


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@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]			
<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: 4201- THE MAPLEWOOD 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.			
October 5, 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
TYPE: 4201- THE MAPLEWOOD
DATE: Oct-18
LO# 77464
WINTER NATURAL AIR CHANGE RATE 0.335
SUMMER NATURAL AIR CHANGE RATE 0.122
HEAT LOSS AT °F. 76
HEAT GAIN AT °F. 16
CSA-F280-12
SB-12 PACKAGE A1

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	LOSS	GAIN	ENS	MBR	20	11	24	11	BED-2	BED-3	BED-4	L-BATH	WINTER NATURAL AIR CHANGE RATE	SUMMER NATURAL AIR CHANGE RATE	HEAT LOSS AT °F.	HEAT GAIN AT °F.
GRS.WALL AREA	432			LOSS	GAIN	220	432			24	11	264	261	316	136				
GLAZING																			
NORTH	21.3	16.8		0	0	0	0	0	0	0	0	0	0	0	0				
EAST	21.3	42.4		0	0	0	0	0	0	0	0	0	0	0	0				
SOUTH	21.3	25.7		37	787	982	0	0	0	0	0	0	0	0	0				
WEST	21.3	42.4		0	0	0	0	27	575	1145	0	20	426	848	19	404	805	0	0
SKYL.T.	37.2	103.0		0	0	0	0	0	0	0	0	0	0	0	0				
DOORS	25.2	5.2		0	0	0	0	0	0	0	0	0	0	0	0				
NET EXPOSED WALL	4.5	0.9		386	1763	366	193	861	179	244	1089	226	242	1080	225	274	1223	264	136
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7		0	0	0	0	0	0	0	0	0	0	0	0				
EXPOSED CLG	1.3	0.6		0	0	0	0	0	0	0	0	0	0	0	0				
NO ATTIC EXPOSED CLG	2.7	1.4		0	0	0	0	0	0	0	0	0	0	0	0				
BASEMENT/CRAWL HEAT LOSS	2.8	0.5		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				
SUBTOTAL HT LOSS				2650															
SUB TOTAL HT GAIN				1319		1436						1516	1733	3222	1287				
LEVEL FACTOR / MULTIPLIER	0.30	0.35		0.30	0.35	0.30	0.30	0.35	0.30	0.30	0.35	0.20	0.84	0.20	0.84				
AIR CHANGE HEAT LOSS	851			502		502						1463	166	2701	186				
AIR CHANGE HEAT GAIN	190			0		0						0	0	592	0				
DUCT LOSS				0		0						0	0	265	0				
DUCT GAIN				0		0						0	0	240	0				
HEAT GAIN PEOPLE	240			480		0						1	240	1	240	0			
HEAT GAIN APPLIANCES/LIGHTS				938		0						938	938	938	938				
TOTAL HT LOSS BTU/H				3441		1638						2044	3186	6516	1261				
TOTAL HT GAIN x 1.3 BTU/H				3805		1989						3129	3248	3791	248				

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	LOSS	GAIN	K/GID	PWD	FOY	MUD	LOD	BAS
GRS.WALL AREA	432			LOSS	GAIN	62	110	473	77	430	1773
GLAZING											
NORTH	21.3	16.8		0	0	0	0	0	0	0	0
EAST	21.3	42.4		92	1958	3300	7	149	297	0	0
SOUTH	21.3	25.7		70	1450	1802	0	0	0	0	0
WEST	21.3	42.4		0	0	0	0	0	0	0	0
SKYL.T.	37.2	103.0		0	0	0	0	0	0	0	0
DOORS	25.2	5.2		0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5	0.9		20	805	105	0	0	0	0	0
NET EXPOSED BSMT WALL ABOVE GR	3.6	0.7		0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6		0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.7	1.4		0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	2.8	0.5		0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS				0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS				1058	4722	982	103	460	96	416	1856
SUB TOTAL HT GAIN				0	0	0	0	0	0	0	0
LEVEL FACTOR / MULTIPLIER	0.30	0.35		0.30	0.35	0.30	0.30	0.35	0.30	0.35	0.30
AIR CHANGE HEAT LOSS	3448			213		213	0.30	392	168	1318	629
AIR CHANGE HEAT GAIN	1064			0		0	0	0	0	0	0
DUCT LOSS				0		0	0	0	0	0	0
DUCT GAIN				0		0	0	0	0	0	0
HEAT GAIN PEOPLE	240			480		0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS				938		0	0	0	0	0	0
TOTAL HT LOSS BTU/H				13316		12200	821	4811	1025	1724	19802
TOTAL HT GAIN x 1.3 BTU/H							584	3248	1454	1713	2402

TOTAL HEAT GAIN BTU/H: 36423 TONS: 3.04 LOSS DUE TO VENTILATION LOAD BTU/H: 3161 STRUCTURAL HEAT LOSS: 9886 TOTAL COMBINED HEAT LOSS BTU/H: 63066

Michael O'Rourke

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

TYPE: 4201- THE MAPLEWOOD

DATE: Oct-18

GFA: 2840 LO# 77464

HEATING CFM 1100 COOLING CFM 1100
TOTAL HEAT LOSS 59,885 TOTAL HEAT GAIN 35,761
AIR FLOW RATE CFM 18.37 AIR FLOW RATE CFM 30.76furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35plenum pressure s/a 0.18
max s/a diff press. loss 0.02
min adjusted pressure s/a 0.16EL206UH070XE36B
FAN SPEED
LOW 0
MEDIUM 985
HIGH 1100AFUE = 96 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = 64,000DESIGN CFM = 1100
CFM @ 6" E.S.P.

TEMPERATURE RISE 54 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	4	12	5
R/A	0	0	2	3	1

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

All S/A runs 5'x2' unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	10	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME	MBR	ENS	ENS	BED-2	BED-3	BED-4	L-BATH	BED-4	MBR	K/G/D	K/G/D	K/G/D	K/G/D	PWD	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.72	0.97	0.97	2.04	3.19	3.26	1.26	3.26	1.72	3.33	3.33	3.33	3.33	0.82	4.81	1.02	4.31	4.31	4.31	4.31
CFM PER RUN HEAT	32	18	18	38	59	60	23	60	32	61	61	61	61	15	88	19	79	79	79	79
RM GAIN MBH	1.90	0.98	0.98	3.13	3.25	1.90	0.25	1.90	1.90	3.05	3.05	3.05	3.05	0.58	1.22	1.45	0.82	0.82	0.82	0.82
CFM PER RUN COOLING	59	30	30	96	100	58	8	58	59	94	94	94	94	18	37	45	25	25	25	25
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.17	0.16	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH	56	19	18	10	50	46	21	49	51	62	55	60	26	28	33	12	49	50	12	47
EQUIVALENT LENGTH	120	120	130	180	160	140	140	150	110	170	150	120	140	130	90	140	120	110	130	130
TOTAL EFFECTIVE LENGTH	176	139	148	190	210	186	161	199	161	232	205	180	166	158	123	152	169	160	142	177
ADJUSTED PRESSURE	0.1	0.12	0.12	0.09	0.08	0.09	0.11	0.09	0.11	0.07	0.08	0.09	0.1	0.11	0.11	0.13	0.11	0.11	0.12	0.1
ROUND DUCT SIZE	5	4	4	6	6	5	4	5	4	6	6	6	5	4	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	235	207	207	194	301	441	264	441	367	311	311	311	448	172	646	218	580	580	580	580
COOLING VELOCITY (ft/min)	433	344	344	489	510	426	92	426	677	479	479	479	690	207	272	516	184	184	184	184
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	B	E	E	C	C	D	C	A	A	A	B	D	C	C	D	A	B	D	C

RUN #	25
ROOM NAME	BAS
RM LOSS MBH	4.31
CFM PER RUN HEAT	79
RM GAIN MBH	0.82
CFM PER RUN COOLING	25
ADJUSTED PRESSURE	0.17
ACTUAL DUCT LGH	33
EQUIVALENT LENGTH	140
TOTAL EFFECTIVE LENGTH	173
ADJUSTED PRESSURE	0.1
ROUND DUCT SIZE	5
HEATING VELOCITY (ft/min)	580
COOLING VELOCITY (ft/min)	184
OUTLET GRILL SIZE	3X10
TRUNK	B

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE										VELOCITY (ft/min)	
TRUNK	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	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)				
TRUNK A	0.07	8.8	10	8	0	0.00	0	0	8	0	0.05	0	0	0	0	0	8				
TRUNK B	0.07	11.2	14	8	0	0.00	0	0	8	0	0.05	0	0	0	0	0	8				
TRUNK C	0.08	9.6	10	8	0	0.00	0	0	8	0	0.05	0	0	0	0	0	8				
TRUNK D	0.08	11.2	14	8	0	0.00	0	0	8	0	0.05	0	0	0	0	0	8				
TRUNK E	0.07	15	26	8	0	0.00	0	0	8	0	0.05	0	0	0	0	0	8				
TRUNK F	0.00	0	0	8	0	0.00	0	0	8	0	0.05	0	0	0	0	0	8				
										TRUNK O	0	0.05	0	0	0	0	8				
										TRUNK P	0	0.05	0	0	0	0	8				
										TRUNK Q	0	0.05	0	0	0	0	8				
										TRUNK R	0	0.05	0	0	0	0	8				
										TRUNK S	0	0.05	0	0	0	0	8				
										TRUNK T	0	0.05	0	0	0	0	8				
										TRUNK U	0	0.05	0	0	0	0	8				
										TRUNK V	0	0.05	0	0	0	0	8				
										TRUNK W	0	0.05	0	0	0	0	8				
										TRUNK X	1100	0.05	16.3	30	30	8					
										TRUNK Y	525	0.05	12.4	18	18	8					
										TRUNK Z	400	0.05	11.2	14	14	8					
										DROP	1100	0.05	16.3	24	24	10					
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TYPE: 4201- THE MAPLEWOOD
SITE NAME: PINE VALLEY & TESTON

LO # 77464

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>3</u> @ 10.6 cfm	<u>31.8</u> cfm
Kitchen & Bathrooms	<u>5</u> @ 10.6 cfm	<u>53</u> cfm
Other Rooms	<u>3</u> @ 10.6 cfm	<u>31.8</u> cfm
Table 9.32.3.A.	TOTAL	<u>159.0</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>79.5</u> cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>159</u>	cfm
Less Principal Ventil. Capacity	<u>155</u>	cfm
Required Supplemental Capacity	<u>4.0</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	HVI	Sones
Location	Model	cfm		
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
L-BATH	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
LAUN	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:	October-18

CSA F280-12 Residential Heat Loss and Heat Gain Calculations									
Formula Sheet (For Air Leakage / Ventilation Calculation)									
LO#: 77464		Model: 4201- THE MAPLEWOOD		Builder: GOLD PARK HOMES		Date: 10/5/2018			
Volume Calculation									
House Volume									
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)						
Bsmt	1791	10	17910						
First	1791	11	19701						
Second	1589	9	14301						
Third	0	9	0						
Fourth	0	9	0						
Total:		51,912.0 ft³							
Total:		1470.0 m³							
Air Change & Delta T Data									
		WINTER NATURAL AIR CHANGE RATE		0.335					
		SUMMER NATURAL AIR CHANGE RATE		0.122					
Design Temperature Difference									
		Tin °C	Tout °C	ΔT °C		ΔT °F			
Winter DTDh		22	-20	42		76			
Summer DTDc		22	31	9		16			
6.2.6 Sensible Gain due to Air Leakage									
$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$									
0.335	x	408.33	x	9 °C	x	1.2	=	525 W	
								=	1793 Btu/h
6.2.7 Sensible heat Gain due to Ventilation									
$HL_{vaib} = PVC \times DTD_h \times 1.08 \times (1 - E)$									
155 CFM	x	76 °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)									
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{ugcr} + HL_{bgcr}) \div (HL_{ugclevel} + HL_{bgclevel})\}$									
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	23,646	9,704	1.218					
2	0.3		20,302	0.349					
3	0.2		5,642	0.838					
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**MODEL:** 4201- THE MAPLEWOOD**BUILDER:** GOLD PARK HOMES**SFQT:** 2640**LO#** 77464**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:	NORTH	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):	51912.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.5 ft
LENGTH: 68.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	202.0 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	-

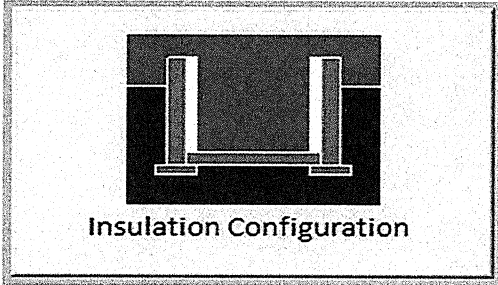
INDIVIDUAL BCIN: 19669

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):	20.7	 Insulation Configuration
Floor Width (m):	10.1	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.29	
Window Area (m ²):	4.9	
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):		1880

TYPE: 4201- THE MAPLEWOOD
LO# 77464

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):	6.86			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1470.0			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1959.5 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):	0.335			
Cooling Air Leakage Rate (ACH/H):	0.122			

TYPE: 4201- THE MAPLEWOOD
LO# 77464

WOD

LOD

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

The diagram illustrates a deck layout with a dashed line indicating the 'LINE OF DECK ABOVE'. It shows the relationship between the deck's structural components, including joists and beams, and the overall layout. The deck is shown as a series of connected sections, with the upper section being a larger area and the lower section being a smaller, more complex shape. The diagram uses solid lines for the deck's edge and dashed lines for the structural layout and the line of the deck above.

This detailed basement plan illustrates the mechanical system layout for elevations 'A' and 'B'. The plan includes several key components:

- Pipes and Valves:** Labeled pipes include A-10X8, B-14X8, Y-18X8, D-14X8, C-10X8, Z-14X8, and X-30X8 (24X10). Various valves are indicated by symbols such as 1R, 2R, 3R, 4R, 5R, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
- Equipment:** Includes a Horizontal Water Tank (HWT), a BR/FLC 5X10 CMV DAMPER, and an HRV/VentEE 65 H.
- Structural Features:** Areas labeled UNEXCAVATED and UNFINISHED BASEMENT are shown with dashed lines.
- Other Details:** The plan also shows a FIN. FOYER, a COLD CELLAR, and a UP GR. area.

The title at the bottom right reads: **BASMENT PLAN EL. 'A' & 'B'**

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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>	HEAT LOSS 63066 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			<div>BASEMENT HEATING LAYOUT</div> <div>Date JAN/2018</div> <div>Scale 1/8" = 1'-0"</div> <div>BCIN# 19669</div> <div>LO# 77464</div>
GOLD PARK HOMES		MAKE LENNOX	3RD FLOOR				
Project Name		MODEL EL296UH070XE36B	2ND FLOOR	4	2	1	
PINE VALLEY & TESTON VAUGHAN, ONTARIO		INPUT 66 MBTU/H	1ST FLOOR	12	3	6	
		OUTPUT 64 MBTU/H	BASEMENT	5	1	0	
THE MAPLEWOOD 4201	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.	COOLING 3.0 TONS	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				
2640 sqft		FAN SPEED 1100 cfm @ 0.6" w.c.					


WOD

LOD

Michael O'Rourke, BCIN# 19669
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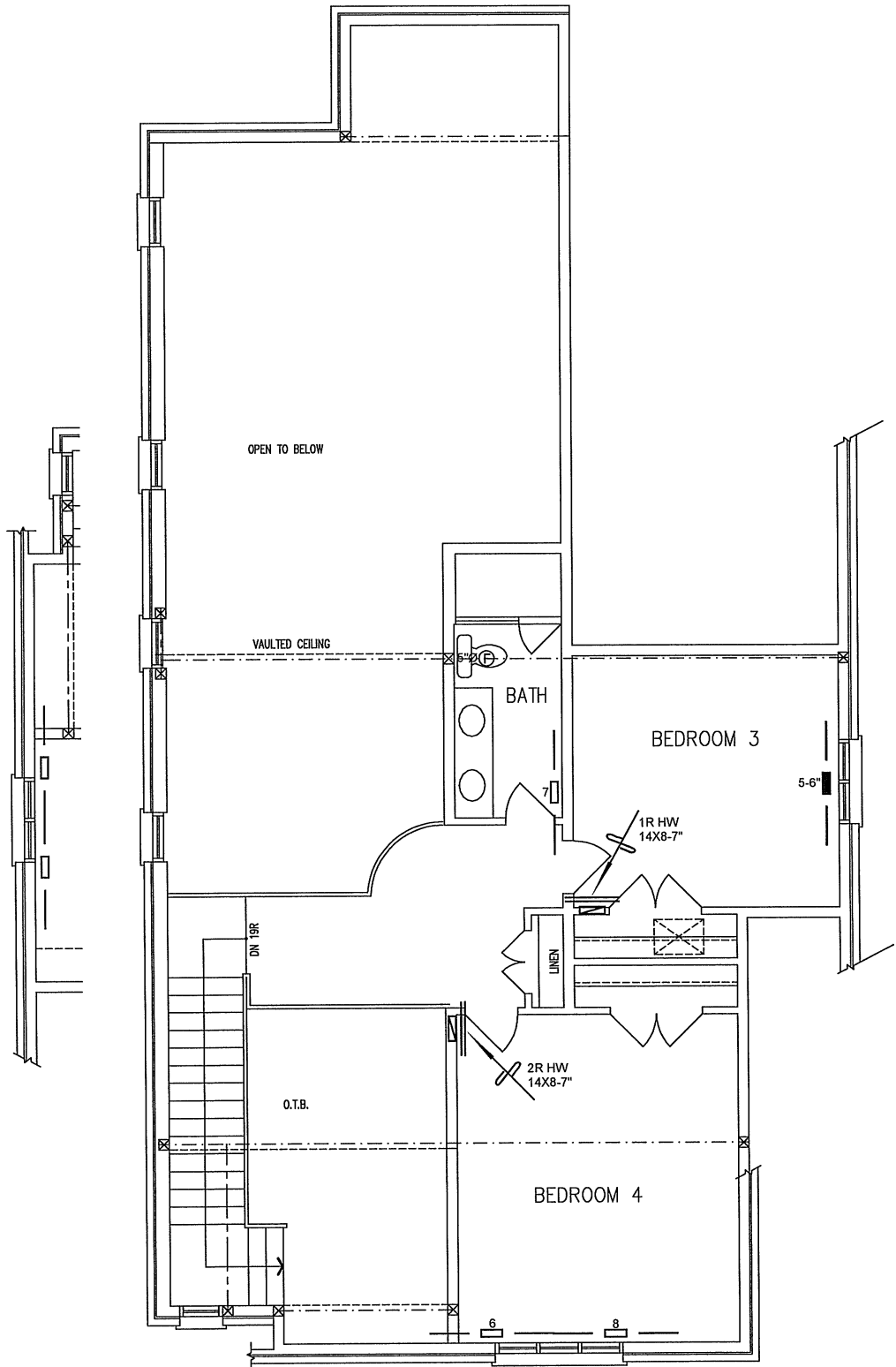
Client GOLD PARK HOMES		 <p>375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</p>	Sheet Title FIRST HEATING LAYOUT
Project Name PINE VALLEY & TESTON VAUGHAN, ONTARIO			Date JAN/2018
THE MAPLEWOOD 4201 2640 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.	Scale 1/8" = 1'-0"
			BCIN# 19669 LO# 77464

WOD

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

PART LOFT FLOOR PLAN EL. 'B'



LOFT FLOOR PLAN EL. 'A'

Client	GOLD PARK HOMES		
Project Name	PINE VALLEY & TESTON VAUGHAN, ONTARIO		
	THE MAPLEWOOD	4201	2640 sqft

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L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
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Specializing in Residential Mechanical Design Services

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LO#	77464
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