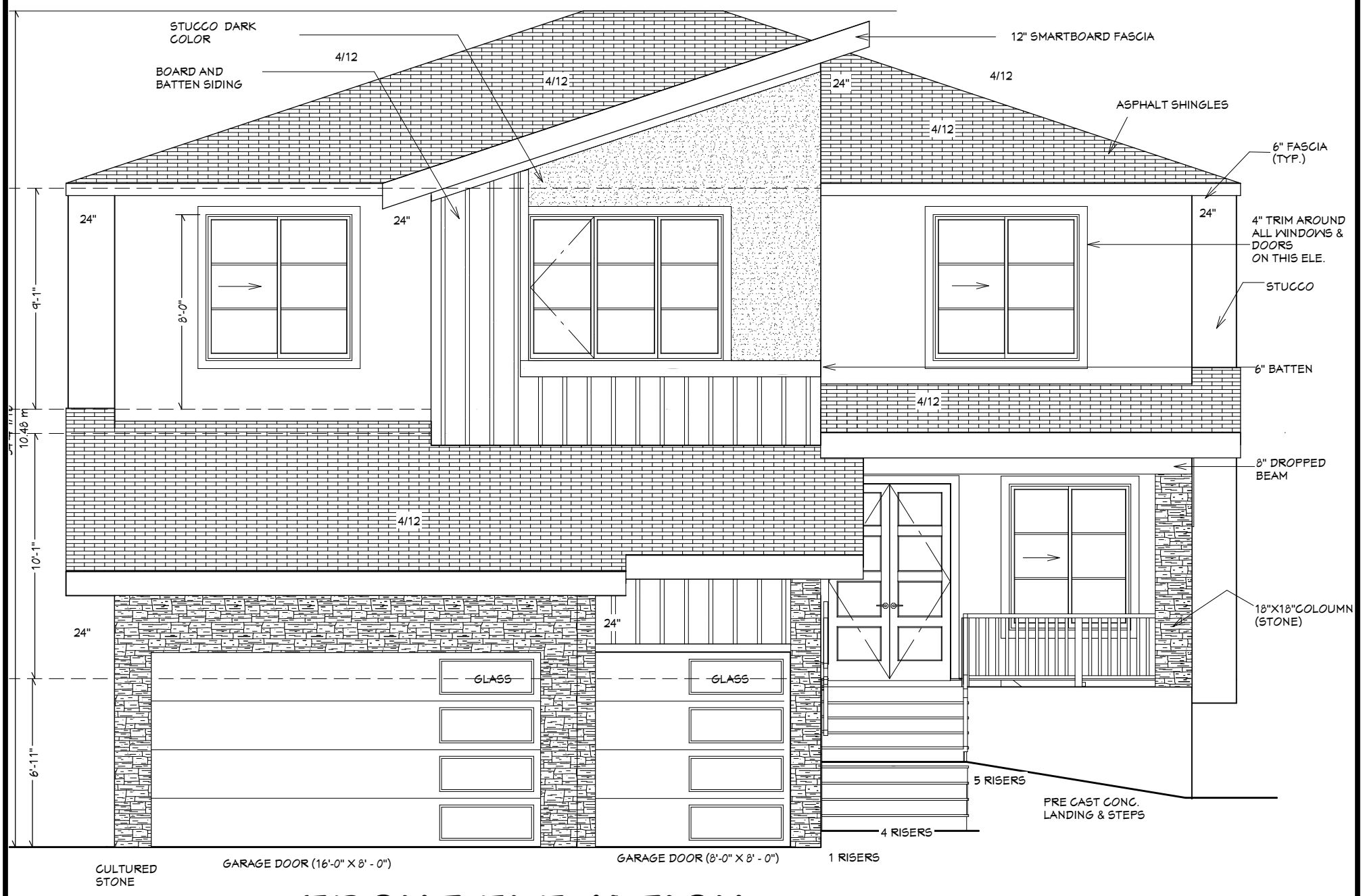


FRONT ELEVATION

REAR ELEVATION

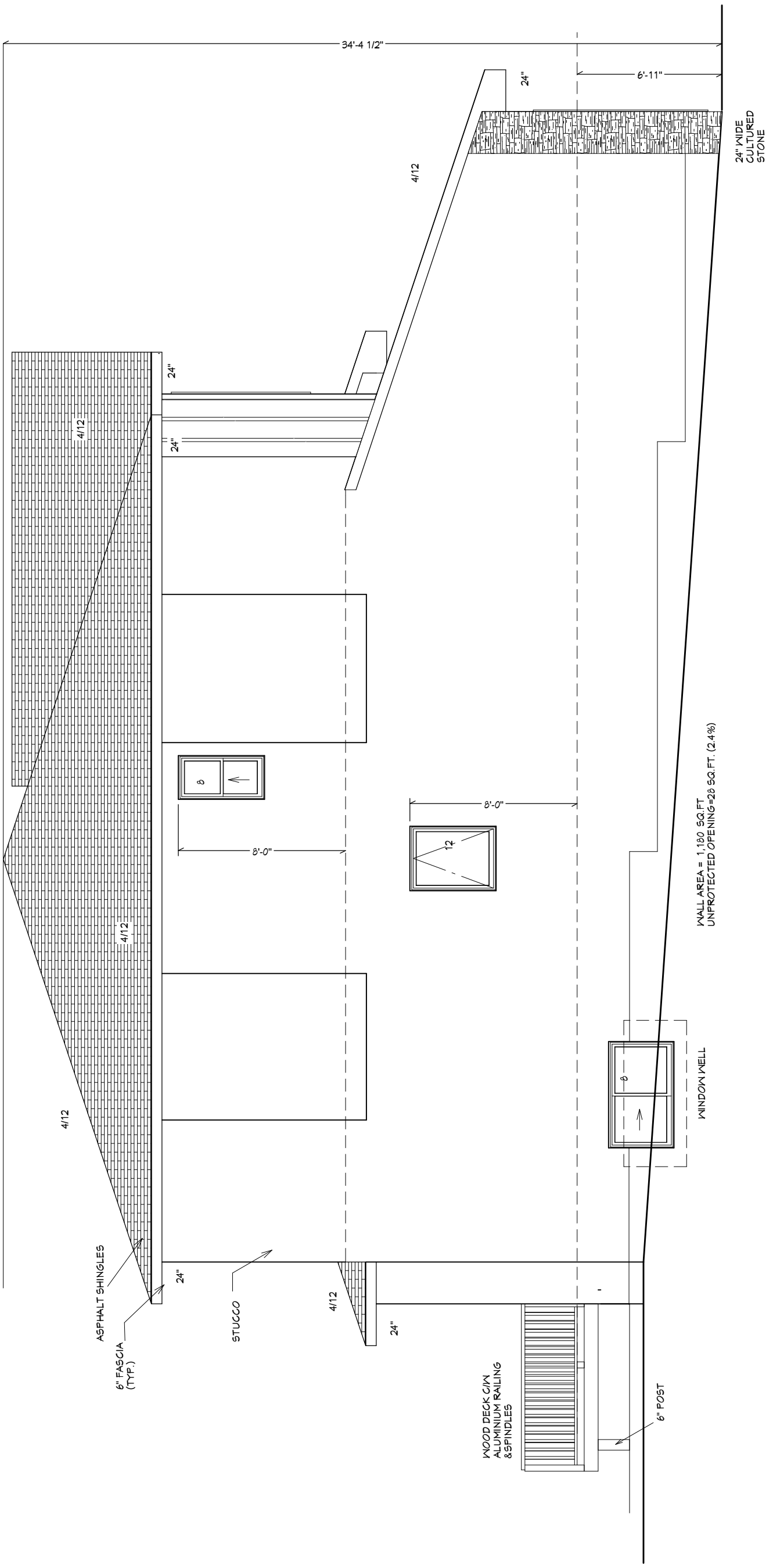
BUILDER/CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS & DETAILS BEFORE STARTING ANY CONSTRUCTION AND REPORT ANY ERROR IN ADVANCE TO DESIGNER. DESIGNERS LIABILITY LIMITED TO CORRECTION OF PLANS ONLY.

PAGE NO. **1** **10/17/2024**	OWNER:	**LOT 16 BLOCK 2** **50 ELMONT CLOSE SW** SCALE **3/16"=1'- 0"**	**MAIN FLOOR : 1491** **SECOND FLOOR: 1694** **TOTAL SQ.FT. : 3185** **GARAGE : 725 SQ.FT**

ISSUED FOR

	Revisions	date
1		

ARCHI DESIGN INC.
hassan@archidesigns.ca
Tel: 587.438.5721
ARCHiDESIGN



LEFT ELEVATION

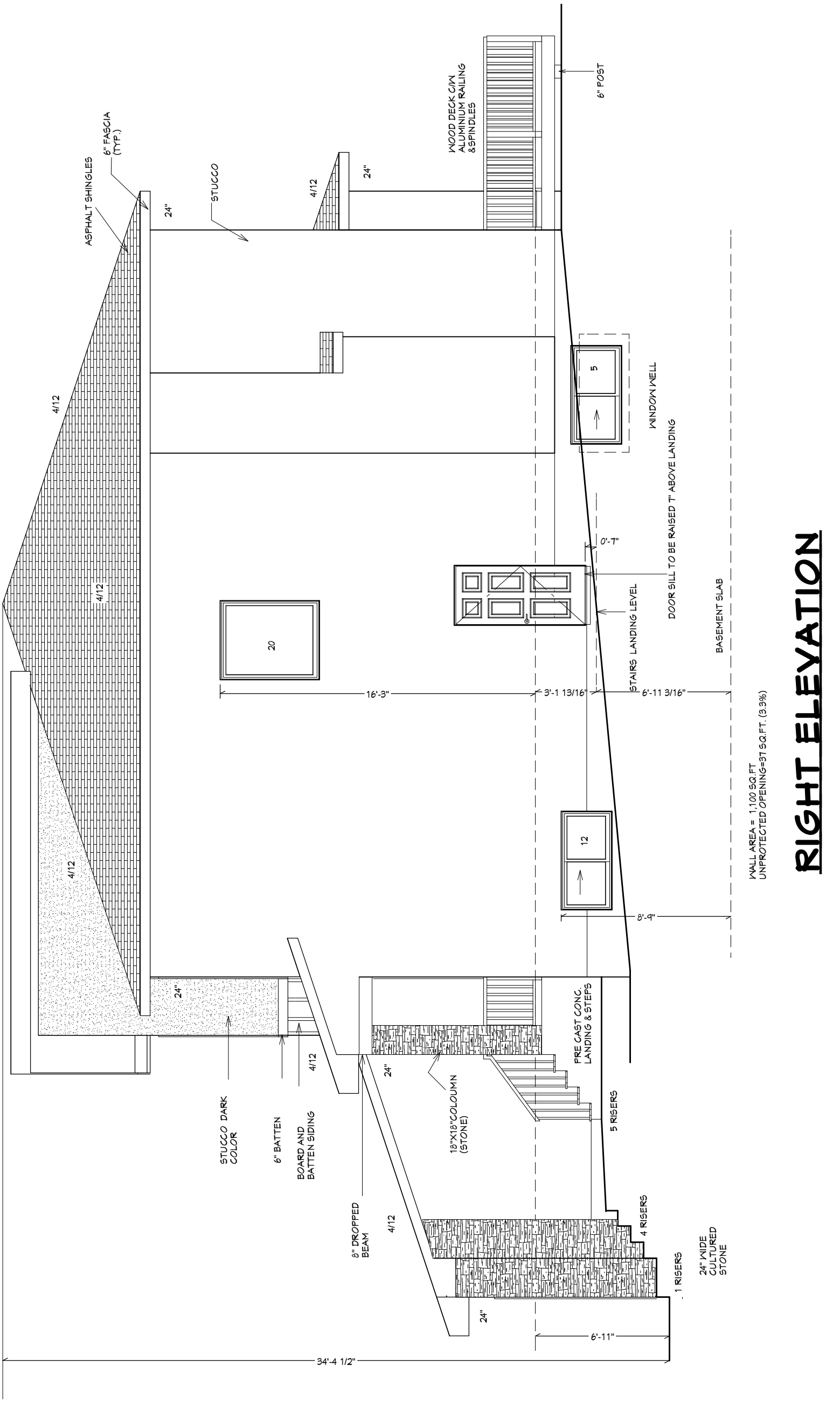
BUILDER/CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS & DETAILS BEFORE STARTING ANY CONSTRUCTION AND REPORT ANY ERROR IN ADVANCE TO DESIGNER. DESIGNERS LIABILITY LIMITED TO CORRECTION OF PLANS ONLY.

PAGE NO. **2** **10/17/2024**	OWNER:	**LOT 16 BLOCK 2** **50 ELMONT CLOSE SW** SCALE **3/16"=1'- 0"**	**MAIN FLOOR : 1491** **SECOND FLOOR: 1694** **TOTAL SQ.FT. : 3185** **GARAGE : 725 SQ.FT**

ISSUED FOR

	Revisions	date
1		

ARCHI DESIGN INC.
hassan@archidesigns.ca
Tel: 587.438.5721
ARCHiDESIGN



RIGHT ELEVATION

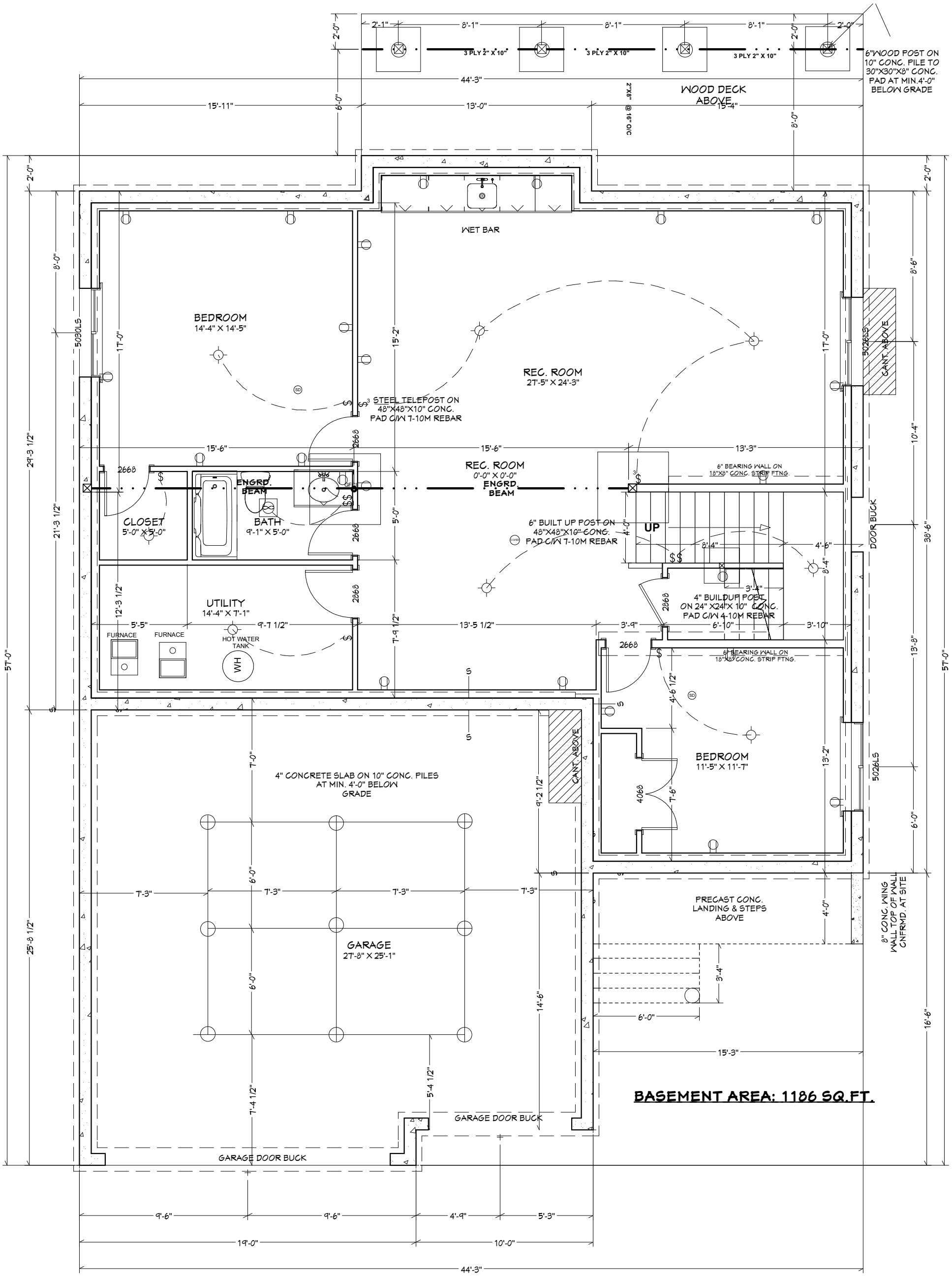
BUILDER/CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS & DETAILS BEFORE STARTING ANY CONSTRUCTION AND REPORT ANY ERROR IN ADVANCE TO DESIGNER. DESIGNERS LIABILITY LIMITED TO CORRECTION OF PLANS ONLY.

PAGE NO. **3** **10/17/2024**	OWNER:	**LOT 16 BLOCK 2** **50 ELMONT CLOSE SW** SCALE **3/16"=1'- 0"**	**MAIN FLOOR : 1491** **SECOND FLOOR: 1694** **TOTAL SQ.FT. : 3185** **GARAGE : 725 SQ.FT**

ISSUED FOR

	Revisions	date
1		

ARCHI DESIGN INC.
hassan@archidesigns.ca
Tel: 587.438.5721
ARCHiDESIGN

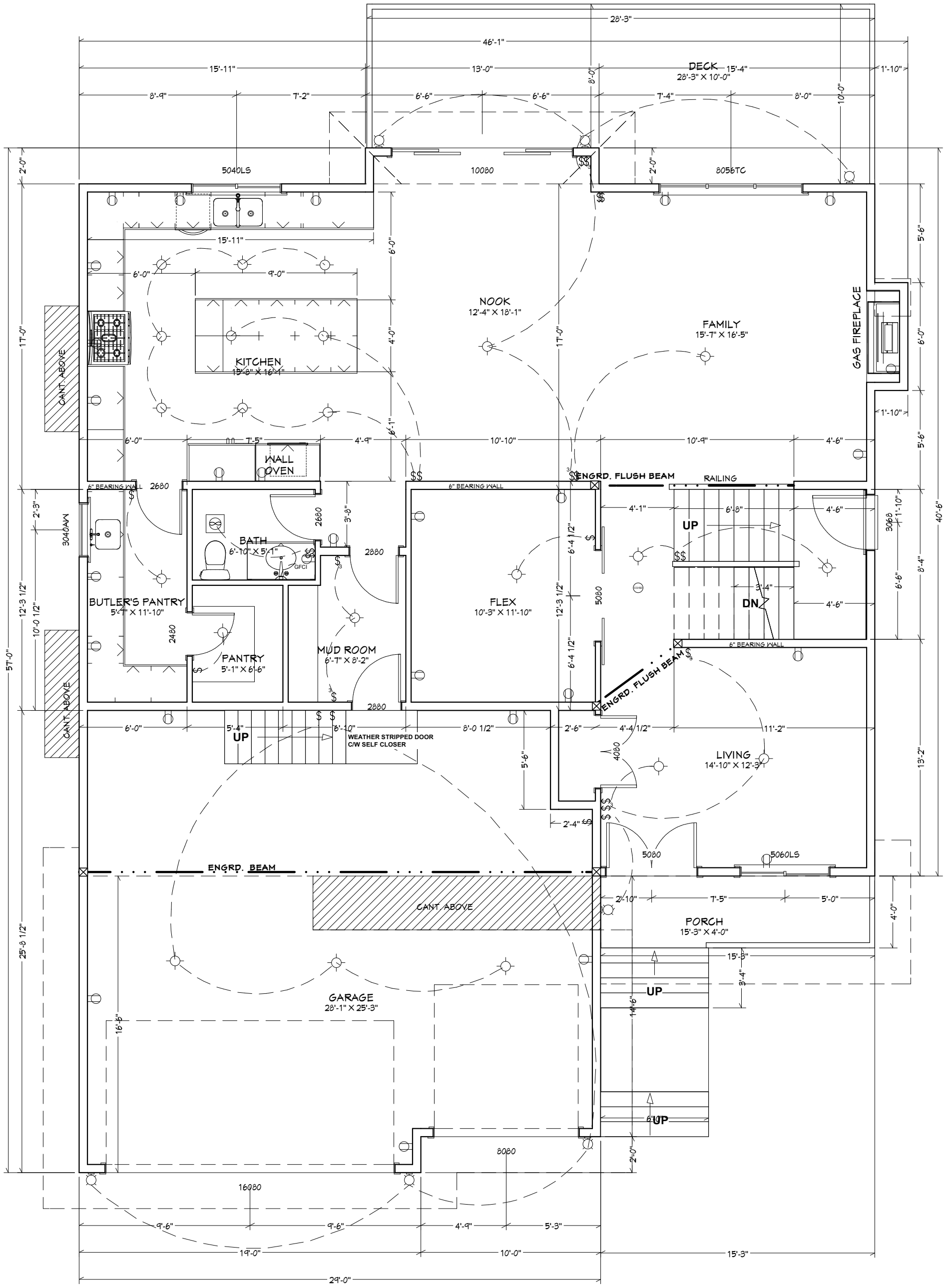


BASEMENT AREA: 1186 SQ.FT.

FOUNDATION PLAN

BUILDER/CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS & DETAILS BEFORE STARTING ANY CONSTRUCTION AND REPORT ANY ERROR IN ADVANCE TO DESIGNER. DESIGNERS LIABILITY LIMITED TO CORRECTION OF PLANS ONLY.

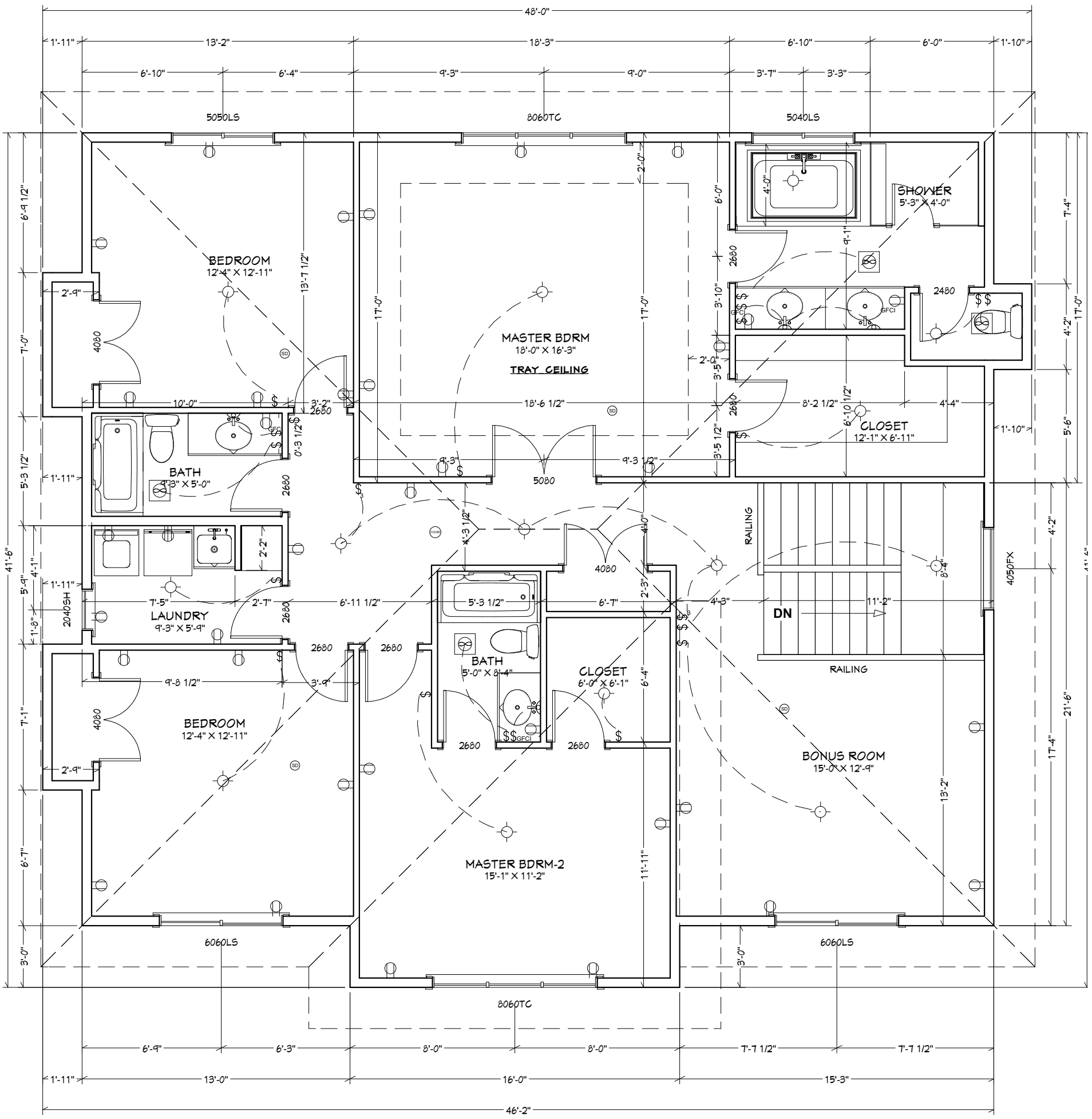
PAGE NO. **4** **10/17/2024**	OWNER: ISSUED FOR: Revisions / date: 1	**LOT 16 BLOCK 2** **50 ELMONT CLOSE SW** SCALE **3/16"=1'- 0"**	**MAIN FLOOR : 1491** **SECOND FLOOR: 1694** **TOTAL SQ.FT. : 3185** **GARAGE : 725 SQ.FT**	**ARCHI DESIGN INC.** hassan@archidesigns.ca Tel: 587.438.5721 ARCHiDESIGN



MAIN FLOOR PLAN

PAGE NO. 5	OWNER:	LOT 16 BLOCK 2 50 ELMONT CLOSE SW	MAIN FLOOR : 1491 SECOND FLOOR: 1694 TOTAL SQ.FT. : 3185 GARAGE : 725 SQ.FT
10/17/2024	ISSUED FOR — Revisions / date: 1	SCALE 3/16"=1'- 0"	

ARCHI DESIGN INC.
hassan@archidesigns.ca
Tel: 587.438.5721
ARCHiDESIGN



SECOND FLOOR PLAN

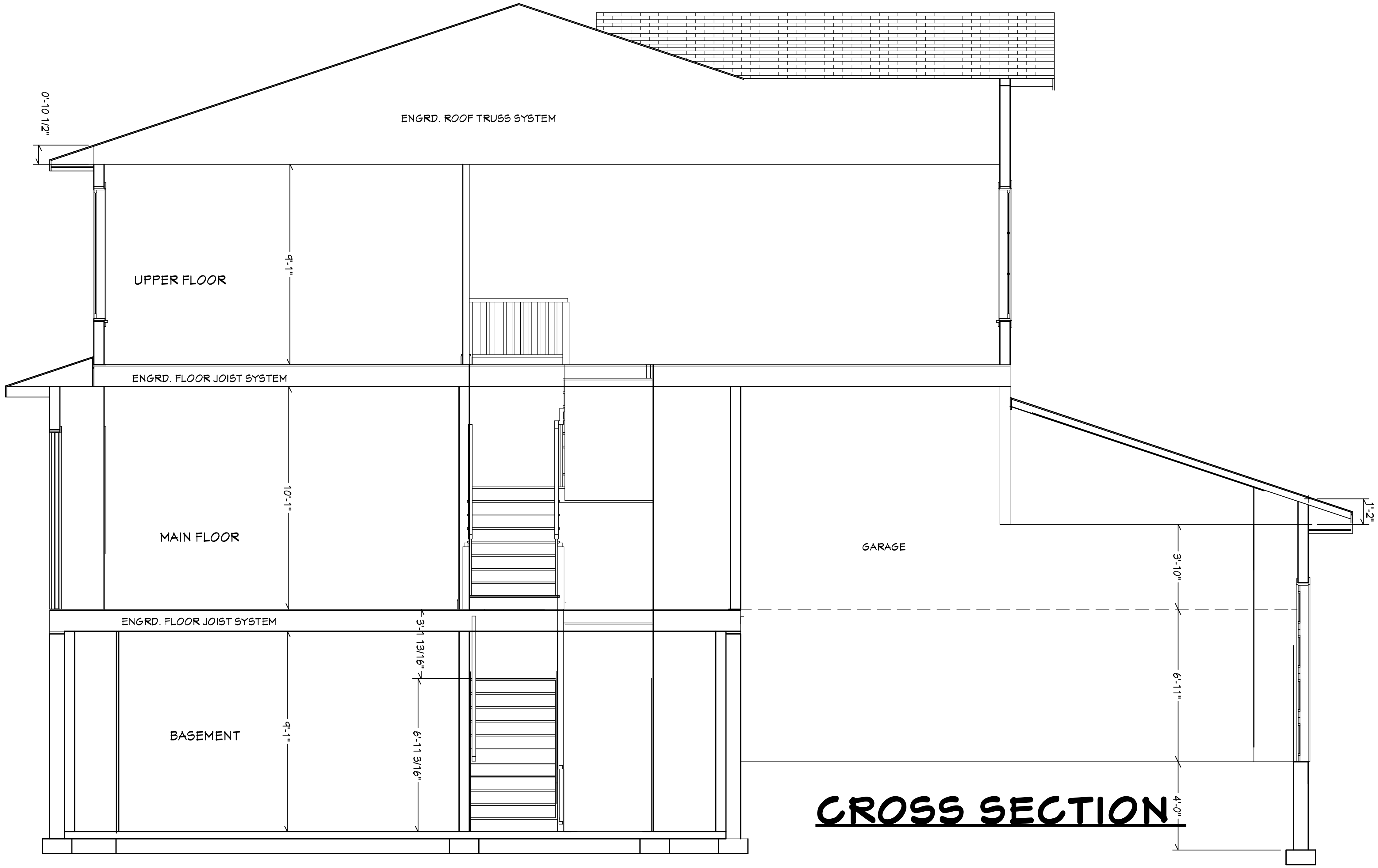
BUILDER/CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS & DETAILS BEFORE STARTING ANY CONSTRUCTION AND REPORT ANY ERROR IN ADVANCE TO DESIGNER. DESIGNERS LIABILITY LIMITED TO CORRECTION OF PLANS ONLY.

PAGE NO. **6** **10/17/2024**	OWNER:	**LOT 16 BLOCK 2** **50 ELMONT CLOSE SW** SCALE **3/16"=1'- 0"**	**MAIN FLOOR : 1491** **SECOND FLOOR: 1694** **TOTAL SQ.FT. : 3185** **GARAGE : 725 SQ.FT**

ISSUED FOR

	Revisions	date
1		

ARCHI DESIGN INC.
hassan@archidesigns.ca
Tel: 587.438.5721
ARCHiDESIGN



CROSS SECTION

NOTES

FRAMER TO INSTALL MIN. 8" POLYTHENE BETWEEN TOP PLATE/SILL PLATE AND FLOOR JOIST/TRUSS

FRAMER TO INSTALL MIN. 8" POLYTHENE BETWEEN INTERIOR PARTITIONS AND EXTERIOR WALLS

ROOF CONSTRUCTION

R1- ROOF ABOVE ATTIC

ASPHALT SHINGLES
ROOFING FELT
3/8" OSB SHEATHING
15" BLOWN INSULATION
(F.G BATT INSUL. IN VAULTED CEILING)
2"X4" ENGINEERING TRUSS @24' OC
POLYTHENE SHEET
1/2" GYPSUM BOARD

WALL CONSTRUCTION

W1- EXTERIOR WALL ABOVE GRADE

EXTERIOR FINISH
BUILDING PAPER
3/8" OSB SHEATHING
2" X 6" STUDS @ 24" O/C
R22 F.G BATT INSULATION
FLASHING OVER ALL OPENINGS
6MM POLY VAPOUR BARRIER
1/2" DRYWALL

W2 - EXTERIOR TALL WALL ABOVE GRADE

EXTERIOR FINISH
BUILDING PAPER
3/8" OSB SHEATHING
2" X 6" STUDS @ 12" O/C
R24 F.G BATT INSULATION)
FLASHING OVER ALL OPENINGS
6MM POLY VAPOUR BARRIER
1/2" DRYWALL

W3 - WALL BETWEEN GARAGE AND HOUSE

1/2" DRYWALL
2" X 6" STUDS @ 24" O/C
R22 F.G BATT INSULATION
6MM POLY VAPOUR BARRIER
1/2" DRYWALL

W4 - FOUNDATION WALL

MIN. 6" PARGING
DAMPPROOFING TO GRADE
8" CONCRETE WALL
1 ROW 10MM REBAR TOP & BOTTOM
ON 18" X 6" CONT. CONCRETE FOOTING
2" X 6" STUDS @ 24" O/C
R22 F.G. BATT INSULATION
6MM POLY VAPOR BARRIER

W5 - INTERIOR WALL

2" X 4" OR 2" X 6" STUDS @ 24" O/C
1/2" DRYWALL BOTH SIDES

W6 - BASEMENT WALL MORE THAN 24" ABOVE GRADE/WALK OUT WALL

EXTERIOR FINISH
BUILDING PAPER
3/8" OSB SHEATHING
2" X 6" STUDS @ 16" O/C
R24 F.G BATT INSULATION
FLASHING OVER ALL OPENINGS
6MM POLY VAPOUR BARRIER

FLOOR CONSTRUCTION

F1 - FLOOR OVER UNHEATED SPACE(GARAGE)

FINISHED FLOORING AS PER SPECIFICATIONS
3/4" O.S.B. SUBFLOOR
ENGED. FLOOR JOISTS, SIZED @19" O/C
6 mil POLYTHENE SHEET
R35 F.G. BATT INSULATION
2" X 6" STUDS @ 24" O/C
1/2 " DRYWALL AS REQUIRED

F2 - FLOOR OVER UNHEATED SPACE(CANTILEVER)

FINISHED FLOORING AS PER SPECIFICATIONS
3/4" O.S.B. SUBFLOOR
6 MIL POLYTHENE SHEET
ENGED. FLOOR JOISTS, SIZED @19" O/C
8" SPRAY FOAM INSUL LOW DENSITY
BUILDING PAPER
NON VENTED ALUMINUM SOFFIT

F3 - FLOOR BELOW GRADE& ABOVE FROST LINE

UNHEATED 3"CONCRETE FLOOR
POLYTHENE SHEET
2" THICK, 48" DEEP/TO FOOTING EXTRUDED POLYSTYRENE
CLEAN GRANULAR LAYER

F4- FLOOR BELOW GRADE AND BELOW FROST LINE

UNHEATED 3"CONCRETE FLOOR
POLYTHENE SHEET
CLEAN GRANULAR LAYER

F5- INTERIOR FLOOR

FINISHED FLOORING AS PER SPECIFICATIONS
3/4" O.S.B. SUBFLOOR
ENGED. FLOOR JOISTS, SIZED @19" O/C
1/2" DRYWALL BOTH SIDES

F6- GARAGE SLAB

4" CONCRETE SLAB
SLOPE 4" TO O.H DOOR
10 MM REBAR @ 24" O/C EACH WAY
5" COMPACTED GRAVEL

OWNER:

ISSUED FOR	Revisions	date
1		

LOT 16 BLOCK 2
50 ELMONT CLOSE SW

SCALE
3/16"=1'- 0"

MAIN FLOOR : 1491
SECOND FLOOR: 1694
TOTAL SQ.FT. : 3185
GARAGE : 725 SQ.FT

ARCHI DESIGN INC.
hassan@archidesigns.ca
Tel: 587.438.5721
ARCHIDESIGN

PAGE NO. 8

10/17/2024

ISSUED FOR

	1	Revisions	date

OWNER:

LOT 16 BLOCK 2
50 ELMONT CLOSE SW

SCALE N.T.S.

DETAILS/NOTES

MAIN FLOOR : 1491
SECOND FLOOR: 1694
TOTAL SQ.FT. : 3185
GARAGE : 725 SQ.FT

ARCHI DESIGN INC.
hassan@archidesigns.ca
Tel: 587.438.5721
ARCHIDESIGN

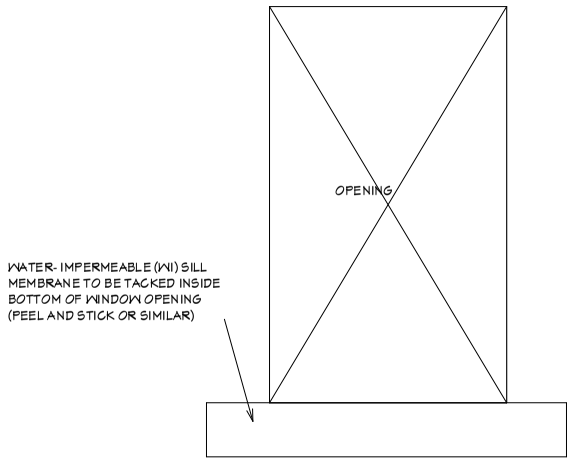
GENERAL WINDOW INSTALLATION DETAIL

DETAIL A : APPLY HORIZONTAL STRIP OF IMPERMEABLE (WI) SILL MEMBRANE (MIN 250 MM WIDE) IMMEDIATELY BEFORE THE SILL AND EXTEND PAST EACH SIDE OF THE OPENING A DISTANCE NECESSARY TO PROJECT BEYOND THE VERTICAL MEMBRANE TO BE APPLIED . MEMBRANE TO LAP OVER WINDOW JAMB AND EXTEND 150MM ON INSIDE FACE OF WALL FRAMING

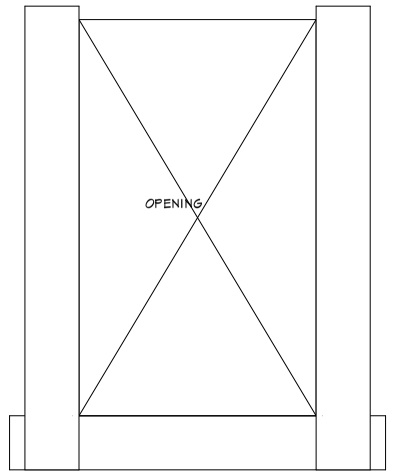
DETAIL B : NEXT , APPLY A VERTICAL STRIP OF MEMBRANE AT SIDES OF THE OPENING, AND EXTEND PAST THE TOP AND BOTTOM OF THE OPENING , A DISTANCE EQUAL TO THE WIDTH OF THE HORIZONTAL MEMBRANE . LAP THESE STRIPS OVER THE FIRST HORIZONTAL STRIP AT THE BOTTOM. MEMBRANE TO LAB OVER WINDOW JAMB AND EXTEND ON INSIDE FACE OF WALL FRAMING.

DETAILS C: INSTALL THE WINDOW IN THE OPENING, OVER THE THREE STRIPS OF MEMBRANE. APPLY A BOTTOM HORIZONTAL STRIP OF MEMBRANE OVER THE BOTTOM FLANGE. APPLY BOTH VERTICAL STRIPS OF MEMBRANE OVER THE TOP FLANGE. EXTEND THE HORIZONTAL STRIP OF MEMBRANE SLIGHTLY PAST THE OUTER EDGE OF THE VERTICAL STRIP OF MEMBRANE.

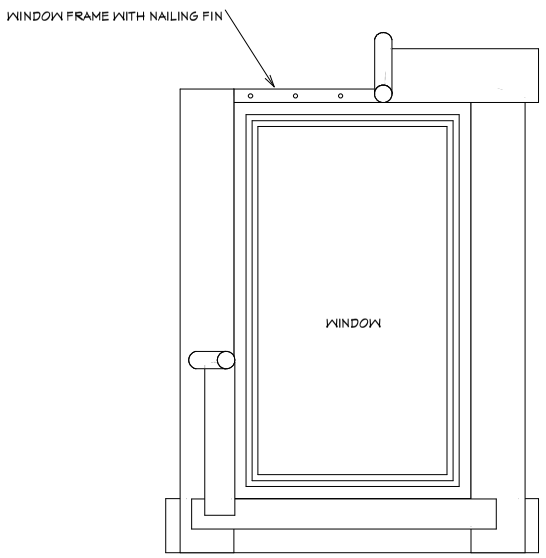
DETAIL D: INSTALL THE SPECIFIED BUILDING PAPER HORIZONTALLY BEGINNING AT THE BOTTOM OF THE WALL AND PROCEEDING UPWARD LAPPING COURSES AS SPECIFIED . SLIDE A LAYER UNDERNEATH THE PREVIOUS BOTTOM LAYER INSTALLED IN DETAIL A . THEN APPLY THE BUILDING PAPER OVER THE TOP., BOTTOM AND SIDE STRIPS OF MEMBRANE.



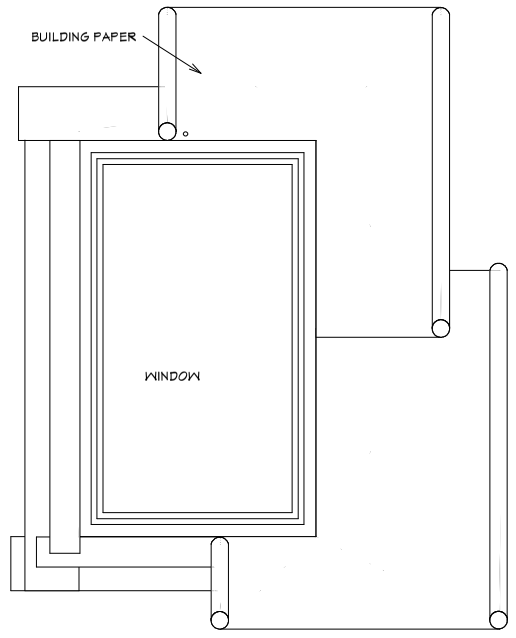
DETAIL A



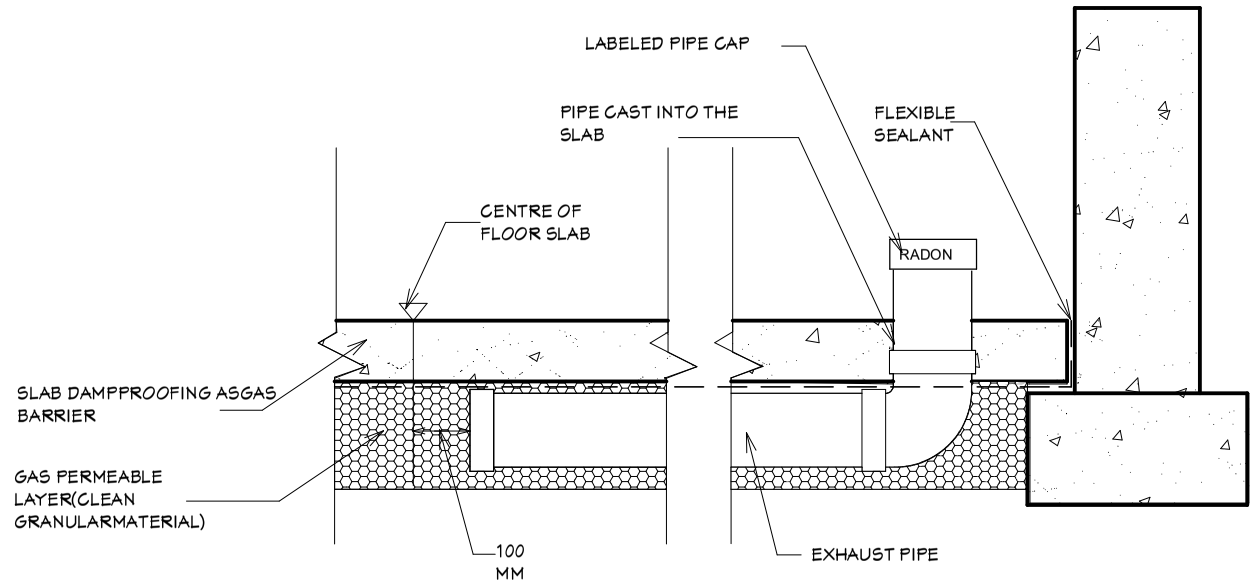
DETAIL B



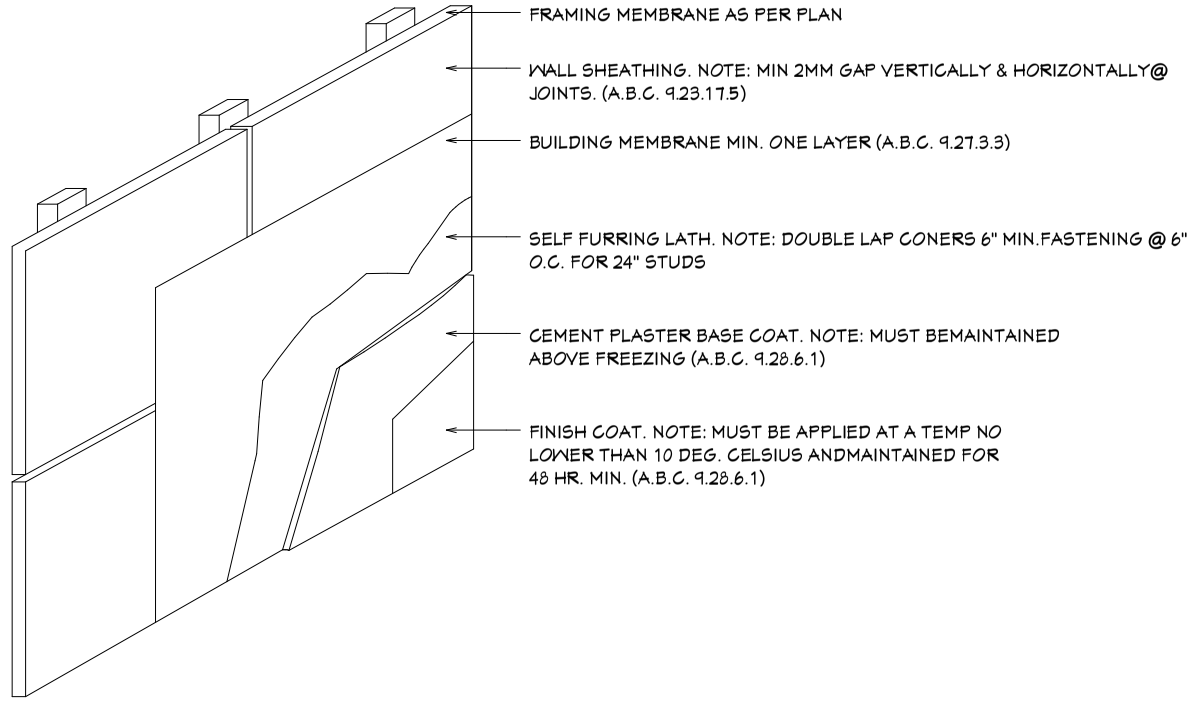
DETAIL C



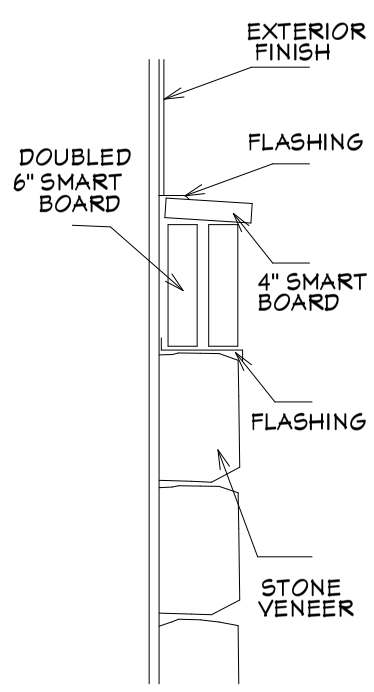
DETAIL D



SUBFLOOR DEPRESSURIZATION SYSTEM ROUGH-IN



STUCCO APPLICATION DETAIL



BATTEN OVER STONE DETAIL

PAGE NO. 9

10/17/2024

ISSUED FOR

		1	Revisions	date

OWNER:

LOT 16 BLOCK 2

50 ELMONT CLOSE SW

SCALE N.T.S.

DETAILS/NOTES

MAIN FLOOR : 1491

SECOND FLOOR: 1694

TOTAL SQ.FT. : 3185

GARAGE : 725 SQ.FT

ARCHI DESIGN INC.

hassan@archidesigns.ca

Tel: 587.438.5721

ARCHIDESIGN

HOMEOWNER & CONTRACTOR: TO VERIFY ALL DIMENSIONS,STRUCTURAL DETAILS, AND BUILDING CODES, AND GRADE REQUIREMENTS.

GENERAL NOTES

1. ALL STRUCTURAL LUMBER IS TO BE # 2 SPF OR BETTER

2. ALL STUDS ARE TO BE CONSTRUCTION GRADE SPF.

3. WALLS LESS THAN 1.2 M (4' 0") FROM PROPERTY LINE ARE TO HAVE MINIMUM 45 MINUTES FIRE RESISTANCE RATING.

4. ENGRD. ROOF TRUSSES AND FLOOR JOISTS SYSTEM DESIGNS, DIMENSIONS, DETAILS, INSTALLATION ETC . SHALL BE ACCORDING TO MANUFACTURES SPECIFICATIONS AND SHALL BE COMPLETE WITH ALL NECESSARY BLOCKING, HANGERS ETC.

5. ROOF OVERHANG ARE TO BE 18" UNLESS NOTED OTHERWISE.

6. WHERE STEP FOOTING OCCURS THE HORIZONTAL DIMENSION OF EACH STEP SHALL NOT LESS THAN 24" AND THE VERTICAL DIMENSION OF EACH STEP SHALL NOT EXCEED 24".

7. ALL FOOTING ARE TO BE MINIMUM 4' BELOW GRADE.

8. CONSTRUCTION SHALL CONFORM TO THE ALBERTA BUILDING CODE & LOCAL BUILDING BYLAWS.

9. WINDOWS AND DOORS SIZES ARE READ AS : 5040 (5'-0" - 4'-0"). THESE ARE GENERAL SIZES. ACTUAL SIZES AND ROUGH OPENINGS SHALL BE PROVIDED BY THE SUPPLIER.

10. ALL PORCHES AND DECKS ARE TO BE 3.5" BELOW T.O.S UNLESS NOTED OTHERWISE.

11. FINAL LOT GRADES MAY ALTER EXTERIOR APPEARANCE.

12. GENERALLY EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING AND CONCRETE; INTERIOR DIMENSIONS ARE TO FACE OF STUDS AND FACE OF BEAMS , UNLESS NOTED OTHERWISE.

13. SMOKE ALARM TO EACH FLOOR LEVEL AS PER DIVISION B 9.10.19.1

14. CARBON MONOXIDE ALARM (AT HEIGHT RECOMMENDED BY MANUFACTURER) WITH IN 5M (16'-5") OF BEDROOM DOORS MEASURED ALONG CORRIDORS AS PER DIVISION B 9.32.3.9

15. MINIMUM DOOR SIZE DOOR UTILITY ROOM IS 810MM (2'-8") AS PER DIVISION B.9.5.5.1

16. A DOOR BETWEEN AN ATTACHED GARAGE AND DWELLING UNIT MUST TIGHT FITTING, WEATHER STRIPPED AND EQUIPPED WITH SELF CLOSING DEVICE AS PER DIVISION B 9.10.13.15

17. INSULATED, WEATHER STRIPPED ATTIC ACCESS HATCH WITH MINIMUM AREA 0.32 SQ. M (3.44 SQ.FT.) AND NO DIMENSION LESS THAN (21 ½) AS PER DIVISION B-9.19.2.1

18. 5/8" TYPE X DRYWALL TO INTERIOR SIDE OF ASSEMBLY FOR EXTERIOR WALLS FACING AND WITHIN 1.2M (4'-0") OF PROPERTY LINE AS PER DIVISION B 9.10.15.5

19. 1/2" DRYWALL TO UNDERSIDE OF ENCLOSED PROJECTION WITHIN 1.2M(4'-0") OF PROPERTY LINE AND IS GREATER THAN 0.6M (2'-0") ABOVE FINISHED GROUND LEVEL. AS PER DIVISION B 9.10.15.5

20. NON - VENTED SOFFITS WHEN EAVES PROJECTING WITHIN 1.2M(4'-0") FROM THE PROPERTY LINE. SOFFIT OTHER THAN ALUMINUM OR GALVANIZED STEEL SHALL BE INSTALLED ON A MINIMUM 1/2" WOOD OR GYPSUM SHEATH BACKING. ROOF SOFFIT ARE NOT PERMITTED WITHIN 0.45M(1'-6") OF THE PROPERTY LINE AS PER DIVISION B 9.10.15.5

21. VINYL SIDING ON WALL ASSEMBLIES WITHIN 1.2M(4'-0") OF THE PROPERTY LINE SHALL BE APPLIED OVER 12.MM(1/2") EXTERIOR GRADE GYPSUM BOARD AS PER DIVISION B 9. 10.15.5

22. 1070MM(3'-6") HIGH GUARD RAIL WHERE DIFFERENCE IN ELEVATION EXCEEDS 1.8M (6'-0") AS PER DIVISION B. 9.8.8.3

23. 2 - 2" X 10" SPRUCE LINTEL FOR OPENING UNDER 6' - 0". ENGRD. LINTEL FOR OPENING 6' - 0" AND GREATER.

24. ROUGH-IN FOR A SUBFLOOR DEPRESSURIZATION SYSTEM SHALL BE PROVIDED AS PER ABC SUBSECTION 9.13.4.3

HVAC EQUIPMENT & DUCTS

(9.36.3.2)

1. HVAC SYSTEMS SHALL BE SIZED ACCORDANCE WITH GOOD PRACTICE AS DESCRIBED IN SECTION 9.32 AND 9.33.

2. EXCEPT FOR EXHAUST DUCTS LEADING DIRECTLY TO THE EXTERIOR,DUCTS AND PLENUMS CARRYING CONDITIONED AIR AND LOCATED THE PLANE OF INSULATION SHALL
   A) HAVE ALL JOINTS SEALED AGAINST AIR INFILTRATION AND EXFILTRATION WITH
      1. SEALANTS OR GASKETS MADE FROM LIQUIDS,MASTICS OR HEAT APPLIED MATERIALS,
      2. MASTIC WITH EMBEDDED FABRIC, OR
      3. FOIL FACED BUTYPL TAPE , AND
   B) INSULATED TO SAME LEVEL AS REQUIRED FOR ABOVE GRADE WALLS.

3. DUCTS - UNDER INSULATED FLOOR OVER UNHEATED SPACES

   THE UNDERSIDE OF RECTANGULAR DUCTS INSTALLED UNDER AN INSULATED FLOOR OVER AN UNCONDITIONED SPACE IS PERMITTED TO BE INSULATED NOT LESS THAN 2.11(M^2 K) , PROVIDED BOTH SIDES OF DUCTS ARE INSULATED TO COMPENSATE HIGHER THERMAL RESISTANCE.

AIR INTAKE AND OUTLET DAMPERS

(9.36.2)

1.EXCEPT AS PROVIDED IN SENTENCE (3) AND (4) , EVERY DUCT OR OPENING INTENDED TO DISCHARGE AIR TO THE OUTDOORS SHALL BE EQUIPPED WITH
   A. A MOTORIZED DAMPER OR
   B. A GRAVITY - OR SPRING - OPERATED BACKFLOW DAMPER.

2. EXCEPT AS PROVIDED IN SENTENCE (3) AND (4) AND EXCEPT IN LOCATION WITH FEWE THAN 3500 HEATING DEGREE- DAYS AS LISTED IN APPENDIX 'C', EVERY OUTDOOR AIR INTAKE DUCT OR OPENING SHALL BE EQUIPPED WITH MOTORIZED DAMPER THAT REMAINS IN THE "OPEN" POSITION IF THE DAMPER FAILS.

3. WHERE OTHER REGULATIONS ARE IN EFFECT THAT DO NOT PERMIT DAMPERS, INTAKES AND OUTLETS NEED NOT COMPLY WITH SENTENCE (1) AND (2).

4. AIR INTAKES AND OUTLETS SERVING HVAC SYSTEMS THAT ARE REQUIRED TO OPERATE CONTINUOUSLY (EQUIPPED WITH HRV) NEED NOT COMPLY WITH SENTENCE (1) AND (2).

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	METER SOCKET
	PANEL BOX
	CEILING FAN W/ LIGHT
	FLUORESCENT LIGHT FIXTURE
	110V CEILING LIGHT FIXTURE
	110V RECESSED LIGHT FIXTURE
	110V EAVE LIGHT FIXTURE
	110V CHANDELIER LIGHT FIXTURE
	110V WALL LIGHT FIXTURE
	SINGLE POLE SWITCH
	THREE WAY SWITCH
	FOUR WAY SWITCH
	DIMMER SWITCH
	OUTDOOR SWITCH
	110V DUPLEX RECEPTACLE
	110V DUPLEX RECEPTACLE GROUND FAULT INTERRUPTED
	110V DUPLEX RECEPTACLE W/ WEATHERPROOF COVER
	110VFLOOR MOUNTED DUPLEX RECEPTACLE
	240V RECEPTACLE
	TELEPHONE JACKS
	TELEVISION JACKS
	DOOR BELL PUSH BUTTON
	THERMOSTAT
	SMOKE DETECTOR
	EXHAUST FAN
	DOOR CHIME
	FIRE ALARM PANEL
	COMPUTER POINT

THERMAL CHARACTERISTICS OF WINDOWS, DOORS AND SKYLIGHTS (ABC 9.36.2.7.)

MAXIMUM U-VALUE OR MINIMUM ENERGY RATING (ER) FOR WINDOWS, DOORS AND SKYLIGHTS AS PER ABC TABLE 9.36.2.7 SHALL BE AS FOLLOWS:

COMPONENT	Max. U-value, W/(m^2·K)	Min. Energy Rating
WINDOWS AND DOORS	1.60	25
SKYLIGHTS	2.7	

U-values for specific products can be determined according to measures referenced in AAMA/WDMA/CSA 101/I.S.2/A440, "NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights." Temperature index (I) is determined according to the physical test procedure given in CAN/CSA-A440.2/A440.3, "Fenestration Energy Performance/User Guide to CSA A440.2-09, Fenestration Energy Performance."

Energy Rating (ER) are based on CAN/CSA-A440.2/A440.3, "Fenestration Energy Performance/User Guide to CSA A440.2-09 , Fenestration Energy Performance.

PERFORMANCE REQUIREMENTS OF WINDOWS, DOORS AND SKYLIGHTS (ABC 9.7.4.3.)

MANUFACTURED AND PRE-ASSEMBLED WINDOWS, DOORS AND SKYLIGHTS AND THEIR
INSTALLATION SHALL CONFORM TO:

A) AAMA/WDMA/CSA 101/I.S.2/A440, "NAFS – NORTH AMERICAN FENESTRATION
STANDARD/SPECIFICATION FOR WINDOWS, DOORS, AND SKYLIGHTS" (HARMONIZED
STANDARD),

B) CSA A44051, "CANADIAN SUPPLEMENT TO AAMA/WDMA/CSA 101/I.S.2/A440, NAFS – NORTH AMERICAN FENESTRATION STANDARD/ SPECIFICATION
FOR WINDOWS, DOORS, AND SKYLIGHTS,"

BUILDING CODE FENESTRATION PERFORMANCE CALCULATION

CALCULATIONS BASED ON AAMA/WDMA/CSA 101/I.S. 2/A440-08 (NAFS-08) AND CSA A44051-09

LOCATION	CALGARY, AB
TERRAIN TYPE	ROUGH
PERFORMANCE CLASS	R
BUILDING HIGHT	10 M
MINIMUM PERFORMANCE GRADE (PG)	25
MINIMUM POSITIVE DESIGN PRESSURE	1200 PA
MINIMUM NEGATIVE DESIGN PRESSURE	1200 PA
MINIMUM WATER PENETRATION TEST PRESSURE	260 PA
MINIMUM CANADIAN AIR INFILTRATION/ EXFILTRATION	A2

Note: These calculations can be verified at codecalc.fenetrationcanada.

PAGE NO. 10

10/17/2024

ISSUED FOR

		1	Revisions	
				date

OWNER:

LOT 16 BLOCK 2

50 ELMONT CLOSE SW

SCALE N.T.S.

DETAILS/NOTES

MAIN FLOOR : 1491

SECOND FLOOR: 1694

TOTAL SQ.FT. : 3185

GARAGE : 725 SQ.FT

ARCHI DESIGN INC.

hassan@archidesigns.ca

Tel: 587.438.5721

ARCHIDESIGN

National Building Code (Alberta Edition) 2023 (9.36)

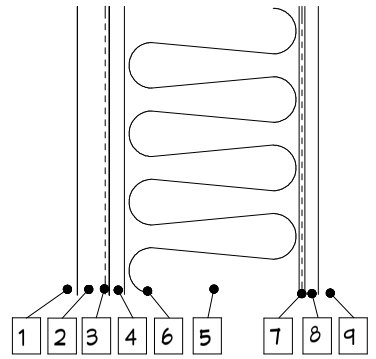
PRESCRIPTIVE PATH	
CLIMATE ZONE	7A - 5000 DEGREE DAYS
WALL INSULATION	2.97
ATTIC INSULATION	8.67

FOUNDATION INSULATION	2.98
FLOOR ABOVE UNHEATED SPACE	5.02
FLOOR ABOVE UNHEATED SPACE-GARAGE	4.86
UNHEATED FLOOR ABOVE FROST LINE	1.96

GAS FIRED FURNACE	95 % AFUE	HEATING<65.9 KW	CAN/CSA-P.2
NATURAL GAS TANK	67% EF	INPUT<22 KW	CAN/CSA-P.3
FDRW	N/A		
HRV EFFICIENCY	70%		

W1 EXTERIOR ABOVE GRADE WALL

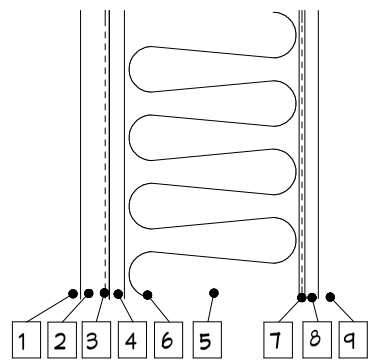
	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	EXTERIOR AIR FILM		0.03
2	CLADDING *		0.02
3	SHEATHING PAPER		-
4	3/8" OSB SHEATHING		0.093
5	2X6 FRAMING, 24" OC	100 / (20/1.19)+(80/3.87)	2.67
6	R22 FIBER GLASS BATT INSULATION		
7	POLYTHENE SHEET		-
8	1/2 GYPSUM BOARD		0.08
9	INTERIOR AIR FILM		0.12
	TOTAL EFFECTIVE RSI		3.1
	REQUIRED BY ABC 9.36.2.6B RSI		2.97



* CLADDING BY ELEVATION. STUCCO IS ASSUME IN RSI CALCULATION TO REPRESENT THE LOWEST RSI VALUE

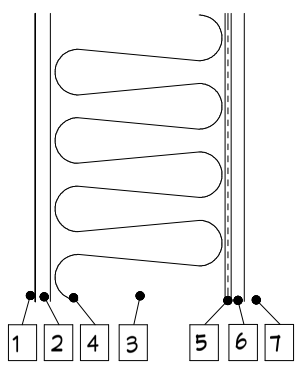
W2 - EXTERIOR ABOVE GRADE TALL WALL

	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	EXTERIOR AIR FILM		0.03
2	CLADDING		0.02
3	SHEATHING PAPER		-
4	3/8" OSB SHEATHING		0.093
5	2X6 FRAMING, 16" OC	100 / (23/1.19)+(77/4.23)	2.66
6	R24 FIBER GLASS BATT INSULATION		
7	POLYTHENE SHEET		-
8	1/2 GYPSUM BOARD		0.08
9	INTERIOR AIR FILM		0.12
	TOTAL EFFECTIVE RSI		3.01
	REQUIRED BY ABC 9.36.2.6B RSI		2.97



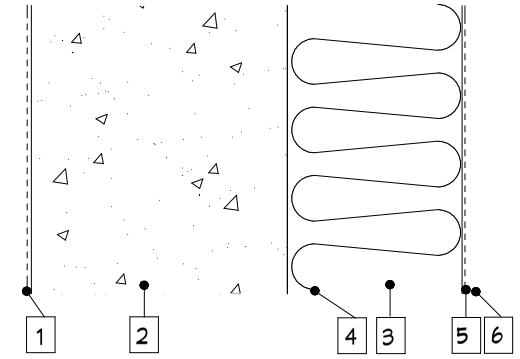
W3 -WALL BETWEEN ATTACHED GARAGE AND HOUSE

	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	EXTERIOR AIR FILM		0.03
2	1/2 GYPSUM BOARD		0.08
3	2X6 FRAMING, 24" OC	100 / (20/1.19)+(80/3.87)	2.67
4	R22 FIBER GLASS BATT INSULATION		
5	POLYTHENE SHEET		-
6	1/2 GYPSUM BOARD		0.08
7	INTERIOR AIR FILM		0.12
	TOTAL EFFECTIVE RSI		2.98
	REQUIRED BY ABC 9.36.2.6B RSI AFTER REDUCTION OF 0.16 (ABC 9.36.2.4(4))		2.81



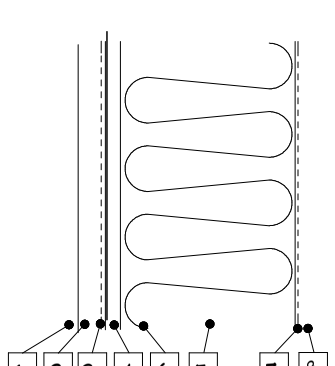
W4 - FOUNDATION WALL UP TO MAX. 24" FROM GRADE

	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	DAMPPROOFING		-
2	8" CONCRETE WALL		0.08
3	2X6 FRAMING, 24" OC	100 / (13/1.19)+(87/3.87)	2.99
5	R22 FIBER GLASS BATT INSULATION		
6	POLYTHENE SHEET		-
7	INTERIOR AIR FILM		0.12
	TOTAL EFFECTIVE RSI		3.19
	REQUIRED BY ABC 9.36.2.8B RSI		2.98



W6 - BASEMENT WALL MORE THAN 24" ABOVE GRADE/WALK OUT W

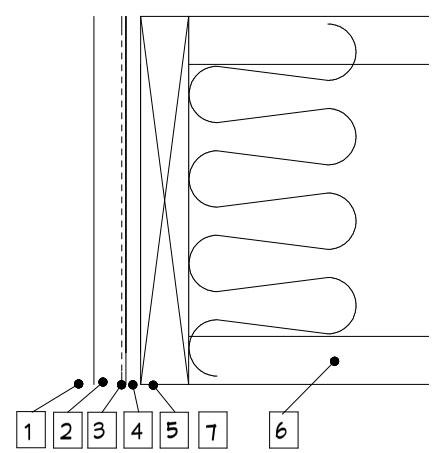
	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	EXTERIOR AIR FILM		0.03
2	VINYL SIDING		0.11
3	SHEATHING PAPER		-
4	3/8" OSB SHEATHING		0.093
5	2X6 FRAMING, 16" OC	100 / (23/1.19)+(77/4.23)	2.66
6	R24 FIBER GLASS BATT INSULATION		
7	POLYTHENE SHEET		-
8	INTERIOR AIR FILM		0.12
	TOTAL EFFECTIVE RSI		3.01
	REQUIRED BY ABC 9.36.2.6B RSI		2.97



RM - RIM JOIST SPACE

	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	EXTERIOR AIR FILM		0.03
2	CLADDING *		0.02
3	SHEATHING PAPER		-
4	3/8" OSB SHEATHING		0.093
5	38 MM (1.5 IN) RIM BOARD		0.33
6	I JOIST, 19" OC	100 / (7.5/2.56)+(92.5/3.52)	3.42
7	R20 FIBER GLASS BATT INSULATION		
	TOTAL EFFECTIVE RSI		3.89
	REQUIRED BY ABC 9.36.2.6B RSI		2.97

* STUCCO IS ASSUMED TO REPRESENT THE LOWEST RSI VALUE



PAGE NO. 11

10/17/2024

ISSUED FOR

	1		
		Revisions	
			date

OWNER:

LOT 16 BLOCK 2

50 ELMONT CLOSE SW

SCALE N.T.S.

DETAILS/NOTES

MAIN FLOOR : 1491

SECOND FLOOR: 1694

TOTAL SQ.FT. : 3185

GARAGE : 725 SQ.FT

ARCHI DESIGN INC.

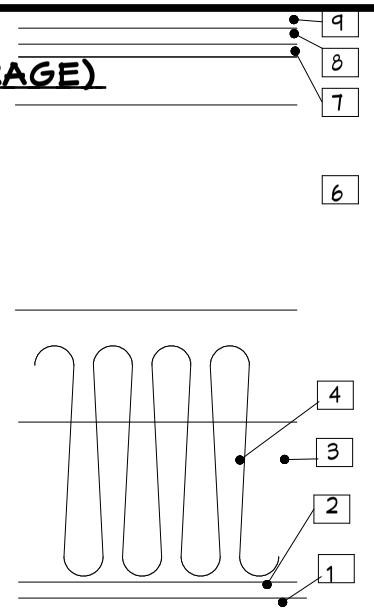
hassan@archidesigns.ca

Tel: 587.438.5721

ARCHIDESIGN

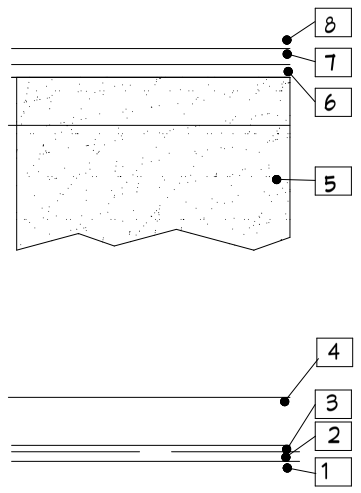
F1 -FLOOR OVER UNHEATED SPACE(GARAGE)

	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	EXTERIOR AIR FILM		0.03
2	1/2" GYPSUM BOARD		0.08
3	I JOIST, 19" OC AIR SPACE		0.32
5	2X6 FRAMING, 24" OC	100	4.35
6	R35 FIBER GLASS BATT INSULATION	(10/1.19)+(90/6.16)	
5	3/8" OSB SHEATHING		0.093
6	FLOOR FINISH		-
7	INTERIOR AIR FILM		0.16
	TOTAL EFFECTIVE RSI		5.03
	REQUIRED BY ABC 9.36.2.6B RSI AFTER REDUCTION OF 0.16 (9.36.2.4.(4))		4.86



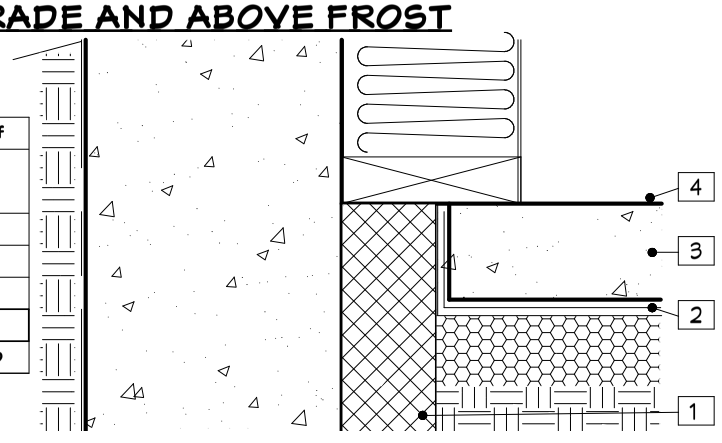
F2 -FLOOR OVER UNHEATED SPACE(CANTILEVER)

	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	EXTERIOR AIR FILM		0.03
2	NON VENTED ALUMINUM SOFFIT		-
3	SHEATHING PAPER		
4	I JOIST, 19" OC	100	4.89
5	8" SPRAY FOAM INSUL.LOW DENSITY	(7.5/2.56)+(92.5/5.28)	
6	3/8" OSB SHEATHING		0.093
7	FLOOR FINISH		-
8	INTERIOR AIR FILM		0.16
	TOTAL EFFECTIVE RSI		5.17
	REQUIRED BY ABC 9.36.2.6B		5.02



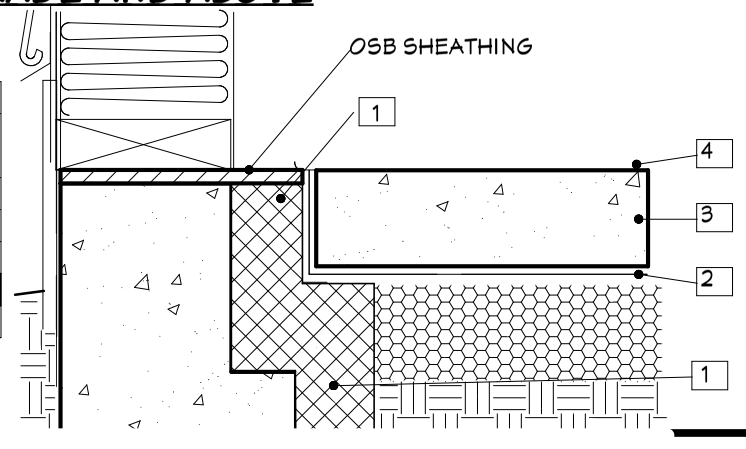
F3 -UNHEATED FLOOR BELOW GRADE AND ABOVE FROST LINE

	COMPONENT	RSI eff
1	MIN 3" THICK, 48" DEEP OR TO FOOTING EXPANDED POLYSTYRENE (EPS) TYPE 1	1.98
2	POLYTHENE SHEET	-
3	3" CONCRETE FLOOR	-
4	INTERIOR AIR FILM	-
	TOTAL EFFECTIVE RSI	1.98
	REQUIRED BY ABC 9.36.2.8B RSI	1.96



F3.B -UNHEATED FLOOR ABOVE GRADE AND ABOVE FROST LINE

	COMPONENT	RSI eff
1	MIN 3" THICK, 48" DEEP OR TO FOOTING EXPANDED POLYSTYRENE (EPS) TYPE 1	1.98
2	POLYTHENE SHEET	-
3	3" CONCRETE FLOOR	-
4	INTERIOR AIR FILM	-
	TOTAL EFFECTIVE RSI	1.98
	REQUIRED BY ABC 9.36.2.8B RSI	1.96

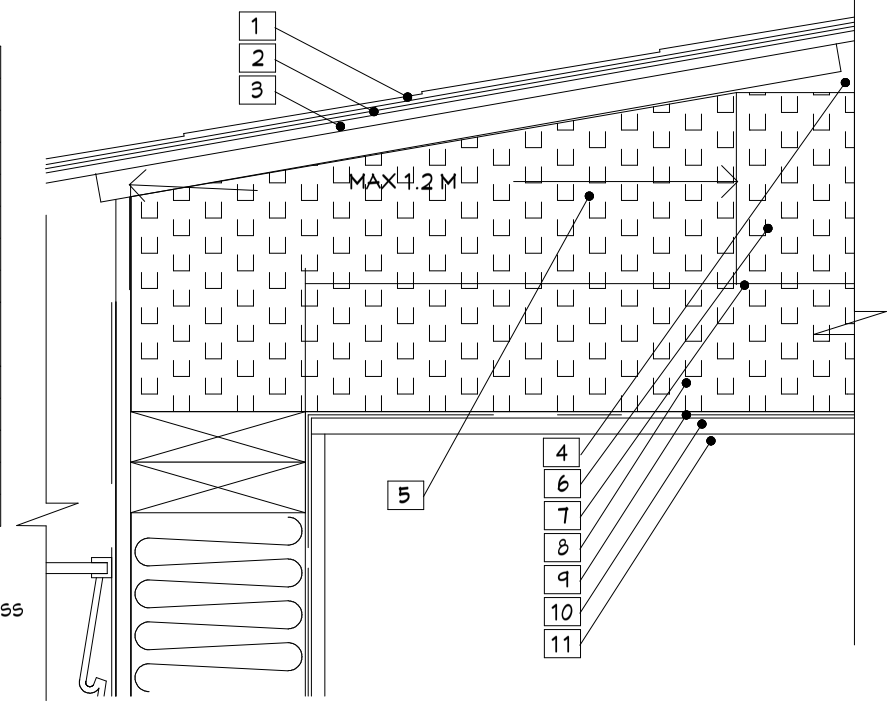


R1 -CEILING BELOW ATTIC

	COMPONENT	FRAME/CAVITY RSI	
1	ASPHALT SHINGLES		-
2	ROOFING FELT		-
3	3/8" OSB SHEATHING		-
4	OUT SIDE AIR FILM		0.03
5	MIN. R20 BLOW-IN INSULATION FOR MAX.48" FROM EXTERIOR OF WALL		
6	10.5" BLOW IN INSULATION (CELLULOSE)		6.67
7	2"X4" ENGINEERING TRUSS @24' OC	100	1.83
8	3.5" BLOW IN INSULATION (CELLULOSE)	(11/0.76)+(89/2.22)	
9	POLYTHENE SHEET		-
10	1/2" GYPSUM BOARD		0.08
11	INTERIOR AIR FILM		0.11
	TOTAL EFFECTIVE RSI		8.72
	REQUIRED BY ABC 9.36.2.6B RSI		8.67

* BLOW IN INSULATION CAN BE REPLACED WITH F.G. BAT INSULATION. R12 FOR CAVITY (BETWEEN TRUSSES) AND R40 ABOVE CAVITY.

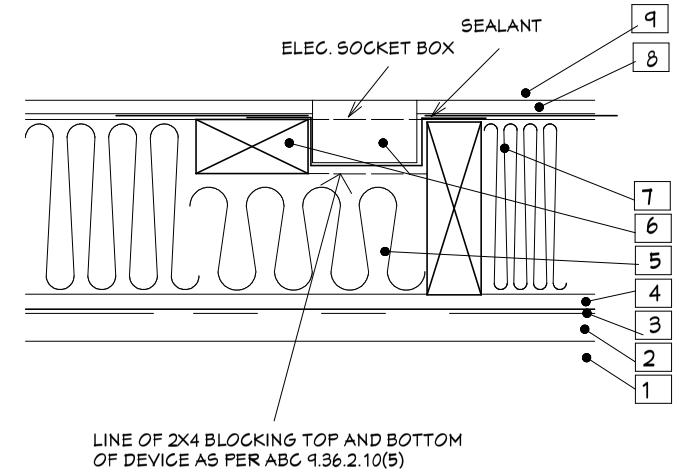
** "CELLULOSE.BLOW IN INSULATION CAN BE REPLACED WITH FIBER GLASS BLOWN IN INSULATION 3.5" FOR CAVITY (BETWEEN TRUSSES) AND 14.5" ABOVE CAVITY.



TYPICAL EXTERIOR ABOVE GRADE WALL OUTLET/SWITCH PLAN VIEW

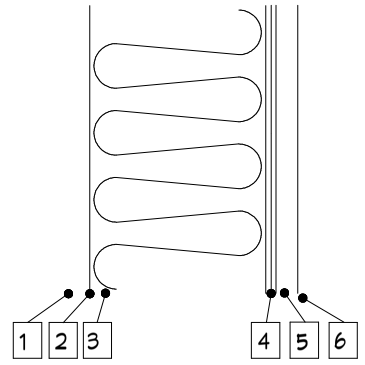
	COMPONENT	RSI eff
1	EXTERIOR AIR FILM	0.03
2	CLADDING *	0.02
3	SHEATHING PAPER	-
4	3/8" OSB SHEATHING	0.093
5	R14 FIBER GLASS BATT INSULATION	2.46
6	2X4 BLOCKING /ELEC. SOCKET BOX *	0.32
7	POLYTHENE SHEET /AIR/VAPOR BARRIER BOOT	-
8	1/2 GYPSUM BOARD	0.08
9	INTERIOR AIR FILM	0.12
	TOTAL EFFECTIVE RSI	3.12
	REQUIRED BY ABC 9.36.2.6B RSI	2.97

* 2X4 BLOCKING IS CONSIDERED IN RSI CALCULATIONS TO REPRESENT THE LOWEST RSI VALUE



SK- SKYLIGHT SHAFT

	COMPONENT	FRAME/CAVITY RSI	RSI eff
1	EXTERIOR AIR FILM		0.03
2	2X6 FRAMING, 24" OC	100	2.8
3	R24 FIBER GLASS BATT INSULATION	(20/1.19)+(80/4.23)	
4	POLYTHENE SHEET		-
5	1/2 GYPSUM BOARD		0.08
6	INTERIOR AIR FILM		0.12
	TOTAL EFFECTIVE RSI		3.03
	REQUIRED BY ABC 9.36.2.6B RSI		2.97



PAGE NO. 12

10/17/2024

ISSUED FOR

	1	Revisions	date

OWNER:

LOT 16 BLOCK 2
50 ELMONT CLOSE SW

SCALE N.T.S.

DETAILS/NOTES

MAIN FLOOR : 1491
SECOND FLOOR: 1694
TOTAL SQ.FT. : 3185
GARAGE : 725 SQ.FT

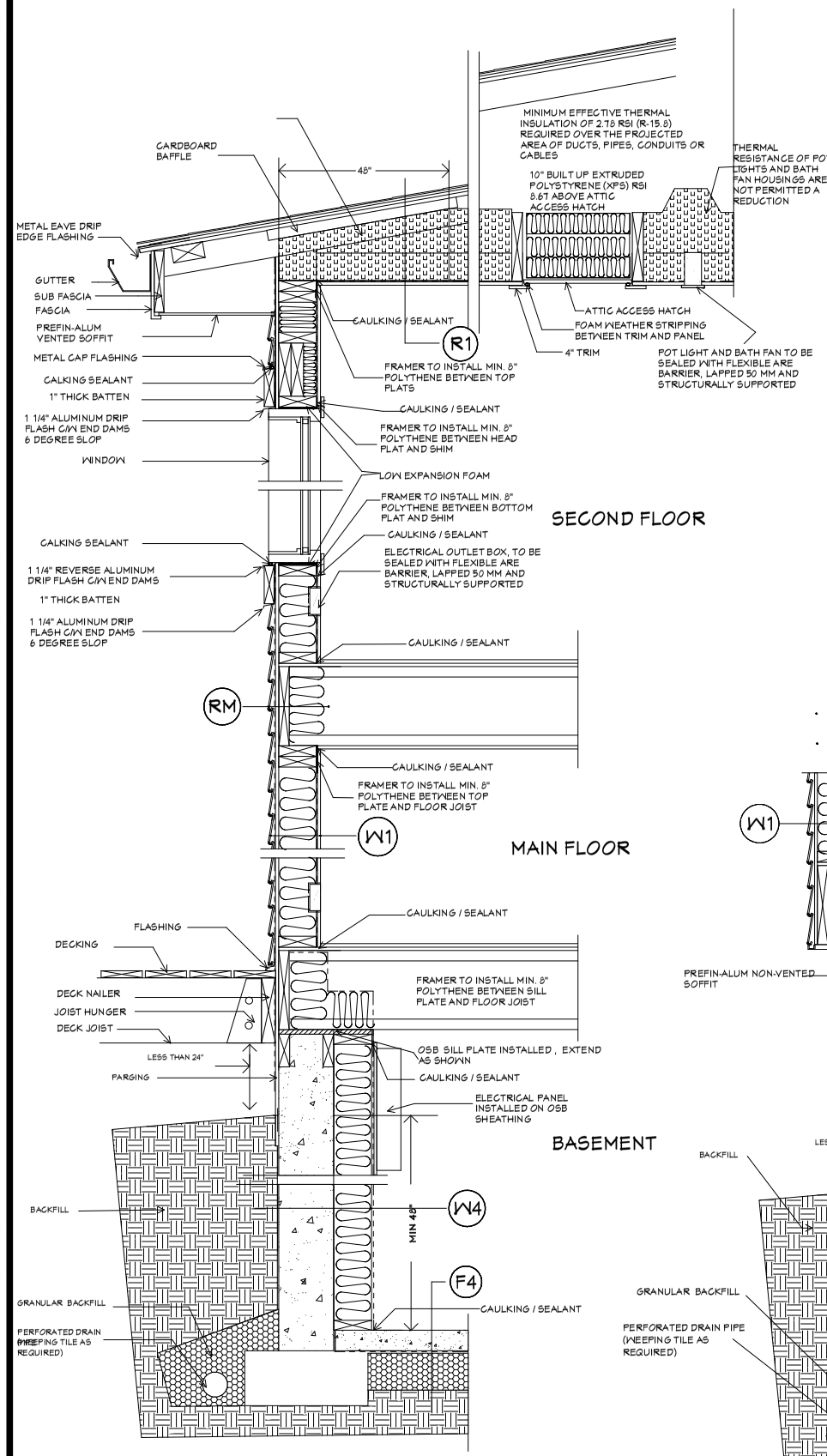
ARCHI DESIGN INC.
hassan@archidesigns.ca
Tel: 587.438.5721
ARCHIDESIGN

INSULATION CONTINUITY GENERAL NOTES - ABC 9.36.2.5

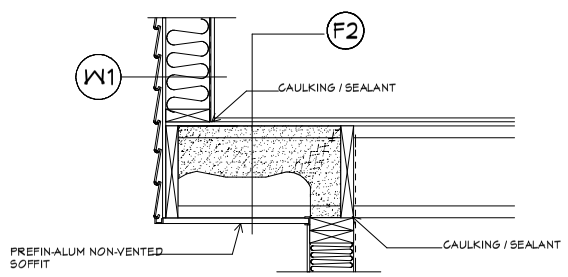
- A REDUCTION IN THE THERMAL RESISTANCE OF THE CEILING ASSEMBLY IN ATTICS UNDER SLOPED ROOFS IS PERMITTED FOR A LENGTH OF NO GREATER THAN 1200MM BUT ONLY TO THE EXTENT IMPOSED BY THE ROOF SLOPE AND MINIMUM VENTING CLEARANCE, PROVIDED THE NOMINAL THERMAL RESISTANCE OF THE INSULATION DIRECTLY ABOVE THE EXTERIOR WALL IS NOT LESS THAN R-20 / RSI-3.52 (M2.K)/W.
- THE ATTIC HATCHES AND ALL PLUMBING/ELECTRICAL PENETRATIONS INTO THE ATTIC SPACE ALONG ANY GAPS, SPACES, PENETRATIONS, IRREGULARITIES THAT COULD ALLOW LEAKAGE MUST BE SEALED
- WHEN AN INTERIOR ELEMENT PENETRATES AN EXTERIOR ELEMENT AND BREAKS THE PLANE OF INSULATION,THE INTERIOR ELEMENT SHALL BE:
  - INSULATED ON BOTH SIDES FOR A LENGTH 4X THE THICKNESS OF THE PENETRATED ASSEMBLY, OR
  - INSULATED WITHIN THE PLANE OF INSULATION OF THE PENETRATED ELEMENT TO AN EFFECTIVE THERMAL RESISTANCE NOT LESS THAN 60% OF THAT REQUIRED FOR THE PENETRATED ELEMENT,OR
  -INSULTED WHITEN ITSELF TO AN EFFECTIVE THERMAL RESISTANCE NOT LESS THAN THE REQUIRED FOR THE PENETRATED ELEMENT.
- MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS PLACED WITHIN AN EXTERIOR WALL MUST BE INSULATED BEHIND TO THE EFFECTIVE THERMAL RESISTANCE REQUIRED FOR THE ABOVE OR BELOW GRADE WALL ASSEMBLY.
- A FOUNDATION WALL IS CONSIDERED TO BE BELOW GRADE FOR THE PURPOSE OF USING BELOW GRADE RSI WHEN THE TOP OF THE SECTION OF FOUNDATION IS ON AVERAGE LESS THAN 600MM(24") ABOVE THE ADJOINING GROUND LEVEL. WHERE THE WALL IS GREATER THAN 600MM, THE ABOVE-GROUND PORTION OF WALL SHALL BE INSULATED TO THE ABOVE GRADE REQUIREMENTS.
- JOINTS AND JUNCTIONS BETWEEN WALLS AND OTHER BUILDING ENVELOP COMPONENTS SHALL BE INSULATED IN A MANNER THAT PROVIDES AN EFFECTIVE THERMAL RESISTANCE THAT IS NOT LESS THAN THE LOWER ON MINIMUM VALUES REQUIRED FOR THE RESPECTIVE ADJOINING COMPONENTS.

AIR TIGHTNESS GENERAL NOTES - ABC 9.36.2.9 AND 9.36.2.10

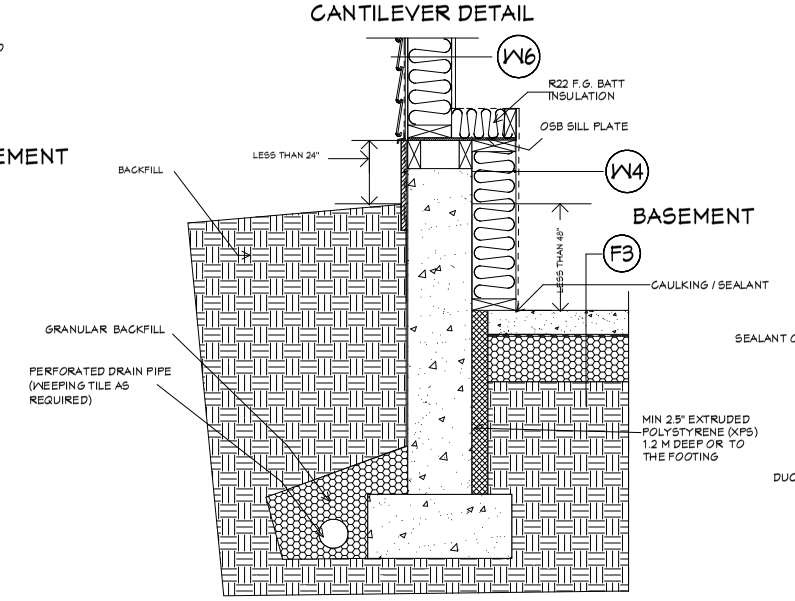
- AIR BARRIERS TO BE CONTINUOUS:
  - ACROSS CONSTRUCTION, CONTROL AND EXPANSION JOINTS,
  -ACROSS JUNCTIONS BETWEEN DIFFERENT BUILDING MATERIALS AND ASSEMBLIES,
  -AROUND PENETRATIONS THROUGH ALL BUILDING ASSEMBLIES.
- SEALING IS REQUIRED BETWEEN ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, AND/OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL.
- WINDOWS, DOORS AND SKYLIGHTS AND THEIR COMPONENTS SHALL COMPLY WITH MINIMUM AIR LEAKAGE REQUIREMENT STATED IN NAFS AND CSA A44051.
- WHERE THE AIR TIGHT MATERIAL USED IN THE AIR BARRIER SYSTEM IS INSTALLED TOWARDS THE EXTERIOR OF BUILDING ENVELOP, ITS LOCATION AND PROPERTIES SHALL CONFORM TO 9.25.5
- WHERE THE AIR BARRIER SYSTEM CONSIST OF FLEXIBLE SHEET MATERIAL, ALL JOINTS SHALL BE LAPPED NOT LESS THAN 50MM, SEALED AND STRUCTURALLY SUPPORTED.
- WHEN POLY BOOTS ARE USED ON EXTERIOR WALLS AND CEILINGS FOR ELECTRICAL BOXES AND POT LIGHTS THEY MUST BE SEALED TO THE AIR / VAPOR BARRIER AND STRUCTURALLY SUPPORTED.
- CANTILEVERED FLOORS AND WALL JUNCTIONS REQUIRE CONTINUOUS AIR BARRIER.
- JUNCTIONS BETWEEN THE FLOOR AND RIM JOIST AND RIM JOIST TO FOUNDATION MUST BE SEALED.



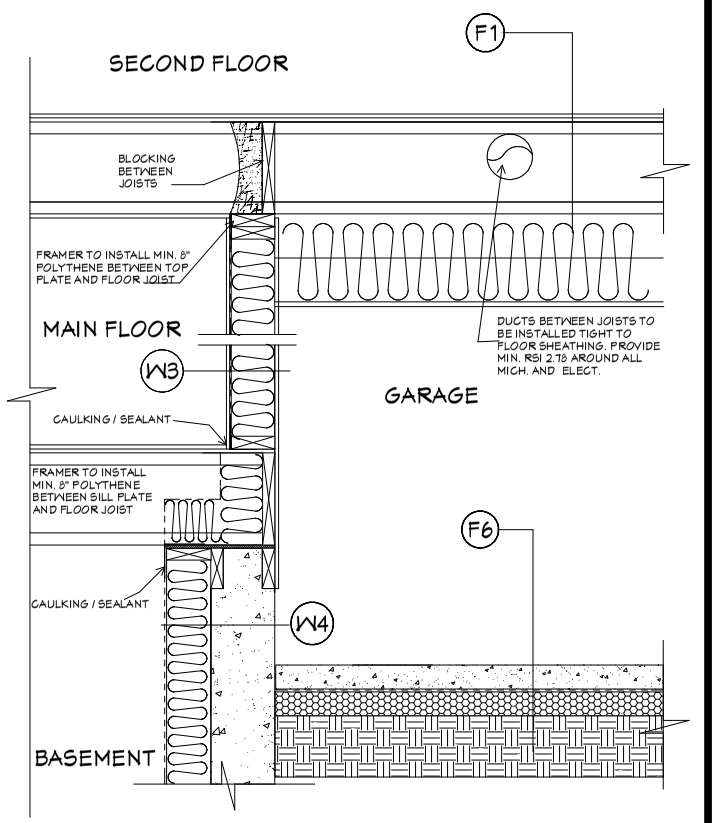
WALL SECTION - BASEMENT SLAB BELOW FROST LINE



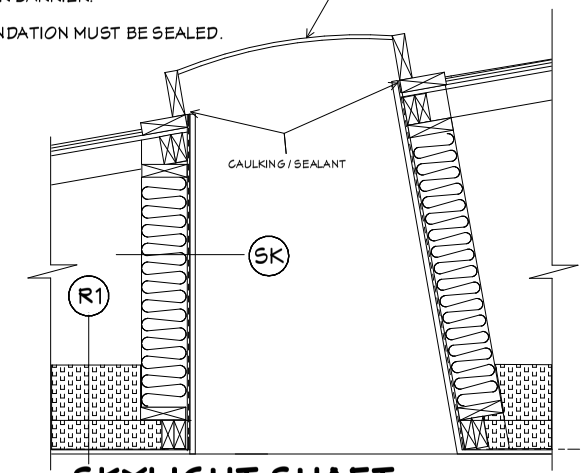
CANTILEVER DETAIL



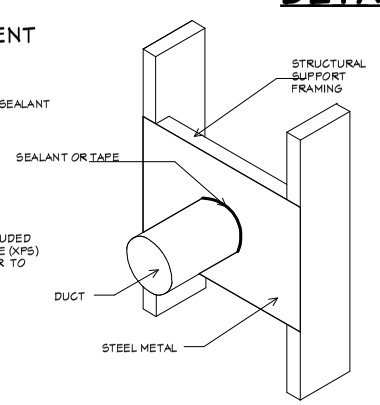
WALL SECTION - BASEMENT SLAB ABOVE FROST LINE



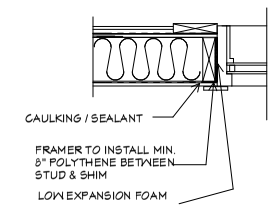
WALL SECTION- UN-CONDITIONED SPACE (GARAGE)



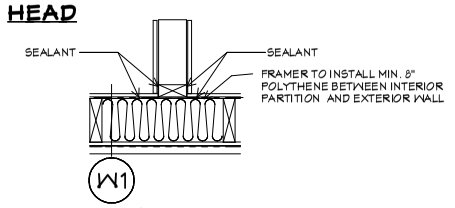
SKYLIGHT SHAFT DETAIL



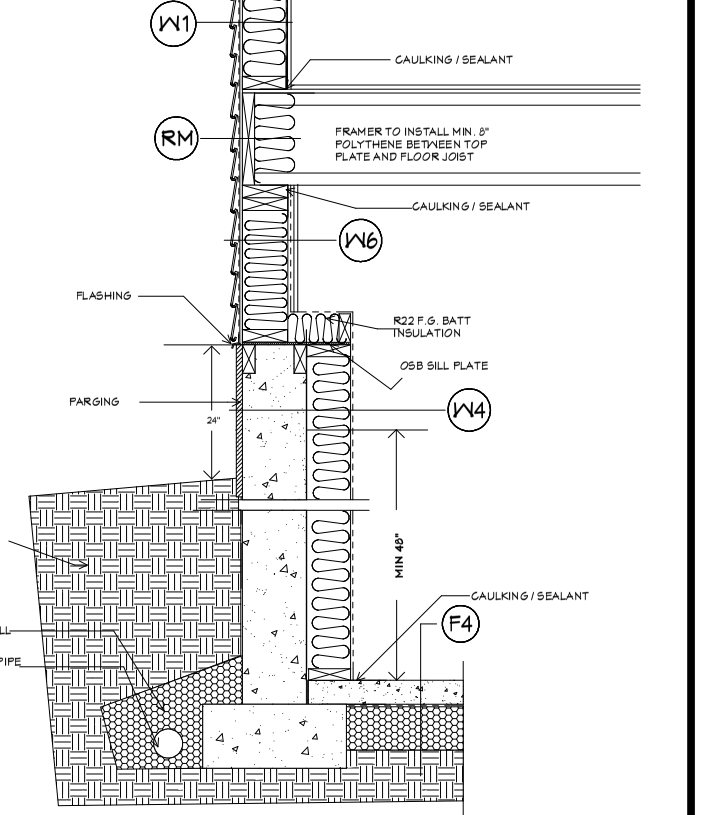
DUCTS PENETRATE THE BUILDING ENVELOPE DETAIL



TYPICAL WINDOW JAMB HEAD



TYPICAL INT.WALL/EXT. WALL



WALL SECTION - TOP OF BASEMENT WALL MORE THAN 24" TO GRADE

INSULATION CONTINUITY AND AIR TIGHTNESS DETAIL