

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.
Municipality VAUGHAN (WOODBIDGE)			Postal code
Plan number/ other description			Lot/con.
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@hvacdsgns.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 - OPT 5 BED - WO/LOFT - 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		 Signature of Designer	
Date			

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.

SITE NAME: PINE VALLEY PH 2										DATE May-22										CSA-F280-12									
BUILDER: GOLD PARK HOMES										LO# 96229										SB-12 PACKAGE A1									
TYPE: 5013 - RIVERVIEW										GFA: 4447										HEAT LOSS AT °F. 76									
OPT 5 BED - OPT 5 BED - WO/LOFT - WOB										WINTER NATURAL AIR CHANGE RATE 0.007										HEAT GAIN AT °F. 13									
ROOM USE										ENS-2										ENS-3									
EXP. WALL										BED-2										BED-3									
CLG. HT.										WIC										BED-4									
FACTORS										ENS										ENS-4									
GRS.WALL AREA										PBR										ENS-5									
GLAZING										LOSS										LOSS									
NORTH										GAIN										GAIN									
EAST										0										0									
SOUTH										0										0									
WEST										0										0									
SKYLT.										0										0									
DOORS										0										0									
NET EXPOSED WALL										216										216									
NET EXPOSED BSMT WALL ABOVE GR										0										0									
EXPOSED CLG										0										0									
NO ATTIC EXPOSED CLG										0										0									
EXPOSED FLOOR										0										0									
BASEMENT/CRAWL HEAT LOSS										0										0									
SLAB ON GRADE HEAT LOSS										0										0									
SUBTOTAL HT LOSS										2696										2696									
SUB TOTAL HT GAIN										0.20										0.20									
LEVEL FACTOR / MULTIPLIER										0.42										0.42									
AIR CHANGE HEAT LOSS										1138										1138									
AIR CHANGE HEAT GAIN										0										0									
DUCT LOSS										0										0									
HEAT GAIN PEOPLE										240										240									
HEAT GAIN APPLIANCES/LIGHTS										0										0									
TOTAL HT LOSS BTU/H										3834										3834									
TOTAL HT GAIN x 1.3 BTU/H										5327										5327									

ROOM USE		EXP. WALL		CLG. HT.		GRT		DIN		KTIBF		OFF		LND		FOY		MUD		WOB		BAS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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SITE NAME: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMESOPT 5 BED - OPT 5 BED - WO/LOFT - WOB
TYPE: 5013 - RIVERVIEW DATE: May-22

GFA: 4447 LO# 96529 FURNACE 2

HEATING CFM 980 COOLING CFM 980
TOTAL HEAT LOSS 26,754 TOTAL HEAT GAIN 27,547
AIR FLOW RATE CFM 36.63 AIR FLOW RATE CFM 35.58furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure 0.35
plenum pressure s/a 0.18
max s/a d/f press. loss 0.02
min adjusted pressure s/a 0.16\$LENNOX
ML196UH045XE36B 45
FAN SPEED LOW 620
MEDIUM 685
HIGH 980
DESIGN CFM = 980
CFM @ 8" E.S.P.
AFUE = 96 %
INPUT (BTU/H) = 44,000
OUTPUT (BTU/H) = 42,800

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	19	0	0
R/A	0	0	5	0	0

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	ENS-2	ENS-3	BED-5	LND	
RM LOSS MBH.	1.92	1.92	1.05	1.05	0.93	0.87	1.52	1.52	1.50	1.50	1.19	1.76	1.76	2.00	1.86	0.83	0.33	
CFM PER RUN HEAT	70	70	38	38	34	32	56	56	55	55	44	64	64	73	68	31	12	
RM GAIN MBH.	2.66	2.66	0.69	0.69	0.40	0.40	1.49	1.49	1.76	1.76	0.38	1.90	1.90	0.67	1.08	2.24	1.70	
CFM PER RUN COOLING	95	95	25	25	14	14	53	53	63	63	13	68	68	24	38	80	61	
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	
ACTUAL DUCT LGH.	52	63	48	16	51	19	72	77	78	69	69	66	73	84	64	75	60	
EQUIVALENT LENGTH	190	180	255	130	245	120	170	180	200	190	180	190	170	190	180	160	130	
TOTAL EFFECTIVE LENGTH	242	243	303	146	296	139	242	257	278	259	249	256	243	274	244	235	190	
ADJUSTED PRESSURE	0.07	0.07	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	0.09	
ROUND DUCT SIZE	6	6	5	4	5	4	5	5	6	6	5	6	6	6	6	6	5	
HEATING VELOCITY (ft/min)	357	357	279	436	250	367	411	411	280	280	323	326	326	372	347	158	88	
COOLING VELOCITY (ft/min)	484	484	184	287	103	161	389	389	321	321	95	347	347	122	194	408	448	
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	4X10	4X10	4X10	4X10	4X10	3X10	
TRUNK	C	C	C	C	C	C	B	B	A	A	A	A	A	B	A	A	B	

RUN #	37	38
ROOM NAME	BED-3	BED-4
RM LOSS MBH.	1.50	1.76
CFM PER RUN HEAT	55	64
RM GAIN MBH.	1.76	1.90
CFM PER RUN COOLING	63	68
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)	280	326
COOLING VELOCITY (ft/min)	321	347
OUTLET GRILL SIZE	4X10	4X10
TRUNK	A	A

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

LO # 96529
OPT 5 BED - OPT 5 BED - WO/LOFT - 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	4 @ 10.6 cfm	42.4 cfm
Table 9.32.3.A.	TOTAL	201.4 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	201.4	cfm
Less Principal Ventil. Capacity	150	cfm
Required Supplemental Capacity	51.4	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	INSTALL 2 HRV / ERV's	
150 cfm high	35 cfm low	
75 % Sensible Efficiency	☒ HVI Approved	
@ 32 deg F (0 deg C)		

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#: 96529		Model: 5013 - RIVERVIEW		Builder: GOLD PARK HOMES		Date: 2022-05-04																																			
Volume Calculation																																									
<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
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																																						
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">Design Temperature Difference</th> </tr> <tr> <th></th> <th>Tin °C</th> <th>Tout °C</th> <th>ΔT °C</th> <th>ΔT °F</th> </tr> </thead> <tbody> <tr> <td>Winter DTDh</td> <td>22</td> <td>-20</td> <td>42</td> <td>76</td> </tr> <tr> <td>Summer DTDc</td> <td>24</td> <td>31</td> <td>7</td> <td>13</td> </tr> </tbody> </table>										Design Temperature Difference					Tin °C	Tout °C	ΔT °C	ΔT °F	Winter DTDh	22	-20	42	76	Summer DTDc	24	31	7	13													
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Winter DTDh	22	-20	42	76																																					
Summer DTDc	24	31	7	13																																					
5.2.3.1 Heat Loss due to Air Leakage																																									
$HL_{airb} = LR_{airb} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$																																									
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																																									
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E) \times 2 \text{ HRV / ERV's}$																																									
300 CFM	x	76 °F	x	1.08	x	0.25	=	6156 Btu/h																																	
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																									
$HL_{airr} = \text{Level Factor} \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agcleve} + HL_{bgcleve})\}$																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Level Factor (LF)</th> <th>Hlaire Air Leakage + Ventilation Heat Loss (Btu/h)</th> <th>Level Conductive Heat Loss: (HL_{cleve})</th> <th>Air Leakage Heat Loss Multiplier (LF x Hlairebv / HL_{level})</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.5</td> <td rowspan="5">38,112</td> <td>9,720</td> <td>1.960</td> </tr> <tr> <td>2</td> <td>0.3</td> <td>20,187</td> <td>0.566</td> </tr> <tr> <td>3</td> <td>0.2</td> <td>18,065</td> <td>0.422</td> </tr> <tr> <td>4</td> <td>0</td> <td>0</td> <td>0.000</td> </tr> <tr> <td>5</td> <td>0</td> <td>0</td> <td>0.000</td> </tr> </tbody> </table>										Level	Level Factor (LF)	Hlaire Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{cleve})	Air Leakage Heat Loss Multiplier (LF x Hlairebv / HL _{level})	1	0.5	38,112	9,720	1.960	2	0.3	20,187	0.566	3	0.2	18,065	0.422	4	0	0	0.000	5	0	0	0.000						
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4	0		0	0.000																																					
5	0		0	0.000																																					
*HL_{airbv} = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system HL_{airve} = 0																																									
Michael O'Rourke BCIN# 19669																																									

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 5013 - RIVERVIEW	OPT 5 BED - OPT 5 BED - WO/LOF	BUILDER: GOLD PARK HOMES
SFQT: 4447	LO# 96529	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	-

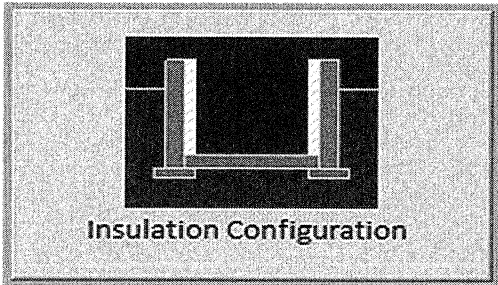
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

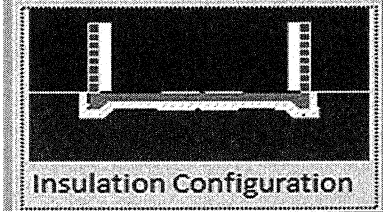
Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	4.6	 Insulation Configuration
Floor Width (m):	13.1	
Exposed 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# 96529

OPT 5 BED - OPT 5 BED - WO/LOFT - 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# 96529

OPT 5 BED - OPT 5 BED - WO/LOFT - WOB

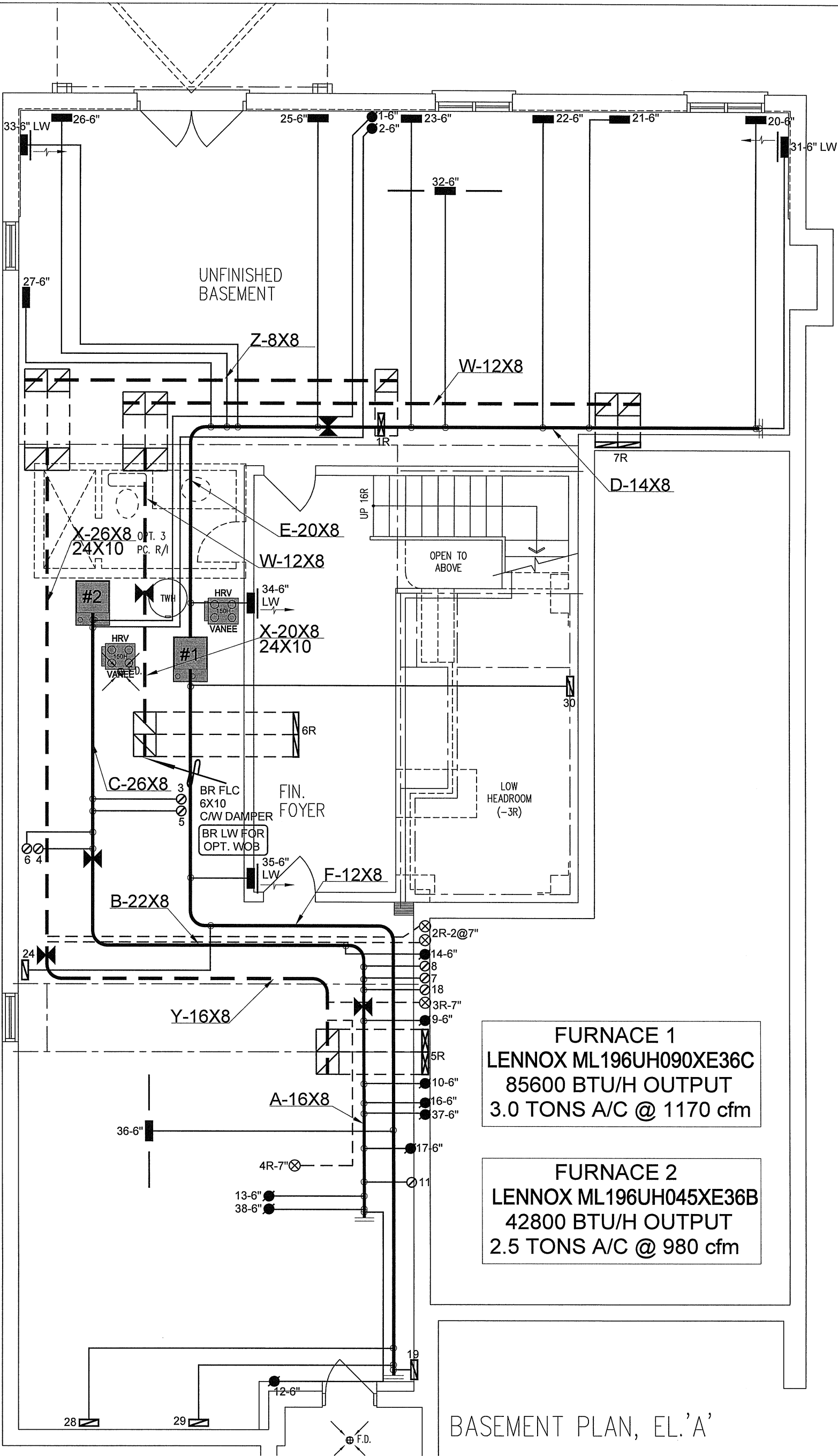
Air Infiltration Residential Load Calculator

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.	2600.3 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	70.8	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# 96529

OPT 5 BED - OPT 5 BED - WO/LOFT - W



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, BCIN# 19669
HVAC DESIGNS LTD.

WOB

CSA-F280-12

PACKAGE A1

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

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REVISIONS	
No.	Date

Client
GOLD PARK HOMES

Project Name
**PINE VALLEY PH 2
VAUGHAN, ONTARIO
WO/LOFT
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@hvacdsgns.ca
Web: www.hvacdsgns.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	19	5	7
1ST	12	2	2
BAS	6	1	0

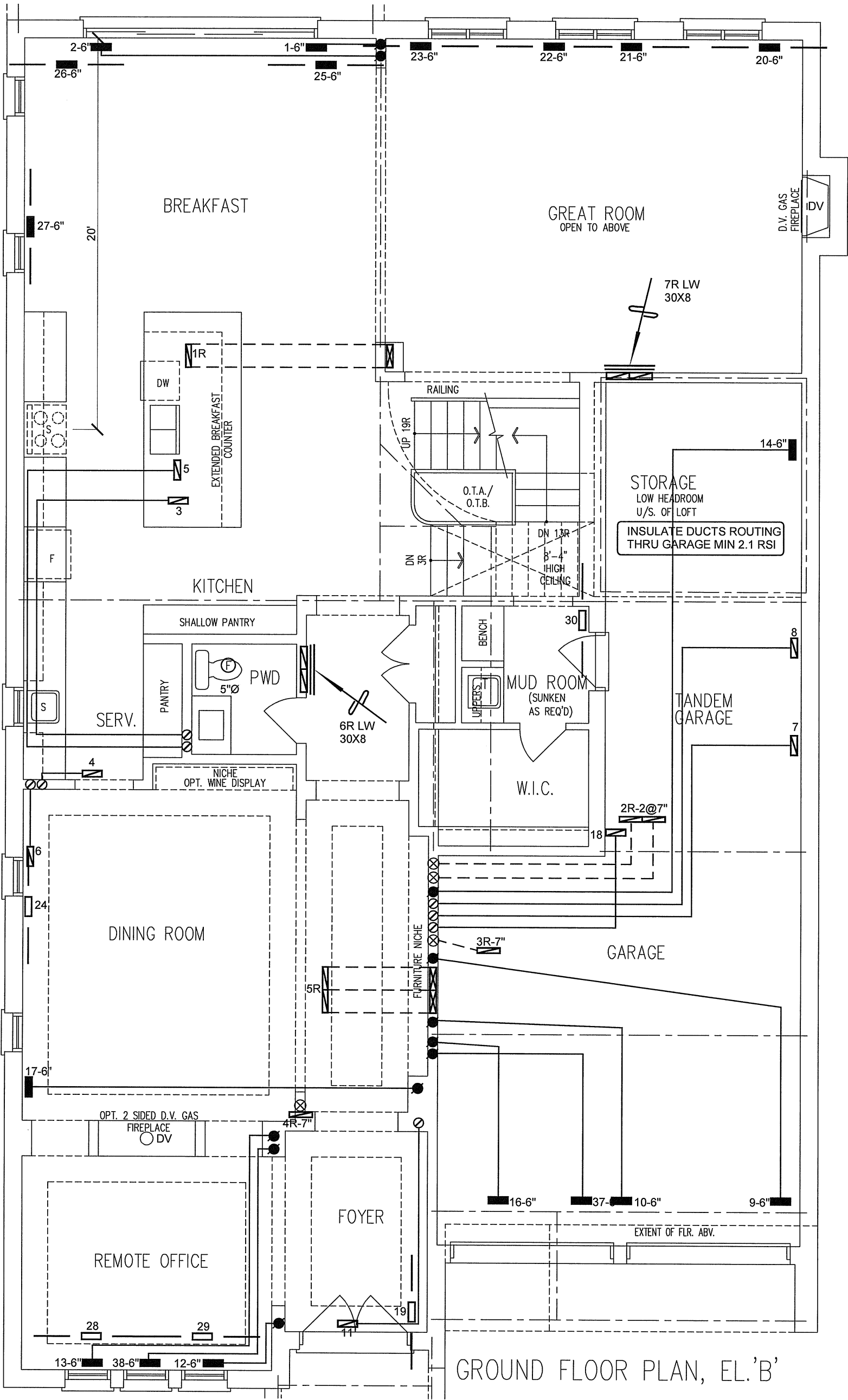
Sheet Title
**BASEMENT
HEATING
LAYOUT**

Date
MAY/2022

Scale
3/16" = 1'-0"

BCIN# 19669

LO# **96529**



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

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

Client
GOLD PARK HOMES

Project Name
**PINE VALLEY PH 2
VAUGHAN, ONTARIO
WO/LOFT
RIVERVIEW - OPT 5 BED
5013 - WOB 4447 sqft**

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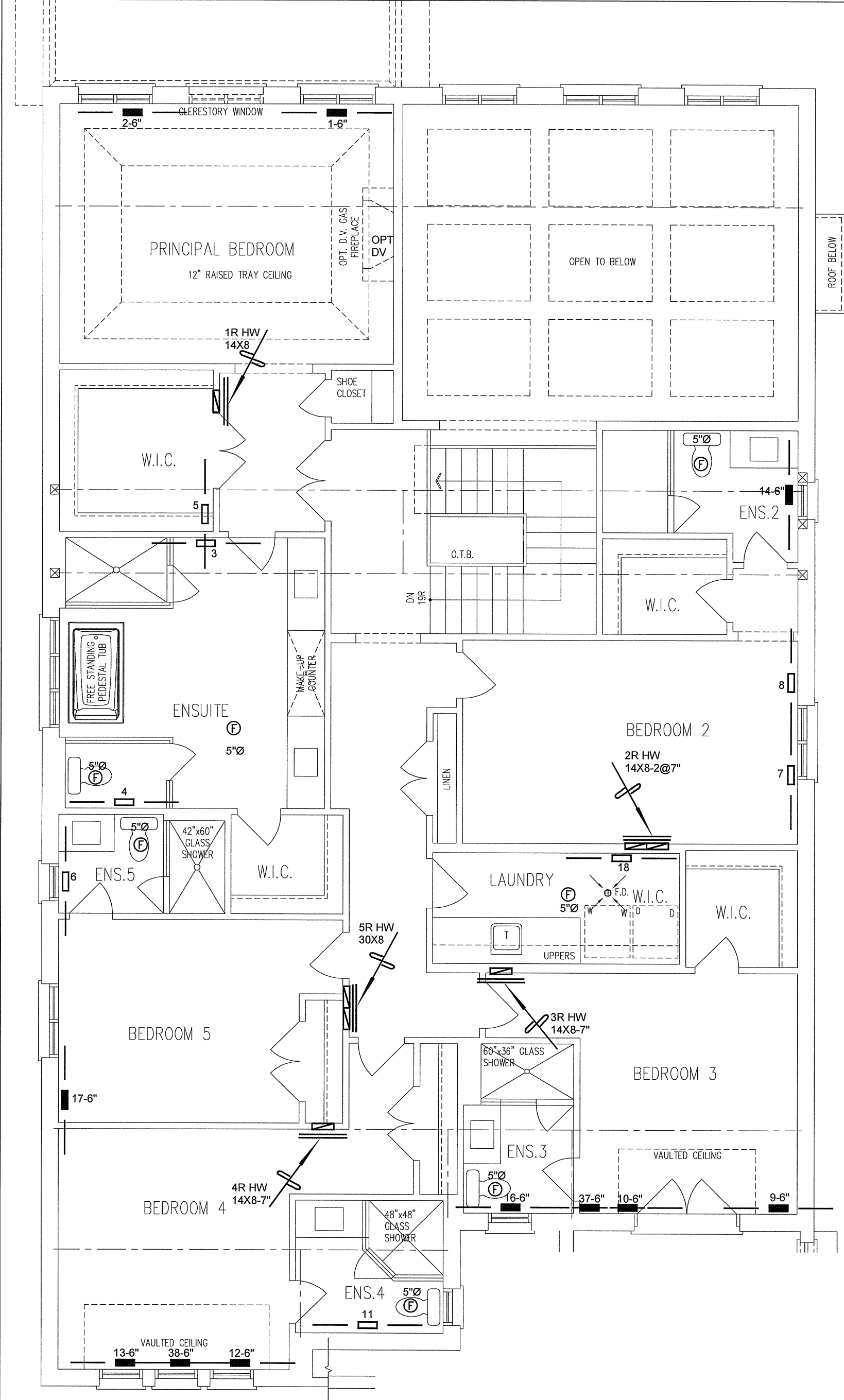
Sheet Title
**FIRST FLOOR
HEATING
LAYOUT**

Date
MAY/2022

Scale
3/16" = 1'-0"

BCIN# 19669

LO# **96529**



I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.3.2.3 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\"/>	1.
	SUPPLY AIR GRILLE 6\"/>		SUPPLY AIR STACK FROM 2nd FLOOR	No.
	SUPPLY AIR BOOT ABOVE		6\"/>	REVISIONS
			30\"/>	
			RETURN AIR STACK 2nd FLOOR	Date
			REDUCER	

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Client

GOLD PARK HOMES

Project Name

PINE VALLEY PH 2
VAUGHAN, ONTARIO
WO/LOFT
RIVERVIEW - OPT 5 BED
5013 - WOB **4447 sqft**

HVACDESIGNS LTD.

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Sheet Title	
SECOND FLOOR HEATING LAYOUT	
Date	MAY/2022
Scale	3/16" = 1'-0"
BCIN# 19669	
LO#	96529

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.

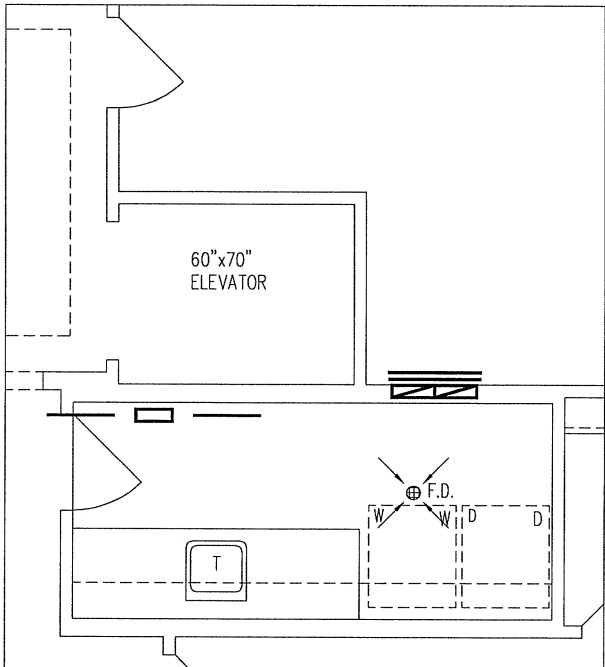
WOB

CSA-F280-12

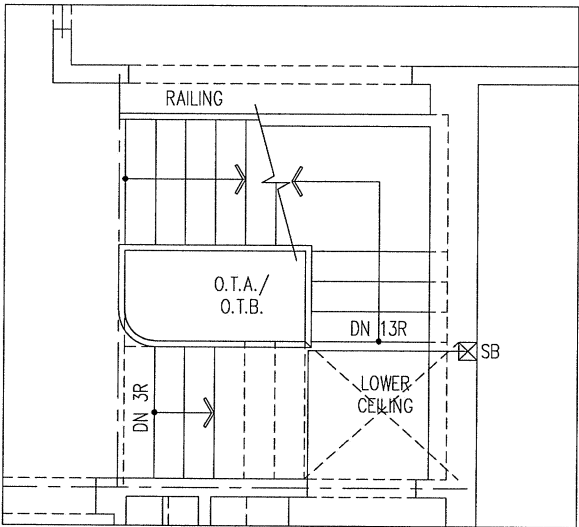
PACKAGE A1

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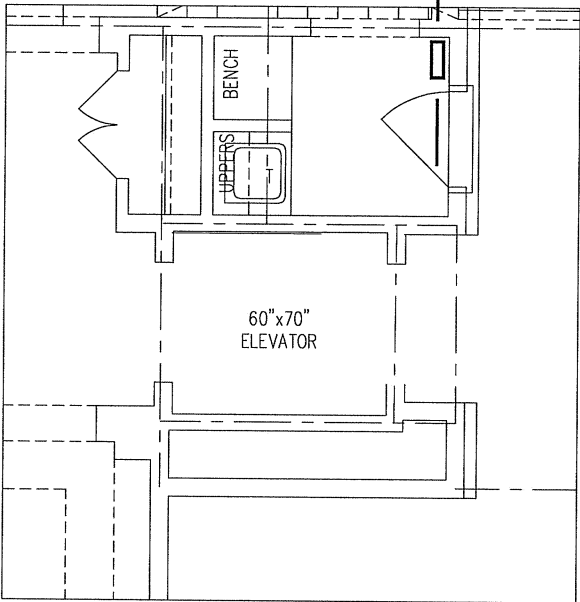
HVAC LEGEND			3.	
SYMBOL	DESCRIPTION	SYMBOL	2.	1.
	SUPPLY AIR GRILLE		14"x6" RETURN AIR GRILLE	RETURN AIR STACK ABOVE
	SUPPLY AIR GRILLE 6" BOOT		30"x6" RETURN AIR GRILLE	RETURN AIR STACK ABOVE
	SUPPLY AIR BOOT ABOVE		FRA - FLOOR RETURN AIR GRILLE	REDUCER
			REVISIONS	
			No.	Date



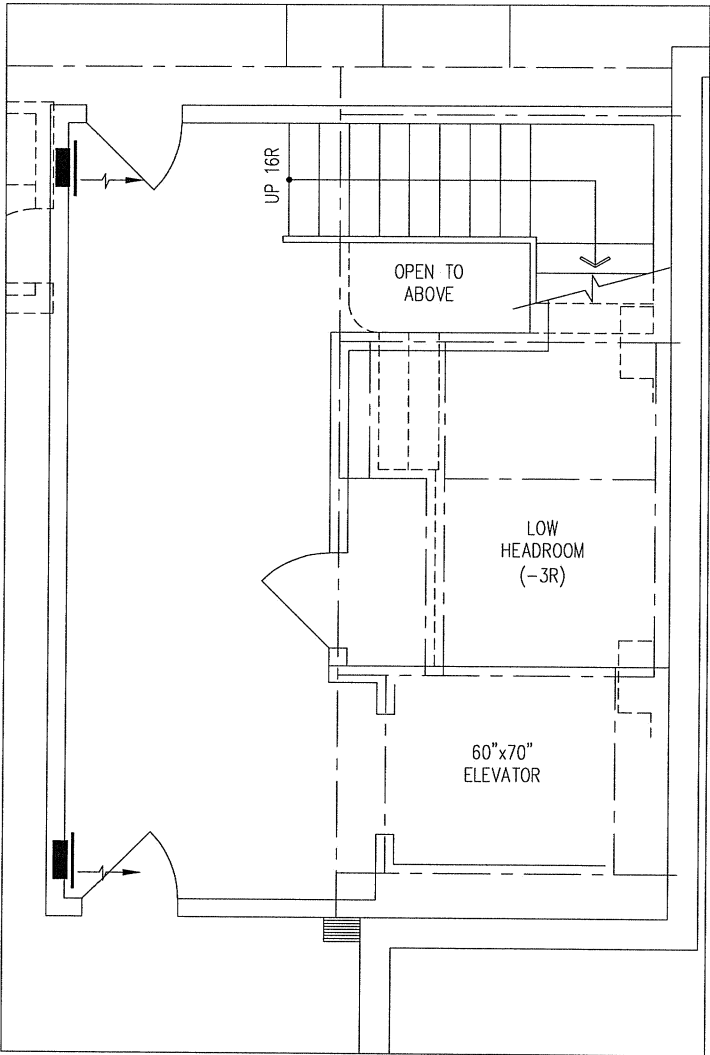
PART. OPT. 5 BEDROOM SECOND FLOOR PLAN, W/O. LOFT W/ ELEVATOR, EL. 'A'



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
WO/LOFT
RIVERVIEW - OPT 5 BED
5013 - WOB 4447 sqft

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Sheet Title
STRIP PLAN
HEATING
LAYOUT

Date MAY/2022

Scale 3/16" = 1'-0"

BCIN# 19669

LO# 96529