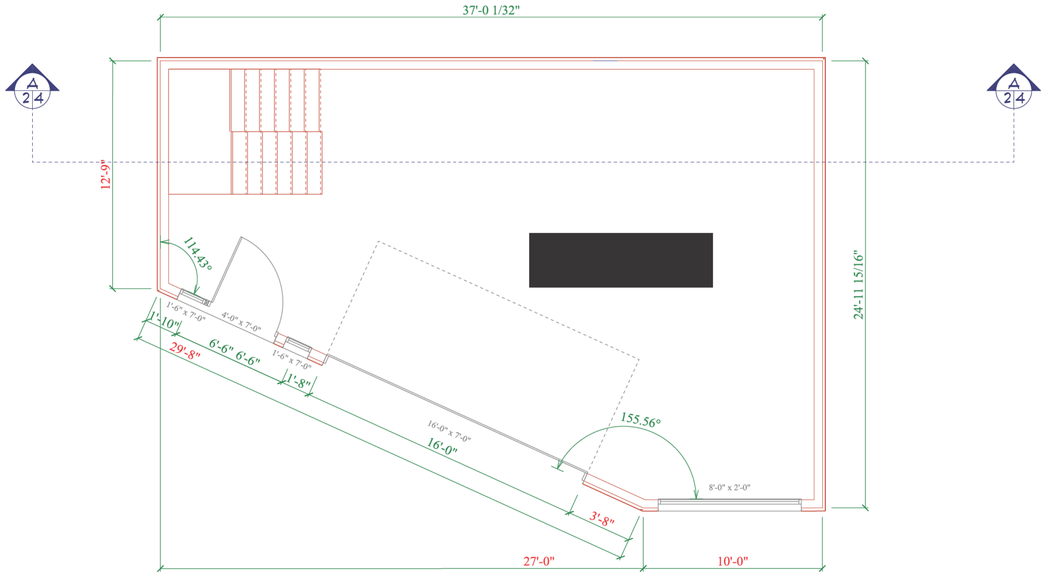
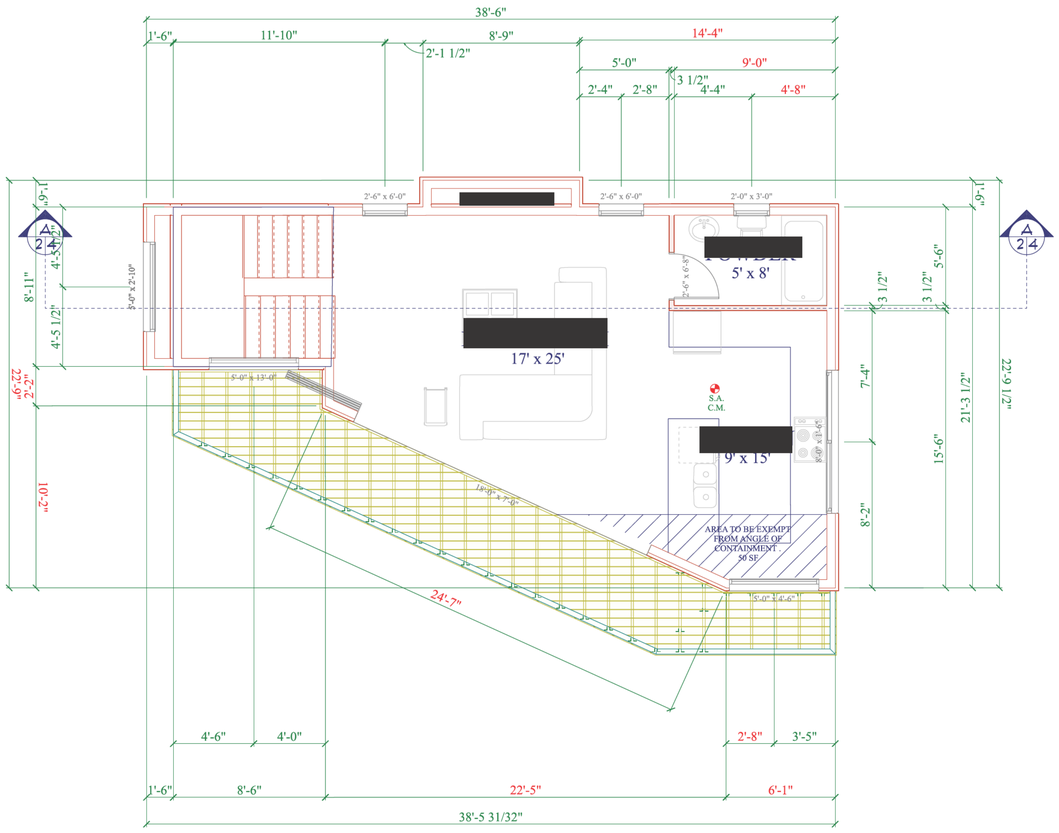


FLOOR AREA 760SF

[redacted]

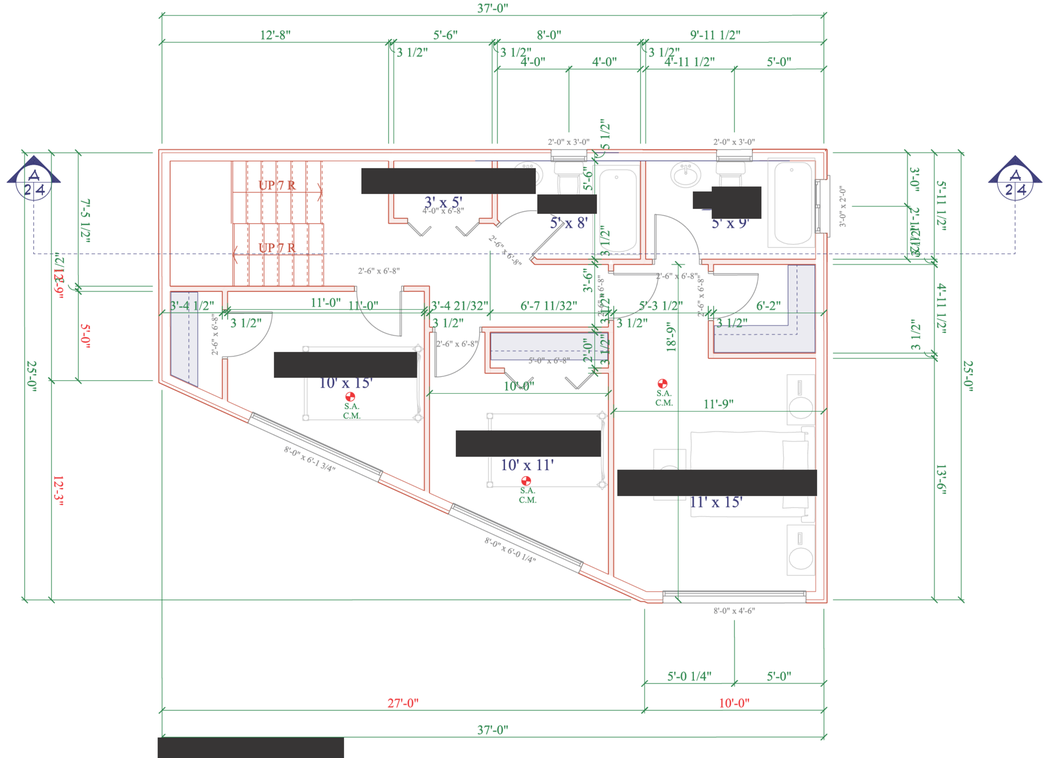
SCALE: 1/4" = 1'-0"



FLOOR AREA 568SF

[redacted]

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



[redacted]

FLOOR AREA 700SF

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SHEET TITLE: **FLOOR LAYOUT**

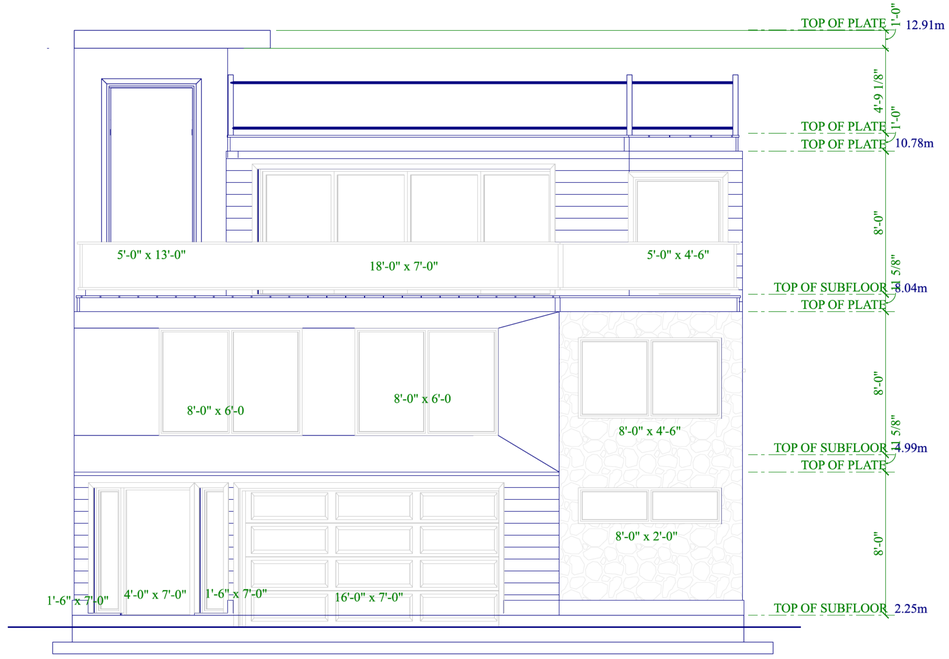
SITE ADDRESS: **14737 MARINE DRIVE, WHITEROCK,**

OWNER NAME : [redacted]

CONTACT # :

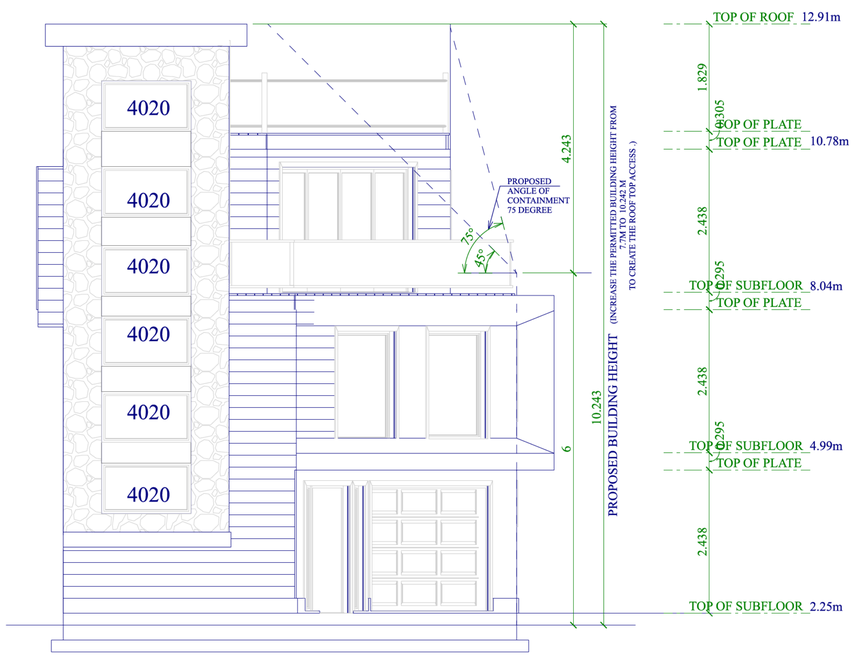
DATE: October 6, 2023

SHEET # **2**



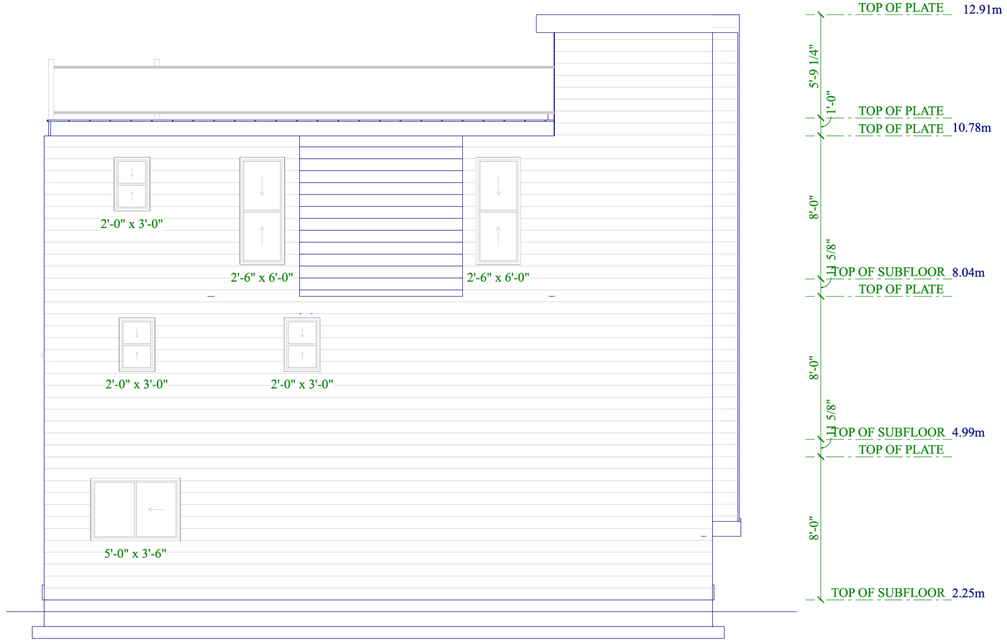
FRONT ELEVATION

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



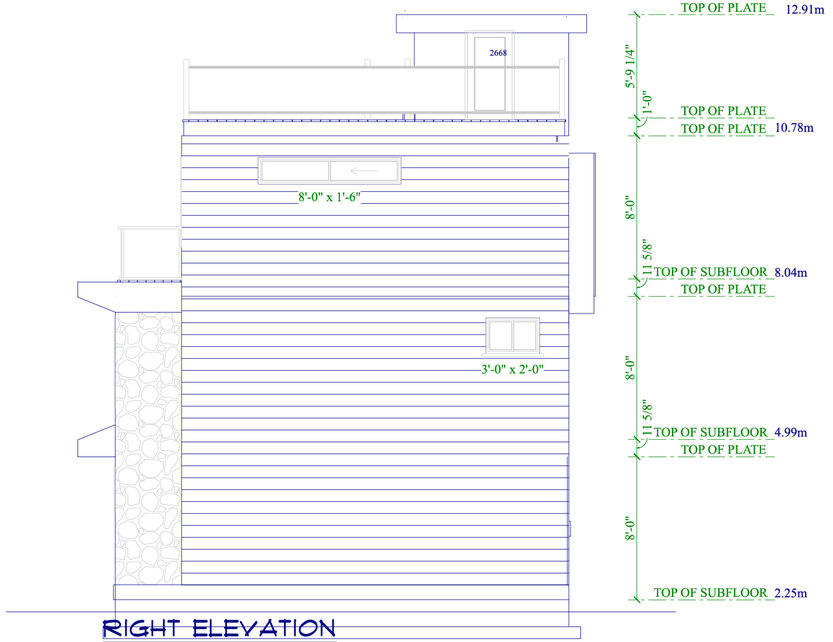
LEFT ELEVATION

SCALE: 1:48



REAR ELEVATION

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



RIGHT ELEVATION

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

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SHEET TITLE: **ELEVATION**

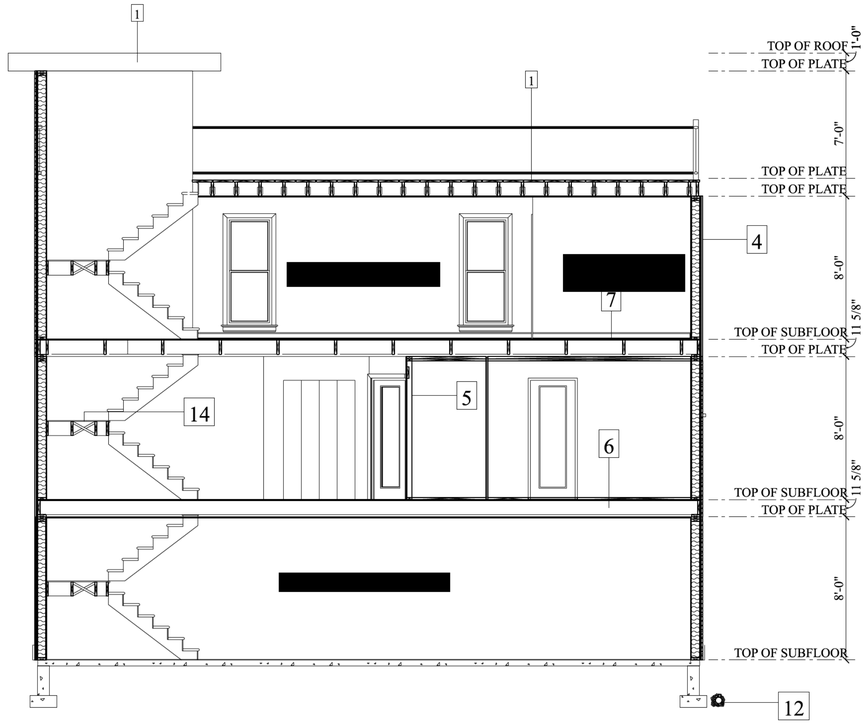
SITE ADDRESS: **14737 MARINE DRIVE, WHITEROCK,**

OWNER NAME : [redacted]

CONTACT # :

DATE: October 6, 2023

SHEET # **3**



A 2/4 CROSS SECTION A-A

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

1 ROOF(TRUSS):

2 CEILING: MIN R-40 BATT OR LOOSE-FILL INSULATION MIN 6 MIL POLY VAPOUR BARRIER 5/8" GYPSUM BOARD

3. FASCIA/SOFFIT ALUMINUM GUTTERS 2X6 FASCIA BOARD VENTED ALUM OR VINYL SOFFIT (NOTE: 3 PROVIDE INSULATION BAFFLES BETWEEN EACH TRUSS W/MIN 2" CLEAR AIRSPACE)

4 EXTERIOR WALL: FINISH MATERIAL - SEE ELEVATION BUILDING PAPER 3/8" PLYWOOD SHEATHING R-20 BATT INSULATION 2 x 6 STUDS @ 16" O.C. MIN 6 MIL POLY V.B. 1/2" GYPSUM BOARD

5 INTERIOR PARTITION: 2X4 STUDS @ 16" O.C. (OR AS NOTED) 1/2" GYPSUM BOARD - BOTH SIDES

6 MAIN FLOOR: FINISH FLOORING 5/8" T&G PLYWOOD SUBFLOOR 2X12 FLOOR JOISTS @ 24" O.C. (OR AS NOTED) 2X2 CROSS BRIDGING @ 6'-10" O.C. MAX 1/2" GYPSUM BOARD

7 UPPER FLOOR: FINISH FLOORING 5/8" T&G PLYWOOD SUBFLOOR 2X12 FLOOR JOISTS @ 24" O.C. (OR AS NOTED) 2X2 CROSS BRIDGING @ 6'-10" O.C. MAX 1/2" GYPSUM BOARD

8. BASEMENT FLOOR: 3.1/2" CONCRETE SLAB FLOOR 6 MIL POLY V.B. 6" MIN COMPACT SAND OR GRAVEL FILL

9. EXTERIOR FOUNDATION WALL:ENGINEERED 2 COATS ASPHALT EMULSION - APPLY TO EXTERIOR PERIMETER UP TO GRADE 8" CONCRETE FOUNDATION WALL (OR AS NOTED) EXPANDED POLYSTYREN INSULATION - TO TOP OF FTG. 24"X8" CONCRETE FTG. BASEMENT WALLS TO HAVE FULL HEIGHT INSULATIO

10 INTERIOR FOUNDATION WALL: 2X6 STUDS @ 16" O.C.(OR AS NOTED) 6" CONCRETE CURB 18"X6" CONCRETE FOOTIN

11 PLATE TO FOUNDATION CONNECTION: 2X6 (OR 2X4 AS REQ'D) SILL PLATE 6MIL POLY OR 45# FELT DAMP-PROOFING 1/2" DIA ANCHOR BOLTS @ 4'-0" O.C. MAX

12. DRAINAGE: 4" DRAIN TILE
12" MIN DRAIN ROCK

13 STAIRS: RUN -9.1/2" NOSING -1" TREAD -10.1/2" RISE -7.3/4" HANDRAIL -2'-8" H. HEADROOM -6'-8" H. MIN

14. STAIRS: RUN -9.1/2" NOSING -1" TREAD -10.1/2" RISE -7.1/2" HANDRAIL -2'-8" H. HEADROOM -6'-8" H. MIN.

15 . GARAGE FLOOR: 4" CONCRETE SLAB FLOOR 6X6 6/6 WWM REINF CLEAN, COARSE AND GRANULAR FILL COMPACTED EVERY 1'-0" FROM SOLID BEARING TO UNDERSIDE OF GARAGE SLAB

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SHEET TITLE: **CROSS SECTION**

SITE ADDRESS: **14737 MARINE DRIVE, WHITEROCK,**

OWNER NAME : [redacted]

CONTACT # :

DATE: October 6, 2023

SHEET # **4**

FLOORS OVER UNHEATED SPACES (CERAMIC TILE FLOORING)

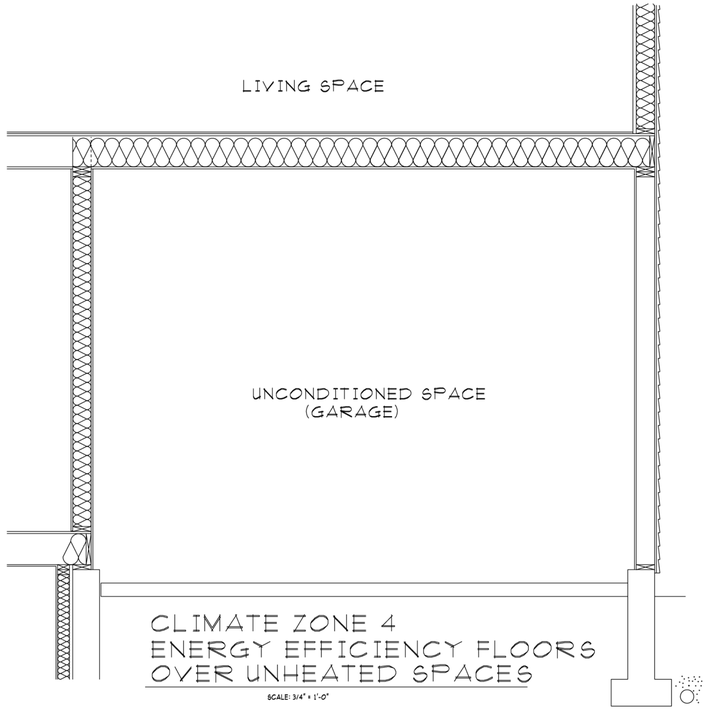
MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 4.67 (R-26.5) 2X10 JOISTS @ 12" O.C.	
ASSEMBLY DESCRIPTION: - CERAMIC TILE - 1/2" PLYWOOD SUBFLOOR - 5/8" T&G D.FIR PLYWOOD SUBFLOOR - 2X10 JOISTS @ 12" O.C. - R-31 FIBREGLASS BATT INSULATION IN CAVITIES - 1/2" GYPSUM BOARD OVER UNHEATED SPACE	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - CERAMIC TILE - 1/2" PLYWOOD SUBFLOOR - 5/8" T&G D.FIR PLYWOOD SUBFLOOR - 1/2" GYPSUM BOARD - EXTERIOR AIR FILM	0.16 0.005 0.109 0.172 0.08 0.03 RSI 0.556 (R-3.15)
CAVITY RSI (PARALLEL) 100 / (14.5/1.9375 + 85.5/5.46) = 4.36 RSI	RSI 4.36 (R-24.72)
TOTAL EFFECTIVE INSULATION VALUE	RSI 4.916 (R-27.87)

FLOORS OVER UNHEATED SPACES (CARPET FLOORING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 4.67 (R-26.5) 2X10 JOISTS @ 12" O.C.	
ASSEMBLY DESCRIPTION: - CARPET WITH FIBROUS PAD - 5/8" T&G D.FIR PLYWOOD SUBFLOOR - 2X10 JOISTS @ 12" O.C. - R-28 FIBREGLASS BATT INSULATION IN CAVITIES - 1/2" GYPSUM BOARD OVER UNHEATED SPACE	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - CARPET WITH FIBROUS PAD - 5/8" T&G D.FIR PLYWOOD SUBFLOOR - 1/2" GYPSUM BOARD - EXTERIOR AIR FILM	0.16 0.37 0.172 0.08 0.03 RSI 0.812 (R-4.60)
CAVITY RSI (PARALLEL) 100 / (14.5/1.9375 + 85.5/4.93) = 4.06 RSI	RSI 4.06 (R-23.02)
TOTAL EFFECTIVE INSULATION VALUE	RSI 4.872 (R-27.62)

FLOORS OVER UNHEATED SPACES (HARDWOOD FLOORING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 4.67 (R-26.5) 2X10 JOISTS @ 12" O.C.	
ASSEMBLY DESCRIPTION: - HARDWOOD FLOORING - 5/8" T&G D.FIR PLYWOOD SUBFLOOR - 2X10 JOISTS @ 12" O.C. - R-31 FIBREGLASS BATT INSULATION IN CAVITIES - 1/2" GYPSUM BOARD OVER UNHEATED SPACE	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - HARDWOOD FLOORING - 5/8" T&G D.FIR PLYWOOD SUBFLOOR - 1/2" GYPSUM BOARD - EXTERIOR AIR FILM	0.16 0.12 0.172 0.08 0.03 RSI 0.562 (R-3.19)
CAVITY RSI (PARALLEL) 100 / (14.5/1.9375 + 85.5/5.46) = 4.36 RSI	RSI 4.36 (R-24.72)
TOTAL EFFECTIVE INSULATION VALUE	RSI 4.922 (R-27.91)



CLIMATE ZONE 4
ENERGY EFFICIENCY FLOORS OVER UNHEATED SPACES

SCALE: 3/4" = 1'-0"

AS PER SECTION 9.36.2.10. - NOTES PERTAINING TO LEAKAGE PATHS IN PROBLEMATIC AREAS

 # FOUNDATION TO SILL PLATE AND RIM JOISTS

ALL JOINTS AT THE TRANSITION BETWEEN THE FOUNDATION WALL AND THE ABOVE GRADE WALL MUST BE MADE AIR-TIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL

 # INTERIOR WALL INTERFACE

INTERIOR WALLS THAT MEET EXTERIOR WALLS OR CEILINGS WITH AN INTERIOR PLANE OF AIR TIGHTNESS MUST BE MADE AIRTIGHT BY EITHER SEALING ALL JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL, OR MAINTAINING THE CONTINUITY OF THE AIR BARRIER SYSTEM THROUGH THE INTERIOR WALL

 # RIM JOIST

ALL JOINTS AT THE RIM JOIST ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL

 # CANTILEVERED FLOOR

CANTILEVERED FLOORS AND FLOORS OVER UNHEATED SPACES /EXTERIOR SPACE MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS AND/OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL

 # WINDOW HEAD

THE INTERFACE BETWEEN WINDOW HEAD/JAMB AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER IN THE WALL AND WINDOW. THE REQUIREMENT ALSO APPLIES TO DOORS AND SKYLIGHTS

 # WINDOW SILL

THE INTERFACE BETWEEN WINDOW SILL AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER MATERIAL IN THE WALL AND THE WINDOW. THE REQUIREMENT ALSO APPLIES TO DOORS AND SKYLIGHTS

 # MECHANICAL FLUES AND CHIMNEYS

STEEL-LINED CHIMNEYS THAT PENETRATE THE BUILDING ENVELOPE MUST BE MADE AIRTIGHT BY BLOCKING THE VOID BETWEEN REQUIRED CLEARANCES FOR METAL CHIMNEYS AND SURROUNDING CONSTRUCTION WITH SHEET METAL AND SEALANT CAPABLE OF WITHSTANDING HIGH TEMPERATURES

 # PLUMBING STACKS

PLUMBING VENT STACK PIPES THAT PENETRATE THE BUILDING ENVELOPE MUST BE MADE AIRTIGHT BY EITHER SEALING THE AIR BARRIER MATERIAL TO THE VENT STACK PIPE WITH A COMPATIBLE MATERIAL OR SHEATHING TAPE, OR INSTALLING A RUBBER GASKET OR PREFABRICATED ROOF FLASHING AT THE PENETRATION OF THE PLANE OF AIRTIGHTNESS AND SEALING IT TO THE TOP PLATE

 # SKYLIGHTS

THE INTERFACE BETWEEN THE SKYLIGHT AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER MATERIAL IN THE WALL AND THE SKYLIGHT

 # WALL TO CEILING

ALL JOINTS AT THE TRANSITION BETWEEN THE ABOVE GRADE WALL AND CEILING MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS AND/OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL

 # WALL VENTED DUCTS

DUCT PENETRATIONS THROUGH THE BUILDING ENVELOPE MUST HAVE AN AIRTIGHT SEAL

 # ELECTRICAL PENETRATION IN WALLS

ELECTRICAL PENETRATIONS IN WALLS, INCLUDING ELECTRICAL OUTLETS, WIRING, SWITCHES, AND RECESSED FIXTURES THROUGH THE PLANE OF AIRTIGHTNESS MUST BE AIRTIGHT. OPTIONS INCLUDE USING A COMPONENT THAT IS DESIGNED TO BE AIRTIGHT AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL, OR BY COVERING THE COMPONENT WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL

SPECIFIC REQUIREMENTS

EFFECTIVE INSULATION OF CEILINGS, WALLS, AND FLOORS MEET THE REQUIREMENTS OF TABLE 9.36.2.6.A AND TABLE 9.36.2.6.B FOR THE CORRECT CLIMATE ZONE
THE THERMAL CHARACTERISTICS OF WINDOWS, DOOR AND SKYLIGHTS MEET THE REQUIREMENTS OF TABLE 9.36.2.7.A, B, AND C FOR THE CORRECT CLIMATE ZONE
EFFECTIVE INSULATION OF FOUNDATIONS MEET THE REQUIREMENTS OF TABLE 9.36.2.8.A OR B FOR THE CORRECT CLIMATE ZONE
DUCTS LOCATED OUTSIDE THE THERMAL ENCLOSURE ARE SEALED AND INSULATED TO THE EXTERIOR WALL INSULATION REQUIREMENTS
DAMPERS ARE INSTALLED AT AIR INLETS AND EXHAUSTS WHERE REQUIRED
PIPING FOR HEATING OR COOLING SYSTEMS IS LOCATED WITHIN THE THERMAL ENCLOSURE OR ARE FULLY INSULATED
HVAC EQUIPMENT IS LOCATED WITHIN THERMAL ENCLOSURE OR DESIGNATED TO BE INSTALLED OUTSIDE OF THERMAL ENCLOSURE
TEMPERATURE CONTROLS ARE INSTALLED ON HEATING AND COOLING EQUIPMENT
INDOOR POOLS ARE COVERED OR HAVE AN HRV/DEHUMIDIFIER
HVAC AND SWH EQUIPMENT MEET MINIMUM PERFORMANCE REQUIREMENTS DETERMINED IN TABLES 9.36.3.10. AND 9.36.4.2
SERVICE WATER HEATING PIPES ARE INSULATED AT THE INLET AND OUTLET OF STORAGE TANKS
SERVICE WATER HEATERS HAVE TEMPERATURE CONTROLS
THE AIR BARRIER DETAILS, AND LOCATIONS HAVE BEEN IDENTIFIED

TEMPERATURE CONTROLS AS PER SECTION 9.36.3.6

TEMPERATURE CONTROLS ARE GENERALLY REQUIRED FOR HEATING AND COOLING EQUIPMENT. THE ACCURACY OF THE CONTROL MUST BE BETTER THAN PLUS OR MINUS 0.5 DEGREES CELSIUS

Note: Regulations contained within the most current edition of the BC Building Code including any subsequent amendments, and code interpretation by building jurisdictions, shall take precedence over any schematics and specifications contained on this page. Further, it shall be the sole responsibility of the lot owner to ensure that all components specified on this page are installed to full compliance with the BC Building Code, whether or not it is determined that this page contains any error or omission.

ENERGY EFFICIENCY REQUIREMENTS

THIS HOME IS DESIGNED TO COMPLY WITH ENERGY EFFICIENCY REQUIREMENTS AND VALUES USING THE PRESCRIPTIVE METHOD FOR CLIMATE ZONE 4 - LOWER MAINLAND AND SOUTHERN VANCOUVER ISLAND WITH NO H.R.V. (BCBC 2018LATEST EDITION)

ENERGY EFFIECY PAGE 1

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

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SHEET TITLE: **ENERGY DETAIL PAGE #1**

SITE ADDRESS: **14737 MARINE DRIVE, WHITEROCK,**

OWNER NAME : GURPAL GILL
CONTACT # :

DATE: October 6, 2023

SHEET # **5**

RIM JOIST SPACE (6.35MM FIBRE-CEMENT BOARD SIDING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X10 STUDS @ 12" O.C. W/R-20 BATT INSULATION IN CAVITY	
CONTINUOUS ELEMENTS:	
- 1.5" LUMBER RIM BOARD - 1/2" PLYWOOD SHEATHING - AIR BARRIER/SHEATHING MEMBRANE - 3/8" CAPILLARY BREAK SPACE - 6.35MM (1/4") FIBRE-CEMENT CLADDING - EXTERIOR AIR FILM	0.325 0.11 - 0.15 0.023 0.03 RSI 0.638 (R-3.62)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{12.5}{1.19} + \frac{87.5}{3.52}} = 2.82$ RSI	RSI 2.82 (R-15.99)
TOTAL EFFECTIVE INSULATION VALUE	RSI 3.458 (R-19.61)

RIM JOIST SPACE (HOLLOW BACKED VINYL SIDING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X10 STUDS @ 12" O.C. W/R-20 BATT INSULATION IN CAVITY	
CONTINUOUS ELEMENTS:	
- 1.5" LUMBER RIM BOARD - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - HOLLOW BACKED VINYL SIDING - EXTERIOR AIR FILM	0.325 0.11 - 0.11 0.03 RSI 0.575 (R-3.26)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{12.5}{1.19} + \frac{87.5}{3.52}} = 2.82$ RSI	RSI 2.82 (R-15.99)
TOTAL EFFECTIVE INSULATION VALUE	RSI 3.395 (R-19.25)

RIM JOIST SPACE W/2 BEARING BLOCKS (6.35MM FIBRE-CEMENT BOARD SIDING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X10 STUDS @ 12" O.C. W/R-14 BATT INSULATION IN CAVITY	
CONTINUOUS ELEMENTS:	
- 2 - 1.1/2" BEARING BLOCKS (3") - 1.5" LUMBER RIM BOARD - 1/2" PLYWOOD SHEATHING - AIR BARRIER/SHEATHING MEMBRANE - 3/8" CAPILLARY BREAK SPACE - 6.35MM (1/4") FIBRE-CEMENT CLADDING - EXTERIOR AIR FILM	0.65 0.325 0.11 - 0.15 0.023 0.03 RSI 1.288 (R-7.30)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{12.5}{1.19} + \frac{87.5}{2.46}} = 2.17$ RSI	RSI 2.17 (R-12.30)
TOTAL EFFECTIVE INSULATION VALUE	RSI 3.458 (R-19.60)

RIM JOIST SPACE W/2 BEARING BLOCI (HOLLOW BACKED VINYL SIDING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X10 STUDS @ 12" O.C. W/R-14 BATT INSULATION IN CAVITY	
CONTINUOUS ELEMENTS:	
- 2 - 1.1/2" BEARING BLOCKS (3") - 1.5" LUMBER RIM BOARD - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - HOLLOW BACKED VINYL SIDING - EXTERIOR AIR FILM	0.65 0.325 0.11 - 0.11 0.03 RSI 1.225 (R-6.95)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{12.5}{1.19} + \frac{87.5}{2.46}} = 2.17$ RSI	RSI 2.17 (R-12.30)
TOTAL EFFECTIVE INSULATION VALUE	RSI 3.395 (R-19.25)

ABOVE GRADE WALL ASSEMBLY (6.35MM FIBRE-CEMENT BOARD SIDING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X6 STUDS @ 16" O.C.	
ASSEMBLY DESCRIPTION: - 1/2" GYPSUM BOARD - 6 MIL POLY VAPOUR BARRIER - 2X6 STUDS @ 16" O.C. - R-19 (R-20 COMPRESSED) BATT FIBREGLASS INSULATION IN CAVITIES - 1/2" PLYWOOD SHEATHING - AIR BARRIER/SHEATHING MEMBRANE - 3/8" CAPILLARY BREAK SPACE - 6.35MM (1/4") FIBRE-CEMENT CLADDING	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - 1/2" GYPSUM WALL BOARD - 6 MIL POLY VAPOUR BARRIER - 1/2" PLYWOOD SHEATHING - AIR BARRIER/SHEATHING MEMBRANE - 3/8" CAPILLARY BREAK SPACE - 6.35MM (1/4") FIBRE-CEMENT CLADDING - EXTERIOR AIR FILM	0.12 0.08 - 0.11 - 0.15 0.023 0.03 RSI 0.513 (R-2.90)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{23}{1.19} + \frac{77}{3.34}} = 2.36$ RSI	RSI 2.36 (R-13.38)
TOTAL EFFECTIVE INSULATION VALUE	RSI 2.873 (R-16.28)

ABOVE GRADE WALL ASSEMBLY (HOLLOW BACKED VINYL SIDING)

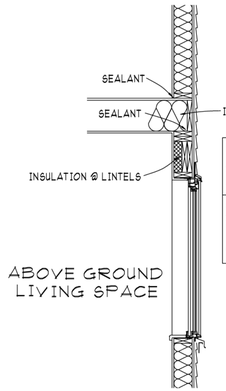
MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X6 STUDS @ 16" O.C.	
ASSEMBLY DESCRIPTION: - 1/2" GYPSUM BOARD - 6 MIL POLY VAPOUR BARRIER - 2X6 STUDS @ 16" O.C. - R-19 (R-20 COMPRESSED) BATT FIBREGLASS INSULATION IN CAVITIES - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - HOLLOW BACKED VINYL SIDING	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - 1/2" GYPSUM WALL BOARD - 6 MIL POLY VAPOUR BARRIER - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - HOLLOW BACKED VINYL SIDING - EXTERIOR AIR FILM	0.12 0.08 - 0.11 - 0.11 0.03 RSI 0.45 (R-2.55)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{23}{1.19} + \frac{77}{3.34}} = 2.36$ RSI	RSI 2.36 (R-13.38)
TOTAL EFFECTIVE INSULATION VALUE	RSI 2.81 (R-15.93)

ABOVE GRADE WALL ASSEMBLY (STUCCO CLADDING EXTERIOR WALL ASSEMBLY)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X6 STUDS @ 16" O.C.	
ASSEMBLY DESCRIPTION: - 1/2" GYPSUM BOARD - 6 MIL POLY VAPOUR BARRIER - 2X6 STUDS @ 16" O.C. - R-19 (R-20 COMPRESSED) BATT FIBREGLASS INSULATION IN CAVITIES - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - 1/2" AIR SPACE - PAPER BACKED METAL LATH - STUCCO CLADDING	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - 1/2" GYPSUM WALL BOARD - 6 MIL POLY VAPOUR BARRIER 2X6 STUDS @16"O.C./(R9(1.19) - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - 1/2" AIR SPACE - PAPER BACKED METAL LATH - STUCCO CLADDING - EXTERIOR AIR FILM	0.12 0.08 2.36 0.11 - 0.16 0 0.013 0.03 RSI 2.78(R 15.78)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{23}{1.19} + \frac{77}{3.34}} = 2.36$ RSI	RSI 2.36 (R-13.38)
TOTAL EFFECTIVE INSULATION VALUE	RSI2.87 (R-16.3)

(STONE FACE EXTERIOR WALL ASSEMBLY)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X6 STUDS @ 16" O.C.	
ASSEMBLY DESCRIPTION: - 1/2" GYPSUM BOARD - 6 MIL POLY VAPOUR BARRIER - 2X6 STUDS @ 16" O.C. - R-19 (R-20 COMPRESSED) BATT FIBREGLASS INSULATION IN CAVITIES - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - 1/2" AIR SPACE - PAPER BACKED METAL LATH - STONE CLADDING	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - 1/2" GYPSUM WALL BOARD - 6 MIL POLY VAPOUR BARRIER 2X6 STUDS @16"O.C./(R9(1.19) - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - 1/2" AIR SPACE - PAPER BACKED METAL LATH - STONE CLADDING - EXTERIOR AIR FILM	0.12 0.08 2.36 0.11 - 0.16 0 0.013 0.03 RSI 2.78(R 15.78)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{23}{1.19} + \frac{77}{3.34}} = 2.36$ RSI	RSI 2.36 (R-13.38)
TOTAL EFFECTIVE INSULATION VALUE	RSI2.87 (R-16.3)



THE THERMAL BRIDGING EFFECT OF CLOSELY SPACED, REPETITIVE STRUCTURAL MEMBERS LIKE STUDS & JOISTS, AND OF ANCILLARY MEMBERS LIKE LINTELS, SILLS AND PLATES, MUST BE ACCOUNTED FOR WHEN CALCULATING THE THERMAL RESISTANCE OF BUILDING ENVELOPE ASSEMBLIES.

FENESTRATION (WINDOWS) AND DOORS TO HAVE AN OVERALL THERMAL TRANSMITTANCE (U-VALUE) NOT GREATER THAN THE VALUES LISTED IN TABLE 9.36.2.7.A (BCBC LATEST REVISION) FOR THE APPLICABLE HEATING DEGREE-DAY CATEGORY. CLIMATE ZONE 4 & 5 MAXIMUM U-VALUE TO BE 1.80

CLIMATE ZONE 4 ENERGY EFFICIENCY OPAQUE ABOVE GRADE WALL ASSEMBLY DETAIL

SCALE: 3/4" = 1'-0"

THIS NOTE WILL BE MOVED TO THE FLOOR PLANS PAGE

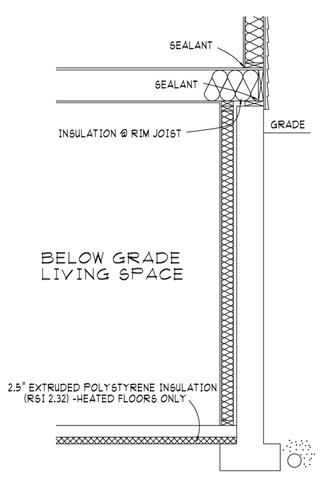
FENESTRATION (WINDOWS) AND DOORS TO HAVE AN OVERALL THERMAL TRANSMITTANCE (U-VALUE) NOT GREATER THAN THE VALUES LISTED IN TABLE 9.36.2.7.A (BCBC LATEST REVISION) FOR THE APPLICABLE HEATING DEGREE-DAY CATEGORY. CLIMATE ZONE 4 & 5 MAXIMUM U-VALUE TO BE 1.80	
DOOR TO UNCONDITIONED GARAGE FROM DWELLING	USI 2.6 (U-0.46)
ATTIC ACCESS HATCH	RSI 2.6 (R-14.8)
FRONT DOORS	USI 2.6 (U-0.46)
GLASS BLOCK	USI 2.9 (U-0.51)
OVERHEAD GARAGE DOOR (WHEN GARAGE CONDITIONED)	RSI 1.1 (R-6.245)

BELOW GRADE WALL ASSEMBLY

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 1.99 (R-11.3) 2X4 STUDS @ 24" O.C.	
ASSEMBLY DESCRIPTION: - 8" POURED-IN PLACE CONCRETE WALL - 2X4 STUDS @ 24" O.C. - POLYETHYLENE - R-14 BATT FIBREGLASS INSULATION - 1/2" GYPSUM WALL BOARD	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - 1/2" GYPSUM WALL BOARD - POLYETHYLENE - 1" AIR SPACE - 8" POURED-IN PLACE CONCRETE WALL - DAMPPROOFING	0.12 0.08 - 0.18 - 0.21 RSI 1.99 (RIII.13)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{16}{.75} + \frac{84}{2.46}} = 1.80$ RSI	RSI 1.80 (R-10.20)
TOTAL EFFECTIVE INSULATION VALUE	RSI 2.27

BELOW GRADE WALL ASSEMBLY

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 1.99 (R-11.3) 2X4 STUDS @ 24" O.C.	
ASSEMBLY DESCRIPTION: - 8" POURED-IN PLACE CONCRETE WALL - 2" XPS INSULATION	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - 1/2" GYPSUM WALL BOARD - 2" XPS INSULATION - 8" POURED-IN PLACE CONCRETE WALL - DAMPPROOFING	0.12 0.08 1.68 - 0.21 RSI 2.09 (R-11.85)
TOTAL EFFECTIVE INSULATION VALUE	RSI 2.21 (R-12.52)



CLIMATE ZONE 4 ENERGY EFFICIENCY OPAQUE BELOW GRADE WALL ASSEMBLY DETAIL

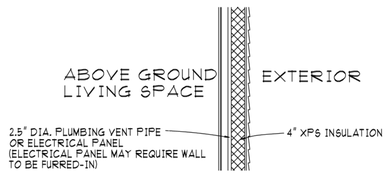
SCALE: 3/4" = 1'-0"

ABOVE GRADE WALL ASSEMBLY WITH PLUMBING VENT/ELECTRICAL PANEL (6.35MM FIBRE-CEMENT BOARD SIDING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X8 STUDS @ 16" O.C.	
ASSEMBLY DESCRIPTION: - 1/2" GYPSUM BOARD - 6 MIL POLY VAPOUR BARRIER - 2X8 STUDS @ 16" O.C. - 4" XPS INSULATION - 1/2" PLYWOOD SHEATHING - AIR BARRIER/SHEATHING MEMBRANE - 3/8" CAPILLARY BREAK SPACE - 6.35MM (1/4") FIBRE-CEMENT CLADDING	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - 1/2" GYPSUM WALL BOARD - 6 MIL POLY VAPOUR BARRIER - 1/2" PLYWOOD SHEATHING - AIR BARRIER/SHEATHING MEMBRANE - 3/8" CAPILLARY BREAK SPACE - 6.35MM (1/4") FIBRE-CEMENT CLADDING - EXTERIOR AIR FILM	0.12 0.08 - 0.11 - 0.15 0.023 0.03 RSI 0.513 (R-2.91)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{23}{1.61} + \frac{77}{3.50}} = 2.75$ RSI	RSI 2.75 (R-15.59)
TOTAL EFFECTIVE INSULATION VALUE	RSI 3.263 (R-18.50)

ABOVE GRADE WALL ASSEMBLY WITH PLUMBING VENT/ELECTRICAL PANEL (HOLLOW BACKED VINYL SIDING)

MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X8 STUDS @ 16" O.C.	
ASSEMBLY DESCRIPTION: - 1/2" GYPSUM BOARD - 6 MIL POLY VAPOUR BARRIER - 2X8 STUDS @ 16" O.C. - 4" XPS INSULATION - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - HOLLOW BACKED VINYL SIDING	
CONTINUOUS ELEMENTS: - INTERIOR AIR FILM - 1/2" GYPSUM WALL BOARD - 6 MIL POLY VAPOUR BARRIER - 1/2" PLYWOOD SHEATHING - SHEATHING MEMBRANE - HOLLOW BACKED VINYL SIDING - EXTERIOR AIR FILM	0.12 0.08 - 0.11 - 0.11 0.03 RSI 0.45 (R-2.55)
CAVITY RSI (PARALLEL) $\frac{100}{\frac{23}{1.61} + \frac{77}{3.50}} = 2.75$ RSI	RSI 2.75 (R-15.59)
TOTAL EFFECTIVE INSULATION VALUE	RSI 3.20 (R-18.14)



CLIMATE ZONE 4 ENERGY EFFICIENCY PLUMBING VENT/ ELECTRICAL PANEL WALL ASSEMBLY DETAIL

SCALE: 3/4" = 1'-0"

ENERGY EFFICIENCY REQUIREMENTS

THIS HOME IS DESIGNED TO COMPLY WITH ENERGY EFFICIENCY REQUIREMENTS AND VALUES USING THE PRESCRIPTIVE METHOD FOR CLIMATE ZONE 4 - LOWER MAINLAND AND SOUTHERN VANCOUVER ISLAND WITH NO H.R.V. (BCBC 2018 LATEST EDITION)

ENERGY EFFICIENCY PAGE 2

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

GREEN CLOVER HOME DESIGNS
778.889.0002

THESE DRAWINGS COMPLY WITH THE 2018 BCBC

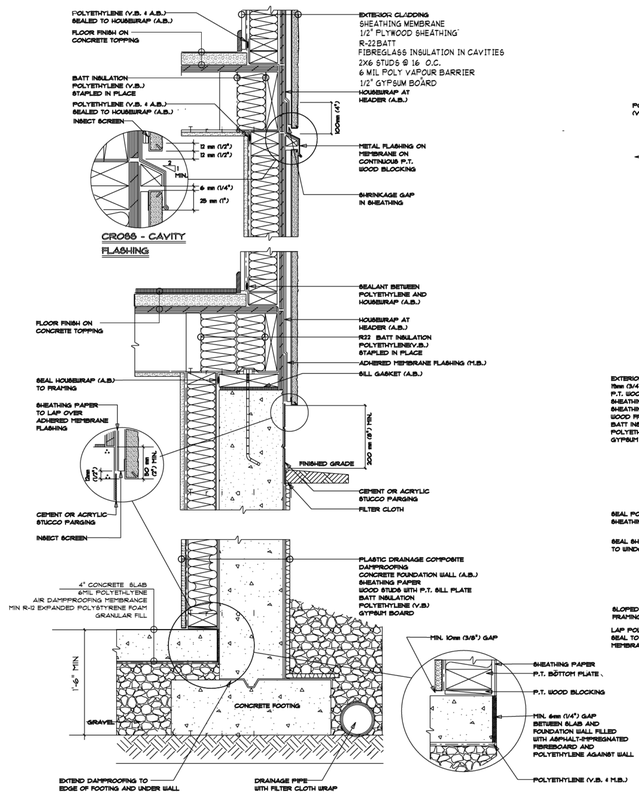
SHEET TITLE: **ENERGY DETAIL PAGE #2**

SITE ADDRESS: **14737 MARINE DRIVE, WHITEROCK,**

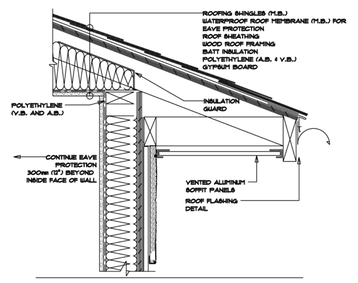
OWNER NAME : GURPAL GILL
CONTACT # :

DATE: October 6, 2023

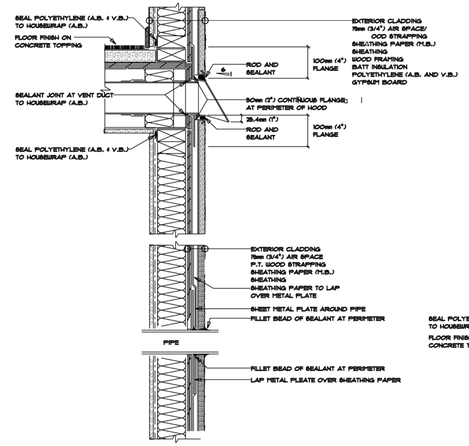
SHEET # **6**



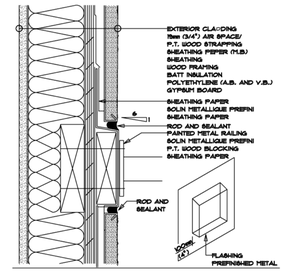
TYPICAL EXTERIOR WALL DETAIL



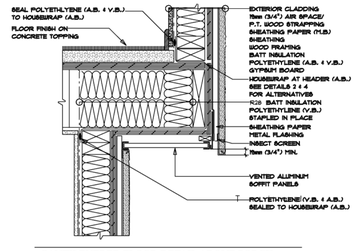
TYPICAL OVERHAND & WALL CONNECTION



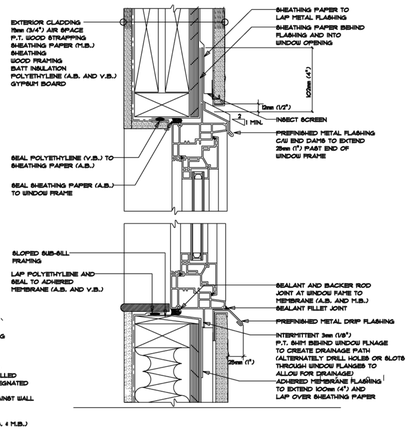
TYPICAL PENETRATION DETAILS



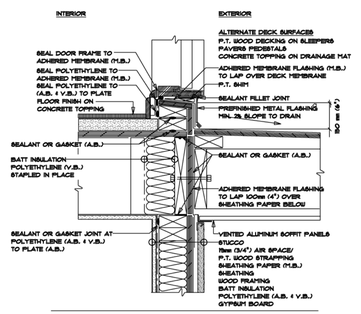
TYPICAL GUARD/HANDRAIL DETAIL



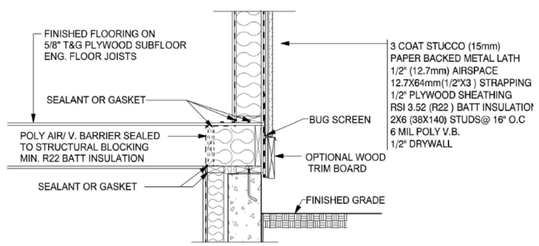
CANTILEVERED FLOOR DETAIL ABOVE PORCH



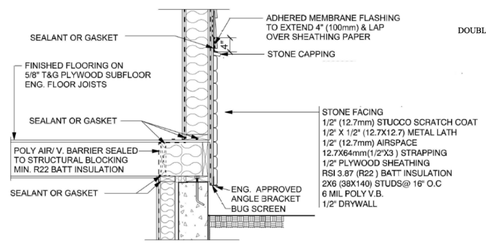
TYPICAL TOP & BOTTOM WINDOW DETAIL



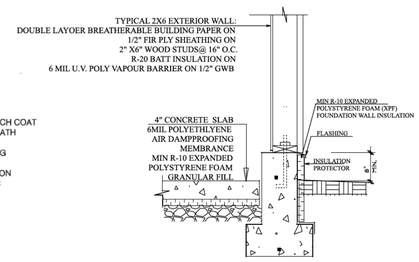
DOOR SILL DETAIL -DECK SURFACE



TYP 2X6 STUCCO WALL DETAIL



TYP 2X6 STONE WALL DETAIL



TYPICAL GARAGE WALL DETAIL-UNHEATED FLOOR

RAIN SCREEN

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

GREEN CLOVER HOME DESIGNS
778.889.0002
THESE DRAWINGS COMPLY WITH THE 2018 BCBC

SHEET TITLE: **RAIN SCREEN**

SITE ADDRESS: **14737 MARINE DRIVE, WHITEROCK,**

OWNER NAME : GURPAL GILL
CONTACT # :

DATE: October 6, 2023

SHEET # **7**