


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]					
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings		<input checked="" 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 CSA-F280-12			Model: TH-1 WOB Project: ALCONA		
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.					
June 14, 2018			 Signature of Designer		
Date					

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: ALCONA										BUILDER: BAYVIEW WELLINGTON										DATE: Jun-18										WINTER NATURAL AIR CHANGE RATE 0.410										HEAT LOSS AT °F. 83										SB-12 PACKAGE A1																																																											
ROOM USE										TYPE: TH-1										WOB										GFA: 1627										LO# 78869										SUMMER NATURAL AIR CHANGE RATE 0.105										HEAT GAIN AT °F. 12																																																	
EXP. WALL										MBR										ENS										WIC										BED-2										BED-3										BATH																																																	
CLG. HT.										14 9										8 9										0 9										0 9										10 9										17 9																																																	
FACTORS										126										72										0										90										153																																																											
GRS.WALL AREA										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN																													
GLAZING										0										0										0										0										0										0										0										0										0																			
NORTH										23.3 16.8										0										0										0										0										0										0										0										0										0									
EAST										23.3 41.4										0										0										0										0										0										0										0										0										0									
SOUTH										23.3 24.7										0										0										0										0										0										0										0										0										0									
WEST										23.3 41.4										28 652 1159 13 303 538										0										0										0										0										0										0										0																			
SKYL.T.										40.8 101.3										0										0										0										0										0										0										0										0										0									
DOORS										27.6 4.1										0										0										0										0										0										0										0										0										0									
NET EXPOSED WALL										4.9 0.7 98 479 70 59 288 42										0										0										68 332 49										120 586 86										0										0										0										0																			
NET EXPOSED BSMT WALL ABOVE GR										3.9 0.6										0										0										0										0										0										0										0										0										0									
EXPOSED CLG										1.4 0.6 224 315 129 120 169 69										70 98 40										150 211 87										264 371 152										50 70 29										0										0										0																													
NO ATTIC EXPOSED CLG										3.0 1.2										0										0										0										0										0										0										0										0										0									
EXPOSED FLOOR										2.8 0.4 64 179 26										0										20 56 8										150 419 61										8 22 3										32 89 13										0										0										0																			
BASEMENT/CRAWL HEAT LOSS										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									
SUBTOTAL HT LOSS										1624										760										154										1474										1748										160										0										0										0																			
SUB TOTAL HT GAIN										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										0.20 0.43										0.20 0.43																			
LEVEL FACTOR / MUL TIPLIER										700										327										66										636										754										69										2										4										0										0									
AIR CHANGE HEAT LOSS										75										35										3										211										250										23										0										0										0																			
AIR CHANGE HEAT GAIN										232										0										22										60										87										0										0										0										0																			
DUCT LOSS										0										0										0										0										0										0										0										0										0										0									
HEAT GAIN PEOPLE										240										243										0										5										243										0										0										0										0																			
HEAT GAIN APPLIANCES/LIGHTS										492										0										0										1										240										0										0										0										0																			
TOTAL HT LOSS BTU/H										2557										1087										243										2321										2762										251										0										0										0																			
TOTAL HT GAIN x 1.3 BTU/H										3477										890										73										2716										3470										63										0										0										0																			

ROOM USE										FAM										KIT										HALL										LAUN										W/R										FOY										WOB										BAS																																							
EXP. WALL										29 10										21 10										18 10										0 9										3 13										16 13										22 9										86 9																																							
CLG. HT.																																																																																																																							
FACTORS																																																																																																																							
GRS.WALL AREA										290										210										180										0										39										208										198										516																																							
GLAZING										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN										LOSS GAIN																													
NORTH										0										0										0										0										0										0										0										0										0										0																			
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DOORS										81 1887 3352										0										0										0										0										0										0										0										0										0																			
NET EXPOSED WALL										4.9 0.7 209 1021 150										0										0										0										0										0										0										0										0										0																			
NET EXPOSED BSMT WALL ABOVE GR										3.9 0.6										0										0										0										0										0										0										0										0										0																			
EXPOSED CLG										1.4 0.6										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																			
EXPOSED FLOOR										2.8 0.4										0										0										0										0										0										0										0										0										0																			
BASEMENT/CRAWL HEAT LOSS										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																			
SUBTOTAL HT LOSS										2908										1026										1335										124										356										1692										214										2989																																							
SUB TOTAL HT GAIN										0.30 0.53										0.30 0.53										0.20 0.43										0.30 0.53										0.30 0.53										0.50 1.20										230																																																	
LEVEL FACTOR / MUL TIPLIER										1563										548										713										53										190										904										0.50 1.20										6514																																							
AIR CHANGE HEAT LOSS										189										8										11										3										21										38										0										0										0																													
AIR CHANGE HEAT GAIN										0										0										0										0										0										0										0										0										0																													
DUCT LOSS										0										0										0										0										0										0										0										0										0																													
HEAT GAIN PEOPLE										240										0										0										0										0										0										0										0										0																													
HEAT GAIN APPLIANCES/LIGHTS										492										0										0										0										0										0										0										0										0																													
TOTAL HT LOSS BTU/H										4461										1574										2047										177										546										2596										0										0										0																													
TOTAL HT GAIN x 1.3 BTU/H										5438										846										268										710										540										964										2433										9502										1160																													

TOTAL HEAT GAIN BTU/H: 24606

TOTALS: 2.05

LOSS DUE TO VENTILATION AND BTU/H: 4400

SITE NAME: ALCONA
BUILDER: BAYVIEW WELLINGTON

WOB
TYPE: TH-1

DATE: Jun-18

GFA: 1627 LO# 78869

HEATING CFM 800 COOLING CFM 800
TOTAL HEAT LOSS 24,396
AIR FLOW RATE CFM 24.58

AFUE = 96 %
INPUT (BTU/H) = 44,000
OUTPUT (BTU/H) = 42,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	10	6	3
R/A	0	0	4	1	1

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

All S/A fans 5" unless noted otherwise on layout.

ROOM #	1	2	3	4	5
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3
RM LOSS MBH	1.28	1.09	0.24	1.16	1.38
CFM PER RUN HEAT	31	27	6	29	34
RM GAIN MBH	1.74	0.89	0.07	1.36	1.74
CFM PER RUN COOLING	57	29	2	45	57
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	51	50	45	43	53
TOTAL EFFECTIVE LENGTH	165	180	240	160	170
ADJUSTED PRESSURE	0.08	0.07	0.06	0.08	0.08
ROUND DUCT SIZE	5	4	4	4	5
HEATING VELOCITY (ft/min)	228	310	69	333	250
COOLING VELOCITY (ft/min)	419	333	23	516	419
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10
TRUNK	A	A	D	D	C

ROOM #	6	7	8	9	10
ROOM NAME	FAM	BATH	BED-2	BED-3	MBR
RM LOSS MBH	2.23	0.25	1.16	1.38	1.28
CFM PER RUN HEAT	55	6	29	34	31
RM GAIN MBH	2.72	0.06	1.36	1.74	1.74
CFM PER RUN COOLING	89	2	45	57	57
ADJUSTED PRESSURE	0.16	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	110	39	46	57	58
TOTAL EFFECTIVE LENGTH	128	180	170	185	165
ADJUSTED PRESSURE	0.13	0.08	0.07	0.08	0.08
ROUND DUCT SIZE	5	4	4	5	5
HEATING VELOCITY (ft/min)	404	69	333	250	228
COOLING VELOCITY (ft/min)	653	23	516	419	419
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10
TRUNK	A	D	D	C	A

ROOM #	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ROOM NAME	FAM	FAM	FAM	FAM	FAM	FAM	FAM	FAM	FAM	FAM	FAM	FAM	FAM	FAM
RM LOSS MBH	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23
CFM PER RUN HEAT	55	55	55	55	55	55	55	55	55	55	55	55	55	55
RM GAIN MBH	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72
CFM PER RUN COOLING	89	89	89	89	89	89	89	89	89	89	89	89	89	89
ADJUSTED PRESSURE	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
EQUIVALENT LENGTH	110	110	110	110	110	110	110	110	110	110	110	110	110	110
TOTAL EFFECTIVE LENGTH	128	128	128	128	128	128	128	128	128	128	128	128	128	128
ADJUSTED PRESSURE	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
ROUND DUCT SIZE	5	5	5	5	5	5	5	5	5	5	5	5	5	5
HEATING VELOCITY (ft/min)	404	404	404	404	404	404	404	404	404	404	404	404	404	404
COOLING VELOCITY (ft/min)	653	653	653	653	653	653	653	653	653	653	653	653	653	653
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	A	A	A	A	A	A	A	A	A	A	A	A	A

TYPE: TH-1
SITE NAME: ALCONA

LO # 78869
WOB

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	2	@ 10.6 cfm	21.2	cfm
Kitchen & Bathrooms	4	@ 10.6 cfm	42.4	cfm
Other Rooms	2	@ 10.6 cfm	21.2	cfm
Table 9.32.3.A.	TOTAL			127.2 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		63.6 cfm

SUPPLEMENTAL VENTILATION CAPACITY 9.32.3.5.

Total Ventilation Capacity	127.2	cfm
Less Principal Ventil. Capacity	63.6	cfm
Required Supplemental Capacity	63.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY
Model: VANE 65H Location: BSMT
63.6 cfm 3.0 sones ☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION

CFM	ΔT °F	FACTOR	% LOSS
63.6 CFM	X 83 F	X 1.08	X 0.25

SUPPLEMENTAL FANS NUTONE

Location	Model	cfm	HVI	Sones
ENS	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
W/R	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3

HEAT RECOVERY VENTILATOR 9.32.3.11.
Model: VANE 65H
155 cfm high 64 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: *Michael O'Rourke*
HRAI # 001820
Date: June-18

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* MICHAEL O'ROURKE

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: TH-1	WOB	BUILDER: BAYVIEW WELLINGTON
SFQT: 1627	LO# 78869	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:	ATTACHED	# 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):	21353.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	4
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: 50.0 ft	WIDTH: 17.0 ft	EXPOSED PERIMETER:	86.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	22.0 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	-

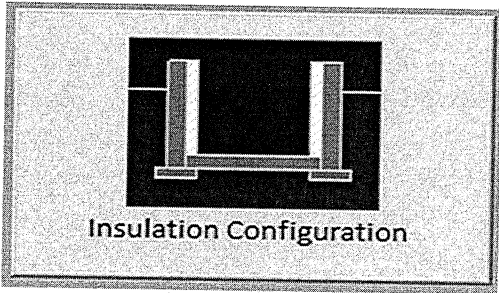
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	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):	4.6	 Insulation Configuration
Floor Width (m):	5.2	
Exposed Perimeter (m):	26.2	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.44	
Window Area (m ²):	0.0	
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):	416	

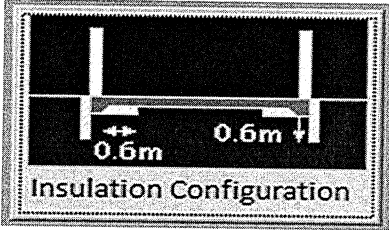
TYPE: TH-1

WOB

LO# 78869

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		
Length (m):	1.5	
Width (m):	5.2	
Exposed Perimeter (m):	6.7	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):	63	

TYPE: TH-1
LO# 78869

WOB

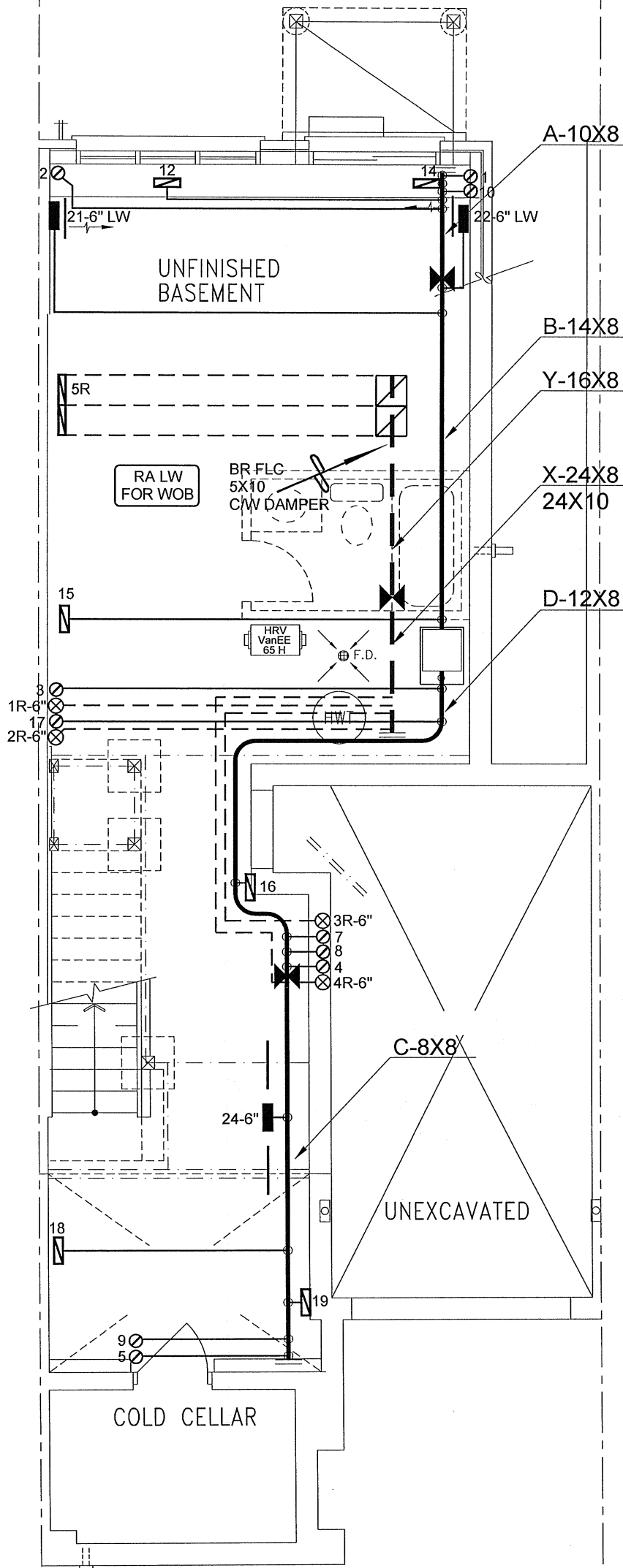
Air Infiltration Residential Load Calculator

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):	8.53		
Building Configuration			
Type:	Semi		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m ³):	604.6		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	806.0 cm ²	
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	30.0	30.0	
Flue Size			
Flue #:	#1	#2	#3
Diameter (mm):	0	0	0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.410		
Cooling Air Leakage Rate (ACH/H):	0.105		

TYPE: TH-1
LO# 78869

WOB



BASEMENT PLAN 'A'/'A2'/'B'/'B2'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.3 OF THE BUILDING CODE.

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

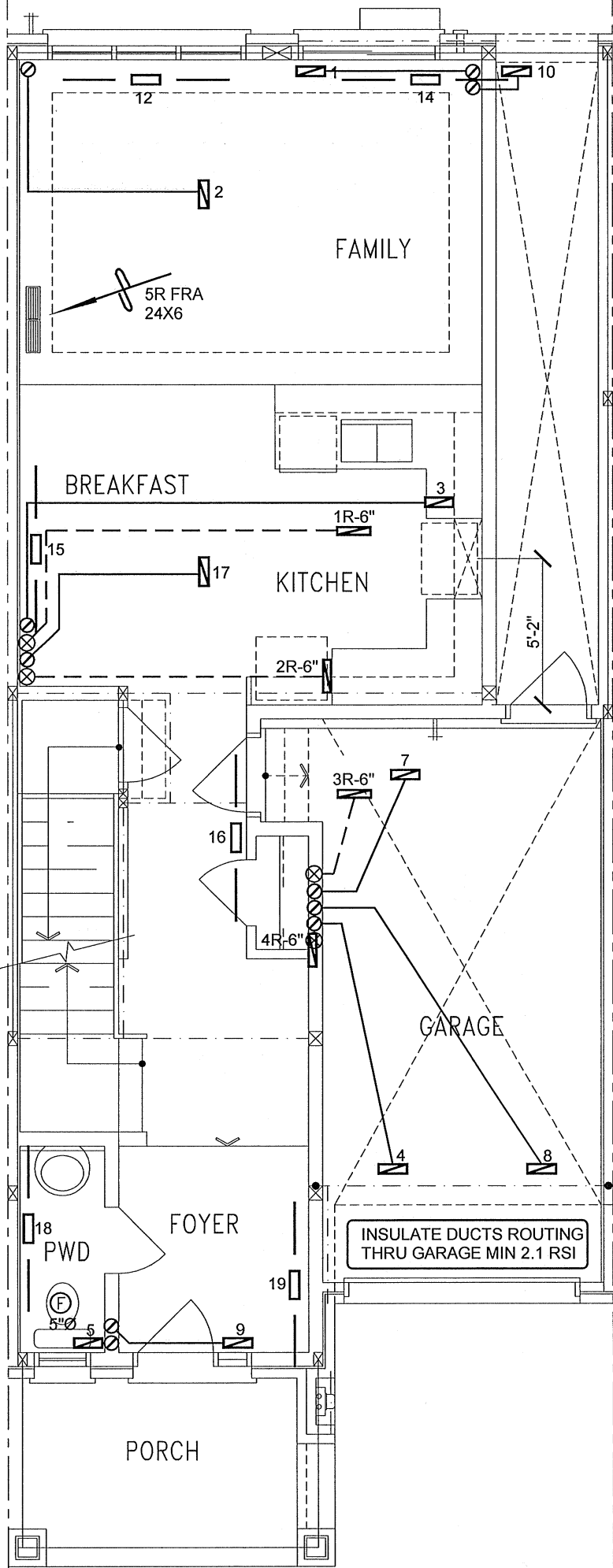
Town of Innisfil Certified Model
10/18/2018 3:44:14 PM kbayley

WOB
CSA-F280-12
PACKAGE A1

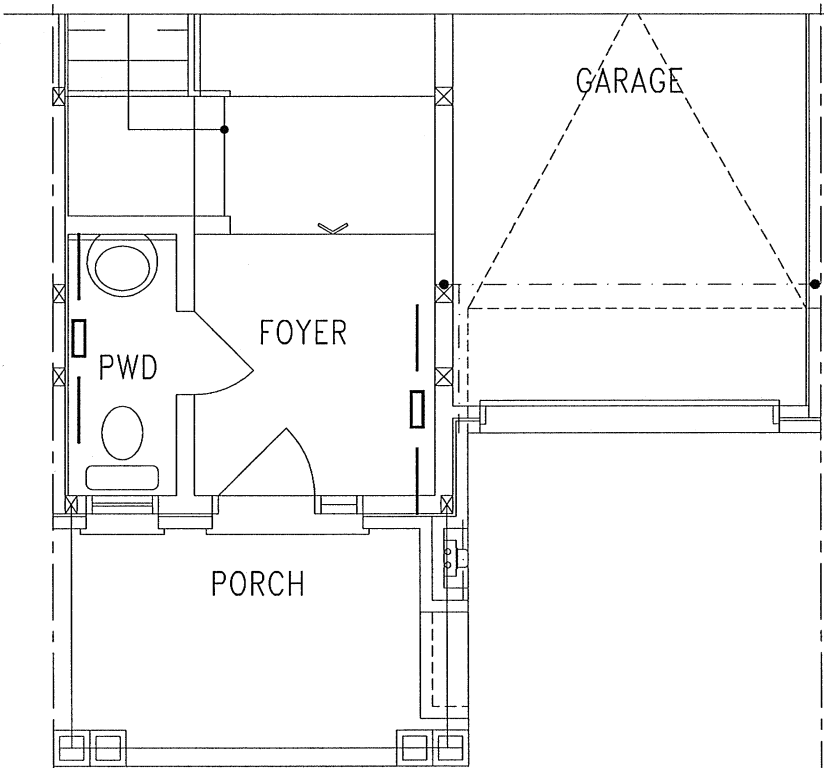
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR 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 BAYVIEW WELLINGTON	Project Name ALCONA INNISFIL, ONTARIO	<div>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</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>	HEAT LOSS 33978 BTU/H UNIT DATA MAKE LENNOX MODEL EL196UH045XE24B INPUT 44 MBTU/H OUTPUT 42 MBTU/H COOLING 2.0 TONS FAN SPEED 800 cfm @ 0.6" w.c.	# OF RUNS S/A R/A FANS 3RD FLOOR 2ND FLOOR 10 4 3 1ST FLOOR 6 1 2 BASEMENT 3 1 0	Sheet Title BASEMENT HEATING LAYOUT Date JUNE/2018 Scale 3/16" = 1'-0" BCIN# 19669
WOB TH-1	1627 sqft				LO# 78869



GROUND FLOOR PLAN 'A'/'A2'



GROUND FLOOR PLAN 'B'/'B2'

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.

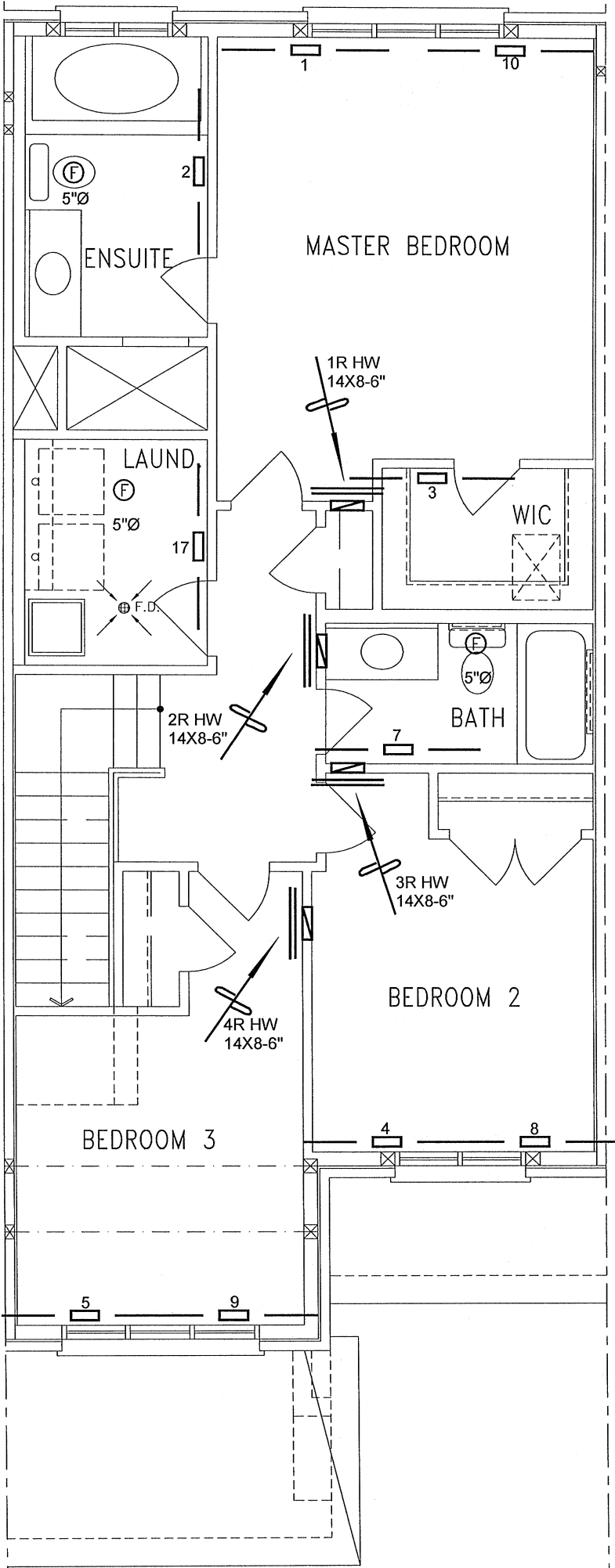
Town of Innisfil Certified Model
10/18/2018 3:44:14 PM kbayley

WOB
CSA-F280-12
PACKAGE A1

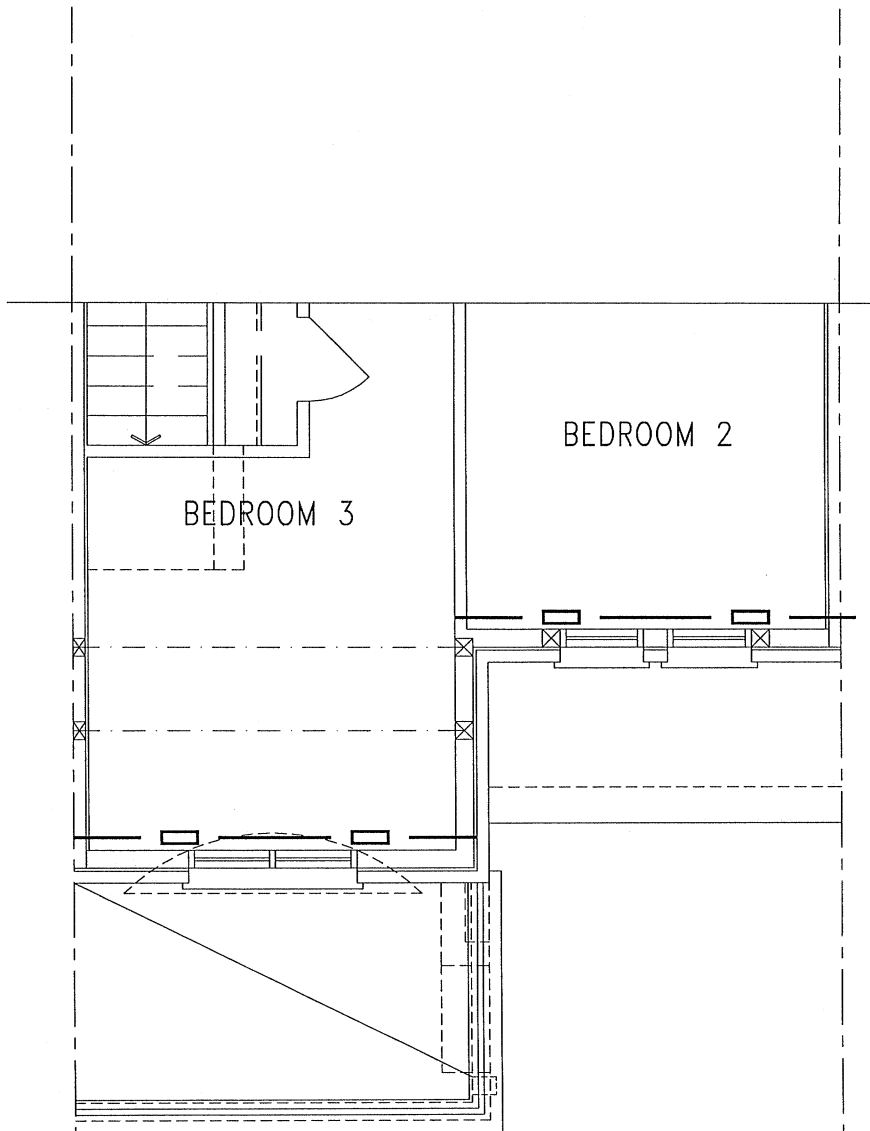
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR 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 BAYVIEW WELLINGTON		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdsgns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services	Sheet Title FIRST FLOOR HEATING LAYOUT
Project Name ALCONA INNISFIL, ONTARIO			
WOB TH-1	1627 sqft	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 JUNE/2018
			Scale 3/16" = 1'-0"
			BCIN# 19669
			LO# 78869



SECOND FLOOR PLAN 'A'/'A2'



SECOND FLOOR PLAN 'B'/'B2'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 32.3 OF THE BUILDING CODE.

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

Town of Innisfil Certified Model

10/18/2018 3:44:14 PM kbayley

WOB

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"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER

3.		
2.		
1.		
No.	Description	Date
REVISIONS		

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Client
BAYVIEW WELLINGTON

Project Name
ALCONA
INNISFIL, ONTARIO

WOB
TH-1

1627 sqft

HVACDESIGNS 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

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
SECOND FLOOR
HEATING
LAYOUT

Date
JUNE/2018

Scale
3/16" = 1'-0"

BCIN# 19669

LO# 78869