

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 INNISFIL	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@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]			
☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems			
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: 32-4-10 Project: ALCONA	
D. Declaration of Designer			
I, <u>MICHAEL O'ROURKE</u> (print name)		declare that (choose one as appropriate):	
☐ 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: _____			
☒ 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>			
☐ 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.			
June 21, 2017 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

Town of Innisfil Certified Model
05/01/2018 9:57:27 AM kgervais

SITE NAME: ALCONA BUILDER: BAYVIEW WELLINGTON										DATE: Jun-17		WINTER NATURAL AIR CHANGE RATE 0.332		HEAT LOSS AT °F 83		CSAF280-12	
TYPE: 32-4-10										LO# 74581		SUMMER NATURAL AIR CHANGE RATE 0.087		HEAT GAIN AT °F 12		SB-12 PACKAGE A1	
ROOM USE	EXP. WALL	CLG. HT.	FACTORS	LOSSES	GAIN	NET	ENS	KT/FM	LV/DN	LAUN	PWD	FOY	MUD	WOD	BAS		
GRS WALL AREA	41	9	369	243	216	2171	243	52	210	72	90	210	100	324	1188		
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NORTH	23.3	15.8	0	0	0	0	0	0	0	0	0	0	0	0	0		
EAST	23.3	41.4	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTH	23.3	24.7	12	280	297	0	0	0	0	0	0	0	0	0	0		
WEST	23.3	41.4	28	652	1159	14	326	371	48	1118	223	0	0	0	0		
SKYL.T.	40.8	101.3	0	0	0	0	0	1654	0	0	0	0	0	0	0		
DOORS	27.6	4.1	0	0	0	0	0	0	0	0	0	0	0	0	0		
NET EXPOSED WALL	4.9	0.7	329	1607	236	229	1119	2120	0	0	0	0	0	0	0		
NET EXPOSED BMT WALL ABOVE GR	3.9	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0		
EXPOSED CLG	1.4	0.6	408	573	236	176	247	102	0	0	0	0	0	0	0		
NO ATTIC EXPOSED CLG	3.0	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0		
EXPOSED FLOOR	2.8	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0		
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 LOSSES	3112			1692			1692										
SUB TOTAL HT GAIN	0.20	0.27		0.20	0.27		0.20	0.27									
LEVEL FACTOR / MULTIPLIER	847			461			461										
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AIR CHANGE HEAT GAIN	151			0			0										
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DUCT GAIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
HEAT GAIN PEOPLE	240			0			0										
HEAT GAIN APPLIANCES/LIGHTS	2	430	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL HT LOSS BTU/H	3950			2153			2153										
TOTAL HT GAIN x 1.3 BTU/H				4410			4410										
GRS WALL AREA	210	210	210	210	210	210	210	520	210	72	90	210	100	324	1188		
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NORTH	23.3	15.8	0	0	0	0	0	0	0	0	0	0	0	0	0		
EAST	23.3	41.4	0	0	0	0	0	0	0	0	0	0	0	0	0		
SOUTH	23.3	24.7	48	1118	1187	0	0	371	48	1118	223	0	0	0	0		
WEST	23.3	41.4	0	0	0	0	0	2938	0	0	0	0	0	0	0		
SKYL.T.	40.8	101.3	0	0	0	0	0	0	0	0	0	0	0	0	0		
DOORS	27.6	4.1	0	0	0	0	0	0	0	0	0	0	0	0	0		
NET EXPOSED WALL	4.9	0.7	152	751	116	134	2120	311	116	72	352	52	81	396	58		
NET EXPOSED BMT WALL ABOVE GR	3.9	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0		
EXPOSED CLG	1.4	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0		
NO ATTIC EXPOSED CLG	3.0	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0		
EXPOSED FLOOR	2.8	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0		
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	1910			1303			1303										
SUB TOTAL HT GAIN	0.30	0.51		0.30	0.51		0.30	0.51									
LEVEL FACTOR / MULTIPLIER	966			102			102										
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AIR CHANGE HEAT GAIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DUCT LOSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DUCT GAIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
HEAT GAIN PEOPLE	240			0			0										
HEAT GAIN APPLIANCES/LIGHTS	2	430	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL HT LOSS BTU/H	2876			2611			2611										
TOTAL HT GAIN x 1.3 BTU/H				2611			2611										

SITE NAME: ALCONA

BUILDER: BAYVIEW WELLINGTON

TYPE: 32-4-10

DATE: Jun-17

GFA: 2483

LO# 74581

HEATING CFM 995 COOLING CFM 995
TOTAL HEAT GAIN 47,590
AIR FLOW RATE CFM 20.91

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35

r/a pressure 0.17
r/a grille press. loss 0.02
adjusted pressure r/a 0.15

EL296UH070XE36B 70
FAN SPEED LOW 0
MEDIUM 995
HIGH 1100

ARUE = 96 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = 64,000
DFSIGN CFM = 995
C-M @ E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	11	7	4
R/A	0	0	4	2	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-2	BED-3	BED-4	BATH	BED-2	BED-3	MBR	ENS-2	LV/DN	KT/FM	KT/FM	KT/FM	KT/FM	LAUN	PWD	FOY	MUD	BAS	BAS	BAS	BAS	BAS
RM LOSS MBH	1.98	2.15	1.52	1.68	1.29	0.83	1.52	1.68	1.98	1.00	2.88	2.09	2.09	2.09	2.09	0.82	0.91	3.41	1.42	4.12	4.12	4.12	4.12	4.12
CFM PER RUN HEAT	41	45	32	35	27	17	32	35	41	21	60	44	44	44	44	13	19	71	30	86	86	86	86	86
RM GAIN MBH	2.05	1.18	1.71	1.89	1.87	0.41	1.71	1.89	2.05	0.22	2.61	1.96	1.96	1.96	1.96	0.93	0.39	1.42	0.98	0.41	0.41	0.41	0.41	0.41
CFM PER RUN COOLING	71	41	59	65	64	14	59	65	71	8	90	68	68	68	68	32	14	49	34	14	14	14	14	14
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	63	67	29	37	41	49	43	53	74	42	26	46	45	45	45	44	39	32	24	44	45	20	28	28
EQUIVALENT LENGTH	180	170	170	110	190	180	180	170	190	160	170	190	110	110	120	130	120	120	140	150	140	150	130	130
TOTAL EFFECTIVE LENGTH	243	237	199	147	231	239	223	223	264	202	196	236	155	173	173	174	159	152	164	194	185	170	158	158
ADJUSTED PRESSURE	0.07	0.07	0.09	0.12	0.07	0.07	0.08	0.08	0.07	0.09	0.03	0.07	0.11	0.11	0.11	0.1	0.11	0.11	0.1	0.08	0.09	0.1	0.1	0.1
ROUND DUCT SIZE	5	5	5	5	5	4	5	5	5	4	6	5	5	5	5	4	4	5	4	6	5	5	5	5
HEATING VELOCITY (ft/min)	301	330	235	257	198	165	235	257	301	241	306	323	323	323	323	149	218	521	344	438	631	631	631	631
COOLING VELOCITY (ft/min)	521	301	433	477	470	470	433	477	521	92	459	499	499	499	499	367	161	360	380	71	103	103	103	103
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10
TRUNK	A	A	C	C	B	B	C	C	A	B	C	A	A	A	A	B	C	C	B	A	A	B	B	C

RUN #	ROOM NAME	RM LOSS MBH	CFM PER RUN HEAT	CFM PER RUN COOLING	ADJUSTED PRESSURE	EQUIVALENT LENGTH	TOTAL EFFECTIVE LENGTH	ADJUSTED PRESSURE	ROUND DUCT SIZE	HEATING VELOCITY (ft/min)	COOLING VELOCITY (ft/min)	OUTLET GRILL SIZE	TRUNK
TRUNK A	431	0.07	10.6	14	18	8	8	0.15	14.80	14.80	14.80	14.80	A
TRUNK B	625	0.07	12.2	12	12	8	8	0.15	14.80	14.80	14.80	14.80	B
TRUNK C	370	0.08	9.7	12	12	8	8	0.15	14.80	14.80	14.80	14.80	C
TRUNK D	995	0.07	14.5	24	24	8	8	0.15	14.80	14.80	14.80	14.80	D
TRUNK E	0	0.00	0	0	0	8	8	0.15	14.80	14.80	14.80	14.80	E
TRUNK F	0	0.00	0	0	0	8	8	0.15	14.80	14.80	14.80	14.80	F

RETURN AIR TRUNK SIZE	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	431	0.07	10.6	14	18	8	0.15	14.80	14.80	14.80	14.80	0.15	14.80	14.80	14.80
TRUNK B	625	0.07	12.2	12	12	8	0.15	14.80	14.80	14.80	14.80	0.15	14.80	14.80	14.80
TRUNK C	370	0.08	9.7	12	12	8	0.15	14.80	14.80	14.80	14.80	0.15	14.80	14.80	14.80
TRUNK D	995	0.07	14.5	24	24	8	0.15	14.80	14.80	14.80	14.80	0.15	14.80	14.80	14.80
TRUNK E	0	0.00	0	0	0	8	0.15	14.80	14.80	14.80	14.80	0.15	14.80	14.80	14.80
TRUNK F	0	0.00	0	0	0	8	0.15	14.80	14.80	14.80	14.80	0.15	14.80	14.80	14.80

TYPE: 32-4-10
SITE NAME: ALCONA

LO # 74581

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	6 @ 10.6 cfm	63.6 cfm
Table 9.32.3.A.	TOTAL	190.8 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	190.8 cfm	
Less Principal Ventil. Capacity	139 cfm	
Required Supplemental Capacity	51.8 cfm	

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANE 60H-V+	Location: BSMT
139.0 cfm	3.0 sones
☒ HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
139.0 CFM	83 F	1.08	0.25

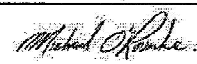
SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	✓
BATH	QTXEN050C	50	✓
ENS-2	QTXEN050C	50	✓
PWD	QTXEN050C	50	✓

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANE 60H-V+		
139 cfm high	50 cfm low	
75 % Sensible Efficiency @ 32 deg F (0 deg C)	☒ HVI Approved	

LOCATION OF INSTALLATION	
Lot:	Concession
Township	Plan:
Address	
Roll #	Building Permit #

BUILDER:	
BAYVIEW WELLINGTON	
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:	June-17

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** 32-4-10**BUILDER:** BAYVIEW WELLINGTON**SFQT:** 2483**LO#** 74581**SITE:** ALCONA**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-11	OUTDOOR DESIGN TEMP.	84
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

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):	33707.0	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:	6.0 ft
LENGTH: 56.0 ft	WIDTH: 27.0 ft	EXPOSED PERIMETER:	162.0 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	29.8
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	-

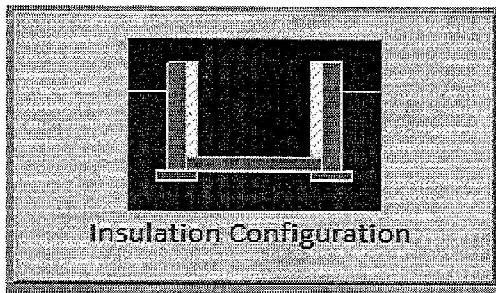
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Barrie	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	17.1	
Floor Width (m):	8.2	
Exposed Perimeter (m):	49.4	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	1.1	
Door Area (m ²):	0.0	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1718

TYPE: 32-4-10

LO# 74581

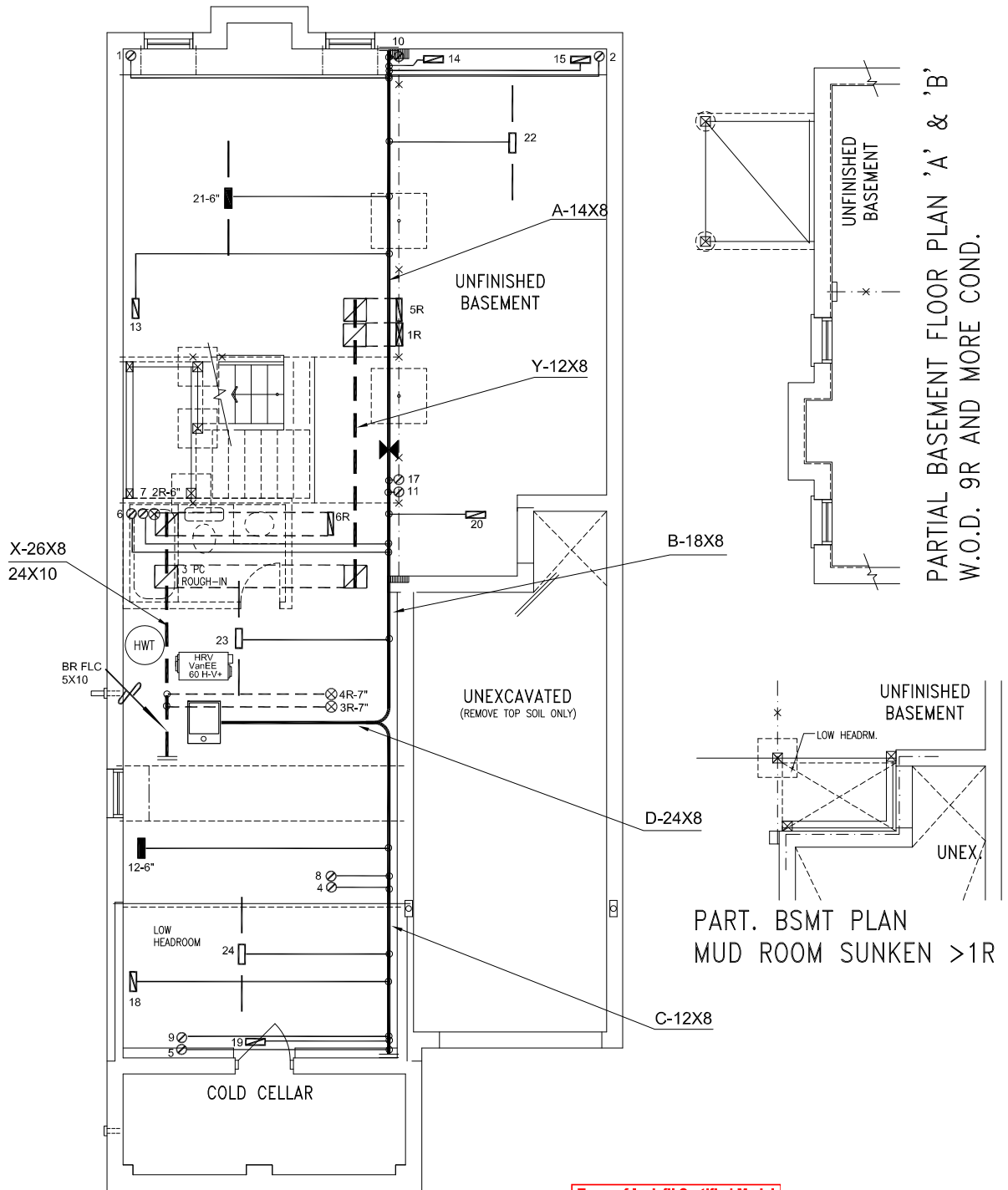
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Barrie			
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):	6.71			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	954.5			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1272.3 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	65.6	65.6		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.332			
Cooling Air Leakage Rate (ACH/H):	0.087			

TYPE: 32-4-10

LO# 74581



Town of Innisfil Certified Model
05/01/2018 9:57:51 AM kgervais

BASEMENT PLAN 'A' & 'B'

10'0" GARAGE

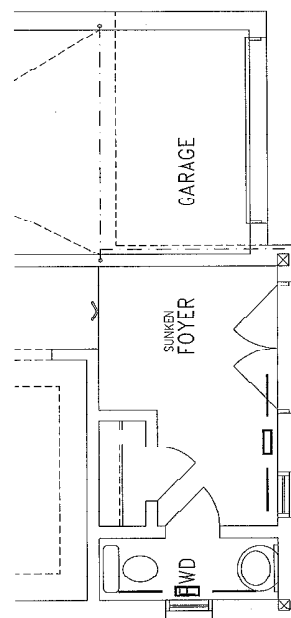
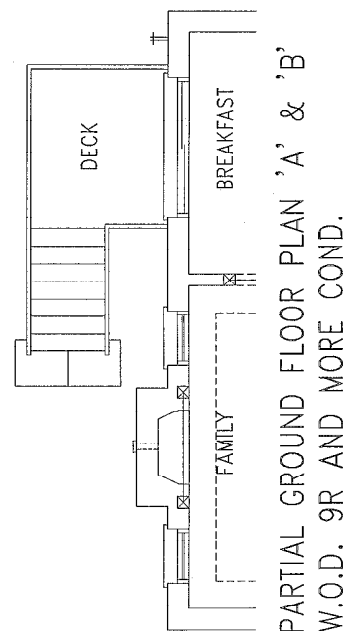
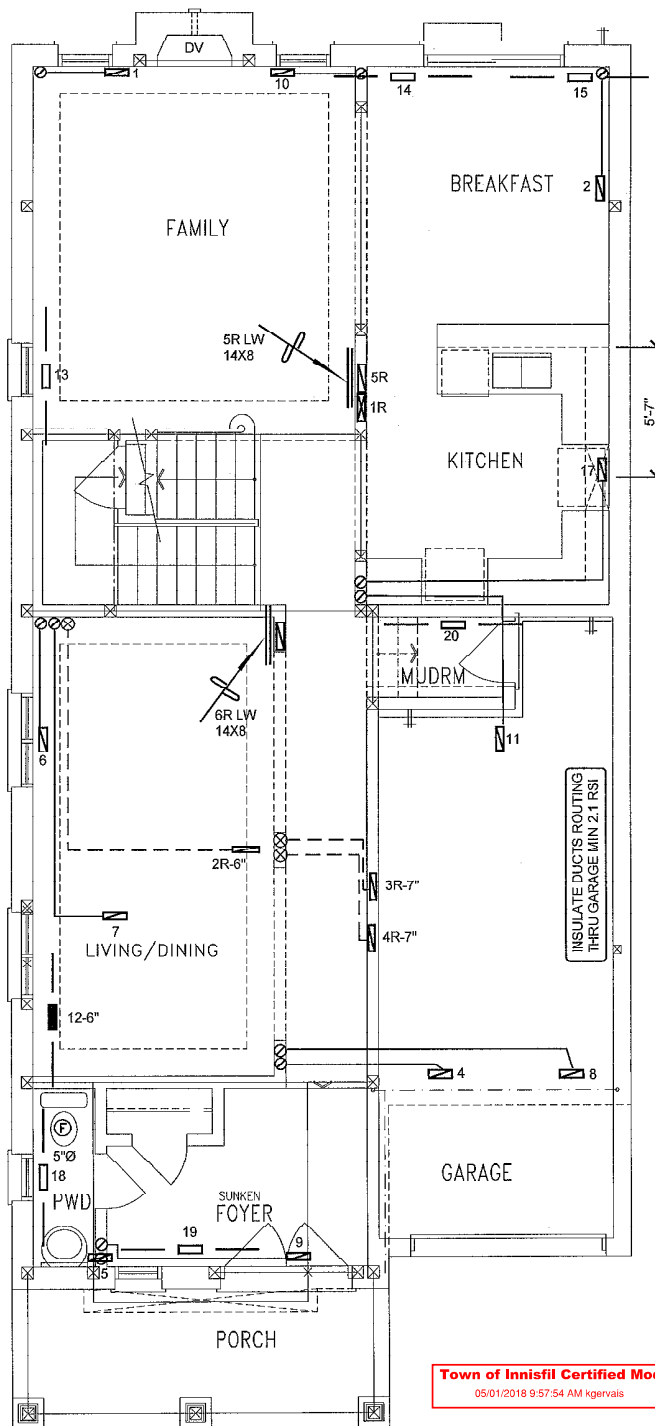
CSA-F280-12
PACKAGE A1

1 MICHAEL OROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND ANY CLAIMS FILED UNDER DIVISION C. 3.2.5 OF THE BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, B.Sc. 1989
HVAC DESIGNS LTD.

HVAC LEGEND						3.	
—	SUPPLY AIR GRILLE	—	6" SUPPLY AIR BOOT ABOVE	—	14"x8" RETURN AIR GRILLE	2.	
—	SUPPLY AIR GRILLE 6" BOOT	—	SUPPLY AIR STACK FROM 2nd FLOOR	—	30"x8" RETURN AIR GRILLE	1.	
—	SUPPLY AIR BOOT ABOVE	—	6" SUPPLY AIR STACK 2nd FLOOR	—	FRA- FLOOR RETURN AIR GRILLE	No.	Description
							Date

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Client		HVAC DESIGNS LTD. 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		HEAT LOSS 50713 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title	
BAYVIEW WELLINGTON				MAKE LENNOX		3RD FLOOR			BASEMENT HEATING LAYOUT	
Project Name ALCONA INNISFIL, ONTARIO		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.		MODEL EL296UH070XE36B-70		2ND FLOOR			Date JUNE/2017	
32-4-10 2483 sqft				INPUT 66 MBTUH		1ST FLOOR			Scale 3/16" = 1'-0"	
				OUTPUT 64 MBTUH		BASEMENT			BCIN# 19669	
				COOLING 2.5 TONS		UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5'Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS FOR 5'Ø			LO# 74581	
FAN SPEED 995 cfm @ 0.6" w.c.										



Town of Innisfil Certified Model
05/01/2018 9:57:54 AM kgervais

PART. GROUND FLOOR
PLAN 'B' 10'0" GARAGE

GROUND FLOOR PLAN 'A' 10'0" GARAGE

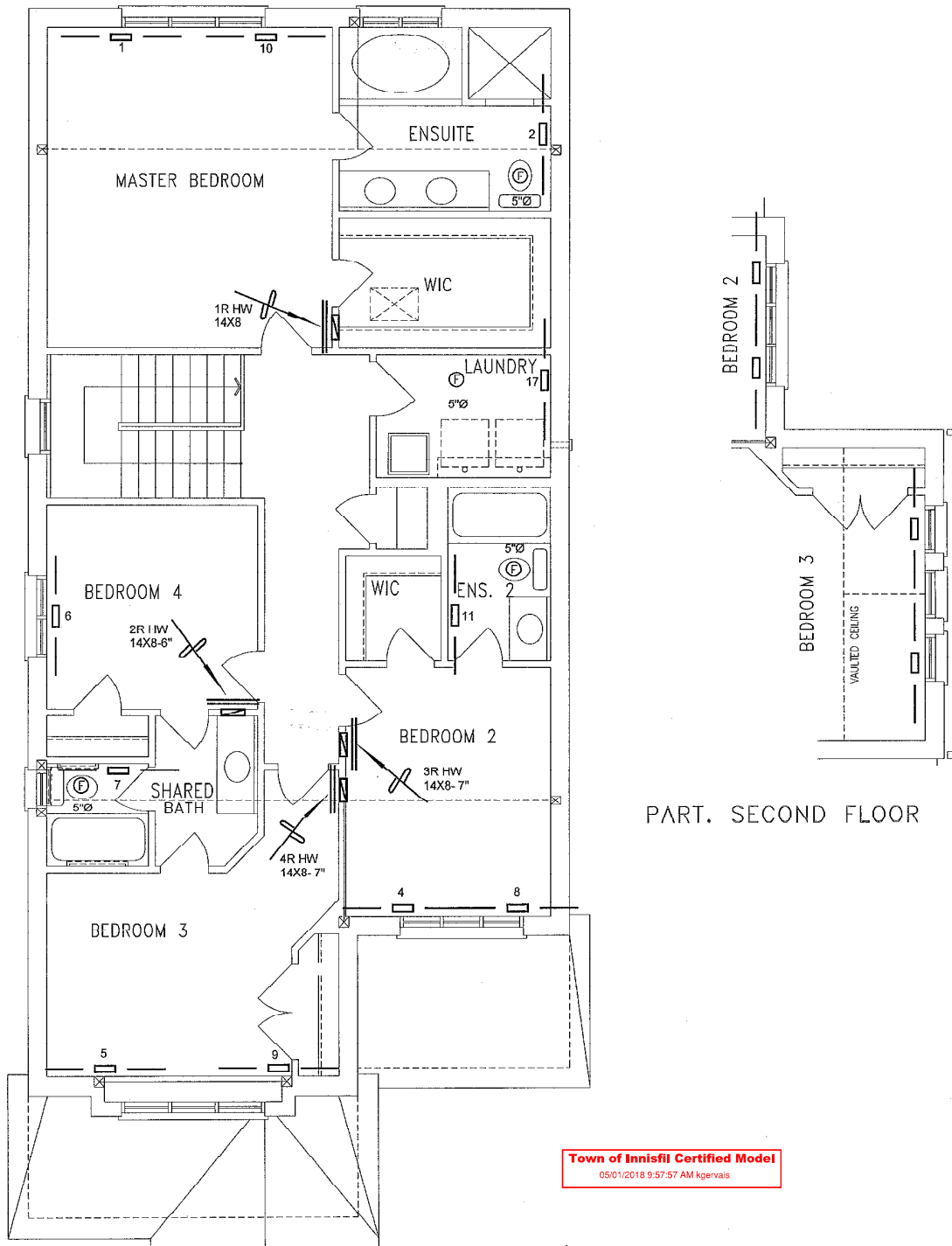
CSA-F280-12
PACKAGE A1

I, MICHAEL J. O'NEILL, HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION 9.3.2.5 OF THE BUILDING CODE.
Michael J. O'Neill
HVAC DESIGNER LTD.

HVAC LEGEND						3.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		2.
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x6" RETURN AIR GRILLE		1.
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER

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Client BAYVIEW WELLINGTON		 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	Sheet Title FIRST FLOOR HEATING LAYOUT	
Project Name ALCONA INNISFIL, ONTARIO			Date JUNE/2017	
		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.	Scale 3/16" = 1'-0"	
32-4-10			BCIN# 19669	
2483 sqft			LO# 74581	



SECOND FLOOR PLAN 'A' 10'0" GARAGE

I MICHAEL OROURKE HAS REVIEWED AND TAKEN RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 32.3 OF THE BUILDING CODE.
Michael O'Rourke, HNS 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

HVAC LEGEND							
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
—	SUPPLY AIR GRILLE	—	6" SUPPLY AIR BOOT ABOVE	—	14"x8" RETURN AIR GRILLE	—	RETURN AIR STACK ABOVE
—	SUPPLY AIR GRILLE 6" BOOT	—	SUPPLY AIR STACK FROM 2nd FLOOR	—	30"x0" RETURN AIR GRILLE	—	RETURN AIR STACK 2nd FLOOR
—	SUPPLY AIR BOOT ABOVE	—	6" SUPPLY AIR STACK 2nd FLOOR	—	FRA- FLOOR RETURN AIR GRILLE	—	REDUCER

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 BAYVIEW WELLINGTON		HVACDESIGNS LTD. 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 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	Sheet Title SECOND FLOOR HEATING LAYOUT	
Project Name ALCONA INNISFIL, ONTARIO			Date JUNE/2017	Scale 3/16" = 1'-0"
32-4-10		2483 sqft	BCIN# 19669	
			LO#	74581
		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.		