Schedule 1: Designer Information

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 16** **S38-16**	Lot: Lot/con.	
Municipality: **Bradford**	Postal code:	Plan number/ other description:	

B. Individual who reviews and takes responsibility for design activities

Name: **David DaCosta**		Firm: **gtaDesigns Inc.**	
Street address: **2985 Drew Road, Suite 202**		Unit no.	Lot/con.
Municipality: **Mississauga**	Postal code: **L4T 0A4**	Province: **Ontario**	E-mail: dave@gtadesigns.ca
Telephone number: **(905) 671-9800**	Fax number: **(647) 494-9643**	Cell number: **(416) 268-6820**	

C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 of Division C]

❑ 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-04487**

Heating and Cooling Load Calculations	**Main**	**X**	Builder	**Bayview Wellington**
Air System Design	**Alternate**		Project	**Green Valley East**
Residential mechanical ventilation Design Summary	**Area Sq ft:**	**2386**	Model	**Barossa 16**
Residential System Design per CAN/CSA-F280-12				**S38-16**
Residential New Construction - Forced Air			SB-12	**Package A1**

D. Declaration of Designer

I David DaCosta 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: **32964**

Basis for exemption from registration: **Division C 3.2.4.1. (4)**

❑ 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.

March 12, 2018

Date

Signature of Designer

NOTE:

1. 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.
2. Schedule 1 does not require to be completed a holder of a license, temporay license, or a certificate of authorization, issed by the Ontario Associstion 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.

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

Heat loss and gain calculation summary sheet

CSA-F280-M12
Standard Form No. 1

These documents issued for the use of **Bayview Wellington**

and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.

Layout No. **JB-04487**

Building Location

Address (Model):	**S38-16**	Site:	**Green Valley East**
Model:	**Barossa 16**	Lot:	
City and Province:	**Bradford**	Postal code:	

Calculations based on

Dimensional information based on: **VA3 Design Jan/2018**

Attachment:	**Detached**		Front facing:	**East/West**	Assumed? **Yes**
No. of Levels:	**3**	Ventilated? **Included**	Air tightness:	**1961-Present (ACH=3.57)**	Assumed? **Yes**
Weather location:	**Bradford**		Wind exposure:	**Sheltered**	
HRV?	**LifeBreath**	**RNC155**	Internal shading:	**Light-translucent**	Occupants: **5**
Sensible Eff. at -25C	**71%**	Apparent Effect. at -0C **84%**	Units:	**Imperial**	Area Sq ft: **2386**
Sensible Eff. at -0C	**75%**				

Heating design conditions

Outdoor temp **-9.4** Indoor temp: **72** Mean soil temp **48**

Cooling design conditions

Outdoor temp **86** Indoor temp: **75** Latitude: **44**

Above grade walls

Style A:	**As per OBC SB12 Package A1 R 22**
Style B:	**Existing Walls (When Applicable) R 12**
Style C:	
Style D:	

Below grade walls

Style A:	**As per OBC SB12 Package A1 R 20ci**
Style B:	
Style C:	
Style D:	

Floors on soil

Style A:	**As per Selected OBC SB12 Package A1**
Style B:	

Ceilings

Style A:	**As per Selected OBC SB12 Package A1 R 60**
Style B:	**As per Selected OBC SB12 Package A1 R 31**
Style C:	

Exposed floors

Style A:	**As per Selected OBC SB12 Package A1 R 31**
Style B:	

Doors

Style A:	**As per Selected OBC SB12 Package A1 R 4.00**
Style B:	
Style C:	

Windows

Style A:	**As per Selected OBC SB12 Package A1 R 3.55**
Style B:	**Existing Windows (When Applicable) R 1.99**
Style C:	
Style D:	

Skylights

Style A:	**As per Selected OBC SB12 Package A1 R 2.03**
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**

Air System Design

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

SB-12 Package A1

Builder: Bayview Wellington | Date: March 12, 2018 | Barossa 16 | **System 1**

Project: Green Valley East | Model: S38-16

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

Project # PJ-00204
Layout # JB-04487

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	13,736	btu/h
Level 2 Net Load	19,081	btu/h
Level 3 Net Load	13,940	btu/h
Level 4 Net Load	0	btu/h
Total Heat Loss	46,758	btu/h
Total Heat Gain	25,421	btu/h
Combo System HL + 10%	51,434	Btuh.
Building Volume Vb	27268	ft³
Ventilation Load	1,118	Btuh.
Ventilation PVC	79.5	cfm
Supply Branch and Grill Sizing		

AIR DISTRIBUTION & PRESSURE

Equipment External Static Pressure	0.5	"w.c.
Additional Equipment Pressure Drop	0.225	"w.c.
Available Design Pressure	0.275	"w.c.
Return Branch Longest Effective Length	300	ft
R/A Plenum Pressure	0.138	"w.c.
S/A Plenum Pressure	0.14	"w.c.
Heating Air Flow Proportioning Factor	0.0250	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0379	cfm/btuh
R/A Temp	70	deg. F.
S/A Temp	116	deg. F.
Diffuser loss	0.01	"w.c.

FURNACE/AIR HANDLER DATA:

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

BOILER/WATER HEATER DATA:

Make Type
Model
Input Btu/h
Output Btu/h
Min.Output Btu/h AWH

Blower DATA:

Blower Speed Selected: W2
Heating Check 1170 cfm
Selected cfm> 1170 cfm

A/C UNIT DATA:

Amana 2.5 Ton
Cond.---------- 2.5
Coil ---------- 2.5

Blower Type ECM
(Brushless DC OBC 12.3.1.5.(2))
Cooling Check 963 cfm
Cooling Air Flow Rate 963 cfm

Level 1

S/A Outlet No.	1	2	3	4											5	6	7	8	9	10	11	12	13					
Room Use	BASE	BASE	BASE	BASE											KIT	KIT	LIV	LIV	MUD	FOY	FOY	PWD	DIN					
Btu/Outlet	3434	3434	3434	3434											2597	2597	1359	1359	1833	3416	3416	792	1711					
Heating Airflow Rate CFM	86	86	86	86											65	65	34	34	46	85	85	20	43					
Cooling Airflow Rate CFM	14	14	14	14											96	96	59	59	10	76	76	14	68					
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	0.13
Actual Duct Length	31	32	22	29											44	47	42	32	35	30	33	6	14					
Equivalent Length	125	80	100	100	70	70	70	70	70	70	70	70	70	70	90	130	120	120	180	80	90	100	170	70	70	70	70	70
Total Effective Length	156	112	122	129	70	70	70	70	70	70	70	70	70	70	134	177	162	152	215	110	123	106	184	70	70	70	70	70
Adjusted Pressure	0.08	0.12	0.11	0.10	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.10	0.07	0.08	0.09	0.06	0.12	0.11	0.12	0.07	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6											6	6	5	5	5	6	6	3	6					
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	B	B	B	A											B	C	C	C	C	A	A	A	B					

Level 3

S/A Outlet No.	14	15	16	17	18	19	20	21	22	23																		
Room Use	MAST	MAST	ENS	BED 2	BATH	WIC	BED 3	BED 3	LAUN	BED 4																		
Btu/Outlet	1909	1909	1246	1439	965	771	1760	1760	936	1245																		
Heating Airflow Rate CFM	48	48	31	36	24	19	44	44	23	31																		
Cooling Airflow Rate CFM	48	48	27	33	11	11	49	49	40	38																		
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	0.13
Actual Duct Length	44	56	65	46	46	50	50	49	19	30																		
Equivalent Length	155	150	150	130	170	160	150	140	105	110	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	199	206	215	176	216	210	200	189	124	140	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.07	0.06	0.06	0.07	0.06	0.06	0.07	0.07	0.10	0.09	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	0.19	0.19	0.19
Duct Size Round	5	5	4	4	4	4	5	5	4	4																		
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	B	B	C	C	A	A	A	A	A	A																		

Level 2

Level 4

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	172	480	104	104	155	155					
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	13	32	44	48	55	52					
Equivalent Length	75	125	165	205	205	155	50	50	50	50	50
Total Effective Length	88	157	209	253	260	207	50	50	50	50	50
Adjusted Pressure	0.13	0.07	0.06	0.05	0.05	0.06	0.24	0.24	0.24	0.24	0.24
Duct Size Round	7.0	11.5	6.0	6.0	8.0	8.0					
Inlet Size	FLC	8	8	8	8	8					
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size		30	14	14	14	14					
Trunk	Z	Z	Z	Y	Y	Y					

Return Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
Drop	1170	0.05	17.0	24x12	
Z	1170	0.05	17.0	26x10	22x12
Y	414	0.05	11.5	14x8	12x10
X					
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	463	0.06	11.5	14x8	12x10
B	707	0.06	13.5	20x8	16x10
C	246	0.06	9.5	10x8	
D					
E					
F					
G					
H					
I					
J					
K					

GTADESIGNS

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e-mail dave@gtadesigns.ca

Heatloss/Gain Calculations CSA-F280-12

Builder: Bayview Wellington | Date: March 12, 2018 | Weather Data: Bradford 44 -9.4 86 22 48.2

2012 OBC | Project: Green Valley East | Model: Barossa 16 S38-16 | **System 1**

Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 2386 | Project # PJ-00204 | Layout # JB-04487

Level 1

		BASE																									
Run ft. exposed wall A		151	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		974	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		566																									
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	3	69	33																								
East/West		3.55	22.93	27.35	20	459	547																								
South		3.55	22.93	20.89	6	138	125																								
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	516		269																								
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 Abo				6022																								
Total Conductive	Heat Loss					7114																								
	Heat Gain						1032																								
Air Leakage	Heat Loss/Gain		0.8961	0.0332		6376	34																								
Ventilation	Case 1		0.08	0.07																										
	Case 2		14.07	11.88																										
	Case 3	x	0.03	0.07		246	76																								
Heat Gain People				239																										
Appliances Loads		1 =.25 percent		3867																										
Duct and Pipe loss				10%																										
Level 1 HL Total	13,736	Total HL for per room				13736																								
Level 1 HG Total	1,484	Total HG per room x 1.3					1484																								

Level 2

		KIT		LIV		MUD		FOY		PWD		DIN															
Run ft. exposed wall A		46	A	28	A	19	A	35	A	9	A	14	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		10.0		10.0		12.0		19.0		10.0		10.0		10.0		10.0		10.0		10.0		10.0		10.0		10.0	
Floor area		264	Area	188	Area	103	Area	127	Area	83	Area	202	Area		Area		Area		Area		Area		Area		Area		Area
Exposed Ceilings A			A		A		A	127	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		460		280		228		665		90		140															
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	47	1078	513	28	642	306																				
East/West		3.55	22.93	27.35	53	1215	1450	14	321	383				69	1582	1887														
South		3.55	22.93	20.89										20	459	418	10	229	209	36	825	752								
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	20	407	55														
Net exposed walls A		17.03	4.78	0.65	360	1721	233	238	1138	154	207	989	134	556	2658	359	80	382	52	104	497	67								
Net exposed walls B		8.50	9.58	1.29																										
Exposed Ceilings A		59.22	1.37	0.64										127	175	81														
Exposed Ceilings B		22.86	3.56	1.66																										
Exposed Floors		29.80	2.73	0.17																										
Foundation Conductive Heatloss		On Grade ( ) or Abo		x																										
Total Conductive	Heat Loss					4014			2101			1417			5280			612			1323									
	Heat Gain						2195			842			191			2801			261			819									
Air Leakage	Heat Loss/Gain		0.2594	0.0332		1041	73		545	28		368	6		1370	93		159	9		343	27								
Ventilation	Case 1		0.02	0.07																										
	Case 2		14.07	11.88																										
	Case 3	x	0.03	0.07		139	161		73	62		49	14		183	206		21	19		46	60								
Heat Gain People				239																										
Appliances Loads		1 =.25 percent		3867	1.5		1450	1.5		1450										0.5		483								
Duct and Pipe loss				10%																										
Level 2 HL Total	19,081	Total HL for per room				5194			2718			1833			6832			792			1711									
Level 2 HG Total	14,627	Total HG per room x 1.3					5043			3097			275			4029			375			1807								

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	46,758	btu/h
Total Heat Gain	25,421	btu/h

Heatloss/Gain Calculations CSA-F280-12

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

2012 OBC

Builder: Bayview Wellington | Date: March 12, 2018 | Project: Green Valley East | Model: Barossa 16 S38-16 | **System 1**

Weather Data: Bradford 44 -9.4 86 22 48.2 | Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 2386

Project # PJ-00204 | Layout # JB-04487

Level 3

	MAST	ENS	BED 2	BATH	WIC	BED 3	LAUN	BED 4				
Run ft. exposed wall A	46 A	15 A	10 A	6 A	10 A	20 A	11 A	13 A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	9.0	8.0	8.0	8.0	8.0	11.0	8.0	8.0	8.0	8.0	8.0	
Floor area	309 Area	120 Area	171 Area	100 Area	23 Area	125 Area	121 Area	135 Area	Area	Area	Area	Area
Exposed Ceilings A	309 A	120 A	171 A	100 A	23 A	125 A	121 A	135 A	A	A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	43 Flr	71 Flr	23 Flr	125 Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	414	120	80	48	80	220	88	104				
Gross Exp Wall B												

Components		R-Values	Loss	Gain	MAST Loss	MAST Gain	ENS Loss	ENS Gain	BED 2 Loss	BED 2 Gain	BATH Loss	BATH Gain	WIC Loss	WIC Gain	BED 3 Loss	BED 3 Gain	LAUN Loss	LAUN Gain	BED 4 Loss	BED 4 Gain						
North Shaded		3.55	22.93	10.91					16	367	175	7	161	76			12	275	131								
East/West		3.55	22.93	27.35	32	734	875	13	298	356					4	92	109	40	917	1094								
South		3.55	22.93	20.89																	8	183	167	16	367	334		
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	382	1826	247	107	511	69	64	306	41	41	196	26	76	363	49	168	803	109	80	382	52	88	421	57		
Net exposed walls B		8.50	9.58	1.29																								
Exposed Ceilings A		59.22	1.37	0.64	309	425	198	120	165	77	171	235	110	100	137	64	23	32	15	125	172	80	121	166	78	135	186	87		
Exposed Ceilings B		22.86	3.56	1.66																								
Exposed Floors		29.80	2.73	0.17					43	117	7	71	194	12	23	63	4	125	341	21								
Foundation Conductive Heatloss																												
Total Conductive	Heat Loss					2984			974			1025			688			549			2509			732			973			
	Heat Gain						1320			502			333			179			177			1435			296			478		
Air Leakage	Heat Loss/Gain		0.2444	0.0332		729	44		238	17		251	11		168	6		134	6		613	48		179	10		238	16		
Ventilation	Case 1		0.02	0.07																								
	Case 2		14.07	11.88																								
	Case 3	x	0.03	0.07		103	97		34	37		36	24		24	13		19	13		87	105		25	22		34	35		
Heat Gain People				239	2		478				1		239							1		239				1		239		
Appliances Loads		1 =.25 percent		3867																			0.5		483					
Duct and Pipe loss				10%							1	128	57	1	86	18	1	68	18	1	312	167								
Level 3 HL Total	13,940	Total HL for per room				3817			1246			1439			965			771			3521			936			1245			
Level 3 HG Total	9,310	Total HG per room x 1.3					2521			722			864			281			278			2592			1055			998		

Level 4

Run ft. exposed wall 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	
Ceiling height																												
Floor 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	
Exposed Ceilings 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	
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	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	0.0332																								
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		3867																								
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	46,758	btu/h
Total Heat Gain	25,421	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

SB-12 Package

Package A1

GTADESIGNS

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

Project # PJ-00204
Layout # JB-04487

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:** S38-16

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

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

Location of Installation

Lot #	Plan #
Township	Bradford
Roll #	Permit #
Address	

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	x	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	4	@	10.6	cfm	42.4	cfm
Other rooms	4	@	10.6	cfm	42.4	cfm
				Total	159	

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	159.0	
Less principal exhaust capacity	79.5	
REQUIRED supplemental vent. Capacity	79.5	cfm

Supplemental Fans 9.32.3.5.

Location	cfm	Model	Sones
Ens	50	XB50	0.3
Bath	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		

GTADESIGNS
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)

Project # PJ-00204
Layout # JB-04487

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	Unit number	Lot/Con
Barossa 16 **S38-16**		

Municipality	Postal code	Reg. Plan number / other description
Bradford		

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)	☑ ≥ 92% AFUE	☑ Gas ☐ Propane ☐ Solid Fuel
☐ Zone 2 (≥ 5000 degree days)	☐ ≥ 84% < 92% AFUE	☐ Oil ☐ Electric ☐ Earth Energy

Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of Walls = 332.88 m² or 3583.2 ft²	W,S &G % = 13%	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement ☑ Air Conditioning ☐ Combo Unit
Area of W, S & G = 42.177 m² or 454.0 ft²	Utilize Window Averaging ☐ Yes ☑ No	☐ Air Sourced Heat Pump (ASHP) ☐ Ground Source Heat Pump (GSHP)

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)	☐ Table 3.1.1.4.B	Required:	Permitted Substitution:
Airtightness test required (Refer to Design Guide Attached)	☐ Table 3.1.1.4.C	Required:	Permitted Substitution:
		Required:	Permitted Substitution:

Building Component	Minimum RSI/R-Values or Maximum U-Value[1]		Building Component	Efficiency Ratings
Thermal Insulation	Nominal	Effective	**Windows & Doors** Provide U-Value(1) or ER rating	
Ceiling with Attic Space	60		Windows/Sliding Glass Doors	1.6
Ceiling without Attic Space	31		Skylights	2.8
Exposed Floor	31		**Mechanicals**	
Walls Above Grade	22		Heating Equip.(AFUE)	96%
Basement Walls	20.0ci		HRV Efficiency (SRE% at 0°C)	75%
Slab (all >600mm below grade)	x		DHW Heater (EF)	0.80
Slab (edge only ≤600mm below grade)	10		DWHR (CSA B55.1 (min. 42% efficiency))	#Showers 2
Slab (all ≤600mm below grade, or heated)	10		Combined Heating System	

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

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

Name	BCIN	Signature
David DaCosta	32964	

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

Project # PJ-00204
Layout # JB-04487

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S38-16

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.319	27268	81.4	12751

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.079	27268	11	427

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	12751	7114	0.8961
Level 2	0.3		14745	0.2594
Level 3	0.2		10435	0.2444
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

		Air Leakage Heat Gain
HG LEAK	427	0.0332
BUILDING CONDUCTIVE HEAT GAIN	12861	

Levels this Dwelling
3

Ventilation Calculations

Vent

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	7114	0.08
Level 2	0.3		14745	0.02
Level 3	0.2		10435	0.02
Level 4	0		0	0.00

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	944	0.07
Building	12861	

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Ventilation Heat Gain (Direct Ducted Systems)

		Multiplier
C	HG^T	11.88
1.08	11	

Case 3

Ventilation Heat Loss (Forced Air Systems)

	HLbvent	Multiplier
Total Ventilation Load	1118	0.03

Ventilation Heat Gain (Forced Air Systems)

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	944	0.07
944	1		

Foundation Conductive Heatloss Level 1	1765	Watts	6022	Btu/h

Foundation Conductive Heatloss Level 2		Watts		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

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):	6.63

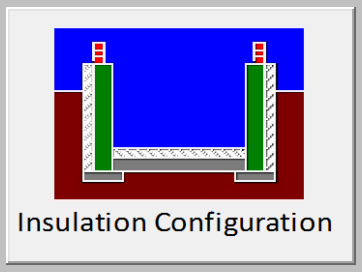
Building Configuration	
Type:	Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m^3):	772.23

Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa.	322.44	cm^2	
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply:	Total Exhaust:		
	39.75	39.75		
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0

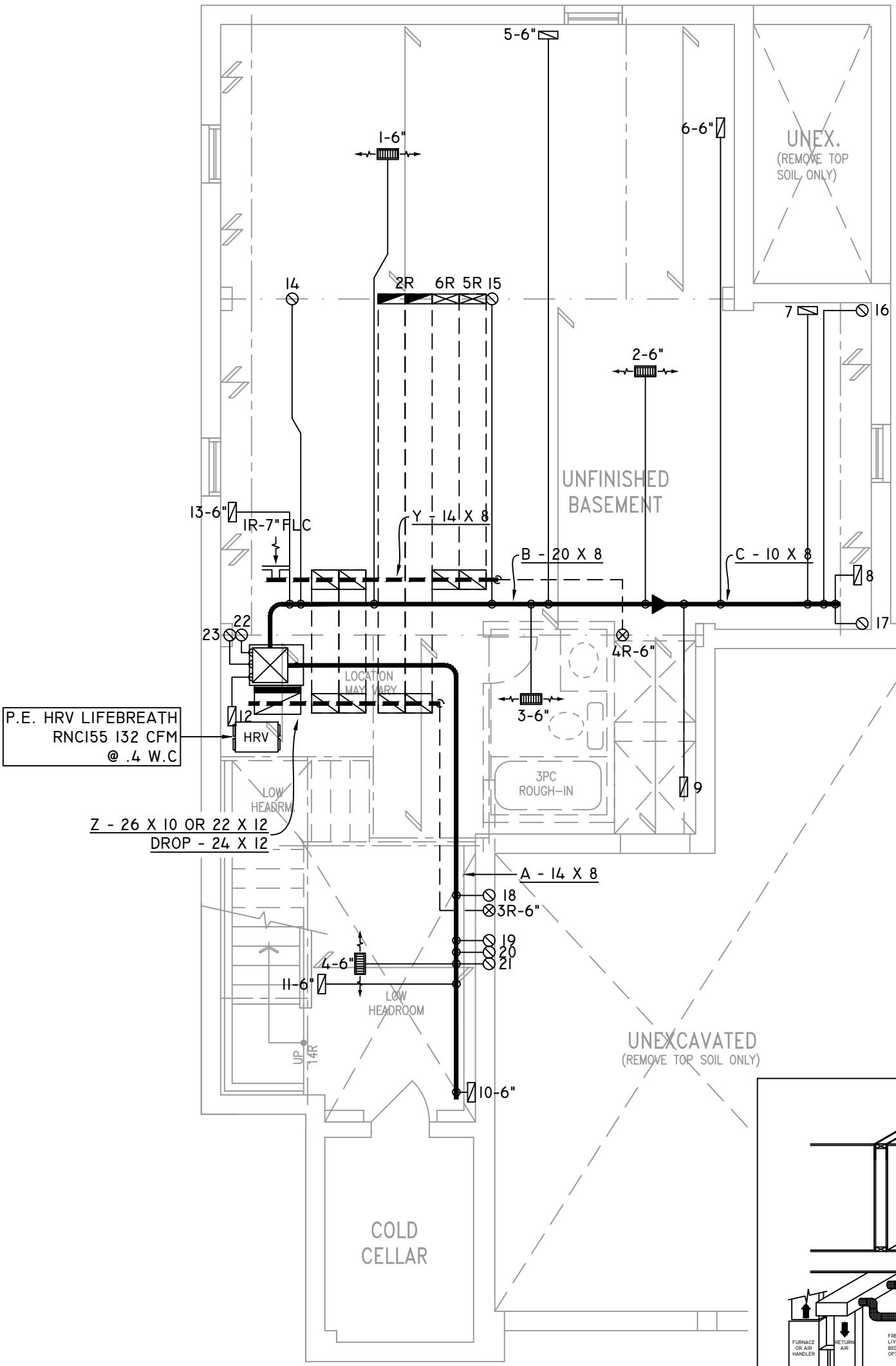
Heating Air Leakage Rate (ACH/H):	**0.319**
Cooling Air Leakage Rate (ACH/H):	**0.079**

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):	**17.98**	 Insulation Configuration
Floor Width (m):	**5.03**	
Exposed Perimeter (m):	**46.02**	
Wall Height (m):	**2.74**	
Depth Below Grade (m):	**1.60**	
Window Area (m^2):	**2.69**	
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):	**1765**	

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

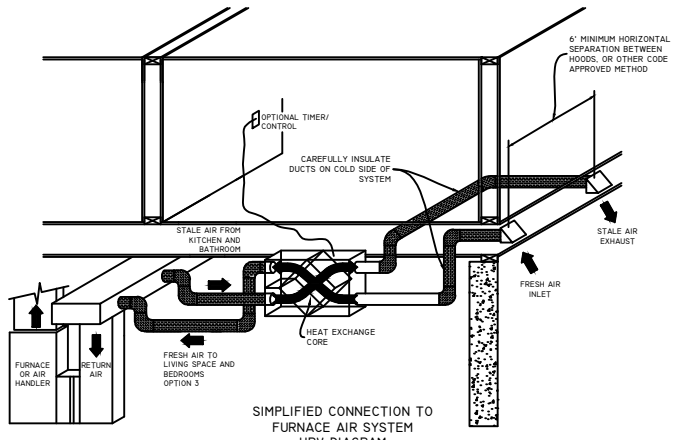


FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)

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. RI2

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



SIMPLIFIED CONNECTION TO FURNACE AIR SYSTEM
HRV DIAGRAM
OPTION 3

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 1 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 RI2 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	46,758 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

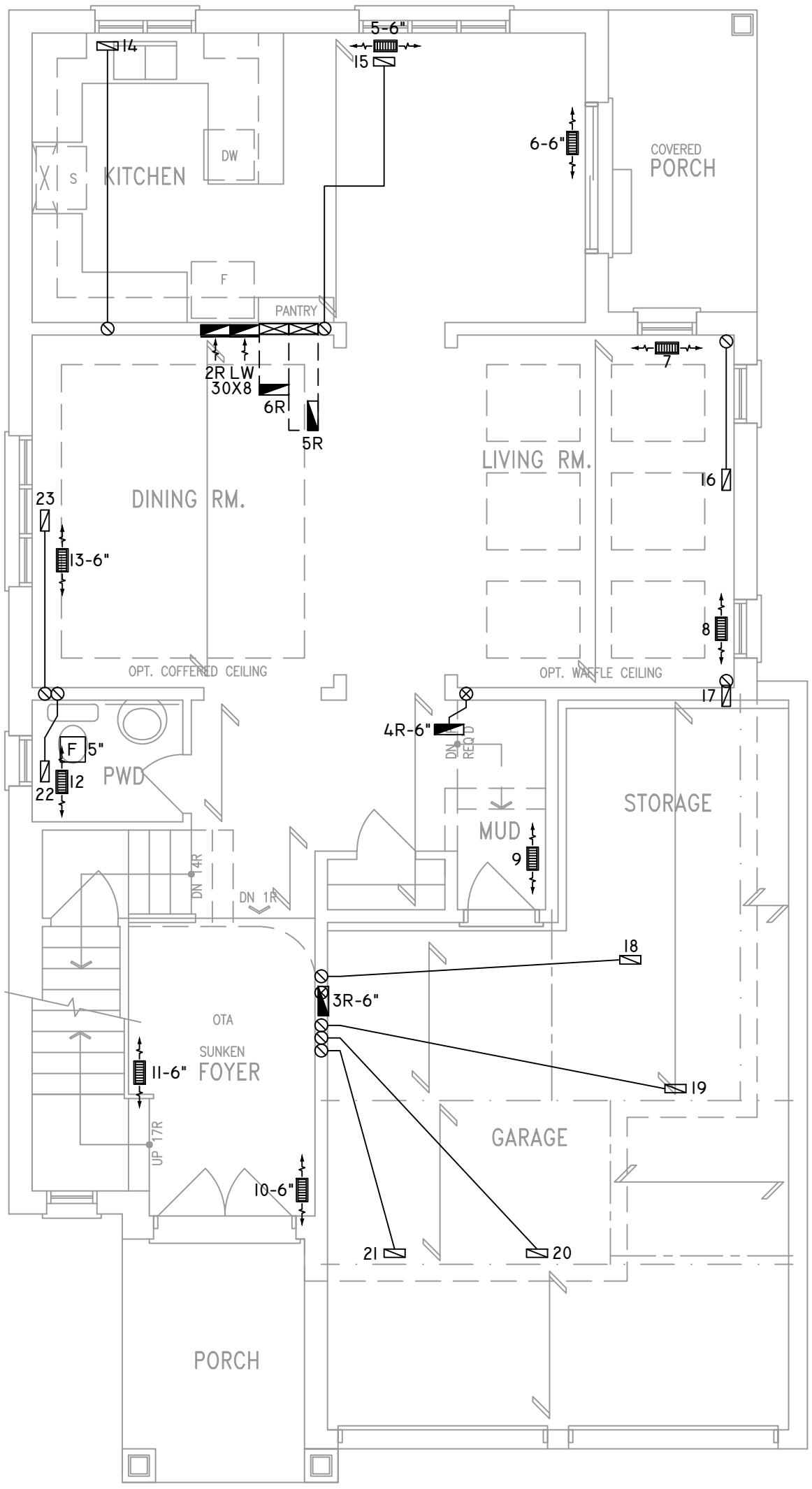
# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	10	4	2
IST FLOOR	9	1	2
BASEMENT	4	1	

FLOOR PLAN: BASEMENT		
DRAWN BY: AM	CHECKED: DD	SQFT 2386
LAYOUT NO. JB-04487		DRAWING NO. M1

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

FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR	S.A. R.A. T $ F PE	SUPPLY AIR RETURN AIR THERMOSTAT 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. RI2

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

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

QUALIFICATION INFORMATION

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

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

GROUND FLOOR PLAN 'A'

OBC 2012

ZONE 1 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 RI2 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
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SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

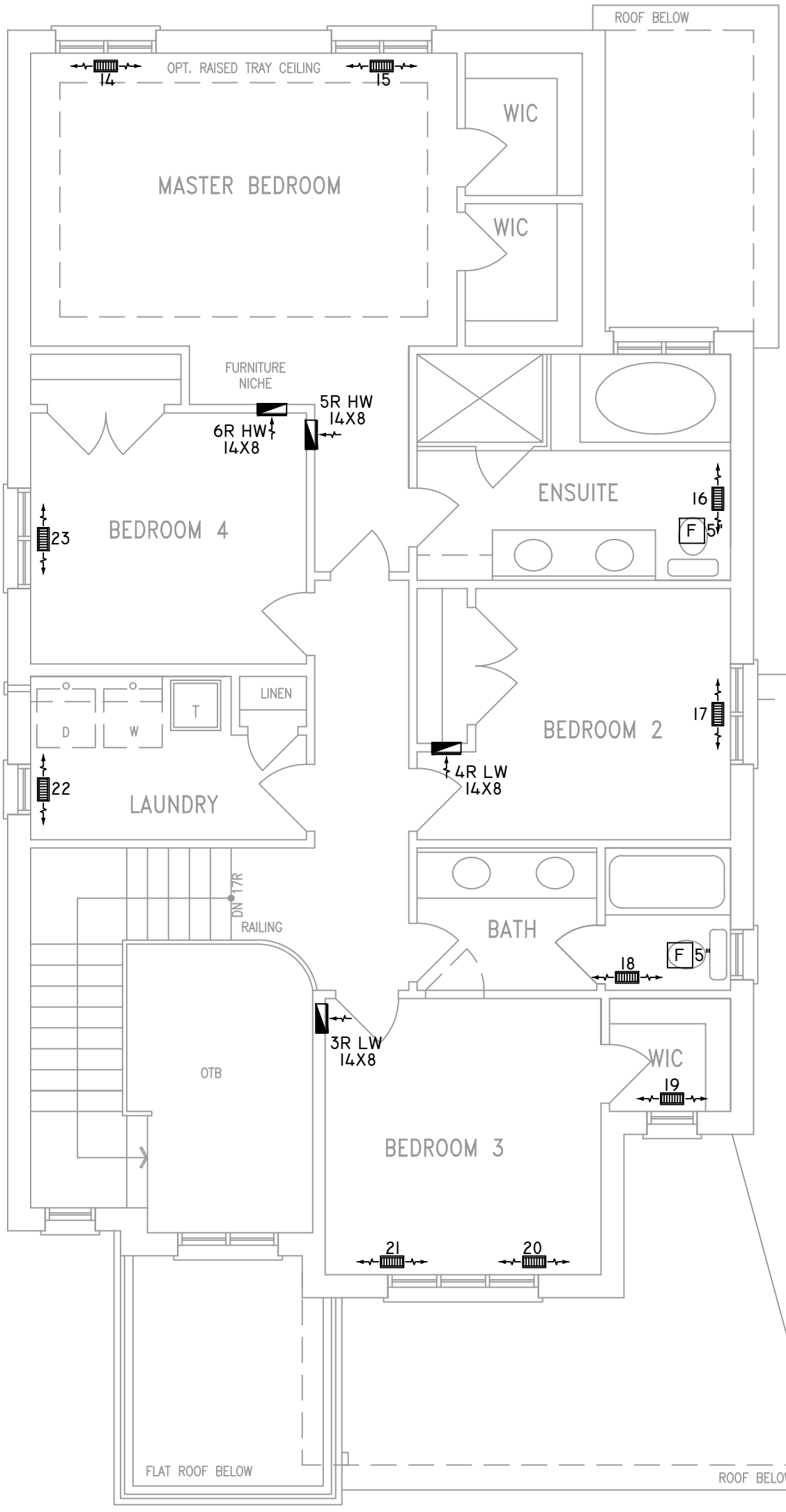
HEAT-LOSS	46,758 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

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

FLOOR PLAN: GROUND FLOOR
DRAWN BY: AM | CHECKED: DD | SQFT 2386
LAYOUT NO. JB-04487 | DRAWING NO. M2

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

FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR	S.A. R.A. T $ F PE	SUPPLY AIR RETURN AIR THERMOSTAT 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.(I2)

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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

SECOND FLOOR PLAN 'A'

OBC 2012

ZONE 1 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 RI2 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
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SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

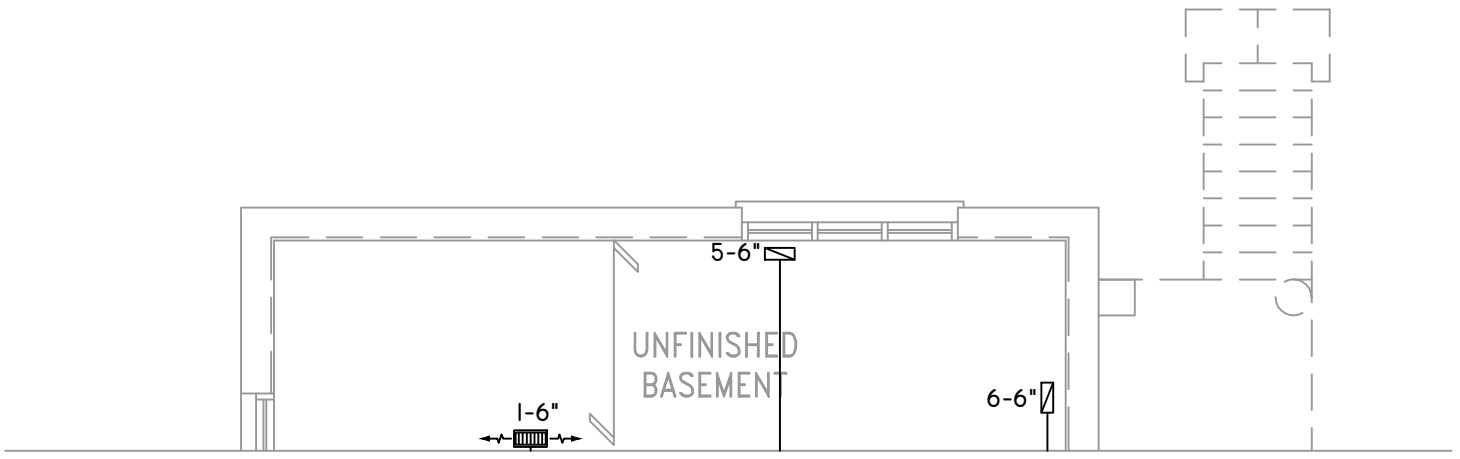
HEAT-LOSS	46,758 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

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

FLOOR PLAN: SECOND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 2386
LAYOUT NO. JB-04487	DRAWING NO. M3	

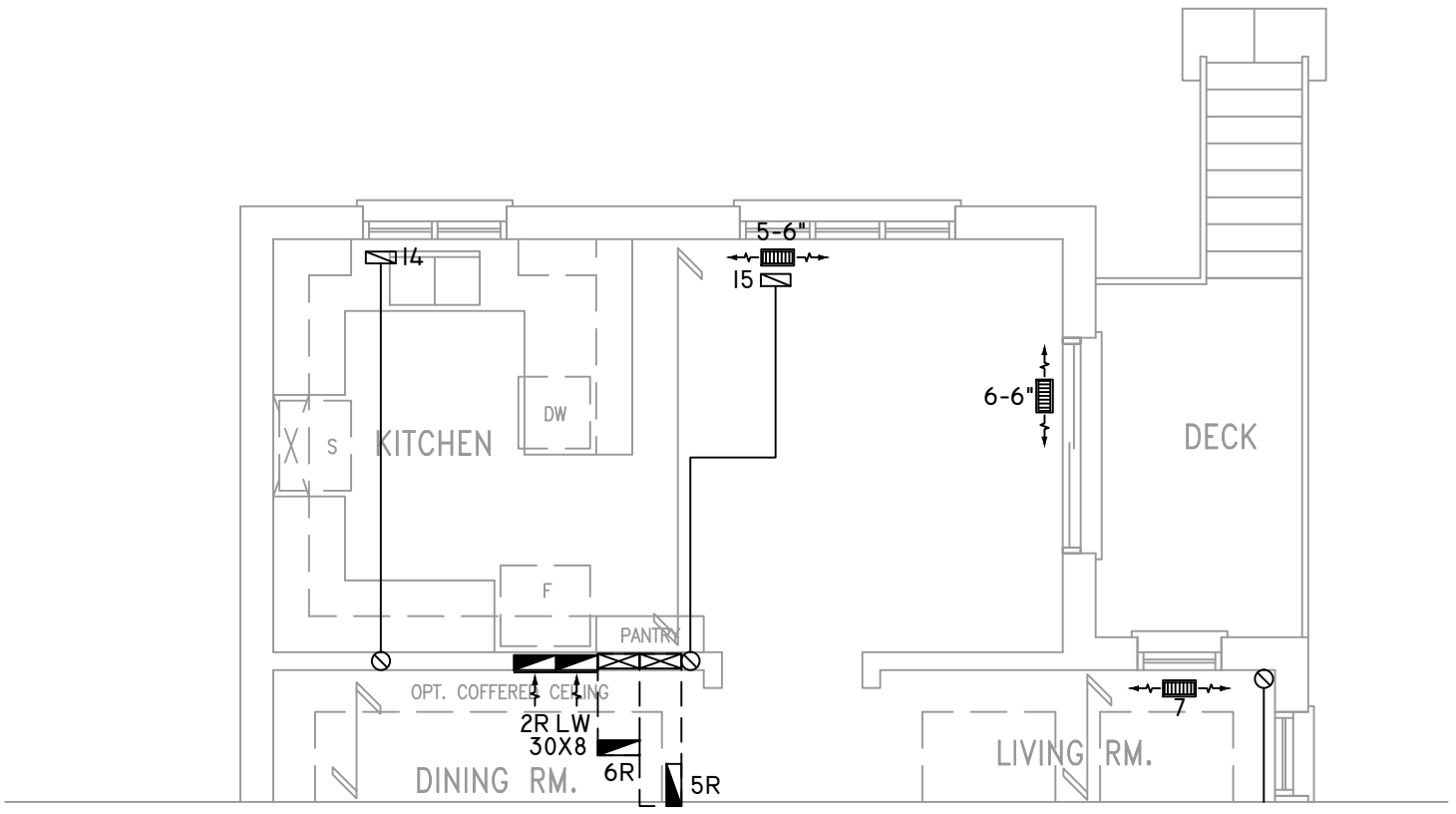
DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-16 BAROSSA 16
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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



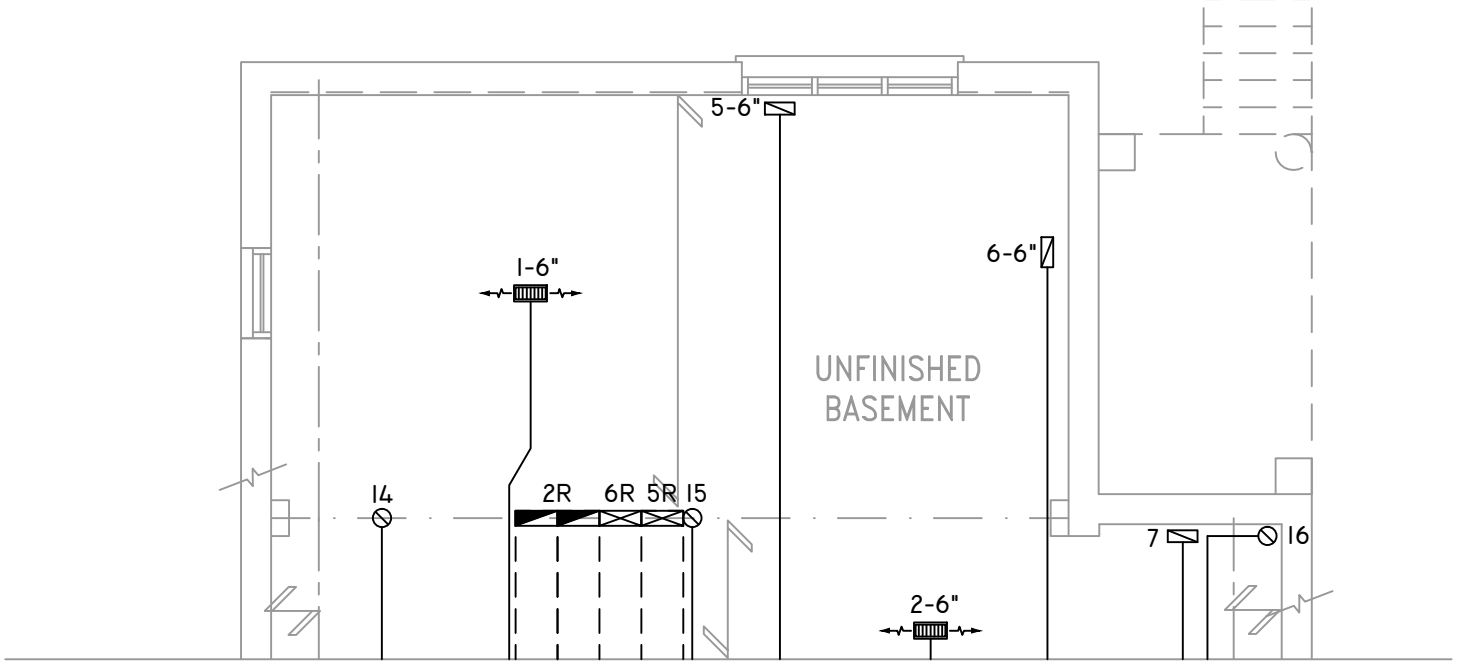
BSMT PLAN 'C' REAR UPGRADE – W.O.D. CONDITION

ELEV. 'B' & 'C' SIMILAR



GROUND FLOOR PLAN 'A' – W.O.D. CONDITION

ELEV. 'B' & 'C' SIMILAR



BASEMENT PLAN 'A' – W.O.D. CONDITION

ELEV. 'B' & 'C' SIMILAR

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QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

OBC 2012

ZONE 1 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.
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INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS 1" MIN.
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WEB: WWW.GTADESIGNS.CA

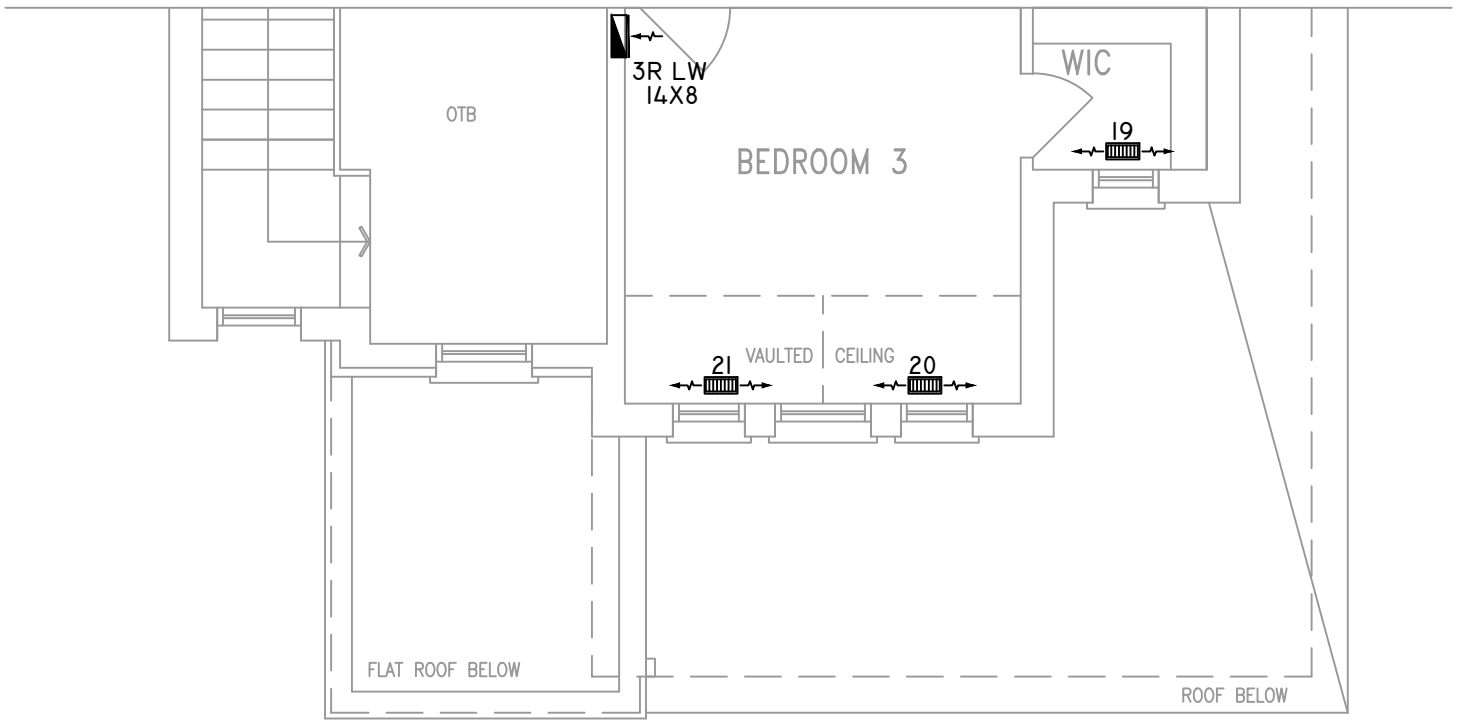
HEAT-LOSS	46,758 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

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

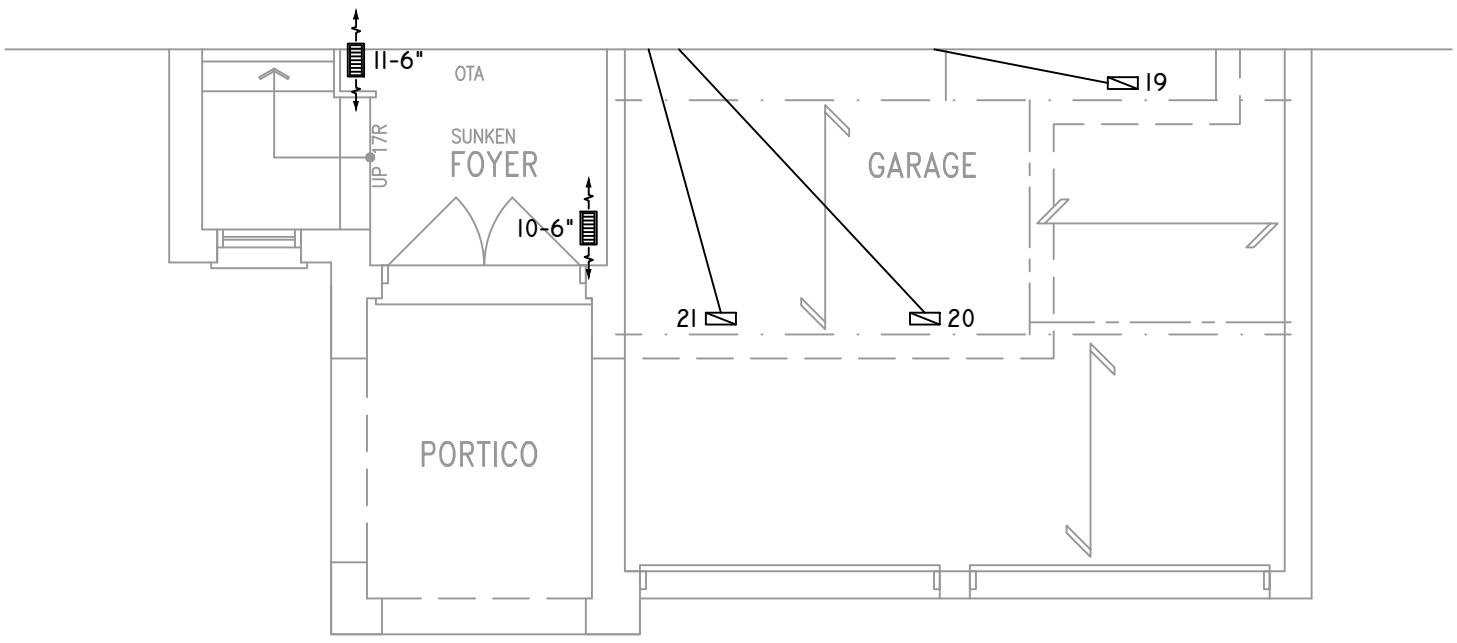
FLOOR PLAN:	PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD	SQFT 2386
LAYOUT NO. JB-04487		DRAWING NO. M4

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

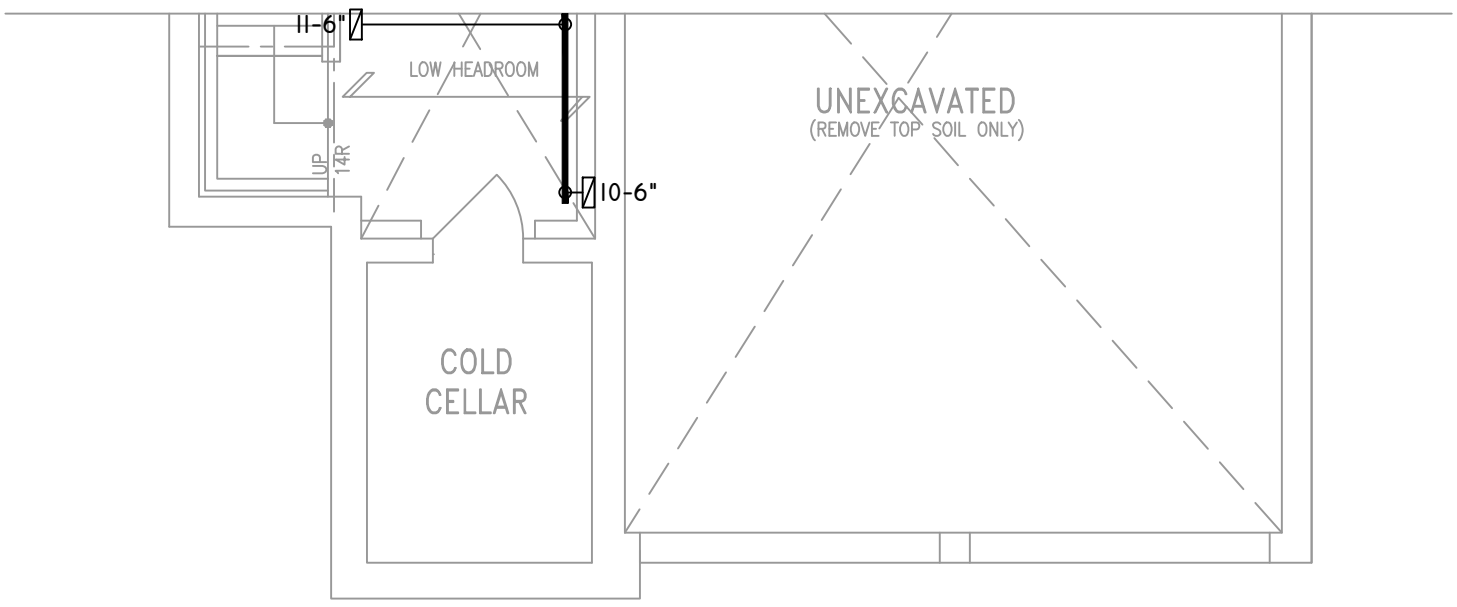
FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM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



PARTIAL SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN 'B'



PARTIAL BASEMENT PLAN 'B'

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QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

OBC 2012

ZONE 1 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.
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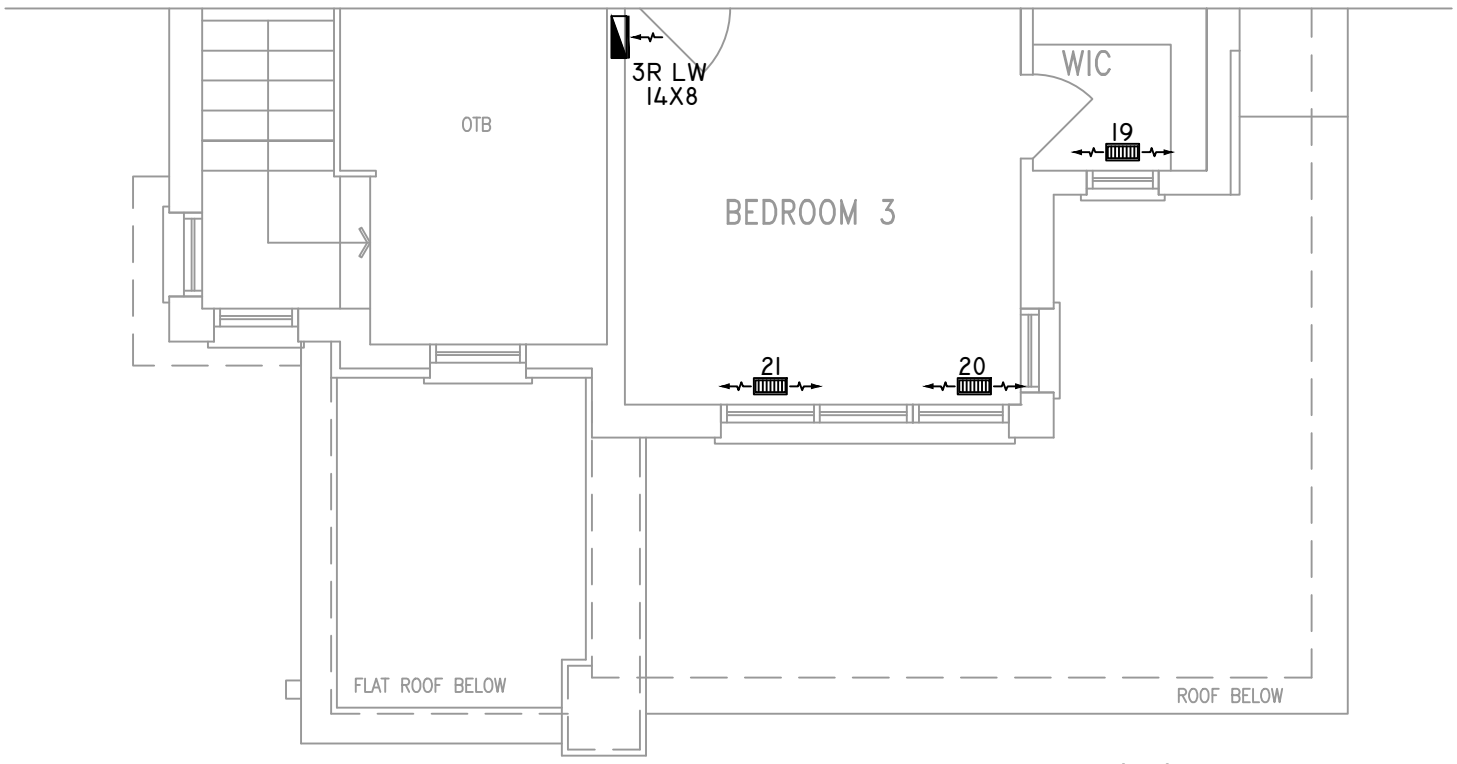
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

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

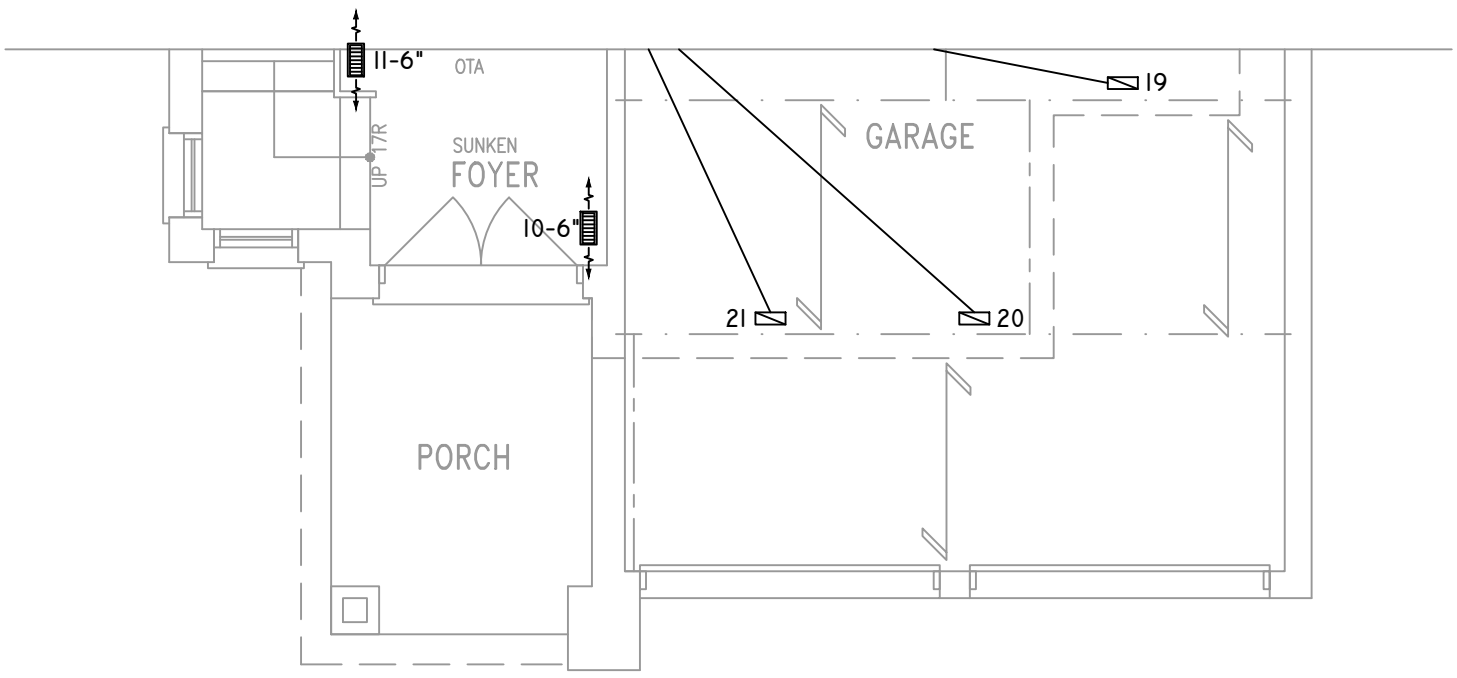
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 2386
LAYOUT NO. JB-04487		DRAWING NO. M5

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

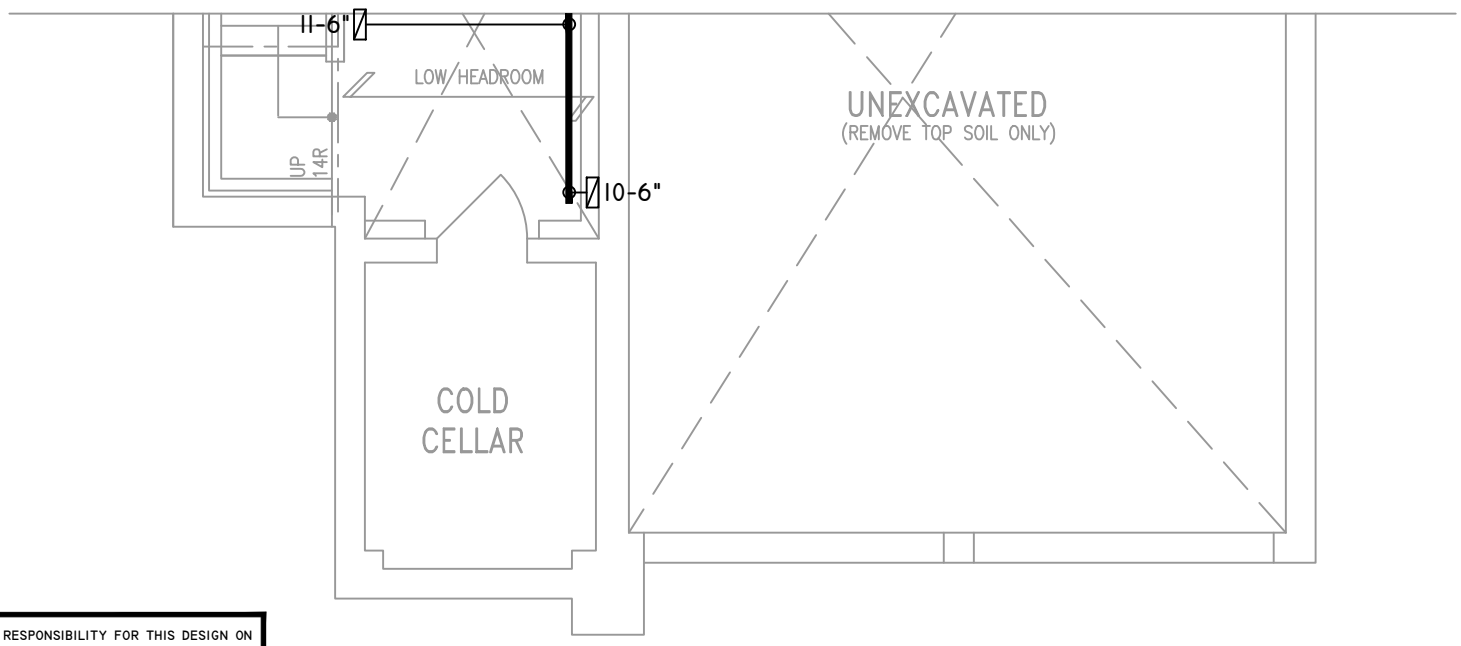
~~	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
——	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR	T	THERMOSTAT
			VOLUME DAMPER					$ F PE	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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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 1 COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
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EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

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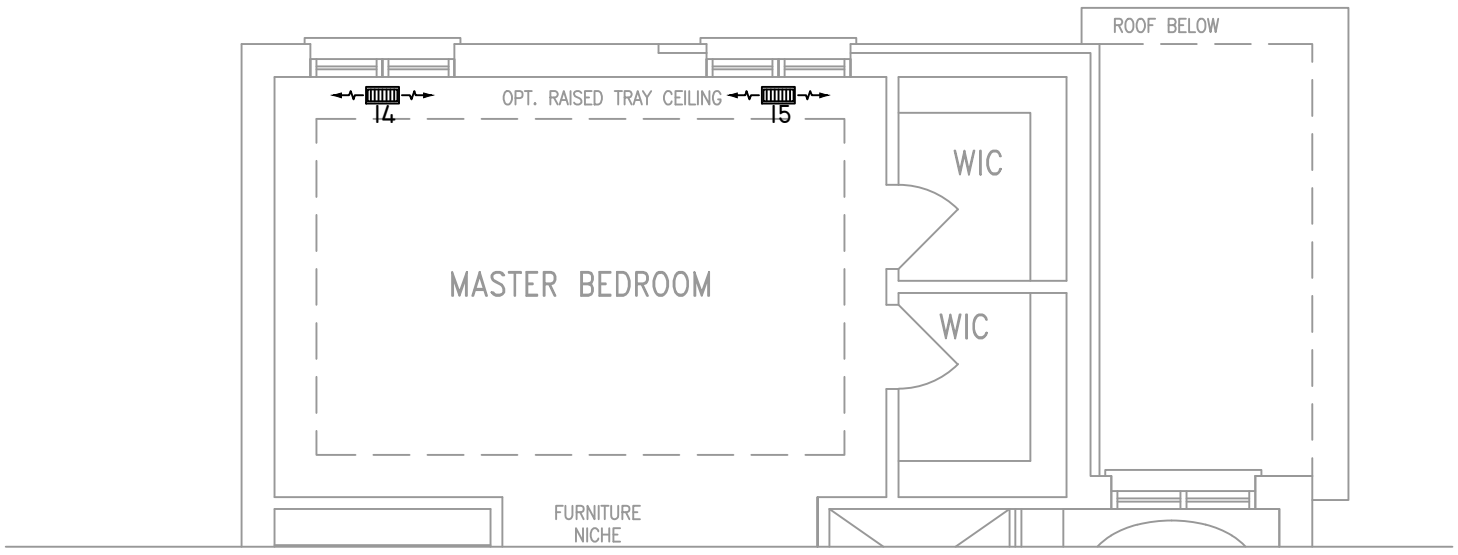
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

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

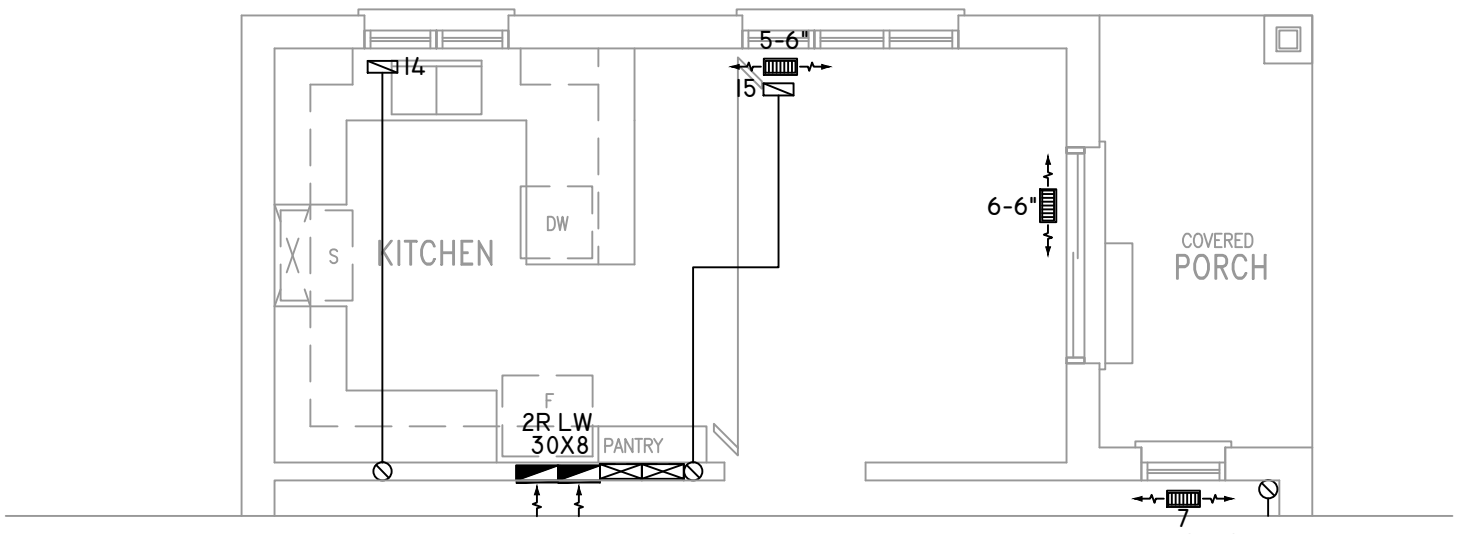
FLOOR PLAN:	PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD	SQFT 2386
LAYOUT NO. JB-04487		DRAWING NO. M6

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

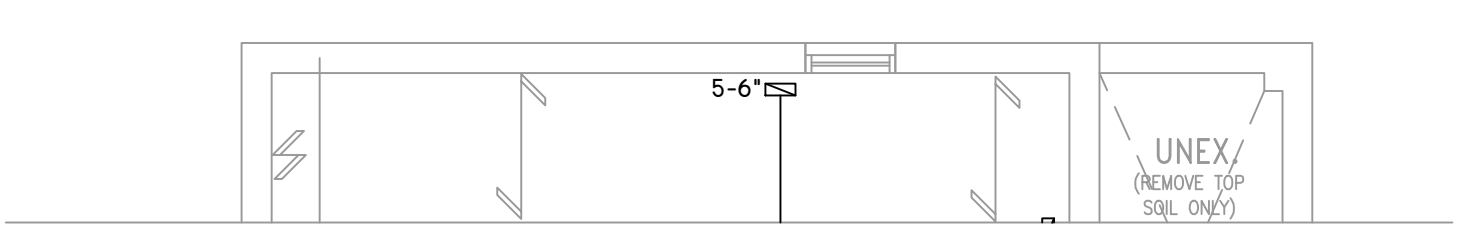
~~	FLEX DUCT	⊢←	LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
———	RIGID ROUND DUCT	⊢←	HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
⊢←	SUPPLY DIFFUSER	⊘	SUPPLY AIR PIPE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



PARTIAL SECOND FLOOR PLAN ELEVATION 'C' REAR UPGRADE



PARTIAL GROUND FLOOR PLAN ELEVATION 'C' REAR UPGRADE



PARTIAL BASEMENT PLAN ELEVATION 'C' REAR UPGRADE

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QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

OBC 2012

ZONE 1 COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
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UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

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

FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
AM	DD	2386

LAYOUT NO. JB-04487 DRAWING NO. M7

DATE: MARCH 12, 2018

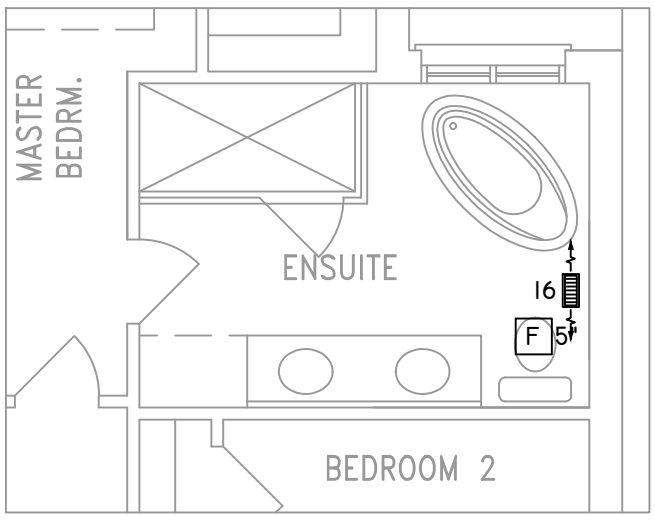
CLIENT: BAYVIEW WELLINGTON

MODEL: S38-16 BAROSSA 16

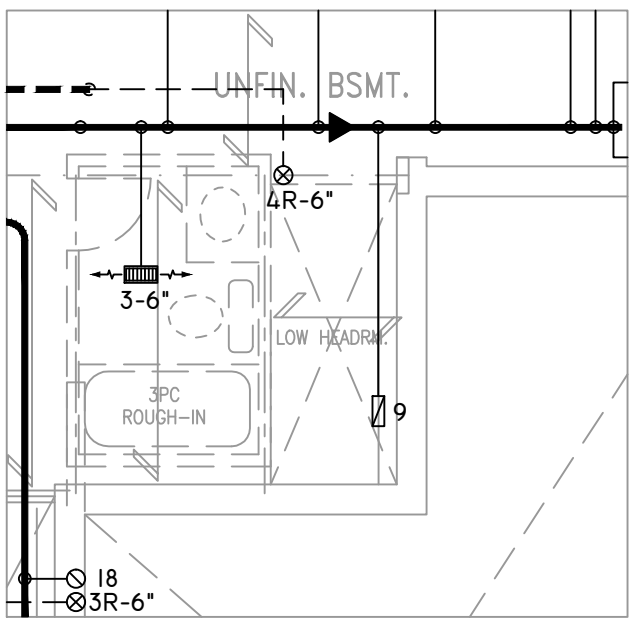
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.

SCALE: 3/16" = 1'-0"

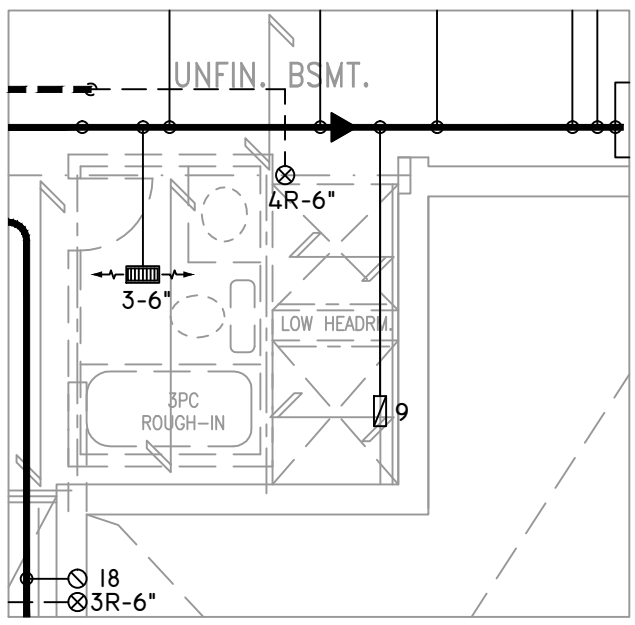
~~	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
——	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER	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



PART. OPT. SECOND FLOOR
W/ ALT. ENSUITE LAYOUT



PART. SUNKEN LANDING TO GARAGE FOR -1R CONDITION



PART. SUNKEN LANDING TO GARAGE FOR -2R TO -3R CONDITION

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 1 COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
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UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

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

FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
AM	DD	2386

LAYOUT NO. JB-04487 DRAWING NO. M8

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