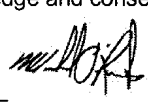


Schedule 1: Designer Information

Type in the text you want to insert

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 MODEL CERTIFICATION		Unit no. N/A	Lot/con. N/A
Municipality KING CITY	Postal code N/A	Plan number/ other description N/A	
B. Individual who reviews and takes responsibility for design activities			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.	
Street address 65 CHURCH STREET SOUTH		Unit no.	Lot/con.
Municipality AJAX	Postal code L1S 6A7	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]			
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings			
<input type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection			
<input type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems			
Description of designer's work Heat Loss/Gain Calculations Duct Sizing Residential Mechanical Ventilation Design Summary Residential System Design per Can/CSA-F280-M90		Model: 50-12 Project: CASTLES OF KING CITY	
D. Declaration of Designer			
I, <u>MICHAEL O'ROURKE</u> declare that (choose one as appropriate): (print name)			
<input type="checkbox"/> 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: _____			
<input checked="" type="checkbox"/> 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: <u>O.B.C. SENTENCE 3.2.4.1. (4)</u>			
<input type="checkbox"/> 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 30, 2014</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.

ROOM USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	ENS-4	WIC-2	HALL	ENS-2	R1	R2
EXP. WALL	32	28	15	25	36	31	0	9	22	23	0	0
RM AREA	336	195	135	195	252	247	171	98	285	99	0	0
CLG. HT.	11	10	10	10	10	10	10	10	10	10	9	9
COLD FLOOR	0	0	0	0	252	0	0	0	0	99	0	0
COLD CEILING	336	195	135	195	252	247	171	98	285	99	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
GROSS WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	0
GROSS WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
FACTORS												
GRS WALL AREA	352	280	150	250	360	310	0	90	220	230	0	0
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	0	9	0	0	0	0	0	0	0	0	0	0
EASTWEST	69	23	0	35	38	34	0	0	28	0	0	0
SOUTH	10	0	0	0	0	0	0	0	36	25	0	0
SKYLT.	195	0	0	0	0	0	0	0	702	488	0	0
DOORS	259	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL BAS ABOVE GR	263	725	150	629	942	807	171	90	156	88	0	0
EXPOSED CLG	336	289	135	289	374	367	254	98	423	201	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	285	147	0	0
EXPOSED FLOOR	0	0	0	0	252	0	0	0	0	99	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	234	45	0
EXPOSED WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
BELOW GRADE HT LOSS FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	3068	1639	639	1601	2652	1837	254	409	2127	1468	0	0
SUB TOTAL HT GAIN	2921	1161	179	1413	1071	742	103	165	859	593	0	0
HT LOSS AIR LEAKAGE FACTOR	1239	662	258	646	1071	742	103	165	859	593	0	0
HT GAIN AIR LEAKAGE FACTOR	0.404	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
HT GAIN PEOPLE/APPLIANCES	240	480	1	2247	3723	2579	356	574	2986	2061	0	0
TOTAL HT LOSS BTU/H	4306	2301	897	2247	3723	2579	356	574	2986	2061	0	0
TOTAL HT GAIN x 1.3 BTU/H	4897	2011	574	2380	2839	2435	487	176	3044	1855	0	0

1 REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

INDIVIDUAL BCIN: 19669 MICHAEL OROURKE

ROOM USE	ENS-3	DIN	KT/PM	FAM	LAUN	WIR	FOY	DEN	R3	R4	WOB	BAS
EXP. WALL	0	400	730	0	165	0	420	400	0	0	0	0
RM AREA	196	0	0	0	0	0	0	0	0	0	0	0
CLG. HT.	10	10	10	10	11	10	10	10	9	9	9	9
COLD FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
COLD CEILING	196	0	10	0	0	0	0	15	0	0	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
GROSS WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	0
GROSS WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
FACTORS												
GRS WALL AREA	0	400	730	0	165	0	420	400	0	0	0	0
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	0	0	0	0	0	0	0	0	0	0	0	0
EASTWEST	0	45	150	0	0	0	14	50	0	0	0	23
SOUTH	0	0	15	0	0	0	0	0	0	0	0	17
SKYLT.	0	0	293	0	0	0	0	0	0	0	0	0
DOORS	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL BAS ABOVE GR	0	355	539	0	20	0	28	350	0	0	0	40
EXPOSED CLG	0	1038	1576	0	518	0	378	1024	0	0	0	1037
NO ATTIC EXPOSED CLG	0	0	0	0	145	0	0	0	0	0	0	0
EXPOSED FLOOR	196	0	10	0	0	0	0	15	0	0	0	572
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
BELOW GRADE HT LOSS FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	291	1916	5380	0	942	0	2104	2021	0	0	0	1825
SUB TOTAL HT GAIN	117	774	2173	0	381	0	850	816	0	0	0	10197
HT LOSS AIR LEAKAGE FACTOR	0.404	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
HT GAIN AIR LEAKAGE FACTOR	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
HT GAIN PEOPLE/APPLIANCES	240	480	1	2247	3723	2579	356	574	2986	2061	0	14315
TOTAL HT LOSS BTU/H	408	2689	7553	0	1323	0	2954	2837	0	0	0	1825
TOTAL HT GAIN x 1.3 BTU/H	202	2777	10426	0	2137	0	0	3029	0	0	0	1962

TOTAL HEAT GAIN BTU/H 47199 3.93 TONS LOSS DUE TO VENTILATION LOAD BTU/H 17859 TOTAL STRUCTURE HEAT LOSS BTU/H 54110 TOTAL COMBINED HEAT LOSS BTU/H 71969

FURNACE CFM	1460	FURNACE CFM	1460
TOTAL HEAT LOSS	54110	TOTAL HEAT GAIN	42734
AIR FLOW RATE CFM	26.98	AIR FLOW RATE CFM	34.16

TYPE: 50-12	0.5
furnace pressure	0.025
furnace filler	0.2
a/c coil pressure	0.28
available pressure	0.14
for s/a & r/a	0.01
plenum pressure s/a	0.13
s/a diff press. loss	
adjusted pressure s/a	

3rd	2nd	1st	Bas
0	14	8	6
0	5	3	1

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

ROOM #	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	ENS-4	BED-3	HALL	MBR	ENS-2	ENS-3	DIN	KT/FM	KT/FM	LAUN	FOY	KT/FM	DEN	BAS	BAS	BAS	BAS	BAS
RM LOSS MBH.	2.15	1.15	0.90	2.25	1.86	2.58	0.36	1.86	2.99	2.15	2.06	0.41	2.69	1.89	1.89	1.89	1.32	1.89	2.95	2.84	2.39	2.39	2.39	2.39
CFM PER RUN HEAT	58	31	24	61	50	70	10	50	81	58	56	11	73	51	51	51	36	51	80	77	64	64	64	64
RM GAIN MBH.	2.45	1.01	0.57	2.38	1.42	2.43	0.18	1.42	3.04	2.45	1.86	0.20	2.78	2.61	2.61	2.61	2.61	2.61	1.50	3.03	0.33	0.33	0.33	0.33
CFM PER RUN COOLING	84	34	20	81	48	83	6	48	104	84	63	7	95	89	89	89	73	89	51	103	11	11	11	11
ADJUSTED PRESSURE	0.125	0.13	0.125	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.125	0.13	0.13	0.13	0.13	0.13
ACTUAL DUCT LGH.	44	63	39	66	34	39	24	25	38	62	65	33	17	30	37	46	35	55	53	57	14	37	44	37
EQUIVALENT LENGTH	160	160	170	200	110	170	120	100	140	170	190	130	150	130	90	130	140	140	170	140	140	140	150	130
TOTAL EFFECTIVE LH	204	223	209	266	144	209	144	125	178	232	255	163	167	160	127	176	175	195	223	197	154	177	194	167
ADJUSTED PRESSURE	0.06	0.06	0.06	0.05	0.09	0.06	0.09	0.1	0.07	0.05	0.05	0.05	0.07	0.08	0.1	0.07	0.07	0.06	0.06	0.06	0.08	0.07	0.06	0.07
ROUND DUCT SIZE	6	5	5	6	5	6	5	5	6	6	6	5	6	6	6	6	5	6	6	6	5	5	5	5
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10	4X10	3X10	3X10	4X10	4X10	4X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10
TRUNK																								

RUN #	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
ROOM NAME	BAS	BAS	ENS	WIC-2																				
RM LOSS MBH.	2.39	2.39	1.15	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CFM PER RUN HEAT	64	64	31	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RM GAIN MBH.	0.33	0.33	1.01	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CFM PER RUN COOLING	11	11	34	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ADJUSTED PRESSURE	0.125	0.13	0.125	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.125	0.13	0.13	0.13	0.13	
ACTUAL DUCT LGH.	36	52	70	69	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EQUIVALENT LENGTH	110	130	190	190	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL EFFECTIVE LH	146	182	260	259	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
ADJUSTED PRESSURE	0.09	0.07	0.05	0.05	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	
ROUND DUCT SIZE	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	
TRUNK	D	C	A	C																				

SUPPLY AIR TRUNK SIZE			
TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK A	255 0.05	9.5	10
TRUNK B	455 0.05	11.7	16
TRUNK C	353 0.05	10.7	13
TRUNK D	517 0.05	12.3	17
TRUNK E	1349 0.05	17.6	28

RETURN AIR TRUNK SIZE			
TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK O	0 0.05	0	0
TRUNK P	0 0.05	0	0
TRUNK Q	0 0.05	0	0
TRUNK R	0 0.05	0	0
TRUNK S	0 0.05	0	0
TRUNK T	0 0.05	0	0
TRUNK U	0 0.05	0	0
TRUNK V	0 0.05	0	0
TRUNK W	0 0.05	0	0
TRUNK X	1460 0.05	18.2	30
TRUNK Y	580 0.05	12.9	19
TRUNK Z	270 0.05	9.7	11
DROP	1460 0.05	18.2	24

RETURN AIR #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	BR
AIR VOLUME	175	135	135	75	85	360	175	135	0	0	0	0	0	0	185
PLENUM PRESSURE	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
ACTUAL DUCT LGH.	35	60	48	53	39	23	31	35	1	1	1	1	1	1	16
EQUIVALENT LENGTH	145	195	185	175	175	185	145	200	0	0	0	0	0	0	165
TOTAL EFFECTIVE LH	180	255	233	228	214	208	176	235	1	1	1	1	1	1	181
ADJUSTED PRESSURE	0.07	0.05	0.05	0.05	0.06	0.06	0.07	0.05	12	12	12	12	12	12	0.07
ROUND DUCT SIZE	7.5	7.5	7.5	6	6	10.3	7.5	7.5	0	0	0	0	0	0	7.7
INLET GRILL SIZE	8	8	8	8	8	8	8	8	0	0	0	0	0	0	8
INLET GRILL SIZE	14	14	14	14	14	30	14	14	0	0	0	0	0	0	24

I REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C. 3.2.5 OF THE BUILDING CODE.

Michael O'Rourke
MICHAEL O'ROURKE
BCIN: 19689

I REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER"
UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE. INDIVIDUAL BCIN: 19669

TYPE: 50-12

LO # 53775

MICHAEL O'ROURKE

PAGE 3 of 3

SITE NAME: CASTLES OF KING

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	8	@ 10.6 cfm	84.8	cfm
Table 9.32.3.A.	TOTAL		212	cfm

PRINCIPAL VENTILATION CAPACITY REQUIRED 9.32.3.4.(1)

Master Bedroom	31.8 cfm
Two Bedrooms	47.7 cfm
Three Bedrooms	63.6 cfm
Four Bedrooms	79.5 cfm
Table 9.32.3.B.	TOTAL 79.5 cfm
More than 5 - Part 6	

SUPPLEMENTAL VENTILATION CAPACITY 9.32.3.5.

Total Ventilation Capacity	212	cfm
Less Principal Ventil. Capacity	120	cfm
Required Supplemental Capacity	92	cfm

PRINCIPAL EXHAUST FAN CAPACITY

Model: VANEE 90H-V ECM Location: BSMT

120 cfm ☒ HVI Approved

0.6 sones

SUPPLEMENTAL FANS NUTONE

Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
W/R	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
BATH	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-2	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3

HEAT RECOVERY VENTILATOR 9.32.3.11.

Model: VANEE 90H-V ECM

159 cfm high 65 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

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-14

MODEL: 50-12
SFQT: 3877

LO# 53775

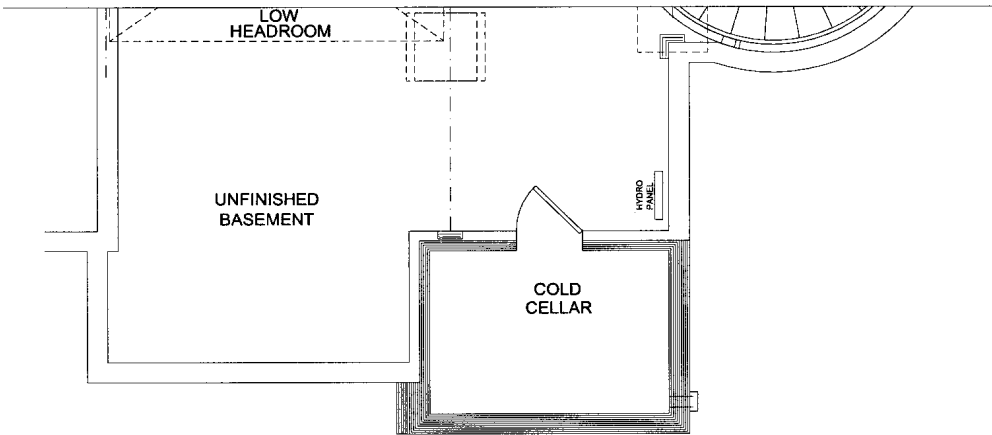
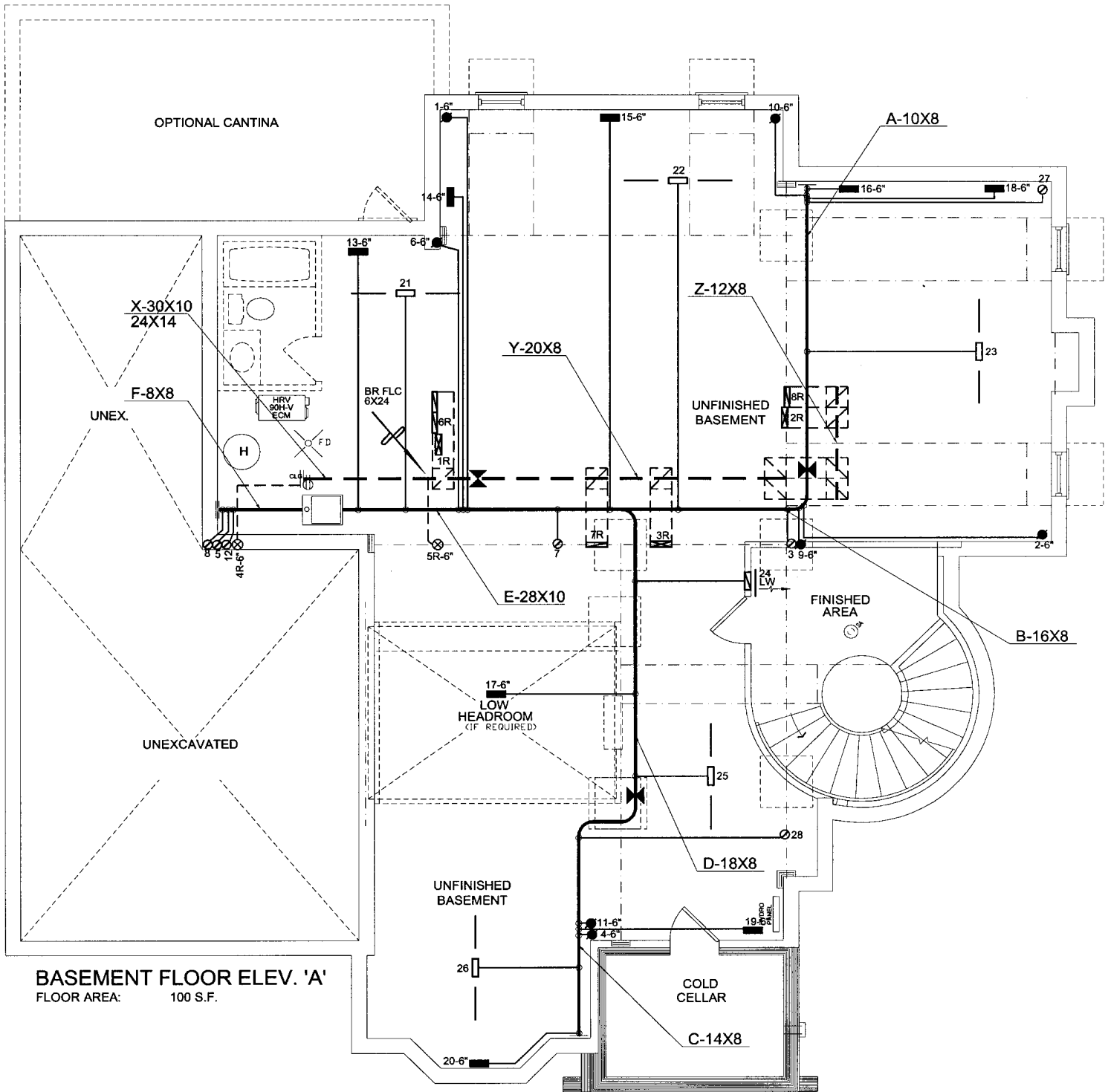
BUILDER: ZANCOR HOMES

ENERGYSTAR 12.1

Component	Compliance Package
	ZONE 1
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	24
Basement Walls Minimum RSI (R)-Value	20
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	ZONE C
Skylights Maximum U-Value	2.8
Space Heating Equipment Minimum AFUE	95%
HRV Minimum Efficiency	75%
Domestic Hot Water Heater Minimum EF	0.9



INDIVIDUAL BCIN: 19669
MICHAEL O'ROURKE



OBC 2012-Rev. 2014

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.3 OF THE BUILDING CODE.

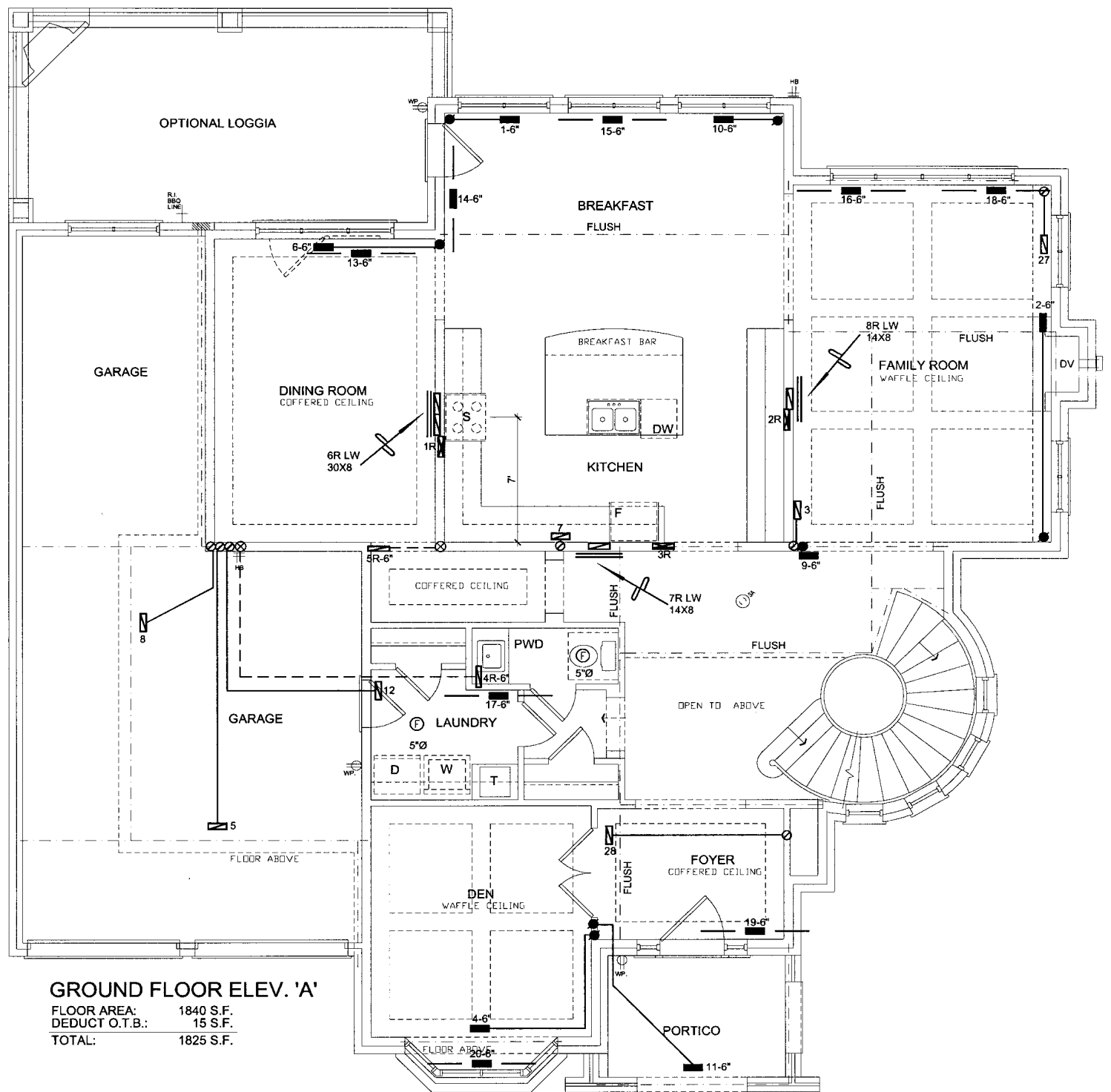
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.



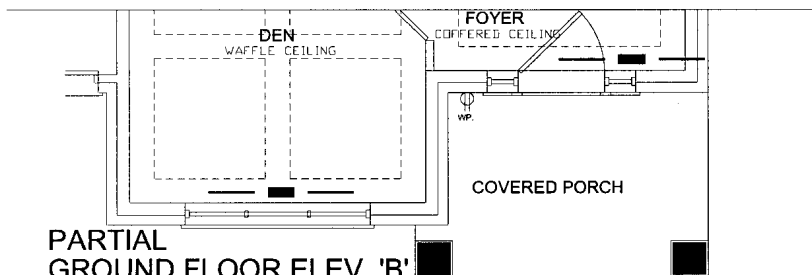
HVAC LEGEND									
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN 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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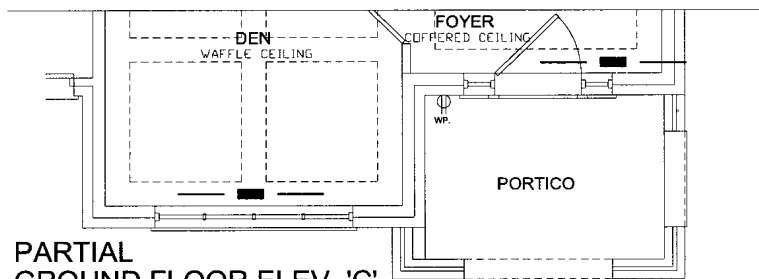
Client		<div>HVACDESIGNS LTD.</div> <div>65 Church Street South - Ajax, Ontario L1S 6A7 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</div> <div>Installation to comply with the latest Ontario 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.</div>	HEAT LOSS 71969 BTU/H		# OF RUNS S/A R/A FANS			Sheet Title	
ZANCOR HOMES			UNIT DATA		3RD FLOOR			BASEMENT HEATING LAYOUT	
Project Name			MAKE		2ND FLOOR			Date	
CASTLES OF KING CITY			LENNOX		14 5 5			JAN/2014	
KING CITY, ONTARIO			MODEL		1ST FLOOR 8 3 3			Scale	
			ML195UH090XP48C-90		BASEMENT			3/16" = 1'-0"	
			INPUT		6 1 0			BCIN# 19669	
			88 MBTU/H		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			LO# 53775	
			OUTPUT						
			85 MBTU/H						
			COOLING						
			4.0 TONS						
			FAN SPEED						
			1460 cfm @ 0.5" w.c.						
50-12		3877 sqft							



GROUND FLOOR ELEV. 'A'
FLOOR AREA: 1840 S.F.
DEDUCT O.T.B.: 15 S.F.
TOTAL: 1825 S.F.



PARTIAL
GROUND FLOOR ELEV. 'B'
FLOOR AREA: 1822 S.F.
DEDUCT O.T.B.: 15 S.F.
TOTAL: 1807S.F.



PARTIAL
GROUND FLOOR ELEV. 'C'
FLOOR AREA: 1822 S.F.
DEDUCT O.T.B.: 15 S.F.
TOTAL: 1807 S.F.

OBC 2012-Rev. 2014

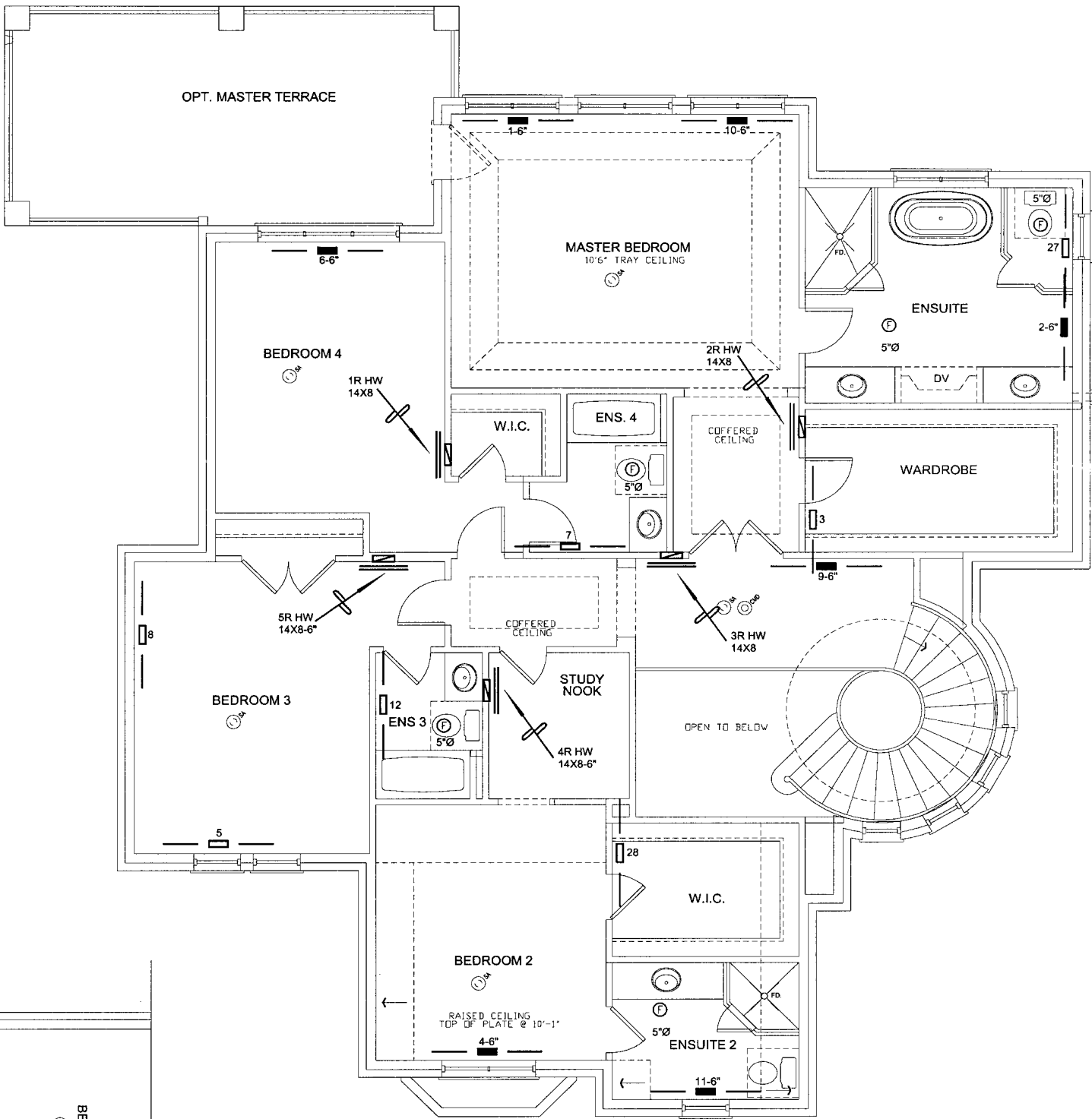
I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.



HVAC LEGEND									
	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	

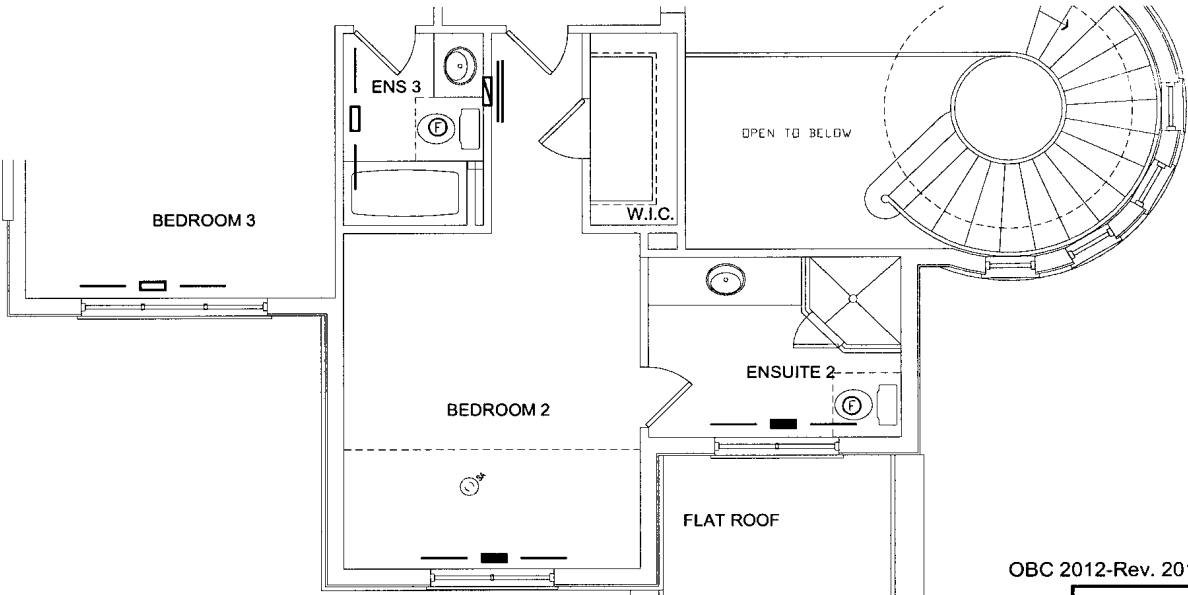
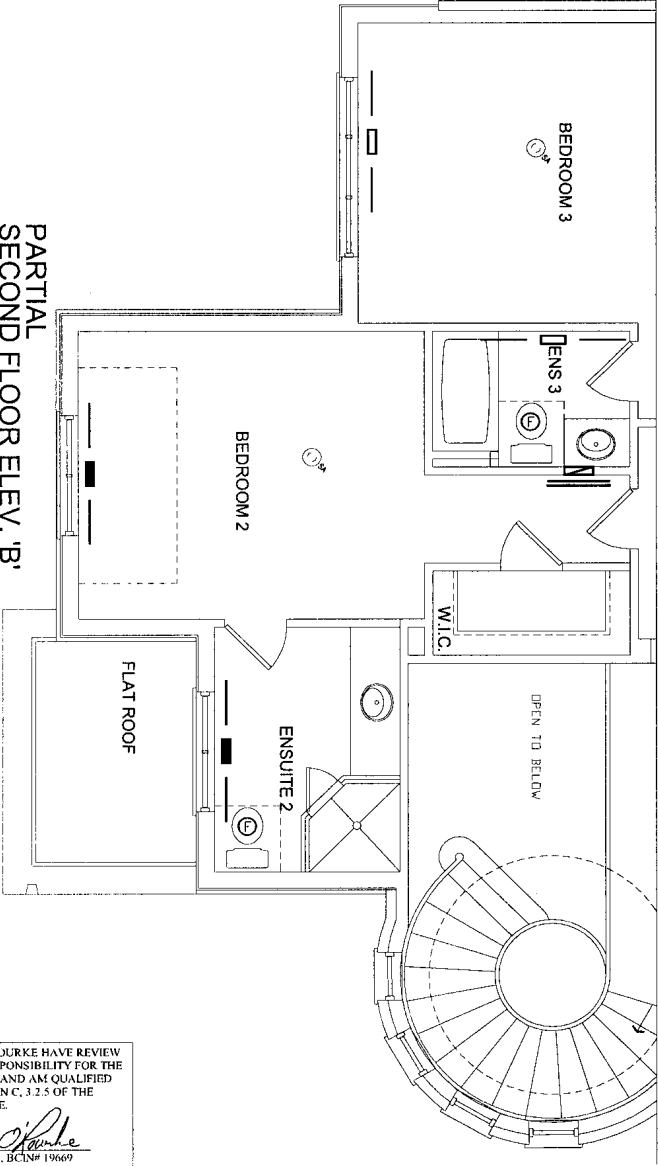
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Client		<div>HVACDESIGNS LTD. 65 Church Street South - Ajax, Ontario L1S 6A7 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacadesigns.ca Web: www.hvacadesigns.ca Specializing in Residential Mechanical Design Services Installation 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.</div>	Sheet Title		FIRST FLOOR HEATING LAYOUT	
Project Name			Date		JAN/2014	
50-12			Scale		3/16" = 1'-0"	
3877 sqft			BCIN# 19669			
			LO#		53775	
ZANCOR HOMES		CASTLES OF KING CITY KING CITY, ONTARIO				



SECOND FLOOR ELEV. 'A'
FLOOR AREA: 2143 S.F.
DEDUCT O.T.B.: 91 S.F.
TOTAL: 2052 S.F.

PARTIAL
SECOND FLOOR ELEV. 'B'
FLOOR AREA: 2046 S.F.
DEDUCT O.T.B.: 91 S.F.
TOTAL: 1955 S.F.



PARTIAL
SECOND FLOOR ELEV. 'C'
FLOOR AREA: 2045 S.F.
DEDUCT O.T.B.: 91 S.F.
TOTAL: 1954 S.F.

OBC 2012-Rev. 2014



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									
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 ZANCOR HOMES		<div>HVACDESIGNSLTD.</div> <div>65 Church Street South - Ajax, Ontario L1S 6A7 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</div>	Sheet Title SECOND FLOOR HEATING LAYOUT	
Project Name CASTLES OF KING CITY KING CITY, ONTARIO			Date JAN/2014	Scale 3/16" = 1'-0"
50-123877 sqft		BCIN# 19669		
		LO#	53775	