

LEFT WALL - UNPROTECTED OPENING
CALCULATIONS
3/32" = 1'-0"

LOT 21 - BASEMENT ENTRY F2

REVISIONS

PROJECT 18007

33975 BARKER COURT

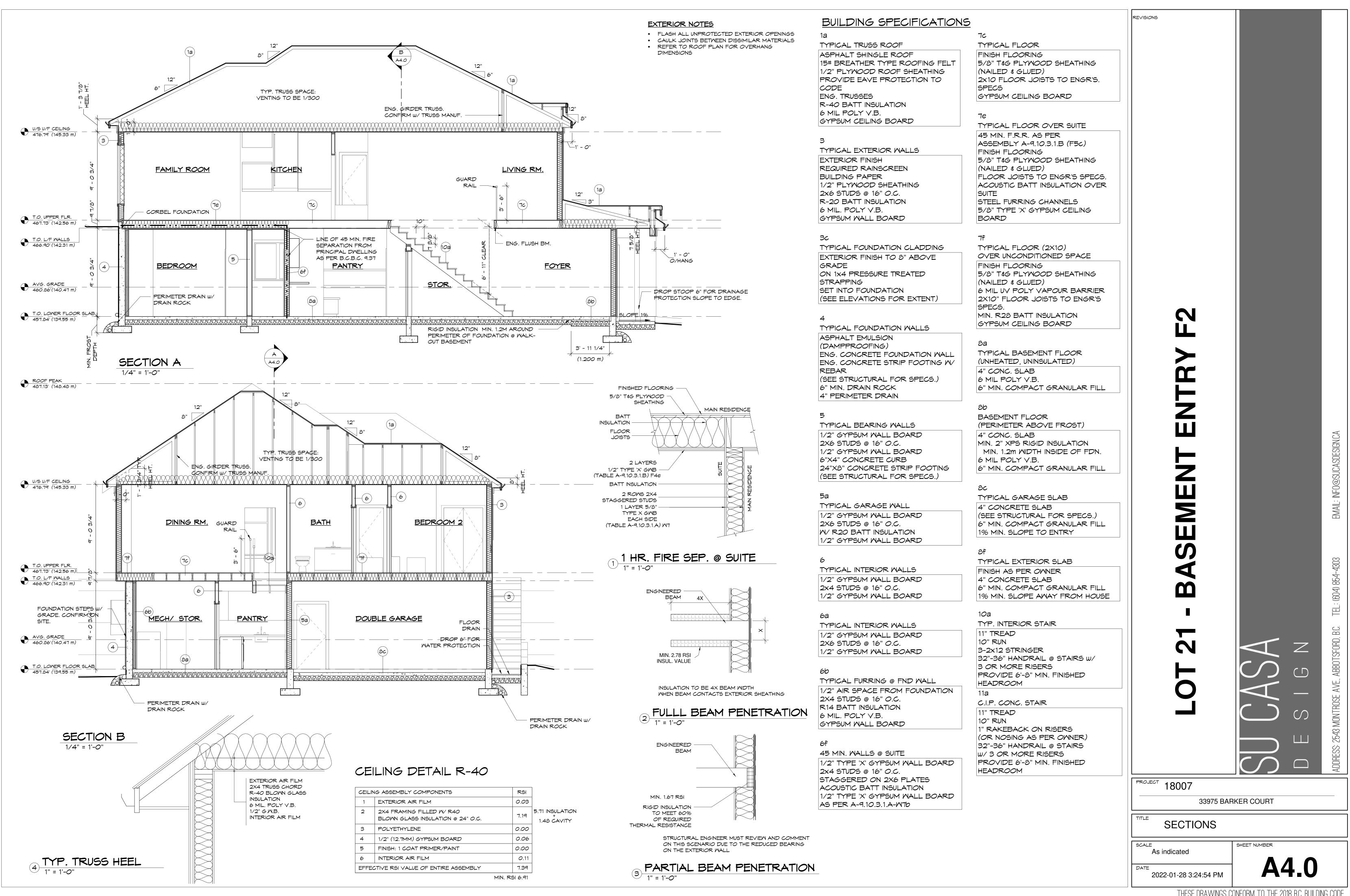
EXTERIOR ELEVATIONS

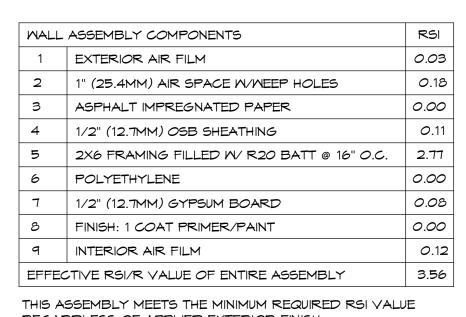
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REGARDLESS OF APPLIED EXTERIOR FINISH

WALL ASSEMBLY COMPONENTS		RSI
1	EXTERIOR AIR FILM	0.03
2	ASPHALT IMPREGNATED PAPER	0.00
3	1/2" (12.7MM) OSB SHEATHING	0.11
4	2X6 FRAMING FILLED W/ R20 BATT @ 16" O.C.	2.77
5	POLYETHYLENE	0.00
6	1/2" (12.7MM) GYPSUM BOARD	0.08
7	FINISH: 1 COAT PRIMER/PAINT	0.00
8	INTERIOR AIR FILM	0.12
EFFEC	TIVE RSI/R VALUE OF ENTIRE ASSEMBLY	3.16

THIS ASSEMBLY MEETS THE MINIMUM REQUIRED RSI VALUE REGARDLESS OF APPLIED EXTERIOR FINISH

MALI	WALL ASSEMBLY COMPONENTS		
1	EXTERIOR AIR FILM	0.03	
2	1/2" (12.7MM) GYPSUM BOARD	0.08	
3	2X6 FRAMING FILLED W/ R20 BATT @ 16" O.C.	2.77	
4	1/2" (12.7MM) GYPSUM BOARD	0.08	
5	POLYETHYLENE	0.00	
6	FINISH: 1 COAT PRIMER/PAINT	0.00	
7	INTERIOR AIR FILM	0.12	
EFFE	EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		

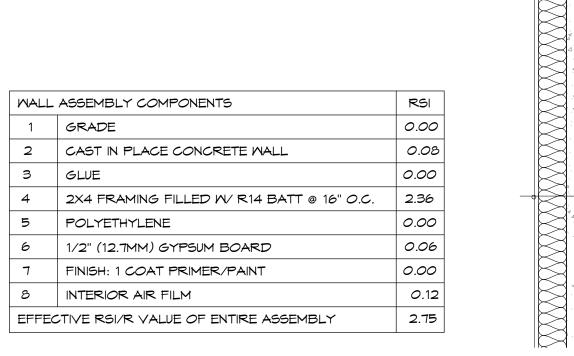
THIS ASSEMBLY MEETS THE MINIMUM REQUIRED RSI VALUE REGARDLESS OF APPLIED EXTERIOR FINISH

MALL	WALL ASSEMBLY COMPONENTS		
1	EXTERIOR AIR FILM	0.03	
2	1" (25.4MM) AIR SPACE W/NEEP HOLES	0.18	
3	ASPHALT IMPREGNATED PAPER	0.00	
4	1/2" (12.7MM) OSB SHEATHING	0.11	
5	2X4 FRAMING FILLED W/ R14 BATT @ 16" O.C.	1.62	
6	2" RIGID INSULATION	1.68	
8	POLYETHYLENE	0.00	
9	1/2" (12.7MM) GYPSUM BOARD	0.08	
10	FINISH: 1 COAT PRIMER/PAINT	0.00	
11	INTERIOR AIR FILM	0.12	
EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY			

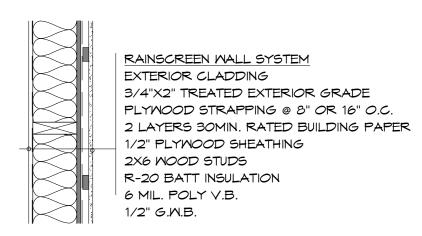
THIS ASSEMBLY MEETS THE MINIMUM REQUIRED RSI VALUE REGARDLESS OF APPLIED EXTERIOR FINISH

V	WALL ASSEMBLY COMPONENTS		
	1	EXTERIOR AIR FILM	0.03
	2	1/2" (12.7MM) GYPSUM BOARD	0.08
	3	2X4 FRAMING FILLED W/ R14 BATT @ 16" O.C.	1.62
	4	2" RIGID INSULATION	1.68
:	5	1/2" (12.7MM) GYPSUM BOARD	0.08
	6	POLYETHYLENE	0.00
	7	FINISH: 1 COAT PRIMER/PAINT	0.00
	8	INTERIOR AIR FILM	0.12
E	EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		

THIS ASSEMBLY MEETS THE MINIMUM REQUIRED RSI VALUE REGARDLESS OF APPLIED EXTERIOR FINISH



6 TYP. BELOW GRADE FDN. WALL



TYP. EXTERIOR WALL

TYP. ATTIC WALL

2 1" = 1'-0"

		RAINSCREEN WALL SYSTEM EXTERIOR CLADDING 3/4"X2" TREATED EXTERIOR GRADE PLYWOOD STRAPPING @ 8" OR 16" O.C. 2 LAYERS 30MIN. RATED BUILDING PAPER 1/2" PLYWOOD SHEATHING 2X6 WOOD STUDS R-20 BATT INSULATION 6 MIL. POLY V.B. 1/2" G.W.B.
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MINIMUM REQUIRED EFFECTIVE THERMAL RESISTANCE = RSI 2.78 (R-15.8) 2X10 FLR JSTS. @ 16" O.C. W/R20 BATT INSULATION CONTINUOUS ELEMENTS RSI R - 2X10 JOIST RIM BOARD 0.325 1.85 0.11 0.62 - 1/2" PLYWOOD SHEATHING - AIR BARRIER/SHEATHING MEMBRANE 0.00 0.00 - 3/8" CAPILLARY BREAK SPACE 0.15 0.85 - 1/4" FIBRE-CEMENT CLADDING 0.023 0.13 0.03 0.17 - EXTERIOR AIR FILM 0.638 3.62 CAVITY RSI (PARALLEL) <u>100</u> RSI 2.82 12.5 ₊87.5 = 2.82 RSI (R15.99) 1.19 3.52 RSI 3.458 TOTAL EFFECTIVE INSULATION VALUE (R19.61)

EXTERIOR FINISH MATERIAL FINISHED FLOORING PLYMOOD SHEATHING -INSULATION -FLOOR **JOISTS** G.W.B. FINISH AIR TIGHT RIM WRAP SEALED TO INTERIOR AIR BARRIER SYSTEM

RAINSCREEN WALL SYSTEM

1/2" PLYWOOD SHEATHING

3/4"X2" TREATED EXTERIOR GRADE

PLYWOOD STRAPPING @ 8" OR 16" O.C.

2 LAYERS 30MIN. RATED BUILDING PAPER

EXTERIOR CLADDING

2X6 MOOD STUDS

6 MIL. POLY V.B.

ANCHOR BOLTS

FOAM SILL GASKET

BACKFILL

CORBEL INSIDE OF FOUNDATION

WALL TO ACCOMMODATE JOISTS

FOUNDATION PROTECTION

RAINSCREEN WALL SYSTEM

1/2" PLYWOOD SHEATHING

KEENE DRIWALL RAINSCREEN

TYVEK RATED BUILDING PAPER

EXTERIOR CLADDING

2X6 MOOD STUDS

ANCHOR BOLTS

FOAM SILL GASKET

CONC. SLAB

FOUNDATION PROTECTION

FLOOR ASSEMBLY

6 MIL POLY V.B.

6" GRAVEL FILL

4" CONCRETE SLAB

BACKFILL

COMPACTED GRANULAR FILL

TYP. BASEMENT FOOTING

EXPANSION JOINT

4'-0" O.C. (TYP.)

1/2" G.M.B.

SILL PLATE

SLOPE

R-20 BATT INSULATION

6 MIL. POLY AIR BARRIER

- COMPACTED GRANULAR FILL

4'-0" O.C. (TYP.)

SILL PLATE

SLOPE

1/2" G.M.B.

R-20 BATT INSULATION

TYP. RIM JOIST DETAIL

FLOOR ASSEMBLY

5/8" T&G PLYWOOD SHEATHING

FINISH FLOORING

2X4 STUDS

1/2" G.M.B.

FLOOR ASSEMBLY

4" CONCRETE SLAB 2" RIGID INSULATION 6 MIL POLY V.B.

FINISH FLOORING

6" GRAVEL FILL

2" RIGID INSULATION

FLOOR SYSTEM

6 MIL. POLY V.B.

2X10 FLOOR JOIST

5/8" PLYWOOD SUBFLOOR

MIN. R-28 BATT INSULATION

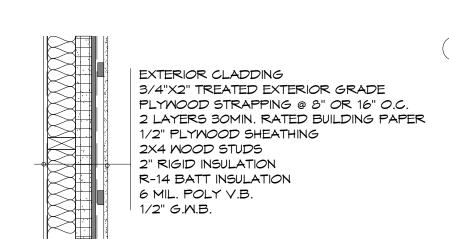
1/2" PLYWOOD SHEATHING

CONTINUOUS TO FOOTING

SUB FLOOR

CONCRETE WALL M/FURRING

MALL	ASSEMBLY COMPONENTS	RSI	R
1	GRADE	0.00	0.00
2	CAST IN PLACE CONCRETE WALL	0.24	1.36
3	GLUE	0.00	0.00
4	2X4 FRAMING FILLED W/ R14 BATT @ 16" O.C.	2.36	13.40
5	POLYETHYLENE	0.00	0.00
6	1/2" (12.7MM) GYPSUM BOARD	0.06	0.45
7	FINISH: 1 COAT PRIMER/PAINT	0.00	0.00
8	INTERIOR AIR FILM	0.12	0.68
EFFE	CTIVE RSI/R VALUE OF ENTIRE ASSEMBLY	2.75	15.89



GARAGE WALL SYSTEM

R-20 BATT INSULATION

2X6 MOOD STUDS

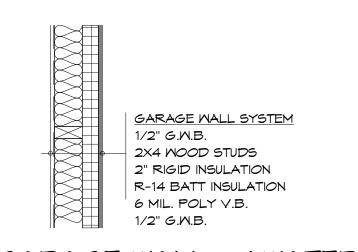
6 MIL. POLY V.B.

1/2" G.M.B.

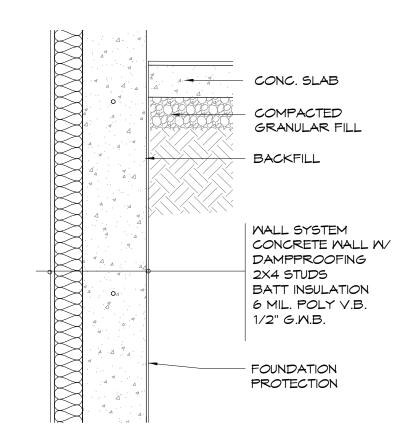
1/2" G.M.B.

3 TYP. GARAGE WALL

TYP. WALL W/ WATERLINES



GARAGE MALL W/ MATERLINES



2X10 FLOOR JOISTS BATT INSULATION 1/2" G.M.B. FLOOR JOISTS 8 TYP. ENTRY STOOP @ CORBEL **WALL SYSTEM** CONCRETE WALL M/ DAMPPROOFING BATT INSULATION 6 MIL. POLY V.B.

CONCRETE WALL

MALL	ASSEMBLY COMPONENTS	RSI	R
1	GRADE	0.00	0.00
2	2 LAYERS MOPPED SEAL	0.21	1.19
3	CAST IN PLACE CONCRETE WALL	0.08	0.45
3	2" EXTRUDED POLYSTYRENE (R10)	1.76	9.99
EFFEC	TIVE RSI/R VALUE OF ENTIRE ASSEMBLY	2.05	11.64

CONCRETE SLAB

FLOOR ASSEMBLY COMPONENTS		RSI	F
1	INTERIOR AIR FILM	0.12	0.6
2	HARDMOOD FLOORING	0.12	0.
3	CAST IN PLACE CONCRETE FLOOR	0.04	0.:
4	2" EXTRUDED POLYSTYRENE	1.96	11.
5	6" CRUSHED GRAVEL FILL	0.67	3.8
REQ'D EFFECTIVE RSI/R VALUE		1.96	11.
EFFEC	EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		16

TYP. SLAB ON GRADE/BASEMENT ENTRY

FLOC	OR ASSEMBLY COMPONENTS	RSI	R
1	INTERIOR AIR FILM	0.12	0.68
2	5/8" (16MM) PLYWOOD SUBFLOOR	0.14	0.80
3	POLYETHYLENE	0.00	0.00
4	2X10 FLOOR JOIST @ 16" O.C W/ R31	4.46	25.34
5	1/2" (12.5MM) PLYWOOD SHEATHING	0.11	0.62
6	EXTERIOR AIR FILM	0.03	0.17
EFFE	CTIVE RSI/R VALUE OF ENTIRE ASSEMBLY	4.93	28.03
INSTA	LLED INSULATION RSI/R VALUE (NOMINAL)	5.46	31.00

TYP. 2X10 FLOOR UNCONDITIONED FLOOR

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

REVISIONS

- FOUNDATION TO SILL PLATE AND RIM JOISTS ALL JOISTS 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 ALL 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

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

THE INTERFACE BETWEEN WINDOW SILL 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

- 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 SEALAND 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 PIPE WITH A COMPATIBLE MATERIAL OR SHEATHING TAPE OR INSTALLING A RUBBER GASKET OR PREFABRICATED ROOF FLASHING AT THE PENETRATION OF THE PLANE

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

OF AIRTIGHTNESS AND SEALING IT TO THE TOP PLATE

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 WALL 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

COMPACTED GRANULAR FILL

BACKFILL

FOUNDATION PROTECTION

EXPANSION JOINT

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EMAIL:

B.C.

18007 33975 BARKER COURT

DETAILS

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THESE DRAWINGS CONFORM TO THE 2018 B.C. BUILDING CODE