

SITE NAME: LECCO RIDGE

LOT 254

DATE: Mar-17

WINTER NATURAL AIR CHANGE RATE 0.316

HEAT LOSS ΔT °F. 72

CSA-F280-12

BUILDER: GREENPARK HOMES

TYPE: JUNIPER 11

GFA: 2972

LO# 73318

SUMMER NATURAL AIR CHANGE RATE 0.108

HEAT GAIN ΔT °F. 14

ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	LOSS	GAIN	ENS-4	LOSS	GAIN	ENS-4	LOSS	GAIN	ENS-4	LOSS	GAIN	ENS-4	LOSS	GAIN
GRS.WALL AREA	380	216	63	108	285	504	63	81	81	81	81	81	81	81	81	81	81
GLAZING	17.9	15.8	0	0	0	11	196	174	0	0	0	17	303	269	0	0	0
NORTH	17.9	15.8	0	0	0	11	196	174	0	0	0	17	303	269	0	0	0
EAST	17.9	15.8	0	0	0	11	196	174	0	0	0	17	303	269	0	0	0
SOUTH	17.9	15.8	0	0	0	11	196	174	0	0	0	17	303	269	0	0	0
WEST	17.9	15.8	0	0	0	11	196	174	0	0	0	17	303	269	0	0	0
SKYLT.	30.6	101.2	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
NET EXPOSED WALL	2.6	0.5	323	845	163	184	481	93	52	136	26	91	238	46	252	659	128
NET EXPOSED BSMT WALL ABOVE GR	3.3	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.4	0.7	299	412	205	113	156	77	70	96	48	240	331	164	263	362	180
NO ATTIC EXPOSED CLG	2.2	1.1	21	47	23	30	67	33	0	0	0	0	0	0	21	47	23
EXPOSED FLOOR	2.2	0.4	15	33	6	0	0	0	0	0	0	0	0	0	284	623	120
BASEMENT/CRAWL HEAT LOSS																	
SLAB ON GRADE HEAT LOSS																	
SUBTOTAL HT LOSS			2355			1276			429			872			2281		
SUB TOTAL HT GAIN				2209		1248			530			480			1818		
LEVEL FACTOR / MULTIPLIER	0.20	0.26				0.20	0.26		0.20	0.26		0.20	0.26		0.20	0.26	
AIR CHANGE HEAT LOSS			621			337			113			230			602		
AIR CHANGE HEAT GAIN				154		87			37			33			127		
DUCT LOSS			298			0			0			0			288		
DUCT GAIN				362		0			0			0			296		
HEAT GAIN PEOPLE	240		2	480		1	240		0			1	240		1	240	
HEAT GAIN APPLIANCES/LIGHTS				773		0			0				773			773	
TOTAL HT LOSS BTU/H			3274			1612			542			1102			3171		
TOTAL HT GAIN x 1.3 BTU/H			5171			2047			737			1984			4230		

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	LOSS	GAIN	LAUN	PWD	FOY	BAS	LOSS	GAIN	LAUN	PWD	FOY	BAS	LOSS	GAIN
GRS.WALL AREA	693	902	144	260	198	1044	1044	1044	1044	1044	1044	1044	1044	1044	1044	1044	1044
GLAZING	17.9	15.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	17.9	15.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EAST	17.9	15.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH	17.9	15.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEST	17.9	15.8	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
DOORS	24.1	4.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	2.6	0.5	563	1473	285	755	1975	382	117	306	59	231	604	117	153	400	77
NET EXPOSED BSMT WALL ABOVE GR	3.3	0.6	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	0	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.2	1.1	0	0	0	10	22	11	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	0	0	0
BASEMENT/CRAWL HEAT LOSS																	
SLAB ON GRADE HEAT LOSS																	
SUBTOTAL HT LOSS			3794			4622			1086			1246			1483		
SUB TOTAL HT GAIN				4337		5649			876			352			287		
LEVEL FACTOR / MULTIPLIER	0.30	0.45				0.30	0.45		0.20	0.26		0.30	0.45		0.30	0.45	
AIR CHANGE HEAT LOSS			1711			2085			287			562			669		
AIR CHANGE HEAT GAIN				302		393			61			25			20		
DUCT LOSS			0			0			0			0			0		
DUCT GAIN				0		0			0			0			0		
HEAT GAIN PEOPLE	240		0	0		1	240		1	240		0	0		0	0	
HEAT GAIN APPLIANCES/LIGHTS				773			773			773			773			773	
TOTAL HT LOSS BTU/H			5505			6707			1372			1808			2152		
TOTAL HT GAIN x 1.3 BTU/H			7036			9172			2535			490			399		

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TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-6230
BUILDING: REVIEWED
SCOTT SHERRIFFS MAY 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

TOTAL HEAT GAIN BTU/H:

42789

TONS: 3.57

LOSS DUE TO VENTILATION LOAD BTU/H: 2354

STRUCTURAL HEAT LOSS: 50038

TOTAL COMBINED HEAT LOSS BTU/H: 52392

SITE NAME: LECCO RIDGE
 BUILDER: GREENPARK HOMES

 LOT 254
 TYPE: JUNIPER 11

DATE: Mar-17

GFA: 2972

LO# 73318

 HEATING CFM 1316 COOLING CFM 1316
 TOTAL HEAT LOSS 50,038 TOTAL HEAT GAIN 42,334
 AIR FLOW RATE CFM 26.3 AIR FLOW RATE CFM 31.09

 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 80
 FAN SPEED LOW 1316
 MEDLOW 0
 MEDIUM 1389
 MEDIUM HIGH 0
 HIGH 1396

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

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

TEMPERATURE RISE 54 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	12	7	5
R/A	0	0	5	2	1

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	21	22	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BED-4	BATH	BED-4	BED-3	MBR	ENS-4	LV/DN	LV/DN	KT/FM	KT/FM	KT/FM	LAUN	PWD	FOY	BAS	BAS	BAS	BAS
RM LOSS MBH	1.64	1.61	0.54	1.10	1.59	2.21	0.83	2.21	1.59	1.64	0.88	2.75	2.75	2.24	2.24	2.24	1.37	1.81	2.15	3.34	3.34	3.34	3.34
CFM PER RUN HEAT	43	42	14	29	42	58	22	58	42	43	23	72	72	59	59	59	36	48	57	88	88	88	88
RM GAIN MBH	2.59	2.05	0.74	1.98	2.11	3.06	0.37	3.06	2.11	2.59	0.87	3.52	3.52	3.06	3.06	3.06	2.53	0.49	0.40	0.23	0.23	0.23	0.23
CFM PER RUN COOLING	80	64	23	62	66	95	11	95	66	80	27	109	109	95	95	95	79	15	12	7	7	7	7
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.16	0.17	0.17	0.17	0.15	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH	38	40	34	33	48	58	34	47	36	43	35	37	33	26	20	32	36	27	19	23	25	12	27
EQUIVALENT LENGTH	180	150	190	170	140	170	160	140	130	170	120	130	140	130	140	110	140	90	130	120	120	140	150
TOTAL EFFECTIVE LENGTH	218	190	224	203	188	228	194	187	166	213	155	167	173	156	160	142	176	117	149	143	145	152	177
ADJUSTED PRESSURE	0.08	0.09	0.08	0.08	0.09	0.07	0.09	0.09	0.1	0.08	0.11	0.09	0.09	0.1	0.1	0.11	0.1	0.15	0.12	0.11	0.11	0.11	0.09
ROUND DUCT SIZE	5	5	4	5	5	6	4	6	5	5	4	6	6	5	5	5	5	4	4	5	5	5	5
HEATING VELOCITY (ft/min)	316	308	161	213	308	296	252	296	308	316	264	367	367	433	433	433	264	551	654	646	646	646	646
COOLING VELOCITY (ft/min)	587	470	264	455	485	484	126	484	485	587	310	556	556	698	698	698	580	172	138	51	51	51	51
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	4X10	3X10	4X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10
TRUNK	B	A	B	A	E	D	E	D	E	B	E	D	D	A	A	B	B	A	E	A	B	E	D

RUN #	25
ROOM NAME	BAS
RM LOSS MBH	3.34
CFM PER RUN HEAT	88
RM GAIN MBH	0.23
CFM PER RUN COOLING	7
ADJUSTED PRESSURE	0.16
ACTUAL DUCT LGH	36
EQUIVALENT LENGTH	130
TOTAL EFFECTIVE LENGTH	166
ADJUSTED PRESSURE	0.1
ROUND DUCT SIZE	5
HEATING VELOCITY (ft/min)	646
COOLING VELOCITY (ft/min)	51
OUTLET GRILL SIZE	3X10
TRUNK	D

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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 CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A 325	0.08	9.2	10	X 8 585	TRUNK G 0	0.00	0	0	X 8 0	TRUNK O 0	0.05	0	0	X 8 0	TRUNK V 495	0.05	12.1	18	X 8 495
TRUNK B 283	0.08	8.7	10	X 8 509	TRUNK H 0	0.00	0	0	X 8 0	TRUNK P 0	0.05	0	0	X 8 0	TRUNK W 270	0.05	9.7	12	X 8 405
TRUNK C 608	0.08	11.6	16	X 8 684	TRUNK I 0	0.00	0	0	X 8 0	TRUNK Q 0	0.05	0	0	X 8 0	TRUNK X 1316	0.05	17.5	28	X 10 677
TRUNK D 436	0.07	10.6	14	X 8 561	TRUNK J 0	0.00	0	0	X 8 0	TRUNK R 0	0.05	0	0	X 8 0	TRUNK Y 1110	0.05	16.4	32	X 8 624
TRUNK E 710	0.07	12.8	20	X 8 639	TRUNK K 0	0.00	0	0	X 8 0	TRUNK S 0	0.05	0	0	X 8 0	TRUNK Z 615	0.05	13.1	20	X 8 554
TRUNK F 0	0.00	0	0	X 8 0	TRUNK L 0	0.00	0	0	X 8 0	TRUNK T 0	0.05	0	0	X 8 0	DROP 1316	0.05	17.5	24	X 12 658
										TRUNK U 0	0.05	0	0	X 8 0					

RETURN AIR #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	22	23	24
AIR VOLUME	155	115	115	135	340	135	115	0	0	0	0	0	0	0	0	0	0	0	0	206			
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				
ACTUAL DUCT LGH	52	63	60	67	33	46	58	1	1	1	1	1	1	1	1	1	1	1	1	16			
EQUIVALENT LENGTH	200	255	245	260	195	245	235	0	0	0	0	0	0	0	0	0	0	0	0	145			
TOTAL EFFECTIVE LH	252	318	305	327	228	291	293	1	1	1	1	1	1	1	1	1	1	1	1	161			
ADJUSTED PRESSURE	0.06	0.05	0.05	0.05	0.06	0.05	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	0.09			
ROUND DUCT SIZE	7.5	7	7	7.5	10.1	7.5	7	0	0	0	0	0	0	0	0	0	0	0	0	7.5			
INLET GRILL SIZE	8	8	8	8	8	8	8	0	0	0	0	0	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	X	X	X	X	X			
INLET GRILL SIZE	14	14	14	14	30	14	14	0	0	0	0	0	0	0	0	0	0	0	0	14			

TYPE: JUNIPER 11
SITE NAME: LECCO RIDGE

LO # 73318
LOT 254

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	4 @ 10.6 cfm	42.4 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	
More than 5 - Part 6	TOTAL	79.5 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	169.6	cfm
Less Principal Ventil. Capacity	86	cfm
Required Supplemental Capacity	83.6	cfm

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

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

SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
BATH	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
ENS-4	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3
PWD	QTXEN050C	50	<input checked="" type="checkbox"/>	0.3

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE 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:	Concession
Township	Plan:
Address	
Roll #	Bu
BUILDER:	GREENPARK HOMES
Name:	

TOWN OF MILTON	
Address:	
City:	
Telephone #:	
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-17

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: JUNIPER 11	LOT 254	BUILDER: GREENPARK HOMES
SFQT: 2972	LO# 73318	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):	40927.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	S
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: 39.0 ft	WIDTH: 48.0 ft	EXPOSED PERIMETER:	174.0 ft

2012 OBC - COMPLIANCE PACKAGE

Component	Compliance Package ENERGYSTAR
Ceiling with Attic Space Minimum RSI (R)-Value	S0
Ceiling Without Attic Space Minimum RSI (R)-Value	31
Exposed Floor Minimum RSI (R)-Value	31
Walls Above Grade Minimum RSI (R)-Value	20 + S
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	0.9S
HRV Minimum Efficiency	65%
Domestic Hot Water Heater Minimum EF	90% TE

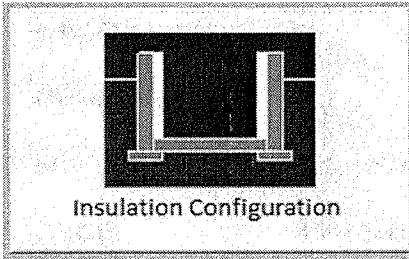
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INDIVIDUAL BCIN: 19669
MICHAEL O'ROURKE

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):	11.9	 Insulation Configuration
Floor Width (m):	14.6	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
Window Area (m ²):	1.4	
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):		1701

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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 ³):	1158.9		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1544.9 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):	0.316		
Cooling Air Leakage Rate (ACH/H):	0.108		

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LO# 73318

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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)

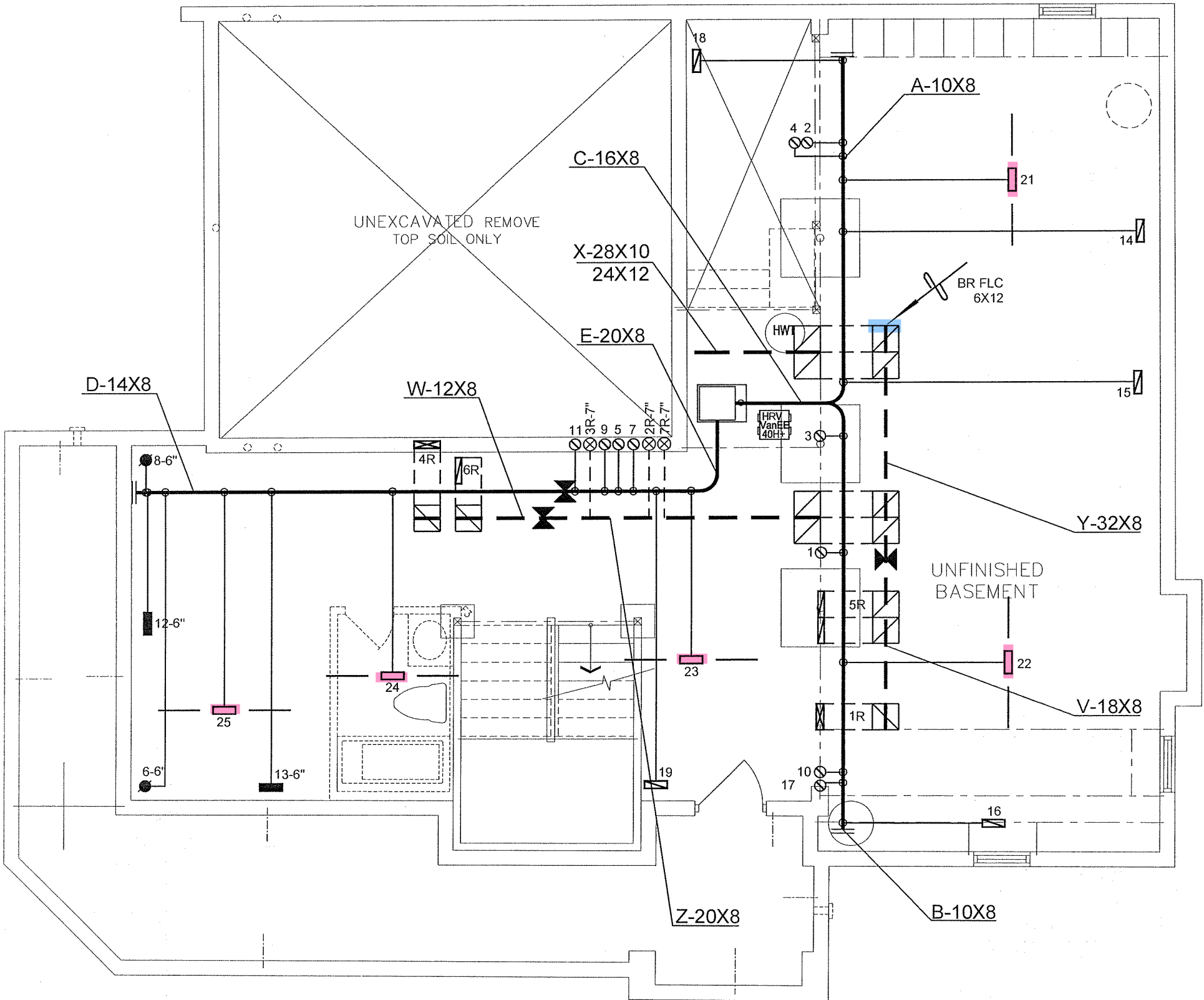
3) Exhaust ducts (principle, supplemental & other exhaust fans) passing through unheated space shall be insulated to a minimum 0.5 RSI (R-3)
- 4) All supply/return air ducts located in unconditioned spaces shall be sealed to a SMACNA Class 'A' seal level and supply air ducts in conditioned spaces to 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



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

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

RECEIVED
TOWN OF MILTON
MAY 11, 2017
17-6230
BUILDING DIVISION

TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-6230

BUILDING: REVIEWED
SCOTT SHERRIFFS
PLANS EXAMINER
MAY 15, 2017
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

LOT 254

Energy

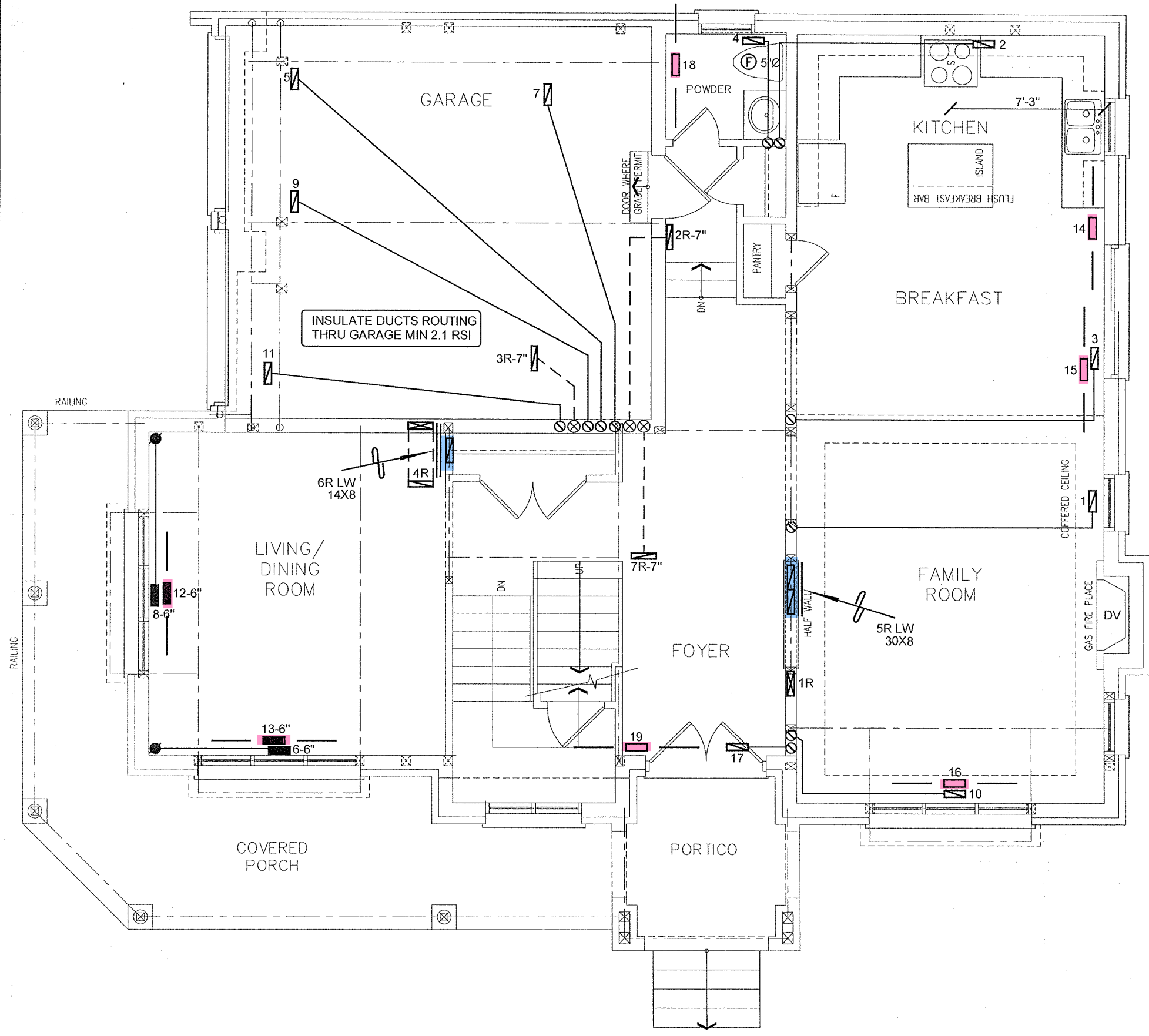
ENERGY STAR

CSA-F280-12

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

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Client		<div><div><div>HVACDESIGNS LTD.</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></div>	HEAT LOSS 52392 BTU/H UNIT DATA		# OF RUNS S/A R/A FANS			Sheet Title	
GREENPARK HOMES			MAKE AMANA	3RD FLOOR					BASEMENT HEATING LAYOUT
Project Name LECCO RIDGE MILTON, ONTARIO		MODEL AMVC960804CNA	2ND FLOOR		12	5	3		
		INPUT 80 MBTU/H	1ST FLOOR		7	2	2		
		OUTPUT 76.8 MBTU/H	BASEMENT		5	1	0	Date MAR/2017	
		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						
LOT 254 JUNIPER 11		FAN SPEED 1316 cfm @ 0.5" w.c.	Scale 3/16" = 1'-0"						
2972 sqft			BCIN# 19669						
			LO# 73318						



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

Michael O'Donnell
MICHAEL O'DONNELL, BCIN# 19669
HVAC DESIGNS LTD.

RECEIVED
TOWN OF MILTON
MAY 11, 2017
17-6230
BUILDING DIVISION

TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-6230

BUILDING: REVIEWED
SCOTT SHERRIFFS MAY 15, 2017
PLANS EXAMINER DATE

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LOT 254

Energy

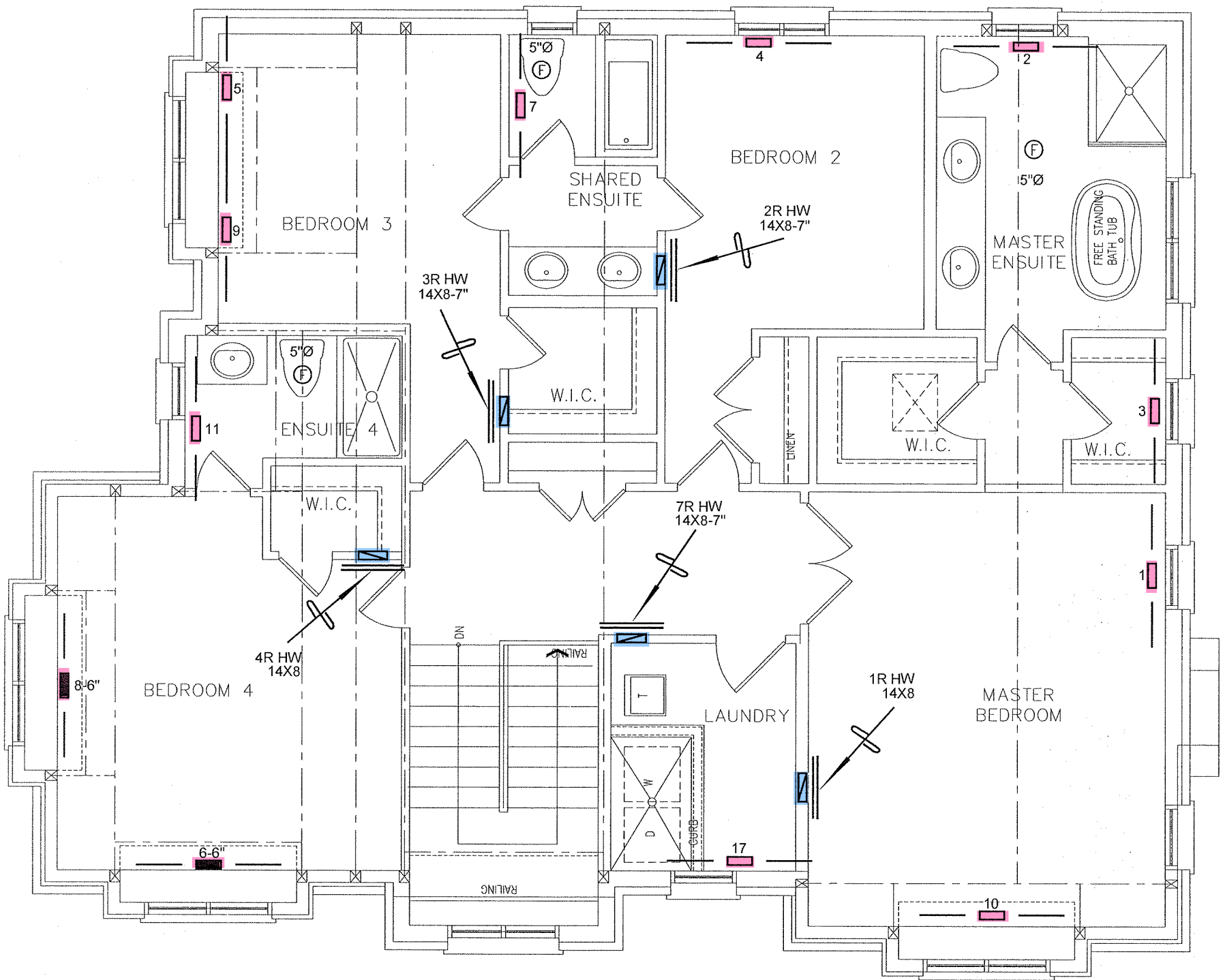
ENERGY STAR

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	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	HVAC DESIGNS LTD. 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	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 MAR/2017
LOT 254 JUNIPER 11	2972 sqft	Scale 3/16" = 1'-0"
		BCIN# 19669
		LO# 73318



I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C.3.2.3 OF THE BUILDING CODE.

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

RECEIVED
TOWN OF MILTON
MAY 11, 2017
17-6230
BUILDING DIVISION

TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-6230

BUILDING: REVIEWED
SCOTT SHERRIFFS
PLANS EXAMINER
MAY 15, 2017
DATE

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LOT 254

Energy

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	No.	Description Date
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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>	Sheet Title SECOND FLOOR HEATING LAYOUT	
Project Name LECCO RIDGE MILTON, ONTARIO			Date MAR/2017	
LOT 254 JUNIPER 11			Scale 3/16" = 1'-0"	
2972 sqft			BCIN# 19669	
			LO# 73318	