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 Alt. 2nd FLR WOB**	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-04610**
Heating and Cooling Load Calculations	**Main**		Builder	**Bayview Wellington**
Air System Design	**Alternate**	**x**	Project	**Green Valley East**
Residential mechanical ventilation Design Summary	**Area Sq ft:**	**3330**	Model	**Rideau 5** **S42-5 Alt. 2nd FLR WOB**
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-04610**

Building Location

Address (Model):	**S42-5 Alt. 2nd FLR WOB**	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: **6**
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

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 5 S42-5 Alt. 2nd FLR WOB

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-04610

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	21,418	btu/h
Level 2 Net Load	19,944	btu/h
Level 3 Net Load	19,499	btu/h
Level 4 Net Load	0	btu/h
Total Heat Loss	60,861	btu/h
Total Heat Gain	33,904	btu/h
Combo System HL + 10%	66,947	Btuh.
Building Volume Vb	39388	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	0.0193	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0346	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	29									
Room Use	BASE	BASE	BASE	BASE	BASE									
Btu/Outlet	4284	4284	4284	4284	4284									
Heating Airflow Rate CFM	82	82	82	82	82									
Cooling Airflow Rate CFM	31	31	31	31	31									
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	44	51	30	21	55									
Equivalent Length	120	160	120	70	140	70	70	70	70	70	70	70	70	70
Total Effective Length	164	211	150	91	195	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.08	0.06	0.09	0.14	0.07	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	6									
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	C	B	A	D	C									

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	2067	2067	1869	1869	3421	2759	1197	2069	1313	1313				
Heating Airflow Rate CFM	40	40	36	36	66	53	23	40	25	25				
Cooling Airflow Rate CFM	76	76	61	61	51	42	22	61	57	57				
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	51	54	63	52	41	33	22	11	5	42				
Equivalent Length	110	150	110	180	120	120	90	100	80	70	70	70	70	70
Total Effective Length	161	204	173	232	161	153	112	111	85	112	70	70	70	70
Adjusted Pressure	0.08	0.06	0.08	0.06	0.08	0.08	0.12	0.12	0.15	0.12	0.19	0.19	0.19	0.19
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	4x10	4x10	4x10	4x10
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	28
Room Use	MAST	MAST	ENS	WC	BED 2	BATH	BED 3	BED 3	BED 4	BED 4	ENS 2	BED 5	WIC	ENS 3
Btu/Outlet	1659	1659	1252	903	1325	1688	2158	2158	1920	1920	767	1485	497	108
Heating Airflow Rate CFM	32	32	24	17	26	33	42	42	37	37	15	29	10	2
Cooling Airflow Rate CFM	46	46	28	24	28	14	46	46	59	59	12	38	5	2
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	65	75	71	76	64	63	53	50	52	46	42	51	62	31
Equivalent Length	125	190	160	140	120	135	140	120	140	120	100	130	140	160
Total Effective Length	190	265	231	216	184	198	193	170	192	166	142	181	202	191
Adjusted Pressure	0.07	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.07	0.08	0.09	0.07	0.06	0.07
Duct Size Round	5	5	4	4	4	4	6	6	6	6	3	5	3	2
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	3x10
Trunk	C	B	B	B	A	A	D	D	E	E	D	A	C	A

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	206	420	150	150	96	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	356	0.05	11.0	14x8	10x10
X	246	0.06	9.5	10x8	
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	802	0.05	15.0	26x8	20x10
B	268	0.05	10.0	12x8	10x10
C	246	0.06	9.5	10x8	
D	370	0.07	10.5	12x8	10x10
E	150	0.07	7.5	8x8	
F					
G					
H					
I					
J					
K					

Site Copy

GTADESIGNS

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e-mail dave@gtadesigns.ca

Heatloss/Gain Calculations CSA-F280-12

2012 OBC

Builder: Bayview Wellington | Date: April 4, 2018

Project: Green Valley East | Model: Rideau 5 S42-5 Alt. 2nd FLR WOB

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-04610

Level 1

					BASE																														
Run ft. exposed wall A				127	A			A			A			A			A			A			A			A			A			A			A
Run ft. exposed wall B				48	B			B			B			B			B			B			B			B			B			B			B
Ceiling height				4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG		4.2	AG
Floor area				1194	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				533																															
Gross Exp Wall B				432																															
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																																
South	3.55	22.93	20.89	6	138	125																													
WOB Windows	3.55	22.93	27.35	86	1972	2352																													
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	503		262																													
Net exposed walls B	14.49	5.62	0.76	346	1944	263																													
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				7135																														
Total Conductive: Heat Loss					11684																														
Total Conductive: Heat Gain						3093																													
Air Leakage: Heat Loss/Gain		0.7998	0.0361		9345	112																													
Ventilation: Case 1		0.06	0.07																																
Ventilation: Case 2		14.07	11.88																																
Ventilation: Case 3	x	0.03	0.07		389	202																													
Heat Gain People			239																																
Appliances Loads	1 =.25 percent		5358																																
Duct and Pipe loss			10%																																
Level 1 HL Total	21,418	Total HL for per room			21418																														
Level 1 HG Total	4,429	Total HG per room	x 1.3			4429																													

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		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		0.4041	0.0361		1162	67		1051	45		962	15		776	30		336	16		582	22		738	40											
Ventilation: Case 1		0.03	0.07																																
Ventilation: Case 2		14.07	11.88																																
Ventilation: Case 3	x	0.03	0.07		96	122		87	82		79	27		64	55		28	30		48	41		61	72											
Heat Gain People			239																																
Appliances Loads	1 =.25 percent		5358	1.0		1340	1.0		1340	0.5		670							0.5		670	1.0		1340											
Duct and Pipe loss			10%																																
Level 2 HL Total	19,944	Total HL for per room			4134			3738			3421			2759			1197			2069			2626												
Level 2 HG Total	16,346	Total HG per room	x 1.3			4417			3534			1466			1205			647			1761			3318											

Total Heat Loss	60,861	btu/h
Total Heat Gain	33,904	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 5 S42-5 Alt. 2nd FLR WOB

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-04610

Level 3

				MAST		ENS		WC		BED 2		BATH		BED 3		BED 4		ENS 2		ENS 3		BED 5		WIC	
Run ft. exposed wall A				34	A	14	A	10	A	12	A	18	A	30	A	28	A	10	A		A	14	A	7	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				297	Area	107	Area	21	Area	204	Area	120	Area	243	Area	222	Area	50	Area	61	Area	239	Area	86	Area
Exposed Ceilings A				297	A	107	A	21	A	204	A	120	A	243	A	222	A	50	A	61	A	239	A	86	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		80				112		56	
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							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	72	344	47				96	459	62	56	268	36
Net exposed walls B	8.50	9.58	1.29																													
Exposed Ceilings A	59.22	1.37	0.64	297	408	191	107	147	69	21	29	13	204	280	131	120	165	77	243	334	156	222	305	142	50	69	32	61	84	39	239	329	153	86	118	55
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					2579			973			702			1030			1195			3056			2983			596			84			1154			386	
Total Conductive – Heat Gain						1430			568			492			357			264			1478			2171			246			39			550			91
Air Leakage – Heat Loss/Gain		0.2536	0.0361		654	52		247	21		178	18		261	13		303	10		775	53		757	78		151	9		21	1		293	20		98	3
Ventilation – Case 1		0.02	0.07																																	
Ventilation – Case 2		14.07	11.88																																	
Ventilation – Case 3	x	0.03	0.07		86	94		32	37		23	32		34	23		40	17		102	97		99	142		20	16		3	3		38	36		13	6
Heat Gain People			239	2		478				1					239				1		239	1		239							1		239			
Appliances Loads	1 =.25 percent		5358																																	
Duct and Pipe loss			10%													1	150	26	1	383	172															
Level 3 HL Total	19,499	Total HL for per room			3319			1252			903			1325			1688			4316			3839			767			108			1485			497	
Level 3 HG Total	13,129	Total HG per room	x 1.3			2669			814			705			822			413			2651			3419			352			56			1098			131

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	0.0361																						
Ventilation – Case 1		0.00	0.07																						
Ventilation – Case 2		14.07	11.88																						
Ventilation – Case 3	x	0.03	0.07																						
Heat Gain People			239																						
Appliances Loads	1 =.25 percent		5358																						
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	60,861	btu/h
Total Heat Gain	33,904	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-04610

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 Alt. 2nd FLR WOB

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	6	@	10.6	cfm	63.6	cfm
Other rooms	6	@	10.6	cfm	63.6	cfm
			Total		212	

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	212.0	
Less principal exhaust capacity	95.4	
REQUIRED supplemental vent. Capacity	116.6	cfm

Supplemental Fans 9.32.3.5.

Location	cfm	Model	Sones
Ens	50	XB50	0.3
Bath	50	XB50	0.3
Ens 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 4, 2018		

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

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Project # PJ-00204
Layout # JB-04610

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 Alt. 2nd FLR WOB**		

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 = 407.68 m² or 4388.3 ft²	W,S &G % = 13%	☐ Log/Post&Beam	☐ ICF Above Grade	☐ ICF Basement
		☐ Slab-on-ground	☑ Walkout Basement	
Area of W, S & G = 52.581 m² or 566.0 ft²	Utilize Window Averaging ☐ Yes ☑ No	☑ Air Conditioning	☐ Combo Unit	
		☐ 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-04610

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S42-5 Alt. 2nd FLR WOB

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.324	39388	81.4	18690

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.080	39388	11	626

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	18690	11684	0.7998
Level 2	0.3		13875	0.4041
Level 3	0.2		14737	0.2536
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	626	0.0361
BUILDING CONDUCTIVE HEAT GAIN	17331	

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	11684	0.06
Level 2	0.3		13875	0.03
Level 3	0.2		14737	0.02
Level 4	0		0	0.00

Case 1

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	1133	0.07
Building	17331	

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	0.03

Case 3

Ventilation Heat Gain (Forced Air Systems)

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	1133	0.07
1133	1		

Foundation Conductive Heatloss Level 1	2091	Watts	7135	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):	6.77
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: 47.7 Total Exhaust: 47.7

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

Heating Air Leakage Rate (ACH/H):	**0.324**
Cooling Air Leakage Rate (ACH/H):	**0.080**

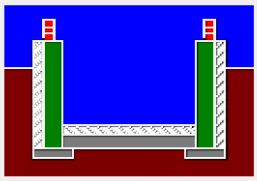
Site Copy

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):	18.10	 Insulation Configuration
Floor Width (m):	6.13	
Exposed Perimeter (m):	38.71	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.46	
Window Area (m^2):	0.84	
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):	**1865**

Site Copy

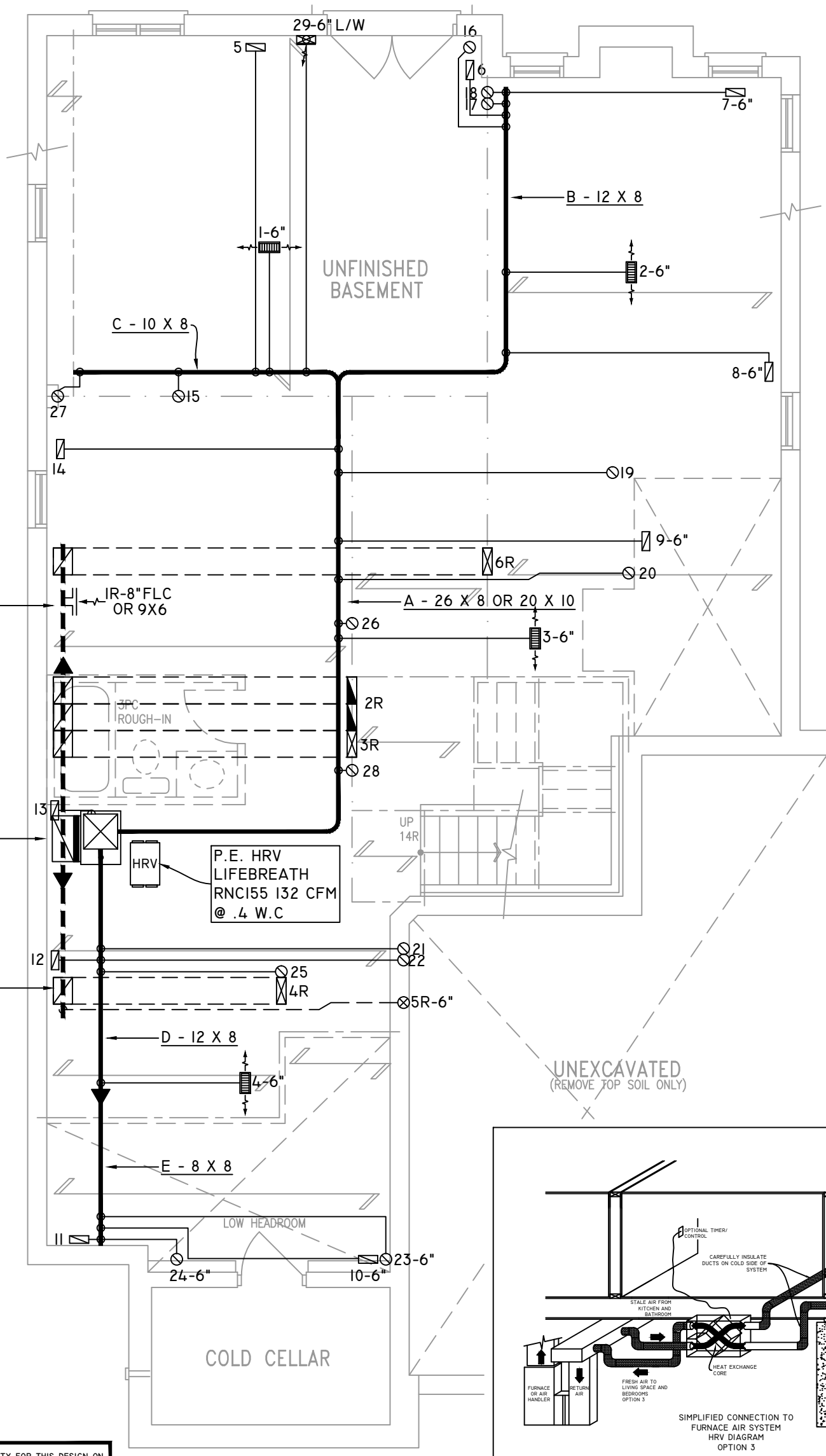
Residential Slab on Grade Thermal Load Calculator

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)	
Floor Dimensions		
Length (m):	10.53	Insulation Configuration
Width (m):	1.66	
Exposed Perimeter (m):	14.63	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	**226**	

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

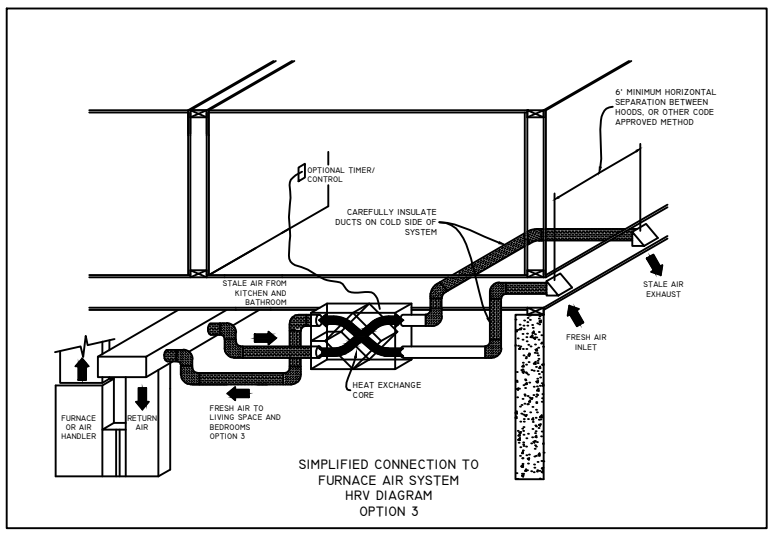


FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)

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' – W.O.B. CONDITION

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.

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

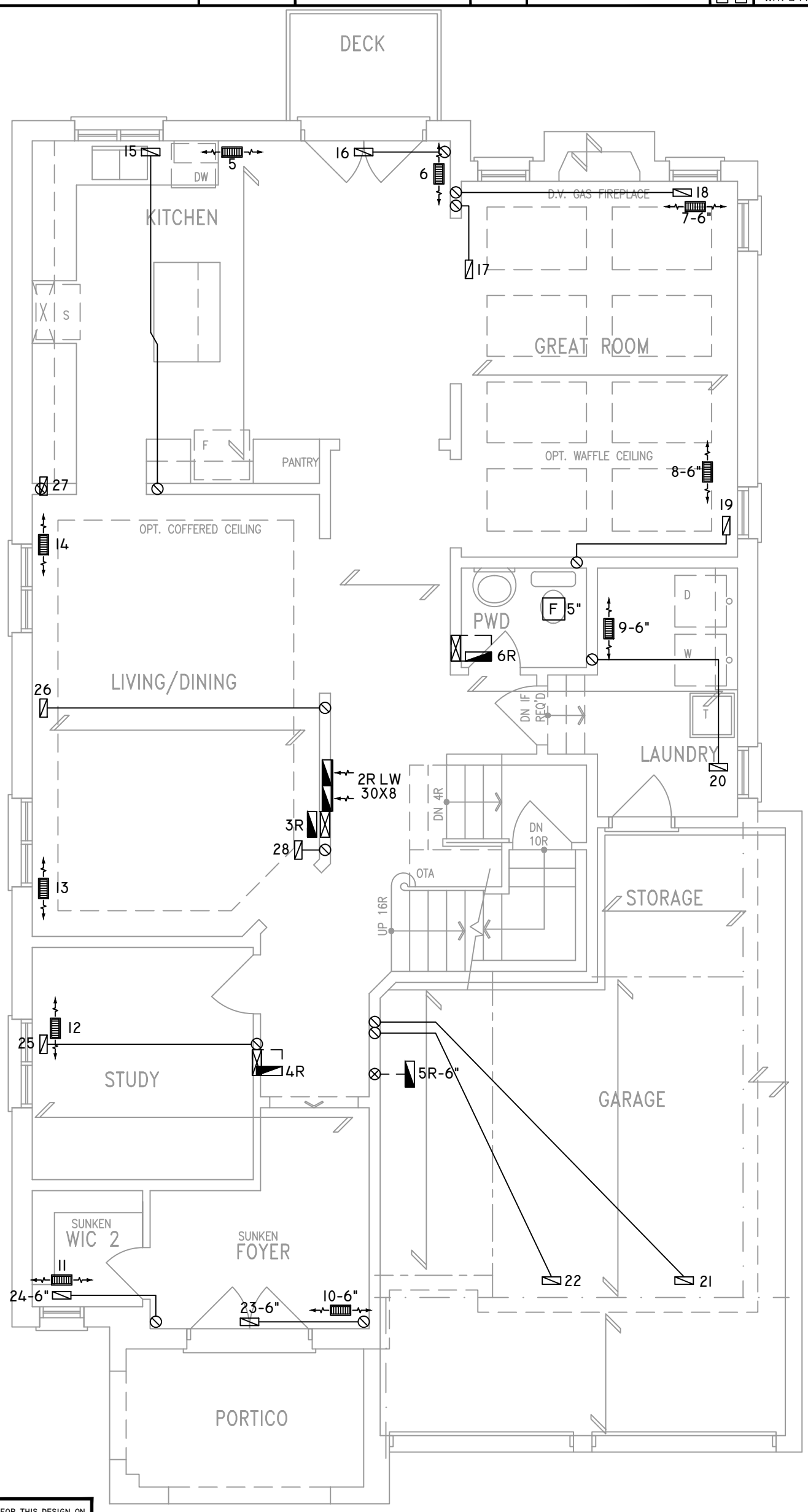
HEAT-LOSS	60,089 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	4	4
1ST FLOOR	10	1	2
BASEMENT	5	1	

FLOOR PLAN: BASEMENT		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04610		DRAWING NO. M1

DATE: MARCH 26, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-5 ALT. 2ND FLR WOB RIDEAU 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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



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' – W.O.B. CONDITION

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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.
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

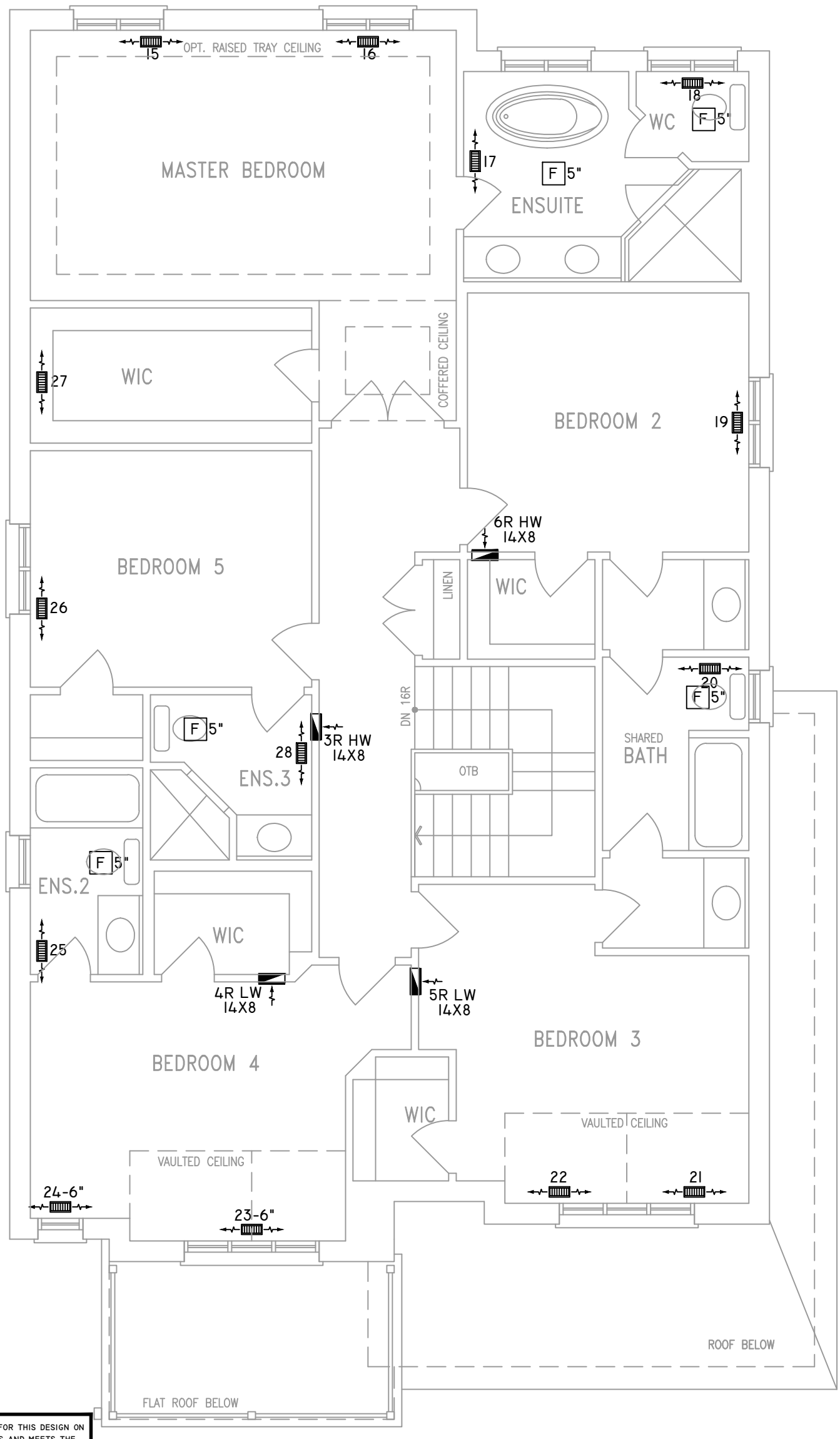
HEAT-LOSS	60,089 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	4	4
1ST FLOOR	10	1	2
BASEMENT	5	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04610		DRAWING NO. M2

DATE:	MARCH 26, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-5 ALT. 2ND FLR WOB 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

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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

OPT. SECOND FLOOR PLAN 'A'
5 BEDROOM W/ FOUR BATH

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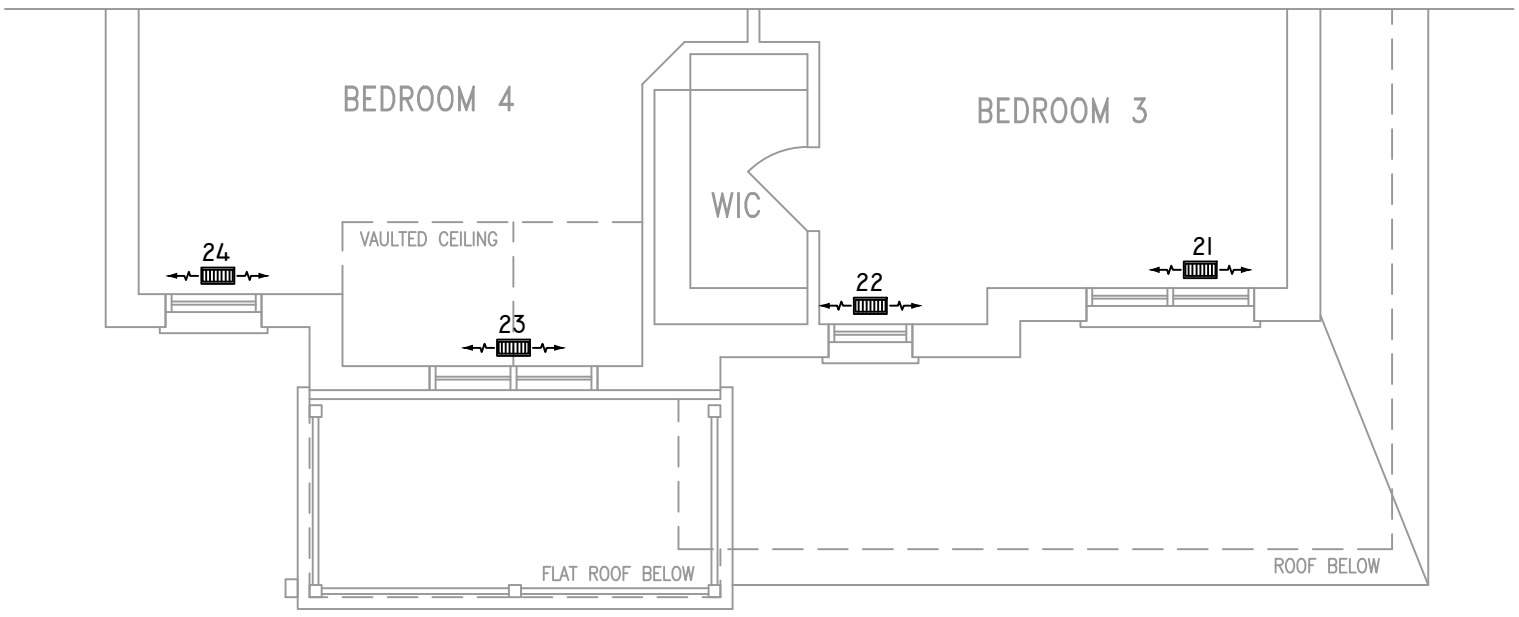
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	4	4
1ST FLOOR	10	1	2
BASEMENT	5	1	

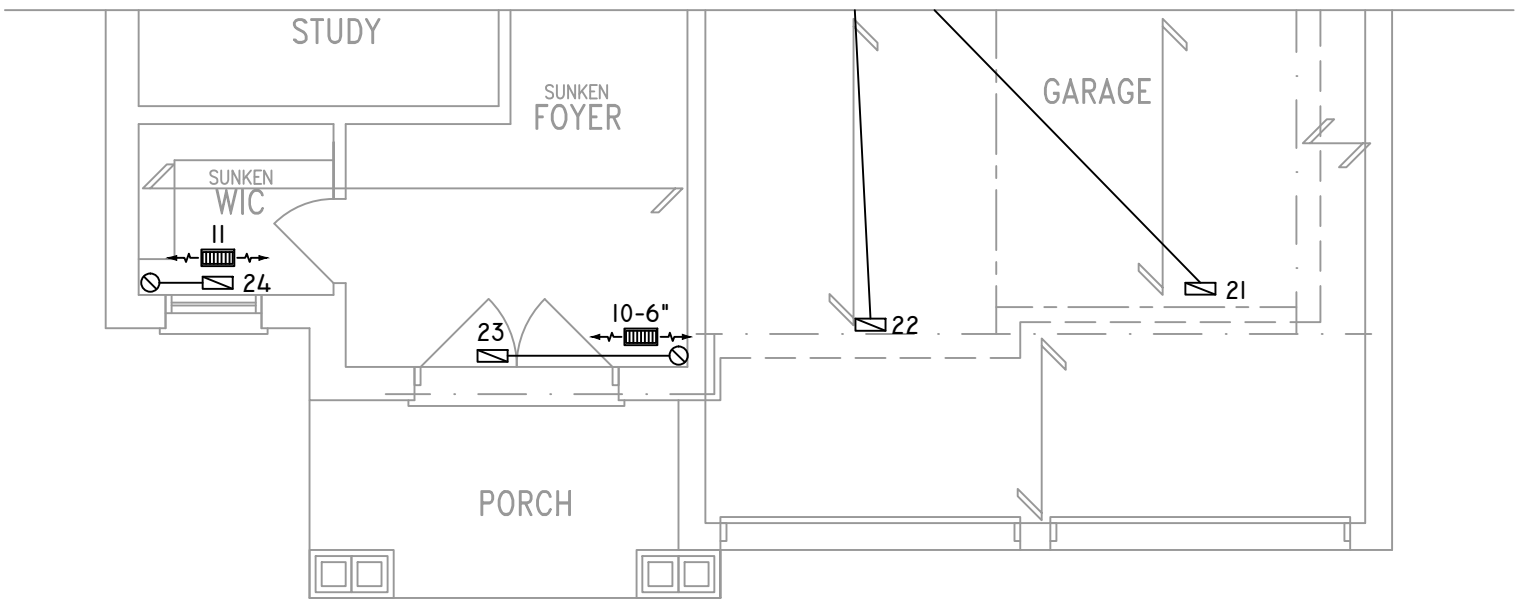
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04610		DRAWING NO. M3

DATE: MARCH 26, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-5 ALT. 2ND FLR WOB RIDEAU 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

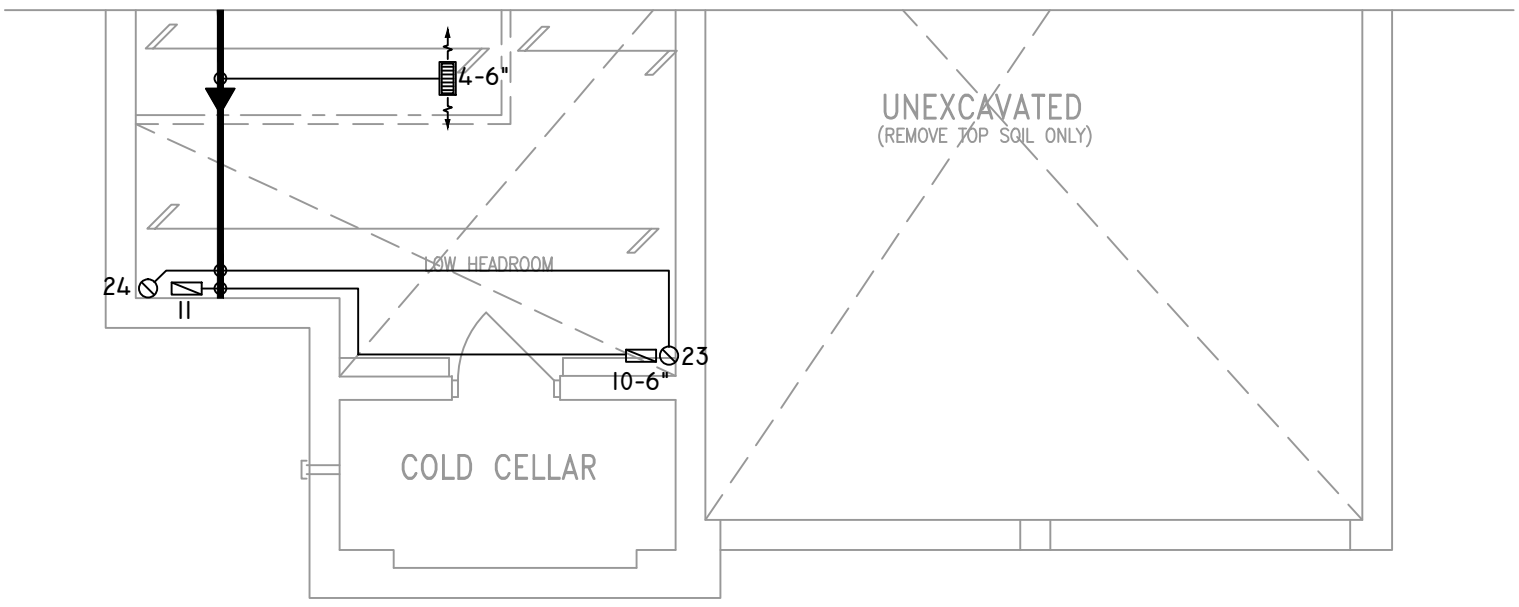
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN 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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PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
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EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

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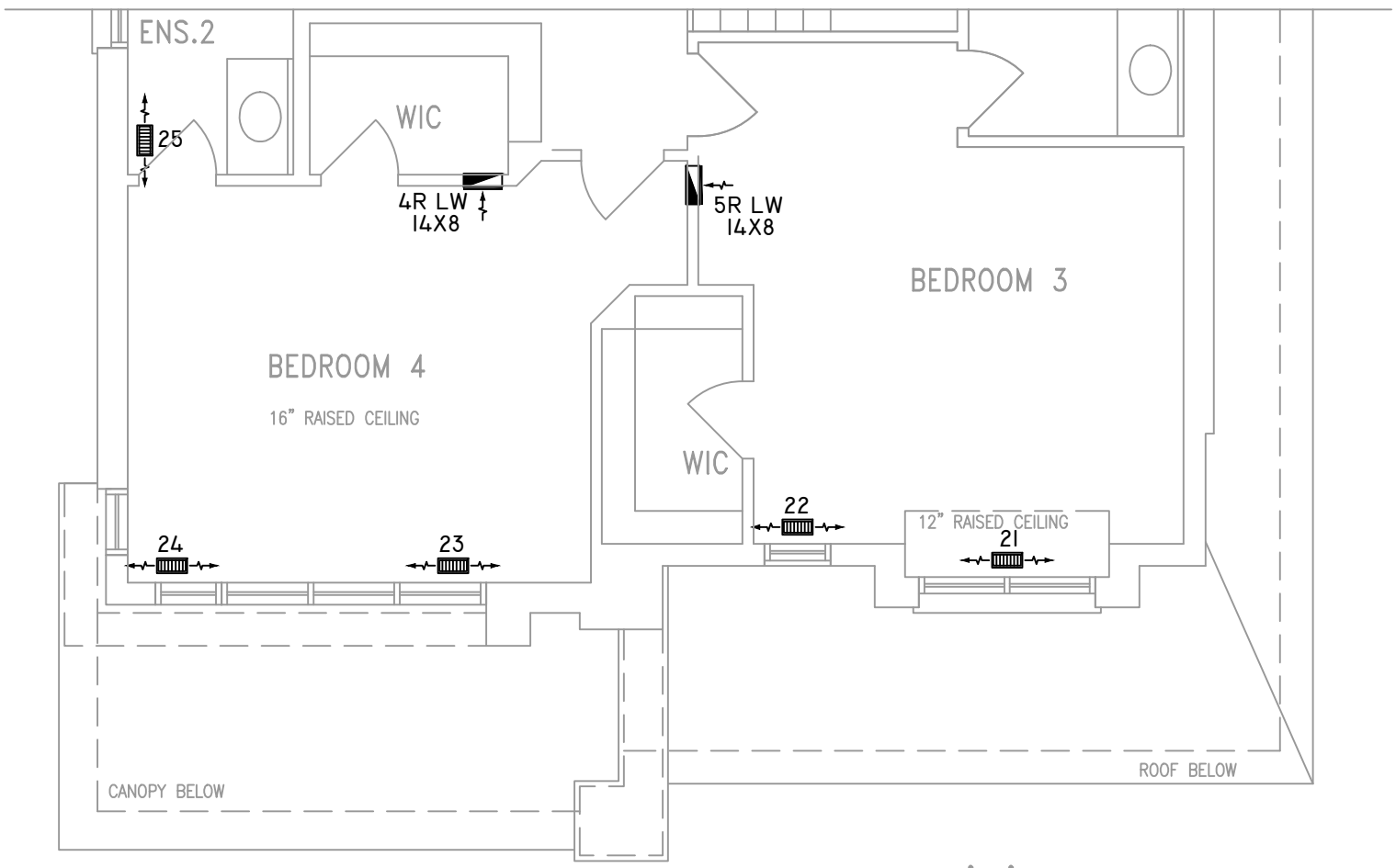
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	4	4
1ST FLOOR	10	1	2
BASEMENT	5	1	

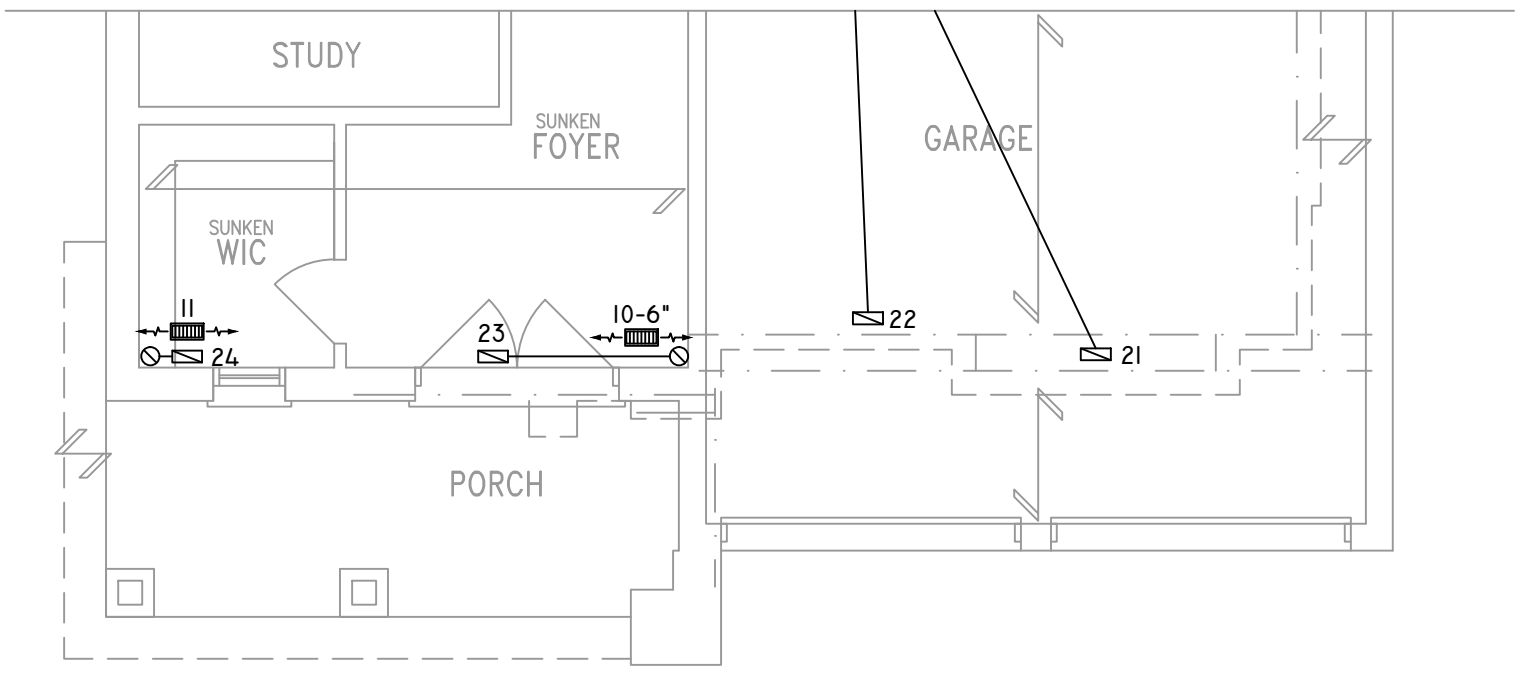
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04610		DRAWING NO. M4

DATE:	MARCH 26, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-5 ALT. 2ND FLR WOB RIDEAU 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

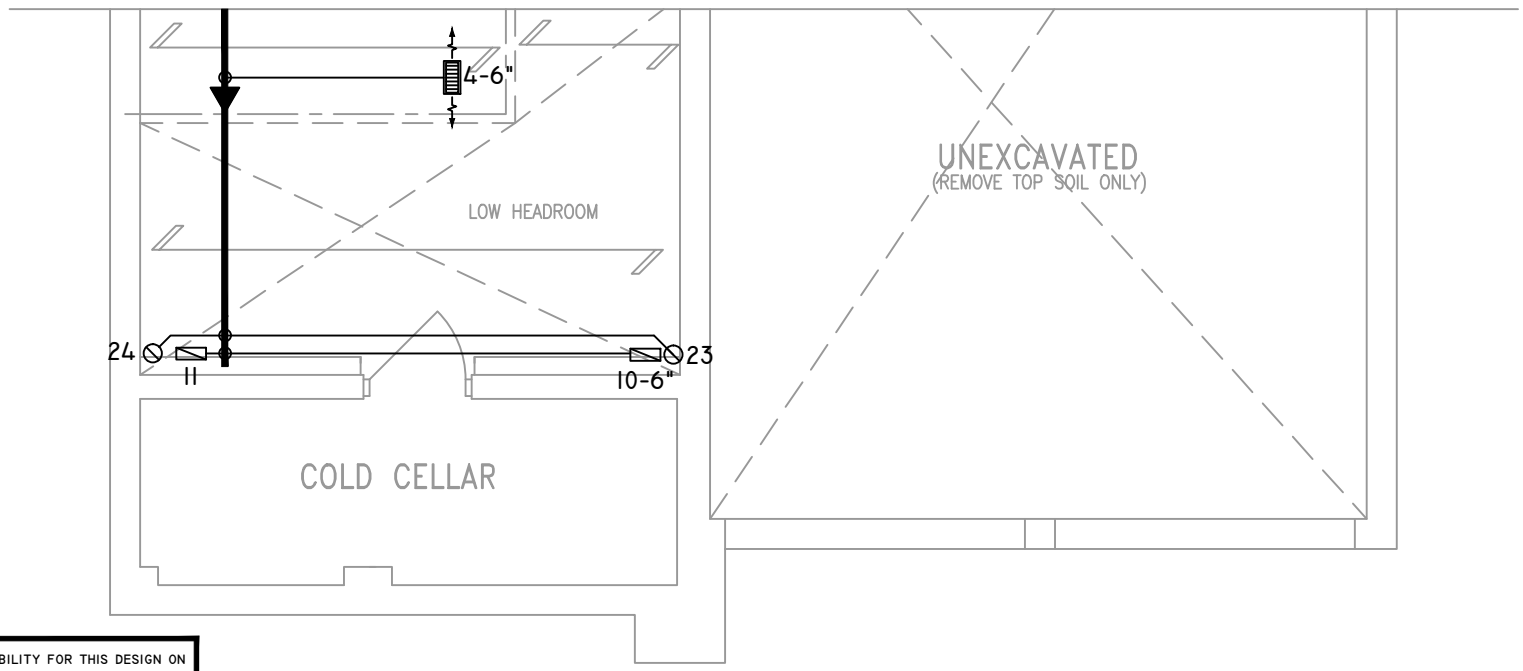
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PARTIAL OPT. SECOND FLOOR PLAN 'C'



PARTIAL GROUND FLOOR PLAN 'C'



PARTIAL BASEMENT PLAN 'C'

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
INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
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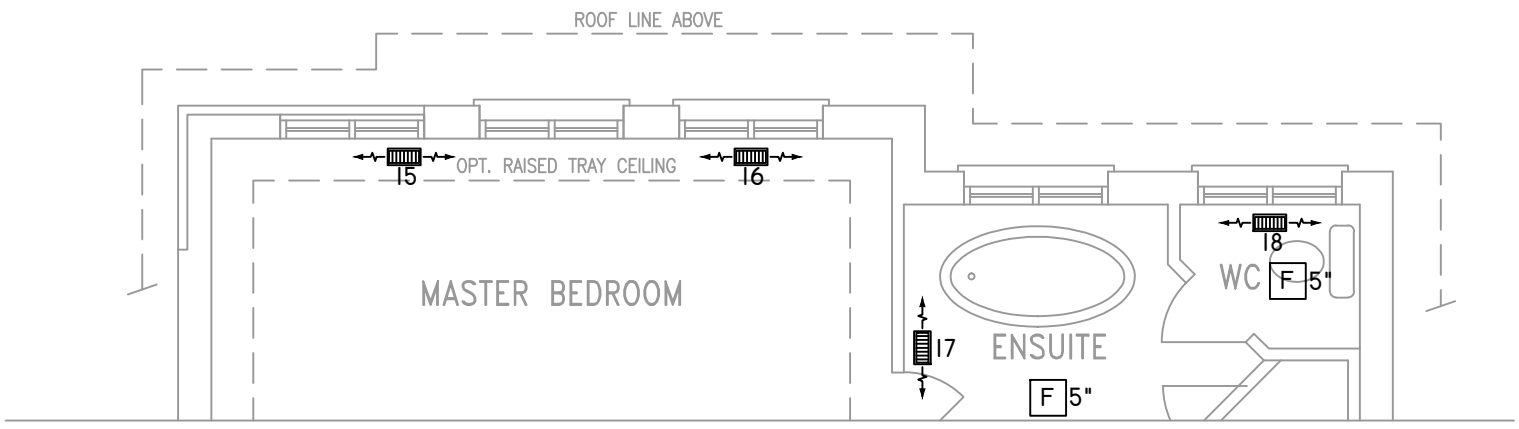
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	4	4
1ST FLOOR	10	1	2
BASEMENT	5	1	

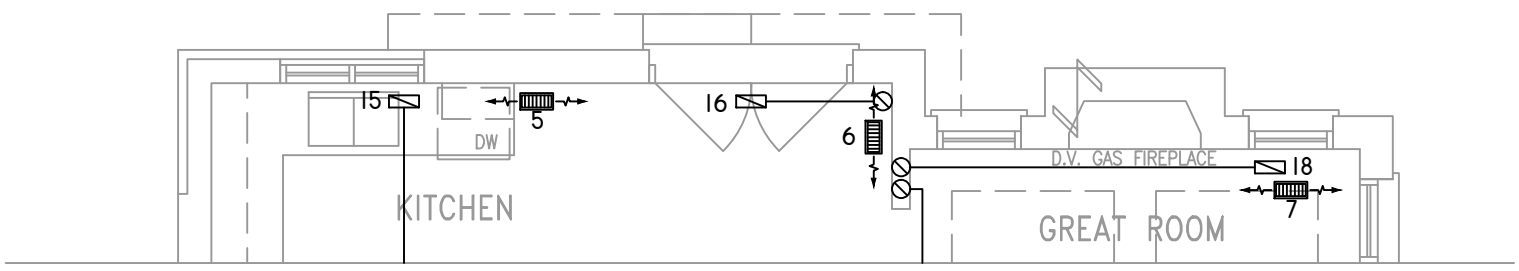
FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04610		DRAWING NO. M5

DATE:	MARCH 26, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-5 ALT. 2ND FLR WOB RIDEAU 5
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

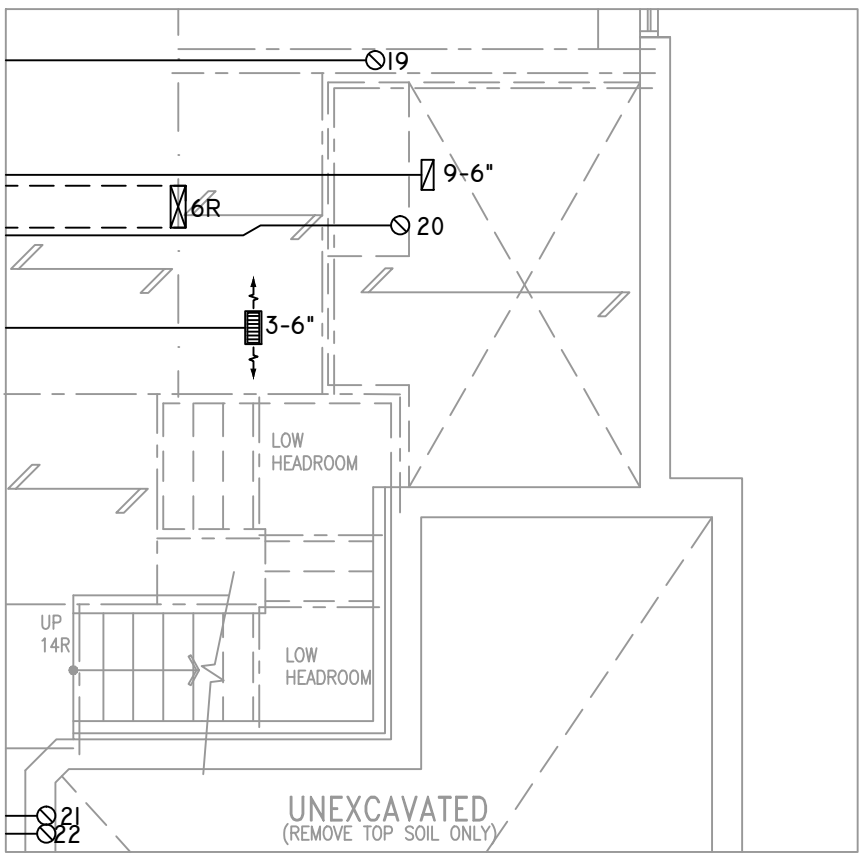
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



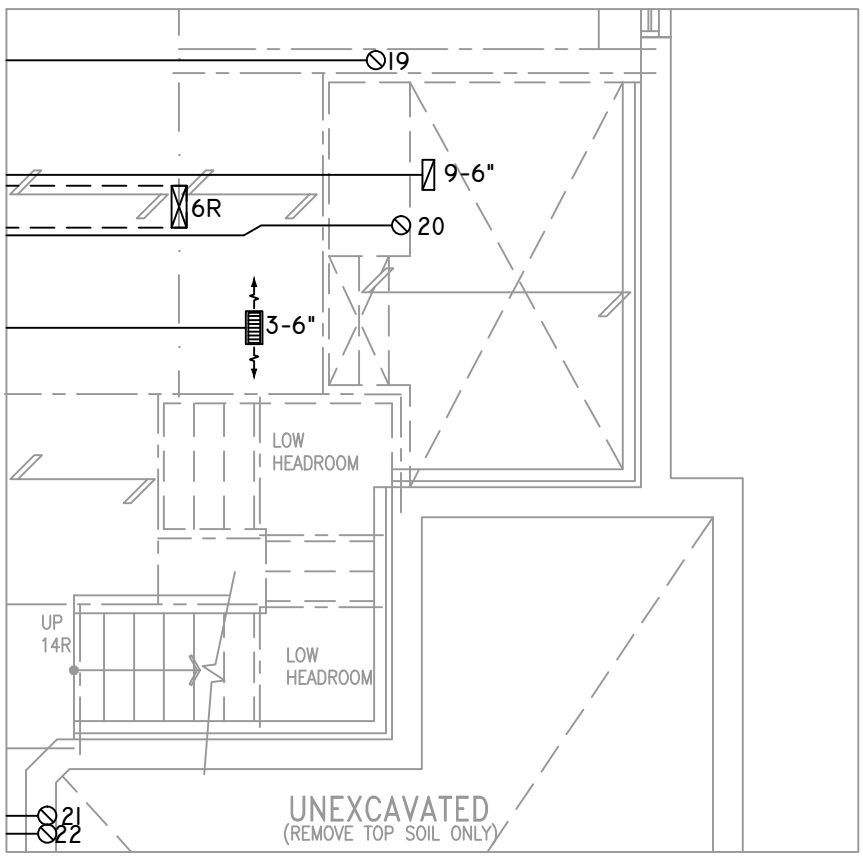
PARTIAL STD & OPT SECOND FLOOR PLAN
ELEVATION 'C' REAR UPGRADE



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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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
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FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	4	4
1ST FLOOR	10	1	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 3330
LAYOUT NO. JB-04610		DRAWING NO. M6

DATE: MARCH 26, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-5 ALT. 2ND FLR WOB RIDEAU 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"