


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 S42-21 - WOB				Lot: Lot/con.: 	
Municipality Bradford		Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities					
Name David DaCosta			Firm gtaDesigns Inc.		
Street address 2985 Drew Road, Suite 202				Unit no.	Lot/con.
Municipality Mississauga		Postal code L4T 0A4	Province Ontario	E-mail 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]					
<input type="checkbox"/> House <input type="checkbox"/> Small Buildings <input type="checkbox"/> Large Buildings <input type="checkbox"/> Complex Buildings		<input checked="" type="checkbox"/> HVAC – House <input type="checkbox"/> Building Services <input type="checkbox"/> Detection, Lighting and Power <input type="checkbox"/> Fire Protection		<input type="checkbox"/> Building Structural <input type="checkbox"/> Plumbing – House <input type="checkbox"/> Plumbing – All Buildings <input type="checkbox"/> On-site Sewage Systems	
Description of designer's work		Model Certification		Project #:	PJ-00041
				Layout #:	JB-08595
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:	3480	Model	S42-21 - WOB
Residential System Design per CAN/CSA-F280-12				SB-12	Package A1
Residential New Construction - Forced Air					
D. Declaration of Designer					
<p>I, <u>David DaCosta</u> declare that (choose one as appropriate):</p> <p style="text-align: center;">(print name)</p> <p> <input type="checkbox"/> 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: _____ </p> <p> <input checked="" type="checkbox"/> 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> </p> <p> <input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____ </p>					
<p>I certify that:</p> <p>1. The information contained in this schedule is true to the best of my knowledge.</p> <p>2. I have submitted this application with the knowledge and consent of the firm.</p>					
<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. JB-08595	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.					
Building Location					
Address (Model): S42-21 - WOB			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: 3480	
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 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

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: S42-21 - WOB

System 1

Individual BCIN: 32964 *David DaCosta* David DaCosta

Project # PJ-00041
Layout # JB-08595

DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE		FURNACE/AIR HANDLER DATA:		BOILER/WATER HEATER DATA:		A/C UNIT DATA:	
Level 1 Net Load	29,408 btu/h	Equipment External Static Pressure	0.5 "w.c.	Make	Amana	Make	Type	Amana	3.5 Ton
Level 2 Net Load	24,937 btu/h	Additional Equipment Pressure Drop	0.225 "w.c.	Model	AMEC9601004CNA	Model		Cond.-----	3.5
Level 3 Net Load	14,262 btu/h	Available Design Pressure	0.275 "w.c.	Input Btu/h	100000	Input Btu/h		Coil -----	3.5
Level 4 Net Load	8,114 btu/h	Return Branch Longest Effective Length	300 ft	Output Btu/h	96000	Output Btu/h			
Total Heat Loss	76,721 btu/h	R/A Plenum Pressure	0.138 "w.c.	E.s.p.	0.50	" W.C.			
Total Heat Gain	38,895 btu/h	S/A Plenum Pressure	0.14 "w.c.	Water Temp		deg. F.			
		Heating Air Flow Proportioning Factor	0.0201 cfm/btuh	AFUE	96%				
Building Volume Vb	45870 ft³	Cooling Air Flow Proportioning Factor	0.0396 cfm/btuh	Aux. Heat					
Ventilation Load	1,677 Btuh.	R/A Temp	70 deg. F.	SB-12 Package	Package A1				
Ventilation PVC	95.4 cfm	S/A Temp	128 deg. F.						
Supply Branch and Grill Sizing		Diffuser loss	<u>0.01 "w.c.</u>	Temp. Rise>>>	<u>58 deg. F.</u>				

	Level 1													Level 2										
S/A Outlet No.	1	2	3	4	5	6	31							7	8	9	10	11	12	13	14	15		
Room Use	BASE	BASE	BASE	BASE	BASE	BASE	BASE							KIT/GRT	KIT/GRT	KIT/GRT	STUDY	MUD	FOY	PWD	LIV/DIN	LIV/DIN		
Btu/Outlet	4201	4201	4201	4201	4201	4201	4201							3479	3479	3479	1757	2401	3410	1848	2542	2542		
Heating Airflow Rate CFM	84	84	84	84	84	84	84							70	70	70	35	48	68	37	51	51		
Cooling Airflow Rate CFM	32	32	32	32	32	32	32							110	110	110	131	12	57	48	82	82		
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
Actual Duct Length	6	23	26	37	42	59	43							41	23	32	8	11	76	66	53	41		
Equivalent Length	90	110	110	80	110	160	100	70	70	70	70	70	70	90	110	100	80	100	170	150	150	160	70	70
Total Effective Length	96	133	136	117	152	219	143	70	70	70	70	70	70	131	133	132	88	111	246	216	203	201	70	70
Adjusted Pressure	0.14	0.10	0.10	0.11	0.09	0.06	0.09	0.19	0.19	0.19	0.19	0.19	0.19	0.10	0.10	0.10	0.15	0.12	0.05	0.06	0.06	0.06	0.19	0.19
Duct Size Round	6	6	6	6	6	6	6							6	6	6	6	5	6	5	6	6		
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	4x10	3x10	4x10	4x10	4x10	4x10
Trunk	A	F	B	C	C	E	B							B	B	F	A	A	E	E	D	D		

	Level 3										Level 3									
S/A Outlet No.	16	17	18	19	20	21	22	23	24		25	26	27	28	29	30				
Room Use	P.BED	P.BED	ENS	WC	ENS 2	BED 2	LAUND	BED 3	BED 3		ENS 3	BED 4	BED 4	ENS 4	BED 5	WIC				
Btu/Outlet	2005	2005	1814	596	89	1915	883	2477	2477		1097	1997	1997	762	1702	559				
Heating Airflow Rate CFM	40	40	36	12	2	38	18	50	50		22	40	40	15	34	11				
Cooling Airflow Rate CFM	53	53	37	7	2	35	46	61	61		22	66	66	14	43	5				
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
Actual Duct Length	59	51	41	39	24	27	16	94	92		91	91	77	61	52	44				
Equivalent Length	160	120	140	110	140	100	110	160	150	70	70	70	70	70	140	190	180	150	150	70
Total Effective Length	219	171	181	149	164	127	126	254	242	70	70	70	70	70	231	281	257	211	202	194
Adjusted Pressure	0.06	0.08	0.07	0.09	0.08	0.10	0.10	0.05	0.05	0.19	0.19	0.19	0.19	0.19	0.06	0.05	0.05	0.06	0.06	0.07
Duct Size Round	5	5	5	3	2	4	5	6	6		4	6	6	3	5	3				
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10	4x10
Trunk	C	B	B	F	F	F	A	D	D		D	E	E	C	C	C				

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	147	465	245	140	150	105	140	148			
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	11	46	8	67	62	67	62	11			
Equivalent Length	110	165	180	145	135	190	140	115	50	50	50
Total Effective Length	121	211	188	212	197	257	202	126	50	50	50
Adjusted Pressure	0.10	0.06	0.06	0.06	0.06	0.05	0.06	0.09	0.24	0.24	0.24
Duct Size Round	7.0	11.5	9.5	7.0	8.0	6.0	7.0	7.0			
Inlet Size	FLC	8	8	8	8	8	8	FLC			
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size		30	14	14	14	14	14				
Trunk	Z	Y	X	Z	Y	Y	Z	Z			

Return Trunk Duct Sizing							
Trunk	CFM	Press.	Round	Rect. Size			
Drop	1540	0.05	19.0	24x14			
Z	1295	0.05	18.0	30x10	24x12		
Y	720	0.05	14.5	24x8	18x10		
X	245	0.06	9.5	10x8	127		
W							
V							
U							
T							
S							
R							
Q							

Supply Trunk Duct Sizing							
Trunk	CFM	Press.	Round	Rect. Size			
A	1541	0.05	19.0	34x10	26x12		
B	1149	0.05	17.0	26x10	22x12		
C	764	0.05	14.5	24x8	18x10		
D	494	0.05	12.5	18x8	14x10		
E	270	0.05	10.0	12x8	10x10		
F	206	0.08	8.5	8x8	107		
G							
H							
I							
J							
K							



Heatloss/Gain Calculations CSA-F280-12

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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: S42-21 - WOB

System 1

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3480

Project # PJ-00041
Layout # JB-08595

Level 1				BASE																					
Run ft. exposed wall A				141 A		A		A		A		A		A		A		A		A		A			
Run ft. exposed wall B				40 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			
Floor area				1316 Area		Area		Area		Area		Area		Area		Area		Area		Area		Area			
Exposed Ceilings A				A		A		A		A		A		A		A		A		A		A			
Exposed Ceilings B				B		B		B		B		B		B		B		B		B		B			
Exposed Floors				Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr			
Gross Exp Wall A				1058																					
Gross Exp Wall B				400																					
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	3	69	35																
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	109	2499	3037																
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	1028		535																
Net exposed walls B				17.03	4.78	0.65	291	1391	188																
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								9848																	
Total Conductive				Heat Loss				14372																	
				Heat Gain																					
Air Leakage				Heat Loss/Gain		1.0092	0.0470	14505	187																
Ventilation				Case 1		0.06	0.06																		
				Case 2		17.58	11.88																		
				Case 3		x	0.04	0.06	530	221															
Heat Gain People								239																	
Appliances Loads				1 =.25 percent		5700																			
Duct and Pipe loss						10%																			
Level HL Total				29,408		Total HL for per room		29408																	
Level HG Total				5,715		Total HG per room x 1.3		5715																	

Level 2				KIT/GRT		STUDY		MUD		FOY		PWD		LIV/DIN		A		A		A		A		A			
Run ft. exposed wall A				77 A		12 A		19 A		22 A		12 A		40 A		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		11.0		13.0		12.0		12.0		11.0		11.0		11.0		11.0		11.0		11.0			
Floor area				693 Area		121 Area		50 Area		102 Area		27 Area		448 Area		Area		Area		Area		Area		Area			
Exposed Ceilings A				A		A		A		A		A		A		A		A		A		A		A			
Exposed Ceilings B				B		B		B		B		B		B		B		B		B		B		B			
Exposed Floors				Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr			
Gross Exp Wall A				847		132		247		264		144		440													
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																					
East/West				3.55	22.93	29.56	138	3164	4079	26	596	302				27	619	798	26	596	769						
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	709	3389	458	106	507	68	226	1080	146	212	1013	137	118	564	76	380	1816	245			
Net exposed walls B				8.50	9.58	1.29																					
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						x																					
Total Conductive	Heat Loss																										
	Heat Gain																										
Air Leakage	Heat Loss/Gain			0.5559		0.0470																					
Ventilation	Case 1			0.03		0.06																					
	Case 2			17.58		11.88																					
	Case 3			x		0.04	0.06																				
Heat Gain People						239																					
Appliances Loads				1 =.25 percent		5700	1.0		1425	1.5		2137															
Duct and Pipe loss						10%																					
Level HL Total	24,937			Total HL for per room																							
Level HG Total	18,745			Total HG per room x 1.3																							



Heatloss/Gain Calculations CSA-F280-12

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Weather Data Bradford 44 -9.4 86 22 48.2

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2012 OBC

Project: Green Valley East

Model: S42-21 - WOB

System 1

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3480

Project # PJ-00041
Layout # JB-08595

Level 3			P.BED		ENS		WC		ENS 2		BED 2		LAUND		BED 3		A		A		A		A		
Run ft. exposed wall A	31 A		19 A		6 A		A		19 A		9 A		27 A		A		A		A		A		A		
Run ft. exposed wall B	B		B		B		B		B		B		B		B		B		B		B		B		
Ceiling height	11.0		9.0		9.0		9.0		9.0		9.0		11.0		9.0		9.0		9.0		9.0		9.0		
Floor area	458 Area		129 Area		27 Area		46 Area		181 Area		59 Area		257 Area		Area		Area		Area		Area		Area		
Exposed Ceilings A	458 A		129 A		27 A		46 A		181 A		59 A		257 A		A		A		A		A		A		
Exposed Ceilings B	B		B		B		B		B		B		B		B		B		B		B		B		
Exposed Floors	Flr		Flr		Flr		Flr		Flr		11 Flr		209 Flr		Flr		Flr		Flr		Flr		Flr		
Gross Exp Wall A	341		171		54				171		81		297												
Gross Exp Wall B																									
Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	11.62					7	161	81				16	367	186		7	161	81					
East/West	3.55	22.93	29.56	32	734	946	16	367	473									47	1078	1389					
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	155	741	100	47	225	30		155	741	100	74	354	48	250	1195	161			
Net exposed walls B	8.50	9.58	1.29																						
Exposed Ceilings A	59.22	1.37	0.64	458	630	294	129	177	83	27	37	17	46	63	30	181	249	116	59	81	38	257	353	165	
Exposed Ceilings B	27.65	2.94	1.37																						
Exposed Floors	29.80	2.73	0.17															11	30	2	209	571	35		
Foundation Conductive Heatloss																									
Total Conductive	Heat Loss				2840			1285			422			63			1357			625			3197		
	Heat Gain					1439			656		129			30			402			169			1751		
Air Leakage	Heat Loss/Gain		0.3751	0.0470	1065	68		482	31		158	6		24	1		509	19		235	8		1199	82	
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	105	80		47	36		16	7		2	2		50	22		23	9		118	97
Appliances Loads	1 =.25 percent			5700																0.5		712		1	239
Duct and Pipe loss				10%																					
Level HL Total	14,262	Total HL for per room			4010			1814			596			89			1915			883		1	440	199	
Level HG Total	8,985	Total HG per room x 1.3				2684			940			185			42			887			1168			4953	3078

Level 3				ENS 3		BED 4		ENS 4		BED 5		WIC		A		A		A		A		A		A	
Run ft. exposed wall A				7 A		26 A		7 A		16 A		7 A		A		A		A		A		A		A	
Run ft. exposed wall B				B		B		B		B		B		B		B		B		B		B		B	
Ceiling height				9.0		11.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0	
Floor area				64 Area		195 Area		81 Area		165 Area		69 Area		Area		Area		Area		Area		Area		Area	
Exposed Ceilings A				64 A		195 A		81 A		165 A		69 A		A		A		A		A		A		A	
Exposed Ceilings B				B		B		B		B		B		B		B		B		B		B		B	
Exposed Floors				57 Flr		25 Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr	
Gross Exp Wall A				63		286		63		144		63													
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	9	206	266	62	1422	1833													
South				3.55	22.93	22.50																			
Existing Windows				1.99	40.90	23.66				7	161	158	16	367	360										
Skylight				2.03	40.10	88.23																			
Doors				4.00	20.35	2.75																			
Net exposed walls A				17.03	4.78	0.65	54	258	35	224	1071	145	56	268	36	128	612	83	63	301	41				
Net exposed walls B				8.50	9.58	1.29																			
Exposed Ceilings A				59.22	1.37	0.64	64	88	41	195	268	125	81	111	52	165	227	106	69	95	44				
Exposed Ceilings B				27.65	2.94	1.37																			
Exposed Floors				29.80	2.73	0.17	57	156	10	25	68	4													
Foundation Conductive Heatloss																									
Total Conductive	Heat Loss							708			2829			540			1205			396					
	Heat Gain								352			2107		246			549			85					
Air Leakage	Heat Loss/Gain				0.3751	0.0470		266	17		1061	99		202	12		452	26		149	4				
Ventilation	Case 1				0.02	0.06																			
	Case 2				17.58	11.88																			
	Case 3			x	0.04	0.06		26	19		104	117		20	14		44	30		15	5				
										1		239				1		239							
Heat Gain People																									
Appliances Loads				1 =.25 percent		5700																			
Duct and Pipe loss						10%																			
Level HL Total		8,114		Total HL for per room				1097			3994			762			1702			559					
Level HG Total		5,450		Total HG per room x 1.3					550			3330		352		1097				122					

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

Total Heat Loss	76,721	btu/h
Total Heat Gain	38,895	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

Package: Package A1
Project: Bradford
Model: S42-21 - 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)	<input checked="" type="checkbox"/>	Direct vent (sealed combustion) only
b)	<input type="checkbox"/>	Positive venting induced draft (except fireplaces)
c)	<input type="checkbox"/>	Natural draft, B-vent or induced draft fireplaces
d)	<input type="checkbox"/>	Solid fuel (including fireplaces)
e)	<input type="checkbox"/>	No combustion Appliances

Heating System		
	<input checked="" type="checkbox"/>	Forced air
	<input type="checkbox"/>	Non forced air
	<input type="checkbox"/>	Electric space heat (if over 10% of heat load)

House Type 9.32.3.1(2)		
I	<input checked="" type="checkbox"/>	Type a) or b) appliances only, no solid fuel
II	<input type="checkbox"/>	Type I except with solid fuel (including fireplace)
III	<input type="checkbox"/>	Any type c) appliance
IV	<input type="checkbox"/>	Type I or II either electric space heat
Other	<input type="checkbox"/>	Type I, II or IV no forced air

System Design Option		
1	<input type="checkbox"/>	Exhaust only / forced air system
2	<input type="checkbox"/>	HRV WITH DUCTING / forced air system
3	<input checked="" type="checkbox"/>	HRV simplified connection to forced air system
4	<input type="checkbox"/>	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	5 @ 10.6 cfm	53 cfm	
Total		201.4	

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	

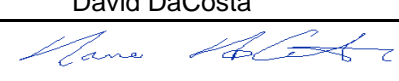
Principal Exhaust Fan Capacity			
Make	Model	Location	
VanEE	V150H75NS	Base	
127 cfm		Sones	or Equiv.

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		201.4	
Less principal exhaust capacity		95.4	
REQUIRED supplemental vent. Capacity		106.0 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	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-08595

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 S42-21 - 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
<input checked="" type="checkbox"/> Zone 1 (< 5000 degree days) <input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input checked="" type="checkbox"/> ≥ 92% AFUE <input type="checkbox"/> ≥ 84% < 92% AFUE	<input checked="" type="checkbox"/> Gas <input type="checkbox"/> Propane <input type="checkbox"/> Solid Fuel <input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of Walls = <u>489.16</u> m ² or <u>5265.4</u> ft ²	W, S & G % = <u>11.7%</u>	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> ICF Basement <input type="checkbox"/> Slab-on-ground <input checked="" type="checkbox"/> Walkout Basement <input checked="" type="checkbox"/> Air Conditioning <input type="checkbox"/> Combo Unit <input type="checkbox"/> Air Sourced Heat Pump (ASHP) <input type="checkbox"/> Ground Source Heat Pump (GSHP)
Area of W, S & G = <u>57.041</u> m ² or <u>614.0</u> ft ²	Utilize Window Averaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

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

Energy Efficiency Substitutions			
<input type="checkbox"/> ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5)) <input type="checkbox"/> Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))			
<input type="checkbox"/> Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	<input type="checkbox"/> Table 3.1.1.4.B Required: <input type="checkbox"/> Table 3.1.1.4.C Required:	Permitted Substitution: Permitted Substitution: Permitted Substitution:	
Building Component	Minimum RSI/R-Values or Maximum U-Value ¹		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
S42-21 - 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	45870	81.4	29010	0.018	0.106	45870	11	962

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)					Levels			
Level	Level Factor (LF)	Building Air	Level Conductive Heat Loss (HLclevel)	Air Leakage Heat Loss Multiplier	1	2	3	4
					(LF)	(LF)	(LF)	(LF)
Level 1	0.5	29010	14372	1.0092	1.0	0.6	0.5	0.4
Level 2	0.3		15657	0.5559		0.4	0.3	0.3
Level 3	0.2		15467	0.3751			0.2	0.2
Level 3	0.2		15467	0.3751				0.1

HG LEAK		962	Air Leakage Heat Gain	
BUILDING CONDUCTIVE HEAT GAIN		20456	0.0470	

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	14372	0.06	Building	20456		
Level 2	0.3		15657	0.03				
Level 3	0.2		15467	0.02				
Level 3	0.2		15467	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	2700	Watts	9214	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		186	Watts	635	Btu/h

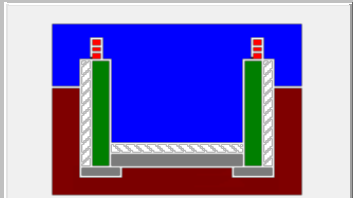
Envelope Air Leakage Calculator

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):	1299.04			
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		

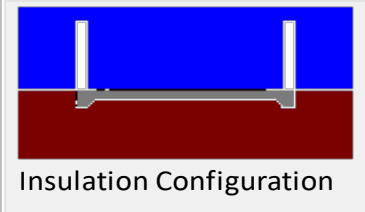
Residential Foundation Thermal Load Calculator



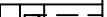













Supplemental tool for CAN/CSA-F280

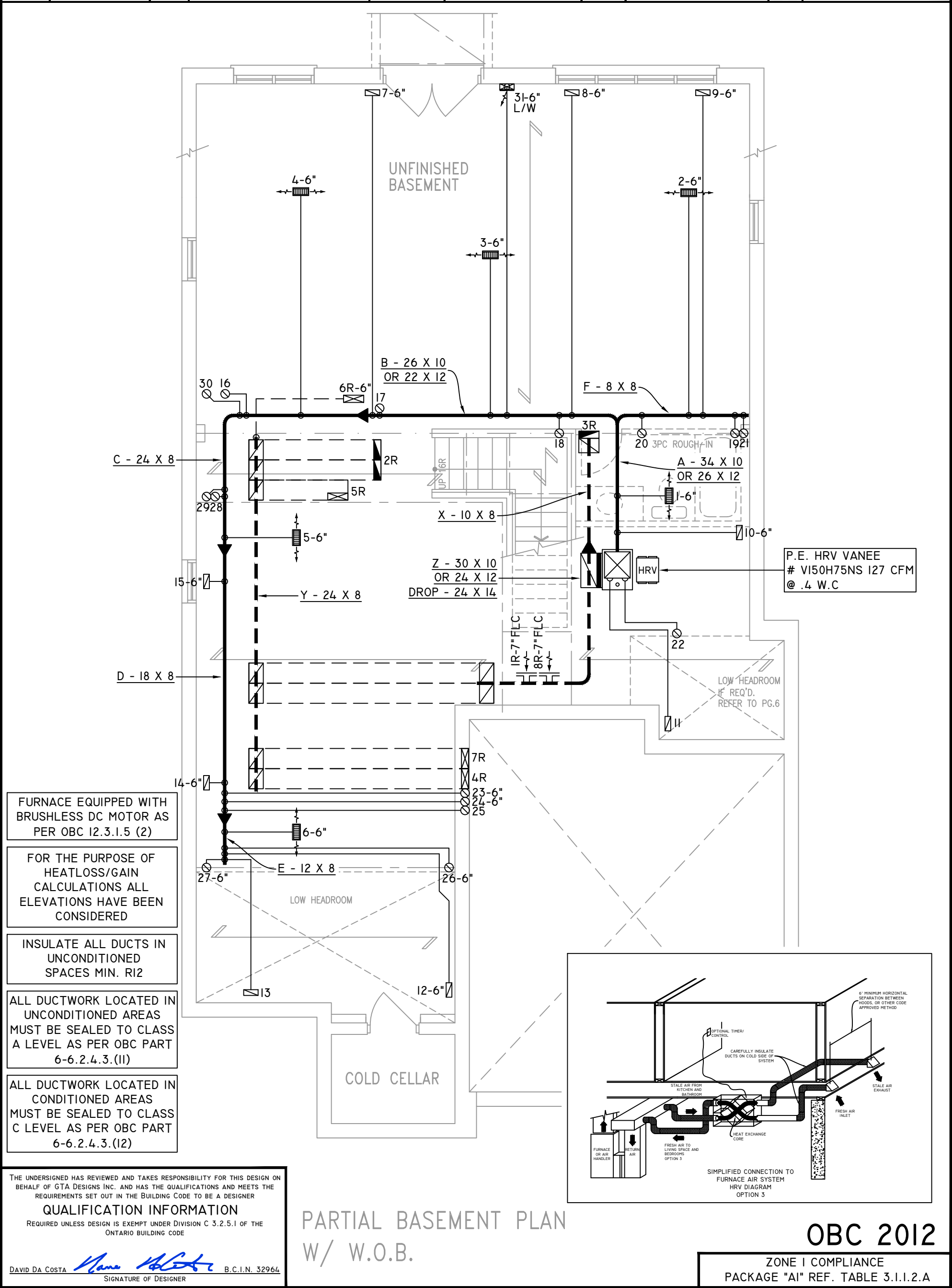
Weather Station Description		
Province:	Ontario	▼
Region:	Bradford	▼
Site Description		
Soil Conductivity:	High conductivity: moist soil	▼
Water Table:	Normal (7-10 m, 23-33 Ft)	▼
Foundation Dimensions		
Floor Length (m):	20.36	 <p>Insulation Configuration</p>
Floor Width (m):	6.00	
Exposed Perimeter (m):	42.98	
Wall Height (m):	3.05	
Depth Below Grade (m):	0.76	
Window Area (m ²):	0.84	
Door Area (m ²):	1.95	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		2700

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):	9.75	 Insulation Configuration
Width (m):	1.22	
Exposed Perimeter (m):	12.19	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		186

	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



NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

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

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

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

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

CONTRACTOR MUST WORK FROM APPROVED PLANS.

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

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

GTADESIGNS



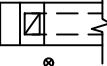













2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

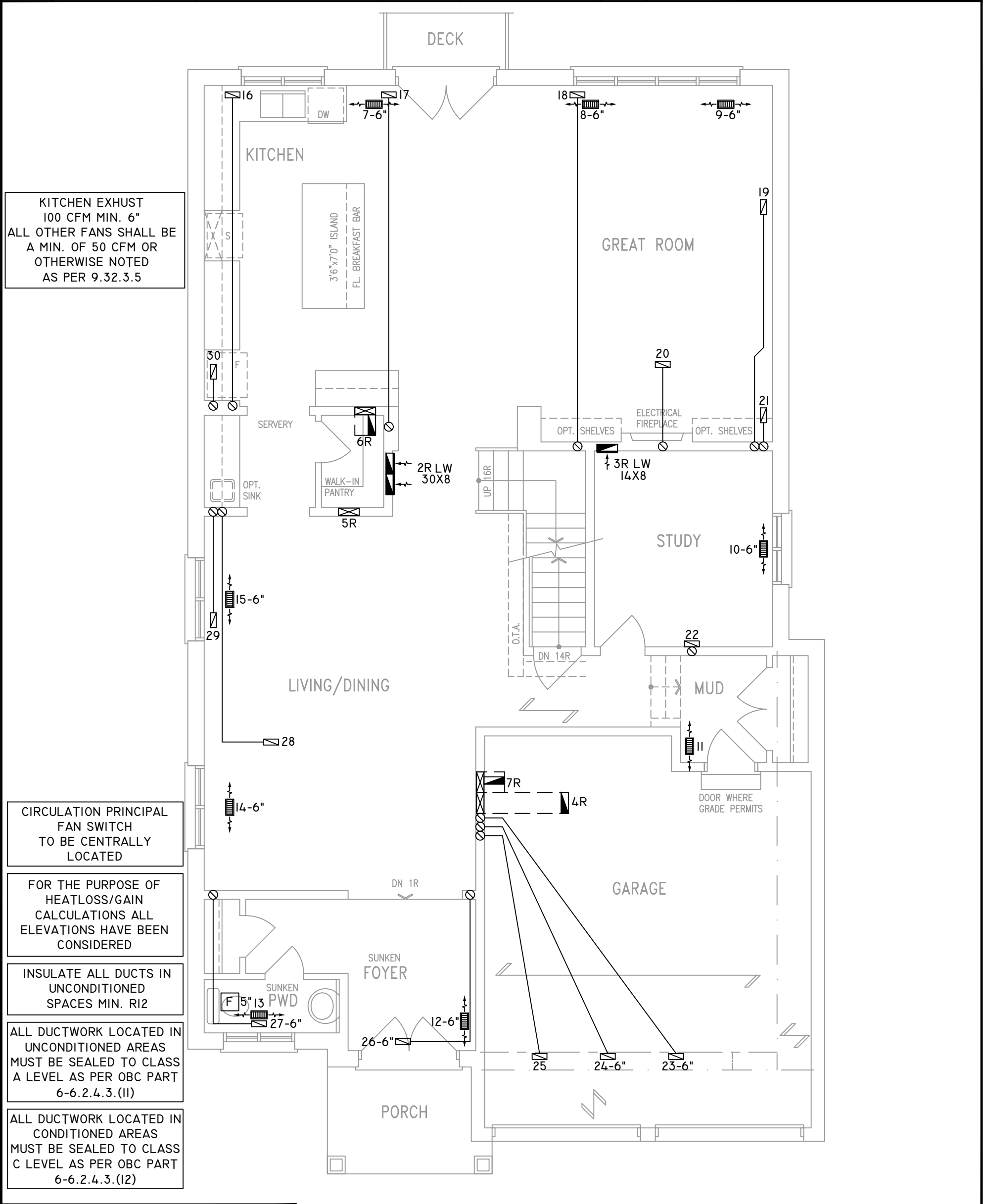
HEAT-LOSS	76,721	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC9601004CNA	OR EQUAL.
UNIT HEATING INPUT	100,000	BTU/HR.
UNIT HEATING OUTPUT	96,000	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1540	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
1ST FLOOR	9	2	2
BASEMENT	7	2	

FLOOR PLAN:	BASEMENT
DRAWN BY:	JL
CHECKED:	DD
LAYOUT NO.	JB-08595
SQFT	3480
DRAWING NO.	MI

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-21 - 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



- 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. R12
- ALL DUCTWORK LOCATED IN
UNCONDITIONED AREAS
MUST BE SEALED TO CLASS
A LEVEL AS PER OBC PART
6-6.2.4.3.(11)
- ALL DUCTWORK LOCATED IN
CONDITIONED AREAS
MUST BE SEALED TO CLASS
C LEVEL AS PER OBC PART
6-6.2.4.3.(12)

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

GROUND FLOOR PLAN 'A'

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.





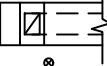







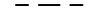





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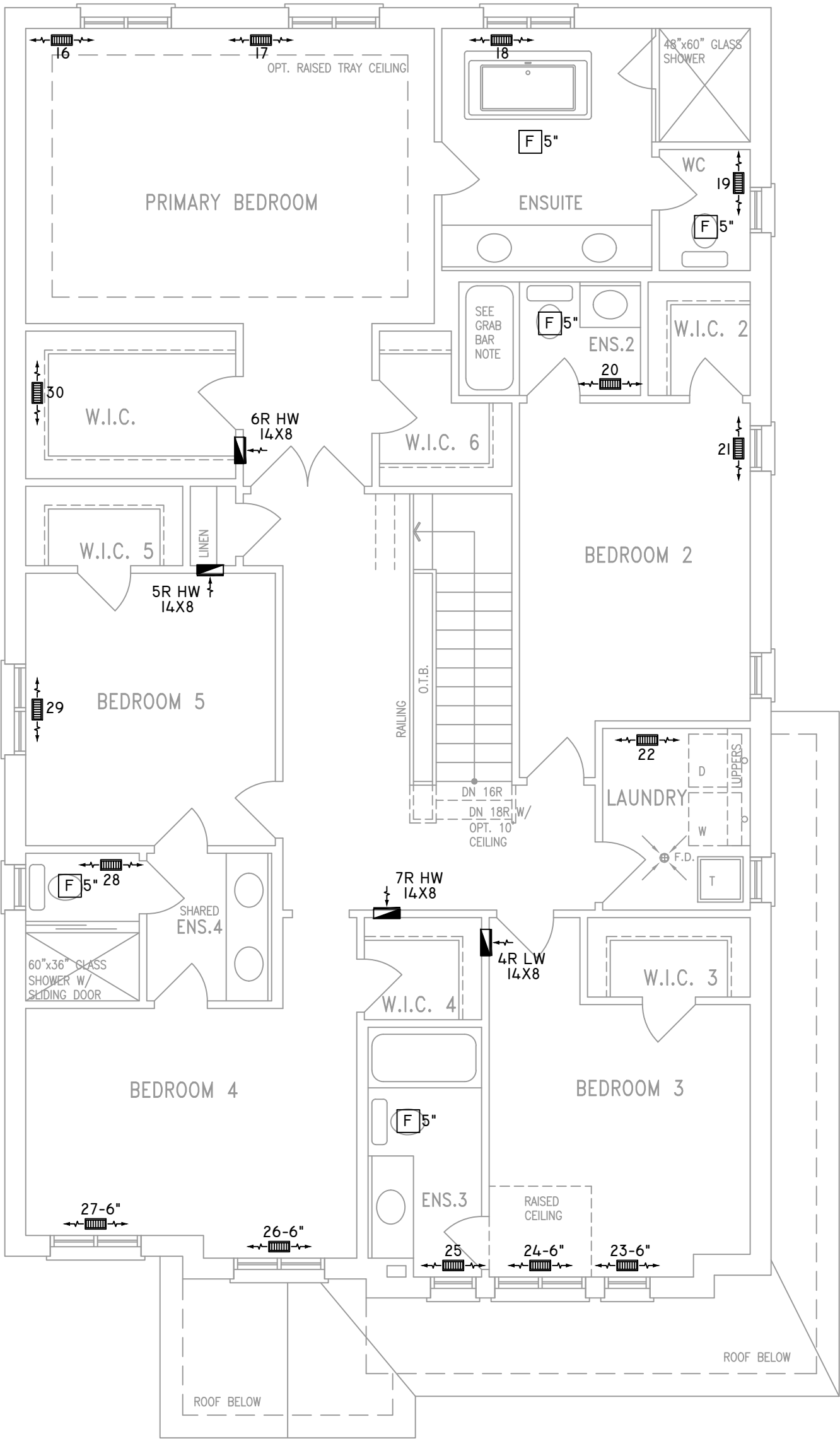
HEAT-LOSS	76,721	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960I004CNA	OR EQUAL.
UNIT HEATING INPUT	100,000	BTU/HR.
UNIT HEATING OUTPUT	96,000	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1540	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
1ST FLOOR	9	2	2
BASEMENT	7	2	

FLOOR PLAN: GROUND FLOOR	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08595	SQFT 3480
	DRAWING NO. M2

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-21 - 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.(11)
- ALL DUCTWORK LOCATED IN CONDITIONED AREAS MUST BE SEALED TO CLASS C LEVEL AS PER OBC PART 6-6.2.4.3.(12)

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.





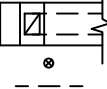



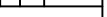









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EMAIL: DAVE@GTADDESIGNS.CA
WEB: WWW.GTADDESIGNS.CA

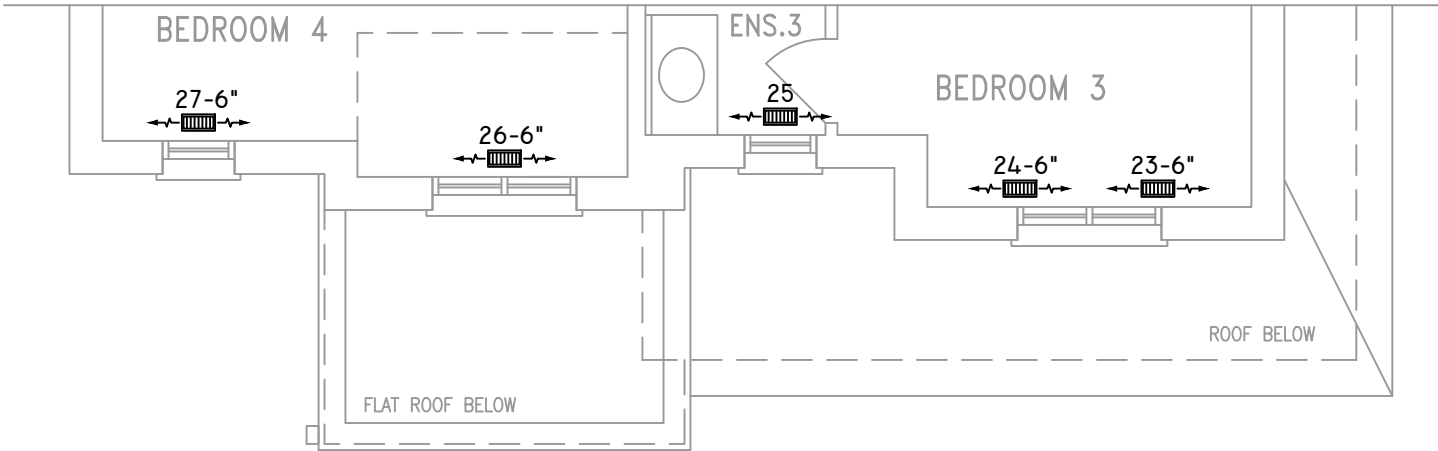
HEAT-LOSS	76,721	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960I004CNA	OR EQUAL.
UNIT HEATING INPUT	100,000	BTU/HR.
UNIT HEATING OUTPUT	96,000	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1540	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
1ST FLOOR	9	2	2
BASEMENT	7	2	

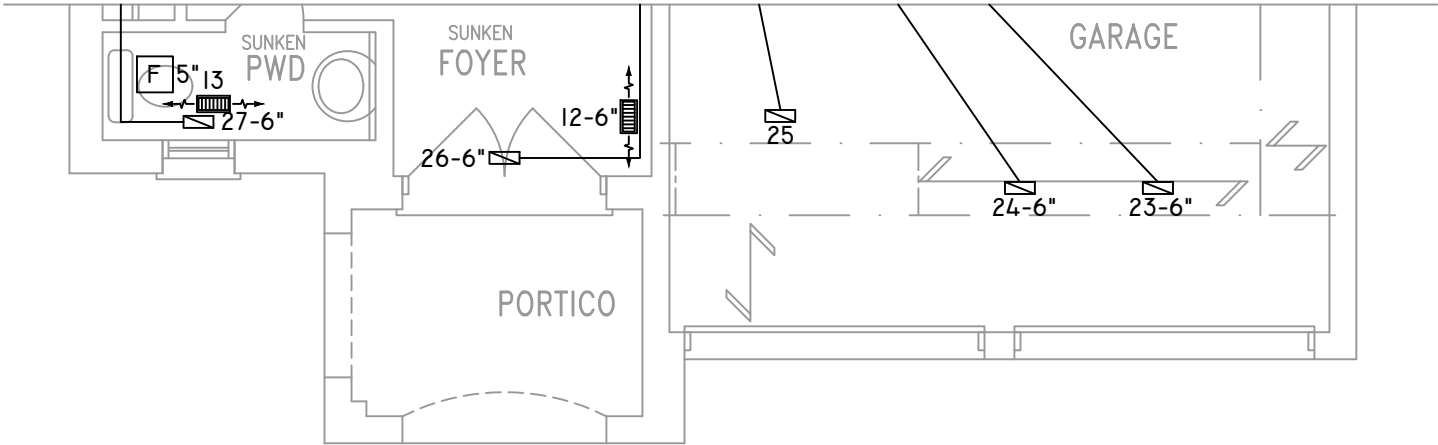
FLOOR PLAN: SECOND FLOOR	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08595	SQFT 3480
	DRAWING NO. M3

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-21 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

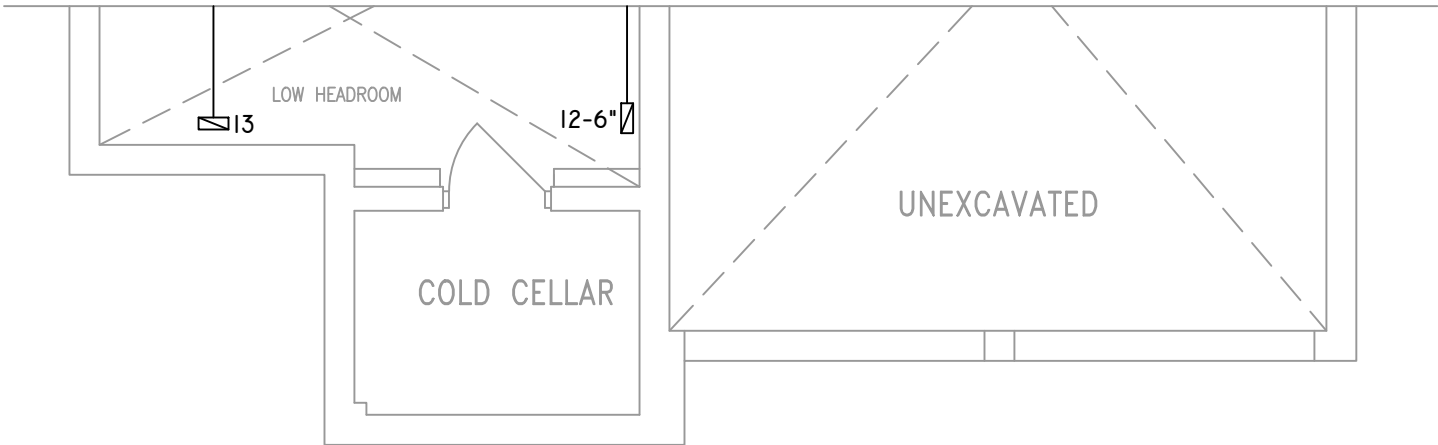
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PARTIAL SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN 'B'




PARTIAL BASEMENT PLAN 'B'

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

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.





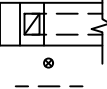













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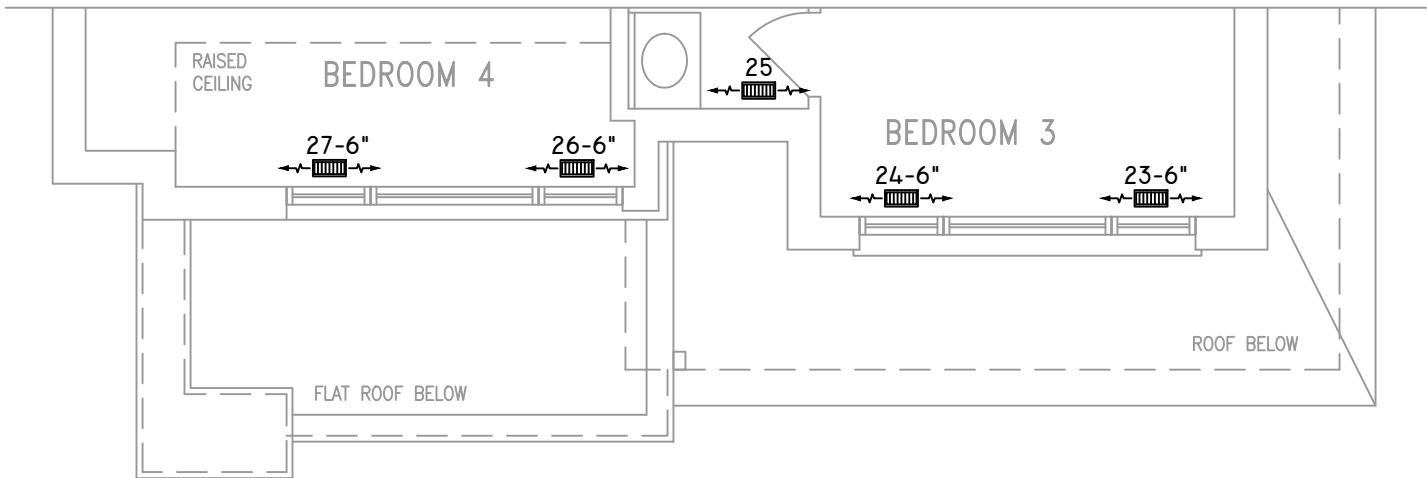
HEAT-LOSS	76,721	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960I004CNA	OR EQUAL.
UNIT HEATING INPUT	100,000	BTU/HR.
UNIT HEATING OUTPUT	96,000	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1540	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
1ST FLOOR	9	2	2
BASEMENT	7	2	

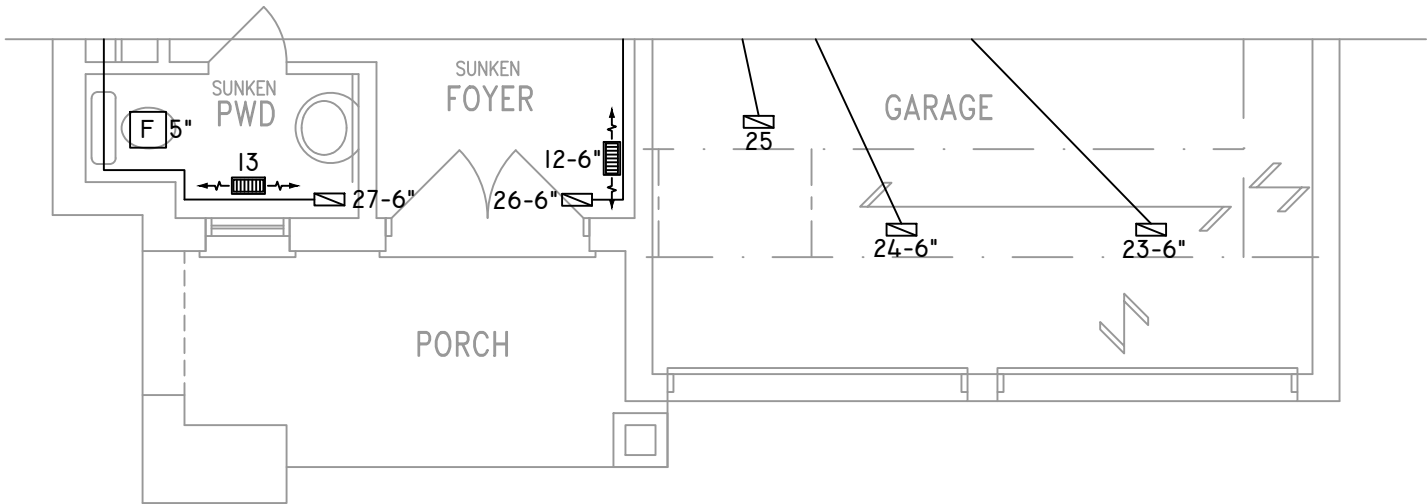
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08595	SQFT 3480
	DRAWING NO. M4

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-21 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

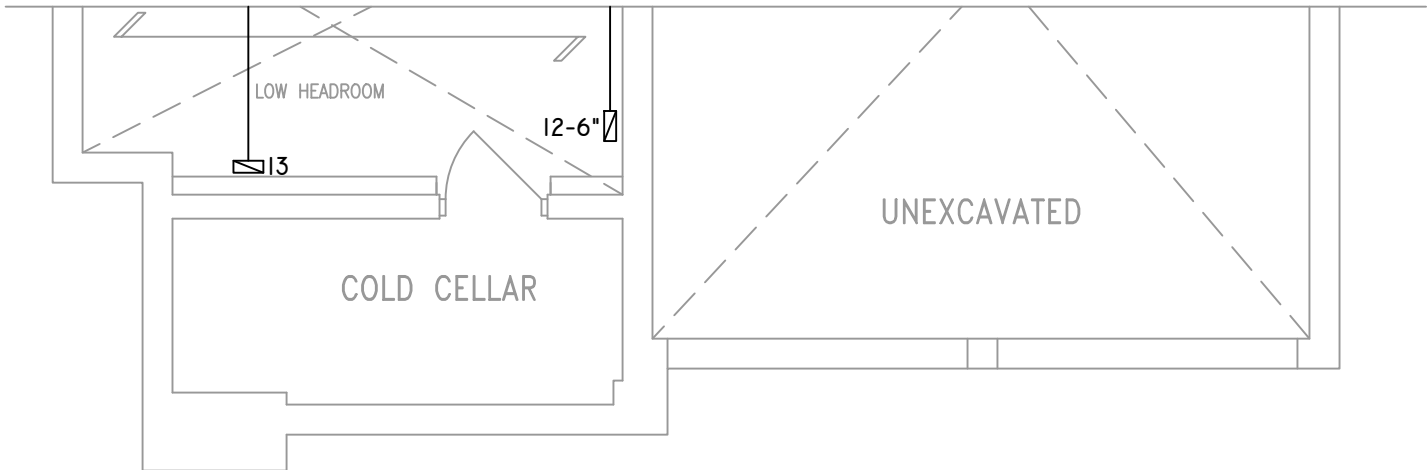
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PARTIAL SECOND FLOOR PLAN 'C'



PARTIAL GROUND FLOOR PLAN 'C'



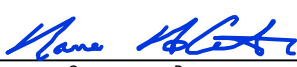
PARTIAL BASEMENT PLAN 'C'

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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
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.
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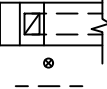











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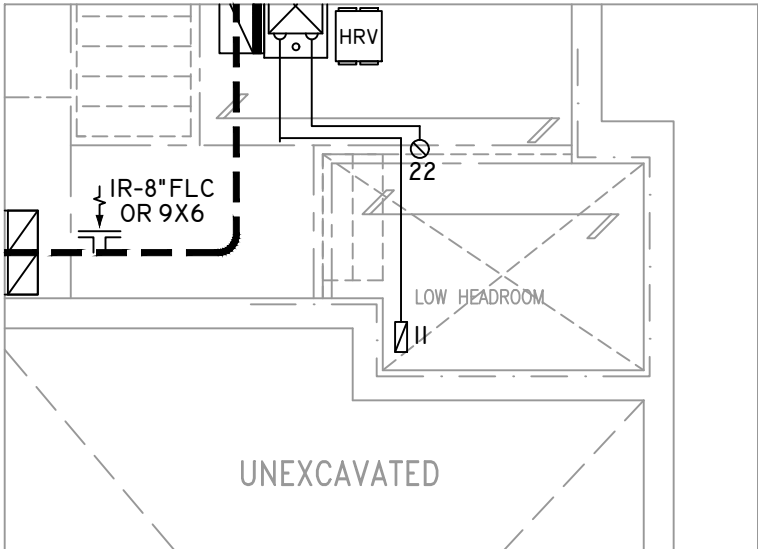
HEAT-LOSS	76,721	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960I004CNA	OR EQUAL.
UNIT HEATING INPUT	100,000	BTU/HR.
UNIT HEATING OUTPUT	96,000	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1540	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
1ST FLOOR	9	2	2
BASEMENT	7	2	

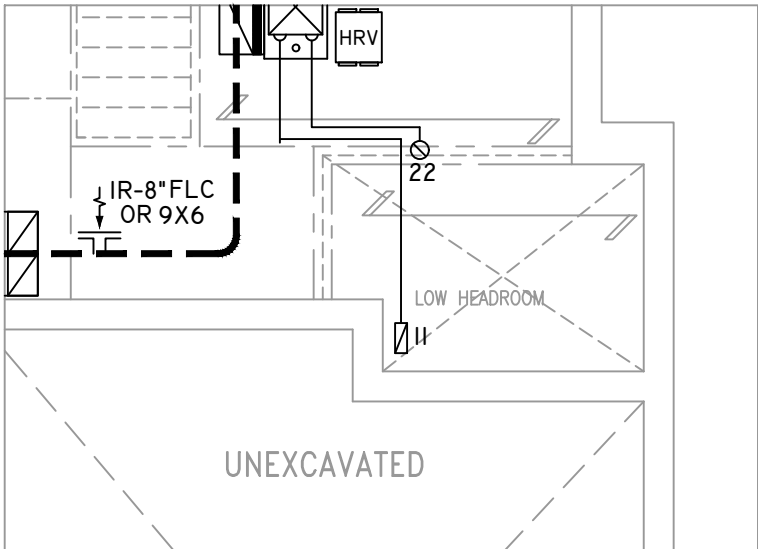
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO. JB-08595	SQFT 3480
	DRAWING NO. M5

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-21 - 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 VOLUME DAMPER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		THERMOSTAT
							PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN		



PARTIAL BASEMENT PLAN FOR
SUNKEN MUD ROOM
(-2R TO -3R CONDITION)



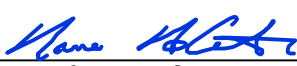
PARTIAL BASEMENT PLAN FOR
SUNKEN MUD ROOM
(-1R CONDITION)

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA



B.C.I.N. 32964

SIGNATURE OF DESIGNER

OBC 2012

ZONE I 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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HEAT-LOSS	76,721	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960I004CNA	OR EQUAL.
UNIT HEATING INPUT	100,000	BTU/HR.
UNIT HEATING OUTPUT	96,000	BTU/HR.
A/C COOLING CAPACITY	3.5	TONS.
FAN SPEED	1540	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
1ST FLOOR	9	2	2
BASEMENT	7	2	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY: JL	CHECKED: DD	SQFT 3480
LAYOUT NO. JB-08595	DRAWING NO. M6	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-21 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"