

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 HAMILTON	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]			
☐ 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: ROSEWOOD 1 Project: RUSSEL GARDENS	
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.			
July 18, 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.

SITE NAME: RUSSEL GARDENS
BUILDER: GREENPARK HOMES
TYPE: ROSEWOOD 1
GFA: 2683
DATE: JUL-17
LO# 75035
WINTER NATURAL AIR CHANGE RATE 0.310
SUMMER NATURAL AIR CHANGE RATE 0.120
HEAT LOSS AT °F. 71
HEAT GAIN AT °F. 16
CSA-F280-12
SB-12 PACKAGE A1

ROOM USE EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-2	
GRS.WALL AREA GLAZING	360	216	90	261	320	126	90	81	
NORTH	0	0	0	0	0	0	0	0	LOSS GAIN
EAST	0	0	0	0	0	0	0	0	8 158 135
SOUTH	0	0	12	35	48	949	2035	0	0
WEST	0	0	0	0	0	16	316	412	8 158 206
SKYLT.	35	297	636	0	0	0	0	0	0
DOORS	23.5	5.2	0	0	0	0	0	0	0
NET EXPOSED WALL	4.1	0.9	325	1347	302	193	800	179	0
NET EXPOSED BSMT WALL ABOVE GR	3.3	0.7	0	0	0	0	0	0	0
EXPOSED CLG	1.2	0.6	400	477	255	143	170	91	73 303 68
NO ATTIC EXPOSED CLG	2.6	1.4	0	0	0	65	166	89	180 215 115
EXPOSED FLOOR	2.4	0.5	0	0	0	143	339	76	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2516	1764	732	2458	2463	1085	653	675	0
SUB TOTAL HT GAIN	2041	1188	673	1984	2494	681	365	317	0.20 0.23
LEVEL FACTOR / MULTIPLIER	0.20	0.23	0.20	0.23	0.20	0.23	0.20	0.23	154
AIR CHANGE HEAT LOSS	574	402	167	561	562	247	149	0	32
AIR CHANGE HEAT GAIN	205	119	68	199	250	68	37	0	0
DUCT LOSS	0	217	0	302	0	0	0	0	0
DUCT GAIN	0	131	0	325	0	0	0	0	0
HEAT GAIN PEOPLE	240	0	0	1	240	1	240	0	0
HEAT GAIN APPLIANCES/LIGHTS	829	0	0	829	829	829	829	0	0
TOTAL HT LOSS BTU/H	3090	2383	899	3320	3024	1332	802	829	0
TOTAL HT GAIN x 1.3 BTU/H	4621	1869	963	4651	4958	2364	522	454	

ROOM USE EXP. WALL CLG. HT.	LAUN	KT/IFM	LVIDN		PWD	FOY		WUB	BAS
GRS.WALL AREA GLAZING	228	700	410		60	330		225	984
NORTH	8	0	0	0	0	0	0	0	0
EAST	0	0	0	0	0	0	0	0	0
SOUTH	0	0	0	0	0	0	0	0	0
WEST	0	0	0	0	0	0	0	0	0
SKYLT.	0	98	1937	4154	0	0	0	0	0
DOORS	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	200	602	2496	559	53	220	49	20	469
NET EXPOSED BSMT WALL ABOVE GR	0	0	0	0	0	0	0	205	850
EXPOSED CLG	0	0	0	0	0	0	0	0	190
NO ATTIC EXPOSED CLG	0	10	26	14	0	0	0	0	492
EXPOSED FLOOR	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2122	4458	2122	1050	358	2297	894	0	5267
SUB TOTAL HT GAIN	0.30	0.40	0.30	0.40	0.30	0.40	0.30	0.50	7677
LEVEL FACTOR / MULTIPLIER	838	1761	838	105	141	907	90	7039	725
AIR CHANGE HEAT LOSS	0	0	0	0	0	0	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
DUCT GAIN	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	829	829	829	829	829	829	829	0	0
TOTAL HT LOSS BTU/H	2960	6220	7840	2580	500	3204	1278	1319	14716
TOTAL HT GAIN x 1.3 BTU/H								384	1076

SITE NAME: RUSSEL GARDENS
BUILDING: GREENPARK HOMES

TYPE: ROSEWOOD 1

DATE: Jul-17

GFA: 2883

LO# 75035

HEATING CFM 1131
TOTAL HEAT LOSS 46,630
AIR FLOW RATE CFM 24.25

COOLING CFM 1131
TOTAL HEAT GAIN 35,573
AIR FLOW RATE CFM 31.79

#GOODMAN
GMEC960603BNA 60
FAN SPEED LOW
MEDIUM HIGH

AFUE = 96 %
INPUT (BTU/H) = 60,000
OUTPUT (BTU/H) = 57,600
DESIGN CFM = 1131
CFM @ 5" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
SIA	0	0	11	7	5
R/A	0	0	4	2	1

All SIA diffusers 4"x10" unless noted otherwise on layout.
All SIA runs 5'0" unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	21	22	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	BED-2	BED-3	ENS-2	ENS-2	LV/DN	KT/FM	KT/FM	KT/FM	LAUN	PWD	FOY	BAS	BAS	BAS	BAS
RM LOSS MBH	1.54	2.38	0.90	1.66	1.51	1.33	0.80	1.66	1.51	1.54	0.83	2.96	2.07	2.07	2.07	2.03	0.50	3.20	3.21	3.21	3.21	3.21
CFM PER RUN HEAT	37	58	22	40	37	32	19	40	37	37	20	72	50	50	50	49	12	78	78	78	78	78
RM GAIN MBH	2.31	1.87	0.96	2.33	2.48	2.36	0.52	2.33	2.48	2.31	0.45	2.58	2.61	2.61	2.61	1.69	0.33	1.28	0.29	0.29	0.29	0.29
CFM PER RUN COOLING	73	59	31	74	79	75	17	74	79	73	14	82	83	83	83	54	10	41	9	9	9	9
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	67	29	46	55	48	21	43	60	55	56	54	8	21	33	40	34	26	33	13	22	32	9
TOTAL EFFECTIVE LENGTH	130	220	120	130	180	200	120	140	150	150	170	140	160	140	110	140	130	90	170	150	120	130
ADJUSTED PRESSURE	0.09	0.07	0.1	0.09	0.08	0.08	0.11	0.09	0.08	0.08	0.08	0.11	0.09	0.09	0.11	0.1	0.11	0.14	0.09	0.1	0.11	0.12
ROUND DUCT SIZE	5	5	4	5	5	5	4	5	5	5	5	5	5	5	5	4	4	5	5	5	5	5
HEATING VELOCITY (ft/min)	272	426	252	294	272	235	218	294	272	272	229	602	609	609	609	562	138	573	573	573	573	573
COOLING VELOCITY (ft/min)	536	433	356	543	580	551	195	543	580	536	161	602	609	609	609	620	115	301	66	66	66	66
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
TRUNK	C	B	B	B	A	B	B	B	A	C	B	B	C	C	C	C	A	A	C	C	C	B

25	ROOM NAME	BAS
3.21	RM LOSS MBH	78
0.29	CFM PER RUN HEAT	9
0.17	RM GAIN MBH	28
ADJUSTED PRESSURE		
EQUIVALENT LENGTH		
TOTAL EFFECTIVE LENGTH		
ADJUSTED PRESSURE		
ROUND DUCT SIZE		
HEATING VELOCITY (ft/min)		
COOLING VELOCITY (ft/min)		
OUTLET GRILL SIZE		
TRUNK		

SUPPLY 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 A	242	0.08	8.2	8	8	TRUNK G	0	0.00	0	0	8	TRUNK O	0	0.06	0	0	8		
TRUNK B	623	0.07	12.1	18	8	TRUNK H	0	0.00	0	0	8	TRUNK P	0	0.06	0	0	8		
TRUNK C	507	0.08	10.9	14	8	TRUNK I	0	0.00	0	0	8	TRUNK Q	0	0.06	0	0	8		
TRUNK D	0	0.00	0	0	8	TRUNK J	0	0.00	0	0	8	TRUNK R	0	0.06	0	0	8		
TRUNK E	0	0.00	0	0	8	TRUNK K	0	0.00	0	0	8	TRUNK S	0	0.06	0	0	8		
TRUNK F	0	0.00	0	0	8	TRUNK L	0	0.00	0	0	8	TRUNK T	0	0.06	0	0	8		
RETURN AIR #	1	2	3	4	5	6	BR												
AIR VOLUME	120	120	120	155	305	120	0	0	0	0	0	0	0	0	0	0	0		
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0	0	0	0	0	0	0	0	0	0	0		
ACTUAL DUCT LGH.	79	55	51	50	38	31	1	1	1	1	1	1	1	1	1	1	1		
EQUIVALENT LENGTH	135	175	155	185	190	195	0	0	0	0	0	0	0	0	0	0	0		
TOTAL EFFECTIVE LH	214	230	206	235	228	226	1	1	1	1	1	1	1	1	1	1	1		
ADJUSTED PRESSURE	0.07	0.06	0.07	0.06	0.06	0.07	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80		
ROUND DUCT SIZE	6.6	6.8	6.6	7.5	9.7	6.6	0	0	0	0	0	0	0	0	0	0	0.07		
INLET GRILL SIZE	8	8	8	8	8	8	0	0	0	0	0	0	0	0	0	0	7.8		
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	8		
INLET GRILL SIZE	14	14	14	14	30	14	0	0	0	0	0	0	0	0	0	0	X		
																	X		
																	24		
																	10		
																	679		
																	591		
																	679		

TYPE: ROSEWOOD 1
SITE NAME: RUSSEL GARDENS

LO # 75035

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	<u>2</u> @ 21.2 cfm	<u>42.4</u> cfm
Other Bedrooms	<u>3</u> @ 10.6 cfm	<u>31.8</u> cfm
Kitchen & Bathrooms	<u>5</u> @ 10.6 cfm	<u>53</u> cfm
Other Rooms	<u>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Table 9.32.3.A.	TOTAL	<u>169.6</u> 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		<u>79.5</u> cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>169.6</u>	cfm
Less Principal Ventil. Capacity	<u>139</u>	cfm
Required Supplemental Capacity	<u>30.6</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY			
Model: VANEE 60H-V+	Location: BSMT		
<u>139.0</u> cfm	<u>3.0</u> sones ☒ HVI Approved		
PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
139.0 CFM	X 71 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-2	QTXEN050C	50	☒	0.3
PWD	QTXEN050C	50	☒	0.3

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

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

BUILDER: GREENPARK 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:	July-17

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** ROSEWOOD 1**BUILDER:** GREENPARK HOMES**SFQT:** 2683**LO#** 75035**SITE:** RUSSEL GARDENS**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	1	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

BUILDING DATA

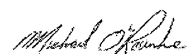
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft ³):	35995.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 49.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	164.0 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	-

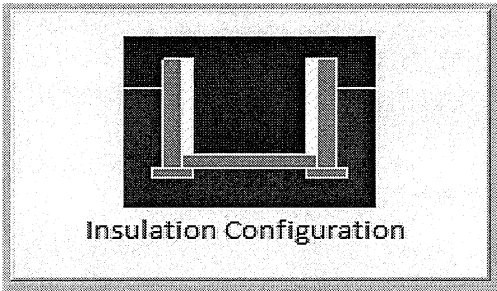
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Hamilton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	14.9	 Insulation Configuration
Floor Width (m):	10.1	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	1.4	
Door Area (m ²):	3.7	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1543	

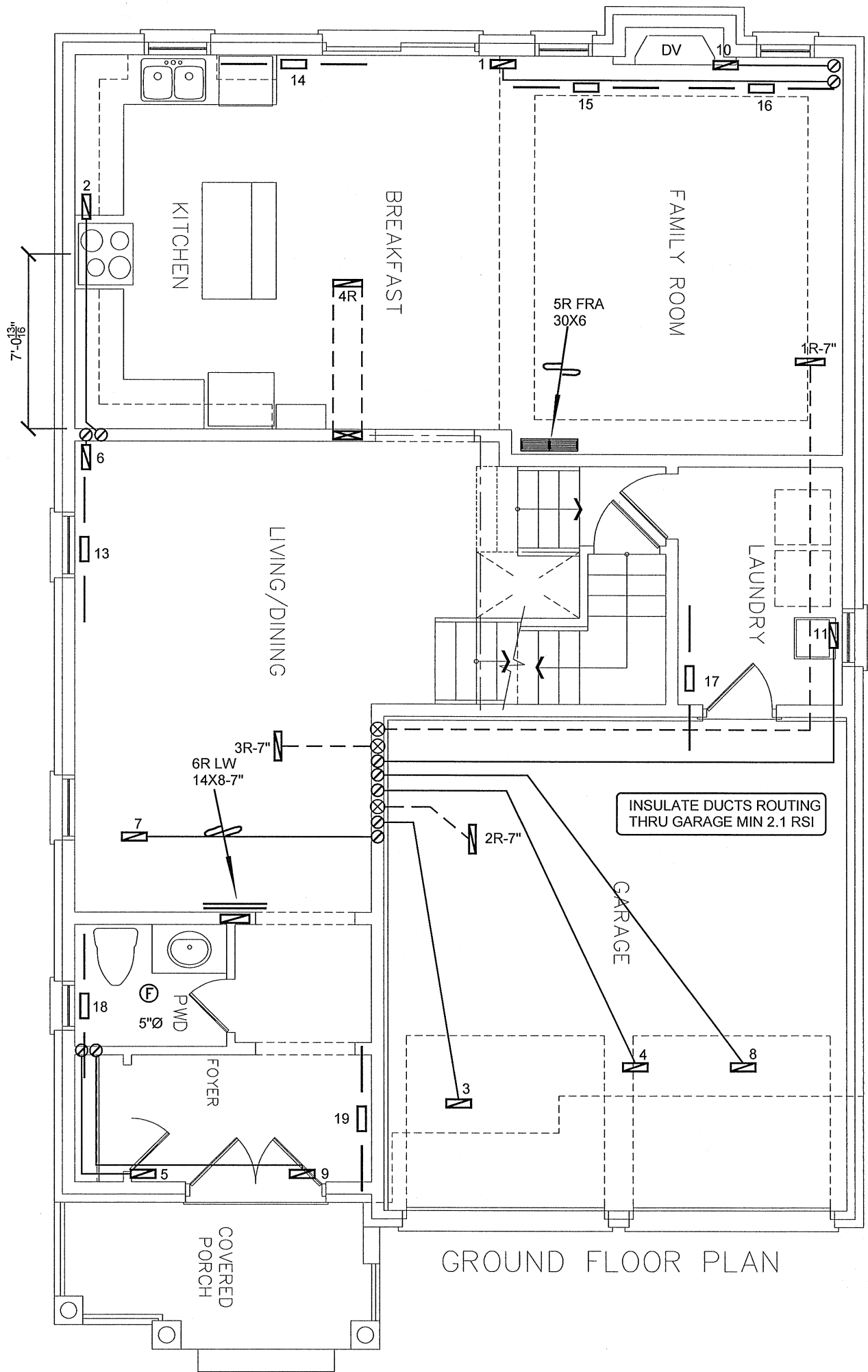
TYPE: ROSEWOOD 1
LO# 75035

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Hamilton			
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):	1019.3			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1358.7 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):	0.310			
Cooling Air Leakage Rate (ACH/H):	0.120			

TYPE: ROSEWOOD 1
LO# 75035



GROUND FLOOR PLAN

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.

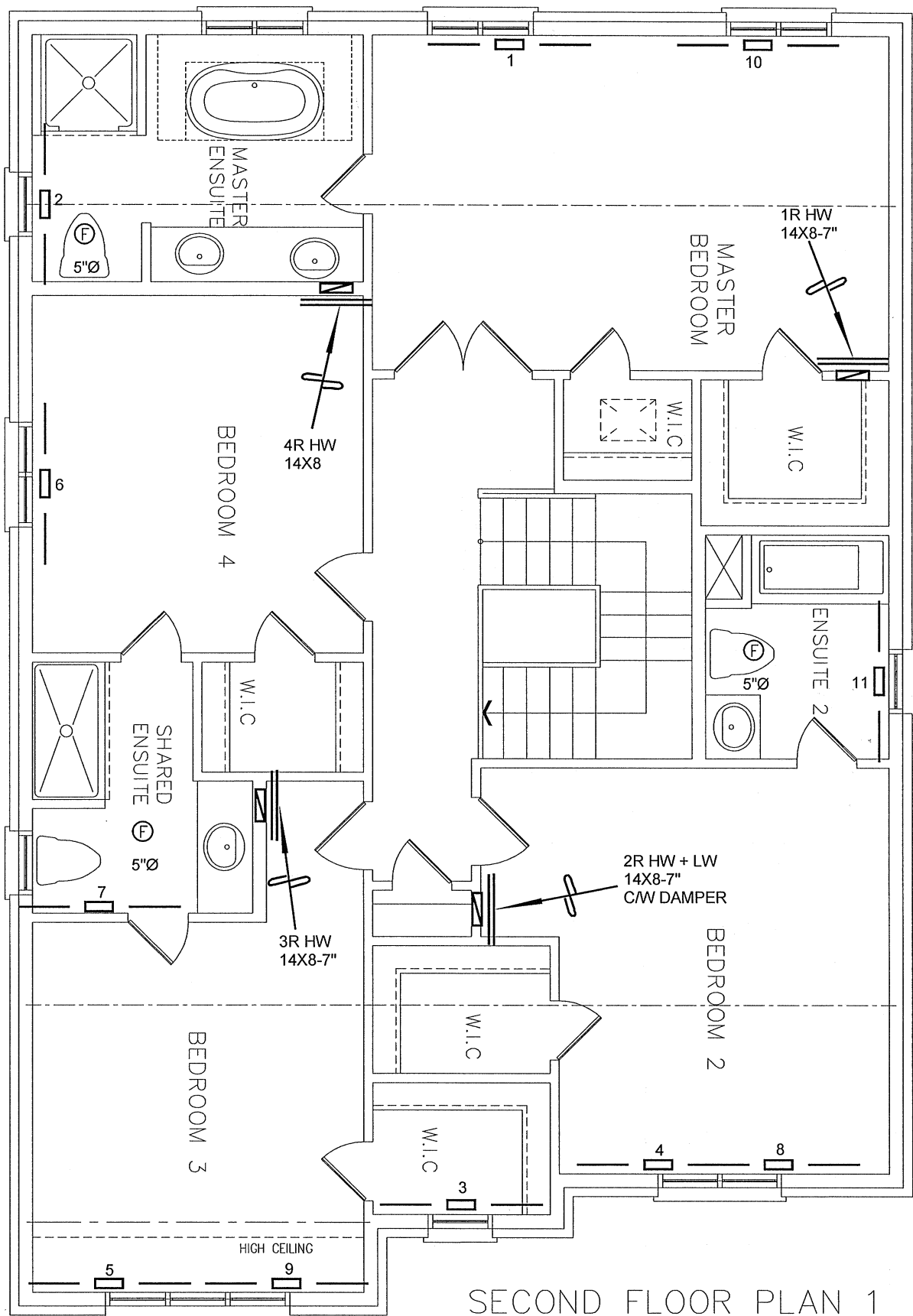
CSA-F280-12
PACKAGE A1

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

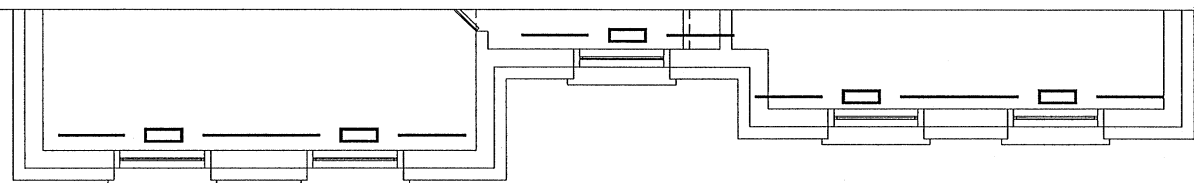
REVISIONS

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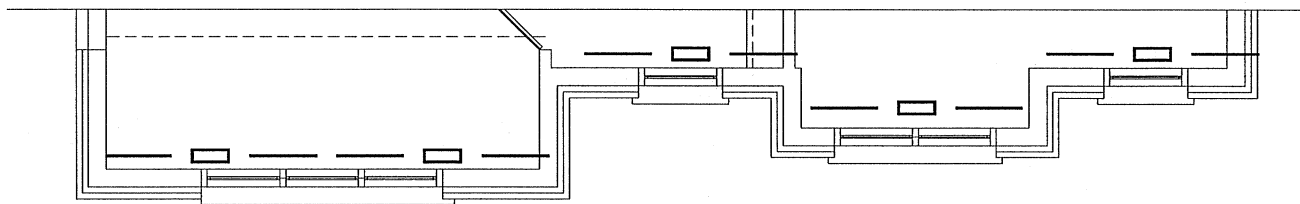
Client GREENPARK HOMES		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services	Sheet Title FIRST FLOOR HEATING LAYOUT	
Project Name RUSSEL GARDENS HAMILTON, ONTARIO			Date JULY/2017	
			Scale 3/16" = 1'-0"	
			BCIN# 19669	
ROSEWOOD 1 2683 sqft			LO# 75035	



SECOND FLOOR PLAN 1



SECOND FLOOR PLAN 2



SECOND FLOOR PLAN 3

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, DCE# 19669
HVAC DESIGNS LTD.

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 GREENPARK HOMES		 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 SECOND FLOOR HEATING LAYOUT	
Project Name RUSSEL GARDENS HAMILTON, ONTARIO			Date JULY/2017	Scale 3/16" = 1'-0"
ROSEWOOD 1 2683 sqft		BCIN# 19669		
		LO#	75035	
		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.		