

Schedule 1: Designer Information

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

A. Project Information				
Building number, street name			Lot:	
TH-			Lot/con.	
Municipality Bradford	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for desi	gn activities	T		
Name David DaCosta		Firm	gtaDesigns Inc.	
Street address 2985 Drew Roa			Unit no.	Lot/con.
Municipality Mississauga	Postal code L4T 0A4	Province Ontario	E-mail dave@gtades	igns.ca
Telephone number	Fax number	l	Cell number	
(905) 671-9800	<u> </u>	7) 494-9643	(416) 268-6	8820
C. Design activities undertaken by individual identified in S	section B. [Bt	illiding Code Table	3.5.2.1 Of Division Cj	
☐ House ☑ HVAC – H	House		■ Building Structural	
☐ Small Buildings ☐ Building S	ervices		☐ Plumbing – House	
1	Lighting and Po	wer	☐ Plumbing – All Building	
☐ Complex Buildings ☐ Fire Prote	ction		On-site Sewage System	ns
Description of designer's work Mo	del Certification	1	Project #:	
Heating and Cooling Load Calculations Main	X	Builder	Layout #:	
Heating and Cooling Load Calculations Main Air System Design Alternate		Project	Bayview Wellingto Green Valley	on
Residential mechanical ventilation Design Summary Area Sq ft:		Model	,	
Residential System Design per CAN/CSA-F280-12			TH-1	
Residential New Construction - Forced Air D. Declaration of Designer		SB-12	Package A1	
David DaCosta (print name) I review and take responsibility for	the design work		istered under subsection	
3.2.4 Division C of the Building Co classes/categories. Individual BCIN Firm BCIN:		d, and the firm is regist	ered, in the appropriate TOWN OF BRADFORI BUILDING DEPARTMI PLANS EXAMINED ONTARIO BUILDING (DATE: 04/22/2024	ENT CODE APPLIES
☑ I review and take responsibility fo "other designer" under subsection				
Individual BCIN	329	64		
Basis for exemp	otion from registr	ration:	Division C 3.2.4.1. (4)	
☐ The design work is exempt from th	e registration an	d qualification requiren	nents of the Building Code.	
Basis for exemp	otion from registr	ation and qualification:		
I certify that:				
The information contained in this schedule is true to the best of r				
I have submitted this application with the knowledge and consen	t of the firm.			
December 12, 2023		Mane 16	Coto	
Date		Signature of De	signer	

NOTE:

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1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d), of Division C, Article 3.2.5.1. of Division C and all other persons who are exempt from qualifications under Subsections 3.2.4. and 3.2.5.of Division C.

2. Schedule 1 does not require to be completed a holder of a license, temporay license, or a certificate of authorization, issed by the Ontario 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.



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

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Heat loss and gain calcul	ation summary sheet CSA-F280-M12 Standard Form No. 1
These documents issued for the use of	ayview Wellington Layout No.
and may not be used by any other persons without authorization. Documents	s for permit and/or construction are signed in red. JB-04845
Building I	Location
Address (Model): TH-1	Site: Green Valley
Model:	Lot:
City and Province: Bradford	Postal code:
Calculations	s based on
Dimensional information based on:	VA3 DESIGN22/May/2018
Attachment: Townhome	Front facing: East/West Assumed? Yes
No. of Levels: 3 Ventilated? Included	Air tightness: 1961-Present (ACH=3.57) Assumed? Yes
Weather location: Bradford	Wind exposure: Sheltered
HRV? LifeBreath RNC155	Internal shading: Light-translucent Occupants: 4
Sensible Eff. at -25C 71% Apparent Effect. at -0C 84%	Units: Imperial Area Sq ft: 1660
Sensible Eff. at -0C 75%	
Heating design conditions	Cooling design conditions
Outdoor temp -9.4 Indoor temp: 72 Mean soil tem; 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: Existing Walls (When Applicable) R 12	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: Existing Windows (When Applicable) R 1.99	
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/Ga	in Caculations based on CSA-F280-12 Effective R-Values
Notes: Residential New C	Construction - Forced Air
Calculations p	performed by
Name: David DaCosta	Postal code: L4T 0A4
Company: gtaDesigns Inc.	Telephone: (905) 671-9800
Address: 2985 Drew Road, Suite 202	Fax: (416) 268-6820
City: Mississauga	E-mail dave@gtadesigns.ca
<u> </u>	TEVIEWE!



Builder: Bayview Wellington

Air System Design

Date:

SB-12 Package A1 December 12, 2023

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

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

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Project: Greer	n Valley			Model:			TH-	-1				Sy	stem '	1	(of the Bui	-		Other des	ne /4	LEX		David DaC			ject # yout #		-00204 -04845
DESIGN LOAD SPECIFICATION	IS			AIR DISTI	RIBUTION	& PRESS	SURE				F	URNACE	/AIR HAI	NDLER D	ATA:		i	BOILER/W	/ATER HE	ATER DA	ATA:			7	A/C UNIT	DATA:		
			•							-	-													-				•
Level 1 Net Load	9,648			Equipmer					0.5 "			/lake		Ama				Make			Т	ype			Amana		1.5 1	Ton
Level 2 Net Load	9,467			Additiona			ure Drop		0.225 "			/lodel		AMEC960				Model							Cond		1.5	
Level 3 Net Load	7,163			Available	-				0.275 "			nput Btu/		400				nput Btu/						(Coil		1.5	
Level 4 Net Load		btu/h		Return Br		-	ctive Len	igth	300 f			Output Bt	u/n	384		. W C		Output Bt				NA/LI						
Total Heat Loss	26,278 15,040			R/A Plenu					0.138 "			.s.p.		0.5		' W.C.	ŕ	Min.Outpu	It Btu/n		A	WH	wer DATA					
Total Heat Gain				S/A Plenu Heating A			F 4-	_	0.14 "			Vater Ten	np			deg. F.		21	eed Selec		W2		wer DATA		N T		-014	
Combo System HL + 10% Building Volume Vb	28,905 18911			Heating A		•	•		0.0294 c			AFUE Aux. Heat		96	/o			Blower Sp	eea Selea	ctea:		-			Blower Ty	-	ECM BC 12.3.1	I E (2))
Ventilation Load	895			Cooling A	III FIOW F	-	IIIg Facte			ieg. F.		B-12 Pac	kage	Packa	ne A1		,	Heating C	heck	772 c	fm				Cooling C		772 c	
Ventilation PVC	63.6						A Temp			leg. F.			go	· uona	,0711			.outg							g	ook _		
Supply Branch and Grill Sizing				Diffuser le	oss	0.01 "	-			.09	1	emp. Ris	e>>>	46	deg. F.			Selected o	:fm>	772 c	fm		c	Cooling A	ir Flow R	ate	772 0	cfm
					_							•	_		•				_							_		
							Leve	l 1													Level	12						
S/A Outlet No.	1	2	3	4											5	6	7	8										
Room Use	BASE	BASE	BASE	BASE										F	AM/KIT F	AM/KIT	MUD	FOY										
Btu/Outlet	2412	2412	2412	2412											2998	2998	1497	1974										
Heating Airflow Rate CFM	71	71	71	71											88	88	44	58										
Cooling Airflow Rate CFM	37	37	37	37											113	113	11	40										
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	24	15	15	26											22	32	4	32										
Equivalent Length	110	120	110	90	70	70	70	70	70	70	70	70	70	70	70	100	100	100	70	70	70	70	70	70	70	70	70	70
Total Effective Length	134	135	125	116	70	70	70	70	70	70	70	70	70	70	92	132	104	132	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.10	0.10	0.10	0.11	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.14	0.10	0.13	0.10	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	5	5	5	5											6	6	4	5										
Outlet Size	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	A	A	В	В											Α	A	PTO	В			Level	1.4						
S/A Outlet No	0	10	11	12	13	14	Leve	1 3													LCVC	14						
S/A Outlet No.	9 MAST	10 BED 3	11 BED 2	12 RATH	13 I ALIN	14 ENS	Leve	13													LCVC	14						
Room Use	MAST	BED 3	BED 2	BATH	LAUN	ENS	Leve	el 3													Love	14						
Room Use Btu/Outlet	MAST 1735	BED 3 1610	BED 2 2337		LAUN 213	ENS 1034	Leve	il 3													20401	14						
Room Use Btu/Outlet Heating Airflow Rate CFM	MAST 1735 51	BED 3 1610 47	BED 2 2337 69	BATH 234	213 6	ENS 1034 30	Leve	13													Level	14						
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM	MAST 1735 51 98	BED 3 1610 47 73	BED 2 2337	BATH 234 7 4	LAUN 213 6 50	ENS 1034 30 35			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
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure	MAST 1735 51 98 0.13	BED 3 1610 47	BED 2 2337 69 87	BATH 234 7 4 0.13	213 6 50 0.13	ENS 1034 30	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
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM	MAST 1735 51 98	BED 3 1610 47 73 0.13	BED 2 2337 69 87 0.13	BATH 234 7 4	LAUN 213 6 50	ENS 1034 30 35 0.13			0.13	0.13 70	0 .13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13 70	0.13 70			0.13	0.13	0.13	0.13	0.13	0.13
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length	MAST 1735 51 98 0.13 50	BED 3 1610 47 73 0.13 50	BED 2 2337 69 87 0.13 40	234 7 4 0.13	213 6 50 0.13 21	ENS 1034 30 35 0.13 43	0.13	0.13													0.13	0.13						
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length	MAST 1735 51 98 0.13 50 130	BED 3 1610 47 73 0.13 50 120	BED 2 2337 69 87 0.13 40 120	234 7 4 0.13 18 100	213 6 50 0.13 21 150	ENS 1034 30 35 0.13 43 110	0.13	0.13	70	70	70	70	70	70	70	70	70	70	70	70	0.13 70	0.13 70	70	70	70	70	70	70
Room Use Btt/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length	MAST 1735 51 98 0.13 50 130	BED 3 1610 47 73 0.13 50 120 170	BED 2 2337 69 87 0.13 40 120 160	BATH 234 7 4 0.13 18 100 118	213 6 50 0.13 21 150 171	ENS 1034 30 35 0.13 43 110 153	0.13 70 70	0.13 70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	0.13 70 70	0.13 70 70	70 70	70 70	70 70	70 70	70 70	70 70
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure	MAST 1735 51 98 0.13 50 130 180 0.07	BED 3 1610 47 73 0.13 50 120 170 0.08	BED 2 2337 69 87 0.13 40 120 160 0.08	BATH 234 7 4 0.13 18 100 118 0.11	213 6 50 0.13 21 150 171 0.08	ENS 1034 30 35 0.13 43 110 153 0.08	0.13 70 70	0.13 70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	0.13 70 70	0.13 70 70	70 70	70 70	70 70	70 70	70 70	70 70
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round	MAST 1735 51 98 0.13 50 130 180 0.07 6	BED 3 1610 47 73 0.13 50 120 170 0.08 6	BED 2 2337 69 87 0.13 40 120 160 0.08 6	BATH 234 7 4 0.13 18 100 118 0.11 2	213 6 50 0.13 21 150 171 0.08	ENS 1034 30 35 0.13 43 110 153 0.08 4	0.13 70 70 0.19	0.13 70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	0.13 70 70 0.19	0.13 70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adal Seffective Length Duct Size Round Outlet Size Trunk	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A	0.13 70 70 0.19 4x10	0.13 70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19 4x10	0.13 70 70 0.19 4x10	0.13 70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A	0.13 70 70 0.19 4x10	0.13 70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Sizing	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	0.13 70 70 0.19 4x10	0.13 70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No.	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A	0.13 70 70 0.19 4x10	0.13 70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Sizing	70 70 0.19 4x10	70 70 0.19	70 70 0.19	70 70 0.19 4x10	70 70 0.19 4x10	0.13 70 70 0.19 4x10	0.13 70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19	70 70 0.19	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss 4R 105	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A	0.13 70 70 0.19 4x10 w.c	0.13 70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Return Tr	70 70 0.19 4x10	70 70 0.19 4x10 Sizing	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO sure Loss 4R 105 0.12	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A	0.13 70 70 0.19 4x10	0.13 70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Return Tr	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 <u>S</u> T	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12 7	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12 43	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss 4R 105 0.12 29	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5R 0.12	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A 0.02 "	0.13 70 70 0.19 4x10 w.c 7R 0.12	0.13 70 70 0.19 4x10 8R 0.12	70 70 0.19 4x10 9R 0.12	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Return Tr Trunk	70 70 0.19 4x10	70 70 0.19 4x10 Sizing	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 <u>S</u> T	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A 1R 140 0.12 5 155	BED 3 1610 47 73 0.13 50 120 0.08 6 4x10 B 2R 422 0.12 7 165	BED 2 2337 69 87 0.13 40 120 0.08 6 4x10 B Grill Pres 3R 105 0.12 43 140	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss 4R 105 0.12 29 120	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5 5R 0.12	ENS 1034 30 35 0.13 110 153 0.08 4 3x10 A 0.02 "	0.13 70 70 0.19 4x10 w.c 7R 0.12	0.13 70 70 0.19 4x10 8R 0.12	70 70 0.19 4x10 9R 0.12	70 70 0.19 4x10 10R 0.12	70 70 0.19 4x10 11R 0.12	70 70 0.19 4x10	70 70 0.19 4x10 Return Tr Trunk	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 <u>S</u> T	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Equivalent Length Total Effective Length	MAST 1735 51 98 0.13 50 130 0.07 6 4x10 A 1R 140 0.12 5 155 160	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12 7 165 172	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12 43 140 183	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO sure Loss 4R 105 0.12 29 120 149	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5R 0.12 50 50	ENS 1034 30 35 0.13 43 110 153 0.08 4 3×10 A 0.02 "	0.13 70 70 0.19 4x10 w.c 7R 0.12 50 50	0.13 70 70 0.19 4x10 8R 0.12 50	70 70 0.19 4x10 9R 0.12 50	70 70 0.19 4x10 10R 0.12 50	70 70 0.19 4x10 11R 0.12 50	70 70 0.19 4x10	70 70 0.19 4x10 Return Tr Trunk	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 <u>S</u> T	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A 1R 140 0.12 5 155 160 0.07	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12 7 165 172 0.07	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12 43 140 183 0.06	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss 4R 105 0.12 29 120 149 0.08	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5 5R 0.12	ENS 1034 30 35 0.13 110 153 0.08 4 3x10 A 0.02 "	0.13 70 70 0.19 4x10 w.c 7R 0.12	0.13 70 70 0.19 4x10 8R 0.12	70 70 0.19 4x10 9R 0.12	70 70 0.19 4x10 10R 0.12	70 70 0.19 4x10 11R 0.12	70 70 0.19 4x10 <u>F</u> 7	70 70 0.19 4x10 Return Tr	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 S T	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing : Spring Spr	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A 1R 140 0.12 5 155 160 0.07 6.0	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12 7 165 172 0.07 11.0	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12 43 140 183 0.06 6.0	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO surre Loss 4R 105 0.12 29 120 149 0.08 6.0	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5R 0.12 50 50	ENS 1034 30 35 0.13 43 110 153 0.08 4 3×10 A 0.02 "	0.13 70 70 0.19 4x10 w.c 7R 0.12 50 50	0.13 70 70 0.19 4x10 8R 0.12 50	70 70 0.19 4x10 9R 0.12 50	70 70 0.19 4x10 10R 0.12 50	70 70 0.19 4x10 11R 0.12 50	70 70 0.19 4x10 <u>F</u> 7	70 70 0.19 4x10 Return Tr Trunk Prop	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 S T A B C C D E F	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing : Spring Spr	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Inlet Size	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A 1R 140 0.12 5 155 160 0.07 6.0 FLC	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12 7 165 172 0.07 11.0 8	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12 43 140 183 0.06 6.0	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss 4R 105 0.12 29 120 149 0.08 6.0 8	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5 5R 0.12 50 0.24	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A 0.02 6R 0.12	0.13 70 70 0.19 4x10 7R 0.12 50 50 0.24	0.13 70 70 0.19 4x10 8R 0.12 50 0.24	70 70 0.19 4x10 9R 0.12 50 0.24	70 70 0.19 4x10 10R 0.12 50 0.24	70 70 0.19 4x10 11R 0.12 50 50 0.24	70 70 0.19 4x10 <u>F</u> T	70 70 0.19 4x10 Return Tr Trunk Drop	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 S T A B C C D E F G	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing : Spring Spr	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Inlet Size " "	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A 1R 140 0.12 5 155 160 0.07 6.0	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12 7 165 172 0.07 11.0 8 x	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12 43 140 183 0.06 6.0 8 x	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss 4R 105 0.12 29 120 149 0.08 6.0 8 x	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5R 0.12 50 50	ENS 1034 30 35 0.13 43 110 153 0.08 4 3×10 A 0.02 "	0.13 70 70 0.19 4x10 w.c 7R 0.12 50 50	0.13 70 70 0.19 4x10 8R 0.12 50	70 70 0.19 4x10 9R 0.12 50	70 70 0.19 4x10 10R 0.12 50	70 70 0.19 4x10 11R 0.12 50	70 70 0.19 4x10 <u>F</u> T	70 70 0.19 4x10 Return Tr Trunk Drop	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 S T A B C C D E F	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing : Spring Spr	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Inlet Size	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A 1R 140 0.12 5 155 160 0.07 6.0 FLC	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12 7 165 172 0.07 11.0 8	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12 43 140 183 0.06 6.0	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss 4R 105 0.12 29 120 149 0.08 6.0 8	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5 5R 0.12 50 0.24	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A 0.02 6R 0.12	0.13 70 70 0.19 4x10 7R 0.12 50 50 0.24	0.13 70 70 0.19 4x10 8R 0.12 50 0.24	70 70 0.19 4x10 9R 0.12 50 0.24	70 70 0.19 4x10 10R 0.12 50 0.24	70 70 0.19 4x10 11R 0.12 50 50 0.24	70 70 0.19 4x10 F T	70 70 0.19 4x10 Return Trirunk Drop	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 S T A B C C D E F G	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing : Spring Spr	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19
Room Use Btu/Outlet Heating Airflow Rate CFM Cooling Airflow Rate CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Outlet Size Trunk Return Branch And Grill Sizing R/A Inlet No. Inlet Air Volume CFM Duct Design Pressure Actual Duct Length Equivalent Length Total Effective Length Adjusted Pressure Duct Size Round Inlet Size " "	MAST 1735 51 98 0.13 50 130 180 0.07 6 4x10 A 1R 140 0.12 5 155 160 0.07 6.0 FLC	BED 3 1610 47 73 0.13 50 120 170 0.08 6 4x10 B 2R 422 0.12 7 165 172 0.07 11.0 8 x	BED 2 2337 69 87 0.13 40 120 160 0.08 6 4x10 B Grill Pres 3R 105 0.12 43 140 183 0.06 6.0 8 x	BATH 234 7 4 0.13 18 100 118 0.11 2 3x10 PTO ssure Loss 4R 105 0.12 29 120 149 0.08 6.0 8 x	LAUN 213 6 50 0.13 21 150 171 0.08 5 3x10 B 5 5R 0.12 50 0.24	ENS 1034 30 35 0.13 43 110 153 0.08 4 3x10 A 0.02 6R 0.12	0.13 70 70 0.19 4x10 7R 0.12 50 50 0.24	0.13 70 70 0.19 4x10 8R 0.12 50 0.24	70 70 0.19 4x10 9R 0.12 50 0.24	70 70 0.19 4x10 10R 0.12 50 0.24	70 70 0.19 4x10 11R 0.12 50 50 0.24	70 70 0.19 4x10 <u>F</u> T	70 70 0.19 4x10 Aceturn Tr Trunk Orop	70 70 0.19 4x10	70 70 0.19 4x10 Sizing CFM F	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10 Rect. \$	70 70 0.19 4x10	70 70 0.19 4x10 S T A B C C D E F G	0.13 70 70 0.19 4x10 upply Tru	0.13 70 70 0.19 4x10	70 70 0.19 4x10 : Sizing : Spring Spr	70 70 0.19 4x10 Press. I	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19 4x10	70 70 0.19



Heatloss/Gain Calculations CSA-F280-12

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

e-mail dave@gtadesigns.ca

		Builder:	Вау	view Wel	lington	1	-	Date:			Decembe	r 12, 20	23					w	eather Data	a Br	radford	44	-9.4	86 22	48.2				Page	
2012 OBC		Project:		Green Val	lley			lodel:			т	1 -1			_	Syst	em 1	н	eat Loss ^	T 81.4 deg. F	=	Ht gain ^T	1	l deg. F	GTA:	1660		Project # Layout #	PJ-0020 JB-0484)4 45
	Level 1					BASE	:																							_
Run	ft. exposed wall A				83				Δ		Α			Α		Α		Α		Α		Α		Α		,			Δ	
	ft. exposed wall B					В			В		В			В		В		В		В		В		В		E			3	
	Ceiling height				3.5	AG		3.5			3.5 AG		3	3.5 AG		3.5 AG		3.5 AG		3.5 AG		3.5 AG		3.5 AG		3.5 A	AG	3.5 /		
	Floor area				642	Area			Area		Are	а		Area		Area		Are	a	Area		Area		Area			Area		Area	
E	Exposed Ceilings A					Α			A		Α			Α		Α		Α		Α		Α		Α		-	4	A	A	
E	Exposed Ceilings B					В			В		В			В		В		В		В		В		В		E	3		3	
	Exposed Floors					Flr			Flr		Flr			Flr		Flr		Flr		Fir		Flr		Fir		F	-Ir	F	=lr	
	Gross Exp Wall A				291																									
	Gross Exp Wall B																													
	Components			Gain	Г	Loss	Gain		Loss G	ain	Los	s Ga	in	Loss	Gain	Loss	Gain	Los	s Gain	Loss	Gain	Loss	Gain	Loss	Gain		oss G	ain L	oss Gain	_
	North Shaded		22.93	10.91																										
	East/West	3.55	22.93	27.35	20	459	547																							-
	South WOB Windows	3.55 3.15	22.93 25.84	20.89 28.32																										
	Skylight	2.03	40.10	88.23																										
	Doors	4.00	20.35	2.75	21	427	58																							
Ne	et exposed walls A		3.85	0.52	250		130																							
	et exposed walls B		5.62	0.76																										
	Exposed Ceilings A		1.37	0.64																										
E	Exposed Ceilings B	22.86	3.56	1.66																										
	Exposed Floors		2.73	0.17																										
Foundation Cond	ductive Heatloss	On Grade (() or Abo			4006																								
Total Conductive	Heat Loss					4892																								
	Heat Gain						735																							
Air Leakage	Heat Loss/Gain		0.9170	0.0440		4486	32																							
Ventilation	Case 1		0.09	0.11																										
ventilation	Case 2 Case 3		14.07 0.06	11.88 0.11		270	83																							
	Heat Gain People	х	0.06	239		210	03																							-
	Appliances Loads	1 =.25 pe	ercent	2743			1372																							
	Duct and Pipe loss	1 =.20 pt	CICCIR	10%	2.0		1072																							
Level 1 HL Total	9,648	To	tal HL for			9648																								
Level 1 HG Total	2,888		HG per ro				2888																							
·	•																													
	L aval 2						-																							
_	Level 2					FAM/K	П		MUD			OY																	_	
	of ft. exposed wall A				57	A B		12 /			15 A B			A B		A B		A B		A B		A B		A B		<i>A</i>			A 3	
Kun	of the first				10.0	В		12.0	5		11.0		10).0		10.0		10.0		10.0		10.0		10.0		10.0	•	10.0	3	
	Floor area				567	Area		32 /	Δτοσ		56 Are	9		Area		Area		Are	9	Area		Area		Area			Area		Area	
F	Exposed Ceilings A					A		32 /			JU AIE	а		A		A		A	a	A		A		A		7		-	4 4	
	Exposed Ceilings B					В			В		В			В		В		В		В		В		В		E			` 3	
	Exposed Floors					Flr			Flr		Flr			Fir		Flr		Flr		Flr		Flr		Flr			-Ir		Flr	
	Gross Exp Wall A				570			144			165																			
	Gross Exp Wall B																													
	Components	R-Values L	oss (Gain		Loss	Gain		Loss G	ain	Los	s Ga	in	Loss	Gain	Loss	Gain	Los	s Gain	Loss	Gain	Loss	Gain	Loss	Gain		oss G	iain L	oss Gain	
	North Shaded		22.93	10.91																										
	East/West	3.55	22.93	27.35		1697	2024				14	321	383																	
	South	3.55	22.93	20.89																										
	Existing Windows	1.99	40.90	22.15																										4
	Skylight	2.03	40.10 20.35	88.23 2.75					40=		40																			
N.	Doors	4.00 17.03	4.78	0.65		2371	320	21 123	427 588	58 79		387 631	52 85																	
	et exposed walls A		9.58	1.29		23/1	320	123	388	79	132	631	85																	
ING	et exposed walls B Exposed Ceilings A	59.22	1.37	0.64																										-
	Exposed Ceilings B		3.56	1.66																										
_	Exposed Floors		2.73	0.17																										
Foundation Cond	ductive Heatloss			х																										
Total Conductive	Heat Loss					4068			1015		1	339																		
Total Conductive	Heat Gain						2345			137			520																	
Air Leakage	Heat Loss/Gain		0.4191	0.0440		1705			426	6		561	23																	
	Case 1		0.04	0.11																										
Ventilation	Case 2		14.07	11.88																										
	Case 3	х	0.06	0.11		225	264		56	15		74	59																	
	Heat Gain People			239																			7			- - /				_
	Appliances Loads		ercent	2743	1.0		686																			$\mathbf{H} \mathbf{V}$				
	Duct and Pipe loss		4-1111	10%		F			4.40=			074																		
Level 2 HL Total	9,467		tal HL for p			5997			1497		1	974																		
													700																	
Level 2 HG Total	5,405	Total	HG per ro	om x 1.3	l L		4417	L		206			783													1 [

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under

David DaCosta

SB-12 Package Package A1



Heatloss/Gain Calculations CSA-F280-12

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		Builder:	Bayview Well	lington	_	Date:	D	December 12	2, 2023		_			Weat	her Data	Bradford	44	-9.4	86 22	48.2				Page 5
2012 OBC		Project:	Green Val	lley		Model:		TH-1			-	System	1 1	Heat	t Loss ^T	81.4 deg. F	Ht gain ^T	1	1 deg. F	GTA:	1660		ject # out #	PJ-00204 JB-04845
	Level 3			MAS	т	ВЕ	D 3	BED	2	BATH		LAUN	•	ENS	:									
Run	ft. exposed wall A			12 A		14 A		10 A	_	Α	-	Α		7 A		Α	Α		Α		Α		Α	
	ft. exposed wall B			В		В		В		В		В		В		В	В		В		В		В	
	Ceiling height			8.0		8.0		8.0		8.0		8.0		8.0		8.0	8.0		8.0		8.0		8.0	
	Floor area			237 Area		116 Area		254 Area		64 Area		83 Area		109 Area		Area	Area		Area		Area		Are	a
Ex	xposed Ceilings A			237 A		116 A		254 A		64 A		83 A		109 A		Α	Α		Α		Α		Α	
Ех	xposed Ceilings B			В		В		В		В		В		В		В	В		В		В		В	
	Exposed Floors			Flr		14 Flr		135 Flr		28 Flr		13 Flr		27 Flr		Fir	Fir		Flr		Flr		Flr	
•	Gross Exp Wall A			96		112		80						56										
	Gross Exp Wall B Components	B Values I a	oss Gain	Loss	Gain	Loss	Gain	Less	Gain	Loss	Cain	Loss	Cain	Loss	Coin	Loss Gain	Loss	Gain	Loss	Gain	Lann	Gain	l a	ss Gain
	North Shaded	3.55	22.93 10.91		Gain	LUSS	Gain	LUSS	Gain	LUSS	Gain	LUSS	Gain	LUSS	Gain	LOSS Gain	LUSS	Gain	LUSS	Gain	LUSS	Gain	LUS	S Gaill
	East/West	3.55	22.93 27.35		0 656	22 5	602	22 504	4 602					13 298	356									
	South	3.55	22.93 20.89		-																			
ı	Existing Windows	1.99	40.90 22.15																					
	Skylight	2.03	40.10 88.23																					
	Doors	4.00	20.35 2.75																					
	et exposed walls A	17.03	4.78 0.65		4 47	90 4	130 58	58 277	7 37					43 206	6 28									
	t exposed walls B	8.50	9.58 1.29			440		25.4																
	xposed Ceilings A	59.22	1.37 0.64		6 152	116 1	159 74	254 349	9 163	64 88	41	83 114	53	109 150	70									
Ex	xposed Ceilings B	22.86	3.56 1.66			14	38 2	135 369	9 23	28 76	5	13 36	2	27 74										
Foundation Condu	Exposed Floors	29.80	2.73 0.17			14	ან 2	135 369	9 23	28 76	5	13 36	2	21 74	+ 5									
	Heat Loss			1220	0	11	132	1500	0	164		150		727	,									
Total Conductive	Heat Gain			122	855		737	1000	825		46	130	55		458									
Air Leakage	Heat Loss/Gain		0.3667 0.0440	447			115 32	550		60		55	2	267										
	Case 1		0.04 0.11																					
Ventilation	Case 2		14.07 11.88																					
	Case 3	х	0.06 0.11				63 83	83		9	5	8	6	40	52									
	Heat Gain People		239		478	1	239	1	239															
	Appliances Loads	1 =.25 per						4 00	- 400			1.0	686											
Level 3 HL Total	Ouct and Pipe loss 7,163	Tota	10% al HL for per room	1735	5	16	:10	1 205		234		213		1034	1									
Level 3 HG Total	6,747		G per room x 1.3		1907		1418	233	1689	234	69		975	103-	688									
	-1		- par 100 mm m m m						1333															
	Level 4																							
Run ·	ft. exposed wall A			Α		Α		Α		Α		Α		Α		Α	Α		Α		Α		Α	
	ft. exposed wall B			В		В		В		В		В		В		В	В		В		В		В	
	Ceiling height																							
	Floor area			_																			Are	:a
	xposed Ceilings A			Area		Area		Area		Area		Area		Area		Area	Area		Area		Area		AIC	
				Α		Α		Α		Α		Α		Α		Α	Α		Α		Α		Α	
	xposed Ceilings B			A B		A B		A B		A B		A B		A B		A B	A B		A B		A B		A B	
	xposed Ceilings B Exposed Floors			Α		Α		Α		Α		Α		Α		Α	Α		Α		Α		Α	
(xposed Ceilings B Exposed Floors Gross Exp Wall A			A B		A B		A B		A B		A B		A B		A B	A B		A B		A B		A B	
(xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B	B. Voluse II. e	as ICsin I	A B Fir	Coin	A B Fir		A B Fir	Coin	A B Flr	Coin	A B Fir	Coin	A B Fir	Coin	A B Flr	A B Fir	Coin	A B Flr	Coin	A B Fir	Coin	A B Fir	o Coin
(xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components			A B Fir	Gain	A B		A B	Gain	A B	Gain	A B Fir	Gain	A B Fir	Gain	A B	A B Fir	Gain	A B	Gain	A B	Gain	A B Fir	ss Gain
(xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded	3.55	22.93 10.91	A B Fir Loss	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	is Gain
(xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West	3.55 3.55	22.93 10.91 22.93 27.35	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	s Gain
(xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded	3.55	22.93 10.91	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	s Gain
(xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight	3.55 3.55 3.55 1.99 2.03	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	ss Gain
E	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors	3.55 3.55 3.55 1.99 2.03 4.00	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	ss Gain
E Net	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors et exposed walls A	3.55 3.55 3.55 1.99 2.03 4.00 17.03	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	ss Gain
E Net Net	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors It exposed walls A t exposed walls B	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	s Gain
EE EE	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors at exposed walls A bt exposed Ceilings A	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	s Gain
EE EE	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors et exposed walls A tt exposed walls A xposed Ceilings A	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	ss Gain
Retailed to the second	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors at exposed walls A et exposed Walls B xposed Ceilings A Exposed Floors	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	is Gain
Net Net Ex Foundation Condu	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors at exposed walls A te exposed walls A xposed Ceilings A xposed Ceilings A xposed Ceilings B Exposed Floors uctive Heatloss	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	ss Gain
Retailed to the second	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors at exposed walls A et exposed Walls B xposed Ceilings A Exposed Floors	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	is Gain
Net Net Ex Foundation Condu	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors et exposed walls A tt exposed walls A txposed Ceilings A xposed Ceilings B Exposed Floors uctive Heatloss Heat Loss	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66	A B Fir Loss	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	s Gain
Net Net Ex Ex Foundation Condu Total Conductive Air Leakage	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors et exposed walls A tt exposed walls A tt exposed ceilings A xposed Ceilings B Exposed Floors uctive Heatloss Heat Loss Heat Gain Heat Loss/Gain	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.91 3.56 1.66 2.73 0.17	A B Fir Loss	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	ss Gain
Net Net Ex Foundation Condu Total Conductive	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors et exposed walls A texposed walls B Exposed Ceilings B Exposed Ceilings B Exposed Floors uctive Heatloss Heat Loss Heat Gain Heat Loss/Gain Case 1 Case 2	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.0000 0.0440 0.000 0.011 14.07 11.88	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	ss Gain
Nete Net Ex Foundation Condu Total Conductive Air Leakage Ventilation	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors et exposed walls A et exposed walls A et exposed Floors Exposed Floors Exposed Floors Heat Loss Heat Loss/Gain Heat Loss/Gain Heat Loss/Gain Case 1 Case 2 Case 3	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.0000 0.0440 0.00 0.11 14.07 11.88 0.06 0.11	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	s Gain
Net Net Ex Ex Foundation Conductive Air Leakage Ventilation	xposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors et exposed walls A et exposed walls A et exposed walls B Exposed Ceilings A xposed Ceilings B Exposed Floors uctive Heatloss Heat Gain Heat Loss/Gain Case 1 Case 2 Case 3 Heat Gain People	3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.000 0.0440 0.00 0.11 14.07 11.88 0.06 0.11	A B Fir Loss	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	is Gain
Net	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight ex poosed walls A te exposed walls B exposed Ceilings B exposed Ceilings A posed Ceilings A po	3.55 3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.0000 0.0440 0.00 0.11 14.07 11.88 0.06 0.11 1.89 0.006 0.11	A B Fir Loss	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	ss Gain
Foundation Conductive Air Leakage Ventilation	xposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors at exposed walls A te exposed walls A te exposed floors Exposed Floors Exposed Floors Heat Loss Heat Gain Heat Loss/Gain Heat Loss/Gain Heat Case 1 Case 1 Case 3 Heat Gain People Appliances Loads Juct and Pipe loss	3.55 3.55 1.99 2.03 4.00 17.03 8.50 29.80 29.80 x	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.0000 0.0440 0.00 0.11 14.07 11.88 0.06 0.11 239 cent 2743	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	is Gain
Net	xposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight ex poosed walls A te exposed walls B exposed Ceilings B exposed Ceilings A posed Ceilings A po	3.55 3.55 1.99 2.03 4.00 17.03 8.50 59.22 22.86 29.80 x	22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.75 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.0000 0.0440 0.00 0.11 14.07 11.88 0.06 0.11 1.89 0.006 0.11	A B Fir	Gain	A B Fir		A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	Gain	A B Flr	A B Fir	Gain	A B Flr	Gain	A B Fir	Gain	A B Fir	as Gain

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under

26,278 Total Heat Loss btu/h Total Heat Gain 15,040 btu/h Division C subsection 3.2.5. of the Building Code. Individual BCIN:

Name Met

David DaCosta

SB-12 Package Package A1



Bayview Wellington

Fax

Positive venting induced draft (except fireplaces)

Natural draft, B-vent or induced draft fireplaces

Combustion Appliances 9.32.3.1(1)

Heating System

House Type 9.32.3.1(2) Type a) or b) appliances only, no solid fuel

Type I or II either electric space heat

System Design Option Exhaust only / forced air system

HRV WITH DUCTING / forced air system

HRV simplified connection to forced air system

HRV full ducting/not coupled to forced air system

Electric space heat (if over 10% of heat load)

Type I except with solid fuel (including fireplace)

Direct vent (sealed combustion) only

Solid fuel (including fireplaces)

No combustion Appliances

Any type c) appliance

Part 6 design

Type I, II or IV no forced air

Forced air Non forced air

Address

City Tel

> a) b)

c)

d)

e)

Х

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IV

Othe

2

3

4

Χ

Address

PJ-00204

Page 6 2985 Drew Road, Suite 202, Mississauga, Ontario L4T 0A4 Tel: 905-671-9800 Fax: 647-494-9643 Project # e-mail dave@gtadesigns.ca JB-04845 Layout # 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 Dane of Et David DaCosta Package: Package A1 Model: Project: **Bradford** TH-1 RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY For systems serving one dwelling unit & conforming to the Ontario Building Code, O.reg 332/12 **Total Ventilation Capacity 9.32.3.3(1)** Location of Installation Lot # Plan # Bsmt & Master Bdrm 2 @ 21.2 cfm 42.4 cfm Township Other Bedrooms 21.2 cfm 2 @ 10.6 cfm Bradford Bathrooms & Kitchen @ 10.6 cfm 42.4 cfm 4 Roll # Permit # Other rooms 10.6 cfm 31.8 cfm Total 137.8 Address Principal Ventilation Capacity 9.32.3.4(1) Builder Name Master bedroom @ 31.8 cfm 31.8 cfm 1

City						
			Principa	al Exhaust Fan Capa	city	
Tel	Fax		Make	Model	Location	
			LifeBreath	RNC155	Base	
Installing	Contractor	1				
Name		1 1	132 cfm		Sones	or Equiv.

Other bedrooms

	Heat Recovery Ventilator	
Make	LifeBreath	
Model	RNC155	
	132 cfm high	80 cfm low
Sensible effic	ciency @ -25 deg C	71%
Sensible effic	ciency @ 0 deg C	<u>75%</u>

@ 15.9 cfm

Total

31.8 cfm

63.6

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

Total ventilation capacity 137.8 Less principal exhaust capacity 63.6 REQUIRED supplemental vent. Capacity 74.2 cfm

Supplemental Fans 9.32.3.5.										
Location	cfm	Model	Sones							
Ens	50	XB50	0.3							
Bath	50	XB50	0.3							
all fans HVI listed	Make	Broan	or Equiv.							

	Designer Control that this ventilation with the Ontario Builton	system has been	designed
Name	David Da	Costa	
Signature	Mane	Mat	
HRAI#	5190	BCIN #	32964
Date	December 1	2, 2023	

♦GTA\DESIGNS

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

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Project # PJ-00204 Layout # JB-04845

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

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 Princi	pal Authority			
Application No:				Model/Certification N	umber		
A. Project Information							
Building number, street name					Unit number	Lot/Con	
			TH-1				
Municipality Bradford			Postal code	Reg. Plan number / o	ther description	11	
B. Prescriptive Compliance [indica	te the bu	ilding cod	e compliance packa	age being employed in	n the house design]		
SB-12 Prescriptive (input design pa	ckage):		<u>Pack</u>	age A1	Table:	3.1.1.2.	<u>A</u>
C. Project Design Conditions							
Climatic Zone (SB-1):		Heat. E	quip. Efficiency		Space Heating F	uel Sourc	e
Zone 1 (< 5000 degree days)		√ ≥ 92	2% AFUE	✓ Gas	☐ Propane	П	Solid Fuel
Zone 2 (≥ 5000 degree days)		_ ≥ 8	34% < 92% AFUE	☐ Oil	☐ Electric		Earth Energy
Ratio of Windows, Skylights & Glas	s (W, S	& G) to \	Wall Area		Other Building Ch	aracterist	• • • • • • • • • • • • • • • • • • • •
	-			☐ Log/Post&Beam			☐ ICF Basement
Area of Walls = $\frac{268.43}{100}$ m ² or $\frac{2889.4}{100}$	ft²	W,S &	G % = <u>7%</u>	☐ Slab-on-ground		sement	
				✓ Air Conditioning	Combo Uni	t	
Area of W, S & G = <u>17.558</u> m ² or <u>189.0</u>	ft²	Utilize V	Vindow ☐ Yes	☐ Air Sourced He	at Pump (ASHP)		
		Avera		☐ Ground Source	Heat Pump (GSHP)		
D. Building Specifications [provide	values a	nd ratings		iency components pro	pposed]		
Energy Efficiency Substitutions							
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))							
Combined space heating and domestic	water he	ating syst	tems (3.1.1.2(7) / 3.	1.1.3.(7))			
☐ Airtightness substitution(s)		Table 3.1	I.1.4.B Required:		Permitted S	Substitution	:
Airtightness test required		Table 0.4	Required:		Permitted S	Substitution	:
(Refer to Design Guide Attached)		Table 3.1	Required:		Permitted S	Substitution	:
Duilding Commonset	Mini	mum RS	I/R-Values or	D	Idia a Commonant		Efficiency Detines
Building Component	N	/laximun	n U-Value¹	Bui	Iding Component		Efficiency Ratings
Thermal Insulation	Non	ninal	Effective	Windows & Doo	ors Provide U-Value ⁽¹⁾ o	r ER rating	
Ceiling with Attic Space	6	0		Windows/Sliding (Glass Doors		1.6
Ceiling without Attic Space	3	1		Skylights			2.8
Exposed Floor	3	1		Mechanicals			
Walls Above Grade	22			Heating Equip.(AF	UE)		96%
Basement Walls		20.0ci		HRV Efficiency (S	RE% at 0°C)		75%
Slab (all >600mm below grade)	2	x		DHW Heater (EF)			0.80
Slab (edge only ≤600mm below grade)	1	0		DWHR (CSA B55.	1 (min. 42% efficiency))		#Showers 2
Slab (all ≤600mm below grade, or heated)	1	0		Combined Heating	g System		
(1) U value to be provided in either W/(m²·K) or Bt	u/(h·ft·F) b	out not bot	h.				
E. Designer(s) [name(s) & BCIN(s), if	applicable	e, of perso	on(s) providing infor	mation herein to subs	stantiate that design mee	ts building	code]
Name			BCIN	Signature			
David DaCosta			329	964	Mane	14C=	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Form authorized by OHBA, OBOA, LMCBO, Revised December 1, 20	16		•	1			

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





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

Page PJ-00204

/ent

Project # JB-04845 Layout #

Package: Package A1 System: System 1 Project: **Bradford** Model: TH-1

Air Leakage Calculations **Building Air Leakage Heat Loss Building Air Leakage Heat Gain** ۷b HLleak Vb HG^T HG Leak В LRairh В LRairh 0.018 0.324 18911 81.4 8972 0.018 0.079 18911 11 295

	Air Lea	kage Heat	Loss/Gain Multiplier T	able (Section 11)
Laval	Level	Building	Level Conductive	Air Leakage Heat Loss
Level	Factor (LF)	Air	Heat Loss	Multiplier
Level 1	0.5		4892	0.9170
Level 2	0.3	8972	6421	0.4191
Level 3	0.2	0912	4893	0.3667
Level 4	0		0	0.0000

		Air Leakage Heat Gain
HG LEAK	295	0.0440
BUILDING CONDUCTIVE HEAT GAIN	6713	0.0440

-			
	Lev	/els	
1	2	3	4
(LF)	(LF)	(LF)	(LF)
1.0	0.6	0.5	0.4
	0.4	0.3	0.3
		0.2	0.2
			0.1

Levels this Dwelling	
3	

HGbvent 756

Ventilation Heat Gain

Ventilation Calculations

					_				
		Ventilation	Heat Loss				V	entilation I	leat Gain
С	PVC	HL^T	(1-E) HRV	HLbvent		С	PVC	HG^T	HGb
1.08	63.6	81.4	0.16	895		1.1	63.6	11	7

Case 1	Case 1
Ventilation Heat Loss (Exhaust only Systems)	Ventilation Heat Gain (Exhaust Only Systems)

(Case 1 - Ex	thaust Only	
LF	HLbvent	LVL Cond. HL	Multiplier
0.5		4892	0.09
0.3	895	6421	0.04
•	033	4002	0.04

Case 1 - Exh	aust Only	Multiplier
HGbvent	756	0.11
Building	6713	0.11

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	895	4892	0.09
Level 2	0.3		6421	0.04
Level 3	0.2		4893	0.04
Level 4	0		0	0.00
	•			

Case 2

Ventilation Heat Loss

Ventilation Heat Loss (Direct Ducted Systems)	Ventilation Heat Gain (Direct Ducted Systems)

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

Case

		Multiplier
С	HG^T	11.88
1.08	11	11.00

Case 3	Case 3	

	HLbvent	Multiplier
Total Ventilation Load	895	0.06

Ventilation Heat Loss (Forced Air Systems)

		Vent Heat Gain	Multiplier	
HGbvent	HG*1.3	756	0.11	
756	1	730	0.11	

Ventilation Heat Gain (Forced Air Systems)

Case 2

Foundation Conductive Heatloss Level 1	1174	Watts	4006	Btu/h	

Foundation Conductive Heatloss Level 2

Watts Btu/h



Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description						
Province:	Ontario T					
Region:	Bradford ▼					
Weather Station Location:	Open flat terrain, grass					
Anemometer height (m):	10					
Local Shiel	ding					
Building Site:	Suburban, forest ▼					
Walls:	Heavy ▼					
Flue:	Heavy ▼					
Highest Ceiling Height (m):	6.55					
Building Confi	guration					
Type:	Semi-Detached					
Number of Stories:	Two					
Foundation:	Shallow					
House Volume (m³):	535.56					
Air Leakage/Ve	entilation					
Air Tightness Type:	Present (1961-) (ACH=3.57)					
	ELA @ 10 Pa. 322.44 cm²					
Custom BDT Data:	3.57 ACH @ 50 Pa					
Mechanical Ventilation (L/s):	Total Supply: Total Exhaust:					
	31.8					
Flue #:	#1 #2 #3 #4					
Diameter (mm):	0 0 0 0					
Heating Air Leakage Rate (ACH/H):	0.324					
Cooling Air Leakage Rate (ACH/H):	0.079					

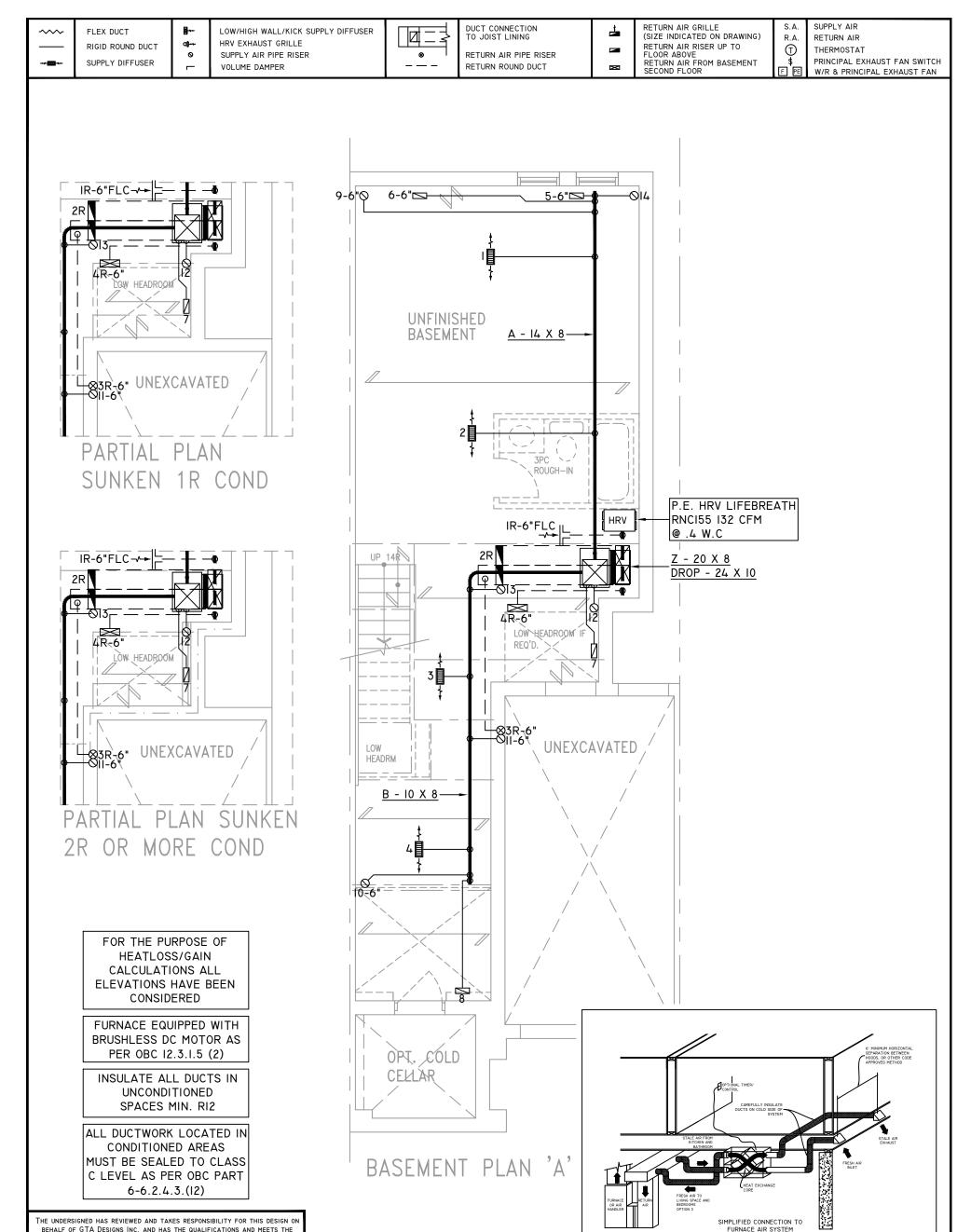


Residential Foundation Thermal Load Calculator

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) ▼						
Fou	ındatio	n Dimensions						
Floor Length (m):	16.31							
Floor Width (m):	3.66							
Exposed Perimeter (m):	25.30							
Wall Height (m):	2.59							
Depth Below Grade (m):	1.52	Insulation Configuration						
Window Area (m²):	1.86							
Door Area (m²):	1.95							
	Radi	ant Slab						
Heated Fraction of the Slab:	0							
Fluid Temperature (°C):	33							
	Design Months							
Heating Month	1							
	Founda	ation Loads						
Heating Load (Watts): 1174								





REQUIREMENTS SET OUT IN THE BUILDING CODE TO BE A DESIGNER QUALIFICATION INFORMATION PEGUIDED IN 1850 DESIGN IS EXPENT INDEED DIVISION C. 3.2.5.1.05. THE

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



REVIEWED

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

PROVIDE BALANCING DAMPERS ON ALL BRANCHES. ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY) INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT

ALL DOORS I" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE
DESPONSIBILITY OF CTA DESIGNS.

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	BTU/HR.
26,256	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960403AN	
UNIT HEATING INPUT	BTU/HR.
40,000	
UNIT HEATING OUTPUT	BTU/HR.
38,400	
A/C COOLING CAPACITY	TONS.
1.5	
FAN SPEED	CFM

772

-						
# OF RUNS	S/A	R/A	FANS			
3RD FLOOR						
2ND FLOOR	6	2	3			
IST FLOOR	4	I	2			
BASEMENT	4	- 1				
FLOOR PLAN: BASEMENT						

DD

JB-04845

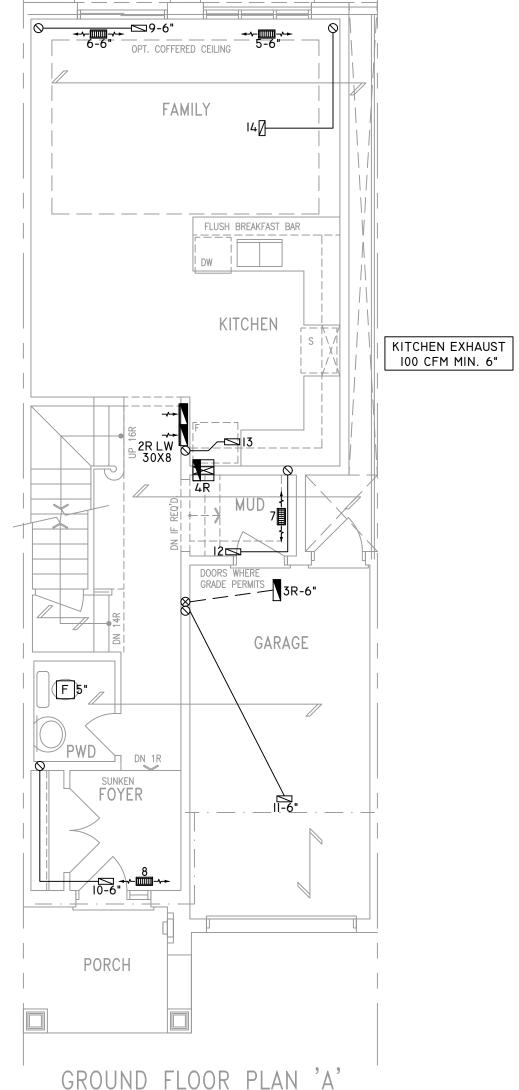
JL

HRV DIAGRAM OPTION 3

1660

3/16" = 1'-0"

RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) SUPPLY AIR DUCT CONNECTION LOW/HIGH WALL/KICK SUPPLY DIFFUSER 4 FLEX DUCT TO JOIST LINING R.A RETURN AIR HRV EXHAUST GRILLE RETURN AIR RISER UP TO FLOOR ABOVE RIGID ROUND DUCT **a**)--1 THERMOSTAT 0 SUPPLY AIR PIPE RISER RETURN AIR PIPE RISER 8 SUPPLY DIFFUSER PRINCIPAL EXHAUST FAN SWITCH RETURN AIR FROM BASEMENT SECOND FLOOR RETURN ROUND DUCT VOLUME DAMPER \mathbf{x} W/R & PRINCIPAL EXHAUST FAN -⊠9-6'



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

CIRCULATION PRINCIPAL FAN SWITCH TO BE CENTRALLY LOCATED

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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

SIGNATURE OF DESIGNER

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE. ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE

PROVIDE BALANCING DAMPERS ON ALL BRANCHES. ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS I" 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	BTU/HR.	
26,256		L
UNIT MAKE OF	R EQUAL.	ı
orar route	L LUCAL.	
AMANA		
UNIT MODEL OF	R EQUAL.	L
AMEC960403ANA		ı
UNIT HEATING INPUT	BTU/HR.	H
40,000		
UNIT HEATING OUTPUT	BTU/HR.	
38,400		Fl
A/C COOLING CAPACITY	TONS.	DF
1.5		DI
FAN SPEED	CFM	L
772		

						ODC LOIL
	KEVIEW	ED		PACI		ONE I COMPLIANCE "AI" REF. TABLE 3.I.I.2.A
	HEAT-LOSS 26,256 BTU/HR.	# OF RUNS	S/A	R/A	FANS	DECEMBER 12, 2023
S	UNIT MAKE OR EQUAL. AMANA UNIT MODEL OR EQUAL.	3RD FLOOR 2ND FLOOR	6	2	3	CLIENT: BAYVIEW WELLINGTOI
	AMEC960403ANA UNIT HEATING INPUT BTU/HR.	IST FLOOR	4	l I	2	MODEL:
1	UNIT HEATING OUTPUT BTU/HR.	BASEMENT FLOOR PLAN:	4	I		PROJECT:
00	38,400 A/C COOLING CAPACITY TONS. 1.5	GROUND	FLOOR SQFT I660			GREEN VALLEY BRADFORD,ONT.
	FAN SPEED CEM		DD A WILL	0 NO		CCALE.

JB-04845

DECEMBER 12, 2023	FANS	R/A	S/A
CLIENT:			
	3	2	6
1 2 MODEL:	2	I	4
TH-I		ı	4
PROJECT:			
GREEN VALLEY	LOOR		
BRADFORD,ONT.	^{FT} 1660		

SCALE:

M2

OBC 2012

3/16" = 1'-0"

FLEX DUCT RIGID ROUND DUCT SUPPLY DIFFUSER

LOW/HIGH WALL/KICK SUPPLY DIFFUSER HRV EXHAUST GRILLE oll⊶ 0 SUPPLY AIR PIPE RISER VOLUME DAMPER



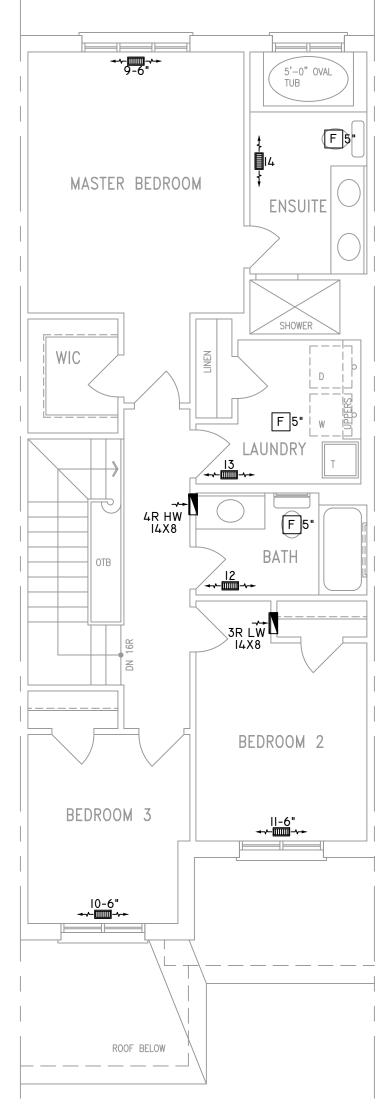
DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT

4 \mathbf{x}

RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR

SUPPLY AIR R.A 1

RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN



SECOND FLOOR PLAN 'A'

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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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 $$\operatorname{\textsc{Ontario}}$$ building code

SIGNATURE OF DESIGNER

B.C.I.N. 32964

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE. ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE

SPECIFIED. PROVIDE BALANCING DAMPERS ON ALL BRANCHES. ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)

INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS I" MIN. CONTRACTOR MUST WORK FROM APPROVED PLANS.
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GTADESIGNS 2985 DREW ROAD

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

HEAT-LOSS		BTU/HR.
	26,256	
	20,200	
UNIT MAKE		OR EQUAL.
	AMANA	
UNIT MODEL		OR EQUAL.
AMEC	960403	ANA
UNIT HEATING INPUT	ſ	BTU/HR.
	40,000	
UNIT HEATING OUTP	UT	BTU/HR.
	38,400	
A/C COOLING CAPAC	ITY	TONS.
	1.5	
FAN SPEED		CFM
	772	

						OBC ZOIZ
	KEVIEW	ED		PACI		NE I COMPLIANCE "AI" REF. TABLE 3.I.I.2.A
\neg	HEAT-LOSS BTU/HR. 26,256	# OF RUNS	S/A	R/A	FANS	DECEMBER 12, 2023
	UNIT MAKE OR EQUAL.	3RD FLOOR				CLIENT:
S	AMANA UNIT MODEL OR EQUAL.	2ND FLOOR	6	2	3	BAYVIEW WELLINGTO
	AMEC960403ANA	IST FLOOR	4	I	2	MODEL:
١	UNIT HEATING INPUT BTU/HR. 40,000	BASEMENT	4	I		TH-I
00	UNIT HEATING OUTPUT BTU/HR. 38,400 A/C COOLING CAPACITY TONS.	FLOOR PLAN: SECOND	FLO	OR		PROJECT: GREEN VALLEY
١.	A/C COOLING CAFACITI TONS.	DRAWN BY: CHECKED:	SQFT			

JL DD

JB-04845

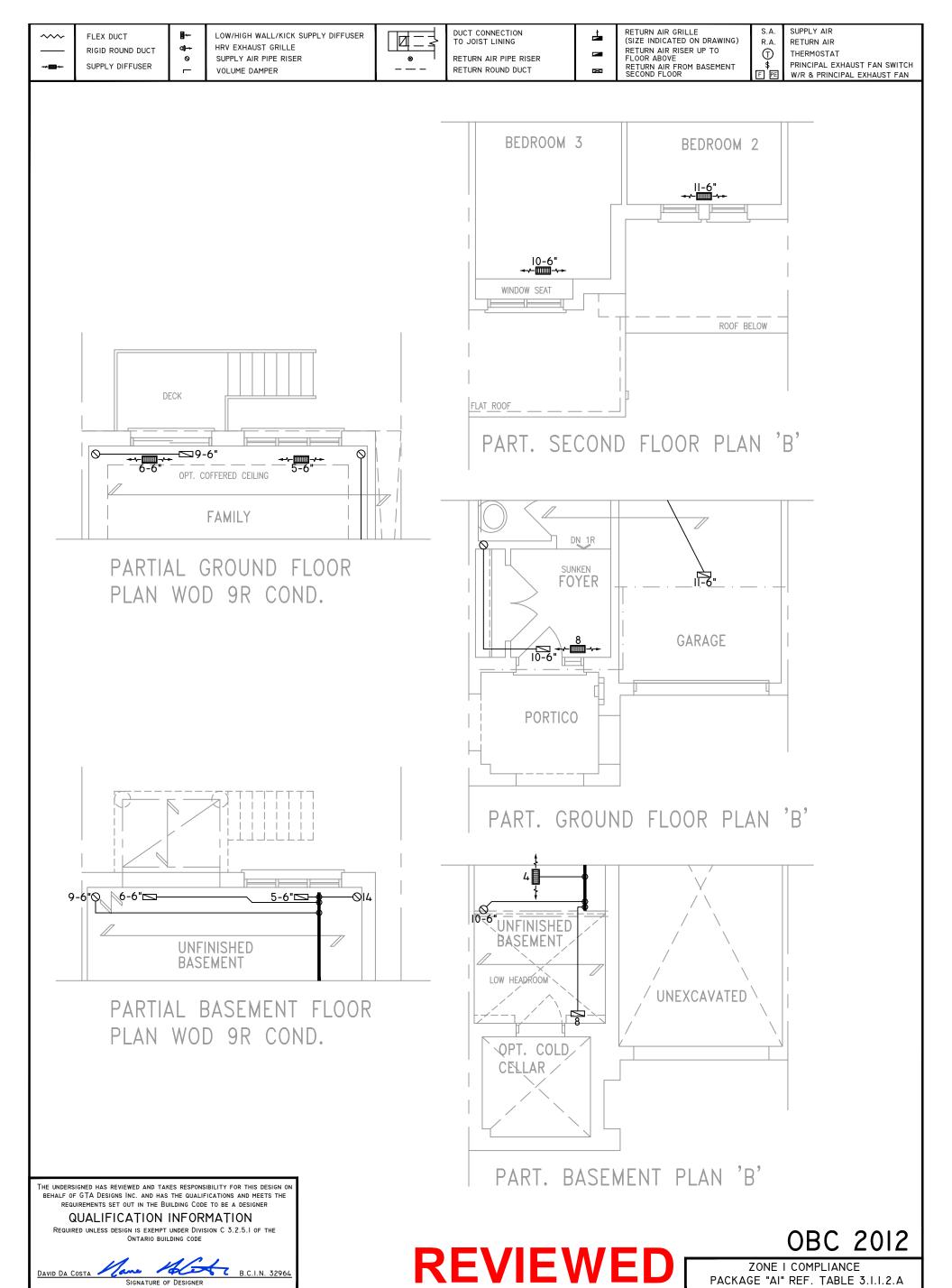
1660

M3

	AI NEI . TABLE U.I.I.E.A			
	DECEMBER 12, 2023			
	CLIENT:			
	BAYVIEW WELLINGTON			
MODEL: TH-I				
	GREEN VALLEY BRADFORD,ONT.			

3/16" = 1'-0"

OBC 2012



INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE. ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE

SPECIFIED. PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY) INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS I" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS. ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.

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

HEAT-LOSS	BTU/HR.
26,256	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960403AN	
UNIT HEATING INPUT	BTU/HR.
40,000	
UNIT HEATING OUTPUT	BTU/HR.
38,400	
A/C COOLING CAPACITY	TONS.
1.5	
FAN SPEED	CFM
772	

		PACKAGE				
# OF	RUNS	S/A	R/A	FANS	I	
3RD F	FLOOR				ŀ	
2ND F	FLOOR	6	2	3		
IST F	LOOR	4	I	2		
BASE	MENT	4	I			
FLOOR PLAN: PARTIAL PLAN(S) DRAWN BY: CHECKED: SQFT JL DD 1660						
JB-04		DRAWING NO. M4				

:	"Al" REF. TABLE 3.1.1.2.A					
ı	DATE:					
	DECEMBER 12, 2023					
	BAYVIEW WELLINGTON					
	MODEL:					
	TH-I					
	GREEN VALLEY BRADFORD,ONT.					

3/16" = 1'-0"