


## 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.	Lot/con.
Municipality VAUGHAN (WOODBIDGE)	Postal code	Plan number/ other description		
<b>B. Individual who reviews and takes responsibility for design activities</b>				
Name <b>MICHAEL O'ROURKE</b>		Firm <b>HVAC DESIGNS LTD.</b>		
Street address <b>375 FINLEY AVE</b>		Unit no. <b>202</b>	Lot/con. <b>N/A</b>	
Municipality <b>AJAX</b>	Postal code <b>L1S 2E2</b>	Province <b>ONTARIO</b>	E-mail <b>info@hvacdesigns.ca</b>	
Telephone number <b>(905) 619-2300</b>	Fax number <b>(905) 619-2375</b>	Cell number (      )		
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]</b>				
<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 <b>HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12</b>		<b>Model:</b> 4005 THE EDGEBROOK  OPT 5 BED - WOB  <b>Project:</b> PINE VALLEY & TESTON		
<b>D. Declaration of Designer</b>				
I, <u><b>MICHAEL O'ROURKE</b></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: <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				
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**

DATE: Sep-18  
LOF: 79872  
GFA: 3481  
OPT 5 BED - WOB  
TYPE: 4008 THE EDGEBOOK  
WINTER NATURAL AIR CHANGE RATE 0.409  
SUMMER NATURAL AIR CHANGE RATE 0.137  
HEAT LOSS AT °F. 76  
HEAT GAIN AT °F. 13  
CSA-F280-12  
SB-12 PACKAGE A1

ROOM USE	EXP. WALL CLG. HT.	MR	ENS	WIC	BED-2	BED-3	BED-4	ENS-3/4	BATH	LOSS GAIN
GRS.WALL AREA	374	37	26	8	13	13	13	8	6	
GLAZING		10	9	9	9	9	9	9	9	
NORTH	21.3	16.0	0	0	0	0	0	0	0	55
EAST	21.3	41.6	0	0	0	0	0	0	0	0
SOUTH	21.3	24.9	0	0	0	0	0	0	0	0
WEST	21.3	41.6	0	0	0	0	0	0	0	0
SKYL.T.	37.2	101.5	0	0	0	0	0	0	0	0
DOORS	25.2	4.3	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	340	1616	265	73	118	118	73	55	244
NET EXPOSED BSMT WALL ABOVE GR	3.5	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	375	481	220	192	246	113	88	108
NO ATTIC EXPOSED FLOOR	2.7	1.3	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	2.6	0.4	0	0	0	0	0	0	0	0
SUB TOTAL HT LOSS		2721	1888	1344	106	679	679	824	586	126
LEVEL FACTOR / MULTIPLIER		0.20	0.42	0.20	0.42	0.20	0.42	0.20	0.42	0.20
AIR CHANGE HEAT LOSS		1134	801	182	488	488	484	260	236	236
AIR CHANGE HEAT GAIN		0	0	0	0	0	0	0	0	0
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	2	480	0	0	163	240	0	0	79
HEAT GAIN APPLANCES/LIGHTS		667	667	667	667	667	667	667	667	667
TOTAL HT LOSS BTU/H		3855	2722	620	1788	1824	1579	884	882	882
TOTAL HT GAIN x 1.3 BTU/H		4442	1895	150	2068	2337	2111	456	1138	1138

ROOM USE	EXP. WALL CLG. HT.	GRN	KIMIG	LAUN	WIR	FOY	WOB	BAS	LOSS GAIN
GRS.WALL AREA	372	31	76	23	8	732	382	962	
GLAZING		12	12	12	12	12	12	12	
NORTH	21.3	16.0	0	0	0	0	0	0	0
EAST	21.3	41.6	0	0	0	0	0	0	0
SOUTH	21.3	24.9	0	0	0	0	0	0	0
WEST	21.3	41.6	0	0	0	0	0	0	0
SKYL.T.	37.2	101.5	0	0	0	0	0	0	0
DOORS	25.2	4.3	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	326	1455	245	0	40	1010	170	86
NET EXPOSED BSMT WALL ABOVE GR	3.5	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED FLOOR	2.7	1.3	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	2.6	0.4	0	0	0	0	0	0	0
SUB TOTAL HT LOSS		2434	6316	414	241	3007	3984	4785	465
LEVEL FACTOR / MULTIPLIER		0.30	0.51	0.30	0.51	0.30	0.51	0.50	1.64
AIR CHANGE HEAT LOSS		1247	3274	921	280	2885	3984	14345	380
AIR CHANGE HEAT GAIN		0	0	0	0	0	0	0	0
DUCT LOSS		0	0	0	0	0	0	0	0
DUCT GAIN		0	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	240	0	0	0	0	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS		667	667	667	667	667	667	667	667
TOTAL HT LOSS BTU/H		3680	9665	2720	826	8517	4493	18130	1951
TOTAL HT GAIN x 1.3 BTU/H		2815	9764	1439	340	4242	5193	19130	1951

TOTAL HEAT GAIN BTU/H: 47840 TONS: 3.99 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 STRUCTURAL HEAT LOSS: 69623 TOTAL COMBINED HEAT LOSS BTU/H: 72704

*Michael O'Rourke*



TYPE: 4005 THE EDGEBROOK  
SITE NAME: PINE VALLEY & TESTON

LO # 79972  
OPT 5 BED - 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>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Other Rooms	<u>5</u> @ 10.6 cfm	<u>53.0</u> cfm
Table 9.32.3.A.	TOTAL	<u>180.2</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>180.2</u>	cfm
Less Principal Ventil. Capacity	<u>155</u>	cfm
Required Supplemental Capacity	<u>25.2</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	$\Delta T$ °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-3/4	QTXEN050C	50	<input checked="" type="checkbox"/>
BATH	QTXEN050C	50	<input checked="" type="checkbox"/>
W/R	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:	<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#: 79972		Model: 4005 THE EDGEBROOK		Builder: GOLD PARK HOMES		Date: 9/11/2018			
Air Change & Delta T Data									
<b>House Volume</b>						WINTER NATURAL AIR CHANGE RATE		0.409	
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)			SUMMER NATURAL AIR CHANGE RATE		0.137	
Bsmt	1573	9	14314.3						
First	1573	12	18876						
Second	2026	9	18436.6						
Third	0	9	0						
Fourth	0	9	0						
		Total:	51,626.9 ft³						
		Total:	1461.9 m³						
<b>Design Temperature Difference</b>									
		Tin °C	Tout °C	ΔT °C		ΔT °F			
Winter DTDh		22	-20	42		76			
Summer DTDc		24	31	7		13			
<b>6.2.6 Sensible Gain due to Air Leakage</b>									
$HG_{sub} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$									
0.409	x	406.09	x	42 °C	x	1.2	=	8409 W	
							=	28690 Btu/h	
<b>5.2.3.2 Heat Loss due to Mechanical Ventilation</b>									
$HL_{mairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$									
155 CFM	x	76 °F	x	1.08	x	0.25	=	3181 Btu/h	
<b>5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)</b>									
$HL_{airrr} = Level Factor \times HL_{airrbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$									
Level	Level Factor (LF)	HLairrbv 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	28,690	8,745	1.640					
2	0.3		16,801	0.512					
3	0.2		13,769	0.417					
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 HLairve = 0									

**HEAT LOSS AND GAIN SUMMARY SHEET**

<b>MODEL:</b> 4005 THE EDGEBROOK	<b>OPT 5 BED - WOB</b>	<b>BUILDER:</b> GOLD PARK HOMES
<b>SFQT:</b> 3481	<b>LO#</b> 79972	<b>SITE:</b> 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 (ft³):	51626.9	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.1 ft
LENGTH: 67.0 ft	WIDTH: 32.0 ft	EXPOSED PERIMETER:	156.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	42.0 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	-

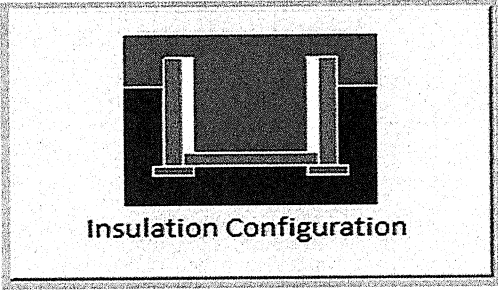
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



## Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

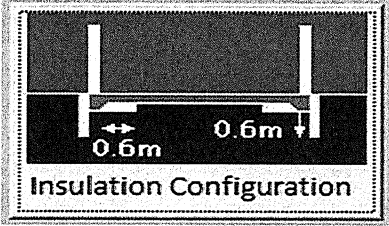
Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	4.6	 Insulation Configuration
Floor Width (m):	9.8	
Exposed Perimeter (m):	47.5	
Wall Height (m):	2.8	
Depth Below Grade (m):	1.56	
Window Area (m <sup>2</sup> ):	0.6	
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):		<b>723</b>

TYPE: 4005 THE EDGEBROOK  
LO# 79972

OPT 5 BED - 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):	9.8	
Exposed Perimeter (m):	12.8	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		156

TYPE: 4005 THE EDGEBROOK  
LO# 79972

OPT 5 BED - WOB



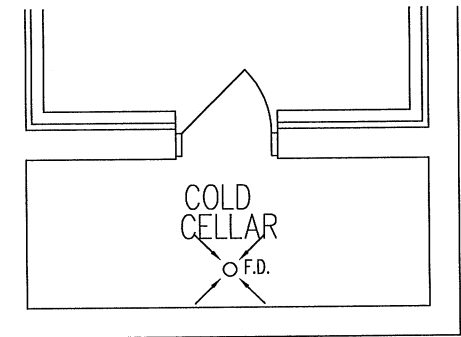
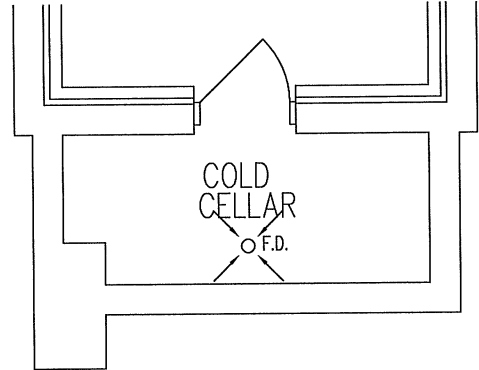
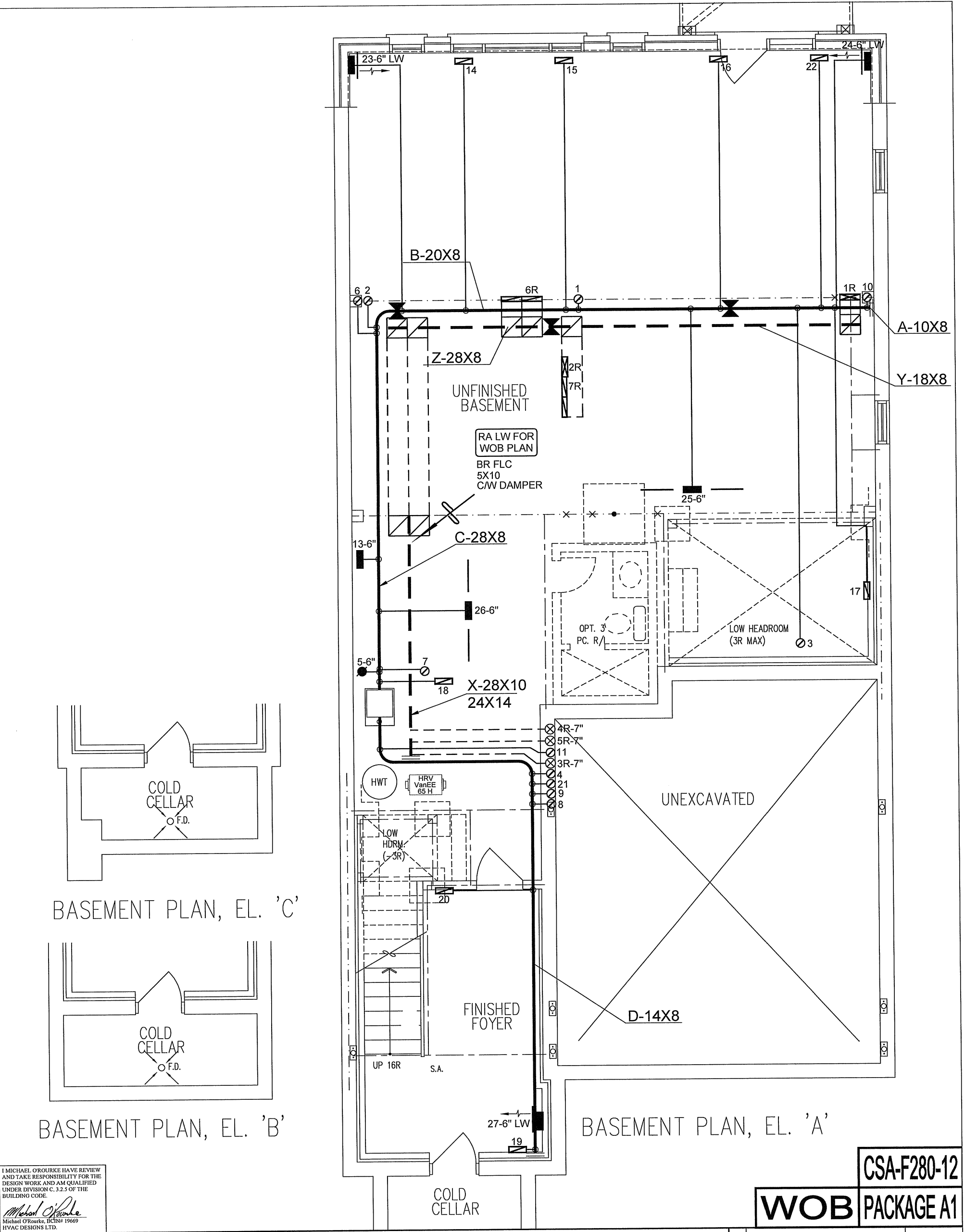
# Air Infiltration Residential Load Calculator

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):	9.20			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m <sup>3</sup> ):	1461.9			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1948.8 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):	0.409			
Cooling Air Leakage Rate (ACH/H):	0.137			

TYPE: 4005 THE EDGEBROOK  
LO# 79972

OPT 5 BED - WOB



BASEMENT PLAN, EL. 'A'

I MICHAEL O'ROURKE HAVE REVIEW 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.

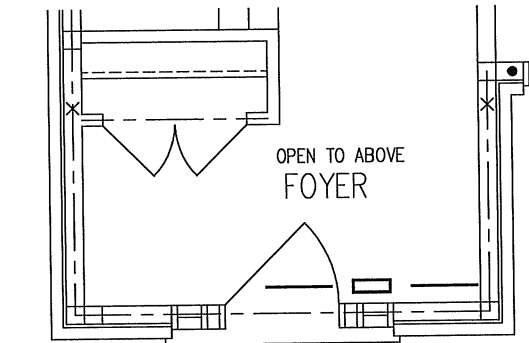
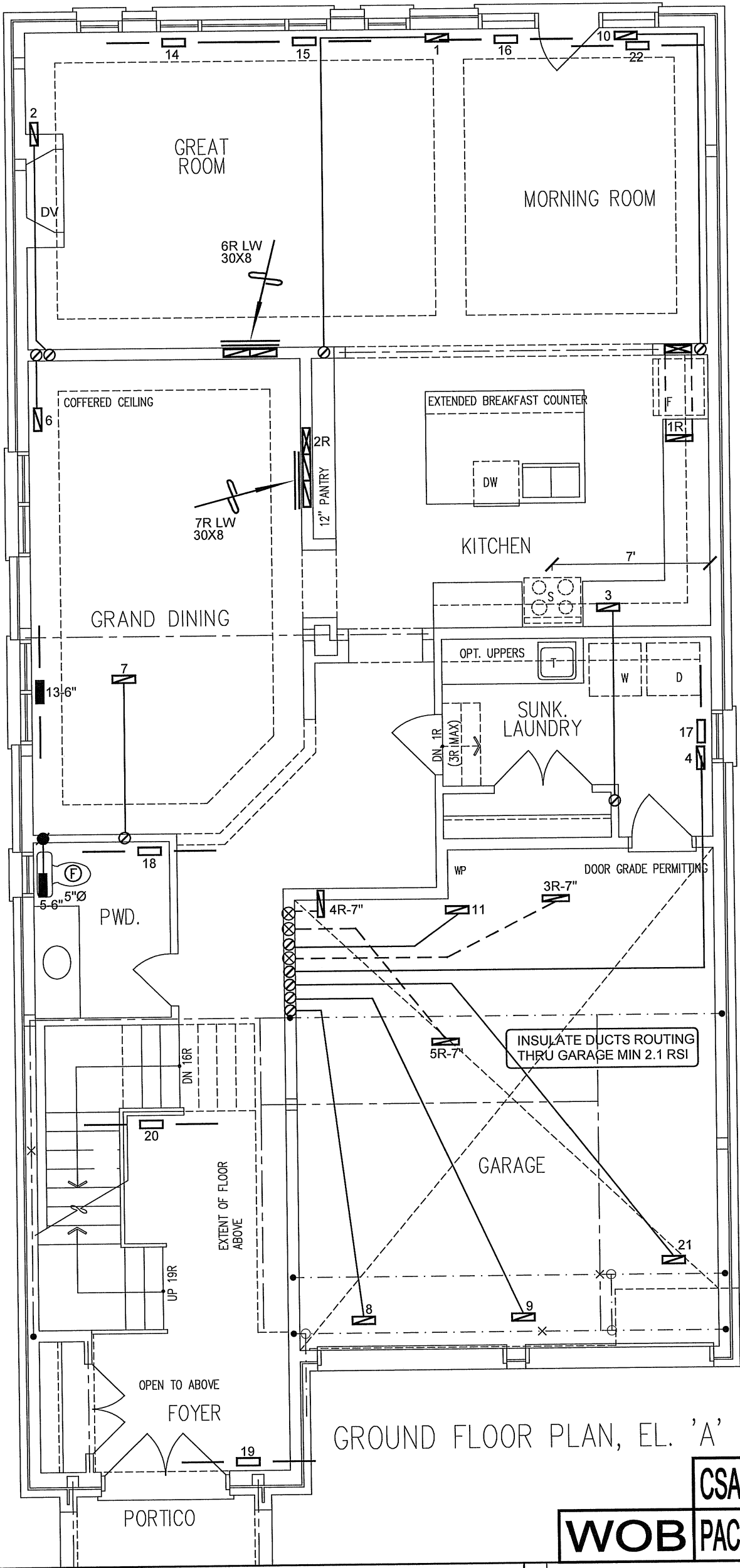
CSA-F280-12

WOB PACKAGE A1

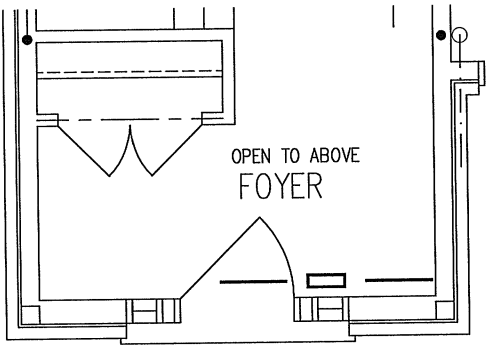
HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	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

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client		<div><div>HVACDESIGNS LTD.</div><div>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</div></div>	HEAT LOSS 72704 BTU/H		# OF RUNS		S/A	R/A	FANS	Sheet Title	
GOLD PARK HOMES			UNIT DATA		3RD FLOOR					BASEMENT HEATING LAYOUT	
			MAKE		2ND FLOOR		12	5	3		
			MODEL		1ST FLOOR		9	2	2		
			EL296UH090XE48C		BASEMENT		5	1	0		
			INPUT		88		MBTU/H				
Project Name			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		Date
PINE VALLEY & TESTON VAUGHAN, ONTARIO		COOLING		4.0		TONS				Scale	3/16" = 1'-0"
THE EDGEBROOK - WOB 4005 OPT 5 BED 3481 sqft		FAN SPEED		1525		cfm @ 0.6" w.c.				BCIN# 19669	
										LO#	79972



GROUND FLOOR PLAN, EL. 'C'



GROUND FLOOR PLAN, EL. 'B'

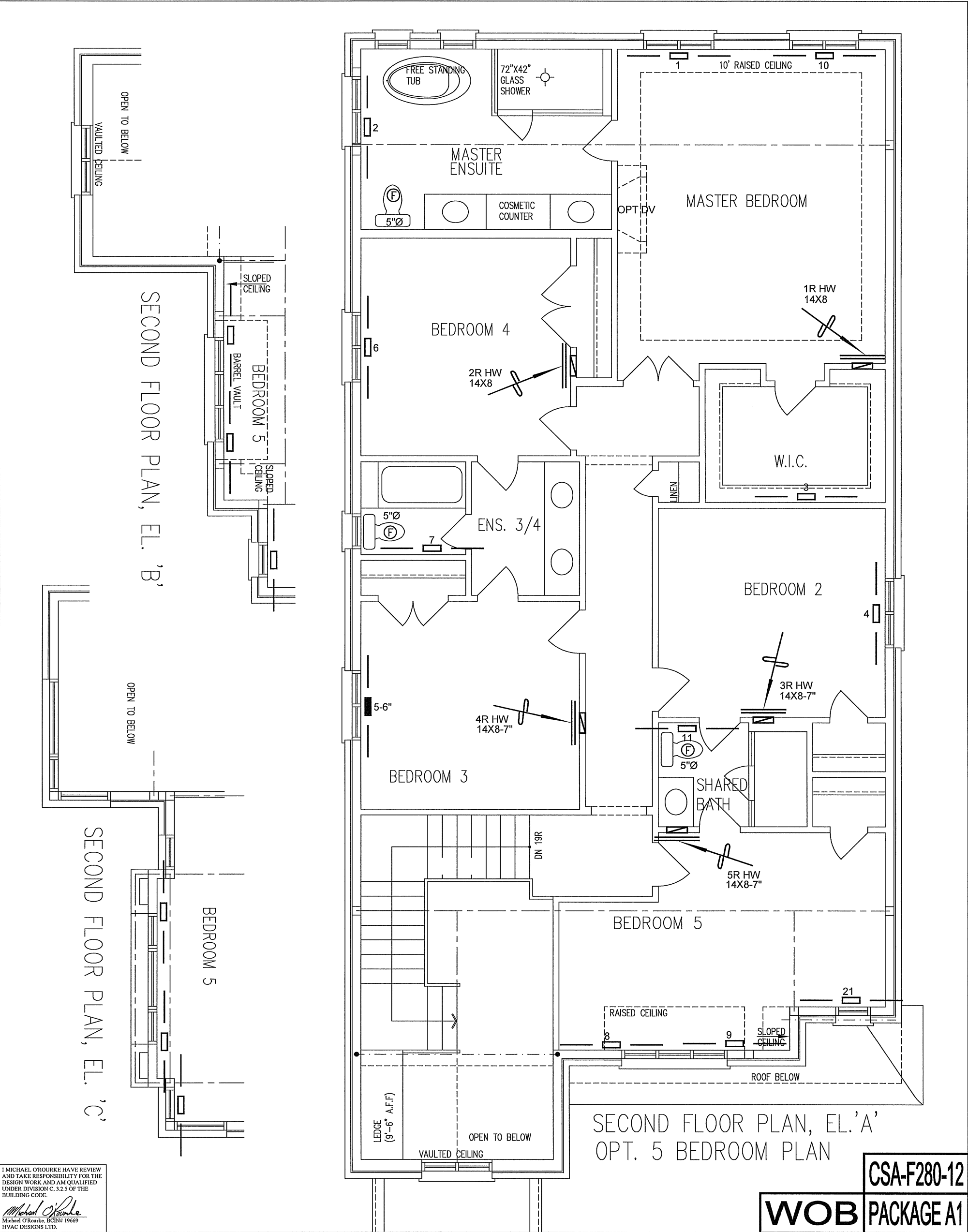
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

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

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

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.® AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client		<div><b>HVACDESIGNS LTD.</b></div> <div>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</div> <div>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.</div>	Sheet Title	
GOLD PARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	SEPT/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
THE EDGEBROOK - WOB 4005 OPT 5 BED 3481 sqft		BCIN# 19669		
		LO#	79972	



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

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client		<div></div> <div>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</div> <div>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.</div>	Sheet Title	
GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	SEPT/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
THE EDGEBROOK - WOB			BCIN# 19669	
4005 OPT 5 BED 3481 sqft			LO#	79972