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	**Sonoma 4** **SD25-4 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-00000**

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:**	**2168**	Model	**Sonoma 4** **SD25-4 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.

February 15, 2018

Date

Signature of Designer

NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d), of Division C, Article 3.2.5.1. of Division C and all other persons who are exempt from qualifications under Subsections 3.2.4 . and 3.2.5.of Division C.
2. Schedule 1 does not require to be completed a holder of a license, temporay license, or a certificate of authorization, issed by the Ontario Associstion of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited licence to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

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

Heat loss and gain calculation summary sheet

CSA-F280-M12
Standard Form No. 1

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

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

Layout No. **JB-00000**

Building Location

Address (Model):	**SD25-4 WOB**	Site:	**Green Valley East**
Model:	**Sonoma 4**	Lot:	
City and Province:	**Bradford**	Postal code:	

Calculations based on

Dimensional information based on: **VA3 Design Sept/2016**

Attachment:	**Semi**			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: **2168**
Sensible Eff. at -0C	**75%**				

Heating design conditions

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

Cooling design conditions

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

Above grade walls

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

Below grade walls

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

Floors on soil

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

Ceilings

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

Exposed floors

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

Doors

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

Windows

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

Skylights

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

Attached documents: **As per Shedule 1**

Heat Loss/Gain Caculations based on CSA-F280-12 Effective R-Values

Notes: **Residential New Construction - Forced Air**

Calculations performed by

Name:	**David DaCosta**	Postal code:	**L4T 0A4**
Company:	**gtaDesigns Inc.**	Telephone:	**(905) 671-9800**
Address:	**2985 Drew Road, Suite 202**	Fax:	**(416) 268-6820**
City:	**Mississauga**	E-mail	**dave@gtadesigns.ca**

Air System Design

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

SB-12 Package A1

Builder: Bayview Wellington | Date: February 15, 2018

Project: Green Valley East | Model: Sonoma 4 SD25-4 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-00000

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	14,687	btu/h
Level 2 Net Load	12,540	btu/h
Level 3 Net Load	11,551	btu/h
Level 4 Net Load	0	btu/h
Total Heat Loss	38,778	btu/h
Total Heat Gain	22,870	btu/h
Combo System HL + 10%	42,656	Btuh.
Building Volume Vb	25590	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	0.0302	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0421	cfm/btuh
R/A Temp	70	deg. F.
S/A Temp	116	deg. F.
Diffuser loss	0.01	"w.c.

FURNACE/AIR HANDLER DATA:

Make	Amana	
Model	AMEC96-0603BNA	
Input Btu/h	60000	
Output Btu/h	57600	
E.s.p.	0.50	" W.C.
Water Temp		deg. F.
AFUE	96%	
Aux. Heat		
SB-12 Package	Package A1	
Temp. Rise>>>	46	deg. F.

BOILER/WATER HEATER DATA:

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

Blower DATA:

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

A/C UNIT DATA:

Amana	2.0	Ton
Cond.----------	2.0	
Coil ----------	2.0	

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

Level 1

S/A Outlet No.	1	2	3	4	20
Room Use	BASE	BASE	BASE	BASE	BASE
Btu/Outlet	2937	2937	2937	2937	2937
Heating Airflow Rate CFM	89	89	89	89	89
Cooling Airflow Rate CFM	24	24	24	24	24
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	32	26	21	42	43
Equivalent Length	100	70	70	120	90
Total Effective Length	132	96	91	162	133
Adjusted Pressure	0.10	0.14	0.14	0.08	0.10
Duct Size Round	6	6	6	6	6
Outlet Size	4x10	4x10	4x10	4x10	4x10
Trunk	D	D	A	C	D

Level 2

S/A Outlet No.	5	6	7	8	9	10
Room Use	KIT	KIT	LIV	DIN	PWD	FOY
Btu/Outlet	2002	2002	1911	2802	675	3149
Heating Airflow Rate CFM	60	60	58	85	20	95
Cooling Airflow Rate CFM	99	99	97	65	14	64
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	35	42	21	39	40	50
Equivalent Length	90	100	80	180	140	110
Total Effective Length	125	142	101	219	180	160
Adjusted Pressure	0.10	0.09	0.13	0.06	0.07	0.08
Duct Size Round	6	6	6	6	4	6
Outlet Size	4x10	4x10	4x10	4x10	3x10	4x10
Trunk	D	E	B	C	C	C

Level 3

S/A Outlet No.	11	12	13	14	15	16	17	18	19
Room Use	MAST	MAST	ENS	BED 4	BATH	BED 3	BED 2	BED 2	LAUN
Btu/Outlet	1655	1655	975	1209	619	2334	1480	1480	144
Heating Airflow Rate CFM	50	50	29	36	19	70	45	45	4
Cooling Airflow Rate CFM	61	61	21	41	14	79	51	51	26
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	42	66	46	38	42	72	59	61	35
Equivalent Length	135	130	120	100	125	110	160	170	140
Total Effective Length	177	196	166	138	167	182	219	231	175
Adjusted Pressure	0.07	0.07	0.08	0.09	0.08	0.07	0.06	0.06	0.07
Duct Size Round	6	6	4	4	4	6	5	5	4
Outlet Size	4x10	4x10	3x10	3x10	3x10	4x10	3x10	3x10	3x10
Trunk	D	E	E	B	B	C	C	C	D

Level 4

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	0.13
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	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	70	70
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	0.19
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	4x10
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	0.13
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	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	70	70
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	0.19
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	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	222	498	155	100	100	95					
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	26	41	61	57	58					
Equivalent Length	190	165	165	240	230	205	50	50	50	50	50
Total Effective Length	203	191	206	301	287	263	50	50	50	50	50
Adjusted Pressure	0.06	0.06	0.06	0.04	0.04	0.04	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	12.0	8.0	6.0	6.0	6.0					
Inlet Size	FLC	8	8	8	8	8					
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14					
Trunk	Z	Z	Z	Y	Y	Y					

Return Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
Drop	1170	0.04	18.0	24x12	
Z	1170	0.04	18.0	30x10	24x12
Y	295	0.04	11.0	14x8	10x10
X					
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	650	0.06	13.5	20x8	16x10
B	113	0.08	6.5	8x8	8x7
C	448	0.06	11.5	14x8	12x10
D	521	0.07	12.0	16x8	12x10
E	140	0.07	7.5	8x8	
F					
G					
H					
I					
J					
K					

Heatloss/Gain Calculations CSA-F280-12

GTA DESIGNS
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: February 15, 2018	System 1	Weather Data: Bradford 44 -9.4 86 22 48.2	
	Project: Green Valley East	Model: Sonoma 4 SD25-4 WOB		Heat Loss ^T 81.4 deg. F / Ht gain ^T 11 deg. F / GTA: 2168	Project # PJ-00204 / Layout # JB-00000

Level 1

	BASE	2	3	4	5	6	7	8	9	10	11
Run ft. exposed wall A	78 A	A	A	A	A	A	A	A	A	A	A
Run ft. exposed wall B	28 B	B	B	B	B	B	B	B	B	B	B
Ceiling height	4.6 AG	4.6 AG	4.6 AG	4.6 AG	4.6 AG	4.6 AG	4.6 AG	4.6 AG	4.6 AG	4.6 AG	4.6 AG
Floor area	741 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	361										
Gross Exp Wall B	252										

Components	R-Values	Loss	Gain	BASE Qty	BASE Loss	BASE Gain
North Shaded	3.55	22.93	10.91			
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	54	1238	1477
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	334		174
Net exposed walls B	14.49	5.62	0.76	198	1112	150
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				5085	
Total Conductive Heat Loss					8000	
Total Conductive Heat Gain						1984
Air Leakage Heat Loss/Gain		0.7906	0.0367		6325	73
Ventilation Case 1		0.07	0.08			
Ventilation Case 2		14.07	11.88			
Ventilation Case 3	x	0.05	0.08		361	164
Heat Gain People			239			
Appliances Loads	1 =.25 percent		3420			
Duct and Pipe loss			10%			
Level 1 HL Total 14,687	Total HL for per room				14687	
Level 1 HG Total 2,887	Total HG per room x 1.3					2887

Level 2

	KIT	LIV	DIN	PWD	FOY	6	7	8	9	10	11
Run ft. exposed wall A	35 A	13 A	30 A	6 A	22 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	10.0	10.0	10.0	10.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0
Floor area	294 Area	245 Area	267 Area	33 Area	62 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	350	130	300	60	242						
Gross Exp Wall B											

Components	R-Values	Loss	Gain	KIT Qty	KIT Loss	KIT Gain	LIV Qty	LIV Loss	LIV Gain	DIN Qty	DIN Loss	DIN Gain	PWD Qty	PWD Loss	PWD Gain	FOY Qty	FOY Loss	FOY Gain
North Shaded	3.55	22.93	10.91															
East/West	3.55	22.93	27.35	55	1261	1504										24	550	656
South	3.55	22.93	20.89				36	825	752	24	550	501	9	206	188	10	229	209
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
Net exposed walls A	17.03	4.78	0.65	295	1410	191	94	449	61	276	1319	178	51	244	33	187	894	121
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	On Grade ( ) or Abo		x															
Total Conductive Heat Loss					2671			1275			1870			450			2101	
Total Conductive Heat Gain						1695			813			680			221			1044
Air Leakage Heat Loss/Gain		0.4536	0.0367		1212	62		578	30		848	25		204	8		953	38
Ventilation Case 1		0.04	0.08															
Ventilation Case 2		14.07	11.88															
Ventilation Case 3	x	0.05	0.08		121	140		58	67		84	56		20	18		95	86
Heat Gain People			239															
Appliances Loads	1 =.25 percent		3420	2.0		1710	1.0		855	0.5		428						
Duct and Pipe loss			10%															
Level 2 HL Total 12,540	Total HL for per room				4004			1911			2802			675			3149	
Level 2 HG Total 10,367	Total HG per room x 1.3					4689			2294			1544			321			1519

Total Heat Loss	38,778	btu/h
Total Heat Gain	22,870	btu/h

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

SB-12 Package
Package A1

GTADESIGNS

Heatloss/Gain Calculations CSA-F280-12

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

e-mail dave@gtadesigns.ca

Builder: Bayview Wellington | Date: February 15, 2018 | Weather Data: Bradford 44 -9.4 86 22 48.2

2012 OBC | Project: Green Valley East | Model: Sonoma 4 SD25-4 WOB | **System 1** | Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 2168 | Project # PJ-00204 | Layout # JB-00000

Level 3

	MAST	ENS	BED 4	BATH	BED 3	BED 2	LAUN					
Run ft. exposed wall A	31 A	10 A	12 A	6 A	24 A	12 A	A	A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	8.0	8.0	8.0	8.0	8.0	10.0	8.0	8.0	8.0	8.0	8.0	8.0
Floor area	331 Area	103 Area	108 Area	75 Area	136 Area	220 Area	78 Area	Area	Area	Area	Area	Area
Exposed Ceilings A	331 A	103 A	108 A	75 A	136 A	220 A	78 A	A	A	A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	4 Flr	147 Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	248	80	96	48	192	120						
Gross Exp Wall B												

Components		R-Values	Loss	Gain	MAST Loss	MAST Gain	ENS Loss	ENS Gain	BED 4 Loss	BED 4 Gain	BATH Loss	BATH Gain	BED 3 Loss	BED 3 Gain	BED 2 Loss	BED 2 Gain	LAUN Loss	LAUN 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	45 1032	1231							26 596	711	40 917	1094										
South		3.55	22.93	20.89			11 252	230	16 367	334	7 161	146	8 183	167												
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	203 970	131	69 330	45	80 382	52	41 196	26	158 755	102	80 382	52										
Net exposed walls B		8.50	9.58	1.29																						
Exposed Ceilings A		59.22	1.37	0.64	331 455	212	103 142	66	108 148	69	75 103	48	136 187	87	220 302	141	78 107	50								
Exposed Ceilings B		22.86	3.56	1.66																						
Exposed Floors		29.80	2.73	0.17									4 11	1	147 402	25										
Foundation Conductive Heatloss																										
Total Conductive	Heat Loss				2457		724		898		460		1733		2004		107									
	Heat Gain					1574		340		455		221		1068		1312		50								
Air Leakage	Heat Loss/Gain		0.3019	0.0367	742	58	218	12	271	17	139	8	523	39	605	48	32	2								
Ventilation	Case 1		0.03	0.08																						
	Case 2		14.07	11.88																						
	Case 3	x	0.05	0.08	111	130	33	28	41	38	21	18	78	88	91	108	5	4								
Heat Gain People				239	2	478			1	239			1	239	1	239										
Appliances Loads		1 =.25 percent		3420													0.5	428								
Duct and Pipe loss				10%											1 261	155										
Level 3 HL Total	11,551	Total HL for per room			3310		975		1209		619		2334		2960		144									
Level 3 HG Total	9,616	Total HG per room x 1.3				2912		495		973		321		1865		2421		629								

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																									
	Heat Gain																									
Air Leakage	Heat Loss/Gain		0.0000	0.0367																						
Ventilation	Case 1		0.00	0.08																						
	Case 2		14.07	11.88																						
	Case 3	x	0.05	0.08																						
Heat Gain People				239																						
Appliances Loads		1 =.25 percent		3420																						
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	38,778	btu/h
Total Heat Gain	22,870	btu/h

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

David DaCosta

SB-12 Package

Package A1

GTADESIGNS

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

Project # PJ-00204
Layout # JB-00000

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:** SD25-4 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	3	@	10.6	cfm	31.8	cfm
Bathrooms & Kitchen	4	@	10.6	cfm	42.4	cfm
Other rooms	4	@	10.6	cfm	42.4	cfm
				Total	159	

Principal Ventilation Capacity 9.32.3.4(1)

Master bedroom	1	@	31.8	cfm	31.8	cfm
Other bedrooms	3	@	15.9	cfm	47.7	cfm
				Total	79.5	

Principal Exhaust Fan Capacity

Make	Model	Location	
LifeBreath	RNC155	Base	
132 cfm		Sones	or Equiv.

Heat Recovery Ventilator

Make	LifeBreath		
Model	RNC155		
132 cfm high		80	cfm low
Sensible efficiency @ -25 deg C		71%	
Sensible efficiency @ 0 deg C		75%	

Note: Installer to balance HRV/ERV to within 10 percent of PVC

Supplemental Ventilation Capacity

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

Supplemental Fans 9.32.3.5.

Location	cfm	Model	Sones
Ens	50	XB50	0.3
Bath	50	XB50	0.3

all fans HVI listed Make Broan or Equiv.

Designer Certification

I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.

Name	David DaCosta		
Signature			
HRAI #	5190	BCIN #	32964
Date	February 15, 2018		

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

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Project # PJ-00204
Layout # JB-00000

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
	Sonoma 4 **SD25-4 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 = 328.42 m² or 3535.1 ft²	W,S &G % = 10%	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☑ Walkout Basement ☑ Air Conditioning ☐ Combo Unit
Area of W, S & G = 34.466 m² or 371.0 ft²	Utilize Window Averaging ☐ Yes ☑ No	☐ Air Sourced Heat Pump (ASHP) ☐ Ground Source Heat Pump (GSHP)

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

Energy Efficiency Substitutions

☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))

☐ Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))

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

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

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

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

Name	BCIN	Signature
David DaCosta	32964	

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

Project # PJ-00204
Layout # JB-00000

Package: Package A1 **System:** System 1
Project: Bradford **Model:** SD25-4 WOB

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.337	25590	81.4	12651

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.083	25590	11	421

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	12651	8000	0.7906
Level 2	0.3		8366	0.4536
Level 3	0.2		8381	0.3019
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	421	0.0367
BUILDING CONDUCTIVE HEAT GAIN	11457	

Levels this Dwelling
3

Ventilation Calculations

Vent

Ventilation Heat Loss

Ventilation Heat Loss				
C	PVC	HL^T	(1-E) HRV	HLbvent
1.08	79.5	81.4	0.16	1118

Ventilation Heat Gain

Ventilation Heat Gain			
C	PVC	HG^T	HGbvent
1.1	79.5	11	944

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1118	8000	0.07
Level 2	0.3		8366	0.04
Level 3	0.2		8381	0.03
Level 4	0		0	0.00

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	944	0.08
Building	11457	

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Ventilation Heat Gain (Direct Ducted Systems)

		Multiplier
C	HG^T	11.88
1.08	11	

Case 3

Ventilation Heat Loss (Forced Air Systems)

	HLbvent	Multiplier
Total Ventilation Load	1118	0.05

Ventilation Heat Gain (Forced Air Systems)

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	944	0.08
944	1		

Foundation Conductive Heatloss Level 1	1490	Watts	5085	Btu/h

Foundation Conductive Heatloss Level 2		Watts		Btu/h

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

Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description	
Province:	Ontario
Region:	Bradford
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10

Local Shielding	
Building Site:	Suburban, forest
Walls:	Heavy
Flue:	Heavy
Highest Ceiling Height (m):	6.90

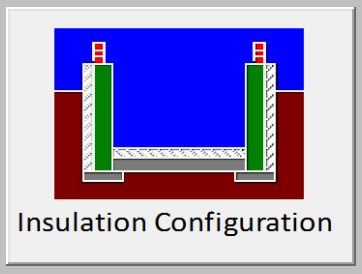
Building Configuration	
Type:	Semi-Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m^3):	724.71

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

Heating Air Leakage Rate (ACH/H):	**0.337**
Cooling Air Leakage Rate (ACH/H):	**0.083**

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

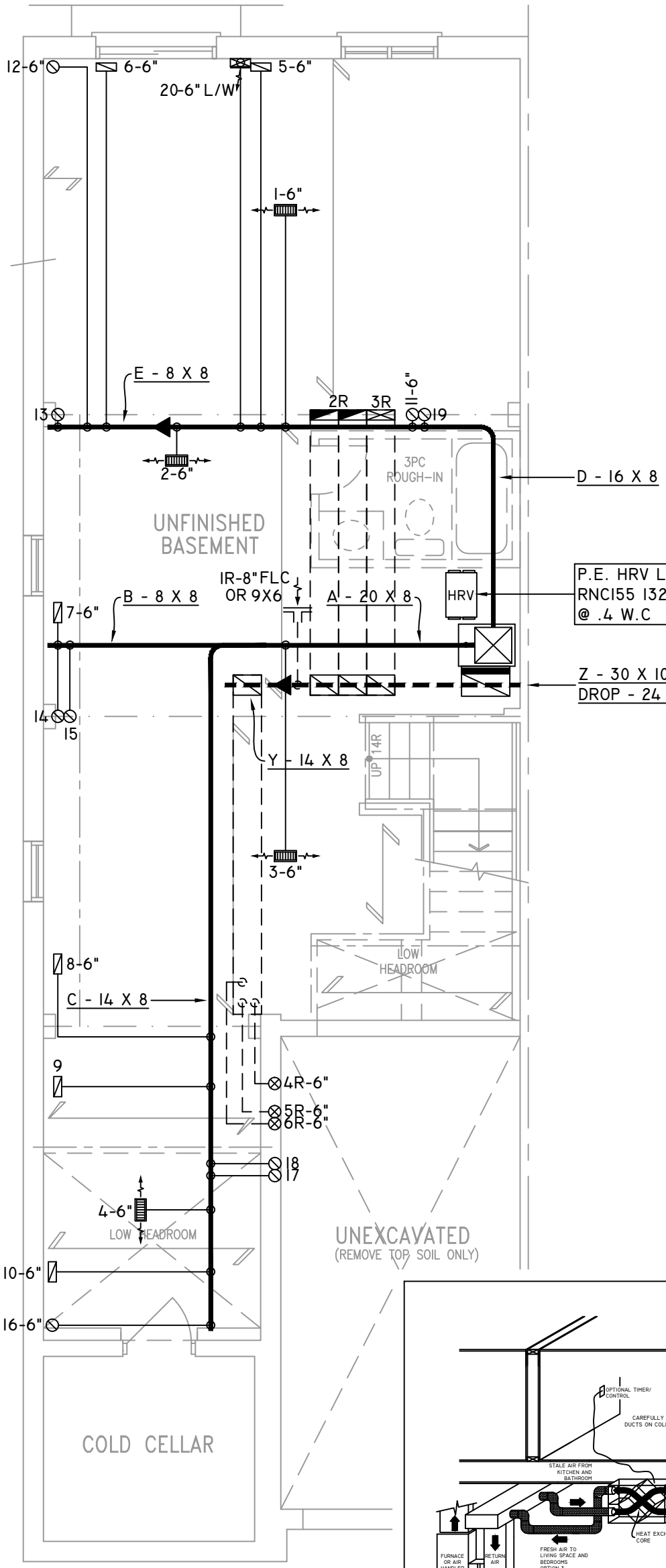
Weather Station Description		
Province:	Ontario	
Region:	Bradford	
Site Description		
Soil Conductivity:	High conductivity: moist soil	
Water Table:	Normal (7-10 m, 23-33 Ft)	
Foundation Dimensions		
Floor Length (m):	**15.10**	 Insulation Configuration
Floor Width (m):	**4.56**	
Exposed Perimeter (m):	**23.77**	
Wall Height (m):	**2.74**	
Depth Below Grade (m):	**1.33**	
Window Area (m^2):	**0.56**	
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):	**1364**	

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):	**6.17**	 Insulation Configuration
Width (m):	**2.51**	
Exposed Perimeter (m):	**8.53**	
Radiant Slab		
Heated Fraction of the Slab:	**0**	
Fluid Temperature (°C):	**33**	
Design Months		
Heating Month	**1**	
Foundation Loads		
Heating Load (Watts):	**126**	

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



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

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

BASEMENT PLAN 'A'

OBC 2012

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

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

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

HEAT-LOSS	38,778 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC96-0603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.0 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
IST FLOOR	6	1	2
BASEMENT	5	1	

FLOOR PLAN: BASEMENT		
DRAWN BY: AM	CHECKED: DD	SQFT 2168
LAYOUT NO. JB-00000	DRAWING NO. M1	

DATE: FEBRUARY 15, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: SD25-4 WOB SONOMA 4
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. SUPPLY AIR R.A. RETURN AIR T THERMOSTAT $ PRINCIPAL EXHAUST FAN SWITCH F PE W/R & PRINCIPAL EXHAUST FAN
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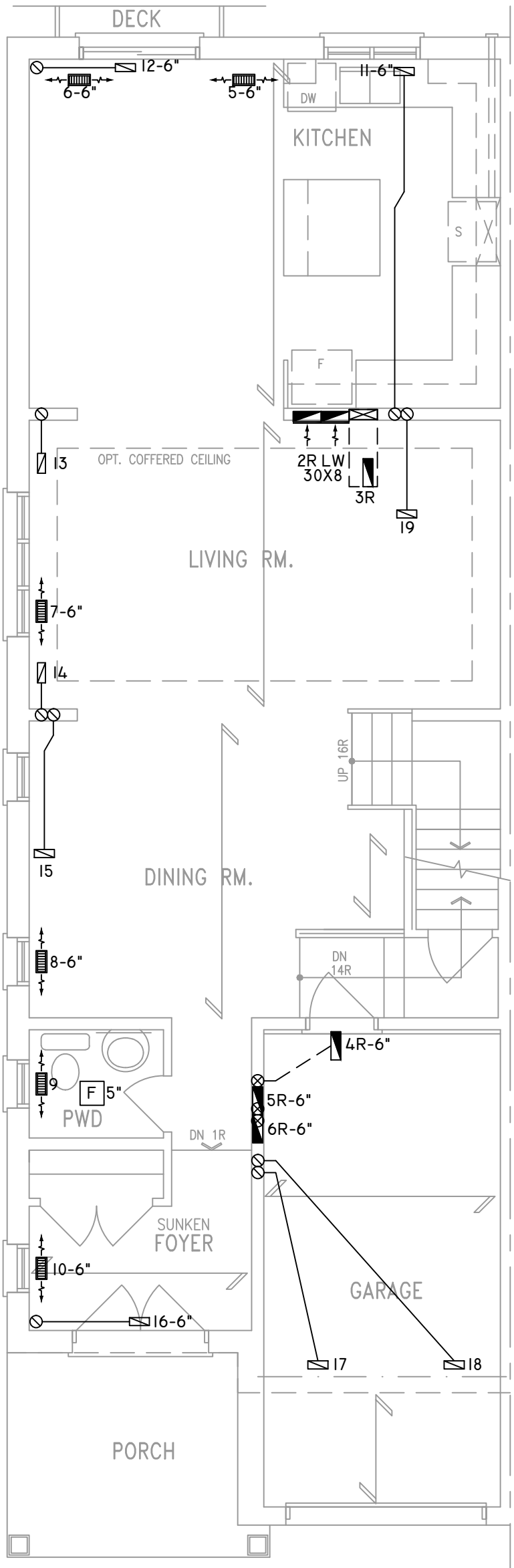

KITCHEN EXHAUST
100 CFM MIN. 6"

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

GROUND FLOOR PLAN 'A'

OBC 2012

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

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

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

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

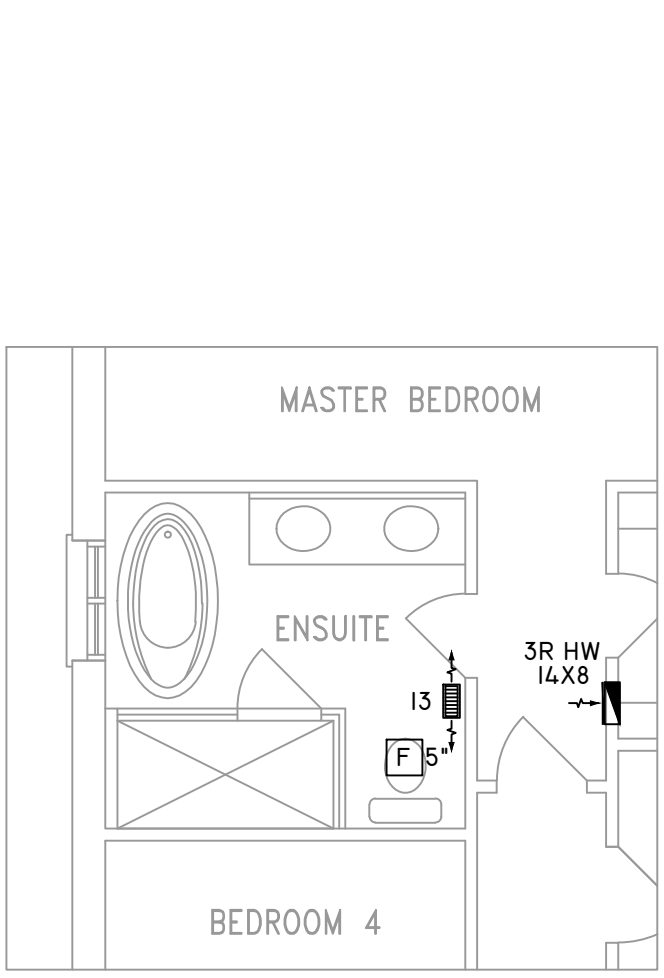
HEAT-LOSS	38,778 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC96-0603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.0 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
IST FLOOR	6	1	2
BASEMENT	5	1	

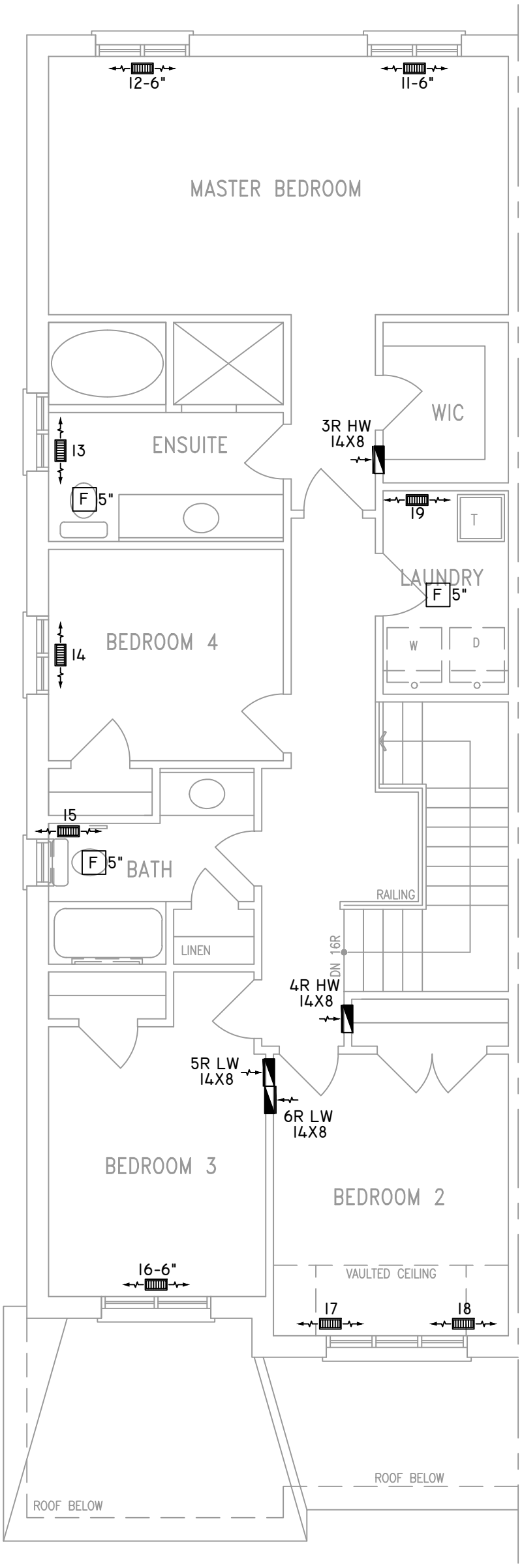
FLOOR PLAN: GROUND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 2168
LAYOUT NO. JB-00000	DRAWING NO. M2	

DATE: FEBRUARY 15, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: SD25-4 WOB SONOMA 4
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		



OPT. SECOND FLOOR W/
ALT. ENSUITE LAYOUT



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

SECOND FLOOR PLAN 'A'

OBC 2012

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

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

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

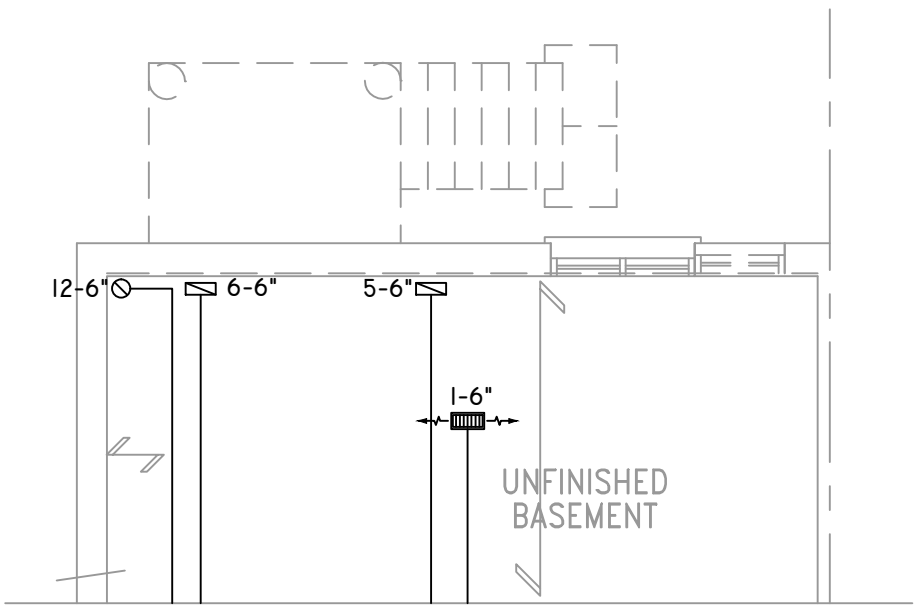
HEAT-LOSS	38,778 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC96-0603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.0 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
IST FLOOR	6	1	2
BASEMENT	5	1	

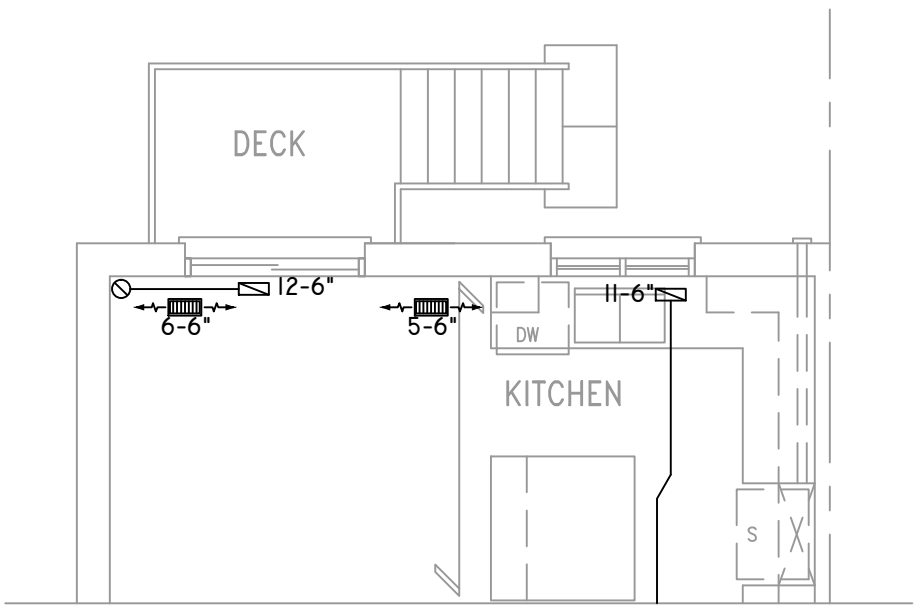
FLOOR PLAN: SECOND FLOOR		
DRAWN BY: AM	CHECKED: DD	SQFT 2168
LAYOUT NO. JB-00000		DRAWING NO. M3

DATE: FEBRUARY 15, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: SD25-4 WOB SONOMA 4
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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



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



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

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

OBC 2012

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

NOTES

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

HEAT-LOSS	38,778 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC96-0603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.0 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
1ST FLOOR	6	1	2
BASEMENT	5	1	

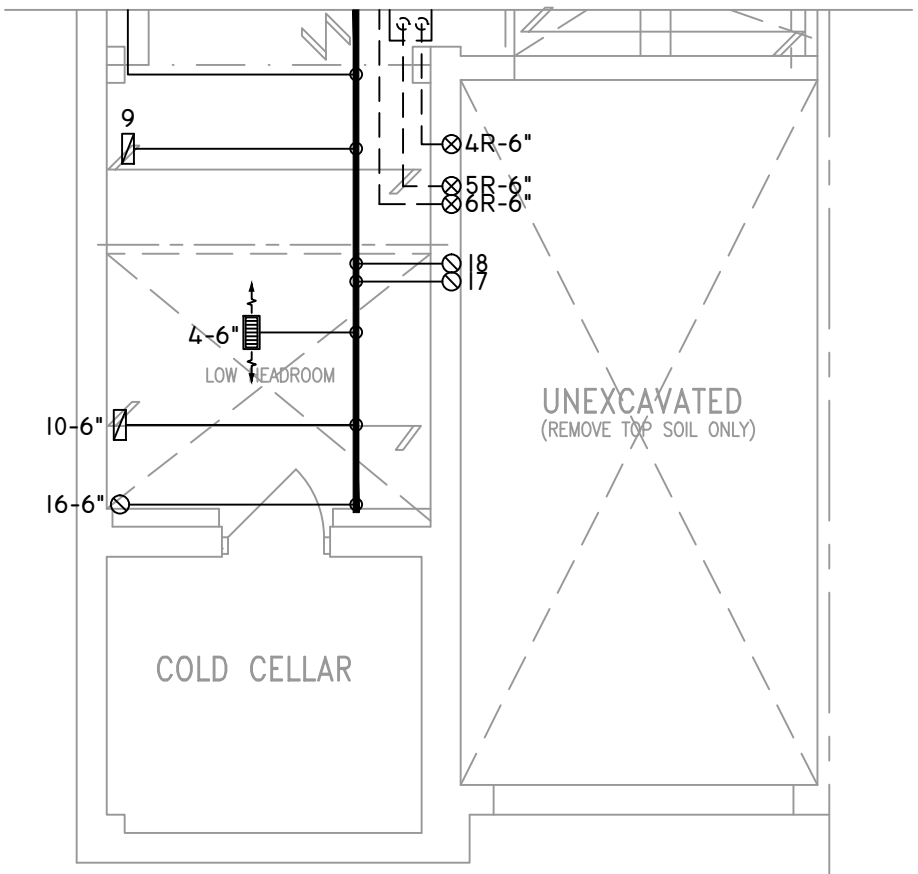
FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
AM	DD	2168

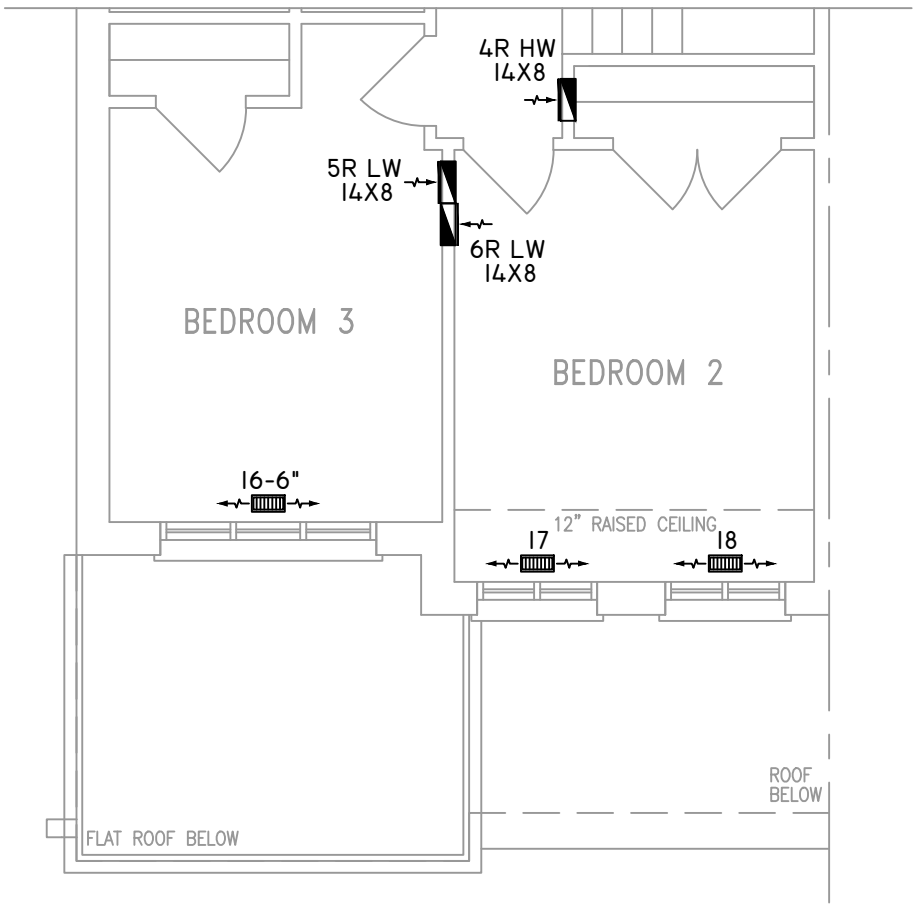
LAYOUT NO.: JB-00000
DRAWING NO.: M4

DATE: FEBRUARY 15, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: SD25-4 WOB SONOMA 4
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

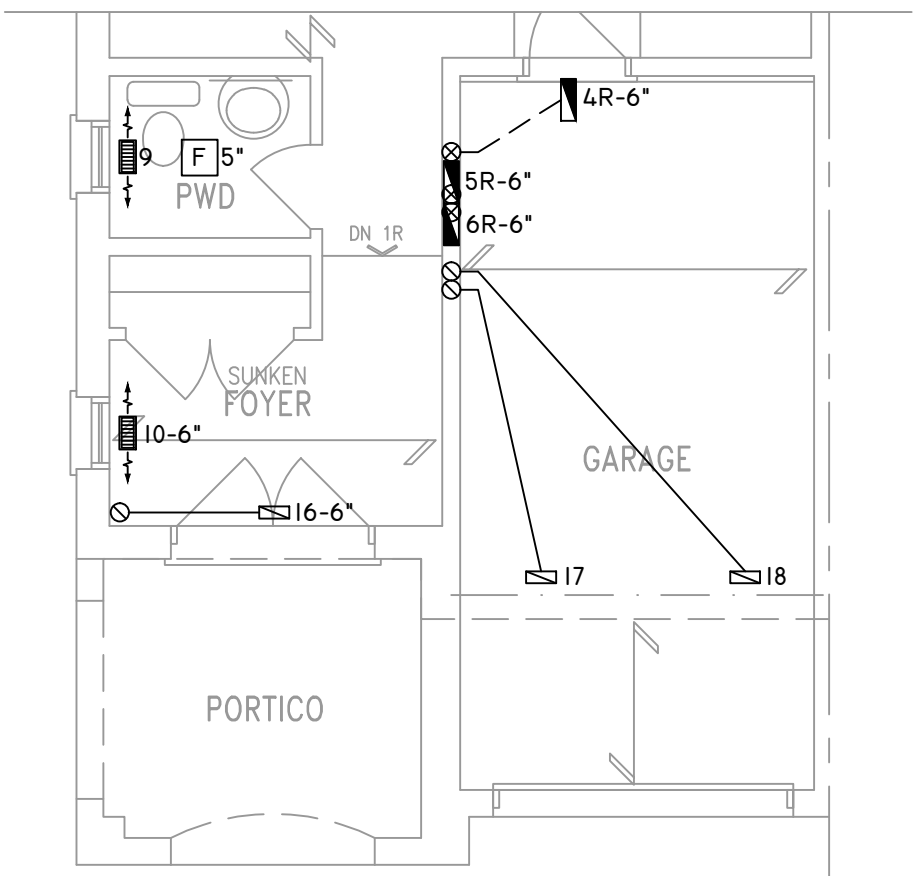
~~	FLEX DUCT	⊢	LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
———	RIGID ROUND DUCT	⊘	HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
⊢	SUPPLY DIFFUSER	⊗	SUPPLY AIR PIPE RISER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



PART. BASEMENT PLAN 'B'&'C'



PART. SECOND FLOOR PLAN 'B'



PART. GROUND FLOOR PLAN 'B'

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QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

OBC 2012

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

NOTES

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UNIT MODEL	AMEC96-0603BNA OR EQUAL.
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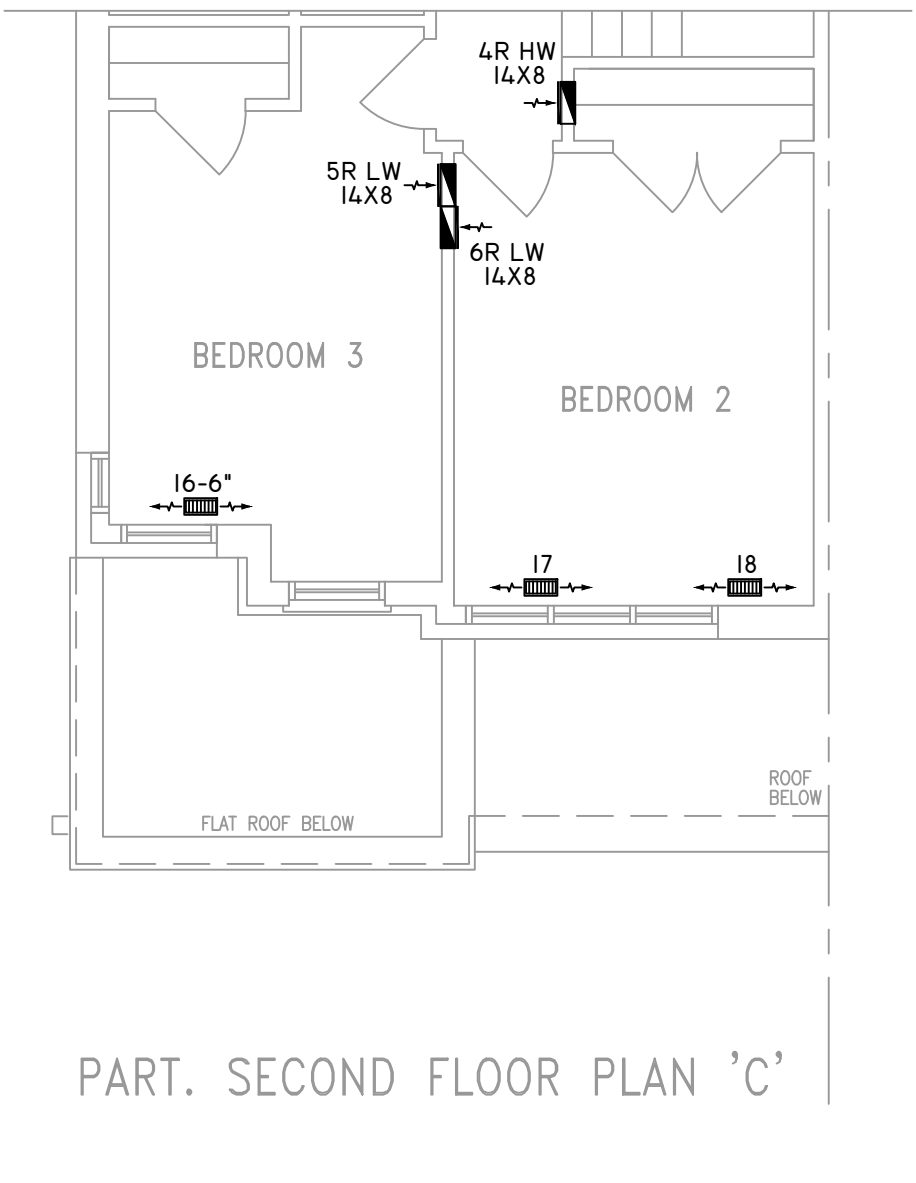
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.0 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
IST FLOOR	6	1	2
BASEMENT	5	1	

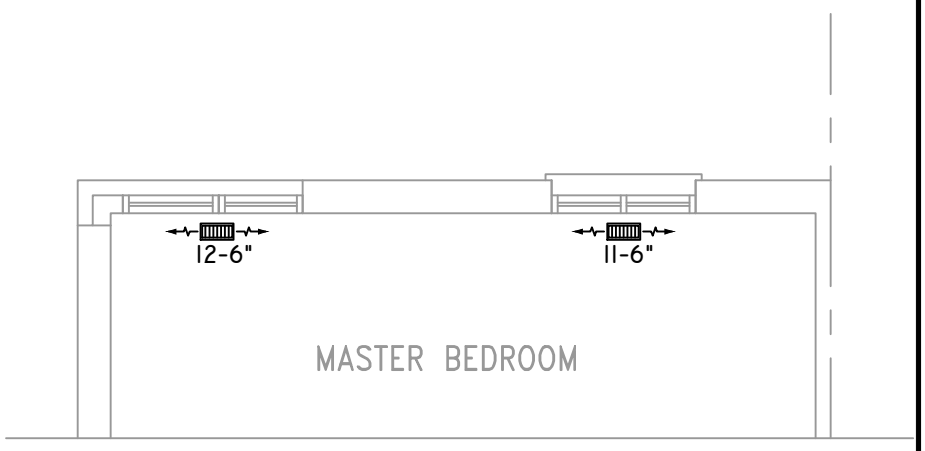
FLOOR PLAN:	PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD	SQFT 2168
LAYOUT NO. JB-00000		DRAWING NO. M5

DATE:	FEBRUARY 15, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	SD25-4 WOB SONOMA 4
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

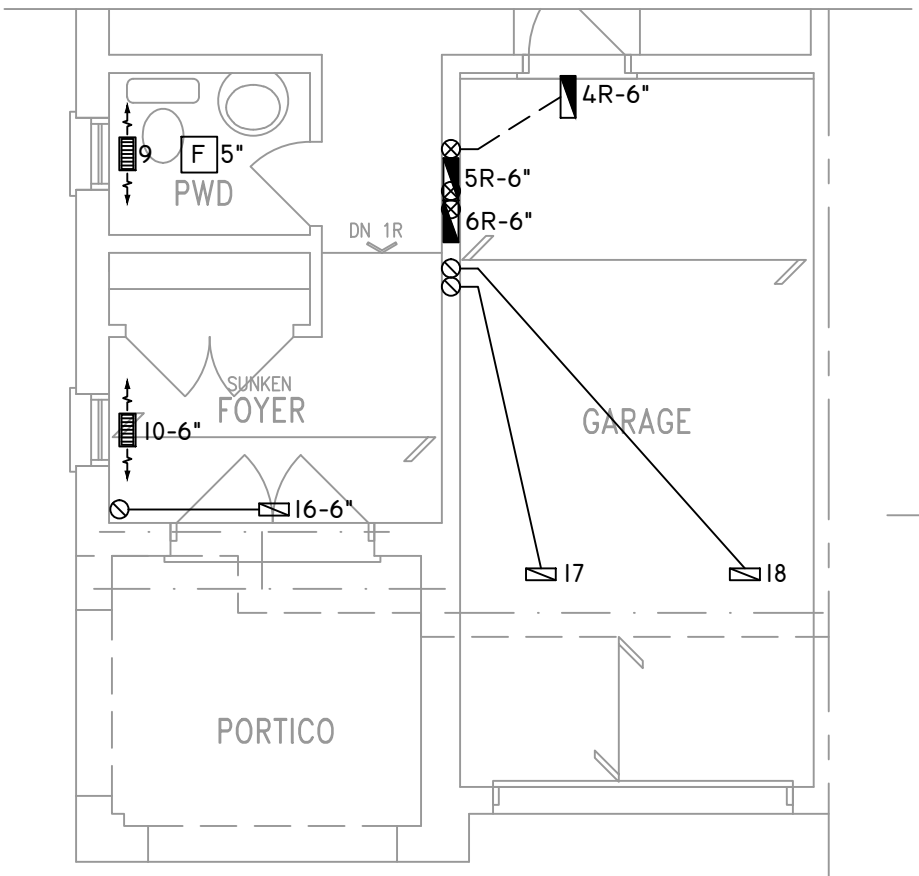
FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM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



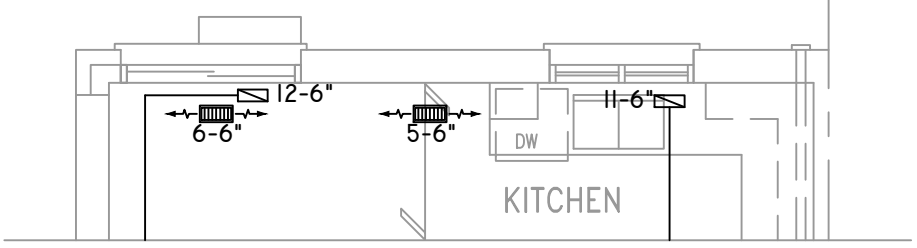
PART. SECOND FLOOR PLAN 'C'



PARTIAL SECOND FLOOR PLAN 'C'
SD-4 CORNER COND ONLY



PART. GROUND FLOOR PLAN 'C'



PARTIAL GROUND FLOOR PLAN 'C'
SD-4 CORNER COND ONLY

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QUALIFICATION INFORMATION

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

SIGNATURE OF DESIGNER

OBC 2012

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

NOTES

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# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	9	4	2
IST FLOOR	6	1	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: AM	CHECKED: DD	SQFT 2168
LAYOUT NO. JB-00000		DRAWING NO. M6

DATE:	FEBRUARY 15, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	SD25-4 WOB SONOMA 4
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"