

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 BRAMPTON	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: AMELIA 1 Project: GRANELLI HOME CORP	
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 19, 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.

SITE NAME: GRANELLI HOME CORP BUILDER: GREENYORK HOMES				TYPE: AMELIA 1		GFA: 2831		DATE: Jun-18 LO# 78987		WINTER NATURAL AIR CHANGE RATE 0.335 SUMMER NATURAL AIR CHANGE RATE 0.112		HEAT LOSS AT °F. 74 HEAT GAIN AT °F. 12		CSA-F280-12 SB-12 PACKAGE A1	
ROOM USE	EXP. WALL CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	HALL	ENS-2					
GRS.WALL AREA	315	315	228	63	234	128	117	54	378	99					
GLAZING	0	0	0	0	0	0	0	0	0	0					
NORTH	20.8	0	0	0	0	0	0	0	0	0					
EAST	20.8	0	0	0	26	0	0	0	0	0					
SOUTH	20.8	0	7	0	0	15	312	7	45	0					
WEST	20.8	30	145	0	0	312	370	145	935	0					
SKYLT.	36.4	1240	270	0	0	0	0	0	0	0					
DOORS	24.7	0	0	0	0	0	0	0	0	0					
NET EXPOSED WALL	4.4	205	893	63	208	111	102	47	333	99					
NET EXPOSED BSMT WALL ABOVE GR	3.5	0	0	0	0	0	0	0	0	0					
EXPOSED CLG	1.3	323	156	85	203	216	184	79	264	68					
NO ATTIC EXPOSED CLG	2.7	0	0	0	0	0	0	0	13	0					
EXPOSED FLOOR	0	0	0	0	203	0	0	0	86	10					
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	0	214	25					
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0	0					
SUB TOTAL HT LOSS	2270	1626	1504	93	2208	1011	960	449	2839	541					
SUB TOTAL HT GAIN	0.20	0.29	0.20	0.29	0.20	0.29	0.20	0.29	0.20	0.20					
LEVEL FACTOR / MULTIPLIER	668	110	434	7	637	292	274	130	834	168					
AIR CHANGE HEAT LOSS	130	0	0	0	114	0	43	20	372	9					
DUCT LOSS	0	0	0	0	284	0	0	0	0	70					
DUCT GAIN	0	0	0	0	243	0	0	0	244	12					
HEAT GAIN PEOPLE	240	480	0	0	1	240	240	0	0	0					
HEAT GAIN APPLIANCES/LIGHTS	860	0	0	0	680	660	660	0	0	0					
TOTAL HT LOSS BTU/H	2925	1539	1326	491	3128	1303	1225	579	4096	768					
TOTAL HT GAIN x 1.3 BTU/H	3766	1326	431		3479	1838	1915	353	3493	174					

ROOM USE	EXP. WALL CLG. HT.	LVDN	KBIF	LAUN	PWD	FOY	MUD	WUB	BAS
GRS.WALL AREA	341	341	748	0	176	330	264	126	978
GLAZING	8	166	0	0	0	0	0	0	0
NORTH	0	0	0	0	0	0	0	0	0
EAST	0	0	0	0	0	16	0	0	0
SOUTH	33	686	814	0	7	312	0	0	0
WEST	0	0	0	0	145	0	0	0	0
SKYLT.	36.4	101.2	0	0	0	0	0	0	0
DOORS	24.7	4.0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.4	300	666	0	169	206	20	20	20
NET EXPOSED BSMT WALL ABOVE GR	3.5	0	0	0	0	1285	493	483	483
EXPOSED CLG	1.3	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.7	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	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	2169	1152	4605	88	882	2090	1556	112	5626
SUB TOTAL HT GAIN	0.30	0.47	0.30	0.29	0.30	0.47	0.30	0.47	0.50
LEVEL FACTOR / MULTIPLIER	1018	1018	2171	25	416	985	734	276	8873
AIR CHANGE HEAT LOSS	92	92	309	0	23	73	20	0	0
HEAT GAIN PEOPLE	240	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	860	660	660	660	0	0	0	0	0
TOTAL HT LOSS BTU/H	3177	2475	6777	113	1298	3076	2280	1116	16835
TOTAL HT GAIN x 1.3 BTU/H	4752	3255	8275	914	410	1274	353	359	1596

TOTAL HEAT GAIN BTU/H: 30478 TONS: 2.64 LOSS DUE TO VENTILATION LOAD BTU/H: 1629 STRUCTURAL HEAT LOSS: 61133 TOTAL COMBINED HEAT LOSS BTU/H: 52602

Michael O'Rourke

SITE NAME: GRANELLI HOME CORP
BUILDER: GREENYORK HOMES

DATE: Jun-18

GFA: 2831 LO# 78987

TYPE: AMELIA 1

furnace pressure

furnace filter

a/c coil pressure

available pressure

for s/a & r/a

plenum pressure s/a

max s/a diff press. loss

min adjusted pressure s/a

0.6

0.05

0.2

0.35

0.18

0.03

0.15

#CARRIER

59SP5A-60-12

FAN SPEED

LOW

MEDIUM

HIGH

1030

AFUE = 96 %

INPUT (BTU/H) = 60,000

OUTPUT (BTU/H) = 58,000

DESIGN CFM = 970

CFM @ 6" E.S.P.

TEMPERATURE RISE

55 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	13	7	4
R/A	0	0	5	1	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
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	HALL	ENS	MBR	ENS-2	BED-2	LVDN	KB/F	KB/F	LVDN	LAUN	PWD	FOY	MUD	BAS	BAS	BAS
RM LOSS MBH	1.46	0.97	0.49	1.56	1.30	1.22	0.58	4.10	0.97	1.46	0.77	1.56	1.59	3.39	3.39	1.59	0.11	1.30	3.08	2.28	4.49	4.49	4.49
CFM PER RUN HEAT	28	18	9	30	25	23	11	78	18	28	15	30	30	64	64	30	2	25	58	43	85	85	85
RM GAIN MBH	1.88	0.66	0.13	1.74	1.94	1.92	0.35	3.49	0.66	1.88	0.17	1.74	1.24	3.14	3.14	1.24	0.91	0.41	1.27	0.35	0.49	0.49	0.49
CFM PER RUN COOLING	60	21	4	56	62	61	11	112	21	60	6	56	40	101	101	40	29	13	41	11	16	16	16
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.15	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16
ACTUAL DUCT LGH	52	66	23	57	49	56	46	52	65	40	51	52	40	33	30	10	26	38	50	11	42	25	30
EQUIVALENT LENGTH	220	180	190	120	160	150	170	150	180	210	140	190	110	120	170	200	210	236	178	180	140	100	130
TOTAL EFFECTIVE LENGTH	272	246	213	177	209	206	216	202	245	250	191	242	150	153	200	210	236	178	180	151	142	155	140
ADJUSTED PRESSURE	0.06	0.07	0.08	0.1	0.08	0.08	0.08	0.08	0.07	0.07	0.09	0.07	0.11	0.11	0.08	0.08	0.07	0.1	0.1	0.11	0.11	0.1	0.12
ROUND DUCT SIZE	5	4	4	5	6	6	4	6	4	5	4	5	5	6	6	5	4	4	5	4	6	6	6
HEATING VELOCITY (ft/min)	206	207	103	220	127	117	126	398	207	206	172	220	220	326	326	220	23	287	426	493	433	433	433
COOLING VELOCITY (ft/min)	241	241	46	411	316	311	126	571	241	441	69	411	294	515	515	294	333	149	301	126	82	82	82
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	4X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10
TRUNK	D	C	D	C	B	C	C	B	C	D	C	B	A	A	D	D	C	B	B	C	A	D	A

RUN #	25
ROOM NAME	BAS
RM LOSS MBH	4.49
CFM PER RUN HEAT	85
RM GAIN MBH	0.49
CFM PER RUN COOLING	16
ADJUSTED PRESSURE	0.16
ACTUAL DUCT LGH	45
EQUIVALENT LENGTH	110
TOTAL EFFECTIVE LENGTH	155
ADJUSTED PRESSURE	0.1
ROUND DUCT SIZE	6
HEATING VELOCITY (ft/min)	433
COOLING VELOCITY (ft/min)	82
OUTLET GRILL SIZE	4X10
TRUNK	B

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK	CFM	RECT	ROUND	STATIC PRESS.	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	264	8	7.9	0.11	0	594	TRUNK G	0	0.00	0	0	8	TRUNK O	0	0.05	0	0	8	
TRUNK B	301	10	9.2	0.07	0	542	TRUNK H	0	0.00	0	0	8	TRUNK P	0	0.05	0	0	8	
TRUNK C	461	14	10.8	0.07	0	593	TRUNK I	0	0.00	0	0	8	TRUNK Q	0	0.05	0	0	8	
TRUNK D	508	16	11.7	0.06	0	572	TRUNK J	0	0.00	0	0	8	TRUNK R	0	0.05	0	0	8	
TRUNK E	0	0	0	0.00	0	0	TRUNK K	0	0.00	0	0	8	TRUNK S	0	0.05	0	0	8	
TRUNK F	0	0	0	0.00	0	0	TRUNK L	0	0.00	0	0	8	TRUNK T	0	0.05	0	0	8	
RETURN AIR #	1	2	3	4	5	6	BR	0	0	0	0	0	TRUNK U	0	0.05	0	0	8	
AIR VOLUME	95	75	85	85	95	370	0	0	0	0	0	0	TRUNK V	0	0.05	0	0	8	
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0	0	0	0	0	0	TRUNK W	970	0.05	15.6	28	8	
ACTUAL DUCT LGH.	37	57	53	57	64	18	1	1	1	1	1	1	TRUNK X	535	0.05	12.5	18	8	
EQUIVALENT LENGTH	175	255	175	175	135	115	0	0	0	0	0	0	TRUNK Y	0	0.05	0	0	8	
TOTAL EFFECTIVE LH	212	312	228	232	199	133	1	1	1	1	1	1	TRUNK Z	0	0.05	0	0	8	
ADJUSTED PRESSURE	0.07	0.05	0.06	0.06	0.07	0.11	14.80	14.80	14.80	14.80	14.80	14.80	DROP	970	0.05	15.6	24	10	
ROUND DUCT SIZE	6	6	6	6	6	8.9	0	0	0	0	0	0							
INLET GRILL SIZE	X	X	X	X	X	X	X	X	X	X	X	X							
INLET GRILL SIZE	14	14	14	14	14	30	0	0	0	0	0	0							

TYPE: AMELIA 1
SITE NAME: GRANELLI HOME CORP

LO # 78987

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	4 @ 10.6 cfm	42.4 cfm
Table 9.32.3.A.	TOTAL	169.6 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	79.5 cfm	

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	169.6	cfm
Less Principal Ventil. Capacity	79.5	cfm
Required Supplemental Capacity	90.1	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model: LIFEBREATH RNC5-HEX	Location: BSMT
79.5 cfm	3.0 sones
☒	HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
79.5 CFM	74 F	1.08	0.24

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: LIFEBREATH RNC5-HEX		
108 cfm high	59 cfm low	
76 % Sensible Efficiency @ 32 deg F (0 deg C)	☒	HVI Approved

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

BUILDER: GREENYORK 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:	June-18

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** AMELIA 1**BUILDER:** GREENYORK HOMES**SFQT:** 2831**LO#** 78987**SITE:** GRANELLI HOME CORP**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-2	OUTDOOR DESIGN TEMP.	86
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):	39939.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 60.0 ft	WIDTH: 30.0 ft	EXPOSED PERIMETER:	163.0 ft

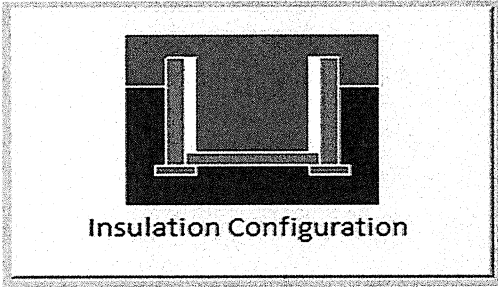
2012 OBC - COMPLIANCE PACKAGE

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

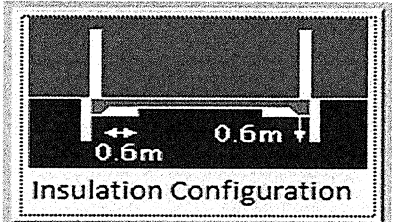
Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	18.3	 Insulation Configuration
Floor Width (m):	9.1	
Exposed Perimeter (m):	49.7	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.83	
Window Area (m ²):	0.8	
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):		1648

TYPE: AMELIA 1

LO# 78987

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Length (m):	4.3	 Insulation Configuration
Width (m):	0.9	
Exposed Perimeter (m):	5.2	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		33

TYPE: AMELIA 1

LO# 78987

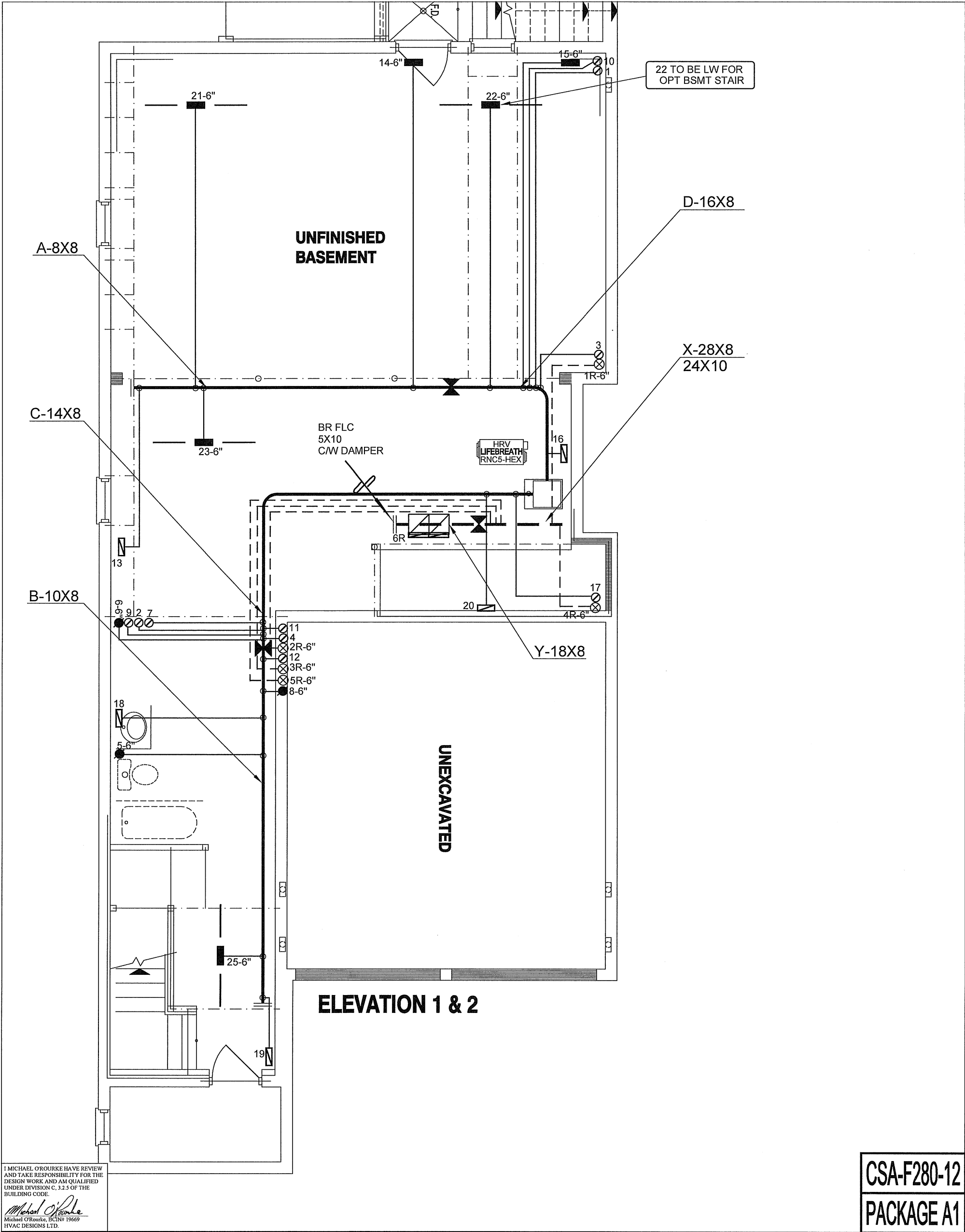
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Brampton			
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):	7.01			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1130.9			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	1507.6 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	37.5	37.5		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.335			
Cooling Air Leakage Rate (ACH/H):	0.112			

TYPE: AMELIA 1

LO# 78987



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.

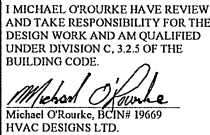
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

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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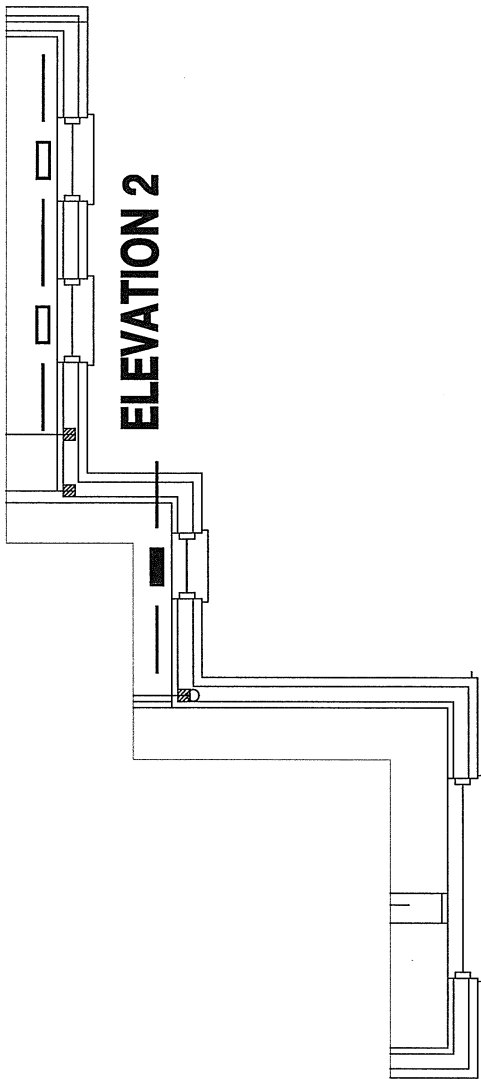
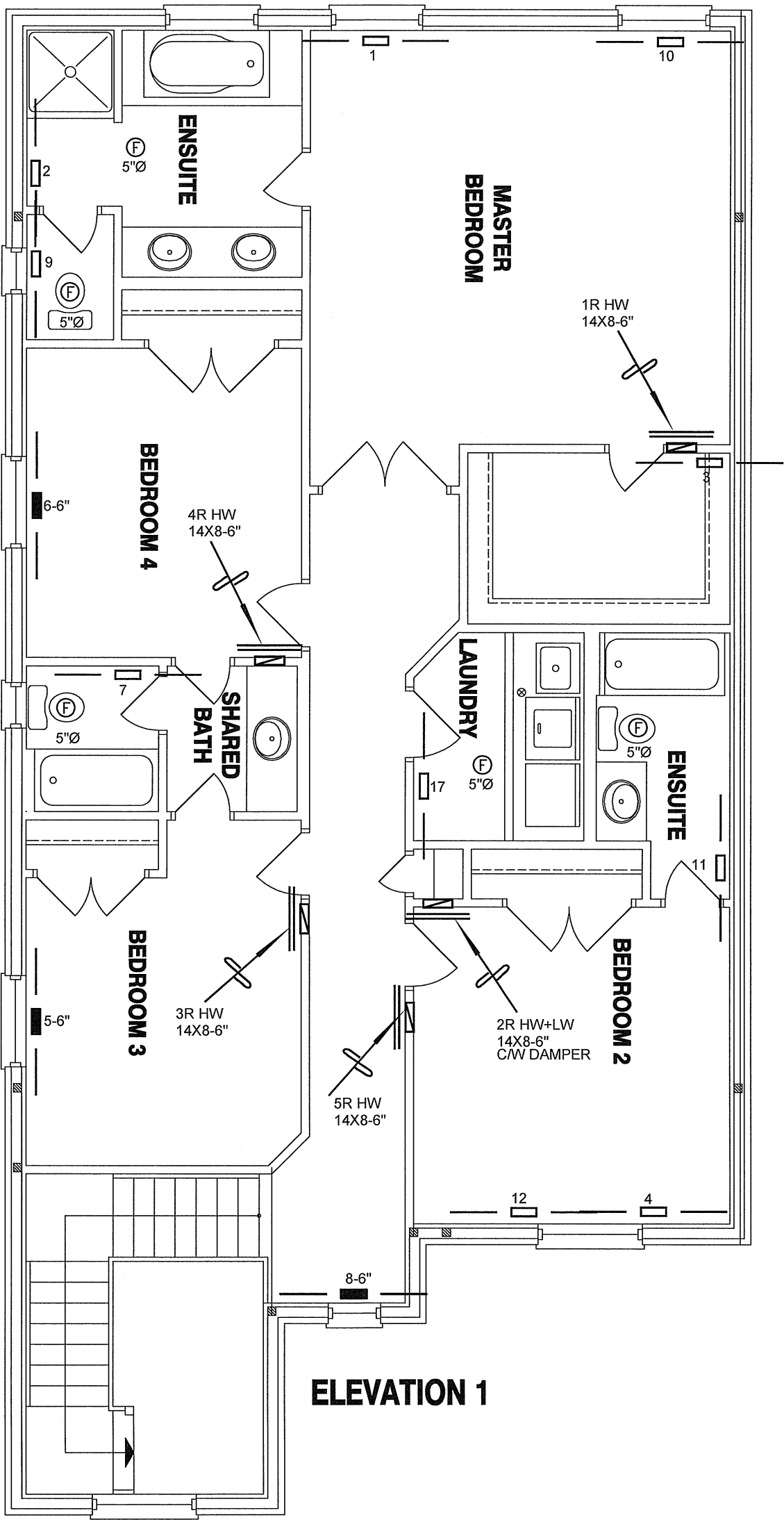
Client		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets 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.	HEAT LOSS 52662 BTU/H		# OF RUNS S/A R/A FANS				Sheet Title	
GREENYORK HOMES			UNIT DATA		3RD FLOOR				BASEMENT HEATING LAYOUT	
Project Name			MAKE		2ND FLOOR				Date	
GRANELLI HOMES CORP			CARRIER		13 5 4				JUNE/2018	
BRAMPTON, ONTARIO			MODEL		7 1 2				Scale	
AMELIA 1			59SP5A-60-12		4 1 0				BCIN# 19669	
2831 sqft			INPUT		60 MBTU/H				LO#	
			OUTPUT		58 MBTU/H				78987	
			COOLING		2.5 TONS					
			FAN SPEED		970 cfm @ 0.6" w.c.					
					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					



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GREENYORK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	JUNE/2018
GRANELLI HOMES CORP BRAMPTON, ONTARIO			Scale	3/16" = 1'-0"
			BCIN# 19669	
AMELIA 1	2831 sqft	LO# 78987		



ELEVATION 1

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.

CSA-F280-12

PACKAGE A1

HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
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	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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GREENYORK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name GRANELLI HOMES CORP BRAMPTON, ONTARIO			Date	JUNE/2018
			Scale	3/16" = 1'-0"
			BCIN# 19669	
AMELIA 1	2831 sqft	LO#	78987	