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	Postal code	Plan number/ other desc	ription		
BRAMPTON	,				P. P
B. Individual who reviews and takes r	esponsibility for	design activities			
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.			
Street address 375 FINLEY AVE			Unit no. 202		Lot/con. N/A
Municipality	Postal code	Province	E-mail		107
AJAX	L1S 2E2	ONTARIO	info@hvacdesi	igns.ca	
Telephone number (905) 619-2300	Fax number (905) 619-2375		Cell number ()		
C. Design activities undertaken by inc	`identifie	d in Section B. (Buildi		e 3.5.2.1 OF Divisi	ion Cl
o. Design detivites undertaken by inc	arriada lacitano	a in occuon B. [Bana	ing odde rabi	C U.U.Z. 1 OF DIVIS	91
☐ House	⊠ HVAC			Building Structure	
☐ Small Buildings ☐ Large Buildings		g Services on, Lighting and Pow		Plumbing – Hous Plumbing – All Bu	
☐ Complex Buildings	☐ Fire Pro			On-site Sewage S	-
Description of designer's work		Model:	38-8		
HEAT LOSS / GAIN CALCULATIONS DUCT SIZING			LOT 1		
RESIDENTIAL MECHANICAL VENTILATION	N DESIGN SUMM	ARY Project:	FNCORE		
RESIDENTIAL SYSTEM DESIGN per CSA-I	F280-12	i Tojeci.	ENCONE		
D. Declaration of Designer			l l	7	
I MICHAEL O'ROURKE (pri	int name)		declare the	at (choose one as app	propriate):
☐ I review and take responsibility fo Division C, of the Building Code. classes/categories.				ction 3.2.4.of appropriate	
Individual BCIN: Firm BCIN:					
I review and take responsibility fo designer" under subsection 3.2		m qualified in the appropri on C, of the Building Code		an "other	
Individual BCIN: Basis for exemption fr	19669 om registration and	l qualification:	O.B.C SENT	ΓENCE 3.2.4.1 (4)
The design work is exempt Basis for exemption from registra	from the registrati tion and qualification	on and qualification requir	rements of the B	uilding Code.	
I certify that:					
The information contained I have submitted this application.	in this schedution with the knowle	ule is true to the best of medge and consent of the fi	y knowledge. rm.		
August 21, 2017			Maha	1 Offende	
Date	•			Signature of Desi	igner
)			· · · · · · · · · · · · · · · · · · ·

NOTE:

^{1.} For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.

^{2.} 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.

E)
GNS

SB-12 PACKAGE A1	2 2	3 5	2	330	ross		414	Φ	0	0	0	1347	0	0	0	0	•	0	•		1804	25	0		240		3566	2882	BAS	16	on.	780	-	249	0	Ó	0	0	492	o ;	47/1	> <	> ¢	5641		8105		1024	98	0		0 (18329	752	
	7 F	£ 4	0.	Ç.	LOSS GAIN	0	829 1653	0	0	0	983 169	3172 514	0	0	0	0	0	0			5106	128	0		0		10090	4038							-			-			£ .		-				-					•			
HEAT GAIN AT	ENS-2	2 4		180	LOSS GAIN	0	166 331		0	0	0	708 115	0	124 57	0	0	0	0		040 025 030	292				0 0		1476	883								-							-		<u> </u>					-					
INGE RATE 0.137	ENS.			7	LOSS GAIN	0	0	222	0	0	0	196 32	0	97 45	0	0	•	6		RRZ Z	13 5		0		0		268	409	ВТН2	#	ę	77		8 0	0	332	0	0	6	408	> (.	,		0			75.0	52	0	0	0	1498	632	
A NA IURAL AIR LU	8ED-8	Ε,	æ,	8	LOSS GAIN			332	0	0		ģ	0	180	0	0	0	0	. '	1180	672	199			1 240		1555	3064	DEN	11	on .	Ę	-	3	0	746	0	0	0	88	> 0	> 6	> P	2 0	. 0		984	0.20		180	104	0	1985	1484	1
COMPTE	BATH	\$	3 9	171	SSOT	0	0	0	10 207	0 0	0 0	161 700	0	84 105	0	0	0	0	1012	ç	249				0		1261	788	FOY	30	\$	450	~		0	601	1616	0	492	1404	- (200	> c	, c				0.20 0.35	237	0	0	0	5806	5937	1
	8ED-4	72	2	450	LOSS GAIN		0		746	0	o	365	0	210	75	0	0	0		16/8	344	25	174		1 240		1914	3806	WIR	6	o,	č	_	3 0	0	228	0	0	o	, 3g	-	5 6	> <	• •	. 0			0.20	82	0	0	0	0 022	440	7
	BED:3	ξ,	d)	8	LOSS GAIN		0		0	0	0	326	0	200	88	0	0	0		1/6	273	3	138		1 240		1520	2446	LAUN	o	on.	c	U SE GAIN	-		0		0	0	.	۰ د	> (- ¢	2 0	. 6			0.20 0.35	3	z		0	236 652	97.4	
5	BED-2	Ξ,	5 7	9	LOSS GAIN			186	0	0		391	0	169	0	0	0	0		363	184	02	63		1 240		1023	1822																							,,,,,,				
																							-						KT/FM	78	on.	Ę	NIAS SAIN			497		٥	0	2655	o ;	٠ م	> [£]	2 0	. 6			0.20 0.35	261	989	299	0 0	552 7546	8105	12412
	ENS		ø,		LOSS GAIN	0	ឧ	0	0	0	0	25	0	112	0	0		0	780	928		ī.		0	0	•	973	1272																											
	WBK	, s	2	700	LOSS GAIN	0	622 1240	0 0	0	0	0	1521 247	0	391 180	0	0	0	0		1666	624	5	346	588	2 480	652	3474	4131	Γſ	32	თ	č	288 288 280 1	3 0	0 0	٥	974	0	492	960	Þ (> 0	2 2	, ,	. 0			0.20 0.35	126	420	306	0 0	652	4383	T-22-
	H COSE	H.		FACIORS		15.8	20.7 41.3	20.7 24.7	20.7 41.3	SKYLT. 20.7 86.4		4.3 0.7	3.5 0.6	1.2 0.6	2.7 1.2	2.5 0.4	088	oss	SSO			.AIN	SSO	'AIN	PLE 240	SHTS	EGH.	TUH	USE	ML			REA LUSS GAIN	NORTH 207 158	20.7	24.7	20.7 41.3	20.7 86.4	24.6 4.0	4.3 0.7	3.5 0.6	3.2 0.6	77 77	67	SSC	oss			N N	SSC	AIN	PLE 240	TITH	Ę	1
1	HOOM USE	EAP. WALL	CLG. HI.	GRS WALL AREA	GLAZING	N	w	S	\$	×	ă	NET EXPOSED WALL	NET EXPOSED BSMT WALL ABOVE GR	EXPOSED CLG	NO ATTIC EXPOSED CLG	EXPOSED FLOOR	BASEMENT/CRAWL HEAT LOSS	SLAB ON GRADE HEAT LOSS	SUBTOTAL HT LOSS	SUB TO TAL HIGAIN	AIR CHANGE HEAT LOSS	AIR CHANGE HEAT GAIN	DUCTLOSS	DUCTGAIN	HEAT GAIN PEOPLE	HEAT GAIN APPLIANCES/LIGHTS	TOTAL HT LOSS BTUIH	TOTAL HT GAIN X 1,3 BTUIN	ROOM USE	EXP. WALL	CLG. HT	2000	GRO.WALL AREA	Ö	ul	SOS	*	¥5	8	NET EXPOSED WALL	NET EXPOSED BSMT WALL ABOVE GR	SYPOSED CLG	EXPOSED EL OOR	BASEMENTICRAME HEAT LOSS	SLAB ON GRADE HEAT LOSS	SUBTOTAL HT LOSS	SUB TO TAL HT GAIN	AID CUANCE DEATIONS	AIR CHANGE HEAT GAIN	DUCTLOSS	DUCT GAIN	HEAT GAIN PEOPLE	HEAT GAIN APPLIANCES/LIGHTS TOTAL HT LOSS BILI/H	TOTAL HT GAIN x 1.3 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, 3.2.5 OF THE BUILDING CODE.

INDIVIDUAL BCIN: 19669

MICHAEL O'ROURKE

-	<u>u</u> .	24 BTH2 1.50 33 0.63 20 0.17 0.17 149 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.1		VELOGITY (************************************
	96 % 88.000 85,000 1525 6 "E.S.P.	23 BED-6 3.57 80 2.58 82 0.16 3.7 120 157 157 157 157 157 82 3.7 82 82 82 82 82 82 82 82 82 82 82 82 82		∞ ∞ ∞ ∞ ∞ ∞ ∞ ∞ [€] ∞ ∞ [‡]
-	AFUE = 96 % INPUT (BTU/H) = 88,000 OUTPUT (BTU/H) = 86,000 DESIGN CFM = 1525 CFM @ .6 * E.S.P	22 REC 3.36 7.5 11.35 4.3 6.17 2.4 120 144 144 144 144 144 144 144 144 144 14		******
	AFUE = INPUT (BTU/H) = OUTPUT (BTU/H) = DESIGN CFM = CFM (B) EMPERATURE RISE	21 REC 3.36 75 11.35 4.3 0.17 0.17 0.13 5 5 5 5 16 3316 3316 3310 4 17 18 18 18 18 18 18 18 18 18 18 18 18 18		NECT DUCT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
75561	F	20 DEN 1.98 44 1.48 47 47 0.17 3.7 160 197 0.08 4 505 539 33.70 C		ROUND DUCT O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
# 01	105 1105 1525 1525	19 FOY 5.29 65 2.97 94 0.16 45 140 185 0.08 6 331 479 4710		812E STATIC PRESS. 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05
4464		18 W/R 0.72 16 0.44 14 0.17 0.17 0.07 0.07 190 232 0.07 4 4 184 161 3X10 C		IR TRUNK CFM 0 0 0 0 0 0 1 0 1525 490 0 1525
GFA:	EL296UH090XE48C FAN SPEED LOW MEDLOW MEDIUM MEDIUM HIGH HIGH	17 0.24 0.24 0.97 31 0.17 0.17 0.18 160 205 0.08 4 57 37 37 87 57 87 87 87 87 87 87 87 87 87 87 87 87 87		RETURN AIR TRUNK TRUNK O 0 TRUNK O 0 TRUNK O 0 TRUNK R 1525 TRUNK R 1625 TRUNK R 1625
	핔	16 KT/FM 2.52 56 2.70 86 0.16 60 150 210 0.07 6 28 438 4X10 C		Vel. Oct. Oct. Oct. Oct. Oct. Oct. Oct. Oct
		15 KTTFM 2.52 56 2.70 86 0.16 88 160 228 48 4X10 C		8888888 0000 0000 0000 0000 0000 0000
Aug-17	0.16 0.02 0.14	14 KT/FM 2.52 56 2.70 86 0.16 69 0.07 6 438 438 4X10 A		××××× 000.0 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 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 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0
DATE: Aug-17	r/a pressure r/a grille press. Loss adjusted pressure r/a	13 LIV 231 52 52 52 52 70 0.17 51 180 231 0.07 5 5 4 8 8 8 8 8		necr Duct 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	r/a p grille pre-	12 LIV 2.31 52 52 52 70 70 0.17 63 170 233 0.07 5 4 382 514 3710 8		ROUND DUCT B 9 9 9 6.8 10.5 10.5 0 0 0 0 0 0 0 1.14 1 14.32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	r/a adju	11 1.26 28 0.79 25 0.17 66 0.06 4 4 321 287 321 8 8		Strainc 0.10 0.10 0.00 0.00 0.00 0.00 0.14 14.32 0
	0.6 0.05 0.21 0.34 0.02 0.16	10 1.56 3.06 97 0.16 55 200 255 0.06 6 178 4X10		TRUNK CFM 359 177 536 0 0 0 0 0 0 0 0 14.32 0 0 0 0 0 0 0 0 0 0 14.4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
LOT 1 38-3	ce pressure umace filter oil pressure le pressure for s/a & r/a pressure s/a f press. loss	9 ENS-3 0.60 0.60 0.41 13 0.41 13 0.17 0.17 0.17 0.00 244 149 149 149 3X10 C		TRUNK G TRUNK H TRUNK I TRUNK J TRUNK J TRUNK L TRUNK L TRUNK L TRUNK L TRUNK L O 0 0 14.32 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
TYPE		8 BED-4 0.96 0.96 60 0.17 62 170 232 0.07 5 154 441 3X10		8 8 8 8 X X X X 30 30 30 30 30 30 30 30 30 30 30 30 30
	furnac 1, a/c co available plenum p max s/a dif	7 BED-2 1.02 23 1.82 58 0.17 54 140 194 0.09 5 169 426 3X10	·	(thrain) (th
		6 BED-4 0.96 0.96 0.96 0.17 0.17 0.17 0.07 0.07 0.07 5 154 4441 33X10	30 REC 33.36 7.5 1.35 4.3 0.17 0.17 0.11 5 5 5 5 150 150 150 150 150 150 150 1	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	1525 48.065 31.73 Bas 4	5 BED-3 1.52 34 2.45 78 0.17 52 52 52 0.07 6 6 1.73 398 4X10 C	29 FOY 2.90 65 2.97 94 0.16 0.08 6 331 4X10 E	5 0 0 120 0.14 185 243 0.06 6.8 8 8 8 7 7 7
ÆS	COOLING GFM TOTAL HEAT GAIN AIR FLOW RATE GFM 2nd 1st 10 5 10 5 10 5 10 5 10 5 10 8 10 9 10 15 10 5 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 1	ENS-2 1.48 33 0.99 32 0.17 71 170 170 241 0.07 4 379 367 3710	28 BAS 4.58 102 0.19 6.0 150 120 155 0.11 4.10	RECT BUCT 8 8 112 110 110 110 110 110 110 110 110 110
ENCORE GOLD PARK HOMES	COO TOTAL H IR FLOW F 2 10 2 e on layo	3 ENS 0.97 0.97 1.27 40 0.17 82 282 0.06 5 162 162 294 3X10	27 BAS 4.58 102 0.19 6 6 6 0.16 26 120 120 146 0.11 6 6 8 4 710 9 6 6 6 72 8 73 9 8 73 9 73 9 73 9 73 9 73 9 73 9 73 9 73 9	ROUND BUCT 8.4 10.4 8.9 9.4 15.8 9.5 9.5 9.5 9.5 9.6 9.5 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6
ENCORE GOLD P.	3rd 11 5 5 I otherwise on la	2 MBR 1.74 39 1.74 39 2.07 90 200 290 290 290 5 5 286 485 3X10 A	26 BAS 4.58 102 0.19 6 6 0.16 23 120 143 0.11 4X10	STATIC PRESS 0.06 0.07 0.06 0.06 0.06 0.06 0.14 85 225 310 0.05 6 6 6 8
SITE NAME: E BUILDER: (1525 68,189 22.36 4th 0 0 0 ess noteced otherved	MBR 1.74 3.9 2.07 66 0.17 180 261 0.06 5 5 286 485 3X10 A	25 BAS 4.58 102 0.19 6 6 0.16 26 120 140 0.11 6 6 4 710 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 140 0.3 160 0.0 0 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TRUNK CFM CFM CFM 370 275 275 275 275 275 276 275 276 275 276 275 276 275 276 275 276 276 276 276 276 276 276 276 276 276
SITE	HEATING CFM 1525 COOLIN TOTAL HEAT LOSS 68,189 TOTAL HEAT LOSS 68,189 TOTAL HEAT LOW RATE CFM 22.36 AIR FLOW RATE CFM 22.36 AIR FLOW RATE CFM 22.36 AIR FLOW RATE CFM 23.46 O	RUN# ROOM NAME RM LOSS HA LOSS CEM PER RUN HEAT CFM PER RUN COLING ADJUSTED PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH ADJUSTED PRESSURE ACTUAL DUCT SIZE HEATING VELOCITY (famin) COOLING VELOCITY (famin) COOLING VELOCITY (famin)	RUN# ROOM NAME RM LOSS MBH. CFM PER RUN HEAT RM GAIN MBH. CFM PER RUN COCLING ADJUSTED PRESSURE ACTUAL DUCT LGH. EQUIVALENT LENGTH TOTAL EFFECTIVE LENGTH ADJUSTED RESSURE ROUND DUCT SIZE ROUND DUCT SIZE HEATING VELOCITY (ffmin) COOLING VELOCITY (ffmin) COOLING VELOCITY (ffmin)	SUPPLY AIR TRUNK SIZE TRUNK A TRUNK C TRUNK C TRUNK C TRUNK D TRUNK E TRUNK E TRUNK E TRUNK E TRUNK E TRUNK E TOTUAL BY LEFECTIVE LH ADUSTED PRESSURE ROUND DUCT SIZE INLET GRILL SIZE



TYPE: SITE NAME:

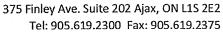
38-3 ENCORE LO#

75561 LOT 1

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES 9.32.3.1(1)	SUPPLEMENTAL VENTILATION CAPACITY	9.32.3.5.
a) Direct vent (sealed combustion) only	Total Ventilation Capacity 212	cfm
b) Positive venting induced draft (except fireplaces)	Less Principal Ventil. Capacity 245	cfm
c) Natural draft, B-vent or induced draft gas fireplace	Required Supplemental Capacity -33.0	cfm
d) Solid Fuel (including fireplaces)	PRINCIPAL EXHAUST FAN CAPACITY	
e) No Combustion Appliances		
	Model: VANEE G2400H ECM Location:	BSMT
HEATING SYSTEM	cfmsones	✓ HVI Approved
Forced Air Non Forced Air	PRINCIPAL EXHAUST HEAT LOSS CALCULATION CFM	% LOSS
Electric Space Heat	245.0 CFM X 74 F X 1.08	X 0.20
Lieture opace riear	SUPPLEMENTAL FANS NUTONE	
0.00 4/01	Location Model cfm	HVI Sones
HOUSE TYPE 9.32.1(2)	ENS QTXEN050C 50 BATH QTXEN050C 50	✓ 0.3 ✓ 0.3
✓ I Type a) or b) appliance only, no solid fuel	ENS-2 QTXEN050C 50	✓ 0.3
	W/R QTXEN050C 50	√ 0.3
II Type I except with solid fuel (including fireplaces)	HEAT RECOVERY VENTILATOR	9.32.3.11.
III Any Type c) appliance	Model: VANEE G2400H ECM 245 cfm high 50	cfm low
IV Type I, or II with electric space heat	80 % Sensible Efficiency	· HVI Approved
Other: Type I, II or IV no forced air	@ 32 deg F (0 deg C)	11VI Apploved
	LOCATION OF INSTALLATION]
SYSTEM DESIGN OPTIONS O.N.H.W.P.		
1 Exhaust only/Forced Air System	Lot: Concession	
2 HRV with Ducting/Forced Air System	Township Plan:	
	Address	
3 HRV Simplified/connected to forced air system	Roll # Building Permi	t#
4 HRV with Ducting/non forced air system	BUILDER: GOLD PARK HOMES	
Part 6 Design	Name:	
TOTAL VENTILATION CAPACITY 9.32.3.3(1)	Address:	
Basement + Master Bedroom 2 @ 21.2 cfm 42.4 cfm	City:	
Other Bedrooms 5 @ 10.6 cfm 53 cfm	Telephone #: Fax #:	
Kitchen & Bathrooms 7 @ 10.6 cfm 74.2 cfm	INSTALLING CONTRACTOR	
Other Rooms 4 @ 10.6 cfm 42.4 cfm	Name:	
Table 9.32.3.A. TOTAL 212.0 cfm	Address:	
	City:	
PRINCIPAL VENTILATION CAPACITY REQUIRED 9.32.3.4.(1)		
	Telephone #: Fax #:	
6 Bedrooms	DESIGNER CERTIFICATION	
As Per Ashrea 62.2 Dwelling- Unit Ventilation	I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.	
4.1.1 Total Ventilation Rate	Name: HVAC Designs Ltd.	
4.1.1 Total Verillation Cate <i>Q_tot=</i> 0.03 <i>A_floor+</i> 7.5(<i>N_br+</i> 1)	Signature: Mahad Okambe	7.43
V_CVC-0,000_J (00/TT.5(n_0/T))	HRAI # 001820	
TOTAL 186.4 cfm	Date: August-17	
I REVIEW AND TAKE RESPONIBILITY FOR THE DESIGN WORK AND AM QUALIFIED IN THE APPR	ROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 CF THE BUILD	DING CODE.

INDIVIDUAL BCIN: 19669





Web: www.hvacdesigns.ca E-mail: info@hvacdesigns.ca

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL:38-3	LOT 1	BUILDER: GOLD PARK HOME	S
SFQT: 4464	LO# 75561	SITE: ENCORE	
DESIGN ASSUMPTIONS			
HEATING 8	• • • F	COOLING	°F
OUTDOOR DESIGN TEMP.	-2	OUTDOOR DESIGN TEMP.	86
INDOOR DESIGN TEMP.	- 72	INDOOR DESIGN TEMP. (MAX 75°F)	74
			•
BUILDING DATA			
		NOT CTODIES (A DACEATAIT)	
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	4
FRONT FACES:	WEST	ASSUMED (Y/N):	Υ
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Υ
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Υ
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Υ
HOUSE VOLUME (ft³):	47248.0	ASSUMED (Y/N):	Υ
,			
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	7
INTERIOR LIGHTING LOAD (Btu/h/	ft ²): 1.27	DC BRUSHLESS MOTOR (Y/N):	Υ
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, — — ;		
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 49.0 ft	WIDTH: 33.0 ft	EXPOSED PERIMETER:	164.0 ft
LENG 171. 43.0 IL	**ID111. JJ.OTC	EM OSED I EMMETER.	200 10

2012 OBC - COMPLIANCE PACKAGE		
	Compliance	Package
Component	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	29.8
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

Weat	her Sta	tion Description
Province:	Ontario	
Region:	Brampto	n
	Site D	escription
Soil Conductivity:	Normal c	onductivity: dry dand, loam, clay
Water Table:	Normal (7-10 m, 23-33 ft)
For	undatio	n Dimensions
Floor Length (m):	14.9	
Floor Width (m):	10.1	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	Insulation Configuration
Window Area (m²):	1.1	
Door Area (m²):	1.9	
	Radi	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
c	Desig	n Months
Heating Month	1	
	Founda	tion Loads
Heating Load (Watts):		1653

TYPE: 38-3 **LO#** 75561

LOT 1



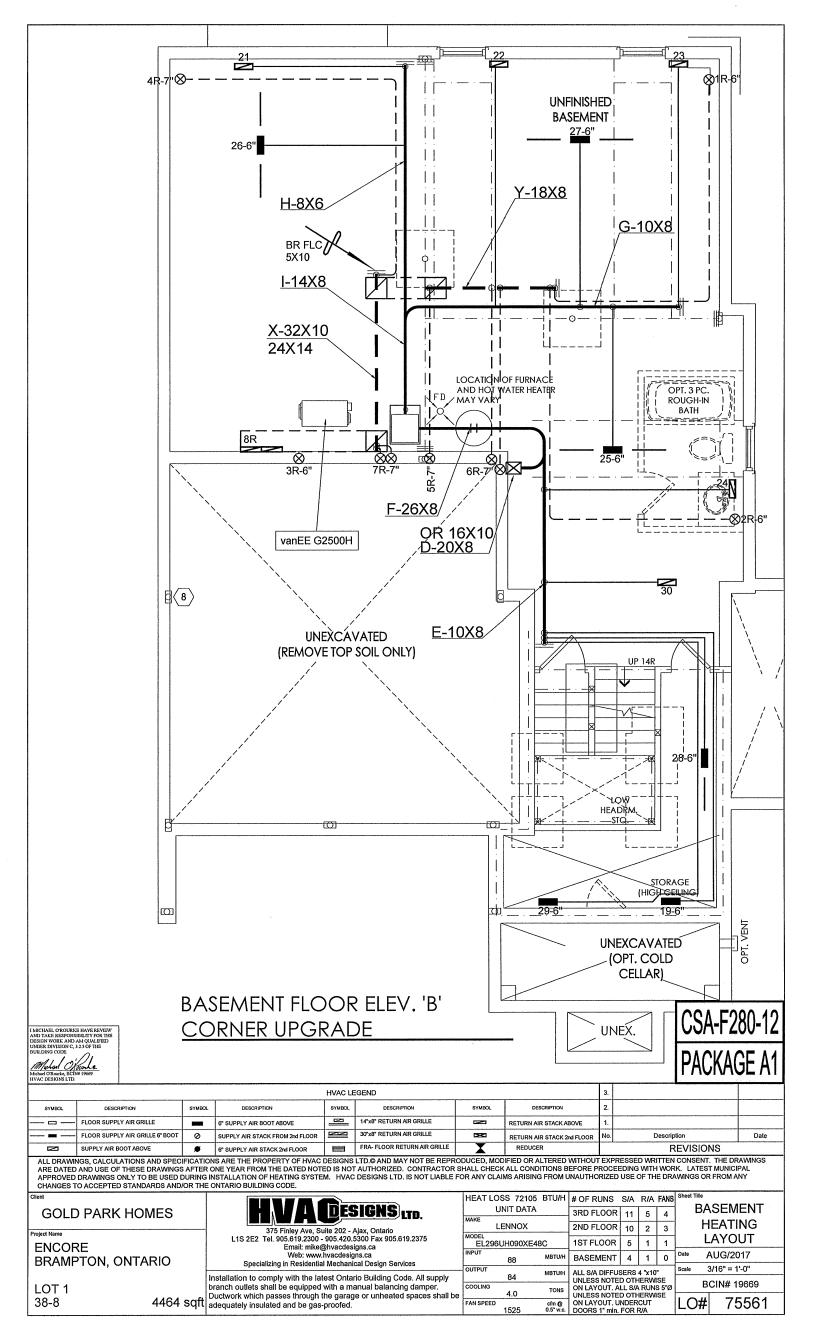
Air Infiltration Residential Load Calculator

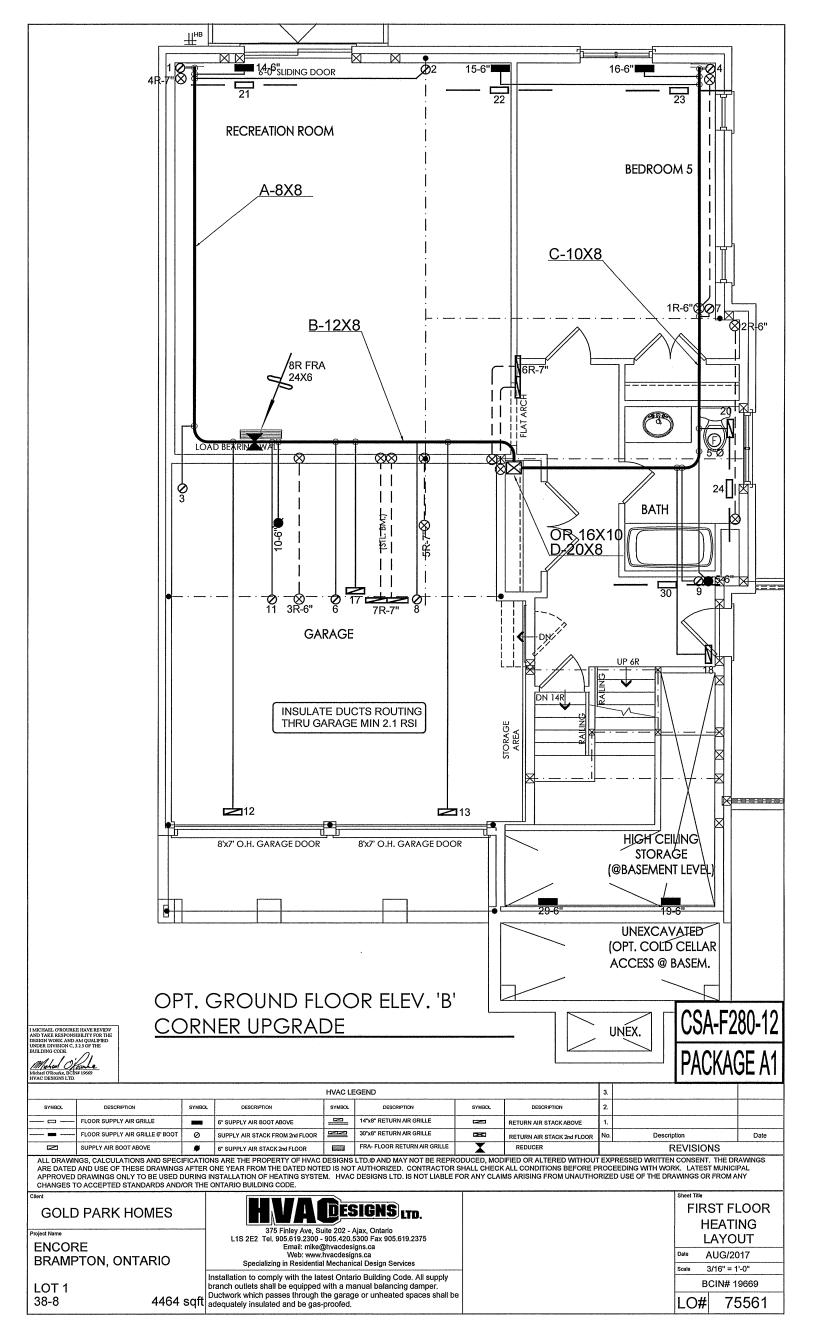
Supplemental tool for CAN/CSA-F280

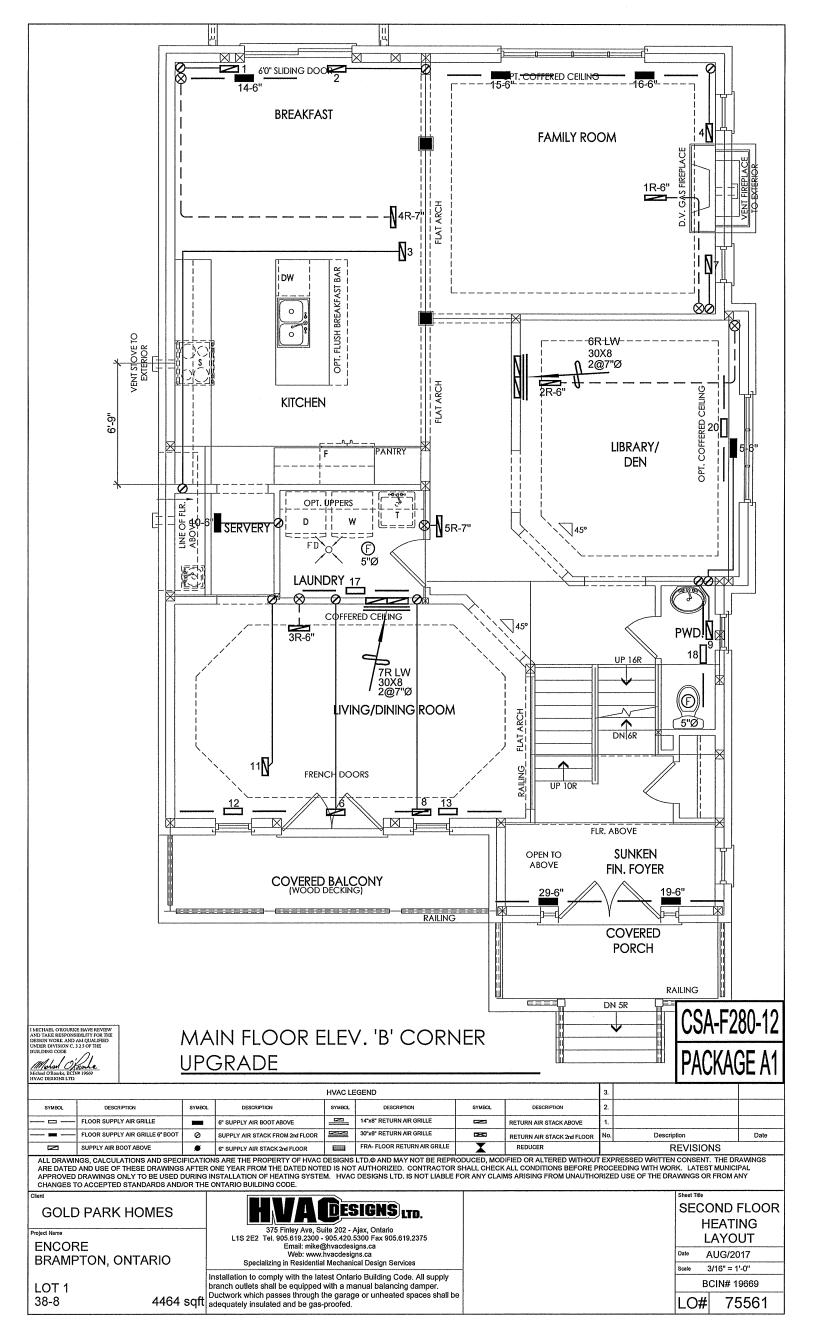
Weather	Station Description
Province:	Ontario
Region:	Brampton
Weather Station Location:	Open flat terrain, grass
Anemometer height (m):	10
Lo	ocal Shielding
Building Site:	Suburban, forest
Walls:	Heavy
Flue:	Heavy
Highest Ceiling Height (m):	9.45
Buildi	ng Configuration
Type:	Detached
Number of Stories:	Three
Foundation:	Full
House Volume (m³):	1337.9
Air Lea	akage/Ventilation
Air Tightness Type:	Present (1961-) (3.57 ACH)
Custom BDT Data:	ELA @ 10 Pa. 1783.5 cm ²
	3.57 ACH @ 50 Pa
Mechanical Ventilation (L/s):	Total Supply Total Exhaust
and the second of the second o	115.6 115.6
	Flue Size
Flue #:	#1 #2 #3 #4
Diameter (mm):	0 0 0 0
Natura	l Infiltration Rates
Heating Air Leakage Rate (AC	н/н): 0.409
Cooling Air Leakage Rate (AC	H/H): 0.137

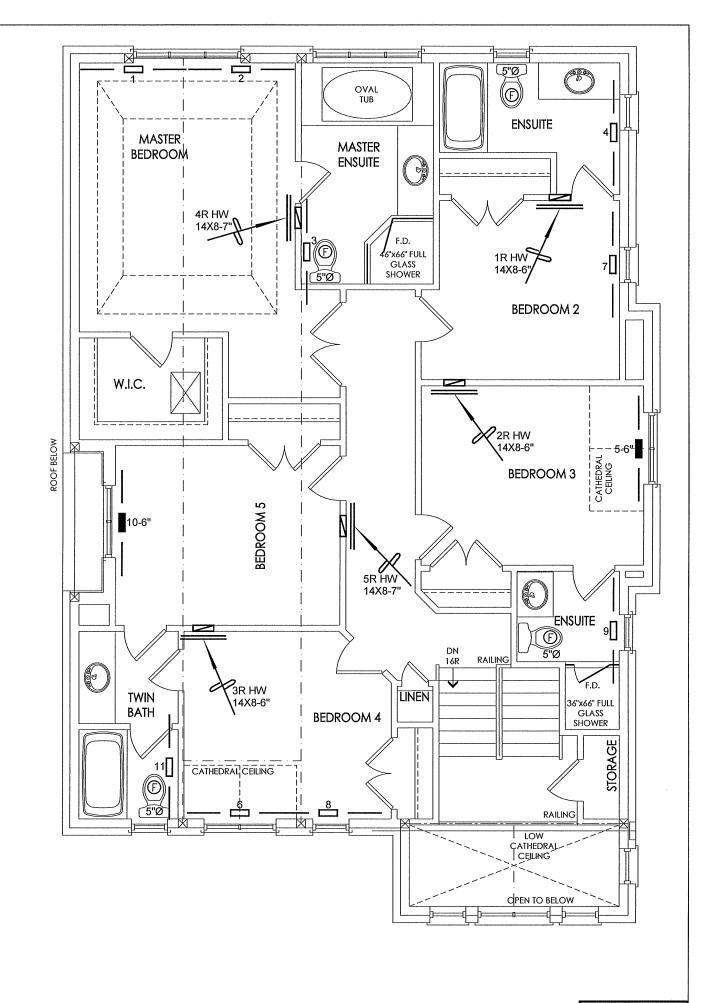
TYPE: 38-3 **LO#** 75561

LOT 1









SECOND FLOOR ELEV. 'B' CORNER **UPGRADE**

CSA-F280-12 PACKAGE A1

				HVAC LE	EGEND			3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE	_=_	14"x8" RETURN AIR GRILLE	2	RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	1350	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER	REVISIONS		

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD. © AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

GOLD PARK HOMES

ENCORE BRAMPTON, ONTARIO

LOT 1 38-8

A DESIGNS LTD.

75 Finley Ave, Suite 202 - Ajax, Ontario 1. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: mike@hvacdesigns.ca Web: www.hvacdesigns.ca ing 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.

THIRD FLOOR **HEATING** LAYOUT AUG/2017

3/16" = 1'-0" BCIN# 19669

75561 LO#