

Schedule 1: Designer Information

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

A. Project Information			
Building number, street name		Unit no.	Lot/con.
Municipality VAUGHAN (WOODBIDGE)	Postal code	Plan number/ other description	
B. Individual who reviews and takes responsibility for design activities			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.	
Street address 375 FINLEY AVE		Unit no. 202	Lot/con. N/A
Municipality AJAX	Postal code L1S 2E2	Province ONTARIO	E-mail info@hvacdesigns.ca
Telephone number (905) 619-2300	Fax number (905) 619-2375	Cell number ()	
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 HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: 5011 TIMBERLAND - OPT 5 BED Project: PINE VALLEY PH 2	
D. Declaration of Designer			
I, <u>MICHAEL O'ROURKE</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. of 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>19669</u> Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 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.			
May 6, 2022			
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 qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by 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 license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

Application for a Permit Construct or Demolish – Effective January 1, 2015

SITE NAME: PINE VALLEY PH 2										TIMBERLAND - OPT 5 BED										DATE May-22					WINTER NATURAL AIR CHANGE RATE 0.340										HEAT LOSS ΔT °F: 76					CSA-F280-12									
BUILDER: GOLD PARK HOMES										TYPE: 5011					GFA: 4238					LOF 96515					SUMMER NATURAL AIR CHANGE RATE 0.114										HEAT GAIN ΔT °F: 13					SB-12 PACKAGE A1									
ROOM USE		PBR				ENS				WIC				BED-2				BED-3				BED-4				ENS-2				ENS-3				ENS-5				ENS-4				BED-5							
EXP. WALL		40				13				8				13				15				29				10				16				10				15				13							
CLG. HT.		9				9				9				9				9				9				9				9				9				9				9							
FACTORS																																																	
GRS.WALL AREA		LOSS		GAIN		360		117		72		117		135		261		90		144		90		135		117																							
GLAZING		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN		LOSS		GAIN																	
NORTH		21.3	16.0	0	0	0	0	0	0	0	0	0	18	383	288	9	192	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0																	
EAST		21.3	41.6	0	0	0	0	0	0	0	0	0	74	1575	3075	73	1553	3033	0	0	0	33	702	1371	0	0	0	51	1085	2119	0	0	0																
SOUTH		21.3	24.9	0	0	0	27	575	672	0	0	0	0	0	0	0	0	0	0	0	0	9	192	224	0	0	0	18	383	448	0	0	0																
WEST		21.3	41.6	53	1128	2202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
SKYLT.		37.2	101.5	8	279	762	0	0	0	0	0	8	279	762	8	279	762	8	279	762	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
DOORS		25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
NET EXPOSED WALL		4.5	0.8	307	1370	231	90	402	68	72	321	54	99	442	74	52	232	39	188	839	141	90	402	68	111	495	83	81	361	61	84	375	63	99	442	74													
NET EXPOSED BSMT WALL ABOVE GR		3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0														
EXPOSED CLG		1.3	0.6	343	440	201	189	243	111	204	262	120	280	359	164	203	260	119	141	180	83	67	86	39	72	92	42	80	103	47	91	117	53	282	362	166													
NO ATTIC EXPOSED CLG		2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	48	132	60	83	228	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0														
EXPOSED FLOOR		2.6	0.4	0	0	0	0	0	0	74	189	32	141	360	61	258	658	111	0	0	0	117	298	50	122	311	52	0	0	0	0	0	0	0	0	0													
BASEMENT/CRAWL HEAT LOSS		0				0				0				0				0				0				0				0				0				0											
SLAB ON GRADE HEAT LOSS		0				0				0				0				0				0				0				0				0				0											
SUBTOTAL HT LOSS		3217				1219				772				1822				3327				3080				786				1601				656				1577				1187							
SUB TOTAL HT GAIN		3396				851				206				1348				4310				4123				157				1549				332				2236				688							
LEVEL FACTOR / MULTIPLIER		0.20	0.31			0.20	0.31			0.20	0.31			0.20	0.31			0.20	0.31			0.20	0.31			0.20	0.31			0.20	0.31			0.20	0.31														
AIR CHANGE HEAT LOSS		983				373				236				557				1017				942				240				489				200				482				363							
AIR CHANGE HEAT GAIN		196				49				12				78				249				238				9				89				19				129				40							
DUCT LOSS		0				0				101				238				434				0				103				209				0				0				0				0			
DUCT GAIN		0				0				22				241				554				0				17				164				0				0				0				0			
HEAT GAIN PEOPLE		240	2	480	0	0	0	0	0	1	240	1	240	1	240	1	240	1	240	0	0	0	0	0	0	0	0	0	0	1	240	0	0	0	0	0													
HEAT GAIN APPLIANCES/LIGHTS		745				0				0				745				745				745				0				0				0				0				745							
TOTAL HT LOSS BTU/H		4200				1591				1109				2618				4779				4022				1129				2300				856				2059				1550							
TOTAL HT GAIN x 1.3 BTU/H		6262				1170				311				3448				7927				6950				238				2343				456				3074				2227							

ROOM USE				GRT		DIN		KT/BF		LIB		LND				FOY		MUD						LOD		BAS		
EXP. WALL				46		28		63		24		0				22		28						53		216		
CLG. HT.				20		11		11		11		9				11		11						10		10		
FACTORS																												
GRS.WALL AREA		LOSS GAIN		920		308		693		264		0				242		308						530		1830		
GLAZING		LOSS GAIN		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		21.3	16.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EAST		21.3	41.6	0	0	0	0	0	0	0	0	0	71	1511	2950	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTH		21.3	24.9	0	0	0	50	1064	1245	10	213	249	0	0	0	0	0	0	0	0	0	0	5	106	124	3	64	75
WEST		21.3	41.6	121	2575	5028	0	0	0	106	2256	4405	0	0	0	0	0	0	0	0	0	25	532	1039	0	0	0	
SKYLT.		37.2	101.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DOORS		25.2	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	757	128	20	505	85	
NET EXPOSED WALL		4.5	0.8	799	3566	601	258	1151	194	577	2575	434	193	861	145	0	0	0	187	835	141	288	1285	216	0	0	0	
NET EXPOSED BSMT WALL ABOVE GR		3.6	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EXPOSED CLG		1.3	0.6	303	389	178	0	0	0	0	0	0	0	0	0	71	91	42	0	0	0	0	0	0	0	0	0	
NO ATTIC EXPOSED CLG		2.7	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EXPOSED FLOOR		2.6	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BASEMENT/CRAWL HEAT LOSS				0		0		0		0		0		0		0		0		0						7473		
SLAB ON GRADE HEAT LOSS				0		0		0		0		0		0		0		0		0								
SUBTOTAL HT LOSS				6529		2215		5043		2372		91				2124		1790						1675		9230		
SUB TOTAL HT GAIN						5806		1439		5087		3095		42				1307		302				1338		360		
LEVEL FACTOR / MULTIPLIER		0.30 0.44		0.30 0.44		0.30 0.44		0.30 0.44		0.30 0.44		0.20 0.31				0.30 0.44		0.30 0.44						0.50 1.36				
AIR CHANGE HEAT LOSS		2884				978		2228		1048		28				938		791								14777		
AIR CHANGE HEAT GAIN				335		83		294		179		2				75		17								98		
DUCT LOSS		0				0		0		0		0				0		0								0		
DUCT GAIN				0		0		0		0		0		0				0								0		
HEAT GAIN PEOPLE		240		0		0		0		0		0		0		0		0				0		0		0		
HEAT GAIN APPLIANCES/LIGHTS				745		745		745		745		745		745				0								0		
TOTAL HT LOSS BTU/H				9413		3194		7271		3420		119				3062		2581						1675		24007		
TOTAL HT GAIN x 1.3 BTU/H				8953		2947		7964		5225		1026				1797		415						1739		593		

TOTAL COMBINED HEAT LOSS BTU/H: 87109

SITE NAME: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMES

TIMBERLAND - OPT 5 BED
TYPE: 5011

DATE: May-22

GFA: 4238 LO# 96515

FURNACE 1

HEATING CFM 1070 COOLING CFM 1070
TOTAL HEAT LOSS 54,623 TOTAL HEAT GAIN 29,635
AIR FLOW RATE CFM 19.59 AIR FLOW RATE CFM 36.11

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35

**FURNACE HEAT LOSS +
HRV / ERV HEAT LOSS
= 57701 BTUH**
\$*LENNOX
ML196UH070XE48B
70
FAN SPEED
LOW 0
MEDLOW 1070
MEDIUM 1270
MEDIUM HIGH 1515
HIGH 1595

AFUE = 96 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = **63,900**

DESIGN CFM = **1070**
CFM @ .6" E.S.P.

TEMPERATURE RISE 55 °F

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	0	11	5
R/A	0	0	0	3	1

All S/A diffusers 4"x10" unless noted otherwise on layout.

All S/A runs 5"Ø unless noted otherwise on layout.

RUN #	21	22	23	24
ROOM NAME	FOY	GRT	GRT	GRT
RM LOSS MBH.	3.06	3.14	3.14	3.14
CFM PER RUN HEAT	60	61	61	61
RM GAIN MBH.	1.80	2.98	2.98	2.98
CFM PER RUN COOLING	65	108	108	108
ADJUSTED PRESSURE	0.17	0.15	0.15	0.15
ACTUAL DUCT LGH.	53	62	58	52
EQUIVALENT LENGTH	150	120	120	150
TOTAL EFFECTIVE LENGTH	203	182	178	202
ADJUSTED PRESSURE	0.08	0.08	0.09	0.08
ROUND DUCT SIZE	5	6	6	6
HEATING VELOCITY (ft/min)	441	311	311	311
COOLING VELOCITY (ft/min)	477	551	551	551
OUTLET GRILL SIZE	3X10	4X10	4X10	4X10
TRUNK	E	D	D	D

RUN #	25	26	27	28	29	30	31	32	33	34	35	36
ROOM NAME	DIN	KT/BF	KT/BF	KT/BF	LIB	LIB	MUD	BAS	BAS	BAS	BAS	BAS
RM LOSS MBH.	3.19	2.42	2.42	2.42	1.71	1.71	2.58	5.14	5.14	5.14	5.14	5.14
CFM PER RUN HEAT	63	47	47	47	33	33	51	101	101	101	101	101
RM GAIN MBH.	2.95	2.65	2.65	2.65	2.61	2.61	0.41	0.47	0.47	0.47	0.47	0.47
CFM PER RUN COOLING	106	96	96	96	94	94	15	17	17	17	17	17
ADJUSTED PRESSURE	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.16	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH.	18	45	34	7	53	57	45	29	40	54	41	48
EQUIVALENT LENGTH	170	160	110	120	185	170	160	120	170	130	200	180
TOTAL EFFECTIVE LENGTH	188	205	144	127	238	227	205	149	210	184	241	228
ADJUSTED PRESSURE	0.09	0.08	0.11	0.13	0.07	0.07	0.08	0.11	0.08	0.09	0.07	0.07
ROUND DUCT SIZE	6	6	6	6	6	6	5	6	6	6	6	6
HEATING VELOCITY (ft/min)	321	240	240	240	168	168	374	515	515	515	515	515
COOLING VELOCITY (ft/min)	540	489	489	489	479	479	110	87	87	87	87	87
OUTLET GRILL SIZE	4X10	4X10	4X10	4X10	4X10	4X10	3X10	4X10	4X10	4X10	4X10	4X10
TRUNK	E	D	E	E	E	E	D	E	D	D	D	E

SUPPLY AIR TRUNK SIZE										RETURN AIR TRUNK SIZE													
	TRUNK	STATIC	ROUND	RECT						TRUNK	STATIC	ROUND	RECT										
	CFM	PRESS.	DUCT	DUCT				VELOCITY		CFM	PRESS.	DUCT	DUCT				VELOCITY						
							(ft/min)										(ft/min)						
TRUNK A	0	0.00	0	0	x	8	0	TRUNK G	0	0.00	0	0	x	8	0	TRUNK O	0	0.05	0	0	x	8	0
TRUNK B	0	0.00	0	0	x	8	0	TRUNK H	0	0.00	0	0	x	8	0	TRUNK P	0	0.05	0	0	x	8	0
TRUNK C	0	0.00	0	0	x	8	0	TRUNK I	0	0.00	0	0	x	8	0	TRUNK Q	0	0.05	0	0	x	8	0
TRUNK D	584	0.07	11.9	16	x	8	657	TRUNK J	0	0.00	0	0	x	8	0	TRUNK R	0	0.05	0	0	x	8	0
TRUNK E	1069	0.07	14.9	26	x	8	740	TRUNK K	0	0.00	0	0	x	8	0	TRUNK S	0	0.05	0	0	x	8	0
TRUNK F	0	0.00	0	0	x	8	0	TRUNK L	0	0.00	0	0	x	8	0	TRUNK T	0	0.05	0	0	x	8	0

RETURN AIR #																7	8	9																BR
AIR VOLUME	0	0	0	0	0	0	0	400	300	130	0	0	0	0	0	0	240	TRUNK W	530	0.05	12.4	18	x	8	530									
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	TRUNK X	1070	0.05	16.2	30	x	8	642									
ACTUAL DUCT LGH.	1	1	1	1	1	1	1	47	32	49	1	1	1	1	1	1	14	TRUNK Y	0	0.05	0	0	x	8	0									
EQUIVALENT LENGTH	0	0	0	0	0	0	0	195	175	235	0	0	0	0	0	0	185	TRUNK Z	0	0.05	0	0	x	8	0									
TOTAL EFFECTIVE LH	1	1	1	1	1	1	1	242	207	284	1	1	1	1	1	1	199	DROP	1070	0.05	16.2	24	x	10	642									
ADJUSTED PRESSURE	14.80	14.80	14.80	14.80	14.80	14.80	0.06	0.07	0.05	14.80	14.80	14.80	14.80	14.80	14.80	0.07																		
ROUND DUCT SIZE	0	0	0	0	0	0	10.7	9.2	7.3	0	0	0	0	0	0	8.5																		
INLET GRILL SIZE	0	0	0	0	0	0	8	8	8	0	0	0	0	0	0	8																		
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																		
INLET GRILL SIZE	0	0	0	0	0	0	30	30	14	0	0	0	0	0	0	24																		

SITE NAME: PINE VALLEY PH 2
BUILDER: GOLD PARK HOMES

TYPE: 5011
DATE: May-22

GFA: 4238 LO# 96515

FURNACE 2

HEATING CFM 1270 COOLING CFM 1270
TOTAL HEAT LOSS 26,331 TOTAL HEAT GAIN 35,435
AIR FLOW RATE CFM 48.23 AIR FLOW RATE CFM 35.84

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure for s/a & r/a 0.35

**FURNACE HEAT LOSS +
HRV / ERV HEAT LOSS
= 29409 BTUH**
**\$*LENNOX
ML196UH070XE48B
FAN SPEED 70**

AFUE = 96 %
INPUT (BTU/H) = 66,000
OUTPUT (BTU/H) = **63,900**

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	24	0	0
R/A	0	0	6	0	0

plenium pressure s/a 0.18
max s/a dif press. loss 0.02
min adjusted pressure s/a 0.16
r/a pressure 0.17
r/a grille press. Loss 0.02
adjusted pressure r/a 0.15

LOW 0
MEDLOW 1070
MEDIUM 1270
MEDIUM HIGH 1515
HIGH 1595

DESIGN CFM = **1270**
CFM @ .6" E.S.P.

TEMPERATURE RISE 47 °F

All S/A diffusers 4"x10" unless noted otherwise on layout.

All S/A runs 5"Ø unless noted otherwise on layout.

RUN #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ROOM NAME	PBR	PBR	PBR	ENS	ENS	WIC	ENS-5	BED-2	BED-2	BED-3	BED-3	BED-3	ENS-4	ENS-4	BED-4	BED-4	ENS-2	ENS-3	BED-5	BED-5
RM LOSS MBH.	1.40	1.40	1.40	0.80	0.80	1.11	0.86	1.31	1.31	1.19	1.19	1.19	1.03	1.03	1.34	1.34	1.13	1.15	0.77	0.77
CFM PER RUN HEAT	68	68	68	38	38	53	41	63	63	58	58	58	50	50	65	65	54	55	37	37
RM GAIN MBH.	2.09	2.09	2.09	0.59	0.59	0.31	0.46	1.72	1.72	1.98	1.98	1.98	1.54	1.54	2.32	2.32	0.24	1.17	1.11	1.11
CFM PER RUN COOLING	75	75	75	21	21	11	16	62	62	71	71	71	55	55	83	83	9	42	40	40
ADJUSTED PRESSURE	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.17
ACTUAL DUCT LGH.	75	63	51	61	20	69	15	62	67	61	55	50	60	70	75	80	50	66	61	54
EQUIVALENT LENGTH	200	160	130	170	90	140	80	180	190	160	150	150	210	160	190	200	220	160	200	180
TOTAL EFFECTIVE LENGTH	275	223	181	231	110	209	95	242	257	221	205	200	270	230	265	280	270	226	261	234
ADJUSTED PRESSURE	0.06	0.08	0.1	0.07	0.16	0.08	0.18	0.07	0.07	0.08	0.08	0.09	0.06	0.07	0.06	0.06	0.06	0.08	0.07	0.07
ROUND DUCT SIZE	6	6	5	5	4	5	4	5	5	6	6	6	5	5	6	6	5	5	5	5
HEATING VELOCITY (ft/min)	347	347	499	279	436	389	470	463	463	296	296	296	367	367	331	331	396	404	272	272
COOLING VELOCITY (ft/min)	382	382	551	154	241	81	184	455	455	362	362	362	404	404	423	423	66	308	294	294
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10
TRUNK	C	C		C		C		B	B	B	B	B	A	A	A	A	B	B	A	C

RUN #	37	38	39	40
ROOM NAME	BED-3	BED-4	ENS-3	LND
RM LOSS MBH.	1.19	1.34	1.15	0.12
CFM PER RUN HEAT	58	65	55	6
RM GAIN MBH.	1.98	2.32	1.17	1.03
CFM PER RUN COOLING	71	83	42	37
ADJUSTED PRESSURE	0.17	0.16	0.17	0.17
ACTUAL DUCT LGH.	58	72	64	42
EQUIVALENT LENGTH	210	210	210	220
TOTAL EFFECTIVE LENGTH	268	282	274	262
ADJUSTED PRESSURE	0.06	0.06	0.06	0.07
ROUND DUCT SIZE	6	6	5	4
HEATING VELOCITY (ft/min)	296	331	404	69
COOLING VELOCITY (ft/min)	362	423	308	424
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10
TRUNK	A	A	A	A

SUPPLY AIR TRUNK SIZE

	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	451	0.06	11.2	16	x 8 507
TRUNK B	860	0.06	14.2	26	x 8 595
TRUNK C	1124	0.06	15.7	30	x 8 674
TRUNK D	0	0.00	0	0	x 8 0
TRUNK E	0	0.00	0	0	x 8 0
TRUNK F	0	0.00	0	0	x 8 0

RETURN AIR TRUNK SIZE

	TRUNK CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK O	0	0.05	0	0	x 8 0
TRUNK P	0	0.05	0	0	x 8 0
TRUNK Q	0	0.05	0	0	x 8 0
TRUNK R	0	0.05	0	0	x 8 0
TRUNK S	0	0.05	0	0	x 8 0
TRUNK T	0	0.05	0	0	x 8 0
TRUNK U	0	0.05	0	0	x 8 0
TRUNK V	0	0.05	0	0	x 8 0
TRUNK W	0	0.05	0	0	x 8 0

RETURN AIR #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
AIR VOLUME	310	115	130	115	300	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLENUM PRESSURE	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
ACTUAL DUCT LGH.	74	67	63	49	48	65	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EQUIVALENT LENGTH	215	215	190	225	205	195	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EFFECTIVE LH	289	282	253	274	253	260	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ADJUSTED PRESSURE	0.05	0.05	0.06	0.05	0.06	0.06	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80
ROUND DUCT SIZE	10.2	7	7	7	9.6	9.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	8	8	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INLET GRILL SIZE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
INLET GRILL SIZE	30	14	14	14	30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TRUNK X	1270	0.05	17.3	28	x 10 653
TRUNK Y	660	0.05	13.5	22	x 8 540
TRUNK Z	430	0.05	11.5	16	x 8 484
DROP	1270	0.05	17.3	24	x 12 635

TYPE: 5011
SITE NAME: PINE VALLEY PH 2

LO # 96515
TIMBERLAND - OPT 5 BED

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

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 gas fireplace	
d)	☐ Solid Fuel (including fireplaces)	
e)	☐ No Combustion Appliances	

HEATING SYSTEM	
☒ Forced Air	☐ Non Forced Air
☐ Electric Space Heat	

HOUSE TYPE		9.32.1(2)
☒ I	Type a) or b) appliance only, no solid fuel	
☐ II	Type I except with solid fuel (including fireplaces)	
☐ III	Any Type c) appliance	
☐ IV	Type I, or II with electric space heat	
☐	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
☐ 1	Exhaust only/Forced Air System	
☐ 2	HRV with Ducting/Forced Air System	
☒ 3	HRV Simplified/connected to forced air system	
☐ 4	HRV with Ducting/non forced air system	
☐	Part 6 Design	

TOTAL VENTILATION CAPACITY		9.32.3.3(1)
Basement + Master Bedroom	<u>2</u> @ 21.2 cfm	<u>42.4</u> cfm
Other Bedrooms	<u>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Kitchen & Bathrooms	<u>7</u> @ 10.6 cfm	<u>74.2</u> cfm
Other Rooms	<u>4</u> @ 10.6 cfm	<u>42.4</u> cfm
Table 9.32.3.A.	TOTAL	<u>201.4</u> cfm

PRINCIPAL VENTILATION CAPACITY REQUIRED		9.32.3.4.(1)
1 Bedroom	31.8	cfm
2 Bedroom	47.7	cfm
3 Bedroom	63.6	cfm
4 Bedroom	79.5	cfm
5 Bedroom	95.4	cfm
TOTAL		<u>95.4</u> cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	<u>201.4</u>	cfm
Less Principal Ventil. Capacity	<u>150</u>	cfm
Required Supplemental Capacity	<u>51.4</u>	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE V150H
Location:	BSMT
<u>150.0</u> cfm	☒ HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION				
CFM	ΔT °F	FACTOR	% LOSS	
150.0 CFM	X 76 F	X 1.08	X	0.25

SUPPLEMENTAL FANS		BY INSTALLING CONTRACTOR		
Location	Model	cfm	HVI	Sones
ENS	BY INSTALLING CONTRACTOR	50	☒	3.5
ENS-2	BY INSTALLING CONTRACTOR	50	☒	3.5
ENS-3	BY INSTALLING CONTRACTOR	50	☒	3.5
ENS-4	BY INSTALLING CONTRACTOR	50	☒	3.5

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE V150H	INSTALL 2 HRV / ERV's
<u>150</u>	cfm high	<u>35</u> cfm low
<u>75</u>	% Sensible Efficiency @ 32 deg F (0 deg C)	☒ HVI Approved

LOCATION OF INSTALLATION	
Lot:	Concession
Township	Plan:
Address	
Roll #	Building Permit #

BUILDER:	
GOLD PARK HOMES	
Name:	
Address:	
City:	
Telephone #:	Fax #:

INSTALLING CONTRACTOR	
Name:	
Address:	
City:	
Telephone #:	Fax #:

DESIGNER CERTIFICATION	
I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.	
Name:	HVAC Designs Ltd.
Signature:	<i>Michael O'Rourke</i>
HRAI #	001820
Date:	May-22

CSA F280-12 Residential Heat Loss and Heat Gain Calculations																																																												
Formula Sheet (For Air Leakage / Ventilation Calculation)																																																												
LO#: 96515	Model: 5011	Builder: GOLD PARK HOMES	Date: 2022-05-06																																																									
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House Volume <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Floor Area (ft²)</th> <th>Floor Height (ft)</th> <th>Volume (ft³)</th> </tr> </thead> <tbody> <tr> <td>Bsmt</td> <td>1940</td> <td>10</td> <td>19400</td> </tr> <tr> <td>First</td> <td>1940</td> <td>11</td> <td>21340</td> </tr> <tr> <td>Second</td> <td>2575</td> <td>9</td> <td>23175</td> </tr> <tr> <td>Third</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td>Fourth</td> <td>0</td> <td>9</td> <td>0</td> </tr> <tr> <td colspan="3" style="text-align: right;">Total:</td> <td>63,915.0 ft³</td> </tr> <tr> <td colspan="3" style="text-align: right;">Total:</td> <td>1809.9 m³</td> </tr> </tbody> </table>			Level	Floor Area (ft²)	Floor Height (ft)	Volume (ft³)	Bsmt	1940	10	19400	First	1940	11	21340	Second	2575	9	23175	Third	0	9	0	Fourth	0	9	0	Total:			63,915.0 ft³	Total:			1809.9 m³	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">WINTER NATURAL AIR CHANGE RATE</td> <td style="width: 20%;">0.340</td> </tr> <tr> <td>SUMMER NATURAL AIR CHANGE RATE</td> <td>0.114</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="5" style="text-align: center;">Design Temperature Difference</th> </tr> <tr> <th></th> <th>Tin °C</th> <th>Tout °C</th> <th>ΔT °C</th> <th>ΔT °F</th> </tr> <tr> <td>Winter DTDh</td> <td>22</td> <td>-20</td> <td>42</td> <td>76</td> </tr> <tr> <td>Summer DTDc</td> <td>24</td> <td>31</td> <td>7</td> <td>13</td> </tr> </table>		WINTER NATURAL AIR CHANGE RATE	0.340	SUMMER NATURAL AIR CHANGE RATE	0.114	Design Temperature Difference						Tin °C	Tout °C	ΔT °C	ΔT °F	Winter DTDh	22	-20	42	76	Summer DTDc	24	31	7	13
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5.2.3.1 Heat Loss due to Air Leakage			6.2.6 Sensible Gain due to Air Leakage																																																									
$HL_{airb} = LR_{airh} \times \frac{V_b}{3.6} \times DTD_h \times 1.2$ 0.340 x 502.74 x 42 °C x 1.2 = 8662 W = 29554 Btu/h			$HG_{salb} = LR_{airc} \times \frac{V_b}{3.6} \times DTD_c \times 1.2$ = 0.114 x 502.74 x 7 °C x 1.2 = 490 W = 1673 Btu/h																																																									
5.2.3.2 Heat Loss due to Mechanical Ventilation			6.2.7 Sensible heat Gain due to Ventilation																																																									
$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E) \times 2 \text{ HRV / ERV's}$ 300 CFM x 76 °F x 1.08 x 0.25 = 6156 Btu/h			$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$ 300 CFM x 13 °F x 1.08 x 0.25 = 1,037 Btu/h																																																									
5.2.3.3 Calculation of Air Change Heat Loss for Each Room (Floor Multiplier Section)																																																												
$HL_{airr} = Level \ Factor \times HL_{airbv} \times \{(HL_{agcr} + HL_{bgcr}) \div (HL_{agclevel} + HL_{bgclevel})\}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Level</th> <th>Level Factor (LF)</th> <th>HLairve Air Leakage + Ventilation Heat Loss (Btu/h)</th> <th>Level Conductive Heat Loss: (HL_{clevel})</th> <th>Air Leakage Heat Loss Multiplier (LF x HLairbv / HL_{clevel})</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.5</td> <td rowspan="5" style="text-align: center; vertical-align: middle;">29,554</td> <td>10,904</td> <td>1.355</td> </tr> <tr> <td>2</td> <td>0.3</td> <td>20,075</td> <td>0.442</td> </tr> <tr> <td>3</td> <td>0.2</td> <td>19,335</td> <td>0.306</td> </tr> <tr> <td>4</td> <td>0</td> <td>0</td> <td>0.000</td> </tr> <tr> <td>5</td> <td>0</td> <td>0</td> <td>0.000</td> </tr> </tbody> </table> *HLairbv = Air leakage heat loss + ventilation heat loss *For a balanced or supply only ventilation system HLairve = 0					Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss (Btu/h)	Level Conductive Heat Loss: (HL _{clevel})	Air Leakage Heat Loss Multiplier (LF x HLairbv / HL _{clevel})	1	0.5	29,554	10,904	1.355	2	0.3	20,075	0.442	3	0.2	19,335	0.306	4	0	0	0.000	5	0	0	0.000																														
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HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 5011	TIMBERLAND - OPT 5 BED	BUILDER: GOLD PARK HOMES
SFQT: 4238	LO# 96515	SITE: PINE VALLEY PH 2

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	75
		WINDOW SHGC	0.50

BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft³):	63915.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	6
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 65.0 ft	WIDTH: 43.0 ft	EXPOSED PERIMETER:	216.0 ft

2012 OBC - COMPLIANCE PACKAGE**Component****Compliance Package
A1****Nominal Min. Eff.**

Ceiling with Attic Space Minimum RSI (R)-Value	60	59.22
Ceiling Without Attic Space Minimum RSI (R)-Value	31	27.65
Exposed Floor Minimum RSI (R)-Value	31	29.80
Walls Above Grade Minimum RSI (R)-Value	22	17.03
Basement Walls Minimum RSI (R)-Value	20 ci	21.12
Below Grade Slab Entire surface > 600 mm below grade Minimum RSI (R)-Value	-	-
Edge of Below Grade Slab ≤ 600 mm Below Grade Minimum RSI (R)-Value	10	10
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10	11.13
Windows and Sliding Glass Doors Maximum U-Value	0.28	-
Skylights Maximum U-Value	0.49	-
Space Heating Equipment Minimum AFUE	0.96	-
HRV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

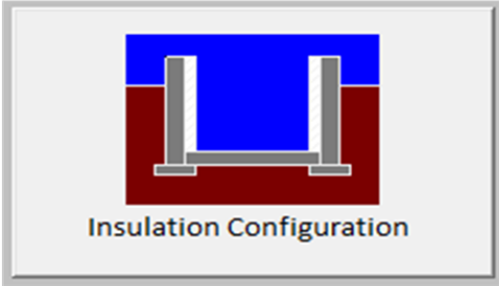
INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

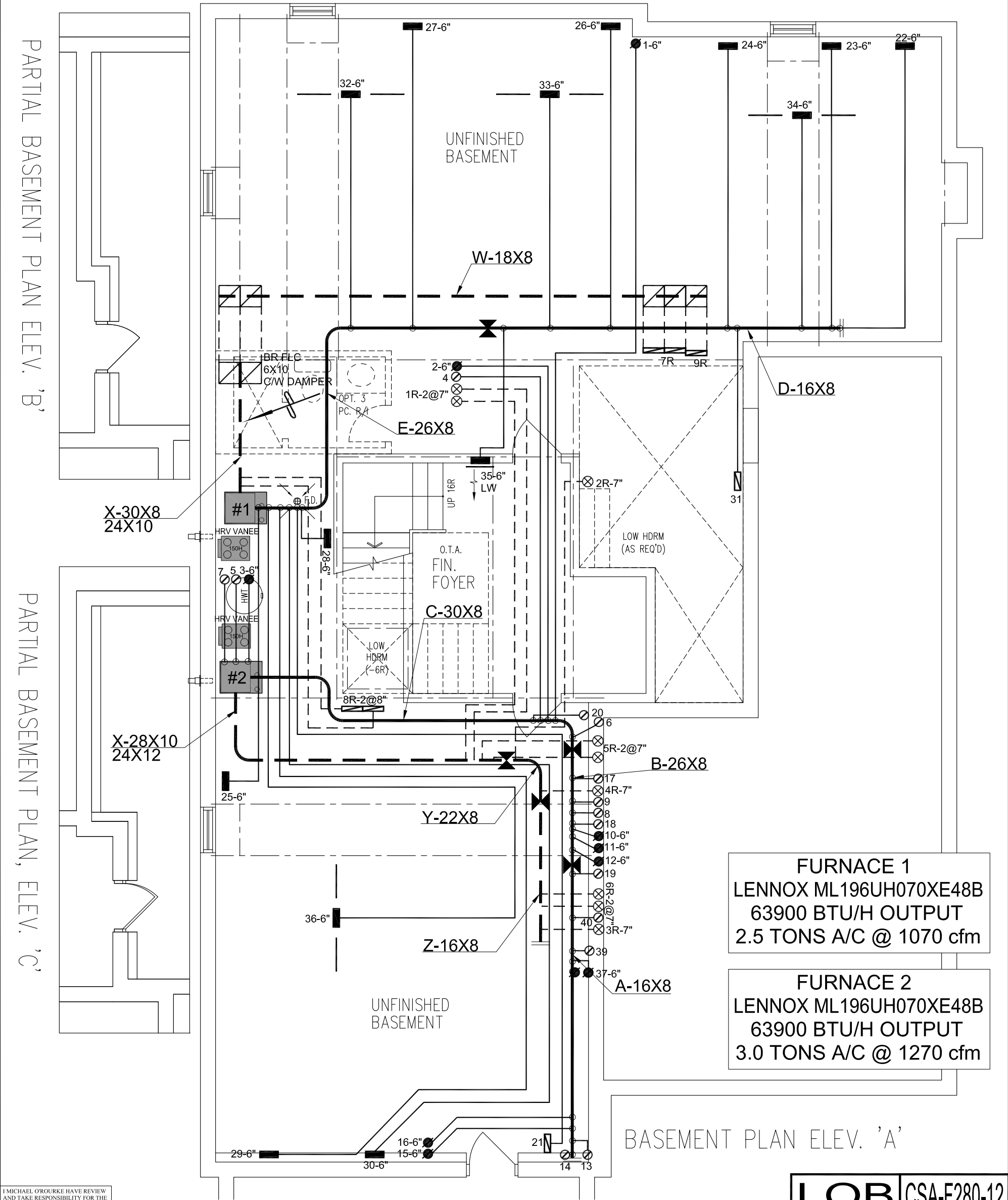
Weather Station Description		
Province:	Ontario	
Region:	Vaughan (Woodbridge)	
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	
Water Table:	Normal (7-10 m, 23-33 ft)	
Foundation Dimensions		
Floor Length (m):	19.8	 Insulation Configuration
Floor Width (m):	13.1	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	
Window Area (m ²):	3.1	
Door Area (m ²):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):		2190

TYPE: 5011
LO# 96515

TIMBERLAND - OPT 5 BED

PARTIAL BASEMENT PLAN ELEV. 'B'

PARTIAL BASEMENT PLAN, ELEV. 'C'



FURNACE 1
LENNOX ML196UH070XE48B
63900 BTU/H OUTPUT
2.5 TONS A/C @ 1070 cfm

FURNACE 2
LENNOX ML196UH070XE48B
63900 BTU/H OUTPUT
3.0 TONS A/C @ 1270 cfm

BASEMENT PLAN ELEV. 'A'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

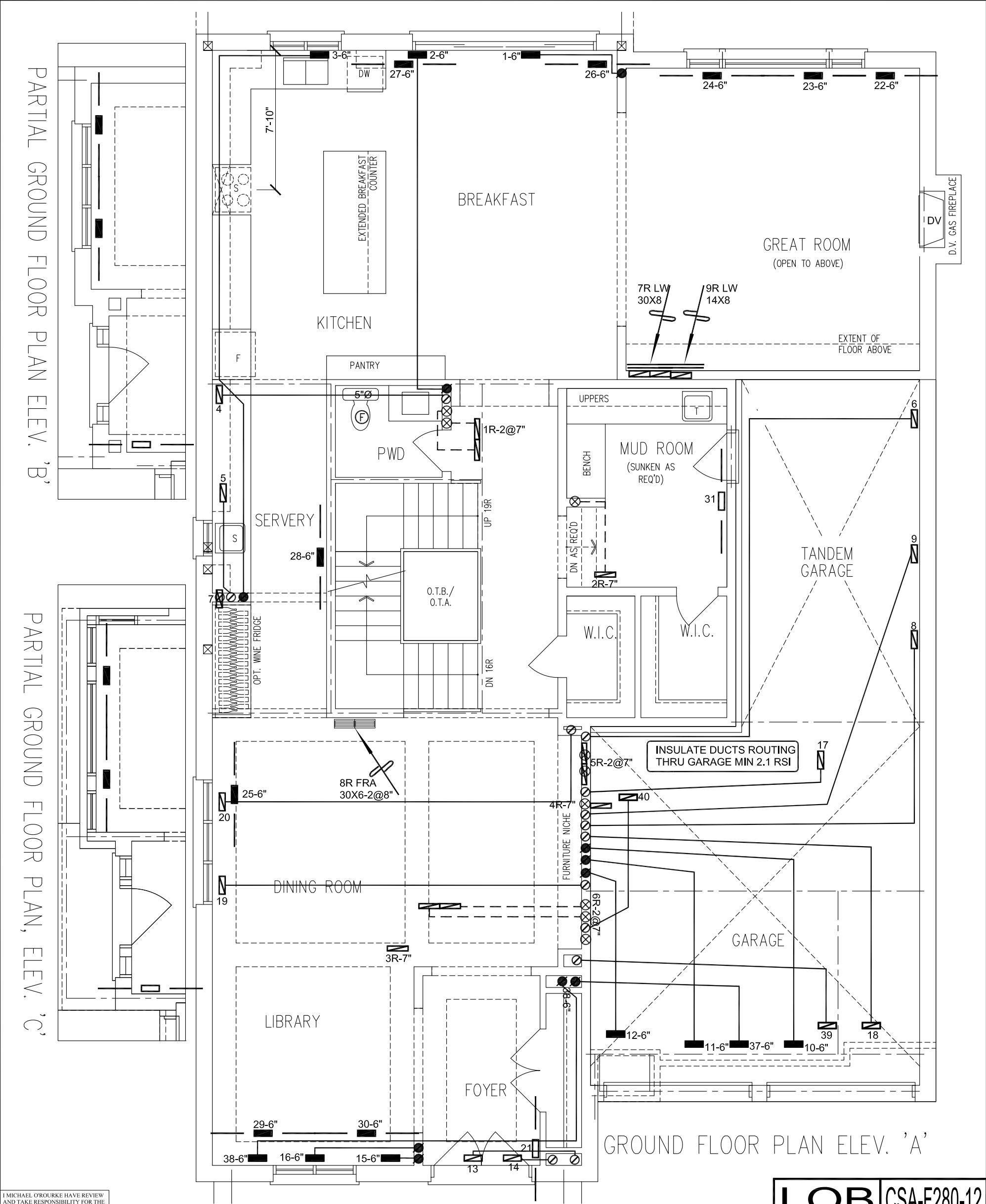
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

LOB	CSA-F280-12
WOD	PACKAGE A1

HVAC LEGEND						3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	2.
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	1.
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	No. Description Date
						REVISIONS		

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Client		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.	<table><tr><td></td><td>S/A</td><td>R/A</td><td>FANS</td></tr><tr><td>2ND</td><td>24</td><td>6</td><td>7</td></tr><tr><td>1ST</td><td>11</td><td>3</td><td>2</td></tr><tr><td>BAS</td><td>5</td><td>1</td><td>0</td></tr></table>					S/A	R/A	FANS	2ND	24	6	7	1ST	11	3	2	BAS	5	1	0	Sheet Title	
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1ST	11						3	2																
BAS	5	1	0																					
GOLD PARK HOMES		BASEMENT HEATING LAYOUT																						
Project Name		Date		MAY/2022																				
PINE VALLEY PH 2 VAUGHAN, ONTARIO		Scale		3/16" = 1'-0"																				
TIMBERLAND - OPT 5 BED 5011 4238 sqft		BCIN# 19669		LO# 96515																				



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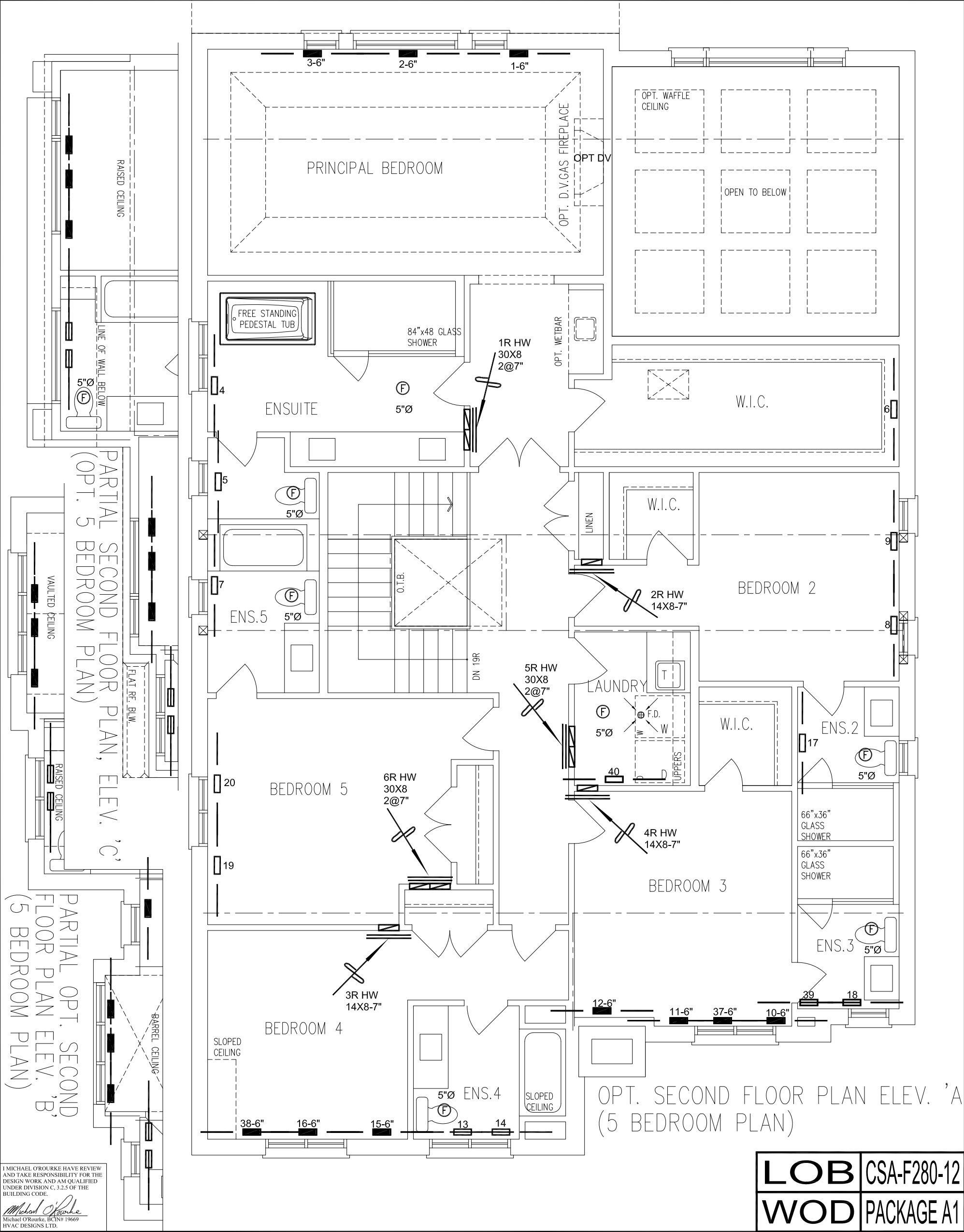
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HVAC DESIGNS LTD.

LOB	CSA-F280-12
WOD	PACKAGE A1

HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS	

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Client		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.	Sheet Title	
GOLD PARK HOMES			FIRST FLOOR HEATING LAYOUT	
Project Name			Date	MAY/2022
PINE VALLEY PH 2 VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
TIMBERLAND - OPT 5 BED 5011			BCIN# 19669	
4238 sqft			LO#	96515



I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

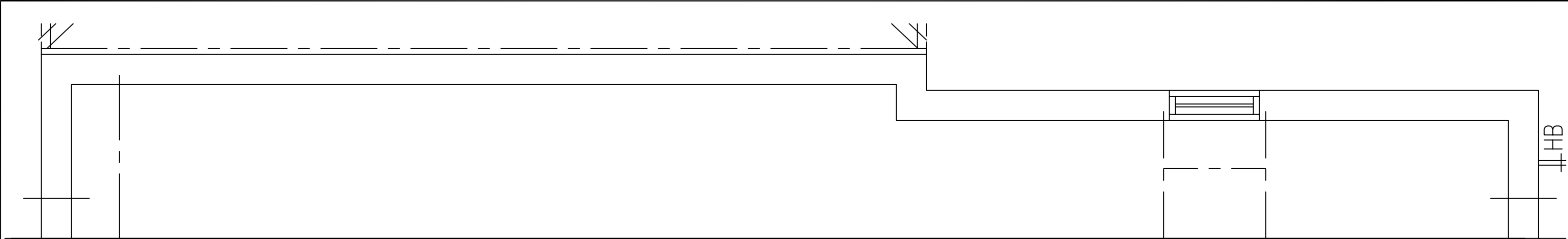
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

LOB	CSA-F280-12
WOD	PACKAGE A1

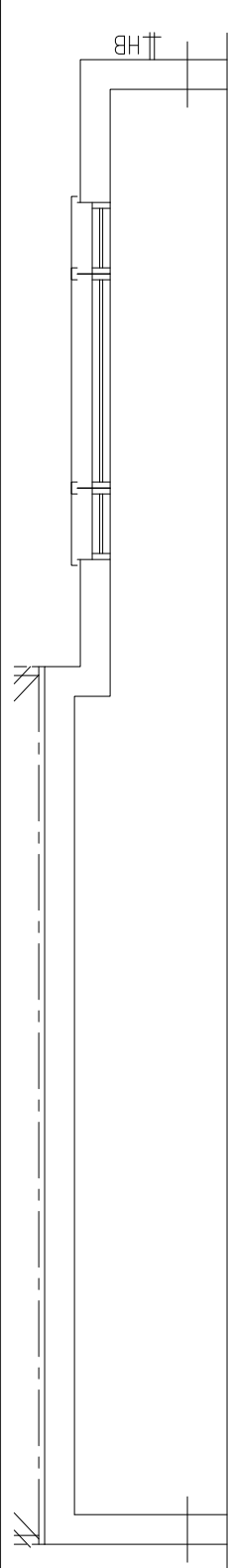
HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

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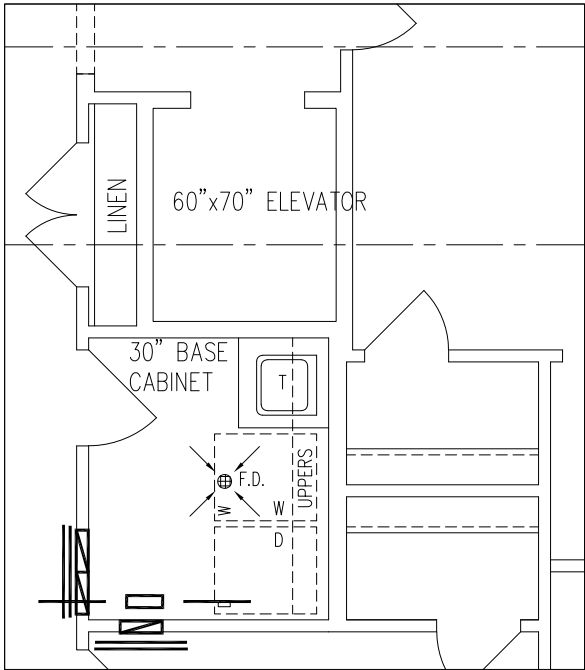
Client		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services	Sheet Title	
GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name		Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.	Date	
PINE VALLEY PH 2 VAUGHAN, ONTARIO			MAY/2022	
TIMBERLAND - OPT 5 BED 5011			Scale	
4238 sqft			3/16" = 1'-0"	
			BCIN# 19669	
			LO#	96515



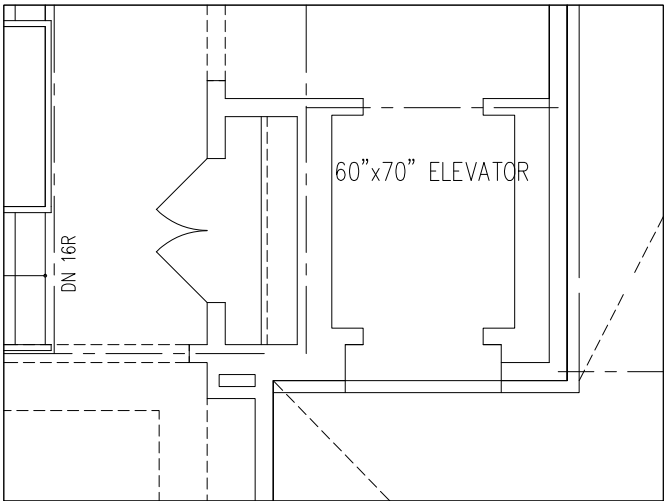
PART. BASEMENT PLAN ELEV. 'A', 'B' & 'C' – W.O.D. COND.



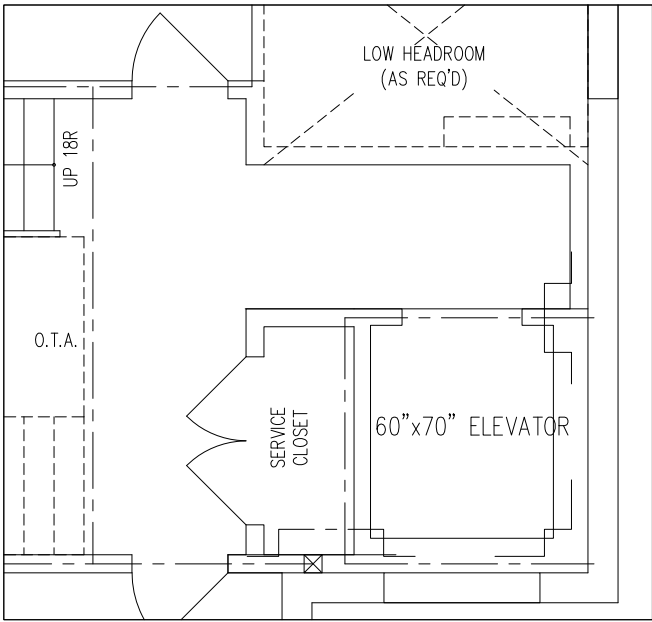
PART. BASEMENT PLAN ELEV. 'A', 'B' & 'C' – L.O.D. COND.



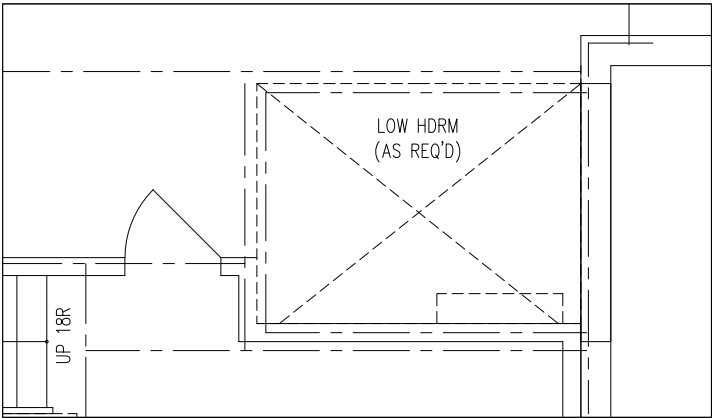
PART. OPT. SECOND FLR PLAN
(5 BEDROOM PLAN)



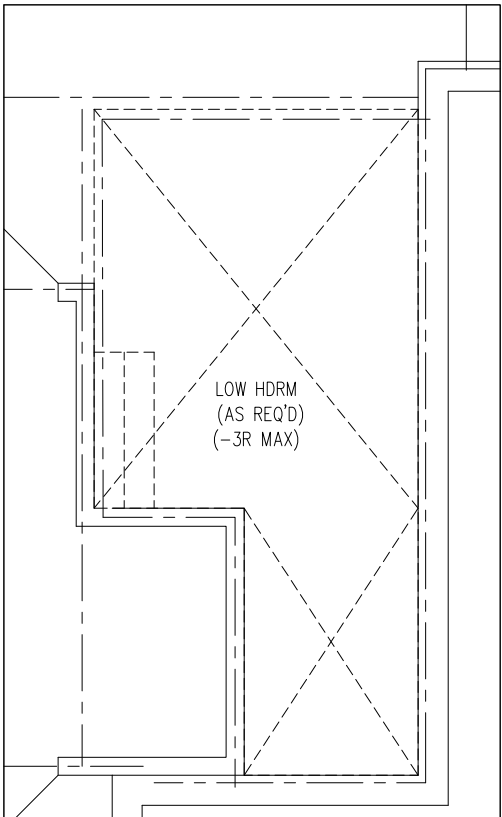
PARTIAL GROUND FLOOR PLAN
(W/ ELEVATOR) ELEV. 'A', 'B'&'C'



PARTIAL BASEMENT PLAN
(W/ ELEVATOR) ELEV. 'A', 'B'&'C'



PARTIAL BASEMENT PLAN
(W/ ELEVATOR) ELEV. 'A', 'B'&'C'
(OPT. SUNKEN MUD RM)



PARTIAL BASEMENT PLAN ELEV.
'A', 'B'&'C'
(OPT. SUNKEN MUD RM)

I MICHAEL O'ROURKE HAVE REVIEW
AND TAKE RESPONSIBILITY FOR THE
DESIGN WORK AND AM QUALIFIED
UNDER DIVISION C, 3.2.5 OF THE
BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

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GOLD PARK HOMES			STRIP PLAN HEATING LAYOUT	
Project Name			Date	MAY/2022
PINE VALLEY PH 2 VAUGHAN, ONTARIO			Scale	3/16" = 1'-0"
TIMBERLAND - OPT 5 BED 5011			BCIN# 19669	
4238 sqft			LO#	96515

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
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):	7.01			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1809.9			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2412.6 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	70.8	70.8		
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Leakage Rate (ACH/H):	0.340			
Cooling Air Leakage Rate (ACH/H):	0.114			

TYPE: 5011
LO# 96515

TIMBERLAND - OPT 5 BED