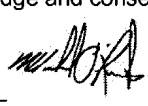


**Schedule 1: Designer Information**

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.

<b>A. Project Information</b>			
Building number, street name <b>MODEL CERTIFICATION</b>		Unit no. <b>N/A</b>	Lot/con. <b>N/A</b>
Municipality <b>KING CITY</b>	Postal code <b>N/A</b>	Plan number/ other description <b>N/A</b>	
<b>B. Individual who reviews and takes responsibility for design activities</b>			
Name <b>MICHAEL O'ROURKE</b>		Firm <b>HVAC DESIGNS LTD.</b>	
Street address <b>65 CHURCH STREET SOUTH</b>		Unit no.	Lot/con.
Municipality <b>AJAX</b>	Postal code <b>L1S 6A7</b>	Province <b>ONTARIO</b>	E-mail <b>info@hvacdesigns.ca</b>
Telephone number <b>(905) 619-2300</b>	Fax number <b>(905) 619-2375</b>	Cell number ( )	
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]</b>			
<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 <b>Heat Loss/Gain Calculations</b> <b>Duct Sizing</b> <b>Residential Mechanical Ventilation Design Summary</b> <b>Residential System Design per Can/CSA-F280-M90</b>		<b>Model: 50-5 ELEV 'B' &amp; 'C'</b>  <b>Project: CASTLES OF KING CITY</b>	
<b>D. Declaration of Designer</b>			
I, <u><b>MICHAEL O'ROURKE</b></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	BATH	STUDY	WIC-3	ENS-2	R1	R2
EXP. WALL	51	24	26	18	23	26	6	12	13	10	0	0
RM AREA	294	224	165	195	174	264	120	80	42	190	0	0
CLG. HT.	11	11	10	11	10	10	10	10	10	10	9	9
COLD FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
COLD CEILING	294	224	165	195	124	264	120	80	42	190	0	0
NO ATTIC EXPOSED CLG	0	0	0	0	50	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	561	264	260	198	230	260	60	120	130	100	0	0
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	19.50	13.96	0	0	0	0	0	0	0	0	0	0
EASTWEST	19.50	33.00	0	0	0	0	0	0	0	0	0	0
SOUTH	19.50	20.92	14	273	293	14	273	293	14	273	293	14
SKYLT.	19.50	136.72	0	0	0	0	0	0	0	0	0	0
DOORS	25.91	5.65	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	2.92	0.64	491	1436	313	244	714	156	260	760	166	173
NET EXPOSED WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.48	0.74	294	436	218	224	332	166	165	245	122	195
EXPOSED CLG	2.42	1.21	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.36	0.51	0	0	0	0	0	0	0	0	0	0
EXPOSED WALL BAS BELOW GRADE	22.00	0	0	0	0	0	0	0	0	0	0	0
BELOW GRADE HT LOSS FLOOR	1.08	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	3237	1436	1005	1283	1803	1557	470	602	658	674	0	0
SUB TOTAL HT GAIN	2672	909	317	404	568	491	148	190	207	212	0	0
HT LOSS AIR LEAKAGE FACTOR	0.315	453	123	147	163	86	30	40	49	44	0	0
HT GAIN AIR LEAKAGE FACTOR	0.136	363	240	240	240	240	240	240	240	240	0	0
HT GAIN PEOPLE/APPLIANCES	240	480	1	1	1	1	1	1	1	1	0	0
TOTAL HT LOSS BTU/H	4258	1655	1322	1687	2371	2048	618	792	865	886	0	0
TOTAL HT GAIN x 1.3 BTU/H	4569	1655	1322	1907	2080	1249	638	752	535	794	0	0

ROOM USE	LIV	DIN	KT/FR	FAM	LAUN	MUD	FOY	DEN	R3	R4	WOB BAS	BAS
EXP. WALL	0	38	76	0	6	29	23	45	0	0	0	210
RM AREA	0	0	12	0	120	0	0	0	0	0	0	0
CLG. HT.	10	10	17	10	9	12	10	10	9	9	9	9
COLD FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
COLD CEILING	0	0	405	0	120	0	0	0	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	380	1292	0	54	348	230	450	0	0	0	0
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	19.50	13.96	0	0	0	0	0	0	0	0	0	0
EASTWEST	19.50	33.00	0	0	0	0	0	0	0	0	0	0
SOUTH	19.50	20.92	0	0	0	0	0	0	0	0	0	0
SKYLT.	19.50	136.72	0	0	0	0	0	0	0	0	0	0
DOORS	25.91	5.65	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	2.92	0.64	356	1041	227	1156	3981	737	0	0	0	0
NET EXPOSED WALL BAS ABOVE GRADE	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.48	0.74	405	601	301	0	10	24	12	0	0	0
EXPOSED CLG	2.42	1.21	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.36	0.51	0	0	0	0	0	0	0	0	0	0
EXPOSED WALL BAS ABOVE GRADE	22.00	0	0	0	0	0	0	0	0	0	0	0
BELOW GRADE HT LOSS FLOOR	1.08	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	1537	729	6634	0	336	1532	1455	1880	0	0	0	0
SUB TOTAL HT GAIN	0	476	2091	0	106	483	459	593	0	0	0	0
HT LOSS AIR LEAKAGE FACTOR	0.315	99	719	0	17	138	114	188	0	0	0	0
HT GAIN AIR LEAKAGE FACTOR	0.136	240	1200	0	1440	240	240	240	0	0	0	0
HT GAIN PEOPLE/APPLIANCES	240	1	8725	0	6	1	1914	2472	0	0	0	0
TOTAL HT LOSS BTU/H	0	1985	8725	0	442	2014	1914	2472	0	0	0	0
TOTAL HT GAIN x 1.3 BTU/H	0	1388	9381	0	2054	1812	1554	2360	0	0	0	0

SITE NAME: CASTLES OF KING  
BUILDER: ZANCOR HOMES

DATE: Jan-14 GFA: 3741 LO# 53716 CALCULATIONS per HRAI PAGE 2 of 3

FURNACE CFM 1285 FURNACE CFM 1285  
TOTAL HEAT LOSS 47630 TOTAL HEAT GAIN 34866  
AIR FLOW RATE CFM 26.98 AIR FLOW RATE CFM 36.86

\*LENNOX  
ML195UH090XP48C 90  
FAN SPEED LOW 1285  
MEDIUM 1460  
HIGH 1830

HI-BOY HI-EFFICIENCY  
OUTPUT 85000 BTUH  
CFM @ 5" E.S.P.

Run Count	3rd	2nd	1st	Bas
S/A	0	11	8	5
R/A	0	3	4	1

DESIGN CFM = 1285  
TEMPERATURE RISE 61 DEG.F.  
r/a pressure 0.14  
r/a grille press. Loss 0.02  
r/a diff. press. loss 0.12  
adjusted pressure r/a 0.13

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

All S/A runs 5'x10" 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	ENS	BED-2	BED-3	BED-4	BATH	STUDY	MBR	ENS-2	DIN	DIN	DIN	KT/FM	KT/FM	KT/FM	LAUN	MUD	FOY	DEN	BAS	BAS	BAS	BAS
RM LOSS MBH	2.13	1.89	0.00	1.69	2.37	2.05	0.62	0.00	0.79	2.13	0.89	1.98	0.00	2.91	2.91	2.91	0.44	2.01	1.91	2.47	2.67	2.67	2.67	2.67
CFM PER RUN HEAT	57	51	0	46	64	55	17	0	21	57	24	54	0	78	78	78	12	54	52	67	72	72	72	72
RM GAIN MBH	2.28	1.65	0.00	1.91	2.08	1.25	0.64	0.00	0.75	2.28	0.79	1.39	0.00	3.13	3.13	3.13	2.05	1.81	1.55	2.36	0.28	0.28	0.28	0.28
CFM PER RUN COOLING	84	61	0	70	77	46	24	0	28	84	29	51	0	115	115	115	76	67	57	87	10	10	10	10
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.	38	52	1	80	80	36	84	1	53	54	30	30	1	36	30	38	49	26	59	71	32	29	34	63
EQUIVALENT LENGTH	140	150	0	190	190	170	190	0	170	130	140	140	0	140	130	150	170	190	190	190	160	170	160	170
TOTAL EFFECTIVE LH	178	202	1	270	270	206	274	1	223	184	190	170	1	176	160	188	219	216	249	261	192	199	194	233
ADJUSTED PRESSURE	0.07	0.06	12.5	0.05	0.05	0.06	0.05	12.5	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.06	0.06	0.05	0.05	0.07	0.06	0.06	0.05
ROUND DUCT SIZE	6	5	0	6	6	5	5	0	5	6	5	5	0	6	6	6	6	5	5	6	5	6	6	6
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	3X10	3X10	4X10	3X10	4X10	4X10	4X10
TRUNK	D	D	D	A	A	D	A	B	B	D	B	D	D	C	C	C	B	D	A	A	C	C	B	A

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			WIC-3	WIC																			
RM LOSS MBH.	2.67	0.00	0.00	0.87	1.32	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	72	0	0	23	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RM GAIN MBH.	0.28	0.00	0.00	0.53	0.74	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	10	0	0	20	27	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.	32	1	1	84	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
EQUIVALENT LENGTH	140	0	0	190	190	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL EFFECTIVE LH	172	1	1	274	204	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
ADJUSTED PRESSURE	0.07	12.5	12.5	0.05	0.06	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	0	0	5	5	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			A	D																			

## SUPPLY AIR TRUNK SIZE

Trunk	A	B	C	D	E	F	G	H	I	J
TRUNK A	341	0.05	10.5	13	0	0	0	0	0	0
TRUNK B	470	0.05	11.9	16	0	0	0	0	0	0
TRUNK C	378	0.05	11	14	0	0	0	0	0	0
TRUNK D	814	0.05	14.6	24	0	0	0	0	0	0
TRUNK E	0	0.05	0	0	0	0	0	0	0	0

## RETURN AIR TRUNK SIZE

Trunk	O	P	Q	R	S	T	U	V	W	X	Y	Z	DROP
TRUNK O	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK P	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK Q	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK R	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK S	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK T	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK U	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK V	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK W	0	0.04	0	0	0	0	0	0	0	0	0	0	0
TRUNK X	1285	0.04	18.3	30	0	0	0	0	0	0	0	0	0
TRUNK Y	365	0.04	11.4	15	0	0	0	0	0	0	0	0	0
TRUNK Z	0	0.04	0	0	0	0	0	0	0	0	0	0	0
DROP	1285	0.04	18.3	24	0	0	0	0	0	0	0	0	0

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  
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: 50-5 ELEV 'B' & 'C'

LO # 53716

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	6	@ 10.6 cfm	63.6	cfm
Other Rooms	8	@ 10.6 cfm	84.8	cfm
Table 9.32.3.A.	TOTAL		222.6	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	222.6	cfm
Less Principal Ventil. Capacity	120	cfm
Required Supplemental Capacity	102.6	cfm

**PRINCIPAL EXHAUST FAN CAPACITY**

Model: VANE 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: VANE 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: 50-5 ELEV 'B' & 'C'  
SFQT: 3741

LO# 53716

BUILDER: ZANCOR HOMES

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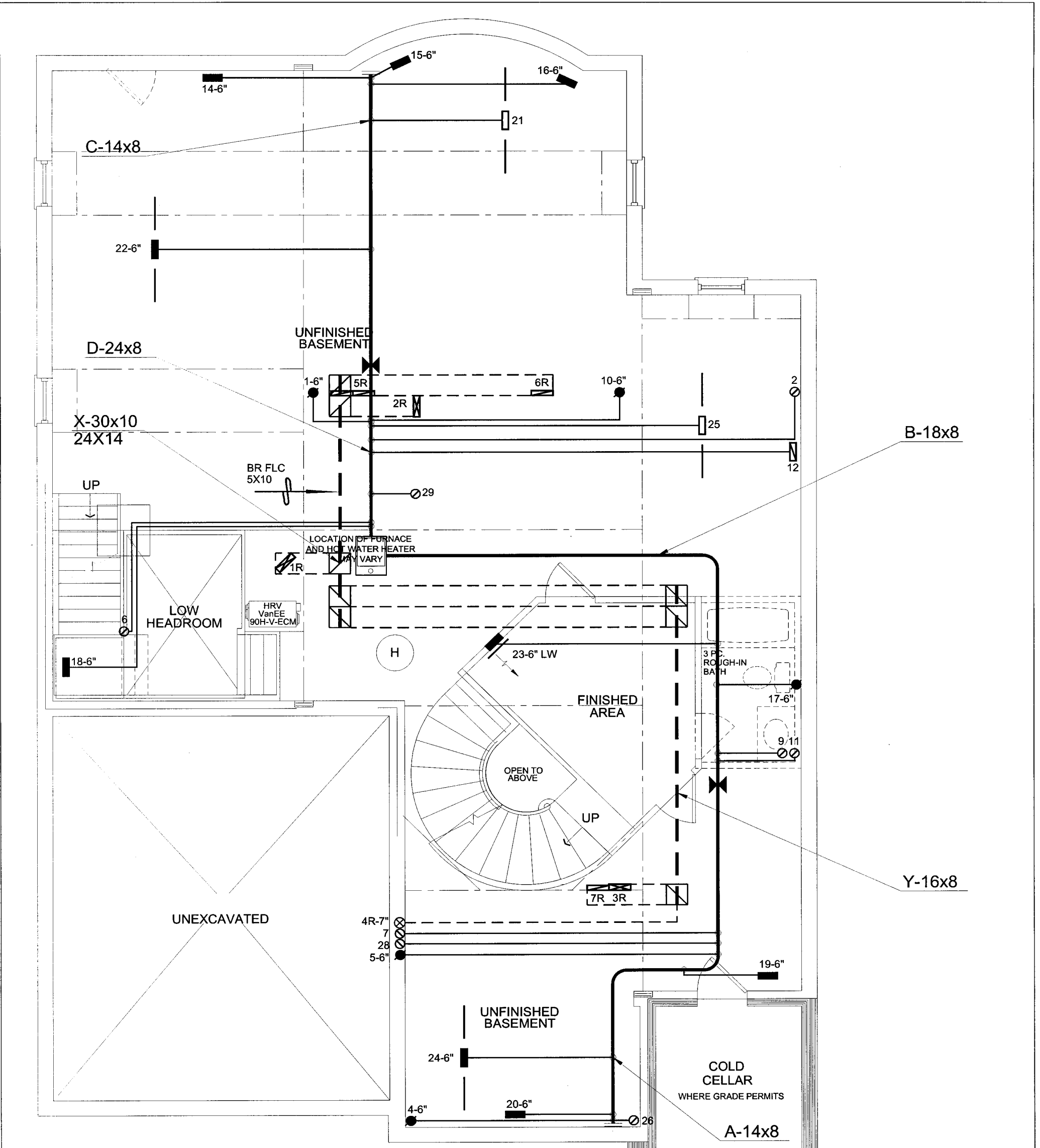
**ENERGYSTAR 12.1**

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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 $\leq$ 600 mm Below Grade Minimum RSI (R)-Value	10
Heated Slab or Slab $\leq$ 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



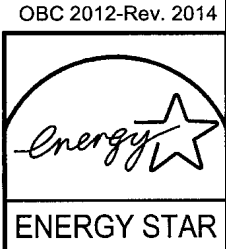
INDIVIDUAL BCIN: 19669  
MICHAEL O'ROURKE



PARTIAL BASEMENT FLOOR ELEV. 'B' & '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.

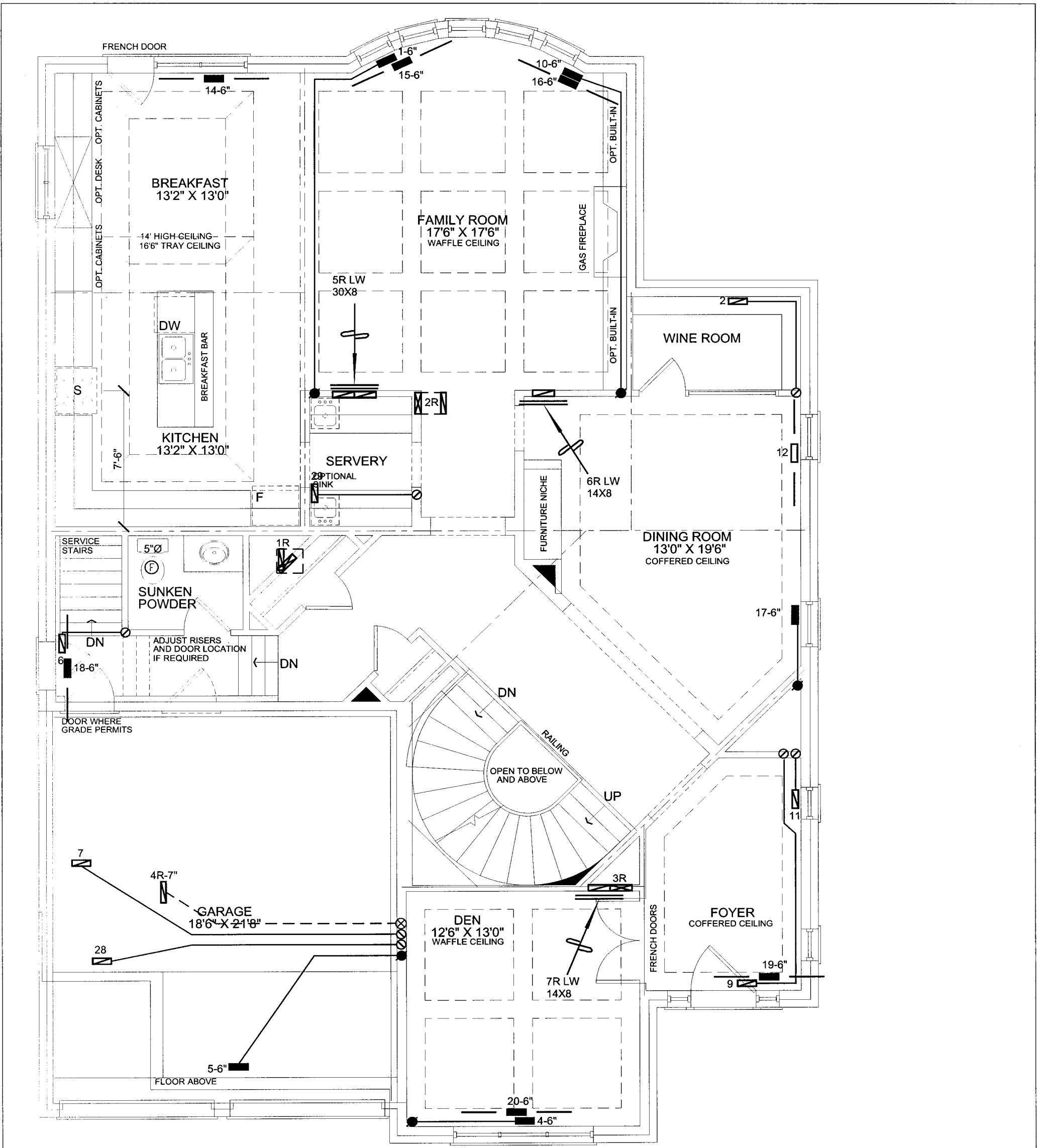
*Michael O'Rourke*  
Michael O'Rourke, BCIN# 19669  
HVAC DESIGNS LTD.



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		<div><div><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></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></div>	HEAT LOSS 66382 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title	
ZANCOR HOMES			MAKE LENNOX		3RD FLOOR				BASEMENT HEATING LAYOUT
Project Name			MODEL ML195UH090XP48C-90		2ND FLOOR	11	3	3	
THE CASTLE OF KING CITY KING CITY, ONTARIO			INPUT 88 MBTU/H		1ST FLOOR	8	4	2	
50-5 ELEV 'B' & 'C' 3741 sqft			OUTPUT 85 MBTU/H		BASEMENT	5	1	0	Date JAN/2014
		COOLING 3.5 TONS		ALL S/A DIFFUSERS "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 1285 cfm @ 0.5" w.c.						BCIN# 19669	
								LO# 53716	



OBC 2012-Rev. 2014

ENERGY STAR

PARTIAL GROUND FLOOR ELEV. 'B' & '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.

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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Client

ZANCOR HOMES

Project Name

THE CASTLE OF KING CITY  
KING CITY, ONTARIO

50-5 ELEV 'B' & 'C' 3741 sqft

**HVACDESIGNS LTD.**

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

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

FIRST FLOOR  
HEATING  
LAYOUT

Date

JAN/2014

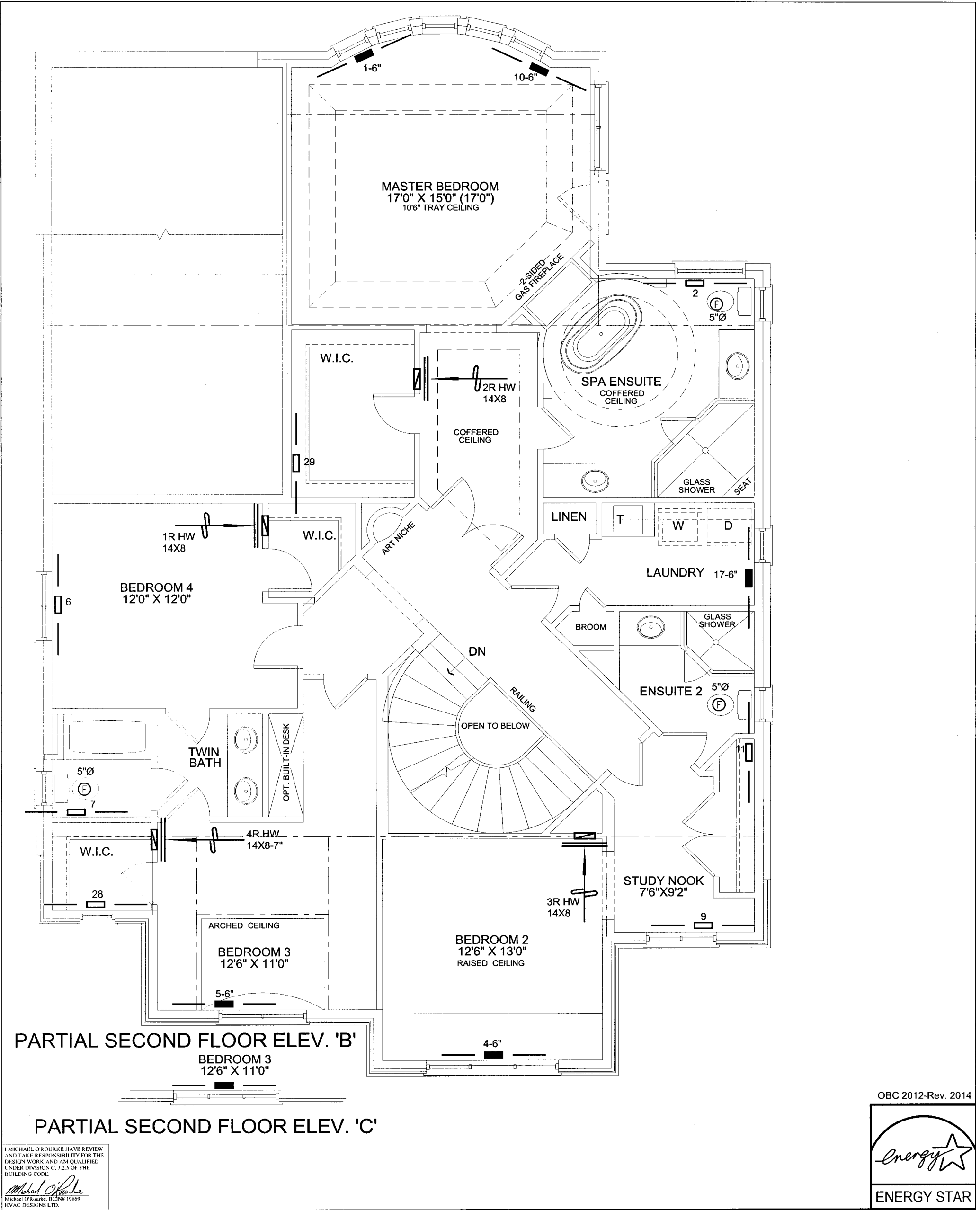
Scale

3/16" = 1'-0"

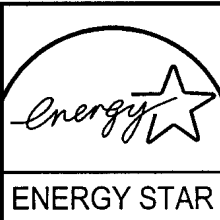
BCIN# 19669

LO#

53716



OBC 2012-Rev. 2014



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.		
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ZANCOR HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JAN/2014
THE CASTLE OF KING CITY KING CITY, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
50-5 ELEV 'B' & 'C' 3741 sqft			LO#	53716