


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]			
<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: 4004 THE DALERIDGE OPT. 5 BEDROOM Project: PINE VALLEY & TESTON	
D. Declaration of Designer			
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: <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.			
January 23, 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.

SITE NAME: PINE VALLEY & TESTON
BUILDER: GOLD PARK HOMES
OPT. 5 BEDROOM
TYPE: 4004 THE DALERIDGE
DATE: Jan-18
LO# 77460
GFA: 3341
WINTER NATURAL AIR CHANGE RATE 0.340
HEAT LOSS AT °F. 76
CSA-F280-12
SB-12 PACKAGE A1

ROOM USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	ENS-2/3	BED-5	LOFT	ENS-4/5	WIC-3
EXP. WALL CLG. HT.	33 10	25 9	10 9	11 9	34 9	10 9	6 9	10 9	40 9	6 9	6 9
GRS.WALL AREA	330	225	90	99	306	90	64	90	360	54	54
GLAZING	0	0	0	0	0	0	0	0	0	0	0
NORTH	21.3	0	6	128	101	0	8	170	135	0	0
EAST	21.3	0	0	0	0	0	0	0	0	0	0
SOUTH	21.3	0	0	0	0	0	0	0	0	0	0
WEST	21.3	0	0	0	0	0	0	0	0	0	0
SKYLT.	37.2	103.0	0	0	0	0	0	0	0	0	0
DOORS	25.2	5.2	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.9	290	1294	269	84	375	78	81	361	75
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	270	347	172	154	198	98	160	205	102
NO ATTIC EXPOSED CLG	2.7	1.4	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6	0.5	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	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
SUBTOTAL HT LOSS	2492	1605	708	970	3307	910	560	910	3476	578	832
SUB TOTAL HT GAIN	0.20	0.27	0.20	0.27	0.20	0.27	0.20	0.27	0.20	0.27	0.20
LEVEL FACTOR / MULTIPLIER	684	441	194	266	908	250	154	250	955	159	229
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0
AIR CHANGE HEAT GAIN	0	0	0	0	0	0	0	0	0	0	0
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	0
DUCT GAIN	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
HEAT GAIN APPLIANCES/LIGHTS	733	0	0	0	0	0	0	0	0	0	0
TOTAL HT LOSS BTU/H	3476	2046	902	1237	4636	1160	785	1160	4431	811	1167
TOTAL HT GAIN x 1.3 BTU/H	4615	1662	1662	1952	6193	2164	356	2164	6040	244	1283

ROOM USE	DIN	KTGT	LN/MD	FOY	STUDY	BAS
EXP. WALL CLG. HT.	24 11	76 11	21 13	50 11	10 11	180 10
GRS.WALL AREA	264	836	273	560	110	1260
GLAZING	0	0	0	0	0	0
NORTH	21.3	0	8	0	23	14
EAST	21.3	0	0	0	0	0
SOUTH	21.3	0	0	0	0	0
WEST	21.3	0	0	0	0	0
SKYLT.	37.2	103.0	0	0	0	0
DOORS	25.2	5.2	0	0	0	0
NET EXPOSED WALL	4.5	0.9	238	1062	221	20
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7	0	0	0	0
EXPOSED CLG	1.3	0.6	0	0	0	0
EXPOSED FLOOR	2.7	1.4	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0
SUBTOTAL HT LOSS	1615	6253	1769	3627	878	8838
SUB TOTAL HT GAIN	0.30	0.48	0.30	0.48	0.30	0.50
LEVEL FACTOR / MULTIPLIER	769	2978	842	1727	418	11224
AIR CHANGE HEAT LOSS	0	0	0	0	0	0
AIR CHANGE HEAT GAIN	0	0	0	0	0	0
DUCT LOSS	0	0	0	0	0	0
DUCT GAIN	0	0	0	0	0	0
HEAT GAIN PEOPLE	240	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	733	0	0	0	0	0
TOTAL HT LOSS BTU/H	2385	9231	2611	5354	1256	20062
TOTAL HT GAIN x 1.3 BTU/H	2219	10998	1617	3501	1618	1058

TOTAL HEAT GAIN BTU/H: 48685 TONS: 4.06 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 STRUCTURAL HEAT LOSS: 62449 TOTAL COMBINED HEAT LOSS BTU/H: 65630

SITE NAME: PINE VALLEY & TESTON
BUILDER: GOLD PARK HOMESOPT. 5 BEDROOM
TYPE: 4004 THE DALERIDGE

DATE: Jan-18

GFA: 3341

LO# 77460

HEATING CFM 1525 COOLING CFM 1525
TOTAL HEAT LOSS 62,449 TOTAL HEAT GAIN 48,023
AIR FLOW RATE CFM 24.42 AIR FLOW RATE CFM 31.76

EL296UH090XE48C

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

FAN SPEED

DESIGN CFM = 1525
CFM @ 6" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	14	9	6
R/A	0	0	6	3	1

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

All S/A runs 5'0" unless noted otherwise on layout.

ROOM NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	ENS-4/5	ENS-2/3	BED-5	LOFT	MBR	WIC-3	DIN	KT/GT	KT/GT	KT/GT	KT/GT	LN/MD	BED-4	FOY	STUDY	BAS	BAS	BAS	BAS
RM LOSS MBH	1.59	2.05	0.90	1.24	2.32	0.81	0.78	1.16	2.22	1.59	1.17	2.38	2.31	2.31	2.31	2.31	2.61	1.16	2.68	1.30	3.34	3.34	3.34	3.34
CFM PER RUN HEAT	39	50	22	30	57	20	19	28	54	39	28	58	56	56	56	56	64	28	65	32	82	82	82	82
RM GAIN MBH	2.31	1.66	0.40	1.96	3.10	0.24	0.39	2.16	3.02	2.31	1.28	2.22	2.72	2.72	2.72	2.72	1.62	2.16	1.75	1.62	0.18	0.18	0.18	0.18
CFM PER RUN COOLING	73	53	13	62	98	8	12	69	96	73	41	70	87	87	87	87	51	69	56	51	6	6	6	6
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	71	58	51	49	42	40	37	33	44	63	35	18	45	37	39	46	11	55	16	27	36	39	28	21
TOTAL EFFECTIVE LENGTH	271	208	201	229	232	190	257	233	184	273	215	148	185	187	199	196	171	195	156	107	136	129	138	131
ADJUSTED PRESSURE	0.06	0.08	0.09	0.08	0.07	0.09	0.07	0.07	0.09	0.06	0.08	0.12	0.09	0.09	0.08	0.08	0.1	0.09	0.11	0.16	0.12	0.13	0.12	0.12
ROUND DUCT SIZE	6	5	4	5	6	4	4	5	6	6	4	5	5	5	6	6	5	5	4	4	5	5	5	5
HEATING VELOCITY (ft/min)	199	367	252	291	229	218	206	275	199	321	426	411	286	470	206	477	602	602	477	585	44	44	44	44
COOLING VELOCITY (ft/min)	372	389	149	455	500	92	138	507	489	372	470	514	639	639	444	444	374	507	411	310	310	310	310	310
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	A	B	B	D	C	D	C	D	A	D	C	A	A	A	A	C	C	D	C	B	B	B	C

ROOM NAME	25	26	27	28	29
ROOM NAME	BAS	BAS	BED-3	LOFT	FOY
RM LOSS MBH	3.34	3.34	2.32	2.22	2.68
CFM PER RUN HEAT	82	82	57	54	65
RM GAIN MBH	0.18	0.18	3.10	3.02	1.75
CFM PER RUN COOLING	6	6	98	96	56
ADJUSTED PRESSURE	0.16	0.16	0.16	0.16	0.17
EQUIVALENT LENGTH	19	32	48	57	25
TOTAL EFFECTIVE LENGTH	120	120	200	200	120
ADJUSTED PRESSURE	0.12	0.11	0.07	0.06	0.12
ROUND DUCT SIZE	5	5	6	6	5
HEATING VELOCITY (ft/min)	602	602	291	275	477
COOLING VELOCITY (ft/min)	44	44	500	489	411
OUTLET GRILL SIZE	3X10	3X10	4X10	4X10	3X10
TRUNK	C	D	D	D	D

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (fpm)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (fpm)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (fpm)					
TRUNK A	10.2	352	12	8	TRUNK G	0.00	0	0	8	TRUNK O	0.06	0	0	8					
TRUNK B	50.6	20	12	8	TRUNK H	0.00	0	0	8	TRUNK P	0.06	0	0	8					
TRUNK C	104.4	0.06	28	8	TRUNK I	0.00	0	0	8	TRUNK Q	0.06	0	0	8					
TRUNK D	481	0.06	16	8	TRUNK J	0.00	0	0	8	TRUNK R	0.06	0	0	8					
TRUNK E	0	0.00	0	8	TRUNK K	0.00	0	0	8	TRUNK S	0.06	0	0	8					
TRUNK F	0	0.00	0	8	TRUNK L	0.00	0	0	8	TRUNK T	0.06	0	0	8					

TYPE: 4004 THE DALERIDGE
SITE NAME: PINE VALLEY & TESTON

LO # 77460
OPT. 5 BEDROOM

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>5</u> @ 10.6 cfm	<u>53</u> cfm
Other Rooms	<u>6</u> @ 10.6 cfm	<u>63.6</u> cfm
Table 9.32.3.A.	TOTAL	<u>201.4</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>201.4</u>	cfm
Less Principal Ventil. Capacity	<u>155</u>	cfm
Required Supplemental Capacity	<u>46.4</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	$\Delta T \cdot F$	FACTOR	% LOSS
155.0 CFM	X 76 F	X 1.08	X 0.25

SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-2/3	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-4/5	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
PWD	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3

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:	January-18

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																											
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																											
LO#: 77460		Model: 4004 THE DALERIDGE		Builder: GOLD PARK HOMES		Date: 1/23/2018																																																					
Volume Calculation						Air Change & Delta T Data																																																					
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5.2.3.1 Heat Loss due to Air Leakage						6.2.6 Sensible Gain due to Air Leakage																																																					
$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$						$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$																																																					
0.340 x 381.85 x 42 °C x 1.2 = 6579 W						= 0.124 x 381.85 x 9 °C x 1.2 = 499 W																																																					
= 22448 Btu/h						= 1702 Btu/h																																																					
5.2.3.2 Heat Loss due to Mechanical Ventilation						6.2.7 Sensible heat Gain due to Ventilation																																																					
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$						$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																					
155 CFM x 76 °F x 1.08 x 0.25 = 3181 Btu/h						155 CFM x 16 °F x 1.08 x 0.25 = 661 Btu/h																																																					
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																											
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{aglevel} + HL_{bglevel})\}$																																																											
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*HLairbv = Air leakage heat loss + ventilation heat loss
 *For a balanced or supply only ventilation system HLairve = 0

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 4004 THE DALERIDGE	OPT. 5 BEDROOM	BUILDER: GOLD PARK HOMES
SFQT: 3341	LO# 77460	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)	72

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):	48546.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 58.0 ft	WIDTH: 32.0 ft	EXPOSED PERIMETER:	180.0 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	-

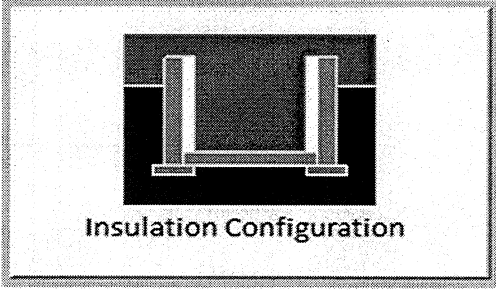
INDIVIDUAL BCIN: 19669

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):	17.7	 Insulation Configuration
Floor Width (m):	9.8	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	
Window Area (m ²):	1.3	
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):	1785	

TYPE: 4004 THE DALERIDGE
LO# 77460

OPT. 5 BEDROOM

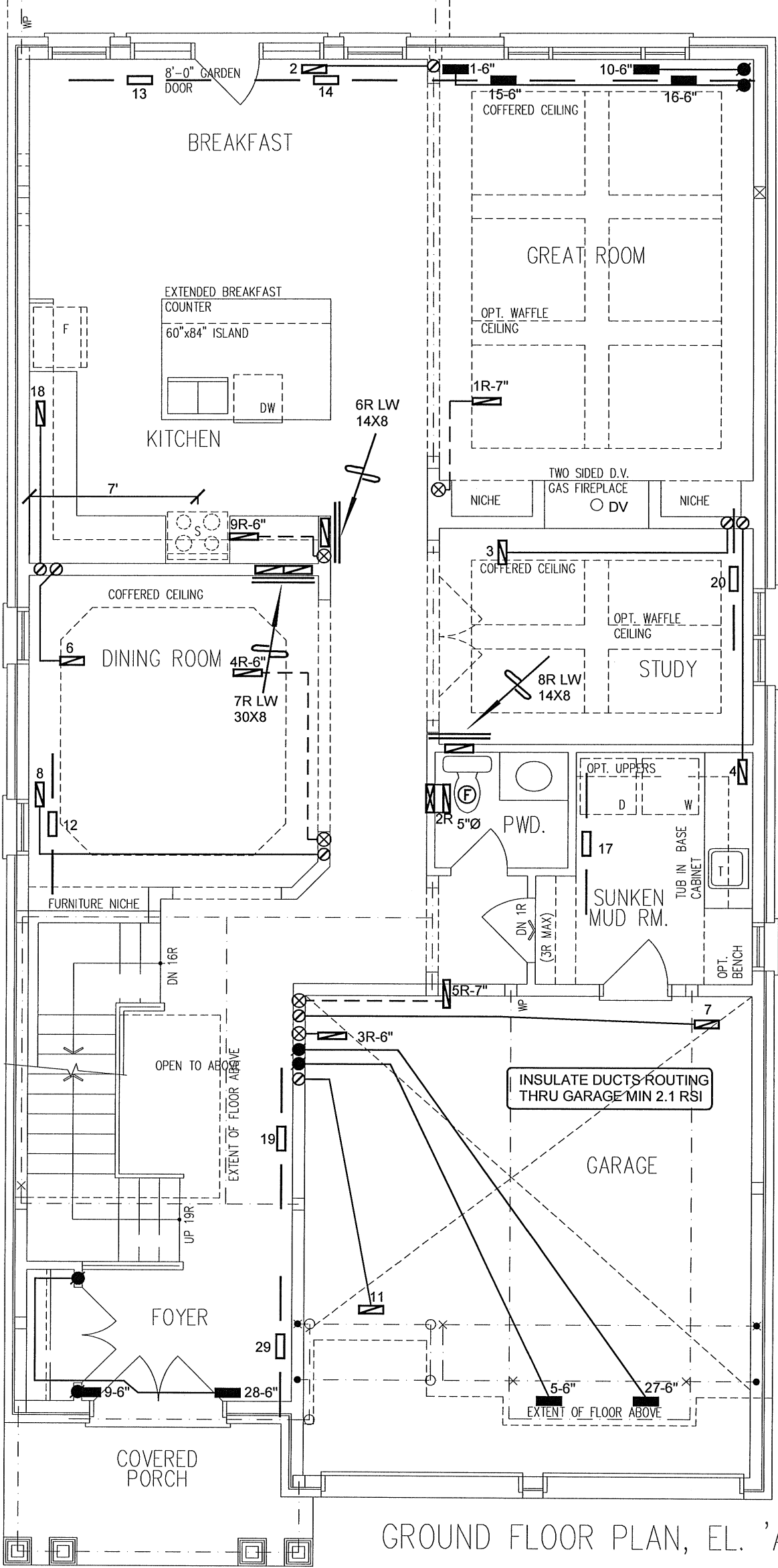
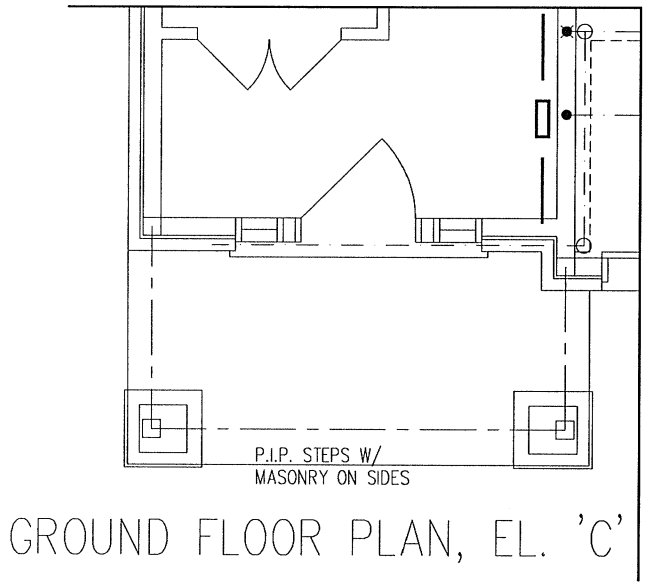
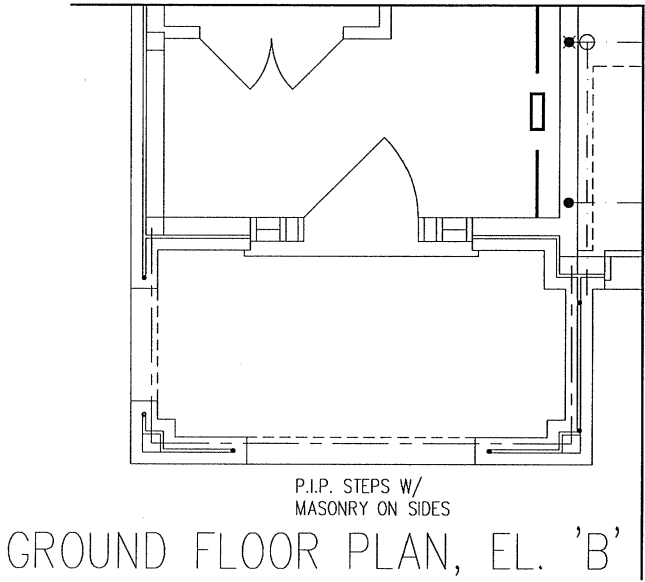
Air Infiltration Residential Load Calculator

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):	7.01			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1374.7			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1832.5 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):	0.340			
Cooling Air Leakage Rate (ACH/H):	0.124			

TYPE: 4004 THE DALERIDGE
LO# 77460

OPT. 5 BEDROOM



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.

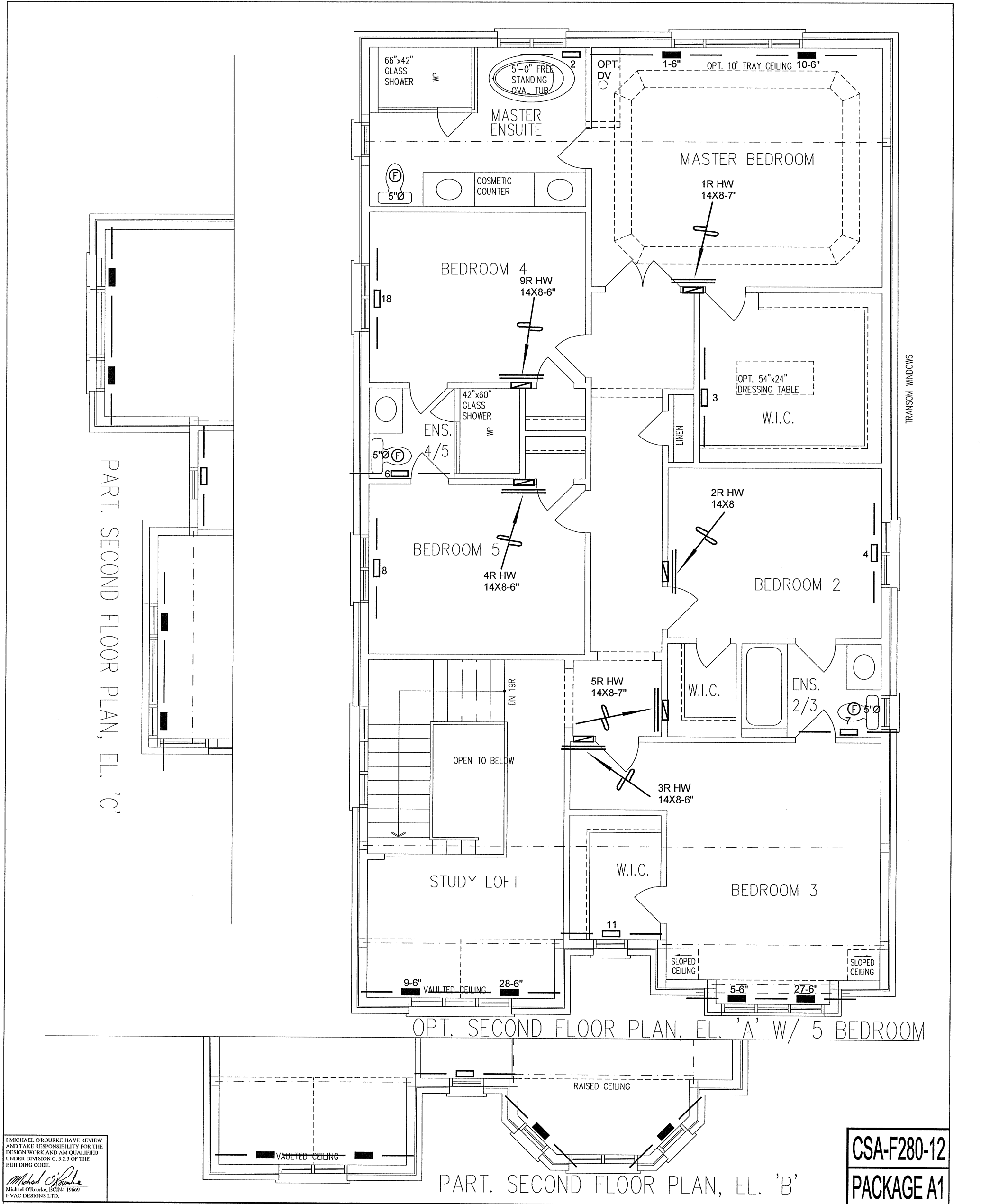
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	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	

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Client		<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>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	JAN/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
THE DALERIDGE			BCIN# 19669	
OPT. 5 BEDROOM			LO#	77460
4004	3341 sqft			



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Michael O'Rourke

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

CSA-F280-12

PACKAGE A1

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