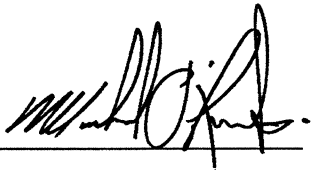


Schedule 1: Designer Information

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	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]				
☐ 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: 25-7 Project: KLEINBURG GLEN		
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.				
<u>January 19, 2016</u>		 _____ 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.

SITE NAME: KLEINBURG GLEN
BUILDER: GOLD PARK HOMES
DATE: Jan-16
LO# 66915
GFA: 3147
TYPE: 25-7
WINTER NATURAL AIR CHANGE RATE 0.373
SUMMER NATURAL AIR CHANGE RATE 0.118
HEAT LOSS AT °F. 76
HEAT GAIN AT °F. 16
CSA-F280-12
SB-12 PACKAGE J

ROOM USE EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-2	HEAT LOSS AT °F. 76	HEAT GAIN AT °F. 16
GRS.WALL AREA GLAZING	310	189	90	234	285	261	180	45		
NORTH	5	0	0	0	0	0	0	0	0	0
EAST	25	14	0	0	0	0	0	0	0	0
SOUTH	24.1	0	0	16	385	417	0	8	193	209
WEST	24.1	0	0	0	0	0	0	0	0	0
SKYL.T.	24.1	0	0	0	24	578	1020	0	0	0
DOORS	25.2	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.7	280	957	204	175	605	127	37	128
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0	0	0
EXPOSED CLG	1.5	0.8	228	347	173	104	158	79	60	91
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS										
SLAB ON GRADE HEAT LOSS										
SUBTOTAL HT LOSS	2037	1100	384	1517	1821	1521	1385	412	412	281
SUB TOTAL HT GAIN	1526	801	102	765	1380	1003	833	281	0.10	0.17
LEVEL FACTOR / MULTIPLIER									71	18
AIR CHANGE HEAT LOSS									0	0
AIR CHANGE HEAT GAIN									0	0
DUCT LOSS									0	0
DUCT GAIN									0	0
HEAT GAIN PEOPLE	240								0	0
HEAT GAIN APPLIANCES/LIGHTS									0	0
TOTAL HT LOSS BTU/H	2389	1290	450	1780	2137	1784	1601	483	483	919
TOTAL HT GAIN x 1.3 BTU/H	3264	1638	141	1900	2751	2228	1652	919		

ROOM USE EXP. WALL CLG. HT.	LIV	DIN	KT/FM	WIR-2	LAUN	WIR	FOY	GRT	BAS
GRS.WALL AREA GLAZING	229	220	695	855	53	60	375	713	1109
NORTH	0	0	0	0	0	0	0	0	0
EAST	8	0	8	0	0	0	0	10	217
SOUTH	24.1	0	22	482	574	217	340	60	0
WEST	24.1	0	0	0	0	0	0	0	0
SKYL.T.	24.1	0	0	0	0	0	0	0	0
DOORS	25.2	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.7	181	625	131	220	760	160	370
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0	0
EXPOSED CLG	1.5	0.8	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	165	405	85	132	324	68	0
BASEMENT/CRAWL HEAT LOSS									
SLAB ON GRADE HEAT LOSS									
SUBTOTAL HT LOSS	2232	1084	4888	3802	344	353	2420	4015	8681
SUB TOTAL HT GAIN	769	228	4583	1221	72	272	809	3213	648
LEVEL FACTOR / MULTIPLIER									0.40
AIR CHANGE HEAT LOSS									0.81
AIR CHANGE HEAT GAIN									7036
DUCT LOSS									0
DUCT GAIN									0
HEAT GAIN PEOPLE	240								0
HEAT GAIN APPLIANCES/LIGHTS									0
TOTAL HT LOSS BTU/H	3215	1561	7041	6369	496	515	3169	6725	15716
TOTAL HT GAIN x 1.3 BTU/H	1753	931	7895	1687	594	376	1118	4972	896

TOTAL HEAT GAIN BTU/H: 35405 TONS: 2.95 LOSS DUE TO VENTILATION LOAD BTU/H: 2651 STRUCTURAL HEAT LOSS: 58722 TOTAL COMBINED HEAT LOSS BTU/H: 59374

DATE: Jan-16 GFA: 3147 LO# 66915

#07

66915

furnace filter	0.05
a/c coil pressure	0.2
available pressure for s/a & r/a	0.35

EL195UH070XE36B
FAN SPEED
LOW 0

AFUE = 95.0 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = 63,000

num pressure s/a	0.18
s/a dif press. loss	0.02

Pressure	0.17
s. Loss	0.02

0
MEDLOW
995
MEDIUM
1100
MEDIUM HIGH
1200
HIGH

DESIGN CFM = $\frac{1100}{\text{CFM @ .6" E.S.P.}}$

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

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

All S/A runs 50° unless noted otherwise on layout.																																
RUN #		1	2	3	4	5	6	7											11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME		MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH											ENS-2	LIV	DIN	KT/IFM	KT/IFM	KT/IFM	LAUN	W/R	FOY	GRT	BAS	BAS	BAS	BAS
RM LOSS MBH.		2.39	1.29	0.45	1.78	2.14	1.78	1.60											0.48	3.22	1.56	2.35	2.35	2.35	0.50	0.51	3.17	3.36	3.93	3.93	3.93	3.93
CFM PER RUN HEAT		46	25	9	35	41	35	31											9	62	30	46	46	46	10	10	61	65	76	76	76	76
RM GAIN MBH.		3.26	1.64	0.14	1.90	2.75	2.23	1.68											0.92	1.75	0.93	2.63	2.63	2.63	0.69	0.38	1.12	2.49	0.22	0.22	0.22	0.22
CFM PER RUN COOLING		103	52	4	60	87	70	53											29	55	29	83	83	83	22	12	35	78	7	7	7	7
ADJUSTED PRESSURE		0.16	0.17	0.17	0.16	0.17	0.17	0.17											0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.		52	61	53	55	84	80	73											56	72	58	34	39	52	28	42	73	18	19	14	32	48
EQUIVALENT LENGTH		180	210	200	210	230	210	200											220	190	110	180	140	140	160	150	170	100	100	130	120	90
TOTAL EFFECTIVE LENGTH		232	271	253	265	314	290	273											276	262	168	214	179	192	188	192	243	118	119	144	152	138
ADJUSTED PRESSURE		0.07	0.06	0.07	0.06	0.05	0.06	0.06											0.06	0.07	0.1	0.08	0.09	0.08	0.09	0.09	0.07	0.15	0.14	0.12	0.11	0.12
ROUND DUCT SIZE		6	5	4	5	6	6	5											4	5	4	6	5	6	4	4	5	5	5	5	5	5
HEATING VELOCITY (ft/min)		235	184	103	257	209	178	228											103	455	344	235	338	235	115	115	448	477	558	558	558	558
COOLING VELOCITY (ft/min)		525	382	46	441	444	357	389											333	404	333	423	609	423	252	138	257	573	51	51	51	51
OUTLET GRILL SIZE		4X10	3X10	3X10	3X10	4X10	4X10	3X10											3X10	3X10	3X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK		C	C	C	B	A	A	B											C	A	B	C	C	C	B	B	A	E	E	F	F	F

	25	26	27
RUN #	25	26	27
ROOM NAME	W/R-2	W/R-2	GRT
RM LOSS MBH.	3.18	3.18	3.36
CFM PER RUN HEAT	62	62	65
RM GAIN MBH.	0.84	0.84	2.49
CFM PER RUN COOLING	27	27	78
ADJUSTED PRESSURE	0.17	0.17	0.17
ACTUAL DUCT LGH.	16	34	29
EQUIVALENT LENGTH	120	100	90
TOTAL EFFECTIVE LENGTH	136	134	119
ADJUSTED PRESSURE	0.13	0.13	0.14
ROUND DUCT SIZE	4	4	5
HEATING VELOCITY (ft/min)	711	711	477
COOLING VELOCITY (ft/min)	310	310	573
OUTLET GRILL SIZE	3X10	3X10	3X10
TRUNK	F	F	E

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	199	0.05	8.6	8					8	0	0.05	0	0	8					
TRUNK B	315	0.05	10.2	12	TRUNK G	0	0.00	0	8	0	0.05	0	0	8					
TRUNK C	227	0.06	8.6	8	TRUNK H	0	0.00	0	8	0	0.05	0	0	8					
TRUNK D	542	0.05	12.5	14	TRUNK I	0	0.00	0	8	0	0.05	0	0	8					
TRUNK E	206	0.14	6.7	6	TRUNK J	0	0.00	0	8	0	0.05	0	0	8					
TRUNK F	352	0.11	8.8	10	TRUNK K	0	0.00	0	8	0	0.05	0	0	8					
					TRUNK L	0	0.00	0	8	0	0.05	0	0	8					

[illegible]

TYPE: 25-7
SITE NAME: KLEINBURG GLEN

LO # 66915

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>3</u> @ 10.6 cfm <u>31.8</u> cfm	
Kitchen & Bathrooms	<u>6</u> @ 10.6 cfm <u>63.6</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	
More than 5 - Part 6	TOTAL <u>79.5</u> cfm	

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>201.4</u> cfm	
Less Principal Ventil. Capacity	<u>95</u> cfm	
Required Supplemental Capacity	<u>106.4</u> cfm	

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 50H	Location: BSMT
<u>95.0</u> cfm	<u>3.0</u> sones ☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
95.0 CFM	X 76 F	X 1.08	X 0.34

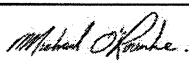
SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	☒
BATH	QTXEN050C	50	☒
ENS-2	QTXEN050C	50	☒
W/R	QTXEN050C	50	☒

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 50H		
<u>95</u> cfm high	<u>48</u> cfm low	
<u>66</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:	
HRAI #	001820
Date:	January-16

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 25-7	BUILDER: GOLD PARK HOMES
SFQT: 3147	SITE: KLEINBURG GLEN
LO# 66915	

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):	4
FRONT FACES:	WEST	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):	34679.8	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:	6.6 ft
LENGTH: 65.0 ft	WIDTH: 19.0 ft	EXPOSED PERIMETER:	168.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package
	J
Ceiling with Attic Space Minimum RSI (R)-Value	50
Ceiling Without Attic Space Minimum RSI (R)-Value	31
Exposed Floor Minimum RSI (R)-Value	31
Walls Above Grade Minimum RSI (R)-Value	22
Basement Walls Minimum RSI (R)-Value	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
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10
Windows and Sliding Glass Doors Maximum U-Value	1.8
Skylights Maximum U-Value	2.8
Space Heating Equipment Minimum AFUE	0.94
HRV Minimum Efficiency	60%
Domestic Hot Water Heater Minimum EF	0.67

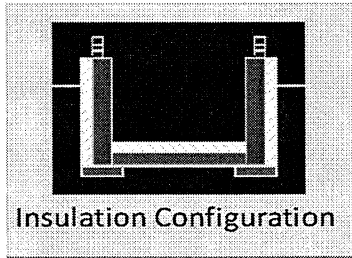
INDIVIDUAL BCIN: 19669

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):	19.8	 Insulation Configuration
Floor Width (m):	5.8	
Exposed Perimeter (m):	0	
Wall Height (m):	2.7	
Depth Below Grade (m):	2.1	
Window Area (m ²):	0.8	
Door Area (m ²):	0	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1794

51.2

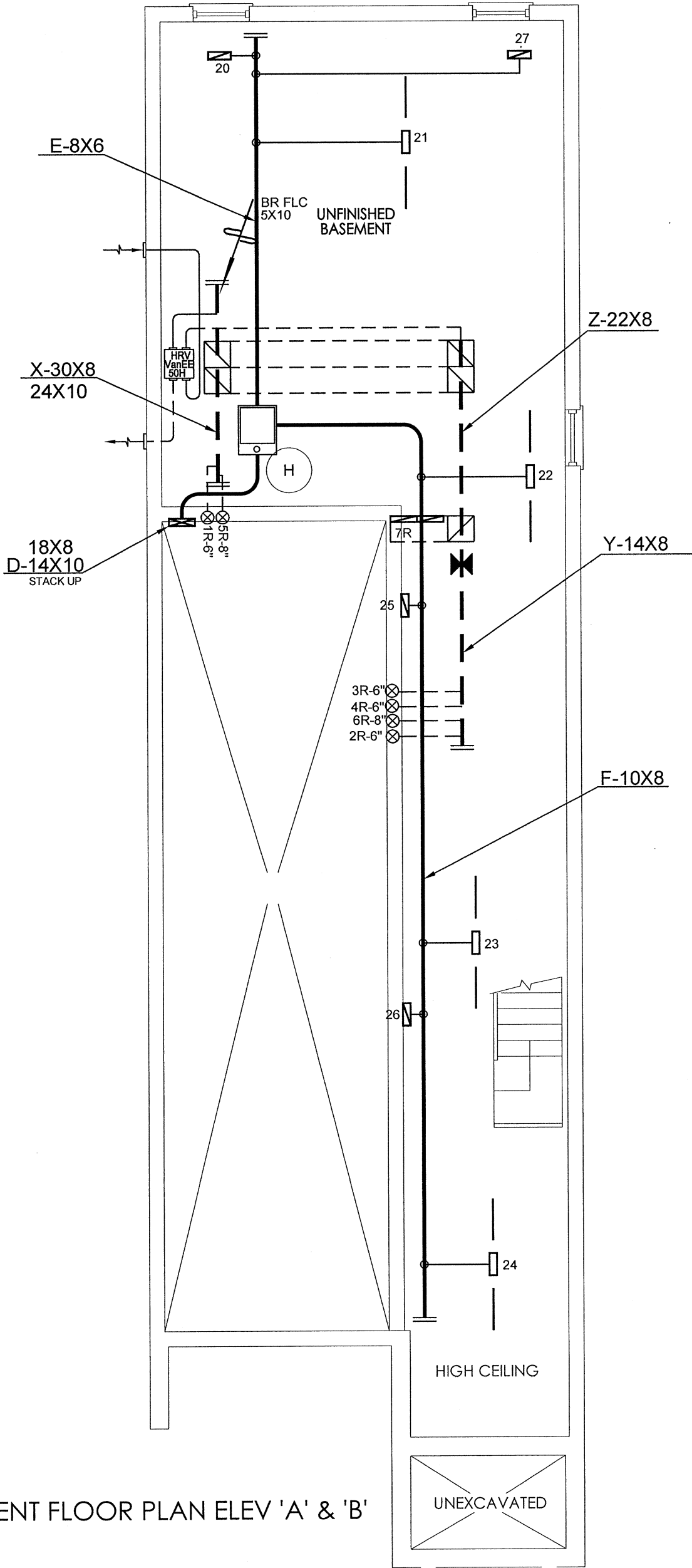
2.6 137.44

138.24

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):	9.05			
Building Configuration				
Type:	Detached			
Number of Stories:	Three			
Foundation:	Full			
House Volume (m ³):	993			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa. 716.42 cm ² 3.57 ACH @ 50 Pa			
Mechanical Ventilation (L/s):	Total Supply:		Total Exhaust:	
	0		0	
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Change Rate (ACH/H):			0.373	
Cooling Air Change Rate (ACH/H):			0.118	



BASEMENT FLOOR PLAN ELEV 'A' & 'B'

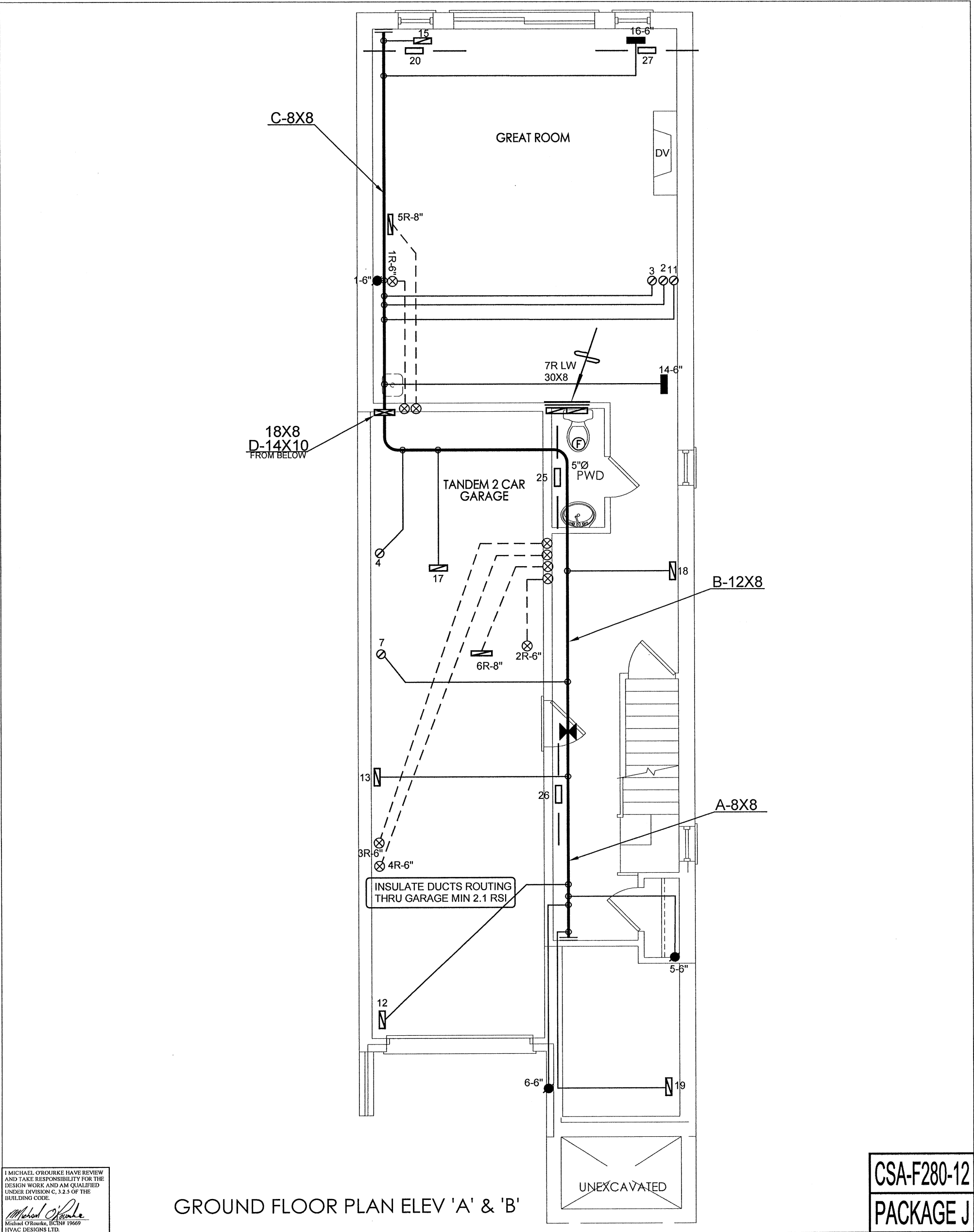
CSA-F280-12
PACKAGE J

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	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	2.
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	1.
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	No. Description Date
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 GOLD PARK HOMES		 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 59374 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title BASEMENT HEATING LAYOUT		
Project Name KLEINBURG GLEN VAUGHAN, ONTARIO			MAKE LENNOX		3RD FLOOR		8	4			3
		MODEL EL195UHU070XE36B-70		2ND FLOOR		8	2	2			
25-7		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.	INPUT 66 MBTU/H		1ST FLOOR		4	1	1	Date	JAN/2016
			OUTPUT 63 MBTU/H		BASEMENT		4	1	0	Scale	3/16" = 1'-0"
			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					BCIN# 19669	
3147 sqft			FAN SPEED 1100 cfm @ 0.6" w.c.							LO#	66915



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.

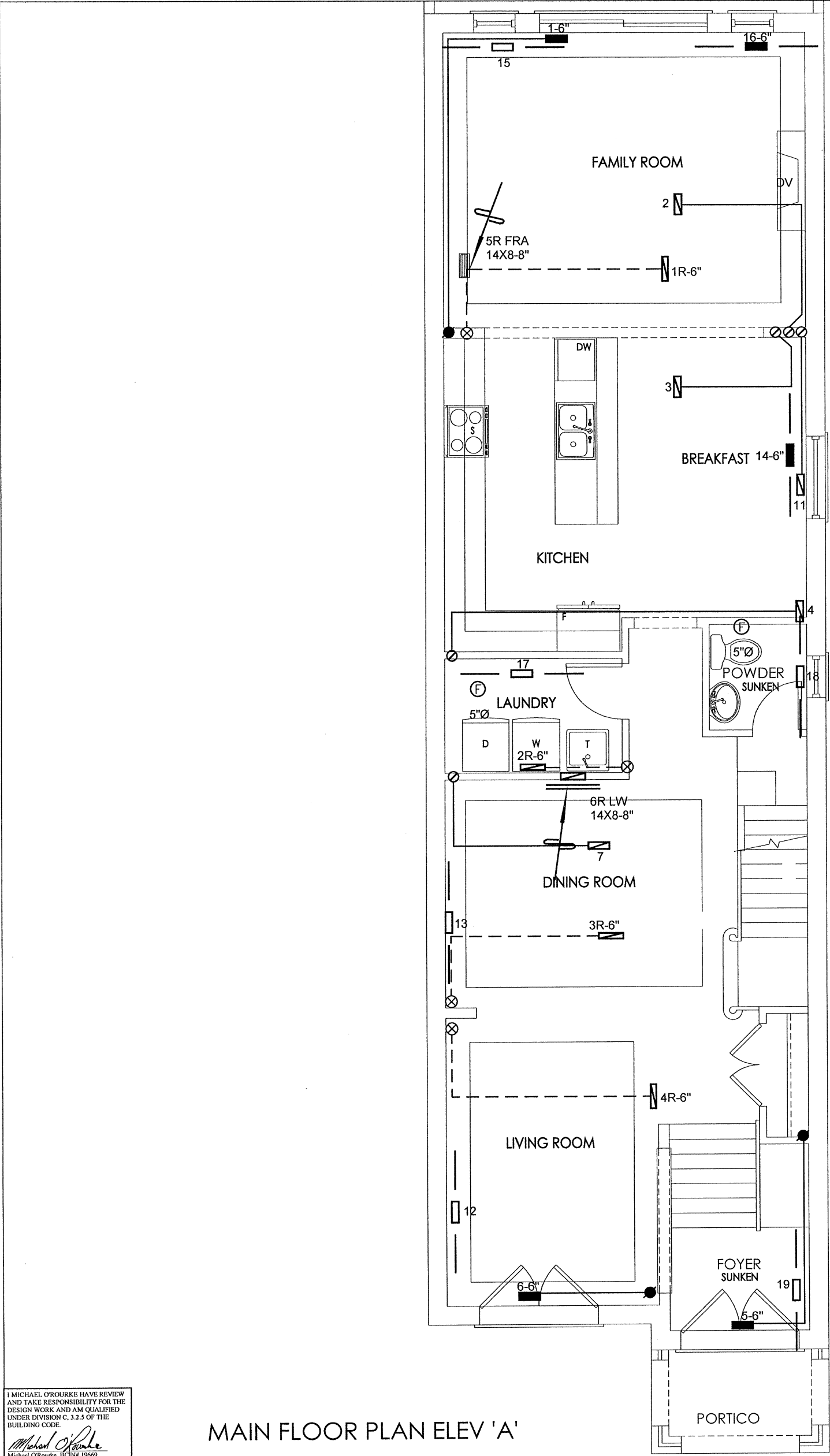
GROUND FLOOR PLAN ELEV 'A' & 'B'

CSA-F280-12
PACKAGE J

HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x6" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x6" 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		 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/2016
KLEINBURG GLEN VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
25-7			BCIN# 19669	
3147 sqft			LO#	66915



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

MAIN FLOOR PLAN ELEV 'A'

CSA-F280-12
PACKAGE J

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	

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GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2016
KLEINBURG GLEN VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
25-7	3147 sqft		LO#	66915

SECOND FLOOR PLAN ELEV 'A'

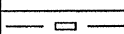
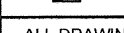
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 32.5 OF THE BUILDING CODE.

Michael O'Rourke

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

CSA-F280-12

PACKAGE J

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

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GOLD PARK HOMES			THIRD FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2016
KLEINBURG GLEN VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
25-7			BCIN# 19669	
3147 sqft			LO#	66915