


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 <b>Barossa 5</b>				Lot: <b>S38-5</b>	
Municipality <b>Bradford</b>		Postal code	Plan number/ other description		
<b>B. Individual who reviews and takes responsibility for design activities</b>					
Name <b>David DaCosta</b>			Firm <b>gtaDesigns Inc.</b>		
Street address <b>2985 Drew Road, Suite 202</b>				Unit no.	Lot/con.
Municipality <b>Mississauga</b>		Postal code <b>L4T 0A4</b>	Province <b>Ontario</b>	E-mail <a href="mailto:dave@gtadesigns.ca">dave@gtadesigns.ca</a>	
Telephone number <b>(905) 671-9800</b>		Fax number <b>(647) 494-9643</b>		Cell number <b>(416) 268-6820</b>	
<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 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					
<b>Description of designer's work</b>				<b>Project #:</b>	<b>PJ-00204</b>
				<b>Layout #:</b>	<b>JB-04482</b>
<b>Heating and Cooling Load Calculations</b>		<b>Main</b>	<b>X</b>	<b>Builder</b>	
<b>Air System Design</b>		<b>Alternate</b>		<b>Project</b>	
<b>Residential mechanical ventilation Design Summary</b>		<b>Area Sq ft:</b>	<b>2780</b>	<b>Model</b>	
<b>Residential System Design per CAN/CSA-F280-12</b>				<b>SB-12</b>	
<b>Residential New Construction - Forced Air</b>				<b>Package A1</b>	
<b>D. Declaration of Designer</b>					
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>March 12, 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.

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Heat loss and gain calculation summary sheet				CSA-F280-M12 Standard Form No. 1	
These documents issued for the use of <b>Bayview Wellington</b>				Layout No.	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.				<b>JB-04482</b>	
Building Location					
Address (Model): <b>S38-5</b>			Site: <b>Green Valley East</b>		
Model: <b>Barossa 5</b>			Lot:		
City and Province: <b>Bradford</b>			Postal code:		
Calculations based on					
Dimensional information based on:			VA3 Design Jan/2018		
Attachment: <b>Detached</b>			Front facing: <b>East/West</b>		Assumed? <b>Yes</b>
No. of Levels: <b>3</b>		Ventilated? <b>Included</b>	Air tightness: <b>1961-Present (ACH=3.57)</b>		Assumed? <b>Yes</b>
Weather location: <b>Bradford</b>			Wind exposure: <b>Sheltered</b>		
HRV? <b>LifeBreath</b>		<b>RNC155</b>	Internal shading: <b>Light-translucent</b>		Occupants: <b>5</b>
Sensible Eff. at -25C <b>71%</b>		Apparent Effect. at -0C <b>84%</b>	Units: <b>Imperial</b>		Area Sq ft: <b>2780</b>
Sensible Eff. at -0C <b>75%</b>					
Heating design conditions			Cooling design conditions		
Outdoor temp <b>-9.4</b> Indoor temp: <b>72</b> Mean soil temp: <b>48</b>			Outdoor temp <b>86</b> Indoor temp: <b>75</b> Latitude: <b>44</b>		
Above grade walls			Below grade walls		
Style A: <b>As per OBC SB12 Package A1 R 22</b>			Style A: <b>As per OBC SB12 Package A1 R 20ci</b>		
Style B: <b>Existing Walls (When Applicable) R 12</b>			Style B:		
Style C:			Style C:		
Style D:			Style D:		
Floors on soil			Ceilings		
Style A: <b>As per Selected OBC SB12 Package A1</b>			Style A: <b>As per Selected OBC SB12 Package A1 R 60</b>		
Style B:			Style B: <b>As per Selected OBC SB12 Package A1 R 31</b>		
Exposed floors			Style C:		
Style A: <b>As per Selected OBC SB12 Package A1 R 31</b>			Doors		
Style B:			Style A: <b>As per Selected OBC SB12 Package A1 R 4.00</b>		
Windows			Style B:		
Style A: <b>As per Selected OBC SB12 Package A1 R 3.55</b>			Style C:		
Style B: <b>Existing Windows (When Applicable) R 1.99</b>			Skylights		
Style C:			Style A: <b>As per Selected OBC SB12 Package A1 R 2.03</b>		
Style D:			Style B:		
Attached documents: <b>As per Shedule 1</b>		<b>Heat Loss/Gain Caculations based on CSA-F280-12 Effective R-Values</b>			
Notes: <b>Residential New Construction - Forced Air</b>					
Calculations performed by					
Name: <b>David DaCosta</b>			Postal code: <b>L4T 0A4</b>		
Company: <b>gtaDesigns Inc.</b>			Telephone: <b>(905) 671-9800</b>		
Address: <b>2985 Drew Road, Suite 202</b>			Fax: <b>(416) 268-6820</b>		
City: <b>Mississauga</b>			E-mail: <b>dave@gtadesigns.ca</b>		

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Builder: **Bayview Wellington**

Date: **March 12, 2018**

Project: **Green Valley East**

Model: **Barossa 5 S38-5**

**System 1**

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

Page 3  
Project # **PJ-00204**  
Layout # **JB-04482**

DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE		FURNACE/AIR HANDLER DATA:		BOILER/WATER HEATER DATA:		A/C UNIT DATA:	
Level 1 Net Load	15,216 btu/h	Equipment External Static Pressure	0.5 "w.c.	Make	Amana	Make	Type	Amana	2.5 Ton
Level 2 Net Load	17,964 btu/h	Additional Equipment Pressure Drop	0.225 "w.c.	Model	AMEC960603BNA	Model		Cond.-----	2.5
Level 3 Net Load	17,713 btu/h	Available Design Pressure	0.275 "w.c.	Input Btu/h	60000	Input Btu/h		Coil -----	2.5
Level 4 Net Load	0 btu/h	Return Branch Longest Effective Length	300 ft	Output Btu/h	57600	Output Btu/h			
Total Heat Loss	50,893 btu/h	R/A Plenum Pressure	0.138 "w.c.	E.s.p.	0.50	" W.C.			
Total Heat Gain	27,421 btu/h	S/A Plenum Pressure	0.14 "w.c.	Water Temp		deg. F.			
Combo System HL + 10%	55,983 Btu/h	Heating Air Flow Proportioning Factor	0.0230 cfm/btuh	AFUE	96%				
Building Volume Vb	32202 ft³	Cooling Air Flow Proportioning Factor	0.0351 cfm/btuh	Aux. Heat					
Ventilation Load	1,118 Btu/h	R/A Temp	70 deg. F.	SB-12 Package	Package A1				
Ventilation PVC	79.5 cfm	S/A Temp	116 deg. F.						
Supply Branch and Grill Sizing		Diffuser loss	0.01 "w.c.	Temp. Rise>>>	46 deg. F.				

	Level 1												Level 2											
	1	2	3	4									5	6	7	8	9	10	11	12				
S/A Outlet No.	BASE	BASE	BASE	BASE									KIT	KIT	GRT	PWD	MUD	FOY	LIV/DIN	LIV/DIN				
Room Use	3804	3804	3804	3804									2689	2689	3015	1246	1002	3511	1906	1906				
Btu/Outlet	87	87	87	87									62	62	69	29	23	81	44	44				
Heating Airflow Rate CFM	10	10	10	10									88	88	95	11	5	50	71	71				
Cooling Airflow Rate CFM	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
Duct Design Pressure	50	37	19	30									52	45	46	30	22	29	9	47				
Actual Duct Length	140	90	120	100	70	70	70	70	70	70	70	70	110	150	140	150	160	80	90	80	70	70	70	70
Equivalent Length	190	127	139	130	70	70	70	70	70	70	70	70	162	195	186	180	182	109	99	127	70	70	70	70
Total Effective Length	0.07	0.10	0.09	0.10	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.07	0.07	0.07	0.07	0.12	0.13	0.10	0.19	0.19	0.19	0.19
Adjusted Pressure	6	6	6	6									6	6	6	4	4	6	5	5				
Duct Size Round	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10
Outlet Size	E	C	C	B									D	D	D	C	C	B	A	C				
Trunk																								

	Level 3												Level 4															
S/A Outlet No.	13	14	15	16	17	18	19	20	21	22	23																	
Room Use	MAST	MAST	ENS	BED 2	BATH	WIC	BED 3	BED 3	LAUN	ENS 4	BED 4																	
Btu/Outlet	2027	2027	1406	1547	927	901	2184	2184	2377	773	1359																	
Heating Airflow Rate CFM	47	47	32	36	21	21	50	50	55	18	31																	
Cooling Airflow Rate CFM	46	46	26	31	10	17	58	58	102	14	37																	
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	0.13	0.13	0.13	
Actual Duct Length	77	73	66	47	44	47	46	44	56	44	75																	
Equivalent Length	150	160	160	130	160	150	140	130	125	135	160	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70		
Total Effective Length	227	233	226	177	204	197	186	174	181	179	235	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70		
Adjusted Pressure	0.06	0.06	0.06	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.06	0.19	0.19	0.19	0.19	0.19	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	4	4	4	4	5	5	6	3	5																	
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10		
Trunk	E	D	D	C	B	B	B	B	B	C	E																	

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	176	480	102	155	155	102					
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	12	24	42	46	47	58					
Equivalent Length	115	125	135	195	235	160	50	50	50	50	50
Total Effective Length	127	149	177	241	282	218	50	50	50	50	50
Adjusted Pressure	0.09	0.08	0.07	0.05	0.04	0.05	0.24	0.24	0.24	0.24	0.24
Duct Size Round	7.0	11.0	6.0	8.0	8.5	6.0					
Inlet Size	FLC	8	8	8	8	8					
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size		30	14	14	14	14					
Trunk	Y	Z	Z	Z	Z	Y					

Return Trunk Duct Sizing				Supply Trunk Duct Sizing			
Trunk	CFM	Press.	Round	Rect. Size	Trunk	CFM	Press.
Drop	1170	0.04	18.0	24x12	A	1170	0.06
Z	1170	0.04	18.0	30x10	B	365	0.06
Y	278	0.05	10.0	12x8	C	761	0.06
X					D	437	0.06
W					E	165	0.06
V					F		
U					G		
T					H		
S					I		
R					J		
Q					K		

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2012 OBC

Builder: Bayview Wellington

Date: March 12, 2018

Weather Data Bradford 44 -9.4 86 22 48.2

Project # PJ-00204  
Layout # JB-04482

Project: Green Valley East

Model: Barossa 5 S38-5

System 1

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 2780

## Level 1

Run ft. exposed wall A	168 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
Ceiling height	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG	3.5 AG
Floor area	1112 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
Exposed Ceilings 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
Gross Exp Wall A	586												
Gross Exp Wall B													

Components	R-Values	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	13	298	356											
South	3.55	22.93	20.89	3	69	63											
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	546		285											
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 ( )			6644													
Total Conductive	Heat Loss			7507													
	Heat Gain				793												
Air Leakage	Heat Loss/Gain	0.9944	0.0367	7465	29												
Ventilation	Case 1	0.07	0.07														
	Case 2	14.07	11.88														
	Case 3	x	0.03	245	55												
Heat Gain People			239														
Appliances Loads	1 = 25 percent		4585														
Duct and Pipe loss			10%														
Level 1 HL Total	15,216		Total HL for per room	15216													
Level 1 HG Total	1,141		Total HG per room x 1.3		1141												

## Level 2

Run ft. exposed wall A	48 A	KIT	29 A	GRT	12 A	PWD	7 A	MUD	33 A	FOY	39 A	LIV/DIN	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
Ceiling height	10.0		10.0		12.0		12.0		11.0		10.0		10.0		10.0		10.0
Floor area	268 Area		276 Area		33 Area		60 Area		121 Area		347 Area		Area		Area		Area
Exposed Ceilings A	A		5 A		A		A		A		A		Area		Area		Area
Exposed Ceilings B	B		B		B		B		B		B		B		B		B
Exposed Floors	Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr
Gross Exp Wall A	480		290		144		84		363		390						
Gross Exp Wall B																	

Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	10.91	47	1078	513											
East/West	3.55	22.93	27.35	42	963	1149				27	619	739					
South	3.55	22.93	20.89										50	1146	1044		
Existing Windows	1.99	40.90	22.15														
Skylight	2.03	40.10	88.23														
Doors	4.00	20.35	2.75					21	427	58	21	427	58				
Net exposed walls A	17.03	4.78	0.65	391	1869	253	246	1176	159	132	631	85	63	301	41	315	1506
Net exposed walls B	8.50	9.58	1.29														
Exposed Ceilings A	59.22	1.37	0.64				5	7	3								
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				3910			2192			906			728		2552	
	Heat Gain					1914		1366			216			98		1000	
Air Leakage	Heat Loss/Gain	0.3430	0.0367		1341	70		752	50		311	8		250	4	875	37
Ventilation	Case 1	0.03	0.07														
	Case 2	14.07	11.88														
	Case 3	x	0.03	0.07													
Heat Gain People			239														
Appliances Loads	1 = 25 percent		4585														
Duct and Pipe loss			10%														
Level 2 HL Total	17,964		Total HL for per room		5378			3015			1246			1002		3511	
Level 2 HG Total	13,640		Total HG per room x 1.3			4988			2709			311			142		1438

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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 subsection 3.2.5. of the Building Code. Individual BCIN:

32964

*Dave DaCosta*

Dave DaCosta

SB-12 Package

Package A1

Total Heat Loss	50,893	btu/h
Total Heat Gain	27,421	btu/h

2012 OBC

Builder: Bayview Wellington

Date: March 12, 2018

Project: Green Valley East

Model: Barossa 5 S38-5

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: 2780

Project # PJ-00204  
Layout # JB-04482

## Level 3

	MAST	ENS	BED 2	BATH	WIC	BED 3	LAUN	ENS 4	BED 4		
Run ft. exposed wall A	51 A	19 A	16 A	6 A	10 A	26 A	19 A	8 A	14 A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	9.0	8.0	8.0	8.0	8.0	10.0	9.0	8.0	8.0	8.0	8.0
Floor area	341 Area	118 Area	184 Area	80 Area	27 Area	266 Area	81 Area	106 Area	190 Area	Area	Area
Exposed Ceilings A	341 A	118 A	184 A	80 A	27 A	266 A	81 A	106 A	190 A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	17 Flr	70 Flr	27 Flr	165 Flr	4 Flr	8 Flr	Flr	Flr	Flr
Gross Exp Wall A	459	152	128	48	80	260	171	64	112		
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	Loss	Gain
North Shaded	3.55	22.93	10.91																		
East/West	3.55	22.93	27.35	32	734	875	13	298	356												
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	427	2041	276	139	664	90	110	526	71	40	191	26	71	339	46	198	946	128
Net exposed walls B	8.50	9.58	1.29																		
Exposed Ceilings A	59.22	1.37	0.64	341	469	219	118	162	76	184	253	118	80	110	51	27	37	17	266	366	171
Exposed Ceilings B	22.86	3.56	1.66																		
Exposed Floors	29.80	2.73	0.17																		
Foundation Conductive Heatloss																					
Total Conductive																					
Air Leakage	Heat Loss/Gain	0.2175	0.0367																		
Ventilation	Case 1		0.02	0.07																	
	Case 2		14.07	11.88																	
	Case 3	x	0.03	0.07																	
Heat Gain People			239																		
Appliances Loads	1 =.25 percent		4585																		
Duct and Pipe loss			10%																		
Level 3 HL Total	17,713																				
Level 3 HG Total	12,640																				

## Level 4

Run ft. exposed wall A	A	A	A	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	B	B	B
Ceiling height																					
Floor area	Area	Area	Area	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	A	A	A
Exposed Ceilings B	B	B	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	Flr	Flr	Flr
Gross Exp Wall A																					
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	Loss	Gain
North Shaded	3.55	22.93	10.91																		
East/West	3.55	22.93	27.35																		
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																		
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																					
Total Conductive																					
Air Leakage	Heat Loss/Gain	0.0000	0.0367																		
Ventilation	Case 1		0.00	0.07																	
	Case 2		14.07	11.88																	
	Case 3	x	0.03	0.07																	
Heat Gain People			239																		
Appliances Loads	1 =.25 percent		4585																		
Duct and Pipe loss			10%																		
Level 4 HL Total	0																				
Level 4 HG Total	0																				

SITE COPY

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

SB-12 Package

Package A1

Total Heat Loss	50,893	btu/h
Total Heat Gain	27,421	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



David DaCosta

**Package:** Package A1

**Project:** Bradford

**Model:**
**S38-5**

## 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	

Builder	
Name	Bayview Wellington
Address	
City	
Tel	Fax

Installing Contractor	
Name	
Address	
City	
Tel	Fax

Combustion Appliances 9.32.3.1(1)		
a)	x	Direct vent (sealed combustion) only
b)		Positive venting induced draft (except fireplaces)
c)		Natural draft, B-vent or induced draft fireplaces
d)		Solid fuel (including fireplaces)
e)		No combustion Appliances

Heating System		
x	Forced air	Non forced air
		Electric space heat (if over 10% of heat load)

House Type 9.32.3.1(2)		
I	x	Type a) or b) appliances only, no solid fuel
II		Type I except with solid fuel (including fireplace)
III		Any type c) appliance
IV		Type I or II either electric space heat
Other		Type I, II or IV no forced air

System Design Option		
1	x	Exhaust only / forced air system
2		HRV WITH DUCTING / forced air system
3		HRV simplified connection to forced air system
4		HRV full ducting/not coupled to forced air system
		Part 6 design

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		180.2	

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		79.5	

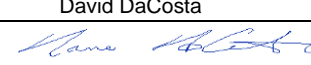
Principal Exhaust Fan Capacity			
Make	Model	Location	
LifeBreath	RNC155	Base	
132 cfm		Sones	or Equiv.

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

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

Supplemental Fans 9.32.3.5.			
Location	cfm	Model	Sones
Ens	50	XB50	0.3
Bath	50	XB50	0.3
Ens 4	50	XB50	0.3
all fans HVI listed		Make	Broan or Equiv.

Designer Certification	
I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.	
Name	David DaCosta
Signature	
HR#	5190
BCIN #	32964
Date	March 12, 2018

SITE COPY



2985 Drew Road, Suite 202, Mississauga, Ontario  
 L4T 0A4 Tel: 905-671-9800 Fax: 647-494-9643  
 e-mail dave@gtadesigns.ca

## Energy Efficiency Design Summary: Prescriptive Method (Building Code Part 9, Residential)

Page 7  
 Project # PJ-00204  
 Layout # JB-04482

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

### A. Project Information

Building number, street name	<b>Barossa 5 S38-5</b>	Unit number	Lot/Con
Municipality	<b>Bradford</b>	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):

Package A1

Table: 3.1.1.2.A

### 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"/> Propane <input type="checkbox"/> Solid Fuel <input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area	Other Building Characteristics	
Area of Walls = <u>354.07</u> m <sup>2</sup> or <u>3811.2</u> ft <sup>2</sup>	W, S & G % = <u>12%</u>	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> ICF Basement <input type="checkbox"/> Slab-on-ground <input type="checkbox"/> Walkout Basement <input checked="" type="checkbox"/> Air Conditioning <input type="checkbox"/> Combo Unit
Area of W, S & G = <u>42.734</u> m <sup>2</sup> or <u>460.0</u> ft <sup>2</sup>	Utilize Window <input type="checkbox"/> Yes Averaging <input checked="" type="checkbox"/> No	<input type="checkbox"/> Air Sourced Heat Pump (ASHP) <input type="checkbox"/> Ground Source 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)) <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 <sup>1</sup>		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	60		Windows/Sliding Glass Doors 1.6
Ceiling without Attic Space	31		Skylights 2.8
Exposed Floor	31		<b>Mechanicals</b>
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/(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 building code]

Name	BCIN	Signature
<b>David DaCosta</b>	<b>32964</b>	

Form authorized by OHBA, OBOA, LMCBO. Revised December 1, 2016.

# SITE COPY



Package: Package A1 System: System 1  
Project: Bradford Model: S38-5

## Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.316	32202	81.4	14929

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.078	32202	11	500

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)				
Level	Level Factor (LF)	Building Air	Level Conductive Heat Loss	Air Leakage Heat Loss Multiplier
Level 1	0.5	14929	7507	0.9944
Level 2	0.3		13060	0.3430
Level 3	0.2		13730	0.2175
Level 4	0		0	0.0000

Levels			
1	2	3	4
(LF)	(LF)	(LF)	(LF)
1.0	0.6	0.5	0.4
	0.4	0.3	0.3
		0.2	0.2
			0.1

HG LEAK		Air Leakage Heat Gain	
	500		0.0367
BUILDING CONDUCTIVE HEAT GAIN		13606	

Levels this Dwelling	
3	

## Ventilation Calculations

### Ventilation Heat Loss

Ventilation Heat Loss				
C	PVC	HL^T	(1-E) HRV	HLbvent
1.08	79.5	81.4	0.16	1118

### Ventilation Heat Gain

Ventilation Heat Gain			
C	PVC	HG^T	HGbvent
1.1	79.5	11	944

### Case 1

#### Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1118	7507	0.07
Level 2	0.3		13060	0.03
Level 3	0.2		13730	0.02
Level 4	0		0	0.00

### Case 1

#### Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier	
HGbvent	944	0.07	
Building	13606		

### Case 2

#### Ventilation Heat Loss (Direct Ducted Systems)

C	HL^T	(1-E) HRV	Multiplier
1.08	81.4	0.16	14.07

### Case 2

#### Ventilation Heat Gain (Direct Ducted Systems)

C	HG^T	Multiplier
1.08	11	11.88

### Case 3

#### Ventilation Heat Loss (Forced Air Systems)

HLbvent		Multiplier
Total Ventilation Load	1118	0.03

### Case 3

#### Ventilation Heat Gain (Forced Air Systems)

Vent Heat Gain		Multiplier
HGbvent	HG*1.3	0.07
944	1	

Foundation Conductive Heatloss Level 1

1947 Watts 6644 Btu/h

Foundation Conductive Heatloss Level 2

Watts Btu/h



# Envelope Air Leakage Calculator

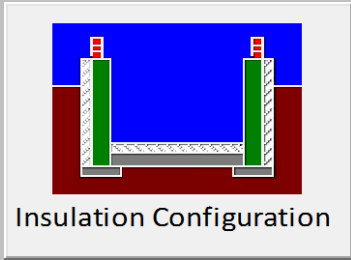
Supplemental tool for CAN/CSA-F280

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):	6.55			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m <sup>3</sup> ):	911.96			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa. 322.44 cm <sup>2</sup>			
	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):		0.316		
Cooling Air Leakage Rate (ACH/H):		0.078		



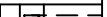













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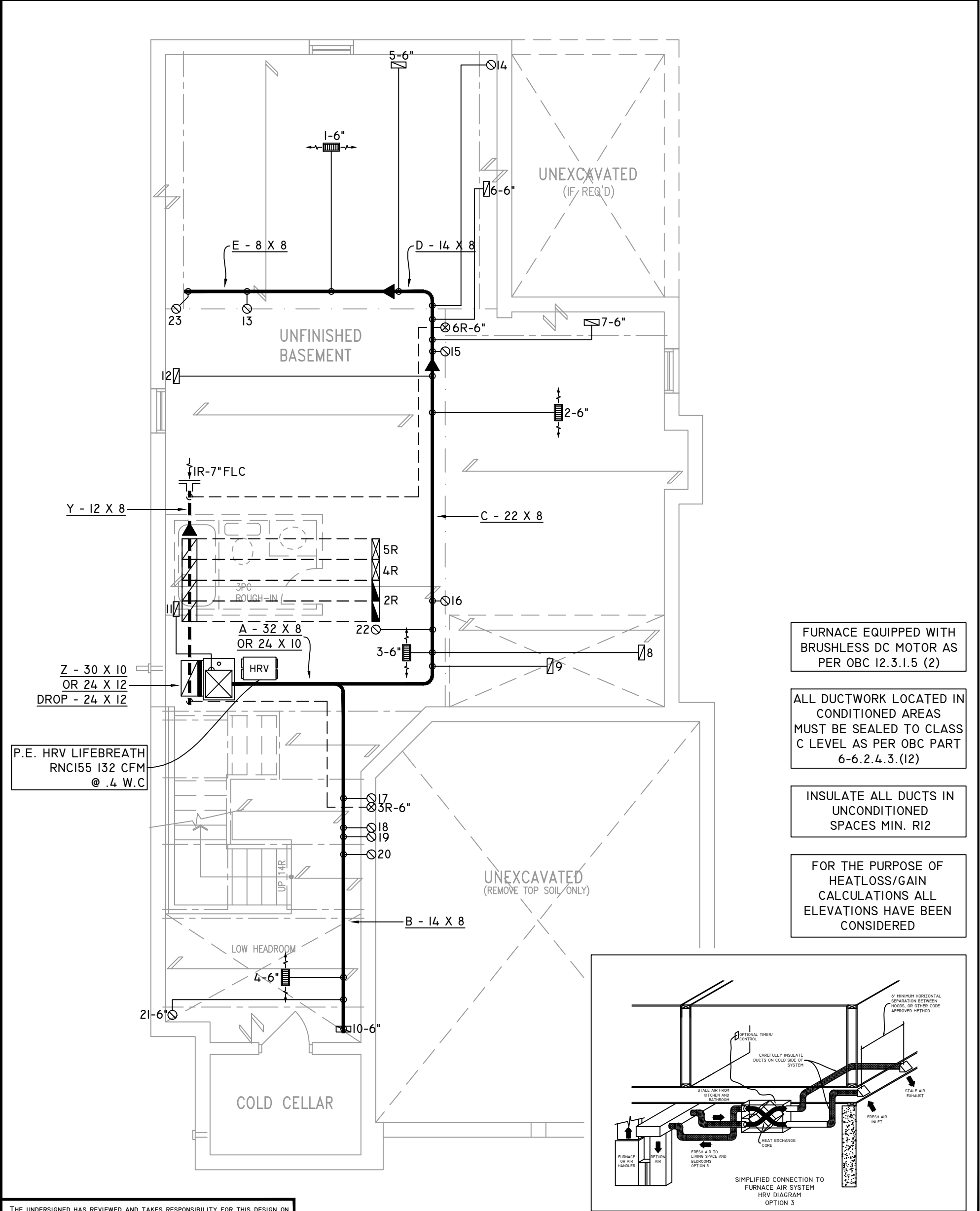
# Residential Foundation Thermal Load Calculator

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):	20.58	 <p>Insulation Configuration</p>
Floor Width (m):	5.02	
Exposed Perimeter (m):	51.21	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.68	
Window Area (m <sup>2</sup> ):	1.77	
Door Area (m <sup>2</sup> ):	1.95	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		1947

**SITE COPY**

	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



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

SITE COPY

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.





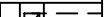













2985 DREW ROAD  
SUITE 202,  
MISSISSAUGA, ONT.  
L4T 0A4 TEL: 905-671-9800  
EMAIL: DAVE@GTADESIGNS.CA  
WEB: WWW.GTADESIGNS.CA

HEAT-LOSS	50,893	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

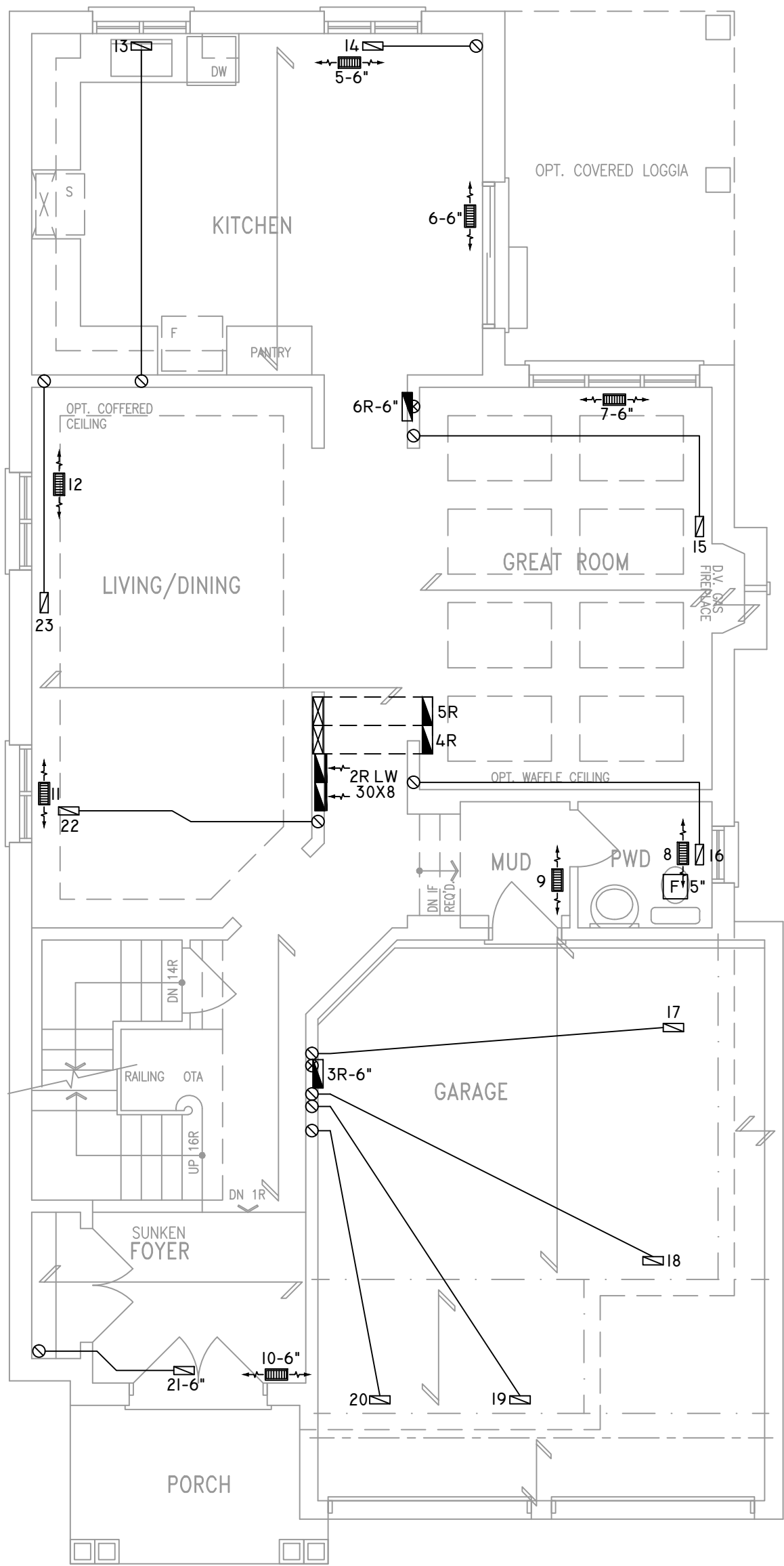
# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	3	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

FLOOR PLAN:	BASEMENT
DRAWN BY:	AP
CHECKED:	DD
LAYOUT NO.	JB-04482
SQFT	2780
DRAWING NO.	MI

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
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

**SITE COPY**

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.

**GTADESIGNS**



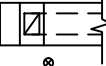













2985 DREW ROAD  
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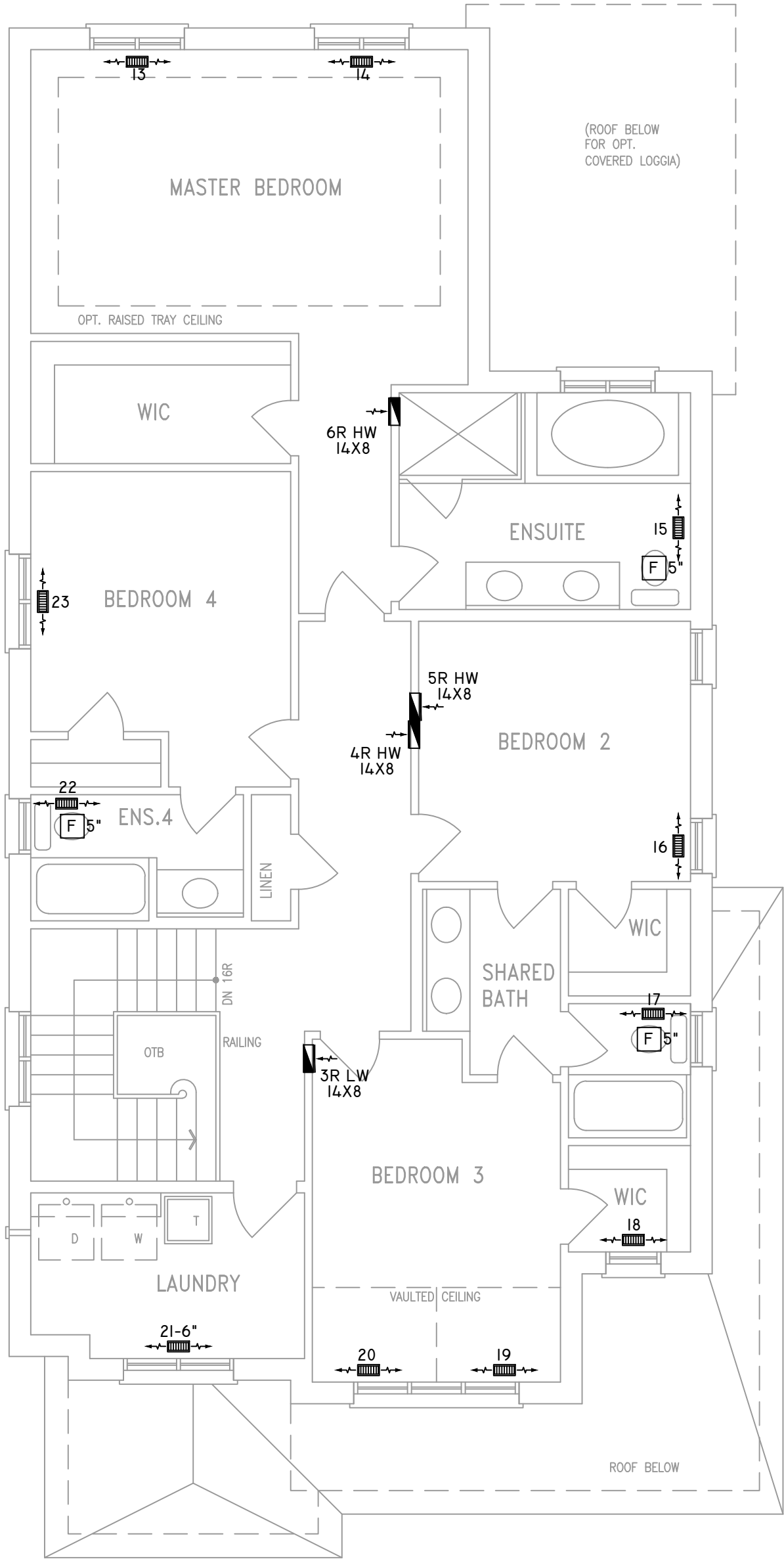
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UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	3	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

FLOOR PLAN: GROUND FLOOR	
DRAWN BY: AP	CHECKED: DD
LAYOUT NO. JB-04482	SGFT 2780
	DRAWING NO. M2

DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-5 BAROSSA 5
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



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  
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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

SITE COPY

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.  
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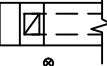













2985 DREW ROAD  
SUITE 202,  
MISSISSAUGA, ONT.  
L4T 0A4 TEL: 905-671-9800  
EMAIL: DAVE@GTADESIGNS.CA  
WEB: WWW.GTADESIGNS.CA

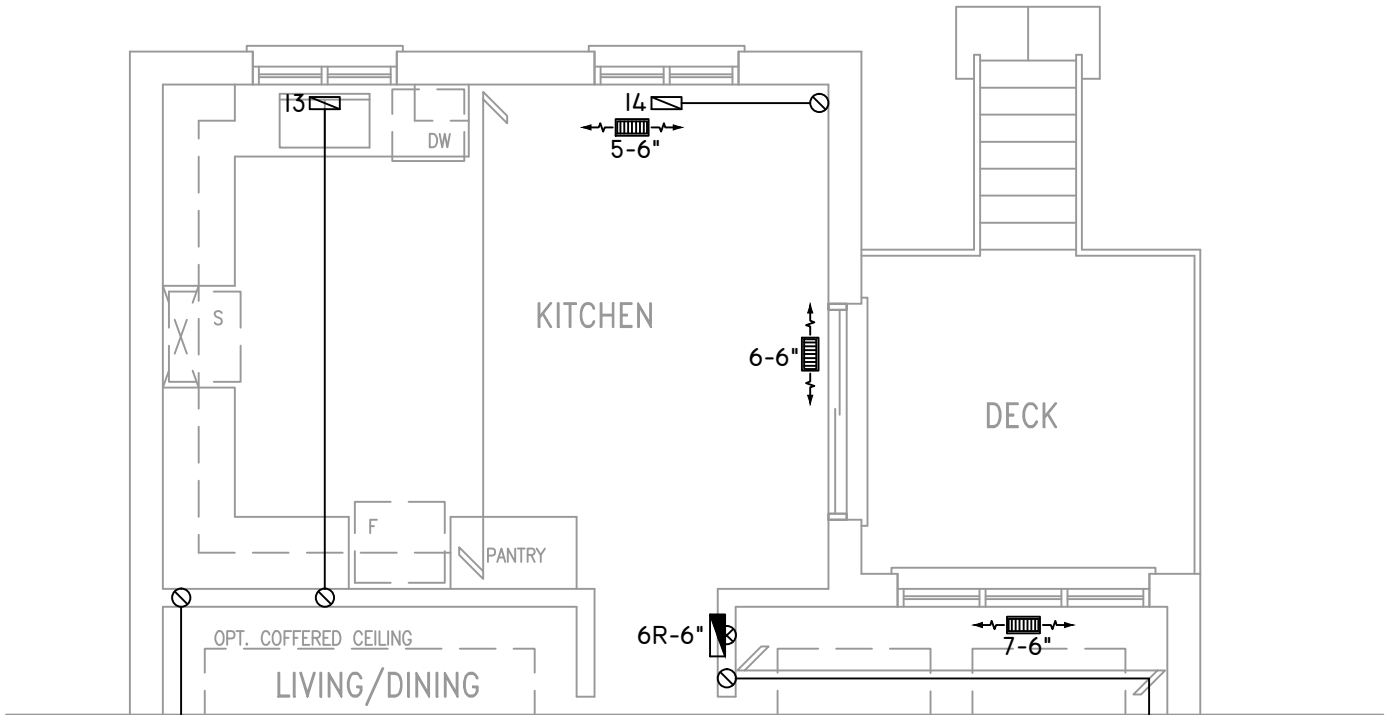
HEAT-LOSS	50,893	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	3	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

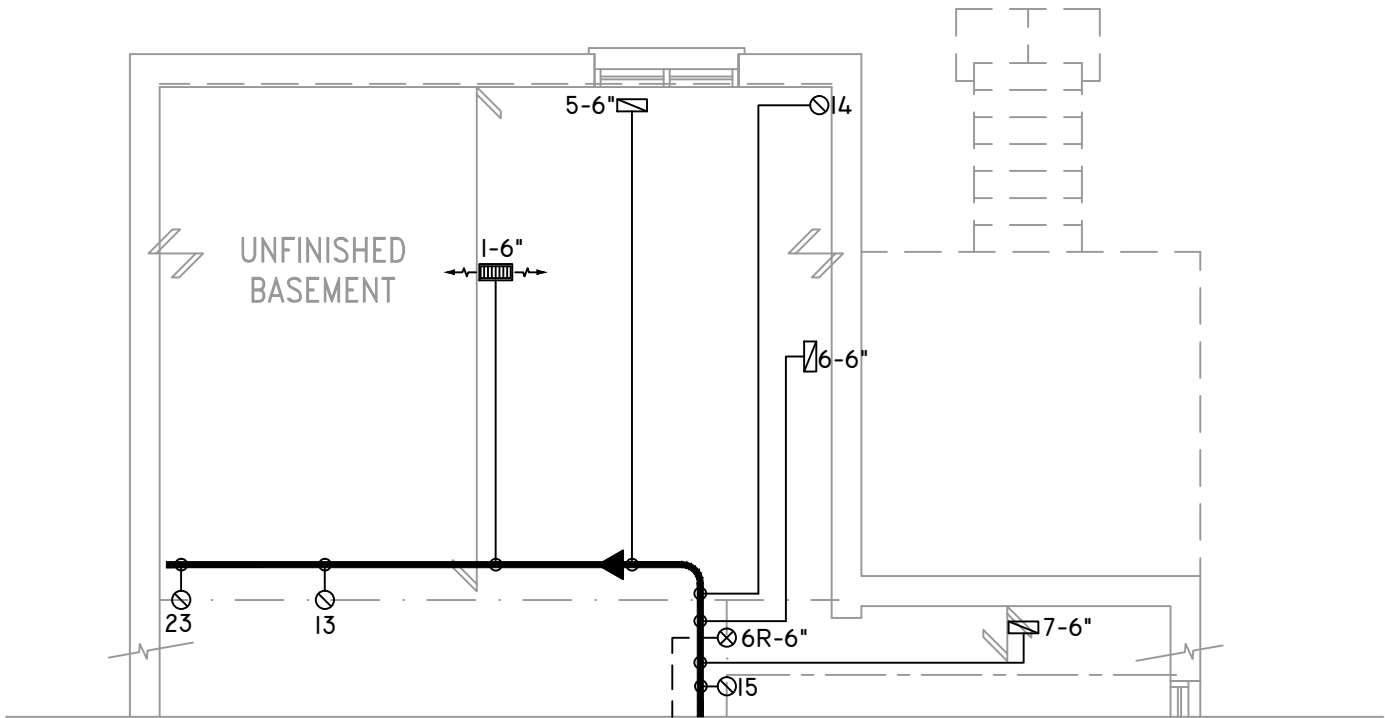
FLOOR PLAN: SECOND FLOOR	
DRAWN BY: AP	CHECKED: DD
LAYOUT NO. JB-04482	SQFT 2780
	DRAWING NO. M3

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
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



PART GRND FLOOR PLAN 'A'  
WOD CONDITION  
ELEVS 'B' & 'C' SIMILAR



PART BSMT PLAN 'A'  
WOD CONDITION  
ELEVS 'B' & 'C' SIMILAR

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

SITE COPY

OBC 2012

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

**NOTES**  
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CONTRACTOR MUST WORK FROM APPROVED PLANS.  
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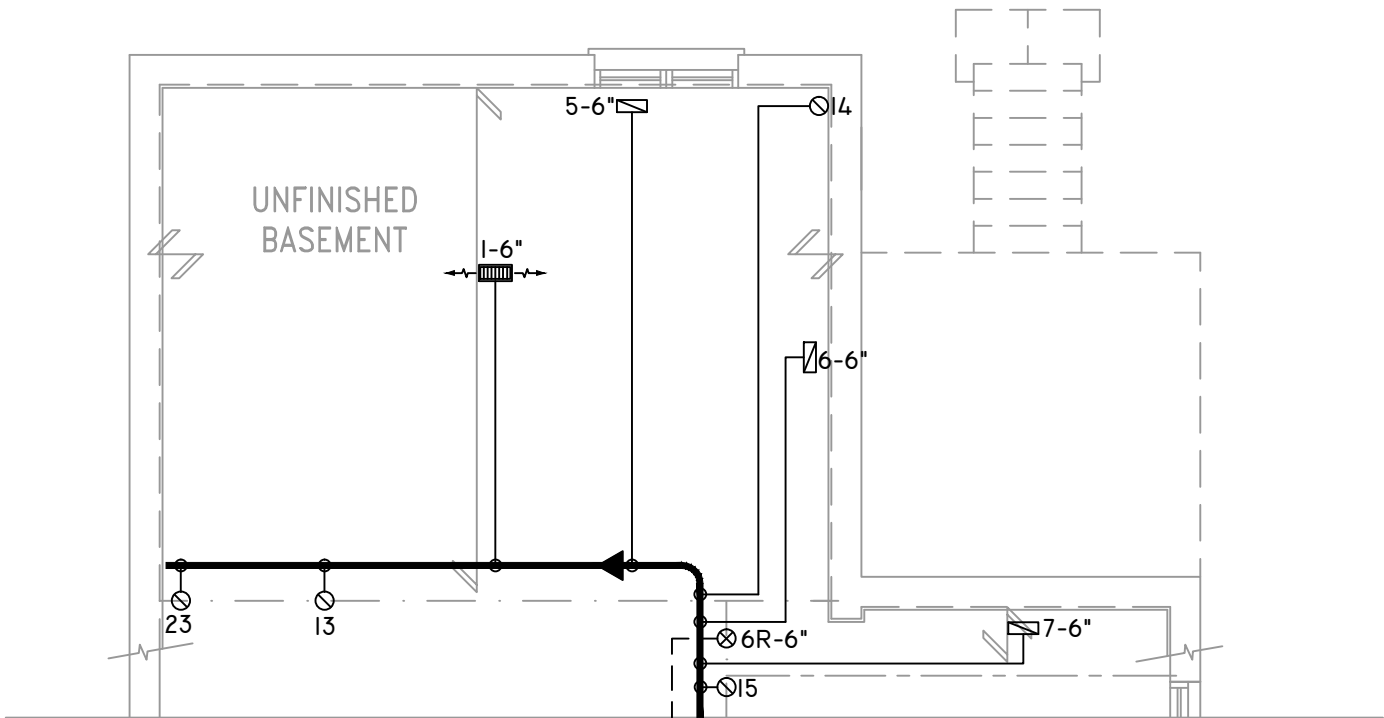
HEAT-LOSS	50,893	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	3	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

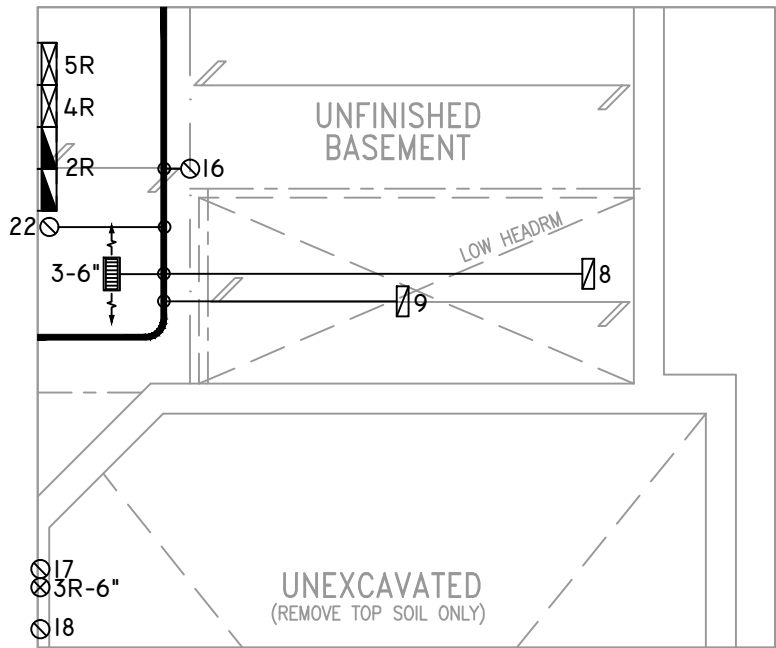
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AP	CHECKED: DD	SQFT 2780
LAYOUT NO. JB-04482	DRAWING NO. M4	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

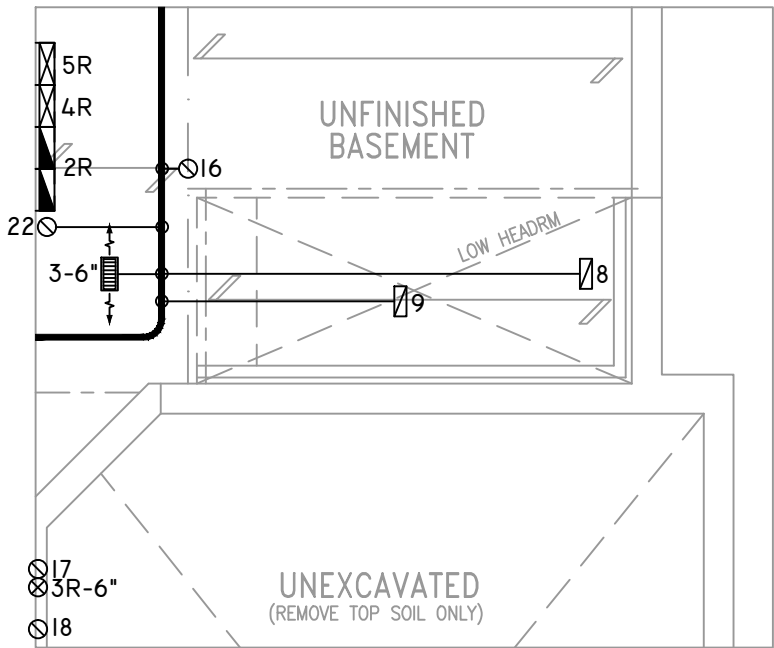
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART BSMT PLAN 'C'  
WOD UPG CONDITION ONLY



PART BSMT PLAN  
MUDROOM & PWD SUNKEN 1R



PART BSMT PLAN  
MUDROOM & PWD SUNKEN 2-3R

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QUALIFICATION INFORMATION

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DAVID DA COSTA  B.C.I.N. 32964

SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

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

NOTES

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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

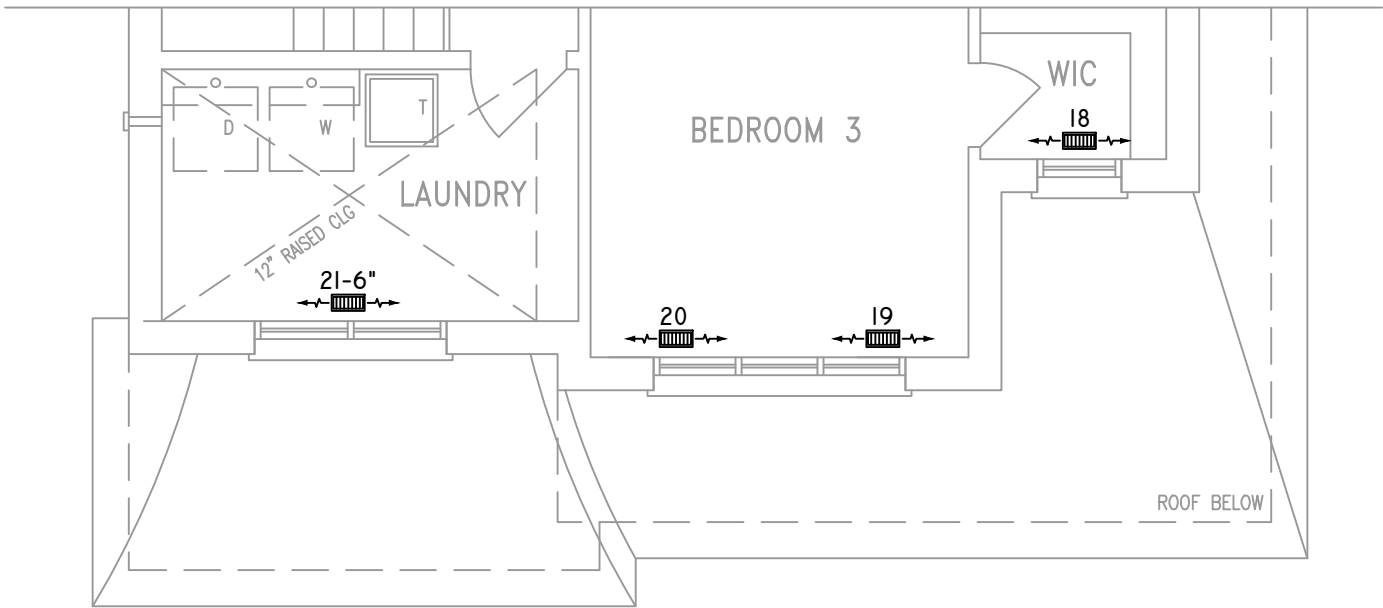
# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	3	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

FLOOR PLAN:	
PARTIAL PLAN(S)	
DRAWN BY: AP	CHECKED: DD
LAYOUT NO. JB-04482	DRAWING NO. M5

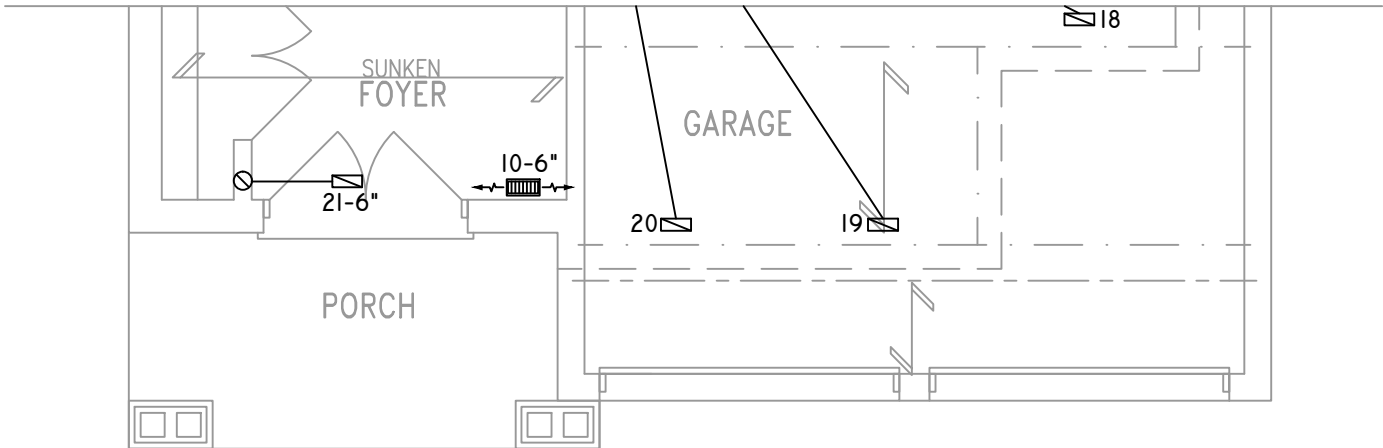
DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"



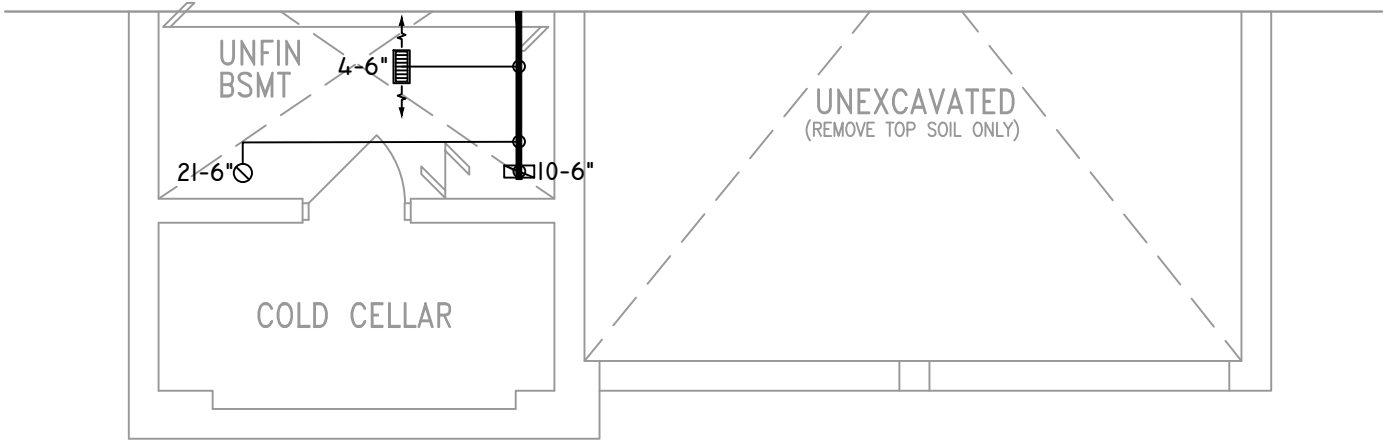
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART. SECOND FLOOR PLAN 'B'



PART. GROUND FLOOR PLAN 'B'



PART. BASEMENT PLAN 'B'

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DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

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

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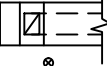







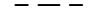





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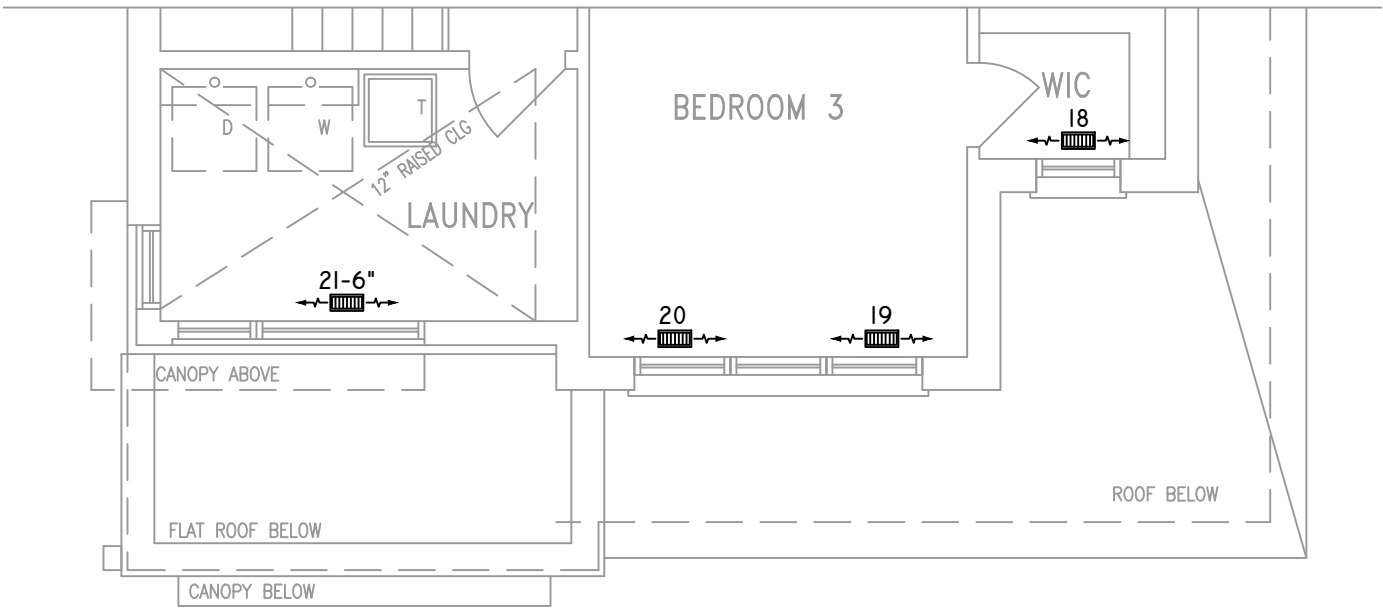
HEAT-LOSS	50,893	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
UNIT HEATING INPUT	60,000	BTU/HR.
UNIT HEATING OUTPUT	57,600	BTU/HR.
A/C COOLING CAPACITY	2.5	TONS.
FAN SPEED	1170	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	3	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

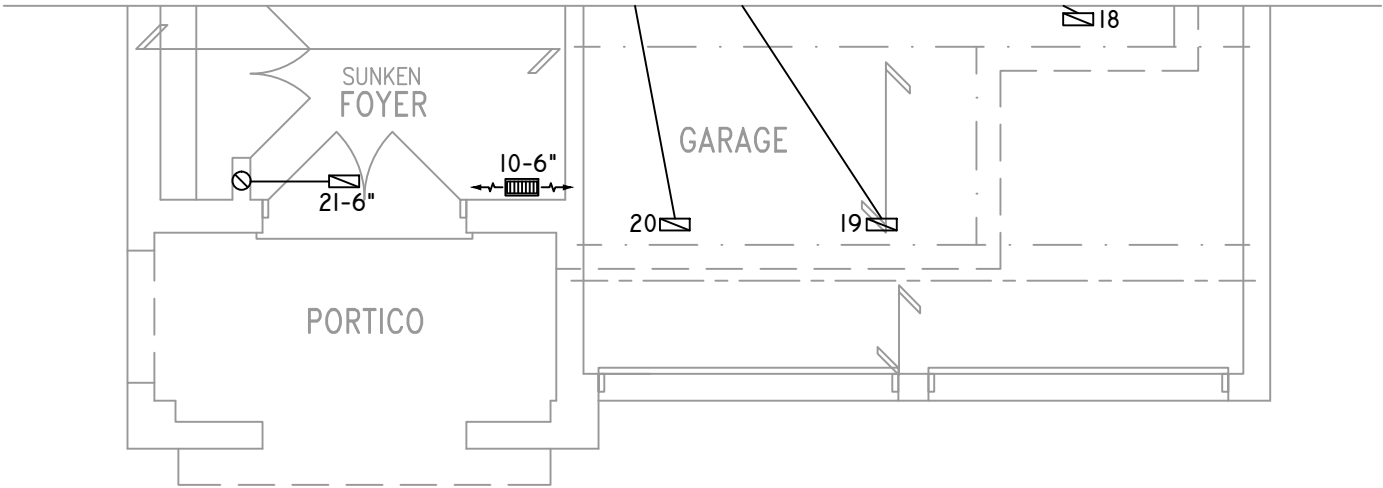
FLOOR PLAN:	
PARTIAL PLAN(S)	
DRAWN BY: AP	CHECKED: DD
LAYOUT NO. JB-04482	DRAWING NO. M6
SQFT 2780	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

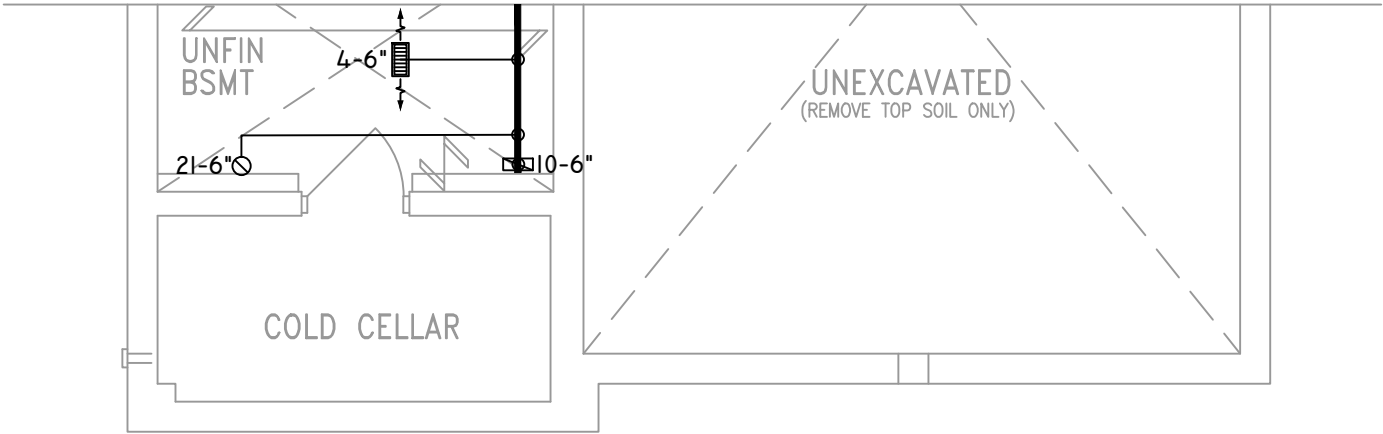
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART. SECOND FLOOR PLAN 'C'



PART. GROUND FLOOR PLAN 'C'



PART. BASEMENT PLAN 'C'

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DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

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

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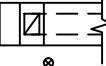














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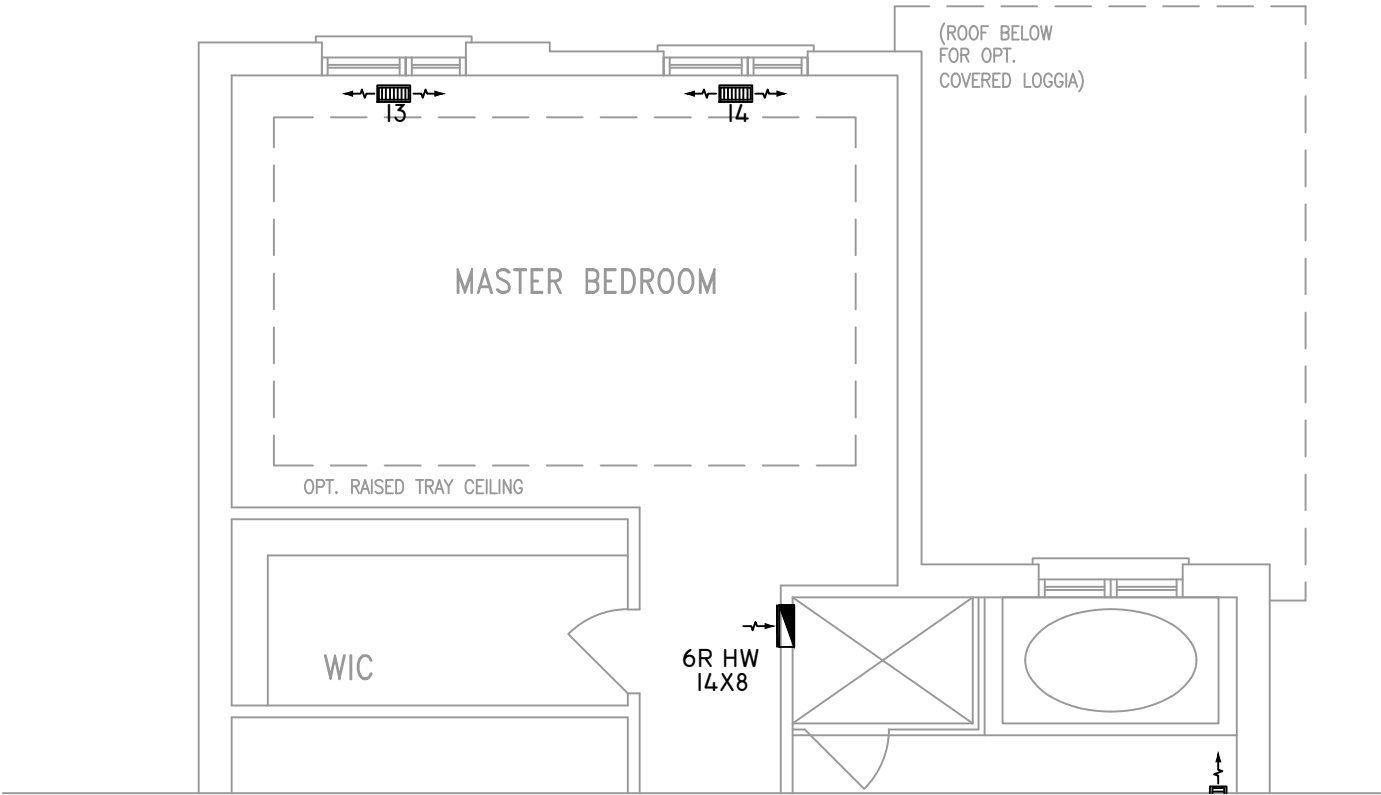
HEAT-LOSS	50,893	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960603BNA	OR EQUAL.
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UNIT HEATING OUTPUT	57,600	BTU/HR.
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# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	3	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

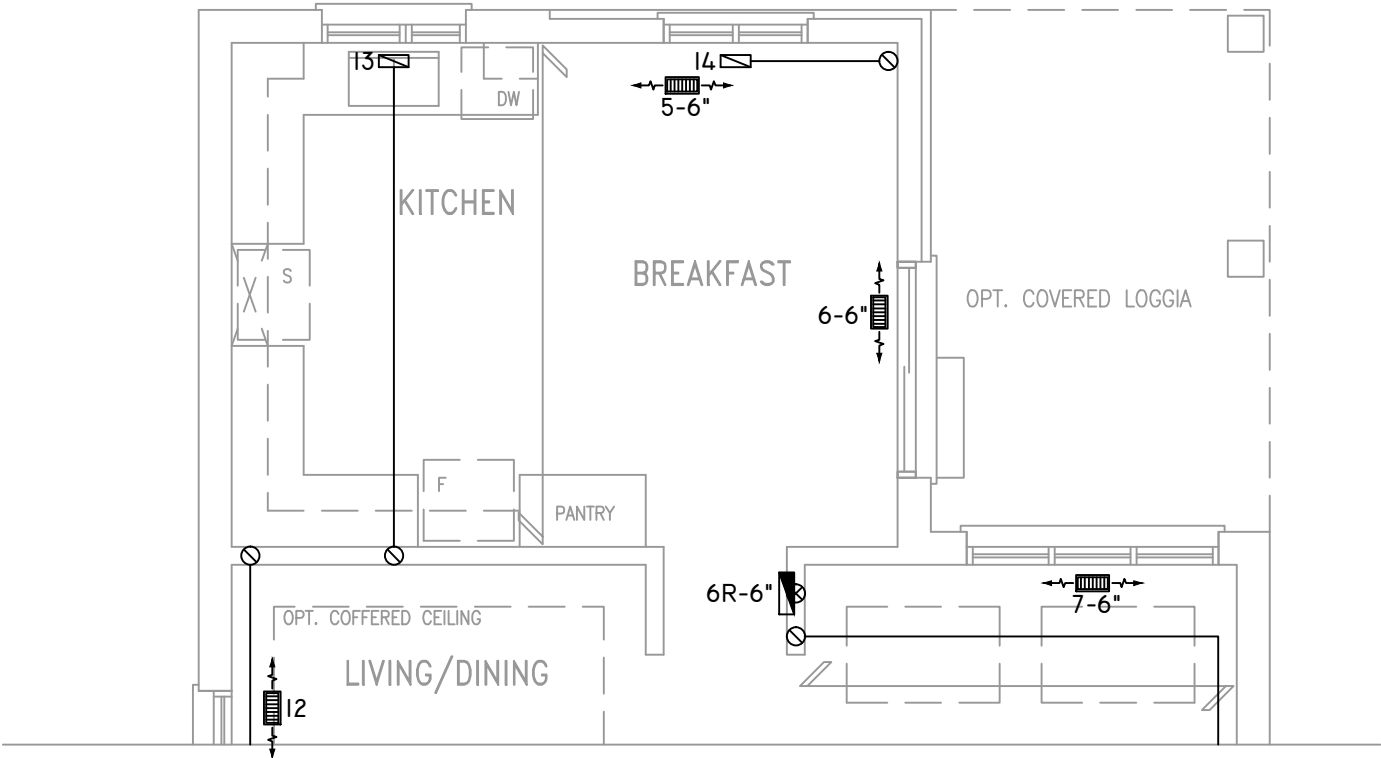
FLOOR PLAN:		
PARTIAL PLAN(S)		
DRAWN BY:	CHECKED:	SQFT
AP	DD	2780
LAYOUT NO.	DRAWING NO.	
JB-04482	M7	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

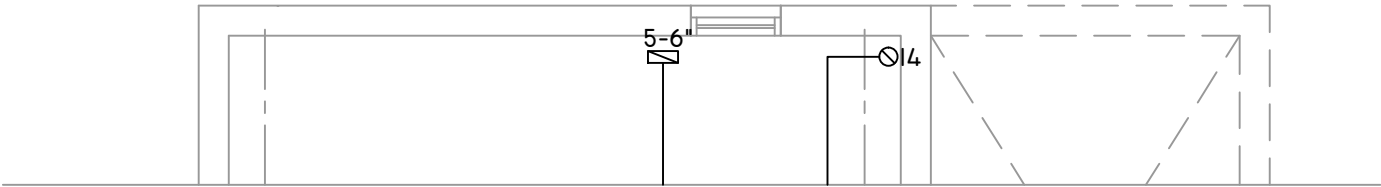
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART SECOND FLOOR PLAN 'C'  
REAR UPGRADE



PART GRND FLOOR PLAN 'C'  
REAR UPGRADE



PART BASEMENT PLAN 'C'  
REAR UPGRADE

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SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

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

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A/C COOLING CAPACITY	2.5	TONS.
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# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	3	3
1ST FLOOR	8	1	2
BASEMENT	4	1	

FLOOR PLAN:	
PARTIAL PLAN(S)	
DRAWN BY: AP	CHECKED: DD
LAYOUT NO. JB-04482	SQFT 2780
	DRAWING NO. M8

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-5 BAROSSA 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"