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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: **Castello 1** **S50-1 Lot 187**		Lot:	187
		Lot/con.	
Municipality: **Bradford**	Postal code:	Plan number/ other description:	

B. Individual who reviews and takes responsibility for design activities

Name: **David DaCosta**		Firm: **gtaDesigns Inc.**	
Street address: **2985 Drew Road, Suite 202**		Unit no.	Lot/con.
Municipality: **Mississauga**	Postal code: **L4T 0A4**	Province: **Ontario**	E-mail: ddacosta@gtadesigns.ca
Telephone number: **(905) 671-9800**	Fax number: **(647) 494-9643**	Cell number: **(416) 268-6820**	

C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 of Division C]

☐ House	☒ HVAC – House	☐ Building Structural
☐ Small Buildings	☐ Building Services	☐ Plumbing – House
☐ Large Buildings	☐ Detection, Lighting and Power	☐ Plumbing – All Buildings
☐ Complex Buildings	☐ Fire Protection	☐ On-site Sewage Systems

Description of designer's work — **Model Certification**

Project #: **PJ-00041**

Layout #: **JB-05330**

Heating and Cooling Load Calculations	**Main**	**X**	Builder	**Bayview Wellington**
Air System Design	**Alternate**		Project	**Green Valley Estates**
Residential mechanical ventilation Design Summary	**Area Sq ft:**	**3762**	Model	**Castello 1** **S50-1 Lot 187**
Residential System Design per CAN/CSA-F280-12				
Residential New Construction - Forced Air			SB-12	**Package A1**

D. Declaration of Designer

I David DaCosta declare that (choose one as appropriate):

(print name)

☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 Division C of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual BCIN: _____

Firm BCIN: _____

☒ 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**

Basis for exemption from registration: **Division C 3.2.4.1. (4)**

☐ The design work is exempt from the registration and qualification requirements of the Building Code.

Basis for exemption from registration and qualification:

RECEIVED
Planning & Development Services
DEC 14 2018

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. I have submitted this application with the knowledge and consent of the firm.

November 15, 2018 — Date

Signature of Designer

NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d), of Division C, Article 3.2.5.1. of Division C and all other persons who are exempt from qualifications under Subsections 3.2.4 . and 3.2.5.of Division C.
2. Schedule 1 does not require to be completed a holder of a license, temporay license, or a certificate of authorization, issed by the Ontario Associstion 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.

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

Heat loss and gain calculation summary sheet

CSA-F280-M12 Standard Form No. 1

These documents issued for the use of **Bayview Wellington**

and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.

Layout No. **JB-05330**

Building Location

Address (Model):	**S50-1 Lot 187**	Site:	**Green Valley Estates**
Model:	**Castello 1**	Lot:	**187**
City and Province:	**Bradford**	Postal code:	

Calculations based on

Dimensional information based on:			**VA 3 Design2/Nov/2018**		
Attachment:	**Detached**		Front facing:	**East/West**	Assumed? **Yes**
No. of Levels:	**4**	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: **6**
Sensible Eff. at -25C	**71%**	Apparent Effect. at -0C **84%**	Units:	**Imperial**	Area Sq ft: **3762**
Sensible Eff. at -0C	**75%**				

Heating design conditions				Cooling design conditions			
Outdoor temp **-9.4**	Indoor temp: **72**	Mean soil temp **48**		Outdoor temp **86**	Indoor temp: **75**	Latitude: **44**	

Above grade walls		Below grade walls	
Style A: **As per OBC SB12 Package A1**	**R 22**	Style A: **As per OBC SB12 Package A1**	**R 20ci**
Style B: **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/Gain Caculations based on CSA-F280-12 Effective R-Values**

Notes: **Residential New Construction - Forced Air**

Calculations performed by

Name:	**David DaCosta**	Postal code:	**L4T 0A4**
Company:	**gtaDesigns Inc.**	Telephone:	**(905) 671-9800**
Address:	**2985 Drew Road, Suite 202**	Fax:	**(416) 268-6820**
City:	**Mississauga**	E-mail	**ddacosta@gtadesigns.ca**

GTADESIGNS — Air System Design

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

SB-12 Package A1

Builder: Bayview Wellington | Date: November 15, 2018

Project: Green Valley Estates | Model: Castello 1 S50-1 Lot 187

System 1

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code.
Individual BCIN: 32964 David DaCosta

Project # PJ-00041
Layout # JB-05330

DESIGN LOAD SPECIFICATIONS

Level 1 Net Load	19,169 btu/h
Level 2 Net Load	24,887 btu/h
Level 3 Net Load	12,075 btu/h
Level 4 Net Load	8,052 btu/h
Total Heat Loss	64,183 btu/h
Total Heat Gain	37,391 btu/h
Combo System HL + 10%	70,601 Btuh.
Building Volume Vb	44706 ft³
Ventilation Load	1,610 Btuh.
Ventilation PVC	95.4 cfm
Supply Branch and Grill Sizing	

AIR DISTRIBUTION & PRESSURE

Equipment External Static Pressure	0.5 "w.c.
Additional Equipment Pressure Drop	0.225 "w.c.
Available Design Pressure	0.275 "w.c.
Return Branch Longest Effective Length	300 ft
R/A Plenum Pressure	0.138 "w.c.
S/A Plenum Pressure	0.14 "w.c.
Heating Air Flow Proportioning Factor	0.0258 cfm/btuh
Cooling Air Flow Proportioning Facter	0.0442 cfm/btuh
R/A Temp	70 deg. F.
S/A Temp	124 deg. F.
Diffuser loss	0.01 "w.c.

FURNACE/AIR HANDLER DATA:

Make	Amana
Model	GMEC96-1004CNA
Input Btu/h	100000
Output Btu/h	96000
E.s.p.	0.50 " W.C.
Water Temp	deg. F.
AFUE	96%
Aux. Heat	
SB-12 Package	Package A1
Temp. Rise>>>	54 deg. F.

BOILER/WATER HEATER DATA:

Make Type

Model

Input Btu/h

Output Btu/h

Min.Output Btu/h AWH

A/C UNIT DATA:

Amana 3.5 Ton
Cond.---------- 3.5
Coil ---------- 3.5

Blower DATA:

Blower Speed Selected: W2

Blower Type ECM (Brushless DC OBC 12.3.1.5.(2))

Heating Check 1653 cfm

Cooling Check 1653 cfm

Selected cfm> 1653 cfm

Cooling Air Flow Rate 1653 cfm

Level 1

S/A Outlet No.	1	2	3	4	5	6								
Room Use	BASE	BASE	BASE	BASE	BASE	BASE								
Btu/Outlet	3195	3195	3195	3195	3195	3195								
Heating Airflow Rate CFM	82	82	82	82	82	82								
Cooling Airflow Rate CFM	15	15	15	15	15	15								
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
Actual Duct Length	24	44	36	47	62	46								
Equivalent Length	110	110	100	70	110	110	70	70	70	70	70	70	70	70
Total Effective Length	134	154	136	117	172	156	70	70	70	70	70	70	70	70
Adjusted Pressure	0.10	0.08	0.10	0.11	0.08	0.08	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								
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	F	E	B	B	D	B								

Level 2

S/A Outlet No.	7	8	9	10	11	12	13	14	15	16	17	18		
Room Use	KIT	KIT	KIT	FAM	FAM	LIV/DIN	LIV/DIN	FOY	LIB	LIB	PWD	LAUN		
Btu/Outlet	2287	2287	2287	2052	2052	2094	2094	2537	2279	2279	530	2110		
Heating Airflow Rate CFM	59	59	59	53	53	54	54	65	59	59	14	54		
Cooling Airflow Rate CFM	103	103	103	90	90	91	91	63	88	88	3	63		
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
Actual Duct Length	17	26	38	53	52	41	52	65	66	73	46	26		
Equivalent Length	120	70	90	120	90	120	80	120	90	100	90	70	70	70
Total Effective Length	137	96	128	173	142	161	132	185	156	173	136	96	70	70
Adjusted Pressure	0.09	0.14	0.10	0.08	0.09	0.08	0.10	0.07	0.08	0.08	0.10	0.14	0.19	0.19
Duct Size Round	6	6	6	6	6	6	6	6	6	6	3	5		
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	4x10	4x10
Trunk	F	F	F	E	E	B	B	C	D	D	B	PTO		

Level 3

S/A Outlet No.	19	20	21	22	23	24	25	26	27																	
Room Use	MAST	MAST	WIC	MEDIA	BED 5	BED 5	ENS 4	BED 4	BED 4																	
Btu/Outlet	1686	1686	666	1912	1219	1219	592	1547	1547																	
Heating Airflow Rate CFM	43	43	17	49	31	31	15	40	40																	
Cooling Airflow Rate CFM	63	63	7	49	39	39	5	51	51																	
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
Actual Duct Length	55	66	57	81	78	83	80	78	80																	
Equivalent Length	150	120	100	160	190	180	160	100	110	70	70	70	70	70	130	100	110	150	100	130	70	70	70	70	70	70
Total Effective Length	205	186	157	241	268	263	240	178	190	70	70	70	70	70	216	178	186	220	144	185	70	70	70	70	70	70
Adjusted Pressure	0.06	0.07	0.08	0.05	0.05	0.05	0.05	0.07	0.07	0.19	0.19	0.19	0.19	0.19	0.06	0.07	0.07	0.06	0.09	0.07	0.19	0.19	0.19	0.19	0.19	0.19
Duct Size Round	6	6	3	6	5	5	3	5	5						6	4	5	2	6	5						
Outlet Size	4x10	4x10	3x10	4x10	3x10	3x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	E	E	E	C	C	C	C	C	C						C	PTO	F	F	F	F						

Level 3

S/A Outlet No.	28	29	30	31	32	33
Room Use	ENS 3	BED 3	BED 2	ENS 2	ENS	WC
Btu/Outlet	1838	1423	1452	89	2248	1002
Heating Airflow Rate CFM	47	37	37	2	58	26
Cooling Airflow Rate CFM	29	35	36	2	78	37
Duct Design Pressure	0.13	0.13	0.13	0.13	0.13	0.13
Actual Duct Length	86	78	76	70	44	55
Equivalent Length	130	100	110	150	100	130
Total Effective Length	216	178	186	220	144	185
Adjusted Pressure	0.06	0.07	0.07	0.06	0.09	0.07
Duct Size Round	6	4	5	2	6	5
Outlet Size	4x10	3x10	3x10	3x10	4x10	3x10
Trunk	C	PTO	F	F	F	F

Return Branch And Grill Sizing

Grill Pressure Loss 0.02 "w.c

R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R
Inlet Air Volume CFM	247	466	220	155	155	105	105	200			
Duct Design Pressure	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Actual Duct Length	5	39	25	56	55	89	90	63			
Equivalent Length	155	90	125	180	160	130	170	185	50	50	50
Total Effective Length	160	129	150	236	215	219	260	248	50	50	50
Adjusted Pressure	0.07	0.09	0.08	0.05	0.05	0.05	0.05	0.05	0.24	0.24	0.24
Duct Size Round	8.0	11.0	8.5	8.0	8.0	6.0	6.0	9.0			
Inlet Size	FLC	8	8	8	8	8	8	8			
" "	x	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14	14	14			
Trunk	Z	Y	Z		Z	X	X	X			

Return Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
Drop	1653	0.05	19.5	24x14	
Z	1498	0.05	19.0	34x10	26x12
Y	876	0.05	15.5	28x8	22x10
X	410	0.05	11.5	14x8	12x10
W					
V					
U					
T					
S					
R					
Q					

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round	Rect. Size	
A	1180	0.05	17.0	26x10	22x12
B	888	0.05	15.5	28x8	22x10
C	520	0.05	12.5	18x8	14x10
D	200	0.08	8.0	8x8	8x7
E	292	0.06	10.0	12x8	10x10
F	382	0.06	11.0	14x8	10x10
G					
H					
I					
J					
K					

GTADESIGNS

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Heatloss/Gain Calculations CSA-F280-12

2012 OBC

Builder: Bayview Wellington | Date: November 15, 2018

Project: Green Valley Estates | Model: Castello 1 S50-1 Lot 187

System 1

Weather Data: Bradford 44 -9.4 86 22 48.2

Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 3762

Project # PJ-00041 | Layout # JB-05330

Level 1

		BASE	A	A	A	A	A	A	A	A	A	A
Run ft. exposed wall A		200										
Run ft. exposed wall B												
Ceiling height		2.5	AG	AG	AG	AG	AG	AG	AG	AG	AG	AG
Floor area		1632	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A												
Exposed Ceilings B												
Exposed Floors			Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A		500										
Gross Exp Wall B												

Components		R-Values	Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain
North Shaded		3.55	22.93	10.91																								
East/West		3.55	22.93	27.35	6	138	164																					
South		3.55	22.93	20.89	12	275	251																					
WOB Windows		3.15	25.84	28.32																								
Skylight		2.03	40.10	88.23																								
Doors		4.00	20.35	2.75	21	427	58																					
Net exposed walls A		21.12	3.85	0.52	461		240																					
Net exposed walls B		14.49	5.62	0.76																								
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 Abo				7832																						
Total Conductive	Heat Loss					8472																						
	Heat Gain						713																					
Air Leakage	Heat Loss/Gain		1.2236	0.0373		10367	27																					
Ventilation	Case 1		0.10	0.07																								
	Case 2		14.07	11.88																								
	Case 3	x	0.04	0.07		330	52																					
Heat Gain People				239																								
Appliances Loads		1 =.25 percent		6453	0.5		807																					
Duct and Pipe loss				10%																								
Level 1 HL Total	19,169	Total HL for per room				19169																						
Level 1 HG Total	2,077	Total HG per room x 1.3					2077																					

Level 2

		KIT	FAM	LIV/DIN	FOY	LIB	PWD	LAUN					
Run ft. exposed wall A		44	A	35	A	42	A	16	A	32	A	8	A	22	A	A	A	A	A
Run ft. exposed wall B																			
Ceiling height		10.0		10.0		10.0		11.0		13.0		10.0		10.0		10.0	10.0	10.0	10.0
Floor area		439	Area	264	Area	579	Area	75	Area	116	Area	32	Area	116	Area	Area	Area	Area	Area
Exposed Ceilings A				14	A					116	A								
Exposed Ceilings B																			
Exposed Floors			Flr		Flr		Flr		Flr		Flr		Flr		Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A		440		350		420		176		416		80		220					
Gross Exp Wall B																			

Components		R-Values	Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain		Loss	Gain
North Shaded		3.55	22.93	10.91	65	1490	709																	8	183	87			
East/West		3.55	22.93	27.35	92	2110	2517	70	1605	1915					20	459	547	63	1445	1723									
South		3.55	22.93	20.89							56	1284	1170	14	321	292													
Existing Windows		1.99	40.90	22.15																									
Skylight		2.03	40.10	88.23																									
Doors		4.00	20.35	2.75										24	488	66							21	427	58			
Net exposed walls A		17.03	4.78	0.65	283	1353	183	280	1338	181	364	1740	235	118	564	76	353	1687	228	80	382	52	191	913	123			
Net exposed walls B		8.50	9.58	1.29																									
Exposed Ceilings A		59.22	1.37	0.64				14	19	9							116	159	74										
Exposed Ceilings B		22.86	3.56	1.66																									
Exposed Floors		29.80	2.73	0.17																									
Foundation Conductive Heatloss		> On Grade ( ) or Abo		x																									
Total Conductive	Heat Loss					4953			2963			3024			1832			3291			382			1524					
	Heat Gain						3409			2105			1405			982			2026			52			288				
Air Leakage	Heat Loss/Gain		0.3462	0.0373		1714	127		1026	78		1047	52		634	37		1139	75		132	2		527	10				
Ventilation	Case 1		0.03	0.07																									
	Case 2		14.07	11.88																									
	Case 3	x	0.04	0.07		103	249		115	154		118	103		71	72		128	148		15	4		59	20				
Heat Gain People				239																									
Appliances Loads		1 =.25 percent		6453	1.0		1613	0.5		807	1.0		1613				0.5		807				0.5		807				
Duct and Pipe loss				10%																									
Level 2 HL Total	24,887	Total HL for per room				6860			4103			4188			2537			4559			530			2110					
Level 2 HG Total	22,128	Total HG per room x 1.3					7017			4086			4125			1417			3972			75			1436				

Total Heat Loss	64,183	btu/h
Total Heat Gain	37,391	btu/h

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code. Individual BCIN: 32964

David DaCosta

SB-12 Package

Package A1

GTADESIGNS

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

e-mail ddacosta@gtadesigns.ca

Heatloss/Gain Calculations CSA-F280-12

Builder: Bayview Wellington | Date: November 15, 2018

2012 OBC | Project: Green Valley Estates | Model: Castello 1 S50-1 Lot 187 | System 1

Weather Data: Bradford 44 -9.4 86 22 48.2

Heat Loss ^T 81.4 deg. F | Ht gain ^T 11 deg. F | GTA: 3762

Project # PJ-00041 | Layout # JB-05330

Level 3

	MAST	WIC	MEDIA	BED 5	ENS 4	BED 4						
Run ft. exposed wall A	32 A	10 A	11 A	26 A	10 A	15 A	A	A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	9.0	8.0	10.0	9.0	8.0	9.0	8.0	8.0	8.0	8.0	8.0	8.0
Floor area	282 Area	90 Area	384 Area	164 Area	49 Area	212 Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	282 A	90 A	384 A	164 A	49 A	212 A	A	A	A	A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr	Flr	Flr	Flr	Flr	196 Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	288	80	110	234	80	135						
Gross Exp Wall B												

Components		R-Values	Loss	Gain	MAST Loss	MAST Gain	WIC Loss	WIC Gain	MEDIA Loss	MEDIA Gain	BED 5 Loss	BED 5 Gain	ENS 4 Loss	ENS 4 Gain	BED 4 Loss	BED 4 Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded		3.55	22.93	10.91																				
East/West		3.55	22.93	27.35	44	1009	1204								37	848	1012							
South		3.55	22.93	20.89					22	504	459													
Existing Windows		1.99	40.90	22.15									28	642	766									
Skylight		2.03	40.10	88.23																				
Doors		4.00	20.35	2.75																				
Net exposed walls A		17.03	4.78	0.65	244	1166	158	80	382	52	88	421	57	206	985	133	80	382	52	98	468	63						
Net exposed walls B		8.50	9.58	1.29																				
Exposed Ceilings A		59.22	1.37	0.64	282	388	181	90	124	58	384	528	246	164	225	105	49	67	31	212	291	136						
Exposed Ceilings B		22.86	3.56	1.66																				
Exposed Floors		29.80	2.73	0.17																196	535	33						
Foundation Conductive Heatloss																								
Total Conductive	Heat Loss					2563		506		1453		1852		450			2144							
	Heat Gain						1542		109		763		1004		83			1244						
Air Leakage	Heat Loss/Gain		0.2771	0.0373		710	57	140	4	403	28	513	37	125	3		594	46						
Ventilation	Case 1		0.02	0.07																				
	Case 2		14.07	11.88																				
	Case 3	x	0.04	0.07		100	113	20	8	57	56	72	73	17	6		83	91						
Heat Gain People				239	2		478					1	239			1		239						
Appliances Loads		1 =.25 percent		6453																				
Duct and Pipe loss				10%												1	274	148						
Level 3 HL Total	12,075	Total HL for per room				3373		668		1912		2437		592			3095							
Level 3 HG Total	8,286	Total HG per room x 1.3					2847		158		1101		1760		120			2299						

Level 3

	ENS 3	BED 3	BED 2	ENS 2	ENS	WC						
Run ft. exposed wall A	20 A	11 A	15 A	A	21 A	10 A	A	A	A	A	A	A
Run ft. exposed wall B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Floor area	84 Area	158 Area	174 Area	49 Area	157 Area	25 Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	84 A	158 A	174 A	49 A	157 A	25 A	A	A	A	A	A	A
Exposed Ceilings B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	84 Flr	56 Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	160	88	120		168	80						
Gross Exp Wall B												

Components		R-Values	Loss	Gain	ENS 3 Loss	ENS 3 Gain	BED 3 Loss	BED 3 Gain	BED 2 Loss	BED 2 Gain	ENS 2 Loss	ENS 2 Gain	ENS Loss	ENS Gain	WC Loss	WC Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded		3.55	22.93	10.91																				
East/West		3.55	22.93	27.35	9	206	246								38	871	1039	19	436	520				
South		3.55	22.93	20.89																				
Existing Windows		1.99	40.90	22.15				16	367	175	16	367	175											
Skylight		2.03	40.10	88.23																				
Doors		4.00	20.35	2.75																				
Net exposed walls A		17.03	4.78	0.65	151	722	98	72	344	47	104	497	67				130	621	84	61	292	39				
Net exposed walls B		8.50	9.58	1.29																				
Exposed Ceilings A		59.22	1.37	0.64	84	115	54	158	217	101	174	239	112	49	67	31	157	216	101	25	34	16				
Exposed Ceilings B		22.86	3.56	1.66																				
Exposed Floors		29.80	2.73	0.17	84	229	14	56	153	9														
Foundation Conductive Heatloss																								
Total Conductive	Heat Loss					1273		1081		1103		67		1709			762							
	Heat Gain						412		332		353		31		1224			575						
Air Leakage	Heat Loss/Gain		0.2771	0.0373		353	15		300	12	308	13	19	1	474	46		211	21						
Ventilation	Case 1		0.02	0.07																				
	Case 2		14.07	11.88																				
	Case 3	x	0.04	0.07		50	30		42	24		43	26		3	2		66	89		30	42				
Heat Gain People				239				1		239	1		239												
Appliances Loads		1 =.25 percent		6453																				
Duct and Pipe loss				10%	1	163	41																	
Level 4 HL Total	8,052	Total HL for per room				1838		1423		1452		89		2248			1002							
Level 4 HG Total	4,901	Total HG per room x 1.3					648		790		821		45		1767			830						

Total Heat Loss	64,183	btu/h
Total Heat Gain	37,391	btu/h

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code. Individual BCIN: 32964

David DaCosta

SB-12 Package: Package A1

GTADESIGNS

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

Project # PJ-00041
Layout # JB-05330

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code. Individual BCIN: 32964 David DaCosta

Package: Package A1
Project: Bradford **Model:** S50-1 Lot 187

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

For systems serving one dwelling unit & conforming to the Ontario Building Code, O.reg 332/12

Location of Installation

Lot #	Plan #
Township	Bradford
Roll #	Permit #
Address	

Builder

Name	Bayview Wellington
Address	
City	
Tel	Fax

Installing Contractor

Name	
Address	
City	
Tel	Fax

Combustion Appliances 9.32.3.1(1)

a)	x	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

Heating System

	x	Forced air
		Non forced air
		Electric space heat (if over 10% of heat load)

House Type 9.32.3.1(2)

I	x	Type a) or b) appliances only, no solid fuel
II		Type I except with solid fuel (including fireplace)
III		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	x	HRV simplified connection to forced air system
4		HRV full ducting/not coupled to forced air system
		Part 6 design

Total Ventilation Capacity 9.32.3.3(1)

Bsmt & Master Bdrm	2	@ 21.2	cfm	42.4	cfm
Other Bedrooms	4	@ 10.6	cfm	42.4	cfm
Bathrooms & Kitchen	6	@ 10.6	cfm	63.6	cfm
Other rooms	7	@ 10.6	cfm	74.2	cfm
		Total		222.6	

Principal Ventilation Capacity 9.32.3.4(1)

Master bedroom	1	@ 31.8	cfm	31.8	cfm
Other bedrooms	4	@ 15.9	cfm	63.6	cfm
		Total		95.4	

Principal Exhaust Fan Capacity

Make	Model	Location	
LifeBreath	RNC155	Base	
132 cfm		Sones	or Equiv.

Heat Recovery Ventilator

Make	LifeBreath	
Model	RNC155	
132 cfm high		80 cfm low
Sensible efficiency @ -25 deg C		71%
Sensible efficiency @ 0 deg C		75%

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

Supplemental Ventilation Capacity

Total ventilation capacity	222.6	
Less principal exhaust capacity	95.4	
REQUIRED supplemental vent. Capacity	127.2	cfm

Supplemental Fans 9.32.3.5.

Location	cfm	Model	Sones
Ens	50	XB50	0.3
Ens 2	50	XB50	0.3
Ens 3	50	XB50	0.3

all fans HVI listed Make Broan or Equiv.

Designer Certification

I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.

Name David DaCosta
Signature
HRAI # 5190 BCIN # 32964
Date November 15, 2018

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

Energy Efficiency Design Summary: Prescriptive Method
(Building Code Part 9, Residential)

Project # PJ-00041
Layout # JB-05330

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

For use by Principal Authority	
Application No:	Model/Certification Number

A. Project Information

Building number, street name		Unit number	Lot/Con
Castello 1 **S50-1 Lot 187**			
Municipality **Bradford**	Postal code	Reg. Plan number / other description	

B. Prescriptive Compliance [indicate the building code compliance package being employed in the house design]

SB-12 Prescriptive (input design package): Package A1 Table: 3.1.1.2.A

C. Project Design Conditions

Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source
☑ Zone 1 (< 5000 degree days)	☑ ≥ 92% AFUE	☑ Gas ☐ Propane ☐ Solid Fuel
☐ Zone 2 (≥ 5000 degree days)	☐ ≥ 84% < 92% AFUE	☐ Oil ☐ Electric ☐ Earth Energy

Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of Walls = 385.07 m² or 4144.9 ft²	W,S &G % = 15%	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement ☑ Air Conditioning ☐ Combo Unit
Area of W, S & G = 58.992 m² or 635.0 ft²	Utilize Window Averaging ☐ Yes ☑ No	☐ Air Sourced Heat Pump (ASHP) ☐ Ground Source Heat Pump (GSHP)

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

Energy Efficiency Substitutions

☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))

☐ Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))

☐ Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	☐ Table 3.1.1.4.B	Required:	Permitted Substitution:
	☐ Table 3.1.1.4.C	Required:	Permitted Substitution:
		Required:	Permitted Substitution:

Building Component	Minimum RSI/R-Values or Maximum U-Value[1]		Building Component	Efficiency Ratings
Thermal Insulation	Nominal	Effective	**Windows & Doors** Provide U-Value(1) or ER rating	
Ceiling with Attic Space	60		Windows/Sliding Glass Doors	1.6
Ceiling without Attic Space	31		Skylights	2.8
Exposed Floor	31		**Mechanicals**	
Walls Above Grade	22		Heating Equip.(AFUE)	96%
Basement Walls	20.0ci		HRV Efficiency (SRE% at 0°C)	75%
Slab (all >600mm below grade)	x		DHW Heater (EF)	0.80
Slab (edge only ≤600mm below grade)	10		DWHR (CSA B55.1 (min. 42% efficiency))	#Showers 2
Slab (all ≤600mm below grade, or heated)	10		Combined Heating System	

(1) U value to be provided in either W/(m²·K) or Btu/(h·ft·F) but not both.

E. Designer(s) [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets building code]

Name	BCIN	Signature
David DaCosta	32964	

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

GTADESIGNS

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

Project # PJ-00041
Layout # JB-05330

Package: Package A1 **System:** System 1
Project: Bradford **Model:** S50-1 Lot 187

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL^T	HLleak
0.018	0.317	44706	81.4	20733

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG^T	HG Leak
0.018	0.078	44706	11	694

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)				
Level	Level Factor (LF)	Building Air	Level Conductive Heat Loss	Air Leakage Heat Loss Multiplier
Level 1	0.5	20733	8472	1.2236
Level 2	0.3		17969	0.3462
Level 3	0.2		14962	0.2771
Level 3	0.2		14962	0.2771

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

		Air Leakage Heat Gain
HG LEAK	694	0.0373
BUILDING CONDUCTIVE HEAT GAIN	18632	

Levels this Dwelling
4

Ventilation Calculations

Vent

Ventilation Heat Loss

Ventilation Heat Loss				
C	PVC	HL^T	(1-E) HRV	HLbvent
1.08	114.48	81.4	0.16	1610

Ventilation Heat Gain

Ventilation Heat Gain			
C	PVC	HG^T	HGbvent
1.1	114.48	11	1360

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HLbvent	LVL Cond. HL	Multiplier
Level 1	0.5	1610	8472	0.10
Level 2	0.3		17969	0.03
Level 3	0.2		14962	0.02
Level 3	0.2		14962	0.02

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HGbvent	1360	0.07
Building	18632	

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Ventilation Heat Gain (Direct Ducted Systems)

		Multiplier
C	HG^T	11.88
1.08	11	

Case 3

Ventilation Heat Loss (Forced Air Systems)

	HLbvent	Multiplier
Total Ventilation Load	1610	0.04

Ventilation Heat Gain (Forced Air Systems)

		Vent Heat Gain	Multiplier
HGbvent	HG*1.3	1360	0.07
1360	1		

Foundation Conductive Heatloss Level 1	2237	Watts	7632	Btu/h
Foundation Conductive Heatloss Level 2		Watts		Btu/h

I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under Division C subsection 3.2.5. of the Building Code. Individual BCIN: 32964 David DaCosta

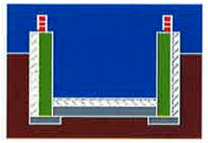
Envelope Air Leakage Calculator

Supplemental tool for CAN/CSA-F280

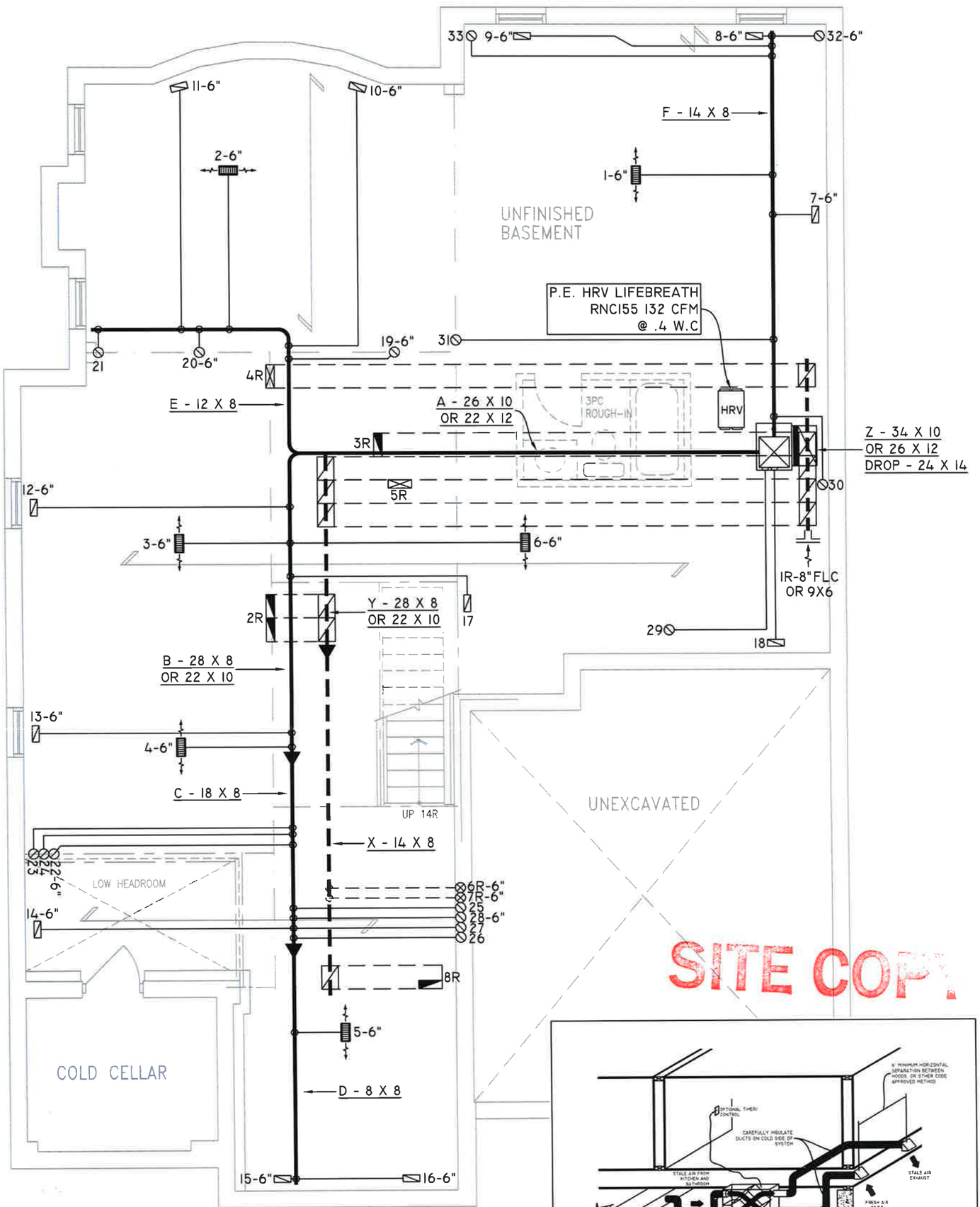
Weather Station Description	
Province:	Ontario
Region:	Bradford
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10
Local Shielding	
Building Site:	Suburban, forest
Walls:	Heavy
Flue:	Heavy
Highest Ceiling Height (m):	6.55
Building Configuration	
Type:	Detached
Number of Stories:	Two
Foundation:	Full
House Volume (m^3):	1266.07
Air Leakage/Ventilation	
Air Tightness Type:	Present (1961-) (ACH=3.57)
Custom BDT Data:	ELA @ 10 Pa. 322.44 cm^2
	3.57 ACH @ 50 Pa
Mechanical Ventilation (L/s):	Total Supply: 47.7 Total Exhaust: 47.7
Flue #:	#1 #2 #3 #4
Diameter (mm):	0 0 0 0
Heating Air Leakage Rate (ACH/H):	**0.317**
Cooling Air Leakage Rate (ACH/H):	**0.078**

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):	24.22	 Insulation Configuration
Floor Width (m):	6.26	
Exposed Perimeter (m):	60.96	
Wall Height (m):	2.59	
Depth Below Grade (m):	1.83	
Window Area (m^2):	1.67	
Door Area (m^2):	1.95	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	**2237**	

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



SIMPLIFIED CONNECTION TO FURNACE AIR SYSTEM HRV DIAGRAM OPTION 3

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)

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

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA B.C.I.N. 32966

SIGNATURE OF DESIGNER

OBC 2012

ZONE 1 COMPLIANCE PACKAGE "A1" REF. TABLE 3.1.1.2.A

NOTES
- INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
- ALL SUPPLY OUTLETS TO BE 5" DIA. UNLESS OTHERWISE SPECIFIED.
- PROVIDE BALANCING DAMPERS ON ALL BRANCHES.
- ALL R/A PARTITIONS 6" (FIRST FLOOR ONLY)
- INSULATE DUCTS IN UNCONDITIONED SPACES RI2 UNDERCUT ALL DOORS 1" MIN.
- CONTRACTOR MUST WORK FROM APPROVED PLANS.
- ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
- GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

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

HEAT-LOSS	64,183 BTU/HR.
UNIT MAKE	AMANA OR EQUAL
UNIT MODEL	GMEC96-1004CNA OR EQUAL
UNIT HEATING INPUT	100,000 BTU/HR.
UNIT HEATING OUTPUT	96,000 BTU/HR.
A/C COOLING CAPACITY	3.5 TONS.
FAN SPEED	1653 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
IST FLOOR	12	3	2
BASEMENT	6	1	

FLOOR PLAN:	BASEMENT		
DRAWN BY: JL	CHECKED: DD	SQFT 3762	
LAYOUT NO. JB-05330	DRAWING NO. MI		

DATE: NOVEMBER 15, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S50-I LOT 184 CASTELLO I
PROJECT: GREEN VALLEY ESTATES BRADFORD, ONT.
SCALE: 3/16" = 1'-0"

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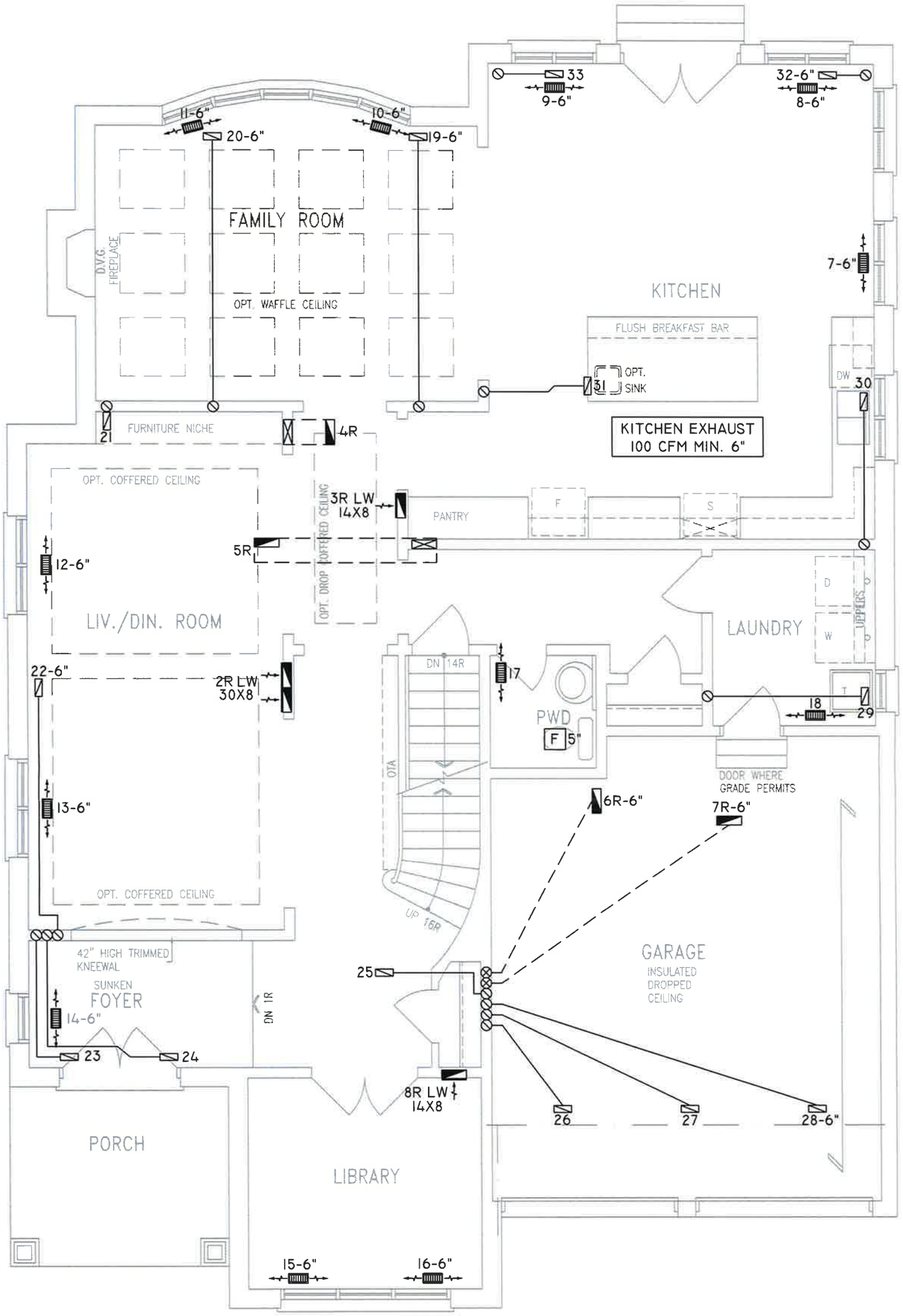


INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. RI2

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

CIRCULATION PRINCIPAL FAN SWITCH TO BE CENTRALLY LOCATED

SITE COPY

OBC 2012

ZONE 1 COMPLIANCE PACKAGE "A1" REF. TABLE 3.1.1.2.A

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

QUALIFICATION INFORMATION

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

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

SIGNATURE OF DESIGNER

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 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

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

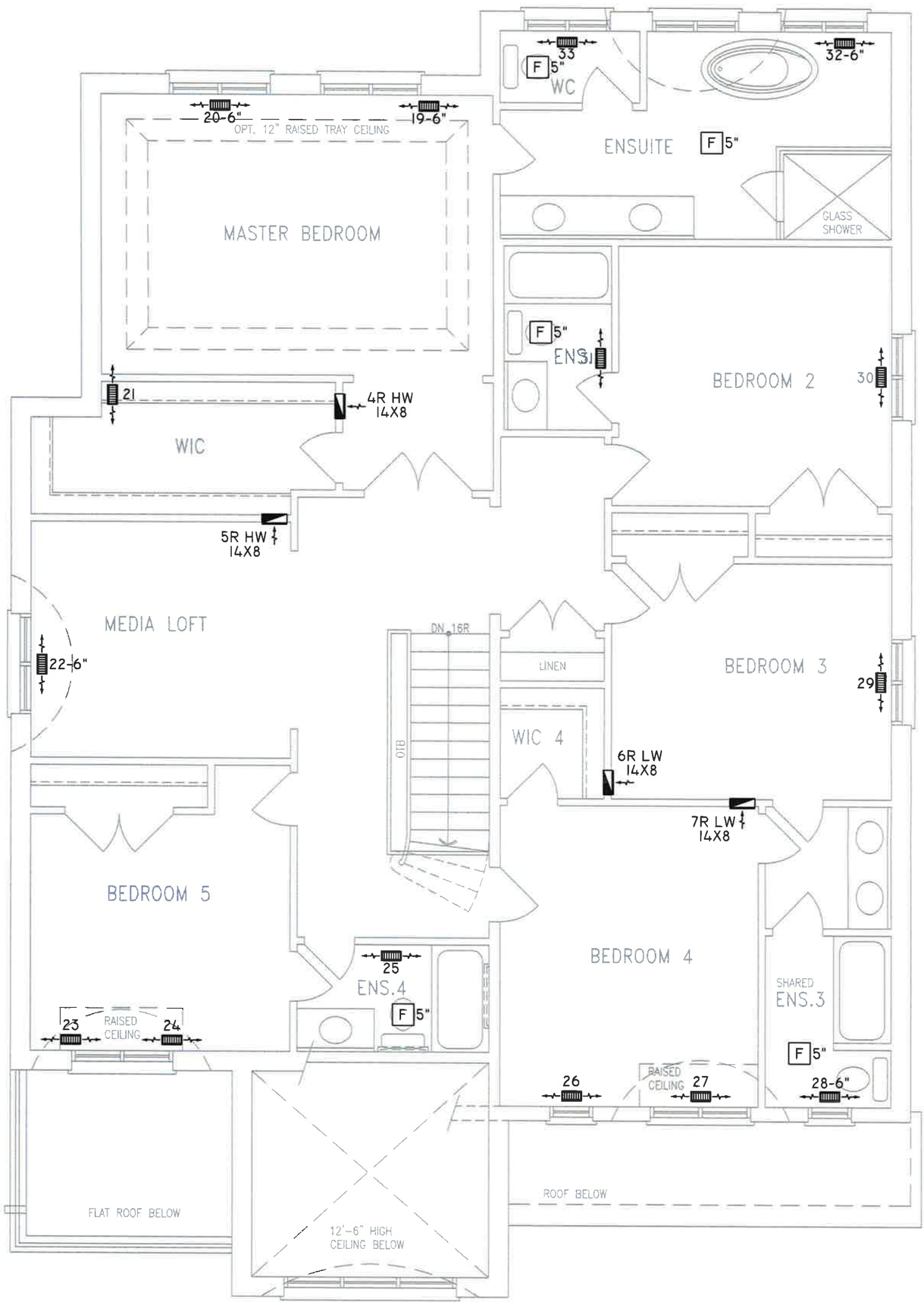
HEAT-LOSS	64,183 BTU/HR.
UNIT MAKE	AMANA OR EQUAL
UNIT MODEL	GMEC96-1004CNA OR EQUAL
UNIT HEATING INPUT	100,000 BTU/HR.
UNIT HEATING OUTPUT	96,000 BTU/HR.
A/C COOLING CAPACITY	3.5 TONS.
FAN SPEED	1653 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
IST FLOOR	12	3	2
BASEMENT	6	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: JL	CHECKED: DD	SQFT 3762
LAYOUT NO. JB-05330		DRAWING NO. M2

DATE: NOVEMBER 15, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S50-1 LOT 184 CASTELLO 1
PROJECT: GREEN VALLEY ESTATES BRADFORD,ONT.
SCALE: 3/16" = 1'-0"

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



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)

SITE COPY

OBC 2012

ZONE 1 COMPLIANCE
PACKAGE "A1" REF. TABLE 3.1.1.2.A

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

QUALIFICATION INFORMATION

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

DAVID DA COSTA — B.C.I.N. 32964

SIGNATURE OF DESIGNER

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 1" MIN.
CONTRACTOR MUST WORK FROM APPROVED PLANS.
ANY ALTERATIONS TO THIS ORIGINAL PLAN ARE NOT THE RESPONSIBILITY OF GTA DESIGNS.
GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.

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

HEAT-LOSS	64,183 BTU/HR.
UNIT MAKE	AMANA OR EQUAL
UNIT MODEL	GMEC96-1004CNA OR EQUAL
UNIT HEATING INPUT	100,000 BTU/HR.
UNIT HEATING OUTPUT	96,000 BTU/HR.
A/C COOLING CAPACITY	3.5 TONS.
FAN SPEED	1653 CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	15	4	5
IST FLOOR	12	3	2
BASEMENT	6	1	

FLOOR PLAN: SECOND FLOOR		
DRAWN BY: JL	CHECKED: DD	SQFT 3762
LAYOUT NO. JB-05330		DRAWING NO. M3

DATE: NOVEMBER 15, 2018
CLIENT: BAYVIEW WELLINGTON
MODEL: S50-1 LOT 184 CASTELLO 1
PROJECT: GREEN VALLEY ESTATES BRADFORD, ONT.
SCALE: 3/16" = 1'-0"