


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: 5004 THE BEAUMONT CORNER WOB Project: PINE VALLEY & TESTON		
D. Declaration of Designer				
I, <u>MICHAEL O'ROURKE</u> (print name) declare that (choose one as appropriate):				
<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.				
September 26, 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.

Application for a Permit Construct or Demolish – Effective January 1, 2015

SITE NAME: PINE VALLEY & TESTON										CORNER WOB		DATE: Sep-18		WINTER NATURAL AIR CHANGE RATE		HEAT LOSS AT °F		CSA-F280-12	
BUILDER: GOLD PARK HOMES										TYPE: 5004 THE BEAUMONT		LO# 80140		SUMMER NATURAL AIR CHANGE RATE		HEAT GAIN AT °F		SB-12 PACKAGE A1	
ROOM USE		MBR		ENS		DRESS		BED-2		BED-3		BED-4		ENS-2		WIC-2		ENS-3	
EXP. WALL CLG. HT.		19	10	41	9	14	9	11	9	18	9	43	10	0	9	13	18		
FACTORS																			
GRS.WALL AREA		190		369		126		99		162		430		0		117			
GLAZING																			
NORTH		0	0	0	0	0	0	19	404	0	0	0	0	0	0	0	0	162	
EAST		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTH		0	0	29	617	730	18	383	453	0	0	50	1064	2092	0	0	10	213	
WEST		35	745	1464	28	586	1171	0	0	0	0	0	0	0	0	0	0	0	
SKYLIT		0	0	0	0	0	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	0	0	0	0	0	
NET EXPOSED WALL		4.5	692	312	1392	253	108	482	88	80	357	65	120	536	97	380	1696	308	
NET EXPOSED BSMT WALL ABOVE GR		3.6	0	0	0	0	0	0	0	0	0	0	0	0	0	117	522	95	
EXPOSED CLG		1.3	0.6	468	601	283	312	400	189	228	293	138	187	240	113	136	175	82	
NO ATTIC EXPOSED CLG		2.7	1.3	0	0	0	0	0	0	0	60	165	78	150	412	194	0	0	
EXPOSED FLOOR		2.6	0.5	0	0	0	0	0	0	187	477	87	196	500	91	20	51	9	
BASEMENT/CRAWL HEAT LOSS				0	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	0	
SUBTOTAL HT LOSS		2037		3006		1158		1478		2269		3566		223		821		1186	
SUB TOTAL HT GAIN		1873		0.20	0.43	0.20	0.43	0.20	0.43	0.20	0.43	0.20	0.43	0.20	0.43	0.20	0.43	624	
LEVEL FACTOR / MULTIPLIER				1292		497		635		975		1532		96		353		510	
AIR CHANGE HEAT LOSS		875																56	
AIR CHANGE HEAT GAIN						60		51		187		246		6		16			
DUCT LOSS		0		0		0		211		324		510		32		117		170	
DUCT GAIN						0		174		341		413		8		19		68	
HEAT GAIN PEOPLE		2		480		0		1		240		240		0		0		0	
HEAT GAIN APPLIANCES/LIGHTS				881		881		881		881		881		0		0		0	
TOTAL HT LOSS BTU/H		2912		4297		1655		2325		3568		5608		350		1291		1866	
TOTAL HT GAIN x 1.3 BTU/H		4420		3317		2105		2495		4880		5908		112		277		971	

SITE NAME: PINE VALLEY & TESTON
BUILDER: GOLD PARK HOMESTYPE: 5004 THE BEAUMONT
CORNER WOB

DATE: Sep-18

GFA: 4294 LO# 80140

HEATING CFM 1955
TOTAL HEAT GAIN 60,251
AIR FLOW RATE CFM 32.45furnace pressure 0.6
furnace filler 0.05
a/c coil pressure 0.2
available pressure
for s/a & r/a 0.35r/a pressure 0.17
r/a grille press. loss 0.02
adjusted pressure r/a 0.15AFUE = 96 %
INPUT (BTU/H) = 110,000
OUTPUT (BTU/H) = 106,000
DESIGN CFM = 1955
CFM @ 6" E.S.P.EL296UH110XE60C
FAN SPEED 110LOW 0
MEDLOW 1380
MEDIUM 1505
HIGH 1685

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	18	12	8
R/A	0	0	5	4	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	DRESS	BED-2	BED-3	BED-4	ENS-2	WIC-2	ENS-4	MBR	ENS-3	LIBR	DIN	KIT	KIT	GREAT	LAUN	KIT	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.46	1.93	1.66	2.32	1.19	1.87	0.35	1.29	0.65	1.46	1.87	1.44	1.98	3.16	3.16	3.35	0.59	3.16	4.02	2.14	3.86	3.86	3.86	3.86
CFM PER RUN HEAT	32	42	36	51	26	41	8	28	14	32	41	31	43	69	69	73	13	69	88	47	84	84	84	84
RM GAIN MBH	2.21	1.51	2.11	2.50	1.63	1.97	0.11	0.28	0.39	2.21	0.97	1.85	2.16	2.67	2.67	2.58	1.45	2.67	1.03	1.52	0.89	0.89	0.89	0.89
CFM PER RUN COOLING	72	49	68	81	53	64	4	9	13	72	32	60	70	87	87	84	47	87	33	49	29	29	29	29
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.17	0.16	0.16	0.17	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	190	140	180	180	120	150	160	150	190	180	160	180	180	140	150	130	150	140	150	130	130	140	100	102
TOTAL EFFECTIVE LENGTH	236	202	209	214	158	200	188	181	233	234	201	221	107	180	182	179	176	176	174	146	180	190	148	137
ADJUSTED PRESSURE	0.07	0.09	0.08	0.08	0.11	0.09	0.09	0.1	0.07	0.07	0.09	0.08	0.16	0.09	0.09	0.09	0.1	0.09	0.09	0.12	0.09	0.09	0.11	0.12
ROUND DUCT SIZE	5	4	5	5	4	5	4	4	4	5	4	5	5	5	5	5	4	5	5	4	5	5	5	5
HEATING VELOCITY (ft/min)	235	482	264	374	298	301	92	321	161	235	470	228	316	507	507	536	149	507	646	539	617	617	617	617
COOLING VELOCITY (ft/min)	529	562	499	595	608	470	46	103	149	529	367	441	514	639	639	617	539	639	242	562	213	213	213	213
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	D	F	F	E	F	F	D	E	B	E	F	C	C	A	D	B	E	D	A	A	C	C

ROOM #	25	26	27	28	29	30	31	32	33	34	35	36	37	38
ROOM NAME	BAS	BAS	BAS	BAS	ENS	ENS	BED-3	BED-3	BED-4	BED-4	LIBR	KIT	GREAT	GREAT
RM LOSS MBH	3.86	3.86	3.86	84	1.93	1.93	1.19	1.19	1.87	1.87	1.44	3.16	3.35	3.35
CFM PER RUN HEAT	84	84	84	84	9	9	26	26	41	41	31	69	73	73
RM GAIN MBH	0.89	0.89	0.89	0.89	1.51	1.51	1.63	1.63	1.97	1.97	1.85	2.57	2.58	2.58
CFM PER RUN COOLING	29	29	29	29	49	49	53	53	64	64	60	87	84	84
ADJUSTED PRESSURE	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16
EQUIVALENT LENGTH	120	80	120	150	140	140	130	140	150	130	140	150	150	150
TOTAL EFFECTIVE LENGTH	157	103	137	181	174	173	172	186	197	170	175	178	189	214
ADJUSTED PRESSURE	0.1	0.16	0.12	0.09	0.1	0.1	0.09	0.09	0.1	0.1	0.1	0.09	0.09	0.08
ROUND DUCT SIZE	5	5	5	5	4	4	4	5	5	5	5	5	5	6
HEATING VELOCITY (ft/min)	617	617	617	617	482	482	298	191	301	301	228	507	536	372
COOLING VELOCITY (ft/min)	213	213	213	213	562	562	608	389	470	470	441	639	617	428
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10
TRUNK	B	D	F	E	D	D	F	F	E	E	E	B	A	A

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	387	0.08	9.8	12	581	TRUNK G	0	0.00	0	0	0	TRUNK O	0	0.06	0	0	8
TRUNK B	673	0.07	12.5	18	673	TRUNK H	0	0.00	0	0	0	TRUNK P	0	0.06	0	0	8
TRUNK C	348	0.09	9.2	10	626	TRUNK I	0	0.00	0	0	0	TRUNK Q	0	0.06	0	0	8
TRUNK D	1280	0.07	15.9	30	768	TRUNK J	0	0.00	0	0	0	TRUNK R	0	0.06	0	0	8
TRUNK E	371	0.07	10	12	557	TRUNK K	0	0.00	0	0	0	TRUNK S	0	0.06	0	0	8
TRUNK F	676	0.07	12.5	20	608	TRUNK L	0	0.00	0	0	0	TRUNK T	0	0.06	0	0	8
RETURN AIR #	1	2	3	4	5	6	7	8	9	0	0	TRUNK U	0	0.06	0	0	8
AIR VOLUME	120	120	120	120	305	85	300	300	185	0	0	TRUNK V	0	0.06	0	0	8
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	TRUNK W	0	0.06	0	0	8
ACTUAL DUCT LGH.	38	37	37	45	43	59	27	25	34	1	1	TRUNK X	1465	0.06	17.4	32	8
EQUIVALENT LENGTH	195	185	165	205	145	175	190	185	150	0	0	TRUNK Y	805	0.06	13.9	22	10
TOTAL EFFECTIVE LGH	233	222	202	250	188	234	217	210	184	1	1	TRUNK Z	490	0.06	11.5	16	8
ADJUSTED PRESSURE	0.06	0.07	0.07	0.06	0.08	0.06	0.07	0.07	0.08	14.80	14.80	DROP	1955	0.06	19.4	24	18
ROUND DUCT SIZE	6.8	6.6	6.6	6.8	9	6	9.2	9.2	7.5	0	0						
INLET GRILL SIZE	8	8	8	8	8	8	8	8	8	0	0						
INLET GRILL SIZE	14	14	14	14	30	14	30	30	14	0	0						

TYPE: 5004 THE BEAUMONT
SITE NAME: PINE VALLEY & TESTON

LO # 80140
CORNER WOB

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	3 @ 10.6 cfm	31.8 cfm
Kitchen & Bathrooms	6 @ 10.6 cfm	63.6 cfm
Other Rooms	6 @ 10.6 cfm	63.6 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
TOTAL	79.5	cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	201.4	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	46.4	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	ΔT °F	FACTOR	% LOSS
155.0 CFM	X 76 F	X 1.08	X 0.25

SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-2	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-3	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-4	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3

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:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	September-18

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																									
Formula Sheet (For Air Leakage / Ventilation Calculation)																																									
LO#: 80140		Model: 5004 THE BEAUMONT		Builder: GOLD PARK HOMES		Date: 9/26/2018																																			
Volume Calculation																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Floor Area (ft²)</th> <th>Floor Height (ft)</th> <th>Volume (ft³)</th> </tr> </thead> <tbody> <tr> <td>Bsmt</td> <td>2078</td> <td>10</td> <td>20780</td> </tr> <tr> <td>First</td> <td>2078</td> <td>11</td> <td>22858</td> </tr> <tr> <td>Second</td> <td>2301</td> <td>9</td> <td>20709</td> </tr> <tr> <td>Third</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td>Fourth</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td colspan="2">Total:</td> <td></td> <td>64,347.0 ft³</td> </tr> <tr> <td colspan="2">Total:</td> <td></td> <td>1822.1 m³</td> </tr> </tbody> </table>										Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	Bsmt	2078	10	20780	First	2078	11	22858	Second	2301	9	20709	Third	0	9	0	Fourth	0	9	0	Total:			64,347.0 ft³	Total:			1822.1 m³
Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)																																						
Bsmt	2078	10	20780																																						
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Third	0	9	0																																						
Fourth	0	9	0																																						
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6.2.6 Sensible Gain due to Air Leakage																																									
$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$																																									
0.407	x	506.14	x	42 °C	x	1.2	=	10434 W																																	
							=	35601 Btu/h																																	
6.2.7 Sensible heat Gain due to Ventilation																																									
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$																																									
155 CFM	x	76 °F	x	1.08	x	0.25	=	3181 Btu/h																																	
							=	578 Btu/h																																	
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																									
$HL_{airrr} = Level Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclvl} + HL_{bgclvl})\}$																																									
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<p>*Hlaivebv = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system Hlaive = 0</p>																																									

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 5004 THE BEAUMONT	CORNER WOB	BUILDER: GOLD PARK HOMES
SFQT: 4294	LO# 80140	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)	74

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):	64347.0	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:	7.0 ft
LENGTH: 74.0 ft	WIDTH: 46.0 ft	EXPOSED PERIMETER:	168.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	72.0 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	-

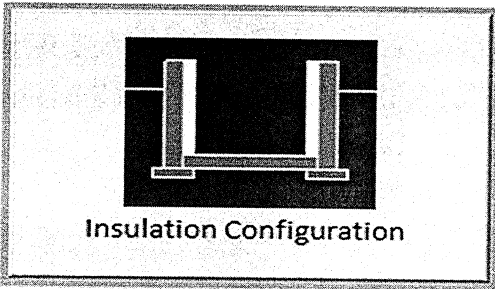
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

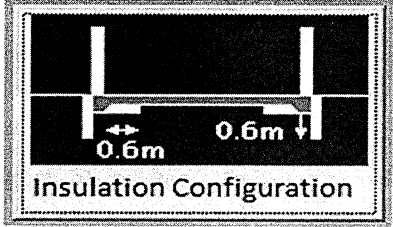
Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	7.6	 Insulation Configuration
Floor Width (m):	14.0	
Exposed Perimeter (m):	51.2	
Wall Height (m):	3.0	
Depth Below Grade (m):	1.90	
Window Area (m ²):	1.1	
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):		1002

TYPE: 5004 THE BEAUMONT
LO# 80140

CORNER WOB

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		
Length (m):	4.6	 Insulation Configuration
Width (m):	12.8	
Exposed Perimeter (m):	21.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		336

TYPE: 5004 THE BEAUMONT
LO# 80140

CORNER WOB

Air Infiltration Residential Load Calculator

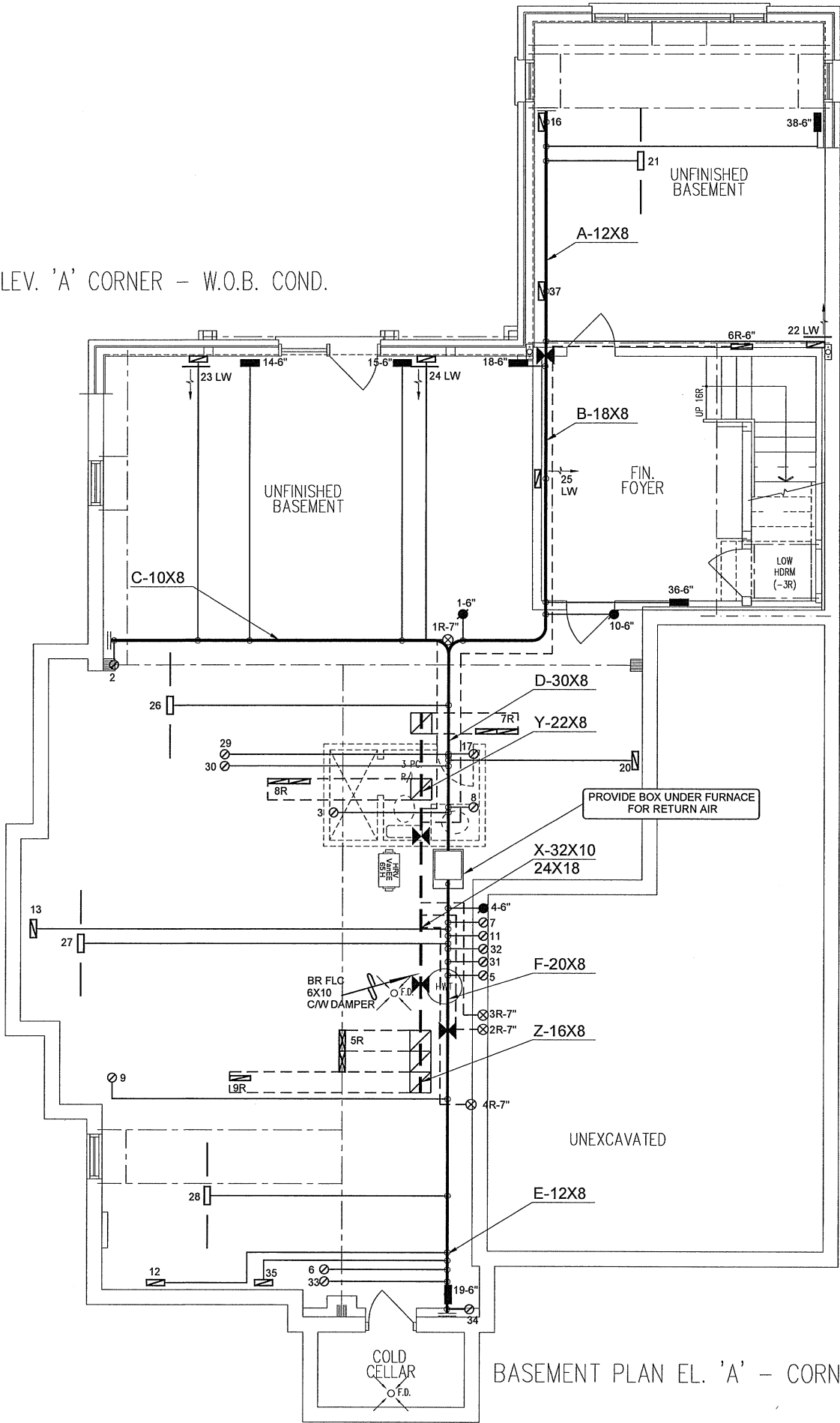
Supplemental tool for CAN/CSA-F280

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):	9.14			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1822.1			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2428.9 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):	0.407			
Cooling Air Leakage Rate (ACH/H):	0.140			

TYPE: 5004 THE BEAUMONT
LO# 80140

CORNER WOB

PART. BASEMENT PLAN ELEV. 'A' CORNER – W.O.B. COND.



BASEMENT PLAN EL. 'A' – CORNER

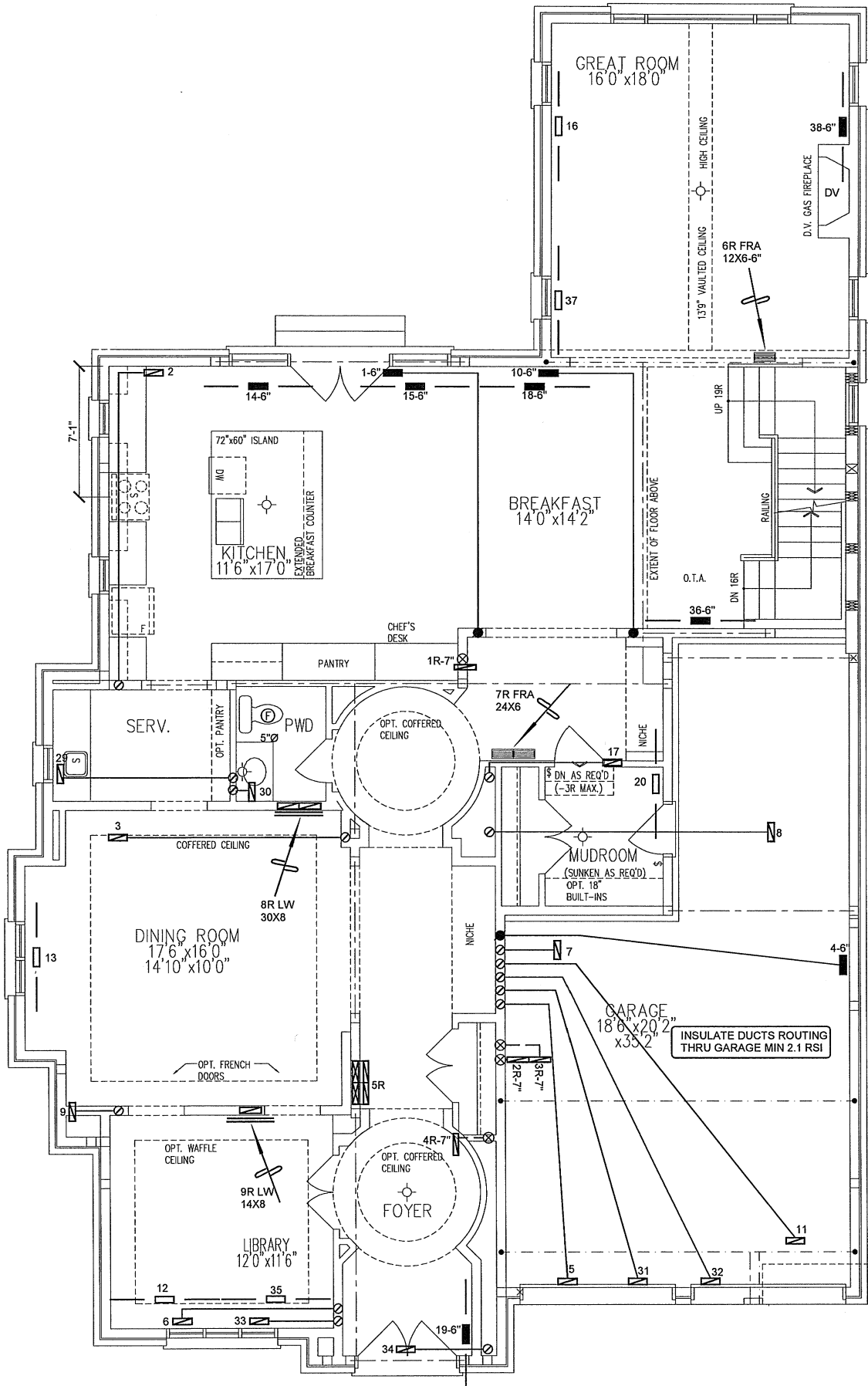
WOB
CSA-F280-12
PACKAGE A1

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.

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	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>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></div>	HEAT LOSS 92855 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title	
GOLD PARK HOMES			MAKE		3RD FLOOR			BASEMENT HEATING LAYOUT	
Project Name			LENNOX		2ND FLOOR				
PINE VALLEY & TESTON VAUGHAN, ONTARIO			MODEL EL296110XE60C		1ST FLOOR				
THE BEAUMONT WOB			INPUT		BASEMENT			Date	
5004 - CORNER 4294 sqft			110 MBTU/H		8 1 0			SEPT/2018	
			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			Scale	
			106 MBTU/H					1/8" = 1'-0"	
			COOLING					BCIN# 19669	
			5.0 TONS						
			FAN SPEED					LO#	
			1955 cfm @ 0.6" w.c.					80140	



GROUND FLOOR PLAN EL. 'A' – CORNER

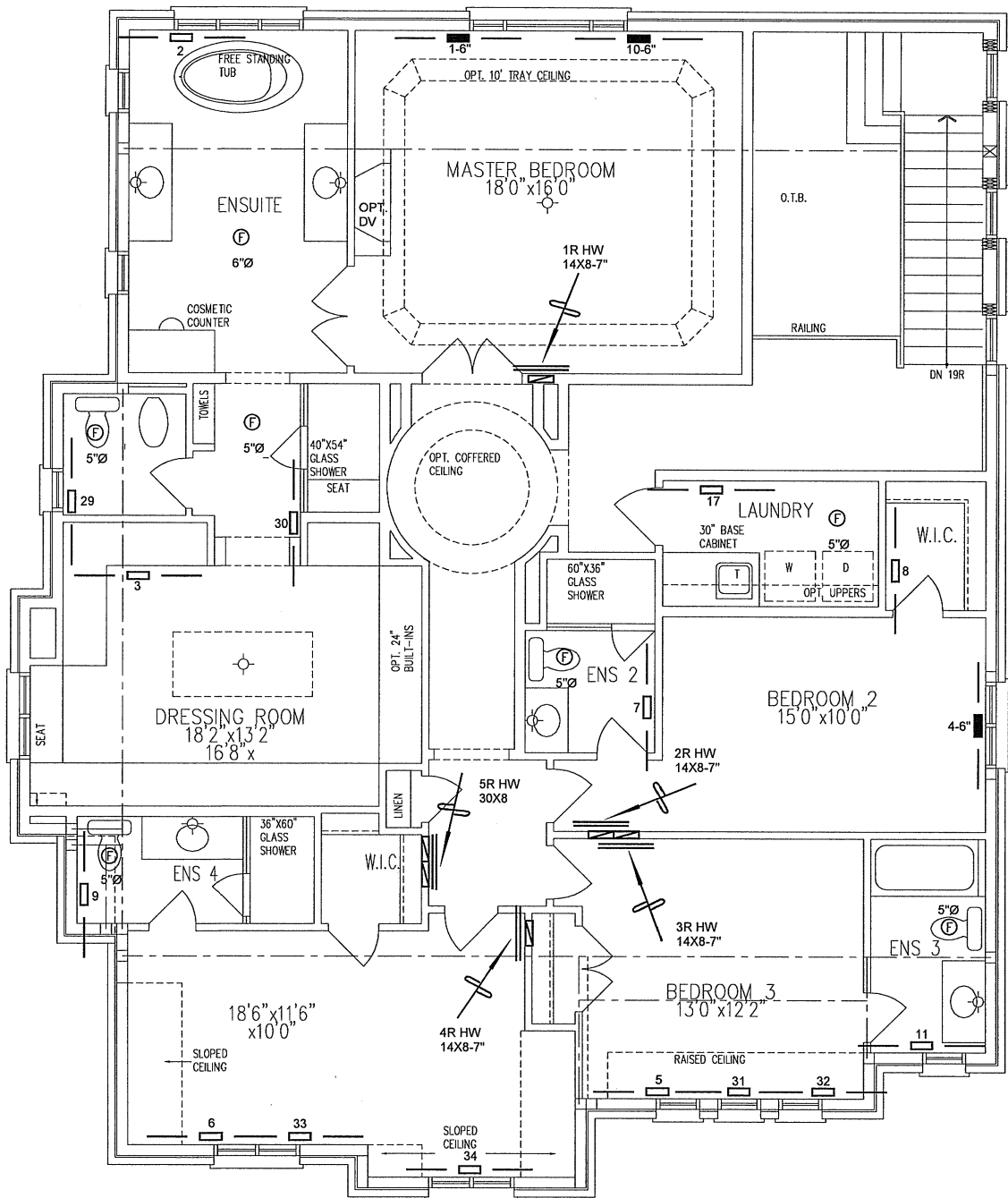
WOB
CSA-F280-12
PACKAGE A1

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.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	2.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	1.		
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								REVISIONS		

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GOLD PARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	SEPT/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	1/8" = 1'-0"
THE BEAUMONT WOB 5004 - CORNER 4294 sqft			BCIN# 19669	
		LO#	80140	



SECOND FLOOR PLAN EL. 'A' - CORNER

WOB
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.		
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GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	SEPT/2018
PINE VALLEY & TESTON VAUGHAN, ONTARIO			Scale	1/8" = 1'-0"
THE BEAUMONT WOB			BCIN# 19669	
5004 - CORNER 4294 sqft			LO#	80140