

SITE NAME: LECCO RIDGE

LOT 149

DATE: Jun-17

WINTER NATURAL AIR CHANGE RATE 0.316

HEAT LOSS AT °F. 72

CSA-F280-12

BUILDER: GREENPARK HOMES

TYPE: JUNIPER 7

GFA: 3137

LO# 74046

SUMMER NATURAL AIR CHANGE RATE 0.108

HEAT GAIN AT °F. 14

ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-2			
			34	28	7	14	42	14	7	22			
			10	9	9	9	10	9	9	9			
FACTORS													
GRS.WALL AREA	LOSS	GAIN	340	252	63	126	420	126	63	198			
GLAZING	LOSS	GAIN											
NORTH	17.9	15.8	0	0	0	0	0	0	0	0	0	0	0
EAST	17.9	41.4	0	0	0	0	0	0	0	0	16	286	663
SOUTH	17.9	24.8	0	0	0	0	0	0	0	0	0	0	0
WEST	17.9	41.4	40	714	1657	13	232	538	7	125	290	0	0
SKYLT.	30.6	101.2	0	0	0	0	0	0	0	0	0	0	0
DOORS	24.1	4.7	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	2.6	0.5	300	785	152	225	589	114	56	147	28	182	476
NET EXPOSED BSMT WALL ABOVE GR	3.3	0.6	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.4	0.7	288	397	197	195	269	134	112	154	77	96	132
NO ATTIC EXPOSED CLG	2.2	1.1	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.2	0.4	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS			0	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	0
SUBTOTAL HT LOSS			1896		1339	426	1535	2874	848	508	1105		
SUB TOTAL HT GAIN				2006		1133	395	1635	572	306		861	
LEVEL FACTOR / MULTIPLIER	0.20	0.32		0.20	0.32		0.20	0.32		0.20	0.32		
AIR CHANGE HEAT LOSS			605		428		136	490		918		271	
AIR CHANGE HEAT GAIN				156		88		31		127		281	
DUCT LOSS			0		0		0	203		379		0	
DUCT GAIN			0		0		0	264		477		0	
HEAT GAIN PEOPLE	240		2		480	1		240	1		240	0	
HEAT GAIN APPLIANCES/LIGHTS					638			0		638		0	
TOTAL HT LOSS BTU/H			2501		1767		562	2228		4171		1118	
TOTAL HT GAIN x 1.3 BTU/H				4264		1899		553		3776		6827	



**TOWN OF MILTON**  
PLANNING AND DEVELOPMENT  
BUILDING PERMIT: 17-7101

**BUILDING: REVIEWED**

**SCOTT SHERRIFFS**

**JUN 15, 2017**

**PLANS EXAMINER**

**DATE**

Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton

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**17-7101**

**BUILDING DIVISION**

ROOM USE	EXP. WALL	CLG. HT.	LV/DN	OFF	KT/FM	LAUN	W/R	FOY	MUD			WOD	BAS
			26	23	78	11	7	20	28			38	182
			11	11	11	9	11	11	12			9	9
FACTORS													
GRS.WALL AREA	LOSS	GAIN	286	253	858	99	77	220	336			342	1206
GLAZING	LOSS	GAIN											
NORTH	17.9	15.8	0	0	0	0	0	0	0	0	0	10	179
EAST	17.9	41.4	0	0	0	0	0	0	0	0	0	0	0
SOUTH	17.9	24.8	38	678	941	0	0	0	0	0	0	0	0
WEST	17.9	41.4	0	0	0	0	0	0	0	0	0	0	0
SKYLT.	30.6	101.2	0	0	0	0	0	0	0	0	0	0	0
DOORS	24.1	4.7	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	2.6	0.5	248	649	125	206	539	104	738	1931	373	0	0
NET EXPOSED BSMT WALL ABOVE GR	3.3	0.6	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.4	0.7	0	0	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.2	1.1	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.2	0.4	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS			0	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	0
SUBTOTAL HT LOSS			1327		1378	4081		714	308	1400		1445	
SUB TOTAL HT GAIN				1067		1795		5348				391	
LEVEL FACTOR / MULTIPLIER	0.30	0.54		0.30	0.54		0.30	0.54		0.30	0.54		
AIR CHANGE HEAT LOSS			719		747		2212			228		167	
AIR CHANGE HEAT GAIN				83		140		416		26		16	
DUCT LOSS			0		0		0		0			58	
DUCT GAIN			0		0		0		0			0	
HEAT GAIN PEOPLE	240		0		0	1		240	1		240	0	
HEAT GAIN APPLIANCES/LIGHTS					638			638		638		0	
TOTAL HT LOSS BTU/H			2046		2125		6293		942	475		2159	
TOTAL HT GAIN x 1.3 BTU/H				2324		3344		8634		1605		293	

TOTAL HEAT GAIN BTU/H: 42101

TONS: 3.51

LOSS DUE TO VENTILATION LOAD BTU/H: 2354

STRUCTURAL HEAT LOSS: 49046

TOTAL COMBINED HEAT LOSS BTU/H: 51399

SITE NAME: LECCO RIDGE  
BUILDER: GREENPARK HOMES

LOT 149  
TYPE: JUNIPER 7

DATE: Jun-17

GFA: 3137 LO# 74046

HEATING CFM 1316 COOLING CFM 1316  
TOTAL HEAT LOSS 49,046 TOTAL HEAT GAIN 41,646  
AIR FLOW RATE CFM 26.83 AIR FLOW RATE CFM 31.6

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

~\*AMANA  
AMVC960804CNA  
FAN SPEED 80

AFUE = 96.0 %  
INPUT (BTU/H) = 80,000  
OUTPUT (BTU/H) = **76,800**

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	12	8	5
R/A	0	0	4	2	1

plenium pressure s/a 0.18 r/a pressure 0.17  
max s/a dif press. loss 0.03 r/a grille press. Loss 0.02  
min adjusted pressure s/a 0.15 adjusted pressure r/a 0.15

LOW 1316  
MEDLOW 0  
MEDIUM 1389  
MEDIUM HIGH 0  
HIGH 1396

DESIGN CFM = **1316**  
CFM @ .6" E.S.P.

TEMPERATURE RISE 54 °F

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	WIC	BED-2	BED-3	BED-4	BATH	BED-3	ENS	MBR	ENS-2	OFF	LV/DN	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH.	1.25	0.88	0.56	2.23	2.09	1.12	0.74	2.09	0.88	1.25	1.60	2.12	2.05	2.10	2.10	2.10	0.94	0.48	2.16	2.23	3.62	3.62	3.62	3.62
CFM PER RUN HEAT	34	24	15	60	56	30	20	56	24	34	43	57	55	56	56	56	25	13	58	60	97	97	97	97
RM GAIN MBH.	2.13	0.95	0.55	3.78	3.41	1.94	0.47	3.41	0.95	2.13	2.24	3.34	2.32	2.88	2.88	2.88	1.60	0.29	1.05	1.38	0.21	0.21	0.21	0.21
CFM PER RUN COOLING	67	30	17	119	108	61	15	108	30	67	71	106	73	91	91	91	51	9	33	44	7	7	7	7
ADJUSTED PRESSURE	0.17	0.17	0.17	0.15	0.15	0.17	0.17	0.15	0.17	0.17	0.17	0.16	0.17	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	57	29	49	43	41	21	50	46	27	47	49	29	7	44	31	23	42	22	34	39	40	16	12	26
EQUIVALENT LENGTH	140	170	120	130	140	190	130	170	180	130	120	110	130	150	110	130	130	160	120	110	130	120	120	100
TOTAL EFFECTIVE LENGTH	197	199	169	173	181	211	180	216	207	177	169	139	137	194	141	153	172	182	154	149	170	136	132	126
ADJUSTED PRESSURE	0.09	0.09	0.1	0.09	0.08	0.08	0.1	0.07	0.08	0.1	0.1	0.12	0.13	0.08	0.11	0.11	0.1	0.09	0.11	0.12	0.1	0.12	0.12	0.13
ROUND DUCT SIZE	5	4	4	6	6	5	4	6	4	5	5	5	5	6	5	5	4	4	4	4	6	5	5	5
HEATING VELOCITY (ft/min)	250	275	172	306	286	220	229	286	275	250	316	419	404	286	411	411	287	149	665	688	495	712	712	712
COOLING VELOCITY (ft/min)	492	344	195	607	551	448	172	551	344	492	521	778	536	464	668	668	585	103	379	505	36	51	51	51
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	4X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10
TRUNK	A	B	B	D	C	D	D	C	D	B	D	C	D	A	B	B	A	C	C	A	A	B	D	C

RUN # 25  
ROOM NAME BAS  
RM LOSS MBH. 3.62  
CFM PER RUN HEAT 97  
RM GAIN MBH. 0.21  
CFM PER RUN COOLING 7  
ADJUSTED PRESSURE 0.16  
ACTUAL DUCT LGH. 28  
EQUIVALENT LENGTH 130  
TOTAL EFFECTIVE LENGTH 158  
ADJUSTED PRESSURE 0.1  
ROUND DUCT SIZE 6  
HEATING VELOCITY (ft/min) 495  
COOLING VELOCITY (ft/min) 36  
OUTLET GRILL SIZE 4X10  
TRUNK B

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**SUPPLY 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 A	272	0.08	8.6	8	x 8	612	0.00	0	0	x 8
TRUNK B	651	0.08	11.9	16	x 8	732	0.00	0	0	x 8
TRUNK C	337	0.07	9.6	10	x 8	607	0.00	0	0	x 8
TRUNK D	666	0.07	12.5	18	x 8	666	0.00	0	0	x 8
TRUNK E	0	0.00	0	0	x 8	0	0.00	0	0	x 8
TRUNK F	0	0.00	0	0	x 8	0	0.00	0	0	x 8

**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 O	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK P	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK Q	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK R	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK S	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK T	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK U	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK V	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK W	0	0.06	0	0	x 8	0	0.06	0	0	x 8
TRUNK X	1141	0.06	15.8	30	x 8	685	0.06	12.8	20	x 8
TRUNK Y	645	0.06	9.7	12	x 8	465	0.06	9.7	12	x 8
TRUNK Z	310	0.06	16.7	24	x 12	658	0.06	16.7	24	x 12
DROP	1316	0.06								

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	155	185	175	90	155	335	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.	63	52	52	52	46	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	195	145	170	175	200	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	258	197	222	227	246	208	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.06	0.08	0.07	0.07	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	14.80	14.80	14.80	14.80	14.80	14.80	14.80
ROUND DUCT SIZE	7.5	7.5	7.5	5.9	7.5	9.6	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	14	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TYPE: JUNIPER 7  
SITE NAME: LECCO RIDGE

LO # 74046  
LOT 149

**RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY**

COMBUSTION APPLIANCES		9.32.3.1(1)
a)	<input checked="" type="checkbox"/> Direct vent (sealed combustion) only	
b)	<input type="checkbox"/> Positive venting induced draft (except fireplaces)	
c)	<input type="checkbox"/> Natural draft, B-vent or induced draft gas fireplace	
d)	<input type="checkbox"/> Solid Fuel (including fireplaces)	
e)	<input type="checkbox"/> No Combustion Appliances	

HEATING SYSTEM	
<input checked="" type="checkbox"/> Forced Air	<input type="checkbox"/> Non Forced Air
<input type="checkbox"/> Electric Space Heat	

HOUSE TYPE		9.32.1(2)
<input checked="" type="checkbox"/> I	Type a) or b) appliance only, no solid fuel	
<input type="checkbox"/> II	Type I except with solid fuel (including fireplaces)	
<input type="checkbox"/> III	Any Type c) appliance	
<input type="checkbox"/> IV	Type I, or II with electric space heat	
<input type="checkbox"/>	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
<input type="checkbox"/> 1	Exhaust only/Forced Air System	
<input type="checkbox"/> 2	HRV with Ducting/Forced Air System	
<input checked="" type="checkbox"/> 3	HRV Simplified/connected to forced air system	
<input type="checkbox"/> 4	HRV with Ducting/non forced air system	
<input type="checkbox"/>	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	7 @ 10.6 cfm	74.2 cfm
Table 9.32.3.A.	TOTAL	201.4 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	
More than 5 - Part 6	TOTAL	79.5 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	201.4 cfm	
Less Principal Ventil. Capacity	86 cfm	
Required Supplemental Capacity	115.4 cfm	

PRINCIPAL EXHAUST FAN CAPACITY	
Model: VANE 40H+	Location: BSMT
86.0 cfm	3.0 sones
<input checked="" type="checkbox"/> HVI Approved	

PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	AT °F	FACTOR	% LOSS
86.0 CFM	X 72 F	X 1.08	X 0.35

SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	OTXEN050C	50	<input checked="" type="checkbox"/>
BATH	OTXEN050C	50	<input checked="" type="checkbox"/>
ENS-2	OTXEN050C	50	<input checked="" type="checkbox"/>
W/R	OTXEN050C	50	<input checked="" type="checkbox"/>

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANE 40H+		
86 cfm high	37 cfm low	
65 % Sensible Efficiency	<input checked="" type="checkbox"/> HVI Approved	
@ 32 deg F ( 0 deg C)		

LOCATION OF INSTALLATION	
Lot:	
Township:	
Address:	
Roll #:	

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BUILDER:		GR
Name:		
Address:		
City:		
Telephone #:		



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PLANNING AND DEVELOPMENT  
BUILDING PERMIT: 17-7101

BUILDING: REVIEWED  
SCOTT SHERRIFFS JUN 15, 2017

PLANS EXAMINER DATE

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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:	May-17

**HEAT LOSS AND GAIN SUMMARY SHEET**

<b>MODEL:</b> JUNIPER 7	<b>LOT</b> 149	<b>BUILDER:</b> GREENPARK HOMES
<b>SFQT:</b> 3137	<b>LO#</b> 74046	<b>SITE:</b> LECCO RIDGE

**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	0	OUTDOOR DESIGN TEMP.	86
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 (ft³):	42433.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.40	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 51.0 ft	WIDTH: 40.0 ft	EXPOSED PERIMETER:	182.0 ft

**2012 OBC - COMPLIANCE PACKAGE**

Component	Compliance Package ENERGYSTAR
Ceiling with Attic Space Minimum RSI (R)-Value	50
Ceiling Without Attic Space Minimum RSI (R)-Value	31
Exposed Floor Minimum RSI (R)-Value	31
Walls Above Grade Minimum RSI (R)-Value	20 + 5
Basement Walls Minimum RSI (R)-Value	20
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
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10
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	90% TE

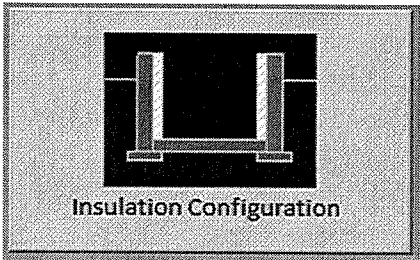
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INDIVIDUAL BCIN: 19669

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## Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	
Region:	Milton	
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):	12.2	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
Window Area (m <sup>2</sup> ):	1.4	
Door Area (m <sup>2</sup> ):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1815

TYPE: JUNIPER 7  
LO# 74046

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# Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Milton			
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 <sup>3</sup> ):	1241.8			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa. 3.57	1655.3 cm <sup>2</sup> ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply 40.6	Total Exhaust 40.6		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):		0.316		
Cooling Air Leakage Rate (ACH/H):		0.108		

TYPE: JUNIPER 7  
LO# 74046

LOT 149

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MAY 30, 2017  
17-7101  
BUILDING DIVISION



- 1) All HVAC work shall comply with Part 6 and 9.32/9.33.
- 2) Supply or return air ducts not protected by an insulated exterior wall shall be insulated to a minimum 2.1 RSI (R-12)
- 3) Exhaust ducts (principle, supplemental & other exhaust fans) passing through unheated space shall be insulated to a minimum 0.5 RSI (R-3)

- 4) All supply/return air ducts located in unconditioned spaces shall be sealed to a SMACNA Class 'A' seal level and supply air ducts in conditioned spaces shall be sealed to a SMACNA Class 'C' seal level
- 5) Furnaces to be equipped with brushless DC motor (ECM) and controlled with a programmable thermostat (4 times periods/day, 2 day types/week)

- 6) HRVs to be installed in accordance with 9.32.3.11. and manufacturers' requirements (intake/exhaust separation, distance from R/A drop)
- 7) Bathrooms and washrooms to have a min. 50 CFM exhaust fan ducted directly outdoors with ductwork sized in accordance with Table 9.32.3.5.
- 8) Range hoods to exhaust directly to outdoors with non-combustible ducting
- 9) Changes to the HVAC equipment or duct layout requires a revision permit to be applied for and approved prior to booking any HVAC inspections

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BUILDING DIVISION



TOWN OF MILTON  
PLANNING AND DEVELOPMENT  
BUILDING PERMIT: 17-7101

BUILDING: REVIEWED

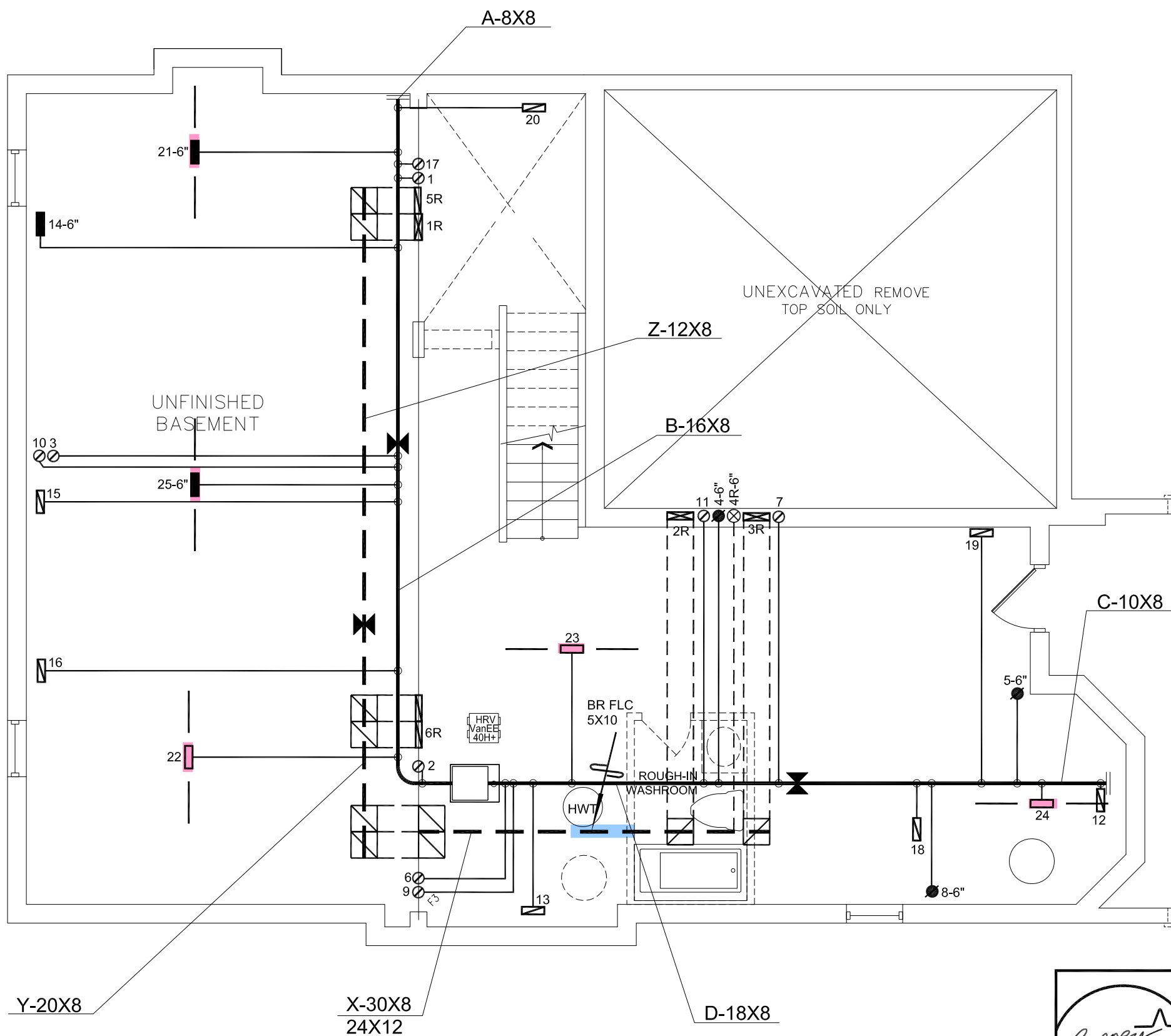
SCOTT SHERRIFFS

JUN 15, 2017

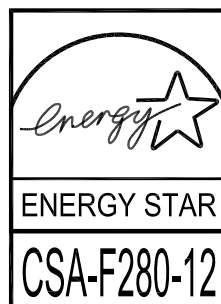
PLANS EXAMINER

DATE \_\_\_\_\_


Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province on Ontario, By-laws of the Region of Halton and Town of Milton















BASEMENT FLOOR PLAN '1' – LOT 149  
8'6" POUR FOUNDATION WALL  
SIDE UPGRADE



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, 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		

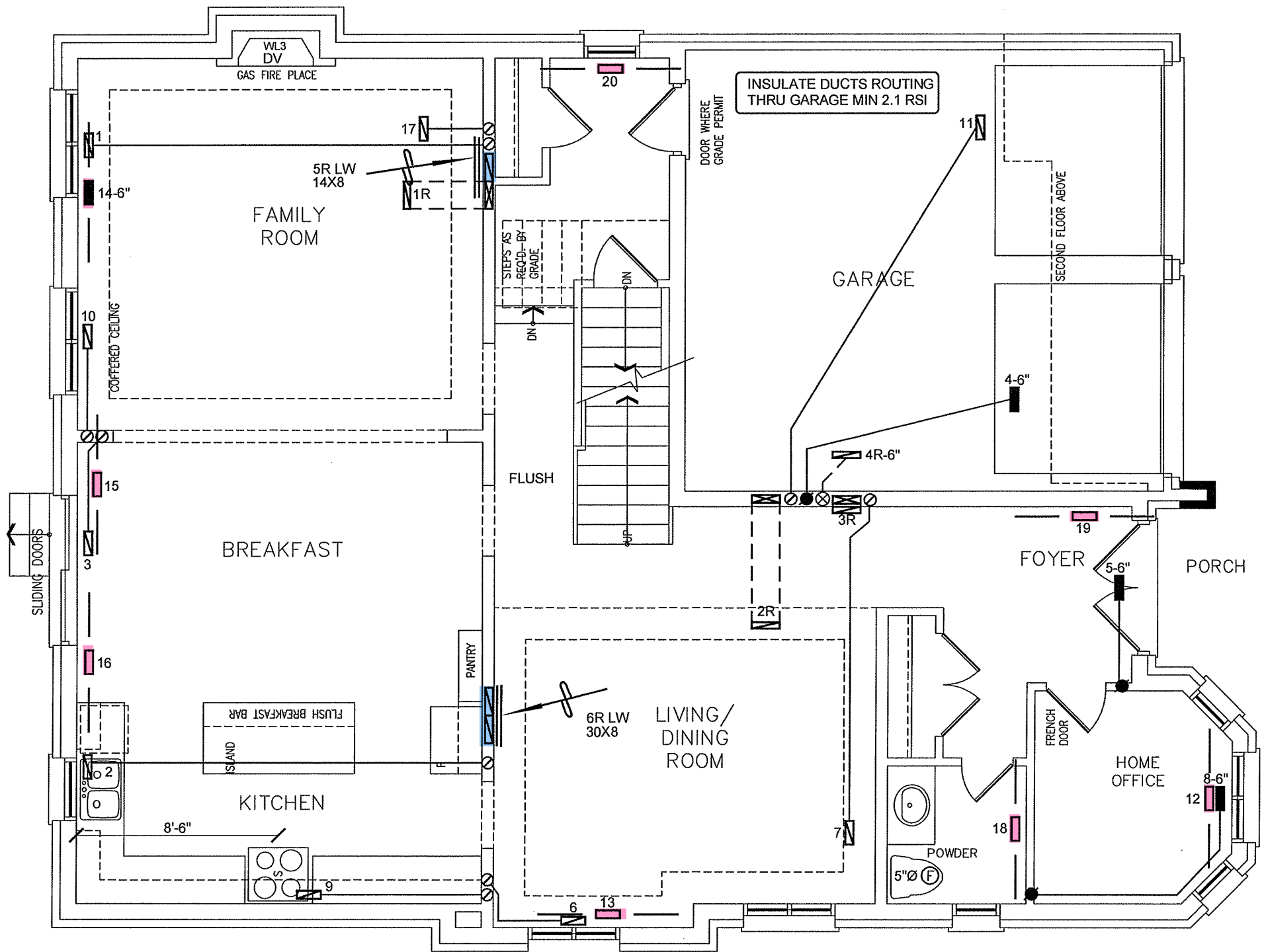
ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS 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	<div></div> <div>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</div>	HEAT LOSS 51399 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title	
GREENPARK HOMES		MAKE AMANA	3RD FLOOR					BASEMENT HEATING LAYOUT	
Project Name		MODEL AMVC960804CNA	2ND FLOOR		12	4	4		
LECCO RIDGE MILTON, ONTARIO		INPUT 80 MBTU/H	1ST FLOOR		8	2	2		
LOT 149 JUNIPER 7		OUTPUT 76.8 MBTU/H	BASEMENT		5	1	0	Date	MAY/2017
3137 sqft	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.	COOLING 3.5 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"	
		FAN SPEED 1316 cfm @ 0.5" w.c.					BCIN# 19669		
							LO#	74046	



PLANS EXAMINER	DATE
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MAY 30, 2017  
17-7101  
BUILDING DIVISION



FIRST FLOOR PLAN '1'-LOT 149  
10 FOOT CEILING  
SIDE UPGRADE



ENERGY STAR

CSA-F280-12

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Client			Sheet Title	
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		FIRST FLOOR HEATING LAYOUT	
Project Name	LECCO RIDGE MILTON, ONTARIO		Date	MAY/2017
	LOT 149 JUNIPER 7                      3137 sqft		Scale	3/16" = 1'-0"
	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.		BCIN# 19669	
			LO#	74046





TOWN OF MILTON

PLANNING AND DEVELOPMENT

BUILDING PERMIT: 17-7101

BUILDING: REVIEWED

SCOTT SHERRIFFS

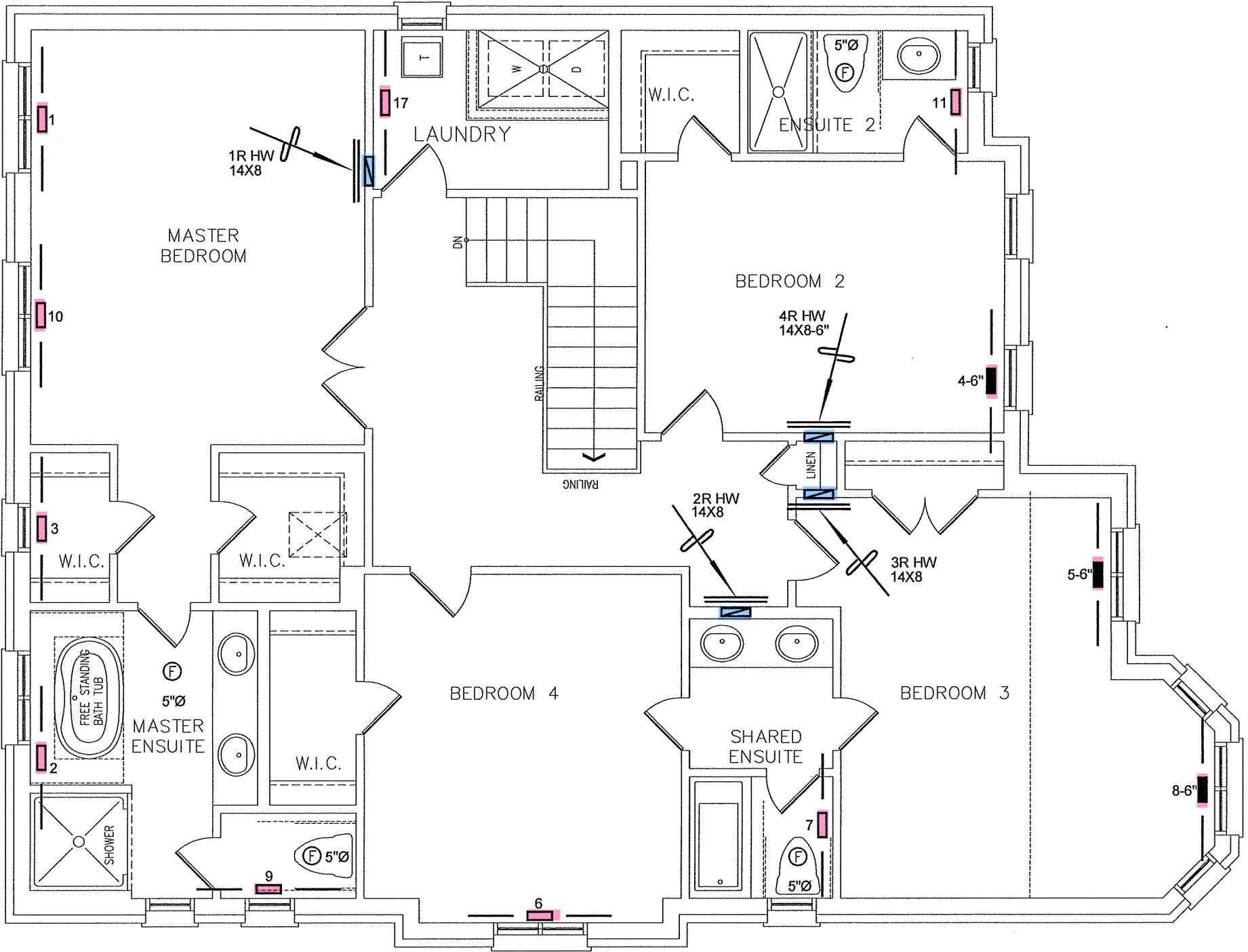
PLANS EXAMINER

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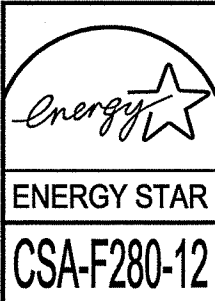
DATE

JUN 15, 2017

RECEIVED  
TOWN OF MILTON  
MAY 30, 2017  
17-7101  
BUILDING DIVISION



SECOND FLOOR PLAN '1"-LOT 149  
SIDE UPGRADE  
10' HIGH FIRST FLOOR



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
	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

LECCO RIDGE  
MILTON, ONTARIO

LOT 149  
JUNIPER 7

3137 sqft



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

Date

MAY/2017

Scale

3/16" = 1'-0"

BCIN# 19669

LO#

74046