


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:	
S42-19 - WOB		Lot/con.	
Municipality	Bradford	Postal code	Plan number/ other description
B. Individual who reviews and takes responsibility for design activities			
Name		Firm	
David DaCosta		gtaDesigns Inc.	
Street address		Unit no.	Lot/con.
2985 Drew Road, Suite 202			
Municipality	Postal code	Province	E-mail
Mississauga	L4T 0A4	Ontario	hvac@gtadesigns.ca
Telephone number		Fax number	Cell number
(905) 671-9800			
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 of Division C]			
<input type="checkbox"/> House	<input checked="" type="checkbox"/> HVAC – House	<input type="checkbox"/> Building Structural	
<input type="checkbox"/> Small Buildings	<input type="checkbox"/> Building Services	<input type="checkbox"/> Plumbing – House	
<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Detection, Lighting and Power	<input type="checkbox"/> Plumbing – All Buildings	
<input type="checkbox"/> Complex Buildings	<input type="checkbox"/> Fire Protection	<input type="checkbox"/> On-site Sewage Systems	
Description of designer's work		Model Certification	Project #:
			PJ-00041
			Layout #:
			JB-08594
Heating and Cooling Load Calculations	Main	X	Builder
Air System Design	Alternate		Project
Residential mechanical ventilation Design Summary	Area Sq ft:	3130	Model
Residential System Design per CAN/CSA-F280-12			S42-19 - WOB
Residential New Construction - Forced Air			SB-12
			Package A1
D. Declaration of Designer			
I, <u>David DaCosta</u> declare that (choose one as appropriate):			
(print name)			
<input type="checkbox"/> 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: _____			
<input checked="" type="checkbox"/> 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: <u>32964</u>			
Basis for exemption from registration: <u>Division C 3.2.4.1. (4)</u>			
<input type="checkbox"/> The design work is exempt from the registration and qualification requirements of the Building Code.			
Basis for exemption from registration and qualification:			
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.			
<u>November 18, 2022</u>			
Date		Signature of Designer	

NOTE:

- 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.
- Schedule 1 does not require to be completed a holder of a license, temporary license, or a certificate of authorization, issued 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.

Heat loss and gain calculation summary sheet				CSA-F280-M12 Standard Form No. 1	
These documents issued for the use of Bayview Wellington				Layout No. JB-08594	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.					
Building Location					
Address (Model): S42-19 - WOB			Site: Green Valley East		
Model:			Lot:		
City and Province: Bradford			Postal code:		
Calculations based on					
Dimensional information based on: VA3 DesignOct/2021					
Attachment: Detached		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? VanEE		V150H75NS		Internal shading: Light-translucent	
				Occupants: 5	
Sensible Eff. at -25C 60%		Apparent Effect. at -0C 80%		Units: Imperial	
				Area Sq ft: 3130	
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:			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:			Skylights		
Style C:			Style A: As per Selected OBC SB12 Package A1 R 2.03		
Style D:			Style B:		
Attached documents: As per Schedule 1		Heat Loss/Gain Calculations 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:		
City: Mississauga			E-mail hvac@gtadesigns.ca		

SB-12 Package A1

Builder: Bayview Wellington

Date: November 18, 2022

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.

Project: Green Valley East

Model: S42-19 - WOB

System 1

Individual BCIN: 32964 *David DaCosta* David DaCosta

Project # **PJ-00041**
Layout # **JB-08594**

DESIGN LOAD SPECIFICATIONS

AIR DISTRIBUTION & PRESSURE

FURNACE/AIR HANDLER DATA:

BOILER/WATER HEATER DATA:

A/C UNIT DATA:

Level 1 Net Load	26,704 btu/h
Level 2 Net Load	23,424 btu/h
Level 3 Net Load	20,476 btu/h
Level 4 Net Load	0 btu/h
Total Heat Loss	70,605 btu/h
Total Heat Gain	34,546 btu/h

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	0.0166 cfm/btuh
Cooling Air Flow Proportioning Factor	0.0339 cfm/btuh
R/A Temp	70 deg. F.
S/A Temp	131 deg. F.
Diffuser loss	0.01 "w.c.

Make	Amana
Model	AMEC960803BNA
Input Btu/h	80000
Output Btu/h	76800
E.s.p.	0.50 " W.C.
Water Temp	deg. F.
AFUE	96%
Aux. Heat	
SB-12 Package	Package A1
Temp. Rise>>>	61 deg. F.

Make	Type	Amana	3.0 Ton
Model		Cond.-----	3.0
Input Btu/h		Coil -----	3.0
Output Btu/h			
Min. Output Btu/h	AWH		
Blower DATA:			
Blower Speed Selected:	W2	Blower Type	ECM
		(Brushless DC OBC 12.3.1.5.(2))	
Heating Check	1172 cfm	Cooling Check	1172 cfm
Selected cfm>	1172 cfm	Cooling Air Flow Rate	1172 cfm

Building Volume Vb	40968 ft³
Ventilation Load	1,398 Btuh.
Ventilation PVC	79.5 cfm
Supply Branch and Grill Sizing	

S/A Outlet No.	Level 1													Level 2										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	6	7	8	9	10	11	12	13	14	
Room Use	BASE	BASE	BASE	BASE	BASE	KIT/GRT	KIT/GRT	KIT/GRT	MUD	PWD	FOY	STUDY	LIV/DIN	LIV/DIN	KIT/GRT	KIT/GRT	KIT/GRT	MUD	PWD	FOY	STUDY	LIV/DIN	LIV/DIN	
Btu/Outlet	5341	5341	5341	5341	5341	3111	3111	3111	3124	731	2996	3344	1948	1948	3111	3111	3111	3124	731	2996	3344	1948	1948	
Heating Airflow Rate CFM	89	89	89	89	89	52	52	52	52	12	50	56	32	32	52	52	52	52	12	50	56	32	32	
Cooling Airflow Rate CFM	31	31	31	31	31	93	93	93	18	3	42	109	61	61	93	93	93	18	3	42	109	61	61	
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	
Actual Duct Length	41	45	19	14	20	30	41	35	44	17	39	29	14	5	30	41	35	44	17	39	29	14	5	
Equivalent Length	90	120	100	130	120	130	110	100	150	130	140	100	70	120	130	110	100	150	130	140	100	70	120	
Total Effective Length	131	165	119	144	140	160	151	135	194	147	179	129	84	125	160	151	135	194	147	179	129	84	125	
Adjusted Pressure	0.10	0.08	0.11	0.09	0.09	0.08	0.09	0.10	0.07	0.09	0.07	0.10	0.15	0.10	0.08	0.09	0.10	0.07	0.09	0.07	0.10	0.15	0.10	
Duct Size Round	6	6	6	6	6	6	6	6	5	3	5	6	5	5	6	6	6	5	3	5	6	5	5	
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	3x10	4x10	4x10	4x10	4x10	3x10	3x10	3x10	4x10	3x10	4x10	
Trunk	B	B	A	D	E	B	B	C	C	D	E	D	D	D	B	B	C	C	D	E	E	D	D	

S/A Outlet No.	Level 3														Level 4													
	15	16	17	18	19	20	21	22	23	24	25	26	27	28	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Room Use	P.BED	P.BED	ENS	WC	WIC	ENS 2	BED 2	BED 2	BED 3	BED 3	ENS 3	BED 4	WIC 4	LAUND	P.BED	P.BED	ENS	WC	WIC	ENS 2	BED 2	BED 2	BED 3	BED 3	ENS 3	BED 4	WIC 4	LAUND
Btu/Outlet	2447	2447	1791	588	615	973	2096	2096	2278	2278	675	1465	614	113	2447	2447	1791	588	615	973	2096	2096	2278	2278	675	1465	614	113
Heating Airflow Rate CFM	41	41	30	10	10	16	35	35	38	38	11	24	10	2	41	41	30	10	10	16	35	35	38	38	11	24	10	2
Cooling Airflow Rate CFM	51	51	32	6	5	9	48	48	57	57	11	36	4	30	51	51	32	6	5	9	48	48	57	57	11	36	4	30
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	
Actual Duct Length	33	43	53	55	48	44	51	48	48	43	35	20	13	24	33	43	53	55	48	44	51	48	48	43	35	20	13	24
Equivalent Length	140	120	120	140	130	120	110	100	140	130	120	140	130	100	140	120	120	140	130	120	110	100	140	130	120	140	130	100
Total Effective Length	173	163	173	195	178	164	161	148	188	173	155	160	143	124	173	163	173	195	178	164	161	148	188	173	155	160	143	124
Adjusted Pressure	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.09	0.07	0.08	0.08	0.08	0.09	0.10	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.09	0.07	0.08	0.08	0.09	0.10	
Duct Size Round	5	5	4	3	3	3	5	5	5	5	3	4	3	4	5	5	4	3	3	3	5	5	5	3	4	3	4	
Outlet Size	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	
Trunk	A	A	B	C	C	D	D	D	E	E	E	A	A	A	A	A	B	C	C	D	D	D	E	E	E	A	A	A

Return Branch And Grill Sizing

R/A Inlet No.	Grill Pressure Loss										
	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R
Inlet Air Volume CFM	222	460	105	105	140	140					
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	8	8	19	50	41	32					
Equivalent Length	110	125	180	185	180	150	50	50	50	50	50
Total Effective Length	118	133	199	235	221	182	50	50	50	50	50
Adjusted Pressure	0.10	0.09	0.06	0.05	0.05	0.06	0.24	0.24	0.24	0.24	0.24
Duct Size Round	8.0	11.0	6.0	6.0	7.0	7.0					
Inlet Size	FLC	8	8	8	8	8					
" "	OR	x	x	x	x	x	x	x	x	x	x
Inlet Size	9x6	30	14	14	14	14					
Trunk	Z	Z	Z	Z	Z						

Return Trunk Duct Sizing

Trunk	CFM	Press.	Round		Rect. Size	
			Round	Rect. Size	Round	Rect. Size
Drop	1172	0.05	17.0	24x12		
Z	1032	0.05	16.5	32x8	24x10	
Y						
X						
W						
V						
U						
T						
S						
R						
Q						

Supply Trunk Duct Sizing

Trunk	CFM	Press.	Round		Rect. Size	
			Round	Rect. Size	Round	Rect. Size
A	639	0.07	13.0	18x8	14x10	
B	433	0.07	11.0	14x8	10x10	
C	123	0.07	7.0	8x8	8x7	
D	532	0.07	12.0	16x8	12x10	
E	281	0.07	9.5	10x8	127	
F						
G						
H						
I						
J						
K						

Builder: Bayview Wellington

Date: November 18, 2022

Weather Data Bradford 44 -9.4 86 22 48.2

2012 OBC

Project: Green Valley East

Model: S42-19 - WOB

System 1

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3130

Project # PJ-00041
Layout # JB-08594

Level 1				BASE															
Run ft. exposed wall A	133	A		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Run ft. exposed wall B	40	B		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	7.5	AG		7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG	7.5 AG
Floor area	1198	Area		Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	A			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Exposed Ceilings B	B			B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr			Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	998																		
Gross Exp Wall B	400																		
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	11.62																
East/West	3.55	22.93	29.56																
South	3.55	22.93	22.50	6	138	135													
WOB Windows	3.55	22.93	27.86	83	1903	2312													
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	971		505													
Net exposed walls B	17.03	4.78	0.65	317	1515	205													
Exposed Ceilings A	59.22	1.37	0.64																
Exposed Ceilings B	27.65	2.94	1.37																
Exposed Floors	29.80	2.73	0.17																
Foundation Conductive Heatloss				9332															
Total Conductive				13315															
Air Leakage																			
Heat Loss/Gain		0.9730	0.0471	12955		151													
Ventilation																			
Case 1		0.05	0.05																
Case 2		17.58	11.88																
Case 3	x	0.03	0.05	434		166													
Heat Gain People																			
Appliances Loads	1 =.25 percent		5118																
Duct and Pipe loss			10%																
Level HL Total	26,704			26704															
Level HG Total	4,593					4593													

Level 2				KIT/GRT		MUD		PWD		FOY		STUDY		LIV/DIN		A		A		A		A	
Run ft. exposed wall A	74	A		20	A	9	A	20	A	20	A	30	A	A	A	A	A	A	A	A	A	A	A
Run ft. exposed wall B	B			B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Ceiling height	11.0			13.0		11.0		12.0		12.0		11.0		11.0		11.0		11.0		11.0		11.0	
Floor area	612	Area		103	Area	31	Area	81	Area	94	Area	369	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
Exposed Ceilings A	5	A		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Exposed Ceilings B	B			B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Exposed Floors	Flr			Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr	Flr
Gross Exp Wall A	814			260		99		240		240		330											
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	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	11.62	30	688	349																	
East/West	3.55	22.93	29.56	88	2018	2601																	
South	3.55	22.93	22.50																				
Existing Windows	1.99	40.90	23.66																				
Skylight	2.03	40.10	88.23																				
Doors	4.00	20.35	2.75				36	733	99														
Net exposed walls A	17.03	4.78	0.65	696	3327	450	212	1013	137	99	473	64	193	923	125	184	879	119	278	1329	180		
Net exposed walls B	8.50	9.58	1.29																				
Exposed Ceilings A	59.22	1.37	0.64	5	7	3																	
Exposed Ceilings B	27.65	2.94	1.37																				
Exposed Floors	29.80	2.73	0.17																				
Foundation Conductive Heatloss							x																
Total Conductive				6039			2021			473			1938			2164			2521				
Air Leakage																							
Heat Loss/Gain		0.5129	0.0471	3097		160	1037		18	243		3	994		41	1110		78	1293		64		
Ventilation																							
Case 1		0.03	0.05																				
Case 2		17.58	11.88																				
Case 3	x	0.03	0.05	197		176	66		19	15		3	63		45	71		86	82		70		
Heat Gain People																							
Appliances Loads	1 =.25 percent		5118	2.0		2559							0.5		640	1.0			1280				
Duct and Pipe loss			10%																				
Level HL Total	23,424			9334			3124			731			2996			3344			3896				
Level HG Total	16,864						8187			91			1243			3215			3591				

Total Heat Loss	70,605	btu/h
Total Heat Gain	34,546	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

David DaCosta

SB-12 Package
Package A1

Builder: Bayview Wellington

Date: November 18, 2022

Weather Data Bradford 44 -9.4 86 22 48.2

2012 OBC

Project: Green Valley East

Model: S42-19 - WOB

System 1

Heat Loss ^T 81.4 deg. F Ht gain ^T 11 deg. F GTA: 3130

Project # PJ-00041
Layout # JB-08594

Level 3				P.BED		ENS		WC		WIC		ENS 2		BED 2		BED 3		ENS 3		BED 4		WIC 4		LAUND													
Run ft. exposed wall A				39 A		19 A		6 A		7 A		7 A		26 A		40 A		6 A		13 A		9 A		A													
Run ft. exposed wall B				B		B		B		B		B		B		B		B		B		B		B													
Ceiling height				11.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0		9.0													
Floor area				430 Area		129 Area		27 Area		102 Area		66 Area		255 Area		216 Area		72 Area		147 Area		39 Area		59 Area													
Exposed Ceilings A				430 A		129 A		27 A		102 A		66 A		255 A		216 A		72 A		147 A		39 A		59 A													
Exposed Ceilings B				B		B		B		B		B		B		B		B		B		B		B													
Exposed Floors				Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr													
Gross Exp Wall A				429		171		54		63		63		234		360		54		117		81															
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	Loss	Gain	Loss	Gain	Loss	Gain												
North Shaded	3.55	22.93	11.62	16	367	186																															
East/West	3.55	22.93	29.56	32	734	946	16	367	473	7	161	81																									
South	3.55	22.93	22.50																																		
Existing Windows	1.99	40.90	23.66																																		
Skylight	2.03	40.10	88.23																																		
Doors	4.00	20.35	2.75																																		
Net exposed walls A	17.03	4.78	0.65	381	1821	246	155	741	100	47	225	30	63	301	41	56	268	36	191	913	123	296	1415	191	47	225	30	101	483	65	81	387	52				
Net exposed walls B	8.50	9.58	1.29																																		
Exposed Ceilings A	59.22	1.37	0.64	430	591	276	129	177	83	27	37	17	102	140	65	66	91	42	255	351	164	216	297	139	72	99	46	147	202	94	39	54	25	59	81	38	
Exposed Ceilings B	27.65	2.94	1.37																																		
Exposed Floors	29.80	2.73	0.17												43	117	7	180	492	30	33	90	6														
Foundation Conductive Heatloss																																					
Total Conductive	Heat Loss			3513			1285			422			441			636			2741			3269			484			1052			441			81			
	Heat Gain				1654			656			129			106			167			1588			2142			234			520			77			38		
Air Leakage	Heat Loss/Gain	0.3607	0.0471	1267	78		464	31		152	6		159	5		230	8		989	75		1179	101		175	11		379	24		159	4		29	2		
Ventilation	Case 1	0.02	0.05																																		
	Case 2	17.58	11.88																																		
	Case 3	x	0.03	0.05	115	86		42	34		14	7		14	5		21	9		89	82		107	111		16	12		34	27		14	4		3	2	
Heat Gain People			239	2	478											1	239		1	239					1	239											
Appliances Loads	1 =.25 percent		5118																															0.5		640	
Duct and Pipe loss			10%																																		
Level HL Total	20,476			4895			1791			588			615			973			4192			4555			675			1465			614			113			
Level HG Total	13,088				2984			937			184			152			260			2817			3371			334			1053			110			886		

Level 4				A		A		A		A		A		A		A		A		A		A	
Run ft. exposed wall A				A		A		A		A		A		A		A		A		A		A	
Run ft. exposed wall B				B		B		B		B		B		B		B		B		B		B	
Ceiling height																							
Floor area				Area		Area		Area		Area		Area		Area		Area		Area		Area		Area	
Exposed Ceilings A				A		A		A		A		A		A		A		A		A		A	
Exposed Ceilings B				B		B		B		B		B		B		B		B		B		B	
Exposed Floors				Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr		Flr	
Gross Exp Wall A																							
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	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	11.62																				
East/West	3.55	22.93	29.56																				
South	3.55	22.93	22.50																				
Existing Windows	1.99	40.90	23.66																				
Skylight	2.03	40.10	88.23																				
Doors	4.00	20.35	2.75																				
Net exposed walls A	17.03	4.78	0.65																				
Net exposed walls B	8.50	9.58	1.29																				
Exposed Ceilings A	59.22	1.37	0.64																				
Exposed Ceilings B	27.65	2.94	1.37																				
Exposed Floors	29.80	2.73	0.17																				
Foundation Conductive Heatloss																							
Total Conductive	Heat Loss																						
	Heat Gain																						
Air Leakage	Heat Loss/Gain	0.0000	0.0471																				
Ventilation	Case 1	0.00	0.05																				
	Case 2	17.58	11.88																				
	Case 3	x	0.03	0.05																			
Heat Gain People			239																				
Appliances Loads	1 =.25 percent		5118																				
Duct and Pipe loss			10%																				
Level HL Total	0																						
Level HG Total	0																						

Total Heat Loss	70,605	btu/h
Total Heat Gain	34,546	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*

David DaCosta

SB-12 Package
Package A1

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: S42-19 - WOB

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	

Total Ventilation Capacity 9.32.3.3(1)			
Bsmt & Master Bdrm	2 @	21.2 cfm	42.4 cfm
Other Bedrooms	3 @	10.6 cfm	31.8 cfm
Bathrooms & Kitchen	5 @	10.6 cfm	53 cfm
Other rooms	5 @	10.6 cfm	53 cfm
Total			180.2

Builder	
Name	Bayview Wellington
Address	
City	
Tel	Fax

Principal Ventilation Capacity 9.32.3.4(1)			
Master bedroom	1 @	31.8 cfm	31.8 cfm
Other bedrooms	3 @	15.9 cfm	47.7 cfm
Total			79.5

Installing Contractor	
Name	
Address	
City	
Tel	Fax

Principal Exhaust Fan Capacity			
Make	Model	Location	
VanEE	V150H75NS	Base	
127 cfm		Sones	or Equiv.

Heat Recovery Ventilator			
Make	VanEE		
Model	V150H75NS		
	127 cfm high	80 cfm low	
Sensible efficiency @ -25 deg C		60%	
Sensible efficiency @ 0 deg C		75%	

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

Combustion Appliances 9.32.3.1(1)		
a)	<input checked="" type="checkbox"/>	Direct vent (sealed combustion) only
b)	<input type="checkbox"/>	Positive venting induced draft (except fireplaces)
c)	<input type="checkbox"/>	Natural draft, B-vent or induced draft fireplaces
d)	<input type="checkbox"/>	Solid fuel (including fireplaces)
e)	<input type="checkbox"/>	No combustion Appliances

Supplemental Ventilation Capacity	
Total ventilation capacity	180.2
Less principal exhaust capacity	79.5
REQUIRED supplemental vent. Capacity	100.7 cfm

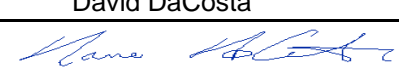
Heating System	
<input checked="" type="checkbox"/>	Forced air
<input type="checkbox"/>	Non forced air
<input type="checkbox"/>	Electric space heat (if over 10% of heat load)

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
<i>all fans HVI listed</i> Make Broan or Equiv.			

House Type 9.32.3.1(2)		
I	<input checked="" type="checkbox"/>	Type a) or b) appliances only, no solid fuel
II	<input type="checkbox"/>	Type I except with solid fuel (including fireplace)
III	<input type="checkbox"/>	Any type c) appliance
IV	<input type="checkbox"/>	Type I or II either electric space heat
Other	<input type="checkbox"/>	Type I, II or IV no forced air

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

System Design Option		
1	<input type="checkbox"/>	Exhaust only / forced air system
2	<input type="checkbox"/>	HRV WITH DUCTING / forced air system
3	<input checked="" type="checkbox"/>	HRV simplified connection to forced air system
4	<input type="checkbox"/>	HRV full ducting/not coupled to forced air system
	<input type="checkbox"/>	Part 6 design

Name	David DaCosta		
Signature			
HRAI #	5190	BCIN #	32964
Date	November 18, 2022		



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)

Page 7
 Project # PJ-00041
 Layout # JB-08594

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 S42-19 - WOB	Unit number	Lot/Con
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):	<u>Package A1</u>	Table: <u>3.1.1.2.A</u>
--	-------------------	-------------------------

C. Project Design Conditions

Climatic Zone (SB-1):	Heat. Equip. Efficiency	Space Heating Fuel Source
<input checked="" type="checkbox"/> Zone 1 (< 5000 degree days) <input type="checkbox"/> Zone 2 (≥ 5000 degree days)	<input checked="" type="checkbox"/> ≥ 92% AFUE <input type="checkbox"/> ≥ 84% < 92% AFUE	<input checked="" type="checkbox"/> Gas <input type="checkbox"/> Propane <input type="checkbox"/> Solid Fuel <input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of Walls = <u>465.1</u> m ² or <u>5006.4</u> ft ²	W,S & G % = <u>11.1%</u>	<input type="checkbox"/> Log/Post&Beam <input type="checkbox"/> ICF Above Grade <input type="checkbox"/> ICF Basement <input type="checkbox"/> Slab-on-ground <input checked="" type="checkbox"/> Walkout Basement <input checked="" type="checkbox"/> Air Conditioning Combo Unit <input type="checkbox"/> Air Sourced Heat Pump (ASHP) <input type="checkbox"/> Ground Source Heat Pump (GSHP)
Area of W, S & G = <u>51.838</u> m ² or <u>558.0</u> ft ²	Utilize Window <input type="checkbox"/> Yes Averaging <input checked="" type="checkbox"/> No	

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

Energy Efficiency Substitutions			
<input type="checkbox"/> ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5))			
<input type="checkbox"/> Combined space heating and domestic water heating systems (3.1.1.2(7) / 3.1.1.3.(7))			
<input type="checkbox"/> Airtightness substitution(s) Airtightness test required (Refer to Design Guide Attached)	<input type="checkbox"/> Table 3.1.1.4.B Required:	Permitted Substitution:	
	<input type="checkbox"/> Table 3.1.1.4.C Required:	Permitted Substitution:	
		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 59.22	Windows/Sliding Glass Doors	1.6
Ceiling without Attic Space	31 27.65	Skylights	2.8
Exposed Floor	31 29.80	Mechanicals	
Walls Above Grade	22 17.03	Heating Equip.(AFUE)	96%
Basement Walls	20.0ci 21.12	HRV Efficiency (SRE% at 0°C)	75%
Slab (all >600mm below grade)	x x	DHW Heater (EF)	0.80
Slab (edge only ≤600mm below grade)	10 11.13	DWHR (CSA B55.1 (min. 42% efficiency))	#Showers 2
Slab (all ≤600mm below grade, or heated)	10 11.13	Combined Heating System	

(1) U value to be provided in either W/(m²·K) or Btu/(h·ft²·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 David DaCosta	BCIN 32964	Signature
------------------------------	----------------------	---------------

Package: **Package A1** System: **System 1**
Project: **Bradford** Model: **S42-19 - WOB**

Air Leakage Calculations

Building Air Leakage Heat Loss					Building Air Leakage Heat Gain				
B	LRairh	Vb	HL ^{AT}	HLleak	B	LRairh	Vb	HG ^{AT}	HG Leak
0.018	0.432	40968	81.4	25910	0.018	0.106	40968	11	859

Air Leakage Heat Loss/Gain Multiplier Table (Section 11)					Levels			
Level	Level Factor (LF)	Building Air	Level Conductive Heat Loss (HL _{level})	Air Leakage Heat Loss Multiplier	1	2	3	4
Level 1	0.5	25910	13315	0.9730	(LF)	(LF)	(LF)	(LF)
Level 2	0.3		15157	0.5129	1.0	0.6	0.5	0.4
Level 3	0.2		14366	0.3607		0.4	0.3	0.3
Level 4	0		0	0.0000			0.2	0.2

HG LEAK	859	Air Leakage Heat Gain 0.0471
BUILDING CONDUCTIVE HEAT GAIN	18257	

Levels this Dwelling 3

Ventilation Calculations

Ventilation Heat Loss					Ventilation Heat Gain					
Vent	Ventilation Heat Loss					Ventilation Heat Gain				
	C	PVC	HL ^{AT}	(1-E) HRV	HL _{vent}	C	PVC	HG ^{AT}	HG _{vent}	
	1.08	79.5	81.4	0.20	1398	1.1	79.5	11	944	

Case 1					Case 1					
Case 1	Ventilation Heat Loss (Exhaust only Systems)					Ventilation Heat Gain (Exhaust Only Systems)				
	Case 1 - Exhaust Only					Case 1 - Exhaust Only				
	Level	LF	HL _{vent}	LVL Cond. HL	Multiplier	HG _{vent}	944	Multiplier 0.05		
Level 1	0.5	1398	13315	0.05	Building	18257				
Level 2	0.3		15157	0.03						
Level 3	0.2		14366	0.02						
Level 4	0		0	0.00						

Case 2					Case 2					
Case 2	Ventilation Heat Loss (Direct Ducted Systems)					Ventilation Heat Gain (Direct Ducted Systems)				
	Multiplier					Multiplier				
	C	HL ^{AT}	(1-E) HRV	Multiplier		C	HG ^{AT}	Multiplier		
1.08	81.4	0.20	17.58		1.08	11	11.88			

Case 3					Case 3					
Case 3	Ventilation Heat Loss (Forced Air Systems)					Ventilation Heat Gain (Forced Air Systems)				
	Multiplier					Multiplier				
	Total Ventilation Load		HL _{vent}	Multiplier		HG _{vent}	HG*1.3	Vent Heat Gain	Multiplier	
		1398	0.03		944	1	944	0.05		

Foundation Conductive Heatloss Level 1	Level 1	2549	Watts	8698	Btu/h
Foundation Conductive Heatloss Level 2	Level 2		Watts		Btu/h
Slab on Grade Foundation Conductive Heatloss			Watts		Btu/h
Walk Out Basement Foundation Conductive Heatloss		186	Watts	634	Btu/h

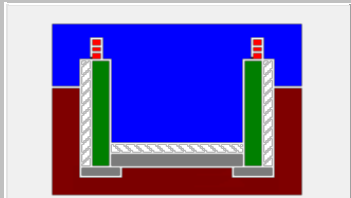
Envelope Air Leakage Calculator

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):				9.75
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Shallow			
House Volume (m ³):				1160.21
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:	Total Exhaust:		
	39.75	39.75		
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Heating Air Leakage Rate (ACH/H):		0.432		
Cooling Air Leakage Rate (ACH/H):		0.106		

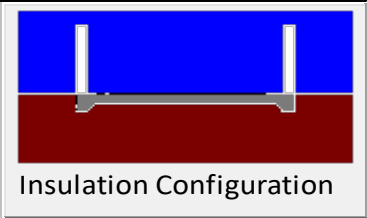
Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

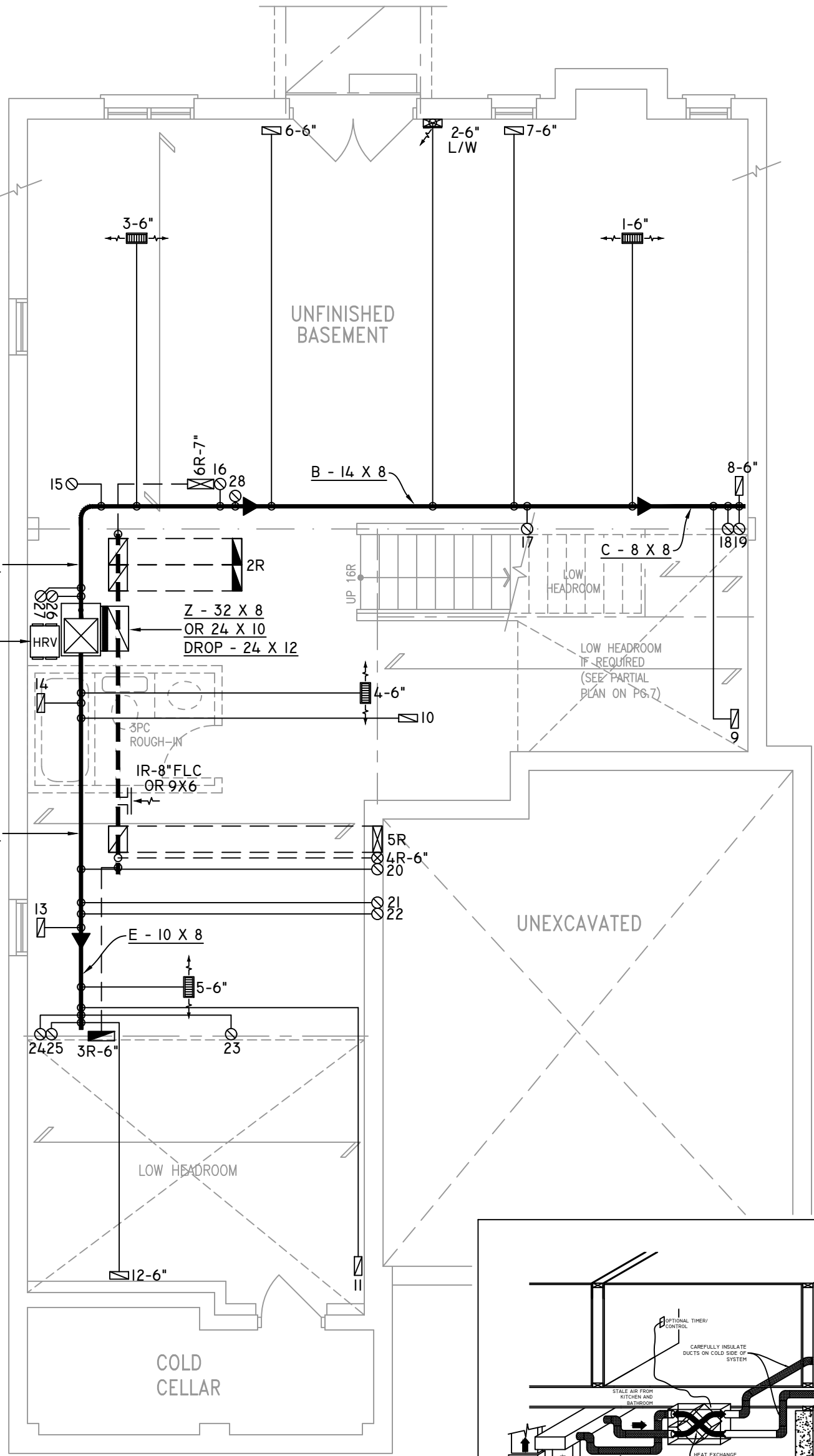
Weather Station Description		
Province:	Ontario	▼
Region:	Bradford	▼
Site Description		
Soil Conductivity:	High conductivity: moist soil	▼
Water Table:	Normal (7-10 m, 23-33 Ft)	▼
Foundation Dimensions		
Floor Length (m):	19.41	 <p>Insulation Configuration</p>
Floor Width (m):	5.73	
Exposed Perimeter (m):	40.54	
Wall Height (m):	3.05	
Depth Below Grade (m):	0.76	
Window Area (m ²):	0.56	
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):	2549	

Residential Slab on Grade Thermal Load Calculator

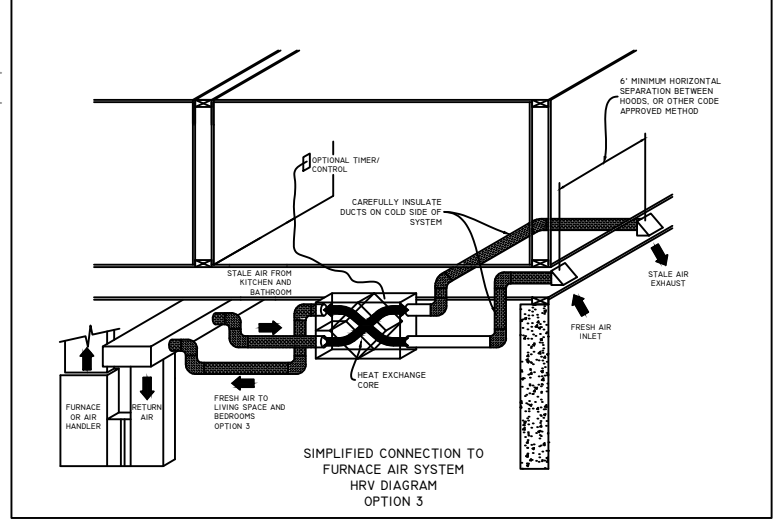
Supplemental tool for CAN/CSA-F280

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 Dimensions		
Length (m):	10.13	 <p>Insulation Configuration</p>
Width (m):	0.84	
Exposed Perimeter (m):	12.19	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	186	

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



- FURNACE EQUIPPED WITH BRUSHLESS DC MOTOR AS PER OBC 12.3.1.5 (2)
- FOR THE PURPOSE OF HEATLOSS/GAIN CALCULATIONS ALL ELEVATIONS HAVE BEEN CONSIDERED
- INSULATE ALL DUCTS IN UNCONDITIONED SPACES MIN. R12
- ALL DUCTWORK LOCATED IN UNCONDITIONED AREAS MUST BE SEALED TO CLASS A LEVEL AS PER OBC PART 6-6.2.4.3.(II)
- 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

DAVID DA COSTA *David Da Costa* B.C.I.N. 32964
SIGNATURE OF DESIGNER

PARTIAL BASEMENT PLAN 'A' - W.O.B. CONDITION (ELEV. 'B' & 'C' SIMILAR)

OBC 2012

ZONE I 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 R12 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

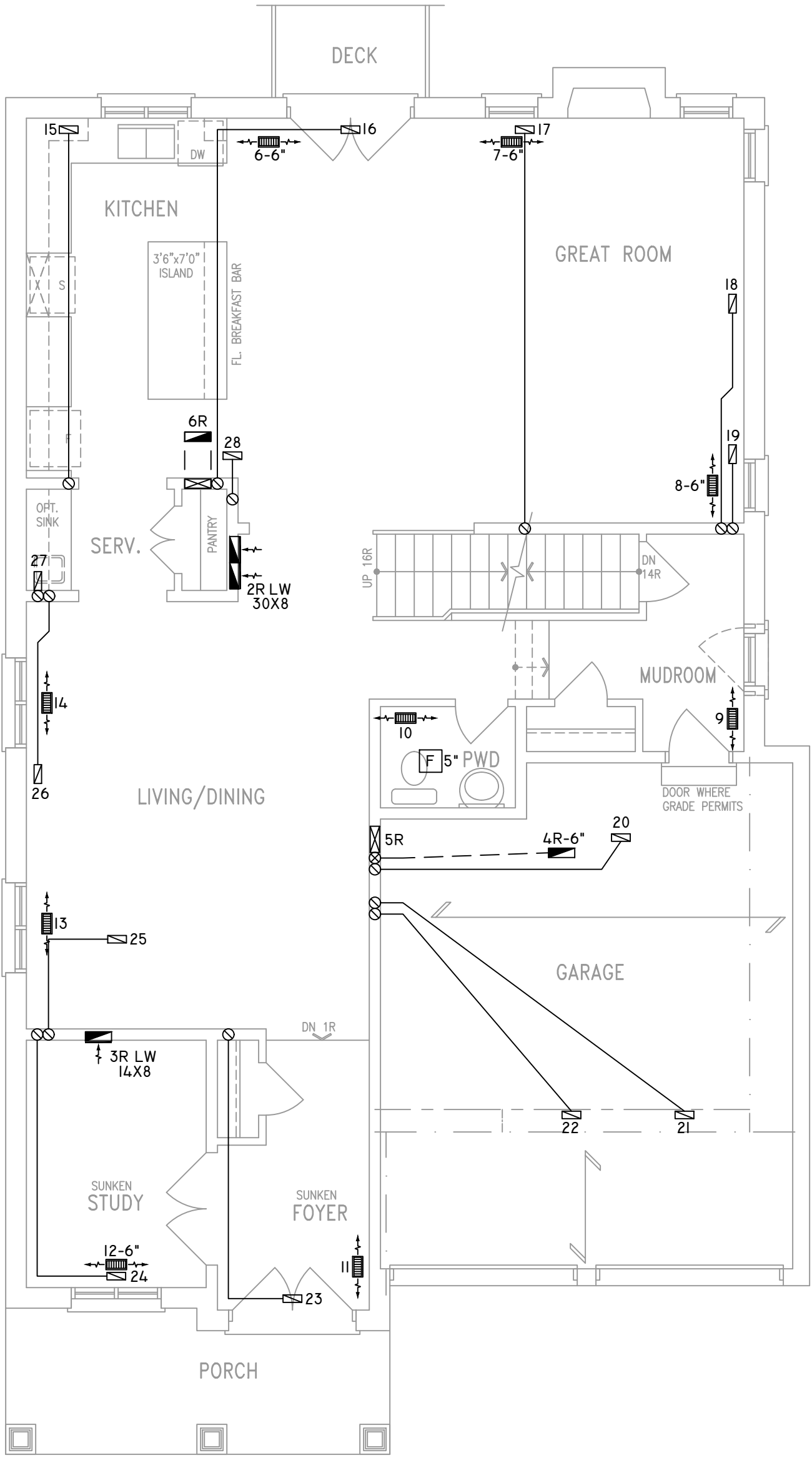
HEAT-LOSS	70,605	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
1ST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: BASEMENT	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO: JB-08594	SQFT: 3130
DRAWING NO: MI	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

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



KITCHEN EXHUST
100 CFM MIN. 6"
ALL OTHER FANS SHALL BE
A MIN. OF 50 CFM OR
OTHERWISE NOTED
AS PER 9.32.3.5

CIRCULATION PRINCIPAL
FAN SWITCH
TO BE CENTRALLY
LOCATED

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

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

ALL DUCTWORK LOCATED IN
UNCONDITIONED AREAS
MUST BE SEALED TO CLASS
A LEVEL AS PER OBC PART
6-6.2.4.3.(II)

ALL DUCTWORK LOCATED IN
CONDITIONED AREAS
MUST BE SEALED TO CLASS
C LEVEL AS PER OBC PART
6-6.2.4.3.(I2)

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 *David Da Costa* B.C.I.N. 32964
SIGNATURE OF DESIGNER

GROUND FLOOR PLAN 'A'

OBC 2012

ZONE I 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 R12 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@GTADDESIGNS.CA
WEB: WWW.GTADDESIGNS.CA

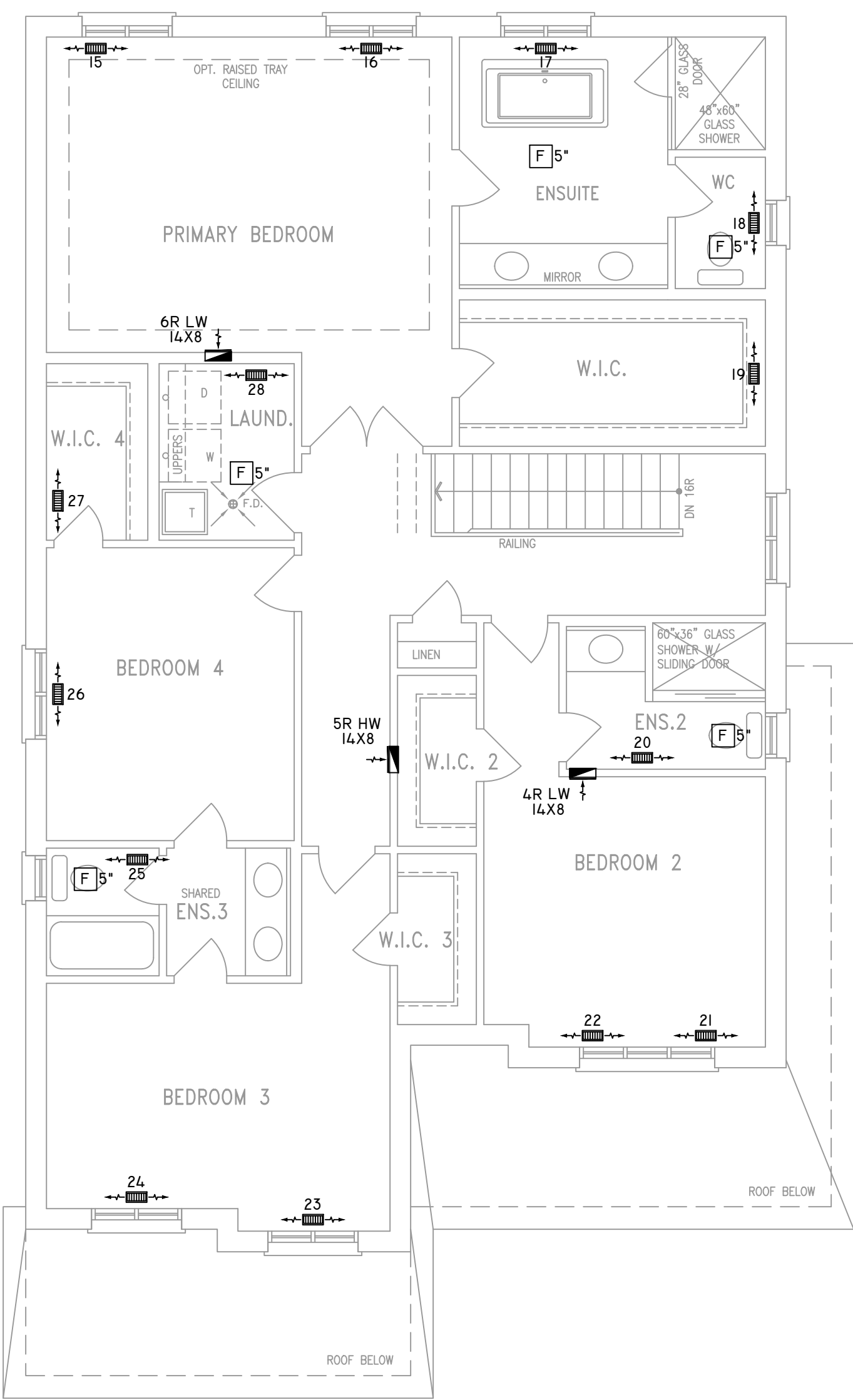
HEAT-LOSS	70,605	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
1ST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: GROUND FLOOR		
DRAWN BY: JL	CHECKED: DD	SQFT: 3130
LAYOUT NO. JB-08594	DRAWING NO. M2	

DATE: NOVEMBER 18, 2022
CLIENT: BAYVIEW WELLINGTON
MODEL: S42-19 - WOB
PROJECT: GREEN VALLEY EAST BRADFORD, ONT.
SCALE: 3/16" = 1'-0"

	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT		THERMOSTAT
			VOLUME DAMPER				RETURN AIR FROM SECOND FLOOR		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. R12
- ALL DUCTWORK LOCATED IN UNCONDITIONED AREAS MUST BE SEALED TO CLASS A LEVEL AS PER OBC PART 6-6.2.4.3.(11)
- 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

DAVID DA COSTA *David Da Costa* B.C.I.N. 32964
 SIGNATURE OF DESIGNER

SECOND FLOOR PLAN 'A'

OBC 2012

ZONE I 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 R12 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.



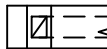














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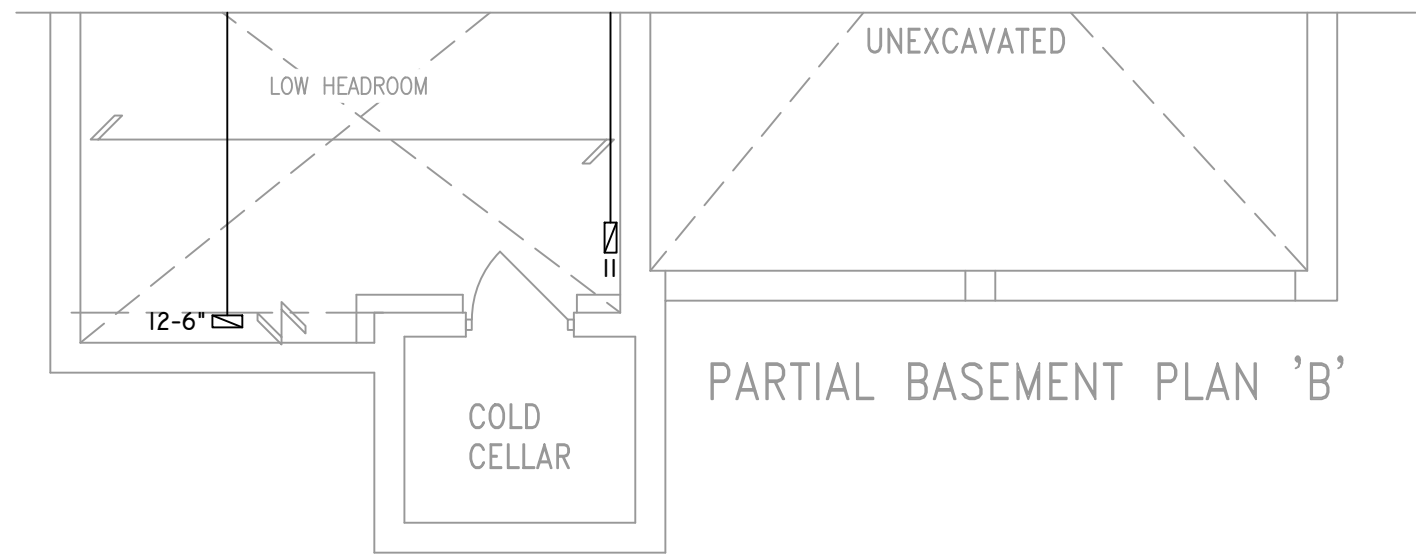
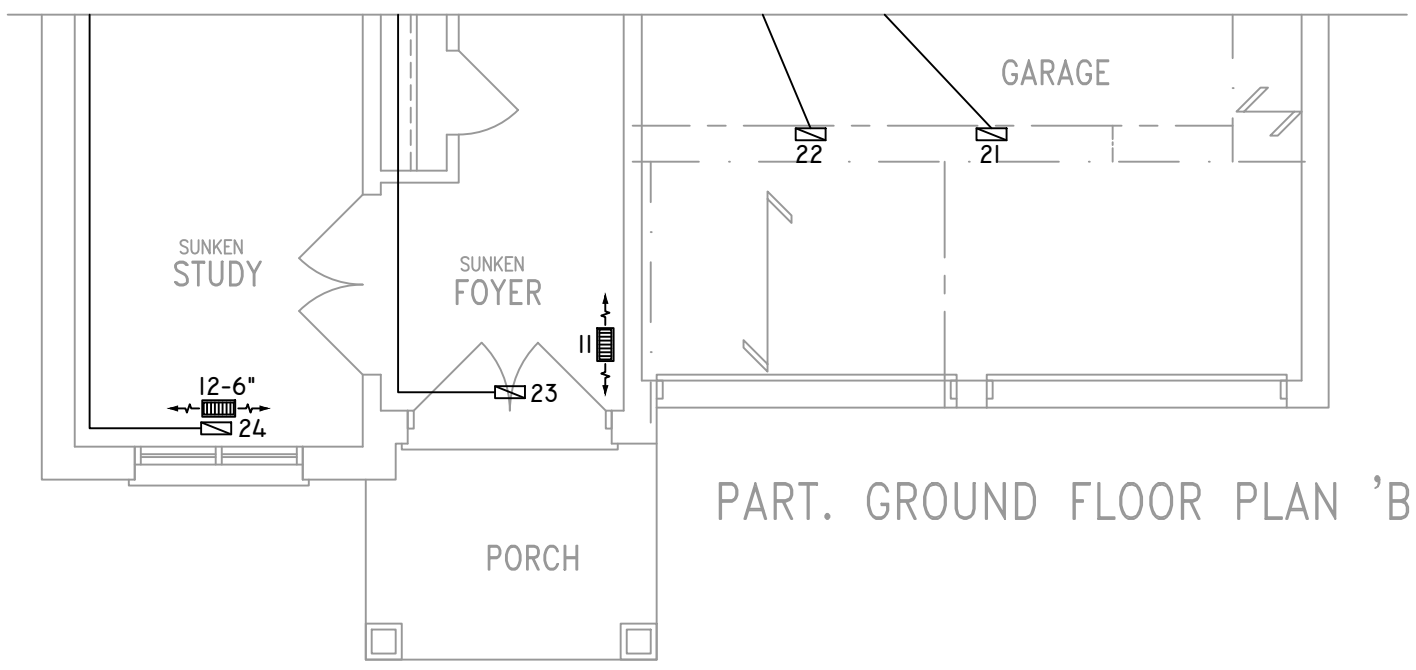
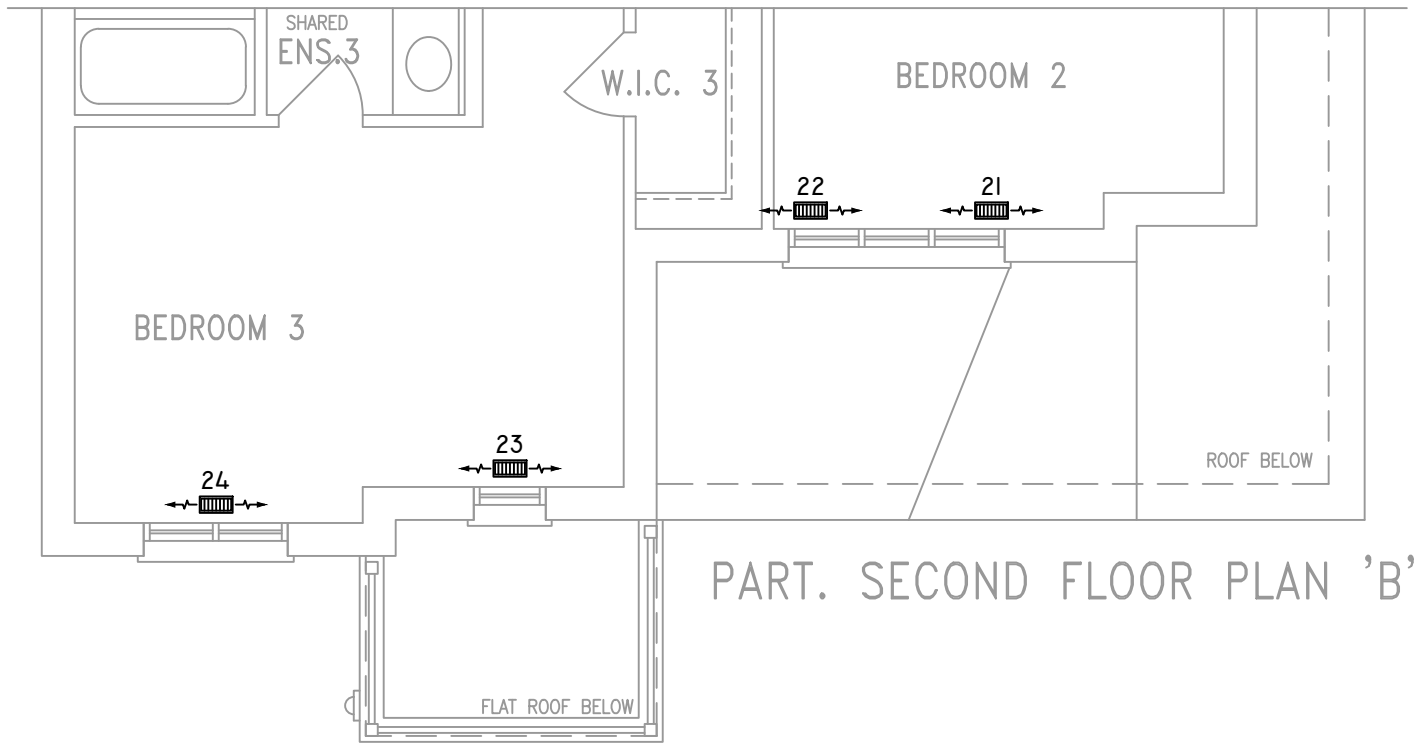
HEAT-LOSS	70,605	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
1ST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: SECOND FLOOR	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO: JB-08594	DRAWING NO: M3
sqft	3130

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

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



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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

OBC 2012

ZONE I 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 R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

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GTADESIGNS

















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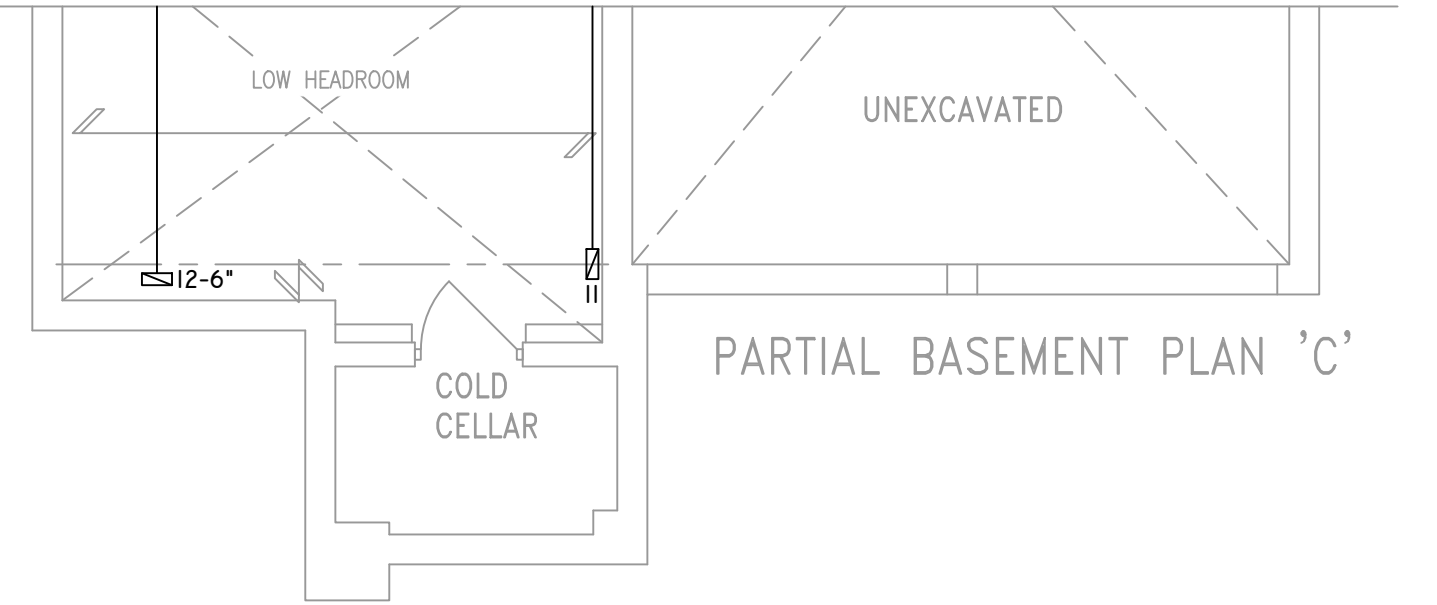
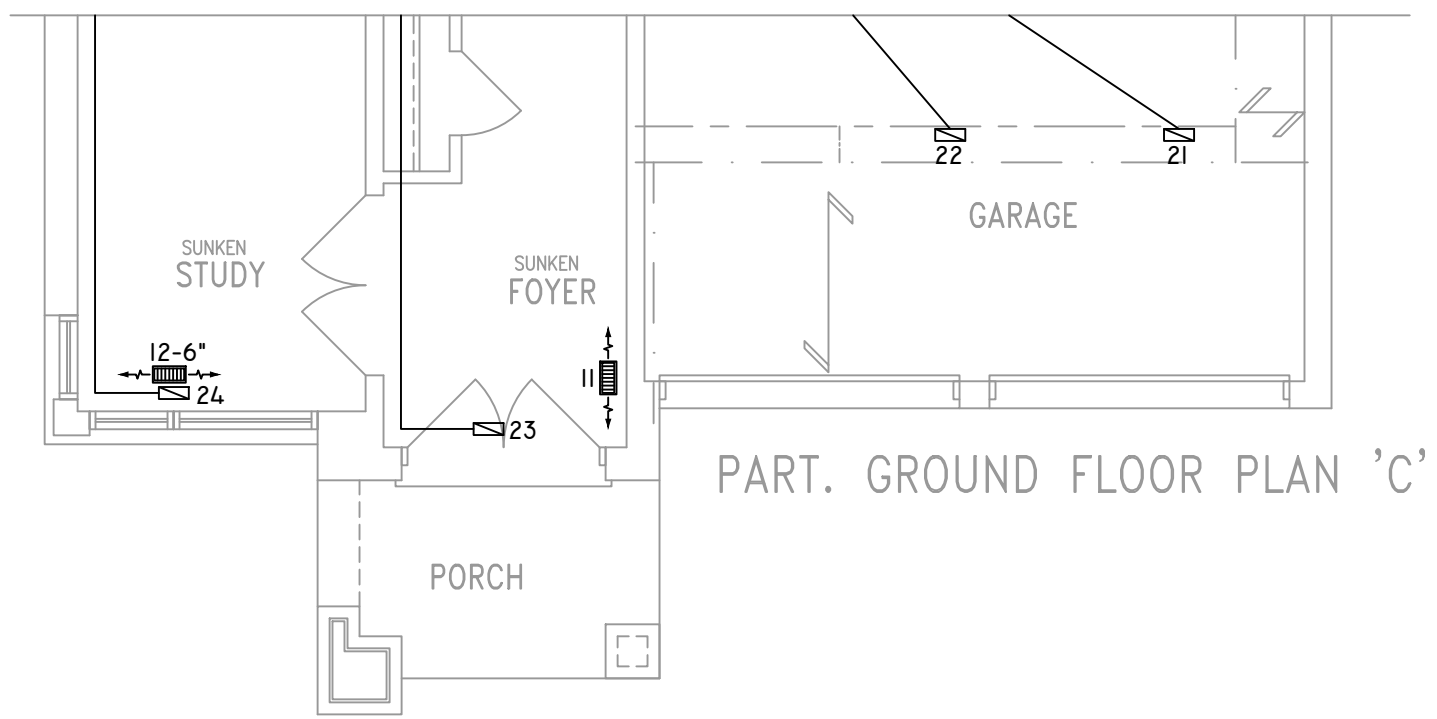
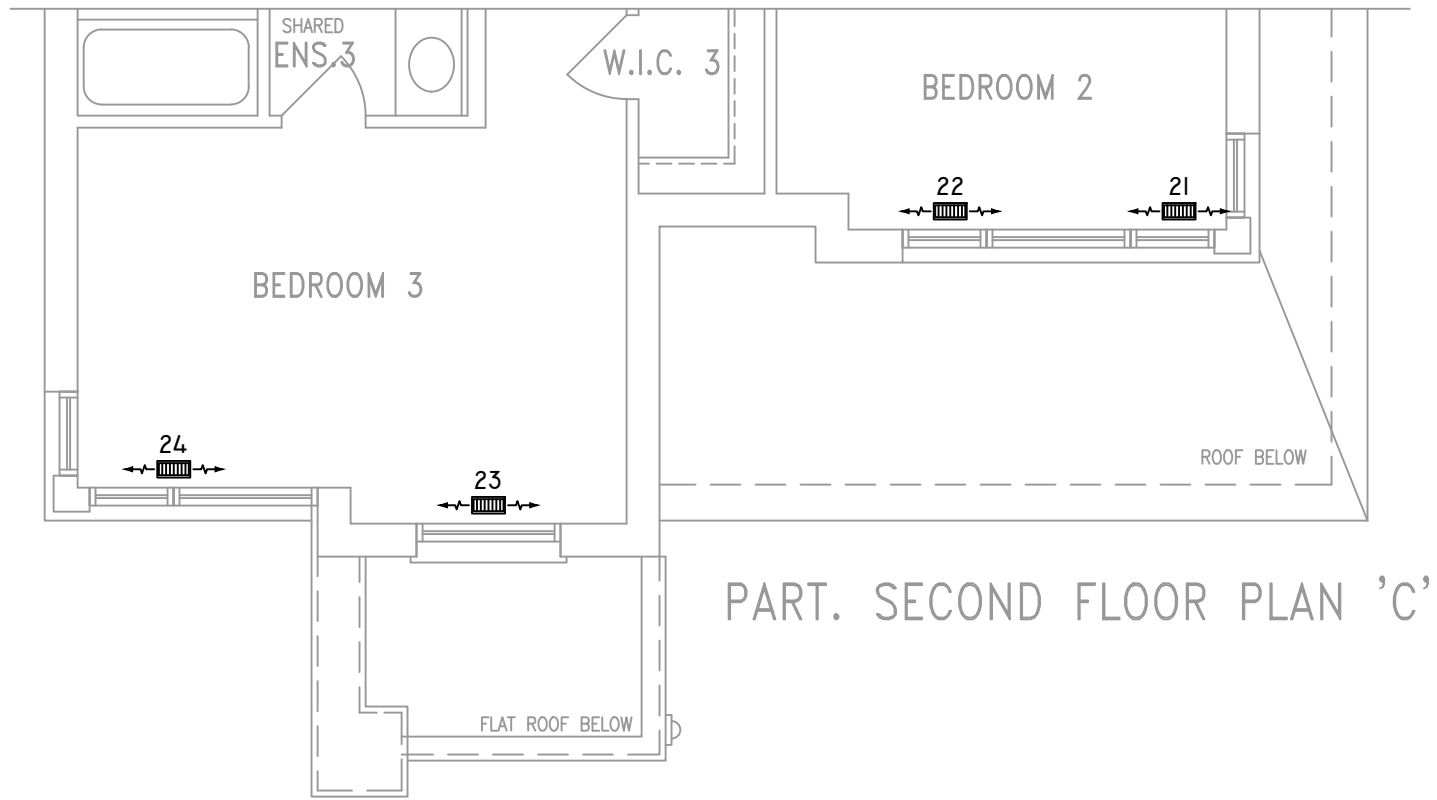
HEAT-LOSS	70,605	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
1ST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: JL	CHECKED: DD
LAYOUT NO: JB-08594	DRAWING NO: M4
3130	3130

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

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



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DAVID DA COSTA  B.C.I.N. 32964
SIGNATURE OF DESIGNER

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 R12 UNDERCUT ALL DOORS 1" MIN.

CONTRACTOR MUST WORK FROM APPROVED PLANS.

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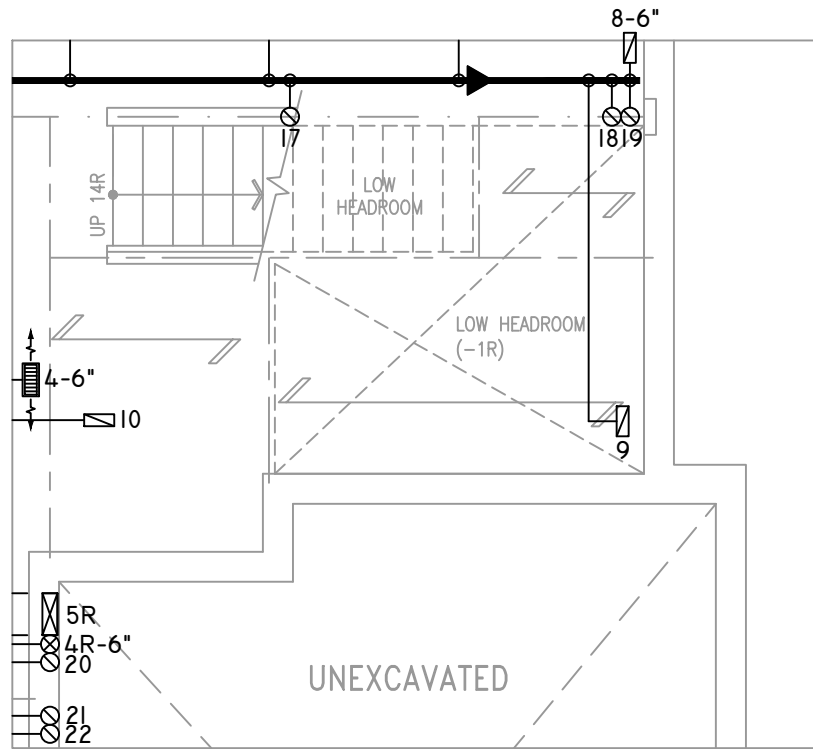
HEAT-LOSS	70,605	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
1ST FLOOR	9	2	2
BASEMENT	5	1	

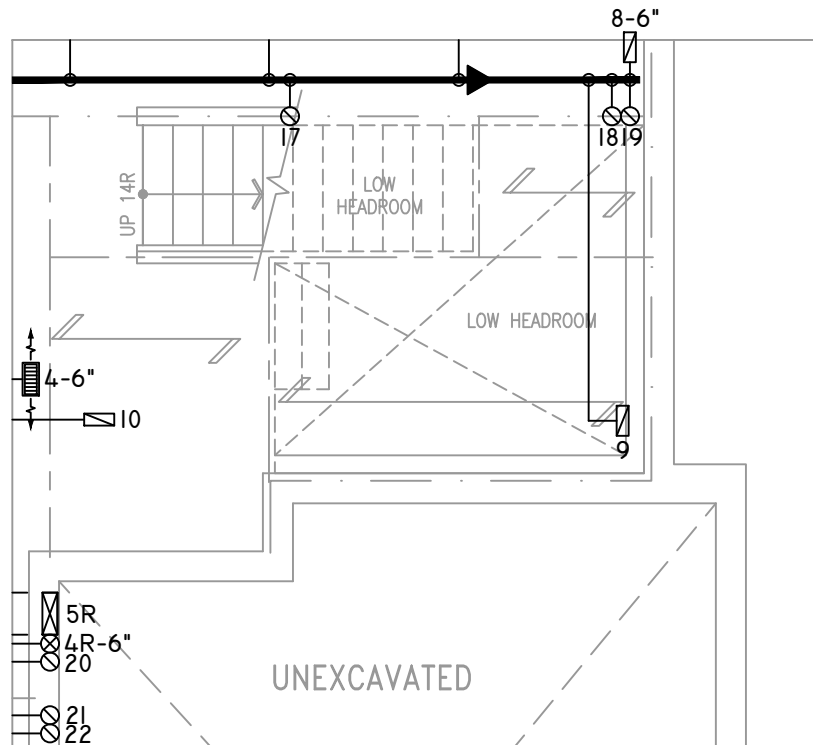
FLOOR PLAN:		PARTIAL PLAN(S)
DRAWN BY:	CHECKED:	SOFT
JL	DD	3130
LAYOUT NO.	DRAWING NO.	
JB-08594	M5	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"

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



PARTIAL BASEMENT PLAN W/
SUNKEN MUDROOM (-1R COND.)



PARTIAL BASEMENT PLAN W/ SUNKEN
MUDROOM (-2R TO -3R COND.)

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DAVID DA COSTA B.C.I.N. 32964
SIGNATURE OF DESIGNER

OBC 2012

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

NOTES

INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.

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UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	14	3	5
1ST FLOOR	9	2	2
BASEMENT	5	1	

FLOOR PLAN:		
PARTIAL PLAN(S)		
DRAWN BY:	CHECKED:	SQFT
JL	DD	3130
LAYOUT NO.	DRAWING NO.	
JB-08594	M6	

DATE:	NOVEMBER 18, 2022
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-19 - WOB
PROJECT:	GREEN VALLEY EAST BRADFORD, ONT.
SCALE:	3/16" = 1'-0"