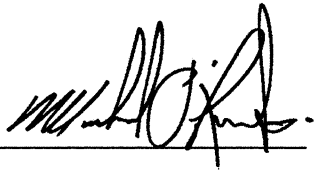


Schedule 1: Designer Information

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]							
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> ☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings </td> <td style="width: 33%; vertical-align: top;"> ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection </td> <td style="width: 33%; vertical-align: top;"> ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems </td> </tr> </table>					☐ 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
☐ 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 – OPT 1ST				
			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 20, 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
TYPE: 25-7
OPT. 1ST
DATE: Jan-16
LO# 66916
GFA: 3147
WINTER NATURAL AIR CHANGE RATE 0.372
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	HALL	
GRS.WALL AREA GLAZING	310	189	90	234	285	261	180	45	808	
NORTH	5	0	0	0	0	0	0	0	0	
EAST	120	0	0	0	0	0	0	0	0	
SOUTH	86	0	0	0	0	0	0	0	0	
WEST	1062	14	0	16	385	417	0	0	0	
SKYL.T.	24.1	0	0	0	0	0	0	0	0	
DOORS	24.1	0	0	0	0	0	0	0	0	
NET EXPOSED WALL	204	175	605	127	90	311	65	218	753	
NET EXPOSED BMT WALL ABOVE GR	3.5	0.7	280	967	204	175	605	127	90	
EXPOSED CLG	1.5	0.8	228	347	173	104	158	79	48	
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0	0	
EXPOSED FLOOR	2.5	0.5	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	2037	1100	384	1517	1821	1521	1385	412	3535	
SUB TOTAL HT GAIN	1526	801	102	765	1380	1003	833	281	1059	
LEVEL FACTOR / MULTIPLIER	0.10	0.17	0.10	0.17	0.10	0.17	0.10	0.17	0.30	
AIR CHANGE HEAT LOSS	352	190	66	262	315	263	236	71	2370	
AIR CHANGE HEAT GAIN	96	50	6	48	87	63	52	18	66	
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	0	0	1	1	1	0	0	0	
HEAT GAIN APPLIANCES/LIGHTS	377	377	0	377	377	377	377	377	377	
TOTAL HT LOSS BTU/H	2388	1290	450	1779	2136	1783	1600	483	5905	
TOTAL HT GAIN x 1.3 BTU/H	3222	1597	141	1859	2709	2187	1641	878	1953	

ROOM USE EXP. WALL CLG. HT.	LIV	DIN	KT/IFM	WIR-2	LAUN	WIR	FOY	GRT	BAS	
GRS.WALL AREA GLAZING	229	220	695	133	53	60	375	637	1109	
NORTH	0	0	0	0	0	0	0	10	9	
EAST	193	0	8	0	0	0	0	241	217	
SOUTH	340	0	1927	3400	0	0	8	1446	0	
WEST	0	0	29	699	756	5	120	130	0	
SKYL.T.	24.1	0	0	0	0	0	0	0	0	
DOORS	24.1	0	0	0	0	0	0	0	0	
NET EXPOSED WALL	40	1010	213	0	0	0	44	1111	234	
NET EXPOSED BMT WALL ABOVE GR	3.5	0.7	181	625	131	220	760	160	562	
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	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	2232	1084	5032	563	344	393	2420	3752	8847	
SUB TOTAL HT GAIN	769	228	4760	224	72	272	809	3158	648	
LEVEL FACTOR / MULTIPLIER	0.20	0.30	0.20	0.30	0.20	0.20	0.20	0.30	0.40	
AIR CHANGE HEAT LOSS	681	330	1535	377	105	120	738	2516	7017	
AIR CHANGE HEAT GAIN	48	14	298	14	5	17	51	198	41	
DUCT LOSS	291	141	657	0	45	0	0	0	0	
DUCT GAIN	119	62	568	0	45	0	0	0	0	
HEAT GAIN PEOPLE	240	0	1	240	0	0	0	0	0	
HEAT GAIN APPLIANCES/LIGHTS	377	377	377	377	377	377	377	377	377	
TOTAL HT LOSS BTU/H	3204	1555	7223	940	494	513	3157	6268	15964	
TOTAL HT GAIN x 1.3 BTU/H	1708	885	8115	309	649	376	1117	4852	896	

TOTAL HEAT GAIN BTU/H: 35652 TONS: 2.97 LOSS DUE TO VENTILATION LOAD BTU/H: 2651 STRUCTURAL HEAT LOSS: 57134 TOTAL COMBINED HEAT LOSS BTU/H: 59785

SITE NAME: KLEINBURG GLEN
BUILDER: GOLD PARK HOMES

TYPE: 25-7 OPT. 1ST

DATE: Jan-16 GFA: 3147 LO# 66916

HEATING CFM	1100	COOLING CFM	1100
TOTAL HEAT LOSS	57,134	TOTAL HEAT GAIN	35,094
AIR FLOW RATE CFM	19.25	AIR FLOW RATE CFM	31.34

EL195UH070XE36B
FAN SPEED
LOW 0
MEDIUM 995
HIGH 1100

LENNOX 70
FAN SPEED
LOW 0
MEDIUM 995
HIGH 1200

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

DESIGN CFM = 1100
CFM @ .8" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
SIA	0	8	8	5	4
R/A	0	4	2	1	1

plenum pressure s/a 0.18
max s/a dif press. loss 0.02
min adjusted pressure s/a 0.16

r/a pressure 0.17
r/a grille press. loss 0.02
adjusted pressure r/a 0.15

All SIA diffusers 4"x10" unless noted otherwise on layout.

All SIA runs 5'Ø unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH
RM LOSS MBH	2.39	1.29	0.45	1.78	2.14	1.78	1.60
CFM PER RUN HEAT	46	25	9	34	41	34	31
RM GAIN MBH	3.22	1.60	0.14	1.86	2.71	2.19	1.64
CFM PER RUN COOLING	101	50	4	58	85	69	51
ADJUSTED PRESSURE	0.16	0.17	0.17	0.17	0.16	0.17	0.17
EQUIVALENT LENGTH	180	210	200	210	230	210	200
TOTAL EFFECTIVE LENGTH	232	271	253	265	314	290	273
ADJUSTED PRESSURE	0.07	0.06	0.07	0.06	0.05	0.06	0.06
ROUND DUCT SIZE	6	5	4	5	6	6	5
HEATING VELOCITY (ft/min)	235	184	103	250	209	173	228
COOLING VELOCITY (ft/min)	515	367	46	426	433	352	374
OUTLET GRILL SIZE	4X10	3X10	3X10	3X10	4X10	4X10	3X10
TRUNK	C	C	C	B	A	A	B

RUN #	25	26	27	28
ROOM NAME	HALL	HALL	GRT	W/R-2
RM LOSS MBH	2.95	2.95	3.13	0.94
CFM PER RUN HEAT	57	57	60	18
RM GAIN MBH	0.98	0.98	2.43	0.31
CFM PER RUN COOLING	31	31	76	10
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	19	34	29	23
TOTAL EFFECTIVE LENGTH	120	100	90	130
ADJUSTED PRESSURE	0.12	0.13	0.14	0.11
ROUND DUCT SIZE	4	4	5	4
HEATING VELOCITY (ft/min)	654	654	441	207
COOLING VELOCITY (ft/min)	356	356	558	115
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10
TRUNK	F	F	E	F

TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	198	0.05	8.6	8	446	TRUNK G	0	0.00	0	0
TRUNK B	313	0.05	10.2	12	470	TRUNK H	0	0.00	0	0
TRUNK C	227	0.06	8.6	8	511	TRUNK I	0	0.00	0	0
TRUNK D	540	0.05	12.5	14	555	TRUNK J	0	0.00	0	0
TRUNK E	197	0.14	6.6	6	591	TRUNK K	0	0.00	0	0
TRUNK F	363	0.11	8.9	10	653	TRUNK L	0	0.00	0	0

RETURN AIR #	1	2	3	4	5	6	7
AIR VOLUME	80	0	75	80	175	170	290
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH.	62	66	88	91	29	66	20
EQUIVALENT LENGTH	185	195	215	175	220	185	145
TOTAL EFFECTIVE LH	247	261	303	266	249	251	165
ADJUSTED PRESSURE	0.06	0.06	0.05	0.05	0.06	0.06	0.09
ROUND DUCT SIZE	5.9	5.9	6	5.9	7.8	7.8	8.6
INLET GRILL SIZE	8	8	8	8	8	8	8
INLET GRILL SIZE	14	14	14	14	14	14	30

TYPE: 25-7
SITE NAME: KLEINBURG GLEN

LO # 66916
OPT. 1ST

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>7</u> @ 10.6 cfm	<u>74.2</u> cfm
Table 9.32.3.A.	TOTAL	<u>212.0</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
More than 5 - Part 6	TOTAL	<u>79.5</u> cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>212</u>	cfm
Less Principal Ventil. Capacity	<u>95</u>	cfm
Required Supplemental Capacity	<u>117.0</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 Sones
ENS	QTXEN050C	50	☒ 0.3
BATH	QTXEN050C	50	☒ 0.3
ENS-2	QTXEN050C	50	☒ 0.3
W/R	QTXEN050C	50	☒ 0.3

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	OPT. 1ST	BUILDER: GOLD PARK HOMES
SFQT: 3147	LO# 66916	SITE: KLEINBURG GLEN

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

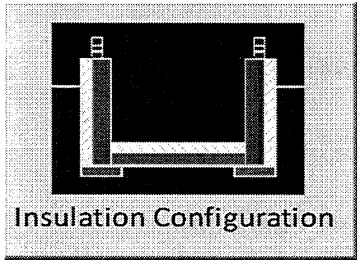
INDIVIDUAL BCIN: 19669

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	
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):	1872	

51.2

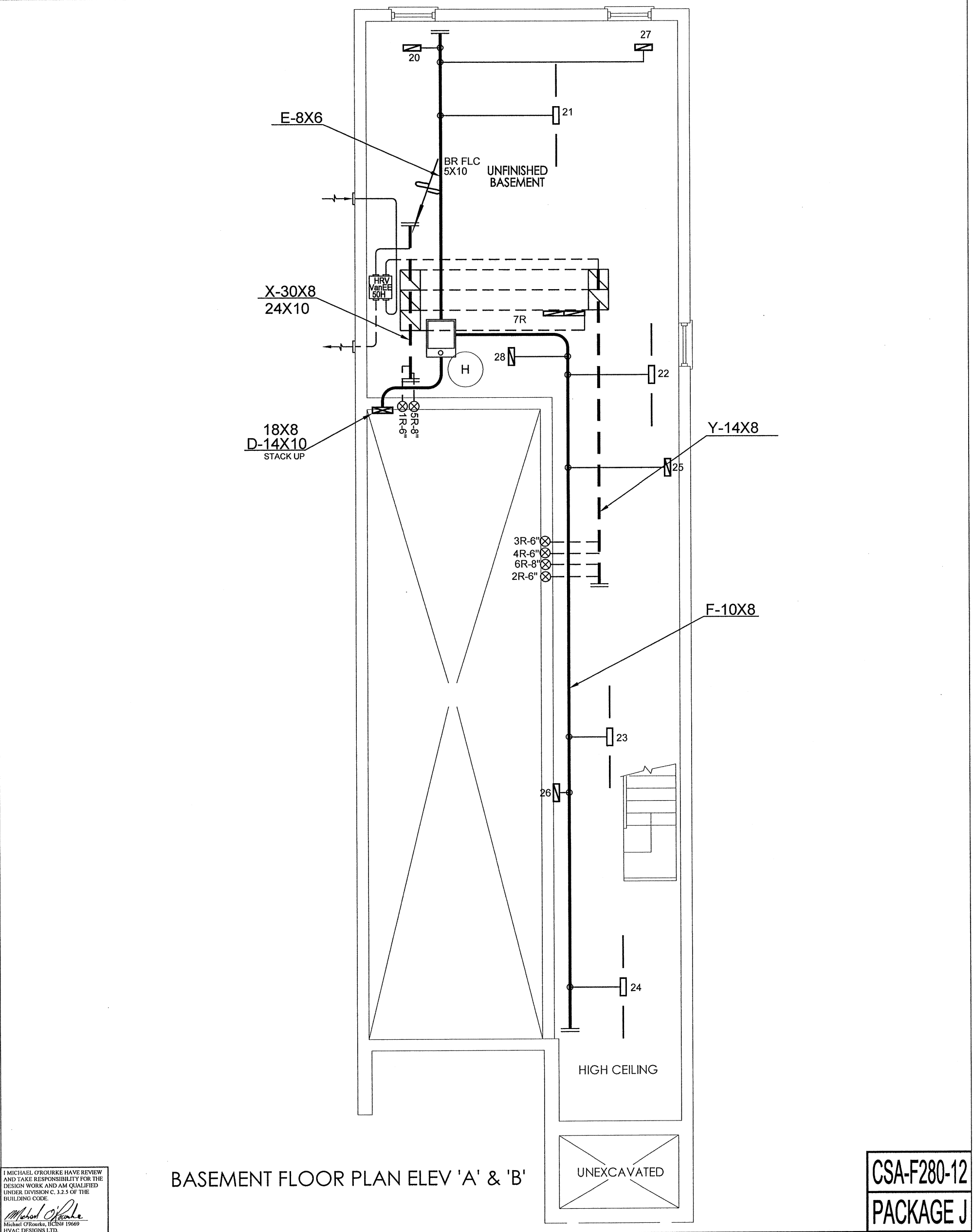
2.6 137.44

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):	8.99			
Building Configuration				
Type:	Detached ▼			
Number of Stories:	Three ▼			
Foundation:	Full ▼			
House Volume (m ³):	982			
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):			0.372	
Cooling Air Change Rate (ACH/H):			0.118	



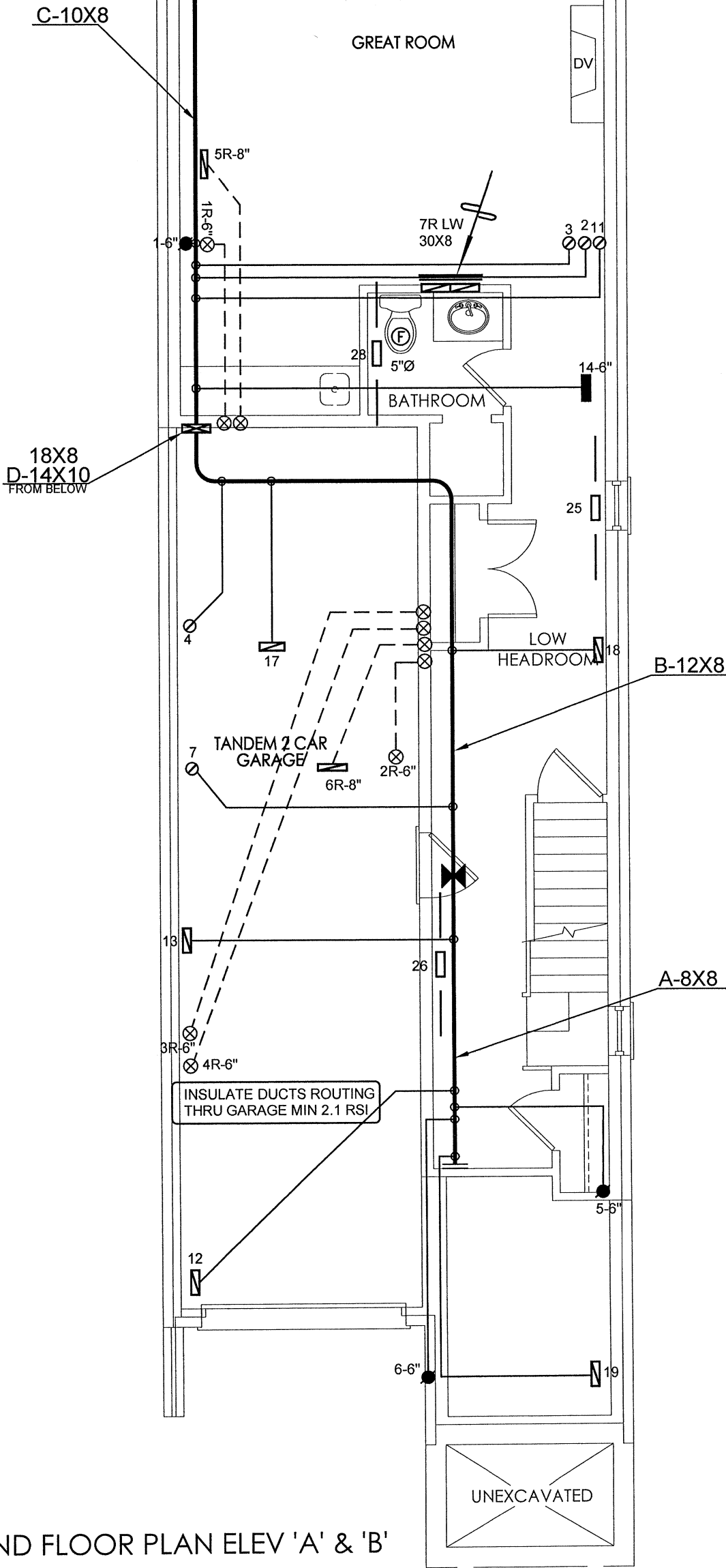
I MICHAEL O'ROURKE HAVE REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.3.2.5 OF THE BUILDING CODE.

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
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER		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@hvacdsgns.ca Web: www.hvacdsgns.ca Specializing in Residential Mechanical Design Services	HEAT LOSS 59785 BTU/H UNIT DATA MAKE LENNOX MODEL EL195UHU070XE36B-70 INPUT 66 MBTU/H OUTPUT 63 MBTU/H COOLING 3.0 TONS FAN SPEED 1100 cfm @ 0.6" w.c.	# OF RUNS S/A R/A FANS 3RD FLOOR 8 4 3 2ND FLOOR 8 2 2 1ST FLOOR 5 1 1 BASEMENT 4 1 0	Sheet Title BASEMENT HEATING LAYOUT	
				Date	JAN/2016
Project Name KLEINBURG GLEN VAUGHAN, ONTARIO	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.		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	Scale	3/16" = 1'-0"
				BCIN# 19669	
25-7 OPT. 1ST 3147 sqft				LO#	66916



GROUND FLOOR PLAN ELEV 'A' & 'B'

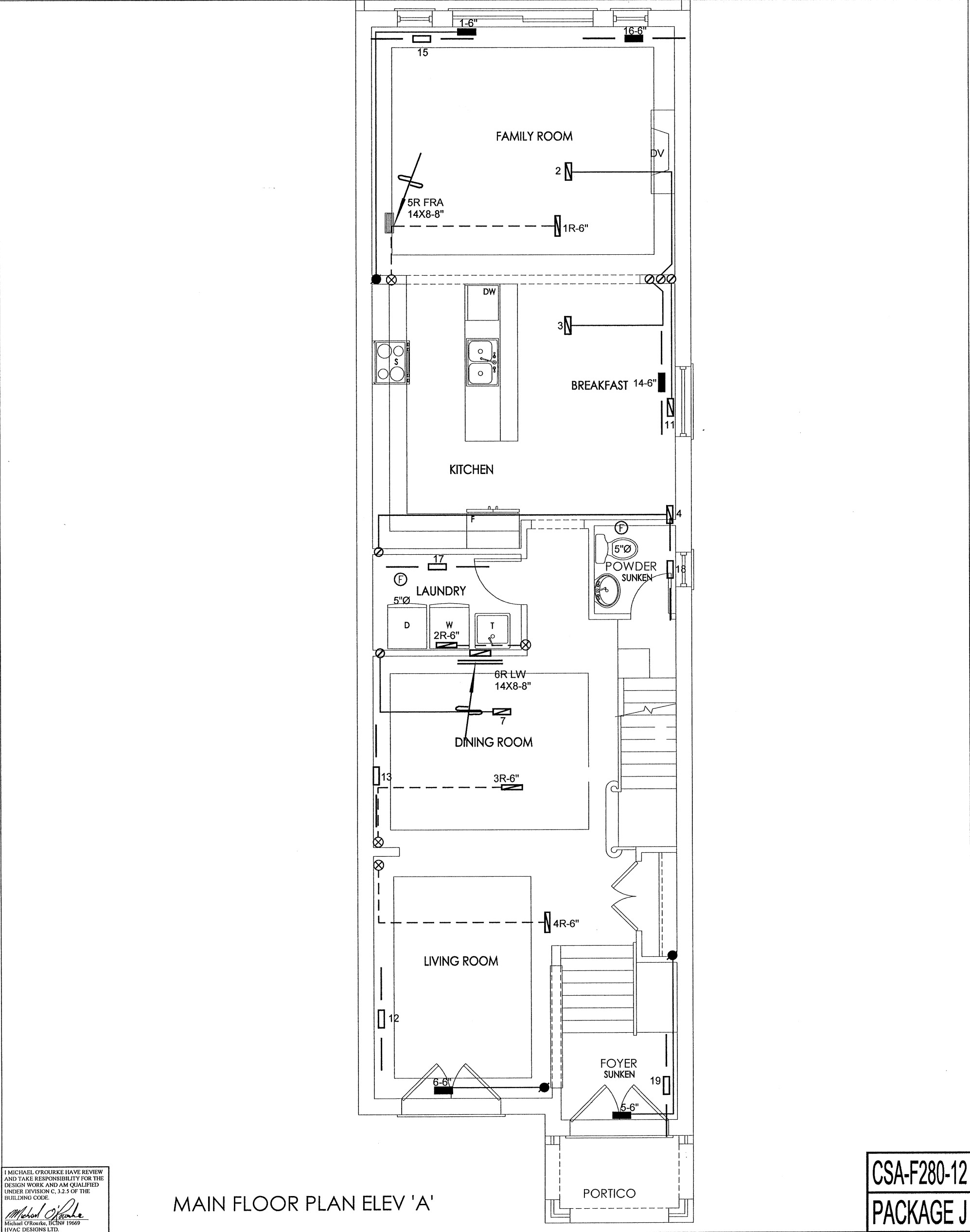
CSA-F280-12
PACKAGE J

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	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		

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Project Name KLEINBURG GLEN VAUGHAN, ONTARIO			Date JAN/2016	
25-7 OPT. 1ST 3147 sqft			Scale 3/16" = 1'-0"	
			BCIN# 19669	
			LO#	66916



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.

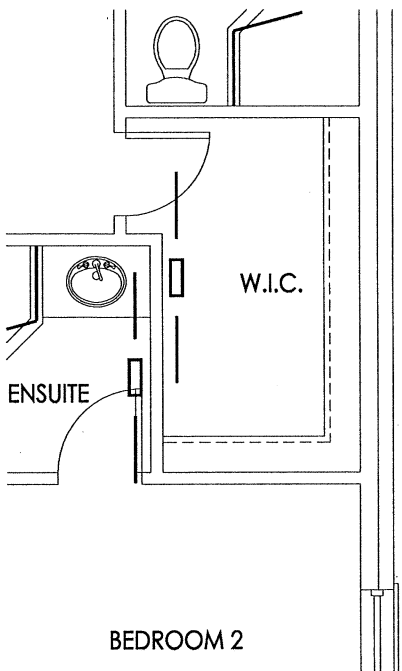
MAIN FLOOR PLAN ELEV 'A'

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		

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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"
25-7 OPT. 1ST 3147 sqft			BCIN# 19669	
			LO#	66916

SECOND FLOOR PLAN ELEV 'A'



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

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	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

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Project Name KLEINBURG GLEN VAUGHAN, ONTARIO			Date	JAN/2016
25-7 OPT. 1ST			Scale	3/16" = 1'-0"
3147 sqft			BCIN# 19669	
			LO#	66916