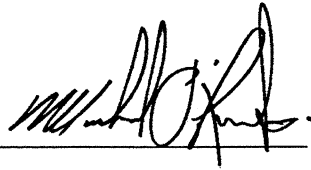


Schedule 1: Designer Information

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: 38-2 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 26, 2016</u> 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: KLEINBURG GLEN BUILDING: GOLD PARK HOMES DATE: Jan-16 WINTER NATURAL AIR CHANGE RATE 0.322 HEAT LOSS AT °F: 76 CSA-F280-12
TYPE: 38-2 LO# 66937 SUMMER NATURAL AIR CHANGE RATE 0.098 HEAT GAIN AT °F: 16 SB-12 PACKAGE J

ROOM USE EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	LAUN	ENS-2/WIC
GRS. WALL AREA GLAZING	279	225	63	163	324	171	153	63	45
FACTORS	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	24.1 17.5	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	7 169 122	0 0 0
EAST	24.1 43.0	32 771 1377	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SOUTH	24.1 26.4	0 0 0	0 0 0	24 578 633	8 193 211	0 0 0	0 0 0	0 0 0	7 169 185
WEST	24.1 43.0	0 0 0	0 0 0	0 0 0	21 506 904	18 434 775	30 723 1291	0 0 0	0 0 0
SKYLT.	24.1 88.1	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
DOORS	25.2 6.3	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
NET EXPOSED WALL	3.5 0.7	247 853 180	63 218 46	129 446 94	295 1019 215	153 529 111	123 425 89	56 193 41	38 131 28
NET EXPOSED B SMT WALL ABOVE GR	6.3 1.3	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED CLG	1.5 0.8	240 365 182	112 170 85	221 336 188	176 288 134	209 318 169	91 138 69	77 117 69	70 106 63
NO ATTIC EXPOSED CLG	2.5 1.2	0 0 0	0 0 0	0 0 0	40 98 49	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED FLOOR	2.5 0.5	0 0 0	0 0 0	0 0 0	0 0 0	209 512 108	91 223 47	36 88 19	0 0 0
BASEMENT/CRAWL HEAT LOSS		0 0 0	0 0 0	0 0 0	0 0 0	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	0 0 0	0 0 0	0 0 0	0 0 0
SUBTOTAL HT LOSS	1989	1445	388	1360	2083	1792	1509	567	406
SUB TOTAL HT GAIN	1739	1169	131	895	1512	1153	1497	240	266
LEVEL FACTOR / MULTIPLE	0.20 0.25	0.20 0.25	0.20 0.25	0.20 0.25	0.20 0.25	0.20 0.25	0.20 0.25	0.20 0.25	0.20 0.25
AIR CHANGE HEAT LOSS	493	358	96	337	517	444	374	141	101
AIR CHANGE HEAT GAIN	95	64	7	49	83	224	188	71	15
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	0	0	222	158	102	0
HEAT GAIN APPLIANCES/LIGHTS	768	0	0	240	240	240	0	0	0
TOTAL HT LOSS BTU/H	2482	1803	484	1697	2600	2460	2072	779	768
TOTAL HT GAIN x 1.3 BTU/H	4008	1603	180	2538	3385	3181	2258	1461	1363

ROOM USE EXP. WALL CLG. HT.	DIN	KIT/GR.	FOY	PWDR	BAS
GRS. WALL AREA GLAZING	200	710	360	170	984
FACTORS	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	0 0 0	0 0 0	0 0 0	0 0 0	3 72 52
EAST	0 0 0	111 2674 4777	0 0 0	0 0 0	6 146 258
SOUTH	30 723 792	0 0 0	0 0 0	8 183 211	3 72 79
WEST	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SKYLT.	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
DOORS	20 505 106	0 0 0	42 1060 223	0 0 0	0 0 0
NET EXPOSED WALL	3.5 0.7	160 518 109	308 1064 224	182 560 118	20 505 106
NET EXPOSED B SMT WALL ABOVE GR	6.3 1.3	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED CLG	1.5 0.8	0 0 0	0 0 0	0 0 0	492 3116 656
EXPOSED FLOOR	2.5 1.2	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED FLOOR	2.5 0.5	0 0 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 0
SLAB ON GRADE HEAT LOSS		0 0 0	0 0 0	0 0 0	0 0 0
SUBTOTAL HT LOSS	1746	4744	2124	752	10770
SUB TOTAL HT GAIN	1007	5213	447	329	1152
LEVEL FACTOR / MULTIPLE	0.30 0.46	0.30 0.46	0.30 0.46	0.30 0.46	0.50 0.66
AIR CHANGE HEAT LOSS	800	2174	974	345	7164
AIR CHANGE HEAT GAIN	55	285	24	18	63
DUCT LOSS	0	0	0	0	0
DUCT GAIN	0	0	0	0	0
HEAT GAIN PEOPLE	240	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	768	768	0	0	0
TOTAL HT LOSS BTU/H	2546	6917	3098	1097	17924
TOTAL HT GAIN x 1.3 BTU/H	2380	8147	613	451	1680

TOTAL HEAT GAIN BTU/H: 33705 TONS: 2.81 LOSS DUE TO VENTILATION LOAD BTU/H: 2851 STRUCTURAL HEAT LOSS: 46467 TOTAL COMBINED HEAT LOSS BTU/H: 49118

SITE NAME: KLEINBURG GLEN
BUILDER: GOLD PARK HOMES

TYPE: 38-2 DATE: Jan-16 LO# 66937

HEATING CFM 1100 COOLING CFM 1100
TOTAL HEAT LOSS 46,467 TOTAL HEAT GAIN 33,146
AIR FLOW RATE CFM 23.67 AIR FLOW RATE CFM 33.19

LENNOX

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

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	10	6	4
R/A	0	0	4	2	1

FAN SPEED

DESIGN CFM = 1100
CFM @ 6" E.S.P.

plenum pressure s/a 0.18
max s/a diff press. loss 0.03
min adjusted pressure s/a 0.15
r/a pressure 0.17
r/a grille press. loss 0.02
adjusted pressure r/a 0.15

All S/A diffusers 4"x10" unless noted otherwise on layout.
All S/A runs 5"Ø unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	10	11	13	14	15	16	19	20	21	22	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	LAUN	MBR	INS-2/WI	DIN.	KIT/GRT	KIT/GRT	KIT/GRT	FOY	PWDR	BAS	BAS	BAS	BAS
RM LOSS MBH	1.24	1.80	0.48	1.10	2.60	2.46	2.07	0.78	1.24	0.51	2.55	2.31	2.31	2.31	3.10	1.10	4.48	4.48	4.48	4.48
CFM PER RUN HEAT	29	43	11	40	62	58	49	18	29	12	60	55	55	55	73	26	106	106	106	106
RM GAIN MBH	2.00	1.60	0.18	2.54	3.38	3.18	2.26	1.46	2.00	1.36	2.38	2.72	2.72	2.72	0.61	0.45	0.39	0.39	0.39	0.39
CFM PER RUN COOLING	67	53	6	84	112	106	75	48	67	45	79	90	90	90	20	15	13	13	13	13
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.15	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	43	48	27	50	63	30	41	17	37	42	29	21	23	39	46	45	30	17	19	44
EQUIVALENT LENGTH	140	170	150	130	120	140	130	120	120	130	130	150	100	100	100	120	130	110	100	110
TOTAL EFFECTIVE LENGTH	183	218	177	180	183	170	171	137	157	172	159	171	123	159	146	165	160	127	119	154
ADJUSTED PRESSURE	0.09	0.08	0.1	0.09	0.08	0.1	0.1	0.13	0.11	0.1	0.11	0.09	0.13	0.1	0.12	0.1	0.1	0.13	0.14	0.11
ROUND DUCT SIZE	5	5	4	5	6	6	5	4	5	4	5	6	5	5	5	4	6	5	5	6
HEATING VELOCITY (ft/min)	213	316	126	294	316	296	360	207	213	138	441	280	404	404	536	298	540	778	778	540
COOLING VELOCITY (ft/min)	492	389	69	617	571	540	551	551	492	516	580	459	661	661	147	172	66	95	95	66
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	4X10
TRUNK	D	C	B	C	A	B	B	B	B	C	A	D	D	C	A	A	C	D	B	A

RUN #	ROOM NAME	RM LOSS MBH	CFM PER RUN HEAT	RM GAIN MBH	CFM PER RUN COOLING	ADJUSTED PRESSURE	ACTUAL DUCT LGH	EQUIVALENT LENGTH	TOTAL EFFECTIVE LENGTH	ADJUSTED PRESSURE	ROUND DUCT SIZE	HEATING VELOCITY (ft/min)	COOLING VELOCITY (ft/min)	OUTLET GRILL SIZE
TRUNK														

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
	TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)				
	TRUNK A	327	0.08	9.2	10	8	589	0	0.00	0	8	0.06	0	0	8				
	TRUNK B	598	0.08	11.6	16	8	673	0	0.00	0	8	0.06	0	0	8				
	TRUNK C	256	0.08	8.4	8	8	576	0	0.00	0	8	0.06	0	0	8				
	TRUNK D	501	0.08	10.8	14	8	644	0	0.00	0	8	0.06	0	0	8				
	TRUNK E	0	0.00	0	0	8	0	0.00	0	0	8	0.06	0	0	8				
	TRUNK F	0	0.00	0	0	8	0	0.00	0	0	8	0.06	0	0	8				

TYPE: 38-2
SITE NAME: KLEINBURG GLEN

LO # 66937

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	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	3 @ 10.6 cfm	31.8 cfm
Kitchen & Bathrooms	4 @ 10.6 cfm	42.4 cfm
Other Rooms	3 @ 10.6 cfm	31.8 cfm
Table 9.32.3.A.	TOTAL	148.4 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	79.5 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	148.4	cfm
Less Principal Ventil. Capacity	95	cfm
Required Supplemental Capacity	53.4	cfm

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

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

SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	☒
BATH	QTXEN050C	50	☒

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 50H		
95 cfm high	48 cfm low	
66 % 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-16

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** 38-2**BUILDER:** GOLD PARK HOMES**SFQT:** 2445**LO#** 66937**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):	3
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 (ft ³):	32676.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.75	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 52.0 ft	WIDTH: 30.0 ft	EXPOSED PERIMETER:	164.0 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



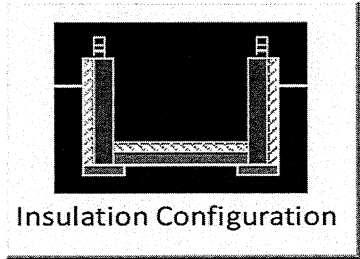
Air Infiltration Residential Load Calculator

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):	925.3			
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):			0.322	
Cooling Air Change Rate (ACH/H):			0.098	

Residential Foundation Thermal Load Calculator

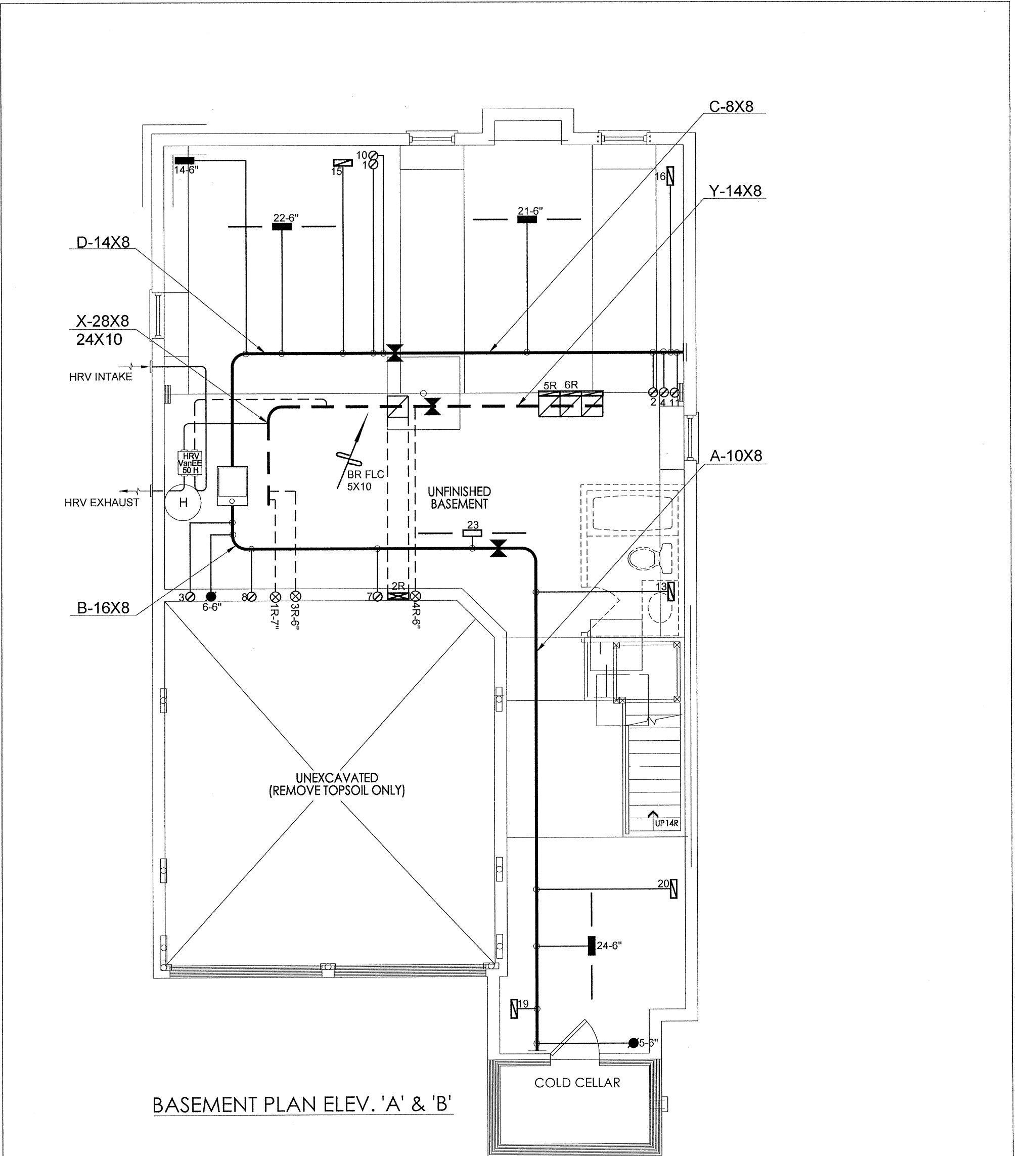
Supplemental tool for CAN/CSA-F280

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):	15.8	 Insulation Configuration
Floor Width (m):	9.1	
Exposed Perimeter (m):	0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
Window Area (m ²):	1.1	
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):	2010	

49.8

2.6 133.36

132.56



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.

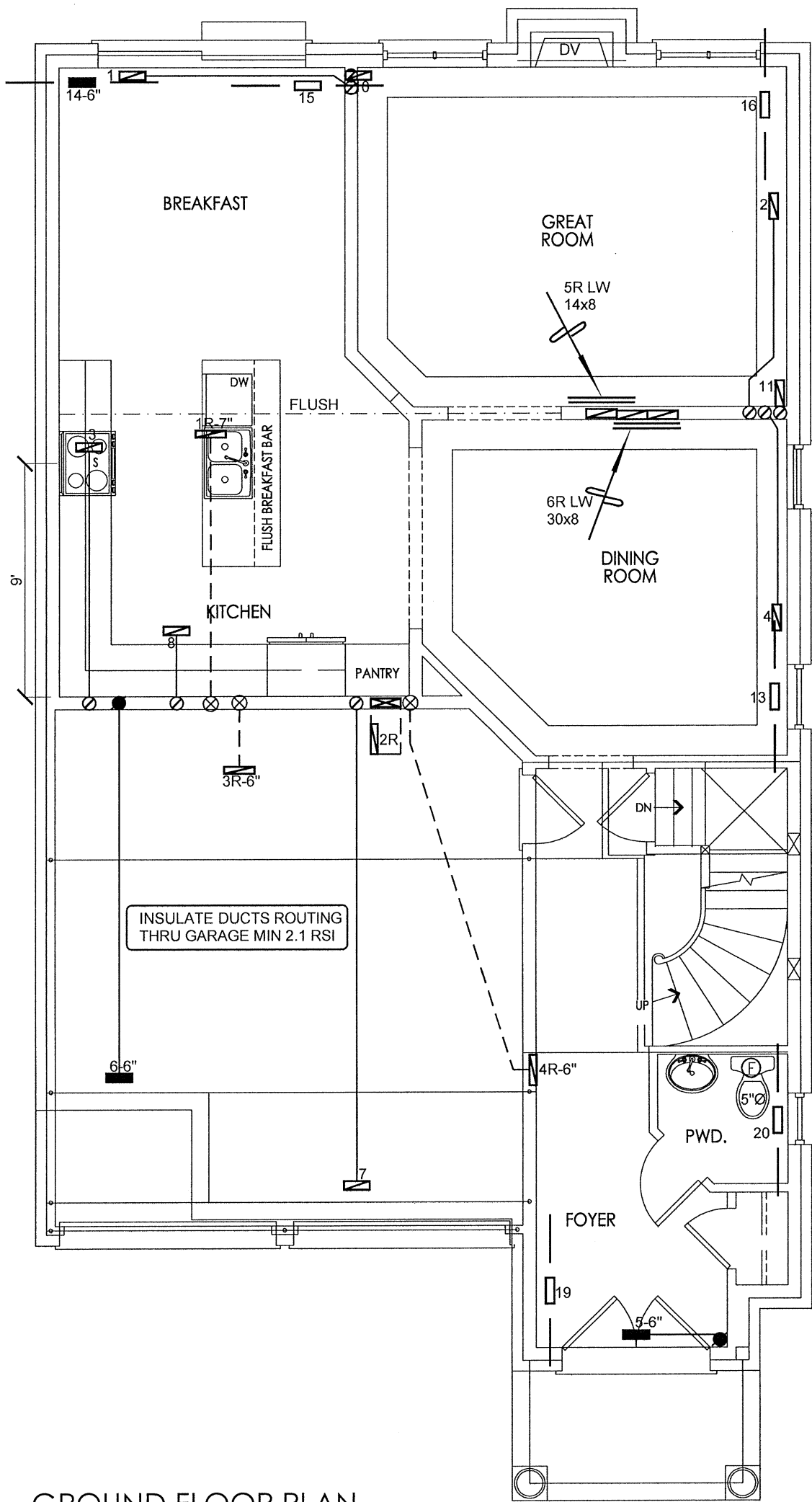
CSA-F280-12

PACKAGE 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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Client		HVACDESIGNS LTD. 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.	HEAT LOSS 49118 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title BASEMENT HEATING LAYOUT		
GOLD PARK HOMES			MAKE	LENNOX	3RD FLOOR						
Project Name KLEINBURG GLEN VAUGHAN, ONTARIO			MODEL	EL195UH070XE36B	2ND FLOOR		10	4			3
			INPUT	66 MBTU/H	1ST FLOOR		6	2			2
38-2			OUTPUT	63 MBTU/H	BASEMENT		4	1	0	Date	JAN/2016
2445 sqft			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					Scale	3/16" = 1'-0"
			FAN SPEED	1100 cfm @ 0.6" w.c.						BCIN# 19669	
				LO#					66937		



GROUND FLOOR PLAN

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.

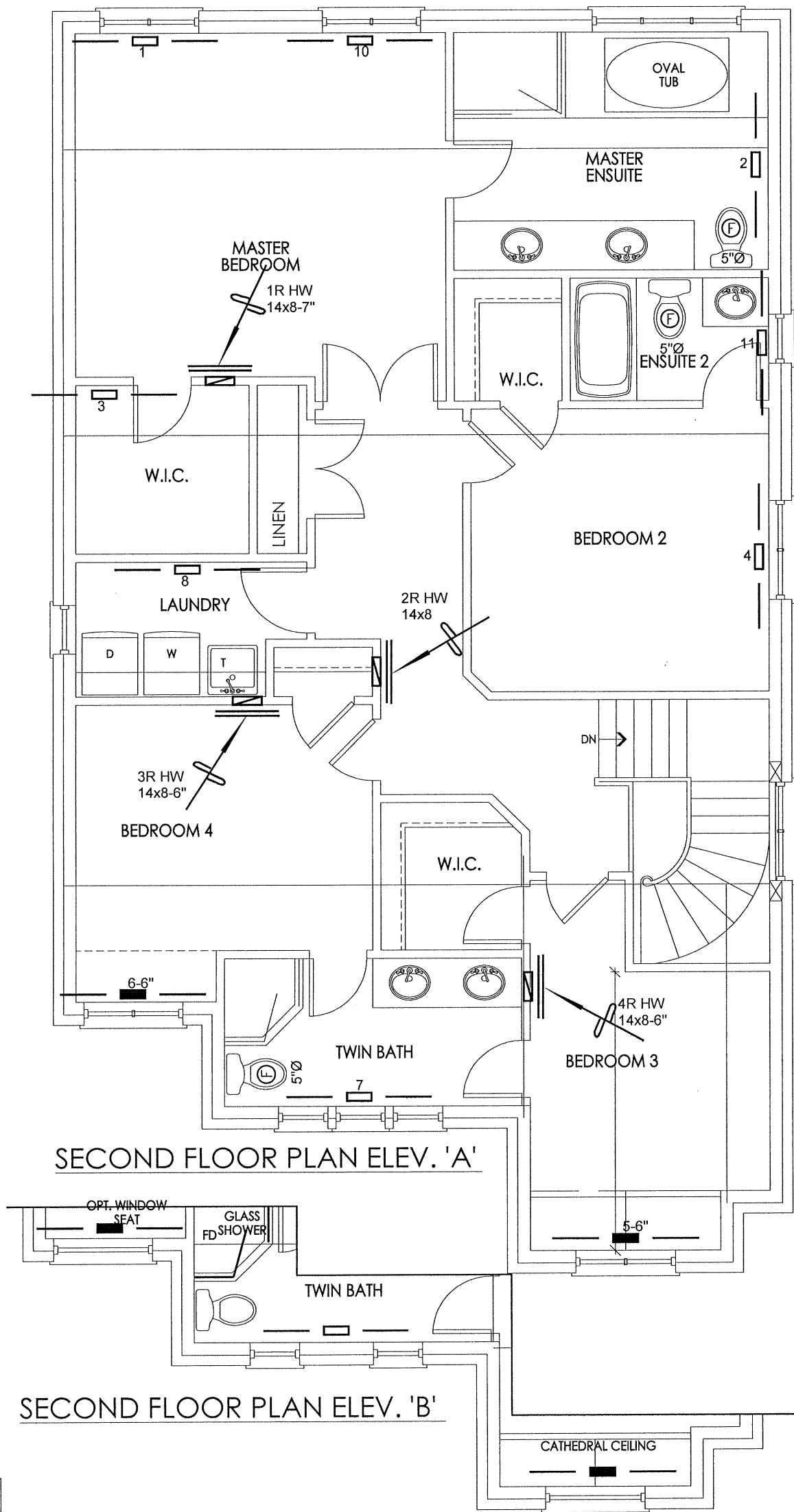
CSA-F280-12

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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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"
			BCIN# 19669	
38-2	2445 sqft		LO#	66937



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
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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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GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2016
KLEINBURG GLEN VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
38-2			BCIN# 19669	
2445 sqft			LO#	66937