

Schedule 1: Designer Information

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

A. Project Information								
Building number, street name			Lot:					
TH-			Lot/con.					
Municipality Bradford	Postal code	Plan number/ other description						
B. Individual who reviews and takes responsibility for design	gn activities	T						
Name David DaCosta		Firm	gtaDesigns Inc.					
Street address 2985 Drew Roa			Unit no.	Lot/con.				
Municipality Mississauga	Postal code L4T 0A4	Province Ontario	E-mail <u>dave@gtades</u>	igns.ca				
Telephone number	Fax number	1) 404 0643	Cell number	220				
(905) 671-9800 C. Design activities undertaken by individual identified in S	<u> </u>	') 494-9643 ilding Code Table 3	(416) 268-6 3.5.2.1 of Division C]	820				
☐ House ☒ HVAC – H	louse		☐ Building Structural					
☐ Small Buildings ☐ Building Si			☐ Plumbing – House					
☐ Large Buildings ☐ Detection,	Lighting and Po	wer	☐ Plumbing – All Buildings	S				
☐ Complex Buildings ☐ Fire Protect	ction		☐ On-site Sewage System	ns				
Description of designer's work Mod	del Certification	1	Project #:	PJ-00204				
			Layout #:	JB-04863				
Heating and Cooling Load Calculations Main Air System Design Alternate	X	Builder Project	Bayview Wellingto Green Valley Eas					
Residential mechanical ventilation Design Summary Area Sq ft:	1815		Green valley Las					
Residential System Design per CAN/CSA-F280-12		Model	TH-2					
Residential New Construction - Forced Air		SB-12	Package A1					
D. Declaration of Designer								
David DaCosta	declare that (d	choose one as appro	priate):					
(print name) I review and take responsibility for 3.2.4 Division C of the Building Cocclasses/categories. Individual BCIN:	de. I am qualified	BUILDING [on behalfpfˌʎ/iˌˈgn̞regisk d, and the-fi/m-iɛˌkegisk	BRADFORD WEST GWILD DEPARTMENT SUPPERSON SUBSECTION BURLING SUPPERSON SUPPER					
		INSPECTO	R: BG					
Firm BCIN: I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5 of Division C, of the Building Code. Individual BCIN: 32964								
	tion from registr		Division C 2 2 4 1 (4)					
·	ŭ		Division C 3.2.4.1. (4)	•				
☐ The design work is exempt from the	J		ients of the Building Code.					
Basis for exemp	tion from registr	ation and qualification:						
I certify that:	a lan a l l							
 The information contained in this schedule is true to the best of n I have submitted this application with the knowledge and consent 								
I have submitted this application with the knowledge and consent	O UIC IIIII.	1.11						
June 18, 2018		Mare B.						
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 3.2.5.0f Division C.

Schedule 1 does not require to be completed a holder of a license, temporay license, or a certificate 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

Page 2

Heat loss and gain calcul	ation summary sheet CSA-F280-M12 Standard Form No. 1								
These documents issued for the use of	ayview Wellington Layout No.								
and may not be used by any other persons without authorization. Documents	s for permit and/or construction are signed in red. JB-04863								
Building l	Location								
Address (Model): TH-2	Site: Green Valley East								
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: 1815								
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 dave@gtadesigns.ca								



Builder: Bayview Wellington

Trunk

Air System Design

June 18, 2018

Date:

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. of the Building Code.

Page 3 Project #

PJ-00204

Project: Green V	alley Ea	st		Model:			TH-	-2				Sy	stem '	1		of the Bui Individual		de. 32964	Ma	ne la	S. S.	7 [David Da	Costa		ject # yout #		-00204 -04863
DESIGN LOAD SPECIFICATION	ile.		Ī	AID DIST	DIDITIO	N & PRES	CLIDE					URNACE	Z/AID LIAN	NIDI ED I	NATA:		ľ	BOILER/W	ATED U	EATED D	ΛΤΛ.				A/C UNIT I	DATA.		
DESIGN LOAD SPECIFICATION	N3		L	AIK DIST	KIBUTIUI	N & PRES	SUKE				Ľ	UKNACE	AIK HAI	NDLEK I	JATA:		Į	BUILER/W	AIER HE	AIER D	AIA:			12	A/C UNIT I	DATA:		
Level 1 Net Load	10,147	btu/h		Equipme	nt Extern	al Static F	ressure		0.5 '	w.c.		Make		Am	ana			Make			Т	уре		,	Amana		1.5	Ton
Level 2 Net Load	9,745	btu/h		Additiona	l Equipm	ent Press	sure Drop		0.225 '	'w.c.		Model	-	AMEC96	0403ANA			Model						(Cond		1.5	
Level 3 Net Load	7,991			Available					0.275 '			nput Btu/			000			Input Btu/						(Coil		1.5	
Level 4 Net Load		btu/h				ngest Effe	ective Len	igth	300 f			Output Bt	u/h	384				Output Bt										
Total Heat Loss	27,882			R/A Pleni					0.138 '			E.s.p.		0.		" W.C.	ı	Min.Outpu	t Btu/h			WH						
Total Heat Gain	15,894			S/A Plent					0.14 '			Nater Ten	np			deg. F.	L				W2		wer DAT					
Combo System HL + 10%	30,671					roportion	•			fm/btuh		AFUE		96	<mark>%</mark>			Blower Sp	eed Sele	cted:	VV 2	•		E	Blower Ty	•	ECM	. =
Building Volume Vb Ventilation Load	20563	ft ³ Btuh.		Cooling /	Air Flow F	roportion	-			fm/btuh		Aux. Heat SB-12 Pac		Dooks	44			Haatina C	haal:	770 -				,	(Brushle			
Ventilation PVC	63.6						R/A Temp S/A Temp			deg. F. deg. F.	•	3D-12 Fau	nage	Packa	ye A i			Heating C	=	772 c				,	Cooling C	=	772	Cilli
Supply Branch and Grill Sizing		CIIII		Diffuser I	nss	0.01 '			110	леу. г.	-	Гетр. Ris	:e>>>	46	deg. F.			Selected c	fm>	772 c	fm			Cooling A	ir Flow R	ate	772	cfm
oupply I allow allo of the olig				Zuoo	-							. ор	_		aog			00.00.00					•			=		••••
-							Leve	1 1													Leve	12						
S/A Outlet No.	1	2	3	4											5	6	7	8	9									
Room Use	BASE	BASE	BASE	BASE											FAM/KIT F	AM/KIT	PWD	MUD	FOY									
Btu/Outlet	2537	2537	2537	2537											2845	2845	360	1442	2252									
Heating Airflow Rate CFM	70	70	70	70											79	79	10	40	62									
Cooling Airflow Rate CFM	37	37	37	37											108	108	2	9	39									
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	26	15	8	22											36	26	11	18	29									
Equivalent Length	110	120	100	100	70	70	70	70	70	70	70	70	70	70	100	80	90	90	110	70	70	70	70	70	70	70	70	70
Total Effective Length	136	135	108	122	70	70	70	70	70	70	70	70	70	70	136	106	101	108	139	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.10	0.10	0.12	0.11	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.10	0.12	0.13	0.12	0.09 5	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round Outlet Size	5 2×40	5 2×40	5 3x10	5 3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	6 4x10	6 4x10	3 3x10	4 3x10	5 3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	3x10 C	3x10 C	3X10 A	3X10 B	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X1U	4X10	4X10	3X1U	3X10 A	3X10 B	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10	4X10
THUIK		Ŭ					Leve	13							<u> </u>	<u> </u>					Leve	14						
S/A Outlet No.	10	11	12	13	14	15	16																					
Room Use	MAST	MAST	LAUN	BED 3	BED 2	BATH	ENS																					
Btu/Outlet	1266	1266	113	2297	2432	245	372																					
Heating Airflow Rate CFM	35	35	3	64	67	7	10																					
Cooling Airflow Rate CFM	57	57	50	100	84	3	7																					
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	49	38	42	52	40	28	18																					
Equivalent Length	130	90	160	130	130	120	140	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	179	128	202	182	170	148	158	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	0.10	0.06	0.07	0.08	0.09	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
Duct Size Round	5	5	5	6	6	2	3																					
Outlet Size	3x10	3x10	3x10	4x10	4x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	С	С	С	В	В	Α	A																					
Return Branch And Grill Sizing			Grill Pros	sure Los		0.02 '	"w c						Return Tr	unk Duc	t Sizina					9	Supply Tr	unk Duct	Sizina					
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R	_	runk			Press. F	Round	Rect. S	Size	_	runk			Press. F	Round	Rect.	Size	
Inlet Air Volume CFM	140	377	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		Orop		772	0.06	14.0	24x10		4			401	0.07	11.0	14x8	10x10	
Actual Duct Length	5	18	41	30	,							2			772	0.06	14.0	22x8	18x10				264	0.07	9.5	10x8	127	
Equivalent Length	115	125	145	140	50	50	50	50	50	50	50	١								c	;		371	0.06	11.0	14x8	10x10	
Total Effective Length	120	143	186	170	50	50	50	50	50	50	50	>	()							
Adjusted Pressure	0.10	0.08	0.06	0.07	0.24	0.24	0.24	0.24	0.24	0.24	0.24		N							E								
Duct Size Round	6.0	10.5	6.0	7.5								١	1							F	:							
Inlet Size	FLC	6	8	8								ι	J															
п п	x	x	x	x	x	x	x	x	x	x	x	1	г						•									V
Inlet Size		30	14	14								5	6															Y
												F	₹															



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

2012 OBC Project Green Valey Early E
Bush Copposed with A
Bush Copposed with A
Runt. exposed orall B Orall Services From Service
Custing Higher 3.5 AG 3.
Figure F
Exposed Filtry Filty Filtry Fil
Exposed Filtron Filtro
Gross Exp Wile A Company Com
Cross Egwins Wallest Loss Gain Los
Component Evidence Component Evidence Component Evidence Component Compone
Net Shadow 3.59 22.29 19.31
Section 1.55 2.29.5 2.
WORD Windows 3-15 22-33 20-39
WOR Windows 3-15 28-94 28-32 28-3
Saylight 22.0 46.10 88.21 275 21 427 58
Net exposed with \$1
Net exposed walls A
Net exposed Walls B 14.40 5.62 0.75
Exposed Collings A 59.22 1.37 0.64 Exposed Floors 23.90 2.73 0.17 Foundation Conductive Heat Loss 0.0750 0.0451 Air Lexklage Heat Loss 0.09 0.11 Wertilation Case 1 0.09 0.11 Heat Cash People 0.08 0.05 0.11 Heat Cash People 0.09 0.11 Heat Cash People 0.11
Exposed Flores 28-80 2.73 0.17 0.15 0.1
Comparation Conductive Heatless On Grade (or Abo 10.0 10
Total Conductive Heat Loss Heat Loss Heat Clair
Air Leskage Heat Loss Gain 0.9750 0.0461 478 34 478 34 478 34 478 34 478 34 478 34 478 34 478 34 478 34 478 34 478 34 478 34 478 478 34 34 34 34 34 34 34 3
Heat Gain
Case 1
Ventilation Case 2
Case 3 x 0.05 0.11
Heat Gain People
Appliances Loads 1=25 percent 2990 2.0 1495
Level 1 HL Total 10,147
Level 1 HL Total 10,147 Total HL for per room Total HL for per room x 1.3 10147 3049
Level 2
Run ft. exposed wall A
Run ft. exposed wall B
Celling height
Floor area 553 Area 34 Area 26 Area 82 Area Ar
Exposed Ceilings A
Exposed Ceilings B B B B B B B B B
Gross Exp Wall B Gross Exp Wall B Components R-Values Loss Gain North Shaded 3.55 22.93 10.91 East/West 3.55 22.93 20.89 Existing Windows 1.99 40.90 22.15 Skytight 2.03 40.10 88.23
Components R-Value Loss Gain Loss
Components R-Values Loss Gain Loss
North Shaded 3.55 22.93 10.91
East/West 3.55 22.93 27.35 74 1697 2024 14 321 383
South 3.55 22.93 20.89 Existing Windows 1.99 40.90 22.15 Skytight 2.03 40.10 88.23
Existing Windows 1.99 40.90 22.15 Skylight 2.03 40.10 88.23
Skylight 2.03 40.10 88.23
Doors 4.00 20.35 2.75 21 427 58 19 387 52
Net exposed walls A 17.03 4.78 0.65 436 2084 282 50 239 32 111 531 72 165 789 107
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 On Grade () or Abol x
Total Conductive Heat Loss 3781 239 958 1496
Heat Gain 2306 32 129 542
Air Leakage Heat Loss/Gain 0.4520 0.0461 1709 106 108 1 433 6 676 25
Case 1 0.04 0.11
Ventilation Case 2 14.07 11.88
Ventilation Case 2 14.07 11.88 Case 3 x 0.05 0.11 201 250 13 4 51 14 80 59
Ventilation Case 2 14.07 11.88 Case 3 x 0.05 0.11 Heat Gain People 239
Case 2
Ventilation Case 2 14.07 11.88 Case 3 x 0.05 0.11 Heat Gain People 239
Ventilation

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

Total Heat Loss 27,882 btu/h Division C subsection 3.2.5. of the Building Code. Individual BCIN: Total Heat Gain 15,894 btu/h

Man 16Cot 2

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

	Builde	r: Bayview	Wellington	Dat	te:	Ju	ne 18, 201	8	_		Weather D	ata Bradford	44	-9.4 86 22	48.2			Page 5
2012 OBC	Projec	t: Green V	alley East	Mode	el:		TH-2			System 1	Heat Los	s ^T 81.4 deg. F	Ht gain ^T	11 deg. F	GTA:	1815	Project # Layout #	PJ-00204 JB-04863
Lev			MAS	_	LAUN		BED 3	BED 2	· L	BATH	ENS	· · · · · · · · · · · · · · · · · · ·					.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Run ft. exposed w			19 A		Α	15		9 A		Α	Α	Α	Α	Α		Α		A
Run ft. exposed w			В		В		В	В		В	В	В	В	В		В		В
Ceiling h			8.0	8	B.0	8.0		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Floor	area		312 Area		58 Area	124	Area	289 Area		58 Area	137 Area	Area	Area	Area		Area		Area
Exposed Ceilir	gs A		312 A		58 A	124		289 A		58 A	137 A	Α	Α	Α		Α		A
Exposed Ceilin			В		В		В	В		В	В	В	В	В		В		В
Exposed F			18 Flr		Flr	49		155 Flr		34 Fir	27 Flr	Flr	Flr	Fir		Fir		Flr
Gross Exp W			152			120		72										
Gross Exp W	all B	es Loss Gain		Gain		Gain		Sain Loss	0-!	1 O-!		in Loss Gain	Loss	Gain Loss	0-1-			Loss Gain
North Sh			Loss 0.91	Gain	Loss (ain .	Loss	Gain Loss	Gain	Loss Gain	Loss Ga	in Loss Gain	Loss	Gain Loss	Gain	Loss (ain	Loss Gain
East/			7.35 32 734	875		33	757	903 22 504	602									
	outh 3.5		0.89	0.0		- 00		22 001	552									
Existing Wind			2.15															
	light 2.0	3 40.10 88	3.23															
D	oors 4.0		2.75															
Net exposed wa			0.65 120 574	78		87	416	56 50 239	32									
Net exposed wa			1.29															
Exposed Ceilir			0.64 312 429	200	58 80	37 124	170	80 289 397	185	58 80 3	7 137 188	88						
Exposed Ceilir			1.66									_						
Exposed F		30 2.73 ().17 18 49	3		49	134	8 155 423	26	34 93	6 27 74	5						
Foundation Conductive Heatle			1785		80		1477	1564		173	262							
Total Conductive Heat			1703	1156	00	37	14//	1047	846		13	92						
Air Leakage Heat Loss		0.3653 0.0	461 652		29	2	540	48 571			2 96	4						
	se 1		0.11			_												
	se 2		1.88															
	se 3 x	0.05	0.11 95	125	4	4	79	114 83	92	9	5 14	10						
Heat Gain Pe	ople		239 2	478		1		239 1	239									
Appliances L			990	1	1.0	747												
Duct and Pipe	loss		10%			1	202	129 1 214										
Level 3 HL Total 7,991 Level 3 HG Total 7,357	_	Total HL for per ro otal HG per room x		2357	113	1027	2297	2049	1721	245	372	139						
Lev																		
Run ft. exposed v	all A		A		A		A	A		A	A	A	A	A		A		Α
Run ft. exposed w Run ft. exposed w	all A		A B		A B		A B	А В		A B	A B	A B	A B	A B		A B		А В
Run ft. exposed w Run ft. exposed w Ceiling h	all A all B eight		В		В		В	В		В	В	В	В	В		В		В
Run ft. exposed w Run ft. exposed w Ceiling h Floor	all A all B eight area		B Area		B Area		B Area	B Area		B Area	B Area	B Area	B Area	B Area		B Area		B Area
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir	all A all B eight area gs A		B Area A		B Area A		B Area A	В		B Area A	B Area A	B Area A	B Area A	B Area A		B Area A		B Area A
Run ft. exposed w Run ft. exposed w Ceiling h Floor	all A all B eight area gs A gs B		B Area		B Area		B Area	B Area A		B Area	B Area	B Area	B Area	B Area		B Area		B Area
Run ft. exposed w Run ft. exposed w Ceiling h Exposed Ceilin Exposed Ceilin	all A all B sight area gs A gs B pors		B Area A B		B Area A B		B Area A B	B Area A B		B Area A B	B Area A B	B Area A B	B Area A B	B Area A B		B Area A B		B Area A B
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Gross Exp W Gross Exp W	all A all B eight area gs A gs B cors all A		B Area A B Fir		B Area A B Fir		B Area A B	B Area A B		B Area A B	B Area A B	B Area A B	B Area A B	B Area A B		B Area A B		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed F Gross Exp W Gross Exp W Compor	all A all B eight area gs A gs B cors all A all B ents R-Value		B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir	B Area A B	Gain	B Area A B	B Area A B	B Area A B Fir	B Area A B Fir	B Area A B	Gain	B Area A B Fir		B Area A B
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed F Gross Exp W Compor	all A all B eight area gs A gs B oors all A all B ents R-Value ded 3.5	55 22.93 10	Area A B Fir	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Ceilir Gross Exp W Gross Exp W Compo North Sh	all A all B eight area gs A gs B cors all A all B eents R-Value dded 3.5	55 22.93 10 55 22.93 27	Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Fi Gross Exp W Gross Exp W Compor	all A all B eight area ggs A ggs B soors all A all B ents R-Value dded 3.5 Vest 3.5 outh 3.5	55 22.93 10 55 22.93 27 55 22.93 20	Area A B Fir Loss 0.91	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed F Gross Exp W Gross Exp W Compo North Sh East/	all A all B eight area gs A gs B oors all A all B ents R-Value ded 3.5 Vest 3.5 ows 1.5	35 22.93 10 35 22.93 27 35 22.93 20 39 40.90 22	Area A B Fir Loss 0.91	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Ceilir Exposed Fi Gross Exp W Gross Exp W Compon North Sh East/ Existing Wint Sky	all A all B light area gs A gs B poors all A all B ents R-Value ded 3.5 Vest 3.5 ows 1.5 ows 1.9	55 22.93 10 55 22.93 25 55 22.93 20 99 40.90 22 93 40.10 86	B Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Fi Gross Exp W Gross Exp W Compor North Sh East/ S Existing Win	all A all B sight area gs A gs B cors all A all B ents R-Value dded 3.5 Vest 3.5 outh 3.5 outh 2.0 cors 4.0 cors	55 22.93 10 55 22.93 20 55 22.93 20 55 22.93 20 69 40.90 22 60 20.35 2	B Area A B Flr Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Ceilir Exposed F Gross Exp W Gross Exp W Compo North Sh East/ S Existing Win Sky D Net exposed w	all A all B bight area gs A gs A gos B coors all A ents R-Value ded 3.5 Vest 3.5 ows 1.5 iight 2.0 olds A 1.5 iight 1.5 iight 2.1 iight 2.1 iight 2.1 iight 3.5 iight 3.5 iight 3.5 iight 3.5 iight 3.7 iight 3.5 iight 3.5	55 22.93 10 55 22.93 25 55 22.93 26 59 40.90 25 13 40.10 80 10 20.35 20 13 4.78 0	B Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Ceilir Exposed Fi Gross Exp W Gross Exp W Compor North Sh East/ S Existing Win Sky D Net exposed we Net exposed w	all A all B	55 22.93 10 55 22.93 25 55 22.93 26 99 40.90 22 131 40.10 88 100 20.35 25 133 4.78 66 100 9.58	Area A B Fir Loss 1.335 1.89 1.23 1.75 1.23 1.29	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Ceilir Exposed F Gross Exp W Gross Exp W Compo North Sh East/ S Existing Win Sky D Net exposed w	all A all B all B all B sight area gs A gs A gs A gs B soors all A all B soors	55 22.93 10 55 22.93 25 55 22.93 26 56 22.93 26 19 40.90 25 10 20.35 26 10 9.58 26 11 37 66	B Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Fi Gross Exp W Gross Exp W Compor North Sh East/ S Existing Win Sky D Net exposed w Net exposed w Exposed Ceilir Exposed Ceilir	all A all B all B area area area area area area area are	55 22.93 10 55 22.93 27 55 22.93 27 55 22.93 27 56 22.93 27 57 20.93 20 58 40.90 22 58 40.90 20 58 40	B Area A B Flr Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Fi Gross Exp W Compor North 5h East/ S Existing Wini Sky D Net exposed w Net exposed w Exposed Ceilir Exposed Ceilir Exposed Ceilir	all A all B and B	55 22.93 10 55 22.93 27 55 22.93 27 55 22.93 27 56 22.93 27 57 20.93 20 58 40.90 22 58 40.90 20 58 40	B Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed F Gross Exp W Gross Exp W Compo North Sh East/ S Existing Win Sky D Net exposed w Exposed Ceilir Exposed Ceilir	all A all B all B all B gight area grs A grs B grs A grs B grs A all B a	55 22.93 10 55 22.93 27 55 22.93 27 55 22.93 27 56 22.93 27 57 20.93 20 58 40.90 22 58 40.90 20 58 40	B Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Fi Gross Exp W Gross Exp W Compor North Sh Esast/ S Existing Win Sky D Net exposed w Net exposed w Exposed Ceilir Exposed Ceilir Exposed Ceilir Exposed Ceilir Exposed Foundation Conductive Heatlo Total Conductive Heat	all A all B all B gs A	155 22.93 10 155 22.93 21 155 22.93 21 156 22.93 21 159 40.90 22 151 40.90 22 15	B Area A B Fir Loss 1.91 1.91 1.91 1.91 1.91 1.91 1.91 1.	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed F Gross Exp W Gross Exp W Compor North Sh East/ S Existing Win Sky D Net exposed w Net exposed w Exposed Ceilir Exposed Ceilir Exposed Ceilir Exposed T Foundation Conductive Heatlo Total Conductive Air Leakage Heat Loss.	all A all B all B all B all B gight area ggs A ggs B soors all B a	55 22.93 10 55 22.93 21 55 22.93 21 99 40.90 22 33 40.10 33 40.10 33 4.78 6 60 9.58 7 60 2.73 6 60 2.73 6	B Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceiling Exposed Ceiling Exposed Ceiling Exposed F Gross Exp W Compon North Sh East/ S Existing Wine Sky D Net exposed Geilin Exposed Geilin Exposed F Foundation Conductive Heatto Total Conductive Heat Air Leakage Heat Loss.	all A all B all B all B gight area gs A	155 22.93 10 155 22.93 22 157 22.93 22 159 40.90 22 131 40.10 33 14.78 0 101 20.35 1 102 20.35 1 103 4.78 0 104 20.35 1 105 20.35 1 106 3.56 1 107 2.73 0 108 2.73 0 109 2.7	B Area A B Fir Loss 1.91 1.325 1.89 1.223 1.75 1.64 1.66 1.17 1.11	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Floor Exposed Ceiling h Exposed Ceiling Exposed Ceiling Exposed Ceiling Exposed Fi Gross Exp W Gross Exp W Compor North Sh Existing Win Sky Existing Win Net exposed w Net exposed w Exposed Ceilin Exposed Ceilin Exposed Ceilin Exposed Ceilin Exposed Foundation Conductive Heatlo Total Conductive Heat Air Leakage Heat Loss Ventilation C. C. Ventilation C.	all A all B all B area area area area area area area are	55 22.93 10 55 22.93 21 55 22.93 22 55 22.93 22 59 40.90 22 50 20.35 22 50 9.58 62 50 9.58 62 50 9.58 62 50 9.58 63 50 9.58 64 50 9.58 66 50 9.	Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Run ft. exposed v Floor Exposed Ceilin Exposed Ceilin Exposed Ceilin Exposed F Gross Exp W Gross Exp W Compor North Sh East/ S Existing Win Sky D Net exposed w Net exposed w Ret exposed Ceilin Exposed Ceilin Exposed Ceilin Exposed Ceilin Exposed Ceilin Exposed Heat Air Leakage Heat Loss Ventilation C, C	all A all B all B all B all B all B graph graph graph graph all B	155	B Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Floor Exposed Ceiling Exposed Ceiling Exposed Ceiling Exposed Ceiling Exposed F Gross Exp W Gross Exp W Compor North Sh East/ S Existing Winn Sky Net exposed W Exposed Ceiling Exposed Ceiling Exposed Ceiling Exposed Ceiling Exposed Ceiling Exposed Ceiling Exposed F Foundation Conductive Heatto Total Conductive Heat Air Leakage Ventilation C. C. C. C. C.	all A all B all B all B gs A	155	Area A B Fir Loss	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilir Exposed Ceilir Exposed Fi Gross Exp W Gross Exp W Compor North Sh Esstring Win Sky D Net exposed w Exposed Geilir Exposed Geilir Exposed Ceilir Exposed Ceilir Exposed Ceilir Exposed Fi Foundation Conductive Heatlo Total Conductive Air Leakage Heat Loss Ventilation C C Heat Gain Pe Appliances L	all A all B all B area area ags A gs A all B area area gs A all B all A all B all A all B area all B area all A all B area all B a	55 22.93 10 55 22.93 21 55 22.93 21 55 22.93 21 99 40.90 2: 13 40.10 31 10 20.35 32 13 4.78 60 10 2.35 62 10 2.73 60 10 2.73 60 10 2.73 60 114.07 11 10.05 66	B Area A B Fir Loss 1.031 1.335 1.89 1.23 1.75 1.66 1.17 1.11 1.88 1.11 1.88 1.11 1.88 1.11 1.88 1.11 1.89	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Ceiling h Floor Exposed Ceilin Exposed Ceilin Exposed Ceilin Exposed F Gross Exp W Compor North Sh East/ S Existing Win Sky D Net exposed W Exposed Ceilin Exposed Geilin Exposed Ceilin Exposed Ceilin Exposed Ceilin Conductive Heatio Total Conductive Heatio Total Conductive Heat Geil Air Leakage Heat Loss Ventilation Code Heat Gain Pe Appliances Level 4 HL Total Level 4 HL Total	all A all B all B all B all B area area ags A gs A gs A gs B all A all B all B all B all A all B all B all A all B	55 22.93 10 55 22.93 21 55 22.93 22 55 22.93 21 99 40.90 22 100 20.35 21 100 20.35	Area A B Fir Loss 3.91 3.35 3.89 3.89 3.89 3.87 3.15 3.17 3.17 4.11 4.11 4.11 4.11 4.11 4.11 4.11 4	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir
Run ft. exposed w Run ft. exposed w Run ft. exposed w Run ft. exposed w Celling h Floor Exposed Cellir Exposed Cellir Exposed Cellir Exposed F Gross Exp W Gross Exp W Gross Exp W Existing Win Sky Charles Cellir Exposed Cellir Exposed Cellir Exposed Cellir Exposed Cellir Exposed Cellir Exposed F Exposed	all A all B all B all B all B area area ags A gs A gs A gs B all A all B all B all B all A all B all B all A all B	55 22.93 10 55 22.93 21 55 22.93 22 99 40.90 22 33 40.10 33 34.78 6 10 20.35 6 10 2.73	Area A B Fir Loss 3.91 3.35 3.89 3.89 3.89 3.87 3.15 3.17 3.17 4.11 4.11 4.11 4.11 4.11 4.11 4.11 4	Gain	B Area A B Fir		B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	B Area A B Fir	Gain	B Area A B Fir		B Area A B Fir

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

Total Heat Loss 27,882 btu/h
Total Heat Gain 15,894 btu/h

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

Mane Alexa

David DaCosta

SB-12 Package Package A1



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 Layout # JB-04863 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 Mare Alet David DaCosta Package: Package A1 Project: **Bradford** Model: TH-2 RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY For systems serving one dwelling unit & conforming to the Ontario Building Code, O.reg 332/12 Location of Installation **Total Ventilation Capacity 9.32.3.3(1)** Lot # Plan # Bsmt & Master Bdrm 2 @ 21.2 cfm 42.4 cfm Township Other Bedrooms @ 10.6 cfm 21.2 cfm Bradford Bathrooms & Kitchen 4 @ 10.6 cfm 42.4 cfm Other rooms Roll# Permit # @ 10.6 cfm 31.8 cfm Total 137.8 Address

	Builder	
Name		
	Bayview Wellington	
Address		
City		
Tel	Fax	

	Installing Contractor	
Name		
Address		
City		
Tel	Fax	

	Combustion Appliances 9.32.3.1(1)									
a)	Х	Direct vent (sealed combustion) only								
b)		Positive venting induced draft (except fireplaces)								
c)		Natural draft, B-vent or induced draft fireplaces								
d)		Solid fuel (including fireplaces)								
e)		No combustion Appliances								
ĺ		''								

Heating System									
	X	Forced air Non forced air Electric space heat (if over 10% of heat load)							

	House Type 9.32.3.1(2)									
ı	Х	Type a) or b) appliances only, no solid fuel								
H		Type I except with solid fuel (including fireplace)								
Ш		Any type c) appliance								
IV		Type I or II either electric space heat								
Other		Type I, II or IV no forced air								

	System Design Option									
1		Exhaust only / forced air system								
2		HRV WITH DUCTING / forced air system								
3	Х	HRV simplified connection to forced air system								
4		HRV full ducting/not coupled to forced air system								
		Part 6 design								

Principal Ver	ntilation C	apa	city 9.	32.3.	4(1)	
Master bedroom Other bedrooms	1 2	_	31.8 15.9 Total		31.8 31.8 63.6	

Principal Exhaust Fan Capacity									
Make Model Location									
LifeBreath	RNC155	Base							
132 cfm		Sones	or Equiv.						

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

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

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

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

Designer Certification I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.						
Name	David Da	Costa				
Signature	Hans	166A-				
HRAI#	5190	BCIN#	32964			
Date	June 18,	2018	OPY			

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

Page 7

Project # PJ-00204 Layout # JB-04863

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	oal Author	ity				
Application No:					Model/Certification Number					
A. Project Information					ı					
Building number, street name							Unit numb	er	Lot/Con	
			TH-2	2						
Municipality Bradford			Postal co	de	Reg. Plan	number / oth	ner descrip	tion		
B. Prescriptive Compliance [indica	ate the bu	ilding cod	e complia	nce packa	ge being (employed in	the house	design]		
SB-12 Prescriptive (input design pa	ickage):			Pack	age A1			Table:	3.1.1.2.	<u>A</u>
C. Project Design Conditions										
Climatic Zone (SB-1):		Heat. E	quip. Ef	ficiency			Spac	e Heating F	uel Sourc	e
✓ Zone 1 (< 5000 degree days)		√ ≥ 92	2% AFUE		V	Gas		Propane		Solid Fuel
Zone 2 (≥ 5000 degree days)		□ ≥8	34% < 929	% AFUE		Oil		Electric		Earth Energy
Ratio of Windows, Skylights & Glas	s (W, S	& G) to \	Wall Are	а			Other I	Building Ch	aracteris	tics
Anna of Walls 275 77 72 27 2000 4	412				☐ Log/l	Post&Beam		ICF Above	Grade	☐ ICF Basement
Area of Walls = <u>275.77</u> m ² or <u>2968.4</u>	ft²	W,S &	.G % =	<u>7%</u>	☐ Slab	-on-ground	П	Walkout Ba	sement	
					☑ Air C	onditioning	П	Combo Unit	t	
Area of W, S & G = <u>18.116</u> m ² or <u>195.0</u>	ft²	Utilize \	Vindow	ndow Yes Air Sourced Heat F			t Pump (A	SHP)		
		Avera	Averaging 🗵 No 🔲 Ground Source Heat Pump (GSHP)							
D. Building Specifications [provide	e values a	nd ratings	s of the er	nergy effici	ency com	ponents prop	oosed]			
Energy Efficiency Substitutions										
☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))										
☐ Combined space heating and domestic	water he	eating syst	tems (3.1.	.1.2(7) / 3.	1.1.3.(7))					
☐ Airtightness substitution(s)		Table 3.1	1.1.4.B	Required:				Permitted S	Substitution	1:
Airtightness test required		Table 3.1	1110	Required:				Permitted S	Substitution	1:
(Refer to Design Guide Attached)		Table 3.		Required:				Permitted S	Substitution	n:
Building Component			SI/R-Valu n U-Valu			Buile	ding Con	nponent		Efficiency Ratings
Thermal Insulation	Non	ninal	Effe	ctive	Windo	vs & Doo	rs Provide	e U-Value ⁽¹⁾ o	r ER rating	,
Ceiling with Attic Space	6	0			Window	s/Sliding G	lass Doo	rs		1.6
Ceiling without Attic Space	3	1			Skylight	S				2.8
Exposed Floor	3	1			Mechai	nicals				
Walls Above Grade	22				Heating	Equip.(AFL	JE)			96%
Basement Walls		20.0ci			HRV Eff	iciency (SR	E% at 0°C	C)		75%
Slab (all >600mm below grade)		x				eater (EF)				0.80
Slab (edge only ≤600mm below grade)	1	0			DWHR	(CSA B55.1	(min. 42%	efficiency))		#Showers 2
Slab (all ≤600mm below grade, or heated)	1	0			Combine	ed Heating	System			
(1) U value to be provided in either W/(m²·K) or Bt	u/(h·ft·F) l	out not bot	th.							•
E. Designer(s) [name(s) & BCIN(s), if	applicable	e, of perso	on(s) prov	iding infor	mation he	rein to subst	antiate tha	at design mee	ts building	code]
Name				BCIN		Signature				
David DaCosta				329	964			Jane	14C=	/ -
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-04863

Package: Package A1 System 1 System: Project: **Bradford** Model: TH-2 Air Leakage Calculations **Building Air Leakage Heat Loss Building Air Leakage Heat Gain** В LRairh Vb **HLleak** В LRairh Vb HG^T **HG** Leak 0.018 0.324 20563 81.4 9755 0.018 0.079 20563 11 321 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 0.9750 1.0 0.5 Level 1 0.5 5003 0.6 0.4 Level 2 0.4520 6474 0.3 0.3 0.4 0.3 9755 0.3653 Level 3 5341 0.2 0 0.0000 Level 4 0 0.1 Air Leakage Heat Gain Levels this Dwelling **HG LEAK** 321 0.0461 3 **BUILDING CONDUCTIVE HEAT GAIN** 6967 **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 0.11 Building 6967 5003 Level 1 0.5 0.09 Level 2 0.3 6474 0.04 895 5341 Level 3 0.2 0.03 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) **HLbvent** Multiplier Vent Heat Gain Multiplier **HGbvent** HG*1.3 **Total Ventilation Load** 0.05 756 0.11 756 Foundation Conductive Heatloss Level 1 1207 Watts 4117 Btu/h

32964

Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

Weather Station	Description
Province:	Ontario
Region:	Bradford ▼
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10
Local Shiel	ding
Building Site:	Suburban, forest
Walls:	Heavy ▼
Flue:	Heavy ▼
Highest Ceiling Height (m):	6.55
Building Config	guration
Туре:	Semi-Detached
Number of Stories:	Two
Foundation:	Shallow
House Volume (m³):	582.33
Air Leakage/Ve	entilation
Air Tightness Type:	Present (1961-) (ACH=3.57)
	ELA @ 10 Pa. 322.44 cm²
Custom BDT Data:	3.57 ACH @ 50 Pa
Mechanical Ventilation (L/s):	Total Supply: Total Exhaust:
, ,	31.8
Flue #:	#1 #2 #3 #4
Diameter (mm):	0 0 0 0
Heating Air Leakage Rate (ACH/H):	0.324
Cooling Air Leakage Rate (ACH/H):	0.079

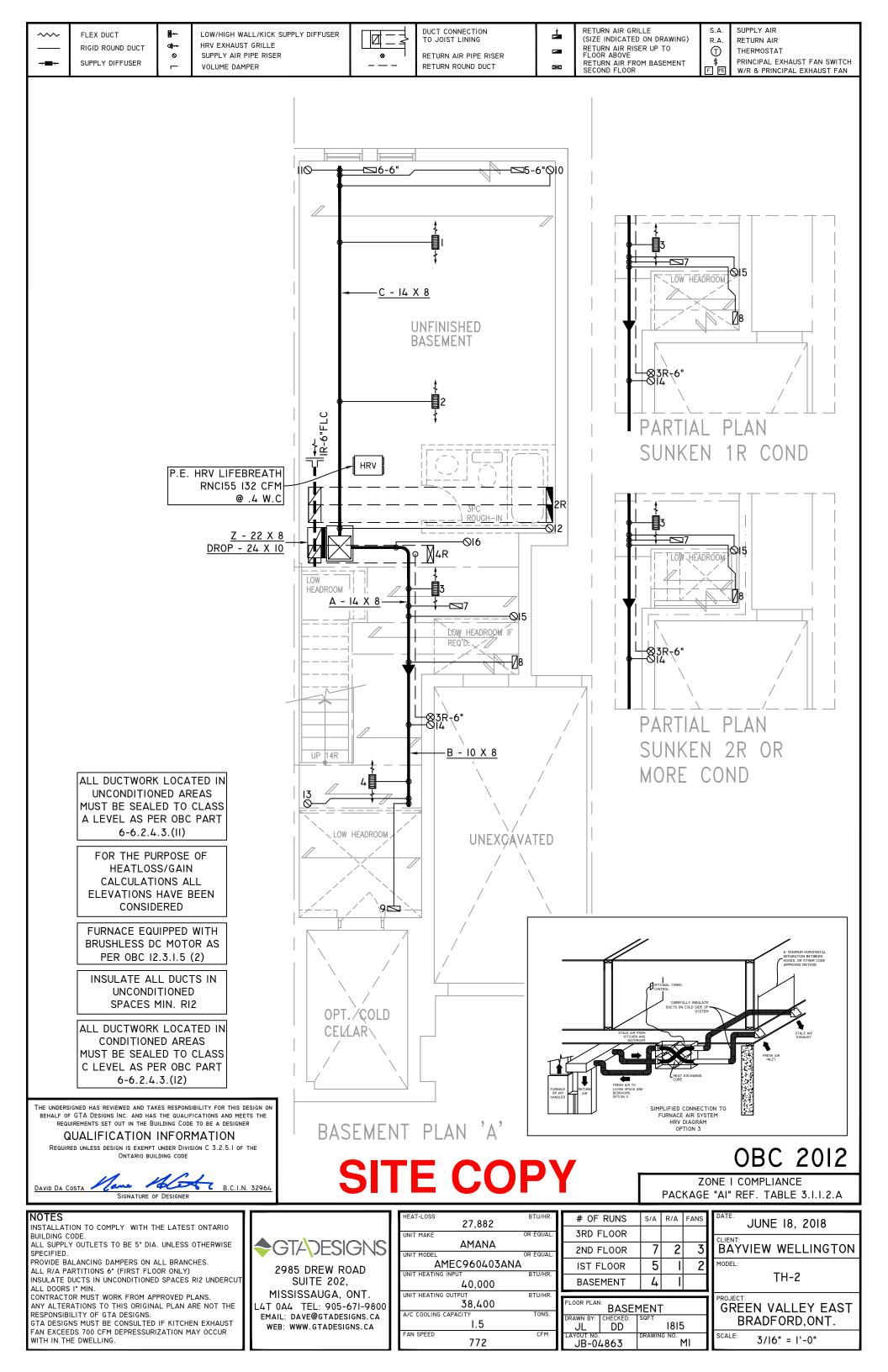
SITE COPY

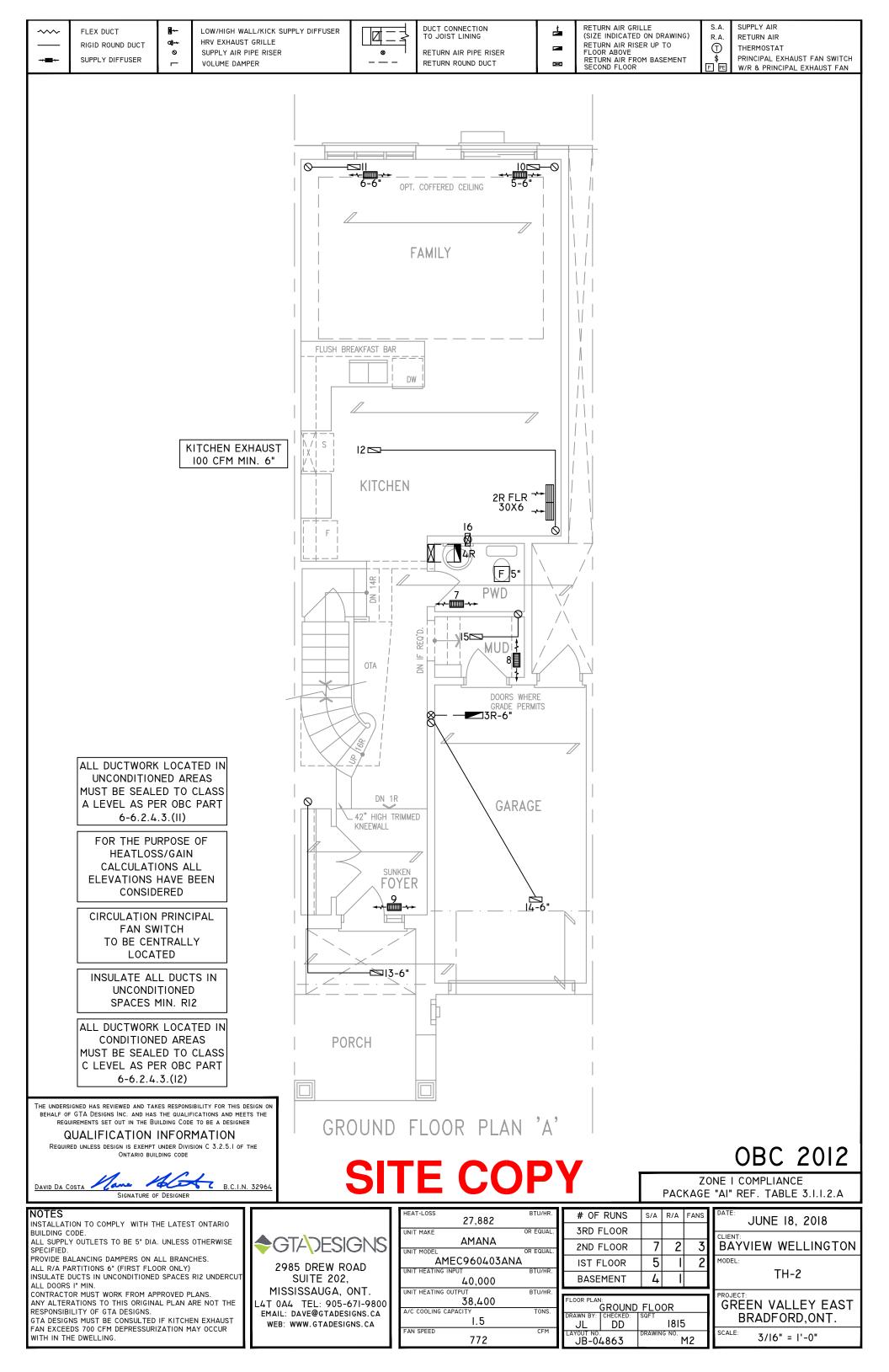
Residential Foundation Thermal Load Calculator

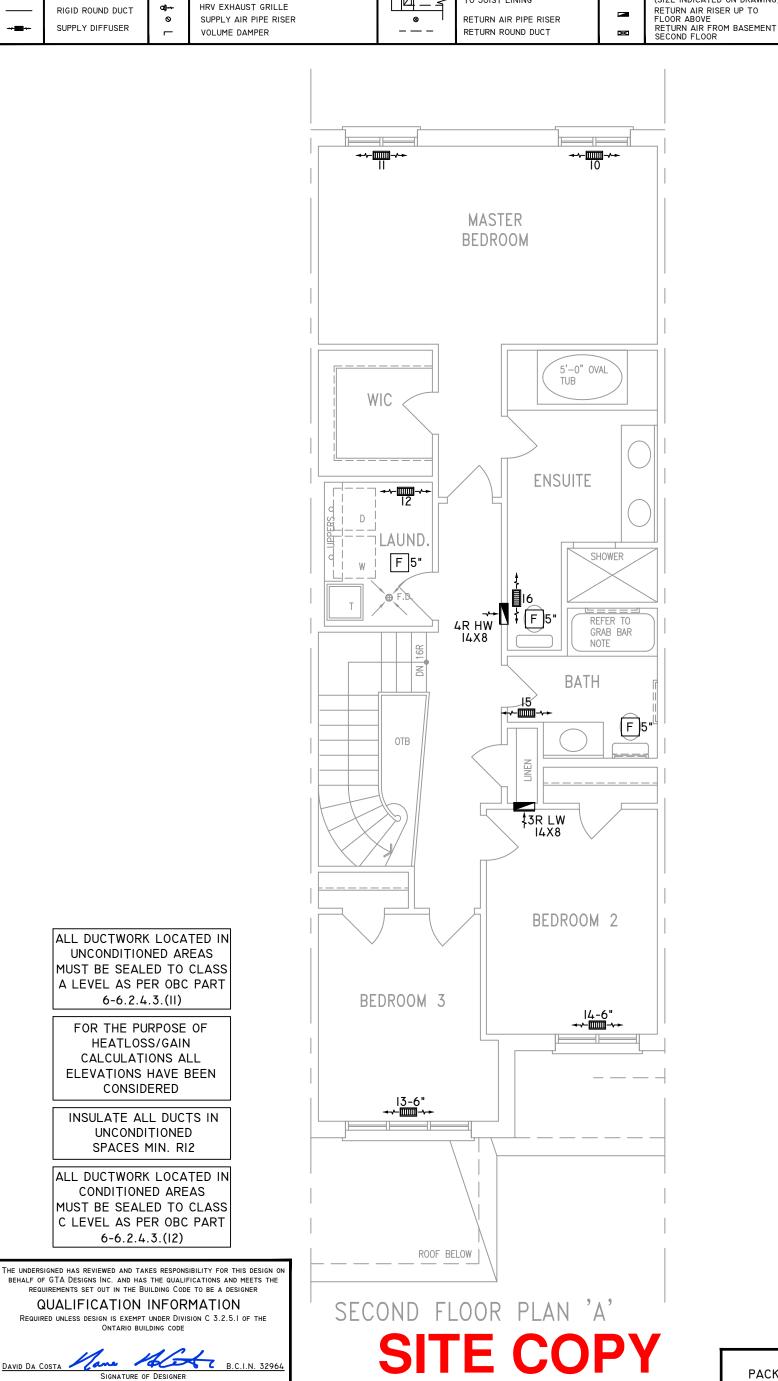
Supplemental tool for CAN/CSA-F280

Weather Station Description							
Province:		Ontario					
Region:		Bradford					
	Site D	escription					
Soil Conductivity:		High conductivity: moist soil ▼					
Water Table:		Normal (7-10 m, 23-33 Ft) ▼					
Foundation Dimensions							
Floor Length (m):	16.61						
Floor Width (m):	3.81						
Exposed Perimeter (m):	25.60						
Wall Height (m):	2.59						
Depth Below Grade (m):	1.52	Insulation Configuration					
Window Area (m²):	1.86						
Door Area (m²):	1.95						
	Radi	ant Slab					
Heated Fraction of the Slab:	0						
Fluid Temperature (°C):	33						
	Desig	n Months					
Heating Month	1						
	Founda	ation Loads					
Heating Load (Watts):		1207					









LOW/HIGH WALL/KICK SUPPLY DIFFUSER

FLEX DUCT

OBC 2012

JUNE 18, 2018

BAYVIEW WELLINGTON

ZONE I COMPLIANCE PACKAGE "AI" REF. TABLE 3.1.1.2.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 RIZ 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: 905-671-9800 EMAIL: DAVE@GTADESIGNS.CA WEB: WWW.GTADESIGNS.CA

27,882	5 (5 / 1 / 1 / 1
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	7	2	3
IST FLOOR	5	_	2
BASEMENT	4	1	
FLOOR PLAN: SECOND F	FI ()()R	

RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)

4

SUPPLY AIR

RETURN AIR

THERMOSTAT

PRINCIPAL EXHAUST FAN SWITCH

R.A

1

DUCT CONNECTION TO JOIST LINING

MODEL:	2		5	FLOOR	IST F
TH-2		I	4	MENT	BASE
PROJECT: GREEN VALLEY EAST		OR	FLO	SECOND	
BRADFORD,ONT.	5	1815	SQFT	CHECKED: DD	RAWN BY:
SCALE: 3/16" = 1'-0"	13		DRAWIN		JB-04

