


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

A. Project Information					
Building number, street name Rideau 16 S42-16				Lot:	
				Lot/con.	
Municipality Bradford	Postal code	Plan number/ other description			
B. Individual who reviews and takes responsibility for design activities					
Name David DaCosta			Firm gtaDesigns Inc.		
Street address 2985 Drew Road, Suite 202				Unit no.	Lot/con.
Municipality Mississauga	Postal code L4T 0A4	Province Ontario	E-mail dave@gtadesigns.ca		
Telephone number (905) 671-9800		Fax number (647) 494-9643	Cell number (416) 268-6820		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 of Division C]					
<input type="checkbox"/> House	<input checked="" type="checkbox"/> HVAC – House	<input type="checkbox"/> Building Structural			
<input type="checkbox"/> Small Buildings	<input type="checkbox"/> Building Services	<input type="checkbox"/> Plumbing – House			
<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Detection, Lighting and Power	<input type="checkbox"/> Plumbing – All Buildings			
<input type="checkbox"/> Complex Buildings	<input type="checkbox"/> Fire Protection	<input type="checkbox"/> On-site Sewage Systems			
Description of designer's work Model Certification		Project #:	PJ-00204		
		Layout #:	JB-04592		
Heating and Cooling Load Calculations	Main	X	Builder	Bayview Wellington	
Air System Design	Alternate		Project	Green Valley East	
Residential mechanical ventilation Design Summary	Area Sq ft:	2687	Model	Rideau 16	
Residential System Design per CAN/CSA-F280-12				S42-16	
Residential New Construction - Forced Air			SB-12	Package A1	
D. Declaration of Designer					
I, <u>David DaCosta</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 Division C of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____					
<input checked="" 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: <u>32964</u> Basis for exemption from registration: <u>Division C 3.2.4.1. (4)</u>					
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____					
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>April 4, 2018</u>					
Date			Signature of Designer		

NOTE:

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

Heat loss and gain calculation summary sheet		CSA-F280-M12 Standard Form No. 1
These documents issued for the use of <u>Bayview Wellington</u>		Layout No.
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.		JB-04592
Building Location		
Address (Model): S42-16	Site: Green Valley East	
Model: Rideau 16	Lot:	
City and Province: Bradford	Postal code:	
Calculations based on		
Dimensional information based on: VA3 Design Jan/2018		
Attachment: Detached	Front facing: East/West	Assumed? Yes
No. of Levels: 3 Ventilated? Included	Air tightness: 1961-Present (ACH=3.57)	Assumed? Yes
Weather location: Bradford	Wind exposure: Sheltered	
HRV? LifeBreath RNC155	Internal shading: Light-translucent	Occupants: 5
Sensible Eff. at -25C 71% Apparent Effect. at -0C 84%	Units: Imperial	Area Sq ft: 2687
Sensible Eff. at -0C 75%		
Heating design conditions		Cooling design conditions
Outdoor temp -9.4 Indoor temp: 72 Mean soil temp: 48	Outdoor temp 86 Indoor temp: 75 Latitude: 44	
Above grade walls		Below grade walls
Style A: As per OBC SB12 Package A1 R 22	Style A: As per OBC SB12 Package A1 R 20ci	
Style B: Existing Walls (When Applicable) R 12	Style B:	
Style C:	Style C:	
Style D:	Style D:	
Floors on soil		Ceilings
Style A: As per Selected OBC SB12 Package A1	Style A: As per Selected OBC SB12 Package A1 R 60	
Style B:	Style B: As per Selected OBC SB12 Package A1 R 31	
Style C:	Style C:	
Exposed floors		Doors
Style A: As per Selected OBC SB12 Package A1 R 31	Style A: As per Selected OBC SB12 Package A1 R 4.00	
Style B:	Style B:	
Windows		Skylights
Style A: As per Selected OBC SB12 Package A1 R 3.55	Style A: As per Selected OBC SB12 Package A1 R 2.03	
Style B: Existing Windows (When Applicable) R 1.99	Style B:	
Style C:	Style C:	
Style D:	Style D:	
Attached documents: As per Shedule 1	Heat Loss/Gain Caculations based on CSA-F280-12 Effective R-Values	
Notes: Residential New Construction - Forced Air		
Calculations performed by		
Name: David DaCosta	Postal code: L4T 0A4	
Company: gtaDesigns Inc.	Telephone: (905) 671-9800	
Address: 2985 Drew Road, Suite 202	Fax: (416) 268-6820	
City: Mississauga	E-mail: dave@gtadesigns.ca	

SB-12 Package A1

Builder: Bayview Wellington

Date: April 4, 2018

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code.

Page 3

Project: Green Valley East

Model: Rideau 16 S42-16

System 1

Individual BCIN: 32964 *David DaCosta* David DaCosta

Project # PJ-00204
Layout # JB-04592

DESIGN LOAD SPECIFICATIONS

AIR DISTRIBUTION & PRESSURE

FURNACE/AIR HANDLER DATA:

BOILER/WATER HEATER DATA:

A/C UNIT DATA:

Level 1 Net Load	15,541 btu/h
Level 2 Net Load	17,735 btu/h
Level 3 Net Load	16,550 btu/h
Level 4 Net Load	0 btu/h
Total Heat Loss	49,826 btu/h
Total Heat Gain	28,926 btu/h
Combo System HL + 10%	54,809 Btu/h
Building Volume Vb	32057 ft ³
Ventilation Load	1,118 Btu/h
Ventilation PVC	79.5 cfm
Supply Branch and Grill Sizing	

Equipment External Static Pressure	0.5 "w.c.
Additional Equipment Pressure Drop	0.225 "w.c.
Available Design Pressure	0.275 "w.c.
Return Branch Longest Effective Length	300 ft
R/A Plenum Pressure	0.138 "w.c.
S/A Plenum Pressure	0.14 "w.c.
Heating Air Flow Proportioning Factor	0.0235 cfm/btu/h
Cooling Air Flow Proportioning Factor	0.0333 cfm/btu/h
R/A Temp	70 deg. F.
S/A Temp	116 deg. F.
Diffuser loss	0.01 "w.c.

Make	Amana
Model	AMEC960603BNA
Input Btu/h	60000
Output Btu/h	57600
E.s.p.	0.50 " W.C.
Water Temp	deg. F.
AFUE	96%
Aux. Heat	
SB-12 Package	Package A1
Temp. Rise>>>	46 deg. F.

Make	Type	Amana	2.5 Ton
Model		Cond.-----	2.5
Input Btu/h		Coil -----	2.5
Output Btu/h			
Min. Output Btu/h	AWH		
Blower DATA:			
Blower Speed Selected:	W2	Blower Type	ECM
		(Brushless DC OBC 12.3.1.5.(2))	
Heating Check	1170 cfm	Cooling Check	963 cfm
Selected cfm>	1170 cfm	Cooling Air Flow Rate	963 cfm

S/A Outlet No.	Level 1													Level 2												
	1	2	3	4	5	6	7	8	9	10	11	12	13	5	6	7	8	9	10	11	12	13				
Room Use	BASE	BASE	BASE	BASE										KIT	KIT	LAUN	PWD	FOY	LIV/DIN	LIV/DIN	GRT	GRT				
Btu/Outlet	3885	3885	3885	3885										1961	1961	1721	595	3241	2034	2034	2094	2094				
Heating Airflow Rate CFM	91	91	91	91										46	46	40	14	76	48	48	49	49				
Cooling Airflow Rate CFM	15	15	15	15										75	75	57	3	47	62	62	67	67				
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13		
Actual Duct Length	31	27	14	27										29	37	17	9	40	33	24	42	34				
Equivalent Length	100	100	70	100	70	70	70	70	70	70	70	70	70	90	110	120	130	90	80	130	90	110	70	70		
Total Effective Length	131	127	84	127	70	70	70	70	70	70	70	70	70	119	147	137	139	130	113	154	132	144	70	70		
Adjusted Pressure	0.10	0.10	0.15	0.10	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.11	0.09	0.09	0.09	0.10	0.12	0.08	0.10	0.09	0.19	0.19		
Duct Size Round	6	6	6	6										6	6	5	3	6	5	5	5	5				
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	4x10	3x10	3x10	3x10	3x10	4x10	4x10		
Trunk	C	B	A	E										B	B	A	A	E	D	D	C	C				

S/A Outlet No.	Level 3											Level 4										
	14	15	16	17	18	19	20	21	22	23	14	15	16	17	18	19	20	21	22	23		
Room Use	MAST	MAST	ENS	BED 2	BATH	BED 3	BED 3	BED 4	ENS 2													
Btu/Outlet	2061	2061	2348	1209	1047	2018	2018	1562	1562	665												
Heating Airflow Rate CFM	48	48	55	28	25	47	47	37	37	16												
Cooling Airflow Rate CFM	56	56	43	26	17	47	47	44	44	12												
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13		
Actual Duct Length	56	45	38	39	42	42	40	46	48	43												
Equivalent Length	100	90	160	100	140	130	120	150	150	130	70	70	70	70	70	70	70	70	70	70		
Total Effective Length	156	135	198	139	182	172	160	196	198	173	70	70	70	70	70	70	70	70	70	70		
Adjusted Pressure	0.08	0.10	0.07	0.09	0.07	0.08	0.08	0.07	0.07	0.08	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19		
Duct Size Round	5	5	6	4	4	5	5	5	5	3												
Outlet Size	3x10	3x10	4x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10		
Trunk	C	B	B	A	D	D	D	E	E	A												

Return Branch And Grill Sizing	Grill Pressure Loss										
	0.02 "w.c.										
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R
Inlet Air Volume CFM	182	438	150	100	150	150					
Duct Design Pressure	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Actual Duct Length	15	12	37	12	49	50					
Equivalent Length	110	125	160	160	195	200	50	50	50	50	50
Total Effective Length	125	137	197	172	244	250	50	50	50	50	50
Adjusted Pressure	0.09	0.09	0.06	0.07	0.05	0.05	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	10.5	8.0	6.0	8.0	8.0					
Inlet Size	FLC	8	8	8	8	8					
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14					
Trunk	Y	Z	Z	Z	Y	Y					

Return Trunk Duct Sizing	Trunk	CFM	Press.	Round	Rect. Size
Drop		1170	0.05	17.0	24x12
Z		1170	0.05	17.0	26x10 22x12
Y		482	0.05	12.5	18x8 14x10
X					
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing	Trunk	CFM	Press.	Round	Rect. Size
A		715	0.07	13.5	20x8 16x10
B		287	0.07	9.5	10x8
C		238	0.08	8.5	8x8
D		456	0.07	11.5	14x8 12x10
E		241	0.07	9.0	8x8 10x7
F					
G					
H					
I					
J					
K					

2012 OBC

Builder: Bayview Wellington Date: April 4, 2018
 Project: Green Valley East Model: Rideau 16 S42-16

System 1

Weather Data Bradford 44 -9.4 86 22 48.2
 Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 2687

Project # PJ-00204
 Layout # JB-04592

Level 1

	BASE																	
Run ft. exposed wall A	163 A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG
Floor area	1161 Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	590																	
Gross Exp Wall B																		

Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	10.91	3	69	33													
East/West	3.55	22.93	27.35	32	734	875													
South	3.55	22.93	20.89																
WOB Windows	3.15	25.84	28.32																
Skylight	2.03	40.10	88.23																
Doors	4.00	20.35	2.75	21	427	58													
Net exposed walls A	21.12	3.85	0.52	534		278													
Net exposed walls B	14.49	5.62	0.76																
Exposed Ceilings A	59.22	1.37	0.64																
Exposed Ceilings B	22.86	3.56	1.66																
Exposed Floors	29.80	2.73	0.17																
Foundation Conductive Heatloss	On Grade () or Above			6586															
Total Conductive	Heat Loss			7816															
	Heat Gain					1244													
Air Leakage	Heat Loss/Gain			0.9549	0.0336	7463	42												
Ventilation	Case 1			0.07	0.06														
	Case 2			14.07	11.88														
	Case 3			x	0.03	0.06	262	79											
Heat Gain People					239														
Appliances Loads				1 = .25 percent	4538														
Duct and Pipe loss					10%														
Level 1 HL Total	15,541	Total HL for per room			15541														
Level 1 HG Total	1,774	Total HG per room x 1.3				1774													

Level 2

	KIT	LAUN	PWD	FOY	LIV/DIN	GRT												
Run ft. exposed wall A	32 A	16 A	9 A	25 A	38 A	42 A	A	A	A	A	A	A	A	A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	10.0	12.0	10.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Floor area	253 Area	90 Area	53 Area	75 Area	305 Area	380 Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	320	192	90	275	380	420												
Gross Exp Wall B																		

Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain			
North Shaded	3.55	22.93	10.91																			
East/West	3.55	22.93	27.35	72	1651	1969				24	550	656	14	321	383	56	1284	1532				
South	3.55	22.93	20.89																			
Existing Windows	1.99	40.90	22.15																			
Skylight	2.03	40.10	88.23																			
Doors	4.00	20.35	2.75																			
Net exposed walls A	17.03	4.78	0.65	248	1185	160	171	817	110	90	430	58	230	1099	149	318	1520	205	364	1740	235	
Net exposed walls B	8.50	9.58	1.29																			
Exposed Ceilings A	59.22	1.37	0.64																			
Exposed Ceilings B	22.86	3.56	1.66																			
Exposed Floors	29.80	2.73	0.17																			
Foundation Conductive Heatloss	On Grade () or Above			x																		
Total Conductive	Heat Loss			2836																		
	Heat Gain					2130																
Air Leakage	Heat Loss/Gain			0.3491	0.0336	990	72	435	6	150	2	818	33	1027	54	1058	60					
Ventilation	Case 1			0.03	0.06																	
	Case 2			14.07	11.88																	
	Case 3			x	0.03	0.06	95	135	42	11	14	4	79	63	99	101	102	112				
Heat Gain People					239																	
Appliances Loads				1 = .25 percent	4538	1.0	1134	1.0	1134			1.0	1134	1.0	1134							
Duct and Pipe loss					10%																	
Level 2 HL Total	17,735	Total HL for per room			3922	4512	1721	1715	595	83	3241	1408	4067	3744	4189	3999						
Level 2 HG Total	15,461	Total HG per room x 1.3																				

Total Heat Loss	49,826	btu/h
Total Heat Gain	28,926	btu/h

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code. Individual BCIN: 32964

Dave DaCosta
 Dave DaCosta

SB-12 Package

Package A1

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code. Individual BCIN: 32964 *David DaCosta* David DaCosta

Package: Package A1
Project: Bradford **Model:** S42-16

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY
 For systems serving one dwelling unit & conforming to the Ontario Building Code, O.reg 332/12

Location of Installation	
Lot #	Plan #
Township	Bradford
Roll #	Permit #
Address	

Total Ventilation Capacity 9.32.3.3(1)			
Bsmt & Master Bdrm	2 @ 21.2 cfm		42.4 cfm
Other Bedrooms	3 @ 10.6 cfm		31.8 cfm
Bathrooms & Kitchen	5 @ 10.6 cfm		53 cfm
Other rooms	5 @ 10.6 cfm		53 cfm
	Total		<u>180.2</u>

Builder	
Name	Bayview Wellington
Address	
City	
Tel	Fax

Principal Ventilation Capacity 9.32.3.4(1)			
Master bedroom	1 @ 31.8 cfm		31.8 cfm
Other bedrooms	3 @ 15.9 cfm		47.7 cfm
	Total		<u>79.5</u>

Installing Contractor	
Name	
Address	
City	
Tel	Fax

Principal Exhaust Fan Capacity			
Make	Model	Location	
LifeBreath	RNC155	Base	
132 cfm		Sones	or Equiv.

Heat Recovery Ventilator			
Make	LifeBreath		
Model	RNC155		
	132 cfm high		80 cfm low
Sensible efficiency @ -25 deg C			71%
Sensible efficiency @ 0 deg C			75%

Note: Installer to balance HRV/ERV to within 10 percent of PVC

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 fireplaces
d)	<input type="checkbox"/>	Solid fuel (including fireplaces)
e)	<input type="checkbox"/>	No combustion Appliances

Supplemental Ventilation Capacity	
Total ventilation capacity	180.2
Less principal exhaust capacity	79.5
REQUIRED supplemental vent. Capacity	<u>100.7</u> cfm

Heating System	
<input checked="" type="checkbox"/>	Forced air
<input type="checkbox"/>	Non forced air
<input type="checkbox"/>	Electric space heat (if over 10% of heat load)

Supplemental Fans 9.32.3.5.			
Location	cfm	Model	Sones
Ens	50	XB50	0.3
Bath	50	XB50	0.3
Ens 2	50	XB50	0.3
<i>all fans HVI listed</i> Make Broan or Equiv.			

House Type 9.32.3.1(2)		
I	<input checked="" type="checkbox"/>	Type a) or b) appliances only, no solid fuel
II	<input type="checkbox"/>	Type I except with solid fuel (including fireplace)
III	<input type="checkbox"/>	Any type c) appliance
IV	<input type="checkbox"/>	Type I or II either electric space heat
Other	<input type="checkbox"/>	Type I, II or IV no forced air

Designer Certification
 I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.

System Design Option		
1	<input type="checkbox"/>	Exhaust only / forced air system
2	<input type="checkbox"/>	HRV WITH DUCTING / forced air system
3	<input checked="" type="checkbox"/>	HRV simplified connection to forced air system
4	<input type="checkbox"/>	HRV full ducting/not coupled to forced air system
	<input type="checkbox"/>	Part 6 design

Name	David DaCosta		
Signature	<i>David DaCosta</i>		
HRAI #	5190	BCIN #	32964
Date	April 4, 2018		

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
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A. Project Information

Building number, street name	Rideau 16	Unit number	Lot/Con
	S42-16		
Municipality	Bradford	Postal code	Reg. Plan number / other description

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

SB-12 Prescriptive (input design package):	<u>Package A1</u>	Table: <u>3.1.1.2.A</u>
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C. Project Design Conditions


Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source		
<input checked="" type="checkbox"/> Zone 1 (< 5000 degree days) <input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input checked="" type="checkbox"/> ≥ 92% AFUE <input type="checkbox"/> ≥ 84% < 92% AFUE	<input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil	<input type="checkbox"/> Propane <input type="checkbox"/> Electric	<input type="checkbox"/> Solid Fuel <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics		
Area of Walls = <u>331.57</u> m ² or <u>3569.0</u> ft ²	W,S & G % = <u>14%</u>	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> Slab-on-ground	<input type="checkbox"/> ICF Above Grade <input type="checkbox"/> Walkout Basement	<input type="checkbox"/> ICF Basement
Area of W, S & G = <u>44.871</u> m ² or <u>483.0</u> ft ²	Utilize Window Averaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Air Conditioning <input type="checkbox"/> Air Sourced Heat Pump (ASHP) <input type="checkbox"/> Ground Source Heat Pump (GSHP)	<input type="checkbox"/> Combo Unit	

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)) <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) Airtightness test required (Refer to Design Guide Attached)	<input type="checkbox"/> Table 3.1.1.4.B Required:	Permitted Substitution:		
	<input type="checkbox"/> Table 3.1.1.4.C Required:	Permitted Substitution:		
Building Component	Minimum RSI/R-Values or Maximum U-Value ¹		Building Component	Efficiency Ratings
Thermal Insulation	Nominal	Effective	Windows & Doors Provide U-Value ⁽¹⁾ or ER rating	
Ceiling with Attic Space	60		Windows/Sliding Glass Doors	1.6
Ceiling without Attic Space	31		Skylights	2.8
Exposed Floor	31		Mechanicals	
Walls Above Grade	22		Heating Equip.(AFUE)	96%
Basement Walls	20.0ci		HRV Efficiency (SRE% at 0°C)	75%
Slab (all >600mm below grade)	x		DHW Heater (EF)	0.80
Slab (edge only ≤600mm below grade)	10		DWHR (CSA B55.1 (min. 42% efficiency))	#Showers 2
Slab (all ≤600mm below grade, or heated)	10		Combined Heating System	

(1) U value to be provided in either W/(m²·K) or Btu/(h·ft²·F) but not both.

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

Name	BCIN	Signature
David DaCosta	32964	

Package: **Package A1** System: **System 1**
Project: **Bradford** Model: **S42-16**

Air Leakage Calculations

Building Air Leakage Heat Loss					Building Air Leakage Heat Gain				
B	LRairh	Vb	HL^T	HLleak	B	LRairh	Vb	HG^T	HG Leak
0.018	0.318	32057	81.4	14926	0.018	0.079	32057	11	500

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)					Levels			
Level	Level Factor (LF)	Building Air	Level Conductive Heat Loss	Air Leakage Heat Loss Multiplier	1 (LF)	2 (LF)	3 (LF)	4 (LF)
Level 1	0.5	14926	7816	0.9549	1.0	0.6	0.5	0.4
Level 2	0.3		12826	0.3491		0.4	0.3	0.3
Level 3	0.2		12688	0.2353			0.2	0.2
Level 4	0		0	0.0000				0.1

HG LEAK		500	Air Leakage Heat Gain	
BUILDING CONDUCTIVE HEAT GAIN		14860	0.0336	

Levels this Dwelling	
3	

Ventilation Calculations

Vent	Ventilation Heat Loss					Ventilation Heat Gain				Vent																																		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="5">Ventilation Heat Loss</th> </tr> <tr> <th>C</th> <th>PVC</th> <th>HL^T</th> <th>(1-E) HRV</th> <th>HLbvent</th> </tr> <tr> <td>1.08</td> <td>79.5</td> <td>81.4</td> <td>0.16</td> <td>1118</td> </tr> </table>					Ventilation Heat Loss					C	PVC	HL^T	(1-E) HRV	HLbvent	1.08	79.5	81.4	0.16	1118	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="4">Ventilation Heat Gain</th> </tr> <tr> <th>C</th> <th>PVC</th> <th>HG^T</th> <th>HGbvent</th> </tr> <tr> <td>1.1</td> <td>79.5</td> <td>11</td> <td>944</td> </tr> </table>				Ventilation Heat Gain				C	PVC	HG^T	HGbvent	1.1	79.5	11	944	Vent							
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	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="5">Case 1 - Exhaust Only</th> </tr> <tr> <th>Level</th> <th>LF</th> <th>HLbvent</th> <th>LVL Cond. HL</th> <th>Multiplier</th> </tr> <tr> <td>Level 1</td> <td>0.5</td> <td rowspan="4" style="text-align: center;">1118</td> <td>7816</td> <td>0.07</td> </tr> <tr> <td>Level 2</td> <td>0.3</td> <td>12826</td> <td>0.03</td> </tr> <tr> <td>Level 3</td> <td>0.2</td> <td>12688</td> <td>0.02</td> </tr> <tr> <td>Level 4</td> <td>0</td> <td>0</td> <td>0.00</td> </tr> </table>					Case 1 - Exhaust Only					Level	LF	HLbvent	LVL Cond. HL	Multiplier	Level 1	0.5	1118	7816	0.07	Level 2	0.3	12826	0.03	Level 3	0.2	12688	0.02	Level 4	0	0	0.00	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">Case 1 - Exhaust Only</th> <th>Multiplier</th> </tr> <tr> <td>HGbvent</td> <td>944</td> <td rowspan="2" style="text-align: center;">0.06</td> </tr> <tr> <td>Building</td> <td>14860</td> </tr> </table>				Case 1 - Exhaust Only		Multiplier	HGbvent	944	0.06	Building	14860
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Building	14860																																											
Case 2					Case 2																																							
Case 2	Ventilation Heat Loss (Direct Ducted Systems)					Ventilation Heat Gain (Direct Ducted Systems)				Case 2																																		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>C</th> <th>HL^T</th> <th>(1-E) HRV</th> <th>Multiplier</th> </tr> <tr> <td>1.08</td> <td>81.4</td> <td>0.16</td> <td>14.07</td> </tr> </table>					C	HL^T	(1-E) HRV	Multiplier		1.08	81.4	0.16	14.07	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>C</th> <th>HG^T</th> <th>Multiplier</th> </tr> <tr> <td>1.08</td> <td>11</td> <td>11.88</td> </tr> </table>				C	HG^T	Multiplier	1.08	11	11.88	Case 2																			
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Total Ventilation Load	HLbvent	Multiplier																																										
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HGbvent		HG*1.3	Vent Heat Gain	Multiplier																																								
944		1	944	0.06																																								

Foundation Conductive Heatloss Level 1

1930 Watts 6586 Btu/h

Foundation Conductive Heatloss Level 2

Watts Btu/h

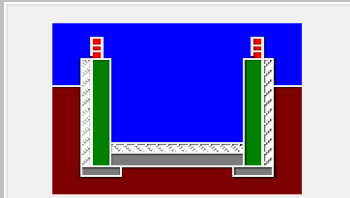
Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

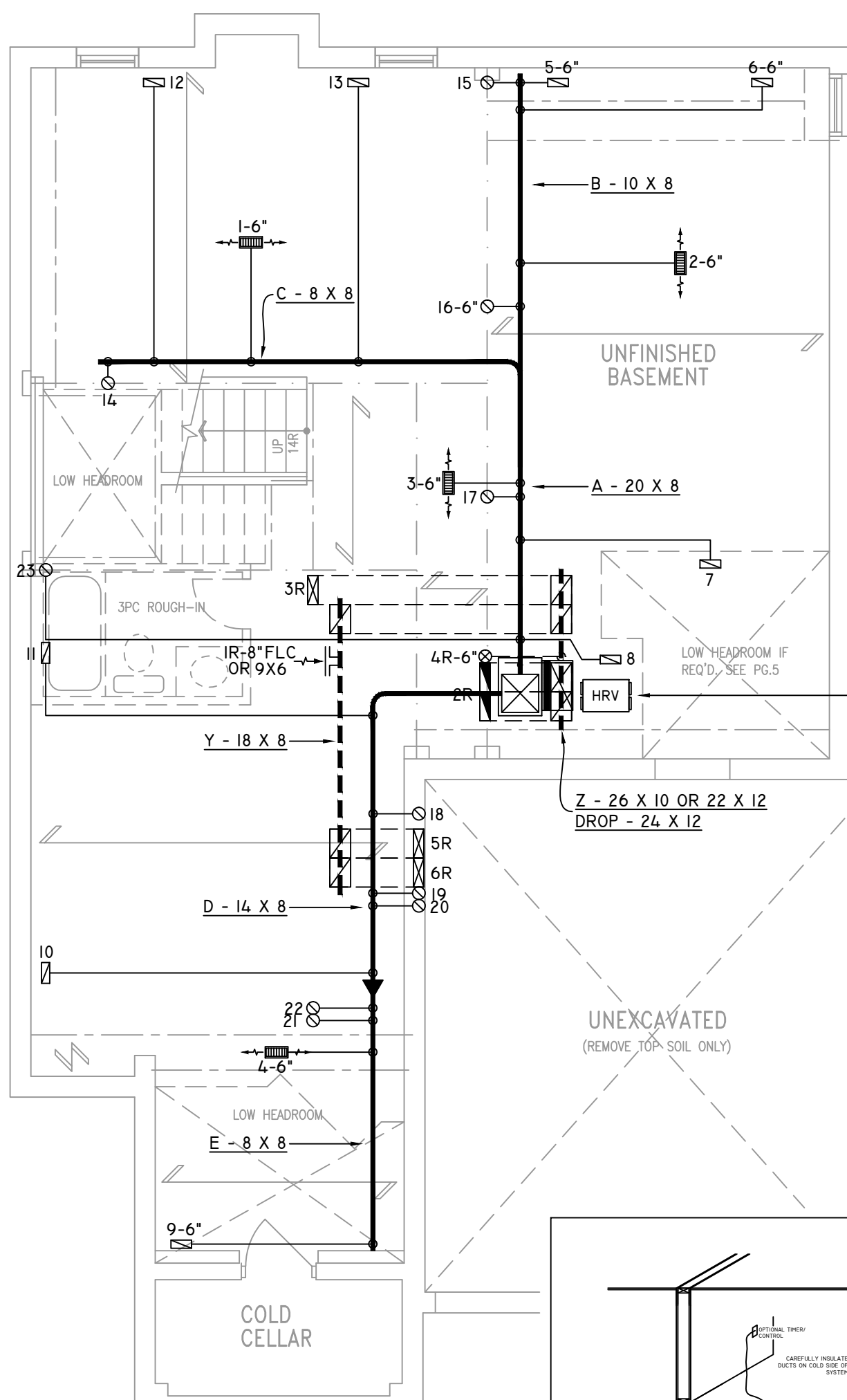
Weather Station Description				
Province:	Ontario			
Region:	Bradford			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	6.59			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	907.85			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa.	322.44 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply:	Total Exhaust:		
	39.75	39.75		
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Heating Air Leakage Rate (ACH/H):		0.318		
Cooling Air Leakage Rate (ACH/H):		0.079		

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	▼
Region:	Bradford	▼
Site Description		
Soil Conductivity:	High conductivity: moist soil	▼
Water Table:	Normal (7-10 m, 23-33 Ft)	▼
Foundation Dimensions		
Floor Length (m):	19.23	 <p>Insulation Configuration</p>
Floor Width (m):	5.61	
Exposed Perimeter (m):	49.68	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.64	
Window Area (m ²):	3.25	
Door Area (m ²):	1.95	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1930	

	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER				PRINCIPAL EXHAUST FAN SWITCH		W/R & PRINCIPAL EXHAUST FAN



FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)

ALL DUCTWORK LOCATED IN CONDITIONED AREAS MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(12)

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. R12

FOR THE PURPOSE OF HEATLOSS/GAIN CALCULATIONS ALL ELEVATIONS HAVE BEEN CONSIDERED

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN ON BEHALF OF GTA DESIGNS INC. AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE BUILDING CODE TO BE A DESIGNER

QUALIFICATION INFORMATION

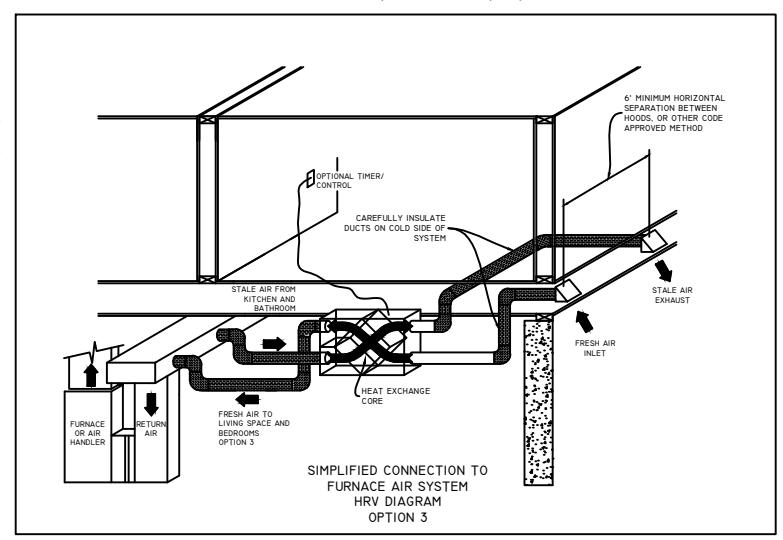
REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA B.C.I.N. 32964
SIGNATURE OF DESIGNER

BASEMENT PLAN 'A'

OBC 2012

ZONE I COMPLIANCE PACKAGE "A1" REF. TABLE 3.1.1.2.A



NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

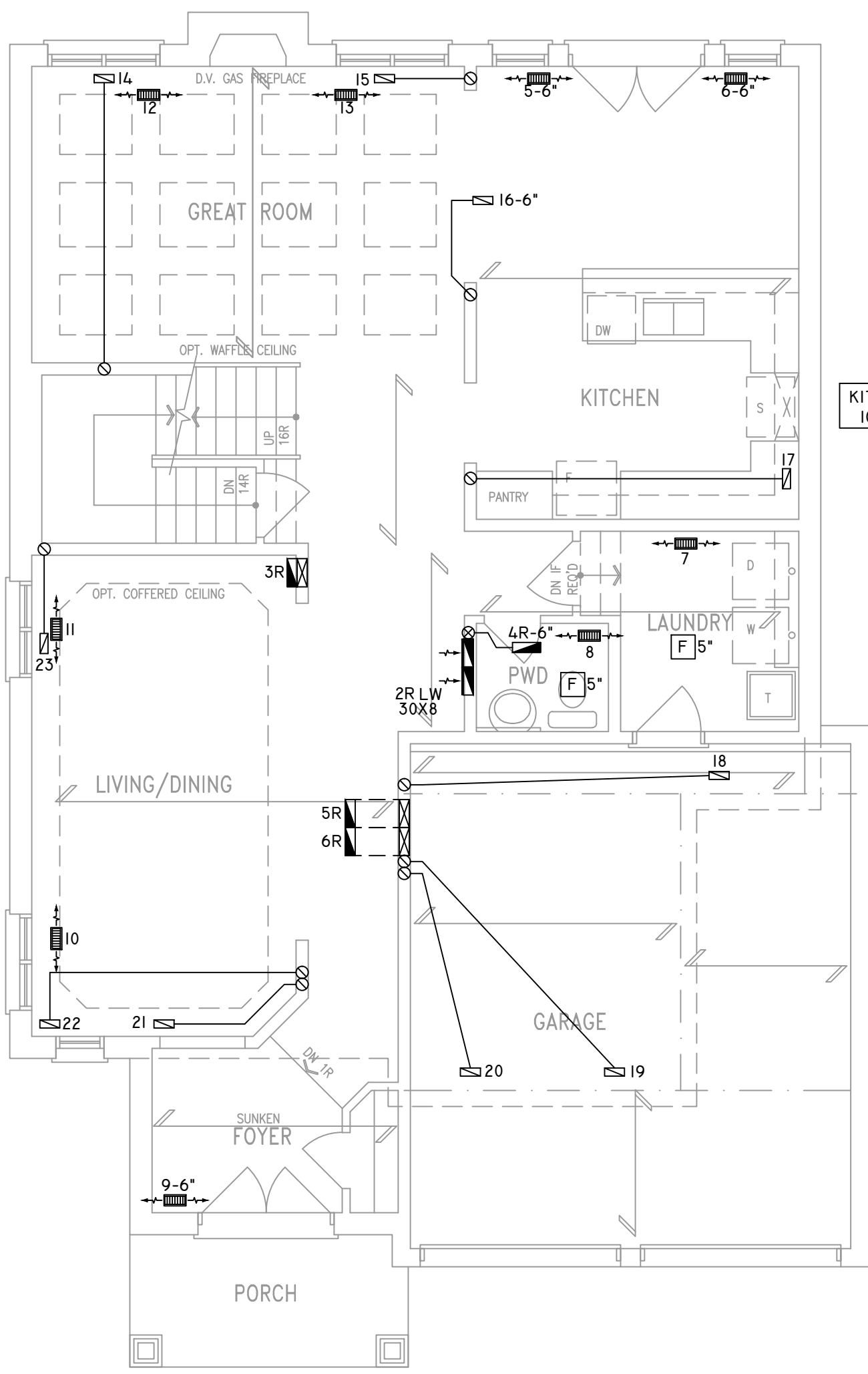
HEAT-LOSS	49,826	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	9	1	3
BASEMENT	4	1	

FLOOR PLAN:	BASEMENT
DRAWN BY:	AM
CHECKED:	DD
SQFT	2687
LAYOUT NO:	JB-04592
DRAWING NO.	MI

DATE:	MARCH 29, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-16 RIDEAU 16
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH
									W/R & PRINCIPAL EXHAUST FAN



KITCHEN EXHAUST
100 CFM MIN. 6"

CIRCULATION PRINCIPAL
FAN SWITCH
TO BE CENTRALLY
LOCATED

ALL DUCTWORK LOCATED IN
CONDITIONED AREAS
MUST BE SEALED TO CLASS
C LEVEL AS PER OBC PART
6-6.2.4.3.(12)

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

FOR THE PURPOSE OF
HEATLOSS/GAIN
CALCULATIONS ALL
ELEVATIONS HAVE BEEN
CONSIDERED

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN ON BEHALF OF GTA DESIGNS INC. AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE BUILDING CODE TO BE A DESIGNER

QUALIFICATION INFORMATION
REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA B.C.I.N. 32964
SIGNATURE OF DESIGNER

GROUND FLOOR PLAN 'A'

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES
INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

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L4T 0A4 TEL: 905-671-9800
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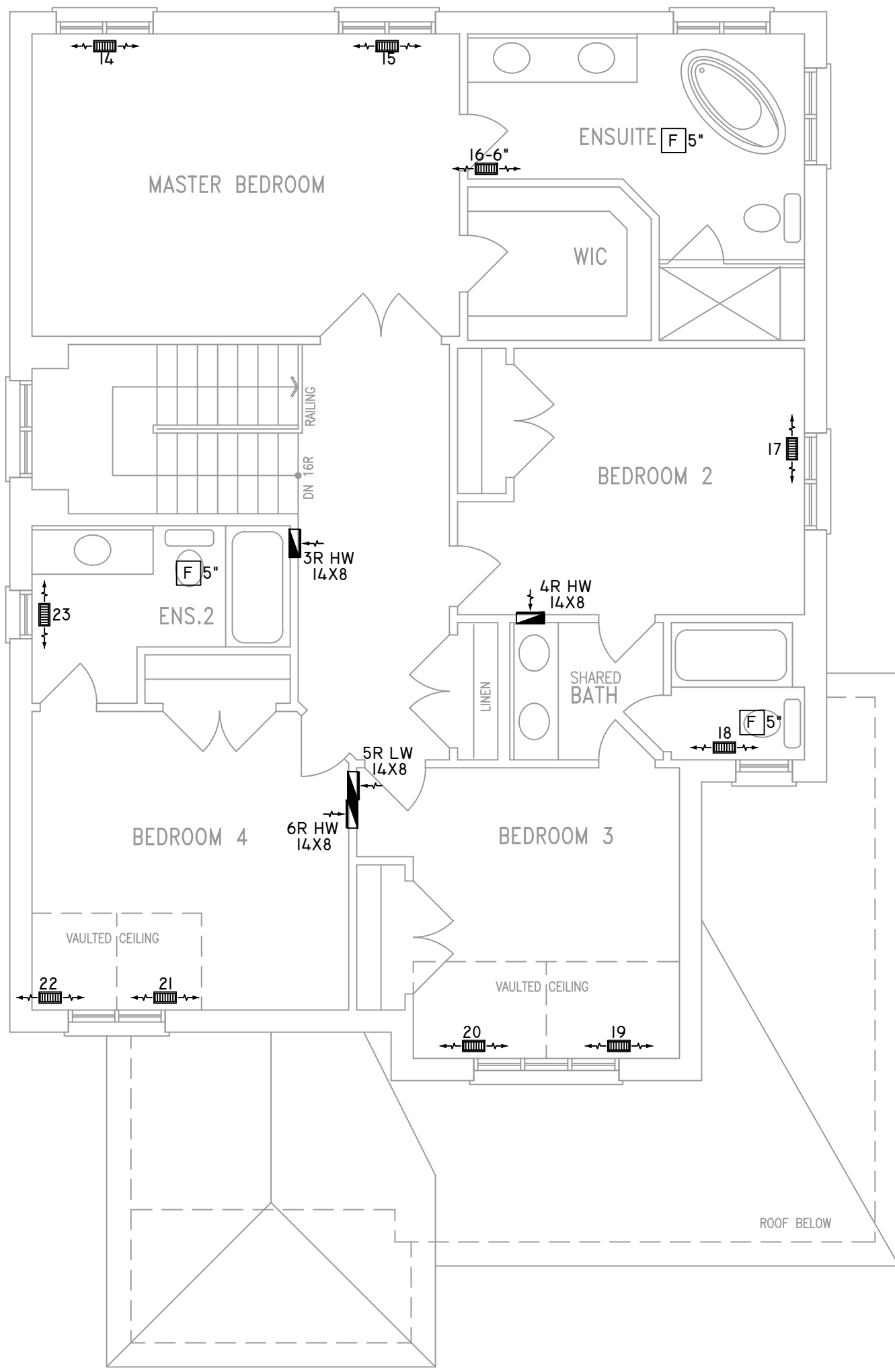
HEAT-LOSS	49,826	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	9	1	3
BASEMENT	4	1	

FLOOR PLAN: GROUND FLOOR	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04592	SGFT 2687
DRAWING NO. M2	

DATE:	MARCH 29, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-16 RIDEAU 16
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT		THERMOSTAT
			VOLUME DAMPER				RETURN AIR FROM SECOND FLOOR		PRINCIPAL EXHAUST FAN SWITCH
									W/R & PRINCIPAL EXHAUST FAN



ALL DUCTWORK LOCATED IN CONDITIONED AREAS MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(12)

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. R12

FOR THE PURPOSE OF HEATLOSS/GAIN CALCULATIONS ALL ELEVATIONS HAVE BEEN CONSIDERED

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN ON BEHALF OF GTA DESIGNS INC. AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE BUILDING CODE TO BE A DESIGNER

QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA *David Da Costa* B.C.I.N. 32964
SIGNATURE OF DESIGNER

SECOND FLOOR PLAN 'A'

OBC 2012

ZONE I COMPLIANCE PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

GTADESIGNS

2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
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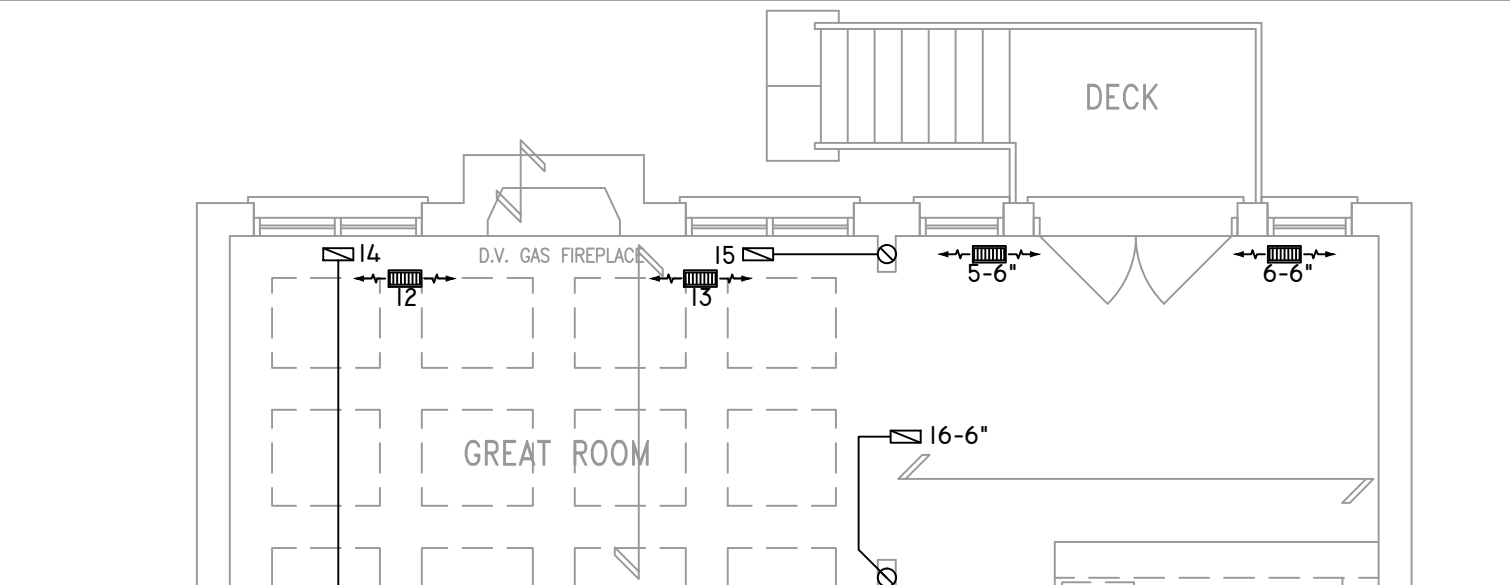
HEAT-LOSS	49,826	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
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2ND FLOOR	10	4	3
1ST FLOOR	9	1	3
BASEMENT	4	1	

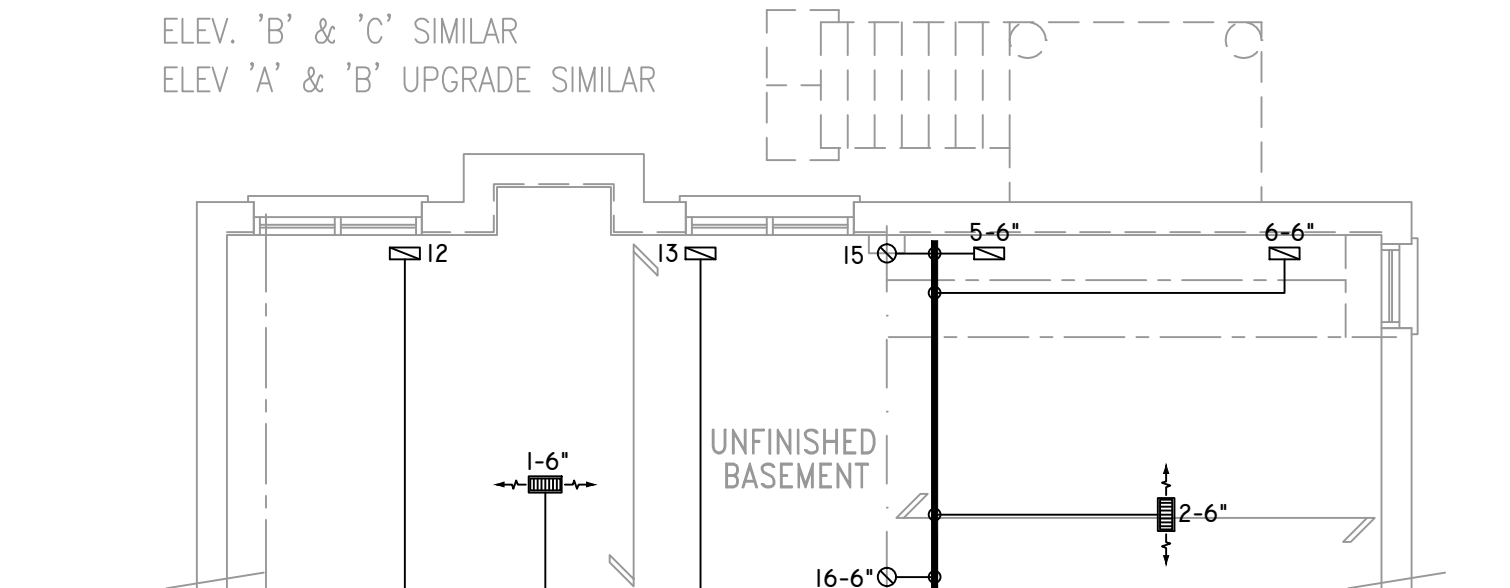
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO: JB-04592	SOFT: 2687
DRAWING NO: M3	

DATE:	MARCH 29, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-16 RIDEAU 16
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

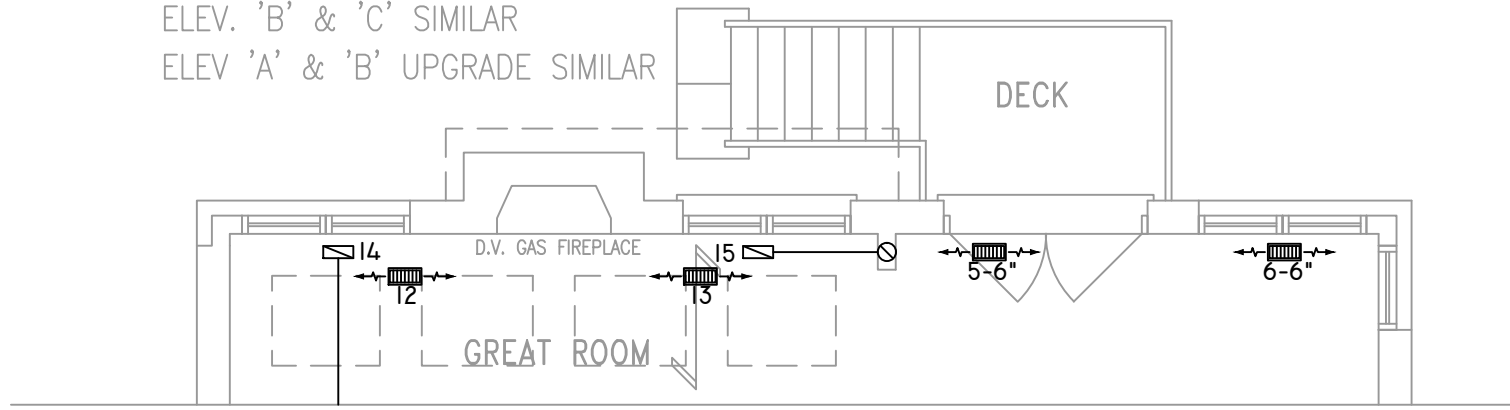
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH
									W/R & PRINCIPAL EXHAUST FAN



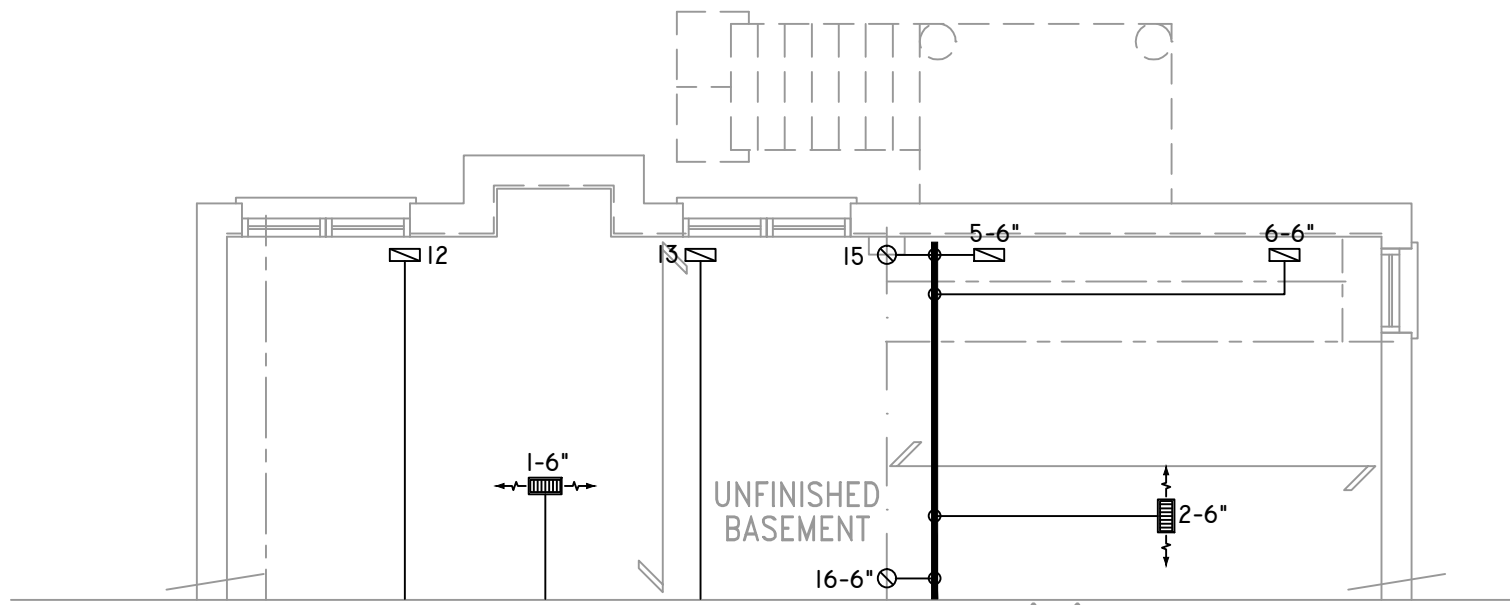
GROUND FLOOR PLAN ELEV 'A' - W.O.D.
 ELEV. 'B' & 'C' SIMILAR
 ELEV 'A' & 'B' UPGRADE SIMILAR



BASEMENT PLAN ELEV 'A' - W.O.D.
 ELEV. 'B' & 'C' SIMILAR
 ELEV 'A' & 'B' UPGRADE SIMILAR



PARTIAL GROUND FLOOR PLAN 9R WOD ELEV. 'C' REAR UPGRADE



PARTIAL BASEMENT PLAN 9R WOD ELEV. 'C' REAR UPGRADE

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN ON BEHALF OF GTA DESIGNS INC. AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE BUILDING CODE TO BE A DESIGNER

QUALIFICATION INFORMATION
 REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA B.C.I.N. 32964
 SIGNATURE OF DESIGNER

OBC 2012

ZONE I COMPLIANCE
 PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES
 INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
 ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
 PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
 ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
 INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.
 CONTRACTOR MUST WORK FROM APPROVED PLANS.
 ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
 GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

GTADESIGNS
 2985 DREW ROAD
 SUITE 202,
 MISSISSAUGA, ONT.
 L4T 0A4 TEL: 905-671-9800
 EMAIL: DAVE@GTADDESIGNS.CA
 WEB: WWW.GTADDESIGNS.CA

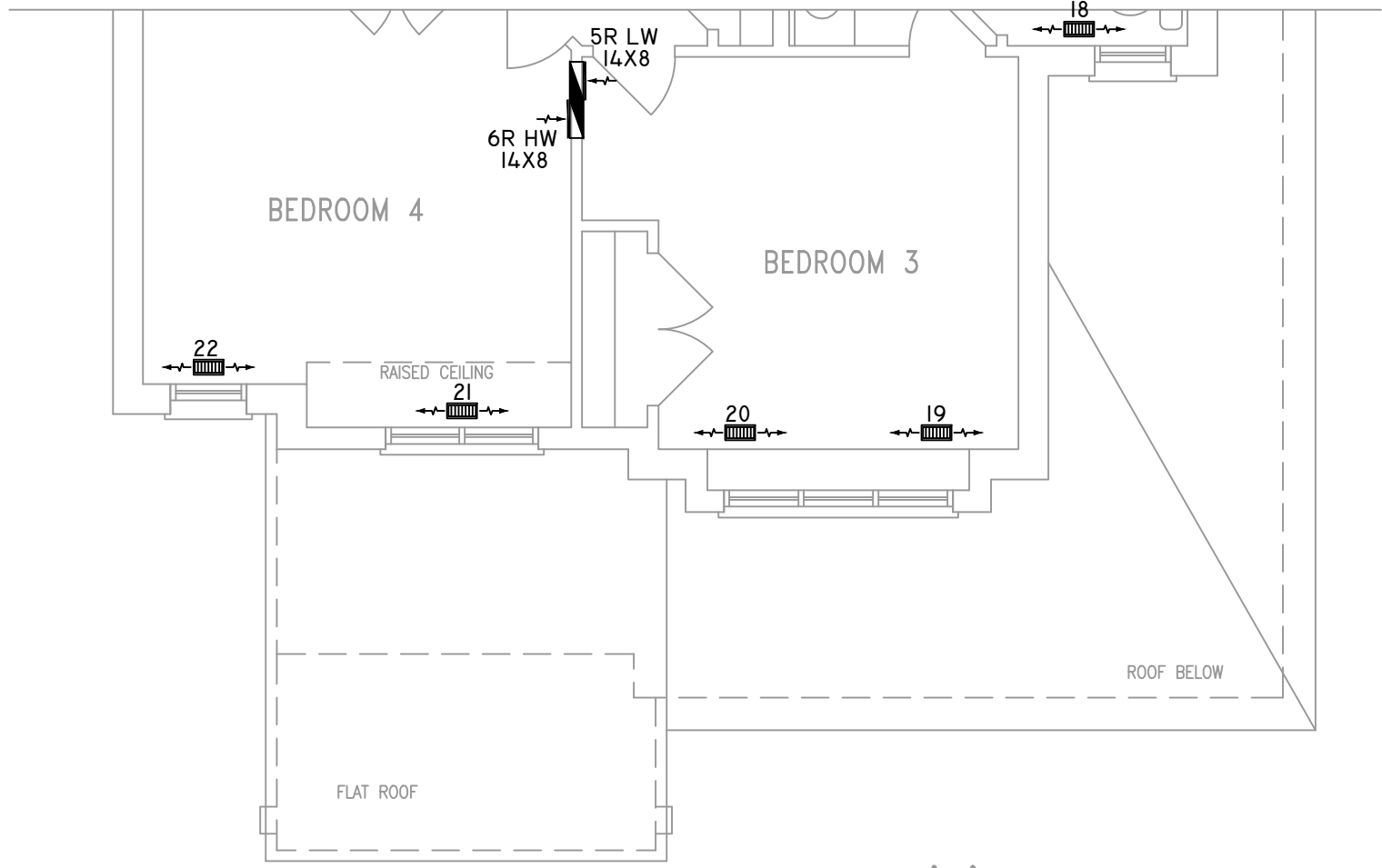
HEAT-LOSS	49,826	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	9	1	3
BASEMENT	4	1	

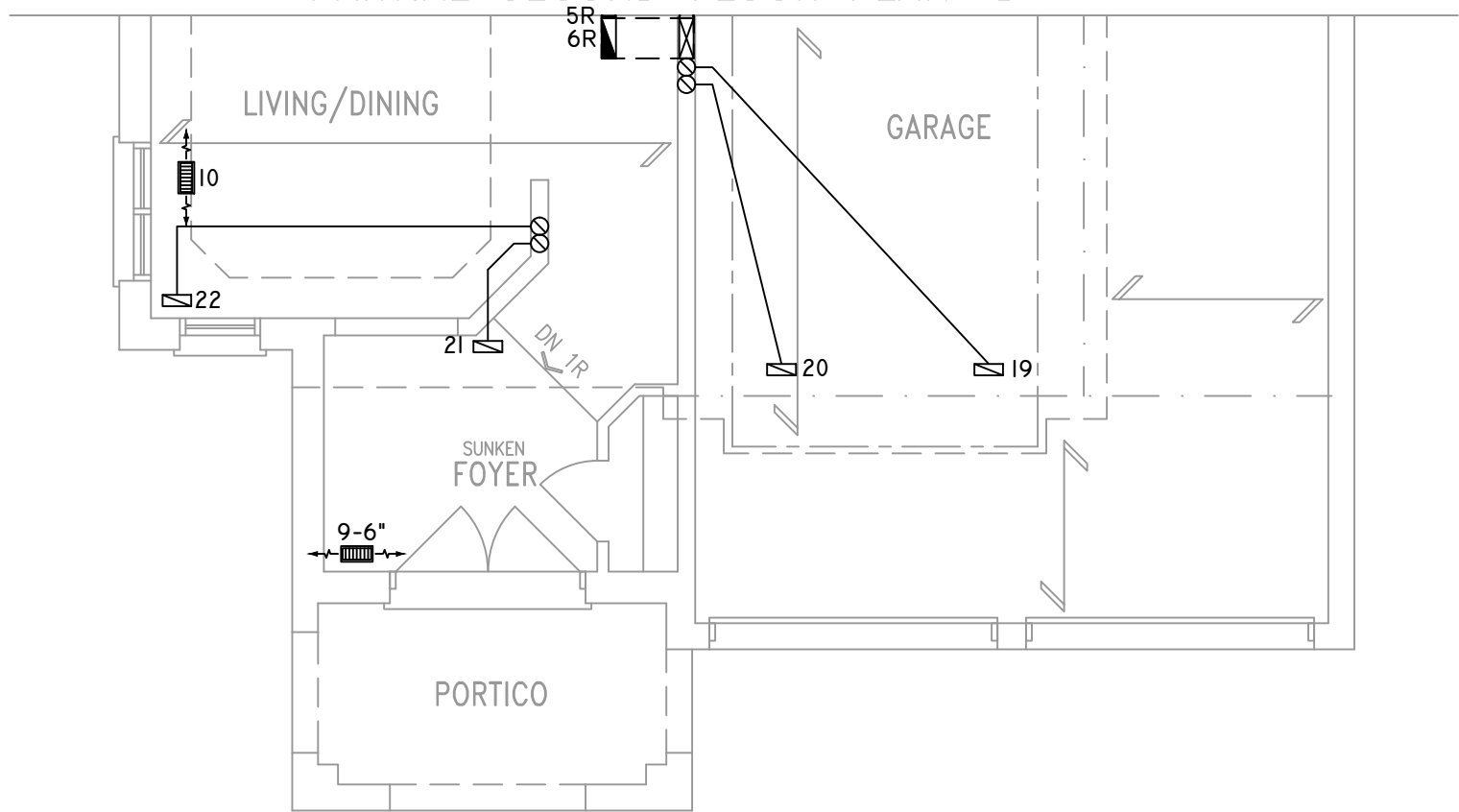
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO: JB-04592	DRAWING NO: M4

DATE:	MARCH 29, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-16 RIDEAU 16
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

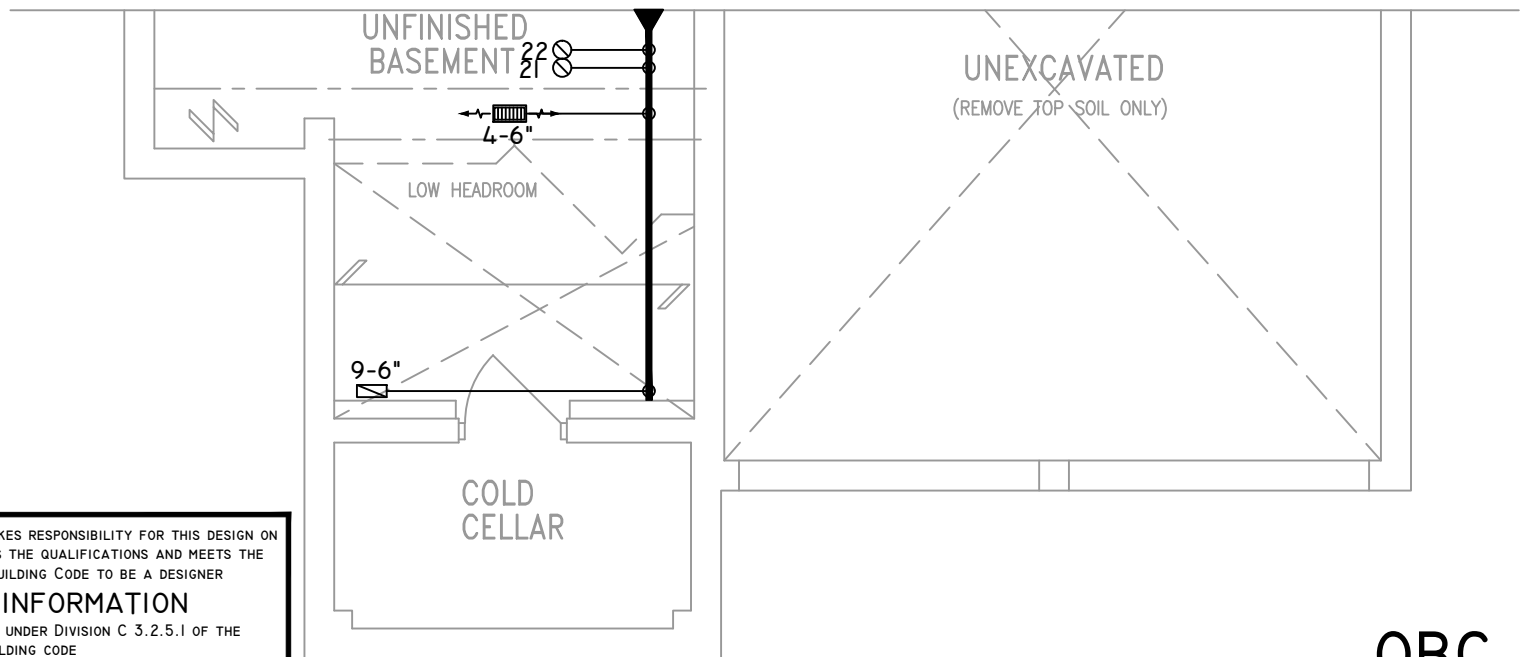
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
			VOLUME DAMPER				PRINCIPAL EXHAUST FAN SWITCH		W/R & PRINCIPAL EXHAUST FAN



PARTIAL SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN 'B'



PARTIAL BASEMENT PLAN 'B'

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QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA B.C.I.N. 32964
SIGNATURE OF DESIGNER

OBC 2012

ZONE I COMPLIANCE
PACKAGE "AI" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

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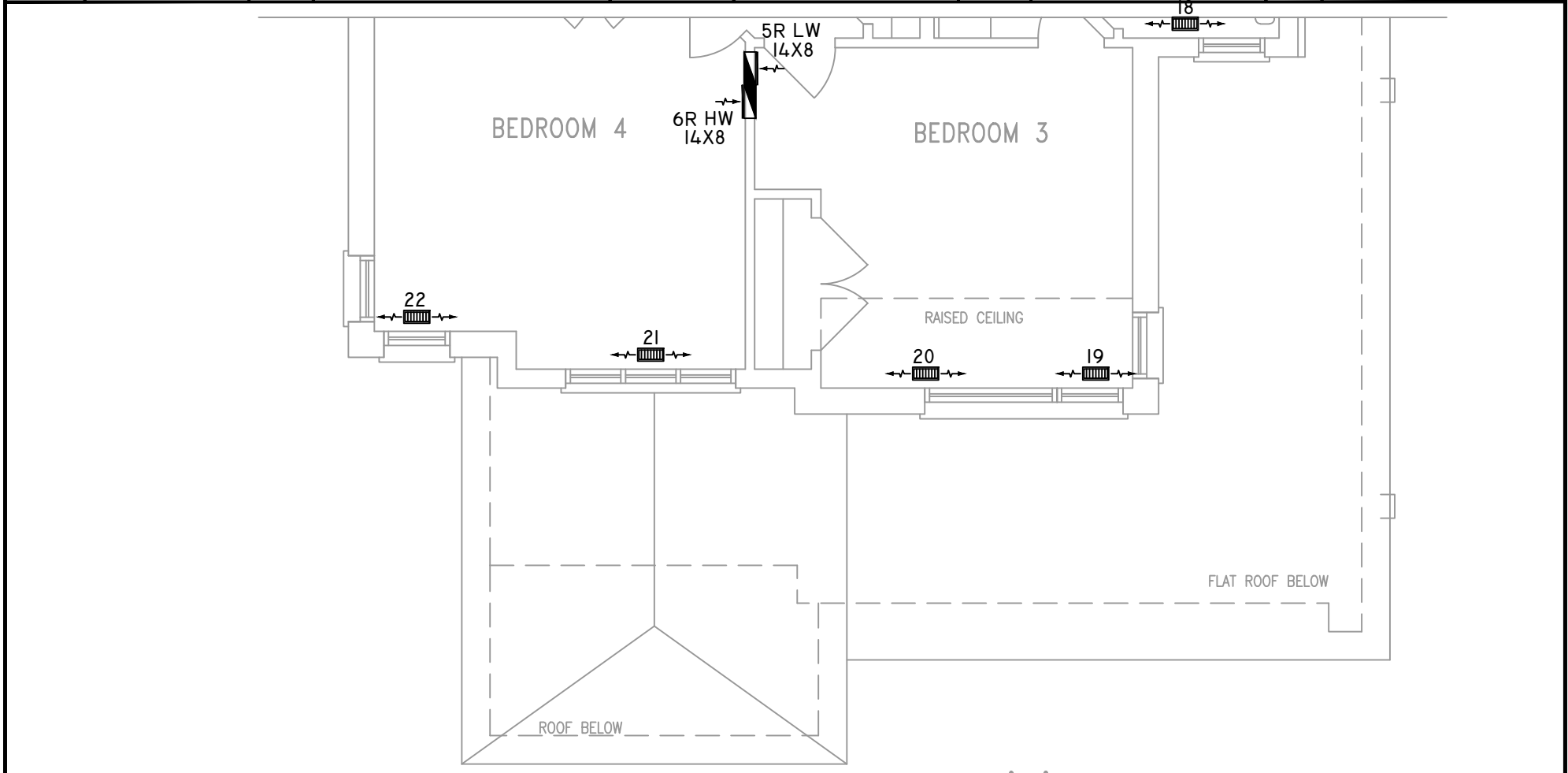
HEAT-LOSS	49,826	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	9	1	3
BASEMENT	4	1	

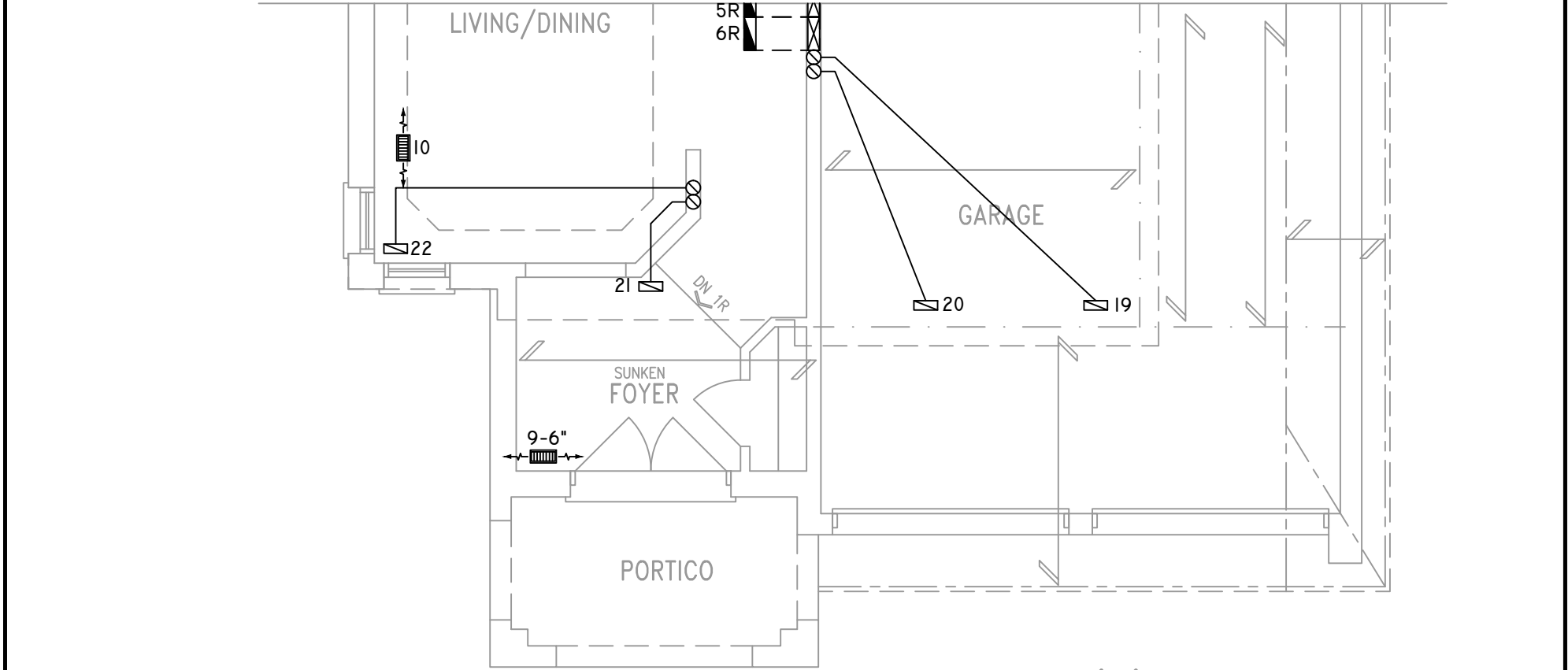
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DRAWN BY: AM	CHECKED: DD	sqft
LAYOUT NO. JB-04592	DRAWING NO. M5	

DATE:	MARCH 29, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-16 RIDEAU 16
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

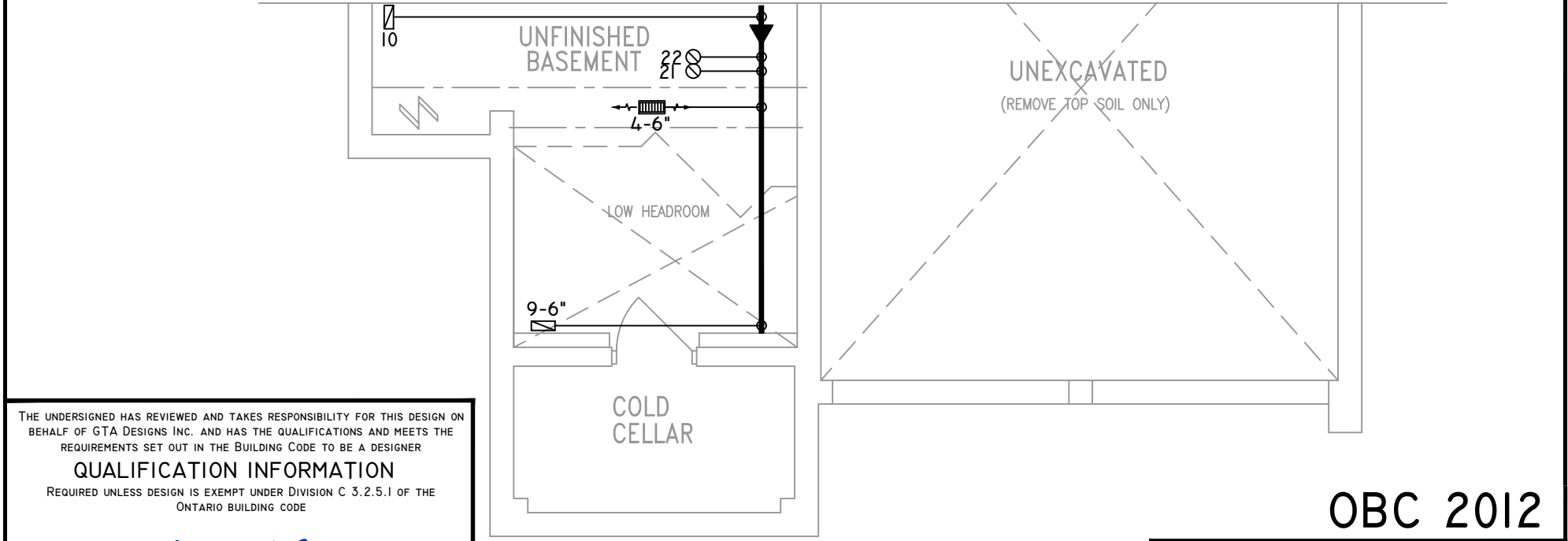
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT		THERMOSTAT
			VOLUME DAMPER				PRINCIPAL EXHAUST FAN SWITCH		W/R & PRINCIPAL EXHAUST FAN



PARTIAL SECOND FLOOR PLAN 'C'



PARTIAL GROUND FLOOR PLAN ELEV 'C'



PARTIAL BASEMENT PLAN ELEV 'C'

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QUALIFICATION INFORMATION

REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA *David Da Costa* B.C.I.N. 32964
SIGNATURE OF DESIGNER

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

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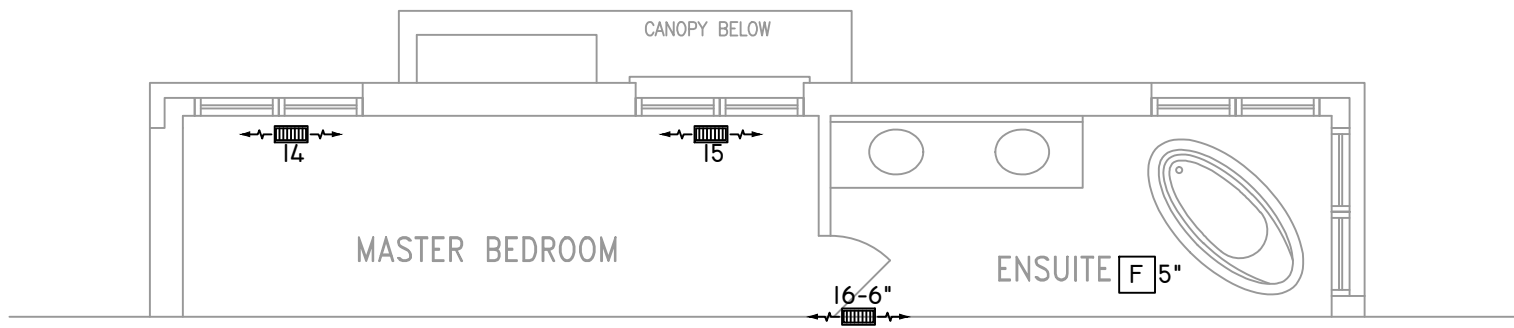
HEAT-LOSS	49,826	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	9	1	3
BASEMENT	4	1	

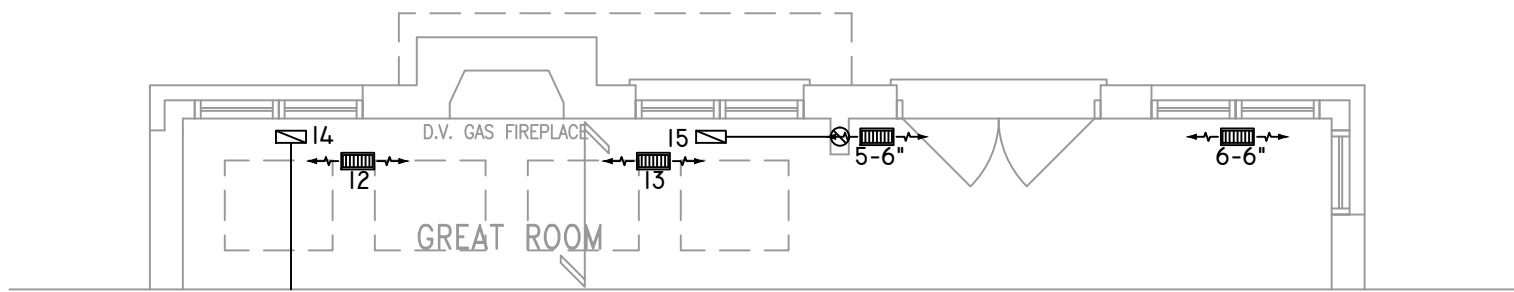
FLOOR PLAN:		
PARTIAL PLAN(S)		
DRAWN BY:	CHECKED:	SQFT
AM	DD	2687
LAYOUT NO.	DRAWING NO.	
JB-04592	M6	

DATE:	MARCH 29, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-16 RIDEAU 16
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

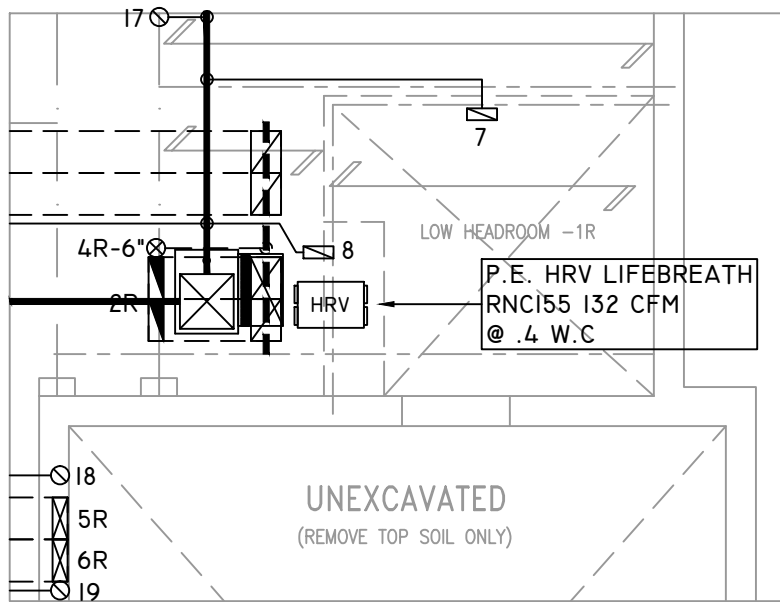
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT		THERMOSTAT
			VOLUME DAMPER				PRINCIPAL EXHAUST FAN SWITCH		W/R & PRINCIPAL EXHAUST FAN



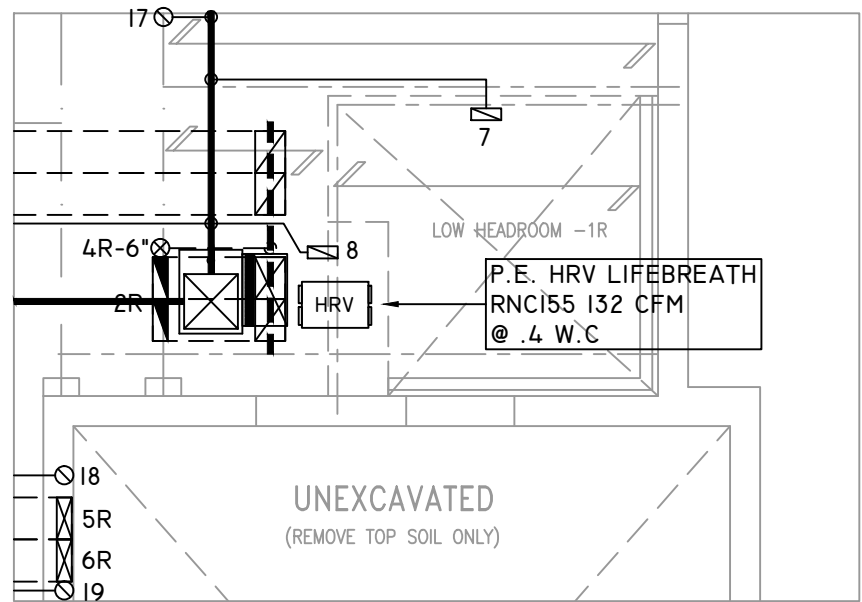
PARTIAL SECOND FLOOR PLAN ELEVATION 'C' REAR UPGRADE



PARTIAL GROUND FLOOR PLAN ELEVATION 'C' REAR UPGRADE



PARTIAL SUNKEN LAUNDRY 1R CONDITION



PARTIAL SUNKEN LAUNDRY 2-3R CONDITION

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DAVID DA COSTA B.C.I.N. 32964
SIGNATURE OF DESIGNER

OBC 2012

ZONE I COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

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UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
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A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	3
1ST FLOOR	9	1	3
BASEMENT	4	1	

FLOOR PLAN:		PARTIAL PLAN(S)
DRAWN BY:	CHECKED:	SQFT
AM	DD	2687
LAYOUT NO.	DRAWING NO.	
JB-04592	M7	

DATE:	MARCH 29, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-16 RIDEAU 16
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"