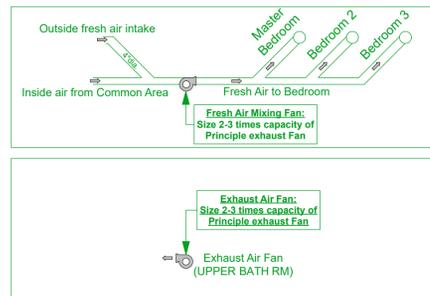


HOUSE VENT.

VENTILATION SYSTEM FOR HOUSE TO BE A DUCTED RECIRCULATION SYSTEM USING A 2 FAN SYSTEM.

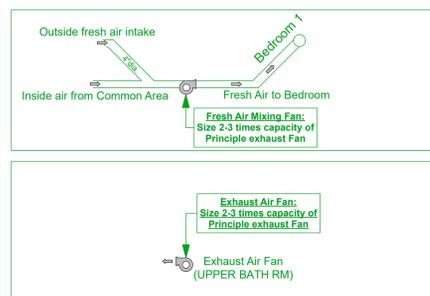


SYSTEM TO BE DESIGNED AND INSTALLED BY MECHANICAL CONTRACTOR

HEAT SOURCE TO BE DUCTLESS HEAT PUMP

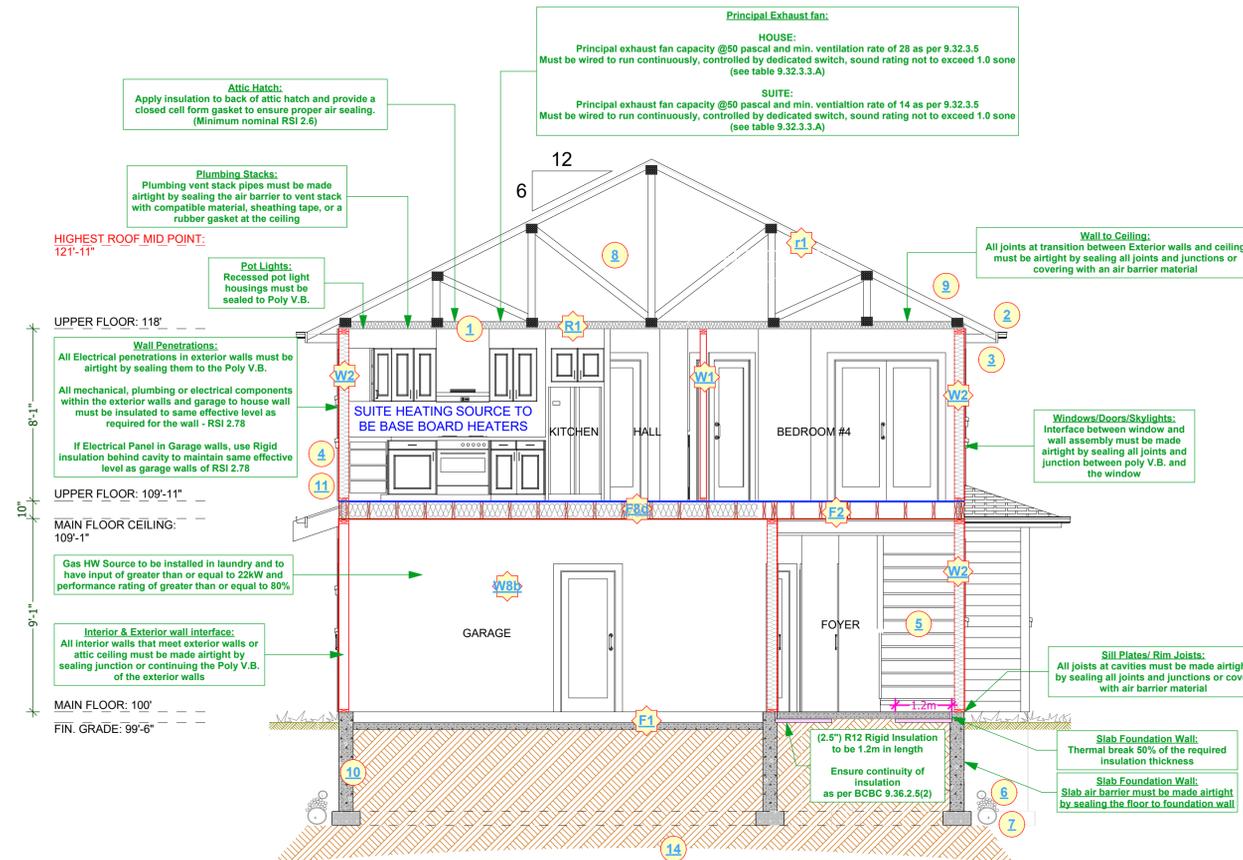
SUITE VENT. 2 STORY

VENTILATION SYSTEM FOR SUITE TO BE A DUCTED RECIRCULATION SYSTEM USING A 2 FAN SYSTEM.



SYSTEM TO BE DESIGNED AND INSTALLED BY MECHANICAL CONTRACTOR

SUITE HEATING SOURCE TO BE BASE BOARD HEATERS



CROSS SECTION A-1

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

HOUSE HEAT SOURCE TO BE DUCTLESS HEAT PUMP
SUITE HEAT SOURCE TO BE BASEBOARD HEATERS

CONSTRUCTION NOTES:

- | | |
|--|--|
| 1 R40 insulation, 6 mil poly V.B. 1/2" Ceiling Board | 8 Provide roof vents: vent 1/150 using Shinglevent II ridge vent |
| 2 Continuous gutters | 9 eave protection to 12" beyond heated wall |
| 3 Aluminum Gutters and Non-Vented Soffits- Roof overhangs as per plans | 10 8" concrete wall on 8"x16" conc.fgs - 2#4 bar cont.-R12 rigid insulation - 2 coats dampproofing |
| 4 All windows vinyl, supply rain pan under, rainscreen as per BCBC Windows in doors to be safety glass | 11 caulk over and around all exterior openings |
| 5 Stairs: 7 5/8" rise, 10" thread, 1" nosing with continuous handrail. | 12 10" X 10" post saddle on 8" plaster 2'6x2'6 conc. footing. NOT SHOWN |
| 6 Provide drains to perimeter system | 13 42" Non climable Continuous Handrail. |
| 7 4" draintile with 6" rock over | 14 Undisturbed non-organic soil |

ALL WINDOWS MUST COMPLY WITH BCBC AND NAFS REQUIREMENTS
MUST BE CLEARLY LABELED ON ALL WINDOW UNITS UPON INSTALLATION FOR INSPECTION. ONE EXTERIOR DOOR IS PERMITTED TO HAVE A HIGHER U-VALUE OF 2.6, ALL OTHERS MUST HAVE U-VALUE LESS THEN 1.80 (AS PER TABLE 9.36.2.7.A) -GARAGE VEHICULAR DOORS MUST BE MINIMUM NOMINAL RSI OF 1.1

CONSTRUCTION ASSEMBLIES:

- | | |
|--|---|
| F1 4" concrete floor on compacted granular fill, 6 mil poly VB | DEMISING FLOOR: (30min as per F8d - Table A-9.10.3.1.B)
• SUBFLOOR OF 15.9mm PLYWOOD, OSB OR WAFERBOARD, OR 17mm TONGUE AND GROOVE LUMBER
• WOOD JOISTS OR WOOD I-JOISTS SPACED max of 600mm O.C.
• ABSORPTIVE MATERIAL IN CAVITY
• RESILIENT METAL CHANNELS SPACED 600mm
• 15.9mm TYPE "X" GYPSUM BOARD |
| F2 2x10 Floor Joist 16" O.C. typ. Nail and Glue 3/4" T&G plywood X bridging @ 6" O.C. typ. | DEMISING WALL: (45min as per W8b - Table A-9.10.3.1.A)
• 2 layers of 12.7mm Type X gypsum board to one side on common 38mm x 140mm plate
• 89mm thick absorptive material on one side
• 12.7mm Type X gypsum board on other side |
| F3 Asphalt Shingles, building paper, 7/16" O.S.B. (or 1/2" plywood), Engineered Trusses designer by supplier @ 24" O.C. typ. | DEMISING CEILING: (45min as per R1 - Table A-9.10.3.1.B)
• WOOD TRUSSES SPACED NOT MORE THAN 600mm O.C.
• 1 LAYER 15.9mm TYPE "X" GYPSUM BOARD |
| F4 2x4 framing 16" O.C. typ. 1/2" drywall finish throughout | |
| F5 Exterior Finish, 3/4" air space, Pressure treated strapping, 2 layers 30 min building paper, 1/2" sheathing, 2x6 studs at 16" O.C., R-20 Batt insulation, 6 MIL Poly V.B., 1/2" Drywall. (See elevations) | |

ADD INTERCONNECTED PHOTO-ELECTRIC SMOKE ALARM CONFORMING TO ARTICLE 9.36.2.19. DWELLING UNITS TO BE SEPARATED FROM EACH OTHER BY A FIRE SEPARATION HAVING A FIRE-RESISTANCE RATING OF NOT LESS THAN 90 min, AS PER 9.36.2.15.(b)

EFFECTIVE R-VALUE FOR EXTERIOR WALLS AGAINST LOWER ROOF:

Exterior Air Film	0.03
7/16" OSB Sheathing	0.11
R-22 Batt insulation	
2x6 Wood studs @ 16" O.C.	$RSip=100[(23/1.19)+(77/3.87)] = 2.55$
6 MIL Poly V.B.	0
1/2" Gypsum Board	0.08
Interior Air Film	0.11
RSI=2.88	

Values from Table A-9.36.2.4.(1)D

EFFECTIVE R-VALUE FOR EXTERIOR WALLS ABOVE GRADE:

Exterior Air Film	0.03
Fibre-Cement Siding	0.02
1/2" Rain Screen Air Cavity	0.15
Building Paper	0
7/16" OSB Sheathing	0.11
R-20 Batt insulation	
2x6 Wood studs @ 16" O.C.	$RSip=100[(23/1.19)+(77/3.34)] = 2.36$
6 MIL Poly V.B.	0
1/2" Gypsum Board	0.08
Interior Air Film	0.11
RSI=2.86	

Values from Table A-9.36.2.4.(1)D

EFFECTIVE R-VALUE FOR HOUSE TO GARAGE WALLS:

Exterior Air Film	0.03
1/2" Gypsum Board	0.08
R-20 Batt insulation	2.36 (See Calculation Below)
2x6 Wood studs @ 16" O.C.	$RSip=100[(23/1.19)+(77/3.34)] = 2.36$
6 Mil Poly V.B.	0
1/2" Gypsum Board	0.08
Interior Air Film	0.12
RSI=2.67	

Values from Table A-9.36.2.4.(1)D
Since an enclosed space rating can reduced by 0.16

EFFECTIVE R-VALUE FLOOR OVER UNHEATED SPACE (GARAGE):

Exterior Air Film	0.03
1/2" Gypsum Board	0.08
R28 Batt insulation	
2x10 Wood Joists @ 16" O.C.	$RSip=100[(13/2.0)+(87/4.93)] = 4.14$
3/4" Sheathing	0.161
Interior Air Film	0.16
RSI=4.57	

Values from Table A-9.36.2.4.(1)D
Since an enclosed space rating can reduced by 0.16*

EFFECTIVE R-VALUE FOR FOUNDATION WALLS:

Damp proofing	0
8" poured-in place concrete	2.11
(2.5") R12 Rigid Insulation	
RSI=2.11	

Values from Table A-9.36.2.4.(1)D

EFFECTIVE R-VALUE FLOOR OVER UNHEATED SPACE (OUTSIDE):

Exterior Air Film	0.03
Aluminum Soffit	0.00
3/4" Sheathing	0.161
R28 Batt insulation	
2x10 Wood Joists @ 16" O.C.	$RSip=100[(13/2.0)+(87/4.93)] = 4.16$
3/4" Sheathing	0.161
Interior Air Film	0.16
RSI=4.67	

Values from Table A-9.36.2.4.(1)D

EFFECTIVE R-VALUE CEILING BELOW ATTIC:

Asphalt shingles	0
Building Paper	0
1/2" Sheathing	0
Attic air film	0.03
R40 blown fiberglass insulation above truss cord	5.38
Wood trusses @ 24" O.C.	1.47
$RSip=100[(11/0.76)+(89/1.67)] = 1.47$	
6 MIL Poly V.B.	0
1/2" Gypsum Board	0.08
Interior Air Film	0.12
RSI=7.08	

Values from Table A-9.36.2.4.(1)D

EFFECTIVE R-VALUE FOR UNHEATED FLOORS ABOVE FROST LINE:

Interior Air Film	0.11
4" poured-in place concrete	0
2.5" R12 Rigid Insulation	2.11
Exterior Air Film	0.03
RSI=2.25	

Values from Table A-9.36.2.4.(1)D

CUSTOMER:
LANGDON WEIR CONSTRUCTION LTD.

ADDRESS:
LOT 27 PAPERBARK CRESCENT, LANGDON

DRAWING NAME:
CROSS SECTION A-1

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

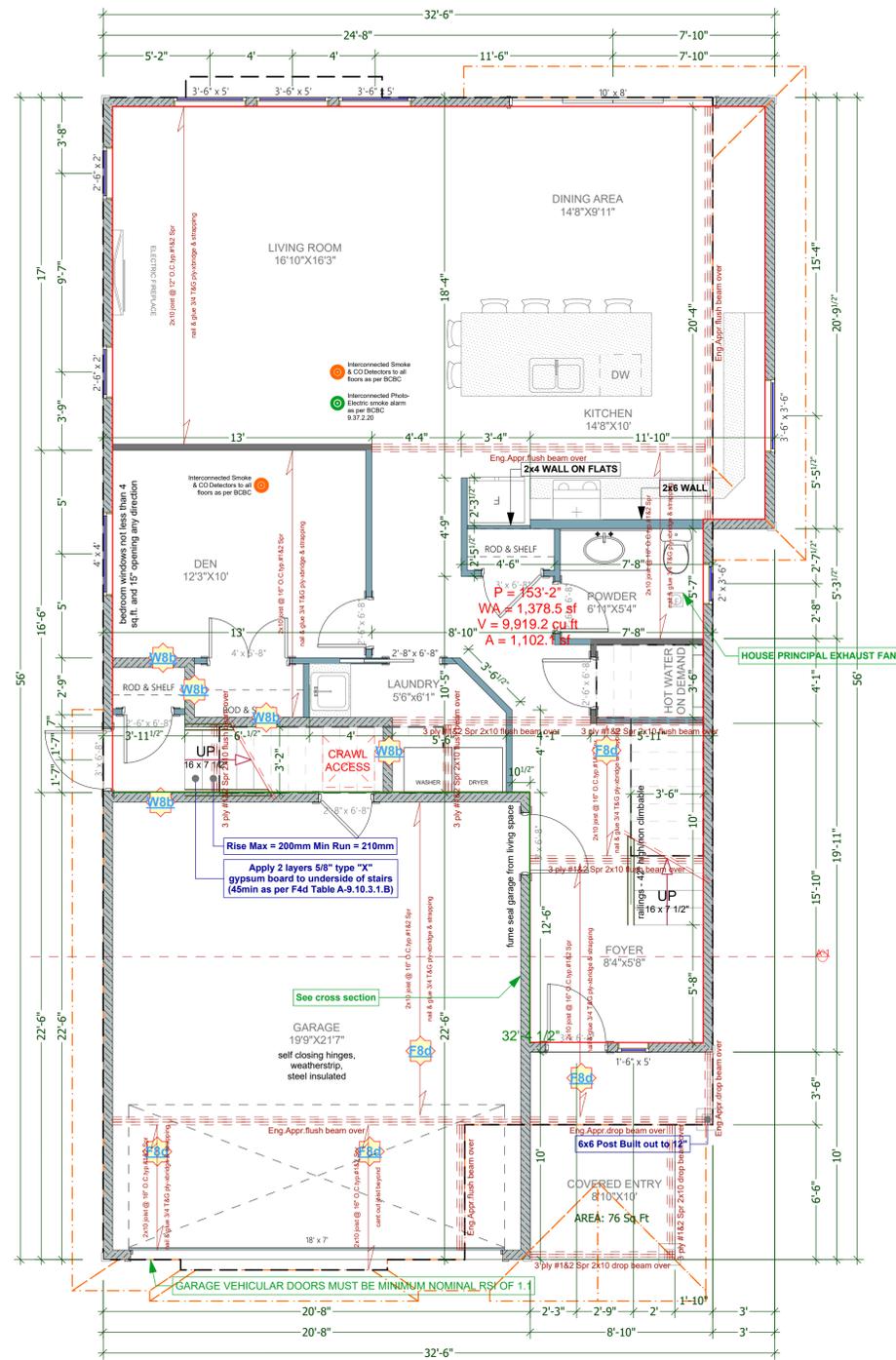
ISSUE DATE:
JULY 29, 2018

DRAWN BY:
KYLE LEGGETT

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SHEET NUMBER

A2



MAIN FLOOR PLAN (9'-0 3/4" WALLS)

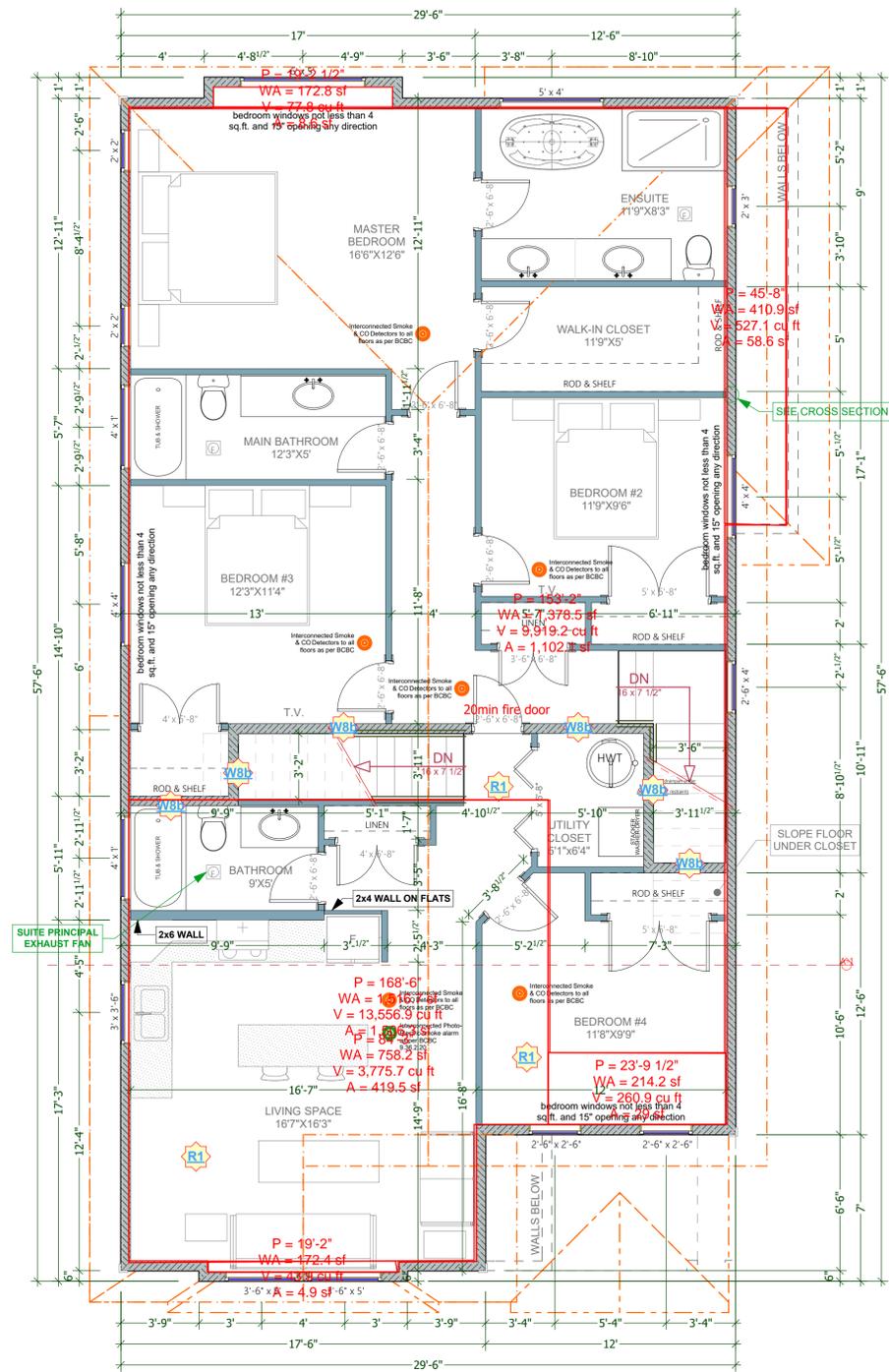
SCALE: 1/4" = 1'-0"

MAIN FLOOR AREA: 1,161 Sq Ft
GARAGE AREA: 465 Sq Ft

ALL POT LIGHT CAVITIES IN CEILINGS, PLUMBING BOXES, FANS, ELECTRICAL PANELS, ... IN PARTY WALLS TO BE COMPLETELY SEALED AND FIRE RATED WITH TYPE 'X' DRYWALL

- DEMISING FLOOR:** (30min as per F8d - Table A-9.10.3.1.B)
 - SUBFLOOR OF 15.9mm PLYWOOD, OSB OR WAFERBOARD, OR 17mm TONGUE AND GROOVE LUMBER
 - WOOD JOISTS OR WOOD I-JOISTS SPACED max of 600mm O.C.
 - ABSORPTIVE MATERIAL IN CAVITY
 - RESILIENT METAL CHANNELS SPACED 600mm
 - 15.9mm TYPE "X" GYPSUM BOARD
- DEMISING WALL:** (45min as per W8b - Table A-9.10.3.1.A)
 - 2 layers of 12.7mm Type X gypsum board to one side
 - Two rows 38mm x 89mm studs spaced 600mm O.C. staggered on common 38mm x 140mm plate
 - 89mm thick absorptive material on one side
 - 12.7mm Type X gypsum board on other side

ADD INTERCONNECTED PHOTO-ELECTRIC SMOKE ALARM CONFORMING TO ARTICLE 9.36.2.19. DWELLING UNITS TO BE SEPARATED FROM EACH OTHER BY A FIRE SEPARATION HAVING A FIRE-RESISTANCE RATING OF NOT LESS THAN 30 min, AS PER 9.36.2.15.(b)



UPPER FLOOR PLAN (8'-0 3/4" WALLS)

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

HOUSE AREA: 912 Sq Ft
SUITE AREA: 601 Sq Ft
TOTAL UPPER FLOOR AREA: 1,513 Sq Ft

ALL POT LIGHT CAVITIES IN CEILINGS, PLUMBING BOXES, FANS, ELECTRICAL PANELS, ... IN PARTY WALLS TO BE COMPLETELY SEALED AND FIRE RATED WITH TYPE 'X' DRYWALL

- DEMISING WALL:** (45min as per W8b - Table A-9.10.3.1.A)
 - 2 layers of 12.7mm Type X gypsum board to one side
 - Two rows 38mm x 89mm studs spaced 600mm O.C. staggered on common 38mm x 140mm plate
 - 89mm thick absorptive material on one side
 - 12.7mm Type X gypsum board on other side
- DEMISING CEILING:** (45min as per R1 - Table A-9.10.3.1.B)
 - WOOD TRUSSES SPACED NOT MORE THAN 600mm O.C.
 - 1 LAYER 15.9mm TYPE "X" GYPSUM BOARD

ADD INTERCONNECTED PHOTO-ELECTRIC SMOKE ALARM CONFORMING TO ARTICLE 9.36.2.19. DWELLING UNITS TO BE SEPARATED FROM EACH OTHER BY A FIRE SEPARATION HAVING A FIRE-RESISTANCE RATING OF NOT LESS THAN 30 min, AS PER 9.36.2.15.(b)

CUSTOMER:
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ADDRESS:
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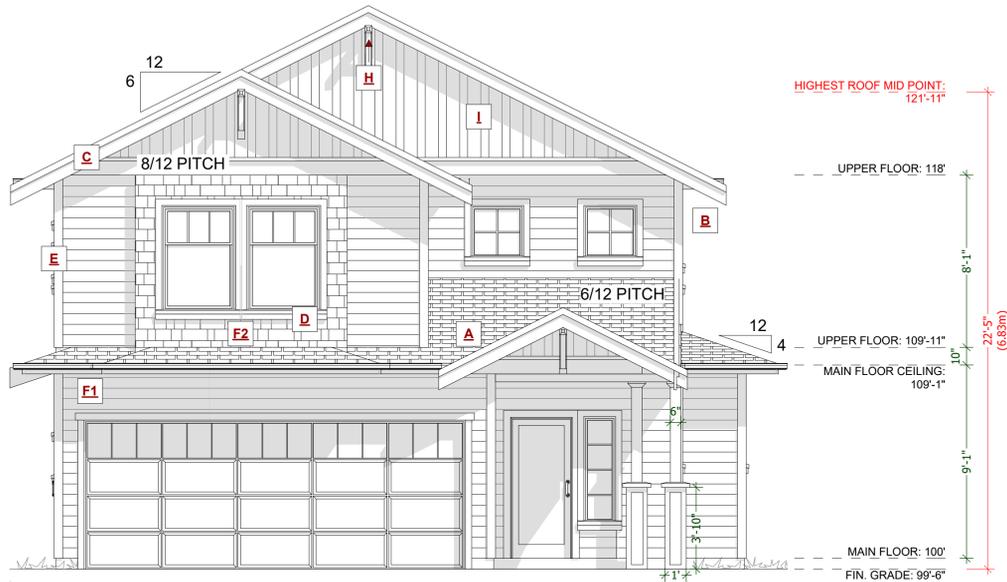
DRAWING NAME:
MAIN AND UPPER FLOOR PLAN
DRAWING SCALE:
1/4"=1'-0"

ISSUE DATE:
JULY 29, 2018
DRAWN BY:
KYLE LEGGETT

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A3



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

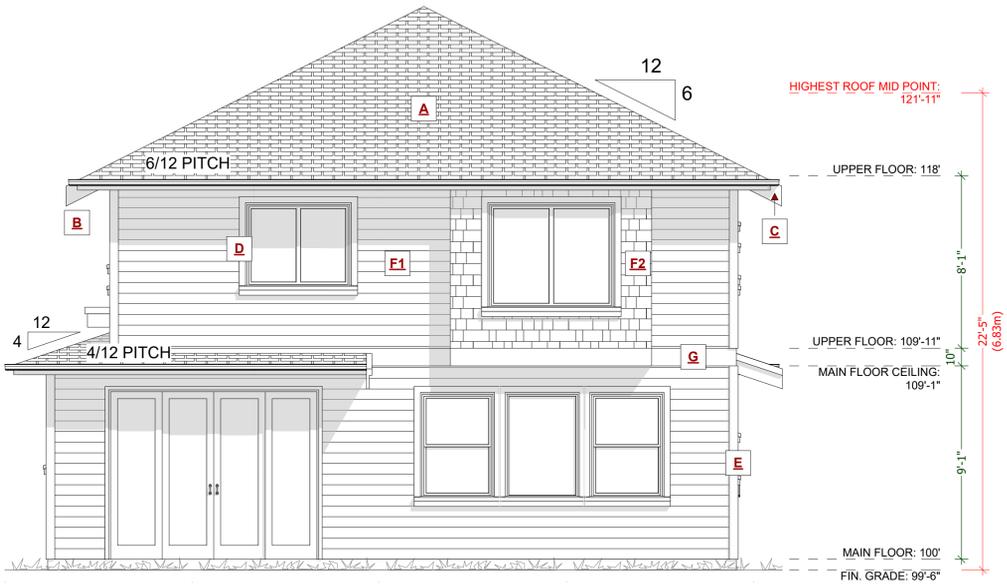


LEFT ELEVATION
SCALE: 1/4" = 1' - 0"

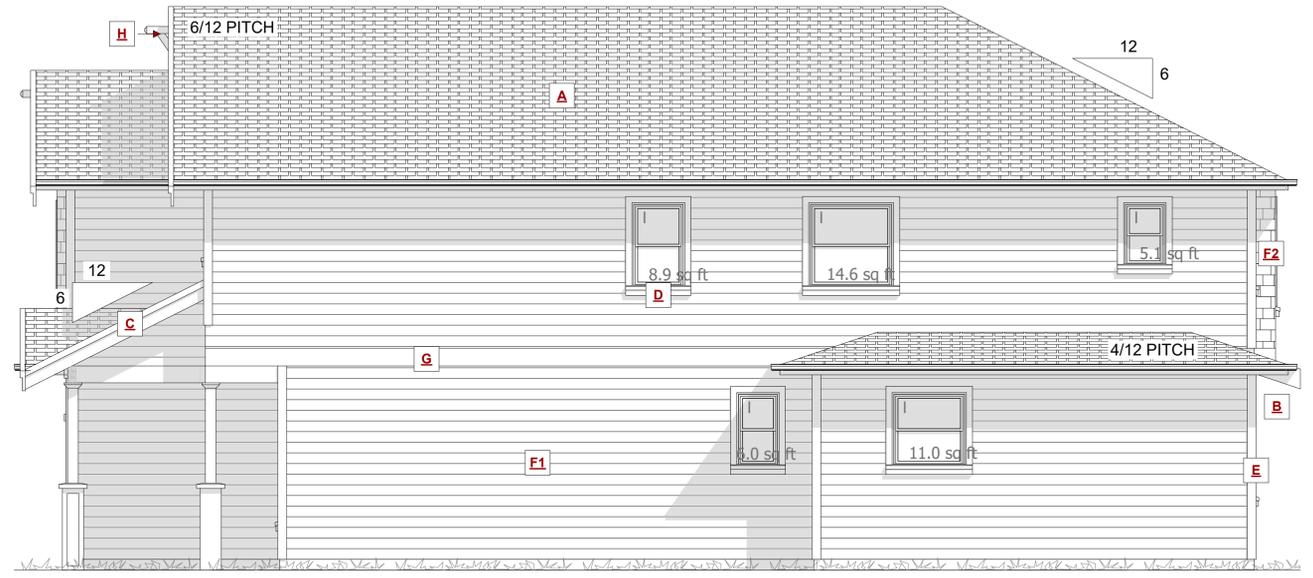
EXPOSING BUILDING FACE: 96.25m²
 LIMITING DISTANCE: 3.76m
 AREA OF GLAZED OPENINGS: 5.53m²
 % GLAZED OPENINGS: 5.75%
 45 min FIRE-RESISTANCE RATING: not required
 TYPE OF CLADDING: no limits
 PERMITTED % OF GLAZED OPENINGS (as per Table 9.10.15.4): 13.50%
 PERMITTED AGGREGATE AREA OF GLAZED OPENINGS: 12.99m²

EXTERIOR FINISHES SCHEDULE				
A	ROOFING:	ASPHALT ROOFING WITH RAISED RIDGE & HIP CAPS	F1 WALL FINISH:	HARDIE-PLANK SIDING LAPPED TO 8" EXPOSURE - COLOUR AS PER OWNERS SPECS
B	GUTTER & SOFFIT:	ALUMINIUM GUTTER AND NON-VENTED SOFFIT	F2 WALL FINISH:	CEDAR SHAKES - RAIN SCREEN AS PER BCBC
C	BARGE BOARD:	2x10 WITH 1x4 DOUBLE BARGE BOARD, PAINTED TRIM COLOR	G BELLY BAND:	2x10 PAINTED BELLY BAND WITH FLASHING, PAINTED TRIM COLOR
D	WINDOW & DOOR TRIM:	1x4 TRIM BOARDS - PAINTED/ STAINED	H BEAM ENDS:	DECORATIVE 8x12 WOOD BEAM ENDS IN PEAKS - SEE ELEVATIONS
E	CORNER TRIM:	1x4 CORNER BOARDS - PAINTED/ STAINED	I GABLES:	HARDIE-BOARD AND BATTEN 1x4 @ 16" O.C. RAINSCREEN AS PER BCBC

ALL WINDOWS MUST COMPLY WITH BCBC AND NAFS REQUIREMENTS
 MUST BE CLEARLY LABELED ON ALL WINDOW UNITS UPON INSTALLATION FOR INSPECTION.
 -ONE EXTERIOR DOOR IS PERMITTED TO HAVE A HIGHER U-VALUE OF 2.6, ALL OTHERS MUST BE LOWER.
 -GARAGE VEHICULAR DOORS MUST BE MINIMUM NOMINAL RSI OF 1.1



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



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

EXPOSING BUILDING FACE: 81.96m²
 LIMITING DISTANCE: 1.57m
 AREA OF GLAZED OPENINGS: 4.23m²
 % GLAZED OPENINGS: 5.16%
 45 min FIRE-RESISTANCE RATING: not required
 TYPE OF CLADDING: no limits
 PERMITTED % OF GLAZED OPENINGS (as per Table 9.10.15.4): 8.00%
 PERMITTED AGGREGATE AREA OF GLAZED OPENINGS: 6.56m²

NAFS REQUIREMENTS:
 Performance Grade of 30
 Water Test Pressure of 260 Pa

CUSTOMER:
LANGDON WEIR CONSTRUCTION LTD.
 ADDRESS:
LOT 27 PAPERBARK CRESCENT, LANGDON

DRAWING NAME:
ELEVATIONS
 ISSUE DATE:
JULY 29, 2018
 DRAWING SCALE:
1/4"=1'-0"
 DRAWN BY:
KYLE LEGGETT

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