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	**Rideau 17** **S42-17**	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-04593**
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:**	**3090**	Model	**Rideau 17** **S42-17**
Residential System Design per CAN/CSA-F280-12				
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.

April 4, 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.

Site Copy

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-04593**

Building Location

Address (Model):	**S42-17**	Site:	**Green Valley East**
Model:	**Rideau 17**	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: **3090**
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**

Site Copy

Air System Design

SB-12 Package A1

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

Builder: Bayview Wellington
Date: April 4, 2018
Project: Green Valley East
Model: Rideau 17 S42-17

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

Project # PJ-00204
Layout # JB-04593

DESIGN LOAD SPECIFICATIONS		
Level 1 Net Load	16,994	btu/h
Level 2 Net Load	22,691	btu/h
Level 3 Net Load	16,015	btu/h
Level 4 Net Load	0	btu/h
Total Heat Loss	55,700	btu/h
Total Heat Gain	30,466	btu/h
Combo System HL + 10%	61,270	Btuh.
Building Volume Vb	36418	ft³
Ventilation Load	1,342	Btuh.
Ventilation PVC	95.4	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	0.0210	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0385	cfm/btuh
R/A Temp	70	deg. F.
S/A Temp	131	deg. F.
Diffuser loss	0.01	"w.c.

FURNACE/AIR HANDLER DATA:		
Make	Amana	
Model	AMEC960803BNA	
Input Btu/h	80000	
Output Btu/h	76800	
E.s.p.	0.50	" W.C.
Water Temp		deg. F.
AFUE	96%	
Aux. Heat		
SB-12 Package	Package A1	
Temp. Rise>>>	61	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	1172	cfm
Selected cfm>	1172	cfm

A/C UNIT DATA:		
Amana	3.0	Ton
Cond.----------	3.0	
Coil ----------	3.0	

Blower Type ECM (Brushless DC OBC 12.3.1.5.(2))
Cooling Check 1172 cfm
Cooling Air Flow Rate 1172 cfm

Level 1

S/A Outlet No.	1	2	3	4										
Room Use	BASE	BASE	BASE	BASE										
Btu/Outlet	4248	4248	4248	4248										
Heating Airflow Rate CFM	89	89	89	89										
Cooling Airflow Rate CFM	16	16	16	16										
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
Actual Duct Length	38	45	32	33										
Equivalent Length	110	140	90	100	70	70	70	70	70	70	70	70	70	70
Total Effective Length	148	185	122	133	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.09	0.07	0.11	0.10	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6										
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	F	E	D	C										

Level 2

S/A Outlet No.	5	6	7	8	9	10	11	12	13	14				
Room Use	KIT	KIT	LAUN	MUD	FOY	FOY	LIV/DIN	LIV/DIN	GRT	GRT				
Btu/Outlet	2327	2327	1443	973	4665	4665	1507	1507	1638	1638				
Heating Airflow Rate CFM	49	49	30	20	98	98	32	32	34	34				
Cooling Airflow Rate CFM	96	96	76	5	88	88	64	64	74	74				
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
Actual Duct Length	57	51	34	27	38	35	8	37	49	49				
Equivalent Length	120	150	150	160	90	120	90	80	100	110	70	70	70	70
Total Effective Length	177	201	184	187	128	155	98	117	149	159	70	70	70	70
Adjusted Pressure	0.07	0.06	0.07	0.07	0.10	0.08	0.13	0.11	0.09	0.08	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	4	6	6	5	5	6	6				
Outlet Size	4x10	4x10	4x10	3x10	4x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	E	E	B	B	C	C	A	D	F	E				

Level 3

S/A Outlet No.	15	16	17	18	19	20	21	22	23	24	25	26		
Room Use	MAST	MAST	ENS	WC	BED 2	BED 3	BATH	BED 4	BED 4	BED 5	BATH 2	WIC		
Btu/Outlet	1479	1479	1729	443	1215	1473	1264	2296	2296	1592	117	635		
Heating Airflow Rate CFM	31	31	36	9	26	31	27	48	48	33	2	13		
Cooling Airflow Rate CFM	45	45	35	7	30	33	23	56	56	42	2	5		
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
Actual Duct Length	64	65	77	62	56	54	51	51	50	29	45	57		
Equivalent Length	110	120	150	160	130	140	130	110	100	120	110	100	70	70
Total Effective Length	174	185	227	222	186	194	181	161	150	149	155	157	70	70
Adjusted Pressure	0.07	0.07	0.06	0.06	0.07	0.07	0.07	0.08	0.09	0.09	0.08	0.08	0.19	0.19
Duct Size Round	5	5	5	3	4	4	4	5	5	5	2	3		
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10
Trunk	F	E	E	E	D	D	B	B	B	A	D	F		

Level 4

S/A Outlet No.														
Room Use														
Btu/Outlet														
Heating Airflow Rate CFM														
Cooling Airflow Rate CFM														
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
Actual Duct Length														
Equivalent Length	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	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														
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk														

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	180	480	155	155	101	101					
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	16	28	50	46	42	52					
Equivalent Length	110	165	170	155	145	155	50	50	50	50	50
Total Effective Length	126	193	220	201	187	207	50	50	50	50	50
Adjusted Pressure	0.09	0.06	0.05	0.06	0.06	0.06	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	12.0	8.0	8.0	6.0	6.0					
Inlet Size	FLC	8	8	8	8	8					
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14					
Trunk	Z	Z	Y	Y	Z	Z					

Return Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
Drop	1172	0.05	17.0	24x12	
Z	1172	0.05	17.0	26x10	22x12
Y	310	0.05	10.5	12x8	10x10
X					
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	1172	0.06	16.5	32x8	24x10
B	460	0.07	11.5	14x8	12x10
C	286	0.08	9.5	10x8	
D	647	0.06	13.5	20x8	16x10
E	299	0.06	10.0	12x8	10x10
F	168	0.07	8.0	8x8	8x7
G					
H					
I					
J					
K					

Site Copy

GTA DESIGNS

Heatloss/Gain Calculations CSA-F280-12

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800 Fax: 647-494-9643

e-mail dave@gtadesigns.ca

	Builder:	Bayview Wellington	Date:	April 4, 2018		Weather Data	Bradford	44 -9.4 86 22 48.2		Page 4
2012 OBC	Project:	Green Valley East	Model:	Rideau 17 S42-17	System 1	Heat Loss ^T 81.4 deg. F	Ht gain ^T 11 deg. F	GTA: 3090	Project # Layout #	PJ-00204 JB-04593

Level 1

Level 1	BASE										
Run ft. exposed wall A	171 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
Ceiling height	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG	3.6 AG
Floor area	1330 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
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	610										
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
North Shaded	3.55	22.93	10.91	3	69	33																				
East/West	3.55	22.93	27.35	26	596	711																				
South	3.55	22.93	20.89	3	69	63																				
WOB Windows	3.15	25.84	28.32																							
Skylight	2.03	40.10	88.23																							
Doors	4.00	20.35	2.75	21	427	58																				
Net exposed walls A	21.12	3.85	0.52	557		290																				
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				7069																					
Total Conductive Heat Loss					8230																					
Heat Gain						1155																				
Air Leakage Heat Loss/Gain		1.0285	0.0380		8464	44																				
Ventilation Case 1		0.08	0.08																							
Case 2		14.07	11.88																							
Case 3	x	0.04	0.08		299	88																				
Heat Gain People			239																							
Appliances Loads	1 =.25 percent		5150																							
Duct and Pipe loss			10%																							
Level 1 HL Total	16,994	Total HL for per room			16994																					
Level 1 HG Total	1,672	Total HG per room x 1.3				1672																				

Level 2

Level 2	KIT	LAUN	MUD	FOY	LIV/DIN	GRT					
Run ft. exposed wall A	38 A	16 A	7 A	48 A	29 A	33 A	A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	10.0	12.0	12.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Floor area	337 Area	63 Area	61 Area	221 Area	423 Area	219 Area	Area	Area	Area	Area	Area
Exposed Ceilings A	A	A	A	139 A	A	4 A	A	A	A	A	A
Exposed Ceilings B	B	B	B	39 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	380	192	84	960	290	330					
Gross Exp Wall B											

Components	R-Values	Loss	Gain	KIT	Loss	Gain	LAUN	Loss	Gain	MUD	Loss	Gain	FOY	Loss	Gain	LIV/DIN	Loss	Gain	GRT	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	10.91	24	550	262	9	206	98																						
East/West	3.55	22.93	27.35	68	1559	1860							62	1422	1696				48	1101	1313										
South	3.55	22.93	20.89										34	780	710	48	1101	1003													
Existing Windows	1.99	40.90	22.15																												
Skylight	2.03	40.10	88.23																												
Doors	4.00	20.35	2.75							21	427	58	21	427	58																
Net exposed walls A	17.03	4.78	0.65	288	1377	186	183	875	118	63	301	41	843	4029	545	242	1157	156	282	1348	182										
Net exposed walls B	8.50	9.58	1.29																												
Exposed Ceilings A	59.22	1.37	0.64										139	191	89				4	5	3										
Exposed Ceilings B	22.86	3.56	1.66										39	139	65																
Exposed Floors	29.80	2.73	0.17																												
Foundation Conductive Heatloss	On Grade ( ) or Abo		x																												
Total Conductive Heat Loss					3486			1081			728			6988			2257			2454											
Heat Gain						2308			216			98			3162			1159			1498										
Air Leakage Heat Loss/Gain		0.2988	0.0380		1042	88		323	8		218	4		2088	120		675	44		733	57										
Ventilation Case 1		0.02	0.08																												
Case 2		14.07	11.88																												
Case 3	x	0.04	0.08		127	175		39	16		26	7		254	240		82	88		89	114										
Heat Gain People			239																												
Appliances Loads	1 =.25 percent		5150	1.0		1287	1.0		1287							1.0		1287	1.0		1287										
Duct and Pipe loss			10%																												
Level 2 HL Total	22,691	Total HL for per room			4655			1443			973			9330			3014			3277											
Level 2 HG Total	18,919	Total HG per room x 1.3				5016			1987			143			4579			3352			3842										

Total Heat Loss	55,700	btu/h
Total Heat Gain	30,466	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

Site Copy

GTADESIGNS

Heatloss/Gain Calculations CSA-F280-12

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: April 4, 2018

Project: Green Valley East | Model: Rideau 17 S42-17

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: 3090

Project # PJ-00204 | Layout # JB-04593

Level 3

	MAST	ENS	WC	BED 2	BED 3	BATH	BED 4	BED 5	BATH 2	WIC	
Run ft. exposed wall A	30 A	22 A	4 A	10 A	12 A	11 A	26 A	16 A	A	10 A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	9.0	8.0	8.0	8.0	8.0	8.0	11.0	8.0	8.0	8.0	8.0
Floor area	261 Area	125 Area	26 Area	177 Area	229 Area	65 Area	171 Area	213 Area	64 Area	70 Area	Area
Exposed Ceilings A	261 A	125 A	26 A	177 A	229 A	65 A	171 A	213 A	64 A	70 A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	17 Flr	65 Flr	170 Flr	2 Flr	Flr	Flr	Flr
Gross Exp Wall A	270	176	32	80	96	88	286	128		80	
Gross Exp Wall B											

Components	R-Values	Loss	Gain	MAST Loss	MAST Gain	ENS Loss	ENS Gain	WC Loss	WC Gain	BED 2 Loss	BED 2 Gain	BED 3 Loss	BED 3 Gain	BATH Loss	BATH Gain	BED 4 Loss	BED 4 Gain	BED 5 Loss	BED 5 Gain	BATH 2 Loss	BATH 2 Gain	WIC Loss	WIC Gain	Loss	Gain
North Shaded	3.55	22.93	10.91					8	183	16	367	16	367			18	413								
East/West	3.55	22.93	27.35	32	734	16	367							10	229	42	963								
South	3.55	22.93	20.89															16	367						
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	238	1138	160	765	24	115	64	306	80	382	78	373	226	1080	112	535			80	382		
Net exposed walls B	8.50	9.58	1.29																						
Exposed Ceilings A	59.22	1.37	0.64	261	359	125	172	26	36	177	243	229	315	65	89	171	235	213	293	64	88	70	96		
Exposed Ceilings B	22.86	3.56	1.66																						
Exposed Floors	29.80	2.73	0.17									17	46	65	178	170	464	2	5						
Foundation Conductive Heatloss																									
Total Conductive – Heat Loss					2230		1303		334		916		1110		869		3155		1200		88		479		
Total Conductive – Heat Gain						1197		621		119		330		376		377		1630		544		41		97	
Air Leakage – Heat Loss/Gain		0.2897	0.0380		646	45	378	24	97	5	265	13	322	14	252	14	914	62	348	21	25	2	139	4	
Ventilation – Case 1		0.02	0.08																						
Ventilation – Case 2		14.07	11.88																						
Ventilation – Case 3	x	0.04	0.08		81	91	47	47	12	9	33	25	40	29	32	29	115	124	44	41	3	3	17	7	
Heat Gain People			239	2		478					1	239	1	239			1	239	1	239					
Appliances Loads	1 =.25 percent		5150																						
Duct and Pipe loss			10%											1	112	38	1	407	187						
Level 3 HL Total	16,015	Total HL for per room			2957		1729		443		1215		1473		1264		4591		1592		117		635		
Level 3 HG Total	9,875	Total HG per room	x 1.3			2354		900		173		788		855		594		2913		1098		59		140	

Level 4

Run ft. exposed wall 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	
Ceiling height																									
Floor 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	
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																									
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
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																									
Total Conductive – Heat Gain																									
Air Leakage – Heat Loss/Gain		0.0000	0.0380																						
Ventilation – Case 1		0.00	0.08																						
Ventilation – Case 2		14.07	11.88																						
Ventilation – Case 3	x	0.04	0.08																						
Heat Gain People			239																						
Appliances Loads	1 =.25 percent		5150																						
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	55,700	btu/h
Total Heat Gain	30,466	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

Site Copy

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-04593

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:** S42-17

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	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
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	April 4, 2018		

Site Copy

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2985 Drew Road, Suite 202, Mississauga, Ontario
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e-mail dave@gtadesigns.ca

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Project # PJ-00204
Layout # JB-04593

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	Rideau 17 S42-17	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)	☑ ≥ 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 = 379.26 m² or 4082.4 ft²	W,S &G % = 12%	☐ Log/Post&Beam	☐ ICF Above Grade	☐ ICF Basement
		☐ Slab-on-ground	☐ Walkout Basement	
		☑ Air Conditioning	☐ Combo Unit	
Area of W, S & G = 46.357 m² or 499.0 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	☐ Table 3.1.1.4.C	Required:	Permitted Substitution:
(Refer to Design Guide Attached)		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	

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

Site Copy

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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-04593

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S42-17

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.317	36418	81.4	16929

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.079	36418	11	567

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	16929	8230	1.0285
Level 2	0.3		16995	0.2988
Level 3	0.2		11685	0.2897
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	567	0.0380
BUILDING CONDUCTIVE HEAT GAIN	14927	

Levels this Dwelling
3

Ventilation Calculations

Vent

Ventilation Heat Loss

Ventilation Heat Loss				
C	PVC	HL^T	(1-E) HRV	HLbvent
1.08	95.4	81.4	0.16	1342

Ventilation Heat Gain

Ventilation Heat Gain			
C	PVC	HG^T	HGbvent
1.1	95.4	11	1133

Case 1

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1342	8230	0.08
Level 2	0.3		16995	0.02
Level 3	0.2		11685	0.02
Level 4	0		0	0.00

Case 1

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	1133	0.08
Building	14927	

Case 2

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Case 2

Ventilation Heat Gain (Direct Ducted Systems)

		Multiplier
C	HG^T	11.88
1.08	11	

Case 3

Case 3

Ventilation Heat Loss (Forced Air Systems)

	HLbvent	Multiplier
Total Ventilation Load	1342	0.04

Case 3

Ventilation Heat Gain (Forced Air Systems)

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	1133	0.08
1133	1		

Foundation Conductive Heatloss Level 1	2072	Watts	7069	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

Site Copy

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):	6.57
Building Configuration	
Type:	Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m^3):	1031.36
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: 47.7 Total Exhaust: 47.7

Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0

Heating Air Leakage Rate (ACH/H):	**0.317**
Cooling Air Leakage Rate (ACH/H):	**0.079**

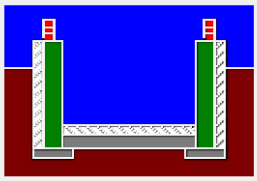
Site Copy

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description	
Province:	Ontario
Region:	Bradford

Site Description	
Soil Conductivity:	High conductivity: moist soil
Water Table:	Normal (7-10 m, 23-33 Ft)

Foundation Dimensions		
Floor Length (m):	19.83	 Insulation Configuration
Floor Width (m):	6.23	
Exposed Perimeter (m):	52.12	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.66	
Window Area (m^2):	2.97	
Door Area (m^2):	1.95	

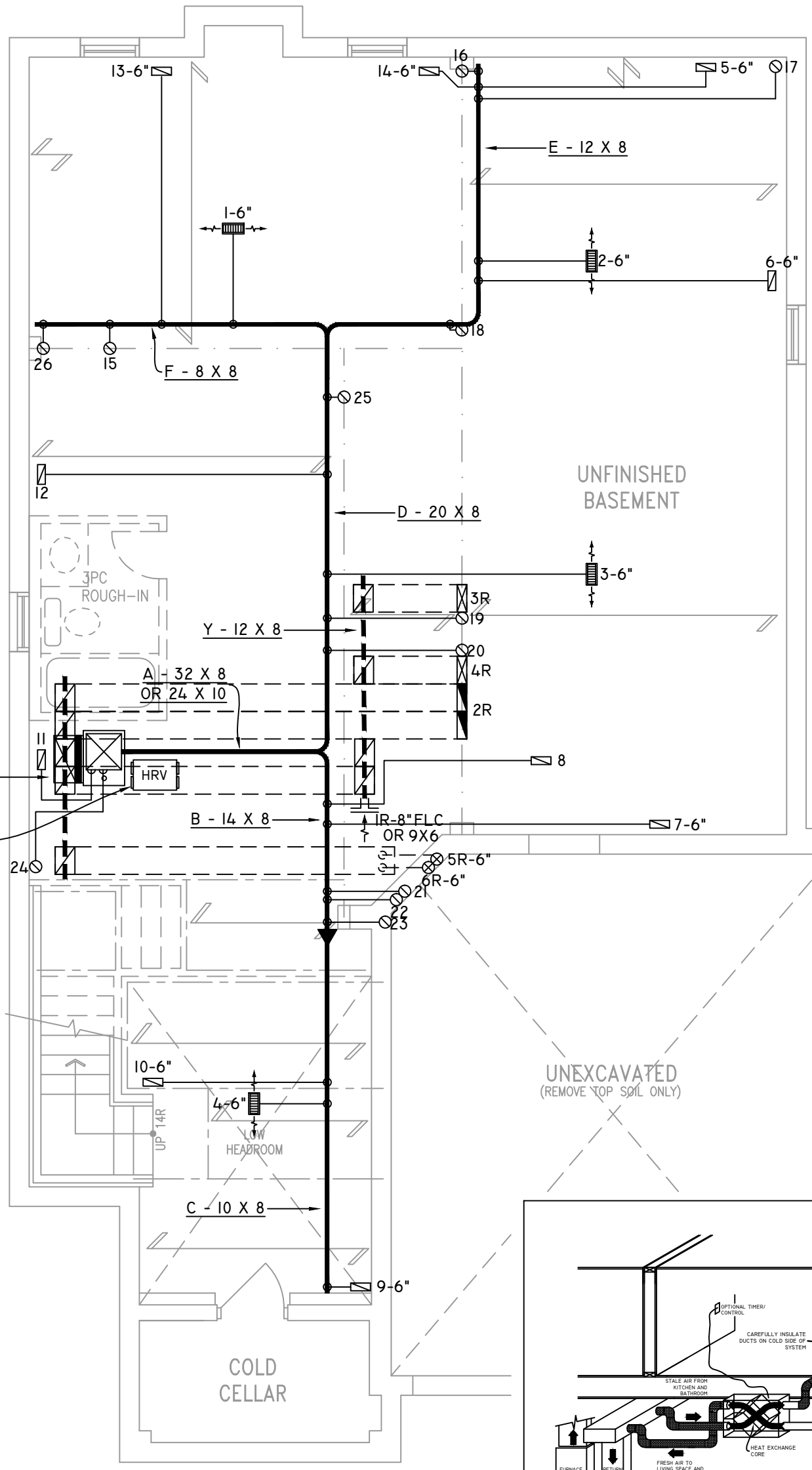
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	

Design Months		
Heating Month	1	

Foundation Loads	
Heating Load (Watts):	**2072**

Site Copy

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

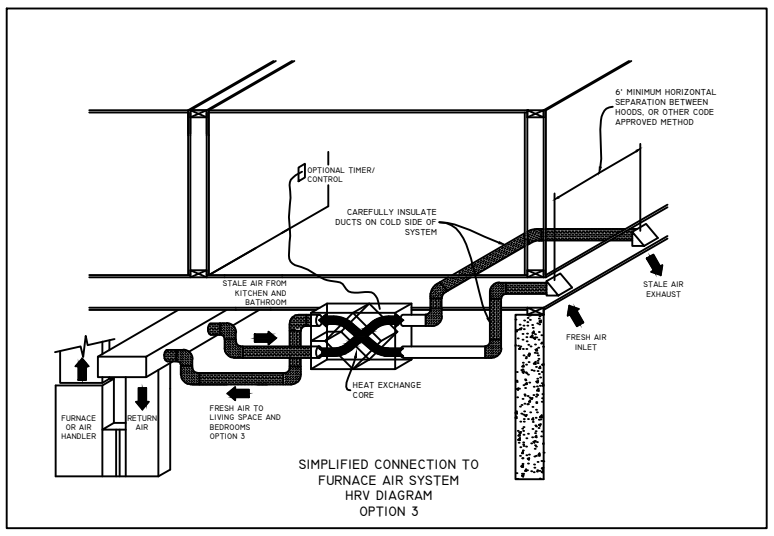


FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)

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



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' & 'B'

Site Copy

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 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.

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

HEAT-LOSS	55,700 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

FLOOR PLAN: BASEMENT		
DRAWN BY: AM	CHECKED: DD	SQFT 3090
LAYOUT NO. JB-04593		DRAWING NO. M1

DATE: APRIL 2, 2018

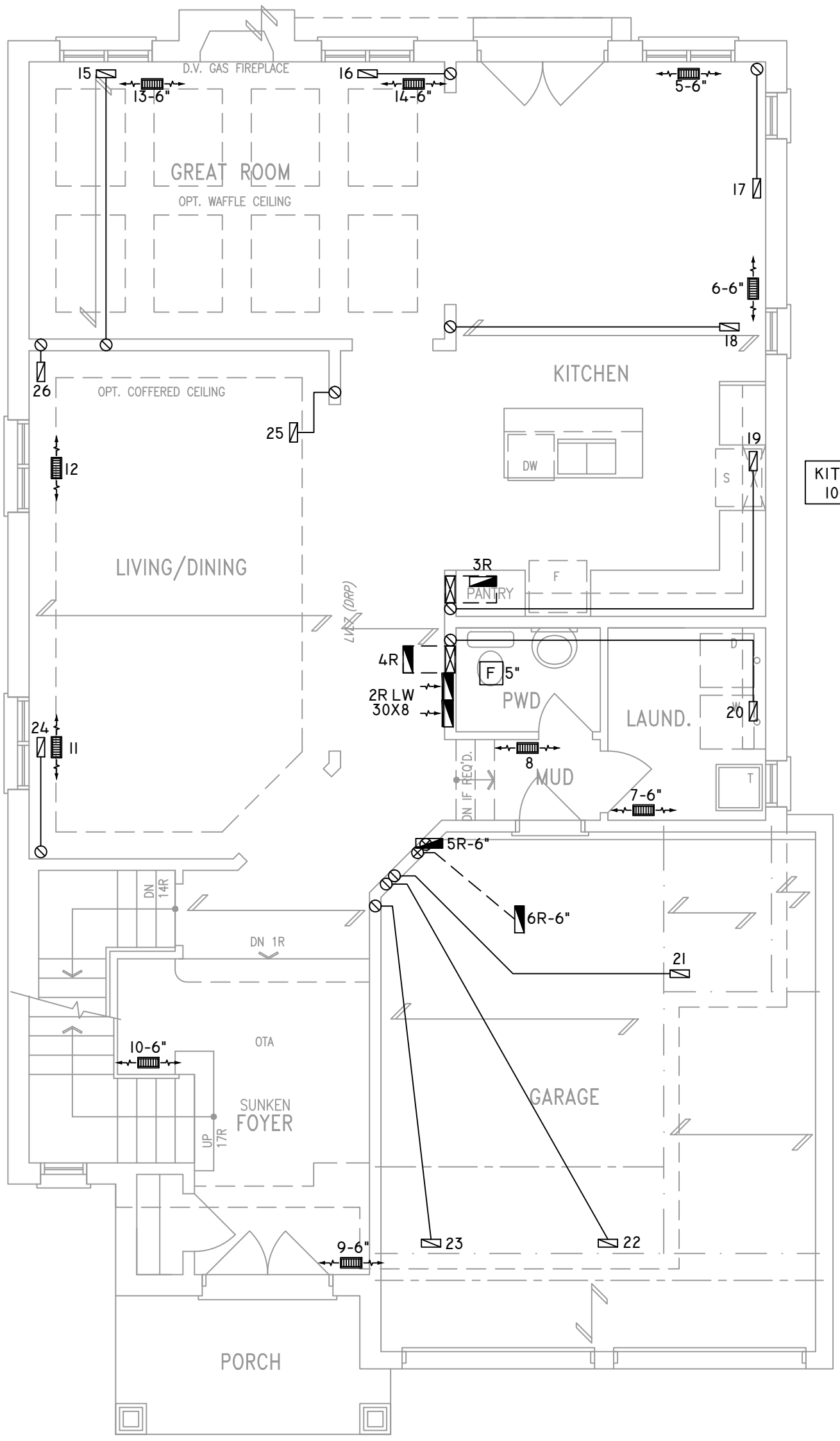
CLIENT: BAYVIEW WELLINGTON

MODEL: S42-17 RIDEAU 17

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



KITCHEN EXHAUST
100 CFM MIN. 6"

CIRCULATION PRINCIPAL FAN SWITCH TO BE CENTRALLY LOCATED

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. R12

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

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA — B.C.I.N. 32964

SIGNATURE OF DESIGNER

GROUND FLOOR PLAN 'A'

Site Copy

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 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.

GTA DESIGNS
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L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

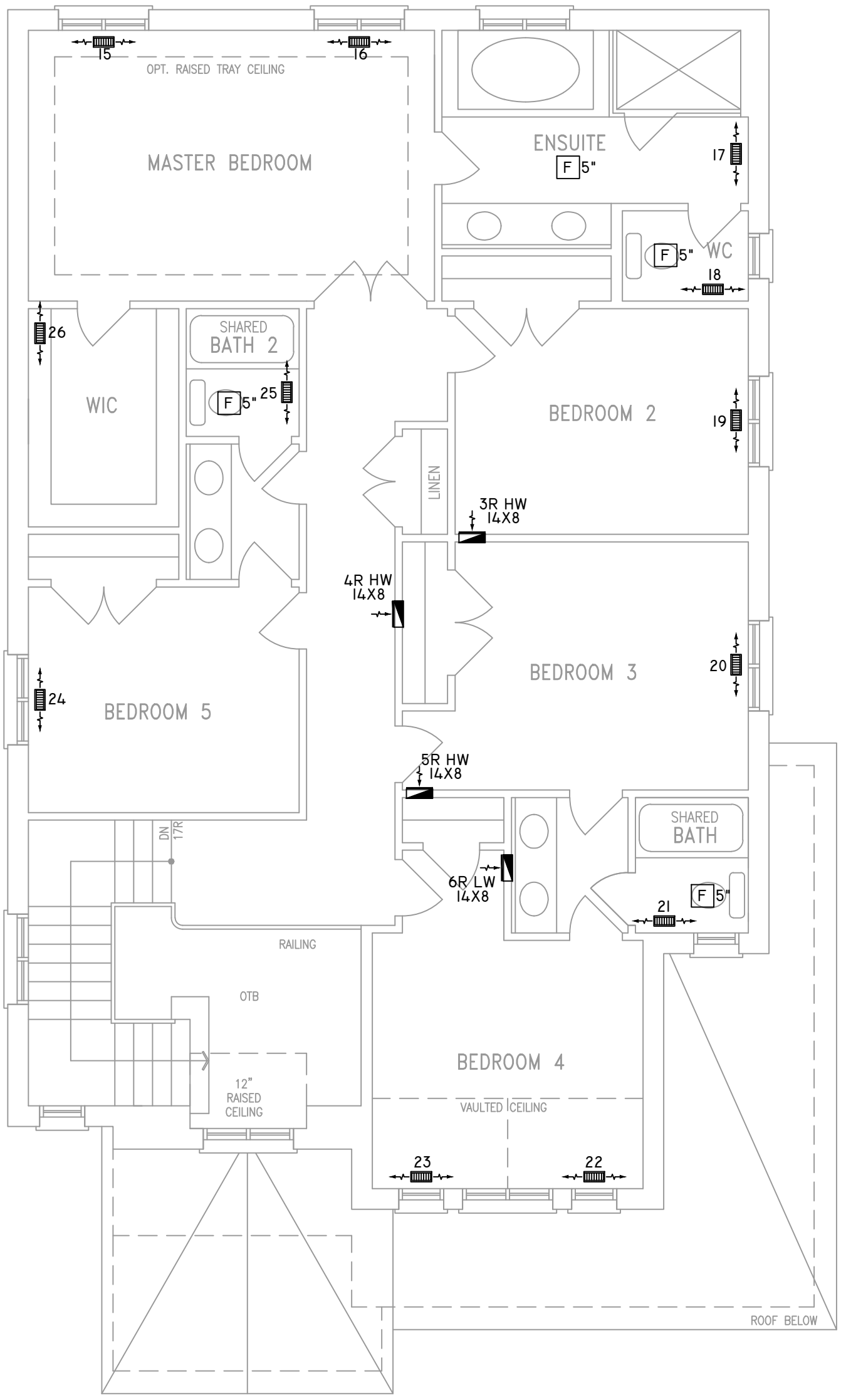
HEAT-LOSS	55,700 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 3090
LAYOUT NO. JB-04593		DRAWING NO. M2

DATE:	APRIL 2, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-17 RIDEAU 17
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



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

SECOND FLOOR PLAN 'A'

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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.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
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GTA DESIGNS
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

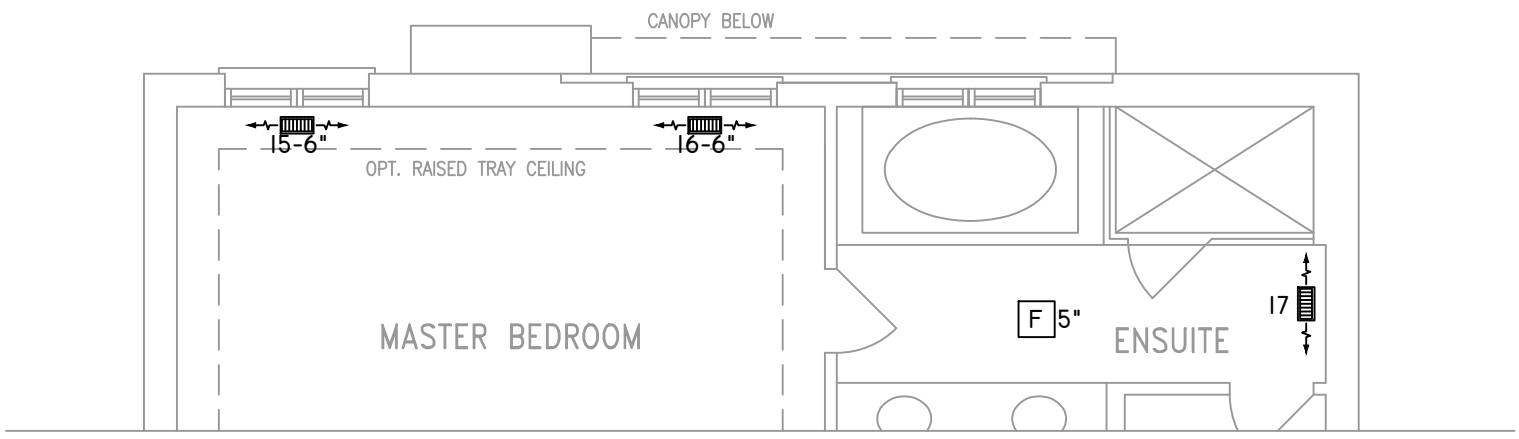
HEAT-LOSS	55,700 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

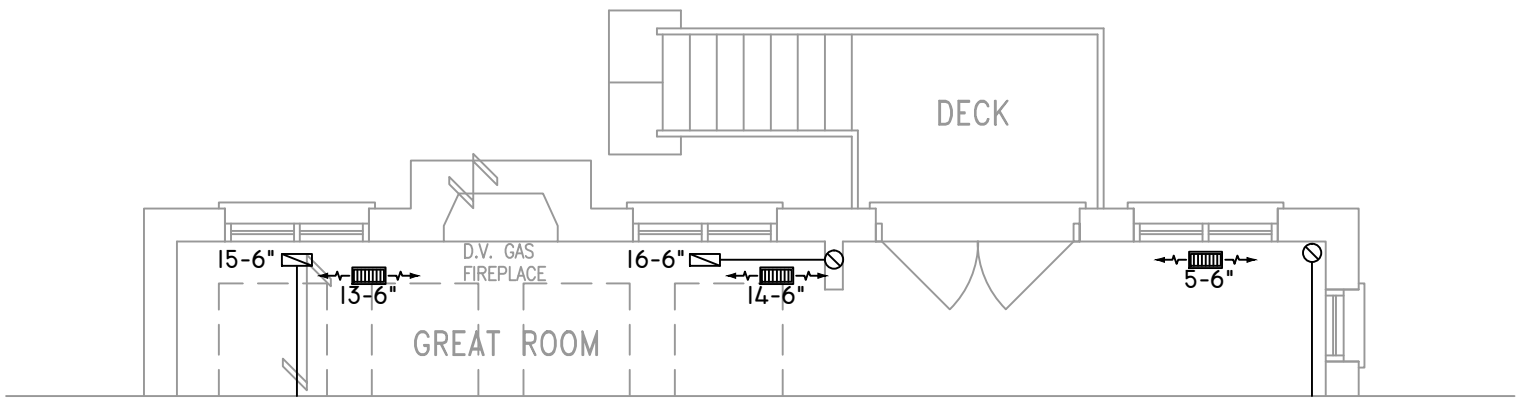
FLOOR PLAN: SECOND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 3090
LAYOUT NO. JB-04593		DRAWING NO. M3

DATE: APRIL 2, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-17 RIDEAU 17
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

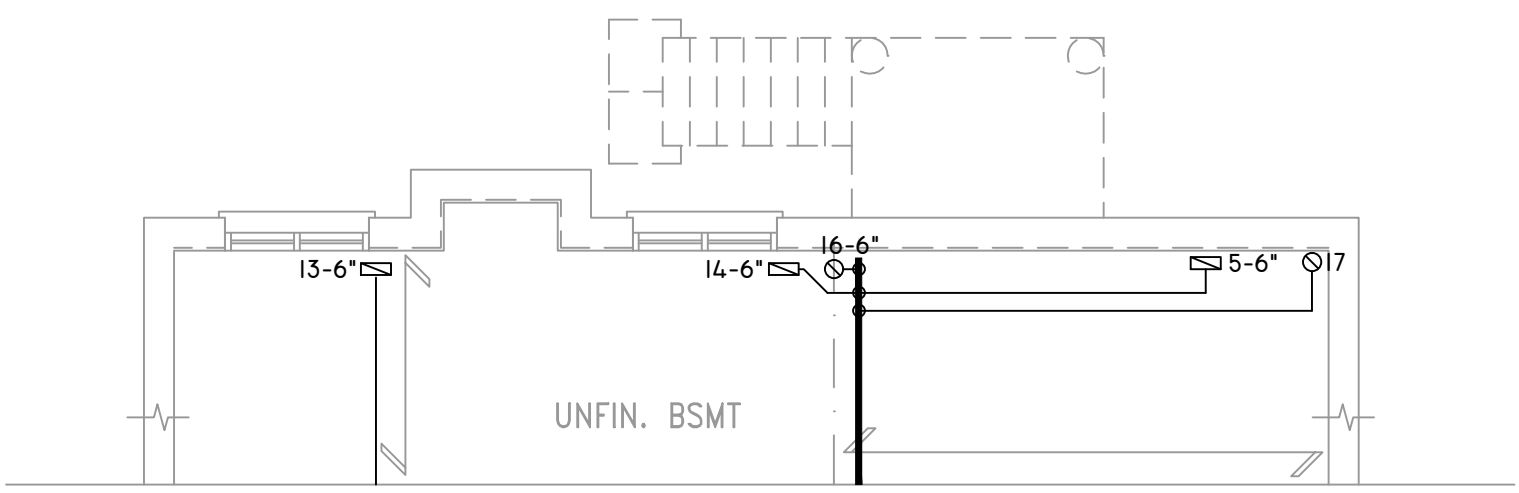
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN 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



PART. GRND FLOOR PLAN
W.O.D. CONDITION



PART. BASEMENT PLAN
W.O.D. CONDITION

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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

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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 R12 UNDERCUT ALL DOORS 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

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L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

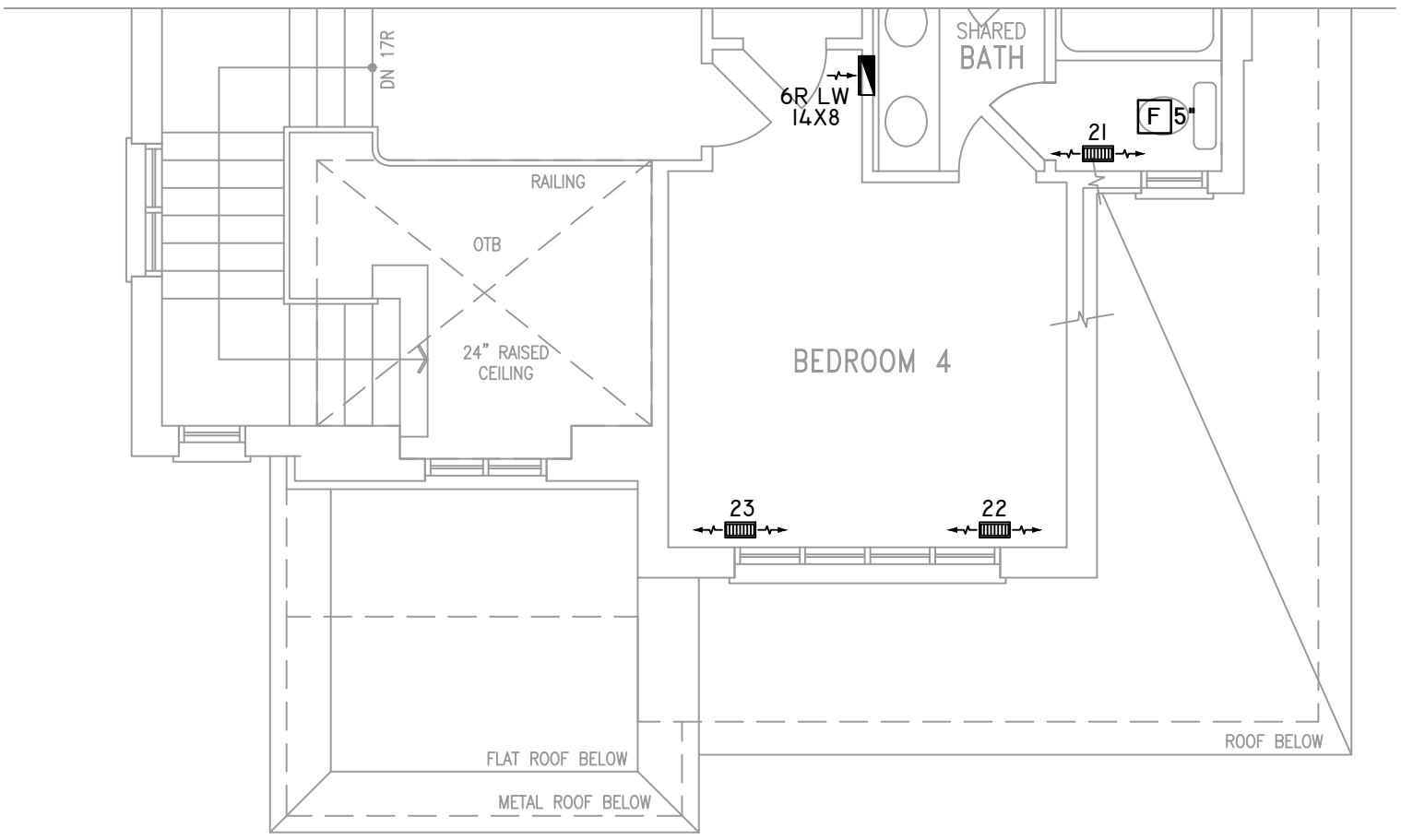
HEAT-LOSS	55,700 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

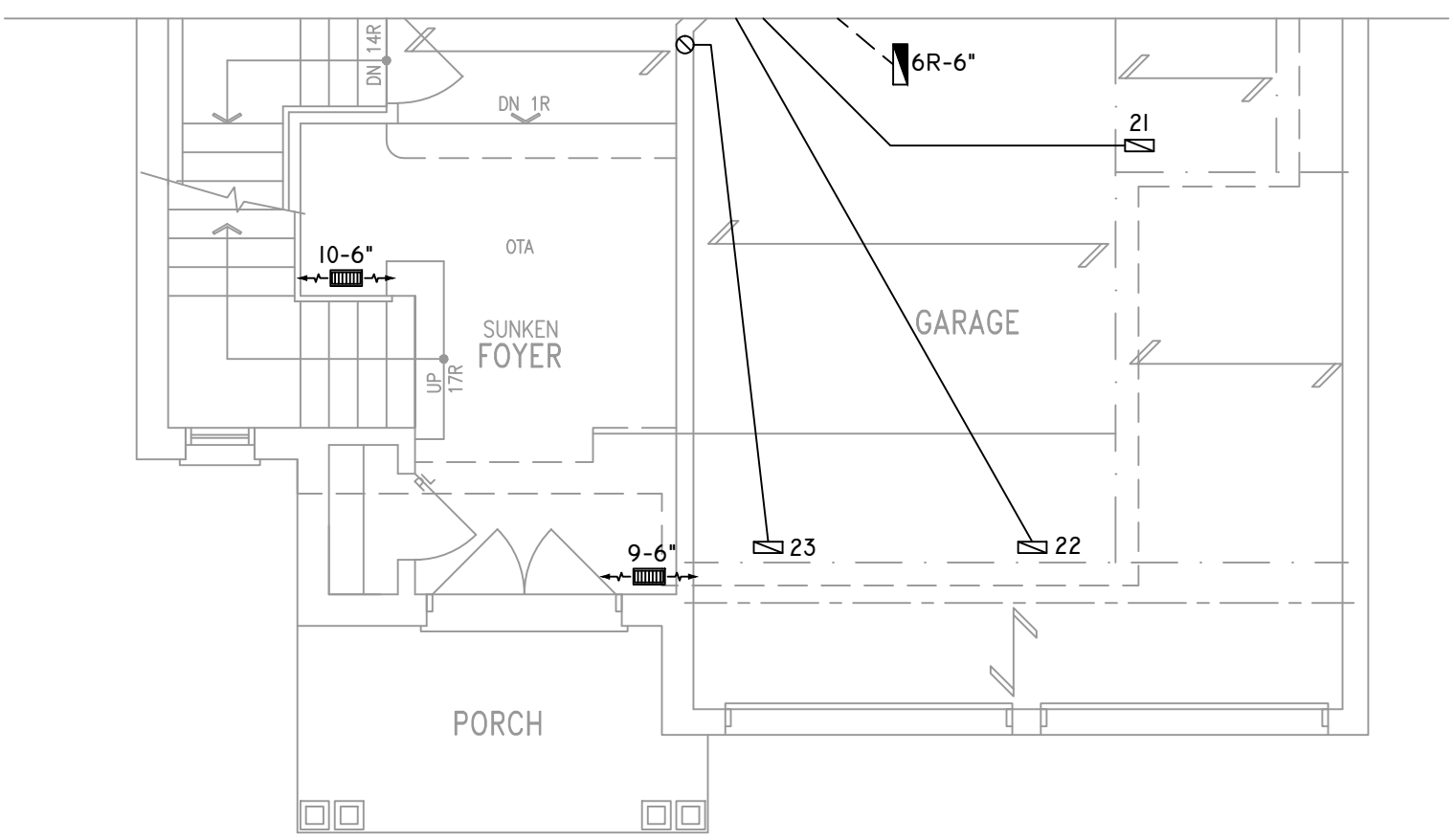
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3090
LAYOUT NO. JB-04593		DRAWING NO. M4

DATE: APRIL 2, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-17 RIDEAU 17
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. SECOND FLOOR PLAN 'B'



PART. GROUND FLOOR 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

Site Copy

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

NOTES

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WEB: WWW.GTADESIGNS.CA

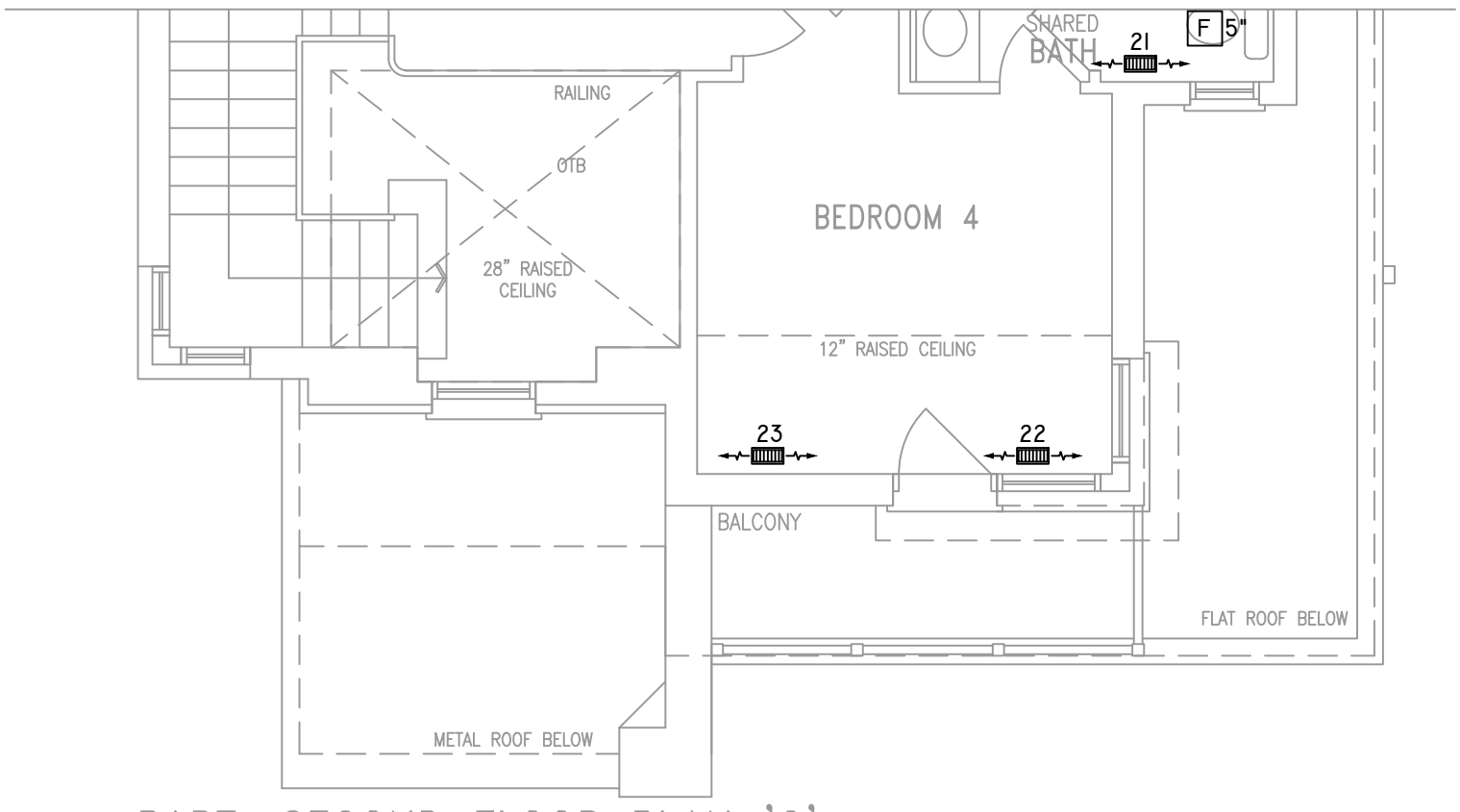
HEAT-LOSS	55,700 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

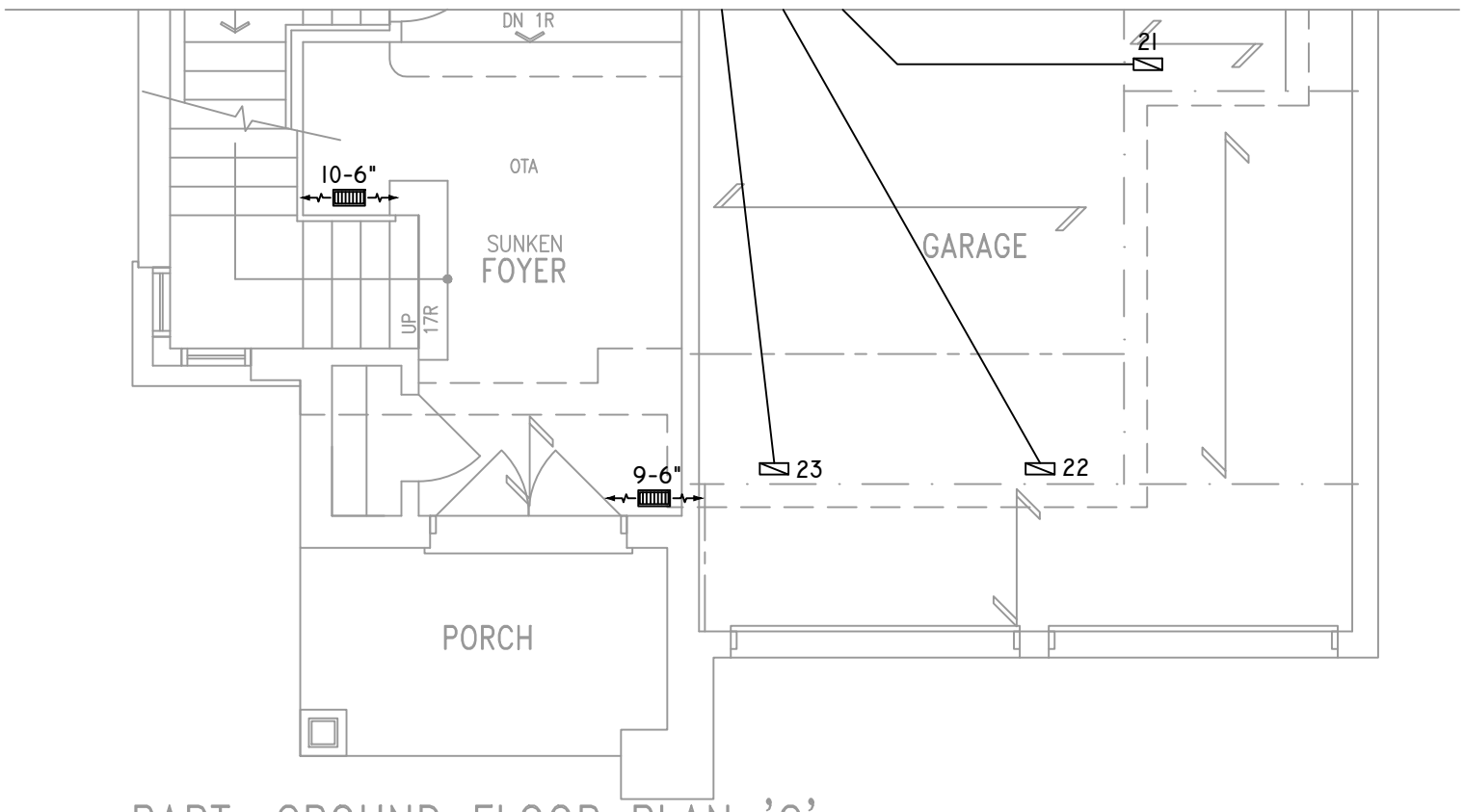
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3090
LAYOUT NO. JB-04593		DRAWING NO. M5

DATE:	APRIL 2, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-17 RIDEAU 17
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

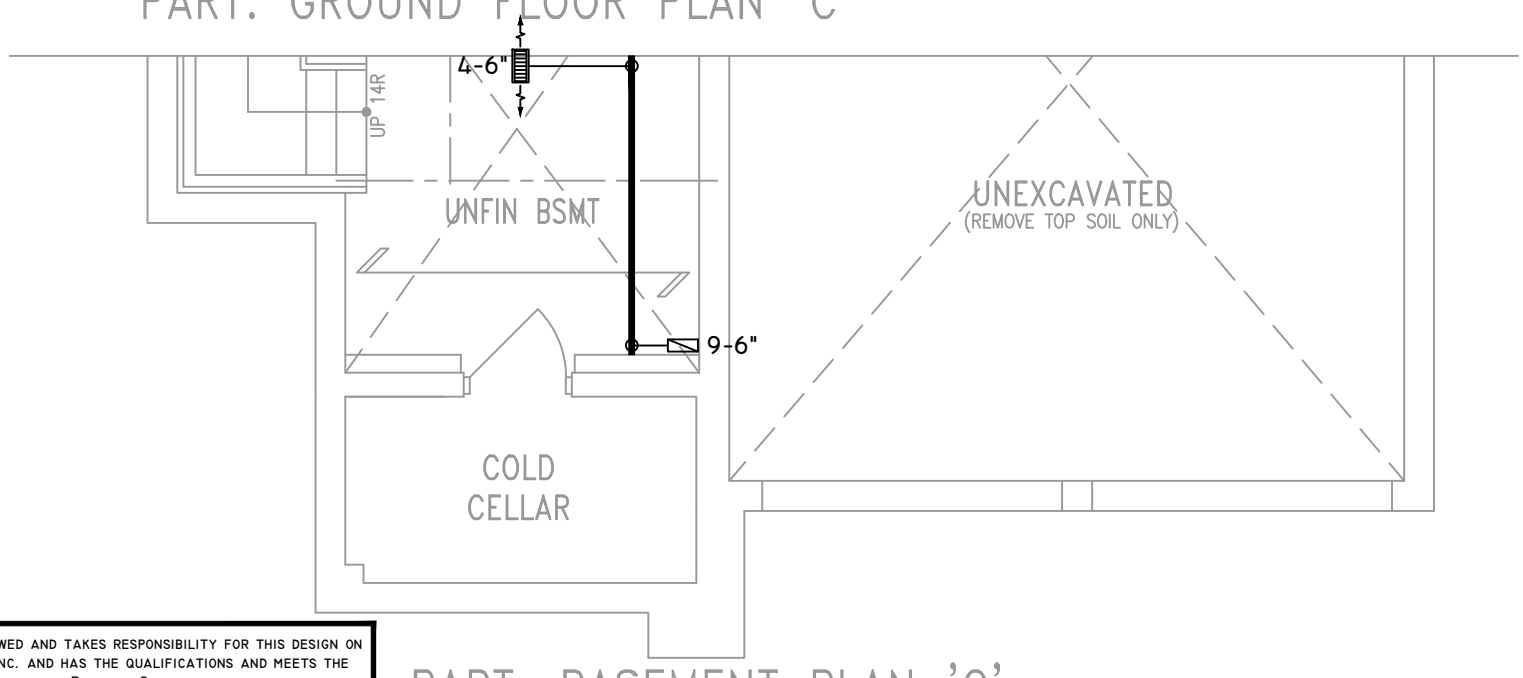
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART. 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

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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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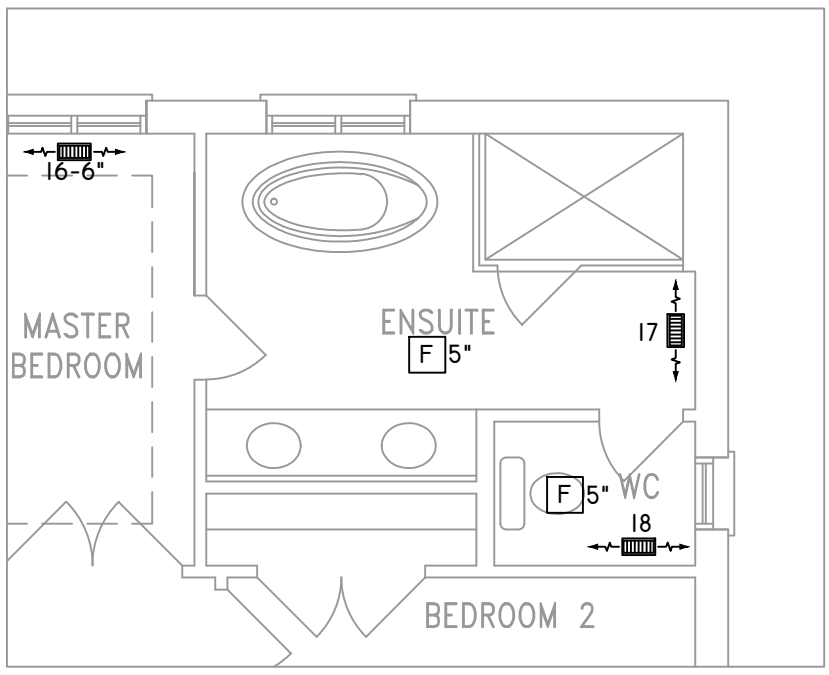
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3090
LAYOUT NO. JB-04593		DRAWING NO. M6

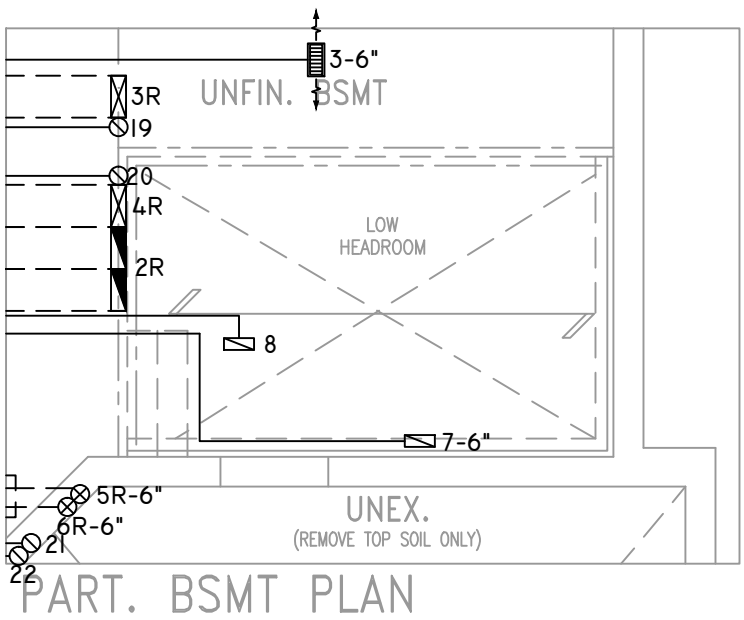
DATE: APRIL 2, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-17 RIDEAU 17
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

	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

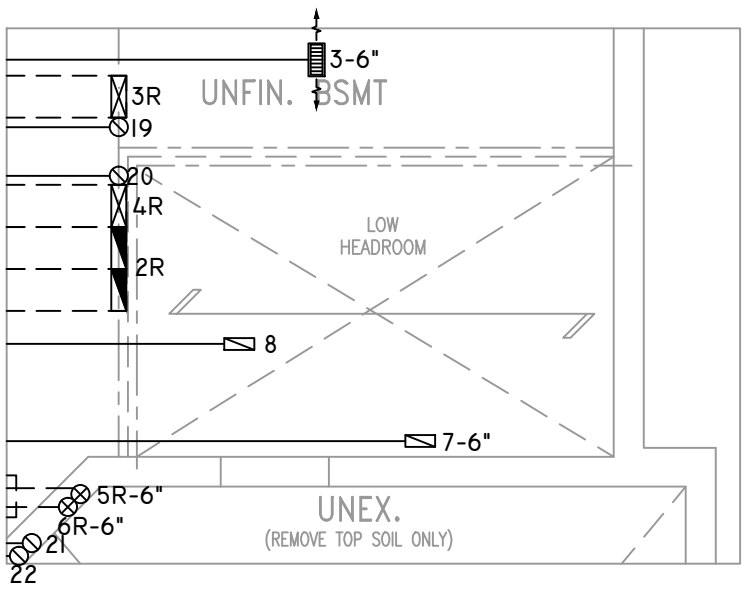


PART. OPT. SECOND FLOOR W/ ALT. ENSUITE LAYOUT

REFER TO STANDARD PLAN FOR STRUCTURE, DIMENSIONS & CONSTRUCTION NOTES



PART. BSMT PLAN LAUNDRY SUNKEN >1R



PART. BSMT PLAN LAUNDRY SUNKEN 1R

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DAVID DA COSTA — B.C.I.N. 32964

SIGNATURE OF DESIGNER

Site Copy

OBC 2012

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

NOTES

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FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	12	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3090
LAYOUT NO. JB-04593		DRAWING NO. M7

DATE:	APRIL 2, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-17 RIDEAU 17
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"