



CITY OF COLWOOD

3300 Wishart Road | Colwood | BC V9C 1R1 | 250 294-8153
planning@colwood.ca | www.colwood.ca

File: DP000040 - Single Family Home with Secondary Suite at 287 Perimeter Pl

DEVELOPMENT PERMIT DP000040

THIS PERMIT, issued **February 14**, 2025 is,

ISSUED BY: **CITY OF COLWOOD**, a municipality incorporated under the *Local Government Act*,
3300 Wishart Road, Victoria, BC, V9C 1R1

(the "City")

PURSUANT TO: Section 490 of the *Local Government Act*, RSBC 2015, Chapter 1

ISSUED TO: WILSON, ROBERT A
62 WENTWORTH AVE
WILLOWDALE ON M2N 1T7

(the "Permittee")

-
1. This Form and Character (Intensive Residential), Natural Hazards (Steeply Sloped) and Environmental (Hillside) Development Permit applies to those lands within the City of Colwood described below, and any and all buildings, structures, and other development thereon:

LOT 18, SECTION 56, ESQUIMALT LAND DISTRICT, PLAN VIP69848
287 PERIMETER PL

(the "Lands")

2. This Development Permit regulates the development and alterations of the Land, and supplements the *"Colwood Land Use Bylaw, 1989"* (Bylaw No. 151), to ensure the Form and Character, Natural Hazard, and Environmental considerations for the development of one single family home with secondary suite and associated site improvements are consistent with the design, natural hazard, and environmental guidelines for areas designated as "Intensive Residential", "Steeply Sloped" and "Hillside" in the City of Colwood Official Community Plan (Bylaw No. 1700).
3. This Development Permit is **NOT** a Building Permit or a subdivision approval.

4. This Development Permit is issued subject to compliance with all of the bylaws of the City of Colwood that apply to the development of the Lands, except as specifically supplemented by this Permit.
5. The Director of Development Services or their delegate may approve minor variations to the schedules attached to and forming part of this Development Permit, provided that such minor variations are consistent with the overall intent of the original plans and do not alter the form and character of the development authorized by those plans.
6. If the Permittee does not substantially start the construction permitted by this Permit within 24 months of the date of this Permit, the Permit shall lapse and be of no further force and effect.
7. The development is to be constructed in accordance with the following plans and specifications, which are attached to and form as part of this permit:
 - Schedule 1 Architectural Plans prepared by Outline Home Design dated February 4, 2025.
 - Schedule 2 Landscape Plans prepared by Outline Home Design dated February 3, 2025.
 - Schedule 3 Environmental Report prepared by Corvidae Environmental Consulting Inc. dated October 23, 2024.
 - Schedule 4 Geotechnical Report prepared by Ryzuk Geotechnical Ltd. dated November 8, 2024.
8. This Development Permit authorizes the development of one single family home with secondary suite along with any associated site works. The Lands shall not be altered, nor any buildings or structures constructed, except in accordance with the following conditions:

GENERAL

- 8.1. This Permit shall not be construed as relieving the Permittee from compliance with any of the requirements contained within the Section 219 covenants registered as "EM60245", "EN110335", "EN110372", "EN110373", and "EN110378" and as amended.

FORM AND CHARACTER CONDITIONS

Building Features

- 8.2. The form and character of the buildings to be constructed on the Lands shall conform to the Architectural Plans prepared by Outline Home Design (Schedule 1).
- 8.3. Any future additions of telecommunications antennas or equipment to the exterior of the buildings and/or structures included in this Permit shall be architecturally integrated into the buildings and/or structures they are mounted on or screened from views so as not to be visually obtrusive, to the satisfaction of the Director of Development Services or their delegate.
- 8.4. All mechanical roof elements, including mechanical equipment, elevator housings, and vents shall be visually screened with sloped roofs or parapets, or other forms of solid screening to the satisfaction of the Director of Development Services or their delegate.

- 8.5. No future construction/installation of unenclosed or enclosed outdoor storage areas or recycling/refuse collection shall be undertaken without the issuance of a further Development Permit or amendment to this Permit.

Landscaping

- 8.6. The design and construction of the proposed landscaping shall be in substantial compliance with the Landscape Plan prepared by Outline Home Design (Schedule 2).

ENVIRONMENTAL CONDITIONS

General

- 8.7. Where required, Federal and Provincial environmental approvals shall be obtained prior to any works occurring on the Lands.
- 8.8. Clearing of the lot prior to issuance of a Building Permit shall be limited to the minimum area required for construction.
- 8.9. Development on the Lands shall comply the recommendations contained in the Environmental Report prepared by Corvidae Environmental Consulting Inc. (Schedule 3).

Tree Management

- 8.10. This Development Permit does not include approval for any tree removals. A separate Tree Management Permit will be required for the removal of any protected trees.

Nesting and Migratory Birds

- 8.11. It is the property owner's responsibility to ensure that physical works are compliant with the federal Migratory Birds Convention Act, 1994 and the provincial Wildlife Act with respect to bird nests. Both of these acts prohibit the disturbance or destruction of active nests and eggs.

HAZARD LANDS

- 8.12. All works shall adhere to the assessment and recommendations contained in the Geotechnical Report prepared by Ryzuk Geotechnical Ltd. (Schedule 4) and be in substantial compliance with the grading shown on the Architectural Plans (Schedule 1) and be completed under the guidance and approval of a Geotechnical Engineer as recommended.
- 8.13. This permit does not authorize any blasting on the site.

ISSUED ON THIS 14 DAY OF FEBRUARY, 2025.



Yazmin Hernandez, MCIP RPP
Director of Development Services

GENERAL NOTES

- Contractor to review all plans, details and specifications contained within this set prior to commencement of work and shall notify the owner and designer of any errors and discrepancies.
- Noted dimensions shall take precedence over scaled drawings. All dimension units are given as Feet and Inches (meters) eg 3'-0" (0.92m)
- Exterior dimensioning is to the face of concrete/sheathing. Interior dimensioning is to face of stud. Unless otherwise noted, Stud dimension omitted. Assume 2x4 (3.5") unless noted "2x6".
- Structure noted as "engineered" shall be engineered by certified structural engineer. Where required, drawings shall be stamped with engineer's seal. Structural Engineering drawings shall take precedence over these plans.
- All joists / beams sized herein, not noted "engineered by others" based on tables A1 - A18, BCBC 2024. All floor joists to be bridged mid span, size and spacing as noted on these plans or as determined by engineer.
- All work shall be equal in all respects to good construction practice, and shall conform to current zoning bylaws of the authority having jurisdiction and the British Columbia Building Code 2024 (BCBC 2024). Designer must be notified of any changes which may be in conflict to bylaw requirements.
- It is the responsibility of the owner and contractor to have site soil conditions inspected and advise designer of any soil conditions which may require special foundation design. Unless noted otherwise, site and location plans to be verified by certified BC Land Surveyor.
- It is the responsibility of the owner and contractor to ensure building placement is done by certified land surveyor and to advise designer if there are any conflicts in regards to bylaw constraints, registered covenants or easements which may prevent construction.
- Concrete shall conform to BCBC(2024) 9.3.1. Concrete compressive strength to be as follows.
30MPa, Type 50 concrete to be used for footing and foundation walls.
25MPa concrete min to be used for floor slabs excluding garage floor
32MPa concrete to be used for garage floor / exterior steps (5-8% Air entrainment)
- All load bearing wood framing to be spruce/pine/fr (SPF), graded #2 or better unless otherwise noted in these plans. Non-load bearing framing to be SPF#3 or better. Moisture content of all lumber to be max. 19% of time of installation. Structural wood elements to be pressure treated where they are within 6' of earth or exposed to precipitation. [BCBC 9.3.2]
- Glass shall conform to CAN/CGSB-12.20-M or ASTM E1300 [BCBC 9.6.1.3]
- Safety glass to be used for all tub and shower enclosures. Safety glass to be used in all sliding doors, and entrance doors where shown on these plans.
- All windows / doors / skylights to conform to AAMA/WDMA/CSA 101/11.3.2/A440 and CSA A440.51. Installation to conform to manufacturer's instructions. Windows located within 2m of ground level must also be rated for resistance to forced entry. Sealant, trim and flashing to conform to BCBC (2024) 9.7.6.2.
- All windows and Doors to have maximum U Value of 1.84 W/(m2*K)
- All Skylights to have maximum U Value of 2.92 W/(m2*K)
- Stair, handrail and guards specified in these drawings shall conform to BCBC (2024) 9.8. Graspable handrails @ 36" above nosing, conform to BCBC 9.8.7. Typical guard height to be 42" AFF, conform to BCBC 9.8.8. Stairs to be built to support specified load of 1.9 kPa, c/w middle support (3rd stringer)
- Provide egress from bedrooms in conformance to BCBC 9.9.10 as detailed in these plans.
- Glazed openings and exposing building face construction to conform to BCBC 9.10.15 as shown within these plans. Notify designer of any changes to window size / location from what is shown on these drawings.
- Provide fire blocking in conformance with BCBC (2024) 9.10.16. Approved fire blocking materials are 1/2" GWB, 1/2" plywood, 1.5" solid wood blocking, or .38mm sheet steel.
- Garage door to have a surface flame-spread rating of not more than 200. Interior wall and ceiling finishes to have a flame-spread rating of not more than 150.
- Provide smoke alarms (SA) where shown on these plans. Smoke alarm shall conform to CAN/ULC-5531. Install locations to conform to BCBC 9.10.19.3. Smoke alarms shall be permanently connected to electrical circuit, have battery backup (7day) and be interconnected. Smoke alarms to have silencing mechanism (10 minute reset). Minimum of 1 alarm per dwelling unit / suite shall be of the Photo-Electric type as per BCBC 2018 9.36.2.19. (Combine with CO alarm where possible)
- Provide carbon monoxide alarm (CO) where shown on these plans. Carbon monoxide alarms shall conform to CAN/CSA 6.19. Install locations to conform to manufacturer's instructions or in conformance with BCBC 9.32.4.2.3. Permanently connect to electrical power, interconnect and provide battery backup.
- Cooktop and oven installation to conform to BCBC (2024) 9.10.22
- Foundations shall be placed on undisturbed soil, excavation to conform to BCBC (2024) 9.12
- Soil gas control shall be provided at all Conditioned Interior spaces where in contact with the ground, as detailed in these drawings, and in conformance with BCBC (2024) 9.13.4.2
- Rough in for subfloor depressurization shall be provided for as detailed in these plans and in conformance with BCBC (2024) 9.13.5.3, via Radon vent pipe and a continuous gas permeable between the air barrier and the ground.
- Provide floor drain in basement as shown on these plans if gravity feed to municipal drain is available. Omit otherwise.
- Provide attic access as shown in these plans.
- Wood frame construction to be in conformance with BCBC (2024) 9.23
- Where spray applied rigid foam insulation is specified, product to conform to CAN/ULC-5705.1, and installed in conformance to CAN/ULC-5705.2.
- Provide waterproof wall finish (interior locations) to 1.8m AFF @ shower stall, 1.2m above bathtubs equipped with showers and to 400mm above bathtubs.
- If equipped, grab bars shall be capable of resisting a load not less than 1.3kN. Provide solid blocking.
- Provide mechanical fixtures as shown on these plans or as provided by mechanical engineer. Fixtures to conform to BCBC 9.31
- Provide natural ventilation as shown in these plans, conforming to BCBC (2024) 9.32.2
- Mechanical ventilation to conform to CAN/CSA-F326-M or to be designed by mechanical engineer.
 - Provide principal exhaust ventilation in conformance with BCBC 9.32.3
 - Primary Residence shall be provided with a Heat Recovery Ventilator in conformance with BCBC 9.32.3.4 (4) and a minimum air flow rate of 29L/s
 - Provide bathroom and kitchen exhaust fans in conformance to BCBC 9.32.3
 - Provide make up air in conformance with BCBC 9.32.3.8
- Provide passive air inlets (PAI) shall be located in all bedrooms not served by the HRV (if applicable). Mount 7'-0" off, min 4"x4" unobstructed vent area.
- Provide air transfer grills (2"x2") to room over crawlspace (where shown on plan)
- Provide heat source as noted in these plans and/or as per mechanical engineering drawings.
- Provide cooling source as noted in these plans and/or as per mechanical engineering drawings
- HVAC systems to conform to BCBC 9.33.6 & 9.36.3, piping as per BCBC 9.33.8
- Electrical facilities to conform to BCBC 9.34 and be provided by an approved and certified contractor.
- Structural engineering to be provided as required and as noted by a certified professional. Subsequent engineering drawings shall take precedence over these plans, and shall be read together with these drawings. Notify designer in case of any conflict.
- If applicable, heat pump to be equipped with "softstart" technology with sound output < 70dB
- These plans are designed for Climatic Zone 4, following the prescriptive compliance path unless otherwise noted.
- All electrical penetrations in insulated assemblies that pass through the plane of airtightness must be airtight and sealed to the adjacent air barrier material.
- All duct penetrations through the building envelope must have an airtight seal and be sealed to the adjacent air barrier material.
- Primary residence heat source to be ductless heat pump / electric baseboard. Mech.J cnstl. to confirm
- Cold air return locations to be determined with owner / mechanical consultant.
- Energy efficiency, and conformance to BCBC (2024) 9.36, shall be as noted within these drawings and as tested by advising professional. In case of stated RSI and performance data conflict, modelled assemblies, as provided by consulting professional, shall take precedence over the values in these drawings. Thermal energy demand intensity shall be less than or equal to 30kWh/(m2*year)
- Greenhouse Gas emissions to conform to BCBC (2024) 9.37, E13 and conform to BCBC (2024) Table 9.37.1.3, as modeled by Project Energy Advisor

PROJECT ADDRESS
287 Permitter Place
Colwood, BC

Lot 18, Section 56
Esquimalt District, Plan VIP69848

PID 024-649-732

ZONE R3
LOT AREA 20,862 H2 / 1938.1 m2

PROJECT DATA

Use Single Family Residence w/ Suite

Setbacks
Front Yard 16.28m
Rear Yard 14.10m
Side Yard Interior (W) 11.32m
Side Yard Interior (E) 3.05m

Natural Grade 53.84m
Building Height, High Roof Plane 8.48m
Avg. Finished Grade 54.37m
Basement Slab Elevation 52.85m
Bsmnt Floor Elevation, Below Avg. Fin. Grade 1.52m

Lot Coverage 3607 H2 / 335.10 m2 / 17.3%

Parking Provided, Principal Residence 2
Parking Provided, Secondary Suite 1

Floor Areas
Basement 1928 H2 / 179.12 m2
Main Floor 1928 H2 / 179.12 m2
Upper Floor 1295 H2 / 120.31 m2
Garage 542 H2 / 50.35 m2
Total Floor Area 5693 H2 / 528.90 H2

Gross Floor Area Exclusions
Area Excl. from GFA (Garage) 538 H2 / 50.00 m2
Area Excl. from GFA (Basement) 1928 H2 / 179.12 m2

Gross Floor Area 3227 H2 / 299.78 m2

FAR 0.155/1
Area Defined as Suite 760 H2 / 70.61 m2

REVISION LIST

R1.0 - May 16, 2024
Issue for Review

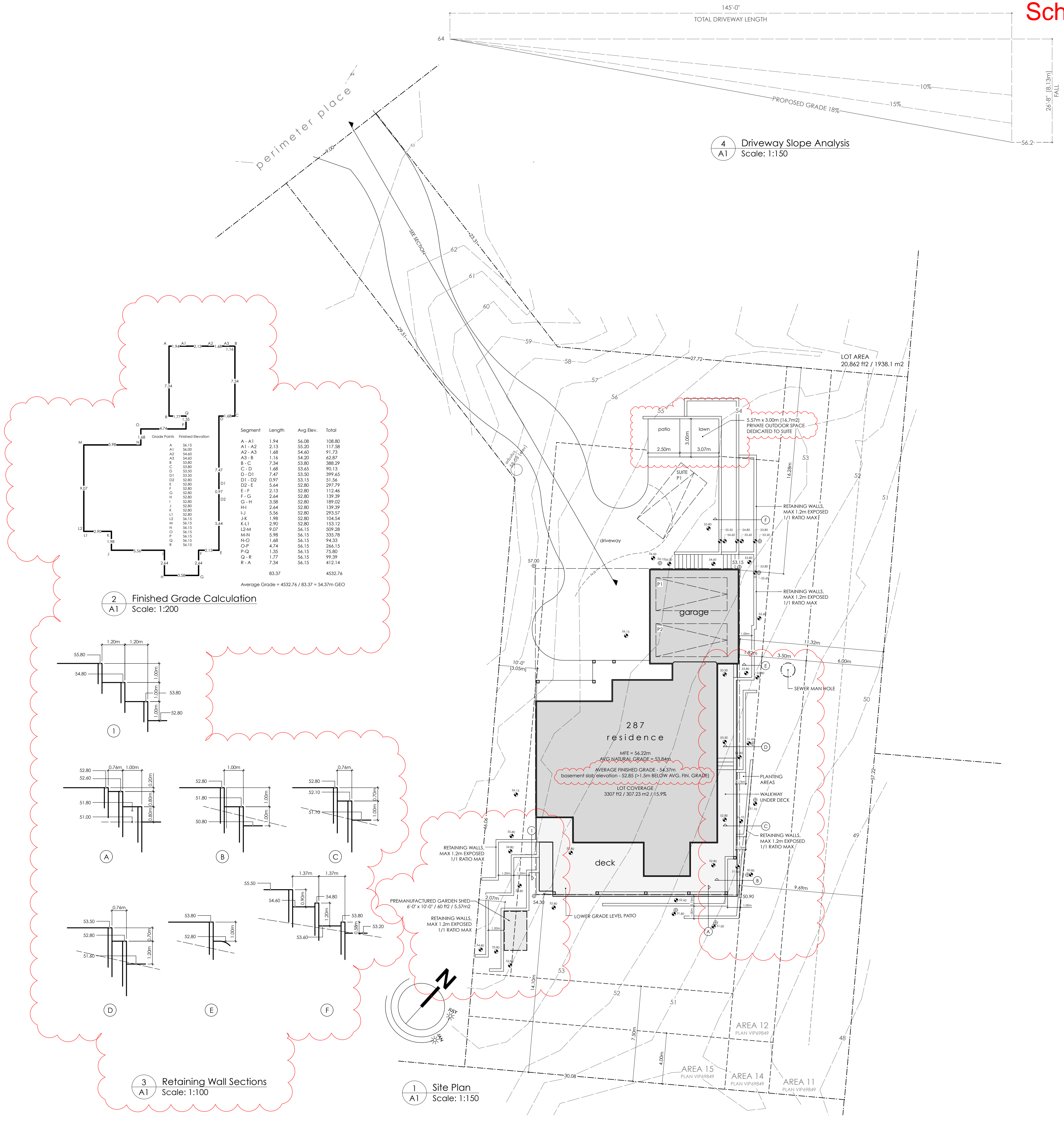
R1.1 - August 24, 2024
Issue for Building Permit

R1.2 - August 27, 2024
Issue for Building Permit (Deck Mod)

R1.3 - February 4, 2025
Re-Issue for Development Permit

DRAWING LIST

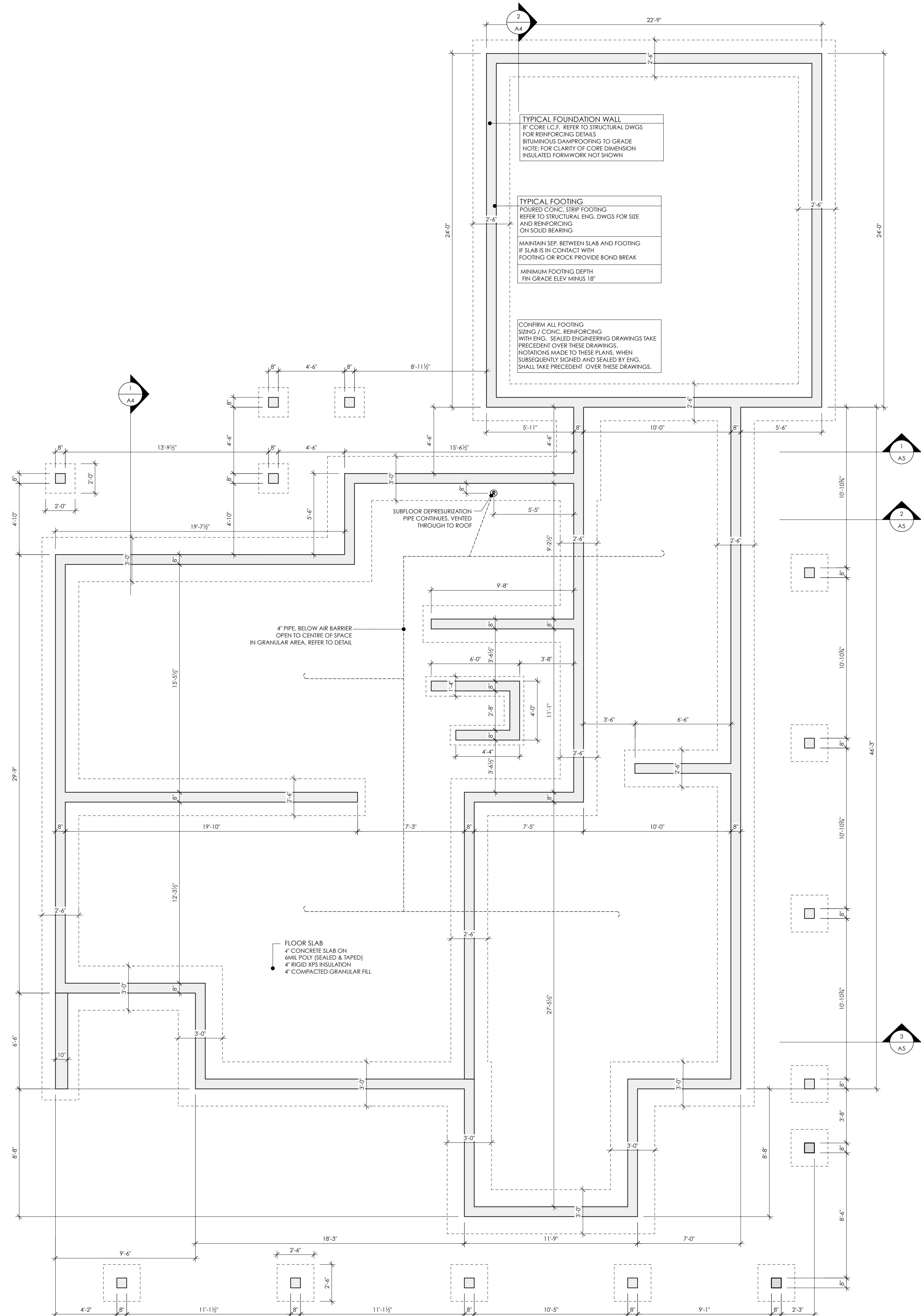
A1 Site Plan & General Notes
A2 Foundation Plan & Basement Plan
A3 Main and Upper Floor Plans
A4 Building Sections, North / South, Roof Plan
A5 Building Sections, East / West
A6 Building Elevations, North & East
A7 Building Elevations, South & West
A8 Envelope Details



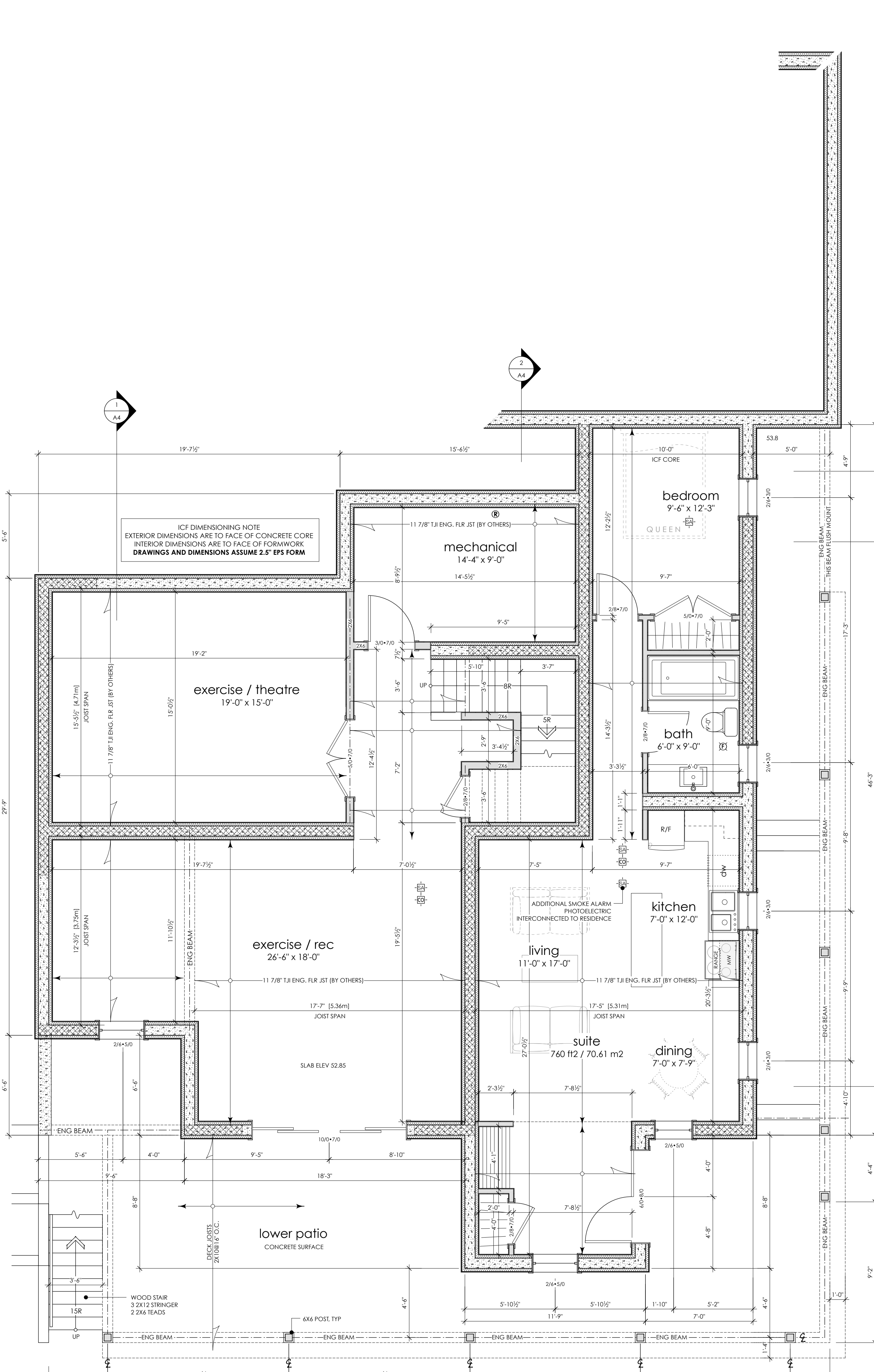
Wilson Residence
287 Permitter Place, Colwood, BC

Site & General Notes

FILE	FE3.25	SCALE	As Noted
PROJECT NO.	2409	DATE	February 4, 2025
DRAWN BY	TDR	SHEET NO.	A1
ISSUE FOR	DP	REV	1.3



1 A2 Foundation Plan Scale: 1/4" = 1'-0"

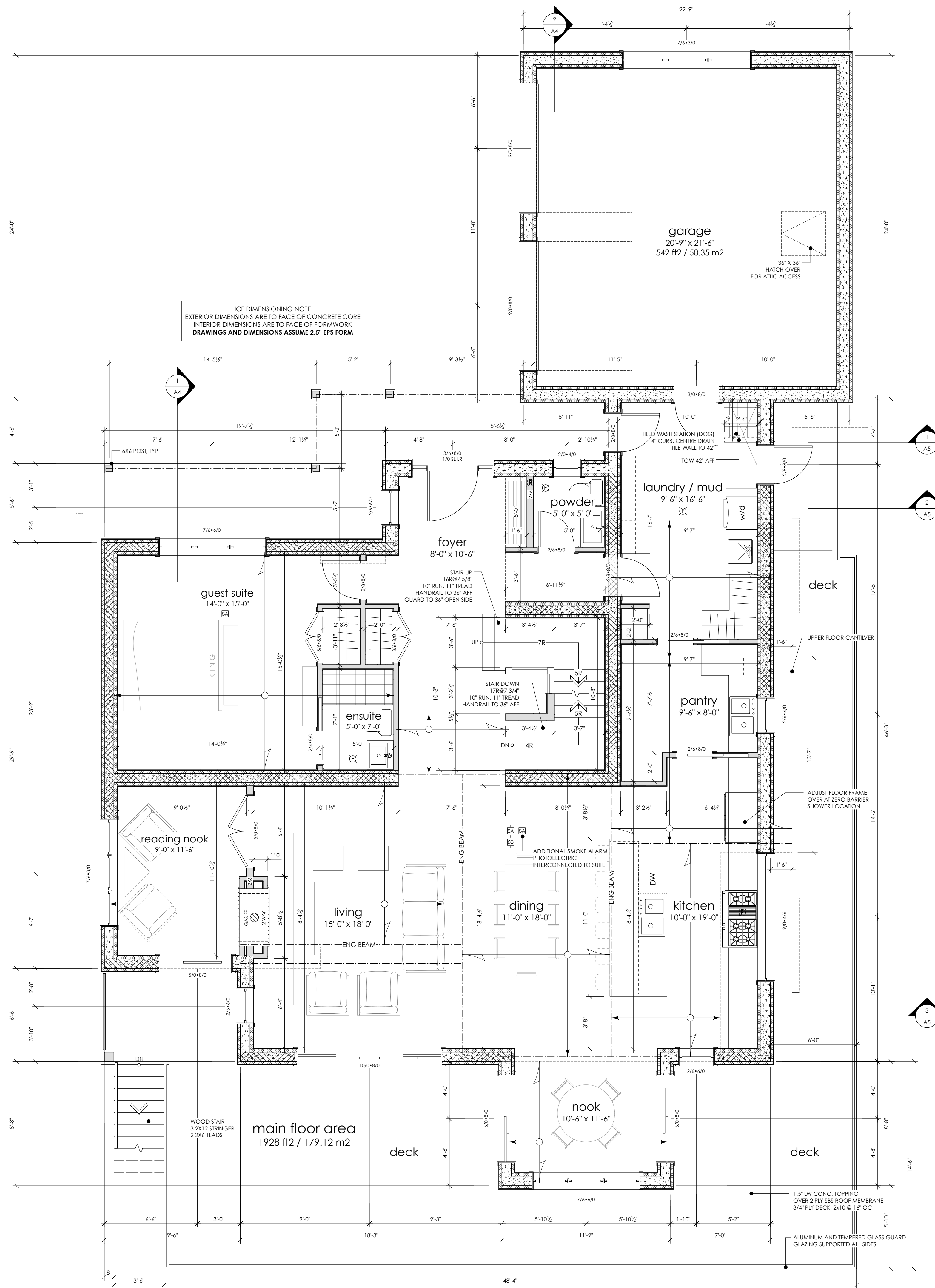


2 A2 Basement Floor Plan Scale: 1/4" = 1'-0"

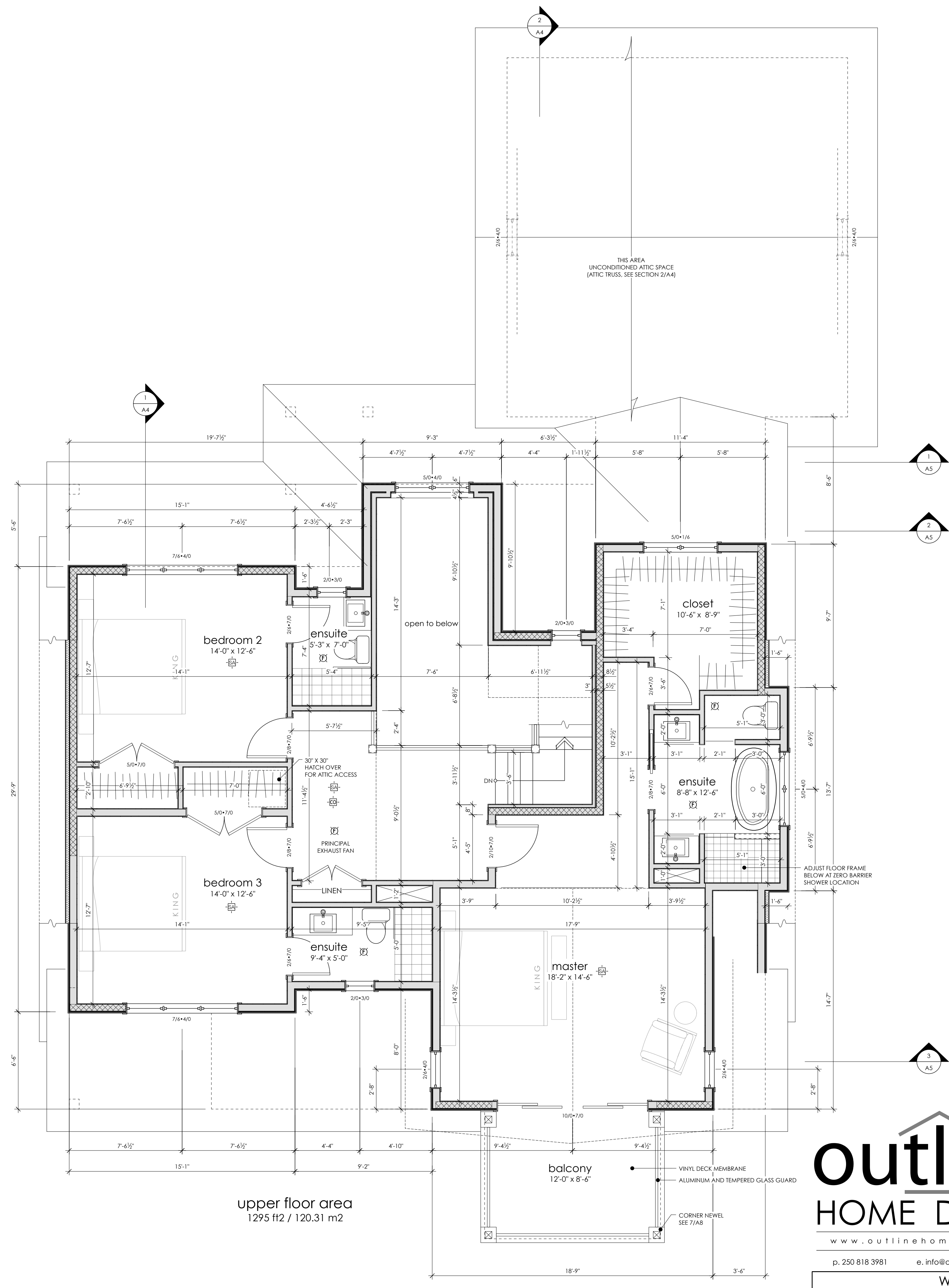
outline
 HOME DESIGN
 www.outlinehomedesign.com
 p. 250 818 3981 e. info@outlinehomedesign.com

Wilson Residence
 287 Permiter Place, Colwood, BC

TITLE	Foundation & Basement Plan
FILE	FE3.25
PROJECT NO.	2409
DRAWN BY	TDR
ISSUE FOR	DP
SCALE	As Noted
DATE	February 4, 2025
SHEET NO.	A2
REV.	1.3



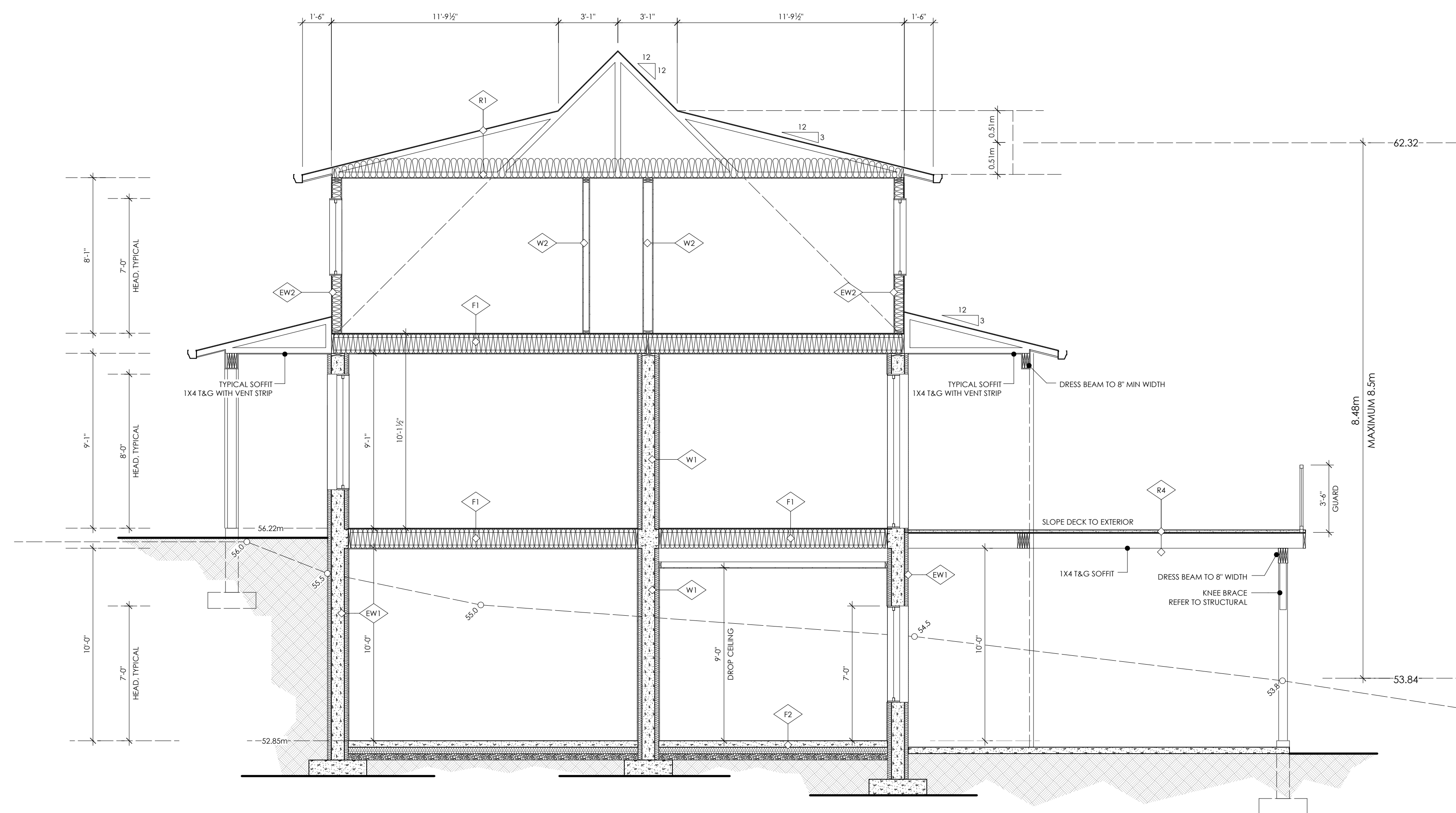
1 Main Floor Plan
Scale: 1/4" = 1'-0"



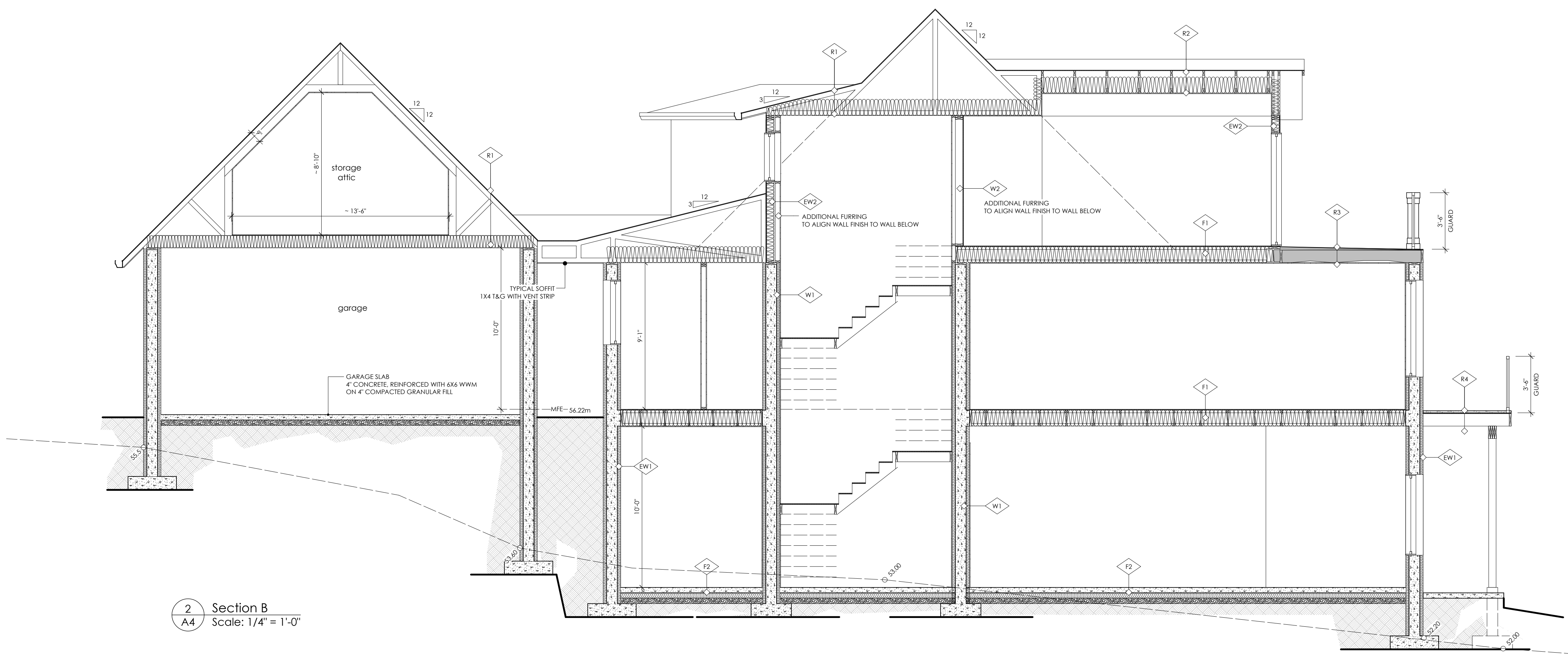
2 Upper Floor Plan
Scale: 1/4" = 1'-0"

Wilson Residence		
287 Permitter Place, Colwood, BC		
TITLE	Main & Upper Floor Plans	
FILE	FE3.25	SCALE As Noted
PROJECT NO.	2409	DATE February 4, 2025
DRAWN BY	TDR	SHEET NO.
ISSUE FOR	DP	REV. A3

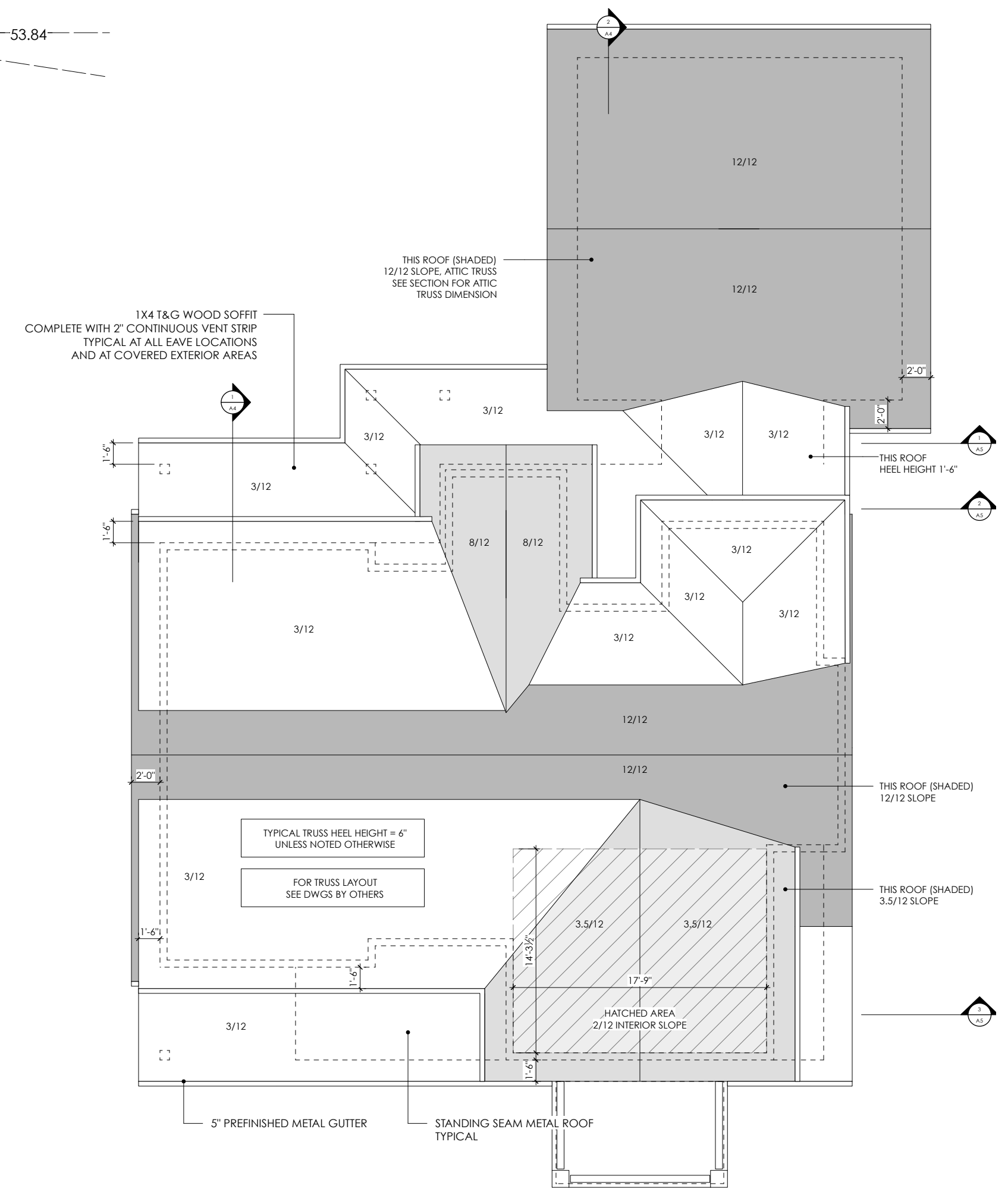
Assembly Schedule	
EW1 TYPICAL EXTERIOR WALL, ICF EXTERIOR FINISH (SEE ELEVATIONS) SHEATHING MEMBRANE (TYVEK OR EQUIV) 2.5" EPS INSULATION (ICF FORM) 8" REINFORCED CONCRETE CORE 2.5" EPS INSULATION (ICF FORM) 1/2" GWB	W1 TYPICAL INTERIOR WALL, ICF 1/2" GWB 2.5" EPS INSULATION (ICF FORM) 8" REINFORCED CONCRETE CORE 2.5" EPS INSULATION (ICF FORM) 1/2" GWB
EW2 TYPICAL EXTERIOR WALL, WOOD FRAMED EXTERIOR FINISH (SEE ELEVATIONS) 3/8" P.T. STRAPPING @ 16" O.C. SHEATHING MEMBRANE (TYVEK OR EQUIV) 2X6@24" O.C. STUD FRAME R24 BATT INSULATION 6MIL POLY. 1/2" GWB	W2 TYPICAL INTERIOR WALL, WOOD FRAMED 1/2" GWB 2X4 (OR 2X6 WHERE NOTED) @ 16" O.C. STUD FRAME PROVIDE BATT INSULATION TO FILL CAVITY AT ALL BEDROOM / BATHROOM PARTITIONS 1/2" GWB
R1 TYPICAL ROOF ASSEMBLY ASPHALT SHINGLE ROOFING UNDERLAYMENT WP MEMBRANE EXTENDS 36" FROM EAVE 1/2" PLYWOOD ROOF SHEATHING ENG ROOF TRUSS @ 24" O.C. 14" BLOWN IN CELLULOSE INSULATION (R54) VENT ATTIC 1/300 VIA SOFFIT / RIDGE 6MIL POLY. 1/2" GWB TO INT. AREAS	F1 TYPICAL FLOOR ASSEMBLY FINISH FLOORING 5/8" PLY SUBFLOOR, T&G, G/S 11 7/8" ENGINEERED FLOOR JOIST 1/2" GWB BATT INSULATION TO FILL CAVITY AT OWNERS SPEC.
R2 CATHEDRAL ROOF ASSEMBLY ASPHALT SHINGLE ROOFING UNDERLAYMENT WP MEMBRANE EXTENDS 36" FROM EAVE 1/2" PLYWOOD ROOF SHEATHING ENG ROOF TRUSS @ 24" O.C. 10" BATT INSULATION (R30) VENT ATTIC 1/300 VIA SOFFIT / RIDGE 6MIL POLY. 1/2" GWB TO INT. AREAS	F2 TYPICAL FLOOR SLAB FINISH FLOORING, UNDERLAYMENT 4" CONCRETE SLAB 6 MIL POLYETHYLENE 4" RIGID XPS INSULATION 4" COMPACTED GRANULAR FILL
R3 DECK OVER LIVING SPACE VINYL DECK MEMBRANE 3/4" PLY DECK SHEATHING 2X10@16" O.C. 8" MINIMUM 2LB CLOSED CELL SPRAY FOAM INSULATION 1/2" GWB	F3 FLOOR ASSEMBLY, OVER SUITE FINISH FLOORING 5/8" PLY SUBFLOOR, T&G, G/S 11 7/8" ENGINEERED FLOOR JOIST PREFORMED MINERAL FIBRE INSULATION TO FILL CAVITY RESILIENT METAL CHANNELS @ 24" O.C. 1/2" GWB
R4 DECK OVER UNCONDITIONED SPACE 1.5" LW CONCRETE TOPPING OR 2X4@24" CONCRETE PAVEN ON ADJ. PEDASTAL 2 PLY S8S ROOF MEMBRANE 3/4" PLY DECK, 2X10@16" O.C., DECK JOIST 1X4 T&G SOFFIT (OR EQUIV)	



1 Section A
A4 Scale: 1/4" = 1'-0"

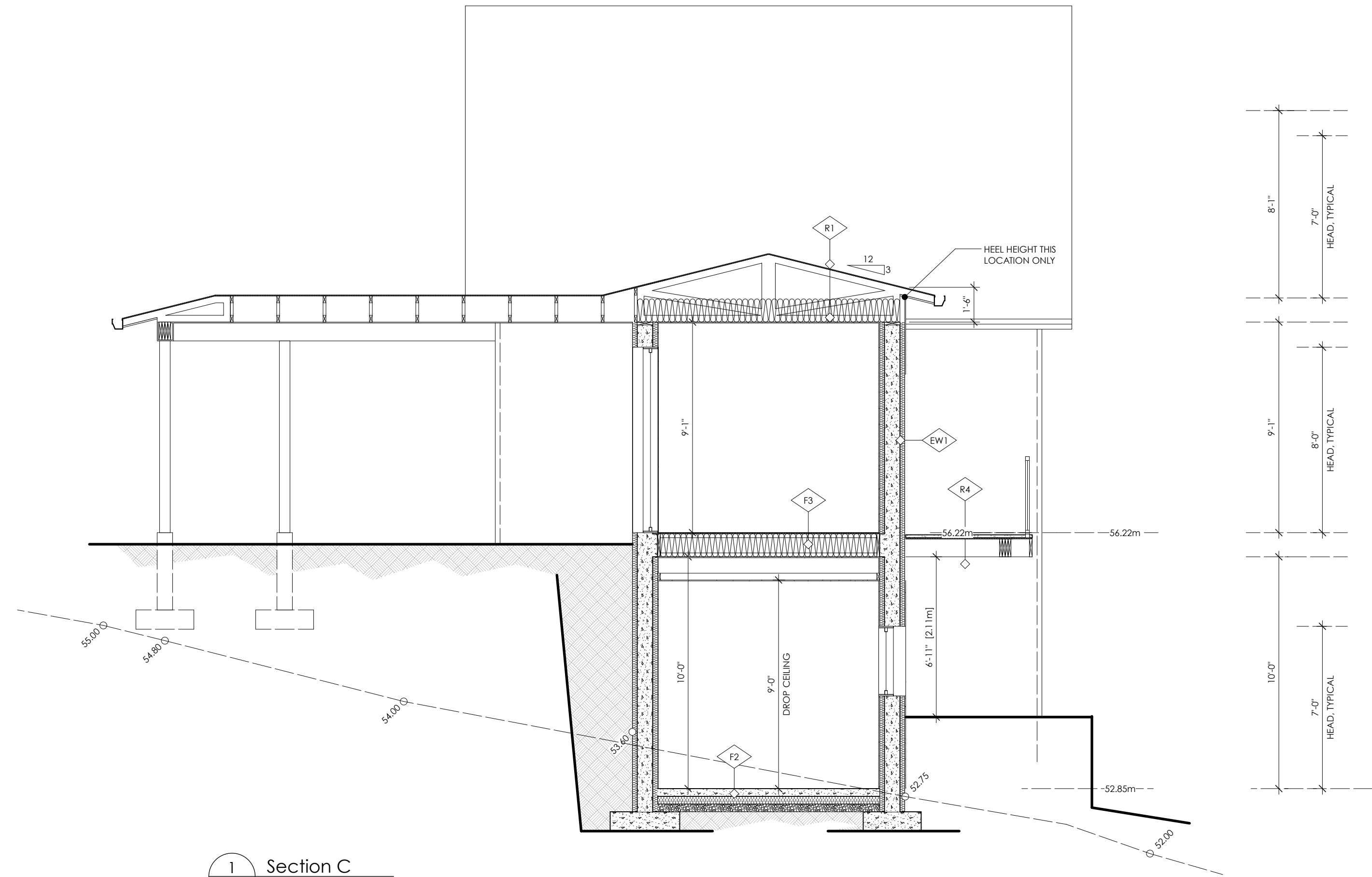


2 Section B
A4 Scale: 1/4" = 1'-0"

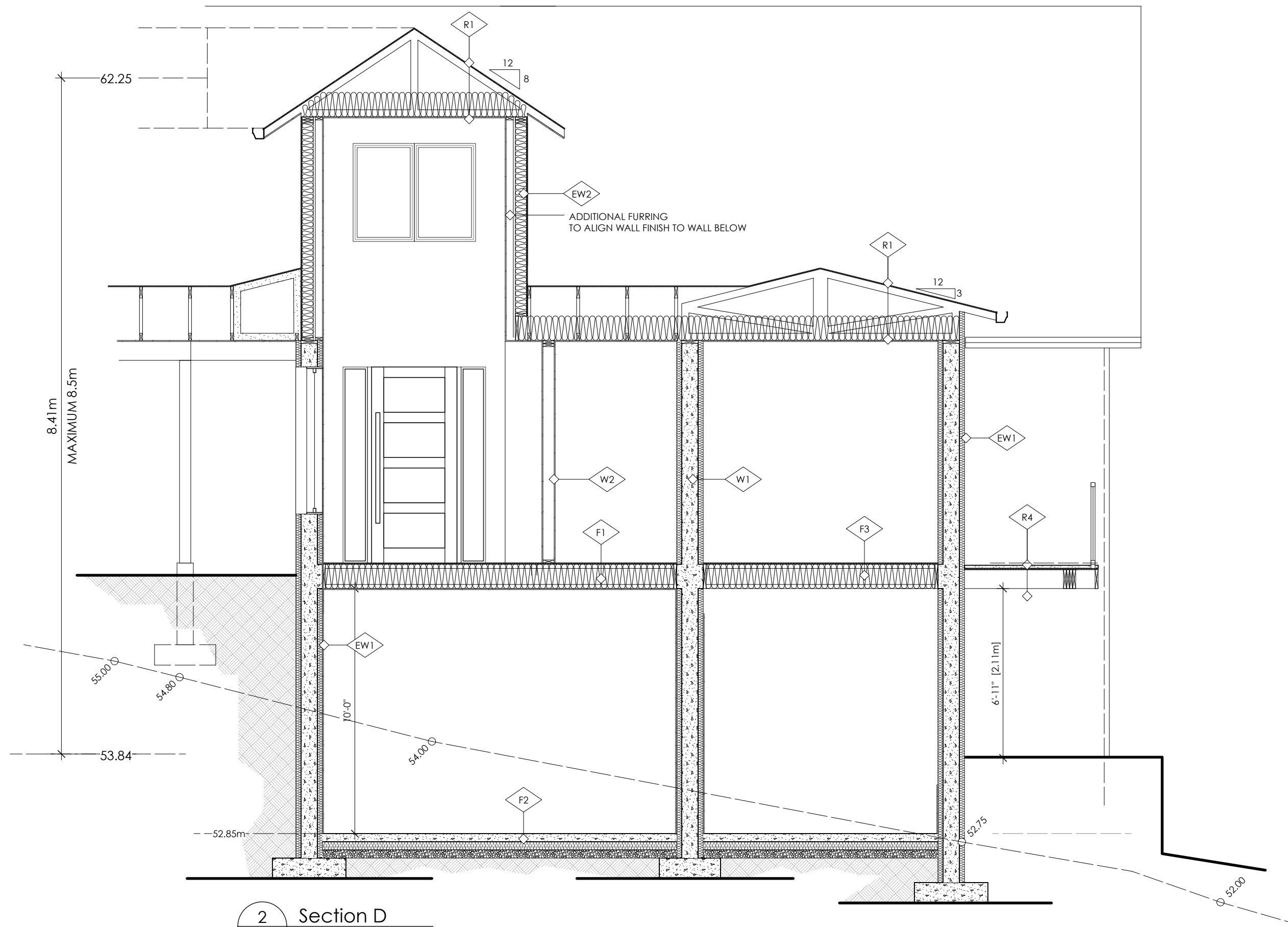


3 Roof Plan
A4 Scale: 1/8" = 1'-0"

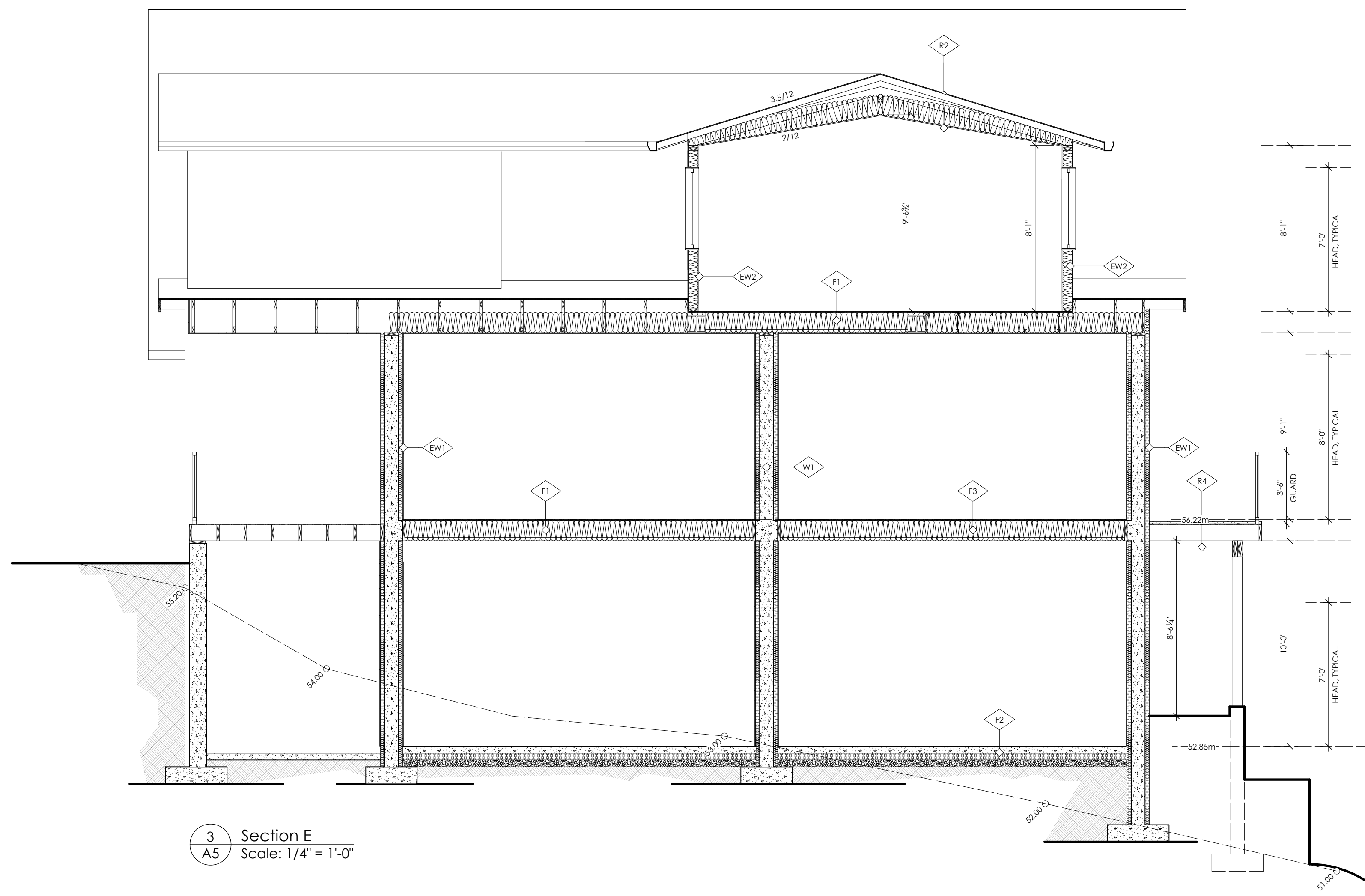
Wilson Residence			
287 Perimeter Place, Colwood, BC			
TITLE	Sections (North/South), Roof	SCALE	As Noted
FILE	FE3.25	DATE	February 4, 2025
PROJECT NO.	2409	SHEET NO.	A4
DRAWN BY	TDR	REV.	1.3
ISSUE FOR	DP		



1 Section C
A5 Scale: 1/4" = 1'-0"



2 Section D
A5 Scale: 1/4" = 1'-0"



3 Section E
A5 Scale: 1/4" = 1'-0"

Assembly Schedule

EW1 TYPICAL EXTERIOR WALL, ICF EXTERIOR FINISH (SEE ELEVATIONS) SHEATHING MEMBRANE (TYVEK OR EQUIV) 2.5" EPS INSULATION (ICF FORM) 8" REINFORCED CONCRETE CORE 2.5" EPS INSULATION (ICF FORM) 1/2" GWB	W1 TYPICAL INTERIOR WALL, ICF 1/2" GWB 2.5" EPS INSULATION (ICF FORM) 8" REINFORCED CONCRETE CORE 2.5" EPS INSULATION (ICF FORM) 1/2" GWB
EW2 TYPICAL EXTERIOR WALL, WOOD FRAMED EXTERIOR FINISH (SEE ELEVATIONS) 3/8" P.I. STRAPPING @ 16" O.C. SHEATHING MEMBRANE (TYVEK OR EQUIV) 2x6@24" O.C. STUD FRAME R24 BATT INSULATION 6MIL POLY, 1/2" GWB	W2 TYPICAL INTERIOR WALL, WOOD FRAMED 1/2" GWB 2x4 (OR 2x6 WHERE NOTED) @ 16" O.C. STUD FRAME PROVIDE BATT INSULATION TO FILL CAVITY AT ALL BEDROOM / BATHROOM PARTITIONS 1/2" GWB
R1 TYPICAL ROOF ASSEMBLY ASPHALT SHINGLE ROOFING UNDERLAYMENT WP MEMBRANE EXTENDS 36" FROM EAVE 1/2" PLYWOOD ROOF SHEATHING ENG ROOF TRUSS @ 24" O.C. 14" BLOWN IN CELLULOSE INSULATION (R54) VENT ATTIC 1/300 VIA SOFFIT / RIDGE 6MIL POLY, 1/2" GWB TO INT. AREAS	F1 TYPICAL FLOOR ASSEMBLY FINISH FLOORING 5/8" PLY SUBFLOOR, T&G, G/S 11 7/8" ENGINEERED FLOOR JOIST 1/2" GWB BATT INSULATION TO FILL CAVITY AT OWNERS SPEC.
R2 CATHEDRAL ROOF ASSEMBLY ASPHALT SHINGLE ROOFING UNDERLAYMENT WP MEMBRANE EXTENDS 36" FROM EAVE 1/2" PLYWOOD ROOF SHEATHING ENG ROOF TRUSS @ 24" O.C. 10" BATT INSULATION (R30) VENT ATTIC 1/300 VIA SOFFIT / RIDGE 6MIL POLY, 1/2" GWB TO INT. AREAS	F2 TYPICAL FLOOR SLAB FINISH FLOORING, UNDERLAYMENT 4" CONCRETE SLAB 6 MIL POLYETHYLENE 4" RIGID XPS INSULATION 4" COMPACTED GRANULAR FILL
R3 DECK OVER LIVING SPACE 1" W/ CONCRETE TOPPING OR 24"x24"x1" CONCRETE PAVER ON ADJ. PEDASTAL 2 PLY 5/8" ROOF MEMBRANE 3/4" PLY DECK, 2x10@16" O.C. DECK JOIST 1x4 T&G SOFFIT (OR EQUIV)	F3 FLOOR ASSEMBLY, OVER SUITE FINISH FLOORING 5/8" PLY SUBFLOOR, T&G, G/S 11 7/8" ENGINEERED FLOOR JOIST PREFORMED MINERAL FIBRE INSULATION TO FILL CAVITY RESILIENT METAL CHANNELS @ 24" O.C. 1/2" GWB
R4 DECK OVER UNCONDITIONED SPACE 1" W/ CONCRETE TOPPING OR 24"x24"x1" CONCRETE PAVER ON ADJ. PEDASTAL 2 PLY 5/8" ROOF MEMBRANE 3/4" PLY DECK, 2x10@16" O.C. DECK JOIST 1x4 T&G SOFFIT (OR EQUIV)	

Wilson Residence 287 Perimeter Place, Colwood, BC			
TITLE	Sections (East - West)	SCALE	As Noted
FILE	FE3.25	DATE	February 4, 2025
PROJECT NO.	2409	SHEET NO.	A5
DRAWN BY	TDR	REV.	1.3
ISSUE FOR	DP		



finish materials

MATERIAL	MNFR	COLOUR	NOTE
STANDING SEAM ROOF		DARK GRAPHITE	CONFIRM COLOUR WITH OWNER
K' STYLE METAL GUTTER		DARK GRAPHITE	
METAL FLASHINGS		DARK GRAPHITE	
B/B SIDING	BENJAMIN MOORE	OC-117 SIMPLY WHITE	
CASING AND TRIM	BENJAMIN MOORE	OC-117 SIMPLY WHITE	
WINDOWS		WHITE VINYL CLADDING DARK GRAPHITE	
ENTRY DOOR	SIKKENS	BUTTERNUT	
VINYL DECK	DURA DECK	FLINT	
SOFFIT		OC-117 SIMPLY WHITE	PERFORATED, EXCEPT WHERE NOTED OTHERWISE.
RAILING (ALUMINUM)		WHITE	

finish legend

- | | | |
|---|---|---|
| 1 STANDING SEAM METAL ROOF | 8 COLUMN DRESSED TO 8"x8"
1x6 BASE / CAP, CEMENT BOARD | 14 OVERHEAD DOOR
ALUMINUM / TEMPERED (FROSTED) GLASS |
| 2 5" K' STYLE METAL GUTTER | 9 ALUMINUM & TEMPERED GLASS GUARD
TO 42" AFF | 15 WOOD STAIR
PAINT FINISH TO TRIM COLOUR |
| 3 1X3 ON 2X10 FASCIA
CEMENT FIBRE BOARD | 10 VINYL DECK MEMBRANE | 16 EXTERIOR LIGHT FIXTURE
DOWNCAST |
| 4 FLASHING OVER 2X10
BARGE BOARD | 11 ALUMINUM CLAD
VINYL WINDOW ASSEMBLY | 17 4X6 STRUCTURAL KNEE BRACE |
| 5 5.5" PROFILE CORNER CASING | 12 PATIO DOOR ASSEMBLY
TEMPERED GLASS, FIBREGLOSS | 18 LOUVERED GABLE END VENT |
| 6 BOARD & BATTEN SIDING
1.5/12, CEMENT BOARD | 13 ENTRY DOOR, SIDELIGHT ASSEMBLY
STAINED WOOD | |
| 7 BOARD & BATTEN SIDING
3.5/24, CEMENT BOARD | | |

TYPICAL WINDOW CASING
FLASHING OVER 2X6 HEAD
2X6 JAMB
2X4 OVER 2X4 SILL CASING

1 North Elevation
Scale: 1/4" = 1'-0"



16 EXTERIOR LIGHT FIXTURES
PATH LIGHTING TO SUITE
DOWNCAST AND LOW GLARE LIGHTING TYPICAL

East Facade
Limiting Distance = 11.32m (10.0m used for calculation)
Area of Exposing Building Face = 1820 ft² / 169.08 m²
Allowable area of Glazed Openings @ 84% = 1528.8 ft² / 142.03 m²
Proposed area of Glazed Openings = 176 ft² / 16.35 m²

2 East Elevation
A6 Scale: 1/4" = 1'-0"

outline
HOME DESIGN

www.outlinehomedesign.com

p. 250 818 3981 e. info@outlinehomedesign.com

Wilson Residence 287 Permitter Place, Colwood, BC			
TITLE	Elevations (North & East)		
FILE	FE3.25	SCALE	As Noted
PROJECT NO.	2409	DATE	August 27, 2024
DRAWN BY	TDR	SHEET NO.	A6
ISSUE FOR	DP	REV.	1.3



1 South Elevation
A7 Scale: 1/4" = 1'-0"

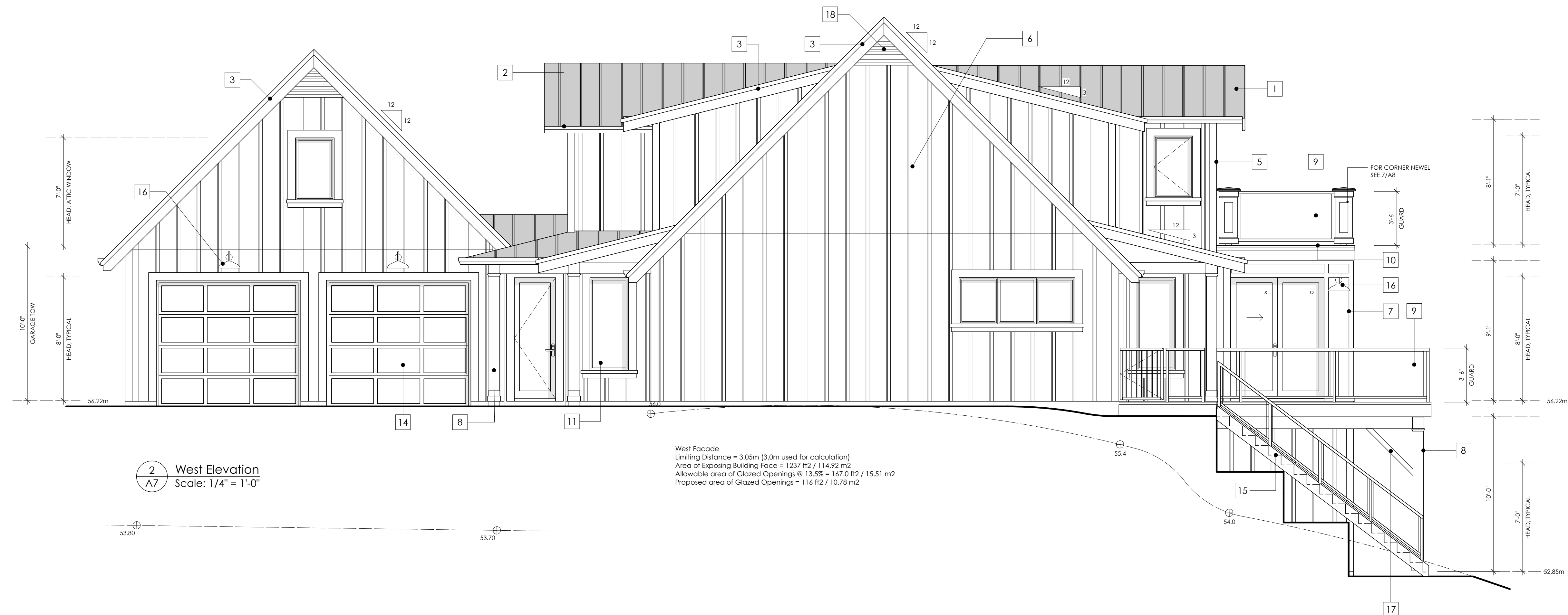
finish materials

MATERIAL	MNFR	COLOUR	NOTE
STANDING SEAM ROOF		DARK GRAPHITE	CONFIRM COLOUR WITH OWNER
'K' STYLE METAL GUTTER		DARK GRAPHITE	
METAL FLASHINGS		DARK GRAPHITE	
B/B SIDING	BENJAMIN MOORE	OC-117 SIMPLY WHITE	
CASING AND TRIM	BENJAMIN MOORE	OC-117 SIMPLY WHITE	
WINDOWS		WHITE VINYL CLADDING DARK GRAPHITE	
ENTRY DOOR	SIKKENS	BUTTERNUT	
VINYL DECK	DURA DECK	FLINT	
SOFFIT		OC-117 SIMPLY WHITE	PERFORATED, EXCEPT WHERE NOTED OTHERWISE.
RAILING (ALUMINIUM)		WHITE	

finish legend

1 STANDING SEAM METAL ROOF	8 COLUMN DRESSED TO 8"X8" 1X6 BASE / CAP, CEMENT BOARD	14 OVERHEAD DOOR ALUMINIUM / TEMPERED (FROSTED) GLASS
2 5" 'K' STYLE METAL GUTTER	9 ALUMINIUM & TEMPERED GLASS GUARD TO 42" AFF	15 WOOD STAIR PAINT FINISH TO TRIM COLOUR
3 1X3 ON 2X10 FASCIA CEMENT FIBRE BOARD	10 VINYL DECK MEMBRANE	16 EXTERIOR LIGHT FIXTURE DOWNCAST
4 FLASHING OVER 2X10 BARGE BOARD	11 ALUMINIUM CLAD VINYL WINDOW ASSEMBLY	17 4X6 STRUCTURAL KNEE BRACE
5 5.5" PROFILE CORNER CASING	12 PATIO DOOR ASSEMBLY TEMPERED GLASS, FIBREGLASS	18 LOUVERED GABLE END VENT
6 BOARD & BATTEN SIDING 1.5/12, CEMENT BOARD	13 ENTRY DOOR, SIDELIGHT ASSEMBLY STAINED WOOD	
7 BOARD & BATTEN SIDING 3.5/24, CEMENT BOARD		

TYPICAL WINDOW CASING
FLASHING OVER 2X6 HEAD
2X6 JAMB
2X4 OVER 2X4 SILL CASING



2 West Elevation
A7 Scale: 1/4" = 1'-0"

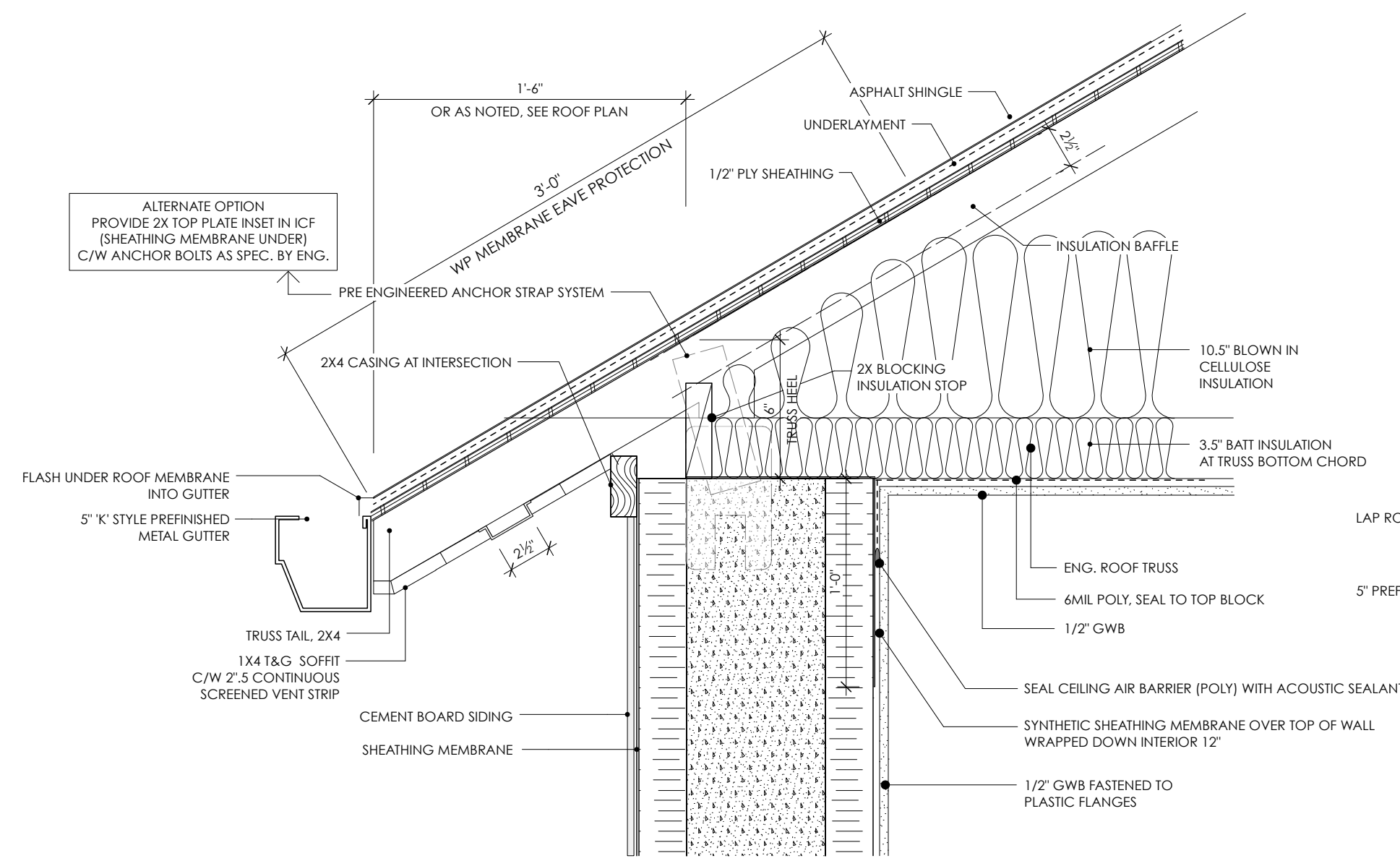
West Facade
Limiting Distance = 3.05m (3.0m used for calculation)
Area of Exposing Building Face = 1237 ft² / 114.92 m²
Allowable area of Glazed Openings @ 13.5% = 167.0 ft² / 15.51 m²
Proposed area of Glazed Openings = 116 ft² / 10.78 m²

outline
HOME DESIGN

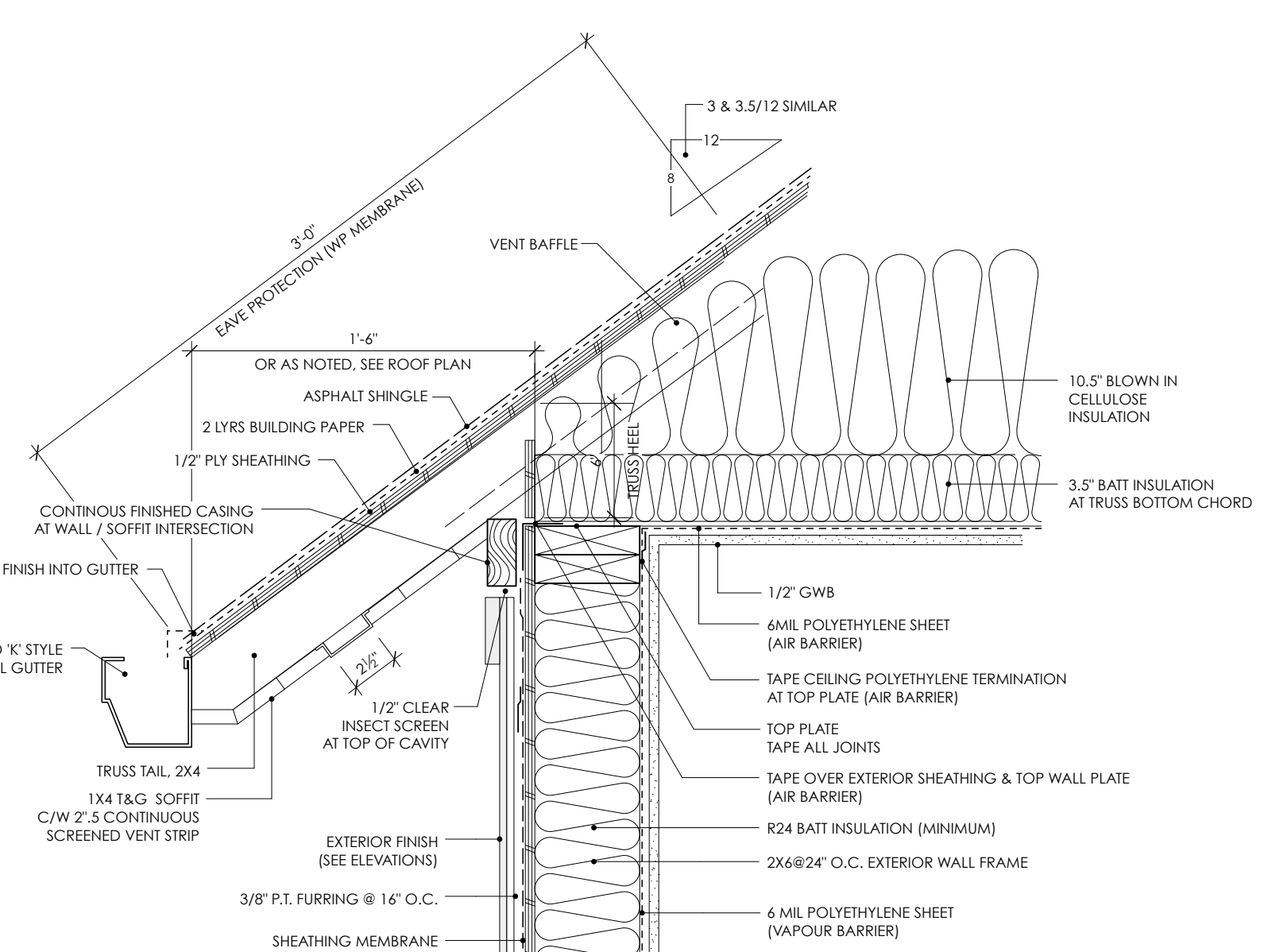
www.outlinehomedesign.com

p. 250 818 3981 e. info@outlinehomedesign.com

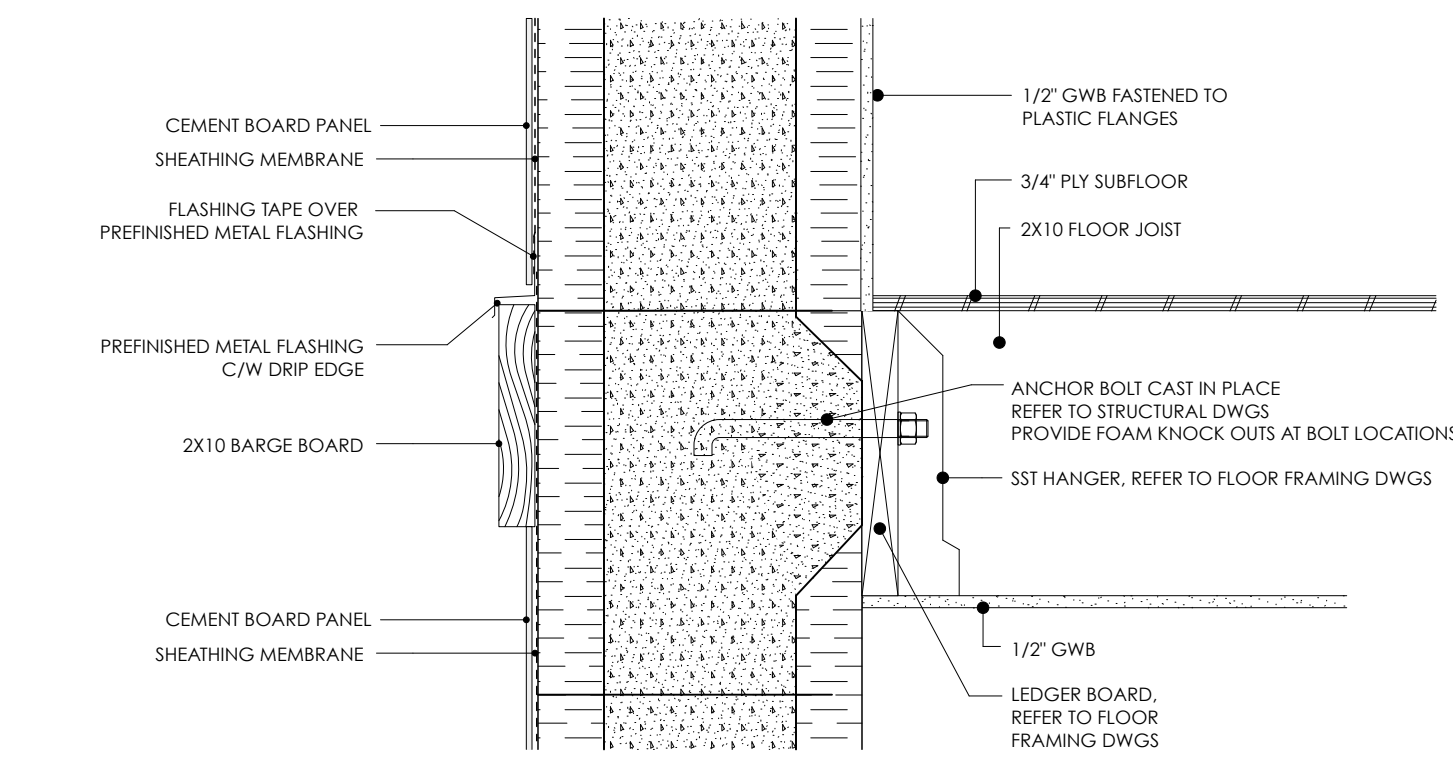
Wilson Residence 287 Perimeter Place, Colwood, BC			
TITLE	Elevations (North & East)		
FILE	FE3.25	SCALE	As Noted
PROJECT NO.	2409	DATE	August 27, 2024
DRAWN BY	TDR	SHEET NO.	
ISSUE FOR	DP	REV.	A7



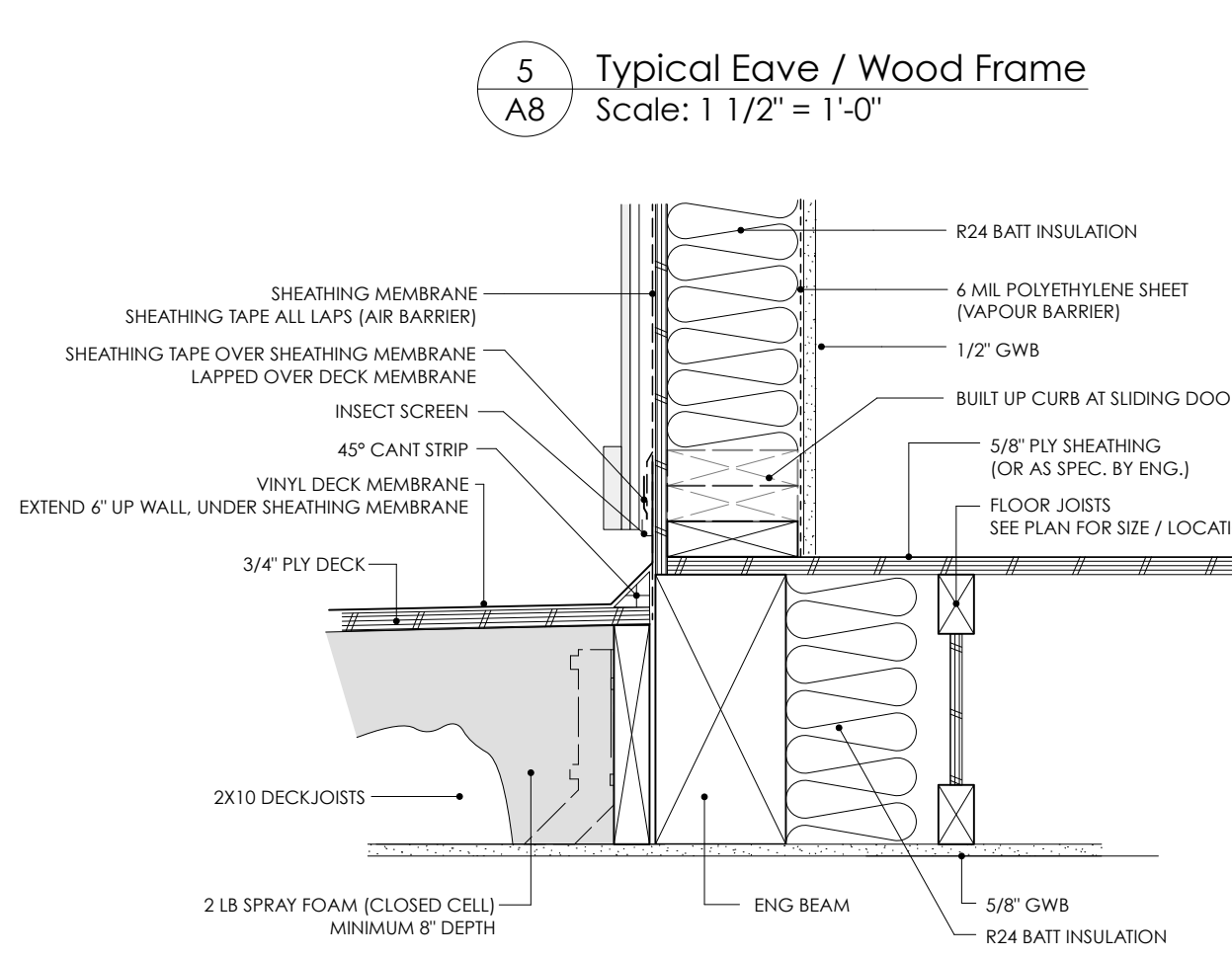
1 Typical Eave / ICF
Scale: 1 1/2" = 1'-0"



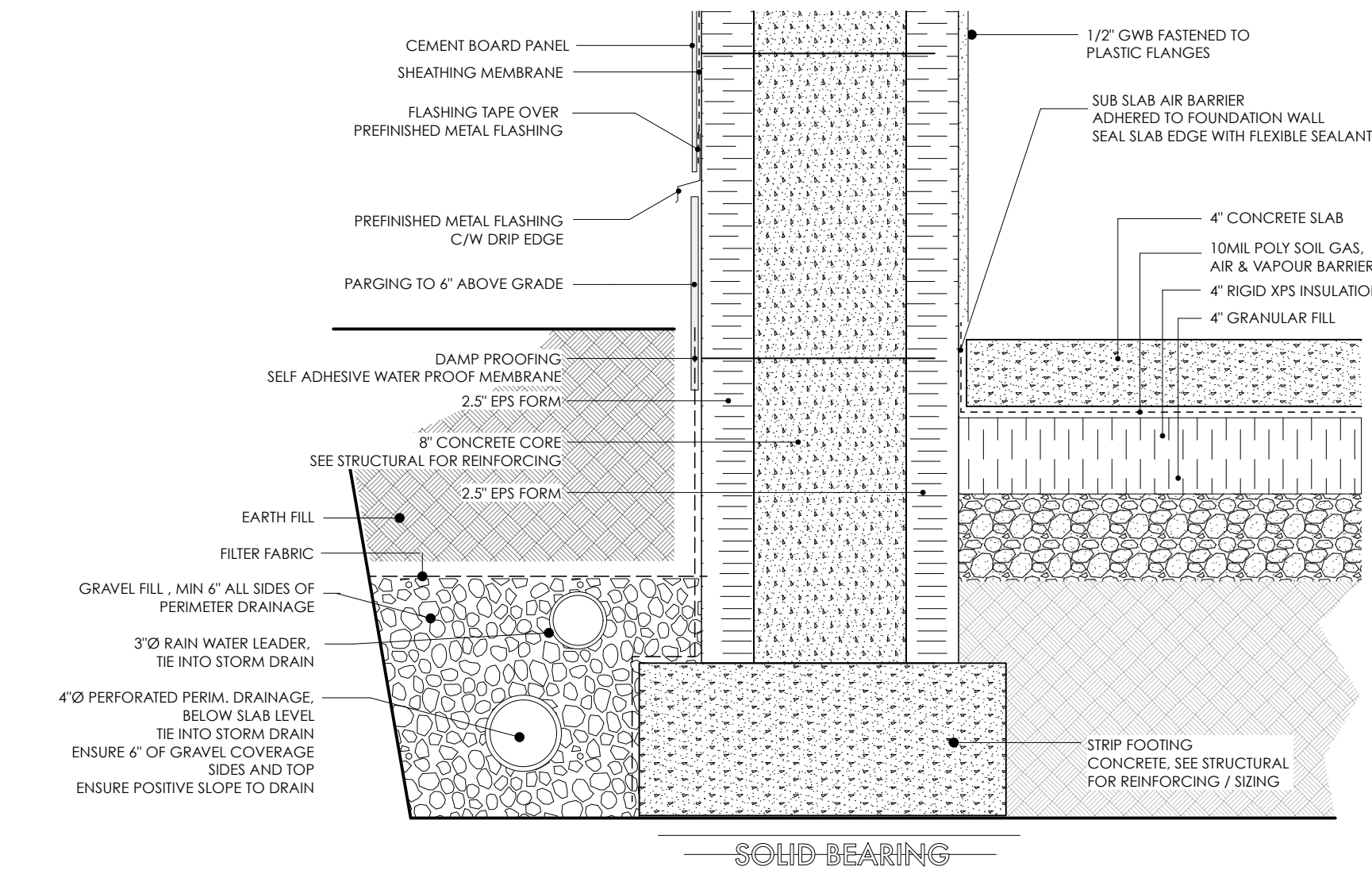
5 Typical Eave / Wood Frame
Scale: 1 1/2" = 1'-0"



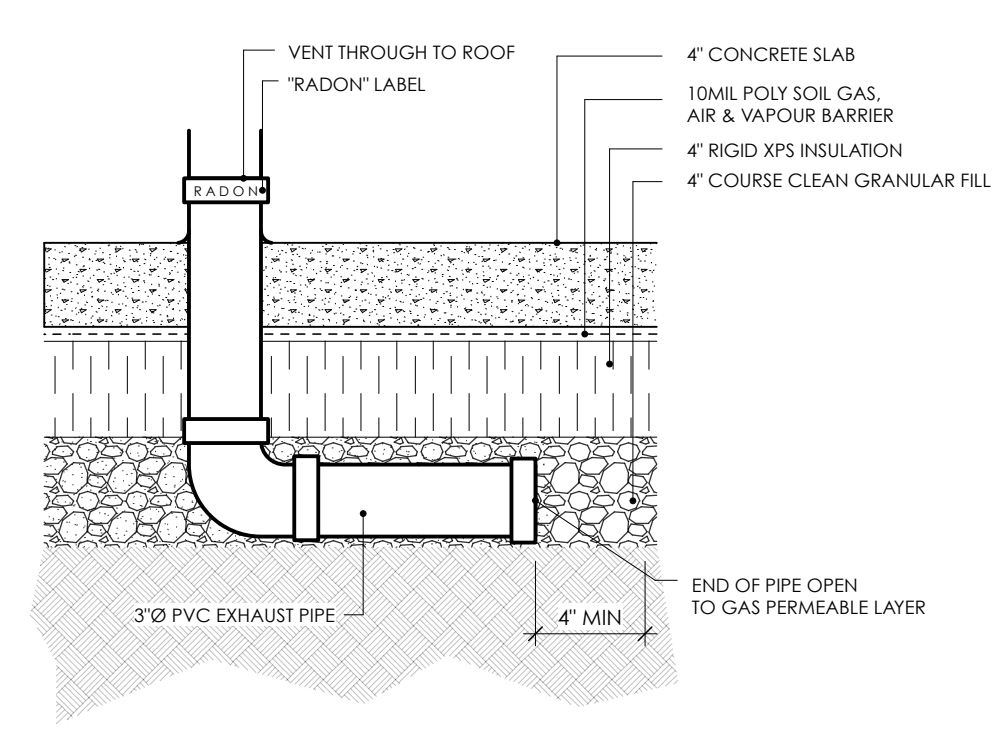
2 Typical Floor / Wall Intersection
Scale: 1 1/2" = 1'-0"



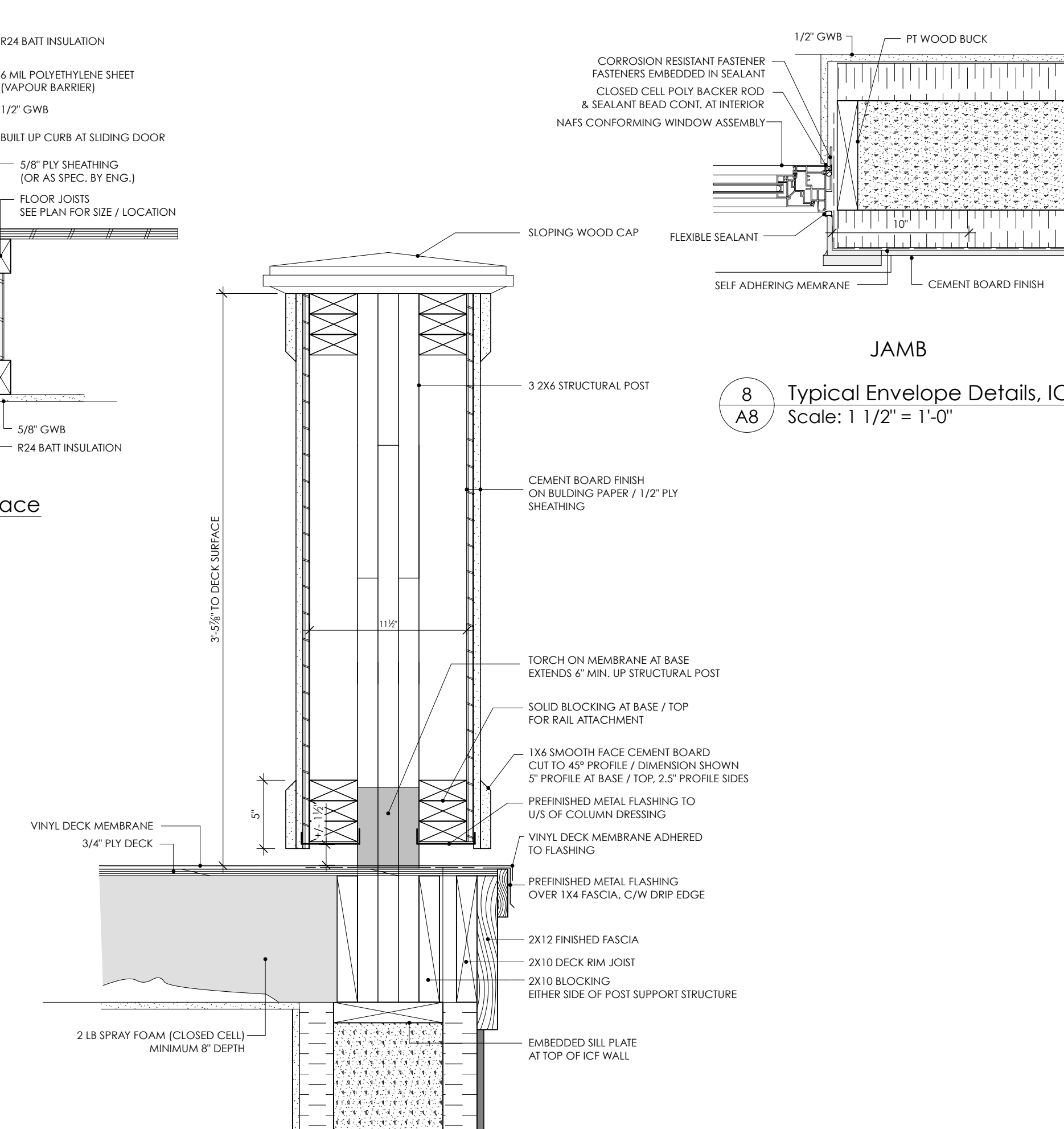
6 Deck Over Living Space
Scale: 1 1/2" = 1'-0"



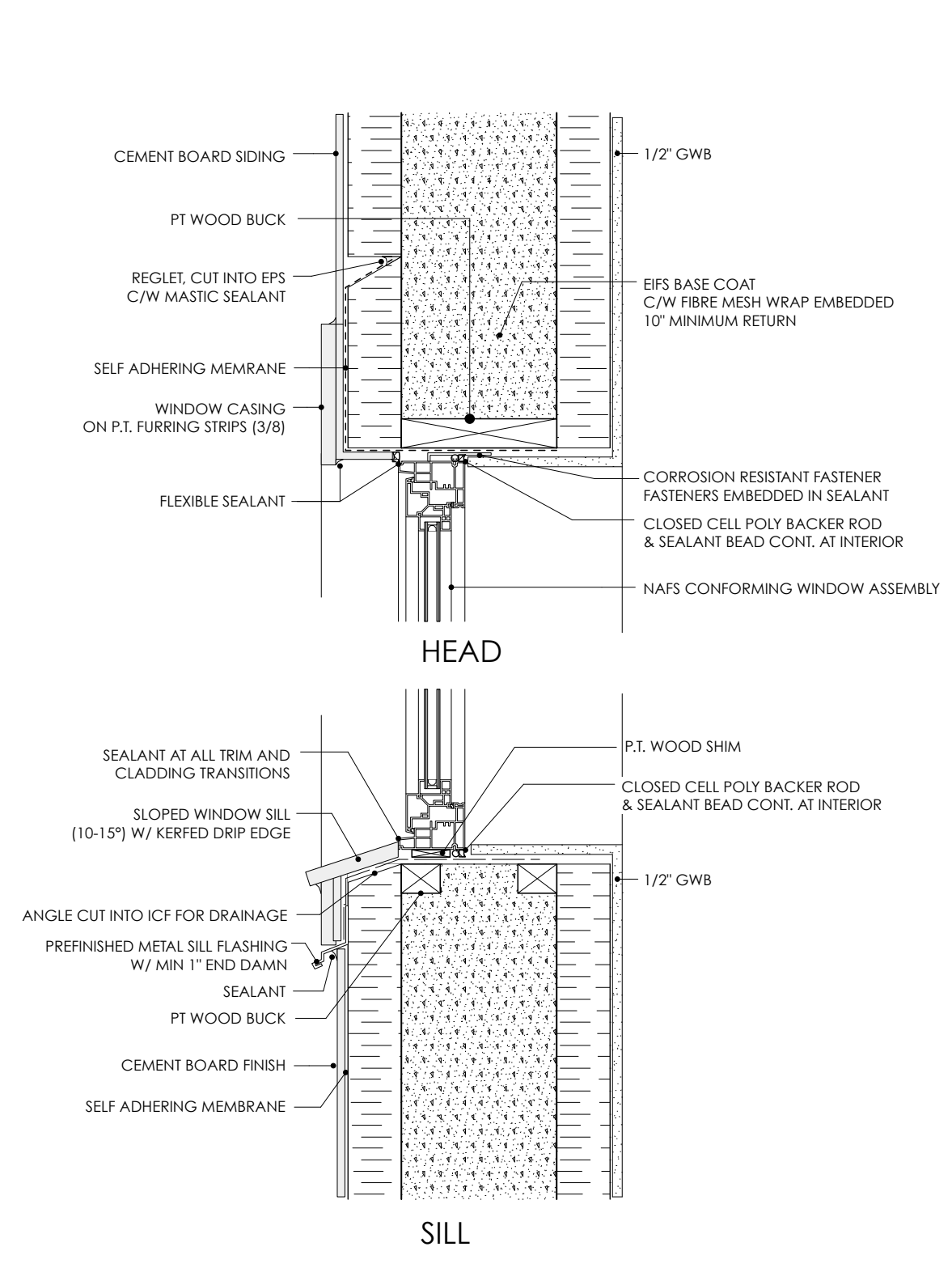
3 Typical Foundation
Scale: 1 1/2" = 1'-0"



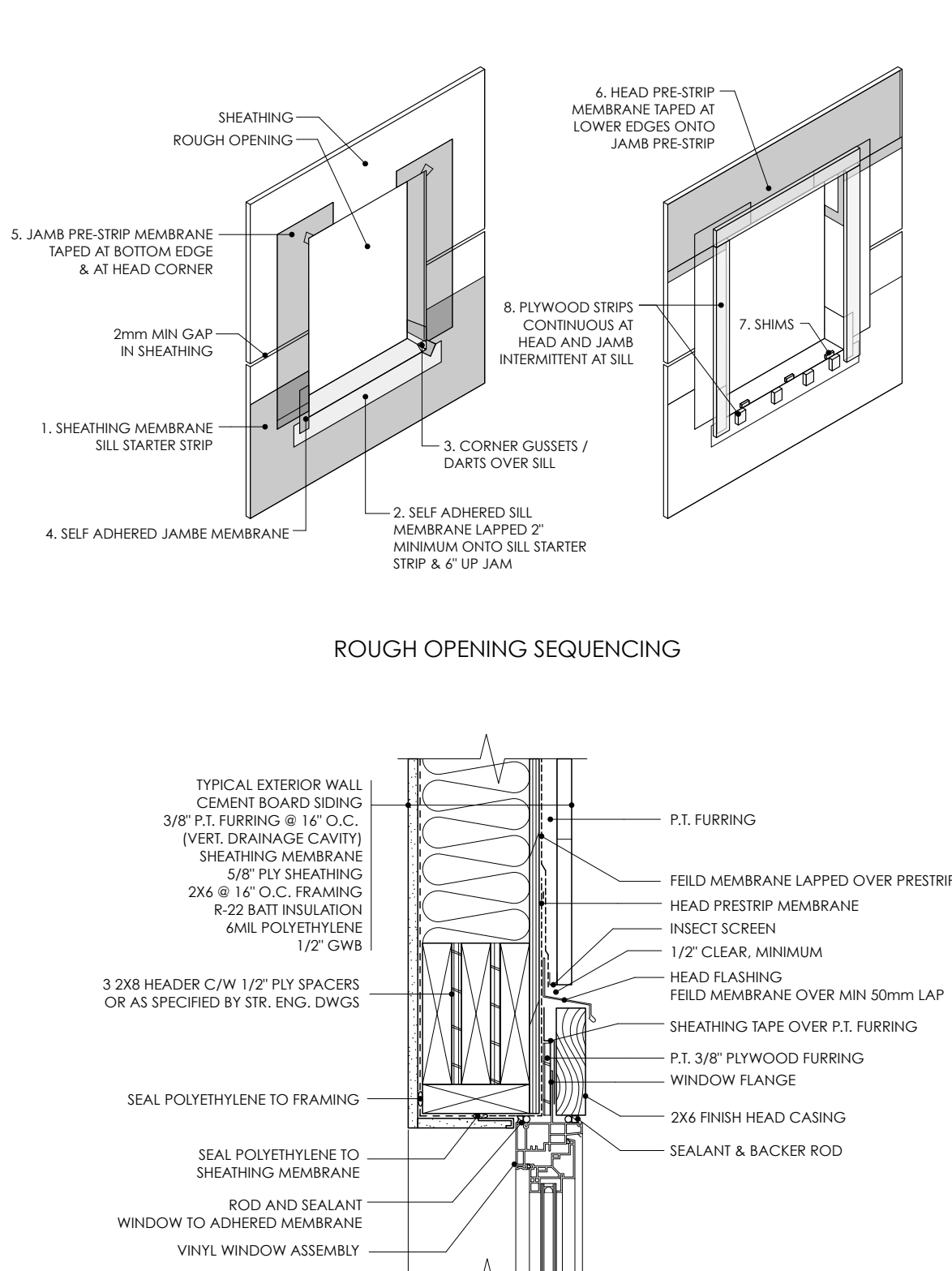
4 Soil Gas Removal
Scale: 1 1/2" = 1'-0"



7 Rear Balcony, Edge @ Corner Newel
Scale: 1 1/2" = 1'-0"



8 Typical Envelope Details, ICF
Scale: 1 1/2" = 1'-0"



9 Typical Envelope Details, Wood Frame
Scale: 1 1/2" = 1'-0"

Envelope Energy Analysis

COMPONENT	RSI
AIR FILM	N/A
ASPHALT SHINGLE	N/A
UNDERLAMENT	—
1/2" PLY SHEATH	N/A
VENTED ROOF AIR SPACE	0.03
CELLULOSE INSULATION (BLOWN-IN)	0.03
2x4 TRUSS CHORD @ 24" W/ R-22 NORMAL CAVITY FILL	1.76
6MIL POLYETHYLENE	—
1/2" GWB	0.08
AIR FILM (INT)	0.11
EFFECTIVE RSI	8.66

COMPONENT	RSI
AIR FILM	0.03
BUILT UP ROOF MEMBRANE	0.06
1/2" PLY SHEATHING	—
2x10 @ 16" O.C. (W/ R-22) CLOSED CELL ICF	6.74
1/2" GWB	0.10
AIR FILM (INT)	0.11
EFFECTIVE RSI	7.15

COMPONENT	RSI
DAMP PROOFING	0.21
2.5" (63mm) XPS RIGID INSULATION (R-13.0) (RSI 0.73/25mm)	1.83
8" CONCRETE WALL	0.06
2.5" (63mm) XPS RIGID INSULATION (R-13.0) (RSI 0.73/25mm)	1.83
1/2" GWB	0.08
AIR FILM	0.12
EFFECTIVE RSI	4.13

COMPONENT	RSI
AIR FILM	0.03
CEMENT BOARD SIDING	0.03
3/8" VENT DRAINAGE CAV.	—
BUILDING PAPER	—
5/8" PLY SHEATHING	0.18
2x6 @ 24" O.C. (W/ R24 BATT INS)	2.80
6MIL POLYETHYLENE	—
1/2" GWB	0.08
AIR FILM (INT)	0.12
EFFECTIVE RSI	3.24

COMPONENT	RSI
AIR FILM (INT)	0.14
4" CONCRETE SLAB	0.04
6MIL POLYETHYLENE	—
4" (100mm) XPS RIGID INSULATION (RSI 0.87/25mm)	3.48
EFFECTIVE RSI	3.68

ENERGY COMPLIANCE TO BE EQUIVALENT TO BC STEP CODE 3 OR HIGHER.
*WHERE EFFECTIVE RSI VALUES GIVEN HERE DIFFER FROM SUBMITTED BC ENERGY COMPLIANCE REPORT, ENERGY COMPLIANCE REPORT TO SUPERSEDE THESE VALUES

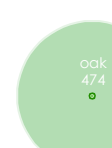







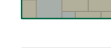


outline
HOME DESIGN
www.outlinehomedesign.com
p. 250 818 3981 e. info@outlinehomedesign.com

Wilson Residence
287 Perimeter Place, Colwood, BC

TITLE	Envelope Details
FILE	FE3.25
PROJECT NO.	2409
DRAWN BY	TDR
ISSUE FOR	DP
SCALE	As Noted
DATE	August 27, 2024
SHEET NO.	A8
REV.	1.3

Legend

Plant List

-  Existing Tree
Species
Tag Number
 -  New Deciduous Tree
Trembling Aspen
Populus Tremuloides
3.0m Height / B&B
 -  New Deciduous Tree
Holly Oak
Quercus Ilex
3.0m Height / B&B
 -  Shrubs Groupings
Baldhip Rose, Evergreen Huckleberry
Snow Berry, Pink Wallaper Rhododendron
Saskatoon Berry
 -  Groundcover
Oregon Grape
Salal, Bearberry, Bugle Weed
 -  Hedge - Cherry Laurel
- Hardscape**
 -  Brushed Concrete
 -  Concrete Unit Paver
 -  Crushed Stone
 - Softscape**
 -  Lawn
 -  Planting Area



Notes



Landscaped areas are to be irrigated with a separate, fully automatic underground irrigation system, complete with separate water meter. Refer to Civil dwgs for location and detail.

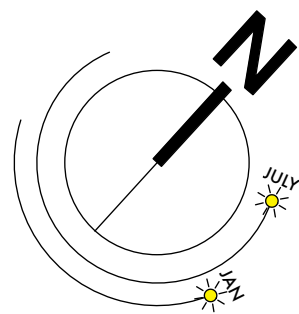
Irrigation shall be installed in accordance with Schedule C to Victoria Subdivision and Development Servicing Bylaw.

This drawing is conceptual only and not intended for construction purposes.

30% of all plantings shall be drought resistant native Vancouver Island plants (see Shrub Groupings for suggested species)

For site servicing, see plan by others

-  Existing or Natural Grade
-  Proposed Finished Grade



GARDEN SHED
6'-0" x 10'-0"

NEIGHBOURING RETAINING WALL WITH FENCE OVER

NEW CEDAR PRIVACY FENCE, TO 1.8m HEIGHT
AT COVENANT AREA 12, 14 & 15
LAWN AND GROUND COVER PLANTINGS ONLY

PRIVATE OUTDOOR SPACE DEDICATED FOR SUITE USE
AT COVENANT AREA 12, 14 & 15
NO PLANTINGS, LAWN ONLY

AT COVENANT AREA 12, 14 & 15
NO PLANTINGS, LAWN ONLY

CHERRY LAUREL HEDGE

Wilson Residence		287 Perimeter Place, Colwood, BC	
TITLE	Landscape Plan	SCALE	1:150
PROJECT NO.	2409	DATE	Feb 4, 2025
DRAWN BY	TDR	SHEET NO.	L1
ISSUE FOR	DP	REV.	1.3

October 23, 2024

To: Daniel Lake, MCRP
City of Cowood
877 Goldstream Ave
Langford, BC V9B 2X8

From: Julie Budgen, RPBio,
Corvidae Environmental Consulting Inc.
6526 Water Street, Sooke, BC V9Z 0X1
250-415-8553

Re: Biological Review for Building 287 Perimeter Place

To Daniel,

As a Qualified Environmental Professional (QEP), the undersigned was contracted by the owners of 287 Perimeter Place (PID 024-649-732; Lot 18, Plan VIP69848), to assess the property for environmental features, see photos below. The property owners are proposing the construction of a single-family residence, see attached site plan (Appendix A). The field assessment (October 22, 2024) assessed all biophysical features, including the mapped Development Permit Areas (DPAs), trees on site, and any water features. This Letter of Assessment (LOA) addresses all applicable environmental regulations and guidelines and confirms there are no watercourses on site and no tree removal is necessary.

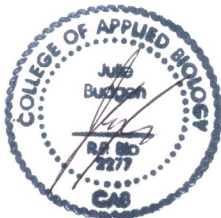
There is the Sensitive Ecosystems and Hazardous Conditions DPA mapped for the property. These are classified as:

- Sensitive Ecosystems are classified as rare and fragile terrestrial ecosystem included in the federal/provincial Sensitive Ecosystems Inventory (SEI).
- Natural Hazards are classified as steep slopes or flood plains.

From the site assessment it was confirmed that the site is entirely disturbed, previously cleared, no watercourses and there is no native vegetation with the exception of one arbutus tree (Photo 1). This tree will remain on site with the root zone protected. There is no rare or fragile ecosystem present on site. There is a steep access (Photo 2) and the remainder of the site is flat (Photo 3), with no hazardous conditions. The invasive species have been removed (Photo 4). The assessment by the undersigned QEP confirms this DPA is not present on site.

Please contact me with any questions or comments.

Best regards,



Julie Budgen, R.P.Bio., P.Ag.,

julieb@corvid.pro, 250-415-8553

Corvidae Environmental Consulting Inc.

Figure 1. 287 Perimeter Place.



Photo 1. Arbutus tree to remain on site. October 22, 2024.



Photo 2. Access to site. October 22, 2024



Photo 3. Proposed house location in flat area, blackberry and broom removed. October 22, 2024



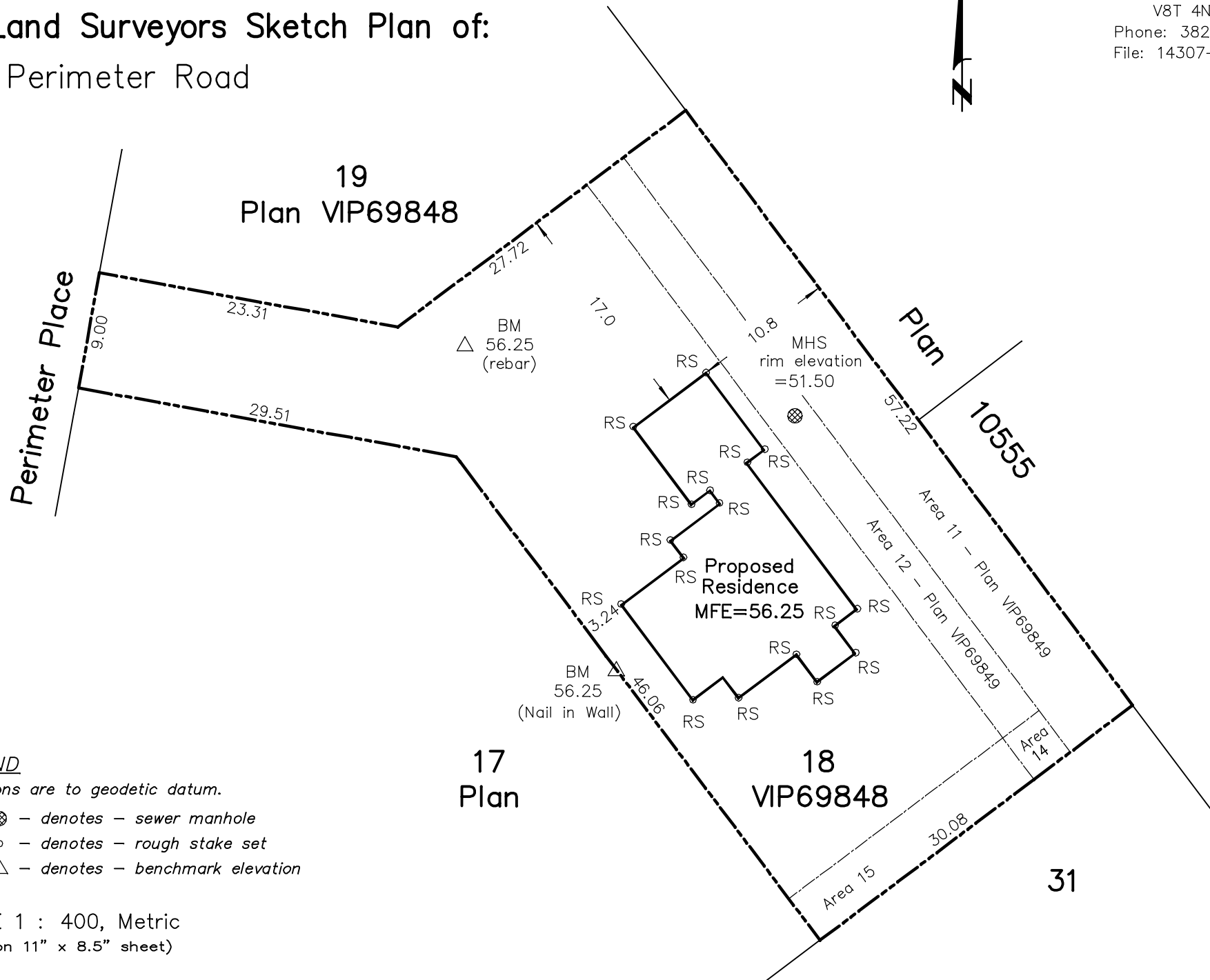
Photo 4. Pile of invasive species (broom and blackberry). October 22, 2024.



V.I. POWELL & ASSOCIATES

BC Land Surveyors Sketch Plan of: 287 Perimeter Road

250-2950 DOUGLAS ST
VICTORIA, B.C.
V8T 4N4
Phone: 382-8855
File: 14307-137W



LEGEND

Elevations are to geodetic datum.

MHS - denotes - sewer manhole

RS - denotes - rough stake set

BM - denotes - benchmark elevation

SCALE 1 : 400, Metric
(plot on 11" x 8.5" sheet)



Geohazard Assessment

287 Perimeter Place – Colwood, BC

Prepared for: **Sharples Contracting Ltd.**
2731 Green Vale Ave
Victoria, BC V8N 1S3

Rob Sharples
rob@sharplescontracting.com

Prepared by: **Ryzuk Geotechnical Ltd.**
#100-771 Vernon Avenue
Victoria, BC V8X 5A7

Cameron Schellenberg, P.Eng.
cschellenberg@ryzuk.com



CONTENTS

1. INTRODUCTION.....	1
2. SITE LOCATION & PROPOSED DEVELOPMENT	1
3. GEOTECHNICAL INVESTIGATION	1
3.1 DESKTOP STUDY	2
3.2 SITE RECONNAISSANCE	2
3.3 SLOPE STABILITY ANALYSIS	2
4. SURFACE & SUBSURFACE CONDITIONS.....	2
5. GEOTECHNICAL ASSESSMENT	3
5.1 SLOPE STABILITY ANALYSIS RESULTS	3
5.2 EXCAVATIONS.....	4
6. CLOSURE.....	5

1. INTRODUCTION

As requested, we attended the project site on October 23, 2024, and completed an assessment of the geotechnical conditions as such relates to the proposed single family residence. As delineated in Figure 19 of the City of Colwood Official Community Plan (OCP), the subject property is located within DPA 23.1: Steep Slopes, due to terrain sloping in excess of 30%. Accordingly, the City of Colwood may rely on this report when making a decision on applications for the development of the land. We herein provide our associated observations, comments, and recommendations to be incorporated into the development so that the land may be safely used as intended in accordance with Section 56 of the Community Charter. Our work has been completed in accordance with, and is subject to, the previously accepted Terms of Engagement.

Our assessment and recommendations consider the guidance/requirements provided by the:

- Engineers and Geoscientists of British Columbia (EGBC), Professional Practice Guidelines for *Landslide Assessments in British Columbia V4.1*, March 1, 2023.
- City of Colwood, Official Community Plan (OCP) Bylaw 1700, Part 23.1: Steep Slopes, Amended September 26, 2022.

2. SITE LOCATION & PROPOSED DEVELOPMENT

The subject site comprises an irregularly shaped lot with an approximate area of 1,950 m². The lot is generally bounded to the northwest by Perimeter Place, to the east, north, and west by single family residential lots, and to the south by the eastern extents of Perimeter Park. The site is currently undeveloped.

Based on our review of the provided architectural drawings by Outline Home Design, dated August 27, 2024, we understand the proposed development would consist of the construction of a three-storey single family residence and attached garage with two storeys above-grade and a partial basement daylighting to the south. The development would include the construction of a deck along the south of the building and a parking area to the north. Landscaping retaining walls would be constructed along the south and east sides of the residence. The architectural drawings indicate the proposed building location would be offset from the north, east, south, and west property lines by 16.3 m, 11.3 m, 14.1 m, and 3.1 m, respectively.

3. GEOTECHNICAL INVESTIGATION

Our investigation has consisted of a desktop study of available geotechnical information, a site reconnaissance to review existing site conditions, and completion of a slope stability assessment of the site terrain.

3.1 DESKTOP STUDY

Our desktop study has included the review of the following background materials:

- Architectural drawings, Outline Home Design, August 27, 2024.
- Layout Sketch, V.I. Powell & Associates, July 25, 2024.
- Capital Regional District (CRD) Regional Map, aerial imagery and topography contours, (2023 Imagery, Accessed November 1, 2024).
- City of Colwood, Official Community Plan (OCP) Bylaw 1700, Part 23.1: Steep Slopes, Amended September 26, 2022.
- Quaternary Geological Map of Greater Victoria, Geoscience Map 2000-2, British Columbia Ministry of Energy and Mines, Geological Survey Branch.
- Engineers and Geoscientists of British Columbia (EGBC), Professional Practice Guidelines for *Landslide Assessments in British Columbia V4.1*, March 1, 2023.
- Document review of previous project work completed nearby the subject site.

3.2 SITE RECONNAISSANCE

Our site reconnaissance was completed on October 23, 2024, and consisted of a site traverse to review the existing topography and evaluate potential sources of geohazard. During our site attendance we measured terrain parameters including the height and inclination of slopes on and adjacent to the subject site. Additionally, we reviewed existing infrastructure on the adjacent properties (i.e. retaining walls, driveway fill embankments).

3.3 SLOPE STABILITY ANALYSIS

To assess the potential for global slope stability hazard at the property, we have completed a static and seismic slope stability analysis using RocScience's Slide2 software. The slope model was generated using available contour information from the CRD Regional Map and our terrain observations from site. Conservative model parameters were chosen based on the results of our desktop study and site observations.

4. SURFACE & SUBSURFACE CONDITIONS

The site terrain generally consists of moderately inclined terrain, which slopes down to the southeast. Based on our review of CRD Regional Map contours, we understand the site features a total vertical relief of 16 m between the northwest and southeast corners of the site, with an average slope inclination of 12° (21%) from horizontal. The site terrain expression generally consists of a steep driveway slope, that lessens to a moderate incline throughout the body of site. The driveway slope is approximately 7 m in height, with a maximum slope inclination of 21° (38%), while the grading throughout the site is inclined at approximately 9° (15%) with 9 m of relief.

During our site attendance, we confirmed the site grading is generally consistent with the CRD contour data. At the time of our attendance, the site had been cleared of most vegetation, and the site surfaces had been benched with 1 m high soil terraces. The exposed soils generally consisted of light brown sand and gravel fill.

The terrain of the west and north neighbouring properties are generally raised above the subject site, while the properties to the south and east of the site are generally recessed below such. The rear of the west neighbouring site is retained with a lock-block and rock and mortar retaining wall that ranges in height from 3 to 4.5 m. The retaining wall transitions to a 3 m high fill slope approximately halfway along the west Property Line (PL), which trends to 0 m high at the boundary of Perimeter Place. The fill slope is inclined at approximately 27° (50%) from horizontal. The northwest PL is bounded by a 1.5 m high boulder wall along the length of the driveway which tapers off as the grades become level approximately halfway along the northwest PL. A shallow slope is present along the east PL leading towards the neighboring sites below. The slope face is densely vegetated with blackberry bushes and could not be measured. The south PL is bounded by a 1 to 3 m high slope, inclined at 27° (50%) from horizontal, leading down to the park and utility station below.

Based on our review of the *Quaternary Geological Map of Greater Victoria*, we anticipate the native soil conditions generally consist of sand and gravel deposits of the raised Late Pleistocene delta and outwash plain centred on the City of Colwood and District of Langford.

5. GEOTECHNICAL ASSESSMENT

We consider the proposed development to be feasible from a geotechnical perspective. Due care will must be taken during excavation and construction to ensure support is maintained to the existing lock-block wall along the east PL. We herein contain a summary of our geotechnical analysis and our recommendations required to minimize the risk of natural hazards for the subject site and neighbouring properties.

5.1 SLOPE STABILITY ANALYSIS RESULTS

The results of our slope stability analysis indicate that the results of our analysis considering a seismic event with a 2% probability of exceedance in 50 years, or 1 in 2,475 year return period, (Peak Ground Acceleration of 0.590 g) returned a FS < 1 for the proposed development, which requires further analysis in accordance with EGBC Guidelines.

We completed a seismic slope displacement analysis of the local configuration encompassing Lot A, as well as for the global slope profile, as per *Appendix E – Methods of Seismic Analysis of Soil Slopes* of the EGBC guidelines. This method follows the work of Bray and Travasarou (2007) to estimate the maximum potential theoretical displacement that could occur during a design seismic event. Our analysis considered a maximum tolerable slope displacement of 15 cm, which is the generally accepted

tolerance for conventional wood-framed structures to allow for safe egress post seismic event, as proposed by EGBC's *Task Force on Seismic Slope Stability*. To determine the displacement, the seismic yield coefficient (k_y) and height of the slip surface were taken from Slide2 to calculate the degraded period of the sliding soil mass. An average shear wave velocity of 300 m/s and a moment magnitude of the design earthquake of 7 was considered. The results of our analysis indicate that the proposed development would be subjected to a maximum slope displacement of 1.1 cm, which is considered acceptable to allow for safe building egress following the design seismic event.

5.2 EXCAVATIONS

Based on our review of the provided architectural drawings, we understand excavations will be up to 3.5 m below existing grades. We anticipate excavations will generally consist of the removal of fill, organic soil, and mineral soil to achieve design foundation and basement grades. We anticipate the following temporary excavation inclinations will be stable:

- 1H:1V (Horizontal to Vertical) – Existing fill or topsoil.
- 0.75H:1V – Undisturbed native sand and gravel.

Adjustments to the above may be required during construction if variations in the soil and/or groundwater (i.e. seepage) are observed. We note that excavations in accordance with WorkSafeBC requirements, all excavations greater than 1.2 m in height and steeper than 0.75H:1V should be inspected by a qualified geotechnical professional prior to worker entry or approach within a distance equal to the height of the cutslope or excavation.

Where excavation is required near the existing lock-block retaining wall bordering the east PL, no disturbance is allowed below a plane inclined at 1H:1V starting 1 m from the face of the wall. If local excavations encroaching within this projection are required, such must be completed in a timely manner, and should only be excavated under the supervision of a qualified geotechnical professional.

6. CLOSURE

In summary, we consider the proposed development to be feasible from a geotechnical perspective, provided the above recommendations are followed. We herein certify that the land may be used safely for the use intended, that being the construction and habitation of the proposed single family residence, in accordance with the City of Colwood OCP/Bylaw 1700 Section 23.1, and Section 56 of the Community Charter. Our

We trust that the preceding is suitable for your purposes at present. Please do not hesitate to contact our office if we can be of further assistance.

Sincerely,

Ryzuk Geotechnical



Evan Armstrong, EIT
Advanced Junior Engineer



Cameron Schellenberg, P.Eng.
Lead Geotechnical Engineer

Permit to Practice Number: 1002996

Attachments: - 2015 NBCC Seismic Hazard Calculation
- Appendix D: Landslide Assurance Statement

2015 National Building Code Seismic Hazard Calculation

INFORMATION: Eastern Canada English (613) 995-5548 français (613) 995-0600 Facsimile (613) 992-8836
Western Canada English (250) 363-6500 Facsimile (250) 363-6565

Site: 48.415N 123.479W

User File Reference: 287 Perimeter Place

2024-11-04 21:31 UT

Requested by: Ryzuk Geotechnical

Probability of exceedance per annum	0.000404	0.001	0.0021	0.01
Probability of exceedance in 50 years	2 %	5 %	10 %	40 %
Sa (0.05)	0.716	0.510	0.372	0.163
Sa (0.1)	1.097	0.790	0.574	0.250
Sa (0.2)	1.317	0.948	0.694	0.304
Sa (0.3)	1.324	0.951	0.693	0.299
Sa (0.5)	1.177	0.834	0.598	0.245
Sa (1.0)	0.696	0.463	0.314	0.116
Sa (2.0)	0.412	0.265	0.172	0.060
Sa (5.0)	0.129	0.074	0.039	0.012
Sa (10.0)	0.045	0.025	0.013	0.004
PGA (g)	0.590	0.424	0.308	0.131
PGV (m/s)	0.845	0.575	0.395	0.147

Notes: Spectral (Sa(T), where T is the period in seconds) and peak ground acceleration (PGA) values are given in units of g (9.81 m/s²). Peak ground velocity is given in m/s. Values are for "firm ground" (NBCC2015 Site Class C, average shear wave velocity 450 m/s). NBCC2015 and CSAS6-14 values are highlighted in yellow. Three additional periods are provided - their use is discussed in the NBCC2015 Commentary. Only 2 significant figures are to be used. **These values have been interpolated from a 10-km-spaced grid of points. Depending on the gradient of the nearby points, values at this location calculated directly from the hazard program may vary. More than 95 percent of interpolated values are within 2 percent of the directly calculated values.**

References

National Building Code of Canada 2015 NRCC no. 56190; Appendix C: Table C-3, Seismic Design Data for Selected Locations in Canada

Structural Commentaries (User's Guide - NBC 2015: Part 4 of Division B)
Commentary J: Design for Seismic Effects

Geological Survey of Canada Open File 7893 Fifth Generation Seismic Hazard Model for Canada: Grid values of mean hazard to be used with the 2015 National Building Code of Canada

See the websites www.EarthquakesCanada.ca and www.nationalcodes.ca for more information

LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Notes: This statement is to be read and completed in conjunction with the Engineers and Geoscientists BC *Professional Practice Guidelines – Landslide Assessments in British Columbia* (“the guidelines”) and the current *BC Building Code (BCBC)*, and is to be provided for Landslide Assessments (not floods or flood controls), particularly those produced for the purposes of the *Land Title Act*, *Community Charter*, or *Local Government Act*. Some jurisdictions (e.g., the Fraser Valley Regional District or the Cowichan Valley Regional District) have developed more comprehensive assurance statements in collaboration with Engineers and Geoscientists BC. Where those exist, the Qualified Professional is to fill out the local version only. Defined terms are capitalized; see the Defined Terms section of the guidelines for definitions.

To: The Approving Authority (or Client)

Date: 11/8/24

The City of Colwood

3300 Wishart Road - Colwood, BC

Jurisdiction/name and address

With reference to (CHECK ONE):

- A. *Land Title Act* (Section 86) – Subdivision Approval
- B. *Local Government Act* (Sections 919.1 and 920) – Development Permit
- C. Community Charter (Section 56) – Building Permit
- D. Non-legislated assessment

For the following property (the “Property”):

287 Perimeter Place - Colwood, BC

Civic address of the Property

The undersigned hereby gives assurance that they are a Qualified Professional and a professional engineer or professional geoscientist who fulfils the education, training, and experience requirements as outlined in the guidelines.

I have signed, authenticated, and dated, and thereby certified, the attached Landslide Assessment Report on the Property in accordance with the guidelines. That report must be read in conjunction this statement.

In preparing that report I have:

[CHECK TO THE LEFT OF APPLICABLE ITEMS]

- 1. Collected and reviewed appropriate background information
- 2. Reviewed the proposed Residential Development or other development on the Property
- 3. Conducted field work on and, if required, beyond the Property
- 4. Reported on the results of the field work on and, if required, beyond the Property
- 5. Considered any changed conditions on and, if required, beyond the Property
- 6. For a Landslide Hazard analysis or Landslide Risk analysis, I have:
 - 6.1 reviewed and characterized, if appropriate, any Landslide that may affect the Property
 - 6.2 estimated the Landslide Hazard
 - 6.3 identified existing and anticipated future Elements at Risk on and, if required, beyond the Property
 - 6.4 estimated the potential Consequences to those Elements at Risk
- 7. Where the Approving Authority has adopted a Level of Landslide Safety, I have:
 - 7.1 compared the Level of Landslide Safety adopted by the Approving Authority with the findings of my investigation
 - 7.2 made a finding on the Level of Landslide Safety on the Property based on the comparison
 - 7.3 made recommendations to reduce Landslide Hazards and/or Landslide Risks

LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

8. Where the Approving Authority has **not** adopted a Level of Landslide Safety, or where the Landslide Assessment is not produced in response to a legislated requirement, I have:

- 8.1 described the method of Landslide Hazard analysis or Landslide Risk analysis used
 - 8.2 referred to an appropriate and identified provincial, national, or international guideline for Level of Landslide Safety
 - 8.3 compared those guidelines (per item 8.2) with the findings of my investigation
 - 8.4 made a finding on the Level of Landslide Safety on the Property based on the comparison
 - 8.5 made recommendations to reduce Landslide Hazards and/or Landslide Risks
9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections

Based on my comparison between:

[CHECK ONE]

- the findings from the investigation and the adopted Level of Landslide Safety (item 7.2 above)
- the appropriate and identified provincial, national, or international guideline for Level of Landslide Safety (item 8.4 above)

Where the Landslide Assessment is not produced in response to a legislated requirement, I hereby give my assurance that, based on the conditions¹ contained in the attached Landslide Assessment Report:

A. SUBDIVISION APPROVAL

- For subdivision approval, as required by the *Land Title Act* (Section 86), “the land may be used safely for the use intended”
[CHECK ONE]
 - with one or more recommended additional registered Covenants
 - without an additional registered Covenant(s)

B. DEVELOPMENT PERMIT

- For a development permit, as required by the *Local Government Act* (Sections 488 and 491), my report will “assist the local government in determining what conditions or requirements it will impose under subsection (2) of [Section 491]”
[CHECK ONE]
 - with one or more recommended additional registered Covenants
 - without an additional registered Covenant(s)

C. BUILDING PERMIT

- For a building permit, as required by the *Community Charter* (Section 56), “the land may be used safely for the use intended”
[CHECK ONE]
 - with one or more recommended additional registered Covenants
 - without any additional registered Covenant(s)

¹ When seismic slope stability assessments are involved, Level of Landslide Safety is considered to be a “life safety” criteria, as described in Commentary JJJ of the *National Building Code of Canada (NBC) 2015*, Structural Commentaries (User’s Guide – NBC 2015: part 4 of division B). This states:

“The primary objective of seismic design is to provide an acceptable level of safety for building occupants and the general public as the building responds to strong ground motion; in other words, to minimize loss of life. This implies that, although there will likely be extensive structural and non-structural damage, during the DGM (design ground motion), there is a reasonable degree of confidence that the building will not collapse, nor will its attachments break off and fall on people near the building. This performance level is termed ‘extensive damage’ because, although the structure may be heavily damaged and may have lost a substantial amount of its initial strength and stiffness, it retains some margin of resistance against collapse.”

LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Cameron Schellenberg, P.Eng.
Name (print)

11/8/24
Date

#100 771 Ave
Address

Victoria, BC V8X 5A7

250-475-3131
Telephone

cschellenberg@ryzuk.com
Email



(Affix PROFESSIONAL SEAL and signature here)

The Qualified Professional, as a registrant on the roster of a registrant firm, must complete the following:

I am a member of the firm Ryzuk Geotechnical Ltd.
(Print name of firm)

with Permit to Practice Number 1002996
(Print permit to practice number)

and I sign this letter on behalf of the firm.

RYZUK

GEOTECHNICAL