


## Schedule 1: Designer Information

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

<b>A. Project Information</b>			
Building number, street name			Unit no.
Municipality VAUGHAN (WOODBIDGE)			Postal code
Plan number/ other description			
<b>B. Individual who reviews and takes responsibility for design activities</b>			
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 ( )	
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]</b>			
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings <input checked="" type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection <input type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> 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: 4202- ROSEDALE OPT. 5 BED - ALT 1ST - WOB Project: PINE VALLEY & TESTON	
<b>D. Declaration of Designer</b>			
I <u>MICHAEL O'ROURKE</u> (print name)		declare that (choose one as appropriate):	
<input type="checkbox"/> 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: _____			
<input checked="" type="checkbox"/> 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: 19669 Basis for exemption from registration and qualification: O.B.C SENTENCE 3.2.4.1 (4)			
<input type="checkbox"/> 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.			
October 5, 2018		 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.

ROOM/USE	EXP. WALL CLG. HT.	FACTORS	DIN	KTGT	LIB		LAUN		FOY	MUD		WIC		WOB	BAS
					LOSS	GAIN	LOSS	GAIN		LOSS	GAIN	LOSS	GAIN		
GRS:WALL AREA	100	11	17	1100	132	288	649	180	54	430	1113				
GLAZING			LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	
NORTH	21.3	16.0	0	0	23	489	367	0	0	0	0	0	0	0	0
EAST	21.3	41.6	0	0	0	0	0	41	872	1704	0	0	0	0	0
SOUTH	21.3	24.3	34	724	0	0	0	0	0	0	0	0	0	0	0
WEST	21.3	41.6	0	0	0	0	0	0	0	0	0	0	0	0	0
SKYLT.	37.2	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS	25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.8	153	683	109	486	82	247	1102	186	160	714	120	54	241
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	0	0	0	0	0	388	498	228	0	0	0	84	108
NO A TTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	30	82	38	0	0	0	0	0
EXPOSED FLOOR	2.6	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS			0	0	0	0	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS			0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT. LOSS			1406	7841	976	449	2555	4199	973	1219	563	4820	4769	562	2560
SUB TOTAL HT GAIN			962	6474		2155				205					
LEVEL FACTOR /MULTIPLIER	0.30	0.58	0.30	0.58	0.30	0.58	0.30	0.58	0.30	0.58	0.20	0.35	0.20	0.35	0.50
AIR CHANGE HEAT LOSS			822	4583	570	39	921	2454	85	712	203	11	18	77	15236
AIR CHANGE HEAT GAIN			0	0	0	0	0	0	0	0	0	0	0	0	0
DUCT LOSS			0	0	0	0	0	0	0	0	0	0	0	0	0
DUCT GAIN			0	0	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	240		0	0	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS			640	640	640	640	640	640	640	640	640	640	640	640	640
TOTAL HT. LOSS			2228	12424	1546	3476	3879	6653	1376	1931	843	5372	6200	20018	1906
TOTAL HT GAIN x 1.3 BTU/H			2192	9987	1467	3879				1122	196			6200	1906

REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

INDIVIDUAL BCIN: 19669

Michael O'Sourke.

**SITE NAME: PINE VALLEY & TESTON**  
**BUILDER: GOLD PARK HOMES**

OPT. 5 BED - ALT 1ST - WOB  
TYPE: 4202-ROSEDALE

DATE: Oct-18

GFA: 3785 LO# 80275

HEATING CFM	1525	COOLING CFM	1525
TOTAL HEAT LOSS	74,056	TOTAL HEAT GAIN	48,120
AIR FLOW RATE CFM	20.59	AIR FLOW RATE CFM	31.69

0.01	furnace filter
0.2	a/c coil pressure
0.3	available pressure for s/a & r/a

12 of 15

EL296UH090XE48C  
FAN SPEED  
LOW 0

AFUE = 96 %  
INPUT (BTU/H) = 88,000  
OUTPUT (BTU/H) = 85,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	16	9	7
R/A	0	0	4	2	1

Parameter	Value
Maximum pressure s/a	0.1
s/a dif press. loss	0.0

pressure	0.17
Loss, Loss	0.02

LOW 0  
MEDLOW 1105  
MEDIUM 1255  
MEDIUM HIGH

$$\text{DESIGN CFM} = \frac{152}{\text{CFM @ .6" E.S.}}$$

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

All S/A runs 5°/2 unless noted otherwise on layout.																											
RUN #		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	20	21	22	23	24			
ROOM NAME	MBR	ENS	ENS	BED-2	BED-3	BED-5	ENS-2	LAUN	ENS-3	MBR	BED-4	DIN	KT/GT	KT/GT	KT/GT	KT/GT	KT/GT	LIB	FOY	MUD	BAS	BAS	BAS	BAS			
RM LOSS MBH:	190	140	140	2.16	1.70	1.44	0.60	1.74	1.03	1.90	2.16	2.23	3.11	3.11	3.11	3.11	3.11	1.55	3.33	1.93	3.63	3.63	3.63	3.63			
CFM PER RUN HEAT	39	29	29	45	35	30	12	39	21	39	45	46	64	64	64	64	64	32	68	40	75	75	75	75			
RM GAIN MBH:	2.58	0.78	0.78	2.12	1.81	2.03	0.16	1.94	0.38	2.58	2.79	2.19	2.50	2.50	2.50	2.50	2.50	1.47	0.69	1.12	1.16	1.16	1.16	1.16			
CFM PER RUN COOLING	82	25	25	67	58	64	5	61	12	82	89	69	79	79	79	79	79	46	22	36	37	37	37	37			
ADJUSTED PRESSURE	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	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			
ACTUAL DUCT LGH.	69	53	61	60	49	25	42	55	48	73	23	10	43	47	46	57	57	36	42	27	57	50	13	36			
EQUIVALENT LENGTH	160	150	130	190	150	140	190	190	160	140	190	150	130	130	130	130	130	120	150	160	170	110	120	130			
TOTAL EFFECTIVE LENGTH	229	203	191	250	199	165	232	245	208	213	213	160	173	177	176	187	187	156	192	187	227	160	133	166			
ADJUSTED PRESSURE	0.07	0.08	0.09	0.07	0.09	0.1	0.07	0.07	0.08	0.08	0.08	0.11	0.1	0.1	0.1	0.1	0.09	0.11	0.09	0.09	0.08	0.11	0.13	0.1			
ROUND DUCT SIZE	6	4	4	5	5	6	4	5	4	5	6	5	5	5	5	5	5	5	5	4	5	5	5	5			
HEATING VELOCITY (ft/min)	199	333	333	330	257	153	138	264	241	286	229	338	470	470	470	470	470	235	499	459	551	551	551	551			
COOLING VELOCITY (ft/min)	418	287	287	492	426	326	57	448	138	602	454	507	580	580	580	580	580	338	162	413	272	272	272	272			
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10			
TRUNK	B	A	A	C	E	C	F	D	F	B	F	C	A	A	A	B	B	C	D	F	A	B	C	D			

25	26	27	28	29	30	31	32	33
BED-3	LAUN	BAS	FOY	BAS	WIC	BED-3	BAS	ENS-4/5
1.70	1.74	3.63	3.33	3.63	0.84	1.70	3.63	0.47
RM LOSS MBH.								
35	36	75	68	75	17	35	75	10
CFM PER RUN HEAT								
1.81	1.94	1.16	0.69	1.16	0.20	1.81	1.16	0.13
RM GAIN MBH.								
58	61	37	22	37	6	58	37	4
CFM PER RUN COOLING								
0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
ADJUSTED PRESSURE								
45	57	33	40	66	60	58	22	39
ACTUAL DUCT LGH.								
140	150	180	150	140	150	160	120	140
EQUIVALENT LENGTH								
185	207	213	190	208	210	218	142	179
TOTAL EFFECTIVE LENGTH								
0.09	0.08	0.08	0.09	0.08	0.08	0.08	0.12	0.1
ADJUSTED PRESSURE								
5	5	5	5	5	4	5	5	4
ROUND DUCT SIZE								
257	264	551	499	551	195	257	551	115
HEATING VELOCITY (ft/min)								
426	448	272	162	272	69	426	272	46
COOLING VELOCITY (ft/min)								
3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
OUTLET GRILL SIZE								
F	D	D	D	B	R	F	C	C
TRUNK								

[illegible][illegible]

TYPE: 4202- ROSEDALE  
SITE NAME: PINE VALLEY & TESTON

LO # 80275  
OPT. 5 BED - ALT 1ST - WOB

**RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY**

COMBUSTION APPLIANCES		9.32.3.1(1)
a)	<input checked="" type="checkbox"/> Direct vent (sealed combustion) only	
b)	<input type="checkbox"/> Positive venting induced draft (except fireplaces)	
c)	<input type="checkbox"/> Natural draft, B-vent or induced draft gas fireplace	
d)	<input type="checkbox"/> Solid Fuel (including fireplaces)	
e)	<input type="checkbox"/> No Combustion Appliances	

HEATING SYSTEM	
<input checked="" type="checkbox"/> Forced Air	<input type="checkbox"/> Non Forced Air
<input type="checkbox"/> Electric Space Heat	

HOUSE TYPE		9.32.1(2)
<input checked="" type="checkbox"/> I	Type a) or b) appliance only, no solid fuel	
<input type="checkbox"/> II	Type I except with solid fuel (including fireplaces)	
<input type="checkbox"/> III	Any Type c) appliance	
<input type="checkbox"/> IV	Type I, or II with electric space heat	
<input type="checkbox"/>	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
<input type="checkbox"/> 1	Exhaust only/Forced Air System	
<input type="checkbox"/> 2	HRV with Ducting/Forced Air System	
<input checked="" type="checkbox"/> 3	HRV Simplified/connected to forced air system	
<input type="checkbox"/> 4	HRV with Ducting/non forced air system	
<input type="checkbox"/>	Part 6 Design	

TOTAL VENTILATION CAPACITY		9.32.3.3(1)
Basement + Master Bedroom	<u>2</u> @ 21.2 cfm	<u>42.4</u> cfm
Other Bedrooms	<u>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Kitchen & Bathrooms	<u>6</u> @ 10.6 cfm	<u>63.6</u> cfm
Other Rooms	<u>6</u> @ 10.6 cfm	<u>63.6</u> cfm
Table 9.32.3.A. TOTAL		<u>212.0</u> 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		<u>95.4</u> cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>212</u>	cfm
Less Principal Ventil. Capacity	<u>155</u>	cfm
Required Supplemental Capacity	<u>57.0</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 65H	Location: BSMT
<u>155.0</u> cfm	<u>3.0</u> sones
<input checked="" type="checkbox"/> HVI Approved	

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


SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>
ENS-2	QTXEN050C	50	<input checked="" type="checkbox"/>
ENS-4/5	QTXEN050C	50	<input checked="" type="checkbox"/>
PWD	QTXEN050C	50	<input checked="" type="checkbox"/>

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 65H		
<u>155</u> cfm high	<u>64</u> cfm low	
<u>75</u> % Sensible Efficiency	<input checked="" type="checkbox"/> 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:	
HRAI #	001820
Date:	October-18

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																									
Formula Sheet (For Air Leakage / Ventilation Calculation)																																									
LO#: 80275		Model: 4202- ROSEDALE		Builder: GOLD PARK HOMES		Date: 10/5/2018																																			
Volume Calculation																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Level</th> <th>Floor Area (ft²)</th> <th>Floor Height (ft)</th> <th>Volume (ft³)</th> </tr> <tr> <td>Bsmt</td> <td>1733</td> <td>10</td> <td>17330</td> </tr> <tr> <td>First</td> <td>1733</td> <td>11</td> <td>19063</td> </tr> <tr> <td>Second</td> <td>2076</td> <td>9</td> <td>18684</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>55,077.0 ft³</td> </tr> <tr> <td colspan="2">Total:</td> <td></td> <td>1559.6 m³</td> </tr> </table>										Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	Bsmt	1733	10	17330	First	1733	11	19063	Second	2076	9	18684	Third	0	9	0	Fourth	0	9	0	Total:			55,077.0 ft³	Total:			1559.6 m³
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6.2.6 Sensible Gain due to Air Leakage																																									
$HG_{satb} = LR_{aire} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$																																									
0.407	x	433.22	x	7 °C	x	1.2	=	505 W																																	
							=	1722 Btu/h																																	
6.2.7 Sensible heat Gain due to Ventilation																																									
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																									
155 CFM	x	76 °F	x	1.08	x	0.25	=	536 Btu/h																																	
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																									
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$																																									
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Level	Level Factor (LF)	HLairbv Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HLlevel)	Air Leakage Heat Loss Multiplier (LF x HLairbv / HLlevel)																																					
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4	0		0	0.000																																					
5	0		0	0.000																																					
<p>*HLairbv = Air leakage heat loss + ventilation heat loss</p> <p>*For a balanced or supply only ventilation system HLairve = 0</p>																																									

**HEAT LOSS AND GAIN SUMMARY SHEET**

<b>MODEL:</b> 4202- ROSEDALE	<b>OPT.</b> 5 BED - ALT 1ST - WOB	<b>BUILDER:</b> GOLD PARK HOMES
<b>SFQT:</b> 3785	<b>LO#</b> 80275	<b>SITE:</b> PINE VALLEY & TESTON

**DESIGN ASSUMPTIONS**

<b>HEATING</b>	<b>°F</b>	<b>COOLING</b>	<b>°F</b>
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75

**BUILDING DATA**

<b>ATTACHMENT:</b>	DETACHED	<b># OF STORIES (+BASEMENT):</b>	3
<b>FRONT FACES:</b>	EAST	<b>ASSUMED (Y/N):</b>	Y
<b>AIR CHANGES PER HOUR:</b>	3.57	<b>ASSUMED (Y/N):</b>	Y
<b>AIR TIGHTNESS CATEGORY:</b>	AVERAGE	<b>ASSUMED (Y/N):</b>	Y
<b>WIND EXPOSURE:</b>	SHELTERED	<b>ASSUMED (Y/N):</b>	Y
<b>HOUSE VOLUME (ft³):</b>	55077.0	<b>ASSUMED (Y/N):</b>	Y
<b>INTERNAL SHADING:</b>	BLINDS/CURTAINS	<b>ASSUMED OCCUPANTS:</b>	6
<b>INTERIOR LIGHTING LOAD (Btu/h/ft²):</b>	1.27	<b>DC BRUSHLESS MOTOR (Y/N):</b>	Y
<b>FOUNDATION CONFIGURATION</b>	BCIN_1	<b>DEPTH BELOW GRADE:</b>	7.0 ft
<b>LENGTH:</b> 68.0 ft	<b>WIDTH:</b> 33.0 ft	<b>EXPOSED PERIMETER:</b>	159.0 ft
<b>WOB INSULATION CONFIGURATION</b>	SCB_9	<b>WOB EXPOSED PERIMETER</b>	43.0 ft

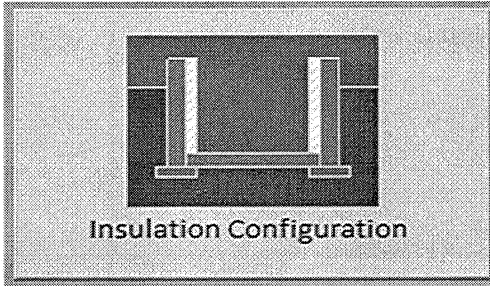
**2012 OBC - COMPLIANCE PACKAGE****Component****Compliance Package  
A1****Nominal Min. Eff.**

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

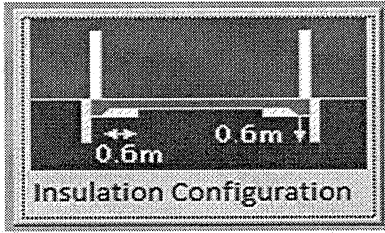
Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	4.6	 Insulation Configuration
Floor Width (m):	10.1	
Exposed Perimeter (m):	48.5	
Wall Height (m):	3.0	
Depth Below Grade (m):	1.79	
Window Area (m <sup>2</sup> ):	0.0	
Door Area (m <sup>2</sup> ):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		750

TYPE: 4202- ROSEDALE  
LO# 80275

OPT. 5 BED - ALT 1ST - WOB

## 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		
Length (m):	1.5	 Insulation Configuration
Width (m):	10.1	
Exposed Perimeter (m):	13.1	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		162

TYPE: 4202- ROSEDALE  
LO# 80275

OPT. 5 BED - ALT 1ST - 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 <sup>3</sup> ):	1559.6			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2079.0 cm <sup>2</sup>		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	73.2	73.2		
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: 4202- ROSEDALE  
LO# 80275

OPT. 5 BED - ALT 1ST - WOB

HVAC LEGEND		
SYMBOL	DESCRIPTION	SYMBOL
	SUPPLY AIR GRILLE	
	SUPPLY AIR GRILLE 6" BOOT	
	SUPPLY AIR BOOT ABOVE	
	SUPPLY AIR GRILLE 6" BOOT	
	SUPPLY AIR BOOT ABOVE	
	SUPPLY AIR GRILLE 6" BOOT	
	SUPPLY AIR BOOT ABOVE	
	SUPPLY AIR GRILLE 6" BOOT	
	SUPPLY AIR BOOT ABOVE	
	SUPPLY AIR GRILLE 6" BOOT	
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	SUPPLY AIR BOOT ABOVE	
	SUPPLY AIR GRILLE 6" BOOT	
	SUPPLY AIR BOOT ABOVE	
	SUPPLY AIR GRILLE 6" BOOT	
	SUPPLY AIR BOOT ABOVE	
	SUPPLY AIR GRILLE 6" BOOT	
	SUPPLY AIR BOOT ABOVE	
	SUPPLY AIR GRILLE 6" BOOT	
	SUPPLY AIR BOOT ABOVE	

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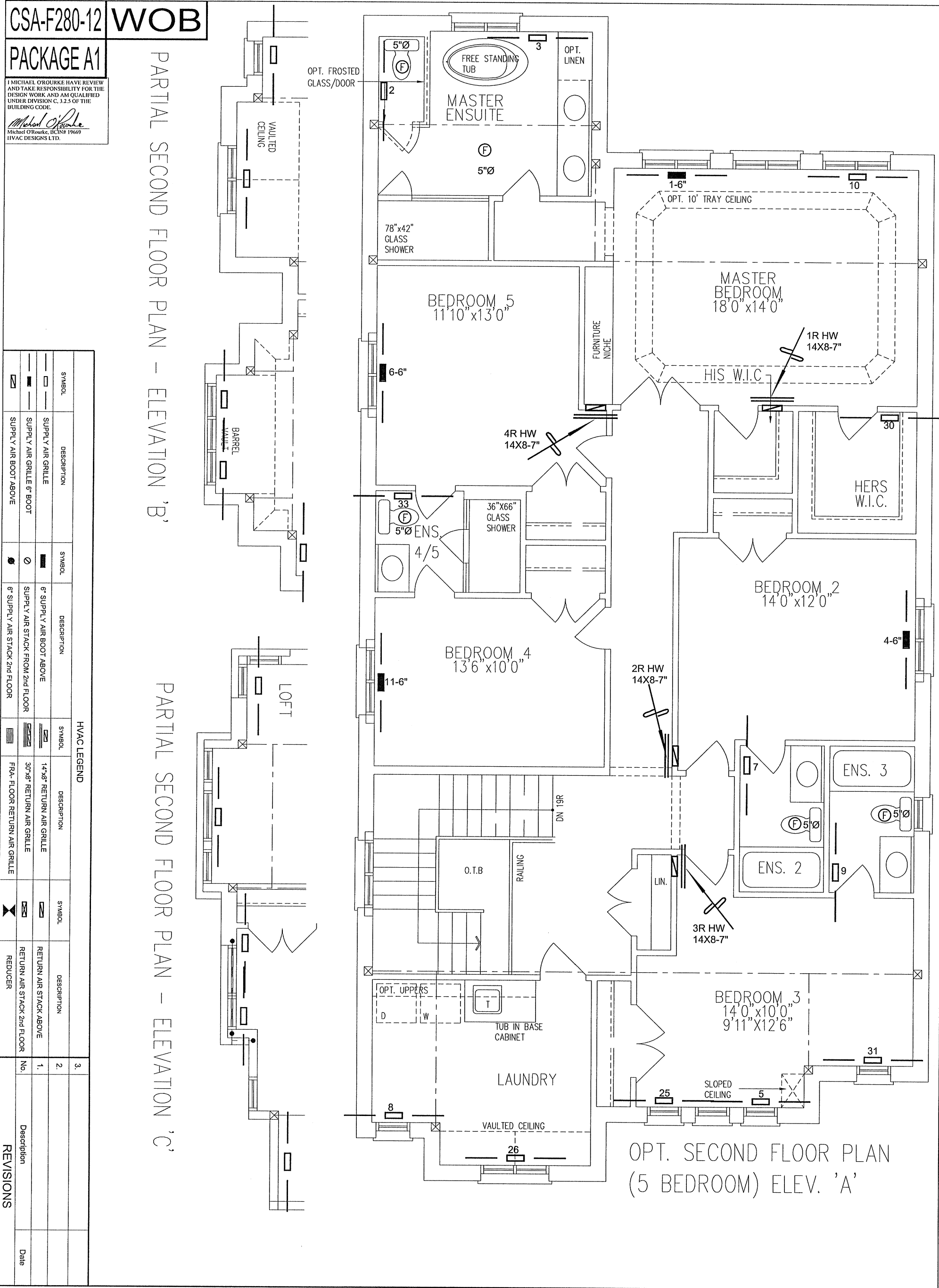
Client	GOLD PARK HOMES
Project Name	PINE VALLEY & TESTON VAUGHAN, ONTARIO OPT. 5 BED - WOB ROSEDALE - ALT 1ST 4202
	3785 sqft



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.

Sheet Title	SECOND FLOOR HEATING LAYOUT
Date	OCT/2018
Scale	3/16" = 1'-0"
BCIN#	19669
LO#	80275



CSA-F280-12

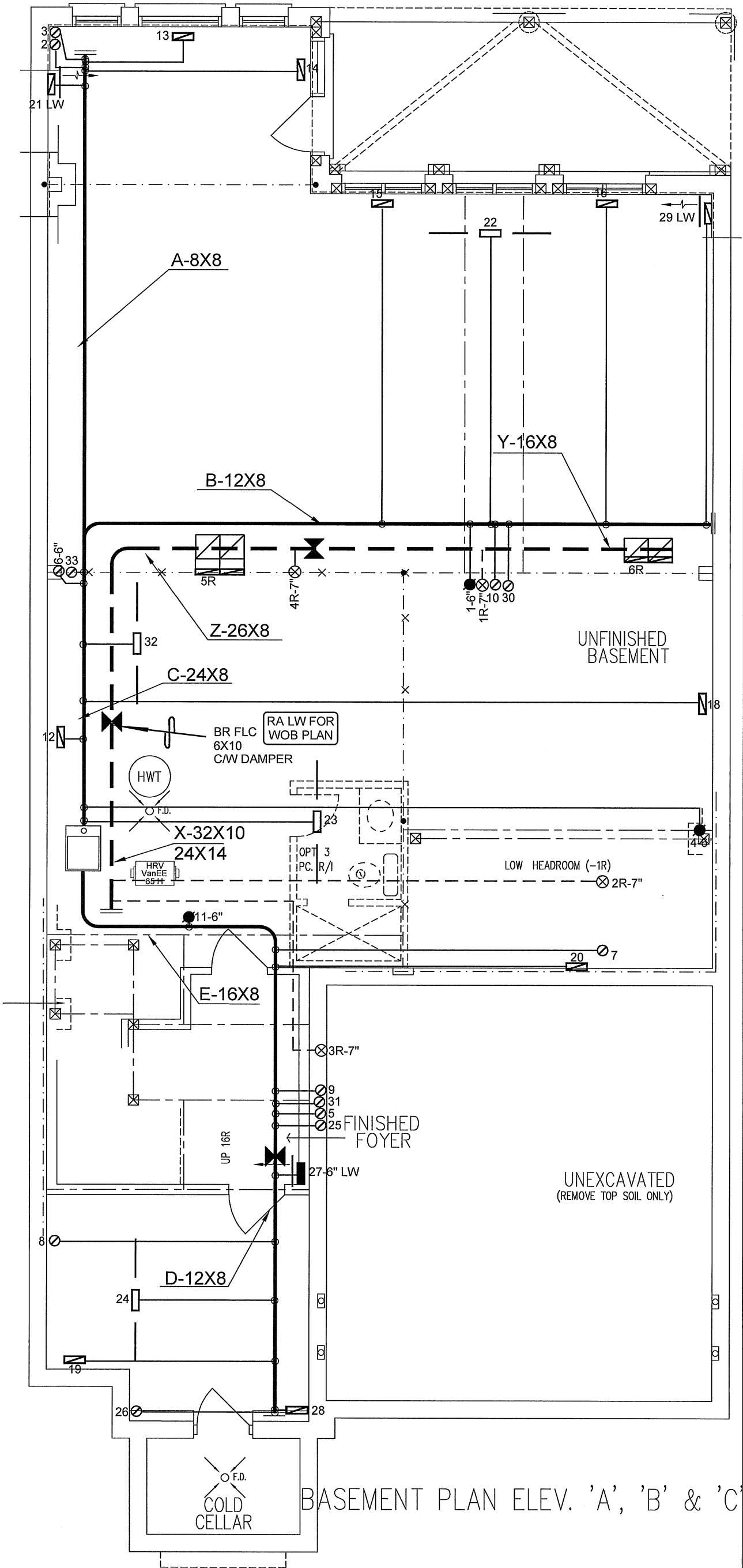
WOB

PACKAGE A1

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.

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



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Client  
**GOLD PARK HOMES**

Project Name  
**PINE VALLEY & TESTON  
VAUGHAN, ONTARIO  
OPT. 5 BED - WOB  
ROSEDALE - ALT 1ST  
4202 3785 sqft**

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

HEAT LOSS 77236 BTU/H	# OF RUNS	S/A	R/A	FANS
UNIT DATA	3RD FLOOR			
MAKE LENNOX	2ND FLOOR	16	4	5
MODEL EL296UH090XE48C	1ST FLOOR	9	2	2
INPUT 88 MBTU/H	BASEMENT	7	1	0
OUTPUT 85 MBTU/H	ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5/8" UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A			
COOLING 4.0 TONS				
FAN SPEED 1525 cfm @ 0.6" w.c.				

Sheet Title	
BASEMENT HEATING LAYOUT	
Date	OCT/2018
Scale	3/16" = 1'-0"
BCIN# 19669	
LO#	80275

CSA-F280-12

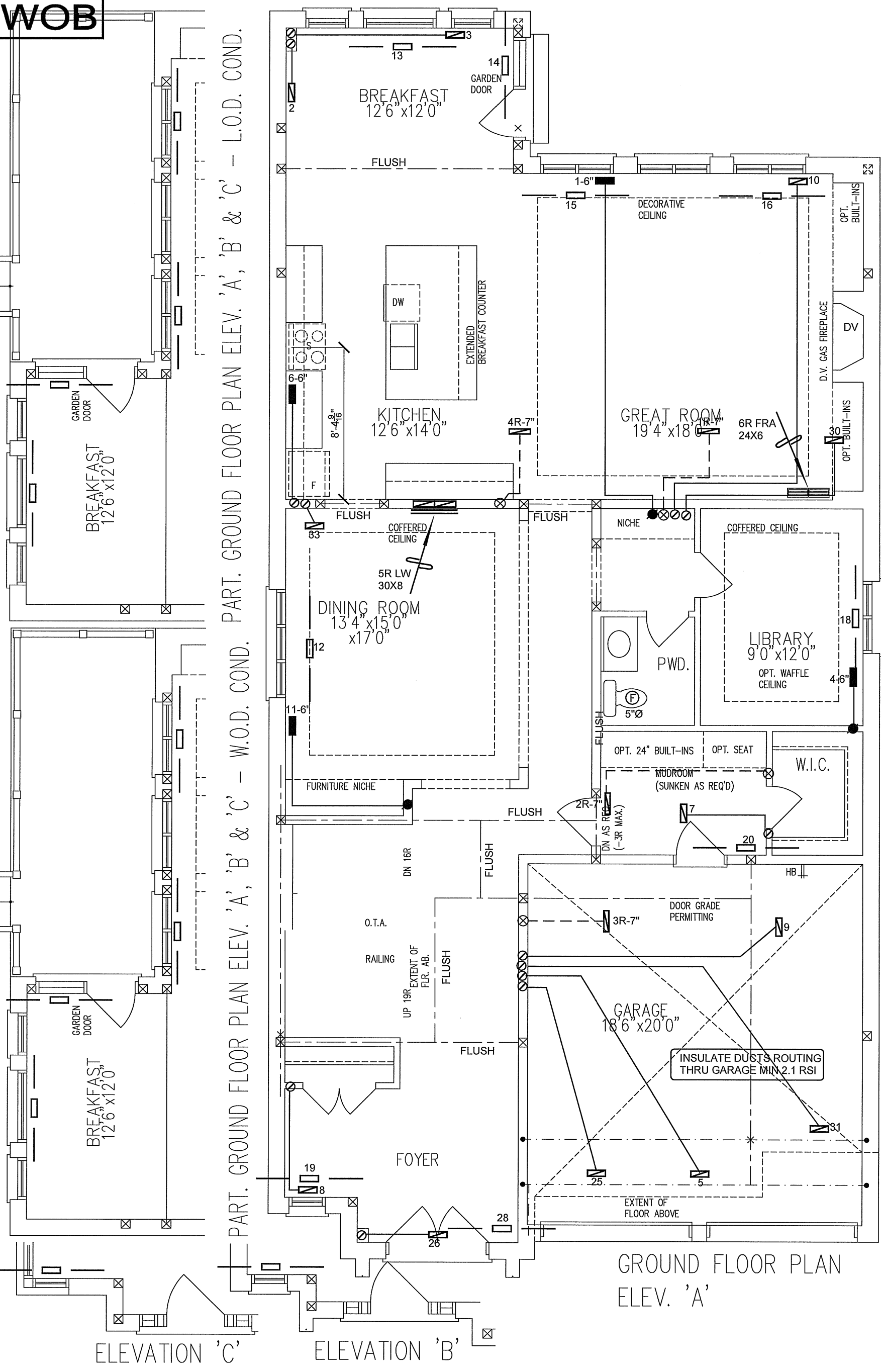
WOB

PACKAGE A1

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.

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



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Client  
**GOLD PARK HOMES**

Project Name  
**PINE VALLEY & TESTON  
VAUGHAN, ONTARIO  
OPT. 5 BED - WOB  
ROSEDALE - ALT 1ST  
4202**

3785 sqft

**HVACDESIGNS LTD.**

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Sheet Title  
**FIRST FLOOR  
HEATING  
LAYOUT**

Date  
**OCT/2018**

Scale  
**3/16" = 1'-0"**

BCIN# 19669

LO# **80275**