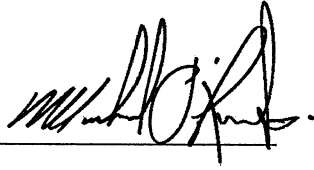


Schedule 1: Designer Information

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: 38-7 Project: ENCORE	
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>March 7, 2017</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: ENCORE BUILDER: GOLD PARK HOMES			TYPE: 38-7		GFA: 3849		DATE: Mar-17 LO# 72707		WINTER NATURAL AIR CHANGE RATE 0.409		HEAT LOSS AT °F. 74		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	REC-1	REC-2				
FACTORS	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN
GRS.WALL AREA	333	225	63	108	378	288	63	99	567	396				
GLAZING	8	189	135	0	0	0	0	8	189	135	0	0	0	0
NORTH	23.7	16.9	0	0	0	0	0	0	0	0	85	2013	3608	0
EAST	23.7	42.4	32	758	1358	18	426	764	0	0	0	0	20	474
SOUTH	23.7	25.8	0	0	0	0	0	0	0	0	0	0	0	516
WEST	23.7	42.4	0	0	0	16	379	413	0	0	0	0	0	0
SKYL.T.	23.7	87.5	0	0	0	37	878	1571	38	900	1613	0	0	0
DOORS	24.6	4.7	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.4	0.6	293	986	186	207	696	132	63	212	40	92	309	59
NET EXPOSED BSMT WALL ABOVE GR	6.2	1.2	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.5	0.7	300	444	216	144	213	104	112	166	81	216	320	156
NO A T T C EXPOSED CLG	2.4	1.2	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.4	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	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2377	1896	378	1008	627	1996	2065	687	3634	3915	285	307	541	1738
SUB TOTAL HT GAIN	0.10	0.21	0.10	0.21	0.10	0.21	0.10	0.21	0.30	0.97	0.30	0.97	0.30	0.97
LEVEL FACTOR / MULTPLIER	497	279	79	211	540	432	113	144	3613	3513	17	234	456	1680
AIR CHANGE HEAT LOSS	113	60	7	37	119	115	18	83	0	0	30	0	0	45
AIR CHANGE HEAT GAIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUCT GAIN	2	480	0	1	240	1	240	0	0	0	0	0	0	0
HEAT GAIN PEOPLE	240	456	0	456	456	456	456	456	456	456	456	456	456	456
HEAT GAIN APPLIANCES/LIGHTS	2874	1615	457	1219	3122	2872	654	913	7147	5986	433	1015	3419	1633
TOTAL HT GAIN x 1.3 BTU/H	3828	1377	166	1768	3655	3919	1015	433	5986	1633				

ROOM USE	FACTORS		LIV	DIN	K/T/FM	ENT	LAUN	WIR	FOY	MUD	BAS
EXP. WALL	LOSS	GAIN	38	13	79	12	9	6	31	30	162
CLG. HT.			10	10	10	10	10	10	15	9	9
GRS.WALL AREA	380	130			790	120	90	60	465	270	972
GLAZING	LOSS	GAIN	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS
NORTH	23.7	16.9	0	0	16	379	270	0	0	0	0
EAST	23.7	42.4	0	0	110	2605	4669	0	5	118	84
SOUTH	23.7	25.8	0	0	0	0	0	0	0	0	0
WEST	23.7	42.4	0	37	0	0	0	12	0	0	0
SKYLT.	23.7	87.5	69	876	0	0	0	284	0	10	237
DOORS	24.6	4.7	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.4	0.6	311	313	864	2233	423	48	409	230	146
NET EXPOSED B SMT WALL ABOVE GR	6.2	1.2	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.5	0.7	0	0	0	0	0	0	0	0	0
NO A T T I C EXPOSED CLG	2.4	1.2	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.4	0.5	265	52	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS			0	124	0	80	186	35	0	0	0
SLAB ON GRADE HEAT LOSS			0	23	0	0	0	0	0	0	0
SUBTOTAL HT LOSS			3313	1313	5217	1443	489	446	2738	1748	10795
LEVEL FACTOR / MULTIPLIER	0.20	0.31	0.20	0.31	0.20	0.20	0.31	0.20	0.31	0.30	0.97
AIR CHANGE HEAT LOSS	1016	403	1600	443	150	443	137	137	840	1690	9178
AIR CHANGE HEAT GAIN			194	62	321	16	6	20	60	33	59
DUCT LOSS	433	172			0	189	64	0	0	0	0
DUCT GAIN	390	155			0	75	55	0	0	0	0
HEAT GAIN PEOPLE	0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	456	456	456	456	456	456	456	456	456	456	456
TOTAL HT LOSS BTU/H	4762	1888	6818	2075	792	582	3578	3438	19973	1959	19973
TOTAL HT GAIN x 1.3 BTU/H	5572	2223	7979	1065	792	469	1967	1342			

SITE NAME: ENCORE
BUILDER: GOLD PARK HOMES

TYPE: 38-7 DATE: Mar-17

GFA: 3849 LO# 72707

HEATING CFM 1525 COOLING CFM 1525
TOTAL HEAT LOSS 68,105 TOTAL HEAT GAIN 47,147
AIR FLOW RATE CFM 22.39 AIR FLOW RATE CFM 32.35

EL296UH090XE48C
FAN SPEED LOW 0
MEDIUM 1105
HIGH 1255

AFUE = 98 %
INPUT (BTU/H) = 88,000
OUTPUT (BTU/H) = 85,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	11	10	4	4
R/A	0	4	2	2	1

DESIGN CFM = 1525
CFM @ 8" E.S.P.
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.

RUN #	1	2	3	4	5	6	7	8	9	10	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	BED-3	BED-4	MBR	ENS-2	LIV	DIN	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	ENT	REC-1	REC-1	MUD	REC-2
RM LOSS MBH	1.44	1.61	0.46	1.22	1.56	1.44	0.65	1.56	1.44	1.44	0.91	2.38	1.89	2.27	2.27	2.27	0.70	0.58	3.58	2.07	3.57	3.57	3.44	3.42
CFM PER RUN HEAT	32	36	10	27	35	32	15	35	32	32	20	53	42	51	51	51	16	13	80	46	80	80	77	77
RM GAIN MBH	1.91	1.38	0.17	1.77	1.83	1.96	1.02	1.83	1.96	1.91	0.43	2.79	2.22	2.66	2.66	2.66	0.79	0.47	1.97	1.07	2.99	2.99	1.34	1.63
CFM PER RUN COOLING	62	45	5	57	59	63	33	59	63	62	14	90	72	86	86	86	26	15	64	34	97	97	43	53
ADJUSTED PRESSURE	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.16	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.15	0.15	0.16	0.16
ACTUAL DUCT LGH	81	63	62	42	64	60	48	72	64	68	48	43	35	64	55	42	29	11	24	35	46	28	15	5
EQUIVALENT LENGTH	160	200	200	200	190	160	140	200	140	200	140	160	140	130	140	170	140	110	120	160	100	120	140	110
TOTAL EFFECTIVE LENGTH	241	263	262	242	254	220	188	272	204	268	188	203	175	194	195	212	169	121	144	195	146	148	155	115
ADJUSTED PRESSURE	0.07	0.06	0.06	0.07	0.06	0.07	0.09	0.06	0.08	0.06	0.09	0.07	0.09	0.08	0.08	0.07	0.1	0.13	0.11	0.08	0.1	0.1	0.1	0.14
ROUND DUCT SIZE	5	5	4	5	5	5	4	5	5	5	4	6	5	6	6	6	4	4	5	4	6	6	5	5
HEATING VELOCITY (ft/min)	235	264	115	198	257	235	172	257	235	235	229	270	308	260	260	260	184	149	587	528	408	408	565	565
COOLING VELOCITY (ft/min)	455	330	57	419	433	463	379	433	463	455	161	459	529	438	438	438	298	172	470	390	495	495	316	389
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10
TRUNK	A	A	A	A	B	E	B	B	E	A	E	E	B	A	A	A	E	F	F	F	D	D	D	E

RUN #	25	26	27	28	29
ROOM NAME	BAS	BAS	BAS	LIV	BAS
RM LOSS MBH	4.99	4.99	4.99	2.38	4.99
CFM PER RUN HEAT	112	112	112	53	112
RM GAIN MBH	0.49	0.49	0.49	2.79	0.49
CFM PER RUN COOLING	16	16	16	90	16
ADJUSTED PRESSURE	0.14	0.14	0.14	0.15	0.14
ACTUAL DUCT LGH	18	31	45	37	33
EQUIVALENT LENGTH	110	110	90	150	120
TOTAL EFFECTIVE LENGTH	128	141	135	187	153
ADJUSTED PRESSURE	0.11	0.1	0.1	0.08	0.09
ROUND DUCT SIZE	6	6	6	6	6
HEATING VELOCITY (ft/min)	571	571	571	270	571
COOLING VELOCITY (ft/min)	82	82	82	459	82
OUTLET GRILL SIZE	4X10	4X10	4X10	4X10	4X10
TRUNK	F	D	D	F	D

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	290	0.06	9.5	10	522	TRUNK G	0	0.00	0	0	0	TRUNK O	0	0.04	0	0	0
TRUNK B	127	0.06	7	6	381	TRUNK H	0	0.00	0	0	0	TRUNK P	0	0.04	0	0	0
TRUNK C	417	0.06	10.9	14	536	TRUNK I	0	0.00	0	0	0	TRUNK Q	0	0.04	0	0	0
TRUNK D	573	0.09	11.1	14	737	TRUNK J	0	0.00	0	0	0	TRUNK R	0	0.04	0	0	0
TRUNK E	1220	0.06	16.2	30	732	TRUNK K	0	0.00	0	0	0	TRUNK S	0	0.04	0	0	0
TRUNK F	304	0.08	9	10	547	TRUNK L	0	0.00	0	0	0	TRUNK T	0	0.04	0	0	0

RETURN AIR #	1	2	3	4	5	6	7	8
AIR VOLUME	100	75	95	120	270	280	225	155
PLENUM PRESSURE	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
ACTUAL DUCT LGH	90	63	54	76	68	51	36	40
EQUIVALENT LENGTH	240	195	145	265	265	206	225	185
TOTAL EFFECTIVE LENGTH	330	258	199	341	333	206	261	225
ADJUSTED PRESSURE	0.04	0.05	0.07	0.04	0.04	0.07	0.05	0.06
ROUND DUCT SIZE	7	6	6	7.5	9	9	9	8
INLET GRILL SIZE	8	8	8	8	8	8	8	8
INLET GRILL SIZE	14	14	14	14	30	30	30	14

TYPE: 38-7
SITE NAME: ENCORE

LO # 72707

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	5 @ 10.6 cfm	53 cfm
Other Rooms	7 @ 10.6 cfm	74.2 cfm
Table 9.32.3.A.	TOTAL	201.4 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	201.4	cfm
Less Principal Ventil. Capacity	86	cfm
Required Supplemental Capacity	115.4	cfm

PRINCIPAL EXHAUST FAN CAPACITY			
Model:	VANEE 40H+ Location: BSMT		
86.0 cfm	3.0 sones ☒ HVI Approved		
PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
86.0 CFM	X 74 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 40H+	
86	cfm high	37 cfm low
66	% Sensible Efficiency @ 32 deg F (0 deg C)	☒ HVI Approved

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:	March-17

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** 38-7**BUILDER:** GOLD PARK HOMES**SFQT:** 3849**LO#** 72707**SITE:** ENCORE**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:	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):	42414.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 49.0 ft	WIDTH: 32.0 ft	EXPOSED PERIMETER:	162.0 ft

2012 OBC - COMPLIANCE PACKAGE		Compliance Package J	
Component		Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value		50	50
Ceiling Without Attic Space Minimum RSI (R)-Value		31	31
Exposed Floor Minimum RSI (R)-Value		31	31
Walls Above Grade Minimum RSI (R)-Value		22	22
Basement Walls Minimum RSI (R)-Value		12	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	#N/A
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value		10	#N/A
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	-

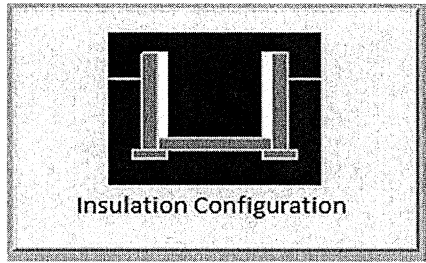
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	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):	14.9	 Insulation Configuration
Floor Width (m):	9.8	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
Window Area (m ²):	0.8	
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):	2078	

TYPE: 38-7
LO# 72707

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):	9.45		
Building Configuration			
Type:	Detached		
Number of Stories:	Three		
Foundation:	Full		
House Volume (m ³):	1201.0		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1601.0 cm ²	
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	40.6	40.6	
Flue Size			
Flue #:	#1	#2	#3
Diameter (mm):	0	0	0
	#4	0	
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.409		
Cooling Air Leakage Rate (ACH/H):	0.145		

TYPE: 38-7
LO# 72707

LOW
HEAD
ROOM

UNFINISHED
BASEMENT

UNEXCAVATED
(REMOVE TOPSOIL ONLY)

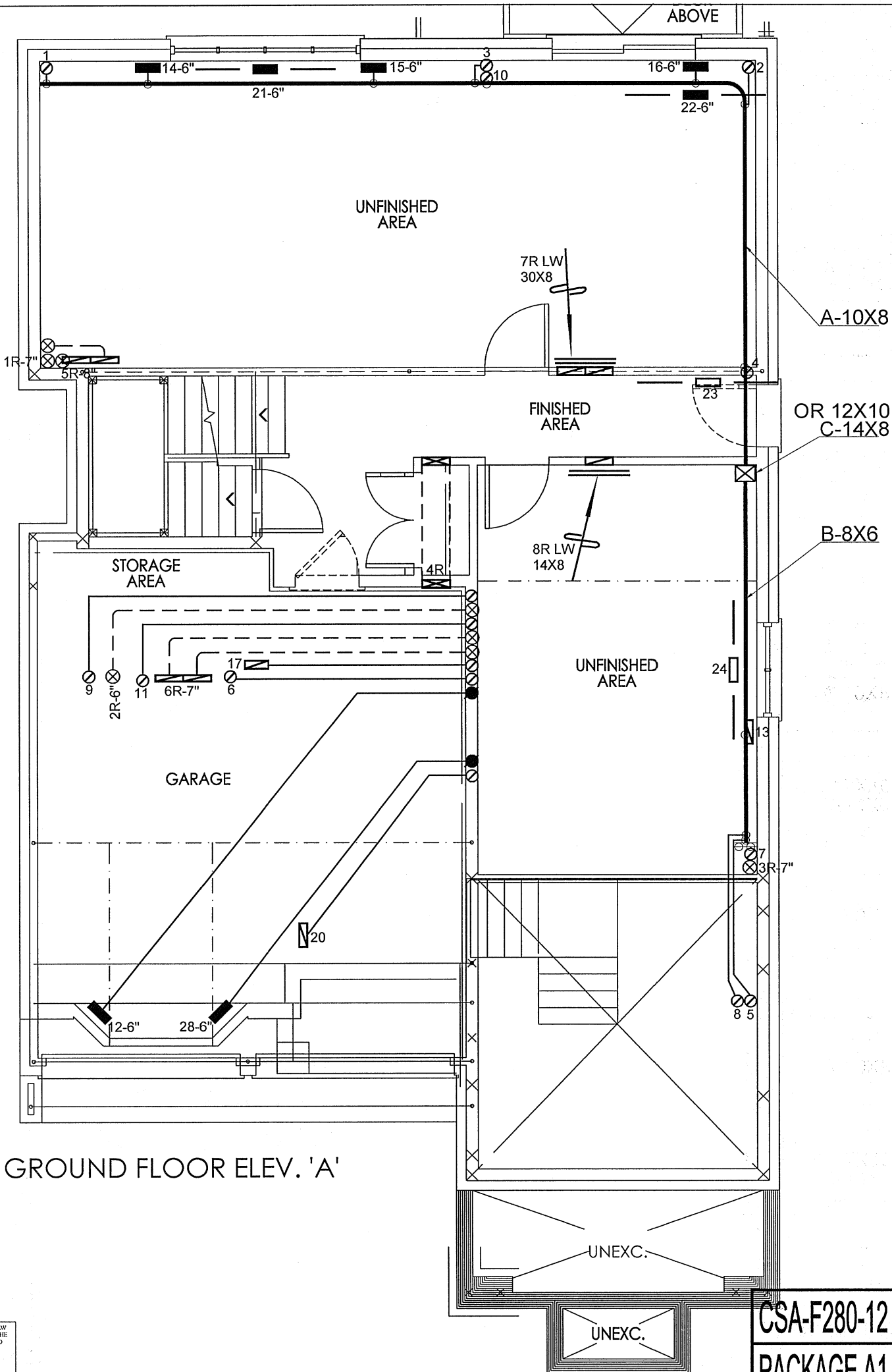
BASEMENT FLOOR ELEV. 'A' & 'B'

1 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
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	Date	

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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: mike@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 70442 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title	
Project Name ENCORE BRAMPTON, ONTARIO			MAKE	LENNOX	3RD FLOOR	11	4	3	BASEMENT HEATING LAYOUT	
			MODEL	EL296UH090XE48C	2ND FLOOR	10	2	2		
			INPUT	88 MBTUH	1ST FLOOR	4	2	0		
			OUTPUT	85 MBTUH	BASEMENT	4	1	0	Date	MAR/2017
			COOLING	4.0 TONS	ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5" UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A				Scale	3/16" = 1'-0"
FAN SPEED	1525 cfm @ 0.5" w.c.					BCIN# 19669				
38-7	3849 sqft							LO#	72707	



GROUND FLOOR ELEV. 'A'

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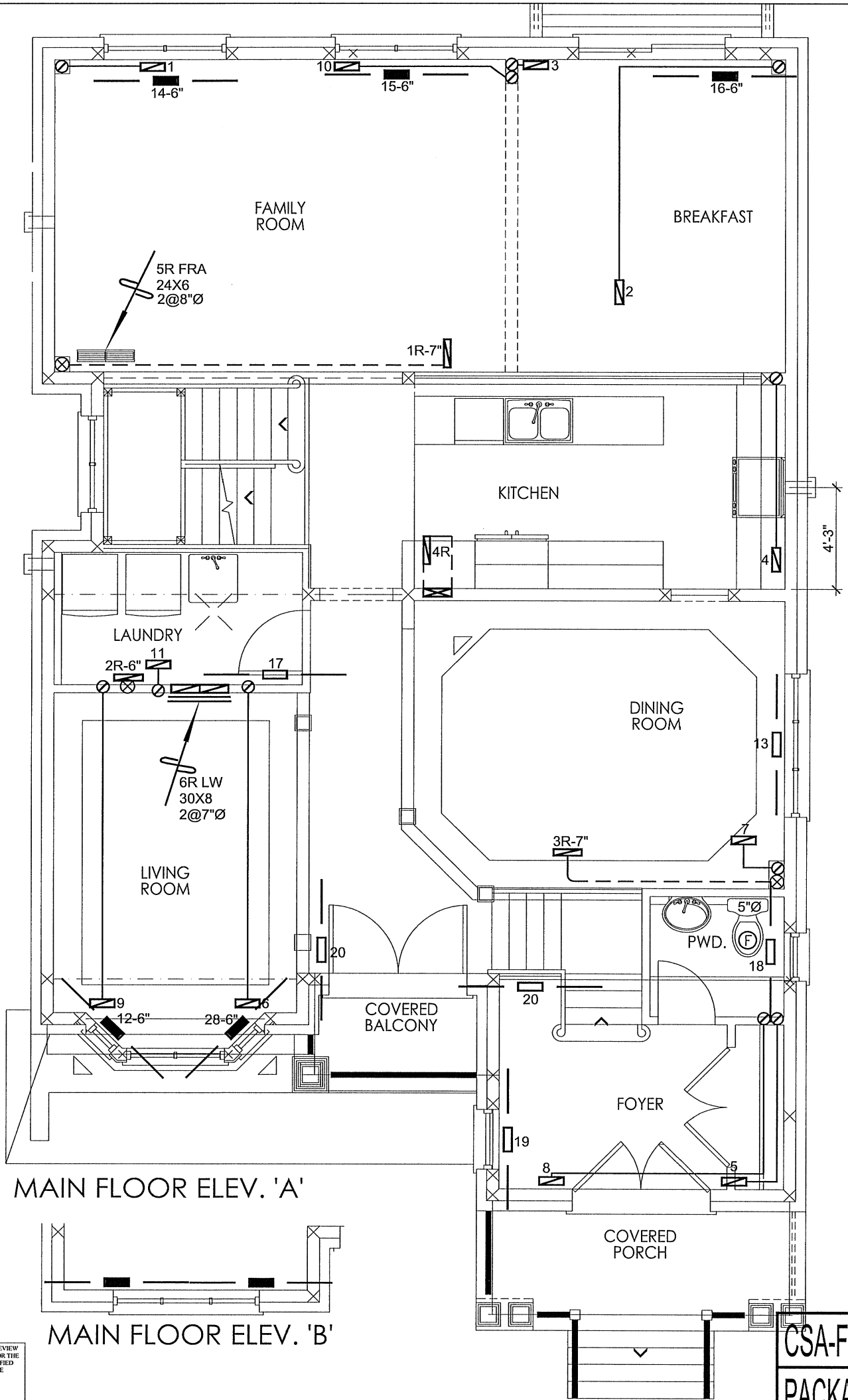
Michael O'Rourke
Michael O'Rourke, BCIN 19669
HVAC DESIGNS LTD.

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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Client		 375 Finley Ave, Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: mike@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services	Sheet Title	
GOLD PARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	MAR/2017
ENCORE BRAMPTON, ONTARIO			Scale	3/16" = 1'-0"
		BCIN# 19669		
38-7	3849 sqft	LO# 72707		



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

CSA-F280-12
PACKAGE A1

HVAC LEGEND									
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	3.	
	FLOOR 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.	
								No.	Description
									Date

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Client

GOLD PARK HOMES

Project Name

ENCORE
BRAMPTON, ONTARIO

38-7

3849 sqft

HVACDESIGNS LTD.

375 Finley Ave, Suite 202 - Ajax, Ontario
L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: mike@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

SECOND FLOOR
HEATING
LAYOUT

Date

MAR/2017

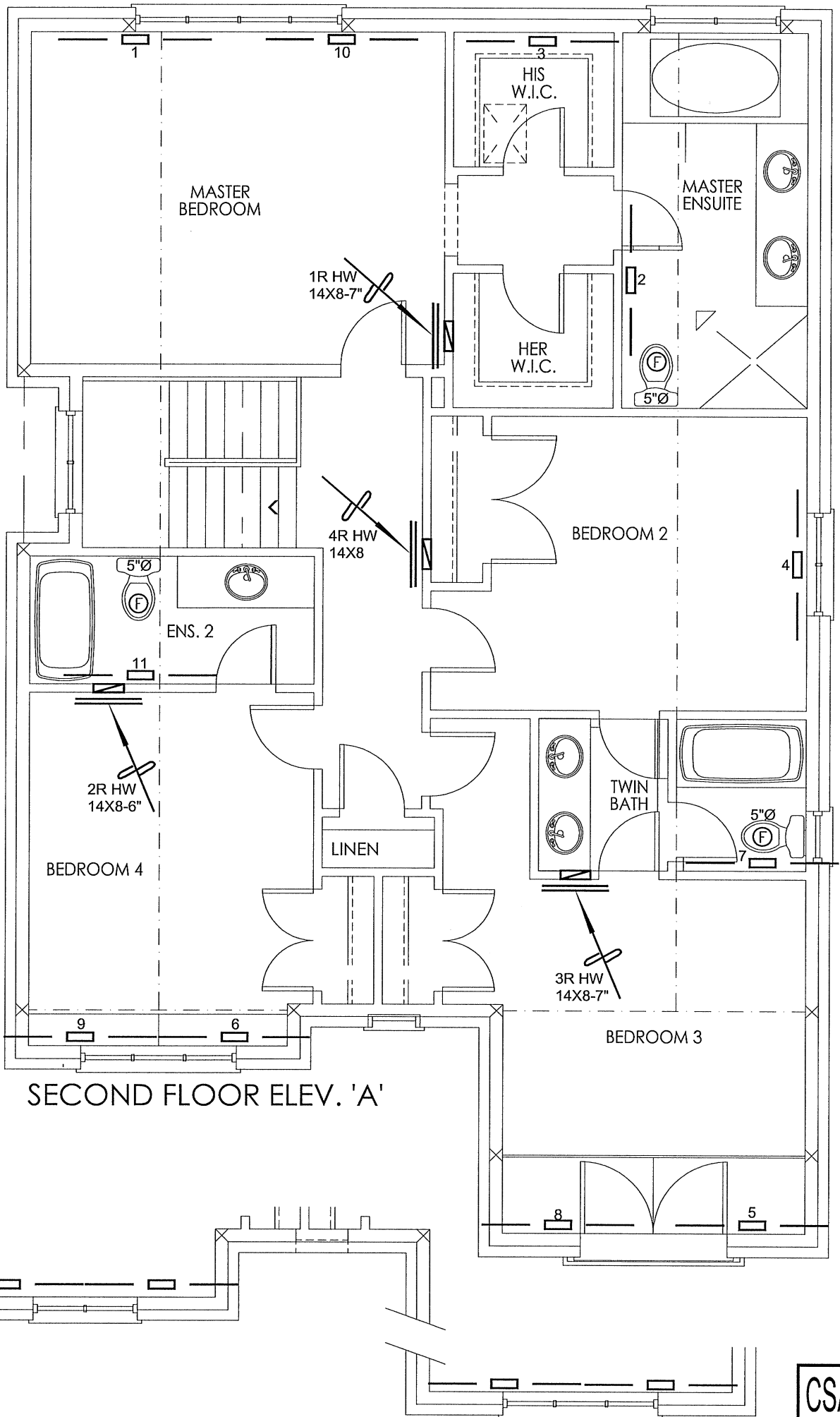
Scale

3/16" = 1'-0"

BCIN# 19669

LO#

72707



SECOND FLOOR ELEV. 'A'

PART. SECOND FLOOR ELEV. 'B'

CSA-F280-12
PACKAGE A1

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

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

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Client
GOLD PARK HOMES

Project Name
ENCORE
BRAMPTON, ONTARIO

38-7 3849 sqft

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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
THIRD FLOOR
HEATING
LAYOUT

Date MAR/2017

Scale 3/16" = 1'-0"

BCIN# 19669

LO# 72707