

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 BRAMPTON	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: SD-2 - A19 LOT 16L + 16R Project: MCLAUGHLIN & MAYFIELD	
D. Declaration of Designer				
I, <u>MICHAEL O'ROURKE</u> (print name) declare that (choose one as appropriate):				
☐ 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.				
August 24, 2017 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.

Application for a Permit Construct or Demolish – Effective January 1, 2015

SITE NAME: MCLAUGHLIN & MAYFIELD BUILDER: GOLD PARK HOMES LOT 161 + 16R TYPE: SD-2 - A19 DATE: Aug-17 LO# 75684 GFA: 1662 WINTER NATURAL AIR CHANGE RATE 0.428 SUMMER NATURAL AIR CHANGE RATE 0.143 HEAT LOSS AT °F. 74 HEAT GAIN AT °F. 13 CSA-F280-12 SB-12 PACKAGE A1

ROOM USE EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BATH	WOD	LAND	FOY	WIR	LAUN	KTIFM	DIN	FACTORS
GRS WALL AREA	252	99	0	90	144	238								
GLAZING	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN								
NORTH	0	0	0	0	0	0								
EAST	0	0	0	0	0	0								
SOUTH	0	0	0	0	0	0								
WEST	0	0	0	0	0	0								
SKYLT.	32	14	291	0	0	0								
DOORS	36.4	0	0	0	0	0								
NET EXPOSED WALL	4.4	85	370	60	124	212								
NET EXPOSED B SMT WALL ABOVE GR	3.5	0	0	0	0	0								
EXPOSED CLG	1.3	110	138	170	140	74								
NO A TTIC EXPOSED CLG	2.7	0	0	0	0	0								
EXPOSED FLOOR	2.5	0	0	170	423	0								
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0								
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0								
SUBTOTAL HT LOSS	1869	799	83	1521	1131	1651								
SUB TOTAL HT GAIN	1546	582	39	1404	809	1276								
LEVEL FACTOR / MULTIPLIER	0.20	0.32	0.20	0.32	0.20	0.32								
AIR CHANGE HEAT LOSS	600	256	27	488	363	530								
AIR CHANGE HEAT GAIN	139	61	3	126	73	114								
DUCT LOSS	0	0	0	201	0	0								
DUCT GAIN	0	0	0	1	240	0								
HEAT GAIN PEOPLE	240	0	0	213	0	0								
HEAT GAIN APPLIANCES/LIGHTS	361	0	0	361	361	0								
TOTAL HT LOSS BTU/H	2469	1055	109	2210	1454	2181								
TOTAL HT GAIN x 1.3 BTU/H	3283	966	55	3046	1927	1808								

ROOM USE EXP. WALL CLG. HT.	DIN	KTIFM	LAUN	WIR	FOY	LAND	WOD	BAS
GRS WALL AREA	280	510	72	180	140	70		
GLAZING	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN		
NORTH	0	0	0	0	0	0		
EAST	11	0	0	22	0	0		
SOUTH	22	0	14	0	14	0		
WEST	0	96	291	0	291	0		
SKYLT.	36.4	1974	0	0	0	0		
DOORS	24.7	36.4	0	0	0	0		
NET EXPOSED WALL	4.4	416	58	168	40	20		
NET EXPOSED B SMT WALL ABOVE GR	3.5	0	0	86	86	0		
EXPOSED CLG	1.3	6	184	0	0	0		
NO A TTIC EXPOSED CLG	2.7	0	0	0	0	0		
EXPOSED FLOOR	2.5	0	41	0	0	0		
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0		
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0		
SUBTOTAL HT LOSS	1762	3789	876	1145	1652	711		
SUB TOTAL HT GAIN	1145	4067	503	988	571	125		
LEVEL FACTOR / MULTIPLIER	0.30	0.42	0.20	0.30	0.30	0.30		
AIR CHANGE HEAT LOSS	742	1697	281	483	696	300		
AIR CHANGE HEAT GAIN	103	365	45	89	51	11		
DUCT LOSS	0	0	116	0	0	0		
DUCT GAIN	0	0	91	0	0	0		
HEAT GAIN PEOPLE	240	0	0	0	0	0		
HEAT GAIN APPLIANCES/LIGHTS	361	361	361	0	0	361		
TOTAL HT LOSS BTU/H	2504	5386	1273	1628	2348	1010		
TOTAL HT GAIN x 1.3 BTU/H	2090	6230	1300	1400	808	645		

TOTAL HEAT GAIN BTU/H: 25350 TONS: 2.11 LOSS DUE TO VENTILATION LOAD BTU/H: 2785 STRUCTURAL HEAT LOSS: 35923 TOTAL COMBINED HEAT LOSS BTU/H: 38708

SITE NAME: MCLAUGHLIN & MAYFIELD BUILDER: GOLD PARK HOMES				TYPE: SD-2 - A19		LOT 16L + 16R		DATE: Aug-17		GFA: 1662		LO# 75684	
HEATING CFM		950		COOLING CFM		950		furnace pressure		0.6			
TOTAL HEAT LOSS		35,923		TOTAL HEAT GAIN		26,383		a/c coil pressure		0.2			
AIR FLOW RATE CFM		26.45		AIR FLOW RATE CFM		36.01		available pressure		0.35			
								for s/a & r/a					
RUN COUNT		4th		3rd		2nd		1st		Bas			
S/A		0		0		9		7		4			
R/A		0		0		3		2		1			
All S/A diffusers 4"x10" unless noted otherwise on layout.													
All S/A runs 5"Ø unless noted otherwise on layout.													
EL296UH045XE38B ^LENNOX 45 AFUE = 96 %													
FAN SPEED 0 LOW MEDIUM 650 DESIGN CFM = 950													
MEDIUM HIGH 1060 CFM @ δ" E.S.P.													
HIGH 0 TEMPERATURE RISE 42 °F													

RUN #	ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BATH	7	8	10	12	14	15	16	17	18	19	20	21	22	23	24
1	RM LOSS MBH	1.23	1.06	0.11	1.11	1.49	2.18	2.18	1.11	1.23	2.50	1.80	1.80	1.80	1.27	1.63	2.35	1.01	3.06	3.06	3.06	3.06
2	CFM PER RUN HEAT	33	28	3	29	40	58	58	29	33	66	47	47	47	34	43	62	27	81	81	81	81
3	RM GAIN MBH	1.73	1.03	0.06	1.61	2.03	1.92	1.92	1.61	1.73	2.23	2.21	2.21	2.21	1.38	1.49	0.87	0.69	0.35	0.35	0.35	0.35
4	CFM PER RUN COOLING	62	37	2	58	73	69	69	58	62	80	80	80	80	50	54	31	25	13	13	13	13
5	ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	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
6	ACTUAL DUCT LGH.	45	31	43	39	42	43	43	46	53	31	33	22	18	40	31	20	14	21	17	30	30
7	EQUIVALENT LENGTH	140	150	120	180	220	160	160	200	150	210	100	130	120	200	140	150	180	120	130	190	130
8	TOTAL EFFECTIVE LENGTH	185	181	163	219	262	203	203	246	203	241	133	152	138	240	171	181	200	134	151	207	160
9	ADJUSTED PRESSURE	0.09	0.1	0.11	0.08	0.07	0.08	0.08	0.07	0.08	0.07	0.13	0.11	0.12	0.07	0.1	0.1	0.09	0.12	0.11	0.08	0.1
10	ROUND DUCT SIZE	5	4	4	5	5	5	5	5	5	6	5	5	5	5	4	5	4	5	5	5	5
11	HEATING VELOCITY (ft/min)	242	321	34	213	294	426	426	213	242	337	345	345	345	250	493	455	310	595	595	595	595
12	COOLING VELOCITY (ft/min)	455	424	23	426	536	507	507	426	455	408	587	587	587	360	620	620	287	95	95	95	95
13	OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
14	TRUNK	B	A	A	C	C	C	C	C	B	C	B	A	A	C	C	C	B	B	B	C	C

RUN #	ROOM NAME	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	VELOCITY (ft/min)
1	RM LOSS MBH	125	0.10	6.1	4	8	0	0.00	0	0	0	0	0.00	0	0	0
2	CFM PER RUN HEAT	427	0.08	10.2	12	8	0	0.00	0	0	0	0	0.00	0	0	0
3	RM GAIN MBH	523	0.07	11.4	16	8	0	0.00	0	0	0	0	0.00	0	0	0
4	CFM PER RUN COOLING	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
5	ADJUSTED PRESSURE	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
6	ACTUAL DUCT LGH.	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
7	EQUIVALENT LENGTH	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
8	TOTAL EFFECTIVE LENGTH	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
9	ADJUSTED PRESSURE	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
10	ROUND DUCT SIZE	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
11	HEATING VELOCITY (ft/min)	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
12	COOLING VELOCITY (ft/min)	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
13	OUTLET GRILL SIZE	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0
14	TRUNK	0	0.00	0	0	8	0	0.00	0	0	0	0	0.00	0	0	0

RETURN AIR #	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)
1	120	0.15	0.15	0.15	0.15	0	0.00	0	0	0	0	0.00	0	0	0
2	185	0.15	0.15	0.15	0.15	0	0.00	0	0	0	0	0.00	0	0	0
3	236	0.15	0.15	0.15	0.15	0	0.00	0	0	0	0	0.00	0	0	0
4	0.06	0.06	0.06	0.06	0.06	0	0.00	0	0	0	0	0.00	0	0	0
5	6.8	6.8	6.8	6.8	6.8	0	0.00	0	0	0	0	0.00	0	0	0
6	8	8	8	8	8	0	0.00	0	0	0	0	0.00	0	0	0
7	14	14	14	14	14	0	0.00	0	0	0	0	0.00	0	0	0
8	120	0.15	0.15	0.15	0.15	0	0.00	0	0	0	0	0.00	0	0	0
9	185	0.15	0.15	0.15	0.15	0	0.00	0	0	0	0	0.00	0	0	0
10	236	0.15	0.15	0.15	0.15	0	0.00	0	0	0	0	0.00	0	0	0
11	0.06	0.06	0.06	0.06	0.06	0	0.00	0	0	0	0	0.00	0	0	0
12	6.8	6.8	6.8	6.8	6.8	0	0.00	0	0	0	0	0.00	0	0	0
13	8	8	8	8	8	0	0.00	0	0	0	0	0.00	0	0	0
14	14	14	14	14	14	0	0.00	0	0	0	0	0.00	0	0	0

TYPE: SD-2 - A19
SITE NAME: MCLAUGHLIN & MAYFIELD

LO # 75684
LOT 16L + 16R

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	2 @ 10.6 cfm	21.2 cfm
Kitchen & Bathrooms	4 @ 10.6 cfm	42.4 cfm
Other Rooms	4 @ 10.6 cfm	42.4 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
TOTAL	63.6	cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	148.4	cfm
Less Principal Ventil. Capacity	139	cfm
Required Supplemental Capacity	9.4	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE 60H-V+
Location:	BSMT
139.0 cfm	3.0 sones
☒	HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
139.0 CFM	X 74 F	X 1.08	X 0.25

SUPPLEMENTAL FANS		NUTONE
Location	Model	cfm HVI Sones
ENS	QTXEN050C	50 ✓ 0.3
BATH	QTXEN050C	50 ✓ 0.3
W/R	QTXEN050C	50 ✓ 0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE 60H-V+	
139 cfm high	50 cfm low	
75 % 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:	August-17

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: SD-2 - A19	LOT 16L + 16R	BUILDER: GOLD PARK HOMES
SFQT: 1662	LO# 75684	SITE: MCLAUGHLIN & MAYFIELD

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-2	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

BUILDING DATA

ATTACHMENT:	ATTACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	4.55	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	22378.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	4
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 42.0 ft	WIDTH: 25.0 ft	EXPOSED PERIMETER:	115.0 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	-

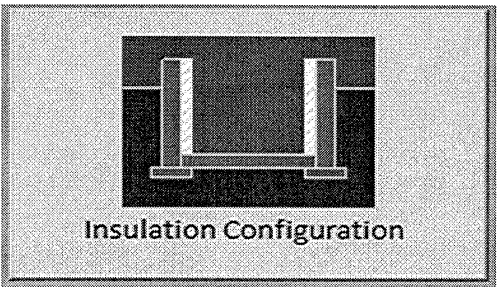
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	12.8	 Insulation Configuration
Floor Width (m):	7.6	
Exposed Perimeter (m):	35.1	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	1.8	
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):	1111	

TYPE: SD-2 - A19
LO# 75684

LOT 16L + 16R

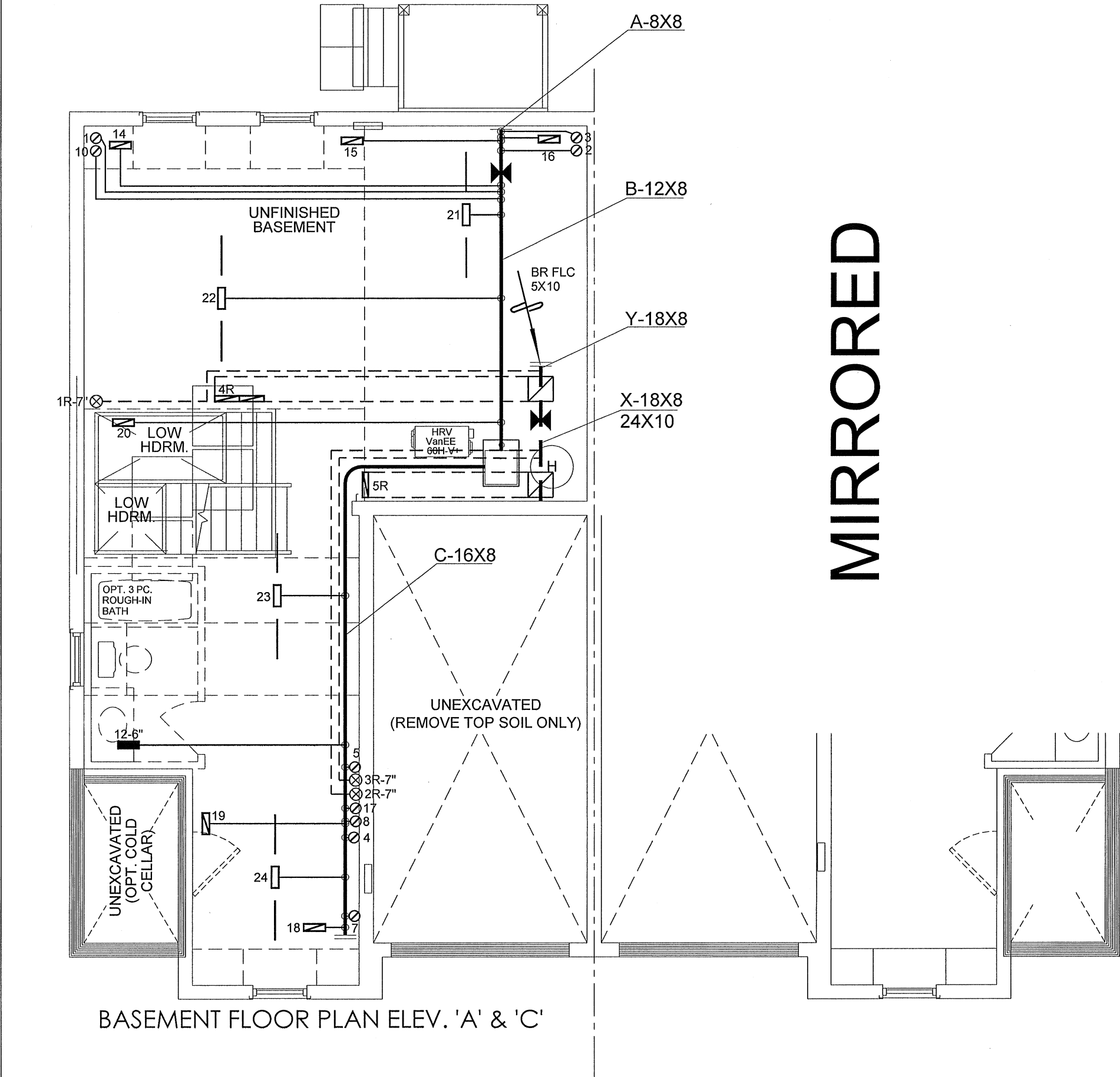
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Brampton			
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:	Semi			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	633.7			
Air Leakage/Ventilation				
Air Tightness Type:	Average (1946-1960) (4.55 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1076.6 cm ²		
	4.55	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	65.6	65.6		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.428			
Cooling Air Leakage Rate (ACH/H):	0.147			

TYPE: SD-2 - A19
LO# 75684

LOT 16L + 16R



MIRRORED

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.

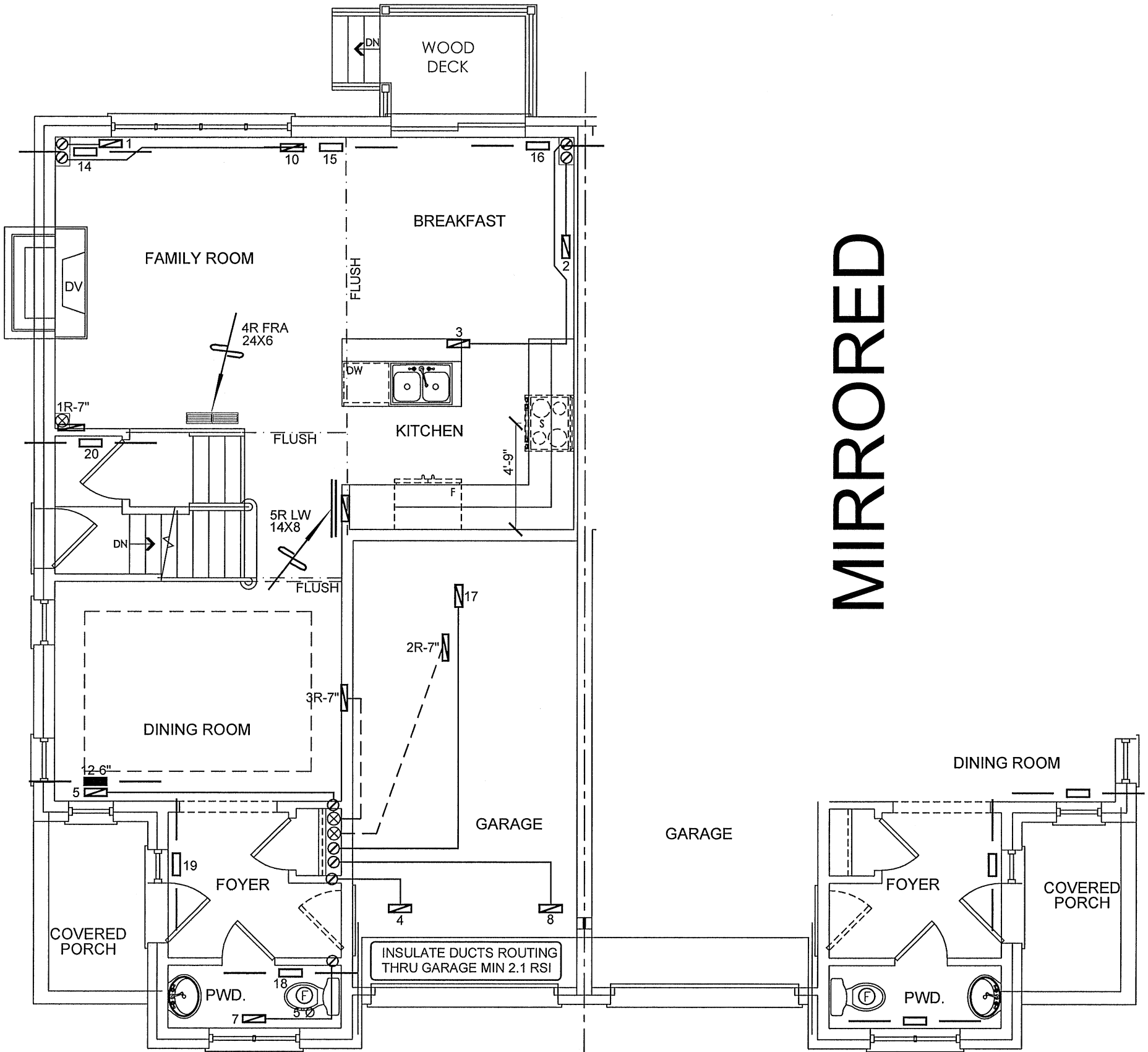
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND						3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	
	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		MAKE LENNOX	MODEL EL296UH045XE36B	INPUT 44	MBTU/H	OUTPUT 43	MBTU/H	COOLING 2.0	TONS	FAN SPEED 950	cfm @ 0.5" w.c.	3RD FLOOR						BASEMENT HEATING LAYOUT	
Project Name		2ND FLOOR		9	3	3	1ST FLOOR		7	2	2	BASEMENT			4	1	0	Date	AUG/2017
MCLAUGHLIN & MAYFIELD BRAMPTON, ONTARIO																	Scale	3/16" = 1'-0"	
LOT 16L +16R SD-2 - A19																	BCIN# 19669		
1662 sqft																	LO#	75684	



PARTIAL GROUND FLOOR PLAN ELEV. 'C'

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.

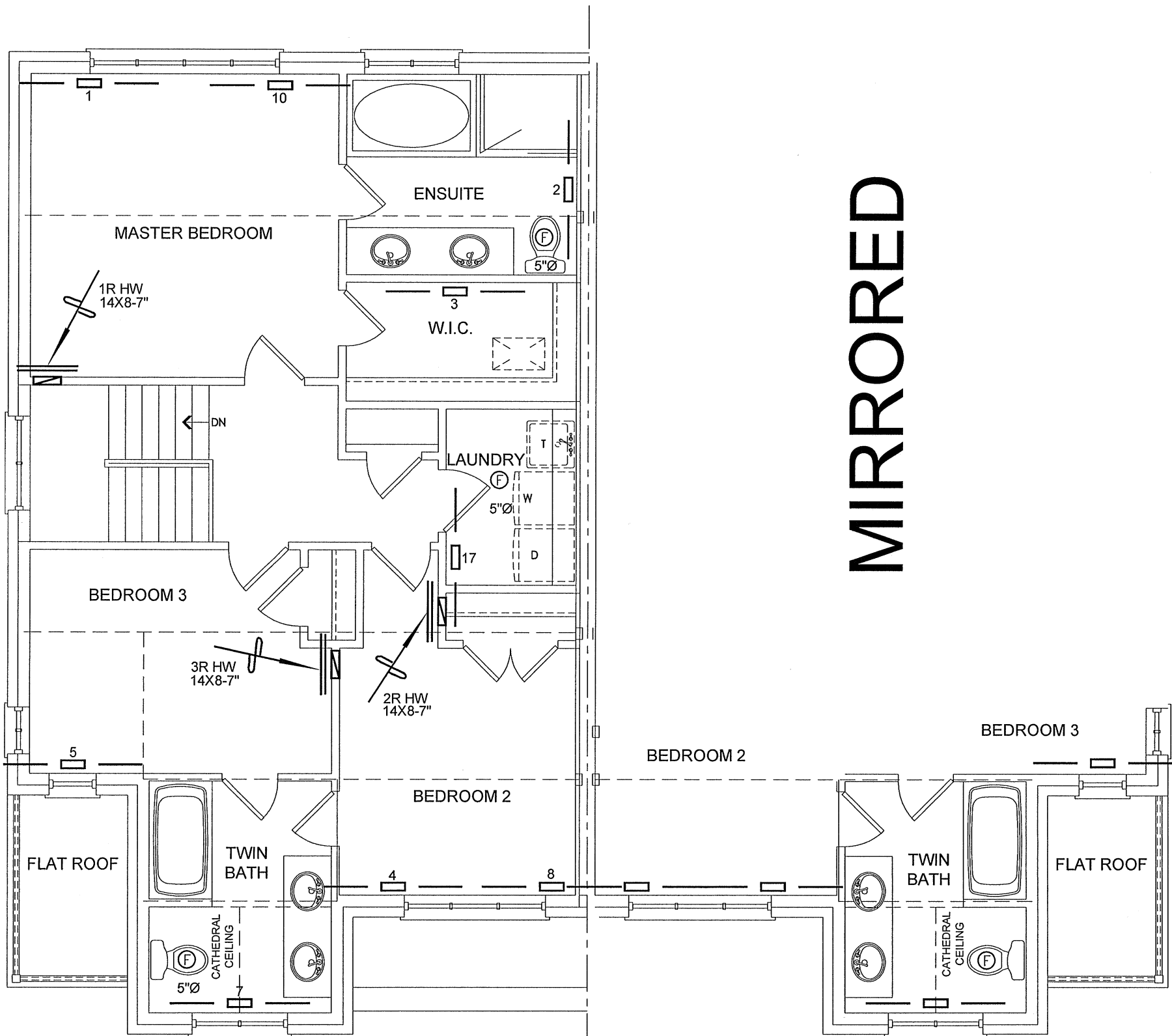
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	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			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	AUG/2017
MCLAUGHLIN & MAYFIELD BRAMPTON, ONTARIO			Scale	3/16" = 1'-0"
LOT 16L +16R SD-2 - A19			BCIN# 19669	
1662 sqft			LO#	75684



PARTIAL SECOND FLOOR PLAN ELEV. 'C'

MIRRORED

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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.		
	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	AUG/2017
MCLAUGHLIN & MAYFIELD BRAMPTON, ONTARIO			Scale	3/16" = 1'-0"
LOT 16L +16R SD-2 - A19			BCIN# 19669	
1662 sqft			LO#	75684