

SITE NAME: SECONDO BUILDER: GREENPARK HOMES										DATE: Mar-19 LO# 81661		WINTER NATURAL AIR CHANGE RATE 0.272 SUMMER NATURAL AIR CHANGE RATE 0.077		HEAT LOSS AT °F. 81 HEAT GAIN AT °F. 14		CSA-F280-12 ENERGY STAR	
ROOM USE EXP. WALL CLG. HT.		MBR 16 9		ENS 7 9		TYPE: HOLLAND 6A		FIN BSMT		GFA: 1999							
FACTORS		144		63													
GRS.WALL AREA GLAZING		LOSS GAIN		LOSS GAIN													
NORTH		20.4	15.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAST		20.4	41.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH		20.4	24.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEST		20.4	41.5	30	611	1244	11	224	456	0	0	0	0	0	0	0	0
SKYL.T.		34.2	101.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOORS		27.0	4.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL		5.4	0.9	114	614	106	52	280	48	99	533	92	75	404	69	0	0
NET EXPOSED BSMT WALL ABOVE GR		3.9	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG		1.6	0.7	224	359	159	98	157	70	210	337	149	209	335	148	132	212
NO A T T I C EXPOSED CLG		4.0	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR		3.3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS																	
SLAB ON GRADE HEAT LOSS																	
SUBTOTAL HT LOSS																	
SUB TOTAL HT GAIN																	
LEVEL FACTOR / MULTIPLIER																	
AIR CHANGE HEAT LOSS																	
AIR CHANGE HEAT GAIN																	
DUCT LOSS																	
DUCT GAIN PEOPLE																	
HEAT GAIN PEOPLE		240															
HEAT GAIN APPLIANCES/LIGHTS																	
TOTAL HT LOSS BTU/H																	
TOTAL HT GAIN x 1.3 BTU/H																	

ROOM USE EXP. WALL CLG. HT.		LVDN 17 10		KTI/FM 26 10		LAUN 0 9		FOY 6 11		BAS 60 9	
FACTORS		170		260		0		66		350	
GRS.WALL AREA GLAZING		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN		LOSS GAIN	
NORTH		20.4	15.9	0	0	0	0	0	0	0	0
EAST		20.4	41.5	49	997	2032	0	0	0	3	61
SOUTH		20.4	24.8	0	0	0	0	0	0	0	124
WEST		20.4	41.5	0	0	0	0	0	0	0	0
SKYL.T.		34.2	101.2	0	0	0	0	0	0	3	61
DOORS		27.0	4.7	0	0	0	0	0	0	0	124
NET EXPOSED WALL		5.4	0.9	121	652	112	0	0	0	20	541
NET EXPOSED BSMT WALL ABOVE GR		3.9	0.7	0	0	0	0	0	0	20	541
EXPOSED CLG		1.6	0.7	0	0	0	0	0	0	39	210
NO A T T I C EXPOSED CLG		4.0	1.8	0	0	0	0	0	0	0	0
EXPOSED FLOOR		3.3	0.6	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS										100	385
SLAB ON GRADE HEAT LOSS										0	0
SUBTOTAL HT LOSS										0	0
SUB TOTAL HT GAIN										0	0
LEVEL FACTOR / MULTIPLIER										0	0
AIR CHANGE HEAT LOSS										0	0
AIR CHANGE HEAT GAIN										0	0
DUCT LOSS										0	0
DUCT GAIN PEOPLE										0	0
HEAT GAIN PEOPLE		240								1411	0
HEAT GAIN APPLIANCES/LIGHTS										0	0
TOTAL HT LOSS BTU/H										0	860
TOTAL HT GAIN x 1.3 BTU/H										7788	1710

SITE NAME: SECONDO

BUILDER: GREENPARK HOMES

FIN BSMT

TYPE: HOLLAND 5A

DATE: Mar-19

GFA: 1999 LO# 81661

HEATING CFM 895 COOLING CFM 895
TOTAL HEAT LOSS 24,056
AIR FLOW RATE CFM 37.21

#GOODMAN

AFUE = 96 %
INPUT (BTU/H) = 30,000
OUTPUT (BTU/H) = 28,800

RUN COUNT 4th 3rd 2nd 1st Bas
S/A 0 0 0 8 6 5
R/A 0 0 0 3 2 1

FAN SPEED
LOW
MEDIUM
HIGH

DESIGN CFM = 895
CFM @ .5" E.S.P.

plenum pressure s/a 0.18
max s/a diff press. loss 0.03
min adjusted pressure s/a 0.15
r/a grille press. loss 0.02
adjusted pressure r/a 0.15
r/a pressure 0.17

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

All S/A runs 5'10" unless noted otherwise on layout.

ROOM NAME	1	2	3	4	5	6	7	10	12	13	14	15	16	17	19	21	22	23	24
ROOM NAME	MBR	ENS	BED-2	BED-3	BED-3	BED-3	BATH	MBR	LVDN	LVDN	KT/FM	KT/FM	KT/FM	LAUN	FOY	BAS	BAS	BAS	BAS
RM LOSS MBH	1.13	0.95	1.77	0.88	0.88	0.88	0.30	1.13	1.36	1.36	1.44	1.44	1.44	0.35	1.47	1.95	1.95	1.95	1.95
CFM PER RUN HEAT	42	35	66	33	33	33	11	42	51	51	54	54	54	13	55	72	72	72	72
RM GAIN MBH	1.97	0.83	2.86	1.60	1.60	1.60	0.14	1.97	2.12	2.12	1.43	1.43	1.43	1.28	0.61	0.43	0.43	0.43	0.43
CFM PER RUN COOLING	78	32	111	62	62	62	5	76	82	82	56	56	56	50	24	17	17	17	17
ADJUSTED PRESSURE	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	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	55	44	33	44	60	23	23	63	38	25	40	29	27	27	25	50	16	9	48
TOTAL EFFECTIVE LENGTH	180	150	130	180	200	150	150	170	140	130	110	110	110	140	140	160	140	140	200
ADJUSTED PRESSURE	0.07	0.09	0.09	0.08	0.07	0.07	0.1	0.07	0.09	0.1	0.11	0.12	0.13	0.1	0.1	0.08	0.11	0.12	0.07
ROUND DUCT SIZE	6	4	6	5	5	5	4	6	5	5	5	5	5	4	4	5	5	5	5
HEATING VELOCITY (ft/min)	214	402	337	242	242	242	126	214	374	374	396	396	396	149	631	529	529	529	529
COOLING VELOCITY (ft/min)	388	367	566	455	455	455	57	388	602	602	411	411	411	574	275	125	125	125	125
OUTLET GRILL SIZE	4X10	3X10	4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	A	C	C	B	B	B	C	A	B	B	A	A	A	C	B	A	A	A	B

ROOM NAME	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
ROOM NAME	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH	B-BATH
RM LOSS MBH	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
CFM PER RUN HEAT	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
RM GAIN MBH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CFM PER RUN COOLING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0.17	0.17	0.17	0.17	0.17	0.17	0.17
EQUIVALENT LENGTH	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
TOTAL EFFECTIVE LENGTH	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
ADJUSTED PRESSURE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ROUND DUCT SIZE	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
HEATING VELOCITY (ft/min)	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
COOLING VELOCITY (ft/min)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	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	A	A	A	A	A	A

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	475	0.07	11	14	8	TRUNK G	0	0.00	0	0	8	TRUNK O	0	0.06	0	0	8		
TRUNK B	295	0.07	9.2	10	8	TRUNK H	0	0.00	0	0	8	TRUNK P	0	0.06	0	0	8		
TRUNK C	420	0.07	10.5	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							TRUNK U	0	0.06	0	0	8		
AIR VOLUME	155	85	85	280	160							TRUNK V	0	0.06	0	0	8		
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15							TRUNK W	0	0.06	0	0	8		
ACTUAL DUCT LGH.	43	46	36	19	135							TRUNK X	580	0.06	12.3	18	580		
EQUIVALENT LENGTH	150	185	145	190	37							TRUNK Y	315	0.06	9.8	12	8		
TOTAL EFFECTIVE LH	193	231	181	209	172							TRUNK Z	0	0.06	0	0	8		
ADJUSTED PRESSURE	0.08	0.06	0.08	0.07	0.09							DROP	895	0.06	14.5	24	537		
ROUND DUCT SIZE	7	6	5.6	9	6.9												10		
INLET GRILL SIZE	8	8	8	8	8														
INLET GRILL SIZE	14	14	14	30	14														

TYPE: HOLLAND 5A
SITE NAME: SECONDO

LO # 81661
FIN BSMT

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	5 @ 10.6 cfm	53 cfm
Other Rooms	5 @ 10.6 cfm	53.0 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		63.6 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	169.6	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	14.6	cfm

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

PRINCIPAL EXHAUST HEAT LOSS CALCULATION				
CFM	ΔT °F	FACTOR	% LOSS	
155.0 CFM	X 81 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
PWD	QTXEN050C	50	☒	0.3
B-BATH	QTXEN050C	50	☒	0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 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: 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:	March-19

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: HOLLAND 5A	FIN BSMT	BUILDER: GREENPARK HOMES
SFQT: 1999	LO# 81661	SITE: SECONDO

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-9	OUTDOOR DESIGN TEMP.	86
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:	3.00	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	TIGHT	ASSUMED (Y/N):	Y
WIND EXPOSURE:	UNSHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	28101.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	4
INTERIOR LIGHTING LOAD (Btu/h/ft²):	2.00	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 51.0 ft	WIDTH: 22.0 ft	EXPOSED PERIMETER:	50.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package ENERGYSTAR	
	Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value	50	50.72
Ceiling Without Attic Space Minimum RSI (R)-Value	31	20.54
Exposed Floor Minimum RSI (R)-Value	31	24.58
Walls Above Grade Minimum RSI (R)-Value	20 + 5	15.12
Basement Walls Minimum RSI (R)-Value	20	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	ZONE 2	-
Skylights Maximum U-Value	ZONE 2	-
Space Heating Equipment Minimum AFUE	0.95	-
HRV Minimum Efficiency	65%	-
Domestic Hot Water Heater Minimum EF	0.75	-

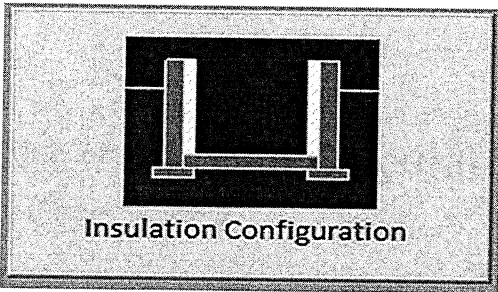
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Bradford	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	15.5	 Insulation Configuration
Floor Width (m):	6.7	
Exposed Perimeter (m):	15.2	
Wall Height (m):	2.7	
Depth Below Grade (m):	2.13	
Window Area (m ²):	0.6	
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):		447

TYPE: HOLLAND 5A
LO# 81661

FIN BSMT

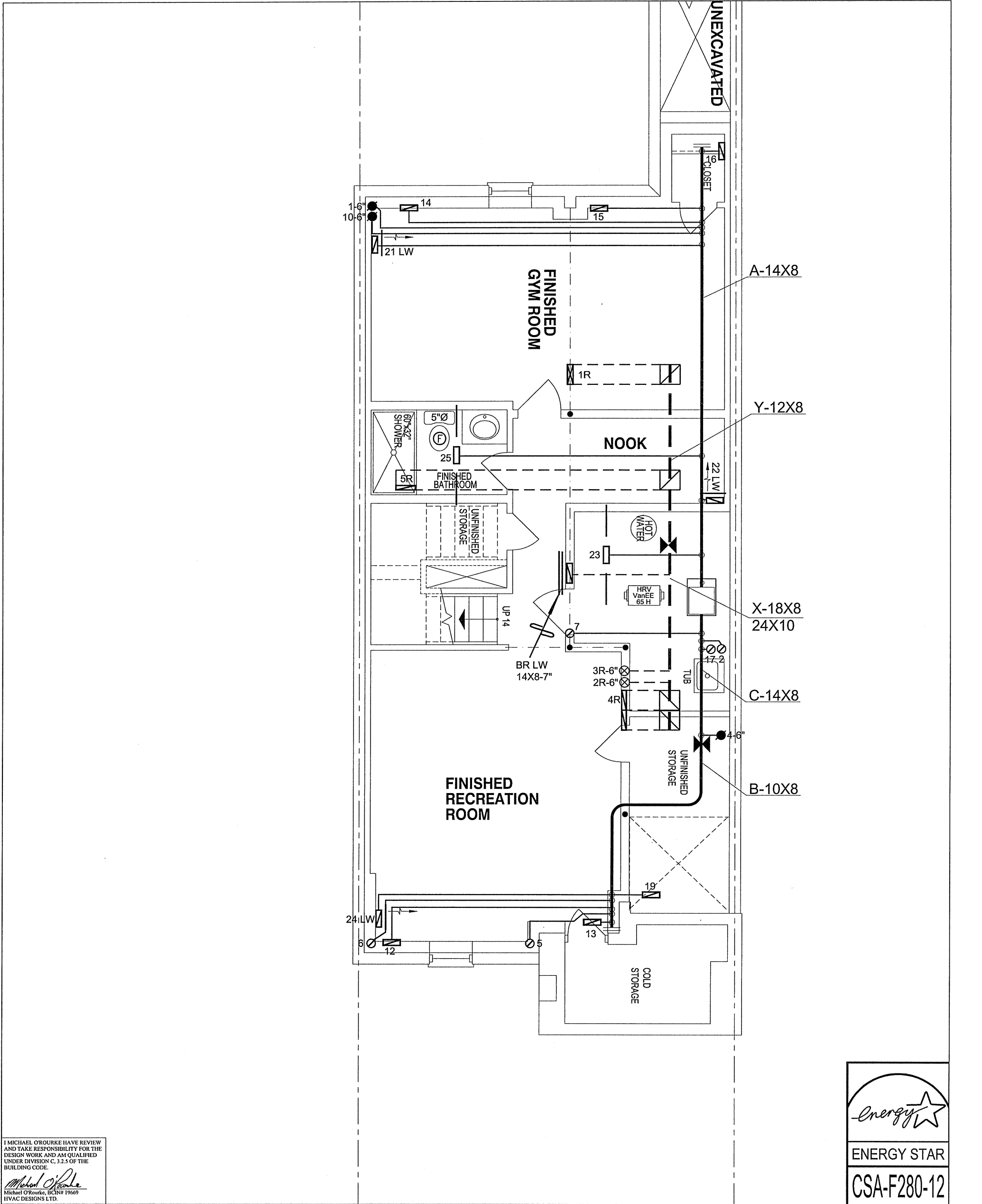
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description			
Province:	Ontario		
Region:	Bradford		
Weather Station Location:	Open flat terrain, grass		
Anemometer height (m):	10		
Local Shielding			
Building Site:	Suburban, forest		
Walls:	Very heavy		
Flue:	Heavy		
Highest Ceiling Height (m):	6.40		
Building Configuration			
Type:	Semi		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m ³):	795.7		
Air Leakage/Ventilation			
Air Tightness Type:	Energy Star Attached (3.0 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	891.4 cm ²	
	3.00	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	73.2	73.2	
Flue Size			
Flue #:	#1	#2	#3
Diameter (mm):	0	0	0
		#4	0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.272		
Cooling Air Leakage Rate (ACH/H):	0.077		

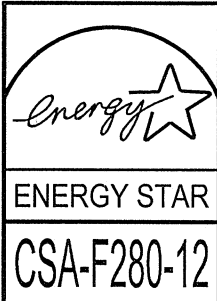
TYPE: HOLLAND 5A
LO# 81661

FIN BSMT



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.

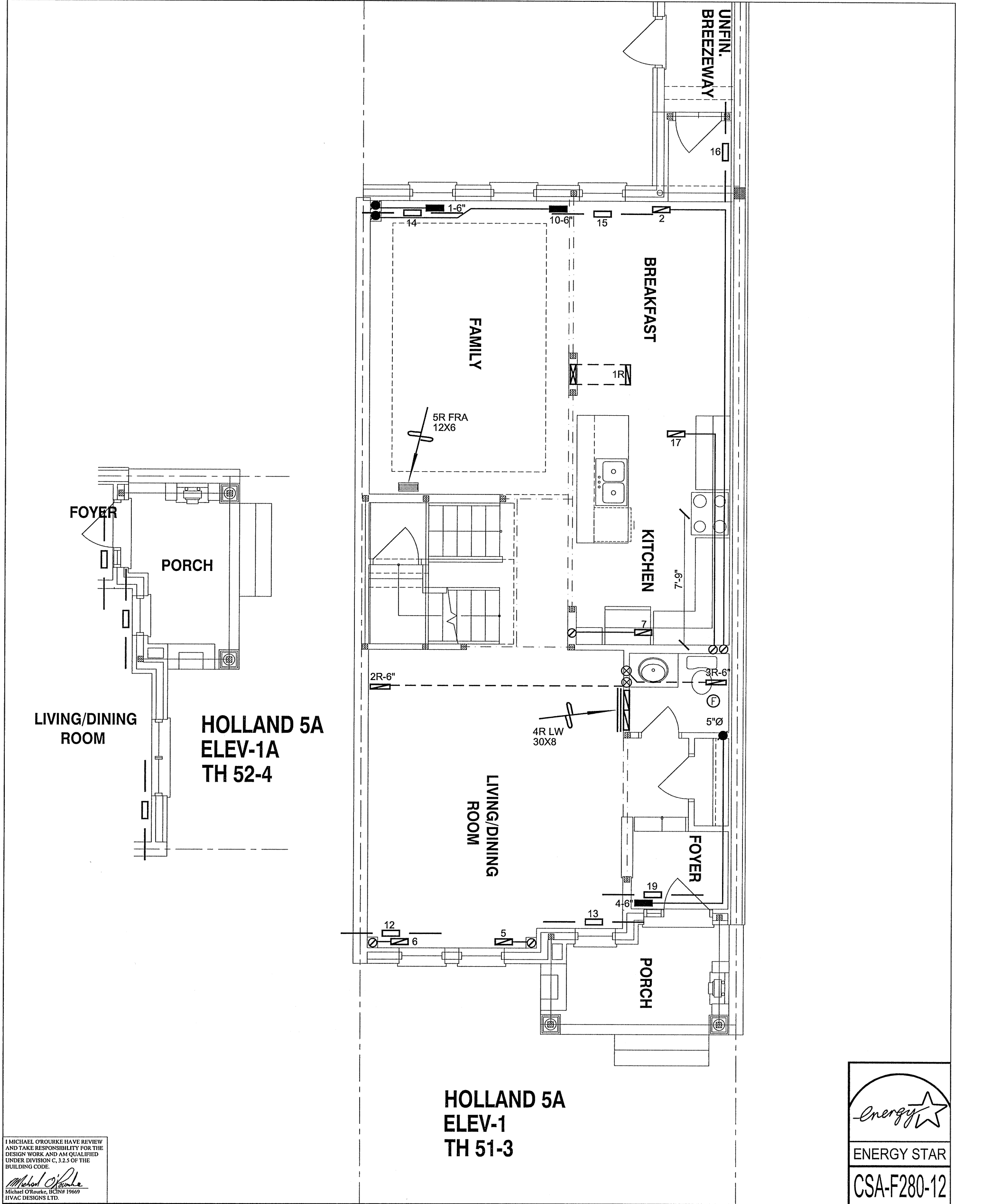
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.



HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR 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	

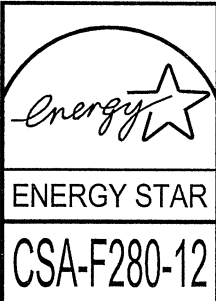
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Client		 375 Finley Ave - Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the 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- 27430 BTU/H UNIT-DATA		# OF RUNS S/A R/A FANS				Sheet Title	
GREENPARK HOMES			MAKE GOODMAN		3RD FLOOR				BASEMENT HEATING LAYOUT	
Project Name			MODEL GMEC960302BNA		2ND FLOOR		8 3 3			
SECOND0 EAST GWILLIMBURY, ONTARIO			INPUT 30 MBTU/H		1ST FLOOR		6 2 2			
FIN BSMT			OUTPUT 28 MBTU/H		BASEMENT 5 1 1				Date	MAR/2019
HOLLAND 5A			COOLING 2.0 TONS		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				Scale	3/16" = 1'-0"
1999 sqft			FAN SPEED 895 cfm @ 0.6" w.c.						BCIN# 19669	
									LO#	81661



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.

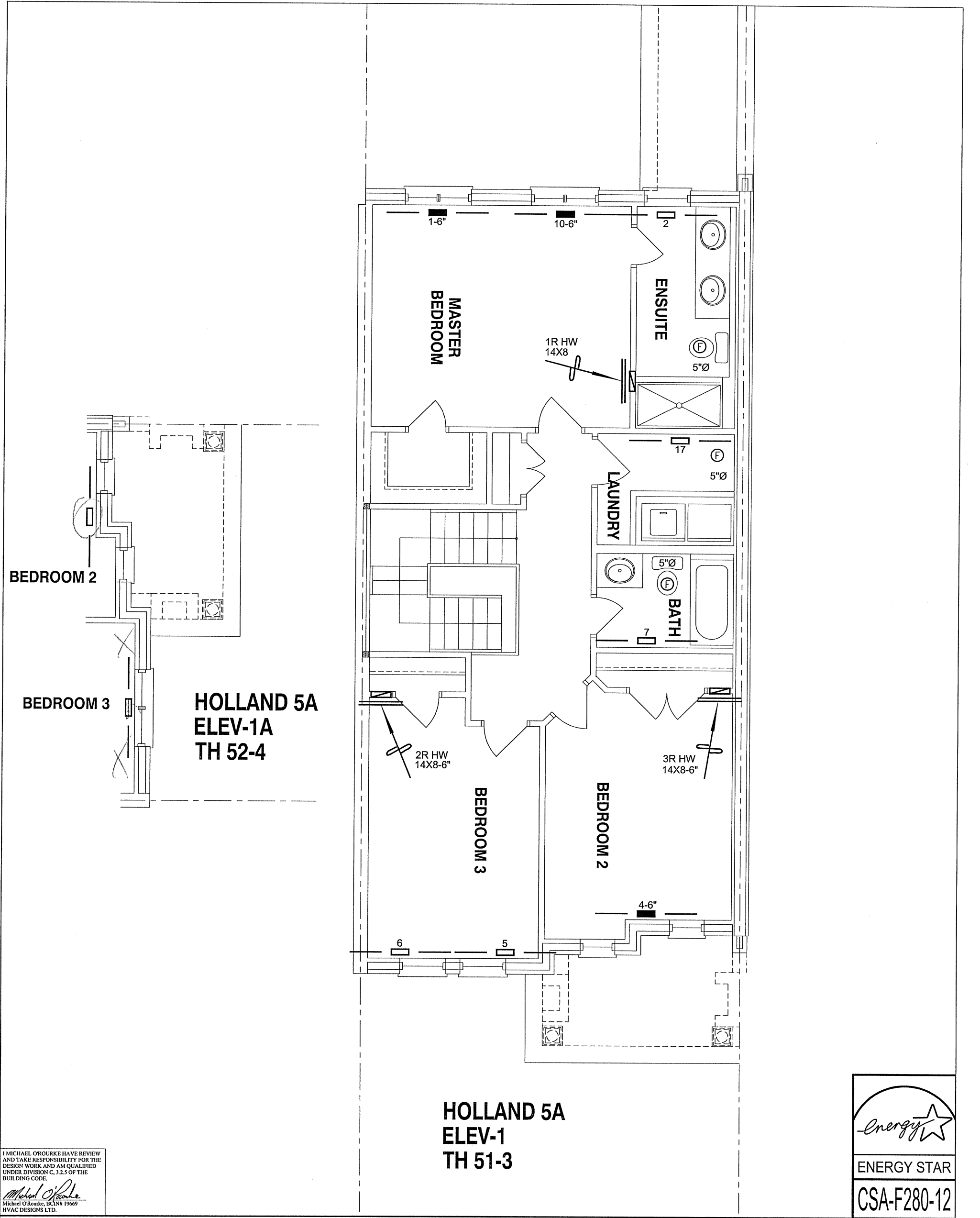
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.



HVAC LEGEND								3.	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR 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	

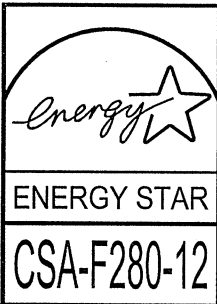
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Client		 375 Finley Ave - Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the 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.	Sheet Title	
GREENPARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	MAR/2019
SECONDO EAST GWILLIMBURY, ONTARIO			Scale	3/16" = 1'-0"
FIN BSMT			BCIN# 19669	
HOLLAND 5A	1999 sqft		LO#	81661



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



HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR 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 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	
Project Name SECONDO EAST GWILLIMBURY, ONTARIO			Date MAR/2019	
FIN BSMT			Scale 3/16" = 1'-0"	
HOLLAND 5A			BCIN# 19669	
1999 sqft			LO#	81661