

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 Rideau 6				Lot: S42-6	
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 dave@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 ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems					
Description of designer's work			Model Certification		Project #:
					Layout #:
Heating and Cooling Load Calculations			Main	X	Bayview Wellington
Air System Design			Alternate		Green Valley East
Residential mechanical ventilation Design Summary			Area Sq ft:	3466	Rideau 6
Residential System Design per CAN/CSA-F280-12					S42-6
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) ☐ 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: <u>32964</u> Basis for exemption from registration: <u>Division C 3.2.4.1. (4)</u> ☐ 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>April 4, 2018</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.	
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.				JB-04588	
Building Location					
Address (Model): S42-6			Site: Green Valley East		
Model: Rideau 6			Lot:		
City and Province: Bradford			Postal code:		
Calculations based on					
Dimensional information based on:			VA3 Design Jan/2018		
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? LifeBreath		RNC155	Internal shading: Light-translucent		Occupants: 5
Sensible Eff. at -25C 71%		Apparent Effect. at -0C 84%	Units: Imperial		Area Sq ft: 3466
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 dave@gtadesigns.ca		

Builder: **Bayview Wellington**

Date: **April 4, 2018**

Project: **Green Valley East**

Model: **Rideau 6 S42-6**

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

David DaCosta

Project # **PJ-00204**
Layout # **JB-04588**

Page 3

DESIGN LOAD SPECIFICATIONS		AIR DISTRIBUTION & PRESSURE		FURNACE/AIR HANDLER DATA:		BOILER/WATER HEATER DATA:		A/C UNIT DATA:	
Level 1 Net Load	18,499 btu/h	Equipment External Static Pressure	0.5 "w.c.	Make	Amana	Make	Type	Amana	3.0 Ton
Level 2 Net Load	23,665 btu/h	Additional Equipment Pressure Drop	0.225 "w.c.	Model	AMEC960803BNA	Model		Cond.-----	3.0
Level 3 Net Load	17,446 btu/h	Available Design Pressure	0.275 "w.c.	Input Btu/h	80000	Input Btu/h		Coil -----	3.0
Level 4 Net Load	582 btu/h	Return Branch Longest Effective Length	300 ft	Output Btu/h	76800	Output Btu/h			
Total Heat Loss	60,191 btu/h	R/A Plenum Pressure	0.138 "w.c.	E.s.p.	0.50 " W.C.	Min.Output Btu/h	AWH		
Total Heat Gain	33,007 btu/h	S/A Plenum Pressure	0.14 "w.c.	Water Temp	deg. F.	Blower DATA:			
Combo System HL + 10%	66,210 Btu/h	Heating Air Flow Proportioning Factor	0.0195 cfm/btu/h	AFUE	96%	Blower Speed Selected:	W2	Blower Type	ECM
Building Volume Vb	40087 ft³	Cooling Air Flow Proportioning Factor	0.0355 cfm/btu/h	Aux. Heat				(Brushless DC OBC 12.3.1.5.(2))	
Ventilation Load	1,342 Btu/h.	R/A Temp	70 deg. F.	SB-12 Package	Package A1	Heating Check	1172 cfm	Cooling Check	1172 cfm
Ventilation PVC	79.5 cfm	S/A Temp	131 deg. F.			Selected cfm>	1172 cfm	Cooling Air Flow Rate	1172 cfm
Supply Branch and Grill Sizing		Diffuser loss	0.01 "w.c.	Temp. Rise>>>	61 deg. F.				

	Level 1														Level 2													
S/A Outlet No.	1	2	3	4											5	6	7	8	9	10	11	12	13	14	15			
Room Use	BASE	BASE	BASE	BASE											KIT	KIT	STUDY	MUD	FOY	FOY	PWD	LIV/DIN	LIV/DIN	GRT	GRT			
Btu/Outlet	4625	4625	4625	4625											2001	2001	1820	1608	4681	4681	748	1302	1302	1761	1761			
Heating Airflow Rate CFM	90	90	90	90											39	39	35	31	91	91	15	25	25	34	34			
Cooling Airflow Rate CFM	18	18	18	18											75	75	52	8	95	95	15	61	61	60	60			
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	43	48	31	33											53	55	35	28	36	40	30	8	38	55	55			
Equivalent Length	100	160	120	110	70	70	70	70	70	70	70	70	70	70	120	150	130	150	90	120	110	90	90	90	70	70	70	
Total Effective Length	143	208	151	143	70	70	70	70	70	70	70	70	70	70	173	205	165	178	126	160	140	98	128	145	125	70	70	70
Adjusted Pressure	0.09	0.06	0.09	0.09	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.06	0.08	0.07	0.10	0.08	0.09	0.13	0.10	0.09	0.10	0.19	0.19	0.19
Duct Size Round	6	6	6	6											6	6	5	4	6	6	3	5	5	6	6			
Outlet Size	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	3x10	3x10	4x10	4x10	3x10	3x10	3x10	4x10	4x10	4x10	4x10	4x10
Trunk	D	C	B	F											C	C	B	E	F	F	E	A	B	D	C			

	Level 3														Level 3												
S/A Outlet No.	16	17	18	19	20	21	22	23	24	25	26	27	28														
Room Use	MAST	ENS	WC	ENS 2	BED 2	MED	LAUN	ENS 3	BED 3	BED 3	BED 4	BATH	WIC														
Btu/Outlet	3067	1884	440	618	1284	1649	331	1156	2650	2650	1633	85	582														
Heating Airflow Rate CFM	60	37	9	12	25	32	6	23	52	52	32	2	11														
Cooling Airflow Rate CFM	80	47	6	8	29	57	38	10	61	61	39	2	4														
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	63	63	76	63	57	48	47	42	58	54	19	48	53														
Equivalent Length	130	150	180	100	120	170	140	130	120	110	110	130	70	70	100	70	70	70	70	70	70	70	70	70	70	70	70
Total Effective Length	193	213	256	163	177	218	187	172	178	164	129	178	70	70	153	70	70	70	70	70	70	70	70	70	70	70	70
Adjusted Pressure	0.07	0.06	0.05	0.08	0.07	0.06	0.07	0.08	0.07	0.08	0.10	0.07	0.19	0.19	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
Duct Size Round	6	5	3	3	4	6	5	4	6	6	4	2	3														
Outlet Size	4x10	3x10	3x10	3x10	3x10	4x10	3x10	3x10	4x10	4x10	3x10	3x10	4x10	4x10	3x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10	4x10
Trunk	D	C	C	B	B	E	E	E	E	E	A	B	B														

Return Branch And Grill Sizing												Return Trunk Duct Sizing					Supply Trunk Duct Sizing				
R/A Inlet No.	1R	2R	3R	4R	5R	6R	7R	8R	9R	10R	11R	Trunk	CFM	Press.	Round	Rect. Size	Trunk	CFM	Press.	Round	Rect. Size
Inlet Air Volume CFM	184	460	90	146	146	146						Drop	1172	0.05	17.0	24x12	A	1172	0.05	17.0	26x10
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	Z	1082	0.05	16.5	32x8	B	633	0.05	13.5	20x8
Actual Duct Length	12	23	53	38	38	52						Y	330	0.06	10.5	12x8	C	248	0.05	9.5	10x8
Equivalent Length	110	205	155	155	195	160	50	50	50	50	50	X					D	184	0.07	8.0	8x8
Total Effective Length	122	228	208	193	233	212	50	50	50	50	50	W					E	482	0.06	12.0	16x8
Adjusted Pressure	0.10	0.05	0.06	0.06	0.05	0.06	0.24	0.24	0.24	0.24	0.24	V					F	272	0.08	9.0	8x8
Duct Size Round	8.0	12.0	6.0	7.5	8.0	7.5						U					G				
Inlet Size	FLC	8	8	8	8	8						T					H				
" "	x	x	x	x	x	x	x	x	x	x	x	S					I				
Inlet Size	9x6	30	14	14	14	14						R					J				
Trunk	Y	Z	Z	Z	Y							Q					K				

2012 OBC

Builder: Bayview Wellington

Date: April 4, 2018

Project: Green Valley East

Model: Rideau 6 S42-6

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: 3466

Project # PJ-00204
Layout # JB-04588

Level 1

BASE

Run ft. exposed wall A	177	A	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
Ceiling height	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6	AG	3.6
Floor area	1441	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
Exposed Ceilings 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
Gross Exp Wall A	637												
Gross Exp Wall B													

Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	10.91	12	275	131											
East/West	3.55	22.93	27.35	32	734	875											
South	3.55	22.93	20.89	3	69	63											
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	569		296											
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 Above			7365													
Total Conductive	Heat Loss			8870													
	Heat Gain				1423												
Air Leakage	Heat Loss/Gain	1.0514	0.0382	9327		54											
Ventilation	Case 1		0.08														
	Case 2		14.07														
	Case 3	x	0.03														
Heat Gain People				302		99											
Appliances Loads	1 = .25 percent																
Duct and Pipe loss			10%														
Level 1 HL Total	18,499		Total HL for per room	18499													
Level 1 HG Total	2,049		Total HG per room x 1.3		2049												

Level 2

KIT

STUDY

MUD

FOY

PWD

LIV/DIN

GRT

Run ft. exposed wall A	36	A	19	A	15	A	44	A	7	A	22	A	33	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
Ceiling height	10.0		10.0		12.0		20.0		10.0		10.0		10.0		10.0		10.0
Floor area	306	Area	153	Area	93	Area	209	Area	56	Area	392	Area	230	Area	Area	Area	Area
Exposed Ceilings A	A	A	A	A	A	A	173	A	A	A	5	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	360		190		180		880		70		220		330				
Gross Exp Wall B																	

Components	R-Values	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain	Loss	Gain
North Shaded	3.55	22.93	10.91	24	550	262											
East/West	3.55	22.93	27.35	44	1009	1204											
South	3.55	22.93	20.89														
Existing Windows	1.99	40.90	22.15														
Skylight	2.03	40.10	88.23														
Doors	4.00	20.35	2.75														
Net exposed walls A	17.03	4.78	0.65	292	1396	189	166	793	107	159	760	103	741	3542	479	58	277
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 Above																
Total Conductive	Heat Loss			2955				1344		1187			6913		552		1923
	Heat Gain				1654			369		160			3700		288		1114
Air Leakage	Heat Loss/Gain	0.3202	0.0382	946		63		430		14			2214		142		616
Ventilation	Case 1		0.02														
	Case 2		14.07														
	Case 3	x	0.03														
Heat Gain People				101		115		46		26			235		257		19
Appliances Loads	1 = .25 percent																
Duct and Pipe loss			10%														
Level 2 HL Total	23,665		Total HL for per room	4002				1820		1454			1608		231		9361
Level 2 HG Total	18,492		Total HG per room x 1.3		4227												5328

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

Dave DaCosta

Dave DaCosta

SB-12 Package

Package A1

Total Heat Loss	60,191	btu/h
Total Heat Gain	33,007	btu/h

2012 OBC	Builder: Bayview Wellington	Date: April 4, 2018	Weather Data	Bradford	44	-9.4	86	22	48.2	Heat Loss ^T	81.4 deg. F	Ht gain ^T	11 deg. F	GTA: 3466	Project # PJ-00204	Layout # JB-04588
	Project: Green Valley East	Model: Rideau 6 S42-6	System 1													

Level 3				MAST		ENS		WC		ENS 2		BED 2		MED		LAUN		ENS 3		BED 3		BED 4		BATH																
Run ft. exposed wall A				32	A	20	A	4	A	6	A	11	A	11	A	A		10	A	34	A	18	A	A																
Run ft. exposed wall B				B		B		B		B		B		B		B		B		B		B		B																
Ceiling height				9.0		8.0		8.0		8.0		8.0		8.0		8.0		8.0		9.0		8.0		8.0																
Floor area				321	Area	113	Area	26	Area	55	Area	191	Area	246	Area	53	Area	66	Area	241	Area	189	Area	47	Area															
Exposed Ceilings A				321	A	113	A	26	A	55	A	191	A	246	A	53	A	66	A	241	A	189	A	47	A															
Exposed Ceilings B				B		B		B		B		B		B		B		B		B		B		B																
Exposed Floors				Flr		Flr		Flr		Flr		Flr		Flr		33	Flr	57	Flr	66	Flr	232	Flr	Flr																
Gross Exp Wall A				288		160		32		48		88		88				80		306		144																		
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	10.91					8	183	87	9	206	98	16	367	175	16	367	175																		
East/West				3.55	22.93	27.35	28	642	766																															
South				3.55	22.93	20.89																																		
Existing Windows				1.99	40.90	22.15																																		
Skylight				2.03	40.10	88.23																																		
Doors				4.00	20.35	2.75																																		
Net exposed walls A				17.03	4.78	0.65	260	1243	168	132	631	85	24	115	16	39	186	25	72	344	47	72	344	47																
Net exposed walls B				8.50	9.58	1.29																																		
Exposed Ceilings A				59.22	1.37	0.64	321	441	206	113	155	73	26	36	17	55	76	35	191	263	123	246	338	158	53	73	34	66	91	42	241	331	155	189	260	121	47	65	30	
Exposed Ceilings B				22.86	3.56	1.66																																		
Exposed Floors				29.80	2.73	0.17																																		
Foundation Conductive Heatloss																																								
Total Conductive		Heat Loss					2326				1428			334			468			974			1139			229			799			3662			1238			65		
		Heat Gain						1140		924		119		159		344		385					1139			385		44		187		1965		538			30			
Air Leakage		Heat Loss/Gain		0.2847	0.0382		662	44		407	35	95	5	133	6		277	13		324	15		65	2		227	7		1043	75		353	21		18	1				
Ventilation		Case 1		0.02	0.07																																			
		Case 2		14.07	11.88																																			
		Case 3		x	0.03	0.07																																		
		Heat Gain People			239		2	79	79	478				11	8	16	11		1	33	24		39	27			8	3		27	13		1	125	136		42	37	2	2
		Appliances Loads		1 =.25 percent	5678																																			
		Duct and Pipe loss			10%																																			
Level 3 HL Total		17,446		Total HL for per room				3067			1884		440		618		229		1284		806																			
Level 3 HG Total		12,351		Total HG per room x 1.3					2263		1330		172		229																									

Level 3				WIC											
Run ft. exposed wall A	10	A		A		A		A		A		A		A	
Run ft. exposed wall B	B			B		B		B		B		B		B	
Ceiling height	8.0			8.0		8.0		8.0		8.0		8.0		8.0	
Floor area	43	Area		Area		Area		Area		Area		Area		Area	
Exposed Ceilings A	43	A		A		A		A		A		A		A	
Exposed Ceilings B	B			B		B		B		B		B		B	
Exposed Floors	Flr			Flr		Flr		Flr		Flr		Flr		Flr	
Gross Exp Wall A	80														
Gross Exp Wall B															
Components	R-Values	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												
South	3.55	22.93	20.89												
Existing Windows	1.99	40.90	22.15												
Skylight	2.03	40.10	88.23												
Doors	4.00	20.35	2.75												
Net exposed walls A	17.03	4.78	0.65	80	382	52									
Net exposed walls B	8.50	9.58	1.29												
Exposed Ceilings A	59.22	1.37	0.64	43	59	28									
Exposed Ceilings B	22.86	3.56	1.66												
Exposed Floors	29.80	2.73	0.17												
Foundation Conductive Heatloss															
Total Conductive	Heat Loss			441											
	Heat Gain				79										
Air Leakage	Heat Loss/Gain	0.2847	0.0382	126	3										
Ventilation	Case 1	0.02	0.07												
	Case 2	14.07	11.88												
	Case 3	x	0.03	15	5										
Heat Gain People			239												
Appliances Loads	1 =.25 percent		5678												
Duct and Pipe loss			10%												
Level 4 HL Total	582		Total HL per per room	582											
Level 4 HG Total	114		Total HG per room x 1.3		114										

Total Heat Loss	60,191	btu/h
Total Heat Gain	33,007	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:
S42-6
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) | ☒ | 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

- | | |
|-------------------------------------|--|
| ☒ | Forced air |
| ☐ | Non forced air |
| ☐ | Electric space heat (if over 10% of heat load) |

House Type 9.32.3.1(2)

- | | | |
|-------|-------------------------------------|---|
| I | ☒ | 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 | ☒ | 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	3 @ 10.6 cfm	31.8 cfm
Bathrooms & Kitchen	6 @ 10.6 cfm	63.6 cfm
Other rooms	7 @ 10.6 cfm	74.2 cfm
Total		<u>212</u>

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		<u>79.5</u>

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	212.0
Less principal exhaust capacity	79.5
REQUIRED supplemental vent. Capacity	<u>132.5</u> cfm

Supplemental Fans 9.32.3.5.

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

April 4, 2018



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-00204
 Layout # JB-04588

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	Rideau 6 S42-6	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):

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) ☐ Zone 2 (≥ 5000 degree days)	☒ ≥ 92% AFUE ☐ ≥ 84% < 92% AFUE	☒ Gas ☐ Propane ☐ Solid Fuel ☐ Oil ☐ Electric ☐ Earth Energy
Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area	Other Building Characteristics	
Area of Walls = <u>388.43</u> m ² or <u>4181.1</u> ft ² Area of W, S & G = <u>52.953</u> m ² or <u>570.0</u> ft ²	W, S & G % = <u>14%</u> Utilize Window ☐ Yes Averaging ☒ No	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement ☒ Air Conditioning ☐ Combo Unit ☐ 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: ☐ Table 3.1.1.4.C Required:	Permitted Substitution: 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	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·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	BCIN	Signature
David DaCosta	32964	

Package: Package A1 System: System 1
Project: Bradford Model: S42-6

Air Leakage Calculations

Building Air Leakage Heat Loss				
B	LRairh	Vb	HL ^Δ T	HL _{leak}
0.018	0.318	40087	81.4	18653

Building Air Leakage Heat Gain				
B	LRairh	Vb	HG ^Δ T	HG _{Leak}
0.018	0.079	40087	11	625

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	18653	8870	1.0514
Level 2	0.3		17474	0.3202
Level 3	0.2		13103	0.2847
Level 3	0.2		13103	0.2847

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

HG LEAK		Air Leakage Heat Gain	
	625		0.0382
BUILDING CONDUCTIVE HEAT GAIN			16335

Levels this Dwelling	
3	

Ventilation Calculations

Ventilation Heat Loss

Ventilation Heat Loss				
C	PVC	HL ^Δ T	(1-E) HRV	HL _{bvent}
1.08	95.4	81.4	0.16	1342

Ventilation Heat Gain

Ventilation Heat Gain			
C	PVC	HG ^Δ T	HG _{bvent}
1.1	95.4	11	1133

Case 1

Ventilation Heat Loss (Exhaust only Systems)

Case 1 - Exhaust Only				
Level	LF	HL _{bvent}	LVL Cond. HL	Multiplier
Level 1	0.5	1342	8870	0.08
Level 2	0.3		17474	0.02
Level 3	0.2		13103	0.02
Level 3	0.2		13103	0.02

Case 1

Ventilation Heat Gain (Exhaust Only Systems)

Case 1 - Exhaust Only		Multiplier
HG _{bvent}	1133	0.07
Building	16335	

Case 2

Ventilation Heat Loss (Direct Ducted Systems)

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

Case 2

Ventilation Heat Gain (Direct Ducted Systems)

C	HG ^Δ T	Multiplier
1.08	11	11.88

Case 3

Ventilation Heat Loss (Forced Air Systems)

HL _{bvent}		Multiplier
Total Ventilation Load	1342	0.03

Case 3

Ventilation Heat Gain (Forced Air Systems)

Vent Heat Gain		Multiplier
HG _{bvent}	HG*1.3	0.07
1133	1	

Foundation Conductive Heatloss Level 1

2159 Watts 7365 Btu/h

Foundation Conductive Heatloss Level 2

Watts Btu/h

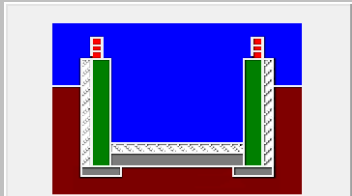
Envelope Air Leakage Calculator

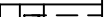
Supplemental tool for CAN/CSA-F280

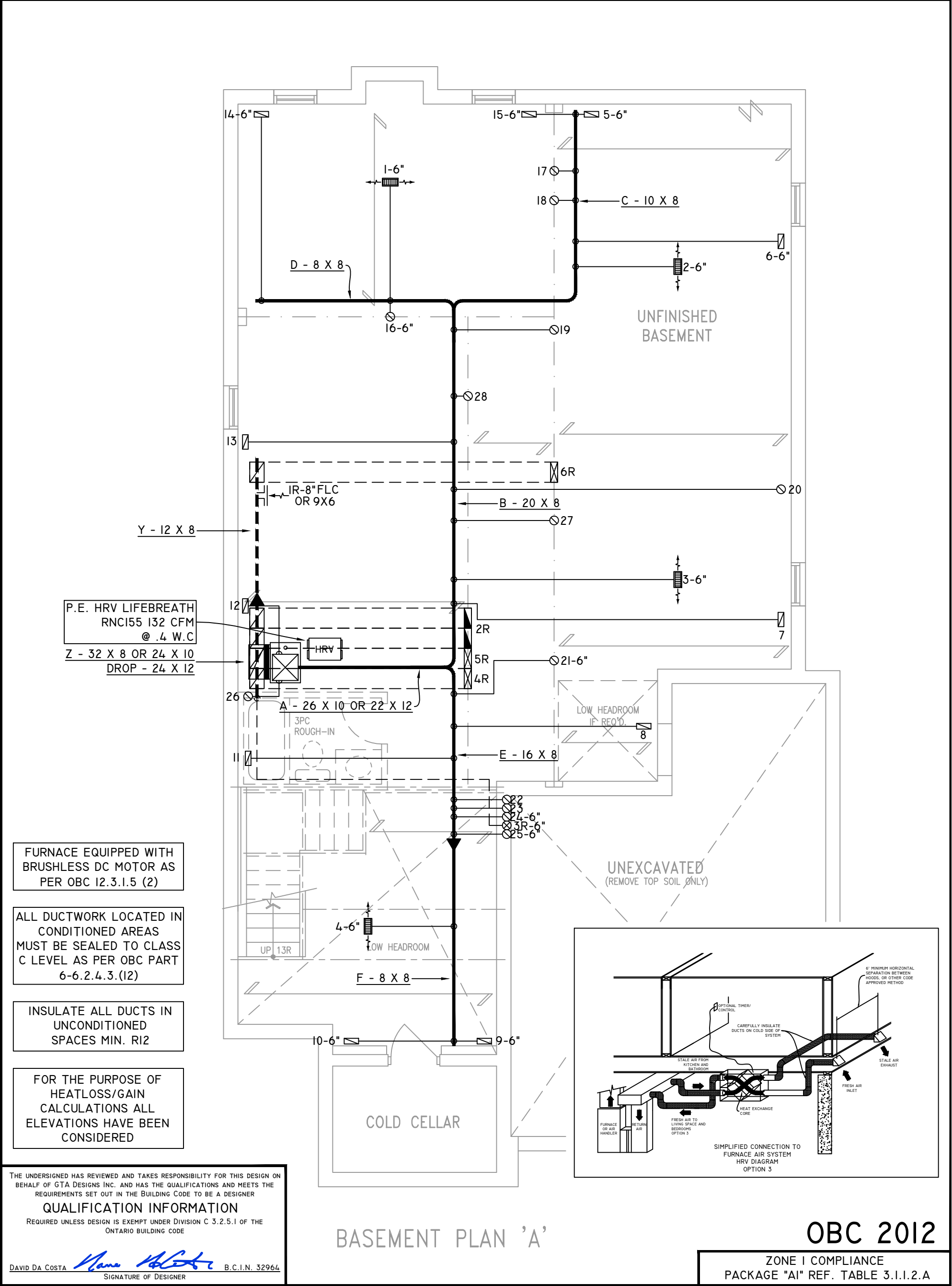
Weather Station Description				
Province:	Ontario ▼			
Region:	Bradford ▼			
Weather Station Location:	Open flat terrain, grass ▼			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest ▼			
Walls:	Heavy ▼			
Flue:	Heavy ▼			
Highest Ceiling Height (m):	6.58			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1135.26			
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):		0.318		
Cooling Air Leakage Rate (ACH/H):		0.079		

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):	20.42	 Insulation Configuration
Floor Width (m):	6.56	
Exposed Perimeter (m):	53.95	
Wall Height (m):	2.74	
Depth Below Grade (m):	1.65	
Window Area (m ²):	4.37	
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):		2159

	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



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

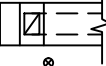
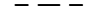
2985 DREW ROAD
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L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

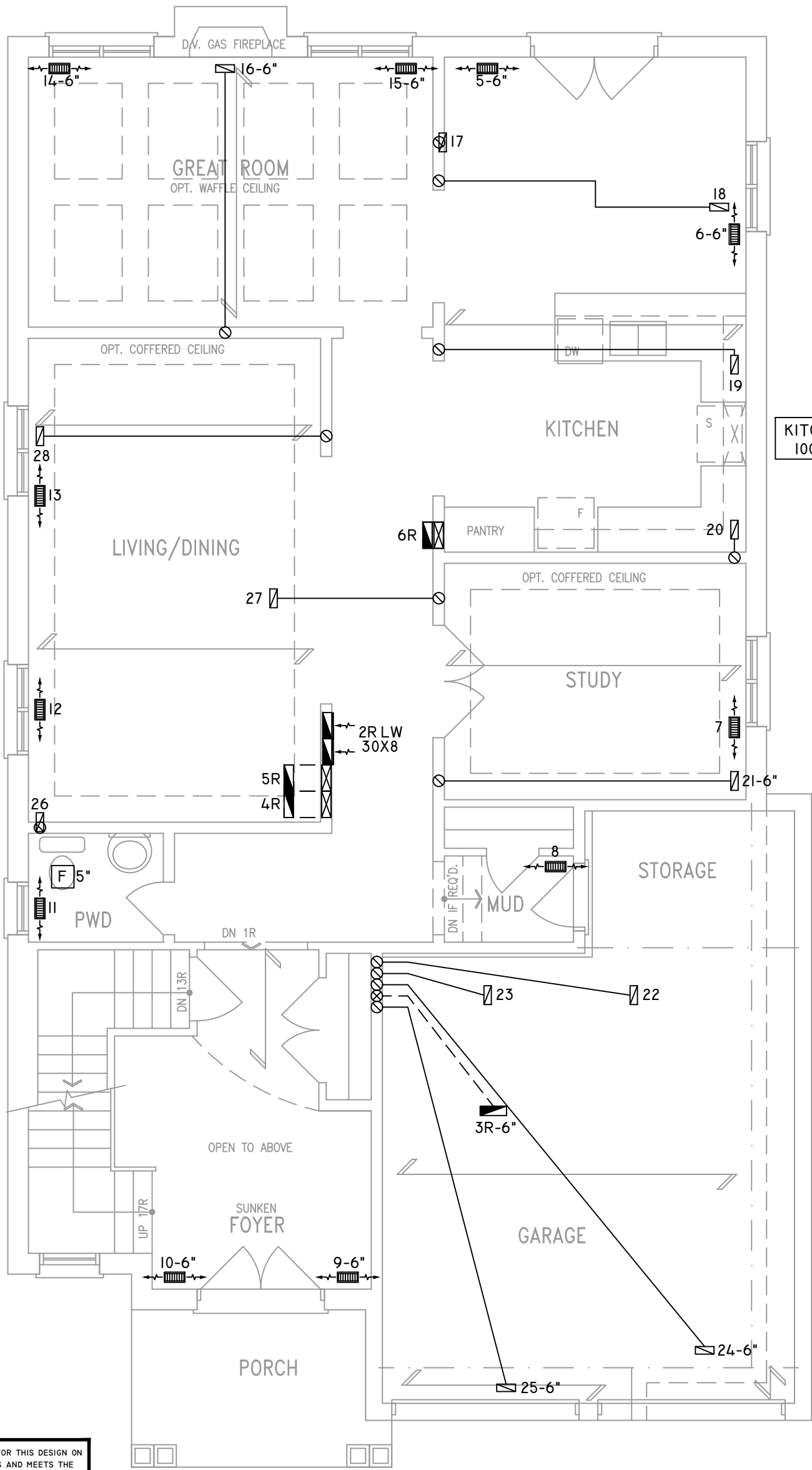
HEAT-LOSS	60,191	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	6
1ST FLOOR	11	1	2
BASEMENT	4	1	

FLOOR PLAN:	BASEMENT
DRAWN BY:	AM
CHECKED:	DD
LAYOUT NO.	JB-04588
SQFT	3466
DRAWING NO.	MI

DATE:	APRIL 4, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-6 RIDEAU 6
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. R.A. T \$ F PE	SUPPLY AIR RETURN AIR THERMOSTAT PRINCIPAL EXHAUST FAN SWITCH W/R & PRINCIPAL EXHAUST FAN
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE		
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN ROUND DUCT		RETURN AIR FROM BASEMENT SECOND FLOOR		



KITCHEN EXHAUST
100 CFM MIN. 6"

CIRCULATION PRINCIPAL
FAN SWITCH
TO BE CENTRALLY
LOCATED

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

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

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

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

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.

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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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GTA DESIGNS MUST BE CONSULTED IF KITCHEN EXHAUST FAN EXCEEDS 700 CFM DEPRESSURIZATION MAY OCCUR WITH IN THE DWELLING.



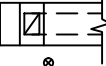
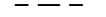
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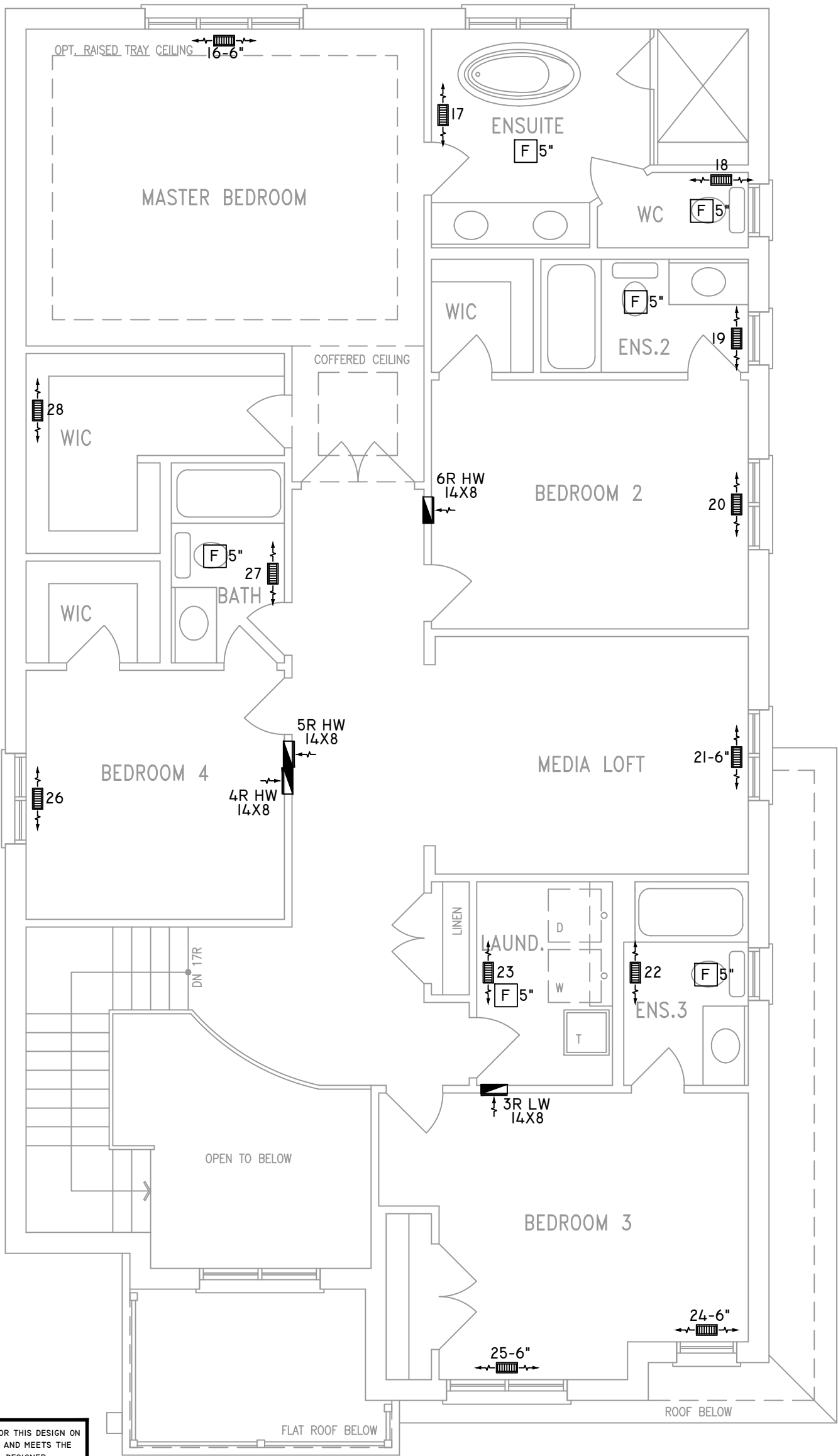
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FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	6
1ST FLOOR	11	1	2
BASEMENT	4	1	

FLOOR PLAN: GROUND FLOOR	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04588	SGFT 3466
	DRAWING NO. M2

DATE:	APRIL 4, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-6 RIDEAU 6
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

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	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



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

INSULATE ALL DUCTS IN
UNCONDITIONED
SPACES MIN. R12

FOR THE PURPOSE OF
HEATLOSS/GAIN
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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

SECOND FLOOR PLAN 'A' 4 BEDROOM + MEDIA LOFT

OBC 2012

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

NOTES

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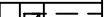

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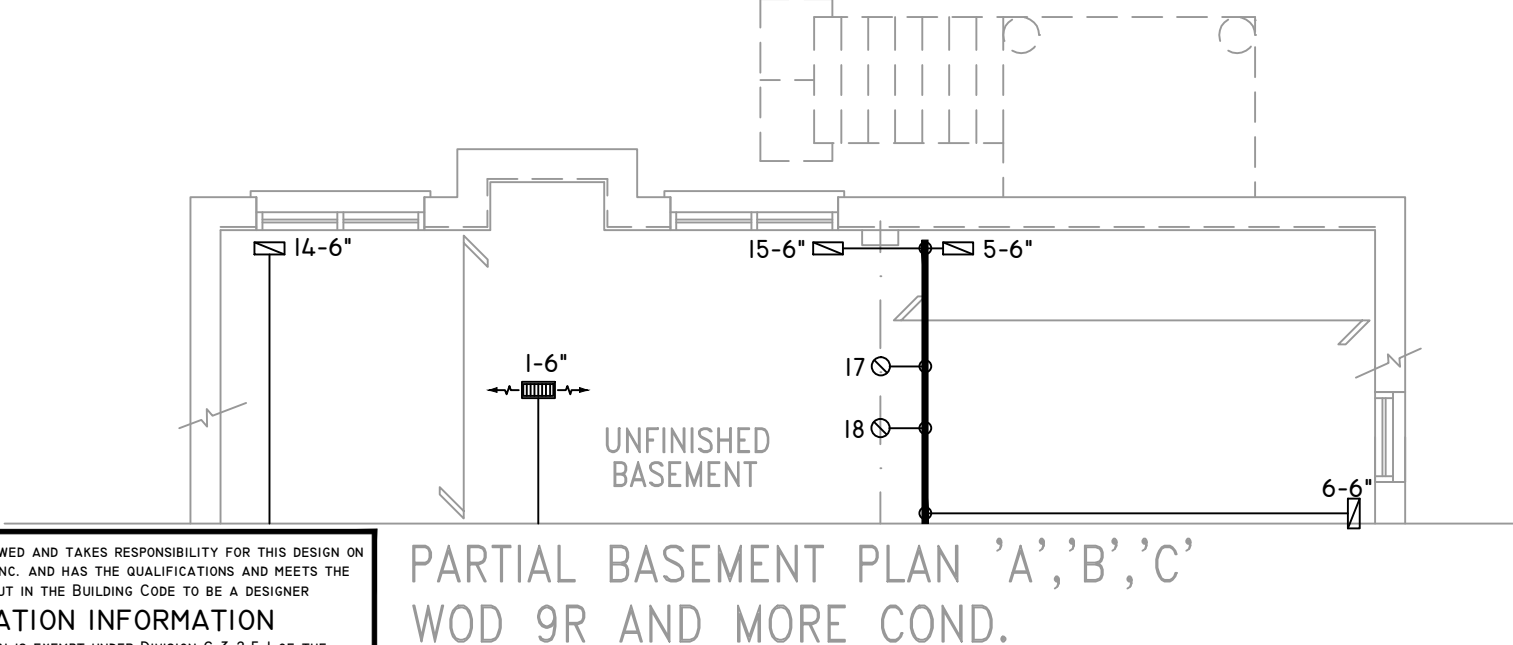
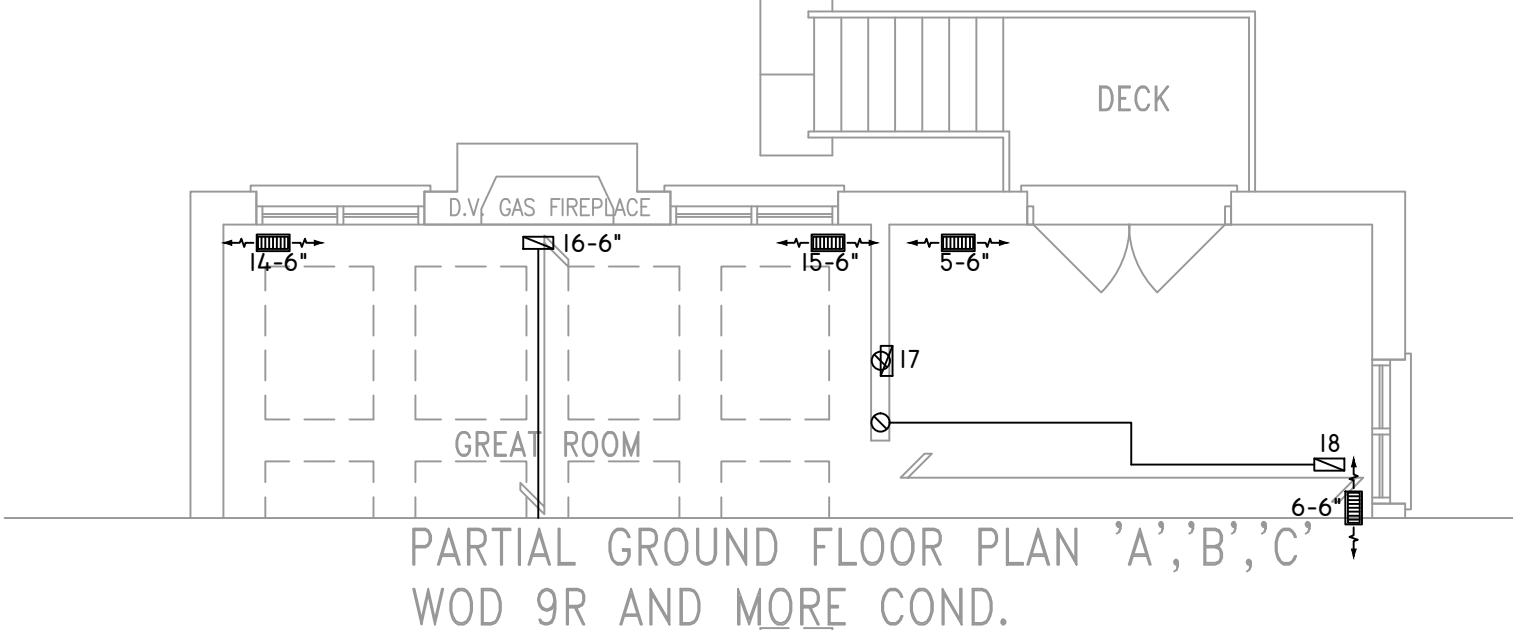
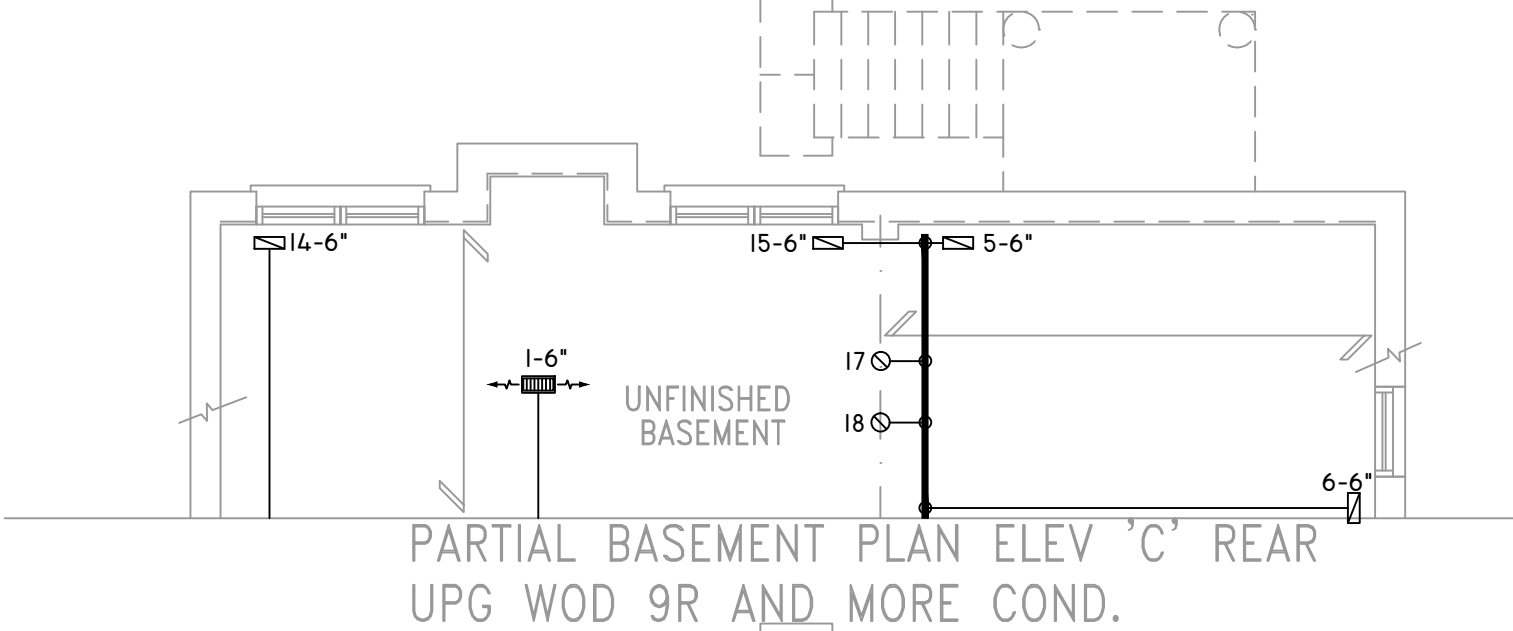
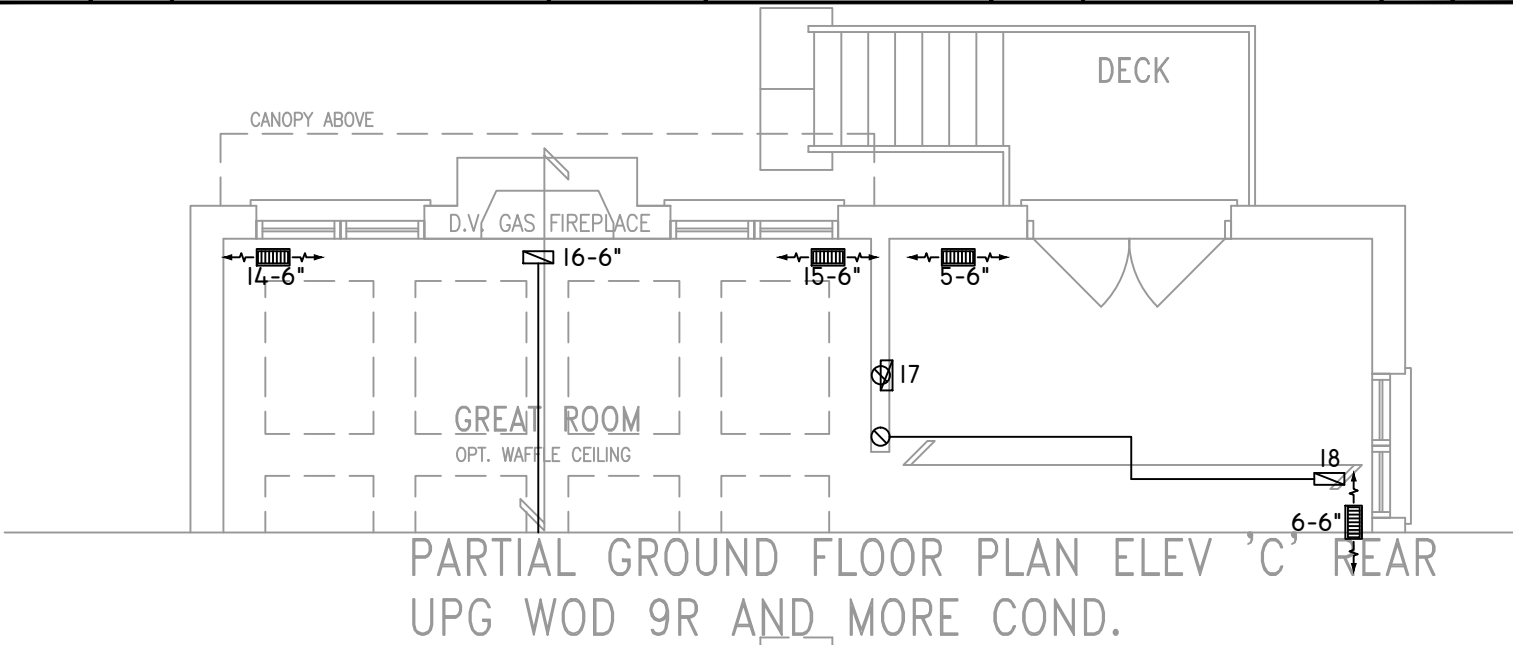
HEAT-LOSS	60,191	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	6
1ST FLOOR	11	1	2
BASEMENT	4	1	

FLOOR PLAN:	SECOND FLOOR
DRAWN BY:	AM
CHECKED:	DD
LAYOUT NO.	JB-04588
SQFT	3466
DRAWING NO.	M3

DATE:	APRIL 4, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-6 RIDEAU 6
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



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

PARTIAL BASEMENT PLAN 'A','B','C' WOD 9R AND MORE COND.

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.



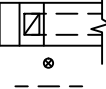
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADISIGNS.CA
WEB: WWW.GTADISIGNS.CA

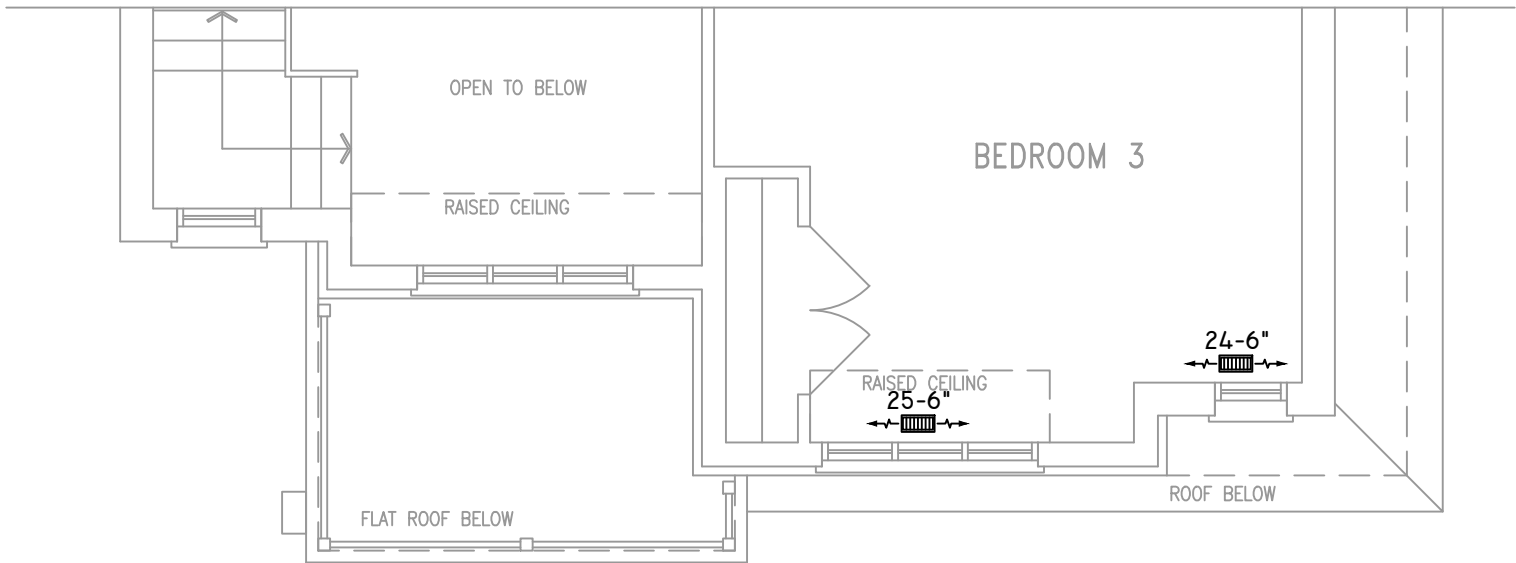
HEAT-LOSS	60,191	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	6
1ST FLOOR	11	1	2
BASEMENT	4	1	

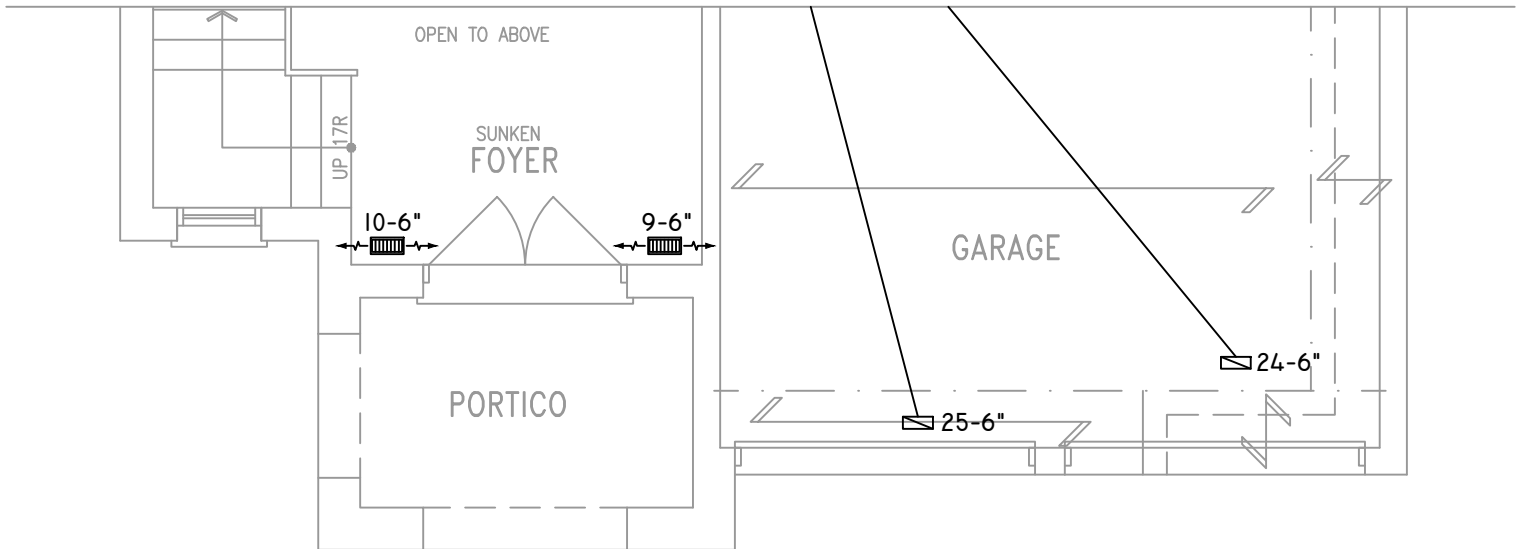
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO: JB-04588	DRAWING NO: M4

DATE:	APRIL 4, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-6 RIDEAU 6
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

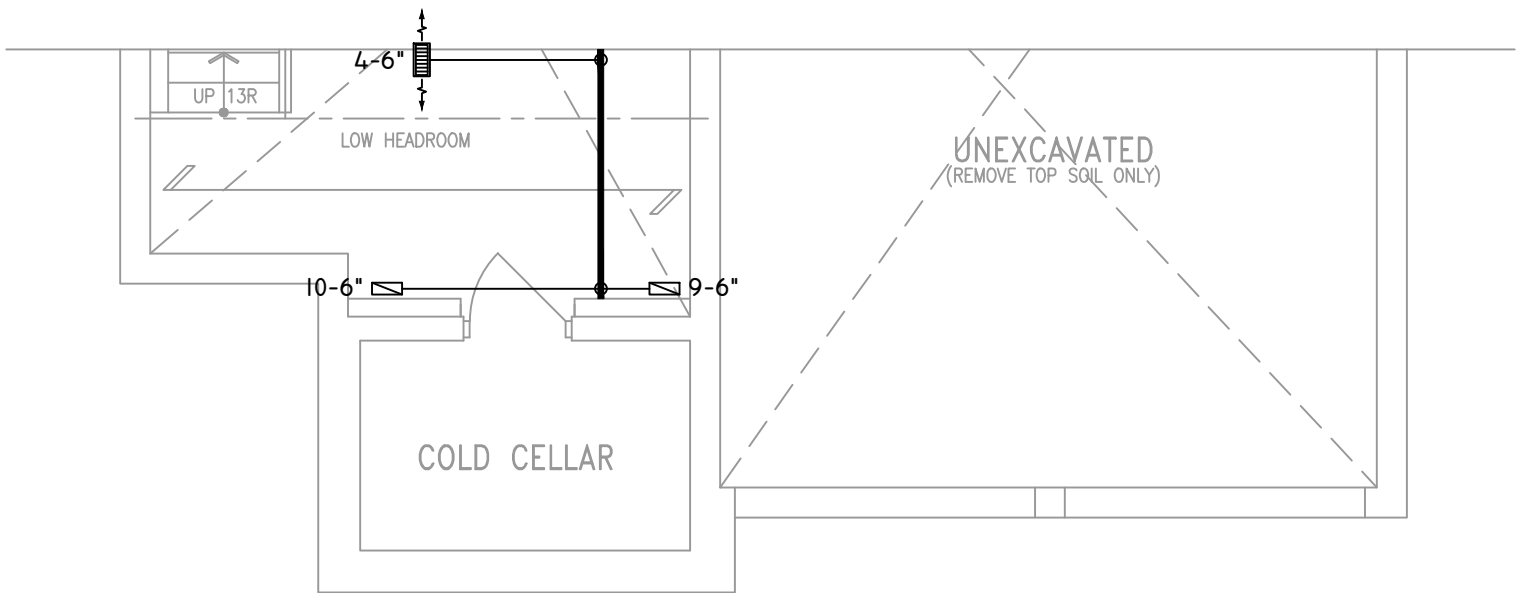
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PARTIAL SECOND FLOOR PLAN 'B'
4 BEDROOM + MEDIA LOFT



PARTIAL GROUND FLOOR PLAN 'B'



PARTIAL BASEMENT PLAN 'B'

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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 "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.
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**

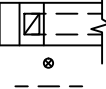
2985 DREW ROAD
SUITE 202,
MISSISSAUGA, ONT.
L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

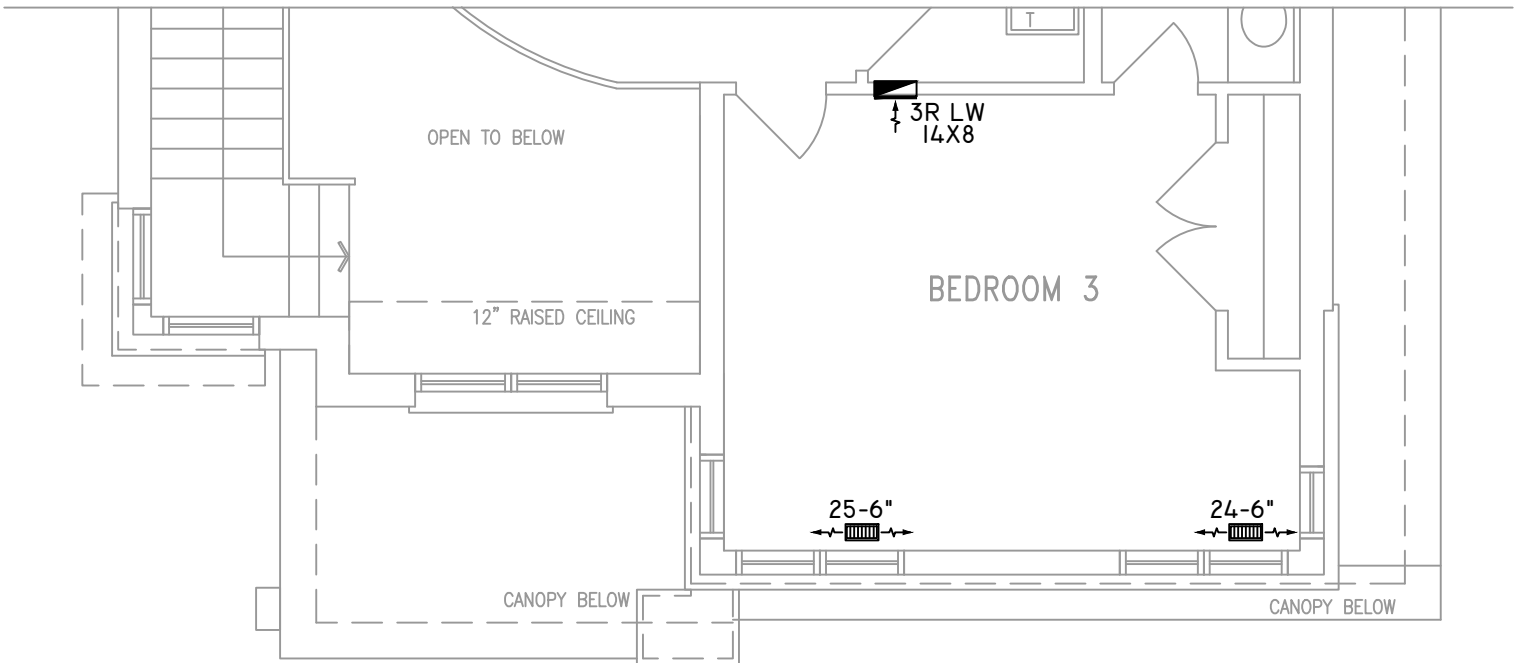
HEAT-LOSS	60,191	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	6
1ST FLOOR	11	1	2
BASEMENT	4	1	

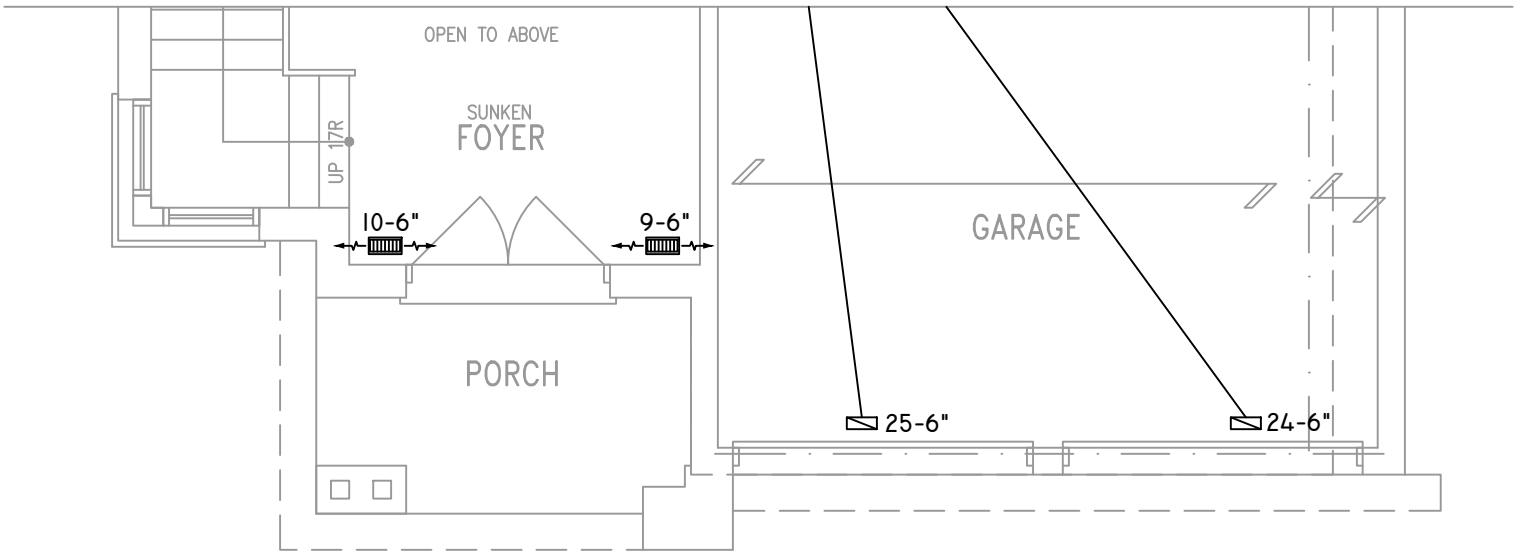
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04588	DRAWING NO. M5

DATE:	APRIL 4, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-6 RIDEAU 6
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

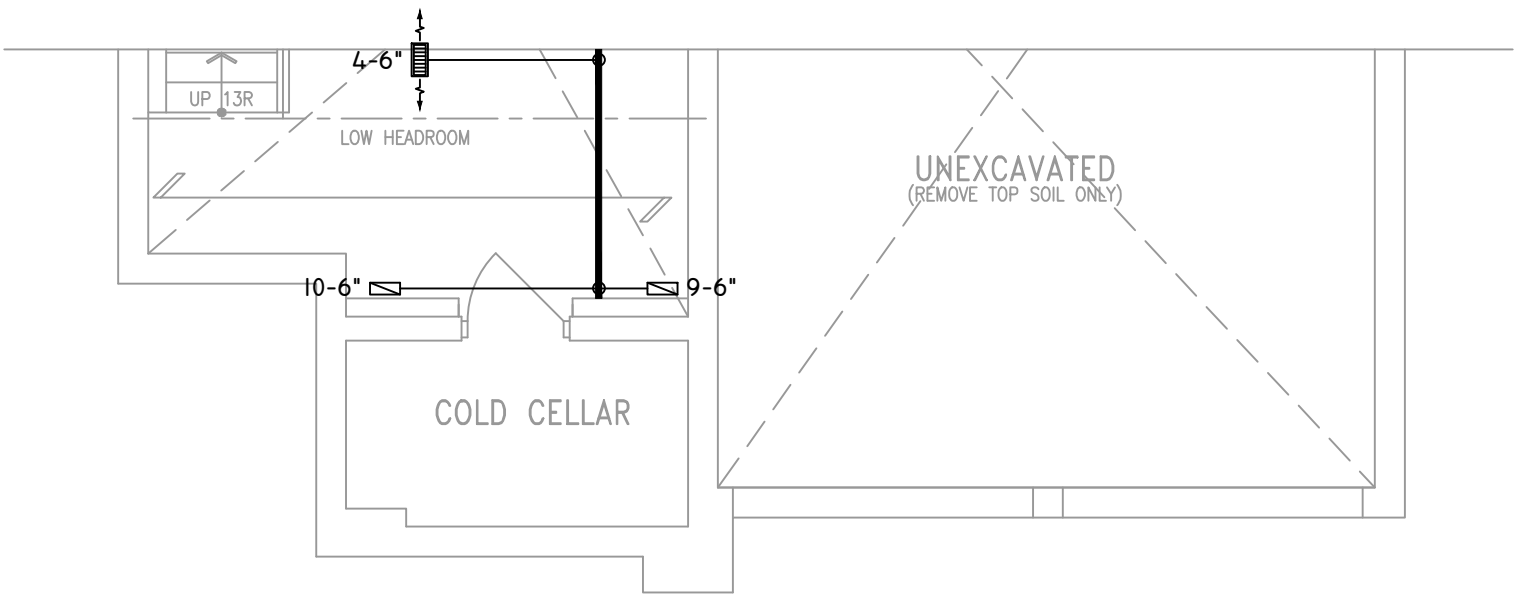
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



PARTIAL SECOND FLOOR PLAN 'C'
4 BEDROOM + MEDIA LOFT



PARTIAL GROUND FLOOR PLAN 'C'



PARTIAL BASEMENT PLAN 'C'

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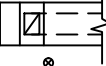
2985 DREW ROAD
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L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADESIGNS.CA
WEB: WWW.GTADESIGNS.CA

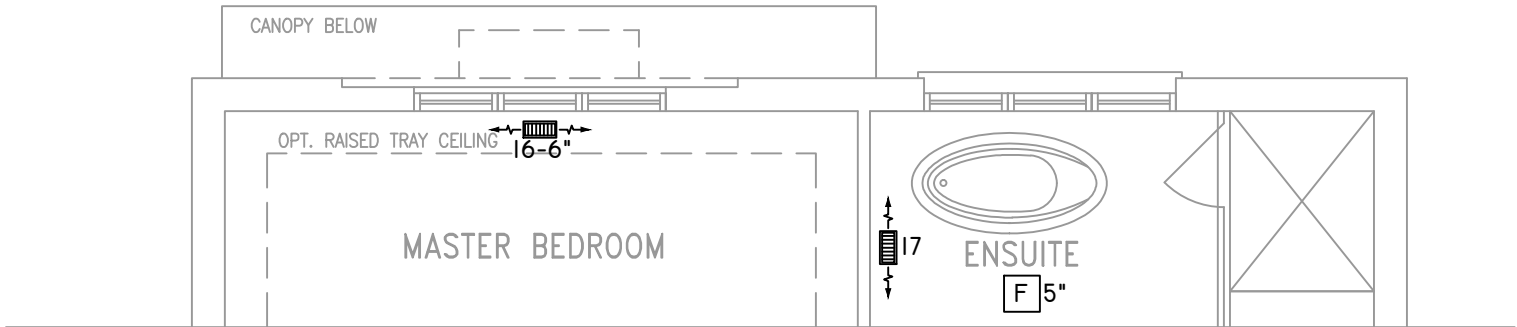
HEAT-LOSS	60,191	BTU/HR.
UNIT MAKE	AMANA	OR EQUAL.
UNIT MODEL	AMEC960803BNA	OR EQUAL.
UNIT HEATING INPUT	80,000	BTU/HR.
UNIT HEATING OUTPUT	76,800	BTU/HR.
A/C COOLING CAPACITY	3.0	TONS.
FAN SPEED	1172	CFM

# OF RUNS	S/A	R/A	FANS
3RD FLOOR			
2ND FLOOR	13	4	6
1ST FLOOR	11	1	2
BASEMENT	4	1	

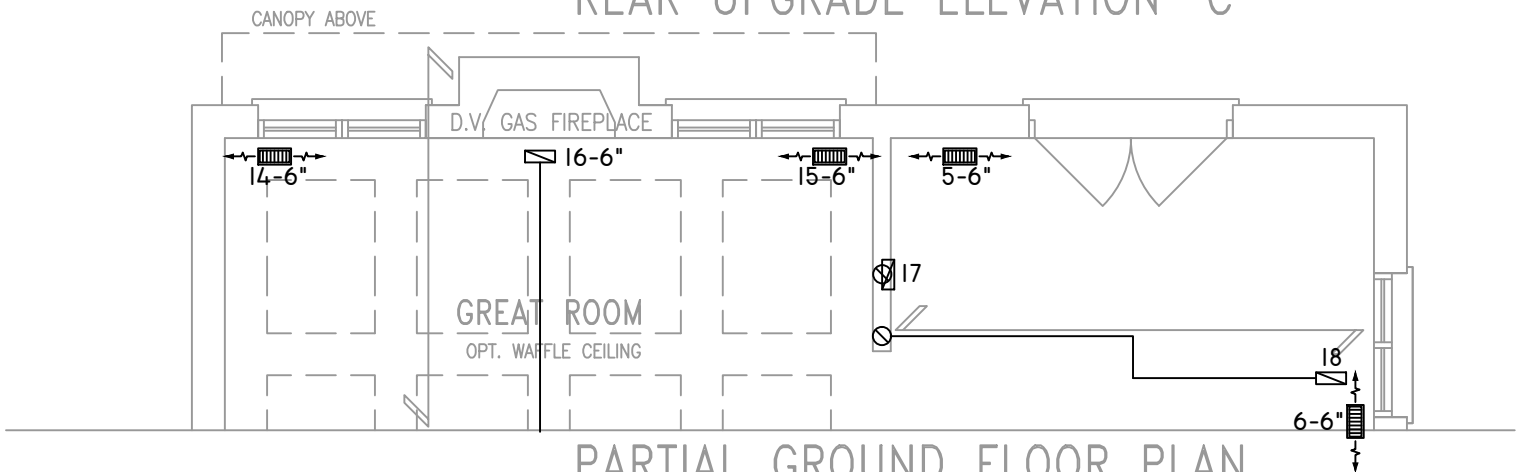
FLOOR PLAN: PARTIAL PLAN(S)	
DRAWN BY: AM	CHECKED: DD
LAYOUT NO. JB-04588	DRAWING NO. M6
SQFT 3466	

DATE:	APRIL 4, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-6 RIDEAU 6
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"

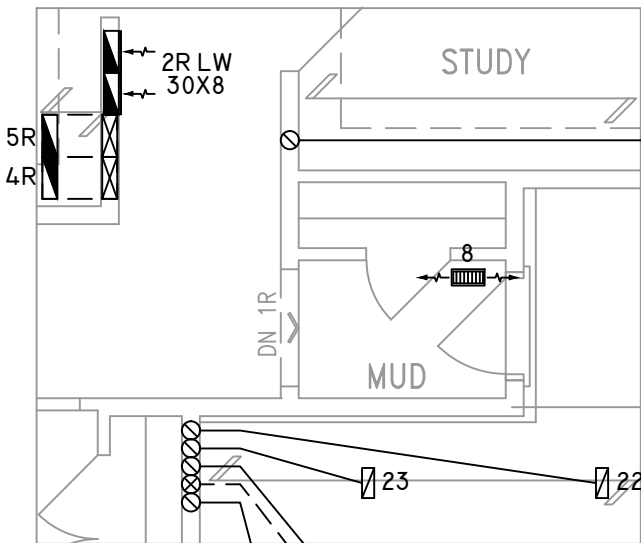
	FLEX DUCT		LOW/HIGH WALL/KICK SUPPLY DIFFUSER		DUCT CONNECTION TO JOIST LINING		RETURN AIR GRILLE (SIZE INDICATED ON DRAWING)	S.A.	SUPPLY AIR
	RIGID ROUND DUCT		HRV EXHAUST GRILLE		RETURN AIR PIPE RISER		RETURN AIR RISER UP TO FLOOR ABOVE	R.A.	RETURN AIR
	SUPPLY DIFFUSER		SUPPLY AIR PIPE RISER		RETURN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



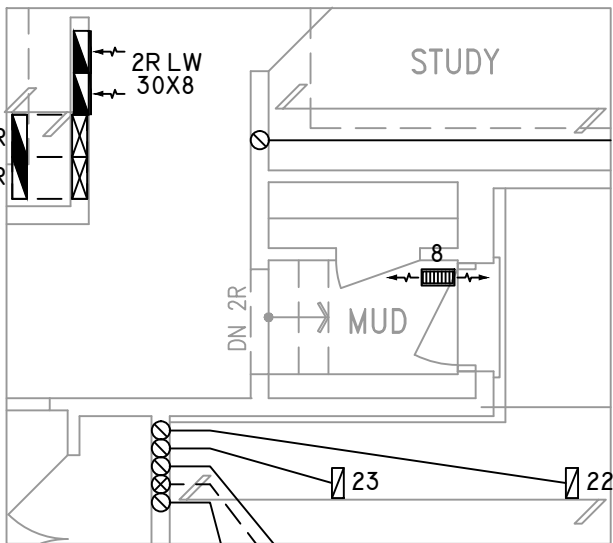
PARTIAL STD & OPT SECOND FLOOR PLAN
REAR UPGRADE ELEVATION 'C'



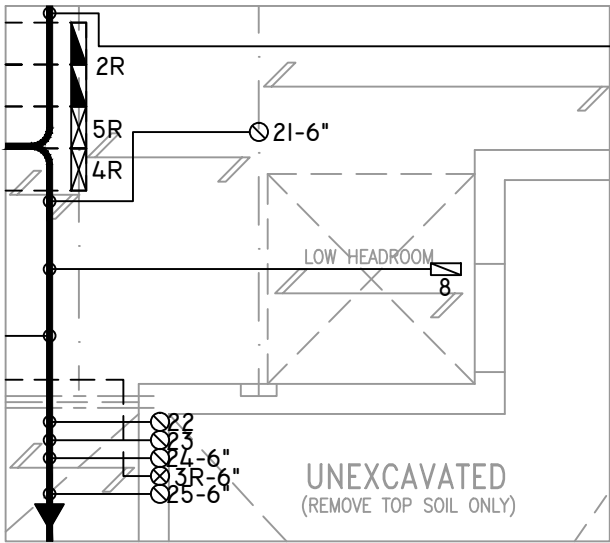
PARTIAL GROUND FLOOR PLAN
REAR UPGRADE ELEVATION 'C'



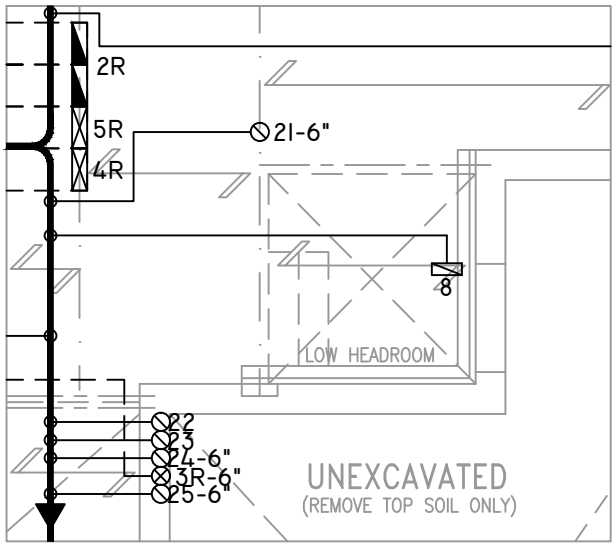
PARTIAL GROUND FLOOR PLAN SUNKEN
MUDROOM (-1R CONDITION)



PARTIAL GROUND FLOOR PLAN SUNKEN
MUDROOM (-2R TO -3R CONDITION)



PARTIAL BASEMENT PLAN SUNKEN
MUDROOM (-1R CONDITION)



PARTIAL BASEMENT PLAN
SUNKEN MUDROOM
(-2R TO -3R CONDITION)

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

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.
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L4T 0A4 TEL: 905-671-9800
EMAIL: DAVE@GTADDESIGNS.CA
WEB: WWW.GTADDESIGNS.CA

HEAT-LOSS	60,191	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	13	4	6
1ST FLOOR	11	1	2
BASEMENT	4	1	

FLOOR PLAN: PARTIAL PLAN(S)		
DRAWN BY:	CHECKED:	SQFT
AM	DD	3466
LAYOUT NO.	DRAWING NO.	
JB-04588	M7	

DATE:	APRIL 4, 2018
CLIENT:	BAYVIEW WELLINGTON
MODEL:	S42-6 RIDEAU 6
PROJECT:	GREEN VALLEY EAST BRADFORD,ONT.
SCALE:	3/16" = 1'-0"