

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 Barossa 8				Lot: S38-8C Alt. 2nd FLR	
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]					
☐ House ☒ HVAC – House ☐ Building Structural ☐ Small Buildings ☐ Building Services ☐ Plumbing – House ☐ Large Buildings ☐ Detection, Lighting and Power ☐ Plumbing – All Buildings ☐ Complex Buildings ☐ Fire Protection ☐ On-site Sewage Systems					
Description of designer's work			Model Certification		
			Project #:		PJ-00204
			Layout #:		JB-04546
Heating and Cooling Load Calculations		Main	Builder	Bayview Wellington	
Air System Design		Alternate	Project	Green Valley East	
Residential mechanical ventilation Design Summary		Area Sq ft: 3235	Model	Barossa 8	
Residential System Design per CAN/CSA-F280-12				S38-8C Alt. 2nd FLR	
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)					
☐ 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: _____					
☒ 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>					
☐ 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.

Heat loss and gain calculation summary sheet				CSA-F280-M12 Standard Form No. 1	
These documents issued for the use of Bayview Wellington				Layout No.	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.				JB-04546	
Building Location					
Address (Model): S38-8C Alt. 2nd FLR			Site: Green Valley East		
Model: Barossa 8			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: 6
Sensible Eff. at -25C 71%		Apparent Effect. at -0C 84%	Units: Imperial		Area Sq ft: 3235
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		
Exposed floors			Style C:		
Style A: As per Selected OBC SB12 Package A1 R 31			Doors		
Style B:			Style A: As per Selected OBC SB12 Package A1 R 4.00		
Windows			Style B:		
Style A: As per Selected OBC SB12 Package A1 R 3.55			Style C:		
Style B: Existing Windows (When Applicable) R 1.99			Skylights		
Style C:			Style A: As per Selected OBC SB12 Package A1 R 2.03		
Style D:			Style B:		
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		

Builder: **Bayview Wellington**

Date: **March 12, 2018**

Project: **Green Valley East**

Model: **S38-8C Alt. 2nd FLR**

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-04546**

DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE		FURNACE/AIR HANDLER DATA:		BOILER/WATER HEATER DATA:		A/C UNIT DATA:	
Level 1 Net Load	17,706 btu/h	Equipment External Static Pressure	0.5 "w.c.	Make	Amana	Make	Type	Amana	3.5 Ton
Level 2 Net Load	23,363 btu/h	Additional Equipment Pressure Drop	0.225 "w.c.	Model	AMEC960804CNA	Model		Cond.-----	3.5
Level 3 Net Load	20,817 btu/h	Available Design Pressure	0.275 "w.c.	Input Btu/h	80000	Input Btu/h		Coil -----	3.5
Level 4 Net Load	0 btu/h	Return Branch Longest Effective Length	300 ft	Output Btu/h	76800	Output Btu/h			
Total Heat Loss	61,886 btu/h	R/A Plenum Pressure	0.138 "w.c.	E.s.p.	0.50 " W.C.	Min.Output Btu/h	AWH		
Total Heat Gain	36,918 btu/h	S/A Plenum Pressure	0.14 "w.c.	Water Temp	deg. F.	Blower DATA:			
Combo System HL + 10%	68,075 Btu/h	Heating Air Flow Proportioning Factor	0.0250 cfm/btuh	AFUE	96%	Blower Speed Selected:	W2	Blower Type	ECM
Building Volume Vb	37884 ft³	Cooling Air Flow Proportioning Factor	0.0419 cfm/btuh	Aux. Heat				(Brushless DC OBC 12.3.1.5.(2))	
Ventilation Load	1,342 Btu/h.	R/A Temp	70 deg. F.	SB-12 Package	Package A1	Heating Check	1545 cfm	Cooling Check	1545 cfm
Ventilation PVC	95.4 cfm	S/A Temp	116 deg. F.			Selected cfm>	1545 cfm	Cooling Air Flow Rate	1545 cfm
Supply Branch and Grill Sizing		Diffuser loss	0.01 "w.c.	Temp. Rise>>>	46 deg. F.				

	Level 1														Level 2													
S/A Outlet No.	1	2	3	4	29										5	6	7	8	9	10	11	12	13	14	15			
Room Use	BASE	BASE	BASE	BASE	BASE										GRT	GRT	KIT	KIT	LAUN	LIV	LIV	PWD	FOY	DIN	DIN			
Btu/Outlet	3541	3541	3541	3541	3541										2061	2061	2263	2263	2950	2585	2585	830	3144	1310	1310			
Heating Airflow Rate CFM	88	88	88	88	88										51	51	57	57	74	65	65	21	78	33	33			
Cooling Airflow Rate CFM	9	9	9	9	9										105	105	99	99	96	76	76	5	62	75	75			
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		
Actual Duct Length	36	32	31	57	24										37	39	36	35	53	61	59	48	40	34	31			
Equivalent Length	120	100	110	130	70	70	70	70	70	70	70	70	70	70	130	130	110	110	120	140	110	100	120	140	115	70	70	70
Total Effective Length	156	132	141	187	94	70	70	70	70	70	70	70	70	70	167	169	146	145	173	201	169	148	160	174	146	70	70	70
Adjusted Pressure	0.08	0.10	0.09	0.07	0.14	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.08	0.09	0.09	0.08	0.06	0.08	0.09	0.08	0.07	0.09	0.19	0.19	0.19
Duct Size Round	6	6	6	6	6										6	6	6	6	6	6	6	4	6	6	6			
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	G	F	B	D	E										G	G	F	F	B	D	C	B	B	E				

	Level 3														Level 4												
S/A Outlet No.	16	17	18	19	20	21	22	23	24	25	26	27	28														
Room Use	MAST	BED 2	BATH	BED 3	BED 3	WIC	BED 4	BED 4	BED 5	WIC 2	ENS	VAN	BATH 2														
Btu/Outlet	2826	1627	924	1972	1972	926	1975	1975	2388	666	1759	594	1215														
Heating Airflow Rate CFM	71	41	23	49	49	23	49	49	60	17	44	15	30														
Cooling Airflow Rate CFM	98	38	11	58	58	23	75	75	83	18	42	16	31														
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	51	62	63	72	67	65	84	76	57	47	65	65	64														
Equivalent Length	110	150	170	170	150	140	160	140	160	140	150	150	150	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	161	212	233	242	217	205	244	216	217	187	215	215	214	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.08	0.06	0.06	0.05	0.06	0.06	0.05	0.06	0.06	0.07	0.06	0.06	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
Duct Size Round	6	5	4	6	6	4	6	6	6	4	5	3	4														
Outlet Size	4x10	3x10	3x10	4x10	4x10	3x10	4x10	4x10	4x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	F	B	C	C	C	C	D	D	B	G	G	D	C														

Return Branch And Grill Sizing												Return Trunk Duct Sizing					Supply Trunk Duct Sizing					
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R	Trunk	CFM	Press.	Round	Rect. Size	Trunk	CFM	Press.	Round	Rect. Size	
Inlet Air Volume CFM	220	500	155	155	135	140	105	135				Drop	1545	0.04	20.0	24x14	A	1545	0.05	19.0	34x10	26x12
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	Z	1095	0.05	16.5	32x8	B	900	0.05	15.5	28x8	22x10
Actual Duct Length	7	28	41	42	60	76	46	33				Y	270	0.05	10.0	12x8	C	527	0.05	12.5	18x8	14x10
Equivalent Length	155	125	155	235	185	250	190	135	50	50	50	X					D	331	0.05	10.5	12x8	10x10
Total Effective Length	162	153	196	277	245	326	236	168	50	50	50	W					E	645	0.06	13.5	20x8	16x10
Adjusted Pressure	0.07	0.08	0.06	0.04	0.05	0.04	0.05	0.07	0.24	0.24	0.24	V					F	272	0.08	9.0	8x8	10x7
Duct Size Round	8.0	11.5	8.0	8.5	7.0	7.0	6.0	7.0				U					G	252	0.06	9.5	10x8	
Inlet Size	FLC	8	8	8	8	8	8	8				T					H					
" "	x	x	x	x	x	x	x	x	x	x	x	S					I					
Inlet Size	9x6	30	14	14	14	14	14	14				R					J					
Trunk	Z	Z			Y		Z	Y				Q					K					

2012 OBC

Builder: Bayview Wellington

Date: March 12, 2018

Project: Green Valley East

Model: Barossa 8
S38-8C Alt. 2nd FLR

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: 3235

Project # PJ-00204
Layout # JB-04546

Level 1

Run ft. exposed wall A	186 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	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG	3.8 AG
Floor area	1328 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	703												
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	3	69	82											
South	3.55	22.93	20.89	12	275	251											
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	664		346											
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			7729													
Total Conductive	Heat Loss			8569													
	Heat Gain				769												
Air Leakage	Heat Loss/Gain	1.0348	0.0303	8866		23											
Ventilation	Case 1	0.08	0.06														
	Case 2	14.07	11.88														
	Case 3	x	0.03	271		44											
Heat Gain People			239														
Appliances Loads	1 = .25 percent		5384														
Duct and Pipe loss			10%														
Level 1 HL Total	17,706		Total HL for per room	17706													
Level 1 HG Total	1,088		Total HG per room x 1.3		1088												

Level 2

Run ft. exposed wall A	32 A	GRT	39 A	KIT	29 A	LAUN	43 A	LIV	13 A	PWD	13 A	FOY	19 A	DIN	A	A	A	A
Run ft. exposed wall B	B		B		B		B		B		B		B		B	B	B	B
Ceiling height	10.0		10.0		12.0		10.0		10.0		19.0		10.0		10.0	10.0	10.0	10.0
Floor area	220 Area		322 Area		184 Area		184 Area		58 Area		105 Area		249 Area		Area	Area	Area	Area
Exposed Ceilings A	10 A		A		A		A		A		42 A		A		A	A	A	A
Exposed Ceilings 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
Gross Exp Wall A	320		390		348		430		130		247		190					
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			24	550	262	12	275	131														
East/West			3.55	22.93	57	1307	1559	60	1376	1641			42	963	1149											
South			3.55	22.93	28	642	585						58	1330	1211			40	917	835	58	1330	1211			
Existing Windows			1.99	40.90																						
Skylight			2.03	40.10																						
Doors			4.00	20.35							21	427	58						25	509	69					
Net exposed walls A			17.03	4.78	235	1123	152	306	1463	198	315	1506	203	330	1577	213	130	621	84	182	870	118	132	631	85	
Net exposed walls B			8.50	9.58																						
Exposed Ceilings A			59.22	1.37	10	14	6											42	58	27						
Exposed Ceilings B			22.86	3.56																						
Exposed Floors			29.80	2.73																						
Foundation Conductive Heatloss			On Grade () or Above			x																				
Total Conductive	Heat Loss				3086				3389					3870			621			2354			1961			
	Heat Gain					2302				2101			392		2573			84		1049			1297			
Air Leakage	Heat Loss/Gain			0.3042	939		70		1031	64		672	12	1177	78		189	3		716	32		596	39		
Ventilation	Case 1			0.02																						
	Case 2			14.07																						
	Case 3		x	0.03	98		133			107	121		70	23		123	149		20	5		75	61	62	75	
Heat Gain People																										
Appliances Loads			1 =.25 percent																							
Duct and Pipe loss																										
Level 2 HL Total			23,363																							
Level 2 HG Total			20,856																							
						</																				

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	61,886	btu/h
Total Heat Gain	36,918	btu/h

2012 OBC		Builder: Bayview Wellington	Date: March 12, 2018	Barossa 8	System 1	Weather Data	Bradford	44	-9.4	86	22	48.2	Project #	PJ-00204
		Project: Green Valley East	Model: S38-8C Alt. 2nd FLR			Heat Loss ^T	81.4 deg. F	Ht gain ^T	11 deg. F	GTA:	3235	Layout #	JB-04546	

Level 3		MAST		BED 2		BATH		BED 3		WIC		BED 4		VAN		BATH 2		BED 5		WIC 2		ENS														
Run ft. exposed wall A		31 A		17 A		10 A		24 A		6 A		34 A		6 A		13 A		18 A		6 A		22 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		10.0		8.0		8.0		8.0		8.0		9.0		8.0		8.0														
Floor area		240 Area		237 Area		77 Area		246 Area		36 Area		219 Area		34 Area		82 Area		220 Area		76 Area		122 Area														
Exposed Ceilings A		240 A		237 A		77 A		246 A		36 A		219 A		34 A		82 A		220 A		76 A		122 A														
Exposed Ceilings B		B		B		B		B		B		B		B		B		B		B		B														
Exposed Floors		Flr		Flr		39 Flr		204 Flr		72 Flr		Flr		Flr		Flr		Flr		Flr		Flr														
Gross Exp Wall A		279		136		80		240		48		272		48		104		162		48		176														
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	Loss	Gain													
North Shaded	3.55	22.93	10.91																																	
East/West	3.55	22.93	27.35	33	757	903		18	413	196		8	183	87		46	1055	1258	11	252	301		40	917	1094	46	1055	961	11	252	301					
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	246	1176	159	118	564	76	72	344	47	194	927	125	37	177	24	186	889	120	37	177	24	84	402	54	116	554	75	37	177	24	154	736	99
Net exposed walls B	8.50	9.58	1.29																																	
Exposed Ceilings A	59.22	1.37	0.64	240	330	154	237	326	152	77	106	49	246	338	158	36	49	23	219	301	141	34	47	22	82	113	53	220	302	141	76	104	49	122	168	78
Exposed Ceilings B	22.86	3.56	1.66																																	
Exposed Floors	29.80	2.73	0.17							39	107	7	204	557	34	72	197	12																		
Foundation Conductive Heatloss																																				
Total Conductive	Heat Loss			2262				1303		740			2877		675		360		3162		476		973		525		1912		534		1408		708			
	Heat Gain				1216		425		190		1576		360		275		275		2316		275		525		1177		1177		302		708					
Air Leakage	Heat Loss/Gain	0.2173	0.0303	492	37		283	13	161	6	625	48	147	11	687	70	103	8	211	16	415	36	116	9	306	21										
Ventilation	Case 1	0.02	0.06																																	
	Case 2	14.07	11.88																																	
	Case 3	x	0.03	0.06																																
Heat Gain People			239	2	72	70		41	25	23	11		91	91		21	21		100	134	239	1	15	16	31	30		61	68	17	17	45	41			
Appliances Loads		1 =.25 percent	5384																																	
Duct and Pipe loss			10%																																	
Level 3 HL Total		20,817		2826				1627		924			3944	181		1	82	36		3949		594		1215		742		2388		666		1759				
Level 3 HG Total		14,974			2341		911		268		2775		926		556		390		3586		594		390		742		1975		428		1002					

	Level 4																				
Run ft. exposed wall A	A				A				A				A				A				
Run ft. exposed wall B	B				B				B				B				B				
Ceiling height																					
Floor area	Area				Area				Area				Area				Area				
Exposed Ceilings A	A				A				A				A				A				
Exposed Ceilings B	B				B				B				B				B				
Exposed Floors	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
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		Heat Loss																			
		Heat Gain																			
Air Leakage		Heat Loss/Gain		0.0000	0.0303																
Ventilation		Case 1		0.00	0.06																
		Case 2		14.07	11.88																
		Case 3		x	0.03	0.06															
Heat Gain People						239															
Appliances Loads				1 =.25 percent	5384																
Duct and Pipe loss						10%															
Level 4 HL Total		0		Total HL for per room																	
Level 4 HG Total		0		Total HG per room x 1.3																	

Total Heat Loss	61,886	btu/h
Total Heat Gain	36,918	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

David 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

Package: Package A1
Project: Bradford
Model: S38-8C Alt. 2nd FLR

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	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	4 @	10.6 cfm	42.4	cfm
Bathrooms & Kitchen	5 @	10.6 cfm	53	cfm
Other rooms	5 @	10.6 cfm	53	cfm
Total			190.8	

Principal Ventilation Capacity 9.32.3.4(1)				
Master bedroom	1 @	31.8 cfm	31.8	cfm
Other bedrooms	4 @	15.9 cfm	63.6	cfm
Total			95.4	

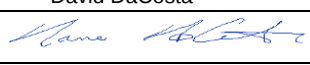
Principal Exhaust Fan Capacity				
Make	Model		Location	
LifeBreath	RNC155		Base	
132 cfm			Sones	or Equiv.

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			190.8	
Less principal exhaust capacity			95.4	
REQUIRED supplemental vent. Capacity			95.4	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			
HRAI #	5190	BCIN #	32964
Date	March 12, 2018		



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-04546

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 Barossa 8 S38-8C Alt. 2nd FLR		Unit number	Lot/Con
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):

Package A1

Table: 3.1.1.2.A

C. Project Design Conditions

Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source		
☒ Zone 1 (< 5000 degree days) ☐ Zone 2 (≥ 5000 degree days)	☒ ≥ 92% AFUE ☐ ≥ 84% < 92% AFUE	☒ Gas ☐ Oil	☐ Propane ☐ Electric	☐ Solid Fuel ☐ Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics		
Area of Walls = <u>404.22</u> m ² or <u>4351.0</u> ft ²	W, S & G % = <u>16%</u>	☐ Log/Post&Beam ☐ Slab-on-ground ☒ Air Conditioning ☐ Air Sourced Heat Pump (ASHP) ☐ Ground Source Heat Pump (GSHP)	☐ ICF Above Grade ☐ Walkout Basement ☐ Combo Unit	☐ ICF Basement
Area of W, S & G = <u>65.866</u> m ² or <u>709.0</u> ft ²	Utilize Window Averaging ☐ Yes ☒ No			

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

Energy Efficiency Substitutions			
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5)) ☐ Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))			
☐ Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	☐ Table 3.1.1.4.B Required:		Permitted Substitution:
	☐ Table 3.1.1.4.C Required:		Permitted Substitution:
Building Component	Minimum RSI/R-Values or Maximum U-Value ¹		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 David DaCosta	BCIN 32964	Signature
------------------------------	----------------------	---------------

Package: Package A1 System: System 1
Project: Bradford Model: S38-8C Alt. 2nd FLR

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL ^Δ T	HL _{leak}
0.018	0.319	37884	81.4	17733

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG ^Δ T	HG _{Leak}
0.018	0.079	37884	11	594

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	17733	8569	1.0348
Level 2	0.3		17489	0.3042
Level 3	0.2		16322	0.2173
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	
	594		0.0303
BUILDING CONDUCTIVE HEAT GAIN			19636

Levels this Dwelling	
3	

Ventilation Calculations

Ventilation Heat Loss

Ventilation Heat Loss				
C	PVC	HL ^Δ T	(1-E) HRV	HL _{bvent}
1.08	95.4	81.4	0.16	1342

Ventilation Heat Gain

Ventilation Heat Gain			
C	PVC	HG ^Δ T	HG _{bvent}
1.1	95.4	11	1133

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HL _{bvent}	LVL Cond. HL	Multiplier
Level 1	0.5	1342	8569	0.08
Level 2	0.3		17489	0.02
Level 3	0.2		16322	0.02
Level 4	0		0	0.00

Case 1

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier	
HG _{bvent}	1133	0.06	
Building	19636		

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Case 2

Ventilation Heat Gain (Direct Ducted Systems)

C	HG ^Δ T	Multiplier
1.08	11	11.88

Case 3

Ventilation Heat Loss (Forced Air Systems)

HL _{bvent}		Multiplier	
Total Ventilation Load	1342	0.03	

Case 3

Ventilation Heat Gain (Forced Air Systems)

Vent Heat Gain		Multiplier	
HG _{bvent}	HG*1.3	1133	
1133	1		

Foundation Conductive Heatloss Level 1

2265 Watts 7729 Btu/h

Foundation Conductive Heatloss Level 2

Watts Btu/h

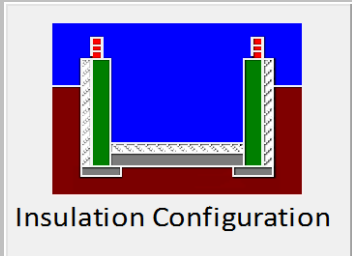
Envelope Air Leakage Calculator

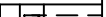
Supplemental tool for CAN/CSA-F280

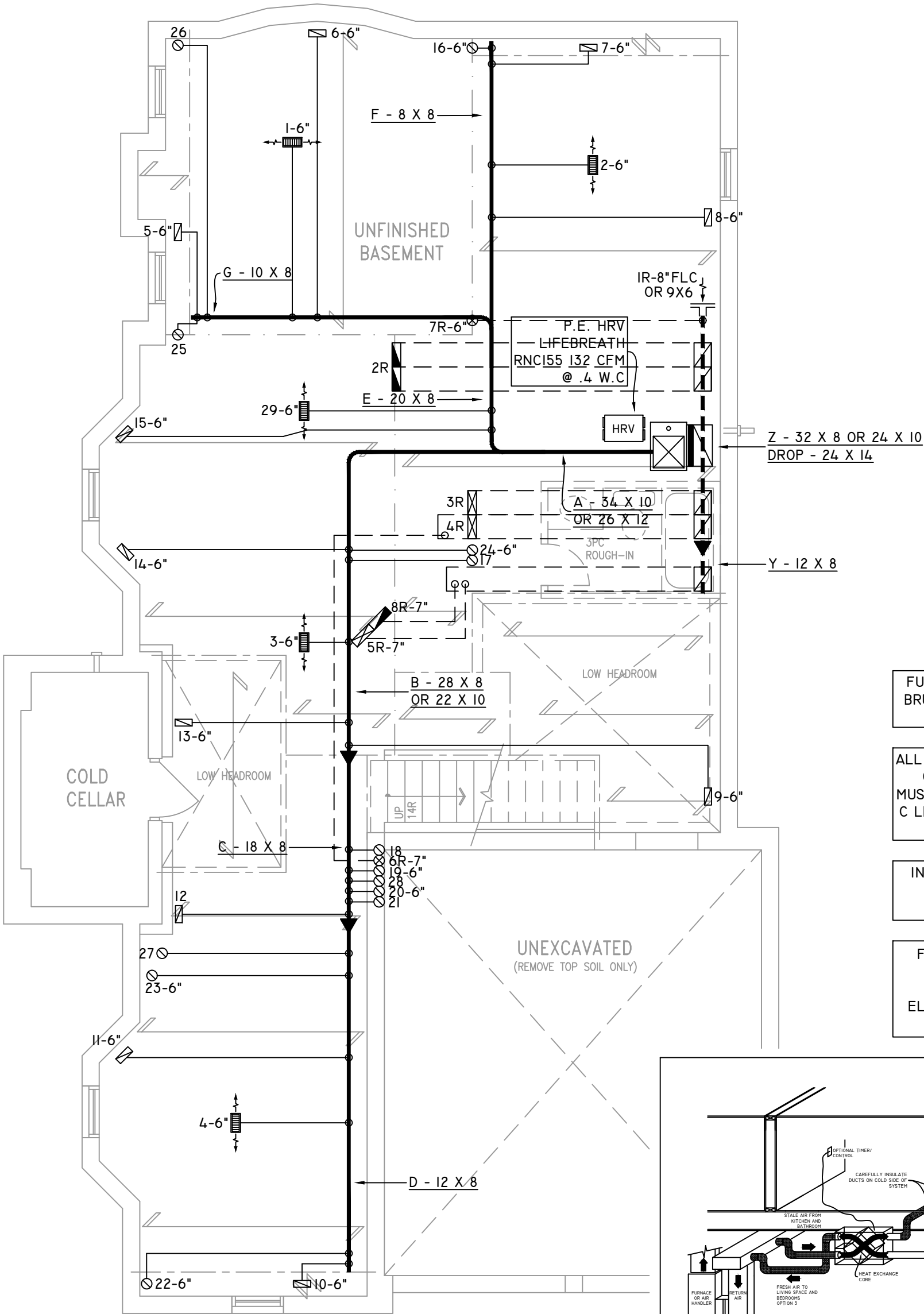
Weather Station Description				
Province:	Ontario ▼			
Region:	Bradford ▼			
Weather Station Location:	Open flat terrain, grass ▼			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest ▼			
Walls:	Heavy ▼			
Flue:	Heavy ▼			
Highest Ceiling Height (m):	6.64			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1072.87			
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:	
	47.7		47.7	
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Heating Air Leakage Rate (ACH/H):		0.319		
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):	22.98	 Insulation Configuration
Floor Width (m):	5.37	
Exposed Perimeter (m):	56.69	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.59	
Window Area (m ²):	1.67	
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):		2265

	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.

 **GTADESIGNS**

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

HEAT-LOSS	61,886	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960804CNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1545	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	11	1	2
BASEMENT	5	1	

FLOOR PLAN:	BASEMENT
DRAWN BY:	AM
CHECKED:	DD
LAYOUT NO.	JB-04546
SQFT	3214
DRAWING NO.	MI

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-8C ALT. 2ND FLR BAROSSA 8
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

[illegible]

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

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

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	11	1	2
BASEMENT	5	1	

FLOOR PLAN:	
GROUND FLOOR	
DRAWN BY: AM	CHECKED: DD
SQFT 3214	
LAYOUT NO. JB-04546	DRAWING NO. M2

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-8C ALT. 2ND FLR BAROSSA 8
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

The floor plan illustrates the second floor layout, including the Master Bedroom, three other bedrooms, two shared bathrooms, two walk-in closets (WIC), a linen closet (LIN.), a van area, and a central stairwell. Mechanical equipment is indicated by numbered symbols (17-28) and labels for ductwork (e.g., 16-6", 24-6", 23-6", 22-6", 20-6", 19-6", 18, 21, 6R LW 14X8, 5R HW 14X8, 4R HW 14X8, 3R HW 14X8, 7R HW 14X8, 26, 25, 28, 27, 23-6", 22-6"). The plan also shows the location of the roof below and the optimal raised tray ceiling in the Master Bedroom. A note specifies that all ductwork in conditioned areas must be sealed to Class C level as per OBC Part 6-6.2.4.3.(12). Another note states that all ducts in unconditioned spaces must be insulated with a minimum R12 value. A third note indicates that for heat loss/gain calculations, all elevations have been considered.

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

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

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

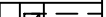
 **GTADESIGNS**

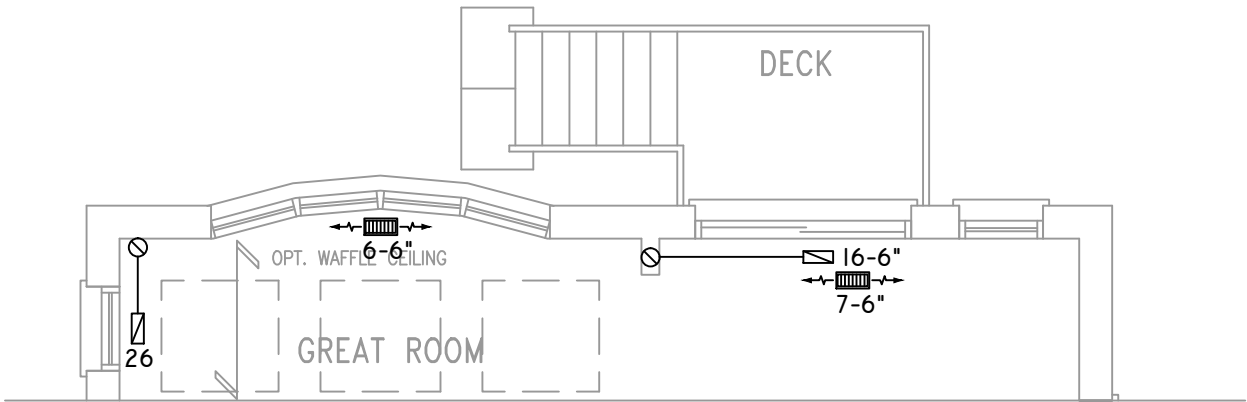
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	11	1	2
BASEMENT	5	1	

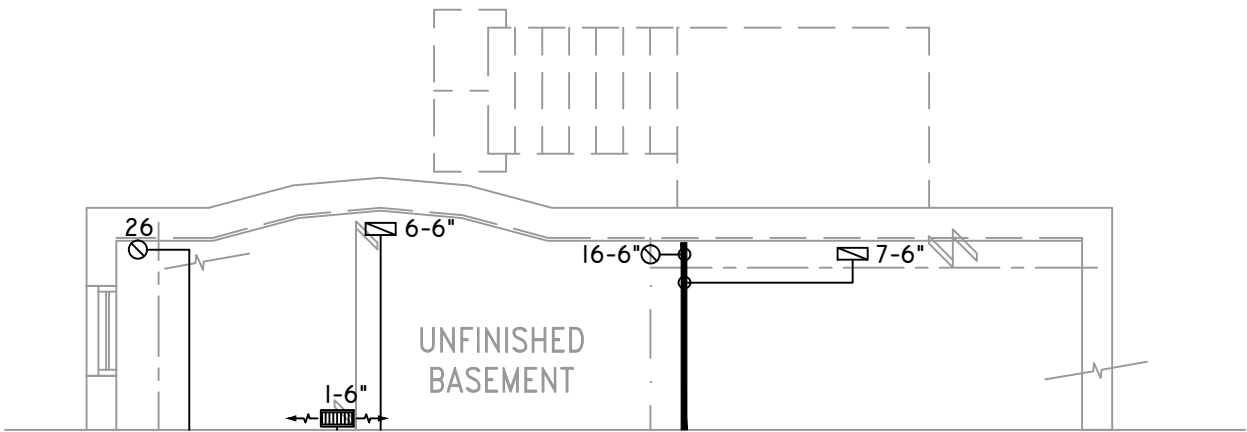
FLOOR PLAN:		SECOND FLOOR	
DRAWN BY:	CHECKED:	SOFT	
AM	DD	3214	
LAYOUT NO.	DRAWING NO.		
JB-04546			M3

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-8C ALT. 2ND FLR BAROSSA 8
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

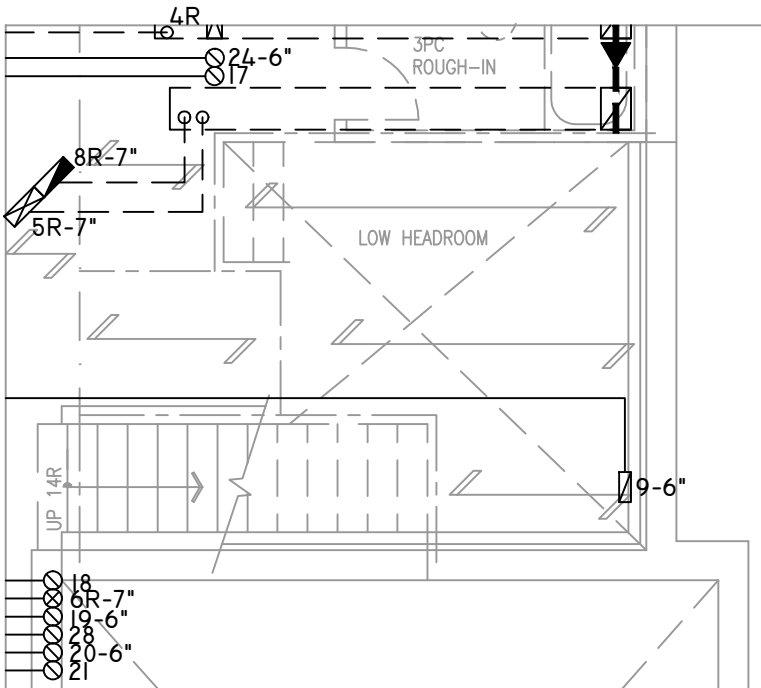
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART. GROUND FLOOR PLAN 'A' & 'B' – W.O.D. CONDITION



PART. BASEMENT PLAN 'A' & 'B' – W.O.D. CONDITION



PART. BASEMENT PLAN W/ SUNKEN LAUNDRY (-2R TO -3R COND.)

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.



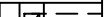
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

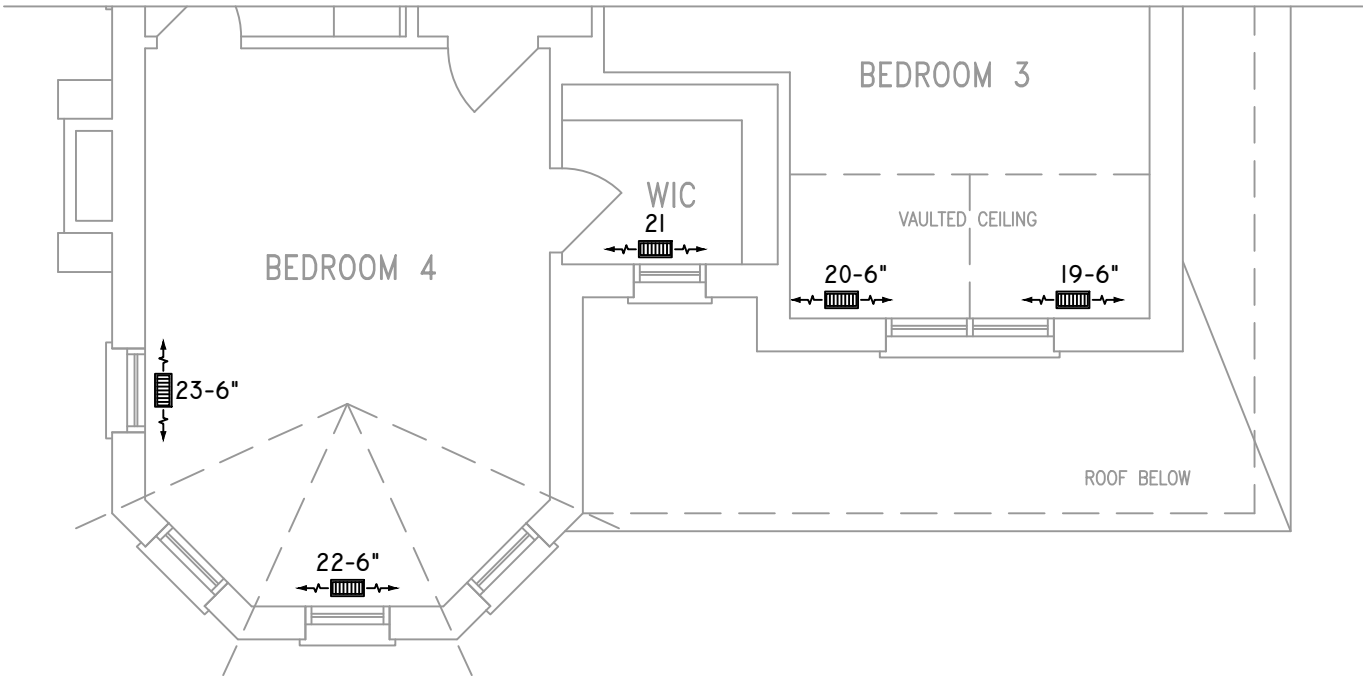
HEAT-LOSS	61,886	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960804CNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1545	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	11	1	2
BASEMENT	5	1	

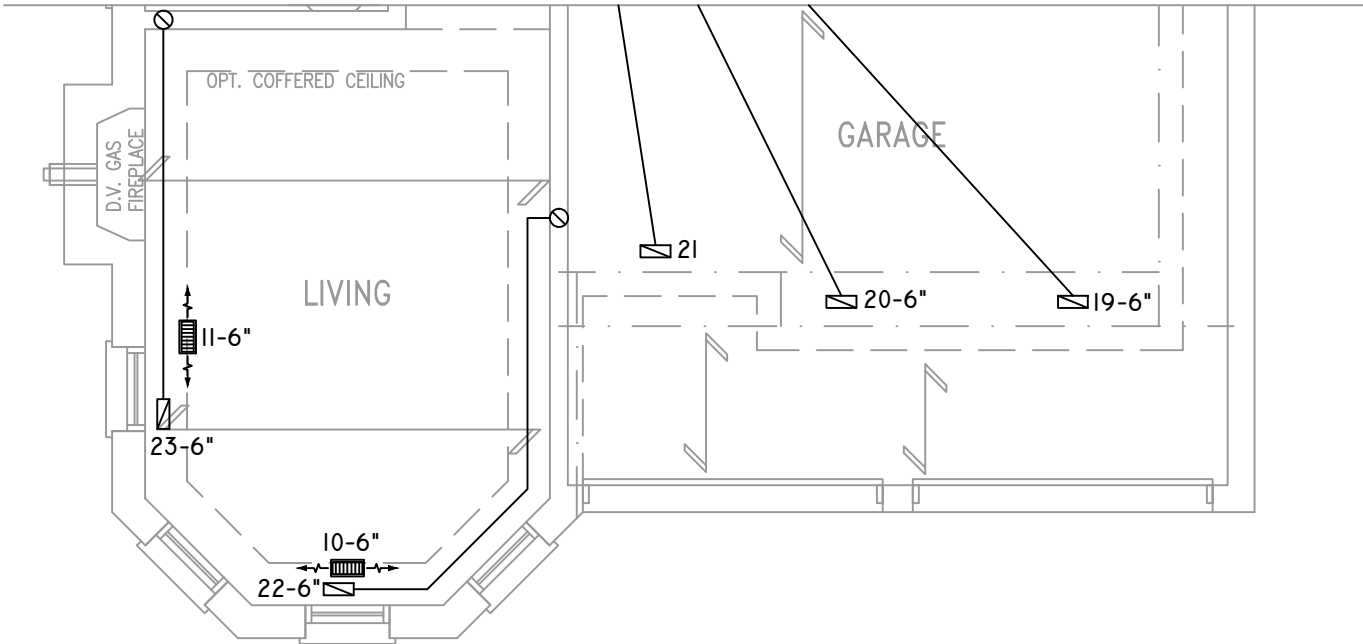
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3214
LAYOUT NO. JB-04546	DRAWING NO. M4	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-8C ALT. 2ND FLR BAROSSA 8
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

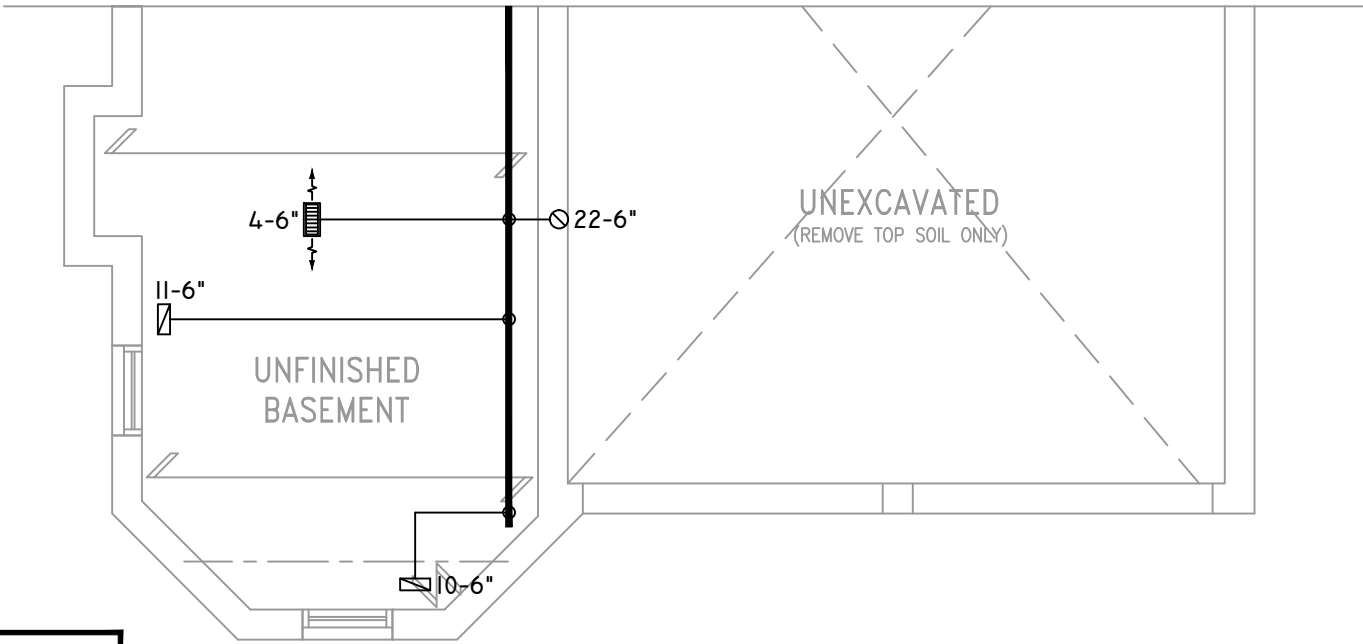
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



ALT. SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN ELEV. 'B'



PARTIAL BASEMENT PLAN 'B'

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.
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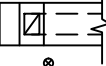
2985 DREW ROAD
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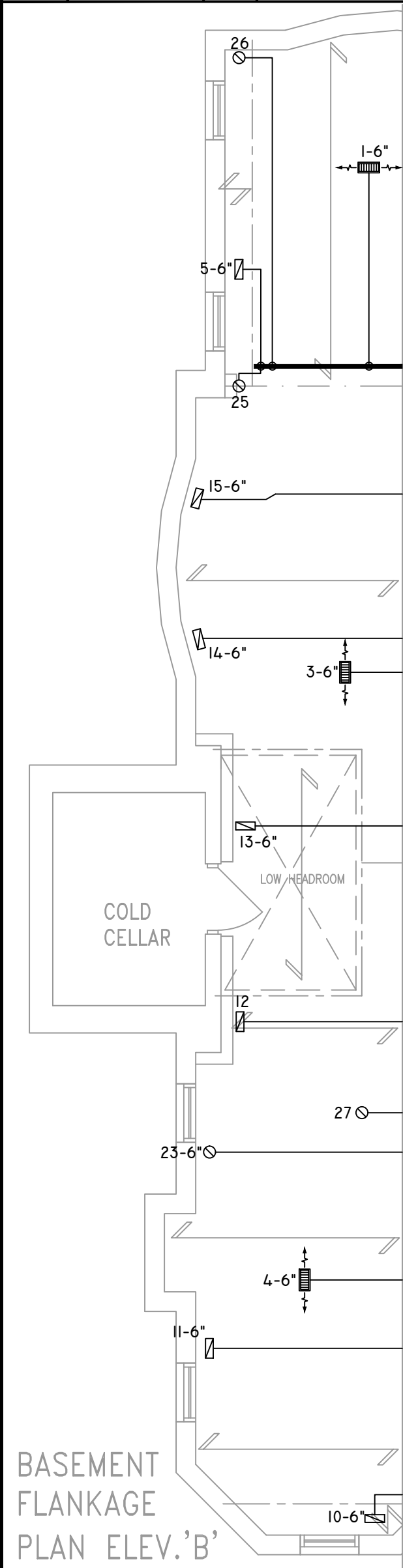
HEAT-LOSS	61,886	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960804CNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1545	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	11	1	2
BASEMENT	5	1	

FLOOR PLAN:	
PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04546	DRAWING NO. M5

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-8C ALT. 2ND FLR BAROSSA 8
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



BASEMENT
FLANKAGE
PLAN ELEV.'B'

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

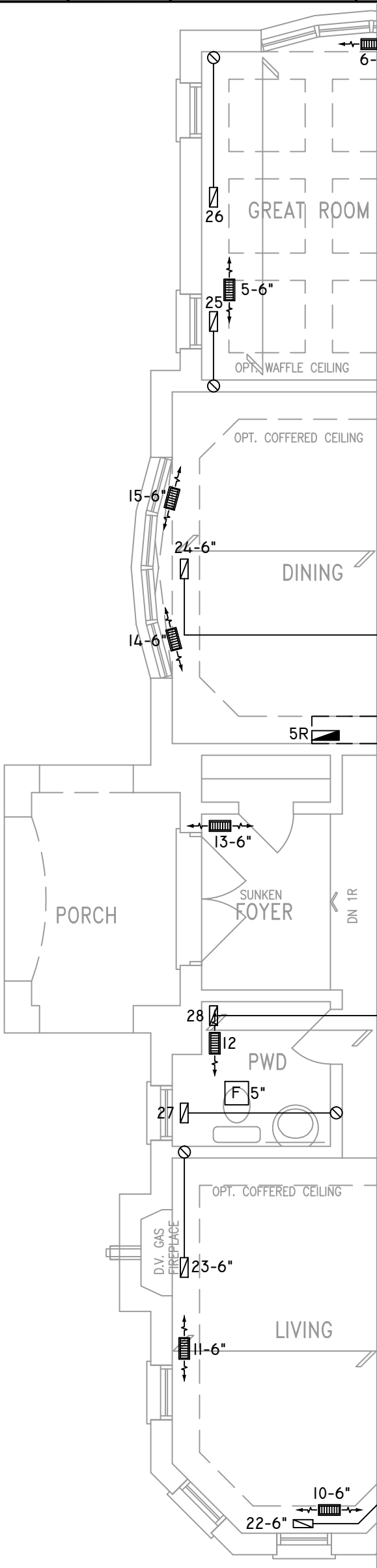
REQUIRED UNLESS DESIGN IS EXEMPT UNDER DIVISION C 3.2.5.1 OF THE ONTARIO BUILDING CODE

DAVID DA COSTA

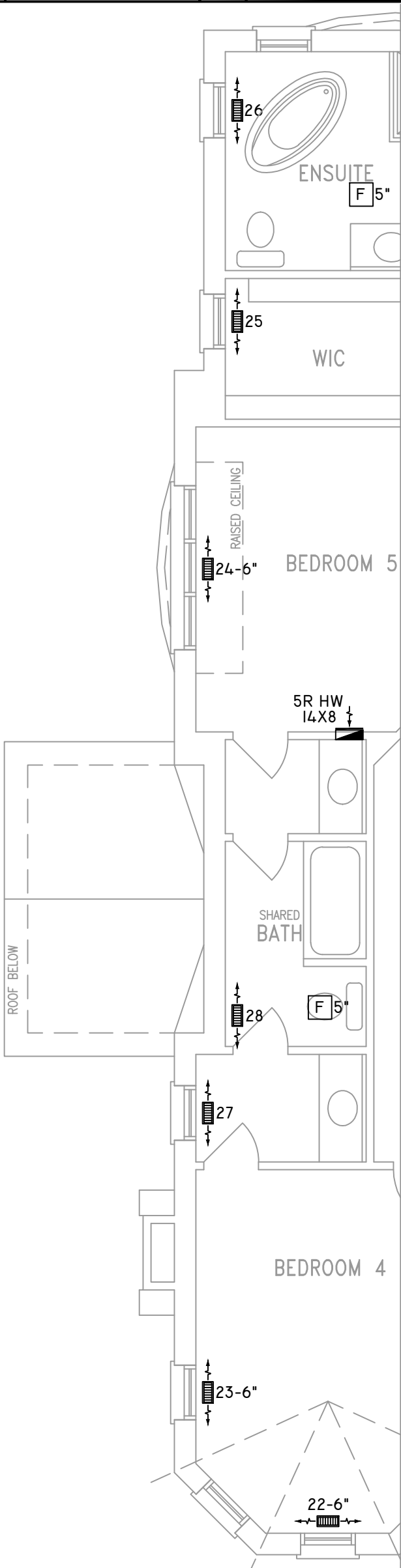


B.C.I.N. 32964

SIGNATURE OF DESIGNER



GROUND FLOOR
FLANKAGE PLAN ELEV.'B'



ALT. SECOND FLOOR
FLANKAGE PLAN ELEV.'B'

OBC 2012

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

NOTES
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FAN SPEED	1545	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	11	1	2
BASEMENT	5	1	

FLOOR PLAN:		
PARTIAL PLAN(S)		
DRAWN BY:	CHECKED:	SQFT
AM	DD	3214
LAYOUT NO.	DRAWING NO.	
JB-04546	M6	

DATE:	MARCH 12, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-8C ALT. 2ND FLR BAROSSA 8
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"