


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]				
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>				
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 ALT 1ST - WOB Project: PINE VALLEY & TESTON		
D. Declaration of Designer				
I <u>MICHAEL O'ROURKE</u> declare that (choose one as appropriate): <div style="text-align: center;">(print name)</div>				
<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: <u>19669</u> Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 3.2.4.1 (4)</u>				
<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.				
September 11, 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.

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

SITE NAME: PINE VALLEY & TESTON ALT 1ST - WOB DATE: Sep-18 WINTER NATURAL AIR CHANGE RATE 0.407 HEAT LOSS AT °F. 76 CSA-F280-12
BUILDER: GOLD PARK HOMES TYPE: 4202-ROSEDALE LO# 78976 SUMMER NATURAL AIR CHANGE RATE 0.137 HEAT GAIN AT °F. 13 SB-12 PACKAGE A1

ROOM USE	EXP. WALL	CLG. HT.	MR	ENS	HERS	BED-2	BED-3	BED-4	ENS-2	LOFT	ENS-3	ENS-4
GRS.WALL AREA	470			308	72	182	324	108	0	351	81	99
GLAZING												
NORTH	0	0	0	0	0	0	0	0	0	0	0	0
EAST	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
WEST	0	0	0	0	0	0	0	0	0	0	0	0
SKYLT.	54	1148	2244	18	383	748	0	0	0	0	0	0
DOORS	37.2	101.5	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	25.2	4.3	0	0	0	0	0	0	0	0	0	0
NET EXPOSED BSMT WALL ABOVE GR	4.5	0.8	416	1886	313	277	1236	208	72	321	64	144
EXPOSED CLG	3.6	0.6	0	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	1.3	0.6	480	616	282	168	216	99	98	126	68	402
EXPOSED FLOOR	2.7	1.3	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	2.8	0.4	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	3622			2069	447	1809	3411	1000	160	3166	685	678
LEVEL FACTOR / MUL TIPLIER	0.20	0.32	0.20	0.32	0.20	0.32	0.20	0.32	0.20	0.32	0.20	0.32
AIR CHANGE HEAT LOSS	1161			656	142	576	1084	318	61	1003	218	216
DUCT LOSS	0			0	0	0	0	0	0	0	0	0
DUCT GAIN	0			0	0	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	240			0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	595			0	0	0	0	0	0	0	0	0
TOTAL HT LOSS BTU/H	4773			2726	589	2622	4944	1318	232	4876	894	893
TOTAL HT GAIN x 1.3 BTU/H	5391			1889	157	2197	5388	1560	68	4933	377	466

ROOM USE	EXP. WALL	CLG. HT.	DIN	KT/GT	LIB	LAUN	FOY	MUD	HIS	WOB	BAS
GRS.WALL AREA	187			1100	132	0	649	312	83	430	1113
GLAZING											
NORTH	0	0	0	0	0	0	0	0	0	0	0
EAST	0	0	0	0	0	0	0	0	0	0	0
SOUTH	0	0	0	0	0	0	0	0	0	0	0
WEST	0	0	0	0	0	0	0	0	0	0	0
SKYLT.	0	0	0	0	0	0	0	0	0	0	0
DOORS	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.8	163	683	115		57	1439	242	20	505
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.6	0	0	0	0	592	2642	445	292	1303
EXPOSED CLG	1.3	0.6	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.8	0.4	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0						0	0	0	0	0
SUBTOTAL HT LOSS	1406			7841	976	123	4081	1808	603	4972	2660
LEVEL FACTOR / MUL TIPLIER	0.30	0.53	0.30	0.63	0.30	0.32	0.30	0.30	0.20	0.32	0.50
AIR CHANGE HEAT LOSS	739			4121	513	39	2145	900	192	4787	14115
DUCT LOSS	0			0	0	0	0	0	0	0	0
DUCT GAIN	0			0	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	240			0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	595			0	0	0	0	0	0	0	0
TOTAL HT LOSS BTU/H	2145			11983	1489	162	6226	2768	874	5523	18897
TOTAL HT GAIN x 1.3 BTU/H	2126			10244	1406	853	967	1202	205	6224	1811

TOTAL HEAT GAIN BTU/H: 48344 TONS: 4.03 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 STRUCTURAL HEAT LOSS: 73705 TOTAL COMBINED HEAT LOSS BTU/H: 76886

Michael O'Rourke

GEA: 3592 IO# 70075

[illegible]

TEMPERATURE RISE 52 °F

[illegible]

RUN #	25	26	27	28	29	30	31	32
ROOM NAME	BED-3	LOFT	BAS	FOY	HRS	HIS	BED-3	BAS
RM LOSS MBH	1.85	2.29	4.07	3.11	0.59	0.87	1.65	4.07
CFM PER RUN HEAT	34	47	84	12	18	34	84	84
RM GAIN MBH	1.79	2.47	1.34	0.48	0.16	0.21	1.79	1.34
CFM PER RUN COOLING	57	79	43	15	5	7	57	43
ADJUSTED PRESSURE	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.16
ACTUAL DUCT LGH.	45	57	33	40	50	60	58	22
EQUIVALENT LENGTH	140	150	180	150	180	150	160	120
TOTAL EFFECTIVE LENGTH	185	207	213	190	230	210	218	142
ADJUSTED PRESSURE	0.09	0.08	0.08	0.09	0.07	0.08	0.08	0.11
ROUND DUCT SIZE	5	5	6	5	4	4	5	5
HEATING VELOCITY (ft/min)	250	345	428	470	138	207	250	617
COOLING VELOCITY (ft/min)	419	580	219	110	57	80	419	316
OUTLET GRILL SIZE	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
TOOLING	F	D	D	D	D	D	F	C

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)					
TRUNK A	264	0.08	8.5	8	X	8	594	TRUNK G	0	0.00	0	0	0	8					
TRUNK B	339	0.07	9.7	8	X	8	509	TRUNK H	0	0.00	0	0	0	0					
TRUNK C	945	0.07	14.2	24	X	8	709	TRUNK I	0	0.00	0	0	0	8					
TRUNK D	390	0.07	10.2	12	X	8	585	TRUNK J	0	0.00	0	0	0	8					
TRUNK E	575	0.07	11.8	16	X	8	647	TRUNK K	0	0.00	0	0	0	8					
TRUNK F	600	0.07	12.0	16	X	8	647	TRUNK L	0	0.00	0	0	0	8					

[illegible]

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

LO # 79975
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	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	3 @ 10.6 cfm	31.8 cfm
Kitchen & Bathrooms	6 @ 10.6 cfm	63.6 cfm
Other Rooms	8 @ 10.6 cfm	84.8 cfm
Table 9.32.3.A.	TOTAL	222.6 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	79.5	cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	222.6	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	67.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANE 65H	Location: BSMT
155.0 cfm	3.0 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	QTXEN050C	50	<input checked="" type="checkbox"/>
PWD	QTXEN050C	50	<input checked="" type="checkbox"/>

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANE 65H		
155 cfm high	64 cfm low	
75 % 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:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	September-18

CSA F280-12 Residential Heat Loss and Heat Gain Calculations									
Formula Sheet (For Air Leakage / Ventilation Calculation)									
LO#: 79975		Model: 4202-ROSEDALE		Builder: GOLD PARK HOMES		Date: 9/11/2018			
Volume Calculation									
House Volume									
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)						
Bsmt	1540	10	15400						
First	1540	11	16940						
Second	2076	9	18684						
Third	0	9	0						
Fourth	0	9	0						
Total:		51,024.0 ft³							
Total:		1444.8 m³							
5.2.3.1 Heat Loss due to Air Leakage									
$HL_{air-b} = LR_{air-b} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$									
0.407	x	401.34	x	42 °C	x	1.2	=	8274 W	
								=	28230 Btu/h
5.2.3.2 Heat Loss due to Mechanical Ventilation									
$HL_{vair-b} = PVC \times DTD_h \times 1.08 \times (1 - E)$									
155 CFM	x	76 °F	x	1.08	x	0.25	=	3181 Btu/h	
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)									
$HL_{qirr} = Level Factor \times HL_{airbv} \times \{(HL_{qgr} + HL_{bgr}) \div (HL_{aglevel} + HL_{bglevel})\}$									
Level	Level Factor (LF)	HLairbv Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{level})	Air Leakage Heat Loss Multiplier (LF x HLairbv / HLlevel)					
1	0.5	28,230	9,753	1.447					
2	0.3		16,113	0.526					
3	0.2		17,763	0.318					
4	0		0	0.000					
5	0		0	0.000					
*HLairbv = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system HLairbv = 0									

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 4202- ROSEDALE	ALT 1ST - WOB	BUILDER: GOLD PARK HOMES
SFQT: 3592	LO# 79975	SITE: PINE VALLEY & TESTON

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

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 (ft ³):	51024.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 68.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	159.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	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	-

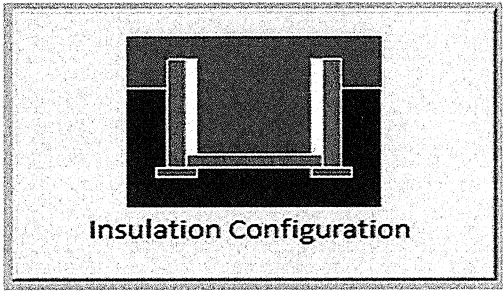
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

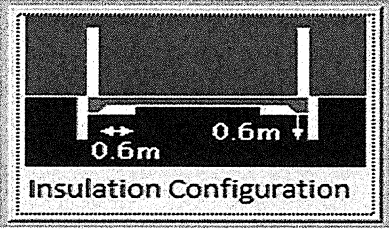
Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	4.6	 Insulation Configuration
Floor Width (m):	10.1	
Exposed Perimeter (m):	48.5	
Wall Height (m):	3.0	
Depth Below Grade (m):	1.79	
Window Area (m ²):	0.0	
Door Area (m ²):	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# 79975

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# 79975

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 ³):	1444.8			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1926.0 cm ²		
	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# 79975

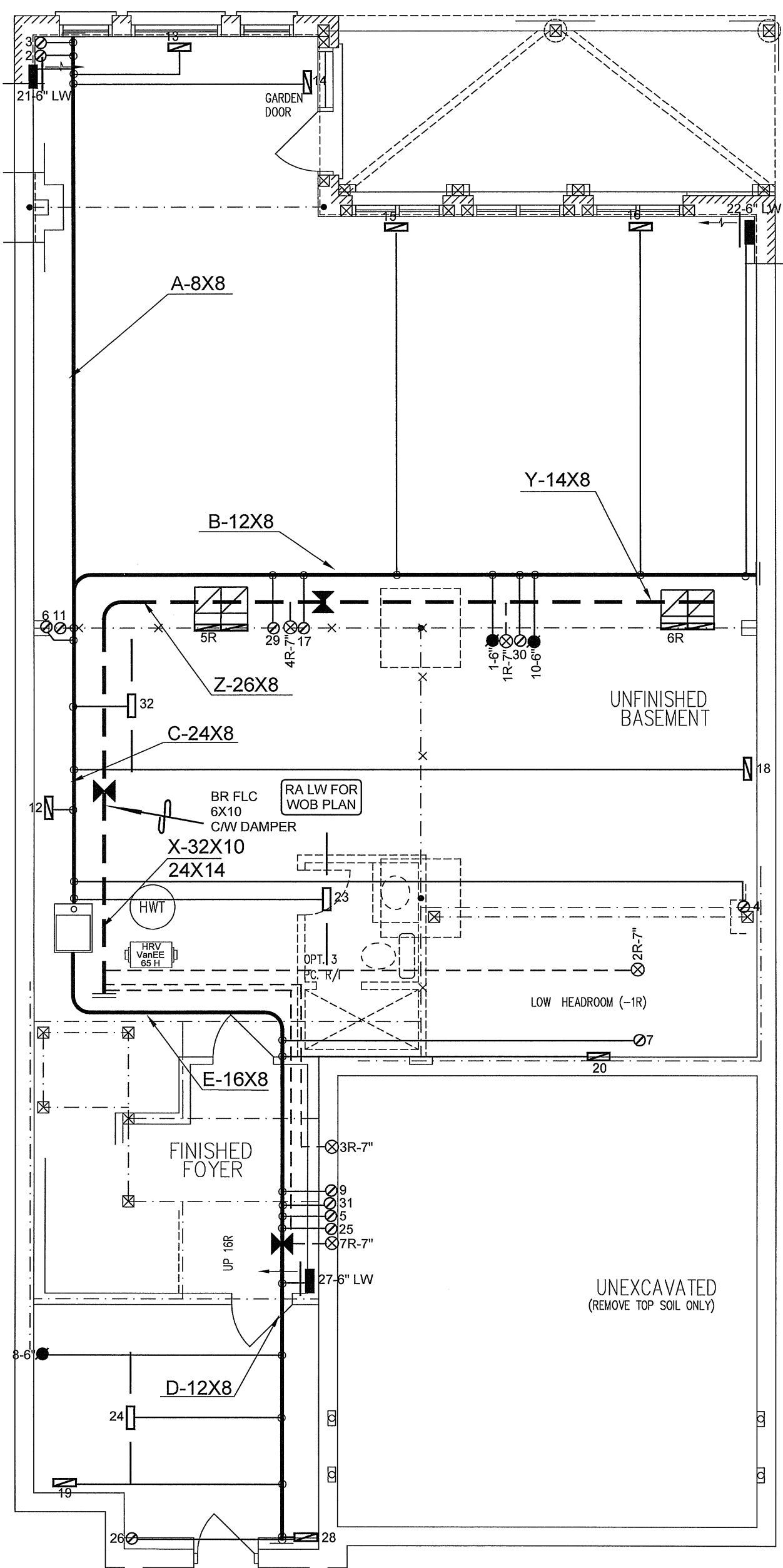
ALT 1ST - WOB

WOB

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.

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



PARTIAL BASEMENT PLAN ELEV. 'A' (ELEV. 'B'/'C' SIMILAR
FOR OPT. GROUND FLOOR PLAN W/ LIBRARY











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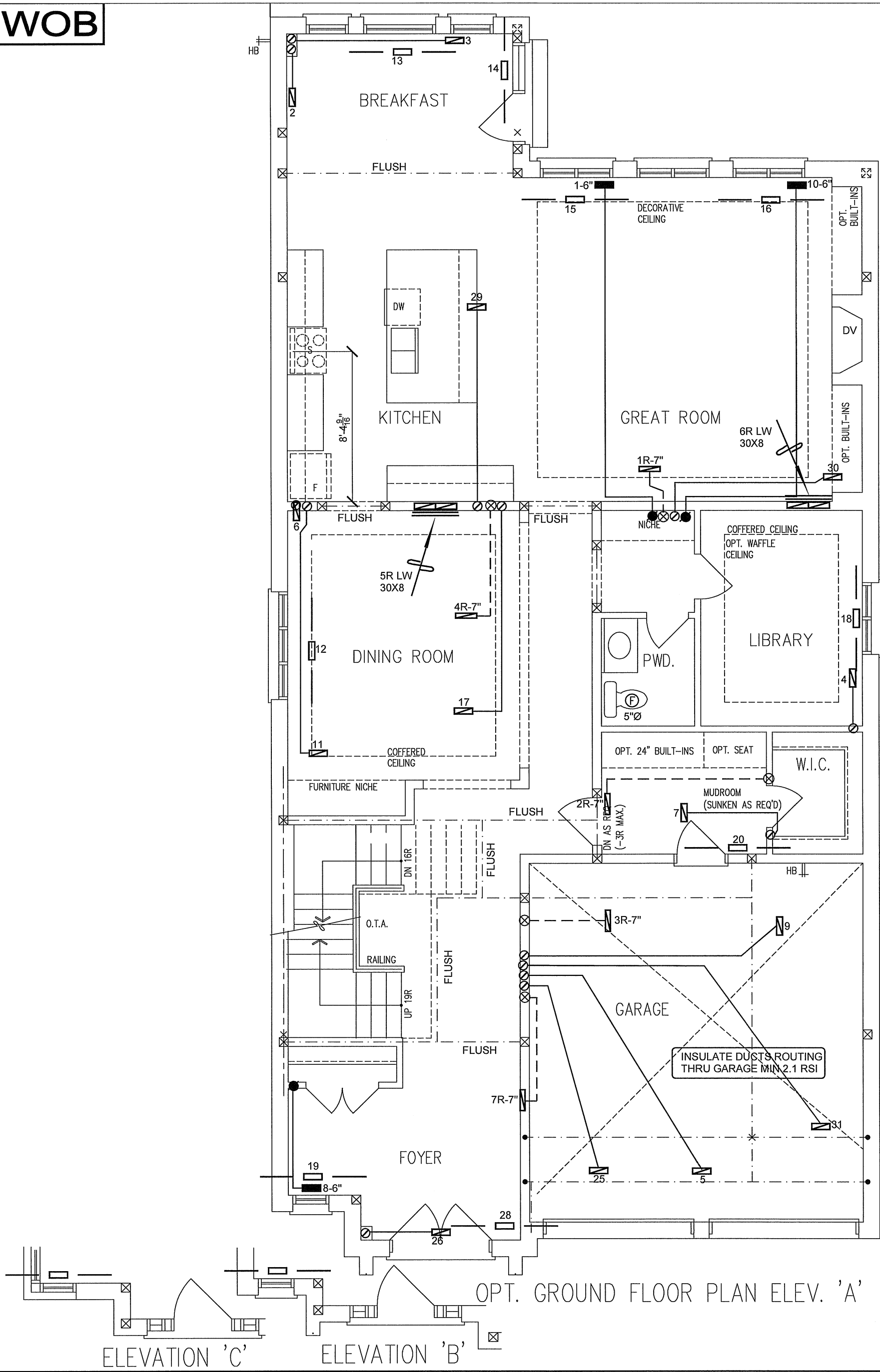
Client		 <p>375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdsgns.ca Web: www.hvacdsgns.ca Specializing in Residential Mechanical Design Services</p>		HEAT LOSS 76886 BTU/H		# OF RUNS S/A R/A FANS			Sheet Title	
GOLD PARK HOMES				UNIT DATA		3RD FLOOR			BASEMENT HEATING LAYOUT	
Project Name		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.		MAKE		2ND FLOOR			Date	
PINE VALLEY & TESTON VAUGHAN, ONTARIO				LENNOX		17 5 6			SEPT/2018	
ALT. 1ST				MODEL		1ST FLOOR			Scale	
ROSEDALE				EL296UH090XE48C		9 2 2			3/16" = 1'-0"	
4202 - WOB 3592 sqft				INPUT		BASEMENT			BCIN# 19669	
				88 MBTU/H		6 1 0			LO# 79975	
				OUTPUT 85 MBTU/H		ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5"Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A				
				COOLING 4.0 TONS						
				FAN SPEED 1525 cfm @ 0.6" w.c.						

WOB

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							3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6' SUPPLY AIR BOOT ABOVE		14'x6" RETURN AIR GRILLE	1.	DECK CONDITIONS ADDED	
	SUPPLY AIR GRILLE 6' BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30'x6" RETURN AIR GRILLE	No.	SEPT/2018	
	SUPPLY AIR BOOT ABOVE		6' SUPPLY AIR STACK 2nd FLOOR		FRA-FLOOR RETURN AIR GRILLE	REVISIONS		
			REDUCER				Date	



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GOLD PARK HOMES		FIRST FLOOR HEATING LAYOUT	
Project Name		Date	SEPT/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO ALT. 1ST ROSEDALE 4202 - WOB		Scale	3/16" = 1'-0"
3592 sqft	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.	BCIN# 19669	LO# 79975

CSA-F280-12

WOB

PACKAGE A1

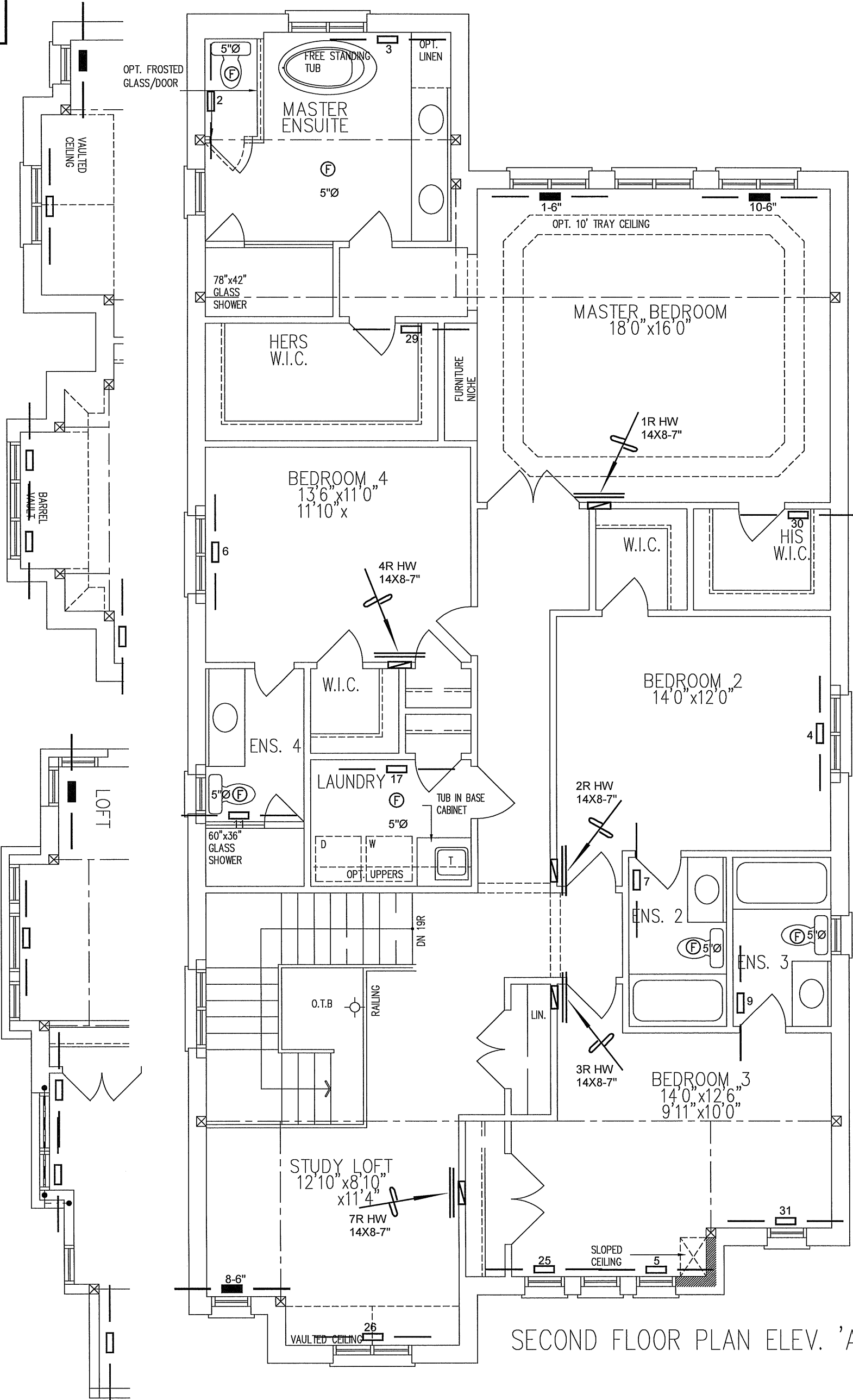
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

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

PARTIAL SECOND FLOOR PLAN – ELEVATION 'B'

PARTIAL SECOND FLOOR PLAN – ELEVATION 'C'

HVAC LEGEND					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK FROM 2nd FLOOR
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		RETURN AIR STACK ABOVE
	RETURN AIR STACK 2nd FLOOR		REDUCER		
			REVISIONS		
			No.	Description	Date
			1.	DECK CONDITIONS ADDED	SEPT/2018
			2.		
			3.		



SECOND FLOOR PLAN ELEV. 'A'

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Client	GOLD PARK HOMES
Project Name	PINE VALLEY & TESTON VAUGHAN, ONTARIO ALT. 1ST ROSEDALE 4202 - WOB
	3592 sqft

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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	
SECOND FLOOR HEATING LAYOUT	
Date	SEPT/2018
Scale	3/16" = 1'-0"
BCIN# 19669	
LO#	79975