

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: 4203- THE FORESTCREST Project: PINE VALLEY & TESTON		
D. Declaration of Designer				
I, <u>MICHAEL O'ROURKE</u> (print name)		declare that (choose one as appropriate):		
☐ 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.				
January 23, 2018		 Signature of Designer		
Date				

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 & TESTON
BUILDER: GOLD PARK HOMES
TYPE: 4203- THE FORESTCREST
DATE: Jan-18
LO# 77467
GFA: 3688
WINTER NATURAL AIR CHANGE RATE 0.340
SUMMER NATURAL AIR CHANGE RATE 0.124
HEAT LOSS AT °F 76
HEAT GAIN AT °F 16
CSA-F280-12
SB-12 PACKAGE A1

ROOM USE	EXP. WALL CLG. HT.	MBR	ENS	HERS	BED-2	BED-3	BED-4	ENS-2	LOFT	ENS-3	ENS-4	
GRS.WALL AREA	216	333	333	63	144	297	432	54	63	81	72	
GLAZING	0	0	0	0	0	0	0	0	0	0	0	
NORTH	21.3 16.8	0	0	0	18 383	0	0	8 170	0	8 170	0	
EAST	21.3 42.4	0	0	0	0	61 1298	2586	0	0	0	0	
SOUTH	21.3 25.7	0	0	0	0	0	0	0	0	0	0	
WEST	21.3 42.4	47 1000	1992	0	0	0	0	0	18 383	463	0	
SKYL.T.	37.2 103.0	0	0	0	0	0	0	0	0	0	0	
DOORS	25.2 5.2	0	0	0	0	0	0	0	0	0	0	
NET EXPOSED WALL	4.5 0.9	169 754	157 312	289	63 281	58 126	562 117	236 1053	219 371	1655 344	46 205	43 45
NET EXPOSED BSMT WALL ABOVE GR	3.5 0.7	0	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.3 0.5	320 411	204 280	359 179	91 117	58 252	323 161	204 252	130 247	317 158	120 154	77 100
NO ATTIC EXPOSED CLG	2.7 1.4	0	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.6 0.5	0	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS		0	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	0
SUBTOTAL HT LOSS		2165	2199	1358	117	398	3353	530	712	752	940	764
SUB TOTAL HT GAIN		2353	2199	1358	117	398	3353	530	712	752	940	764
LEVEL FACTOR / MULTIPLIER		0.20	0.32	0.20	0.32	0.20	0.32	0.20	0.32	0.20	0.32	0.20
AIR CHANGE HEAT LOSS		701	712	129	411	1015	1088	171	231	243	304	85
AIR CHANGE HEAT GAIN		261	0	13	0	415	0	0	0	100	124	85
DUCT LOSS		0	0	0	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		695	0	0	0	695	0	0	0	0	0	0
TOTAL HT LOSS BTU/H		2865	2910	1952	527	4663	4439	701	943	1095	1369	1214
TOTAL HT GAIN x 1.3 BTU/H		4927			168	5172	5735	387	1725	465		

ROOM USE	EXP. WALL CLG. HT.	DIN	LIV	KTGT	STUDY	LAUN	PWD	FOY	MUD	BAS	
GRS.WALL AREA	132	420	420	869	110	0	66	581	312	1386	
GLAZING	32 681	0	0	0	0	0	0	0	0	4	
NORTH	21.3 16.8	0	0	0	0	0	0	0	0	85	
EAST	21.3 42.4	0	0	0	0	0	0	0	0	0	
SOUTH	21.3 25.7	0	74 1575	1905	0	0	0	0	0	4	
WEST	21.3 42.4	0	0	0	20 426	515	0	0	0	85	
SKYL.T.	37.2 103.0	0	0	0	0	0	0	0	0	170	
DOORS	25.2 5.2	0	0	0	0	0	0	0	0	0	
NET EXPOSED WALL	4.5 0.9	100 446	346 1544	321	0	0	65 295	61	20 605	20	
NET EXPOSED BSMT WALL ABOVE GR	3.5 0.7	0	0	0	0	0	0	0	0	0	
EXPOSED CLG	1.3 0.5	0	0	0	0	0	0	0	0	0	
NO ATTIC EXPOSED CLG	2.7 1.4	0	0	0	0	0	0	0	0	0	
EXPOSED FLOOR	2.6 0.5	0	0	0	0	0	0	0	0	0	
BASEMENT/CRAWL HEAT LOSS		0	0	0	0	0	0	0	0	0	
SLAB ON GRADE HEAT LOSS		0	0	0	0	0	0	0	0	0	
SUBTOTAL HT LOSS		1127	3415	5942	827	320	295	3584	1808	9765	
SUB TOTAL HT GAIN		631	3415	5942	598	115	0.30 0.45	745	376	1059	
LEVEL FACTOR / MULTIPLIER		0.30	0.45	0.30	0.45	0.20	0.30	0.45	0.30	0.50	
AIR CHANGE HEAT LOSS		508	1539	2677	373	104	133	1615	815	12766	
AIR CHANGE HEAT GAIN		70	264	551	66	13	7	83	42	118	
DUCT LOSS		0	0	0	0	42	0	0	0	0	
HEAT GAIN PEOPLE	240	0	0	0	0	82	0	0	0	0	
HEAT GAIN APPLIANCES/LIGHTS		695	695	695	695	695	0	0	695	0	
TOTAL HT LOSS BTU/H		1635	4954	8619	1200	466	427	5200	2623	22531	
TOTAL HT GAIN x 1.3 BTU/H		1815		8052	1768	1176	88	1076	1446	2433	

TOTAL HEAT GAIN BTU/H: 47645 TONS: 3.97 LOSS DUE TO VENTILATION LOAD BTU/H: 3181 STRUCTURAL HEAT LOSS: 88747 TOTAL COMBINED HEAT LOSS BTU/H: 71927

Michael O'Rourke

SITE NAME: PINE VALLEY & TESTON
BUILDER: GOLD PARK HOMES

TYPE: 4203- THE FORESTOREST

GFA: 3688 LO# 77467

DATE: Jan-18

HEATING CFM 1525 COOLING CFM 1525
TOTAL HEAT LOSS 68,747 TOTAL HEAT GAIN 46,984
AIR FLOW RATE CFM 22.18 AIR FLOW RATE CFM 32.46

EL296UH090XE48C

AFUE = 96 %
INPUT (BTU/H) = 88,000
OUTPUT (BTU/H) = 85,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	5	10	5
R/A	0	0	5	4	1

furnace pressure 0.6
furnace filter 0.05
a/c coil pressure 0.2
available pressure
for s/a & r/a 0.35
plenum pressure s/a 0.18
max s/a dif press. loss 0.03
min adjusted pressure s/a 0.15
r/a grille press. loss 0.17
adjusted pressure r/a 0.15

DESIGN CFM = 1525
CFM @ 6" E.S.P.

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

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

All S/A runs 5 1/2 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	21	22	23	24
ROOM NAME			MBR	ENS	ENS	BED-2	BED-3	BED-4	ENS-2	LOFT	ENS-3	MBR	ENS-4	DIN	LIV	KT/GT	KT/GT	STUDY	LAUN	PWD	FOY	MUD	BAS	BAS	BAS	BAS
RM LOSS MBH			1.43	1.46	1.46	1.68	2.28	2.22	0.70	0.94	1.09	1.43	1.37	1.64	2.48	2.87	2.87	1.20	0.47	0.43	5.20	2.62	4.51	4.51	4.51	4.51
CFM PER RUN HEAT			32	32	32	37	51	49	16	21	24	32	30	36	55	64	64	27	10	9	115	58	100	100	100	100
RM GAIN MBH			2.46	0.98	0.98	2.05	3.09	2.87	0.37	1.73	0.46	2.46	1.21	1.81	2.17	2.69	2.69	1.77	1.18	0.09	1.08	1.45	0.49	0.49	0.49	0.49
CFM PER RUN COOLING			80	32	32	67	100	93	12	56	15	80	39	59	70	87	87	57	38	3	35	47	16	16	16	16
ADJUSTED PRESSURE			0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.17	0.15	0.17	0.16	0.16	0.16	0.16
ACTUAL DUCT LGH			46	62	72	29	47	64	21	53	42	41	42	8	28	57	49	35	32	43	55	8	48	33	24	46
EQUIVALENT LENGTH			130	160	140	160	150	170	140	180	190	130	120	90	150	130	120	140	110	140	120	130	90	150	110	110
TOTAL EFFECTIVE LENGTH			176	222	212	189	197	234	161	233	232	171	162	98	178	187	169	175	142	183	175	138	178	123	174	156
ADJUSTED PRESSURE			0.1	0.08	0.08	0.09	0.08	0.07	0.11	0.07	0.07	0.1	0.11	0.18	0.1	0.09	0.1	0.1	0.12	0.09	0.09	0.12	0.09	0.13	0.09	0.1
ROUND DUCT SIZE			5	4	4	5	6	6	4	5	4	5	4	4	5	5	5	5	4	4	6	4	6	5	6	6
HEATING VELOCITY (ft/min)			235	367	367	272	260	250	184	154	275	235	344	413	404	470	470	198	115	103	586	665	510	734	510	510
COOLING VELOCITY (ft/min)			587	367	367	492	510	474	138	411	172	587	447	677	514	639	639	419	436	34	178	539	82	117	82	82
OUTLET GRILL SIZE			3X10	3X10	3X10	3X10	4X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	4X10	4X10	4X10	4X10
TRUNK			C	A	A	D	C	B	D	A	C	E	C	D	B	A	A	A	C	B	B	E	A	E	B	B

RUN #	25	26	27	28	29	30
ROOM NAME	BED-3	BED-4	LIV	KT/GT	LIV	BAS
RM LOSS MBH	2.28	2.22	2.87	2.48	0.53	4.51
CFM PER RUN HEAT	51	49	64	55	12	100
RM GAIN MBH	3.09	2.87	2.69	2.17	0.17	0.49
CFM PER RUN COOLING	100	93	87	70	5	16
ADJUSTED PRESSURE	0.16	0.16	0.16	0.17	0.17	0.16
ACTUAL DUCT LGH	49	66	41	31	73	12
EQUIVALENT LENGTH	170	130	90	130	180	120
TOTAL EFFECTIVE LENGTH	219	196	131	161	253	132
ADJUSTED PRESSURE	0.07	0.08	0.12	0.11	0.07	0.12
ROUND DUCT SIZE	6	6	5	5	4	5
HEATING VELOCITY (ft/min)	260	250	470	404	138	734
COOLING VELOCITY (ft/min)	510	474	639	514	57	117
OUTLET GRILL SIZE	4X10	4X10	3X10	3X10	3X10	3X10
TRUNK	C	B	C	B	A	D

SUPPLY AIR TRUNK SIZE				RETURN AIR TRUNK SIZE			
TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT	TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK A	352	0.07	9.8	12	0.00	0	0
TRUNK B	532	0.07	11.4	16	0.00	0	0
TRUNK C	1146	0.07	15	26	0.00	0	0
TRUNK D	189	0.09	7.3	6	0.00	0	0
TRUNK E	1336	0.07	16.2	30	0.00	0	0
TRUNK F	0	0.00	0	0	0.00	0	0

RETURN AIR #				VELOCITY (ft/min)			
TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT	TRUNK	STATIC PRESS.	ROUND DUCT	RECT DUCT
TRUNK A	352	0.07	9.8	12	0.00	0	0
TRUNK B	532	0.07	11.4	16	0.00	0	0
TRUNK C	1146	0.07	15	26	0.00	0	0
TRUNK D	189	0.09	7.3	6	0.00	0	0
TRUNK E	1336	0.07	16.2	30	0.00	0	0
TRUNK F	0	0.00	0	0	0.00	0	0

TYPE: 4203- THE FORESTCREST
SITE NAME: PINE VALLEY & TESTON

LO # 77467

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	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	3 @ 10.6 cfm	31.8 cfm
Kitchen & Bathrooms	6 @ 10.6 cfm	63.6 cfm
Other Rooms	8 @ 10.6 cfm	84.8 cfm
Table 9.32.3.A.	TOTAL	222.6 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	79.5	cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	222.6	cfm
Less Principal Ventil. Capacity	155	cfm
Required Supplemental Capacity	67.6	cfm

PRINCIPAL EXHAUST FAN CAPACITY	
Model:	VANEE 65H
Location:	BSMT
155.0 cfm	3.0 sones
☒	HVI Approved

PRINCIPAL EXHAUST HEAT LOSS CALCULATION	
CFM	ΔT °F
155.0 CFM	76 F
X	X
1.08	X
	0.25

SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	✓
ENS-2	QTXEN050C	50	✓
ENS-4	QTXEN050C	50	✓
PWD	QTXEN050C	50	✓

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model:	VANEE 65H	
155	cfm high	
64	cfm low	
75	% 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:	January-18

Specializing in Residential Mechanical Design Services

HEAT LOSS AND GAIN SUMMARY SHEET**MODEL:** 4203- THE FORESTCREST**BUILDER:** GOLD PARK HOMES**SFQT:** 3688**LO#** 77467**SITE:** PINE VALLEY & TESTON**DESIGN ASSUMPTIONS**

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

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):	55215.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/ft²):	1.50	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	7.0 ft
LENGTH: 66.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	198.0 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	-

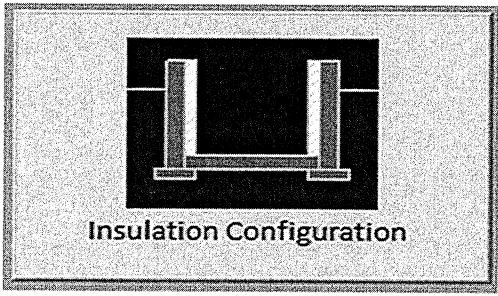
INDIVIDUAL BCIN: 19669

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):	20.1	 Insulation Configuration
Floor Width (m):	10.1	
Exposed Perimeter (m):	0.0	
Wall Height (m):	3.0	
Depth Below Grade (m):	2.13	
Window Area (m ²):	1.5	
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):		1987

TYPE: 4203- THE FORESTCREST
LO# 77467

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

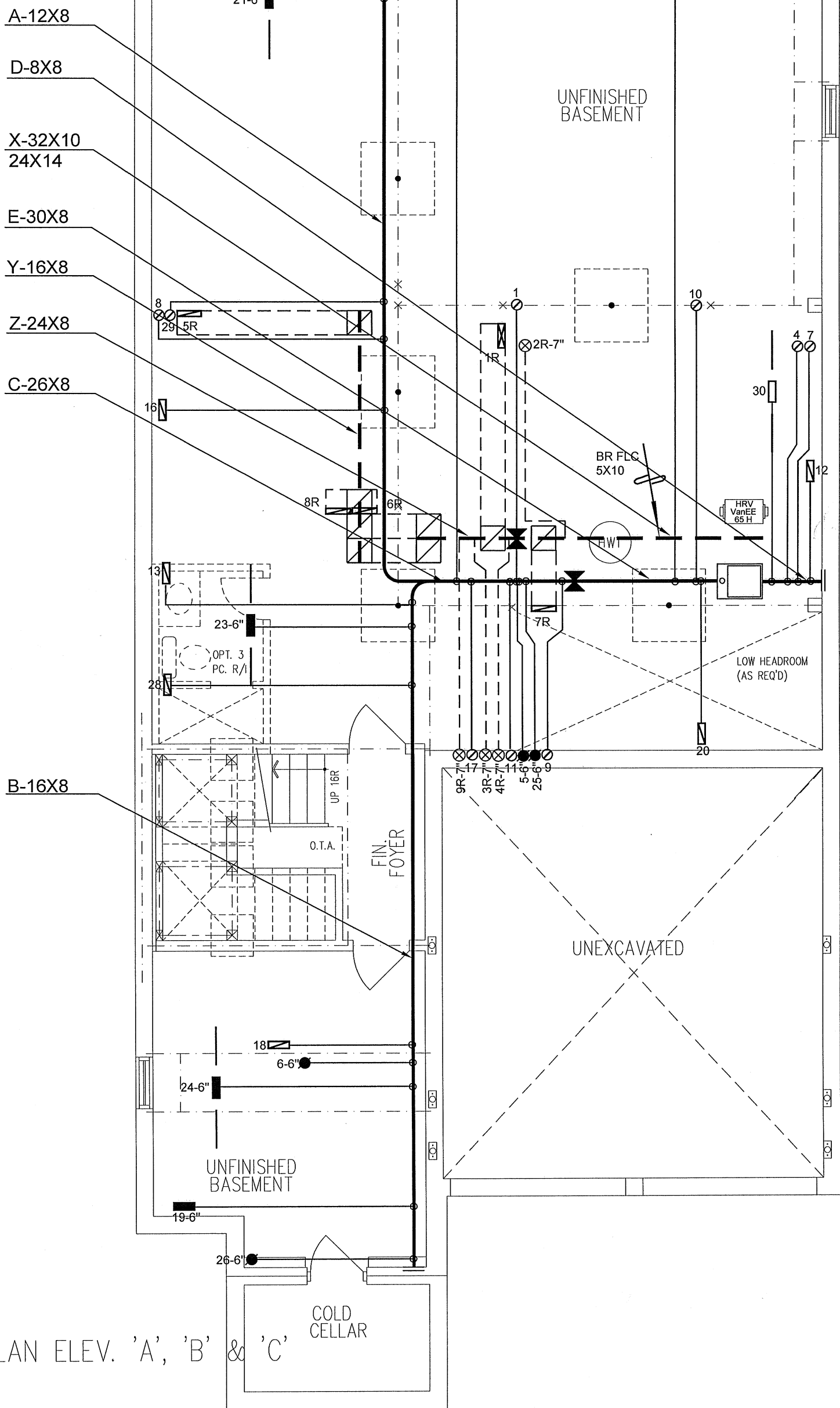
Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	7.01			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	1563.5			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (3.57 ACH)			
Custom BDT Data:	ELA @ 10 Pa.	2084.2 cm ²		
	3.57	ACH @ 50 Pa		
Mechanical Ventilation (L/s):	Total Supply	Total Exhaust		
	73.2	73.2		
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):	0.124			

TYPE: 4203- THE FORESTCREST
LO# 77467

PACKAGE A1

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

HVAC LEGEND									
								3.	
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		Description
	SUPPLY AIR BOOT ABOVE		6' SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER		Date
								REVISIONS	



BASEMENT PLAN ELEV. 'A', 'B' & 'C'

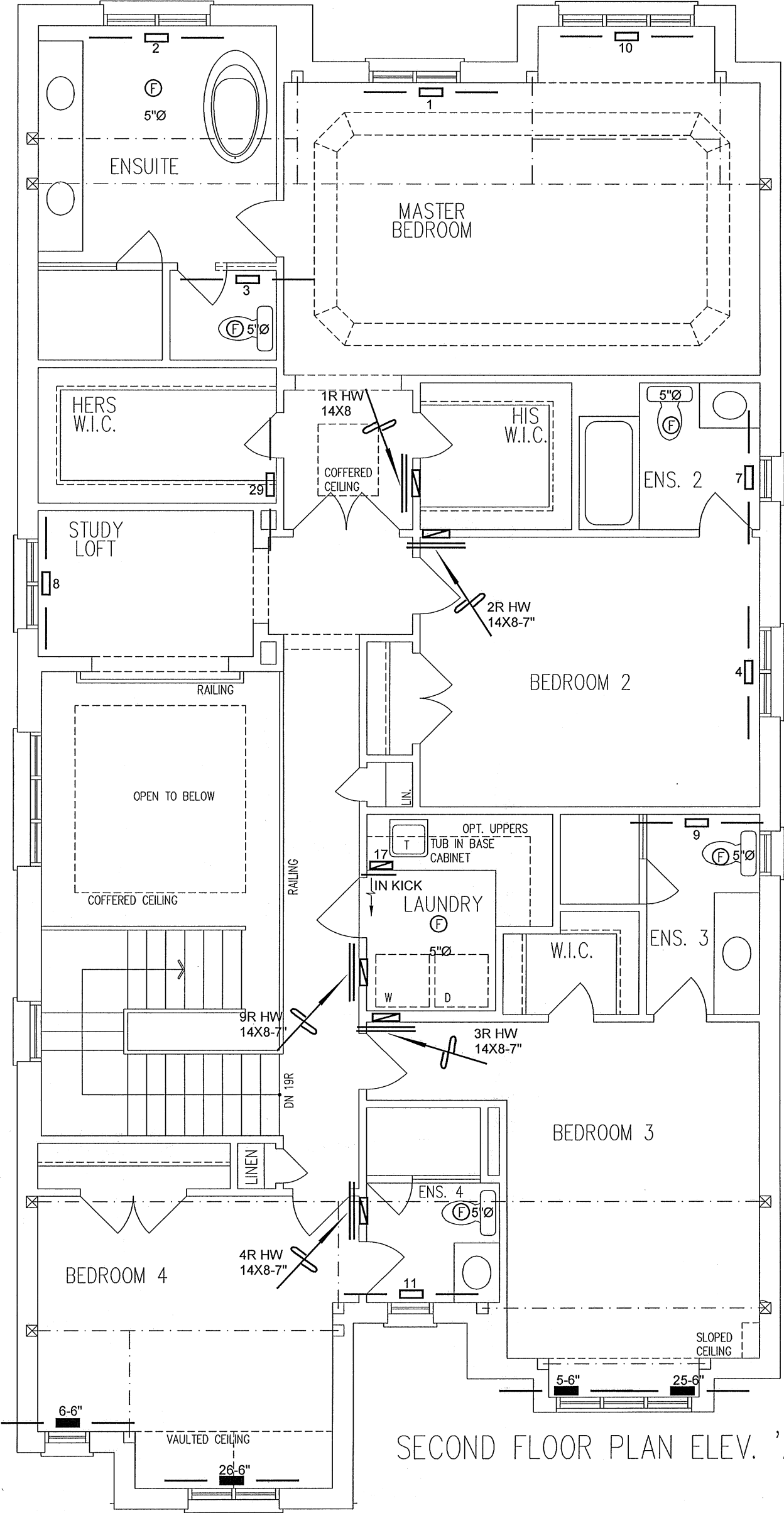
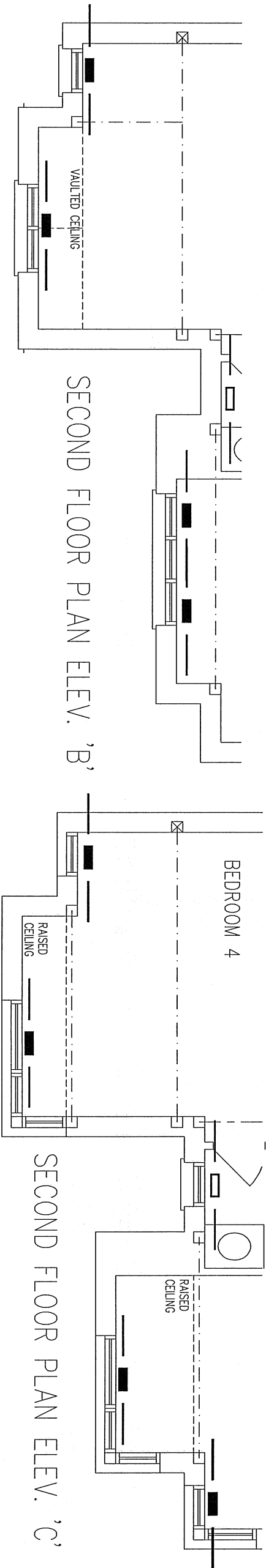
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Client	 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest 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.	HEAT LOSS 71927 BTU/H		# OF RUNS S/A R/A FANS			Sheet Title						
GOLD PARK HOMES		UNIT DATA	3RD FLOOR					BASEMENT HEATING LAYOUT					
Project Name		MAKE LENNOX	2ND FLOOR			15	5		6				
PINE VALLEY & TESTON VAUGHAN, ONTARIO		MODEL EL296UH090XE48C	1ST FLOOR			10	4		2				
THE FORESTCREST 4203 3688 sqft		INPUT 88 MBTU/H	BASEMENT			5	1	0	Date JAN/2018				
	OUTPUT 85 MBTU/H	ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5"Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A						Scale 3/16" = 1'-0"					
	COOLING 4.0 TONS							BCIN# 19669					
	FAN SPEED 1525 cfm @ 0.6" w.c.							LO# 77467					

CSA-F280-12
PACKAGE A1

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 32.5 OF THE BUILDING CODE.
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

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



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Client
GOLD PARK HOMES

Project Name
**PINE VALLEY & TESTON
VAUGHAN, ONTARIO**

**THE FORESTCREST
4203**

3688 sqft

375 Finley Ave. Suite 202 - Ajax, Ontario
L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375
Email: info@hvacdsgns.ca
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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
**SECOND FLOOR
HEATING
LAYOUT**

Date
JAN/2018

Scale
3/16" = 1'-0"

BCIN# 19669

LO# **77467**