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: **S38-21**		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: hvac@gtadesigns.ca
Telephone number: **(905) 671-9800**	Fax number:		Cell number:

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-00041**
				Layout #:	**JB-08345**
Heating and Cooling Load Calculations	**Main**	**X**	Builder	**Bayview Wellington**	
Air System Design	**Alternate**		Project	**Green Valley East**	
Residential mechanical ventilation Design Summary	**Area Sq ft:**	**3460**	Model	**S38-21**	
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: _____

TOWN OF BRADFORD WEST GWILLIMBURY
BUILDING DEPARTMENT
PLANS EXAMINED
ONTARIO BUILDING CODE APPLIES
DATE: 2022-09-01
INITIALS: BC

☒ 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.

July 19, 2022

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.

REVIEWED

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800
e-mail hvac@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-08345**

Building Location

Address (Model):	**S38-21**	Site:	**Green Valley East**
Model:		Lot:	
City and Province:	**Bradford**	Postal code:	

Calculations based on

Dimensional information based on: **VA3 DesignOct/2021**

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?	**VanEE**	**V150H75NS**	Internal shading:	**Light-translucent**	Occupants: **6**
Sensible Eff. at -25C	**60%**	Apparent Effect. at -0C **80%**	Units:	**Imperial**	Area Sq ft: **3460**
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:

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:

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:	
City:	**Mississauga**	E-mail	**hvac@gtadesigns.ca**

Air System Design

SB-12 Package A1

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800
e-mail hvac@gtadesigns.ca

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

Builder: Bayview Wellington
Date: July 19, 2022
Project: Green Valley East
Model: S38-21
System 1
Project # PJ-00041
Layout # JB-08345

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	24,676	btu/h
Level 2 Net Load	22,971	btu/h
Level 3 Net Load	13,587	btu/h
Level 4 Net Load	9,096	btu/h
Total Heat Loss	70,331	btu/h
Total Heat Gain	33,268	btu/h
Building Volume Vb	44824	ft³
Ventilation Load	1,677	Btuh.
Ventilation PVC	95.4	cfm
Supply Branch and Grill Sizing		

AIR DISTRIBUTION & PRESSURE

Equipment External Static Pressure	0.5	"w.c.
Additional Equipment Pressure Drop	0.225	"w.c.
Available Design Pressure	0.275	"w.c.
Return Branch Longest Effective Length	300	ft
R/A Plenum Pressure	0.138	"w.c.
S/A Plenum Pressure	0.14	"w.c.
Heating Air Flow Proportioning Factor	0.0167	cfm/btuh
Cooling Air Flow Proportioning Facter	0.0352	cfm/btuh
R/A Temp	70	deg. F.
S/A Temp	131	deg. F.
Diffuser loss	0.01	"w.c.

FURNACE/AIR HANDLER DATA:

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

BOILER/WATER HEATER DATA:

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

Blower DATA:

Blower Speed Selected: W2
Heating Check 1172 cfm
Selected cfm> 1172 cfm

A/C UNIT DATA:

Amana 3.0 Ton
Cond.---------- 3.0
Coil ---------- 3.0

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

Level 1 / Level 2

	1	2	3	4	5										6	7	8	9	10	11	12	13	14					
S/A Outlet No.																												
Room Use	BASE	BASE	BASE	BASE	BASE										KIT	KIT	GRT	STUDY	MUD	FOY	PWD	LIV/DIN	LIV/DIN					
Btu/Outlet	4935	4935	4935	4935	4935										2455	2455	3740	2337	2001	4455	790	2369	2369					
Heating Airflow Rate CFM	82	82	82	82	82										41	41	62	39	33	74	13	39	39					
Cooling Airflow Rate CFM	16	16	16	16	16										105	105	88	87	9	51	13	73	73					
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	41	43	37	18	16										39	41	52	39	14	29	18	13	28					
Equivalent Length	110	80	100	100	100	70	70	70	70	70	70	70	70	70	120	120	100	100	90	100	110	90	70	70	70	70	70	70
Total Effective Length	151	123	137	118	116	70	70	70	70	70	70	70	70	70	159	161	152	139	104	129	128	103	98	70	70	70	70	70
Adjusted Pressure	0.09	0.11	0.09	0.11	0.11	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.08	0.09	0.09	0.13	0.10	0.10	0.13	0.13	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	6	6	6										6	6	6	6	4	5	3	5	5					
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10
Trunk	B	B	D	A	F										D	B	C	B	PTO	F	E	A	A					

Level 3

	15	16	17	18	19	20	21	22	23						24	25	26	27	28	29								
S/A Outlet No.																												
Room Use	P.BED	P.BED	WIC	LOFT	LAUND	ENS 2	BED 2	BED 2	ENS 3						BED 3	BED 4	ENS 4	BED 5	WC	ENS								
Btu/Outlet	1770	1770	699	1648	631	873	2328	2328	1541						3242	1496	662	1314	508	1874								
Heating Airflow Rate CFM	29	29	12	27	11	15	39	39	26						54	25	11	22	8	31								
Cooling Airflow Rate CFM	45	45	6	21	5	5	54	54	29						92	38	12	37	10	34								
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	53	62	49	48	31	38	41	38	37						42	26	35	43	47	51								
Equivalent Length	130	140	110	130	130	120	110	100	90	70	70	70	70	70	130	150	150	100	110	130	70	70	70	70	70	70	70	70
Total Effective Length	183	202	159	178	161	158	151	138	127	70	70	70	70	70	172	176	185	143	157	181	70	70	70	70	70	70	70	70
Adjusted Pressure	0.07	0.06	0.08	0.07	0.08	0.08	0.09	0.09	0.10	0.19	0.19	0.19	0.19	0.19	0.08	0.07	0.07	0.09	0.08	0.07	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	5	5	3	4	3	3	5	5	4						6	5	3	4	3	4								
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	B	C	C	C	PTO	E	E	E	E						F	E	E	D	D	D								

Return Branch And Grill Sizing

Grill Pressure Loss 0.02 "w.c

R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R
Inlet Air Volume CFM	206	366	180	105	105	105	105				
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	25	32	12	40	36	42	45				
Equivalent Length	115	90	125	180	180	185	140	50	50	50	50
Total Effective Length	140	122	137	220	216	227	185	50	50	50	50
Adjusted Pressure	0.08	0.10	0.09	0.05	0.05	0.05	0.06	0.24	0.24	0.24	0.24
Duct Size Round	8.0	9.5	7.5	6.0	6.0	6.0	6.0				
Inlet Size	FLC	8	8	8	8	8	8				
" "	OR	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14	14				
Trunk	X	Z	Y	Y	X	X	X				

Return Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
Drop	1172	0.05	17.0	24x12	
Z	1172	0.05	17.0	26x10	22x12
Y	285	0.05	10.0	12x8	10x10
X	521	0.05	12.5	18x8	14x10
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	751	0.06	14.0	22x8	18x10
B	405	0.06	11.0	14x8	10x10
C	131	0.06	7.5	8x8	87
D	185	0.07	8.0	8x8	8x7
E	378	0.07	10.5	12x8	10x10
F	211	0.08	8.5	8x8	107
G					
H					
I					
J					
K					

REVIEWED

GTADESIGNS

Heatloss/Gain Calculations CSA-F280-12

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

e-mail hvac@gtadesigns.ca

2012 OBC

Builder: Bayview Wellington | Date: July 19, 2022 | Project: Green Valley East | Model: S38-21 | **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: 3460

Project # PJ-00041 | Layout # JB-08345

Level 1

		BASE																											
Run ft. exposed wall A		182	A		A		A		A		A		A		A		A		A		A		A		A		A	
Run ft. exposed wall B			B		B		B		B		B		B		B		B		B		B		B		B		B	
Ceiling height		7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG	7.0	AG
Floor area		1383	Area		Area		Area		Area		Area		Area		Area		Area		Area		Area		Area		Area		Area	
Exposed Ceilings A			A		A		A		A		A		A		A		A		A		A		A		A		A	
Exposed Ceilings B			B		B		B		B		B		B		B		B		B		B		B		B		B	
Exposed Floors			Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr	
Gross Exp Wall A		1274																											
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	11.62																										
East/West		3.55	22.93	29.56	24	550	709																							
South		3.55	22.93	22.50	6	138	135																							
WOB Windows		3.55	22.93	27.86																										
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	1223		637																							
Net exposed walls B		17.03	4.78	0.65																										
Exposed Ceilings A		59.22	1.37	0.64																										
Exposed Ceilings B		27.65	2.94	1.37																										
Exposed Floors		29.80	2.73	0.17																										
Foundation Conductive Heatloss						9898																								
Total Conductive	Heat Loss					11014																								
	Heat Gain						1539																							
Air Leakage	Heat Loss/Gain		1.2002	0.0544		13219	84																							
Ventilation	Case 1		0.08	0.07																										
	Case 2		17.58	11.88																										
	Case 3	x	0.04	0.07		444	108																							
Heat Gain People				239																										
Appliances Loads		1 =.25 percent		5742																										
Duct and Pipe loss				10%																										
Level HL Total	24,676	Total HL for per room				24676																								
Level HG Total	2,250	Total HG per room x 1.3					2250																							

Level 2

		KIT		GRT		STUDY		MUD		FOY		PWD		LIV/DIN															
Run ft. exposed wall A		36	A	35	A	19	A	15	A	34	A	6	A	36	A		A		A		A		A		A		A	
Run ft. exposed wall B			B		B		B		B		B		B		B		B		B		B		B		B		B	
Ceiling height		11.0		11.0		11.0		13.0		12.0		11.0		11.0		11.0		11.0		11.0		11.0		11.0		11.0		11.0	
Floor area		322	Area	223	Area	169	Area	42	Area	129	Area	37	Area	454	Area		Area		Area		Area		Area		Area		Area		Area
Exposed Ceilings A			A	4	A		A		A		A		A		A		A		A		A		A		A		A	
Exposed Ceilings B			B		B		B		B		B		B		B		B		B		B		B		B		B	
Exposed Floors			Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr	
Gross Exp Wall A		396		385		209		195		408		66		396															
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	11.62							26	596	302																	
East/West		3.55	22.93	29.56	66	1513	1951	28	642	828							23	527	680											
South		3.55	22.93	22.50																10	229	225	60	1376	1350					
Existing Windows		1.99	40.90	23.66																										
Skylight		2.03	40.10	88.23																										
Doors		4.00	20.35	2.75							21	427	58	28	570	77														
Net exposed walls A		17.03	4.78	0.65	330	1577	213	357	1706	231	183	875	118	174	832	112	357	1706	231	56	268	36	336	1606	217					
Net exposed walls B		8.50	9.58	1.29																										
Exposed Ceilings A		59.22	1.37	0.64				4	5	3																				
Exposed Ceilings B		27.65	2.94	1.37																										
Exposed Floors		29.80	2.73	0.17																										
Foundation Conductive Heatloss				x																										
Total Conductive	Heat Loss					3091			2354			1471			1259			2804			497			2982						
	Heat Gain						2164			1061			420			170			987			261			1567					
Air Leakage	Heat Loss/Gain		0.5486	0.0544		1696	118		1291	58		807	23		691	9		1538	54		273	14		1636	85					
Ventilation	Case 1		0.03	0.07																										
	Case 2		17.58	11.88																										
	Case 3	x	0.04	0.07		125	152		95	74		59	30		51	12		113	69		20	18		120	110					
Heat Gain People				239																										
Appliances Loads		1 =.25 percent		5742	1.5		2153	0.5		718	1.0		1435										1.0		1435					
Duct and Pipe loss				10%																										
Level HL Total	22,971	Total HL for per room				4911			3740			2337			2001			4455			790			4738						
Level HG Total	17,159	Total HG per room x 1.3					5963			2484			2481			249			1444			382			4157					

Total Heat Loss	70,331	btu/h
Total Heat Gain	33,268	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

REVIEWED

GTADESIGNS

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

e-mail hvac@gtadesigns.ca

Heatloss/Gain Calculations CSA-F280-12

Builder: Bayview Wellington Date: July 19, 2022 Weather Data: Bradford 44 -9.4 86 22 48.2

2012 OBC Project: Green Valley East Model: S38-21 **System 1** Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3460 Project # PJ-00041 Layout # JB-08345

Level 3

	P.BED		WIC		LOFT		LAUND		ENS 2		BED 2		ENS 3							
Run ft. exposed wall A	31	A	9	A	13	A	8	A	9	A	26	A	10	A		A		A		A
Run ft. exposed wall B		B		B		B		B		B		B		B		B		B		B
Ceiling height	11.0		9.0		9.0		9.0		9.0		11.0		11.0		9.0		9.0		9.0	
Floor area	274	Area	90	Area	258	Area	85	Area	50	Area	218	Area	60	Area		Area		Area		Area
Exposed Ceilings A	274	A	90	A	258	A	85	A	50	A	218	A	60	A		A		A		A
Exposed Ceilings B		B		B		B		B		B		B		B		B		B		B
Exposed Floors		Flr		Flr		Flr		Flr	46	Flr	213	Flr	60	Flr		Flr		Flr		Flr
Gross Exp Wall A	341		81		117		72		81		286		110							
Gross Exp Wall B																				

Components		R-Values	Loss	Gain	P.BED Loss	P.BED Gain	WIC Loss	WIC Gain	LOFT Loss	LOFT Gain	LAUND Loss	LAUND Gain	ENS 2 Loss	ENS 2 Gain	BED 2 Loss	BED 2 Gain	ENS 3 Loss	ENS 3 Gain						
North Shaded		3.55	22.93	11.62					16	367	186													
East/West		3.55	22.93	29.56	32	734	946								47	1078	1389	14	321	414				
South		3.55	22.93	22.50																				
Existing Windows		1.99	40.90	23.66																				
Skylight		2.03	40.10	88.23																				
Doors		4.00	20.35	2.75																				
Net exposed walls A		17.03	4.78	0.65	309	1477	200	81	387	52	101	483	65	72	344	47	81	387	52	239	1142	154	96	459	62
Net exposed walls B		8.50	9.58	1.29																				
Exposed Ceilings A		59.22	1.37	0.64	274	377	176	90	124	58	258	355	166	85	117	55	50	69	32	218	300	140	60	82	39
Exposed Ceilings B		27.65	2.94	1.37																				
Exposed Floors		29.80	2.73	0.17													46	126	8	213	582	36	60	164	10
Foundation Conductive Heatloss																								
Total Conductive	Heat Loss					2587			511			1204			461			582			3102			1026	
	Heat Gain						1321			110			417			101			92			1719			524
Air Leakage	Heat Loss/Gain		0.3280	0.0544		849	72		168	6		395	23		151	5		191	5		1017	94		337	29
Ventilation	Case 1		0.02	0.07																				
	Case 2		17.58	11.88																				
	Case 3	x	0.04	0.07		104	93		21	8		49	29		19	7		23	6		125	121		41	37
Heat Gain People				239	2		478													1		239			
Appliances Loads		1 =.25 percent		5742																				
Duct and Pipe loss				10%													1	77	9	1	412	196	1	136	52
Level HL Total	13,587	Total HL for per room				3540			699			1648			631			873			4656			1541	
Level HG Total	7,531	Total HG per room x 1.3					2553			161			609			148			147			3079			835

Level 3

	BED 3		BED 4		ENS 4		BED 5		WC		ENS									
Run ft. exposed wall A	24	A	14	A	6	A	11	A	5	A	21	A		A		A		A		A
Run ft. exposed wall B		B		B		B		B		B		B		B		B		B		B
Ceiling height	9.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0	
Floor area	217	Area	146	Area	72	Area	143	Area	21	Area	128	Area		Area		Area		Area		Area
Exposed Ceilings A	217	A	146	A	72	A	143	A	21	A	128	A		A		A		A		A
Exposed Ceilings B		B		B		B		B		B		B		B		B		B		B
Exposed Floors	68	Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr
Gross Exp Wall A	216		126		54		99		45		189									
Gross Exp Wall B																				

Components		R-Values	Loss	Gain	BED 3 Loss	BED 3 Gain	BED 4 Loss	BED 4 Gain	ENS 4 Loss	ENS 4 Gain	BED 5 Loss	BED 5 Gain	WC Loss	WC Gain	ENS Loss	ENS Gain						
North Shaded		3.55	22.93	11.62																		
East/West		3.55	22.93	29.56	35	803	1035								16	367	473					
South		3.55	22.93	22.50	12	275	270	16	367	360	7	161	158	16	367	360	7	161	158					
Existing Windows		1.99	40.90	23.66																		
Skylight		2.03	40.10	88.23																		
Doors		4.00	20.35	2.75																		
Net exposed walls A		17.03	4.78	0.65	169	808	109	110	526	71	47	225	30	83	397	54	38	182	25	173	827	112
Net exposed walls B		8.50	9.58	1.29																		
Exposed Ceilings A		59.22	1.37	0.64	217	298	139	146	201	94	72	99	46	143	197	92	21	29	13	128	176	82
Exposed Ceilings B		27.65	2.94	1.37																		
Exposed Floors		29.80	2.73	0.17	68	186	11															
Foundation Conductive Heatloss																						
Total Conductive	Heat Loss					2369			1093			484			960			371			1370				
	Heat Gain						1564			525			234			505			196			667			
Air Leakage	Heat Loss/Gain		0.3280	0.0544		777	85		359	29		159	13		315	27		122	11		449	36			
Ventilation	Case 1		0.02	0.07																		
	Case 2		17.58	11.88																		
	Case 3	x	0.04	0.07		96	110		44	37		20	16		39	35		15	14		55	47			
Heat Gain People				239	1		239	1		239				1		239								
Appliances Loads		1 =.25 percent		5742																		
Duct and Pipe loss				10%																		
Level HL Total	9,096	Total HL for per room				3242			1496			662			1314			508			1874				
Level HG Total	6,328	Total HG per room x 1.3					2598			1078			342			1050			286			975			

Total Heat Loss	70,331 btu/h
Total Heat Gain	33,268 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

REVIEWED

GTADESIGNS

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800
e-mail hvac@gtadesigns.ca

Project # PJ-00041
Layout # JB-08345

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:** S38-21

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

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

Location of Installation

Lot #	Plan #
Township	Bradford
Roll #	Permit #
Address	

Builder

Name	Bayview Wellington
Address	
City	
Tel	Fax

Installing Contractor

Name	
Address	
City	
Tel	Fax

Combustion Appliances 9.32.3.1(1)

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

Heating System

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

House Type 9.32.3.1(2)

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

System Design Option

1		Exhaust only / forced air system
2		HRV WITH DUCTING / forced air system
3	x	HRV simplified connection to forced air system
4		HRV full ducting/not coupled to forced air system
		Part 6 design

Total Ventilation Capacity 9.32.3.3(1)

Bsmt & Master Bdrm	2	@	21.2	cfm	42.4	cfm
Other Bedrooms	4	@	10.6	cfm	42.4	cfm
Bathrooms & Kitchen	6	@	10.6	cfm	63.6	cfm
Other rooms	6	@	10.6	cfm	63.6	cfm
			Total		212	

Principal Ventilation Capacity 9.32.3.4(1)

Master bedroom	1	@	31.8	cfm	31.8	cfm
Other bedrooms	4	@	15.9	cfm	63.6	cfm
			Total		95.4	

Principal Exhaust Fan Capacity

Make	Model	Location
VanEE	V150H75NS	Base
127 cfm		Sones or Equiv.

Heat Recovery Ventilator

Make	VanEE	
Model	V150H75NS	
127 cfm high		80 cfm low
Sensible efficiency @ -25 deg C		60%
Sensible efficiency @ 0 deg C		75%

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

Supplemental Ventilation Capacity

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

Supplemental Fans 9.32.3.5.

Location	cfm	Model	Sones
Ens	50	XB50	0.3
Ens 2	50	XB50	0.3
Ens 3	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	July 19, 2022		

REVIEWED

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-00041
Layout # JB-08345

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
S38-21			
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 = 478.06 m² or 5145.9 ft²	W,S &G % = 9.0%	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement ☑ Air Conditioning ☐ Combo Unit
Area of W, S & G = 42.827 m² or 461.0 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	59.22	Windows/Sliding Glass Doors	1.6
Ceiling without Attic Space	31	27.65	Skylights	2.8
Exposed Floor	31	29.80	**Mechanicals**	
Walls Above Grade	22	17.03	Heating Equip.(AFUE)	96%
Basement Walls	20.0ci	21.12	HRV Efficiency (SRE% at 0°C)	75%
Slab (all >600mm below grade)	x	x	DHW Heater (EF)	0.80
Slab (edge only ≤600mm below grade)	10	11.13	DWHR (CSA B55.1 (min. 42% efficiency))	#Showers 2
Slab (all ≤600mm below grade, or heated)	10	11.13	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.

REVIEWED

2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800
e-mail hvac@gtadesigns.ca

Project # PJ-00041
Layout # JB-08345

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S38-21

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.403	44824	81.4	26437

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.099	44824	11	878

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	26437	11014	1.2002
Level 2	0.3		14457	0.5486
Level 3	0.2		16121	0.3280
Level 3	0.2		16121	0.3280

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	878	0.0544
BUILDING CONDUCTIVE HEAT GAIN	16146	

Levels this Dwelling
3

Ventilation Calculations

Vent

Ventilation Heat Loss

Ventilation Heat Loss				
C	PVC	HL^T	(1-E) HRV	HLbvent
1.08	95.4	81.4	0.20	1677

Ventilation Heat Gain

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

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1677	11014	0.08
Level 2	0.3		14457	0.03
Level 3	0.2		16121	0.02
Level 3	0.2		16121	0.02

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	1133	0.07
Building	16146	

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

			Multiplier
C	HL^T	(1-E) HRV	17.58
1.08	81.4	0.20	

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	1677	0.04

Ventilation Heat Gain (Forced Air Systems)

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

Foundation Conductive Heatloss Level 1	Level 1	2901	Watts	9898	Btu/h
Foundation Conductive Heatloss Level 2	Level 2		Watts		Btu/h
Slab on Grade Foundation Conductive Heatloss			Watts		Btu/h
Walk Out Basement Foundation Conductive Heatloss			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

REVIEWED

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):	8.84

Building Configuration	
Type:	Detached
Number of Stories:	Two
Foundation:	Shallow
House Volume (m^3):	1269.42

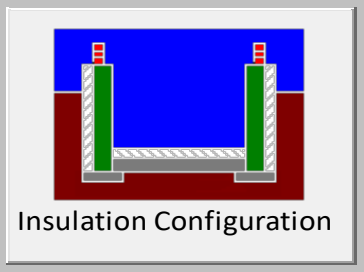
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa.	322.44	cm^2	
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply:	Total Exhaust:		
	47.7	47.7		
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0

Heating Air Leakage Rate (ACH/H):	**0.403**
Cooling Air Leakage Rate (ACH/H):	**0.099**

REVIEWED

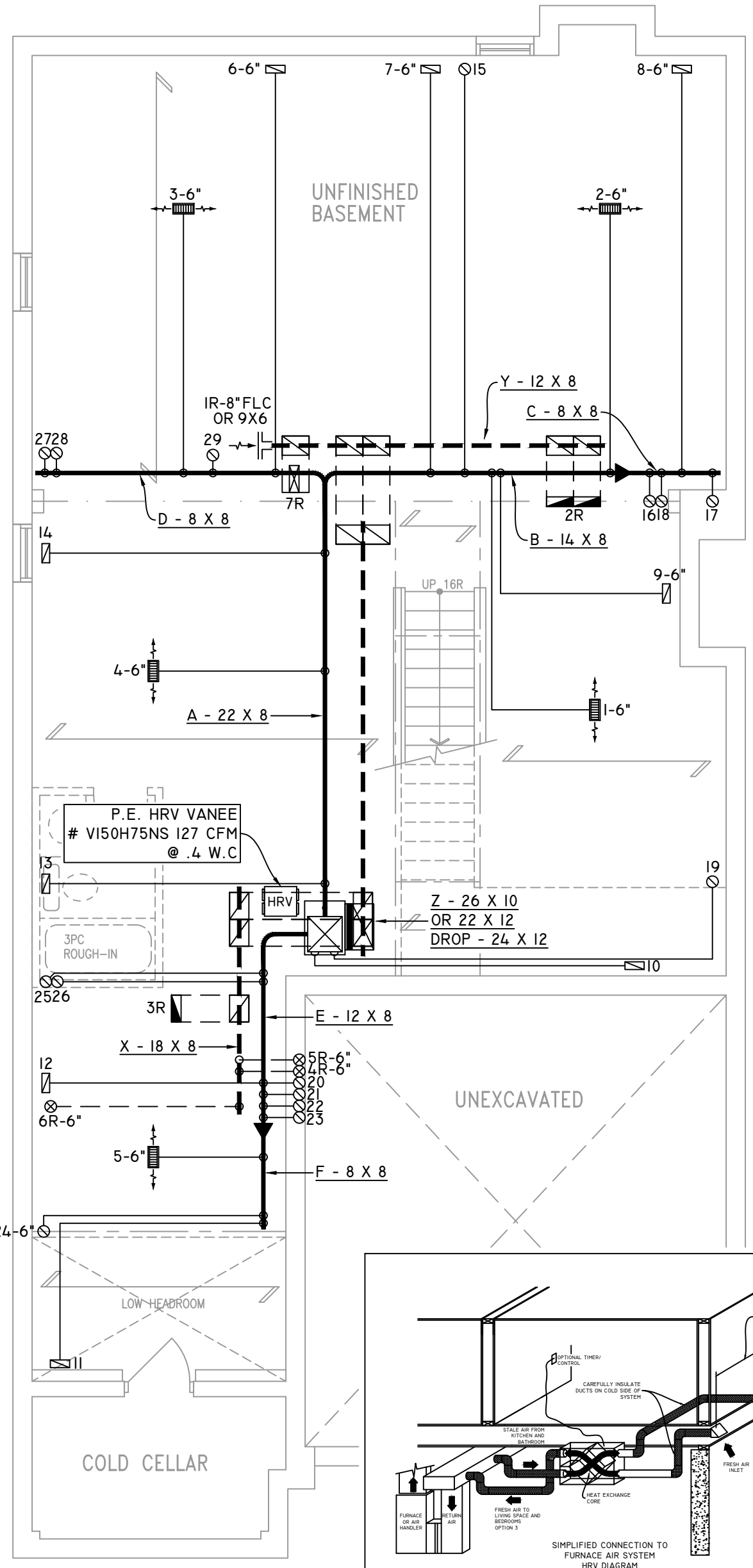
Residential Foundation Thermal Load Calculator

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):	**21.86**	 Insulation Configuration
Floor Width (m):	**5.88**	
Exposed Perimeter (m):	**55.47**	
Wall Height (m):	**3.05**	
Depth Below Grade (m):	**0.91**	
Window Area (m^2):	**2.79**	
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):	**2901**	

REVIEWED

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)

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

ALL DUCTWORK LOCATED IN UNCONDITIONED AREAS MUST BE SEALED TO CLASS A LEVEL AS PER OBC PART 6-6.2.4.3.(II)

ALL DUCTWORK LOCATED IN CONDITIONED AREAS MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(I2)

BASEMENT PLAN 'A'&'B'

(EL. 'C' SIMILAR)

(9'-0" BASEMENT)

REVIEWED 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	70,331 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

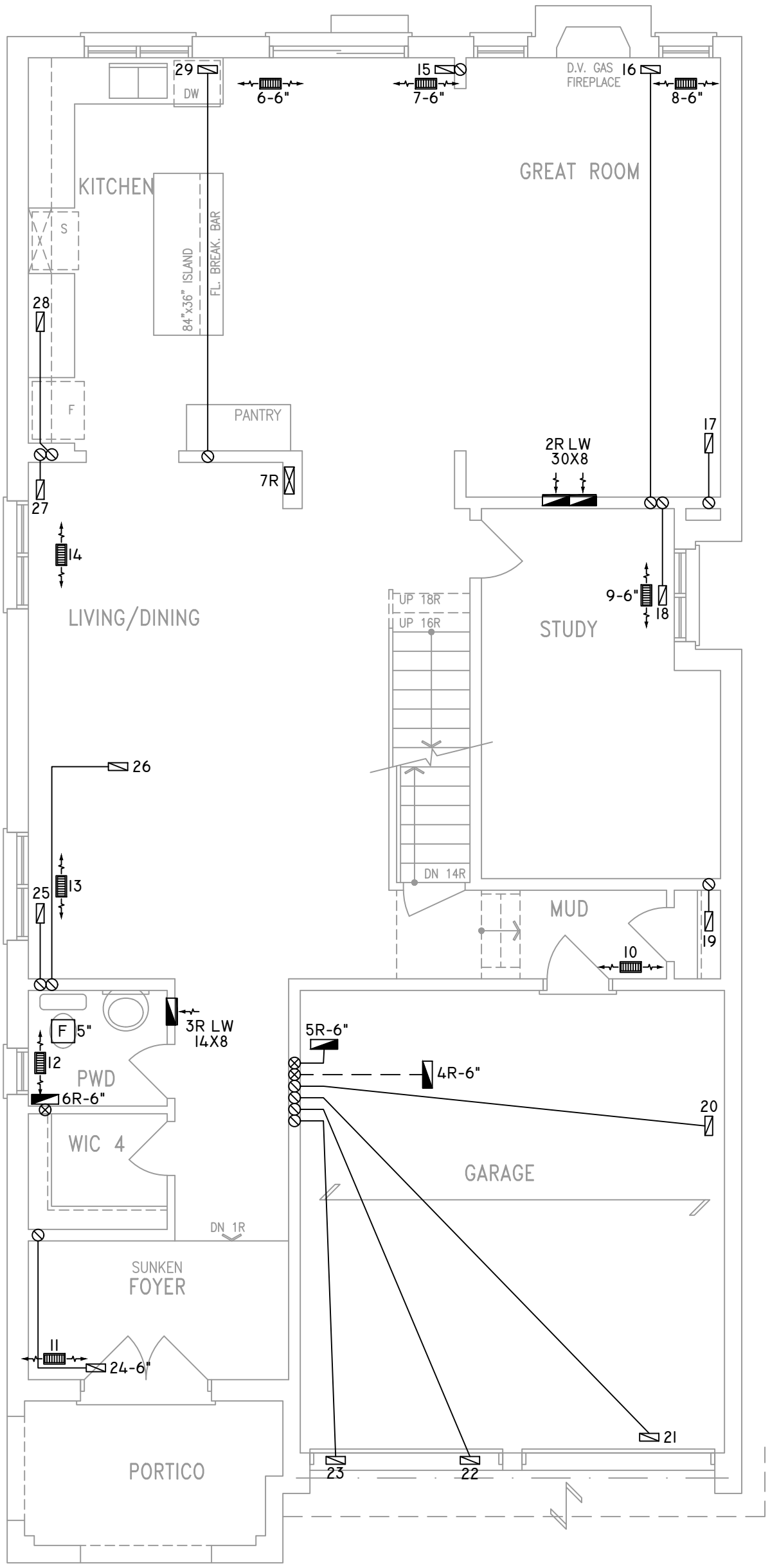
# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	6
IST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: BASEMENT		
DRAWN BY: JL	CHECKED: DD	SQFT 3460
LAYOUT NO. JB-08345	DRAWING NO. M1	

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-21
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

KITCHEN EXHUST
100 CFM MIN. 6"
ALL OTHER FANS SHALL BE
A MIN. OF 50 CFM OR
OTHERWISE NOTED
AS PER 9.32.3.5



CIRCULATION PRINCIPAL FAN SWITCH TO BE CENTRALLY LOCATED

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

ALL DUCTWORK LOCATED IN UNCONDITIONED AREAS MUST BE SEALED TO CLASS A LEVEL AS PER OBC PART 6-6.2.4.3.(II)

ALL DUCTWORK LOCATED IN CONDITIONED AREAS MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(I2)

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

REVIEWED OBC 2012

GROUND FLOOR PLAN 'A'

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

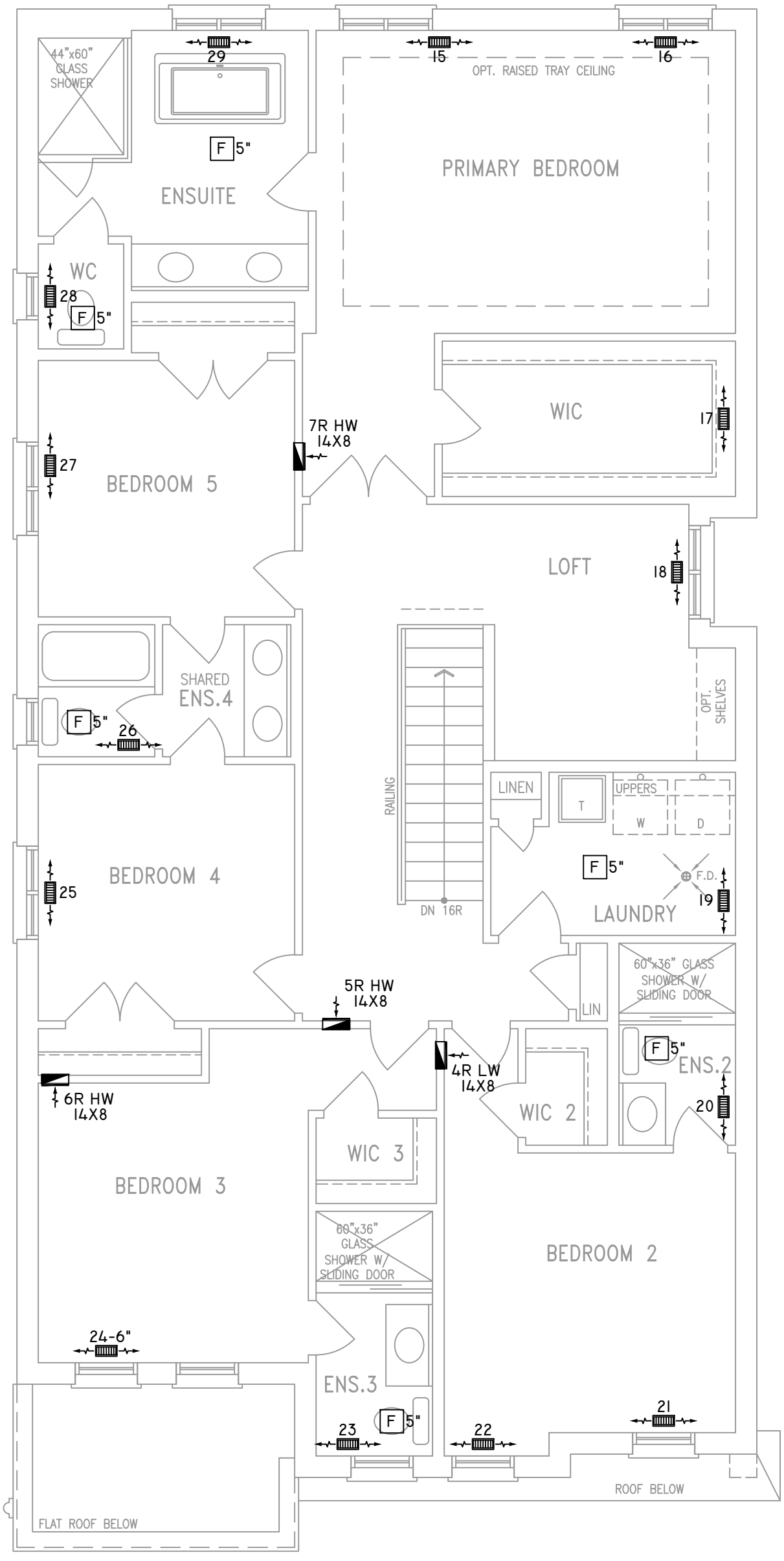
HEAT-LOSS	70,331 BTU/HR.
UNIT MAKE	AMANA OR EQUAL.
UNIT MODEL	AMEC960803BNA OR EQUAL.
UNIT HEATING INPUT	80,000 BTU/HR.
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	6
IST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: JL	CHECKED: DD	SQFT 3460
LAYOUT NO. JB-08345	DRAWING NO. M2	

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-21
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		



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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

ALL DUCTWORK LOCATED IN UNCONDITIONED AREAS MUST BE SEALED TO CLASS A LEVEL AS PER OBC PART 6-6.2.4.3.(II)

ALL DUCTWORK LOCATED IN CONDITIONED AREAS MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(I2)

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

REVIEWED OBC 2012

SECOND FLOOR PLAN 'A'

ZONE 1 COMPLIANCE
PACKAGE "AI" 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.
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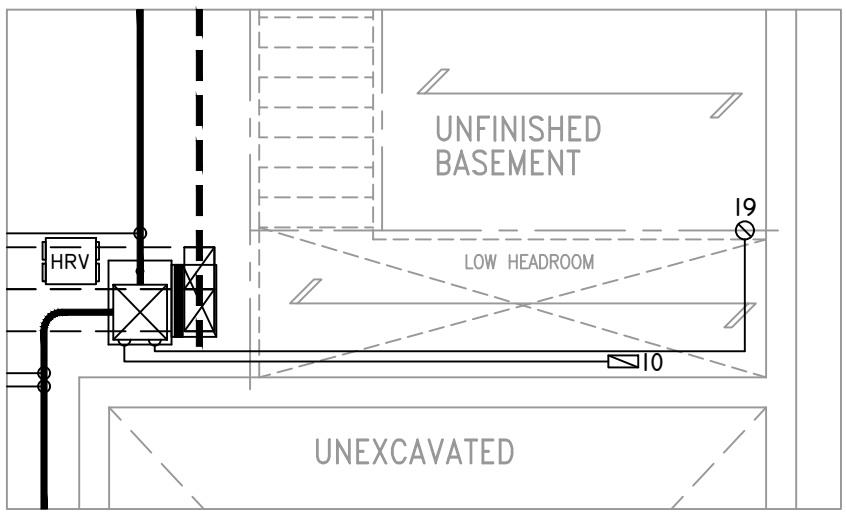
UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	6
IST FLOOR	9	2	2
BASEMENT	5	1	

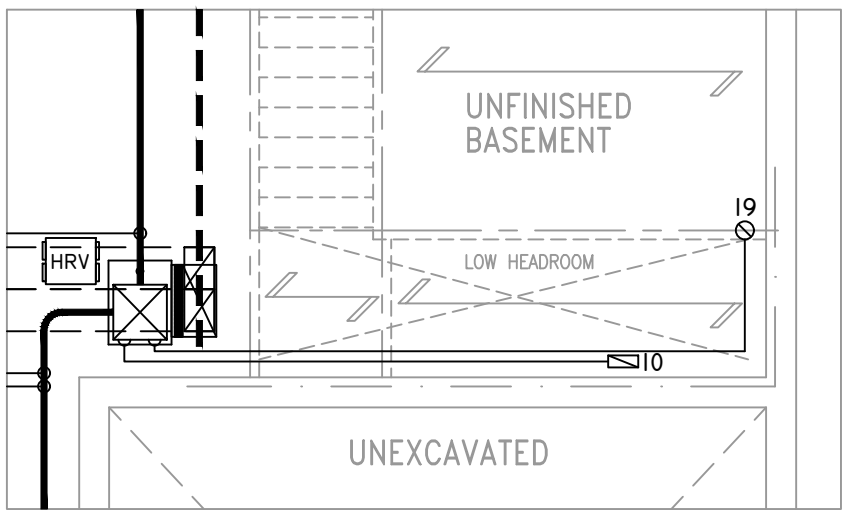
FLOOR PLAN: SECOND FLOOR
DRAWN BY: JL | CHECKED: DD | SQFT 3460
LAYOUT NO. JB-08345 | DRAWING NO. M3

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-21
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

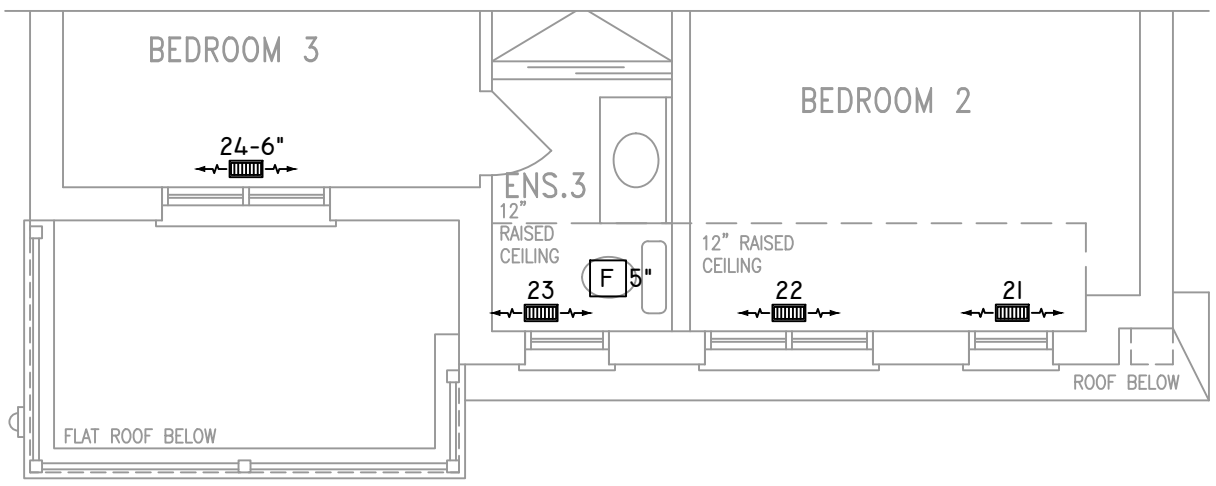
FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER	LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE SUPPLY AIR PIPE RISER VOLUME DAMPER		DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM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



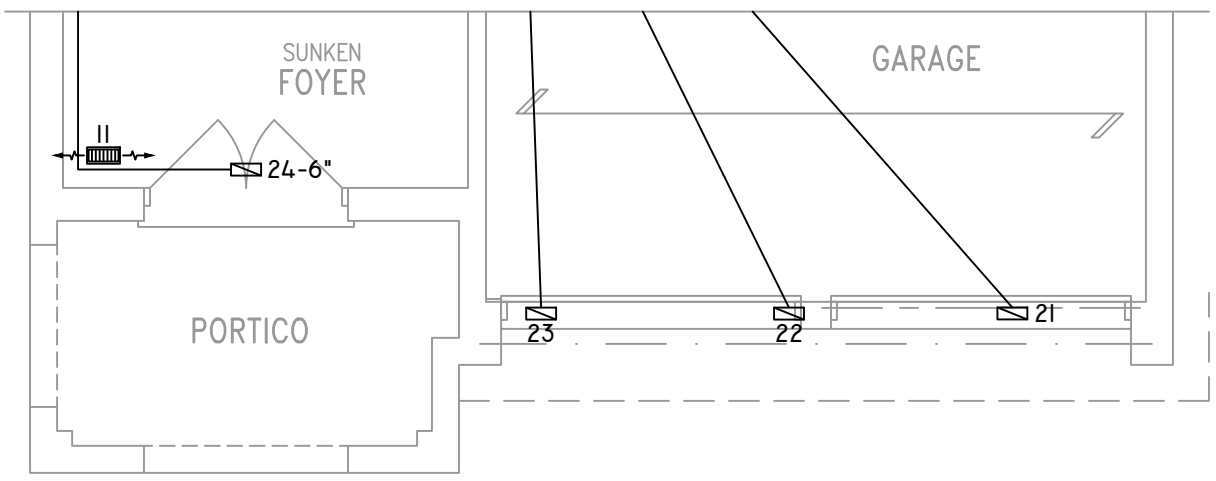
PARTIAL BASEMENT PLAN W/ 1R SUNKEN AREA ABOVE CONDITION



PARTIAL BASEMENT PLAN W/ >1R SUNKEN AREA ABOVE CONDITION



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

REVIEWED OBC 2012

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

NOTES
INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
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UNIT HEATING OUTPUT	76,800 BTU/HR.
A/C COOLING CAPACITY	3.0 TONS.
FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	6
IST FLOOR	9	2	2
BASEMENT	5	1	

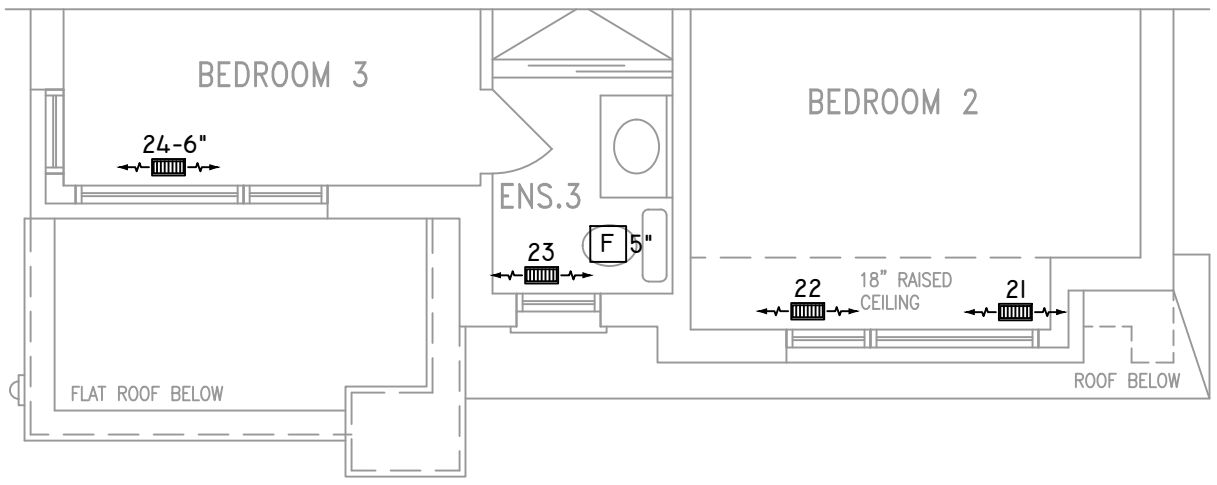
FLOOR PLAN: PARTIAL PLAN(S)

DRAWN BY:	CHECKED:	SQFT
JL	DD	3460

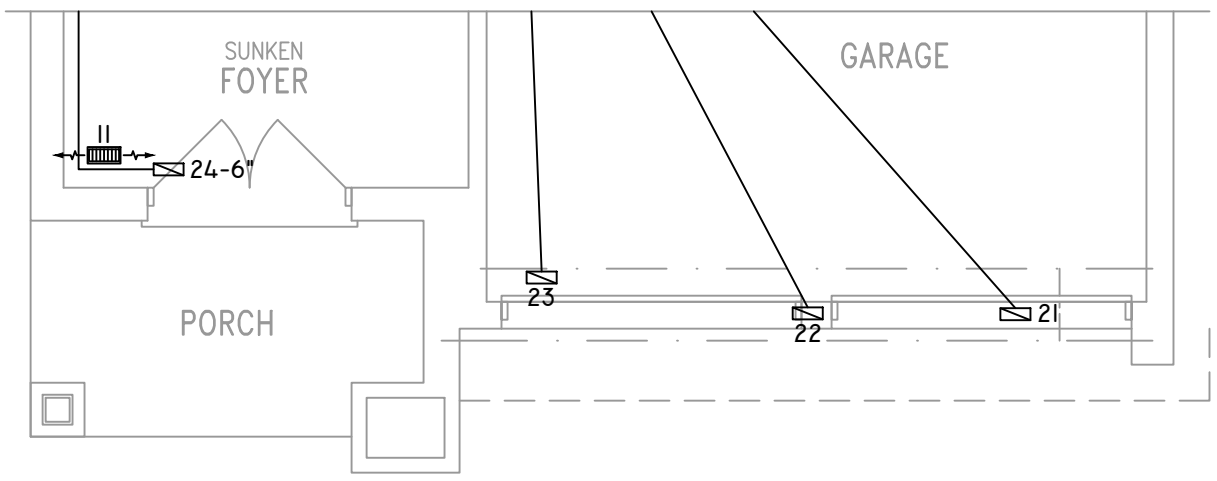
LAYOUT NO. JB-08345 DRAWING NO. M4

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-21
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

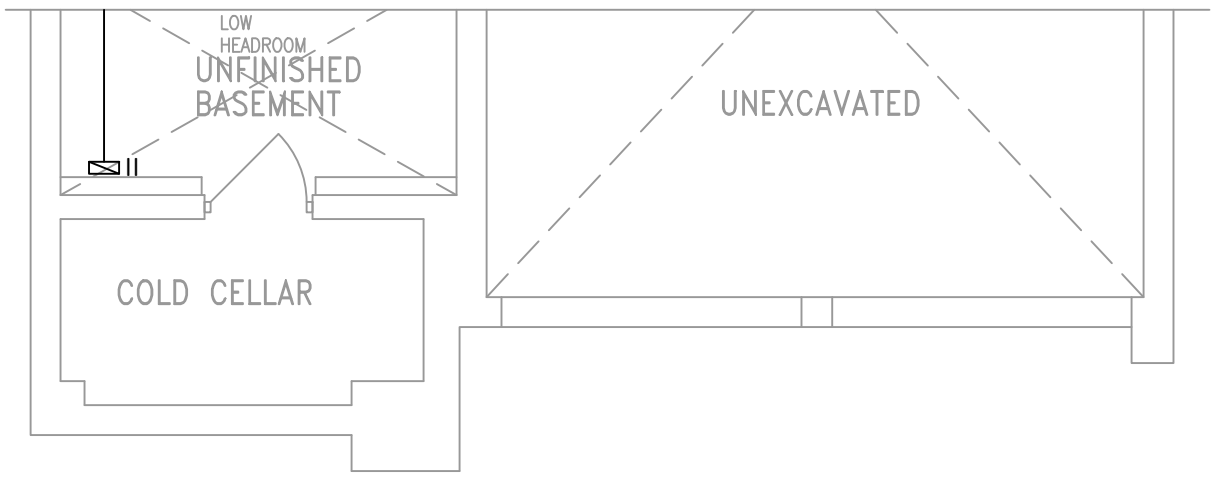
~~	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
——	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER	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

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

SIGNATURE OF DESIGNER

REVIEWED OBC 2012

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

NOTES

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FAN SPEED	1172 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	6
1ST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN:	PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD	SQFT 3460
LAYOUT NO. JB-08345		DRAWING NO. M5

DATE:	JULY 19, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-21
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
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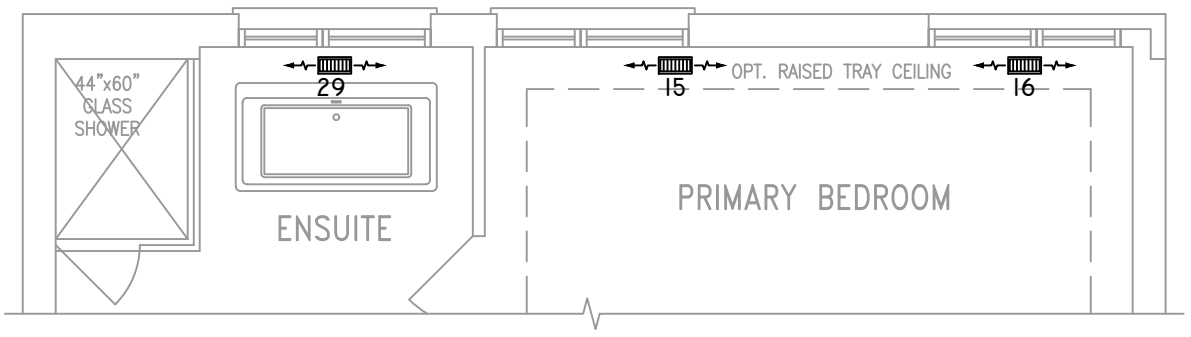
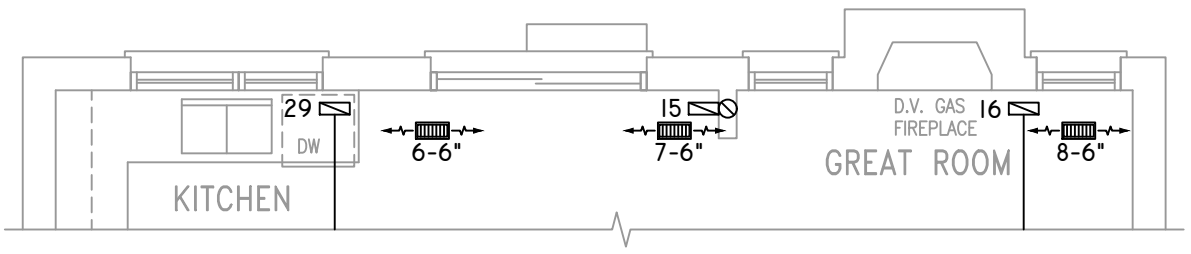
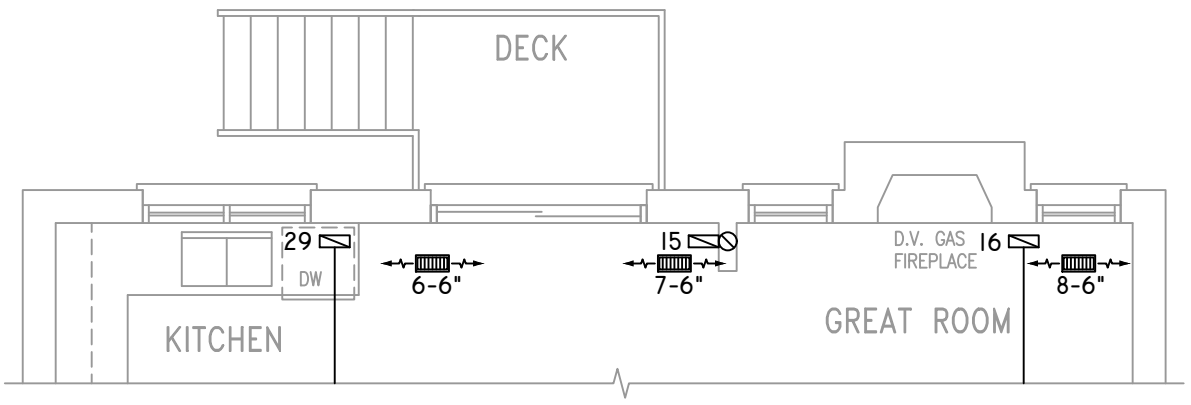
			VOLUME DAMPER					$	PRINCIPAL EXHAUST FAN SWITCH
								F PE	W/R & PRINCIPAL EXHAUST FAN



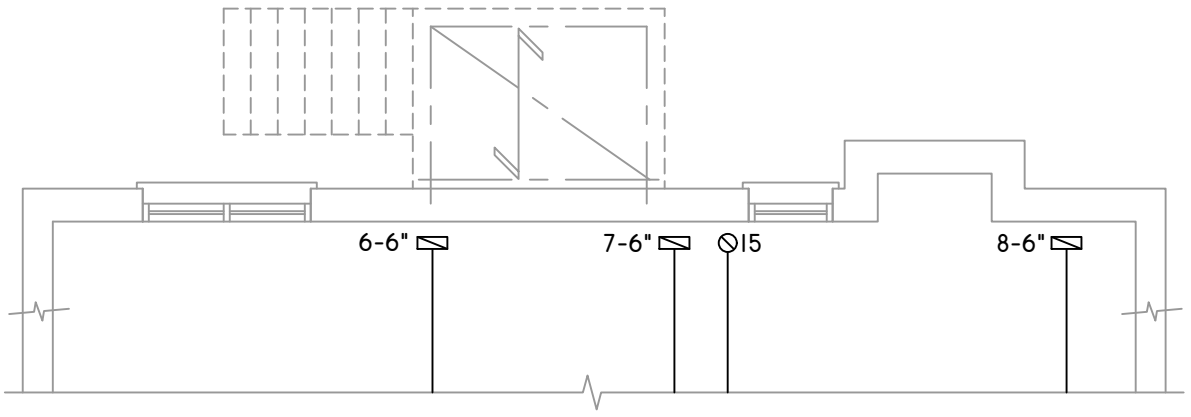
PART. SECOND FLOOR
PLAN 'C' @ REAR
(UPGRADED CONDITION)



PART. GROUND FLOOR PLAN 'C' @ REAR
(UPGRADED CONDITION)



PARTIAL GROUND FLOOR PLAN
9R OR MORE W.O.D. CONDITION
ELEV. 'B' & 'C' SIMILAR



PARTIAL BASEMENT PLAN
9R OR MORE W.O.D. CONDITION
ELEV. 'B' & 'C' SIMILAR

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

SIGNATURE OF DESIGNER

REVIEWED OBC 2012

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

NOTES
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2ND FLOOR	15	4	6
1ST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)
DRAWN BY: JL | CHECKED: DD | SQFT 3460
LAYOUT NO. JB-08345 | DRAWING NO. M6

DATE: JULY 19, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S38-21
PROJECT: GREEN VALLEY EAST BRADFORD,ONT.
SCALE: 3/16" = 1'-0"