

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-1 AI		In the state of th	Lot/con.	
Municipality Bradford	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for desi	ign activities	Ie.		
Name David DaCosta		Firm	gtaDesigns Inc.	
Street address 2985 Drew Ro	ad, Suite 202		Unit no.	Lot/con.
Municipality	Postal code	Province	E-mail dave@gtades	ians ca
Mississauga Telephone number	L4T 0A4 Fax number	Ontario	Cell number	iigris.ca
(905) 671-9800		') 494-9643	(416) 268-6	820
C. Design activities undertaken by individual identified in	Section B. [Bu	ilding Code Table	3.5.2.1 of Division C]	
☐ House ☒ HVAC –	House		☐ Building Structural	
☐ Small Buildings ☐ Building S	Services		☐ Plumbing – House	
☐ Large Buildings ☐ Detection	, Lighting and Po	wer	☐ Plumbing – All Building	s
☐ Complex Buildings ☐ Fire Prote	ection		☐ On-site Sewage System	ns
Description of designer's work Mo	odel Certification	1	Project #:	-
		l 5 "	Layout #:	
Heating and Cooling Load Calculations Mair Air System Design Alternate		Builder Project	Bayview Wellingto Green Valley	on
Residential mechanical ventilation Design Summary Area Sq ft			Green valley	
Residential System Design per CAN/CSA-F280-12		Model	TH-1 Alt WOB	
Residential New Construction - Forced Air D. Declaration of Designer		SB-12	Package A1	
David DaCosta (print name) I review and take responsibility for 3.2.4 Division C of the Building Co	the design work	•	stered under subsection	
classes/categories. Individual BCIN	·	a, and the min is regist		ODE APPLIES
☑ I review and take responsibility for the designer and take responsibility for the designer and take responsibility for the designer. The designer are the designer and take responsibility for the designer. The designer are the designer are the designer and take responsibility for the designer. The designer are the designer are the designer are the designer are the designer. The designer are the designer are the designer are the designer are the designer. The designer are the designer				
Individual BCIN	N:329	64		
Basis for exem	ption from registr	ation:	Division C 3.2.4.1. (4)	
☐ The design work is exempt from the	ne registration an	d qualification requiren	nents of the Building Code.	
Basis for exem	ption from registr	ation and qualification:		
I certify that:				
The information contained in this schedule is true to the best of				
I have submitted this application with the knowledge and conser	nt of the firm.	Mare 14		
December 12, 2023			_ 5	•
Date		Signature of De	signer	

NOTE:

Page 1

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.

REVIEWED



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. Document	s for permit and/or construction are signed in red. JB-04862
Building I	Location
Address (Model): TH-1 Alt WOB	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	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	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 da ve@gtadesigns.ca



Builder:

Bayview Wellington

Date:

Air System Design

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.

of the Building Code.

Page 3 PJ-00204

Project # Individual BCIN: 32964 Mana Alexander David DaCosta Layout # JB-04862

Project: Gree	n Valley		ı	Model:		-	TH-1 Alt	WOB				Sy	stem	1		of the Bui ndividual	Iding Coo	de. 32964	Ma	ne la	LEX	ا ت	David DaC	Costa		ject # /out #		00204 04862
DESIGN LOAD SPECIFICATION	vie.		Г	AID DIST	RIBUTION	I & DDES	ELIDE					LIDNACE	/AID LIAI	NDLER D	ATA:		Ī.	BOILER/W	/ATED UE	ATED D	\TA.				A/C UNIT I	DATA:		
DESIGN LOAD SPECIFICATION	NS .		L	AIR DIST	KIBUTION	I & PRES	SURE				Ľ	UKNACE	AIK HA	NDLEK D.	AIA:		Ŀ	BOILER/W	AIER HE	AIER D	AIA:			Ľ	A/C UNII I	DATA:		
Level 1 Net Load	12,389	btu/h		Equipme	nt Externa	al Static P	ressure		0.5 "	w.c.		/lake		Ama	na			Make			т	уре		,	Amana		1.5 T	on
Level 2 Net Load	9,597				l Equipm				0.225 "			/lodel		AMEC960				Model			-	,,,			Cond		1.5	
Level 3 Net Load	7,249				Design P				0.275 "			nput Btu/		400				nput Btu/	h						Coil		1.5	
Level 4 Net Load		btu/h			ranch Lon		ctive Len	ath	300 f			Output Bt		384				Output Bt										
Total Heat Loss	29,234				ım Pressı	•		J	0.138 "			.s.p.		0.5		w.c.		Min.Outpu			А	WH						
Total Heat Gain	16.699				ım Pressu				0.14 "			Vater Ten	n			leg. F.	Ĺ						wer DATA					
Combo System HL + 10%	32,158				ir Flow P		ing Facto	vr.	0.0264			AFUE		969		.09	-	Blower Sp	need Selec	rted:	W2		2,		Blower Ty	ne F	СМ	
Building Volume Vb	18903			_	ir Flow P		-		0.0462			ux. Heat		30,				Diome: Op	occu ocici	otou.				•	(Brushle	-		5 (2))
Ventilation Load	895					-	R/A Temp			eg. F.		B-12 Pac	kage	Packag	ie A1			Heating C	heck	772 c	fm			(Cooling C		772 c	
Ventilation PVC	63.6						S/A Temp			eg. F.					,				_							_		
Supply Branch and Grill Sizing		••••		Diffuser le	oss	0.01_"					7	emp. Ris	e>>>	46 0	leg. F.		5	Selected o	:fm>	772 c	fm		c	Coolina A	ir Flow Ra	ate	772 c	fm:
					=							•	-						_							_		
	_						Leve	11									_	_			Level	12						
S/A Outlet No.	1	2	3	4											5	6	7	8										
Room Use	BASE	BASE	BASE	BASE										F	AM/KIT F		MUD	FOY										
Btu/Outlet	3097	3097	3097	3097											3040	3040	1517	2001										
Heating Airflow Rate CFM	82	82	82	82											80	80	40	53										
Cooling Airflow Rate CFM	55	55	55	55											100	100	9	35										
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	35	20	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	145	140	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	0.09	0.09	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	6	6	6	6											6	6	4	5										
Outlet Size	4x10	4x10	4x10	4x10	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	Α_	Α	В	В										1	A	Α	PTO	В										
							Leve	13													Level	14						
S/A Outlet No.	9	10	11	12	13	14																						
Room Use	MAST	BED 3	BED 2	BATH	LAUN	ENS																						
Btu/Outlet	1756	1629	2366	237	215	1046																						
Heating Airflow Rate CFM	46	43	62	6	6	28																						
Cooling Airflow Rate CFM	87	65	77	3	45	31	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
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 Equivalent Length	50 130	50 120	40 120	18 100	21 150	43 110	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	180	170	160	118	171	153	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	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70	70 70
Adjusted Pressure	0.07	0.08	0.08	0.11	0.08	0.08	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	0.06	0.06	0.11	0.06 5	0.06	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Outlet Size	4x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	4X10	4x10 B	4x10 B	PTO	SX IU	3X10 A	4810	4210	4210	4210	4810	4210	4410	4210	4210	4210	4210	4210	4310	4210	44.10	4410	4210	44.10	44.10	4310	4310	4310
TTUTIK				110																								
Return Branch And Grill Sizing	3		Grill Pres	sure Los	S	0.02 "	w.c					R	eturn Tr	runk Duct	Sizing					S	upply Tru	unk Duct	Sizing					
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R	Т	runk	(CFM F	Press. F	Round	Rect. S	Size	Т	runk	(CFM F	ress. F	Round	Rect. S	Size	
Inlet Air Volume CFM	165	397	105	105																								
Duct Design Pressure	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0	rop		772	0.06	14.0	24x10		Α			398	0.07	11.0	14x8	10x10	
Actual Duct Length	5	7	43	29								Z			667	0.06	13.5	20x8	16x10	Е			328	0.08	10.0	12x8	10x10	
Equivalent Length	155	165	140	120	50	50	50	50	50	50	50	Υ								c								
Total Effective Length	160	172	183	149	50	50	50	50	50	50	50	х																
Adjusted Pressure	0.07	0.07	0.06	80.0	0.24	0.24	0.24	0.24	0.24	0.24	0.24	V	1							E								
Duct Size Round	7.0	11.0	6.0	6.0								v								F								
Inlet Size	FLC	8	8	8								u								G	i							
п п	x	x	x	x	x	x	x	x	x	x	x	Т								Н								
Inlet Size		30	14	14								s								1								
												R								J	7	— \		/ 				
Trunk	Z	Z	Z									<u>c</u>	1															
Hulik																												



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 Well	lington	l		Date:		D	ecember	12, 2023	3		_			, ,	Weather Da	ata	Bradford	44	-9.4	86 22	48.2					Page 4
2012 OBC		Project:		Green Val	ley		N	lodel: _			TH-1 Alt	WOB				Syste	em 1		Heat Loss	s^T 81.4 d	eg. F	Ht gain ^T	1	1 deg. F	GTA:	1660)	Project Layout		J-00204 B-04862
	Level 1					BASE																								
	ft. exposed wall A				64			-			Α			Α		Α		Α		4		Α		Α			Α		Α	
Run	ft. exposed wall B				19 I			E			В			В		В		В		E		В		В			В		В	
	Ceiling height				5.5	AG		5.5 A	\G		5.5 AG		5.5	AG		5.5 AG		5.5 A	G	5.5 A	.G	5.5 AG		5.5 AG		5.5	5 AG	5	.5 AG	
	Floor area				607	Area		-	\rea		Area			Area		Area		Α	rea		rea	Area		Area	1		Area		Area	
E	xposed Ceilings A					Α		-	١.		Α			Α		Α		Α			١	Α		Α			Α		Α	
E:	xposed Ceilings B					В		E	3		В			В		В		В		E	3	В		В			В		В	
	Exposed Floors					Flr		F	lr .		Flr			Flr		Flr		F	r	F	lr .	Flr		Flr			Fir		Flr	
	Gross Exp Wall A				352																									
	Gross Exp Wall B				162																									
	Components	R-Values L	oss (Gain		Loss	Gain	L	.oss Ga	ain	Loss	Gain	1	Loss G	Gain	Loss	Gain	L	oss Gai	n L	oss Gain	Loss	Gain	Los	s Gain		Loss	Gain	Loss	Gain
	North Shaded	3.55	22.93	10.91																										
	East/West	3.55	22.93	27.35																										
	South	3.55	22.93	20.89																										
	WOB Windows	3.55	22.93	27.35	63	1445	1723																							
	Skylight	2.03	40.10	88.23																										
	Doors	4.00	20.35	2.75		427	58																							
Ne	et exposed walls A	21.13	3.85	0.52	331		172																							
Ne	et exposed walls B	21.13	3.85	0.52	99	379	51																							
E	xposed Ceilings A	59.22	1.37	0.64																										
E:	xposed Ceilings B	22.86	3.56	1.66																										
	Exposed Floors	29.80	2.73	0.17																										
Foundation Cond	uctive Heatloss					5010																								
Total Conductive	Heat Loss					7261																								
Total Colluctive	Heat Gain						2005																							
Air Leakage	Heat Loss/Gain		0.6580	0.0394		4778	79																							
	Case 1		0.06	0.09																										
Ventilation	Case 2		14.07	11.88																										
	Case 3	х	0.05	0.09		350	190																							
	Heat Gain People			239																										
	Appliances Loads	1 =.25 pe	ercent	2730	2.0		1365																							
	Ouct and Pipe loss			10%																										
Level 1 HL Total	12,389	To	tal HL for p	per room		12389																								
Level 1 HG Total	4,730	Total	HG per roo	om x 1.3			4730																							
•																														
	Level 2					FAM/KI	Т		MUD		F	Υ																		
Run	ft. exposed wall A				57	Α		12 /	١.		15 A			Α		Α		Α			i	Α		Α			Α		Α	
Run	ft. exposed wall B				- 1	В		E	3		В			В		В		В		E	3	В		В			В		В	
	Ceiling height				10.0			12.0		1	11.0		10.0			10.0		10.0		10.0		10.0		10.0		10.0)	10	.0	
	Floor area				567	Area		32 A	rea		56 Area			Area		Area		Α	rea		rea	Area		Area	1		Area		Area	
E	xposed Ceilings A					Α			١		Α			Α		Α		Α			١	Α		Α			Α		Α	
	xposed Ceilings B				- 1	В		E	3		В			В		В		В		Е	3	В		В			В		В	
	Exposed Floors				- 1	Flr		F	lr .		Flr			Flr		Flr		F	r	F	ir .	Fir		Flr			Flr		Flr	
	Gross Exp Wall A				570			144			165																			
	Gross Exp Wall B																													
	Components	R-Values L	oss (Gain	- 1	Loss	Gain	L	.oss Ga	ain	Loss	Gain	ı	Loss C	Gain	Loss	Gain	L	oss Gai	n L	oss Gain	Loss	Gain	Loss	s Gain		Loss	Gain	Loss	Gain
	North Shaded	3.55	22.93	10.91	Г																									
	East/West	3.55	22.93	27.35	74	1697	2024				14 3	21 3	83																	
	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				21	427	58	19 3	87	52																	
Ne	et exposed walls A	17.03	4.78	0.65	496	2371	320	123	588	79	132 6	31	85																	
	et exposed walls B	8.50	9.58	1.29																										
	xposed Ceilings A	59.22	1.37	0.64																										
	xposed Ceilings B	22.86	3.56	1.66																										
	Exposed Floors	29.80	2.73	0.17																										
Foundation Cond	uctive Heatloss			х																										
	Heat Loss					4068			1015		13	39																		
Total Conductive	Heat Gain						2345			137			20																	
Air Leakage	Heat Loss/Gain		0.4464	0.0394		1816			453	5	5		21																	
J.	Case 1		0.04	0.09																										
Ventilation	Case 2		14.07	11.88																										
	Case 3	х	0.05	0.09		196	222		49	13		64	49								_		-			-				
	Heat Gain People			239																		RF								
	Appliances Loads	1 =.25 pe	ercent	2730	1.0		683																\ \			1	1/1			
	Ouct and Pipe loss			10%																							v			
Level 2 HL Total	9,597	To	tal HL for p			6079			1517		20	01																		
Level 2 HG Total	5,313		HG per ro				4344			202			67																	
					L			L	1										'		1				-					
																													2 Dackar	

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

Total Heat Loss 29,234 btu/h Division C subsection 3.2.5. of the Building Code. Individual BCIN: Total Heat Gain 16,699 btu/h

Mana Mate

David DaCosta

SB-12 Package

Package A1



Heatloss/Gain Calculations CSA-F280-12

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

e-mail dave@gtadesigns.ca

	Builder:	Bayview Welling	ton	Date	::	Dece	ember 12, 2	023				Weather Data	Bradford	44	-9.4 86 22	48.2			Page 5
2012 OBC	Project:	Green Valley		Mode	l:	TH	I-1 Alt WO	3		System 1		Heat Loss ^	T 81.4 deg. F	Ht gain ^T	11 deg. F	GTA:	1660	Project # Layout #	PJ-00204 JB-04862
Level :	3		MAST		BED 3		BED 2	ВАТН		LAUN		ENS							
Run ft. exposed wall		,	12 A	1	4 A		A	A		A		A	A	A	A		A		A
Run ft. exposed wall			В		В	8.0	В	В		В	8.0	В	В	В	B 8.0		В		В
Ceiling heigh	it		3.0	8.				8.0		8.0			8.0	8.0			8.0	8.0	
Floor are			37 Area		6 Area	254 254	Area	64 Area		83 Area		Area	Area	Area	Are	a	Area		Area
Exposed Ceilings		2	37 A	11	6 A			64 A		83 A	109		A	A	A		A		A
Exposed Ceilings			B Flr		B 4 Fir		B	B		B 13 Flr		B Flr	B	B Flr	B Fir		B		B Fir
Exposed Floor			96	11		135	Flr	28 Flr		13 FIF	56		Flr	FIF	FIF		Flr		FIF
Gross Exp Wall			96	11	2	80					20								
		oss Gain	Loss G	iain	Loss	Gain	Loss C	ain Loss	Gain	Loss G	nin	Loss Gain	Loss Gair	Loss	Gain Los	s Gain	Loss	Gain	Loss Gain
North Shade		22.93 10.91	2033	, and	L033 (Juin	L033 C	L033	Cam	2033 0		LU33 Gain	LU33 Can			is ouiii	T [2033	- Cuiii	LOSS Call
East/Wes			24 550	656 2	2 504	602 22	504	602			13	298 35	6						
Sout		22.93 20.89		-															
Existing Window		40.90 22.15																	
Skyligh		40.10 88.23																	
Door		20.35 2.75																	
Net exposed walls	A 17.03	4.78 0.65	72 344	47 9	0 430	58 58	277	37			43	206 2	8						
Net exposed walls	8.50	9.58 1.29																	
Exposed Ceilings	A 59.22	1.37 0.64 2	37 326	152 11	6 159	74 254	349	163 64 88	41	83 114	53 109	150 7	0						
Exposed Ceilings	3 22.86	3.56 1.66																	
Exposed Floor	s 29.80	2.73 0.17		1	4 38	2 135	369	23 28 76	5	13 36	2 27	74	5						
Foundation Conductive Heatloss																			
Total Conductive Heat Los			1220		1132		1500	164		150		727							
Heat Gai				855		737		825	46		55	45							
Air Leakage Heat Loss/Gai		0.3905 0.0394	477	34	442	29	586	33 64	2	58	2	284 1	8						
Ventilation Case		0.04 0.09																	
		14.07 11.88	50	04		70	70	70 0		-	5	25 4							
Case Heat Gain Peopl		0.05 0.09	59	81 478	55	70 239 1	72	78 8 239	4	- '	9	35 4	3						
Appliances Load			4	4/0		235 1		239		1.0	683								
Duct and Pipe los		10%				1	209	106		1.0	000								
Level 3 HL Total 7,249		al HL for per room	1756		1629		2366	237		215		1046							
Level 3 HG Total 6,655	Total	HG per room x 1.3		1882		1397	2000	1665	67	213	969	67	5						
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings	1 3 3 4 4 3		A B Area A B	1882	A B Area A B		A B Area A B	A B Area A B	67	A B Area A B	969	A B Area A B	A B Area A B	A B Area A B	A B Are	a	A B Area A B		A B Area A B
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor	1 A A B B B B B B B B B B B B B B B B B		A B Area A	1882	A B Area A		A B Area A	A B Area A	67	A B Area A	969	A B Area A	A B Area A	B Area A	B Are A	a	B Area A		B Area A
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings	1 A A B A A A A A A A A A A A A A A A A		A B Area A B	1882	A B Area A B		A B Area A B	A B Area A B	67	A B Area A B	969	A B Area A B	A B Area A B	B Area A B	B Are A B	a	B Area A B		B Area A B
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall	1 A A B B B B B B B B B B B B B B B B B	HG per room x 1.3	A B Area A B Fir	1882	A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	67	A B Area A B		A B Area A B	A B Area A B	B Area A B Fir	B Are A B		B Area A B Fir		B Area A B
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade	1 A A A A A A A A A A A A A A A A A A A	DSS Gain 22.93 10.91	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall. Run ft. exposed wall. Ceiling heigt Floor are Exposed Ceilings. Exposed Ceilings. Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWee	1 A A A A A A A A A A A A A A A A A A A	oss Gain 22.93 10.91 22.93 27.35	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWet	1 A A A A A A A A A A A A A A A A A A A	DSS Gain 22.93 10.91 22.93 12.93 22.93 20.89	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWes	A A B A A B A A B A A B A A B A A B A A B A A B A B A A B A B A A B A	poss Gain 22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Celling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWee Sout Existing Window	A	oss Gain 22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigi Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade East/Wet Sout Existing Window Skyligt	A A A A A A A A A A A A A A A A A A A	DSS Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWes Sout Existing Window Skyligh Door Net exposed walls	A 3 s R-Values L d 3.55 t	oss Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWes Sout Existing Window Skyligh Door Net exposed walls Net exposed walls	A A A A A A A A A A A A A A A A A A A	DSS Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWet Sout Existing Window Skyligh Door Net exposed walls Ret exposed Ceilings	A A A A A A A A A A A A A A A A A A A	DSS Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWes Sout Existing Window Skyligh Door Net exposed walls Net exposed walls Exposed Ceilings Exposed Ceilings	A A A A A A A A A A A A A A A A A A A	oss Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade Existing Window Skylyigh Door Net exposed walls Net exposed walls Exposed Ceilings Exposed Ceilings	A A A A A A A A A A A A A A A A A A A	DSS Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWet Sout Existing Window Skyligh Door Net exposed walls Net exposed walls Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Fxposed Ceilings Exposed Foundation Conductive Heatloss	A A A A A A A A A A A A A A A A A A A	oss Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWet Sout Existing Window Skyligh Door Net exposed walls Net exposed walls Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Floor Foundation Conductive Heatloss Total Conductive Heat Los	4 A A B A A A A A A A A A A A A A A A A	oss Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWes Sout Existing Window Skyligh Door Net exposed walls Ret exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Foundation Conductive Heatloss Total Conductive Ceiling Ce	A A A A A A A A A A A A A A A A A A A	oss Gain 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 Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Geilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWes Sout Existing Window Skyligh Door Net exposed walls Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Total Conductive Heattos Total Conductive Heat Los Heat Los Heat Gai Air Leakage Heat Loss/Gai	A A A A A A A A A A A A A A A A A A A	0000 0.0394 0000 0.0394 0000 0.0394 0.00 0.0394	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigi Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWet Sout Existing Window Skyligi Door Net exposed walls Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Texposed Ceilings Exposed Ceilings Exposed Floor Foundation Conductive Heatloss Total Conductive Heat Loss Total Conductive Heat Loss Heat Gal Air Leakage Heat Loss/Gai Case Ventilation Case	A A B A A B A A A B A A A A B A A A A A	DSS Gain 22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.0000 0.0394 0.00 0.09 14.07 11.88	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings; Exposed Ceilings; Exposed Ceilings; Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWet Sout Existing Window Skyligh Door Net exposed Walls Net exposed Walls Exposed Ceilings; Exposed Ceilings; Exposed Ceilings Total Conductive Heatloss Total Conductive Heat Gal Air Leakage Heat Loss/Gal Case Ventilation Case	A A A A A A A A A A A A A A A A A A A	058 Gain 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 0.0394 0.00 0.09 14.07 11.88 0.05 0.09	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir Loss Gair	B Area A B Fir Loss	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWes Sout Existing Window Skyligh Door Net exposed walls Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Total Conductive Heattos Total Conductive Heat Los Heat Case Ventilation Case Case Leings Case Leings Case Leings Lexposed Ceilings Case Lexposed Case Case Lexposed Case	A A A A A A A A A A A A A A A A A A A	058 Gain 22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 40.10 88.23 20.35 2.76 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.000 0.0394 0.00 0.0394 0.00 0.09 14.07 11.88 0.05 0.09	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir Loss Gair	B Area A B Fir Loss	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigi Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade East/Wet Skyligi Exposed Floor Net exposed walls Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Foundation Conductive HeatLoss Total Conductive Heat Loss Air Leakage Heat Loss/Gai Case Ventilation Case Lease Heat Gain Peopl Appliances Load	A A A B A A A A A A A A A A A A A A A A	DSS Gain 22.93 10.91 22.93 27.35 22.93 20.89 40.90 22.15 4.78 0.65 9.58 1.29 1.37 0.64 3.56 1.66 2.73 0.17 0.0000 0.0394 0.00 0.0394 0.00 0.09 14.07 11.88 0.05 0.09 239 rcent 2730	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir Loss Gair	B Area A B Fir Loss	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Celling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Component North Shade EastWee Sout Existing Window Skylyligh Door Net exposed walls Ret exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Capace Total Conductive Heatloss Total Conductive Heat Gai Air Leakage Heat Loss/Gai Ventilation Case Ventilation Case Heat Gain People Appliances Load Duct and Pipe los	4 A A A A A A A A A A A A A A A A A A A	0000 0.0394 0.000 0.0394 0.000 0.09 1.000 0.09	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir Loss Gair	B Area A B Fir	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Ceiling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Component North Shade EastWes Sout Existing Window Skylyigh Door Net exposed walls Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Component Heat Los Air Leakage Air Leakage Heat Case Ventilation Case Heat Gain Peopl Appliances Load Duct and Pipe los Level 4 HL Total Ceilings Lead Cannel Case Heat Gain Peopl Appliances Load Duct and Pipe los Level 4 HL Total	A A A A A A A A A A A A A A A A A A A	DSS Gain 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 0.0394 0.00 0.0394 0.00 0.09 14.07 11.88 0.05 0.09 14.07 11.88 0.05 2.39 rcent 2730 al HL for per room	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir Loss Gair	B Area A B Fir Loss	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Run ft. exposed wall Run ft. exposed wall Celling heigh Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Component North Shade EastWee Sout Existing Window Skylyligh Door Net exposed walls Ret exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Capace Heat Loss/Gai Air Leakage Heat Loss/Gai Case Ventilation Case Heat Gain Peopl Appliances Load Duct and Pipe los	A A A A A A A A A A A A A A A A A A A	0000 0.0394 0.000 0.0394 0.000 0.09 1.000 0.09	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir		A B Area A B Fir		A B Area A B Fir	A B Area A B Fir Loss Gair	B Area A B Fir Loss	B Are A B Fir		B Area A B Fir		B Area A B Fir
Run ft. exposed wall Ceiling height Floor are Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Ceilings Exposed Floor Gross Exp Wall Gross Exp Wall Gross Exp Wall Component North Shade EastWes South Existing Window Skylyight Door Net exposed walls Exposed Ceilings Case Heat Los Case Case Case Case Heat Gain Peoply Appliances Load Duct and Pipe los Level 4 HL Total O Ceilings Ceilings Ceilings Case Level 4 HL Total O Ceilings Ceil	A A A A A A A A A A A A A A A A A A A	DSS Gain 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 0.0394 0.00 0.0394 0.00 0.09 14.07 11.88 0.05 0.09 14.07 11.88 0.05 2.39 rcent 2730 al HL for per room	A B Area A B Fir		A B Area A B Fir	Gain	A B Area A B Fir	A B Area A B Fir	Gain	A B Area A B Fir	ain .	A B B Fir Loss Gain	A B Area A B Fir Loss Gair	B Area A B Fir Loss	B Are A B Fir		B Area A B Fir	Gain	B Area A B Fir

29,234 Total Heat Loss btu/h Total Heat Gain 16,699 btu/h Division C subsection 3.2.5. of the Building Code. Individual BCIN:

Name Met

David DaCosta

Package A1



Installing Contractor

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 Fax

Positive venting induced draft (except fireplaces)

Natural draft, B-vent or induced draft fireplaces

Name

City Tel

> a) b)

c)

d)

e)

Ш

Ш

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-04862 Layout # I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under 32964 Mane At Et-1 Division C subsection 3.2.5. of the Building Code. Individual BCIN: David DaCosta Package: Package A1 **Bradford** Project: Model: TH-1 Alt WOB 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

Builder				
Name		Master bedroom	1 @ 31.8	cfm 31.8 cfm
Bayview Wellir	gton	Other bedrooms	2 @ 15.9	
Address			Total	63.6
City				
		Principa	al Exhaust Fan Capa	city
Tel Fax		Make	Model	Location

LifeBreath	RNC155	Base	
132 cfm		Sones	or Equiv.

Principal Ventilation Capacity 9.32.3.4(1)

	Heat Recovery Ventilator						
Make	LifeBreath						
Model	RNC155						
	132 cfm high	80 cfm low					
Sensible effic	Sensible efficiency @ -25 deg C 71%						
Sensible efficiency @ 0 deg C 75%							
Note: Installer to belonge HPV/EPV to within 10 percent of DVC							

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.					

		Certification	
, ,		system has been	designed
in accordance w	rith the Ontario Bu	illding Code.	
Name	David Da	aCosta	
	Mana	Mate	
Signature	- 6 2000	. +	
HRAI#	5190	BCIN_#	_ 32964
1111/11#	5190	DOIN#	32304
Date	December	13 2022	1/1/

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Page 7

Project # PJ-00204 Layout # JB-04862

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	Princip	al Authority				
Application No:					Model/Certific	ation Nu	mber		
A. Project Information									
Building number, street name							Unit number	Lot/Con	
		TH	I-1 Alt WO	ОВ					
Municipality Bradford			Postal code		Reg. Plan nun	nber / oth	ner description		
B. Prescriptive Compliance [indica	ite the bu	ilding code	compliance	packa	ge being emp	loyed in	the house design]		
SB-12 Prescriptive (input design pa	ckage):			Pack	age A1		Table	3.1.1.2.	<u>A</u>
C. Project Design Conditions									
Climatic Zone (SB-1):		Heat. E	quip. Effici	iency			Space Heating F	uel Sour	ce
Zone 1 (< 5000 degree days)			% AFUE		✓ Ga	ıs	☐ Propane		Solid Fuel
Zone 2 (≥ 5000 degree days)		_ ≥ 84	4% < 92% A	FUE	☐ Oil		☐ Electric		Earth Energy
Ratio of Windows, Skylights & Glas	s (W, S	& G) to V	Vall Area				Other Building Ch	aracteris	tics
A (Wells 204.04 2040.4	412				☐ Log/Post	&Beam	☐ ICF Above	Grade	☐ ICF Basement
Area of Walls = 301.04 m ² or 3240.4	ft²	W,S &0	3 % =	<u>7%</u>	☐ Slab-on-	ground	√ Walkout Ba	sement	
					☑ Air Cond	itioning	Combo Uni	t	
Area of W, S & G = <u>21.553</u> m ² or <u>232.0</u>	ft²	Utilize V	/indow _	Yes	☐ Air Source	ced Hea	t Pump (ASHP)		
		Avera	ging	No	☐ Ground	Source I	Heat Pump (GSHP)		
D. Building Specifications [provide	values a	nd ratings	of the energ	y effici	ency compone	ents pro	posed]		
Energy Efficiency Substitutions									
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))									
Combined space heating and domestic	water he	eating syste	ems (3.1.1.2	(7) / 3.	1.1.3.(7))				
☐ Airtightness substitution(s)		Table 3.1	.1.4.B Re	quired:			Permitted S	Substitution	ո:
Airtightness test required		Table 3.1	14C Re	quired:			Permitted 9	Substitution	ո:
(Refer to Design Guide Attached)		Table 3.1		quired:			Permitted S	Substitution	ո:
Building Component			I/R-Values U-Value¹	or		Buil	ding Component		Efficiency Ratings
Thermal Insulation	Non	ninal	Effecti	ve	Windows	& Doo	rs Provide U-Value ⁽¹⁾ o	or ER rating)
Ceiling with Attic Space	6	0			Windows/SI	iding G	lass Doors		1.6
Ceiling without Attic Space	3	i1			Skylights				2.8
Exposed Floor	3	1			Mechanica	als			1
Walls Above Grade	22				Heating Equ	ıip.(AFl	JE)		96%
Basement Walls		20.0ci			HRV Efficie	ncy (SR	RE% at 0°C)		75%
Slab (all >600mm below grade)		x			DHW Heate	r (EF)			0.80
Slab (edge only ≤600mm below grade)	1	0			DWHR (CS/	A B55.1	(min. 42% efficiency))		#Showers 2
Slab (all ≤600mm below grade, or heated)	1	0			Combined H	leating	System		
(1) U value to be provided in either W/(m²·K) or Bt	u/(h·ft·F) l	out not bot	h.						
E. Designer(s) [name(s) & BCIN(s), if	applicable	e, of perso	n(s) providir	g inforr	nation herein	to subst	antiate that design mee	ts building	code]
Name			BC	IN	Się	gnature			_
David DaCosta				329	964		Mane	146	\
Form authorized by OHRA OROA IMCRO Revised December 1, 20					-				





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

Project # Layout # JB-04862

Package A1 System 1 System: **Bradford** Model:

Package: Project: TH-1 Alt WOB Air Leakage Calculations **Building Air Leakage Heat Loss Building Air Leakage Heat Gain** В LRairh ۷b **HLleak** В LRairh Vb HG^T HG Leak 0.018 0.345 18903 81.4 9555 0.018 0.084 18903 11 315 Levels Air Leakage Heat Loss/Gain Multiplier Table (Section 11) 1 2 3 4 Level Building Level Conductive Air Leakage Heat Loss (LF) (LF) (LF) (LF) Level Factor (LF) Air **Heat Loss** Multiplier 0.6580 1.0 0.5 Level 1 0.5 7261 0.6 0.4 Level 2 0.4464 6421 0.3 0.3 0.4 0.3 9555 0.3905 Level 3 4893 0.2 0 0.0000 Level 4 0 0.1 Air Leakage Heat Gain Levels this Dwelling **HG LEAK** 315 0.0394 3 **BUILDING CONDUCTIVE HEAT GAIN** 7983 **Ventilation Calculations Ventilation Heat Loss Ventilation Heat Gain /ent** /ent Ventilation Heat Loss **Ventilation Heat Gain** PVC (1-E) HRV **HLbvent** PVC HG^T **HGbvent** 1.08 895 756 63.6 81.4 0.16 1.1 63.6 11 Case 1 Case 1 Ventilation Heat Loss (Exhaust only Systems) Ventilation Heat Gain (Exhaust Only Systems) Case 1 - Exhaust Only Case 1 - Exhaust Only Multiplier Case Case Level LF HLbvent LVL Cond. HL Multiplier **HGbvent** 756 0.09 Building 7983 7261 Level 1 0.5 0.06 Level 2 0.3 6421 0.04 895 4893 Level 3 0.2 0.04 Level 4 0 0 0.00 Case 2 Case 2 **Ventilation Heat Loss (Direct Ducted Systems) Ventilation Heat Gain (Direct Ducted Systems)** Case Case Multiplier Multiplier HL^T (1-E) HRV HG^T С 14.07 11.88 1.08 1.08 81.4 Case 3 Case 3 Ventilation Heat Loss (Forced Air Systems) Ventilation Heat Gain (Forced Air Systems) ase **HLbvent** Multiplier Vent Heat Gain Multiplier **HGbvent** HG*1.3 **Total Ventilation Load** 895 0.05 756 0.09 756 Foundation Conductive Heatloss Level 1 1468 Watts 5010 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):	7.16
Building Confi	guration
Type:	Semi-Detached
Number of Stories:	Two
Foundation:	Shallow
House Volume (m³):	535.32
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):	0.345
Cooling Air Leakage Rate (ACH/H):	0.084

REVIEWED

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:		Ontario		
Region:		Bradford ▼		
Site Description				
Soil Conductivity:		High conductivity: moist soil ▼		
Water Table:		Normal (7-10 m, 23-33 Ft)		
Foundation Dimensions				
Floor Length (m):	15.78			
Floor Width (m):	3.57			
Exposed Perimeter (m):	19.51			
Wall Height (m):	2.59	Annunus		
Depth Below Grade (m):	0.91	Insulation Configuration		
Window Area (m²):	0.00			
Door Area (m²):	1.95			
	Radi	ant Slab		
Heated Fraction of the Slab:	0			
Fluid Temperature (°C):	33			
Design Months				
Heating Month	1			
Foundation Loads				
Heating Load (Watts):		1382		

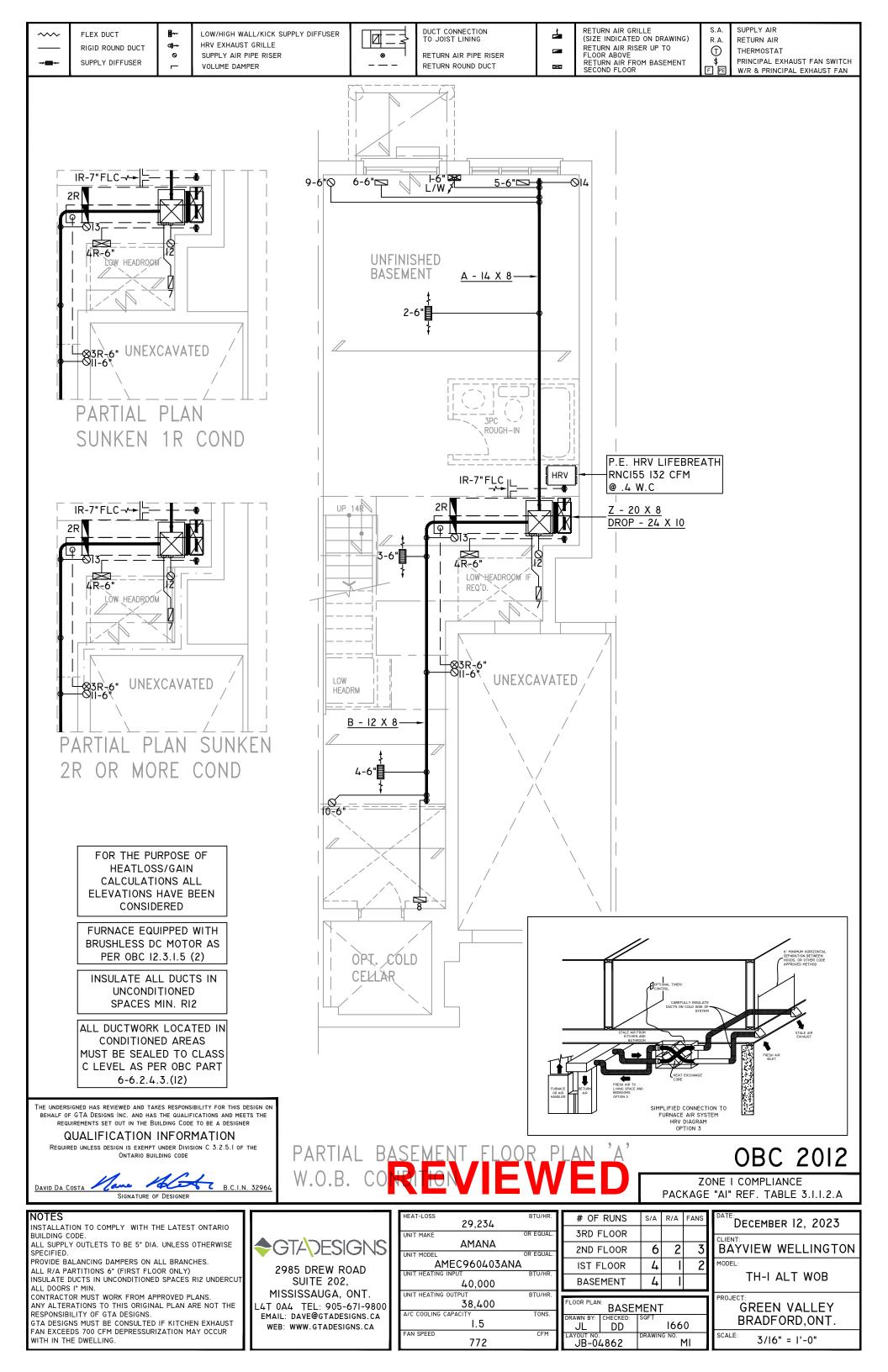


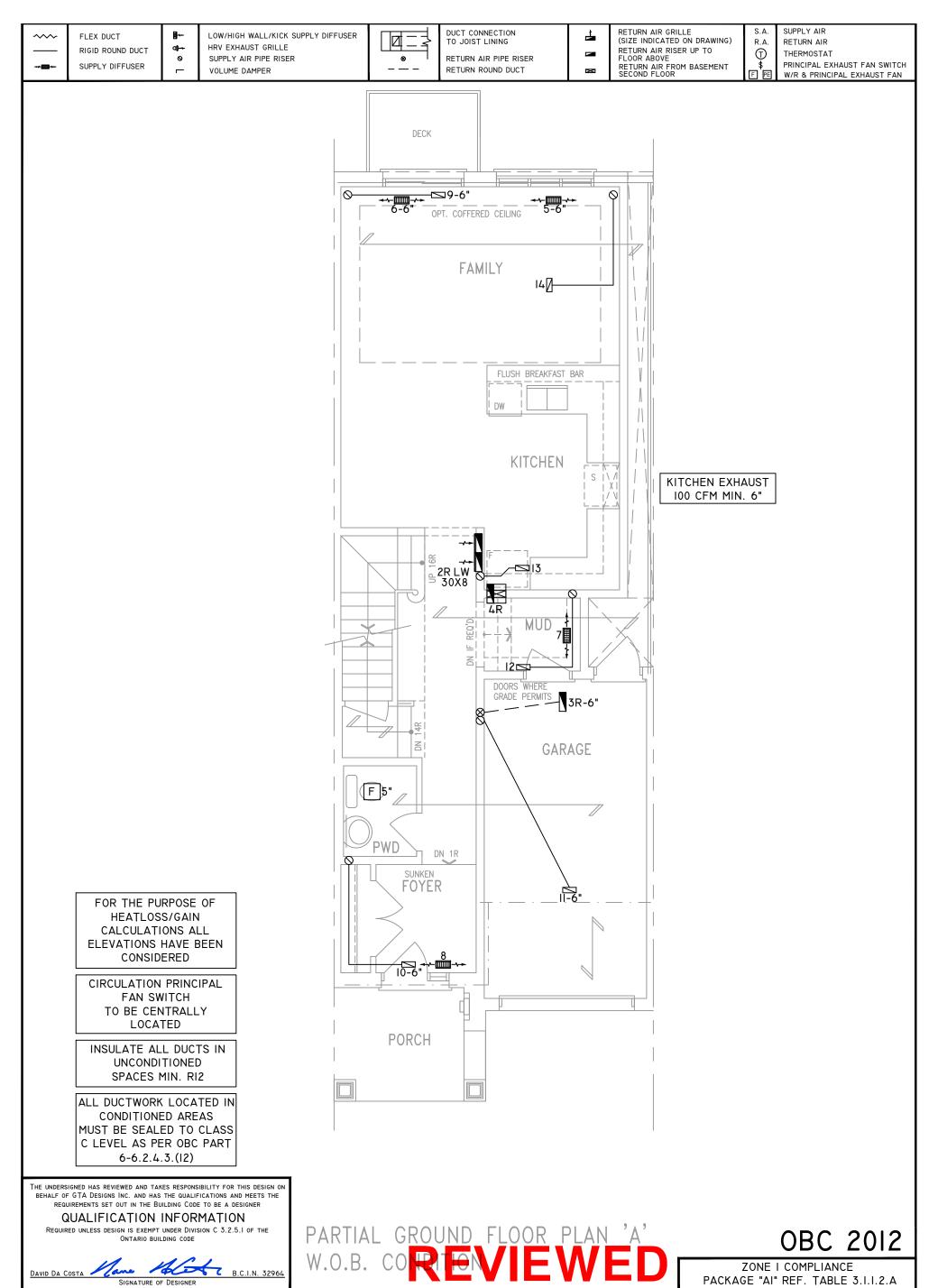
Residential Slab on Grade Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:		Ontario		
Region:		Bradford ▼		
Site Description				
Soil Conductivity:		High conductivity: moist soil ▼		
Water Table:		Normal (7-10 m, 23-33 Ft)		
	Floor D	Pimensions		
Length (m):	5.18			
Width (m):	0.61	-3		
Exposed Perimeter (m):	5.79	Insulation Configuration		
	Radi	ant Slab		
Heated Fraction of the Slab:	0			
Fluid Temperature (°C):	33			
Design Months				
Heating Month	leating Month 1			
Foundation Loads				
Heating Load (Watts):	Heating Load (Watts): 86			







♦GTADESIGNS

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

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

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

PROVIDE BALANCING DAMPERS ON ALL BRANCHES.

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

RESPONSIBILITY OF GTA DESIGNS.

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

29,234 **AMANA** AMEC960403ANA BTU/HR 40,000 38,400 TONS 1.5 772

# OF	RUNS	S/A	R/A	FANS
3RD I	FLOOR			
2ND I	FLOOR	6	2	3
IST FLOOR		4	I	2
BASEMENT		4	- 1	
FLOOR PLAN: GROUND FLOOR				
DRAWN BY:	CHECKED:	SQFT I660		0

DD

JB-04862

1660

M2

DECEMBER 12, 2023 BAYVIEW WELLINGTON MODEL: TH-I ALT WOB

GREEN VALLEY BRADFORD, ONT. 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



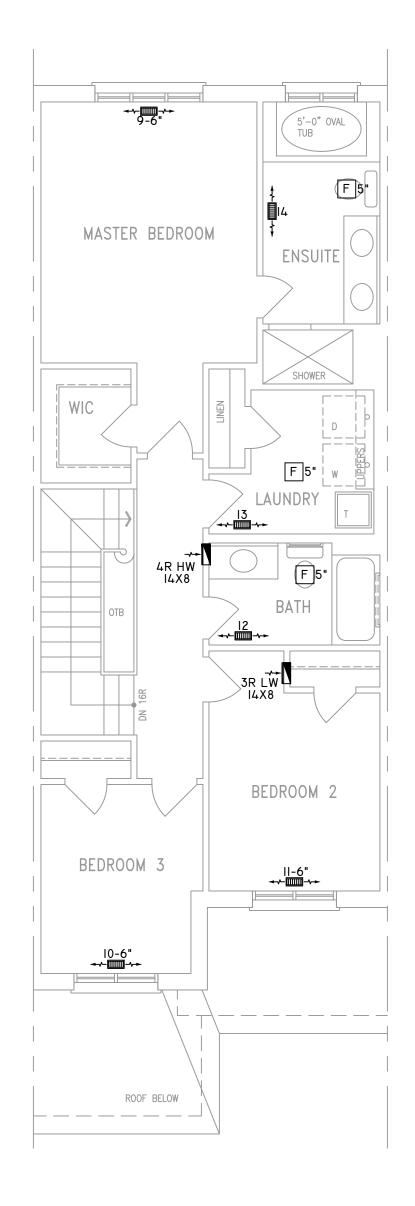
DUCT CONNECTION TO JOIST LINING RETURN AIR PIPE RISER RETURN ROUND DUCT

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



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 ONTARIO BUILDING CODE

Ane 1866 B.C.I.N. 32964

SECOND FROM VANEAWED

OBC 2012

DECEMBER 12, 2023

BAYVIEW WELLINGTON

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

29,234	
UNIT MAKE	OR EQUAL.
AMANA	
UNIT MODEL	OR EQUAL.
AMEC960403ANA	
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	I		
FLOOR PLAN: SECOND FLOOR				

SQFT

DRAWING NO.

M3

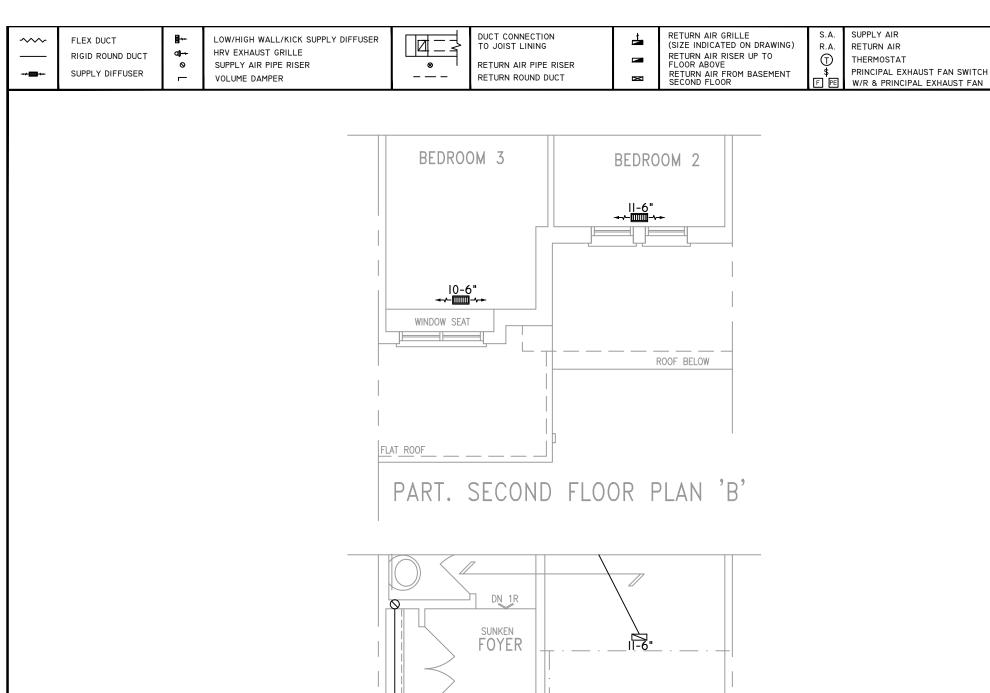
CHECKED:

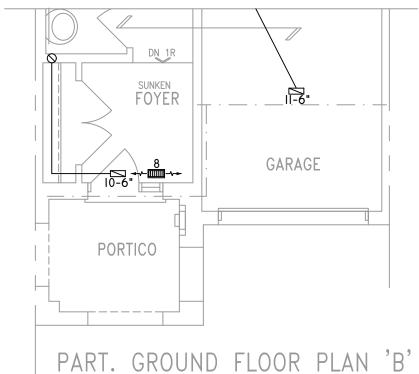
DD

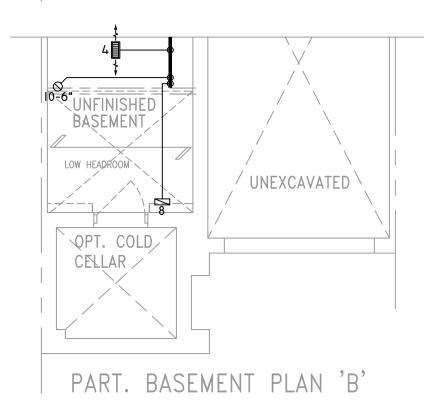
JB-04862

JL

	TH-I ALT WOB
OR	PROJECT: GREEN VALLEY
1660	BRADFORD,ONT.
IG NO. M3	SCALE: 3/16" = 1'-0"







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

ONTARIO BOLESINO COSE

DAVID DA COSTA

SIGNATURE OF DESIGNER

B.C.I.N. 32964

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

29,234	
UNIT MAKE	OR EQUAL.
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AMEC960403ANA	
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	Ī
3RD FLOOR				H
2ND FLOOR	6	2	3	
IST FLOOR	4	I	2	
BASEMENT	4	- 1		
FLOOR PLAN: PARTIAL PLAN(S)			İ	

FLOOR PLAN: PARTIAL PLAN(S)			
DRAWN BY: JL	CHECKED: DD	1660	
JB-04862		DRAWING NO. M4	

DECEMBER 12, 2023

CLIENT:
BAYVIEW WELLINGTON

MODEL:
TH-I ALT WOB

GREEN VALLEY
BRADFORD,ONT.

CALE: 3/16" = 1'-0"