


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 VAUGHAN (WOODBIDGE)	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@hvacdsgns.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]					
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings </div> <div style="width: 30%;"> <input checked="" type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection </div> <div style="width: 30%;"> <input type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems </div> </div>					
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12			Model: 5005 - LOT 93 - OPT. 5 BED ELEV. THE KNIGHTSWOOD Project: PINE VALLEY & TESTON		
D. Declaration of Designer					
I <u>MICHAEL O'ROURKE</u> declare that (choose one as appropriate): (print name)					
<input type="checkbox"/> 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: _____					
<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 and qualification: <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.					
November 2, 2018					
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.

[illegible]

SITE NAME: PINE VALLEY & TESTON
BUILDER: GOLD PARK HOMES

THE KNIGHTSWOOD
TYPE: 5005 - LOT 93 - OPT. 5 BED ELEV. DATE: Nov-18

GFA: 4405 LO# 80579

HEATING CFM 1955 COOLING CFM 1955
TOTAL HEAT LOSS 90,264 TOTAL HEAT GAIN 60,332
AIR FLOW RATE CFM 21.66 AIR FLOW RATE CFM 32.4

AFUE = 96 %
INPUT (BTU/H) = 110,000
OUTPUT (BTU/H) = 106,000
DESIGN CFM = 1955
CFM @ 6" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	20	13	7
R/A	0	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.

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	BED-5	BED-2	BED-3	BED-4	ENS-2	WIC-2	ENS-3	MBR	ENS-4	LIB	DIN	KIT/GT	KIT/GT	KIT/GT	LAUN	PWD	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	2.54	2.27	2.32	1.94	2.24	1.43	0.93	0.42	0.40	2.54	0.78	1.81	4.20	2.69	2.69	2.69	0.40	0.75	4.15	1.56	4.24	4.24	4.24	4.24
CFM PER RUN HEAT	55	49	50	42	48	31	20	9	9	55	17	39	91	58	58	58	9	16	90	34	92	92	92	92
RM GAIN MBH	2.71	1.92	2.28	2.14	2.80	1.71	0.35	0.10	0.12	2.71	0.43	2.26	2.65	2.55	2.55	2.55	1.20	0.32	2.17	0.25	0.49	0.49	0.49	0.49
CFM PER RUN COOLING	88	62	74	69	91	55	11	3	4	88	14	73	86	82	82	82	39	10	70	8	16	16	16	16
ADJUSTED PRESSURE	0.15	0.16	0.16	0.16	0.15	0.16	0.16	0.16	0.16	0.15	0.16	0.16	0.16	0.15	0.15	0.15	0.16	0.16	0.15	0.16	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH	70	70	53	49	70	48	47	48	53	64	59	57	29	52	69	54	36	73	40	47	67	60	54	38
EQUIVALENT LENGTH	190	200	170	160	160	160	160	150	170	170	150	140	103	120	140	110	200	170	210	160	150	120	103	90
TOTAL EFFECTIVE LENGTH	260	270	223	209	230	208	207	198	223	234	209	197	132	172	209	164	236	243	250	207	217	180	157	128
ADJUSTED PRESSURE	0.06	0.06	0.07	0.07	0.06	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.11	0.09	0.07	0.09	0.07	0.06	0.06	0.08	0.07	0.08	0.09	0.11
ROUND DUCT SIZE	6	5	6	5	6	5	4	4	4	6	4	5	6	6	6	6	4	4	4	6	6	6	6	6
HEATING VELOCITY (ft/min)	280	360	255	308	245	228	229	103	103	280	195	286	464	296	296	296	103	184	459	390	469	469	469	469
COOLING VELOCITY (ft/min)	449	455	377	507	464	404	126	34	46	449	161	536	438	418	418	418	447	115	357	92	82	82	82	82
OUTLET GRILL SIZE	4X10	3X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	4X10	4X10	4X10	4X10	3X10	3X10	4X10	3X10	4X10	4X10	4X10	4X10
TRUNK	D	C	C	G	F	E	C	G	G	D	E	F	E	D	B	C	G	A	F	C	A	B	D	E

25	BAS	26	BAS	27	BED-2	28	BED-2	29	BED-3	30	WIC-3	31	LIB	32	KIT/GT	33	CAB	34	CAB	35	CAB	36	HERS	37	ENS	38	BAS	39	BED-4	40	HIS
ROOM NAME	BAS	BAS	BED-2	BED-2	BED-3	WIC-3	WIC-3	WIC-3	WIC-3	WIC-3	WIC-3	LIB	LIB	KIT/GT	KIT/GT	CAB	CAB	CAB	CAB	CAB	CAB	HERS	HERS	ENS	ENS	BAS	BAS	BED-4	BED-4	HIS	HIS
RM LOSS MBH	4.24	4.24	1.94	1.94	2.24	1.38	1.38	1.81	1.81	2.69	2.69	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	0.43	0.43	0.67	0.67	4.24	4.24	1.43	1.43	0.10	0.10
CFM PER RUN HEAT	92	92	42	42	48	30	30	39	39	58	58	52	52	52	52	52	52	52	52	52	52	9	9	15	15	92	92	31	31	2	2
RM GAIN MBH	0.49	0.49	2.14	2.14	2.80	1.33	1.33	2.26	2.26	2.55	2.55	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	0.10	0.10	0.52	0.52	0.49	0.49	1.71	1.71	0.05	0.05
CFM PER RUN COOLING	16	16	69	69	91	43	43	73	73	82	82	82	82	82	82	82	82	82	82	82	82	3	3	17	17	16	16	55	55	2	2
ADJUSTED PRESSURE	0.15	0.15	0.16	0.16	0.15	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.15	0.15	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	34	50	52	55	75	58	51	55	55	69	71	82	58	58	58	58	58	58	58	58	58	56	56	58	58	23	48	60	60	210	210
EQUIVALENT LENGTH	110	150	170	160	160	190	160	160	190	120	150	200	140	200	190	140	200	190	140	200	190	256	256	248	248	163	238	270	238	270	270
TOTAL EFFECTIVE LENGTH	144	200	222	215	235	248	211	175	219	175	219	201	222	256	248	201	222	256	248	201	222	256	248	248	248	163	238	270	238	270	270
ADJUSTED PRESSURE	0.1	0.07	0.07	0.07	0.06	0.06	0.06	0.07	0.08	0.08	0.07	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.09	0.07	0.06	0.06	0.06	0.06
ROUND DUCT SIZE	6	6	5	5	6	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	4	4	4	4	6	5	4	4	4	4
HEATING VELOCITY (ft/min)	469	469	308	308	245	220	286	286	426	426	265	265	265	265	265	265	265	265	265	265	265	103	103	172	172	469	228	23	23	23	23
COOLING VELOCITY (ft/min)	82	82	507	507	464	316	536	536	602	602	418	418	418	418	418	418	418	418	418	418	418	34	34	195	195	82	404	23	23	23	23
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10
TRUNK	G	F	G	G	F	F	F	F	B	A	A	A	A	B	B	A	A	A	A	A	A	C	C	C	C	E	E	E	E	E	C

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	0.06	9.2	10	475	631	0.06	12.7	18	8	631	0.06	12.7	18	8	631	0	0.05	0	8
TRUNK B	0.07	8.1	8	468	1955	0.06	19.4	34	10	828	0.06	19.4	34	10	828	0	0.05	0	8
TRUNK C	0.06	13.2	20	638	TRUNK G	0.00	0	0	8	0	0.00	0	0	8	0	0.05	0	8	0
TRUNK D	0.06	9.1	10	468	TRUNK H	0.00	0	0	8	0	0.00	0	0	8	0	0.05	0	8	0
TRUNK E	0.06	16.7	32	744	TRUNK I	0.00	0	0	8	0	0.00	0	0	8	0	0.05	0	8	0
TRUNK F	0.06	10.6	14	496	TRUNK J	0.00	0	0	8	0	0.00	0	0	8	0	0.05	0	8	0
					TRUNK K	0.00	0	0	8	0	0.00	0	0	8	0	0.05	0	8	0
					TRUNK L	0.00	0	0	8	0	0.00	0	0	8	0	0.05	0	8	0

RETURN AIR #									
1	2	3	4	5	6	7	8	9	10
0	130	130	115	260	130	405	360	0	0
AIR VOLUME	115	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
PLENUM PRESSURE	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
ACTUAL DUCT LGH	84	51	62	59	47	49	30	51	1
EQUIVALENT LENGTH	200	165	155	185	135	140	170	195	0
TOTAL EFFECTIVE LENGTH	284	216	217	244	182	189	200	246	1
ADJUSTED PRESSURE	0.05	0.06	0.06	0.05	0.07	0.07	0.07	0.05	0.08
ROUND DUCT SIZE	7	7	7	7	8.8	6.8	10.3	10.8	9
INLET GRILL SIZE	8	8	8	8	8	8	8	8	8
	X	X	X	X	X	X	X	X	X
	14	14	14	14	30	14	30	30	0

TYPE: 5005 - LOT 93 - OPT. 5 BED ELEV.
SITE NAME: PINE VALLEY & TESTON

LO # 80579
THE KNIGHTSWOOD

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES		9.32.3.1(1)
a)	<input checked="" type="checkbox"/> Direct vent (sealed combustion) only	
b)	<input type="checkbox"/> Positive venting induced draft (except fireplaces)	
c)	<input type="checkbox"/> Natural draft, B-vent or induced draft gas fireplace	
d)	<input type="checkbox"/> Solid Fuel (including fireplaces)	
e)	<input type="checkbox"/> No Combustion Appliances	

HEATING SYSTEM	
<input checked="" type="checkbox"/> Forced Air	<input type="checkbox"/> Non Forced Air
<input type="checkbox"/> Electric Space Heat	

HOUSE TYPE		9.32.1(2)
<input checked="" type="checkbox"/> I	Type a) or b) appliance only, no solid fuel	
<input type="checkbox"/> II	Type I except with solid fuel (including fireplaces)	
<input type="checkbox"/> III	Any Type c) appliance	
<input type="checkbox"/> IV	Type I, or II with electric space heat	
<input type="checkbox"/>	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
<input type="checkbox"/> 1	Exhaust only/Forced Air System	
<input type="checkbox"/> 2	HRV with Ducting/Forced Air System	
<input checked="" type="checkbox"/> 3	HRV Simplified/connected to forced air system	
<input type="checkbox"/> 4	HRV with Ducting/non forced air system	
<input type="checkbox"/>	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	7 @ 10.6 cfm	74.2 cfm
Other Rooms	6 @ 10.6 cfm	63.6 cfm
Table 9.32.3.A. TOTAL		222.6 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		95.4 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	222.6	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	67.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANEE 65H	Location: BSMT
155.0 cfm	3.0 sones <input checked="" type="checkbox"/> HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	$\Delta T \cdot F$	FACTOR	% LOSS
155.0 CFM	X 76 F	X 1.08	X 0.25


SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>
ENS-2	QTXEN050C	50	<input checked="" type="checkbox"/>
ENS-4	QTXEN050C	50	<input checked="" type="checkbox"/>
PWD	QTXEN050C	50	<input checked="" type="checkbox"/>

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 65H		
155 cfm high	64 cfm low	
75 % Sensible Efficiency	<input checked="" type="checkbox"/> 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:	
HRAI #	001820
Date:	November-18

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																																			
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																																			
LO#: 80579	Model: 5005 - LOT 93 - OPT. 5 BED ELEV.	Builder: GOLD PARK HOMES	Date: 02/11/2018																																																																
Volume Calculation		Air Change & Delta T Data																																																																	
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6.2.6 Sensible Gain due to Air Leakage																																																																			
$HG_{satb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$																																																																			
0.379	x	524.75	x																																																																
		7 °C	x																																																																
		1.2	=																																																																
			570 W																																																																
			=																																																																
			1946 Btu/h																																																																
6.2.7 Sensible heat Gain due to Ventilation																																																																			
$HL_{vaib} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																																																			
155 CFM	x	13 °F	x																																																																
		1.08	x																																																																
		0.25	=																																																																
			536 Btu/h																																																																
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																																			
$HL_{airr} = Level Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$																																																																			
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<p>*HLairbv = Air leakage heat loss + ventilation heat loss</p> <p>*For a balanced or supply only ventilation system HLairve = 0</p>																																																																			

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** 5005 - LOT 93 - OPT. 5 BED ELEV. THE KNIGHTSWOOD
SFQT: 4405 **LO#** 80579**BUILDER:** GOLD PARK HOMES
SITE: PINE VALLEY & TESTON**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75

BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	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):	66713.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 77.0 ft	WIDTH: 42.0 ft	EXPOSED PERIMETER:	238.0 ft

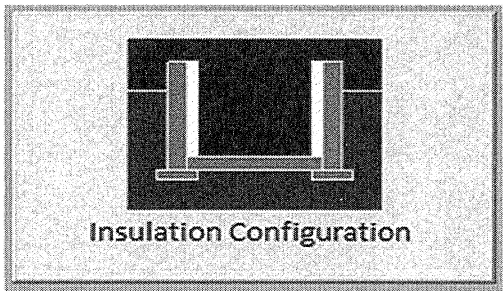
2012 OBC - COMPLIANCE PACKAGE**Component****Compliance Package
A1****Nominal Min. Eff.**

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:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	23.5	 Insulation Configuration
Floor Width (m):	12.8	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	
Window Area (m ²):	3.2	
Door Area (m ²):	3.7	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		2426

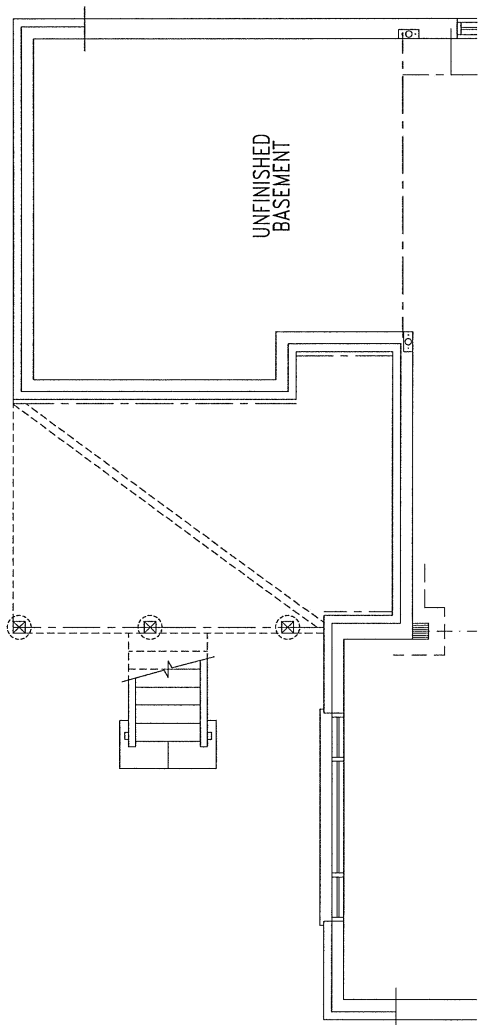
TYPE: 5005 - LOT 93 - OPT. 5 BED ELEV. THE KNIGHTSWOOD
LO# 80579

Air Infiltration Residential Load Calculator

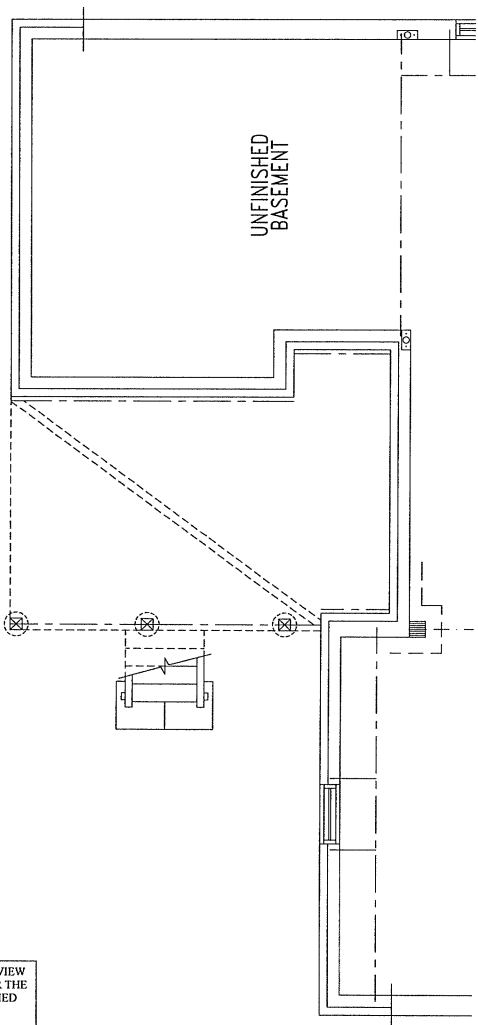
Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
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):	8.23			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1889.1			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2518.2 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	73.2	73.2		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.379			
Cooling Air Leakage Rate (ACH/H):	0.127			

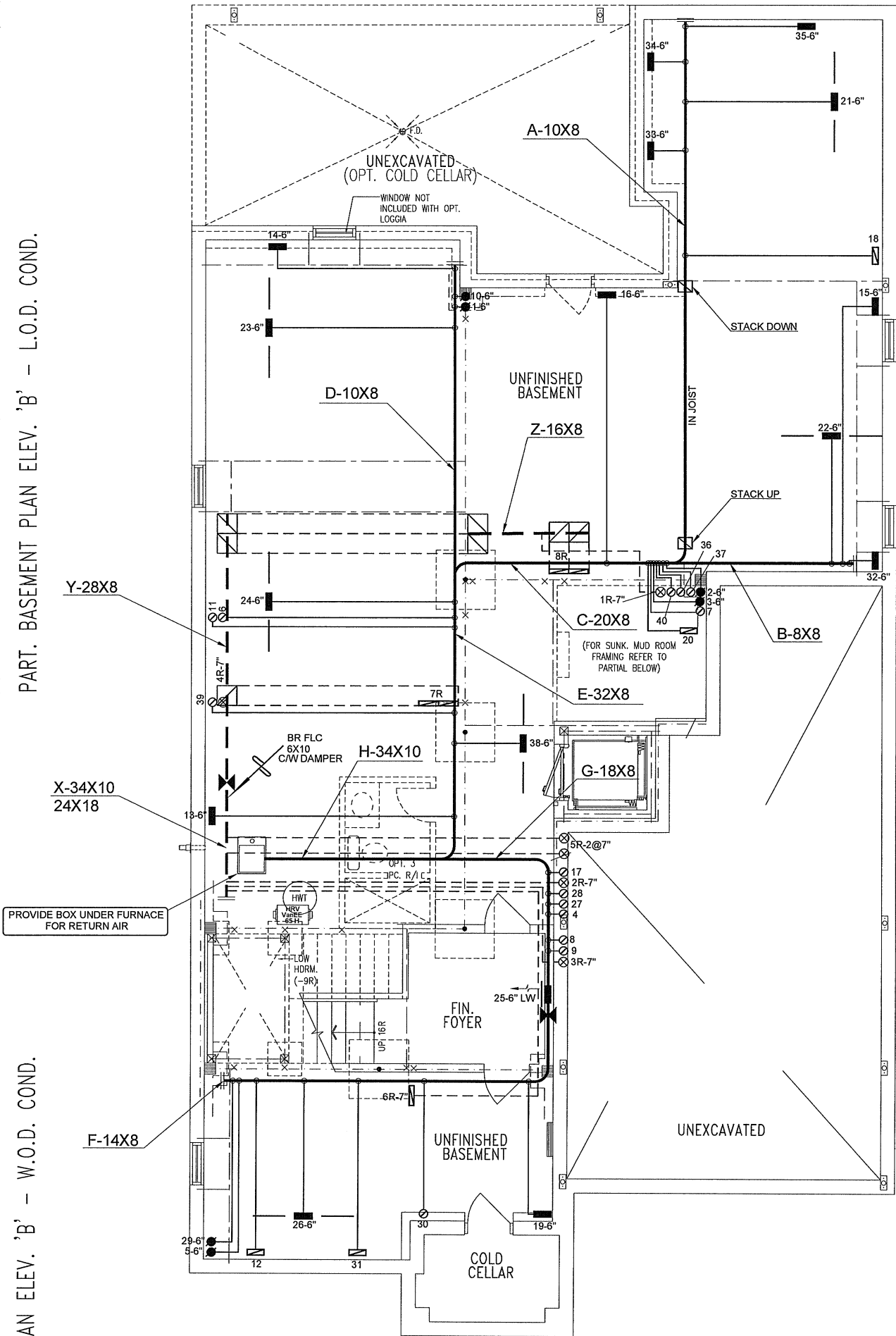
TYPE: 5005 - LOT 93 - OPT. 5 BED ELEV. THE KNIGHTSWOOD
LO# 80579



PART. BASEMENT PLAN ELEV. 'B' - L.O.D. COND.



PART. BASEMENT PLAN ELEV. 'B' - W.O.D. COND.



BASEMENT PLAN ELEV. 'B' - LOT 93

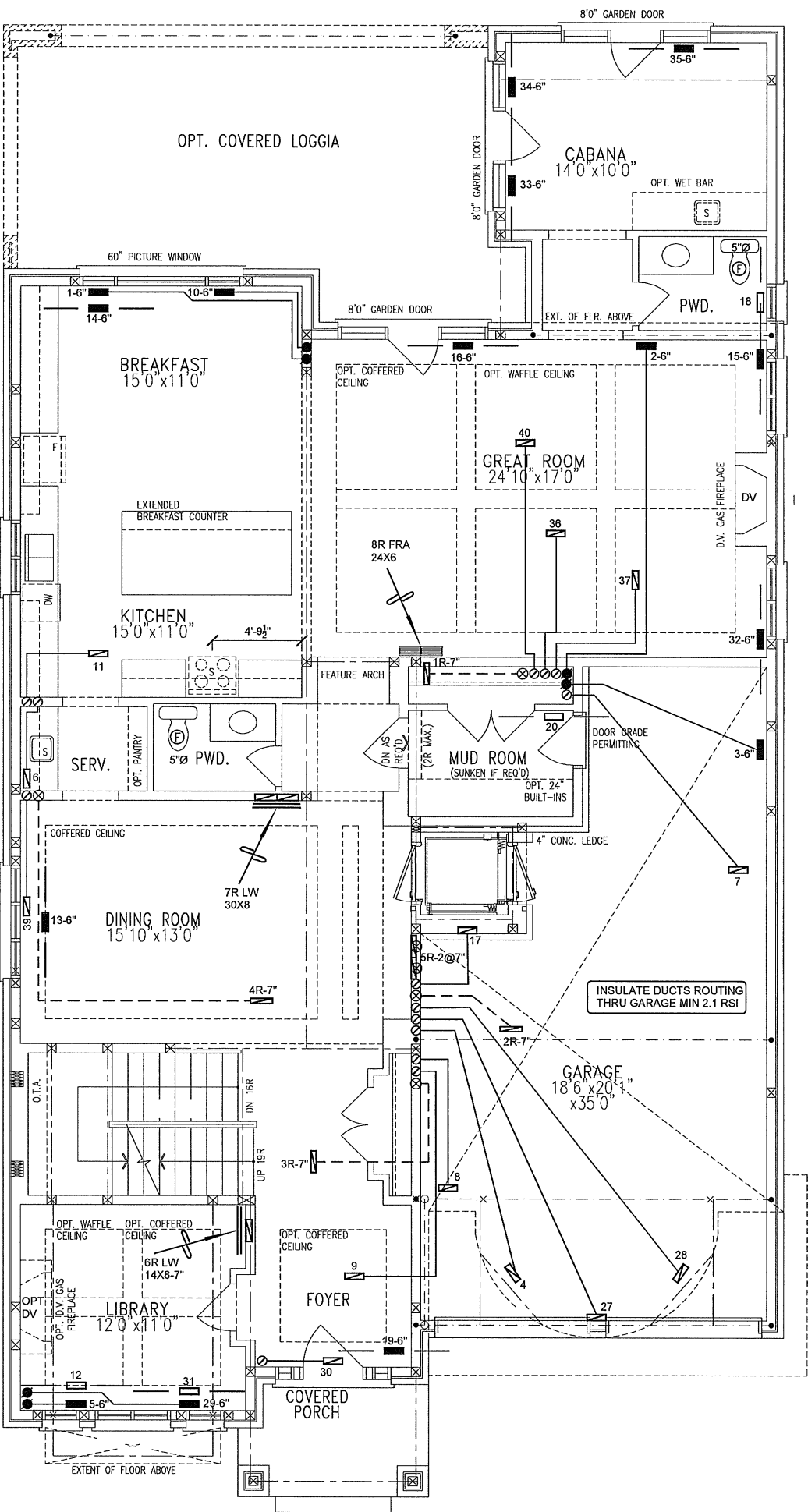
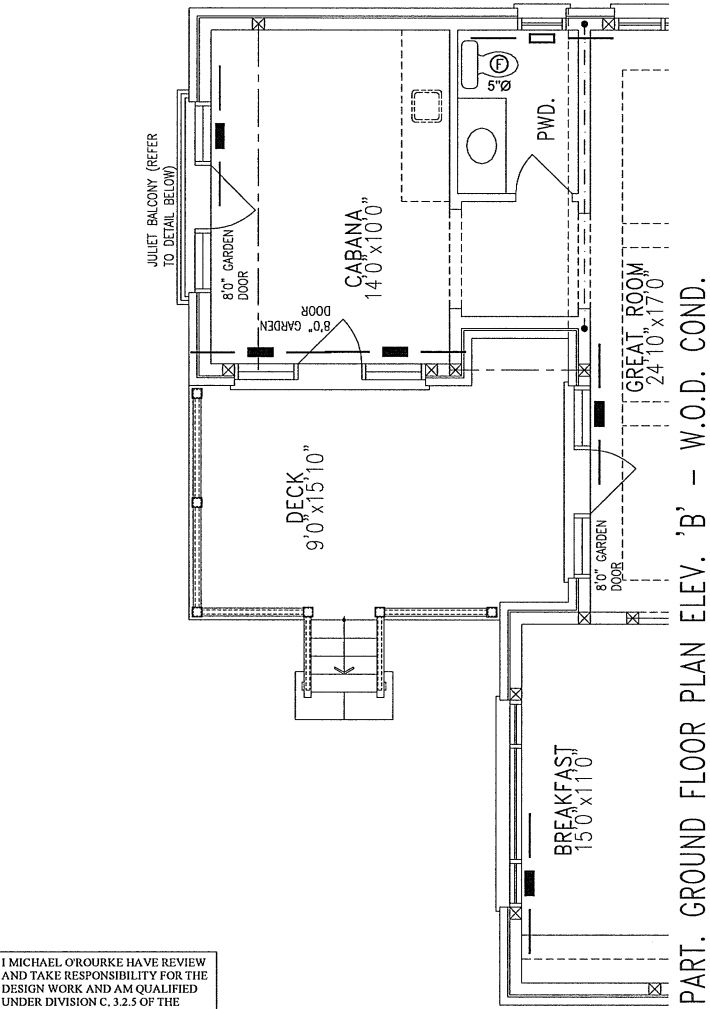
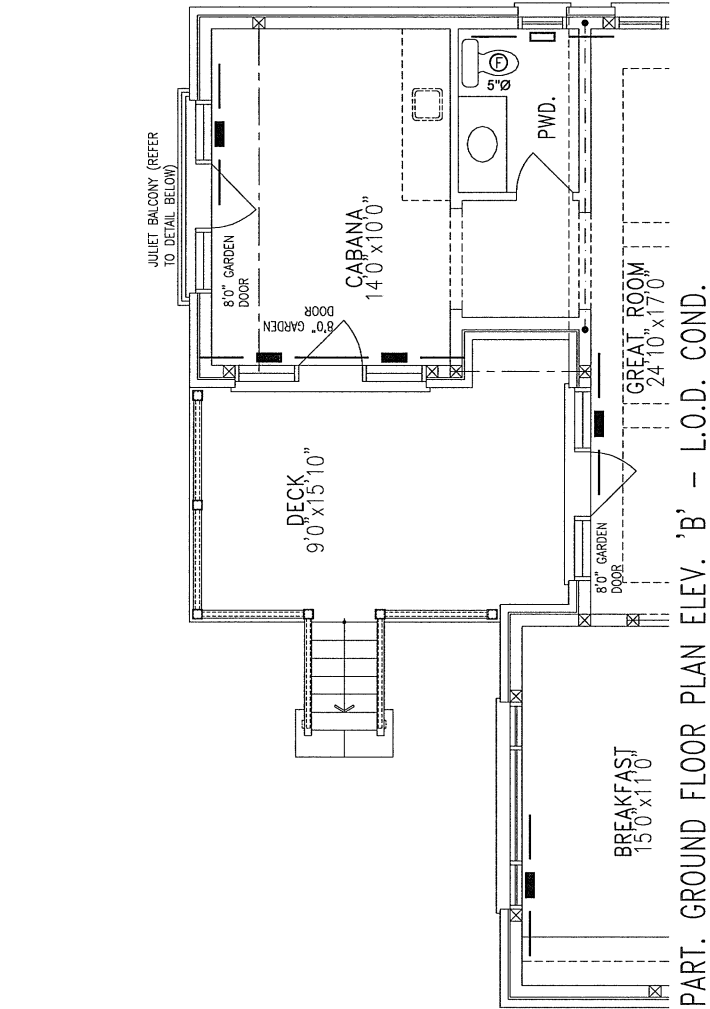
LOT 93
CSA-F280-12
PACKAGE A1

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>HVACDESIGNS LTD.</div><div>375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 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>	HEAT LOSS 93444 BTU/H		# OF RUNS S/A R/A FANS				Sheet Title	
GOLDPARK HOMES			UNIT DATA		3RD FLOOR				BASEMENT HEATING LAYOUT	
Project Name			MAKE		2ND FLOOR				Date	
PINE VALLEY & TESTON			LENNOX		20 5 6				NOV/2018	
VAUGHAN, ONTARIO			MODEL		1ST FLOOR				Scale	
KNIGHTSWOOD		EL296UH110XE60C		13 3 3				1/8" = 1'-0"		
OPT. 5 BED ELEVATOR		INPUT		BASEMENT				BCIN# 19669		
5005 - LOT 93		110 MBTU/H		7 1 0				LO#		
4405 sqft		OUTPUT		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				80579		
		106 MBTU/H								
		COOLING		TONS						
		5.0								
		FAN SPEED		cfm @ 0.6" w.c.						
		1955								



GROUND FLOOR PLAN ELEV. 'B' - LOT 93

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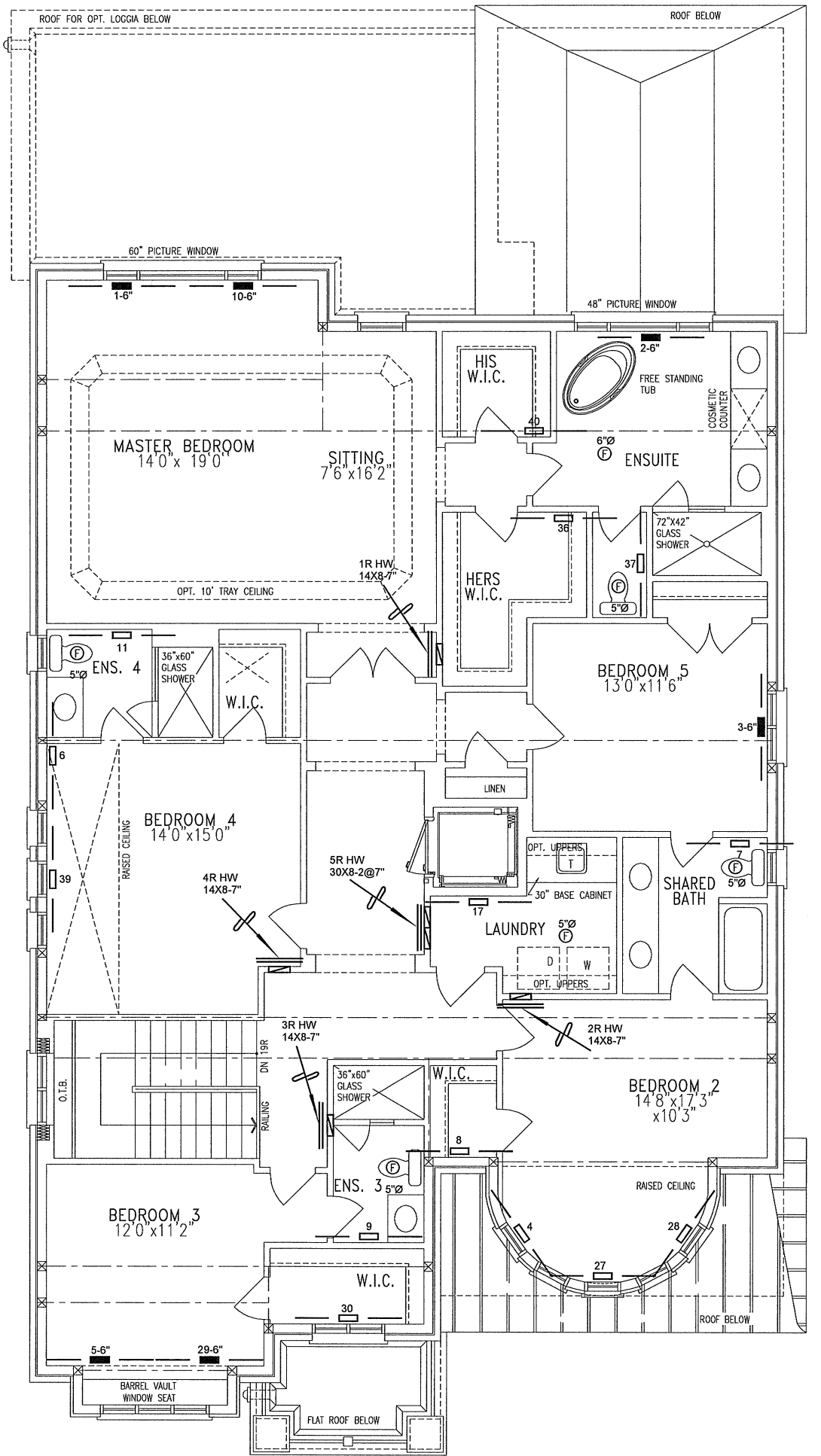
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

LOT 93
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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GOLDPARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name		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.	Date	NOV/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	1/8" = 1'-0"
KNIGHTSWOOD			BCIN# 19669	
OPT. 5 BED ELEVATOR			LO#	80579
5005 - LOT 93 4405 sqft				



SECOND FLOOR PLAN ELEV. 'B' - LOT 93

LOT 93
CSA-F280-12
PACKAGE A1

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

HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
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	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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GOLDPARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	NOV/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO KNIGHTSWOOD			Scale	1/8" = 1'-0"
OPT. 5 BED ELEVATOR			BCIN# 19669	
5005 - LOT 93 4405 sqft		LO#	80579	