

19-444476 000 00 RL

# Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

For use by Principal Authority	
Application No:	Model/Certification Number AMELIA 3-14, EL-2

## A. Project Information

Building number, street name		Unit number	Low/Con
			14
Municipality City of Brampton	Postal code	Reg. Plan number / other description 43M-2057	

## B. Prescriptive Compliance [indicate the building code compliance package being employed in this house design]

SB-12 Prescriptive (input design package): Package: <u>A1</u> Table: _____
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## C. Project Design Conditions

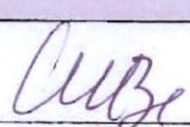
<b>Climatic Zone (SB-1):</b>	<b>Heating Equipment Efficiency</b>	<b>Space Heating Fuel Source</b>
<input type="checkbox"/> Zone 1 (< 5000 degree days)	<input type="checkbox"/> ≥ 92% AFUE	<input type="checkbox"/> Gas <input type="checkbox"/> Propane <input type="checkbox"/> Solid Fuel
<input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input type="checkbox"/> ≥ 84% < 92% AFUE	<input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Earth Energy
<b>Ratio of Windows, Skylights &amp; Glass (W, S &amp; G) to Wall Area</b>	<b>Other Building Characteristics</b>	
Area of walls = <u>382.0</u> m <sup>2</sup> or _____ ft <sup>2</sup>	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> ICF Basement	
Area of W, S & G = <u>41.2</u> m <sup>2</sup> or _____ ft <sup>2</sup>	<input type="checkbox"/> Slab-on-ground <input type="checkbox"/> Walkout Basement	
W, S & G % = <u>10.79%</u>	<input type="checkbox"/> Air Conditioning <input type="checkbox"/> Combo Unit	
Utilize window averaging: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Air Sourced Heat Pump (ASHP)	
	<input type="checkbox"/> Ground Sourced Heat Pump (GSHP)	

## D. Building Specifications [provide values and ratings of the energy efficiency components proposed]

Energy Efficiency Substitutions				
<input type="checkbox"/> ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5) & (6))				
<input type="checkbox"/> Combined space heating and domestic water heating systems (3.1.1.2.(7) / 3.1.1.3.(7))				
<input type="checkbox"/> Airtightness substitution(s)		<input type="checkbox"/> Table 3.1.1.4.B Required: _____ Permitted Substitution: _____ <input type="checkbox"/> Table 3.1.1.4.C Required: _____ Permitted Substitution: _____ Required: _____ Permitted Substitution: _____		
Airtightness test required (Refer to Design Guide Attached)				
Building Component	Minimum RSI / R values or Maximum U-Value <sup>(1)</sup>		Building Component	Efficiency Ratings
<b>Thermal Insulation</b>	Nominal	Effective	<b>Windows &amp; Doors</b> Provide U-Value <sup>(1)</sup> or ER rating	
Ceiling with Attic Space	10.57	10.43	Windows/Sliding Glass Doors	1.6
Ceiling without Attic Space	5.46	4.87	Skylights/Glazed Roofs	2.8
Exposed Floor	5.46	5.25	<b>Mechanicals</b>	
Walls Above Grade	4.22	3.00	Heating Equip.(AFUE)	96%
Basement Walls	3.52	3.72	HRV Efficiency (SRE% at 0°C)	75%
Slab (all >600mm below grade)	-	-	DHW Heater (EF)	0.83
Slab (edge only ≤600mm below grade)	1.76	1.76	DWHR (CSA B55.1 (min. 42% efficiency))	42 # Showers <u>2</u>
Slab (all ≤600mm below grade, or heated)	1.76	1.96	Combined Heating System	N/A

(1) U value to be provided in either W/(m<sup>2</sup>·K) or Btu/(h·ft<sup>2</sup>·F) but not both.

## E. Designer(s) [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets the building code]

Qualified Designer Declaration of designer to have reviewed and take responsibility for the design work.		
Name Walter Botter Jardin Design Group Inc.	BCIN 21031 27763	Signature 



SITE NAME: GRANELLI HOME CORP

LOT 14

DATE: Jan-19

WINTER NATURAL AIR CHANGE RATE 0.330

HEAT LOSS AT °F. 74

CSA-F280-12

BUILDER: GREENYORK HOMES

TYPE: AMELIA 3

GFA: 2970

LO# 81140

SUMMER NATURAL AIR CHANGE RATE 0.117

HEAT GAIN AT °F. 14

SB-12 PACKAGE A1

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	MBR	ENS	WIC	BED-2	BED-3	BED-4	ENS-2	ENS-3	BED-5	BATH
				37	24	5	12	31	25	16	23	10	10
				9	9	9	9	9	9	9	9	9	9
GRS.WALL AREA	LOSS	GAIN		333	216	45	108	279	225	144	207	90	90
GLAZING	LOSS	GAIN											
NORTH	20.8	16.3	0	0	0	0	15	312	245	0	0	0	0
EAST	20.8	41.9	0	0	0	0	0	0	0	0	0	0	0
SOUTH	20.8	25.2	0	0	0	0	0	0	0	0	0	0	0
WEST	20.8	41.9	30	623	1257	13	270	545	0	0	0	15	312
SKYLT.	36.4	102.1	0	0	0	0	0	0	0	0	0	0	0
DOORS	24.7	4.7	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.4	0.8	303	1320	249	195	850	160	45	196	37	93	405
NET EXPOSED BSMT WALL ABOVE GR	3.5	0.7	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3	0.6	267	335	162	130	163	79	125	157	76	203	254
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	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			2278		1449	353	971	3104	1546	899	1539	789	661
SUB TOTAL HT GAIN				1668	986	113	445	2853	838	213	1372	513	336
LEVEL FACTOR / MULTIPLIER	0.20	0.26											
AIR CHANGE HEAT LOSS			602		383	93	257	820	409	237	407	208	175
AIR CHANGE HEAT GAIN				141	83	10	38	241	71	18	116	43	28
DUCT LOSS			0		0	0	0	392	0	114	0	0	0
DUCT GAIN			0		0	0	0	383	0	23	0	0	0
HEAT GAIN PEOPLE	240		2	480	0	0	1	240	1	240	0	1	240
HEAT GAIN APPLIANCES/LIGHTS				499	0	0	499	499	499	0	0	499	0
TOTAL HT LOSS BTU/H			2880		1832	446	1228	4317	1954	1250	1946	997	836
TOTAL HT GAIN x 1.3 BTU/H				3625	1390	159	1588	5482	2142	330	1935	1684	474

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	LV/DN	LIB	KT/BR	FAM	LAUN	W/R	FOY	MUD	WUB	BAS
				17	23	40	33	0	15	30	14	17	155
				11	11	11	11	9	11	11	11	9	9
GRS.WALL AREA	LOSS	GAIN		187	253	440	363	0	165	330	154	153	1008
GLAZING	LOSS	GAIN											
NORTH	20.8	16.3	38	789	620	0	0	0	0	0	0	0	0
EAST	20.8	41.9	0	0	0	0	0	0	0	0	0	0	0
SOUTH	20.8	25.2	0	0	0	0	0	0	0	0	0	0	0
WEST	20.8	41.9	0	0	0	0	0	0	0	0	0	0	0
SKYLT.	36.4	102.1	0	0	0	0	0	0	0	0	0	0	0
DOORS	24.7	4.7	0	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	4.4	0.8	149	649	122	234	1020	192	353	1538	290	325	1416
NET EXPOSED BSMT WALL ABOVE GR	3.5	0.7	0	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	0
NO ATTIC EXPOSED CLG	2.7	1.3	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	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			1439		1414	3346	2206	178	719	2365	1192	106	5017
SUB TOTAL HT GAIN				742	672	3618	1859	68	136	712	491	1179	7120
LEVEL FACTOR / MULTIPLIER	0.30	0.43											
AIR CHANGE HEAT LOSS			619		609	1440	949	47	309	1018	513	202	626
AIR CHANGE HEAT GAIN				63	57	306	157	6	11	60	42	0.50	1.10
DUCT LOSS			0		0	0	0	22	0	0	0	0	9094
DUCT GAIN			0		0	0	0	57	0	0	0	0	70
HEAT GAIN PEOPLE	240		0	0	0	0	0	0	0	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS				499	499	499	499	499	0	0	0	0	0
TOTAL HT LOSS BTU/H			2058		2023	4785	3155	247	1028	3382	1705	1179	16215
TOTAL HT GAIN x 1.3 BTU/H				1695	1596	5750	3270	819	191	1004	692	263	1554

TOTAL HEAT GAIN BTU/H:

35989

TONS: 3.00

LOSS DUE TO VENTILATION LOAD BTU/H: 1835

STRUCTURAL HEAT LOSS: 53461

TOTAL COMBINED HEAT LOSS BTU/H: 55296

Michael O'Rourke

M-2057 LOT 14



SITE NAME: GRANELLI HOME CORP  
BUILDER: GREENYORK HOMES

LOT 14  
TYPE: AMELIA 3

DATE: Jan-19

GFA: 2970 LO# 81140

HEATING CFM 1030 COOLING CFM 1030  
TOTAL HEAT LOSS 53,461 TOTAL HEAT GAIN 35,643  
AIR FLOW RATE CFM 19.27 AIR FLOW RATE CFM 28.9

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

#CARRIER  
59SP5A-60-12 60  
FAN SPEED LOW 0  
MEDLOW 785  
MEDIUM 845  
MEDIUM HIGH 970  
HIGH 1030

AFUE = 96 %  
INPUT (BTU/H) = 60,000  
OUTPUT (BTU/H) = 58,000

DESIGN CFM = 1030  
CFM @ 6" E.S.P.

TEMPERATURE RISE 52 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	13	8	4
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	20	21	22	23	24
ROOM NAME	MBR	ENS	WIC	BED-2	BED-3	BATH	ENS-2	ENS-3	BED-3	MBR	BED-5	LV/DN	LIB	KT/BR	KT/BR	FAM	LAUN	W/R	FOY	MUD	BAS	BAS	BED-4	BAS
RM LOSS MBH	1.44	1.83	0.45	1.23	2.16	0.84	1.25	1.95	2.16	1.44	1.00	2.06	2.02	2.39	2.39	3.15	0.25	1.03	3.38	1.70	4.35	4.35	1.95	4.35
CFM PER RUN HEAT	28	35	9	24	42	16	24	38	42	28	19	40	39	46	46	61	5	20	65	33	84	84	38	84
RM GAIN MBH	1.81	1.39	0.16	1.59	2.74	0.47	0.33	1.93	2.74	1.81	1.68	1.70	1.60	2.88	2.88	3.27	0.82	0.19	1.00	0.69	0.45	0.45	2.14	0.45
CFM PER RUN COOLING	52	40	5	46	79	14	10	56	79	52	49	49	46	83	83	95	24	6	29	20	13	13	62	13
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	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.16
ACTUAL DUCT LGH	49	53	35	23	56	35	50	61	52	43	43	11	23	50	37	33	42	9	38	10	46	30	35	20
EQUIVALENT LENGTH	150	170	160	210	130	240	140	140	120	150	180	110	140	110	130	190	150	170	110	170	110	150	120	130
TOTAL EFFECTIVE LENGTH	199	223	195	233	186	275	190	201	172	193	223	121	163	160	167	223	192	179	148	180	156	180	155	150
ADJUSTED PRESSURE	0.09	0.08	0.09	0.07	0.09	0.06	0.09	0.09	0.1	0.09	0.08	0.14	0.11	0.1	0.1	0.07	0.09	0.1	0.12	0.1	0.1	0.09	0.11	0.11
ROUND DUCT SIZE	4	4	4	6	5	5	4	5	5	4	5	5	5	6	6	6	4	4	5	4	6	6	5	6
HEATING VELOCITY (ft/min)	321	402	103	122	308	117	275	279	308	321	140	294	286	235	235	311	57	229	477	379	428	428	279	428
COOLING VELOCITY (ft/min)	597	459	57	235	580	103	115	411	580	597	360	360	338	423	423	484	275	69	213	229	66	66	455	66
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	3X10	3X10	3X10	3X10	4X10	4X10	3X10	4X10
TRUNK	A	B	A	D	C	B	C	C	C	B	B	B	D	A	A	A	C	B	C	D	A	A	D	D

RUN #	25
ROOM NAME	BAS
RM LOSS MBH	4.35
CFM PER RUN HEAT	84
RM GAIN MBH	0.45
CFM PER RUN COOLING	13
ADJUSTED PRESSURE	0.16
ACTUAL DUCT LGH	37
EQUIVALENT LENGTH	120
TOTAL EFFECTIVE LENGTH	157
ADJUSTED PRESSURE	0.1
ROUND DUCT SIZE	6
HEATING VELOCITY (ft/min)	428
COOLING VELOCITY (ft/min)	66
OUTLET GRILL SIZE	4X10
TRUNK	C

CITY OF BRAMPTON  
BUILDING DIVISION  
REVIEWED BY: S DESAI

MAR 27 2019

ATTACHED NOTES ARE PART  
OF REVIEWED DRAWINGS  
ALL WORK MUST COMPLY WITH OGC

## SUPPLY AIR TRUNK SIZE

TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	358	0.07	9.9	12	537
TRUNK B	516	0.06	11.8	16	581
TRUNK C	300	0.09	8.7	10	540
TRUNK D	518	0.07	11.3	14	666
TRUNK E	0	0.00	0	0	0
TRUNK F	0	0.00	0	0	0

## RETURN AIR TRUNK SIZE

TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK O	0	0.06	0	0	0
TRUNK P	0	0.06	0	0	0
TRUNK Q	0	0.06	0	0	0
TRUNK R	0	0.06	0	0	0
TRUNK S	0	0.06	0	0	0
TRUNK T	0	0.06	0	0	0
TRUNK U	0	0.06	0	0	0
TRUNK V	0	0.06	0	0	0
TRUNK W	0	0.06	0	0	0
TRUNK X	1030	0.06	15.2	28	662
TRUNK Y	445	0.06	11.1	14	572
TRUNK Z	0	0.06	0	0	0
DROP	1030	0.06	15.2	24	618

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	95	85	85	95	85	350	80	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	49	36	55	47	37	30	20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	175	215	175	165	220	180	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	224	251	230	212	257	210	185	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.07	0.06	0.06	0.07	0.06	0.07	0.08	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	6	6	9.8	5.4	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	8	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	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



TYPE: AMELIA 3  
SITE NAME: GRANELL HOME CORP

LO # 81140  
LOT 14

**RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY**
**COMBUSTION APPLIANCES** 9.32.3.1(1)  
a) ☒ 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	4	@ 10.6 cfm	42.4	cfm
Kitchen & Bathrooms	6	@ 10.6 cfm	63.6	cfm
Other Rooms	6	@ 10.6 cfm	63.6	cfm
Table 9.32.3.A.			<b>TOTAL</b>	<b>212.0</b> 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
<b>TOTAL</b>	<b>95.4</b>	<b>cfm</b>

**SUPPLEMENTAL VENTILATION CAPACITY** 9.32.3.5.  

Total Ventilation Capacity	212	cfm
Less Principal Ventil. Capacity	95.4	cfm
Required Supplemental Capacity	116.6	cfm

**PRINCIPAL EXHAUST FAN CAPACITY**  
Model: LIFE BREATH RNC5-HEX Location: BSMT  
95.4 cfm 3.0 sones ☒ HVI Approved

**PRINCIPAL EXHAUST HEAT LOSS CALCULATION**  

CFM	ΔT °F	FACTOR	% LOSS
95.4 CFM	74 F	1.08	0.24

**SUPPLEMENTAL FANS** NUTONE  

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

**HEAT RECOVERY VENTILATOR** 9.32.3.11.  
Model: LIFE BREATH RNC5-HEX  
108 cfm high 59 cfm low  
76 % Sensible Efficiency @ 32 deg F ( 0 deg C) ☒ HVI Approved

**LOCATION OF INSTALLATION**  
Lot: Concession  
Township: Plan  
Address: Building Permit #  
Roll #  
**BUILDER:** GREENYORK HOMES  
Name:  
Address:  
City:  
Telephone #: Fax #:  

CITY OF BRAMPTON  
 DIVISION OF BUILDING PERMITS  
 REVIEWED BY: MAR 27 2019  
 ATTACHED NOTES ARE PART OF REVIEWED DRAWINGS  
 ALL WORK MUST COMPLY WITH O.C.

**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: January-19

**HEAT LOSS AND GAIN SUMMARY SHEET**

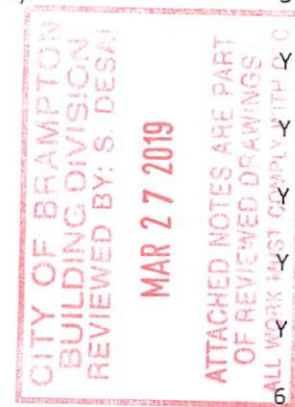
<b>MODEL:</b> AMELIA 3	<b>LOT 14</b>	<b>BUILDER:</b> GREENYORK HOMES
<b>SFQT:</b> 2970	<b>LO#</b> 81140	<b>SITE:</b> GRANELLI HOME CORP

**DESIGN ASSUMPTIONS**

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-2	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 (ft <sup>3</sup> ):	41553.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft <sup>2</sup> ):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.5 ft
LENGTH: 56.0 ft	WIDTH: 30.0 ft	EXPOSED PERIMETER:	155.0 ft

**2012 OBC - COMPLIANCE PACKAGE****Component****Compliance Package  
A1****Nominal Min. Eff.**

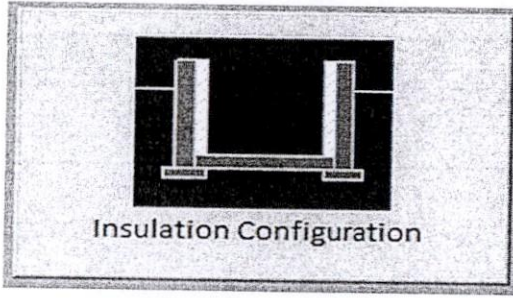
Ceiling with Attic Space Minimum RSI (R)-Value	60	59.22
Ceiling Without Attic Space Minimum RSI (R)-Value	31	27.65
Exposed Floor Minimum RSI (R)-Value	31	29.80
Walls Above Grade Minimum RSI (R)-Value	22	17.03
Basement Walls Minimum RSI (R)-Value	20 ci	21.12
Below Grade Slab Entire surface > 600 mm below 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	0.28	-
Skylights Maximum U-Value	0.49	-
Space Heating Equipment Minimum AFUE	0.96	-
HRV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

INDIVIDUAL BCIN: 19669  
MICHAEL O'ROURKE



## Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

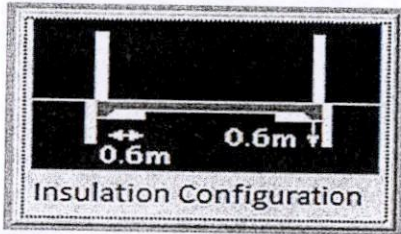
Weather Station Description		
Province:	Ontario	
Region:	Brampton	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	17.1	 Insulation Configuration
Floor Width (m):	9.1	
Exposed Perimeter (m):	47.2	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.98	
Window Area (m <sup>2</sup> ):	1.1	
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):	1470	

TYPE: AMELIA 3  
LO# 81140

LOT 14

## 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		
Length (m):	4.6	
Width (m):	0.6	
Exposed Perimeter (m):	5.2	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Results		
Heating Load (Watts):		<b>31</b>

CITY OF BRAMPTON  
BUILDING DIVISION  
REVIEWED BY: S. NESAI  
MAR 27 2019  
ATTACHED NOTES ARE PART  
OF REVIEWED DRAWINGS  
ALL WORK MUST COMPLY WITH O.C.

TYPE: AMELIA 3  
LO# 81140

LOT 14



## Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

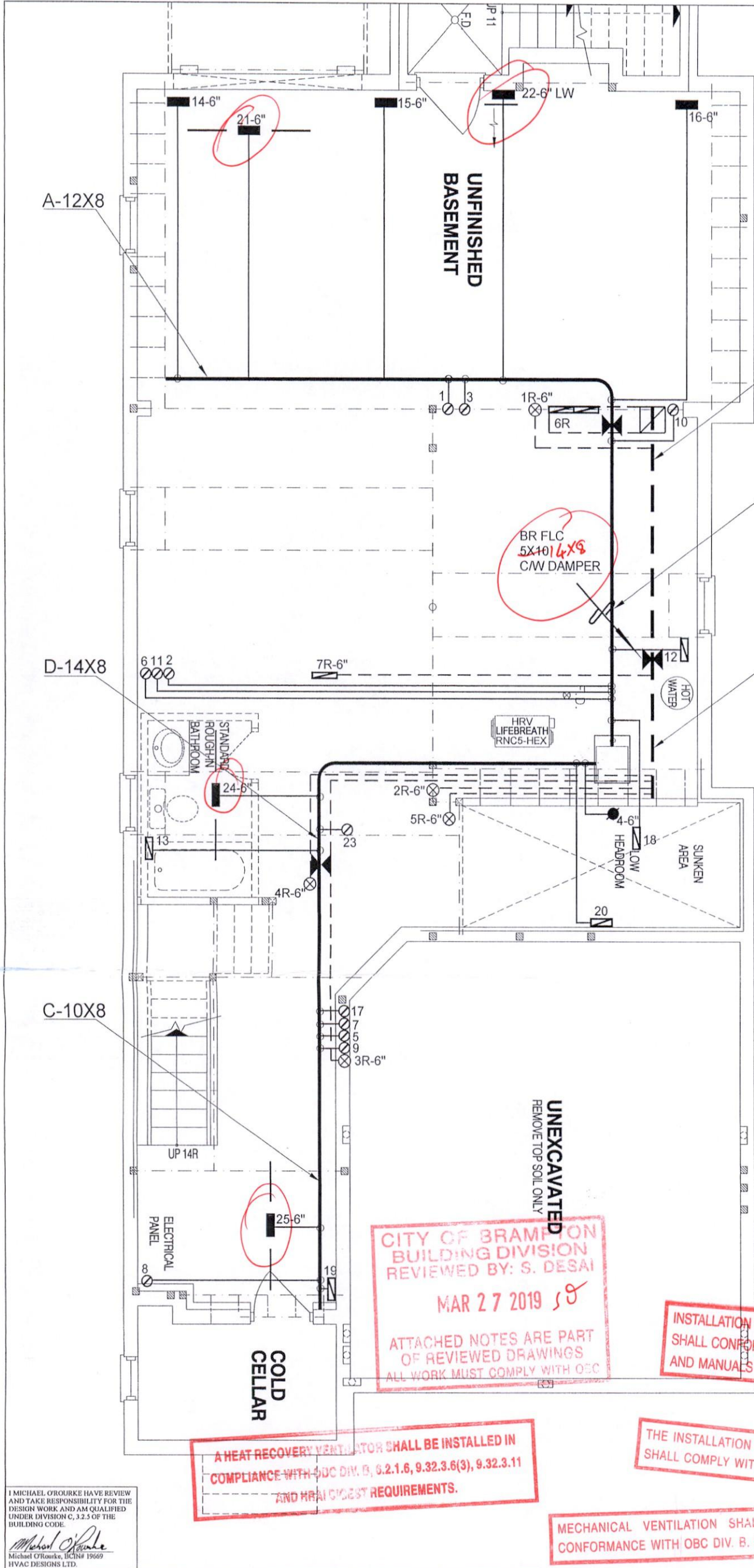
Weather Station Description			
Province:	Ontario		
Region:	Brampton		
Weather Station Location:	Open flat terrain, grass		
Anemometer height (m):	10		
Local Shielding			
Building Site:	Suburban, forest		
Walls:	Heavy		
Flue:	Heavy		
Highest Ceiling Height (m):	6.86		
Building Configuration			
Type:	Detached		
Number of Stories:	Two		
Foundation:	Full		
House Volume (m <sup>3</sup> ):	1176.6		
Air Leakage/Ventilation			
Air Tightness Type:	Present (1961-) (3.57 ACH)		
Custom BDT Data:	ELA @ 10 Pa.	1568.5 cm <sup>2</sup>	
	3.57	ACH @ 50 Pa	
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust	
	45.0	45.0	
Flue Size			
Flue #:	#1	#2	#3
Diameter (mm):	0	0	0
Natural Infiltration Rates			
Heating Air Leakage Rate (ACH/H):	<b>0.330</b>		
Cooling Air Leakage Rate (ACH/H):	<b>0.117</b>		

CITY OF BRAMPTON  
BUILDING DIVISION  
REVIEWED BY: S. DESA  
MAR 27 2019  
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TYPE: AMELIA 3  
LO# 81140

LOT 14





ENSURE THAT MIN THERMAL PERFORMANCE OF BLDG ENVELOPE AND EQUIPMENT SHALL CONFORM TO OBC SB-12, 3.1.1.2 TABLES REQUIREMENTS. FURNACE SHALL BE EQUIPPED WITH BRUSHLESS DIRECT CURRENT MOTOR OBC DIV B 12.3.1.5. SEAL ALL DUCTWORK WITHIN UNCONDITIONED SPACE or OUTDOORS PER OBC DIV B6.2.4.3(11) REQUIREMENTS. SEAL ALL SUPPLY DUCTS LOCATED IN CONDITIONED SPACE IN COMPLIANCE WITH OBC DIV B6.2.4.3(12) REQUIREMENTS. SEPARATE ANY INTAKES FROM BUILDING ENVELOPE PENETRATIONS THAT ARE POTENTIAL SOURCES OF CONTAMINANTS (GAS VENTS, OIL FILL PIPES, etc. BY MIN 900mm (2FT 11IN) - OBC Div B 9.32.3.12. INSTALLATION OF KITCHEN EXHAUST DUCT LARGER THAN 6"dia SHALL BE PRECEDED BY APPLICATION FOR REVISION OF DESIGN PER OBC PART 6 REQUIREMENTS. EXHAUST FAN SHALL DISCHARGE DIRECTLY TO OUTSIDE. CLOTHES DRYER EXHAUST SYSTEM SHALL COMPLY WITH OBC DIV B 9.32.1.2, 9.32.1.3 & 9.32.3 REQ'S. BALANCE THE RETURN AIRFLOW ON THE UPPER FLOOR TO MATCH THE SUPPLY. WHEN HRV IS USED AS PRINCIPAL EXHAUST FAN, THE CONTROLLER SHALL BE WIRED TO THE HRV UNIT AND INTERCONNECTED TO THE FURNACE FAN. THE FURNACE BLOWER MUST BE IN OPERATION WHEN THE HRV IS IN OPERATION. INSTALL ADDITIONAL S/A REGISTER AS REQUIRED IN ORDER TO ENSURE MIN 72degF - OBC Div B 9.33.3.1(1). THE DOOR TO ANY ROOM WITHOUT RETURN AIR GRILLE. ENSURE RETURN AIR INTAKE SHALL BE CONNECTED TO THE MAIN R/A DUCT AT A HORIZONTAL DISTANCE OF MIN 6FT FROM THE CASING OF THE UNIT (HRAI DIGEST).

A HEAT RECOVERY VENTILATOR SHALL BE INSTALLED IN COMPLIANCE WITH OBC DIV. B, 9.2.1.6, 9.32.3.6(3), 9.32.3.11 AND HRAI DIGEST REQUIREMENTS.

THE INSTALLATION OF CARBON MONOXIDE DETECTOR(S) SHALL COMPLY WITH OBC DIV. B, 9.33.4 REQUIREMENTS.

MECHANICAL VENTILATION SHALL BE PROVIDED IN CONFORMANCE WITH OBC DIV. B, 9.32.3 REQUIREMENTS.

LOT 14  
CSA-F280-12  
PACKAGE A1

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.	
	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  
**GREENYORK HOMES**

Project Name  
**GRANELLI HOMES CORP  
BRAMPTON, ONTARIO**

**M-2057**

**LOT 14  
AMELIA 3**

**2970 sqft**

**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

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.

HEAT LOSS	55296 BTU/H	# OF RUNS	S/A	R/A	FANS
UNIT DATA		3RD FLOOR			
MAKE	CARRIER	2ND FLOOR	13	5	5
MODEL	59SP5A-60-12	1ST FLOOR	8	2	2
INPUT	60 MBTU/H	BASEMENT	4	1	0
OUTPUT	58 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			
COOLING	3.0 TONS				
FAN SPEED	1030 cfm @ 0.6" w.c.				

Sheet Title  
**BASEMENT HEATING LAYOUT**

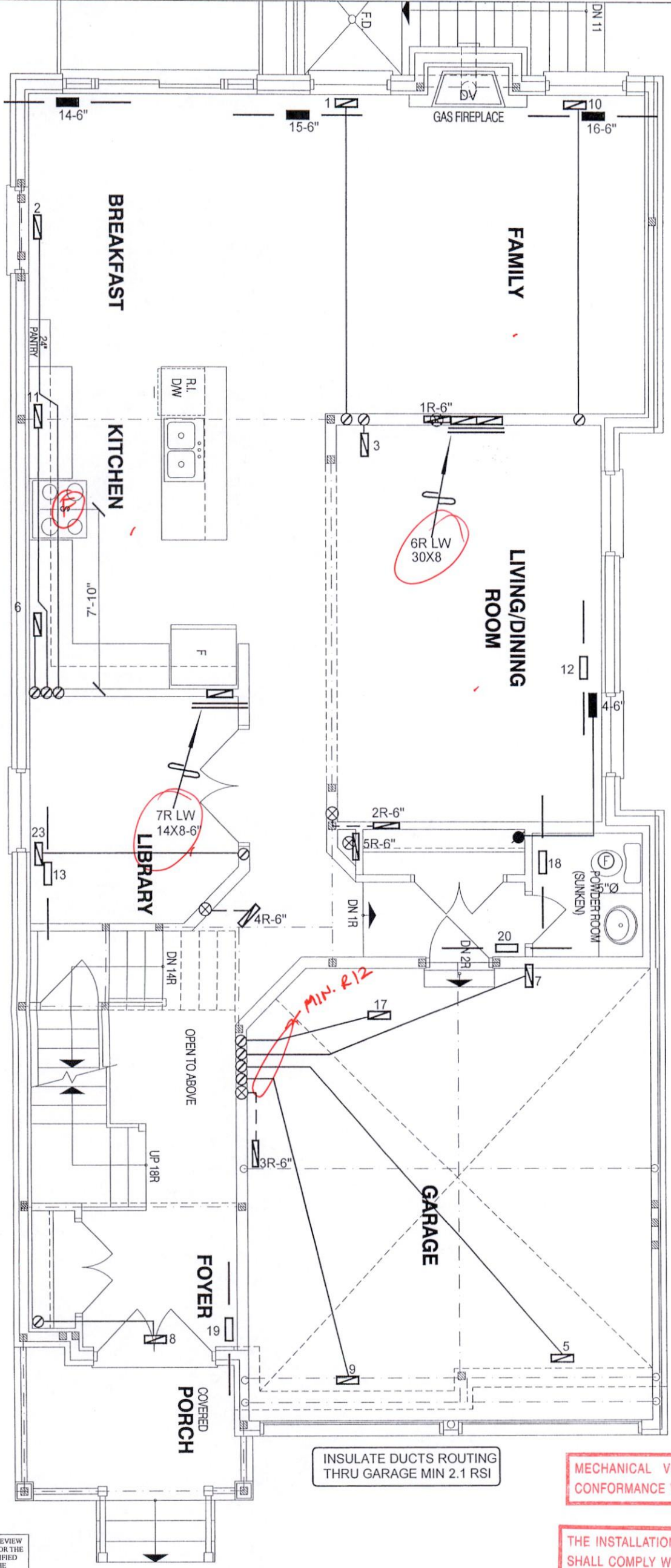
Date  
**JAN/2019**

Scale  
**3/16" = 1'-0"**

BCIN# 19669

LO# **81140**





THIS INSTALLATION OF A GAS FIREPLACE IS REGULATED UNDER THE T.S.S.A. BY C.S.A. B149.1 NATURAL GAS AND PROPANE INSTALLATION CODE CALL ENBRIDGE FOR INSPECTION AT 1-800-785-1314

CITY OF BRAMPTON  
BUILDING DIVISION  
REVIEWED BY: S. DESAI  
MAR 27 2019  
ATTACHED NOTES ARE PART OF REVIEWED DRAWINGS  
ALL WORK MUST COMPLY WITH OBC

INSULATE DUCTS ROUTING THRU GARAGE MIN 2.1 RSI

MECHANICAL VENTILATION SHALL BE PROVIDED IN CONFORMANCE WITH OBC DIV. B, 9.32.3 REQUIREMENTS.

THE INSTALLATION OF CARBON MONOXIDE DETECTOR(S) SHALL COMPLY WITH OBC DIV. B, 9.33.4 REQUIREMENTS.

LOT 14  
CSA-F280-12  
PACKAGE A1

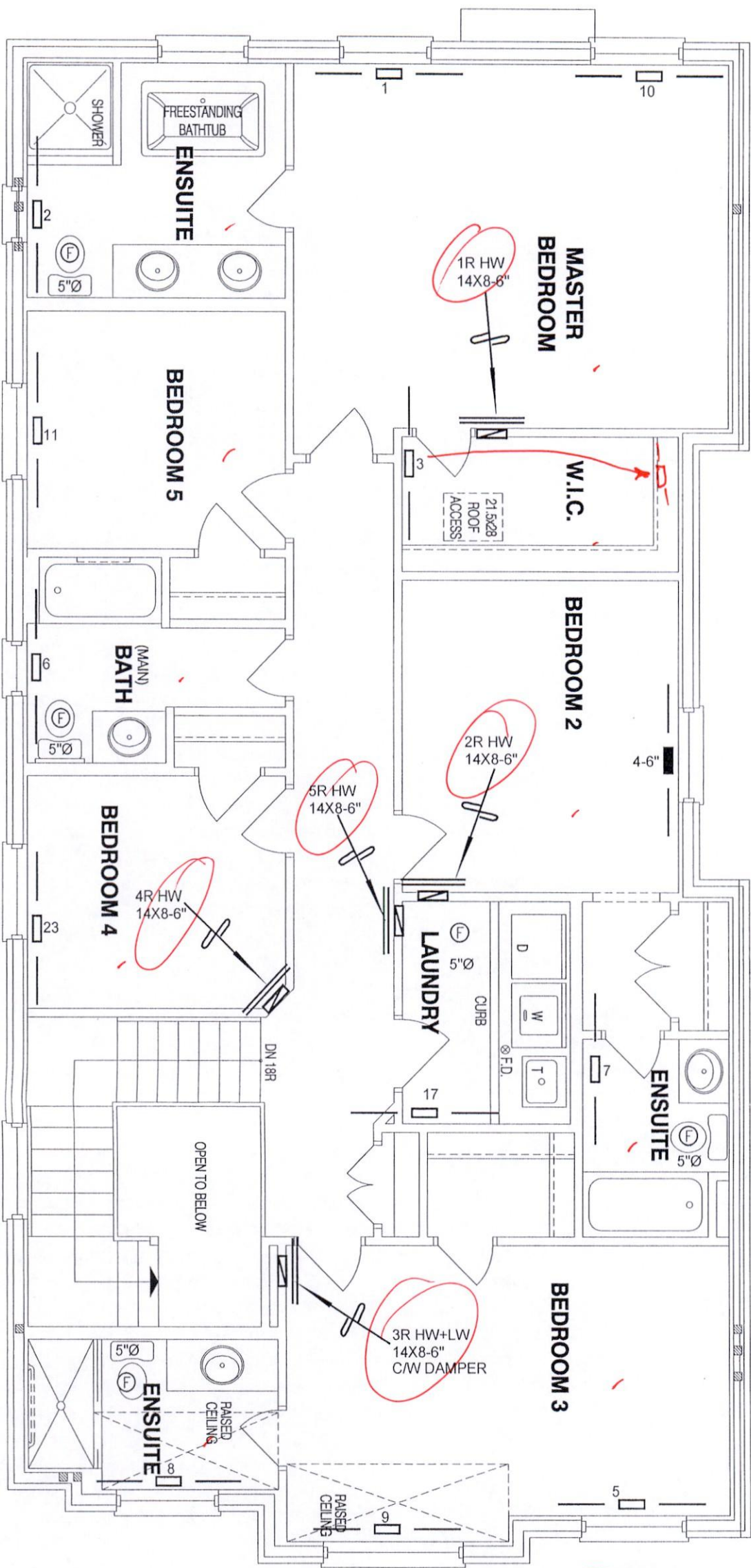
I, MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.3 OF THE BUILDING CODE.  
Michael O'Rourke, UEN# 19669  
HVAC DESIGNS LTD.

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

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Client GREENYORK HOMES		 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	Sheet Title FIRST FLOOR HEATING LAYOUT	
Project Name GRANELLI HOMES CORP BRAMPTON, ONTARIO M-2057 LOT 14 AMELIA 3 2970 sqft			Date JAN/2019	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# 81140





CITY OF BRAMPTON  
BUILDING DIVISION  
REVIEWED BY: S. DESAI  
MAR 27 2019  
ATTACHED NOTES ARE PART  
OF REVIEWED DRAWINGS  
ALL WORK MUST COMPLY WITH OTC

MECHANICAL VENTILATION SHALL BE PROVIDED IN  
CONFORMANCE WITH OBC DIV. B, 9.32.3 REQUIREMENTS.

THE INSTALLATION OF CARBON MONOXIDE DETECTOR(S)  
SHALL COMPLY WITH OBC DIV. B, 9.33.4 REQUIREMENTS.

LOT 14  
CSA-F280-12  
PACKAGE A1

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.

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		

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Client  
GREENYORK HOMES  
Project Name  
GRANELLI HOMES CORP  
BRAMPTON, ONTARIO  
M-2057  
LOT 14  
AMELIA 3  
2970 sqft

**HVACDESIGNS LTD.**  
375 Finley Ave. Suite 202 - Ajax, Ontario  
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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  
JAN/2019  
Scale  
3/16" = 1'-0"  
BCIN# 19669  
LO# 81140



# Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

<b>A. Project Information</b>			
Building number, street name 4 OSECO WAY		Unit no.	Lot/con. 14
Municipality BRAMPTON	Postal code	Plan number/ other description 43M-2057	
<b>B. Individual who reviews and takes responsibility for design activities</b>			
Name SANDY WHITE, P.Eng.		Firm ANDA ENGINEERING LTD.	
Street address 5125 ARDOCH ROAD		Unit no.	Lot/con.
Municipality ARDOCH	Postal code K0H-1C0	Province ONTARIO	E-mail design@andaengineering.com
Telephone number (613) 479-0161	Fax number ( ) N/A	Cell number (416) 476-1105	
<b>C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]</b>			
<input type="checkbox"/> House	<input type="checkbox"/> HVAC – House	<input type="checkbox"/> Building Structural	
<input type="checkbox"/> Small Buildings	<input type="checkbox"/> Building Services	<input checked="" type="checkbox"/> Plumbing – House	
<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Detection, Lighting and power	<input type="checkbox"/> Plumbing – II Buildings	
<input type="checkbox"/> Complex Buildings	<input type="checkbox"/> Fire Protection	<input type="checkbox"/> On-site Sewage Systems	
Description of designer's work AMELIA 3 EL. 2 (5 BEDROOM) WALK-UP & DECK CONDITION			
GRANELLI HOMES CORP.			
<b>D. Declaration of Designer</b>			
I, <u>SANDY WHITE,</u> declare that (choose one as appropriate): (print name)			
<input type="checkbox"/> I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____			
<input type="checkbox"/> I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: _____ Basis for exemption from registration: _____			
<input checked="" type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: <u>P.Eng. exempt, note 2</u>			
I certify that:			
1. The information contained in this schedule is true to the best of my knowledge.			
2. I have submitted this application with the knowledge and consent of the firm.			
<u>2019/24/01</u>		SANDY WHITE	
Date		Signature of Designer	

## NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) (c) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of practice, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.





**BRAMPTON**  
Flower City

Planning and Development Services  
Building Division  
8850 McLaughlin Road, Unit 1  
Brampton, ON L6Y 5T1

### WATER PIPE SIZING AND PLUMBING DATA SHEET

#### CERTIFIED MODEL WITH ONE DWELLING UNIT

THIS TABLE IS APPLICABLE FOR A HOUSE AFTER DECEMBER 31, 2017

Builder Name: Greenyork Homes  
Certified Model Name: AMELIA 3 ALT 2ND (LO#78990-P)  
Optional Floor Layout:  
Application No.:



*Swhite*

The Ontario Building Code Div. B, 7.6.3 regulates size and capacity of pipes for a new house. Please enter the number of individual fixtures as listed and bathroom groups<sup>(6)</sup> or powder room groups<sup>(7)</sup> per floor. The fixture units and required minimum size of water service will automatically be calculated.

Description	Basement Floor	First Floor	Second Floor	Third Floor
	Qty.	Qty.	Qty.	Qty.
Bathroom group <sup>(6)</sup>	1		4	
Bidet				
Extra Shower			1	
Lav			1	
Bar Sink				
Powder room <sup>(7)</sup>		1		
Kitchen Sink		1		
Dishwasher		1		
Laundry Tub			1	
Washing Machine			1	
Hose Bib		2		

Total Fixture Units **33.6**  
Minimum Diameter of Water Service Pipe  
Required from the Property Line to the House (Inch) **1 1/4**

#### Notes:

- (1) A potable water system shall be designed, constructed and installed to conform to good engineering practice appropriate to the circumstances, such as that described in the ASHRAE Handbooks and ASPE Data Books.
- (2) No water system between the point of connection with the water service pipe or the water meter and the first branch that supplies a water heater that serves more than one fixture shall be less than 3/4 in. in size.
- (3) The minimum water pressure at the entry to the building is 200 kPa, and the total maximum length of the water system is 90 m.
- (4) In a hot water distribution system of a developed length of more than 30 m from the HWI to the farthest fixture or supplying more than 4 storeys, the water temperature shall be maintained by (a) recirculation, or (b) a self-regulating heat tracing system.
- (5) Where piping may be exposed to freezing conditions, it shall be protected from the effects of freezing.
- (6) A bathroom group consists of 1 water closet, 1 lavatory, and 1 bathtub (with or without showerhead)
- (7) A powder room group consists of 1 water closet and 1 lavatory.

PLEASE SEE THE ATTACHED NOTES AS THEY FORM PART OF THE REVIEWED DRAWING

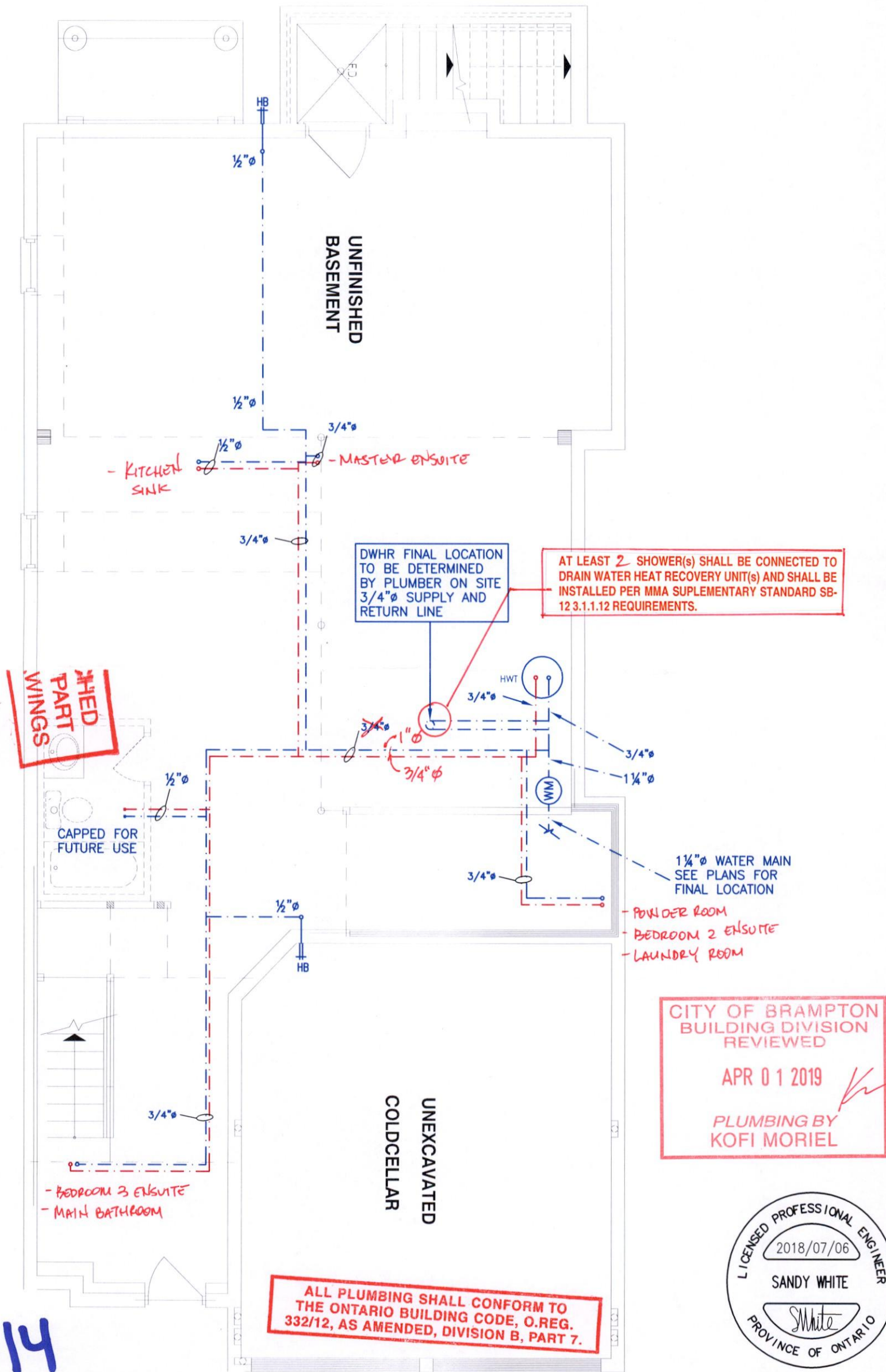


NOTES

- 1. DRAWINGS ARE TO BE PRINTED IN COLOUR
- 2. WHERE A 3/4"Ø TUB SPOUT/ SPIGOT CONNECTION IS USED ON THE BATHTUB FAUCET THE WATER SUPPLY PIPE SHALL BE 3/4"Ø TO THE BRANCH FOR THE BATHTUB
- 3. BASEMENT BATHROOM ROUGH-IN SHALL BE USED IN SIZING OF WATER PIPE
- 4. EXACT LOCATION OF ALL PLUMBING PIPING TO BE DETERMINED ON SITE

LEGEND

SYMBOL	DESCRIPTION (SEE PLAN FOR PIPE SIZING)
	WATER METER, PROVIDE SUPPLY PIPE SIZE/ Ø
	HOSE BIB
	PROPOSED COLD WATER LINE & RISER
	PROPOSED HOT WATER LINE & RISER
	FLOOR DRAIN



Lot 14

Client  
GREENYORK HOMES

Project Name  
GRANELLI HOMES CORP  
BRAMPTON, ONTARIO

ALT 2ND  
AMELIA 3

2970 sqft

**HVACDESIGNS LTD.**

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Email: info@hvacdesigns.ca  
Web: www.hvacdesigns.ca  
Specializing in Residential Mechanical Design Services

Sheet Title  
BASEMENT  
PLUMBING  
LAYOUT

Date  
JULY 2018

Scale  
3/16" = 1'-0"

LO# 78990-P

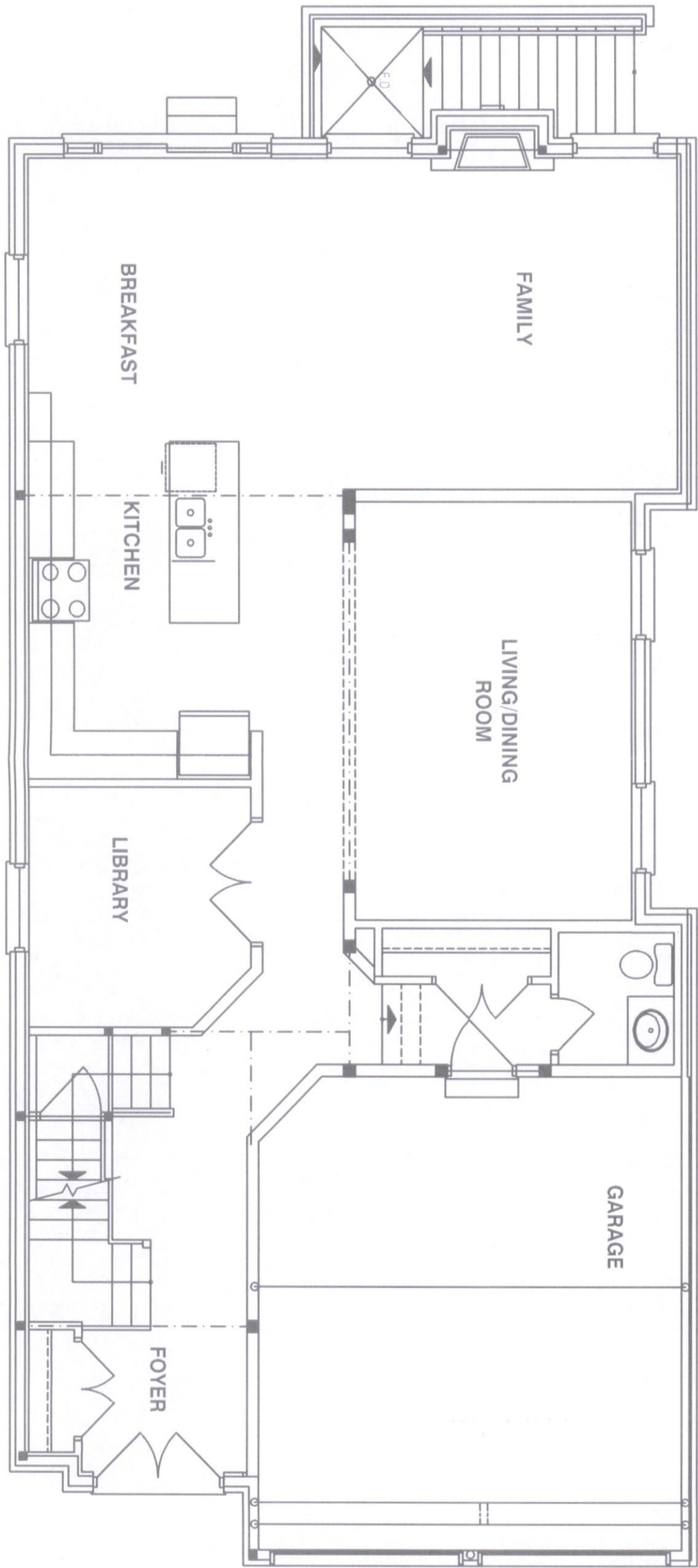


NOTES

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4. EXACT LOCATION OF ALL PLUMBING PIPING TO BE DETERMINED ON SITE

LEGEND

SYMBOL	DESCRIPTION (SEE PLAN FOR PIPE SIZING)
	WATER METER, PROVIDE SUPPLY PIPE SIZE/ Ø
	HOSE BIB
	PROPOSED COLD WATER LINE & RISER
	PROPOSED HOT WATER LINE & RISER
	FLOOR DRAIN



CITY OF BRAMPTON  
BUILDING DIVISION  
REVIEWED

APR 01 2019

PLUMBING BY  
KOFI MORIEL



Client

GREENYORK HOMES

Project Name

GRANELLI HOMES CORP  
BRAMPTON, ONTARIO  
M-2057 LOT 14  
ALT 2ND  
AMELIA 3

2970 sqft

**HVACDESIGNS LTD.**

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Web: www.hvacdesigns.ca  
Specializing in Residential Mechanical Design Services

Sheet Title

FIRST FLOOR  
PLUMBING  
LAYOUT

Date

JULY 2018

Scale

3/16" = 1'-0"

LO#

78990-P

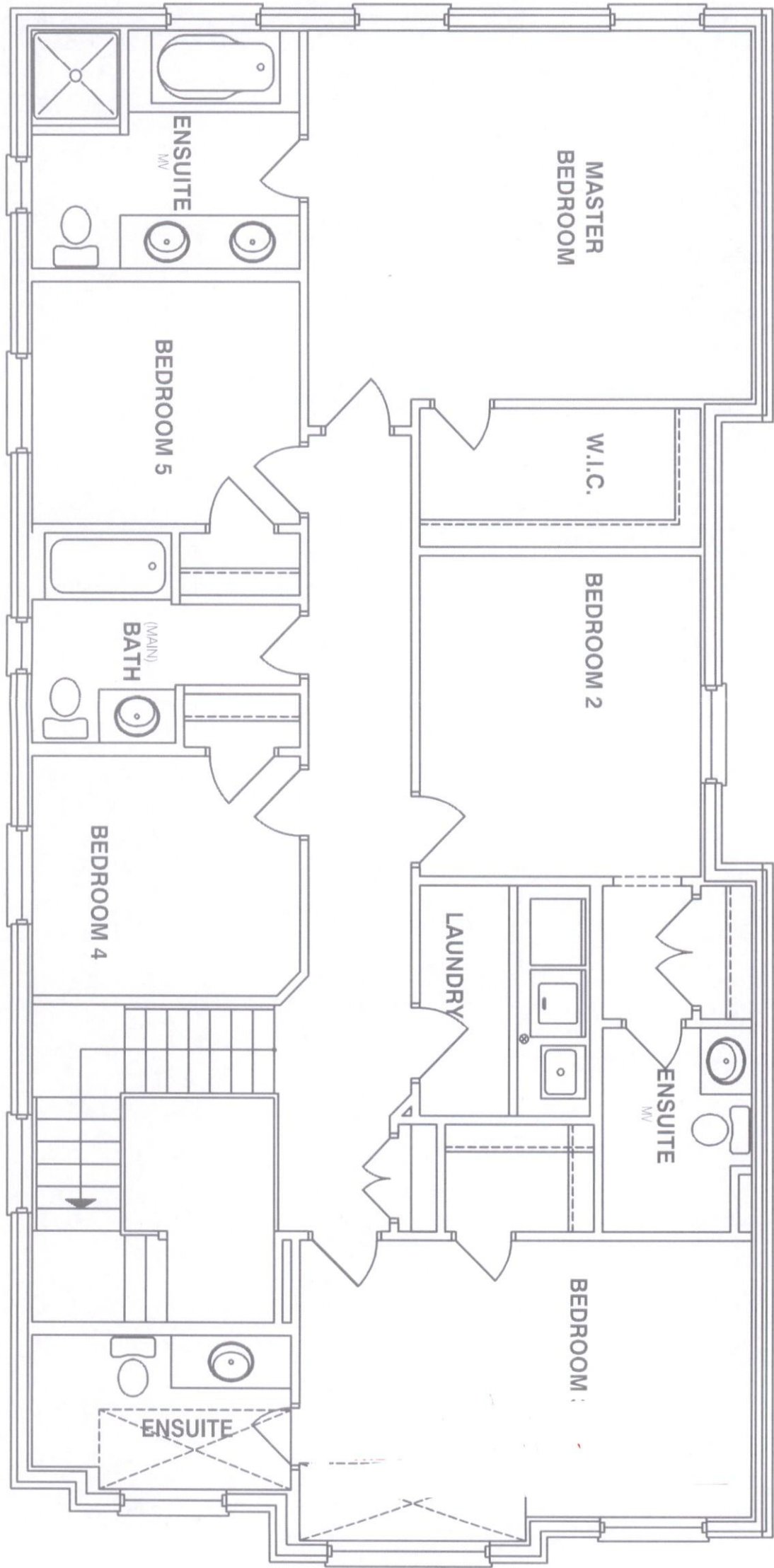


NOTES

1. DRAWINGS ARE TO BE PRINTED IN COLOUR
2. WHERE A 3/4"Ø TUB SPOUT/ SPIGOT CONNECTION IS USED ON THE BATHTUB FAUCET THE WATER SUPPLY PIPE SHALL BE 3/4"Ø TO THE BRANCH FOR THE BATHTUB
3. BASEMENT BATHROOM ROUGH-IN SHALL BE USED IN SIZING OF WATER PIPE
4. EXACT LOCATION OF ALL PLUMBING PIPING TO BE DETERMINED ON SITE

LEGEND

SYMBOL	DESCRIPTION (SEE PLAN FOR PIPE SIZING)
	WATER METER, PROVIDE SUPPLY PIPE SIZE/ Ø
	HOSE BIB
	PROPOSED COLD WATER LINE & RISER
	PROPOSED HOT WATER LINE & RISER
	FLOOR DRAIN



CITY OF BRAMPTON  
BUILDING DIVISION  
REVIEWED

APR 01 2019

PLUMBING BY  
KOFI MORIEL



Client

GREENYORK HOMES

Project Name

GRANELLI HOMES CORP  
BRAMPTON, ONTARIO  
**M-2057 LOT 14**  
ALT 2ND  
AMELIA 3                      2970 sqft

**HVACDESIGNS LTD.**

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Sheet Title

SECOND FLOOR  
PLUMBING  
LAYOUT

Date

JULY 2018

Scale

3/16" = 1'-0"

LO#

78990-P