

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	Postal code	Plan number/ other description	
INNISFIL			
B. Individual who reviews and takes responsibility for design activities			
Name		Firm	
MICHAEL O'ROURKE		HVAC DESIGNS LTD.	
Street address		Unit no.	Lot/con.
375 FINLEY AVE		202	N/A
Municipality	Postal code	Province	E-mail
AJAX	L1S 2E2	ONTARIO	info@hvacdsgns.ca
Telephone number	Fax number	Cell number	
(905) 619-2300	(905) 619-2375	()	
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

NOTE:

1. 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.

2. 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.

SITE NAME: ALCONA
BUILDER: BAYVIEW WELLINGTON

GFA: 3599 LO# 74604

DATE: Jun-17

GFA: 3599 LO# 74604

HEATING CFM	1525	COOLING CFM	1525
TOTAL HEAT LOSS	68,856	TOTAL HEAT GAIN	47,729
AIR FLOW RATE CFM	22.15	AIR FLOW RATE CFM	31.95

TYPE: 48-3	0.6
lumace pressure	0.05
furnace filter	0.2
a/c coil pressure	0.35
available pressure	0.18
for s/a & r/a	0.02
plenum pressure s/a	0.16
max s/a diff press. loss	
min adjusted pressure s/a	

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

AFUE = 96 %	
INPUT (BTUH) = 88,000	
OUTPUT (BTUH) = 85,000	

DESIGN CFM = 1525	
CFM @ 8" E.S.P.	

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	16	11	6
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	WIC	BED-2	BED-3	BED-4	BATH	BED-3	BED-4	MBR	ENS-4	LV/DN	LV/DN	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	BATH	BATH	BED-5	ENS-3	LV/DN
RM LOSS MBH	1.79	2.85	0.64	1.89	1.41	1.68	0.85	1.41	1.68	1.79	0.72	1.94	1.94	2.57	2.57	2.57	0.16	1.28	4.60	0.85	0.85	1.57	0.78	1.94
CFM PER RUN HEAT	40	63	14	42	31	37	19	31	37	40	16	43	43	57	57	57	4	28	102	19	19	35	17	43
RM GAIN MBH	2.06	1.45	0.13	2.27	1.84	2.03	0.41	1.84	2.03	2.06	0.39	1.84	1.84	2.96	2.96	2.96	1.17	0.35	1.99	0.41	0.41	2.26	0.37	1.84
CFM PER RUN COOLING	66	46	4	73	62	65	13	62	65	66	13	59	59	85	85	85	37	11	64	13	13	72	12	59
ADJUSTED PRESSURE	0.17	0.17	0.17	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	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH	62	65	67	68	42	43	54	49	46	51	19	30	33	25	34	44	44	63	37	31	45	20	30	14
EQUIVALENT LENGTH	120	150	180	160	140	150	160	150	140	150	200	100	100	90	180	170	130	140	140	180	190	190	100	100
TOTAL EFFECTIVE LENGTH	182	215	247	228	182	193	214	199	186	201	219	130	123	205	164	214	174	203	177	225	210	210	210	114
ADJUSTED PRESSURE	0.09	0.08	0.07	0.08	0.09	0.09	0.08	0.09	0.09	0.09	0.08	0.13	0.14	0.08	0.1	0.08	0.1	0.08	0.09	0.1	0.08	0.08	0.08	0.15
ROUND DUCT SIZE	5	5	4	5	5	5	4	5	5	5	4	4	4	6	5	6	4	4	6	4	4	5	4	4
HEATING VELOCITY (ft/min)	294	463	161	308	228	272	218	228	272	294	184	493	493	291	419	291	46	321	520	218	218	257	195	493
COOLING VELOCITY (ft/min)	485	338	46	536	455	477	149	455	477	485	149	677	677	484	698	484	424	126	326	149	149	529	138	677
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10
TRUNK	B	A	A	A	D	C	D	D	C	B	B	C	C	B	B	A	B	A	C	D	D	B	C	D

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SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE										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	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	496	0.07	11.2	14	8	TRUNK G	0	0.00	0	0	0	TRUNK O	0	0.05	0	0	8	TRUNK X	0	0.05	0	0	8	TRUNK X	0	0.05	0	0	8
TRUNK B	915	0.07	14	22	8	TRUNK H	0	0.00	0	0	0	TRUNK P	0	0.05	0	0	8	TRUNK Q	0	0.05	0	0	8	TRUNK Q	0	0.05	0	0	8
TRUNK C	364	0.08	9.5	10	8	TRUNK I	0	0.00	0	0	0	TRUNK R	0	0.05	0	0	8	TRUNK S	0	0.05	0	0	8	TRUNK S	0	0.05	0	0	8
TRUNK D	611	0.08	11.7	16	8	TRUNK J	0	0.00	0	0	0	TRUNK T	0	0.05	0	0	8	TRUNK U	0	0.05	0	0	8	TRUNK U	0	0.05	0	0	8
TRUNK E	0	0.00	0	0	0	TRUNK K	0	0.00	0	0	0	TRUNK V	0	0.05	0	0	8	TRUNK W	0	0.05	0	0	8	TRUNK W	0	0.05	0	0	8
TRUNK F	0	0.00	0	0	0	TRUNK L	0	0.00	0	0	0	TRUNK Y	0	0.05	0	0	8	TRUNK Z	0	0.05	0	0	8	TRUNK Z	0	0.05	0	0	8
RETURN AIR #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
AIR VOLUME	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLENUM PRESSURE	155	165	120	120	120	120	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
ACTUAL DUCT LGH	68	37	57	57	57	57	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
EQUIVALENT LENGTH	185	145	145	145	145	145	225	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
TOTAL EFFECTIVE LENGTH	253	182	202	202	202	202	247	238	247	238	247	238	247	238	247	238	247	238	247	238	247	238	247	238	247	238	247	238	247
ADJUSTED PRESSURE	0.06	0.08	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
ROUND DUCT SIZE	7.5	7.1	6.6	6.8	6.8	6.8	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
INLET GRILL SIZE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
INLET GRILL SIZE	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

Michael O'Rourke

Town of Innisfil Certified Model											
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SITE NAME: ALCOMA											
BUILDER: BAYVIEW WELLINGTON											
ROOM USE EXP. WALL CLG. HT.	IMBR	TYPE: 48-3		GFA: 3659		DATE: Jun-17 LOF: 74604		WINTER NATURAL AIR CHANGE RATE SUMMER NATURAL AIR CHANGE RATE		HEAT LOSS AT °F: 83 HEAT GAIN AT °F: 12	
		ENS	WIC	BED-2	BED-3	BED-4	BATH	BED-5	ENS-3	ENS-4	CSA-P284-12 SB-12 PACKAGE A1
GRS.WALL AREA	340	279	81	108	128	285	188	108	72	64	
GLAZING		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	
NORTH	23.3 16.8	0 0 0	0 0 0	16 373 263	0 0 0	0 0 0	7 163 111	0 0 0	0 0 0	0 0 0	
EAST	23.3 41.4	0 0 0	0 0 0	0 0 0	31 722 1283	38 885 1673	11 256 455	0 0 0	0 0 0	0 0 0	
SOUTH	23.3 24.7	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	16 373 396	7 163 173	8 186 198	
WEST	23.3 41.4	32 745 1324	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	
SKYLT.	40.8 101.3	0 0 0	0 0 0	0 0 0	0 0 0	0 0 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 0 0	0 0 0	0 0 0	0 0 0	0 0 0	
NET EXPOSED WALL	4.9 0.7	308 1505 221	81 396 58	92 449 66	95 464 68	267 1263 184	160 879 129	92 449 66	66 318 47	46 226 33	
NET EXPOSED BMT WALL ABOVE GR	3.9 0.6	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	
EXPOSED CLG	1.4 0.6	328 482 190	63 89 38	228 320 132	201 282 116	184 269 106	112 167 66	264 371 162	80 112 48	96 136 66	
NO ATTIC EXPOSED CLG	3.0 1.2	0 0 0	0 0 0	0 0 0	0 0 0	48 144 59	0 0 0	0 0 0	0 0 0	0 0 0	
BASEMENT/CRAWL HEAT LOSS	2.8 0.4	0 0 0	0 0 0	68 162 24	169 472 89	0 0 0	112 313 46	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	0 0 0	0 0 0	0 0 0	0 0 0	
SUB TOTAL HT LOSS		2742 1736	484 94	1304 474	1536	2641 1922	4769 806	1193 614	593 266	546 286	
LEVEL FACTOR / MULTIPLIER	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	
AIR CHANGE HEAT LOSS	863	688	164	416	618	869	663	380	188	174	
AIR CHANGE HEAT GAIN		102	0	28	90	113	47	36	15	17	
DUCT LOSS		0 0 0	0 0 0	172 169	271	0 0	233 86	0 0	0 0	0 0	
DUCT GAIN		0 0 0	0 0 0	1 240	240	1 240	0 0	1 240	0 0	0 0	
HEAT GAIN PEOPLE	240	845	0	846	845	845	0	845	0	0	
HEAT GAIN APPLIANCES/LIGHTS		3578 4110	638	1882 2270	2814 3877	3350 4056	2585 1219	1573 2256	782 366	720 384	
TOTAL HT LOSS BTU/H		2860 1464									

ROOM USE EXP. WALL CLG. HT.	LV/DN		KITCHEN		LIB		LAUN		WFR		FOY		MUD		WOD		BAS
FACTORS	53	10	79	10	10	10	9	11	14	11	36	12	40	194	9		
GRS.WALL AREA	530		790		110		0		147		368	126	360	1404			
GLAZING																	
NORTH	23.3	15.8	0	0	24	559	379	0	0	10	233	158	0	0	0	9	
EAST	23.3	41.4	53	1235	2163	0	0	0	0	0	0	0	0	0	0	210	
SOUTH	23.3	24.7	28	662	692	0	0	0	0	0	25	582	1035	0	0	142	
WEST	23.3	41.4	0	0	0	156	3634	6466	0	0	0	0	0	0	0	0	
SKYLT.	40.8	101.3	0	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	0	
NET EXPOSED WALL	4.9	0.7	449	2194	322	806	2961	434	0	0	40	1106	162	20	653	81	
NET EXPOSED BMT WALL ABOVE GR	3.9	0.6	0	0	0	0	0	0	137	869	303	1478	217	108	618	78	
EXPOSED CLG	1.4	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NO ATTIC EXPOSED CLG	3.0	1.2	6	18	7	8	8	3	0	0	28	39	16	0	0	0	
EXPOSED FLOOR	2.8	0.4	0	0	0	0	0	0	0	0	14	42	17	0	0	0	
BASEMENT/CRAWL HEAT LOSS			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	
SUBTOTAL HT LOSS		4099	7256		979		122		902		3247		0			7014	
SUB TOTAL HT GAIN		3216	7586		441		60		256		1447		0			9869	
LEVEL FACTOR / MULTIPLIER	0.30	0.42	0.30	0.42	0.30	0.42	0.20	0.32	0.30	0.42	0.30	0.42	0.30	0.42	0.50	1.13	
AIR CHANGE HEAT LOSS		1713	3033		409		39		377		1357		9		12230		
AIR CHANGE HEAT GAIN		188	444		26		3		15		85		9		110		
DUCT LOSS		0	0		0		0		0		0		0		0		
DUCT GAIN		0	0		0		0		0		0		0		0		
HEAT GAIN PEOPLE	240	0	1		0		0		0		0		0		0		
HEAT GAIN APPLIANCES/LIGHTS		845	845		845		845		845		0		0		0		
TOTAL HT LOSS BTU/H		5812	10288		1388		161		1279		4606		0		945	22098	
TOTAL HT GAIN x 1.3 BTU/H		5523	11850		1706		1168		353		1891		1315		180	3671	

TOTAL HEAT GAIN BTU/H: 48187 TONS: 4.02

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.

Michael O'Connell

INDIVIDUAL BCIN: 15663
MICHAEL O'CONNOR

TYPE: 48-3
SITE NAME: ALCONA

LO # 74604

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES 9.32.3.1(1)

- a) ☒ Direct vent (sealed combustion) only
- b) ☐ Positive venting induced draft (except fireplaces)
- c) ☐ Natural draft, B-vent or induced draft gas fireplace
- d) ☐ Solid Fuel (including fireplaces)
- e) ☐ No Combustion Appliances

HEATING SYSTEM

- ☒ Forced Air ☐ Non Forced Air
- ☐ Electric Space Heat

HOUSE TYPE 9.32.1(2)

- ☒ I Type a) or b) appliance only, no solid fuel
- ☐ II Type I except with solid fuel (including fireplaces)
- ☐ III Any Type c) appliance
- ☐ IV Type I, or II with electric space heat
- ☐ Other: Type I, II or IV no forced air

SYSTEM DESIGN OPTIONS O.N.H.W.P.

- ☐ 1 Exhaust only/Forced Air System
- ☐ 2 HRV with Ducting/Forced Air System
- ☒ 3 HRV Simplified/connected to forced air system
- ☐ 4 HRV with Ducting/non forced air system
- ☐ Part 6 Design

TOTAL VENTILATION CAPACITY 9.32.3.3(1)

Basement + Master Bedroom	2	@ 21.2 cfm	42.4	cfm
Other Bedrooms	4	@ 10.6 cfm	42.4	cfm
Kitchen & Bathrooms	6	@ 10.6 cfm	63.6	cfm
Other Rooms	7	@ 10.6 cfm	74.2	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	139	cfm
Required Supplemental Capacity	83.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY

Model:	VANEE 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	X 83 F	X 1.08	X 0.25

SUPPLEMENTAL FANS NUTONE

Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	☒	0.3
BATH	QTXEN050C	50	☒	0.3
ENS-4	QTXEN050C	50	☒	0.3
W/R	QTXEN050C	50	☒	0.3

HEAT RECOVERY VENTILATOR 9.32.3.11.

Model:	VANEE 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



375 Finley Ave. Suite 202 Ajax, ON L1S 2E2
Tel: 905.619.2300 Fax: 905.619.2375

Web: www.hvacdesigns.ca E-mail: info@hvacdesigns.ca

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 48-3	BUILDER: BAYVIEW WELLINGTON
SFQT: 3599	SITE: ALCONA
LO# 74604	

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):	49490.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.75	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 57.0 ft	WIDTH: 40.0 ft	EXPOSED PERIMETER:	194.0 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	-

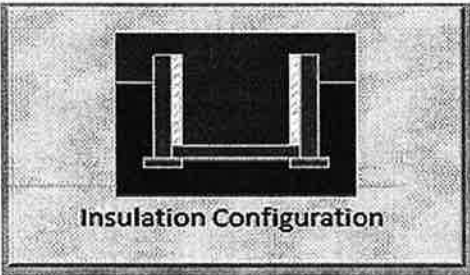
INDIVIDUAL BCIN: 19669
MICHAEL O'ROURKE

Town of Innisfil Certified Model
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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 dand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	17.4	 Insulation Configuration
Floor Width (m):	12.2	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m²):	3.8	
Door Area (m²):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		2055

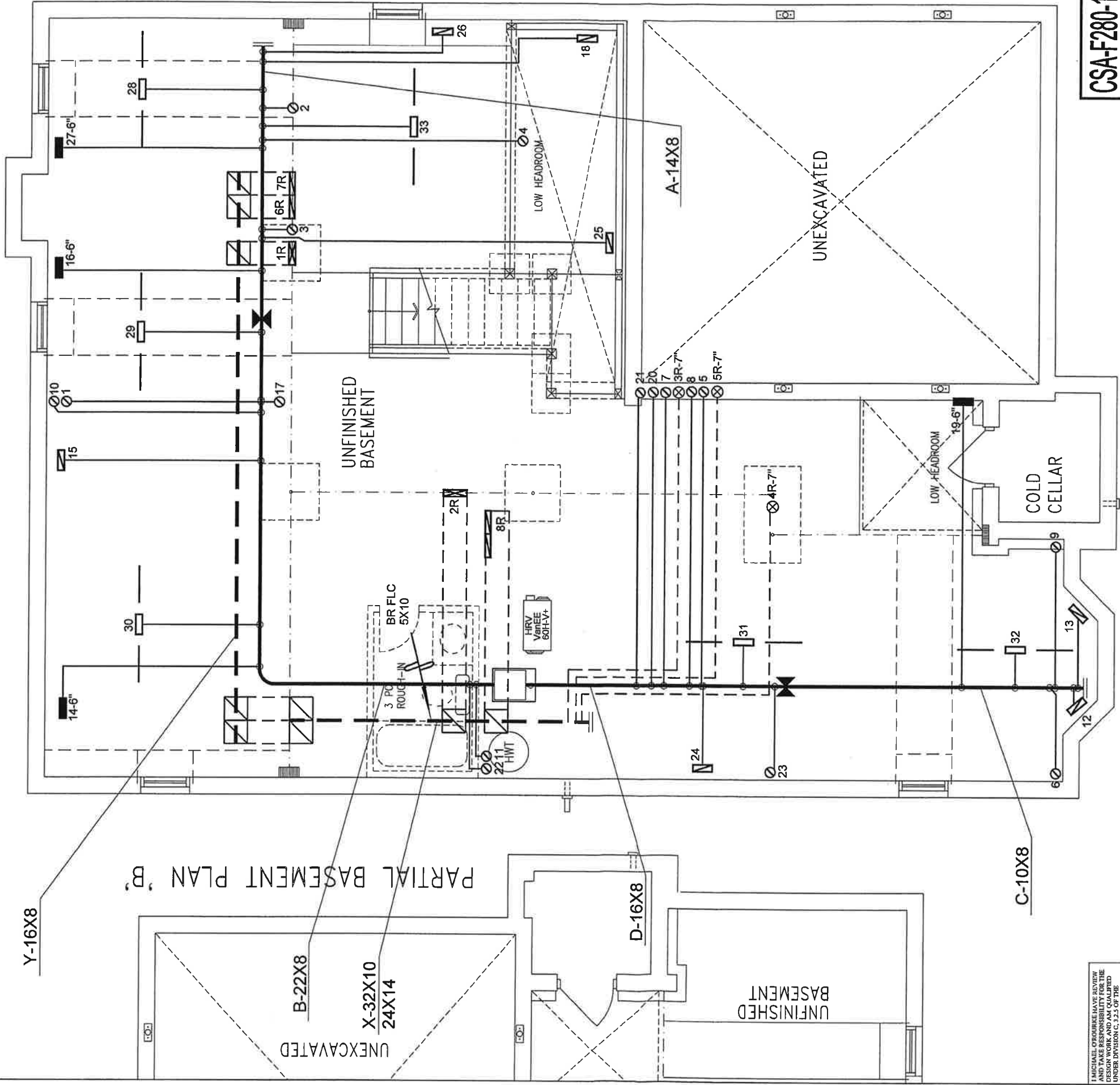
Air Infiltration Residential Load Calculator

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):	1401.4		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1868.1 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
Diameter (mm):	0	0	0
			#4
	0	0	0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):		0.332	
Cooling Air Leakage Rate (ACH/H):		0.087	

PARTIAL BASEMENT FLOOR PLAN
W.O.D. 9R OR MORE COND.

Town of Innisfil Certified Model
02/01/2018 10:59:42 AM kgervais



I MICHAEL O'ROURKE HAVE REVIEWED THESE DRAWINGS AND AM RESPONSIBLE FOR THE DESIGN WORK AND ANY ERRORS OR OMISSIONS UNDER DIVISION C.3.2.5 OF THE BUILDING CODE.
Michael O'Roourke
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

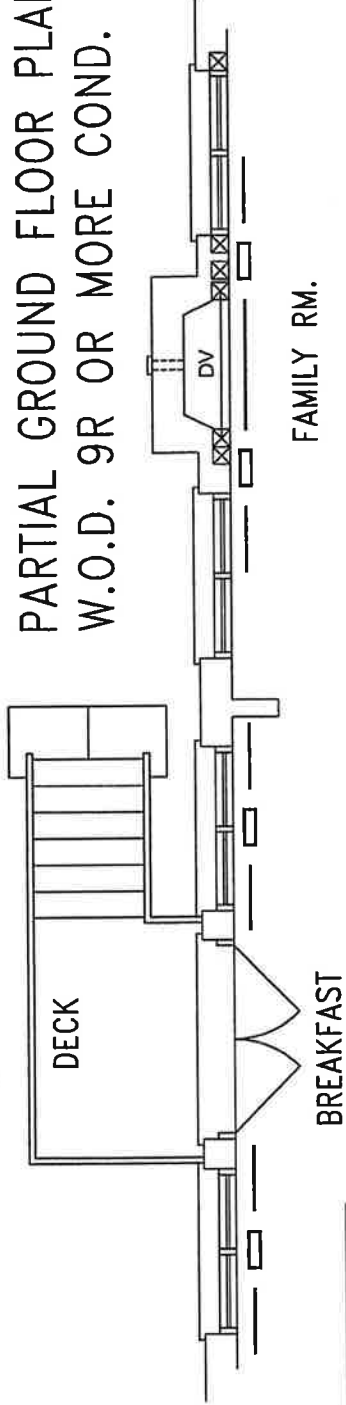
BASEMENT PLAN 'A'

HVAC LEGEND				REVISIONS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	No.	Description	Date	
	6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE	1.	RETURN AIR STACK ABOVE		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		30"x6" RETURN AIR GRILLE		REDUCER		
	SUPPLY AIR BOOT ABOVE		FRA - FLOOR RETURN AIR GRILLE				

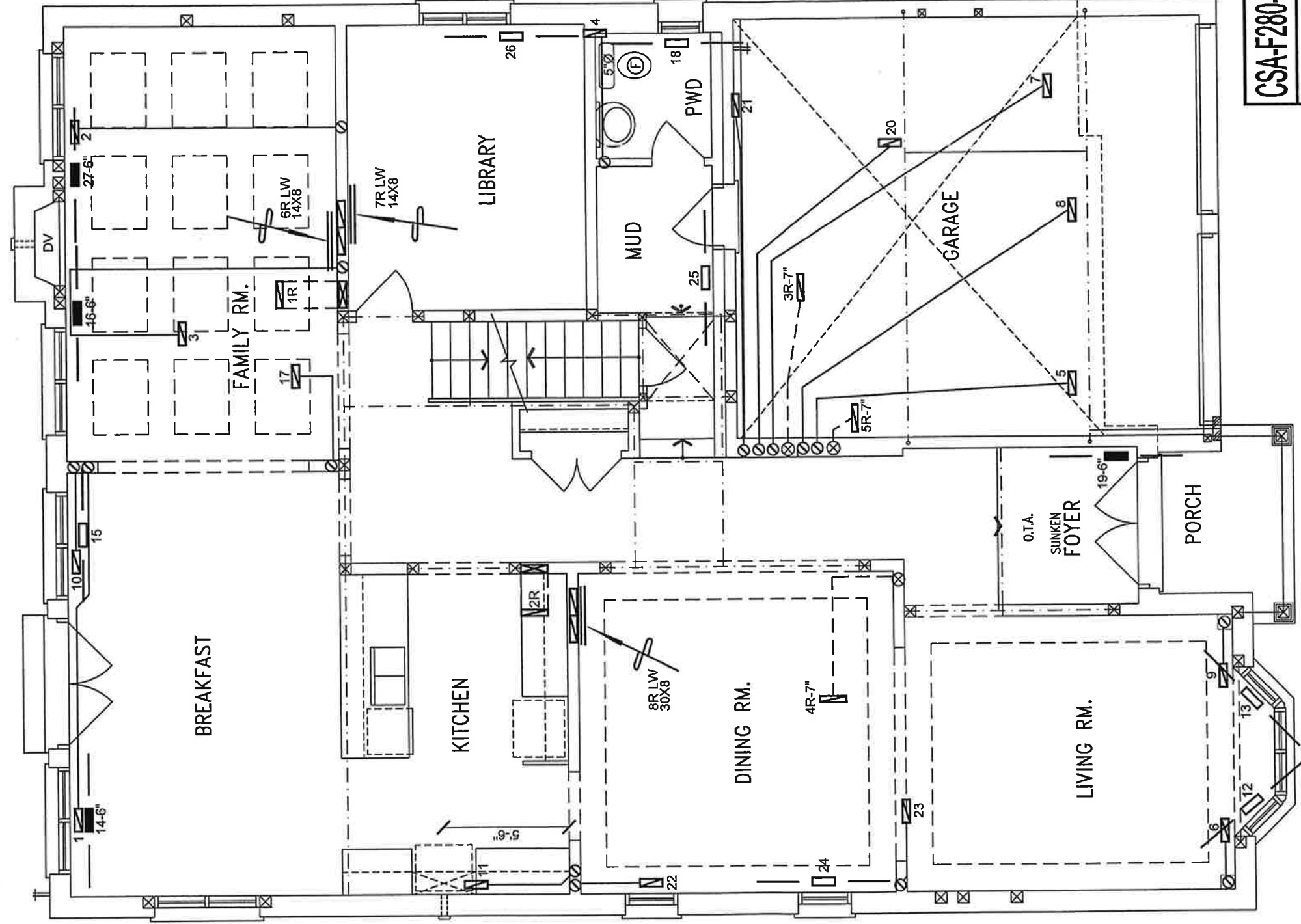
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Client		BAYVIEW WELLINGTON		Project Name		ALCONA		INNISFIL, ONTARIO		Sheet Title		BASEMENT																	
												HEATING LAYOUT																	
48-3		3599 sqft		Specializing in Residential Mechanical Design Services		Installation to comply 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.		HEAT LOSS 71979 BTU/H		# OF RUNS		S/A		R/A		FANS													
								UNIT DATA		3RD FLOOR																			
								MAKE		LENNOX		2ND FLOOR		16		5		6											
								MODEL		EL296UH090XE48C		1ST FLOOR		11		3		2											
								INPUT		88		MBTU/H		BASEMENT		6		1		0									
								OUTPUT		85		MBTU/H		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															
								COOLING		4.0		TONS																	
								FAN SPEED		1525		cfm @ 0.5" w.c.																	
																LO#		74604		BCIN# 19669		Scale		3/16" = 1'-0"		Date		JUNE/2017	

PARTIAL GROUND FLOOR PLAN
W.O.D. 9R OR MORE COND.



Town of Innisfil Certified Model
02/01/2018 10:59:56 AM kgarels



1 MICHAEL OROURKE HAVE REVIEWED
THIS DRAWING AND CONFIRMED THAT
IT COMPLIES WITH THE REQUIREMENTS
OF THE BUILDING CODE, 3.2.2 OF THE
BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12

PACKAGE A1

GROUND FLOOR PLAN 'A'

HVAC LEGEND				REVISIONS		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	No.
	FLOOR SUPPLY AIR GRILLE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.
	FLOOR SUPPLY AIR GRILLE 6" BOOT		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.
	SUPPLY AIR BOOT ABOVE		FRA- FLOOR RETURN AIR GRILLE		REDUCER	

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Client

BAYVIEW WELLINGTON

Project Name
**ALCONA
INNISFIL, ONTARIO**

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
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

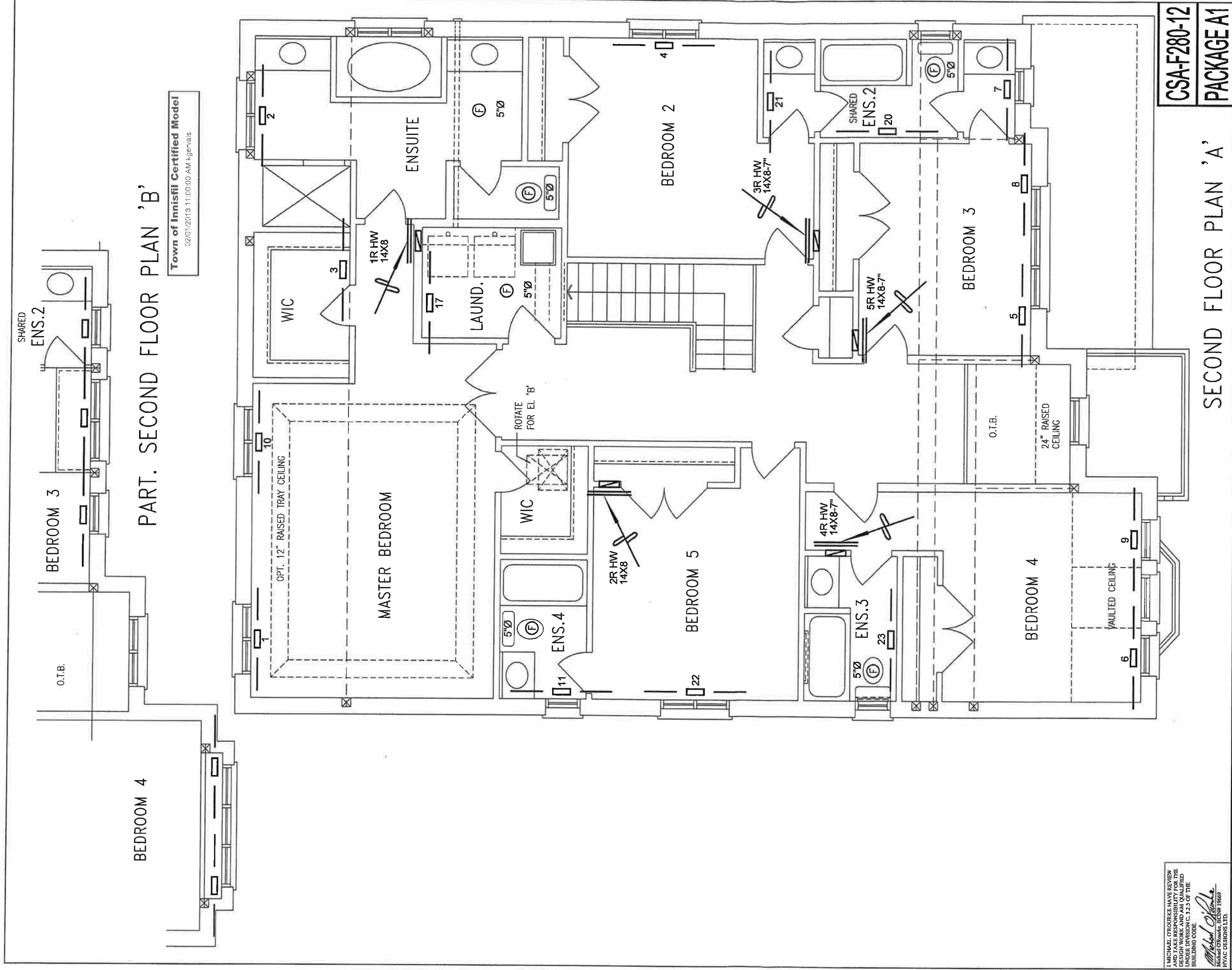
**FIRST FLOOR
HEATING
LAYOUT**

Date
JUNE/2017

Scale
3/16" = 1'-0"

BCIN# 19669

LO# 74604



I MICHAEL O'DRISCOLL HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED TO PROVIDE MECHANICAL DESIGN SERVICES IN ACCORDANCE WITH THE BUILDING CODE.
Michael O'Driscoll
MECHANICAL ENGINEER
HVAAC DESIGNS LTD.

CSA-F280-12
PACKAGE A1

SECOND FLOOR PLAN 'A'

HVAC LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FLOOR SUPPLY AIR GRILLE		14\"/>
	FLOOR SUPPLY AIR GRILLE 6\"/>		30\"/>
	SUPPLY AIR BOOT ABOVE		FRA - FLOOR RETURN AIR GRILLE

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Client

BAYVIEW WELLINGTON

Project Name

ALCONA

INNISFIL, ONTARIO

Sheet Title

SECOND FLOOR

HEATING

LAYOUT

Date

JUNE/2017

Scale

3/16" = 1'-0"

BCIN# 19669

LO# 74604

3599 sqft

