

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information			
Building number, street name		Unit no.	Lot/con.
Municipality VAUGHAN (WOODBIDGE)	Postal code	Plan number/ other description	
B. Individual who reviews and takes responsibility for design activities			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.	
Street address 375 FINLEY AVE		Unit no. 202	Lot/con. N/A
Municipality AJAX	Postal code L1S 2E2	Province ONTARIO	E-mail info@hvacdesigns.ca
Telephone number (905) 619-2300	Fax number (905) 619-2375	Cell number ()	
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]			
☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems			
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: 5013 - RIVERVIEW OPT 5 BED - WOB Project: PINE VALLEY PH 2	
D. Declaration of Designer			
I, <u>MICHAEL O'ROURKE</u> (print name) declare that (choose one as appropriate):			
☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____			
☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: <u>19669</u> Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 3.2.4.1 (4)</u>			
☐ The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____			
I certify that:			
1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.			
May 4, 2022			
Date		Signature of Designer	

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

Application for a Permit Construct or Demolish – Effective January 1, 2015

[illegible]

65411	TONS: 5.45	LOSS DUE TO VENTILATION LOAD BTU/H: 6156
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STRUCTURAL HEAT LOSS: 88104

TOTAL COMBINED HEAT LOSS BTU/H: 94260

Michael O'Rourke

INDIVIDUAL BCIN: 19659 MICHAEL O'ROURKE

SITE NAME: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMESOPT 5 BED - WOB
TYPE: 5013 - RIVERVIEW

FURNACE 1

GFA: 4447 LO# 96528

DATE: May-22

HEATING CFM 1170 COOLING CFM 1170
TOTAL HEAT LOSS 61,161 TOTAL HEAT GAIN 36,421
AIR FLOW RATE CFM 19.13 AIR FLOW RATE CFM 32.12FURNACE HEAT LOSS +
HRV / ERV HEAT LOSS
= 64239 BTUHML196UH090XE36C
FAN SPEED 90
\$LENNOXAFUE = 96 %
INPUT (BTU/H) = 88,000
OUTPUT (BTU/H) = 85,600

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	0	12	6
R/A	0	0	0	2	1

All S/A diffusers 4"x10" unless noted otherwise on layout.

All S/A runs 5"Ø unless noted otherwise on layout.

RUN #	ROOM NAME	19	20	21	22	23	24
	ROOM NAME	FOY	GRT	GRT	GRT	GRT	DIN
	RM LOSS MBH.	3.28	2.52	2.52	2.52	2.52	3.20
	CFM PER RUN HEAT	63	48	48	48	48	61
	RM GAIN MBH.						
	CFM PER RUN COOLING	1.88	3.32	3.32	3.32	3.32	2.64
	ADJUSTED PRESSURE	60	107	107	107	107	85
	ACTUAL DUCT LGH.	0.17	0.15	0.15	0.15	0.15	0.16
	EQUIVALENT LENGTH	47	56	49	45	38	27
	TOTAL EFFECTIVE LENGTH	100	110	150	130	150	140
	ADJUSTED PRESSURE	147	166	199	175	188	167
	ROUND DUCT SIZE	0.12	0.09	0.08	0.09	0.08	0.1
	HEATING VELOCITY (ft/min)	5	6	6	6	6	5
	COOLING VELOCITY (ft/min)	463	245	245	245	245	448
		441	546	546	546	546	624
	OUTLET GRILL SIZE	3X10	4X10	4X10	4X10	4X10	3X10
	TRUNK	F	D	D	D	D	F

SITE NAME: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMESTYPE: 5013 - RIVERVIEW
furnace pressure 0.6
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35

DATE: May-22

GFA: 4447

LO# 96528

FURNACE 2

HEATING CFM 980
TOTAL HEAT LOSS 26,943
AIR FLOW RATE CFM 36.37FURNACE HEAT LOSS +
HRV / ERV HEAT LOSS
= 30021 BTUHML196UH045XE36B
FAN SPEED
\$LENNOX 45AFUE = 96 %
INPUT (BTU/H) = 44,000
OUTPUT (BTU/H) = 42,800

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	20	0	0
R/A	0	0	6	0	0

plenum pressure s/a 0.18
max s/a diff press. loss 0.02
min adjusted pressure s/a 0.16r/a pressure 0.17
r/a grille press. loss 0.02
adjusted pressure r/a 0.15DESIGN CFM = 980
CFM @ .5" E.S.P.

All S/A diffusers 4"x10" unless noted otherwise on layout.

All S/A runs 5'Ø unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ROOM NAME	PBR	PBR	ENS	ENS	WIC	ENS-5	BED-2	BED-2	BED-3	BED-3	ENS-4	BED-4	BED-4	LOFT	ENS-2	ENS-3	BED-5	LND
RM LOSS MBH	1.91	1.91	1.05	1.05	0.93	0.87	1.10	1.10	1.49	1.49	1.19	1.75	1.75	2.00	1.10	1.85	0.83	0.33
CFM PER RUN HEAT	70	70	38	38	34	32	40	40	54	54	43	64	64	73	40	67	30	12
RM GAIN MBH	2.60	2.60	0.69	0.69	0.40	0.40	1.33	1.33	1.72	1.72	0.38	1.86	1.86	2.12	0.41	1.08	2.12	1.57
CFM PER RUN COOLING	90	90	24	24	14	14	46	46	59	59	13	64	64	73	14	37	73	54
ADJUSTED PRESSURE	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	52	63	48	16	51	19	72	77	78	69	66	73	84	65	64	75	46	75
EQUIVALENT LENGTH	210	190	255	130	245	120	170	180	200	190	180	190	170	190	170	180	160	130
TOTAL EFFECTIVE LENGTH	262	253	303	146	296	139	242	257	278	259	249	256	243	274	235	244	235	176
ADJUSTED PRESSURE	0.06	0.06	0.06	0.12	0.06	0.12	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.1
ROUND DUCT SIZE	6	6	5	4	5	4	5	5	6	6	5	6	6	6	5	6	6	5
HEATING VELOCITY (ft/min)	357	357	279	436	250	367	294	294	275	275	316	326	326	372	294	342	153	88
COOLING VELOCITY (ft/min)	459	459	176	275	103	161	338	338	301	301	95	326	326	372	103	189	372	396
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	4X10	4X10	4X10	3X10	4X10	4X10	3X10
TRUNK	C	C	C	C	C	C	B	B	A	A	A	A	A	B	B	A	A	B

RUN #	37	38
ROOM NAME	BED-3	BED-4
RM LOSS MBH	1.49	1.75
CFM PER RUN HEAT	54	64
RM GAIN MBH	1.72	1.86
CFM PER RUN COOLING	59	64
ADJUSTED PRESSURE	0.17	0.17
ACTUAL DUCT LGH.	67	71
EQUIVALENT LENGTH	190	170
TOTAL EFFECTIVE LENGTH	257	241
ADJUSTED PRESSURE	0.07	0.07
ROUND DUCT SIZE	6	6
HEATING VELOCITY (ft/min)	275	326
COOLING VELOCITY (ft/min)	301	326
OUTLET GRILL SIZE	4X10	4X10
TRUNK	A	A

SUPPLY AIR TRUNK SIZE	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	RETURN AIR TRUNK SIZE	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	494	0.06	11.6	16	556	TRUNK O	0	0.05	0	0	8
TRUNK B	699	0.06	13.2	22	572	TRUNK P	0	0.05	0	0	8
TRUNK C	981	0.06	15	26	679	TRUNK Q	0	0.05	0	0	8
TRUNK D	0	0.00	0	0	0	TRUNK R	0	0.05	0	0	8
TRUNK E	0	0.00	0	0	0	TRUNK S	0	0.05	0	0	8
TRUNK F	0	0.00	0	0	0	TRUNK T	0	0.05	0	0	8
RETURN AIR #	1	2	3	4	5	TRUNK U	0	0.05	0	0	8
AIR VOLUME	155	115	115	115	335	TRUNK V	0	0.05	0	0	8
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	TRUNK W	825	0.05	0	0	8
ACTUAL DUCT LGH.	62	78	79	75	69	TRUNK X	450	0.05	14.7	26	8
EQUIVALENT LENGTH	170	235	195	245	230	TRUNK Y	155	0.05	11.7	16	8
TOTAL EFFECTIVE LH	232	313	274	320	299	TRUNK Z	8	0.05	7.8	8	349
ADJUSTED PRESSURE	0.06	0.05	0.05	0.05	0.05	DROP	980	0.05	15.7	24	10
ROUND DUCT SIZE	7.5	7	7	8	10.5						
INLET GRILL SIZE	8	8	8	8	8						
	X	X	X	X	X						
INLET GRILL SIZE	14	14	14	14	30						

Michael O'Rourke

TYPE: 5013 - RIVERVIEW
SITE NAME: PINE VALLEY PH 2

LO # 96528
OPT 5 BED - WOB

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES		9.32.3.1(1)
a) ☒	Direct vent (sealed combustion) only	
b) ☐	Positive venting induced draft (except fireplaces)	
c) ☐	Natural draft, B-vent or induced draft gas fireplace	
d) ☐	Solid Fuel (including fireplaces)	
e) ☐	No Combustion Appliances	

HEATING SYSTEM	
☒	Forced Air
☐	Non Forced Air
☐	Electric Space Heat

HOUSE TYPE		9.32.1(2)
☒	I Type a) or b) appliance only, no solid fuel	
☐	II Type I except with solid fuel (including fireplaces)	
☐	III Any Type c) appliance	
☐	IV Type I, or II with electric space heat	
☐	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
☐	1 Exhaust only/Forced Air System	
☐	2 HRV with Ducting/Forced Air System	
☒	3 HRV Simplified/connected to forced air system	
☐	4 HRV with Ducting/non forced air system	
☐	Part 6 Design	

TOTAL VENTILATION CAPACITY		9.32.3.3(1)
Basement + Master Bedroom	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	4 @ 10.6 cfm	42.4 cfm
Kitchen & Bathrooms	7 @ 10.6 cfm	74.2 cfm
Other Rooms	5 @ 10.6 cfm	53.0 cfm
Table 9.32.3.A.	TOTAL	212.0 cfm

PRINCIPAL VENTILATION CAPACITY REQUIRED		9.32.3.4.(1)
1 Bedroom	31.8	cfm
2 Bedroom	47.7	cfm
3 Bedroom	63.6	cfm
4 Bedroom	79.5	cfm
5 Bedroom	95.4	cfm
TOTAL	95.4	cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	212	cfm
Less Principal Ventil. Capacity	150	cfm
Required Supplemental Capacity	62.0	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE V150H
Location:	BSMT
150.0 cfm	☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
150.0 CFM	X 76 F	X 1.08	X 0.25

SUPPLEMENTAL FANS		BY INSTALLING CONTRACTOR		
Location	Model	cfm	HVI	Sones
ENS	BY INSTALLING CONTRACTOR	50	☒	3.5
ENS-2	BY INSTALLING CONTRACTOR	50	☒	3.5
ENS-3	BY INSTALLING CONTRACTOR	50	☒	3.5
ENS-4	BY INSTALLING CONTRACTOR	50	☒	3.5

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE V150H	
150 cfm high	INSTALL 2 HRV / ERV's	
75	% Sensible Efficiency @ 32 deg F (0 deg C)	
	☒ HVI Approved	

LOCATION OF INSTALLATION	
Lot:	Concession
Township	Plan:
Address	
Roll #	Building Permit #

BUILDER:	
GOLD PARK HOMES	
Name:	
Address:	
City:	
Telephone #:	Fax #:

INSTALLING CONTRACTOR	
Name:	
Address:	
City:	
Telephone #:	Fax #:

DESIGNER CERTIFICATION	
I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.	
Name:	HVAC Designs Ltd.
Signature:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	May-22

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																																	
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																																	
LO#: 96528		Model: 5013 - RIVERVIEW		Builder: GOLD PARK HOMES		Date: 2022-05-04																																																											
Volume Calculation				Air Change & Delta T Data																																																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Floor Area (ft²)</th> <th>Floor Height (ft)</th> <th>Volume (ft³)</th> </tr> </thead> <tbody> <tr> <td>Bsmt</td> <td>2106</td> <td>10</td> <td>21060</td> </tr> <tr> <td>First</td> <td>2106</td> <td>11</td> <td>23166</td> </tr> <tr> <td>Second</td> <td>2740</td> <td>9</td> <td>24660</td> </tr> <tr> <td>Third</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td>Fourth</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td colspan="2">Total:</td> <td></td> <td>68,886.0 ft³</td> </tr> <tr> <td colspan="2">Total:</td> <td></td> <td>1950.6 m³</td> </tr> </tbody> </table>				Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	Bsmt	2106	10	21060	First	2106	11	23166	Second	2740	9	24660	Third	0	9	0	Fourth	0	9	0	Total:			68,886.0 ft³	Total:			1950.6 m³	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">Design Temperature Difference</th> </tr> <tr> <th></th> <th>Tin °C</th> <th>Tout °C</th> <th>ΔT °C</th> </tr> </thead> <tbody> <tr> <td>Winter DTDh</td> <td>22</td> <td>-20</td> <td>42</td> </tr> <tr> <td>Summer DTDc</td> <td>24</td> <td>31</td> <td>7</td> </tr> <tr> <td></td> <td></td> <td></td> <td>76</td> </tr> <tr> <td></td> <td></td> <td></td> <td>13</td> </tr> </tbody> </table>						Design Temperature Difference					Tin °C	Tout °C	ΔT °C	Winter DTDh	22	-20	42	Summer DTDc	24	31	7				76				13
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5.2.3.1 Heat Loss due to Air Leakage																																																																	
$HL_{air-b} = LR_{air-h} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$																																																																	
0.407	x	541.84	x	42 °C	x	1.2	=	11170 W																																																									
								=	38112 Btu/h																																																								
5.2.3.2 Heat Loss due to Mechanical Ventilation																																																																	
$HL_{vair-b} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																																	
300 CFM	x	76 °F	x	1.08	x	0.25	=	6156 Btu/h																																																									
								=	1,037 Btu/h																																																								
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																																	
$HL_{air} = Level Factor \times HL_{air-bv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$																																																																	
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5	0		0	0.000																																																													
*Hlairebv = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system Hlairev = 0																																																																	
								Michael O'Rourke BCIN# 19669 																																																									

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 5013 - RIVERVIEW	OPT 5 BED - WOB	BUILDER: GOLD PARK HOMES
SFQT: 4447	LO# 96528	SITE: PINE VALLEY PH 2

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75
		WINDOW SHGC	0.50

BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	68886.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.75	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 70.0 ft	WIDTH: 43.0 ft	EXPOSED PERIMETER:	173.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	53.0 ft

2012 OBC - COMPLIANCE PACKAGE

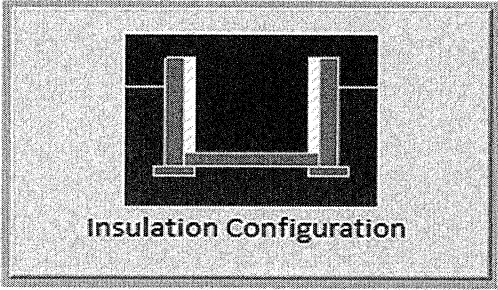
Component	Compliance Package A1	
	Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value	60	59.22
Ceiling Without Attic Space Minimum RSI (R)-Value	31	27.65
Exposed Floor Minimum RSI (R)-Value	31	29.80
Walls Above Grade Minimum RSI (R)-Value	22	17.03
Basement Walls Minimum RSI (R)-Value	20 ci	21.12
Below Grade Slab Entire surface > 600 mm below grade Minimum RSI (R)-Value	-	-
Edge of Below Grade Slab ≤ 600 mm Below Grade Minimum RSI (R)-Value	10	10
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10	11.13
Windows and Sliding Glass Doors Maximum U-Value	0.28	-
Skylights Maximum U-Value	0.49	-
Space Heating Equipment Minimum AFUE	0.96	-
HRV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

INDIVIDUAL BCIN: 19669
MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

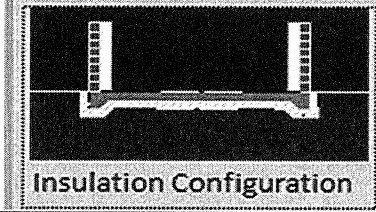
Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	4.6	 Insulation Configuration
Floor Width (m):	13.1	
Exposed Perimeter (m):	52.7	
Wall Height (m):	3.0	
Depth Below Grade (m):	1.84	
Window Area (m ²):	0.7	
Door Area (m ²):	0.0	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		902

TYPE: 5013 - RIVERVIEW
LO# 96528

OPT 5 BED - WOB

Residential Slab on Grade Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Length (m):	1.5	 Insulation Configuration
Width (m):	13.1	
Exposed Perimeter (m):	16.2	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		224

TYPE: 5013 - RIVERVIEW
LO# 96528

OPT 5 BED - WOB

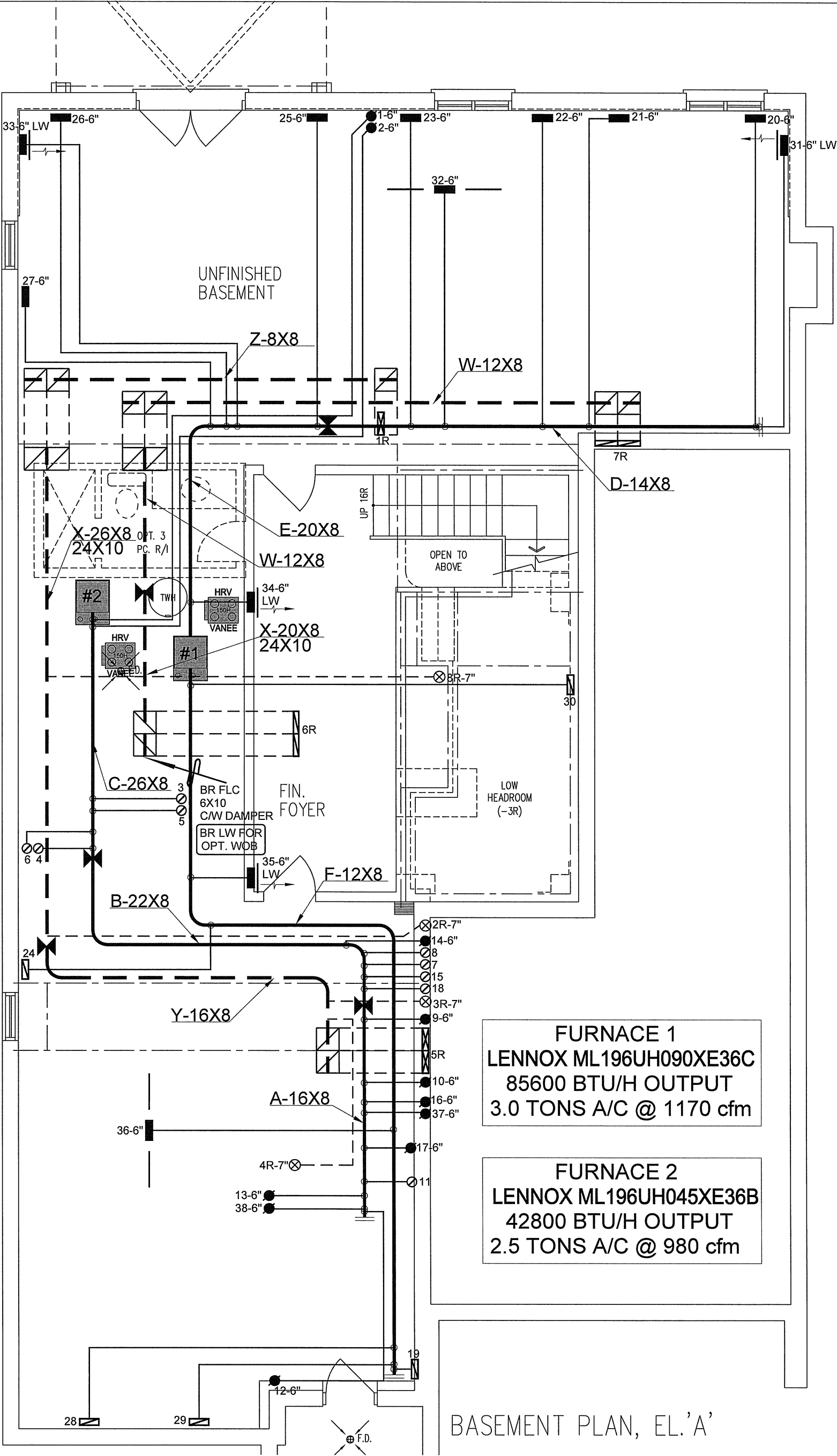
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	9.14			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1950.6			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa. 3.57	2600.3 cm ² ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply 70.8	Total Exhaust 70.8		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):		0.407		
Cooling Air Leakage Rate (ACH/H):		0.137		

TYPE: 5013 - RIVERVIEW
LO# 96528

OPT 5 BED - WOB



I MICHAEL O'Rourke HAVE REVIEW
AND TAKE RESPONSIBILITY FOR THE
DESIGN WORK AND AM QUALIFIED
UNDER DIVISION C.3.2.5 OF THE
BUILDING CODE.

Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

WOB

CSA-F280-12

PACKAGE A1

HVAC LEGEND				
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE	3.
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR	2.
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR	1.
			FRA - FLOOR RETURN AIR GRILLE	No.
			RETURN AIR STACK ABOVE	Description
			REDUCER	Date
REVISIONS				

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FURNACE 1
LENNOX ML196UH090XE36C
85600 BTU/H OUTPUT
3.0 TONS A/C @ 1170 cfm

FURNACE 2
LENNOX ML196UH045XE36B
42800 BTU/H OUTPUT
2.5 TONS A/C @ 980 cfm

BASEMENT PLAN, EL. 'A'

Client
GOLD PARK HOMES

Project Name
PINE VALLEY PH 2
VAUGHAN, ONTARIO

RIVERVIEW - OPT 5 BED
5013 - WOB 4447 sqft

HVACDESIGNS LTD.

375 Finley Ave. Suite 202 - Ajax, Ontario
L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: info@hvacdesigns.ca
Web: www.hvacdesigns.ca

Specializing in Residential Mechanical Design Services

Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.

	S/A	R/A	FANS
2ND	20	6	6
1ST	12	2	2
BAS	6	1	0

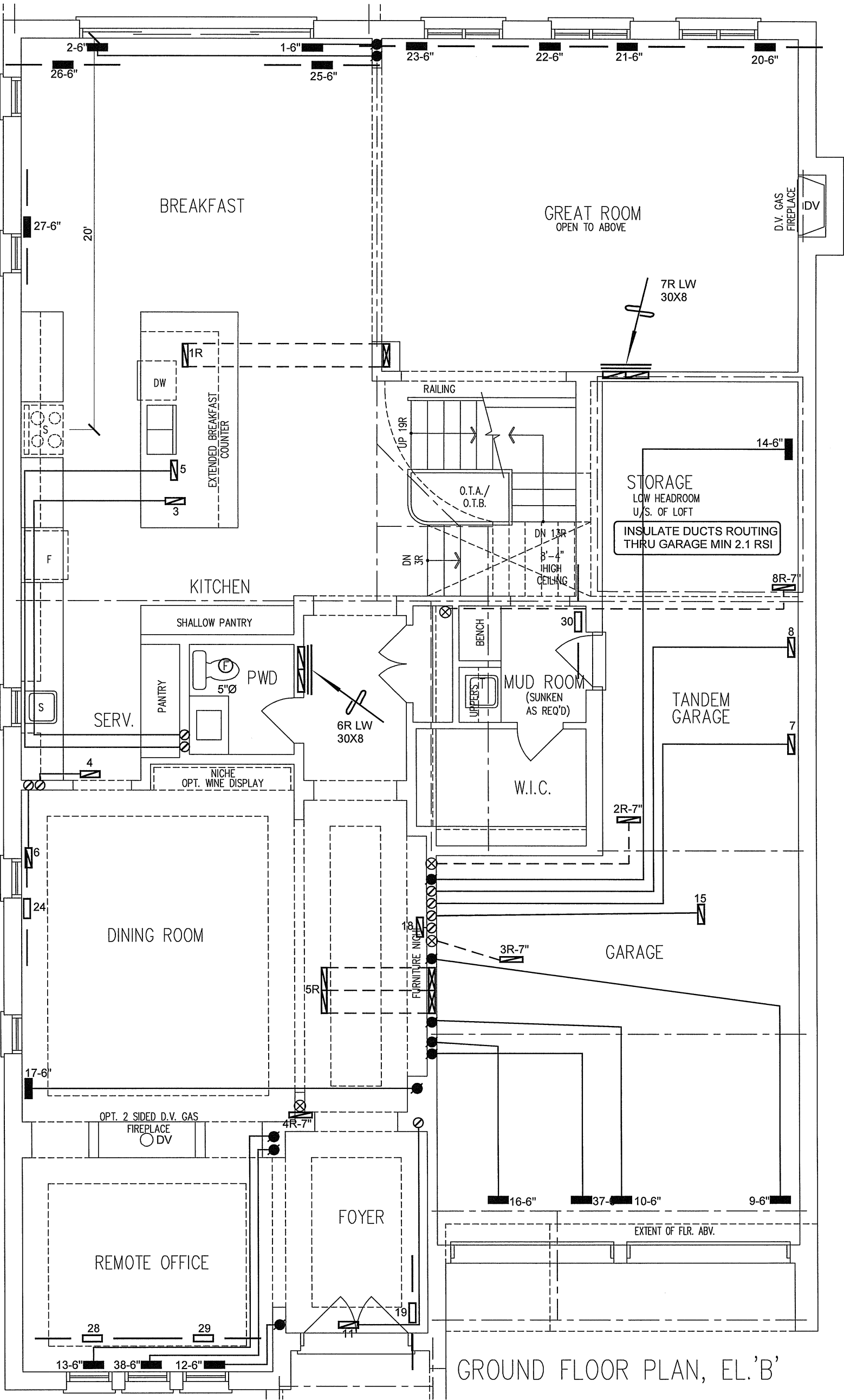
Sheet Title
BASEMENT
HEATING
LAYOUT

Date
MAY/2022

Scale
3/16" = 1'-0"

BCIN# 19669

LO# 96528



GROUND FLOOR PLAN, EL. 'B'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

WOB
CSA-F280-12
PACKAGE A1

HVAC LEGEND			3		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE	1.	
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2ND FLOOR	No.	Description
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2ND FLOOR		Date
	FRA - FLOOR RETURN AIR GRILLE		RETURN AIR STACK ABOVE		
	REDUCER				

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Client
GOLD PARK HOMES

Project Name
**PINE VALLEY PH 2
VAUGHAN, ONTARIO**

**RIVERVIEW - OPT 5 BED
5013 - WOB 4447 sqft**

HVAC DESIGNS LTD.
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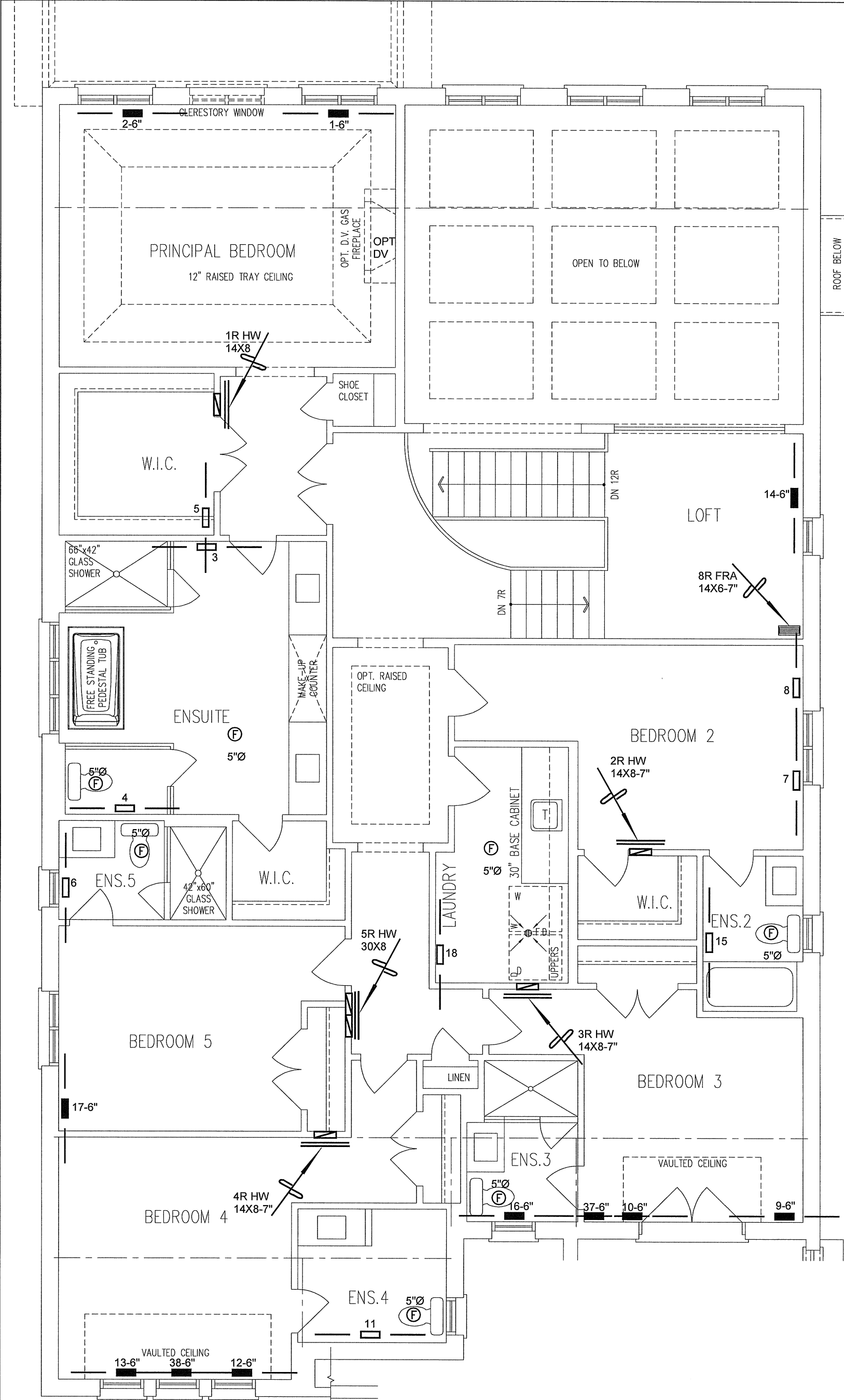
Sheet Title
**FIRST FLOOR
HEATING
LAYOUT**

Date
MAY/2022

Scale
3/16" = 1'-0"

BCIN# 19669

LO# 96528



OPT. 5 BEDROOM SECOND FLOOR PLAN, EL. 'A'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.32.5 OF THE BUILDING CODE.

Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

WOB
CSA-F280-12
PACKAGE A1

HVAC LEGEND						3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE	1.	
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	No.	Description
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		Date
					REDUCER	REVISIONS	

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Client
GOLD PARK HOMES

Project Name
**PINE VALLEY PH 2
VAUGHAN, ONTARIO**

**RIVERVIEW - OPT 5 BED
5013 - WOB 4447 sqft**

HVAC DESIGNS LTD.
375 Finley Ave. Suite 202 - Ajax, Ontario
L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
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Sheet Title
**SECOND FLOOR
HEATING
LAYOUT**

Date
MAY/2022

Scale
3/16" = 1'-0"

BCIN# 19669

LO# 96528

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.3.2.5 OF THE BUILDING CODE.

Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

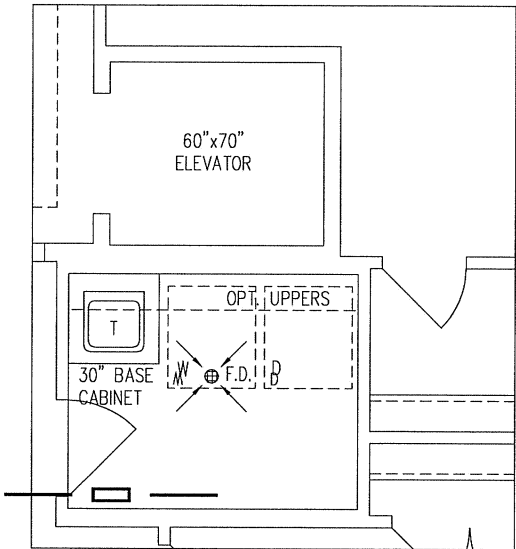
WOB

CSA-F280-12

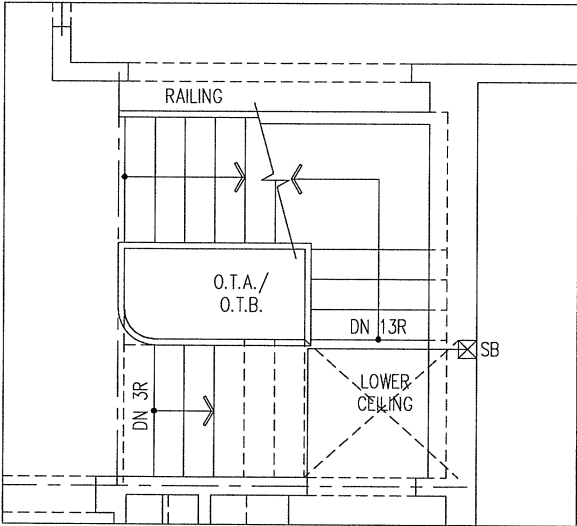
PACKAGE A1

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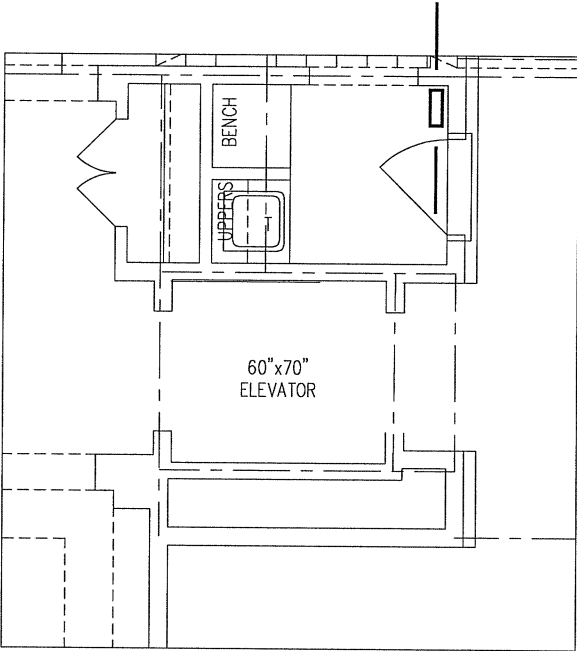
HVAC LEGEND			3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE	2.
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR	1.
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR	No.
			14"x8" RETURN AIR GRILLE	
			30"x8" RETURN AIR GRILLE	
			FRA-FLOOR RETURN AIR GRILLE	
			RETURN AIR STACK ABOVE	
			REDUCER	
REVISIONS			Description	Date



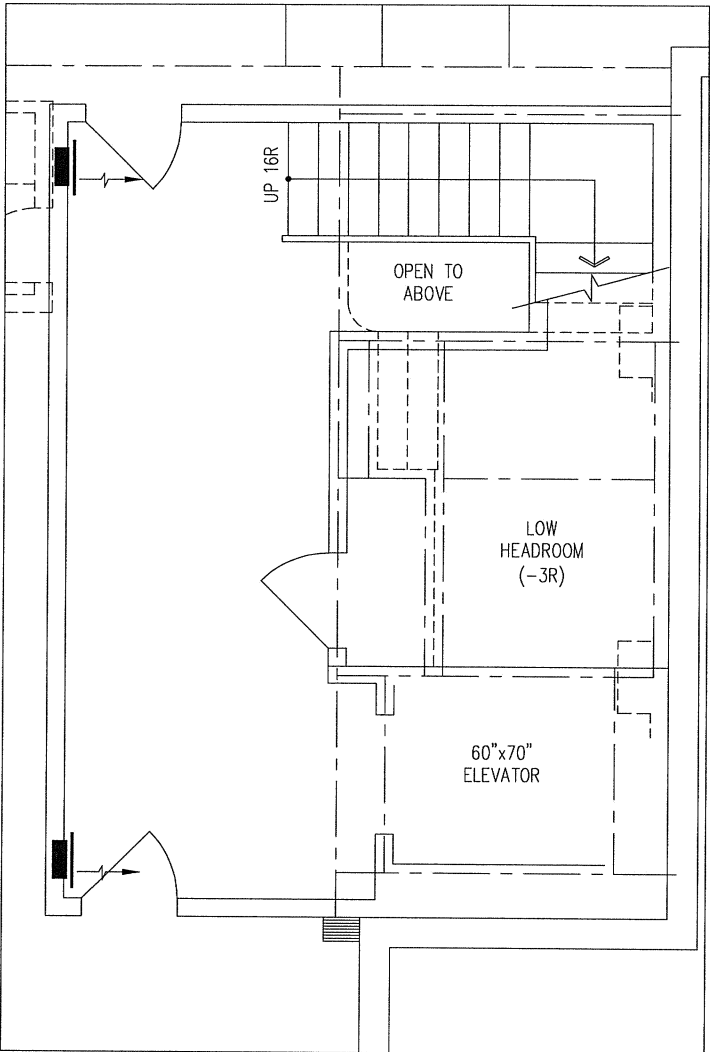
PART. OPT. 5 BEDROOM
SECOND FLOOR W/ ELEVATOR,
EL. 'A'



PART. GROUND FLOOR PLAN, W/
NO LOFT CONDITION, EL. 'A'



PART. GROUND FLOOR PLAN, W/
OPT. ELEVATOR, EL. 'A'



PART BASEMENT FLOOR PLAN, W/
OPT. ELEVATOR, EL. 'A'

Client
GOLD PARK HOMES

Project Name
PINE VALLEY PH 2
VAUGHAN, ONTARIO

RIVERVIEW - OPT 5 BED
5013 - WOB 4447 sqft

HVACDESIGNS LTD.

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Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.

Sheet Title
STRIP PLAN
HEATING
LAYOUT

Date MAY/2022

Scale 3/16" = 1'-0"

BCIN# 19669

LO# 96528