Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information

Building number, street name	**Barossa 5** **S38-5 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-04522

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:**	**2780**	Model	**Barossa 5** **S38-5 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)

TOWN OF BRADFORD WEST GWILLIMBURY
BUILDING DEPARTMENT
PLANS EXAMINED
ONTARIO BUILDING CODE APPLIES
DATE: 2018-10-25
INSPECTOR: BG

❑ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 Division C of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual BCIN:

Firm BCIN:

☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5 of Division C, of the Building Code.

Individual BCIN: **32964**

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

❑ The design work is exempt from the registration and qualification requirements of the Building Code.

Basis for exemption from registration and qualification:

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. I have submitted this application with the knowledge and consent of the firm.

March 13, 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-04522**

Building Location

Address (Model):	**S38-5 WOB**	Site:	**Green Valley East**
Model:	**Barossa 5**	Lot:	
City and Province:	**Bradford**	Postal code:	

Calculations based on

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

Attachment:	**Detached**		Front facing:	**East/West**	Assumed? **Yes**
No. of Levels:	**3**	Ventilated? **Included**	Air tightness:	**1961-Present (ACH=3.57)**	Assumed? **Yes**
Weather location:	**Bradford**		Wind exposure:	**Sheltered**	
HRV?	**LifeBreath**	**RNC155**	Internal shading:	**Light-translucent**	Occupants: **5**
Sensible Eff. at -25C	**71%**	Apparent Effect. at -0C **84%**	Units:	**Imperial**	Area Sq ft: **2780**
Sensible Eff. at -0C	**75%**				

Heating design conditions

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

Cooling design conditions

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

Above grade walls

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

Below grade walls

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

Floors on soil

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

Ceilings

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

Exposed floors

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

Doors

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

Windows

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

Skylights

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

Attached documents: **As per Shedule 1**

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

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

Calculations performed by

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

Air System Design

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

SB-12 Package A1

Builder: Bayview Wellington | Date: March 13, 2018

Project: Green Valley East | Model: Barossa 5 S38-5 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-04522

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	18,715	btu/h
Level 2 Net Load	18,002	btu/h
Level 3 Net Load	17,459	btu/h
Level 4 Net Load	0	btu/h
Total Heat Loss	54,176	btu/h
Total Heat Gain	27,972	btu/h
Combo System HL + 10%	59,593	Btuh.
Building Volume Vb	32202	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	0.0216	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0344	cfm/btuh
R/A Temp	70	deg. F.
S/A Temp	116	deg. F.
Diffuser loss	0.01	"w.c.

FURNACE/AIR HANDLER DATA:

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

BOILER/WATER HEATER DATA:

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

Blower DATA:

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

A/C UNIT DATA:

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

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

Level 1

S/A Outlet No.	1	2	3	4	24										5	6	7	8	9	10	11	12						
Room Use	BASE	BASE	BASE	BASE	BASE										KIT	KIT	GRT	PWD	MUD	FOY	LIV/DIN	LIV/DIN						
Btu/Outlet	3743	3743	3743	3743	3743										2695	2695	3021	1249	1004	3518	1910	1910						
Heating Airflow Rate CFM	81	81	81	81	81										58	58	65	27	22	76	41	41						
Cooling Airflow Rate CFM	18	18	18	18	18										82	82	91	11	5	49	66	66						
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	50	37	19	30	62										52	45	46	30	22	29	9	47						
Equivalent Length	140	90	120	100	150	70	70	70	70	70	70	70	70	70	110	160	150	150	160	80	90	80	70	70	70	70	70	70
Total Effective Length	190	127	139	130	212	70	70	70	70	70	70	70	70	70	162	205	196	180	182	109	99	127	70	70	70	70	70	70
Adjusted Pressure	0.07	0.10	0.09	0.10	0.06	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.06	0.07	0.07	0.07	0.12	0.13	0.10	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6	6										6	6	6	4	4	6	5	5						
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	E	C	C	B	D										D	D	D	C	C	B	A	C						

Level 3

S/A Outlet No.	13	14	15	16	17	18	19	20	21	22	23																
Room Use	MAST	MAST	ENS	BED 2	BATH	WIC	BED 3	BED 3	LAUN	ENS 4	BED 4																
Btu/Outlet	2035	2035	1411	1553	931	904	2098	2098	2252	776	1364																
Heating Airflow Rate CFM	44	44	30	34	20	20	45	45	49	17	29																
Cooling Airflow Rate CFM	44	44	26	30	9	17	56	56	86	13	36																
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	77	73	66	47	44	47	46	44	56	44	75																
Equivalent Length	150	170	170	130	160	150	140	130	125	135	160	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	227	243	236	177	204	197	186	174	181	179	235	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.06	0.05	0.06	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.06	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	5	5	4	4	4	4	5	5	6	3	5																
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	E	D	D	C	B	B	B	B	B	C	E																

Level 4

Return Branch And Grill Sizing

Grill Pressure Loss 0.02 "w.c

R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R
Inlet Air Volume CFM	202	454	102	155	155	102					
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	12	24	42	46	47	58					
Equivalent Length	115	125	135	195	235	160	50	50	50	50	50
Total Effective Length	127	149	177	241	282	218	50	50	50	50	50
Adjusted Pressure	0.09	0.08	0.07	0.05	0.04	0.05	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	11.0	6.0	8.0	8.5	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	Y	Z	Z	Z	Z	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	304	0.05	10.5	12x8	10x10
X					
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	1170	0.05	17.0	26x10	22x12
B	336	0.06	10.5	12x8	10x10
C	793	0.05	15.0	26x8	20x10
D	491	0.05	12.5	18x8	14x10
E	154	0.06	8.0	8x8	8x7
F					
G					
H					
I					
J					
K					

Heatloss/Gain Calculations CSA-F280-12

GTADESIGNS
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e-mail dave@gtadesigns.ca

Builder: Bayview Wellington | Date: March 13, 2018 | Weather Data: Bradford 44 -9.4 86 22 48.2

2012 OBC | Project: Green Valley East | Model: Barossa 5 S38-5 WOB | System 1 | Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 2780 | Project # PJ-00204 | Layout # JB-04522

Level 1

				BASE																									
Run ft. exposed wall A				109	A			A			A			A			A			A			A			A			A	
Run ft. exposed wall B				60	B			B			B			B			B			B			B			B			B	
Ceiling height				4.0	AG		4.0	AG		4.0	AG		4.0	AG		4.0	AG		4.0	AG		4.0	AG		4.0	AG		4.0	AG	
Floor area				806	Area			Area			Area			Area			Area			Area			Area			Area			Area	
Exposed Ceilings A					A			A			A			A			A			A			A			A			A	
Exposed Ceilings B					B			B			B			B			B			B			B			B			B	
Exposed Floors					Flr			Flr			Flr			Flr			Flr			Flr			Flr			Flr			Flr	
Gross Exp Wall A				434																									
Gross Exp Wall B				540																									
Components	R-Values	Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain
North Shaded	3.55	22.93	10.91	3	69	33																							
East/West	3.55	22.93	27.35																										
South	3.55	22.93	20.89	3	69	63																							
WOB Windows	3.55	22.93	27.35	41	940	1121																							
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	407		212																							
Net exposed walls B	14.49	5.62	0.76	499	2803	379																							
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				6497																								
Total Conductive Heat Loss					10805																								
Total Conductive Heat Gain						1865																							
Air Leakage Heat Loss/Gain		0.7020	0.0353		7586	66																							
Ventilation Case 1		0.05	0.07																										
Ventilation Case 2		14.07	11.88																										
Ventilation Case 3	x	0.03	0.07		324	122																							
Heat Gain People			239																										
Appliances Loads	1 =.25 percent		4196																										
Duct and Pipe loss			10%																										
Level 1 HL Total	18,715	Total HL for per room			18715																								
Level 1 HG Total	2,669	Total HG per room x 1.3				2669																							

Level 2

				KIT			GRT			PWD			MUD			FOY			LIV/DIN										
Run ft. exposed wall A				48	A		29	A		12	A		7	A		33	A		39	A			A			A			A	
Run ft. exposed wall B					B			B			B			B			B			B			B			B			B	
Ceiling height				10.0			10.0			12.0			12.0			11.0			10.0		10.0		10.0		10.0		10.0		
Floor area				268	Area		276	Area		33	Area		60	Area		121	Area		347	Area			Area			Area			Area	
Exposed Ceilings A					A		5	A			A			A			A			A			A			A			A	
Exposed Ceilings B					B			B			B			B			B			B			B			B			B	
Exposed Floors					Flr			Flr			Flr			Flr			Flr			Flr			Flr			Flr			Flr	
Gross Exp Wall A				480			290			144			84			363			390										
Gross Exp Wall B																													
Components	R-Values	Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain
North Shaded	3.55	22.93	10.91	47	1078	513				12	275	131																	
East/West	3.55	22.93	27.35	42	963	1149	44	1009	1204							27	619	739											
South	3.55	22.93	20.89																50	1146	1044								
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	391	1869	253	246	1176	159	132	631	85	63	301	41	315	1506	203	340	1625	220								
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					3910			2192			906			728			2552			2772									
Total Conductive Heat Gain						1914			1366			216			98			1000			1264								
Air Leakage Heat Loss/Gain		0.3485	0.0353		1363	68		764	48		316	8		254	3		889	35		966	45								
Ventilation Case 1		0.03	0.07																										
Ventilation Case 2		14.07	11.88																										
Ventilation Case 3	x	0.03	0.07		117	125		66	89		27	14		22	6		76	66		83	83								
Heat Gain People			239																										
Appliances Loads	1 =.25 percent		4196	1.5		1574	0.5		525										1.5		1574								
Duct and Pipe loss			10%																										
Level 2 HL Total	18,002	Total HL for per room			5389			3021			1249			1004			3518			3821									
Level 2 HG Total	13,157	Total HG per room x 1.3				4785			2636			309			141			1431			3854								

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

SB-12 Package: Package A1

Total Heat Loss	54,176	btu/h
Total Heat Gain	27,972	btu/h

GTADESIGNS

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

e-mail dave@gtadesigns.ca

Heatloss/Gain Calculations CSA-F280-12

2012 OBC

Builder: Bayview Wellington | Date: March 13, 2018 | Project: Green Valley East | Model: Barossa 5 S38-5 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: 2780

Project # PJ-00204 | Layout # JB-04522

Level 3

	MAST	ENS	BED 2	BATH	WIC	BED 3	LAUN	ENS 4	BED 4		
Run ft. exposed wall A	51 A	19 A	16 A	6 A	10 A	24 A	21 A	8 A	14 A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	9.0	8.0	8.0	8.0	8.0	10.0	9.0	8.0	8.0	8.0	8.0
Floor area	341 Area	118 Area	184 Area	80 Area	27 Area	239 Area	108 Area	106 Area	190 Area	Area	Area
Exposed Ceilings A	341 A	118 A	184 A	80 A	27 A	239 A	108 A	106 A	190 A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	17 Flr	70 Flr	27 Flr	163 Flr	6 Flr	8 Flr	Flr	Flr	Flr
Gross Exp Wall A	459	152	128	48	80	240	189	64	112		
Gross Exp Wall B											

Components		R-Values	Loss	Gain	MAST Loss	MAST Gain	ENS Loss	ENS Gain	BED 2 Loss	BED 2 Gain	BATH Loss	BATH Gain	WIC Loss	WIC Gain	BED 3 Loss	BED 3 Gain	LAUN Loss	LAUN Gain	ENS 4 Loss	ENS 4 Gain	BED 4 Loss	BED 4 Gain	Loss	Gain	Loss	Gain
North Shaded		3.55	22.93	10.91					18	413	196	8	183	87												
East/West		3.55	22.93	27.35	32	734	875	13	298	356					9	206	246	43	986	1176	40	917	1094							
South		3.55	22.93	20.89														19	436	397				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	427	2041	276	139	664	90	110	526	71	40	191	26	71	339	46	178	851	115	149	712	96	56	268	36	96	459	62				
Net exposed walls B		8.50	9.58	1.29																												
Exposed Ceilings A		59.22	1.37	0.64	341	469	219	118	162	76	184	253	118	80	110	51	27	37	17	239	329	153	108	148	69	106	146	68	190	261	122				
Exposed Ceilings B		22.86	3.56	1.66																												
Exposed Floors		29.80	2.73	0.17							17	46	3	70	191	12	27	74	5	163	445	27	6	16	1	8	22	1				
Foundation Conductive Heatloss																																
Total Conductive	Heat Loss					3243			1125			1238			676			657			3046			1794			619			1087				
	Heat Gain						1370			521			388			176			314			1869			1261			273			518			
Air Leakage	Heat Loss/Gain		0.2250	0.0353		730	48		253	18		279	14		152	6		148	11		685	66		404	44		139	10		245	18				
Ventilation	Case 1		0.02	0.07																												
	Case 2		14.07	11.88																												
	Case 3	x	0.03	0.07		97	90		34	34		37	25		20	12		20	21		91	122		54	83		19	18		33	34				
Heat Gain People				239	2		478				1		239							1		239						1		239				
Appliances Loads		1 =.25 percent		4196																			0.5		525								
Duct and Pipe loss				10%										1	83	18	1	80	31	1	373	211												
Level 3 HL Total	17,459	Total HL for per room				4070			1411			1553			931			904			4196			2252			776			1364				
Level 3 HG Total	12,146	Total HG per room x 1.3					2582			746			867			275			490			3259			2486			390			1052			

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	0.0353																						
Ventilation	Case 1		0.00	0.07																						
	Case 2		14.07	11.88																						
	Case 3	x	0.03	0.07																						
Heat Gain People				239																						
Appliances Loads		1 =.25 percent		4196																						
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	54,176	btu/h
Total Heat Gain	27,972	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-04522

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

Package: Package A1
Project: Bradford **Model:** S38-5 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	5	@	10.6	cfm	53	cfm
Other rooms	5	@	10.6	cfm	53	cfm
			Total		180.2	

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	180.2	
Less principal exhaust capacity	79.5	
REQUIRED supplemental vent. Capacity	100.7	cfm

Supplemental Fans 9.32.3.5.

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

all fans HVI listed Make Broan or Equiv.

Designer Certification

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

Name	David DaCosta
Signature	
HRAI #	5190 BCIN # 32964
Date	March 13, 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-04522

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

For use by Principal Authority	
Application No:	Model/Certification Number

A. Project Information

Building number, street name	Unit number	Lot/Con
Barossa 5 **S38-5 WOB**		
Municipality **Bradford**	**Postal code**	**Reg. Plan number / other description**

B. Prescriptive Compliance [indicate the building code compliance package being employed in the house design]

SB-12 Prescriptive (input design package): Package A1 Table: 3.1.1.2.A

C. Project Design Conditions

Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source
☑ Zone 1 (< 5000 degree days)	☑ ≥ 92% AFUE	☑ Gas ☐ Propane ☐ Solid Fuel
☐ Zone 2 (≥ 5000 degree days)	☐ ≥ 84% < 92% AFUE	☐ Oil ☐ Electric ☐ Earth Energy

Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of Walls = 389.88 m² or 4196.7 ft²	W,S &G % = 11%	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☑ Walkout Basement ☑ Air Conditioning ☐ Combo Unit
Area of W, S & G = 44.128 m² or 475.0 ft²	Utilize Window Averaging ☐ Yes ☑ No	☐ Air Sourced Heat Pump (ASHP) ☐ Ground Source Heat Pump (GSHP)

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

Energy Efficiency Substitutions

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

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

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

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

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

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

Name	BCIN	Signature
David DaCosta	32964	

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

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-04522

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S38-5 WOB

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.322	32202	81.4	15172

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.080	32202	11	508

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	15172	10805	0.7020
Level 2	0.3		13060	0.3485
Level 3	0.2		13484	0.2250
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	508	0.0353
BUILDING CONDUCTIVE HEAT GAIN	14413	

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	10805	0.05
Level 2	0.3		13060	0.03
Level 3	0.2		13484	0.02
Level 4	0		0	0.00

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	944	0.07
Building	14413	

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Ventilation Heat Gain (Direct Ducted Systems)

		Multiplier
C	HG^T	11.88
1.08	11	

Case 3

Ventilation Heat Loss (Forced Air Systems)

	HLbvent	Multiplier
Total Ventilation Load	1118	0.03

Ventilation Heat Gain (Forced Air Systems)

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

Foundation Conductive Heatloss Level 1	1904	Watts	6497	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):	6.70

Building Configuration	
Type:	Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m^3):	911.96

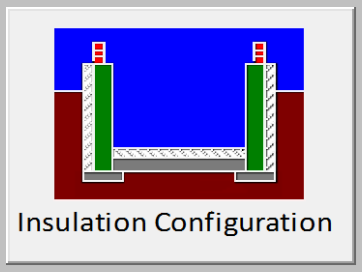
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa.	322.44	cm^2	
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply:	Total Exhaust:		
	39.75	39.75		
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0

Heating Air Leakage Rate (ACH/H):	**0.322**
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):	**16.28**	 Insulation Configuration
Floor Width (m):	**4.60**	
Exposed Perimeter (m):	**33.22**	
Wall Height (m):	**2.74**	
Depth Below Grade (m):	**1.53**	
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):	**1483**	

SITE COPY

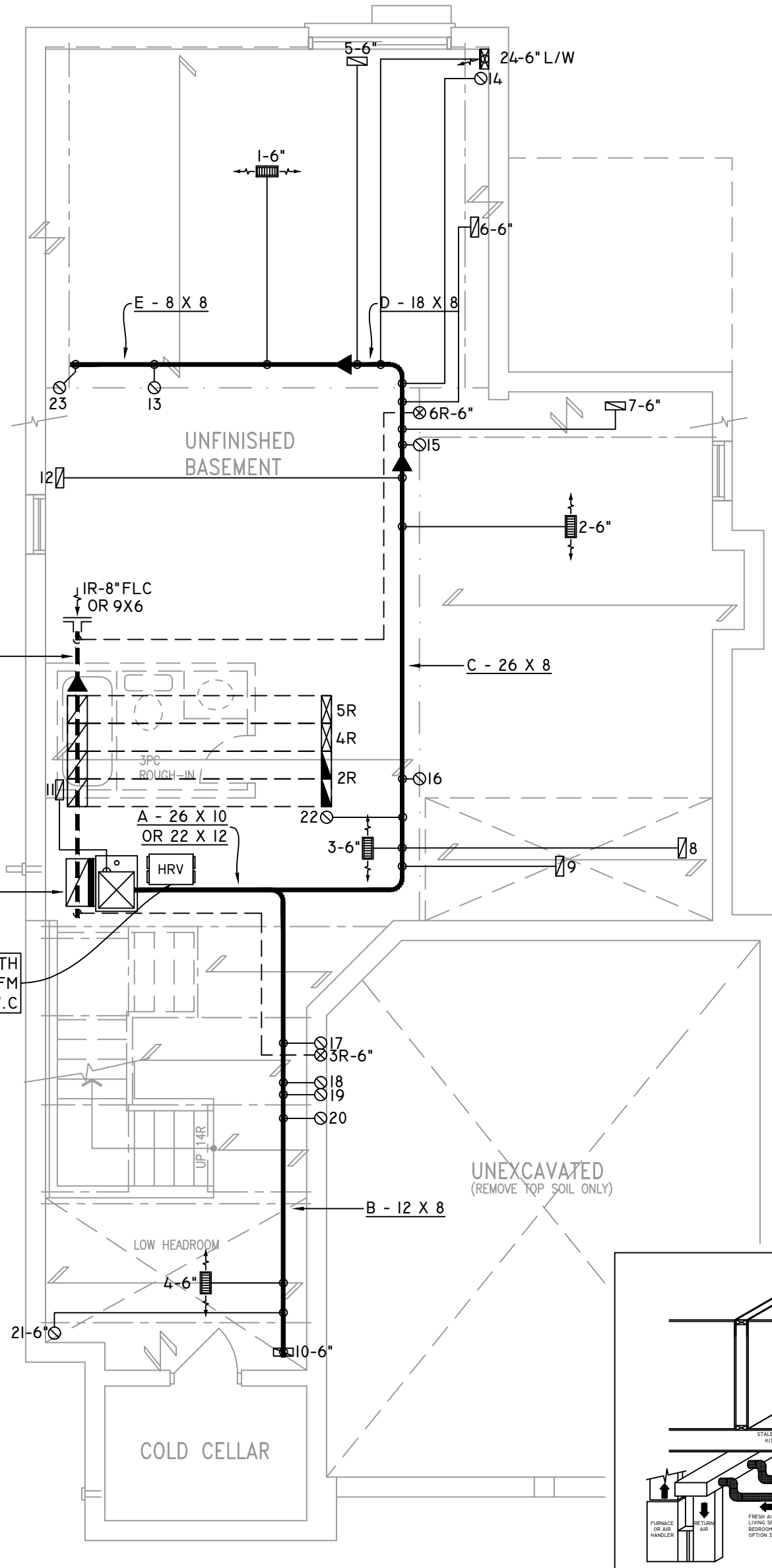
Residential Slab on Grade Thermal Load Calculator

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):	10.77	 Insulation Configuration
Width (m):	2.64	
Exposed Perimeter (m):	18.29	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	**287**	

SITE COPY

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

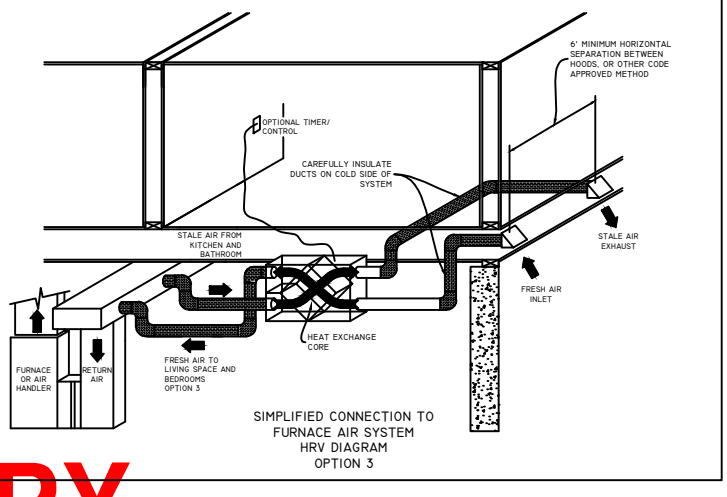


FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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



SIMPLIFIED CONNECTION TO FURNACE AIR SYSTEM HRV DIAGRAM OPTION 3

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA — B.C.I.N. 32964

SIGNATURE OF DESIGNER

SITE COPY

BASEMENT PLAN 'A' – W.O.B. CONDITION

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	54,176 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

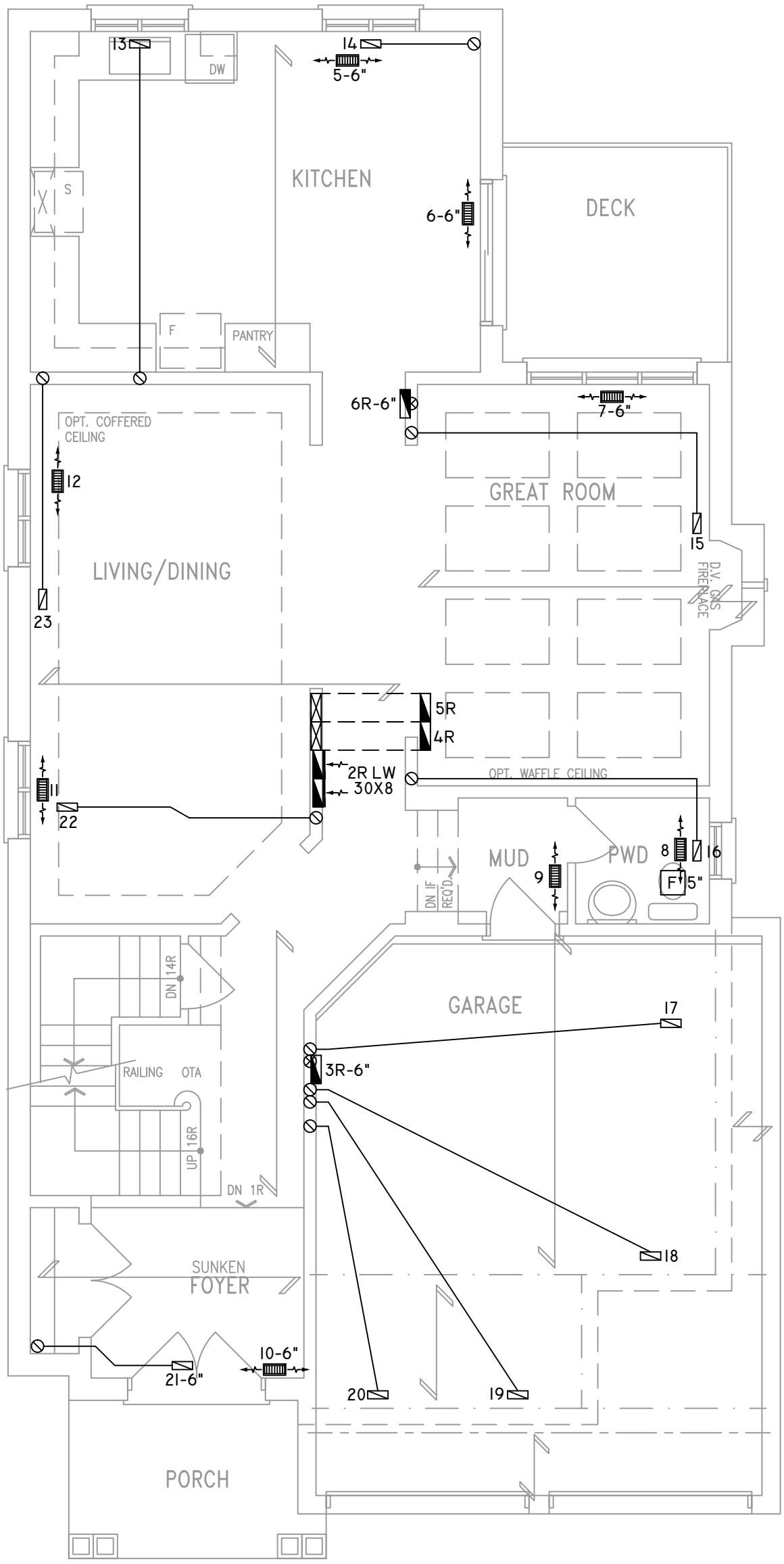
# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	4	3
1ST FLOOR	8	1	2
BASEMENT	5	1	

FLOOR PLAN: BASEMENT		
DRAWN BY: AP	CHECKED: DD	SQFT 2780
LAYOUT NO. JB-04522		DRAWING NO. M1

DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-5 WOB BAROSSA 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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

KITCHEN EXHAUST
100 CFM MIN. 6"



CIRCULATION PRINCIPAL FAN SWITCH TO BE CENTRALLY LOCATED

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

SITE COPY

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

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.

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

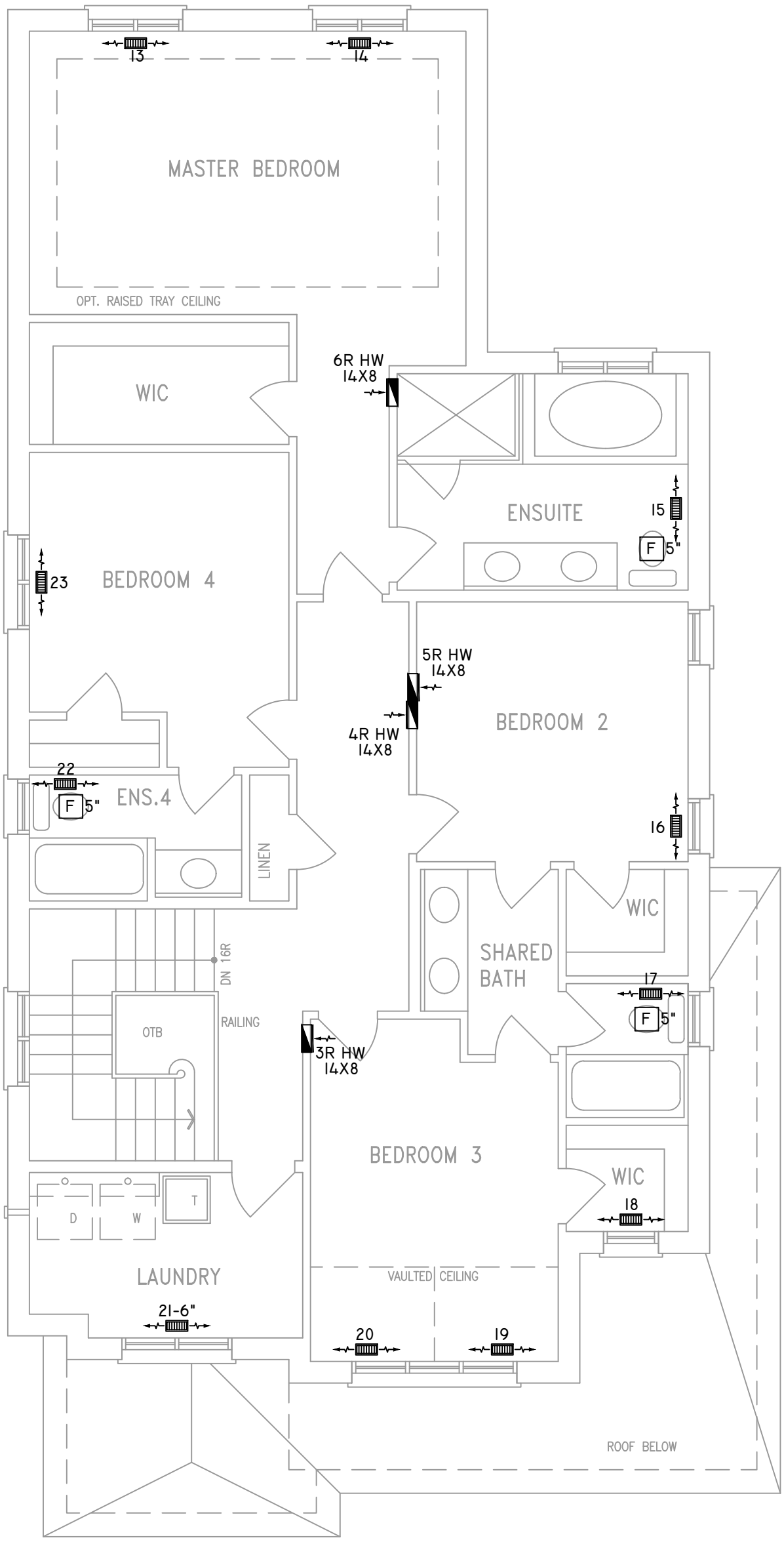
HEAT-LOSS	54,176 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	4	3
IST FLOOR	8	1	2
BASEMENT	5	1	

FLOOR PLAN: GROUND FLOOR			
DRAWN BY: AP	CHECKED: DD	SQFT 2780	
LAYOUT NO. JB-04522		DRAWING NO. M2	

DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-5 WOB BAROSSA 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



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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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

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QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

SITE COPY

SECOND FLOOR PLAN 'A'

OBC 2012

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

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
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INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
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SUITE 202,
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L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

HEAT-LOSS	54,176 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	4	3
IST FLOOR	8	1	2
BASEMENT	5	1	

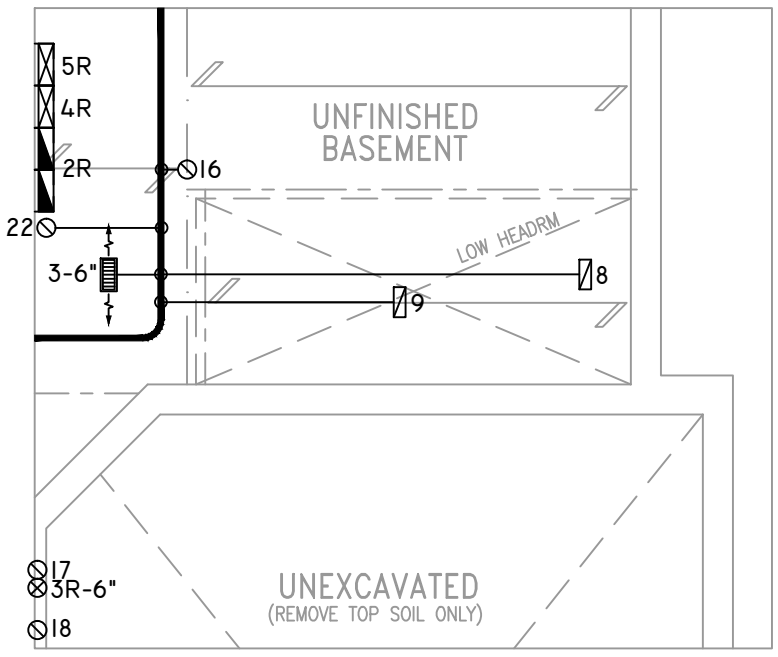
FLOOR PLAN: SECOND FLOOR

DRAWN BY:	CHECKED:	SQFT
AP	DD	2780

LAYOUT NO. JB-04522 DRAWING NO. M3

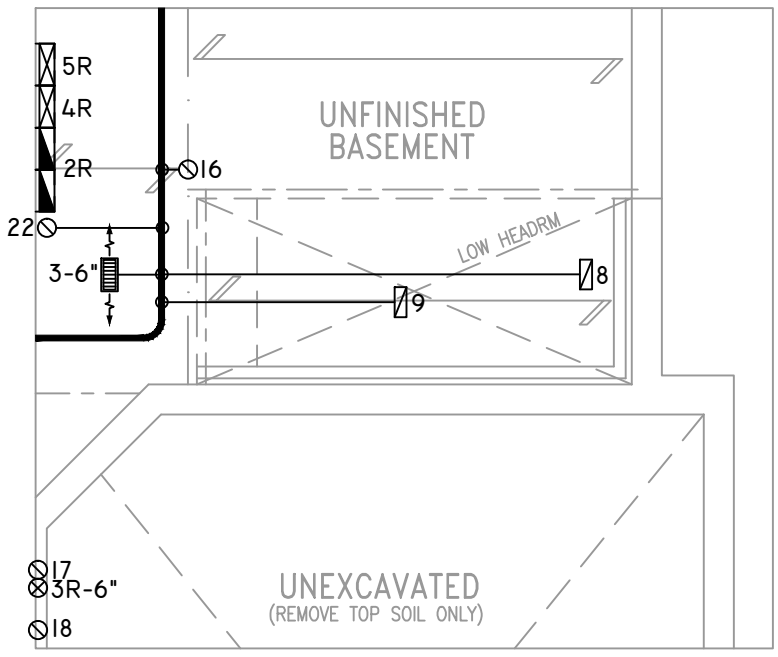
DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-5 WOB BAROSSA 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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



PART BSMT PLAN

MUDROOM & PWD SUNKEN 1R



PART BSMT PLAN

MUDROOM & PWD SUNKEN 2-3R

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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

SITE COPY

OBC 2012

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

NOTES

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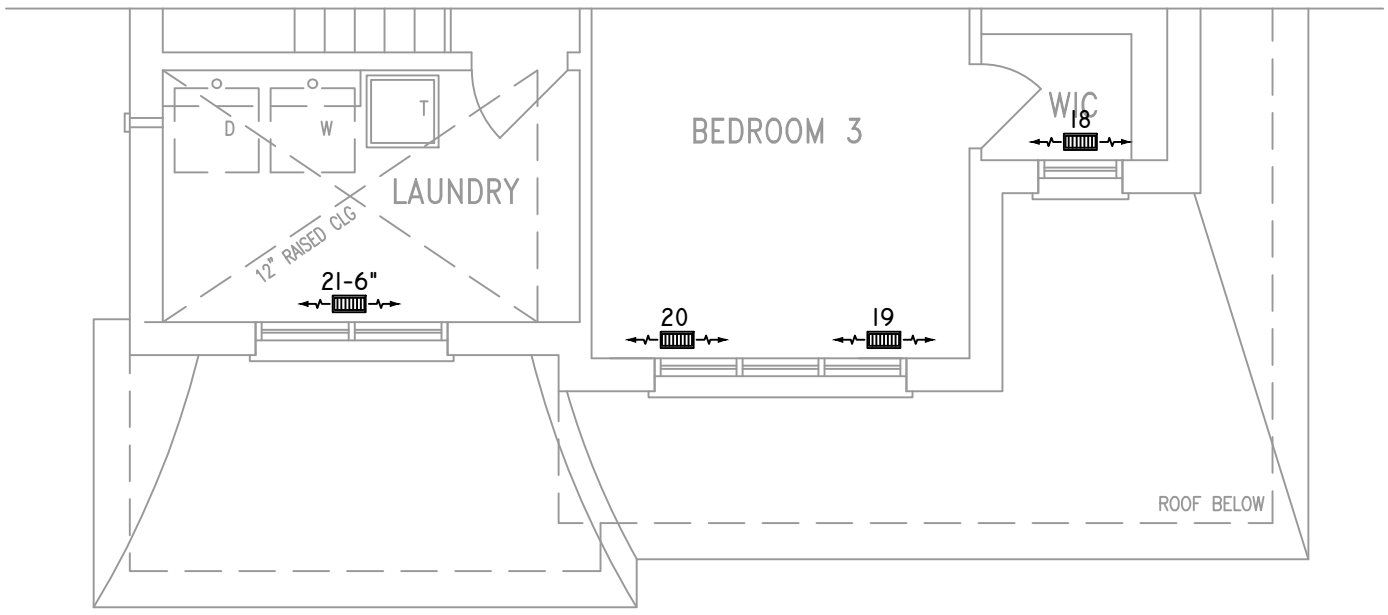
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	4	3
IST FLOOR	8	1	2
BASEMENT	5	1	

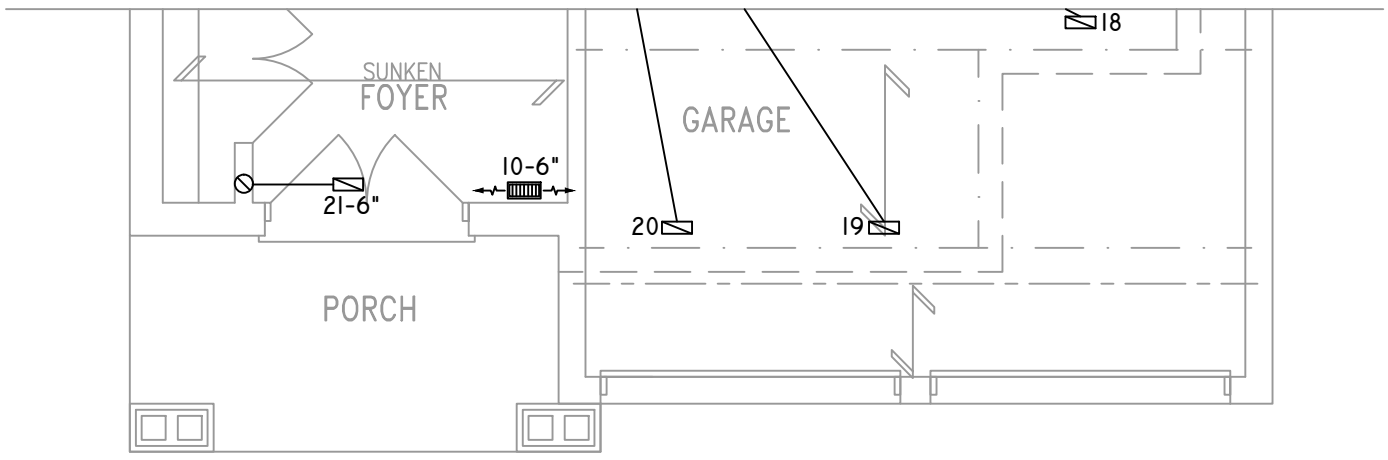
FLOOR PLAN: PARTIAL PLAN(S)			
DRAWN BY: AP	CHECKED: DD	SQFT 2780	
LAYOUT NO. JB-04522		DRAWING NO. M4	

DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-5 WOB BAROSSA 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

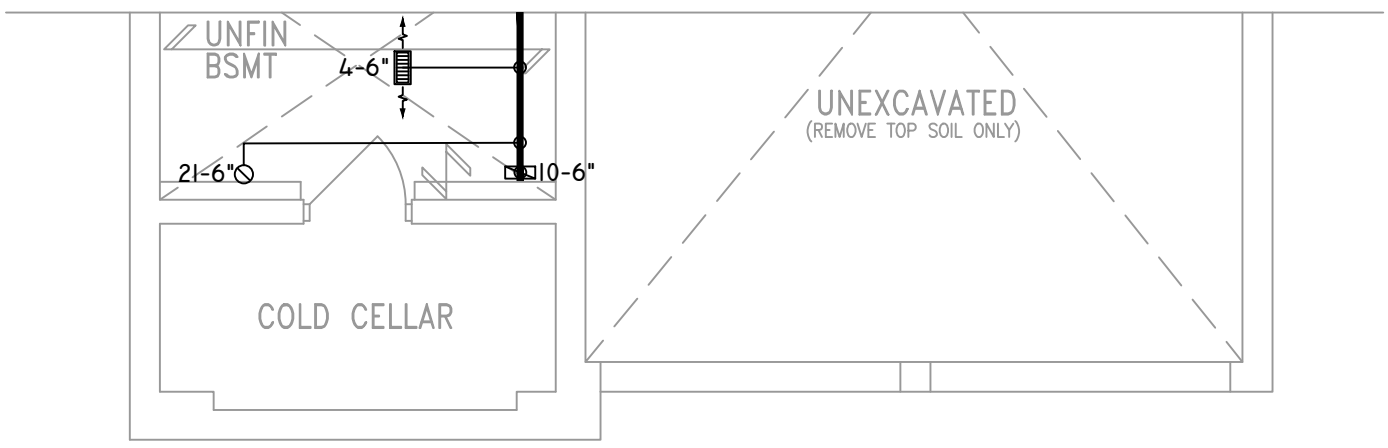
~~	FLEX DUCT	⊢	LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
———	RIGID ROUND DUCT	⊢	HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
⊢	SUPPLY DIFFUSER	⊘	SUPPLY AIR PIPE RISER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



PART. SECOND FLOOR PLAN 'B'



PART. GROUND FLOOR PLAN 'B'



PART. BASEMENT PLAN 'B'

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

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.
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WEB: WWW.GTADESIGNS.CA

HEAT-LOSS	54,176 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960603BNA OR EQUAL.
UNIT HEATING INPUT	60,000 BTU/HR.
UNIT HEATING OUTPUT	57,600 BTU/HR.
A/C COOLING CAPACITY	2.5 TONS.
FAN SPEED	1170 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	4	3
IST FLOOR	8	1	2
BASEMENT	5	1	

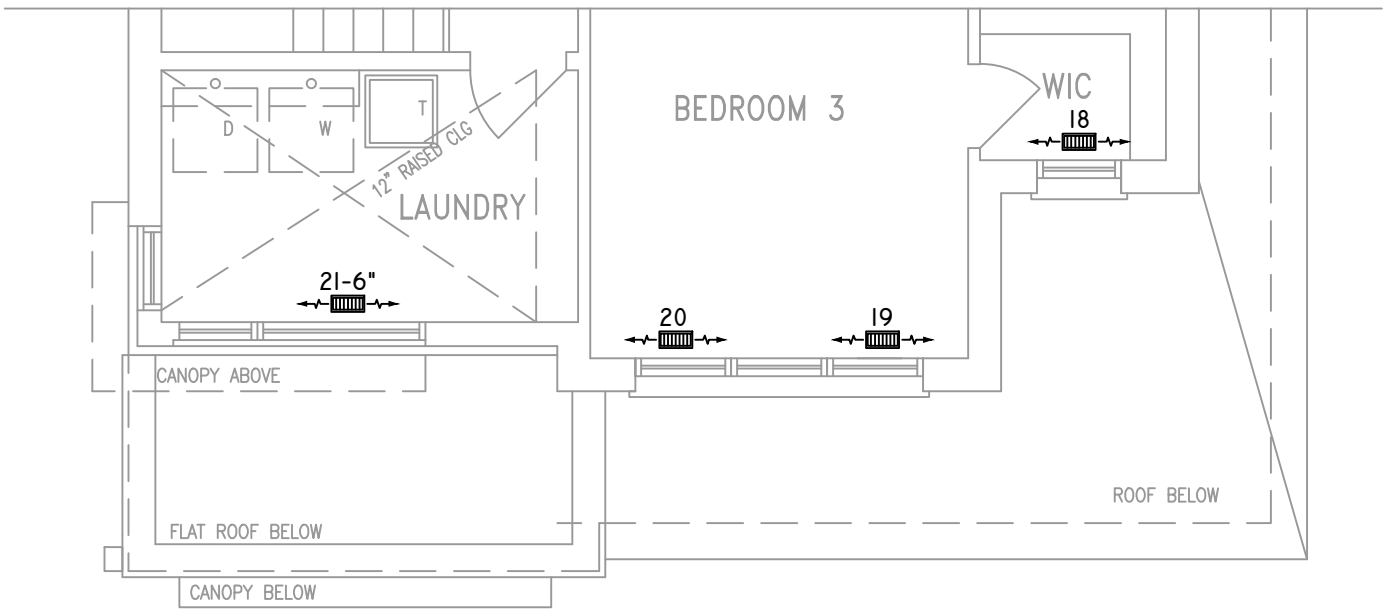
FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
AP	DD	2780

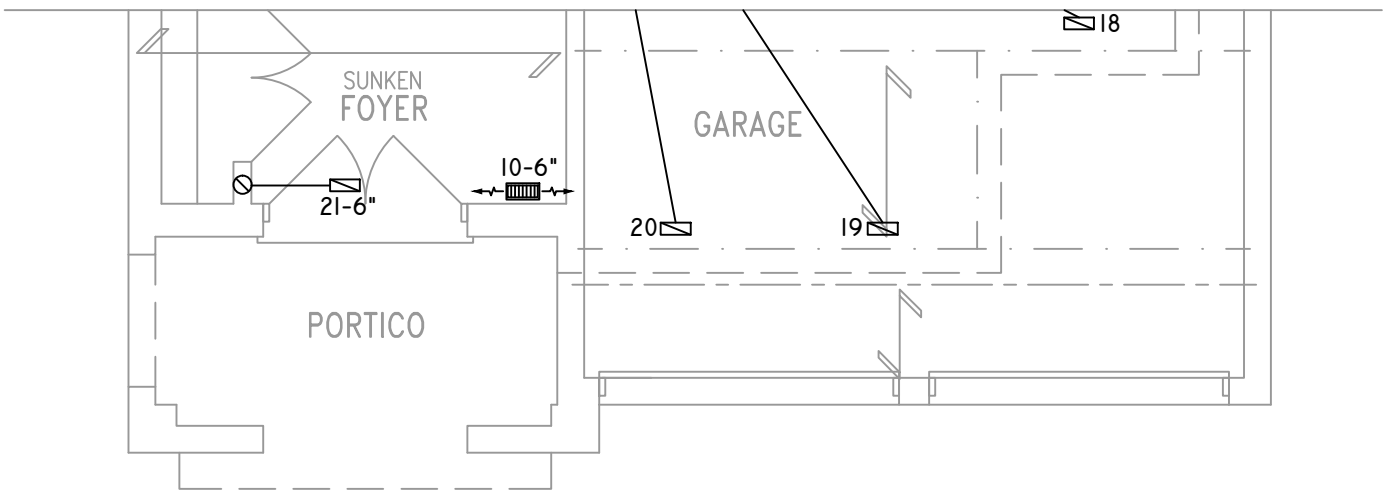
LAYOUT NO. JB-04522 DRAWING NO. M5

DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-5 WOB BAROSSA 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

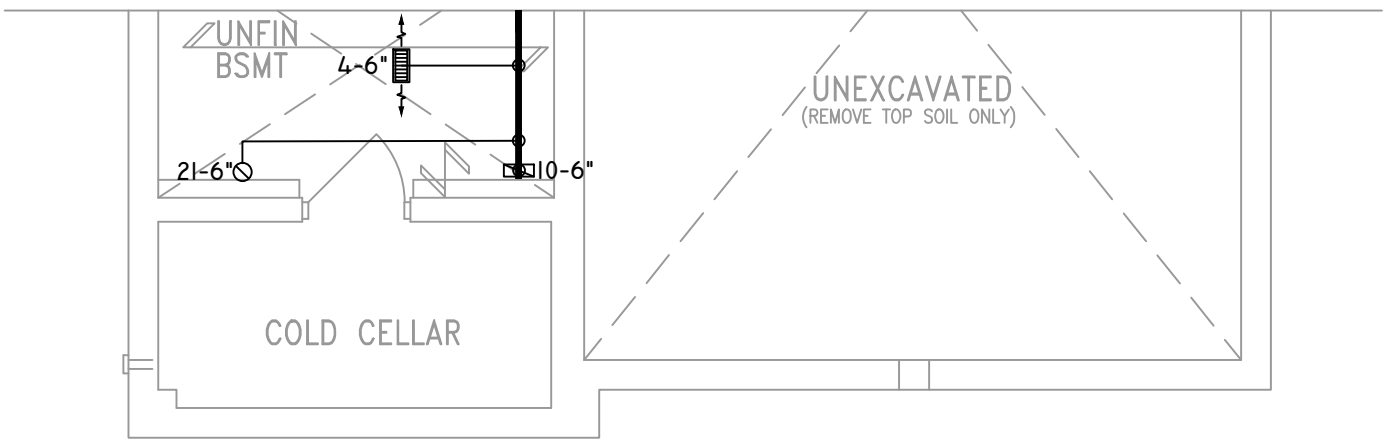
~~	FLEX DUCT	⊢	LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
———	RIGID ROUND DUCT	⊢	HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
⊢	SUPPLY DIFFUSER	⊘	SUPPLY AIR PIPE RISER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



PART. SECOND FLOOR PLAN 'C'



PART. GROUND FLOOR PLAN 'C'



PART. BASEMENT PLAN 'C'

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QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

SITE COPY

OBC 2012

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

NOTES

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WEB: WWW.GTADESIGNS.CA

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

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	4	3
IST FLOOR	8	1	2
BASEMENT	5	1	

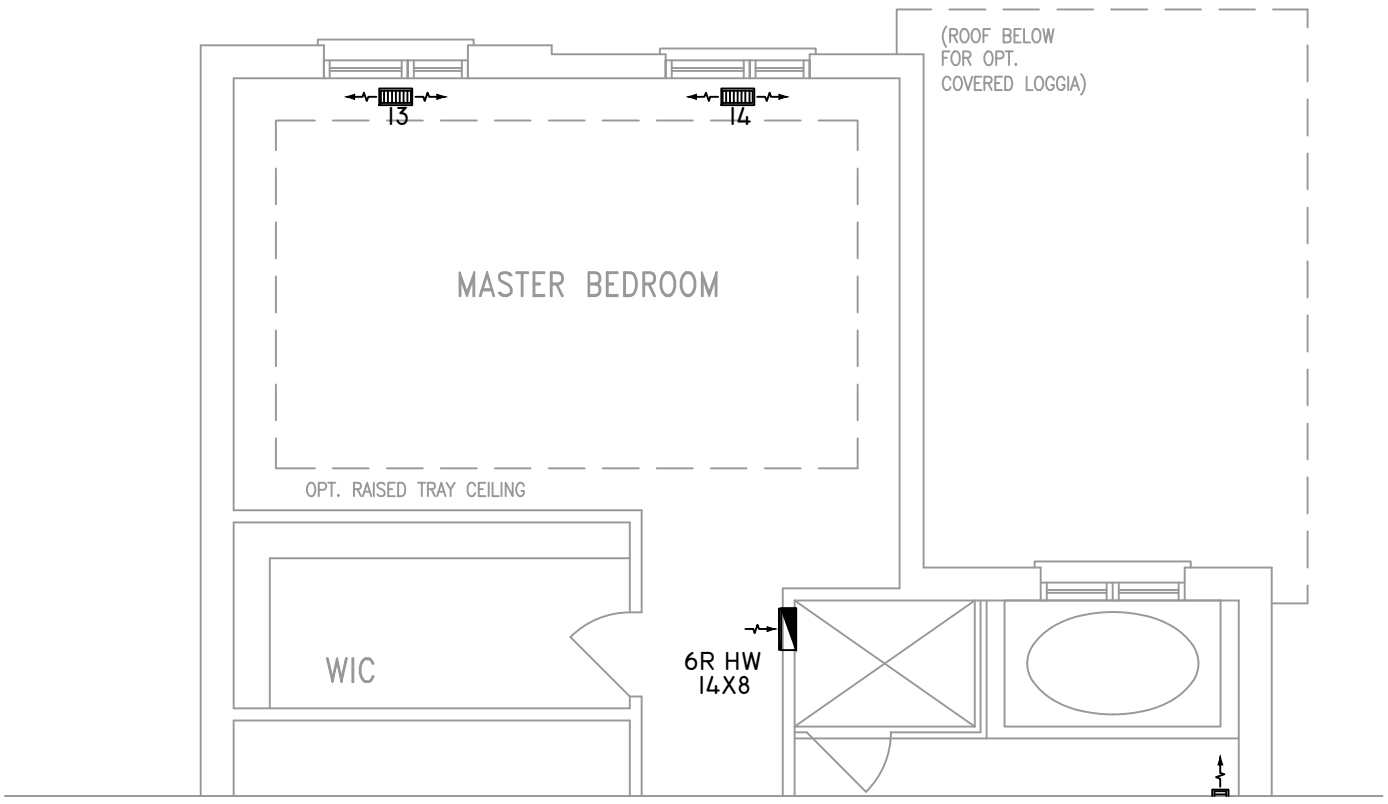
FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
AP	DD	2780

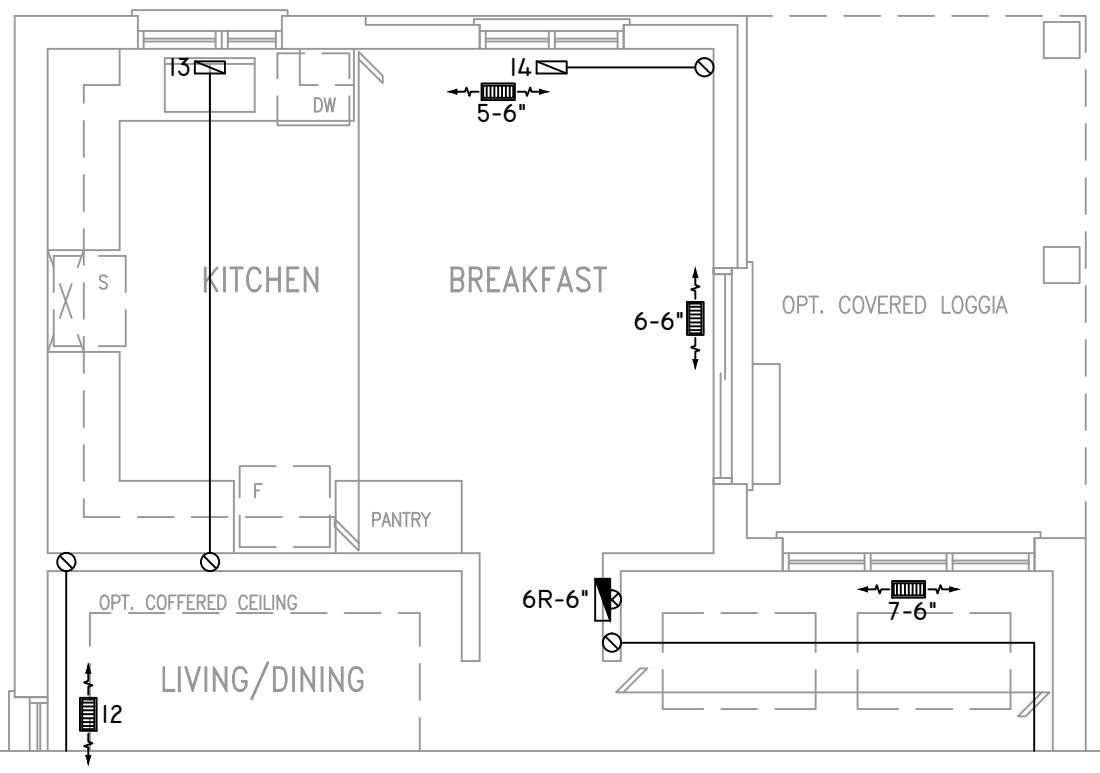
LAYOUT NO. JB-04522 DRAWING NO. M6

DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-5 WOB BAROSSA 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



PART SECOND FLOOR PLAN 'C'
REAR UPGRADE



PART GRND FLOOR PLAN 'C'
REAR UPGRADE

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QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

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.
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# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	11	4	3
IST FLOOR	8	1	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
AP	DD	2780

LAYOUT NO. JB-04522 DRAWING NO. M7

DATE: MARCH 12, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-5 WOB BAROSSA 5
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"