAY	
SS	SANITARY SEWER	SS
W	WATER LINE	W
OP	OVERHEAD POWER	OP
BP	BURIED POWER	BP
C	COMMUNICATIONS	C
OP	FENCE	OP
	WATER METER	
	WATER VALVE	
	FIRE HYDRANT	
	CATCH BASIN	
	STORM MANHOLE	
	SANITARY SEWER MANHOLE	
	POWER POLE	
	TRANFORMER	
Mon.	SURVEY MONUMENT	Mon.
#1000	SURVEY CONTROL POINT	#1000
	FLOW PATH	
SL A	SOIL LOG	
	SIGN	
	FENCE	

GOODMAN ENGINEERING, PLLC
PO BOX 234
SPANGLE, WA 99031
(253) 579-4839

SCALE
HORIZ. 1"=20'
VERT. N/A

KYLE R. GOODMAN
STATE OF WASHINGTON
#2018783
REGISTERED
PROFESSIONAL ENGINEER
10/26/25

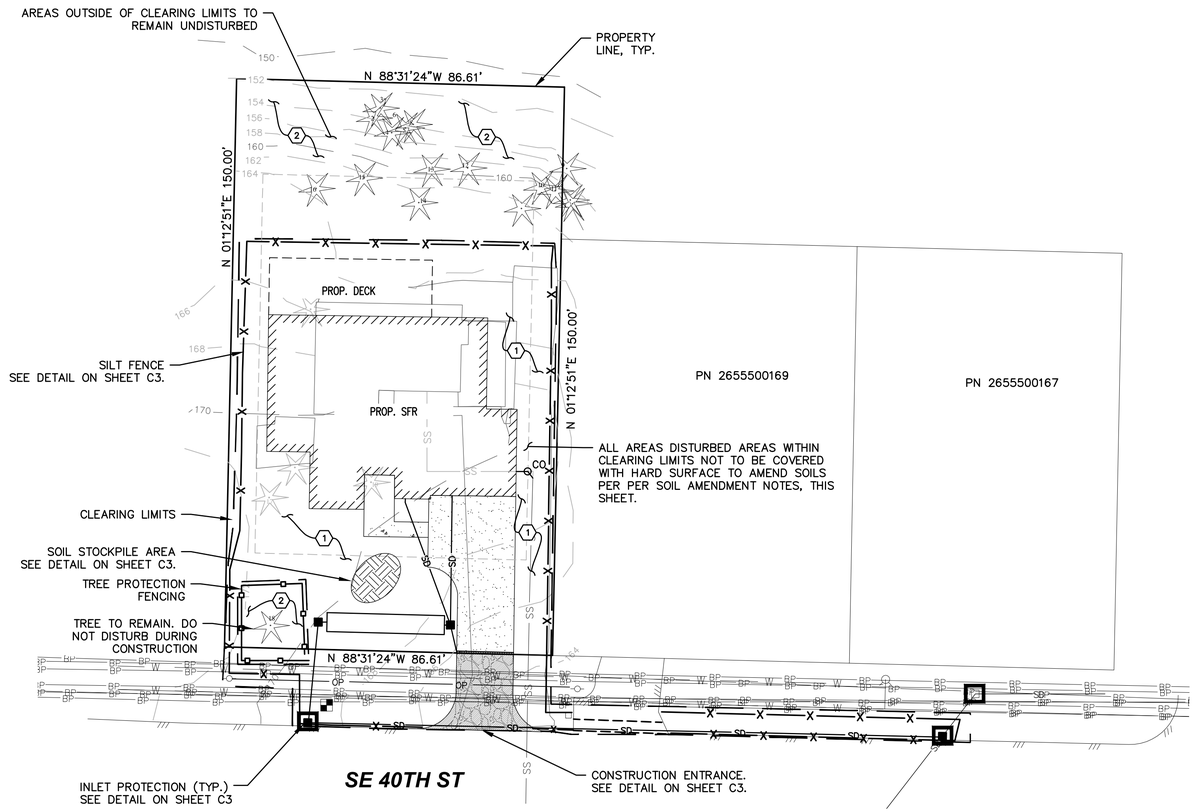
DATE
REVISIONS 1 2 3 4 5 6 7 8

SITE PLAN
RUSSELL PALANCHUK
9734 SE 40TH ST
MERCER ISLAND, WA, 98040

SHEET TITLE
C1
SHEET NO.
1 OF 3

TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) PLAN

A PORTION OF SECTION 07, TOWNSHIP 24, RANGE 05E, W.M.
MERCER ISLAND, KING COUNTY, WA



SOIL AMENDMENT NOTES:

SOIL RETENTION
RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING, REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.

SOIL QUALITY
ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.

2. MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.

3. USE COMPOST AND OTHER MATERIALS THAT MEET THE FOLLOWING ORGANIC CONTENT REQUIREMENTS:

A.THE ORGANIC CONTENT FOR ~~PRE-APPROVED~~ AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BMP T7.30: BIORETENTION WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE.

THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1.
THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.

B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TEST-ING PARAMETERS, IN WAC 173-350-220.

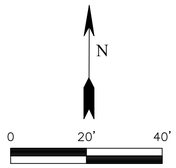
THE RESULTING SOIL SHOULD BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

IMPLEMENTATION OPTIONS
THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.

2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT ~~PRE-APPROVED~~ RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.

3 .STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT ~~PRE-APPROVED~~ RATE OR AT A CUSTOM CALCULATED RATE.
4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.
MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.



KEY NOTE LEGEND

(1) SOIL AMENDMENT AREA

(2) SOIL TO REMAIN UNDISTURBED

LEGEND

EXISTING		PROPOSED
-500-	2' CONTOURS MAJOR	500
-498-	2' CONTOURS MINOR	498
	FLOW PATH	
	SILT FENCE	X X
	CLEARING LIMITS	
	INLET PROTECTION	

CONSTRUCTION SEQUENCE:

1. MARK CLEARING/GRADING LIMITS.
2. INSTALL TEMPORARY CONSTRUCTION ENTRANCE.
3. INSTALL SILT FENCE AND PERIMETER RUNOFF BMP.
4. INSTALL INLET PROTECTION.
5. PERFORM CLEARING AND GRADING ACTIVITIES.
6. CONSTRUCT SITE IMPROVEMENTS.
7. COMPLETE FINAL GRADING, STABILIZATION, AND LANDSCAPING.
8. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL BMPS.
9. MONITOR AND MAINTAIN PERMANENT EROSION PROTECTION UNTIL FULLY ESTABLISHED.

EROSION CONTROL NOTES:

1. APPROVAL OF THIS EROSION AND SEDIMENT CONTROL PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN(E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC).
2. THE IMPLEMENTATION OF THESE EROSION AND SEDIMENT CONTROL PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE EROSION AND SEDIMENT CONTROL FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETE AND APPROVED, AND VEGETATION/LANDSCAPING IS ESTABLISHED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. THE EROSION AND SEDIMENT CONTROL FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAY, OR VIOLATE APPLICABLE WATER STANDARDS.
5. THE EROSION AND SEDIMENT CONTROL FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE UPGRADED AS NEEDED FOR EXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.
6. THE EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR, AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. THE EROSION AND SEDIMENT CONTROL FACILITIES ON INACTIVE SITE SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
8. AT NO TIME SHALL MORE THAN 1-FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
9. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

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GOODMAN ENGINEERING, PLLC
PO BOX 234
SPANGLE, WA 99031
(253) 579-4839

SCALE
HORIZ. 1"=20'
VERT. N/A

KYLE R. GOODMAN
STATE OF WASHINGTON
22018783
REGISTERED
PROFESSIONAL ENGINEER
10/26/25

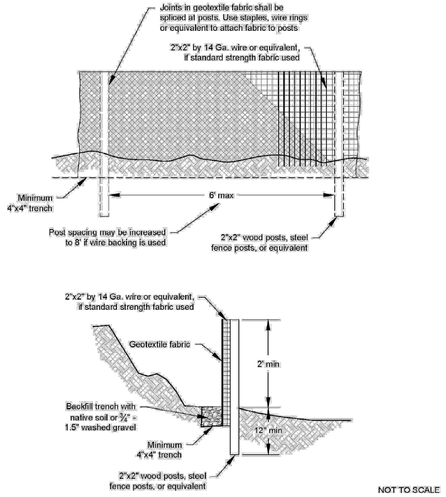
REVISIONS	DATE
1	
2	
3	
4	
5	
6	
7	
8	

TESC PLAN
RUSSELL PALANCHUK
9734 SE 40TH ST
MERCER ISLAND, WA, 98040

SHEET TITLE
C2
SHEET NO.
2 OF 3

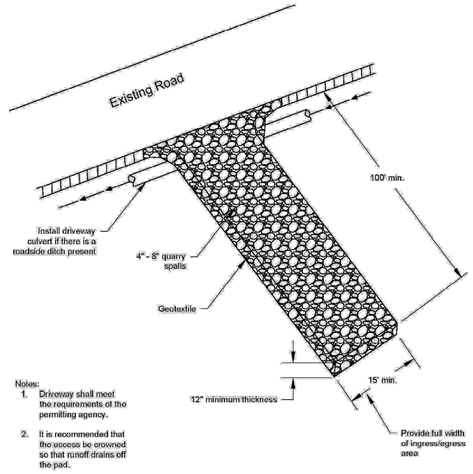
DETAILS AND NOTES

A PORTION OF SECTION 07, TOWNSHIP 24, RANGE 05E, W.M.
MERCER ISLAND, KING COUNTY, WA

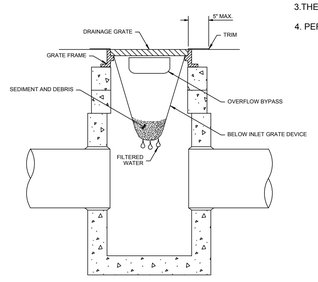


NOT TO SCALE

SILT FENCE
NOT TO SCALE



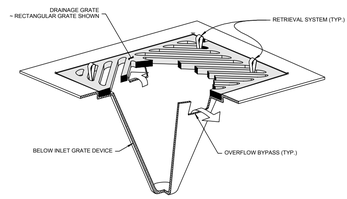
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



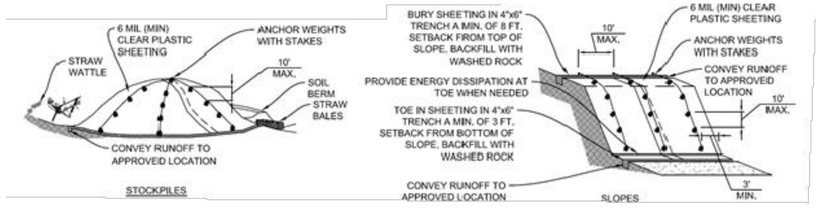
NOT TO SCALE

NOTES:

1. SIZE THE BELOW INLET GRATE DEVICE (BIGD) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
2. THE BIGD SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS)
3. THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BIGD WITHOUT SPILLING THE COLLECTED MATERIAL .
4. PERFORM MAINTENANCE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 8-01.3(15).



INLET PROTECTION
NOT TO SCALE



STOCKPILE AND EXPOSED SLOPE COVERING

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PO BOX 234
SPANGLE, WA 99031
(253) 579-4839

SCALE
HORIZ. N/A
VERT. N/A

KYLE R. GOODMAN
STATE OF WASHINGTON
#20187B3
REGISTERED
PROFESSIONAL ENGINEER
10/26/25

REVISIONS	DATE
1	
2	
3	
4	
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DETAILS
RUSSELL PALANCHUK
9734 SE 40TH ST
MERCER ISLAND, WA, 98040

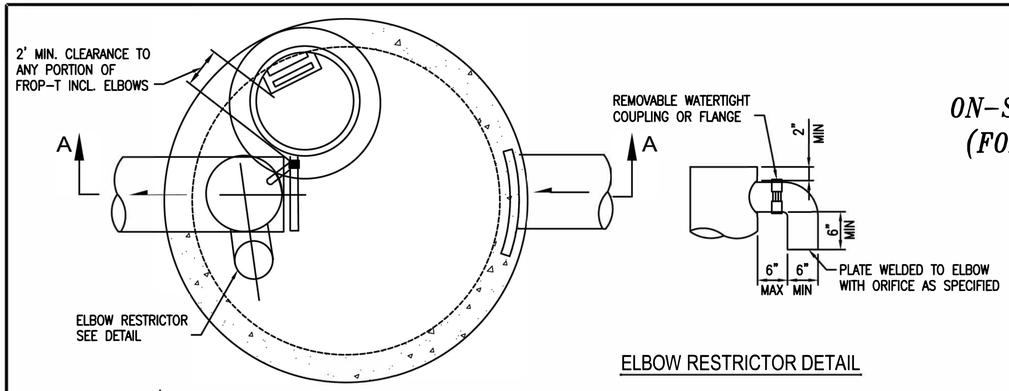
SHEET TITLE

C3

SHEET NO.

3 OF 3

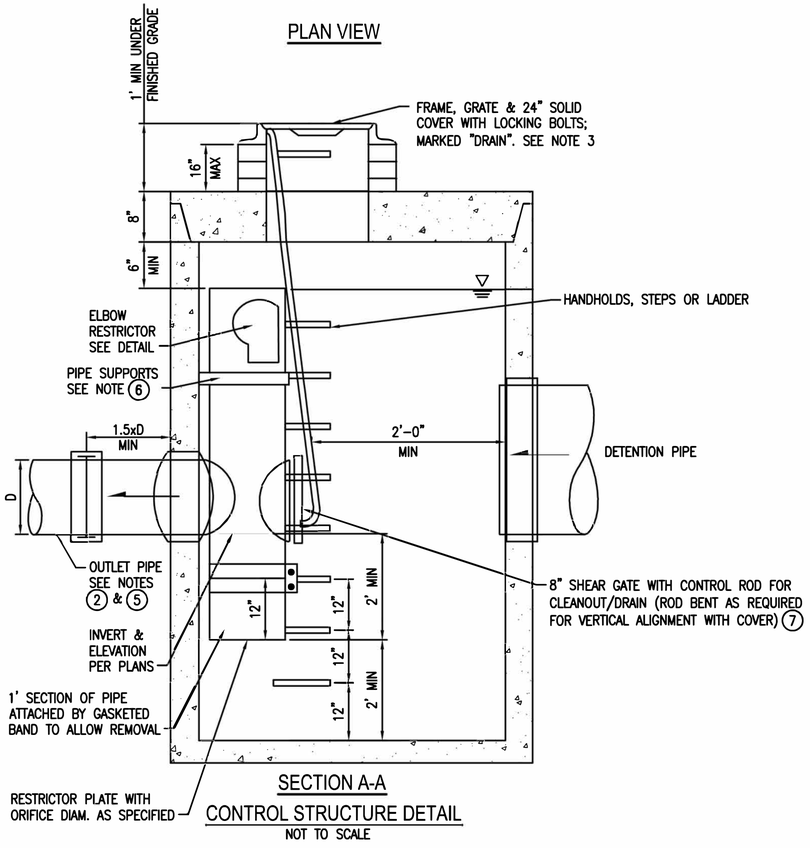
ATTACHMENT 1
CITY OF MERCER ISLAND
ON-SITE DETENTION SYSTEM WORKSHEET
(FOR NEW PLUS REPLACED IMPERVIOUS AREA OF 9,500 SF OR LESS)



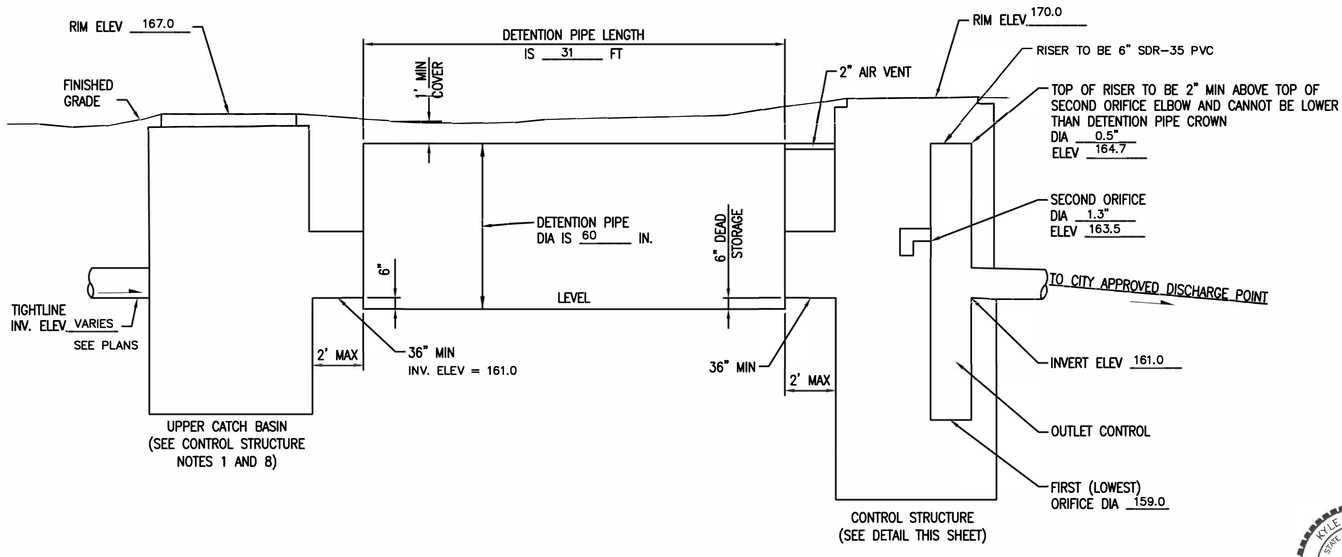
PLAN VIEW

ELBOW RESTRICTOR DETAIL

OWNER: RUSSELL PALANCHUK	ADDRESS: 9734 SE 40TH ST	PREPARED BY: KYLE GOODMAN, P.E.	
PERMIT #: 2502-039	MERCER ISLAND, WA 98040	PHONE: 253-579-4839	
		DATE: 8/4/25	
NEW PLUS REPLACED IMPERVIOUS SURFACE AREA (SF): 4,689	DETENTION PIPE DIA (INCH): 60	DETENTION PIPE LENGTH (FT): 31	ORIFICE #1 DIA 0.5 INCH, ELEV 159.0
SOIL TYPE: TYPE C	PIPE MATERIAL: ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE		ORIFICE #2 DIA 1.3 INCH, ELEV 163.5



SECTION A-A
CONTROL STRUCTURE DETAIL
NOT TO SCALE



ON-SITE DETENTION SYSTEM
NOT TO SCALE (ENGINEER TO FILL IN BLANKS)

KYLE R. GOODMAN
STATE OF WASHINGTON
22018788
REGISTERED
PROFESSIONAL ENGINEER

10/26/25

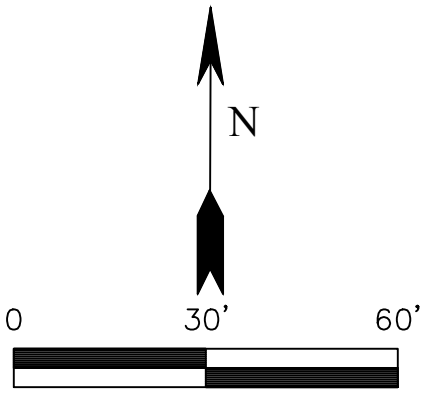
CONTROL STRUCTURE NOTES:

1. USE A MINIMUM OF A 54 IN. DIAM. TYPE 2 CATCH BASIN. THE ACTUAL SIZE IS DEPENDENT ON CONNECTING PIPE MATERIAL AND DIAMETER.
2. OUTLET PIPE: MIN. 6 INCH.
3. METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
4. FRAME AND LADDER OR STEPS OFFSET SO:
   A. CLEANOUT GATE IS VISIBLE FROM TOP;
   B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
   C. FRAME IS CLEAR OF CURB.
5. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
6. PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3'-0" VERTICAL SPACING).
7. THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B.
   THE LIFT HANDLE SHALL BE MADE OF A SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION), IT MAY BE OF SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED.
   A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE.
   INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED.
   THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT.
   ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.
8. THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FT.

ON-SITE DETENTION SYSTEM NOTES:

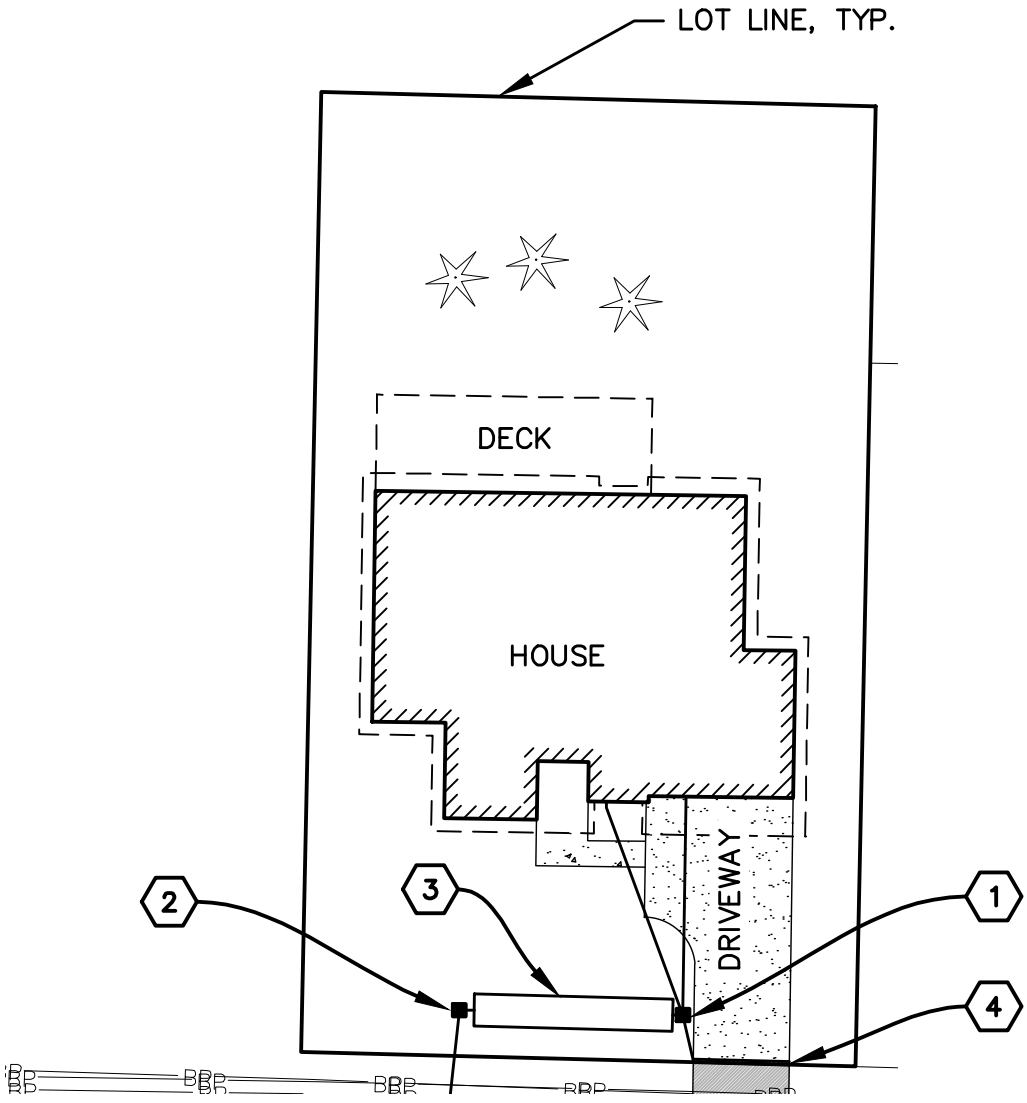
1. CALL DEVELOPMENT SERVICES (206-275-7605) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS.
2. RESPONSIBILITY FOR OPERATION AND MAINTANANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS RESPONSIBILITY OF THE PROPERTY OWNER. MATERIAL ACCUMULATED IN THE STORAGE PIPE MUST BE REMOVED FROM CATCH BASINS TO ALLOW PROPER OPERATION. THE OUTLET CONTROL ORIFICE MUST BE KEPT OPEN AT ALL TIMES.
3. PIPE MATERIAL, JOINT, AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 7.04 AND 9.05 OF THE WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST VERSION. SUCH MATERIALS INCLUDE THE FOLLOWING, LINED CORRUGATED POLYETHYLENE PIPE (LCPE), ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCH (MEETS AASHTO DESIGNATIONS M274 AND M36), CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, OR REINFORCED CONCRETE PIPE. CORRUGATED STEEL PIPE IS NOT ALLOWED.
4. FOOTING DRAINS SHALL NOT BE CONNECTED TO THE DETENTION SYSTEM.

EXHIBIT B



LEGEND:

1. CATCH BASIN
2. CONTROL STRUCTURE
3. DETENTION PIPE
4. TRENCH DRAIN



SE 40TH ST

TOPOGRAPHIC & BOUNDARY S

LEGAL DESCRIPTION

THE EAST HALF OF THE SOUTH 150 FEET OF LOT 18 IN BLOCK 1 OF FRUITLAND ACRES TO THE CITY OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS ON PAGE 33 IN KING COUNTY, WASHINGTON

BASIS OF BEARINGS

ACCEPTED THE BEARING OF N 88°31'24" W BETWEEN MONUMENTS FOUND ALONG THE CENTERLINE OF SE 40TH ST, PER REFERENCE NO. 1.

REFERENCES

R1. RECORD OF SURVEY, VOL. 20, PG. 179, RECORDS OF KING COUNTY, WASHINGTON.
R2. RECORD OF SURVEY, VOL. 222, PG. 064, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD 88 PER GPS OBSERVATIONS

SITE TEMP. BENCHMARK
DESCRIPTION: SET PK NAIL W/ WASHER
LOCATION: 18.2'E & 40.5'N FROM SE PROPERTY CORNER
ELEVATION: 164.55'

SURVEYOR'S NOTES

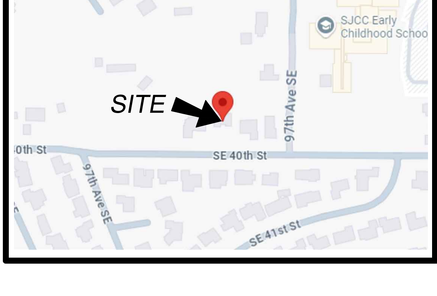
1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN OCTOBER OF 2024. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 2655500176
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 12,992 S.F. (0.30 ACRES)
6. ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM FIRST AMERICAN TITLE INSURANCE COMPANY'S "POLICY", POLICY NO. 4154263, DATED SEPTEMBER 4, 2024. IN PREPARING THIS MAP, TERRANE, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS TERRANE, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY THE REFERENCED "POLICY". TERRANE, INC. HAS RELIED WHOLLY ON FIRST AMERICAN TITLE INSURANCE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND TERRANE, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.
7. EXISTING STRUCTURE(S) LOCATION AND DIMENSIONS ARE MEASURED FROM THE FACE OF THE SIDING UNLESS OTHERWISE NOTED.
8. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 3-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

LEGEND

- BENCHMARK
- CENTERLINE ROW
- FENCE LINE (WOOD)
- IRON PIPE (FOUND)
- MONUMENT (IN CASE, FOUND)
- PROPERTY LINE (SUBJECT)
- REBAR AS NOTED (FOUND)
- RETAINING WALL
- RIGHT-OF-WAY LINES
- MAILBOX (RESIDENTIAL)
- BUILDING
- TREE (AS NOTED)
- HEDGE FOLIAGE LINE
- ASPHALT SURFACE
- BRICK SURFACE
- CONCRETE SURFACE
- ROCKERY
- STEEP SLOPE AREA
- AIR CONDITION UNIT
- GAS METER
- OIL FILL CAP
- GAS LINE
- POWER METER
- POWER POLE
- POWER (OVERHEAD)
- CULVERT PIPE
- SEWER MANHOLE
- SEWER LINE
- WATER METER
- WATER LINE
- BUILDING
- CENTER CHANNEL

VICINITY MAP

N.T.S.



STEEP SLOPE/BUFFER DISCLAIMER:

THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.

SCHEDULE B ITEMS

9. ANY AND ALL OFFERS OF DEDICATION, CONDITIONS, RESTRICTIONS, EASEMENTS, BOUNDARY DISCREPANCIES OR ENCROACHMENTS, NOTES AND/OR PROVISIONS SHOWN OR DISCLOSED BY SHORT PLAT OR PLAT OF FRUITLAND ACRES TO THE CITY OF SEATTLE RECORDED IN VOLUME 12 OF PLATS, PAGE(S) 33.
10. CONDITIONS, NOTES, EASEMENTS, PROVISIONS AND/OR ENCROACHMENTS CONTAINED OR DELINEATED ON THE FACE OF THE SURVEY RECORDED UNDER RECORDING NO. 7607120610.
11. AGREEMENT FOR THE EXCHANGE OF PROPERTY AGREEMENT AND THE TERMS AND CONDITIONS THEREOF:
BETWEEN: FARMERS NEW WORLD LIFE INSURANCE COMPANY, A WASHINGTON CORPORATION
AND: THE CITY OF MERCER ISLAND, A MUNICIPAL CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF WASHINGTON.
RECORDING INFORMATION: 8110230697 (DOCUMENT NOT PROVIDED)
12. CONDITIONS, NOTES, EASEMENTS, PROVISIONS AND/OR ENCROACHMENTS CONTAINED OR DELINEATED ON THE FACE OF THE SURVEY RECORDED UNDER RECORDING NO. 8403159004.

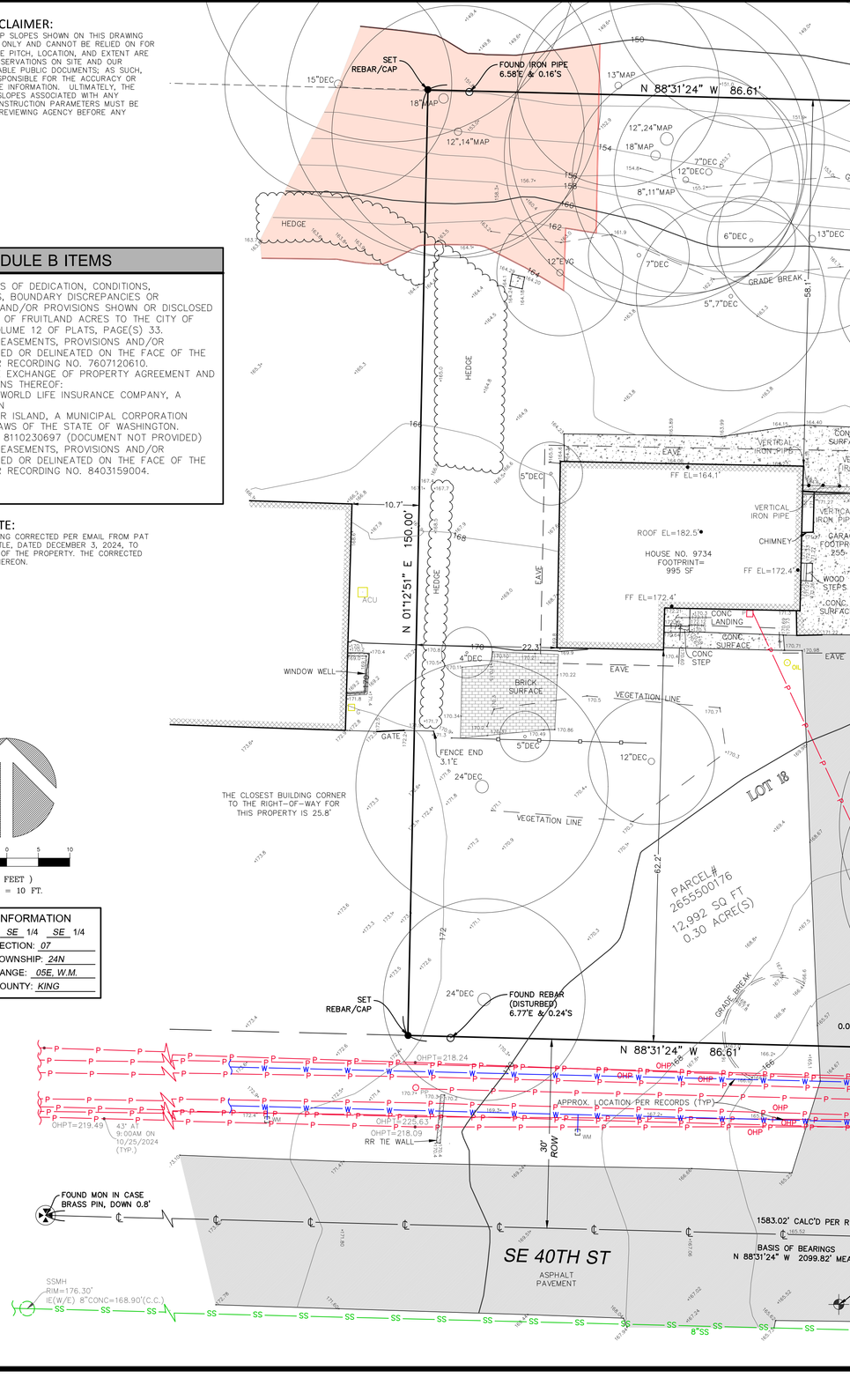
LEGAL DESCRIPTION NOTE:

THE TITLE POLICY PROVIDED IS BEING CORRECTED PER EMAIL FROM PAT FULLERTON AT FIRST AMERICAN TITLE, DATED DECEMBER 3, 2024, TO CORRECT THE LEGAL DESCRIPTION OF THE PROPERTY. THE CORRECTED LEGAL DESCRIPTION IS PROVIDED HEREON.

10 0 5 10
(IN FEET)
1 INCH = 10 FT.

INDEXING INFORMATION

SE 1/4 SE 1/4
SECTION: 07
TOWNSHIP: 24N
RANGE: 05E, W.M.
COUNTY: KING



PETERMAN CONSULTING, LLC
Tom Peterman MEH, PWS
tom@petermanconsultingllc.com, (206) 666-8736

Project # 379
Date: 10/29/2025

Address: 9734 SE 40th St

Plant Materials

Trees

Kousa Dogwood (*Cornus kousa*)

Paper Birch (*Betula papyrifera*)

Shrubs

Oceanspray (*Holodiscus discolor*)

Pacific Wax Myrtle (*Morella Californica*)

Sasanqua Camelia (*Camellia sasanqua*)

Nandina (*Nandina domestica*)

Groundcover

Sword fern (*Polystichum munitum*)

Low Oregon Grape (*Mahonia nervosa*)

Douglas's Iris (*Iris Douglasiana*)

Deer fern (*Blechnum spicant*)

Heather (*Calluna vulgaris*)

Bleeding Heart (*Dicentra formosa*)

MITIGATION SEQUENCING

Mitigation sequencing for the proposed project is required under MICC 19.07.100 to demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas, the definition of which includes steep slopes and their buffers. The following section addresses specific actions taken to comply with mitigation sequencing:

1. Avoiding the impact or hazard by not taking a certain action.

The existing single family residence is engulfed by the steep slope designation and their buffers and avoidance of the proposed action is not possible.

2. Minimizing the impact or hazard.

The work will be confined to areas that are already hardscape and/or planted with nonnative, ornamental landscaping. No trees are to be removed.

3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

The existing landscape shrubs that are to be removed will be replaced with a mix of native and ornamental trees, shrubs, and groundcover. Native species will improve the plant biodiversity and require less maintenance overall.

4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

Maintenance of the planted areas will be the responsibility of the property owners. The property owners will replace all plants lost to vandalism, drought, or disease, as necessary.

5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.

The cleared area is to be replanted with numerous native and ornamental landscape plants as part of the overall construction of the existing residence.

6. *Monitoring the impact, hazard or success of required mitigation and taking remedial action.*

Maintenance of the planted areas will be the responsibility of the property owners. The property owners will replace all plants lost to vandalism, drought, or disease, as necessary.