

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

LOT 38
TYPE: PRESTON 11A

GFA: 2686

DATE: Aug-19
LO# 82907

WINTER NATURAL AIR CHANGE RATE 0.262
SUMMER NATURAL AIR CHANGE RATE 0.085

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	ENS-4	WIC-2	ENS-2/3
			30	23	5	33	28	15	6	7	6
			8	8	8	8	8	8	8	8	8
FACTORS											
GRS.WALL AREA	LOSS	GAIN	242	188	40	267	226	121	48	57	48
GLAZING	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS
NORTH	18.6	15.1	0	0	0	0	0	0	0	0	0
EAST	18.6	40.7	0	0	0	0	0	0	0	0	0
SOUTH	18.6	24.1	0	0	24	445	578	0	0	0	0
WEST	18.6	40.7	36	668	1466	18	334	733	0	0	0
SKYLT.	31.2	99.9	0	0	0	0	0	0	0	0	0
DOORS	24.7	3.7	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.5	206	728	108	144	506	75	40	142	21
NET EXPOSED BSMT WALL ABOVE GR	3.5	0.5	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	221	277	123	130	163	72	75	94	42
NO ATTIC EXPOSED CLG	2.7	1.2	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.4	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			1671		1448	236	2204	2061	1084	609	740
SUB TOTAL HT GAIN			1697		1458	63	1461	2443	760	724	404
LEVEL FACTOR / MULTIPLIER	0.20	0.22									
AIR CHANGE HEAT LOSS			362		314	51	477	448	235	132	110
AIR CHANGE HEAT GAIN			69		59	3	59	99	31	29	16
DUCT LOSS			0		0	0	268	0	0	0	0
DUCT GAIN			0		0	0	225	0	0	0	0
HEAT GAIN PEOPLE	240		2		480	0	0	1	240	0	0
HEAT GAIN APPLIANCES/LIGHTS			493		0	0	493	493	493	0	0
TOTAL HT LOSS BTU/H			2033		1762	287	2949	2508	1319	741	990
TOTAL HT GAIN x 1.3 BTU/H			3561		1972	85	3222	4258	1982	980	546

ROOM USE	EXP. WALL	CLG. HT.	DIN	FAM	KT/BR	LIB	LAUN	W/R	FOY	MUD	WOB	BAS
			12	31	37	38	7	14	12	22	14	154
			10	10	10	10	8	10	10	13	9	9
FACTORS												
GRS.WALL AREA	LOSS	GAIN	120	318	370	380	57	140	120	288	126	924
GLAZING	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN	LOSS	GAIN
NORTH	18.6	15.1	0	0	0	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	31	575	746	51	946	1227	0	0	0	0
WEST	18.6	40.7	0	0	0	28	519	1140	50	928	2036	0
SKYLT.	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	89	313	46	231	812	120	297	1044	155	300
NET EXPOSED BSMT 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	10	27	12	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			888		2305	2399	2539	609	703	1379	1428	212
SUB TOTAL HT GAIN			792		2500	2539	2748	339	403	332	212	730
LEVEL FACTOR / MULTIPLIER	0.30	0.31										
AIR CHANGE HEAT LOSS			277		719	748	792	132	219	430	445	6049
AIR CHANGE HEAT GAIN			32		101	103	111	14	16	13	9	35
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	0
HEAT GAIN APPLIANCES/LIGHTS			493		493	493	493	493	493	0	0	493
TOTAL HT LOSS BTU/H			1165		3023	3146	3331	741	922	1809	1874	11080
TOTAL HT GAIN x 1.3 BTU/H			1713		4023	4076	4358	1100	545	449	286	1635

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TOWN OF BUILDING SECTION
FILE NO.

TOTAL HEAT GAIN BTU/H: 35876

TONS: 2.99

LOSS DUE TO VENTILATION LOAD BTU/H: 1993

STRUCTURAL HEAT LOSS: 41270

TOTAL COMBINED HEAT LOSS BTU/H: 42862

Michael O'Rourke

THIS STRUCTURE MUST BE
CONSTRUCTED TO MEET OR
EXCEED THE PROVISIONS OF
THE ONTARIO BUILDING CODE

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

LOT 38
TYPE: PRESTON 11A

DATE: Aug-19

GFA: 2686 LO# 82907

HEATING CFM 1131 COOLING CFM 1131
TOTAL HEAT LOSS 41,270 TOTAL HEAT GAIN 35,640
AIR FLOW RATE CFM 27.41 AIR FLOW RATE CFM 31.73

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

#GOODMAN
GMEC960603BNA 60
FAN SPEED LOW
MEDLOW
MEDIUM
MEDIUM HIGH
HIGH 1131

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

DESIGN CFM = 1131
CFM @ 8" E.S.P.

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	14	10	4
R/A	0	0	4	2	1

All S/A diffusers 4"x10" unless noted otherwise on layout.
All S/A runs 5"Ø unless noted otherwise on layout.

plenium pressure s/a 0.18 r/a pressure 0.17
max s/a dif press. loss 0.02 r/a grille press. Loss 0.02
min adjusted pressure s/a 0.16 adjusted pressure r/a 0.15

TEMPERATURE RISE 47 °F

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	ENS-4	WIC-2	ENS-2/3	MBR	ENS-2/3	DIN	FAM	KT/BR	KT/BR	LIB	LAUN	W/R	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH.	1.02	1.76	0.29	1.47	1.25	1.32	0.74	0.62	0.50	1.02	1.16	1.51	1.57	1.57	1.67	1.67	0.74	0.92	1.81	1.87	3.01	3.01	3.01	3.01
CFM PER RUN HEAT	28	48	8	40	34	36	20	17	14	28	32	41	43	43	46	20	25	50	51	83	83	83	83	83
RM GAIN MBH.	1.78	1.97	0.09	1.61	2.13	1.98	0.98	0.55	0.34	1.78	0.34	1.71	2.01	2.04	2.04	2.18	1.10	0.54	0.45	0.29	0.45	0.45	0.45	0.45
CFM PER RUN COOLING	56	63	3	51	68	63	31	17	11	56	11	54	64	65	65	69	35	17	14	9	14	14	14	14
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	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	38	45	30	56	53	44	36	42	44	44	50	24	43	25	36	43	21	31	28	15	45	21	23	37
EQUIVALENT LENGTH	140	160	120	150	180	180	210	170	120	170	130	110	170	110	110	110	120	180	170	110	190	120	150	120
TOTAL EFFECTIVE LENGTH	178	205	150	206	233	224	246	212	164	214	180	134	213	135	146	153	141	211	198	125	235	141	173	157
ADJUSTED PRESSURE	0.1	0.08	0.11	0.08	0.07	0.08	0.07	0.08	0.1	0.08	0.1	0.13	0.08	0.13	0.12	0.11	0.12	0.08	0.09	0.14	0.07	0.11	0.09	0.1
ROUND DUCT SIZE	5	5	4	5	6	6	4	4	4	5	4	5	5	5	5	5	4	4	5	4	6	6	6	6
HEATING VELOCITY (ft/min)	206	352	92	284	173	184	229	195	161	206	161	235	301	316	316	338	229	287	367	585	423	423	423	423
COOLING VELOCITY (ft/min)	411	463	34	374	347	321	356	195	126	411	126	396	470	477	477	507	402	195	103	103	71	71	71	71
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10
TRUNK	A	B	A	D	C	B	D	D	D	A	D	B	B	E	A	C	A	D	D	A	B	A	B	C

RUN #	25	26	27	28
ROOM NAME	BED-2	BED-3	LIB	FAM
RM LOSS MBH.	1.47	1.25	1.67	1.51
CFM PER RUN HEAT	40	34	46	41
RM GAIN MBH.	1.61	2.13	2.18	2.01
CFM PER RUN COOLING	51	68	69	64
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	55	51	41	35
EQUIVALENT LENGTH	140	170	110	140
TOTAL EFFECTIVE LENGTH	195	221	151	175
ADJUSTED PRESSURE	0.09	0.08	0.11	0.1
ROUND DUCT SIZE	5	6	5	5
HEATING VELOCITY (ft/min)	294	173	338	301
COOLING VELOCITY (ft/min)	374	347	507	470
OUTLET GRILL SIZE	3X10	4X10	3X10	3X10
TRUNK	D	C	C	B

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	261	0.08	8.5	8	x	8	587	TRUNK G	0	0.00	0	0	8	TRUNK O	0	0.05	0	0	8
TRUNK B	364	0.07	9.9	12	x	8	546	TRUNK H	0	0.00	0	0	8	TRUNK P	0	0.05	0	0	8
TRUNK C	243	0.07	8.5	8	x	8	547	TRUNK I	0	0.00	0	0	8	TRUNK Q	0	0.05	0	0	8
TRUNK D	463	0.07	10.9	14	x	8	595	TRUNK J	0	0.00	0	0	8	TRUNK R	0	0.05	0	0	8
TRUNK E	870	0.07	13.8	22	x	8	712	TRUNK K	0	0.00	0	0	8	TRUNK S	0	0.05	0	0	8
TRUNK F	0	0.00	0	0	x	8	0	TRUNK L	0	0.00	0	0	8	TRUNK T	0	0.05	0	0	8
														TRUNK U	0	0.05	0	0	8
														TRUNK V	0	0.05	0	0	8
														TRUNK W	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
AIR VOLUME	145	125	115	125	350	115	0	0	0	0	0	0	0	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	0.15	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	0.15	0.15	0.15
ACTUAL DUCT LGH.	39	33	58	59	29	42	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	135	235	235	195	150	280	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	174	268	293	254	179	322	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.09	0.06	0.05	0.06	0.08	0.05	14.80	14.80	14.80	14.80	14.80	14.80	14.80	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	6.9	7	6.9	9.5	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	8	8	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
INLET GRILL SIZE	14	14	14	14	30	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: PRESTON 11A LOT 38 BUILDER: GREENPARK HOMES
 SFQT: 2686 LO# 82907 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):	36164.0	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: 54.0 ft	WIDTH: 30.0 ft	EXPOSED PERIMETER:	154.0 ft
WOB INSULATION CONFIGURATION	SCB_9	WOB EXPOSED PERIMETER	14.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component

Compliance Package 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

Michael O'Rourke

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

LO#: 82907

Model: PRESTON 11A

Builder: GREENPARK HOMES

Date: 8/1/2019

Volume Calculation
House Volume

Level	Floor Area (ft ²)	Floor Height (ft)	Volume (ft ³)
Bsmt	1199	9	10791
First	1199	10	11990
Second	1487	8	12019.421
Third	0	9	0
Fourth	0	9	0
Total:			34,800.4 ft ³
Total:			985.4 m ³

Air Change & Delta T Data

WINTER NATURAL AIR CHANGE RATE	0.262
SUMMER NATURAL AIR CHANGE RATE	0.085

Design Temperature Difference				
	Tin °C	Tout °C	ΔT °C	ΔT °F
Winter DTDh	22	-19	41	74
Summer DTDc	24	30	6	11

5.2.3.1 Heat Loss due to Air Leakage

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

$$0.262 \times 273.73 \times 41^\circ\text{C} \times 1.2 = 3546 \text{ W}$$

$$= 12098 \text{ Btu/h}$$

6.2.6 Sensible Gain due to Air Leakage

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

$$0.085 \times 273.73 \times 6^\circ\text{C} \times 1.2 = 171 \text{ W}$$

$$= 583 \text{ Btu/h}$$

5.2.3.2 Heat Loss due to Mechanical Ventilation

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

$$80 \text{ CFM} \times 74^\circ\text{F} \times 1.08 \times 0.25 = 1593 \text{ Btu/h}$$

6.2.7 Sensible heat Gain due to Ventilation

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

$$80 \text{ CFM} \times 11^\circ\text{F} \times 1.08 \times 0.25 = 236 \text{ Btu/h}$$

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

$$HL_{airr} = \text{Level Factor} \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$$

Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{level})	Air Leakage Heat Loss Multiplier (LF x HLairbv / HLlevel)
1	0.5	12,098	6,002	1.008
2	0.3		11,640	0.312
3	0.2		11,171	0.217
4	0		0	0.000
5	0		0	0.000

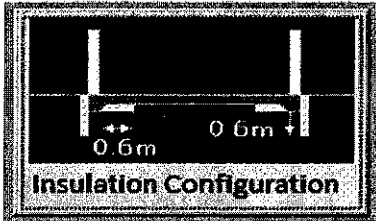
*HLairbv = Air leakage heat loss + ventilation heat loss

*For a balanced or supply only ventilation system HLairve = 0

THIS STRUCTURE SHALL NOT BE CONSTRUCTED TO MEET OR EXCEED THE PROVISIONS OF THE ONTARIO BUILDING CODE

Residential Slab Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

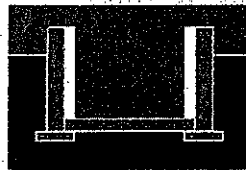
Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Length (m):	0.3	
Width (m):	4.3	
Exposed Perimeter (m):	4.3	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):	31	

TYPE: PRESTON 11A
LO# 82907

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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):	3.4	 Insulation Configuration
Floor Width (m):	9.1	
Exposed Perimeter (m):	46.9	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.32	
Window Area (m ²):	1.5	
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):	767	

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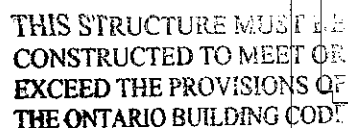
Air Infiltration Residential Load Calculator

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):	8.53		
Building Configuration			
Type:	Detached		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m ³):	1024.1		
Air Leakage/Ventilation			
Air Tightness Type:	Energy Star Detached (2.5 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	955.9 cm ²	
	2.50	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):	0.268		
Cooling Air Leakage Rate (ACH/H):	0.087		

TYPE: PRESTON 11A
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TOWN OF CALEDON
BUILDING SECTION
FILE NO

APPROVED
For construction as per the
Ontario Building Code
Town of Caledon Building Department

Initial ~~BA~~ S APPURTHAM Y
Date Sep 11, 2019
File # BA190608

ENERGY STAR

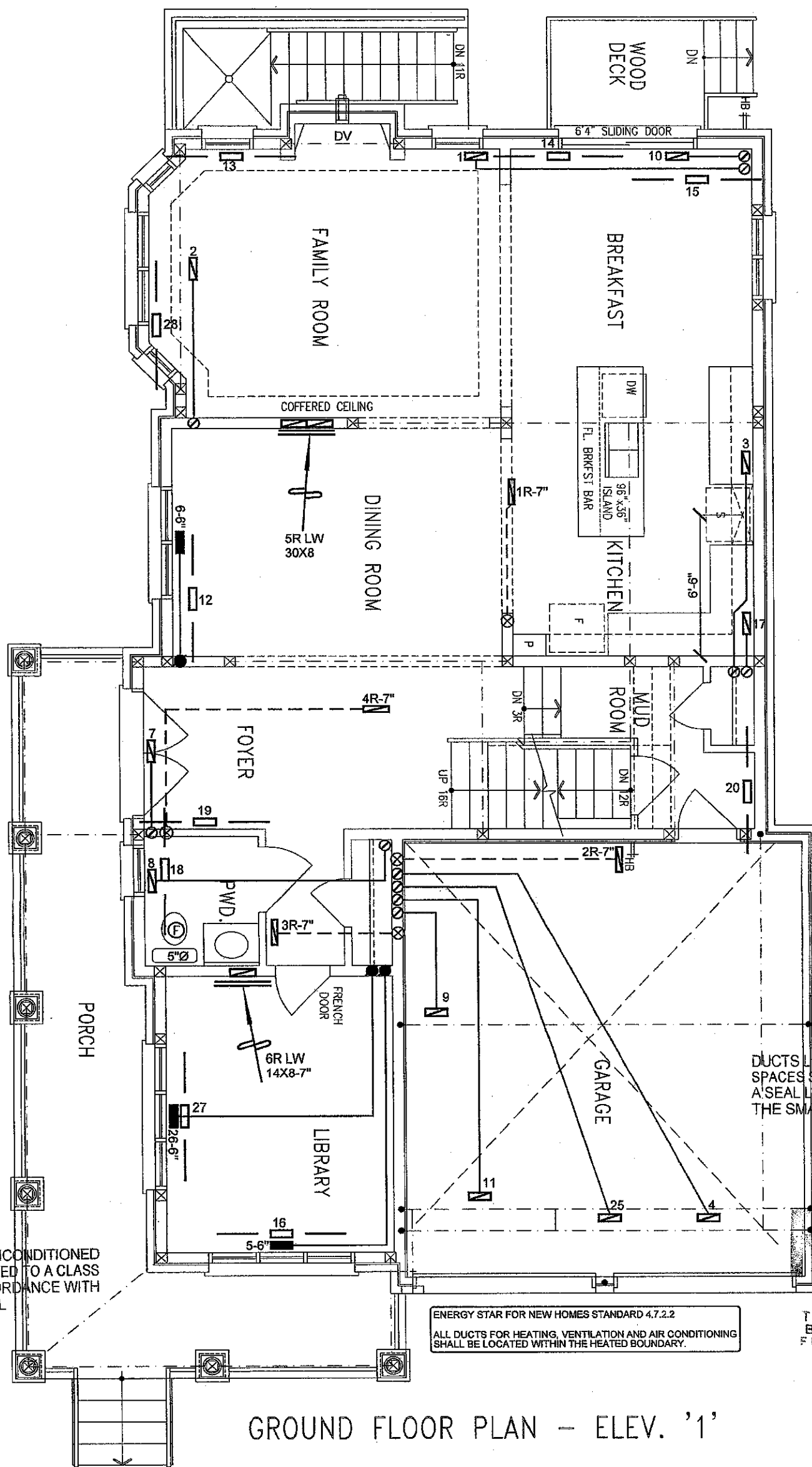
I MICHAEL O'ROURKE HAVE REVIEW
AND TAKE RESPONSIBILITY FOR THE
DESIGN WORK AND AM QUALIFIED
UNDER DIVISION C, 3.2.5 OF THE
BUILDING CODE.

Michael O'Rourke

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

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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	HEAT LOSS 42862 BTU/H	# OF RUNS	S/A	R/A	FANS	Sheet Title BASEMENT HEATING LAYOUT Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669		
GREENPARK HOMES		UNIT DATA	3RD FLOOR					Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669	
Project Name		GOODMAN	2ND FLOOR	14	4	3			Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669
LAMBERTS LANE HOME CORP PH 2		MODEL	1ST FLOOR	10	2	2			
CALEDON, ONTARIO		GMEC960603BNA	BASEMENT	4	1	0	Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669		
LOT 38	INPUT	60 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					Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669	
PRESTON 11A	OUTPUT	57.6 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				Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669		
2686 sqft	COOLING	3.0 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						Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669
	FAN SPEED	1131 cfm @ 0.6" w.g.	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				Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669		
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DUCTS LOCATED IN UNCONDITIONED SPACES SHALL BE SEALED TO A CLASS A SEAL LEVEL IN ACCORDANCE WITH THE SMACNA MANUAL

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ENERGY STAR FOR NEW HOMES STANDARD 4.7.2.2
ALL DUCTS FOR HEATING, VENTILATION AND AIR CONDITIONING SHALL BE LOCATED WITHIN THE HEATED BOUNDARY.

GROUND FLOOR PLAN - ELEV. '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# 15669
HVAC DESIGNS LTD.

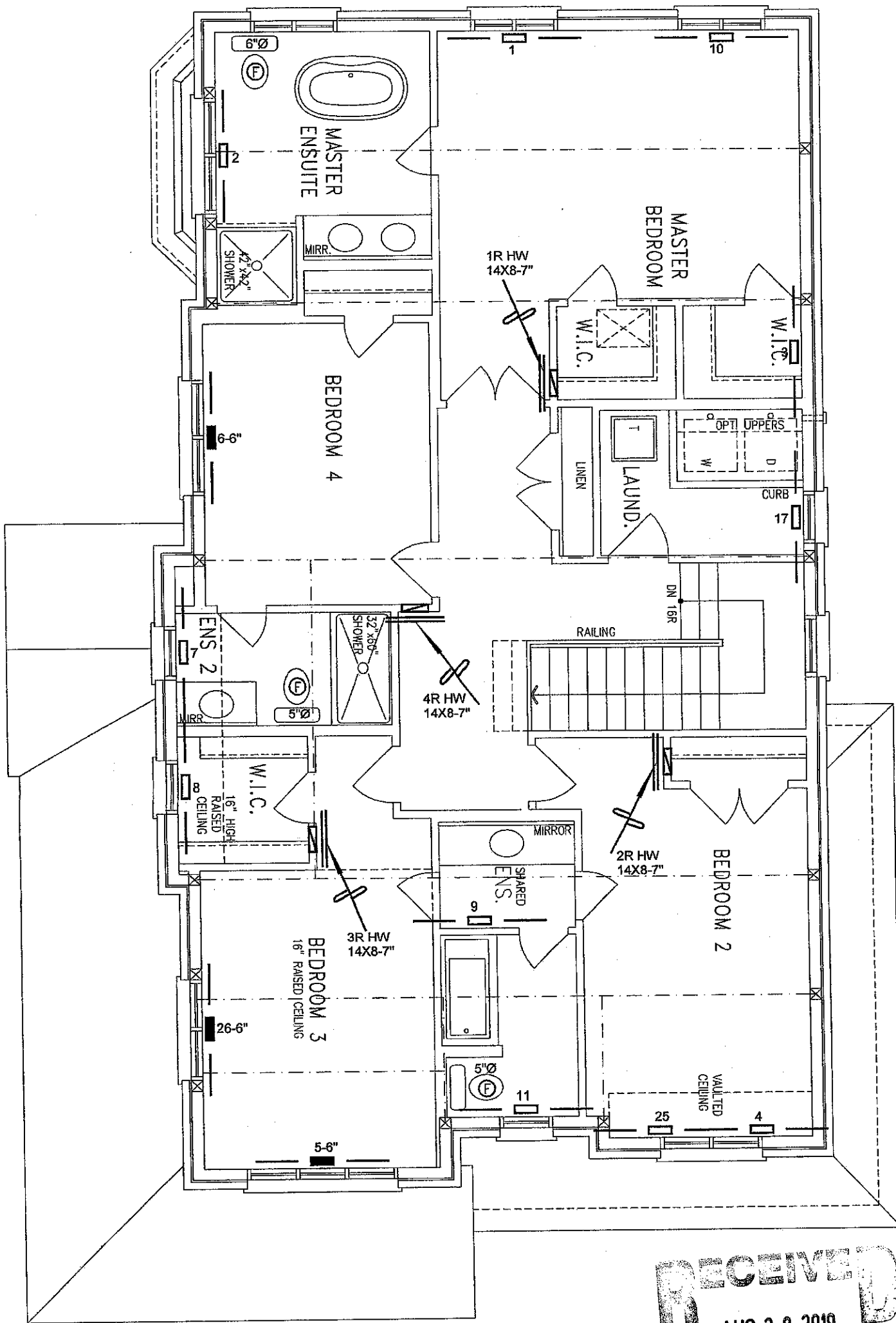
RECEIVED
AUG 28 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO. **LOT 38**
CSA-F280-12

ENERGY STAR

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		

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	 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdsgns.ca Web: www.hvacdsgns.ca Specializing in Residential Mechanical Design Services	THIS STRUCTURE MUST BE CONSTRUCTED TO MEET OR EXCEED THE PROVISIONS OF THE ONTARIO BUILDING CODE	Sheet Title FIRST FLOOR HEATING LAYOUT
Project Name LAMBERTS LANE HOME CORP PH 2 CALEDON, ONTARIO	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.		Date JUNE/2019 Scale 3/16" = 1'-0" BCIN# 19669 LO# 82907
LOT 38 PRESTON 11A	2686 sqft		



SECOND FLOOR PLAN - ELEV.

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

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Client
GREENPARK HOMES

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

LOT 38
PRESTON 11A 2686 sqft

375 Finley Ave. Suite 202 - Ajax, Ontario
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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.

THIS STRUCTURE MUST BE
CONSTRUCTED TO MEET OR
EXCEED THE PROVISIONS OF
THE ONTARIO BUILDING CODE

Sheet Title
**SECOND FLOOR
HEATING
LAYOUT**

Date
JUNE/2019

Scale
3/16" = 1'-0"

BCIN# 19669

LO# 82907