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 5** **S42-5**	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-04587**
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:**	**3330**	Model	**Rideau 5** **S42-5**
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 3, 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-04587**

Building Location

Address (Model):	**S42-5**	Site:	**Green Valley East**
Model:	**Rideau 5**	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: **3330**
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

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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 3, 2018
Project: Green Valley East
Model: Rideau 5 S42-5

System 1

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

Project # PJ-00204
Layout # JB-04587

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	18,067	btu/h
Level 2 Net Load	19,796	btu/h
Level 3 Net Load	19,302	btu/h
Level 4 Net Load	0	btu/h
Total Heat Loss	57,165	btu/h
Total Heat Gain	31,351	btu/h
Combo System HL + 10%	62,882	Btuh.
Building Volume Vb	39388	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	0.0205	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0374	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	4517	4517	4517	4517
Heating Airflow Rate CFM	93	93	93	93
Cooling Airflow Rate CFM	18	18	18	18
Duct Design Pressure	0.13	0.13	0.13	0.13
Actual Duct Length	44	51	30	21
Equivalent Length	120	160	120	70
Total Effective Length	164	211	150	91
Adjusted Pressure	0.08	0.06	0.09	0.14
Duct Size Round	6	6	6	6
Outlet Size	4x10	4x10	4x10	4x10
Trunk	C	B	A	D

Level 2

S/A Outlet No.	5	6	7	8	9	10	11	12	13	14
Room Use	KIT	KIT	GRT	GRT	LAUN	FOY	WIC 2	STUDY	LIV/DIN	LIV/DIN
Btu/Outlet	2051	2051	1855	1855	3396	2738	1188	2054	1303	1303
Heating Airflow Rate CFM	42	42	38	38	70	56	24	42	27	27
Cooling Airflow Rate CFM	84	84	67	67	56	45	24	67	46	46
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	51	54	63	52	41	33	22	11	5	42
Equivalent Length	110	150	110	180	120	120	90	100	80	70
Total Effective Length	161	204	173	232	161	153	112	111	85	112
Adjusted Pressure	0.08	0.06	0.08	0.06	0.08	0.08	0.12	0.12	0.15	0.12
Duct Size Round	6	6	6	6	6	6	4	5	5	5
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	3x10
Trunk	C	B	B	B	A	E	E	D	A	A

Level 3

S/A Outlet No.	15	16	17	18	19	20	21	22	23	24	25	26	27
Room Use	MAST	MAST	ENS	WC	BED 2	BATH	BED 3	BED 3	BED 4	BED 4	BATH 2	MED	WIC
Btu/Outlet	1662	1662	1246	898	1318	1680	2148	2148	1909	1909	902	1383	436
Heating Airflow Rate CFM	34	34	26	18	27	34	44	44	39	39	18	28	9
Cooling Airflow Rate CFM	50	50	30	26	31	15	50	50	64	64	15	63	4
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
Actual Duct Length	65	75	71	76	64	63	53	50	52	46	36	51	62
Equivalent Length	125	190	160	140	120	135	140	120	140	120	100	130	140
Total Effective Length	190	265	231	216	184	198	193	170	192	166	136	181	202
Adjusted Pressure	0.07	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.07	0.08	0.10	0.07	0.06
Duct Size Round	5	5	4	4	4	4	6	6	6	6	3	6	3
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	3x10	4x10	3x10
Trunk	C	B	B	B	A	A	D	D	E	E	D	A	C

Level 4

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
Equivalent Length	70	70	70	70	70	70	70	70	70	70	70	70	70	70	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	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	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
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10

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	185	440	150	150	97	150					
Duct Design Pressure	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Actual Duct Length	13	28	41	41	51	55					
Equivalent Length	110	165	155	165	160	170	50	50	50	50	50
Total Effective Length	123	193	196	206	211	225	50	50	50	50	50
Adjusted Pressure	0.10	0.06	0.06	0.06	0.06	0.05	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	11.5	8.0	8.0	6.0	8.0					
Inlet Size	FLC	8	8	8	8	8					
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14					
Trunk	Y	Z	Z	X	X	Y					

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	335	0.05	11.0	14x8	10x10
X	247	0.06	9.5	10x8	
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	773	0.05	14.5	24x8	18x10
B	289	0.05	10.0	12x8	10x10
C	178	0.06	8.5	8x8	
D	400	0.07	11.0	14x8	10x10
E	159	0.07	7.5	8x8	
F					
G					
H					
I					
J					
K					

Site Copy

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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 3, 2018

Project: Green Valley East | Model: Rideau 5 S42-5

System 1

Weather Data: Bradford 44 -9.4 86 22 48.2

Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 3330

Project # PJ-00204

Layout # JB-04587

Level 1

				BASE																											
Run ft. exposed wall A				175	A		A		A		A		A		A		A		A		A		A		A		A		A		A
Run ft. exposed wall B					B		B		B		B		B		B		B		B		B		B		B		B		B		B
Ceiling height				3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG
Floor area				1382	Area		Area		Area		Area		Area		Area		Area		Area		Area		Area		Area		Area		Area		Area
Exposed Ceilings A					A		A		A		A		A		A		A		A		A		A		A		A		A		A
Exposed Ceilings B					B		B		B		B		B		B		B		B		B		B		B		B		B		B
Exposed Floors					Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr
Gross Exp Wall A				635																											
Gross Exp Wall B																															
Components	R-Values	Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain
North Shaded	3.55	22.93	10.91	6	138	65																									
East/West	3.55	22.93	27.35	29	665	793																									
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	573		299																									
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				7267																										
Total Conductive Heat Loss					8634																										
Total Conductive Heat Gain						1340																									
Air Leakage Heat Loss/Gain		1.0624	0.0395		9173	53																									
Ventilation Case 1		0.06	0.06																												
Ventilation Case 2		14.07	11.88																												
Ventilation Case 3	x	0.03	0.06		260	81																									
Heat Gain People			239																												
Appliances Loads	1 =.25 percent		5597																												
Duct and Pipe loss			10%																												
Level 1 HL Total	18,067	Total HL for per room			18067																										
Level 1 HG Total	1,917	Total HG per room	x 1.3			1917																									

Level 2

				KIT			GRT			LAUN			FOY			WIC 2			STUDY			LIV/DIN											
Run ft. exposed wall A				37	A		33	A		32	A		22	A		11	A		21	A		20	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			10.0			12.0			11.0			11.0			10.0			10.0			10.0		10.0		10.0		10.0	
Floor area				303	Area		226	Area		196	Area		83	Area		28	Area		161	Area		378	Area		Area		Area		Area		Area	
Exposed Ceilings A					A		5	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				370			330			384			242			121			210			200										
Gross Exp Wall B																																
Components	R-Values	Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain
North Shaded	3.55	22.93	10.91				28	642	306	12	275	131																					
East/West	3.55	22.93	27.35	61	1399	1669	28	642	766				24	550	656	14	321	383															
South	3.55	22.93	20.89																24	550	501	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	309	1477	200	274	1310	177	351	1678	227	197	942	127	107	511	69	186	889	120	152	727	98									
Net exposed walls B	8.50	9.58	1.29																														
Exposed Ceilings A	59.22	1.37	0.64				5	7	3																								
Exposed Ceilings B	22.86	3.56	1.66																														
Exposed Floors	29.80	2.73	0.17																														
Foundation Conductive Heatloss	On Grade ( ) or Abo		x																														
Total Conductive Heat Loss					2876			2601			2380			1919			832			1439			1827										
Total Conductive Heat Gain						1868			1252			415			841			452			621			1101									
Air Leakage Heat Loss/Gain		0.3967	0.0395		1141	74		1032	49		944	16		761	33		330	18		571	25		725	43									
Ventilation Case 1		0.02	0.06																														
Ventilation Case 2		14.07	11.88																														
Ventilation Case 3	x	0.03	0.06		87	113		78	76		72	25		58	51		25	27		43	38		55	67									
Heat Gain People			239																														
Appliances Loads	1 =.25 percent		5597	1.0		1399	1.0		1399	0.5		700							0.5		700	0.5		700									
Duct and Pipe loss			10%																														
Level 2 HL Total	19,796	Total HL for per room			4103			3710			3396			2738			1188			2054			2607										
Level 2 HG Total	15,735	Total HG per room	x 1.3			4491			3609			1504			1203			647			1798			2484									

Total Heat Loss	57,165	btu/h
Total Heat Gain	31,351	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

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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 3, 2018

Project: Green Valley East | Model: Rideau 5 S42-5

System 1

Weather Data: Bradford 44 -9.4 86 22 48.2

Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 3330

Project # PJ-00204

Layout # JB-04587

Level 3

	MAST	ENS	WC	BED 2	BATH	BED 3	BED 4	BATH 2	MED	WIC	
Run ft. exposed wall A	34 A	14 A	10 A	12 A	18 A	30 A	28 A	11 A	12 A	6 A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	9.0	8.0	8.0	8.0	8.0	10.0	10.0	8.0	8.0	8.0	8.0
Floor area	310 Area	107 Area	21 Area	204 Area	120 Area	244 Area	221 Area	101 Area	241 Area	81 Area	Area
Exposed Ceilings A	310 A	107 A	21 A	204 A	120 A	244 A	221 A	101 A	241 A	81 A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	72 Flr	199 Flr	12 Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	306	112	80	96	144	300	280	88	96	48	
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	BATH Loss	BATH Gain	BED 3 Loss	BED 3 Gain	BED 4 Loss	BED 4 Gain	BATH 2 Loss	BATH 2 Gain	MED Loss	MED Gain	WIC Loss	WIC Gain	Loss	Gain
North Shaded	3.55	22.93	10.91							16	367	175	8	183	87										
East/West	3.55	22.93	27.35	39	894	1067	16	367	438	16	367	438				41	940	1121	60	1376	1641										
South	3.55	22.93	20.89																12	275	251	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	267	1276	172	96	459	62	64	306	41	80	382	52	136	650	88	259	1238	167	208	994	134	80	382	52	80	382	52	48	229	31		
Net exposed walls B	8.50	9.58	1.29																												
Exposed Ceilings A	59.22	1.37	0.64	310	426	199	107	147	69	21	29	13	204	280	131	120	165	77	244	335	157	221	304	142	101	139	65	241	331	155	81	111	52		
Exposed Ceilings B	22.86	3.56	1.66																												
Exposed Floors	29.80	2.73	0.17													72	197	12	199	544	33	12	33	2										
Foundation Conductive Heatloss																																			
Total Conductive: Heat Loss					2597			973			702			1030			1195			3057			2982			705			1081			341			
Total Conductive: Heat Gain						1438			568			492			357			264			1479			2170			284			540			83		
Air Leakage: Heat Loss/Gain		0.2503	0.0395		650	57		243	22		176	19		258	14		299	10		765	58		746	86		176	11		270	21		85	3		
Ventilation: Case 1		0.02	0.06																																
Ventilation: Case 2		14.07	11.88																																
Ventilation: Case 3	x	0.03	0.06		78	87		29	34		21	30		31	22		36	16		92	90		90	132		21	17		33	33		10	5		
Heat Gain People			239	2		478							1		239				1		239	1		239											
Appliances Loads	1 =.25 percent		5597																									0.5		700					
Duct and Pipe loss			10%													1	149	26	1	382	172														
Level 3 HL Total	19,302	Total HL for per room			3325			1246			898			1318			1680			4296			3818			902			1383			436			
Level 3 HG Total	13,699	Total HG per room	x 1.3			2678			813			704			822			412			2649			3414			406			1682			119		

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																																
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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	0.0395																																
Ventilation: Case 1		0.00	0.06																																
Ventilation: Case 2		14.07	11.88																																
Ventilation: Case 3	x	0.03	0.06																																
Heat Gain People			239																																
Appliances Loads	1 =.25 percent		5597																																
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	57,165	btu/h
Total Heat Gain	31,351	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-04587

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:** S42-5

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

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

Location of Installation

Lot #	Plan #
Township	Bradford
Roll #	Permit #
Address	

Builder

Name	Bayview Wellington
Address	
City	
Tel	Fax

Installing Contractor

Name	
Address	
City	
Tel	Fax

Combustion Appliances 9.32.3.1(1)

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

Heating System

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

House Type 9.32.3.1(2)

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

System Design Option

1		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	5	@	10.6	cfm	53	cfm
Other rooms	7	@	10.6	cfm	74.2	cfm
			Total		201.4	

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	201.4	
Less principal exhaust capacity	79.5	
REQUIRED supplemental vent. Capacity	121.9	cfm

Supplemental Fans 9.32.3.5.

Location	cfm	Model	Sones
Ens	50	XB50	0.3
Bath	50	XB50	0.3
Bath 2	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 3, 2018		

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

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Project # PJ-00204
Layout # JB-04587

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
Rideau 5 **S42-5**		

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 = 375.53 m² or 4042.2 ft²	W,S &G % = 13%	☐ Log/Post&Beam	☐ ICF Above Grade	☐ ICF Basement
		☐ Slab-on-ground	☐ Walkout Basement	
Area of W, S & G = 47.565 m² or 512.0 ft²		☑ Air Conditioning	☐ Combo Unit	
	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

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-04587

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S42-5

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.318	39388	81.4	18346

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.079	39388	11	614

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	18346	8634	1.0624
Level 2	0.3		13875	0.3967
Level 3	0.2		14660	0.2503
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	614	0.0395
BUILDING CONDUCTIVE HEAT GAIN	15567	

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

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1118	8634	0.06
Level 2	0.3		13875	0.02
Level 3	0.2		14660	0.02
Level 4	0		0	0.00

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	944	0.06
Building	15567	

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	

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	1118	0.03

Ventilation Heat Gain (Forced Air Systems)

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	944	0.06
944	1		

Foundation Conductive Heatloss Level 1	2130	Watts	7267	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):	6.59
Building Configuration	
Type:	Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m^3):	1115.47
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: 39.75 Total Exhaust: 39.75

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

Heating Air Leakage Rate (ACH/H):	**0.318**
Cooling Air Leakage Rate (ACH/H):	**0.079**

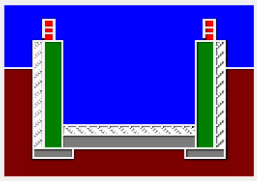
Site Copy

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):	20.37	 Insulation Configuration
Floor Width (m):	6.30	
Exposed Perimeter (m):	53.34	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.64	
Window Area (m^2):	3.81	
Door Area (m^2):	1.95	

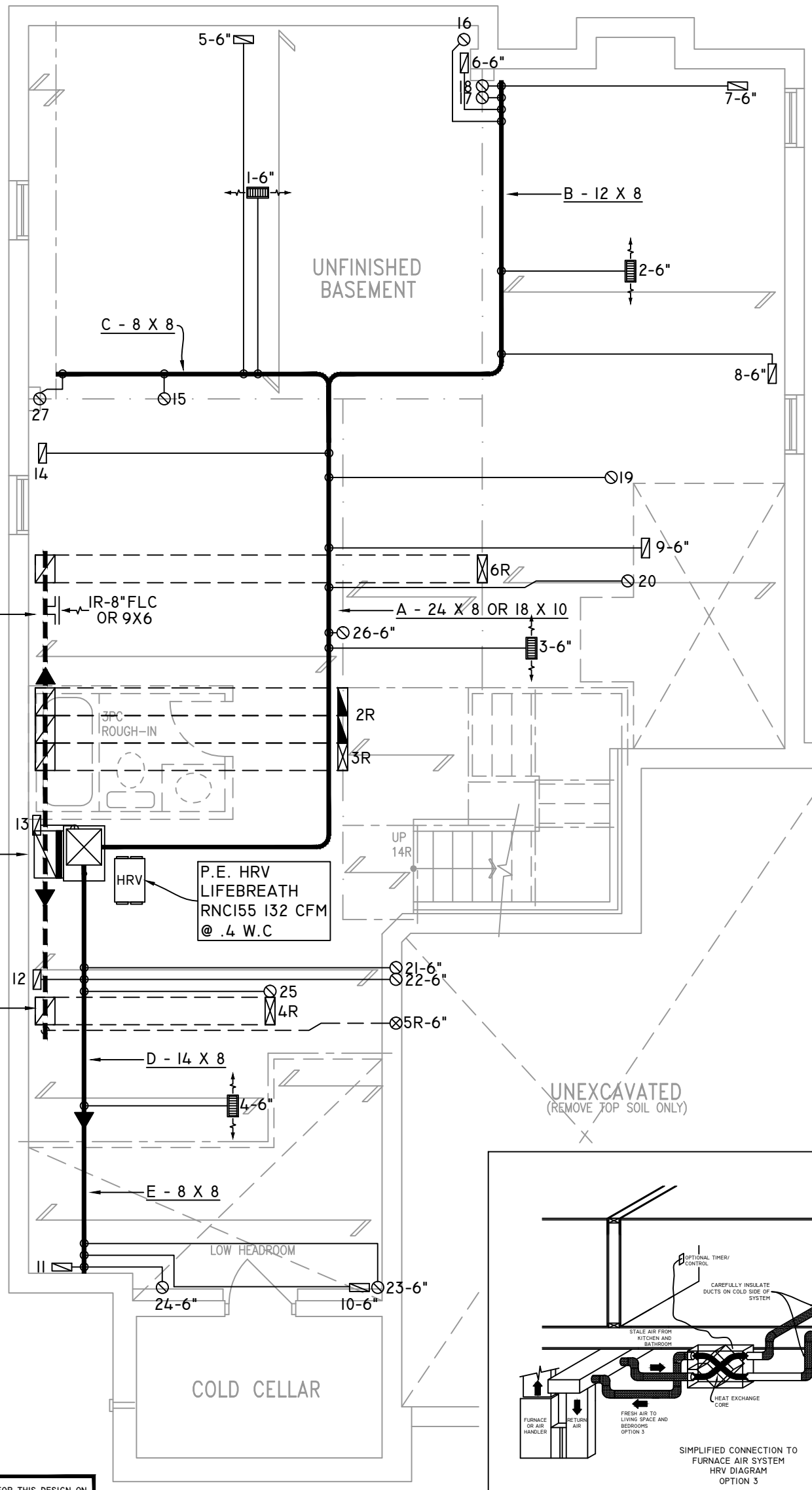
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	

Design Months		
Heating Month	1	

Foundation Loads	
Heating Load (Watts):	**2130**

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

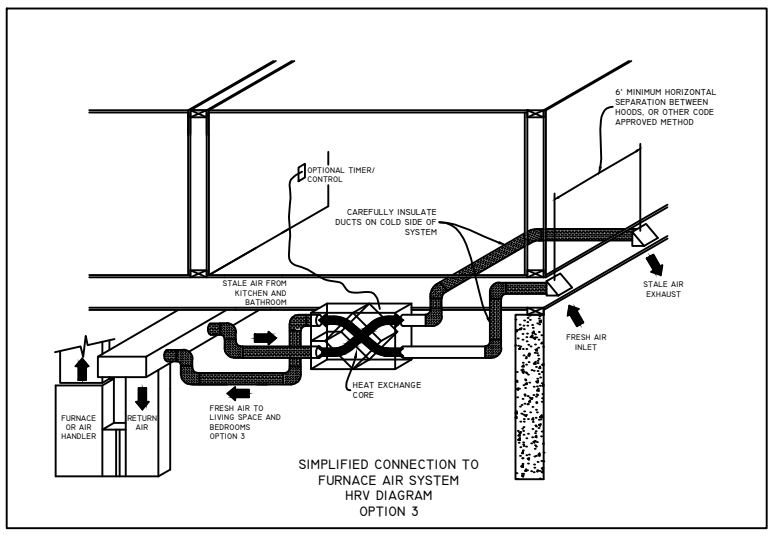


FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)

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'

OBC 2012

Site Copy

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.

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

HEAT-LOSS	57,165 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

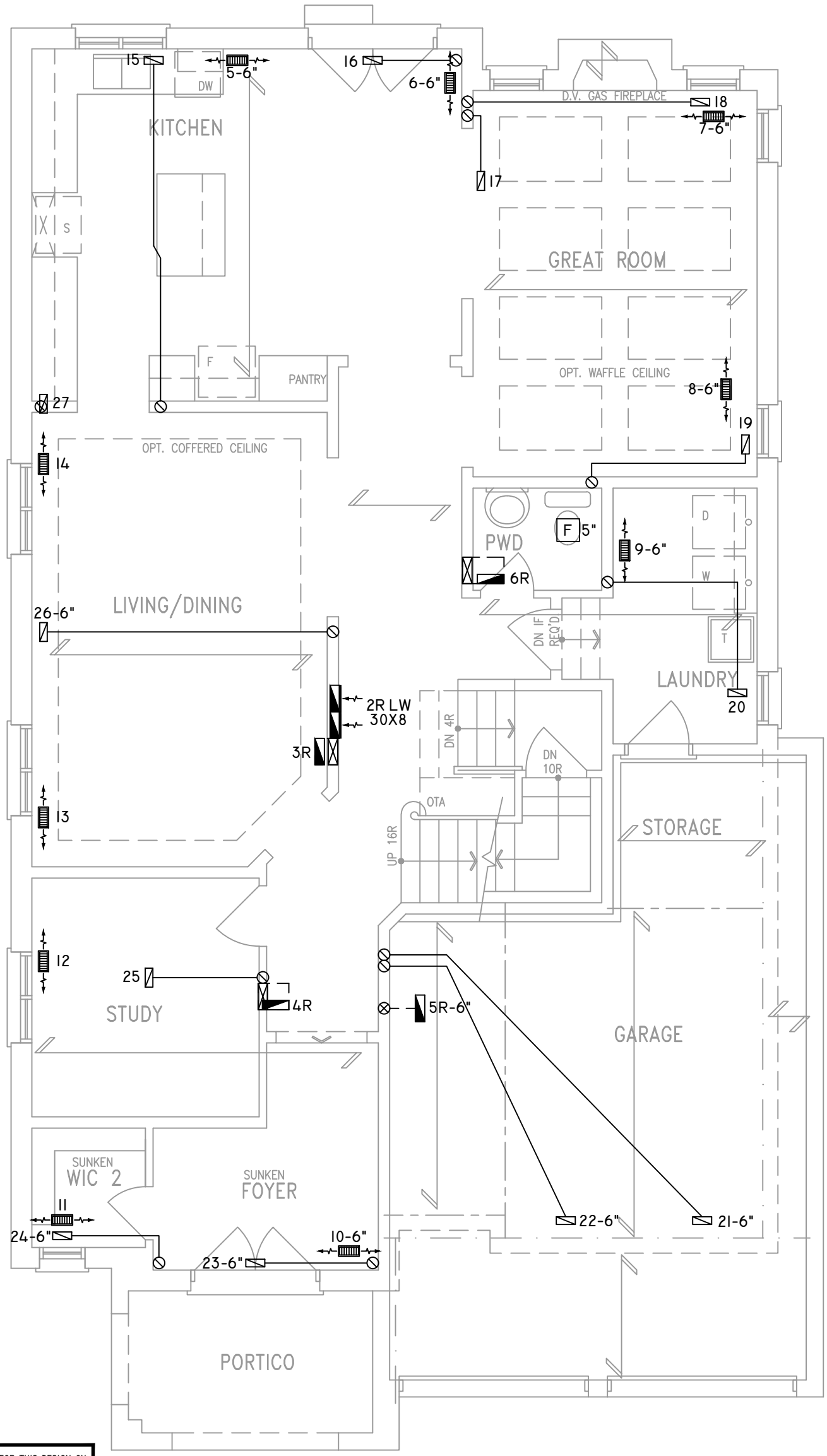
# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

FLOOR PLAN: BASEMENT		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04587		DRAWING NO. M1

DATE:	APRIL 3, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-5 RIDEAU 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

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

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 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

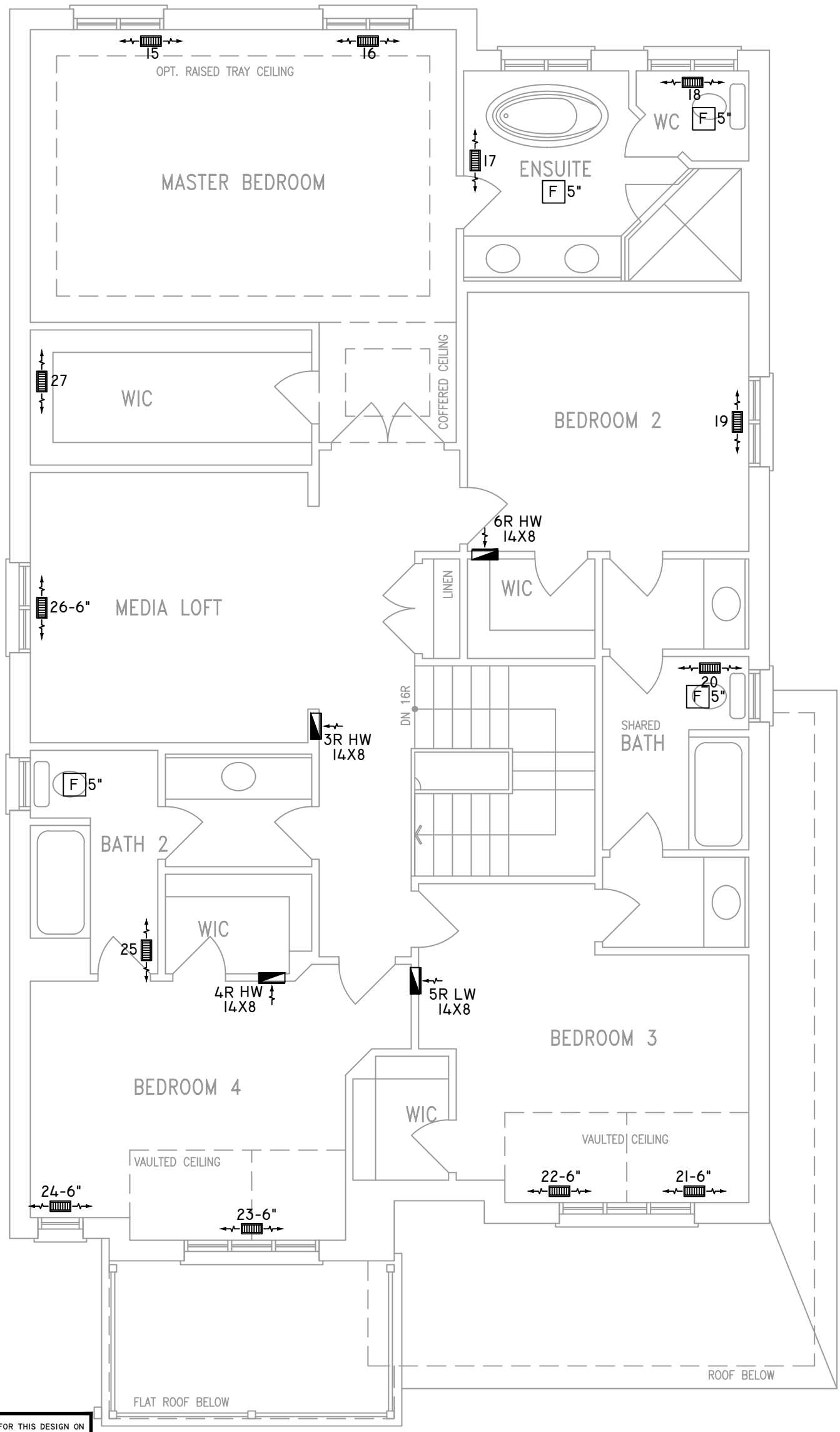
HEAT-LOSS	57,165 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04587		DRAWING NO. M2

DATE:	APRIL 3, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-5 RIDEAU 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

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

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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

SECOND FLOOR PLAN 'A'
4 BEDROOM + MEDIA LOFT

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OBC 2012

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

NOTES
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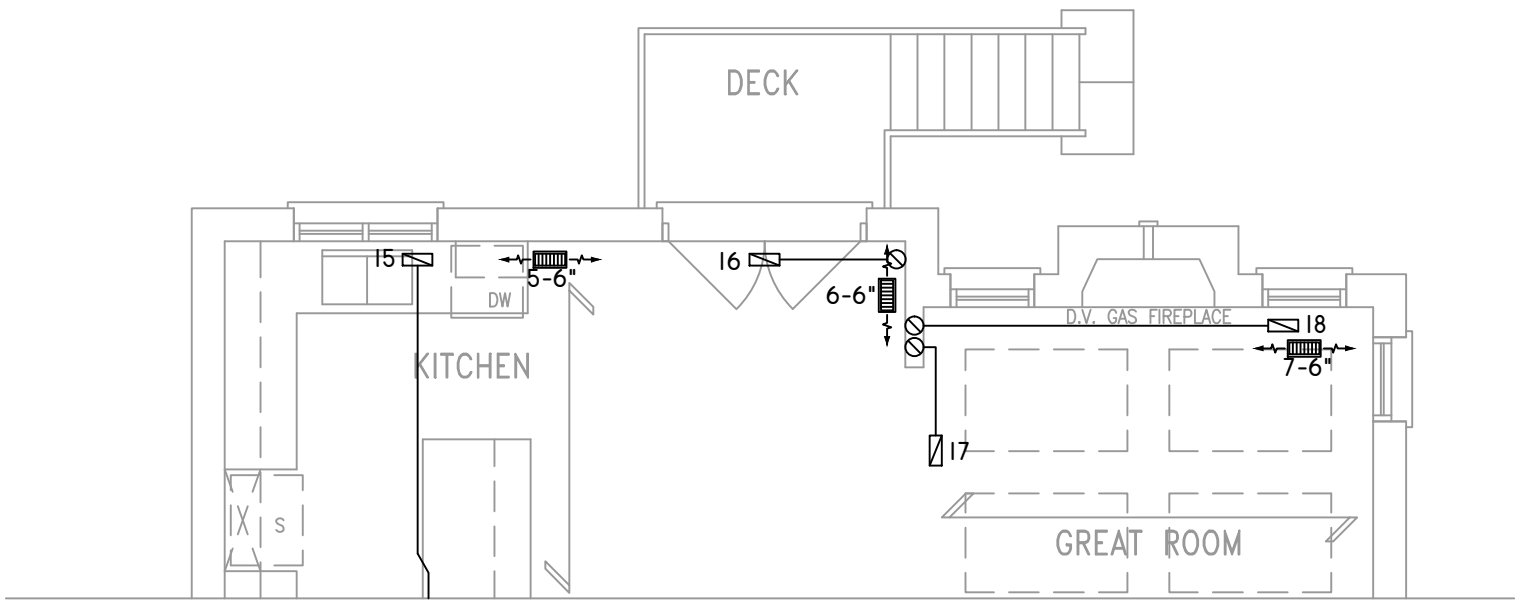
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

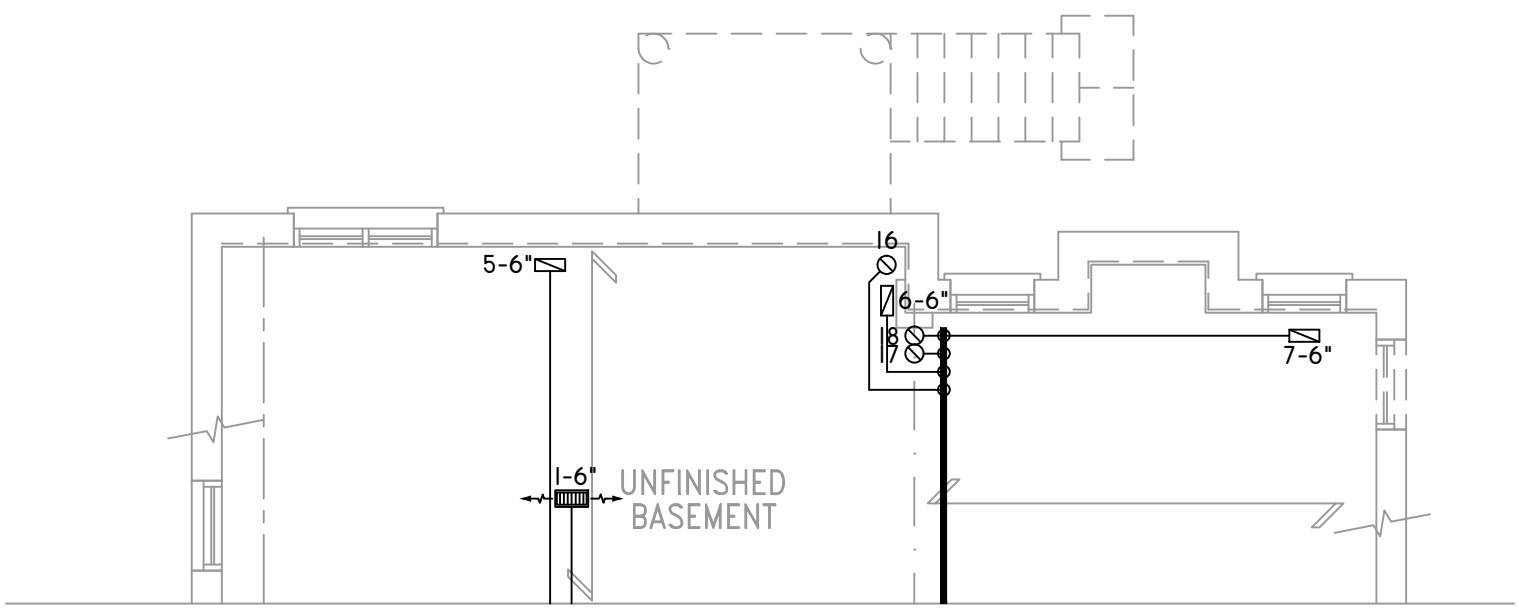
FLOOR PLAN: SECOND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04587		DRAWING NO. M3

DATE: APRIL 3, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-5 RIDEAU 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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



PARTIAL GROUND FLOOR PLAN W/ W.O.D.
9R & MORE CONDITION



PARTIAL BASEMENT PLAN W/ W.O.D.
9R OR MORE CONDITION

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QUALIFICATION INFORMATION

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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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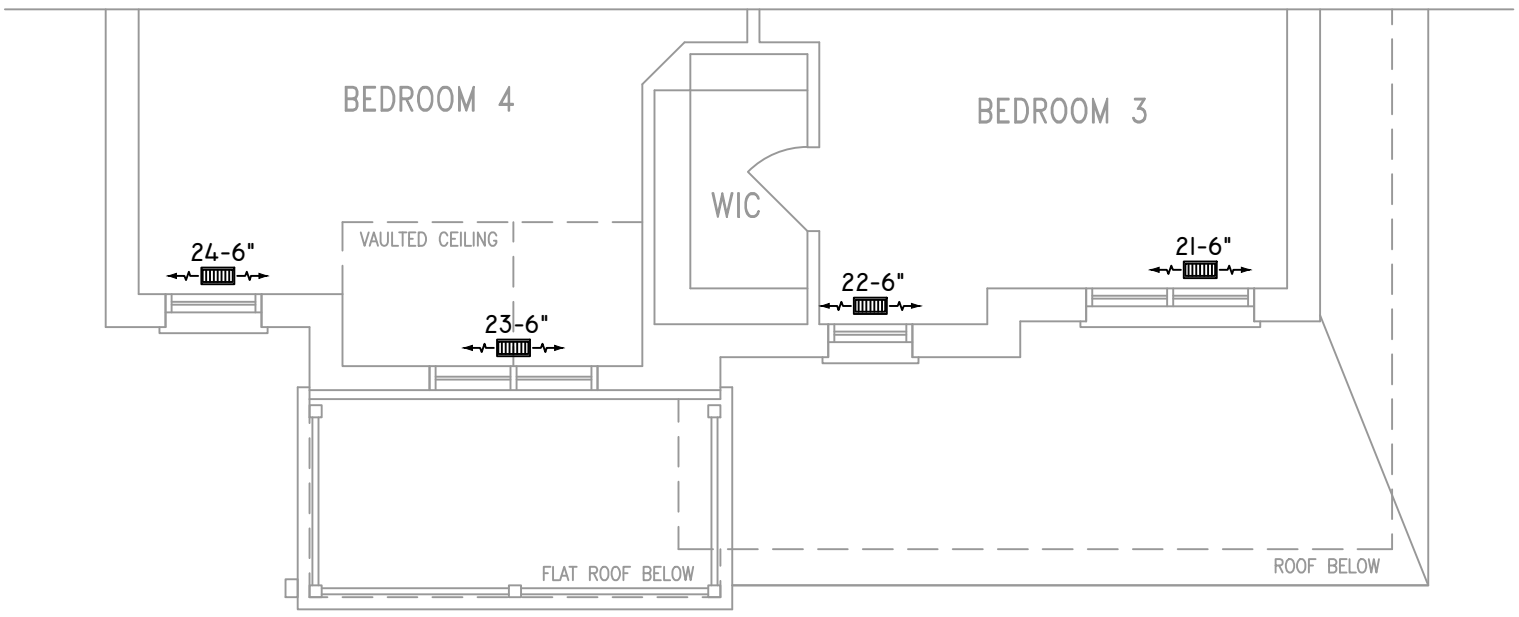
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
IST FLOOR	10	1	2
BASEMENT	4	1	

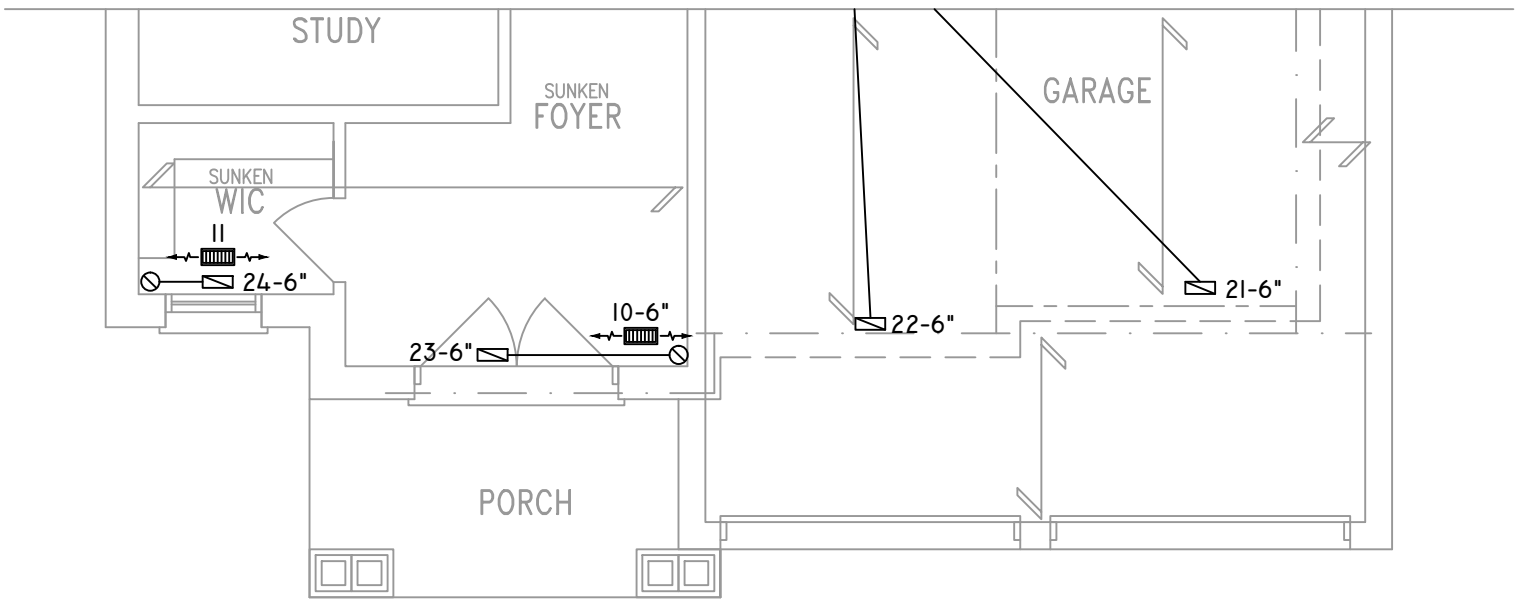
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04587		DRAWING NO. M4

DATE: APRIL 3, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-5 RIDEAU 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

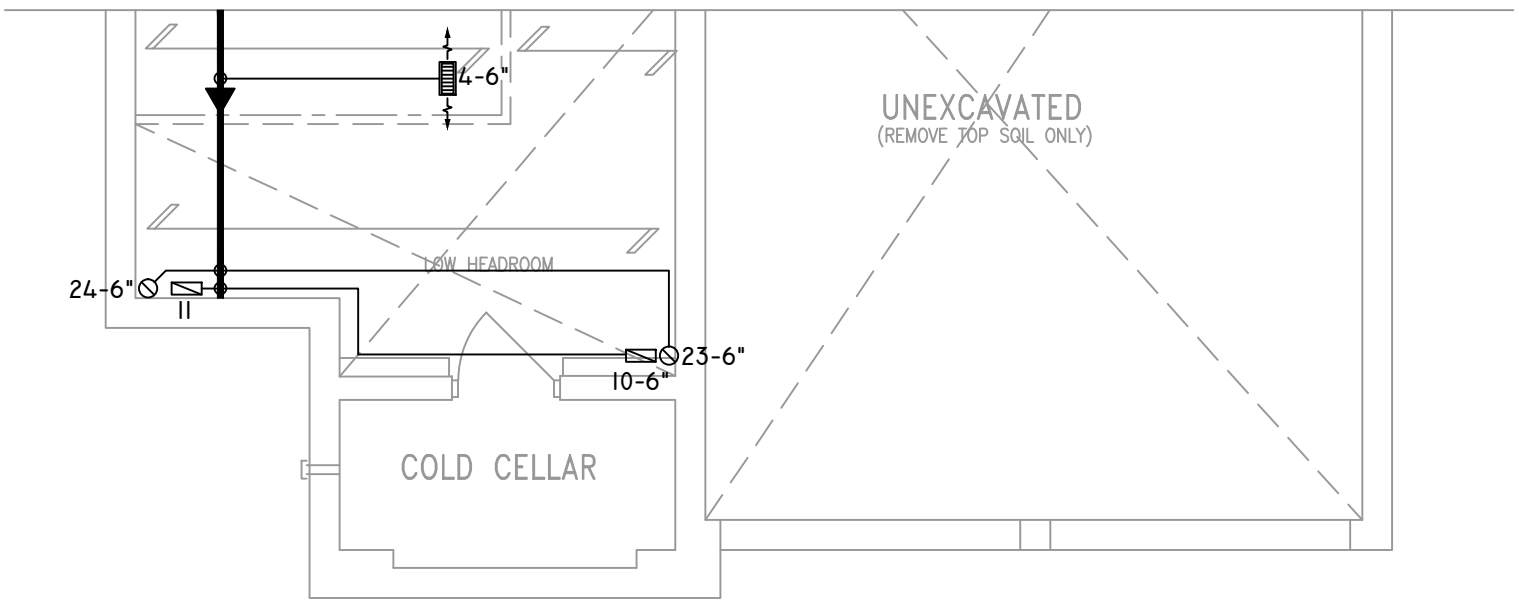
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PARTIAL STD./OPT. 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

Site Copy

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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WEB: WWW.GTADESIGNS.CA

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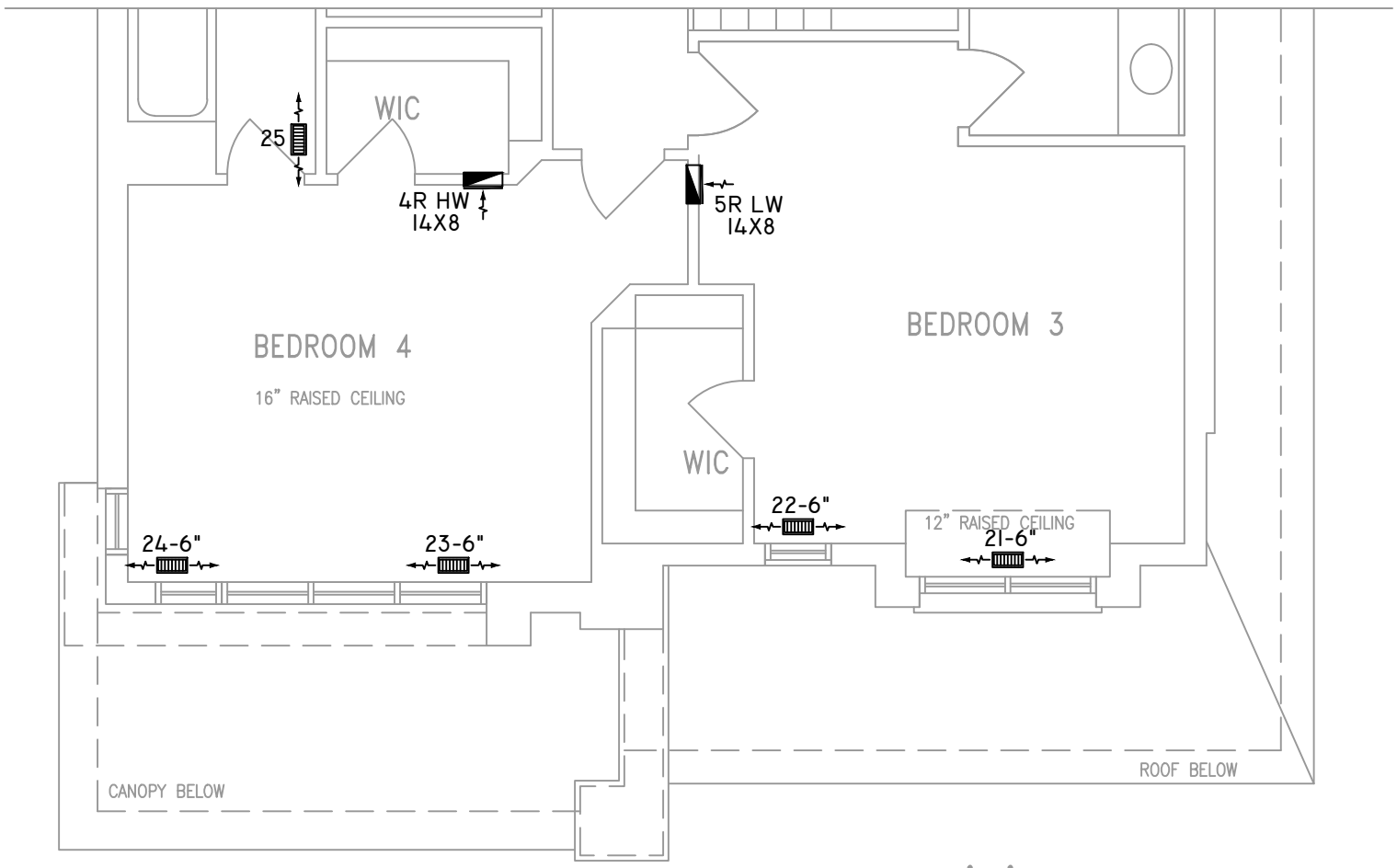
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

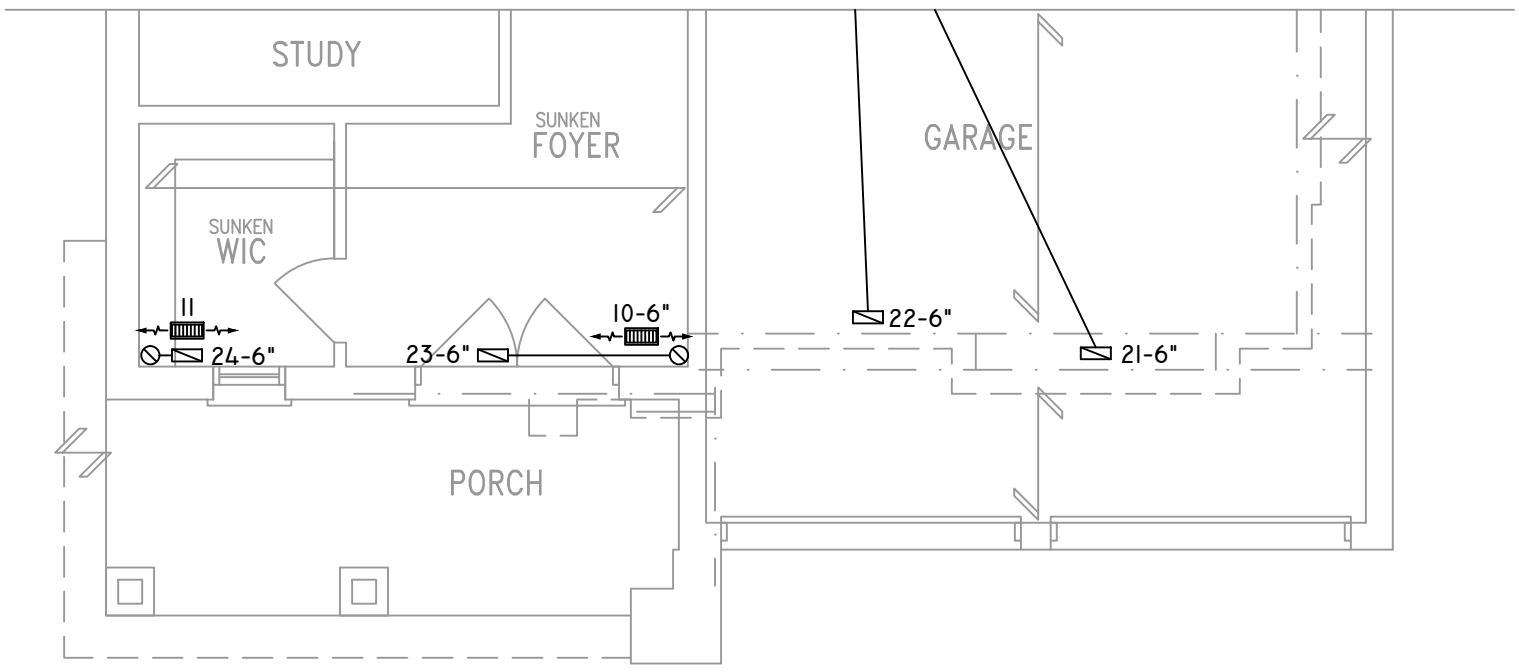
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04587		DRAWING NO. M5

DATE:	APRIL 3, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-5 RIDEAU 5
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

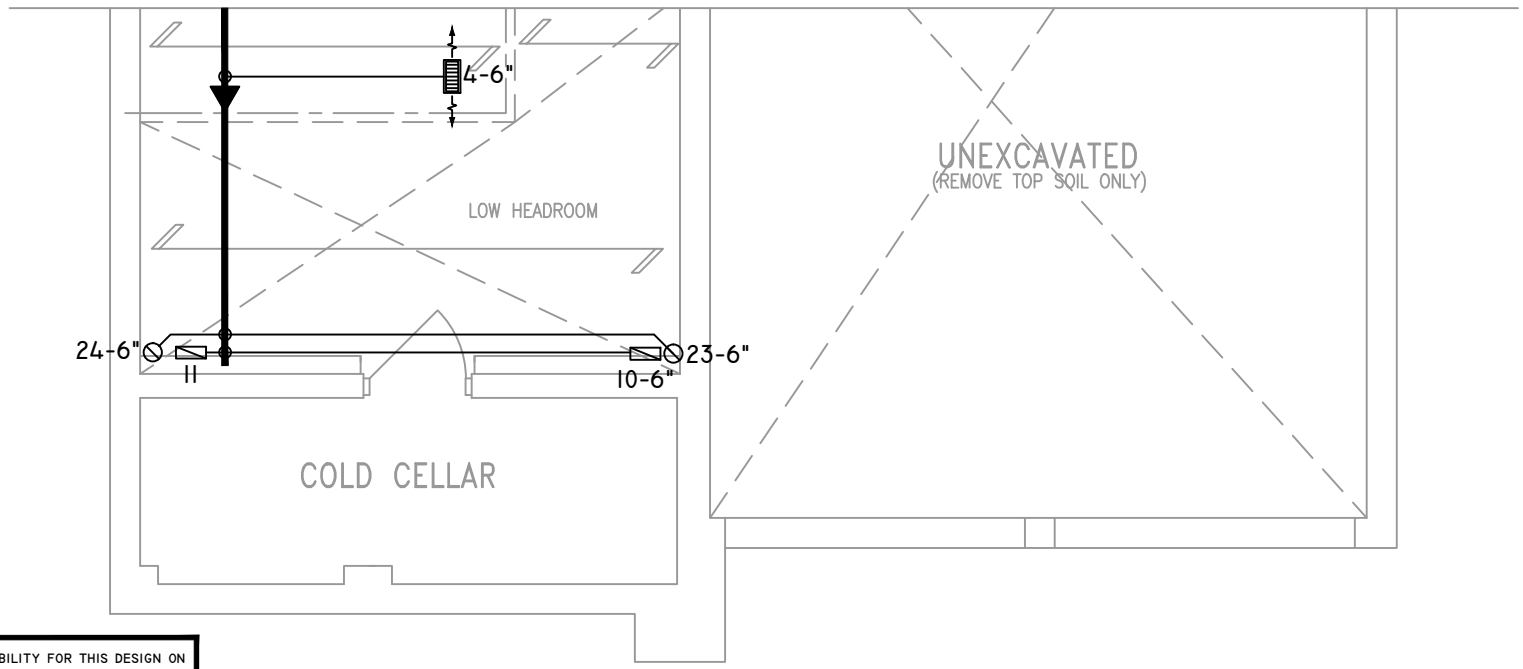
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PARTIAL STD. SECOND FLOOR PLAN 'C'



PARTIAL GROUND FLOOR PLAN 'C'



PARTIAL 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

Site Copy

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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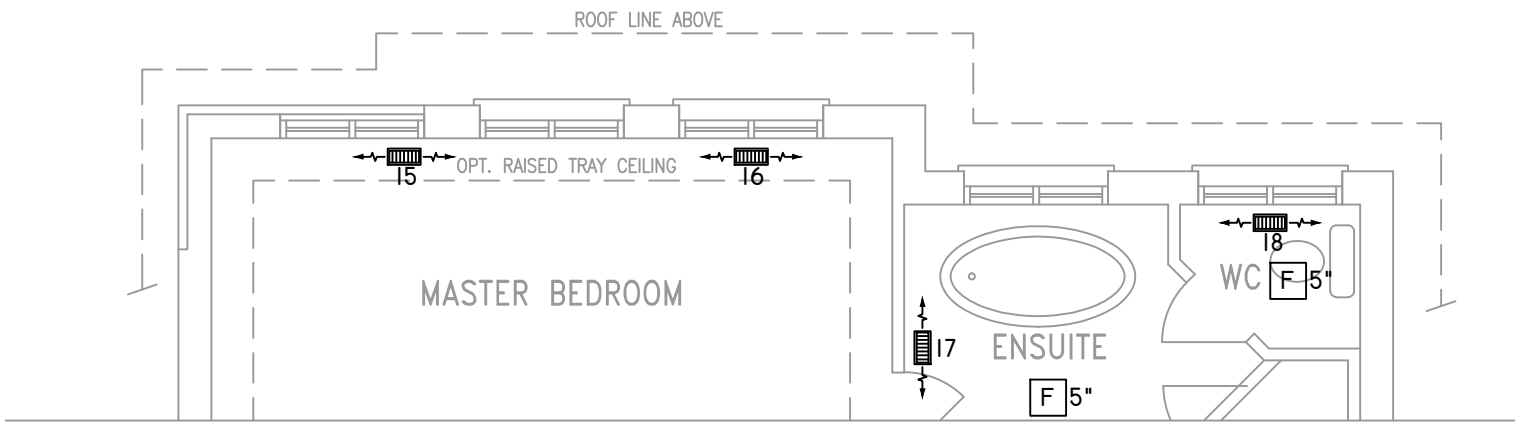
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

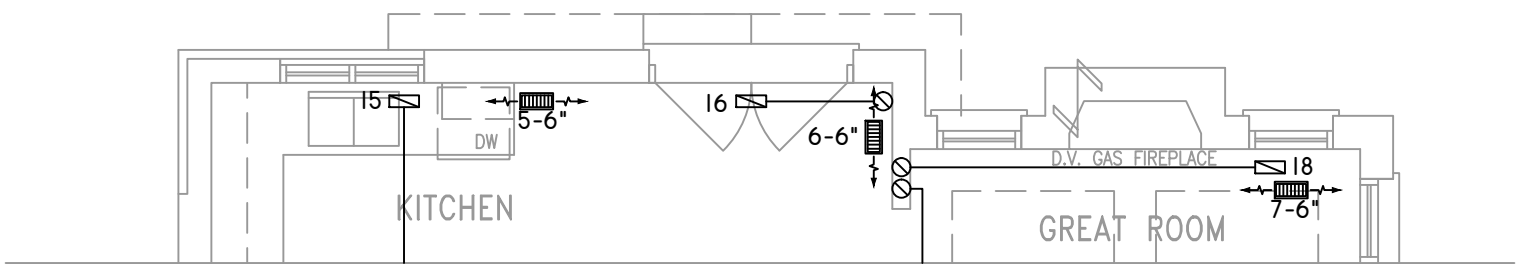
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04587		DRAWING NO. M6

DATE:	APRIL 3, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-5 RIDEAU 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

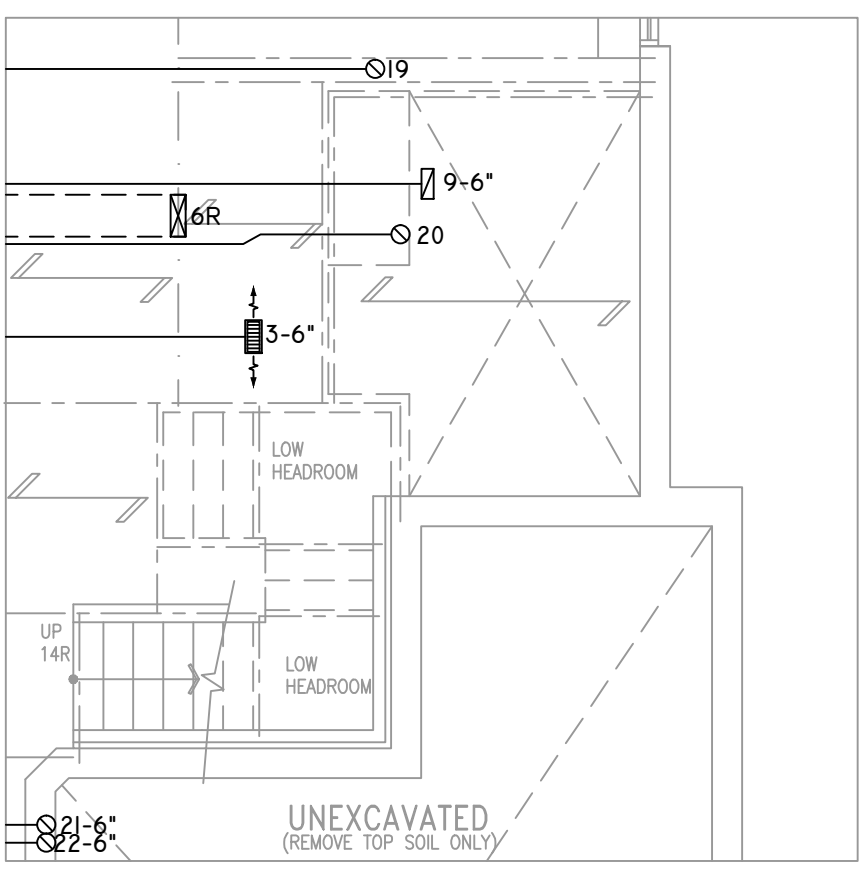
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



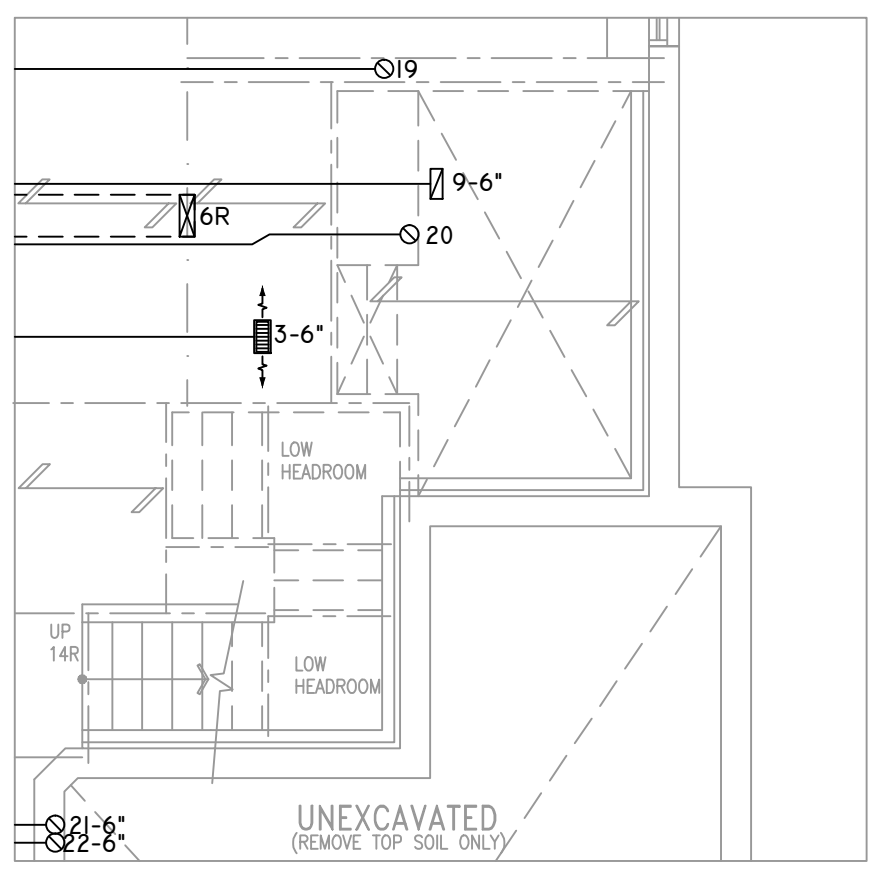
PARTIAL STD & OPT SECOND FLOOR PLAN
ELEVATION 'C' REAR UPGRADE



PARTIAL STD & OPT GROUND FLOOR PLAN
ELEVATION 'C' REAR UPGRADE



PARTIAL BASEMENT PLAN W/
SUNKEN LAUNDRY -1R



PARTIAL BASEMENT PLAN W/
SUNKEN LAUNDRY -2R TO -3R

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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

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FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	4
1ST FLOOR	10	1	2
BASEMENT	4	1	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04587		DRAWING NO. M7

DATE: APRIL 3, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-5 RIDEAU 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"