

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				Lot:	
S38-21 - WOB				Lot/con.	
Municipality		Postal code	Plan number/ other description		
Bradford					
B. Individual who reviews and takes responsibility for design activities					
Name			Firm		
David DaCosta			gtaDesigns Inc.		
Street address				Unit no.	Lot/con.
2985 Drew Road, Suite 202					
Municipality		Postal code	Province	E-mail	
Mississauga		L4T 0A4	Ontario	hvac@gtadesigns.ca	
Telephone number		Fax number		Cell number	
(905) 671-9800					
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-08593	
Heating and Cooling Load Calculations		Main	X	Builder	
Air System Design		Alternate		Project	
Residential mechanical ventilation Design Summary		Area Sq ft:	3460	Model	
Residential System Design per CAN/CSA-F280-12				S38-21 - WOB	
Residential New Construction - Forced Air				Package A1	
D. Declaration of Designer					
I, <u>David DaCosta</u> declare that (choose one as appropriate): (print name) ☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 Division C of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____ ☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5 of Division C, of the Building Code. Individual BCIN: <u>32964</u> Basis for exemption from registration: <u>Division C 3.2.4.1. (4)</u> ☐ 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.					
<u>November 18, 2022</u> Date		 Signature of Designer			

NOTE:

- 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.
- Schedule 1 does not require to be completed a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association 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.

Heat loss and gain calculation summary sheet				CSA-F280-M12 Standard Form No. 1	
These documents issued for the use of Bayview Wellington				Layout No.	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.				JB-08593	
Building Location					
Address (Model): S38-21 - WOB			Site: Green Valley East		
Model:			Lot:		
City and Province: Bradford			Postal code:		
Calculations based on					
Dimensional information based on:			VA3 Design Oct/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			Cooling design conditions		
Outdoor temp -9.4 Indoor temp: 72 Mean soil temp: 48			Outdoor temp 86 Indoor temp: 75 Latitude: 44		
Above grade walls			Below grade walls		
Style A: As per OBC SB12 Package A1 R 22			Style A: As per OBC SB12 Package A1 R 20ci		
Style B:			Style B:		
Style C:			Style C:		
Style D:			Style D:		
Floors on soil			Ceilings		
Style A: As per Selected OBC SB12 Package A1			Style A: As per Selected OBC SB12 Package A1 R 60		
Style B:			Style B: As per Selected OBC SB12 Package A1 R 31		
Exposed floors			Style C:		
Style A: As per Selected OBC SB12 Package A1 R 31			Doors		
Style B:			Style A: As per Selected OBC SB12 Package A1 R 4.00		
Windows			Style B:		
Style A: As per Selected OBC SB12 Package A1 R 3.55			Style C:		
Style B:			Skylights		
Style C:			Style A: As per Selected OBC SB12 Package A1 R 2.03		
Style D:			Style B:		
Attached documents: As per Schedule 1		Heat Loss/Gain Calculations 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

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

Builder: Bayview Wellington

Date: November 18, 2022

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.

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Project: Green Valley East

Model: S38-21 - WOB

System 1

Individual BCIN: 32964 *David DaCosta* David DaCosta

Project # PJ-00041
Layout # JB-08593

DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE		FURNACE/AIR HANDLER DATA:			BOILER/WATER HEATER DATA:		A/C UNIT DATA:		
Level 1 Net Load	28,335 btu/h	Equipment External Static Pressure	0.5 "w.c.	Make	Amana		Make	Type	Amana	3.0 Ton	
Level 2 Net Load	23,504 btu/h	Additional Equipment Pressure Drop	0.225 "w.c.	Model	AMEC960803BNA		Model		Cond.-----	3.0	
Level 3 Net Load	13,798 btu/h	Available Design Pressure	0.275 "w.c.	Input Btu/h	80000		Input Btu/h		Coil -----	3.0	
Level 4 Net Load	9,236 btu/h	Return Branch Longest Effective Length	300 ft	Output Btu/h	76800		Output Btu/h				
Total Heat Loss	74,874 btu/h	R/A Plenum Pressure	0.138 "w.c.	E.s.p.	0.50	" W.C.	Min.Output Btu/h	AWH			
Total Heat Gain	35,183 btu/h	S/A Plenum Pressure	0.14 "w.c.	Water Temp		deg. F.	Blower DATA:				
		Heating Air Flow Proportioning Factor	0.0157 cfm/btuh	AFUE	96%		Blower Speed Selected:	W2	Blower Type	ECM	
Building Volume Vb	44794 ft³	Cooling Air Flow Proportioning Factor	0.0333 cfm/btuh	Aux. Heat					(Brushless DC OBC 12.3.1.5.(2))		
Ventilation Load	1,677 Btuh.	R/A Temp	70 deg. F.	SB-12 Package	Package A1		Heating Check	1172 cfm	Cooling Check	1172 cfm	
Ventilation PVC	95.4 cfm	S/A Temp	131 deg. F.								
Supply Branch and Grill Sizing		Diffuser loss	0.01 "w.c.	Temp. Rise>>>	61 deg. F.		Selected cfm>	1172 cfm	Cooling Air Flow Rate	1172 cfm	

	Level 1														Level 2													
S/A Outlet No.	1	2	3	4	5										6	7	8	9	10	11	12	13	14					
Room Use	BASE	BASE	BASE	BASE	BASE										KIT	KIT	GRT	STUDY	MUD	FOY	PWD	LIV/DIN	LIV/DIN					
Btu/Outlet	5667	5667	5667	5667	5667										2512	2512	3827	2391	2047	4558	808	2424	2424					
Heating Airflow Rate CFM	89	89	89	89	89										39	39	60	37	32	71	13	38	38					
Cooling Airflow Rate CFM	30	30	30	30	30										98	98	82	81	8	48	13	68	68					
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	
Actual Duct Length	41	43	50	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	
Total Effective Length	151	123	150	118	116	70	70	70	70	70	70	70	70	70	159	161	152	139	104	129	128	103	98	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	
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	
Trunk	B	B	D	A	F										D	B	C	B	PTO	F	E	A	A					

	Level 3														Level 3															
S/A Outlet No.	15	16	17	18	19	20	21	22	23						24	25	26	27	28	29										
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	1797	1797	710	1673	640	887	2364	2364	1565						3292	1519	673	1334	515	1903										
Heating Airflow Rate CFM	28	28	11	26	10	14	37	37	24						52	24	11	21	8	30										
Cooling Airflow Rate CFM	42	42	5	20	5	5	51	51	28						86	36	11	35	9	32										
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			
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			
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			
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			
Duct Size Round	5	5	3	4	3	3	5	5	4						6	4	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			
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	222	350	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	537	0.05	13.0	18x8 14x10
W				
V				
U				
T				
S				
R				
Q				

Supply Trunk Duct Sizing					
Trunk	CFM	Press.	Round	Rect. Size	
A	759	0.06	14.0	22x8	18x10
B	407	0.06	11.0	14x8	10x10
C	125	0.06	7.5	8x8	87
D	187	0.07	8.0	8x8	8x7
E	371	0.07	10.5	12x8	10x10
F	212	0.08	8.5	8x8	107
G					
H					
I					
J					
K					



Heatloss/Gain Calculations CSA-F280-12

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

e-mail hvac@gtadesigns.ca

Builder: Bayview Wellington

Date: November 18, 2022

Weather Data Bradford 44 -9.4 86 22 48.2

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2012 OBC

Project: Green Valley East

Model: S38-21 - WOB

System 1

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3460

Project # PJ-00041
Layout # JB-08593

Level 1				BASE																							
Run ft. exposed wall A				144	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
Run ft. exposed wall B				38	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B			
Ceiling height				7.5	AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG			
Floor area				1301	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area			
Exposed Ceilings A				A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
Exposed Ceilings B				B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B			
Exposed Floors				Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr			
Gross Exp Wall A				1080																							
Gross Exp Wall B				380																							
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																					
South				3.55	22.93	22.50	6	138	135																		
WOB Windows				3.55	22.93	27.86	76	1743	2117																		
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	1053		548																		
Net exposed walls B				17.03	4.78	0.65	304	1453	196																		
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								9892																			
Total Conductive	Heat Loss							13652																			
	Heat Gain								3055																		
Air Leakage	Heat Loss/Gain				1.0375	0.0532		14165	162																		
Ventilation	Case 1				0.06	0.06																					
	Case 2				17.58	11.88																					
	Case 3			x	0.04	0.06		518	196																		
Heat Gain People						239																					
Appliances Loads				1 =.25 percent		5638																					
Duct and Pipe loss						10%																					
Level HL Total	28,335			Total HL for per room			28335																				
Level HG Total	4,438			Total HG per room x 1.3				4438																			

Level 2				KIT		GRT		STUDY		MUD		FOY		PWD		LIV/DIN		A		A		A		A				
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	A	A			
Run ft. exposed wall B				B	B	B	B	B	B	B	B	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				
Floor area				322	Area	223	Area	169	Area	42	Area	129	Area	37	Area	454	Area	Area	Area	Area	Area	Area	Area	Area	Area			
Exposed Ceilings A				A	A	4	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
Exposed Ceilings B				B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B			
Exposed Floors				Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	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	
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																						
Existing Windows				1.99	40.90	23.66											10	229	225	60	1376	1350						
Skylight				2.03	40.10	88.23																						
Doors				4.00	20.35	2.75																						
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																											
	Heat Gain																											
Air Leakage	Heat Loss/Gain				0.5879	0.0532		1817	115		1384	56		865	22		740	9		1648	53		292	14		1753	83	
Ventilation	Case 1				0.03	0.06																						
	Case 2				17.58	11.88																						
	Case 3			x	0.04	0.06		117	139		89	68		56	27		48	11		106	63		19	17		113	101	
Heat Gain People						239																						
Appliances Loads				1 =.25 percent		5638	1.5		2114	0.5		705	1.0		1409								1.0		1409			
Duct and Pipe loss						10%																						
Level HL Total	23,504			Total HL for per room				5025			3827			2391			2047			4558			808			4848		
Level HG Total	16,961			Total HG per room x 1.3					5892			2457			2443			247			1434			379			4109	

Total Heat Loss	74,874	btu/h
Total Heat Gain	35,183	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

David DaCosta

SB-12 Package

Package A1



Heatloss/Gain Calculations CSA-F280-12

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

e-mail hvac@gtadesigns.ca

Builder: Bayview Wellington

Date: November 18, 2022

Weather Data Bradford 44 -9.4 86 22 48.2

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2012 OBC

Project: Green Valley East

Model: S38-21 - WOB

System 1

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3460

Project # PJ-00041
Layout # JB-08593

Level 3				P.BED		WIC		LOFT		LAUND		ENS 2		BED 2		ENS 3		A		A		A		A				
Run ft. exposed wall A				31 A		9 A		13 A		8 A		9 A		26 A		10 A		A		A		A		A				
Run ft. exposed wall B				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		9.0				
Floor area				274 Area		90 Area		258 Area		85 Area		50 Area		218 Area		60 Area		Area		Area		Area		Area				
Exposed Ceilings A				274 A		90 A		258 A		85 A		50 A		218 A		60 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		46 Flr		213 Flr		60 Flr		Flr		Flr		Flr		Flr				
Gross Exp Wall A				341		81		117		72		81		286		110												
Gross Exp Wall B																												
Components				R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain		
North Shaded				3.55	22.93	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																								
				Heat Gain																								
Air Leakage				Heat Loss/Gain		0.3515	0.0532																					
Ventilation				Case 1			0.02	0.06																				
				Case 2			17.58	11.88																				
				Case 3		x	0.04	0.06																				
Heat Gain People								239	2									1					239					
Appliances Loads				1 =.25 percent				5638																				
Duct and Pipe loss								10%																				
Level HL Total				13,798		Total HL for per room												1	79	9	1	419	196	1	139	52		
Level HG Total				7,491		Total HG per room x 1.3																						

Level 3				BED 3			BED 4			ENS 4			BED 5			WC			ENS			A		A		A		A		A	
Run ft. exposed wall A				24 A			14 A			6 A			11 A			5 A			21 A			A		A		A		A		A	
Run ft. exposed wall B				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		9.0	
Floor area				217 Area			146 Area			72 Area			143 Area			21 Area			128 Area			Area		Area		Area		Area		Area	
Exposed Ceilings A				217 A			146 A			72 A			143 A			21 A			128 A			A		A		A		A		A	
Exposed Ceilings B				B			B			B			B			B			B			B		B		B		B		B	
Exposed Floors				68 Flr			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	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	11.62																									
East/West				3.55	22.93	29.56	35	803	1035																						
South				3.55	22.93	22.50	12	275	270	16	367	360	7	161	158	16	367	360	7	161	158	16	367	473							
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				960			371			1370										
		Heat Gain									525				234			196			667										
Air Leakage		Heat Loss/Gain			0.3515	0.0532	833		83		384		28		170		12		130		10		481		35						
Ventilation		Case 1			0.02	0.06																									
		Case 2			17.58	11.88																									
		Case 3		x	0.04	0.06																									
Heat Gain People						239	1		239	1		34	15		36	32		14	13			52	43								
Appliances Loads				1 =.25 percent		5638																									
Duct and Pipe loss						10%																									
Level HL Total		9,236		Total HL for per room				3292			1519				673				515			1903									
Level HG Total		6,293		Total HG per room x 1.3					2583			1073				340				284			969								

Total Heat Loss	74,874	btu/h
Total Heat Gain	35,183	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

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

David DaCosta

Package: **Package A1**
Project: **Bradford** Model: **S38-21 - 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)	☒	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		
☒	Forced air	
☐	Non forced air	
☐	Electric space heat (if over 10% of heat load)	

House Type 9.32.3.1(2)		
I	☒	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	☒	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				<u>212</u>

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				<u>95.4</u>

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			<u>116.6</u>	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
<i>all fans HVI listed</i>	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	<i>David DaCosta</i>		
HRAI #	5190	BCIN #	32964
Date	November 18, 2022		



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)

Page 7
 Project # PJ-00041
 Layout # JB-08593

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 S38-21 - WOB		Unit number	Lot/Con
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):	<u>Package A1</u>	Table: <u>3.1.1.2.A</u>
--	-------------------	-------------------------

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 = <u>495.34</u> m ² or <u>5331.9</u> ft ²	W, S & G % = <u>9.6%</u>	☐ Log/Post&Beam	☐ ICF Above Grade	☐ ICF Basement
Area of W, S & G = <u>47.658</u> m ² or <u>513.0</u> ft ²	Utilize Window ☐ Yes Averaging ☒ No	☐ Slab-on-ground	☒ Walkout Basement	
		☒ Air Conditioning	☐ Combo Unit	
		☐ Air Sourced Heat Pump (ASHP)		
		☐ Ground Source Heat Pump (GSHP)		

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

Energy Efficiency Substitutions				
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))				
☐ Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))				
☐ Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	☐ Table 3.1.1.4.B	Required:	Permitted Substitution:	
	☐ 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·ft²·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 David DaCosta	BCIN 32964	Signature
------------------------------	----------------------	---------------

Package:
Project:

Package A1
Bradford

System:
Model:

System 1
S38-21 - WOB

Air Leakage Calculations

Building Air Leakage Heat Loss					Building Air Leakage Heat Gain				
B	LRairh	Vb	HL [^] T	HLleak	B	LRairh	Vb	HG [^] T	HG Leak
0.018	0.432	44794	81.4	28330	0.018	0.106	44794	11	939

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)					Levels			
Level	Level Factor (LF)	Building Air	Level Conductive Heat Loss (HL _{clevel})	Air Leakage Heat Loss Multiplier	1	2	3	4
					(LF)	(LF)	(LF)	(LF)
Level 1	0.5	28330	13652	1.0375	1.0	0.6	0.5	0.4
Level 2	0.3		14457	0.5879		0.4	0.3	0.3
Level 3	0.2		16121	0.3515			0.2	0.2
Level 3	0.2		16121	0.3515				0.1

HG LEAK		939	Air Leakage Heat Gain	
BUILDING CONDUCTIVE HEAT GAIN		17662	0.0532	

Levels this Dwelling			
3			

Ventilation Calculations

Ventilation Heat Loss					Ventilation Heat Gain			
C	PVC	HL [^] T	(1-E) HRV	HLbvent	C	PVC	HG [^] T	HGbvent
1.08	95.4	81.4	0.20	1677	1.1	95.4	11	1133

Case 1					Case 1			
Ventilation Heat Loss (Exhaust only Systems)					Ventilation Heat Gain (Exhaust Only Systems)			
Case 1 - Exhaust Only					Case 1 - Exhaust Only		Multiplier	
Level	LF	HLbvent	LVL Cond. HL	Multiplier	HGbvent	1133	0.06	
Level 1	0.5	1677	13652	0.06	Building	17662		
Level 2	0.3		14457	0.03				
Level 3	0.2		16121	0.02				
Level 3	0.2		16121	0.02				

Case 2					Case 2			
Ventilation Heat Loss (Direct Ducted Systems)					Ventilation Heat Gain (Direct Ducted Systems)			
C	HL [^] T	(1-E) HRV	Multiplier		C	HG [^] T	Multiplier	
1.08	81.4	0.20	17.58		1.08	11	11.88	

Case 3					Case 3			
Ventilation Heat Loss (Forced Air Systems)					Ventilation Heat Gain (Forced Air Systems)			
Total Ventilation Load		HLbvent	Multiplier		HGbvent	HG*1.3	Vent Heat Gain	Multiplier
		1677	0.04		1133	1	1133	0.06

Foundation Conductive Heatloss Level 1	Level 1	2723	Watts	9291	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		176	Watts	601	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

David DaCosta

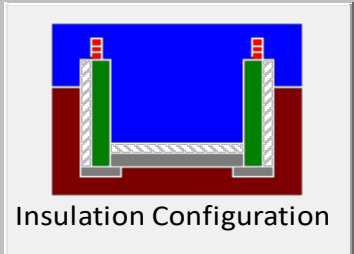
Envelope Air Leakage Calculator

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):	9.75			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Shallow			
House Volume (m ³):	1268.57			
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):		0.432		
Cooling Air Leakage Rate (ACH/H):		0.106		

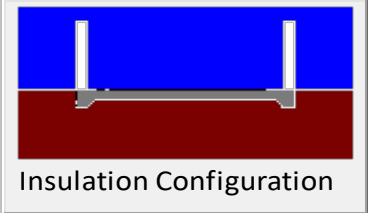
Residential Foundation Thermal Load Calculator

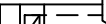
Supplemental tool for CAN/CSA-F280

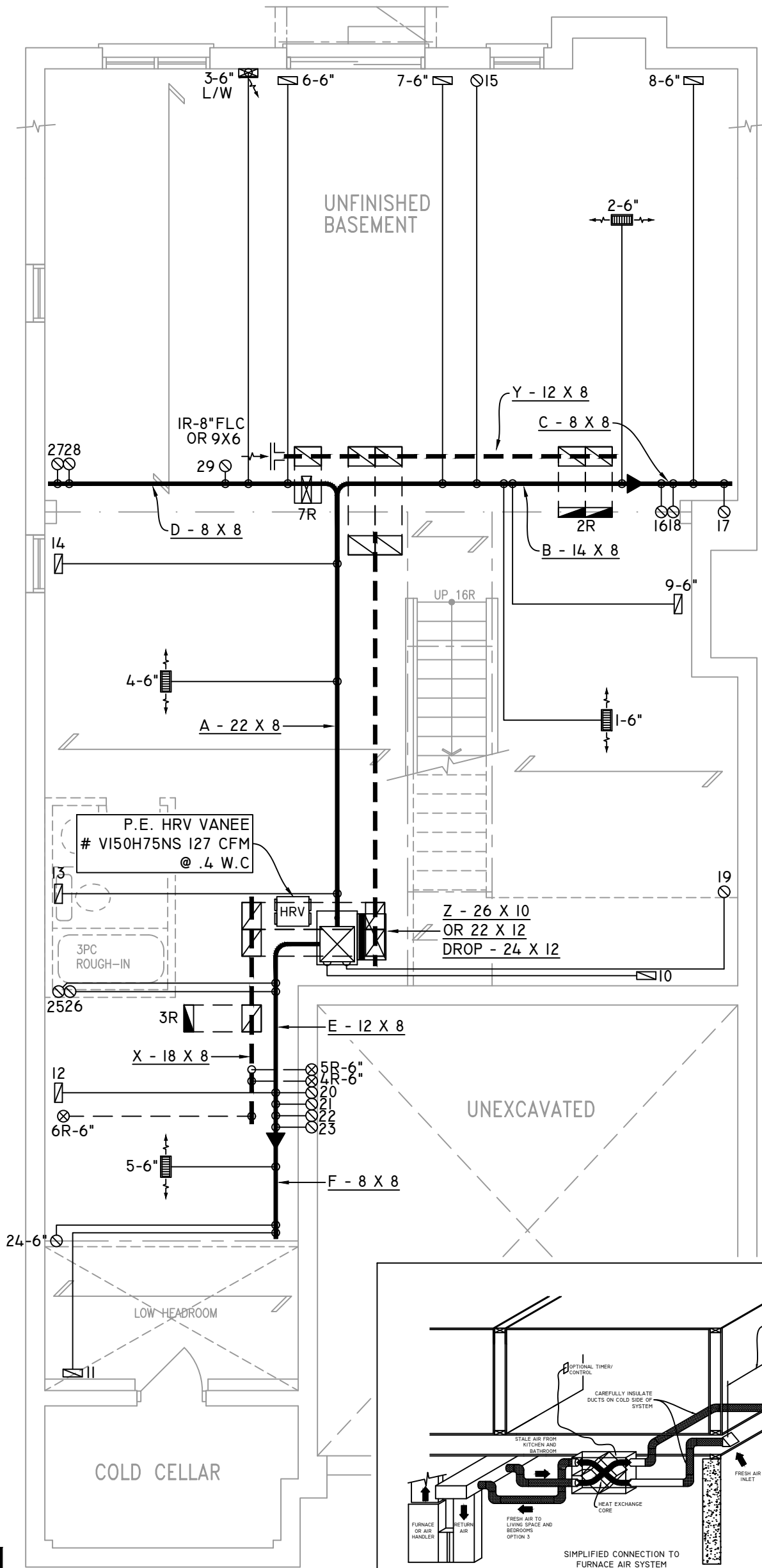
Weather Station Description		
Province:	Ontario	▼
Region:	Bradford	▼
Site Description		
Soil Conductivity:	High conductivity: moist soil	▼
Water Table:	Normal (7-10 m, 23-33 Ft)	▼
Foundation Dimensions		
Floor Length (m):	20.67	 Insulation Configuration
Floor Width (m):	5.85	
Exposed Perimeter (m):	43.89	
Wall Height (m):	3.05	
Depth Below Grade (m):	0.76	
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):		2723

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):	9.60	 Insulation Configuration
Width (m):	0.76	
Exposed Perimeter (m):	11.58	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		176

	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		THERMOSTAT
			VOLUME DAMPER						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. R12
- 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

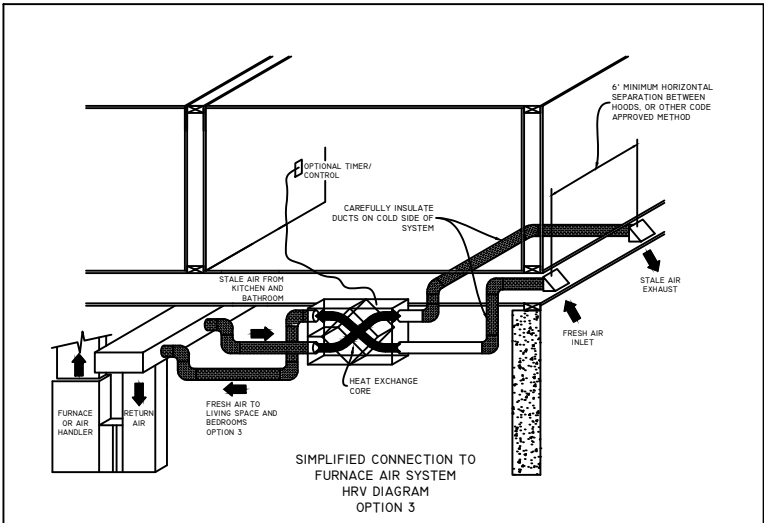
DAVID DA COSTA  B.C.I.N. 32964

SIGNATURE OF DESIGNER

PARTIAL BASEMENT PLAN

W.O.B. CONDITION

ELEV. 'B' & 'C' SIMILAR



OBC 2012

ZONE I COMPLIANCE

PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.



2985 DREW ROAD

SUITE 202,

MISSISSAUGA, ONT.

L4T 0A4 TEL: 905-671-9800

EMAIL: DAVE@GTADESIGNS.CA

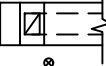
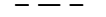
WEB: WWW.GTADESIGNS.CA

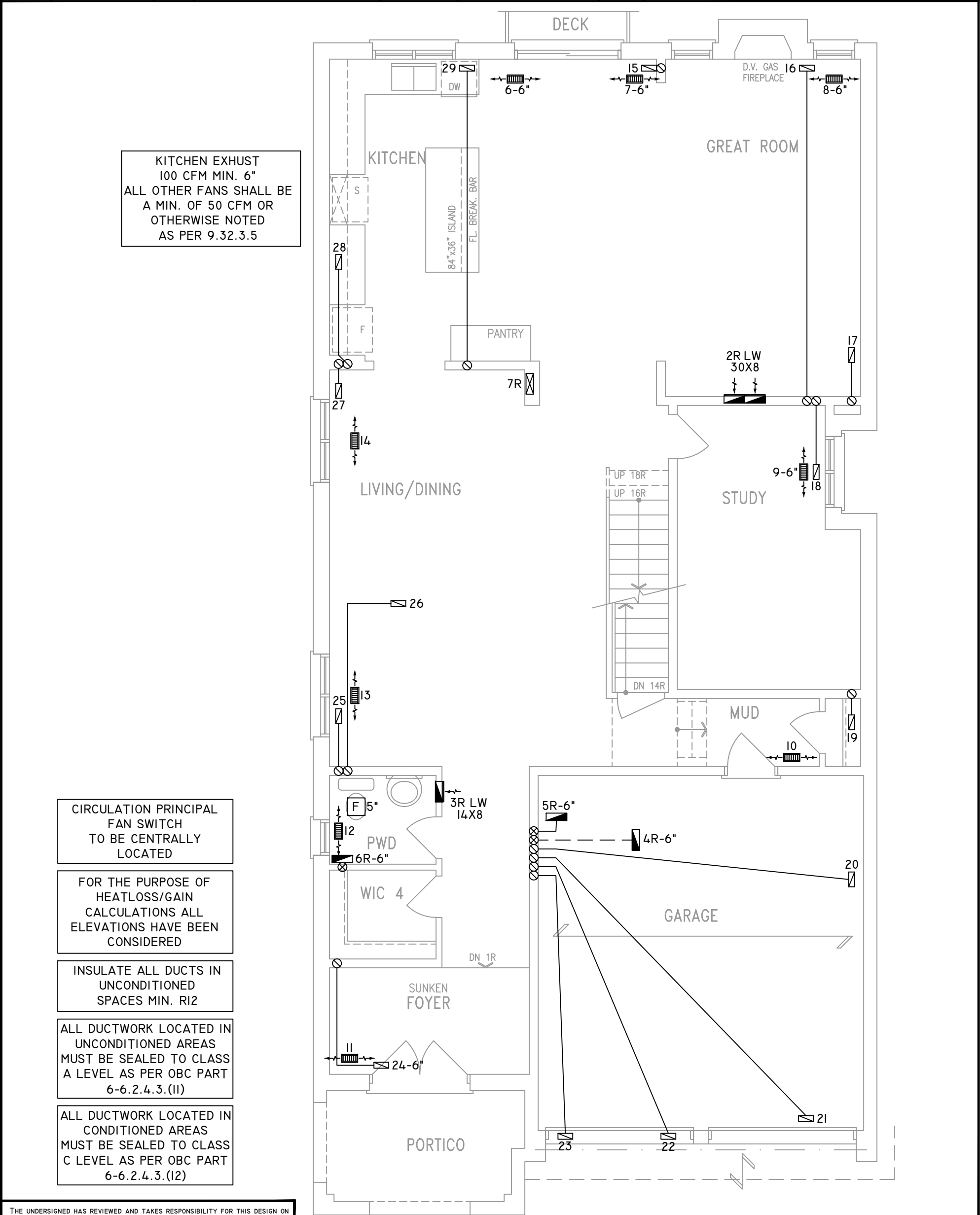
HEAT-LOSS	74,874	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

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

FLOOR PLAN:	BASEMENT
DRAWN BY:	JL
CHECKED:	DD
LAYOUT NO.	JB-08593
SQFT	3460
DRAWING NO.	MI

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-21 - WOB
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		THERMOSTAT
			VOLUME DAMPER				PRINCIPAL EXHAUST FAN SWITCH		W/R & PRINCIPAL EXHAUST FAN



OBC 2012

GROUND FLOOR PLAN 'A'

ZONE I COMPLIANCE
PACKAGE "A" 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 R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.



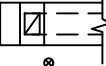
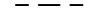
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

HEAT-LOSS	74,874	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
1ST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: JL	CHECKED: DD	SQFT 3460
LAYOUT NO. JB-08593	DRAWING NO. M2	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-21 - WOB
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		THERMOSTAT
			VOLUME DAMPER						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. R12

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

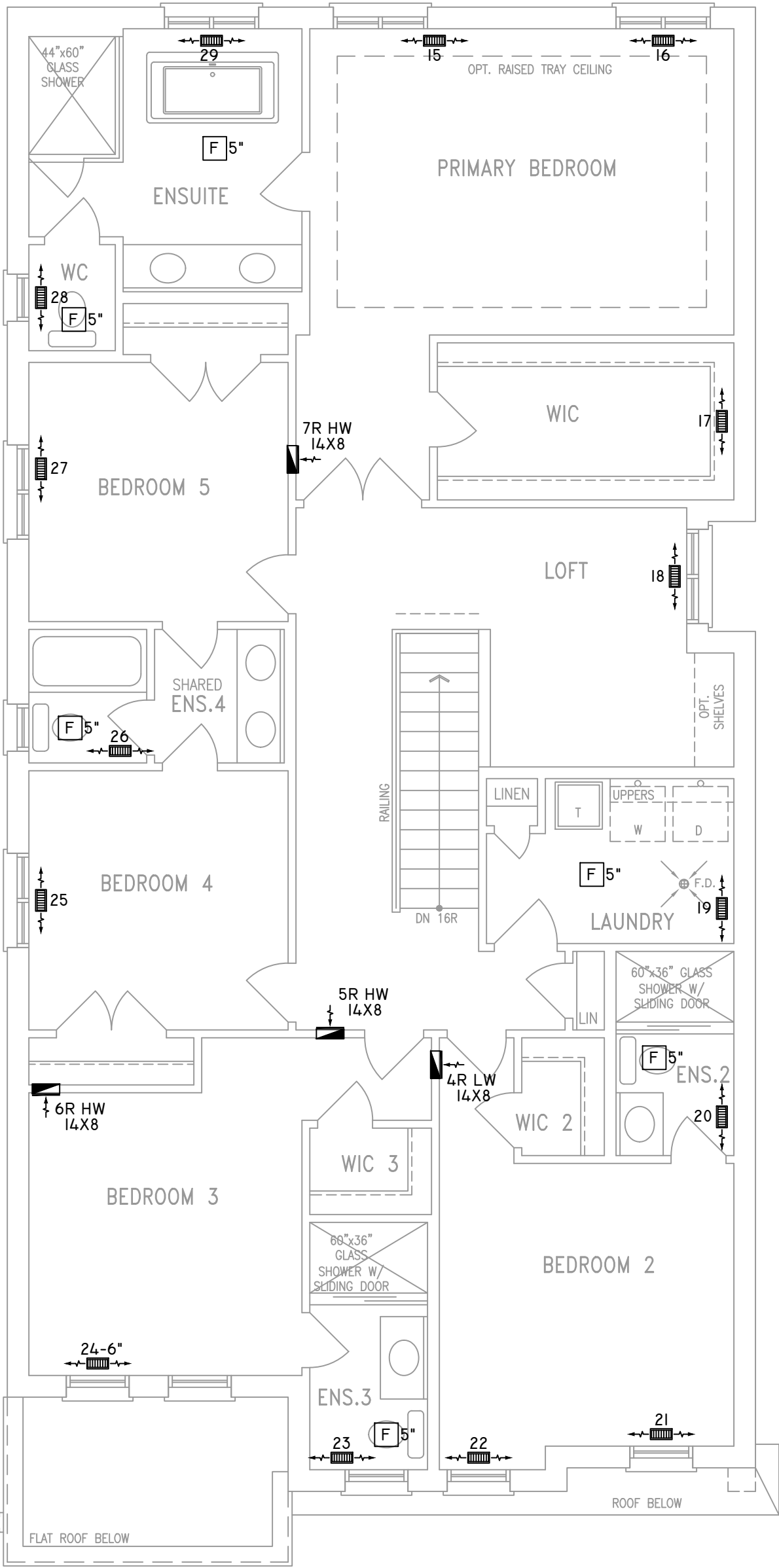
DAVID DA COSTA  B.C.I.N. 32964

SIGNATURE OF DESIGNER

SECOND FLOOR PLAN 'A'

OBC 2012

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



NOTES
INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
INSULATE DUCTS IN UNCONDITIONED SPACES R12 UNDERCUT ALL DOORS 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.



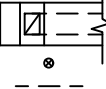
2985 DREW ROAD
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MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

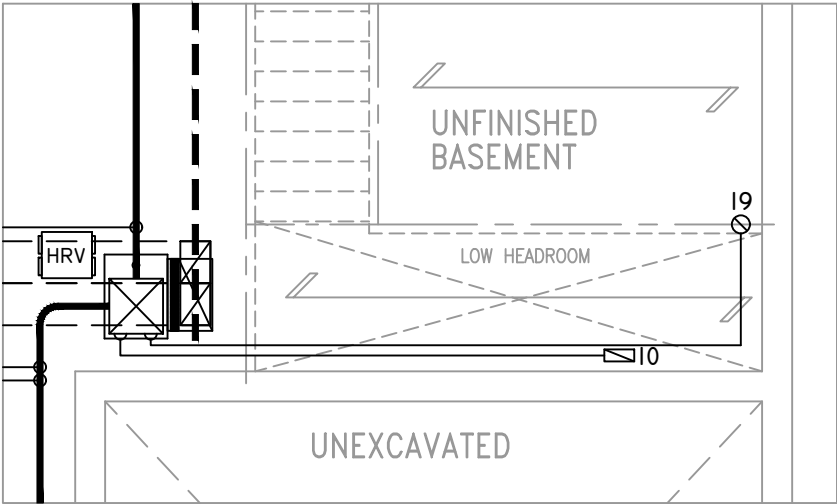
HEAT-LOSS	74,874	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

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

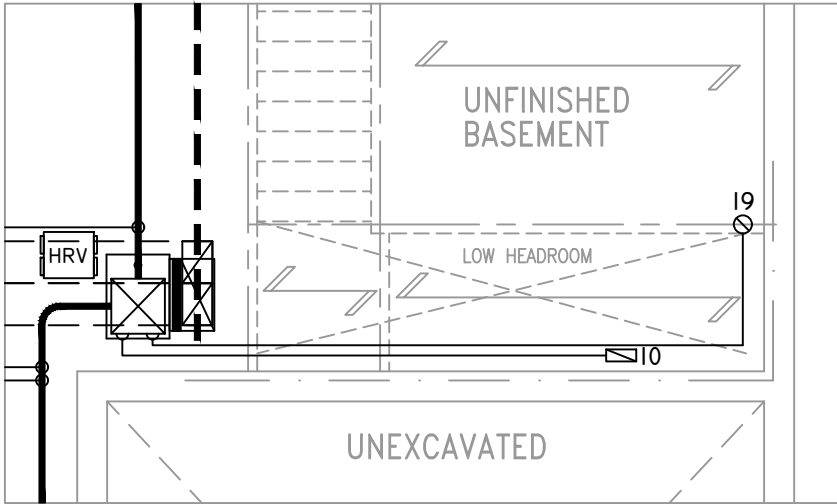
FLOOR PLAN: SECOND FLOOR		
DRAWN BY: JL	CHECKED: DD	SQFT 3460
LAYOUT NO. JB-08593	DRAWING NO. M3	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-21 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

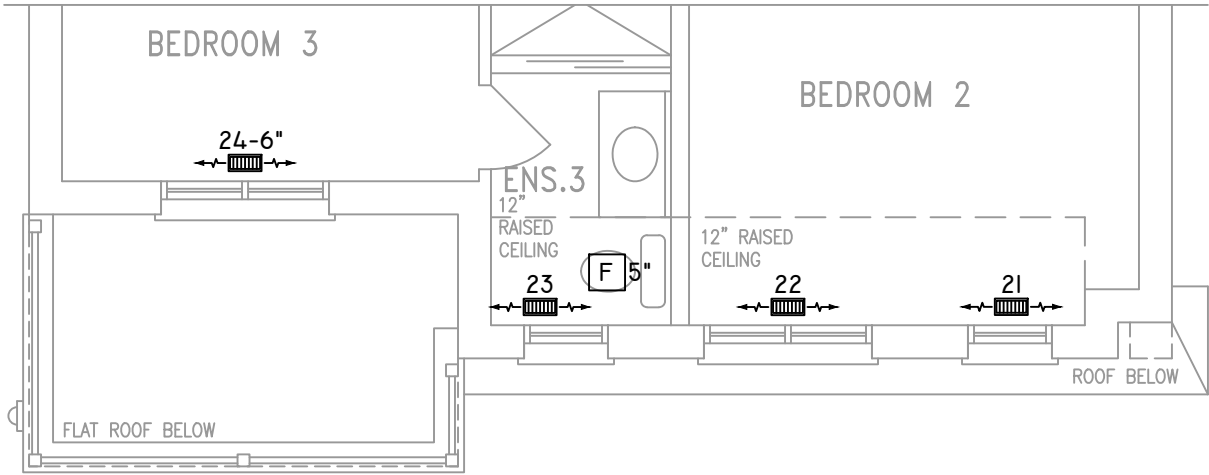
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



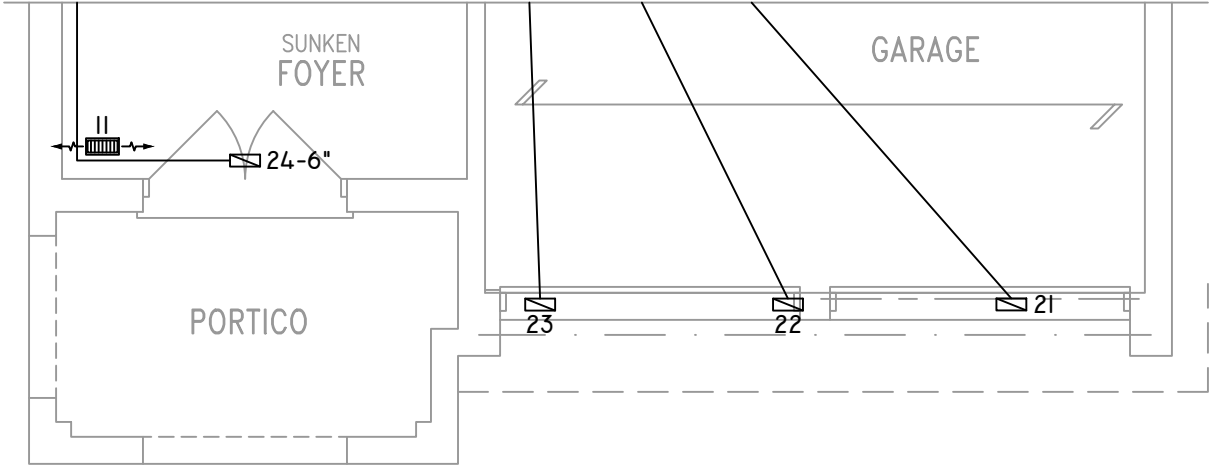
PARTIAL BASEMENT PLAN W/ 1R
SUNKEN AREA ABOVE CONDITION



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



PART. SECOND FLOOR PLAN 'B'



PART. GROUND FLOOR PLAN 'B'

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

OBC 2012

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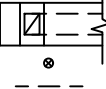
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

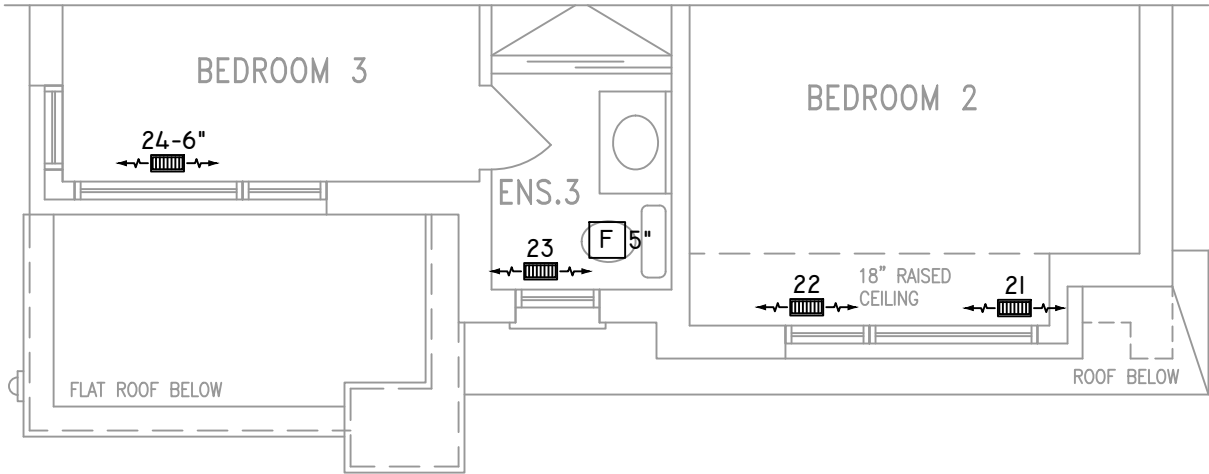
HEAT-LOSS	74,874	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

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

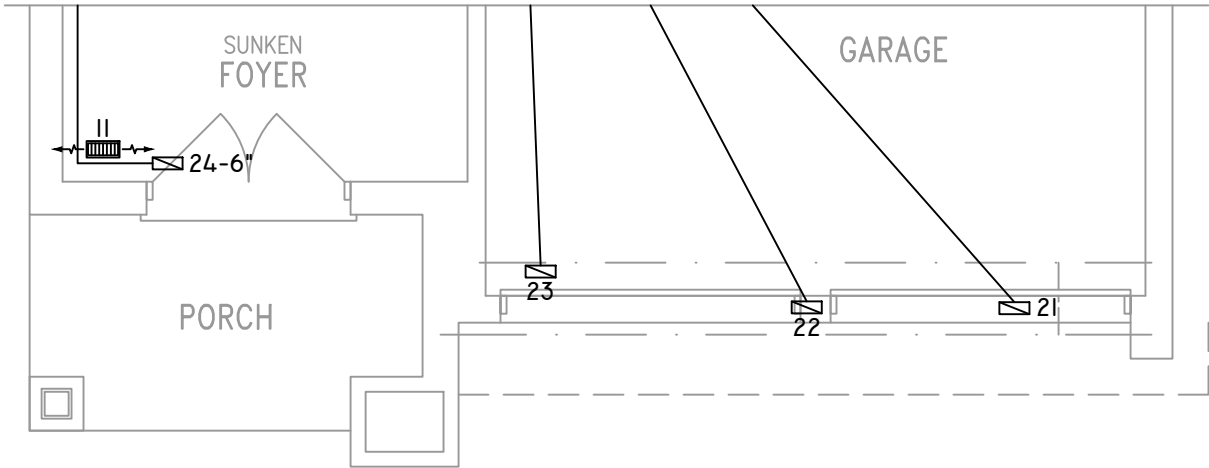
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08593	SQFT 3460
	DRAWING NO. M4

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-21 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

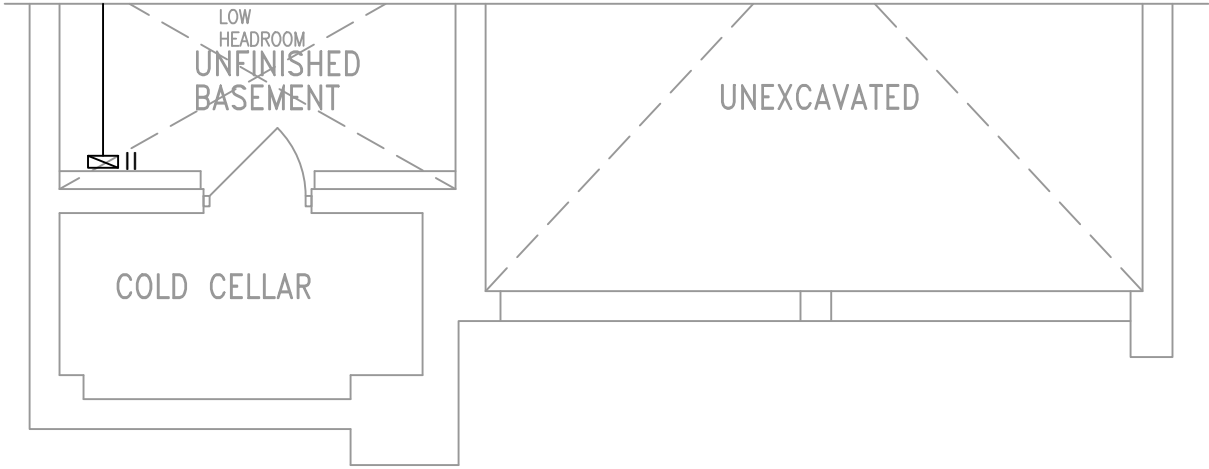
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PART. SECOND FLOOR PLAN 'C'



PART. GROUND FLOOR PLAN 'C'



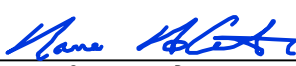
PART. BASEMENT PLAN 'C'

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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

OBC 2012

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

NOTES
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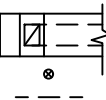
2985 DREW ROAD
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L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
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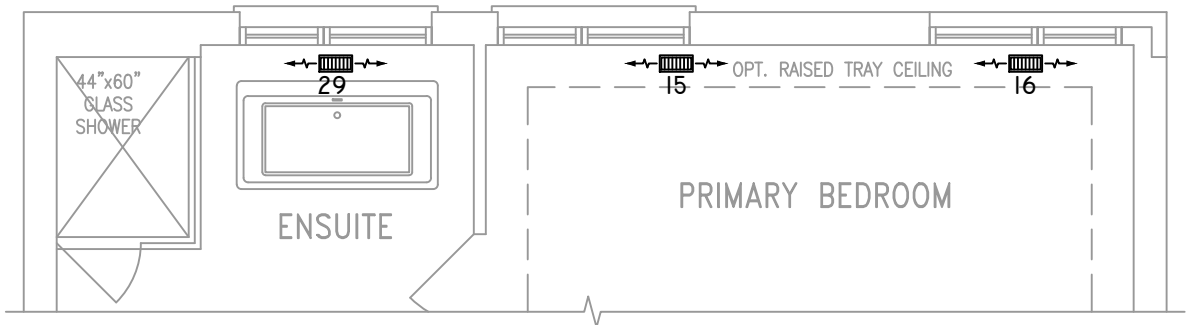
HEAT-LOSS	74,874	BTU/HR.
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UNIT HEATING INPUT	80,000	BTU/HR.
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A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

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

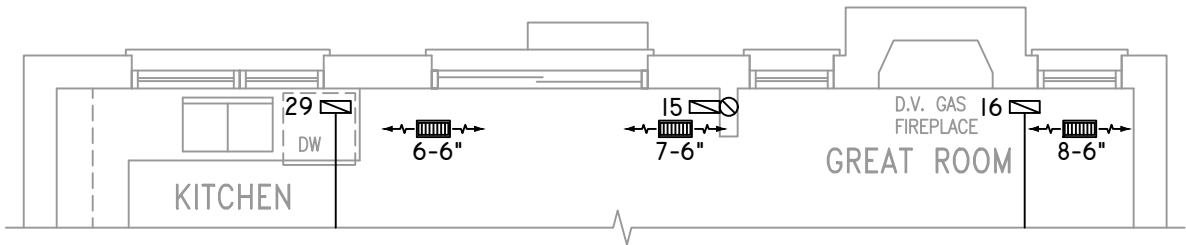
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08593	DRAWING NO. M5
SQFT 3460	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-21 - WOB
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		THERMOSTAT
			VOLUME DAMPER						PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN



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



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

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QUALIFICATION INFORMATION

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

DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

OBC 2012

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

NOTES
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HEAT-LOSS	74,874	BTU/HR.
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UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	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-08593	DRAWING NO. M6	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S38-21 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"