

SITE NAME: LAMBERT'S LANE PH.2
BUILDER: GREENPARK HOMES

LOT 25
TYPE: PRESTON 3

GFA: 2820

DATE: Aug-19
LOW: 83321

WINTER NATURAL AIR CHANGE RATE 0.221
SUMMER NATURAL AIR CHANGE RATE 0.072

HEAT LOSS AT °F. 74
HEAT GAIN AT °F. 11

CSA-F280-12
ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	WC-3	BED-5	ENS-2
FACTORS												
GRS. WALL AREA	LOSS	GAIN	275	186	81	113	210	97	57	242	89	57
GLAZING	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN
NORTH	18.6	15.1	0	0	0	0	0	0	7	130	106	0
EAST	18.6	40.7	0	0	0	0	0	0	0	0	0	0
SOUTH	18.6	24.1	0	0	0	0	0	0	0	0	0	0
WEST	18.6	40.7	32	594	1303	15	278	611	0	0	0	0
SKYL.	31.2	99.9	0	0	0	0	0	0	0	0	0	0
DOORS	24.7	3.7	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.5	243	854	127	171	901	89	81	285	42	50
NET EXPOSED BENT WALL ABOVE GR	3.5	0.5	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	288	361	161	110	138	61	60	75	33	238
NO ATTIC EXPOSED CLG	2.7	1.2	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.4	0	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			1898		1017		359		937		1972	
SUB TOTAL HT GAIN			1590		761		78		428		1509	
LEVEL FACTOR / MULTIPLIER	0.20	0.22		0.20	0.22		0.20	0.22		0.20	0.22	
AIR CHANGE HEAT LOSS			400		225		79		207		436	
AIR CHANGE HEAT GAIN				82	39		4		22		78	
DUCT LOSS			0		0		0		0		0	
DUCT GAIN			0		0		0		0		0	
HEAT GAIN PEOPLE	240		2	480	0	0	0	1	240	1	240	1
HEAT GAIN APPLANCES/LIGHTS				448	0	0	0		448		448	
TOTAL HT LOSS: BTU/H			2298		1242		439		1144		2649	
TOTAL HT GAIN x 1.3 BTU/H			3381		1041		103		1476		3254	

ROOM USE	EXP. WALL	CLG. HT.	LIBR	LVON	KIT	FAM	LAUN	WR	FOY	MUD	WUB	BAS
FACTORS												
GRS. WALL AREA	LOSS	GAIN	100	180	360	360	0	80	460	240	162	888
GLAZING	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN
NORTH	18.6	15.1	20	371	303	0	0	0	0	0	0	0
EAST	18.6	40.7	0	0	0	0	0	0	0	0	0	0
SOUTH	18.6	24.1	0	0	0	0	0	0	0	0	0	0
WEST	18.6	40.7	0	0	0	0	0	0	0	0	0	0
SKYL.	31.2	99.9	0	0	0	0	0	0	0	0	0	0
DOORS	24.7	3.7	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.5	80	281	42	140	492	73	285	1002	149	336
NET EXPOSED BENT WALL ABOVE GR	3.5	0.5	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	0	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.7	1.2	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.4	0	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			652		1234		2383		1654		105	
SUB TOTAL HT GAIN			345		1636		2072		1184		47	
LEVEL FACTOR / MULTIPLIER	0.30	0.29		0.30	0.29		0.30	0.29		0.30	0.29	
AIR CHANGE HEAT LOSS			191		361		700		483		23	
AIR CHANGE HEAT GAIN				18	54		154		60		2	
DUCT LOSS			0		0		0		0		0	
DUCT GAIN			0		0		0		0		0	
HEAT GAIN PEOPLE	240		0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLANCES/LIGHTS				448	448		448		448		448	
TOTAL HT LOSS: BTU/H			843		1595		3093		2137		129	
TOTAL HT GAIN x 1.3 BTU/H			1054		1998		4640		2174		647	

RECEIVED
AUG 28 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO.

TOTAL HEAT GAIN BTU/H: 30889 TONS: 2.57 LOSS DUE TO VENTILATION LOAD BTU/H: 1911 STRUCTURAL HEAT LOSS: 41588 TOTAL COMBINED HEAT LOSS BTU/H: 43509

Michael O'Rourke

SITE NAME: LAMBERT'S LANE PH.2
BUILDER: GREENPARK HOMES

LOT 25
TYPE: PRESTON 3

DATE: Aug-19

GFA: 2920

LO# 83321

HEATING CFM 1131 COOLING CFM 1131
TOTAL HEAT LOSS 41,598 TOTAL HEAT GAIN 30,808
AIR FLOW RATE CFM 27.18 AIR FLOW RATE CFM 36.95

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35

#GOODMAN
GMCC960603BNA 60
FAN SPEED LOW

AFUE = 96 %
INPUT (BTU/H) = 60,000
OUTPUT (BTU/H) = 57,600

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	13	9	4
R/A	0	0	4	3	1

plenum pressure s/a 0.18 r/a pressure 0.17
max s/a diff press. loss 0.02 r/a grille press. loss 0.02
min adjusted pressure s/a 0.16 adjusted pressure r/a 0.15

DESIGN CFM = 1131
CFM @ 5" E.S.P.
MEDIUM HIGH

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	BED-5	BED-2	BED-3	BED-4	BATH	WIC-3	WIC	MBR	ENS-2	LIBR	LV/DN	KIT	KIT	FAM	LAUN	W/R	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH	1.10	1.24	0.89	1.14	1.32	1.00	1.01	1.31	0.44	1.10	0.51	0.84	1.60	1.55	1.55	2.14	0.13	0.58	2.30	1.64	3.64	3.64	3.64	3.64
CFM PER RUN HEAT	30	34	24	31	36	27	27	36	12	30	14	23	43	42	42	58	3	16	63	45	99	99	99	99
RM GAIN MBH	1.69	1.04	1.58	1.48	1.63	1.63	0.36	0.24	0.10	1.69	0.34	1.05	2.00	2.32	2.17	0.65	0.35	1.91	0.84	0.42	0.42	0.42	0.42	0.42
CFM PER RUN COOLING	62	38	58	55	60	60	13	9	4	62	12	39	74	86	86	80	24	13	71	31	15	15	15	15
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	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	55	54	42	43	38	38	35	38	52	71	41	38	33	41	52	44	45	26	31	26	65	40	23	32
EQUIVALENT LENGTH	150	180	170	180	190	190	190	150	170	190	170	210	190	190	200	190	170	160	140	160	180	140	150	160
TOTAL EFFECTIVE LENGTH	205	234	212	203	228	226	225	188	222	261	211	248	223	231	252	234	215	186	171	186	245	180	173	192
ADJUSTED PRESSURE	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.08	0.07	0.08	0.07	0.06	0.07	0.08	0.09	0.1	0.09	0.07	0.09	0.09	0.08
ROUND DUCT SIZE	5	5	5	5	5	5	4	4	4	5	4	5	5	6	6	6	4	4	5	4	6	6	6	6
HEATING VELOCITY (f/min)	220	250	176	228	264	198	310	413	138	220	161	169	316	214	214	296	34	184	463	518	505	505	505	505
COOLING VELOCITY (f/min)	455	279	426	404	441	441	149	103	46	455	138	286	543	438	438	408	275	149	521	356	76	76	76	76
OUTLET GRILL SIZE	3X10	3X10	3X10	5X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10
TRUNK	A	B	B	C	E	E	E	E	B	B	E	B	C	A	A	A	B	E	D	C	A	B	C	D

RUN #	26	27
ROOM NAME	BED-3	FOY
RM LOSS MBH	1.32	2.30
CFM PER RUN HEAT	36	63
RM GAIN MBH	1.63	1.91
CFM PER RUN COOLING	60	71
ADJUSTED PRESSURE	0.17	0.17
ACTUAL DUCT LGH	44	21
EQUIVALENT LENGTH	170	160
TOTAL EFFECTIVE LENGTH	214	181
ADJUSTED PRESSURE	0.08	0.1
ROUND DUCT SIZE	5	5
HEATING VELOCITY (f/min)	264	463
COOLING VELOCITY (f/min)	441	521
OUTLET GRILL SIZE	3X10	3X10
TRUNK	E	D

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE									
TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT		VELOCITY (f/min)	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT		VELOCITY (f/min)	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (f/min)
TRUNK A	271	0.06	9.2	12	x	8	407	TRUNK G	0	0.00	0	0	x	8	0	0	0	0	8
TRUNK B	496	0.06	11.6	18	x	8	496	TRUNK H	0	0.00	0	0	x	8	0	0	0	0	8
TRUNK C	714	0.06	13.3	22	x	8	584	TRUNK I	0	0.00	0	0	x	8	0	0	0	0	8
TRUNK D	225	0.08	8	8	x	8	506	TRUNK J	0	0.00	0	0	x	8	0	0	0	0	8
TRUNK E	417	0.08	10.1	12	x	8	626	TRUNK K	0	0.00	0	0	x	8	0	0	0	0	8
TRUNK F	1131	0.06	15.8	28	x	8	727	TRUNK L	0	0.00	0	0	x	8	0	0	0	0	8

RETURN AIR #															BR
AIR VOLUME	115	155	95	125	135	155	155	0	0	0	0	0	0	0	196
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH	76	45	44	52	40	43	18	1	1	1	1	1	1	1	14
EQUIVALENT LENGTH	245	185	135	175	250	225	180	0	0	0	0	0	0	0	135
TOTAL EFFECTIVE LH	321	230	179	227	290	268	198	1	1	1	1	1	1	1	149
ADJUSTED PRESSURE	0.05	0.06	0.08	0.07	0.05	0.06	0.07	14.80	14.80	14.80	14.80	14.80	14.80	14.80	0.10
ROUND DUCT SIZE	7	7.5	5.8	6.7	7.5	7.5	7.2	0	0	0	0	0	0	0	7.2
INLET GRILL SIZE	8	8	8	8	8	8	8	0	0	0	0	0	0	0	8
INLET GRILL SIZE	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	0	0	0	0	0	0	0	14

TYPE: PRESTON 3
SITE NAME: LAMBERT'S LANE PH.2

LQ# 83321
LOT 25

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	5	@ 10.6 cfm	53	cfm
Other Rooms	7	@ 10.6 cfm	74.2	cfm
Table 9.32.3.A.			TOTAL	212.0 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	212	cfm
Less Principal Ventil. Capacity	95.4	cfm
Required Supplemental Capacity	116.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY

Model: VANE 65H Location: BSMT

95.4 cfm 3.0 zones ☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION

CFM	ΔT °F	FACTOR	% LOSS
95.4 CFM	X 74 F	X 1.08	X 0.25

SUPPLEMENTAL FANS PANASONIC

Location	Model	cfm	HVI	Sones
ENS	FV-05-11VK1	50	☒	0.3
BATH	FV-05-11VK1	50	☒	0.3
ENS-2	FV-05-11VK1	50	☒	0.3
W/R	FV-05-11VK1	50	☒	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: 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: *Michael O'Rourke*

HRAI #: 001820

Date: August-19

CSA F280-12 Residential Heat Loss and Heat Gain Calculations
Formula Sheet (For Air Leakage / Ventilation Calculation)

LO#: 83321

Model: PRESTON 3

Builder: GREENPARK HOMES

Date: 2019-08-06

Volume Calculation
House Volume

Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)
Bsmt	1314	9	11169
First	1314	10	13140
Second	1606	8	12981.298
Third	0	9	0
Fourth	0	9	0
Total:			37,290.3 ft³
Total:			1055.9 m³

Air Change & Delta T Data

WINTER NATURAL AIR CHANGE RATE	0.221
SUMMER NATURAL AIR CHANGE RATE	0.072

Design Temperature Difference

	T _{in} °C	T _{out} °C	ΔT °C	ΔT °F
Winter DTD _h	22	-19	41	74
Summer DTD _c	24	30	6	11

5.2.3.1 Heat Loss due to Air Leakage

$$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$$

$$0.221 \times 293.32 \times 41^\circ\text{C} \times 1.2 = 3204 \text{ W}$$

$$= 10931 \text{ Btu/h}$$

6.2.6 Sensible Gain due to Air Leakage

$$HG_{sairb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$$

$$0.072 \times 293.32 \times 6^\circ\text{C} \times 1.2 = 154 \text{ W}$$

$$= 526 \text{ Btu/h}$$

5.2.3.2 Heat Loss due to Mechanical Ventilation

$$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$$

$$95 \text{ CFM} \times 74^\circ\text{F} \times 1.08 \times 0.25 = 1911 \text{ Btu/h}$$

6.2.7 Sensible heat Gain due to Ventilation

$$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$$

$$95 \text{ CFM} \times 11^\circ\text{F} \times 1.08 \times 0.25 = 283 \text{ Btu/h}$$

5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)

$$HL_{airr} = \text{Level Factor} \times HL_{airbv} \times ((HL_{lgr} + HL_{bgr}) + (HL_{lgrlevel} + HL_{bgrlevel}))$$

Level	Level Factor (LF)	HL _{airbv} Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{level})	Air Leakage Heat Loss Multiplier (LF x HL _{airbv} / HL _{level})
1.	0.5	10,931	9,103	0.600
2.	0.3		11,218	0.292
3.	0.2		9,895	0.221
4.	0		0	0.000
5.	0		0	0.000

 *HL_{airbv} = Air leakage heat loss + ventilation heat loss

 *For a balanced or supply only ventilation system HL_{airve} = 0.

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: PRESTON 3	LOT 25	BUILDER: GREENPARK HOMES
SFQT: 2920	LO# 83321	SITE: LAMBERT'S LANE PH:2

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-2	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75

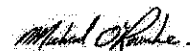
BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	2.50	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	TIGHT	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	37290.3	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	5.5 ft
LENGTH: 60.0 ft	WIDTH: 30.0 ft	EXPOSED PERIMETER:	161.0 ft

2012 OBC - COMPLIANCE PACKAGE		Compliance Package	
Component		ENERGYSTAR	
		Nominal	Min. Eff.
Ceiling with Attic Space Minimum RSI (R)-Value		60	59.20
Ceiling Without Attic Space Minimum RSI (R)-Value		31	27.70
Exposed Floor Minimum RSI (R)-Value		31	29.80
Walls Above Grade Minimum RSI (R)-Value		R22+R5	21.10
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		0.96	-
HRV Minimum Efficiency		75%	-
Domestic Hot Water Heater Minimum EF		0.9	-

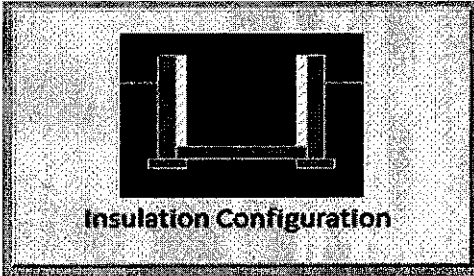
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

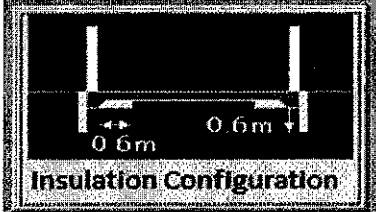
Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	18.3	
Floor Width (m):	9.1	
Exposed Perimeter (m):	49.1	
Wall Height (m):	2.6	
Depth Below Grade (m):	1.68	
Window Area (m ²):	1.1	
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):	1625	

TYPE: PRESTON 3
LO# 83321

LOT 25

Residential Slab on Grade 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):	1.2	 Insulation Configuration
Width (m):	4.6	
Exposed Perimeter (m):	5.8	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		49

TYPE: PRESTON 3
LO# 83321

LOT 25

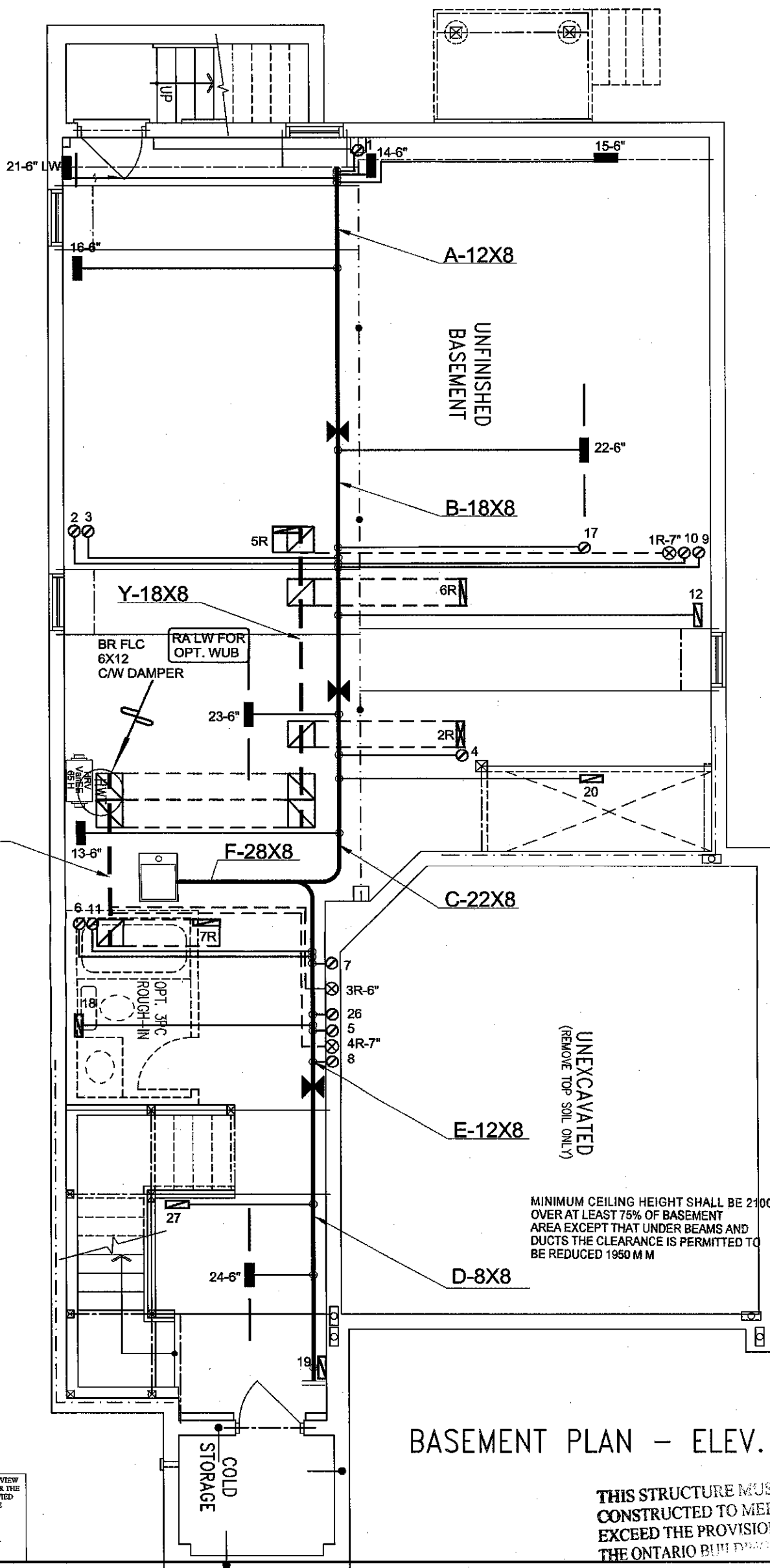
Air Infiltration Residential Load Calculator

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):	6.43			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1055.9			
Air Leakage/Ventilation				
Air Tightness Type:	Energy Star Detached (2.5 ACH)			
Custom BDT Data:	ELA @ 10 Pa.		985.7 cm ²	
	2.50		ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply		Total Exhaust	
	45.0		45.0	
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.221			
Cooling Air Leakage Rate (ACH/H):	0.072			

TYPE: PRESTON 3
LO# 83321

LOT 25



APPROVED
For construction as per the
Ontario Building Code
Town of Caledon Building Department
Initial *SAM APPURT*
Date *SEP 16 2019*
File # *BA11910604*

RECEIVED
AUG 28 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO.

LOT 25
CSA-F280-12
ENERGY STAR

BASEMENT PLAN - ELEV. '2'

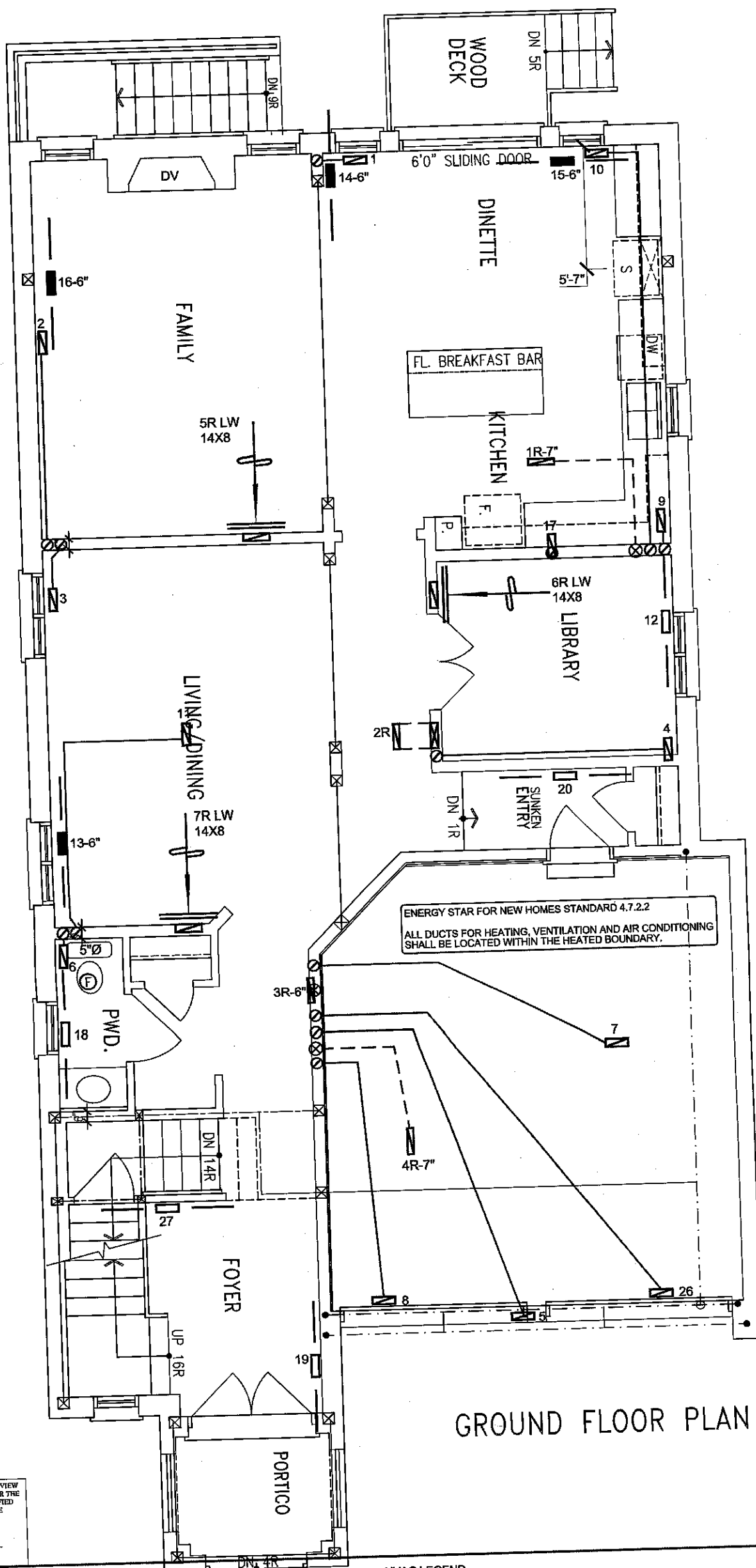
THIS STRUCTURE MUST BE
CONSTRUCTED TO MEET OR
EXCEED THE PROVISIONS OF
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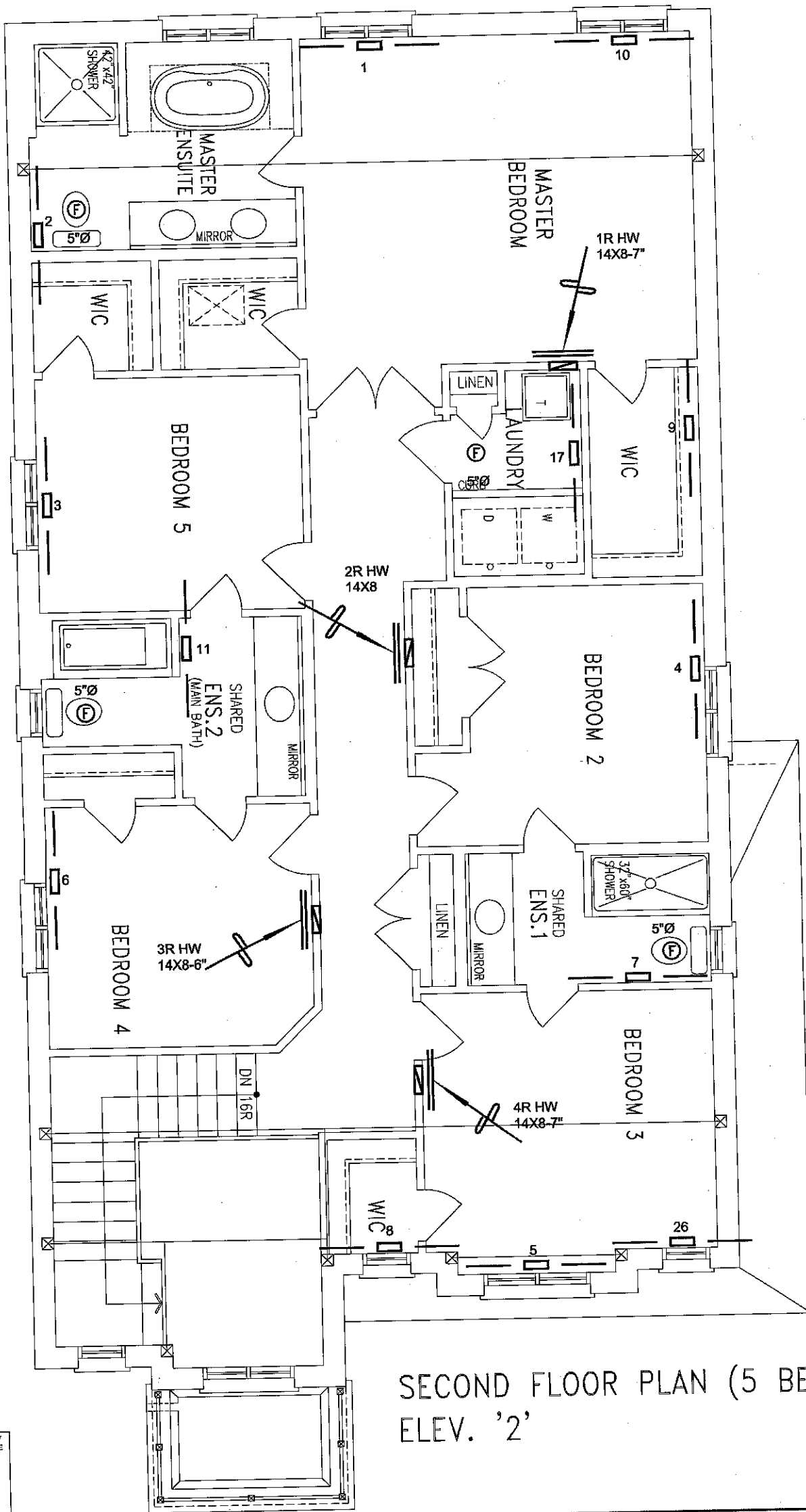
I MICHAEL O'DRISCOLL HAVE REVIEWED
AND TAKE RESPONSIBILITY FOR THE
DESIGN WORK AND AM QUALIFIED
UNDER DIVISION C, 3.2.5 OF THE
BUILDING CODE.
Michael O'Driscoll
Michael O'Driscoll, P.Eng. 19669
HVAC DESIGNS LTD.

HVAC LEGEND						REVISIONS	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	No.	Date
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE	1.	
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	2.	
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	3.	
					REDUCER		

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD. AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND
USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE
USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE
ONTARIO BUILDING CODE.

Client GREENPARK HOMES		HVACDESIGNSLTD. 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 43509 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title BASEMENT HEATING LAYOUT	
Project Name LAMBERTS LANE HOME CORP PH 2 CALEDON, ONTARIO			MAKE GOODMAN	3RD FLOOR					Date AUG/2019
			MODEL GMEC960603BNA-60	2ND FLOOR		13	4	4	
			INPUT 60 MBTU/H	1ST FLOOR		9	3	2	
LOT 25 PRESTON 3 2920 sqft			OUTPUT 57.6 MBTU/H	BASEMENT		4	1	0	Scale 3/16" = 1'-0"
			COOLING 2.5 TONS	ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5'x0" UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A				BCIN# 19669	
			FAN SPEED 1131 cfm @ 0.5" w.c.					LO#	83321





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AUG 28 2019
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BUILDING SECTION
FILE NO.

LOT 25
CSA-F280-12

ENERGY STAR

SECOND FLOOR PLAN (5 BED) -
ELEV. '2'

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

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

Project Name
**LAMBERTS LANE HOME CORP PH 2
CALEDON, ONTARIO**

**LOT 25
PRESTON 3**

2920 sqft

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375 Finley Ave, Suite 202 - Ajax, Ontario
L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
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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.

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Sheet Title
**SECOND FLOOR
HEATING
LAYOUT**

Date **AUG/2019**

Scale **3/16" = 1'-0"**

BCIN# **19669**

LO# **83321**