


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: 50-1 W/LOFT 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 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.			
JANUARY 24, 2014			
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.

2012 OBC - REV JAN 2014																						
ROOM USE	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	WIC-2	LOFT	ENS-2	R1	R2										
EXP. WALL	41	23	10	15	38	30	21	0	390	120	0	0										
RM AREA	342	181	180	195	193	230	160	80	290	120	0	0										
CLG. HT.	12	12	10	10	9	9	10	10	10	10	9	9										
COLD FLOOR	0	0	0	0	193	0	0	0	0	0	0	0										
COLD CEILING	342	181	180	195	193	230	160	80	290	120	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	276	492	100	150	342	270	210	0	390	120	0	0										
GLAZING	22	429	0	22	0	0	0	0	0	9	176	126										
NORTH	0	44	0	0	25	0	0	0	0	0	0	0										
EASTWEST	0	858	0	0	488	0	0	0	0	0	0	0										
SOUTH	0	1452	0	0	0	12	234	0	0	0	0	0										
SKYLT.	0	0	0	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	254	1284	100	374	317	258	198	119	390	111	325	71										
NET EXPOSED WALL BAS ABOVE GR	0	0	0	0	0	0	0	0	0	0	0	0										
EXPOSED CLG	342	269	180	289	193	230	160	80	290	120	0	0										
NO ATTIC EXPOSED CLG	0	0	0	0	0	0	0	0	0	0	0	0										
EXPOSED FLOOR	0	0	0	0	193	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																						
SUB TOTAL HT GAIN	723	2586	560	1093	2157	1330	1051	119	1571	678	285	0										
HT LOSS AIR LEAKAGE FACTOR	550	848	183	358	707	436	344	39	515	222	44	0										
HT GAIN AIR LEAKAGE FACTOR	111	307	30	82	196	90	76	9	72	44	0	0										
HT GAIN PEOPLE/APPLANCES	480	240	240	240	240	1	240	0	3	240	0	0										
TOTAL HT LOSS BTU/H	2	3434	743	1451	2864	1766	1395	158	2086	901	740	0										
TOTAL HT GAIN x 1.3 BTU/H	2230	3301	608	1112	2217	1192	1056	89	1632	740	0	0										
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																						
MICHAEL O'ROURKE																						
																						
ROOM USE	LIV	DIN	KT/DM	FAM	LAUN	WIR	FOY	DEN	R3	R4	WOB	BAS										
EXP. WALL	0	12	59	0	29	0	50	46	0	0	0	256										
RM AREA	0	35	760	0	14	0	90	240	0	0	0	0										
CLG. HT.	10	10	13	10	12	10	10	12	9	9	9	9										
COLD FLOOR	0	0	0	0	0	0	0	0	0	0	0	0										
COLD CEILING	0	35	552	0	14	0	90	240	0	0	0	0										
NO ATTIC EXPOSED CLG	0	0	208	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	768										
GROSS WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	1536										
FACTORS																						
GRS.WALL AREA	0	120	767	0	348	0	500	552	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	0	114	0	0	0	40	1307	0	0	0	10										
SOUTH	0	24	18	0	0	0	0	67	0	0	0	15										
SKYLT.	0	0	351	0	0	0	0	0	0	0	0	293										
DOORS	0	0	10	0	20	0	0	0	0	0	0	314										
NET EXPOSED WALL	0	96	625	0	328	0	440	485	0	0	0	40										
NET EXPOSED WALL BAS ABOVE GR	0	0	0	0	0	0	0	309	0	0	0	226										
EXPOSED CLG	0	35	552	0	14	0	90	240	0	0	0	0										
NO ATTIC EXPOSED CLG	0	0	208	0	0	0	0	0	0	0	0	0										
EXPOSED FLOOR	0	0	503	0	21	0	134	356	0	0	0	743										
EXPOSED WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	2672										
BELOW GRADE HT LOSS FLOOR	0	0	0	0	0	0	0	0	0	0	0	383										
SUBTOTAL HT LOSS																						
SUB TOTAL HT GAIN	0	801	5984	0	1498	0	2719	3081	0	0	0	12642										
HT LOSS AIR LEAKAGE FACTOR	0	262	1961	0	491	0	891	1010	0	0	0	4143										
HT GAIN AIR LEAKAGE FACTOR	0	91	810	0	51	0	274	416	0	0	0	164										
HT GAIN PEOPLE/APPLANCES	0	1	6	0	1989	0	1	240	0	0	0	0										
TOTAL HT LOSS BTU/H	0	1063	7945	0	6	0	3610	4091	0	0	0	16785										
TOTAL HT GAIN x 1.3 BTU/H	0	1196	9756	0	2371	0	2983	4361	0	0	0	1593										

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
MICHAEL OROURKE

ROOM USE	LIV	DIN	KT/IM	FAM	LAUN	WIR	FOY	DEN	R3	R4	WOB	BAS
EXP. WALL	0	12	59	0	29	0	50	0	0	0	0	256
RM AREA	0	35	760	0	14	0	90	240	0	0	0	0
CLG. HT.	10	10	13	10	12	10	10	12	9	9	9	9
COLD FLOOR	0	0	0	0	0	0	0	0	0	0	0	0
COLD CEILING	0	35	552	0	14	0	90	240	0	0	0	0
NO ATTIC EXPOSED CLG	0	0	208	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	768
GROSS WALL BAS BELOW GRADE	0	0	0	0	0	0	0	0	0	0	0	1536
FACTORS												
GRS WALL AREA	0	120	767	0	348	0	500	552	0	0	0	0
GLAZING	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS	LOSS
NORTH	0	0	0	0	0	0	0	0	0	0	0	10
EAST/WEST	0	0	114	0	0	0	40	67	0	0	0	0
SOUTH	0	24	468	0	0	0	780	1307	0	0	0	0
SKYLT.	0	0	18	0	0	0	0	0	0	0	0	15
DOORS	0	0	259	0	0	0	0	0	0	0	0	293
NET EXPOSED WALL	0	96	625	0	328	0	20	485	0	0	0	314
NET EXPOSED WALL BAS ABOVE GR	0	0	1828	0	959	0	518	113	0	0	0	0
EXPOSED CLG	0	35	552	0	20	0	1287	309	0	0	0	40
EXPOSED CLG	0	0	819	0	14	0	0	1418	0	0	0	1037
EXPOSED CLG	0	0	208	0	0	0	134	178	0	0	0	226
EXPOSED FLOOR	0	0	503	0	0	0	67	356	0	0	0	383
EXPOSED FLOOR	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	0	801	5984	0	1498	0	2719	3081	0	0	0	250
SUB TOTAL HT GAIN	0	589	5255	0	332	0	1780	2698	0	0	0	2733
HT LOSS AIR LEAKAGE FACTOR	0	262	1961	0	491	0	891	1010	0	0	0	12642
HT GAIN AIR LEAKAGE FACTOR	0	91	810	0	51	0	274	416	0	0	0	1062
HT GAIN PEOPLE/APPLANCES	0	1	6	0	1989	0	1	240	0	0	0	4143
TOTAL HT LOSS BTU/H	0	1063	7945	0	2371	0	3610	4091	0	0	0	16785
TOTAL HT GAIN x 1.3 BTU/H	0	1196	9756	0	2983	0	4361	4361	0	0	0	1593

TOTAL HEAT GAIN BTU/H 4096 3.41 TONS 17859 TOTAL STRUCTURE HEAT LOSS BTU/H 52509 TOTAL COMBINED HEAT LOSS BTU/H 70368

FURNACE CFM	1285	FURNACE CFM	1285	HI-BOY HI-EFFICIENCY
TOTAL HEAT LOSS	52509	TOTAL HEAT GAIN	35916	OUTPUT 85000 BTUH
AIR FLOW RATE CFM	24.47	AIR FLOW RATE CFM	35.78	CFM @ 5" E.S.P.
RUN COUNT	3rd	2nd	1st	DESIGN CFM = 1285
S/A	0	4	16	LOW
R/A	0	2	4	MEDIUM
All S/A diffusers 4"x10" unless noted otherwise on layout.				
All S/A runs 5'x0" unless noted otherwise on layout.				

ROOM NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MBR	2.23	1.72	0.74	1.45	2.86	1.77	4.39	0.16	2.09	1.72	0.90	2.05	1.06	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99
RM LOSS MBH	55	42	18	36	70	43	34	4	51	42	22	50	26	49	49	49	49	49	49	49	49	49	49	49
CFM PER RUN HEAT	1.71	1.65	0.61	1.11	2.22	1.19	1.06	0.09	1.63	1.65	0.74	2.18	1.20	2.44	2.44	2.44	2.37	2.44	2.98	2.18	0.27	0.27	0.27	0.27
RM GAIN MBH	61	59	22	40	79	43	38	3	58	59	26	78	43	87	87	87	85	87	107	78	10	10	10	10
CFM PER RUN COOLING	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
ADJUSTED PRESSURE	33	56	27	22	68	61	66	24	45	50	24	42	43	69	60	50	45	52	47	44	55	60	39	42
EQUIVALENT LENGTH	110	110	140	170	120	190	170	110	190	140	130	120	190	170	160	150	160	150	140	130	110	160	100	130
TOTAL EFFECTIVE LH	143	166	167	192	188	251	236	134	235	190	154	162	233	239	220	200	205	202	187	174	165	220	139	172
ADJUSTED PRESSURE	0.09	0.08	0.07	0.07	0.05	0.05	0.05	0.09	0.05	0.05	0.08	0.08	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.06	0.09	0.07
ROUND DUCT SIZE	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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	3X10
TRUNK	B	A	B	B	D	B	D	D	C	A	D	C	B	A	A	A	A	B	C	C	A	A	B	B

ROOM NAME	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
BAS	2.80	2.80	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	0.00	0.00	0.00
RM LOSS MBH	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CFM PER RUN HEAT	0.27	0.27	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	0.00	0.00	0.00
RM GAIN MBH	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CFM PER RUN COOLING	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
ADJUSTED PRESSURE	34	40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	150	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	184	170	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.07	0.07	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	0.00	0.00	0.00
ROUND DUCT SIZE	5	5	0	0	0	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	3X10
TRUNK	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK					ROUND					TRUNK					ROUND				
	CFM	STATIC PRESS.	DUCT	RECT DUCT		CFM	STATIC PRESS.	DUCT	RECT DUCT		CFM	STATIC PRESS.	DUCT	RECT DUCT		CFM	STATIC PRESS.	DUCT	RECT DUCT
TRUNK A	367	0.05	10.8	13						TRUNK O	0	0.05	0	0					
TRUNK B	798	0.05	14.5	24						TRUNK P	0	0.05	0	0					
TRUNK C	307	0.05	10.1	12						TRUNK Q	0	0.05	0	0					
TRUNK D	486	0.05	12	16						TRUNK R	0	0.05	0	0					
TRUNK E	1285	0.05	17.3	27						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	780	0.05	14.4	24					
										TRUNK Y	505	0.05	12.2	17					
										TRUNK Z	585	0.05	12.9	19					
										DROP	1285	0.05	17.3	24					

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: 19669

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

MICHAEL O'ROURKE

TYPE: 50-1 LOFT

LO # 53710

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	4	@ 10.6 cfm	42.4	cfm
Kitchen & Bathrooms	5	@ 10.6 cfm	53	cfm
Other Rooms	7	@ 10.6 cfm	74.2	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 95.4 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: 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
LAUN	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: *Michael O'Rourke*

HRAI # 001820

Date: January-14

MODEL: 50-1 LOFT
SFQT: 3658

LO# 53710

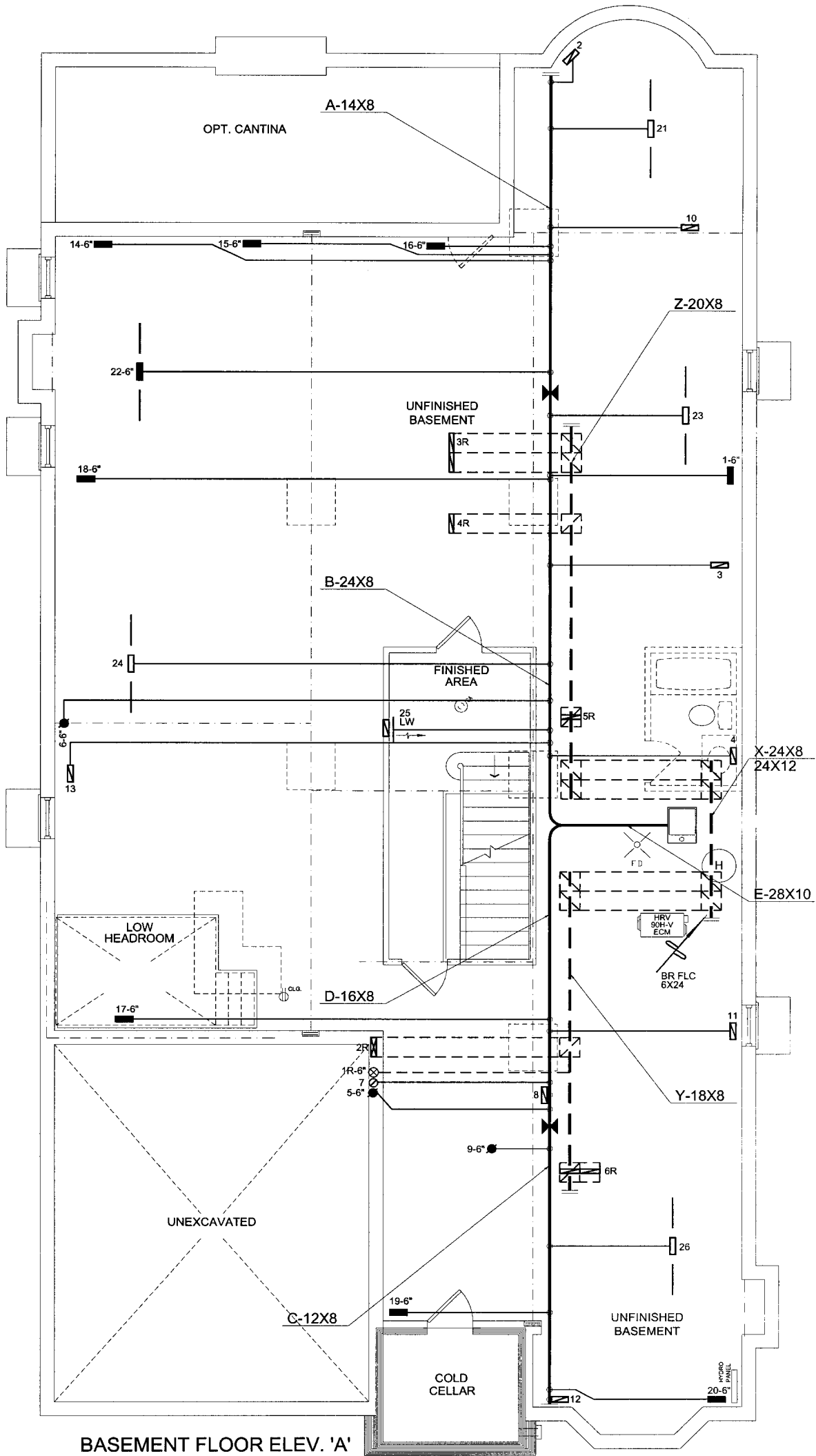
BUILDER: ZANCOR HOMES

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 \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



BASEMENT FLOOR ELEV. 'A'
W/ LOFT CONDITION
('B' & 'C' SIMILAR)

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.

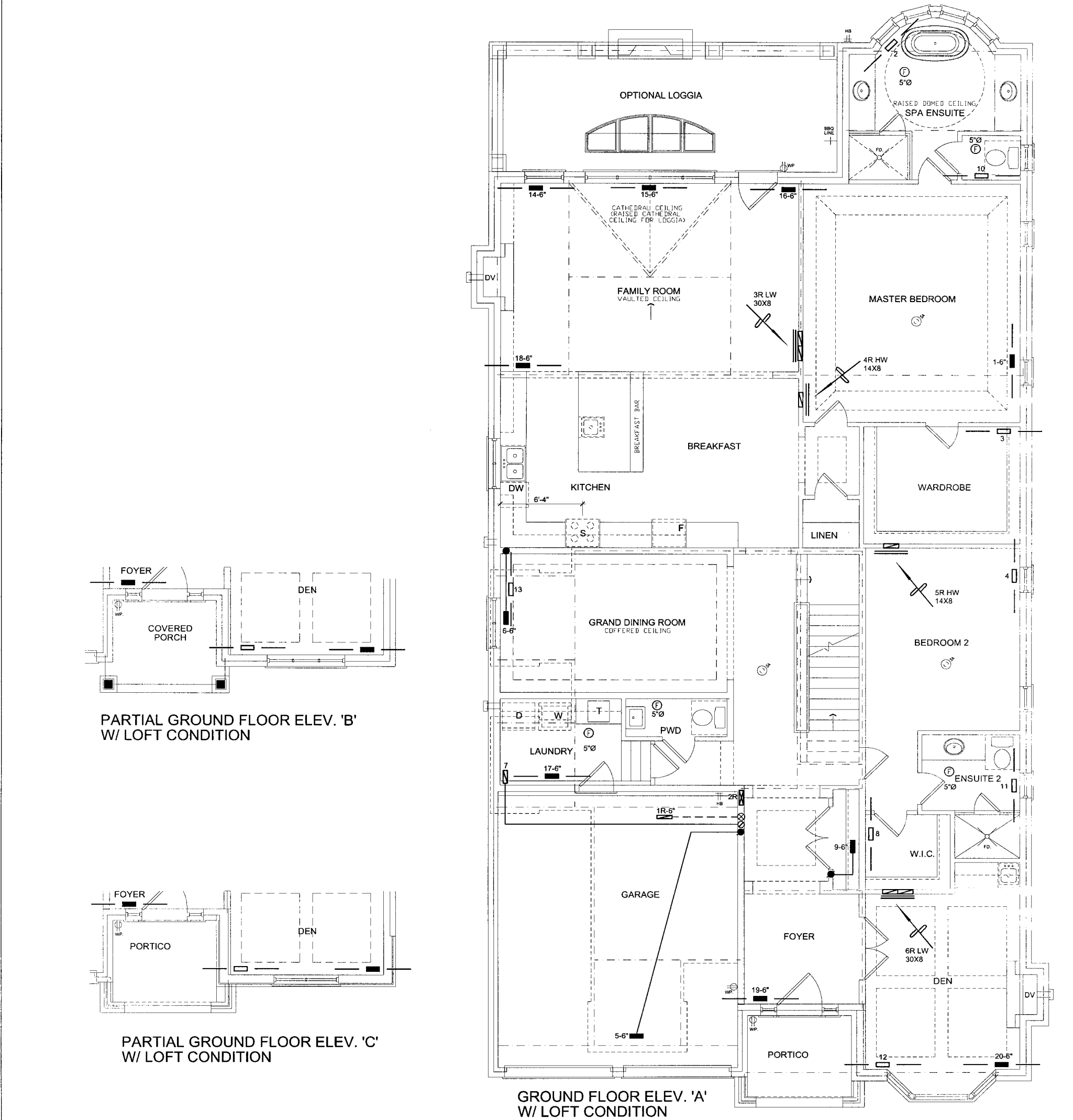
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HVAC LEGEND										
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY 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		

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client ZANCOR HOMES		<div><p>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</p><p>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.</p></div>	HEAT LOSS 70368 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				BASEMENT HEATING LAYOUT	
Project Name CASTLES OF KING CITY KING CITY, ONTARIO			MAKE LENNOX		3RD FLOOR					
			MODEL ML195UH090XP48C-90		2ND FLOOR					
50-1 W/ LOFT 3658 sqft			INPUT 88 MBTU/H		1ST FLOOR				Date JAN/2014	
			OUTPUT 85 MBTU/H		BASEMENT				Scale 1/8" = 1'-0"	
			COOLING 3.5 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				BCIN# 19669	
			FAN SPEED 1285 cfm @ 0.5" w.c.						LO# 53710	



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

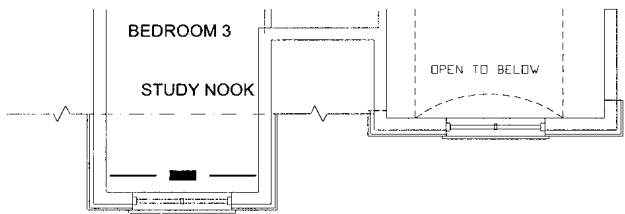
OBC 2012-Rev. 2014



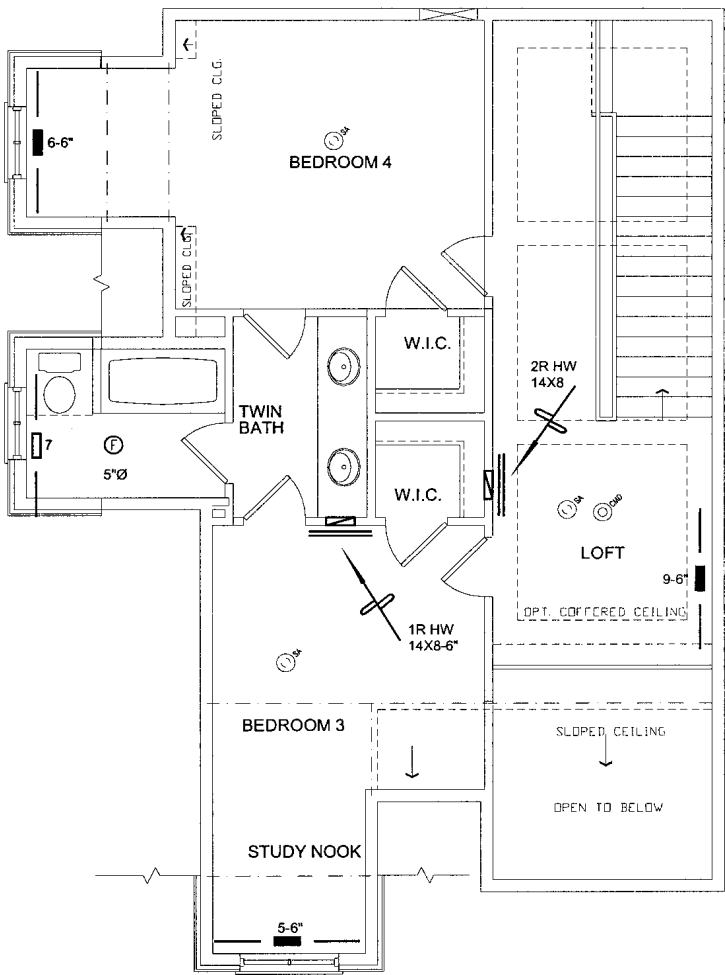
HVAC LEGEND										
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	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

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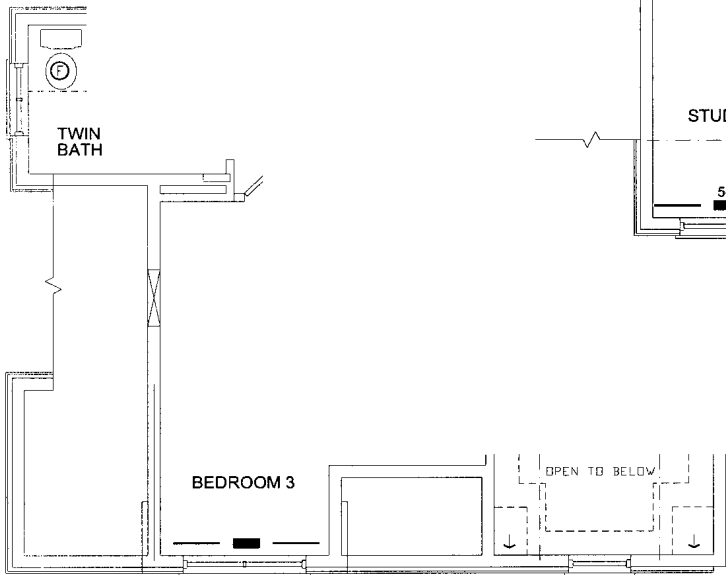
Client		<div><div><div>HVACDESIGNS LTD.</div></div><div>65 Church Street South - Ajax, Ontario L1S 6A7 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services</div><div>Installation to comply with the 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></div>	Sheet Title	
ZANCOR HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name CASTLES OF KING CITY KING CITY, ONTARIO			Date	JAN/2014
50-1 W/ LOFT 3658 sqft		Scale	1/8" = 1'-0"	
		BCIN# 19669		
		LO#	53710	



PART. OPT. LOFT FLOOR ELEV. 'B'



LOFT FLOOR ELEV. 'A'



PART. OPT. LOFT FLOOR ELEV. 'C'

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

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HVAC LEGEND									
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	2.	
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								REVISIONS	

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Project Name CASTLES OF KING CITY KING CITY, ONTARIO			Date JAN/2014	
		Scale 1/8" = 1'-0"		
		BCIN# 19669		
50-1 W/ LOFT 3658 sqft		LO# 53710		