

SITE NAME: LECCO RIDGE
BUILDER: GREENPARK HOMES

LOT 150
TYPE: JUNIPER 8
GFA: 3138

DATE: May-17
LO# 74018

WINTER NATURAL AIR CHANGE RATE 0.307
SUMMER NATURAL AIR CHANGE RATE 0.105

HEAT LOSS $\Delta T^{\circ}F$ 72
HEAT GAIN $\Delta T^{\circ}F$ 14

CSA-F280-12
ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	ENS-2
			38	22	8	12	15	15	23	7
			10	9	9	9	10	9	8	9
GRS.WALL AREA	FACTORS		380	198	72	108	150	144	207	53
GLAZING	LOSS GAIN		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	17.9 15.8	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	15 268 238	0 0 0	8 143 127
EAST	17.9 41.4	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	38 878 1674	0 0 0	18 285 683	0 0 0
SOUTH	17.9 24.8	0 0 0	9 161 223	0 0 0	18 321 446	6 89 124	0 0 0	0 0 0	0 0 0	0 0 0
WEST	17.9 41.4	34 507 1408	13 232 538	7 125 280	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
SKYLT.	30.5 101.2	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 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 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
NET EXPOSED WALL	2.5 0.5	346 905 175	176 461 89	65 170 33	90 235 46	107 280 54	129 338 85	191 500 97	65 144 28	0 0 0
NET EXPOSED BSMT WALL ABOVE GR	3.3 0.5	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED CLG	1.4 0.7	320 441 219	117 181 80	104 143 71	204 281 140	188 231 115	210 289 144	118 184 82	125 174 86	0 0 0
NO ATTIC EXPOSED CLG	2.2 1.1	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	35 81 40	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 0	156 342 66	0 0 0	105 230 45	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		1853	1014	438	838	1702	895	1180	460	241
SUB TOTAL HT GAIN		1803	931	394	631	1973	447	885		
LEVEL FACTOR / MULTIPLIER	0.20 0.38		0.20 0.38	0.20 0.38	0.20 0.38	0.20 0.38	0.20 0.38	0.20 0.38	0.20 0.38	
AIR CHANGE HEAT LOSS		742	385	187	318	647	340	448	175	
AIR CHANGE HEAT GAIN		151	78	33	53	165	37	74	20	
DUCT LOSS		0	0	0	0	235	0	163	0	
DUCT GAIN		0	0	0	0	285	0	143	0	
HEAT GAIN PEOPLE	240	2	480	0	0	1	240	1	240	0
HEAT GAIN APPLIANCES/LIGHTS		471	471	0	471	471	471	471	471	
TOTAL HT LOSS BTU/H		2695	1400	605	1156	2583	1235	1791	635	
TOTAL HT GAIN x 1.3 BTU/H		3778	1823	555	1813	4075	1553	2045	951	

ROOM USE	EXP. WALL	CLG. HT.	LVDN	OFF	KT/FM	LAUN	FOY	MUO	BAS
			26	22	74	0	98	8	182
			10	11	10	9	10	11	10
GRS.WALL AREA	FACTORS		260	242	740	0	880	88	1183
GLAZING	LOSS GAIN		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN
NORTH	17.9 18.8	38 678 602	0 0 0	0 0 0	0 0 0	0 0 0	12 214 190	0 0 0	9 161 143
EAST	17.8 41.4	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	74 1321 3085	0 0 0	0 0 0
SOUTH	17.9 24.8	0 0 0	18 321 445	0 0 0	0 0 0	0 0 0	28 500 593	0 0 0	0 0 0
WEST	17.9 41.4	0 0 0	0 0 0	103 1839 4266	0 0 0	0 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 0	0 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 0	0 0 0	20 481 93	20 481 93	20 481 93
NET EXPOSED WALL	2.8 0.5	222 581 112	224 588 113	837 1657 322	0 0 0	848 2214 428	68 178 34	0 0 0	546 1823 352
NET EXPOSED BSMT WALL ABOVE GR	3.3 0.5	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
EXPOSED CLG	1.4 0.7	0 0 0	0 0 0	5 8 4	134 185 92	208 284 141	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 0	24 64 27	0 0 0	0 0 0	0 0 0
EXPOSED FLOOR	2.2 0.4	0 0 0	0 0 0	0 0 0	55 143 28	0 0 0	0 0 0	0 0 0	0 0 0
BASEMENT/CRAWL HEAT LOSS		0	0	0	0	0	0	0	5215
SLAB ON GRADE HEAT LOSS		0	0	0	0	0	0	0	8579
SUBTOTAL HT LOSS		1259	907	3514	327	5057	559	127	588
SUB TOTAL HT GAIN		714	559	4593	119	4638	290	11	
LEVEL FACTOR / MULTIPLIER	0.30 0.44		0.30 0.44	0.30 0.44	0.20 0.38	0.30 0.44	0.30 0.44		
AIR CHANGE HEAT LOSS		554	399	1546	124	2230	389	11	
AIR CHANGE HEAT GAIN		50	47	385	10	0	0	0	
DUCT LOSS		0	0	0	45	0	0	0	
DUCT GAIN		0	0	0	60	0	0	0	
HEAT GAIN PEOPLE	240	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS		471	471	471	471	471	471	471	0
TOTAL HT LOSS BTU/H		1813	1307	5060	497	7287	949	17045	
TOTAL HT GAIN x 1.3 BTU/H		1518	1400	7083	858	5534	791		829

TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-7102

BUILDING: REVIEWED
SCOTT SHERRIFFS **JUN 12, 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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17-7102
BUILDING DIVISION

TOTAL HEAT GAIN BTU/H: 35258

TONS: 3.02

LOSS DUE TO VENTILATION LOAD BTU/H: 2354

STRUCTURAL HEAT LOSS: 46058

TOTAL COMBINED HEAT LOSS BTU/H: 48422

SITE NAME: LECCO RIDGE
BUILDER: GREENPARK HOMES

LOT 150
TYPE: JUNIPER 6

DATE: May-17

GFA: 3138 LO# 74018

HEATING CFM 1131 COOLING CFM 1131
TOTAL HEAT LOSS 46,068 TOTAL HEAT GAIN 35,803
AIR FLOW RATE CFM 24.55 AIR FLOW RATE CFM 31.59

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

#AMANA
AMEC960603BNA 60

AFUE = 96.0 %
INPUT (BTU/H) = 60,000
OUTPUT (BTU/H) = 57,600

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	11	8	4
R/A	0	0	4	2	1

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

FAN SPEED LOW
MEDLOW
MEDIUM
MEDIUM HIGH
HIGH 1131

DESIGN CFM = 1131
CFM @ .6" E.S.P.

All S/A diffusers 4"x10" unless noted otherwise on layout.
All S/A runs 5'10" unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	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	MBR	ENS-2	LV/DN	OFF	KT/FM	KT/FM	KT/FM	LAUN	MUD	FOY	FOY	BAS	BAS	BAS	BAS
RM LOSS MBH.	1.35	1.40	0.60	1.16	1.29	1.23	1.79	1.29	1.35	0.64	1.81	1.31	1.69	1.69	1.69	0.50	0.95	3.65	3.65	4.26	4.26	4.26	4.26
CFM PER RUN HEAT	33	34	15	28	32	30	44	32	33	18	45	32	41	41	41	12	23	90	90	105	105	105	105
RM GAIN MBH.	1.89	1.92	0.56	1.81	2.04	1.55	2.05	2.04	1.89	0.95	1.62	1.40	2.36	2.36	2.36	0.86	0.79	3.27	3.27	0.21	0.21	0.21	0.21
CFM PER RUN COOLING	60	61	18	57	64	49	65	64	60	30	51	44	75	75	75	27	25	103	103	7	7	7	7
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	0.16	0.16	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	41	50	44	42	52	52	53	56	34	20	8	35	45	28	34	38	24	29	29	32	23	14	25
EQUIVALENT LENGTH	120	180	140	160	150	170	180	160	180	190	120	120	120	120	150	160	110	120	120	140	130	130	120
TOTAL EFFECTIVE LENGTH	161	230	184	202	202	222	233	218	214	210	128	155	165	148	184	198	134	149	149	172	153	144	145
ADJUSTED PRESSURE	0.11	0.07	0.09	0.09	0.09	0.08	0.07	0.08	0.08	0.08	0.13	0.11	0.1	0.12	0.09	0.09	0.13	0.11	0.11	0.09	0.11	0.11	0.11
ROUND DUCT SIZE	5	5	4	5	5	5	5	5	5	4	4	4	5	5	5	4	4	6	6	6	6	6	6
HEATING VELOCITY (ft/min)	242	250	172	206	235	220	323	235	242	184	516	367	301	301	301	138	264	459	459	535	535	535	535
COOLING VELOCITY (ft/min)	441	448	207	419	470	360	477	470	441	344	585	505	551	551	551	310	287	525	525	36	36	36	36
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10	4X10
TRUNK	C	C	C	B	A	A	A	a	B	B	B	B	C	C	C	A	B	A	A	C	C	B	A

RUN #
ROOM NAME
RM LOSS MBH.
CFM PER RUN HEAT
RM GAIN MBH.
CFM PER RUN COOLING
ADJUSTED PRESSURE
ACTUAL DUCT LGH.
EQUIVALENT LENGTH
TOTAL EFFECTIVE LENGTH
ADJUSTED PRESSURE
ROUND DUCT SIZE
HEATING VELOCITY (ft/min)
COOLING VELOCITY (ft/min)
OUTLET GRILL SIZE
TRUNK

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SUPPLY AIR TRUNK SIZE

	TRUNK	STATIC	ROUND	RECT		VELOCITY		TRUNK	STATIC	ROUND	RECT		VELOCITY
	CFM	PRESS.	DUCT	DUCT		(ft/min)		CFM	PRESS.	DUCT	DUCT		(ft/min)
TRUNK A	435	0.07	10.6	14	x	8	559	TRUNK G	0	0.00	0	0	8
TRUNK B	717	0.07	12.8	20	x	8	645	TRUNK H	0	0.00	0	0	8
TRUNK C	415	0.07	10.4	12	x	8	623	TRUNK I	0	0.00	0	0	8
TRUNK D	0	0.00	0	0	x	8	0	TRUNK J	0	0.00	0	0	8
TRUNK E	0	0.00	0	0	x	8	0	TRUNK K	0	0.00	0	0	8
TRUNK F	0	0.00	0	0	x	8	0	TRUNK L	0	0.00	0	0	8

RETURN AIR TRUNK SIZE

	TRUNK	STATIC	ROUND	RECT		VELOCITY
	CFM	PRESS.	DUCT	DUCT		(ft/min)
TRUNK O	0	0.06	0	0	x	8
TRUNK P	0	0.06	0	0	x	8
TRUNK Q	0	0.06	0	0	x	8
TRUNK R	0	0.06	0	0	x	8
TRUNK S	0	0.06	0	0	x	8
TRUNK T	0	0.06	0	0	x	8
TRUNK U	0	0.06	0	0	x	8
TRUNK V	0	0.06	0	0	x	8
TRUNK W	0	0.06	0	0	x	8
TRUNK X	976	0.06	14.9	26	x	8
TRUNK Y	515	0.06	11.8	16	x	8
TRUNK Z	0	0.06	0	0	x	8
DROP	1131	0.06	15.8	24	x	10

RETURN AIR #	1	2	3	4	5	6	0	0	0	0	0	0	0	0	0	BR
AIR VOLUME	150	150	140	85	155	290	0	0	0	0	0	0	0	0	0	161
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
ACTUAL DUCT LGH.	36	46	55	57	29	30	1	1	1	1	1	1	1	1	1	16
EQUIVALENT LENGTH	145	145	145	185	150	170	0	0	0	0	0	0	0	0	0	185
TOTAL EFFECTIVE LH	181	191	200	242	179	200	1	1	1	1	1	1	1	1	1	201
ADJUSTED PRESSURE	0.08	0.08	0.07	0.06	0.08	0.07	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	0.07
ROUND DUCT SIZE	6.9	6.9	6.9	6	7	9.1	0	0	0	0	0	0	0	0	0	7.3
INLET GRILL SIZE	8	8	8	8	8	8	0	0	0	0	0	0	0	0	0	8
	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	14

TYPE: JUNIPER 6
SITE NAME: LECCO RIDGE

LO # 74018
LOT 150

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY
COMBUSTION APPLIANCES 9.32.3.1(1)
e) ☒ 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	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 ☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION

CFM	ΔT °F	FACTOR	% LOSS
86.0 CFM	72 F	1.08	0.35

SUPPLEMENTAL FANS NUTONE

Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	✓	0.3
BATH	QTXEN050C	50	✓	0.3
ENS-2	QTXEN050C	50	✓	0.3

HEAT RECOVERY VENTILATOR 9.32.3.11.
Model: VANE 40H+
86 cfm high 37 cfm low
65 % Sensible Efficiency ☒ HVI Approved
@ 32 deg F (0 deg C)

LOCATION OF INSTALLATION
Lot: Co
Township: Pla
Address:
Roll #:
**RECEIVED
TOWN OF MILTON
MAY 30, 2017
17-7102
BUILDING DIVISION**
BUILDER: GREEN
Name:
Address:
City:
Telephone #:
**TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-7102
BUILDING: REVIEWED
SCOTT SHERRIFFS JUN 12, 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

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: May-17

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: JUNIPER 6	LOT 150	BUILDER: GREENPARK HOMES
SFQT: 3138	LO# 74018	SITE: 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):	42129.0	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:	6.5 ft
LENGTH: 52.0 ft	WIDTH: 39.0 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

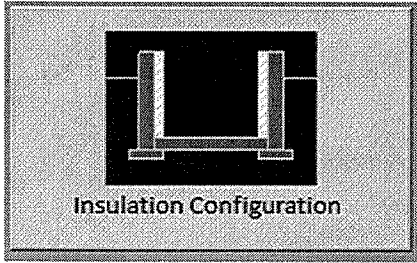
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BUILDING DIVISION

INDIVIDUAL BCIN: 19669
MICHAEL O'ROURKE

Michael O'Rourke

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):	15.8	 Insulation Configuration
Floor Width (m):	11.9	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.9	
Depth Below Grade (m):	2.0	
Window Area (m ²):	0.8	
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):		1821

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Air Infiltration Residential Load Calculator

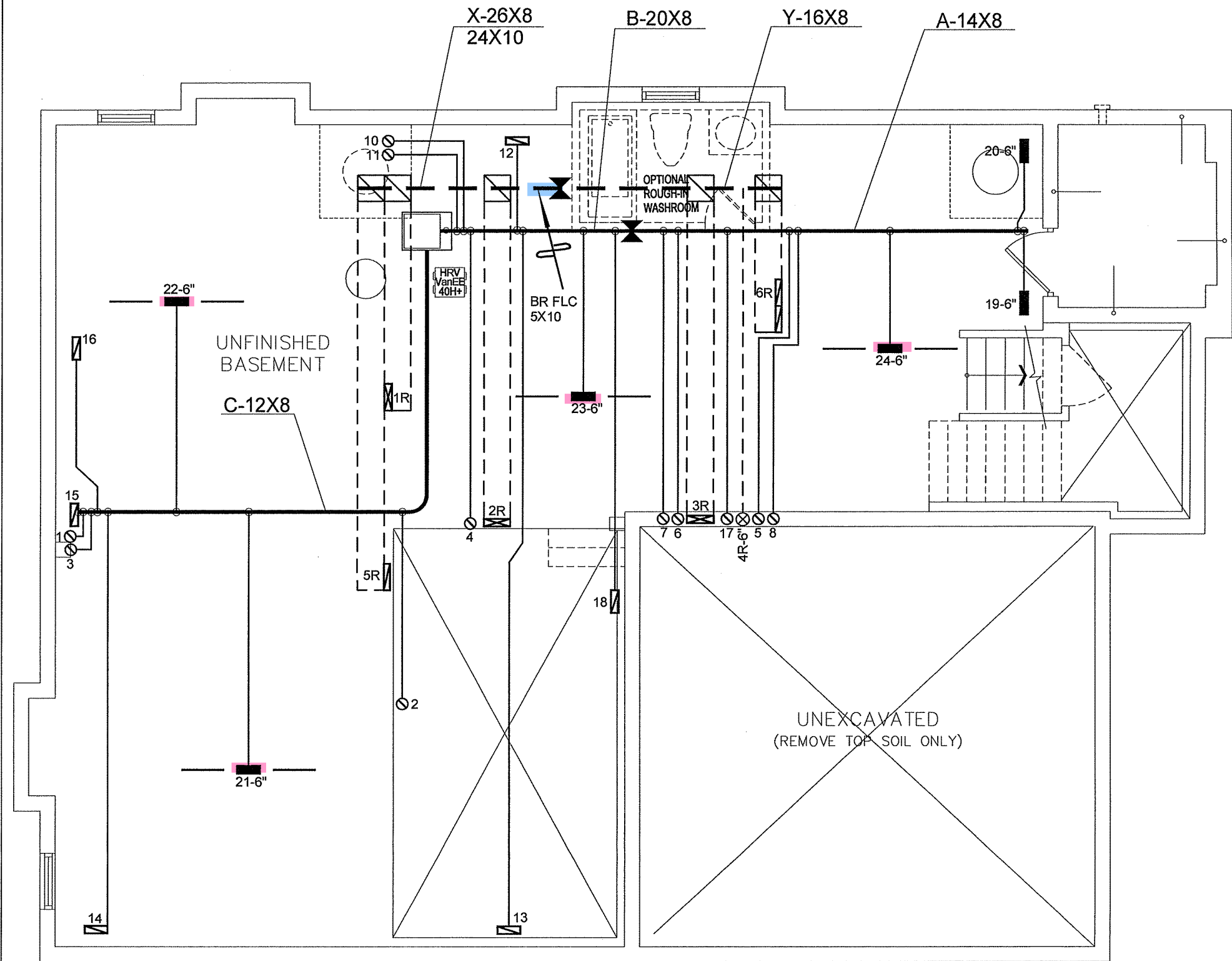
Supplemental tool for CAN/CSA-F280

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):	6.71		
Building Configuration			
Type:	Detached		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m ³):	1193.0		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1590.3 cm ²	
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	40.6	40.6	
Flue Size			
Flue #:	#1	#2	#3
Diameter (mm):	0	0	0
	#4	0	
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.307		
Cooling Air Leakage Rate (ACH/H):	0.105		

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MAY 30, 2017
17-7102
BUILDING DIVISION



BASEMENT PLAN ELEV. 2

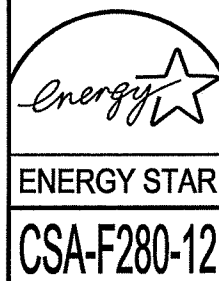
TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-7102
BUILDING: REVIEWED
SCOTT SHERRIFFS JUN 12, 2017
PLANS EXAMINER DATE
Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of 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

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, BCIN# 19669
HVAC DESIGNS LTD.

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RESIDENTIAL HVAC (New Construction)

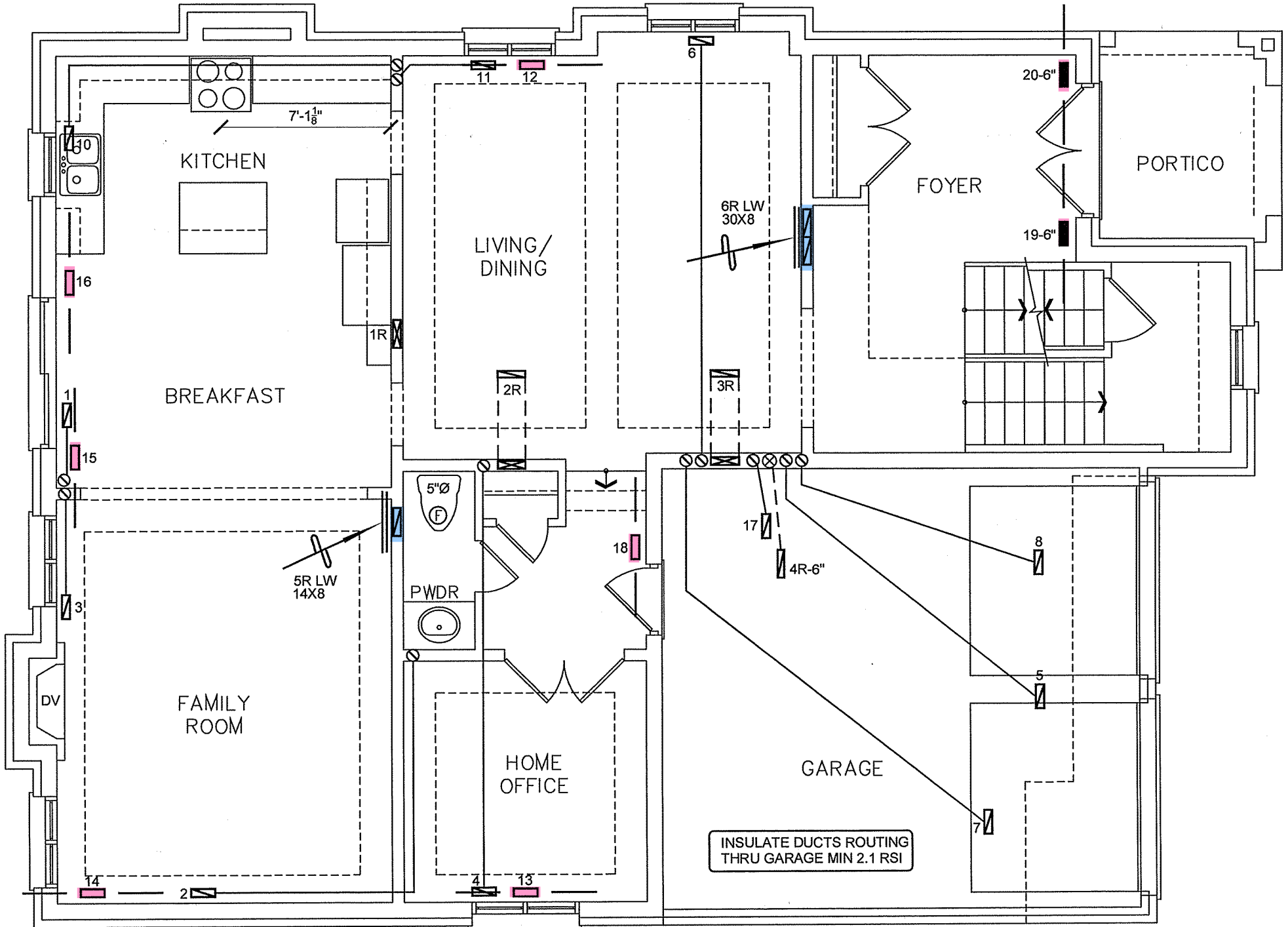
- 1) All HVAC work shall comply with Part 6 and 9.32/9.33.
- 2) Supply or return air ducts not protected by an insulated exterior wall shall be insulated to a minimum 2.1 RSI (R-12)
- 3) Exhaust ducts (principle, supplemental & other exhaust fans) passing through unheated space shall be insulated to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



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	Nd.	Description	Date
	SUPPLY AIR BOOT ABOVE		8" 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		<div><p>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</p><p>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.</p></div>	HEAT LOSS 48422 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS				Sheet Title BASEMENT HEATING LAYOUT	
Project Name LECCO RIDGE MILTON, ONTARIO			MAKE AMANA		3RD FLOOR					
			MODEL AMEC960603BNA		2ND FLOOR 11 4 4					
LOT 150 JUNIPER 6 3138 sqft			INPUT 60 MBTU/H		1ST FLOOR 8 2 2				Date MAY/2017	
			OUTPUT 57.6 MBTU/H		BASEMENT 4 1 0				Scale 3/16" = 1'-0"	
			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				BCIN# 19669	
			FAN SPEED 1131 cfm @ 0.5" w.c.						LO# 74018	



FIRST FLOOR PLAN ELEV. 2



TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-7102

BUILDING: REVIEWED
SCOTT SHERRIFFS
PLANS EXAMINER

JUN 12, 2017
DATE

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

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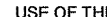
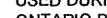






17-7102

BUILDING DIVISION



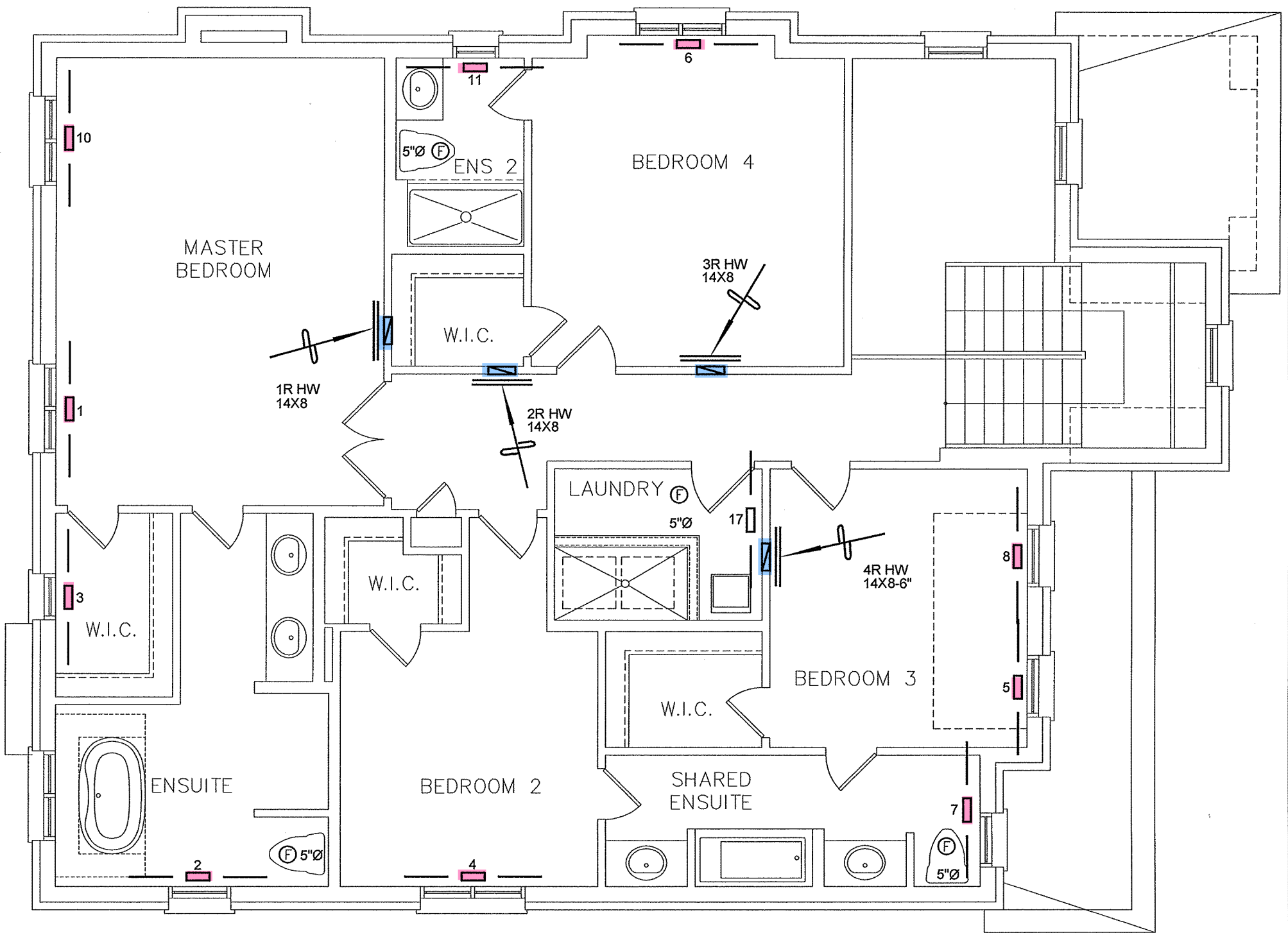
ENERGY STAR

CSA-F280-12

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	Nb.	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	<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></div>	Sheet Title FIRST FLOOR HEATING LAYOUT
Project Name LECCO RIDGE MILTON, 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 MAY/2017
LOT 150 JUNIPER 6 3138 sqft		Scale 3/16" = 1'-0"
		BCIN# 19669
		LO# 74018



SECOND FLOOR PLAN ELEV. 2



TOWN OF MILTON

PLANNING AND DEVELOPMENT

BUILDING PERMIT: 17-7102

BUILDING: REVIEWED

SCOTT SHERRIFFS

JUN 12, 2017

PLANS EXAMINER

DATE

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TOWN OF MILTON

MAY 30, 2017

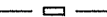











17-7102

BUILDING DIVISION



ENERGY STAR

CSA-F280-12

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
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Client

GREENPARK HOMES

Project Name

LECCO RIDGE
MILTON, ONTARIO

LOT 150
JUNIPER 6

3138 sqft



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Specializing in Residential Mechanical Design Services

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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#

74018