

TOWN OF BRADFORD WEST GWILLIMBURY
BUILDING DEPARTMENT
PLANS EXAMINED
ONTARIO BUILDING CODE APPLIES
DATE: 2024-04-25

INSPECTOR: SE

## **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:	
THWU			Lot/con.	
Municipality Bradford	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design	gn activities			
Name David DaCosta		Firm	gtaDesigns Inc.	
Street address 2985 Drew Roa				.ot/con.
Municipality  Mississauga	Postal code L4T 0A4	Province Ontario	E-mail dave@gtadesig	ans.ca
Telephone number	Fax number		Cell number	
(905) 671-9800 C. Design activities undertaken by individual identified in S	· · · · ·	') 494-9643 ilding Code Table 3	(416) 268-68	20
C. Design activities undertaken by individual identified in S	ection b. [bu	numy code rable .	5.5.2.1 OF DIVISION C	
☐ House ☑ HVAC – H			■ Building Structural	
☐ Small Buildings ☐ Building Se	ervices		☐ Plumbing – House	
☐ Large Buildings ☐ Detection,☐ Complex Buildings ☐ Fire Protection	Lighting and Pov	wer	<ul><li>Plumbing – All Buildings</li><li>On-site Sewage Systems</li></ul>	
	del Certification			
Description of designer's work Mod	dei Certification		Project #: Layout #:	PJ-00204 JB-04876
Heating and Cooling Load Calculations Main	Х	Builder	Bayview Wellington	
Air System Design Alternate		Project	Green Valley	
Residential mechanical ventilation Design Summary Area Sq ft: Residential System Design per CAN/CSA-F280-12	1762	Model	THWU-12	
Residential New Construction - Forced Air		SB-12	Package A1	
D. Declaration of Designer				
I David DaCosta	declare that (c	choose one as appro	priate):	
(print name)	•			
☐ I review and take responsibility for t				
3.2.4 Division C of the Building Cocclasses/categories.	ie. i am quaimed	i, and the firm is registe	ered, in the appropriate	
Individual BCIN:			•	
Firm BCIN:				
	-	•		
other designer under subsection	3.2.3 OI DIVISION	C, of the Building Cod	с.	
Individual BCIN:	3296	64		
Basis for exemp	tion from registra	ation:	Division C 3.2.4.1. (4)	
☐ The design work is exempt from the	e registration and	d qualification requirem	ents of the Building Code.	
Basis for exemp	tion from registra	ation and qualification:		
I certify that:				
The information contained in this schedule is true to the best of n	ny knowledge.			
I have submitted this application with the knowledge and consent	of the firm.			
December 12, 2023		Mare A		
Date		Signature of De	signer	

NOTE:

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

2. Schedule 1 does not require to be completed a holder of a license, temporay license, or a certificate of authorization, issed by the Ontario 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	lation 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. Document	s for permit and/or construction are signed in red. JB-04876
Building	Location
Address (Model): THWU-12	Site: Green Valley
Model:	Lot:
City and Province: Bradford	Postal code:
Calculation	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: 1762
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	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/Ga	ain Caculations based on CSA-F280-12 Effective R-Values
Notes: Residential New C	Construction - Forced Air
Calculations <sub>I</sub>	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

Trunk



## Air System Design

**SB-12** Package A1

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.

Bayview Wellington December 12, 2023 Builder: Date: Page 3 PJ-00204 of the Building Code. Project # System 1 Mane 14CIN **Green Valley** THWU-12 Individual BCIN: 32964 David DaCosta Lavout # JB-04876 Project: Model: A/C UNIT DATA: DESIGN LOAD SPECIFICATIONS AIR DISTRIBUTION & PRESSURE FURNACE/AIR HANDLER DATA: BOILER/WATER HEATER DATA: Level 1 Net Load 9,604 btu/h **Equipment External Static Pressure** 0.5 "w.c. Make 1.5 Ton Amana Make Туре Amana Level 2 Net Load 8,672 btu/h **Additional Equipment Pressure Drop** 0.225 "w.c. Model AMEC960403ANA Model Cond.--1.5 Level 3 Net Load 7.639 btu/h Available Design Pressure 0.275 "w.c. Input Btu/h 40000 Input Btu/h Coil -1.5 Return Branch Longest Effective Length 38400 Level 4 Net Load 0 btu/h 300 ft Output Btu/h Output Btu/h R/A Plenum Pressure 0.50 " W C Min.Output Btu/h ΔWH 25.914 btu/h 0 138 "w c Total Heat Loss E.s.p. Blower DATA: **Total Heat Gain** 15,714 btu/h S/A Plenum Pressure 0.14 "w.c. Water Temp deg. F. W2 Combo System HL + 10% 28,506 Btuh. Heating Air Flow Proportioning Factor 0.0298 cfm/btuh AFUE Blower Speed Selected: ECM 96% **Blower Type Building Volume Vb** 20307 ft<sup>3</sup> Cooling Air Flow Proportioning Factor (Brushless DC OBC 12.3.1.5.(2)) 0.0491 cfm/btuh Aux. Heat Ventilation Load 895 Btuh. R/A Temp SB-12 Package Package A1 Heating Check 772 cfm Cooling Check 772 cfm 70 dea. F. Ventilation PVC 63.6 cfm S/A Temp 116 deg. F. Supply Branch and Grill Sizing Diffuser loss Temp. Rise>>> 772 cfm **Cooling Air Flow Rate** 772 cfm 0.01 "w.c. 46 deg. F. Selected cfm> Level 1 Level 2 S/A Outlet No. 2 5 6 Room Use BASE BASE BASE BASE FAM/KIT FAM/KIT **PWD** FOY Btu/Outlet 2401 2401 2401 2401 2635 2635 456 2945 **Heating Airflow Rate CFM** 72 72 72 72 79 79 14 88 Cooling Airflow Rate CFM 37 37 37 37 112 112 3 42 **Duct Design Pressure** 0.13 **Actual Duct Length** 33 24 15 35 37 34 **Equivalent Length** 70 80 120 110 70 70 70 70 70 70 70 70 70 70 110 110 130 70 70 70 70 70 70 70 70 70 70 Total Effective Length 103 104 124 125 70 70 70 70 70 70 70 70 70 115 147 114 164 70 70 70 70 70 70 70 70 70 70 70 Adjusted Pressure 0.13 0.13 0.10 0.10 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.11 0.09 0.11 0.08 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 0.19 5 **Duct Size Round** 6 **Outlet Size** 3x10 3x10 3x10 4x10 4x10 4x10 4x10 4x10 4x10 4x10 3x10 4x10 4x10 4x10 4x10 3x10 4x10 Trunk Level 4 Level 3 S/A Outlet No. 10 11 13 14 15 9 12 Room Use MAST MAST I AUN BFD 3 BFD 2 RATH FNS Btu/Outlet 1294 1294 121 2164 2208 353 205 **Heating Airflow Rate CFM** 39 39 11 Cooling Airflow Rate CFM 59 50 100 59 80 -5 **Duct Design Pressure** 0.13 55 **Actual Duct Length** 54 30 39 36 29 25 **Equivalent Length** 130 120 120 120 120 140 110 70 185 135 70 70 70 70 Total Effective Length 174 150 159 156 70 70 70 70 70 70 70 70 70 70 70 70 70 70 169 70 70 70 Adjusted Pressure 0.07 0.07 0.09 0.08 0.08 0.08 0.10 0.19 **Duct Size Round** 5 6 2 Outlet Size 3x10 4x10 3x10 3x10 3x10 3x10 4x10 Trunk R R C C Return Branch And Grill Sizing Grill Pressure Loss 0.02 "w.c **Return Trunk Duct Sizing** Supply Trunk Duct Sizing R/A Inlet No. CFM 1R 2R 3R 4R 5R 6R 7R 8R 9R 10R 11R Trunk CFM Press. Round Rect. Size Trunk Press. Round Rect. Size Inlet Air Volume CFM 143 374 105 150 **Duct Design Pressure** 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 772 0.06 14.0 24x10 400 0.07 11.0 14x8 10x10 Drop Α 667 234 0.07 5 13 36 31 z 0.06 13.5 20x8 R a n RYR 10y7 **Actual Duct Length** 16x10 **Equivalent Length** 110 170 125 180 50 50 50 50 50 50 50 Υ c 372 0.08 10.0 12x8 10x10 50 50 50 50 **Total Effective Length** 115 183 161 211 50 50 50 Х D 0.07 w Adjusted Pressure 0.10 0.06 0.06 0.24 0.24 0.24 0.24 0.24 0.24 0.24 Ε Duct Size Round 7.0 11.0 6.0 8.0 ν F Inlet Size FLC G н Inlet Size 30 14 s

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Total Heat Loss

Total Heat Gain

25,914 btu/h

15,714 btu/h

# ♦GTA\DESIGNS

## Heatloss/Gain Calculations CSA-F280-12

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

David DaCosta

Package A1

e-mail dave@gtadesigns.ca

		Builder: Ba	yview Welling	ton		Date:		December 1	2, 2023				Weat	ther Data	Br	adford	44	-9.4	86 22	48.2				Page 4
2012 OBC		Project:	Green Valley			odel:		THWU-	12		S	ystem 1	Hea	t Loss ^T	81.4 deg. F		It gain ^T	11 (	deg. F	GTA:	1762	Proje Layo	ct #	PJ-00204 JB-04876
		110,000.	Orcen vancy			<u></u>			-				1100	. 2000			9			0.7				
Rur	Level 1 of ft. exposed wall A			BASI 62 A	E	Α		Α		A		A	Α		Α		Α		Α		Α		Α	
	ft. exposed wall B			В		В		В		B		3	B		В		В		В		B		В	
	Ceiling height		3	.5 AG		3.5 AG		3.5 AG		3.5 AG	3.5		3.5 AG		3.5 AG		3.5 AG		3.5 AG		3.5 AG		3.5 AG	
	Floor area		7	04 Area		Area		Area		Area		Area	Area		Area		Area		Area		Area		Area	
	Exposed Ceilings A			Α		Α		Α		Α		A	Α		Α		Α		Α		Α		Α	
	Exposed Ceilings B			B		B		B Fir		B		3 Flr	B Flr		B		B Flr		В -		B Fir		B	
	Exposed Floors Gross Exp Wall A		2	Flr 17		Flr		FII		Flr		-ir	FIF		Flr		FIF		Flr		FIF		Flr	
	Gross Exp Wall B		-	•																				
		R-Values Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	oss Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
	North Shaded	3.55 22.93																						
	East/West	3.55 22.93		23 527	629																			
	South WOB Windows	3.55 22.93 3.15 25.84	20.89 28.32																					
	Skylight	2.03 40.10																						
	Doors	4.00 20.35	2.75																					
N	let exposed walls A	21.13 3.85		94	101																			
	et exposed walls B	14.49 5.62																						
	Exposed Ceilings A	59.22 1.37	0.64																					
E	Exposed Ceilings B	22.86 3.56 29.80 2.73																						
Foundation Cond	Exposed Floors	29.80 2.73 On Grade ( ) or Abov	0.17	3990	,																			
	Heat Loss	Oli Grade ( ) or Abo		4517																				
Total Conductive	Heat Gain				730																			
Air Leakage	Heat Loss/Gain	1.0663	0.0461	4817	7 34																			
	Case 1	0.10	0.11																					
Ventilation	Case 2	14.07	11.88	07/																				
	Case 3	x 0.06	0.11 239	270	80																			
	Heat Gain People Appliances Loads	1 =.25 percent		.0	1471																			
	Duct and Pipe loss	1 =120 por cont	10%	.0																				
Level 1 HL Total	9,604	Total HL for	per room	9604	1																			
	3,010	Total HG per ro	4 2		3010																			
Level 1 HG Total	-,	rotal fro pol re	00m x 1.3	L	3010			l		J L											1			
Level 1 HG Total	2,011	Total III poi II	oom x 1.3		3010											1		1 1		-	1	1		
Level 1 HG Total	5,5.10		50m X 1.3		3010																1			
Level 1 HG Total	Level 2	10.00.110 por 10	50m X 1.3	FAM/K		PW	D	FOY	,												J L			
	Level 2			FAM/K		6 A	D	FO)	,	Α		<u> </u>	A		A		A		A		A		A	
Rur	Level 2  n ft. exposed wall A n ft. exposed wall B			39 A B		6 A B		17 A B	,	В		A B	В		В		В		В		В		В	
Rur	Level 2  In ft. exposed wall A  In ft. exposed wall B  Ceiling height	.cum por	10	39 A B .0		6 A B 10.0		17 A B 13.0	,	B 10.0	10.0	3	B 10.0		B 10.0		B 10.0		B 10.0		B 10.0		B 10.0	
Rur Rur	Level 2  In ft. exposed wall A  In ft. exposed wall B  Ceiling height  Floor area	iounie pon	10	39 A B .0 73 Area		6 A B 10.0 36 Area		17 A B 13.0 100 Area	,	B 10.0 Area	10.0	3 Area	B 10.0 Area		B 10.0 Area		B 10.0 Area		B 10.0 Area		B 10.0 Area		B 10.0 Area	
Rur Rur	Level 2  In ft. exposed wall A  In ft. exposed wall B  Ceiling height Floor area Exposed Ceilings A	i cui i c poi i	10	39 A B .0 73 Area A		6 A B 10.0 36 Area A		17 A B 13.0 100 Area A	,	B 10.0 Area A	10.0	3 Area A	B 10.0 Area A		B 10.0 Area A		B 10.0 Area A		B 10.0 Area A		B 10.0 Area A		B 10.0 Area A	
Rur Rur	Level 2  Inft. exposed wall A  Inft. exposed wall B  Ceiling height Floor area  Exposed Ceilings A  Exposed Ceilings B	Total To po. 1	10	39 A B .0 73 Area A B		6 A B 10.0 36 Area A B		17 A B 13.0 100 Area A B	,	B 10.0 Area A B	10.0	3 Area A 3	B 10.0 Area A B		B 10.0 Area A B		B 10.0 Area A B		B 10.0 Area A B		B 10.0 Area A B		B 10.0 Area A B	
Rur Rur	Level 2  In ft. exposed wall A  In ft. exposed wall B  Ceiling height Floor area Exposed Ceilings A	, , , , , , , , , , , , , , , , , , ,	10 5	39 A B .0 73 Area A		6 A B 10.0 36 Area A		17 A B 13.0 100 Area A	•	B 10.0 Area A	10.0	3 Area A	B 10.0 Area A		B 10.0 Area A		B 10.0 Area A		B 10.0 Area A		B 10.0 Area A		B 10.0 Area A	
Rur Rur	nft. exposed wall A ft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Floors Gross Exp Wall A Gross Exp Wall B		10 5	39 A B .0 73 Area A B Fir	кп	6 A B 10.0 36 Area A B Fir		17 A B 13.0 100 Area A B Fir 221		B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir		B 10.0 Area A B		B 10.0 Area A B Fir		B 10.0 Area A B		B 10.0 Area A B		B 10.0 Area A B Fir	
Rur Rur	Level 2  Ift. exposed wall A  Ift. exposed wall B  Ceiling height Floor area  Exposed Ceilings A  Exposed Ceilings B  Exposed Floors  Gross Exp Wall A  Gross Exp Wall B  Components	R-Values   Loss	10 5 3 Gain	39 A B .0 73 Area A B Fir		6 A B 10.0 36 Area A B Fir		17 A B 13.0 100 Area A B Fir	Gain	B 10.0 Area A B Fir	10.0	3 Area A 3	B 10.0 Area A B	Gain	B 10.0 Area A B	Gain	B 10.0 Area A B	Gain	B 10.0 Area A B	Gain	B 10.0 Area A B	Gain	B 10.0 Area A B	Gain
Rur Rur	Level 2  Inft. exposed wall A  Inft. exposed wall B  Ceiling height Floor area  Exposed Ceilings A  Exposed Ceilings B  Exposed Floors  Gross Exp Wall B  Components  North Shaded	R-Values   Loss 3.55   22.93	10 5 3 <u>Gain</u> 10.91	39 A B .0 73 Area A B Fir	Gain Gain	6 A B 10.0 36 Area A B Fir		17 A B 13.0 100 Area A B Fir 221	Gain	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur	Level 2  Inft. exposed wall A  Inft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West	R-Values Loss 3.55 22.93 3.55 22.93	33 Gain 10.91 27.35	39 A B .0 73 Area A B Fir	Gain Gain	6 A B 10.0 36 Area A B Fir		17 A B 13.0 100 Area A B Fir 221	Gain	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur	Level 2  Inft. exposed wall A  Inft. exposed wall B  Ceiling height Floor area  Exposed Ceilings A  Exposed Ceilings B  Exposed Floors  Gross Exp Wall A  Gross Exp Wall A  Gross Exp Wall B  Components  North Shaded  East/West  South	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93	33 Gain 10.91 27.35 20.89	39 A B .0 73 Area A B Fir	Gain Gain	6 A B 10.0 36 Area A B Fir		17 A B 13.0 100 Area A B Fir 221	Gain	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur	Level 2  Inft. exposed wall A  Inft. exposed wall B  Ceiling height Floor area  Exposed Ceilings A  Exposed Floors  Gross Exp Wall B  Components  North Shaded  East/West  South  Existing Windows	R-Values Loss 3.55 22.93 3.55 22.93	3 Gain 10.91 27.35 20.89 22.15	39 A B .0 73 Area A B Fir	Gain Gain	6 A B 10.0 36 Area A B Fir		17 A B 13.0 100 Area A B Fir 221	Gain	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur E E	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35	33 Gain 10.91 27.35 20.89 22.15 88.23 2.75	39 A B .0 .0 73 Area A B Fir 90 Loss	Gain 2188	6 A B 10.0 36 Area A B Fir 60 Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 296	Gain 356	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur	Level 2  Inft. exposed wall A  Inft. exposed wall B  Ceiling height Floor area  Exposed Ceilings B  Exposed Floors Gross Exp Wall B  Components North Shaded  East/West  South Existing Windows Skylight Doors  det exposed walls A	R-Values Loss 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78	33 Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65	39 A B .0 73 Area A B Fir	Gain 2188	6 A B 10.0 36 Area A B Fir	Gain	17 A B 13.0 100 Area A B Fir 221 Loss	Gain 356	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Let exposed walls A let exposed walls B	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78 8.50 9.58	33 Gain 10.91 10.91 27.35 20.89 22.15 88.23 8.25 0.65 1.29	39 A B .0 .0 73 Area A B Fir 90 Loss	Gain 2188	6 A B 10.0 36 Area A B Fir 60 Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 296	Gain 356	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Let exposed walls A et exposed walls A Exposed walls B Exposed walls B Exposed walls B	R-Values Loss 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78 8.50 9.58	33 Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65 3 1.29 0.64	39 A B .0 .0 73 Area A B Fir 90 Loss	Gain 2188	6 A B 10.0 36 Area A B Fir 60 Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 296	Gain 356	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur	Level 2  Inft. exposed wall A  Inft. exposed wall B  Ceiling height Floor area  Exposed Ceilings B  Exposed Floors Gross Exp Wall B  Components North Shaded  East/West South Existing Windows Skylight Doors let exposed walls A  et exposed walls A  Exposed Ceilings B  Exposed Ceilings B	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 2.035 17.03 4.78 8.50 9.58 59.22 1.37 22.86 3.56	33 Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65 1.29 0.64 1.66	39 A B .0 .0 73 Area A B Fir 90 Loss	Gain 2188	6 A B 10.0 36 Area A B Fir 60 Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 296	Gain 356	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur E E	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings A 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 Exposed Ceilings B Exposed Ceilings B Exposed Floors	R-Values Loss 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78 8.50 9.58	Gain 10.91 27.35 20.89 22.15 0.65 1.29 0.64 1.66 0.17	39 A B .0 .0 73 Area A B Fir 90 Loss	Gain 2188	6 A B 10.0 36 Area A B Fir 60 Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 296	Gain 356	B 10.0 Area A B Fir	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur E E E	Level 2 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors It exposed walls B Exposed Veilings B Exposed Ceilings A Exposed Ceilings A Exposed Ceilings B Exposed Floors In factor of the control	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78 8.50 9.58 59.22 1.37 22.86 3.56	Gain 10.91 27.35 20.89 22.15 0.65 1.29 0.64 1.66 0.17	39 A B .0 .0 73 Area A B Fir 90 Loss	Gain 4 2188	6 A B 10.0 36 Area A B Fir 60 Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 296	Gain 3 356 3 99 2 111	B 10.0 Area A B Fir Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls A et exposed walls A et exposed walls A Exposed Ceilings A Exposed Ceilings A Exposed Floors Suctive Heatloss Heat Loss Heat Gain	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 4.00 20.35 17.03 4.78 8.50 9.58 59.22 1.37 22.86 3.56 29.80 2.73 10 Grade () or About	Gain 10.91 27.35 20.89 22.15 0.65 3 1.29 0.64 1.66 0.17 x	39 A B 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gain 4 2188 2 200 2 2389	6 A B 10.0 36 Area A B Fir 60  Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 294 36 73:172 82:	Gain 3 356 3 99 2 111	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Existing Windows Skylight Exposed Ceilings A et exposed walls A et exposed walls B Exposed Ceilings A Exposed Ceilings A Exposed Floors Suctive Heatloss Heat Loss Heat Cain Heat Loss/Gain	R-Values Loss 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78 8.50 9.58 59.22 1.37 22.86 3.56 29.80 2.73 On Grade () or Abo	33 Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65 3.29 0.64 1.66 0.17 x x	89 A B B O O O O O O O O O O O O O O O O O	Gain 4 2188 2 200 2 2389	6 A B 10.0 36 Area A B Fir 60 Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 299 36 73:	Gain 3 356 3 99 2 111	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur E E N N N E E E Foundation Conc Total Conductive Air Leakage	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls A et exposed walls B Exposed Ceilings A Exposed Ceilings B Exposed Floors Juctive Heatloss Heat Loss Heat Gain Heat Loss/Gain	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 4.00 20.35 17.03 4.78 5.50 9.58 59.22 1.37 22.86 3.56 29.80 2.73 On Grade () or Abo	Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65 1.29 0.64 1.66 0.17 x	39 A B 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gain 4 2188 2 200 2 2389	6 A B 10.0 36 Area A B Fir 60  Loss	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 294 36 73:172 82:	Gain 3 356 3 99 2 111	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls B Exposed Ceilings B Exposed Ceilings B Exposed Ceilings B Exposed Floors ductive Heatloss Heat Loss Heat Casin Heat Loss/Gain Heat Loss/Gain Case 2	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78 8.50 9.58 59.22 1.37 22.86 3.56 29.80 2.73 0 On Grade () or Abo	33 Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65 3 1.29 0.64 1.66 0.17 x 0.0461 0.11 11.88	39 A B B .0 .0 .73 Area A B Fir .90 Loss	Gain 4 2188 2 200 2 2389 7 110	6 A B 10.0 36 Area A B Fir 60  Loss  21	Gain 37 39 37 39 38 2 2	17 A B 13.0 100 Area A B Fir 221 Loss 13 294 36 73: 172 82:	Gain 3 356 3 99 2 111 3 566 2 26	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur E E N N N E E E Foundation Conc Total Conductive Air Leakage	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Ceilings A Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls A et exposed Walls A Exposed Ceilings B Exposed Floors Let exposed Geilings A Exposed Floors Let exposed Hoard Exposed Ceilings B Exposed Floors Let Loss Heat Loss Heat Loss Heat Loss Case 1 Case 2 Case 3	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 4.00 20.35 17.03 4.78 5.50 9.58 59.22 1.37 22.86 3.56 29.80 2.73 On Grade () or Abo	33  Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65 3.29 0.64 1.66 0.17 x x 0.0461 0.11 11.88 0.11	39 A B 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gain 4 2188 2 200 2 2389 7 110	6 A B 10.0 36 Area A B Fir 60  Loss  21	Gain	17 A B 13.0 100 Area A B Fir 221 Loss 13 294 36 73:172 82:	Gain 3 356 3 99 2 111 3 566 2 26	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur E E N N N E E E Foundation Conc Total Conductive Air Leakage	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Exposed walls A et exposed walls A et exposed Ceilings A Exposed Ceilings A Exposed Ceilings B Exposed Floors Juctive Heatloss Heat Gain Heat Loss/Gain Heat Loss/Gain Loss 2 Loss 2 Loss 3 Heat Gain People	R-Values Loss 3.55 22.93 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78 8.50 9.58 59.22 1.37 22.86 3.56 29.80 2.73 0 On Grade () or Abo	Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65 1.29 0.64 1.66 0.17 x 0.0461 0.11 11.88 0.11 12.39	39 A B B .0 .0 .73 Area A B Fir .90 Loss	Gain 4 2188 2 200 2 2389 7 110	6 A B 10.0 36 Area A B Fir 60  Loss  21	Gain 37 39 37 39 38 2 2	17 A B 13.0 100 Area A B Fir 221 Loss 13 294 36 73: 172 82:	Gain 3 356 3 99 2 111 3 566 2 26	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur  E E E  N N N E E Foundation Conc Total Conductive Air Leakage Ventilation	Level 2 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Skylight Doors Let exposed walls B Exposed Ceilings A Exposed Ceilings A Exposed Ceilings A Exposed Floors Juctive Heatloss Heat Loss/Gain Case 1 Case 2 Case 3 Heat Gain People Appliances Loads Lot and People Lot and People Loads Lot an	R-Values   Loss 3.55   22.93 3.55   22.93 3.55   22.93 1.99   40.90 4.00   20.35 17.03   4.78 5.50   9.58 59.22   1.37 22.86   3.56 29.80   2.73 On Grade () or Abov 0.5297 0.05 14.07 x   0.06	33  Gain 10.91 27.35 20.89 22.15 88.23 2.75 0.65 1.29 0.64 1.66 0.17 x 0.0461 0.11 11.88 0.11 11.88	39 A B B .0	Gain  4 2188 2 200 3 2389 7 110 3 262 736	6 A B 10.0 36 Area A B Fir 60 Loss 21	Gain 37 39 37 39 37 39 32 2	17 A B 13.0 100 Area A B Fir 221 Loss 13 29: 172 82: 185: 983	Gain 3 356 3 99 2 1111 3 566 2 266	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur  E E Foundation Conc Total Conductive Air Leakage Ventilation	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls A Exposed Ceilings A Exposed Floors Inctive Heatloss Heat Loss Heat Gain Heat Loss/Gain Heat Loss/Gain Heat Pople Appliances Loads Duct and Pipe loss 8,672	R-Values   Loss 3.55   22.93 3.55   22.93 3.55   22.93 1.99   40.90 2.03   40.10 4.00   20.35 17.03   4.78 8.50   9.58 59.22   1.37 22.86   3.56 29.80   2.73 0 On Grade () or Abov 0.5297 0.05 14.07 x   0.06 1 = .25 percent	Gain 10.91 27.35 20.89 22.15 0.65 3 2.75 0.66 4 1.66 0.17 x 0.0461 11.88 0.11 239 2943 1 10% per room	39 A B B O O O O O O O O O O O O O O O O O	Gain 4 2188 2 200 3 2389 7 110 3 262 736	6 A B 10.0 36 Area A B Fir 60  Loss  21	Gain 37 39 37 39 32 2 17 4	17 A B 13.0 100 Area A B Fir 221 Loss 13 294 36 73: 172 82:	Gain 3 356 3 99 2 111 3 566 2 26	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur  E E E  Toundation Conc Total Conductive Air Leakage Ventilation	Level 2 In ft. exposed wall A In ft. exposed wall B Ceiling height Floor area Exposed Ceilings B Exposed Ceilings B Exposed Floors Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors Skylight Doors Let exposed walls B Exposed Ceilings A Exposed Ceilings A Exposed Ceilings A Exposed Floors Juctive Heatloss Heat Loss/Gain Case 1 Case 2 Case 3 Heat Gain People Appliances Loads Lot and People Lot and People Loads Lot an	R-Values Loss 3.55 22.93 3.55 22.93 1.99 40.90 2.03 40.10 4.00 20.35 17.03 4.78 8.50 9.58 59.22 1.37 22.86 3.56 29.80 2.73 0 On Grade () or Abor 0.5297 0.05 14.07 x 0.06	Gain 10.91 27.35 20.89 22.15 0.65 3 2.75 0.66 4 1.66 0.17 x 0.0461 11.88 0.11 239 2943 1 10% per room	39 A B B .0	Gain  4 2188 2 200 3 2389 7 110 3 262 736	6 A B 10.0 36 Area A B Fir 60 Loss 21	Gain 37 39 37 39 37 39 32 2	17 A B 13.0 100 Area A B Fir 221 Loss 13 29: 172 82: 185: 983	Gain 3 356 3 99 2 1111 3 566 2 266	B 10.0 Area A B Fir  Loss	10.0	3 Area A 3 Fir	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain
Rur Rur  E E Foundation Conc Total Conductive Air Leakage Ventilation	Level 2 Inft. exposed wall A Inft. exposed wall B Ceiling height Floor area Exposed Ceilings A Exposed Floors Gross Exp Wall A Gross Exp Wall B Components North Shaded East/West South Existing Windows Skylight Doors let exposed walls A Exposed Ceilings A Exposed Floors Inctive Heatloss Heat Loss Heat Gain Heat Loss/Gain Heat Loss/Gain Heat Pople Appliances Loads Duct and Pipe loss 8,672	R-Values   Loss 3.55   22.93 3.55   22.93 3.55   22.93 1.99   40.90 2.03   40.10 4.00   20.35 17.03   4.78 8.50   9.58 59.22   1.37 22.86   3.56 29.80   2.73 0 On Grade () or Abov 0.5297 0.05 14.07 x   0.06 1 = .25 percent	Gain 10.91 27.35 20.89 22.15 0.65 3 2.75 0.66 4 1.66 0.17 x 0.0461 11.88 0.11 239 2943 1 10% per room	39 A B B .0	Gain 4 2188 2 200 3 2389 7 110 3 262 736	6 A B 10.0 36 Area A B Fir 60 Loss 21 21 41	Gain 37 39 37 39 37 39 32 2 17 4	17 A B 13.0 100 Area A B Fir 221 Loss 13 29: 172 82: 185: 983	Gain 3 356 3 99 2 1111 3 566 2 26 1 62	B 10.0 Area A B Fir Loss	10.0	AArea AA BB BB BB BB BB BB BB BB BB BB BB BB	B 10.0 Area A B Fir  Loss		B 10.0 Area A B Fir Loss		B 10.0 Area A B Fir		B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	Gain	B 10.0 Area A B Fir	

Division C subsection 3.2.5. of the Building Code. Individual BCIN:



**Total Heat Gain** 

15,714

btu/h



## 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 **Bayview Wellington** December 12, 2023 Weather Data Bradford -9.4 86 22 48.2 Page 5 Project # P.I-00204 System 1 2012 OBC Heat Loss ^T 81.4 deg. F Project: **Green Valley** Model: THWU-12 Ht gain ^T 11 deg. F GTA: 1762 Layout # JB-04876 Level 3 MAST LAUN BED 3 BED 2 BATH ENS Run ft. exposed wall A 19 A 14 A 10 A Run ft. exposed wall B В R В R В В В В В Ceiling height 8.0 8.0 8.0 8.0 352 Area 123 Area 203 Area 61 Area 103 Area Floor area 61 Area Area Area Area Area Area **Exposed Ceilings A** 352 A 61 A 123 A 203 A 61 A 103 A Α Α Α Α Α Exposed Ceilings B В В Exposed Floors Flr Flr 23 Flr 122 Flr 51 Flr Flr Flr Flr Flr Flr Flr Gross Exp Wall A 152 112 Gross Exp Wall B Components R-Values Loss Gain Gain Gain Loss Gain Loss North Shaded 3.55 22.93 10.91 East/West 32 734 875 33 757 22 602 3.55 22.93 27.35 South 3.55 22.93 20.89 **Existing Windows** 1.99 40.90 22.15 Skylight 2.03 40.10 88.23 Doors 4.00 20.35 2.75 Net exposed walls A 17.03 4.78 0.65 120 574 78 79 378 51 58 277 37 Net exposed walls B 8.50 9.58 1.29 **Exposed Ceilings A** 59.22 1.37 0.64 352 484 226 61 39 123 169 203 279 130 61 84 39 103 142 Exposed Ceilings B 22.86 3.56 1.66 Exposed Floors 29.80 2.73 0.17 23 63 122 333 20 51 139 Foundation Conductive Heatloss Heat Loss 179 1366 1394 223 142 **Total Conductive** Heat Gain 1179 1036 790 Air Leakage Heat Loss/Gain 0.3854 0.0461 690 54 32 526 537 36 55 Case 1 0.04 0.11 Ventilation Case 2 14.07 11.88 Case 3 0.06 0.11 107 129 82 114 83 87 **Heat Gain People** 239 478 239 239 Appliances Loads 2943 189 128 193 103 **Duct and Pipe loss** 10% 31 Level 3 HL Total 2588 7,639 Total HL for per room 2164 2208 353 205 Level 3 HG Total Total HG per room x 1.3 2393 1015 2034 1632 78 Level 4 Run ft. exposed wall A Run ft. exposed wall B Ceiling height Area Area Floor area Area Area Area Area **Area** Area Area Area Area **Exposed Ceilings A** Exposed Ceilings B В В В В В В В В Exposed Floors Flr Gross Exp Wall A Gross Exp Wall B Components R-Values Loss Gain Loss Gain Gain Gain Loss Gain Loss Loss Loss Loss Loss Loss Loss North Shaded 3.55 22.93 10.91 East/West 3.55 22.93 27.35 South 3.55 22.93 20.89 **Existing Windows** 1.99 40.90 22.15 Skylight 2.03 40.10 88.23 Doors 4 00 20 35 2 75 Net exposed walls A 17.03 4.78 0.65 Net exposed walls B 8.50 9.58 1.29 **Exposed Ceilings A** 59.22 1.37 0.64 Exposed Ceilings B 22.86 3.56 1.66 Exposed Floors 29.80 2.73 0.17 Foundation Conductive Heatloss **Heat Loss Total Conductive** Heat Gain Air Leakage 0.0000 0.0461 Heat Loss/Gain Case 1 0.00 0.11 Ventilation 14.07 11.88 Case 3 0.06 0.11 Heat Gain People 239 **Appliances Loads** 2943 10% **Duct and Pipe loss** Level 4 HL Total Total HL for per room Total HG per room x 1.3 Level 4 HG Total

Total Heat Loss 25,914 btw/h I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code. Individual BCIN: 32964

David DaCosta

SB-12 Package Package A1





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

Project # Layout #

Page 6 PJ-00204 JB-04876

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 Mane Attento David DaCosta

System Design Option Exhaust only / forced air system

HRV WITH DUCTING / forced air system

Part 6 design

HRV simplified connection to forced air system HRV full ducting/not coupled to forced air system

2

3 4 Х

Package:	Package A1			
Project:	Bradford	Model:	THWU-12	
	RESIDENTIAL MECHANICAL	VENTIL ATION DES	SIGN SUMMARY	
	For systems serving one dwelling unit & co			
	Location of Installation	Total V	entilation Capacity 9.32.3.3(1)	
Lot #	Plan #	Donat & Monton Dalma	0 @ 04.0 4	10.4 afaa
Township		Bsmt & Master Bdrm Other Bedrooms		12.4 cfm 21.2 cfm
Township	Bradford	Bathrooms & Kitchen		12.4 cfm
Roll #	Permit #	Other rooms		31.8 cfm
		1 1		37.8
Address		1 1		
		Principa	Ventilation Capacity 9.32.3.4(1)	
	Builder			
Name		Master bedroom	1 @ 31.8 cfm 3	31.8 cfm
	Bayview Wellington	Other bedrooms		31.8 cfm
Address			Total <u>6</u>	<u> </u>
City				
T . 1	F		cipal Exhaust Fan Capacity	
Tel	Fax	Make	Model Locat	lion
		LifeBreath	RNC155 Base	
	Installing Contractor	1	NNC 155 Dase	
Name	instailing Contractor	132 cfm	Sones	s or Equiv.
				o oqa
Address		ŀ	leat Recovery Ventilator	
		Make	LifeBreath	
City		Model	RNC155	
			132 cfm high	80 cfm low
Tel	Fax	Sensible efficiency @	-25 deg C	<u>71%</u>
		Sensible efficiency @		75%
	Combustion Appliances 0.22.2.4(1)		lance HRV/ERV to within 10 percent	OFPVC
a) x	Combustion Appliances 9.32.3.1(1) Direct vent (sealed combustion) only	Зиррі	emental ventuation capacity	
b)	Positive venting induced draft (except fireplaces)	Total ventilation capa	city 13	37.8
c)	Natural draft, B-vent or induced draft fireplaces	Less principal exhaus	,	33.6
d)	Solid fuel (including fireplaces)	REQUIRED supplement		4.2 cfm
e)	No combustion Appliances	1 1		
-/	+ F			
		Su	pplemental Fans 9.32.3.5.	
	Heating System	Location	cfm Model S	Sones
х	Forced air	Ens	50 XB50	0.3
	Non forced air	Bath	50 XB50	0.3
	Electric space heat (if over 10% of heat load)			
		]		
		, I		
	House Type 9.32.3.1(2)	<b>[</b>		
l x	Type a) or b) appliances only, no solid fuel	all fans HVI listed	Make Broan or Equ	uiv.
	To a 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1			
🔲	Type I except with solid fuel (including fireplace)			
III	Any type c) appliance	l horobar and if the color	Designer Certification	ano d
III IV	Any type c) appliance Type I or II either electric space heat		is ventilation system has been desig	gned
III	Any type c) appliance			gned

Designer Certification								
I hereby certify that this ventilation system has been designed								
in accordance with the Ontario Building Code.								
Name David DaCosta								
Mare Alet								
Signature								
HRAI # 5190 BCIN # 32964								
Date December 12, 2023								

# REVIEWED



**Energy Efficiency Design Summary: Prescriptive Method** 

(Building Code Part 9, Residential)

Page 7

Project # PJ-00204 Layout # JB-04876

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 us	se by Princip	pal Authority				
Application No:				Model/Certification Nu	ımber			
A. Project Information								
Building number, street name					Unit numb	er	Lot/Con	
		THWU	J-12					
Municipality Bradford		Postal c	code	Reg. Plan number / of	her descrip	tion		
B. Prescriptive Compliance [indicate	e the building	g code compl	iance packa	ıge being employed in	the house	design]		
SB-12 Prescriptive (input design pac	ckage):		<u>Pack</u>	age A1		Table:	3.1.1.2./	<u>A</u>
C. Project Design Conditions								-
Climatic Zone (SB-1):	He	eat. Equip. E	Efficiency		Spac	e Heating F	uel Sourc	e
Zone 1 (< 5000 degree days)	~	≥ 92% AFU	E	Gas		Propane		Solid Fuel
☐ Zone 2 (≥ 5000 degree days)		≥ 84% < 92	2% AFUE	Oil		Electric		Earth Energy
Ratio of Windows, Skylights & Glass	s (W, S & G	6) to Wall Ar	ea		Other I	Building Cha	aracterist	ics
Area of Walls = <u>282.23</u> m <sup>2</sup> or <u>3037.9</u>	ft²			☐ Log/Post&Beam		ICF Above (	Grade	☐ ICF Basement
71100 01 VVdilo = <u>202.20</u> 111 01 <u>0007.0</u>	V	V,S &G % =	<u>7%</u>	☐ Slab-on-ground		Walkout Ba	sement	
				Air Conditioning		Combo Unit		
Area of W, S & G = <u>18.859</u> m <sup>2</sup> or <u>203.0</u>	ft² Uti	ilize Window	√ □ Yes	☐ Air Sourced Hea	at Pump (A	SHP)		
		Averaging	☑ No	☐ Ground Source	Heat Pump	(GSHP)		
D. Building Specifications [provide	values and r	ratings of the	energy effici	ency components pro	posed]			
Energy Efficiency Substitutions								
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))								
Combined space heating and domestic	water heating	g systems (3.	1.1.2(7) / 3.	1.1.3.(7))				
☐ Airtightness substitution(s)	☐ Tab	ble 3.1.1.4.B	Required:			Permitted S	Substitution	:
Airtightness test required	□ Tab	ble 3.1.1.4.C	Required:			Permitted S	Substitution	:
(Refer to Design Guide Attached)			Required:			Permitted S	Substitution	:
Building Component		m RSI/R-Val imum U-Val		Buil	ding Con	nponent		Efficiency Ratings
Thermal Insulation	Nomina	al Eff	fective	Windows & Doo	rs Provide	e U-Value <sup>(1)</sup> o	r ER rating	
Ceiling with Attic Space	60			Windows/Sliding G	Blass Door	rs		1.6
Ceiling without Attic Space	31			Skylights				2.8
Exposed Floor	31			Mechanicals				
Walls Above Grade	22			Heating Equip.(AF	UE)			96%
Basement Walls	20.	.0ci		HRV Efficiency (SF	RE% at 0°C	<b>(</b> )		75%
Slab (all >600mm below grade)	х			DHW Heater (EF)				0.80
Slab (edge only ≤600mm below grade)	10			DWHR (CSA B55.1	(min. 42%	efficiency))		#Showers 2
Slab (all ≤600mm below grade, or heated)	10			Combined Heating	System			
(1) U value to be provided in either W/(m²·K) or Btu	/(h·ft·F) but n	not both.						
E. Designer(s) [name(s) & BCIN(s), if a	pplicable, of	person(s) pro	oviding infor	mation herein to subs	tantiate tha	t design meet	s building	code]
Name			BCIN	Signature				
David DaCosta			329	964		Mane .	14C=	₹ 7



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

Page 8 PJ-00204 Project # JB-04876 Layout #

System 1 Package: Package A1 System: Project: **Bradford** Model: THWU-12

## Air Leakage Calculations

Building Air Leakage Heat Loss									
В	LRairh	Vb	HL^T	HLleak					
0.018	0.324	20307	81.4	9634					

Building Air Leakage Heat Gain									
В	LRairh	Vb	HG^T	HG Leak					
0.018	0.079	20307	11	317					

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)										
Level	Level	Building	Level Conductive	Air Leakage Heat Loss						
Levei	Factor (LF)	Air	Heat Loss	Multiplier						
Level 1	0.5		4517	1.0663						
Level 2	0.3	9634	5456	0.5297						
Level 3	0.2	9034	5000	0.3854						
Level 4	0		0	0.0000						

		Air Leakage Heat Gain
HG LEAK	317	0.0461
BUILDING CONDUCTIVE HEAT GAIN	6881	0.0401

Levels									
1	2	3	4						
(LF)	(LF)	(LF)	(LF)						
1.0	0.6	0.5	0.4						
	0.4	0.3	0.3						
		0.2	0.2						
			0.1						

Levels this Dwelling	
3	

## **Ventilation Calculations**

_						
	Ventilation Heat Loss					
	С	PVC	HL^T	(1-E) HRV	HLbvent	
	1.08	63.6	81.4	0.16	895	

Case 1

**Ventilation Heat Loss** 

Ventilation Heat Gain				
C PVC HC		HG^T	HGbvent	
1.1	63.6	11	756	

## Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only						
Level LF HLbvent LVL Cond. HL Multiplier						
Level 1	0.5		4517	0.10		
Level 2	0.3	895	5456	0.05		
Level 3 0.2		5000	0.04			
Level 4	0		0	0.00		

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

Ventilation Heat Gain (Exhaust Only Systems)

Case 1

**Ventilation Heat Gain** 

Case 1 - Exh	aust Only	Multiplier	
HGbvent 756		0.11	
Building	6881	0.11	

### Case 2 Case 2

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

		Multiplier
С	HG^T	11.88
1.08	11	11.00

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

Ventilation Heat Gain (Forced Air Systems)

## Case 3 Case 3

	HLbvent	Multiplier
Total Ventilation Load	895	0.06

		Vent Heat Gain	Multiplier
-IGbvent	HG*1.3	756	0.11

Btu/h

Foundation Conductive Heatloss Level 1	1169	Watts	3990	Btu/h	
--	------	-------	------	-------	--

**Foundation Conductive Heatloss Level 2** 

Watts

Mane Blite

# **Envelope Air Leakage Calculator**

Supplemental tool for CAN/CSA-F280

Weather Station	Description
Province:	Ontario $lacksquare$
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 Config	guration
Type:	Semi-Detached
Number of Stories:	Two
Foundation:	Shallow
House Volume (m <sup>3</sup> ):	575.08
Air Leakage/Ve	entilation
Air Tightness Type:	Present (1961-) (ACH=3.57)
	ELA @ 10 Pa. 322.44 cm <sup>2</sup>
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

Weat	her Sta	tion Description			
Province:		Ontario <b>V</b>			
Region:		Bradford ▼			
	Site D	escription			
Soil Conductivity:		High conductivity: moist soil ▼			
Water Table:		Normal (7-10 m, 23-33 Ft)			
Fou	ındatio	n Dimensions			
Floor Length (m):	17.62				
Floor Width (m):	3.72				
Exposed Perimeter (m):	18.90				
Wall Height (m):	2.59				
Depth Below Grade (m):	1.52	Insulation Configuration			
Window Area (m²):	2.14				
Door Area (m²):	0.00				
	Radi	ant Slab			
Heated Fraction of the Slab:	0				
Fluid Temperature (°C):	33				
	Desig	n Months			
Heating Month	1				
	Founda	ation Loads			
Heating Load (Watts): 1169					

**al**→ 0

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



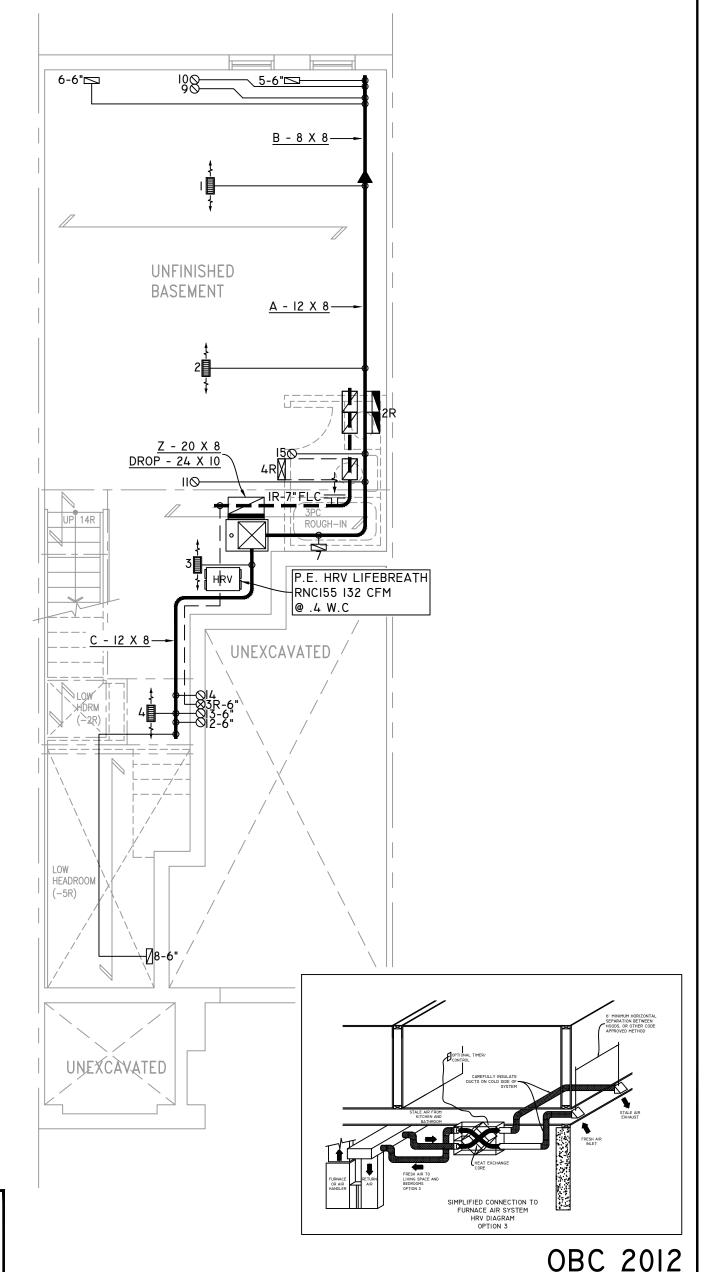
DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER

RETURN ROUND DUCT

RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) 4 RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT

R.A 1

SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH



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

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

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

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

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: 905-67I-9800 EMAIL: DAVE@GTADESIGNS.CA WEB: WWW.GTADESIGNS.CA

HEAT-LOSS 25,914 OR FOLIAL **AMANA** OR FOLIAL AMEC960403ANA 40,000 BTU/HR 38,400 TONS 1.5 FAN SPEED CFM 772

BASEMENT PLAN 'A' & 'B'

# OF RUNS S/A R/A FANS  3RD FLOOR 7 2 3  IST FLOOR 4 I 2  BASEMENT 4 I						
2ND FLOOR 7 2 3  IST FLOOR 4 1 2  BASEMENT 4 1	# OF RUNS	S/A	R/A	FANS		
IST FLOOR 4 I 2 BASEMENT 4 I	3RD FLOOR					
BASEMENT 4 I	2ND FLOOR	7	2	3		
FLOOR PLAN: BASEMENT	IST FLOOR	4	I	2		
BASEMENT	BASEMENT	4				
BASEMENT						

. DD

.<u>YOUT</u> NO. JB-04876

JL

DECEMBER 12, 2023 BAYVIEW WELLINGTON MODEL: THWU-I2

GREEN VALLEY BRADFORD, ONT. 1762 3/16" = 1'-0" МΙ

ZONE I COMPLIANCE PACKAGE "AI" REF. TABLE 3.I.I.2.A

**a**]--0

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



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

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

OPT. COFFERED CEILING **FAMILY** KITCHEN EXHAUST 100 CFM MIN. 6" KITCHEN 2R FLR 30X6 6R Ы

**─**─3R-6"

DOOR WHERE GRADE PERMITS

| ≤ 12-6 | "

**GARAGE** 

OTA

FOYER

8-6"

**PORCH** 

DN 5R

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

lane 1866 B.C.I.N. 32964

GROUND FLOOR PLAN 'A'

OBC 2012

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

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)

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

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

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	

25,914

OR EQUAL

# OF RUNS	S/A	R/A	FANS	
3RD FLOOR				
2ND FLOOR	7	2	3	
IST FLOOR	4	I	2	
BASEMENT	4	I		
FLOOR PLAN:				
FLOOR FLAN:				

GROUND FLOOR 1762 DD M2 JB-04876

**DECEMBER 12. 2023** BAYVIEW WELLINGTON MODEL: THWU-I2 PROJECT GREEN VALLEY

BRADFORD, ONT. SCALE: 3/16" = 1'-0"

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO

INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS I" MIN.

RESPONSIBILITY OF GTA DESIGNS.

oll⊶ 0

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

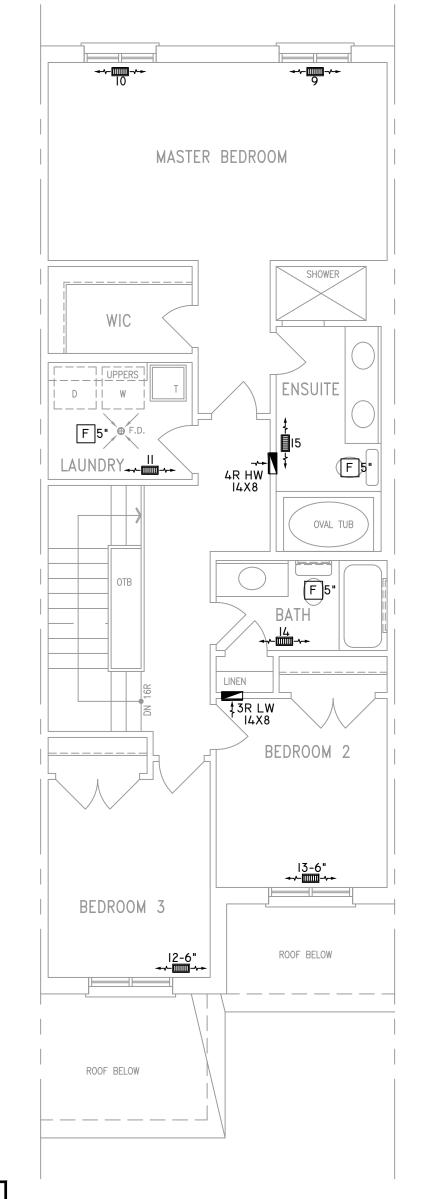


DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT

RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) 4 RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR  $\boxtimes$ 

R.A 1

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



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

INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

ALL DUCTWORK LOCATED IN 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

Ane 166 B.C.I.N. 32964

SECOND FLOOR PLAN 'A'

OBC 2012

ZONE I COMPLIANCE PACKAGE "AI" REF. TABLE 3.I.I.2.A

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. 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

BTU/HR.
OR FQUAL.
ON EGOAL.
OR EQUAL.
۸A
BTU/HR.
BTU/HR.
TONS.
CFM

[	FANS	R/A	S/A	RUNS	# OF
_				FLOOR	3RD F
	3	2	7	FLOOR	2ND F
ı	2	I	4	LOOR	IST F
		ı	4	MENT	BASE
١,					
		OR	FLO	SECOND	
	_		SQFT	CHECKED:	DRAWN BY:
╙	JL   DD   1762			JL	

M3

YOUT NO. JB-04876

1	
	DECEMBER 12, 2023
	BAYVIEW WELLINGTON
ı	MODEL:
	THWU-I2
	PROJECT: GREEN VALLEY

BRADFORD, ONT.

3/16" = 1'-0"

**a**]---0

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



DUCT CONNECTION TO JOIST LINING

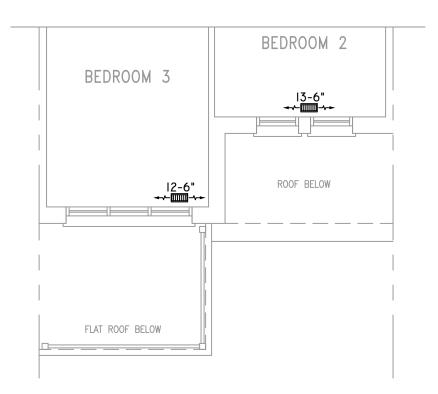
RETURN AIR PIPE RISER RETURN ROUND DUCT

4  $\boxtimes$ 

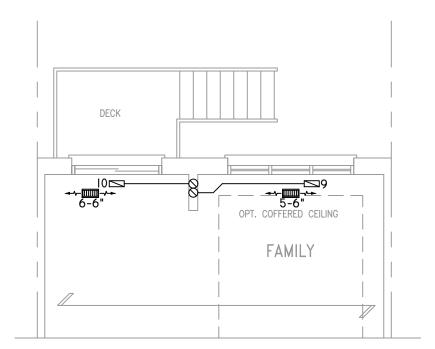
RETURN AIR GRILLE (SIZE INDICATED ON DRAWING) RETURN AIR RISER UP TO FLOOR ABOVE RETURN AIR FROM BASEMENT SECOND FLOOR

R.A 1

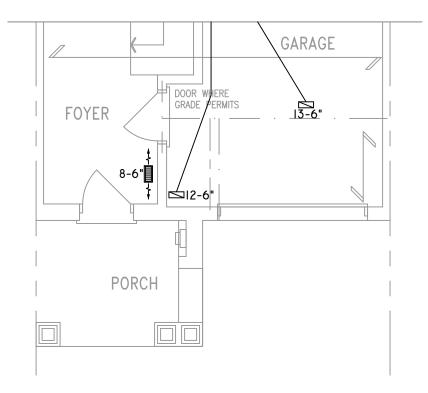
SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN



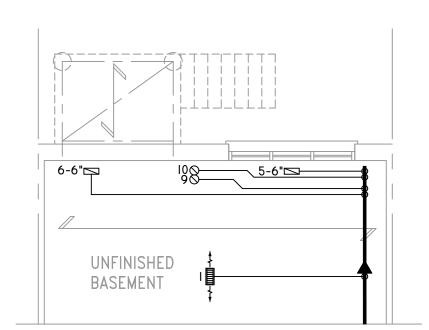
PART. SECOND FLOOR PLAN 'B'



PARTIAL GROUND FLOOR PLAN WOD COND 9R AND MORE



PART. GROUND FLOOR PLAN 'B'



PARTIAL BASEMENT PLAN WOD COND 9R AND MORE

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 ane 166 B.C.I.N. 32964

OBC 2012

ZONE I COMPLIANCE PACKAGE "AI" REF. TABLE 3.I.I.2.A

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.



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WEB: WWW.GTADESIGNS.CA

25,914	BIU/HK.
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 F	LOOR				
2ND F	FLOOR	7	2	3	
IST FLOOR		4	١	2	
BASEMENT		4	ı		
FLOOR PLAN: PARTIAL PLAN(S) DRAWN BY: CHECKED:   SQFT					
JL LAYOUT NO.	DD	DRAWING NO.			
JB-04876			1	<b>M</b> 4	

3/16" = 1'-0"