

SITE NAME: LECCO RIDGE  
BUILDER: GREENPARK HOMES

WUP  
TYPE: JUNIPER 9

GFA: 3481

DATE: Feb-17  
LO# 72387

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

HEAT LOSS ΔT °F. 72  
HEAT GAIN ΔT °F. 14

CSA-F280-12  
ENERGYSTAR

ROOM USE	EXP. WALL	CLG. HT.	MBR	ENS	BED-2	BED-3	BED-4	BATH	BED-5	ENS-4	ENS-2		
			36	28	15	33	38	7	14	16	9		
			10	9	9	10	10	9	9	9	9		
GRS.WALL AREA	FACTORS		360	252	135	330	380	63	126	144	81		
GLAZING	LOSS GAIN		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	9 161 143		15 268 238	0 0 0	0 0 0	7 125 111	0 0 0	0 0 0	0 0 0		
EAST	17.9 41.4	0 0 0	0 0 0		0 0 0	48 857 1988	36 643 1491	0 0 0	0 0 0	11 196 456	0 0 0		
SOUTH	17.9 24.8	0 0 0	0 0 0		0 0 0	0 0 0	17 303 421	0 0 0	13 232 322	0 0 0	7 125 173		
WEST	17.9 41.4	34 607 1408	18 321 746		0 0 0	0 0 0	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	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	2.6 0.5	326 853 165	225 589 114		120 314 61	282 738 143	327 856 165	56 147 28	113 296 57	133 348 67	74 194 37		
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	0 0 0	0 0 0	0 0 0	0 0 0		
EXPOSED CLG	1.4 0.7	315 434 216	159 219 109		265 365 182	233 321 160	261 360 179	147 203 101	216 298 148	114 157 78	180 248 123		
NO ATTIC EXPOSED CLG	2.2 1.1	0 0 0	28 63 31		0 0 0	18 40 20	30 67 33	0 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	251 550 106	0 0 0	111 243 47	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		1894	1353		947	2507	2229	717	825	701	567		
SUB TOTAL HT GAIN		1789	1142		480	2417	2290	287	527	601	334		
LEVEL FACTOR / MULTIPLIER	0.20 0.32	0.20 0.32			0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32	0.20 0.32		
AIR CHANGE HEAT LOSS	615	439			307	814	723	233	268	228	184		
AIR CHANGE HEAT GAIN		160	102		43	216	205	26	47	54	30		
DUCT LOSS	0	0			0	332	0	95	0	0	0		
DUCT GAIN		0	0		0	372	0	31	0	0	0		
HEAT GAIN PEOPLE	240	2	480	0	1	240	1	240	0	1	240	0	0
HEAT GAIN APPLIANCES/LIGHTS		845	0			845	845	0	845	0	0		
TOTAL HT LOSS BTU/H		2509	1792		1254	3652	2952	1045	1093	929	750		
TOTAL HT GAIN x 1.3 BTU/H		4256	1618		2090	5317	4653	447	2156	851	473		

ROOM USE	EXP. WALL	CLG. HT.	LVDN	OFF	KT/FM	LAUN	WIR	FOY					WUP	BAS
			21	37	75	21	10	33					19	194
			10	10	10	11	10	10					10	10
GRS.WALL AREA	FACTORS		210	370	750	231	100	330					181	1261
GLAZING	LOSS GAIN		LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN	LOSS GAIN					LOSS	LOSS
NORTH	17.9 15.8	0 0 0	0 0 0	0 0 0	0 0 0	9 161 143	0 0 0	0 0 0					0 0 0	9 161 143
EAST	17.9 41.4	0 0 0	39 696 1615	0 0 0	0 0 0	0 0 0	0 0 0	20 357 828					0 0 0	0 0 0
SOUTH	17.9 24.8	38 678 941	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0					0 0 0	0 0 0
WEST	17.9 41.4	0 0 0	0 0 0	105 1874 4349	0 0 0	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	0 0 0
DOORS	24.1 4.7	0 0 0	0 0 0	0 0 0	0 0 0	20 481 93	0 0 0	20 481 93					20 481 93	20 481 93
NET EXPOSED WALL	2.6 0.5	172 450 87	331 866 167	645 1688 326	202 529 102	100 262 51	290 759 147						161 420 81	0 0 0
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	0 0 0	0 0 0					0 0 0	582 1943 376
EXPOSED CLG	1.4 0.7	0 0 0	0 0 0	10 14 7	0 0 0	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	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 FLOOR	2.2 0.4	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
BASEMENT/CRAWL HEAT LOSS		0	0	0	0	0	0	0					0	6605
SLAB ON GRADE HEAT LOSS		0	0	0	0	0	0	0					0	9189
SUBTOTAL HT LOSS		1128	1562	3576	1170	262	1597						901	611
SUB TOTAL HT GAIN		1028	1783	4682	338	51	1068						174	611
LEVEL FACTOR / MULTIPLIER	0.30 0.61	0.30 0.61											0.50 0.94	
AIR CHANGE HEAT LOSS	694	961	2199	720	161	982							9525	70
AIR CHANGE HEAT GAIN		92	160	419	30	5	96						0	0
DUCT LOSS	0	0	0	0	0	0	0						0	0
DUCT GAIN		0	0	0	0	0	0						0	0
HEAT GAIN PEOPLE	240	0	0	1	240	1	240	0	0	0	0		0	0
HEAT GAIN APPLIANCES/LIGHTS		845	845		845		845	0	0	0	0		0	0
TOTAL HT LOSS BTU/H		1822	2523	5774	1890	423	2579						901	18715
TOTAL HT GAIN x 1.3 BTU/H		2554	3623	8042	1888	72	1513						226	886

**TOWN OF MILTON**  
**PLANNING AND DEVELOPMENT**  
**JUNIPER 9 MODEL**

**BUILDING: REVIEWED**  
**SCOTT SHERRIFFS** APR 11, 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

**RECEIVED**  
**TOWN OF MILTON**  
**MAR 29, 2017**  
**JUNIPER 9**  
**BUILDING DIVISION**

TOTAL HEAT GAIN BTU/H: 41159 TONS: 3.43 LOSS DUE TO VENTILATION LOAD BTU/H: 2552 STRUCTURAL HEAT LOSS: 50603 TOTAL COMBINED HEAT LOSS BTU/H: 53155

SITE NAME: LECCO RIDGE  
BUILDER: GREENPARK HOMES

WUP  
TYPE: JUNIPER 9

DATE: Feb-17

GFA: 3481      LO# 72387

HEATING CFM	1316	COOLING CFM	1316
TOTAL HEAT LOSS	50,603	TOTAL HEAT GAIN	40,666
AIR FLOW RATE CFM	26.01	AIR FLOW RATE CFM	32.36

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

AMVC960804CNA	~*AMANA	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

$$\text{DESIGN CFM} = \frac{1316}{\text{CFM @ .6" E.S.P.}}$$

TEMPERATURE RISE 54 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	13	8	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.

plenum 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

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	ENS	BED-2	BED-3	BED-4	BATH	BED-3	BED-4	MBR	ENS-2	LV/DN	OFF	KT/FM	KT/FM	KT/FM	LAUN	W/R	FOY	ENS-4	BED-5	BAS	BAS	BAS
RM LOSS MBH.	1.25	0.90	0.90	1.25	1.83	1.48	1.05	1.83	1.48	1.25	0.75	1.82	2.52	1.92	1.92	1.92	1.89	0.42	2.58	0.93	1.09	3.92	3.92	3.92
CFM PER RUN HEAT	33	23	23	33	47	38	27	47	38	33	20	47	66	50	50	50	49	11	67	24	28	102	102	102
RM GAIN MBH.	2.13	0.81	0.81	2.09	2.66	2.33	0.45	2.66	2.33	2.13	0.47	2.55	3.62	2.68	2.68	2.68	1.89	0.07	1.51	0.85	2.16	0.22	0.22	0.22
CFM PER RUN COOLING	69	26	26	68	86	75	14	86	75	69	15	83	117	87	87	87	61	2	49	28	70	7	7	7
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.16	0.17	0.17	0.17	0.16	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16
ACTUAL DUCT LGH.	27	59	43	47	47	75	51	50	66	41	21	39	59	22	31	39	44	19	45	65	50	38	29	13
EQUIVALENT LENGTH	160	150	120	160	120	160	160	130	130	130	170	140	140	150	140	110	110	140	130	140	150	100	150	150
TOTAL EFFECTIVE LENGTH	187	209	163	207	167	235	211	180	196	171	191	179	199	172	171	149	154	159	175	205	200	138	179	163
ADJUSTED PRESSURE	0.09	0.08	0.11	0.08	0.1	0.07	0.08	0.09	0.09	0.1	0.09	0.09	0.08	0.09	0.09	0.11	0.11	0.11	0.1	0.08	0.09	0.12	0.09	0.1
ROUND DUCT SIZE	5	4	4	5	5	5	4	5	5	5	4	5	6	5	5	5	5	4	5	4	5	5	6	6
HEATING VELOCITY (ft/min)	242	264	264	242	345	279	310	345	279	242	229	345	337	367	367	367	360	126	492	275	206	749	520	520
COOLING VELOCITY (ft/min)	507	298	298	499	631	551	161	631	551	507	172	609	597	639	639	639	448	23	360	321	514	51	36	36
OUTLET GRILL SIZE	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10
TRUNK	B	A	B	A	D	C	D	D	C	B	B	D	C	B	A	A	A	D	C	C	D	A	B	D

RUN #	25	26
ROOM NAME	BAS	BAS
RM LOSS MBH.	3.92	3.92
CFM PER RUN HEAT	102	102
RM GAIN MBH.	0.22	0.22
CFM PER RUN COOLING	7	7
ADJUSTED PRESSURE	0.16	0.16
ACTUAL DUCT LGH.	37	49
EQUIVALENT LENGTH	120	140
TOTAL EFFECTIVE LENGTH	157	189
ADJUSTED PRESSURE	0.1	0.09
ROUND DUCT SIZE	6	6
HEATING VELOCITY (ft/min)	520	520
COOLING VELOCITY (ft/min)	36	36
OUTLET GRILL SIZE	4X10	4X10
TRUNK	D	C

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JUNIPER 9  
BUILDING DIVISION

SUPPLY AIR TRUNK SIZE	
1	1
2	2
3	3
4	4
5	5
6	6
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97	97
98	98
99	99
100	100

	TRUNK	STATIC	ROUND	RECT				VELOCITY		TRUNK	STATIC	ROUND	RECT				VELOCITY
	CFM	PRESS.	DUCT	DUCT			(ft/min)		CFM	PRESS.	DUCT	DUCT				(ft/min)	
TRUNK A	307	0.08	9	10	X	8	553	TRUNK G	0	0.00	0	0	X	8	0	0	
TRUNK B	568	0.08	11.3	16	X	8	639	TRUNK H	0	0.00	0	0	X	8	0	0	
TRUNK C	335	0.07	9.6	10	X	8	603	TRUNK I	0	0.00	0	0	X	8	0	0	
TRUNK D	746	0.07	13	20	X	8	671	TRUNK J	0	0.00	0	0	X	8	0	0	
TRUNK E	0	0.00	0	0	X	8	0	TRUNK K	0	0.00	0	0	X	8	0	0	
TRUNK F	0	0.00	0	0	X	8	0	TRUNK L	0	0.00	0	0	X	8	0	0	

RETURN AIR TRUNK SIZE
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TYPE	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT			VELOCITY (ft/min)
TRUNK O	0	0.05	0	0	X	8	0
TRUNK P	0	0.05	0	0	X	8	0
TRUNK Q	0	0.05	0	0	X	8	0
TRUNK R	0	0.05	0	0	X	8	0
TRUNK S	0	0.05	0	0	X	8	0
TRUNK T	0	0.05	0	0	X	8	0
TRUNK U	0	0.05	0	0	X	8	0
TRUNK V	0	0.05	0	0	X	8	0
TRUNK W	0	0.05	0	0	X	8	0
TRUNK X	886	0.05	15.1	26	X	8	613
TRUNK Y	655	0.05	13.5	22	X	8	536
TRUNK Z	430	0.05	11.5	16	X	8	484
DROP	1316	0.05	17.5	24	X	12	658

[illegible]

TYPE: JUNIPER 9  
SITE NAME: LECCO RIDGE

LO # 72387  
WUP

**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	4	@ 10.6 cfm	42.4	cfm	
Kitchen & Bathrooms	6	@ 10.6 cfm	63.6	cfm	
Other Rooms	5	@ 10.6 cfm	53.0	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				95.4 cfm

SUPPLEMENTAL VENTILATION CAPACITY			9.32.3.5.
Total Ventilation Capacity	201.4	cfm	
Less Principal Ventil. Capacity	96	cfm	
Required Supplemental Capacity	105.4	cfm	

PRINCIPAL EXHAUST FAN CAPACITY			
Model:	VANEE 50H	Location:	BSMT
96.0	cfm	3.0	sones
			<input checked="" type="checkbox"/> HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION				
CFM	ΔT °F	FACTOR	% LOSS	
96.0 CFM	X 72 F	X 1.08	X	0.34

SUPPLEMENTAL FANS		NUTONE		
Location	Model	cfm	HVI	Sones
ENS	QT Xen050C	50	✓	0.3
BATH	QT Xen050C	50	✓	0.3
ENS-2	QT Xen050C	50	✓	0.3
W/R	QT Xen050C	50	✓	0.3

HEAT RECOVERY VENTILATOR				9.32.3.11.
Model:	VANEE 50H			
96	cfm high	47	cfm low	
66	% Sensible Efficiency			<input checked="" type="checkbox"/> HVI Approved
@ 32 deg F (0 deg C)				

LOCATION OF INSTALLATION	
Lot:	C
Township	PI
Address	
Roll #	

**RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 9  
BUILDING DIVISION**

TOWN OF MILTON PLANNING AND DEVELOPMENT JUNIPER 9 MODEL	
<b>BUILDER:</b>	GF
Name:	
Address:	
City:	
Telephone #:	
<b>INSTALLING CONTRACTOR</b>	
Name:	
Address:	
City:	
Telephone #:	
Fax #:	


**BUILDING: REVIEWED**
**SCOTT SHERRIFFS**
**APR 11, 2017**
**PLANS EXAMINER**
**DATE**

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I REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE

**HEAT LOSS AND GAIN SUMMARY SHEET**

<b>MODEL:</b> JUNIPER 9	<b>WUP</b>	<b>BUILDER:</b> GREENPARK HOMES
<b>SFQT:</b> 3481	<b>LO#</b> 72387	<b>SITE:</b> LECCO RIDGE

**DESIGN ASSUMPTIONS**

<b>HEATING</b>	<b>°F</b>	<b>COOLING</b>	<b>°F</b>
OUTDOOR DESIGN TEMP.	0	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

**BUILDING DATA**

<b>ATTACHMENT:</b>	DETACHED	<b># OF STORIES (+BASEMENT):</b>	3
<b>FRONT FACES:</b>	EAST	<b>ASSUMED (Y/N):</b>	Y
<b>AIR CHANGES PER HOUR:</b>	3.57	<b>ASSUMED (Y/N):</b>	Y
<b>AIR TIGHTNESS CATEGORY:</b>	AVERAGE	<b>ASSUMED (Y/N):</b>	Y
<b>WIND EXPOSURE:</b>	SHELTERED	<b>ASSUMED (Y/N):</b>	Y
<b>HOUSE VOLUME (ft³):</b>	47967.0	<b>ASSUMED (Y/N):</b>	Y
<b>INTERNAL SHADING:</b>	BLINDS/CURTAINS	<b>ASSUMED OCCUPANTS:</b>	6
<b>INTERIOR LIGHTING LOAD (Btu/h/ft²):</b>	1.50	<b>DC BRUSHLESS MOTOR (Y/N):</b>	Y
<b>FOUNDATION CONFIGURATION</b>	BCIN_1	<b>DEPTH BELOW GRADE:</b>	6.5 ft
<b>LENGTH:</b> 59.0 ft	<b>WIDTH:</b> 38.0 ft	<b>EXPOSED PERIMETER:</b>	194.0 ft

**2012 OBC - COMPLIANCE PACKAGE**

<b>Component</b>	<b>Compliance Package ENERGYSTAR</b>
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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TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 9  
BUILDING DIVISION

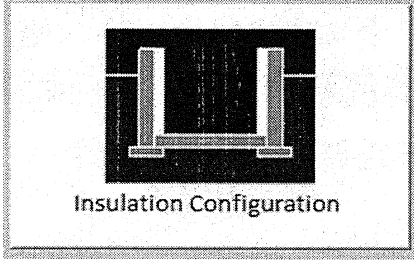
INDIVIDUAL BCIN: 19669

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):	18.0	 Insulation Configuration
Floor Width (m):	11.6	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.9	
Depth Below Grade (m):	2.0	
Window Area (m <sup>2</sup> ):	0.8	
Door Area (m <sup>2</sup> ):	3.7	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1935

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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 <sup>3</sup> ):	1358.3		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1810.6 cm <sup>2</sup>	
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	45.3	45.3	
Flue Size			
Flue #:	#1	#2	#3 #4
Diameter (mm):	0	0	0 0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	0.307		
Cooling Air Leakage Rate (ACH/H):	0.105		

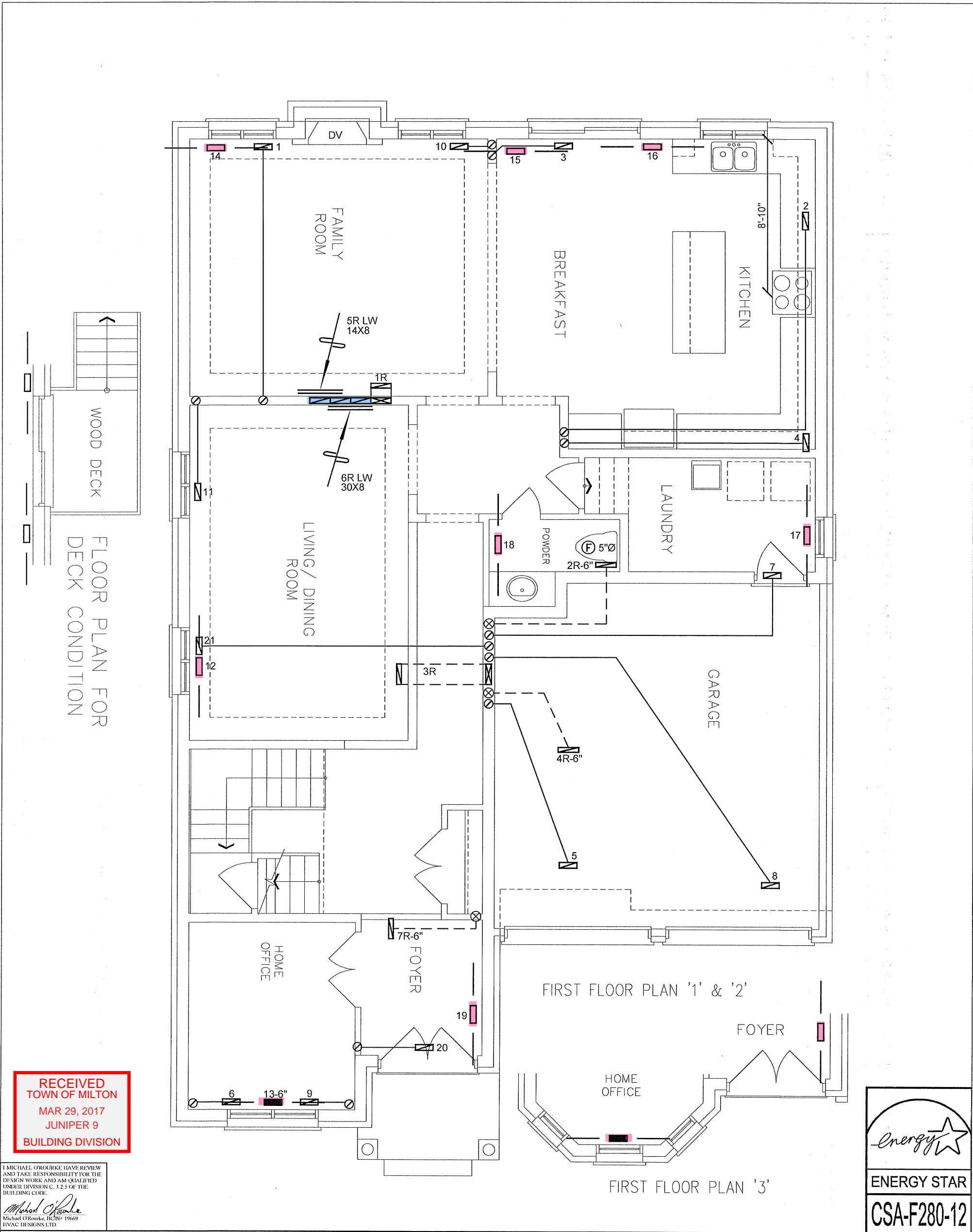
TYPE: JUNIPER 9  
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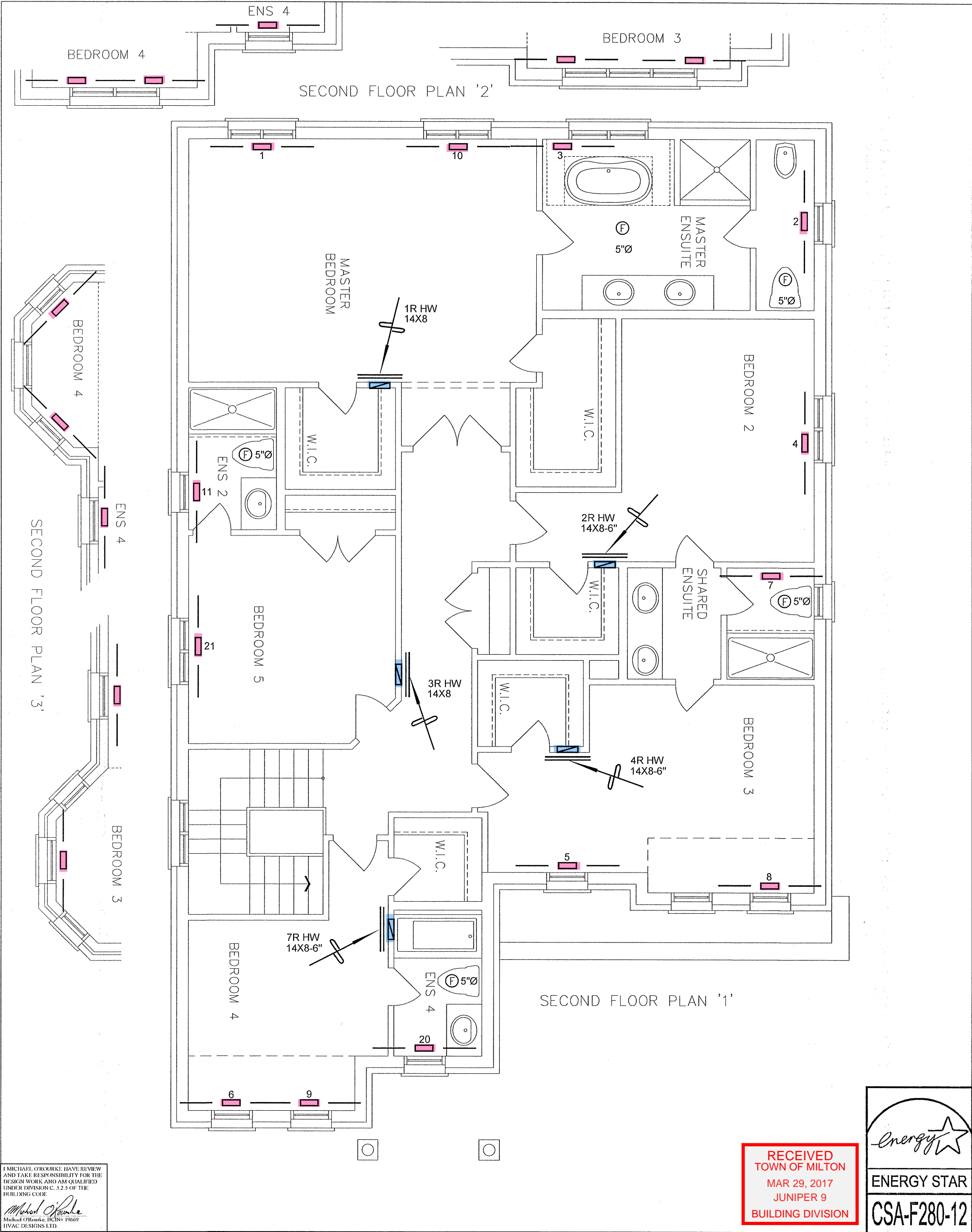


HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		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		<div><p>375 Finley Ave - Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacadesigns.ca Web: www.hvacadesigns.ca Specializing in Residential Mechanical Design Services</p></div>	<div><p>TOWN OF MILTON PLANNING AND DEVELOPMENT JUNIPER 9 MODEL</p><p><b>BUILDING: REVIEWED</b> <b>SCOTT SHERRIFFS</b>      <b>APR 11, 2017</b></p><p><u>PLANS EXAMINER</u>      <u>DATE</u></p><p>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</p></div>	Sheet Title FIRST FLOOR HEATING LAYOUT	
Project Name LECCO RIDGE MILTON, ONTARIO				Date FEB/2017	
JUNIPER 9 WUP      3481 sqft		Scale 3/16" = 1'-0"			
		BCIN# 19669			
		LO#      72387			





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.		
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GREENPARK HOMES				SECOND FLOOR HEATING LAYOUT	
Project Name		Date			
LECCO RIDGE MILTON, ONTARIO		FEB/2017			
		Scale			
		3/16" = 1'-0"			
		BCIN# 19669			
JUNIPER 9 WUP      3481   sqft		LO#      72387			
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.					