

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]					
☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ 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: 5002 - THE ROSEVIEW OPT 5-BED Project: PINE VALLEY & TESTON		
D. Declaration of Designer					
I <u>MICHAEL O'ROURKE</u> declare that (choose one as appropriate): (print name)					
☐ 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: _____					
☒ 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>					
☐ 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 24, 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.

PROJECT: PINE VALLEY & TESTON BUILDERS: GOLD PARK HOMES TYPE: 5002 - THE ROSEVIEW GFA: 3764 DATE: Jan-18 LO# 77474 WINTER NATURAL AIR CHANGE RATE 0.330 SUMMER NATURAL AIR CHANGE RATE 0.117 HEAT LOSS AT °F. 76 HEAT GAIN AT °F. 15 CSA-F280-12 SB-12 PACKAGE A1

ROOM USE	EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	ENS-3	BED-5	ENS-4	LAUN
GRS WALL AREA	LOSS GAIN	440	243	72	308	288	144	153	99	45	0
GLAZING	LOSS GAIN	18	383	298	0	0	0	0	18	383	298
NORTH	21.3 16.5	0	0	0	0	0	0	0	0	0	0
EAST	21.3 42.1	0	0	0	0	0	0	0	0	0	0
SOUTH	21.3 26.5	0	0	0	0	0	0	0	0	0	0
WEST	21.3 42.1	40	851	1884	0	0	0	0	0	0	0
SKYL.T.	37.2 102.5	0	0	0	0	0	0	0	0	0	0
DOORS	25.2 4.9	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5 0.9	382	1705	332	200	893	174	72	321	63	247
NET EXPOSED BSMT WALL ABOVE GR	3.6 0.7	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3 0.6	323	415	201	176	226	109	160	205	99	285
NO ATTIC EXPOSED FLOOR	2.7 1.3	0	0	0	0	0	0	0	0	0	0
EXPOSED CRAWL HEAT LOSS	2.6 0.5	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
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	3354	2815	2033	527	3443	2955	1496	1119	999	438	128
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 / MULTPLIER	391	216	168	140	915	785	398	297	265	116	34
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	480	0	0	1	240	1	0	1	0	0
HEAT GAIN APPLIANCES/LIGHTS	463	463	463	463	463	463	463	463	463	463	463
TOTAL HT LOSS BTU/H	4245	2574	3358	667	4793	4114	1894	1558	1264	554	178
TOTAL HT GAIN x 1.3 BTU/H	4774	229	229	229	5687	5297	2369	1088	1606	403	735

ROOM USE	EXP. WALL CLG. HT.	LIBR	DIN	KIT	LIV	BATH	FOY	MUD	BAS
GRS WALL AREA	LOSS GAIN	370	290	630	120	72	310	324	1176
GLAZING	LOSS GAIN	0	0	0	0	0	0	0	4
NORTH	21.3 16.5	0	0	0	0	0	0	0	86
EAST	21.3 42.1	48	1021	2021	0	0	0	0	0
SOUTH	21.3 25.5	12	255	306	0	0	0	0	0
WEST	21.3 42.1	0	0	0	0	0	0	0	8
SKYL.T.	37.2 102.5	0	0	0	0	0	0	0	86
DOORS	25.2 4.9	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.5 0.9	310	1383	269	428	83	72	321	20
NET EXPOSED BSMT WALL ABOVE GR	3.6 0.7	0	0	0	0	0	0	0	505
EXPOSED CLG	1.3 0.6	0	0	0	0	0	0	0	98
NO ATTIC EXPOSED FLOOR	2.7 1.3	0	0	0	0	0	0	0	0
EXPOSED CRAWL HEAT LOSS	2.6 0.5	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2560	2696	2202	4527	939	685	2589	1862	9710
SUB TOTAL HT GAIN	0.30	0.46	0.30	0.46	0.30	0.27	0.30	0.46	0.50
LEVEL FACTOR / MULTPLIER	1232	1232	1020	2087	435	182	1199	862	11410
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0
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	480	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	463	463	463	463	463	463	463	463	463
TOTAL HT LOSS BTU/H	3892	4265	3222	6824	1374	953	3788	2724	21119
TOTAL HT GAIN x 1.3 BTU/H	4987	4987	4100	7310	1581	290	1313	1113	1940

TOTAL HEAT GAIN BTU/H: 4987 TONS: 4.09 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 STRUCTURAL HEAT LOSS: 65538 TOTAL COMBINED HEAT LOSS BTU/H: 68719

Michael O'Rourke

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

OPT 5-BED

TYPE: 5002 - THE ROSEVIEW

DATE: Jan-18

GFA: 3764 LO# 77474

HEATING CFM	1525	COOLING CFM	1525		
TOTAL HEAT LOSS	65,538	TOTAL HEAT GAIN	48,467		
AIR FLOW RATE CFM	23.27	AIR FLOW RATE CFM	31.46		
RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	0	16	10
R/A	0	0	0	5	3
					1

EL296UH090XE48C	AFUE = 96 %
FAN SPEED	INPUT (BTU/H) = 88,000
LOW	OUTPUT (BTU/H) = 85,000
MEDLOW	DESIGN CFM = 1525
MEDIUM	CFM @ .5" E.S.P.
MEDIUM HIGH	1105
HIGH	1255
TEMPERATURE RISE	52 °F

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

All S/A runs 5"Ø 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
RM LOSS MBH	2.12	1.29	1.29	2.40	2.06	1.89	1.56	2.40	2.06	2.12	0.67	1.95	1.61	2.21	2.21	2.21	1.37	1.26	3.79	2.72	4.22	4.22	4.22	4.22
CFM PER RUN HEAT	49	30	30	56	48	44	36	56	48	49	16	45	37	51	51	51	32	29	88	63	98	98	98	98
RM GAIN MBH	2.39	1.68	1.68	2.84	3.15	2.37	1.09	2.84	3.15	2.39	0.23	2.13	2.05	2.44	2.44	2.44	1.58	1.61	0.40	1.11	0.39	0.39	0.39	0.39
CFM PER RUN COOLING	75	53	53	89	99	75	34	89	99	75	7	67	64	77	77	77	50	51	13	35	12	12	12	12
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.16	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	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	200	205	195	130	170	140	220	140	205	190	150	110	110	110	150	110	110	120	190	130	120	160	100	180
TOTAL EFFECTIVE LENGTH	248	267	246	176	242	185	279	183	271	232	179	165	154	138	173	155	142	237	234	146	153	181	119	227
ADJUSTED PRESSURE	0.07	0.06	0.07	0.09	0.07	0.09	0.06	0.09	0.06	0.07	0.1	0.1	0.11	0.12	0.1	0.11	0.11	0.12	0.07	0.12	0.11	0.09	0.14	0.07
ROUND DUCT SIZE	5	5	5	6	6	5	4	6	6	5	4	5	5	5	5	4	4	4	4	4	5	6	5	6
HEATING VELOCITY (ft/min)	360	220	220	286	245	323	413	286	245	360	184	330	272	374	374	367	367	333	149	449	723	500	720	500
COOLING VELOCITY (ft/min)	551	389	389	454	505	551	390	454	505	551	80	492	470	565	565	574	574	585	149	209	402	88	61	88
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	4X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	4X10
TRUNK	D	A	A	D	B	A	B	D	B	D	C	B	A	C	D	A	A	D	A	C	A	D	C	B

ROOM NAME	25	26	27	28	29	30	31
RM LOSS MBH	4.22	1.95	1.61	2.21	0.48	0.18	0.48
CFM PER RUN HEAT	98	45	37	51	11	4	11
RM GAIN MBH	0.39	2.13	2.05	2.44	0.14	0.73	0.14
CFM PER RUN COOLING	12	67	64	77	5	23	5
ADJUSTED PRESSURE	0.16	0.17	0.17	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	110	120	130	90	170	145	160
TOTAL EFFECTIVE LENGTH	165	176	166	115	211	176	200
ADJUSTED PRESSURE	0.1	0.1	0.1	0.15	0.08	0.1	0.09
ROUND DUCT SIZE	6	5	5	5	4	4	4
HEATING VELOCITY (ft/min)	500	330	272	374	126	46	126
COOLING VELOCITY (ft/min)	61	492	470	565	57	264	57
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	B	B	A	C	D	C	D

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK		STATIC PRESS.		ROUND DUCT		RECT DUCT		VELOCITY (ft/min)		TRUNK CFM		STATIC PRESS.		ROUND DUCT		RECT DUCT		VELOCITY (ft/min)	
TRUNK A	321	9.8	0.06	12	8	482	0	0.00	0	0	TRUNK O	0	0.06	0	0	0	0	8	0
TRUNK B	506	0.06	11.7	16	8	569	0	0.00	0	0	TRUNK H	0	0.00	0	0	0	0	8	0
TRUNK C	1110	0.06	15.7	28	8	714	0	0.00	0	0	TRUNK I	0	0.00	0	0	0	0	8	0
TRUNK D	410	0.07	10.4	12	8	615	0	0.00	0	0	TRUNK J	0	0.00	0	0	0	0	8	0
TRUNK E	0	0.00	0	0	8	0	0	0.00	0	0	TRUNK K	0	0.00	0	0	0	0	8	0
TRUNK F	0	0.00	0	0	8	0	0	0.00	0	0	TRUNK L	0	0.00	0	0	0	0	8	0

RETURN AIR #	1	2	3	4	5	6	7	8
AIR VOLUME	130	130	130	130	155	365	85	220
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH.	59	59	53	66	35	33	54	14
EQUIVALENT LENGTH	175	165	165	195	195	195	185	135
TOTAL EFFECTIVE LH	234	224	218	261	230	228	239	149
ADJUSTED PRESSURE	0.06	0.07	0.07	0.06	0.06	0.06	0.06	0.10
ROUND DUCT SIZE	7	6.8	6.8	7	7.5	10.3	6	7.5
INLET GRILL SIZE	8	8	8	8	8	8	8	8
	X	X	X	X	X	X	X	X
	14	14	14	14	14	30	14	14

TYPE: 5002 - THE ROSEVIEW
SITE NAME: PINE VALLEY & TESTON

LO # 77474
OPT 5-BED

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES		9.32.3.1(1)
a) ☒	Direct vent (sealed combustion) only	
b) ☐	Positive venting induced draft (except fireplaces)	
c) ☐	Natural draft, B-vent or induced draft gas fireplace	
d) ☐	Solid Fuel (including fireplaces)	
e) ☐	No Combustion Appliances	

HEATING SYSTEM	
☒	Forced Air
☐	Non Forced Air
☐	Electric Space Heat

HOUSE TYPE		9.32.1(2)
☒	I Type a) or b) appliance only, no solid fuel	
☐	II Type I except with solid fuel (including fireplaces)	
☐	III Any Type c) appliance	
☐	IV Type I, or II with electric space heat	
☐	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
☐	1 Exhaust only/Forced Air System	
☐	2 HRV with Ducting/Forced Air System	
☒	3 HRV Simplified/connected to forced air system	
☐	4 HRV with Ducting/non forced air system	
☐	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>7</u> @ 10.6 cfm	<u>74.2</u> cfm
Table 9.32.3.A.	TOTAL	<u>222.6</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	95.4	cfm

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

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE 65H
Location:	BSMT
<u>155.0</u> cfm	<u>3.0</u> sones
☒	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	☒
ENS-3	QTXEN050C	50	☒
BATH	QTXEN050C	50	☒
ENS-4	QTXEN050C	50	☒

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	☒	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#: 77474	Model: 5002 - THE ROSEVIEW	Builder: GOLD PARK HOMES	Date: 2018-01-24																																																																								
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6.2.6 Sensible Gain due to Air Leakage																																																																											
$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$																																																																											
0.330	x	400.18	x	8 °C	x	1.2	=	463 W																																																																			
							=	1578 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	=	619 Btu/h																																																																			
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																																											
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{aqcr} + HL_{bger}) \div (HL_{agcleve} + HL_{bgcleve})\}$																																																																											
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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: 5002 - THE ROSEVIEW	OPT 5-BED	BUILDER: GOLD PARK HOMES
SFQT: 3764	LO# 77474	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)	73

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):	50876.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 56.0 ft	WIDTH: 42.0 ft	EXPOSED PERIMETER:	196.0 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	-

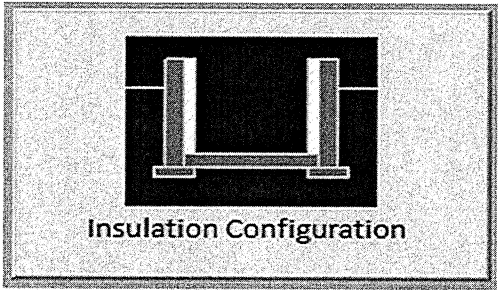
INDIVIDUAL BCIN: 19669

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):	17.1	 Insulation Configuration
Floor Width (m):	12.8	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	1.5	
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):		1977

TYPE: 5002 - THE ROSEVIEW
LO# 77474

OPT 5-BED

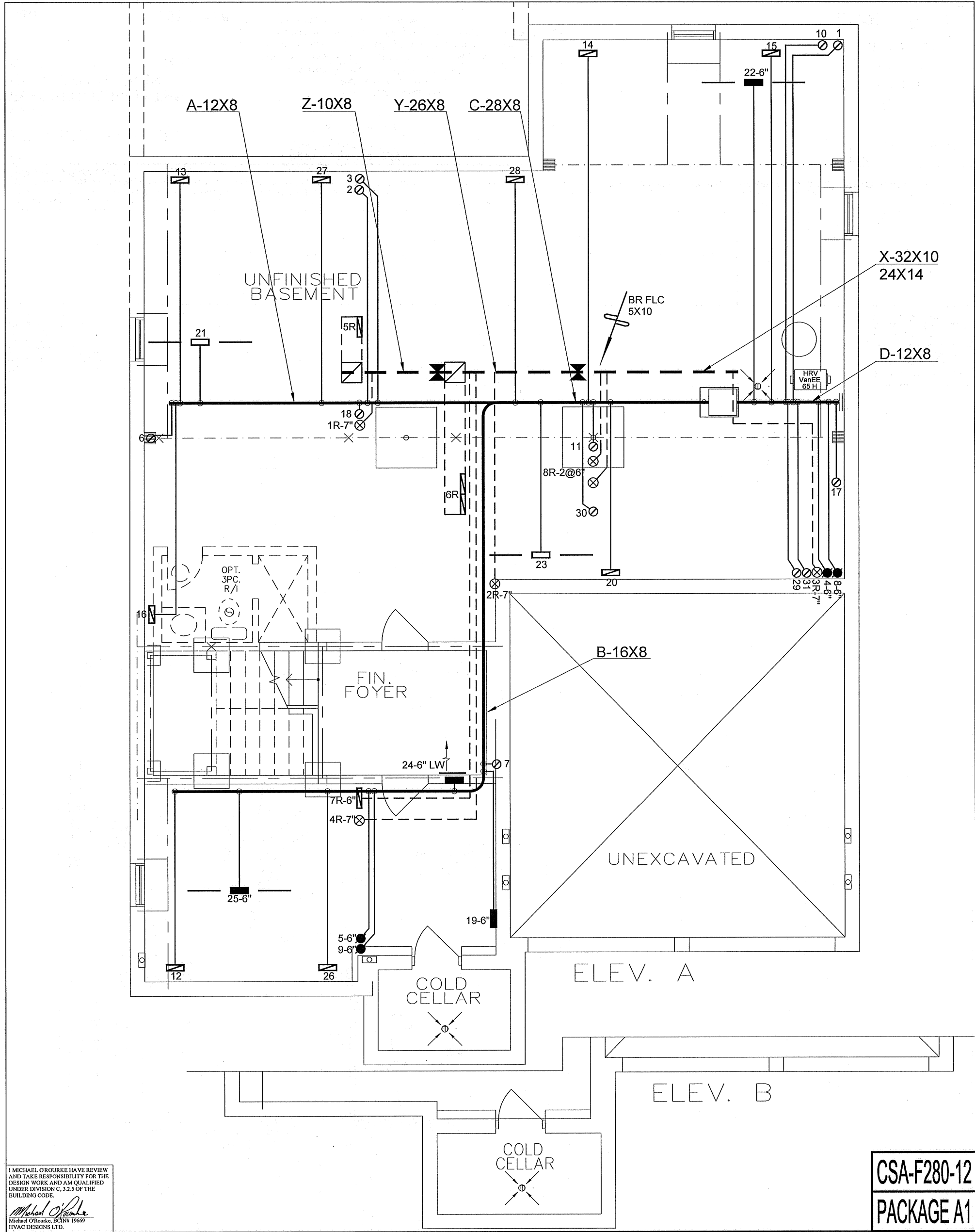
Air Infiltration Residential Load Calculator

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):	6.71			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1440.6			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1920.4 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):	0.330			
Cooling Air Leakage Rate (ACH/H):	0.117			

TYPE: 5002 - THE ROSEVIEW
LO# 77474

OPT 5-BED



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.

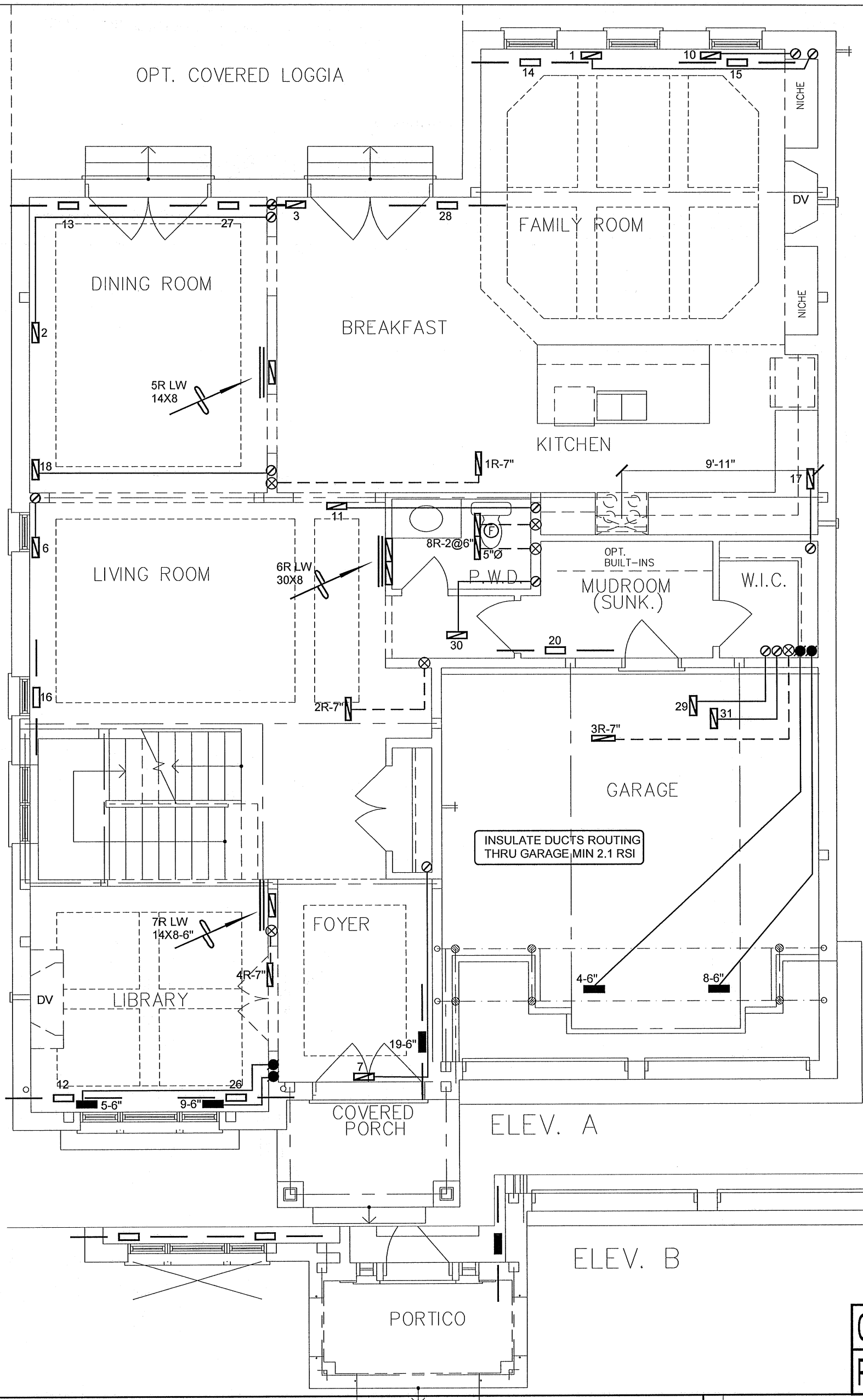
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

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	

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	 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	HEAT LOSS 68719 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title		
GOLD PARK HOMES		MAKE LENNOX		3RD FLOOR				BASEMENT HEATING LAYOUT	
Project Name PINE VALLEY & TESTON VAUGHAN, ONTARIO		MODEL EL296UH090XE48C		2ND FLOOR	16	5	6		
		INPUT		1ST FLOOR	10	3	2		
		88 MBTU/H		BASEMENT	5	1	0		
OPT 5-BED 5002 - ROSEVIEW 3764 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.	OUTPUT		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	JAN/2018	
		85 MBTU/H					Scale	3/16" = 1'-0"	
		COOLING	TONS				BCIN# 19669		
		4.0					LO#	77474	
		FAN SPEED	1525	cfm @ 0.6" w.c.					



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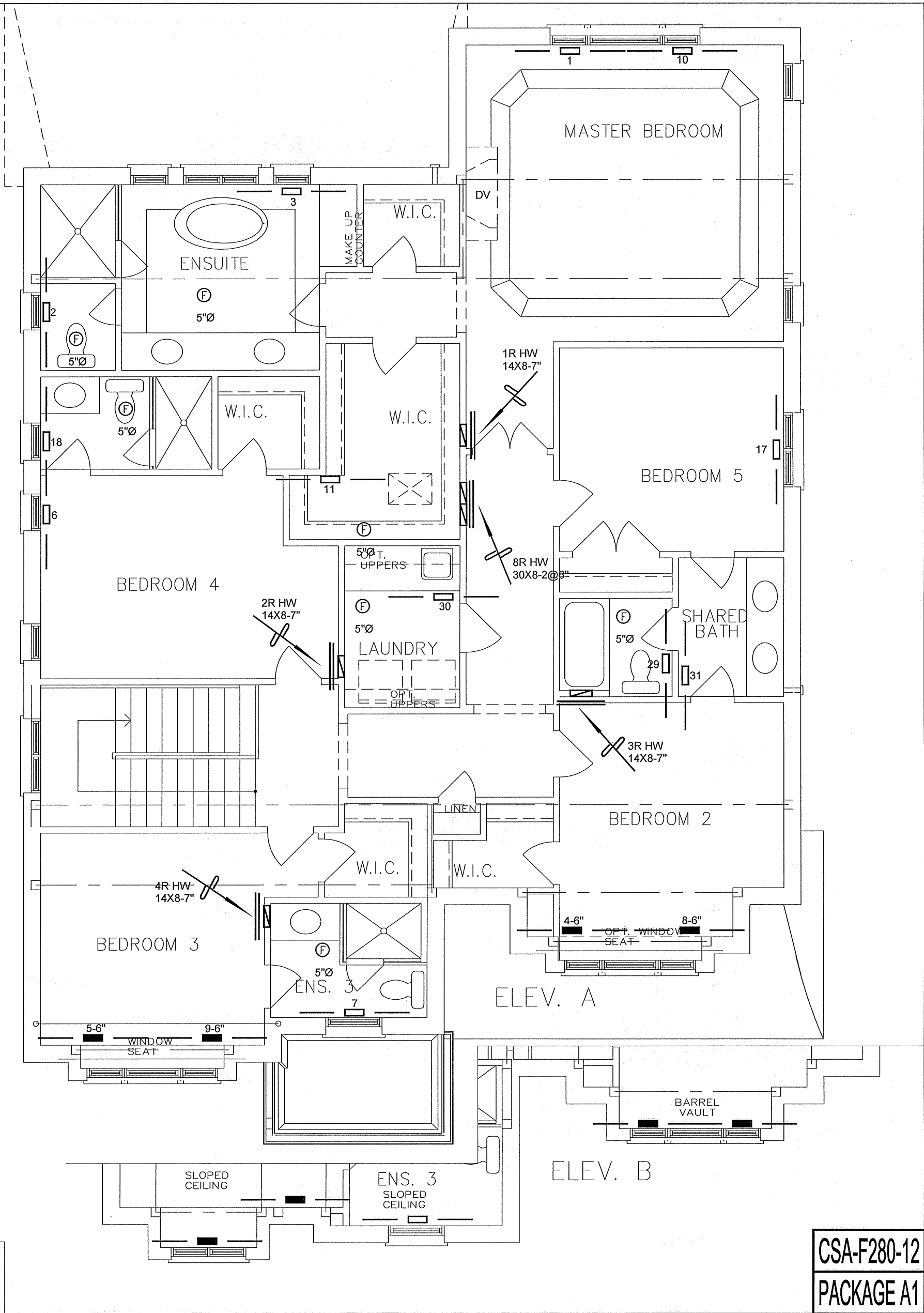
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

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

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Client		 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 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	
GOLD PARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
OPT 5-BED 5002 - ROSEVIEW 3764 sqft			BCIN# 19669	
		LO#	77474	



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

CSA-F280-12
PACKAGE A1

HVAC LEGEND							3.		
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GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
OPT 5-BED 5002 - ROSEVIEW 3764 sqft			BCIN# 19669	
			LO#	77474